N00174.AR.001961
NSWC INDIAN HEAD
5090.3a

VALIDATED DATA PACKAGE, 76401, NSWC INDIAN HEAD MD
6/30/2015
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 25, 2015

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

Attn: Ed Corack

Title: Report of Data: Case 76401

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:

Two water samples were received May 12, 2015, at 3.0°C. Written results for the requested analyses are provided on this June 25, 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/rp
Enclosure
cc: File

Number of pages in this report: 54

Sample receipt information

ARF: 76401

Project: CTO JU11 112G02622 NSF Indian Head, MD

Sample Receipt Information:

The water samples were received on May 12, 2015, at 3.0C. The samples were assigned Analytical Request Form (ARF) number 76401. The sample numbers and requested analyses were compared to the chain of custody. No exception was encountered.

Sample Table

CLIENT ID	APPL ID	Matrix	Date Sampled	Date Received
S67-MW012-051115	AZ16235	WATER	05/11/15	05/12/15
S67-MW011-051115	AZ16236	WATER	05/11/15	05/12/15

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 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 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 and sample S67-MW011-051115. 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 LOQ 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 analyzed initially within acceptable hold time. The dilution of sample S67-MW015-051115 was injected more than 28 days after collection. The results of both injections correlate well. Both sets of data are included.

Manual integrations were performed in accordance to APPL's SOP. Perchlorate was manually integrated in the initial and continuing calibration standards and ICS. 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. Nitroglycerin was manually integrated in the LCS. 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 other 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 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. The opening CCB bracketing only the LCS had a detection for sulfate above the LOQ. CCBs bracketing the samples were non-detect for all analytes.

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 other analytical exception was noted.

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

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

CHAIN OF CUSTODY RECORD 3.0

C.O.C. 48701 ~~76398~~ 76401

Report to: PLEASE PRINT
Company Name: TetraTech Phone: 757-466-4908
Address: 5700 Lake Wright Dr. Suite 309
Norfolk, VA 23502 Fax:
Attn: Ed Corack

Invoice to: PLEASE PRINT
Company Name: See Contract Phone:
Address: Fax:
Attn:

Project Name/Number: NSF-Indian Head Site 67 112G02622 CTO-JU11
Purchase Order Number:
Sampler (Print): Jacob Birkett
Sampler (Signature):

Date Shipped: 5-11-15
Carrier: FedEx
Waybill No.: 8992-5262-62
Comments:

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Sed.	Soil		Perchlorate	PAHs Phthalates	Total Metals	Diss. Metals	Energetics	Perchlorate	TOC	Anions	Methane				Comments
S67-GW-D1-051115	GW-D1	5-11-15	1140	ET	1	1				1												Rush 24 HR TAT
S67-GW-C1-051115	GW-C1	5-11-15	1216	ET	1	1				1												" "
S67-GW-B1-051115	GW-B1	5-11-15	1310	ET	1	1				1												" "
S67-GW-A1-051115	GW-A1	5-11-15	1340	ET	1	1				1												" "
S67-GW-BB2-051115	GW-BB2	5-11-15	1408	ET	1	1				1												" "
S57-MW034-051115	MW34	5-11-15	1300	ET	1	1				1												" "
S57-MW033-051115	MW33	5-11-15	1355	ET	1	1				1												" "
S57-MW032-051115	MW32	5-11-15	1455	ET	1	1				1												" "
S57-MW022-051115	MW22	5-11-15	1550	ET	1	1				1												" "
S67-MW012-051115	MW12	5-11-15	1640	ET	12	12				1	2	1	1	2		1	1	3				Standard TAT
S67-MW011-051115	MW11	5-11-15	1650	ET	12	12				1	2	1	1	2		1	1	3				Std TAT
S67-GW-A1P-051115	GW-A1	5-11-15	1340	ET	1	1				1												~~Rush 24 HR TAT~~

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:
Jacob Birkett	5-11-15	1830	FedEx				
Relinquished by:	**Date**	**Time**	**Received by:**	**Relinquished by:**	**Date**	**Time**	**Received at lab by:**
					5/12/15	09:40	Yang Zo

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
Sample ID: S67-MW012-051115
Sample Collection Date: 5/11/2015

ARF: 76401
APPL ID: AZ16235
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	81.6	40-125			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	59.6	50-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	44.3	20-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	61.9	40-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: PHENOL (S)	30.2	10-115			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	78.1	50-135			%	5/18/2015	5/19/2015

Quant Method: Y0511TT.M
Run #: 0511Y112
Instrument: Yoda
Sequence: Y150511
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 10:10:32 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-MW011-051115
Sample Collection Date: 5/11/2015

ARF: 76401
APPL ID: AZ16236
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	87.9	40-125			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	63.0	50-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	43.5	20-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	63.6	40-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: PHENOL (S)	28.7	10-115			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	89.0	50-135			%	5/18/2015	5/19/2015

Quant Method: Y0511TT.M
Run #: 0511Y113
Instrument: Yoda
Sequence: Y150511
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 10:10:32 AM
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	05/18/15	05/19/15
BLANK	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	05/18/15	05/19/15
BLANK	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	05/18/15	05/19/15
BLANK	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	05/18/15	05/19/15
BLANK	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	05/18/15	05/19/15
BLANK	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	05/18/15	05/19/15
BLANK	SURROGATE: 2,4,6-TRIBROMOP	120	40-125			%	05/18/15	05/19/15
BLANK	SURROGATE: 2-FLUORBIPHENY	79.6	50-110			%	05/18/15	05/19/15
BLANK	SURROGATE: 2-FLUOROPHENO	47.5	20-110			%	05/18/15	05/19/15
BLANK	SURROGATE: NITROBENZENE-	81.1	40-110			%	05/18/15	05/19/15
BLANK	SURROGATE: PHENOL (S)	34.0	10-115			%	05/18/15	05/19/15
BLANK	SURROGATE: TERPHENYL-D14 (	119	50-135			%	05/18/15	05/19/15

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

GC SC-Blank-REG MDLs
Printed: 06/03/15 3:29:25 PM

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 10:10:45 AM
APPL Standard LCS

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76401
Matrix: WATER
Blank ID: 150518A-BLK

SDG No: 76401
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
AZ16235	S67-MW012-051115	0511Y112	5/19/2015 1720
AZ16236	S67-MW011-051115	0511Y113	5/19/2015 1750

Comments: Batch: #87DJU-150518A

Printed: 6/3/2015 10:10:39 AM
Form 4; Blank Summary

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc.
Case No: 76401
Matrix: WATER

SDG No: 76401
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	
AZ16235	S67-MW012-051115	40-125	81.6		50-110	59.6	
AZ16236	S67-MW011-051115	40-125	87.9		50-110	63.0	

Comments: Batch: #87DJU-150518A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc.
Case No: 76401
Matrix: WATER

SDG No: 76401
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	
AZ16235	S67-MW012-051115	20-110	44.3		40-110	61.9	
AZ16236	S67-MW011-051115	20-110	43.5		40-110	63.6	

Comments: Batch: #87DJU-150518A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc.
Case No: 76401
Matrix: WATER

SDG No: 76401
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	
AZ16235	S67-MW012-051115	10-115	30.2		50-135	78.1	
AZ16236	S67-MW011-051115	10-115	28.7		50-135	89.0	

Comments: Batch: #87DJU-150518A

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-MW012-051115
Sample Collection Date: 5/11/2015

ARF: 76401
APPL ID: AZ16235
QCG: #SIMDD-150518A-197649

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.11 J	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	0.33	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ANTHRACENE	0.073 J	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZ (A) ANTHRACENE	0.092 J	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	0.11 J	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)	51.3	50-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	58.9	40-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	79.3	50-135			%	5/18/2015	5/27/2015

J = Estimated value.

Quant Method: P0518-42.M
Run #: 0515L198
Instrument: Linus
Sequence: L150515
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 1:06:47 PM
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-MW011-051115
Sample Collection Date: 5/11/2015

ARF: 76401
APPL ID: AZ16236
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)	48.6 #	50-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	53.4	40-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	80.6	50-135			%	5/18/2015	5/27/2015

= Recovery (or RPD) is outside QC limits.

Quant Method: P0518-42.M
Run #: 0515L199
Instrument: Linus
Sequence: L150515
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 1:06:47 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
Printed: 6/3/2015 1:07:06 PM

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 1:06:57 PM
APPL Standard LCS

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc.
SDG No: 76401
Case No: 76401
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	
AZ16235	S67-MW012-051115	50-110	51.3		40-110	58.9	
AZ16236	S67-MW011-051115	50-110	48.6	#	40-110	53.4	

Comments: Batch: #SIMDD-150518A
= Recovery outside of Control Limits on Sample.

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76401

Case No: 76401 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				
AZ16235	S67-MW012-051115	50-135	79.3				
AZ16236	S67-MW011-051115	50-135	80.6				

Comments: Batch: #SIMDD-150518A

8270D-LL

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76401
Matrix: WATER
Blank ID: 150518A-BLK

SDG No: 76401
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
AZ16235	S67-MW012-051115	0515L198	5/27/2015 0311
AZ16236	S67-MW011-051115	0515L199	5/27/2015 0337

Comments: Batch: #SIMDD-150518A

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

ARF: 76401

Sample ID: S67-MW012-051115

APPL ID: AZ16235

Sample Collection Date: 05/11/15

QCG: #RSK-150520A1-197504

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	05/20/15	05/20/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/20/15	05/20/15
RSK 175	METHANE	53	1.0	0.45	0.25	ug/L	05/20/15	05/20/15

Quant Method: 402RSK.M
Run #: 0520F007
Instrument: Frodo
Sequence: 150520
Dilution Factor: 1
Initials: RSA

Printed: 06/11/15 4:00:41 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

ARF: 76401

Sample ID: S67-MW011-051115

APPL ID: AZ16236

Sample Collection Date: 05/11/15

QCG: #RSK-150520A1-197504

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	05/20/15	05/20/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/20/15	05/20/15
RSK 175	METHANE	19	1.0	0.45	0.25	ug/L	05/20/15	05/20/15

Quant Method: 402RSK.M
Run #: 0520F008
Instrument: Frodo
Sequence: 150520
Dilution Factor: 1
Initials: RSA

Printed: 06/11/15 4:00:41 PM
APPL-F1-SC-NoMC-REG MDLs

Method Blank
RSK 175

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150520W-16235 - 197504**
Batch ID: #RSK-150520A1

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	05/20/15	05/20/15
BLANK	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/20/15	05/20/15
BLANK	METHANE	0.45 U	1.0	0.45	0.25	ug/L	05/20/15	05/20/15

Quant Method: 402RSK.M
Run #: 0520F006
Instrument: Frodo
Sequence: 150520
Initials: SD

GC SC-Blank-REG MDLs
Printed: 06/11/15 4:00:46 PM

Laboratory Control Spike Recovery
RSK 175

APPL ID: **150520W-16235 LCS - 197504**
Batch ID: #RSK-150520A1

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	21.6	86.4	70-130
ETHENE	23.3	19.3	82.8	70-130
METHANE	13.3	15.6	117	70-130

Comments: _____

Primary	SPK
Quant Method :	402RSK.M
Extraction Date :	05/20/15
Analysis Date :	05/20/15
Instrument :	Frodo
Run :	0520F005
Initials :	RSA

Printed: 06/11/15 4:00:36 PM
APPL Standard LCS

RSK 175

Form 4

Blank Summary

Lab Name: APPL, Inc.
SDG No: 76401
Case No: 76401
Date Analyzed: 05/20/15
Matrix: WATER
Instrument: Frodo
Blank ID: 150520A1-BLK
Time Analyzed: 1132

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150520A1-LCS	Lab Control Spike	0520F005	05/20/15 1115
150520A1-BLK	Blank	0520F006	05/20/15 1132
AZ16235	S67-MW012-051115	0520F007	05/20/15 1138
AZ16236	S67-MW011-051115	0520F008	05/20/15 1144

Comments: Batch: #RSK-150520A1

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-MW012-051115
Sample Collection Date: 05/11/15

ARF: 76401
APPL ID: AZ16235
QCG: #6850-150512A-196913

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	18 E	0.60	0.400	0.200	ug/L	05/12/15	05/13/15

E = The reported value exceeds linear range.

Quant Method:	QTLMFL2
Run #:	T512_068.D
Instrument:	AGIL_6460
Sequence:	TQ051215
Dilution Factor:	1
Initials:	MP

Printed: 06/30/15 12:54:32 PM
APPL-F1-SC-NoMC-REG MDLs

Perchlorate - Dilution

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-MW012-051115
Sample Collection Date: 05/11/15

ARF: 76401
APPL ID: AZ16235
QCG: #6850-150512A-196913

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	15	6.0	4.00	2.00	ug/L	05/12/15	06/12/15

Quant Method: QTLMFL2
Run #: T611_052.d
Instrument: AGIL_6460
Sequence: TQ061115
Dilution Factor: 10
Initials: RP

Printed: 06/30/15 12:54:32 PM
APPL-F1-SC-NoMC-REG MDLs

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-MW011-051115
Sample Collection Date: 05/11/15

ARF: 76401
APPL ID: AZ16236
QCG: #6850-150512A-196913

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	130	60	40.0	20.0	ug/L	05/12/15	05/14/15

Quant Method: QTLMFL2
Run #: T514_009.D
Instrument: AGIL_6460
Sequence: TQ051215
Dilution Factor: 100
Initials: MP

Printed: 06/30/15 12:54:32 PM
APPL-F1-SC-NoMC-REG MDLs

Method Blank
Perchlorate

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150512W-16226 - 196913**
Batch ID: #6850-150512A

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	05/12/15	05/12/15

Quant Method: QTLMFL2
Run #: T512_029.D
Instrument: AGIL_6460
Sequence: TQ051215
Initials: MP

GC SC-Blank-REG MDLs
Printed: 06/30/15 12:54:34 PM

Laboratory Control Spike Recovery
Perchlorate

APPL ID: **150512W-16226 LCS - 196913**
Batch ID: #6850-150512A

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	0.599	99.8	80-120

Comments: _____

Primary	SPK
Quant Method :	QTLMFL2
Extraction Date :	05/12/15
Analysis Date :	05/12/15
Instrument :	AGIL_6460
Run :	T512_027.D
Initials :	MP

Printed: 06/30/15 12:54:29 PM
APPL Standard LCS

EPA 6850

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76401
Matrix: WATER
Blank ID: 150512A-BLK

SDG No: 76401
Date Analyzed: 05/12/15
Instrument: AGIL_6460
Time Analyzed: 1617

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150512A-LCS	Lab Control Spike	T512_027.D	05/12/15 1537
150512A-BLK	Blank	T512_029.D	05/12/15 1617
AZ16235	S67-MW012-051115	T512_068.D	05/13/15 0432
AZ16236	S67-MW011-051115	T514_009.D	05/14/15 1236
AZ16235	S67-MW012-051115	T611_052.d	06/12/15 0918

Comments: Batch: #6850-150512A

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-MW012-051115
Sample Collection Date: 05/11/15

ARF: 76401
APPL ID: AZ16235
QCG: #83BJU-150515A-197118

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	05/15/15	05/18/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/15/15	05/18/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	05/15/15	05/18/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/15/15	05/18/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/15/15	05/18/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/15/15	05/18/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	88.0	70-130			%	05/15/15	05/18/15

Quant Method: W150517.M
Run #: 0517_000034
Instrument: Waldorf
Sequence: 150517
Dilution Factor: 1
Initials: MP

Printed: 06/25/15 10:46:25 AM
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-MW011-051115
Sample Collection Date: 05/11/15

ARF: 76401
APPL ID: AZ16236
QCG: #83BJU-150515A-197118

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	05/15/15	05/18/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/15/15	05/18/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	05/15/15	05/18/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/15/15	05/18/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/15/15	05/18/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/15/15	05/18/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	87.5	70-130			%	05/15/15	05/18/15

Quant Method: W150517.M
Run #: 0517_000035
Instrument: Waldorf
Sequence: 150517
Dilution Factor: 1
Initials: MP

Printed: 06/25/15 10:46:25 AM
APPL-F1-SC-NoMC-REG MDLs

Method Blank
EPA 8330B WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150515W-16287 - 197118**
Batch ID: #83BJU-150515A

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	05/15/15	05/18/15
BLANK	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/15/15	05/18/15
BLANK	HMX	0.300 U	0.50	0.300	0.115	ug/L	05/15/15	05/18/15
BLANK	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/15/15	05/18/15
BLANK	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/15/15	05/18/15
BLANK	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/15/15	05/18/15
BLANK	SURROGATE: 1,2-DINITROBENZ	86.2	70-130			%	05/15/15	05/18/15

Quant Method: W150517.M
Run #: 0517_000033
Instrument: Waldorf
Sequence: 150517
Initials: MP

GC SC-Blank-REG MDLs
Printed: 06/25/15 10:46:27 AM

Laboratory Control Spike Recovery
EPA 8330B WATER

APPL ID: **150515W-16287 LCS - 197118**
Batch ID: #83BJU-150515A

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	7.14	89.3	60-135
2,6-DINITROTOLUENE	8.00	7.12	89.0	60-135
HMX	8.00	7.74	96.8	80-115
NITROGLYCERIN	8.00	7.43	92.9	70-130
RDX	8.00	7.16	89.5	50-160
TETRYL	8.00	7.43	92.9	20-175
SURROGATE: 1,2-DINITROBENZENE (S	8.00	7.22	90.3	70-130

Comments: _____

Primary	SPK
Quant Method :	W150517.M
Extraction Date :	05/15/15
Analysis Date :	05/18/15
Instrument :	Waldorf
Run :	0517_000030
Initials :	MP

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APPL Standard LCS

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc.
Case No: 76401
Matrix: WATER

SDG No: 76401
Date Analyzed: 05/18/15
Instrument: Waldorf

APPL ID.	Client Sample No.	SURROGATE: 1,2-DINITROBENZENE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
150515A-LCS	Lab Control Spike	70-130	90.3				
150515A-BLK	Blank	70-130	86.2				
AZ16235	S67-MW012-051115	70-130	88.0				
AZ16236	S67-MW011-051115	70-130	87.5				

Comments: Batch: #83BJU-150515A

EPA 8330B

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76401
Matrix: WATER
Blank ID: 150515A-BLK

SDG No: 76401
Date Analyzed: 05/18/15
Instrument: Waldorf
Time Analyzed: 0638

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150515A-LCS	Lab Control Spike	0517_000030	05/18/15 0446
150515A-BLK	Blank	0517_000033	05/18/15 0638
AZ16235	S67-MW012-051115	0517_000034	05/18/15 0716
AZ16236	S67-MW011-051115	0517_000035	05/18/15 0753

Comments: Batch: #83BJU-150515A

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-MW012-051115
Sample Collection Date: 05/11/15

ARF: 76401
APPL ID: AZ16235

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	179J	300.0	80.00	27.40	ug/L	1	05/26/15	06/10/15
6010C/3010A	BORON (B)	105	50.0	40.00	29.40	ug/L	1	05/26/15	06/10/15
6010C/3010A	LITHIUM (LI)	6.1	1.0	0.80	0.40	ug/L	1	05/26/15	06/10/15
6010C/3010A	ZINC (ZN)	50.1J	150.0	20.00	13.70	ug/L	1	05/26/15	06/10/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	148J	300.0	80.00	27.40	ug/L	1	05/26/15	06/10/15
6010C/3010A	BORON (B) (DISSOLVED)	106	50.0	40.00	29.40	ug/L	1	05/26/15	06/10/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	5.6	1.0	0.80	0.40	ug/L	1	05/26/15	06/10/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	42.2J	150.0	20.00	13.70	ug/L	1	05/26/15	06/10/15

J = Estimated value.

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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-MW011-051115
Sample Collection Date: 05/11/15

ARF: 76401
APPL ID: AZ16236

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	673	300.0	80.00	27.40	ug/L	1	05/26/15	06/10/15
6010C/3010A	BORON (B)	126	50.0	40.00	29.40	ug/L	1	05/26/15	06/10/15
6010C/3010A	LITHIUM (LI)	6.8	1.0	0.80	0.40	ug/L	1	05/26/15	06/10/15
6010C/3010A	ZINC (ZN)	228	150.0	20.00	13.70	ug/L	1	05/26/15	06/10/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	928	300.0	80.00	27.40	ug/L	1	05/26/15	06/10/15
6010C/3010A	BORON (B) (DISSOLVED)	130	50.0	40.00	29.40	ug/L	1	05/26/15	06/10/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	7.0	1.0	0.80	0.40	ug/L	1	05/26/15	06/10/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	242	150.0	20.00	13.70	ug/L	1	05/26/15	06/10/15

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APPL-F1-SC-NoMC-REG MDLs

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-150526A-AZ16235
6010C	BORON (B)	40.00 U	50.0	40.00	29.40	ug/L	05/26/15	06/04/15	#61CJU-150526A-AZ16235
6010C	LITHIUM (LI)	0.80 U	1.0	0.80	0.40	ug/L	05/26/15	06/04/15	#61CJU-150526A-AZ16235
6010C	ZINC (ZN)	20.00 U	150.0	20.00	13.70	ug/L	05/26/15	06/04/15	#61CJU-150526A-AZ16235
6010C	ALUMINUM (AL) (DI	80.00 U	300.0	80.00	27.40	ug/L	05/26/15	06/04/15	#61CJU-150526A1-AZ16235
6010C	BORON (B) (DISSOL	40.00 U	50.0	40.00	29.40	ug/L	05/26/15	06/04/15	#61CJU-150526A1-AZ16235
6010C	LITHIUM (LI) (DISSO	0.80 U	1.0	0.80	0.40	ug/L	05/26/15	06/04/15	#61CJU-150526A1-AZ16235
6010C	ZINC (ZN) (DISSOLV	20.00 U	150.0	20.00	13.70	ug/L	05/26/15	06/04/15	#61CJU-150526A1-AZ16235

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-150526A1-AZ16235
EPA 6010C	BORON (B) (DISSOLVED)	250	239	95.6	80-120	05/26/15	06/04/15	#61CJU-150526A1-AZ16235
EPA 6010C	LITHIUM (LI) (DISSOLVED)	100.0	92.7	92.7	80-120	05/26/15	06/04/15	#61CJU-150526A1-AZ16235
EPA 6010C	ZINC (ZN) (DISSOLVED)	500	468	93.6	80-120	05/26/15	06/04/15	#61CJU-150526A1-AZ16235
EPA 6010C	ALUMINUM (AL)	2000	2020	101	80-120	05/26/15	06/04/15	#61CJU-150526A-AZ16235
EPA 6010C	BORON (B)	250	246	98.4	80-120	05/26/15	06/04/15	#61CJU-150526A-AZ16235
EPA 6010C	LITHIUM (LI)	100.0	94.5	94.5	80-120	05/26/15	06/04/15	#61CJU-150526A-AZ16235
EPA 6010C	ZINC (ZN)	500	480	96.0	80-120	05/26/15	06/04/15	#61CJU-150526A-AZ16235

Comments: _____

6010C/3010A^

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76401
Matrix: WATER
Blank ID: 150526A-BLK

SDG No: 76401
Date Analyzed: 06/04/15
Instrument: Jules
Time Analyzed: 1700

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150526A-LCS	Lab Control Spike	150610A	06/04/15 1707
150526A-BLK	Blank	150610A	06/04/15 1700
AZ16236	S67-MW011-051115	150610A	06/10/15 1658
AZ16235	S67-MW012-051115	150610A	06/10/15 1650

Comments: Batch: #61CJU-150526A

6010C/3010A^

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76401
Matrix: WATER
Blank ID: 150526A1-BLK

SDG No: 76401
Date Analyzed: 06/04/15
Instrument: Jules
Time Analyzed: 1712

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150526A1-LCS	Lab Control Spike	150610A	06/04/15 1719
150526A1-BLK	Blank	150610A	06/04/15 1712
AZ16236	S67-MW011-051115	150610A	06/10/15 1712
AZ16235	S67-MW012-051115	150610A	06/10/15 1704

Comments: Batch: #61CJU-150526A1

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-MW012-051115

Sample Collection Date: 05/11/15

APPL ID: AZ16235

ARF: 76401

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	83.1	2.0	0.40	0.16	mg/L	2	05/13/15	05/13/15
EPA 300.0	NITRATE	1.7	1.0	0.36	0.08	mg/L	2	05/13/15	05/13/15
EPA 300.0	NITRITE	0.26 U	0.6	0.26	0.06	mg/L	2	05/13/15	05/13/15
EPA 300.0	SULFATE	37.6	2.0	0.40	0.18	mg/L	2	05/13/15	05/13/15
SW846 9060	TOTAL ORGANIC CARBON	0.26 J	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-MW011-051115

Sample Collection Date: 05/11/15

APPL ID: AZ16236

ARF: 76401

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	17.2	2.0	0.40	0.16	mg/L	2	05/13/15	05/13/15
EPA 300.0	NITRATE	2.9	1.0	0.36	0.08	mg/L	2	05/13/15	05/13/15
EPA 300.0	NITRITE	0.26 U	0.6	0.26	0.06	mg/L	2	05/13/15	05/13/15
EPA 300.0	SULFATE	94.0	2.0	0.40	0.18	mg/L	2	05/13/15	05/13/15
SW846 9060	TOTAL ORGANIC CARBON	0.49 J	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

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	05/13/15	05/13/15	#300W-150513A-AZ16235
EPA 300.0	NITRATE	0.18 U	0.5	0.18	0.04	mg/L	05/13/15	05/13/15	#300W-150513A-AZ16235
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	05/13/15	05/13/15	#300W-150513A-AZ16235
EPA 300.0	SULFATE	1.1	1.0	0.20	0.09	mg/L	05/13/15	05/13/15	#300W-150513A-AZ16235
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

Wetlab SC-Blank-REG MDLs
Printed: 06/05/15 12:05:51 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	18.6	93.0	90-110	05/13/15	05/13/15	#300W-150513A-AZ16235
EPA 300.0	NITRATE	22.1	22.0	99.5	90-110	05/13/15	05/13/15	#300W-150513A-AZ16235
EPA 300.0	NITRITE	9.98	9.47	94.9	90-110	05/13/15	05/13/15	#300W-150513A-AZ16235
EPA 300.0	SULFATE	20.0	19.1	95.5	90-110	05/13/15	05/13/15	#300W-150513A-AZ16235
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: 76401
Matrix: WATER
Blank ID: 150513A-BLK

SDG No: 76401
Date Analyzed: 05/13/15
Instrument: Dionex
Time Analyzed: 0850

APPL ID.	Client Sample No.	File ID.	Date Analyzed
AZ16235	S67-MW012-051115	23	05/13/15 1323
AZ16236	S67-MW011-051115	24	05/13/15 1334
150513A-BLK	Blank	5	05/13/15 0850
150513A-LCS	Lab Control Spike	6	05/13/15 0900

Comments: Batch: #300W-150513A

SW846 9060

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76401
Matrix: WATER
Blank ID: 150519A-BLK

SDG No: 76401
Date Analyzed: 05/19/15
Instrument: Tekmar
Time Analyzed: 1212

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150519A-BLK	Blank	2	05/19/15 1212
150519A-LCS	Lab Control Spike	3	05/19/15 1244
AZ16235	S67-MW012-051115	6	05/19/15 1413
AZ16236	S67-MW011-051115	7	05/19/15 1442

Comments: Batch: #906-150519A

Printed: 06/25/15 10:45:53 AM
Form 4, Blank Summary

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 25, 2015

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

Attn: Ed Corack

Title: Report of Data: Case 76401

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:

Two water samples were received May 12, 2015, at 3.0°C. Written results for the requested analyses are provided on this June 25, 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/rp
Enclosure
cc: File

Number of pages in this report: 773

T:\Case Narratives\Tetra Tech\76401 new NSF Indian Head.doc

Data Validation Package
for
CTO JU11 112G02622 NSF Indian Head
ARF 76401
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SAMPLE RECEIPT INFORMATION

Sample receipt information

ARF: 76401

Project: CTO JU11 112G02622 NSF Indian Head, MD

Sample Receipt Information:

The water samples were received on May 12, 2015, at 3.0C. The samples were assigned Analytical Request Form (ARF) number 76401. The sample numbers and requested analyses were compared to the chain of custody. No exception was encountered.

Sample Table

CLIENT ID	APPL ID	Matrix	Date Sampled	Date Received
S67-MW012-051115	AZ16235	WATER	05/11/15	05/12/15
S67-MW011-051115	AZ16236	WATER	05/11/15	05/12/15

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 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 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 and sample S67-MW011-051115. 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 LOQ 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 analyzed initially within acceptable hold time. The dilution of sample S67-MW015-051115 was injected more than 28 days after collection. The results of both injections correlate well. Both sets of data are included.

Manual integrations were performed in accordance to APPL's SOP. Perchlorate was manually integrated in the initial and continuing calibration standards and ICS. 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. Nitroglycerin was manually integrated in the LCS. 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 other 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 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. The opening CCB bracketing only the LCS had a detection for sulfate above the LOQ. CCBs bracketing the samples were non-detect for all analytes.

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 other 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

76401

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 # 48701
RAD Screen (Y/N): Y pH (Y/N): Y
Turn Around Type: STD

Received by: YL
Date Received: 05/12/15 Time: 09:40
Delivered by: FED EX
Shuttle Custody Seals (Y/N): Y Time Zone: -4
Chest Temp(s): 3.0°C
Color: VOA,G-Blue,Q-OrgYell
Samples Chilled until Placed in Refrig/Freezer: Y
Project Manager: Cynthia Clark
QC Report Type: DVP4/LEDD/MD
Due Date: 06/02/15

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 Distribution:
GC: 2-$87DJU11W, 2-$SIMDDODW
Extractions: 2-_HPL6850, 2-_MWE3535, 2-_SEP004, 2-_SEP004S
VOA: 2-$RSK
LCMS: 2-$6850, 2-$83BJU11W
Metals: 2-$61CJU11W2(Al,B,Li,Zn), 2-$61CJU11WD2(Al,B,Li,Zn)
Wetlab: 2-$300W(NO2,NO3,CL,SO4), 2-$906
Other: 2-_M3010, 2-_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-MW012-051115	AZ16235W	05/11/15 16:40	$300W(NO2,NO3,CL,SO4), $61CJU11W2(Al,B,Li,Zn), $61CJU11WD2(Al,B,Li,Zn), $6850, $83BJU11W, $87DJU11W, $906, $RSK, $SIMDDODW
2.	S67-MW011-051115	AZ16236W	05/11/15 16:50	$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

APPL Sample Receipt Form

ARF# **76401**

Sample	Container Type	Count	pH
AZ16235	[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
AZ16236	[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

APPL LABS

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

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

CHAIN OF CUSTODY RECORD

3.0

C.O.C. 48701 ~~76398~~ 76401

Report to: PLEASE PRINT

Company Name: Tetra Tech Phone: 757-466-4908

Address: 5700 Lake Wright Dr. Suite 309
Norfolk, VA 23502 Fax:

Attn: Ed Corack

Invoice to: PLEASE PRINT

Company Name: See Contract Phone:

Address: Fax:

Attn:

Project Name/Number: NSF-Indian Head Site 67 112G02622 CTO-JU11

Purchase Order Number:

Sampler (Print): Jacob Birkett

Sampler (Signature):

Date Shipped: 5-11-15
Carrier: FedEx
Waybill No.: 8992-5262-62
Comments:

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Matrix: Sed.	Matrix: Soil		Analysis Requested/Method Number: Perchlorate	PAHs Phthalates	Total Metals	Diss. Metals	Energetics	Perchlorate	TOC	Anions	Methane				Comments
S67-GW-D1-051115	GW-D1	5-11-15	1140	ET	1	1				1												Rush 24 HR TAT
S67-GW-C1-051115	GW-C1	5-11-15	1216	ET	1	1				1												" "
S67-GW-B1-051115	GW-B1	5-11-15	1310	ET	1	1				1												" "
S67-GW-A1-051115	GW-A1	5-11-15	1340	ET	1	1				1												" "
S67-GW-BB2-051115	GW-BB2	5-11-15	1408	ET	1	1				1												" "
S57-MW034-051115	MW34	5-11-15	1300	ET	1	1				1												" "
S57-MW033-051115	MW33	5-11-15	1355	ET	1	1				1												" "
S57-MW032-051115	MW32	5-11-15	1455	ET	1	1				1												" "
S57-MW022-051115	MW22	5-11-15	1550	ET	1	1				1												" "
S67-MW012-051115	MW12	5-11-15	1640	ET	12	12				1	2	1	1	2		1	1	3				Standard TAT
S67-MW011-051115	MW11	5-11-15	1650	ET	12	12				1	2	1	1	2		1	1	3				Std TAT
S67-GW-A1P-051115	GW-A1	5-11-15	1340	ET	1	1				1												Rush 24 HR TAT

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:
Jacob Birkett	5-11-15	1830	FedEx				
Relinquished by:	Date	Time	Received by:	Relinquished by:	Date	Time	Received at lab by:
					5/12/15	09:40	Yang Zo

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

See reverse side for Container Preservative and Sampling Information

COOLER RECEIPT FORM **ARF: 76401**

1.) Project: CTO JU11 112G02622 NSF Indian Head Date Received: 05/12/15

2) Coolers: Number of Coolers: 1

3) YES Were custody seals present and intact?
How many? 2 Name/Date on seal? SEE CRF # 76401

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:	4:	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) NA 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:

Personnel receiving samples: BB Second reviewer: YC
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	05/18/15	05/19/15
BLANK	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	05/18/15	05/19/15
BLANK	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	05/18/15	05/19/15
BLANK	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	05/18/15	05/19/15
BLANK	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	05/18/15	05/19/15
BLANK	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	05/18/15	05/19/15
BLANK	SURROGATE: 2,4,6-TRIBROMOP	120	40-125			%	05/18/15	05/19/15
BLANK	SURROGATE: 2-FLUORBIPHENY	79.6	50-110			%	05/18/15	05/19/15
BLANK	SURROGATE: 2-FLUOROPHENO	47.5	20-110			%	05/18/15	05/19/15
BLANK	SURROGATE: NITROBENZENE-	81.1	40-110			%	05/18/15	05/19/15
BLANK	SURROGATE: PHENOL (S)	34.0	10-115			%	05/18/15	05/19/15
BLANK	SURROGATE: TERPHENYL-D14 (	119	50-135			%	05/18/15	05/19/15

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

GC SC-Blank-REG MDLs
Printed: 06/03/15 3:29:25 PM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc.
Case No: 76401
Matrix: WATER

SDG No: 76401
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	
AZ16235	S67-MW012-051115	40-125	81.6		50-110	59.6	
AZ16236	S67-MW011-051115	40-125	87.9		50-110	63.0	

Comments: Batch: #87DJU-150518A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc.
Case No: 76401
Matrix: WATER

SDG No: 76401
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	
AZ16235	S67-MW012-051115	20-110	44.3		40-110	61.9	
AZ16236	S67-MW011-051115	20-110	43.5		40-110	63.6	

Comments: Batch: #87DJU-150518A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc.
Case No: 76401
Matrix: WATER

SDG No: 76401
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	
AZ16235	S67-MW012-051115	10-115	30.2		50-135	78.1	
AZ16236	S67-MW011-051115	10-115	28.7		50-135	89.0	

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 10:10:43 AM
APPL Standard LCS

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76401
Matrix: WATER
Blank ID: 150518A-BLK

SDG No: 76401
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
AZ16235	S67-MW012-051115	0511Y112	5/19/2015 1720
AZ16236	S67-MW011-051115	0511Y113	5/19/2015 1750

Comments: Batch: #87DJU-150518A

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: ~~0511Y001.D~~ 76401
Matrix: Water np 6-25-15
ID: SV Tune 03/12/15

SDG No: np 6-25-15 ~~Yoda~~ 76401
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: 76401
Matrix: Water
ID: SV TUNE 5/14/15

SDG No: 76401
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-MW012-051115	AZ16235W09 1/1000	0511Y112.D	5/19/2015 17:20
4	S67-MW011-051115	AZ16236W10 1/1050	0511Y113.D	5/19/2015 17:50
5				
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	30.0
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

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: SDG No.: 76401

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	AZ16235W09 1/1000	915770	5.17	4152590	6.62	2336400	8.61
05	AZ16236W10 1/1050	838808	5.17	3920710	6.62	2220240	8.62
06							
07							
08							
09							
10							
11							
12							
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.: 76401

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	AZ16235W09 1/1000	4142160	10.35	3201140	13.42	2603590	15.18
05	AZ16236W10 1/1050	3928660	10.35	3464690	13.42	2354070	15.17
06							
07							
08							
09							
10							
11							
12							
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
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
Sample ID: S67-MW012-051115
Sample Collection Date: 5/11/2015

ARF: 76401
APPL ID: AZ16235
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	81.6	40-125			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	59.6	50-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	44.3	20-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	61.9	40-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: PHENOL (S)	30.2	10-115			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	78.1	50-135			%	5/18/2015	5/19/2015

Quant Method: Y0511TT.M
Run #: 0511Y112
Instrument: Yoda
Sequence: Y150511
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 10:10:33 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150511\0511Y112.D
Acq On : 19 May 15 17:20
Sample : AZ16235W09 1/1000
Misc : water

Vial: 12
Operator: csc
Inst : Yoda
Multiplr: 1.00

Quant Time: Jun 3 8:52 2015

Quant Results File: Y0511TT.RES

Quant Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:51:04 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	915770	40.00 ppb	-0.02
7) Napthalene-D8(IS)	6.62	136	4152590	40.00 ppb	-0.02
13) Acenaphthene-D10(IS)	8.61	164	2336402	40.00 ppb	-0.02
23) Phenanthrene-D10(IS)	10.35	188	4142155	40.00 ppb	-0.02
27) Chrysene-D12(IS)	13.42	240	3201142	40.00 ppb	-0.02
32) Perylene-D12(IS)	15.18	264	2603585	40.00 ppb	0.00
System Monitoring Compounds					
2) 2-Fluorophenol (S)	4.43	112	2817180	88.57 ppb	0.00
Spiked Amount 200.000			Recovery	= 44.284%	
3) Phenol-D6 (S)	5.55	99	2499978	60.41 ppb	-0.09
Spiked Amount 200.000			Recovery	= 30.204%	
8) Nitrobenzene-D5(S)	5.89	82	2437933	61.86 ppb	-0.02
Spiked Amount 100.000			Recovery	= 61.860%	
16) 2-Fluorobiphenyl(S)	7.84	172	4897025	59.63 ppb	0.00
Spiked Amount 100.000			Recovery	= 59.627%	
22) 2,4,6-Tribromophenol(S)	9.63	330	913429	163.15 ppb	-0.04
Spiked Amount 200.000			Recovery	= 81.574%	
28) Terphenyl-D14(S)	12.14	244	5524957	78.12 ppb	-0.02
Spiked Amount 100.000			Recovery	= 78.122%	
Target Compounds					Qvalue
17) Dimethyl phthalate	8.36	163	26492	0.33 ppb #	84
21) Diethyl phthalate	9.10	149	1292914	-0.21 ppb	99
26) Di-n-butylphthalate	10.92	149	8383	0.07 ppb #	96
30) Bis (2-ethylhexyl) phthala	13.19	149	13046	0.18 ppb	95

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

Quantitation Report

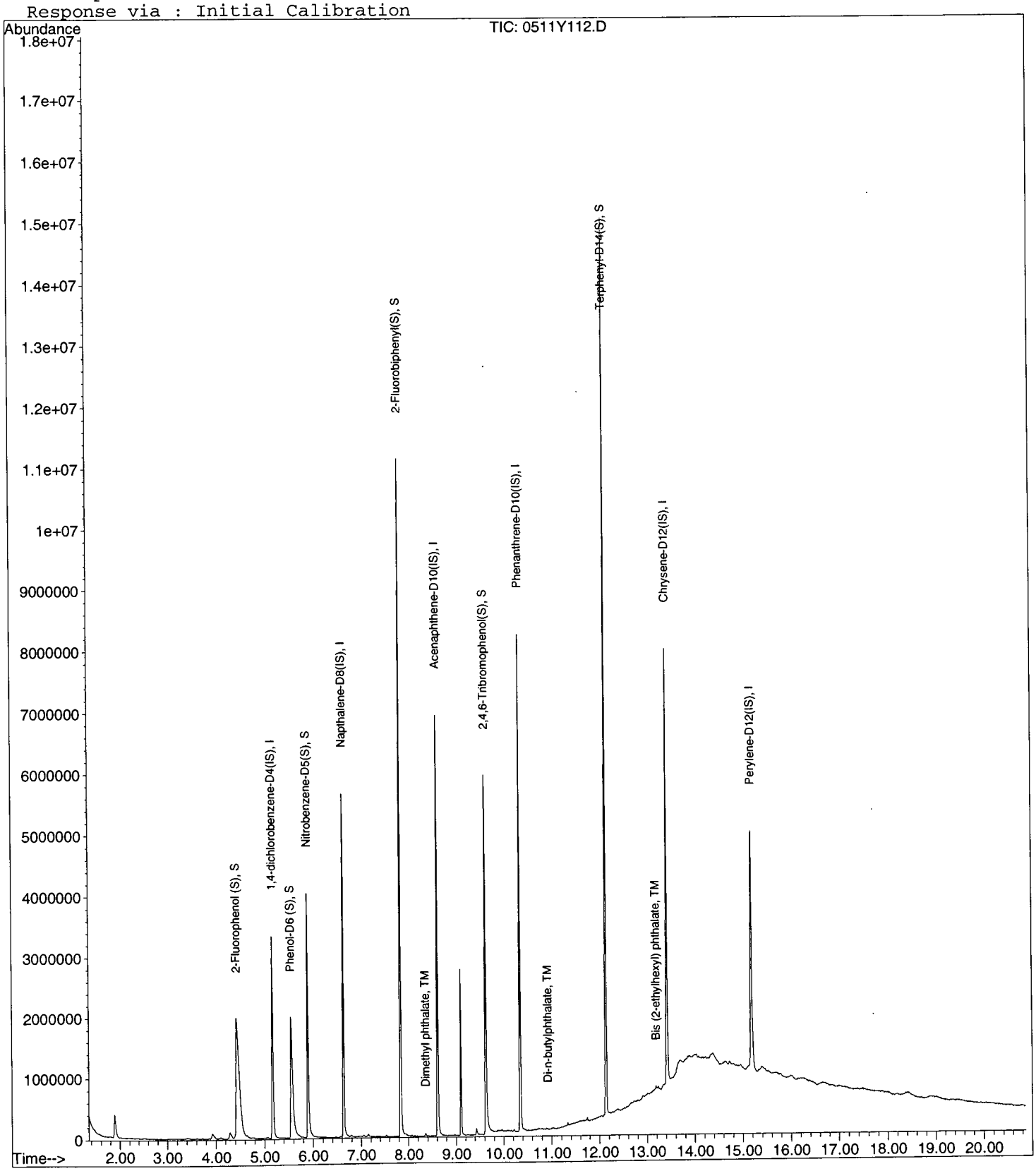
Data File : M:\YODA\DATA\Y150511\0511Y112.D
Acq On : 19 May 15 17:20
Sample : AZ16235W09 1/1000
Misc : water

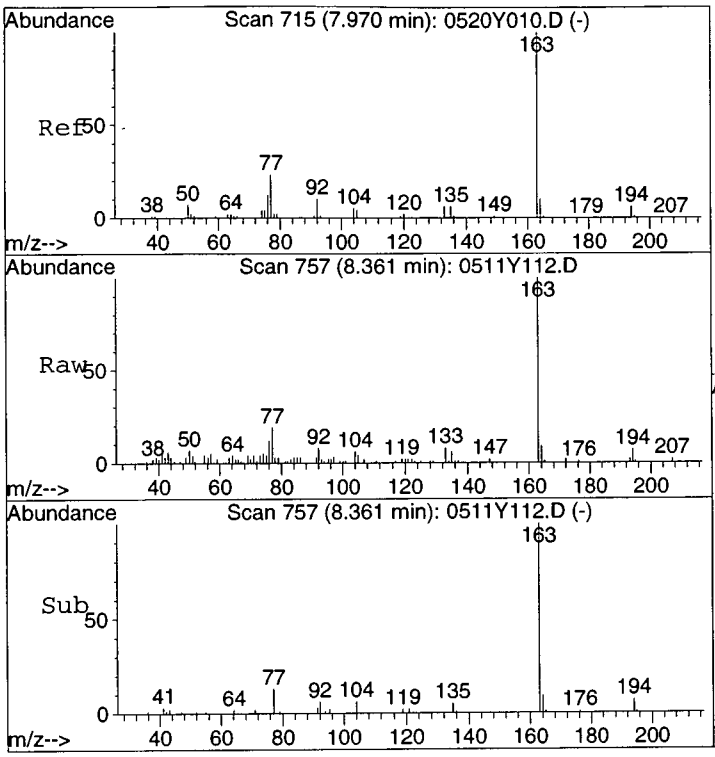
Vial: 12
Operator: csc
Inst : Yoda
Multiplr: 1.00

Quant Time: Jun 3 8:52 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

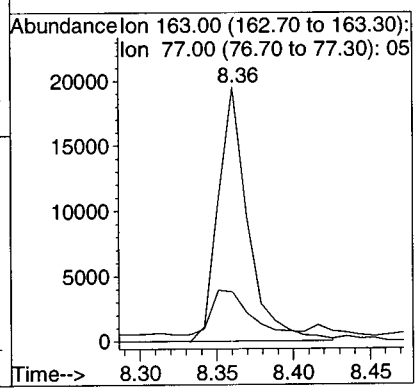


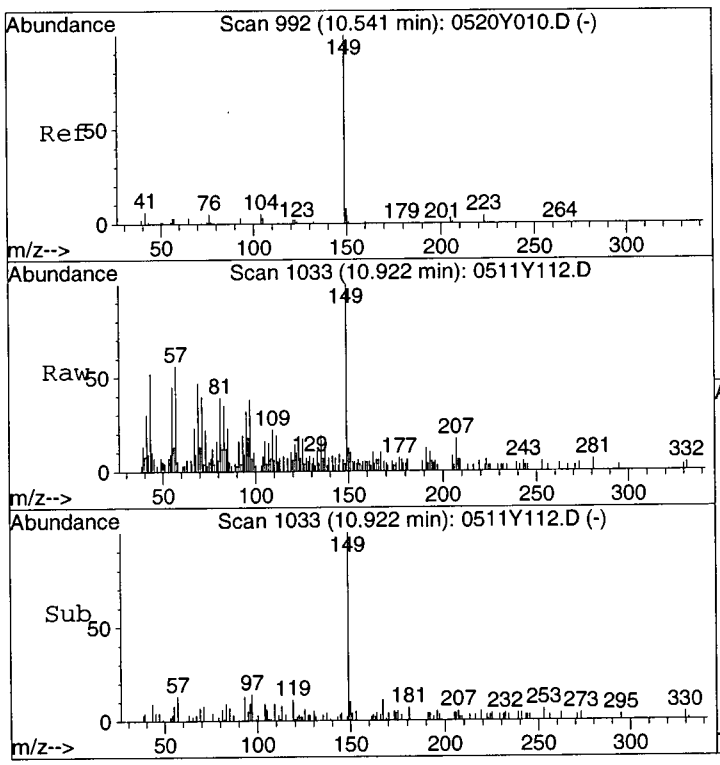


#17
Dimethyl phthalate
Concen: 0.33 ppb
RT: 8.36 min Scan# 757
Delta R.T. -0.01 min
Lab File: 0511Y112.D
Acq: 19 May 15 17:20

Tgt Ion:163 Resp: 26492

Ion	Ratio	Lower	Upper
163	100		
77	16.8	17.3	32.1#

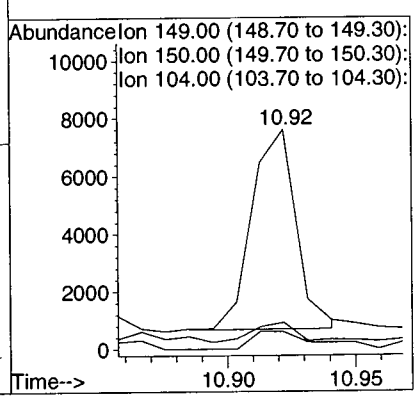


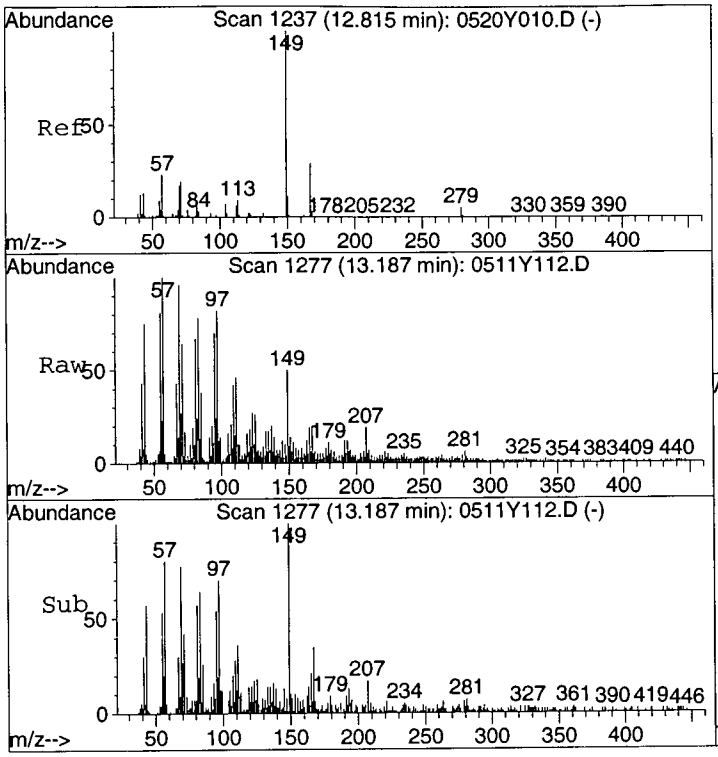


#26
Di-n-butylphthalate
Concen: 0.07 ppb
RT: 10.92 min Scan# 1033
Delta R.T. -0.01 min
Lab File: 0511Y112.D
Acq: 19 May 15 17:20

Tgt Ion:149 Resp: 8383

Ion	Ratio	Lower	Upper
149	100		
150	8.6	6.4	11.8
104	8.7	4.3	7.9#

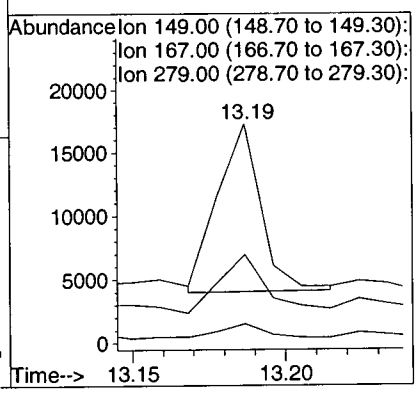




#30
Bis (2-ethylhexyl) phthalate
Concen: 0.18 ppb
RT: 13.19 min Scan# 1277
Delta R.T. -0.02 min
Lab File: 0511Y112.D
Acq: 19 May 15 17:20

Tgt Ion:149 Resp: 13046

Ion	Ratio	Lower	Upper
149	100		
167	35.7	23.1	42.9
279	8.7	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-MW011-051115
Sample Collection Date: 5/11/2015

ARF: 76401
APPL ID: AZ16236
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	87.9	40-125			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	63.0	50-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	43.5	20-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	63.6	40-110			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: PHENOL (S)	28.7	10-115			%	5/18/2015	5/19/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	89.0	50-135			%	5/18/2015	5/19/2015

Quant Method: Y0511TT.M
Run #: 0511Y113
Instrument: Yoda
Sequence: Y150511
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 10:10:33 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150511\0511Y113.D
Acq On : 19 May 15 17:50
Sample : AZ16236W10 1/1050
Misc : water

Vial: 13
Operator: csc
Inst : Yoda
Multiplr: 0.95

Quant Time: Jun 3 8:54 2015

Quant Results File: Y0511TT.RES

Quant Method : M:\YODA\DATA\Y150511\Y0511TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Wed Jun 03 08:52:49 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.17	152	838808	40.00 ppb	-0.02
7) Napthalene-D8(IS)	6.62	136	3920708	40.00 ppb	-0.02
13) Acenaphthene-D10(IS)	8.62	164	2220238	40.00 ppb	0.00
23) Phenanthrene-D10(IS)	10.35	188	3928659	40.00 ppb	-0.02
27) Chrysene-D12(IS)	13.42	240	3464691	40.00 ppb	-0.02
32) Perylene-D12(IS)	15.17	264	2354074	40.00 ppb	-0.02
System Monitoring Compounds					
2) 2-Fluorophenol (S)	4.44	112	2537068	82.91 ppb	0.00
Spiked Amount 190.476			Recovery	= 43.528%	
3) Phenol-D6 (S)	5.56	99	2182637	54.74 ppb	-0.08
Spiked Amount 190.476			Recovery	= 28.740%	
8) Nitrobenzene-D5(S)	5.89	82	2366386	60.57 ppb	-0.02
Spiked Amount 95.238			Recovery	= 63.595%	
16) 2-Fluorobiphenyl(S)	7.84	172	4916324	59.99 ppb	0.00
Spiked Amount 95.238			Recovery	= 62.994%	
22) 2,4,6-Tribromophenol(S)	9.63	330	935755	167.48 ppb	-0.04
Spiked Amount 190.476			Recovery	= 87.926%	
28) Terphenyl-D14(S)	12.14	244	6814025	84.78 ppb	-0.02
Spiked Amount 95.238			Recovery	= 89.020%	
Target Compounds					Qvalue
17) Dimethyl phthalate	8.36	163	27807	0.35 ppb	89
21) Diethyl phthalate	9.10	149	1237066	-0.09 ppb	99
26) Di-n-butylphthalate	10.91	149	6844	0.05 ppb	98
30) Bis (2-ethylhexyl) phthala	13.19	149	10991	0.14 ppb	95

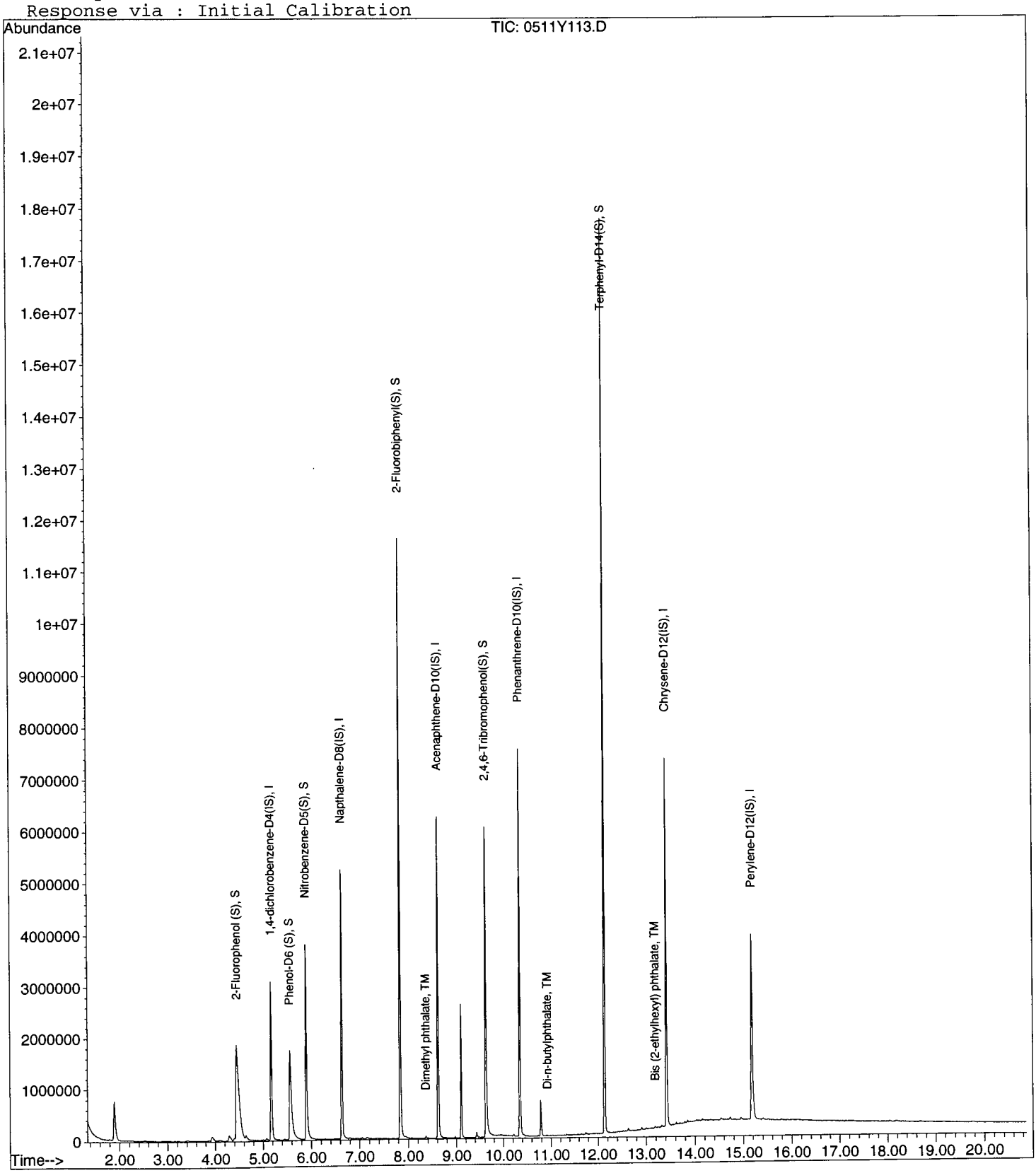
(#) = qualifier out of range (m) = manual integration

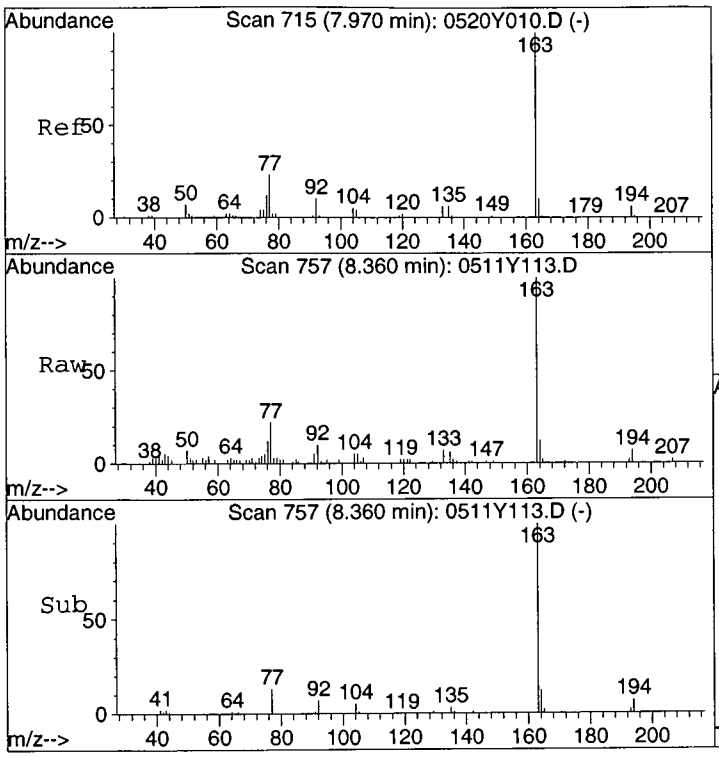
Quantitation Report

Data File : M:\YODA\DATA\Y150511\0511Y113.D Vial: 13
Acq On : 19 May 15 17:50 Operator: csc
Sample : AZ16236W10 1/1050 Inst : Yoda
Misc : water Multiplr: 0.95

Quant Time: Jun 3 8:54 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

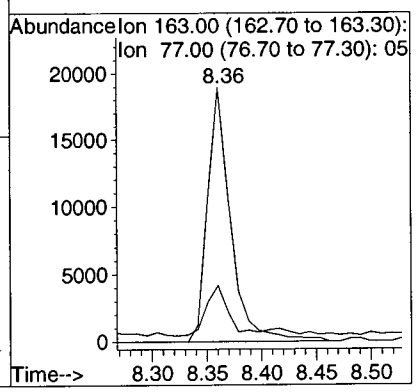


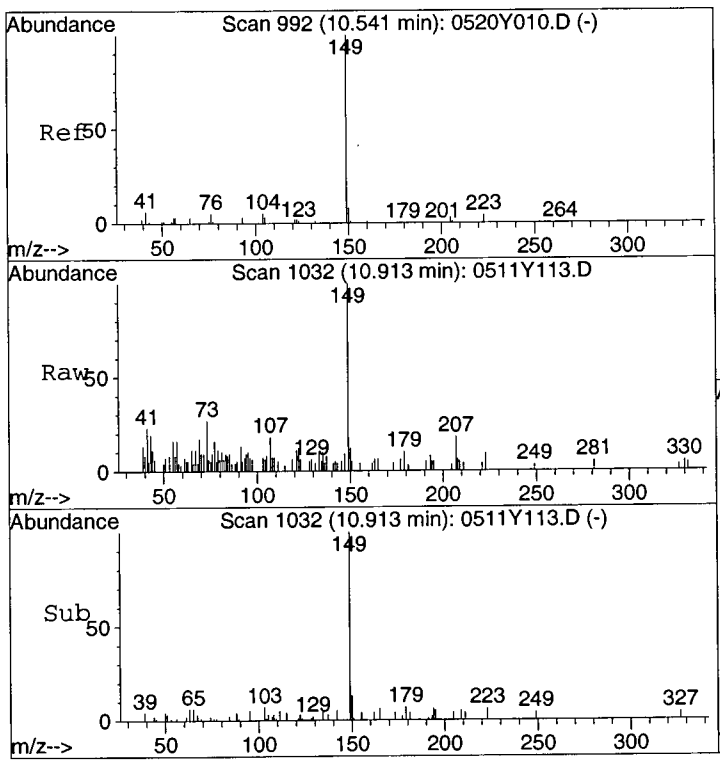


#17
Dimethyl phthalate
Concen: 0.35 ppb
RT: 8.36 min Scan# 757
Delta R.T. -0.01 min
Lab File: 0511Y113.D
Acq: 19 May 15 17:50

Tgt Ion:163 Resp: 27807

Ion	Ratio	Lower	Upper
163	100		
77	19.3	17.3	32.1

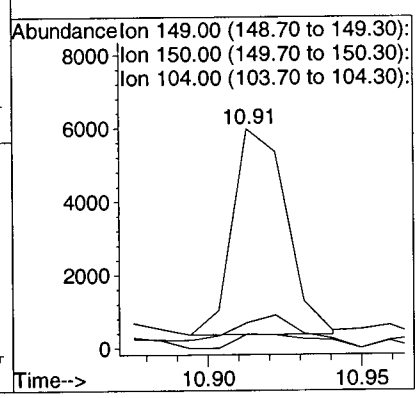


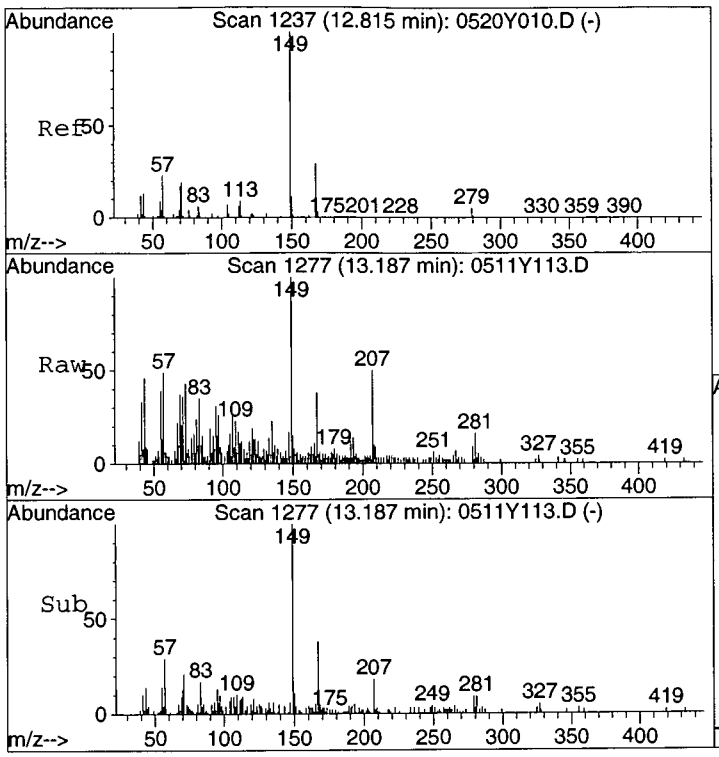


#26
Di-n-butylphthalate
Concen: 0.05 ppb
RT: 10.91 min Scan# 1032
Delta R.T. -0.02 min
Lab File: 0511Y113.D
Acq: 19 May 15 17:50

Tgt Ion:149 Resp: 6844

Ion	Ratio	Lower	Upper
149	100		
150	8.7	6.4	11.8
104	6.9	4.3	7.9

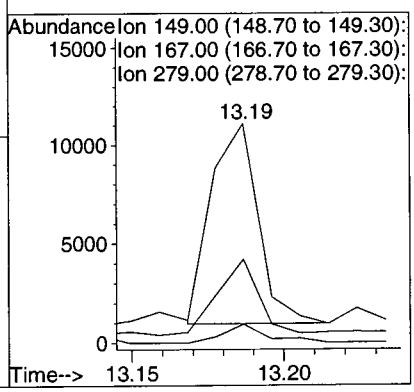




#30
Bis (2-ethylhexyl) phthalate
Concen: 0.14 ppb
RT: 13.19 min Scan# 1277
Delta R.T. -0.02 min
Lab File: 0511Y113.D
Acq: 19 May 15 17:50

Tgt Ion:149 Resp: 10991

Ion	Ratio	Lower	Upper
149	100		
167	36.3	23.1	42.9
279	9.3	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 Vial: 2
Acq On : 11 May 15 15:02 Operator: csc
Sample : 5ug/ml SVOC 05/11/15 Inst : Yoda
Misc : 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

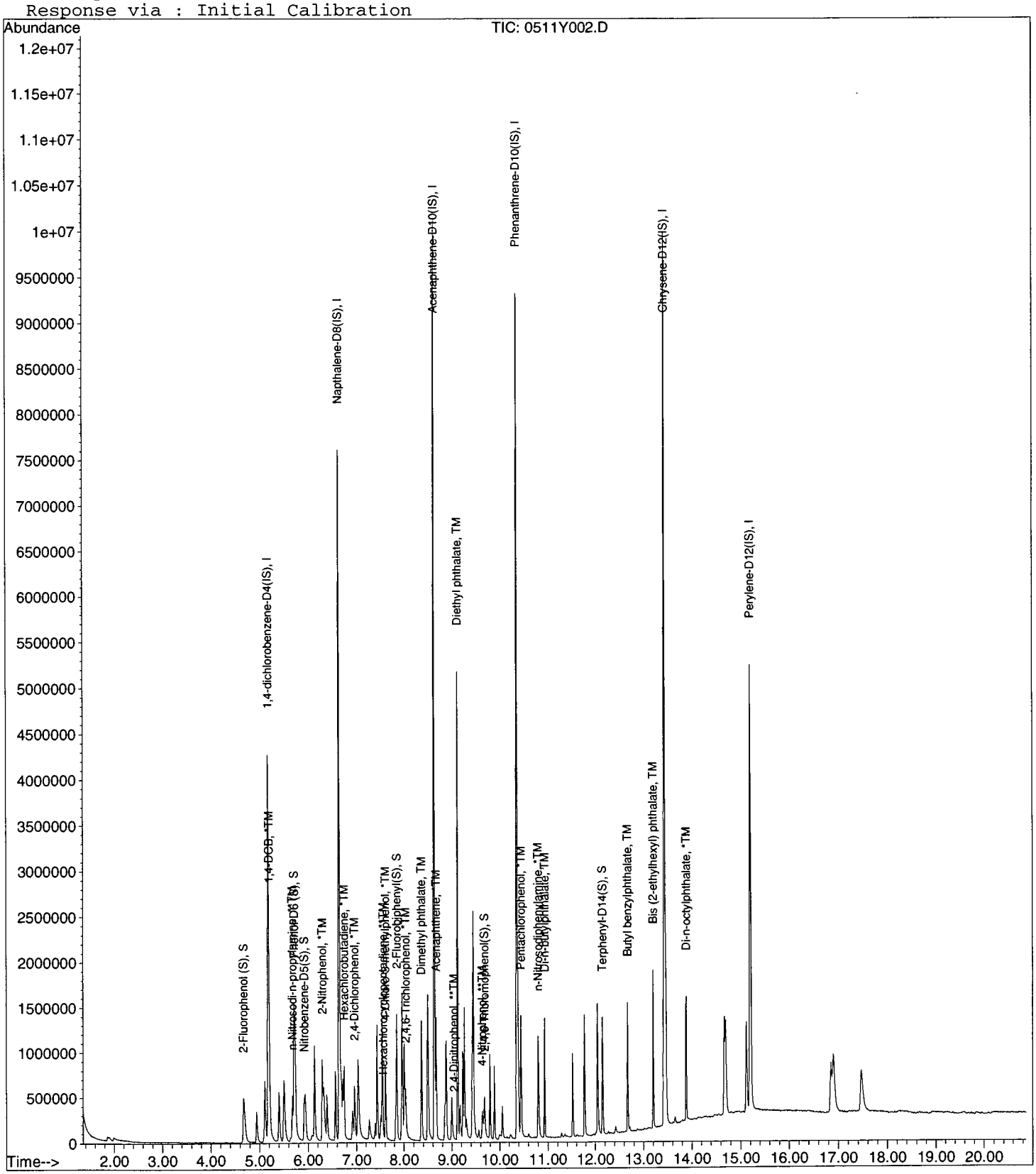
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150511\0511Y002.D Vial: 2
Acq On : 11 May 15 15:02 Operator: csc
Sample : 5ug/ml SVOC 05/11/15 Inst : Yoda
Misc : 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 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

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

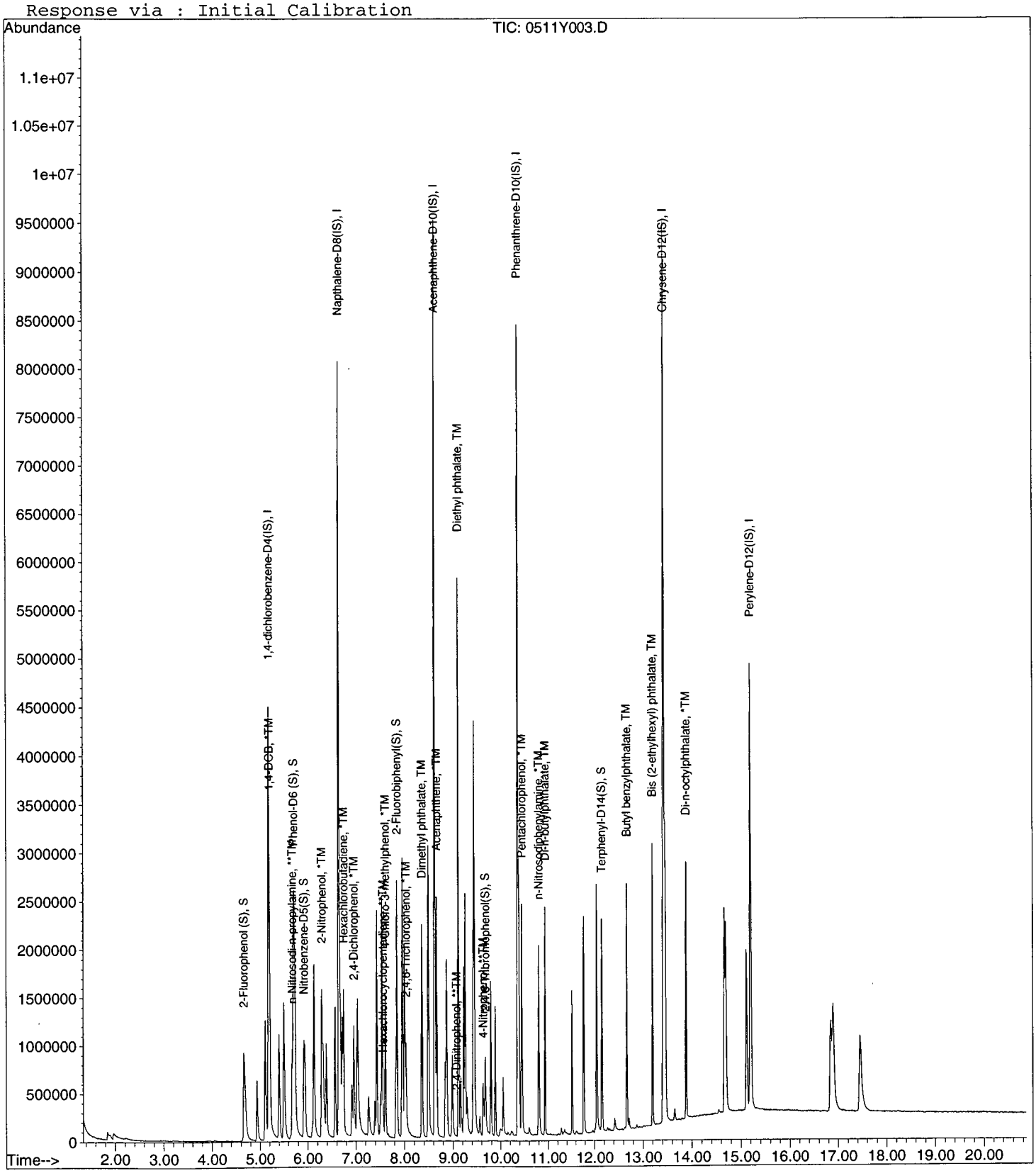
(#) = qualifier out of range (m) = manual integration

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

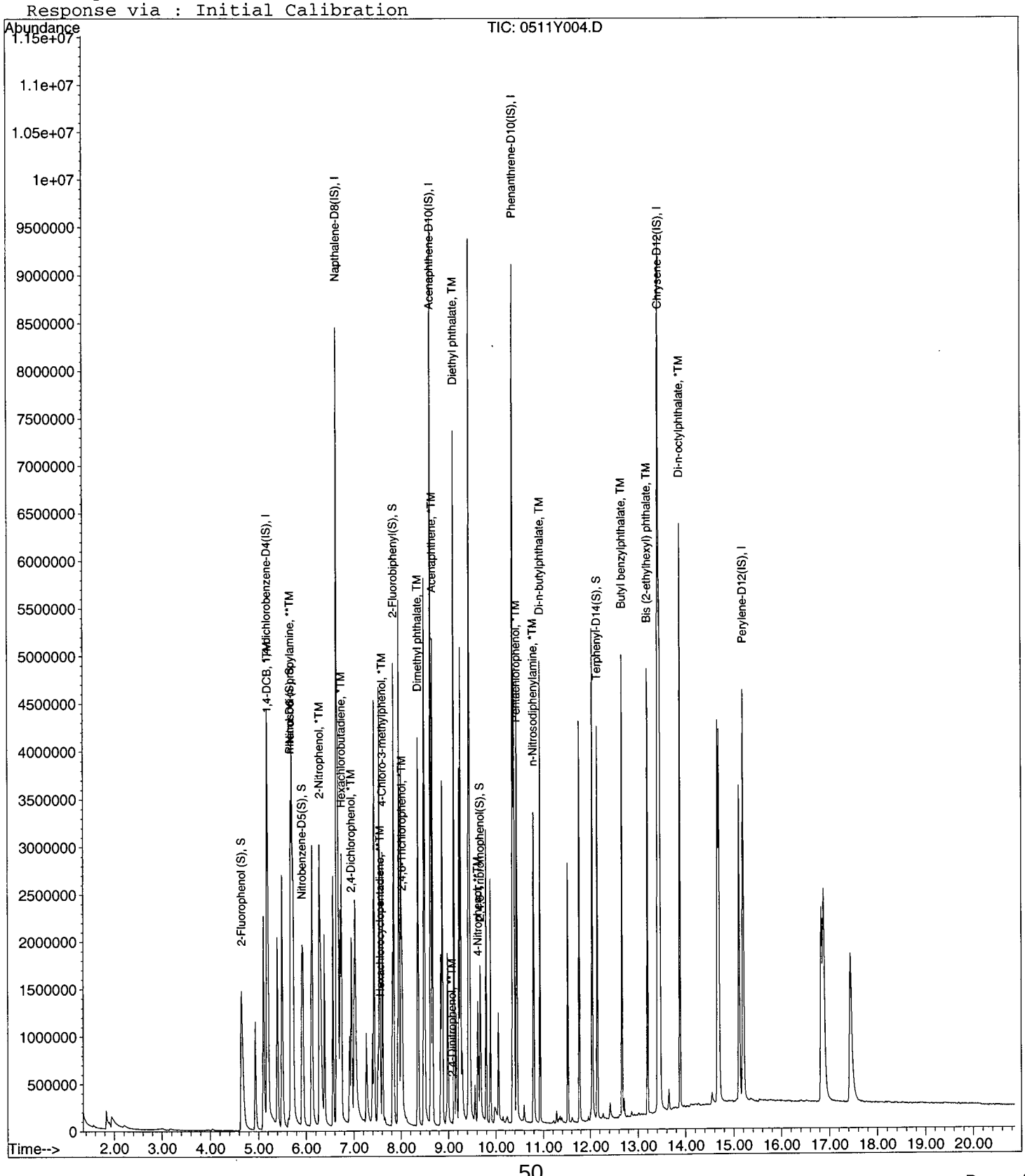
(#) = qualifier out of range (m) = manual integration

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

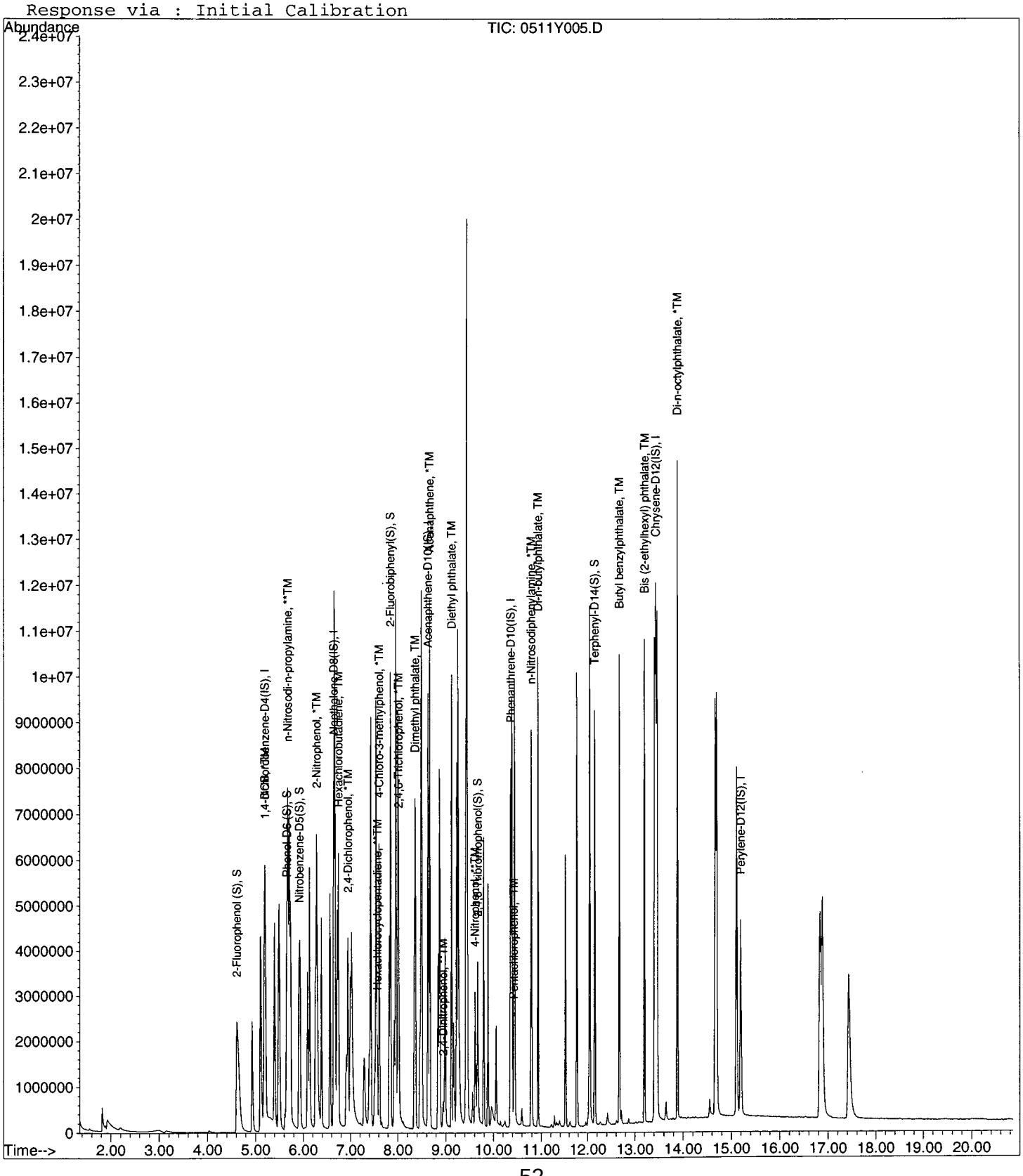
(#) = qualifier out of range (m) = manual integration

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



0511Y005.D Y0511TT.M Wed Jun 03 09:12:52 2015 Page 2

Quantitation Report (Not Reviewed)

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

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

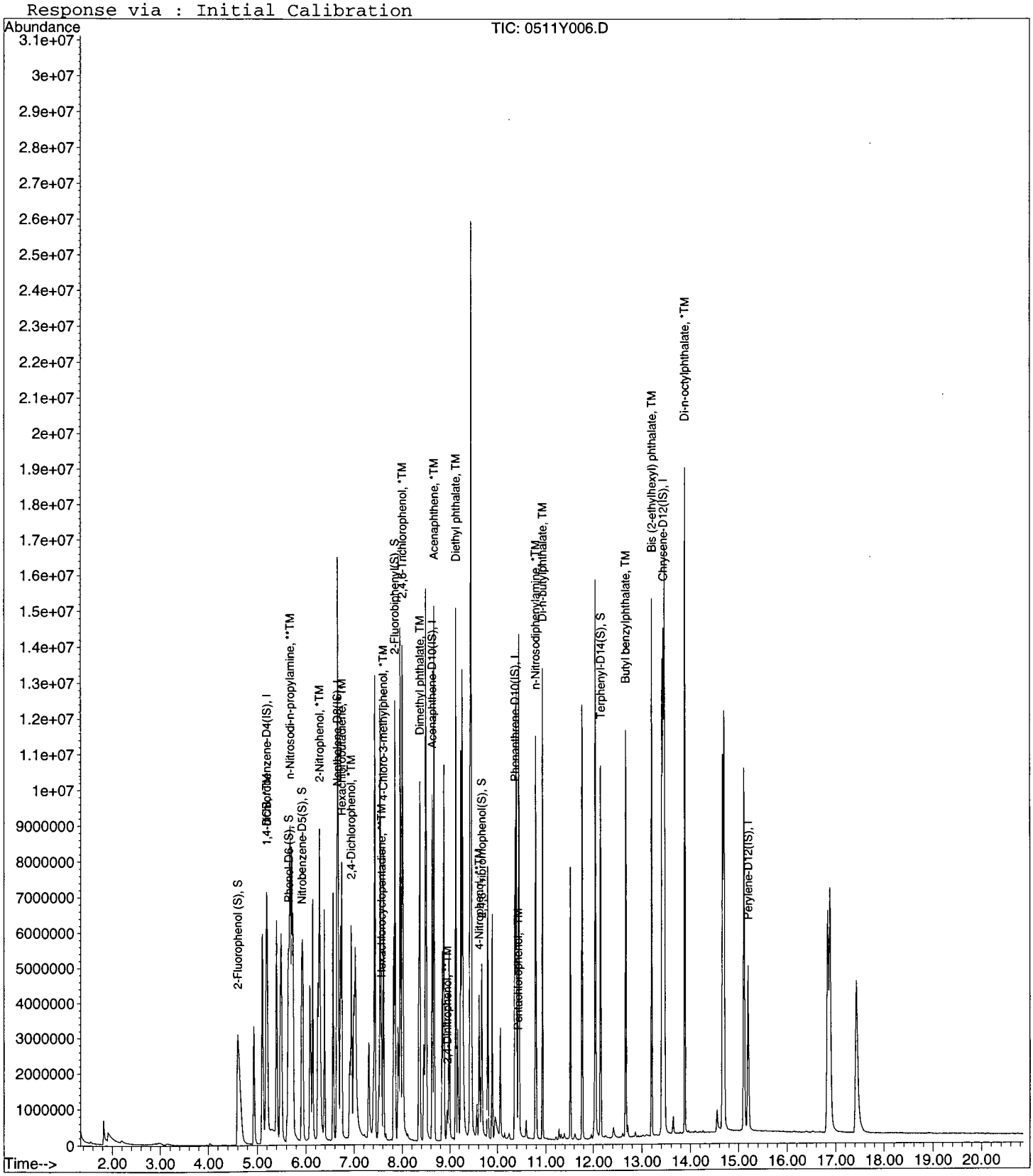
(#) = qualifier out of range (m) = manual integration

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 Vial: 7
Acq On : 11 May 15 17:31 Operator: csc
Sample : 60ug/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	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

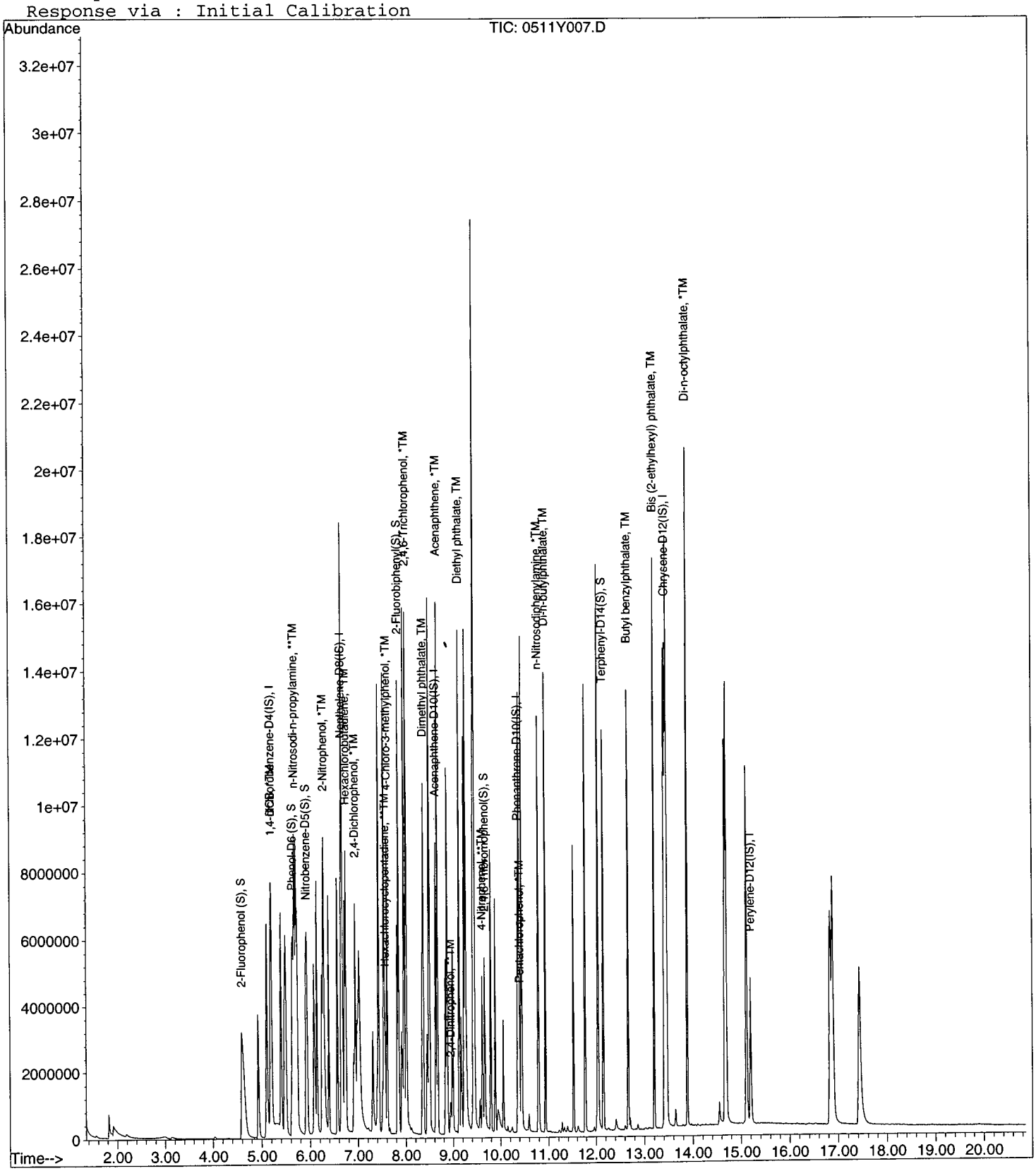
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150511\0511Y007.D Vial: 7
Acq On : 11 May 15 17:31 Operator: csc
Sample : 60ug/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



0511Y007.D Y0511TT.M Wed Jun 03 09:12:56 2015 Page 2

Quantitation Report (Not Reviewed)

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

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

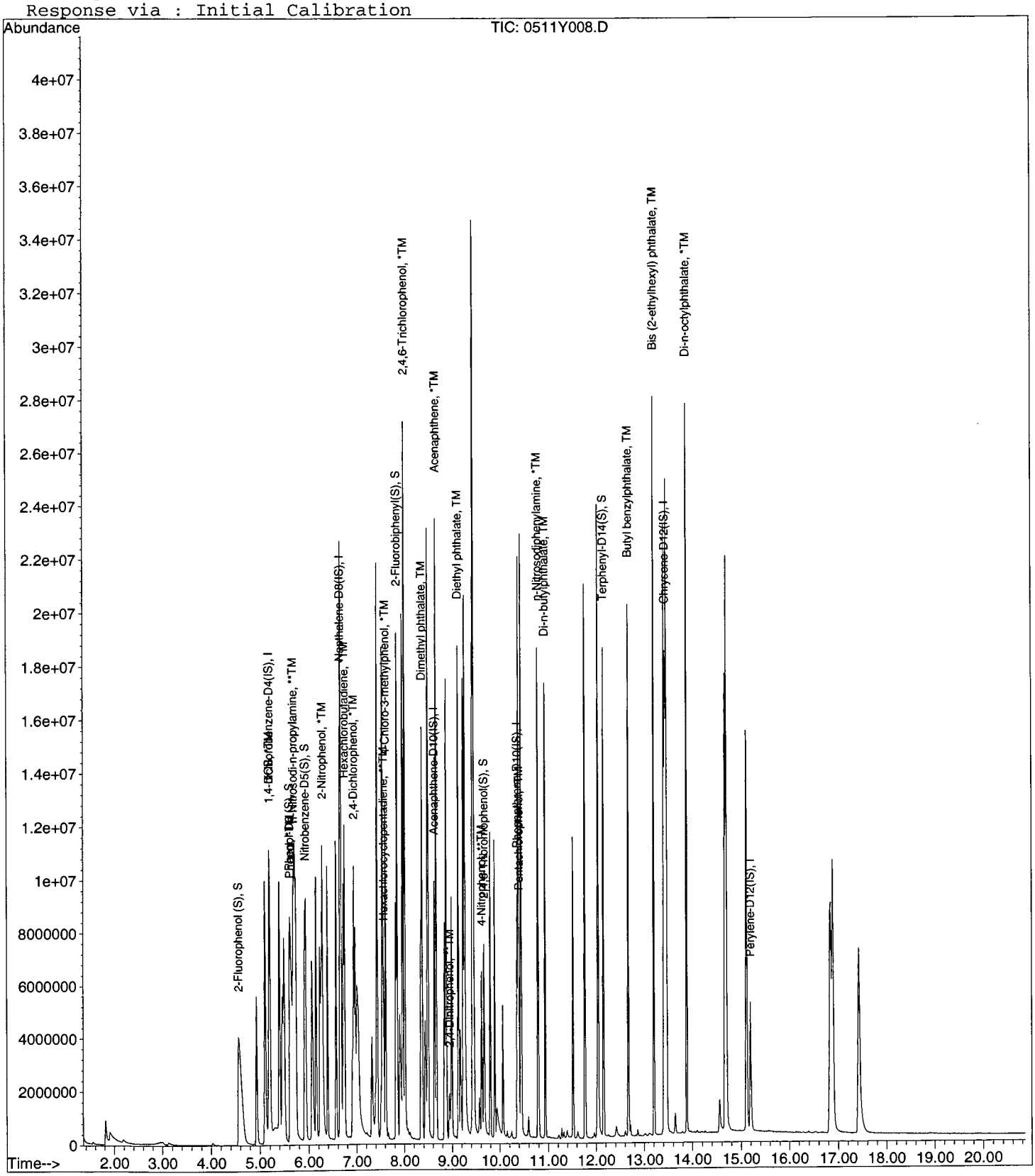
(#) = qualifier out of range (m) = manual integration

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



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150511\0511Y009.D Vial: 9
Acq On : 11 May 15 18:30 Operator: csc
Sample : 100ug/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	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

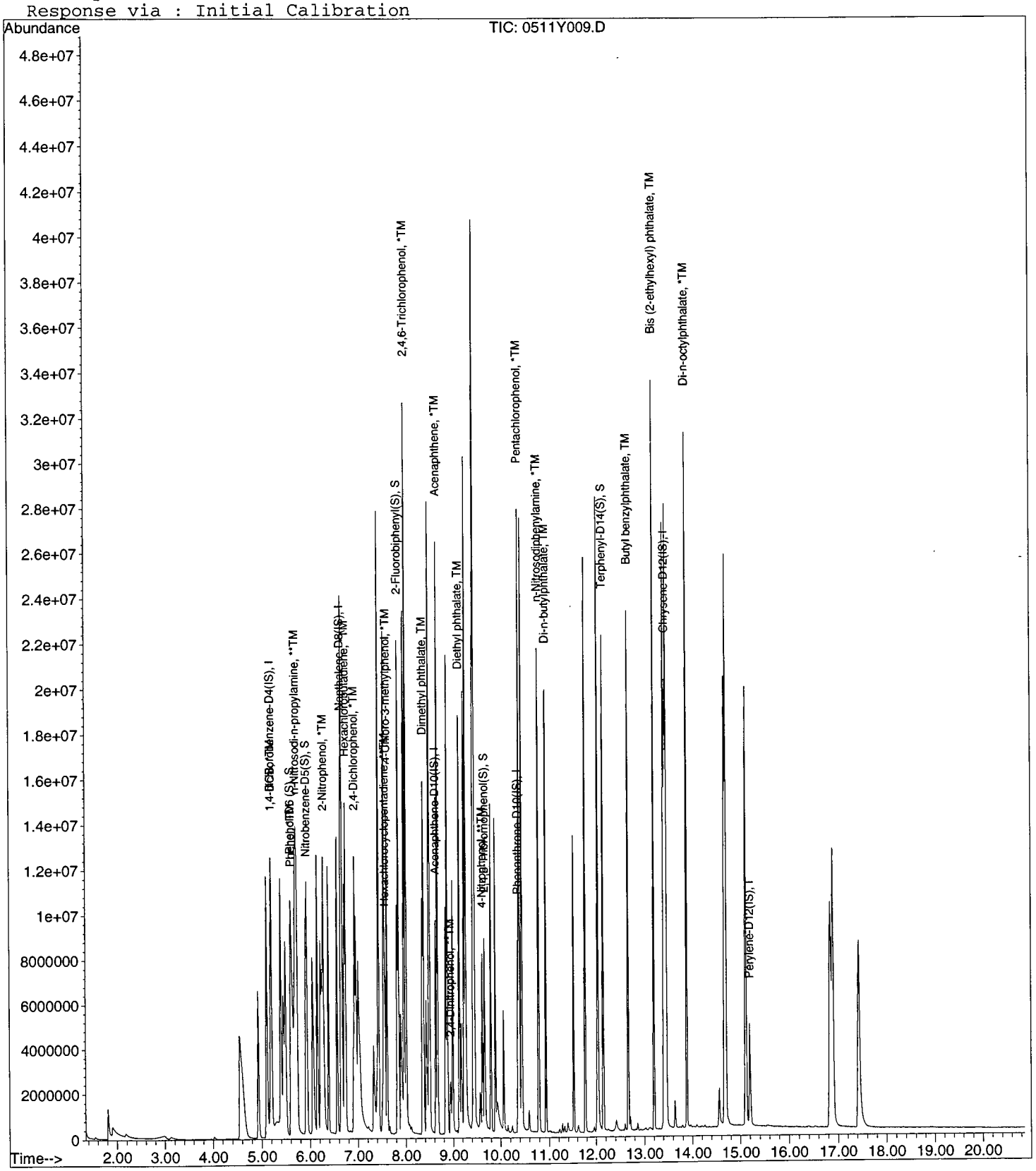
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150511\0511Y009.D Vial: 9
Acq On : 11 May 15 18:30 Operator: csc
Sample : 100ug/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



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

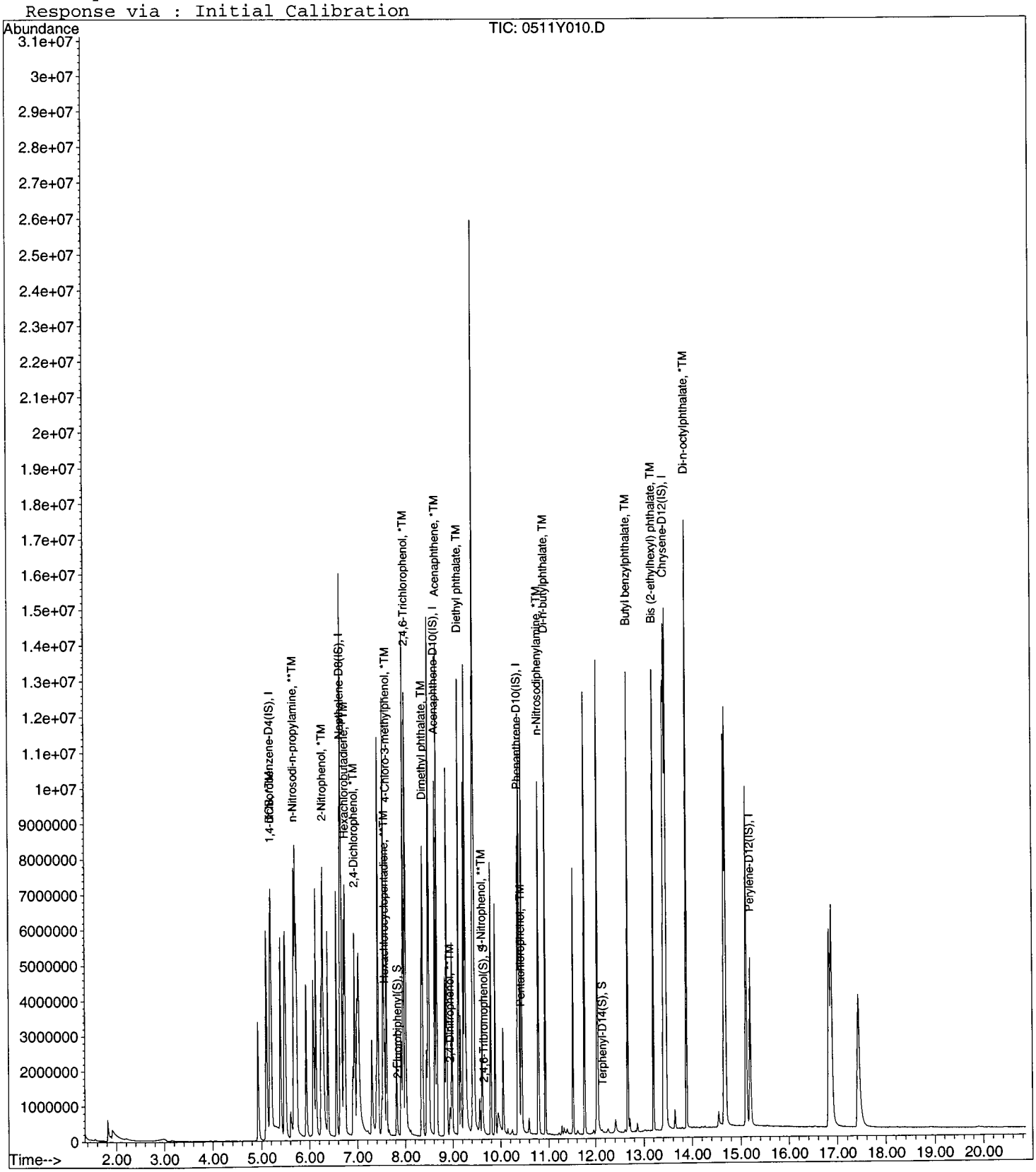
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150511\0511Y010.D Vial: 10
Acq On : 11 May 15 19:00 Operator: csc
Sample : 50ug/ml SVOC SS 05/11/15 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



0511Y010.D Y0511TT.M Wed Jun 03 09:13:02 2015 Page 2

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	*
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	*
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		

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

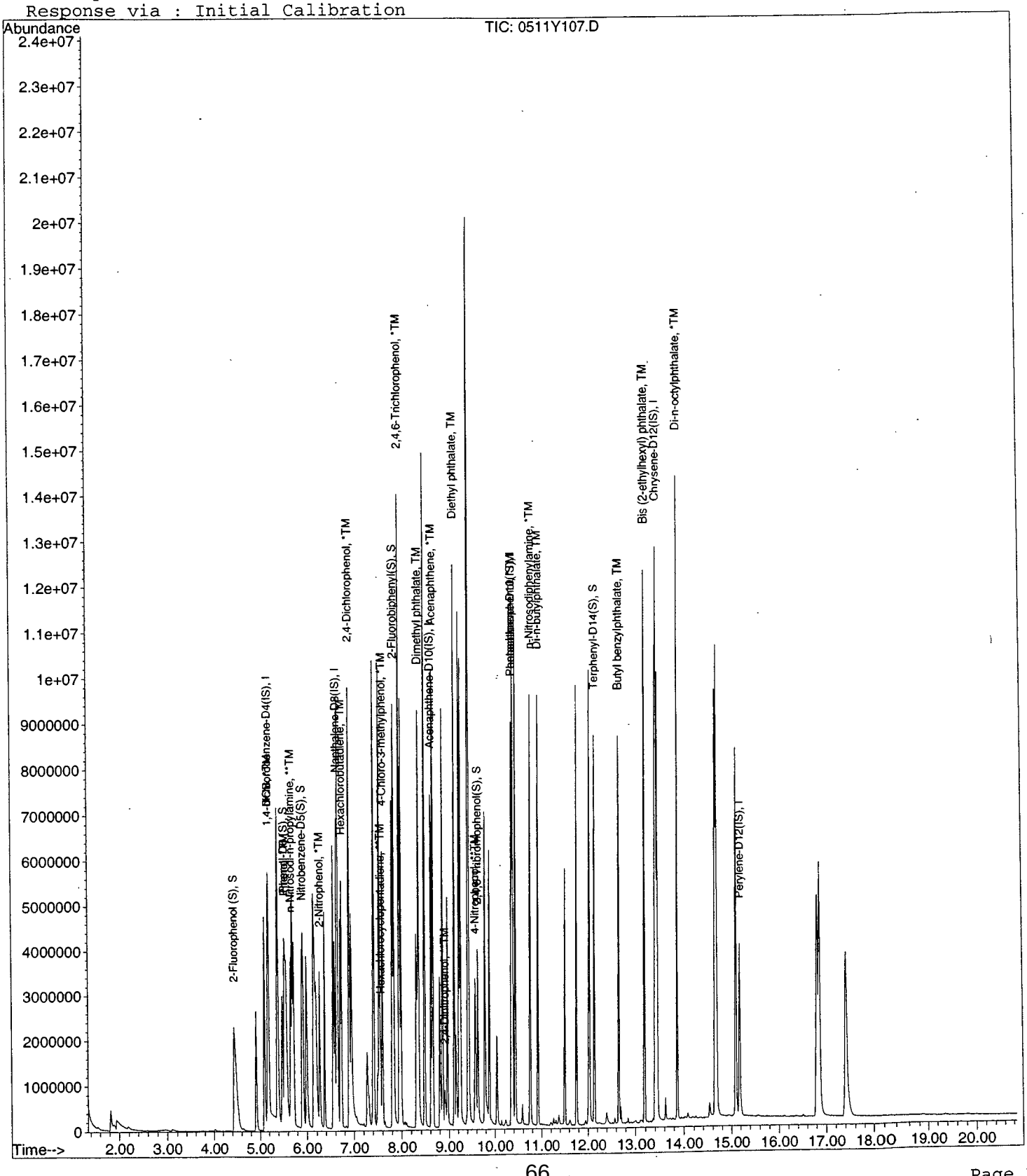
Data File : M:\YODA\DATA\Y150511\0511Y107.D
Acq On : 19 May 15 13:20
Sample : 50ug/ml SVOC 05/19/15
Misc :

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



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	05/18/15	05/19/15
BLANK	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	05/18/15	05/19/15
BLANK	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	05/18/15	05/19/15
BLANK	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	05/18/15	05/19/15
BLANK	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	05/18/15	05/19/15
BLANK	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	05/18/15	05/19/15
BLANK	SURROGATE: 2,4,6-TRIBROMOP	120	40-125			%	05/18/15	05/19/15
BLANK	SURROGATE: 2-FLUORBIPHENY	79.6	50-110			%	05/18/15	05/19/15
BLANK	SURROGATE: 2-FLUOROPHENO	47.5	20-110			%	05/18/15	05/19/15
BLANK	SURROGATE: NITROBENZENE-	81.1	40-110			%	05/18/15	05/19/15
BLANK	SURROGATE: PHENOL (S)	34.0	10-115			%	05/18/15	05/19/15
BLANK	SURROGATE: TERPHENYL-D14 (	119	50-135			%	05/18/15	05/19/15

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

GC SC-Blank-REG MDLs
Printed: 06/03/15 3:29:25 PM

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

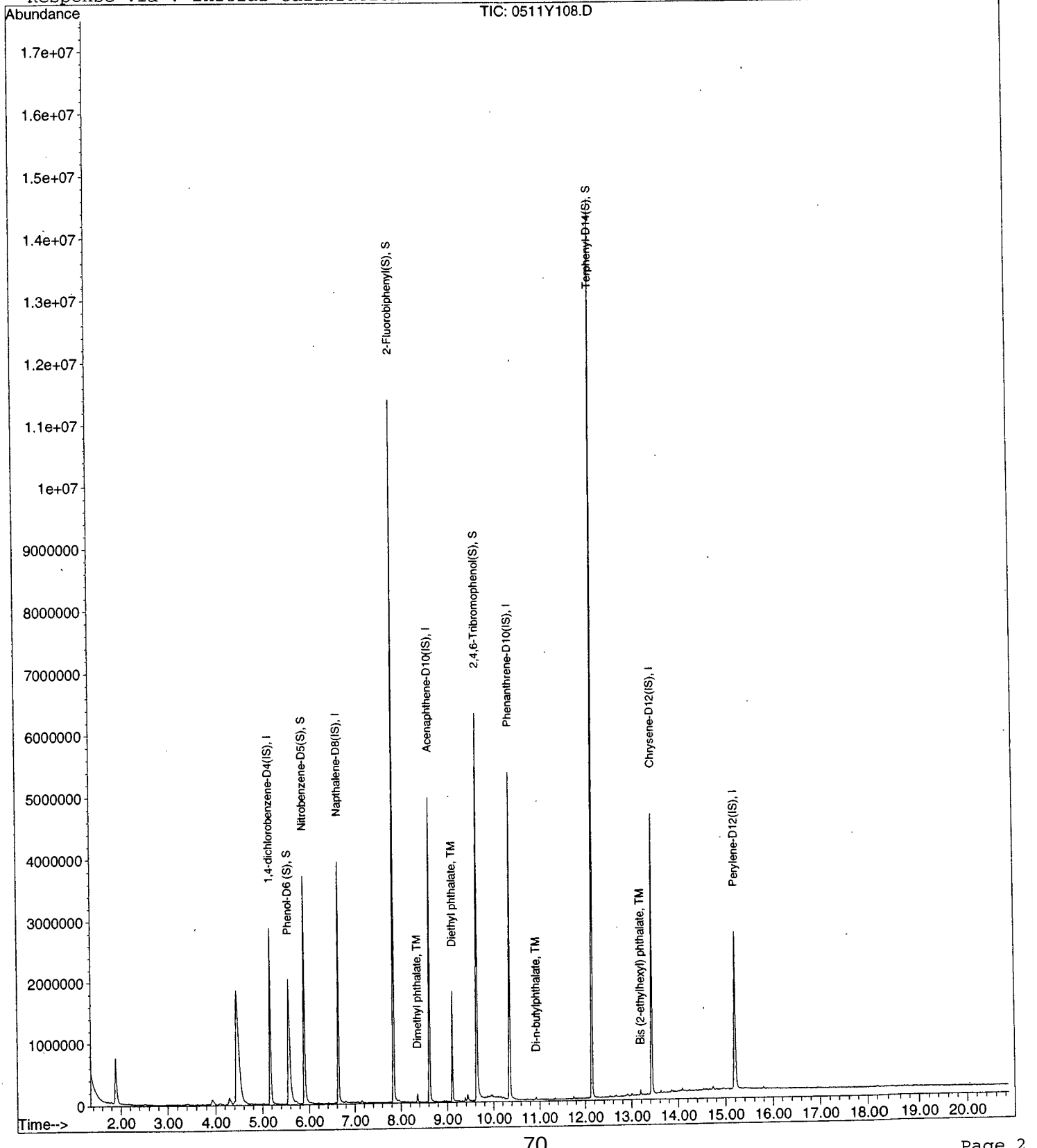
Data File : M:\YODA\DATA\Y150511\0511Y108.D
Acq On : 19 May 15 15:21
Sample : 150518A BLK 1/1000
Misc : water

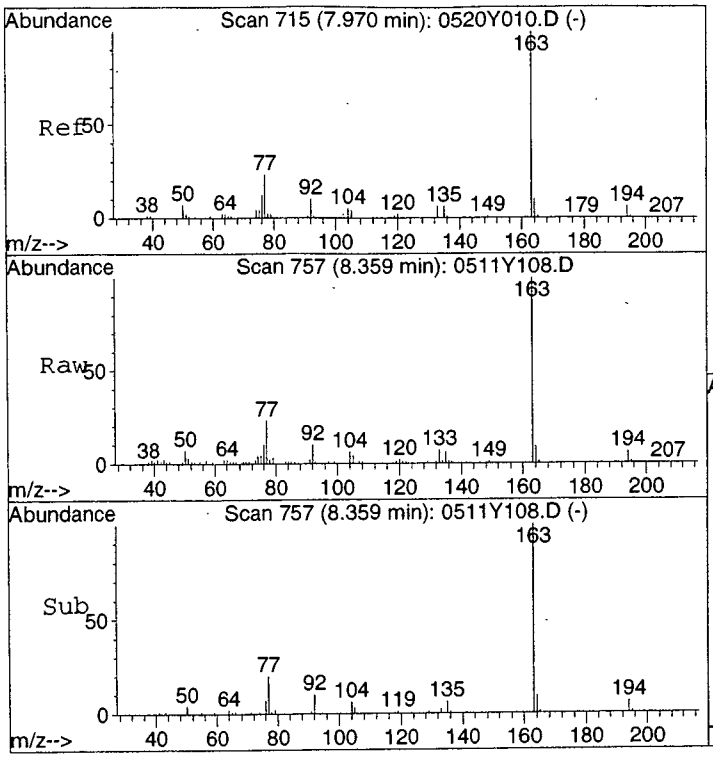
Vial: 8
Operator: csc
Inst : Yoda
Multiplr: 1.00

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

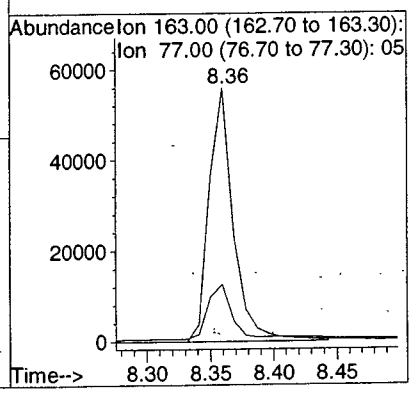


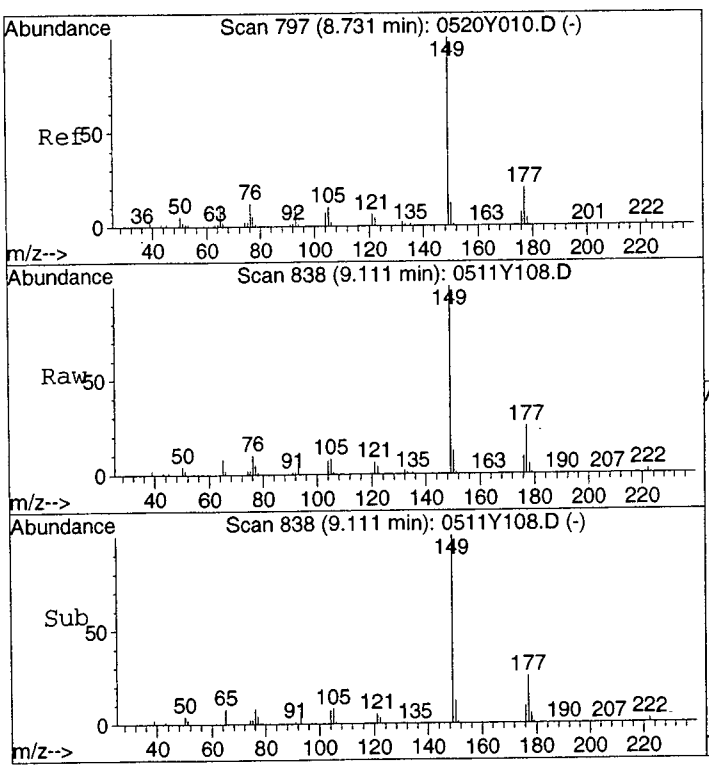


#17
Dimethyl phthalate
Concen: 1.41 ppb
RT: 8.36 min Scan# 757
Delta R.T. -0.01 min
Lab File: 0511Y108.D
Acq: 19 May 15 15:21

Tgt Ion:163 Resp: 74803

Ion	Ratio	Lower	Upper
163	100		
77	21.6	17.3	32.1

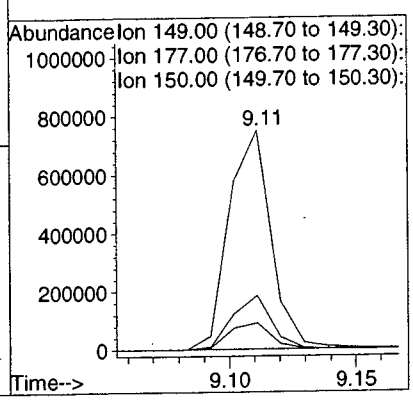


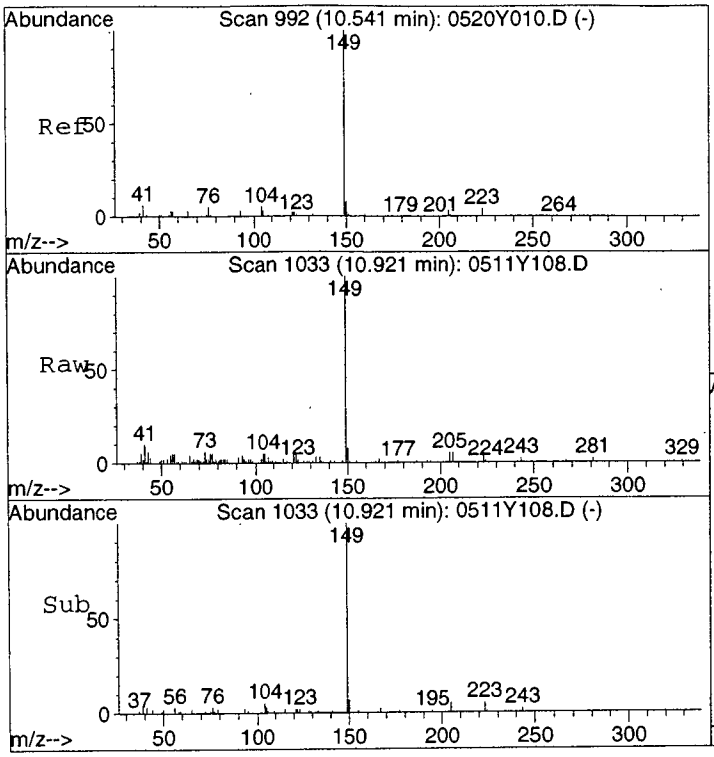


#21
Diethyl phthalate
Concen: 0.03 ppb
RT: 9.11 min Scan# 838
Delta R.T. -0.02 min
Lab File: 0511Y108.D
Acq: 19 May 15 15:21

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

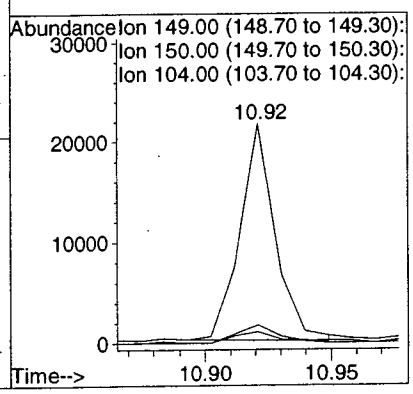


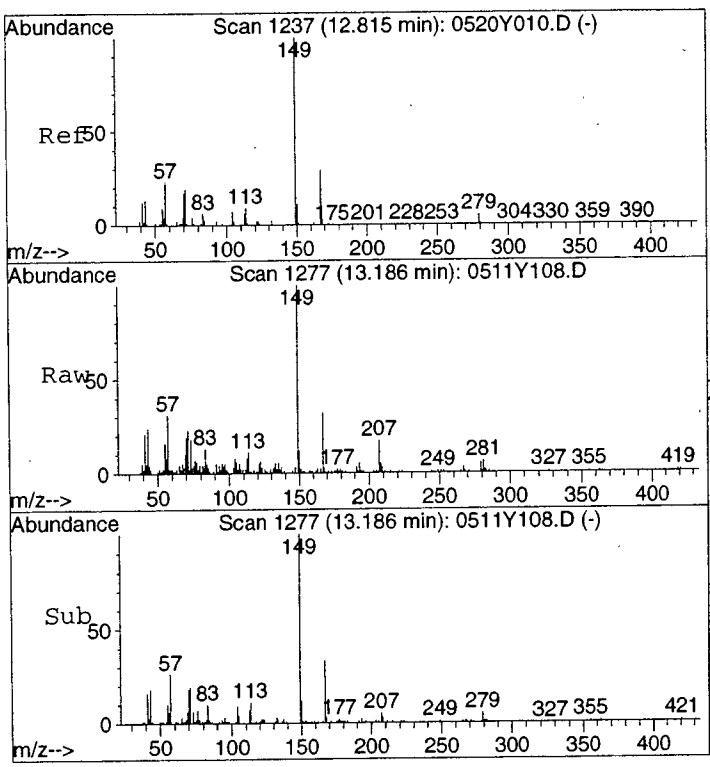


#26
Di-n-butylphthalate
Concen: 0.23 ppb
RT: 10.92 min Scan# 1033
Delta R.T. -0.01 min
Lab File: 0511Y108.D
Acq: 19 May 15 15:21

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

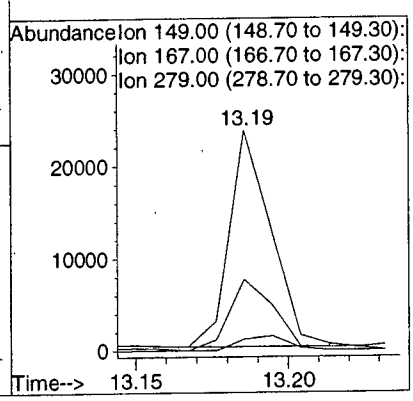




#30
Bis (2-ethylhexyl) phthalate
Concen: 0.40 ppb
RT: 13.19 min Scan# 1277
Delta R.T. -0.02 min
Lab File: 0511Y108.D
Acq: 19 May 15 15:21

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 10:10:44 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

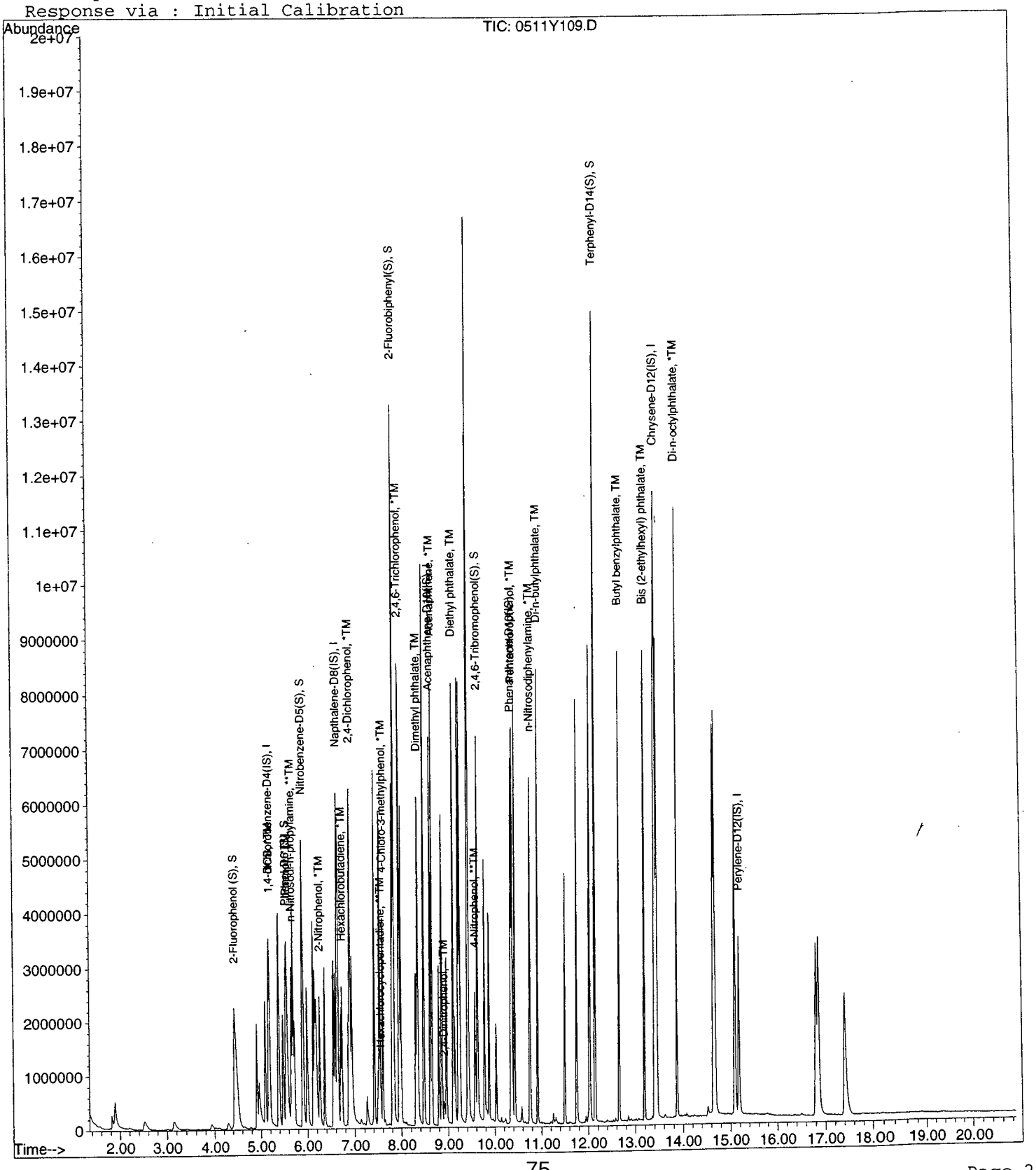
Data File : M:\YODA\DATA\Y150511\0511Y109.D
Acq On : 19 May 15 15:51
Sample : 150518A LCS-1 1/1000
Misc : water

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

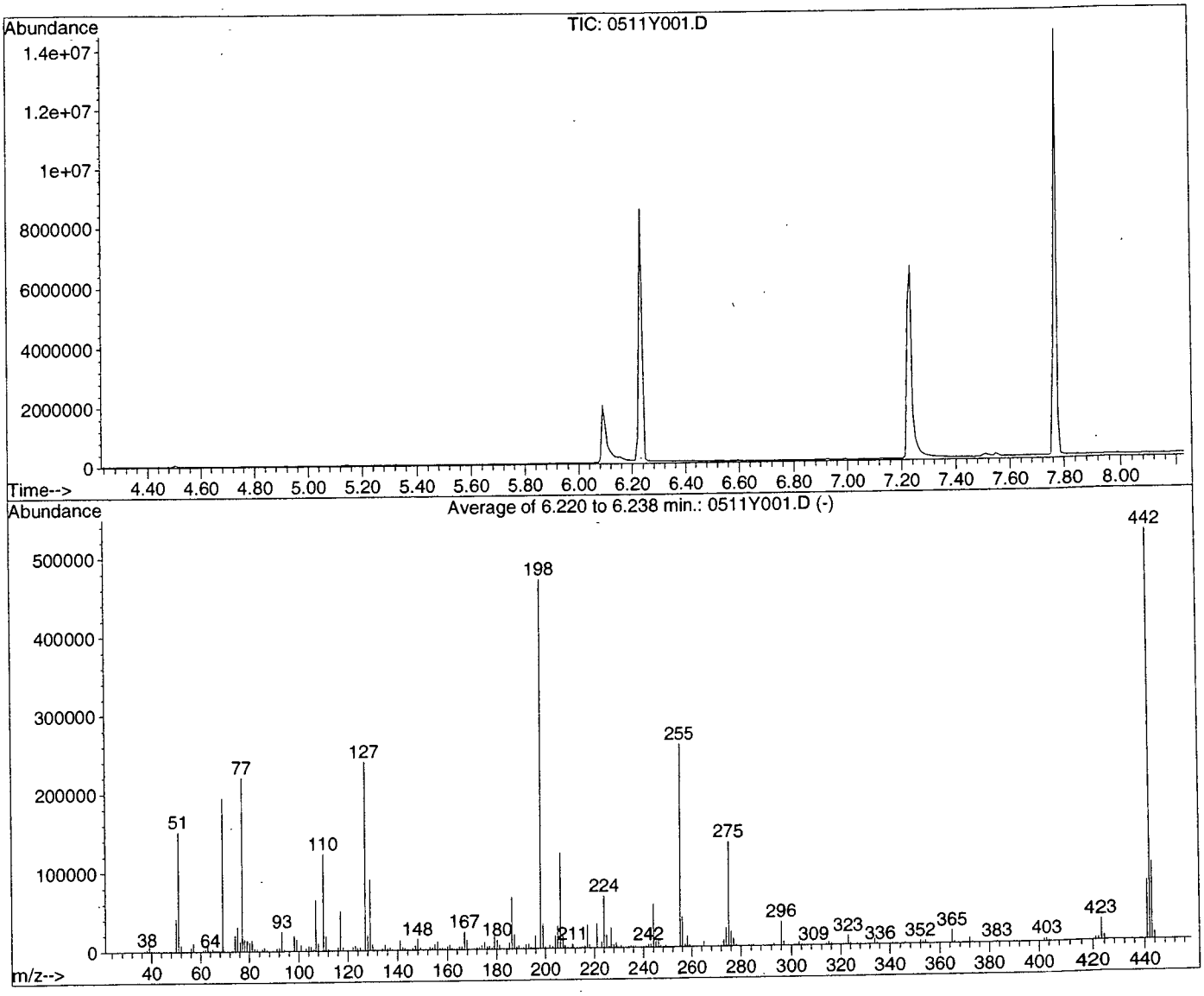


DFTPP

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

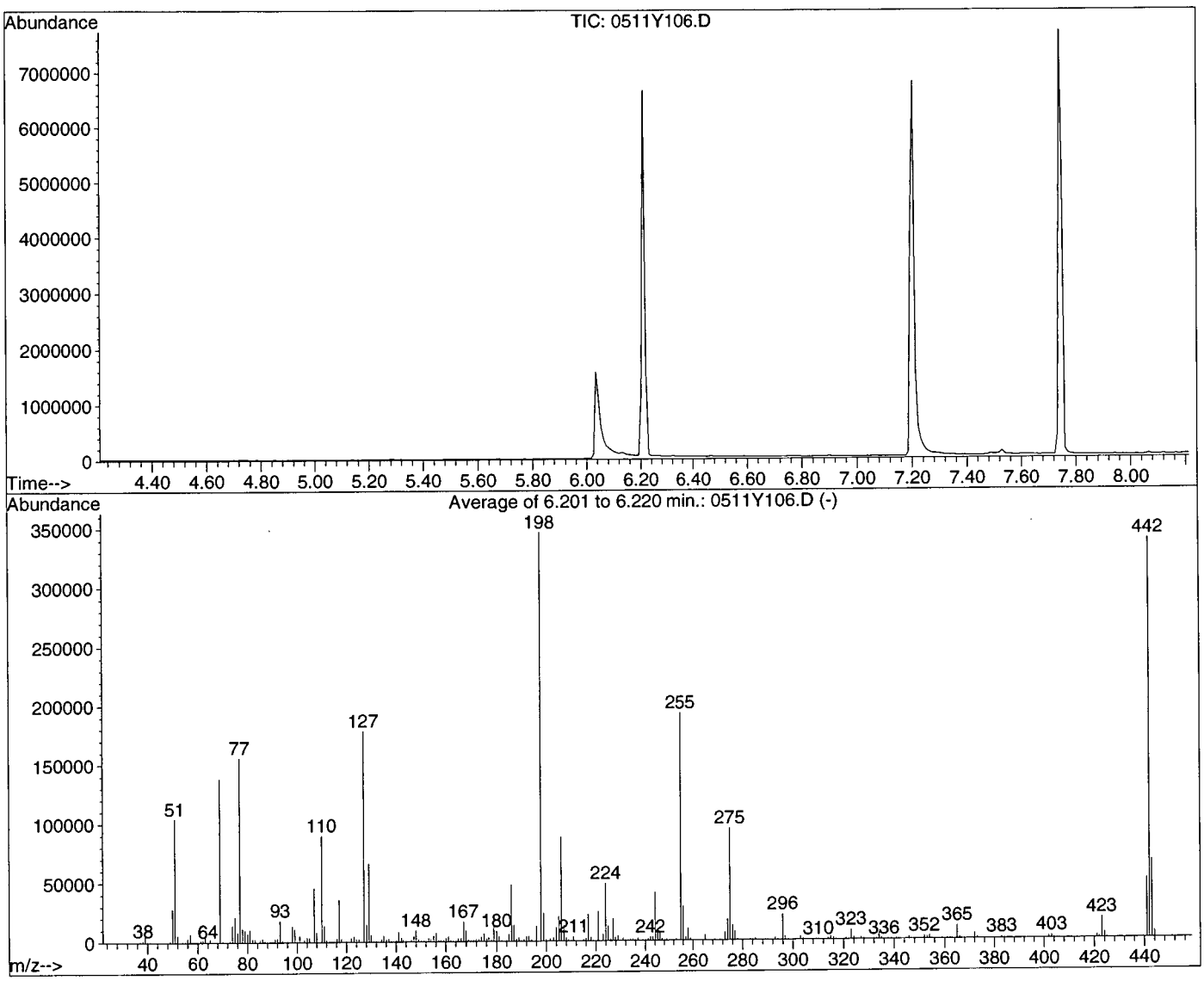
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	32.3	151779	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.1	195	PASS
127	198	40	60	50.9	239324	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	470045	PASS
199	198	5	9	6.7	31497	PASS
275	198	10	30	28.2	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 09:47:00 2015

GC/MS STANDARD PREPARATION BOOK # L PAGE

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													
						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
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
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
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
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
Lot #: 082914 Exp: 082919 Storage 4 °C
Semi-Volatile Standard
11 components
Varied µg/mL in m
ABSOLUTE STANDA
Semi-Volatile Standard
Lot #: 082914 - 34247
Rec: 11/10/14 MFR exp. 8/29/19

03/23/15 CSC

PREP DATE:	03/23/15					
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 #

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
Lot #: 060111
Laboratory Use Only - See MSDS
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

02/27/15 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

05/19/15 12:19:34 PM Ext_ID 827794

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 equip	1030 E-WB6	1	2/1	05/18/15 15:00	76424
18	AZ16340	AZ16340W10			1	1 equip	980 E-WB6	1	2/1	05/18/15 15:00	76424
19	AZ16341	AZ16341W10			1	1 equip	900 E-WB6	1	2/1	05/18/15 15:00	76424
20	AZ16342	AZ16342W10			1	1 equip	950 E-WB6	1	2/1	05/18/15 15:00	76424
21	AZ16457	AZ16457W07			1	1 equip	150 E-WB6	1	2/1	05/18/15 15:00	76463 RUSH 48HRS

KY 5/19/15

olvent and Lot#	
4C	55006
+1 Sulfuric Acid	3-6-15
cidified Na2SO4	4-13-15
a2SO4	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	BC-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

5/19/15 12:19:34 PM

Ext_ID 83 87794

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	12	0511Y112.D	1	AZ16235W09 1/1000	water	05/19/2015 17:20
15	13	0511Y113.D	0.95238	AZ16236W10 1/1050	water	05/19/2015 17:50

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 1:07:07 PM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc.
Case No: 76401
Matrix: WATER

SDG No: 76401
Date Analyzed: 5/27/2015
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	
AZ16235	S67-MW012-051115	50-110	51.3		40-110	58.9	
AZ16236	S67-MW011-051115	50-110	48.6	#	40-110	53.4	

Comments: Batch: #SIMDD-150518A
= Recovery outside of Control Limits on Sample.

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc.
Case No: 76401
Matrix: WATER

SDG No: 76401
Date Analyzed: 5/27/2015
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				
AZ16235	S67-MW012-051115	50-135	79.3				
AZ16236	S67-MW011-051115	50-135	80.6				

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 1:06:57 PM
APPL Standard LCS

8270D-LL

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76401
Matrix: WATER
Blank ID: 150518A-BLK

SDG No: 76401
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
AZ16235	S67-MW012-051115	0515L198	5/27/2015 0311
AZ16236	S67-MW011-051115	0515L199	5/27/2015 0337

Comments: Batch: #SIMDD-150518A

Printed: 6/3/2015 1:06:52 PM
Form 4, Blank Summary

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: ~~0515L002.D~~ 76401
Matrix: Water np 6-25-15
ID: SV Tune 05/14/15

SDG No: np 6-25-15 ~~Linus~~ 76401
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: 76401
Matrix: Water
ID: SV TUNE 5/14/15

SDG No: 76401
Date Analyzed: 5/27/2015
Instrument: Linus
Time Analyzed: 1:35

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	Blank	150518A BLK 1/1000	0515L196.D	5/27/2015 2:19
2	Lab Control Spike	150518A LCS-1 1/1000	0515L197.D	5/27/2015 2:45
3	S67-MW012-051115	AZ16235W10 1/850	0515L198.D	5/27/2015 3:11
4	S67-MW011-051115	AZ16236W09 1/980	0515L199.D	5/27/2015 3:37
5				
6				
7				
8				
9				
10				
11				
12				
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.: 76401
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	AZ16235W10 1/850	9855	6.16	5028	8.17	8898	9.91
05	AZ16236W09 1/980	9546	6.16	4661	8.17	8154	9.91
06							
07							
08							
09							
10							
11							
12							
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.: 76401
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	AZ16235W10 1/850	9412	12.97	6283	14.59		
05	AZ16236W09 1/980	8401	12.97	5697	14.59		
06							
07							
08							
09							
10							
11							
12							
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-MW012-051115
Sample Collection Date: 5/11/2015

ARF: 76401
APPL ID: AZ16235
QCG: #SIMDD-150518A-197649

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.11 J	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	0.33	0.2	0.10	0.06	ug/L	5/18/2015	5/27/2015
8270D-LL	ANTHRACENE	0.073 J	0.2	0.10	0.05	ug/L	5/18/2015	5/27/2015
8270D-LL	BENZ (A) ANTHRACENE	0.092 J	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	0.11 J	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)	51.3	50-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	58.9	40-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	79.3	50-135			%	5/18/2015	5/27/2015

J = Estimated value.

Quant Method: P0518-42.M
Run #: 0515L198
Instrument: Linus
Sequence: L150515
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 1:06:46 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150515\0515L198.D Vial: 98
Acq On : 27 May 15 3:11 Operator: MA
Sample : AZ16235W10 1/850 Inst : Linus
Misc : water Multiplr: 1.18

Quant Time: Jun 4 12:28 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	9855	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.17	164	5028	2.50000 ppb	0.01
11) Phenanthrene-D10(IS)	9.91	188	8898	2.50000 ppb	0.01
15) Chrysene-D12(IS)	12.97	240	9412	2.50000 ppb	0.01
21) Perylene-D12(IS)	14.59	264	6283	2.50000 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.37	82	1660	1.73153 ppb	0.01
Spiked Amount 2.941			Recovery	= 58.888%	
7) Surrogate Recovery (FBP)	7.41	172	4074	1.50878 ppb	0.01
Spiked Amount 2.941			Recovery	= 51.306%	
17) Surrogate Recovery (TPH)	11.77	244	5995	2.33334 ppb	0.00
Spiked Amount 2.941			Recovery	= 79.322%	

Target Compounds					Qvalue
4) 2-Methylnaphthalene	6.98	142	59	0.10671 ppb	88
8) Acenaphthylene	8.00	152	120	0.33405 ppb	99
10) Fluorene	8.81	166	83	0.10764 ppb	91
13) Anthracene	9.99	178	175	0.07266 ppb #	93
18) Benz (a) anthracene	12.97	228	174	0.09180 ppb	93

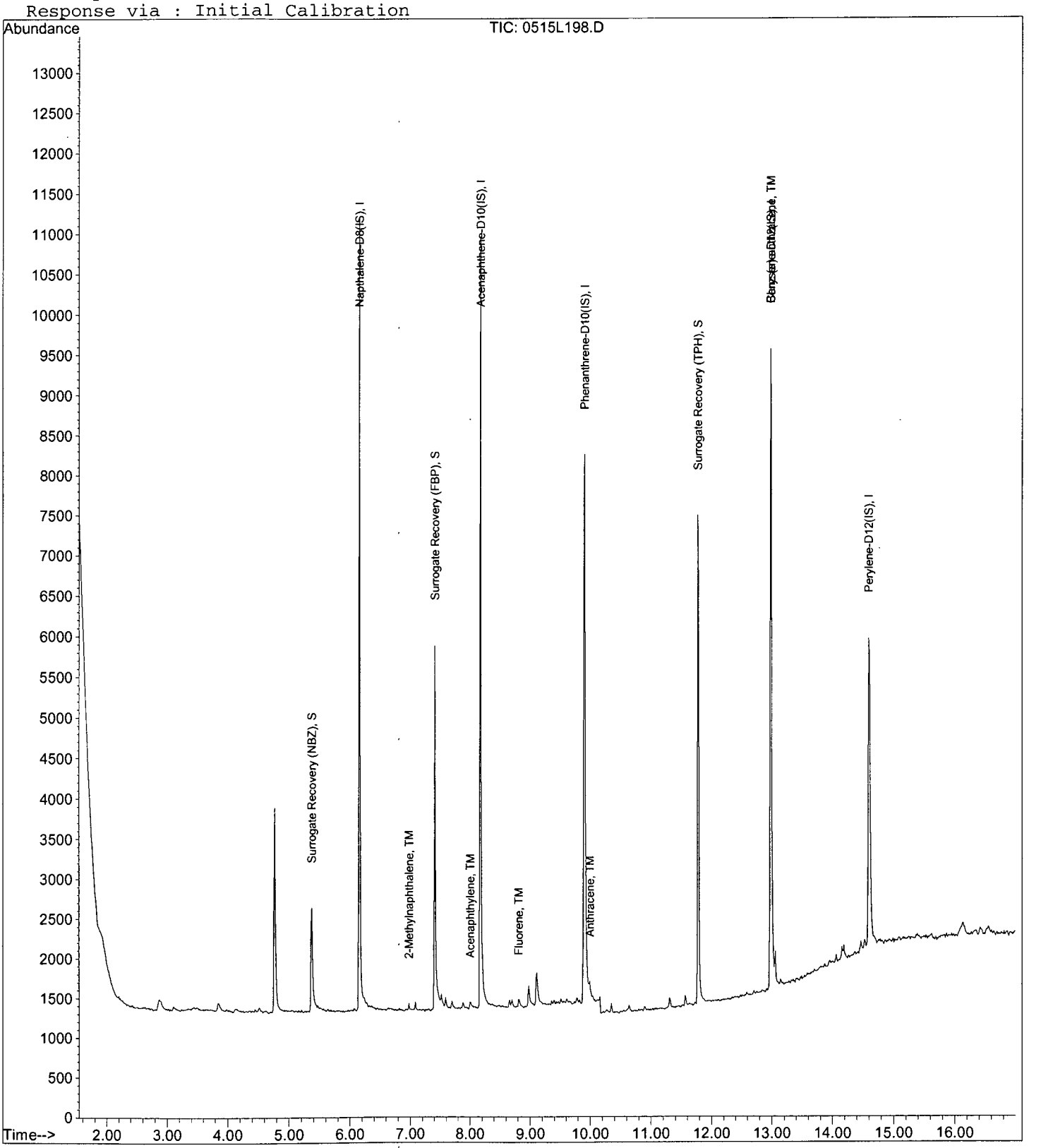
(#) = qualifier out of range (m) = manual integration

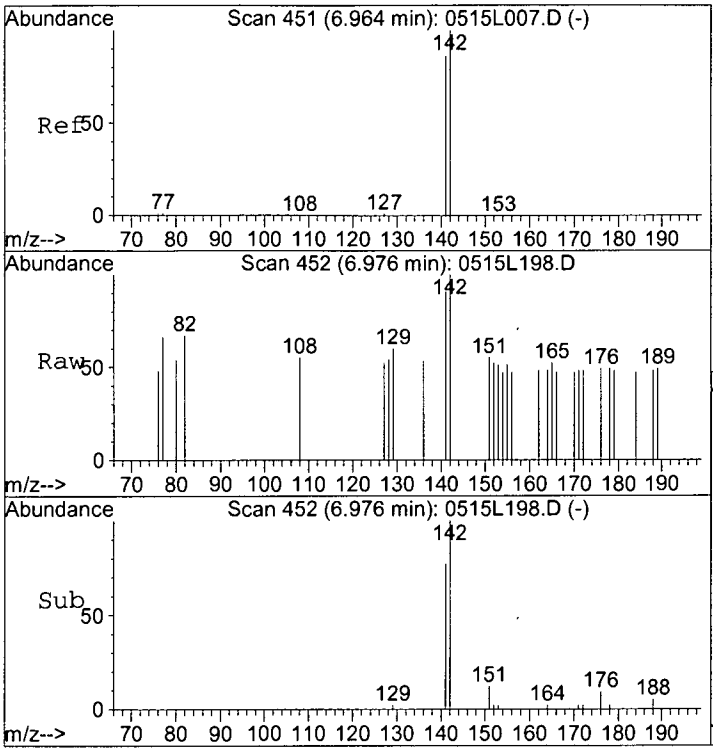
Quantitation Report

Data File : M:\LINUS\DATA\L150515\0515L198.D Vial: 98
Acq On : 27 May 15 3:11 Operator: MA
Sample : AZ16235W10 1/850 Inst : Linus
Misc : water Multiplr: 1.18

Quant Time: Jun 4 12:28 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

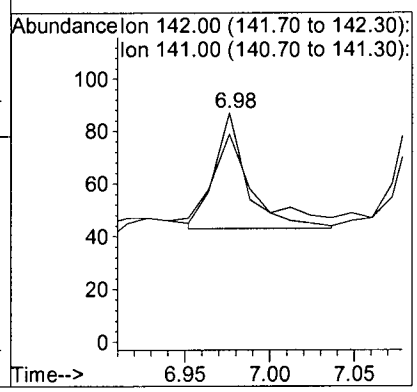


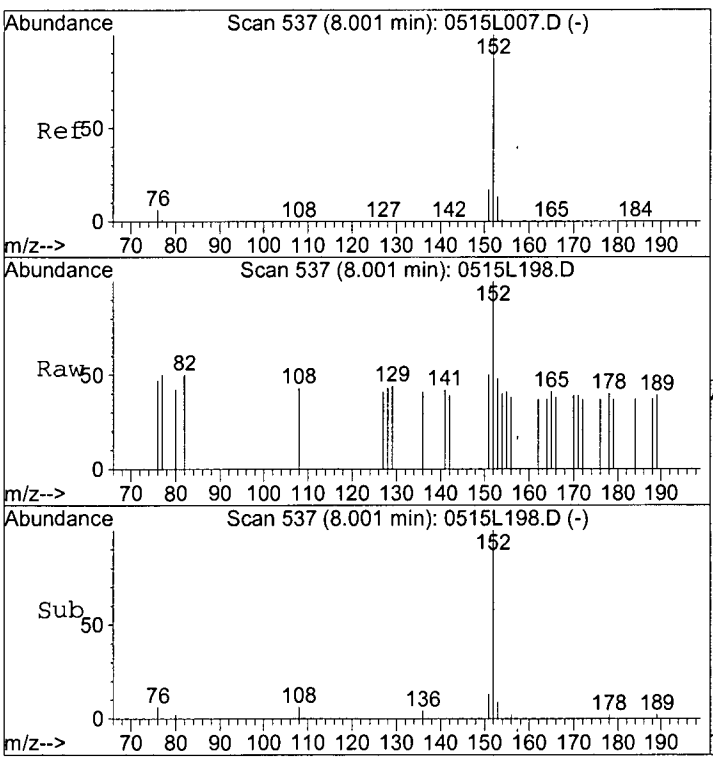


#4
2-Methylnaphthalene
Concen: 0.10671 ppb
RT: 6.98 min Scan# 452
Delta R.T. 0.01 min
Lab File: 0515L198.D
Acq: 27 May 15 3:11

Tgt Ion:142 Resp: 59

Ion	Ratio	Lower	Upper
142	100		
141	74.4	60.1	111.5

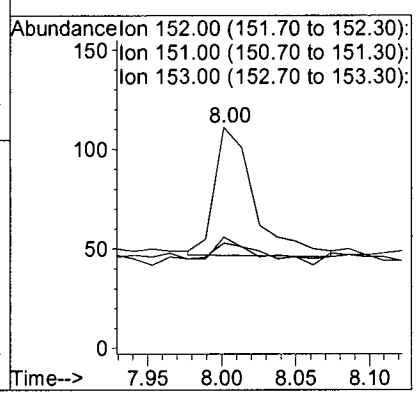


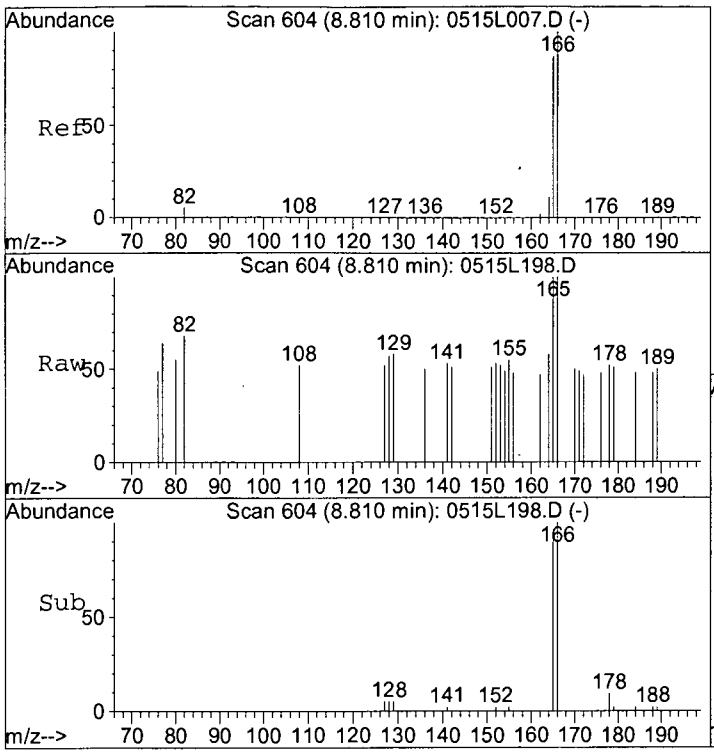


#8
Acenaphthylene
Concen: 0.33405 ppb
RT: 8.00 min Scan# 537
Delta R.T. 0.00 min
Lab File: 0515L198.D
Acq: 27 May 15 3:11

Tgt Ion:152 Resp: 120

Ion	Ratio	Lower	Upper
152	100		
151	17.7	12.1	22.5
153	12.9	9.2	17.2

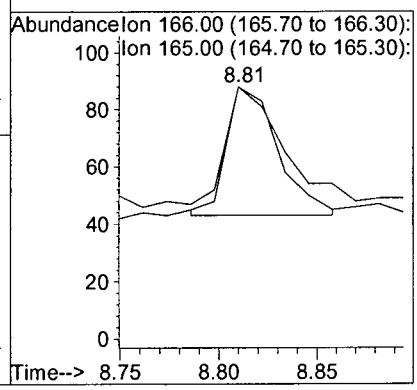


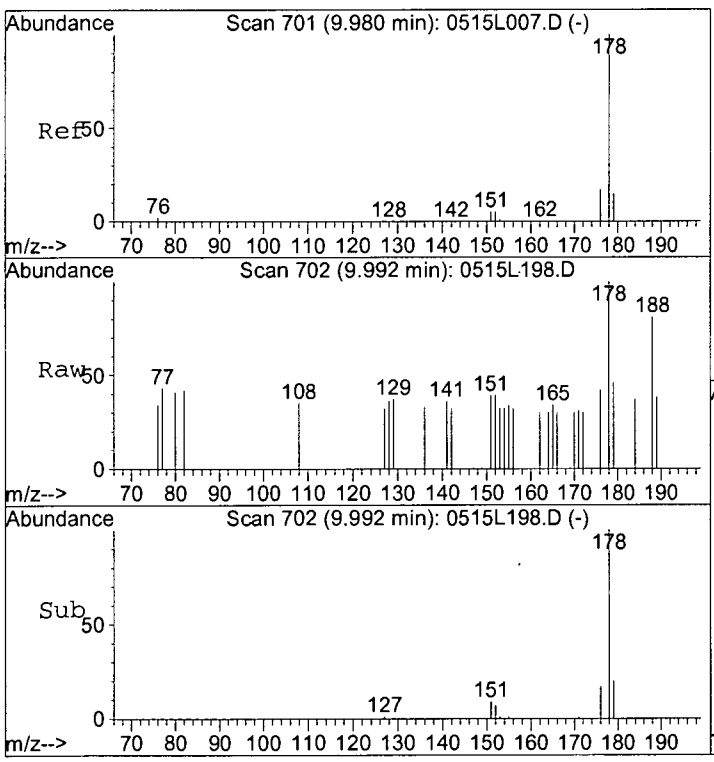


#10
Fluorene
Concen: 0.10764 ppb
RT: 8.81 min Scan# 604
Delta R.T. 0.00 min
Lab File: 0515L198.D
Acq: 27 May 15 3:11

Tgt Ion:166 Resp: 83

Ion	Ratio	Lower	Upper
166	100		
165	95.3	60.7	112.7

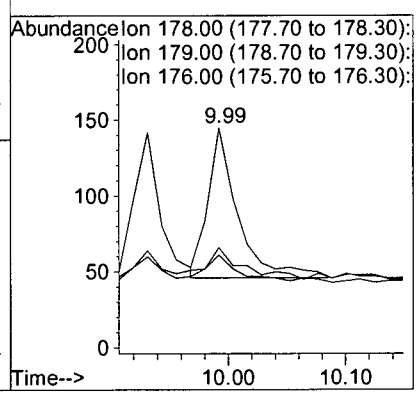


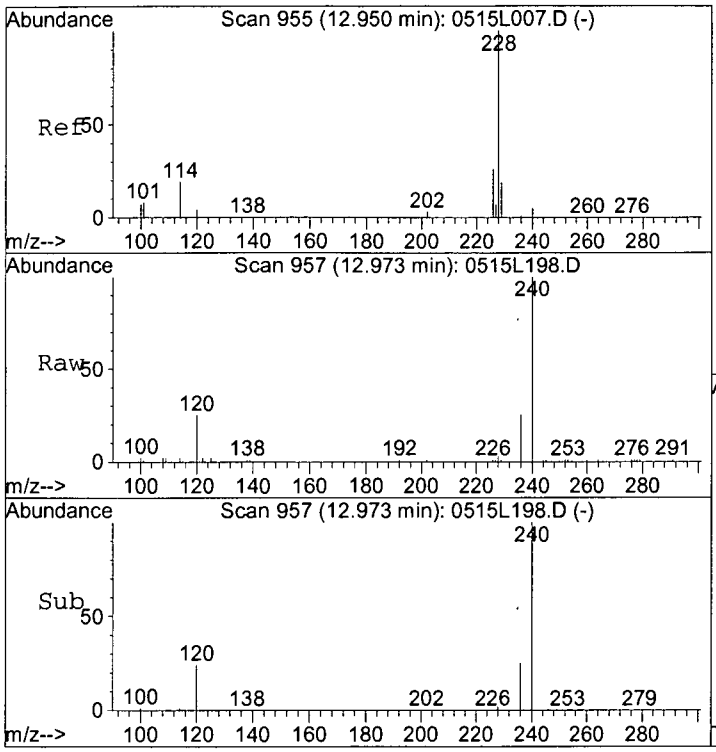


#13
Anthracene
Concen: 0.07266 ppb
RT: 9.99 min Scan# 702
Delta R.T. 0.01 min
Lab File: 0515L198.D
Acq: 27 May 15 3:11

Tgt Ion:178 Resp: 175

Ion	Ratio	Lower	Upper
178	100		
179	20.2	10.5	19.5#
176	18.2	12.0	22.4

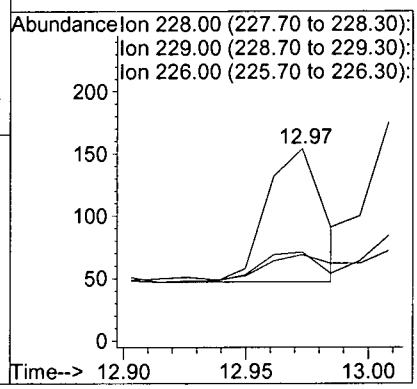




#18
Benz (a) anthracene
Concen: 0.09180 ppb
RT: 12.97 min Scan# 957
Delta R.T. 0.02 min
Lab File: 0515L198.D
Acq: 27 May 15 3:11

Tgt Ion:228 Resp: 174

Ion	Ratio	Lower	Upper
228	100		
229	16.8	13.1	24.3
226	21.5	18.3	33.9



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-MW011-051115
Sample Collection Date: 5/11/2015

ARF: 76401
APPL ID: AZ16236
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)	48.6 #	50-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	53.4	40-110			%	5/18/2015	5/27/2015
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	80.6	50-135			%	5/18/2015	5/27/2015

= Recovery (or RPD) is outside QC limits.

Quant Method: P0518-42.M
Run #: 0515L199
Instrument: Linus
Sequence: L150515
Dilution Factor: 1
Initials: DA

Printed: 6/3/2015 1:06:46 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150515\0515L199.D Vial: 99
Acq On : 27 May 15 3:37 Operator: MA
Sample : AZ16236W09 1/980 Inst : Linus
Misc : water Multiplr: 1.02

Quant Time: Jun 4 12:32 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	9546	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.17	164	4661	2.50000 ppb	0.01
11) Phenanthrene-D10(IS)	9.91	188	8154	2.50000 ppb	0.01
15) Chrysene-D12(IS)	12.97	240	8401	2.50000 ppb	0.01
21) Perylene-D12(IS)	14.59	264	5697	2.50000 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.37	82	1438	1.36165 ppb	0.01
Spiked Amount 2.551			Recovery	= 53.390%	
7) Surrogate Recovery (FBP)	7.41	172	3582	1.24120 ppb	0.01
Spiked Amount 2.551			Recovery	= 48.647%	
17) Surrogate Recovery (TPH)	11.77	244	5437	2.05633 ppb	0.00
Spiked Amount 2.551			Recovery	= 80.595%	

Target Compounds Qvalue

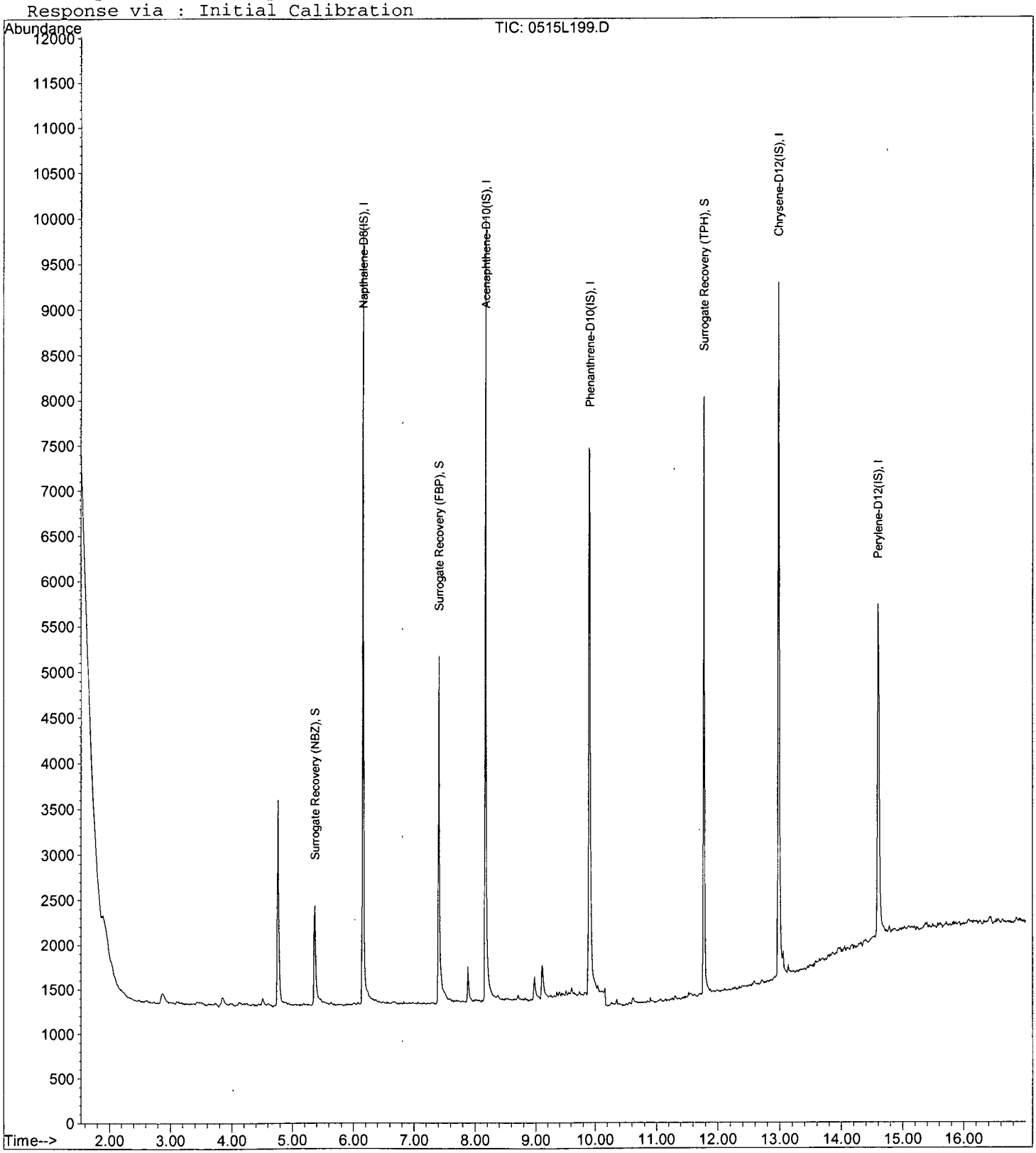
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150515\0515L199.D Vial: 99
Acq On : 27 May 15 3:37 Operator: MA
Sample : AZ16236W09 1/980 Inst : Linus
Misc : water Multiplr: 1.02

Quant Time: Jun 4 12:32 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 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: 76401
Initial Cal. Date: 5/15/2015
Instrument: Linus

Initials: HA

		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																

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

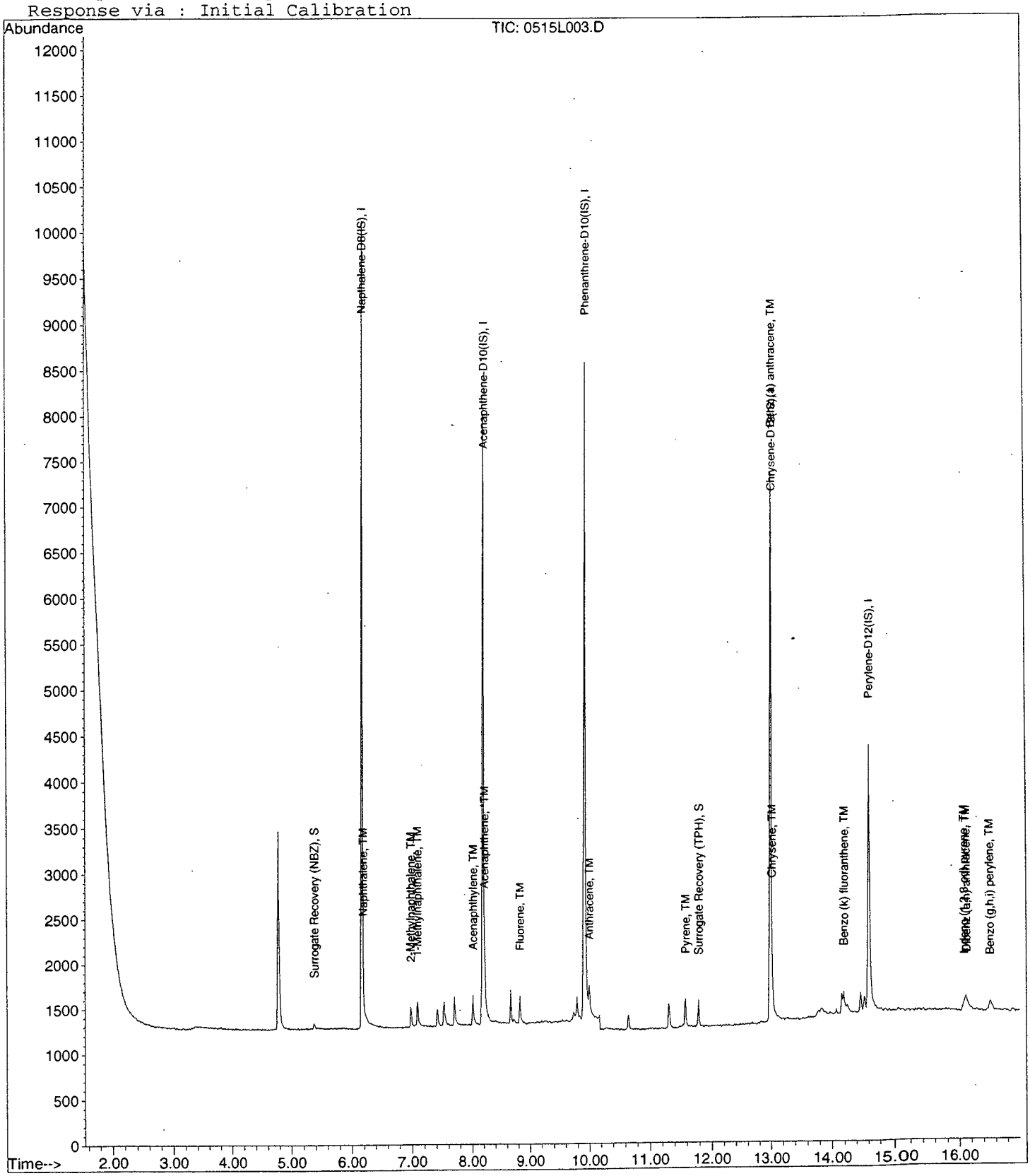
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.16	136	9762	2.50 ppb		0.00
6) Acenaphthene-D10(IS)	8.17	164	4471	2.50 ppb		0.01
11) Phenanthrene-D10(IS)	9.90	188	7606	2.50 ppb		0.00
15) Chrysene-D12(IS)	12.97	240	7218	2.50 ppb		0.01
21) Perylene-D12(IS)	14.58	264	4613	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



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150515\0515L004.D
Acq On : 15 May 15 17:41
Sample : 0.2ug/ml PAH
Misc :

Vial: 4
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	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

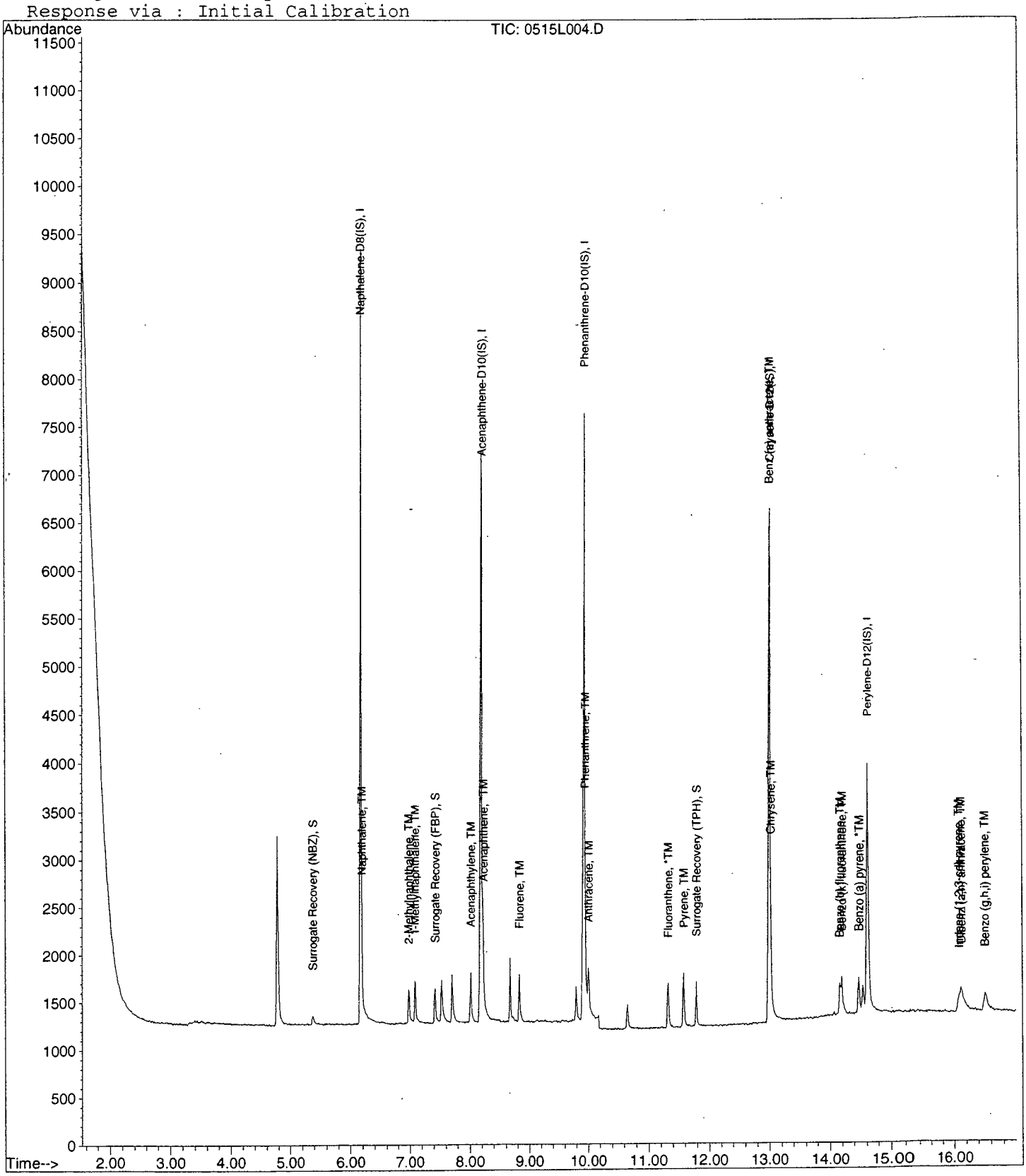
(#) = qualifier out of range (m) = manual integration

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 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

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

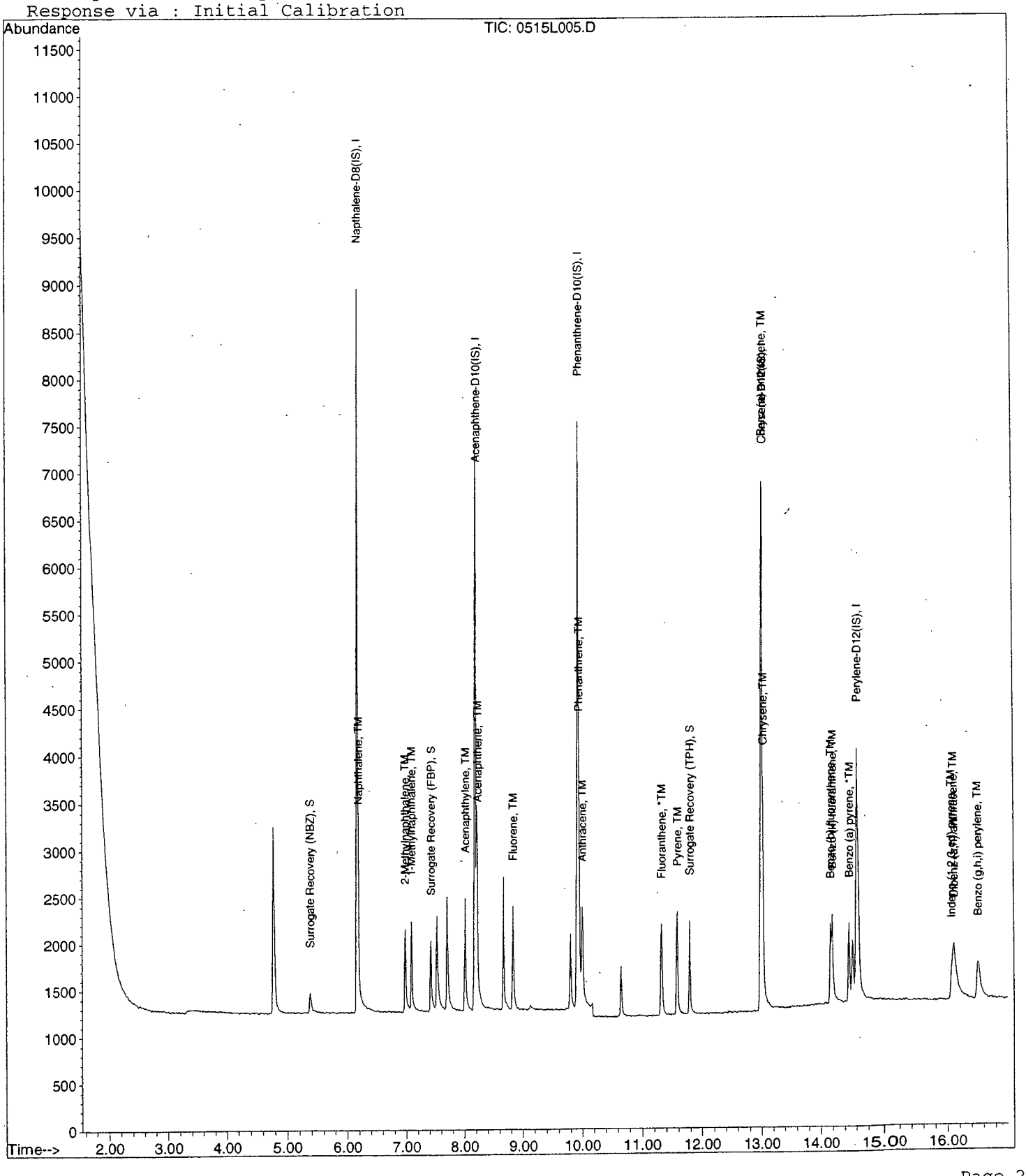
Data File : M:\LINUS\DATA\L150515\0515L005.D
Acq On : 15 May 15 18:06
Sample : 0.5ug/ml PAH
Misc :

Vial: 5
Operator: csc
Inst : Linus
Multiplr: 1.00

Quant Time: May 18 9:13 2015

Quant Results File: P0518.RES

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\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%	

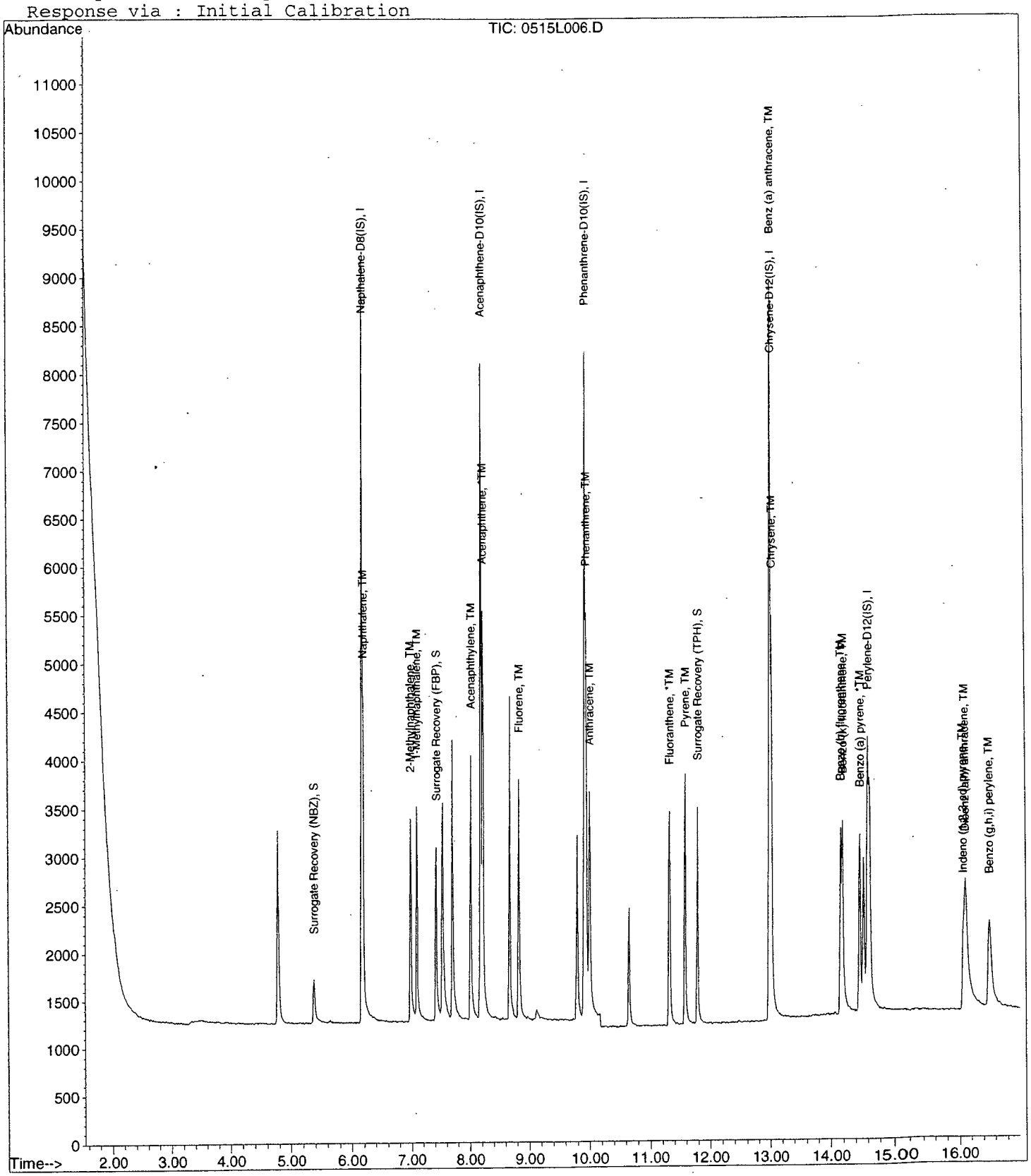
Target Compounds						Qvalue
3) Naphthalene	6.18	128	3263	1.16 ppb		99
4) 2-Methylnaphthalene	6.96	142	1868	1.34 ppb		98
5) 1-Methylnaphthalene	7.07	142	2030	1.14 ppb		96
8) Acenaphthylene	8.00	152	3106	0.91 ppb		99
9) Acenaphthene	8.19	154	1945	1.01 ppb		97
10) Fluorene	8.81	166	2003	1.02 ppb		94
12) 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

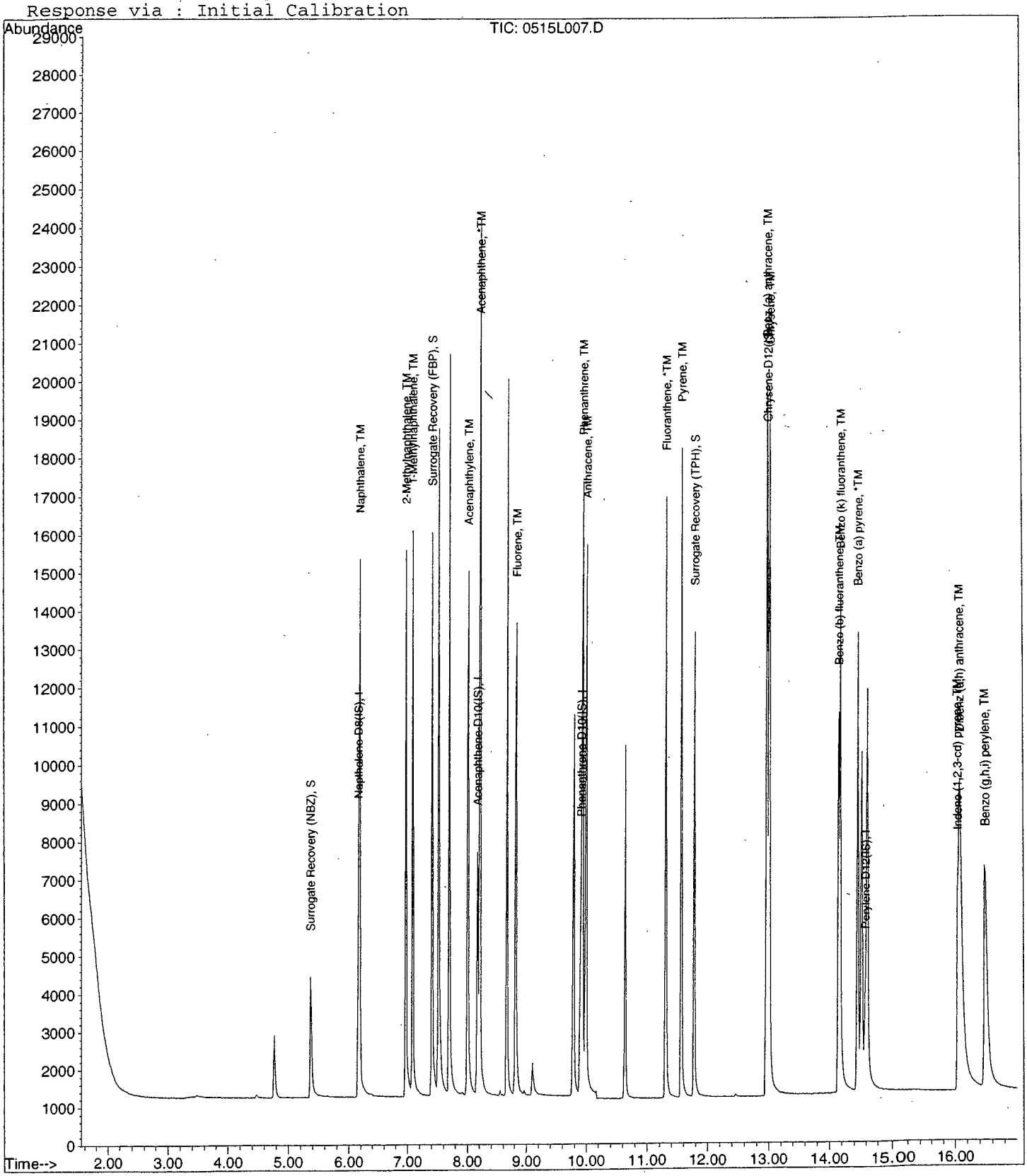
(#) = qualifier out of range (m) = manual integration

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
Acq On : 15 May 15 19:23
Sample : 10ug/ml PAH
Misc :

Vial: 8
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	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

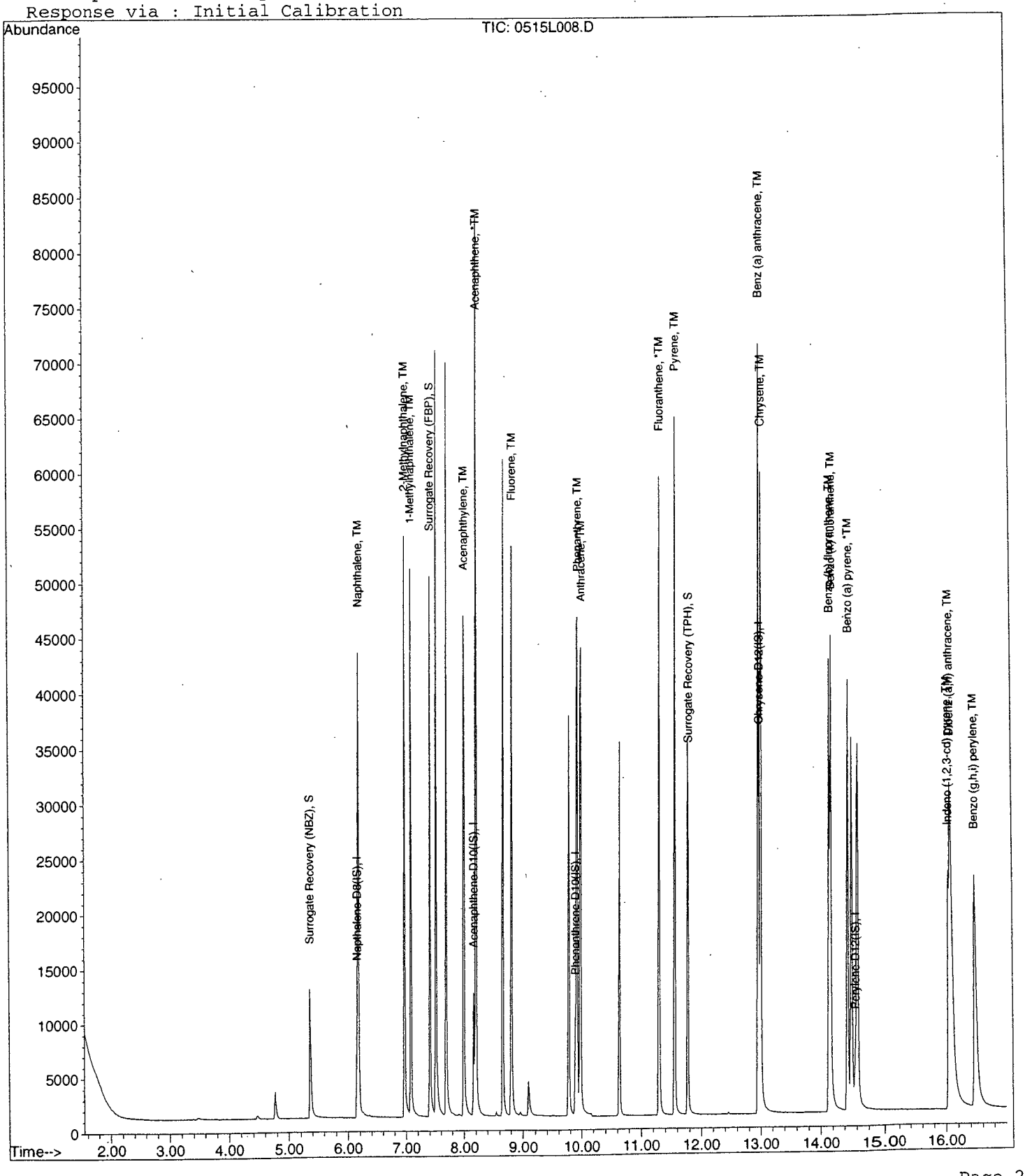
Data File : M:\LINUS\DATA\L150515\0515L008.D
Acq On : 15 May 15 19:23
Sample : 10ug/ml PAH
Misc :

Vial: 8
Operator: csc
Inst : Linus
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%	

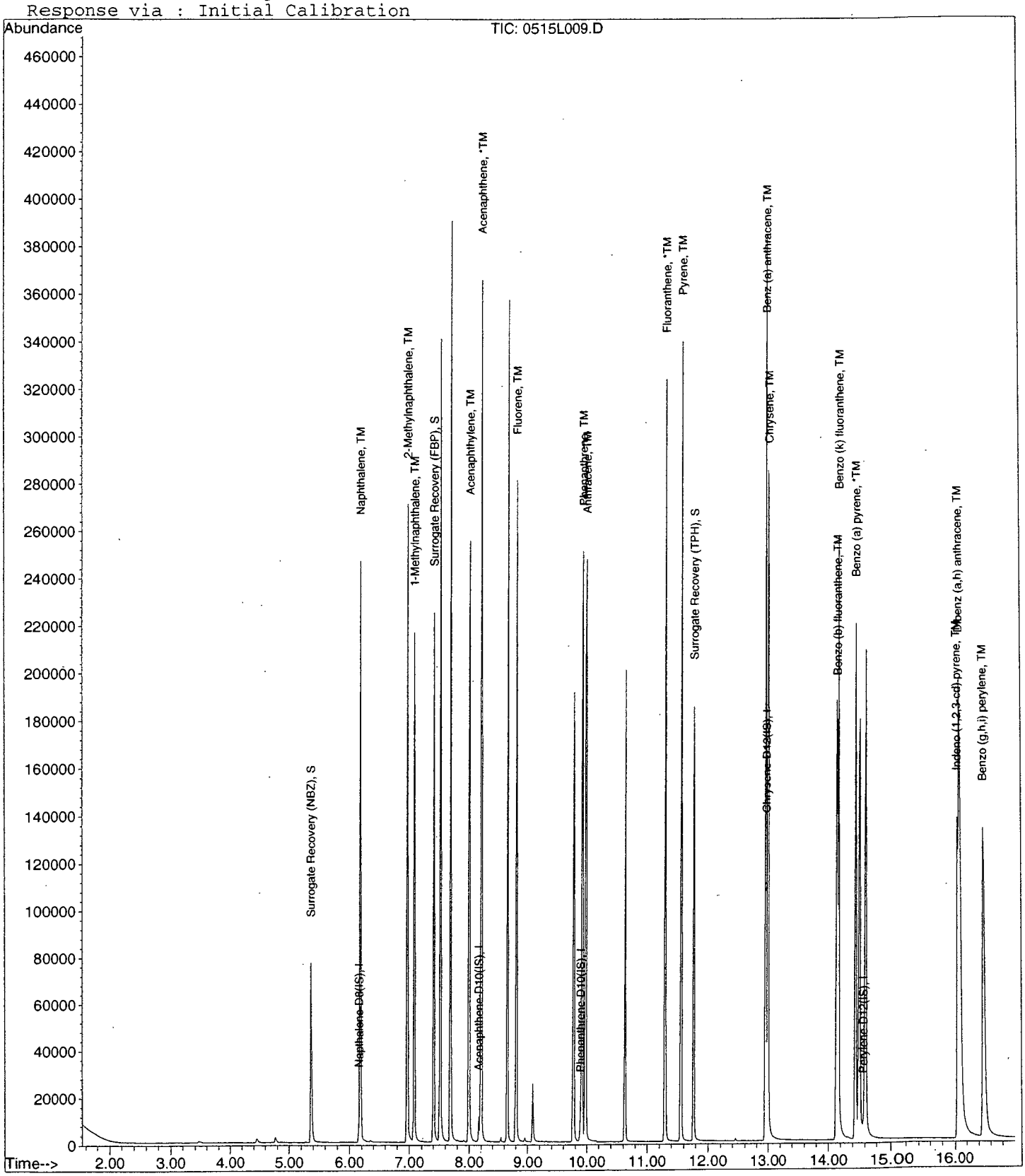
Target Compounds						Qvalue
3) Naphthalene	6.18	128	232647	52.94 ppb		100
4) 2-Methylnaphthalene	6.96	142	151960	50.80 ppb		99
5) 1-Methylnaphthalene	7.07	142	148295	52.39 ppb		99
8) Acenaphthylene	8.00	152	239701	55.40 ppb		99
9) Acenaphthene	8.19	154	138275	53.52 ppb		98
10) Fluorene	8.80	166	154069	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%	

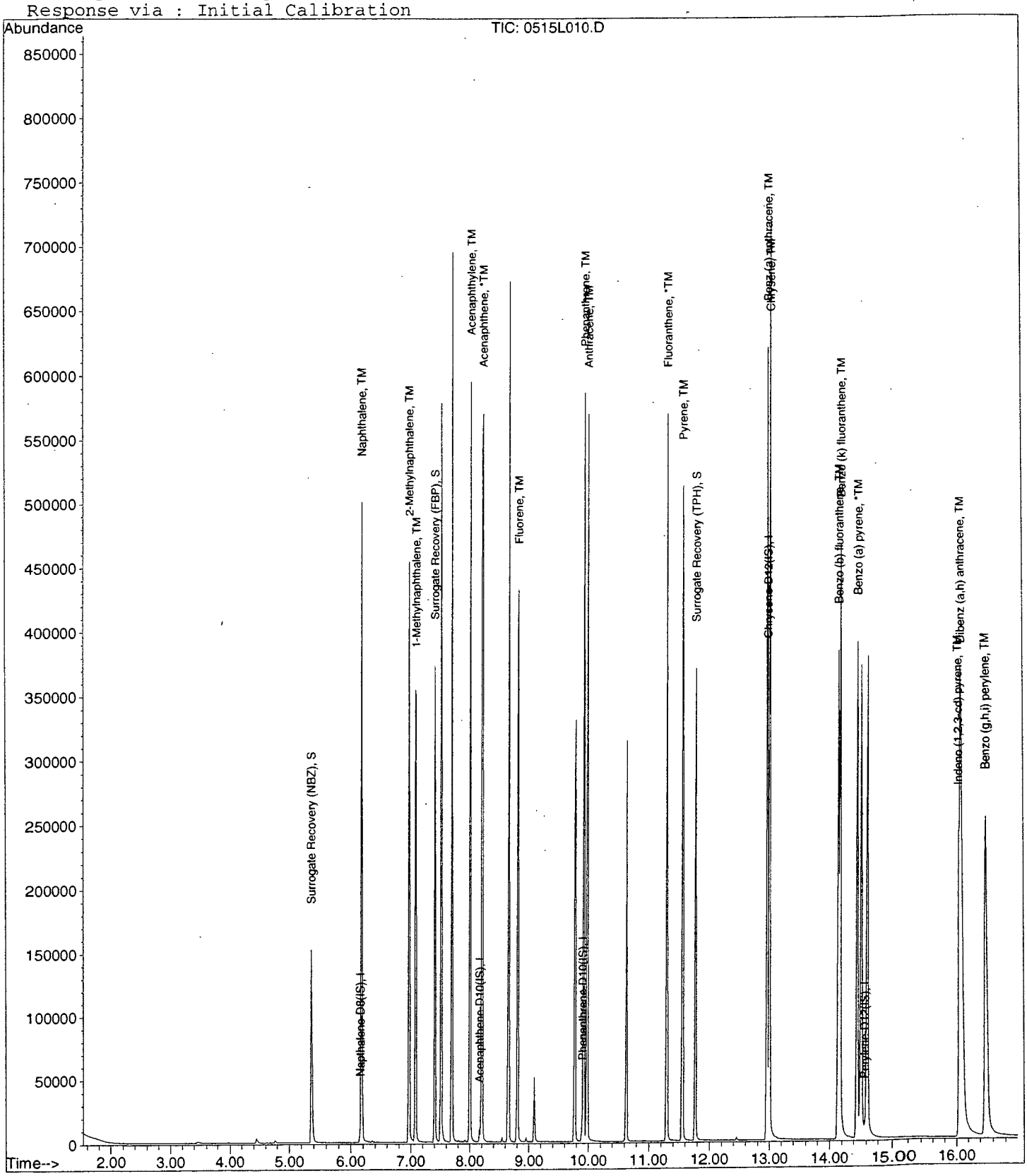
Target Compounds						Qvalue
3) Naphthalene	6.18	128	450212	98.96 ppb		99
4) 2-Methylnaphthalene	6.96	142	289899	98.68 ppb		99
5) 1-Methylnaphthalene	7.08	142	281266	98.57 ppb		89
8) Acenaphthylene	8.00	152	465419	99.67 ppb		99
9) Acenaphthene	8.21	154	267375	99.59 ppb		90
10) Fluorene	8.81	166	292349	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: 76401
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
Acq On : 15 May 15 20:40
Sample : 5.0ug/ml PAH SS 05/15/15
Misc :

Vial: 11
Operator: csc
Inst : Linus
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

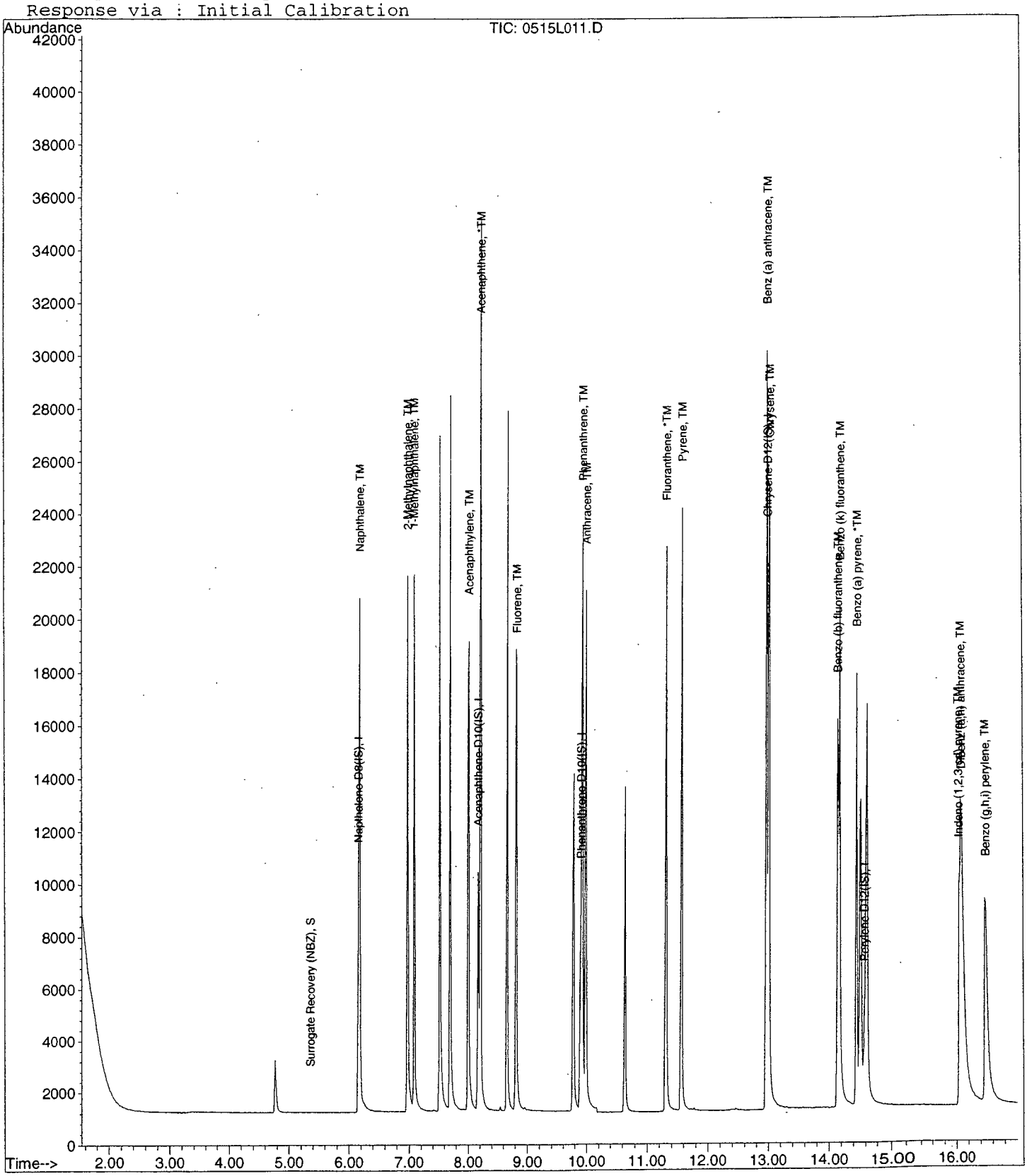
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.16	136	9571	2.50 ppb		0.00
6) Acenaphthene-D10(IS)	8.16	164	4405	2.50 ppb		0.00
11) Phenanthrene-D10(IS)	9.90	188	7622	2.50 ppb		0.00
15) Chrysene-D12(IS)	12.96	240	7750	2.50 ppb		0.00
21) Perylene-D12(IS)	14.57	264	4908	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

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: 76401
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	
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		

*NT HA 6/9/15

FORM75

APPL 6/3/2015 1:27 PM

Quantitation Report (QT Reviewed)

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

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

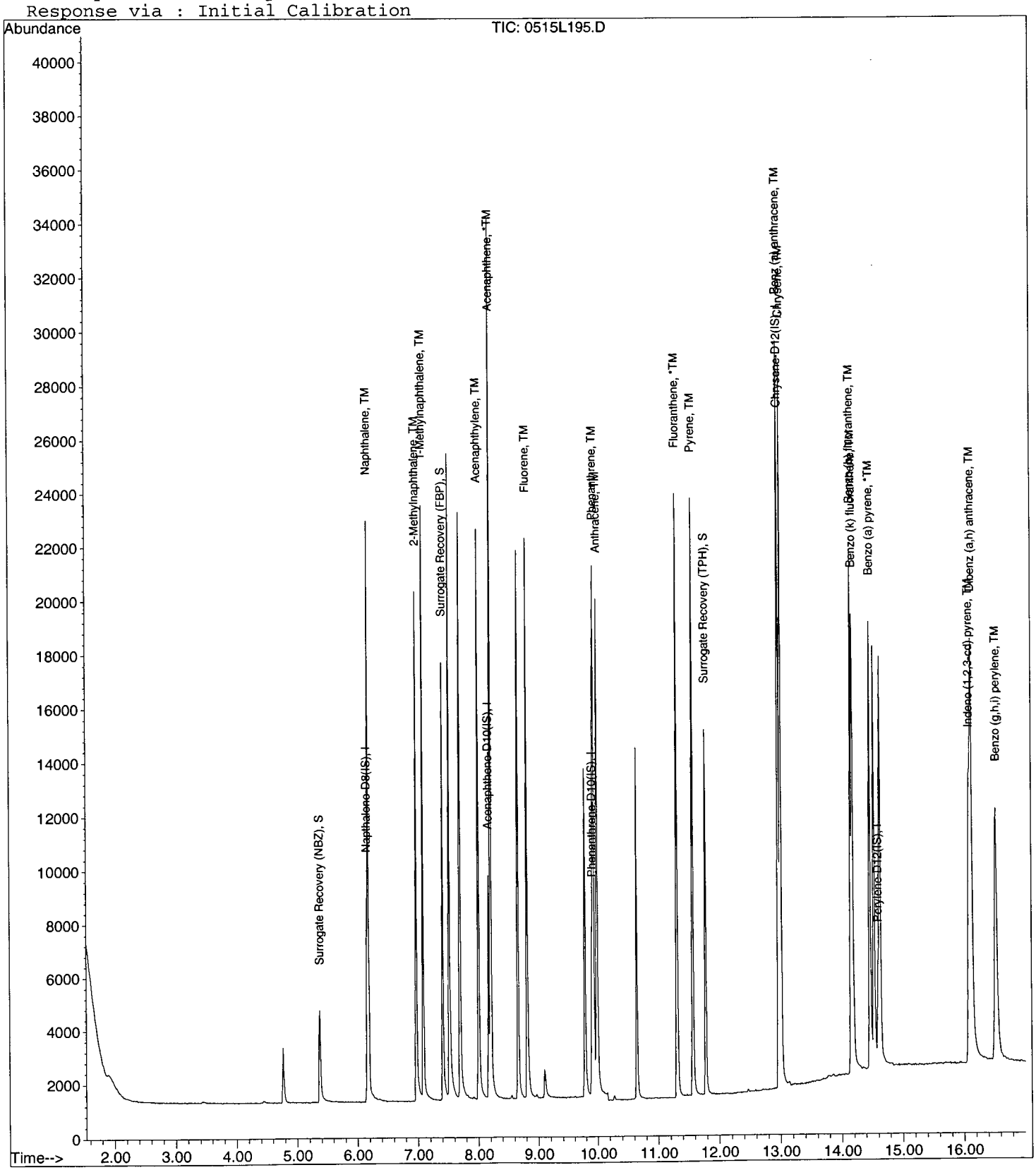
(#) = qualifier out of range (m) = manual integration

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

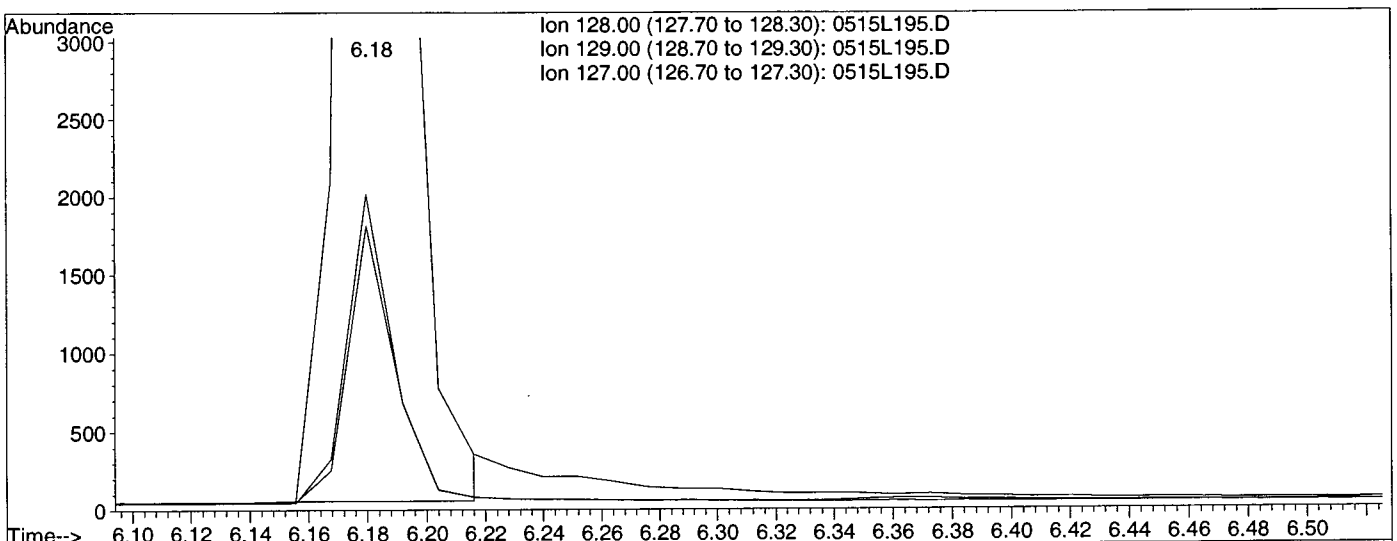
Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270
Last Update : Wed May 27 13:24:37 2015
Response via : Initial Calibration

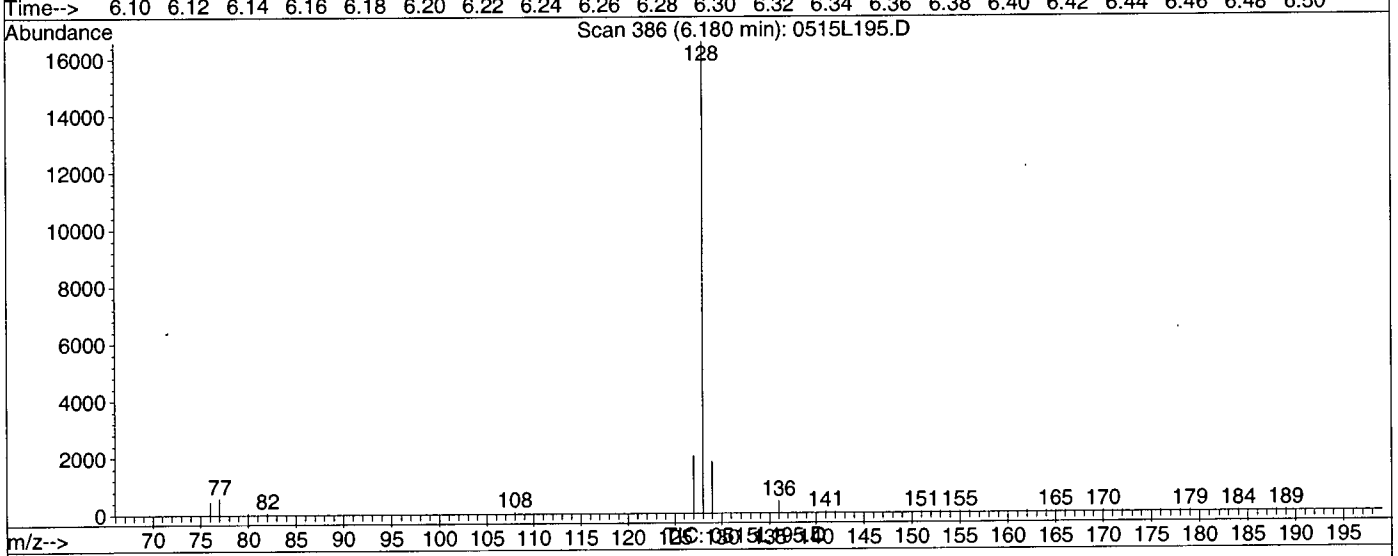


Quantitation Report

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

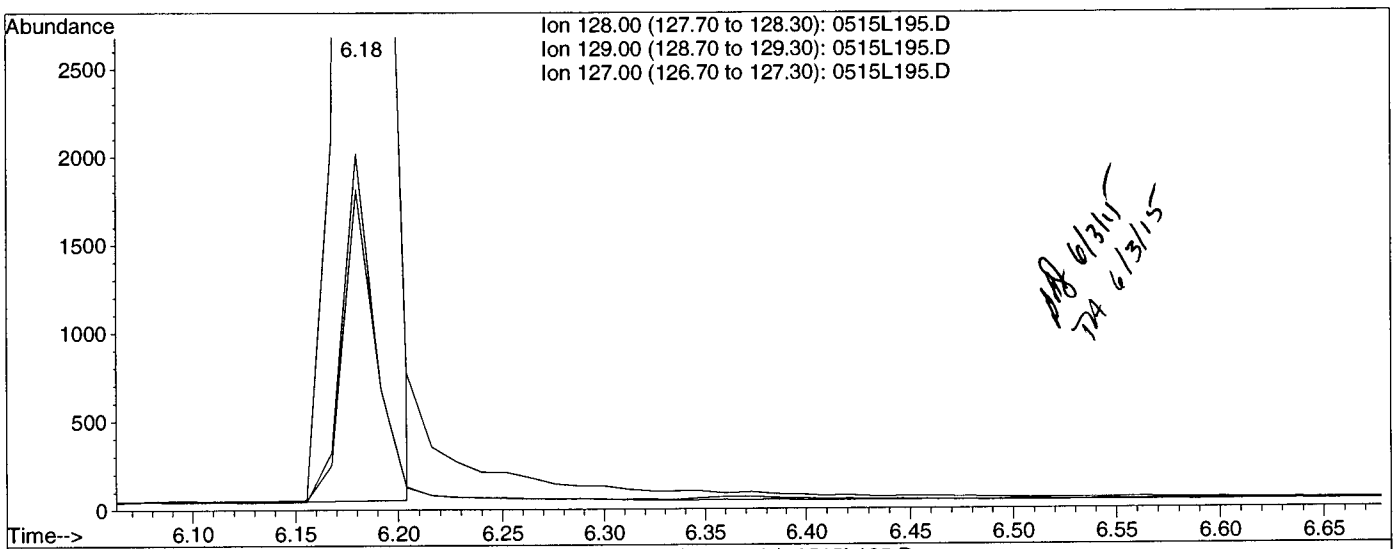
Ion	Exp%	Act%
128.00	100	100
129.00	11.20	10.67
127.00	11.40	11.94
0.00	0.00	0.00

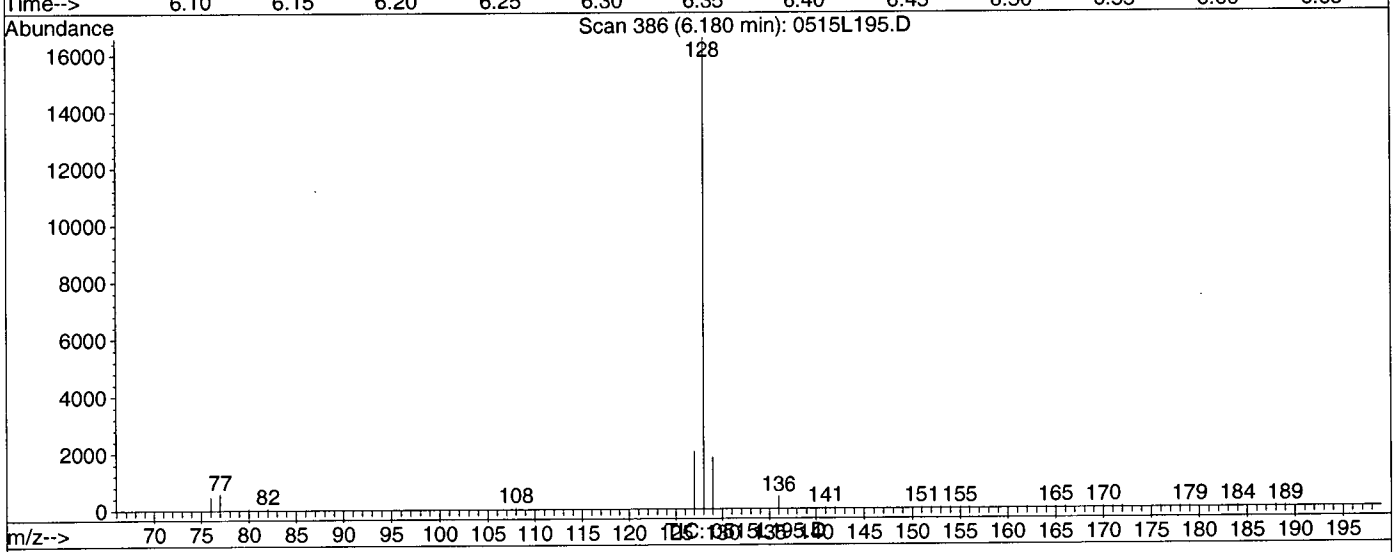
0515L195.D P0518-42.M Wed Jun 03 13:24:41 2015

Quantitation Report

Data File : M:\LINUS\DATA\L150515\0515L195.D 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: 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 1:07:06 PM

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150515\0515L196.D
Acq On : 27 May 15 2:19
Sample : 150518A BLK 1/1000
Misc : water

Vial: 96
Operator: MA
Inst : Linus
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

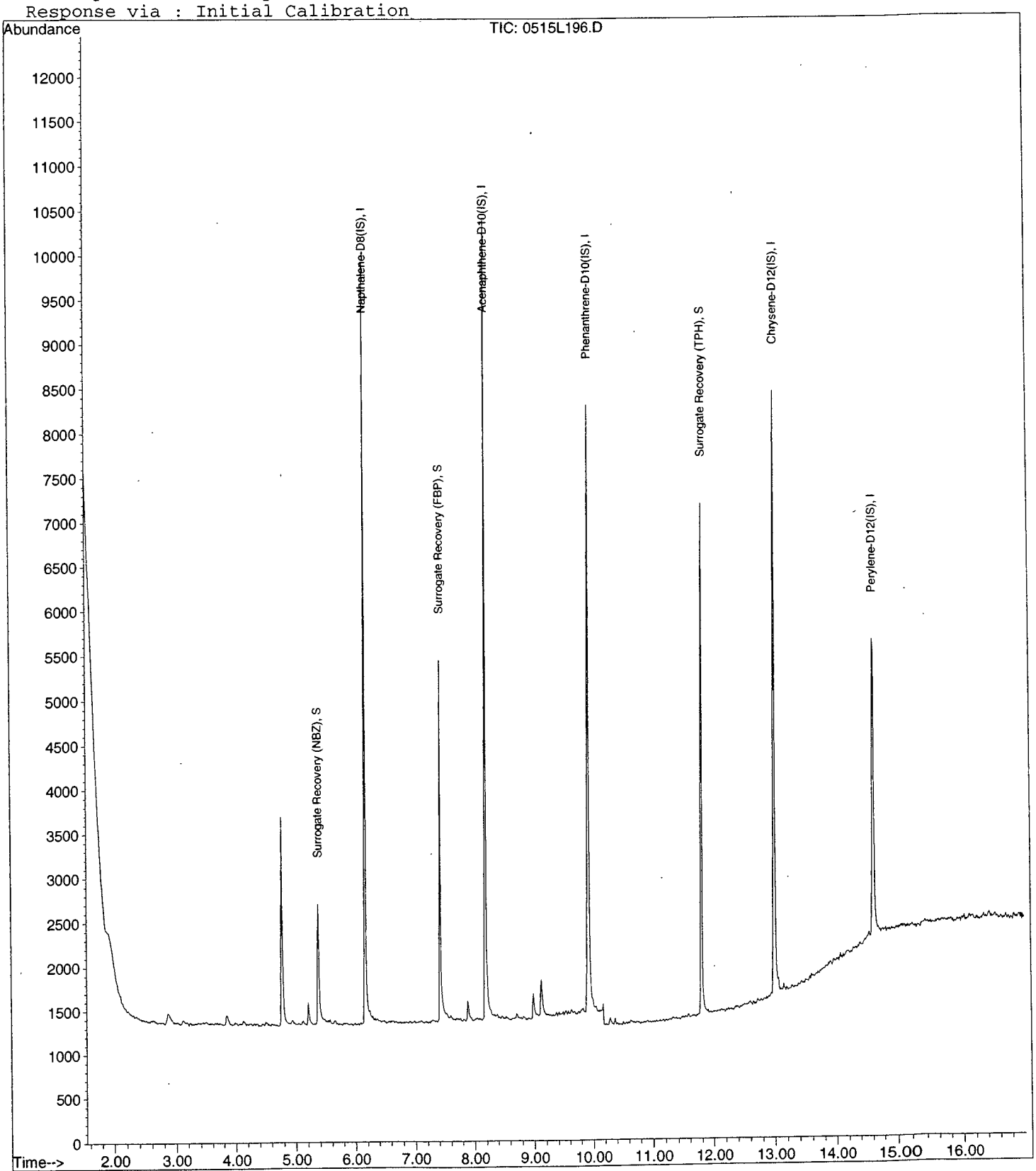
Data File : M:\LINUS\DATA\L150515\0515L196.D
Acq On : 27 May 15 2:19
Sample : 150518A BLK 1/1000
Misc : water

Vial: 96
Operator: MA
Inst : Linus
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



0515L196.D P0518-42.M Wed Jun 03 13:33:42 2015

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 1:06:56 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
0515L197.D P0518-42.M Wed Jun 03 13:33:35 2015

Quantitation Report

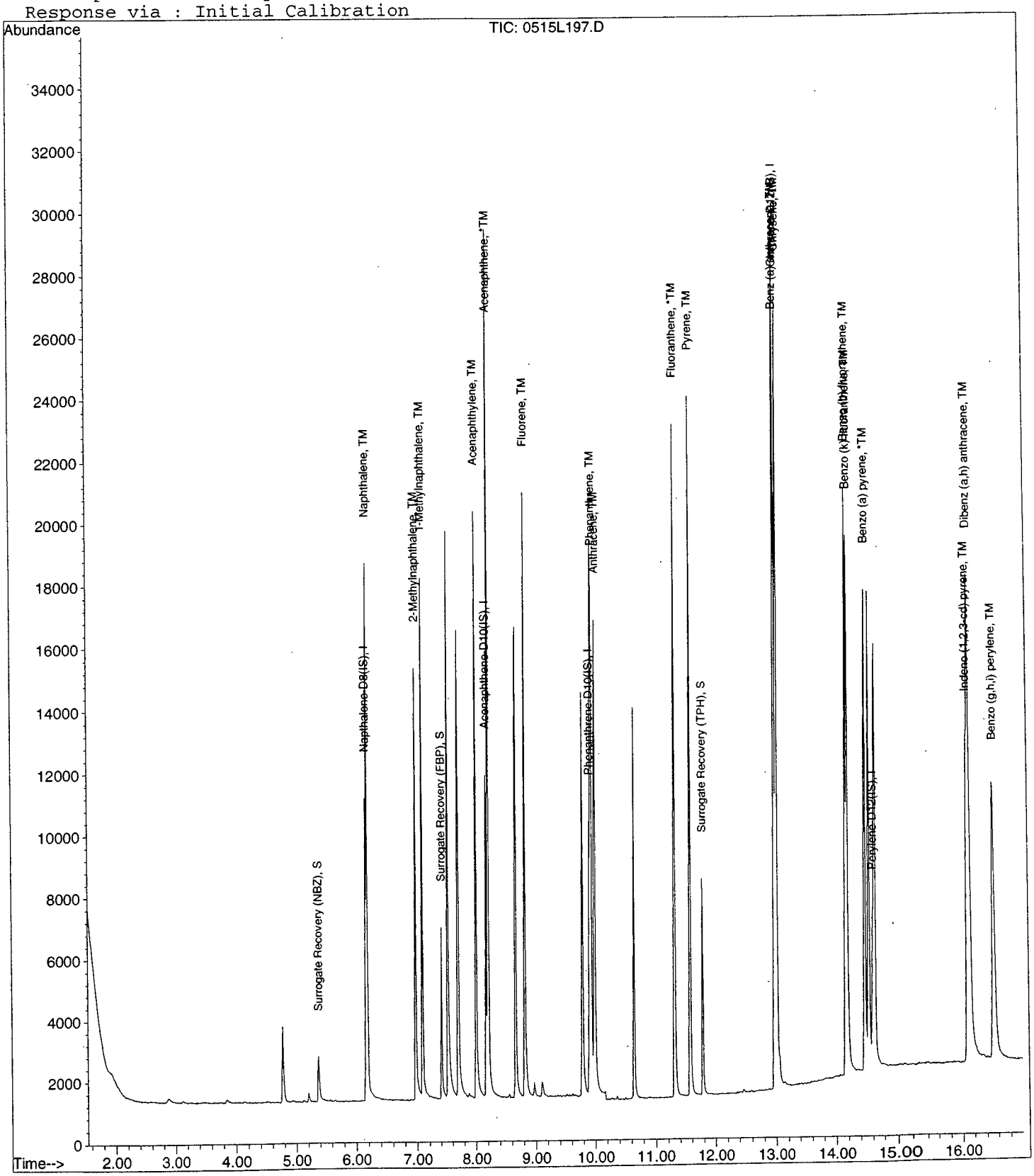
Data File : M:\LINUS\DATA\L150515\0515L197.D
Acq On : 27 May 15 2:45
Sample : 150518A LCS-1 1/1000
Misc : water

Vial: 97
Operator: MA
Inst : Linus
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

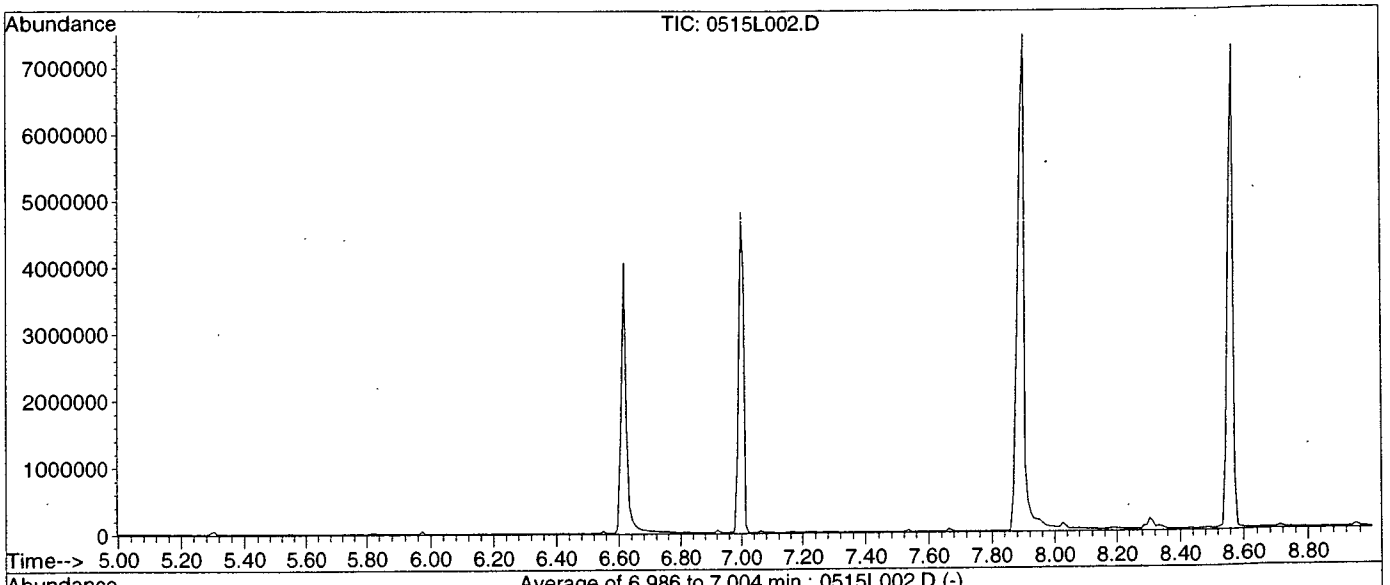


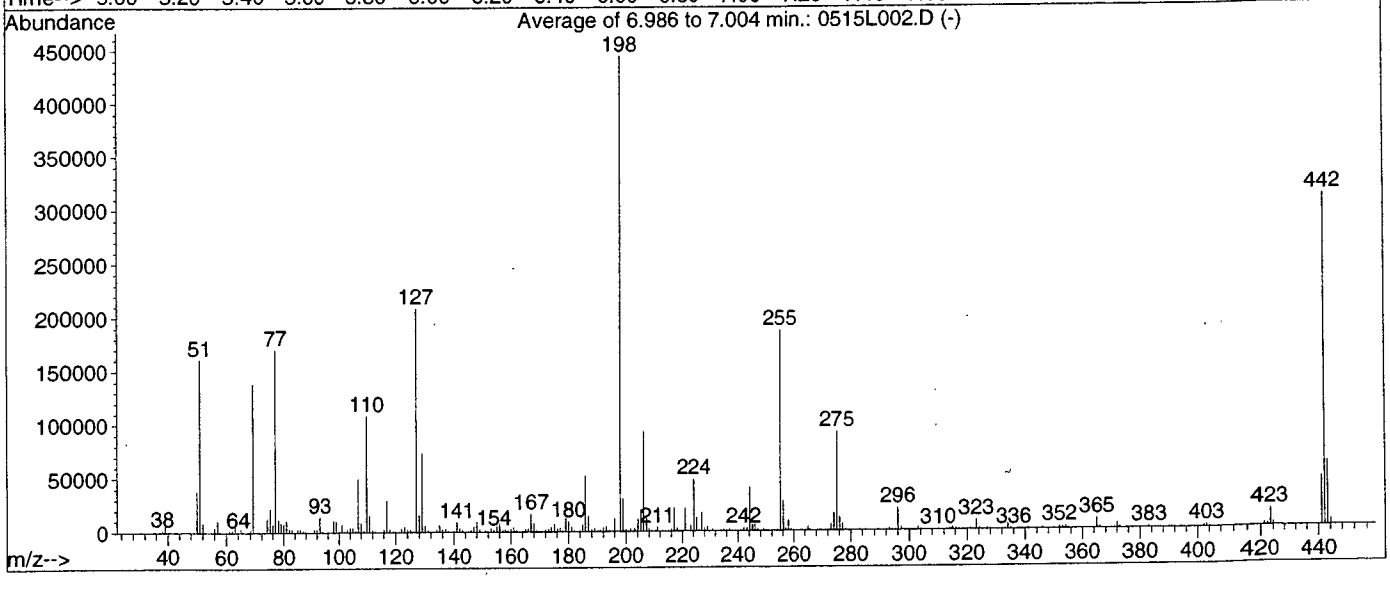
0515L197.D P0518-42.M Wed Jun 03 13:33:35 2015

DFTPP

Data File : M:\LINUS\DATA\L150515\0515L002.D Vial: 2
Acq On : 15 May 15 16:56 Operator: csc
Sample : SV Tune 05/14/15 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L150515\P0518-42.M (RTE Integrator)
Title : EPA 8270





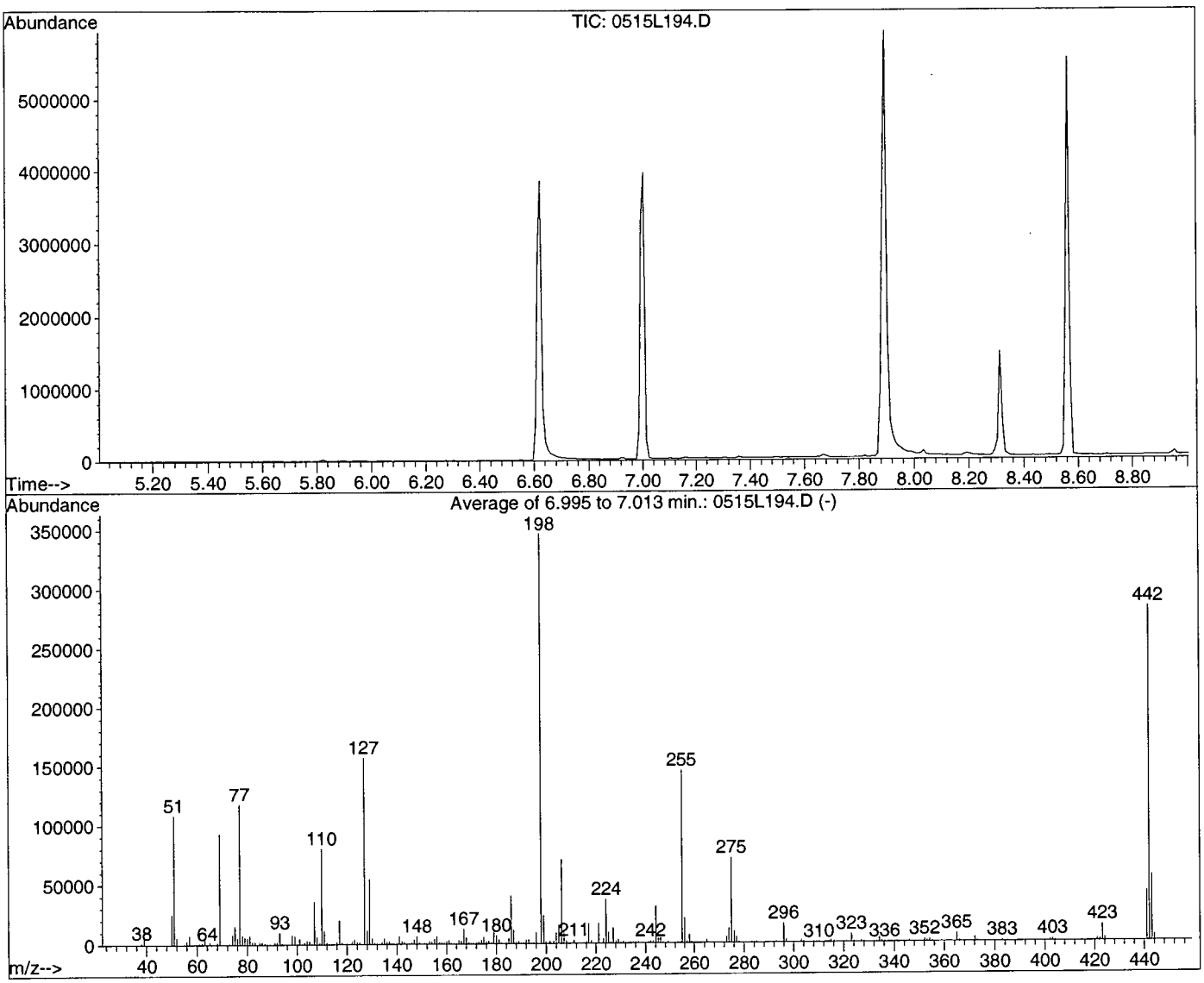
AutoFind: Scans 475, 476, 477; Background Corrected with Scan 472

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

DFTPP

Data File : M:\LINUS\DATA\L150515\0515L194.D Vial: 94
Acq On : 27 May 15 1:35 Operator: MA
Sample : SV TUNE 5/14/15 Inst : Linus
Misc : 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

0515L194.D P0518-42.M Wed Jun 03 13:19:20 2015

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 # 230271 Storage ≤ -10 °C Expiry 8/Jun/2016
Solv: Methylene Chloride

8270D PAH SIM
Lot #: 230271 - 34569
Rec: 1/13/15 MFR exp. 6/8/16

Recieved: 01/13/15
Opened: 02/27/15
Expired: 06/8/16

02/27/15
CSC

8270 BN:A (200:400) Surrogate Solution, 1 mL
110804-17
Lot # 237956 Storage ≤ -10 °C Expiry 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 CRM48902
Lot: XA10079V EXP: SEP/2017 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

Recieved: 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, Second Source, 200 mg/L, 1 mL
110780-01-SS
Lot # 243252 Storage ≤-10 °C Expiry 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 aceto
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

02/27/15 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

02/27/15 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

02/26/15 CSC

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

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				
	Conc.	Conc.	Aliqout	OCK SOUIR	Final Vol.
	in mix	In Stock			Solvent
Analytes:	(ug/ml)	(ug/ml)	(uL)	O2SI	(ml)
Dalapon	12.8	64	1000	AT: 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
1	150518A Blk				0.0250	1 equip	1000 E-WB6	1	2/1	05/18/15 10:25	
2	150518A LCS-1		0.0250	1	0.0250	1 equip	1000 E-WB6	1	2/1	05/18/15 10:25	
3	AZ16235	AZ16235W10			0.0250	1 equip	850 E-WB6	1	2/1	05/18/15 10:25	76401
4	AZ16236	AZ16236W09			0.0250	1 equip	980 E-WB6	1	2/1	05/18/15 10:25	76401
5	AZ16287 MS-1	AZ16287W22	0.0250	1	0.0250	1 equip	980 E-WB6	1	2/1	05/18/15 10:25	76413
6	AZ16287 MSD-1	AZ16287W20	0.0250	1	0.0250	1 equip	980 E-WB6	1	2/1	05/18/15 10:25	76413
7	AZ16287	AZ16287W19			0.0250	1 equip	900 E-WB6	1	2/1	05/18/15 10:25	76413
8	AZ16288	AZ16288W08			0.0250	1 equip	950 E-WB6	1	2/1	05/18/15 10:25	76413
9	AZ16289	AZ16289W08			0.0250	1 equip	900 E-WB6	1	2/1	05/18/15 10:25	76413
10	AZ16290	AZ16290W07			0.0250	1 equip	940 E-WB6	1	2/1	05/18/15 10:25	76413
11	AZ16334	AZ16334W09			0.0250	1 equip	940 E-WB7	1	2/1	05/18/15 10:25	76424
12	AZ16335	AZ16335W10			0.0250	1 equip	980 E-WB7	1	2/1	05/18/15 10:25	76424
13	AZ16336	AZ16336W09			0.0250	1 equip	980 E-WB7	1	2/1	05/18/15 10:25	76424
14	AZ16337	AZ16337W09			0.0250	1 equip	1070 E-WB7	1	2/1	05/18/15 10:25	76424
15	AZ16338	AZ16338W09			0.0250	1 equip	1050 E-WB7	1	2/1	05/18/15 10:25	76424
16	AZ16339	AZ16339W10			0.0250	1 equip	1050 E-WB7	1	2/1	05/18/15 10:25	76424

olvent and Lot#	
C	55006
a2SO4	XE21E
N NaOH	3-6-15
-1 Acid	3-6-15
Na2SO4	4-13-15
strips	HC421273
lter 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 147795

_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

Ivent 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

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	98	0515L198.D	1.17647	AZ16235W10 1/850	water	05/27/2015 03:11
16	99	0515L199.D	1.02041	AZ16236W09 1/980	water	05/27/2015 03:37

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: **150520W-16235 - 197504**
Batch ID: #RSK-150520A1

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	05/20/15	05/20/15
BLANK	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/20/15	05/20/15
BLANK	METHANE	0.45 U	1.0	0.45	0.25	ug/L	05/20/15	05/20/15

Quant Method: 402RSK.M
Run #: 0520F006
Instrument: Frodo
Sequence: 150520
Initials: SD

GC SC-Blank-REG MDLs
Printed: 06/11/15 4:00:46 PM

Laboratory Control Spike Recovery

RSK 175

APPL ID: **150520W-16235 LCS - 197504**
Batch ID: #RSK-150520A1

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	21.6	86.4	70-130
ETHENE	23.3	19.3	82.8	70-130
METHANE	13.3	15.6	117	70-130

Comments:

Primary	SPK
Quant Method :	402RSK.M
Extraction Date :	05/20/15
Analysis Date :	05/20/15
Instrument :	Frodo
Run :	0520F005
Initials :	RSA

Printed: 06/11/15 4:00:36 PM
APPL Standard LCS

RSK 175

Form 4

Blank Summary

Lab Name: APPL, Inc.
SDG No: 76401
Case No: 76401
Date Analyzed: 05/20/15
Matrix: WATER
Instrument: Frodo
Blank ID: 150520A1-BLK
Time Analyzed: 1132

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150520A1-LCS	Lab Control Spike	0520F005	05/20/15 1115
150520A1-BLK	Blank	0520F006	05/20/15 1132
AZ16235	S67-MW012-051115	0520F007	05/20/15 1138
AZ16236	S67-MW011-051115	0520F008	05/20/15 1144

Comments: Batch: #RSK-150520A1

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

ARF: 76401

Sample ID: S67-MW012-051115

APPL ID: AZ16235

Sample Collection Date: 05/11/15

QCG: #RSK-150520A1-197504

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	05/20/15	05/20/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/20/15	05/20/15
RSK 175	METHANE	53	1.0	0.45	0.25	ug/L	05/20/15	05/20/15

Quant Method: 402RSK.M
Run #: 0520F007
Instrument: Frodo
Sequence: 150520
Dilution Factor: 1
Initials: RSA

Printed: 06/11/15 4:00:41 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150520\0520F007.D Vial: 7
Acq On : 20 May 2015 11:38 Operator: SD
Sample : AZ16235W01 Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 20 11:42 2015 Quant Results File: 402RSK.RES

Method : V:\FRODO\DATA\150520\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed May 20 10:29:31 2015
Response via : Multiple Level Calibration

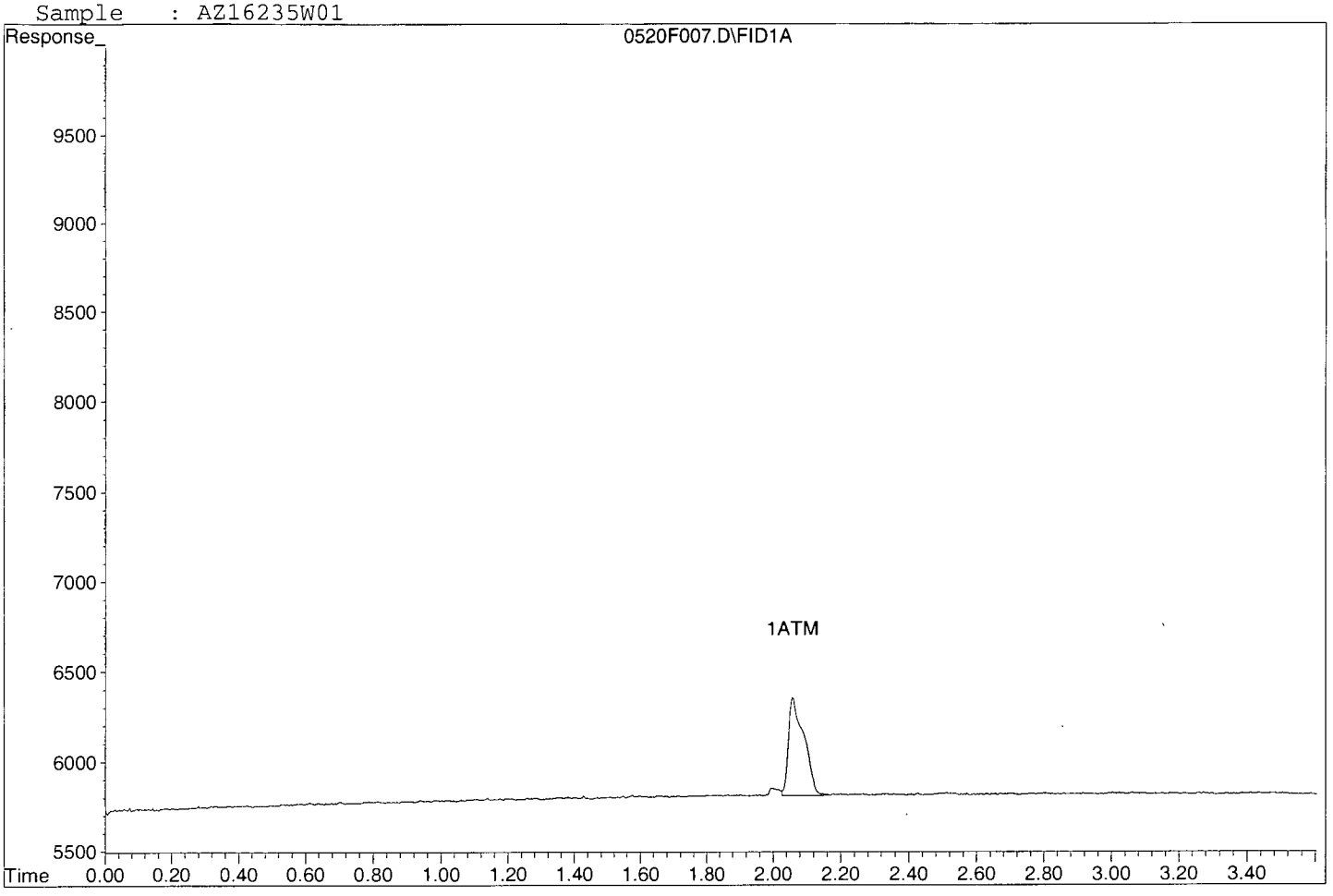
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.06	17509	52.900 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
0520F007.D 402RSK.M Wed May 20 13:32:41 2015 Page 1

Quantitation Report

Data File: V:\FRODO\DATA\150520\0520F007.D
Sample : AZ16235W01



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

ARF: 76401

Sample ID: S67-MW011-051115

APPL ID: AZ16236

Sample Collection Date: 05/11/15

QCG: #RSK-150520A1-197504

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	05/20/15	05/20/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/20/15	05/20/15
RSK 175	METHANE	19	1.0	0.45	0.25	ug/L	05/20/15	05/20/15

Quant Method: 402RSK.M
Run #: 0520F008
Instrument: Frodo
Sequence: 150520
Dilution Factor: 1
Initials: RSA

Printed: 06/11/15 4:00:41 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150520\0520F008.D Vial: 8
Acq On : 20 May 2015 11:44 Operator: SD
Sample : AZ16236W01 Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 20 11:48 2015 Quant Results File: 402RSK.RES

Method : V:\FRODO\DATA\150520\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed May 20 10:29:31 2015
Response via : Multiple Level Calibration

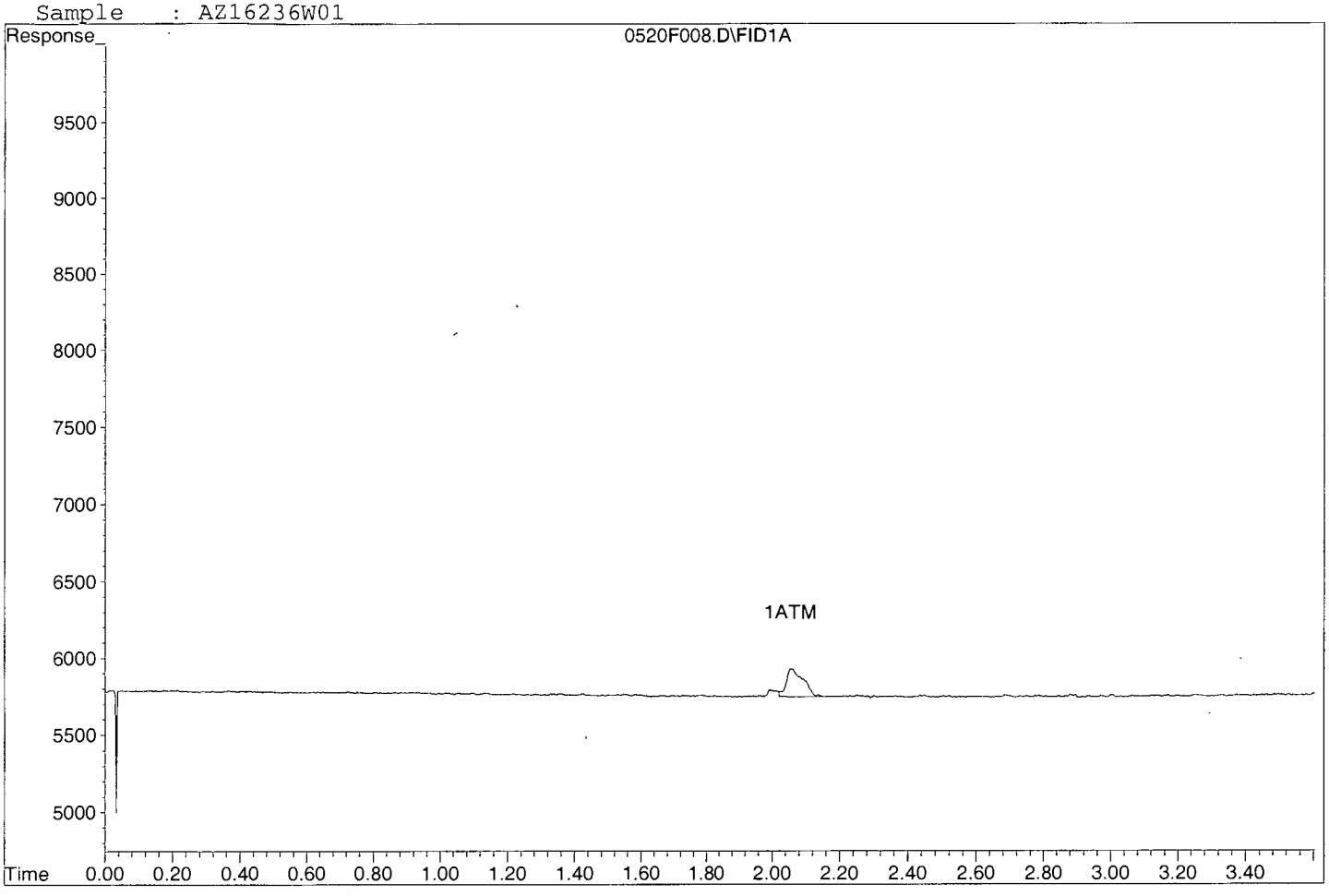
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.06	6422	19.403 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
0520F008.D 402RSK.M Wed May 20 13:32:54 2015 Page 1

Quantitation Report

Data File: V:\FRODO\DATA\150520\0520F008.D
Sample : AZ16236W01



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	
4																
5																
6																
7																
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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

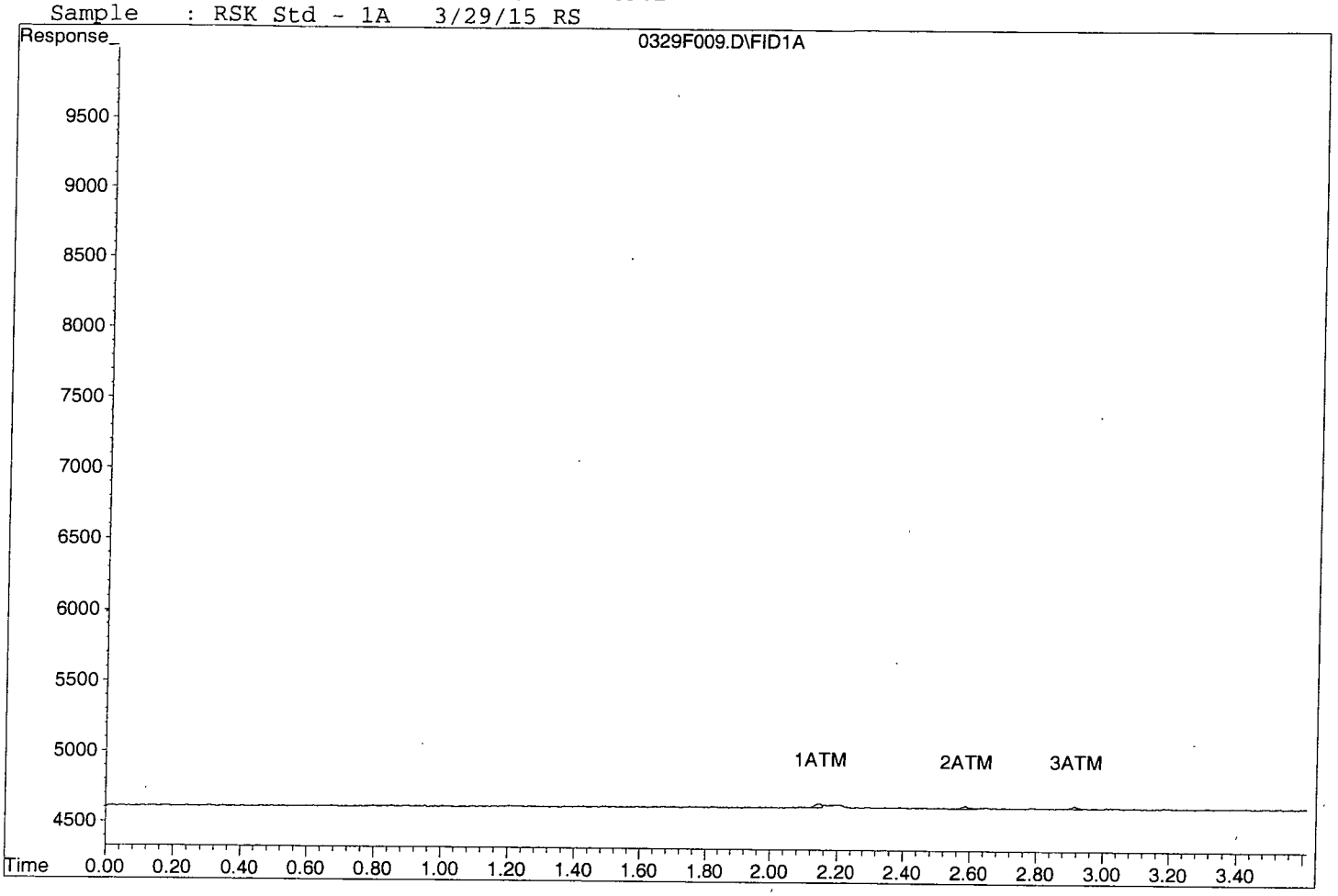
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

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.

Quantitation Report

Data File: V:\FRODO\DATA\150329\0329F009.D
Sample : RSK Std - 1A 3/29/15 RS

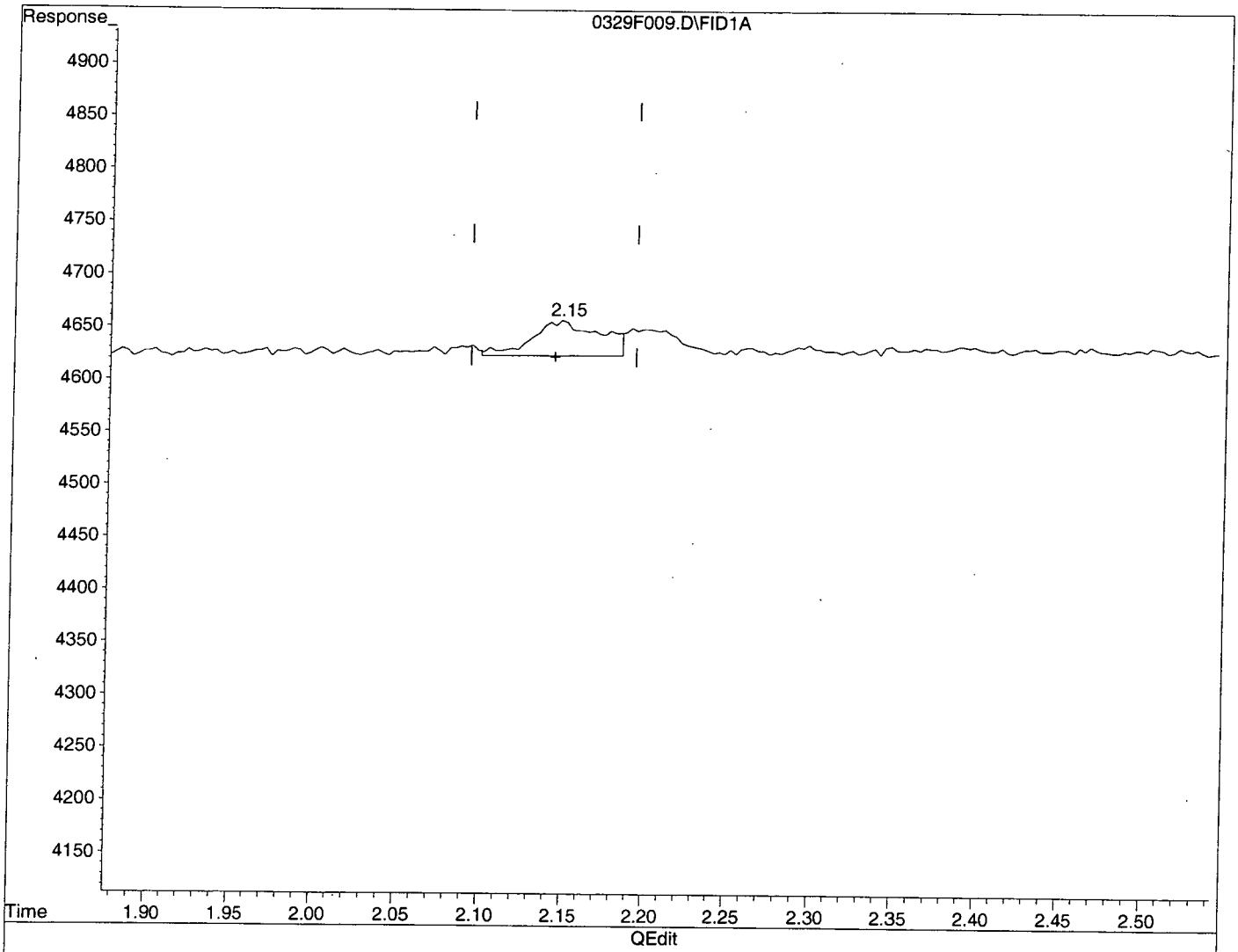


Quantitation Report

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

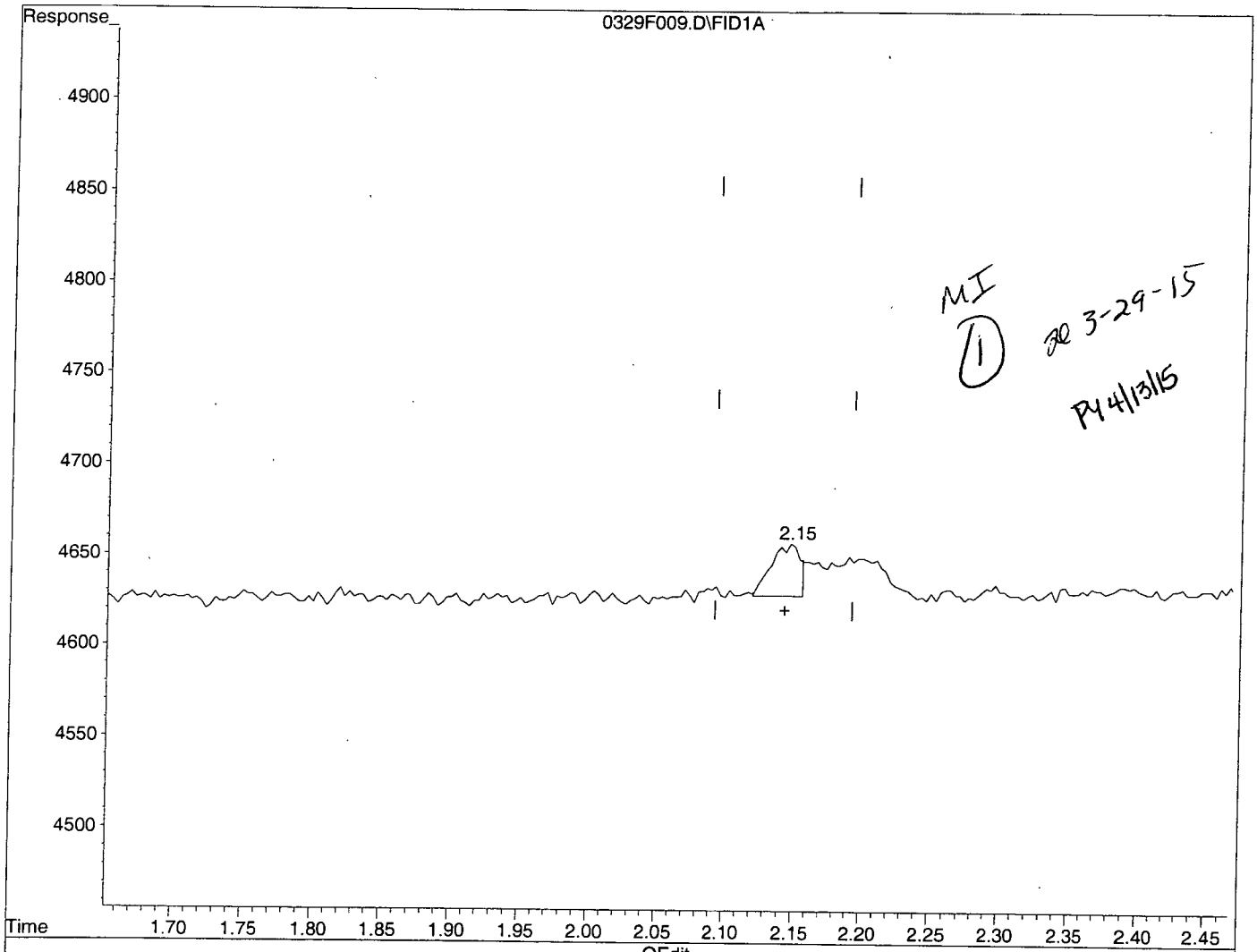
(+) = Expected Retention Time

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

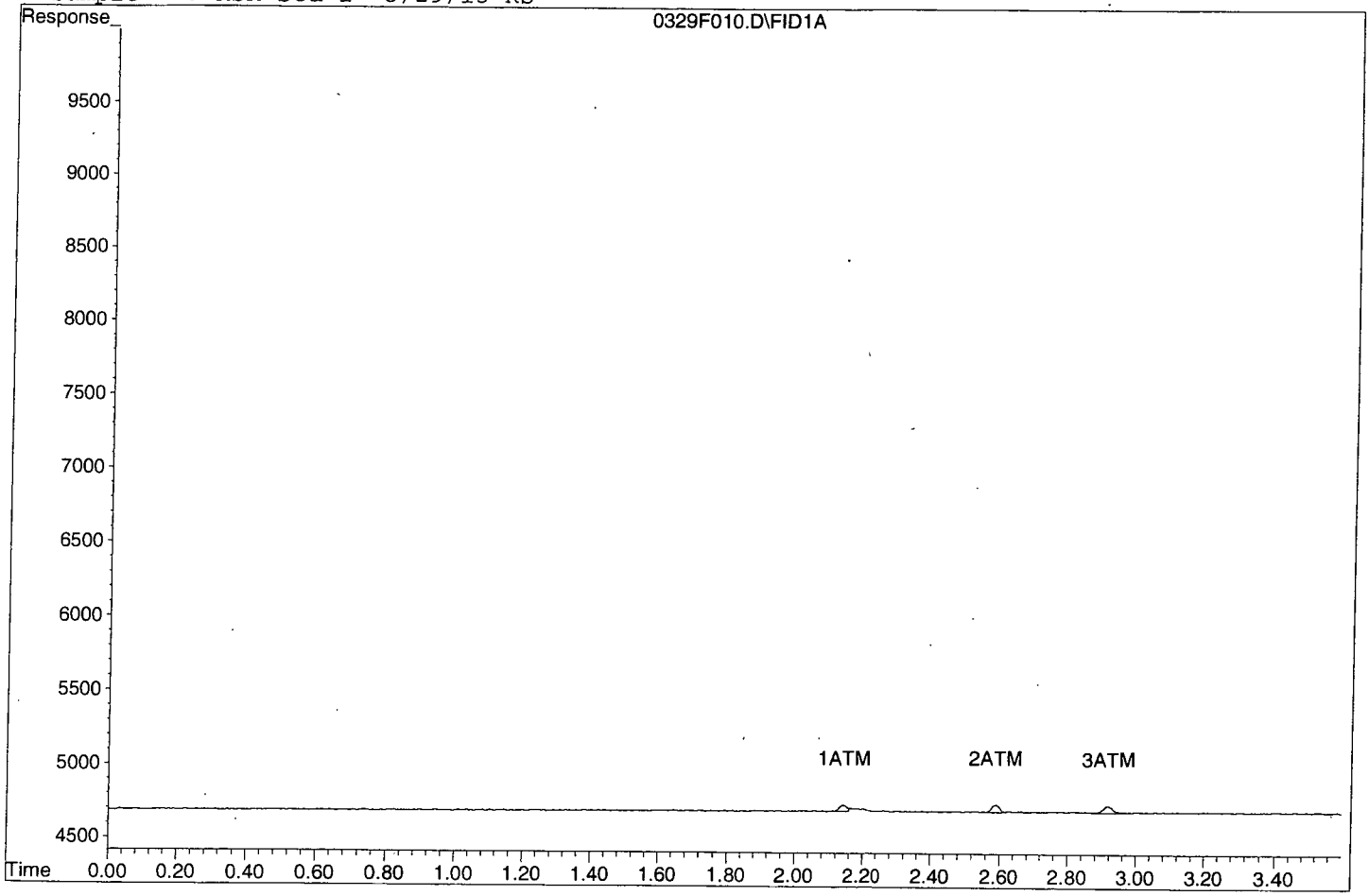
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

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

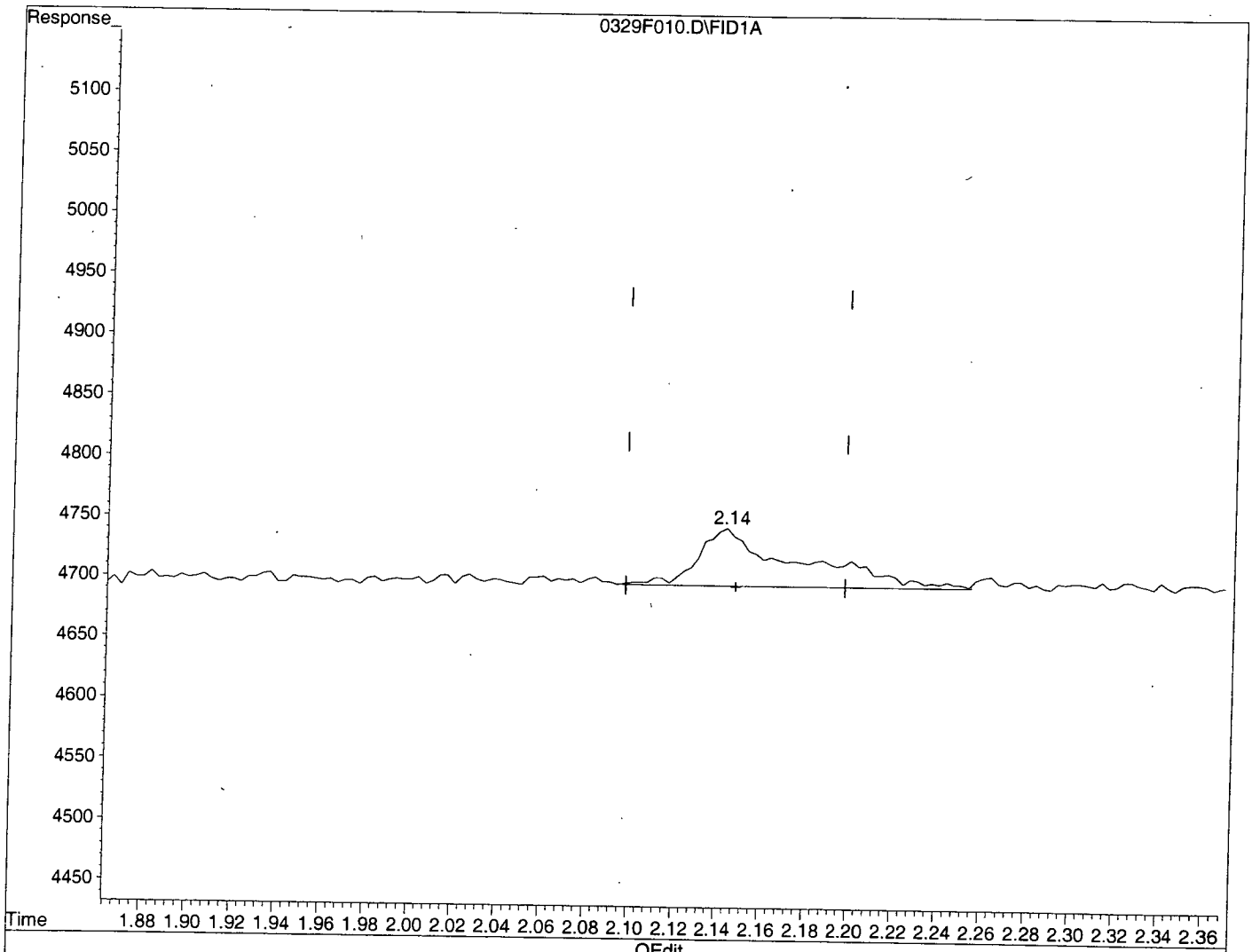


Quantitation Report

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

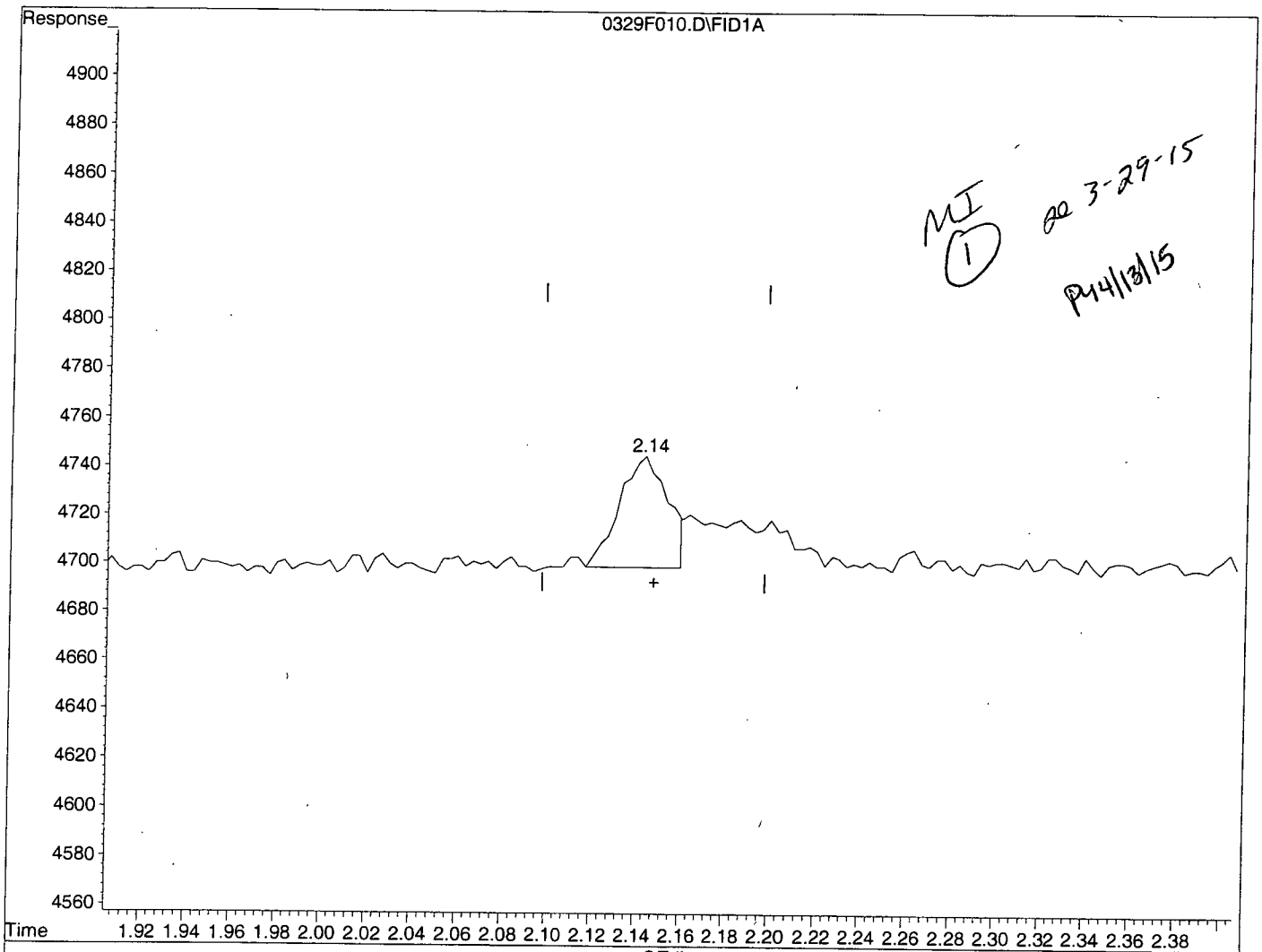
0329F010.D RSK175Q.M Sun Mar 29 10:51:16 2015

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
AA 3-29-15
PY 4/13/15

(1) Methane (ATM)

2.14min 1.735ppb m

response 656

(+) = Expected Retention Time

0329F010.D RSK175Q.M Sun Mar 29 11:43:55 2015

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

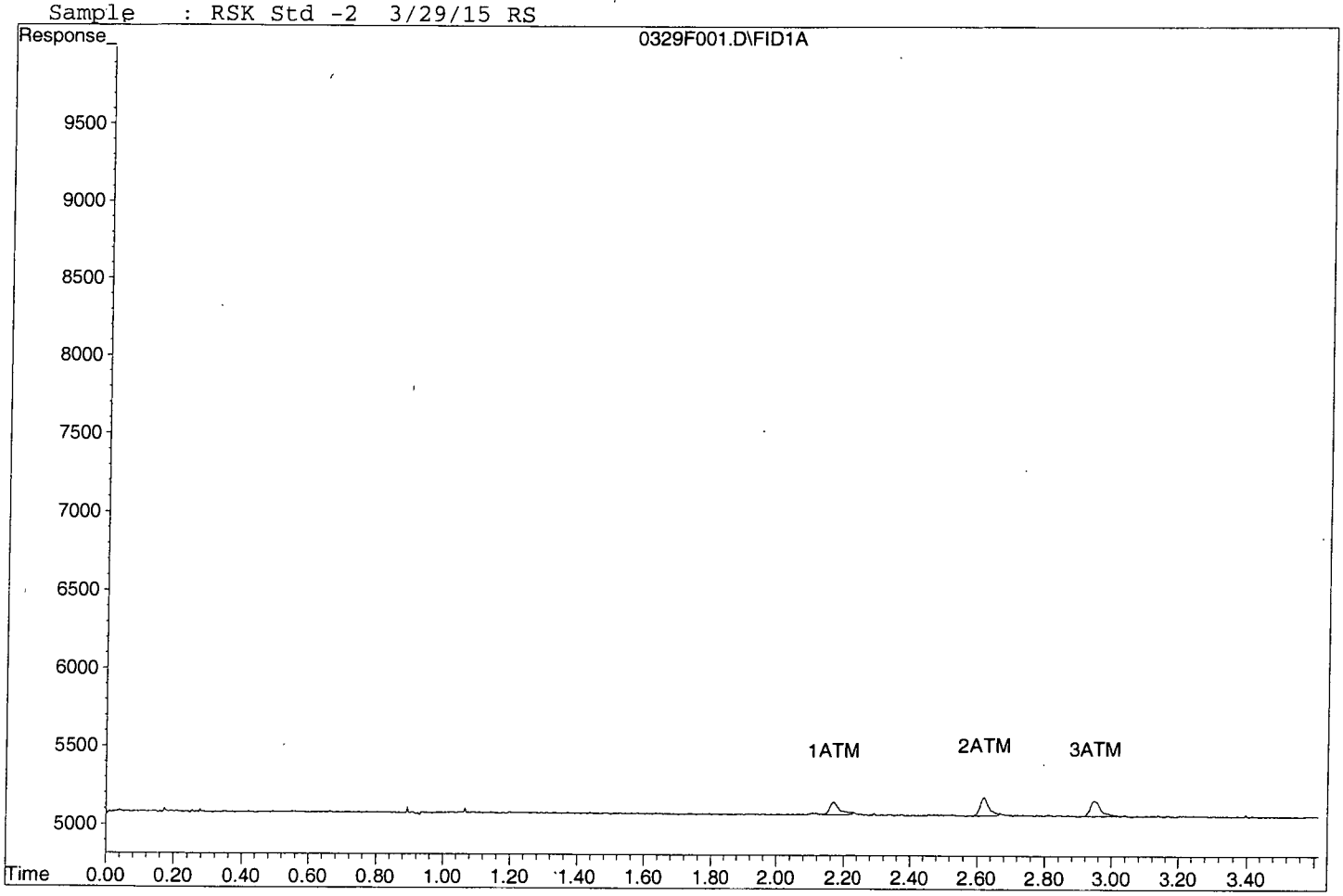
Method : V:\FRODO\DATA\150329\RSK175Q.M (Chemstation Integrator)
Title : RSK 175
Last Update : Sun Mar 29 11:20:33 2015
Response via : Multiple Level Calibration

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 RSK175Q.M Sun Mar 29 11:36:56 2015

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

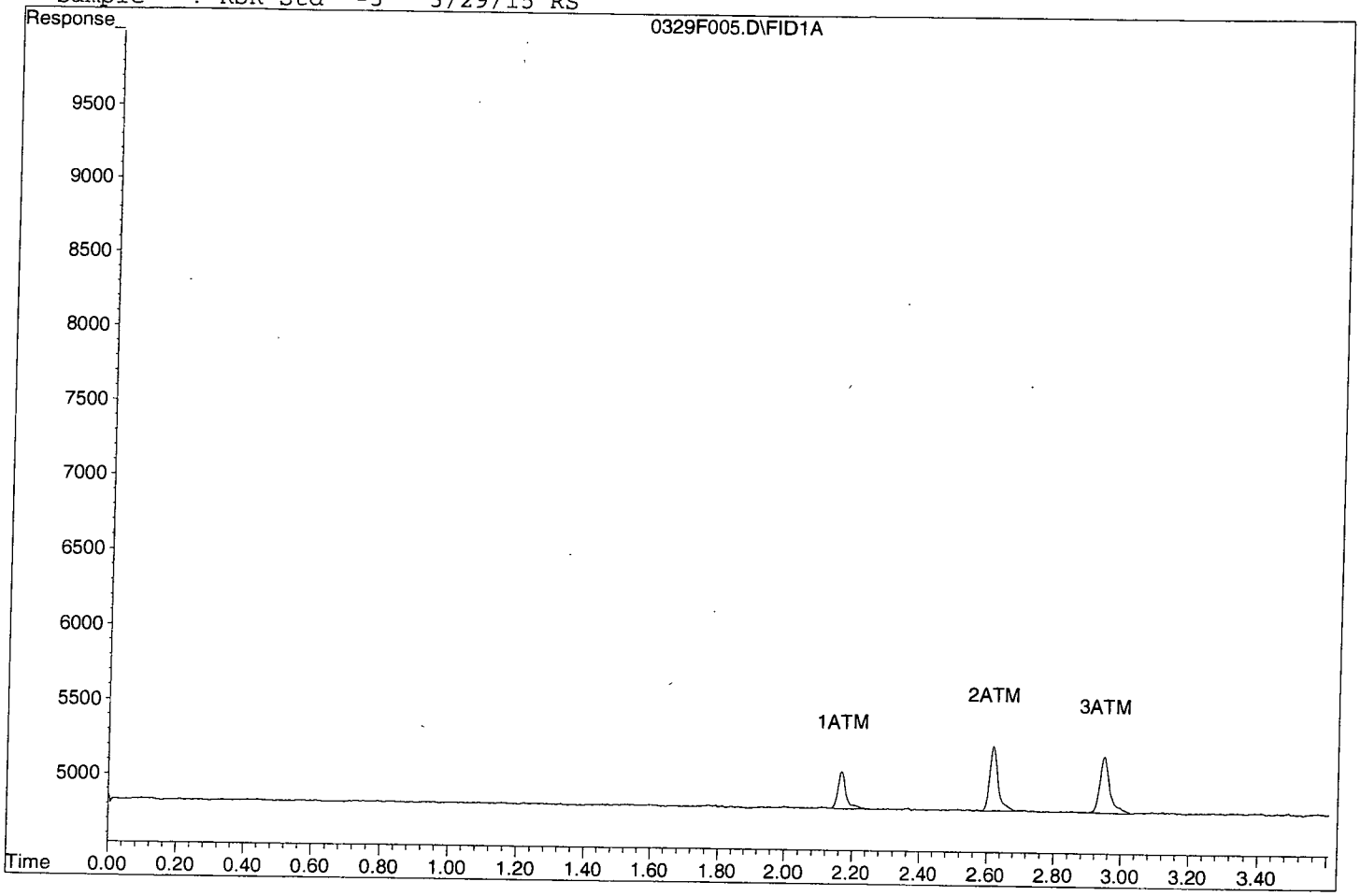
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

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



0329F005.D RSK175Q.M Sun Mar 29 11:46:14 2015

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

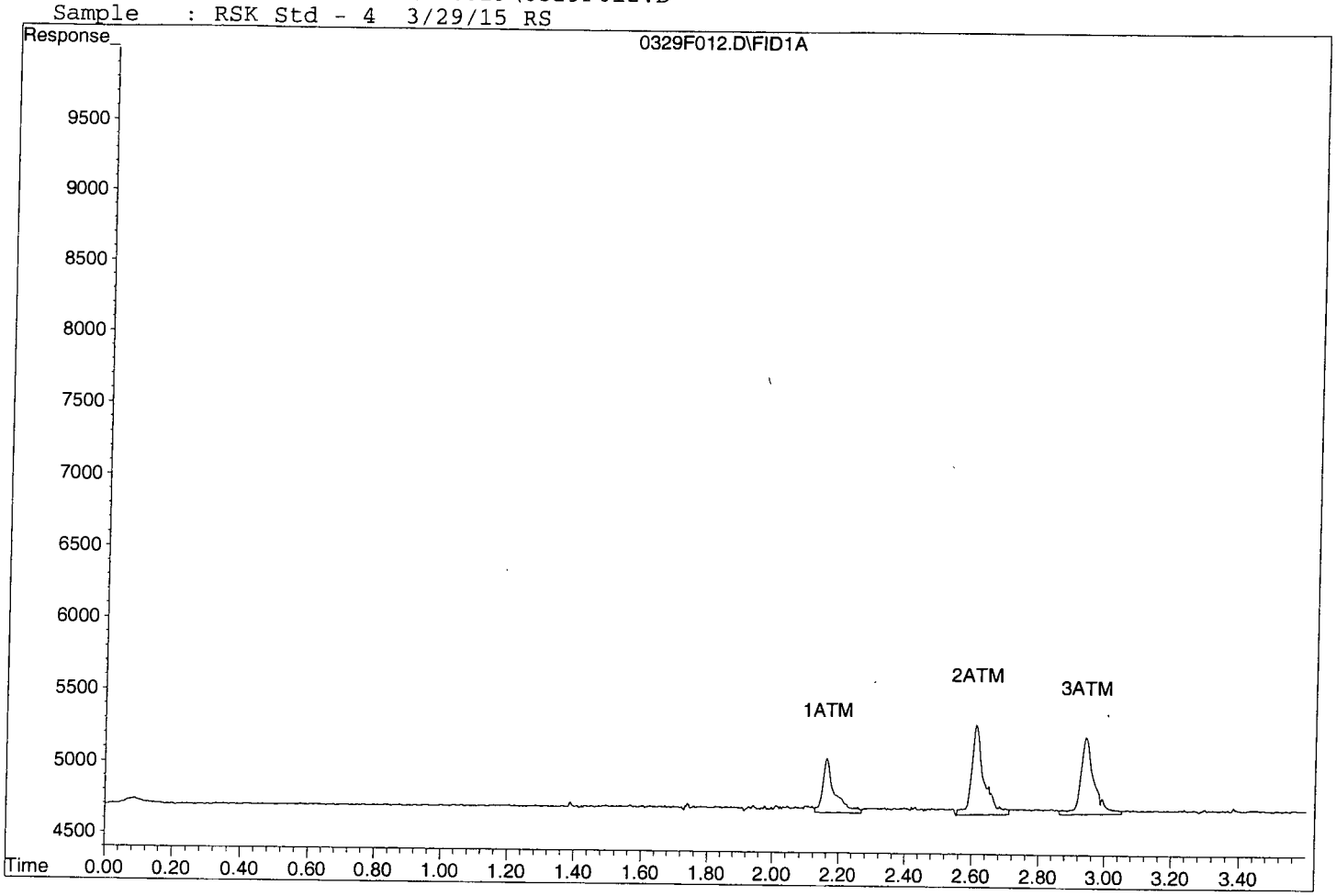
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

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.

Quantitation Report

Data File: V:\FRODO\DATA\150329\0329F012.D
Sample : RSK Std - 4 3/29/15 RS



0329F012.D RSK175Q.M Sun Mar 29 11:47:40 2015

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

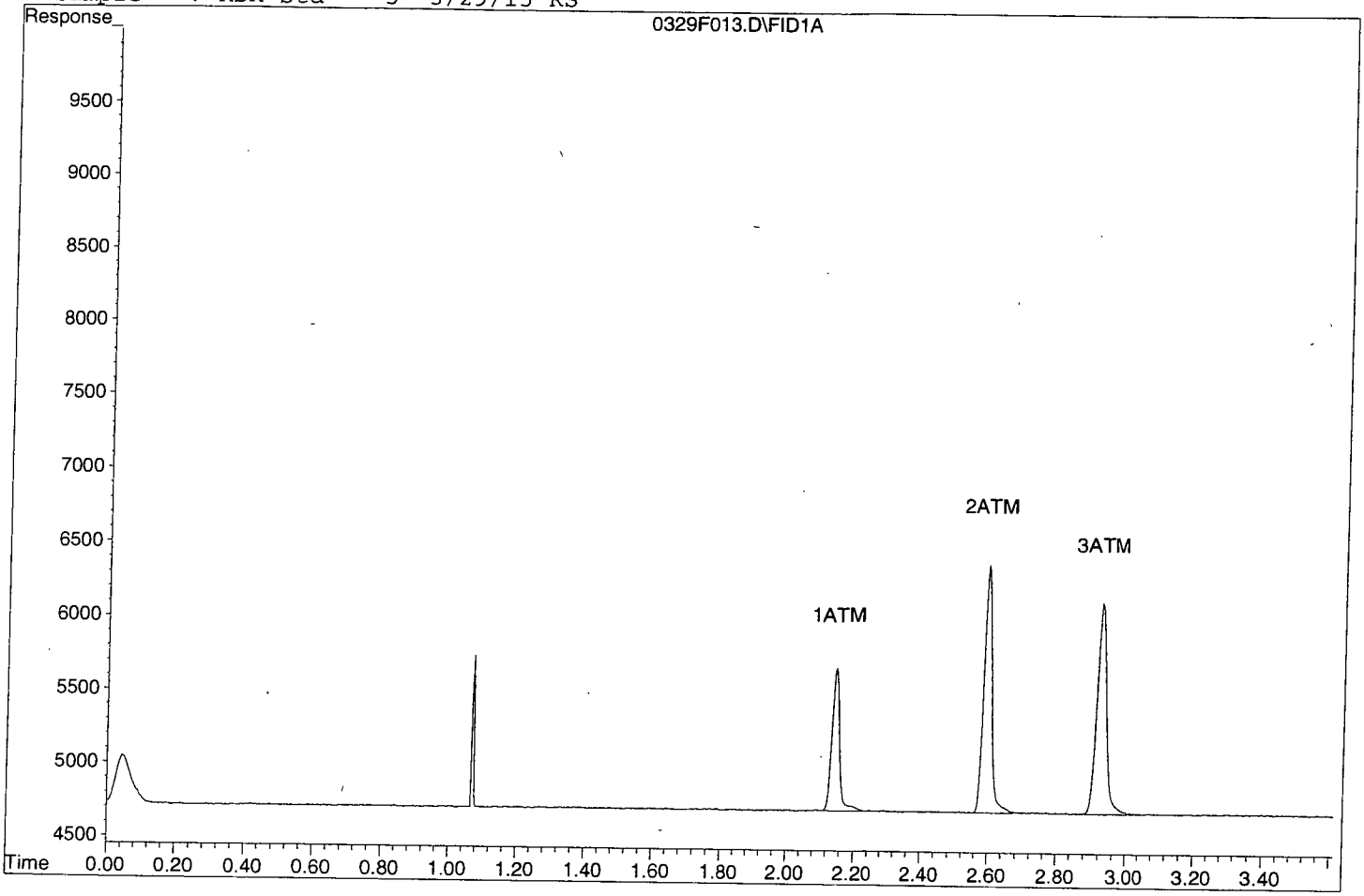
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

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

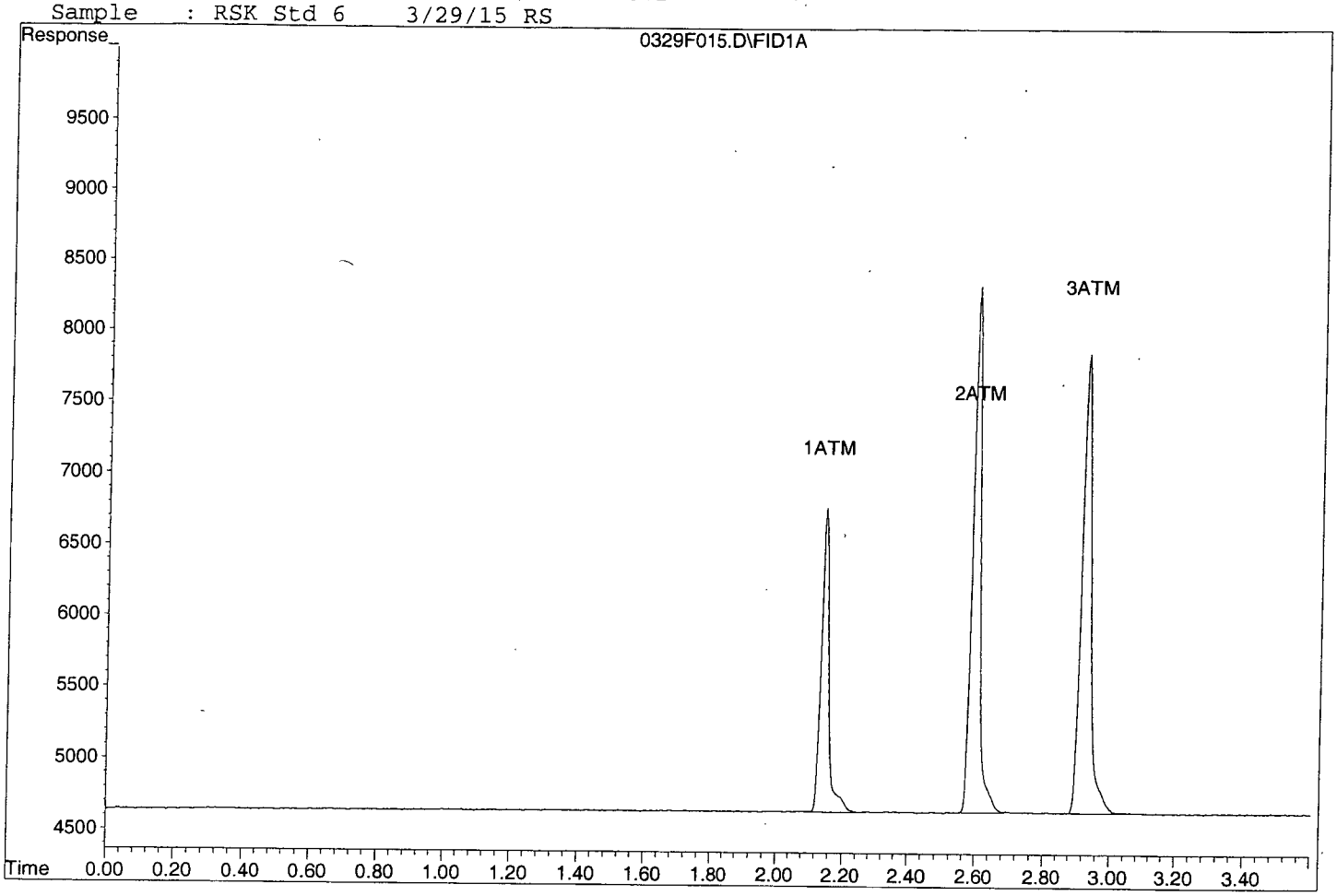
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

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.
0329F015.D RSK175Q.M Sun Mar 29 11:48:07 2015

Quantitation Report

Data File: V:\FRODO\DATA\150329\0329F015.D
Sample : RSK Std 6 3/29/15 RS



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

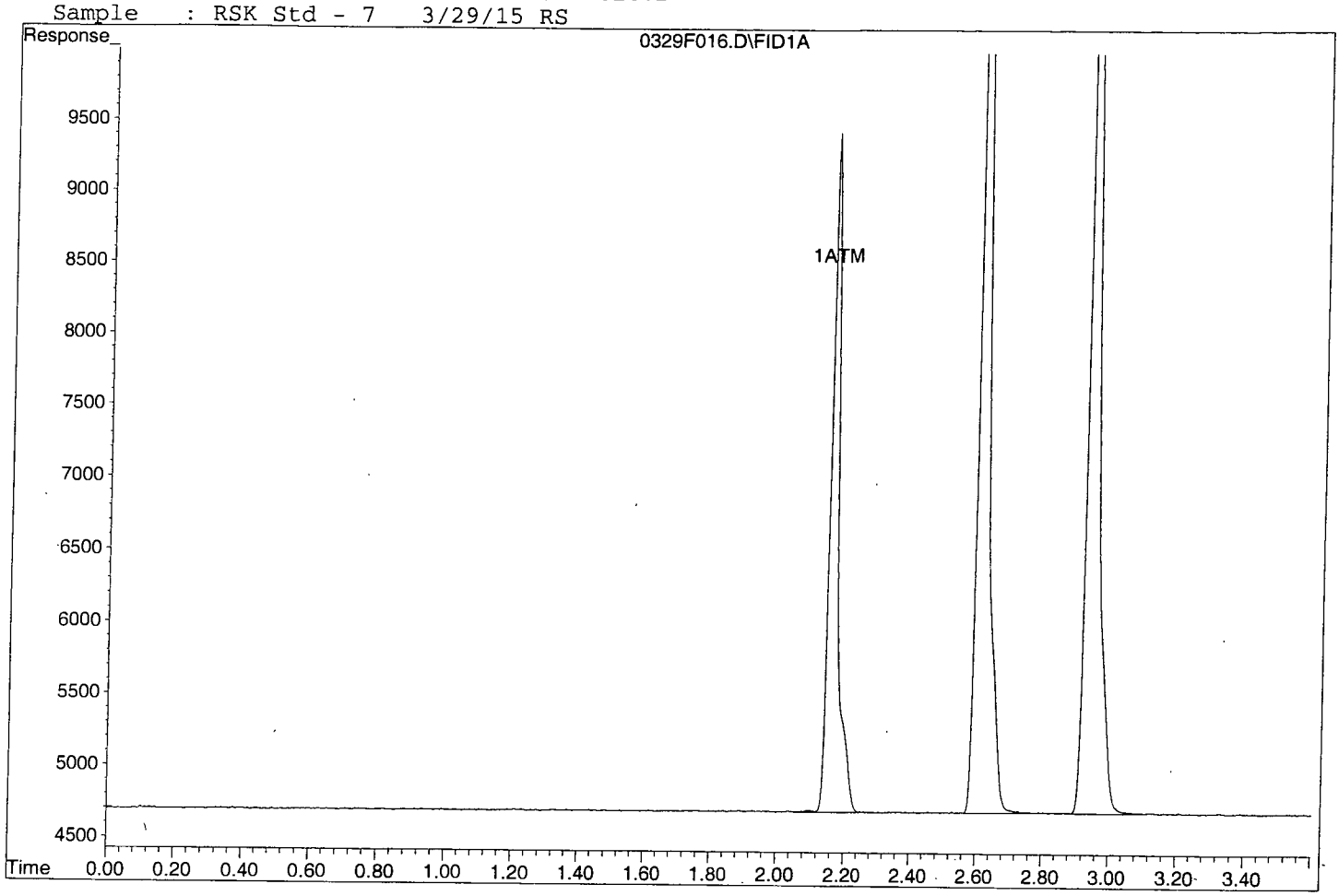
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

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
Acq On : 2 Apr 2015 07:55
Sample : RSK STD - 8 04-02-15 RS
Misc : Water
IntFile : autoint1.e
Quant Time: Apr 2 10:14 2015 Quant Results File: RSK175Q.RES

Vial: 1
Operator: SD
Inst : Frodo
Multiplr: 1.00

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 :

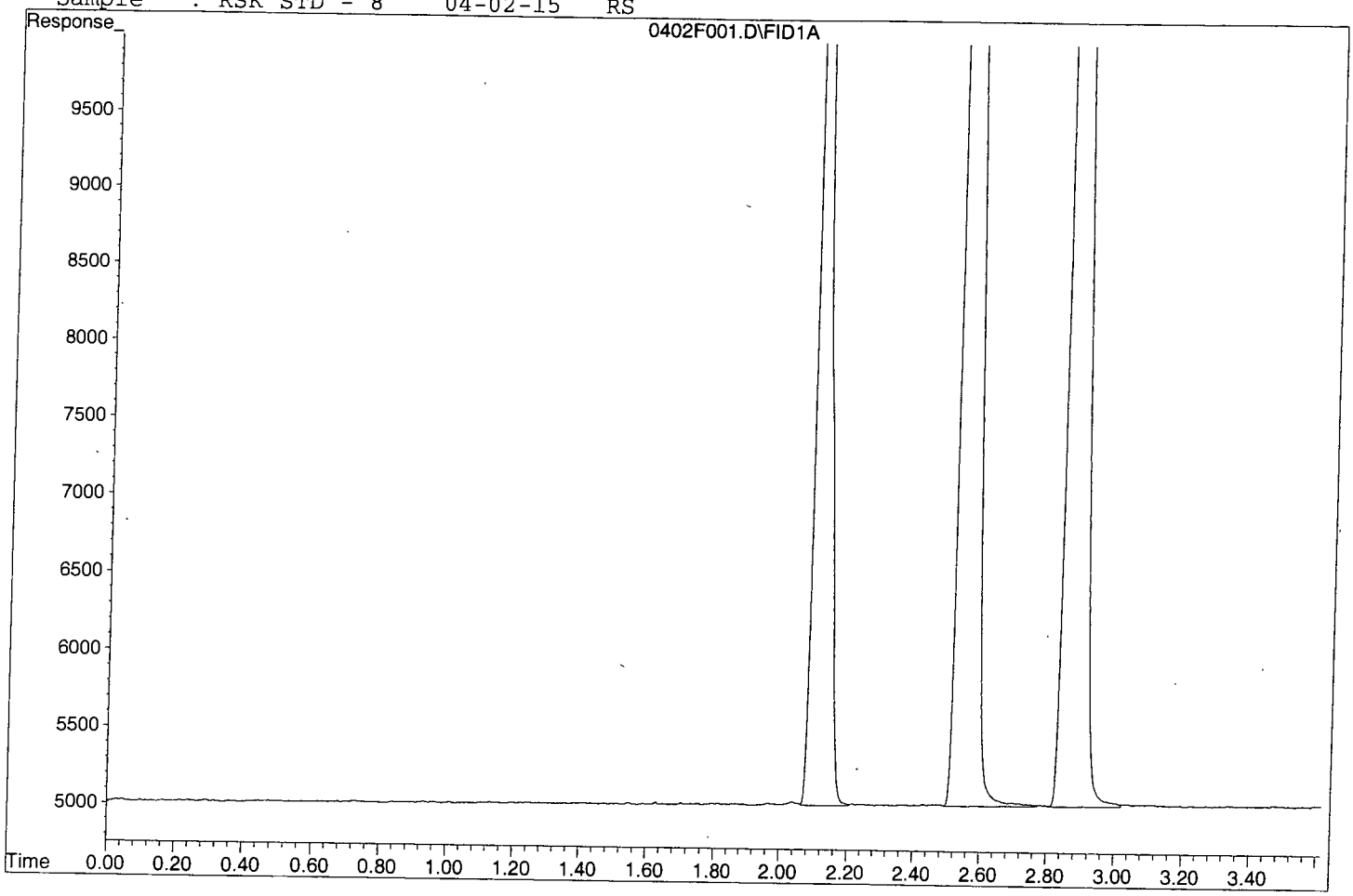
Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.10	240698	719.028 ppb
2) ATM Ethane	2.54	482100	1724.981 ppb
3) ATM Ethene	2.86	466060	1555.247 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

0402F001.D 402RSK.M Thu Apr 02 11:09:26 2015

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							
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36							
37							
38							
39							
40							
		Average			3.1		

Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150402\0402F002.D Vial: 2
Acq On : 2 Apr 2015 08:15 Operator: SD
Sample : RSK SS - 4 04-02-15 RS Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 10 17:44 2015 Quant Results File: 402RSK.RES

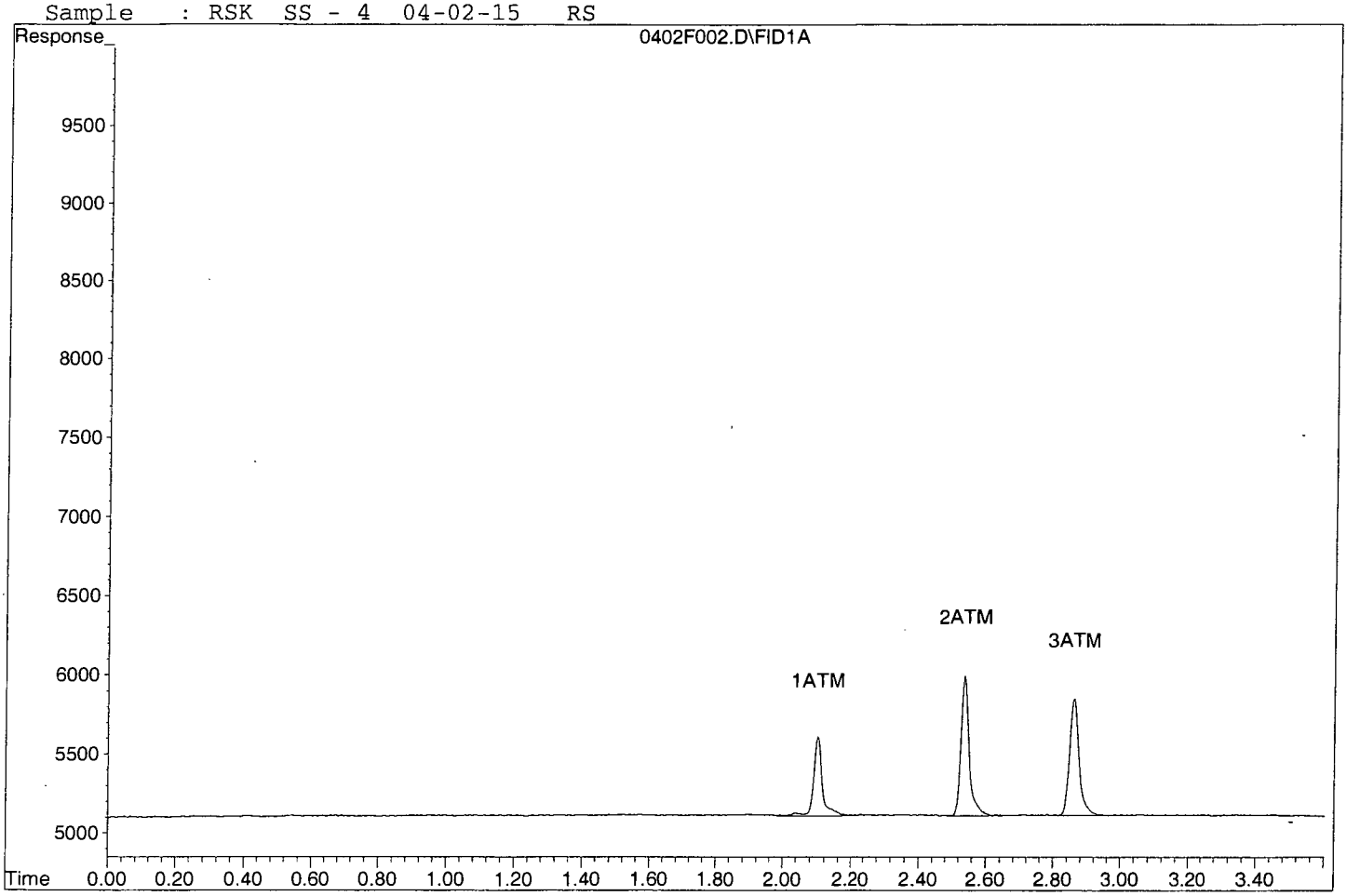
Method : V:\FRODO\DATA\150402\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Fri Apr 03 10:14:53 2015
Response via : Multiple Level Calibration

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

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: 05/20/15
Instrument: Frodo
Initial Cal. Date: 05/20/15
Data File: 0520F004.D

		Compound	MEAN	CCRF	%D	%Drift	
1	ATM	Methane	331	376	14	ATM	
2	ATM	Ethane	284	266	6.5	ATM	
3	ATM	Ethene	303	283	6.8	ATM	
4							
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36							
37							
38							
39							
40							
		Average			9.1		

Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150520\0520F004.D Vial: 4
Acq On : 20 May 2015 11:08 Operator: SD
Sample : RSK CCV3 05-20-15 RS Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 20 11:13 2015 Quant Results File: 402RSK.RES

Method : V:\FRODO\DATA\150520\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed May 20 10:29:31 2015
Response via : Multiple Level Calibration

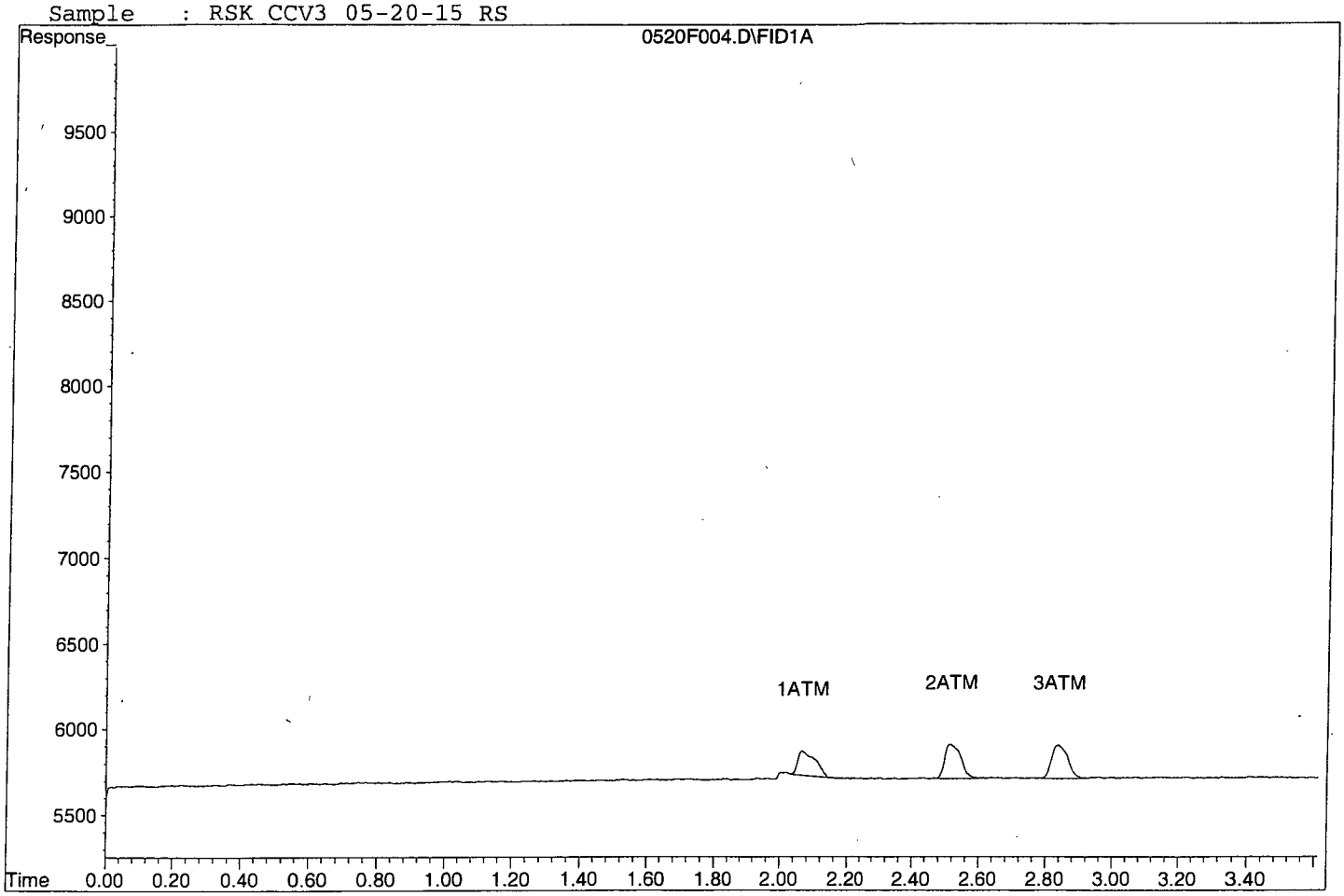
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.07	5017	15.158 ppb
2) ATM Ethane	2.51	6643	23.381 ppb
3) ATM Ethene	2.84	6591	21.722 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
0520F004.D 402RSK.M Wed May 20 13:31:32 2015 Page 1

Quantitation Report

Data File: V:\FRODO\DATA\150520\0520F004.D
Sample : RSK CCV3 05-20-15 RS



Form 7

Continuing Calibration

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

SDG No:
Date Analyzed: 05/20/15
Instrument: Frodo
Initial Cal. Date: 05/20/15
Data File: 0520F020.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATM	Methane	331	398	20	ATM	
2	ATM	Ethane	284	351	24	ATM	
3	ATM	Ethene	303	357	18	ATM	
4							
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38							
39							
40							
		Average			20.7		

Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150520\0520F020.D Vial: 20
Acq On : 20 May 2015 18:07 Operator: SD
Sample : RSK CCV 3 05-20-15 RS Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: May 20 18:12 2015 Quant Results File: 402RSK.RES

Method : V:\FRODO\DATA\150520\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed May 20 18:12:22 2015
Response via : Multiple Level Calibration

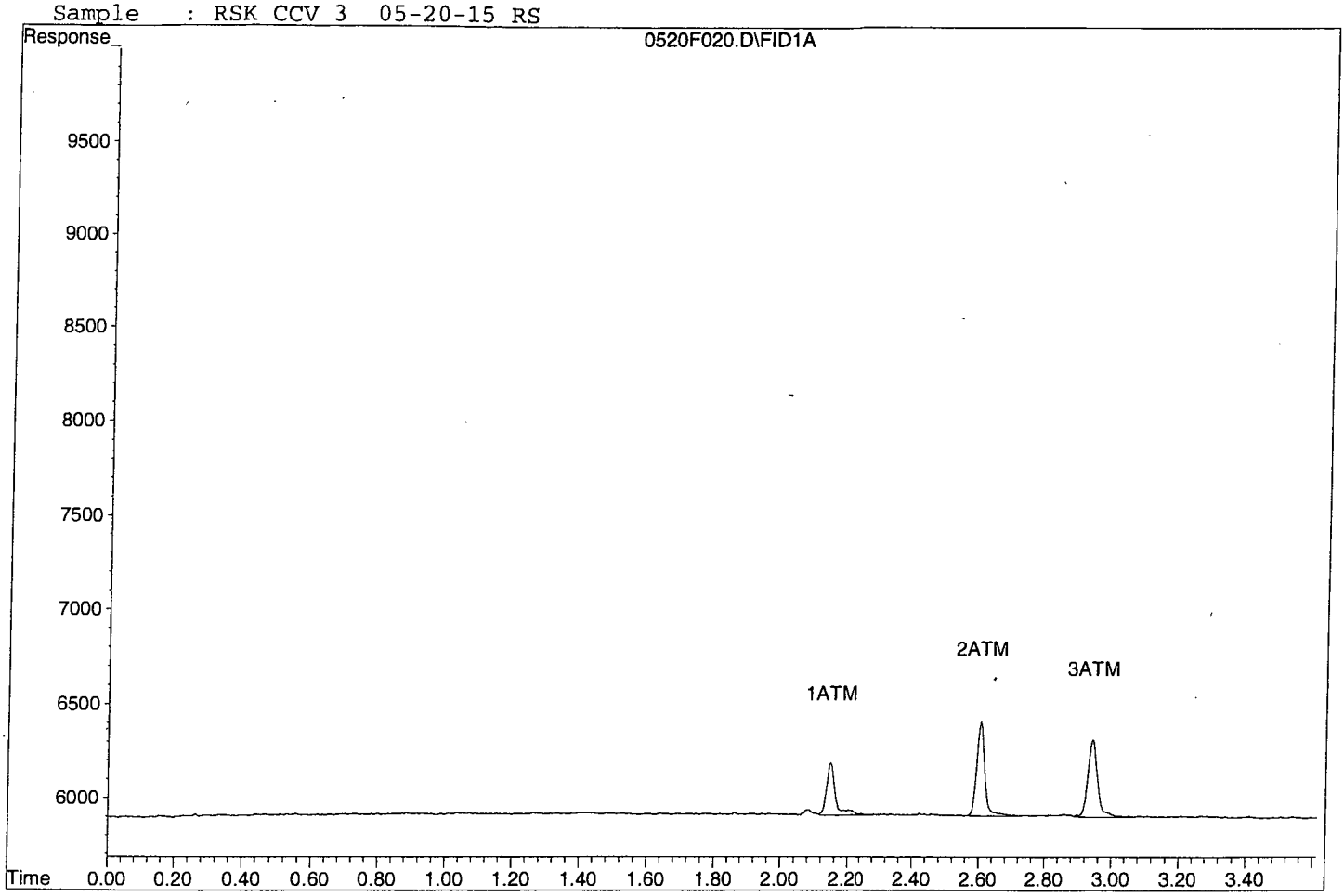
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.15	5306	16.031 ppb
2) ATM Ethane	2.60	8783	30.914 ppb
3) ATM Ethene	2.94	8316	27.407 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: V:\FRODO\DATA\150520\0520F020.D
Sample : RSK CCV 3 05-20-15 RS



RSK-175
Raw Data

APPL, INC.

Method Blank
RSK 175

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150520W-16235 - 197504**
Batch ID: #RSK-150520A1

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	05/20/15	05/20/15
BLANK	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	05/20/15	05/20/15
BLANK	METHANE	0.45 U	1.0	0.45	0.25	ug/L	05/20/15	05/20/15

Quant Method: 402RSK.M
Run #: 0520F006
Instrument: Frodo
Sequence: 150520
Initials: SD

GC SC-Blank-REG MDLs
Printed: 06/11/15 4:00:46 PM

Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150520\0520F006.D
Acq On : 20 May 2015 11:32
Sample : 150520A BLK-1
Misc : Water
IntFile : autoint1.e
Quant Time: May 20 11:38 2015 Quant Results File: 402RSK.RES

Vial: 6
Operator: SD
Inst : Frodo
Multiplr: 1.00

Method : V:\FRODO\DATA\150520\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed May 20 10:29:31 2015
Response via : Multiple Level Calibration

Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

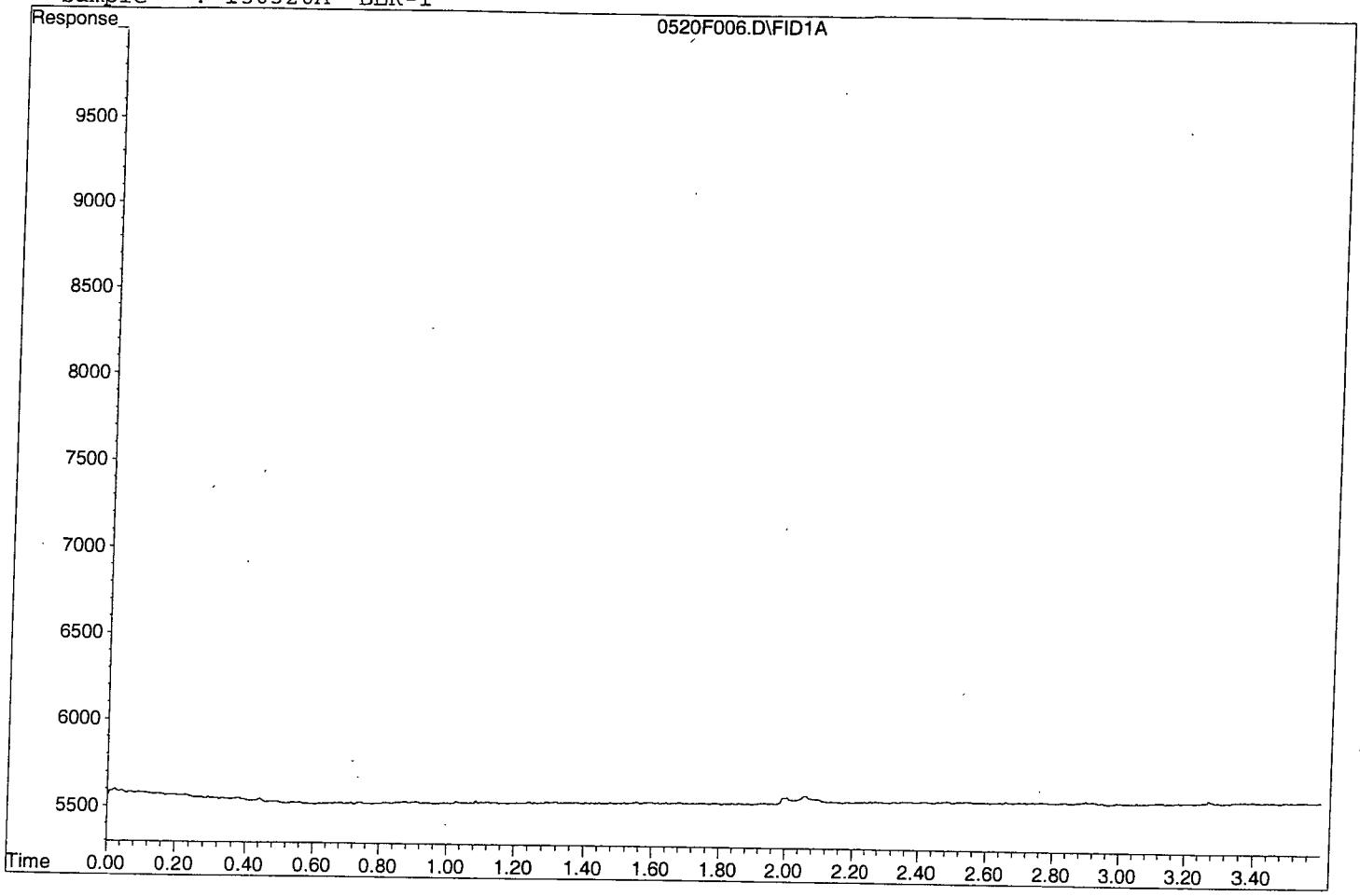
Compound	R.T.	Response	Conc	Units

Target Compounds

(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report

Data File: V:\FRODO\DATA\150520\0520F006.D
Sample : 150520A BLK-1



Laboratory Control Spike Recovery

RSK 175

APPL ID: **150520W-16287 LCS - 197488**
Batch ID: #RSK-150520A

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	21.6	86.4	70-130
ETHENE	23.3	19.3	82.8	70-130
METHANE	13.3	15.6	117	70-130

Comments:

Primary	SPK
Quant Method :	402RSK.M
Extraction Date :	05/20/15
Analysis Date :	05/20/15
Instrument :	Frodo
Run :	0520F005
Initials :	SD

Printed: 06/02/15 3:43:11 PM
APPL Standard LCS

Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150520\0520F005.D
Acq On : 20 May 2015 11:15
Sample : 150520A LCS-3
Misc : Water
IntFile : autoint1.e
Quant Time: May 20 11:23 2015 Quant Results File: 402RSK.RES

Vial: 5
Operator: SD
Inst : Frodo
Multiplr: 1.00

Method : V:\FRODO\DATA\150520\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed May 20 10:29:31 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	5177	15.640 ppb
2) ATM Ethane	2.51	6124	21.553 ppb
3) ATM Ethene	2.83	5844	19.260 ppb

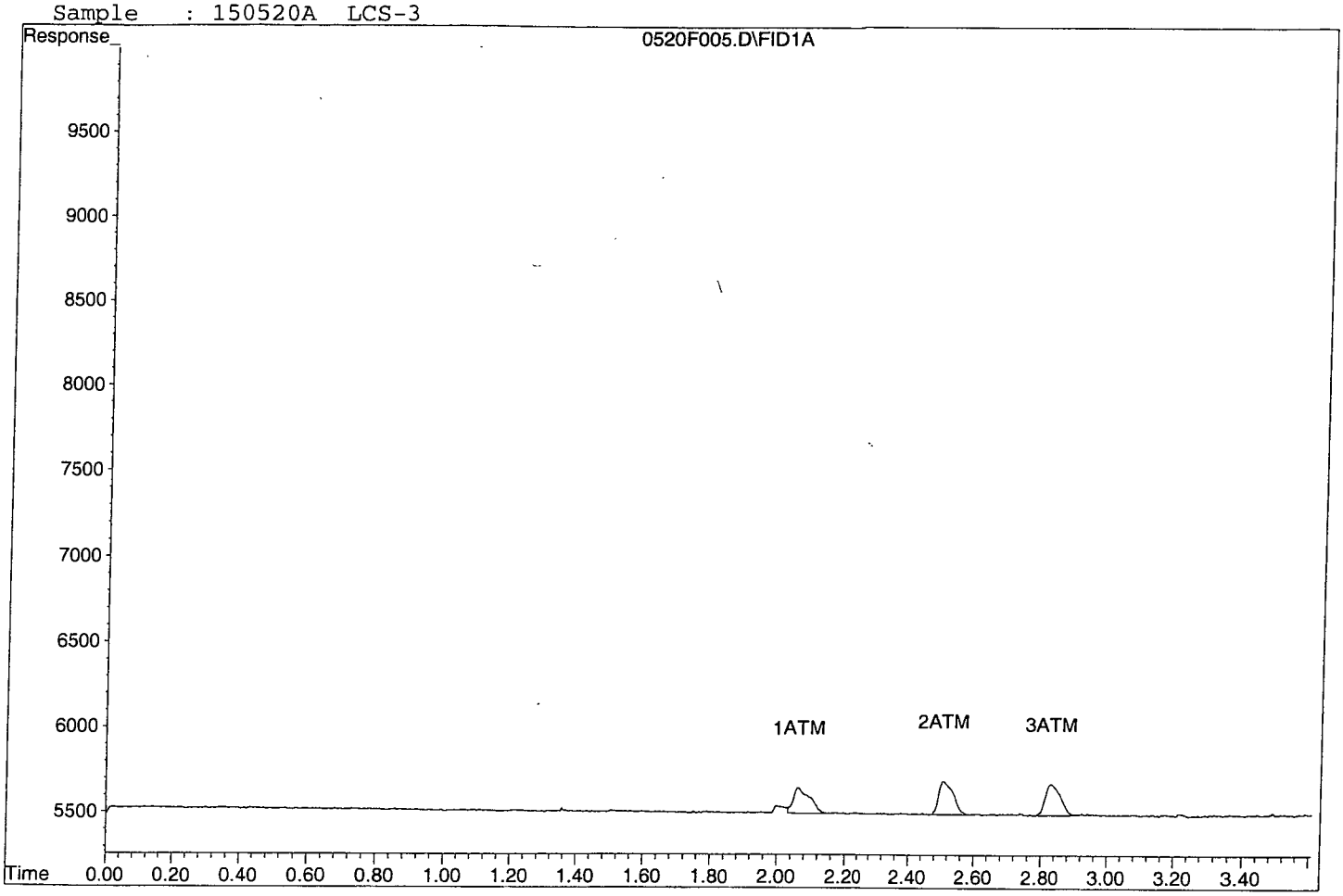
Algorithm pe 5.26-15

$\frac{5177}{331}(1.00) = 15.6$ ✓

f)=RT Delta > 1/2 Window (m)=manual int.
520F005.D 402RSK.M Wed May 20 13:31:41 2015

Quantitation Report

Data File: V:\FRODO\DATA\150520\0520F005.D
Sample : 150520A 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

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	4	0520F004.D	1	RSK CCV3 05-20-15 RS	Water	20 May 2015 11:08
12	5	0520F005.D	1	150520A LCS-3	Water	20 May 2015 11:15
13	6	0520F006.D	1	150520A BLK-1	Water	20 May 2015 11:32
14	7	0520F007.D	1	AZ16235W01	Water	20 May 2015 11:38
15	8	0520F008.D	1	AZ16236W01	Water	20 May 2015 11:44
16	20	0520F020.D	1	RSK CCV 3 05-20-15 RS	Water	20 May 2015 18:07

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: **150512W-16226 - 196913**
Batch ID: #6850-150512A

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	05/12/15	05/12/15

Quant Method: QTLMFL2
Run #: T512_029.D
Instrument: AGIL_6460
Sequence: TQ051215
Initials: MP

GC SC-Blank-REG MDLs
Printed: 05/13/15 11:50:06 AM

Laboratory Control Spike Recovery
Perchlorate

APPL ID: **150512W-16226 LCS - 196913**
Batch ID: #6850-150512A

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	0.599	99.8	80-120

Comments: _____

Primary	SPK
Quant Method :	QTLMFL2
Extraction Date :	05/12/15
Analysis Date :	05/12/15
Instrument :	AGIL_6460
Run :	T512_027.D
Initials :	MP

Printed: 05/13/15 11:50:01 AM
APPL Standard LCS

EPA 6850

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76401
Matrix: WATER
Blank ID: 150512A-BLK

SDG No: 76401
Date Analyzed: 05/12/15
Instrument: AGIL_6460
Time Analyzed: 1617

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150512A-LCS	Lab Control Spike	T512_027.D	05/12/15 1537
150512A-BLK	Blank	T512_029.D	05/12/15 1617
AZ16235	S67-MW012-051115	T512_068.D	05/13/15 0432
AZ16236	S67-MW011-051115	T514_009.D	05/14/15 1236

Comments: Batch: #6850-150512A

Printed: 06/09/15 8:52:29 AM
Form 4, Blank Summary

Interferrence Check Sample

Perchlorate EPA 6850 Water

APPL ID: 150512W-16226 ICS-196913
Batch ID: #6850-150512A

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	0.558	93.0%	70-130

Comments:

Quant Method:	QTLMFL2
Extraction Date:	05/12/15
Analysis Date:	05/12/15
Instrument:	AGIL_6560
Run:	T512_028.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.** **76401**

Lab File ID (Standard): T512_003.d

Instrument ID: Agilent 6460 Triple Quad LC/MS

	PER_IS			
	12_HOUR_STD AVERAGE	4906019		
	UPPER LIMIT RESPONSE	7359029		
	LOWER LIMIT RESPONSE	2453010		
Data File ID:	Sample ID:	Analysis Date and Time	IS AREA COUNT #	IS R.T. #
T512_002.d	PER_CCV 0.0004 ug/ml 05/07/15	5/12/15 7:51	4374131	14.007
T512_003.d	PER_CCV 0.002 ug/ml 05/07/15	5/12/15 8:10	4906019	13.935
T512_024.d	PER_CCV 0.0004 ug/ml 05/07/15	5/12/15 14:41	4120838	13.813
T512_025.d	PER_CCV 0.002 ug/ml 05/07/15	5/12/15 14:59	4766152	13.589
T512_027.d	150512WA_LCS-1 1052.6 DF 05/12/15	5/12/15 15:37	4309588	13.742
T512_028.d	150512W_ICSA 1052.6 DF 05/12/15	5/12/15 15:57	3818635	12.855
T512_029.d	150512WBLKA 1052.6 DF 05/12/15	5/12/15 16:17	4755283	13.935
T512_036.d	PER_CCV 0.0004 ug/ml 05/07/15	5/12/15 18:36	4044824	13.62
T512_037.d	PER_CCV 0.002 ug/ml 05/07/15	5/12/15 18:54	4679515	13.64
T512_060.d	PER_CCV 0.0004 ug/ml 05/07/15	5/13/15 2:03	3243820	14.241
T512_061.d	PER_CCV 0.002 ug/ml 05/07/15	5/13/15 2:21	3712101	14.282
T512_068.d	AZ16235_W04 1052.6 DF 05/12/15	5/13/15 4:32	3520065	13.681
T512_072.d	PER_CCV 0.0004 ug/ml 05/07/15	5/13/15 5:46	3399672	14.486
T512_073.d	PER_CCV 0.002 ug/ml 05/07/15	5/13/15 6:05	3902565	14.475

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.** **76401**

Lab File ID (Standard): T514_003.d

Instrument ID: Agilent 6460 Triple Quad LC/MS

	PER_IS			
	12_HOUR_STD AVERAGE	3957948		
	UPPER LIMIT RESPONSE	5936922		
	LOWER LIMIT RESPONSE	1978974		
Data File ID:	Sample ID:	Analysis Date and Time	IS AREA COUNT #	IS R.T. #
T514_002.d	PER_CCV 0.0004 ug/ml 05/07/15	5/14/15 10:07	3384496	13.528
T514_003.d	PER_CCV 0.002 ug/ml 05/07/15	5/14/15 10:26	3957948	13.548
T514_009.d	AZ16236_W01 105263.2 DF 05/12/15_5/14	5/14/15 12:36	3616523	13.395
T514_016.d	PER_CCV 0.0004 ug/ml 05/07/15	5/14/15 14:46	3701407	13.202
T514_017.d	PER_CCV 0.002 ug/ml 05/07/15	5/14/15 15:05	4266748	13.12

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.** **76401**

Lab File ID (Standard): T611_003.d

Instrument ID: Agilent 6460 Triple Quad LC/MS

	PER_IS			
	12_HOUR_STD AVERAGE	5598693		
	UPPER LIMIT RESPONSE	8398040		
	LOWER LIMIT RESPONSE	2799347		
Data File ID:	Sample ID:	Analysis Date and Time	IS AREA COUNT #	IS R.T. #
T611_002.d	PER_CCV 0.0004 ug/ml 06/11/15	6/11/15 17:46	4593424	13.131
T611_003.d	PER_CCV 0.002 ug/ml 06/11/15	6/11/15 18:04	5598693	13.008
T611_044.d	PER_CCV 0.0004 ug/ml 06/11/15	6/12/15 6:48	5235488	12.866
T611_045.d	PER_CCV 0.002 ug/ml 06/11/15	6/12/15 7:06	6149691	12.845
T611_052.d	AZ16235_W01 10526.3 DF 05/12/15_6/12	6/12/15 9:18	5334088	12.968
T611_055.d	PER_CCV 0.0004 ug/ml 06/11/15	6/12/15 10:14	4948968	13.243
T611_056.d	PER_CCV 0.002 ug/ml 06/11/15	6/12/15 10:33	5803119	13.294

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
Sample Name: PER_IS_50:50 0.005 ug/ml 11/11/14
Vial Number: NA
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
Sample Name: PERCHLORATE 0.0001 ug/ml 11/11/14
Vial Number: NA
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
Sample Name: PERCHLORATE 0.0002 ug/ml 11/11/14
Vial Number: NA
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
Sample Name: PERCHLORATE 0.0004 ug/ml 11/11/14
Vial Number: NA
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
Sample Name: PERCHLORATE 0.001 ug/ml 11/11/14
Vial Number: NA
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
Sample Name: PERCHLORATE 0.002 ug/ml 11/11/14

Vial Number: NA
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
Sample Name: PERCHLORATE 0.005 ug/ml 11/11/14

Vial Number: NA
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
Sample Name: PERCHLORATE 0.010 ug/ml 08/27/14

Vial Number: NA
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
Sample Name: PER_IS_50:50 0.005 ug/ml 11/11/14

Vial Number: NA
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	

Page 2 of 4

Date Aquired: 03/12/15 20:02
Sample Name: PER_SS 0.0004 ug/ml 11/11/14

Vial Number: NA
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
Sample Name: PER_SS 0.002 ug/ml 11/11/14

Vial Number: NA
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
Sample Name: PER_IS_50:50 0.005 ug/ml 11/11/14

Vial Number: NA
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
Sample Name: PER_CCV_1 0.0004 ug/ml 11/11/14

Vial Number: NA
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	

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Date Aquired: 03/12/15 21:17
Sample Name: PER_CCV_1 0.002 ug/ml 11/11/14

Vial Number: NA
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
Sample Name: PER_IS_50:50 0.005 ug/ml 11/11/14

Vial Number: NA
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	

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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\150512
Instrument Name : TQ (Agilent 6460 Triple Quad LC/MS)
Method File : 6460_ESI_PER_N_NEWER_K'_COLUMN.m
Operator : BA

Date Aquired: 05/12/15 7:32 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T512_001.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.248	55111	16.3
2)	Perchlorate_85	13.939	3382	

Date Aquired: 05/12/15 7:51 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 05/07/15 Data File ID: T512_002.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.024	503072	3.2
2)	Perchlorate_85	14.031	159436	

Date Aquired: 05/12/15 8:10 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 05/07/15 Data File ID: T512_003.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.942	2324805	3.4
2)	Perchlorate_85	13.939	682523	

Date Aquired: 05/12/15 8:28 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T512_004.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.83	56137	1.8
2)	Perchlorate_85	13.878	31048	

Date Aquired: 05/12/15 8:47 Vial Number: NA
Sample Name: AZ16055_W01 1052631.6 DF 05/07/15_5/11 Data File ID: T512_005.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.667	188957	3.2
2)	Perchlorate_85	13.694	58504	

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Date Aquired: 05/12/15 9:06 Vial Number: NA
Sample Name: AZ16055_W01 105263.2 DF 05/07/15_5/11 Data File ID: T512_006.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.198	1018832	3.0
2)	Perchlorate_85	13.175	344109	

Date Aquired: 05/12/15 9:24 Vial Number: NA
Sample Name: AZ16055_W01 10526.3 DF 05/07/15_5/11 Data File ID: T512_007.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.73	5472383	3.4
2)	Perchlorate_85	12.726	1632035	

Date Aquired: 05/12/15 9:43 Vial Number: NA
Sample Name: PER_IS_50:50 0.005 ug/ml 05/10/15 Data File ID: T512_008.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.942	2978	1.9
2)	Perchlorate_85	14.061	1570	

Date Aquired: 05/12/15 10:02 Vial Number: NA
Sample Name: AZ16056_W01 1052631.6 DF 05/07/15_5/11 Data File ID: T512_009.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.708	2657056	3.3
2)	Perchlorate_85	13.715	800065	

Date Aquired: 05/12/15 10:20 Vial Number: NA
Sample Name: AZ16056_W01 105263.2 DF 05/07/15_5/11 Data File ID: T512_010.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.086	27328927	3.4
2)	Perchlorate_85	13.103	8068620	

Date Aquired: 05/12/15 10:39 Vial Number: NA
Sample Name: AZ16056_W01 10526.3 DF 05/07/15_5/11 Data File ID: T512_011.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.424	141975604	3.1
2)	Perchlorate_85	12.421	45637143	

Date Aquired: 05/12/15 10:57 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T512_012.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.769	53371	33.3
2)	Perchlorate_85	14.051	1605	

Date Aquired: 05/12/15 11:16 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 05/07/15 Data File ID: T512_013.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.708	502640	3.0
2)	Perchlorate_85	13.715	167292	

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Date Aquired: 05/12/15 11:35 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 05/07/15 Data File ID: T512_014.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.698	2352197	3.3
2)	Perchlorate_85	13.705	720720	

Date Aquired: 05/12/15 11:53 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T512_015.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.728	54063	2.3
2)	Perchlorate_85	13.715	23332	

Date Aquired: 05/12/15 12:12 Vial Number: NA
Sample Name: AZ16055_W01 1052631.6 DF 05/07/15_5/11 Data File ID: T512_016.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.565	192742	2.7
2)	Perchlorate_85	13.531	72722	

Date Aquired: 05/12/15 12:30 Vial Number: NA
Sample Name: AZ16055_W01 105263.2 DF 05/07/15_5/11 Data File ID: T512_017.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.852	978901	2.8
2)	Perchlorate_85	12.818	343516	

Date Aquired: 05/12/15 12:49 Vial Number: NA
Sample Name: AZ16055_W01 10526.3 DF 05/07/15_5/11 Data File ID: T512_018.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.404	6859471	3.4
2)	Perchlorate_85	12.4	1998939	

Date Aquired: 05/12/15 13:08 Vial Number: NA
Sample Name: PER_IS_50:50 0.005 ug/ml 05/10/15 Data File ID: T512_019.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.105	1493	1.1
2)	Perchlorate_85	13.949	1323	

Date Aquired: 05/12/15 13:26 Vial Number: NA
Sample Name: AZ16056_W01 1052631.6 DF 05/07/15_5/11 Data File ID: T512_020.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.637	2484224	3.3
2)	Perchlorate_85	13.633	746339	

Date Aquired: 05/12/15 13:45 Vial Number: NA
Sample Name: AZ16056_W01 105263.2 DF 05/07/15_5/11 Data File ID: T512_021.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.913	27706961	3.4
2)	Perchlorate_85	12.9	8121237	

Date Aquired: 05/12/15 14:04 Vial Number: NA
Sample Name: AZ16056_W01 10526.3 DF 05/07/15_5/11 Data File ID: T512_022.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.373	142288714	3.1
2)	Perchlorate_85	12.36	45549708	

Date Aquired: 05/12/15 14:22 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T512_023.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.596	59465	2.2
2)	Perchlorate_85	13.572	27205	

Date Aquired: 05/12/15 14:41 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 05/07/15 Data File ID: T512_024.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.81	445546	3.0
2)	Perchlorate_85	13.817	149445	

Date Aquired: 05/12/15 14:59 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 05/07/15 Data File ID: T512_025.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.586	2273891	3.3
2)	Perchlorate_85	13.572	688478	

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Date Aquired: 05/12/15 15:18 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T512_026.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.677	41768	12.2
2)	Perchlorate_85	14.092	3415	

Date Aquired: 05/12/15 15:37 Vial Number: NA
Sample Name: 150512WA_LCS-1 1052.6 DF 05/12/15 Data File ID: T512_027.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.769	623312	3.0
2)	Perchlorate_85	13.725	208822	

Date Aquired: 05/12/15 15:57 Vial Number: NA
Sample Name: 150512W_ICSA 1052.6 DF 05/12/15 Data File ID: T512_028.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.934	514351	3.0
2)	Perchlorate_85	12.951	171061	

Date Aquired: 05/12/15 16:17 Vial Number: NA
Sample Name: 150512WBLKA 1052.6 DF 05/12/15 Data File ID: T512_029.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.065	3486	0.7
2)	Perchlorate_85	14.051	5238	

Date Aquired: 05/12/15 16:44 Vial Number: NA
Sample Name: AZ16200_W01 1052.6 DF 05/12/15 Data File ID: T512_030.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.973	28010	2.2
2)	Perchlorate_85	13.898	12987	

Date Aquired: 05/12/15 17:02 Vial Number: NA
Sample Name: AZ16226_W01 1052.6 DF 05/12/15 Data File ID: T512_031.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.648	234088	3.1
2)	Perchlorate_85	12.574	76366	

Date Aquired: 05/12/15 17:21 Vial Number: NA
Sample Name: AZ16227_W01 1052.6 DF 05/12/15 Data File ID: T512_032.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.801	289829	3.0
2)	Perchlorate_85	12.869	95928	

Date Aquired: 05/12/15 17:40 Vial Number: NA
Sample Name: AZ16228_W01 1052.6 DF 05/12/15 Data File ID: T512_033.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.067	14990612	3.5
2)	Perchlorate_85	12.105	4261915	

Date Aquired: 05/12/15 17:58 Vial Number: NA
Sample Name: AZ16229_W01 1052.6 DF 05/12/15 Data File ID: T512_034.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.139	488049203	2.7
2)	Perchlorate_85	12.105	182329726	

Date Aquired: 05/12/15 18:17 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T512_035.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.932	64612	2.4
2)	Perchlorate_85	13.878	27280	

Date Aquired: 05/12/15 18:36 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 05/07/15 Data File ID: T512_036.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.606	464615	3.1
2)	Perchlorate_85	13.613	150783	

Date Aquired: 05/12/15 18:54 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 05/07/15 Data File ID: T512_037.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.647	2190808	3.2
2)	Perchlorate_85	13.633	678751	

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Date Aquired: 05/13/15 1:25 Vial Number: NA
Sample Name: AZ16229_W01 1052.6 DF 05/12/15 Data File ID: T512_058.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.434	476515014	2.7
2)	Perchlorate_85	12.451	174388939	

Date Aquired: 05/13/15 1:44 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T512_059.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.207	50023	2.4
2)	Perchlorate_85	14.245	21011	

Date Aquired: 05/13/15 2:03 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 05/07/15 Data File ID: T512_060.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.238	381885	3.1
2)	Perchlorate_85	14.245	122034	

Date Aquired: 05/13/15 2:21 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 05/07/15 Data File ID: T512_061.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.258	1761024	3.4
2)	Perchlorate_85	14.275	517465	

Date Aquired: 05/13/15 2:40 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T512_062.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.136	34833	10.7
2)	Perchlorate_85	13.959	3245	

Date Aquired: 05/13/15 2:58 Vial Number: NA
Sample Name: AZ16230_W01 1052.6 DF 05/12/15 Data File ID: T512_063.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.006	980852142	2.3
2)	Perchlorate_85	11.983	426108150	

Date Aquired: 05/13/15 3:17 Vial Number: NA
Sample Name: AZ16231_W01 1052.6 DF 05/12/15 Data File ID: T512_064.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.516	324202923	3.0
2)	Perchlorate_85	12.533	108808462	

Date Aquired: 05/13/15 3:36 Vial Number: NA
Sample Name: AZ16232_W01 1052.6 DF 05/12/15 Data File ID: T512_065.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.402	21873	10.3
2)	Perchlorate_85	13.868	2118	

Date Aquired: 05/13/15 3:54 Vial Number: NA
Sample Name: AZ16233_W01 1052.6 DF 05/12/15 Data File ID: T512_066.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.769	3769837	3.3
2)	Perchlorate_85	13.796	1131820	

Date Aquired: 05/13/15 4:13 Vial Number: NA
Sample Name: AZ16234_W01 1052.6 DF 05/12/15 Data File ID: T512_067.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.963	2875	1.9
2)	Perchlorate_85	14.122	1549	

Date Aquired: 05/13/15 4:32 Vial Number: NA
Sample Name: AZ16235_W04 1052.6 DF 05/12/15 Data File ID: T512_068.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.677	15310713	3.5
2)	Perchlorate_85	13.674	4406661	

Date Aquired: 05/13/15 4:50 Vial Number: NA
Sample Name: AZ16236_W04 1052.6 DF 05/12/15 Data File ID: T512_069.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.382	87515439	3.2
2)	Perchlorate_85	13.389	27011121	

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Date Aquired: 05/13/15 5:09 Vial Number: NA
Sample Name: AZ16237_W01 1052.6 DF 05/12/15 Data File ID: T512_070.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.587	522111097	2.7
2)	Perchlorate_85	12.563	193221789	

Date Aquired: 05/13/15 5:27 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T512_071.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.513	57479	2.1
2)	Perchlorate_85	14.397	27760	

Date Aquired: 05/13/15 5:46 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 05/07/15 Data File ID: T512_072.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.472	384165	3.1
2)	Perchlorate_85	14.479	122721	

Date Aquired: 05/13/15 6:05 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 05/07/15 Data File ID: T512_073.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.492	1883174	3.4
2)	Perchlorate_85	14.499	549926	

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\150514
Instrument Name : TQ (Agilent 6460 Triple Quad LC/MS)
Method File : 6460_ESI_PER_N_NEWER_K'_COLUMN.m
Operator : BA

Date Aquired: 05/14/15 9:49 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T514_001.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.596	40726	1.9
2)	Perchlorate_85	13.654	21199	

Date Aquired: 05/14/15 10:07 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 05/07/15 Data File ID: T514_002.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.535	402839	3.2
2)	Perchlorate_85	13.541	126192	

Date Aquired: 05/14/15 10:26 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 05/07/15 Data File ID: T514_003.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.555	1898195	3.2
2)	Perchlorate_85	13.531	585205	

Date Aquired: 05/14/15 10:45 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T514_004.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.474	37420	2.5
2)	Perchlorate_85	13.358	15017	

Date Aquired: 05/14/15 11:12 Vial Number: NA
Sample Name: AZ16230_W01 10526315.8 DF 05/12/15_5/14 Data File ID: T514_005.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.423	440229	2.8
2)	Perchlorate_85	13.46	157764	

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Date Aquired: 05/14/15 11:31 Vial Number: NA
Sample Name: AZ16230_W01 1052631.6 DF 05/12/15_5/14 Data File ID: T514_006.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.392	3846481	3.4
2)	Perchlorate_85	13.419	1145733	

Date Aquired: 05/14/15 11:49 Vial Number: NA
Sample Name: PER_IS_50:50 0.005 ug/ml 05/10/15 Data File ID: T514_007.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.3	17783	1.5
2)	Perchlorate_85	13.48	11809	

Date Aquired: 05/14/15 12:17 Vial Number: NA
Sample Name: AZ16236_W01 1052631.6 DF 05/12/15_5/14 Data File ID: T514_008.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.311	189537	2.9
2)	Perchlorate_85	13.338	64619	

Date Aquired: 05/14/15 12:36 Vial Number: NA
Sample Name: AZ16236_W01 105263.2 DF 05/12/15_5/14 Data File ID: T514_009.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.423	1096522	3.2
2)	Perchlorate_85	13.399	341231	

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Date Aquired: 05/14/15 12:55 Vial Number: NA
Sample Name: PER_IS_50:50 0.005 ug/ml 05/14/15 Data File ID: T514_010.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.402	27832	1.7
2)	Perchlorate_85	13.328	16688	

Date Aquired: 05/14/15 13:13 Vial Number: NA
Sample Name: AZ16228_W01 10526.3 DF 05/12/15_5/14 Data File ID: T514_011.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.546	1201836	3.1
2)	Perchlorate_85	12.553	385931	

Date Aquired: 05/14/15 13:32 Vial Number: NA
Sample Name: AZ16231_W01 10526.3 DF 05/12/15_5/14 Data File ID: T514_012.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.414	55610564	3.3
2)	Perchlorate_85	12.411	16769617	

Date Aquired: 05/14/15 13:50 Vial Number: NA
Sample Name: AZ16233_W01 105263.2 DF 05/12/15_5/14 Data File ID: T514_013.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.148	88870	2.5
2)	Perchlorate_85	13.226	36096	

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Date Aquired: 05/14/15 14:09 Vial Number: NA
Sample Name: AZ16233_W01 10526.3 DF 05/12/15_5/14 Data File ID: T514_014.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.249	458564	3.0
2)	Perchlorate_85	13.277	153742	

Date Aquired: 05/14/15 14:28 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 05/07/15 Data File ID: T514_015.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.29	52941	2.5
2)	Perchlorate_85	13.409	21570	

Date Aquired: 05/14/15 14:46 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 05/07/15 Data File ID: T514_016.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.209	420437	3.2
2)	Perchlorate_85	13.246	131038	

Date Aquired: 05/14/15 15:05 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 05/07/15 Data File ID: T514_017.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.127	2033268	3.2
2)	Perchlorate_85	13.134	643386	

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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\150611
Instrument Name : TQ (Agilent 6460 Triple Quad LC/MS)
Method File : 6460_ESI_PER_N_NEWER_K'_COLUMN.m

Operator : BA

Date Aquired: 06/11/15 17:27 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/11/15 Data File ID: T611_001.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.076	1445	0.5
2)	Perchlorate_85	13.114	2900	

Date Aquired: 06/11/15 17:46 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 06/11/15 Data File ID: T611_002.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.148	430210	2.7
2)	Perchlorate_85	13.164	156500	

Date Aquired: 06/11/15 18:04 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 06/11/15 Data File ID: T611_003.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.005	2626863	3.2
2)	Perchlorate_85	13.022	809779	

Date Aquired: 06/11/15 18:23 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/11/15 Data File ID: T611_004.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.954	17897	4.6
2)	Perchlorate_85	13.042	3886	

Date Aquired: 06/11/15 18:42 Vial Number: NA
Sample Name: 150609SA_LCS-1 9930.5 DF 06/09/15 Data File ID: T611_005.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.893	669459	3.0
2)	Perchlorate_85	12.859	221272	

Date Aquired: 06/12/15 6:10 Vial Number: NA
Sample Name: AZ17124_S04 7412.9 DF 06/09/15 Data File ID: T611_042.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.75	890634	3.0
2)	Perchlorate_85	12.777	299978	

Date Aquired: 06/12/15 6:29 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/11/15 Data File ID: T611_043.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.934	14357	1.3
2)	Perchlorate_85	12.92	11287	

Date Aquired: 06/12/15 6:48 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 06/11/15 Data File ID: T611_044.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.883	523048	3.0
2)	Perchlorate_85	12.879	174786	

Date Aquired: 06/12/15 7:06 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 06/11/15 Data File ID: T611_045.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.842	2833542	3.3
2)	Perchlorate_85	12.838	869461	

Page 11 of 14

Date Aquired: 06/12/15 7:25 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/11/15 Data File ID: T611_046.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.198	2198	2.7
2)	Perchlorate_85	12.869	822	

Date Aquired: 06/12/15 7:43 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/11/15 Data File ID: T611_047.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.066	3323	0.5
2)	Perchlorate_85	13.144	6847	

Date Aquired: 06/12/15 8:02 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/11/15 Data File ID: T611_048.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.137	2093	0.2
2)	Perchlorate_85	13.073	8559	

Date Aquired: 06/12/15 8:21 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/11/15 Data File ID: T611_049.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.158	1280	0.1
2)	Perchlorate_85	13.093	9065	

Page 12 of 14

Date Aquired: 06/12/15 8:39 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/11/15 Data File ID: T611_050.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.219	6172	2.9
2)	Perchlorate_85	13.124	2117	

Date Aquired: 06/12/15 8:58 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/11/15 Data File ID: T611_051.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.781	25304	5.0
2)	Perchlorate_85	12.991	5073	

Date Aquired: 06/12/15 9:18 Vial Number: NA
Sample Name: AZ16235_W01 10526.3 DF 05/12/15_6/12 Data File ID: T611_052.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.964	1867760	3.4
2)	Perchlorate_85	12.961	556988	

Date Aquired: 06/12/15 9:37 Vial Number: NA
Sample Name: AZ16235_W01 1052.6 DF 05/12/15 Data File ID: T611_053.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.455	21845028	3.4
2)	Perchlorate_85	12.461	6374558	

Date Aquired: 06/12/15 9:55 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/11/15 Data File ID: T611_054.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.27	19235	3.0
2)	Perchlorate_85	13.144	6399	

Date Aquired: 06/12/15 10:14 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 06/11/15 Data File ID: T611_055.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.29	480996	3.1
2)	Perchlorate_85	13.236	155858	

Date Aquired: 06/12/15 10:33 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 06/11/15 Data File ID: T611_056.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.3	2683379	3.4
2)	Perchlorate_85	13.307	789612	

Date Aquired: 06/12/15 10:51 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/11/15 Data File ID: T611_057.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.046	1506	0.6
2)	Perchlorate_85	13.205	2365	

Page 14 of 14

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-MW012-051115
Sample Collection Date: 05/11/15

ARF: 76401
APPL ID: AZ16235
QCG: #6850-150512A-196913

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	18 E	0.60	0.400	0.200	ug/L	05/12/15	05/13/15

E = The reported value exceeds linear range.

Quant Method:	QTLMFL2
Run #:	T512_068.D
Instrument:	AGIL_6460
Sequence:	TQ051215
Dilution Factor:	1
Initials:	MP

Printed: 05/13/15 11:50:11 AM
APPL-F1-SC-NoMC-REG MDLs

Data File ID: T512_068.d

Date Injected : 05/13/15

Time Injected : 4:32

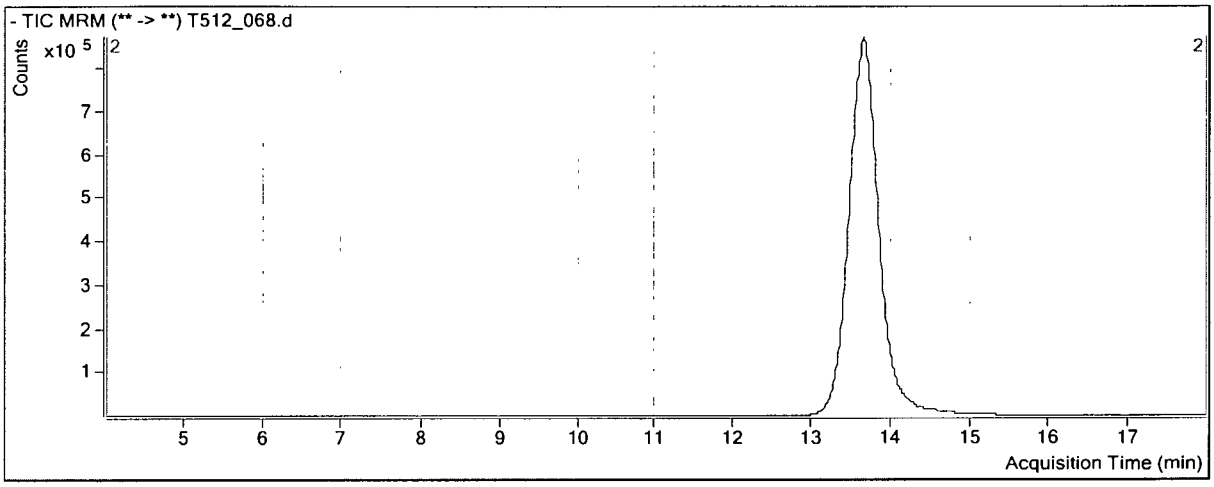
Sample ID : AZ16235_W04 1052.6 DF 05/12/15

Client ID : S67-MW012-051115

Retention Time	Area Count Response	Compound_ID Product Ion				
13.681	3520065	PER_IS_89				
13.677	15310713	Perchlorate_83	(15310713 * 0.0050) / (1.27 * 3520065.00) *	1052.60 =	18.021341 ppb	
13.674	4406661	Perchlorate_85	(4406661 * 0.0050) / (0.39 * 3520065.00) *	1052.60 =	16.824575 ppb	

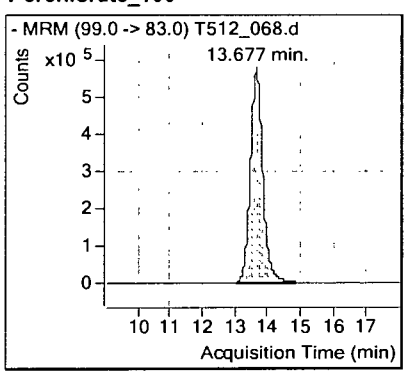
Quantitative Analysis Sample Report

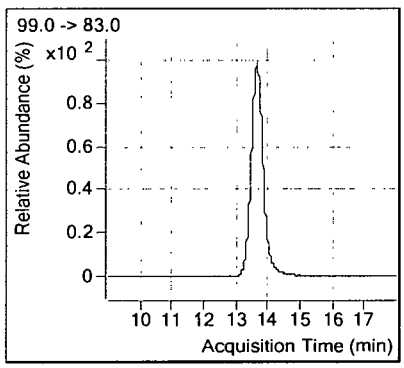
Batch Data Path	D:\MassHunter\Data\150512\QuantResults\150512_A2_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T512_068.d	**Sample Name**	AZ16235_W04 1052.6 DF 05/12/15
Sample Type	Sample	**Acq_Date**	05/13/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	4:32
ClientID	S67-MW012-051115	**Inj Vol**	20

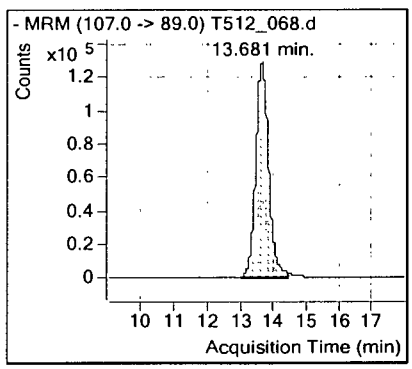


Compound	ISTD	RT	Resp	ISTD RESP
Perchlorate_100	PER_IS_108	13.677	15310713	3520065
Perchlorate_102	PER_IS_108	13.674	4406661	3520065

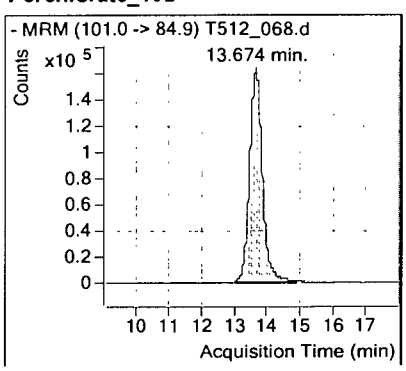
Perchlorate_100

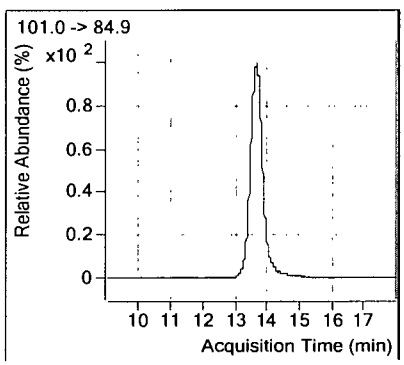


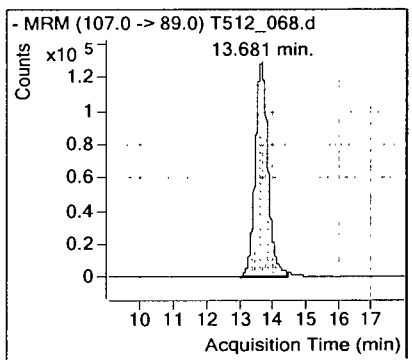




Perchlorate_102







Perchlorate - Dilution

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-MW012-051115
Sample Collection Date: 05/11/15

ARF: 76401
APPL ID: AZ16235
QCG: #6850-150512A-196913

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	15	6.0	4.00	2.00	ug/L	05/12/15	06/12/15

Quant Method: QTLMFL2
Run #: T611_052.d
Instrument: AGIL_6460
Sequence: TQ061115
Dilution Factor: 10
Initials: RP

Printed: 06/30/15 7:48:04 AM
APPL-F1-SC-NoMC-REG MDLs

Data File ID: T611_052.d

Date Injected : 06/12/15

Time Injected : 9:18

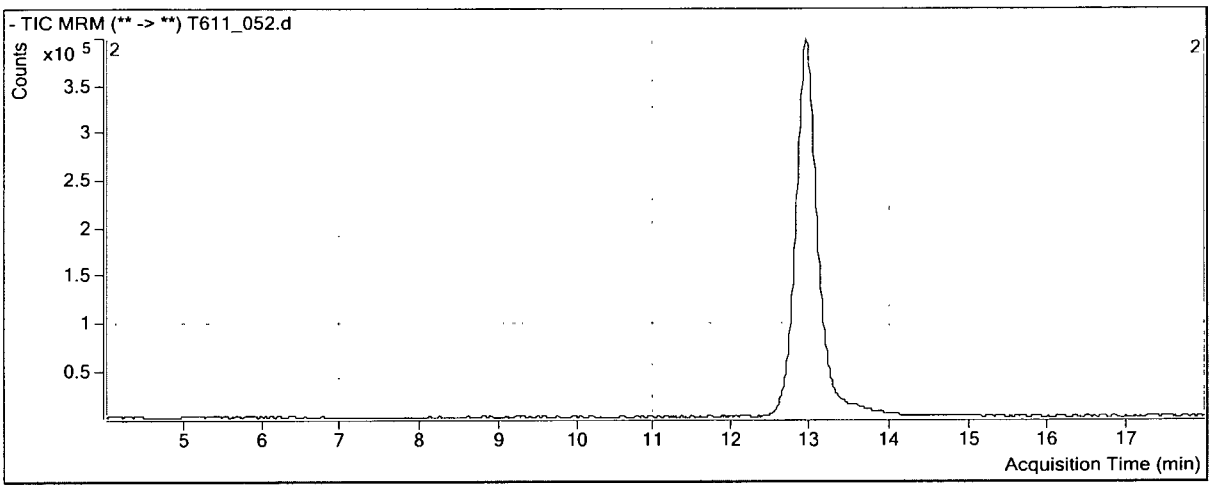
Sample ID : AZ16235_W01 10526.3 DF 05/12/15_6/12

Client ID : S67-MW012-051115

Retention Time	Area Count Response	Compound_ID Product Ion	
12.968	5334088	PER_IS_89	
12.964	1867760	Perchlorate_83	(1867760 * 0.0050) / (1.27 * 5334088.00) * 10526.30 = 14.508270 ppb
12.961	556988	Perchlorate_85	(556988 * 0.0050) / (0.39 * 5334088.00) * 10526.30 = 14.034055 ppb

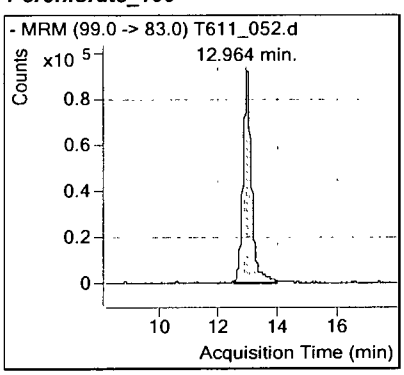
Quantitative Analysis Sample Report

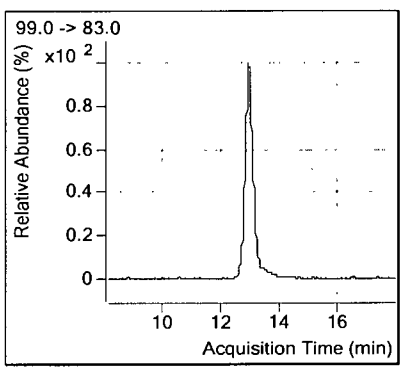
Batch Data Path	D:\MassHunter\Data\150611\QuantResults\150611_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T611_052.d	**Sample Name**	AZ16235_W01 10526.3 DF 05/12/15_6/12
Sample Type	Sample	**Acq_Date**	06/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	9:18
ClientID	S67-MW012-051115	**Inj Vol**	20

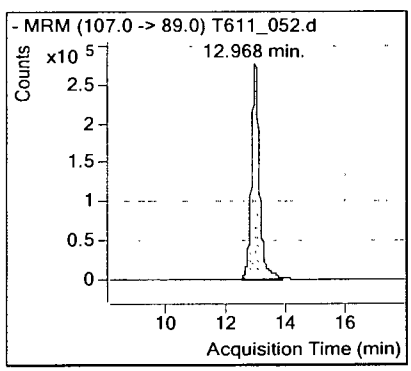


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	12.964	1867760	5334088
Perchlorate_102	PER_IS_108	12.961	556988	5334088

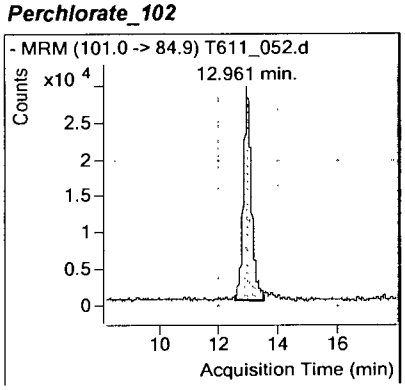
Perchlorate_100

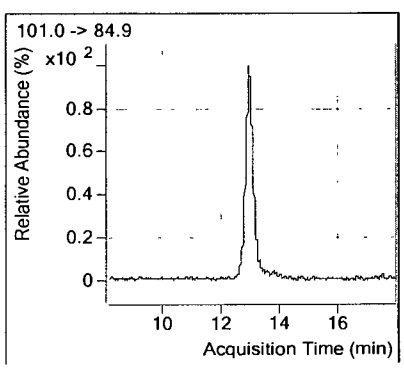


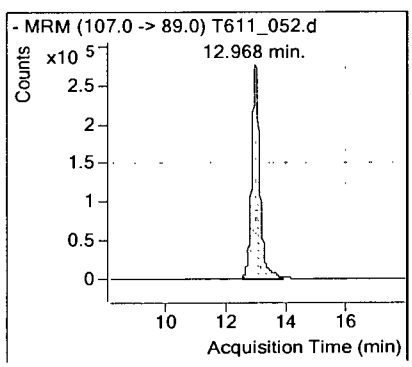




Perchlorate_102







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-MW011-051115
Sample Collection Date: 05/11/15

ARF: 76401
APPL ID: AZ16236
QCG: #6850-150512A-196913

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	130	60	40.0	20.0	ug/L	05/12/15	05/14/15

Quant Method: QTLMFL2
Run #: T514_009.D
Instrument: AGIL_6460
Sequence: TQ051215
Dilution Factor: 100
Initials: MP

Printed: 06/09/15 8:52:31 AM
APPL-F1-SC-NoMC-REG MDLs

Data File ID: T514_009.d

Date Injected : 05/14/15

Time Injected : 12:36

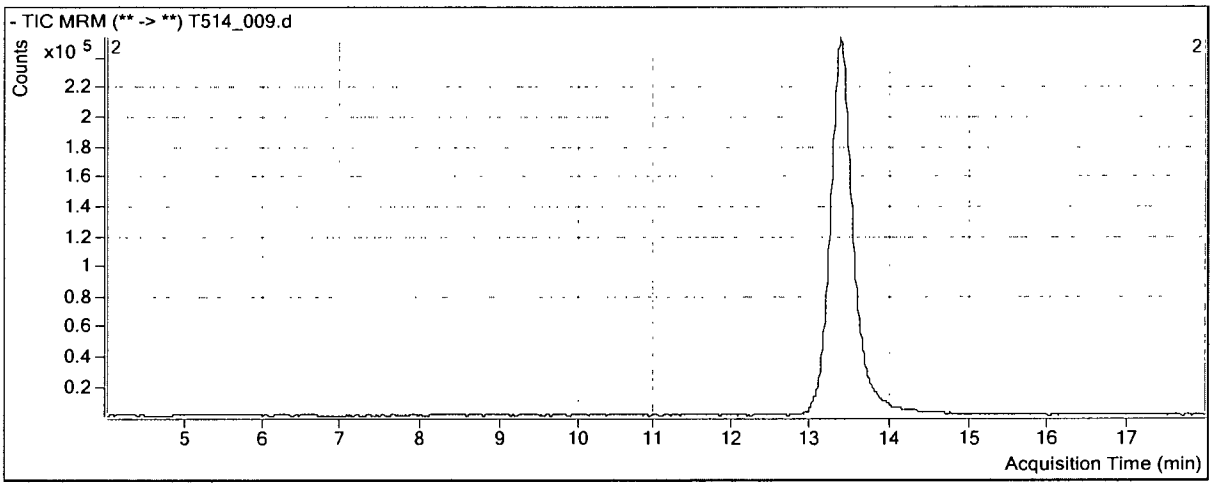
Sample ID : AZ16236_W01 105263.2 DF 05/12/15_5/14

Client ID : S67-MW011-051115

Retention Time	Area Count Response	Compound_ID Product Ion				
13.395	3616523	PER_IS_89				
13.423	1096522	Perchlorate_83	(1096522 * 0.0050) / (1.27 * 3616523.00) *	105263.20 =	125.626622 ppb
13.399	341231	Perchlorate_85	(341231 * 0.0050) / (0.39 * 3616523.00) *	105263.20 =	126.810610 ppb

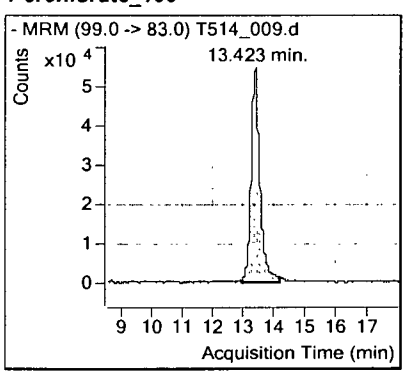
Quantitative Analysis Sample Report

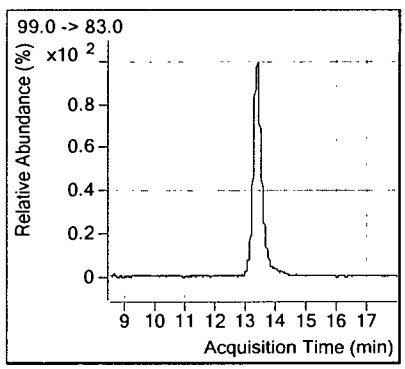
Batch Data Path	D:\MassHunter\Data\150514\QuantResults\150514_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T514_009.d	**Sample Name**	AZ16236_W01 105263.2 DF 05/12/15_5/14
Sample Type	Sample	**Acq_Date**	05/14/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	12:36
ClientID	S67-MW011-051115	**Inj Vol**	20

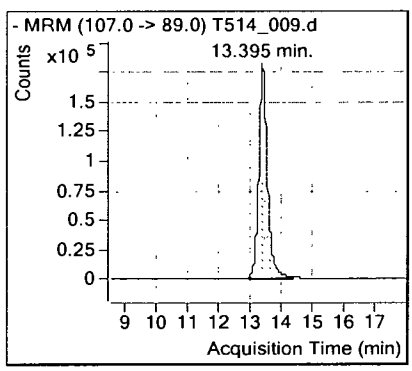


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.423	1096522	3616523
Perchlorate_102	PER_IS_108	13.399	341231	3616523

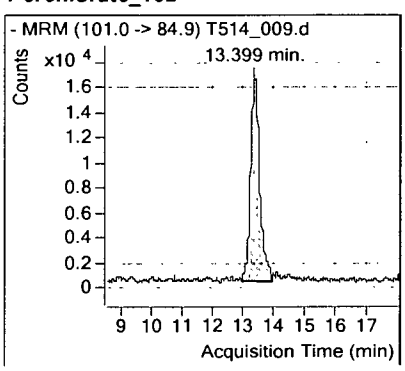
Perchlorate_100

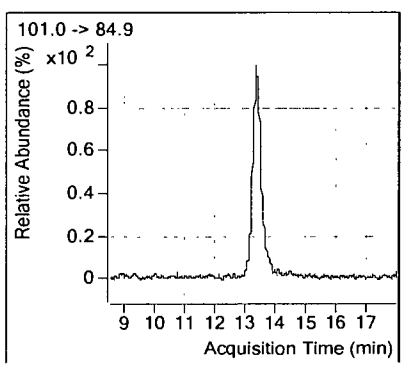


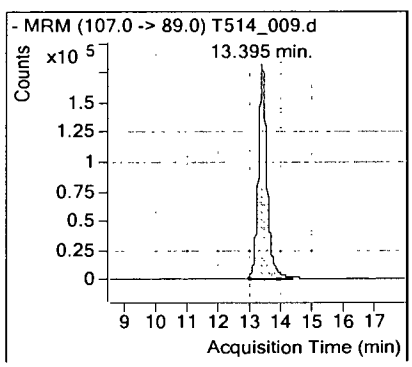




Perchlorate_102







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_003.d

Date Injected : 03/12/15

Time Injected : 17:52

Sample ID : PERCHLORATE 0.0002 ug/ml 11/11/14

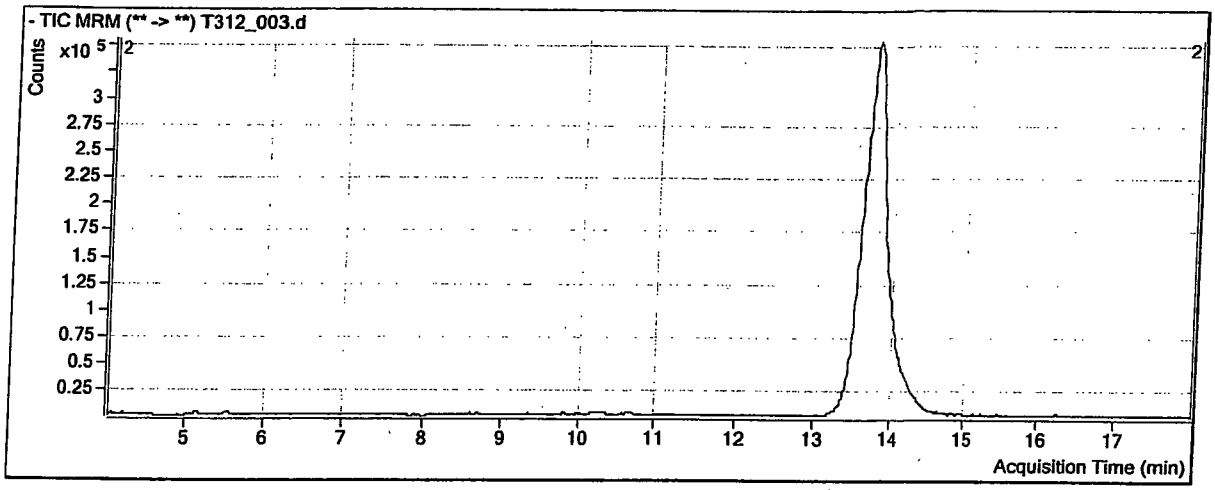
Client ID : NA

Retention Time		Area Count Response	Compound_ID Product Ion
13.732		8337058	PER_IS_89
13.789	*	446712	Perchlorate_83
13.704		144754	Perchlorate_85

* MANUAL INTEGRAION

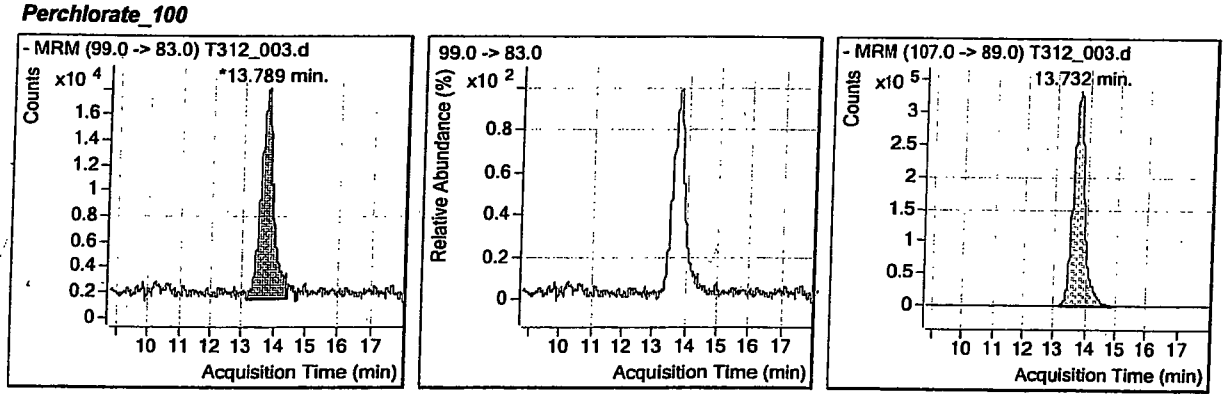
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_003.d	**Sample Name**	PERCHLORATE 0.0002 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**	17:52
ClientID	NA	**Inj Vol**	20

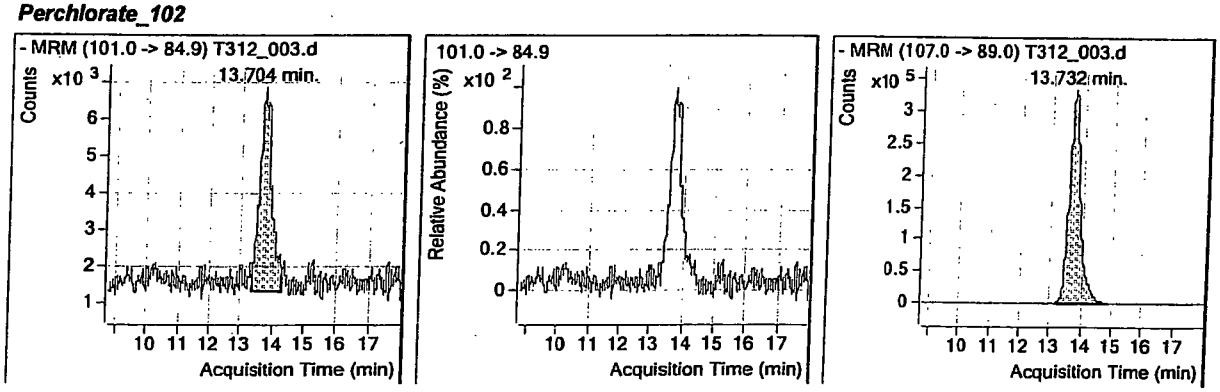


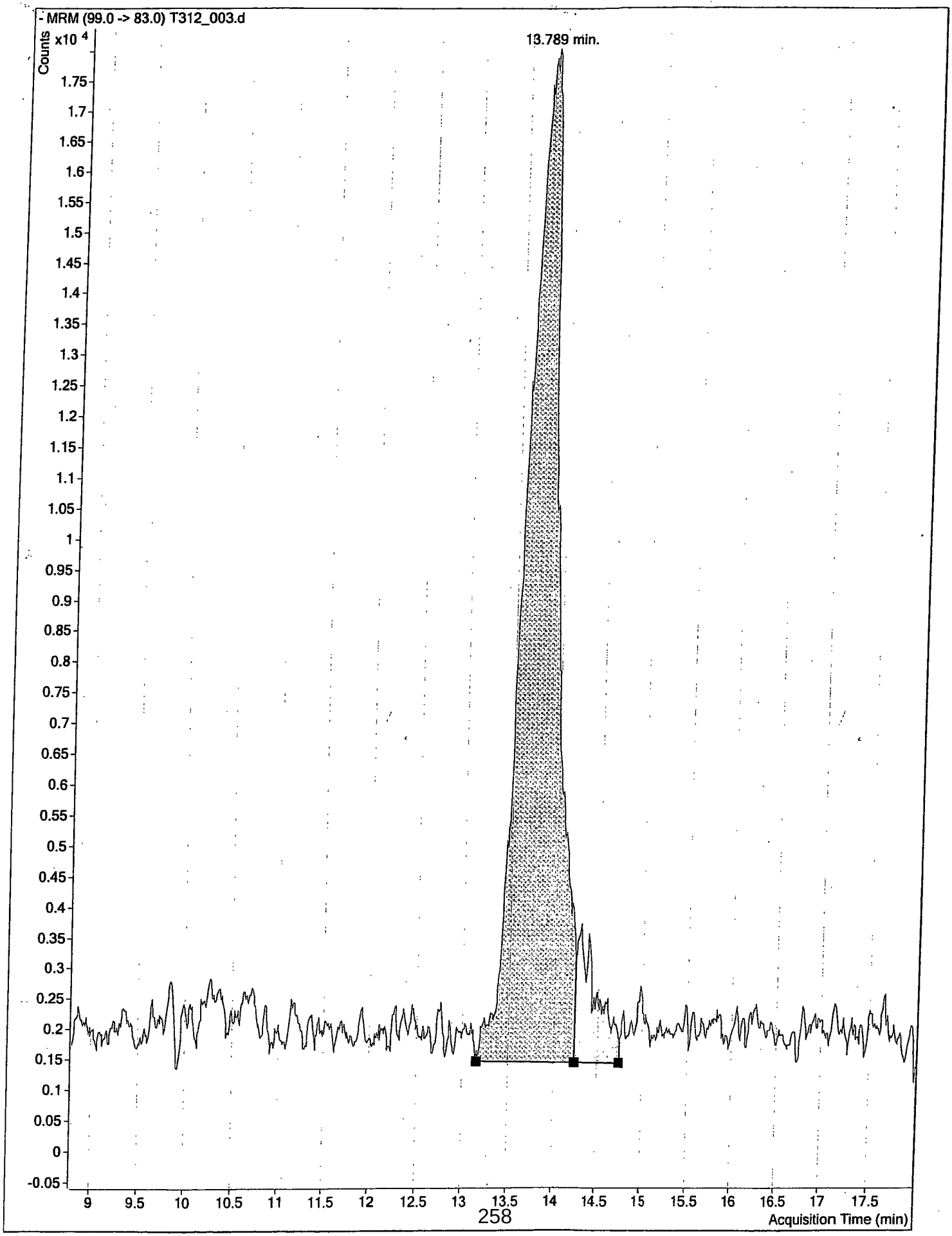
Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108	*	13.789	446712	8337058	* MANUAL INT
Perchlorate_102	PER_IS_108		13.704	144754	8337058	

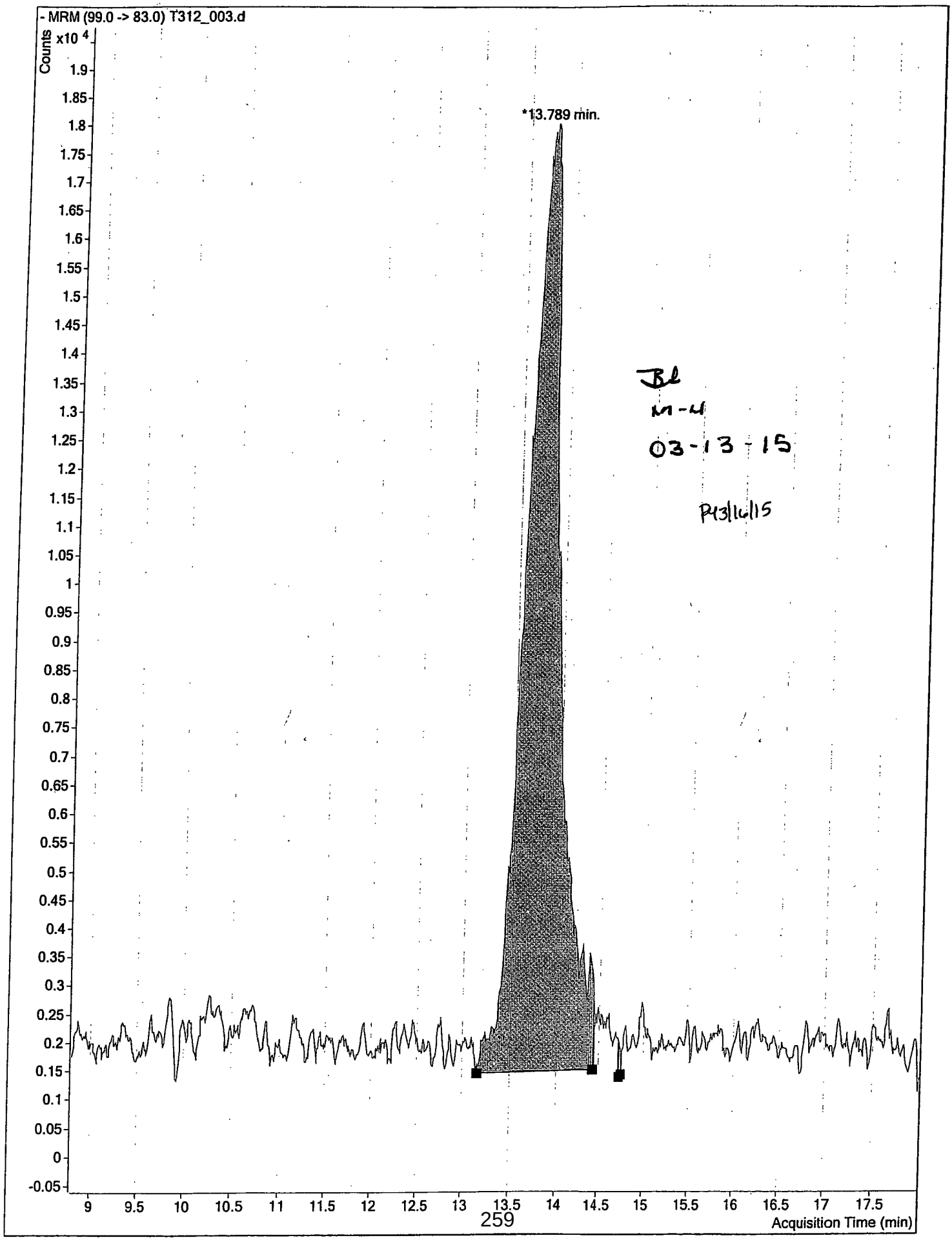
Perchlorate_100



Perchlorate_102




- MRM (99.0 -> 83.0) T312_003.d
Counts
x10 4
13.789 min.
1.75
1.7
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
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) T312_003.d
Counts
x10 4
*13.789 min.
Acquisition Time (min)
JBl
M-4
03-13-15
R 3/16/15

Data File ID: T312_004.d

Date Injected : 03/12/15

Time Injected : 18:11

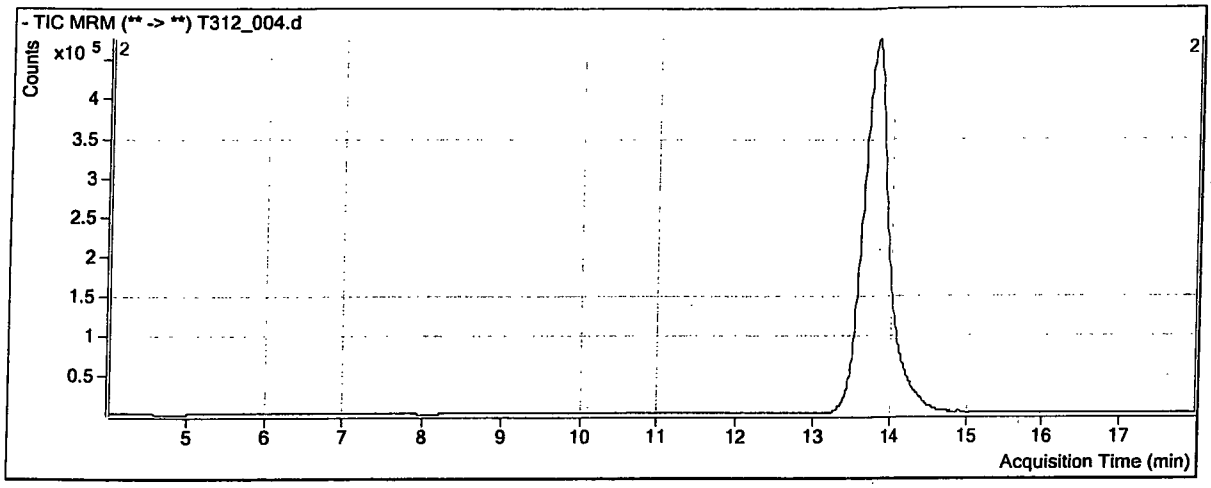
Sample ID : PERCHLORATE 0.0004 ug/ml 11/11/14

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

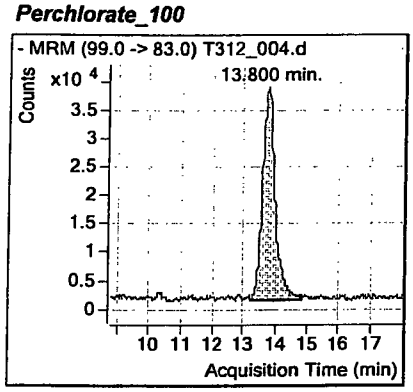
Quantitative Analysis Sample Report

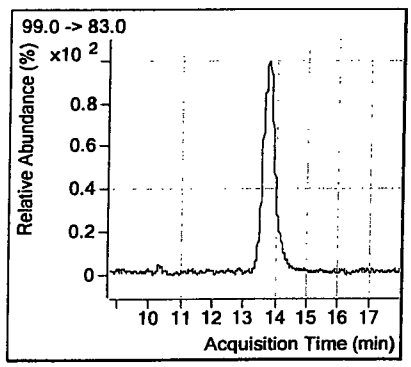
Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_004.d	**Sample Name**	PERCHLORATE 0.0004 ug/ml 11/11/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	18:11
ClientID	NA	**Inj Vol**	20

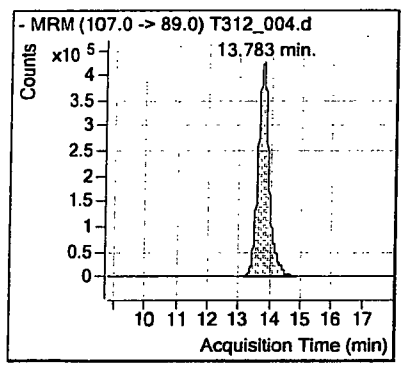


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.800	1023403	10671196
Perchlorate_102	PER_IS_108	13.827	337305	10671196

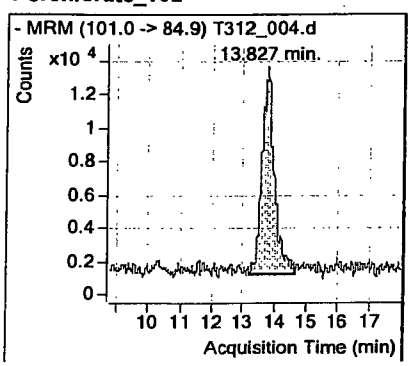
Perchlorate_100

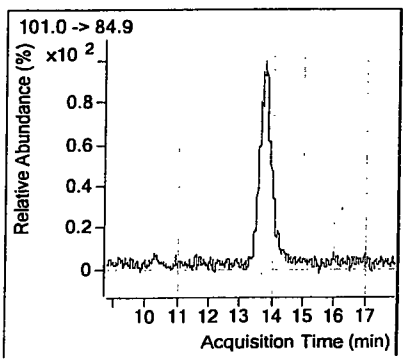


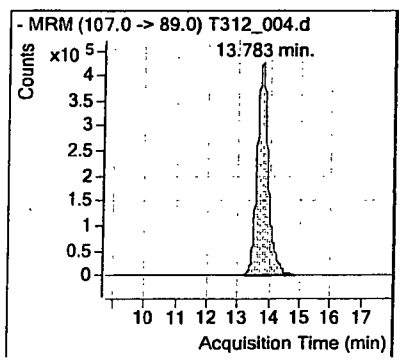




Perchlorate_102







Data File ID: T312_005.d

Date Injected : 03/12/15

Time Injected : 18:29

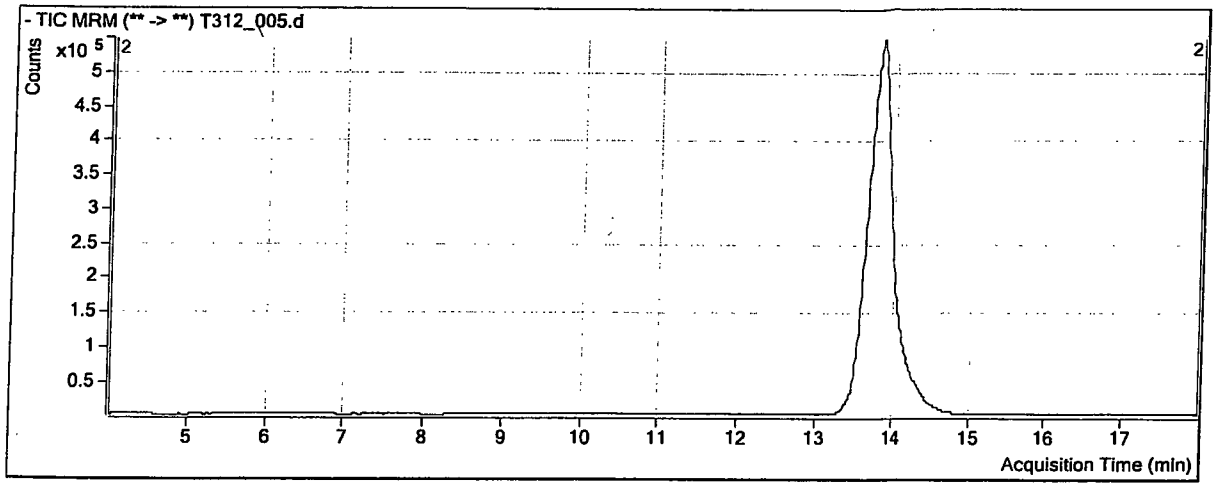
Sample ID : PERCHLORATE 0.001 ug/ml 11/11/14

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

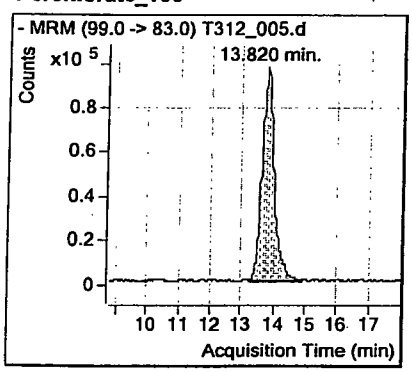
Quantitative Analysis Sample Report

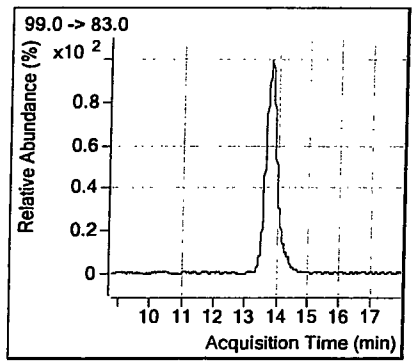
Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_005.d	**Sample Name**	PERCHLORATE 0.001 ug/ml 11/11/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	18:29
ClientID	NA	**Inj Vol**	20

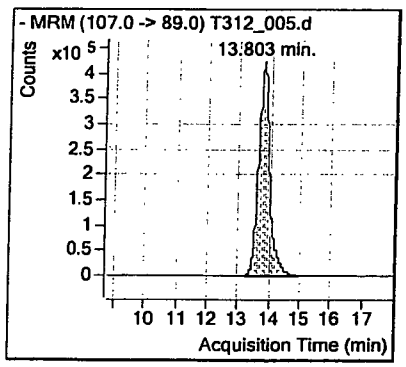


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.820	2483393	10651968
Perchlorate_102	PER_IS_108	13.827	781617	10651968

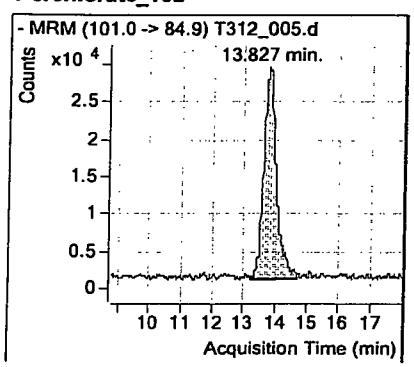
Perchlorate_100

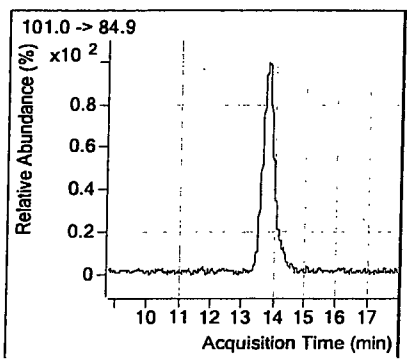


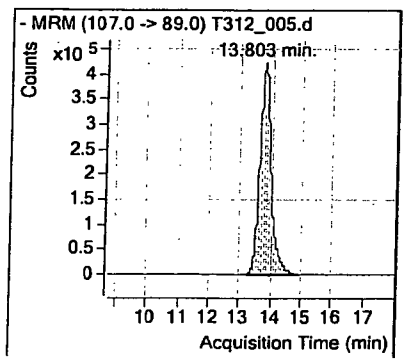




Perchlorate_102







Data File ID: T312_006.d

Date Injected : 03/12/15

Time Injected : 18:48

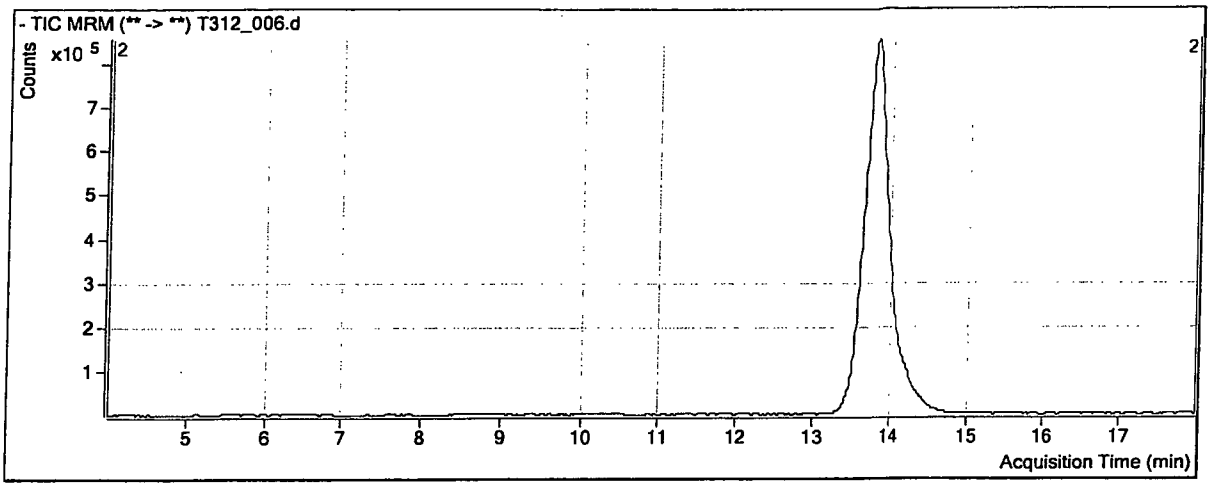
Sample ID : PERCHLORATE 0.002 ug/ml 11/11/14

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

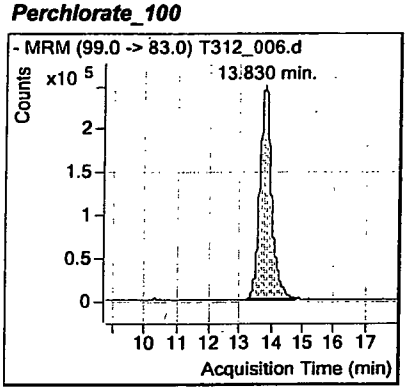
Quantitative Analysis Sample Report

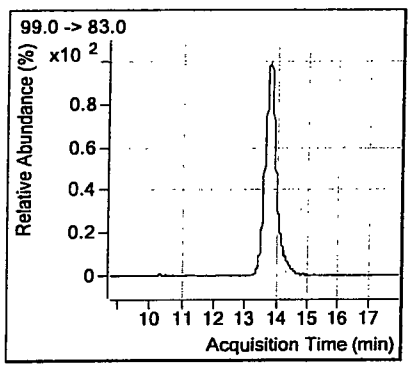
Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_006.d	**Sample Name**	PERCHLORATE 0.002 ug/ml 11/11/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	18:48
ClientID	NA	**Inj Vol**	20

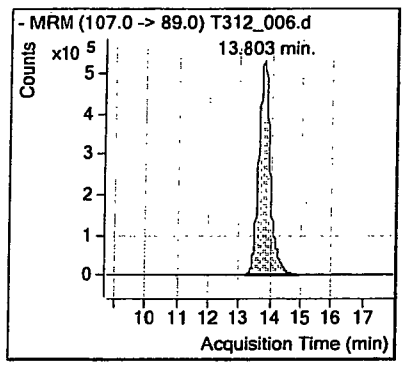


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.830	6351752	13529952
Perchlorate_102	PER_IS_108	13.817	1920912	13529952

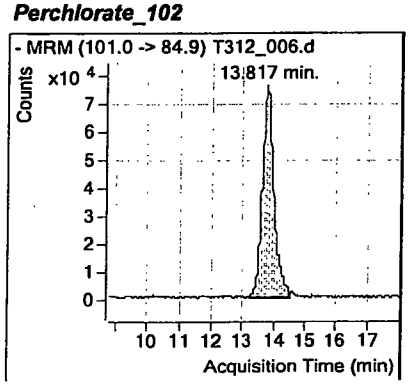
Perchlorate_100

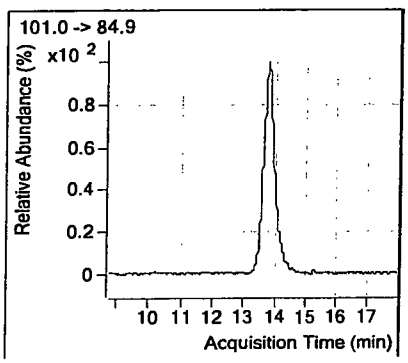


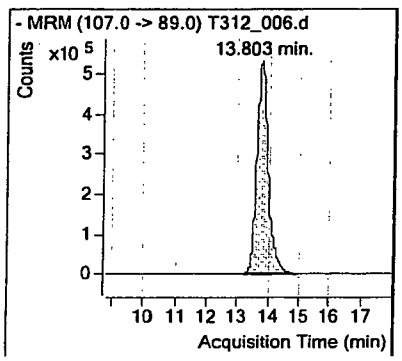




Perchlorate_102







Data File ID: T312_007.d

Date Injected : 03/12/15

Time Injected : 19:07

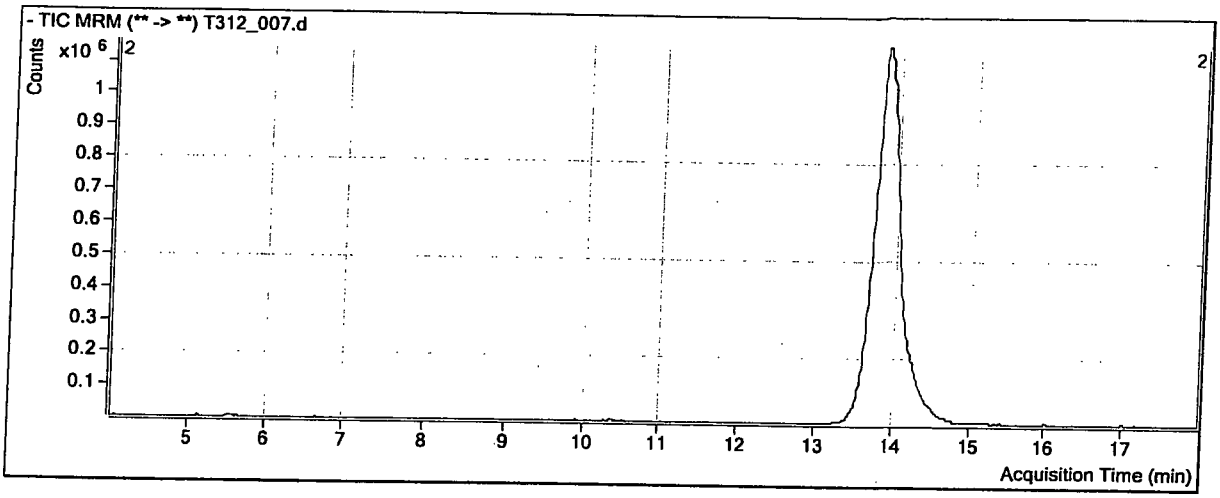
Sample ID : PERCHLORATE 0.005 ug/ml 11/11/14

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

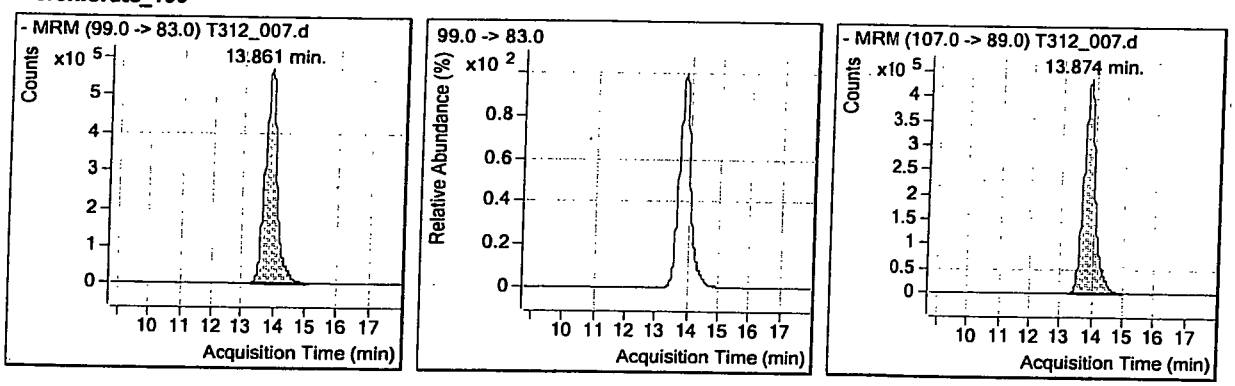
Quantitative Analysis Sample Report

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

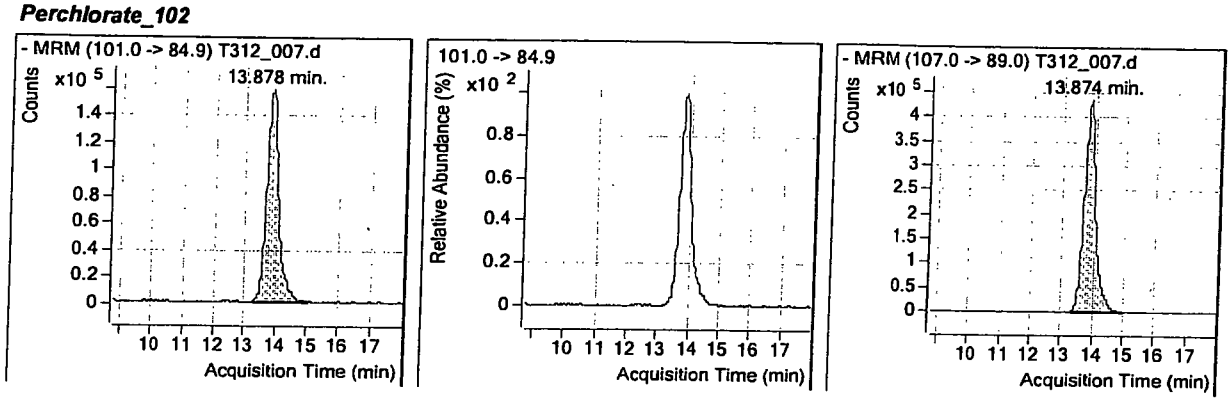


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.861	14499255	11028880
Perchlorate_102	PER_IS_108	13.878	4209044	11028880

Perchlorate_100



Perchlorate_102



Data File ID: T312_008.d

Date Injected : 03/12/15

Time Injected : 19:25

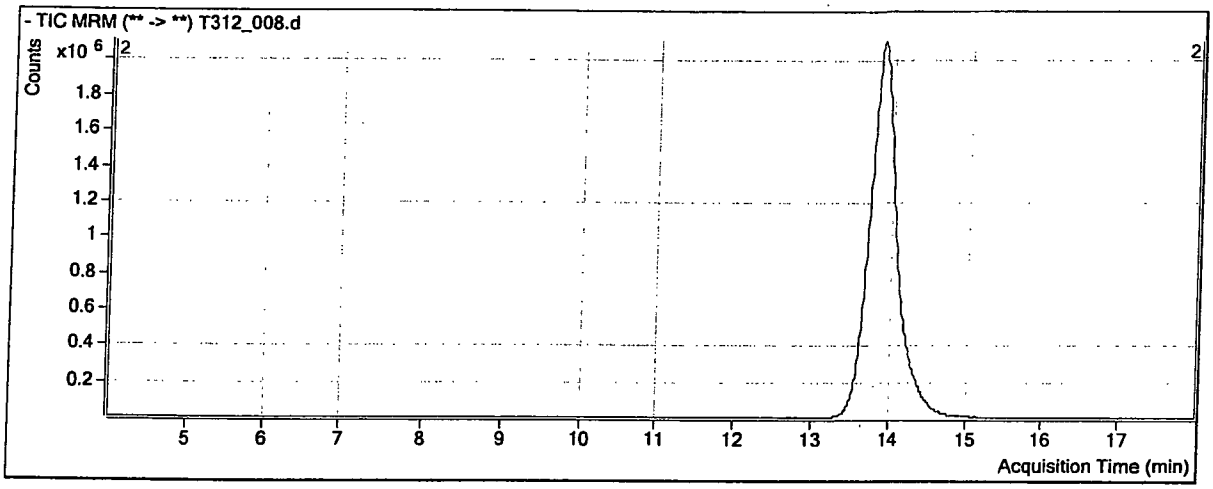
Sample ID : PERCHLORATE 0.010 ug/ml 08/27/14

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

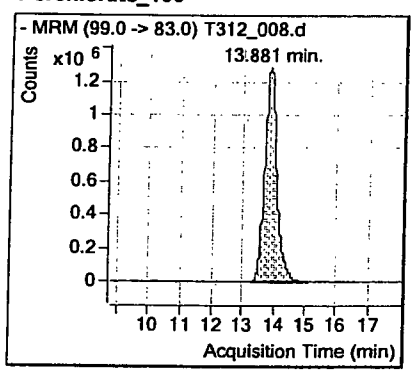
Quantitative Analysis Sample Report

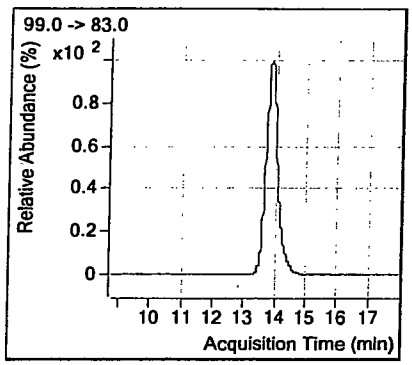
Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_008.d	**Sample Name**	PERCHLORATE 0.010 ug/ml 08/27/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	19:25
ClientID	NA	**Inj Vol**	20

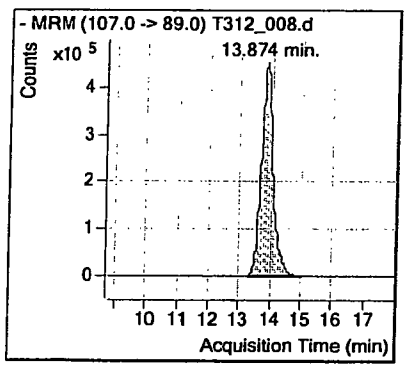


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.881	34223790	11973072
Perchlorate_102	PER_IS_108	13.878	9985270	11973072

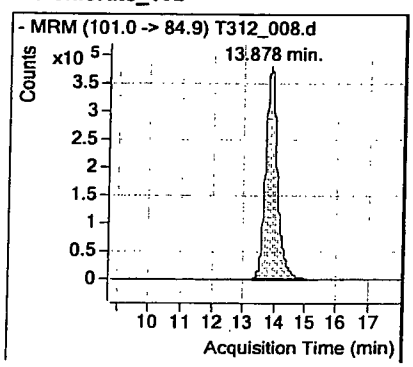
Perchlorate_100

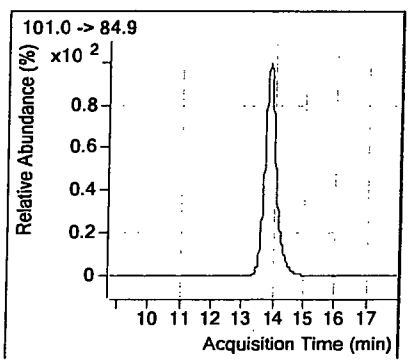


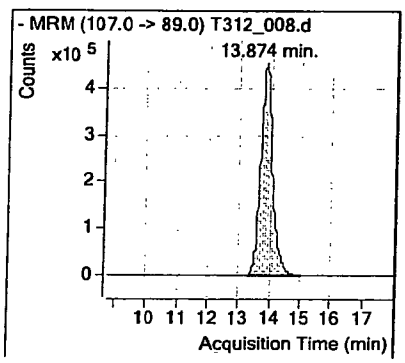




Perchlorate_102







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

FILE ID : TQCK1210.RFB

Data File ID: T312_010.d

Date Injected : 03/12/15

Time Injected : 20:02

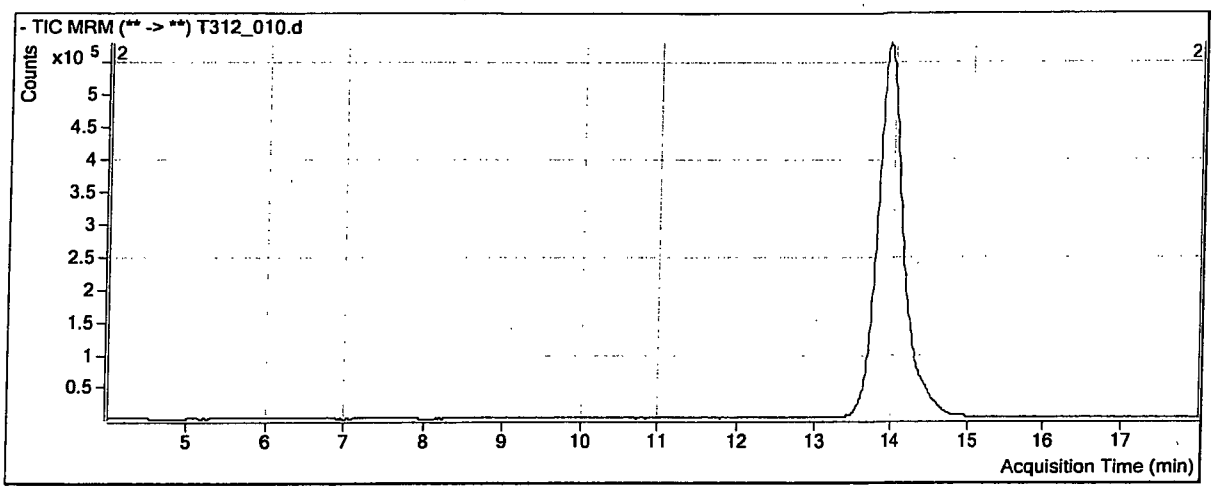
Sample ID : PER_SS 0.0004 ug/ml 11/11/14

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

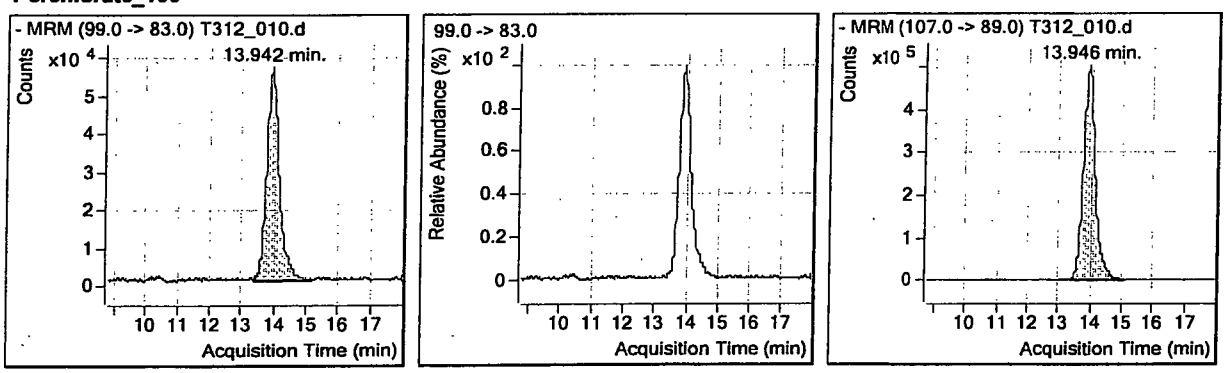
Quantitative Analysis Sample Report

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

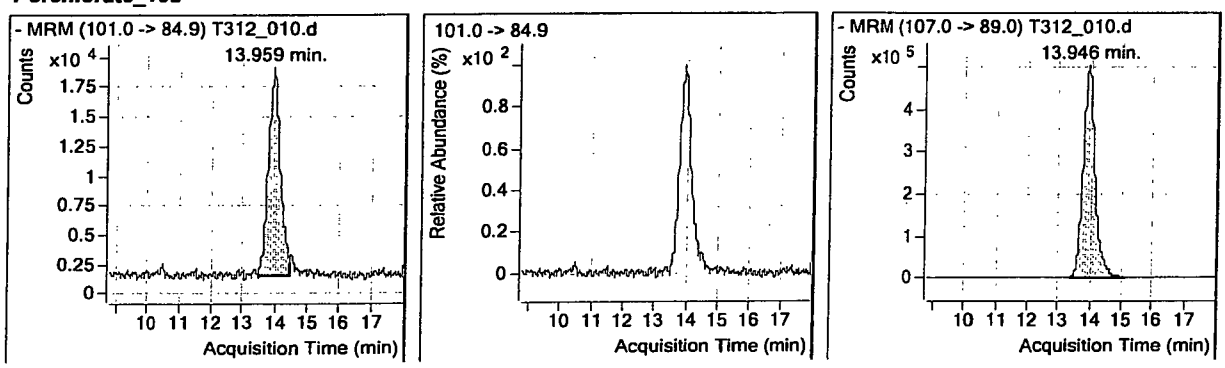


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.942	1472839	12977621
Perchlorate_102	PER_IS_108	13.959	440675	12977621

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

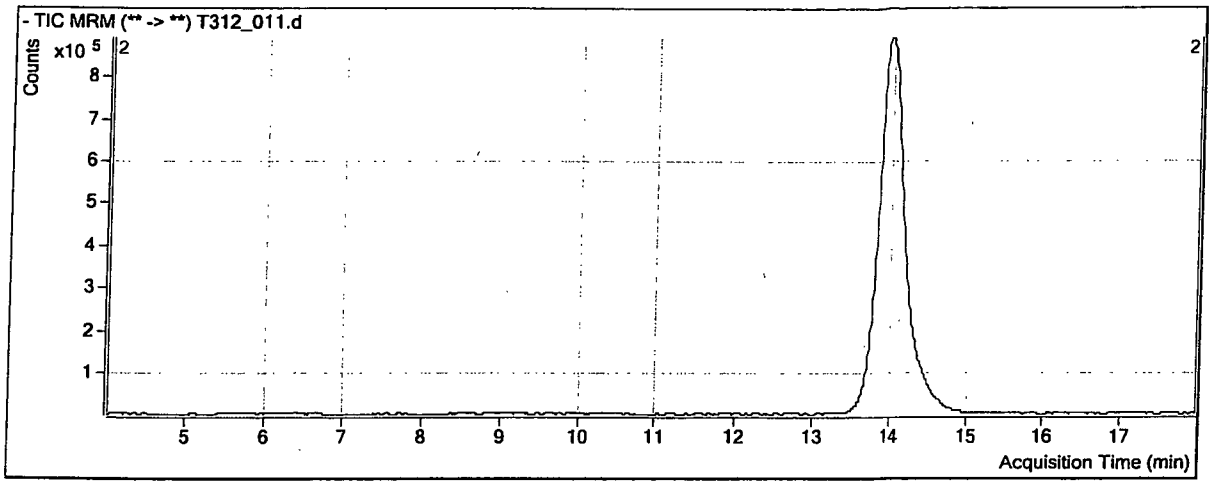
Sample ID : PER_SS 0.002 ug/ml 11/11/14

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

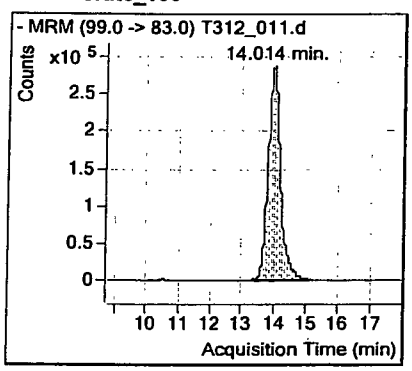
Quantitative Analysis Sample Report

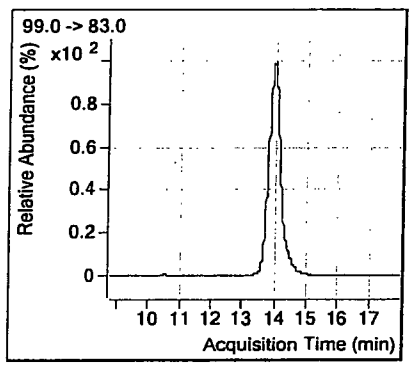
Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_011.d	**Sample Name**	PER_SS 0.002 ug/ml 11/11/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	20:21
ClientID	NA	**Inj Vol**	20

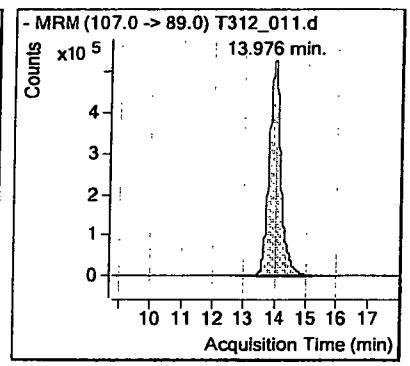


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.014	7468678	13747369
Perchlorate_102	PER_IS_108	14.000	2222387	13747369

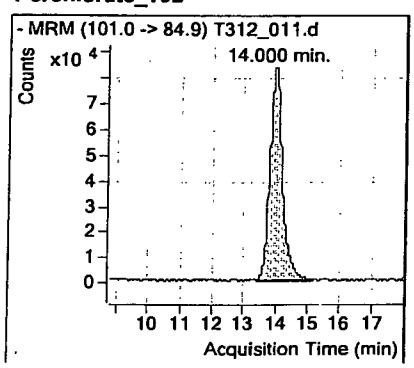
Perchlorate_100

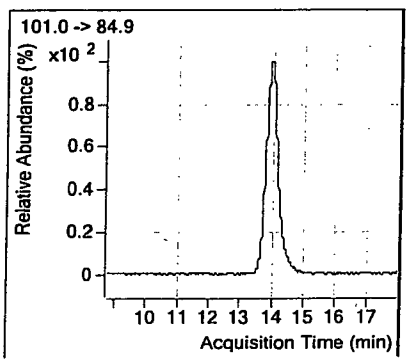


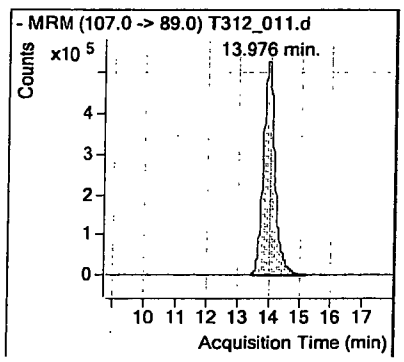




Perchlorate_102







CONTINUING CALIBRATION CHECK SUMMARY FORM

..ab Name: APPL Inc.

)etector 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

:LE ID : TQCK1213.RFB

Data File ID: T312_013.d

Date Injected : 03/12/15

Time Injected : 20:58

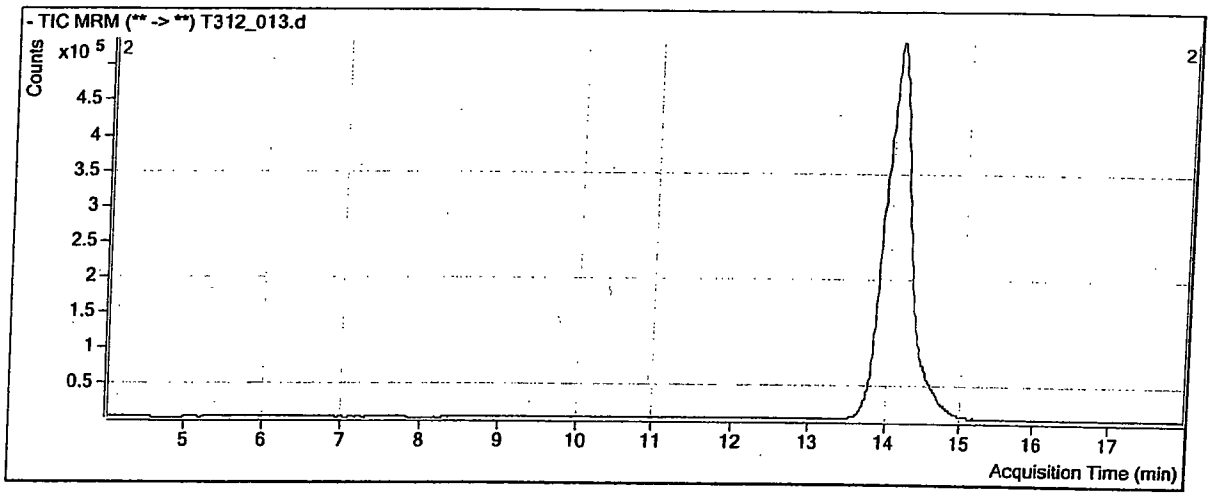
Sample ID : PER_CCV_1 0.0004 ug/ml 11/11/14

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

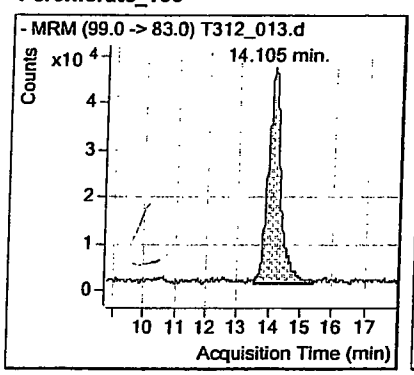
Quantitative Analysis Sample Report

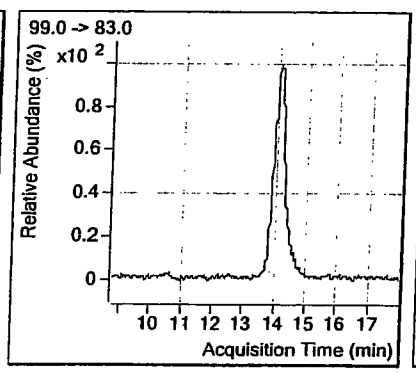
Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_013.d	**Sample Name**	PER_CCV_1 0.0004 ug/ml 11/11/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	20:58
ClientID	NA	**Inj Vol**	20

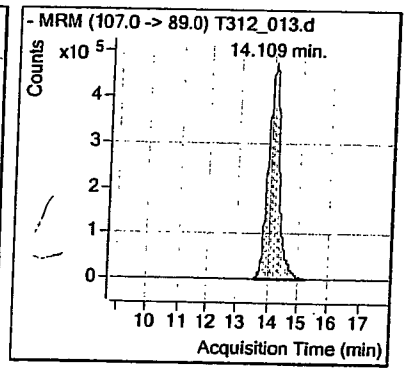


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.105	1267031	12323795
Perchlorate_102	PER_IS_108	14.143	410558	12323795

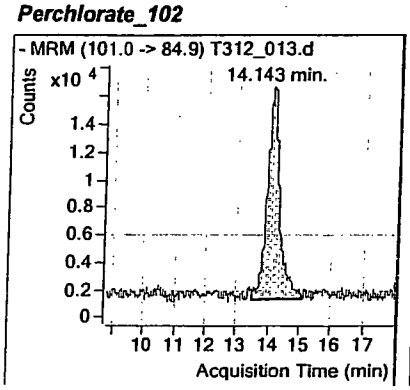
Perchlorate_100

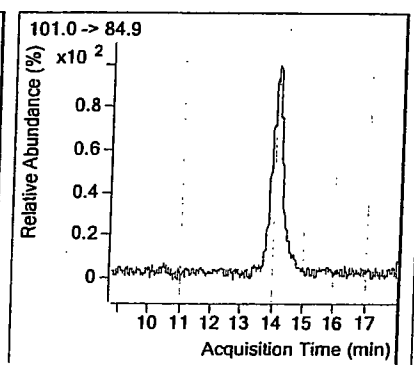


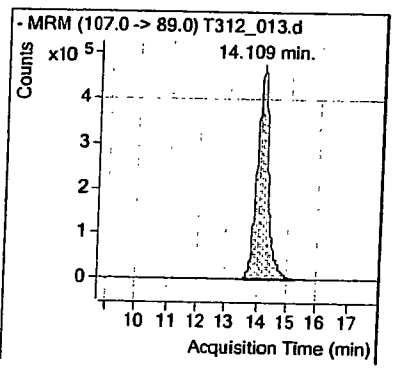




Perchlorate_102

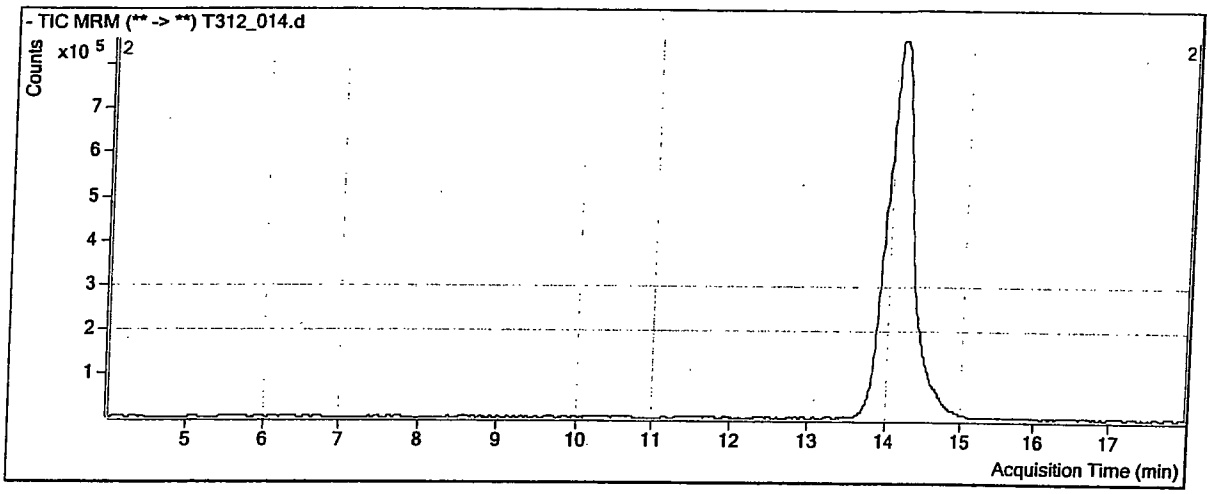






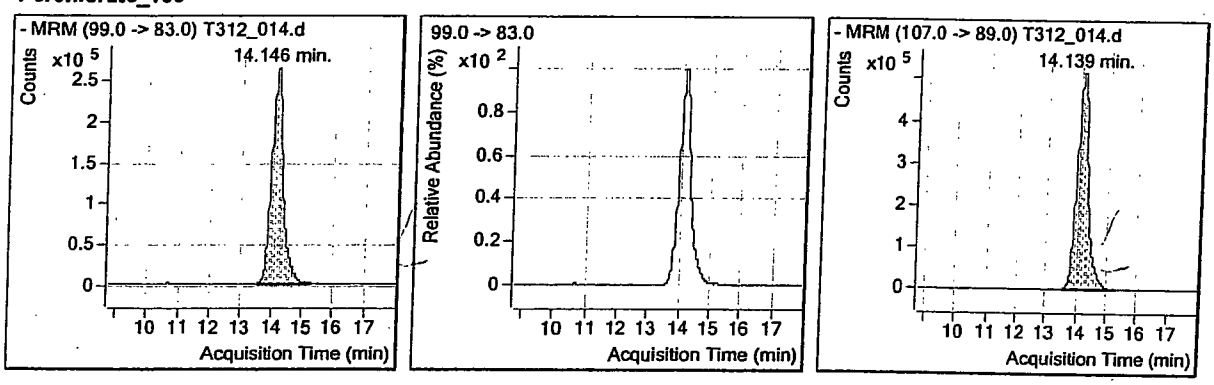
Quantitative Analysis Sample Report

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

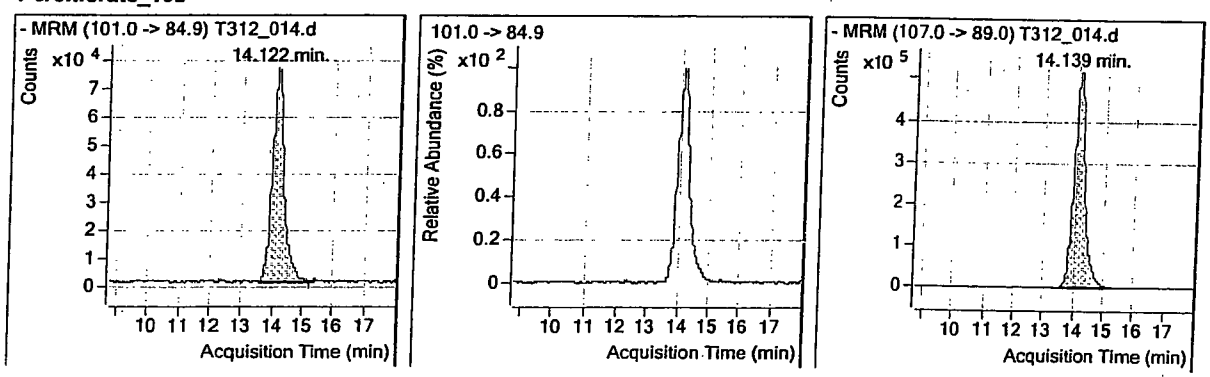


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.146	6907110	13576634
Perchlorate_102	PER_IS_108	14.122	2093567	13576634

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T512_002.d

	Date (s) of Analysis From:03/12/15 To:05/12/15 Time (s) of Analysis From:17:52 To:7:32				Date of Analysis: 05/12/15 Time of Analysis: 7:51 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	1.437634	N	13.2
Perchlorate_85	13.70	13.60	13.80	0.391605	14.03	0.455622	N	16.3

FILE ID : TQCK1202.RFB

Data File ID: T512_002.d

Date Injected : 05/12/15

Time Injected : 7:51

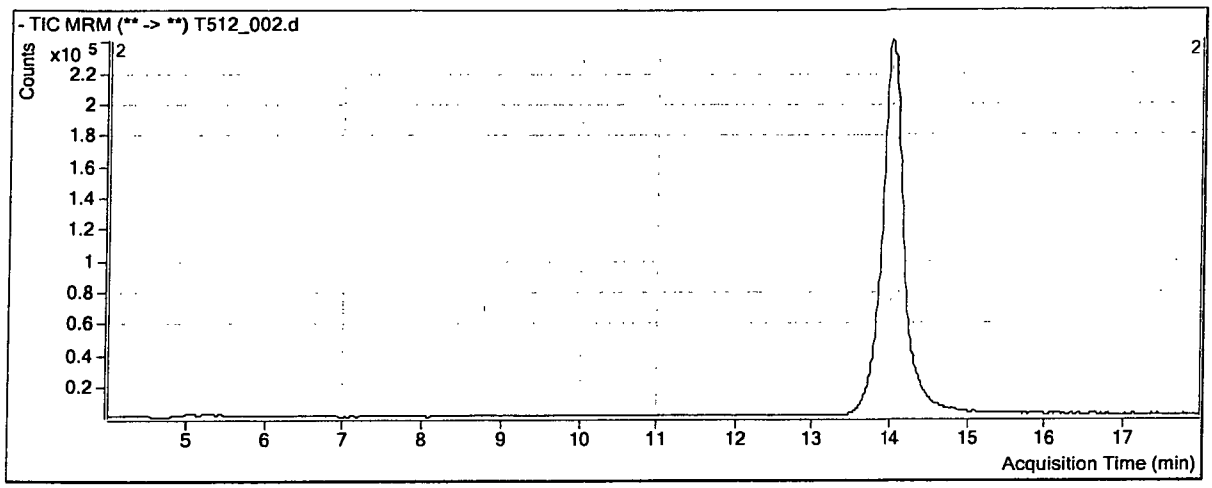
Sample ID : PER_CCV 0.0004 ug/ml 05/07/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
14.007	4374131	PER_IS_89
14.024	503072	Perchlorate_83
14.031	159436	Perchlorate_85

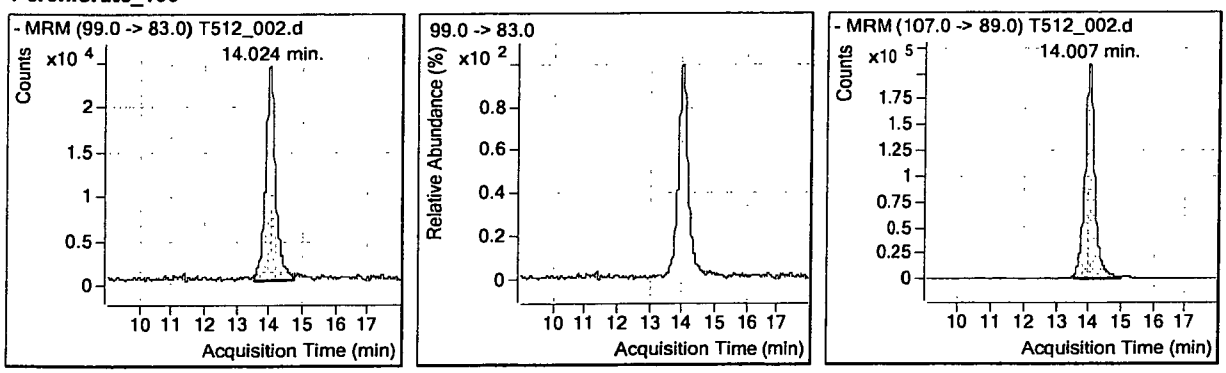
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150512\QuantResults\150512_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T512_002.d	**Sample Name**	PER_CCV 0.0004 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	7:51
ClientID	NA	**Inj Vol**	20

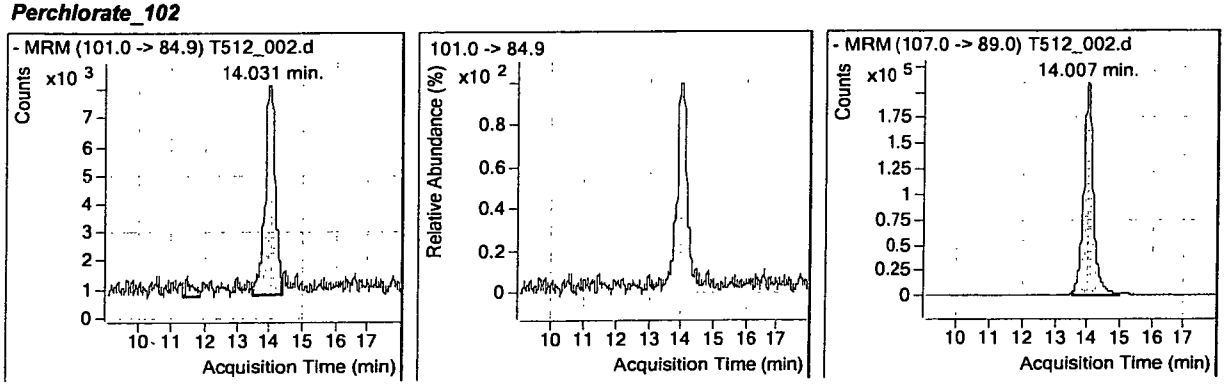


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.024	503072	4374131
Perchlorate_102	PER_IS_108	14.031	159436	4374131

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T512_003.d

	Date (s) of Analysis From:03/12/15 To:05/12/15 Time (s) of Analysis From:17:52 To:7:32				Date of Analysis: 05/12/15 Time of Analysis: 8:10 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	13.94	1.184670	N	6.7
Perchlorate_85	13.70	13.60	13.80	0.391605	13.94	0.347799	N	11.2

FILE ID : TQCK1203.RFB

Data File ID: T512_003.d

Date Injected : 05/12/15

Time Injected : 8:10

Sample ID : PER_CCV 0.002 ug/ml 05/07/15

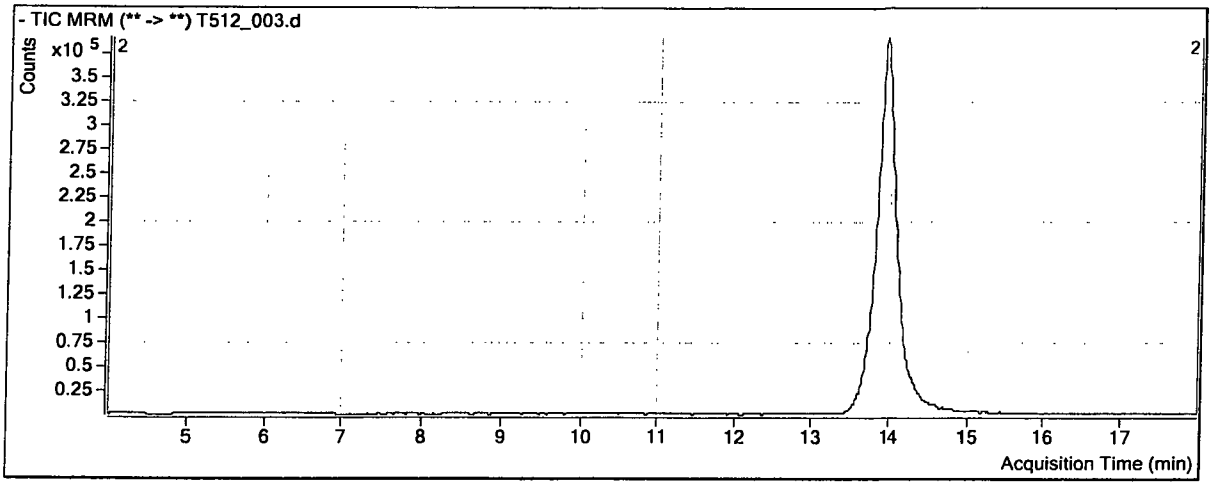
Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.935	4906019	PER_IS_89
13.942	2324805	Perchlorate_83
13.939	682523	Perchlorate_85

Quantitative Analysis Sample Report

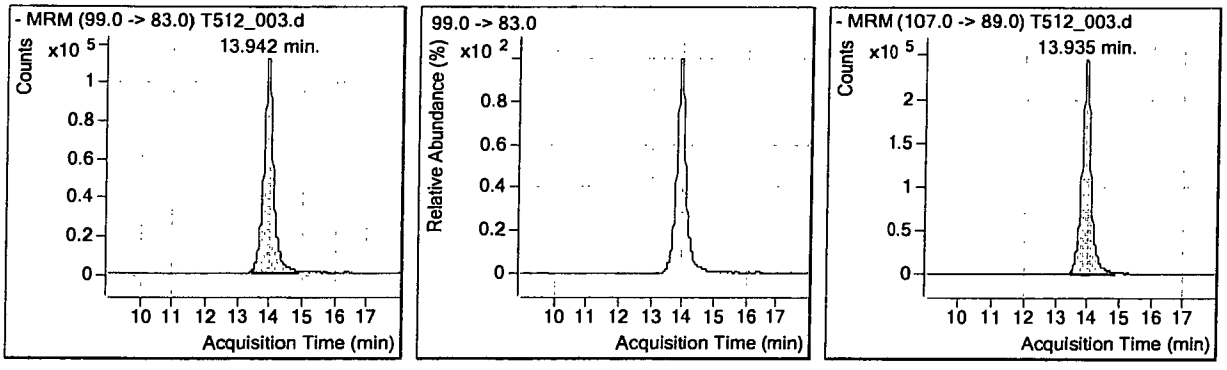
Batch Data Path D:\MassHunter\Data\150512\QuantResults\150512_A1_MI.batch.bin

Instrument	LCMS QQQ	**Operator**	ba
Data File	T512_003.d	**Sample Name**	PER_CCV 0.002 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	8:10
ClientID	NA	**Inj Vol**	20

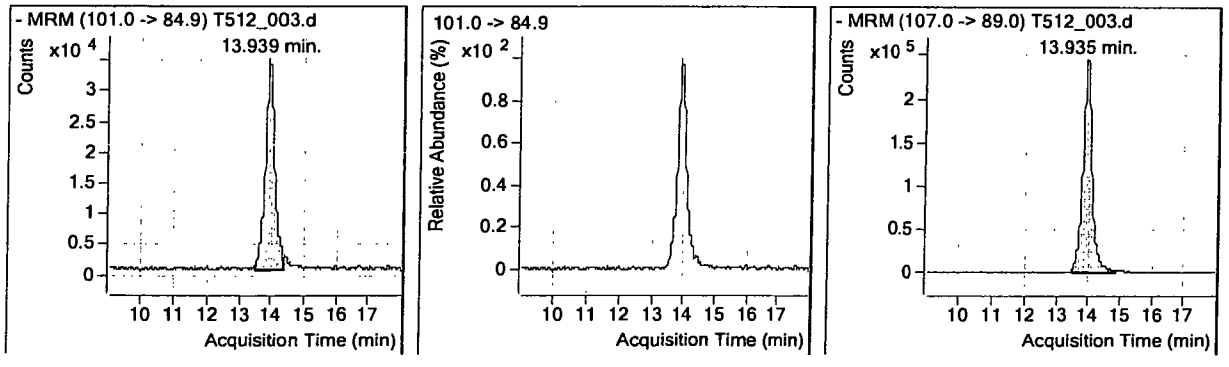


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.942	2324805	4906019
Perchlorate_102	PER_IS_108	13.939	682523	4906019

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T512_024.d

	Date (s) of Analysis From:03/12/15 To:05/12/15 Time (s) of Analysis From:17:52 To:14:04				Date of Analysis: 05/12/15 Time of Analysis: 14:41 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	13.81	1.351503	N	6.4
Perchlorate_85	13.70	13.60	13.80	0.391605	13.82	0.453321	N	15.8

FILE ID : TQCK1224.RFB

Data File ID: T512_024.d

Date Injected : 05/12/15

Time Injected : 14:41

Sample ID : PER_CCV 0.0004 ug/ml 05/07/15

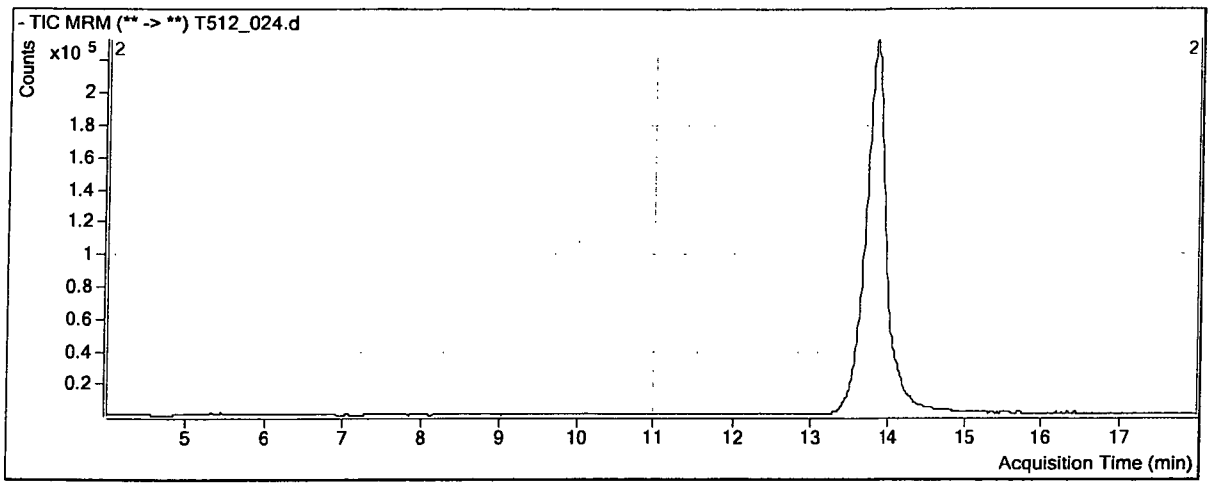
Client ID : NA

Retention Time		Area Count Response	Compound_ID Product Ion
13.813		4120838	PER_IS_89
13.81	*	445546	Perchlorate_83
13.817		149445	Perchlorate_85

* MANUAL INTEGRAION

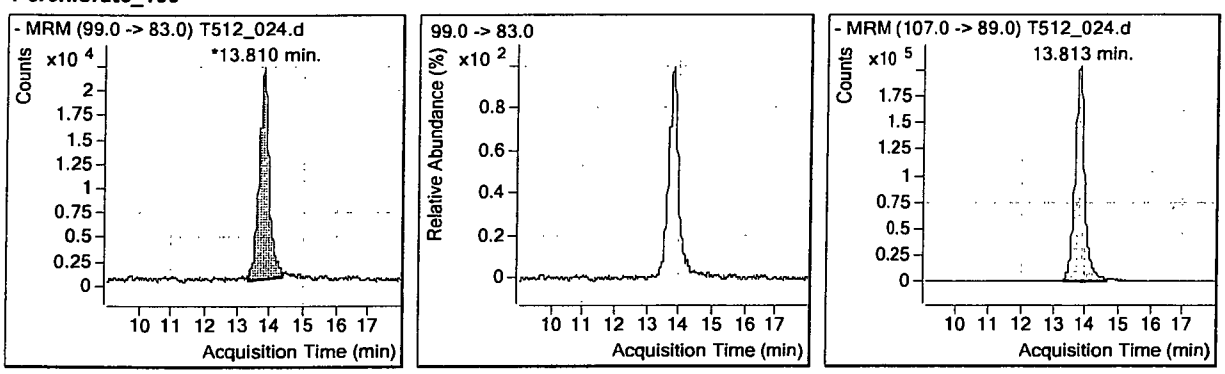
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150512\QuantResults\150512_A2_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T512_024.d	**Sample Name**	PER_CCV 0.0004 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	14:41
ClientID	NA	**Inj Vol**	20

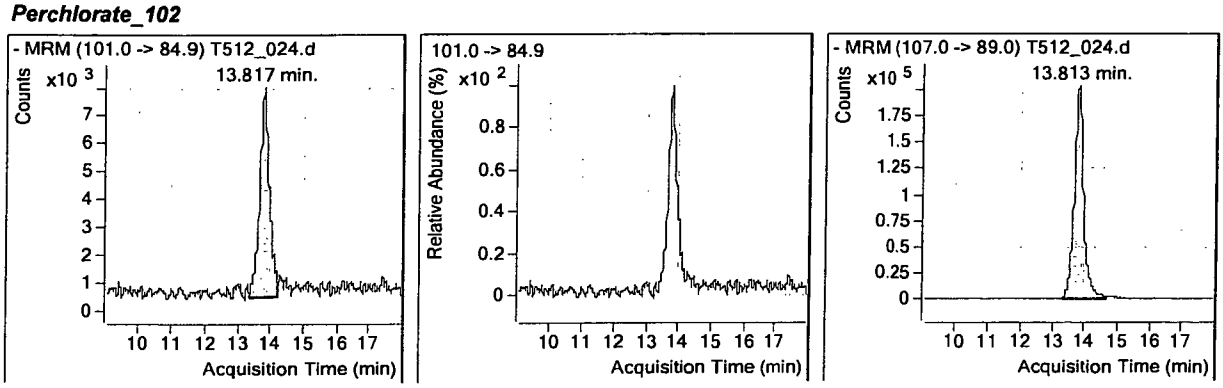


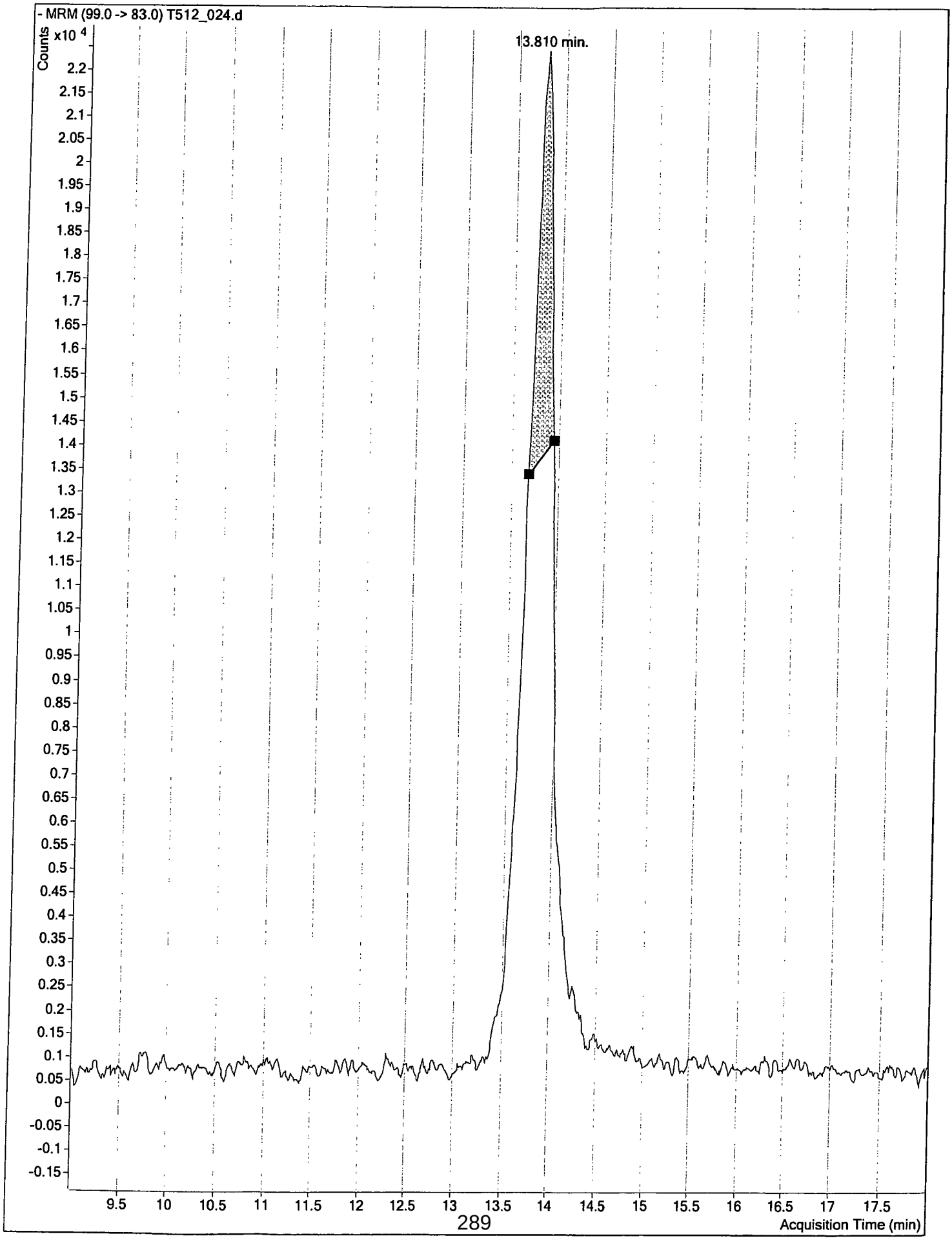
Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108	*	13.810	445546	4120838	* MANUAL INT
Perchlorate_102	PER_IS_108		13.817	149445	4120838	

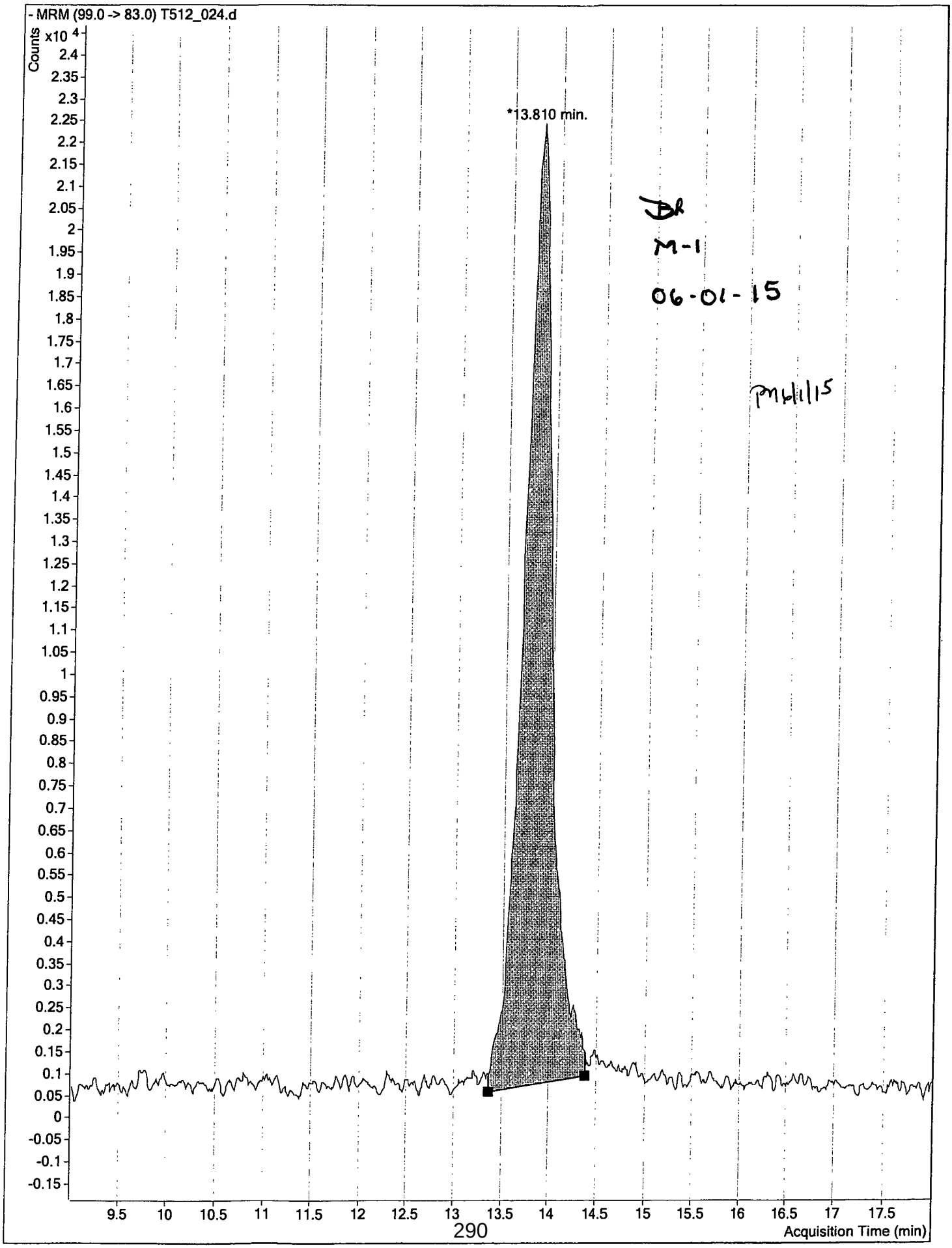
Perchlorate_100



Perchlorate_102




- MRM (99.0 -> 83.0) T512_024.d
Counts
x10 4
13.810 min.
Acquisition Time (min)


- MRM (99.0 -> 83.0) T512_024.d
Counts
x10 4
*13.810 min.
Acquisition Time (min)
DR
M-1
06-01-15
PM 6/1/15

CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T512_025.d

	Date (s) of Analysis From:03/12/15 To:05/12/15 Time (s) of Analysis From:17:52 To:14:04				Date of Analysis: 05/12/15 Time of Analysis: 14:59 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	13.59	1.192729	N	6.1
Perchlorate_85	13.70	13.60	13.80	0.391605	13.57	0.361129	N	7.8

FILE ID : TQCK1225.RFB

Data File ID: T512_025.d

Date Injected : 05/12/15

Time Injected : 14:59

Sample ID : PER_CCV 0.002 ug/ml 05/07/15

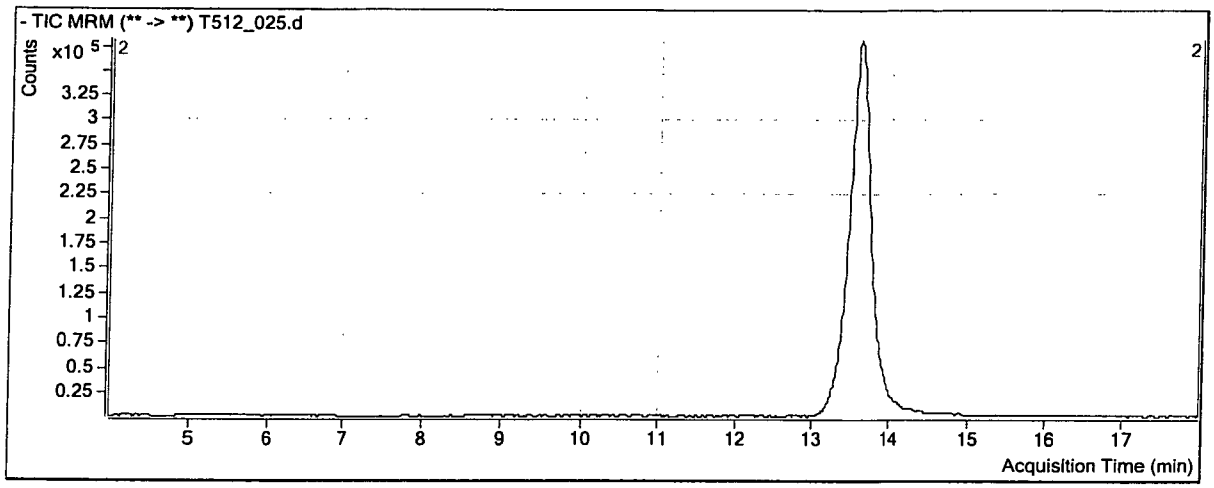
Client ID : NA

Retention Time		Area Count Response	Compound_ID Product Ion
13.589		4766152	PER_IS_89
13.586		2273891	Perchlorate_83
13.572	*	688478	Perchlorate_85

* MANUAL INTEGRAION

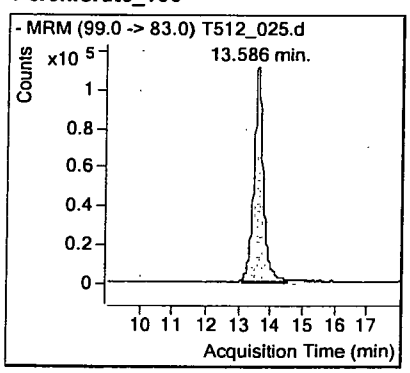
Quantitative Analysis Sample Report

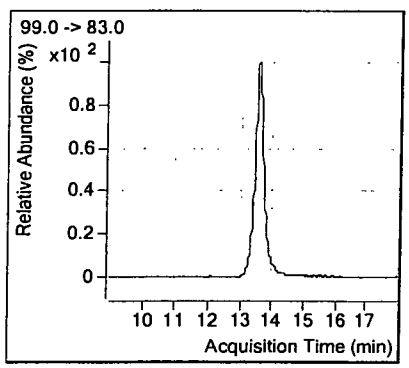
Batch Data Path	D:\MassHunter\Data\150512\QuantResults\150512_A2_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T512_025.d	**Sample Name**	PER_CCV 0.002 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	14:59
ClientID	NA	**Inj Vol**	20

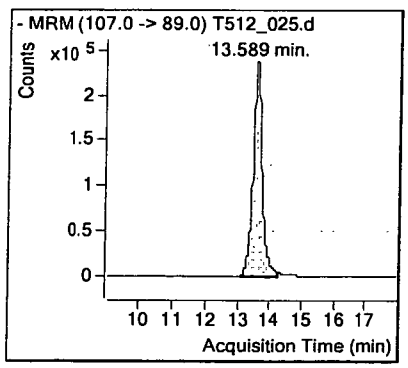


Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108		13.586	2273891	4766152	
Perchlorate_102	PER_IS_108	*	13.572	688478	4766152	* MANUAL INT

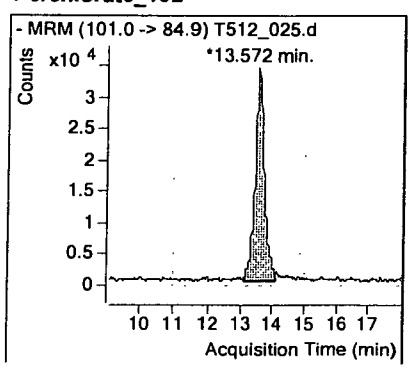
Perchlorate_100

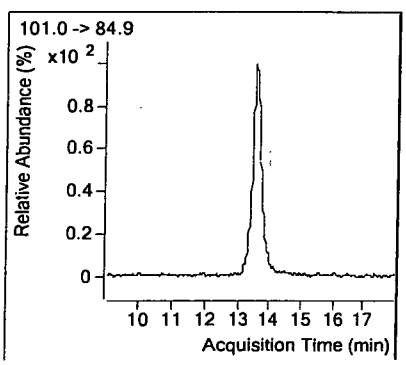


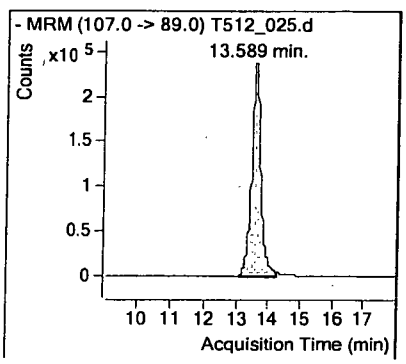


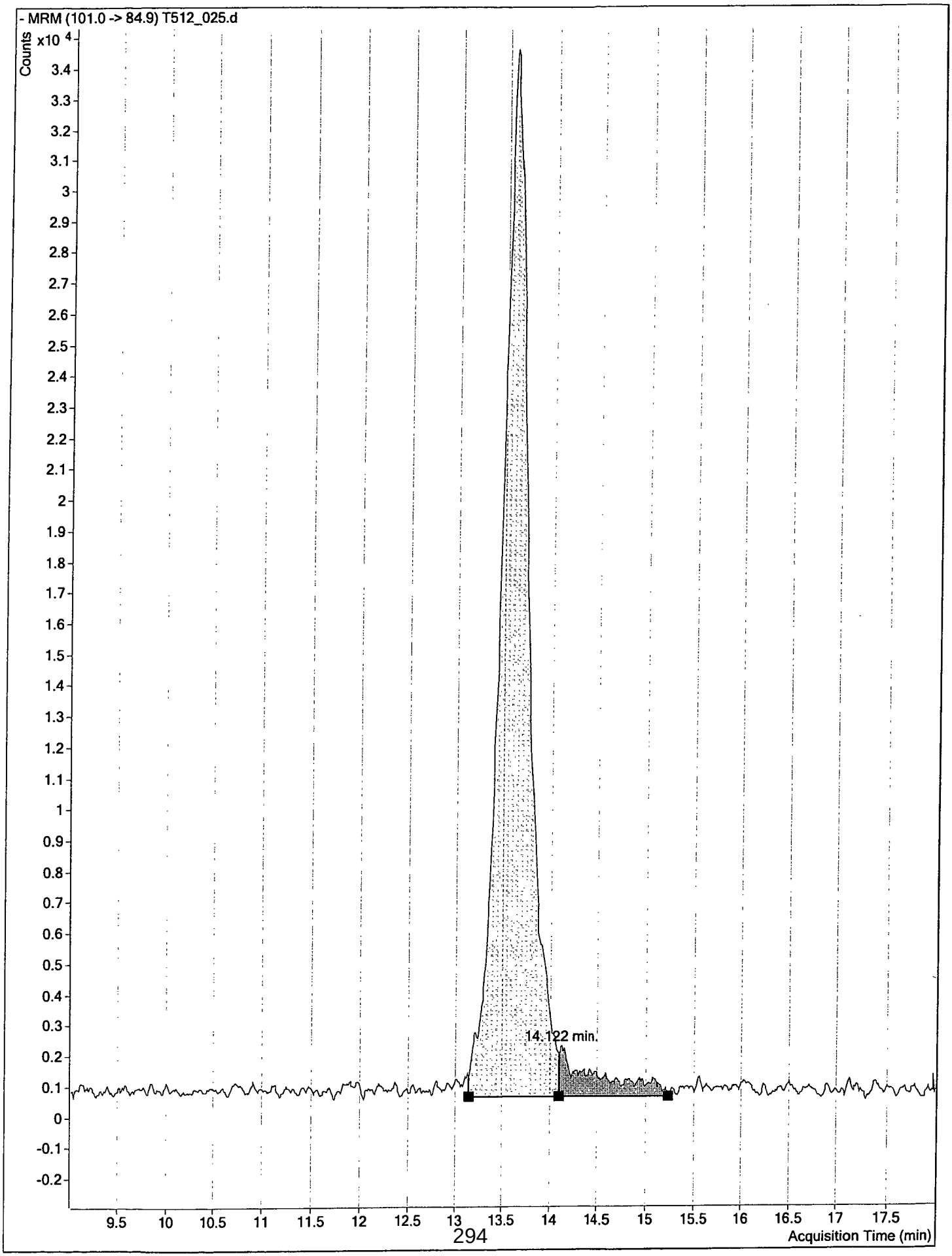


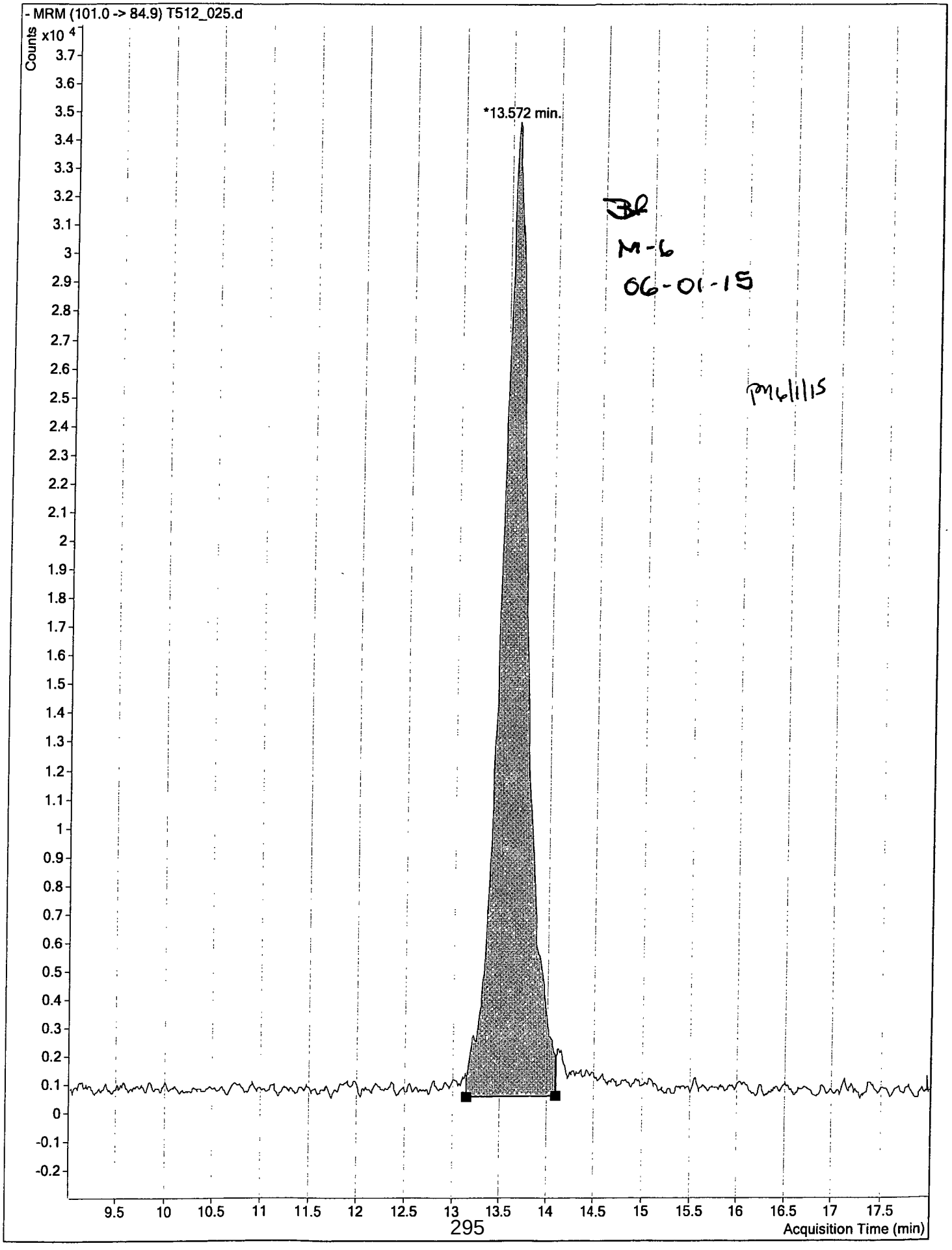
Perchlorate_102








- MRM (101.0 -> 84.9) T512_025.d
Counts
x10 4
14.122 min.
Acquisition Time (min)


- MRM (101.0 -> 84.9) T512_025.d
Counts
x10 4
*13.572 min.
M-6
06-01-15
Acquisition Time (min)

CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T512_036.d

Date (s) of Analysis From:03/12/15 To:05/12/15 Time (s) of Analysis From:17:52 To:17:58	Date of Analysis: 05/12/15 Time of Analysis: 18:36 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	13.61	1.435832	N	13.0
Perchlorate_85	13.70	13.60	13.80	0.391605	13.61	0.465975	N	19.0

FILE ID : TQCK1236.RFB

Data File ID: T512_036.d

Date Injected : 05/12/15

Time Injected : 18:36

Sample ID : PER_CCV 0.0004 ug/ml 05/07/15

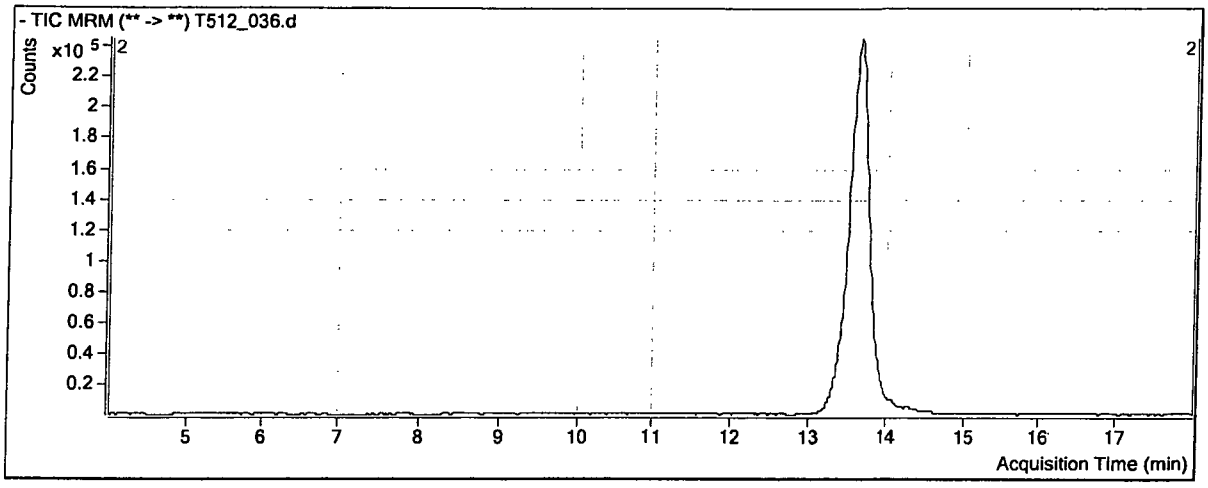
Client ID : NA

Retention Time		Area Count Response	Compound_ID Product Ion
13.62		4044824	PER_IS_89
13.606		464615	Perchlorate_83
13.613	*	150783	Perchlorate_85

* MANUAL INTEGRAION

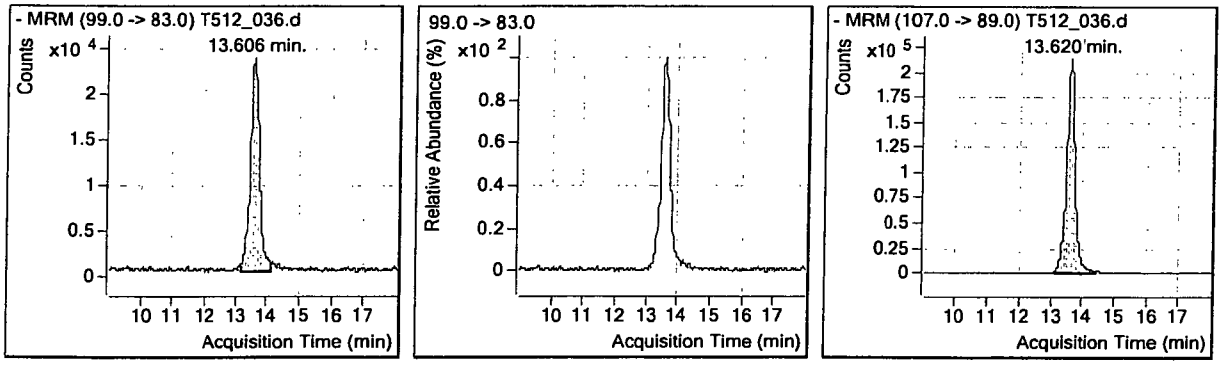
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150512\QuantResults\150512_A2_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T512_036.d	**Sample Name**	PER_CCV 0.0004 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	18:36
ClientID	NA	**Inj Vol**	20

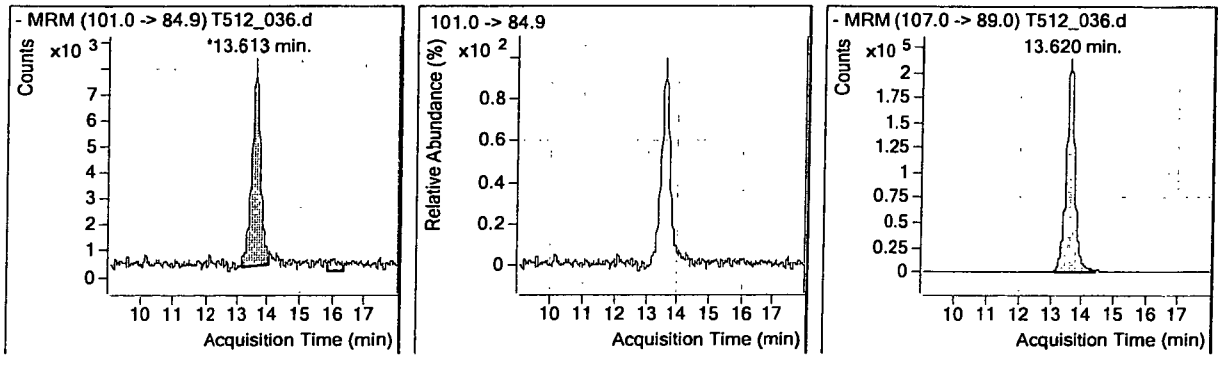


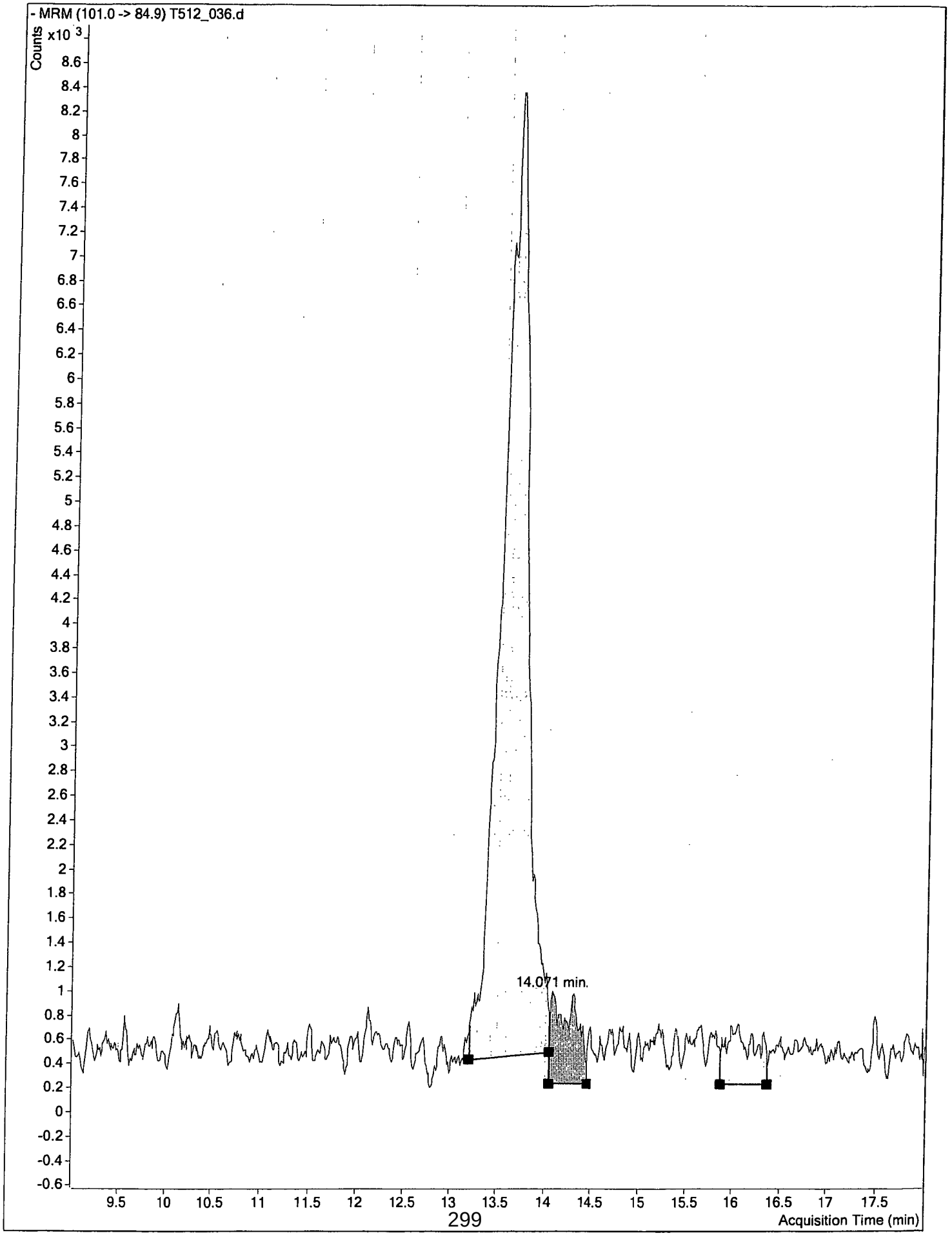
Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108		13.606	464615	4044824	
Perchlorate_102	PER_IS_108	*	13.613	150783	4044824	* MANUAL INT

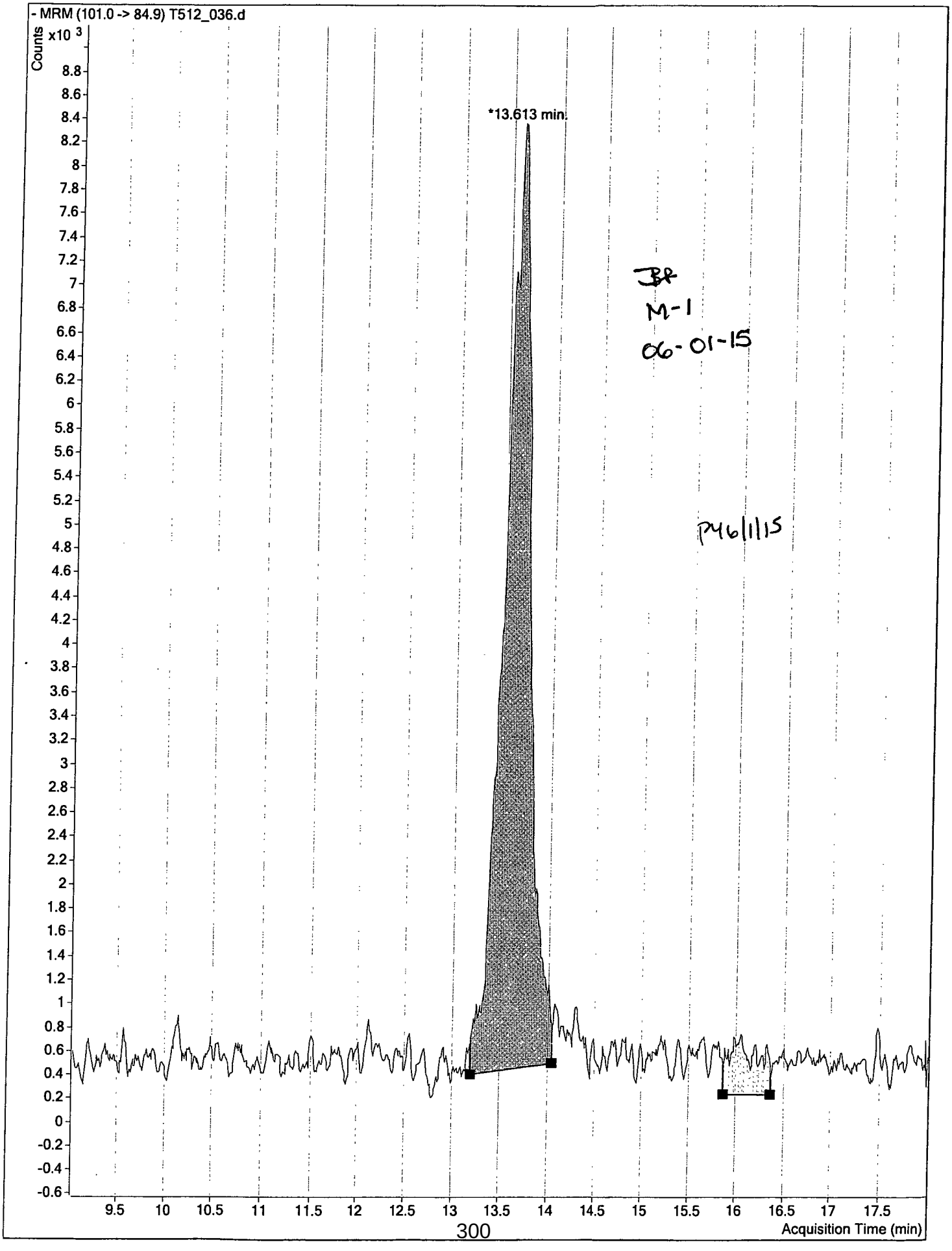
Perchlorate_100



Perchlorate_102




- MRM (101.0 -> 84.9) T512_036.d
Counts
x10 3
14.071 min.
Acquisition Time (min)


- MRM (101.0 -> 84.9) T512_036.d
Counts
x10 3
*13.613 min.
JR
M-1
06-01-15
PM 6/1/15
Acquisition Time (min)

CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T512_037.d

	Date (s) of Analysis From:03/12/15 To:05/12/15 Time (s) of Analysis From:17:52 To:17:58				Date of Analysis: 05/12/15 Time of Analysis: 18:54 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	13.65	1.170425	N	7.9
Perchlorate_85	13.70	13.60	13.80	0.391605	13.63	0.362618	N	7.4

FILE ID : TQCK1237.RFB

Data File ID: T512_037.d

Date Injected : 05/12/15

Time Injected : 18:54

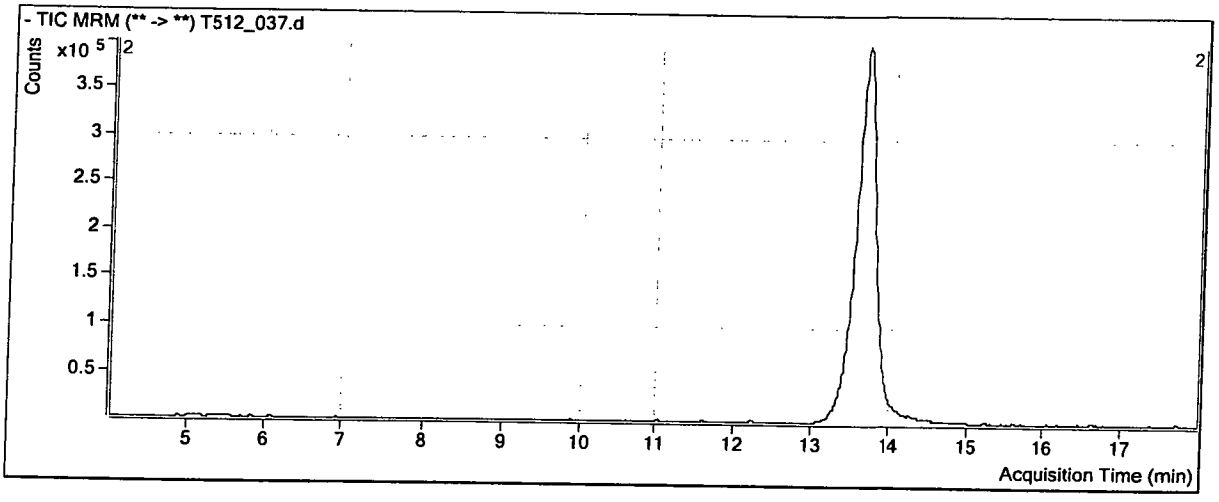
Sample ID : PER_CCV 0.002 ug/ml 05/07/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.64	4679515	PER_IS_89
13.647	2190808	Perchlorate_83
13.633	678751	Perchlorate_85

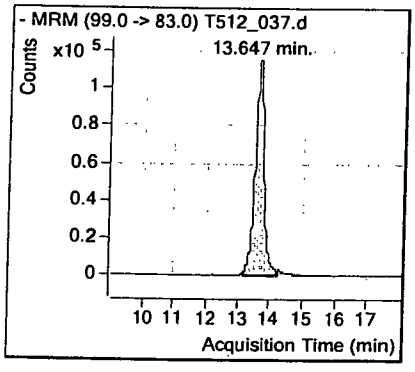
Quantitative Analysis Sample Report

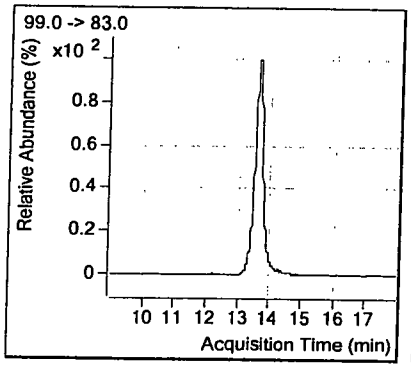
Batch Data Path	D:\MassHunter\Data\150512\QuantResults\150512_A2_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T512_037.d	**Sample Name**	PER_CCV 0.002 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	18:54
ClientID	NA	**Inj Vol**	20

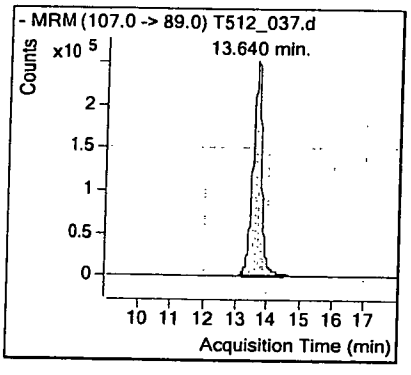


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.647	2190808	4679515
Perchlorate_102	PER_IS_108	13.633	678751	4679515

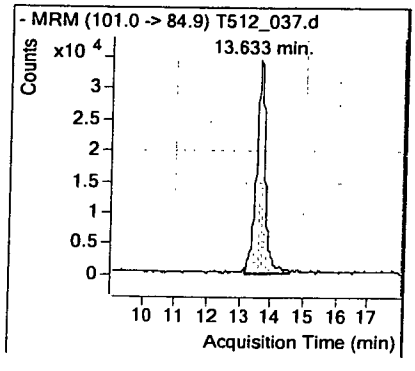
Perchlorate_100

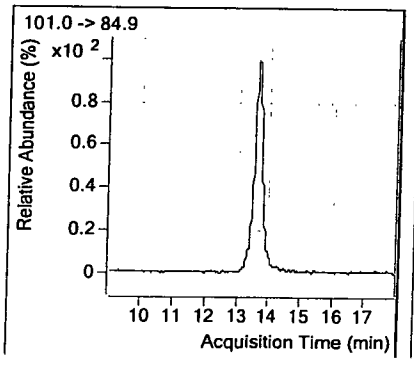


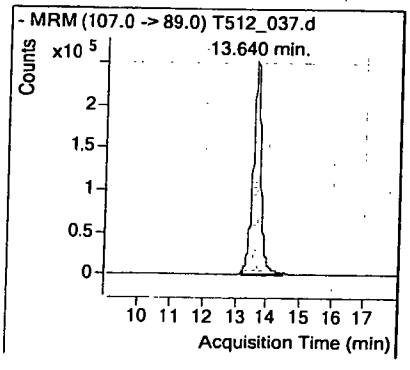




Perchlorate_102







CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T512_060.d

Date (s) of Analysis From:03/12/15 To:05/13/15 Time (s) of Analysis From:17:52 To:1:25	Date of Analysis: 05/13/15 Time of Analysis: 2:03 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	14.24	1.471587	N	15.8
Perchlorate_85	13.70	13.60	13.80	0.391605	14.24	0.470256	N	20.1

FILE ID : TQCK1260.RFB

Data File ID: T512_060.d

Date Injected : 05/13/15

Time Injected : 2:03

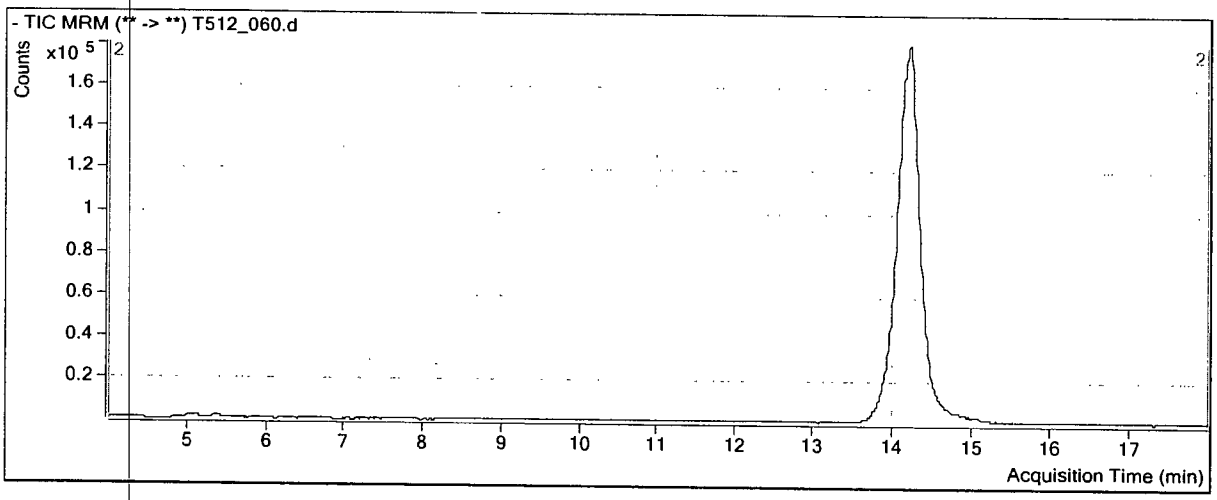
Sample ID : PER_CCV 0.0004 ug/ml 05/07/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
14.241	3243820	PER_IS_89
14.238	381885	Perchlorate_83
14.245	122034	Perchlorate_85

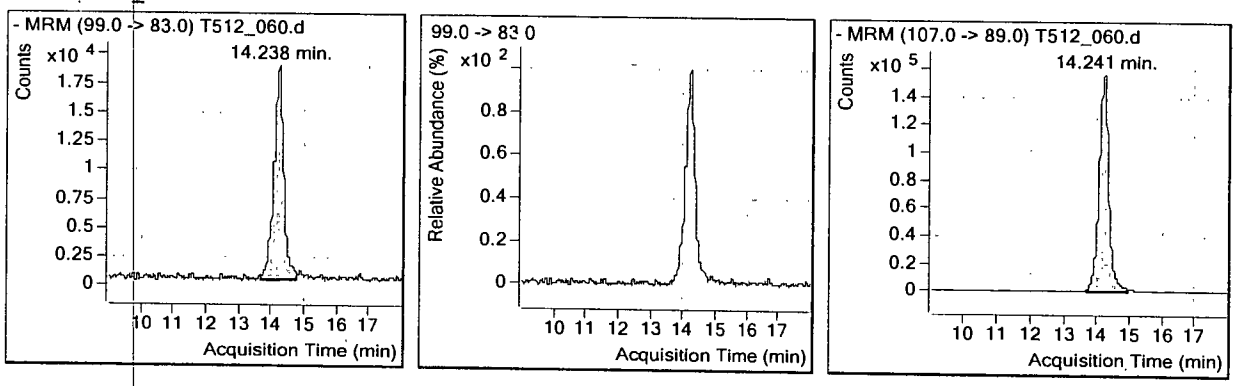
Batch Data Path D:\MassHunter\Data\150512\QuantResults\150512_A2_MI.batch.bin

Instrument	LCMS QQQ	**Operator**	ba
Data File	T512_060.d	**Sample Name**	PER_CCV 0.0004 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/13/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	2:03
ClientID	NA	**Inj Vol**	20

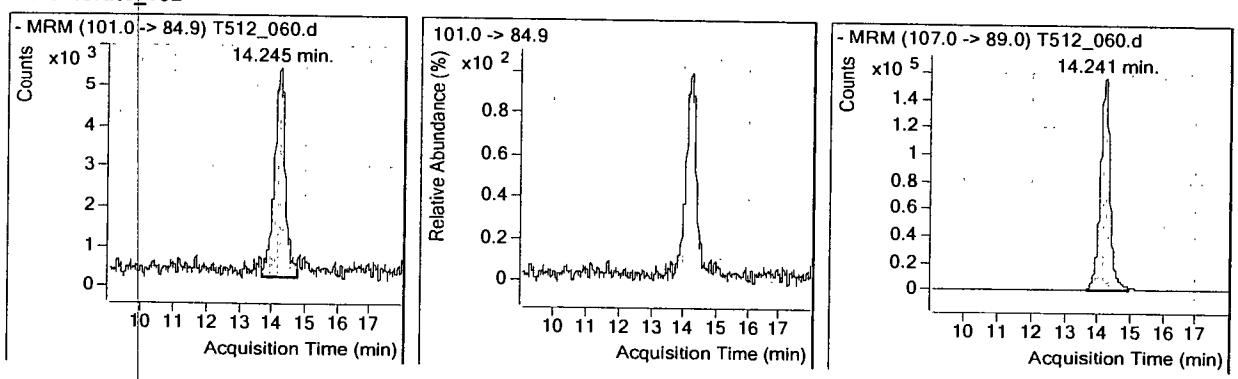


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.238	381885	3243820
Perchlorate_102	PER_IS_108	14.245	122034	3243820

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T512_061.d

	Date (s) of Analysis From:03/12/15 To:05/13/15 Time (s) of Analysis From:17:52 To:1:25				Date of Analysis: 05/13/15 Time of Analysis: 2:21 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	14.26	1.186002	N	6.6
Perchlorate_85	13.70	13.60	13.80	0.391605	14.27	0.348499	N	11.0

FILE ID : TQCK1261.RFB

Data File ID: T512_061.d

Date Injected : 05/13/15

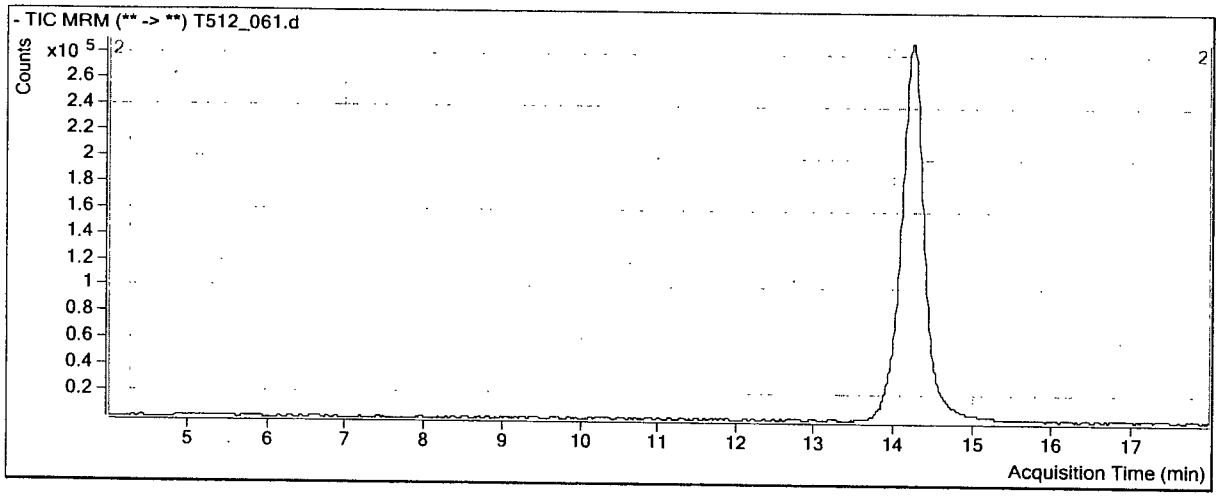
Time Injected : 2:21

Sample ID : PER_CCV 0.002 ug/ml 05/07/15

Client ID : NA

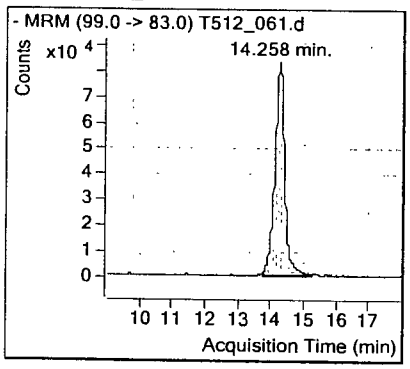
Retention Time	Area Count Response	Compound_ID Product Ion
14.282	3712101	PER_IS_89
14.258	1761024	Perchlorate_83
14.275	517465	Perchlorate_85

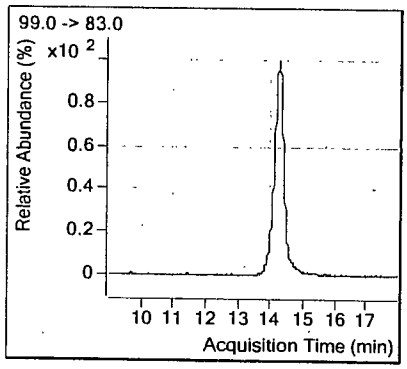
Batch Data Path	D:\MassHunter\Data\150512\QuantResults\150512_A2_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T512_061.d	**Sample Name**	PER_CCV 0.002 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/13/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	2:21
ClientID	NA	**Inj Vol**	20

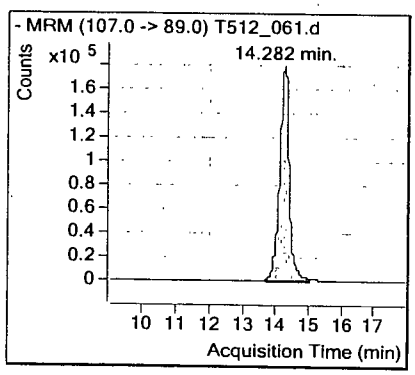


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.258	1761024	3712101
Perchlorate_102	PER_IS_108	14.275	517465	3712101

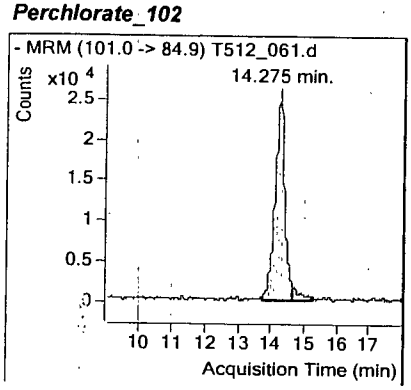
Perchlorate_100

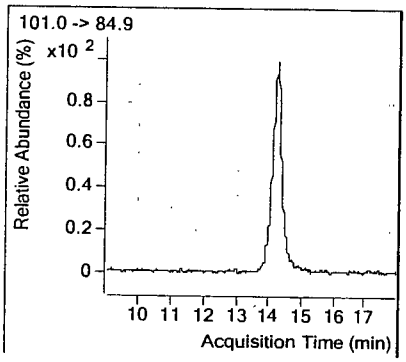


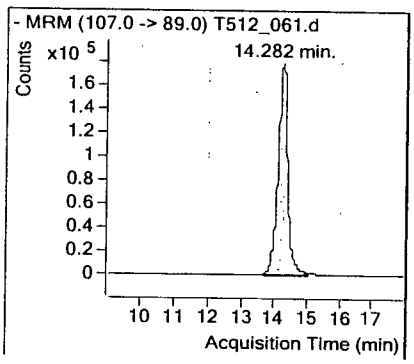




Perchlorate_102







CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T512_072.d

	Date (s) of Analysis From:03/12/15 To:05/13/15 Time (s) of Analysis From:17:52 To:5:09				Date of Analysis: 05/13/15 Time of Analysis: 5:46 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	14.47	1.412508	N	11.2
Perchlorate_85	13.70	13.60	13.80	0.391605	14.48	0.451224	N	15.2

FILE ID : TQCK1272.RFB

Data File ID: T512_072.d

Date Injected : 05/13/15

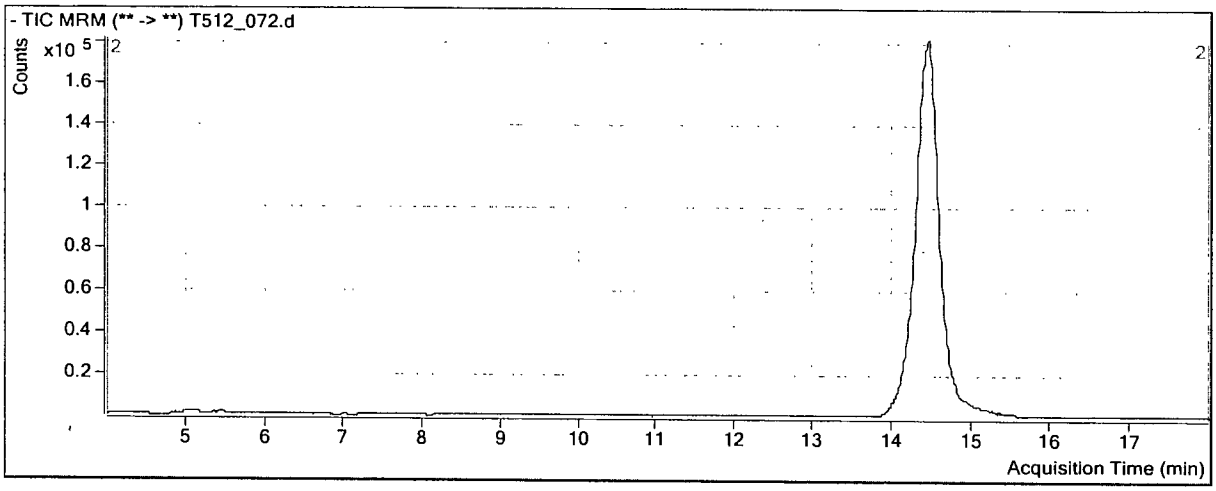
Time Injected : 5:46

Sample ID : PER_CCV 0.0004 ug/ml 05/07/15

Client ID : NA

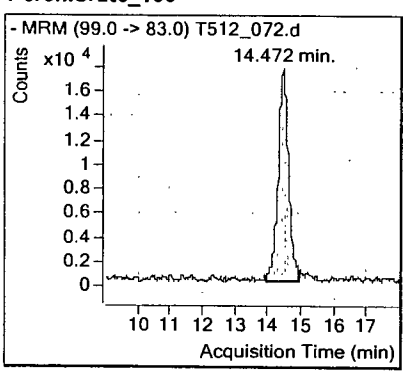
Retention Time	Area Count Response	Compound_ID Product Ion
14.486	3399672	PER_IS_89
14.472	384165	Perchlorate_83
14.479	122721	Perchlorate_85

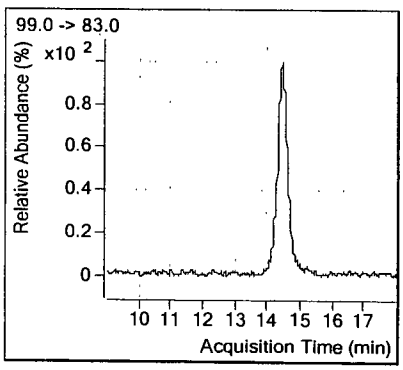
Batch Data Path	D:\MassHunter\Data\150512\QuantResults\150512_A2_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T512_072.d	**Sample Name**	PER_CCV 0.0(
Sample Type	Sample	**Acq_Date**	05/13/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COL'IMN.m	**Acq Time**	5:46
ClientID	NA	**Inj Vol**	20

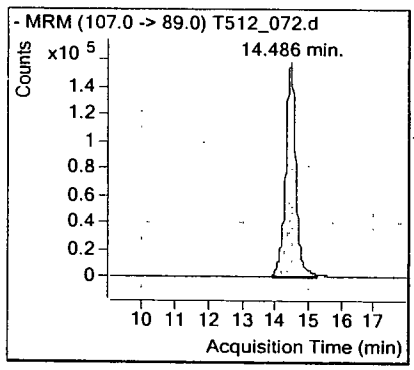


Compound	ISTD	RT	Resp	ISTD RESP
Perchlorate_100	PER_IS_108	14.472	384165	3399672
Perchlorate_102	PER_IS_108	14.479	122721	3399672

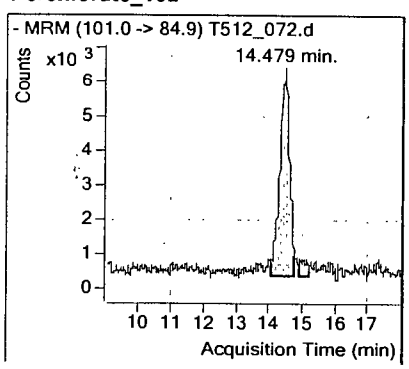
Perchlorate_100

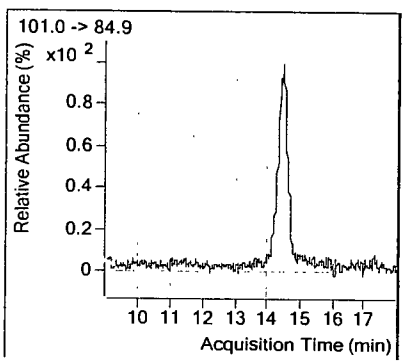


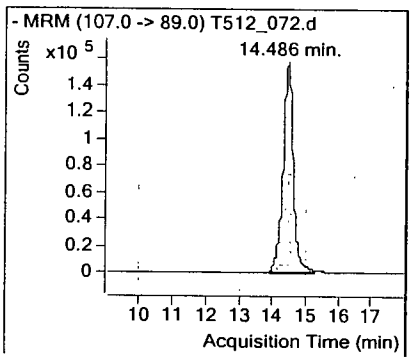




Perchlorate_102







CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T512_073.d

	Date (s) of Analysis From:03/12/15 To:05/13/15 Time (s) of Analysis From:17:52 To:5:09				Date of Analysis: 05/13/15 Time of Analysis: 6:05 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	14.49	1.206369	N	5.0
Perchlorate_85	13.70	13.60	13.80	0.391605	14.50	0.352285	N	10.0

FILE ID : TQCK1273.RFB

Data File ID: T512_073.d

Date Injected : 05/13/15

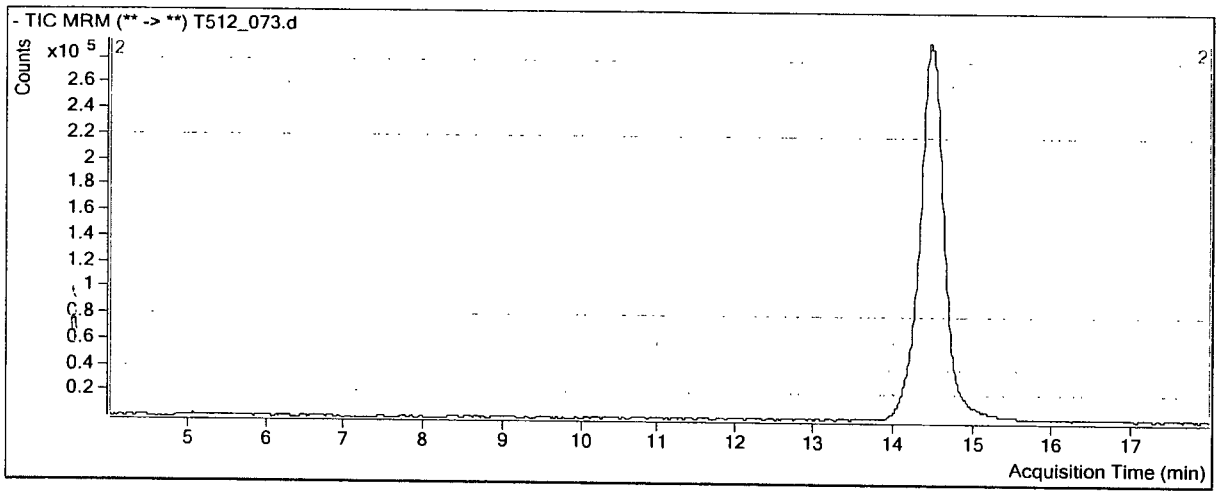
Time Injected : 6:05

Sample ID : PER_CCV 0.002 ug/ml 05/07/15

Client ID : NA

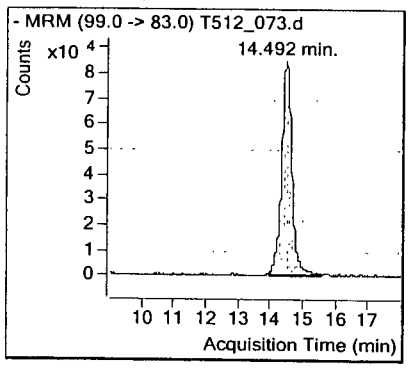
Retention Time	Area Count Response	Compound_ID Product Ion
14.475	3902565	PER_IS_89
14.492	1883174	Perchlorate_83
14.499	549926	Perchlorate_85

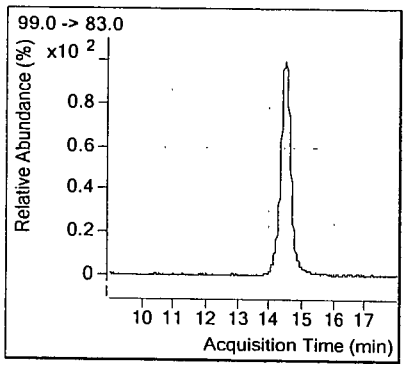
Batch Data Path	D:\MassHunter\Data\150512\QuantResults\150512_A2_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T512_073.d	**Sample Name**	PER_CCV 0.002 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/13/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	6:05
ClientID	NA	**Inj Vol**	20

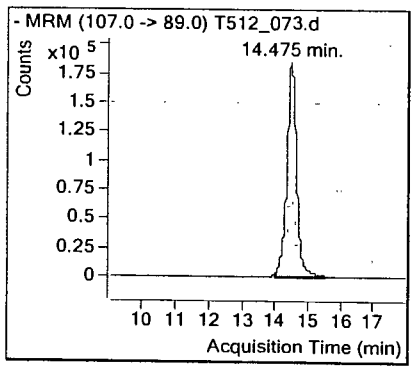


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.492	1883174	3902565
Perchlorate_102	PER_IS_108	14.499	549926	3902565

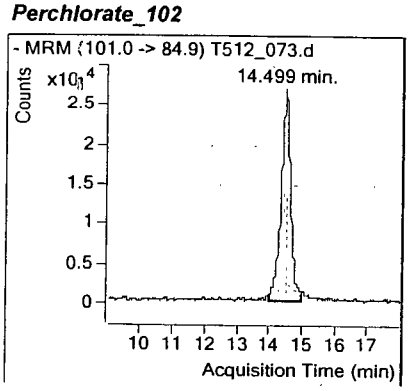
Perchlorate_100

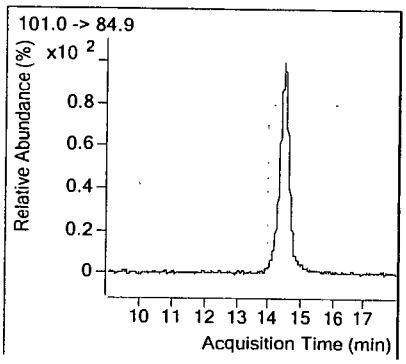


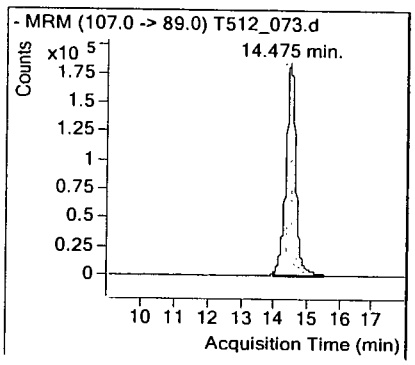




Perchlorate_102







CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T514_002.d

	Date (s) of Analysis From:03/12/15 To:05/14/15 Time (s) of Analysis From:17:52 To:9:49				Date of Analysis: 05/14/15 Time of Analysis: 10:07 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	13.54	1.487810	N	17.1
Perchlorate_85	13.70	13.60	13.80	0.391605	13.54	0.466066	N	19.0

FILE ID : TQCK1402.RFB

Data File ID: T514_002.d

Date Injected : 05/14/15

Time Injected : 10:07

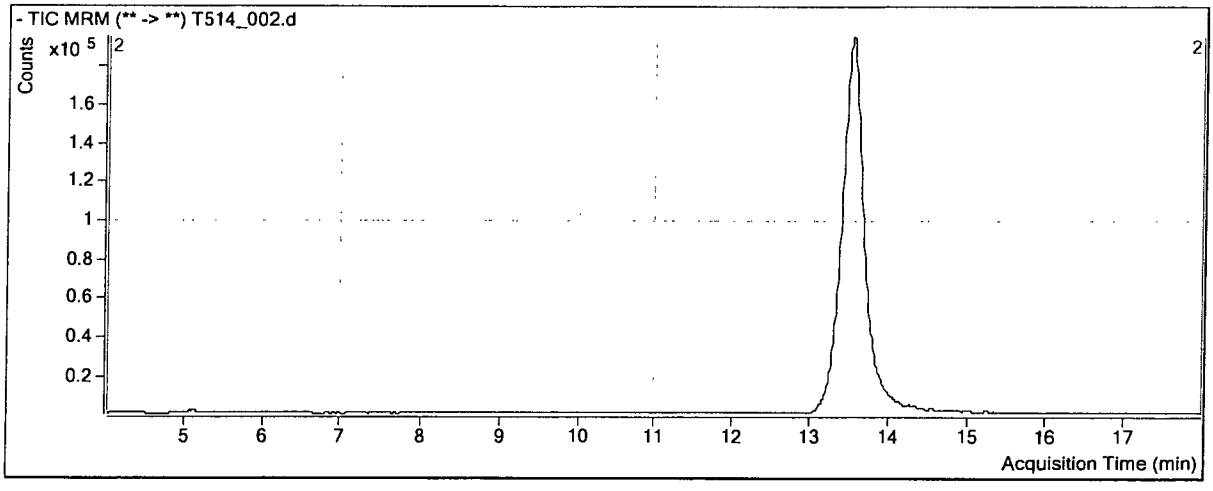
Sample ID : PER_CCV 0.0004 ug/ml 05/07/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.528	3384496	PER_IS_89
13.535	402839	Perchlorate_83
13.541	126192	Perchlorate_85

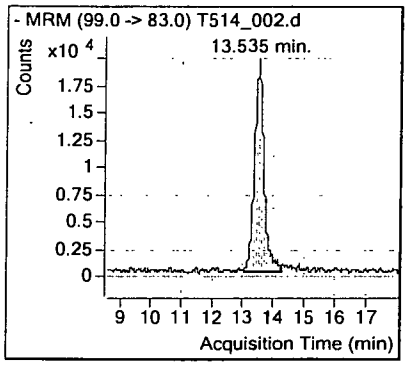
Quantitative Analysis Sample Report

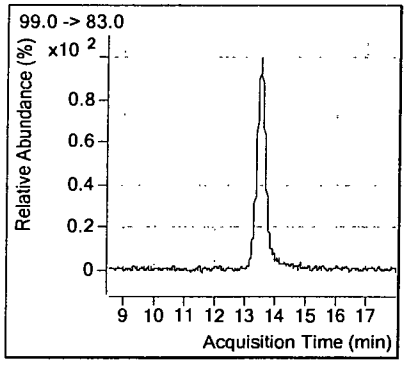
Batch Data Path	D:\MassHunter\Data\150514\QuantResults\150514_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T514_002.d	**Sample Name**	PER_CCV 0.0004 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/14/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	10:07
ClientID	NA	**Inj Vol**	20

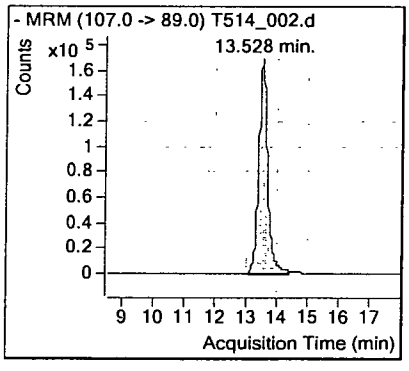


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.535	402839	3384496
Perchlorate_102	PER_IS_108	13.541	126192	3384496

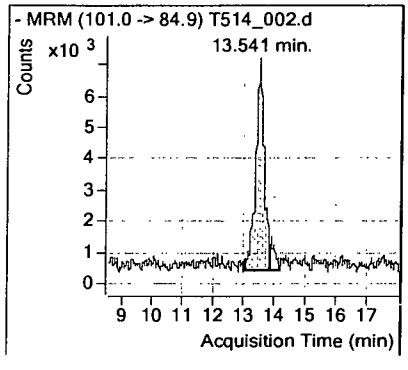
Perchlorate_100

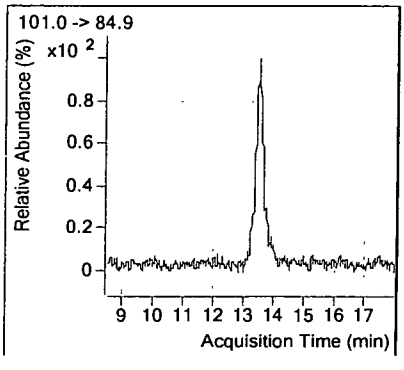


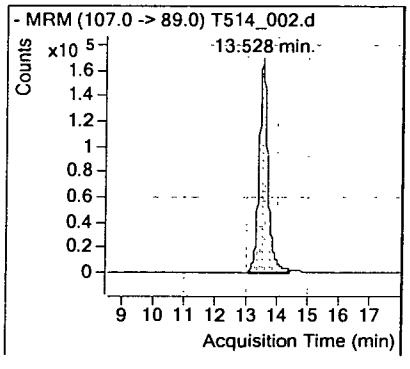




Perchlorate_102







CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T514_003.d

	Date (s) of Analysis From:03/12/15 To:05/14/15 Time (s) of Analysis From:17:52 To:9:49				Date of Analysis: 05/14/15 Time of Analysis: 10:26 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	13.56	1.198977	N	5.6
Perchlorate_85	13.70	13.60	13.80	0.391605	13.53	0.369639	N	5.6

FILE ID : TQCK1403.RFB

Data File ID: T514_003.d

Date Injected : 05/14/15

Time Injected : 10:26

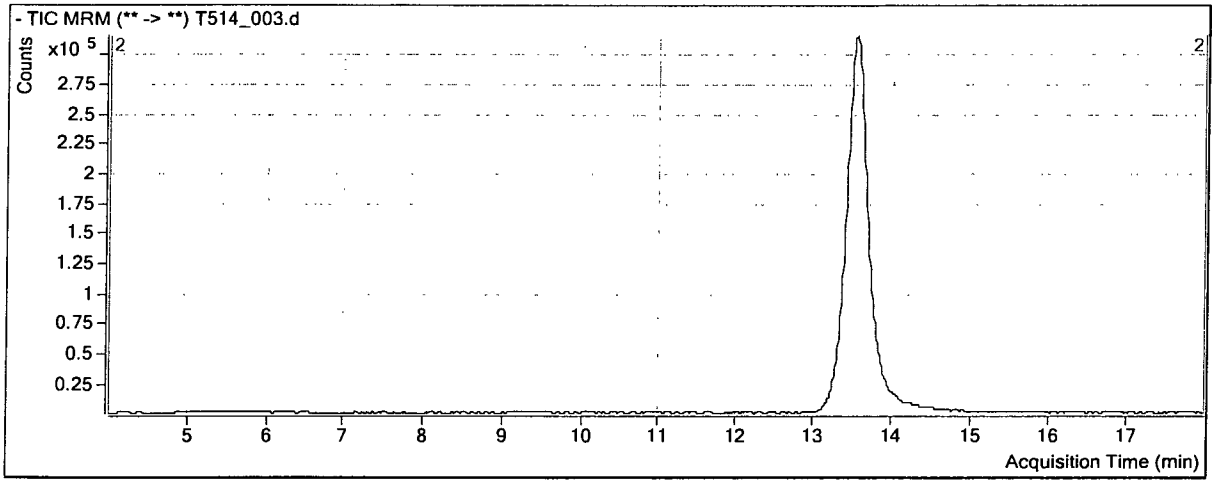
Sample ID : PER_CCV 0.002 ug/ml 05/07/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.548	3957948	PER_IS_89
13.555	1898195	Perchlorate_83
13.531	585205	Perchlorate_85

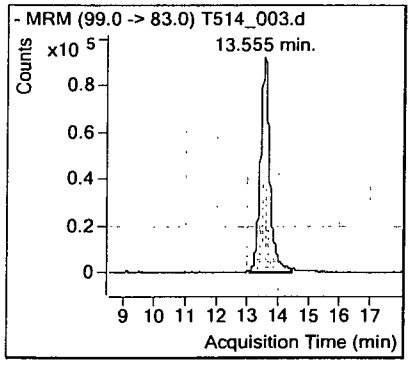
Quantitative Analysis Sample Report

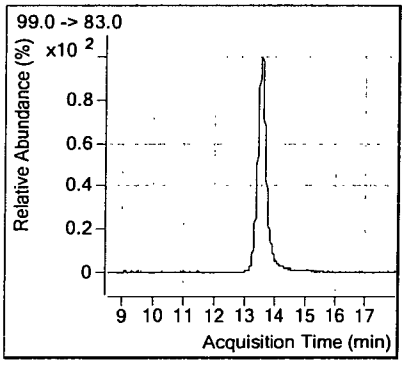
Batch Data Path	D:\MassHunter\Data\150514\QuantResults\150514_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T514_003.d	**Sample Name**	PER_CCV 0.002 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/14/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	10:26
ClientID	NA	**Inj Vol**	20

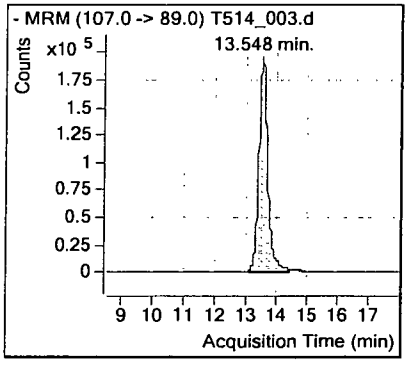


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.555	1898195	3957948
Perchlorate_102	PER_IS_108	13.531	585205	3957948

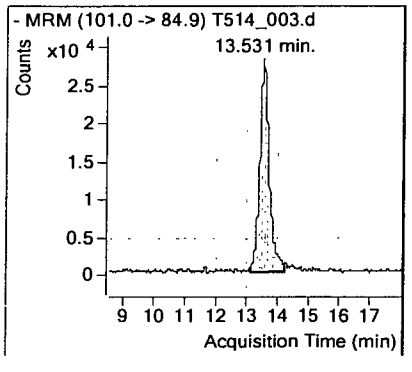
Perchlorate_100

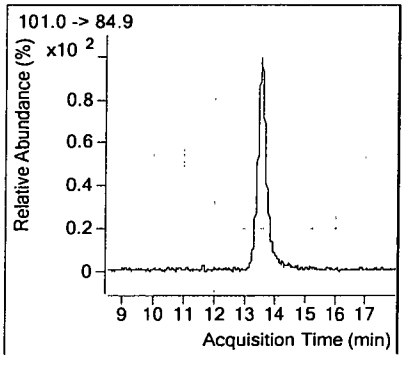


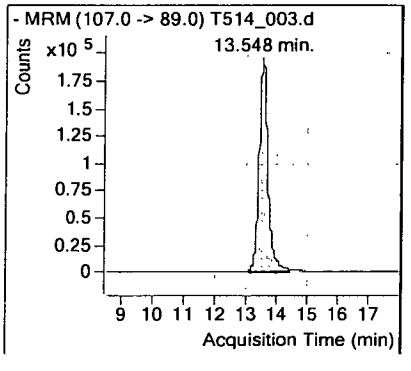




Perchlorate_102







CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T514_016.d

	Date (s) of Analysis From:03/12/15 To:05/14/15 Time (s) of Analysis From:17:52 To:14:09				Date of Analysis: 05/14/15 Time of Analysis: 14:46 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	13.21	1.419855	N	11.8
Perchlorate_85	13.70	13.60	13.80	0.391605	13.25	0.442528	N	13.0

FILE ID : TQCK1416.RFB

Data File ID: T514_016.d

Date Injected : 05/14/15

Time Injected : 14:46

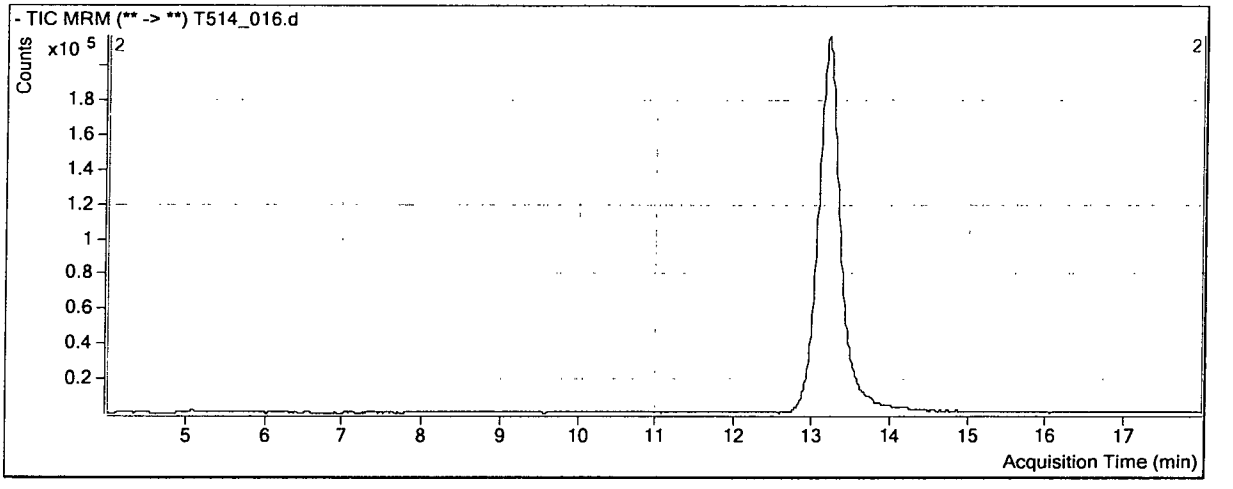
Sample ID : PER_CCV 0.0004 ug/ml 05/07/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.202	3701407	PER_IS_89
13.209	420437	Perchlorate_83
13.246	131038	Perchlorate_85

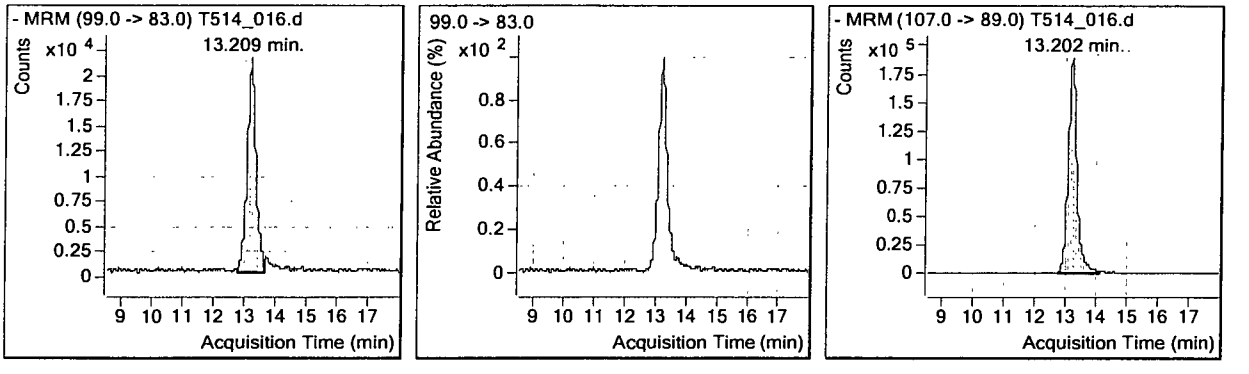
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150514\QuantResults\150514_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T514_016.d	**Sample Name**	PER_CCV 0.0004 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/14/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	14:46
ClientID	NA	**Inj Vol**	20

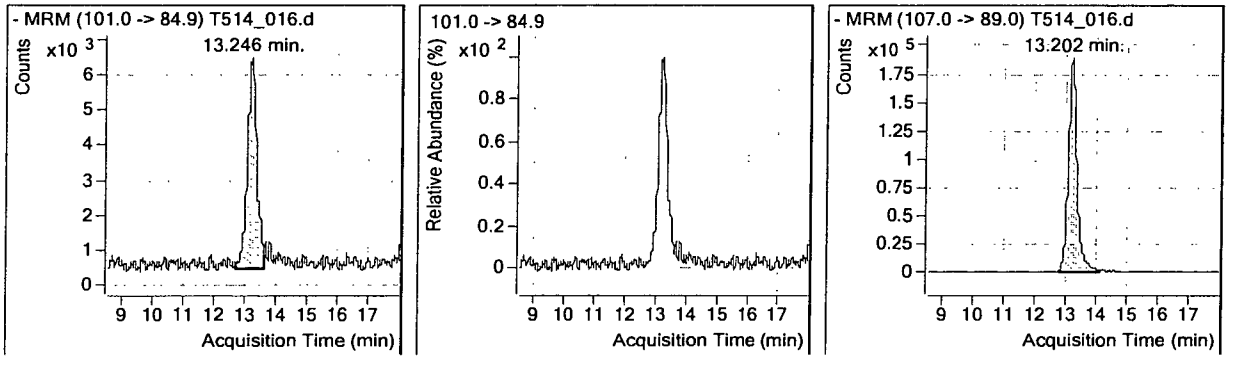


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.209	420437	3701407
Perchlorate_102	PER_IS_108	13.246	131038	3701407

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T514_017.d

	Date (s) of Analysis From:03/12/15 To:05/14/15 Time (s) of Analysis From:17:52 To:14:09				Date of Analysis: 05/14/15 Time of Analysis: 15:05 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	1.191345	N	6.2
Perchlorate_85	13.70	13.60	13.80	0.391605	13.13	0.376977	N	3.7

FILE ID : TQCK1417.RFB

Data File ID: T514_017.d

Date Injected : 05/14/15

Time Injected : 15:05

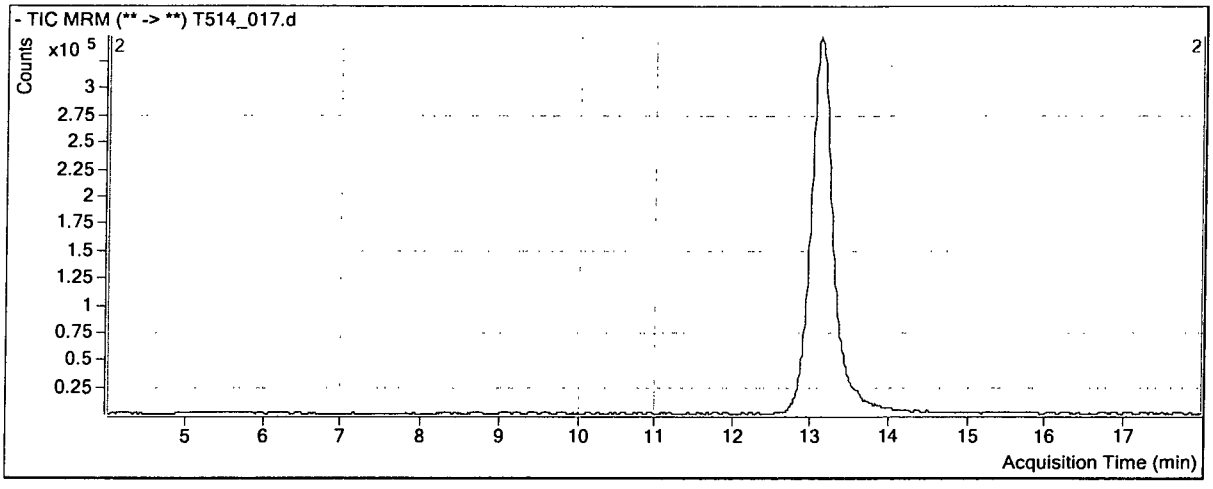
Sample ID : PER_CCV 0.002 ug/ml 05/07/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.12	4266748	PER_IS_89
13.127	2033268	Perchlorate_83
13.134	643386	Perchlorate_85

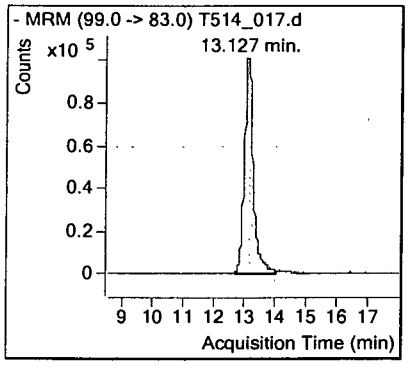
Quantitative Analysis Sample Report

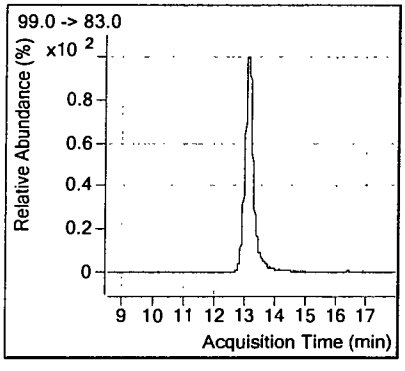
Batch Data Path	D:\MassHunter\Data\150514\QuantResults\150514_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T514_017.d	**Sample Name**	PER_CCV 0.002 ug/ml 05/07/15
Sample Type	Sample	**Acq_Date**	05/14/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	15:05
ClientID	NA	**Inj Vol**	20

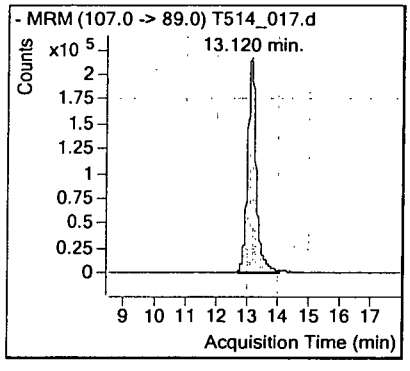


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.127	2033268	4266748
Perchlorate_102	PER_IS_108	13.134	643386	4266748

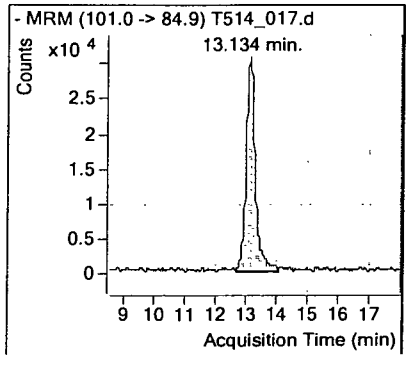
Perchlorate_100

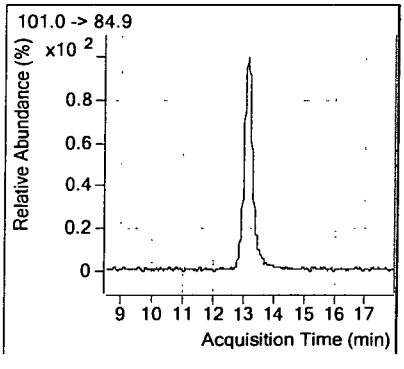


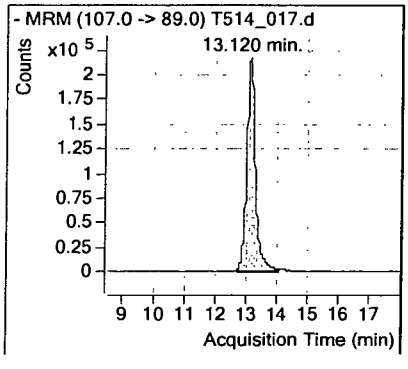




Perchlorate_102







CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T611_002.d

	Date (s) of Analysis From:03/12/15 To:06/11/15 Time (s) of Analysis From:17:52 To:17:27				Date of Analysis: 06/11/15 Time of Analysis: 17:46 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	13.15	1.170723	N	7.8
Perchlorate_85	13.70	13.60	13.80	0.391605	13.16	0.425881	N	8.8

FILE ID : TQCK1102.RFB

Data File ID: T611_002.d

Date Injected : 06/11/15

Time Injected : 17:46

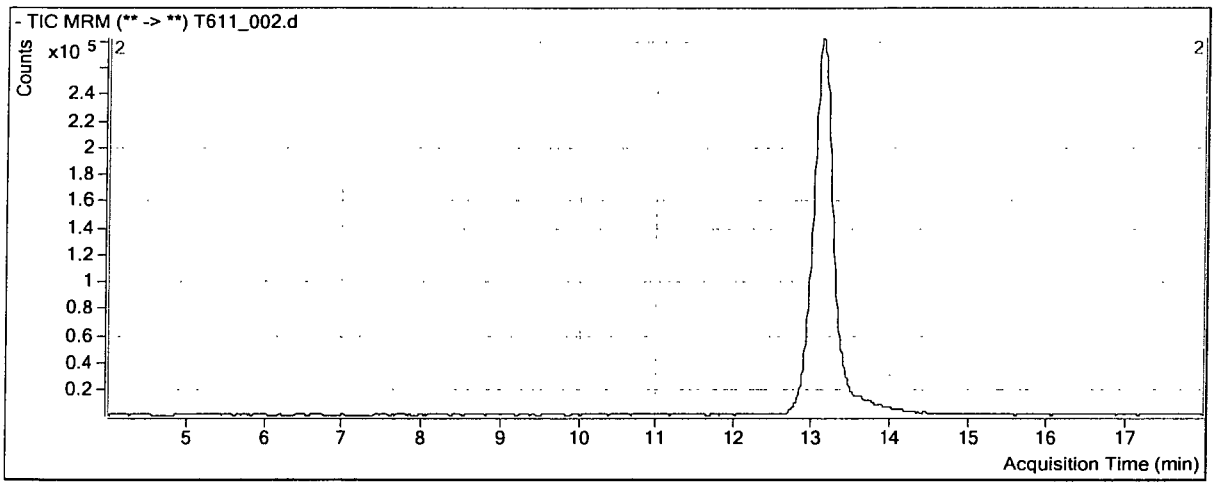
Sample ID : PER_CCV 0.0004 ug/ml 06/11/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.131	4593424	PER_IS_89
13.148	430210	Perchlorate_83
13.164	156500	Perchlorate_85

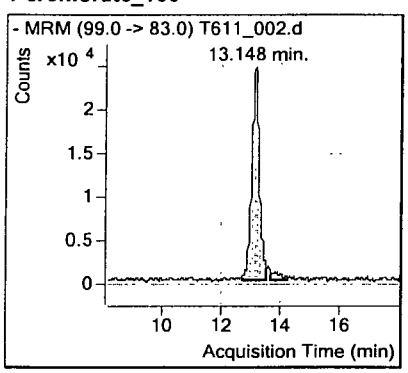
Quantitative Analysis Sample Report

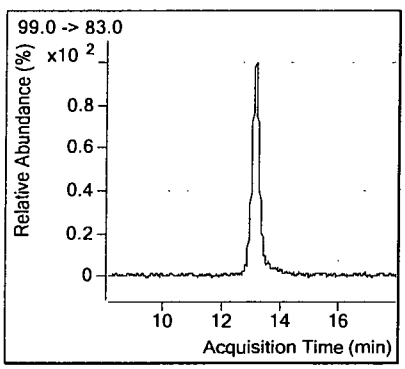
Batch Data Path	D:\MassHunter\Data\150611\QuantResults\150611_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T611_002.d	**Sample Name**	PER_CCV 0.0004 ug/ml 06/11/15
Sample Type	Sample	**Acq_Date**	06/11/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	17:46
ClientID	NA	**Inj Vol**	20

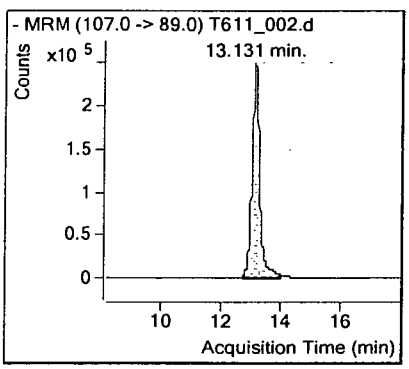


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.148	430210	4593424
Perchlorate_102	PER_IS_108	13.164	156500	4593424

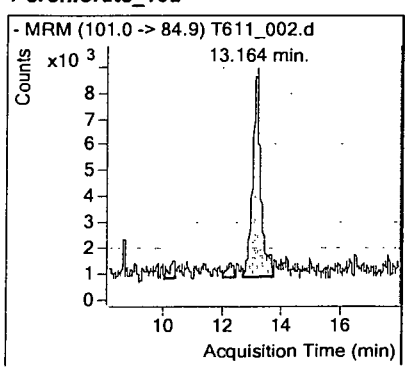
Perchlorate_100

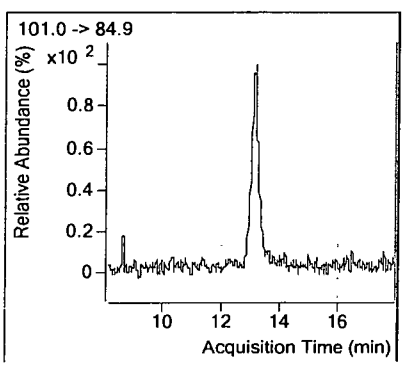


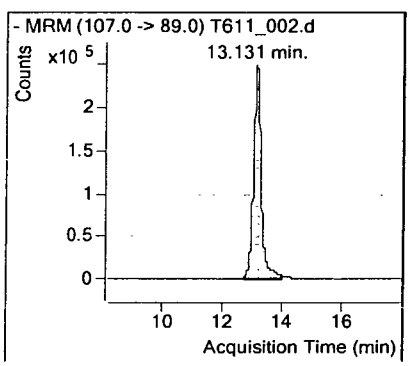




Perchlorate_102







CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T611_003.d

Date (s) of Analysis From:03/12/15 To:06/11/15 Time (s) of Analysis From:17:52 To:17:27	Date of Analysis: 06/11/15 Time of Analysis: 18:04 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	13.01	1.172980	N	7.7
Perchlorate_85	13.70	13.60	13.80	0.391605	13.02	0.361593	N	7.7

FILE ID : TQCK1103.RFB

Data File ID: T611_003.d

Date Injected : 06/11/15

Time Injected : 18:04

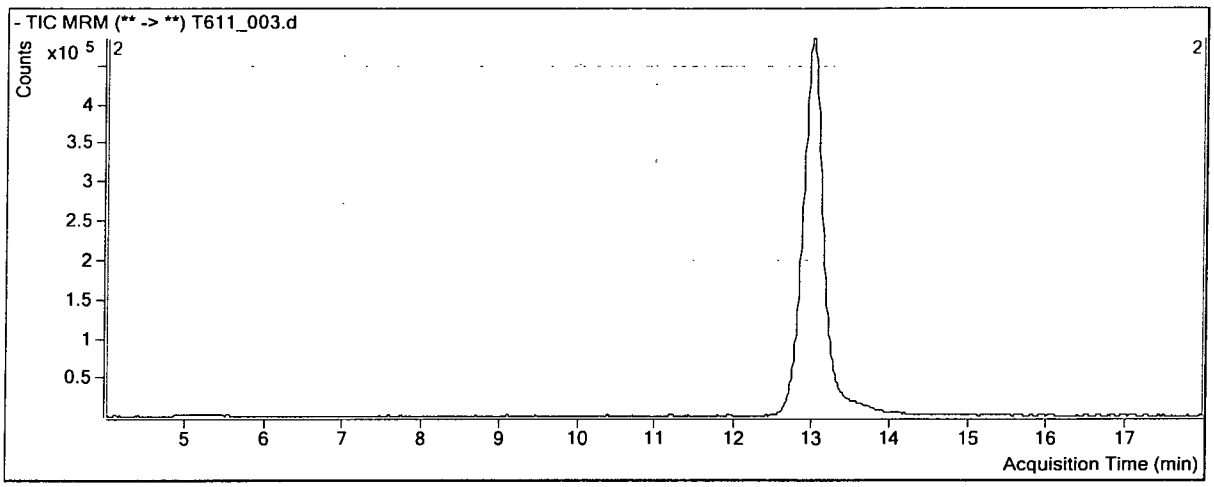
Sample ID : PER_CCV 0.002 ug/ml 06/11/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.008	5598693	PER_IS_89
13.005	2626863	Perchlorate_83
13.022	809779	Perchlorate_85

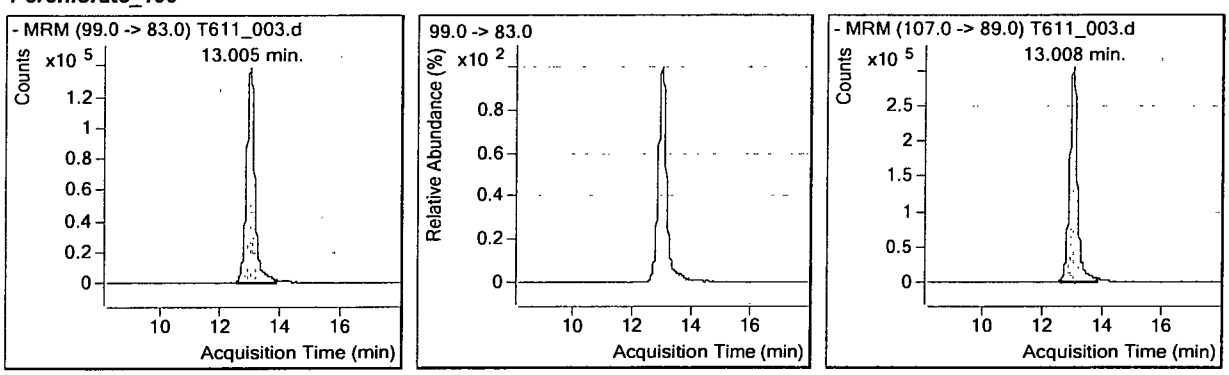
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150611\QuantResults\150611_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T611_003.d	**Sample Name**	PER_CCV 0.002 ug/ml 06/11/15
Sample Type	Sample	**Acq_Date**	06/11/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	18:04
ClientID	NA	**Inj Vol**	20

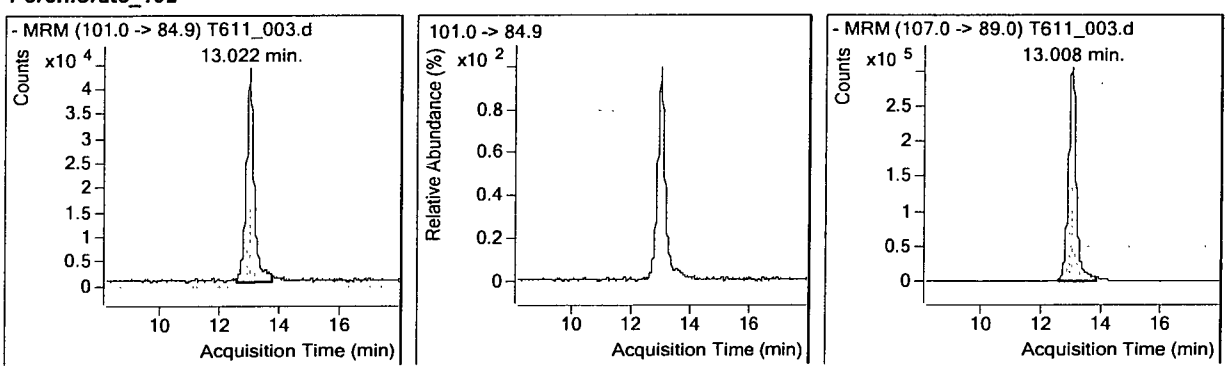


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.005	2626863	5598693
Perchlorate_102	PER_IS_108	13.022	809779	5598693

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T611_044.d

Date (s) of Analysis From:03/12/15 To:06/12/15 Time (s) of Analysis From:17:52 To:6:10	Date of Analysis: 06/12/15 Time of Analysis: 6:48 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	12.88	1.248804	N	1.7
Perchlorate_85	13.70	13.60	13.80	0.391605	12.88	0.417311	N	6.6

FILE ID : TQCK1144.RFB

Data File ID: T611_044.d

Date Injected : 06/12/15

Time Injected : 6:48

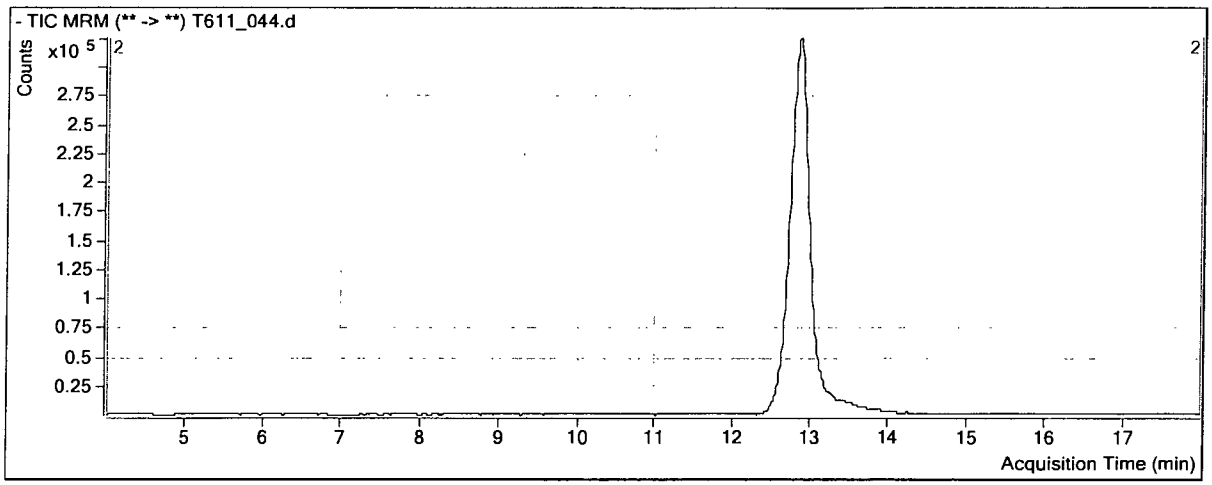
Sample ID : PER_CCV 0.0004 ug/ml 06/11/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
12.866	5235488	PER_IS_89
12.883	523048	Perchlorate_83
12.879	174786	Perchlorate_85

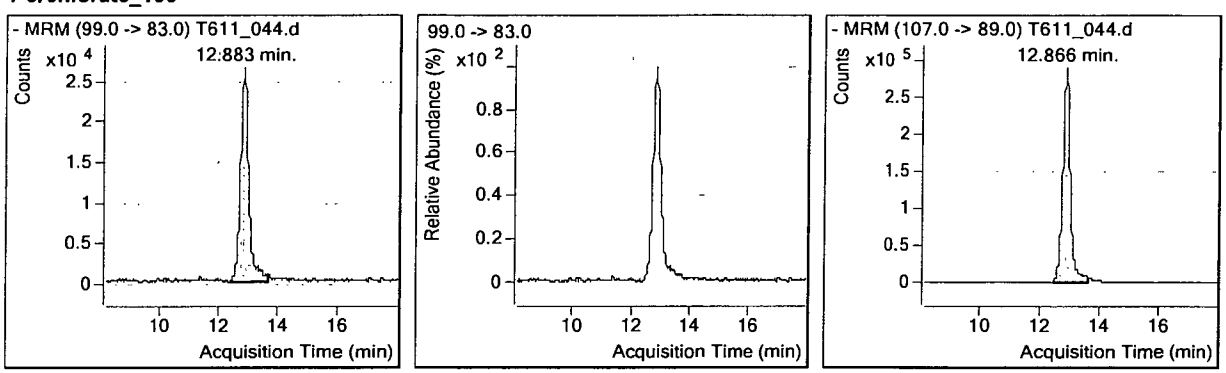
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150611\QuantResults\150611_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T611_044.d	**Sample Name**	PER_CCV 0.0004 ug/ml 06/11/15
Sample Type	Sample	**Acq_Date**	06/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	6:48
ClientID	NA	**Inj Vol**	20

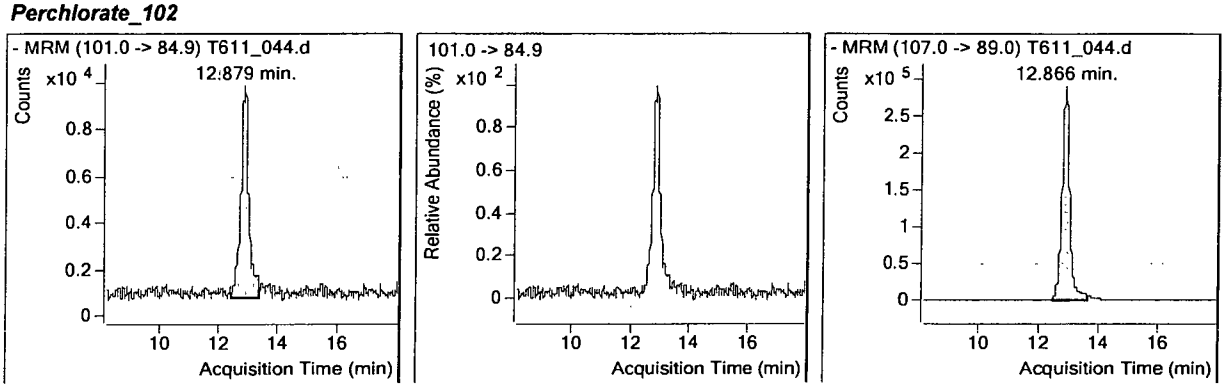


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	12.883	523048	5235488
Perchlorate_102	PER_IS_108	12.879	174786	5235488

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T611_045.d

	Date (s) of Analysis From:03/12/15 To:06/12/15 Time (s) of Analysis From:17:52 To:6:10				Date of Analysis: 06/12/15 Time of Analysis: 7:06 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	12.84	1.151904	N	9.3
Perchlorate_85	13.70	13.60	13.80	0.391605	12.84	0.353457	N	9.7

FILE ID : TQCK1145.RFB

Data File ID: T611_045.d

Date Injected : 06/12/15

Time Injected : 7:06

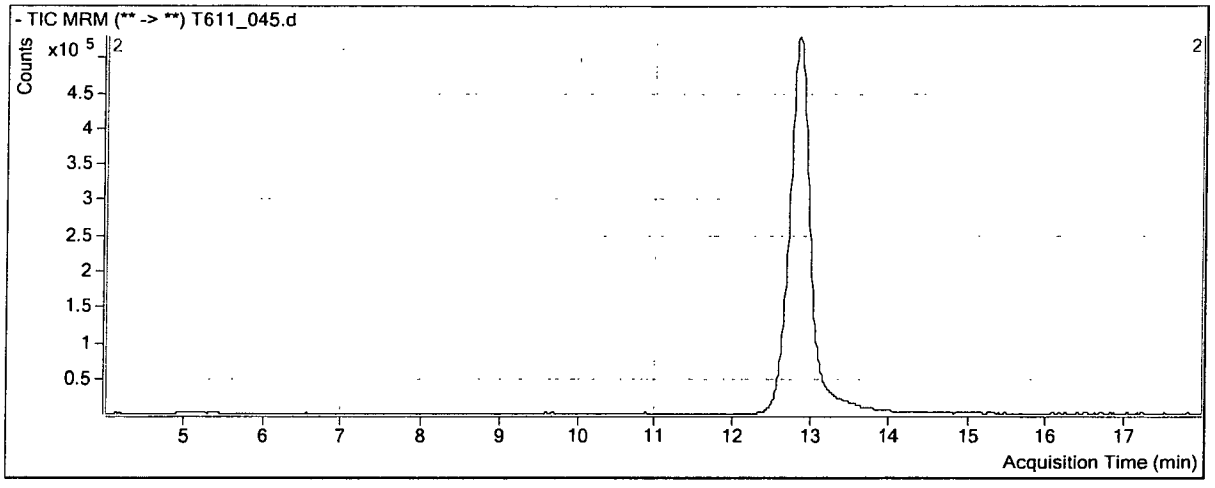
Sample ID : PER_CCV 0.002 ug/ml 06/11/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
12.845	6149691	PER_IS_89
12.842	2833542	Perchlorate_83
12.838	869461	Perchlorate_85

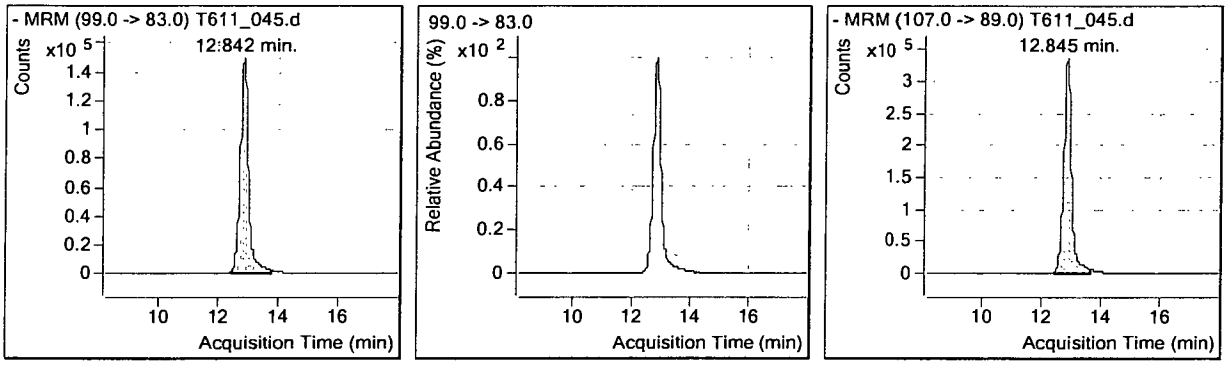
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150611\QuantResults\150611_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T611_045.d	**Sample Name**	PER_CCV 0.002 ug/ml 06/11/15
Sample Type	Sample	**Acq_Date**	06/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	7:06
ClientID	NA	**Inj Vol**	20

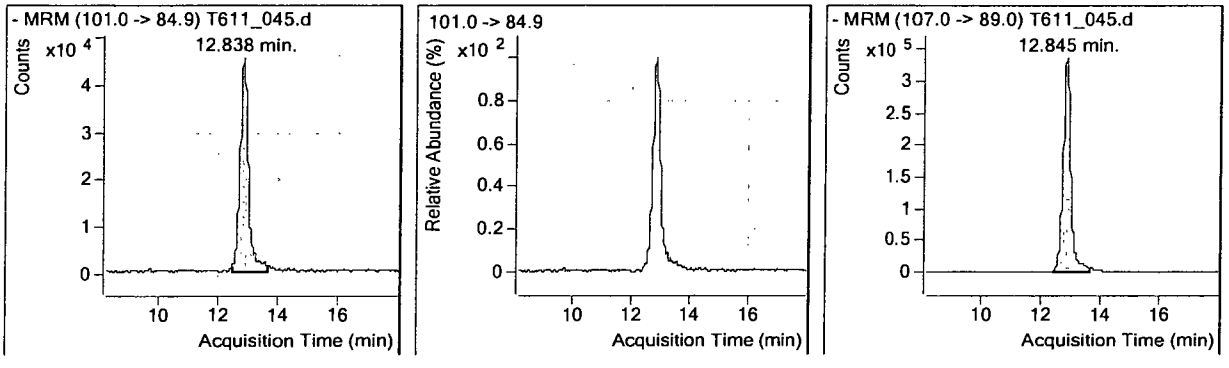


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	12.842	2833542	6149691
Perchlorate_102	PER_IS_108	12.838	869461	6149691

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T611_055.d

	Date (s) of Analysis From:03/12/15 To:06/12/15 Time (s) of Analysis From:17:52 To:9:37				Date of Analysis: 06/12/15 Time of Analysis: 10:14 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	13.29	1.214890	N	4.4
Perchlorate_85	13.70	13.60	13.80	0.391605	13.24	0.393663	N	0.5

FILE ID : TQCK1155.RFB

Data File ID: T611_055.d

Date Injected : 06/12/15

Time Injected : 10:14

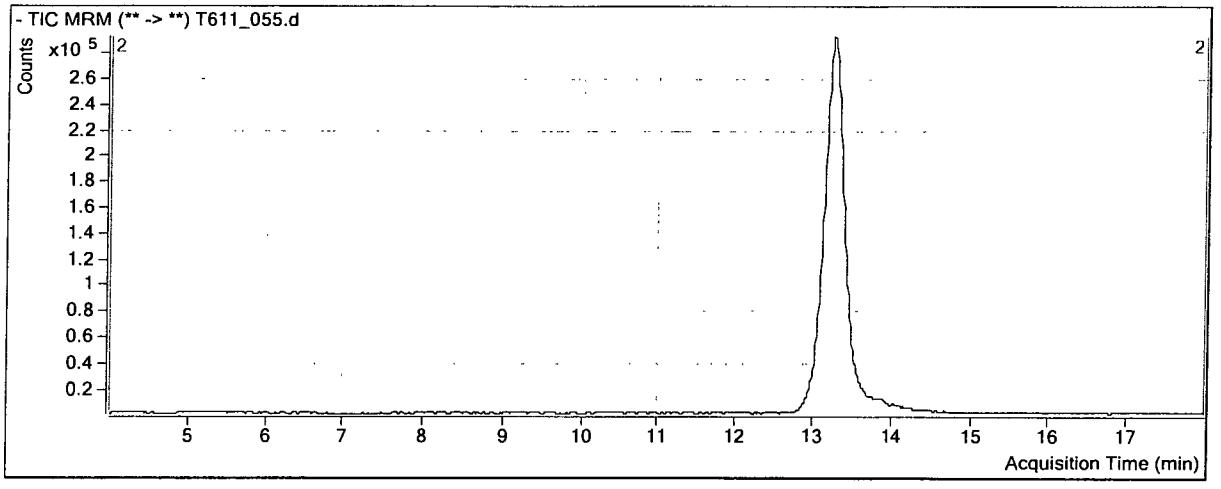
Sample ID : PER_CCV 0.0004 ug/ml 06/11/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.243	4948968	PER_IS_89
13.200	480996	Perchlorate_83
13.236	155858	Perchlorate_85

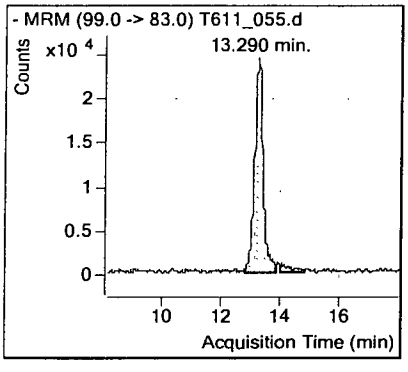
Quantitative Analysis Sample Report

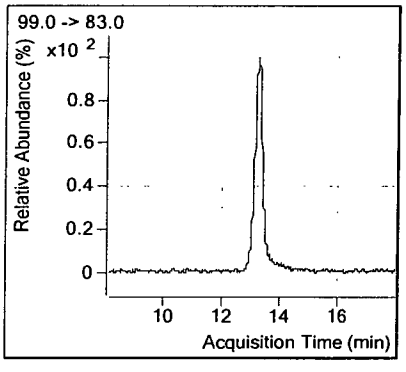
Batch Data Path	D:\MassHunter\Data\150611\QuantResults\150611_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T611_055.d	**Sample Name**	PER_CCV 0.0004 ug/ml 06/11/15
Sample Type	Sample	**Acq_Date**	06/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	10:14
ClientID	NA	**Inj Vol**	20

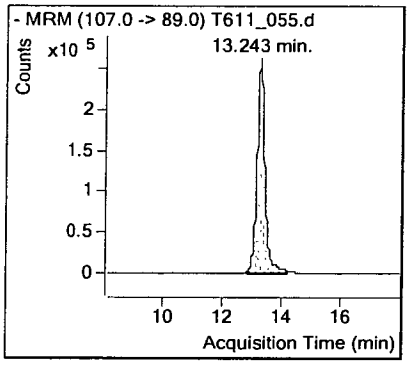


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.290	480996	4948968
Perchlorate_102	PER_IS_108	13.236	155858	4948968

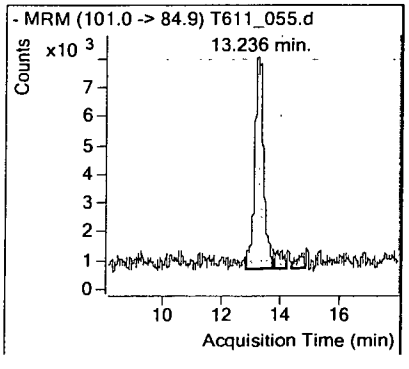
Perchlorate_100

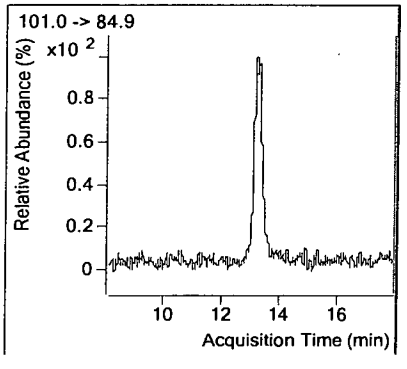


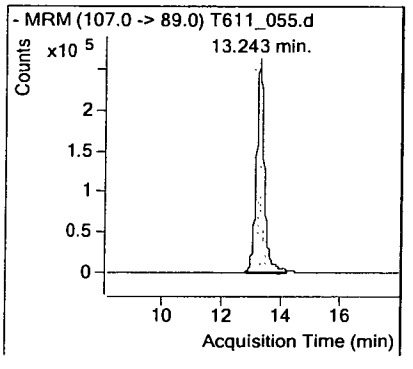




Perchlorate_102







CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T611_056.d

	Date (s) of Analysis From:03/12/15 To:06/12/15 Time (s) of Analysis From:17:52 To:9:37				Date of Analysis: 06/12/15 Time of Analysis: 10:33 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	13.30	1.156007	N	9.0
Perchlorate_85	13.70	13.60	13.80	0.391605	13.31	0.340167	N	13.1

FILE ID : TQCK1156.RFB

Data File ID: T611_056.d

Date Injected : 06/12/15

Time Injected : 10:33

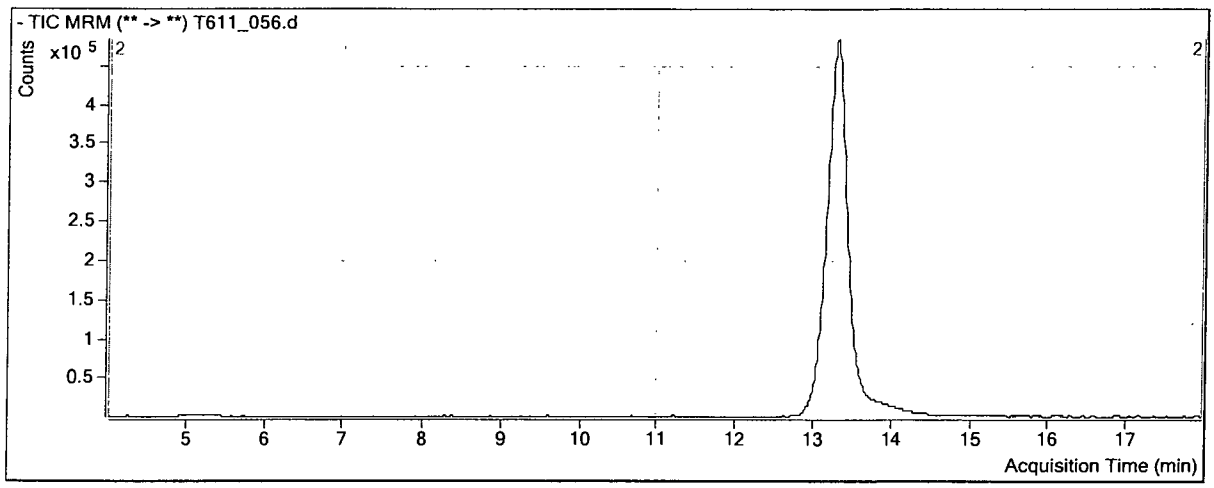
Sample ID : PER_CCV 0.002 ug/ml 06/11/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.294	5803119	PER_IS_89
13.000	2683379	Perchlorate_83
13.307	789612	Perchlorate_85

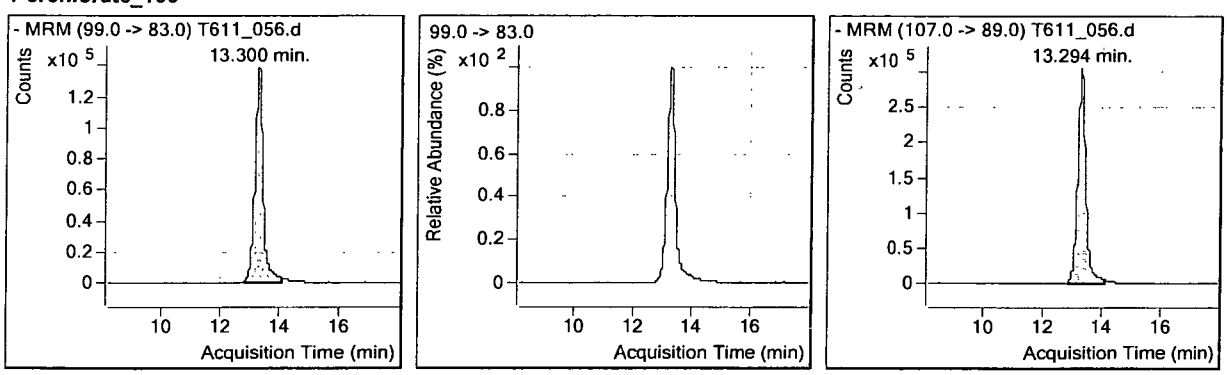
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150611\QuantResults\150611_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T611_056.d	**Sample Name**	PER_CCV 0.002 ug/ml 06/11/15
Sample Type	Sample	**Acq_Date**	06/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	10:33
ClientID	NA	**Inj Vol**	20

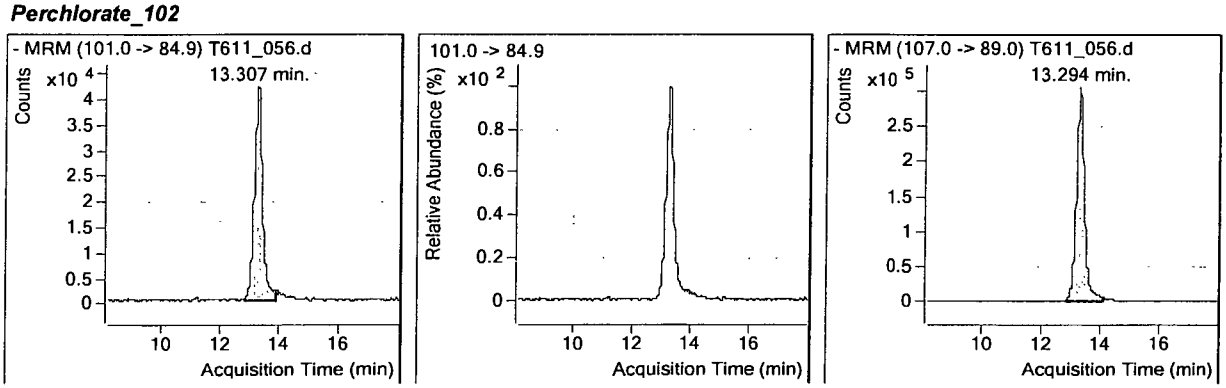


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.300	2683379	5803119
Perchlorate_102	PER_IS_108	13.307	789612	5803119

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: **150512W-16226 - 196913**
Batch ID: #6850-150512A

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	05/12/15	05/12/15

Quant Method: QTLMFL2
Run #: T512_029.D
Instrument: AGIL_6460
Sequence: TQ051215
Initials: MP

GC SC-Blank-REG MDLs
Printed: 05/13/15 11:50:06 AM

Data File ID: T512_029.d

Date Injected : 05/12/15

Time Injected : 16:17

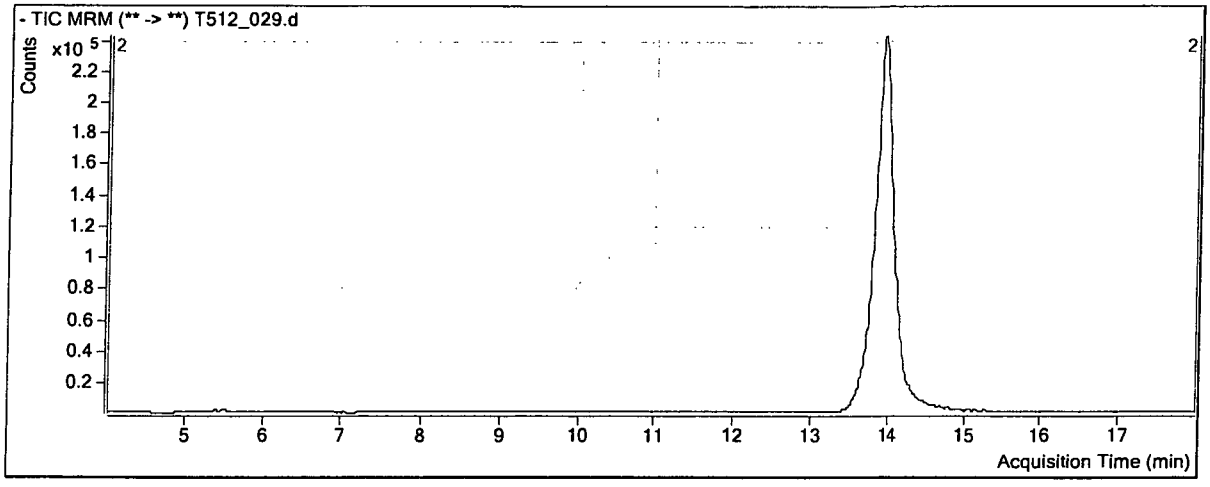
Sample ID : 150512WBLKA 1052.6 DF 05/12/15

Client ID : LAB_CNTL_W_BLKA

Retention Time	Area Count Response	Compound_ID Product Ion			
13.935	4755283	PER_IS_89			
14.065	3486	Perchlorate_83	(3486 * 0.0050) / (1.27 * 4755283.00) *	1052.60 =	0.003037 ppb
14.051	5238	Perchlorate_85	(5238 * 0.0050) / (0.39 * 4755283.00) *	1052.60 =	0.014804 ppb

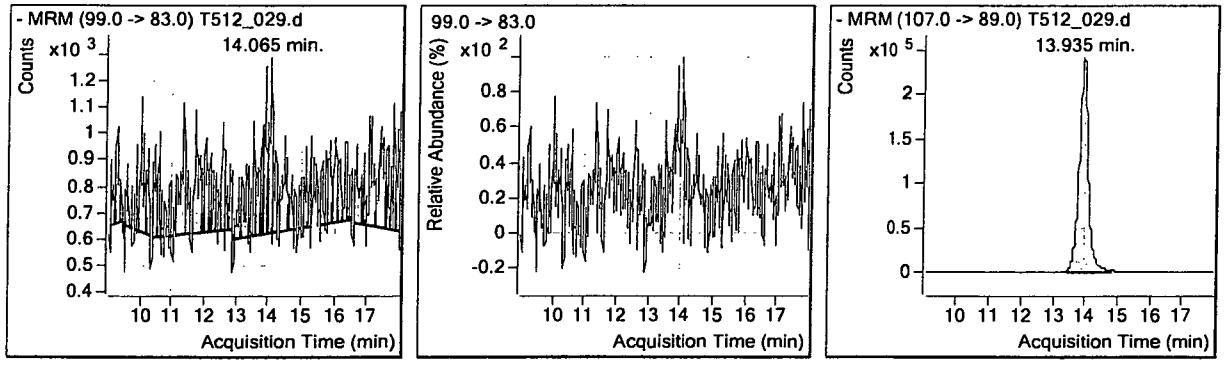
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150512\QuantResults\150512_A2_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T512_029.d	**Sample Name**	150512WBLKA 1052.6 DF 05/12/15
Sample Type	Sample	**Acq_Date**	05/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	16:17
ClientID	LAB_CNTL_W_BLKA	**Inj Vol**	20

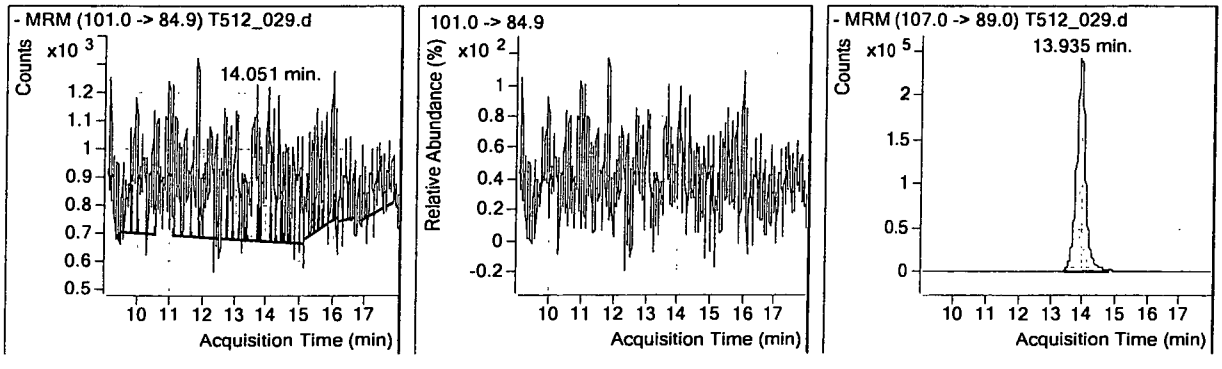


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.065	3486	4755283
Perchlorate_102	PER_IS_108	14.051	5238	4755283

Perchlorate_100



Perchlorate_102



Laboratory Control Spike Recovery
Perchlorate

APPL ID: **150512W-16226 LCS - 196913**
Batch ID: #6850-150512A

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	0.599	99.8	80-120

Comments:

Primary	SPK
Quant Method :	QTLMFL2
Extraction Date :	05/12/15
Analysis Date :	05/12/15
Instrument :	AGIL_6460
Run :	T512_027.D
Initials :	MP

Printed: 05/13/15 11:50:01 AM
APPL Standard LCS

Data File ID: T512_027.d

Date Injected : 05/12/15

Time Injected : 15:37

Sample ID : 150512WA_LCS-1 1052.6 DF 05/12/15

Client ID : LAB_CNTL_W_SPKA

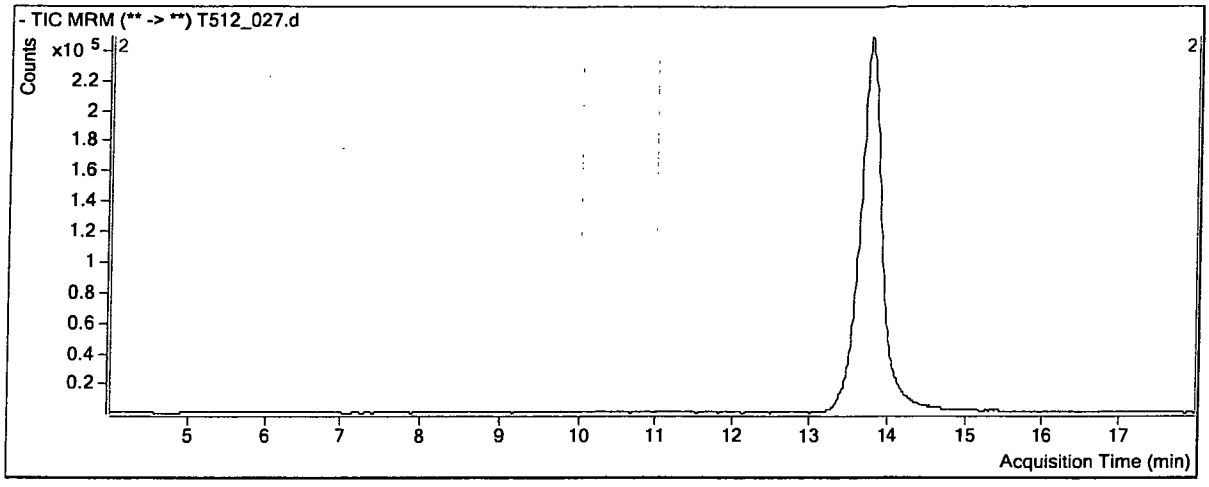
Retention Time	Area Count Response	Compound_ID Product Ion				
13.742	4309588	PER_IS_89				
13.769	623312	Perchlorate_83	(623312 * 0.0050) / (1.27 * 4309588.00) *	1052.60 =	0.599256 ppb	
13.725	208822	Perchlorate_85	(208822 * 0.0050) / (0.39 * 4309588.00) *	1052.60 =	0.651217 ppb	

$$\frac{(1052.6)(623312)(0.005)}{(1.270255)(4309588)} = 0.599256$$

6/9/15
PP

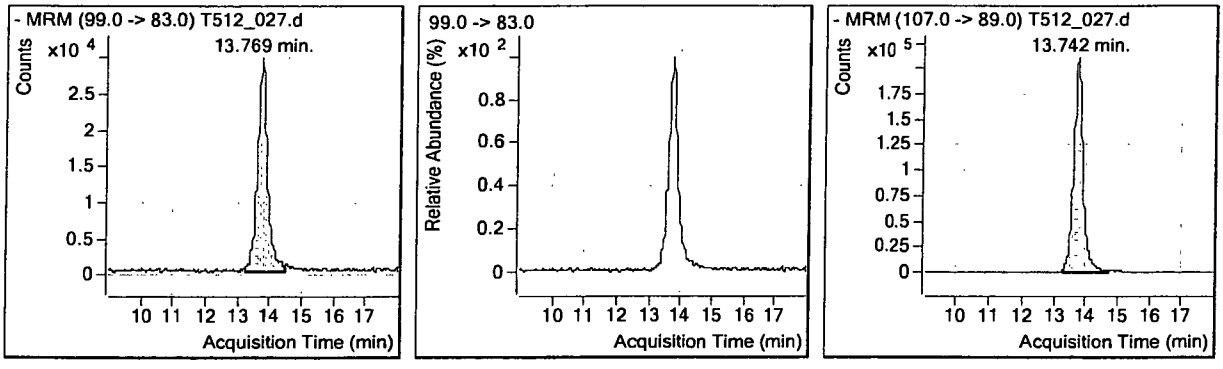
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150512\QuantResults\150512_A2_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T512_027.d	**Sample Name**	150512WA_LCS-1 1052.6 DF 05/12/15
Sample Type	Sample	**Acq_Date**	05/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	15:37
ClientID	LAB_CNTL_W_SPKA	**Inj Vol**	20

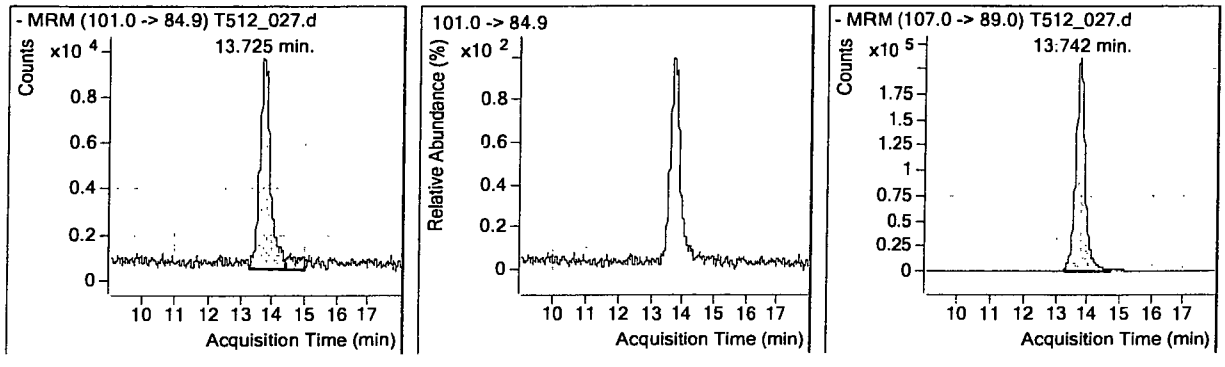


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.769	623312	4309588
Perchlorate_102	PER_IS_108	13.725	208822	4309588

Perchlorate_100



Perchlorate_102



Interferrence Check Sample

Perchlorate EPA 6850 Water

APPL ID: 150512W-16226 ICS-196913
Batch ID: #6850-150512A

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	0.558	93.0%	70-130

Comments:

Quant Method:	QTLMFL2
Extraction Date:	05/12/15
Analysis Date:	05/12/15
Instrument:	AGIL_6560
Run:	T512_028.D
Initials:	RP

Data File ID: T512_028.d

Date Injected : 05/12/15

Time Injected : 15:57

Sample ID : 150512W_ICSA 1052.6 DF 05/12/15

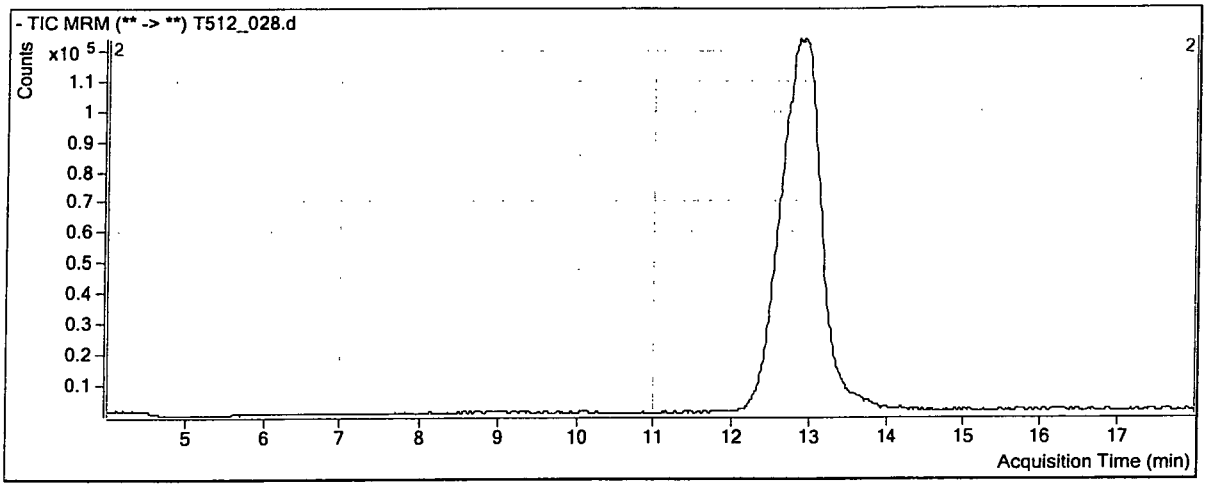
Client ID : LAB_CNTL_W_ICSA

Retention Time		Area Count Response	Compound_ID Product Ion				
12.855		3818635	PER_IS_89				
12.934	*	514351	Perchlorate_83	(514351 * 0.0050) / (1.27 * 3818635.00) *	1052.60 =	0.558077 ppb
12.951	*	171061	Perchlorate_85	(171061 * 0.0050) / (0.39 * 3818635.00) *	1052.60 =	0.602044 ppb

* MANUAL INTEGRAION

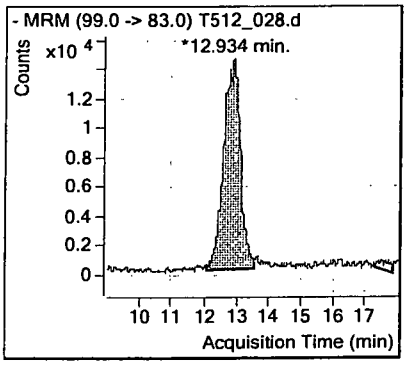
Quantitative Analysis Sample Report

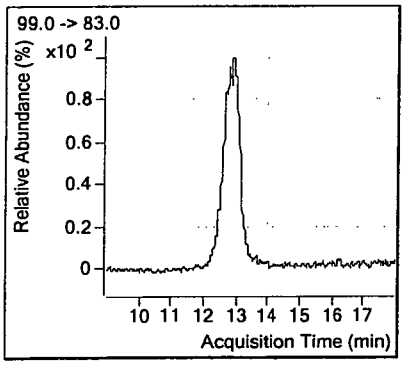
Batch Data Path	D:\MassHunter\Data\150512\QuantResults\150512_A2_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T512_028.d	**Sample Name**	150512W_ICSA 1052.6 DF 05/12/15
Sample Type	Sample	**Acq_Date**	05/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	15:57
ClientID	LAB_CNTL_W_ICSA	**Inj Vol**	20

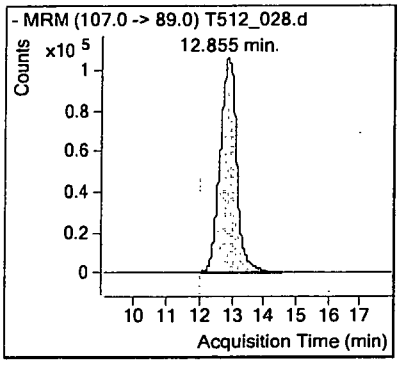


Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108	*	12.934	514351	3818635	* MANUAL INT
Perchlorate_102	PER_IS_108	*	12.951	171061	3818635	* MANUAL INT

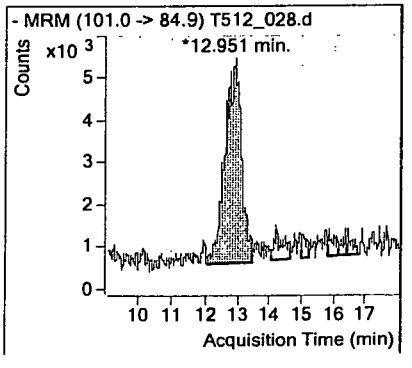
Perchlorate_100

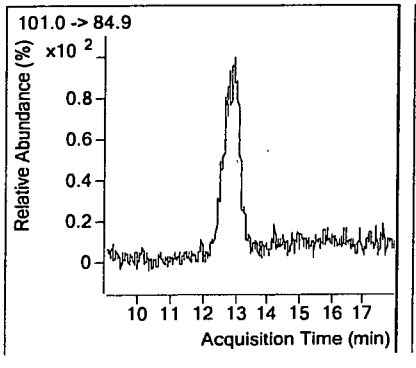


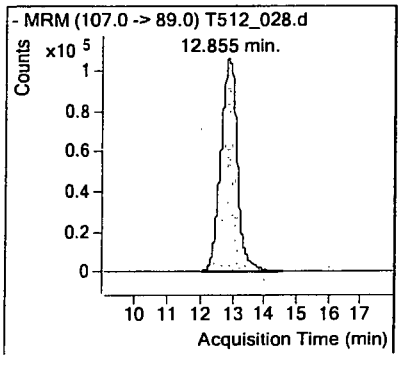


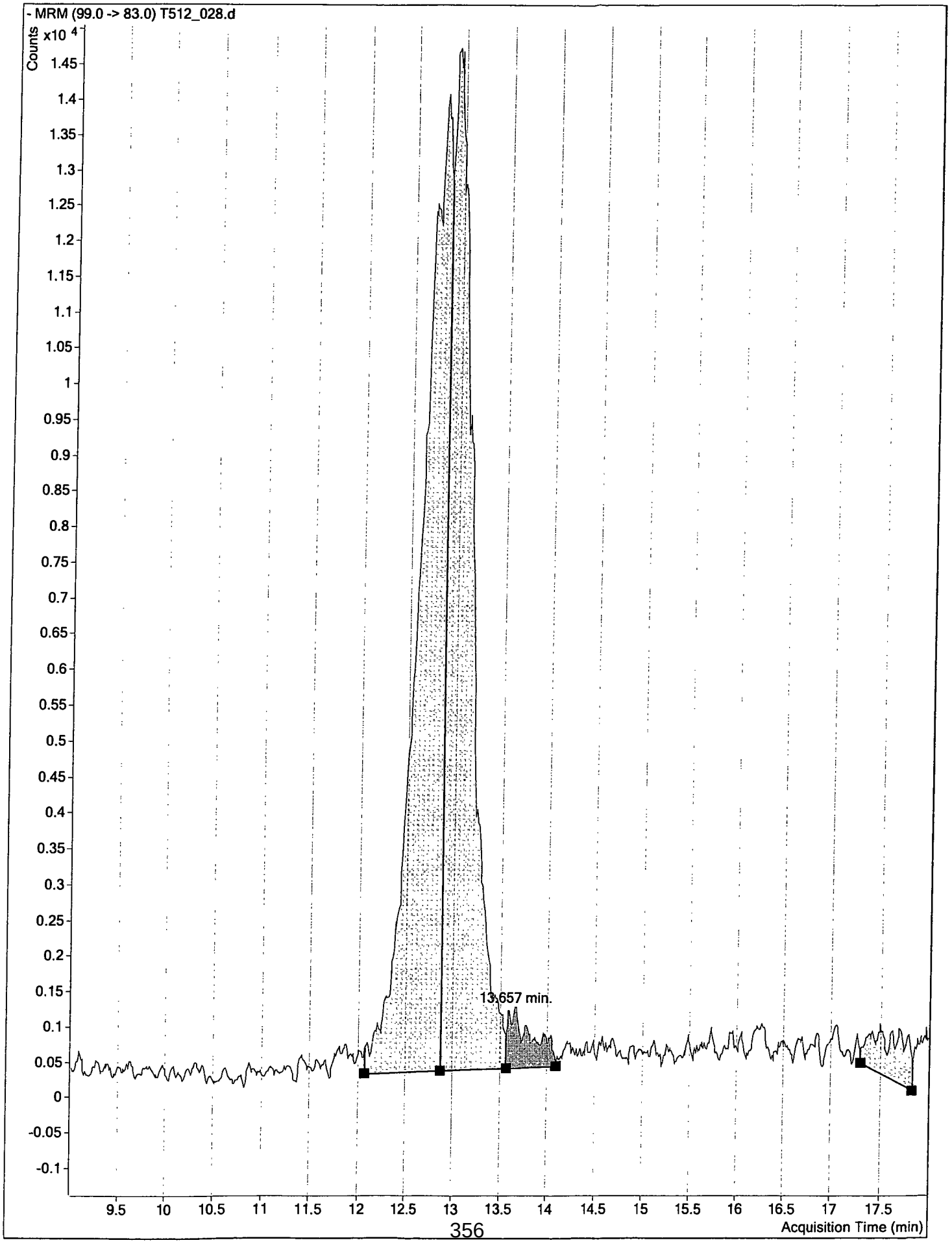


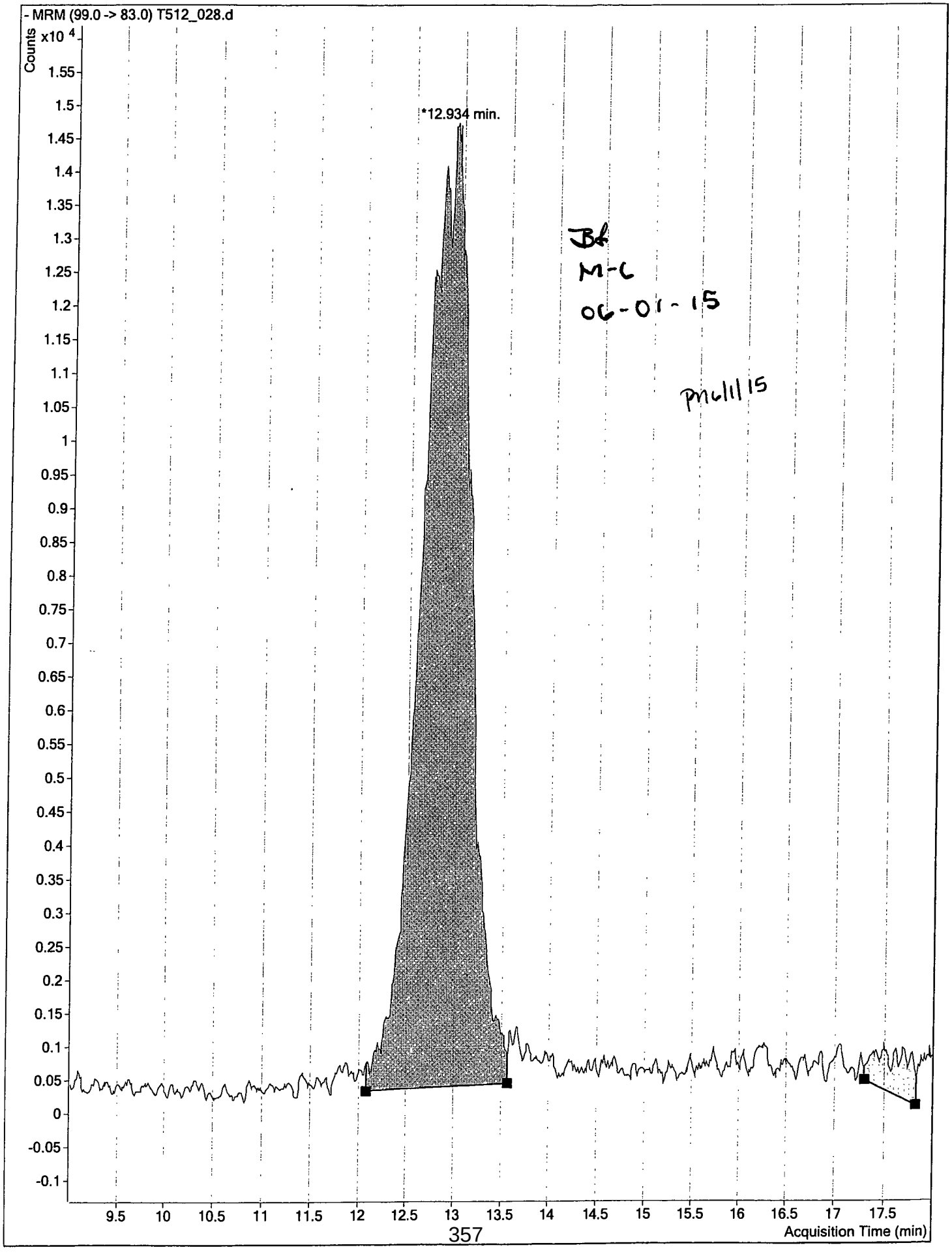
Perchlorate_102

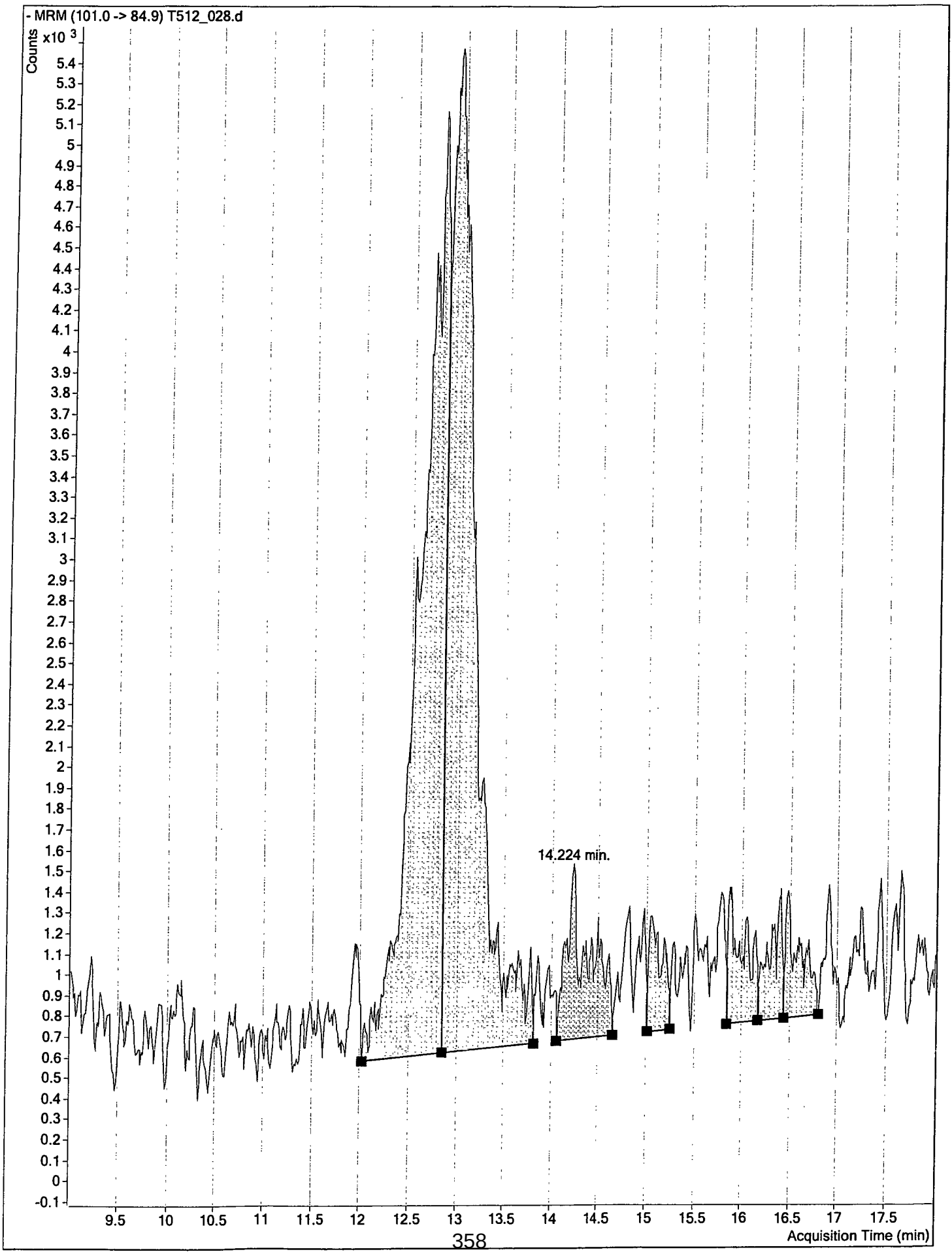


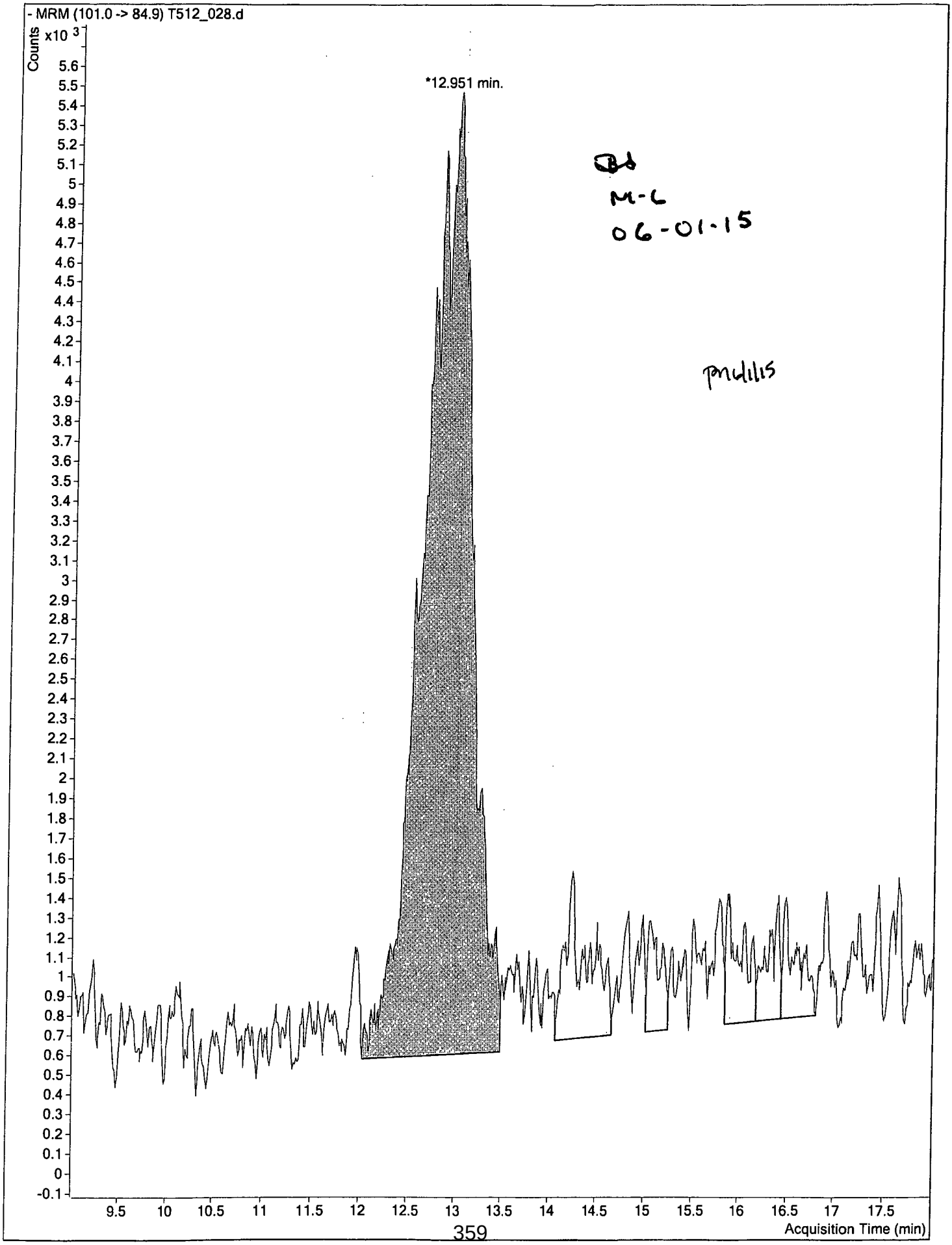





- MRM (99.0 -> 83.0) T512_028.d
Counts
x10 4
1.45
1.4
1.35
1.3
1.25
1.2
1.15
1.1
1.05
1
0.95
0.9
0.85
0.8
0.75
0.7
0.65
0.6
0.55
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
-0.05
-0.1
13.657 min.
9.5
10
10.5
11
11.5
12
12.5
13
13.5
14
14.5
15
15.5
16
16.5
17
17.5
Acquisition Time (min)


- MRM (99.0 -> 83.0) T512_028.d
Counts
x10 4
*12.934 min.
JB
M-C
06-01-15
PM 6/11/15
Acquisition Time (min)


- MRM (101.0 -> 84.9) T512_028.d
Counts
x10 3
14.224 min.
Acquisition Time (min)


- MRM (101.0 -> 84.9) T512_028.d
Counts
x10 3
*12.951 min.
M-L
06-01-15
Pandilis
Acquisition Time (min)

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.

040 LC/MS/MS STANDARD PREP LOG# 105 PAGE 40

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE INITIALS
PER IS	0.005 µg/ml	04-20-15:					JH 04-21-15

02SI $^{18}O_4$ Perchlorate 100µg/L 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. JH

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL. ENT. LOT#	DATE / INITIALS
Scav spk 250 ug/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	SOL. ENV. LOT#	DATE/ INITIALS
PER IS 0.005 µg/ml 04-20-15:							JSL 04-21-15
025I $^{18}O_4$ 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. JSL							

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL. TEN. LOT #	DATE INITIALS

NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED: 05-19-15 JJ

PER. CCV 0.0004 µg/ml 05-07-15: JJ
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 1074176-35163 05-07-15

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 025I $^{18}O_4$ Perchlorate 100 µg/L lot 1074176-35163

PER. IS 0.005 µg/ml 05-07-15:
025I $^{18}O_4$ 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.

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							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							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							

LC/MS STANDARD PREP LOG# 105 PAGE# 86

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE & INITIALS
NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED: 06-08-15							06-08-
AZ16230_W01 105263.2 DF 05-12-15_5/14: AZ16230_W01 10526.3 DF 05-12-15_5/14 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005µg/ml 05-14-15							05-14-
AZ16230_W01 1052631.6 DF 05-12-15_5/14: AZ16230_W01 105263.2 DF 05-12-15_5/14 TOOK 0.050 ml AND ADDED TO ~~0.005µg/ml~~ 0.450 ml PER_IS_50:50 0.005µg/ml 05-14-15							
AZ16230_W01 10526315.8 DF 05-12-15_5/14: AZ16230_W01 1052631.6 DF 05-12-15 5/14 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005µg/ml 05-14-15							
AZ16236_W01 10526.3 DF 05-12-15_5/14: AZ16236_W01 1052.6 DF 05-12-15 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005µg/ml 05-14-15							
AZ16236_W01 105263.2 DF 05-12-15_5/14: AZ16236_W01 10526.3 DF 05-12-15_5/14 TOOK 0.050ml AND ADDED TO 0.450 ml PER							

VOC STANDARD PREP LOG# 105 PAGE 103

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL. ID. LOT#	DATE INITIALS

NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED: JK 06-19-15 — JK 06-19-15

PER_CCV ~~0.004~~ 0.000H JK µg/ml 05-29-15: — JK 05-29-15

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 received 0.050 ml 02SI $^{18}O_4$ Perchlorate 100 µg/L lot 1074176-35163

PER_CCV 0.002 µg/ml 05-29-15:
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 05-29-15:
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 2-2 ml vials that were field.

ICP/MS STANDARD PREP LOG# 105 PAGE# 108

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N. LOT#	DATE/ INITIALS
NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED: JB 06-28-15							JB 06-28-15
AZ17047-W01 21052.6 DF 06-04-15-6/5: AZ17047-W01 1052.6 DF 06-04-15 TOOK 0.050 ml AND ADDED TO 0.950 ml PER-IS-50:50 0.005µg/ml 06-03-15							JB 06-03-15
AZ17047-W01 10526.3 DF 06-04-15-6/5: AZ17047-W01 1052.6 DF 06-04-15 TOOK 0.050 ml AND ADDED TO 0.450 ml PER-IS-50:50 0.005µg/ml 06-03-15							
PER-CCV 0.0004µg/ml 06-11-15: 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 received 0.050 ml 025I $^{18}O_4$ Perchlorate 100 µg/L lot 1074176-35163							JB 06-11-15
PER-CCV 0.002µg/ml 06-11-15: PER-SS 0.010 µg/ml 08-28-15 took 0.200 ml and added to 0.750 ml Laboratory Source DI-H2O that had received 0.050 ml 025I $^{18}O_4$ Perchlorate 100 µg/L lot 1074176-35163							

LC/MS STANDARD PREP LOG# 105 PAGE# 109

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL. EN. LOT #	DATE INITIALS
NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED: JL							JL 06-29-15
PER_IS 0.005 µg/ml 06-11-15:							JL
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 2-2 ml vials that were full.							06-11-15
AZ16235_W01 10526.3 DF 05-12-15_6/12:							JL
AZ16235_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 06-03-15							06-12-15
~~AZ16963_W01 10526.3 DF 06-02-15_6/3~~							JL 6-28-15

_HPL6850

Organic Extraction Worksheet

Method	EPA 6850 HPLC Perchlorate Extraction	Extraction Set	150512A	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:	NA	
Spiked ID 7			Ext. Start Time:	05/12/15 12:30	
Spiked ID 8			Ext. End Time:	05/12/15 13:15	
			GC Requires Extract By:		
			pH1		Water Bath Temp Criteria
			pH2		
			pH3		

Spiked By: CFM **Date** 05/12/15 12:28:00 PM **Witnessed By:** DL **Date** 05/12/15 12:28:00 PM

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	150512A Blk				NA	NA equip	5ML	5ML	NA	05/12/15 12:30	
2	150512A LCS-1		0.030	1	NA	NA equip	5ML	5ML	NA	05/12/15 12:30	
3	150512A ICS		0.030/0.060	1/2	NA	NA equip	5ML	5ML	NA	05/12/15 12:30	
4	AZ16200	AZ16200W01			NA	NA equip	5ML	5ML	NA	05/12/15 12:30	76390 - STD
5	AZ16226	AZ16226W01			NA	NA equip	5ML	5ML	NA	05/12/15 12:30	76398 - 24 HOUR RUSH
6	AZ16227	AZ16227W01			NA	NA equip	5ML	5ML	NA	05/12/15 12:30	76398 - 24 HOUR RUSH
7	AZ16228	AZ16228W01			NA	NA equip	5ML	5ML	NA	05/12/15 12:30	76398 - 24 HOUR RUSH
8	AZ16229	AZ16229W01			NA	NA equip	5ML	5ML	NA	05/12/15 12:30	76398 - 24 HOUR RUSH
9	AZ16230	AZ16230W01			NA	NA equip	5ML	5ML	NA	05/12/15 12:30	76398 - 24 HOUR RUSH
10	AZ16231	AZ16231W01			NA	NA equip	5ML	5ML	NA	05/12/15 12:30	76398 - 24 HOUR RUSH
11	AZ16232	AZ16232W01			NA	NA equip	5ML	5ML	NA	05/12/15 12:30	76398 - 24 HOUR RUSH
12	AZ16233	AZ16233W01			NA	NA equip	5ML	5ML	NA	05/12/15 12:30	76398 - 24 HOUR RUSH
13	AZ16234	AZ16234W01			NA	NA equip	5ML	5ML	NA	05/12/15 12:30	76398 - 24 HOUR RUSH
14	AZ16235	AZ16235W04			NA	NA equip	5ML	5ML	NA	05/12/15 12:30	76401 - STD
15	AZ16236	AZ16236W04			NA	NA equip	5ML	5ML	NA	05/12/15 12:30	76401 - STD
16	AZ16237	AZ16237W01			NA	NA equip	5ML	5ML	NA	05/12/15 12:30	76398 - 24 HOUR RUSH

Solvent and Lot#	
Millipore Water	5-12-15

Extraction COC Transfer	
Extraction lab employee Initials	CFM
GC analyst's initials	PM
Date	5/12/15
Time	1:30
Refrigerator	NA

	Technician's Initials
Scanned By	CFM
Sample Preparation	CFM
Extraction	CFM
Concentration	----------

Modified	05/12/15 1:17:50 PM

Reviewed By: PM **Date** 5/12/15

METHOD 6850 INJECTION LOG: 03/12/15, 05/12/15, 05/14/15, 06/11/15

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	T512_002.d	05/12/15 7:51
PER_CCV 0.002 ug/ml 05/07/15	T512_003.d	05/12/15 8:10
PER_CCV 0.0004 ug/ml 05/07/15	T512_024.d	05/12/15 14:41
PER_CCV 0.002 ug/ml 05/07/15	T512_025.d	05/12/15 14:59
150512WA_LCS-1 1052.6 DF 05/12/15	T512_027.d	05/12/15 15:37
150512W_ICSA 1052.6 DF 05/12/15	T512_028.d	05/12/15 15:57
150512WBLKA 1052.6 DF 05/12/15	T512_029.d	05/12/15 16:17
PER_CCV 0.0004 ug/ml 05/07/15	T512_036.d	05/12/15 18:36
PER_CCV 0.002 ug/ml 05/07/15	T512_037.d	05/12/15 18:54
PER_CCV 0.0004 ug/ml 05/07/15	T512_060.d	05/13/15 2:03
PER_CCV 0.002 ug/ml 05/07/15	T512_061.d	05/13/15 2:21
AZ16235_W04 1052.6 DF 05/12/15	T512_068.d	05/13/15 4:32
PER_CCV 0.0004 ug/ml 05/07/15	T512_072.d	05/13/15 5:46
PER_CCV 0.002 ug/ml 05/07/15	T512_073.d	05/13/15 6:05
PER_CCV 0.0004 ug/ml 05/07/15	T514_002.d	05/14/15 10:07
PER_CCV 0.002 ug/ml 05/07/15	T514_003.d	05/14/15 10:26
AZ16236_W01 105263.2 DF 05/12/15_5/14	T514_009.d	05/14/15 12:36
PER_CCV 0.0004 ug/ml 05/07/15	T514_016.d	05/14/15 14:46
PER_CCV 0.002 ug/ml 05/07/15	T514_017.d	05/14/15 15:05
PER_CCV 0.0004 ug/ml 06/11/15	T611_002.d	06/11/15 17:46
PER_CCV 0.002 ug/ml 06/11/15	T611_003.d	06/11/15 18:04
PER_CCV 0.0004 ug/ml 06/11/15	T611_044.d	06/12/15 6:48
PER_CCV 0.002 ug/ml 06/11/15	T611_045.d	06/12/15 7:06
AZ16235_W01 10526.3 DF 05/12/15_6/12	T611_052.d	06/12/15 9:18
PER_CCV 0.0004 ug/ml 06/11/15	T611_055.d	06/12/15 10:14
PER_CCV 0.002 ug/ml 06/11/15	T611_056.d	06/12/15 10:33

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: **150515W-16287 - 197118**
Batch ID: #83BJU-150515A

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	05/15/15	05/18/15
BLANK	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/15/15	05/18/15
BLANK	HMX	0.300 U	0.50	0.300	0.115	ug/L	05/15/15	05/18/15
BLANK	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/15/15	05/18/15
BLANK	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/15/15	05/18/15
BLANK	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/15/15	05/18/15
BLANK	SURROGATE: 1,2-DINITROBENZ	86.2	70-130			%	05/15/15	05/18/15

Quant Method: W150517.M
Run #: 0517_000033
Instrument: Waldorf
Sequence: 150517
Initials: MP

GC SC-Blank-REG MDLs
Printed: 05/19/15 9:59:09 AM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76401

Case No: 76401 Date Analyzed: 05/18/15

Matrix: WATER Instrument: Waldorf

APPL ID.	Client Sample No.	SURROGATE: 1,2-DINITROBENZENE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
150515A-LCS	Lab Control Spike	70-130	90.3				
150515A-BLK	Blank	70-130	86.2				
AZ16235	S67-MW012-051115	70-130	88.0				
AZ16236	S67-MW011-051115	70-130	87.5				

Comments: Batch: #83BJU-150515A

Laboratory Control Spike Recovery
EPA 8330B WATER

APPL ID: **150515W-16287 LCS - 197118**
Batch ID: #83BJU-150515A

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	7.14	89.3	60-135
2,6-DINITROTOLUENE	8.00	7.12	89.0	60-135
HMX	8.00	7.74	96.8	80-115
NITROGLYCERIN	8.00	7.43	92.9	70-130
RDX	8.00	7.16	89.5	50-160
TETRYL	8.00	7.43	92.9	20-175
SURROGATE: 1,2-DINITROBENZENE (S	8.00	7.22	90.3	70-130

Comments: _____

Primary	SPK
Quant Method :	W150517.M
Extraction Date :	05/15/15
Analysis Date :	05/18/15
Instrument :	Waldorf
Run :	0517_000030
Initials :	MP

Printed: 05/19/15 9:58:53 AM
APPL Standard LCS

EPA 8330B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76401

Case No: 76401 Date Analyzed: 05/18/15

Matrix: WATER Instrument: Waldorf

Blank ID: 150515A-BLK Time Analyzed: 0638

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150515A-LCS	Lab Control Spike	0517_000030	05/18/15 0446
150515A-BLK	Blank	0517_000033	05/18/15 0638
AZ16235	S67-MW012-051115	0517_000034	05/18/15 0716
AZ16236	S67-MW011-051115	0517_000035	05/18/15 0753

Comments: Batch: #83BJU-150515A

Printed: 05/19/15 9:58:45 AM
Form 4, Blank Summary

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
Sample ID: S67-MW012-051115
Sample Collection Date: 05/11/15

ARF: 76401
APPL ID: AZ16235
QCG: #83BJU-150515A-197118

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	05/15/15	05/18/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/15/15	05/18/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	05/15/15	05/18/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/15/15	05/18/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/15/15	05/18/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/15/15	05/18/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	88.0	70-130			%	05/15/15	05/18/15

Quant Method: W150517.M
Run #: 0517_000034
Instrument: Waldorf
Sequence: 150517
Dilution Factor: 1
Initials: MP

Printed: 05/19/15 9:59:14 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000034.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 07:16:28
Operator : MP
Sample : AZ16235W07 0.016 DF 05/15/15
Misc : Water
ALS Vial : 8452 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 18 16:38:55 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.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	3.523	0	749877	N.D.	0.880 #
Spiked Amount 1.000			Recovery	=	0.00%	88.00%
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.	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	6.405	0.000	8170	0	NoCal	N.D.
10) TM 2,4,6-TRI...	6.816	0.000	18489	0	NoCal	N.D.
11) TM 2-AMINO-4...	7.101	0.000	15668	0	NoCal	N.D.
12) TM 4-AMINO-2...	7.527	0.000	12530	0	NoCal	N.D.
13) TM 2,4-DINIT...	8.627	0.000	9609	0	NoCal	N.D.
14) TM 2,6-DINIT...	8.898	0.000	30429	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.

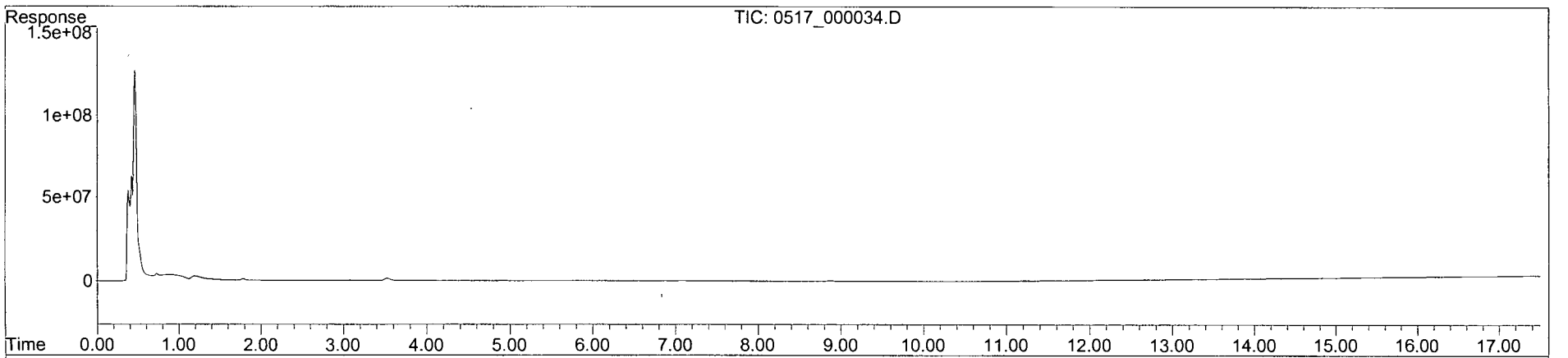
MP
05-19-15

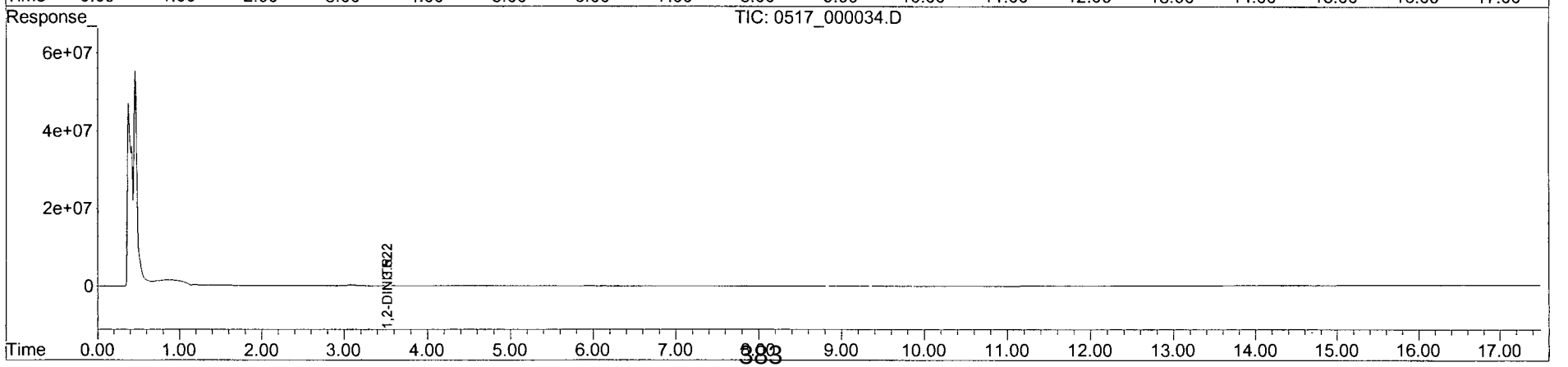
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000034.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 07:16:28
Operator : MP
Sample : AZ16235W07 0.016 DF 05/15/15
Misc : Water
ALS Vial : 8452 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 18 16:38:55 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.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





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: 76401

Sample ID: S67-MW011-051115

APPL ID: AZ16236

Sample Collection Date: 05/11/15

QCG: #83BJU-150515A-197118

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	05/15/15	05/18/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/15/15	05/18/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	05/15/15	05/18/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/15/15	05/18/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/15/15	05/18/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/15/15	05/18/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	87.5	70-130			%	05/15/15	05/18/15

Quant Method: W150517.M
Run #: 0517_000035
Instrument: Waldorf
Sequence: 150517
Dilution Factor: 1
Initials: MP

Printed: 05/19/15 9:59:14 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000035.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 07:53:58
Operator : MP
Sample : AZ16236W04 0.017 DF 05/15/15
Misc : Water
ALS Vial : 8453 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 18 16:39:50 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.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	3.521	0	745281	N.D.	0.875 #
Spiked Amount 1.000			Recovery	=	0.00%	87.50%
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...	0.000	0.000	0	0	N.D. d<DL	N.D.
9) TM TETRYL	6.414	0.000	104038	0	NoCal	N.D.
10) TM 2,4,6-TRI...	6.903	0.000	72743	0	NoCal	N.D.
11) TM 2-AMINO-4...	7.123	0.000	65432	0	NoCal	N.D.
12) TM 4-AMINO-2...	7.512	0.000	55832	0	NoCal	N.D.
13) TM 2,4-DINIT...	8.650	0.000	33979	0	NoCal	N.D.
14) TM 2,6-DINIT...	9.007	0.000	33506	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.

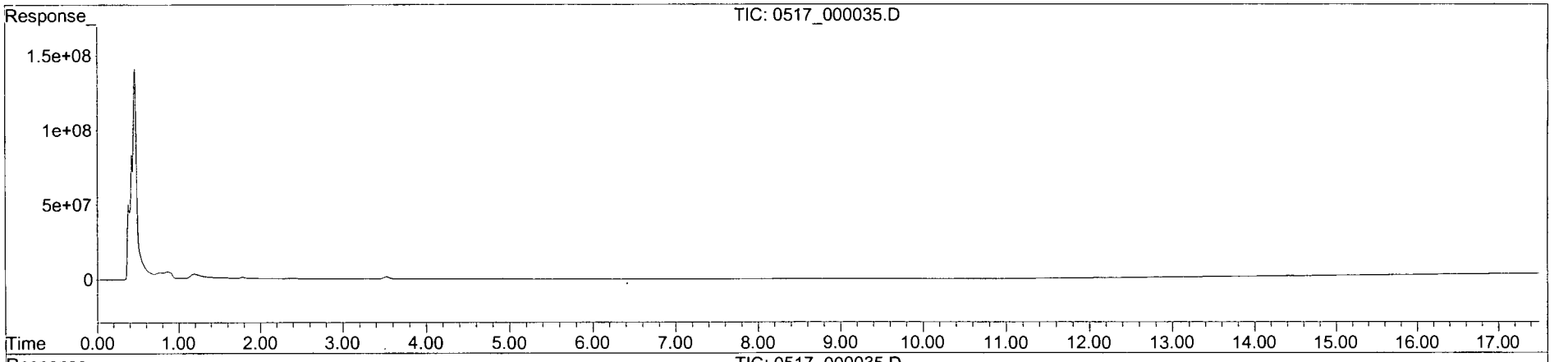
MP
05-19-15

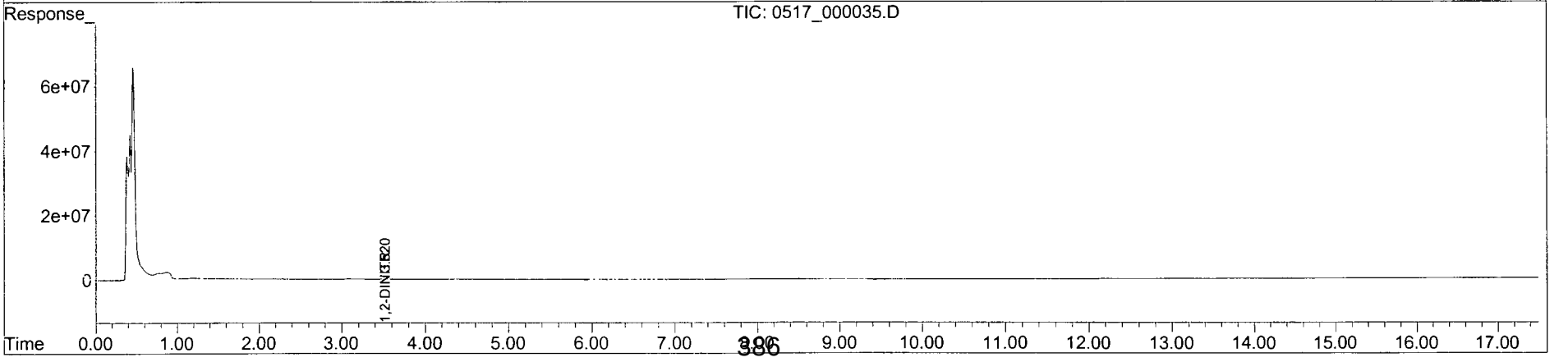
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000035.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 07:53:58
Operator : MP
Sample : AZ16236W04 0.017 DF 05/15/15
Misc : Water
ALS Vial : 8453 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 18 16:39:50 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.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





EPA 8330
EXPLOSIVES

Calibration Data

APPL, INC.

Initial Calibration

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

SDG No: 76401
Initial Cal. Date: 05/17/15
Instrument: Waldorf

Initials: MP

		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	
			0517_000006.D	0517_000007.D	0517_000008.D	0517_000009.D	0517_000010.D	0517_000011.D	0517_000012.D	0517_000013.D	0517_000015.D				
####	TM	NITROGLYCERIN	129	154	139	137	137	139	139	140	140		139	4.7	TM
####	TM	PETN		121	102	112	113	117	118	118	120		115	5.3	TM
####		Signal #2													
####	TM	HMX #2	639	633	657	686	660	665	664	659	656		658	2.3	TM
####	TM	RDX #2	435	431	438	436	436	441	441	439	444		438	0.86	TM
####	TM	1,3,5-TRINITROBENZENE #2	781	783	792	789	785	794	795	797	803		791	0.91	TM
####	S	1,2-DINITROBENZENE #2	335	334	340	339	336	340	342	346	353		341	1.8	S
####	TM	1,3-DINITROBENZENE #2	743	743	753	749	748	757	762	765	779		756	1.5	TM
####	TM	3,5-DINITROANILINE #2	591	593	601	598	596	605	608	612	614		602	1.3	TM
####	TM	NITROBENZENE #2	344	343	343	343	342	347	347	350	353		346	1.1	TM
####	TM	TETRYL #2	265	259	260	261	257	260	262	267	267		262	1.3	TM
####	TM	2,4,6-TRINITROTOLUENE #2	327	327	325	321	322	326	327	327	336		326	1.3	TM
####	TM	2-AMINO-4,6-DINITROTOLUENE	311	306	307	307	306	310	312	314	319		310	1.4	TM
####	TM	4-AMINO-2,6-DINITROTOLUENE	229	226	228	225	224	227	228	228	231		227	0.91	TM
####	TM	2,4-DINITROTOLUENE #2	320	313	314	311	311	316	318	320	327		317	1.6	TM
####	TM	2,6-DINITROTOLUENE #2	177	175	176	174	174	176	177	177	181		176	1.2	TM
####	TM	2-NITROTOLUENE #2	122	123	125	123	122	124	124	124	126		124	1.00	TM
####	TM	4-NITROTOLUENE #2	124	125	125	122	121	124	123	124	126		124	1.2	TM
####	TM	3-NITROTOLUENE #2	145	143	147	145	146	148	148	149	151		147	1.6	TM
####	TM	PETN #2											0	0	TM
####															
####															
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Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 16:26:19
Operator : MP
Sample : 8330CB 0.005 PPM 05/17/15
Misc :
ALS Vial : 8192 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:49:41 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 08:36:28 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	3.627	0	67033	N.D.	6.068 #
Spiked Amount 62.500			Recovery	=	0.00%	9.71%
Target Compounds						
1) TM HMX	0.000	0.924	0	127713	N.D.	5.324m#
2) TM RDX	0.000	1.759	0	86988	N.D.	5.686 #
3) TM 1,3,5-TRI...	0.000	2.855	0	156176	N.D.	6.061 #
5) TM 1,3-DINIT...	0.000	3.786	0	148635	N.D.	6.040 #
6) TM 3,5-DINIT...	0.000	4.049	0	118175	N.D.	5.795 #
7) TM NITROBENZENE	0.000	5.152	0	68872	N.D.	6.278 #
8) TM NITROGLYC...	6.112	0.000	25815	0	5.535m	N.D. #
9) TM TETRYL	0.000	6.570	0	53100	N.D. d	5.918
10) TM 2,4,6-TRI...	0.000	7.020	0	65367	N.D. d	6.113
11) TM 2-AMINO-4...	0.000	7.361	0	62167	N.D. d	6.016
12) TM 4-AMINO-2...	0.000	7.717	0	45726	N.D. d	5.967
13) TM 2,4-DINIT...	0.000	8.800	0	64038	N.D. d	6.587
14) TM 2,6-DINIT...	0.000	9.171	0	35430	N.D. d	5.701
15) TM 2-NITROTO...	0.000	12.570	0	24469	N.D.	6.472 #
16) TM 4-NITROTO...	0.000	13.165	0	24770	N.D.	6.610 #
17) TM 3-NITROTO...	0.000	14.033	0	29044	N.D.	6.484 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

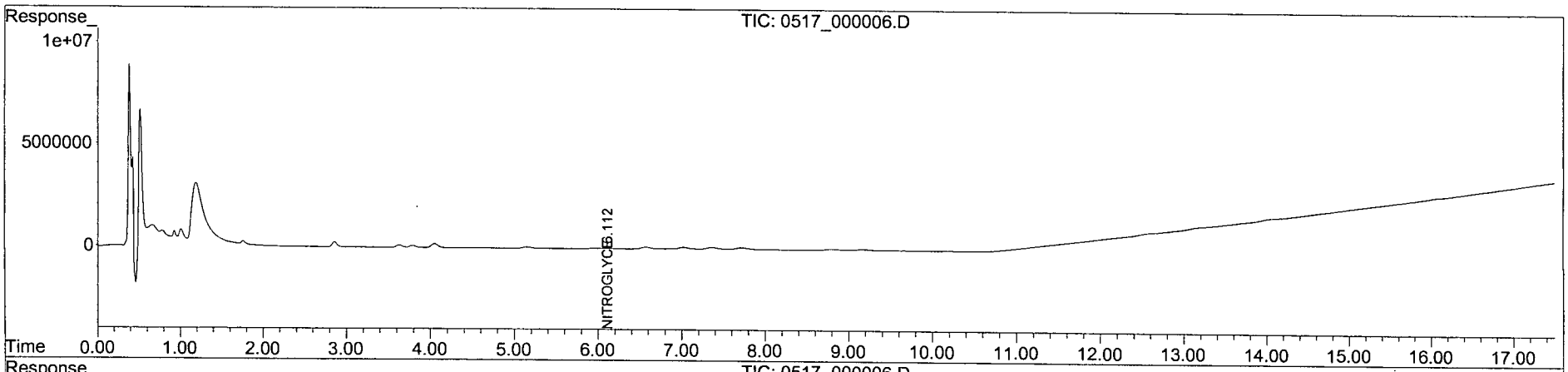
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

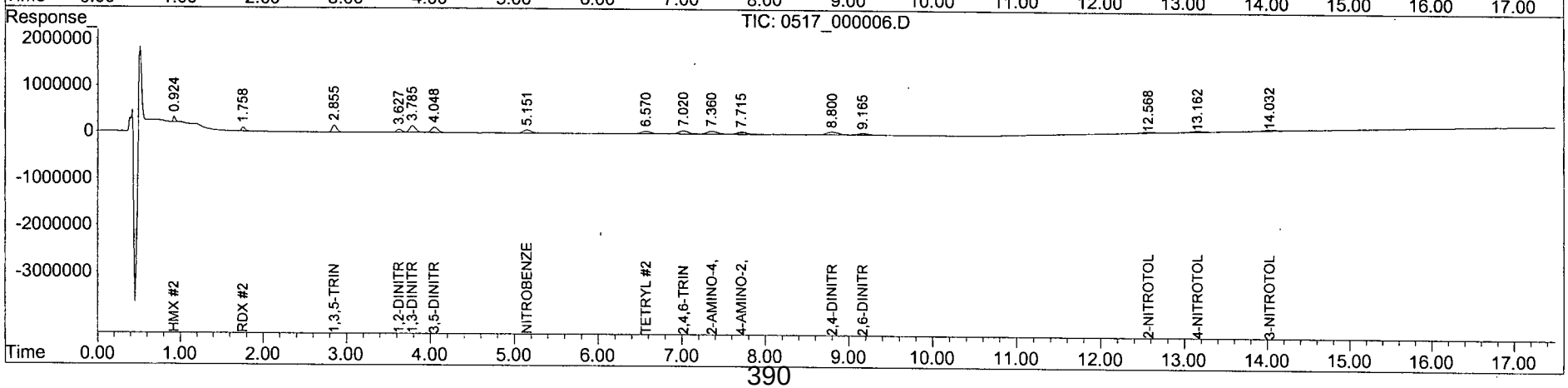
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 16:26:19
Operator : MP
Sample : 8330CB 0.005 PPM 05/17/15
Misc :
ALS Vial : 8192 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:49:41 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 08:36:28 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





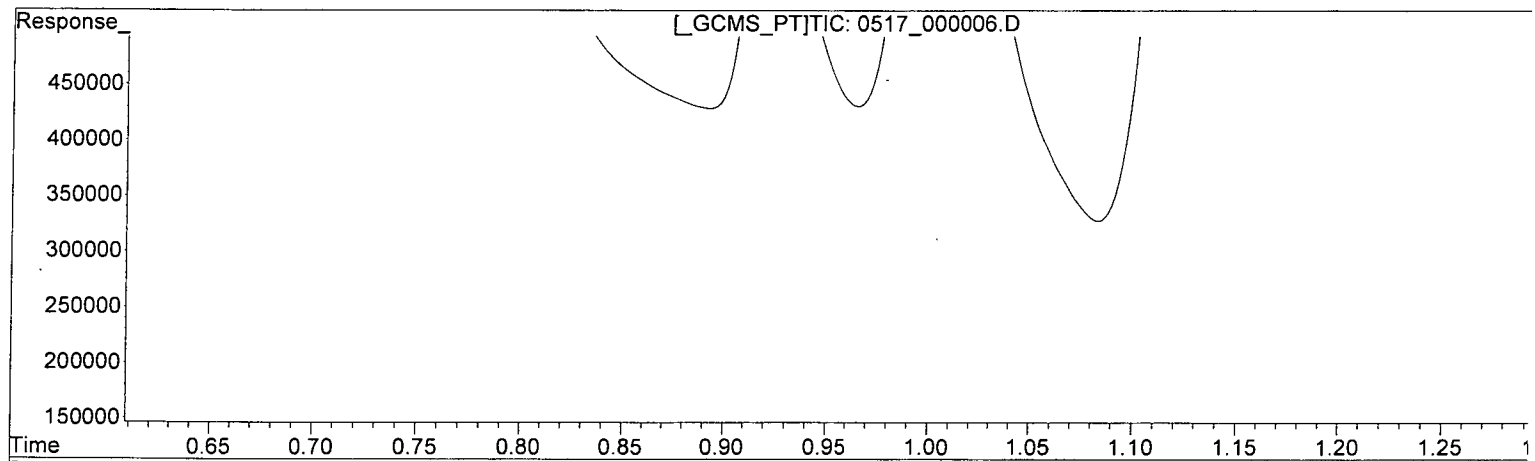
F150517.M Mon May 18 08:49:57 2015 WALDORF Page: 2

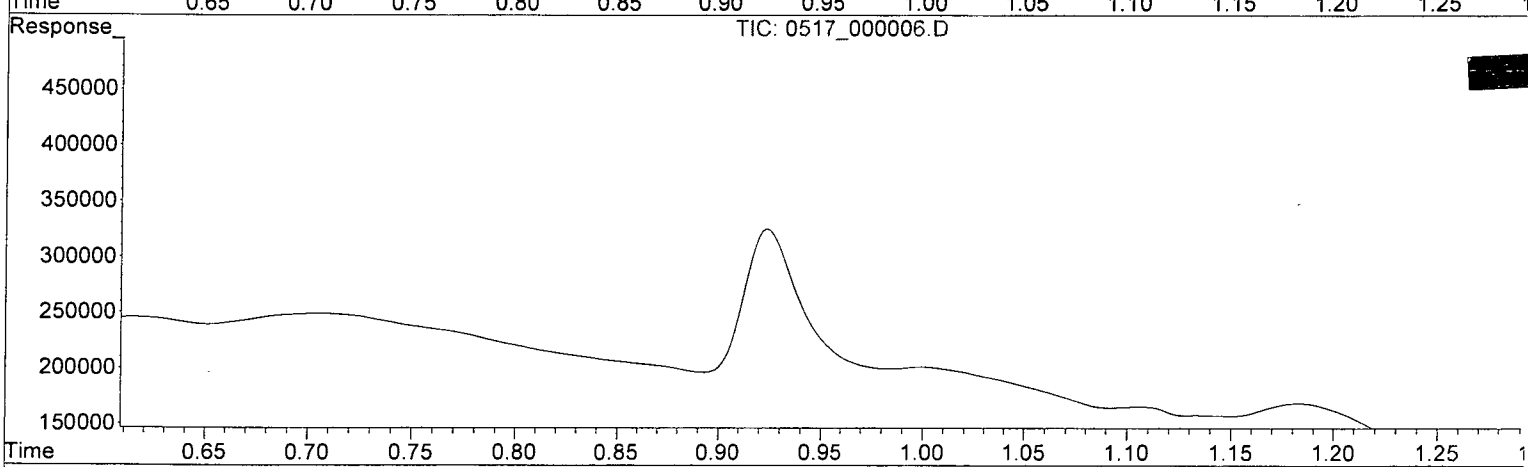
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 16:26:19
Operator : MP
Sample : 8330CB 0.005 PPM 05/17/15
Misc :
ALS Vial : 8192 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:36:40 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 08:36:28 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

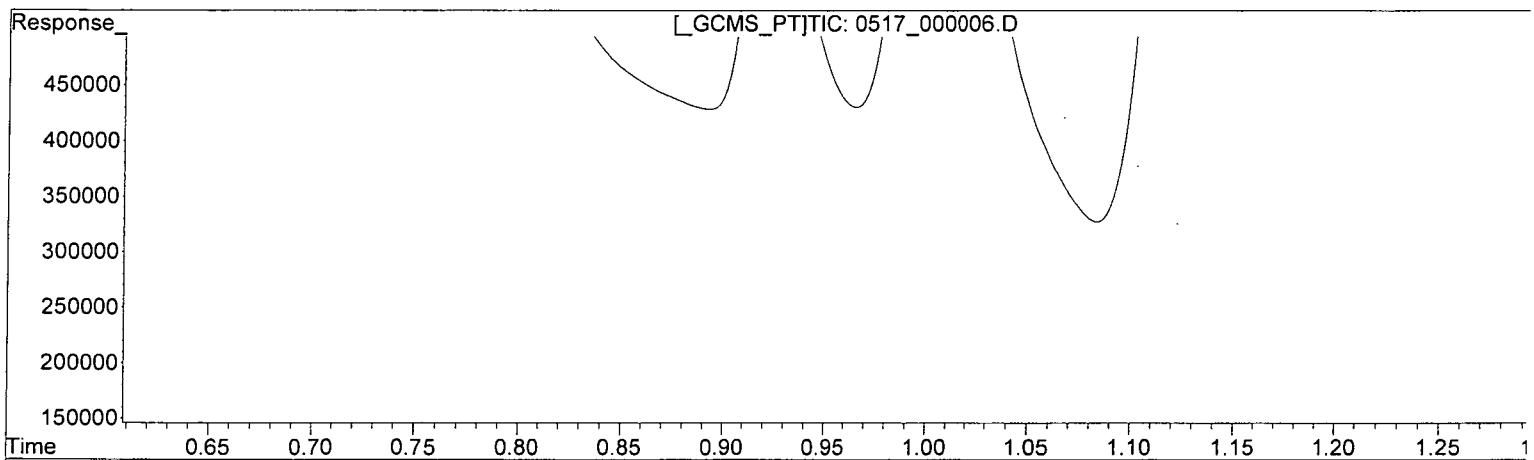
(+) = Expected Retention Time

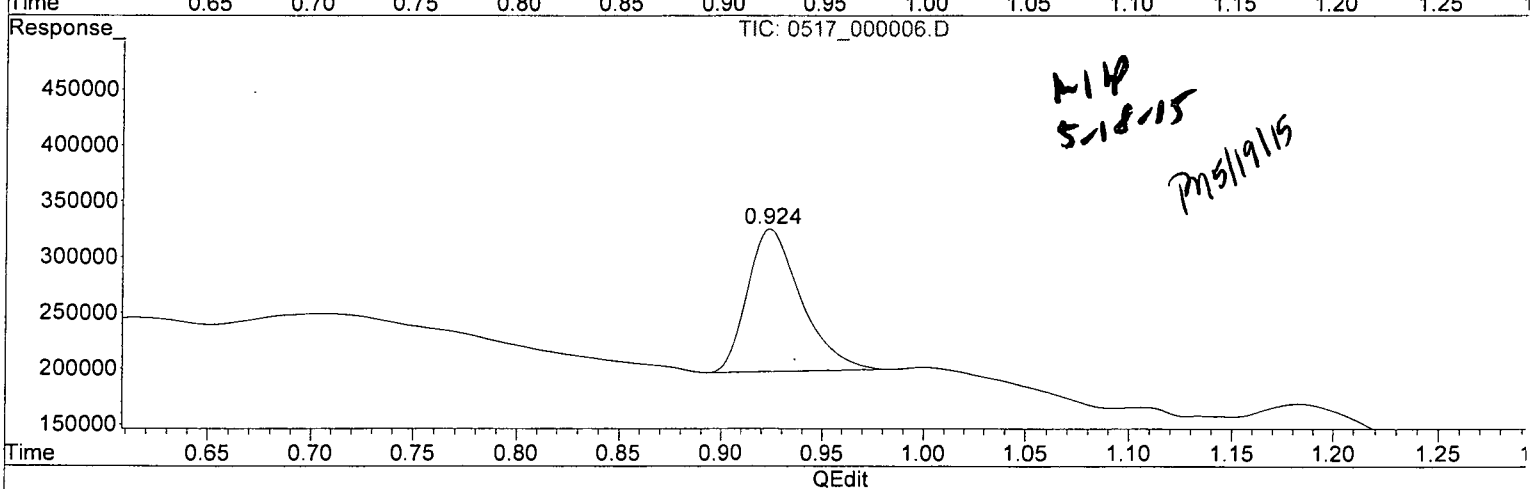
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 16:26:19
Operator : MP
Sample : 8330CB 0.005 PPM 05/17/15
Misc :
ALS Vial : 8192 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:36:40 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 08:36:28 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
5-18-15
PM 5/19/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.924min 5.324 ppb m

response 127713

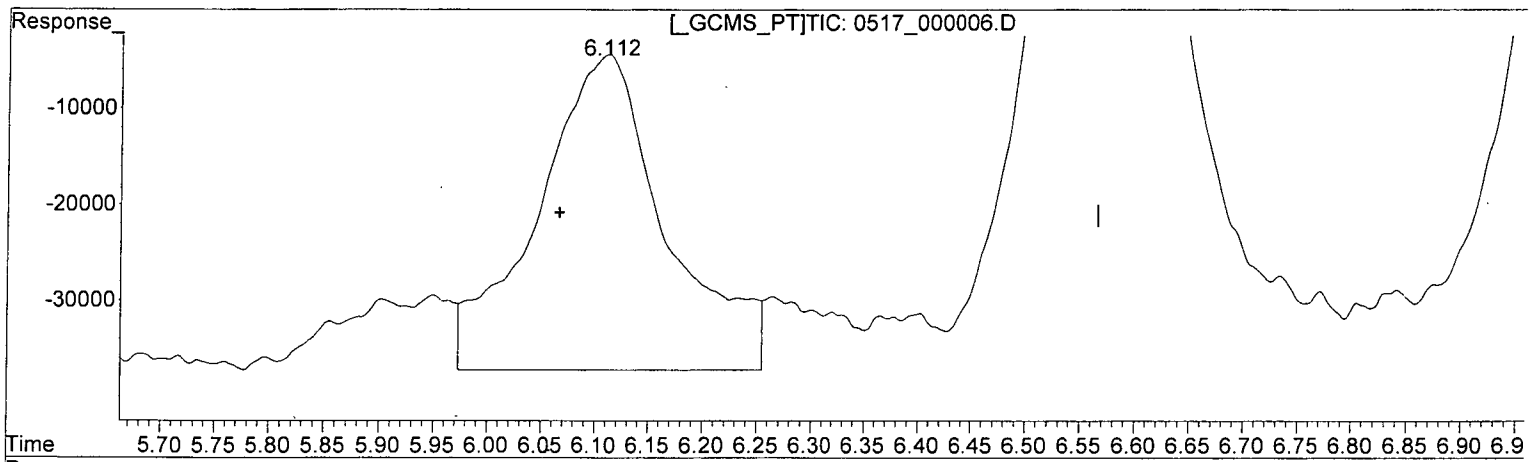
(+) = Expected Retention Time

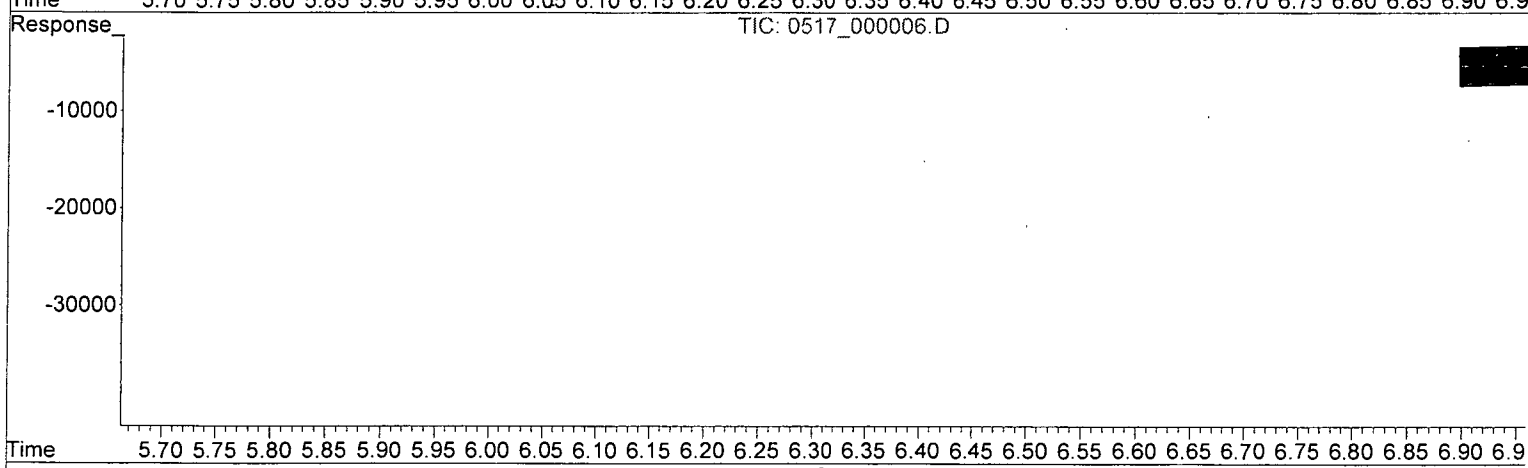
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 16:26:19
Operator : MP
Sample : 8330CB 0.005 PPM 05/17/15
Misc :
ALS Vial : 8192 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:36:40 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 08:36:28 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 100x3.0r





(8) NITROGLYCERIN (TM)

6.112min 7.024 ppb

response 32759

(8) NITROGLYCERIN #2 (TM)

0.000min 0.000 ppb

response 0

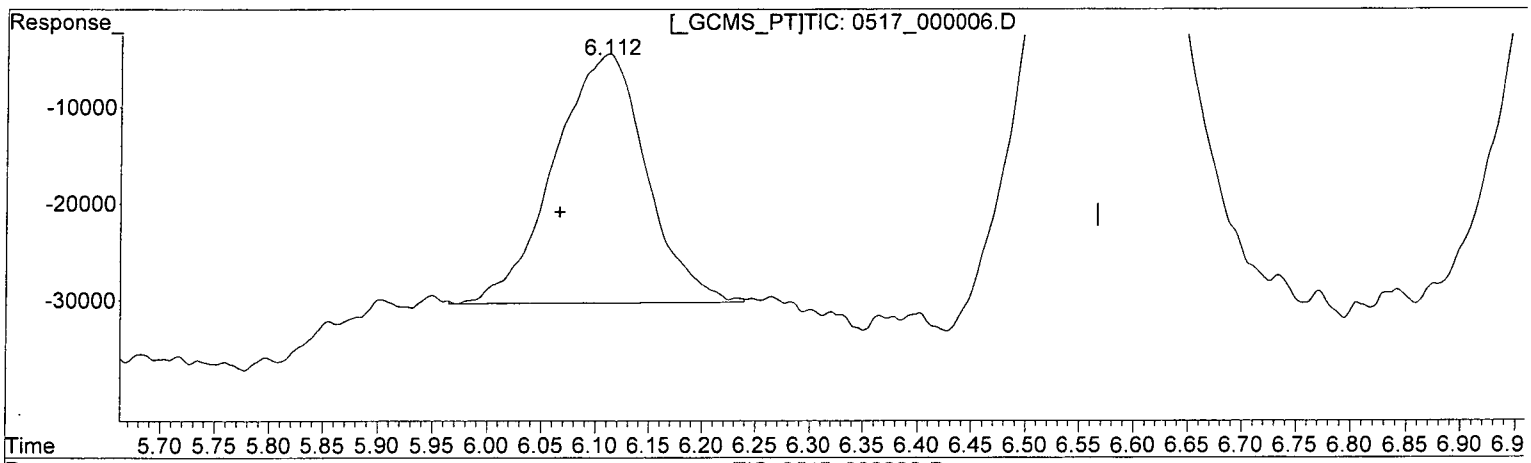
(+) = Expected Retention Time

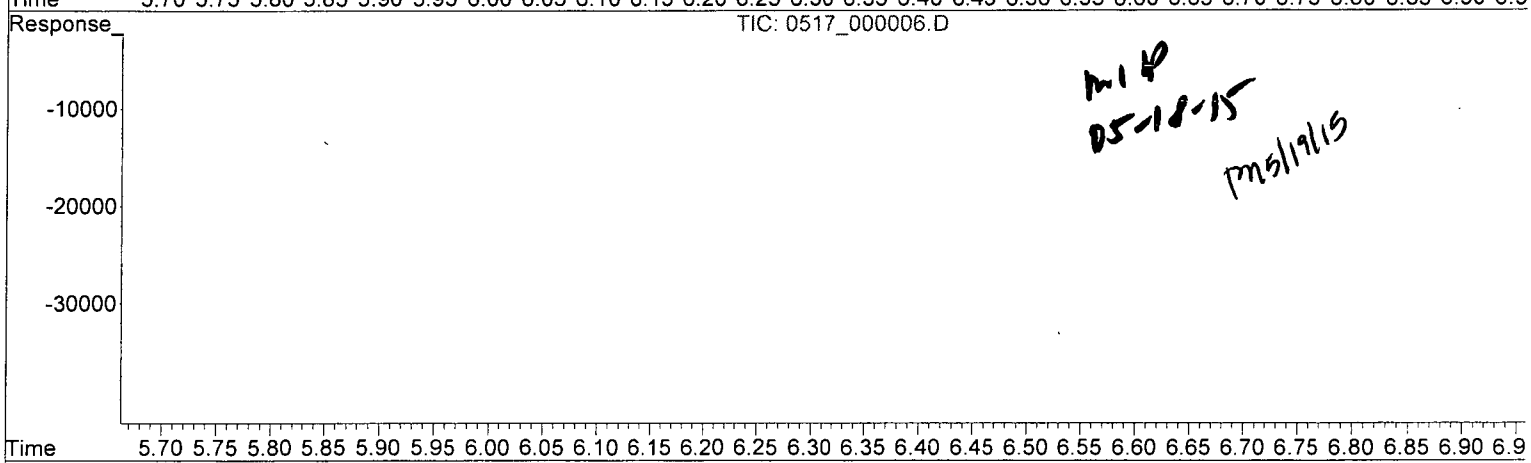
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 16:26:19
Operator : MP
Sample : 8330CB 0.005 PPM 05/17/15
Misc :
ALS Vial : 8192 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:36:40 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 08:36:28 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
05-18-15
PM 5/19/15

QEdit

(8) NITROGLYCERIN (TM)

6.112min 5.535 ppb m

response 25815

(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\150517\150517\
Data File : 0517_000007.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 16:53:49
Operator : MP
Sample : 8330CB 0.010 PPM 05/17/15
Misc :
ALS Vial : 8193 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:48:13 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 16 09:57:37 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	3.630	0	133750	N.D.	12.106	#
	Spiked Amount 62.500			Recovery	=	0.00%	19.37%	
	Target Compounds							
1)	TM HMX	0.000	0.925	0	253349	N.D.	10.562	#
2)	TM RDX	0.000	1.760	0	172490	N.D.	11.275	#
3)	TM 1,3,5-TRI...	0.000	2.859	0	313013	N.D.	12.148	#
5)	TM 1,3-DINIT...	0.000	3.789	0	297379	N.D.	12.085	#
6)	TM 3,5-DINIT...	0.000	4.049	0	237335	N.D.	11.638	#
7)	TM NITROBENZENE	0.000	5.154	0	137044	N.D.	12.492	#
8)	TM NITROGLYC...	6.110	0.000	61708	0	13.232	N.D.	#
9)	TM TETRYL	0.000	6.568	0	103522	N.D. d	11.537	
10)	TM 2,4,6-TRI...	0.000	7.019	0	130623	N.D. d	12.215	
11)	TM 2-AMINO-4...	0.000	7.357	0	122453	N.D. d	11.851	
12)	TM 4-AMINO-2...	0.000	7.713	0	90295	N.D. d	11.783	
13)	TM 2,4-DINIT...	0.000	8.795	0	125200	N.D. d	12.878	
14)	TM 2,6-DINIT...	0.000	9.172	0	70098	N.D. d	11.279	
15)	TM 2-NITROTO...	0.000	12.557	0	49037	N.D.	12.970	#
16)	TM 4-NITROTO...	0.000	13.147	0	49902	N.D.	13.317	#
17)	TM 3-NITROTO...	0.000	14.022	0	57207	N.D.	12.772	#
18)	TM PETN	16.045	0.000	48365	0	12.987m	N.D.	#

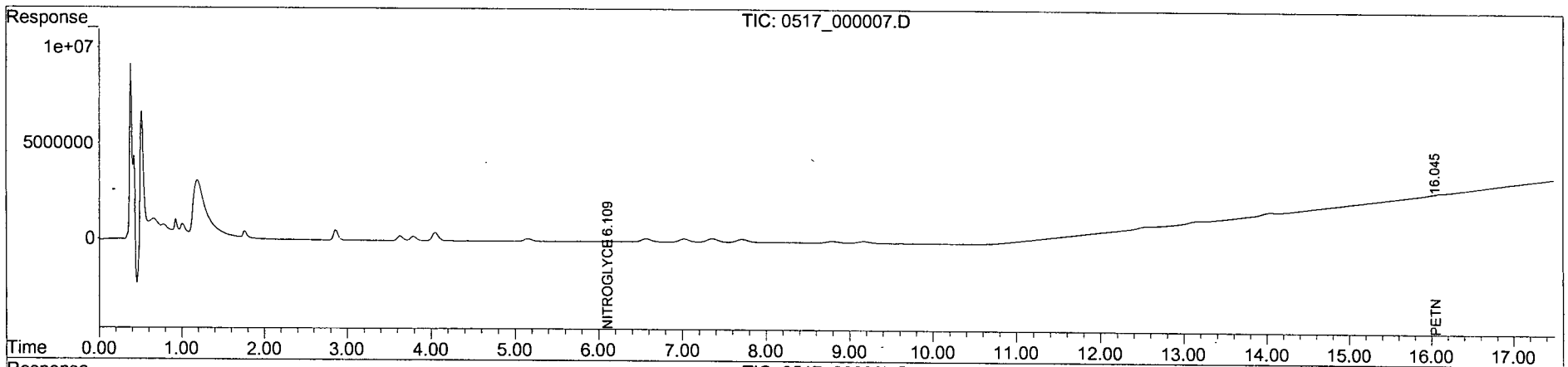
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

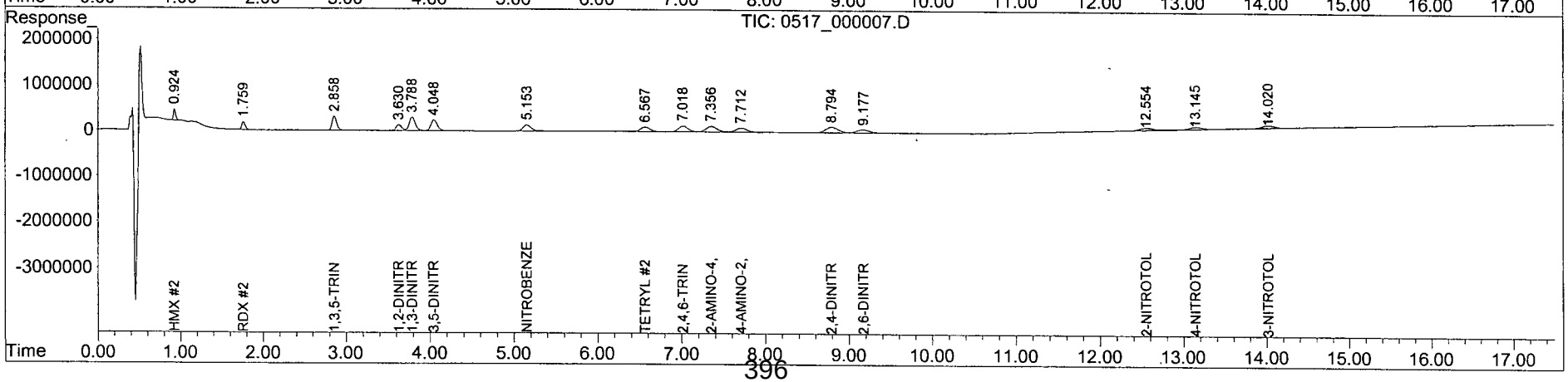
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000007.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 16:53:49
Operator : MP
Sample : 8330CB 0.010 PPM 05/17/15
Misc :
ALS Vial : 8193 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:48:13 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 16 09:57:37 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



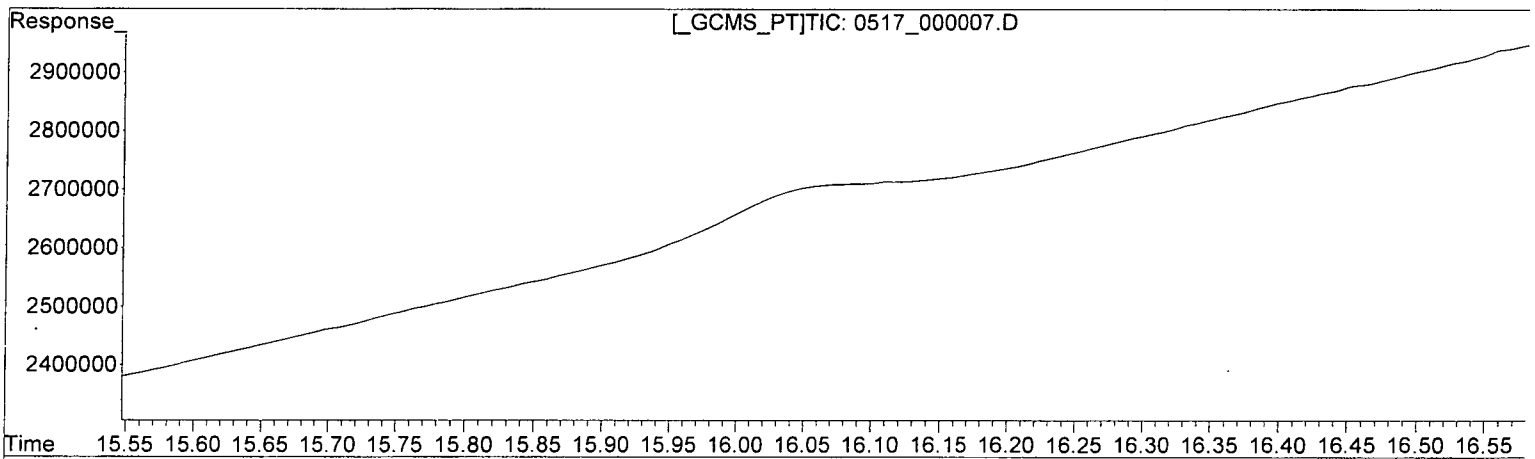


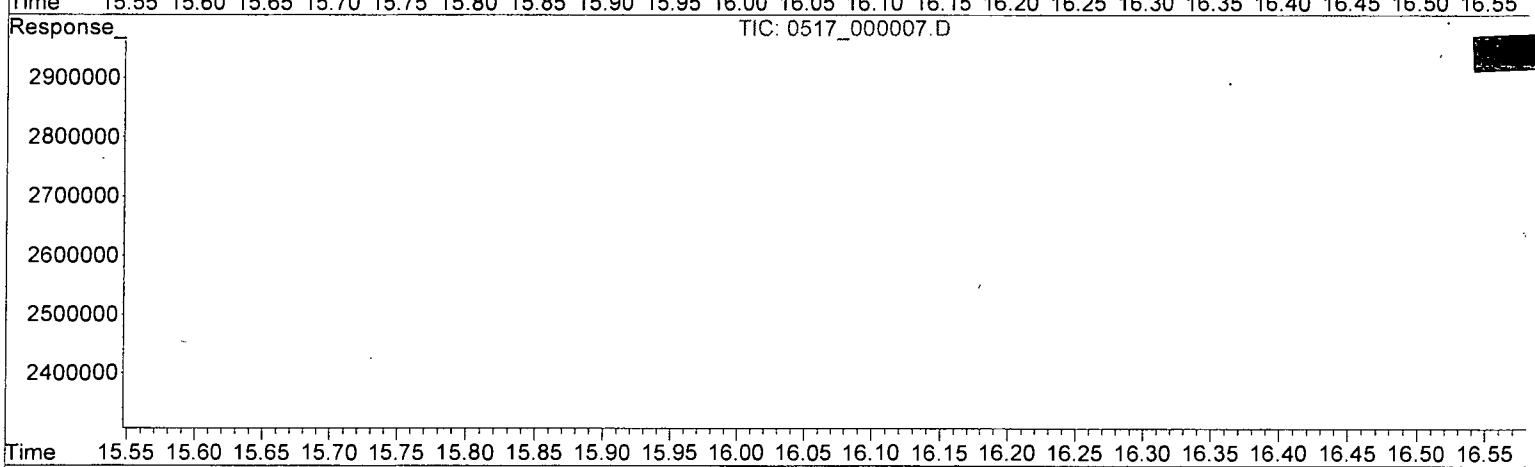
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000007.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 16:53:49
Operator : MP
Sample : 8330CB 0.010 PPM 05/17/15
Misc :
ALS Vial : 8193 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:36:44 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 16 09:57:37 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

(18) PETN (TM)

0.000min 0.000 ppb

response 0

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

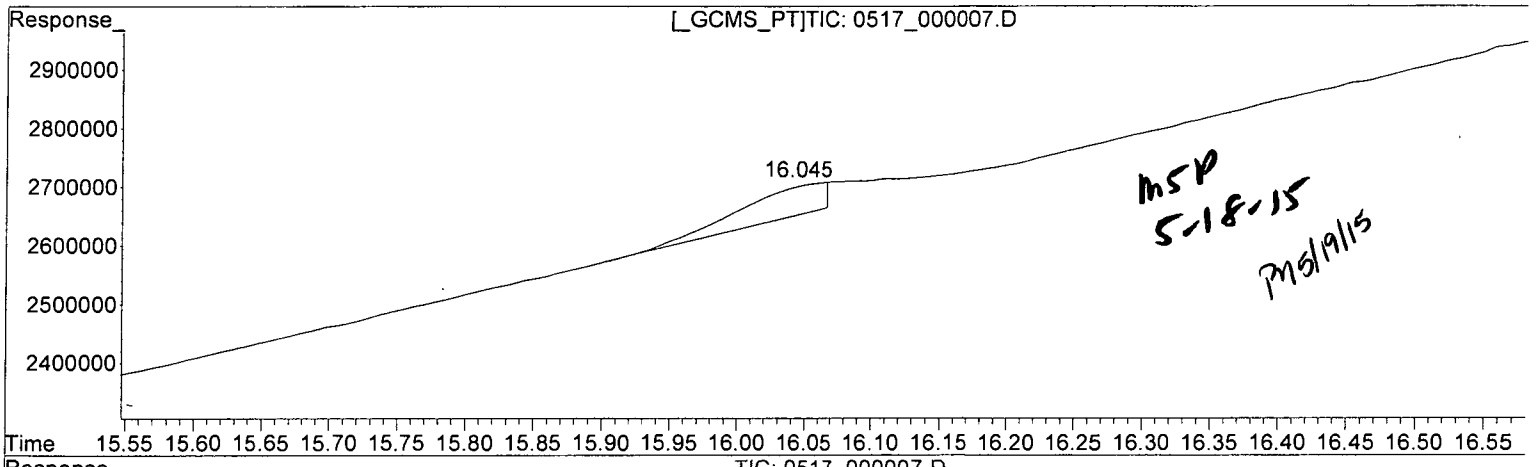
(+) = Expected Retention Time

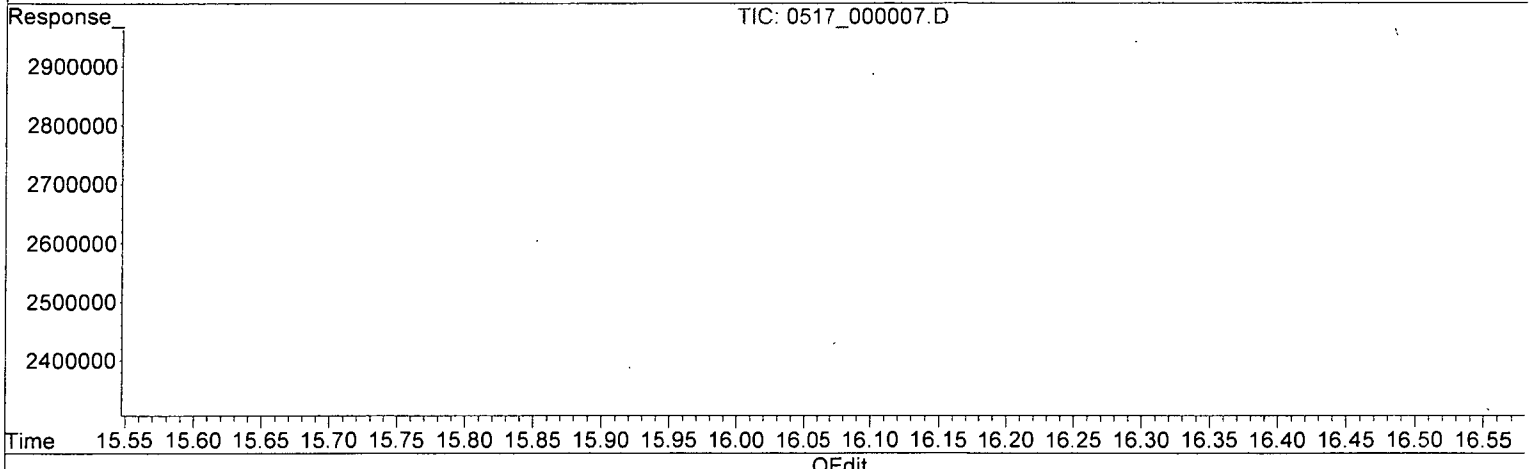
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000007.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 16:53:49
Operator : MP
Sample : 8330CB 0.010 PPM 05/17/15
Misc :
ALS Vial : 8193 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:36:44 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 16 09:57:37 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

(18) PETN (TM)

16.045min 12.987 ppb m

response 48365

(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\150517\150517\
Data File : 0517_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:21:19
Operator : MP
Sample : 8330CB 0.020 PPM 05/17/15
Misc :
ALS Vial : 8194 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:46:24 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 16 09:57:37 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	3.627	0	271805	N.D.	24.603	#
	Spiked Amount 62.500			Recovery	=	0.00%	39.36%	
	Target Compounds							
1)	TM HMX	0.000	0.924	0	525894	N.D.	21.924	#
2)	TM RDX	0.000	1.758	0	350354	N.D.	22.901	#
3)	TM 1,3,5-TRI...	0.000	2.857	0	633394	N.D.	24.582	#
5)	TM 1,3-DINIT...	0.000	3.786	0	602710	N.D.	24.492	#
6)	TM 3,5-DINIT...	0.000	4.045	0	480486	N.D.	23.561	#
7)	TM NITROBENZENE	0.000	5.151	0	274692	N.D.	25.040	#
8)	TM NITROGLYC...	6.104	0.000	111133	0	23.829	N.D.	#
9)	TM TETRYL	0.000	6.565	0	208043	N.D. d	23.185	
10)	TM 2,4,6-TRI...	0.000	7.018	0	259764	N.D. d	24.291	
11)	TM 2-AMINO-4...	0.000	7.352	0	245481	N.D. d	23.757	
12)	TM 4-AMINO-2...	0.000	7.710	0	182150	N.D. d	23.770	
13)	TM 2,4-DINIT...	0.000	8.793	0	251054	N.D. d	25.824	
14)	TM 2,6-DINIT...	0.000	9.165	0	140870	N.D. d	22.666	
15)	TM 2-NITROTO...	0.000	12.553	0	99601	N.D.	26.343	#
16)	TM 4-NITROTO...	0.000	13.143	0	100132	N.D.	26.722	#
17)	TM 3-NITROTO...	0.000	14.020	0	117815	N.D.	26.303	#
18)	TM PETN	16.071	0.000	81715	0	21.942m	N.D.	#

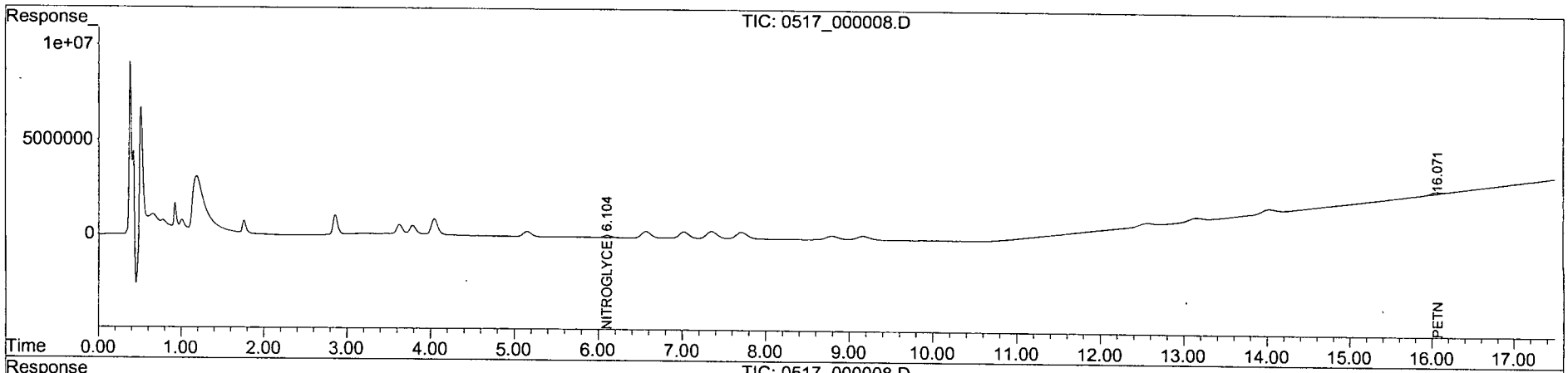
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

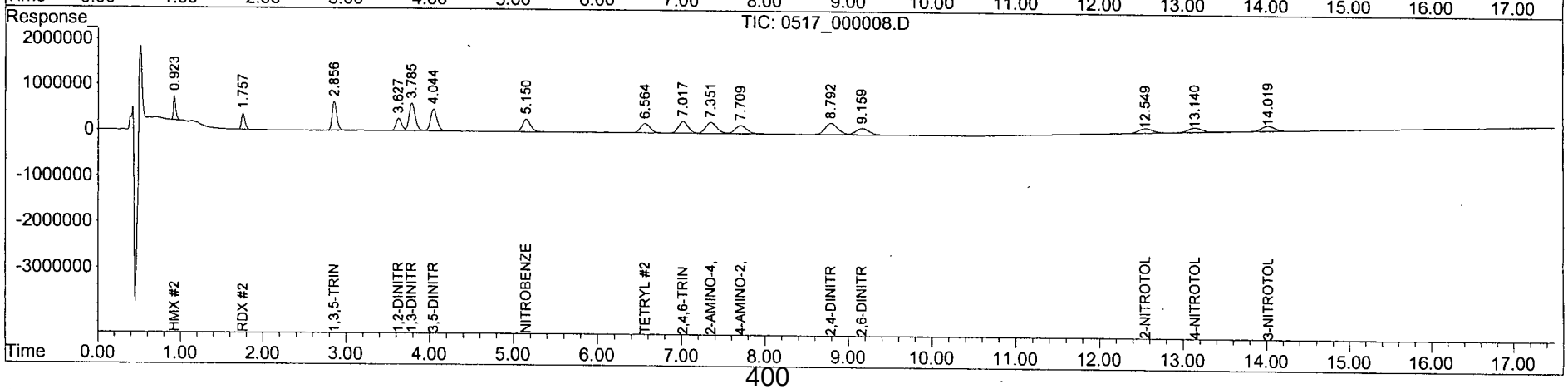
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:21:19
Operator : MP
Sample : 8330CB 0.020 PPM 05/17/15
Misc :
ALS Vial : 8194 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:46:24 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 16 09:57:37 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



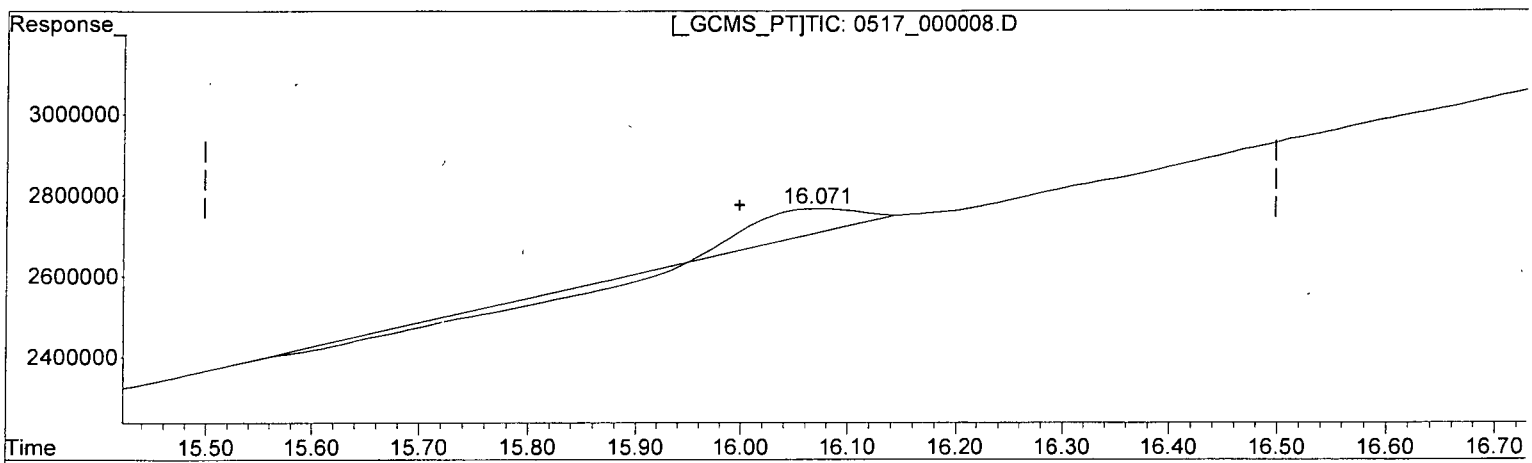


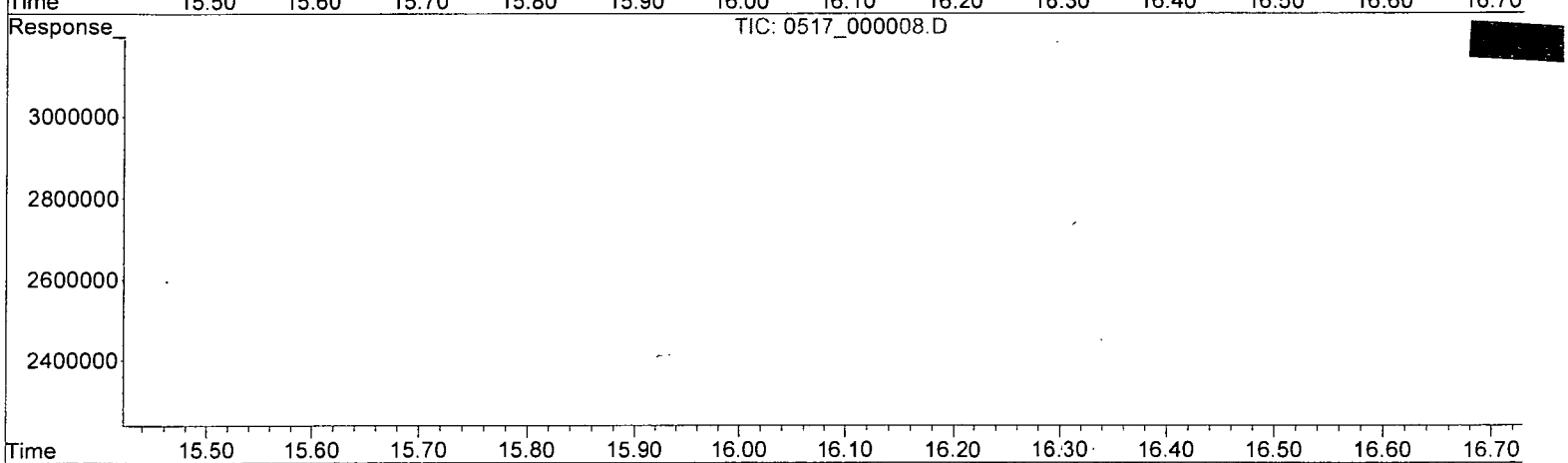
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:21:19
Operator : MP
Sample : 8330CB 0.020 PPM 05/17/15
Misc :
ALS Vial : 8194 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:36:46 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 16 09:57:37 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

(18) PETN (TM)

16.072min 15.804 ppb

response 58857

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

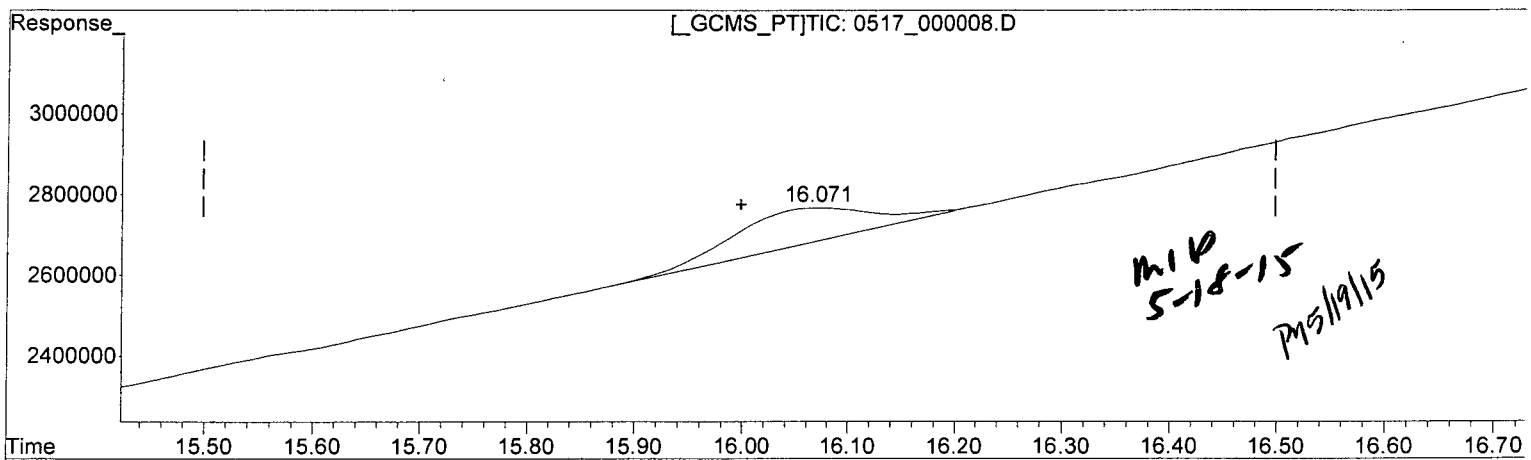
(+) = Expected Retention Time

Quantitation Report (Qedit)

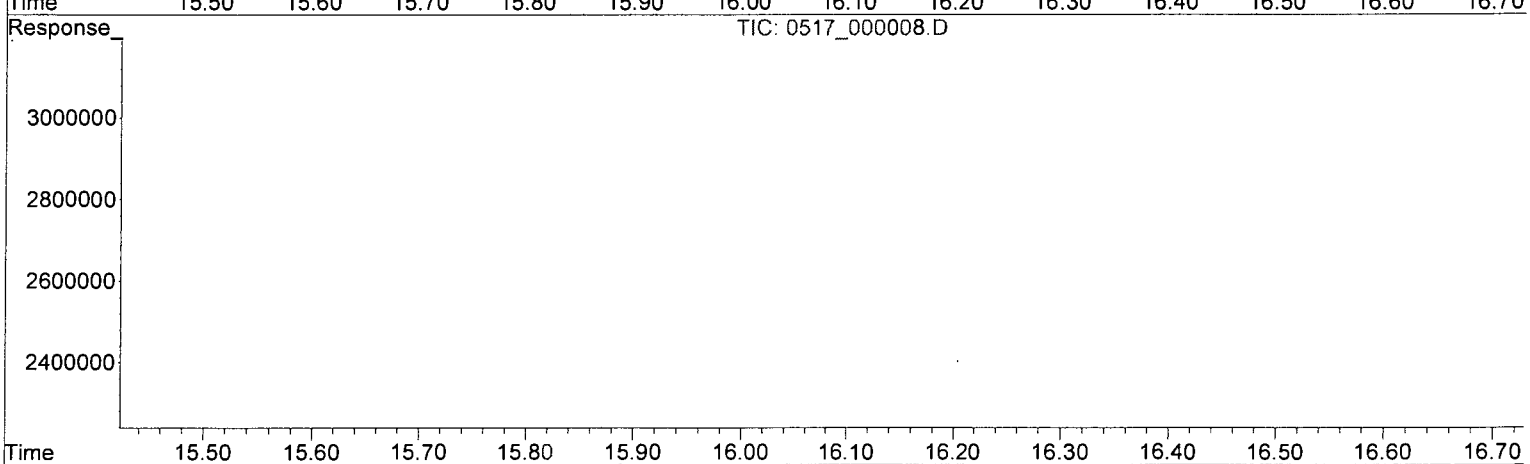
Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:21:19
Operator : MP
Sample : 8330CB 0.020 PPM 05/17/15
Misc :
ALS Vial : 8194 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:36:46 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 16 09:57:37 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



MLD 5-18-15
PM 5/19/15



(18) PETN (TM)

16.071min 21.942 ppb m

response 81715

(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\150517\150517\
Data File : 0517_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:48:49
Operator : MP
Sample : 8330CB 0.050 PPM 05/17/15
Misc :
ALS Vial : 8195 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:44:37 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 16 09:57:37 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	3.615	0	677174	N.D.	61.295	#
Spiked Amount 62.500			Recovery	=	0.00%	98.07%	
Target Compounds							
1) TM HMX	0.000	0.924	0	1372886	N.D.	57.234	#
2) TM RDX	0.000	1.755	0	871729	N.D.	56.980	#
3) TM 1,3,5-TRI...	0.000	2.849	0	1577752	N.D.	61.233	#
5) TM 1,3-DINIT...	0.000	3.775	0	1497922	N.D.	60.871	#
6) TM 3,5-DINIT...	0.000	4.031	0	1196382	N.D.	58.666	#
7) TM NITROBENZENE	0.000	5.136	0	685061	N.D.	62.448	#
8) TM NITROGLYC...	6.090	0.000	273332	0	58.609	N.D.	#
9) TM TETRYL	0.000	6.542	0	521800	N.D. d	58.150	
10) TM 2,4,6-TRI...	0.000	6.997	0	642620	N.D. d	60.092	
11) TM 2-AMINO-4...	0.000	7.324	0	613633	N.D. d	59.387	
12) TM 4-AMINO-2...	0.000	7.680	0	450725	N.D. d	58.817	
13) TM 2,4-DINIT...	0.000	8.764	0	622827	N.D. d	64.065	
14) TM 2,6-DINIT...	0.000	9.137	0	347891	N.D. d	55.976	
15) TM 2-NITROTO...	0.000	12.520	0	246164	N.D.	65.107	#
16) TM 4-NITROTO...	0.000	13.113	0	243056	N.D.	64.864	#
17) TM 3-NITROTO...	0.000	13.991	0	290783	N.D.	64.919	#
18) TM PETN	16.038	0.000	223913	0	60.125	N.D.	#

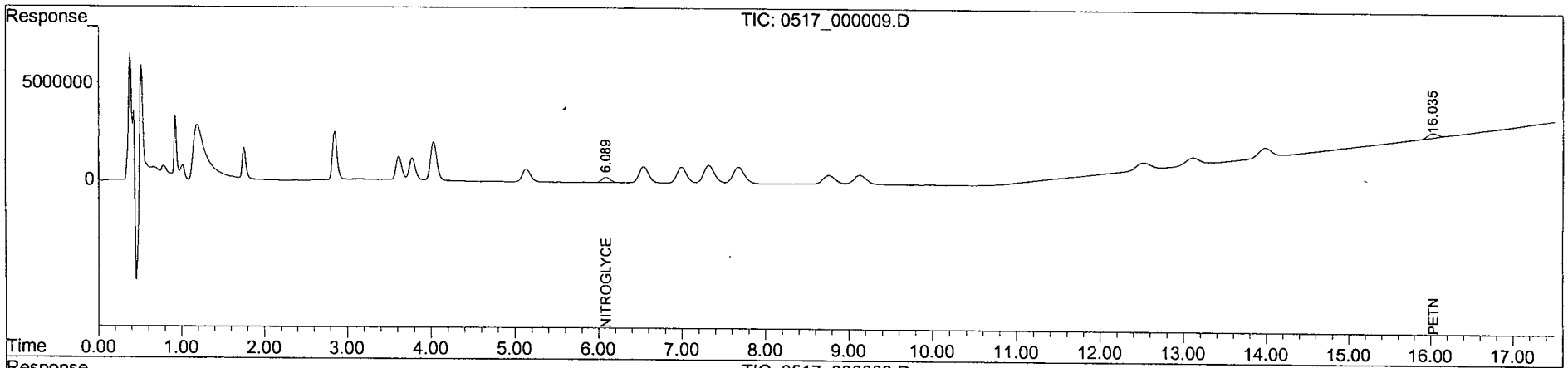
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

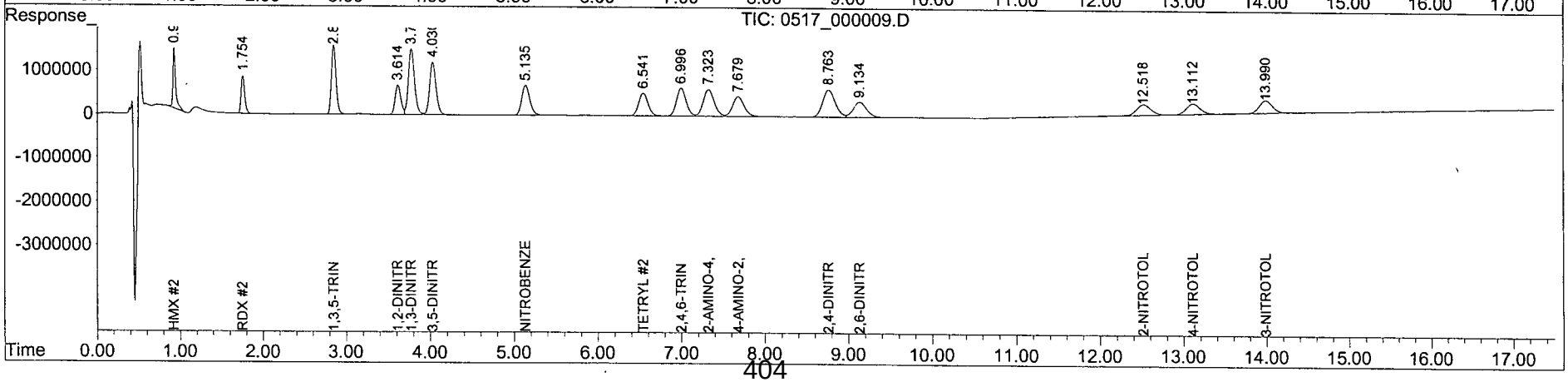
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:48:49
Operator : MP
Sample : 8330CB 0.050 PPM 05/17/15
Misc :
ALS Vial : 8195 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:44:37 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 16 09:57:37 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\150517\150517\
Data File : 0517_000010.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:16:18
Operator : MP
Sample : 8330CB 0.10 PPM 05/17/15
Misc :
ALS Vial : 8196 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:42:53 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 16 09:57:37 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	3.611	0	1343780	N.D.	121.633 #
Spiked Amount 62.500			Recovery	=	0.00%	194.61%
Target Compounds						
1) TM HMX	0.000	0.922	0	2641696	N.D.	110.129 #
2) TM RDX	0.000	1.752	0	1744465	N.D.	114.025 #
3) TM 1,3,5-TRI...	0.000	2.845	0	3138894	N.D.	121.822 #
5) TM 1,3-DINIT...	0.000	3.771	0	2991457	N.D.	121.565 #
6) TM 3,5-DINIT...	0.000	4.025	0	2385823	N.D.	116.992 #
7) TM NITROBENZENE	0.000	5.132	0	1369677	N.D.	124.856 #
8) TM NITROGLYC...	6.085	0.000	548632	0	117.640	N.D. #
9) TM TETRYL	0.000	6.532	0	1028945	N.D. d	114.668
10) TM 2,4,6-TRI...	0.000	6.988	0	1287406	N.D. d	120.387
11) TM 2-AMINO-4...	0.000	7.314	0	1224010	N.D. d	118.459
12) TM 4-AMINO-2...	0.000	7.670	0	897670	N.D. d	117.141
13) TM 2,4-DINIT...	0.000	8.756	0	1245643	N.D. d	128.130
14) TM 2,6-DINIT...	0.000	9.128	0	695180	N.D. d	111.856
15) TM 2-NITROTO...	0.000	12.512	0	489444	N.D.	129.450 #
16) TM 4-NITROTO...	0.000	13.103	0	485932	N.D.	129.680 #
17) TM 3-NITROTO...	0.000	13.983	0	582278	N.D.	129.997 #
18) TM PETN	16.029	0.000	451032	0	121.110	N.D. #

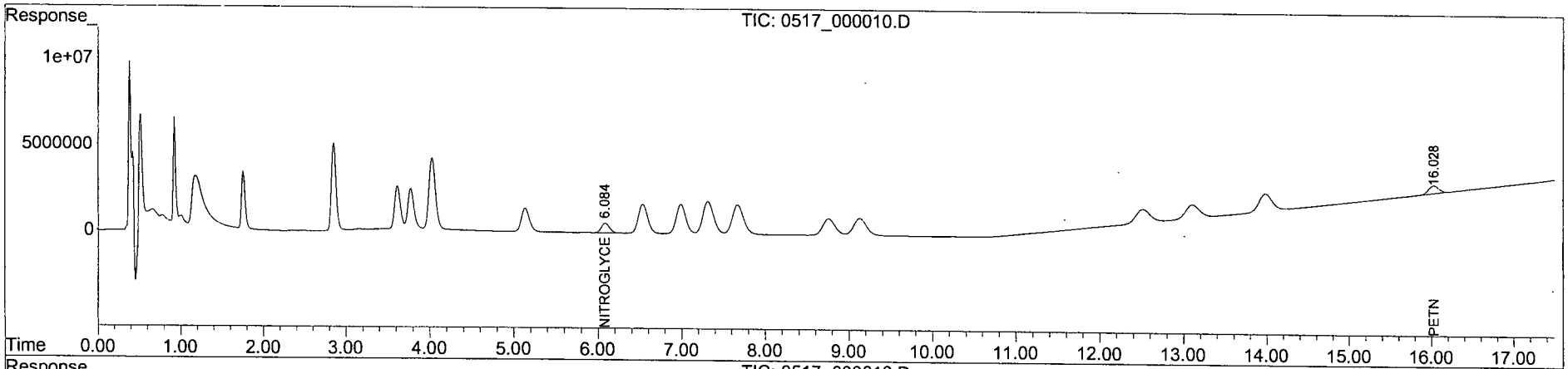
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

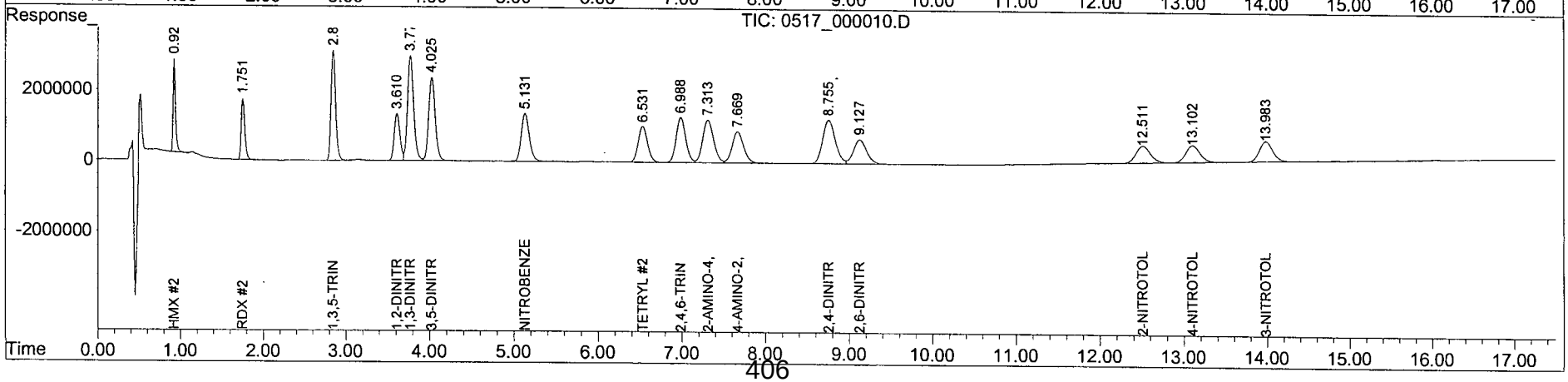
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000010.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:16:18
Operator : MP
Sample : 8330CB 0.10 PPM 05/17/15
Misc :
ALS Vial : 8196 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:42:53 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 16 09:57:37 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\150517\150517\
Data File : 0517_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:43:48
Operator : MP
Sample : 8330CB 0.20 PPM 05/17/15
Misc :
ALS Vial : 8197 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:41:30 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 16 09:57:37 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	3.609	0	2722460	N.D.	246.425	#
	Spiked Amount 62.500			Recovery	=	0.00%	394.28%	
	Target Compounds							
1)	TM HMX	0.000	0.921	0	5323227	N.D.	221.918	#
2)	TM RDX	0.000	1.750	0	3526640	N.D.	230.515	#
3)	TM 1,3,5-TRI...	0.000	2.843	0	6351998	N.D.	246.525	#
5)	TM 1,3-DINIT...	0.000	3.769	0	6056227	N.D.	246.108	#
6)	TM 3,5-DINIT...	0.000	4.023	0	4838978	N.D.	237.285	#
7)	TM NITROBENZENE	0.000	5.129	0	2773577	N.D.	252.831	#
8)	TM NITROGLYC...	6.081	0.000	1112766	0	238.603	N.D.	d#
9)	TM TETRYL	0.000	6.528	0	2081461	N.D. d	231.962	
10)	TM 2,4,6-TRI...	0.000	6.985	0	2605088	N.D. d	243.605	
11)	TM 2-AMINO-4...	0.000	7.309	0	2481680	N.D. d	240.175	
12)	TM 4-AMINO-2...	0.000	7.664	0	1815122	N.D. d	236.863	
13)	TM 2,4-DINIT...	0.000	8.751	0	2526249	N.D. d	259.856	
14)	TM 2,6-DINIT...	0.000	9.124	0	1408149	N.D. d	226.574	
15)	TM 2-NITROTO...	0.000	12.507	0	993058	N.D.	262.649	#
16)	TM 4-NITROTO...	0.000	13.096	0	988626	N.D.	263.834	#
17)	TM 3-NITROTO...	0.000	13.974	0	1184763	N.D.	264.506	#
18)	TM PETN	16.016	0.000	932343	0	250.351	N.D.	#

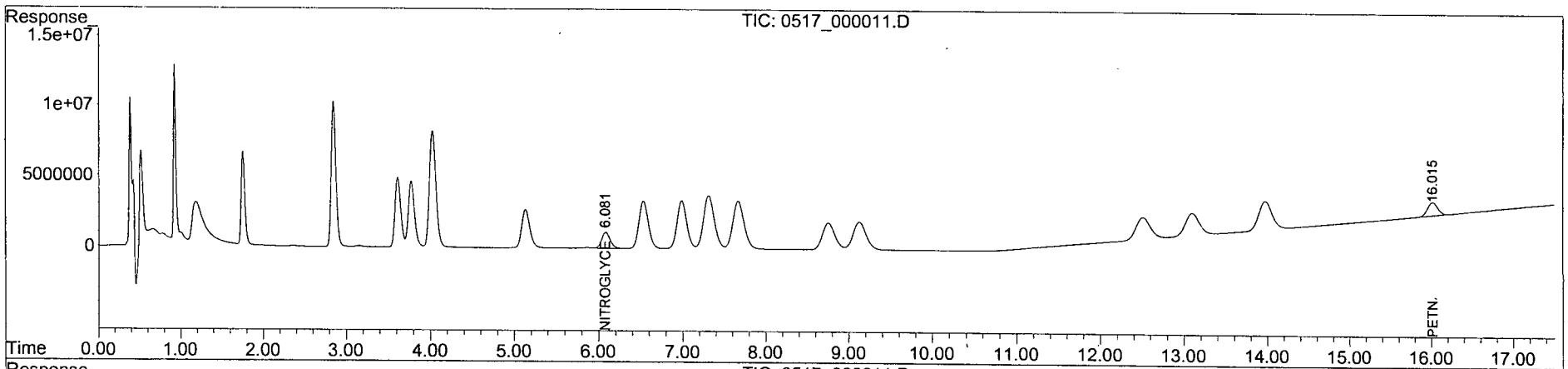
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

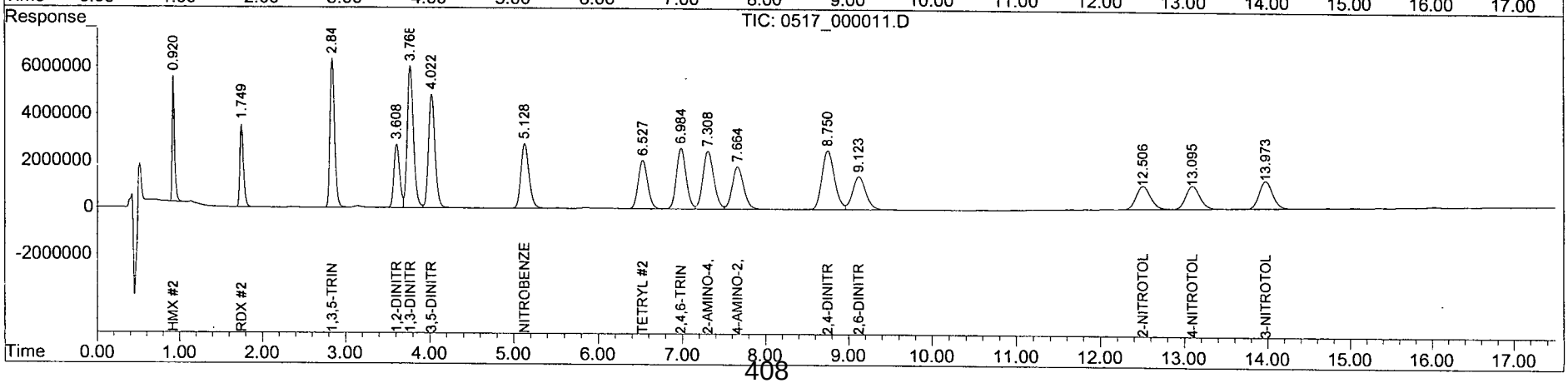
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:43:48
Operator : MP
Sample : 8330CB 0.20 PPM 05/17/15
Misc :
ALS Vial : 8197 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:41:30 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 16 09:57:37 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\150517\150517\
Data File : 0517_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 19:11:17
Operator : MP
Sample : 8330CB 0.50 PPM 05/17/15
Misc :
ALS Vial : 8198 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:40:37 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 16 09:57:37 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	3.607	0	6849051	N.D.	619.946 #
Spiked Amount 62.500			Recovery	=	0.00%	991.91%
Target Compounds						
1) TM HMX	0.000	0.922	0	13288021	N.D.	553.959 #
2) TM RDX	0.000	1.751	0	8820927	N.D.	576.571 #
3) TM 1,3,5-TRI...	0.000	2.843	0	15905488	N.D.	617.301 #
5) TM 1,3-DINIT...	0.000	3.767	0	15232098	N.D.	618.990 #
6) TM 3,5-DINIT...	0.000	4.020	0	12163122	N.D.	596.434 #
7) TM NITROBENZENE	0.000	5.126	0	6936673	N.D.	632.326 #
8) TM NITROGLYC...	6.078	0.000	2786965	0	597.591	N.D. d#
9) TM TETRYL	0.000	6.522	0	5240675	N.D. d	584.031
10) TM 2,4,6-TRI...	0.000	6.980	0	6541331	N.D. d	611.689
11) TM 2-AMINO-4...	0.000	7.300	0	6237486	N.D. d	603.659
12) TM 4-AMINO-2...	0.000	7.656	0	4557845	N.D. d	594.774
13) TM 2,4-DINIT...	0.000	8.743	0	6352155	N.D. d	653.398
14) TM 2,6-DINIT...	0.000	9.116	0	3532388	N.D. d	568.369
15) TM 2-NITROTO...	0.000	12.504	0	2475374	N.D.	654.699 #
16) TM 4-NITROTO...	0.000	13.092	0	2467391	N.D.	658.472 #
17) TM 3-NITROTO...	0.000	13.972	0	2967877	N.D.	662.598 #
18) TM PETN	16.013	0.000	2357470	0	633.024	N.D. #

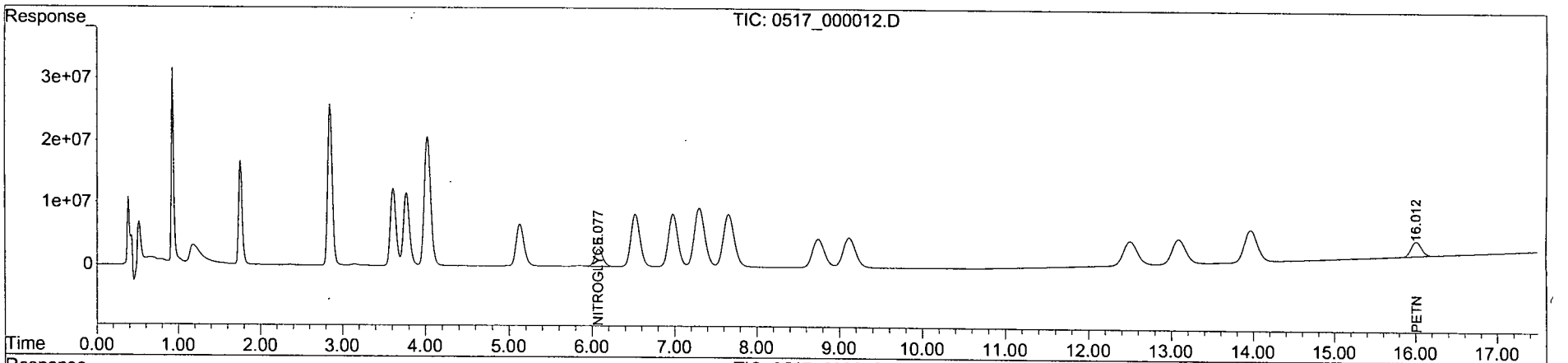
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

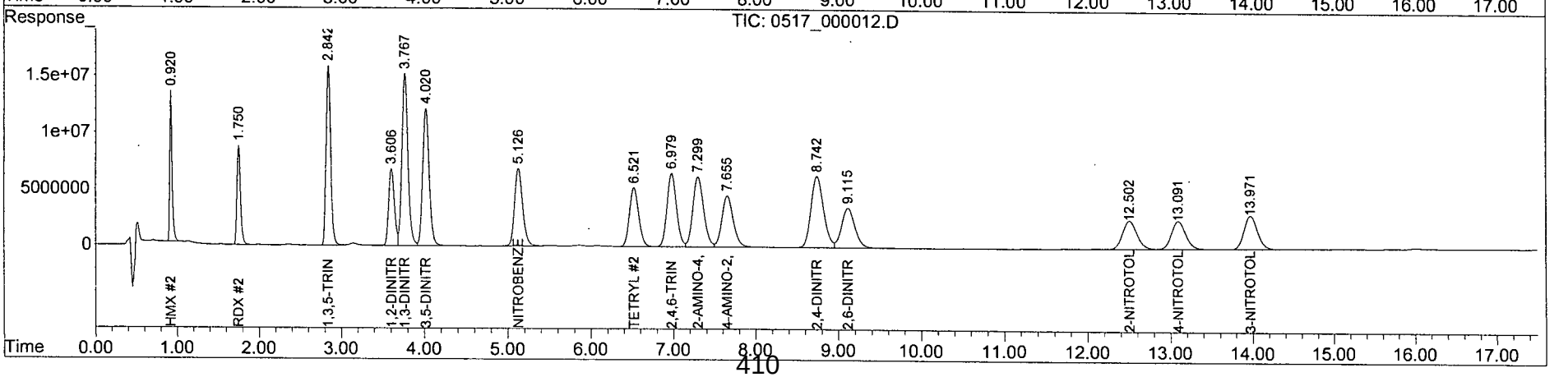
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 19:11:17
Operator : MP
Sample : 8330CB 0.50 PPM 05/17/15
Misc :
ALS Vial : 8198 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:40:37 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 16 09:57:37 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\150517\150517\
Data File : 0517_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 19:38:46
Operator : MP
Sample : 8330CB 1.0 PPM 05/17/15
Misc :
ALS Vial : 8199 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:39:38 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 16 09:57:37 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	3.601	0	13853707	N.D.	1253.976 #
Spiked Amount 62.500			Recovery	=	0.00%	2006.36%
Target Compounds						
1) TM HMX	0.000	0.919	0	26379367	N.D.	1099.720 #
2) TM RDX	0.000	1.747	0	17555814	N.D.	1147.518 #
3) TM 1,3,5-TRI...	0.000	2.839	0	31867384	N.D.	1236.792 #
5) TM 1,3-DINIT...	0.000	3.761	0	30615927	N.D.	1244.147 #
6) TM 3,5-DINIT...	0.000	4.013	0	24473458	N.D.	1200.087 #
7) TM NITROBENZENE	0.000	5.117	0	13980064	N.D.	1274.380 #
8) TM NITROGLYC...	6.067	0.000	5581526	0	1196.811	N.D. d#
9) TM TETRYL	0.000	6.506	0	10676317	N.D. d	1189.790
10) TM 2,4,6-TRI...	0.000	6.964	0	13091566	N.D. d	1224.211
11) TM 2-AMINO-4...	0.000	7.280	0	12547119	N.D. d	1214.300
12) TM 4-AMINO-2...	0.000	7.636	0	9126190	N.D. d	1190.918
13) TM 2,4-DINIT...	0.000	8.723	0	12787679	N.D. d	1315.371
14) TM 2,6-DINIT...	0.000	9.096	0	7090347	N.D. d	1140.853
15) TM 2-NITROTO...	0.000	12.482	0	4976826	N.D.	1316.295 #
16) TM 4-NITROTO...	0.000	13.071	0	4959415	N.D.	1323.518 #
17) TM 3-NITROTO...	0.000	13.953	0	5967255	N.D.	1332.229 #
18) TM PETN	15.999	0.000	4719578	0	1267.294	N.D. #

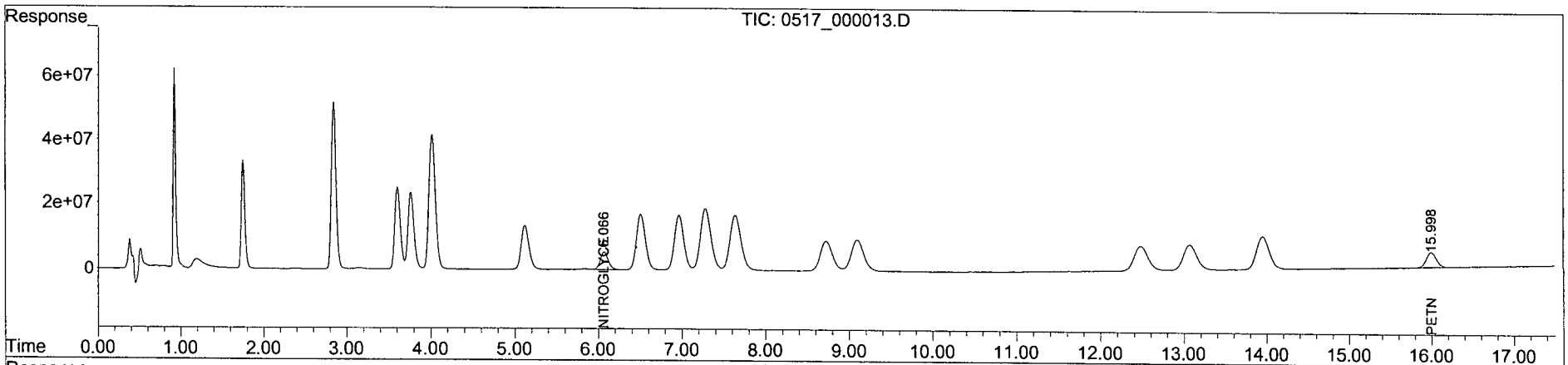
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

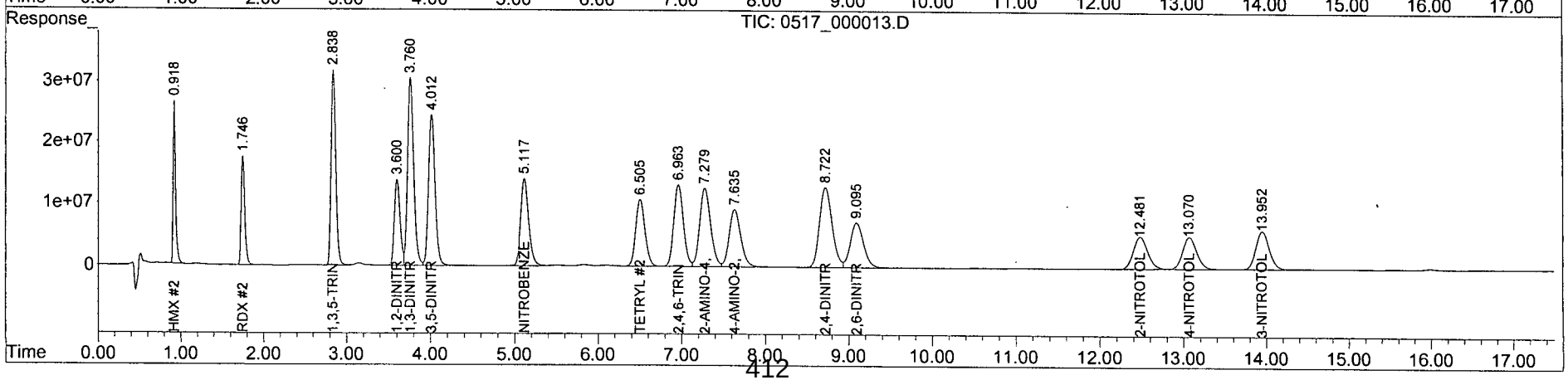
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 19:38:46
Operator : MP
Sample : 8330CB 1.0 PPM 05/17/15
Misc :
ALS Vial : 8199 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:39:38 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 16 09:57:37 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\150517\150517\
Data File : 0517_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 20:06:14
Operator : MP
Sample : 8330MXA 2.0 PPM 05/17/15
Misc :
ALS Vial : 8200 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:38:39 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 16 09:57:37 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	3.596	0	28241700	N.D.	2556.314 #
Spiked Amount 62.500			Recovery	=	0.00%	4090.10%
Target Compounds						
1) TM HMX	0.000	0.920	0	52507103	N.D.	2188.949 #
2) TM RDX	0.000	1.747	0	35499567	N.D.	2320.392 #
3) TM 1,3,5-TRI...	0.000	2.837	0	64212342	N.D.	2492.118 #
5) TM 1,3-DINIT...	0.000	3.756	0	62315311	N.D.	2532.322 #
6) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
7) TM NITROBENZENE	0.000	5.111	0	28252131	N.D.	2575.378 #
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	0.000	6.500	0	21333445	N.D. d	2377.441
10) TM 2,4,6-TRI...	0.000	6.959	0	26878427	N.D. d	2513.440
11) TM 2-AMINO-4...	0.000	7.271	0	25547859	N.D. d	2472.502
12) TM 4-AMINO-2...	0.000	7.627	0	18512622	N.D. d	2415.796
13) TM 2,4-DINIT...	0.000	8.711	0	26185252	N.D. d	2693.477
14) TM 2,6-DINIT...	0.000	9.085	0	14460139	N.D. d	2326.668
15) TM 2-NITROTO...	0.000	12.467	0	10084697	N.D.	2667.249 #
16) TM 4-NITROTO...	0.000	13.054	0	10046123	N.D.	2681.006 #
17) TM 3-NITROTO...	0.000	13.940	0	12069809	N.D.	2694.665 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

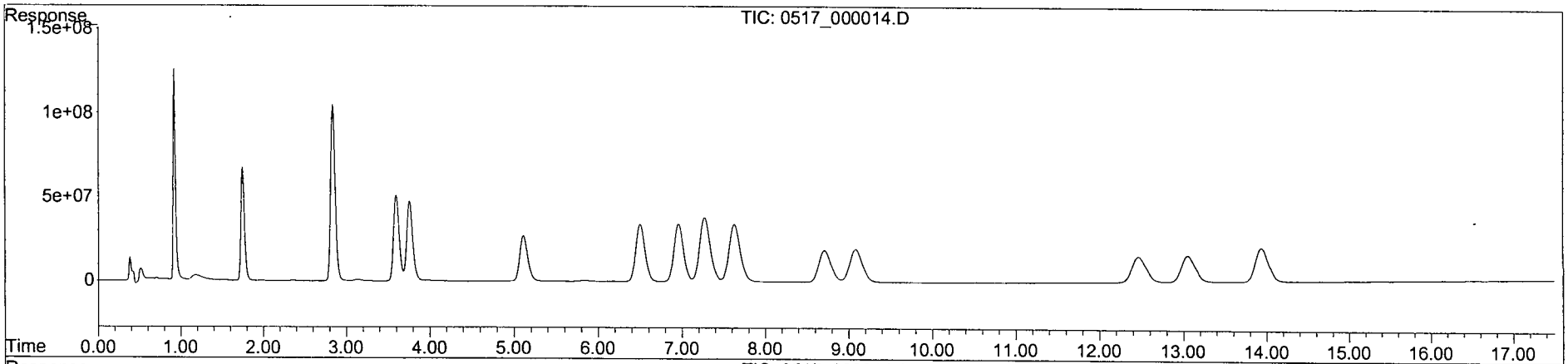
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

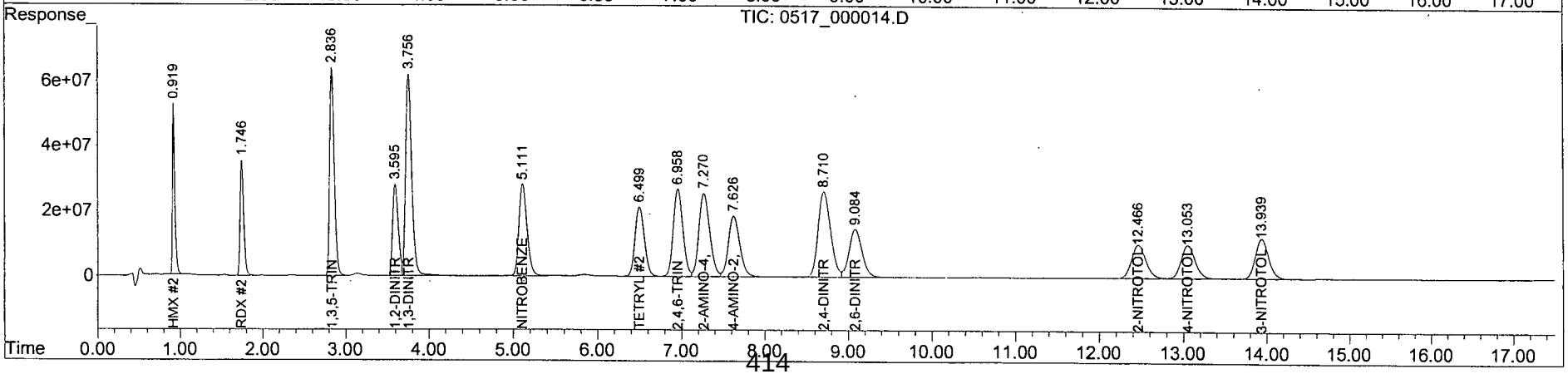
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 20:06:14
Operator : MP
Sample : 8330MXA 2.0 PPM 05/17/15
Misc :
ALS Vial : 8200 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:38:39 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 16 09:57:37 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\150517\150517\
Data File : 0517_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 20:33:45
Operator : MP
Sample : 8330MXB 2.0 PPM 05/17/15
Misc :
ALS Vial : 8256 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:37:34 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 16 09:57:37 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. 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	4.007	0	49086037	N.D.	2406.995 #
7)	TM NITROBENZENE	0.000	0.000	0	0	N.D. d	N.D. d
8)	TM NITROGLYC...	6.063	0.000	11187644	0	2398.895	N.D. d#
9)	TM TETRYL	6.533	0.000	12631	0	NoCal	N.D.
10)	TM 2,4,6-TRI...	6.982	0.000	40436	0	NoCal	N.D.
11)	TM 2-AMINO-4...	7.284	0.000	6398	0	NoCal	N.D.
12)	TM 4-AMINO-2...	7.608	0.000	15304	0	NoCal	N.D.
13)	TM 2,4-DINIT...	8.721	0.000	6122	0	NoCal	N.D.
14)	TM 2,6-DINIT...	9.094	0.000	5987	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	15.982	0.000	9590479	0	2575.221	N.D. #

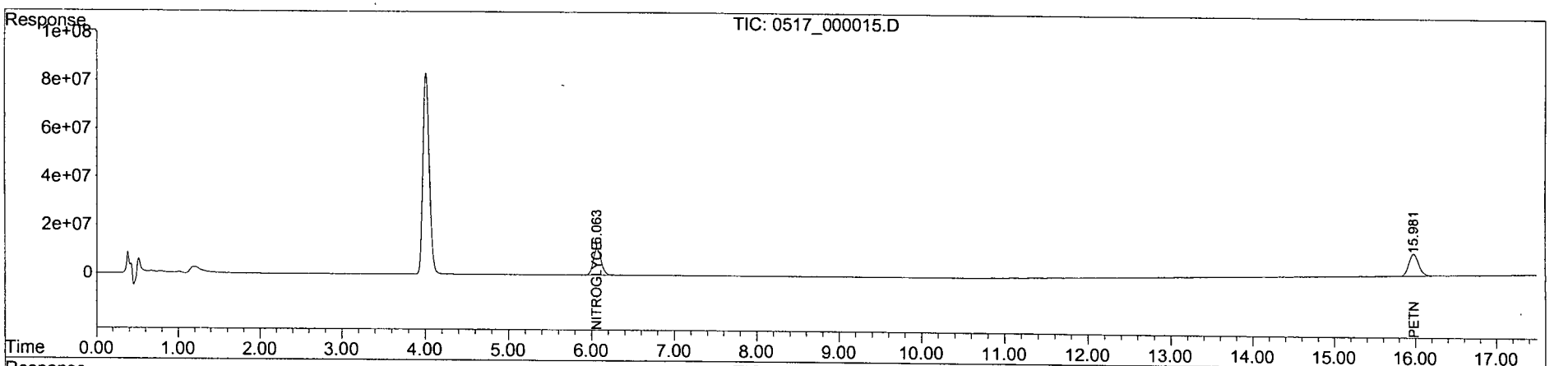
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

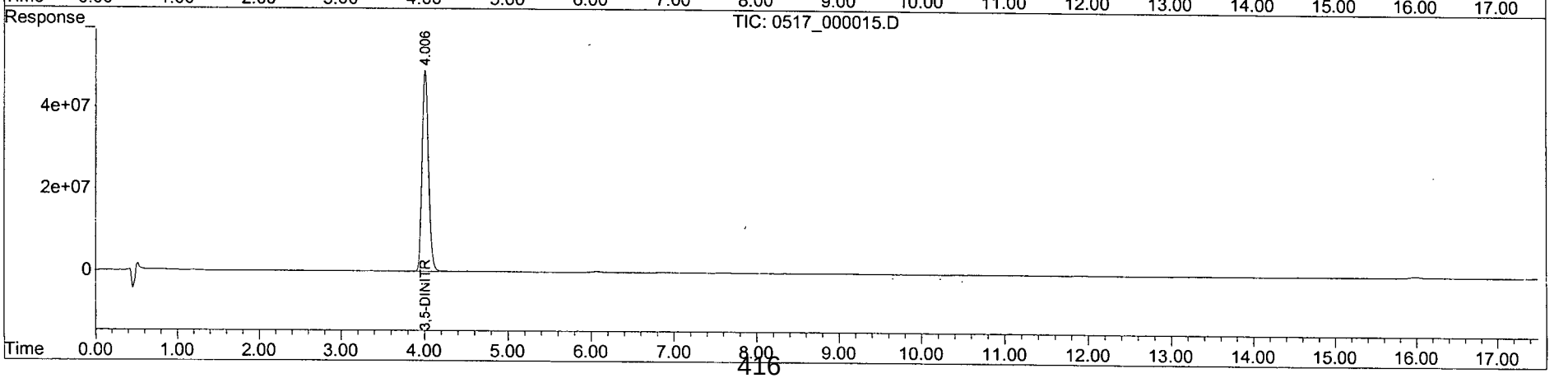
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 20:33:45
Operator : MP
Sample : 8330MXB 2.0 PPM 05/17/15
Misc :
ALS Vial : 8256 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:37:34 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 16 09:57:37 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: 16401
Date Analyzed: 17-May-2015, 21:01:15
Instrument: Waldorf
Initial Cal. Date: 05/17/15
Data File: 0517_000016-17.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	NITROGLYCERIN	139	146	5.0	TM	
2	TM	PETN	115	114	1.1	TM	
3		Signal #2					
4	TM	HMX	658	685	4.1	TM	
5	TM	RDX	438	460	5.1	TM	
6	TM	1,3,5-TRINITROBENZENE	791	754	4.7	TM	
7	S	1,2-DINITROBENZENE	341	367	7.7	S	
8	TM	1,3-DINITROBENZENE	756	796	5.3	TM	
9	TM	3,5-DINITROANILINE	602	664	10	TM	
10	TM	NITROBENZENE	346	361	4.4	TM	
11	TM	2,4,6-TRINITROTOLUENE	326	339	3.8	TM	
12	TM	2-AMINO-4,6-DINITROTOLUEN	310	299	3.5	TM	
13	TM	4-AMINO-2,6-DINITROTOLUEN	227	257	13	TM	
14	TM	2,4-DINITROTOLUENE	317	348	9.9	TM	
15	TM	2,6-DINITROTOLUENE	176	187	6.3	TM	
16	TM	2-NITROTOLUENE	124	131	5.9	TM	
17	TM	4-NITROTOLUENE	124	128	3.3	TM	
18	TM	3-NITROTOLUENE	147	160	9.1	TM	
19	TM	TETRYL	262	270	3.1	TM	
20							
21							
22							
23							
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Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 21:01:15
Operator : MP
Sample : 8330_SS 1.0 PPM 05/17/15
Misc :
ALS Vial : 8257 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:53:25 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 08:52:23 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	3.598	0	14675134	N.D.	1076.958 #
Spiked Amount 62.500			Recovery	=	0.00%	1723.13%
Target Compounds						
1) TM HMX	0.000	0.920	0	27400832	N.D.	1041.100 #
2) TM RDX	0.000	1.746	0	18398388	N.D.	1050.508 #
3) TM 1,3,5-TRI...	0.000	2.837	0	30154786	N.D.	953.278 #
5) TM 1,3-DINIT...	0.000	3.758	0	31828122	N.D.	1053.166 #
6) TM 3,5-DINIT...	0.000	4.008	0	26540040	N.D.	1102.180 #
7) TM NITROBENZENE	0.000	5.114	0	14432786	N.D.	1043.681 #
8) TM NITROGLYC...	6.064	6.071	5853997	144712	1050.429	NoCal #
9) TM TETRYL	6.501	6.501	14626223	9166098	2315956.687	874.521 #
10) TM 2,4,6-TRI...	6.961	6.961	17483739	13545367	864771.655	1037.612 #
11) TM 2-AMINO-4...	7.273	7.273	18002686	11970537	5627627.486	964.762 #
12) TM 4-AMINO-2...	7.628	7.628	19056044	10270100	2490389.738	1129.312 #
13) TM 2,4-DINIT...	8.713	8.713	10195621	13919515	3330695.488	1098.822 #
14) TM 2,6-DINIT...	9.086	9.086	10363700	7497570	3462169.596	1063.069 #
15) TM 2-NITROTO...	0.000	12.466	0	5238162	N.D.	1058.677 #
16) TM 4-NITROTO...	0.000	13.055	0	5111329	N.D.	1033.019 #
17) TM 3-NITROTO...	0.000	13.938	0	6413875	N.D.	1090.787 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

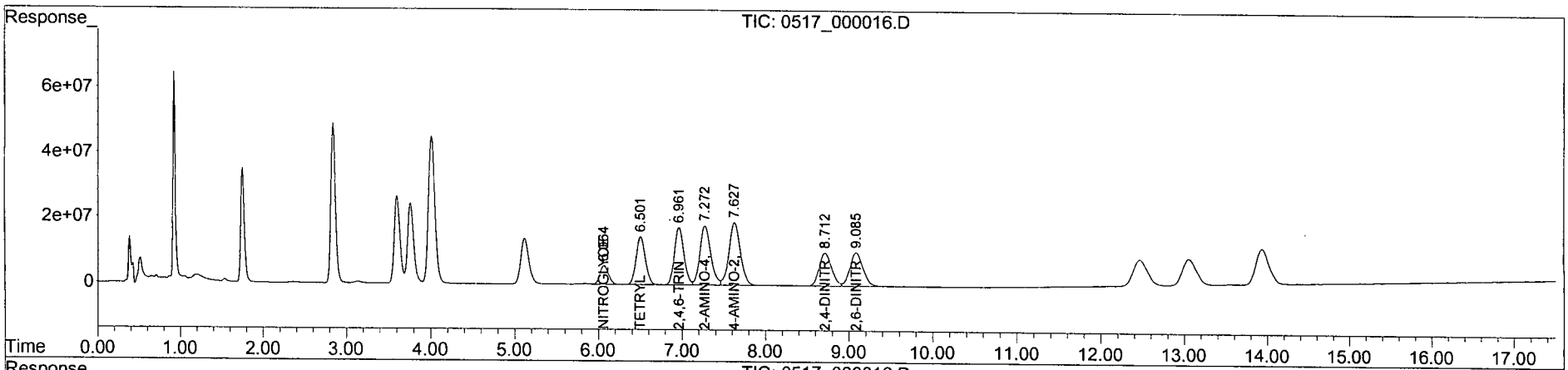
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

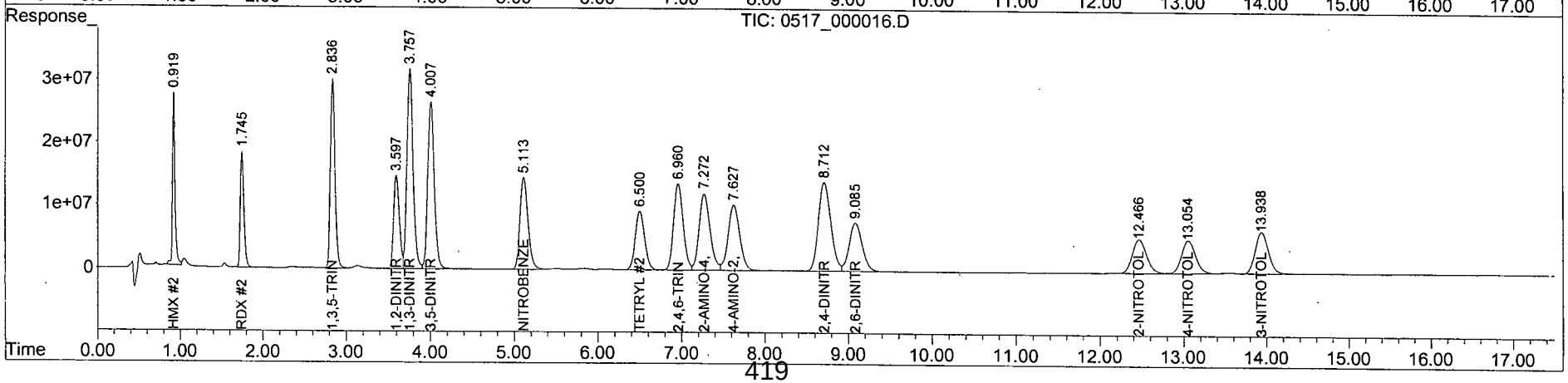
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 21:01:15
Operator : MP
Sample : 8330_SS 1.0 PPM 05/17/15
Misc :
ALS Vial : 8257 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:53:25 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 08:52:23 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\150517\150517\
Data File : 0517_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 21:28:46
Operator : MP
Sample : PETN_TETRYL_SS 1.0 PPM 05/17/15
Misc :
ALS Vial : 8258 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:53:48 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 08:52:23 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. d	N.D. d
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	6.480	6.479	17299366	10805517	2739229.568	1030.935
#						
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	15.968	0.000	4548309	0	988.701	N.D. #

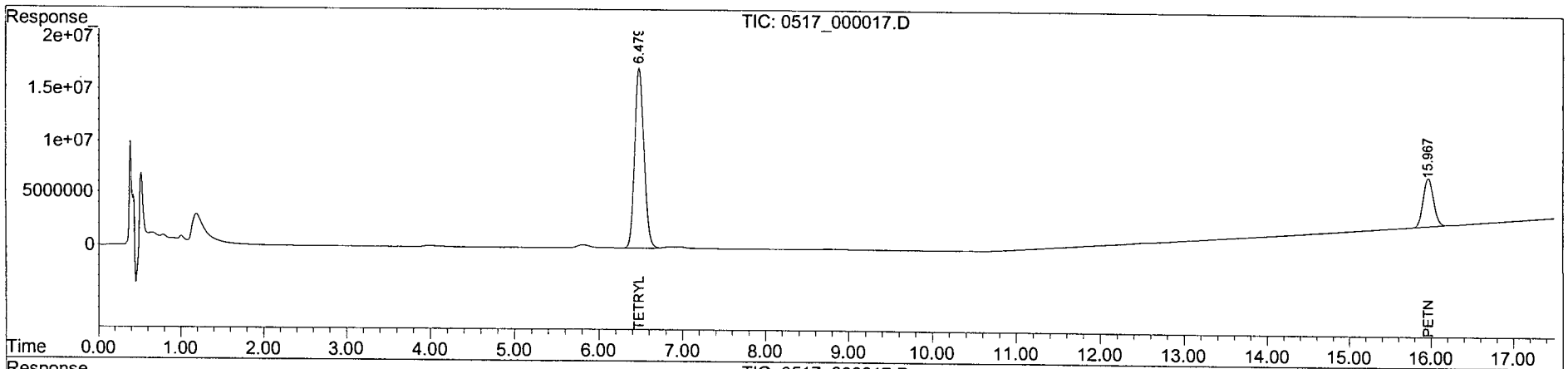
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

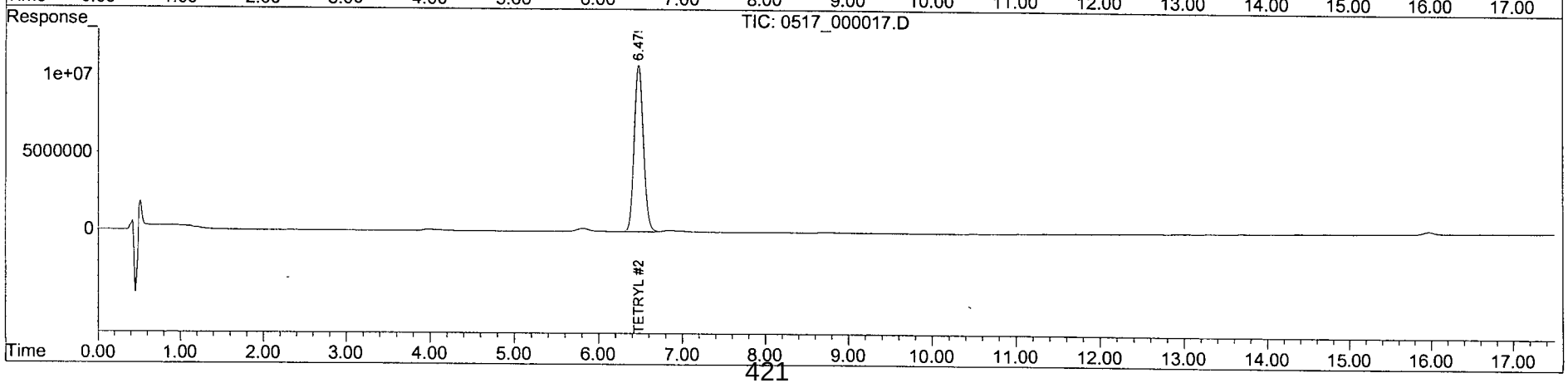
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 21:28:46
Operator : MP
Sample : PETN_TETRYL_SS 1.0 PPM 05/17/15
Misc :
ALS Vial : 8258 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:53:48 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 08:52:23 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: 76401
Date Analyzed: 18-May-2015, 04:18:52
Instrument: Waldorf
Initial Cal. Date: 05/17/15
Data File: 0517_000029.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	NITROGLYCERIN	139	136	2.1	TM	
2	TM	PETN	115	113	1.6	TM	
3		Signal #2					
4	TM	HMX	658	668	1.6	TM	
5	TM	RDX	438	439	0.25	TM	
6	TM	1,3,5-TRINITROBENZENE	791	781	1.3	TM	
7	S	1,2-DINITROBENZENE	341	341	0.24	S	
8	TM	1,3-DINITROBENZENE	756	759	0.46	TM	
9	TM	3,5-DINITROANILINE	602	597	0.79	TM	
10	TM	NITROBENZENE	346	345	0.35	TM	
11	TM	TETRYL	262	253	3.5	TM	
12	TM	2,4,6-TRINITROTOLUENE	326	323	1.1	TM	
13	TM	2-AMINO-4,6-DINITROTOLUEN	310	305	1.5	TM	
14	TM	4-AMINO-2,6-DINITROTOLUEN	227	222	2.3	TM	
15	TM	2,4-DINITROTOLUENE	317	316	0.34	TM	
16	TM	2,6-DINITROTOLUENE	176	175	0.92	TM	
17	TM	2-NITROTOLUENE	124	119	3.4	TM	
18	TM	4-NITROTOLUENE	124	119	4.1	TM	
19	TM	3-NITROTOLUENE	147	143	2.9	TM	
20							
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40							

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000029.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 04:18:52
Operator : MP
Sample : 8330_CCV 1.0 PPM 05/17/15
Misc :
ALS Vial : 8520 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 09:05:07 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 08:52:23 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	13659256	N.D.	1002.406 #
Spiked Amount 62.500			Recovery	=	0.00%	1603.85%
Target Compounds						
1) TM HMX	0.000	0.912	0	26733067	N.D.	1015.728 #
2) TM RDX	0.000	1.728	0	17558086	N.D.	1002.528 #
3) TM 1,3,5-TRI...	0.000	2.814	0	31235541	N.D.	987.443 #
5) TM 1,3-DINIT...	0.000	3.716	0	30359934	N.D.	1004.585 #
6) TM 3,5-DINIT...	0.000	3.944	0	23889130	N.D.	992.090 #
7) TM NITROBENZENE	0.000	5.050	0	13780760	N.D.	996.531 #
8) TM NITROGLYC...	6.017	6.016	5455708	137148	978.960m	NoCal #
9) TM TETRYL	6.407	6.407	16076629	10116341	2545618.029	965.182 #
10) TM 2,4,6-TRI...	6.884	6.884	16595785	12916561	820852.140	989.443 #
11) TM 2-AMINO-4...	7.140	7.140	18372764	12216373	5743313.614	984.575 #
12) TM 4-AMINO-2...	7.486	7.486	16511957	8885387	2157908.934	977.047 #
13) TM 2,4-DINIT...	8.595	8.595	9236186	12624714	3017268.301	996.609 #
14) TM 2,6-DINIT...	8.957	8.957	9633540	6987758	3218247.324	990.783 #
15) TM 2-NITROTO...	0.000	12.316	0	4777363	N.D.	965.546 #
16) TM 4-NITROTO...	0.000	12.911	0	4743866	N.D.	958.753 #
17) TM 3-NITROTO...	0.000	13.799	0	5709836	N.D.	971.054 #
18) TM PETN	15.942	0.000	4527547	0	984.188	N.D. #

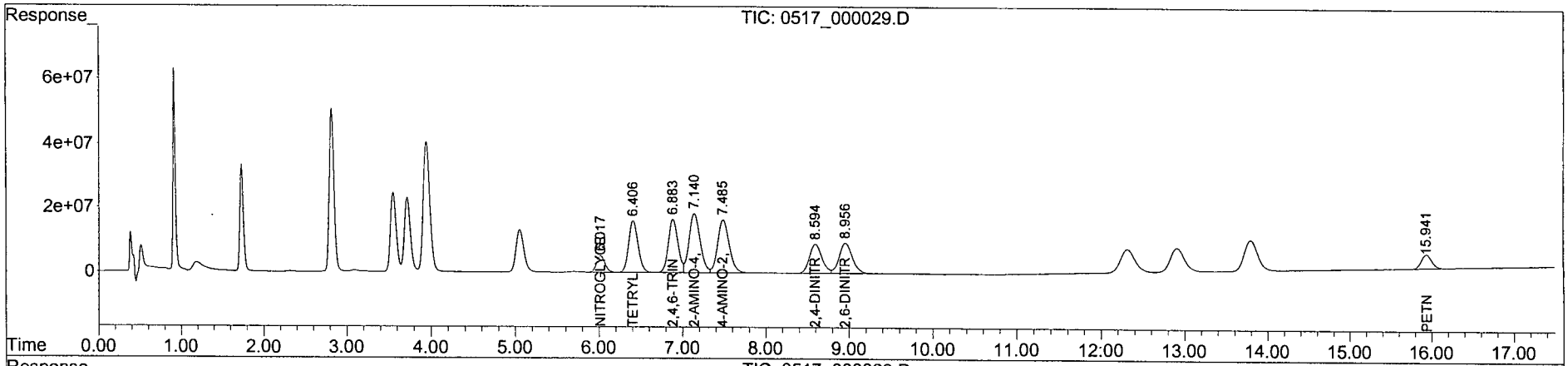
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

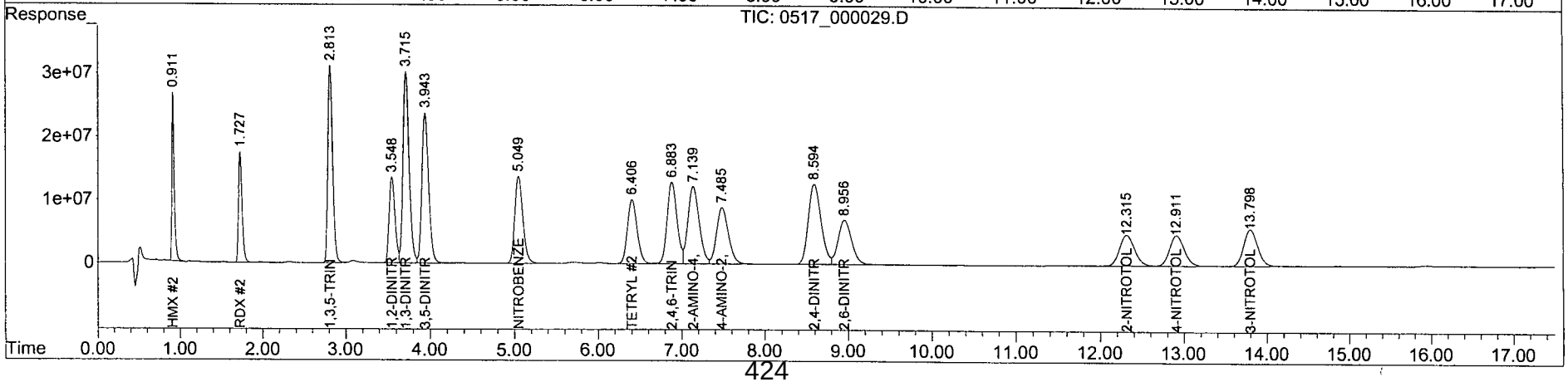
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000029.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 04:18:52
Operator : MP
Sample : 8330_CCV 1.0 PPM 05/17/15
Misc :
ALS Vial : 8520 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 09:05:07 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 08:52:23 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



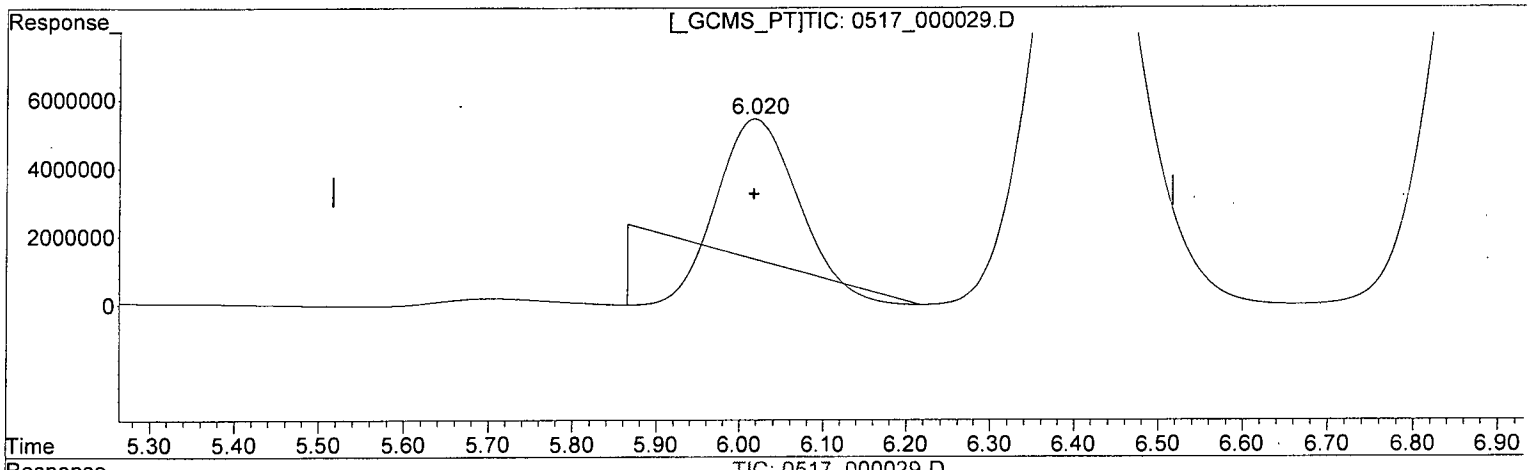


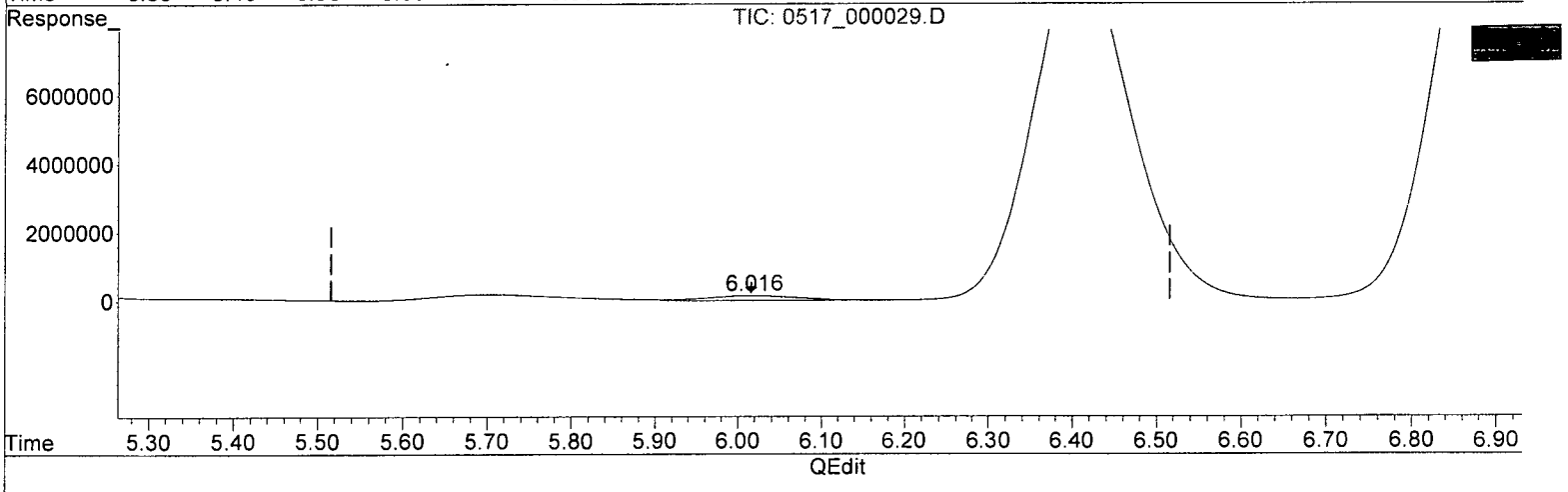
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000029.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 04:18:52
Operator : MP
Sample : 8330_CCV 1.0 PPM 05/17/15
Misc :
ALS Vial : 8520 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 09:04:37 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 08:52:23 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 735.127 ppb

response 4096835

(8) NITROGLYCERIN #2 (TM)

6.016min 0.000 ppb

response 137148

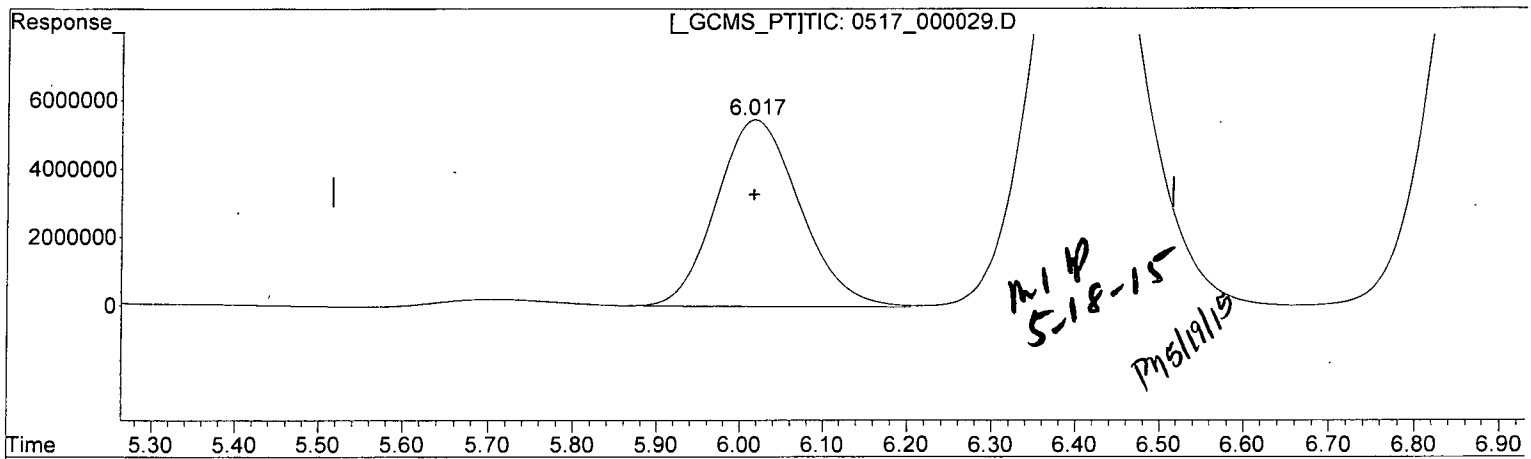
(+) = Expected Retention Time

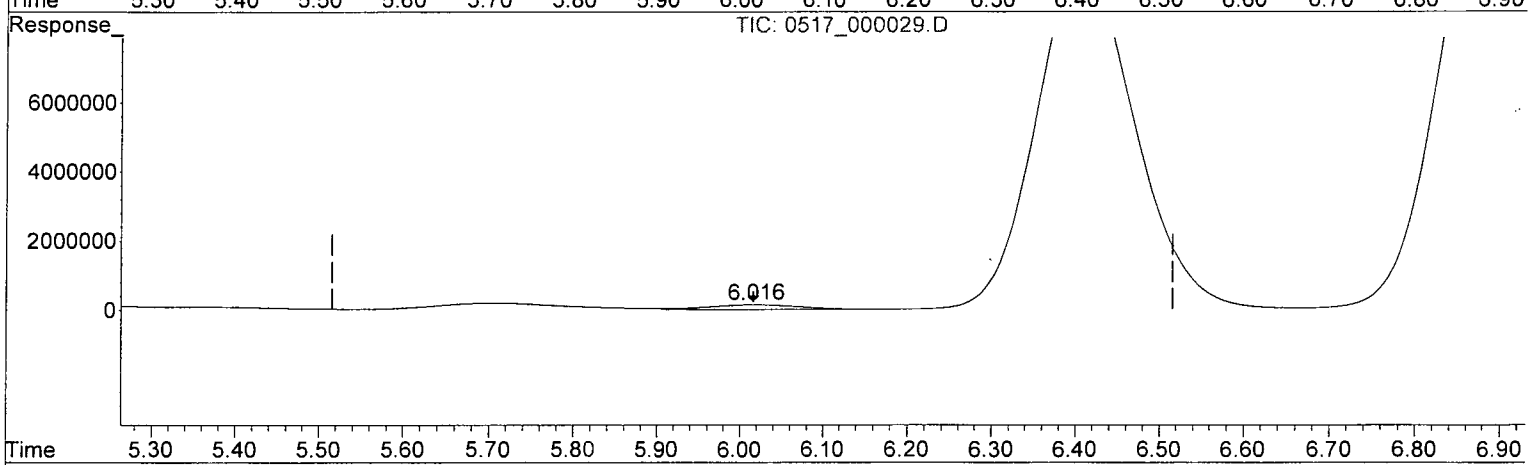
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000029.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 04:18:52
Operator : MP
Sample : 8330_CCV 1.0 PPM 05/17/15
Misc :
ALS Vial : 8520 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 09:04:37 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 08:52:23 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)

6.017min 978.960 ppb m

response 5455708

(8) NITROGLYCERIN #2 (TM)

6.016min 0.000 ppb

response 137148

(+) = Expected Retention Time

Form 7

Continuing Calibration

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

SDG No: 76401
Date Analyzed: 18-May-2015, 11:01:35
Instrument: Waldorf
Initial Cal. Date: 05/17/15
Data File: 0517_000040.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	NITROGLYCERIN	139	136	2.7	TM	
2	TM	PETN	115	112	2.3	TM	
3		Signal #2					
4	TM	HMX	658	670	1.9	TM	
5	TM	RDX	438	441	0.74	TM	
6	TM	1,3,5-TRINITROBENZENE	791	782	1.1	TM	
7	S	1,2-DINITROBENZENE	341	343	0.70	S	
8	TM	1,3-DINITROBENZENE	756	761	0.77	TM	
9	TM	3,5-DINITROANILINE	602	595	1.1	TM	
10	TM	NITROBENZENE	346	342	1.1	TM	
11	TM	TETRYL	262	244	6.8	TM	
12	TM	2,4,6-TRINITROTOLUENE	326	324	0.86	TM	
13	TM	2-AMINO-4,6-DINITROTOLUEN	310	306	1.4	TM	
14	TM	4-AMINO-2,6-DINITROTOLUEN	227	220	3.1	TM	
15	TM	2,4-DINITROTOLUENE	317	316	0.29	TM	
16	TM	2,6-DINITROTOLUENE	176	174	1.2	TM	
17	TM	2-NITROTOLUENE	124	115	7.2	TM	
18	TM	4-NITROTOLUENE	124	114	7.9	TM	
19	TM	3-NITROTOLUENE	147	138	6.4	TM	
20							
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Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000040.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 11:01:35
Operator : MP
Sample : 8330_CCV 1.0 PPM 05/17/15
Misc :
ALS Vial : 8520 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 11:38:39 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 11:35:33 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	3.499	0	13721891	N.D.	1007.003	#
Spiked Amount 62.500			Recovery	=	0.00%	1611.20%	
Target Compounds							
1) TM HMX	0.000	0.905	0	26806064	N.D.	1018.502	#
2) TM RDX	0.000	1.708	0	17643314	N.D.	1007.395	#
3) TM 1,3,5-TRI...	0.000	2.788	0	31293520	N.D.	989.276	#
5) TM 1,3-DINIT...	0.000	3.672	0	30455429	N.D.	1007.745	#
6) TM 3,5-DINIT...	0.000	3.873	0	23805619	N.D.	988.622	#
7) TM NITROBENZENE	0.000	4.986	0	13681886	N.D.	989.381	#
8) TM NITROGLYC...	5.963	5.958	5423334	113953	973.151	NoCal	#
9) TM TETRYL	6.295	6.295	15582882	9763406	NoCal	931.509	#
10) TM 2,4,6-TRI...	6.792	6.792	16617276	12942296	NoCal	991.415	#
11) TM 2-AMINO-4...	6.986	6.986	18314565	12236736	NoCal	986.216	#
12) TM 4-AMINO-2...	7.325	7.325	16325256	8812319	NoCal	969.012	#
13) TM 2,4-DINIT...	8.455	8.455	9243398	12630454	NoCal	997.062	#
14) TM 2,6-DINIT...	8.808	8.808	9613206	6967070	NoCal	987.850	#
15) TM 2-NITROTO...	0.000	12.146	0	4592916	N.D.	928.268	m#
16) TM 4-NITROTO...	0.000	12.747	0	4557970	N.D.	921.183	#
17) TM 3-NITROTO...	0.000	13.643	0	5504366	N.D.	936.110	#
18) TM PETN	15.865	0.000	4495532	0	977.229	N.D.	#

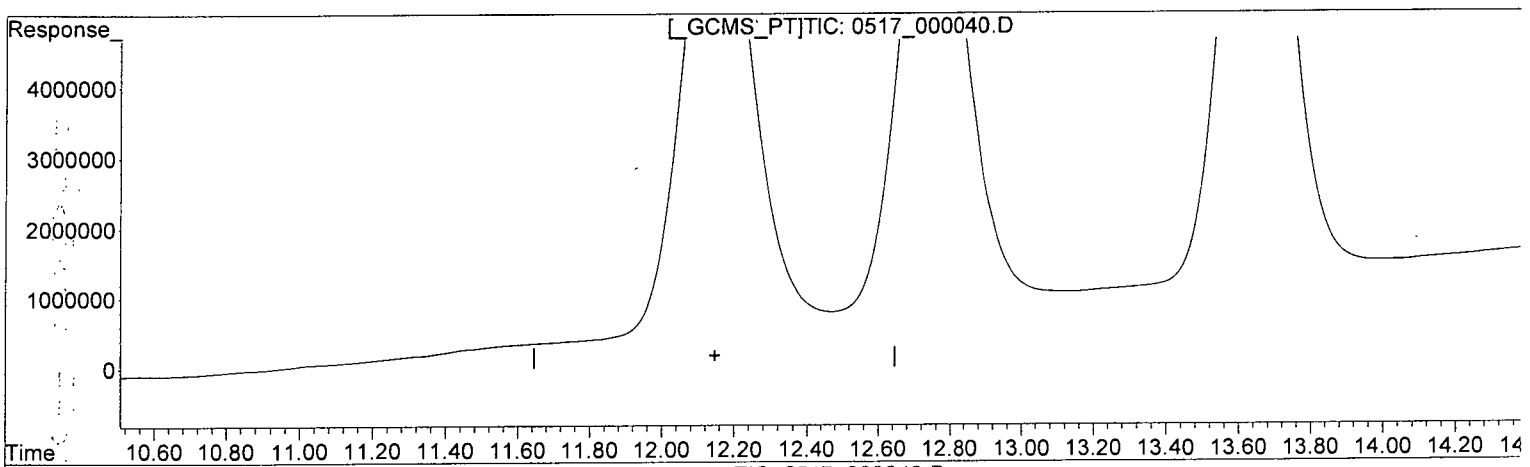
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

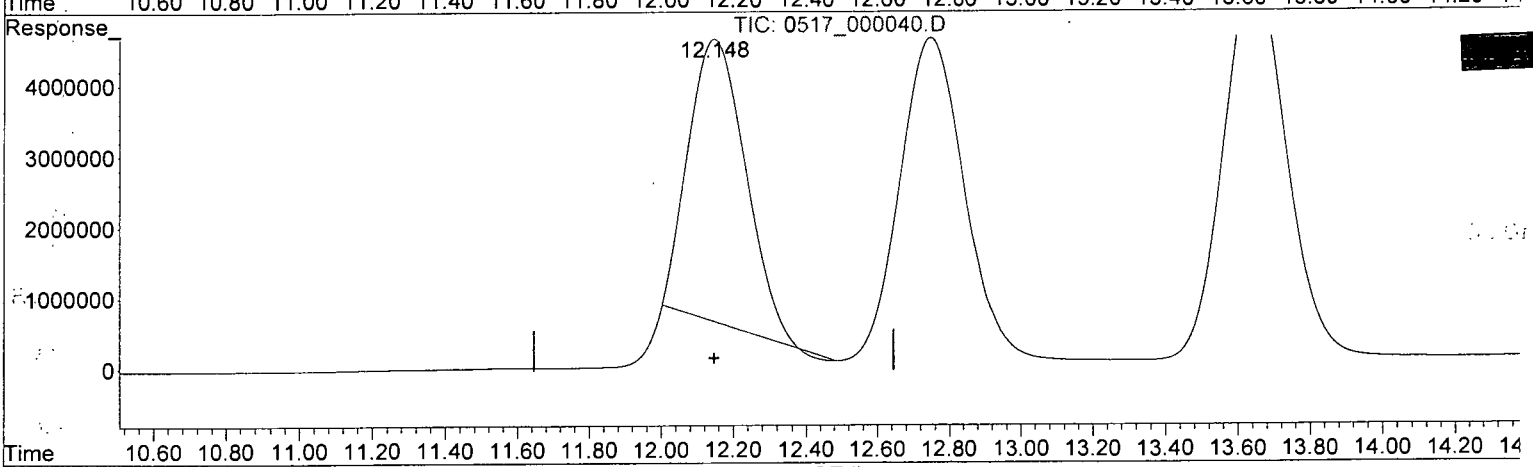
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000040.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 11:01:35
Operator : MP
Sample : 8330_CCV 1.0 PPM 05/17/15
Misc :
ALS Vial : 8520 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 11:37:38 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 11:35:33 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





(15) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 2-NITROTOLUENE #2 (TM)

12.147min 805.475 ppb

response 3985357

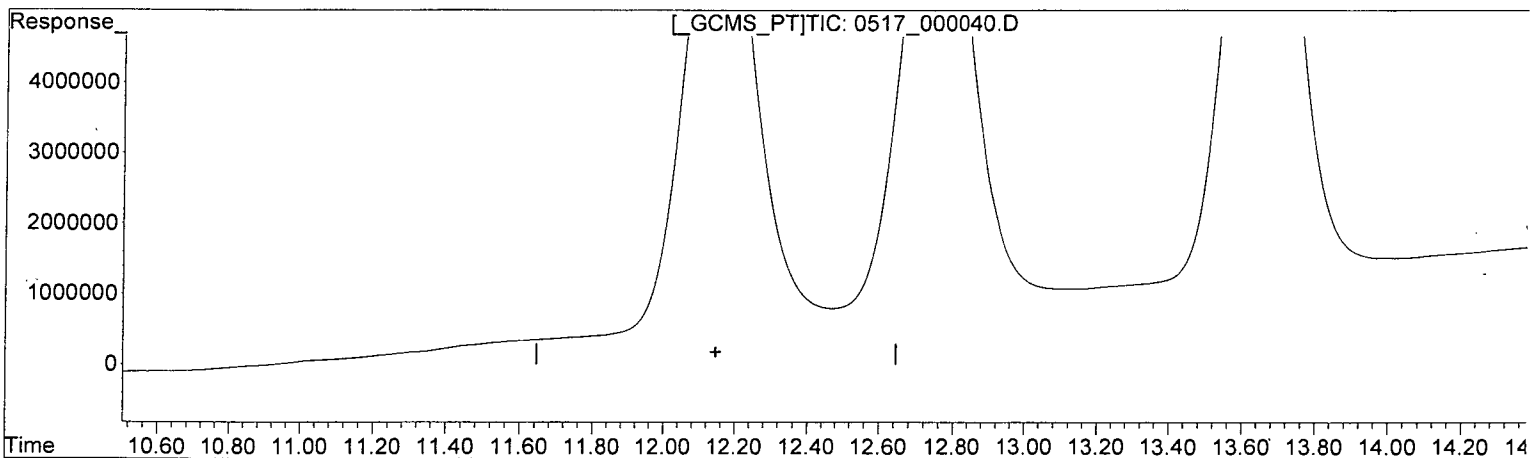
(+) = Expected Retention Time

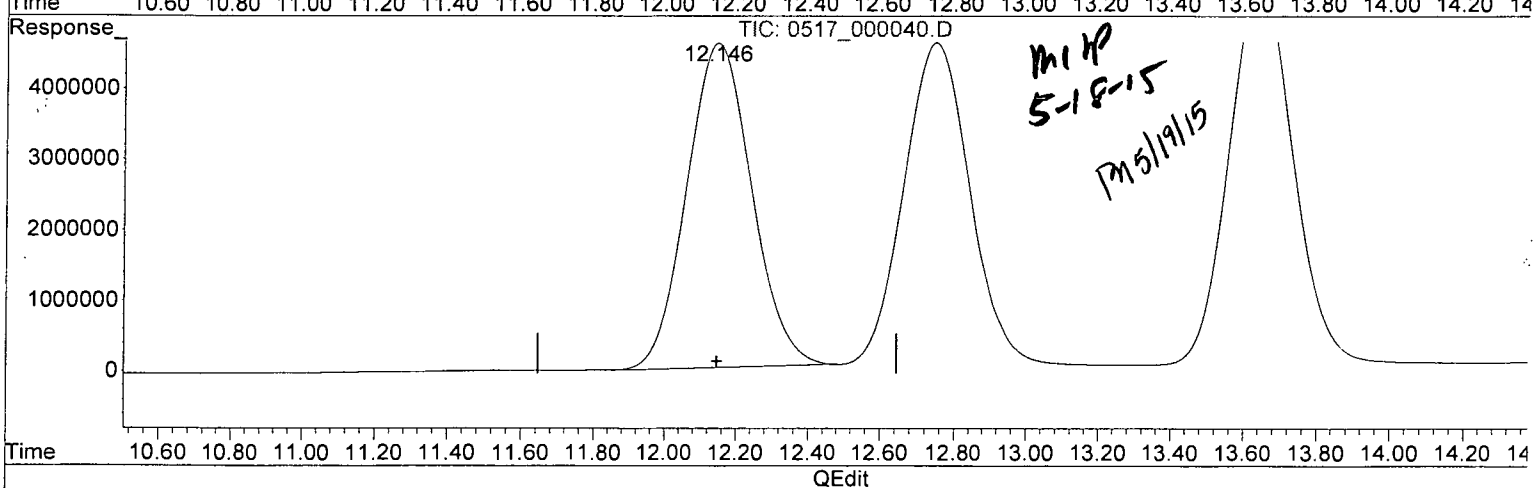
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000040.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 11:01:35
Operator : MP
Sample : 8330_CCV 1.0 PPM 05/17/15
Misc :
ALS Vial : 8520 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 11:37:38 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon May 18 11:35:33 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
5-18-15
PM 5/19/15

(15) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 2-NITROTOLUENE #2 (TM)

12.146min 928.268 ppb m

response 4592916

(+) = Expected Retention Time

Initial Calibration

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

SDG No: 76401
Initial Cal. Date: 05/17/15
Instrument: Statler

Initials: MP

		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	
			0517_000005.D	0517_000007.D	0517_000009.D	0517_000011.D	0517_000013.D	0517_000015.D	0517_000017.D	0517_000019.D	0517_000021.D				
####	TM	NITROGLYCERIN		14.8	16.5	16.8	16.3	16.6	16.3	16.3	16.6		16.29	3.9	TM
####	TM	PETN				12.8	15.9	16.7	17.0	16.8	17.1		16.05	10	TM
####		Signal #2													
####	TM	HMX #2	35.9	35.9	39.5	40.5	41.2	42.0	43.5	42.6	42.9		40.43	7.1	TM
####	TM	RDX #2	30.1	33.5	34.1	34.7	34.7	35.5	35.1	34.5	34.8		34.09	4.7	TM
####	TM	1,3,5-TRINITROBENZENE #2	84.8	83.6	85.8	86.9	87.2	87.8	86.7	87.5	89.4		86.64	2.0	TM
####	S	1,2-DINITROBENZENE #2	40.5	37.8	39.3	37.4	37.6	38.7	38.1	37.9	38.8		38.46	2.5	S
####	TM	1,3-DINITROBENZENE #2	83.2	86.7	88.3	86.1	86.4	88.3	88.0	87.7	89.6		87.14	2.1	TM
####	TM	NITROBENZENE #2	46.9	46.7	46.4	46.5	45.9	47.5	46.4	46.4	46.4		46.56	0.96	TM
####	TM	2,4,6-TRINITROTOLUENE #2	44.3	44.9	45.1	45.0	44.9	47.2	46.9	45.5	46.0		45.52	2.1	TM
####	TM	TETRYL #2		25.6	33.1	34.0	34.2	30.0	27.8	32.5	34.9		31.49	11	TM
####	TM	2,6-DINITROTOLUENE #2	27.2	26.4	26.7	26.7	26.6	28.4	27.8	27.3	27.9		27.24	2.5	TM
####	TM	2,4-DINITROTOLUENE #2	44.0	46.3	47.1	46.9	46.8	48.3	47.9	47.6	48.9		47.09	3.0	TM
####	TM	2-NITROTOLUENE #2	15.4	16.3	17.6	17.6	17.2	17.9	17.4	17.6	17.8		17.19	4.8	TM
####	TM	4-NITROTOLUENE #2		13.8	14.1	14.7	14.9	15.6	15.8	15.9	16.3		15.11	6.0	TM
####	TM	3,5-DINITROANILINE #2	38.6	34.9	37.6	36.5	37.2	38.0	37.3	36.7	36.8		37.08	2.8	TM
####	TM	3-NITROTOLUENE #2		16.2	17.2	17.7	17.6	18.6	18.4	18.7	18.9		17.91	5.2	TM
####	TM	4-AMINO-2,6-DINITROTOLUENE	31.6	27.6	28.2	28.3	28.6	29.0	29.1	28.8	29.3		28.95	3.9	TM
####	TM	2-AMINO-4,6-DINITROTOLUENE	37.1	35.4	36.9	36.3	36.7	37.2	37.2	36.7	37.1		36.73	1.6	TM
####	TM	PETN #2													TM
####															
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Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:08:11
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:14:09 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 07:41:46 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	8.031	0	8097	N.D.	3.838 #
Spiked Amount 62.500			Recovery	=	0.00%	6.14%
Target Compounds						
1) TM HMX	0.000	4.063	0	7176	N.D.	3.413m#
2) TM RDX	0.000	6.382	0	6014	N.D.	3.247m#
3) TM 1,3,5-TRI...	0.000	6.734	0	16951	N.D.	3.792m#
5) TM 1,3-DINIT...	0.000	8.384	0	16643	N.D.	3.701m#
6) TM NITROBENZENE	0.000	9.113	0	9381	N.D.	3.662m#
7) TM 2,4,6-TRI...	0.000	11.362	0	8856	N.D.	3.489 #
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	11.864	11.888	6552	6945	NoCal	4.216m#
10) TM 2,6-DINIT...	13.331	13.347	7869	5449	NoCal	3.689m#
11) TM 2,4-DINIT...	0.000	13.927	0	8795	N.D.	3.491m#
12) TM 2-NITROTO...	0.000	15.340	0	3075	N.D.	2.916m#
13) TM 4-NITROTO...	0.000	16.830	0	2183	N.D.	2.493m#
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	18.568	0	6326	N.D.	4.516m#
17) TM 2-AMINO-4...	0.000	19.498	0	7420	N.D.	3.640m#
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

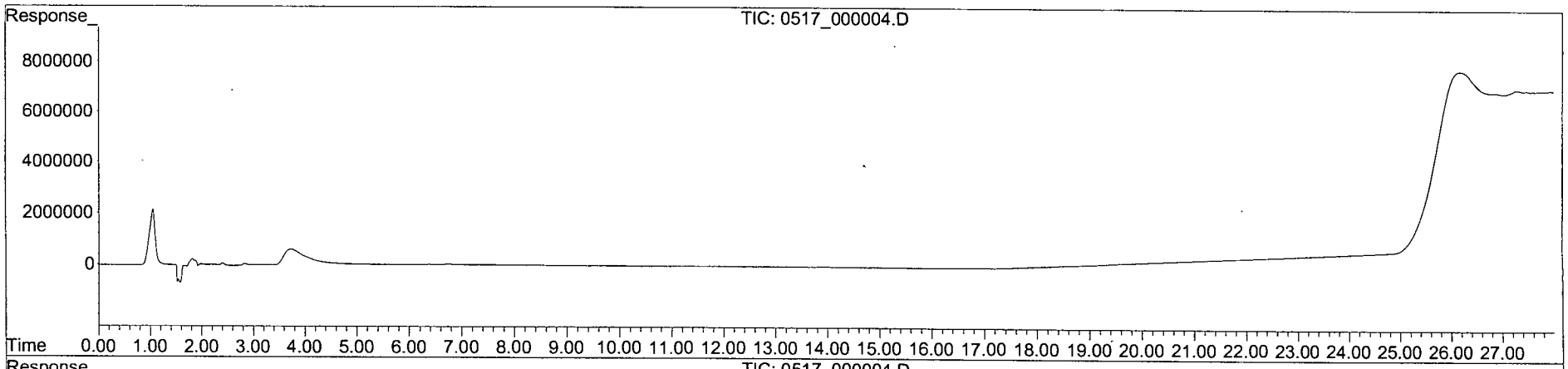
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

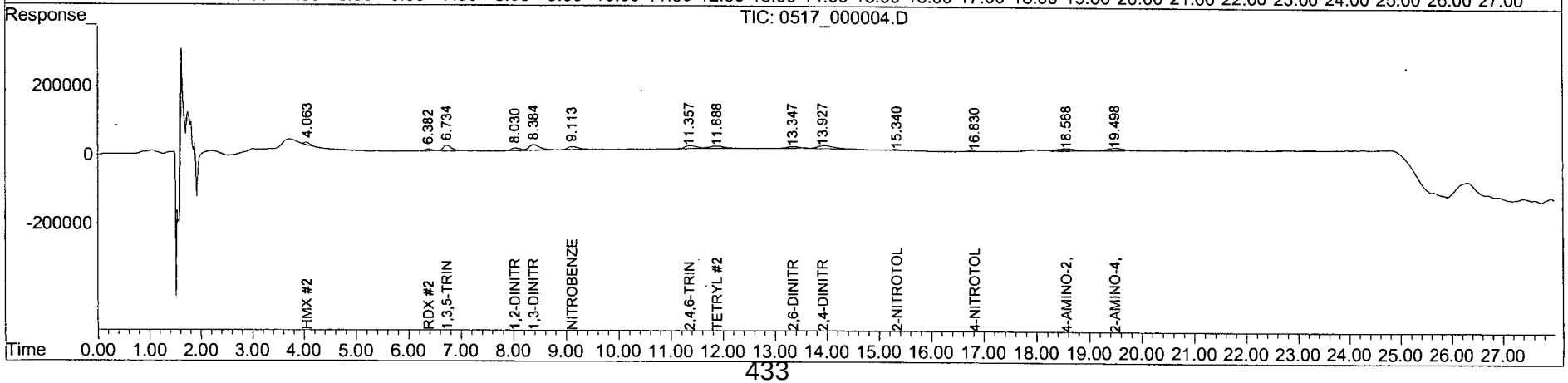
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:08:11
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:14:09 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 07:41:46 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



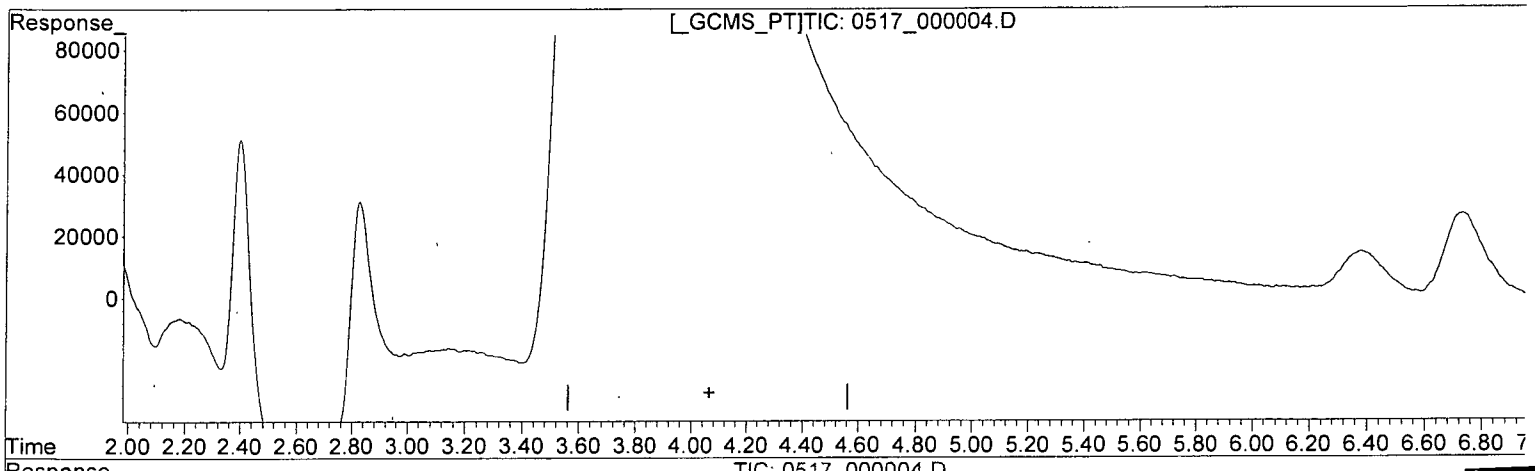


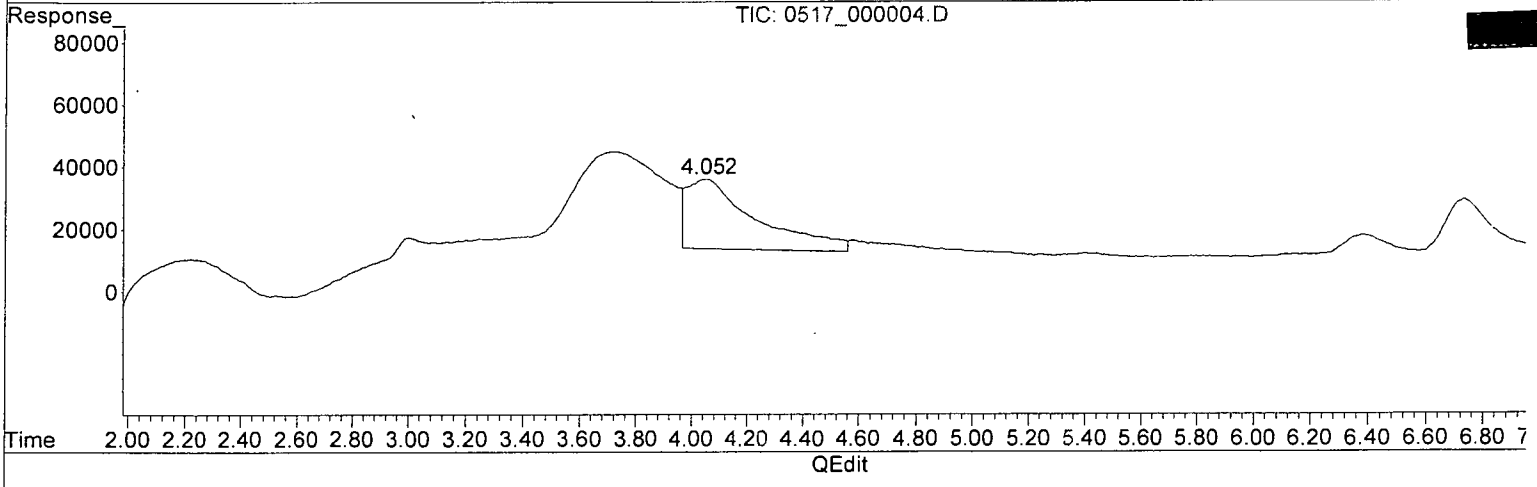
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:08:11
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:00 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 07:41:46 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)

4.053min 10.654 ppb

response 22404

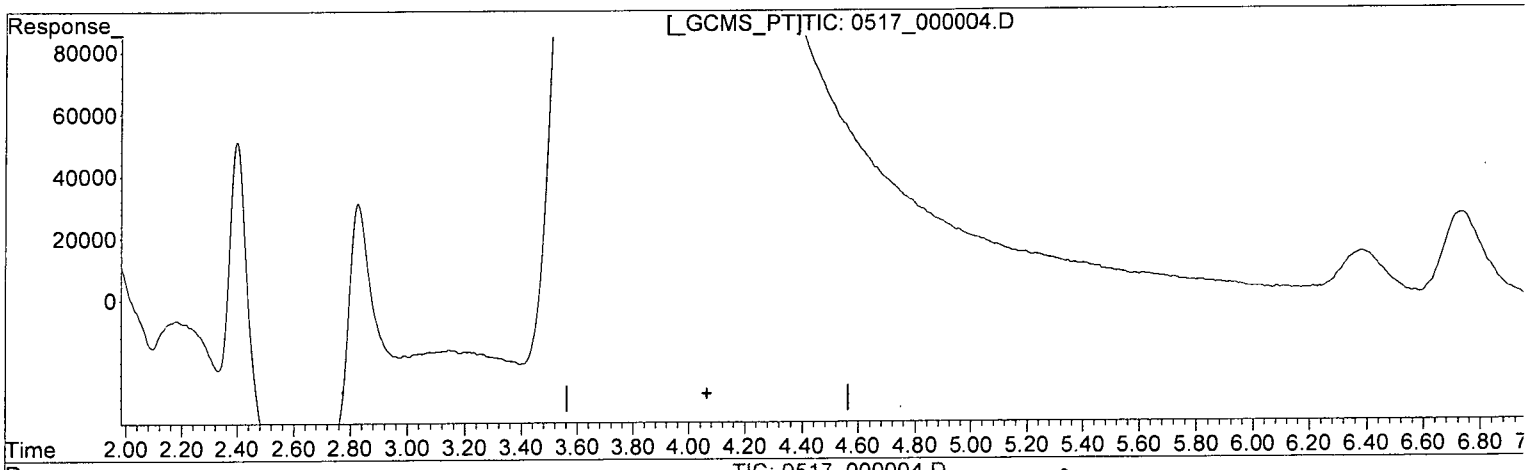
(+) = Expected Retention Time

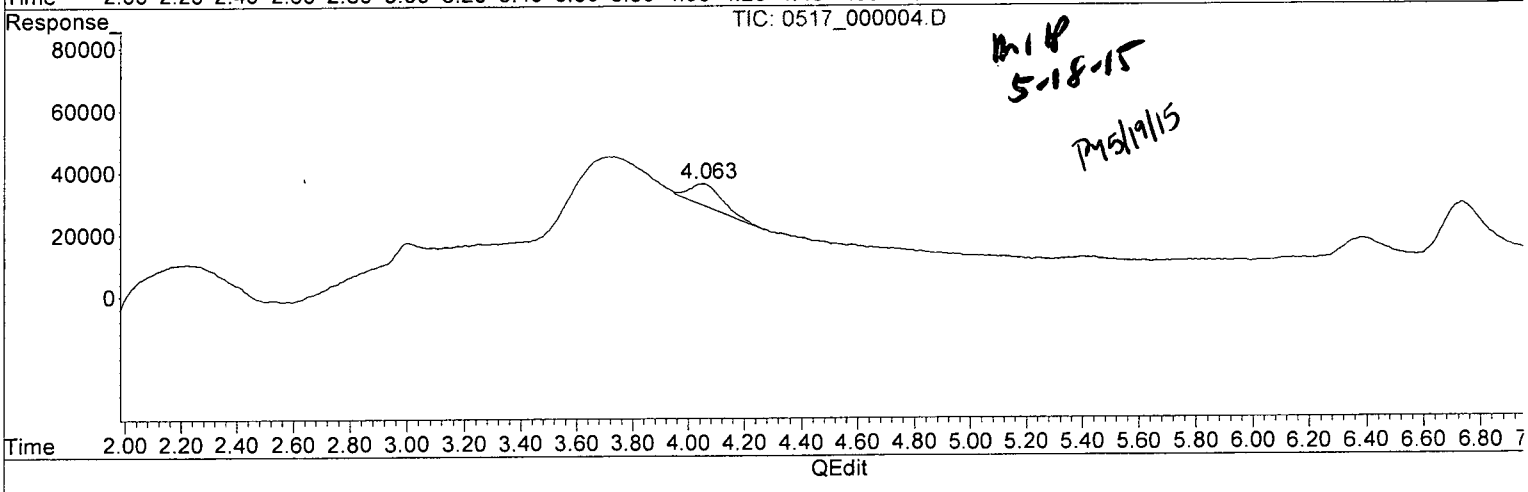
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:08:11
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:00 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 07:41:46 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 5-18-15

PM 5/19/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.063min 3.413 ppb m

response 7176

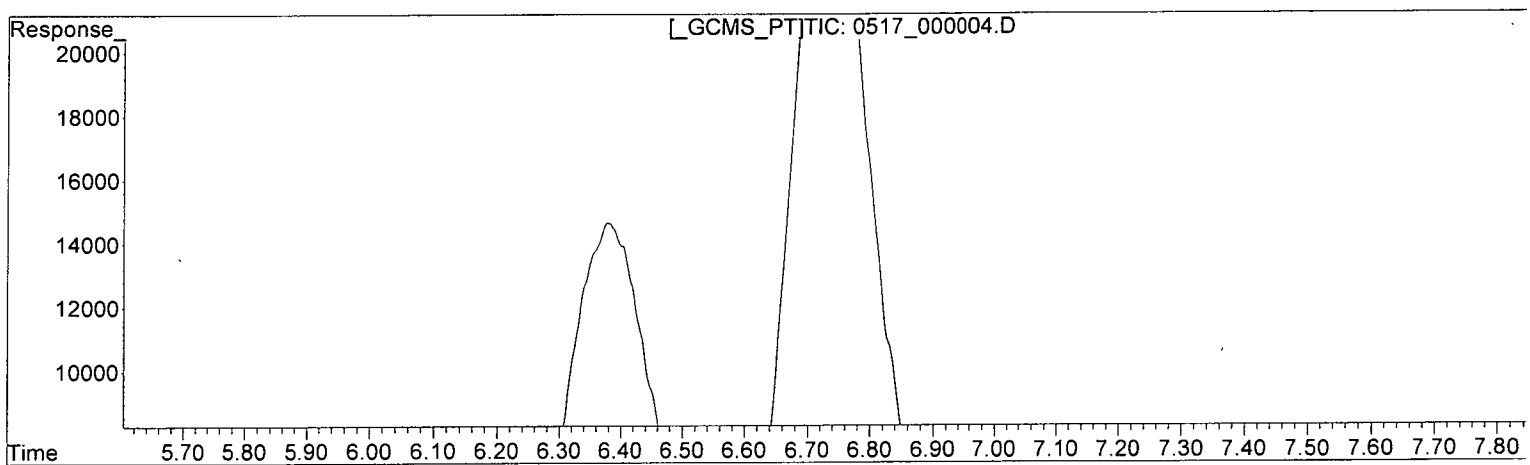
(+) = Expected Retention Time

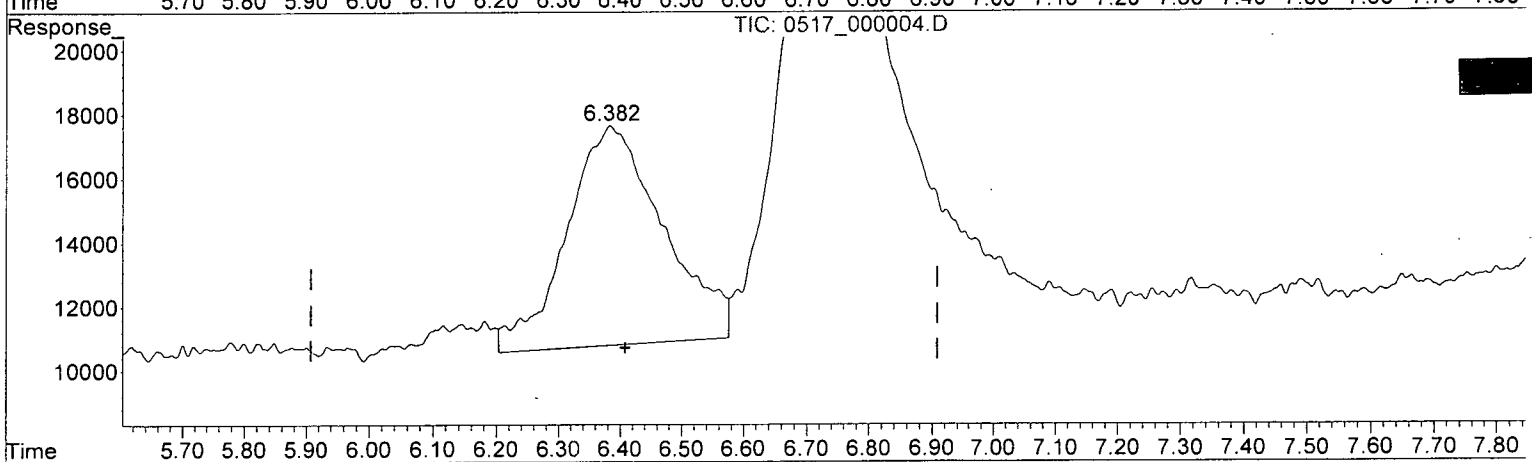
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:08:11
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:00 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 07:41:46 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)

6.384min 3.695 ppb

response 6843

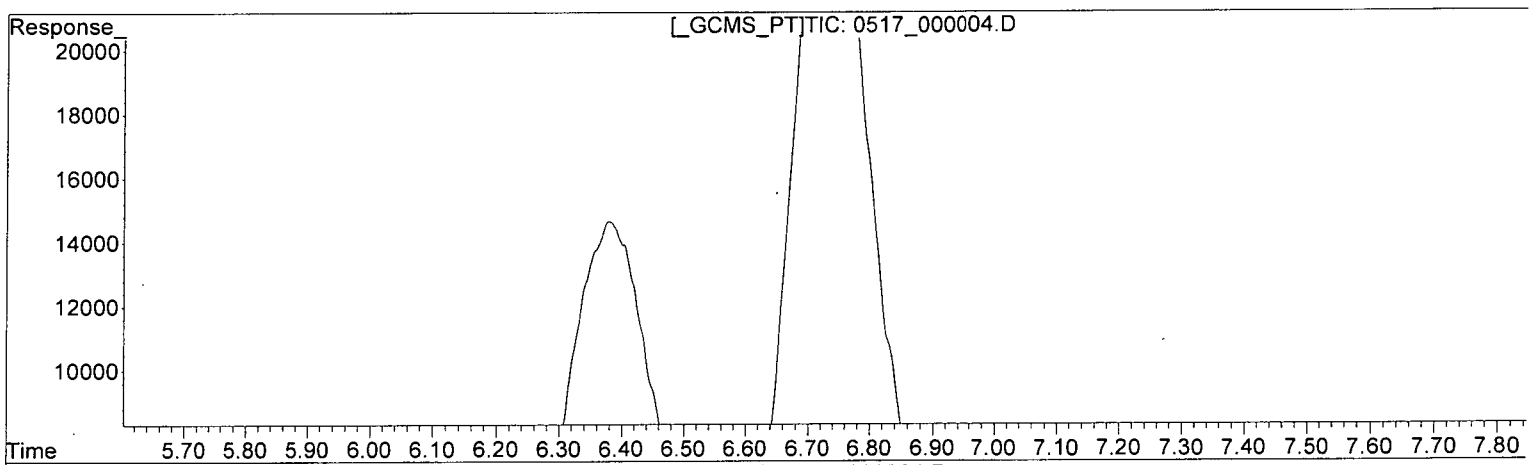
(+) = Expected Retention Time

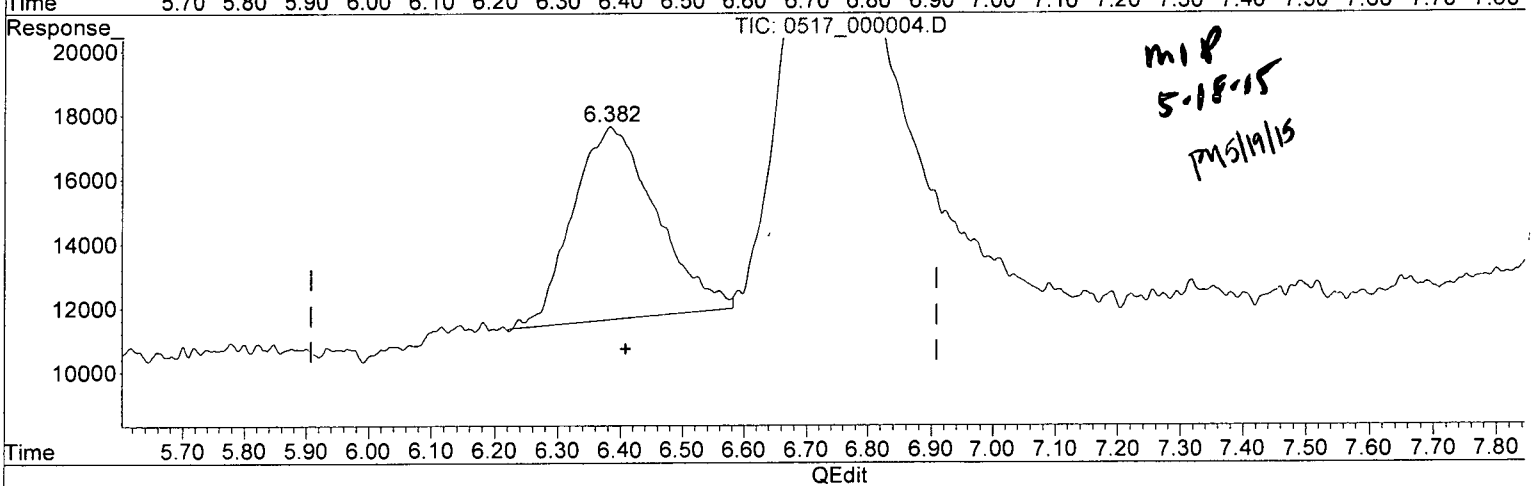
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:08:11
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:00 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 07:41:46 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
5-18-15
PM 5/19/15

(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.382min 3.247 ppb m

response 6014

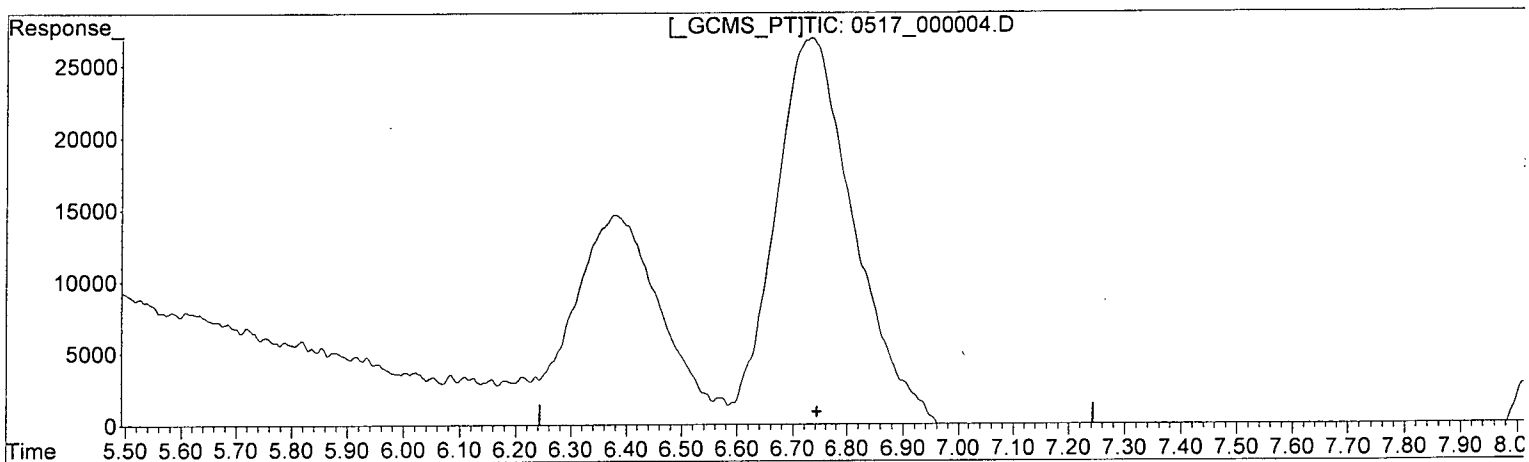
(+) = Expected Retention Time

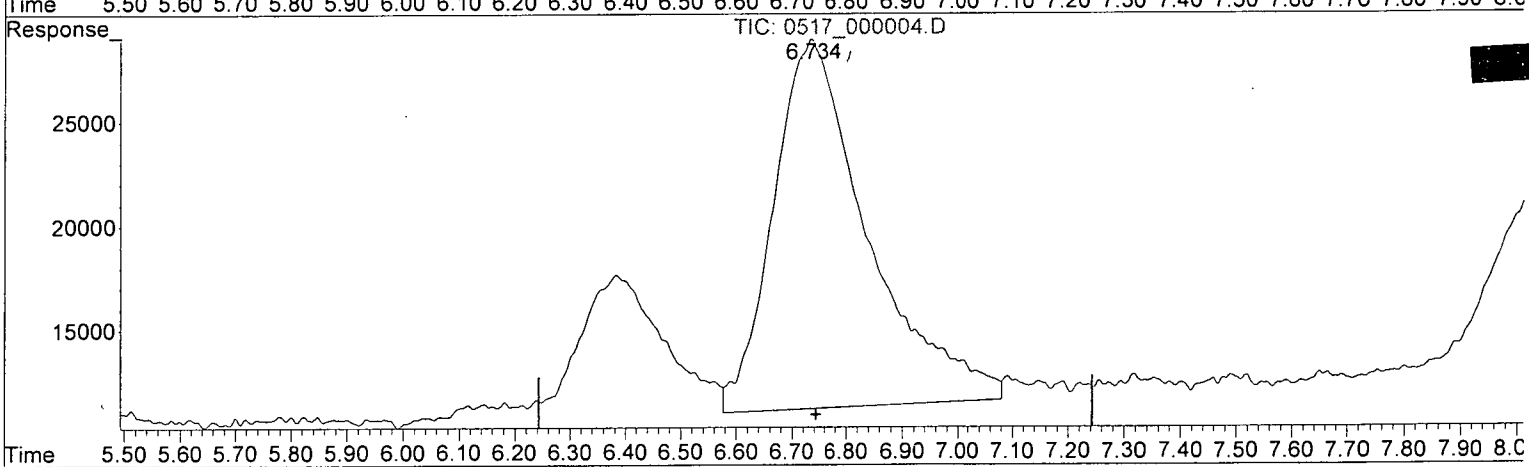
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:08:11
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:00 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 07:41:46 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)

6.735min 3.964 ppb

response 17717

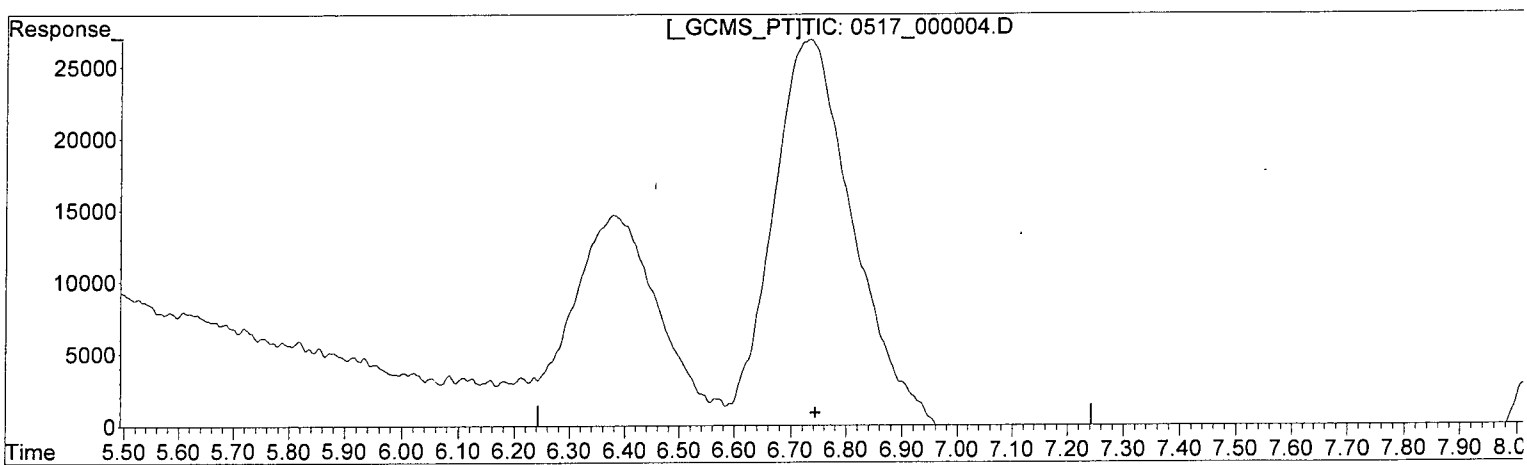
(+) = Expected Retention Time

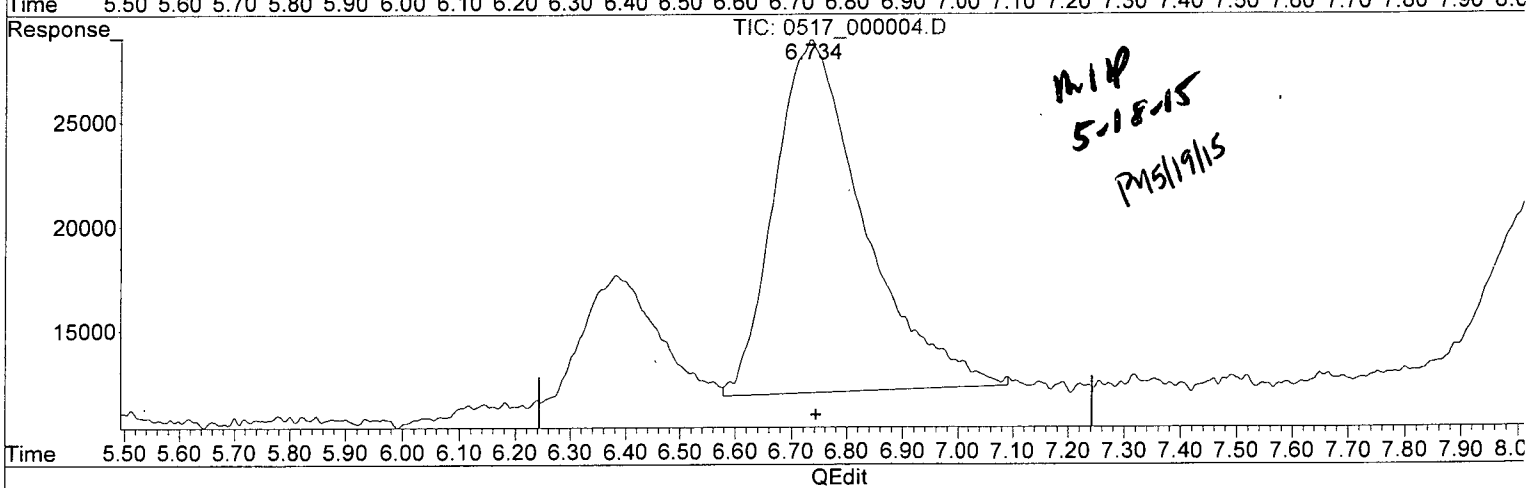
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:08:11
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:00 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 07:41:46 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
5-18-15
PM 5/19/15

(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.734min 3.792 ppb m

response 16951

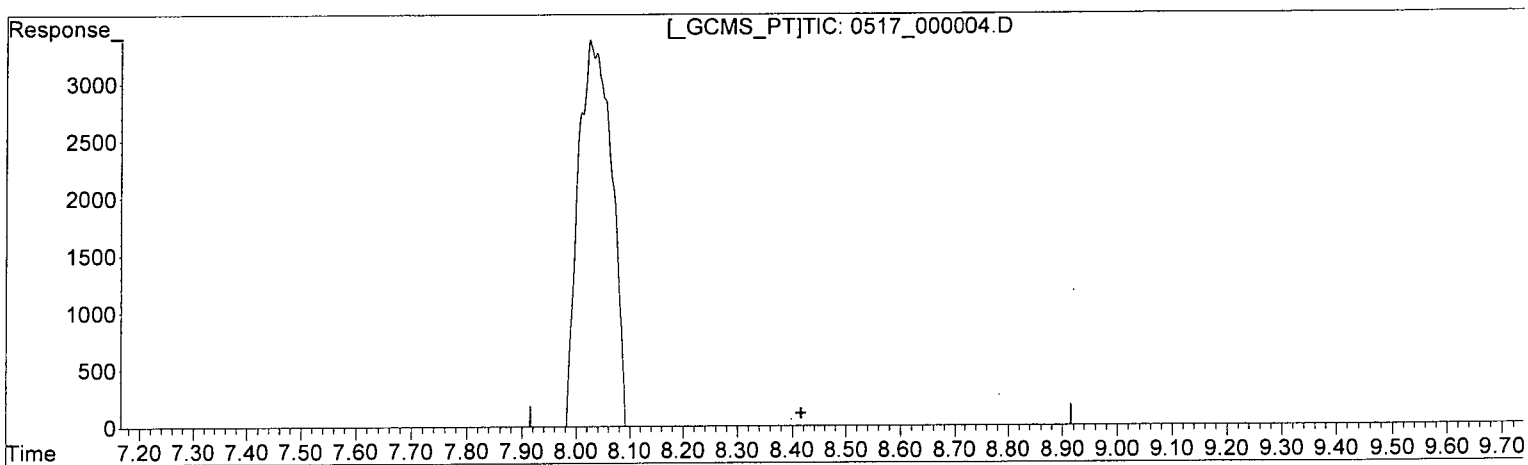
(+) = Expected Retention Time

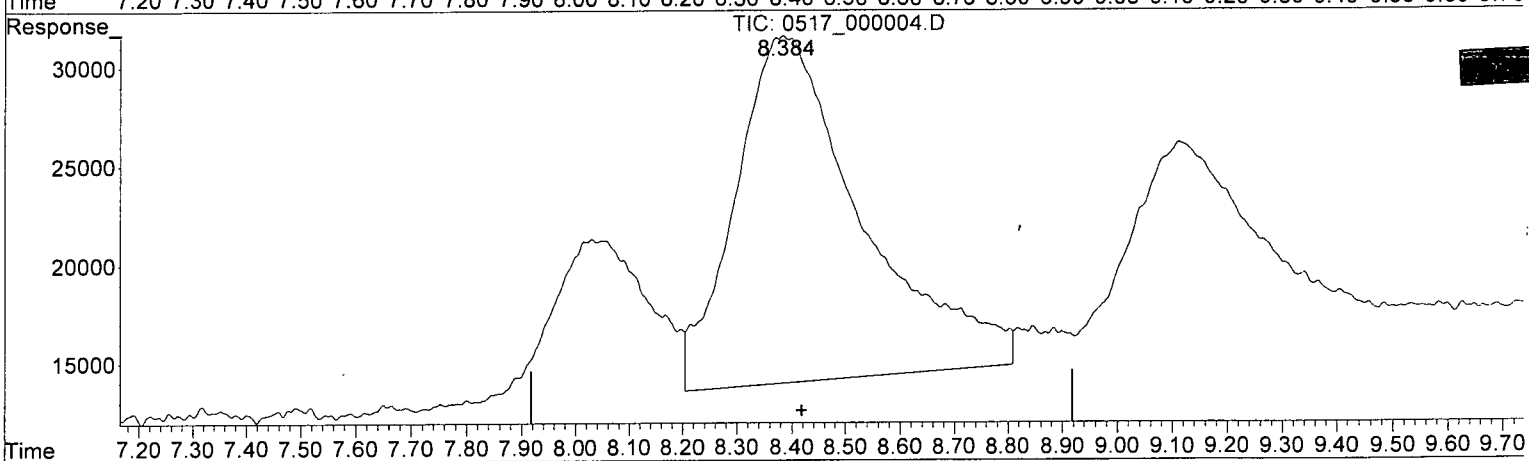
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:08:11
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:00 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 07:41:46 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)

8.384min 3.917 ppb

response 17616

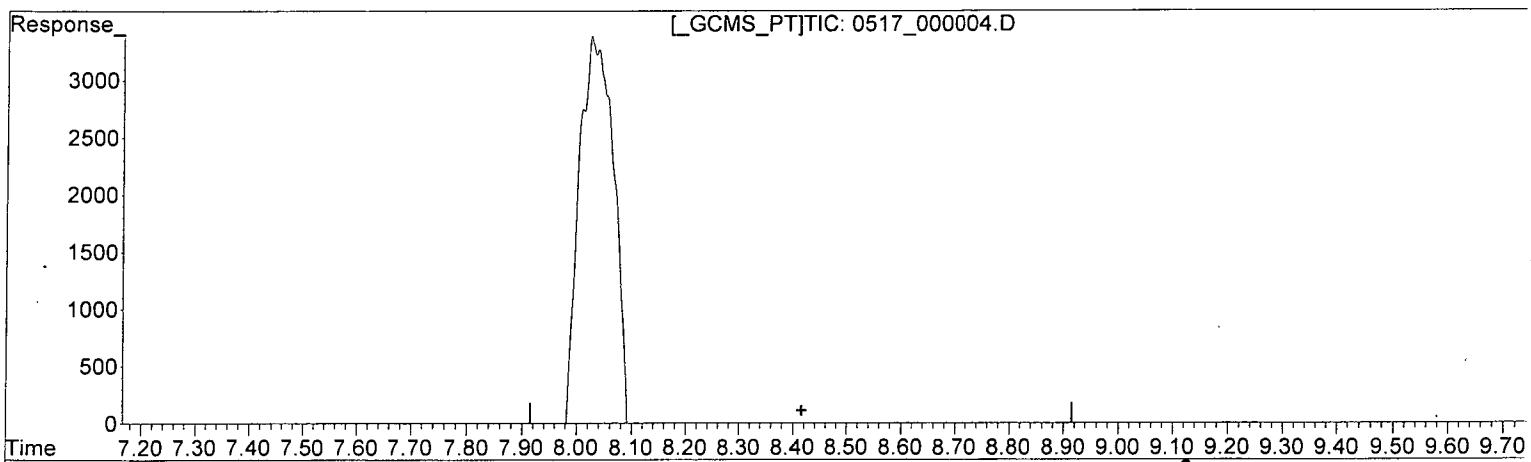
(+) = Expected Retention Time

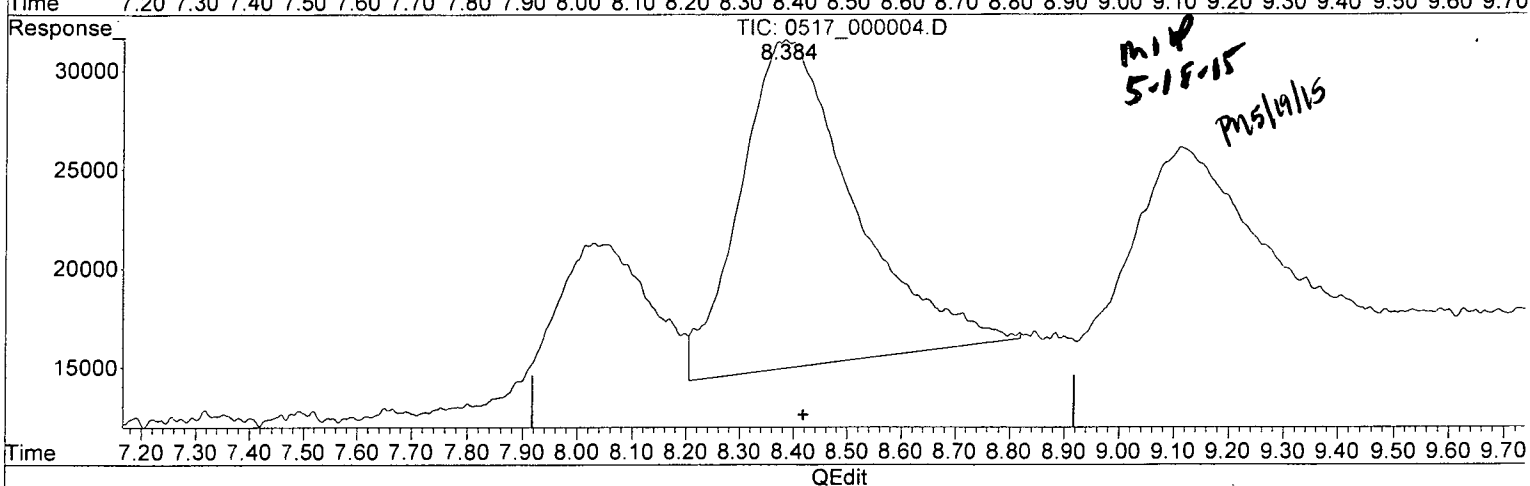
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:08:11
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:00 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 07:41:46 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)

8.384min 3.701 ppb m

response 16643

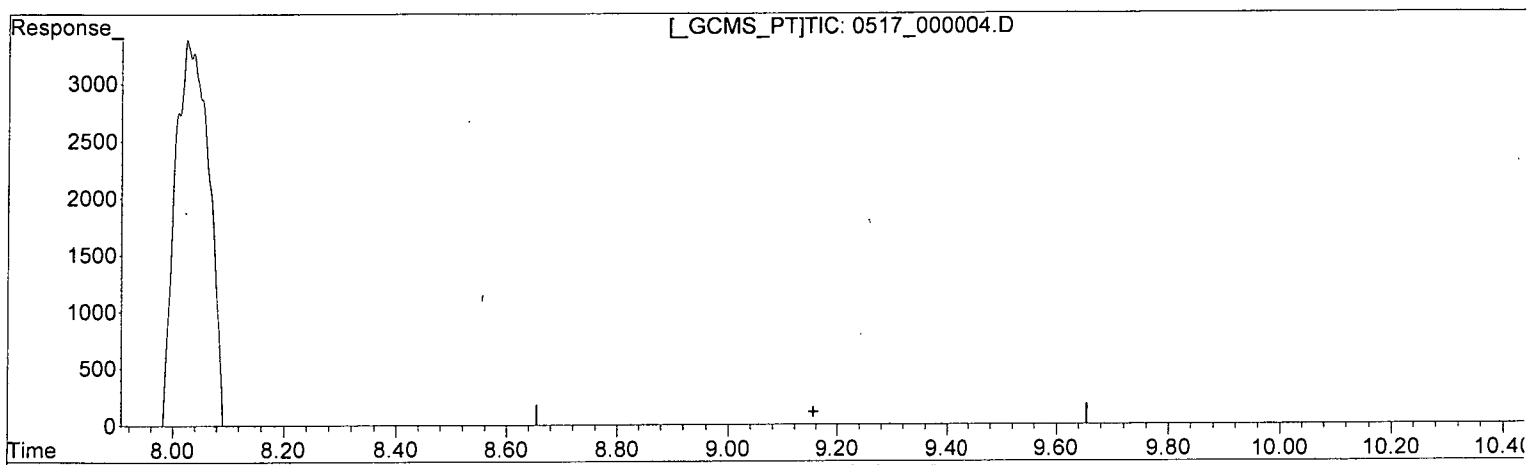
(+) = Expected Retention Time

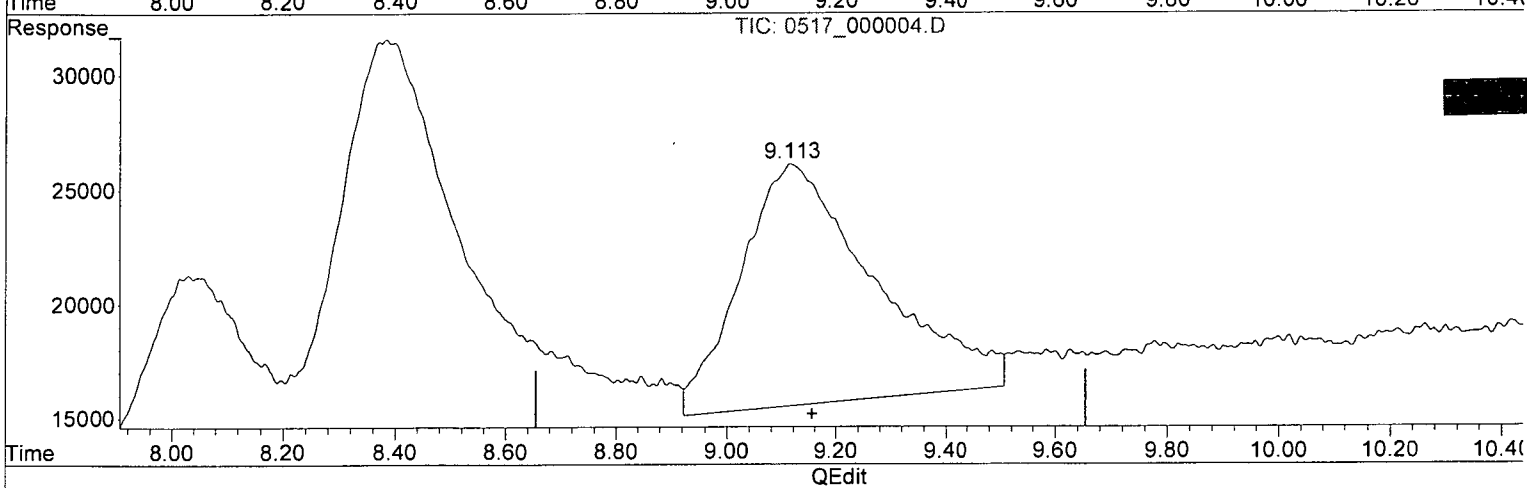
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:08:11
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:00 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 07:41:46 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)

9.116min 4.119 ppb

response 10552

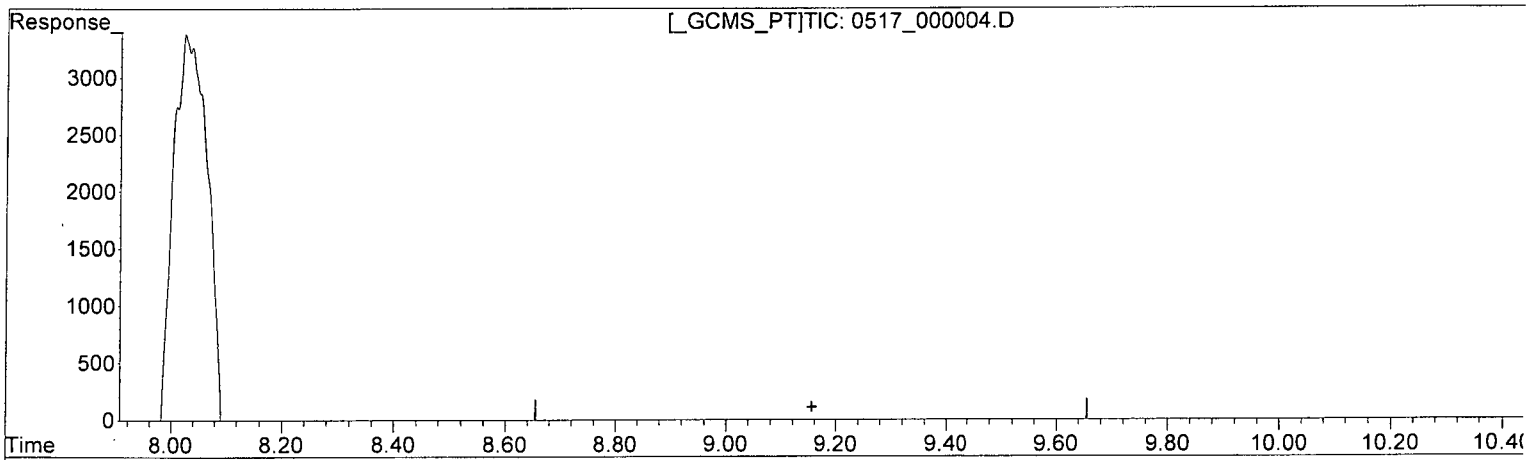
(+) = Expected Retention Time

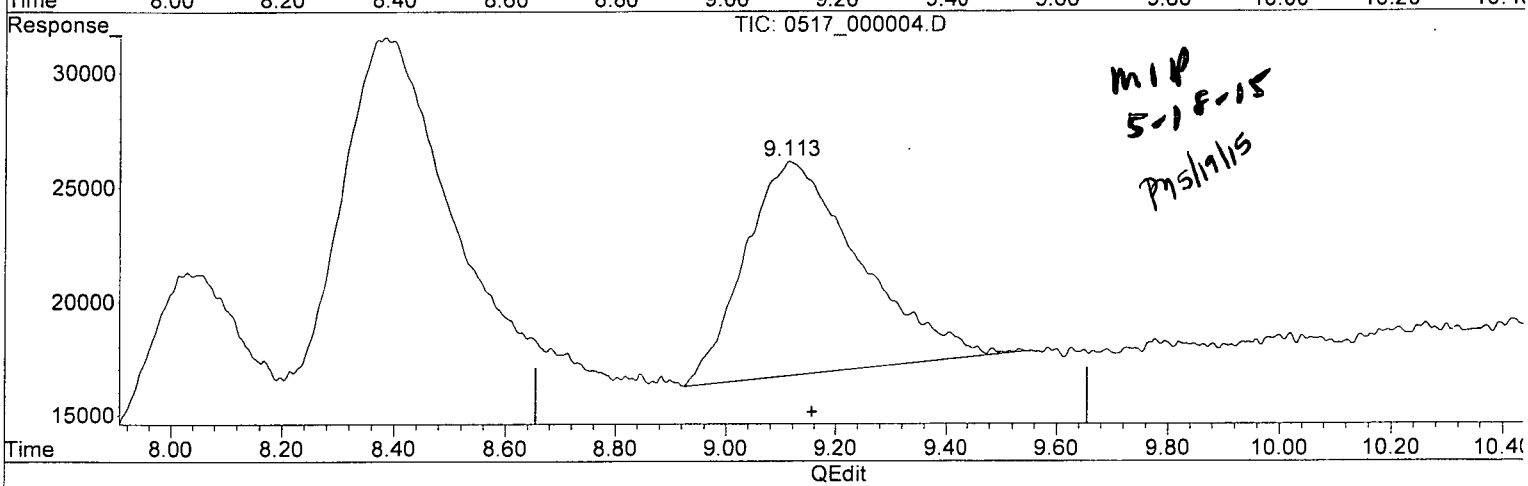
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:08:11
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:00 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 07:41:46 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
5-18-15
PMS/19/15

(6) NITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(6) NITROBENZENE #2 (TM)

9.113min 3.662 ppb m

response 9381

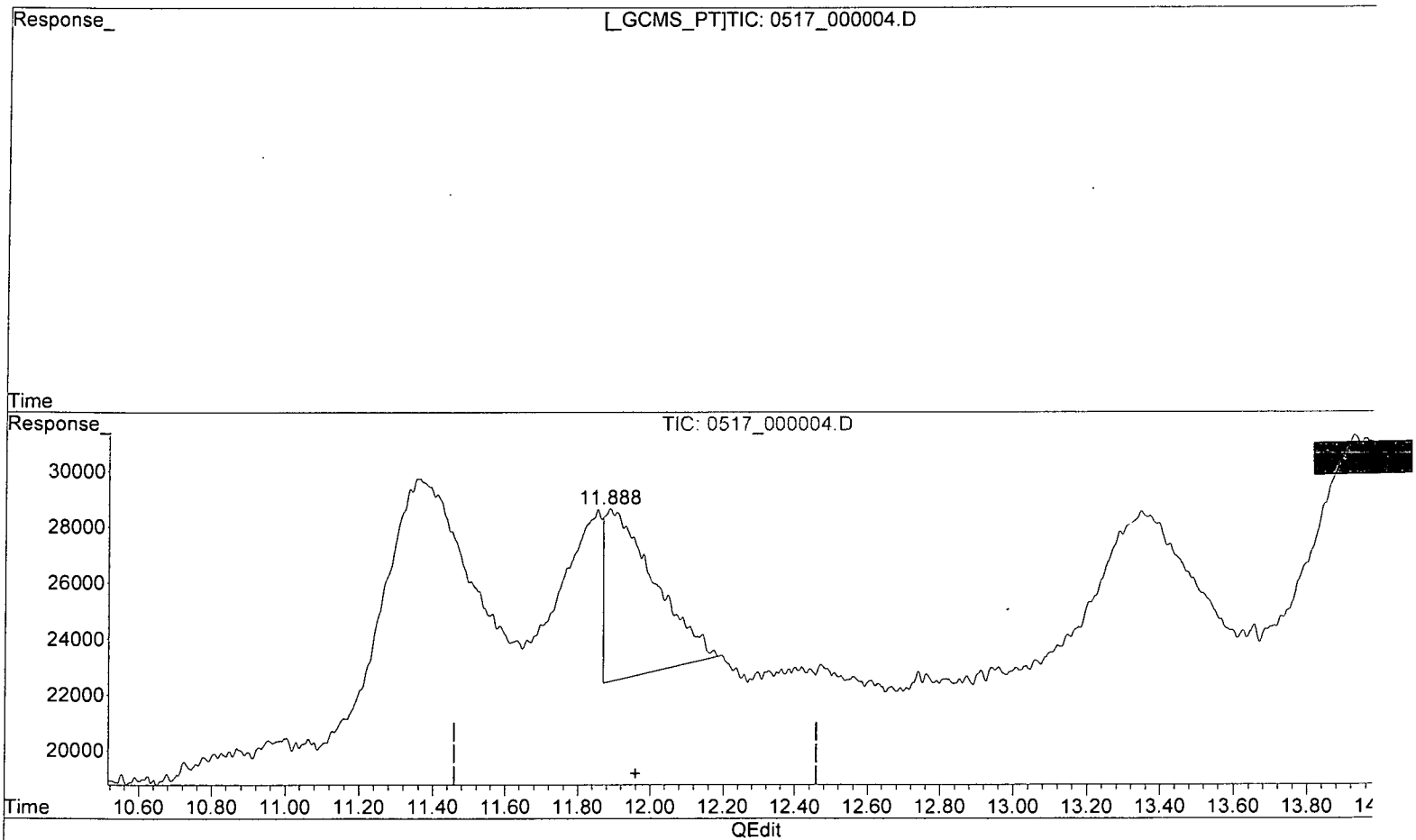
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:08:11
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:00 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 07:41:46 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-



(9) TETRYL (TM)

11.864min 0.000 ppb

response 6552

(9) TETRYL #2 (TM)

11.889min 3.751 ppb

response 6179

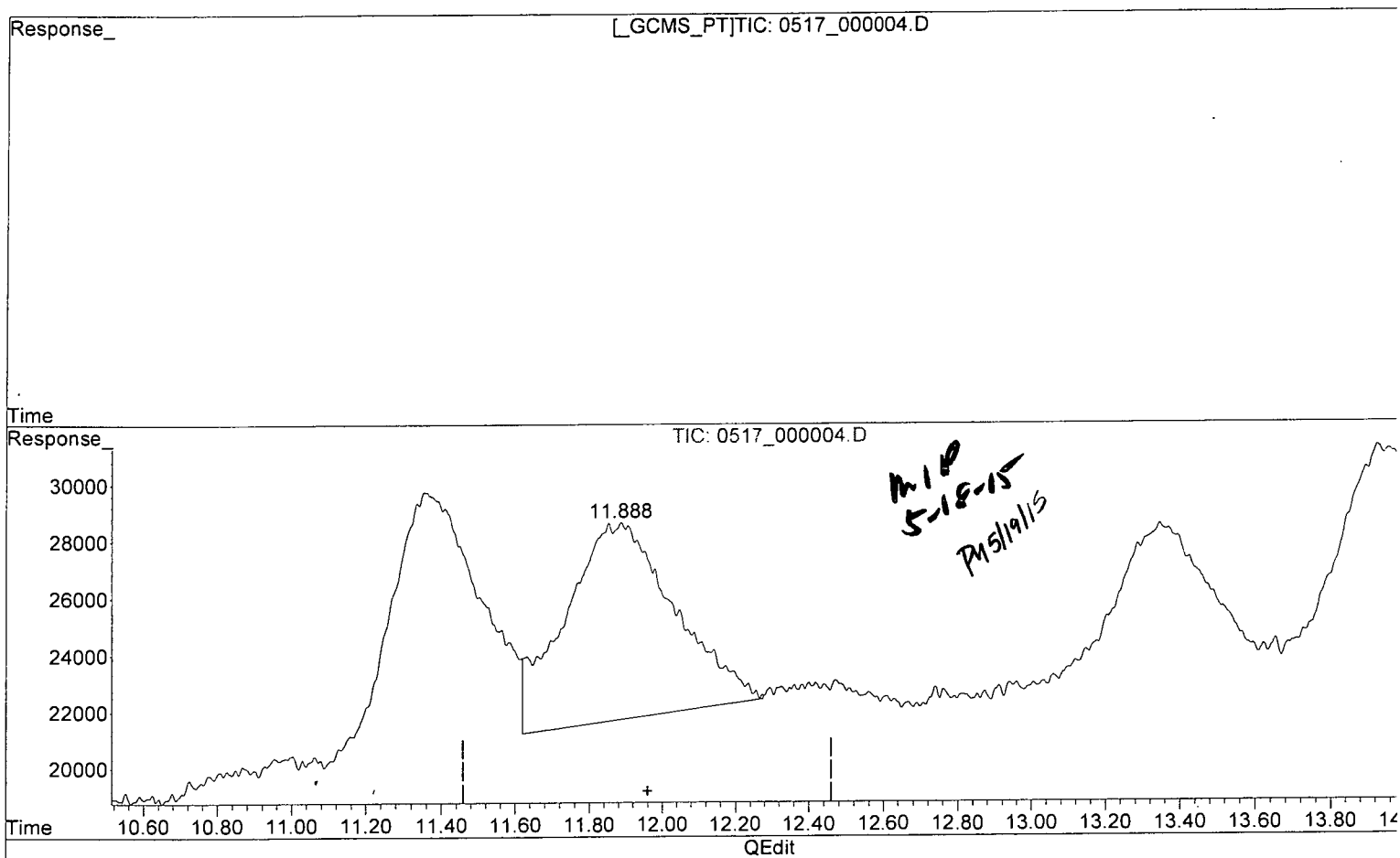
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:08:11
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:00 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 07:41:46 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-



(9) TETRYL (TM)

11.864min 0.000 ppb

response 6552

(9) TETRYL #2 (TM)

11.888min 4.216 ppb m

response 6945

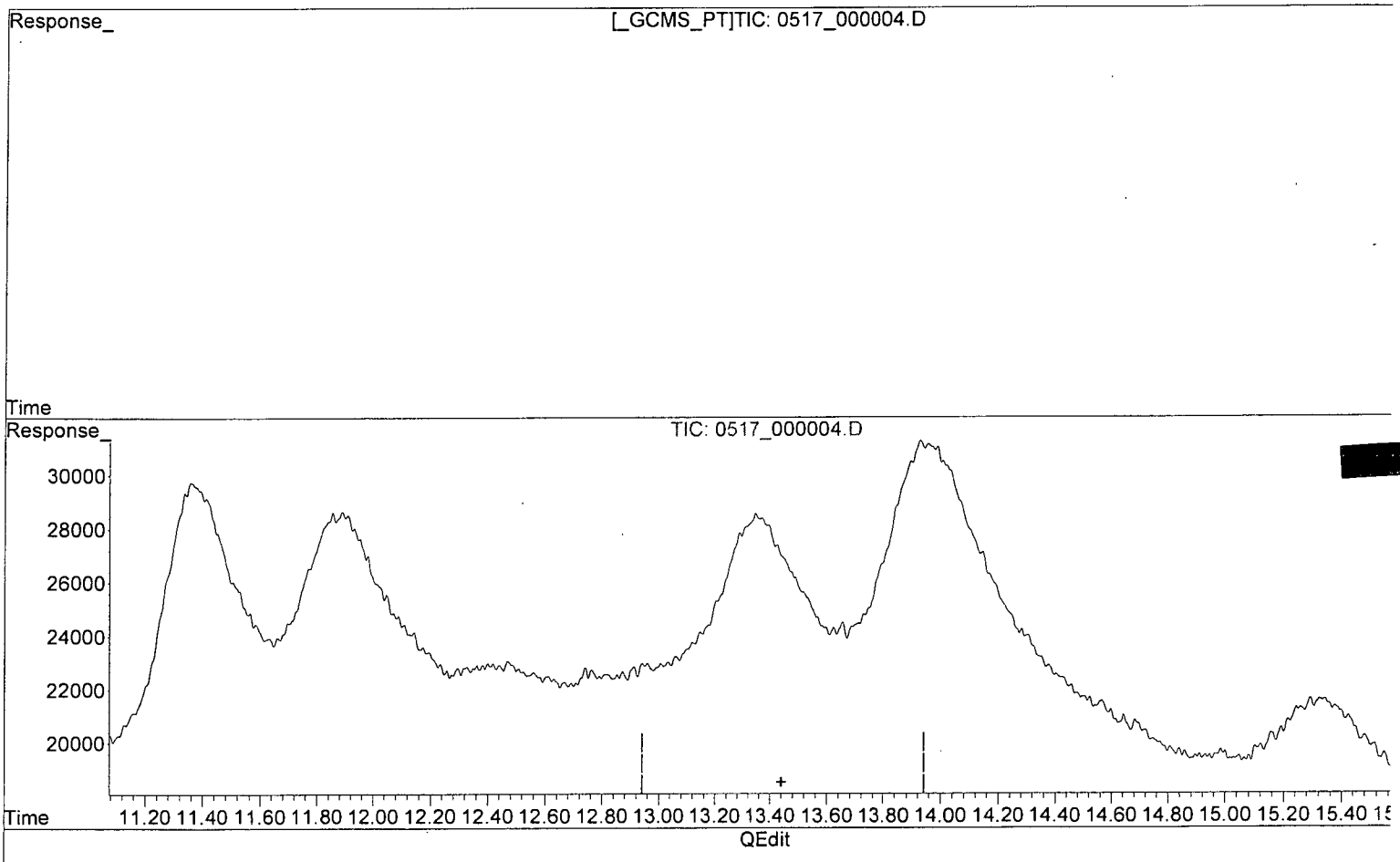
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:08:11
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:00 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 07:41:46 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)

13.331min 0.000 ppb

response 7869

(10) 2,6-DINITROTOLUENE #2 (TM)

0.000min 0.000 ppb

response 0

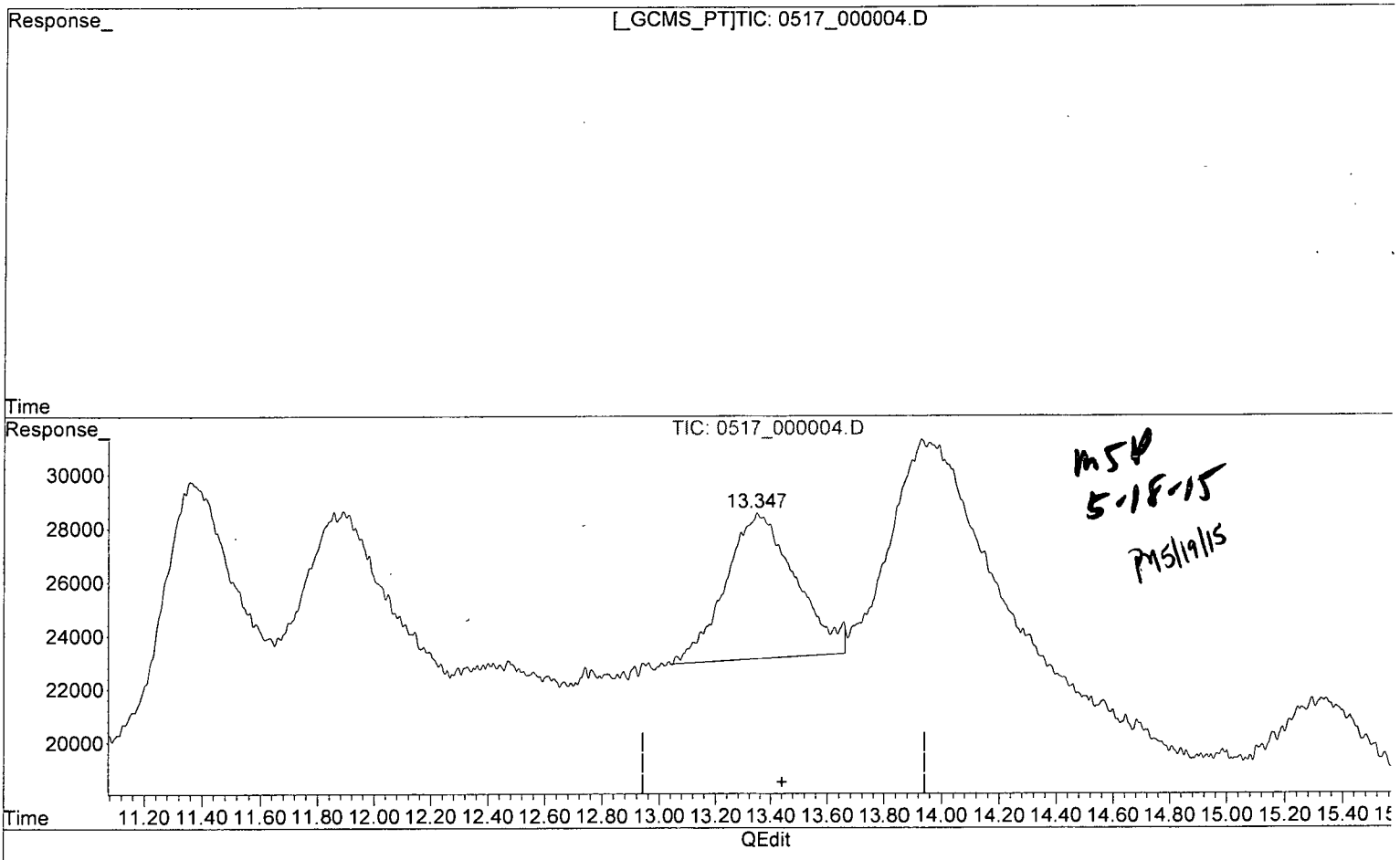
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:08:11
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:00 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 07:41:46 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)

13.331min 0.000 ppb

response 7869

(10) 2,6-DINITROTOLUENE #2 (TM)

13.347min 3.689 ppb m

response 5449

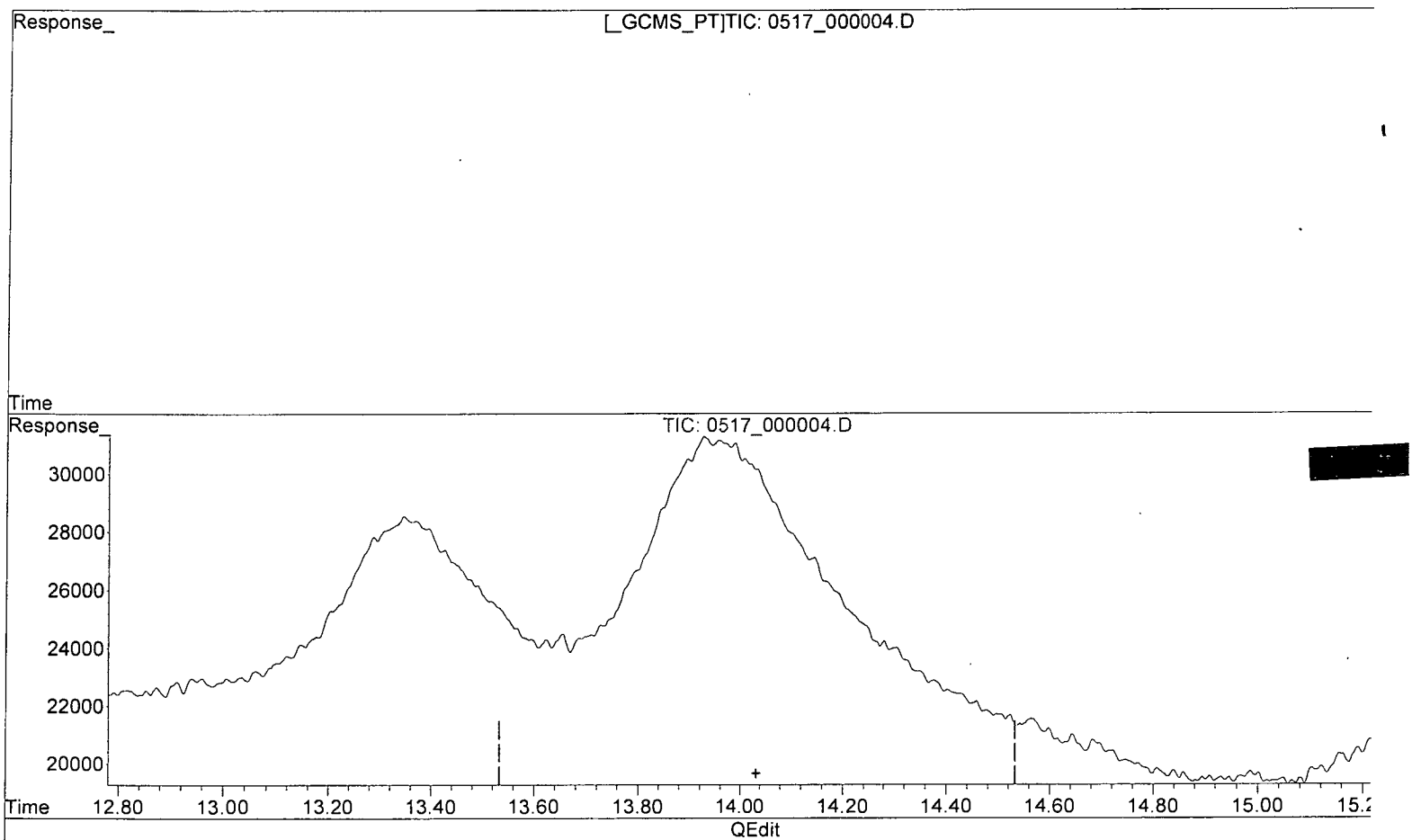
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:08:11
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:00 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 07:41:46 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

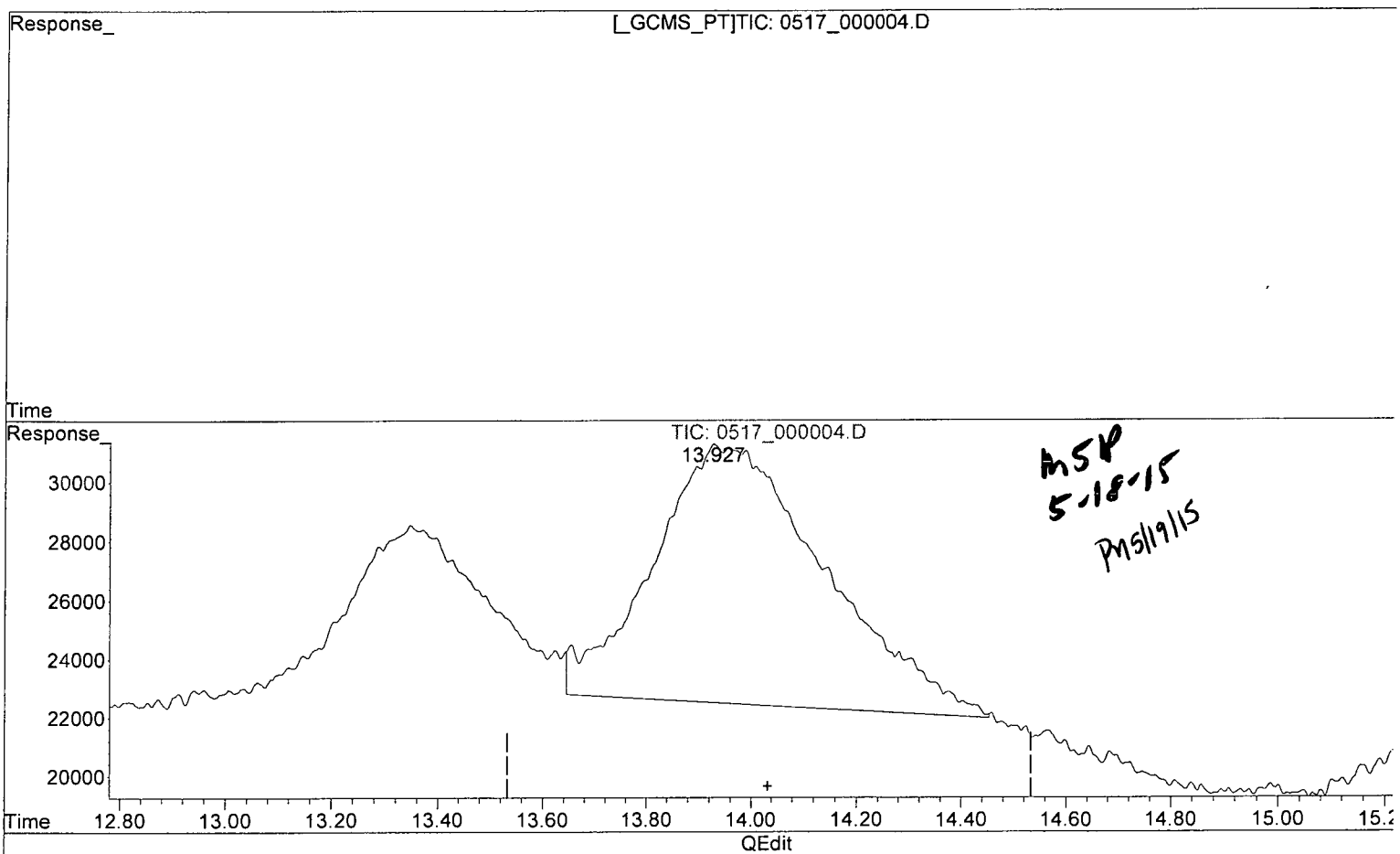
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:08:11
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:00 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 07:41:46 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
5-18-15
PM 5/19/15

(11) 2,4-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(11) 2,4-DINITROTOLUENE #2 (TM)

13.927min 3.491 ppb m

response 8795

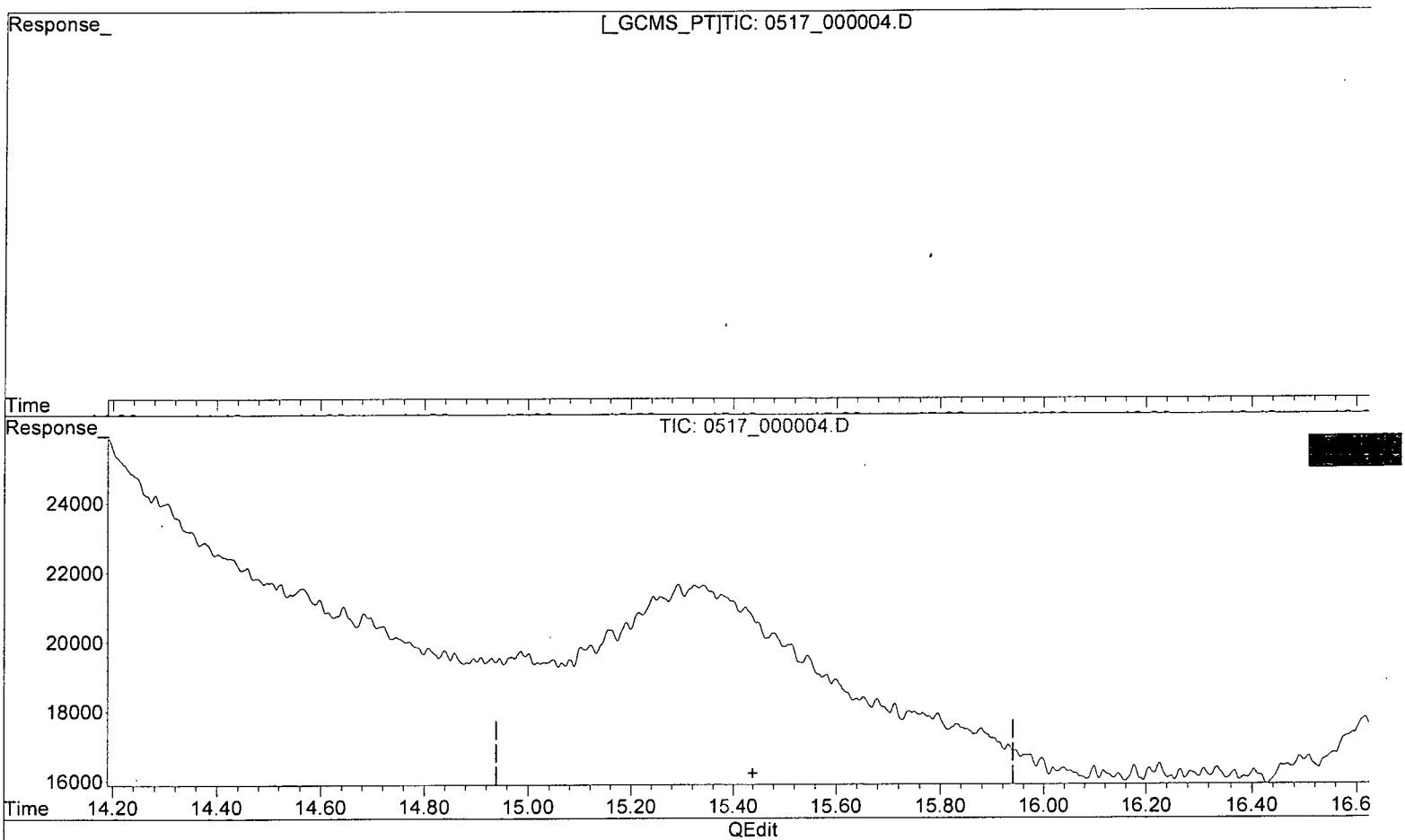
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:08:11
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:00 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 07:41:46 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

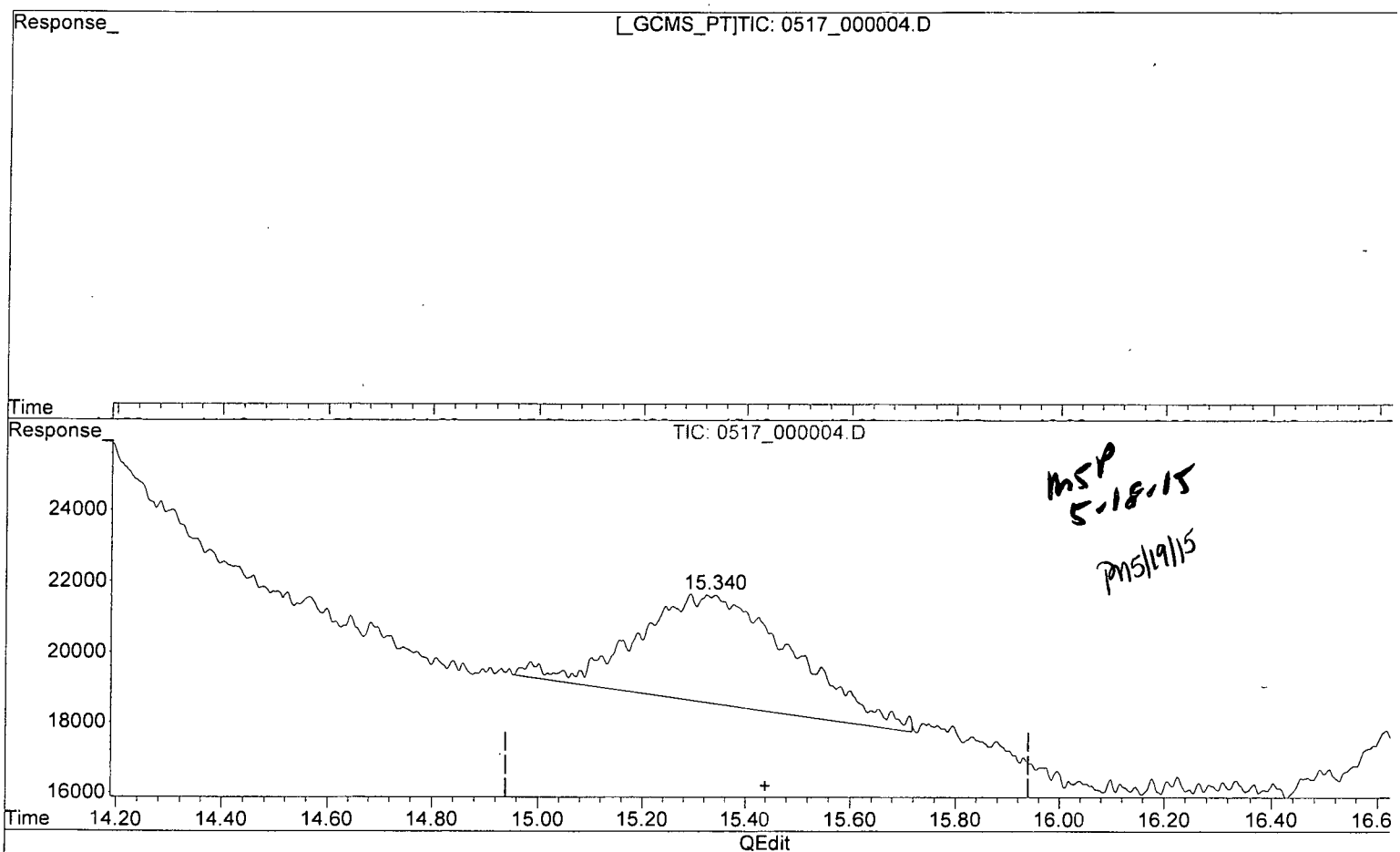
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:08:11
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:00 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 07:41:46 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 5-18-15

PM 5/19/15

(12) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(12) 2-NITROTOLUENE #2 (TM)

15.340min 2.916 ppb m

response 3075

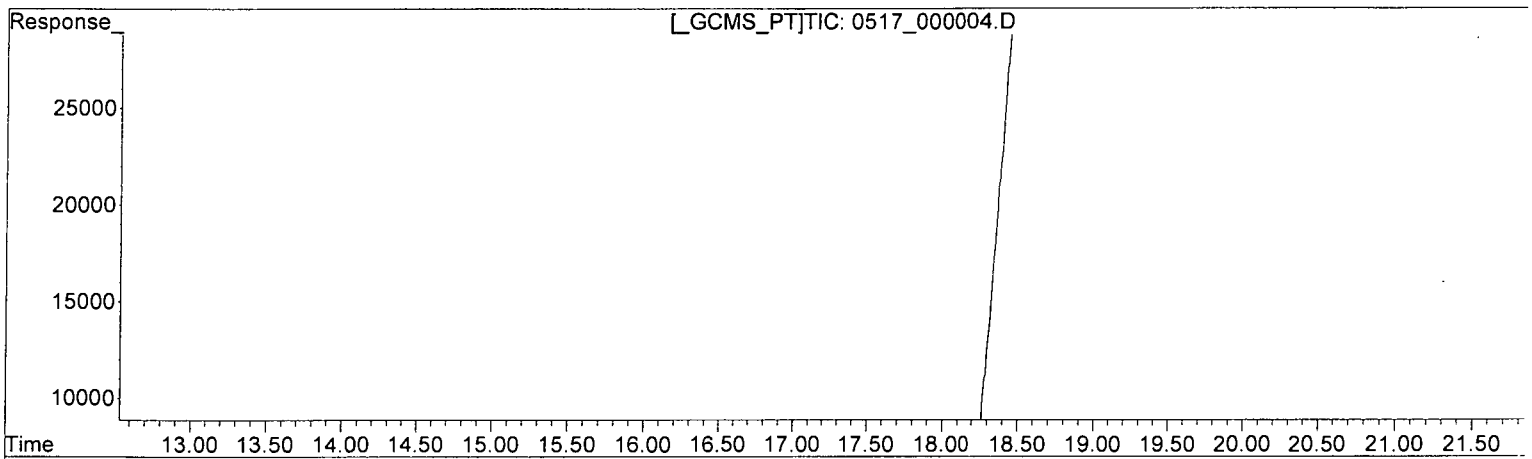
(+) = Expected Retention Time

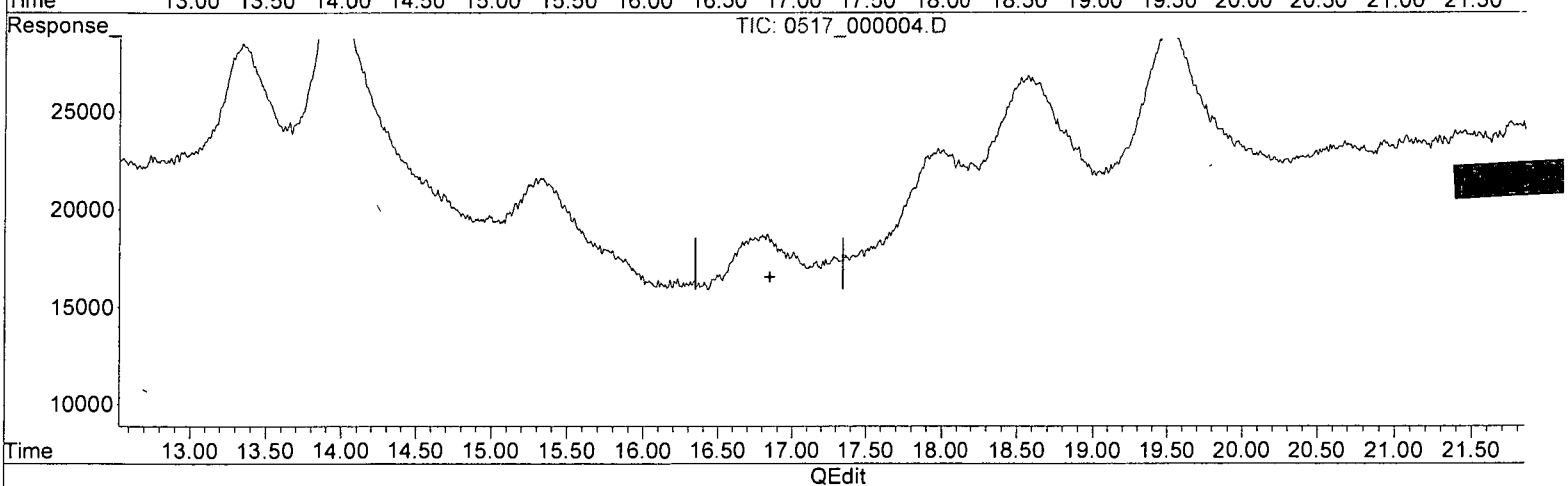
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:08:11
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:00 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 07:41:46 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-





(13) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(13) 4-NITROTOLUENE #2 (TM)

0.000min 0.000 ppb

response 0

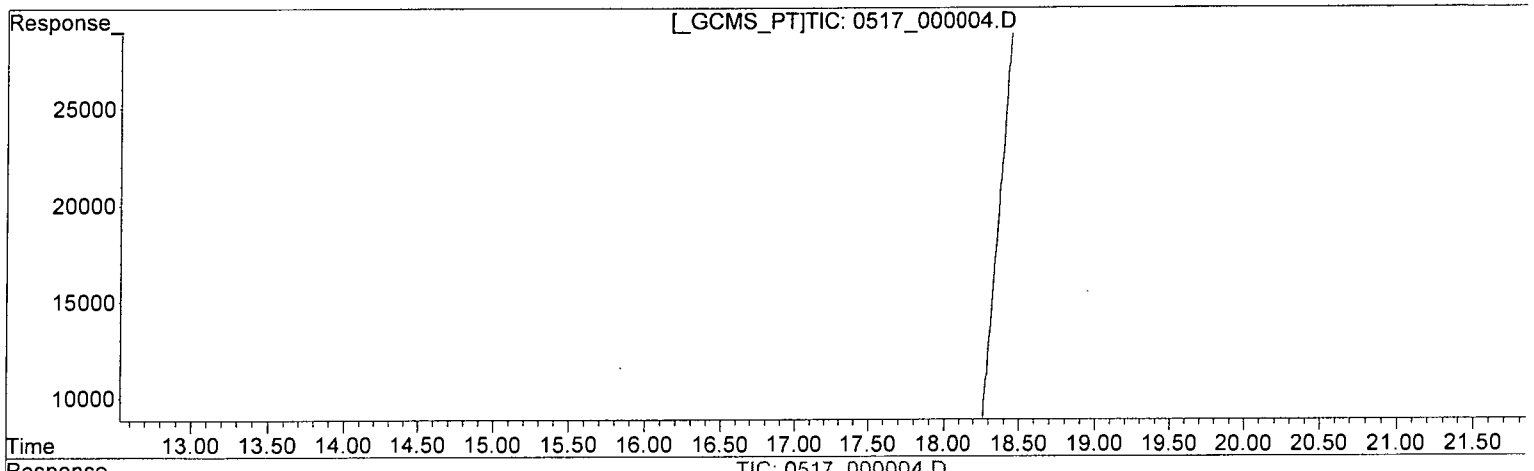
(+) = Expected Retention Time

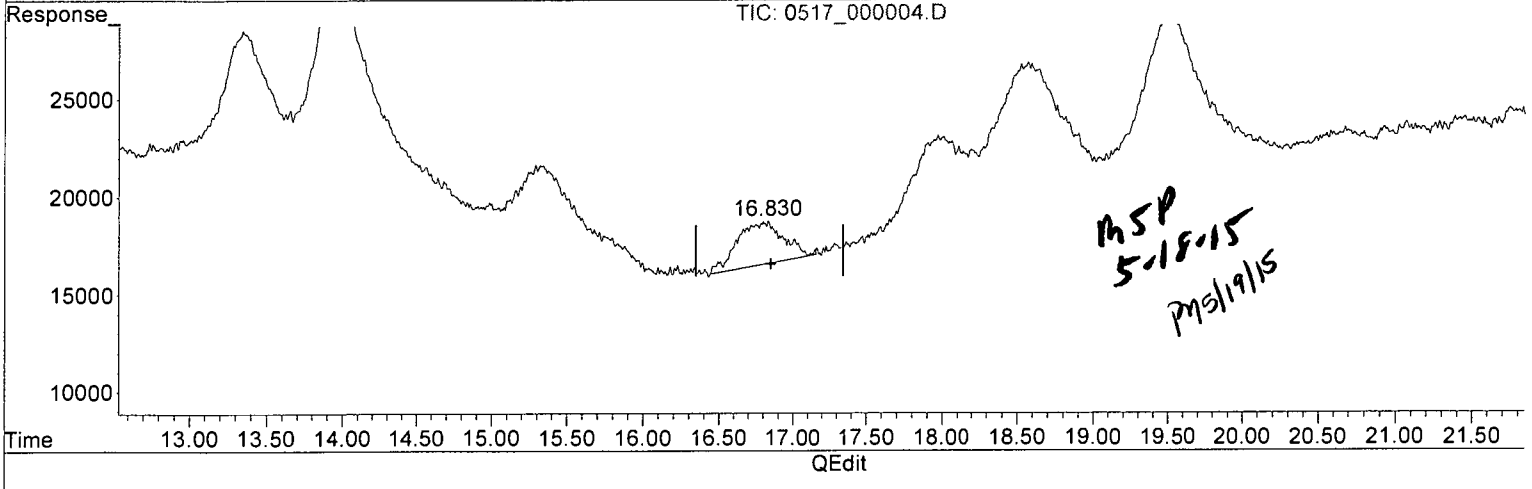
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:08:11
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:00 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 07:41:46 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-





(13) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(13) 4-NITROTOLUENE #2 (TM)

16.830min 2.493 ppb m

response 2183

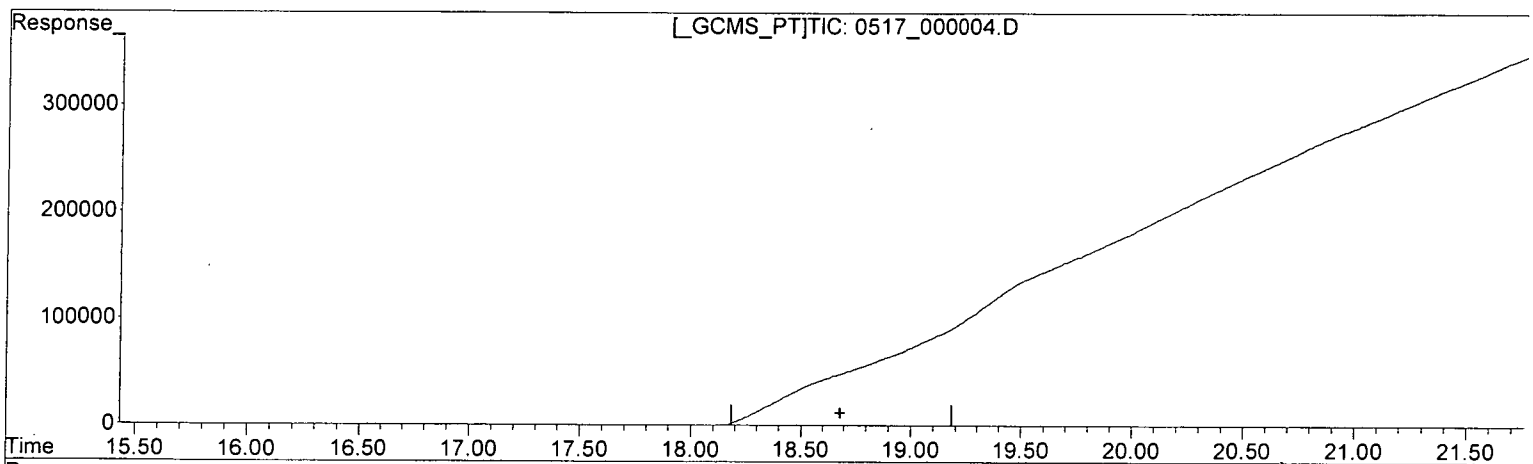
(+) = Expected Retention Time

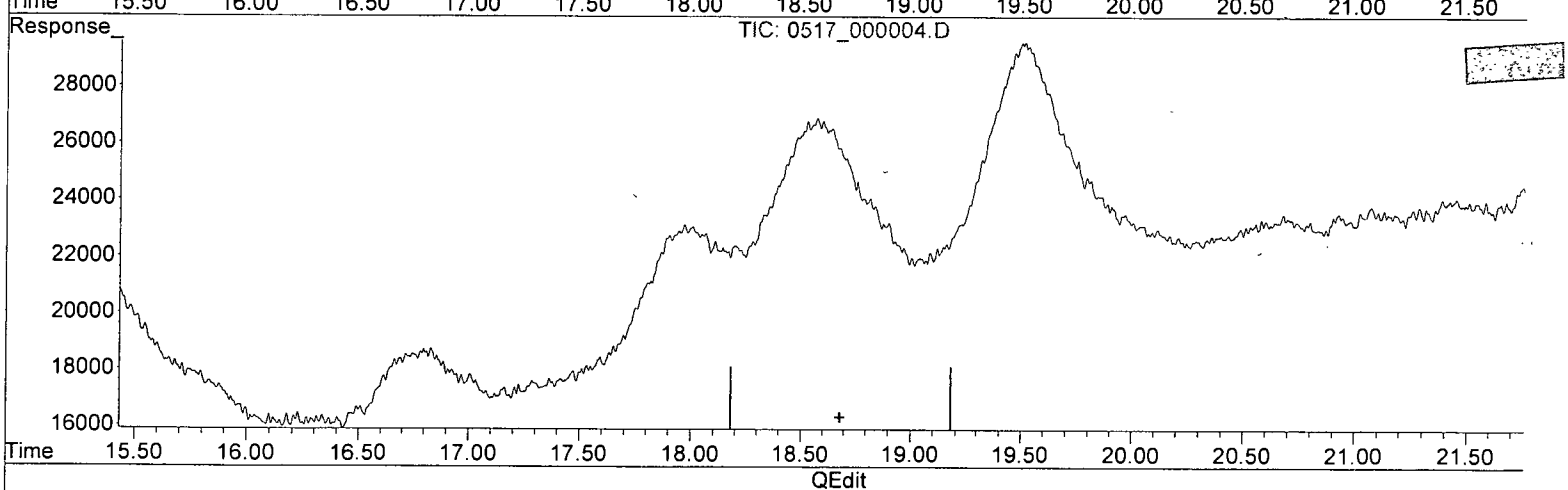
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:08:11
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:00 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 07:41:46 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

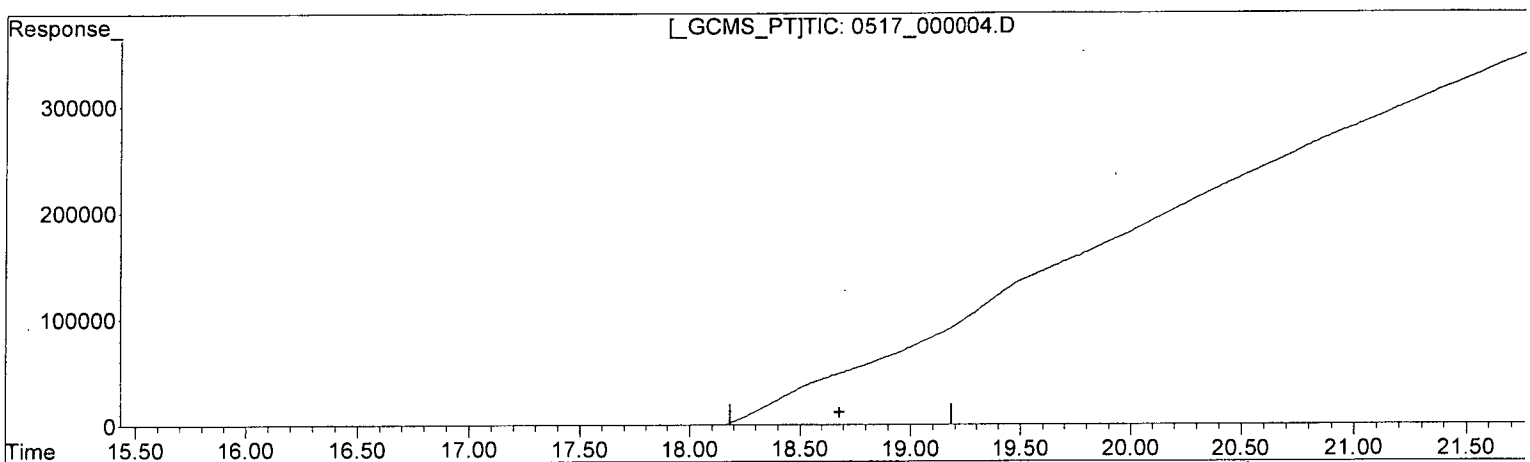
(+) = Expected Retention Time

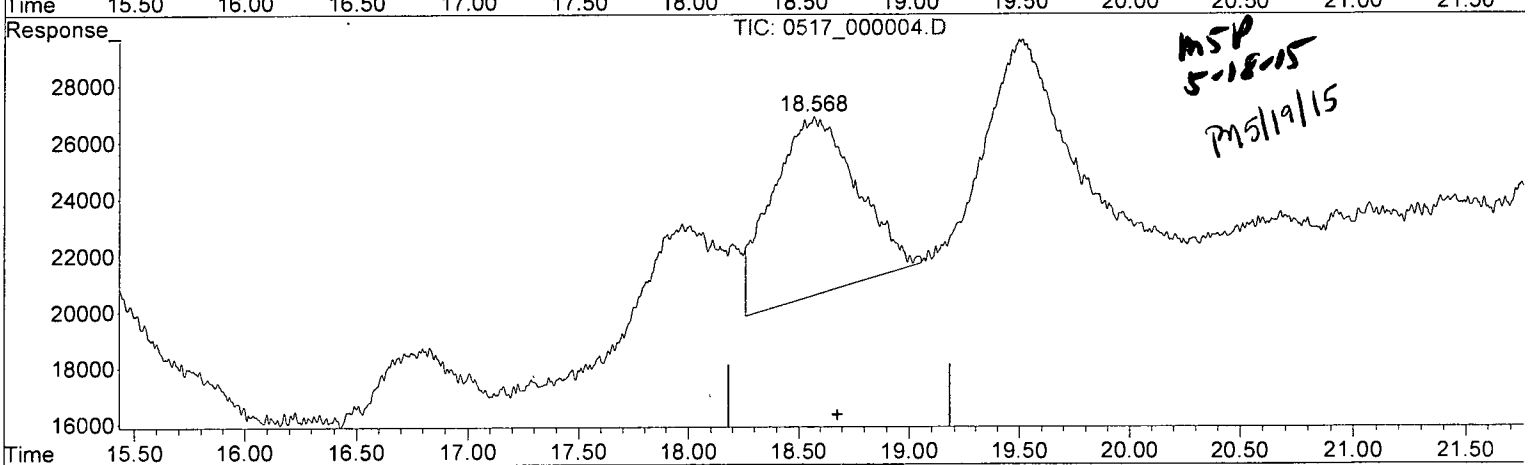
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:08:11
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:00 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 07:41:46 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 5-18-15
PM 5/19/15

(16) 4-AMINO-2,6-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-AMINO-2,6-DINITROTOLUENE #2 (TM)

18.568min 4.516 ppb m

response 6326

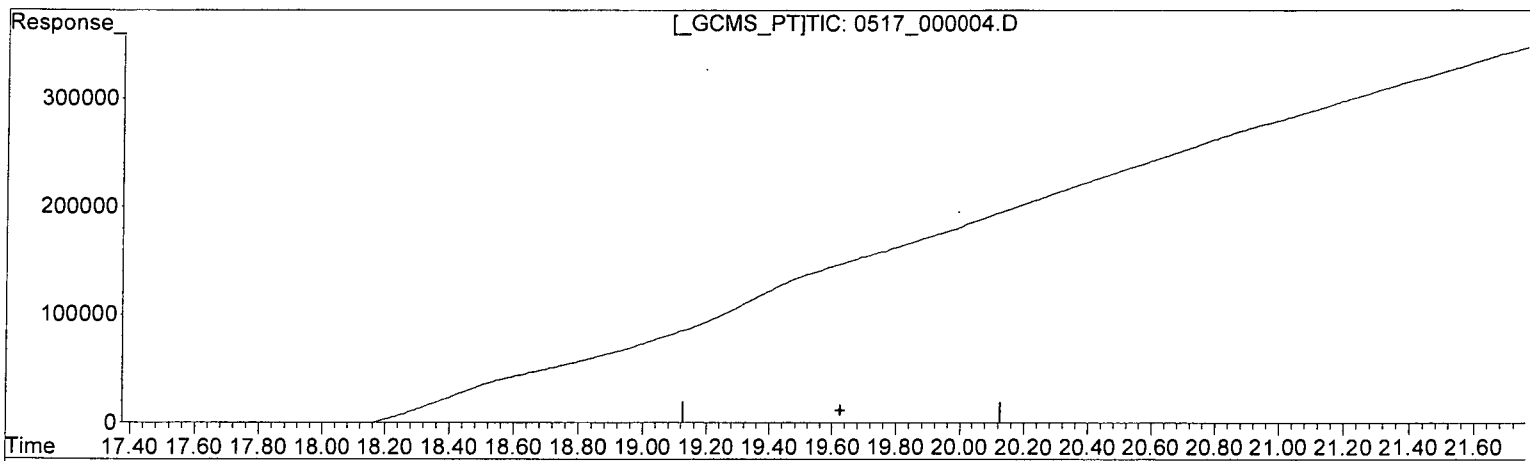
(+) = Expected Retention Time

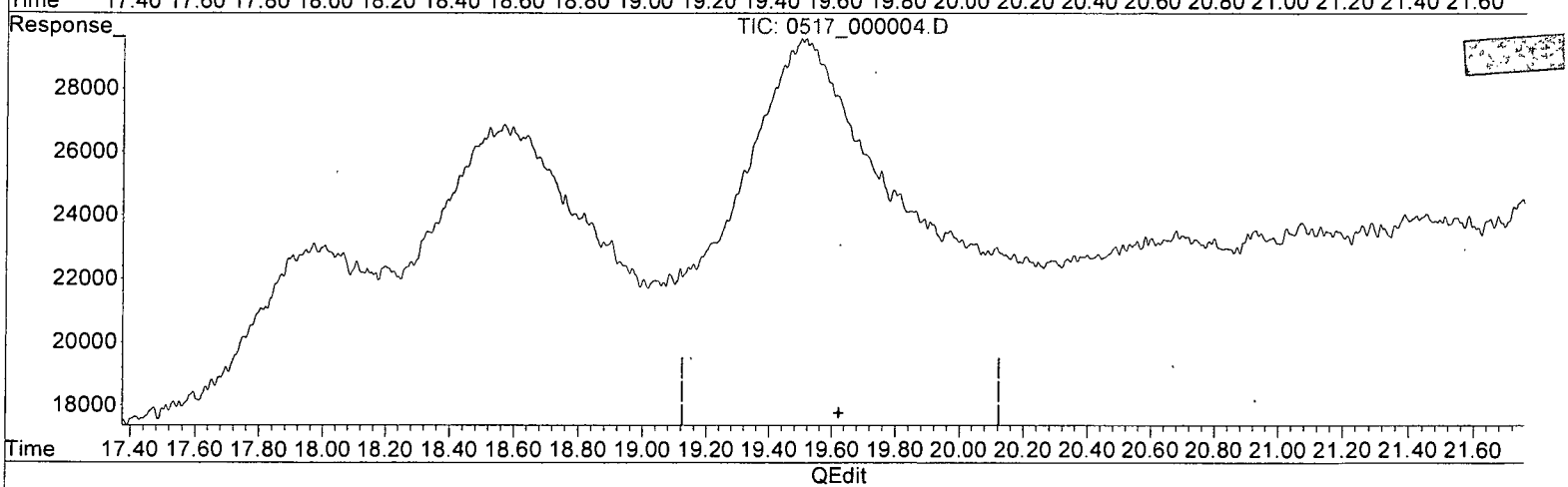
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:08:11
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:00 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 07:41:46 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-





(17) 2-AMINO-4,6-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(17) 2-AMINO-4,6-DINITROTOLUENE #2 (TM)

0.000min 0.000 ppb

response 0

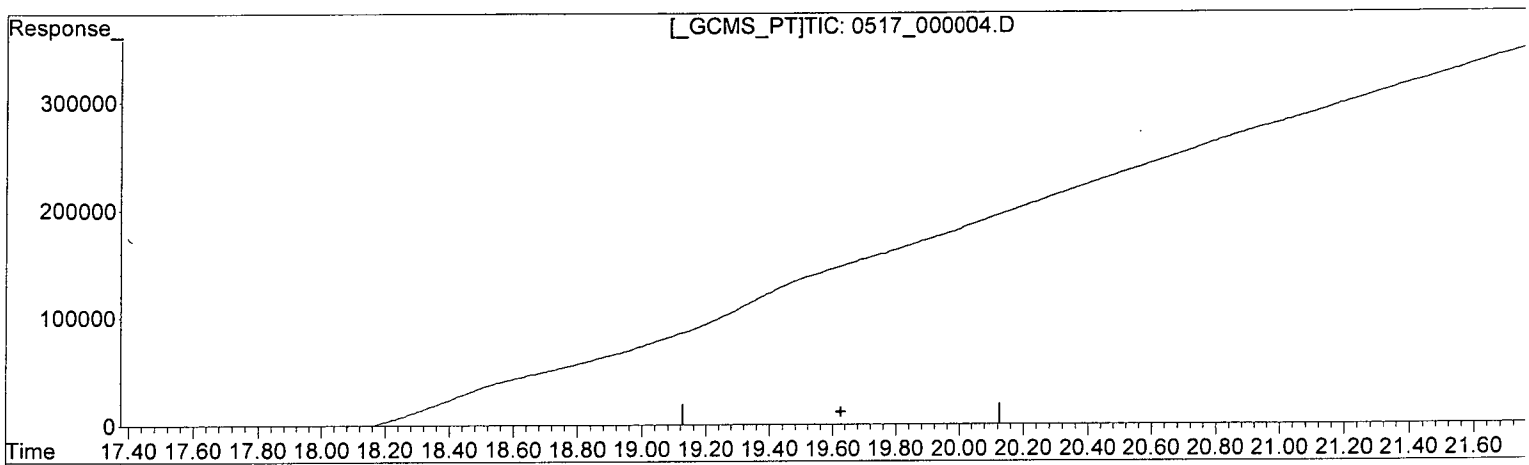
(+) = Expected Retention Time

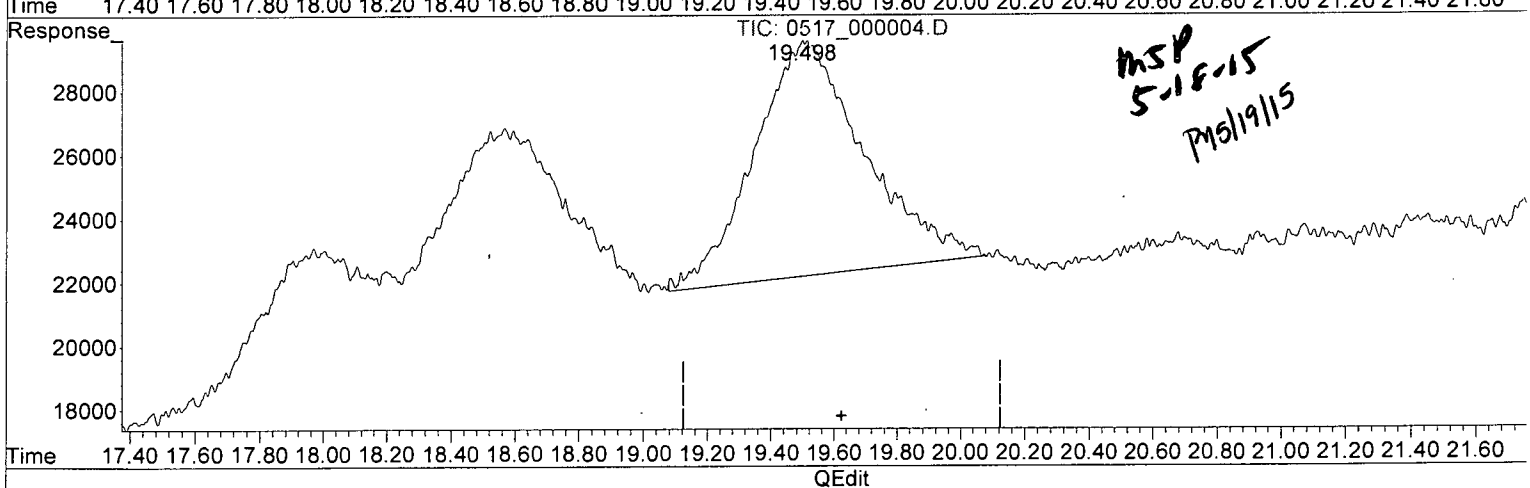
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:08:11
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:00 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 07:41:46 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 5-18-15
PMS/19/15

(17) 2-AMINO-4,6-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(17) 2-AMINO-4,6-DINITROTOLUENE #2 (TM)

19.498min 3.640 ppb m

response 7420

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000005.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:47:43
Operator : MP
Sample : 8330MXB_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4097 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:09:06 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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
icrón

	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...	11.943	0.000	1951	0	2.143	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.	N.D.
14)	TM 3,5-DINIT...	0.000	16.490	0	7726	N.D.	3.870m#
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.

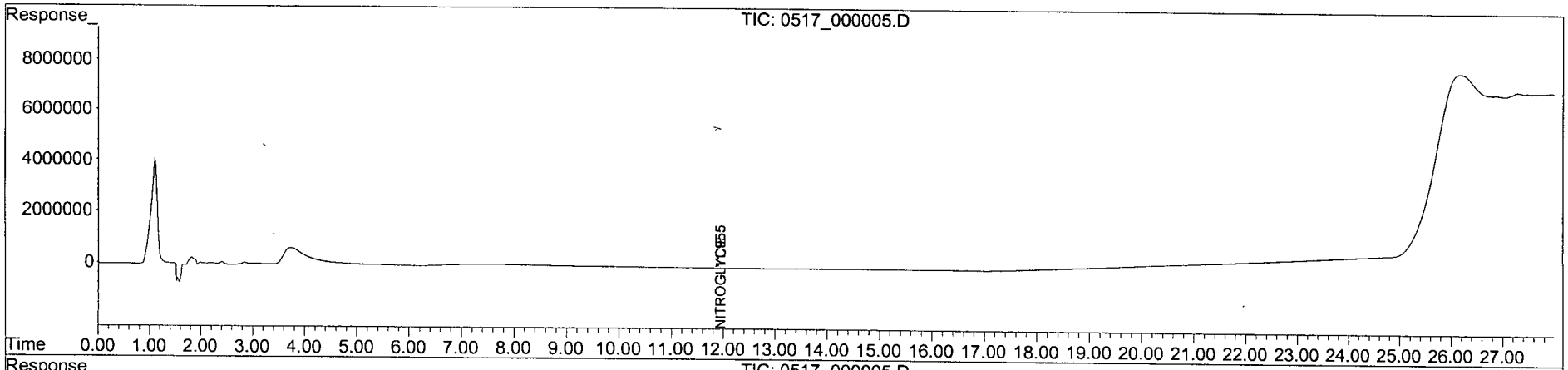
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

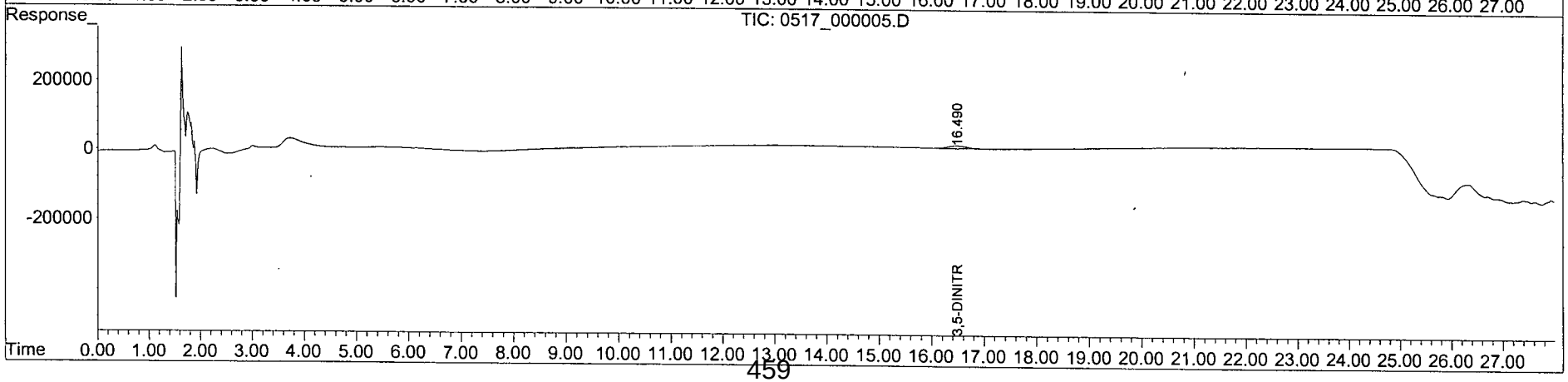
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000005.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:47:43
Operator : MP
Sample : 8330MXB_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4097 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:09:06 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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



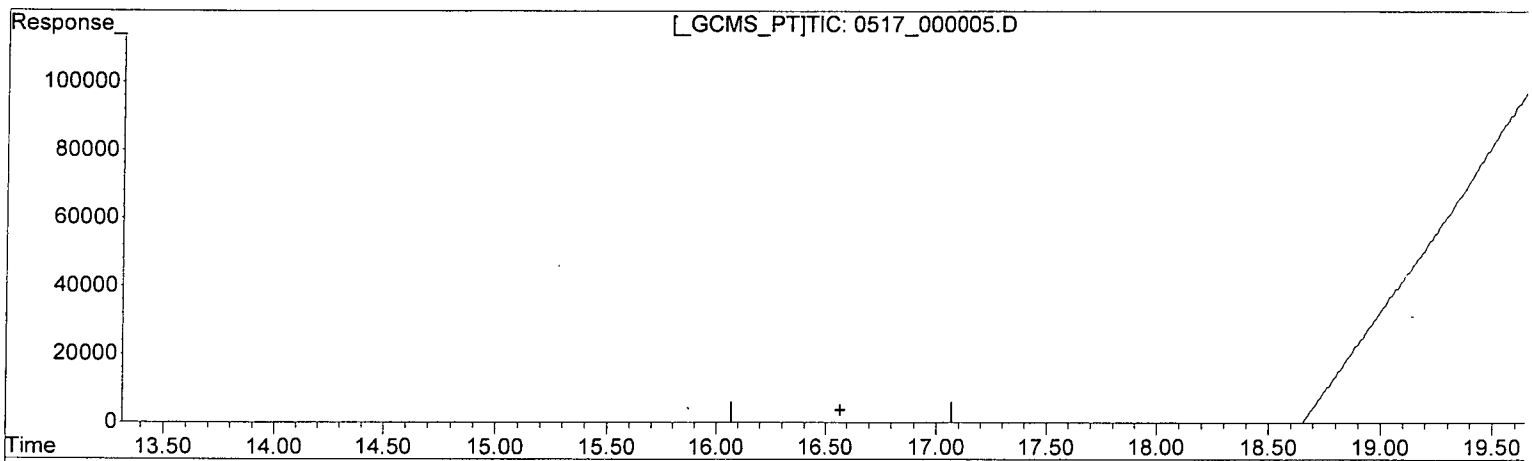


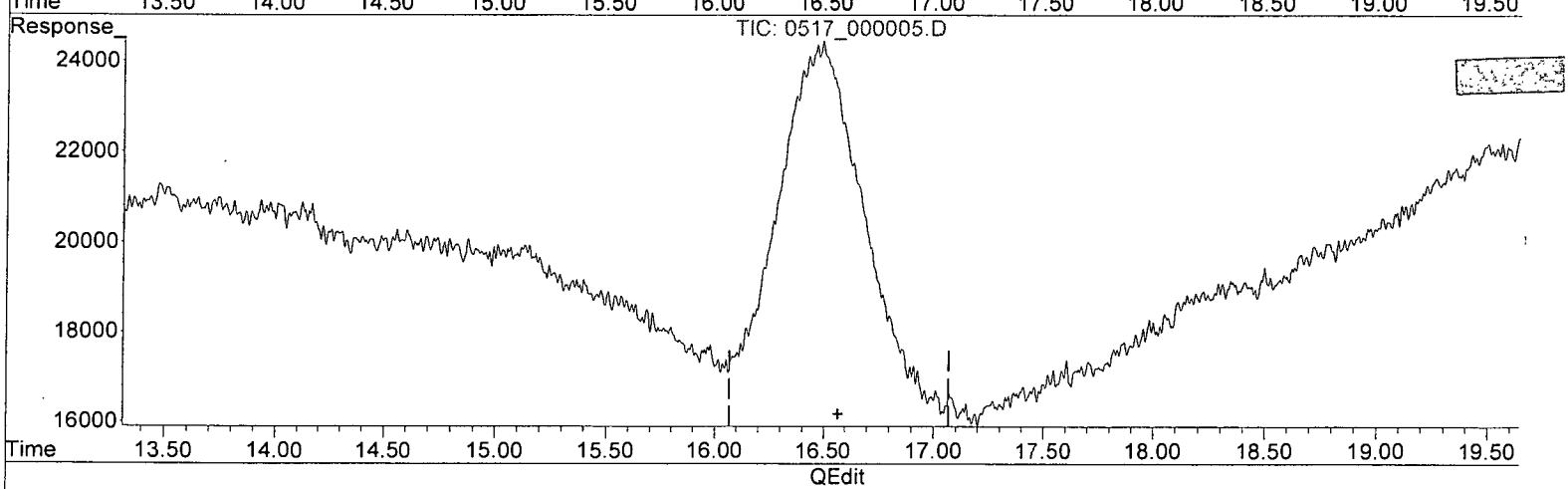
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000005.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:47:43
Operator : MP
Sample : 8330MXB_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4097 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:04 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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

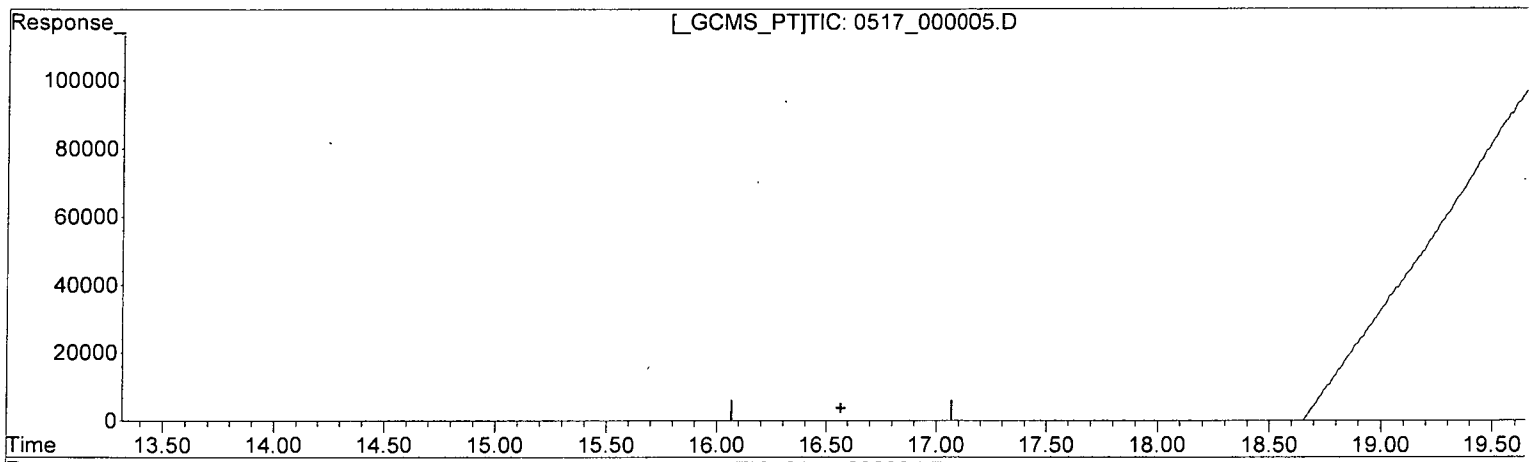
(+) = Expected Retention Time

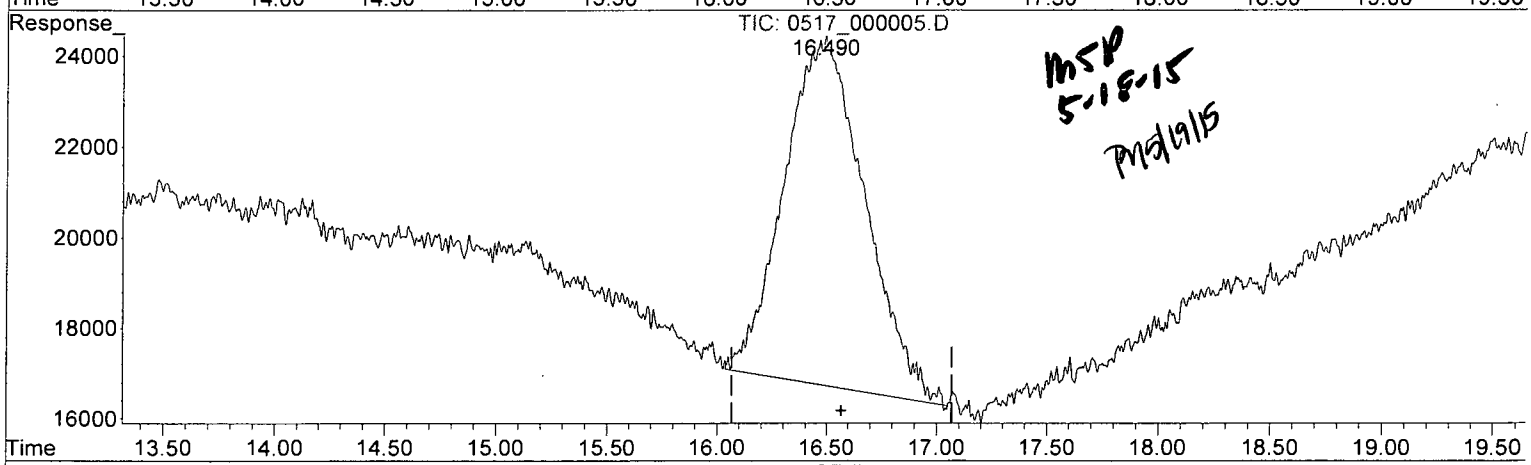
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000005.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 17:47:43
Operator : MP
Sample : 8330MXB_CB 0.005 PPM 05/16/15
Misc :
ALS Vial : 4097 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:04 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

16.490min 3.870 ppb m

response 7726

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:27:13
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/16/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:04:32 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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	8.076	0	15115	N.D.	7.164 #
Spiked Amount 62.500			Recovery	=	0.00%	11.46%
Target Compounds						
1) TM HMX	0.000	4.065	0	14351	N.D.	6.825m#
2) TM RDX	0.000	6.406	0	13391	N.D.	7.230m#
3) TM 1,3,5-TRI...	0.000	6.753	0	33429	N.D.	7.479m#
5) TM 1,3-DINIT...	0.000	8.416	0	34686	N.D.	7.713 #
6) TM NITROBENZENE	0.000	9.162	0	18679	N.D.	7.292 #
7) TM 2,4,6-TRI...	0.000	11.429	0	17954	N.D.	7.072 #
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	11.951	11.959	8158	10221	NoCal	6.205m#
10) TM 2,6-DINIT...	13.436	13.454	17518	10556	NoCal	7.147m#
11) TM 2,4-DINIT...	0.000	14.027	0	18514	N.D.	7.348m#
12) TM 2-NITROTO...	0.000	15.421	0	6527	N.D.	6.191m#
13) TM 4-NITROTO...	0.000	16.871	0	5505	N.D.	6.286m#
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
15) TM 3-NITROTO...	0.000	18.058	0	6474	N.D.	6.055m#
16) TM 4-AMINO-2...	0.000	18.617	0	11046	N.D.	7.884m#
17) TM 2-AMINO-4...	0.000	19.570	0	14150	N.D.	6.942m#
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

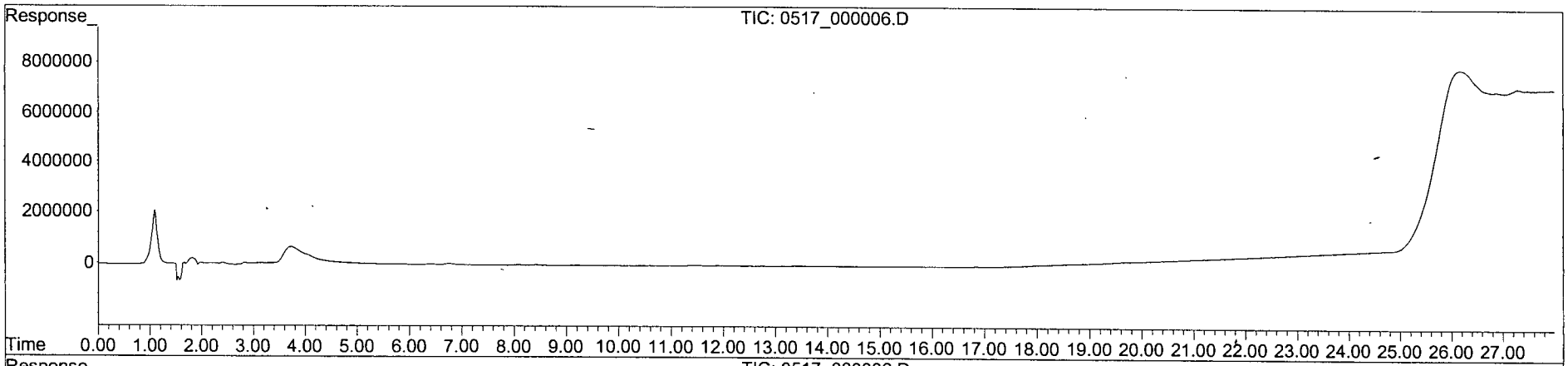
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

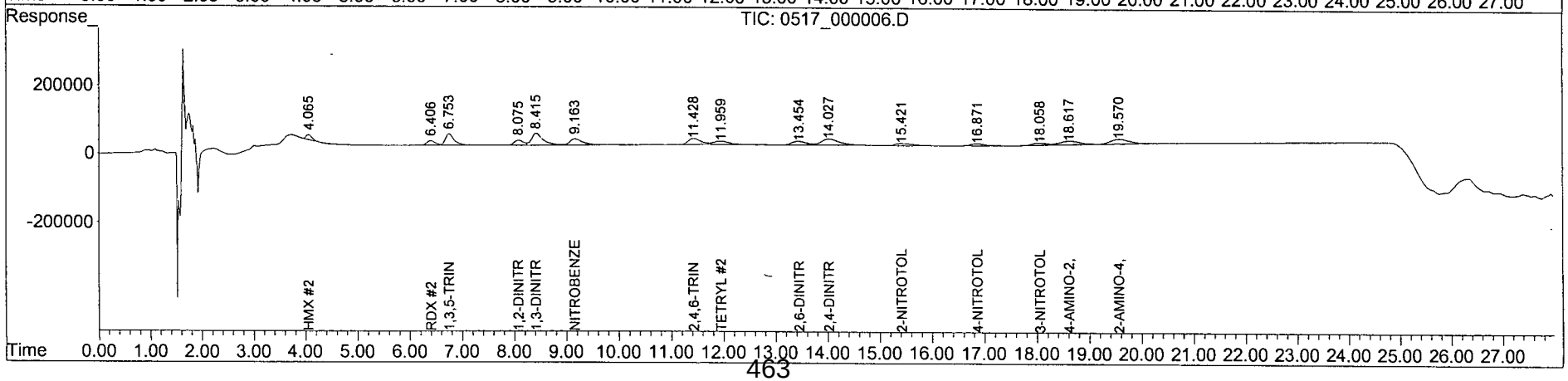
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:27:13
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/16/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:04:32 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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



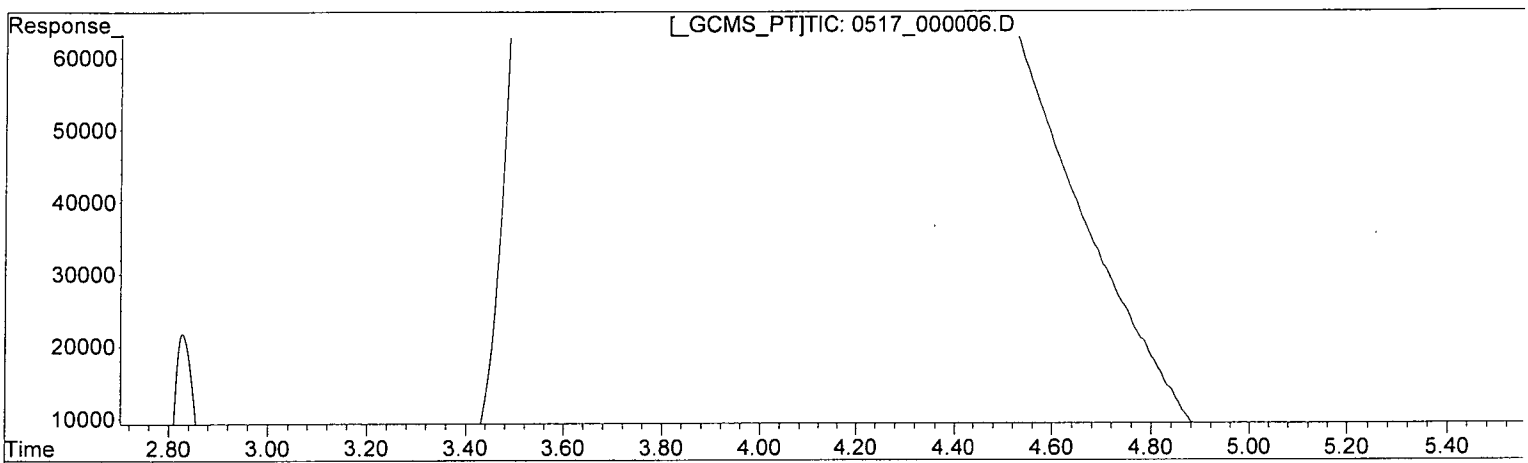


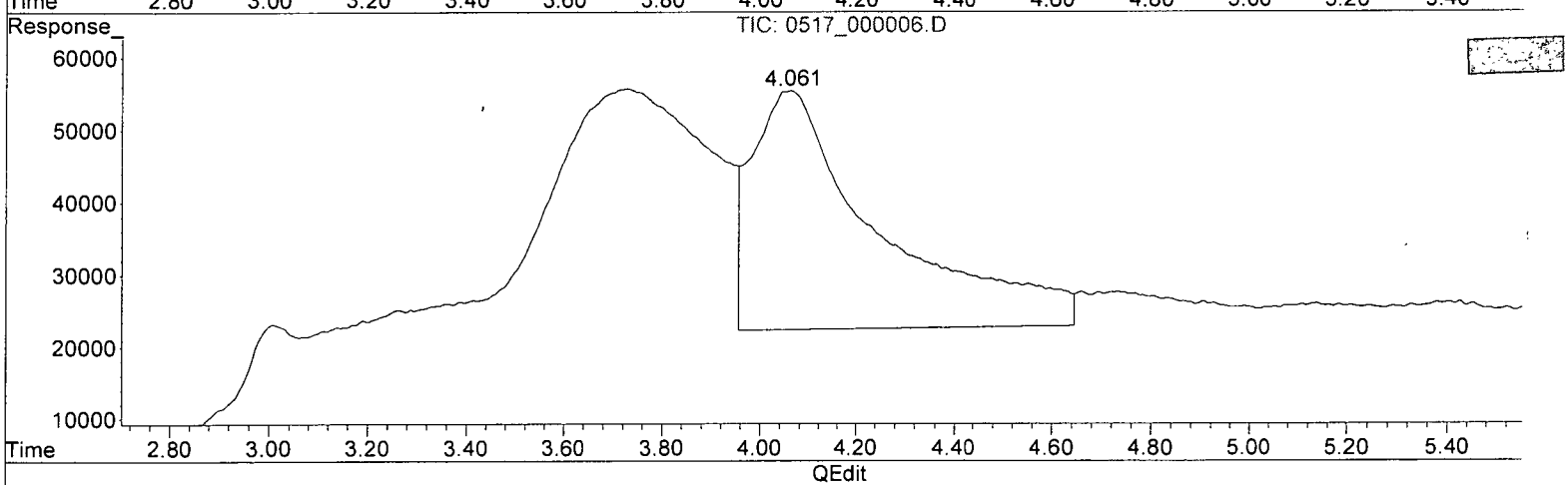
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:27:13
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/16/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:07 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

4.061min 15.712 ppb

response 33040

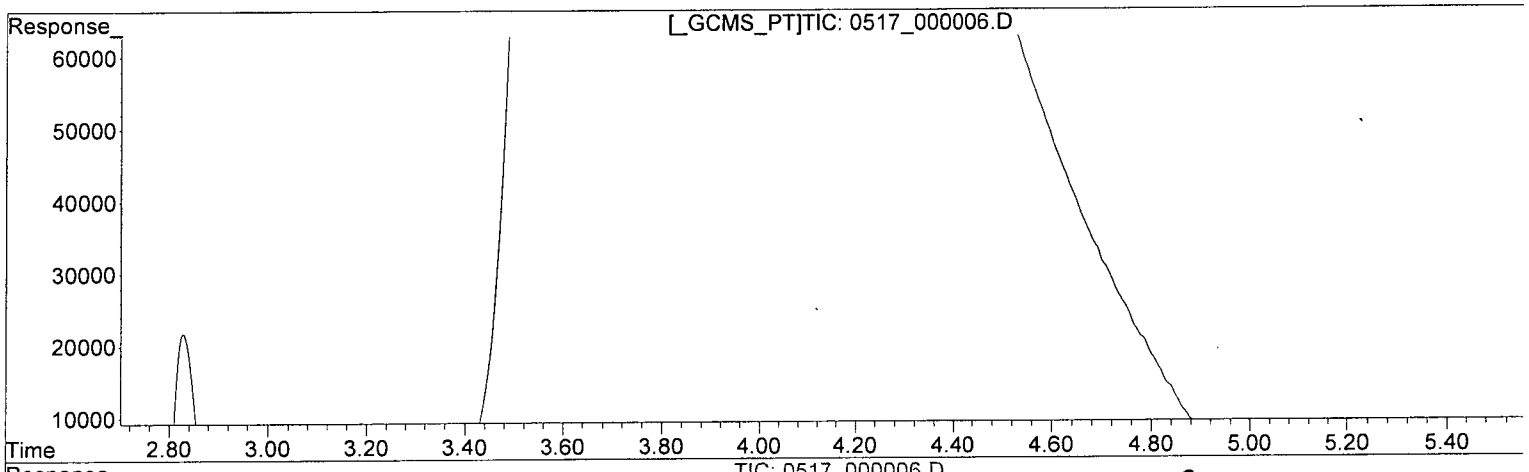
(+) = Expected Retention Time

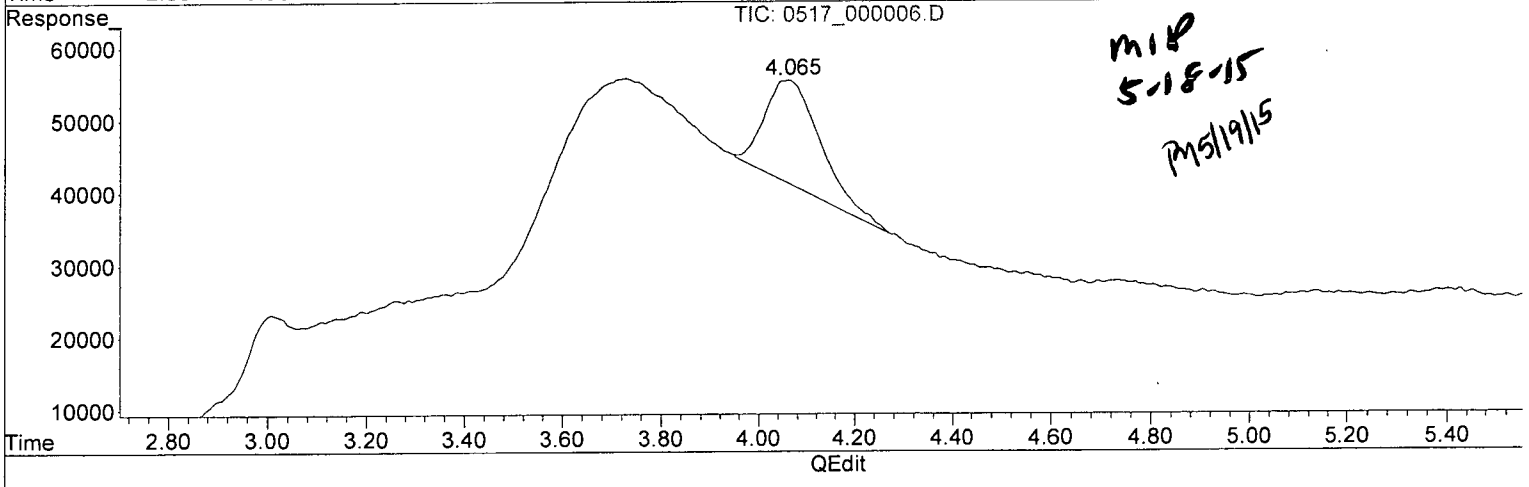
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:27:13
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/16/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:07 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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
5-18-15
PM 5/19/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.065min 6.825 ppb m

response 14351

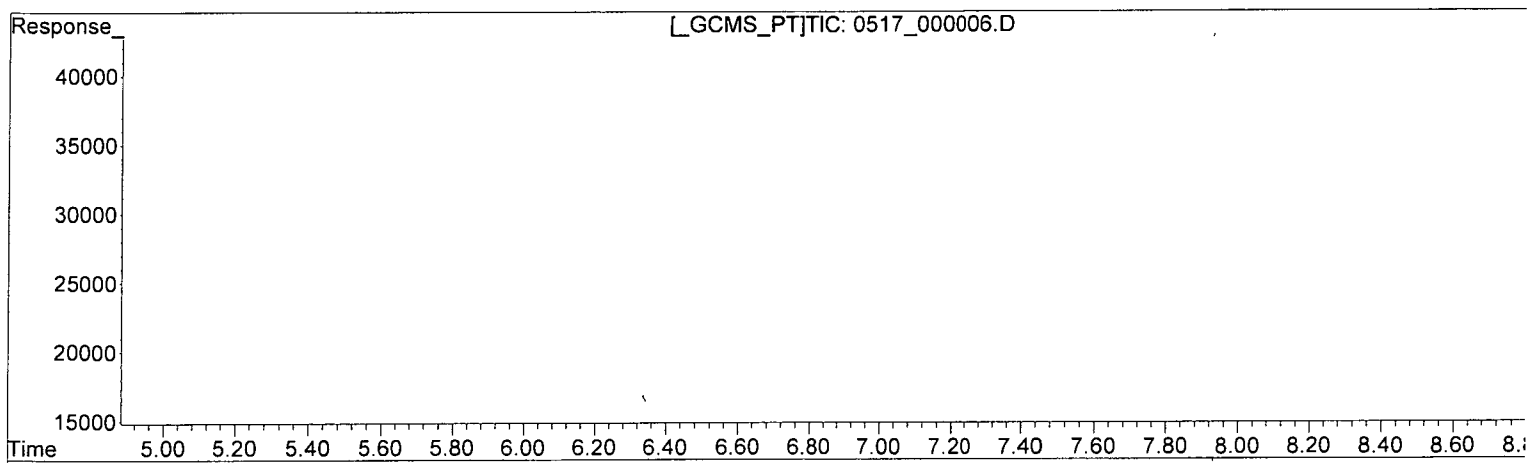
(+) = Expected Retention Time

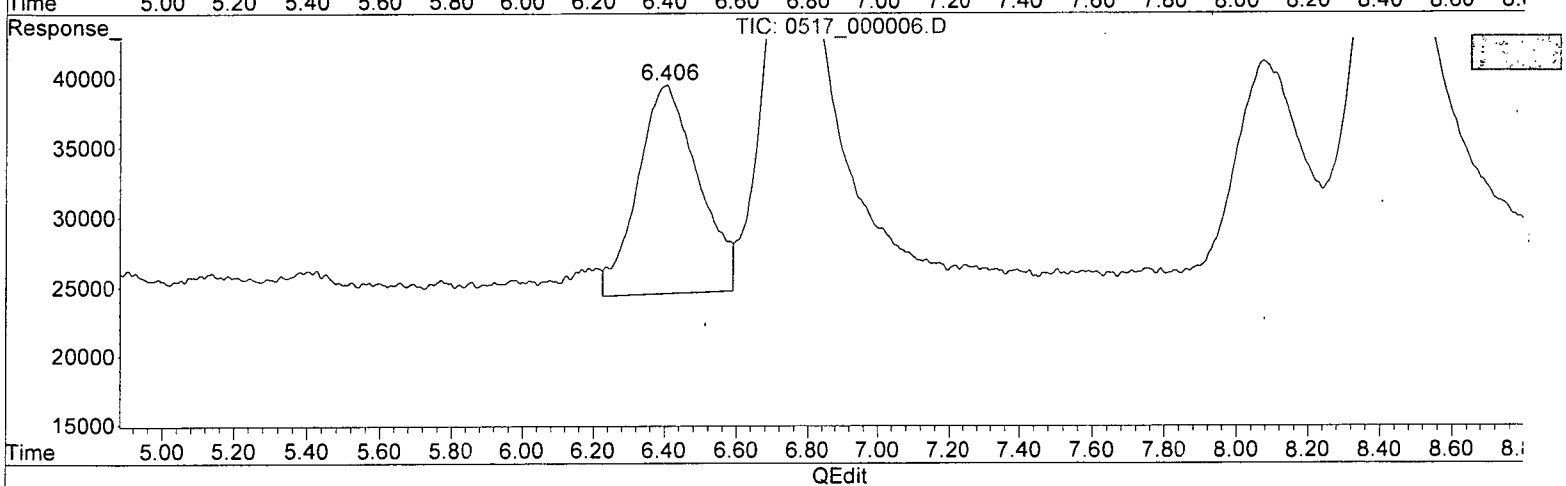
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:27:13
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/16/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:07 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

6.404min 8.086 ppb

response 14976

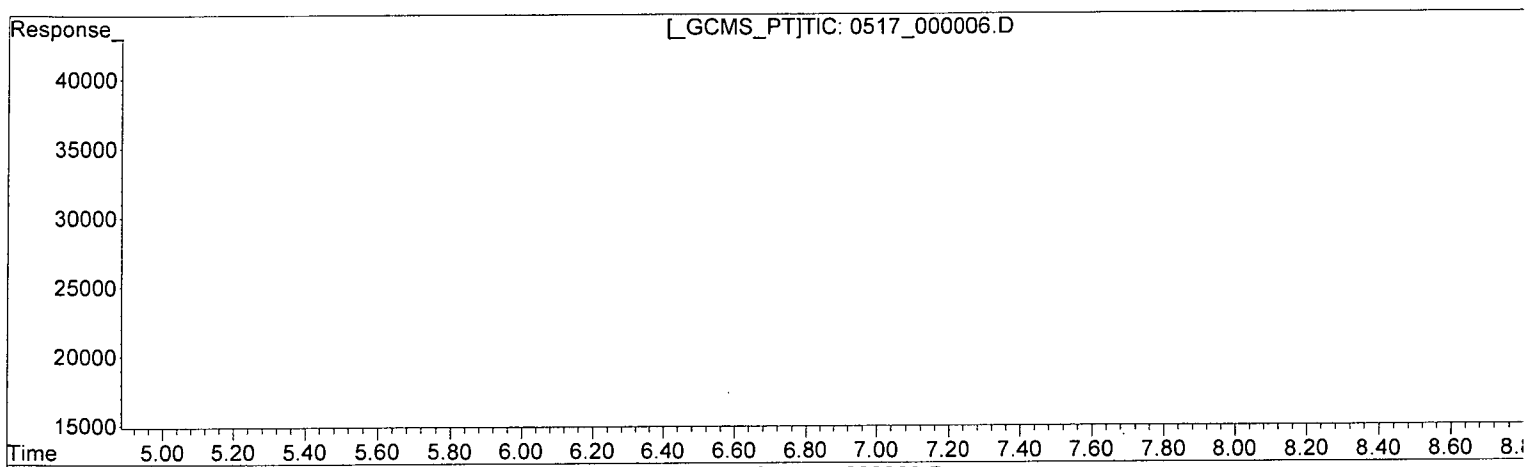
(+) = Expected Retention Time

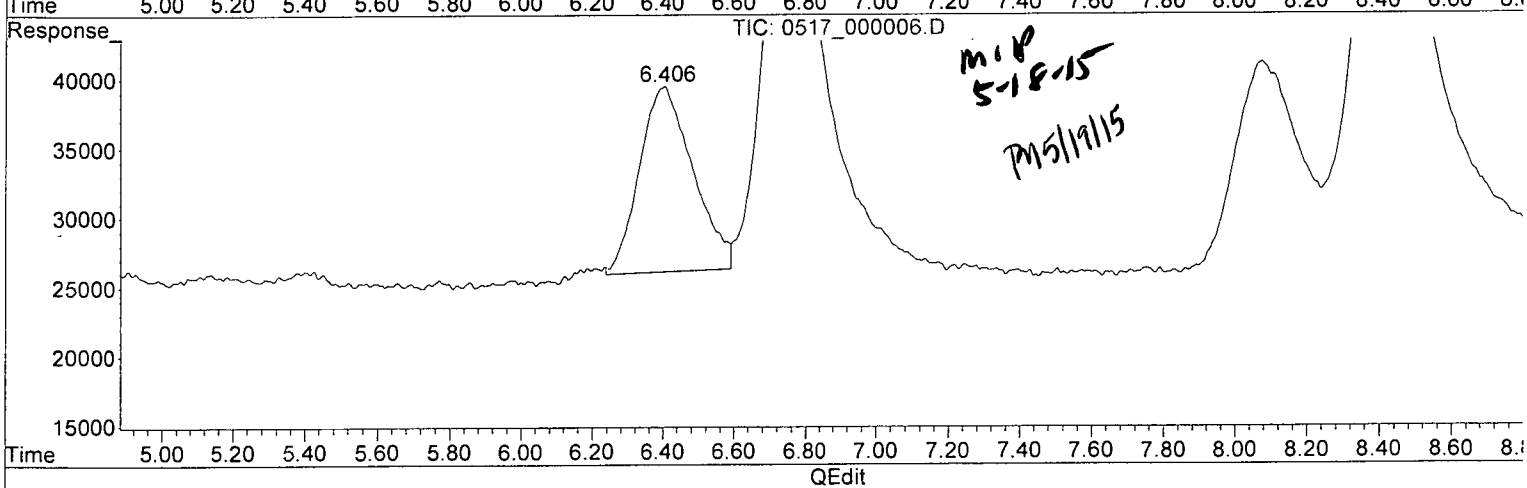
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:27:13
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/16/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:07 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

6.406min 7.230 ppb m

response 13391

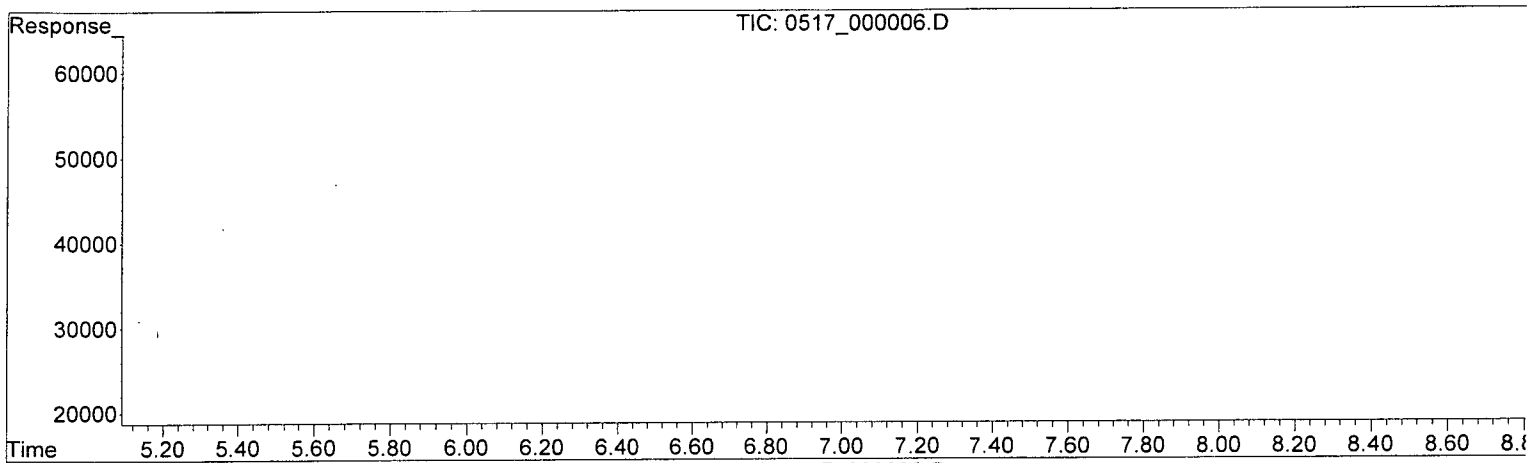
(+) = Expected Retention Time

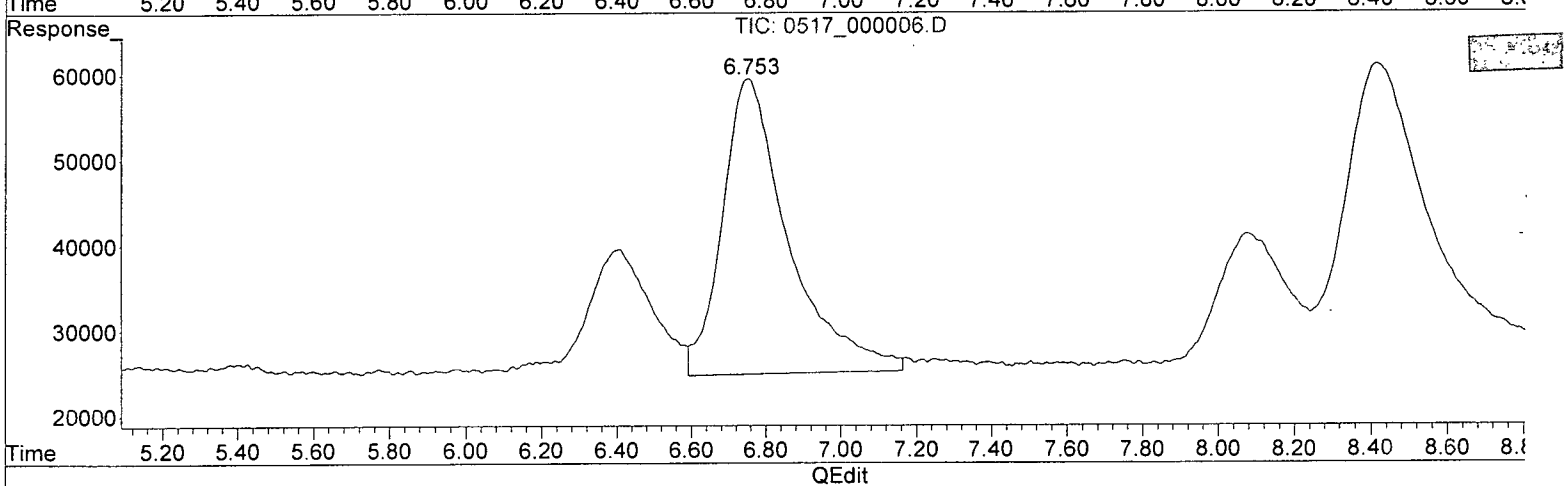
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:27:13
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/16/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:07 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

6.751min 7.736 ppb

response 34577

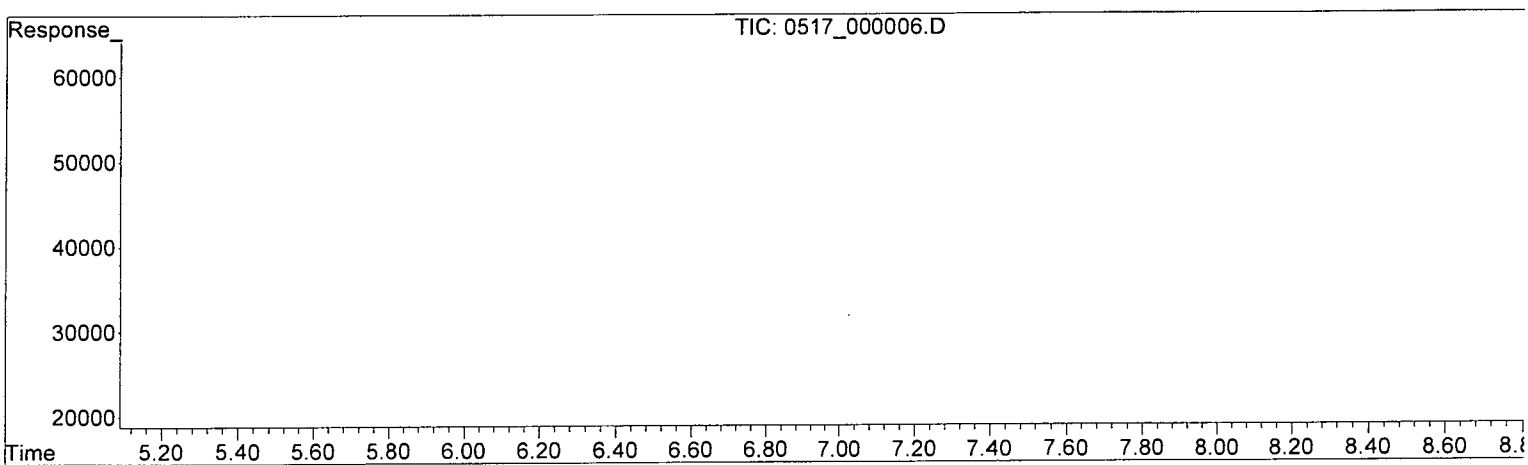
(+) = Expected Retention Time

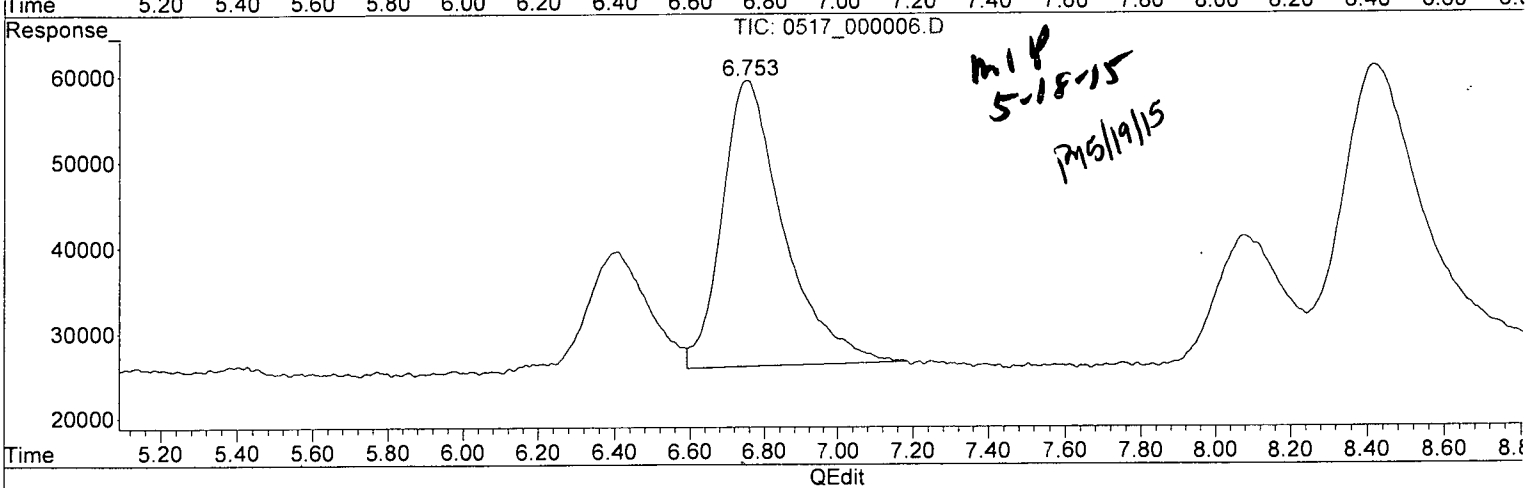
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:27:13
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/16/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:07 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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 5-18-15
PMS 5/19/15

(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.753min 7.479 ppb m

response 33429

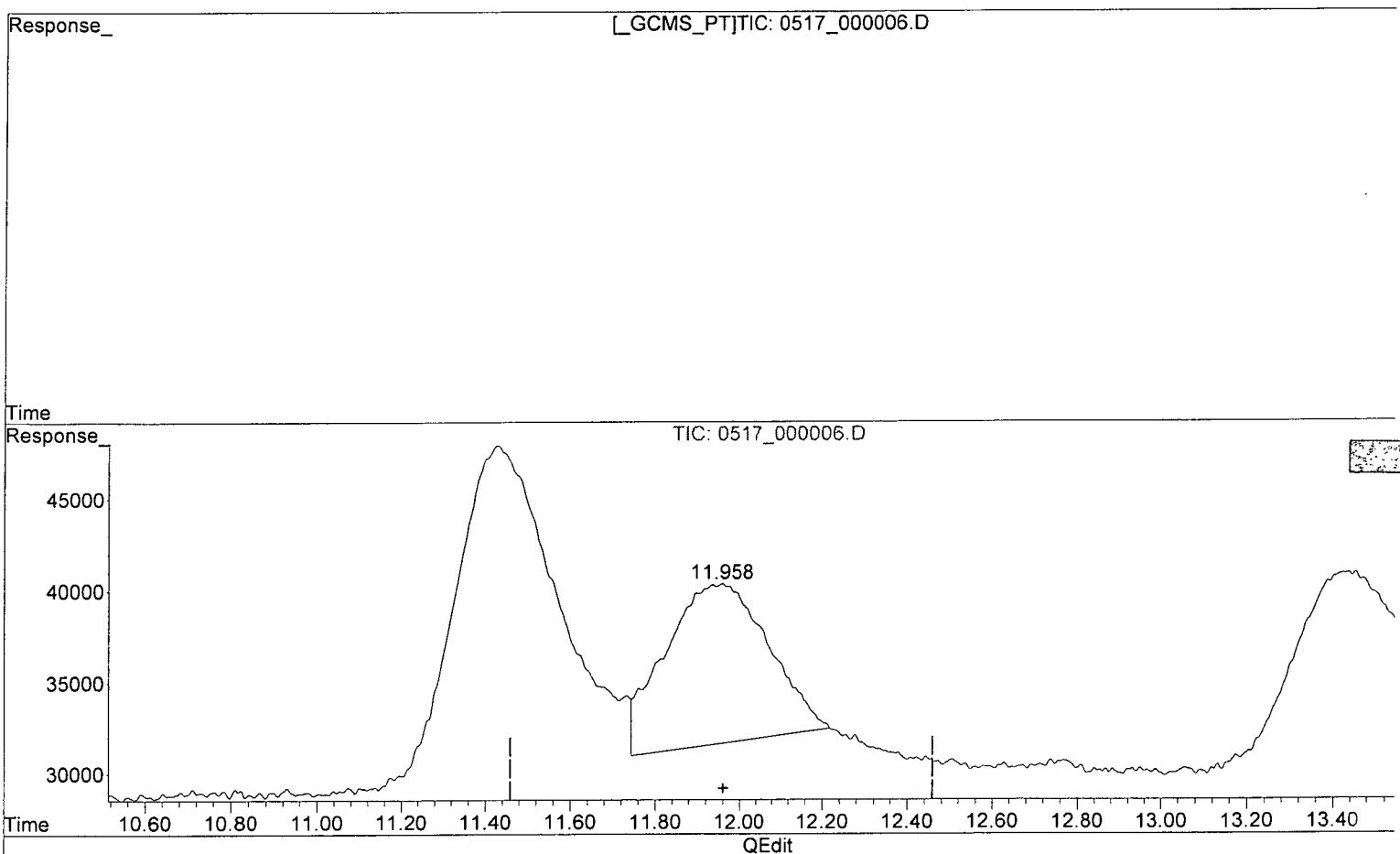
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:27:13
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/16/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:07 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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-



(9) TETRYL (TM)

11.951min 0.000 ppb

response 8158

(9) TETRYL #2 (TM)

11.958min 5.277 ppb

response 8693

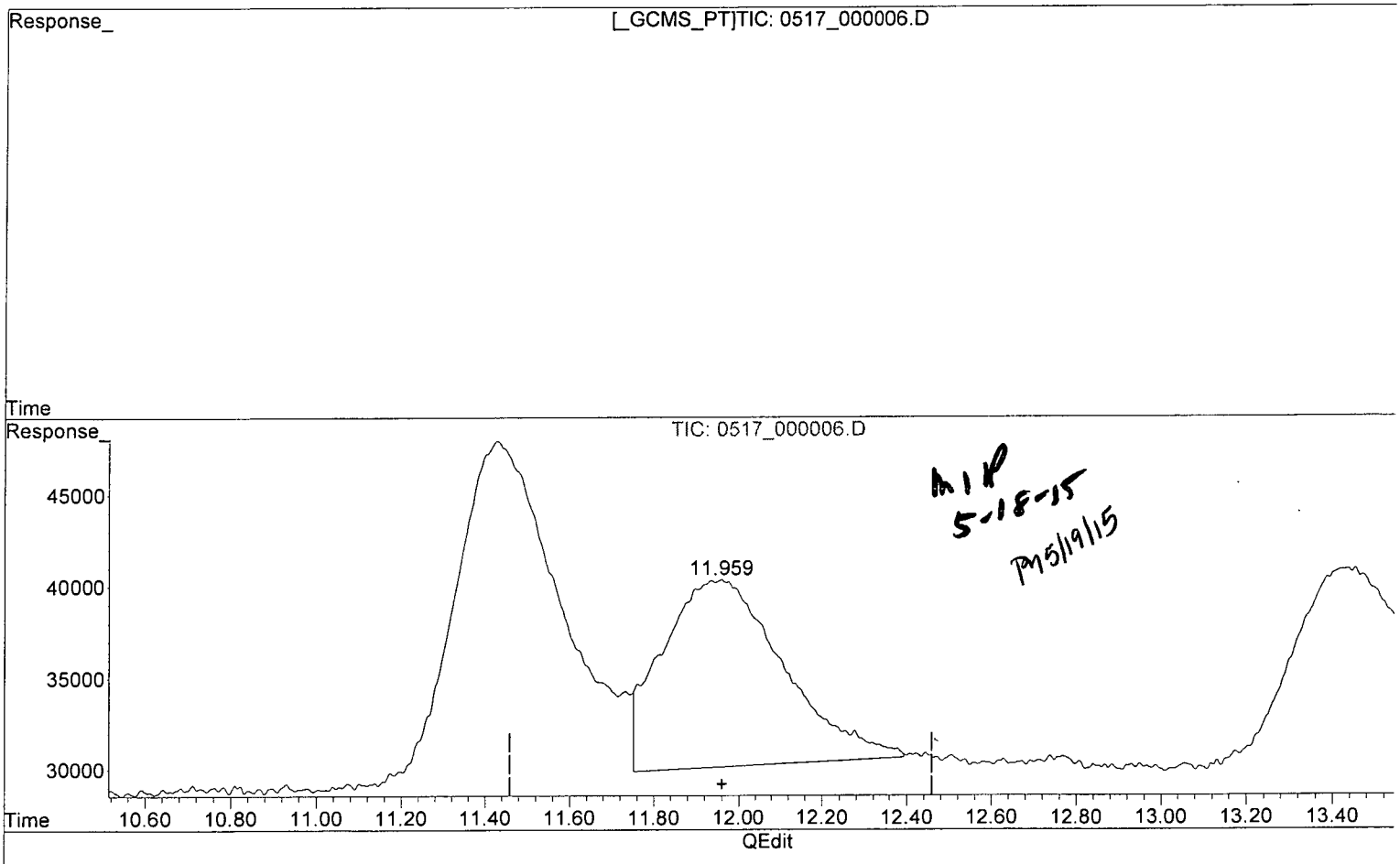
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:27:13
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/16/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:07 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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-



AIP
5-18-15
PM 5/19/15

(9) TETRYL (TM)

11.951min 0.000 ppb

response 8158

(9) TETRYL #2 (TM)

11.959min 6.205 ppb m

response 10221

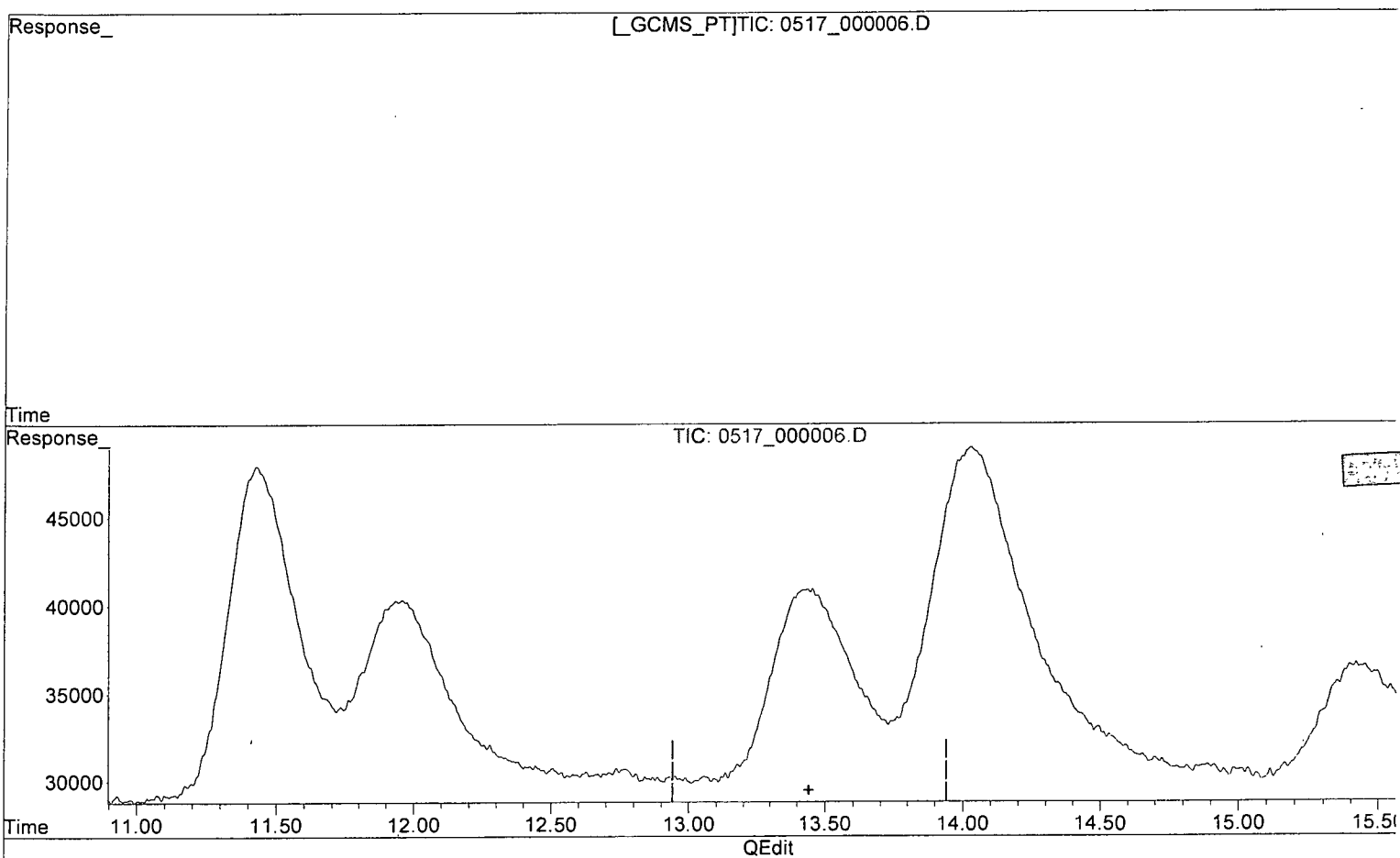
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:27:13
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/16/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:07 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

13.436min 0.000 ppb

response 17518

(10) 2,6-DINITROTOLUENE #2 (TM)

0.000min 0.000 ppb

response 0

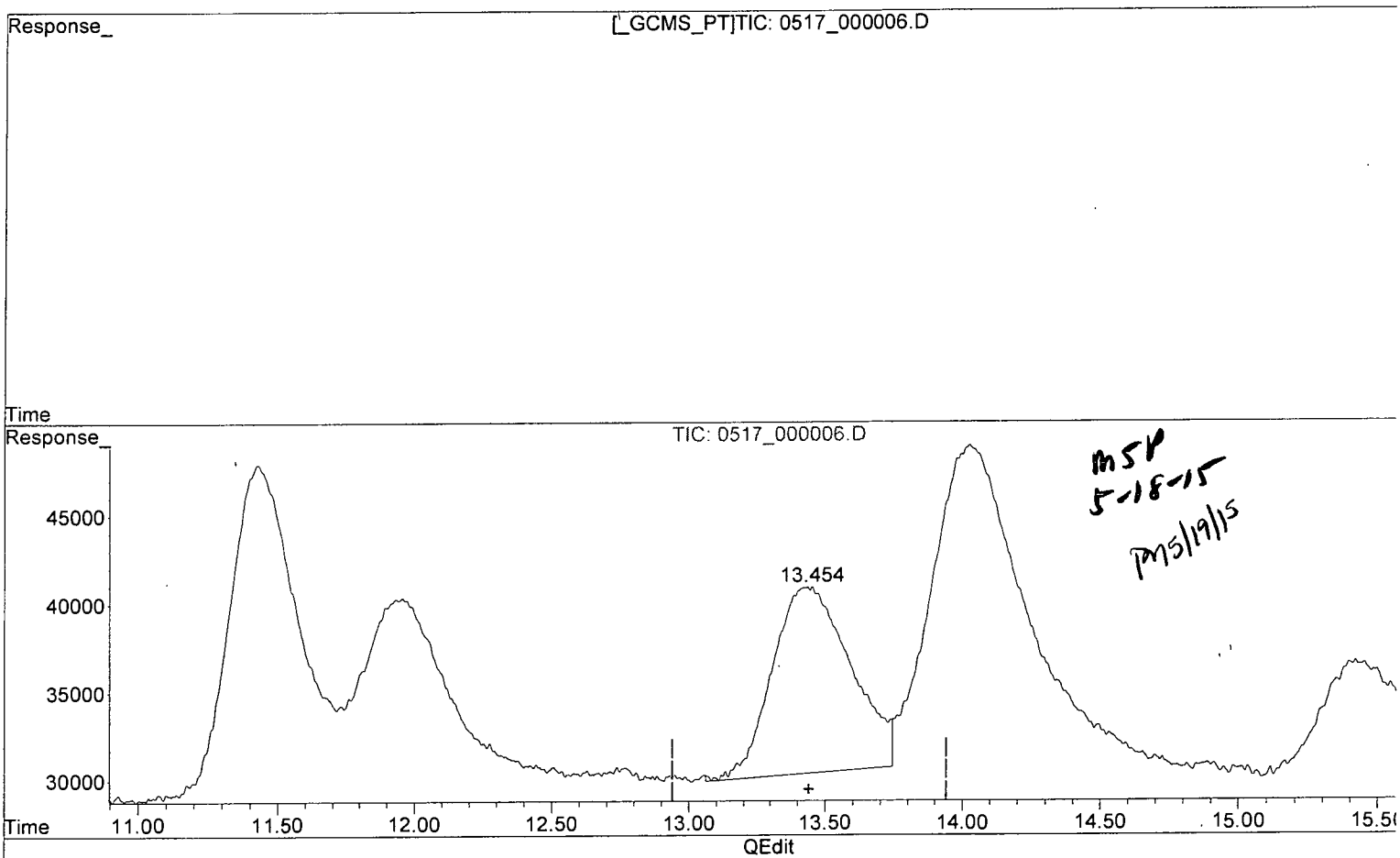
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:27:13
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/16/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:07 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

13.436min 0.000 ppb

response 17518

(10) 2,6-DINITROTOLUENE #2 (TM)

13.454min 7.147 ppb m

response 10556

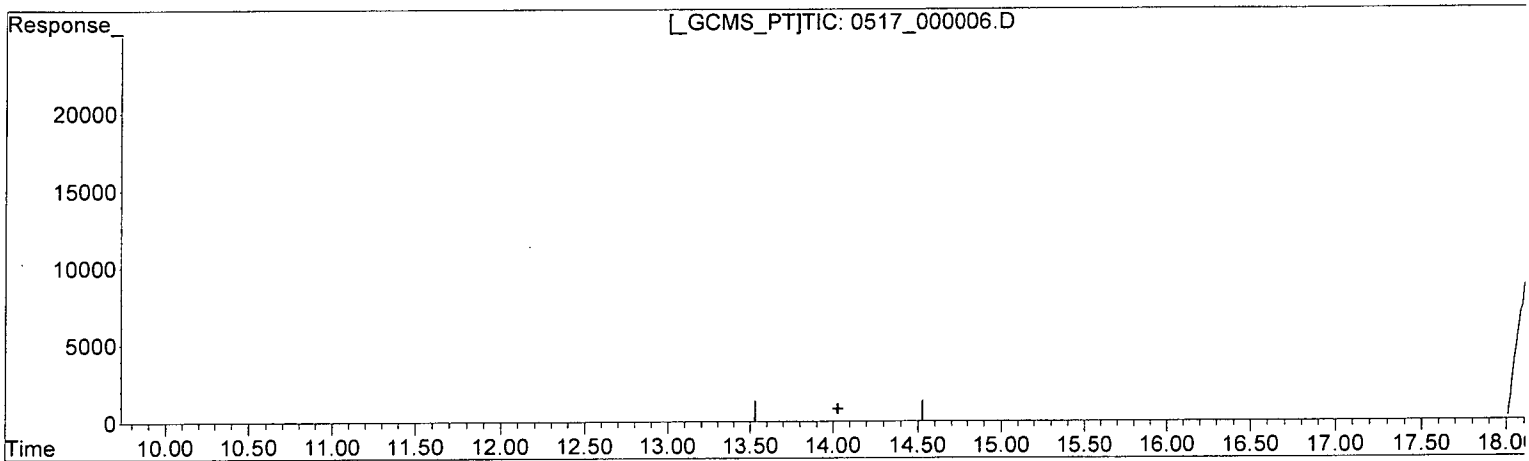
(+) = Expected Retention Time

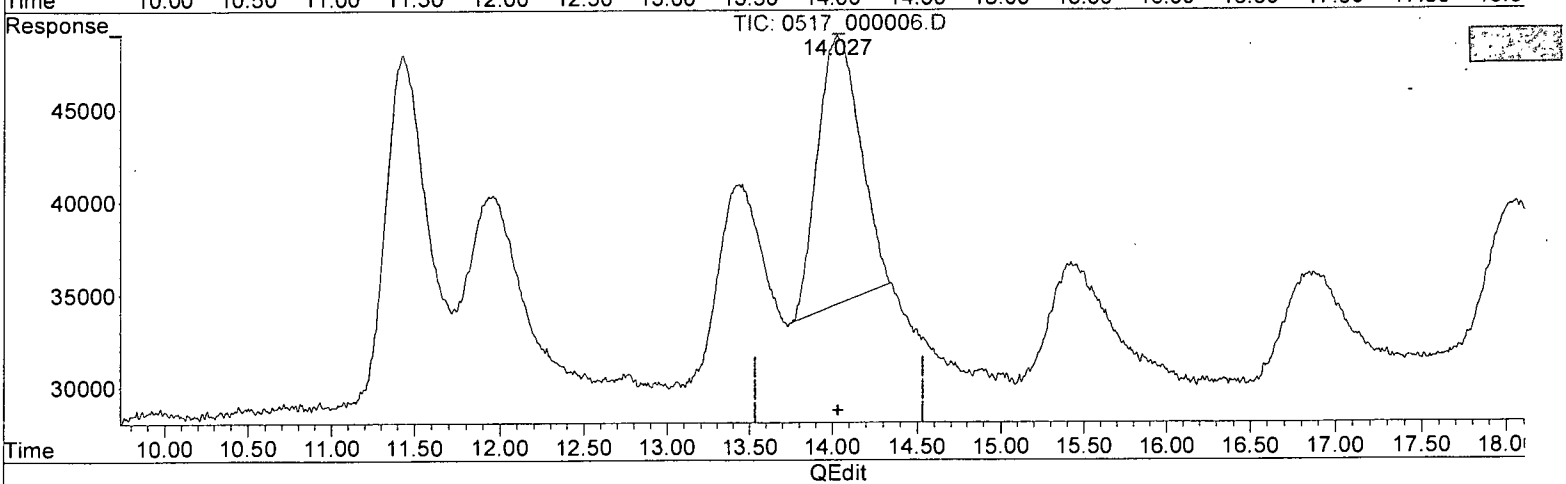
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:27:13
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/16/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:07 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

14.028min 5.772 ppb

response 14542

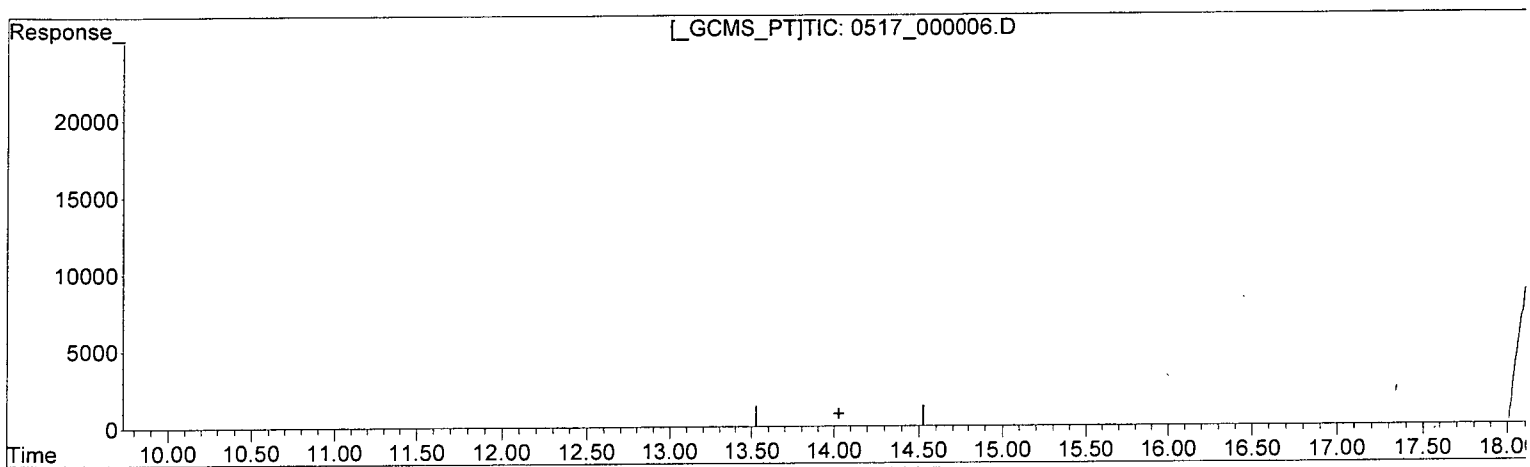
(+) = Expected Retention Time

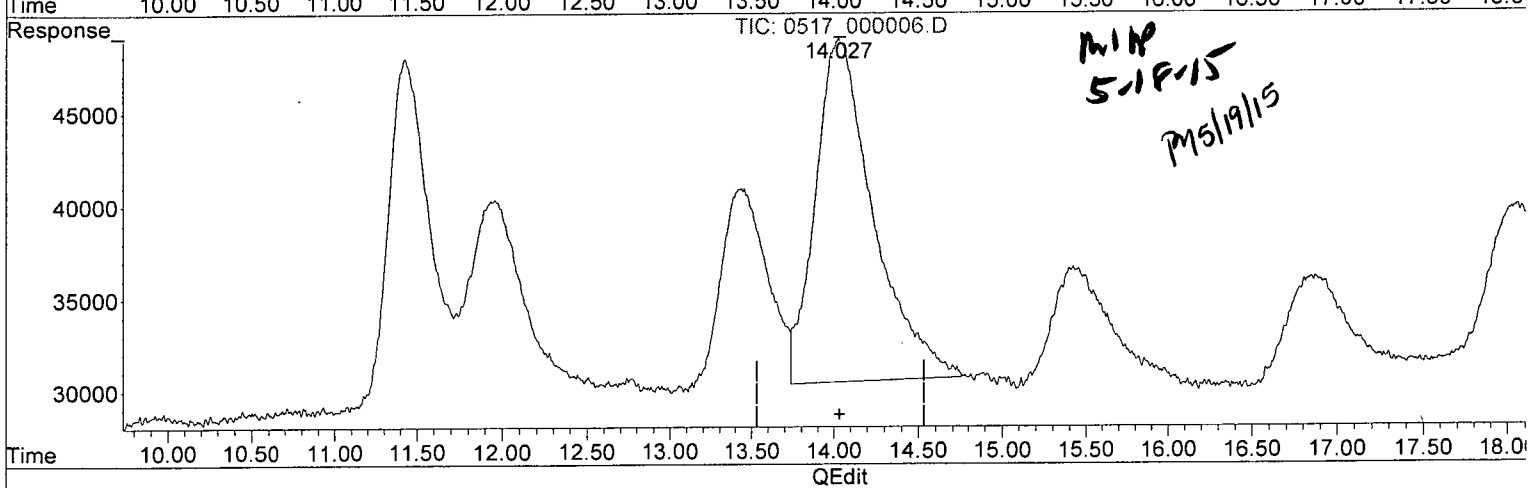
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:27:13
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/16/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:07 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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





MMP 5-18-15
PM 5/19/15

(11) 2,4-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(11) 2,4-DINITROTOLUENE #2 (TM)

14.027min 7.348 ppb m

response 18514

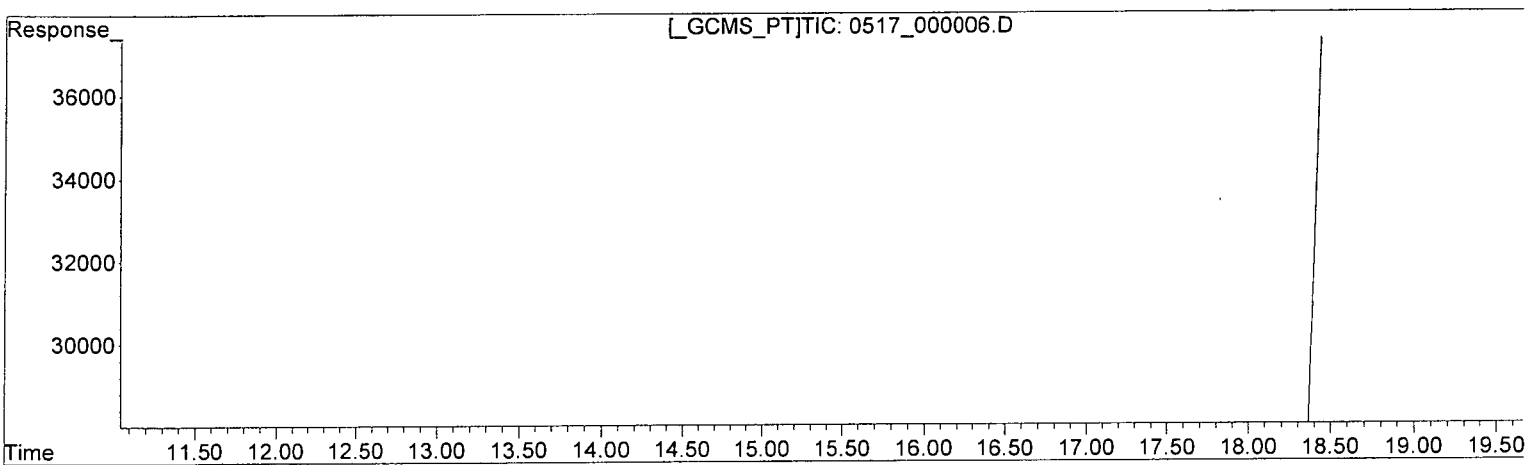
(+) = Expected Retention Time

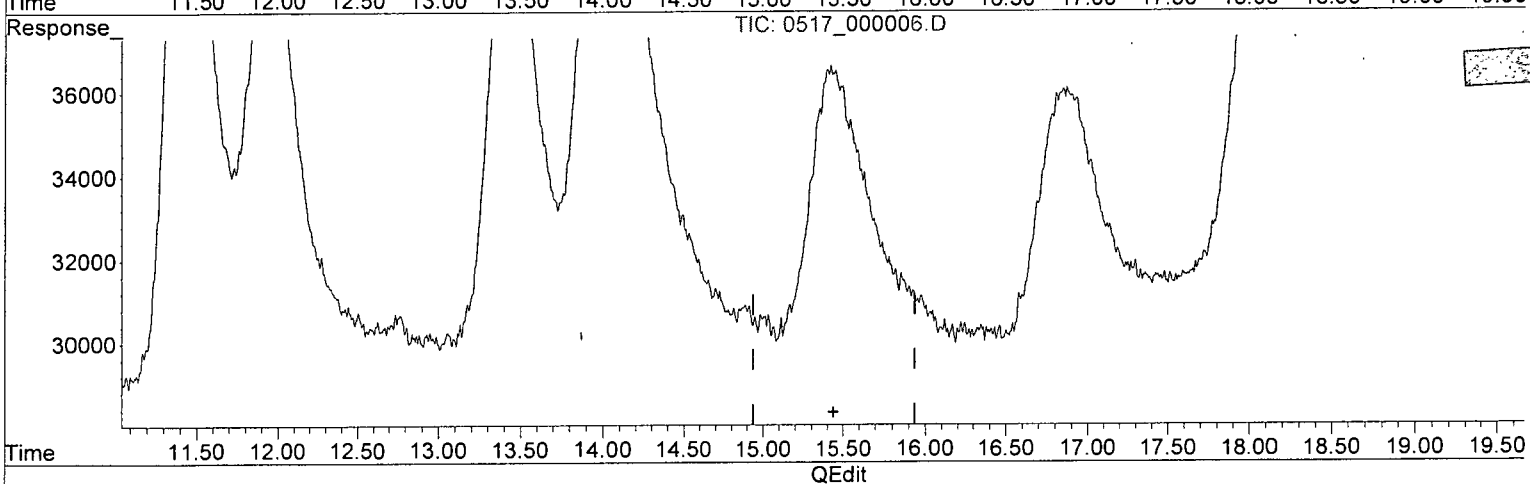
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:27:13
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/16/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:07 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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

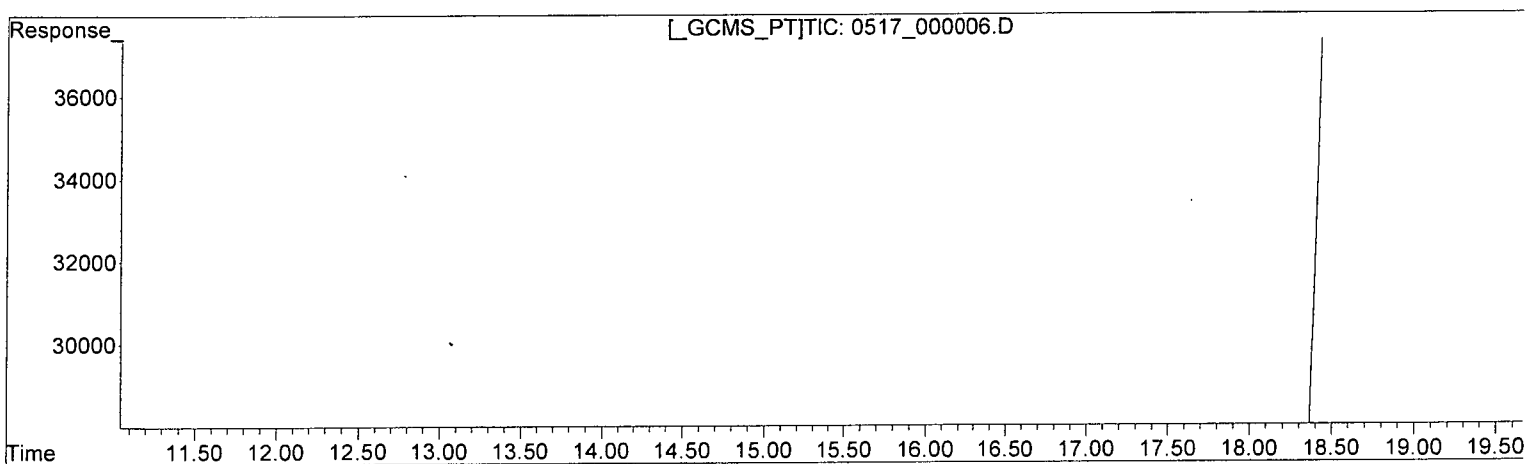
(+) = Expected Retention Time

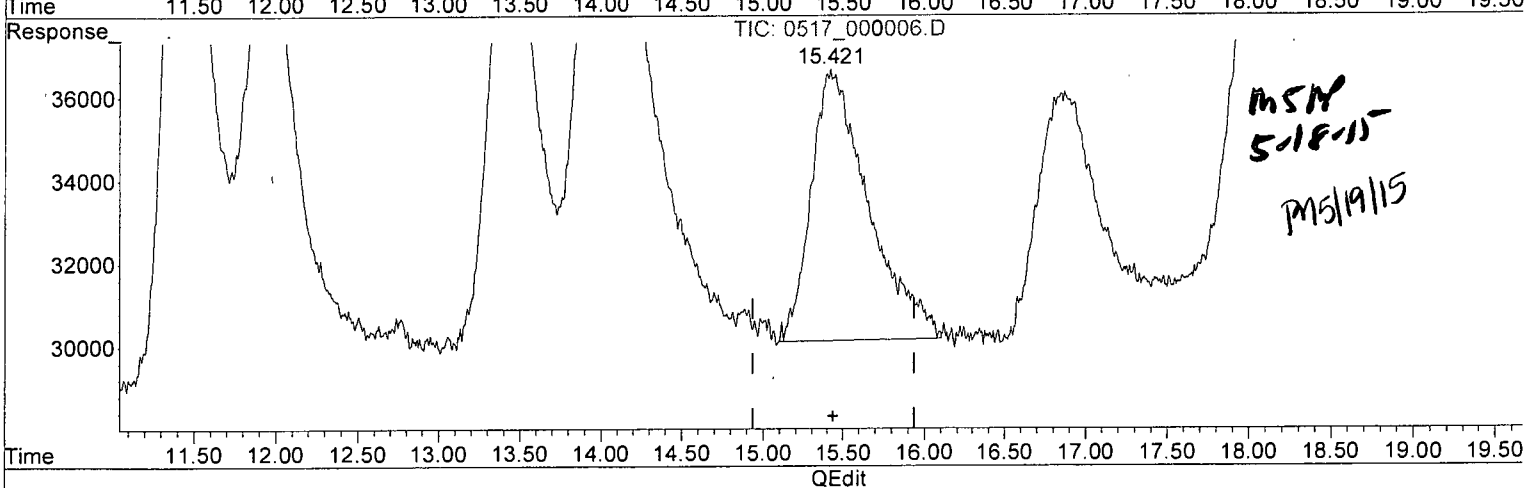
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:27:13
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/16/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:07 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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-





MSM 5-18-15
PM 5/19/15

(12) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(12) 2-NITROTOLUENE #2 (TM)

15.421min 6.191 ppb m

response 6527

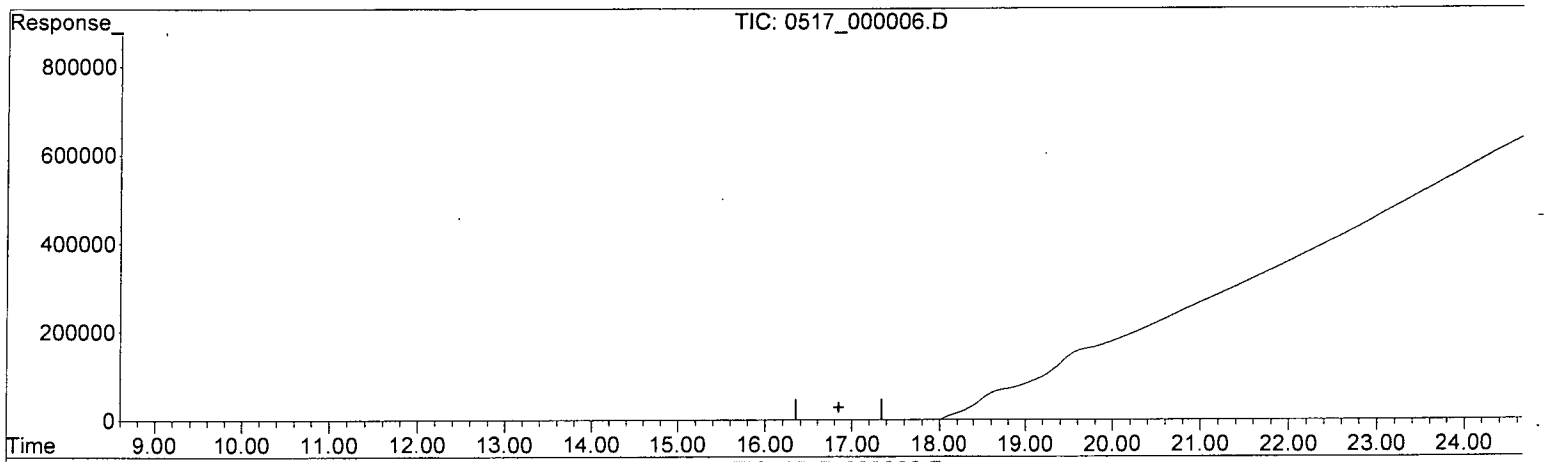
(+) = Expected Retention Time

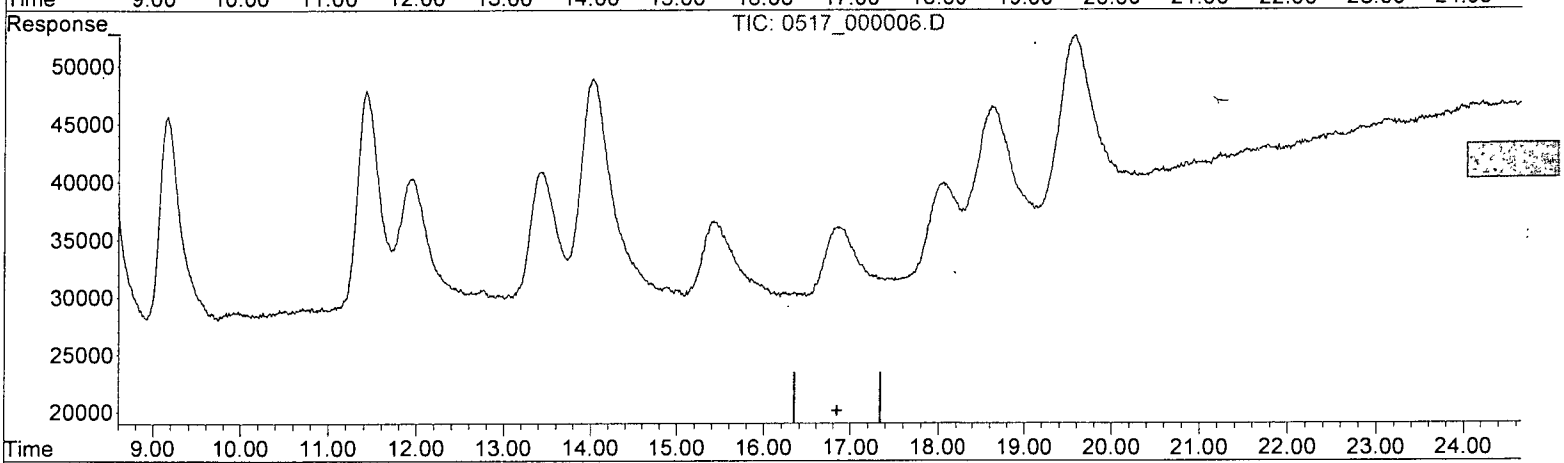
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:27:13
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/16/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:07 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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





(13) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(13) 4-NITROTOLUENE #2 (TM)

0.000min 0.000 ppb

response 0

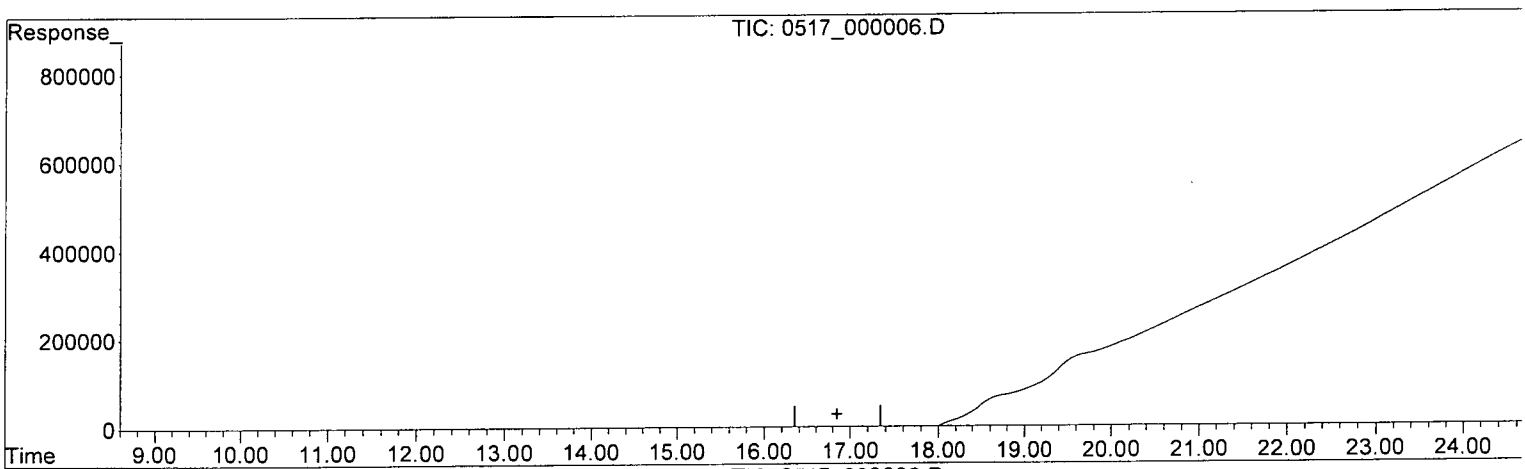
(+) = Expected Retention Time

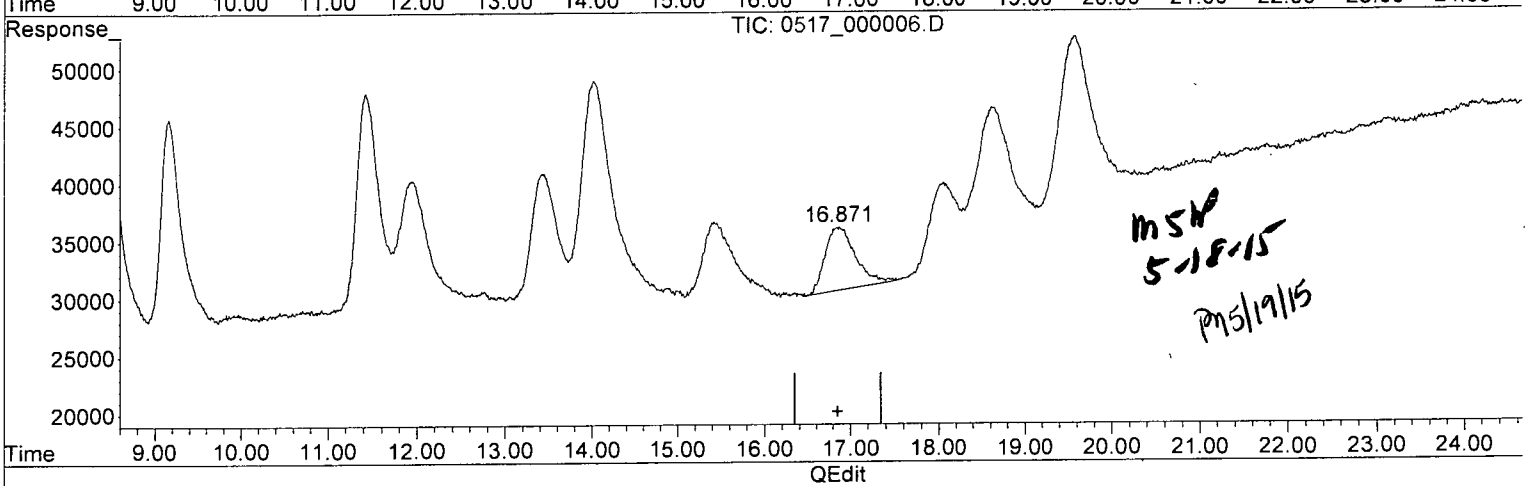
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:27:13
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/16/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:07 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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 5-18-15
PM 5/19/15

(13) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(13) 4-NITROTOLUENE #2 (TM)

16.871min 6.286 ppb m

response 5505

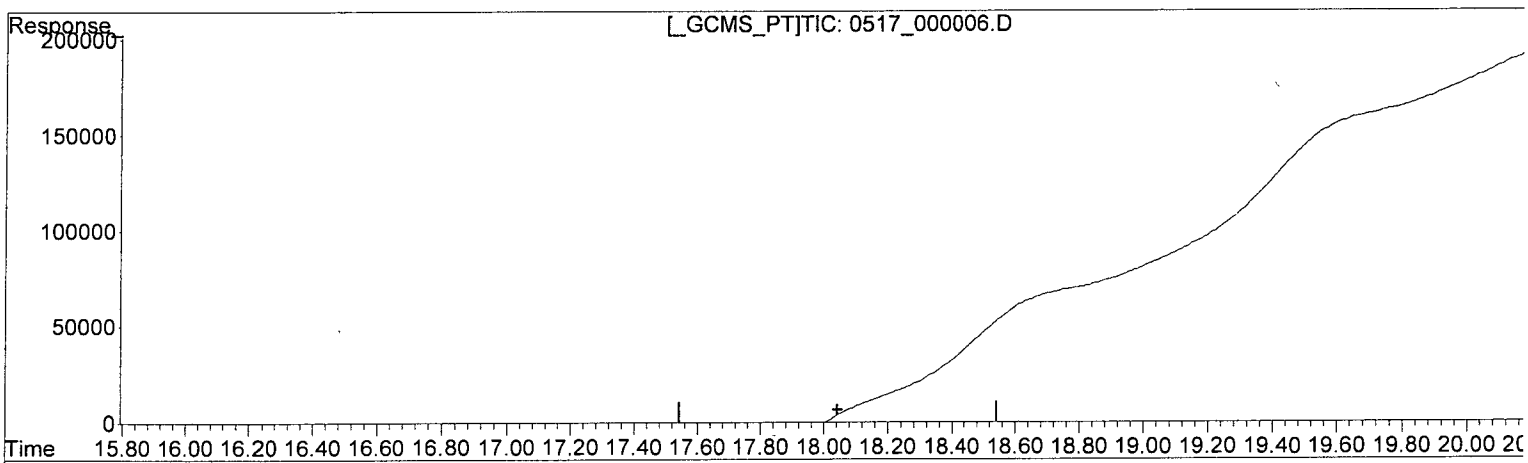
(+) = Expected Retention Time

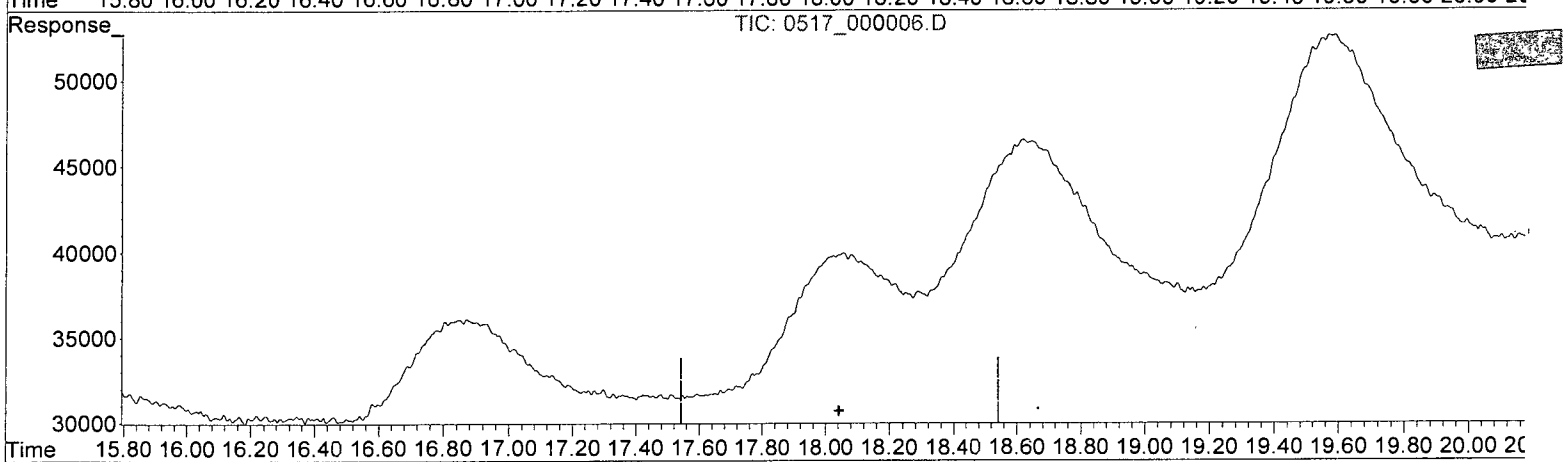
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:27:13
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/16/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:07 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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-





(15) 3-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 3-NITROTOLUENE #2 (TM)

0.000min 0.000 ppb

response 0

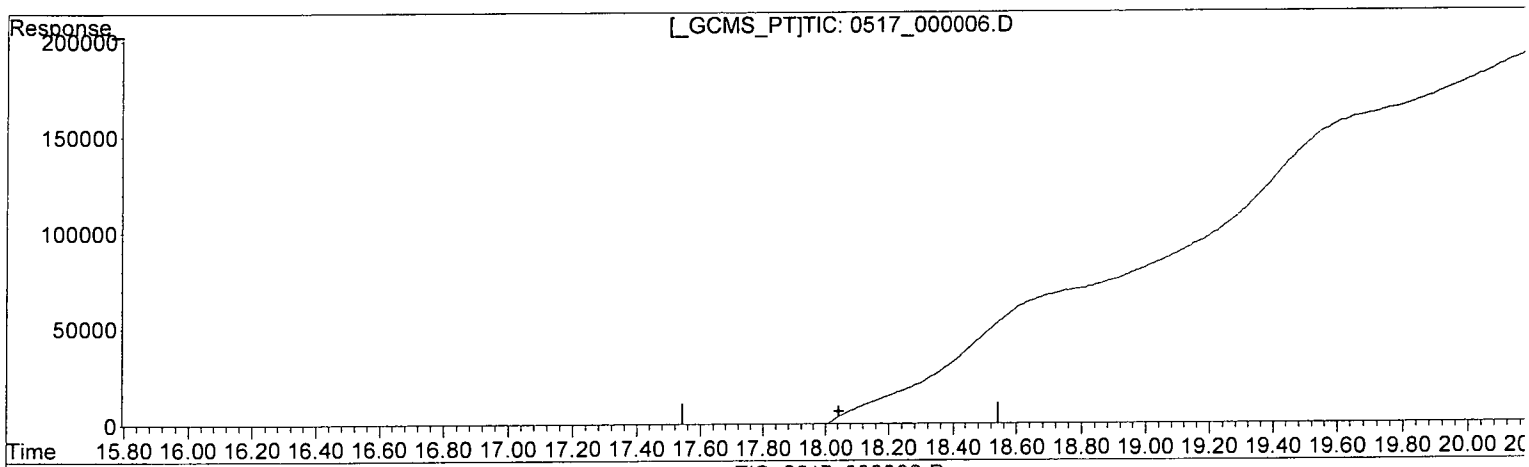
(+) = Expected Retention Time

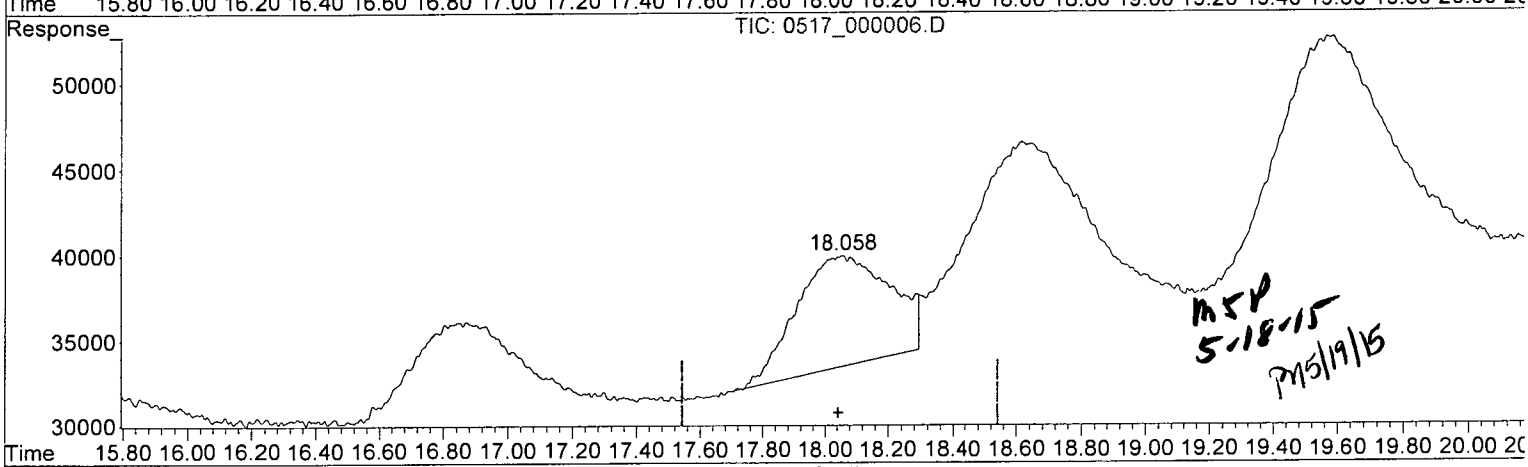
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:27:13
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/16/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:07 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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 5-18-15 PM 5/19/15

(15) 3-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 3-NITROTOLUENE #2 (TM)

18.058min 6.055 ppb m

response 6474

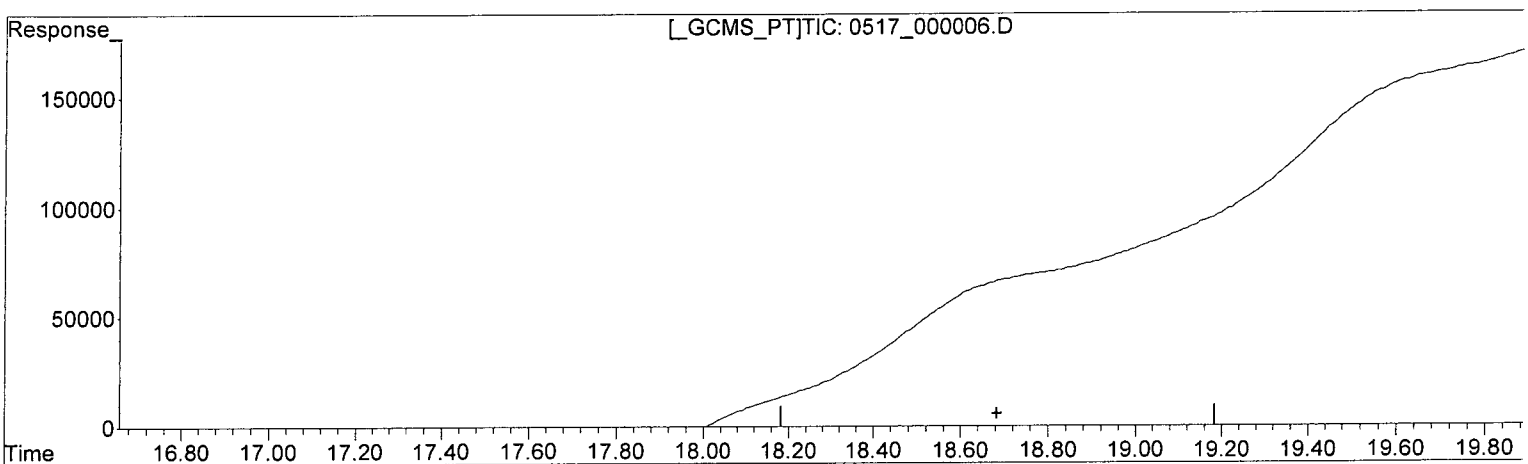
(+) = Expected Retention Time

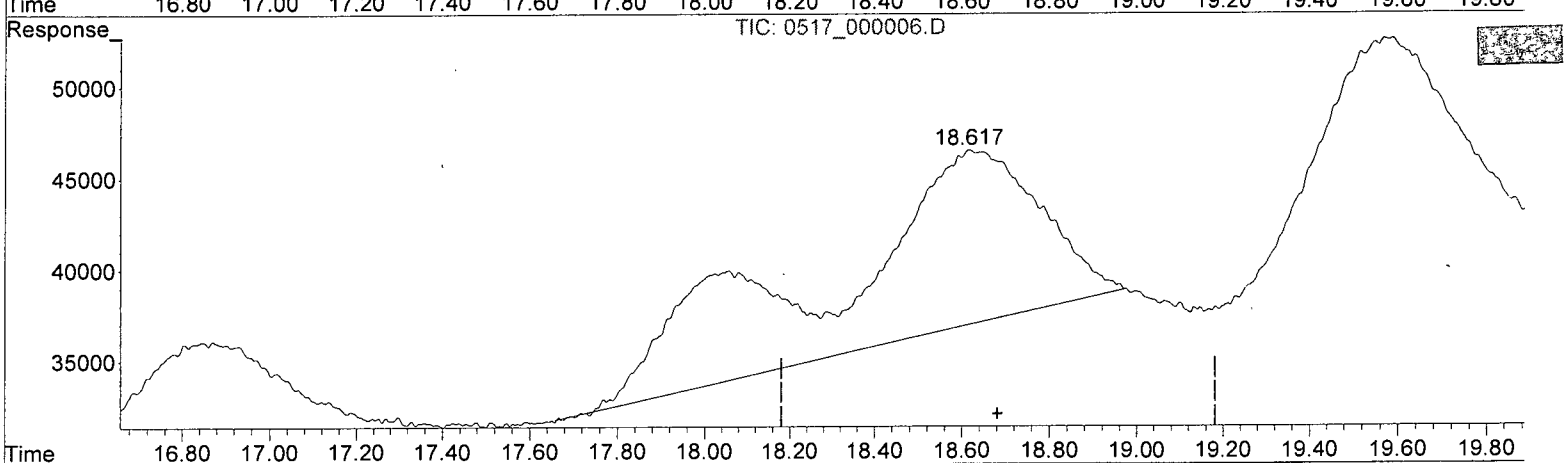
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:27:13
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/16/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:07 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

18.619min 6.820 ppb

response 9555

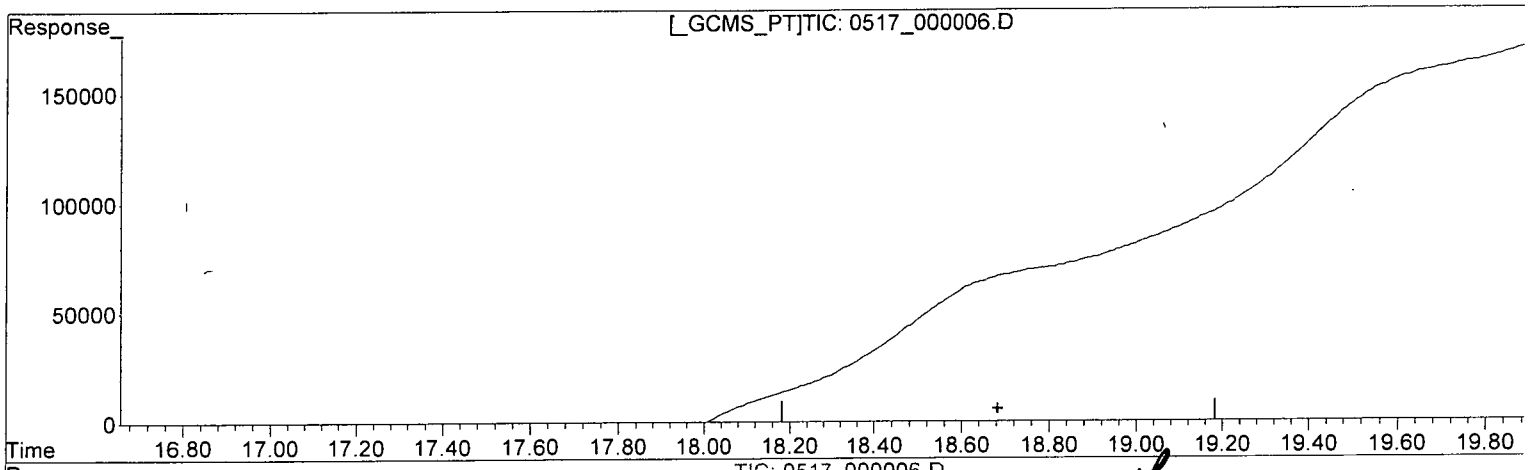
(+) = Expected Retention Time

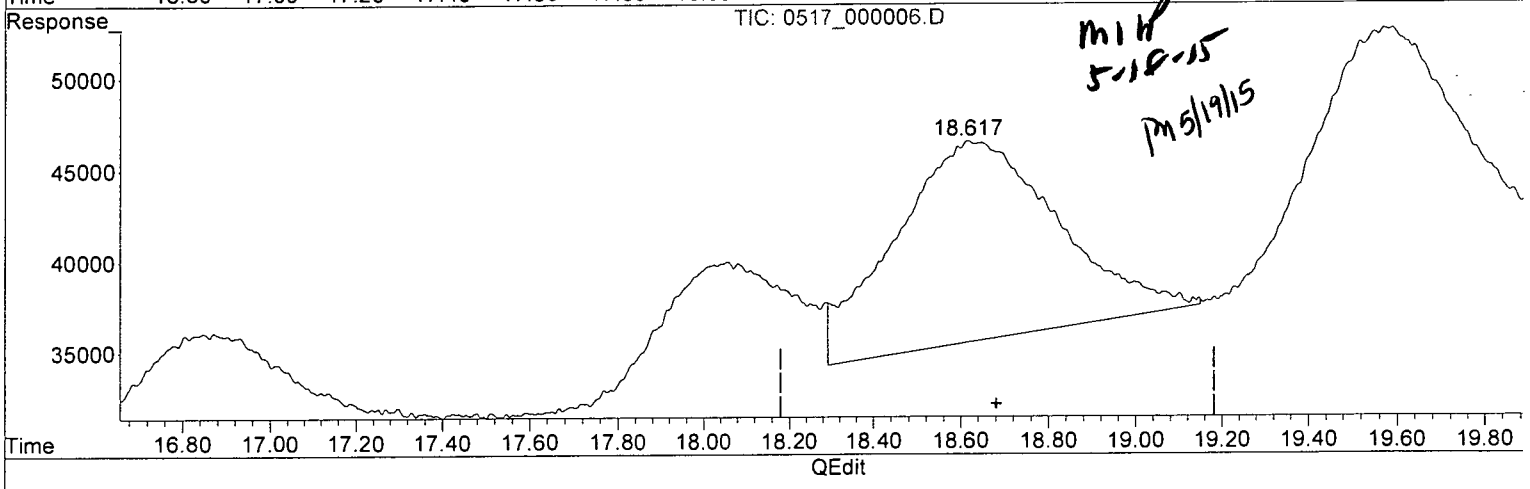
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:27:13
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/16/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:07 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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-





MLH 5-18-15
PM 5/19/15

(16) 4-AMINO-2,6-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-AMINO-2,6-DINITROTOLUENE #2 (TM)

18.617min 7.884 ppb m

response 11046

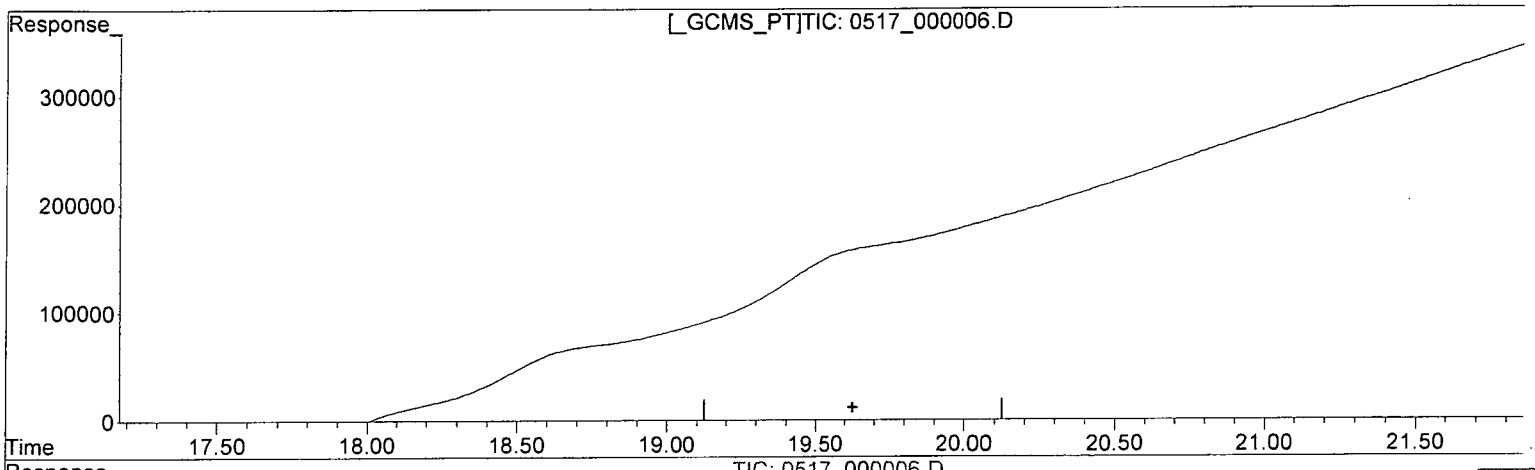
(+) = Expected Retention Time

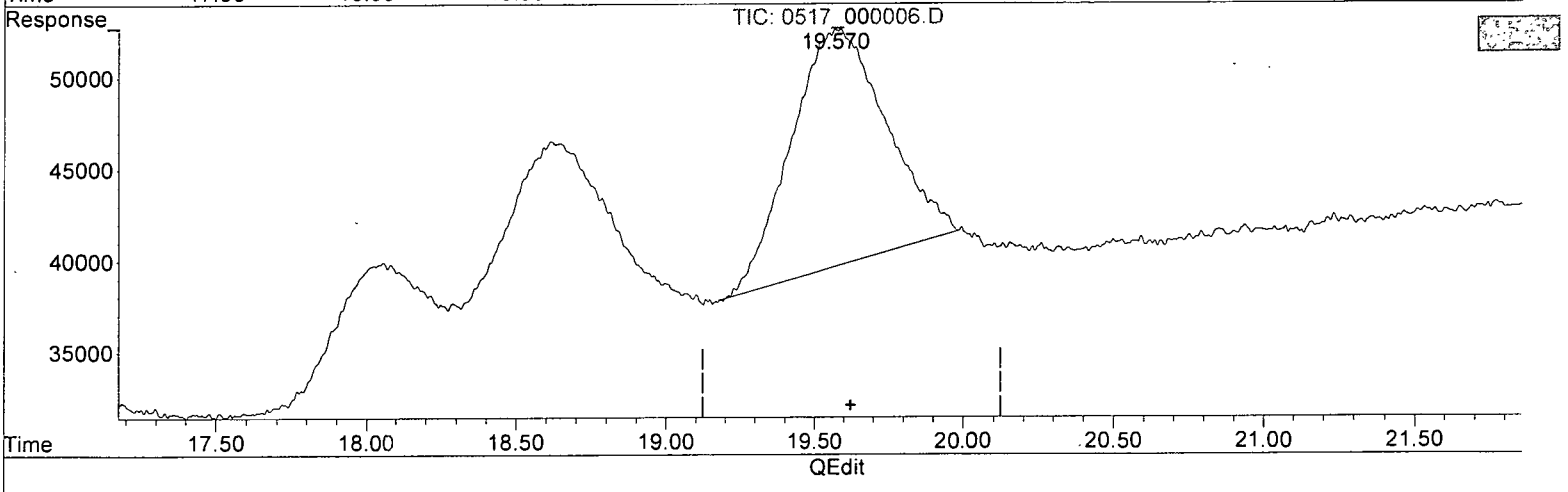
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:27:13
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/16/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:07 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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-





(17) 2-AMINO-4,6-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(17) 2-AMINO-4,6-DINITROTOLUENE #2 (TM)

19.575min 6.327 ppb

response 12898

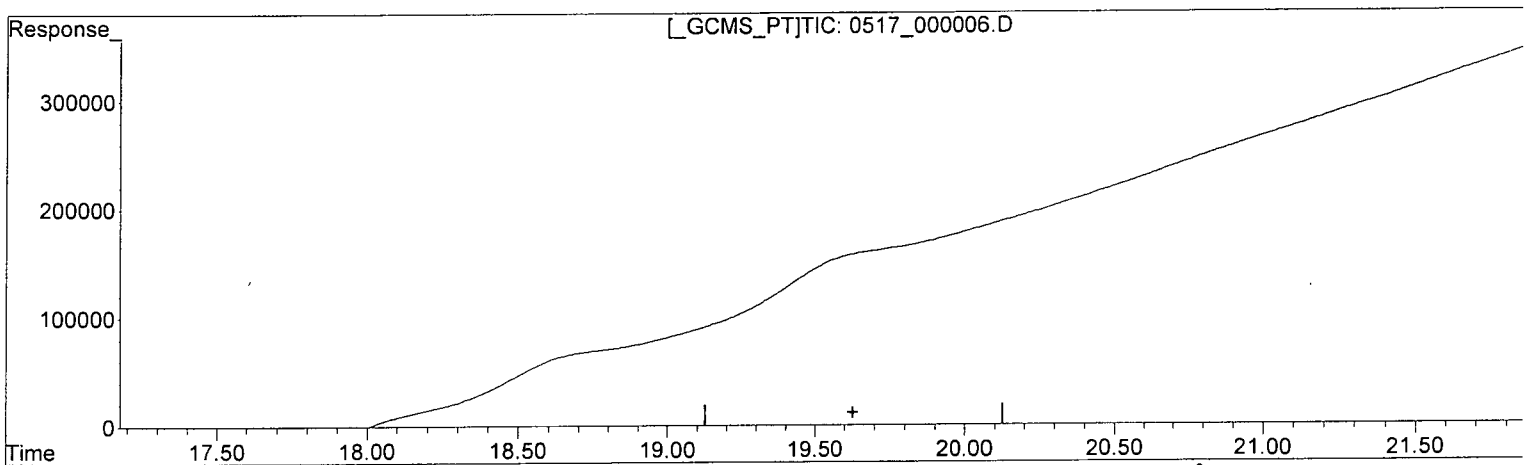
(+) = Expected Retention Time

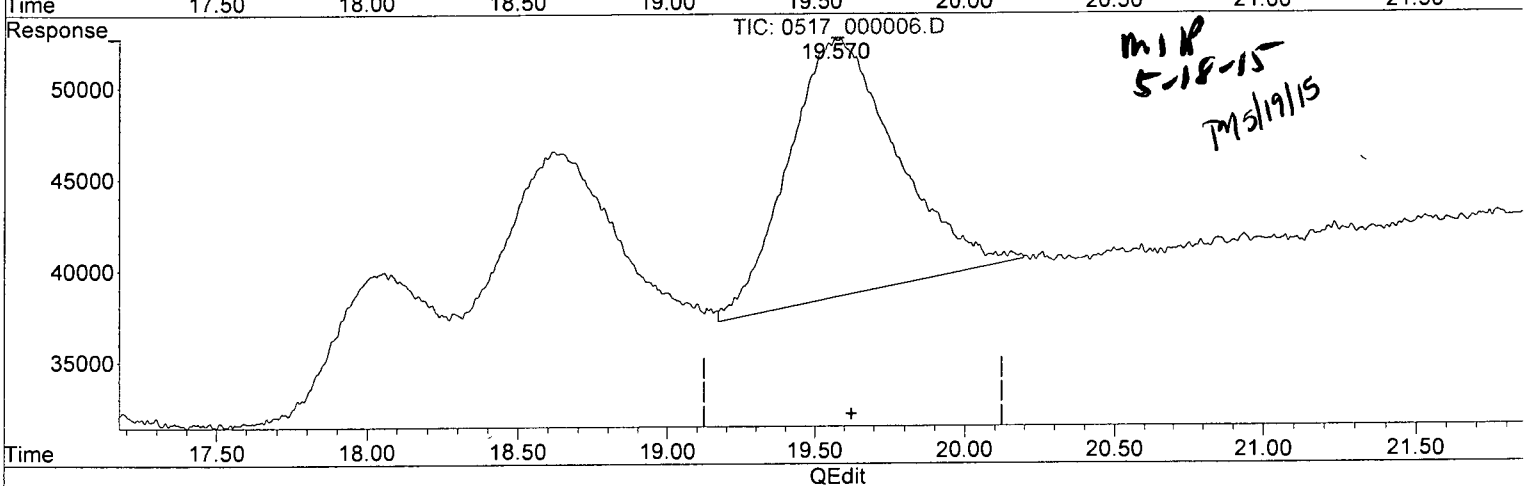
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 18:27:13
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/16/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:07 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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 5-18-15
TM 5/19/15

(17) 2-AMINO-4,6-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(17) 2-AMINO-4,6-DINITROTOLUENE #2 (TM)

19.570min 6.942 ppb m

response 14150

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000007.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 19:06:45
Operator : MP
Sample : 8330MXB_CB 0.010 PPM 05/16/15
Misc :
ALS Vial : 4099 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:00:30 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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...	12.046	0.000	5922	0	6.502	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	16.538	0	13964	N.D.	6.996 #
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.

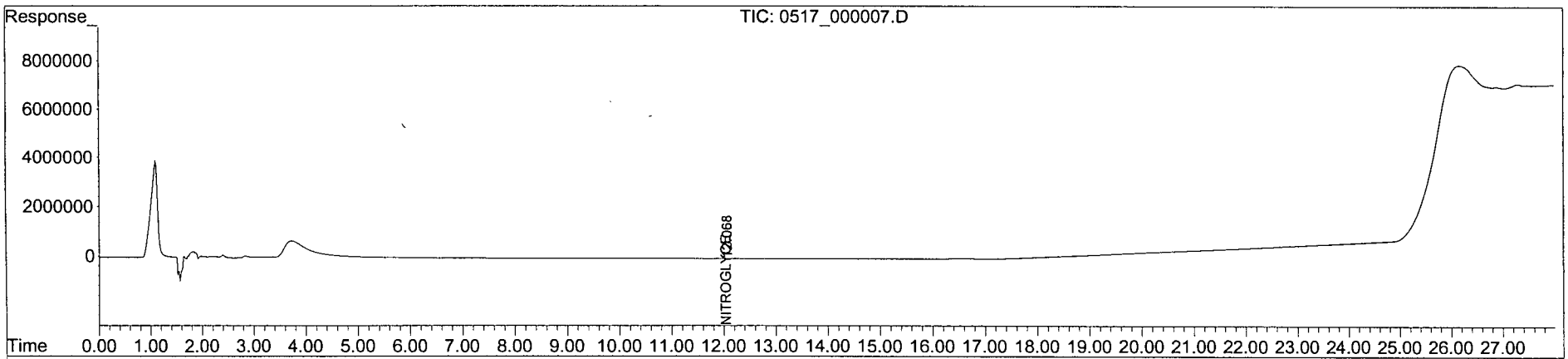
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

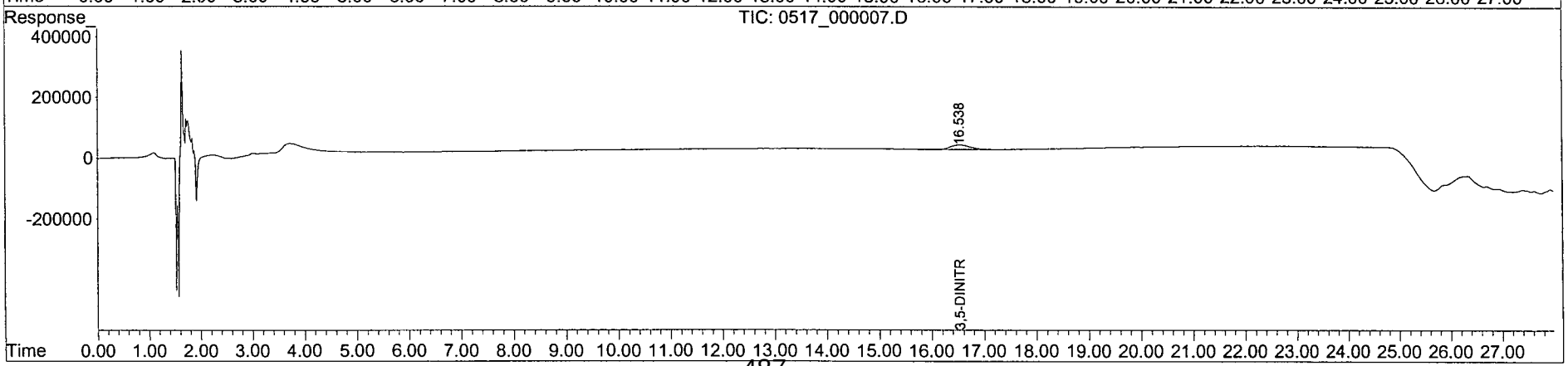
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000007.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 19:06:45
Operator : MP
Sample : 8330MXB_CB 0.010 PPM 05/16/15
Misc :
ALS Vial : 4099 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 08:00:30 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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\150517\150517\
Data File : 0517_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 19:46:17
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/16/15
Misc :
ALS Vial : 4100 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:59:55 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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	8.088	0	31442	N.D.	14.903 #
	Spiked Amount 62.500			Recovery	=	0.00%	23.84%
	Target Compounds						
1)	TM HMX	0.000	4.063	0	31608	N.D.	15.031m#
2)	TM RDX	0.000	6.403	0	27251	N.D.	14.713m#
3)	TM 1,3,5-TRI...	0.000	6.750	0	68662	N.D.	15.362m#
5)	TM 1,3-DINIT...	0.000	8.421	0	70629	N.D.	15.705 #
6)	TM NITROBENZENE	0.000	9.166	0	37102	N.D.	14.484m#
7)	TM 2,4,6-TRI...	0.000	11.444	0	36061	N.D.	14.205 #
8)	TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9)	TM TETRYL	11.962	11.964	20009	26476	NoCal	16.072 #
10)	TM 2,6-DINIT...	13.443	13.440	32645	21397	NoCal	14.486 #
11)	TM 2,4-DINIT...	0.000	14.041	0	37717	N.D.	14.970 #
12)	TM 2-NITROTO...	0.000	15.465	0	14068	N.D.	13.343m#
13)	TM 4-NITROTO...	0.000	16.873	0	11267	N.D.	12.864m#
14)	TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
15)	TM 3-NITROTO...	0.000	18.065	0	13775	N.D.	12.883 #
16)	TM 4-AMINO-2...	0.000	18.665	0	22552	N.D.	16.098 #
17)	TM 2-AMINO-4...	0.000	19.595	0	29507	N.D.	14.475 #
18)	TM PETN	0.000	0.000	0	0	N.D.	N.D.

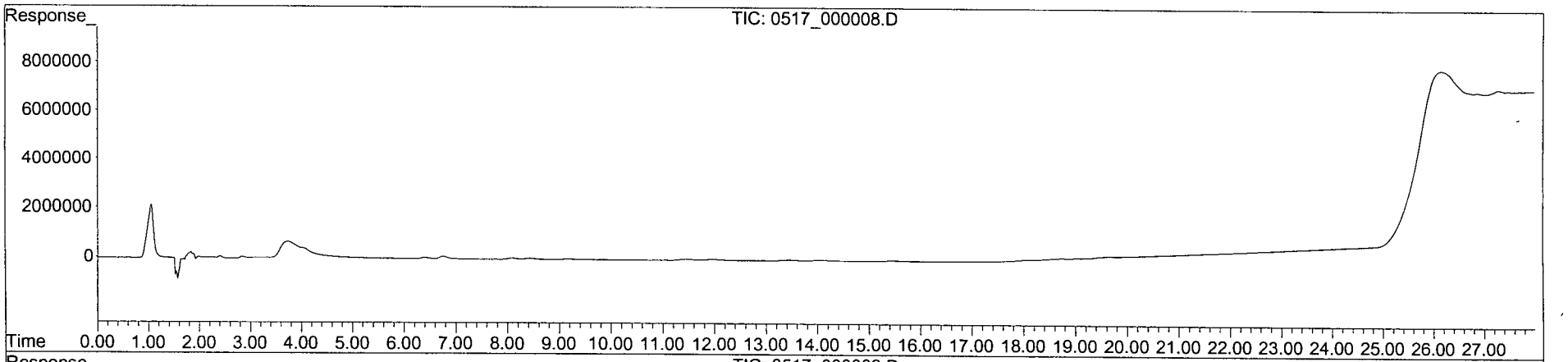
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

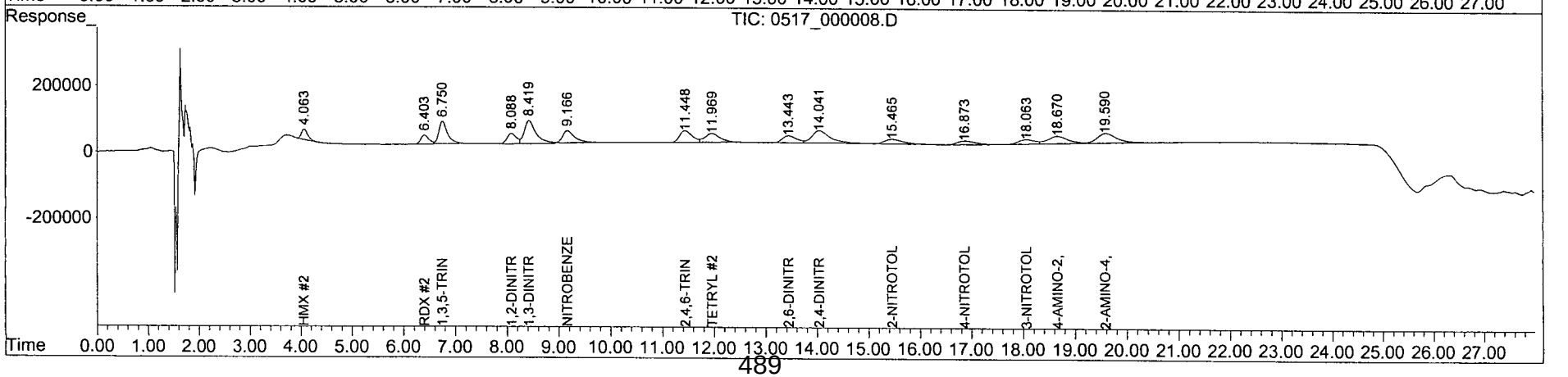
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 19:46:17
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/16/15
Misc :
ALS Vial : 4100 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:59:55 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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



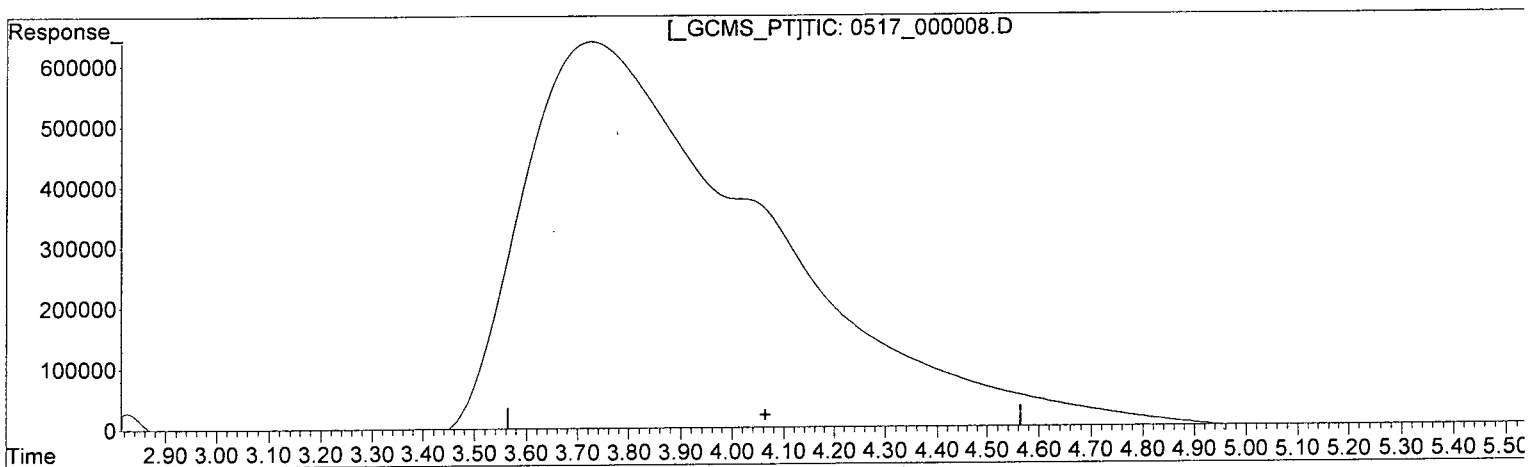


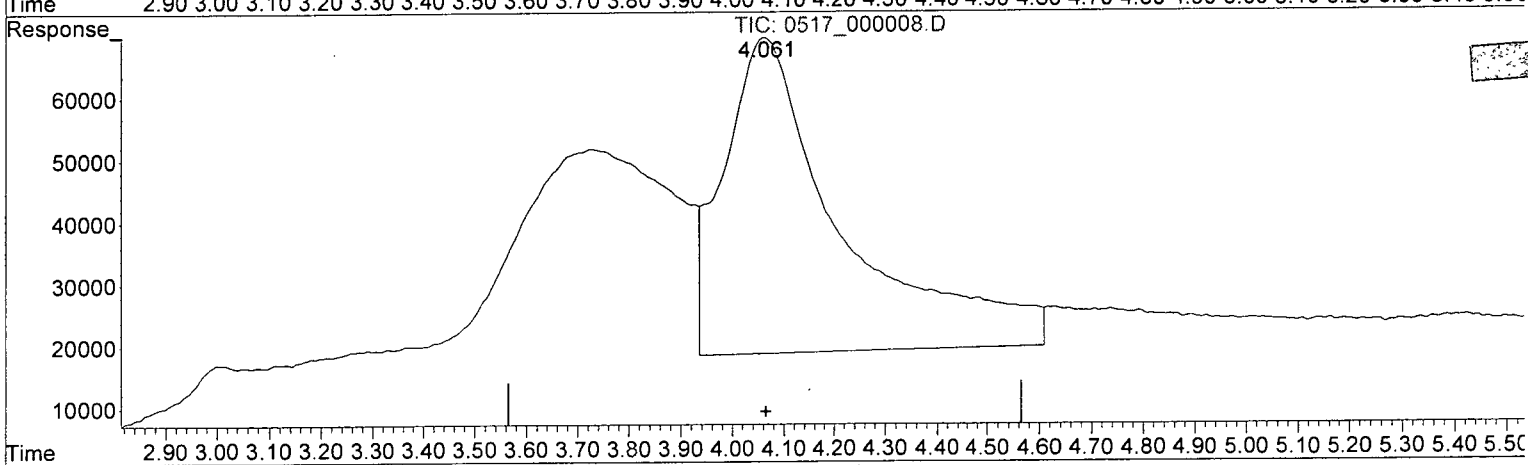
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 19:46:17
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/16/15
Misc :
ALS Vial : 4100 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:13 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

4.062min 24.169 ppb

response 50824

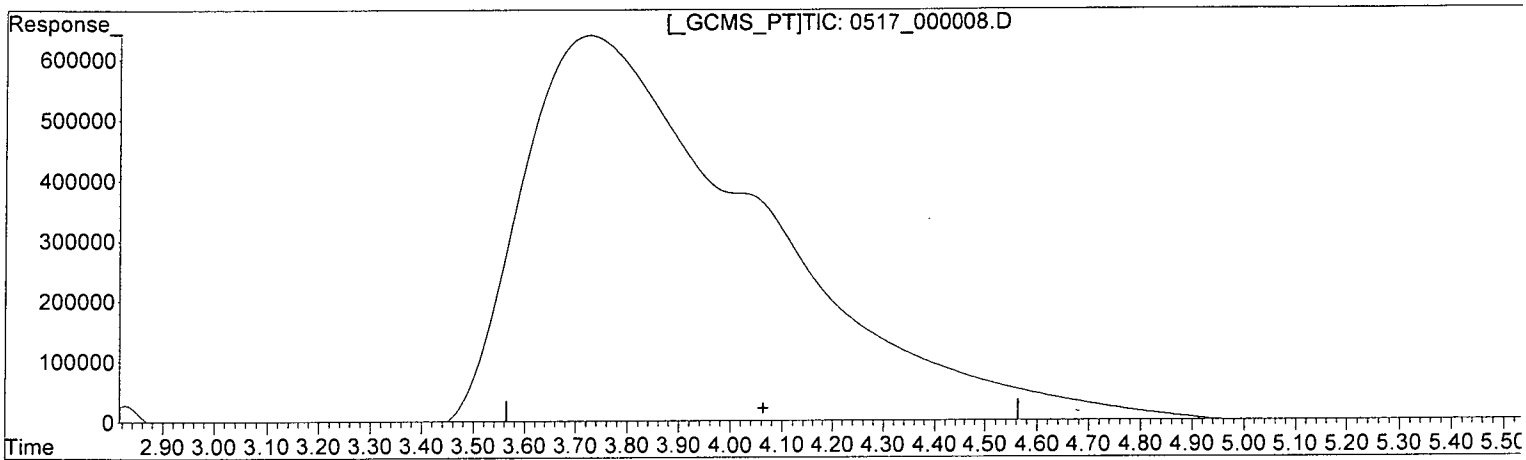
(+) = Expected Retention Time

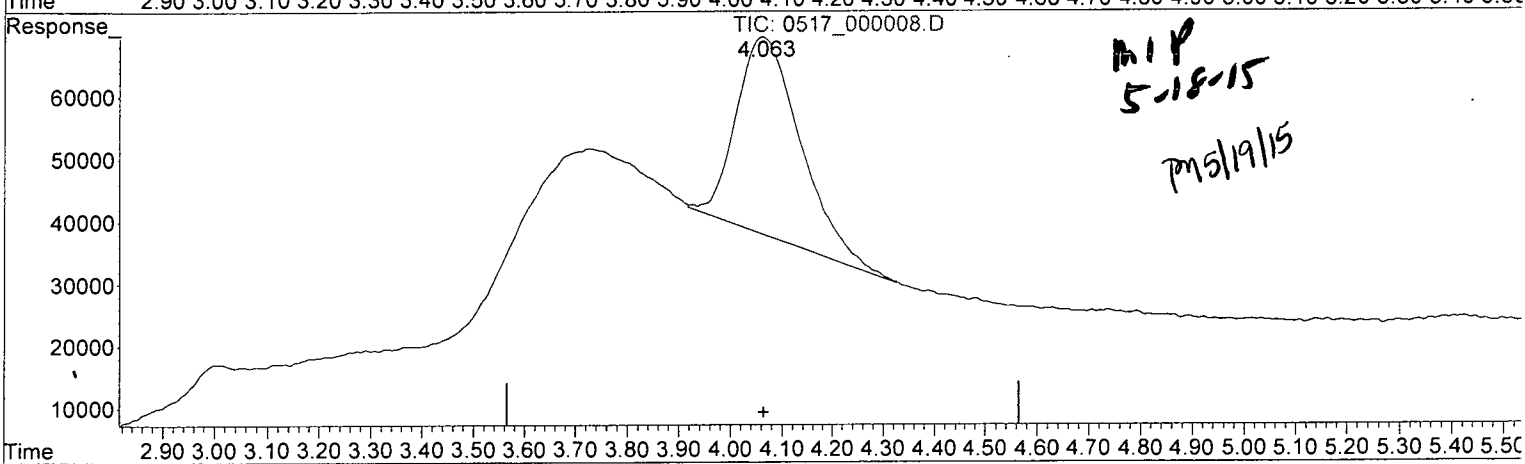
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 19:46:17
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/16/15
Misc :
ALS Vial : 4100 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:13 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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
5-18-15
PM 5/19/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.063min 15.031 ppb m

response 31608

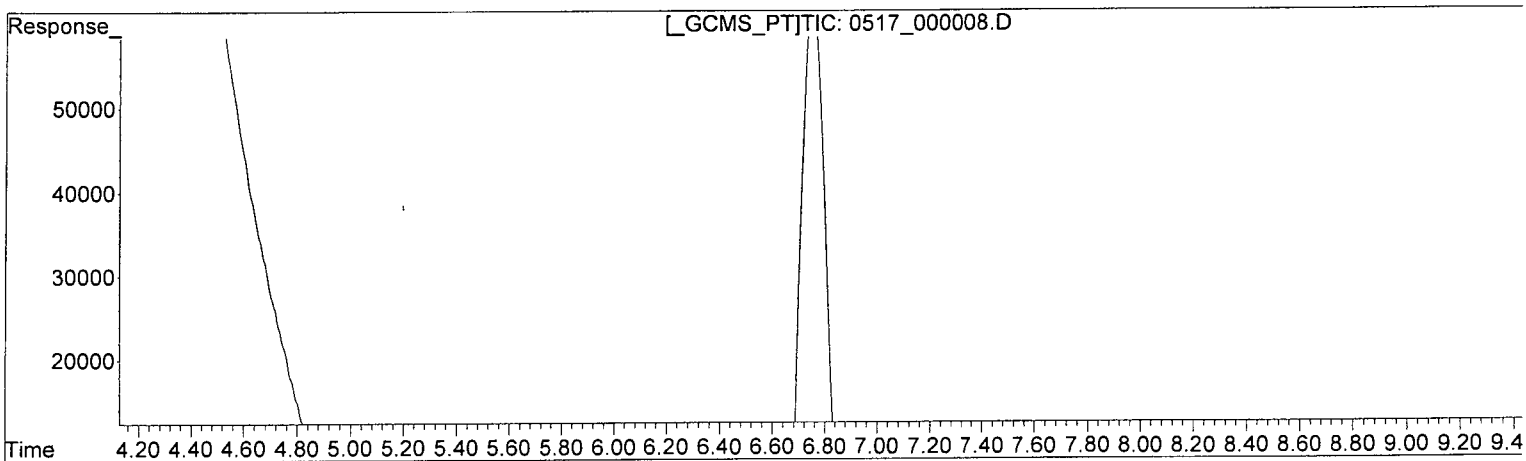
(+) = Expected Retention Time

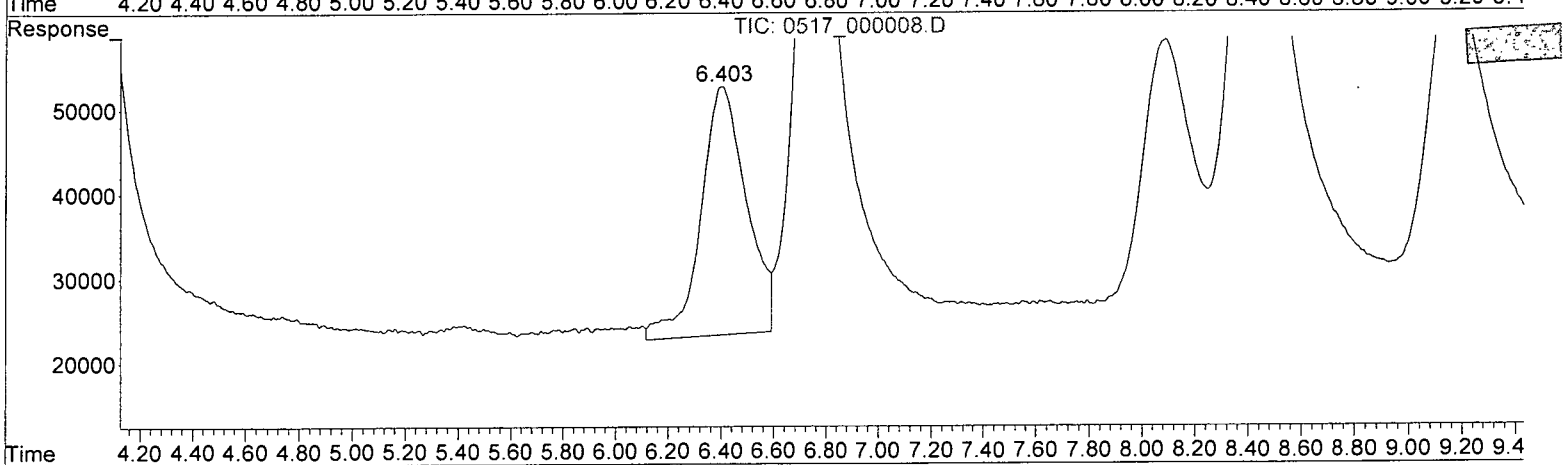
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 19:46:17
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/16/15
Misc :
ALS Vial : 4100 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:13 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

6.403min 15.859 ppb

response 29373

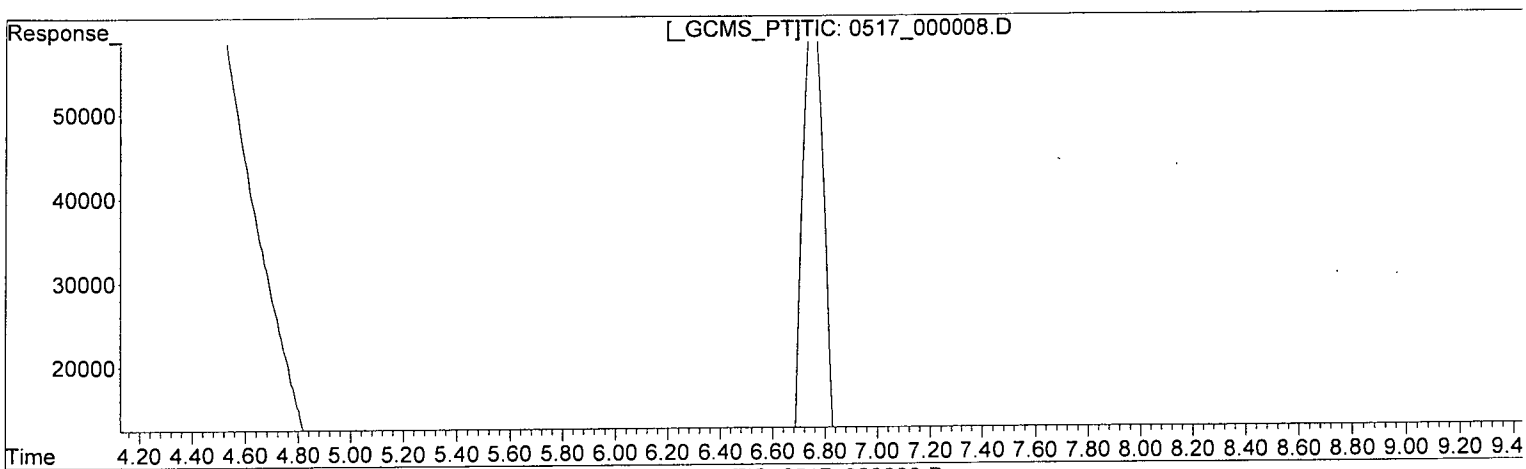
(+) = Expected Retention Time

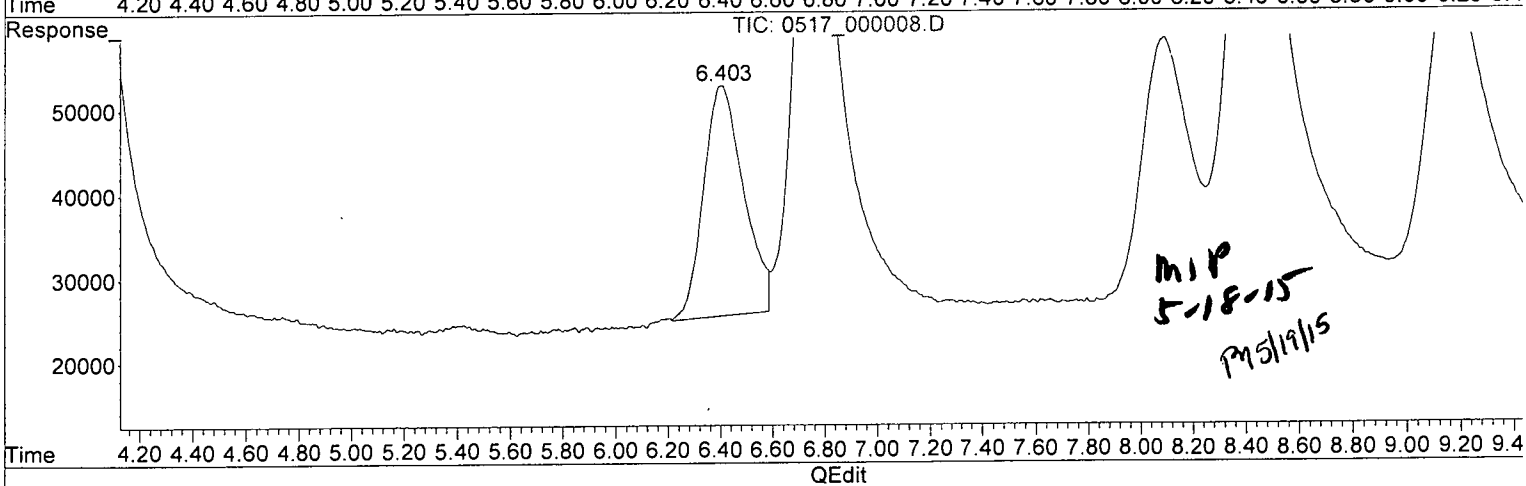
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 19:46:17
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/16/15
Misc :
ALS Vial : 4100 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:13 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

6.403min 14.713 ppb m

response 27251

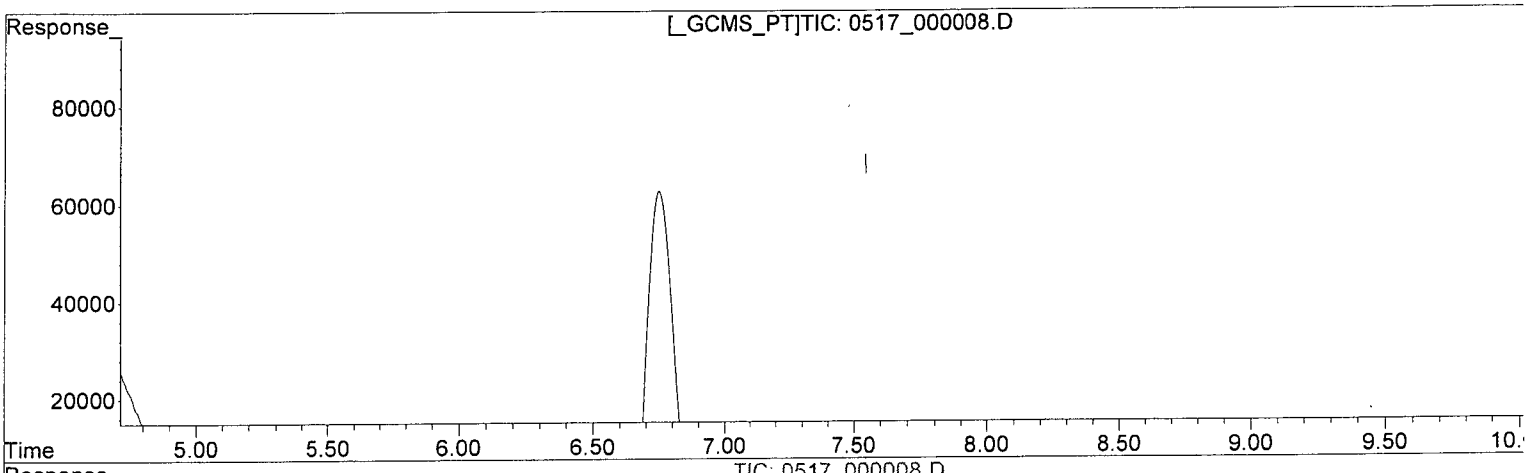
(+) = Expected Retention Time

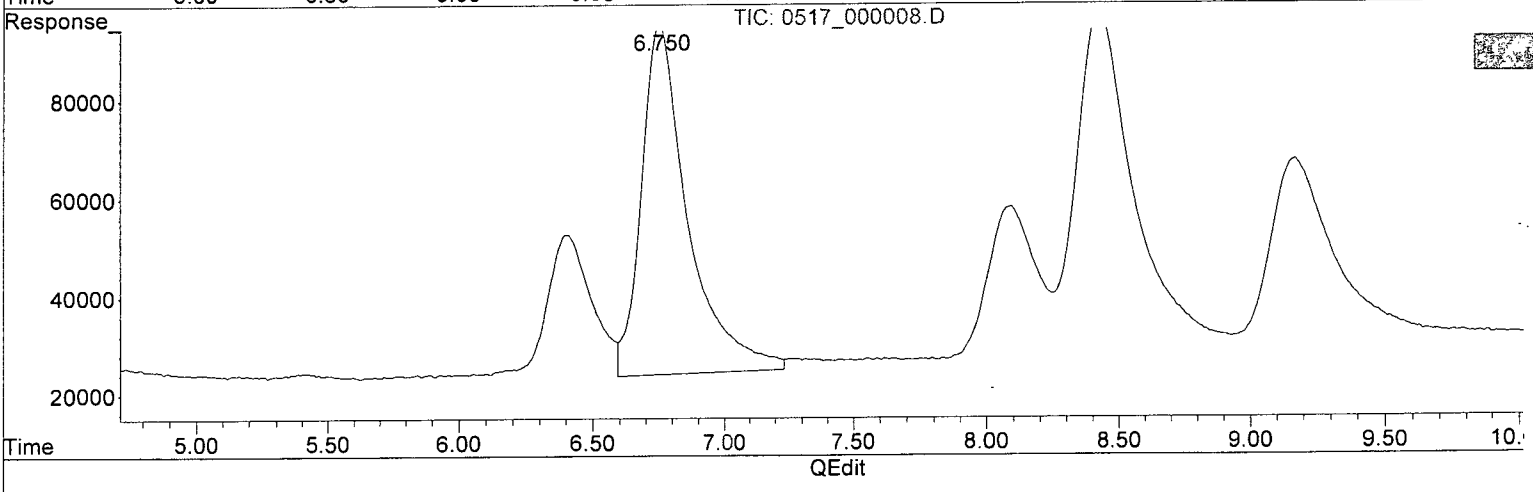
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 19:46:17
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/16/15
Misc :
ALS Vial : 4100 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:13 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

6.750min 15.935 ppb

response 71224

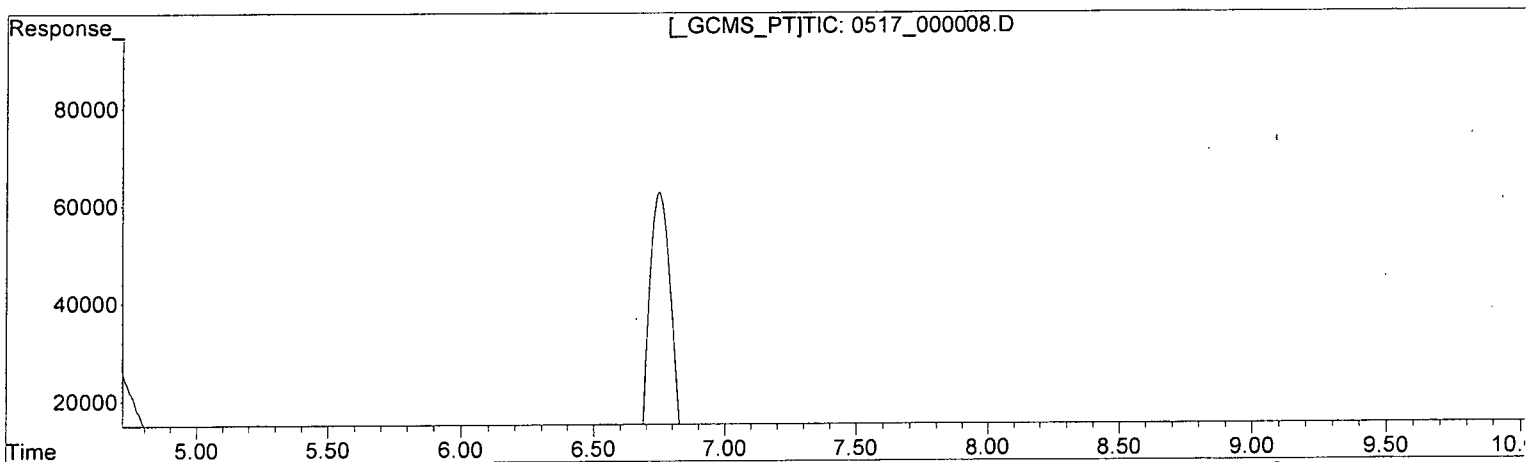
(+) = Expected Retention Time

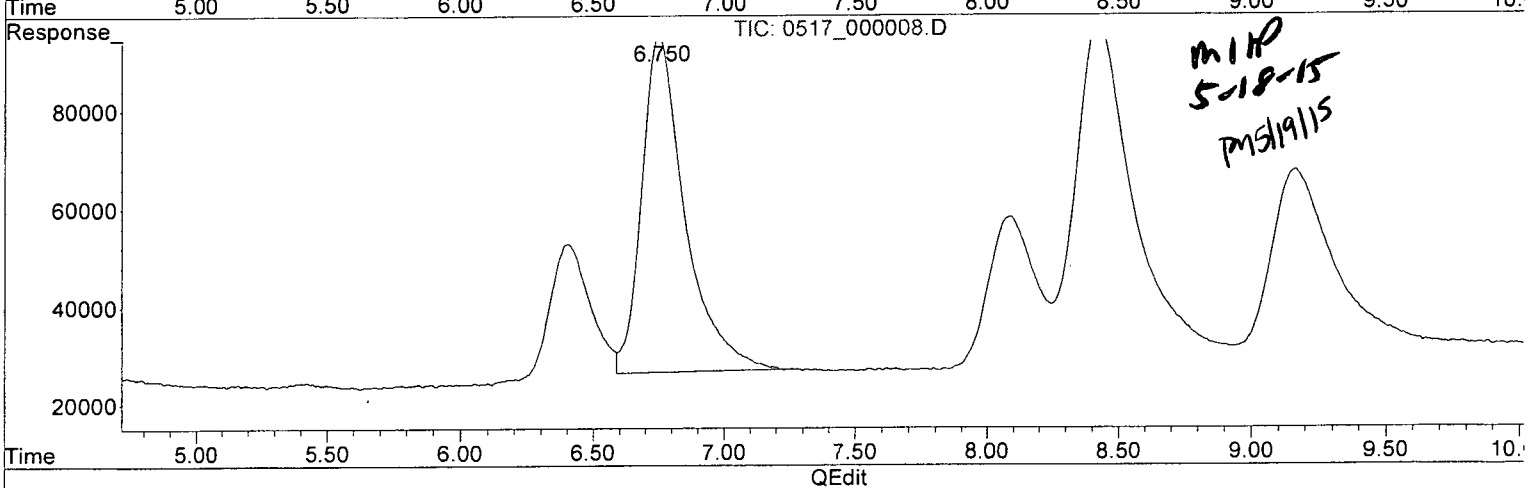
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 19:46:17
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/16/15
Misc :
ALS Vial : 4100 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:13 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

6.750min 15.362 ppb m

response 68662

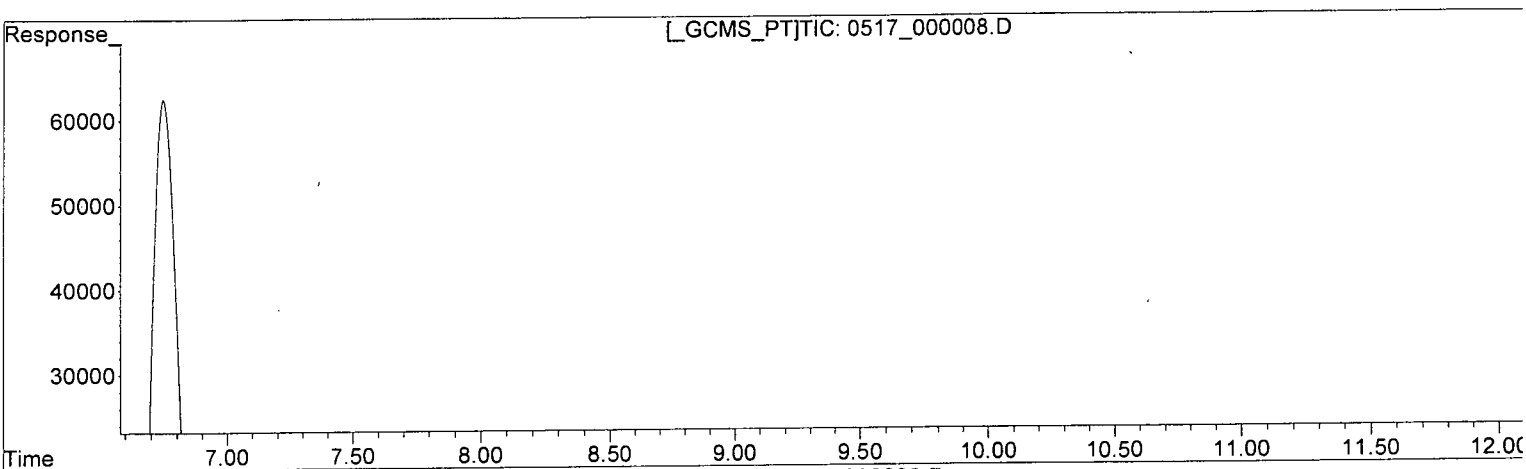
(+) = Expected Retention Time

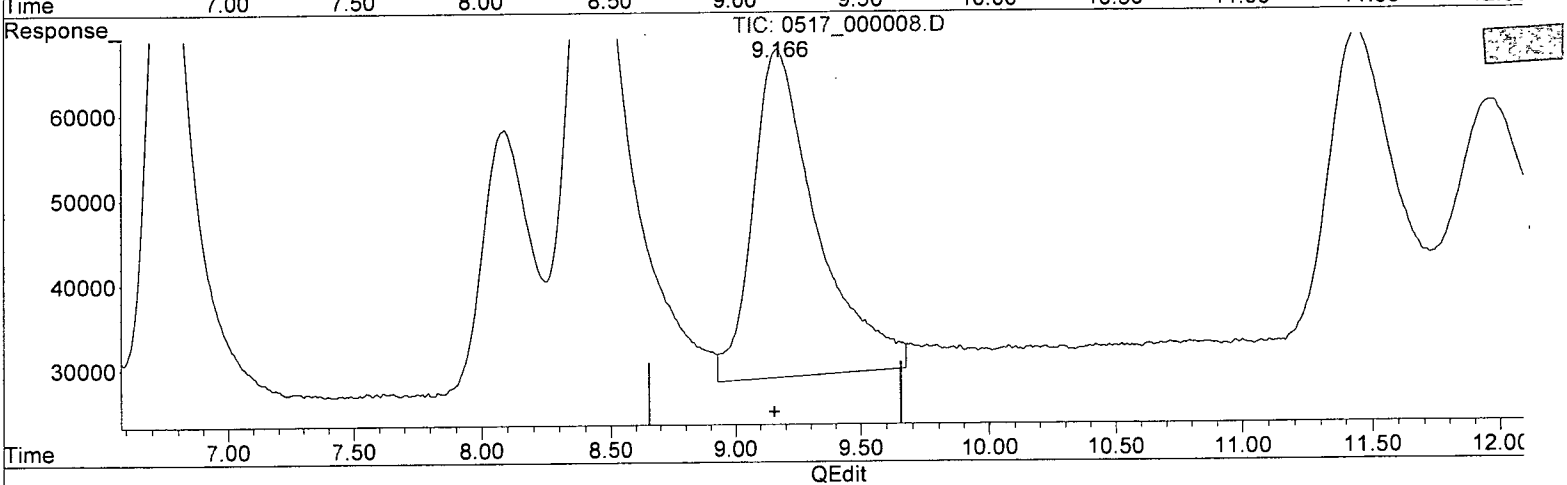
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 19:46:17
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/16/15
Misc :
ALS Vial : 4100 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:13 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

9.164min 15.144 ppb

response 38793

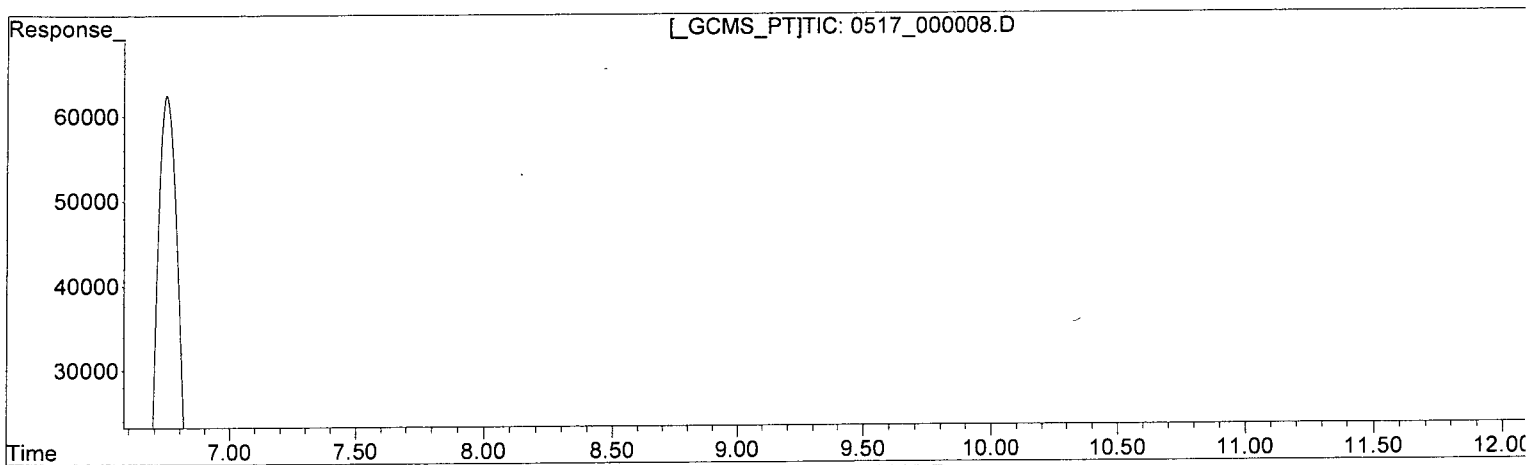
(+) = Expected Retention Time

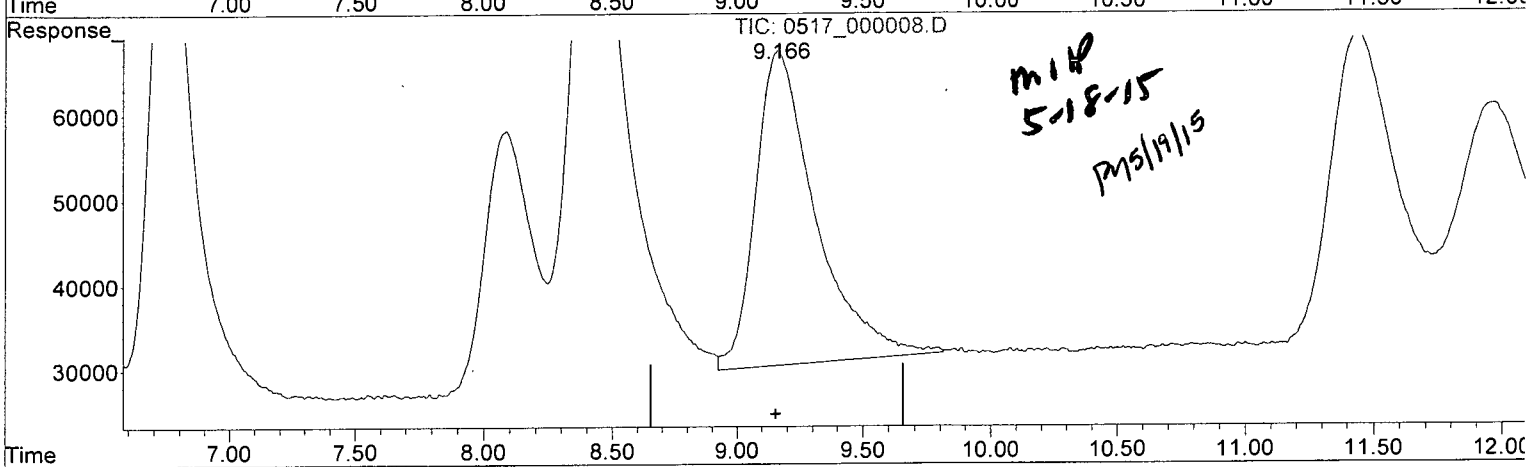
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 19:46:17
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/16/15
Misc :
ALS Vial : 4100 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:13 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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
5-18-15
PM 5/19/15

(6) NITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(6) NITROBENZENE #2 (TM)

9.166min 14.484 ppb m

response 37102

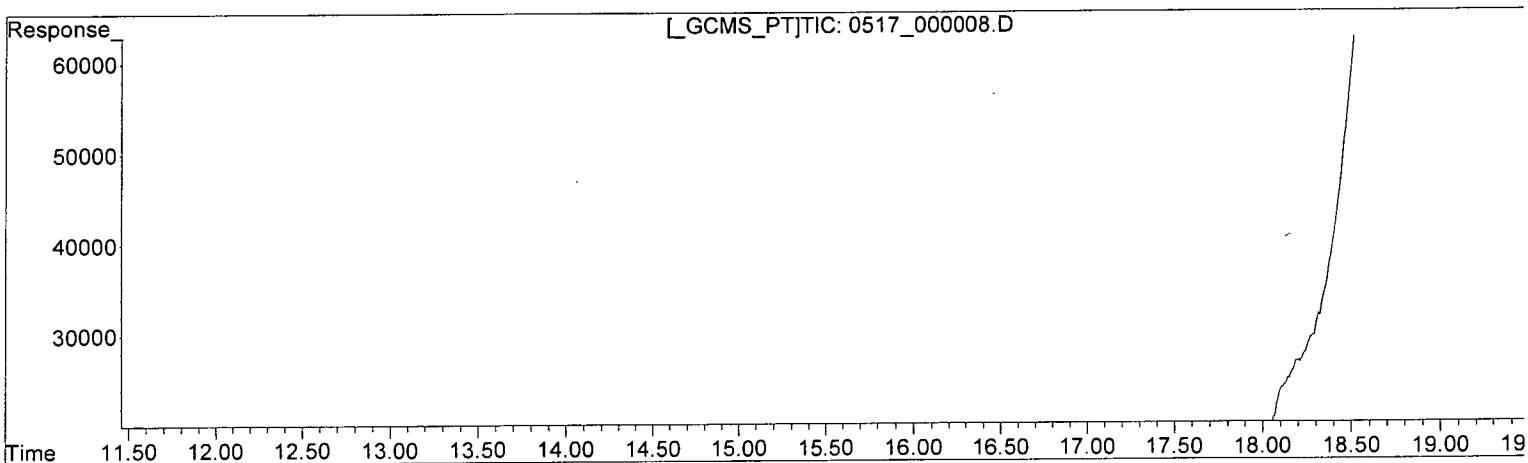
(+) = Expected Retention Time

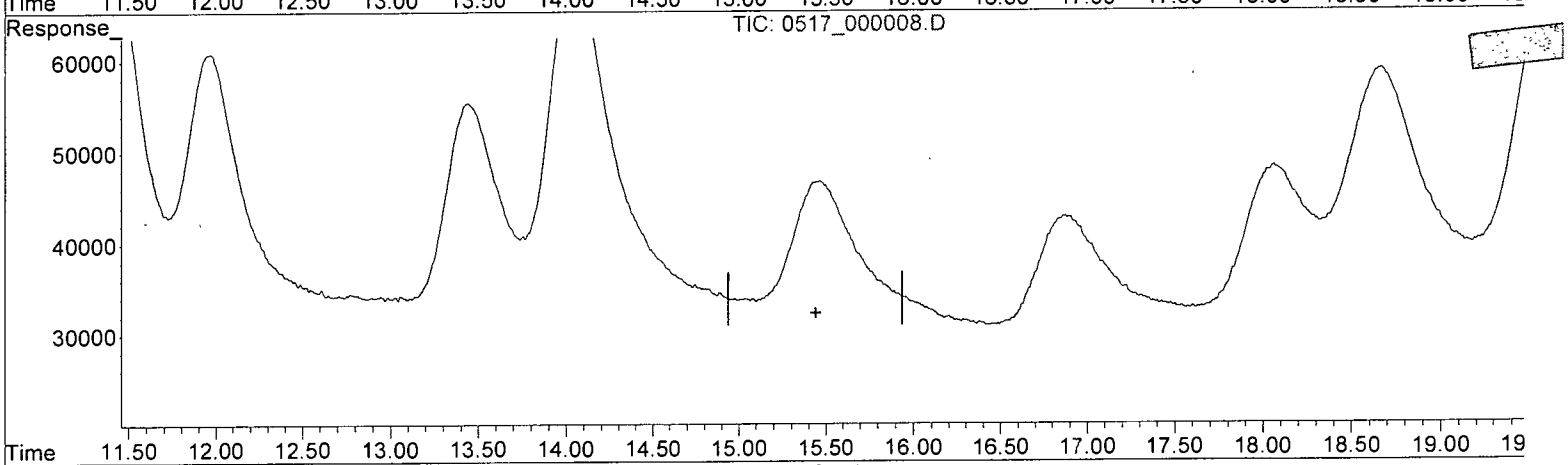
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 19:46:17
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/16/15
Misc :
ALS Vial : 4100 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:13 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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

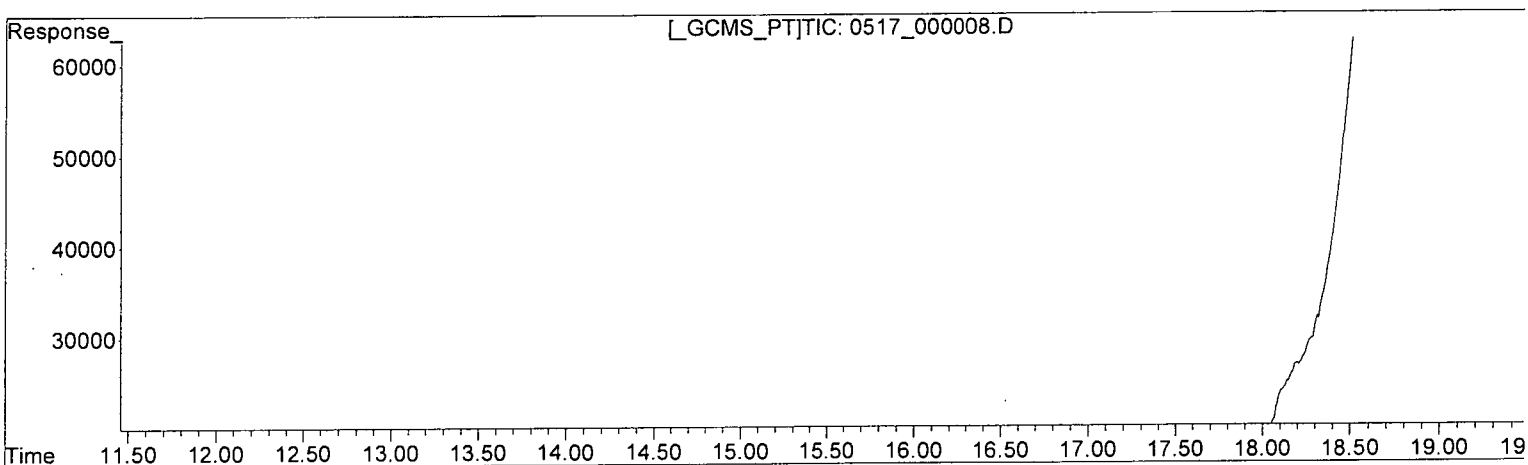
(+) = Expected Retention Time

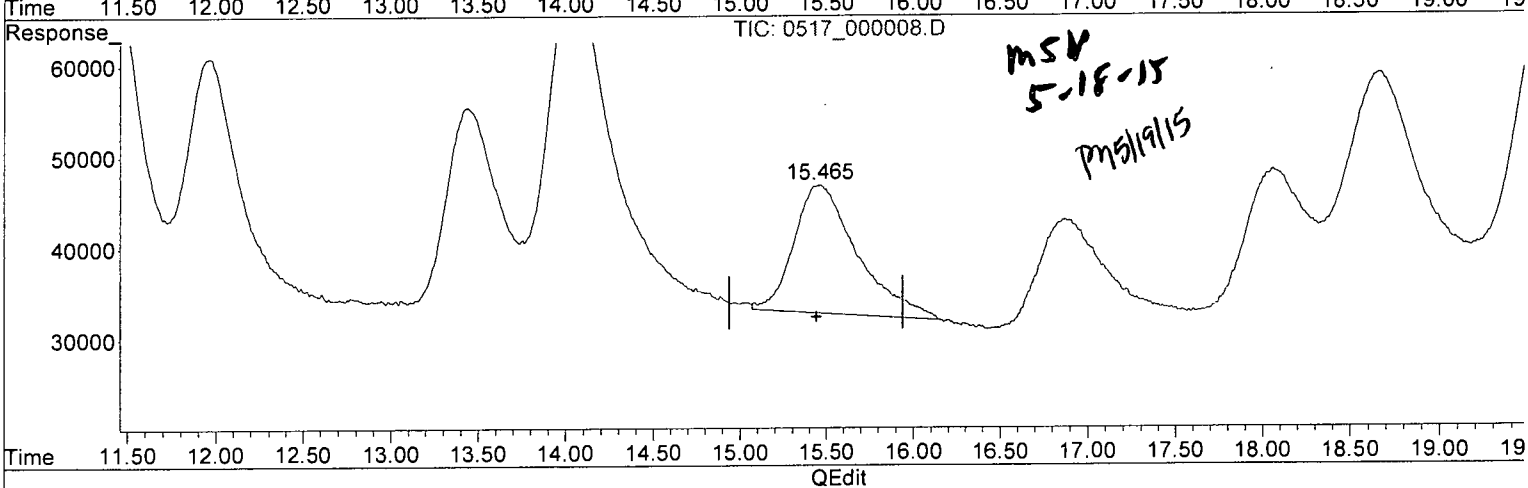
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 19:46:17
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/16/15
Misc :
ALS Vial : 4100 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:13 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

15.465min 13.343 ppb m

response 14068

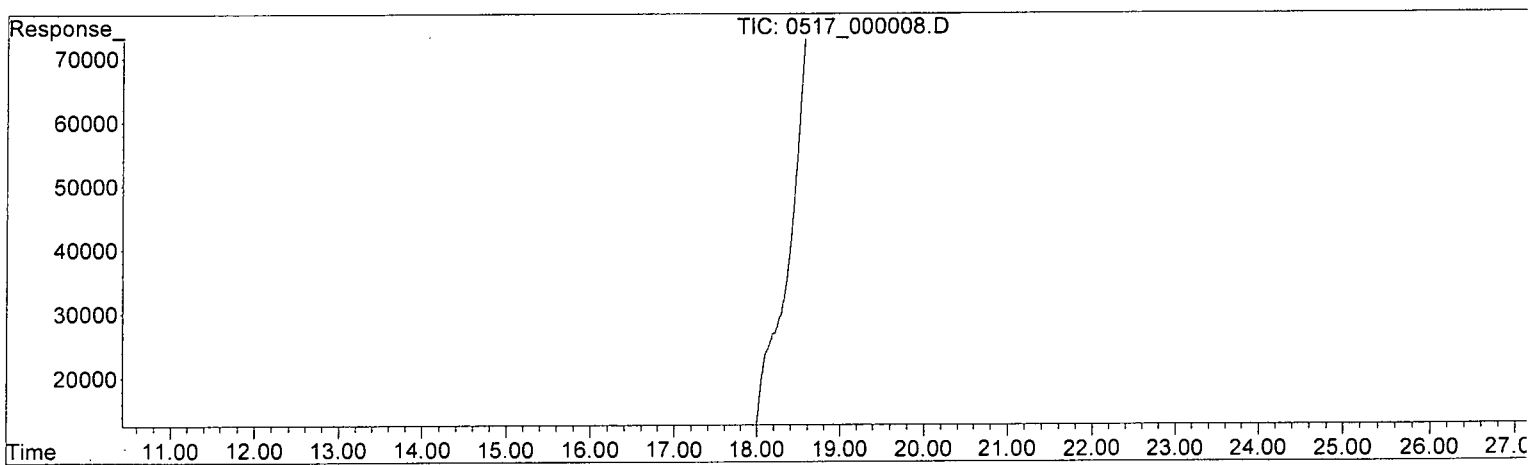
(+) = Expected Retention Time

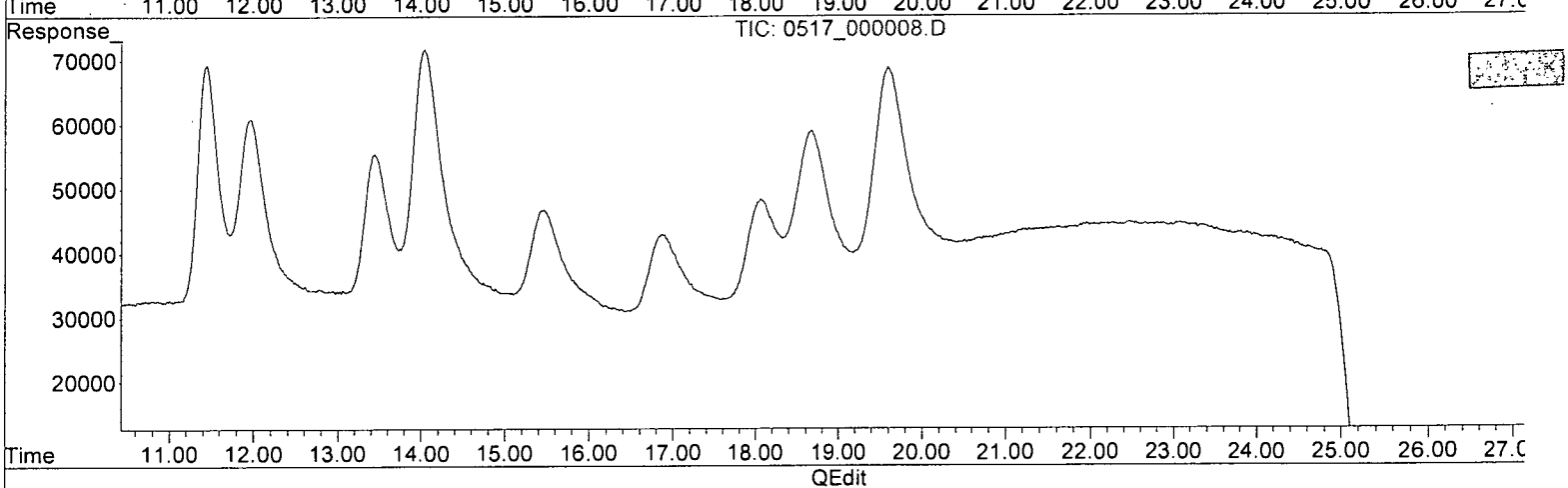
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 19:46:17
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/16/15
Misc :
ALS Vial : 4100 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:13 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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-





(13) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(13) 4-NITROTOLUENE #2 (TM)

0.000min 0.000 ppb

response 0

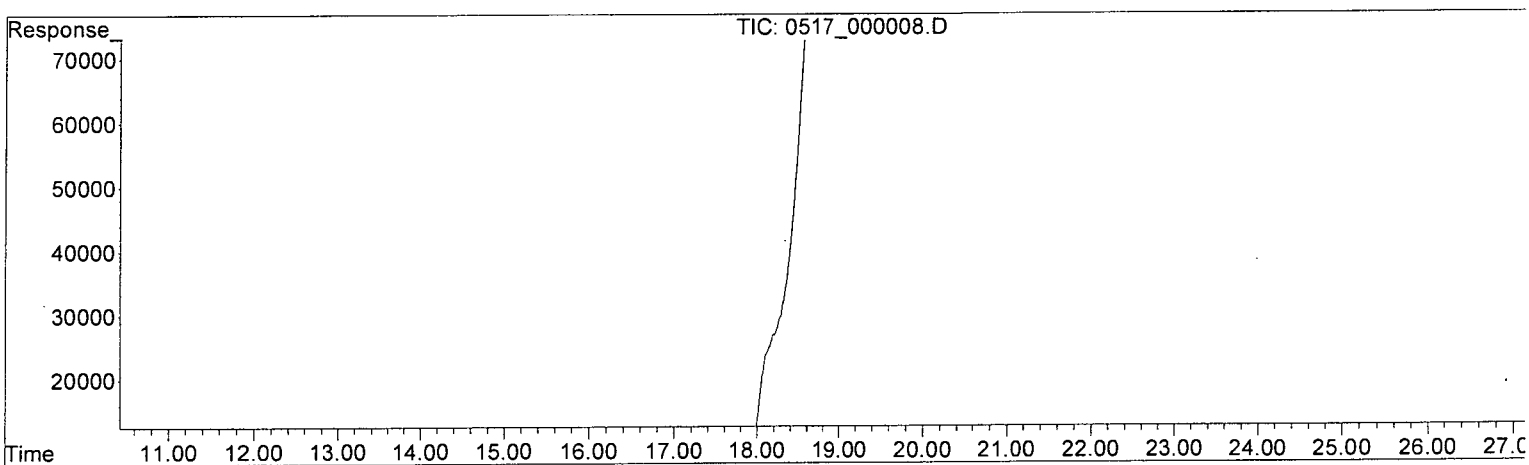
(+) = Expected Retention Time

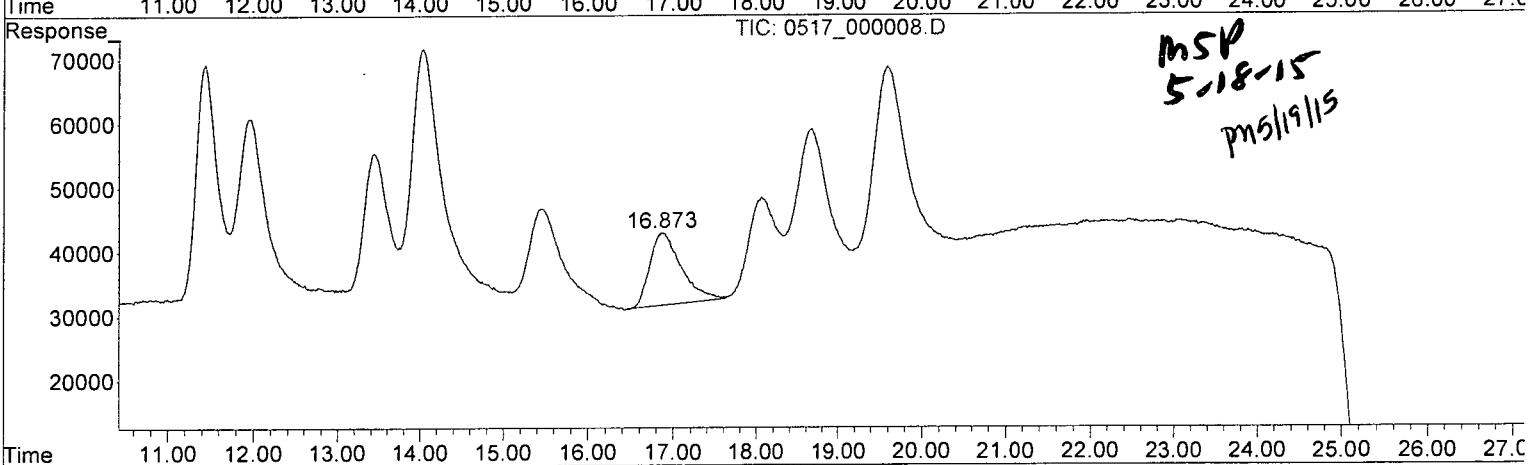
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 19:46:17
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/16/15
Misc :
ALS Vial : 4100 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:13 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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
5-18-15
pm5/19/15

(13) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(13) 4-NITROTOLUENE #2 (TM)

16.873min 12.864 ppb m

response 11267

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 20:25:49
Operator : MP
Sample : 8330MXB_CB 0.020 PPM 05/16/15
Misc :
ALS Vial : 4101 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:56:01 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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...	12.007	0.000	13229	0	14.526m	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	16.502	0	30087	N.D.	15.073m#
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.

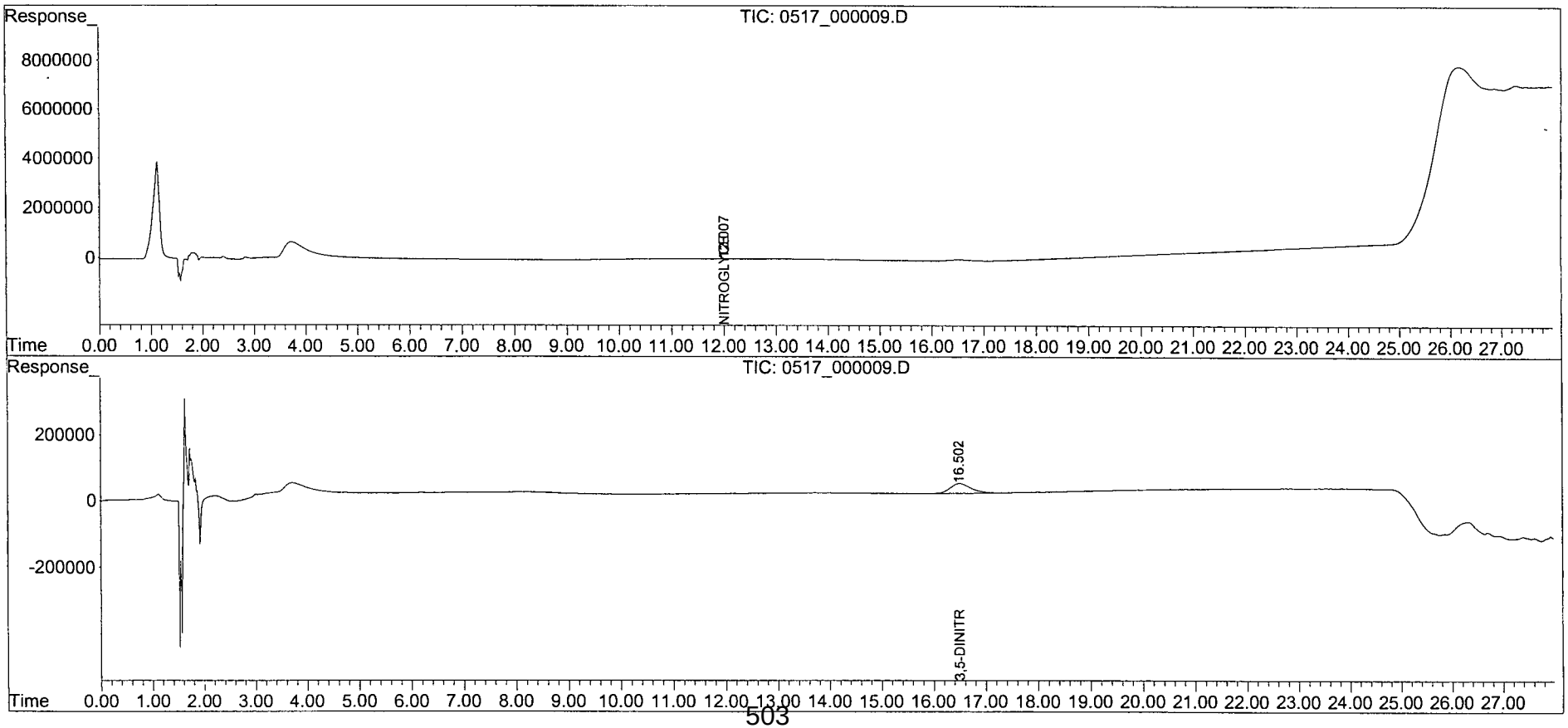
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 20:25:49
Operator : MP
Sample : 8330MXB_CB 0.020 PPM 05/16/15
Misc :
ALS Vial : 4101 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:56:01 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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

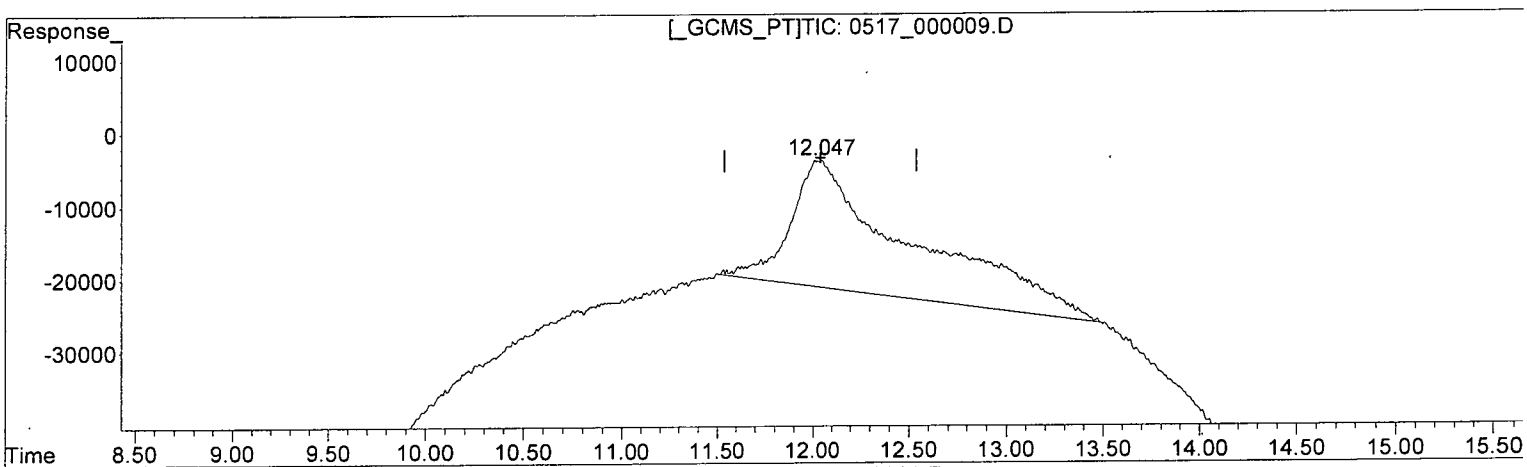


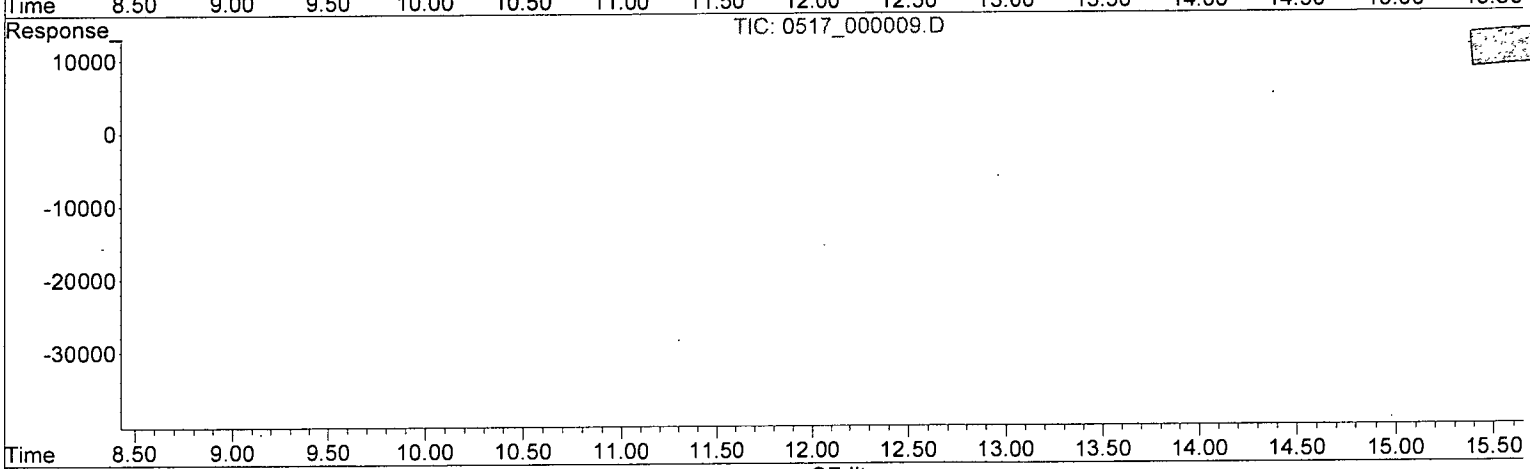
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 20:25:49
Operator : MP
Sample : 8330MXB_CB 0.020 PPM 05/16/15
Misc :
ALS Vial : 4101 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:16 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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-





(8) NITROGLYCERIN (TM)

12.029min 18.924 ppb

response 17235

(8) NITROGLYCERIN #2 (TM)

0.000min 0.000 ppb d

response 0

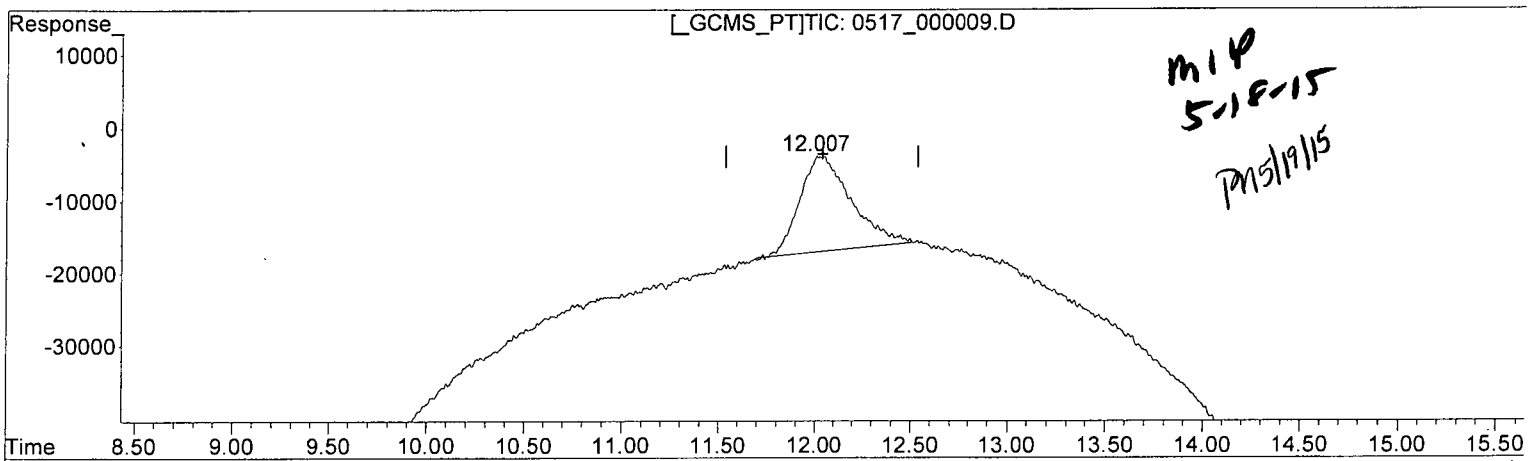
(+) = Expected Retention Time

Quantitation Report (Qedit)

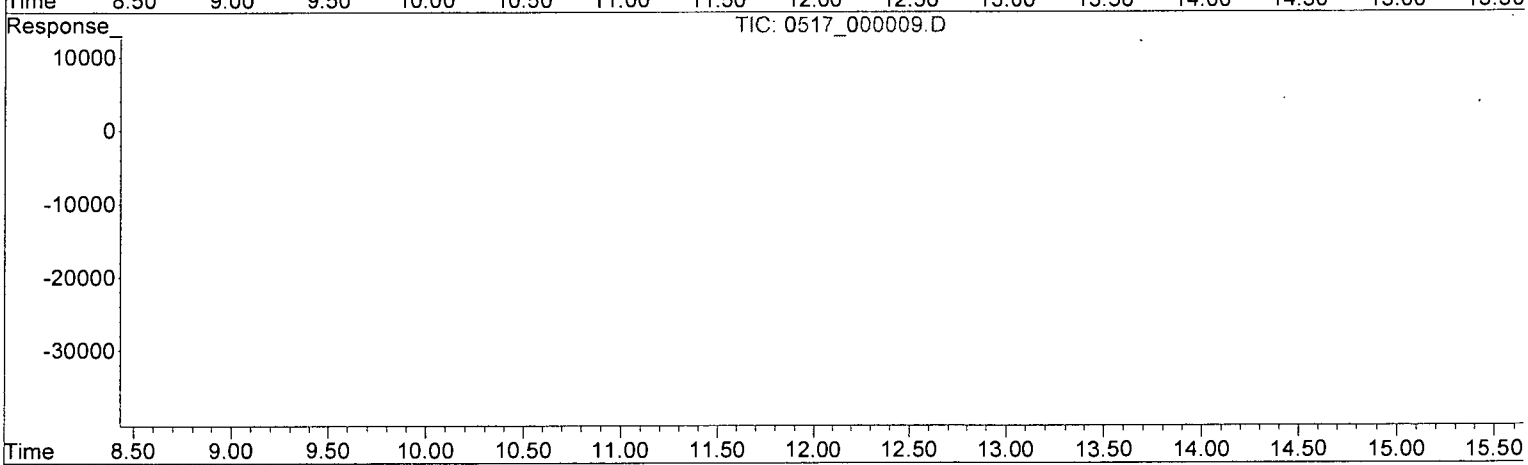
Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 20:25:49
Operator : MP
Sample : 8330MXB_CB 0.020 PPM 05/16/15
Misc :
ALS Vial : 4101 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:16 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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
5-18-15
PMS 1/19/15



(8) NITROGLYCERIN (TM)

12.007min 14.526 ppb m

response 13229

(8) NITROGLYCERIN #2 (TM)

0.000min 0.000 ppb d

response 0

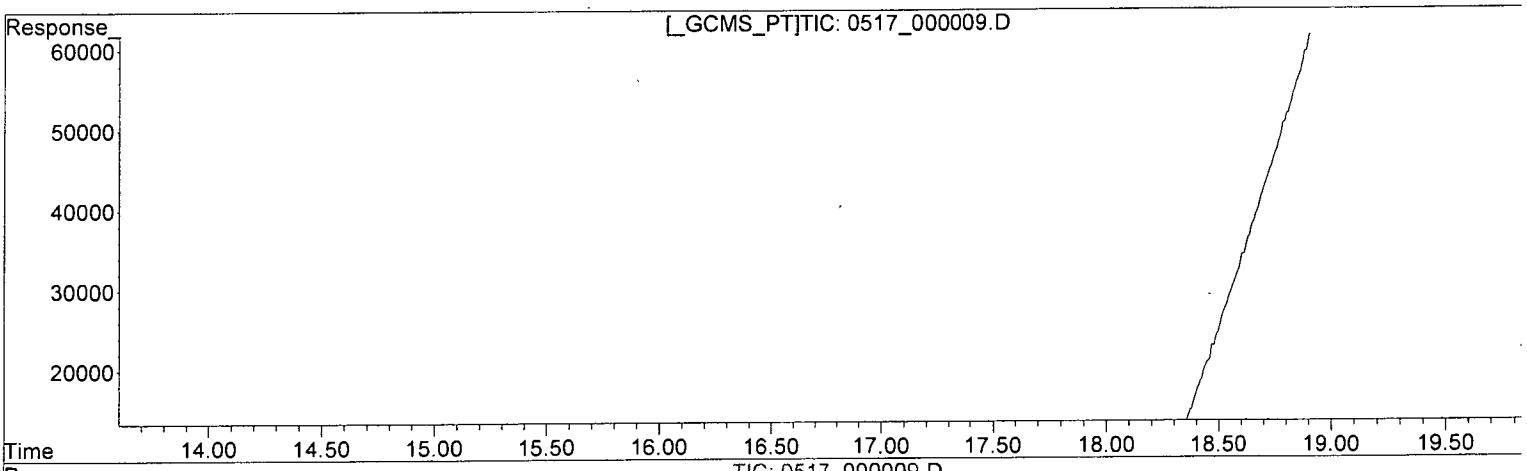
(+) = Expected Retention Time

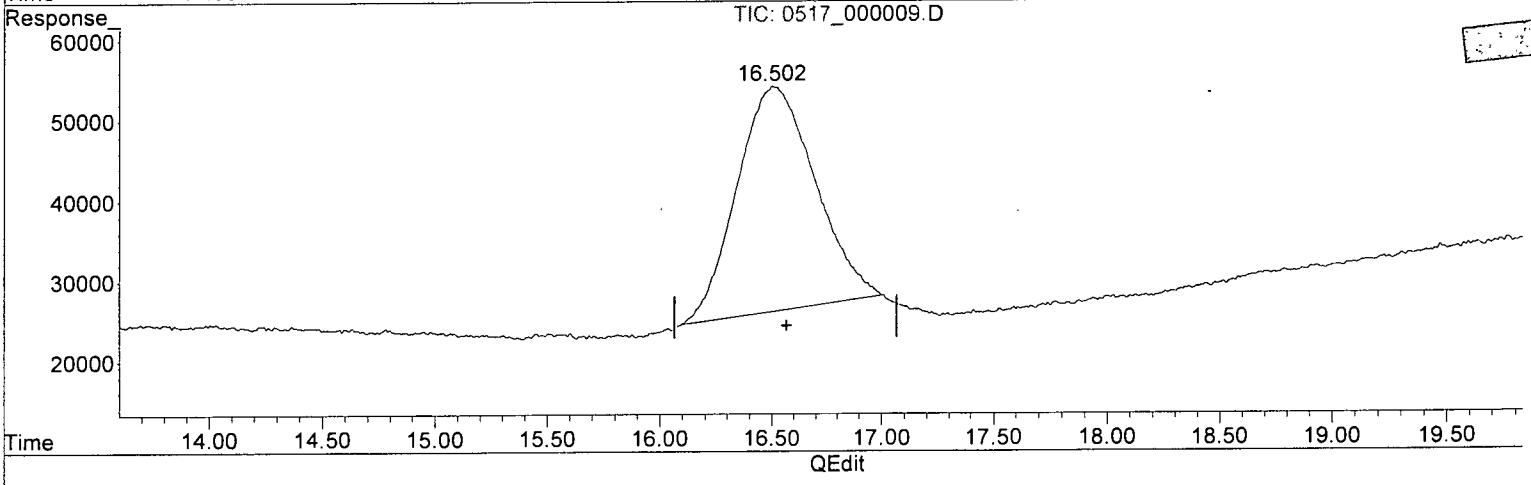
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 20:25:49
Operator : MP
Sample : 8330MXB_CB 0.020 PPM 05/16/15
Misc :
ALS Vial : 4101 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:16 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

16.504min 14.034 ppb

response 28013

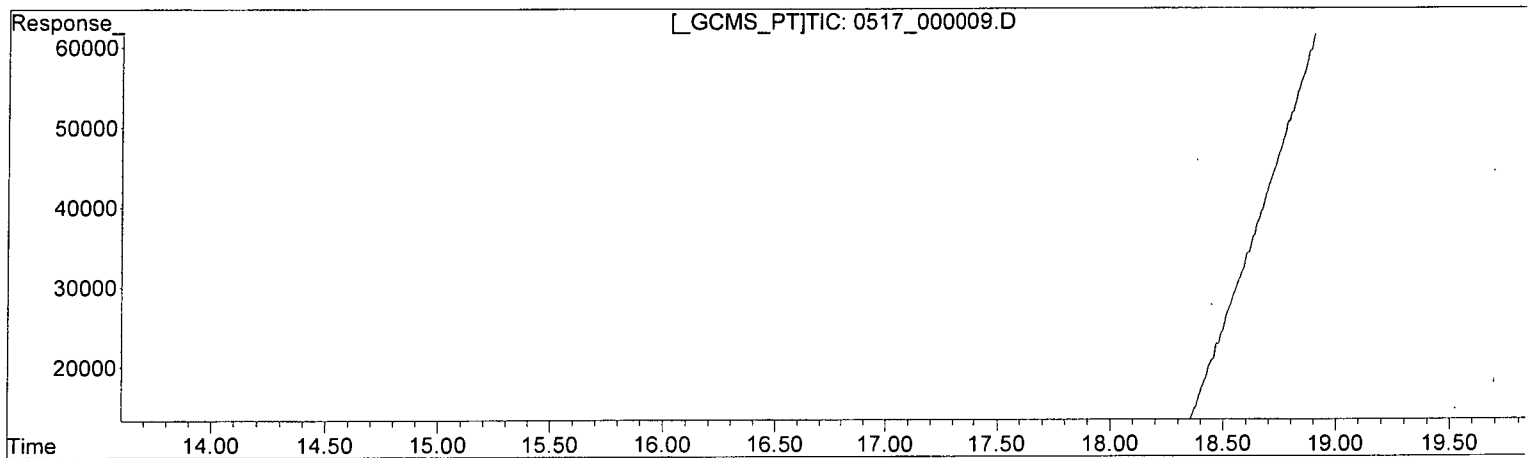
(+) = Expected Retention Time

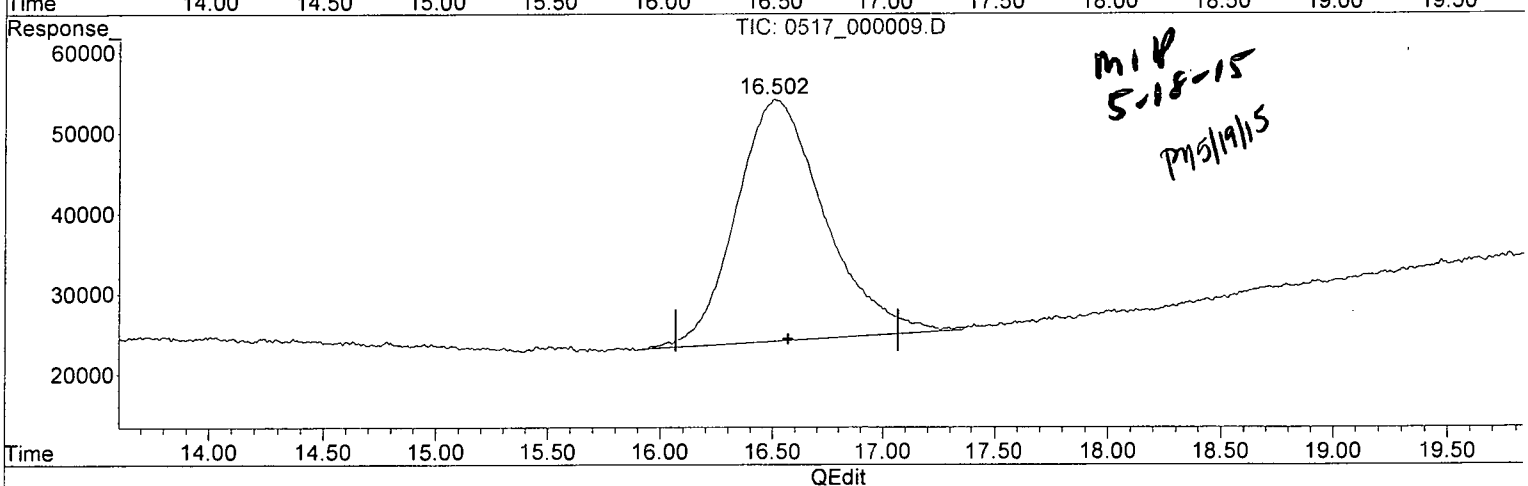
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 20:25:49
Operator : MP
Sample : 8330MXB_CB 0.020 PPM 05/16/15
Misc :
ALS Vial : 4101 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:16 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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
5-18-15
PM 5/19/15

(14) 3,5-DINITROANILINE (TM)

0.000min 0.000 ppb

response 0

(14) 3,5-DINITROANILINE #2 (TM)

16.502min 15.073 ppb m

response 30087

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000010.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 21:05:20
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/16/15
Misc :
ALS Vial : 4102 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:55:04 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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	8.081	0	74786	N.D.	35.447 #
Spiked Amount 62.500			Recovery	=	0.00%	56.72%
Target Compounds						
1) TM HMX	0.000	4.065	0	80920	N.D.	38.481m#
2) TM RDX	0.000	6.403	0	69355	N.D.	37.446 #
3) TM 1,3,5-TRI...	0.000	6.747	0	173729	N.D.	38.868 #
5) TM 1,3-DINIT...	0.000	8.419	0	172151	N.D.	38.279 #
6) TM NITROBENZENE	0.000	9.159	0	93001	N.D.	36.305 #
7) TM 2,4,6-TRI...	0.000	11.432	0	89909	N.D.	35.415 #
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	11.956	11.955	52891	67907	NoCal	41.223 #
10) TM 2,6-DINIT...	13.435	13.435	81214	53309	NoCal	36.091 #
11) TM 2,4-DINIT...	0.000	14.033	0	93725	N.D.	37.200 #
12) TM 2-NITROTO...	0.000	15.439	0	35208	N.D.	33.395 #
13) TM 4-NITROTO...	0.000	16.863	0	29330	N.D.	33.489 #
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
15) TM 3-NITROTO...	0.000	18.049	0	35303	N.D.	33.018 #
16) TM 4-AMINO-2...	0.000	18.658	0	56651	N.D.	40.437 #
17) TM 2-AMINO-4...	0.000	19.602	0	72652	N.D.	35.640 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

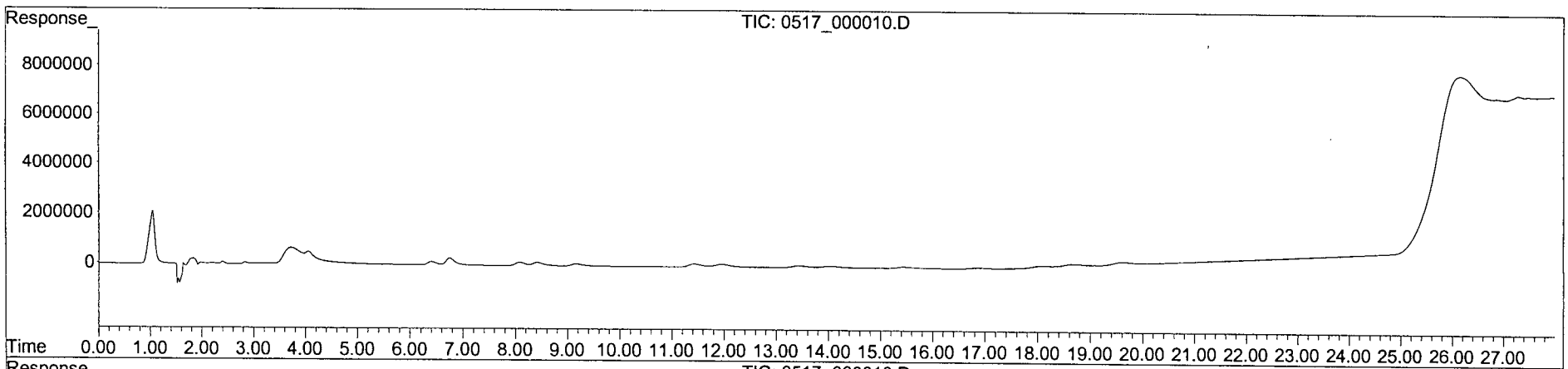
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

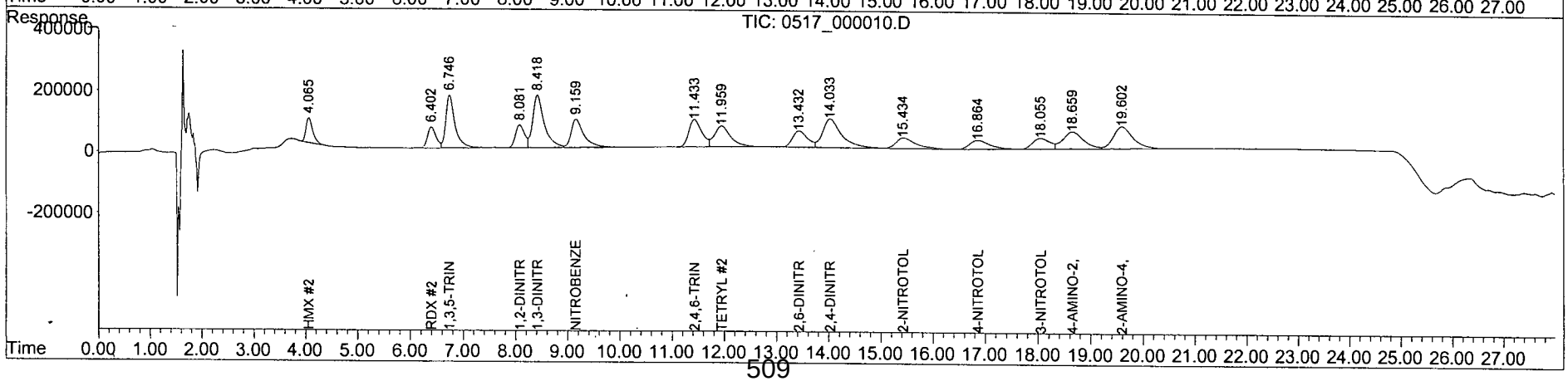
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000010.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 21:05:20
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/16/15
Misc :
ALS Vial : 4102 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:55:04 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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



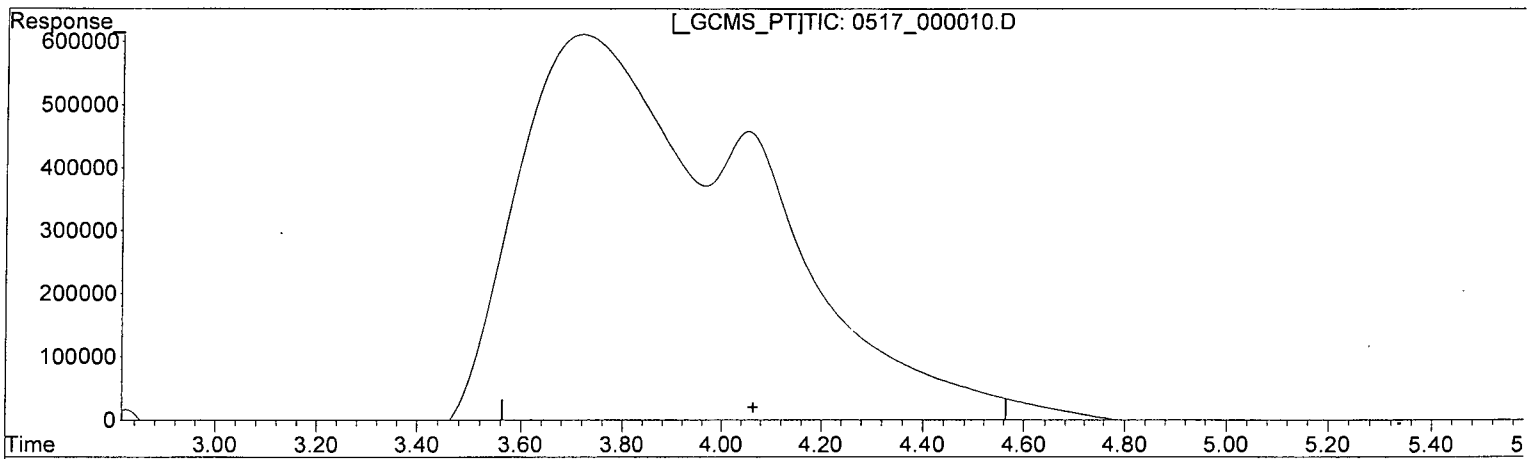


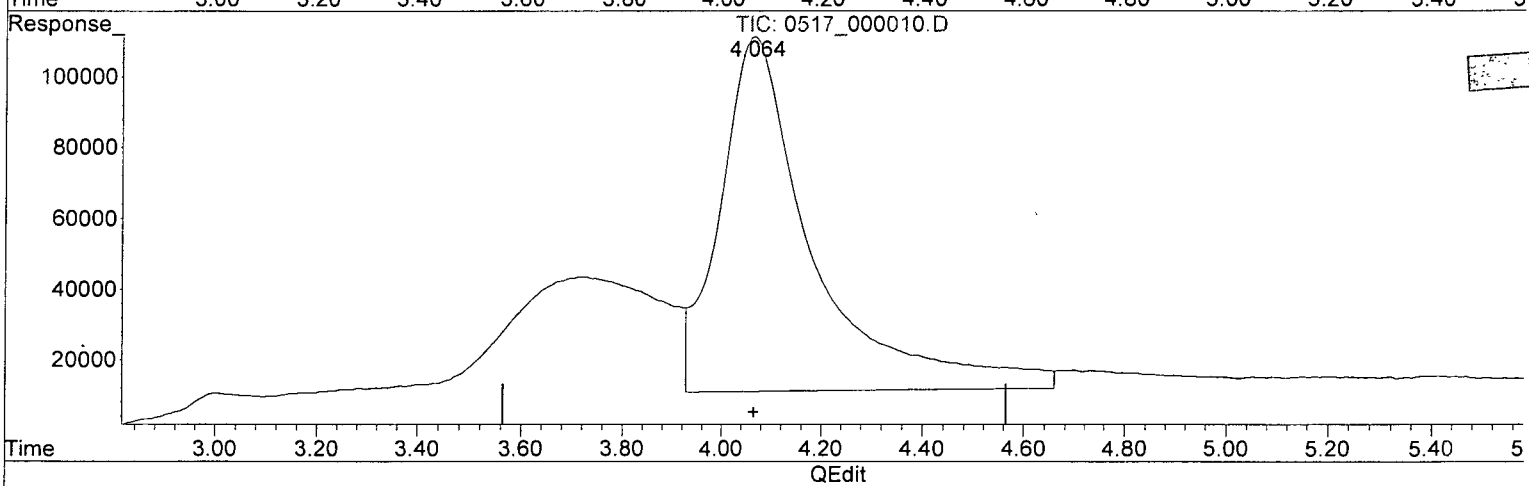
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000010.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 21:05:20
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/16/15
Misc :
ALS Vial : 4102 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:19 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

4.064min 47.735 ppb

response 100379

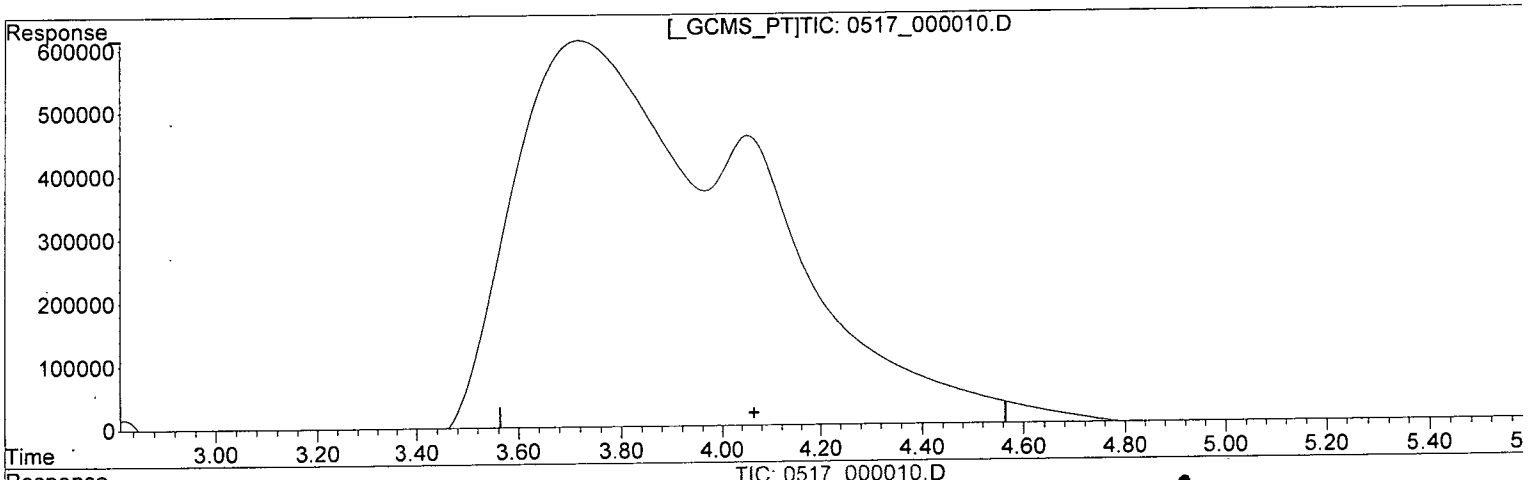
(+) = Expected Retention Time

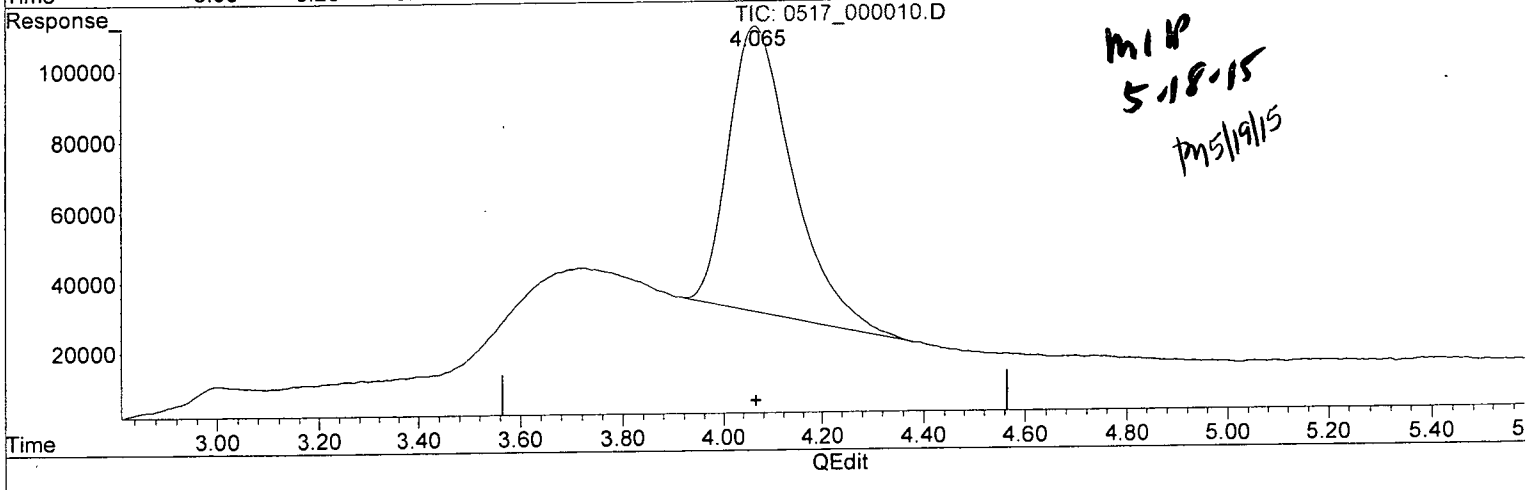
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000010.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 21:05:20
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/16/15
Misc :
ALS Vial : 4102 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:19 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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
5.18.15
pm5/19/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.065min 38.481 ppb m

response 80920

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 21:44:53
Operator : MP
Sample : 8330MXB_CB 0.050 PPM 05/16/15
Misc :
ALS Vial : 4103 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:53:57 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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...	12.052	0.000	33674	0	36.975	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	72972	N.D.	36.558 #
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	25694	0	28.159m	N.D. #

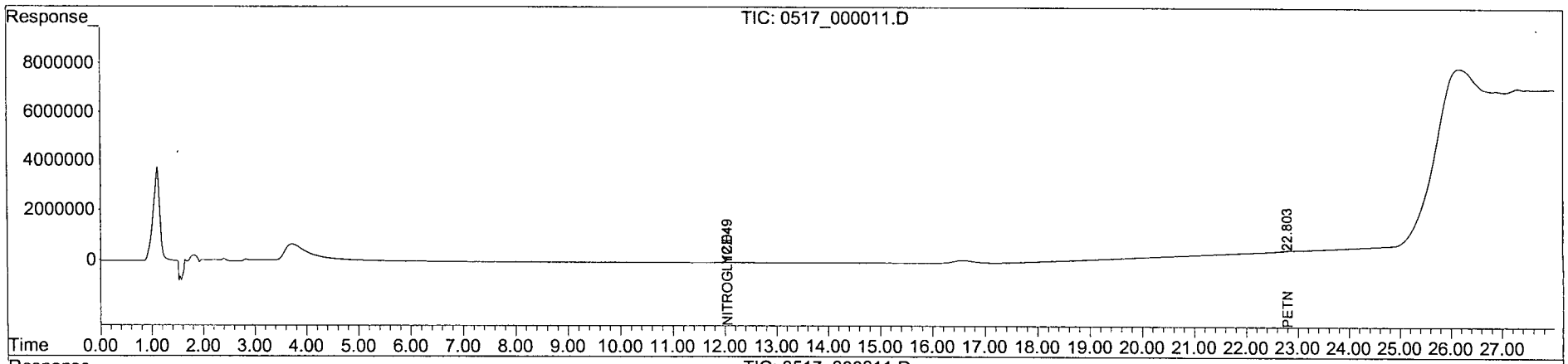
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

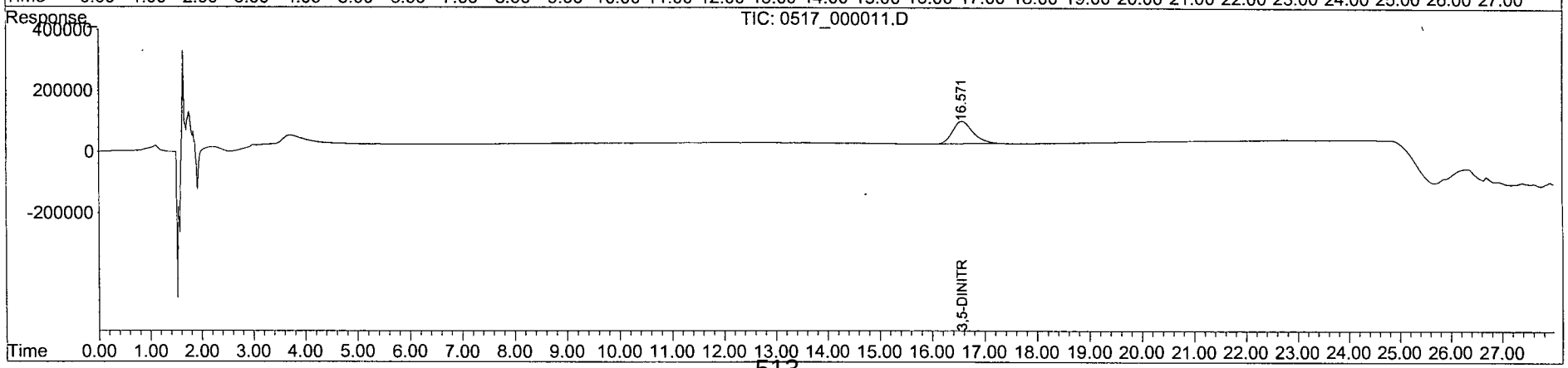
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 21:44:53
Operator : MP
Sample : 8330MXB_CB 0.050 PPM 05/16/15
Misc :
ALS Vial : 4103 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:53:57 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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



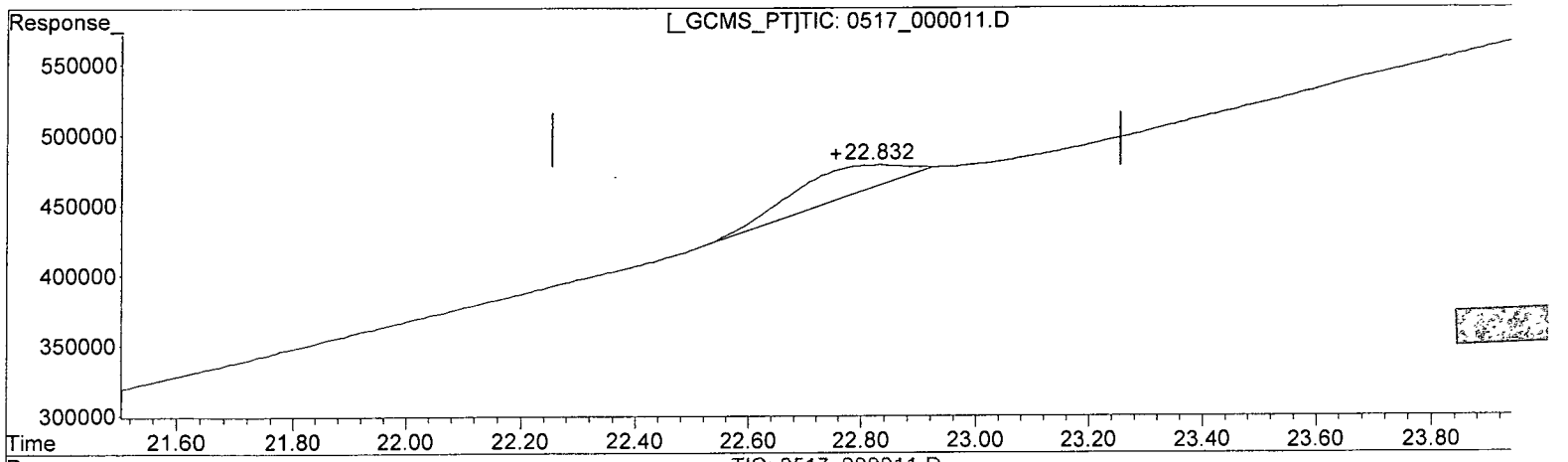


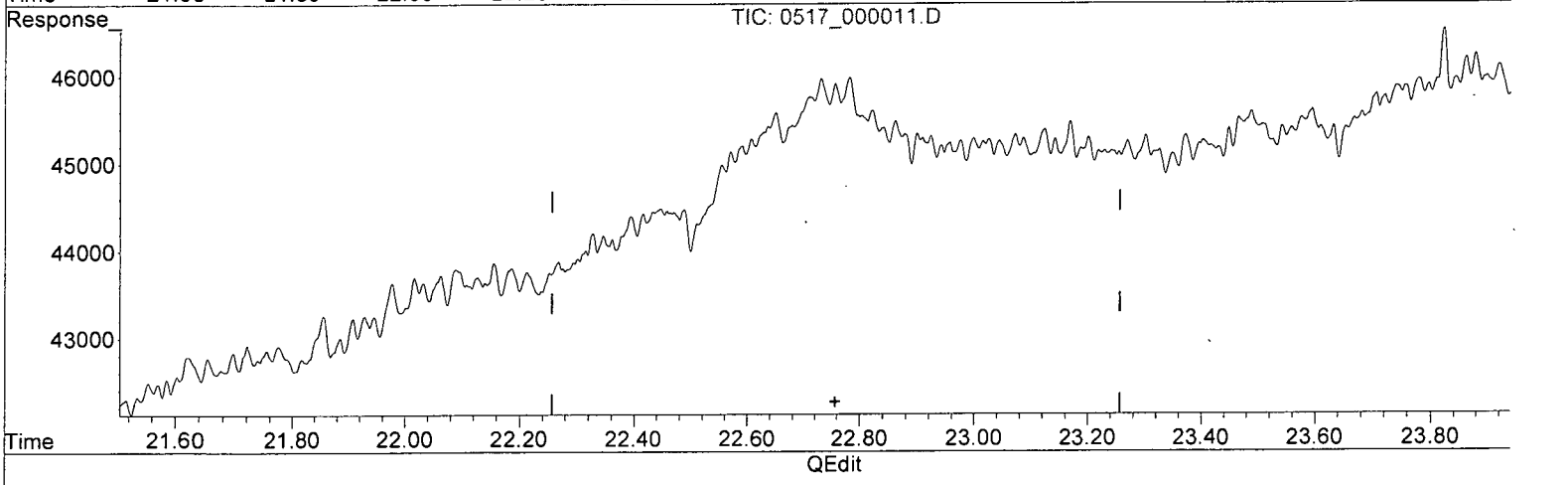
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 21:44:53
Operator : MP
Sample : 8330MXB_CB 0.050 PPM 05/16/15
Misc :
ALS Vial : 4103 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:22 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

22.832min 15.863 ppb

response 14474

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

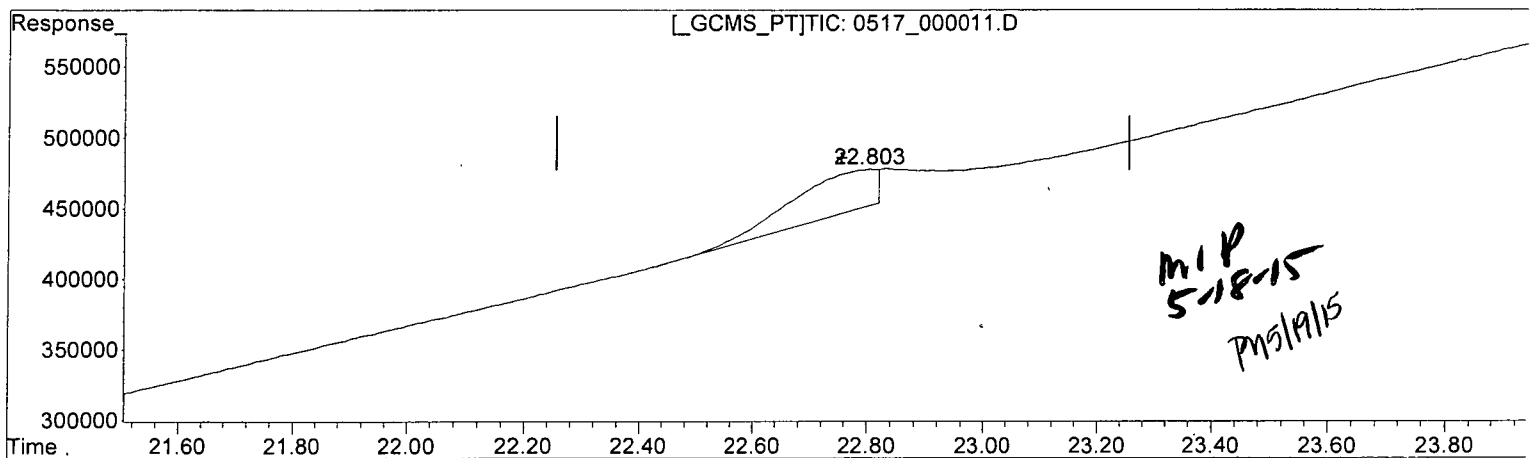
(+) = Expected Retention Time

Quantitation Report (Qedit)

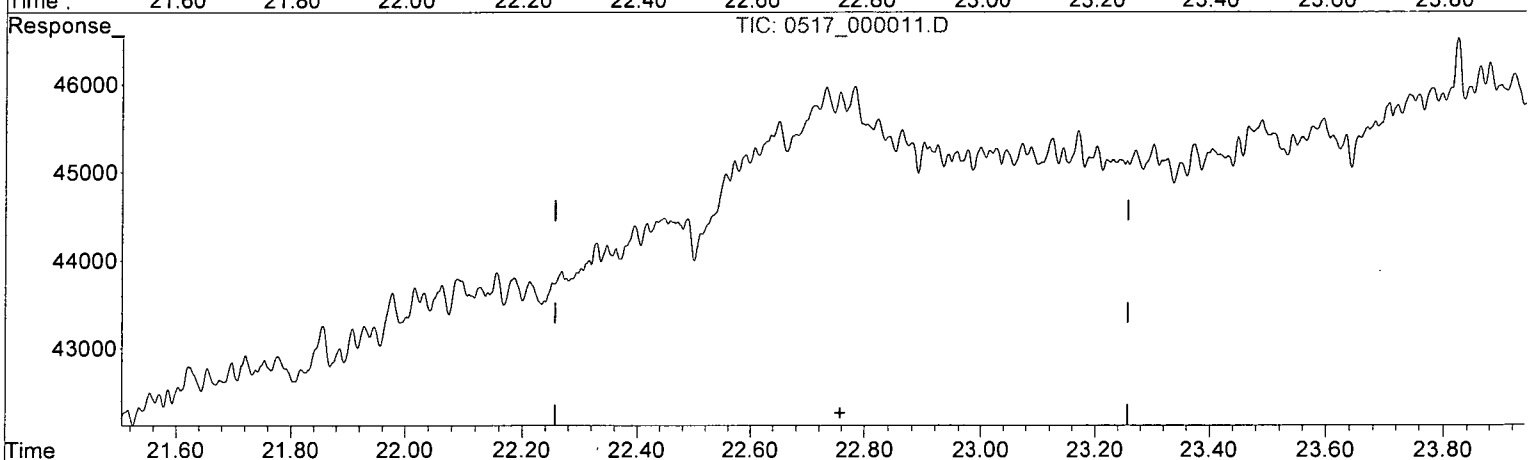
Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 21:44:53
Operator : MP
Sample : 8330MXB_CB 0.050 PPM 05/16/15
Misc :
ALS Vial : 4103 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:22 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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 5-18-15
PM 5/19/15



(18) PETN (TM)

22.803min 28.159 ppb m

response 25694

(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\150517\150517\
Data File : 0517_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 22:24:23
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/16/15
Misc :
ALS Vial : 4104 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:52:29 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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	8.087	0	150523	N.D.	71.345 #
Spiked Amount	62.500			Recovery	=	0.00%	114.15%
	Target Compounds						
1) TM	HMX	0.000	4.068	0	164823	N.D.	78.381m#
2) TM	RDX	0.000	6.409	0	138854	N.D.	74.970 #
3) TM	1,3,5-TRI...	0.000	6.751	0	348991	N.D.	78.080 #
5) TM	1,3-DINIT...	0.000	8.424	0	345676	N.D.	76.863 #
6) TM	NITROBENZENE	0.000	9.163	0	183520	N.D.	71.641 #
7) TM	2,4,6-TRI...	0.000	11.436	0	179653	N.D.	70.765 #
8) TM	NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM	TETRYL	11.961	11.959	108202	136671	NoCal	82.967 #
10) TM	2,6-DINIT...	13.436	13.434	163905	106555	NoCal	72.139 #
11) TM	2,4-DINIT...	0.000	14.034	0	187343	N.D.	74.356 #
12) TM	2-NITROTO...	0.000	15.440	0	68898	N.D.	65.349 #
13) TM	4-NITROTO...	0.000	16.857	0	59612	N.D.	68.065 #
14) TM	3,5-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
15) TM	3-NITROTO...	0.000	18.045	0	70355	N.D.	65.800 #
16) TM	4-AMINO-2...	0.000	18.663	0	114531	N.D.	81.752 #
17) TM	2-AMINO-4...	0.000	19.607	0	146900	N.D.	72.064 #
18) TM	PETN	0.000	0.000	0	0	N.D.	N.D.

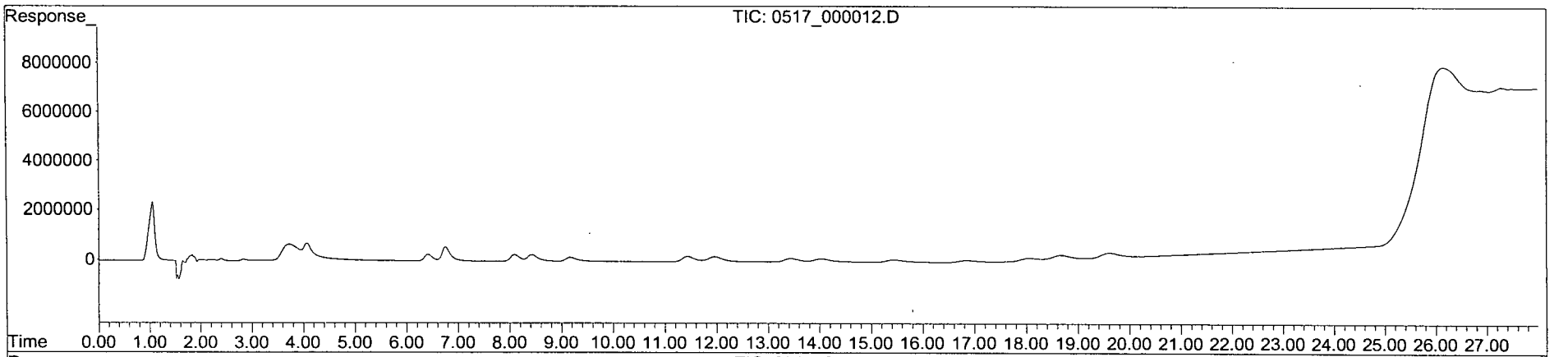
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

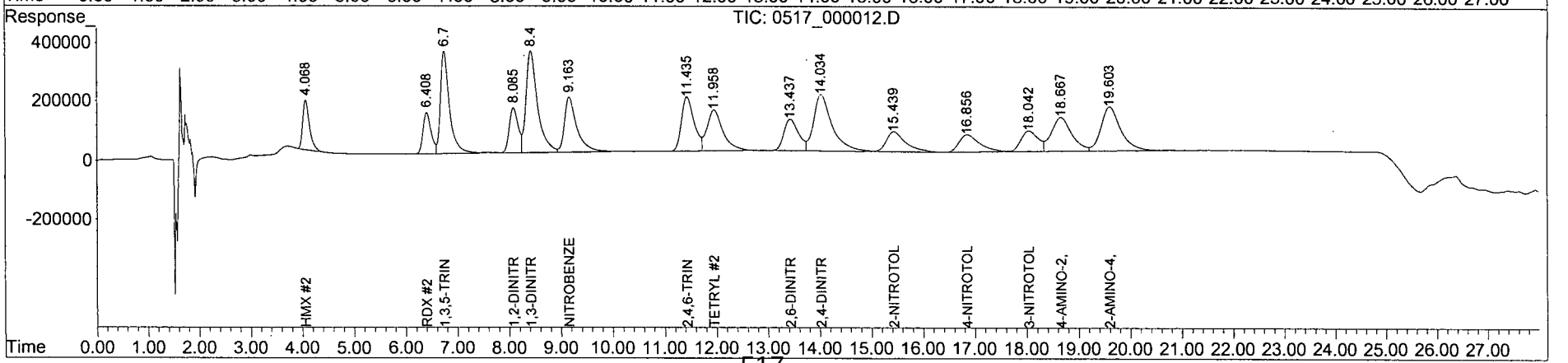
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 22:24:23
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/16/15
Misc :
ALS Vial : 4104 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:52:29 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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



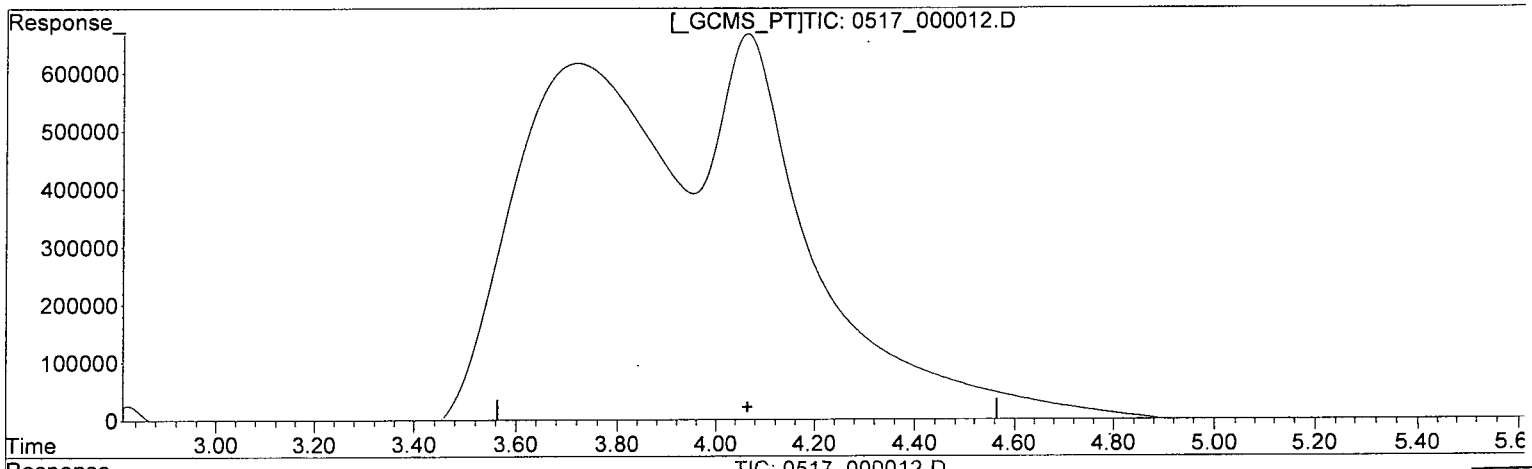


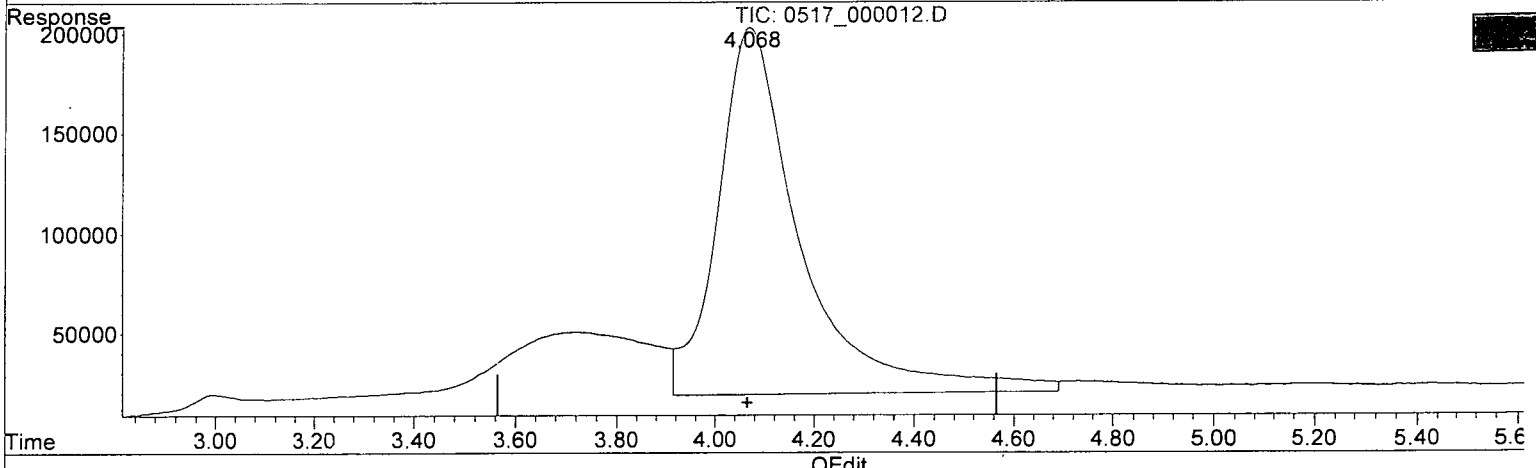
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 22:24:23
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/16/15
Misc :
ALS Vial : 4104 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:25 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

4.069min 87.286 ppb

response 183550

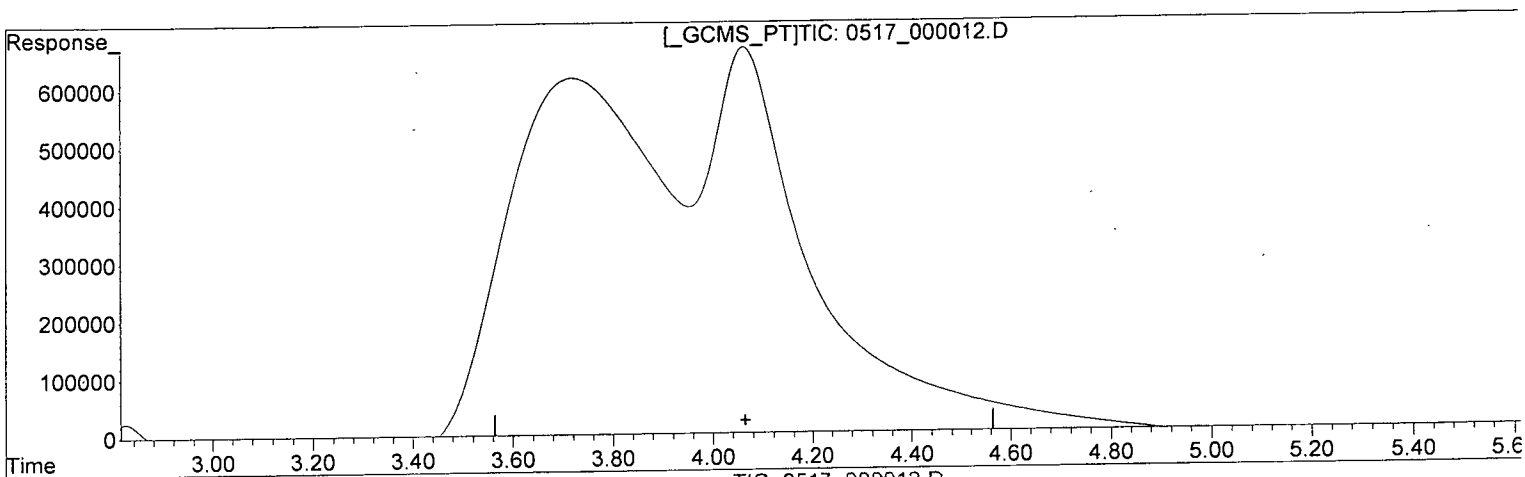
(+) = Expected Retention Time

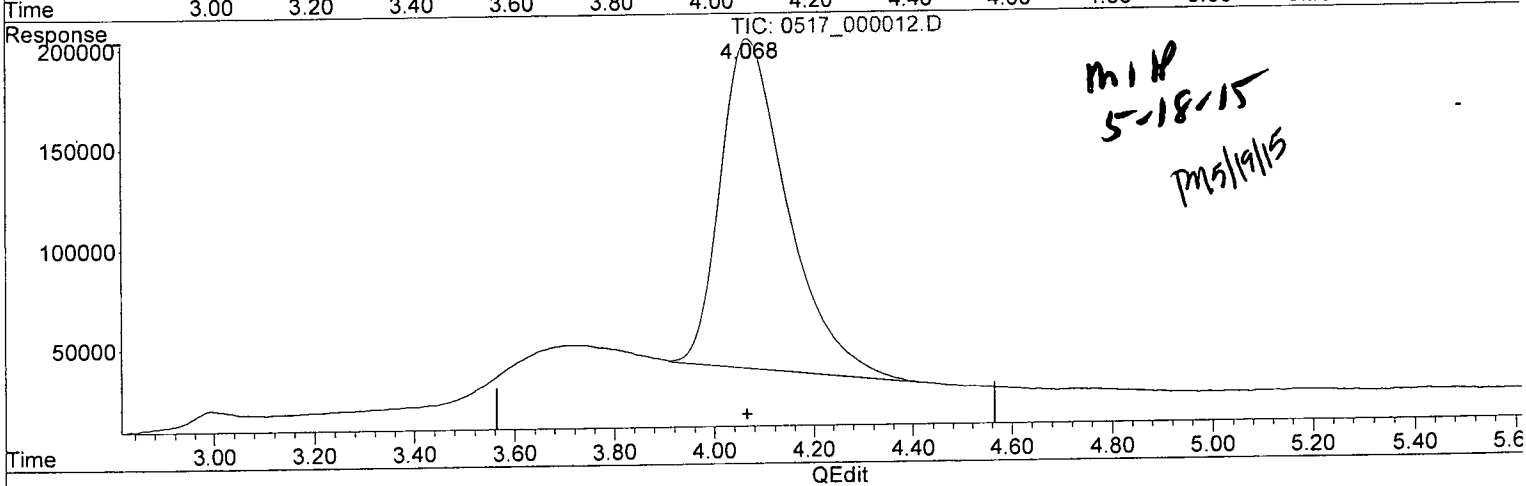
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 22:24:23
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/16/15
Misc :
ALS Vial : 4104 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:25 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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
5-18-15
PM 5/19/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.068min 78.381 ppb m

response 164823

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 23:03:54
Operator : MP
Sample : 8330MXB_CB 0.10 PPM 05/16/15
Misc :
ALS Vial : 4160 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:51:26 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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...	12.038	0.000	65041	0	71.418	N.D. d#
9)	TM TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10)	TM 2,6-DINIT...	13.448	0.000	550	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. d	N.D. d
14)	TM 3,5-DINIT...	0.000	16.568	0	148811	N.D.	74.552 #
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	22.782	0.000	63459	0	69.547m	N.D. #

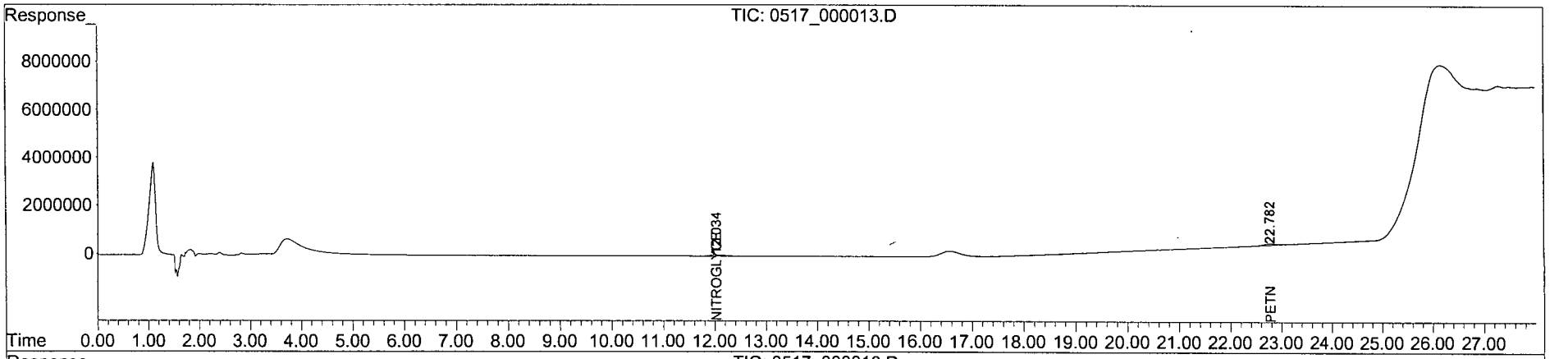
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

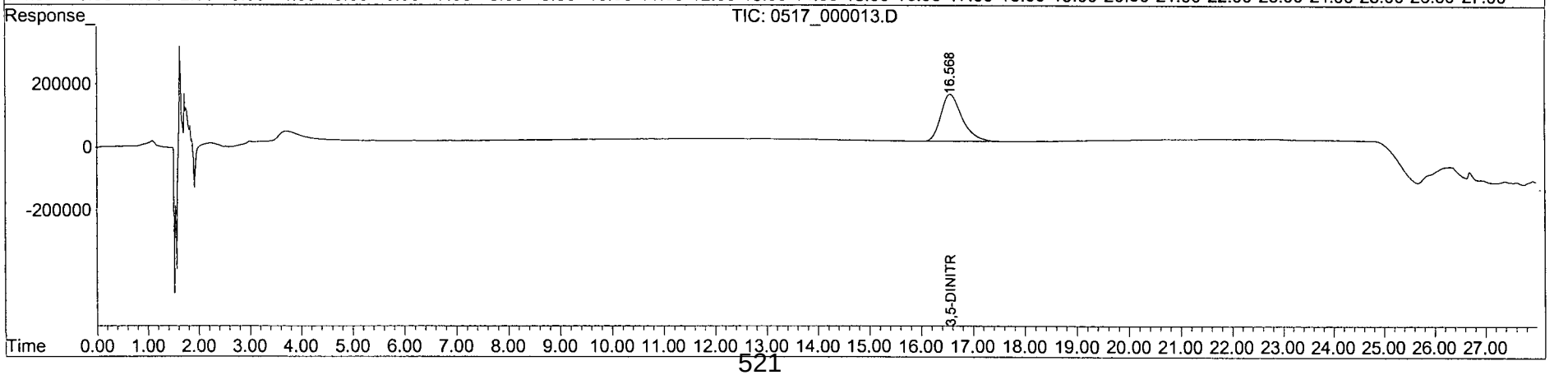
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 23:03:54
Operator : MP
Sample : 8330MXB_CB 0.10 PPM 05/16/15
Misc :
ALS Vial : 4160 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:51:26 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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



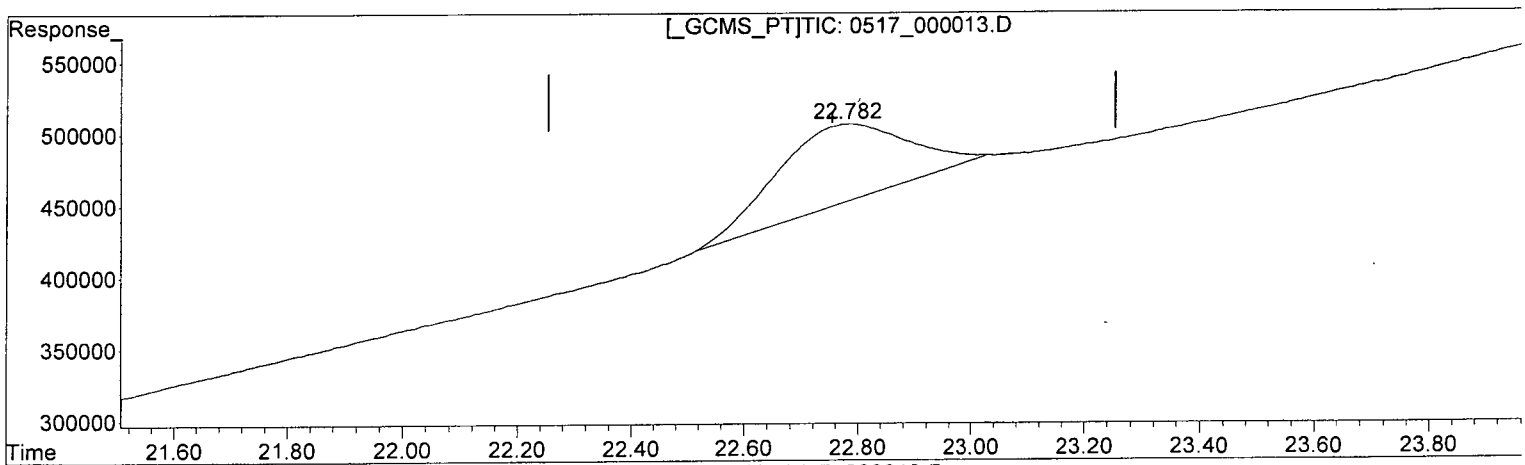


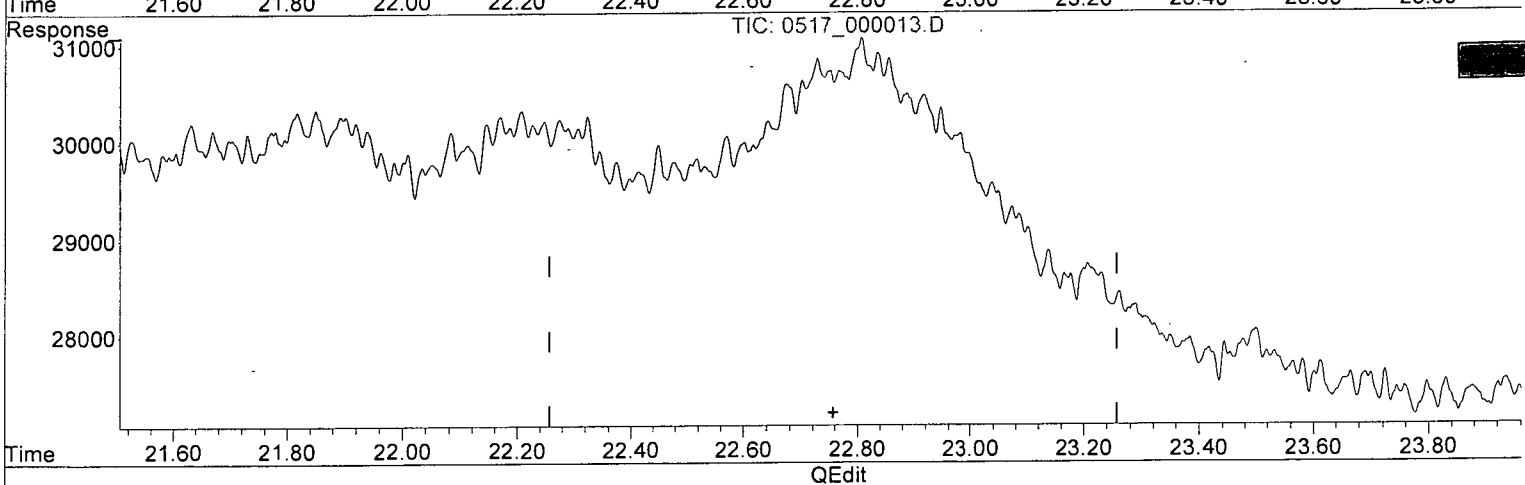
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 23:03:54
Operator : MP
Sample : 8330MXB_CB 0.10 PPM 05/16/15
Misc :
ALS Vial : 4160 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:28 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

22.785min 58.639 ppb

response 53506

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

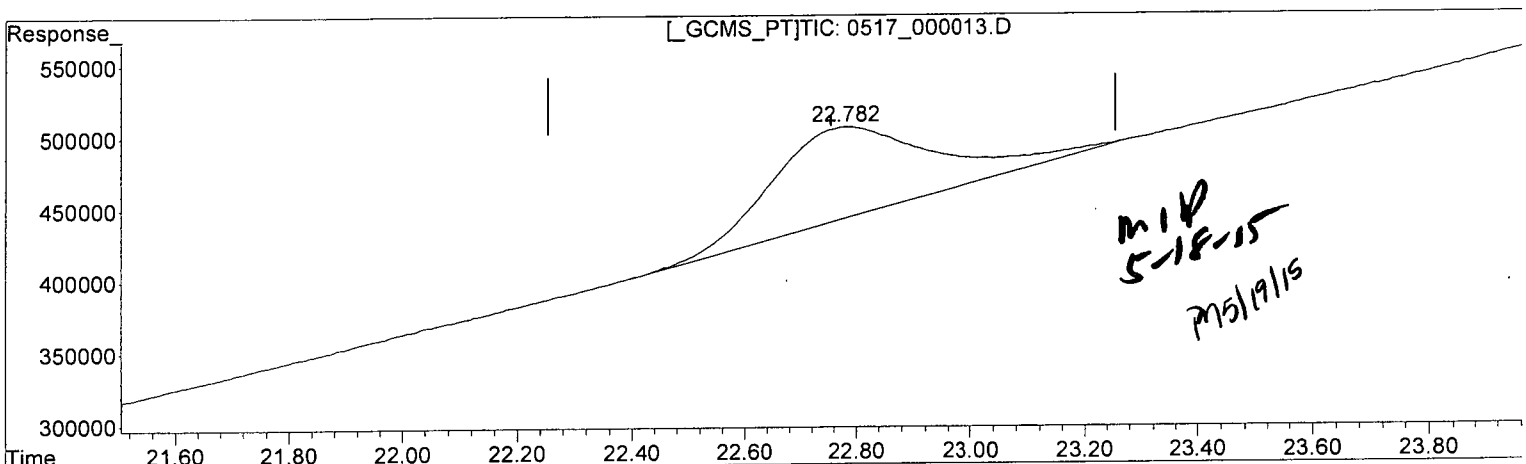
(+) = Expected Retention Time

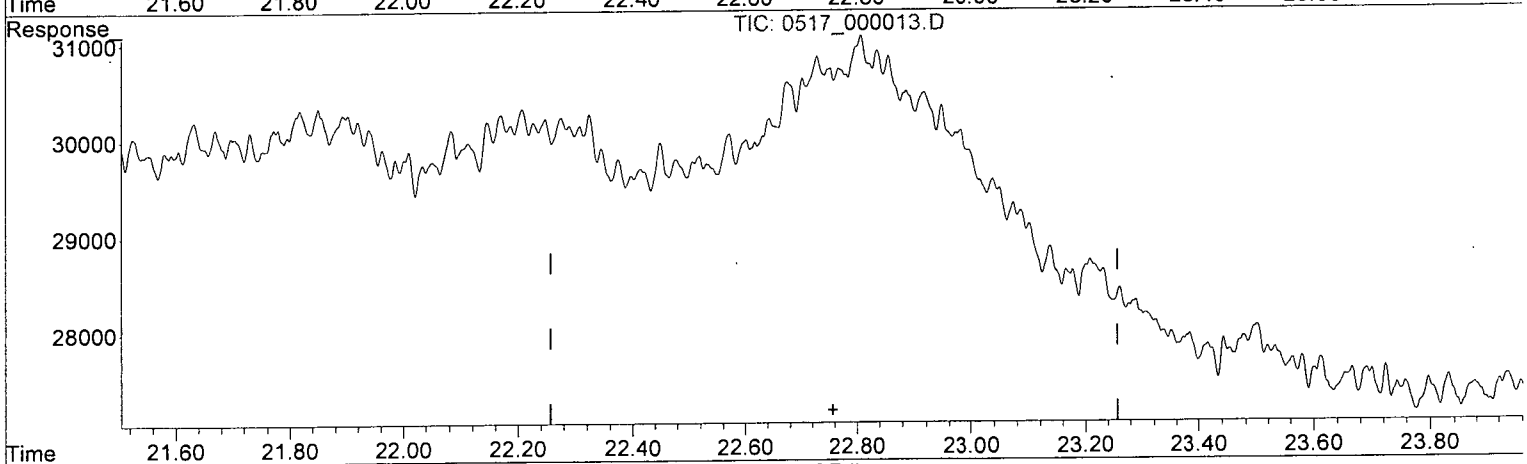
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 23:03:54
Operator : MP
Sample : 8330MXB_CB 0.10 PPM 05/16/15
Misc :
ALS Vial : 4160 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:28 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

22.782min 69.547 ppb m

response 63459

(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\150517\150517\
Data File : 0517_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 23:43:25
Operator : MP
Sample : 8330MXA_CB 0.20 PPM 05/16/15
Misc :
ALS Vial : 4161 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:50:37 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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	8.074	0	309240	N.D.	146.573 #
Spiked Amount 62.500			Recovery	=	0.00%	234.52%
Target Compounds						
1) TM HMX	0.000	4.063	0	336074	N.D.	159.818m#
2) TM RDX	0.000	6.400	0	284260	N.D.	153.478 #
3) TM 1,3,5-TRI...	0.000	6.740	0	702696	N.D.	157.214 #
5) TM 1,3-DINIT...	0.000	8.413	0	706003	N.D.	156.983 #
6) TM NITROBENZENE	0.000	9.152	0	379993	N.D.	148.339 #
7) TM 2,4,6-TRI...	0.000	11.421	0	377296	N.D.	148.617 #
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	11.947	11.947	168212	239868	NoCal	145.612m#
10) TM 2,6-DINIT...	13.422	13.422	332780	227148	NoCal	153.782 #
11) TM 2,4-DINIT...	0.000	14.019	0	386438	N.D.	153.377 #
12) TM 2-NITROTO...	0.000	15.424	0	142816	N.D.	135.459 #
13) TM 4-NITROTO...	0.000	16.837	0	124638	N.D.	142.312 #
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
15) TM 3-NITROTO...	0.000	18.025	0	148644	N.D.	139.020 #
16) TM 4-AMINO-2...	0.000	18.655	0	232279	N.D.	165.800 #
17) TM 2-AMINO-4...	0.000	19.600	0	297208	N.D.	145.800 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

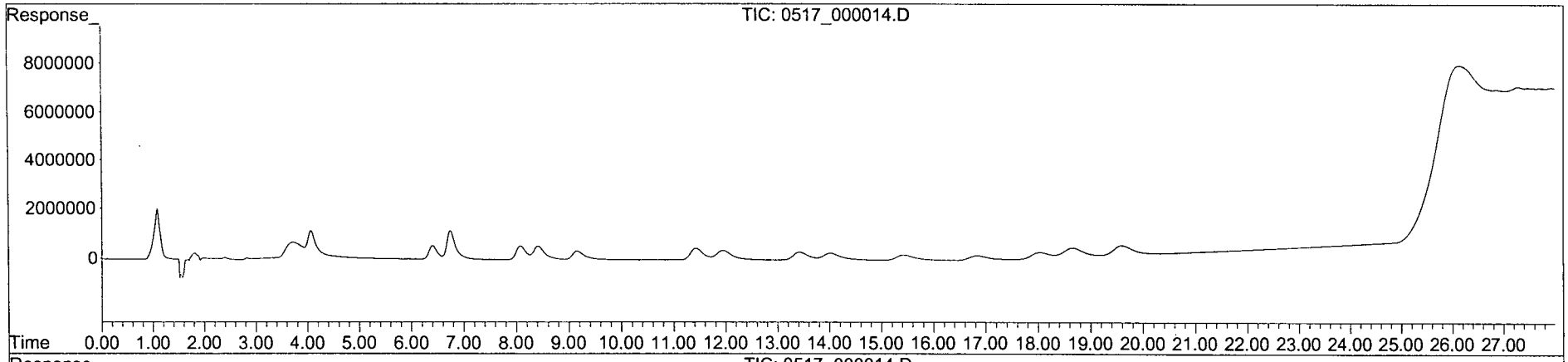
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

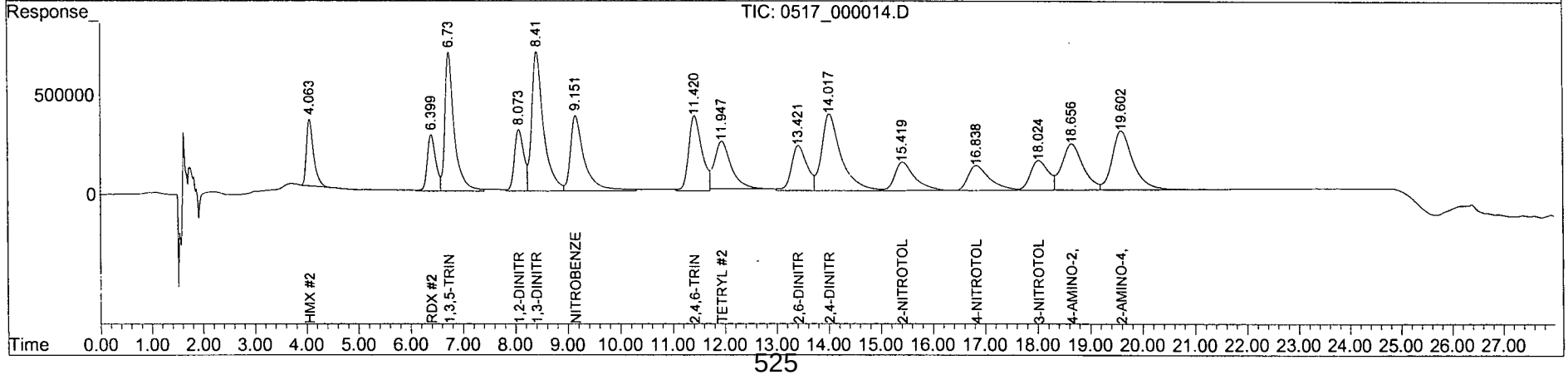
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 23:43:25
Operator : MP
Sample : 8330MXA_CB 0.20 PPM 05/16/15
Misc :
ALS Vial : 4161 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:50:37 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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



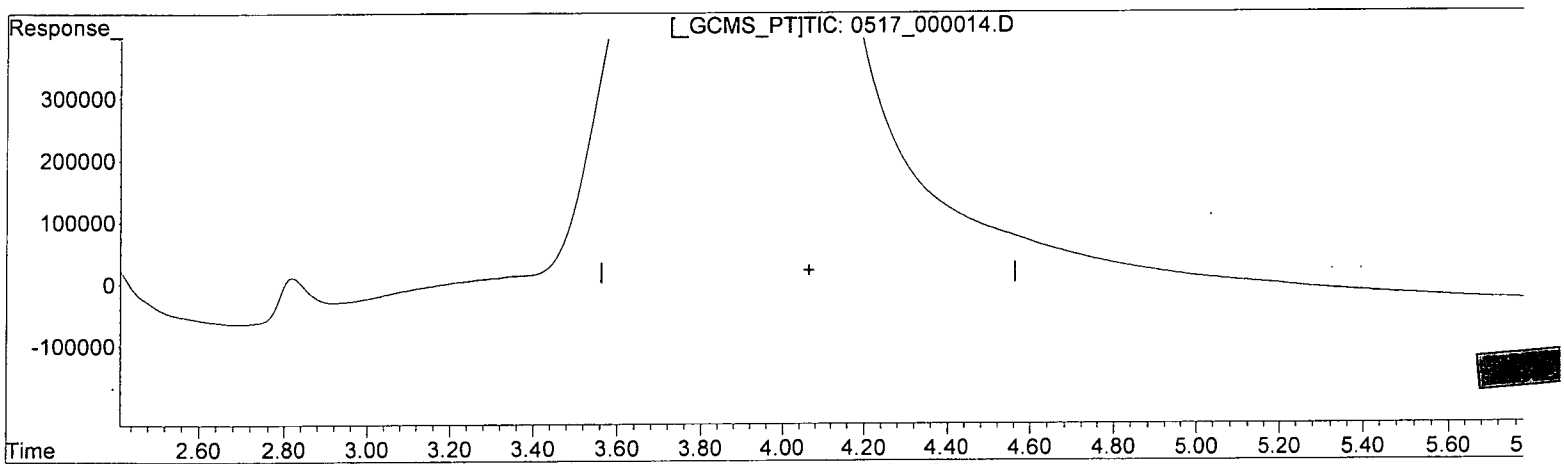


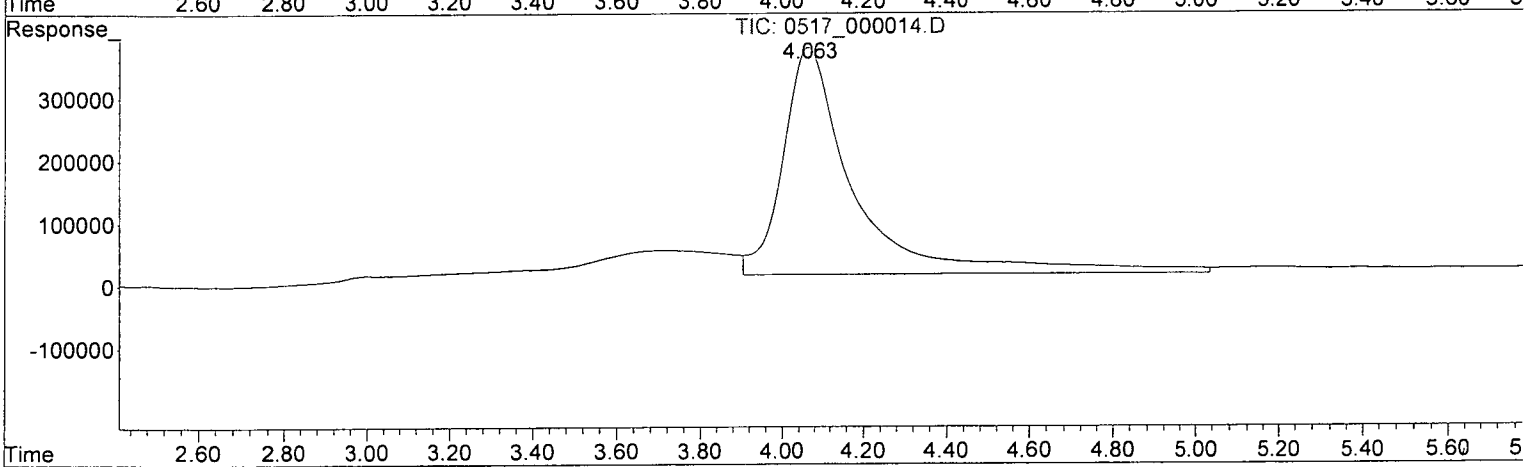
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 23:43:25
Operator : MP
Sample : 8330MXA_CB 0.20 PPM 05/16/15
Misc :
ALS Vial : 4161 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:31 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

4.064min 172.619 ppb

response 362992

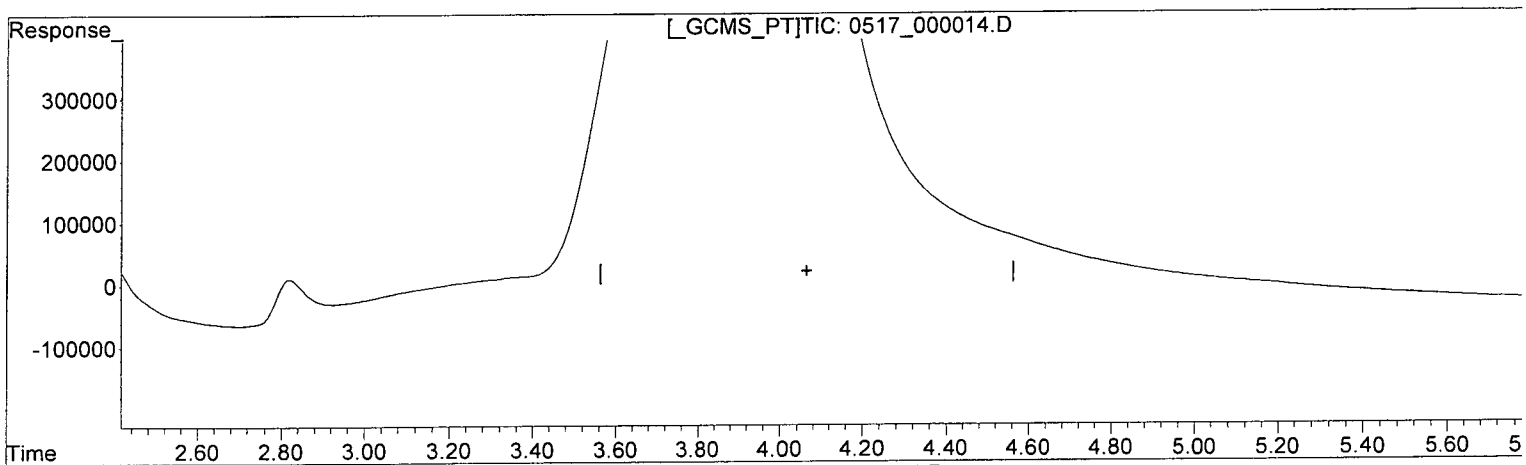
(+) = Expected Retention Time

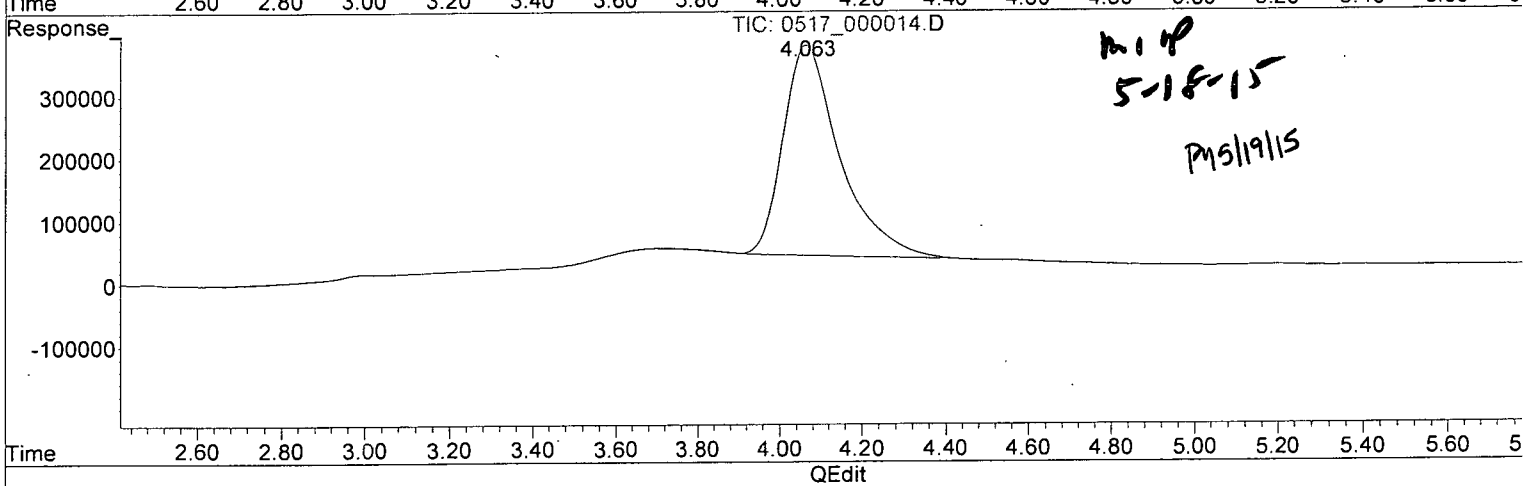
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 23:43:25
Operator : MP
Sample : 8330MXA_CB 0.20 PPM 05/16/15
Misc :
ALS Vial : 4161 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:31 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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-





MJ MP
5-18-15

PM 5/19/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.063min 159.818 ppb m

response 336074

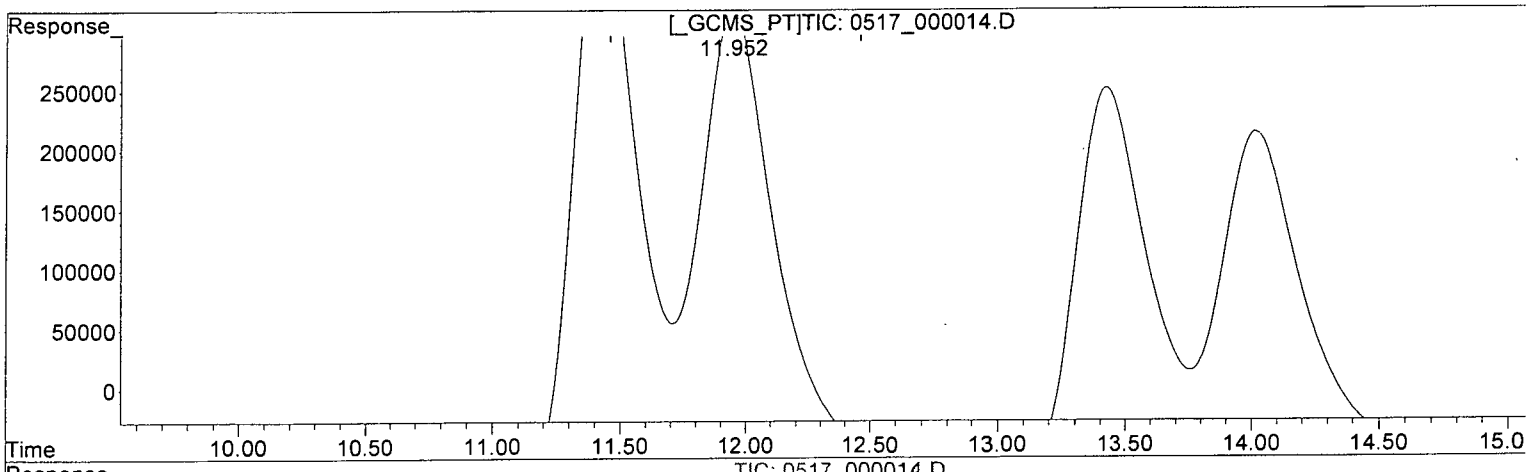
(+) = Expected Retention Time

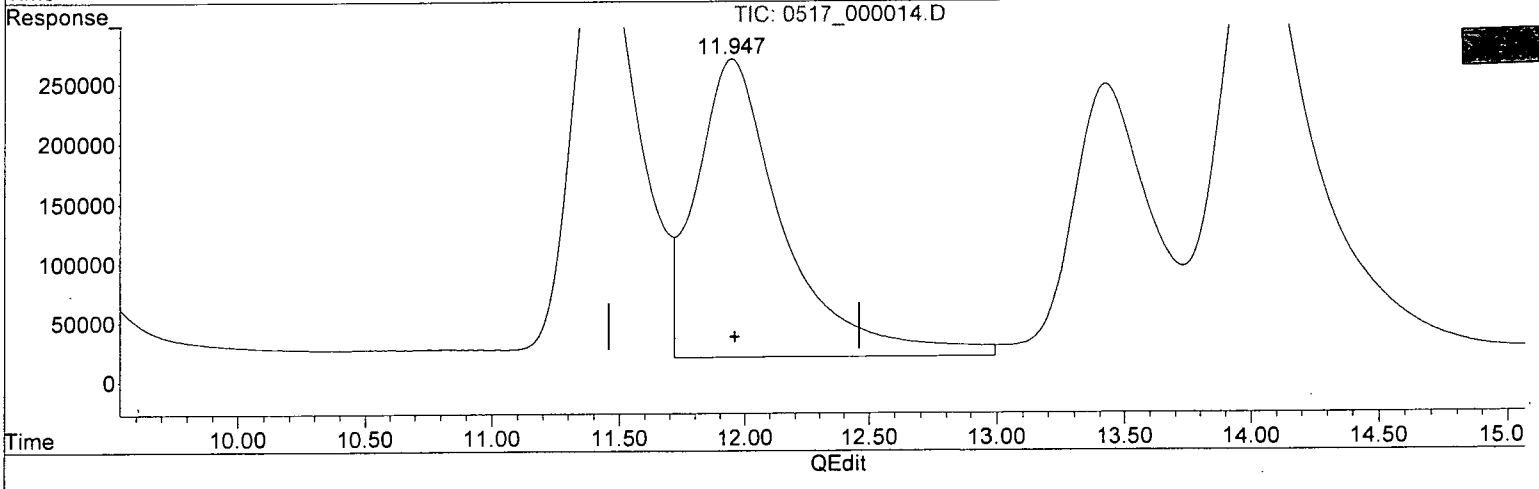
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 23:43:25
Operator : MP
Sample : 8330MXA_CB 0.20 PPM 05/16/15
Misc :
ALS Vial : 4161 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:31 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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





(9) TETRYL (TM)

11.947min 0.000 ppb

response 168212

(9) TETRYL #2 (TM)

11.946min 151.586 ppb

response 249709

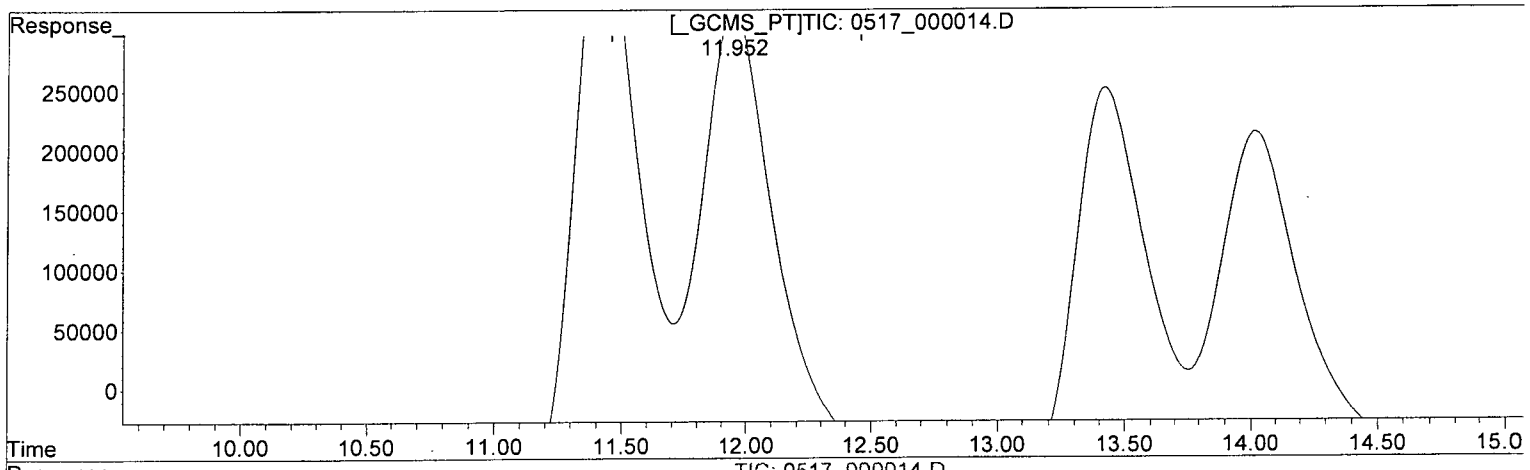
(+) = Expected Retention Time

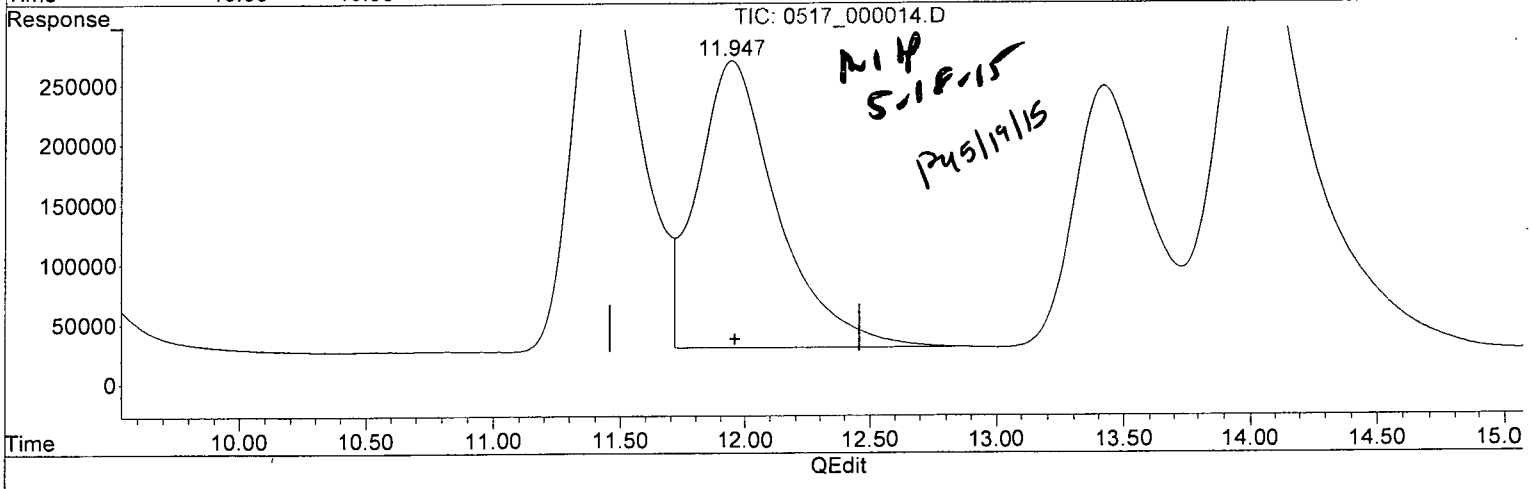
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 17-May-2015, 23:43:25
Operator : MP
Sample : 8330MXA_CB 0.20 PPM 05/16/15
Misc :
ALS Vial : 4161 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:31 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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





(9) TETRYL (TM)

11.947min 0.000 ppb

response 168212

(9) TETRYL #2 (TM)

11.947min 145.612 ppb m

response 239868

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 00:22:57
Operator : MP
Sample : 8330MXB_CB 0.20 PPM 05/16/15
Misc :
ALS Vial : 4162 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:49:03 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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...	12.039	0.000	133076	0	146.124	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	16.575	0	304187	N.D.	152.393 #
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	133455	0	146.258m	N.D. #

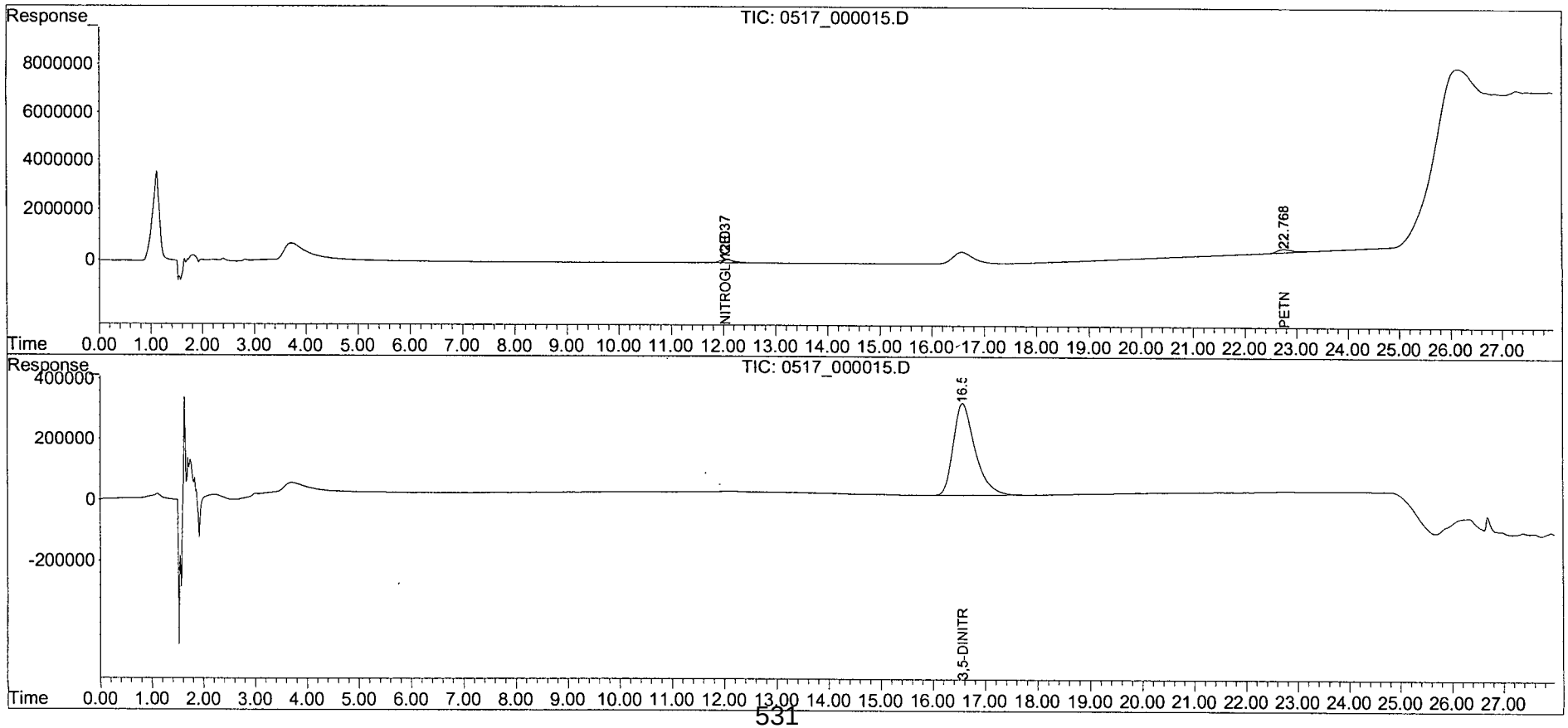
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 00:22:57
Operator : MP
Sample : 8330MXB_CB 0.20 PPM 05/16/15
Misc :
ALS Vial : 4162 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:49:03 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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

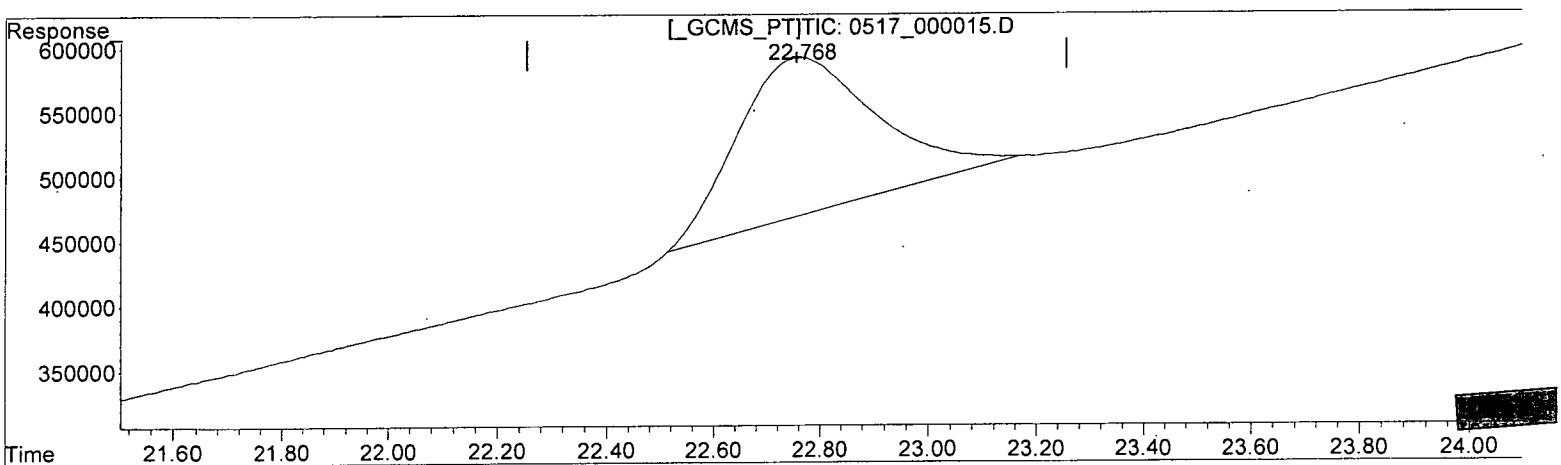


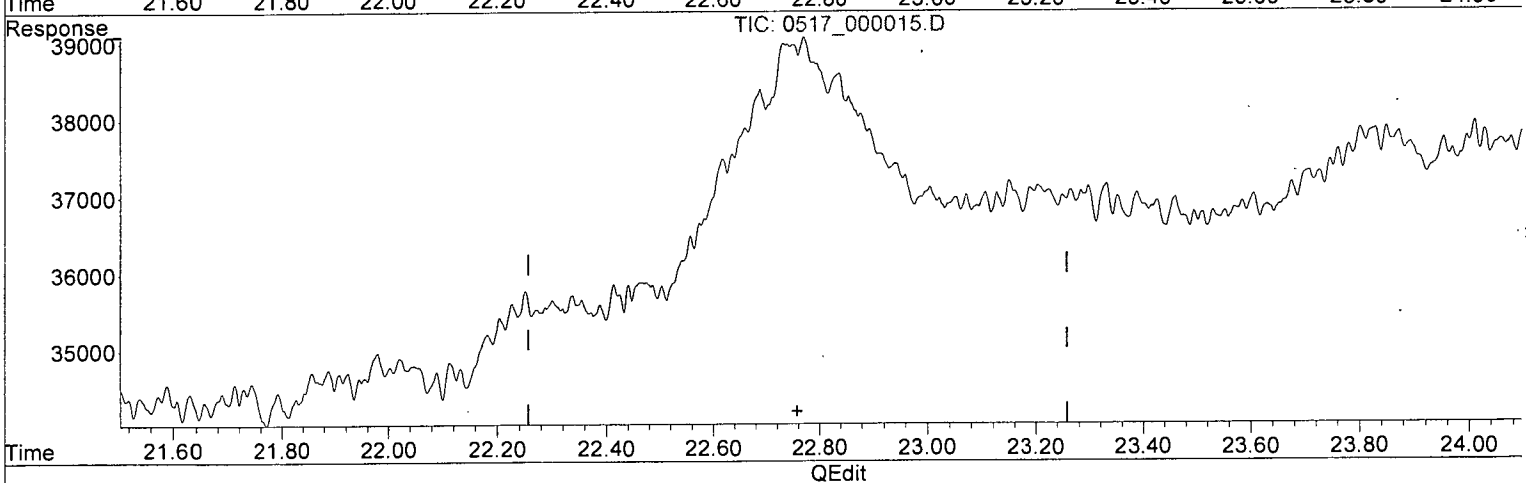
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 00:22:57
Operator : MP
Sample : 8330MXB_CB 0.20 PPM 05/16/15
Misc :
ALS Vial : 4162 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:34 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

22.762min 133.879 ppb

response 122159

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

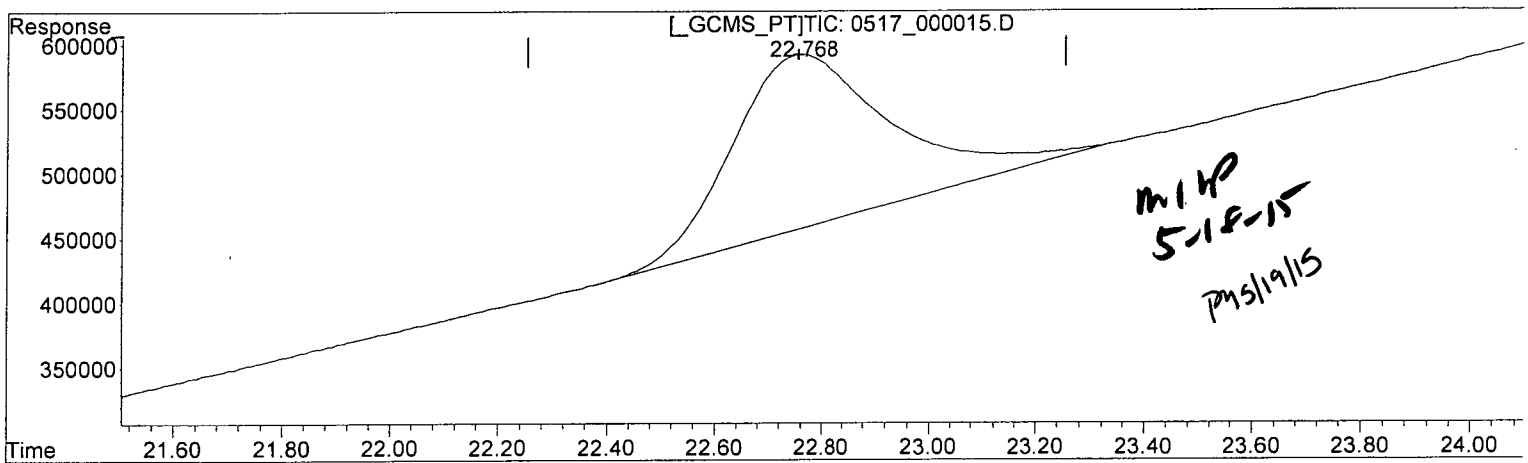
(+) = Expected Retention Time

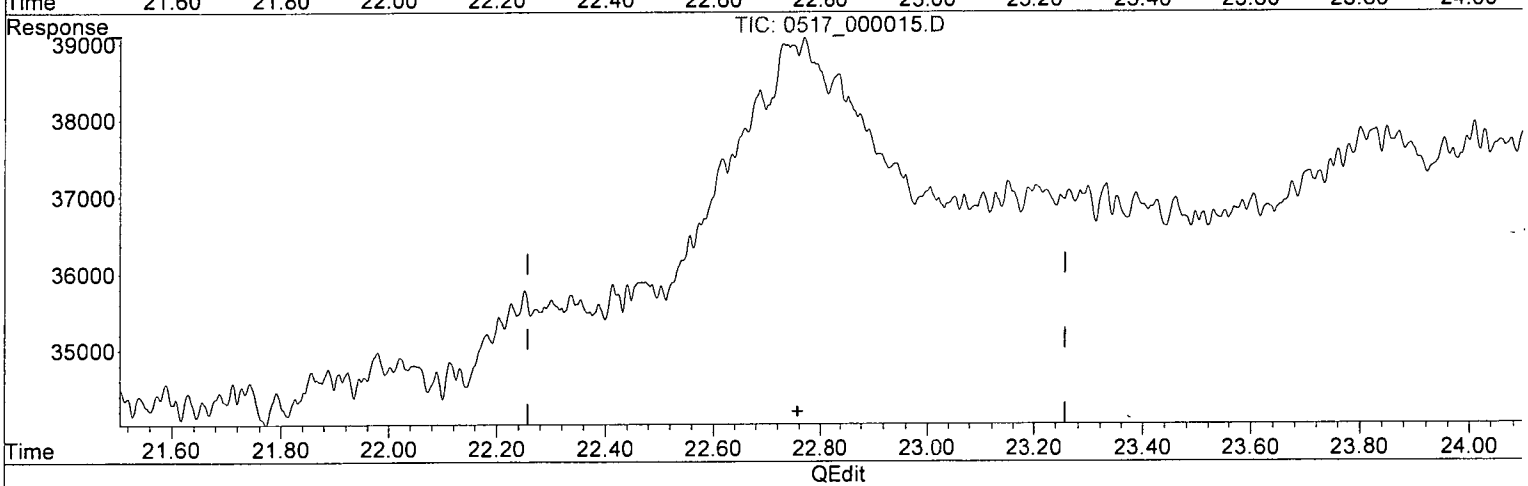
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 00:22:57
Operator : MP
Sample : 8330MXB_CB 0.20 PPM 05/16/15
Misc :
ALS Vial : 4162 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:34 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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 146.258 ppb m

response 133455

(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\150517\150517\
Data File : 0517_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 01:02:29
Operator : MP
Sample : 8330MXA_CB 0.50 PPM 05/16/15
Misc :
ALS Vial : 4163 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:48:07 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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	8.081	0	762967	N.D.	361.630 #
Spiked Amount 62.500			Recovery	=	0.00%	578.61%
Target Compounds						
1) TM HMX	0.000	4.071	0	869741	N.D.	413.601 #
2) TM RDX	0.000	6.408	0	701296	N.D.	378.644 #
3) TM 1,3,5-TRI...	0.000	6.745	0	1733125	N.D.	387.751 #
5) TM 1,3-DINIT...	0.000	8.419	0	1759624	N.D.	391.260 #
6) TM NITROBENZENE	0.000	9.156	0	928664	N.D.	362.525 #
7) TM 2,4,6-TRI...	0.000	11.427	0	937407	N.D.	369.245 #
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	0.000	11.953	0	555534	N.D. d	337.238
10) TM 2,6-DINIT...	13.431	13.430	838596	556444	NoCal	376.721 #
11) TM 2,4-DINIT...	0.000	14.028	0	958592	N.D.	380.464 #
12) TM 2-NITROTO...	0.000	15.432	0	347900	N.D.	329.980 #
13) TM 4-NITROTO...	0.000	16.843	0	315126	N.D.	359.811 #
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
15) TM 3-NITROTO...	0.000	18.031	0	368965	N.D.	345.077 #
16) TM 4-AMINO-2...	0.000	18.669	0	581422	N.D.	415.017 #
17) TM 2-AMINO-4...	0.000	19.611	0	743923	N.D.	364.944 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

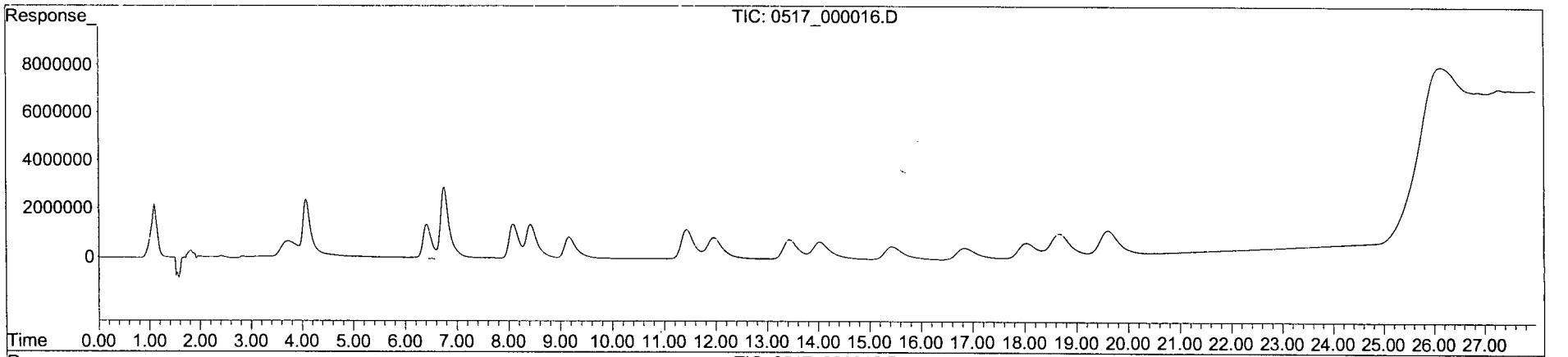
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

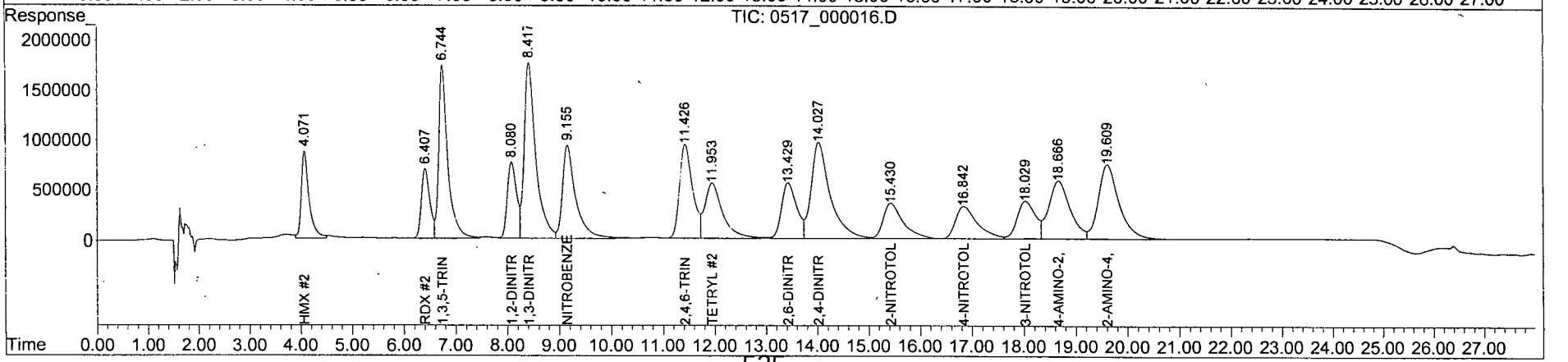
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 01:02:29
Operator : MP
Sample : 8330MXA_CB 0.50 PPM 05/16/15
Misc :
ALS Vial : 4163 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:48:07 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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\150517\150517\
Data File : 0517_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 01:42:00
Operator : MP
Sample : 8330MXB_CB 0.50 PPM 05/16/15
Misc :
ALS Vial : 4164 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:46:41 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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...	12.031	0.000	326508	0	358.522	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	16.574	0	746078	N.D.	373.772 #
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	22.748	0.000	339811	0	372.410m	N.D. #

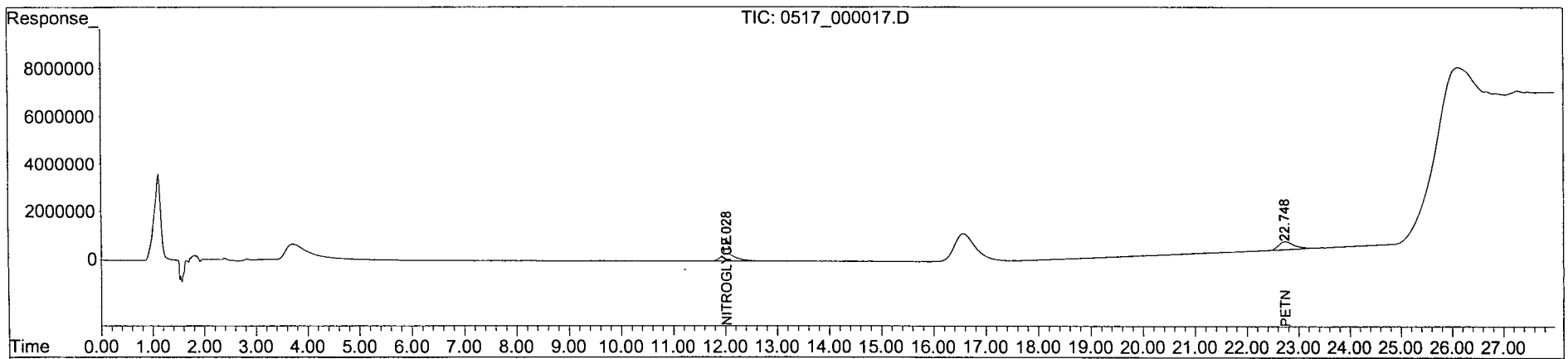
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

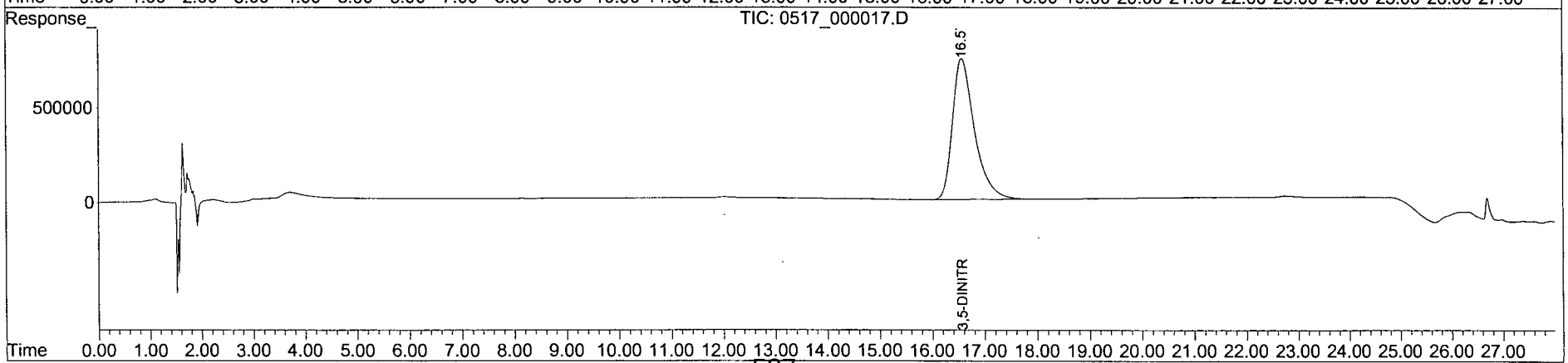
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 01:42:00
Operator : MP
Sample : 8330MXB_CB 0.50 PPM 05/16/15
Misc :
ALS Vial : 4164 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:46:41 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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



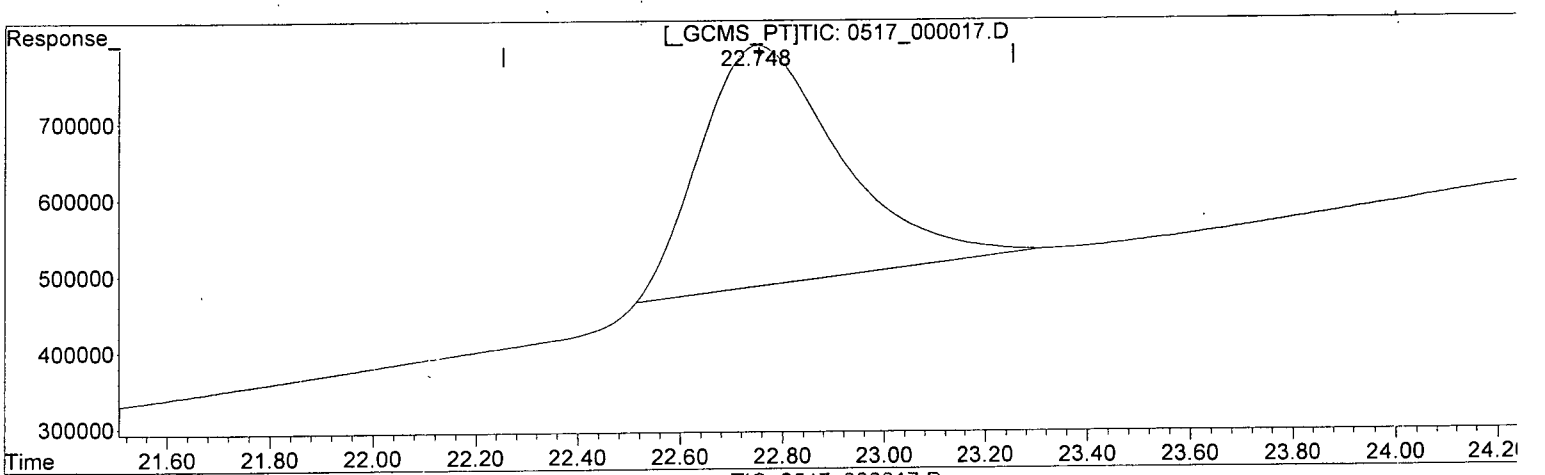


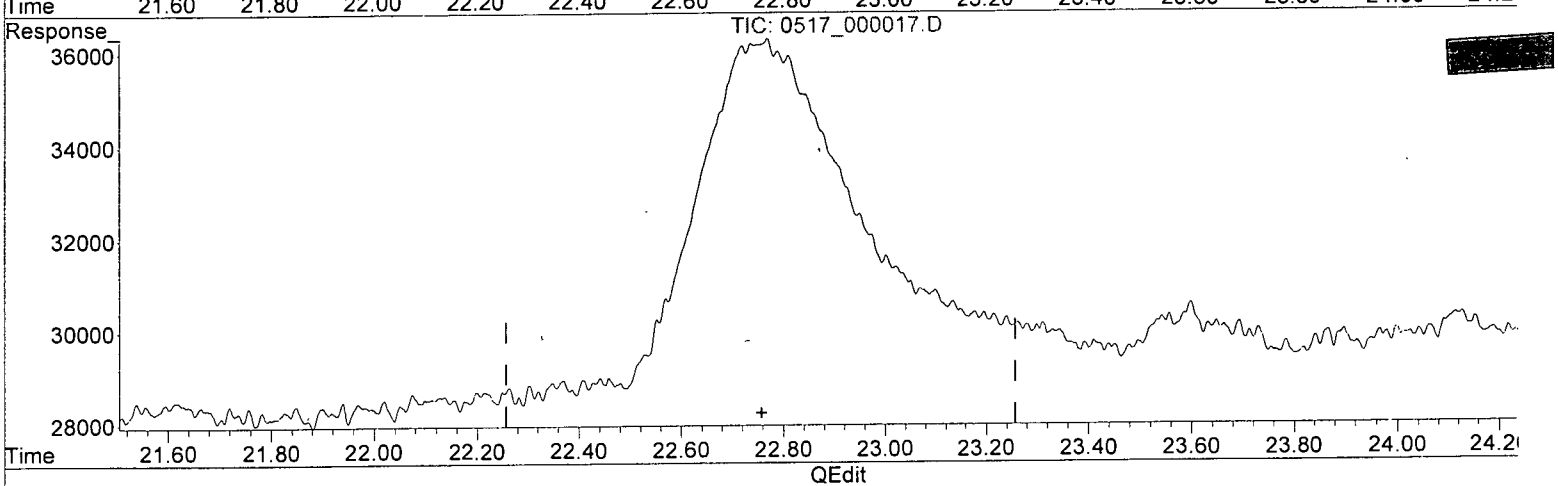
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 01:42:00
Operator : MP
Sample : 8330MXB_CB 0.50 PPM 05/16/15
Misc :
ALS Vial : 4164 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:40 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

22.754min 344.751 ppb

response 314573

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

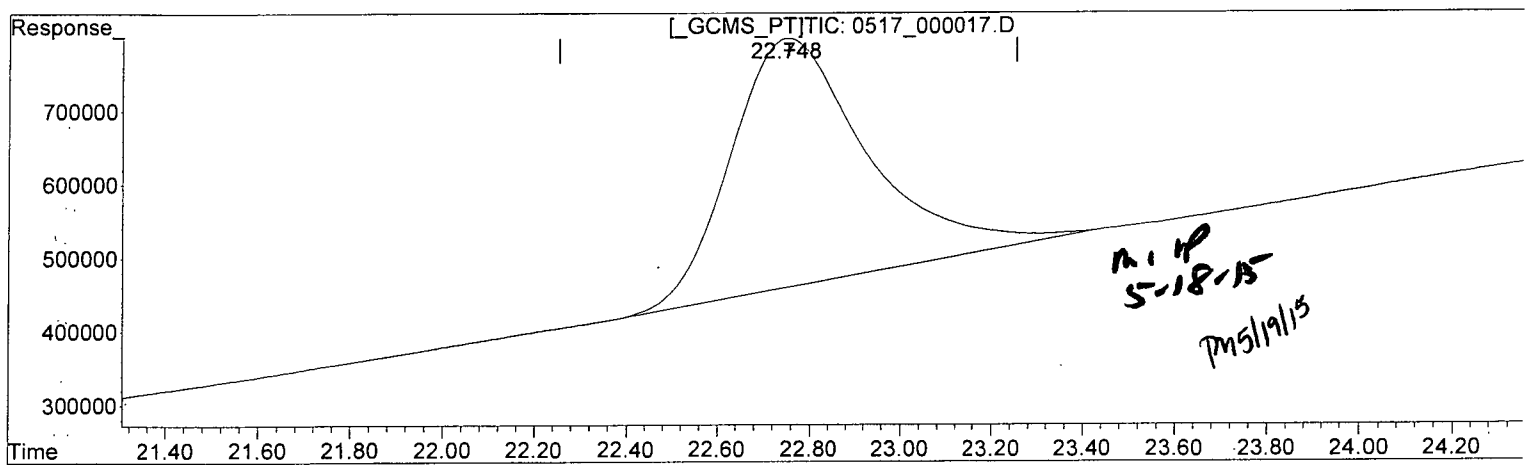
(+) = Expected Retention Time

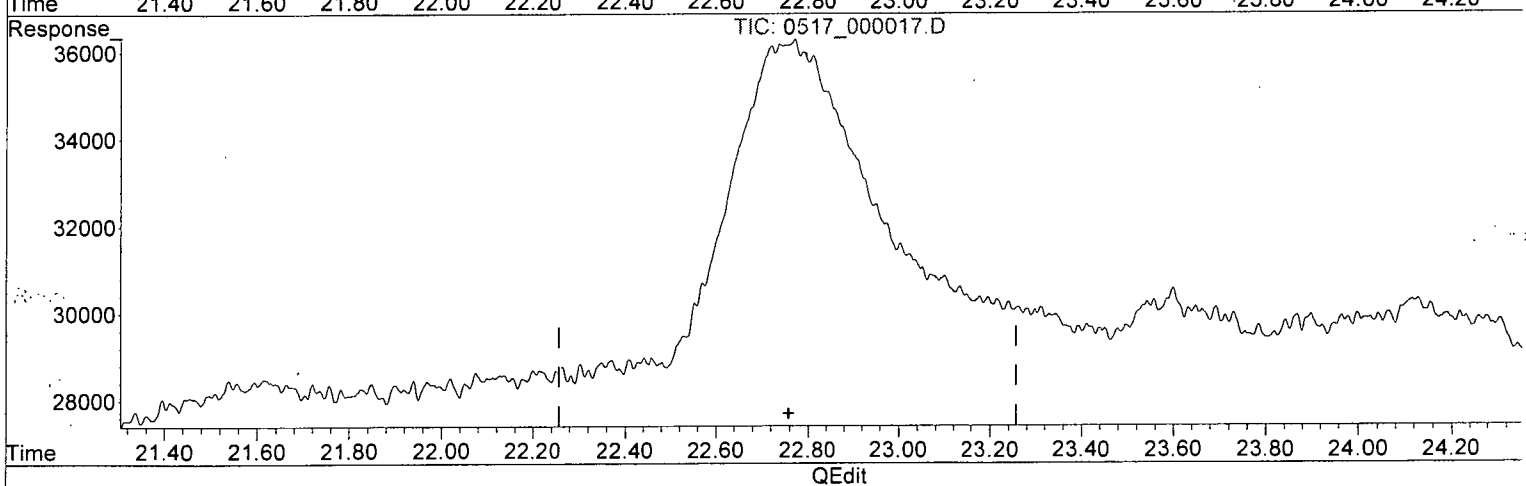
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 01:42:00
Operator : MP
Sample : 8330MXB_CB 0.50 PPM 05/16/15
Misc :
ALS Vial : 4164 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:46:41 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

22.748min 372.410 ppb m

response 339811

(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\150517\150517\
Data File : 0517_000018.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 02:21:31
Operator : MP
Sample : 8330MXA_CB 1.0 PPM 05/16/15
Misc :
ALS Vial : 4165 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:45:27 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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	8.084	0	1515856	N.D.	718.483 #
Spiked Amount 62.500			Recovery	=	0.00%	1149.57%
Target Compounds						
1) TM HMX	0.000	4.066	0	1703450	N.D.	810.067 #
2) TM RDX	0.000	6.408	0	1378320	N.D.	744.184 #
3) TM 1,3,5-TRI...	0.000	6.744	0	3501074	N.D.	783.293 #
5) TM 1,3-DINIT...	0.000	8.420	0	3507763	N.D.	779.966 #
6) TM NITROBENZENE	0.000	9.156	0	1855181	N.D.	724.213 #
7) TM 2,4,6-TRI...	0.000	11.430	0	1819561	N.D.	716.726 #
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	0.000	11.961	0	1301253	N.D. d	789.928
10) TM 2,6-DINIT...	13.438	13.437	1642762	1092933	NoCal	739.932 #
11) TM 2,4-DINIT...	0.000	14.036	0	1903954	N.D.	755.678 #
12) TM 2-NITROTO...	0.000	15.441	0	702186	N.D.	666.017 #
13) TM 4-NITROTO...	0.000	16.852	0	635593	N.D.	725.720 #
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
15) TM 3-NITROTO...	0.000	18.041	0	747633	N.D.	699.230 #
16) TM 4-AMINO-2...	0.000	18.683	0	1152117	N.D.	822.377 #
17) TM 2-AMINO-4...	0.000	19.626	0	1468401	N.D.	720.349 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

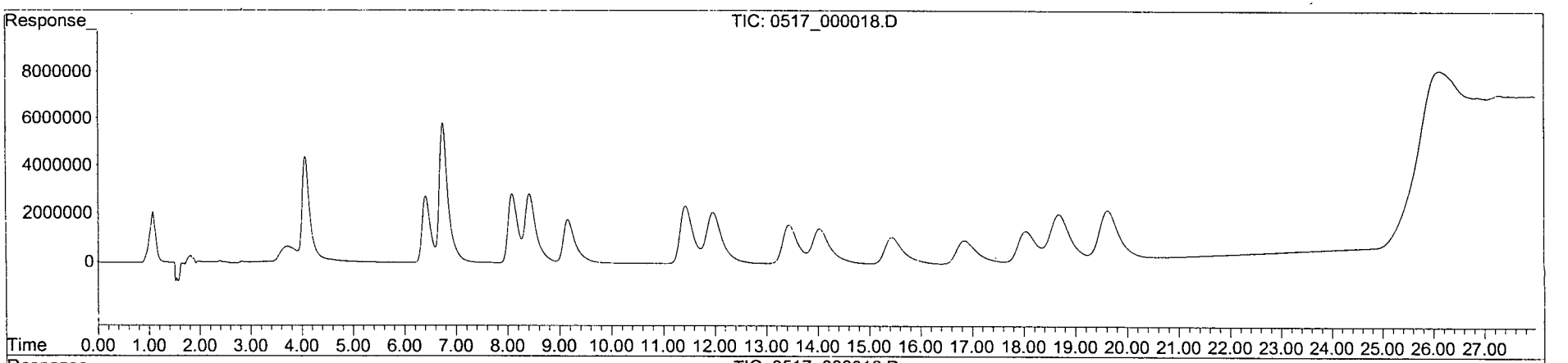
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

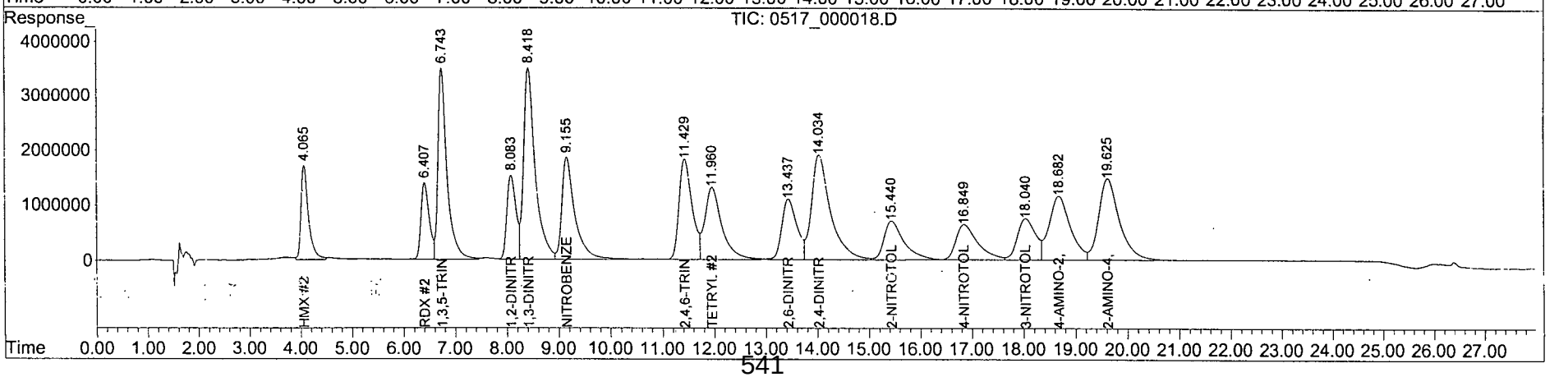
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000018.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 02:21:31
Operator : MP
Sample : 8330MXA_CB 1.0 PPM 05/16/15
Misc :
ALS Vial : 4165 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:45:27 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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\150517\150517\
Data File : 0517_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 03:01:03
Operator : MP
Sample : 8330MXB_CB 1.0 PPM 05/16/15
Misc :
ALS Vial : 4166 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:44:39 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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...	12.039	0.000	652889	0	716.906	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	16.569	0	1469284	N.D.	736.087 #
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	22.752	672316	13174	736.813m	NoCal #

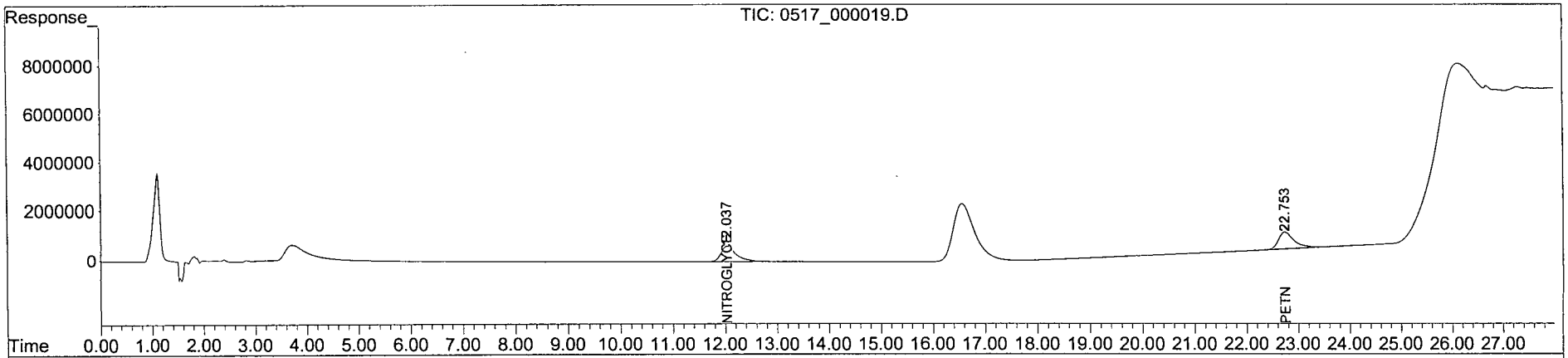
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

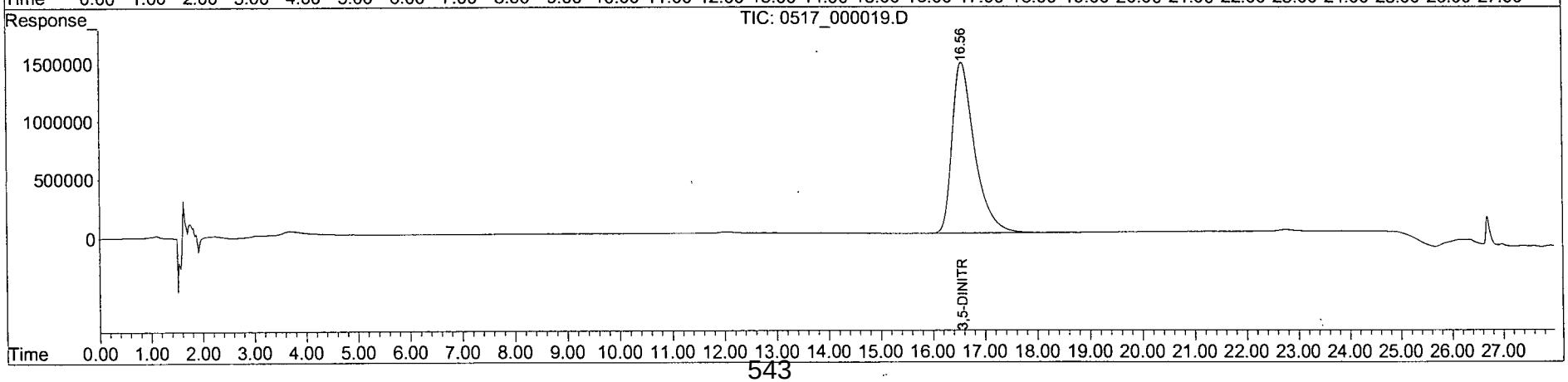
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 03:01:03
Operator : MP
Sample : 8330MXB_CB 1.0 PPM 05/16/15
Misc :
ALS Vial : 4166 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:44:39 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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



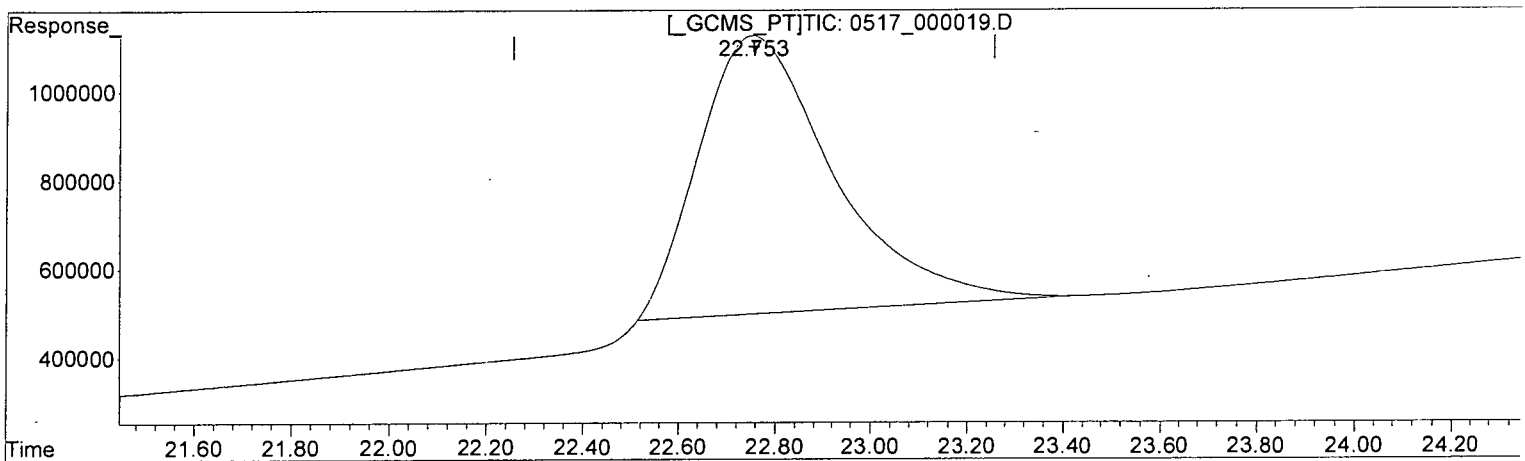


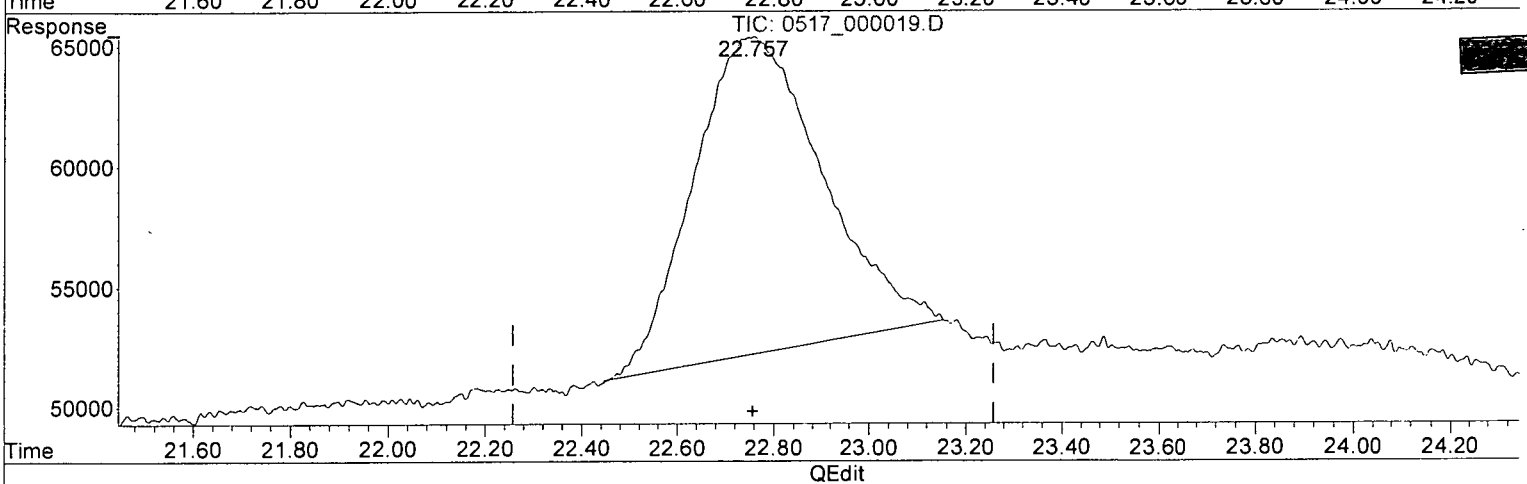
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 03:01:03
Operator : MP
Sample : 8330MXB_CB 1.0 PPM 05/16/15
Misc :
ALS Vial : 4166 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:46 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

22.753min 686.320 ppb

response 626243

(18) PETN #2 (TM)

22.752min 0.000 ppb

response 13174

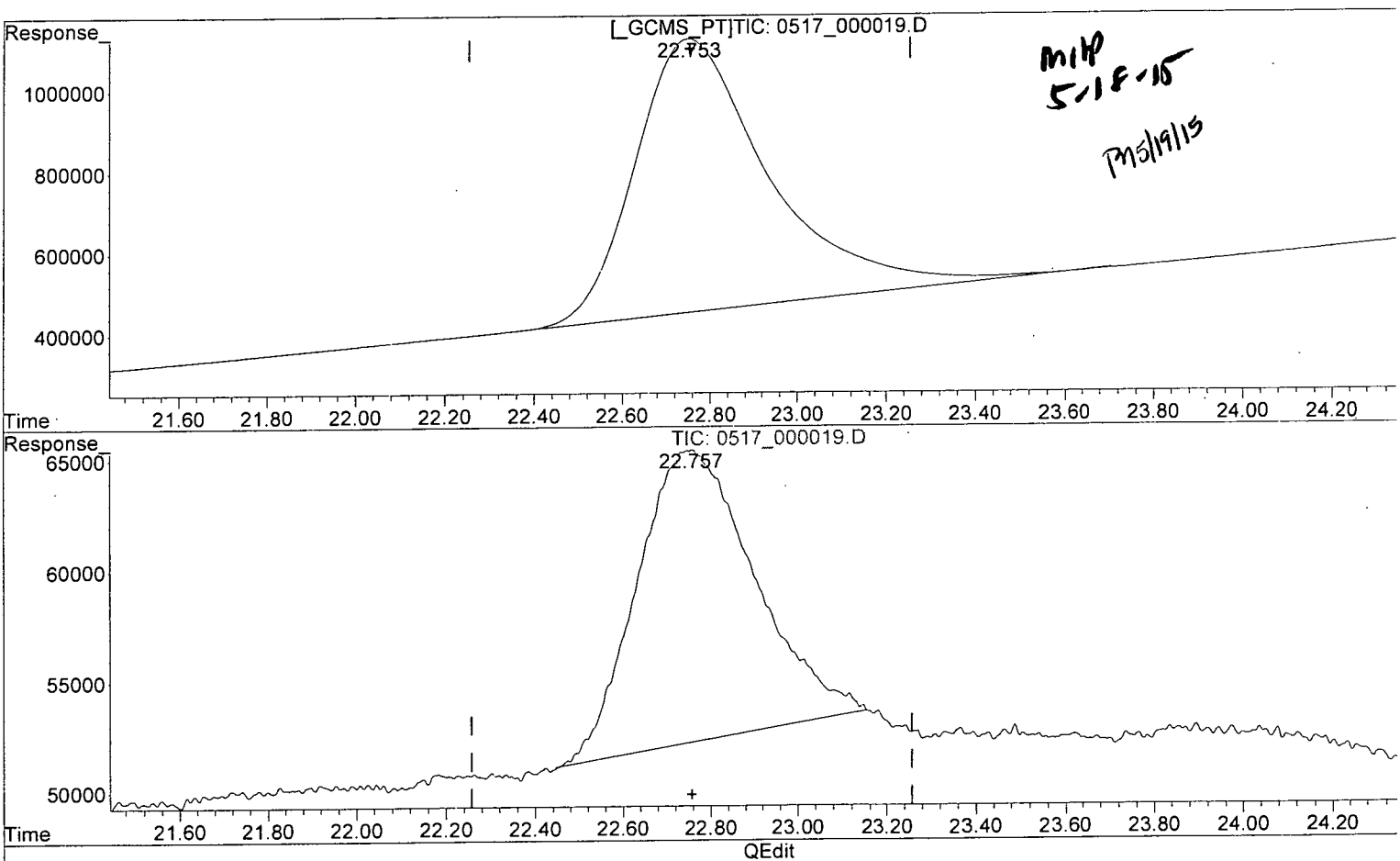
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 03:01:03
Operator : MP
Sample : 8330MXB_CB 1.0 PPM 05/16/15
Misc :
ALS Vial : 4166 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:46 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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 5-18-15

PM 5/19/15

(18) PETN (TM)

22.753min 736.813 ppb m

response 672316

(18) PETN #2 (TM)

22.752min 0.000 ppb

response 13174

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000020.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 03:40:34
Operator : MP
Sample : 8330MXA_CB 2.0 PPM 05/16/15
Misc :
ALS Vial : 4167 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:43:54 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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	8.081	0	3107273	N.D.	1472.780 #
Spiked Amount 62.500			Recovery	=	0.00%	2356.45%
Target Compounds						
1) TM HMX	0.000	4.064	0	3429159	N.D.	1630.719 #
2) TM RDX	0.000	6.404	0	2783364	N.D.	1502.797 #
3) TM 1,3,5-TRI...	0.000	6.741	0	7155789	N.D.	1600.960 #
5) TM 1,3-DINIT...	0.000	8.417	0	7167611	N.D.	1593.749 #
6) TM NITROBENZENE	0.000	9.155	0	3712142	N.D.	1449.121 #
7) TM 2,4,6-TRI...	0.000	11.435	0	3682095	N.D.	1450.378 #
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	11.970	11.968	2158240	2791819	NoCal	1694.779 #
10) TM 2,6-DINIT...	13.446	13.445	3344243	2234716	NoCal	1512.936 #
11) TM 2,4-DINIT...	0.000	14.041	0	3911192	N.D.	1552.348 #
12) TM 2-NITROTO...	0.000	15.443	0	1422711	N.D.	1349.429 #
13) TM 4-NITROTO...	0.000	16.848	0	1300610	N.D.	1485.036 #
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
15) TM 3-NITROTO...	0.000	18.040	0	1513866	N.D.	1415.855 #
16) TM 4-AMINO-2...	0.000	18.677	0	2340131	N.D.	1670.377 #
17) TM 2-AMINO-4...	0.000	19.621	0	2968466	N.D.	1456.232 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

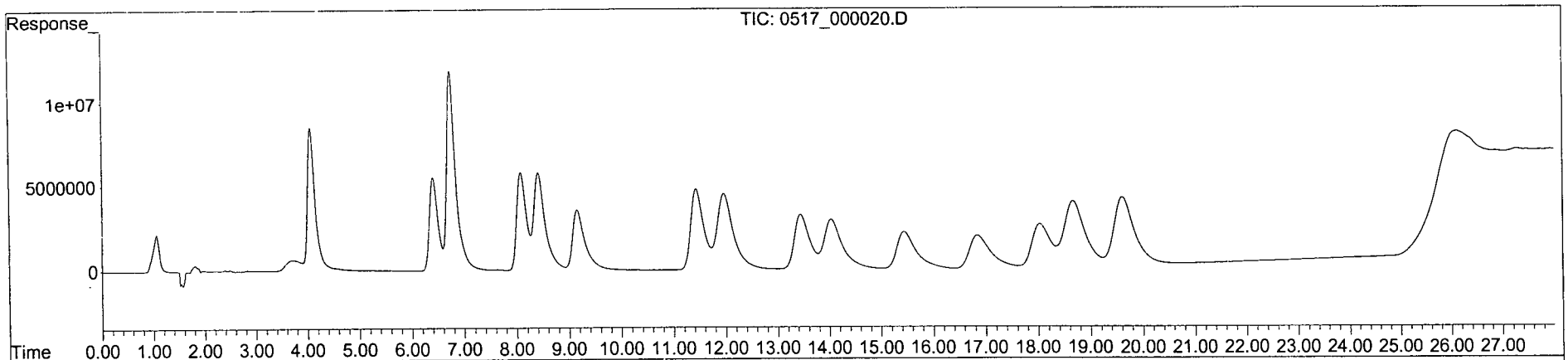
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

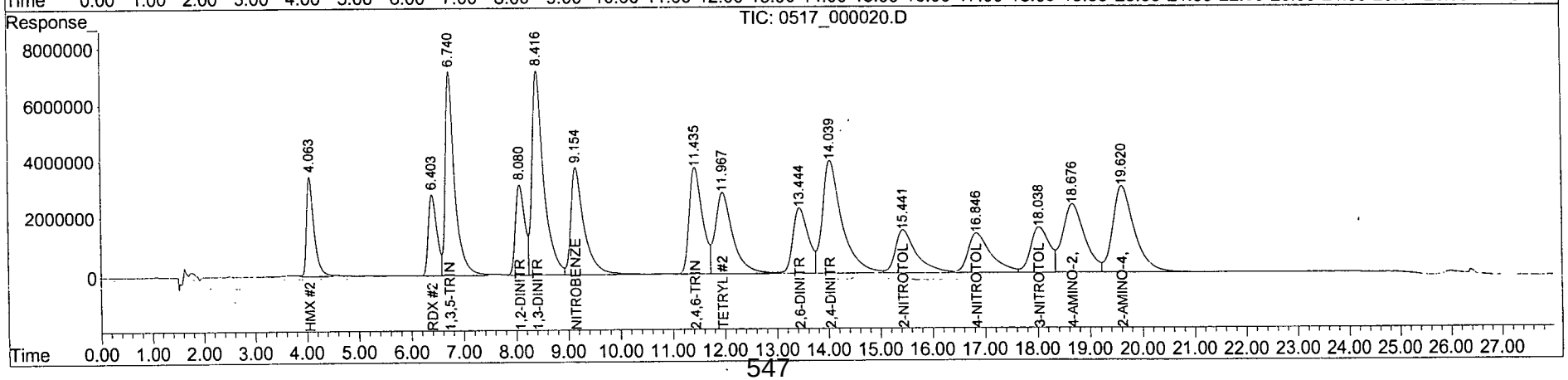
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000020.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 03:40:34
Operator : MP
Sample : 8330MXA_CB 2.0 PPM 05/16/15
Misc :
ALS Vial : 4167 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:43:54 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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\150517\150517\
Data File : 0517_000021.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 04:20:05
Operator : MP
Sample : 8330MXB_CB 2.0 PPM 05/16/15
Misc :
ALS Vial : 4168 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:43:27 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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...	12.032	0.000	1325924	0	1455.933	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	16.544	0	2946798	N.D.	1476.296 #
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	22.742	22.746	1368035	28334	1499.274m	NoCal #

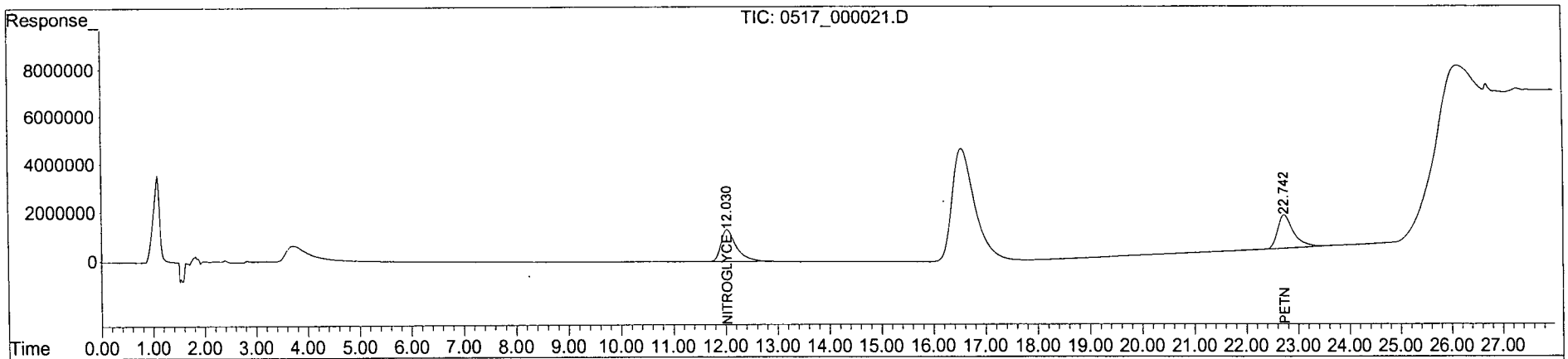
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

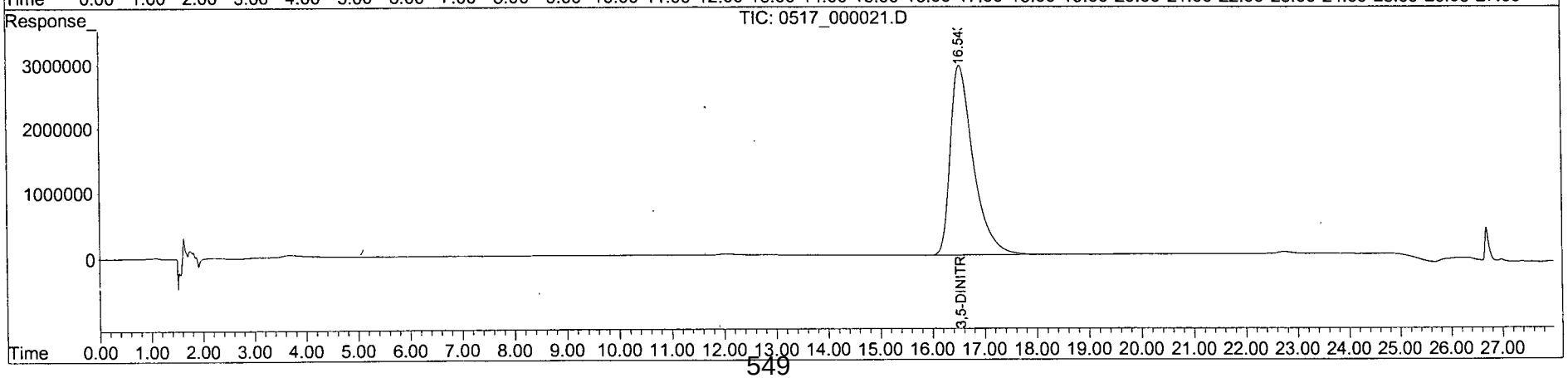
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000021.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 04:20:05
Operator : MP
Sample : 8330MXB_CB 2.0 PPM 05/16/15
Misc :
ALS Vial : 4168 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:43:27 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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



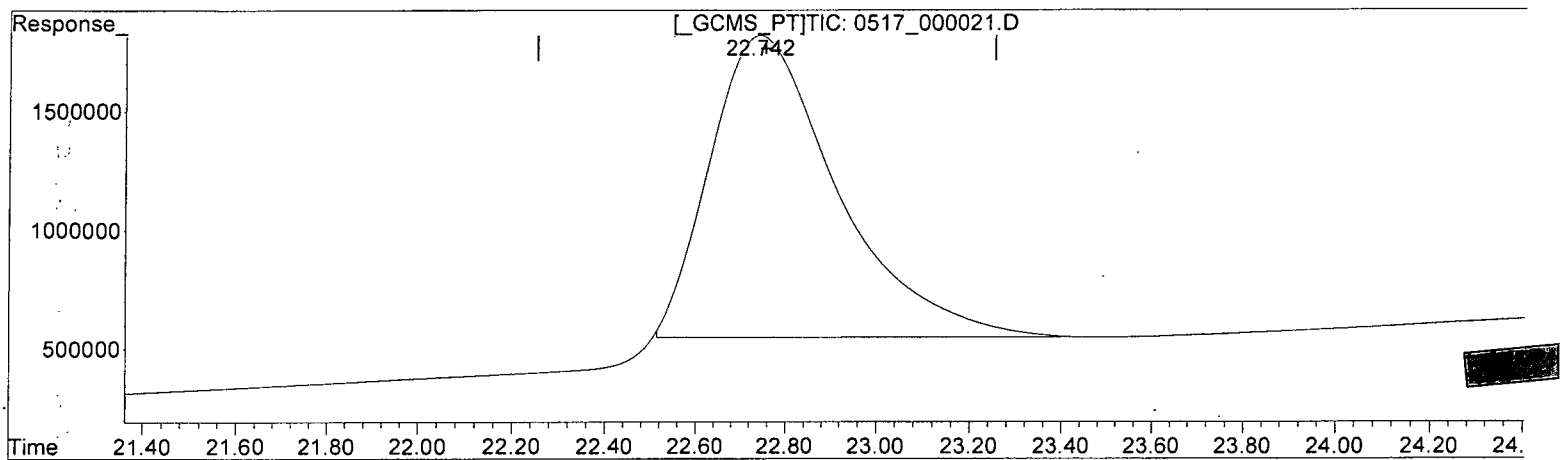


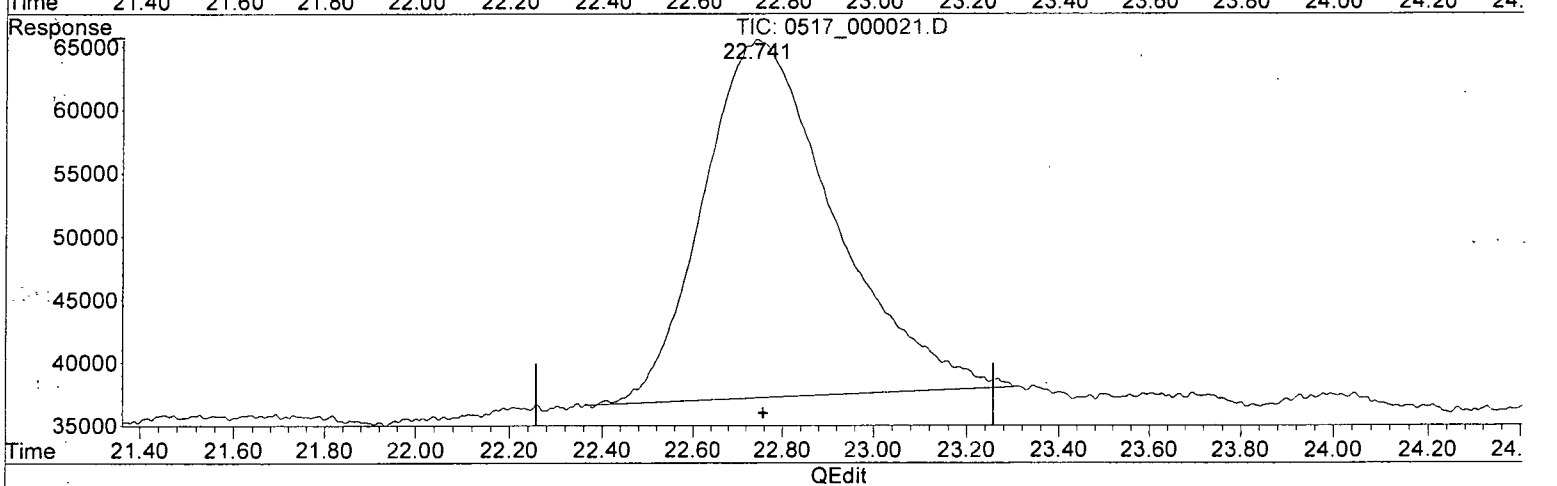
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000021.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 04:20:05
Operator : MP
Sample : 8330MXB_CB 2.0 PPM 05/16/15
Misc :
ALS Vial : 4168 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:52 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.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)

22.743min 1393.729 ppb

response 1271728

(18) PETN #2 (TM)

22.746min 0.000 ppb

response 28334

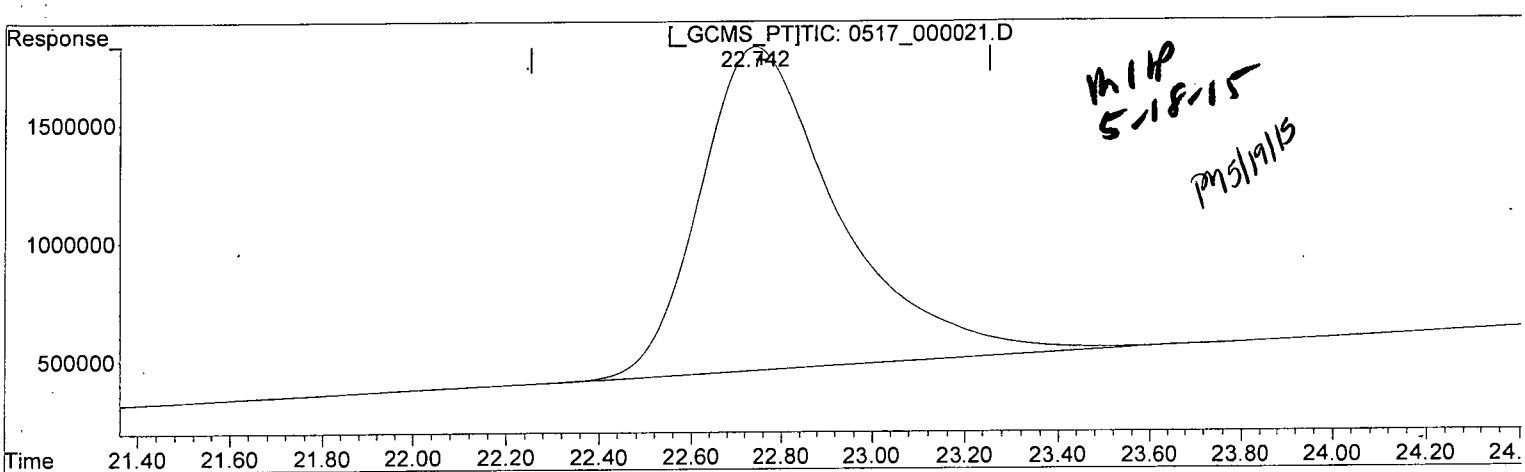
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000021.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 04:20:05
Operator : MP
Sample : 8330MXB_CB 2.0 PPM 05/16/15
Misc :
ALS Vial : 4168 Sample Multiplier: 1

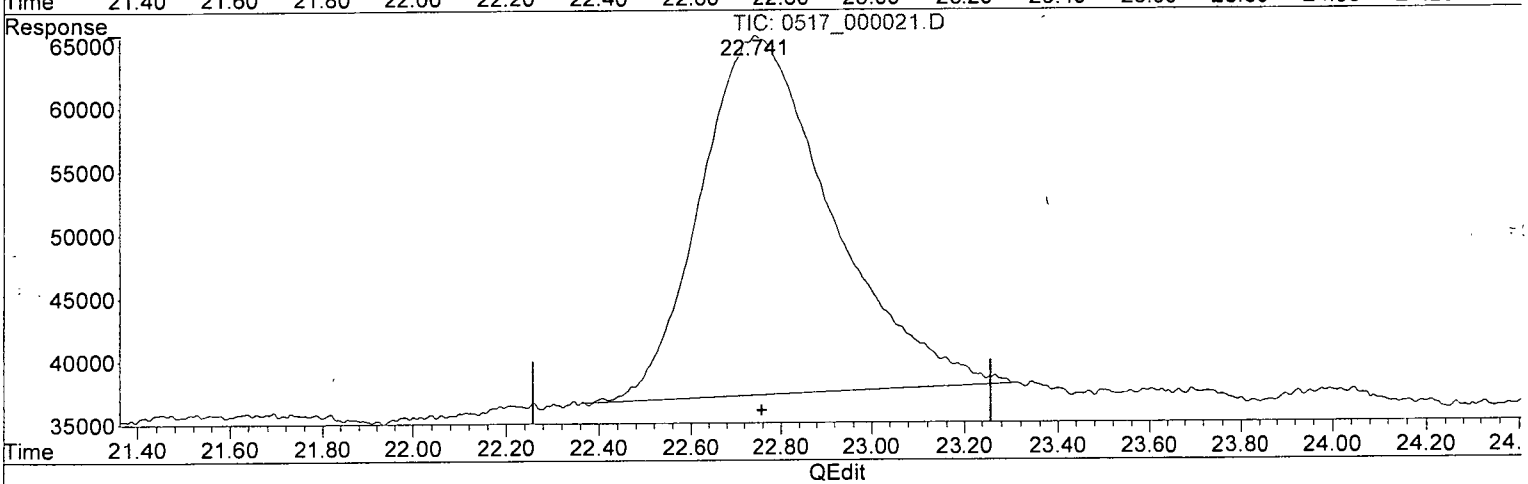
Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 07:42:52 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
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



MHP 5-18-15

PM 5/19/15



(18) PETN (TM)

22.742min 1499.274 ppb m

response 1368035

(18) PETN #2 (TM)

22.746min 0.000 ppb

response 28334

(+) = Expected Retention Time

Form 7

Second Source Calibration

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

SDG No: 76401
Date Analyzed: 18-May-2015, 10:15:43
Instrument: Statler
Initial Cal. Date: 05/17/15
Data File: 0517_000028-30.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	NITROGLYCERIN	16.3	16.3	0.33	TM	
2	TM	PETN	16.0	16.6	3.6	TM	
3		Signal #2					
4	TM	HMX	40.4	42.0	4.0	TM	
5	TM	RDX	34.1	34.7	1.8	TM	
6	TM	1,3-DINITROBENZENE	87.1	83.9	3.7	TM	
7	TM	NITROBENZENE	46.6	48.2	3.5	TM	
8	TM	2,4-DINITROTOLUENE	47.1	47.4	0.74	TM	
9	TM	3,5-DINITROANILINE	37.1	38.5	3.8	TM	
10	TM	3-NITROTOLUENE	17.9	20.4	14	TM	
11	TM	4-AMINO-2,6-DINITROTOLUEN	29.0	31.1	7.6	TM	
12	TM	1,3,5-TRINITROBENZENE	86.6	81.4	6.0	TM	
13	S	1,2-DINITROBENZENE	38.5	39.0	1.3	S	
14	TM	2,4,6-TRINITROTOLUENE	45.5	45.1	0.87	TM	
15	TM	TETRYL	31.5	30.3	3.7	TM	
16	TM	2,6-DINITROTOLUENE	27.2	28.9	6.1	TM	
17	TM	2-NITROTOLUENE	17.2	19.7	15	TM	
18	TM	4-NITROTOLUENE	15.1	16.8	11	TM	
19	TM	2-AMINO-4,6-DINITROTOLUEN	36.7	34.5	6.1	TM	
20	TM	TETRYL	31.5	33.3	5.6	TM	
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000028.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 08:56:40
Operator : MP
Sample : 8330MXB_SS 1.0 PPM 05/18/15
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 18 09:36:25 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 08:20:21 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	8.090	0	1558159	N.D.	1012.840 #
	Spiked Amount 62.500			Recovery	=	0.00%	1620.54%
	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	6.749	0	3256048	N.D.	939.564 #
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	11.443	0	1804909	N.D.	991.325 #
8)	TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9)	TM TETRYL	11.979	11.977	762997	1212943	NoCal	962.808 #
10)	TM 2,6-DINIT...	13.460	13.459	1721941	1156407	NoCal	1061.357 #
11)	TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12)	TM 2-NITROTO...	0.000	15.467	0	787890	N.D.	1146.002 #
13)	TM 4-NITROTO...	0.000	16.880	0	672775	N.D.	1112.959 #
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	19.647	0	1379236	N.D.	938.754 #
18)	TM PETN	0.000	0.000	0	0	N.D.	N.D.

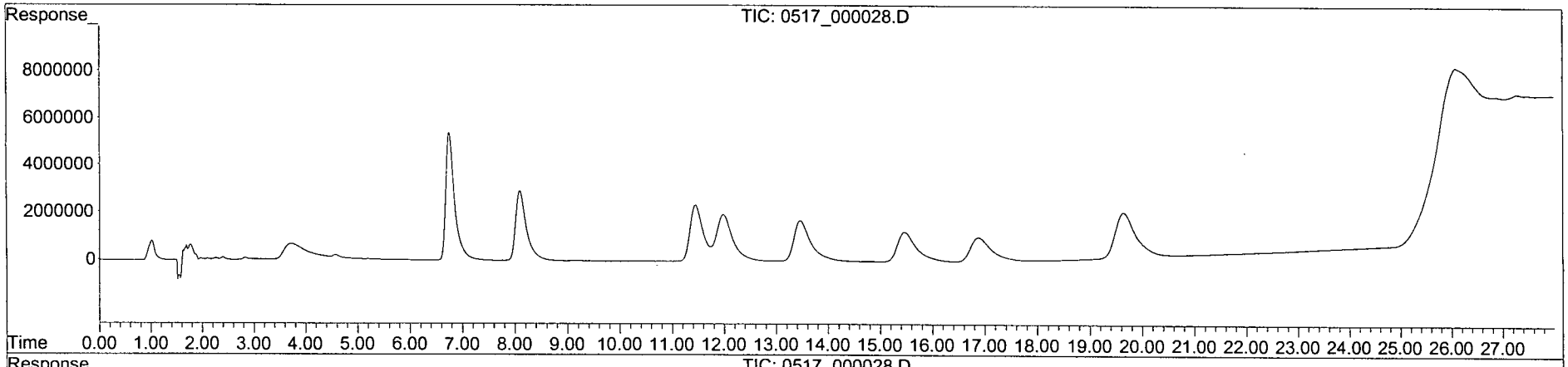
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

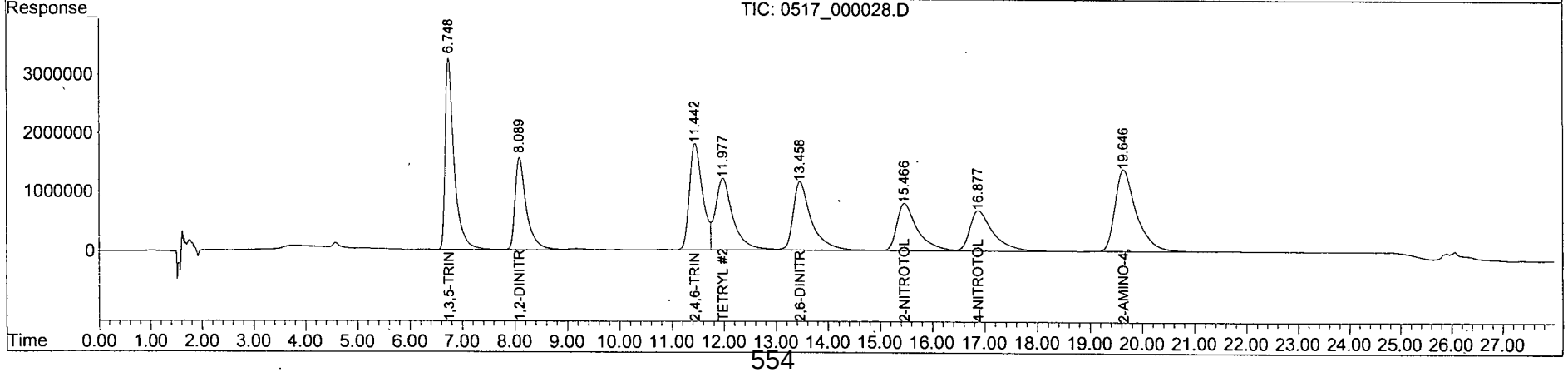
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000028.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 08:56:40
Operator : MP
Sample : 8330MXB_SS 1.0 PPM 05/18/15
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 18 09:36:25 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 08:20:21 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\150517\150517\
Data File : 0517_000029.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 09:36:11
Operator : MP
Sample : PETN_TETRYL_SS 1.0 PPM 05/18/15
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 18 10:21:38 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 08:20:21 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	11.986	0	1330028	N.D. d	1055.747
10) TM 2,6-DINIT...	13.431	0.000	1113	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	22.770	22.769	664810	12979	1035.611m	NoCal #

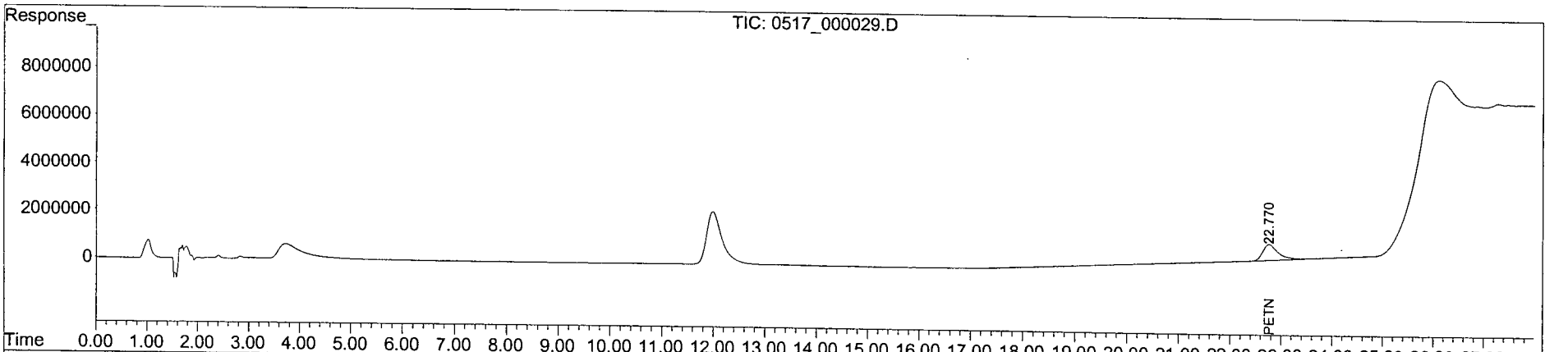
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

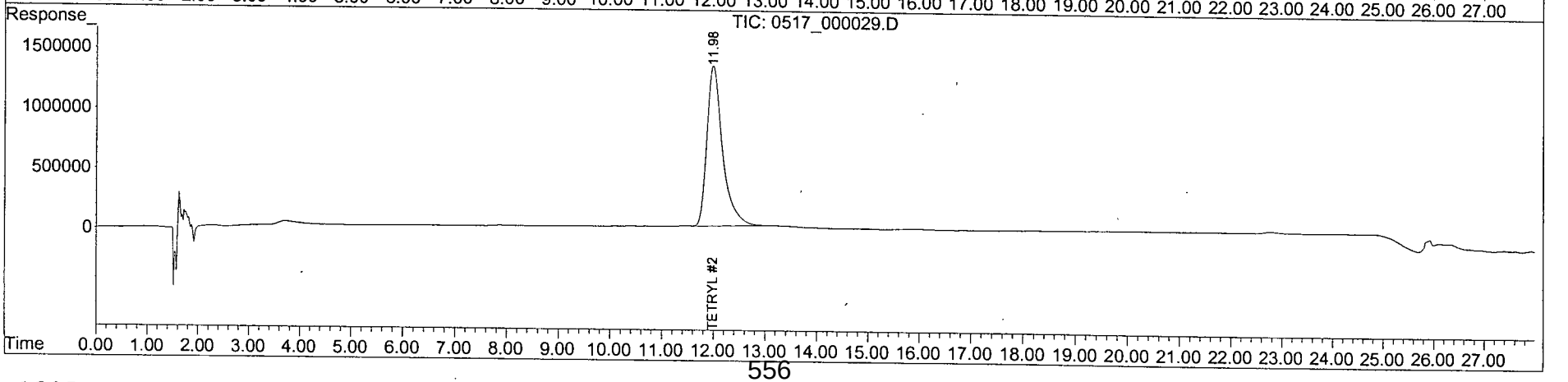
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000029.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 09:36:11
Operator : MP
Sample : PETN_TETRYL_SS 1.0 PPM 05/18/15
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 18 10:21:38 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 08:20:21 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_150517.M Mon May 18 10:21:47 2015 WALDORF

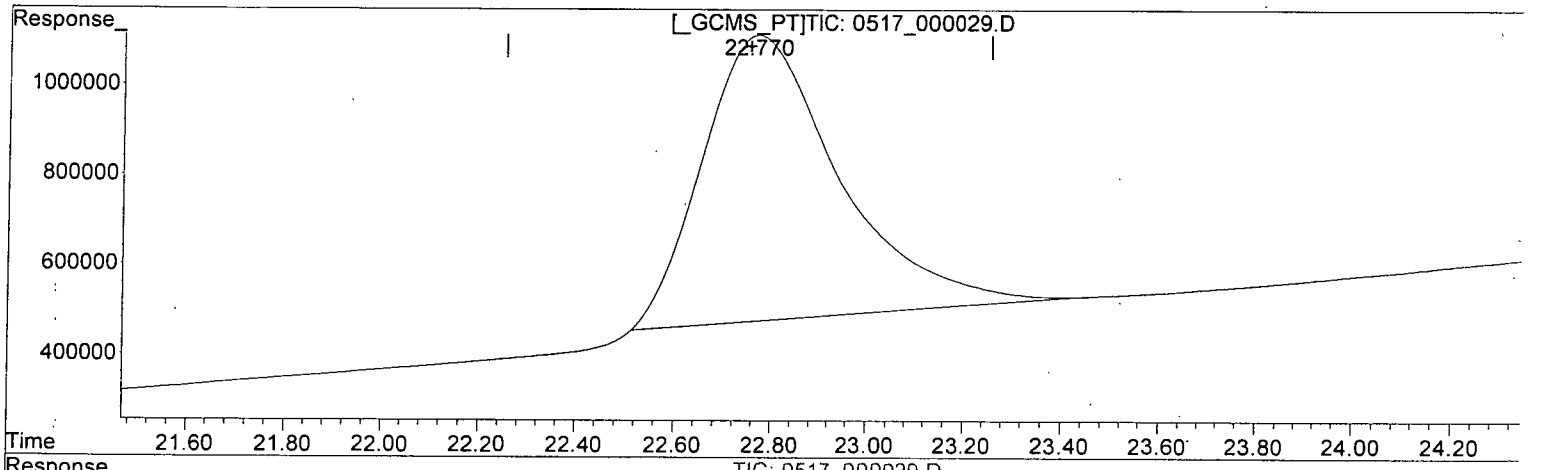
Page: 2

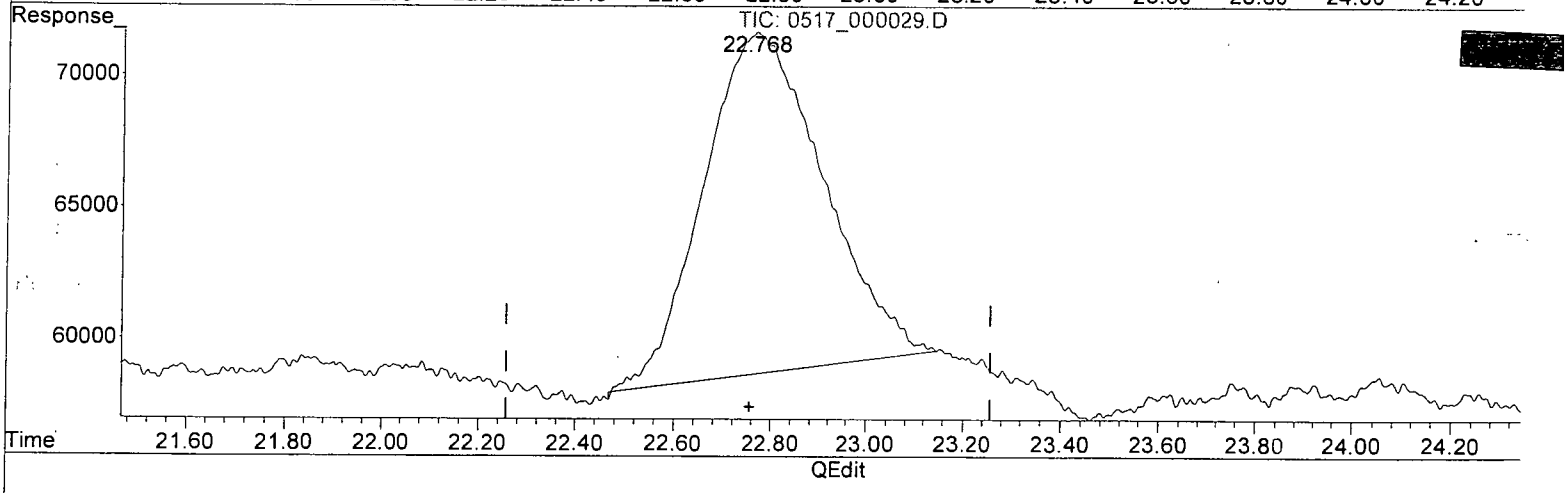
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000029.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 09:36:11
Operator : MP
Sample : PETN_TETRYL_SS 1.0 PPM 05/18/15
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 18 10:21:01 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 08:20:21 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)

22.771min 990.537 ppb

response 635875

(18) PETN #2 (TM)

22.769min 0.000 ppb

response 12979

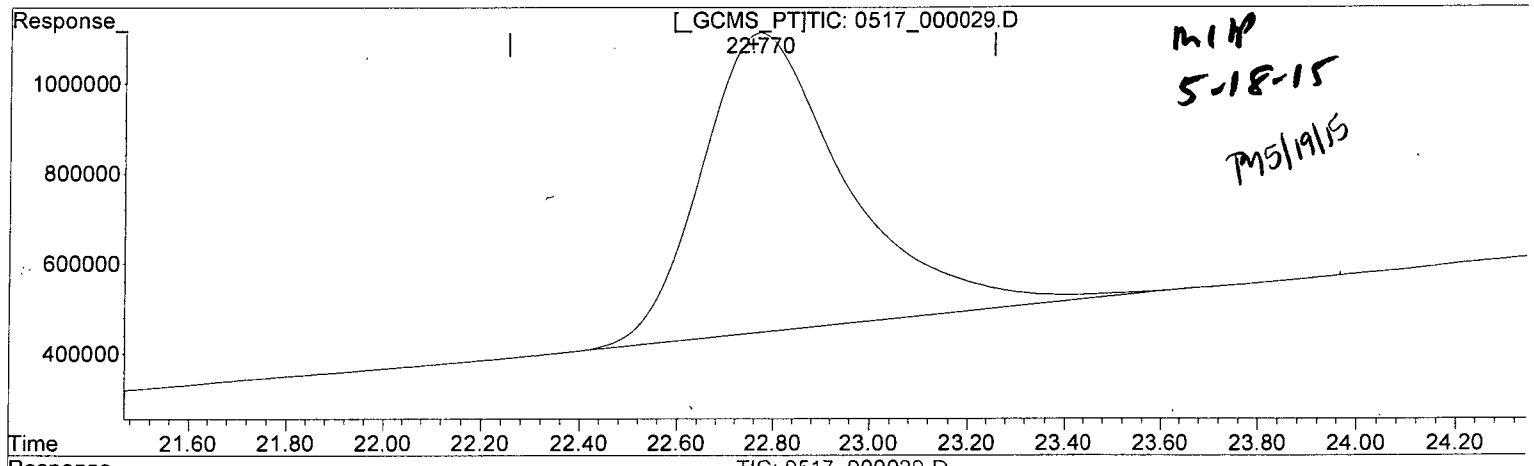
(+) = Expected Retention Time

Quantitation Report (Qedit)

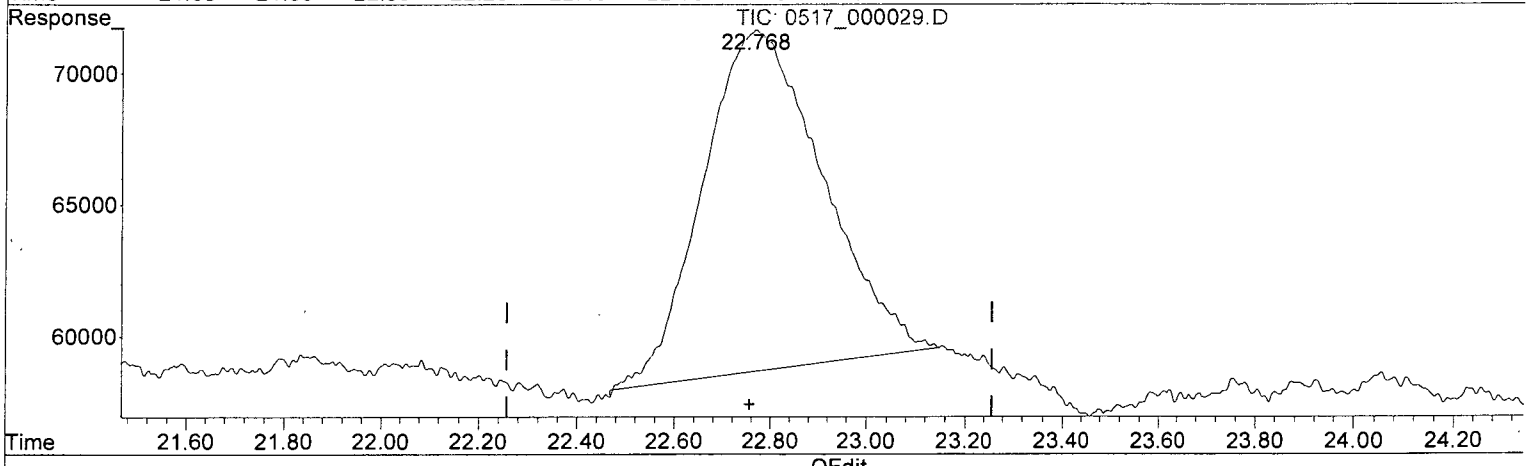
Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000029.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 09:36:11
Operator : MP
Sample : PETN_TETRYL_SS 1.0 PPM 05/18/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 18 10:21:01 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 08:20:21 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
5-18-15
PM 5/19/15



(18) PETN (TM)

22.770min 1035.611 ppb m

response 664810

(18) PETN #2 (TM)

22.769min 0.000 ppb

response 12979

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000030.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 10:15:43
Operator : MP
Sample : 8330MXA_SS 1.0 PPM 05/18/15
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 18 10:55:41 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 08:20:21 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.	N.D. d
	Spiked Amount 62.500			Recovery	=	0.00%	0.00%
	Target Compounds						
1)	TM HMX	0.000	4.068	0	1681330	N.D.	1039.616 #
2)	TM RDX	0.000	6.409	0	1387920	N.D.	1017.711 #
3)	TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.	N.D.
5)	TM 1,3-DINIT...	0.000	8.425	0	3357041	N.D.	963.150 #
6)	TM NITROBENZENE	0.000	9.162	0	1928161	N.D.	1035.223 #
7)	TM 2,4,6-TRI...	0.000	0.000	0	0	N.D.	N.D. d
8)	TM NITROGLYC...	12.047	0.000	653647	0	1003.342	N.D. d#
9)	TM TETRYL	12.047	0.000	653647	0	NoCal	N.D. d
10)	TM 2,6-DINIT...	13.443	0.000	610	0	NoCal	N.D.
11)	TM 2,4-DINIT...	0.000	14.050	0	1897662	N.D.	1007.427 #
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	16.557	0	1539687	N.D.	1038.050 #
15)	TM 3-NITROTO...	0.000	18.057	0	814888	N.D.	1137.424 #
16)	TM 4-AMINO-2...	0.000	18.678	0	1245938	N.D.	1075.915 #
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.

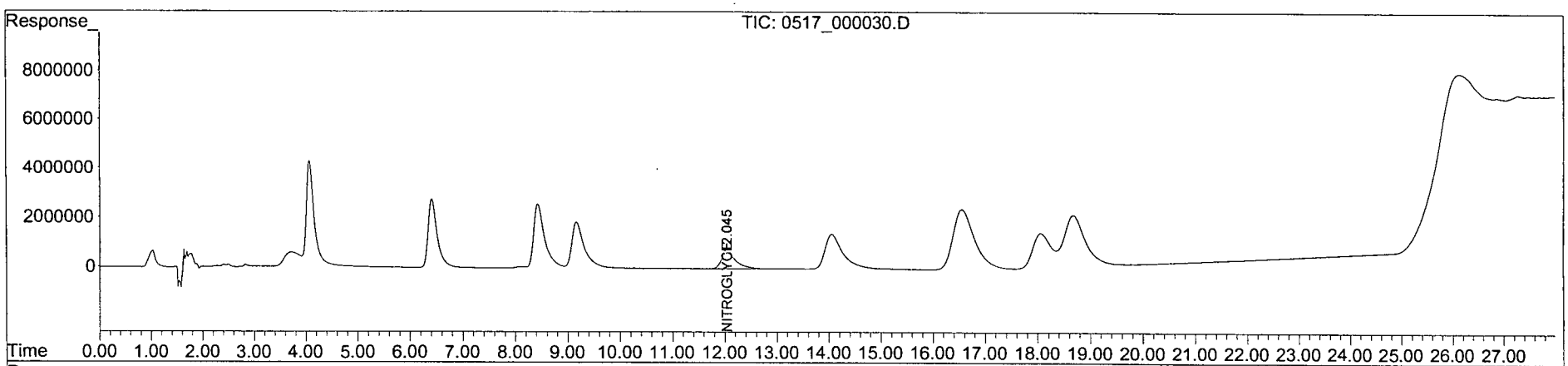
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

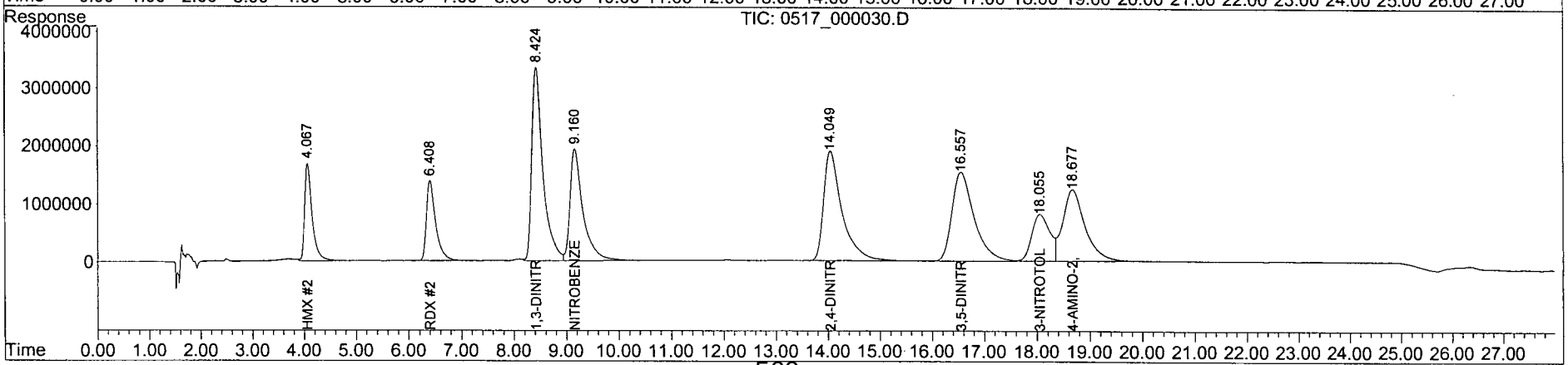
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000030.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 10:15:43
Operator : MP
Sample : 8330MXA_SS 1.0 PPM 05/18/15
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 18 10:55:41 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 08:20:21 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





Form 7

Continuing Calibration

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

SDG No: 76401
Date Analyzed: 18-May-2015, 19:31:11
Instrument: Statler
Initial Cal. Date: 05/17/15
Data File: 0517_000043-44.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	NITROGLYCERIN	16.3	16.7	2.4	TM	
2	TM	PETN	16.0	17.1	6.7	TM	
3		Signal #2					
4	TM	3,5-DINITROANILINE	37.1	38.0	2.4	TM	
5	TM	HMX	40.4	44.3	9.7	TM	
6	TM	RDX	34.1	35.7	4.8	TM	
7	TM	1,3,5-TRINITROBENZENE	86.6	89.4	3.2	TM	
8	S	1,2-DINITROBENZENE	38.5	39.1	1.6	S	
9	TM	1,3-DINITROBENZENE	87.1	89.6	2.8	TM	
10	TM	NITROBENZENE	46.6	49.0	5.3	TM	
11	TM	2,4,6-TRINITROTOLUENE	45.5	46.4	2.0	TM	
12	TM	TETRYL	31.5	33.8	7.4	TM	
13	TM	2,6-DINITROTOLUENE	27.2	28.3	3.8	TM	
14	TM	2,4-DINITROTOLUENE	47.1	49.1	4.3	TM	
15	TM	2-NITROTOLUENE	17.2	19.0	11	TM	
16	TM	4-NITROTOLUENE	15.1	16.9	12	TM	
17	TM	3-NITROTOLUENE	17.9	19.8	10	TM	
18	TM	4-AMINO-2,6-DINITROTOLUEN	29.0	30.2	4.4	TM	
19	TM	2-AMINO-4,6-DINITROTOLUEN	36.7	37.7	2.7	TM	
20							
21							
22							
23							
24							
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38							
39							
40							

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000043.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 18:51:41
Operator : MP
Sample : 8330MXA_CCV 1.0 PPM 05/18/15
Misc :
ALS Vial : 4423 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 19 07:09:09 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 13:38:19 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

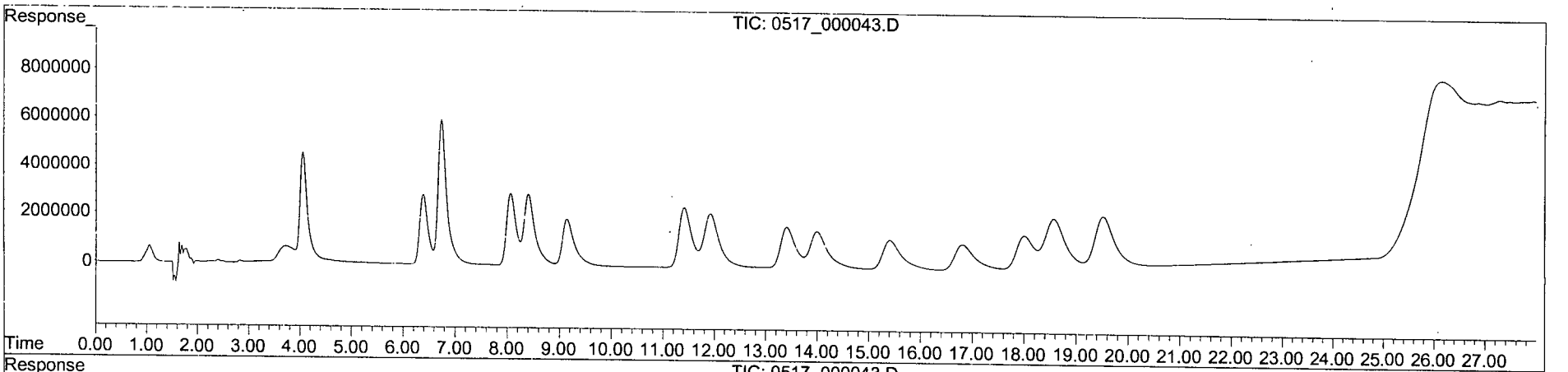
Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	8.059	0	1562281	N.D.	1015.520 #
Spiked Amount 62.500			Recovery	=	0.00%	1624.83%
Target Compounds						
1) TM HMX	0.000	4.051	0	1773758	N.D.	1096.767 #
2) TM RDX	0.000	6.382	0	1429214	N.D.	1047.990 #
3) TM 1,3,5-TRI...	0.000	6.734	0	3575424	N.D.	1031.723 #
5) TM 1,3-DINIT...	0.000	8.401	0	3582802	N.D.	1027.922 #
6) TM NITROBENZENE	0.000	9.140	0	1960377	N.D.	1052.520 #
7) TM 2,4,6-TRI...	0.000	11.411	0	1857436	N.D.	1020.175 #
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	11.922	11.920	1122810	1352416	NoCal	1073.519 #
10) TM 2,6-DINIT...	13.408	13.407	1670130	1131259	NoCal	1038.276 #
11) TM 2,4-DINIT...	0.000	14.001	0	1964676	N.D.	1043.003 #
12) TM 2-NITROTO...	0.000	15.410	0	761335	N.D.	1107.378 #
13) TM 4-NITROTO...	0.000	16.814	0	676260	N.D.	1118.724 #
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
15) TM 3-NITROTO...	0.000	18.006	0	790847	N.D.	1103.867 #
16) TM 4-AMINO-2...	0.000	18.576	0	1208486	N.D.	1043.573 #
17) TM 2-AMINO-4...	0.000	19.528	0	1508204	N.D.	1026.534 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

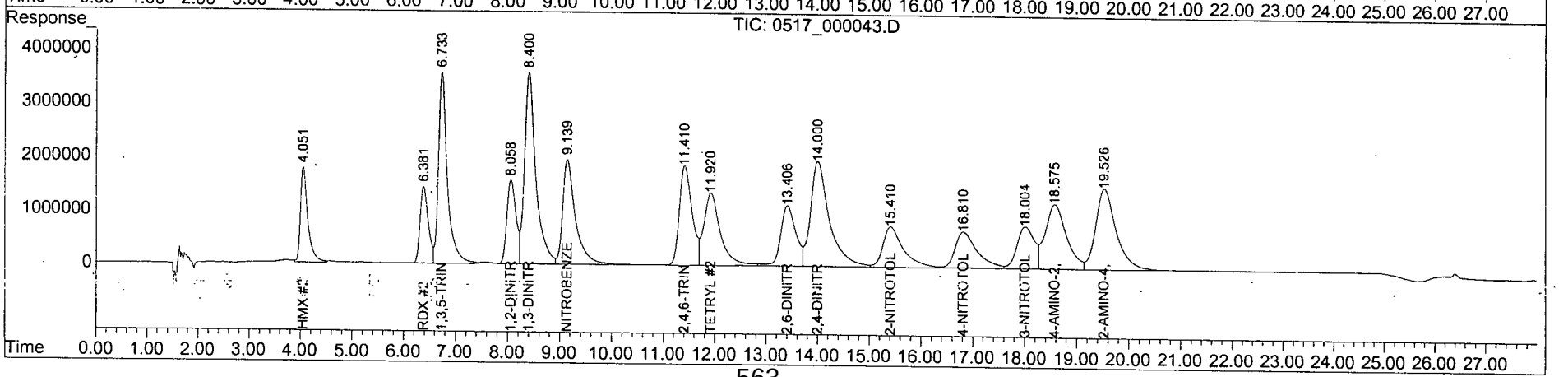
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000043.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 18:51:41
Operator : MP
Sample : 8330MXA_CCV 1.0 PPM 05/18/15
Misc :
ALS Vial : 4423 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 19 07:09:09 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 13:38:19 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\150517\150517\
Data File : 0517_000044.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 19:31:11
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 05/18/15
Misc :
ALS Vial : 4424 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 19 07:08:21 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 13:38:19 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...	12.016	12.013	667196	8404	1024.140	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	16.446	0	1518246	N.D.	1023.595 #
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	22.732	22.735	684834	13744	1066.803m	NoCal #

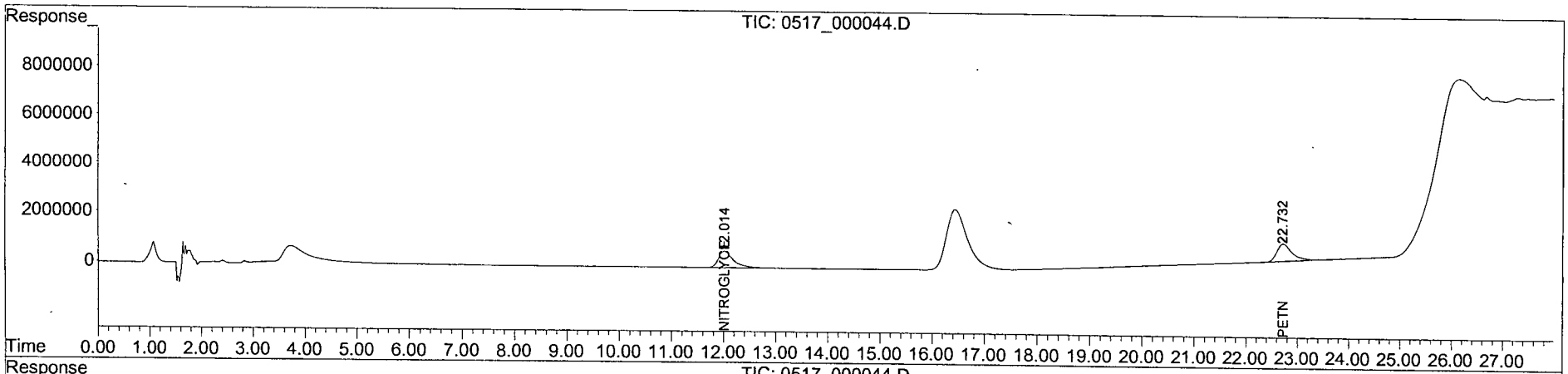
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

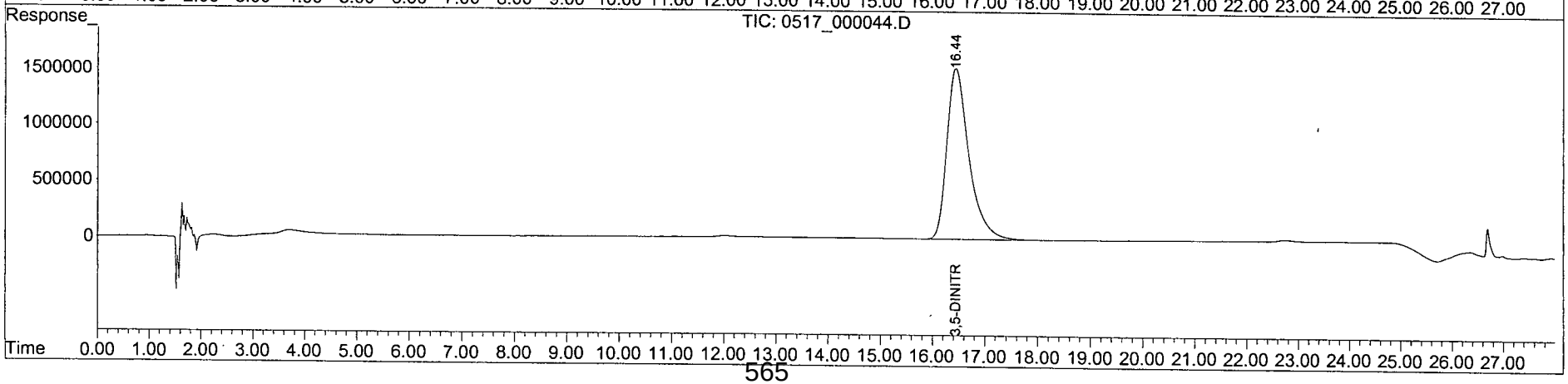
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000044.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 19:31:11
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 05/18/15
Misc :
ALS Vial : 4424 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 19 07:08:21 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 13:38:19 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



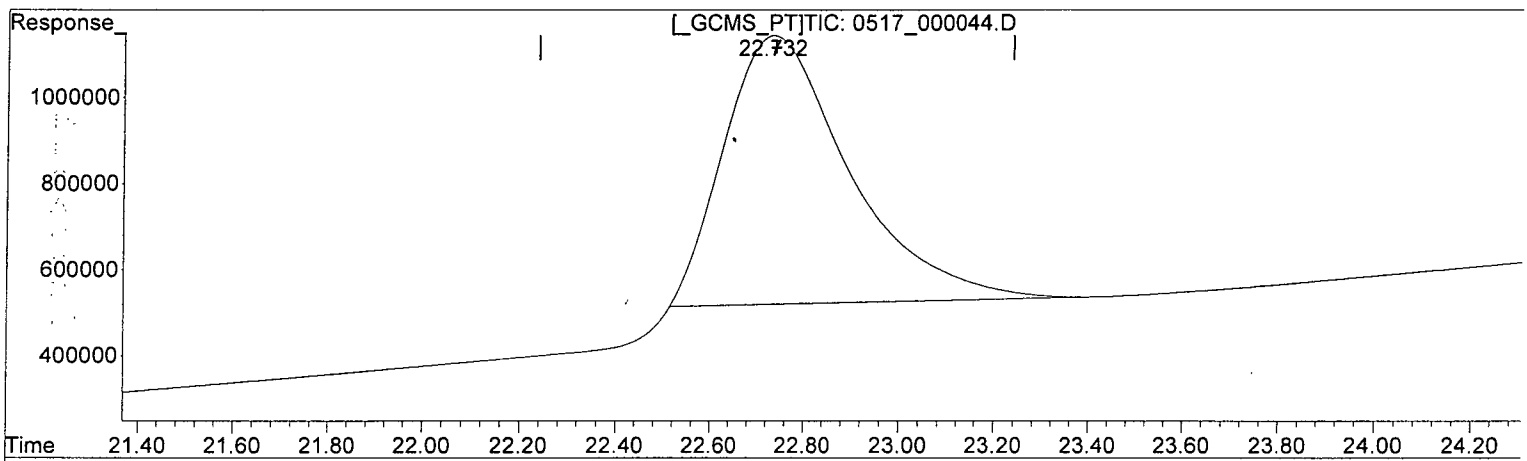


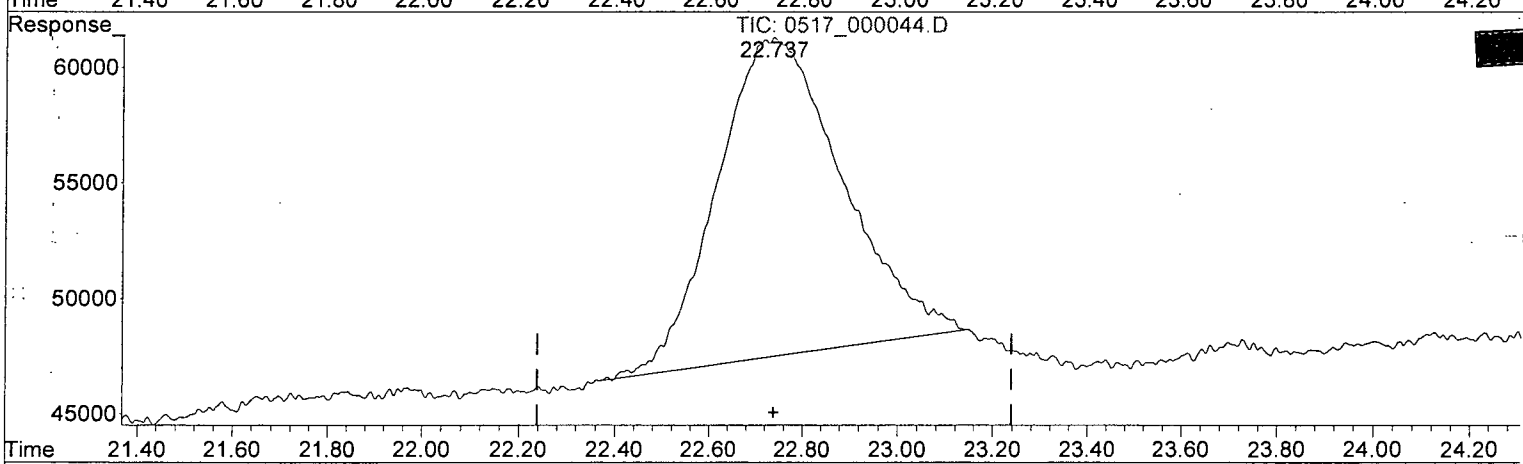
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000044.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 19:31:11
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 05/18/15
Misc :
ALS Vial : 4424 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 19 07:07:29 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 13:38:19 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)

22.735min 967.679 ppb

response 621202

(18) PETN #2 (TM)

22.735min 0.000 ppb

response 13744

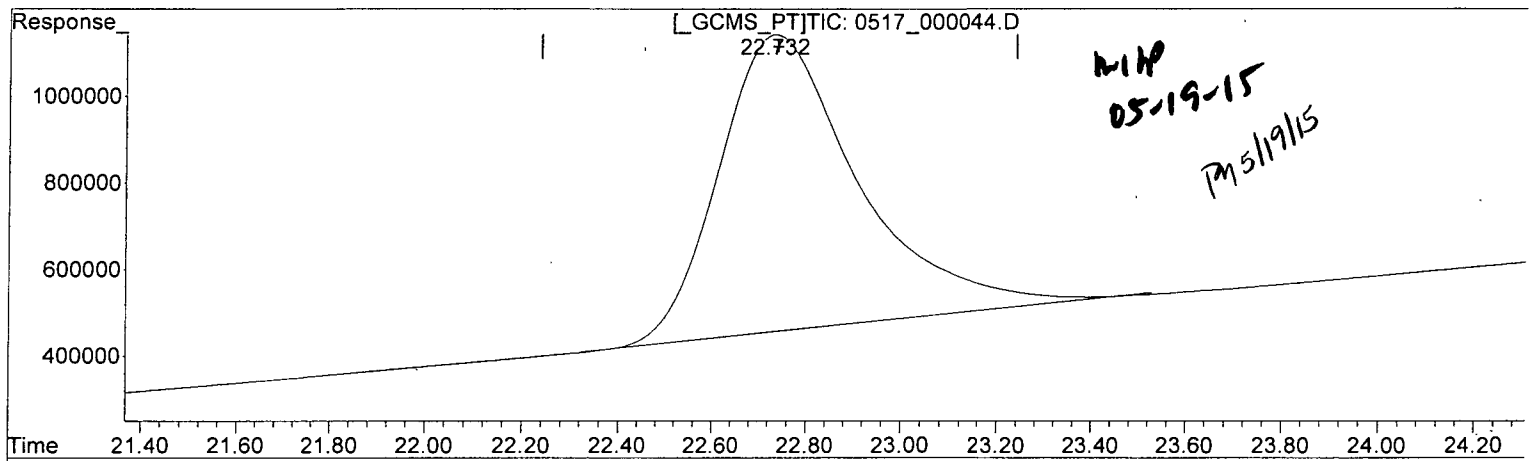
(+) = Expected Retention Time

Quantitation Report (Qedit)

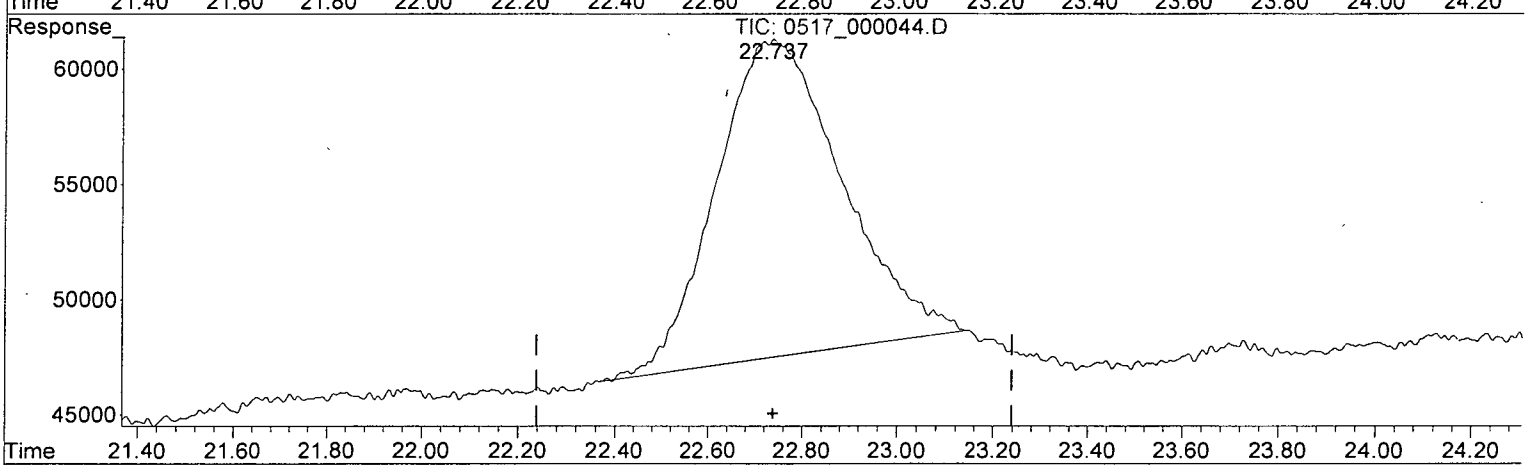
Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000044.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 19:31:11
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 05/18/15
Misc :
ALS Vial : 4424 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 19 07:07:29 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 13:38:19 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
05-19-15
PM 5/19/15



(18) PETN (TM)

22.732min 1066.803 ppb m

response 684834

(18) PETN #2 (TM)

22.735min 0.000 ppb

response 13744

(+) = Expected Retention Time

Form 7

Continuing Calibration

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

SDG No: 76401
Date Analyzed: 19-May-2015, 00:47:18
Instrument: Statler
Initial Cal. Date: 05/17/15
Data File: 0517_000051-52.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	NITROGLYCERIN	16.3	16.7	2.6	TM	
2	TM	PETN	16.0	17.1	6.8	TM	
3		Signal #2					
4	TM	3,5-DINITROANILINE	37.1	37.6	1.5	TM	
5	TM	HMX	40.4	43.9	8.6	TM	
6	TM	RDX	34.1	35.6	4.3	TM	
7	TM	1,3,5-TRINITROBENZENE	86.6	89.7	3.5	TM	
8	S	1,2-DINITROBENZENE	38.5	39.2	2.0	S	
9	TM	1,3-DINITROBENZENE	87.1	89.9	3.2	TM	
10	TM	NITROBENZENE	46.6	48.4	4.0	TM	
11	TM	2,4,6-TRINITROTOLUENE	45.5	46.9	3.0	TM	
12	TM	TETRYL	31.5	32.8	4.0	TM	
13	TM	2,6-DINITROTOLUENE	27.2	28.2	3.7	TM	
14	TM	2,4-DINITROTOLUENE	47.1	49.0	4.0	TM	
15	TM	2-NITROTOLUENE	17.2	18.5	7.5	TM	
16	TM	4-NITROTOLUENE	15.1	16.6	9.8	TM	
17	TM	3-NITROTOLUENE	17.9	19.5	8.9	TM	
18	TM	4-AMINO-2,6-DINITROTOLUEN	29.0	29.7	2.7	TM	
19	TM	2-AMINO-4,6-DINITROTOLUEN	36.7	37.8	2.8	TM	
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000051.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 19-May-2015, 00:07:48
Operator : MP
Sample : 8330MXA_CCV 1.0 PPM 05/16/15
Misc :
ALS Vial : 4423 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 19 07:12:25 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 13:38:19 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	8.073	0	1568824	N.D.	1019.773 #
	Spiked Amount 62.500			Recovery	=	0.00%	1631.64%
	Target Compounds						
1)	TM HMX	0.000	4.063	0	1755936	N.D.	1085.747 #
2)	TM RDX	0.000	6.399	0	1422641	N.D.	1043.171 #
3)	TM 1,3,5-TRI...	0.000	6.739	0	3587977	N.D.	1035.345 #
5)	TM 1,3-DINIT...	0.000	8.411	0	3596158	N.D.	1031.754 #
6)	TM NITROBENZENE	0.000	9.148	0	1936346	N.D.	1039.618 #
7)	TM 2,4,6-TRI...	0.000	11.418	0	1876031	N.D.	1030.388 #
8)	TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9)	TM TETRYL	11.944	11.942	1023752	1310420	NoCal	1040.183 #
10)	TM 2,6-DINIT...	13.421	13.420	1684203	1129609	NoCal	1036.762 #
11)	TM 2,4-DINIT...	0.000	14.016	0	1959427	N.D.	1040.216 #
12)	TM 2-NITROTO...	0.000	15.419	0	739197	N.D.	1075.177 #
13)	TM 4-NITROTO...	0.000	16.825	0	663928	N.D.	1098.324 #
14)	TM 3,5-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
15)	TM 3-NITROTO...	0.000	18.016	0	780486	N.D.	1089.405 #
16)	TM 4-AMINO-2...	0.000	18.636	0	1188755	N.D.	1026.535 #
17)	TM 2-AMINO-4...	0.000	19.584	0	1510890	N.D.	1028.363 #
18)	TM PETN	0.000	0.000	0	0	N.D.	N.D.

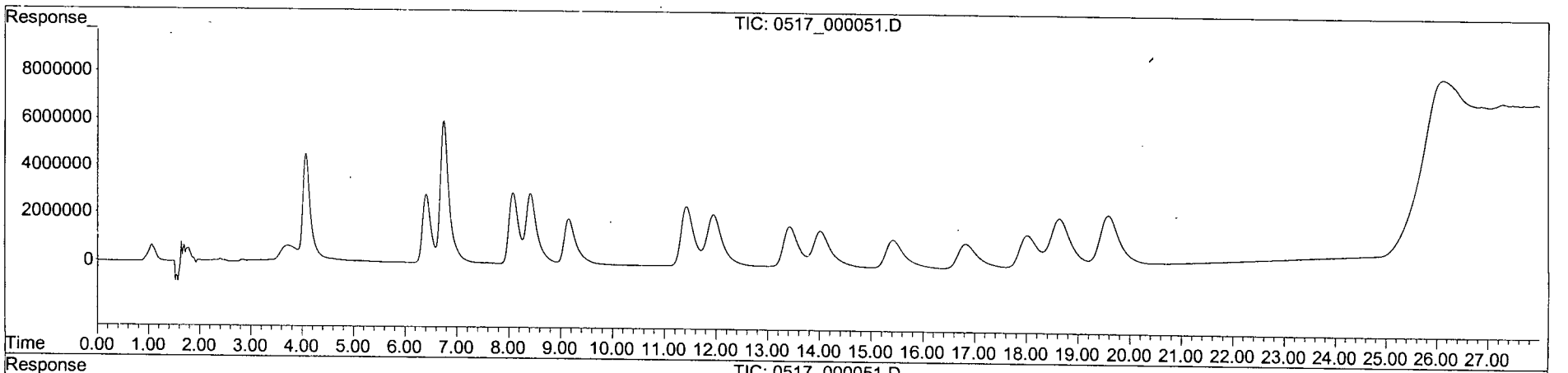
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

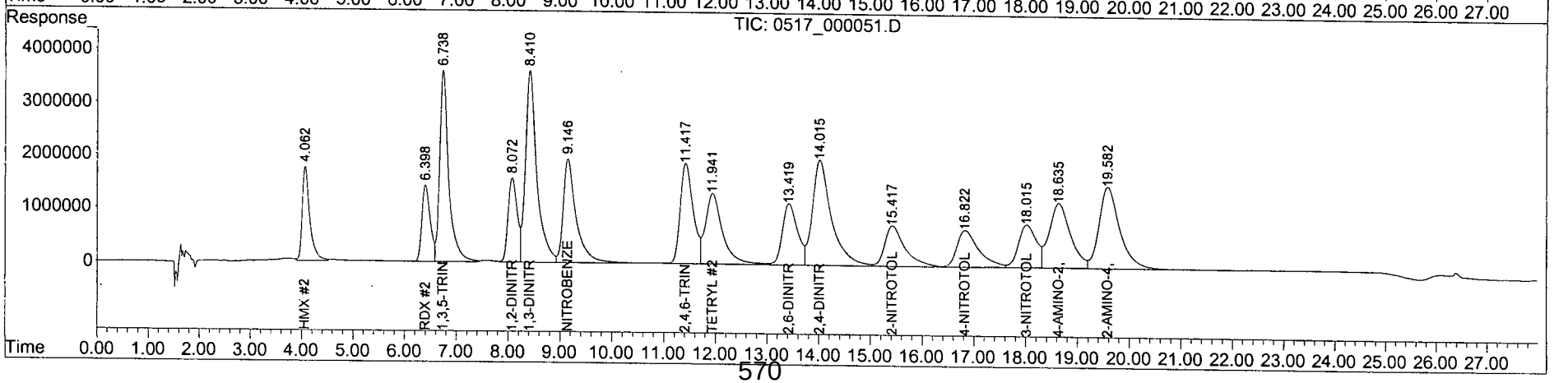
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000051.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 19-May-2015, 00:07:48
Operator : MP
Sample : 8330MXA_CCV 1.0 PPM 05/16/15
Misc :
ALS Vial : 4423 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 19 07:12:25 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 13:38:19 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\150517\150517\
Data File : 0517_000052.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 19-May-2015, 00:47:18
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 05/16/15
Misc :
ALS Vial : 4424 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 19 07:11:16 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 13:38:19 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...	12.032	12.049	668724	10097	1026.486	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	16.545	0	1505449	N.D.	1014.967 #
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	22.740	22.734	685846	13691	1068.379m	NoCal #

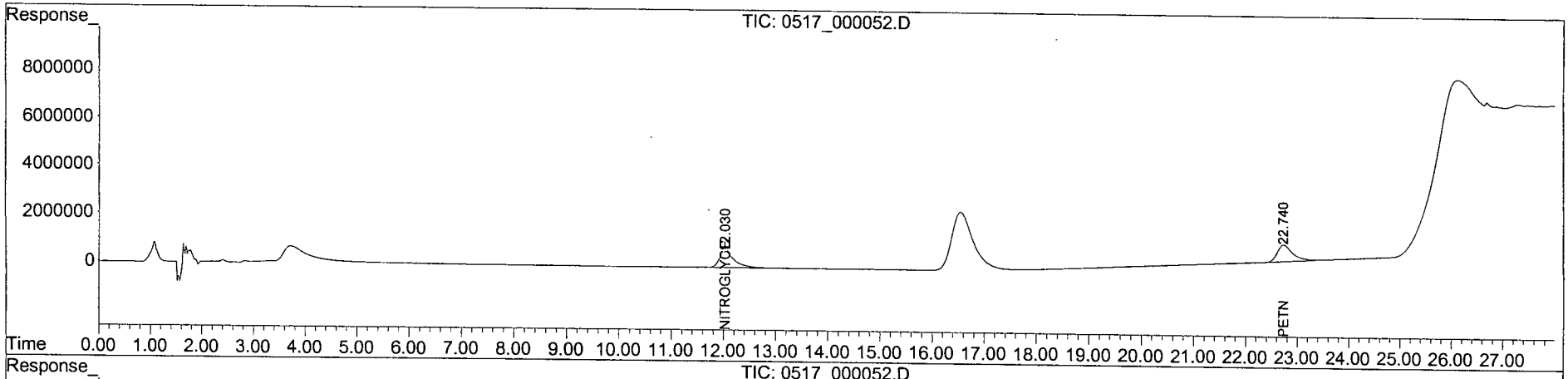
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

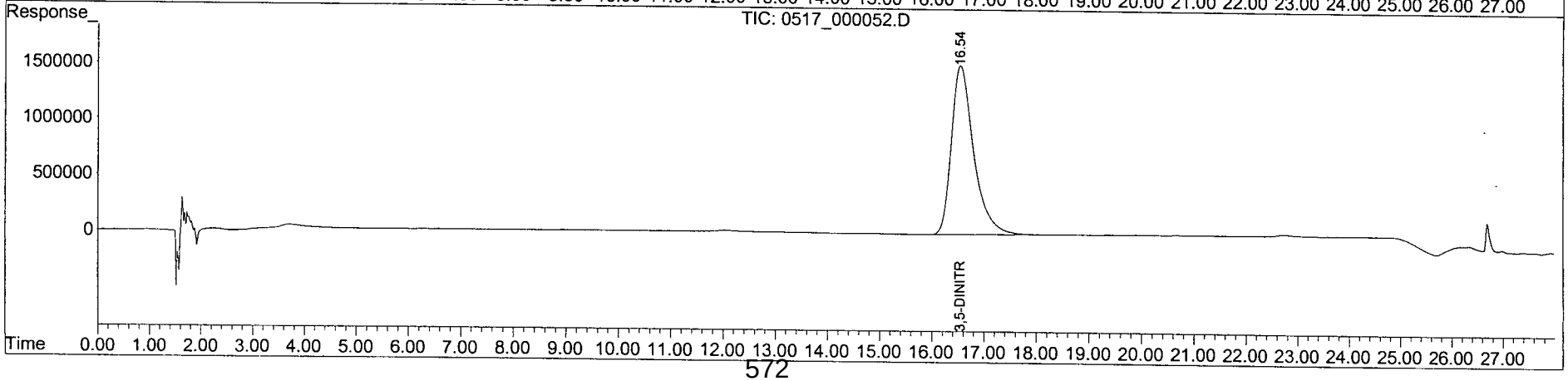
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000052.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 19-May-2015, 00:47:18
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 05/16/15
Misc :
ALS Vial : 4424 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 19 07:11:16 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 13:38:19 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



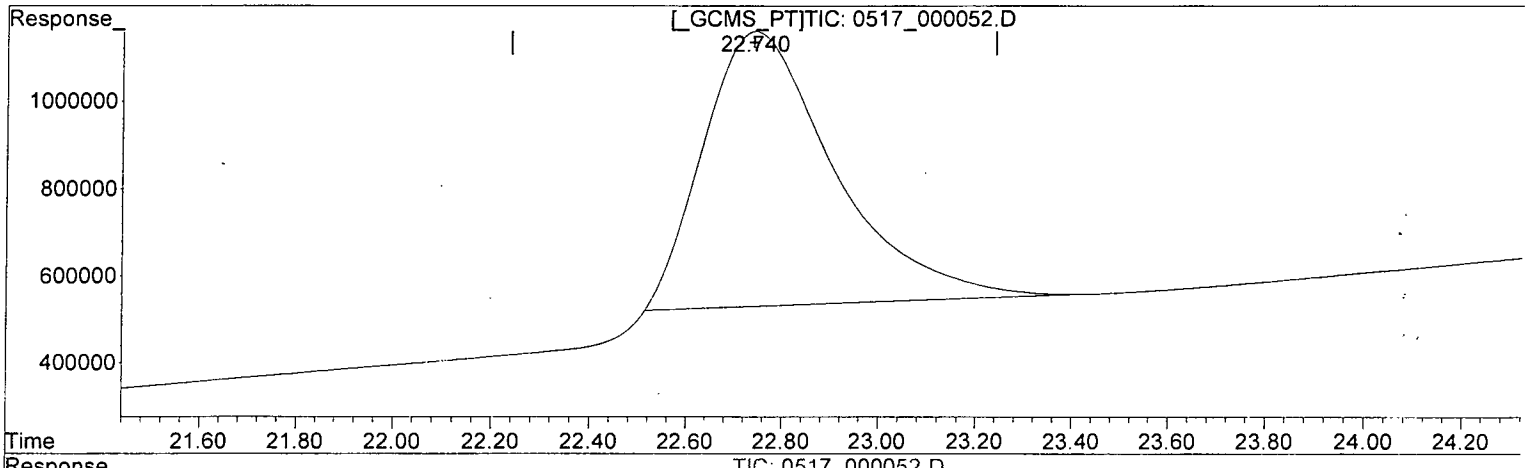


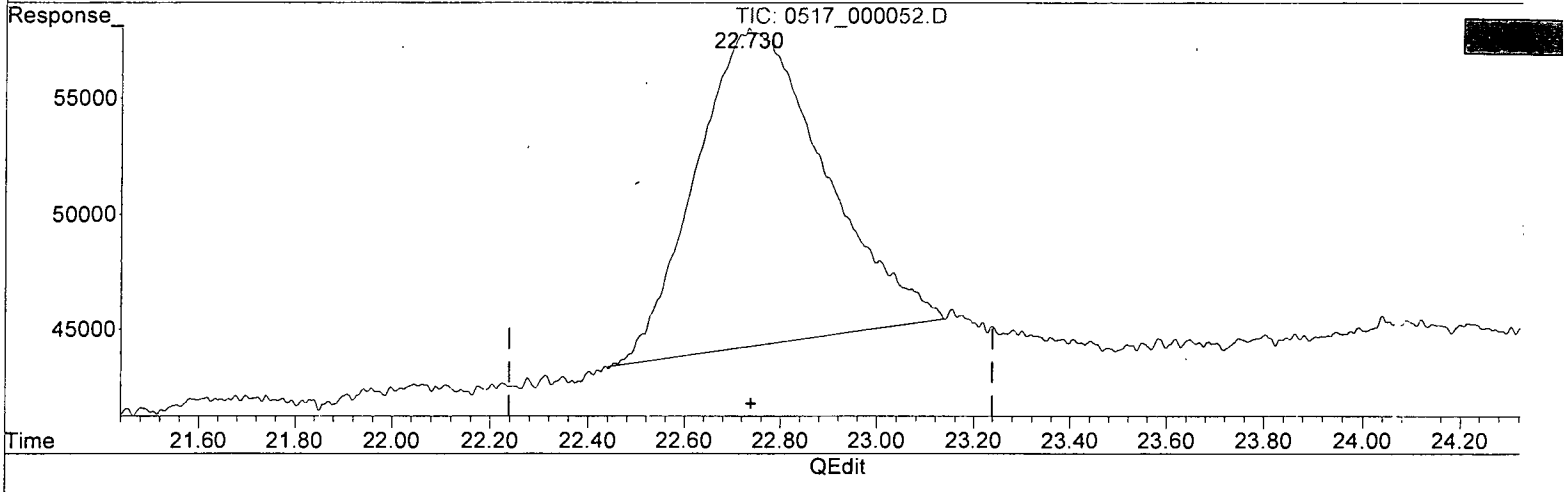
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000052.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 19-May-2015, 00:47:18
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 05/16/15
Misc :
ALS Vial : 4424 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 19 07:07:53 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 13:38:19 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)

22.742min 979.561 ppb

response 628829

(18) PETN #2 (TM)

22.734min 0.000 ppb

response 13691

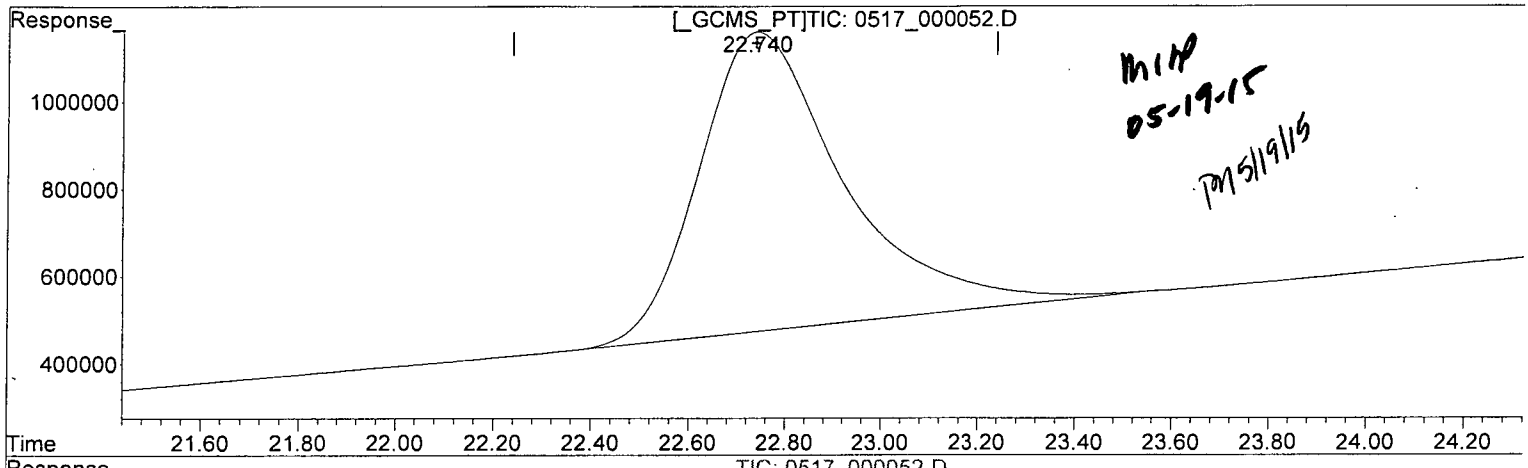
(+) = Expected Retention Time

Quantitation Report (Qedit)

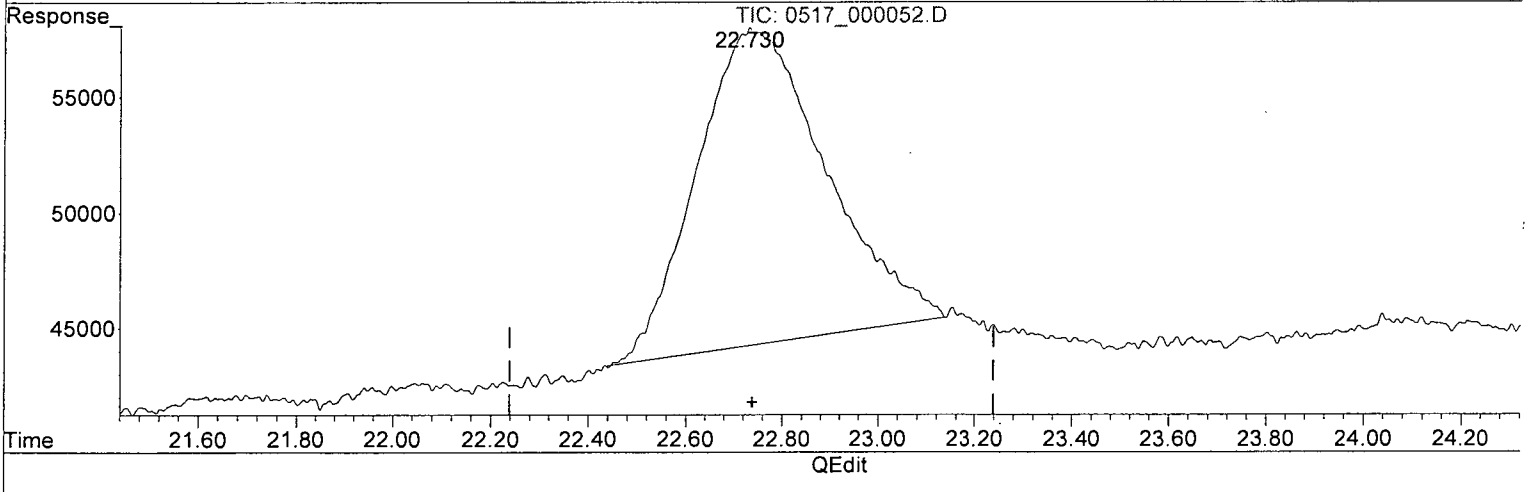
Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000052.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 19-May-2015, 00:47:18
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 05/16/15
Misc :
ALS Vial : 4424 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 19 07:07:53 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 13:38:19 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
05-19-15
PM 5/19/15



(18) PETN (TM)

22.740min 1068.379 ppb m

response 685846

(18) PETN #2 (TM)

22.734min 0.000 ppb

response 13691

(+) = 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: **150515W-16287 - 197118**
Batch ID: #83BJU-150515A

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	05/15/15	05/18/15
BLANK	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	05/15/15	05/18/15
BLANK	HMX	0.300 U	0.50	0.300	0.115	ug/L	05/15/15	05/18/15
BLANK	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	05/15/15	05/18/15
BLANK	RDX	0.300 U	0.50	0.300	0.123	ug/L	05/15/15	05/18/15
BLANK	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	05/15/15	05/18/15
BLANK	SURROGATE: 1,2-DINITROBENZ	86.2	70-130			%	05/15/15	05/18/15

Quant Method: W150517.M
Run #: 0517_000033
Instrument: Waldorf
Sequence: 150517
Initials: MP

GC SC-Blank-REG MDLs
Printed: 05/19/15 9:59:08 AM

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000033.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 06:38:57
Operator : MP
Sample : 150515ABLKW 0.016 DF 05/15/15
Misc : Water
ALS Vial : 8451 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 18 09:48:08 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.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	3.524	0	733939	N.D.	0.862	#
	Spiked Amount 1.000			Recovery	=	0.00%	86.20%	
	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...	5.949	5.925	81213	30287	0.233	NoCal	#
9)	TM TETRYL	6.421	0.000	5139	0	NoCal	N.D.	
10)	TM 2,4,6-TRI...	6.835	0.000	10944	0	NoCal	N.D.	
11)	TM 2-AMINO-4...	7.136	0.000	8296	0	NoCal	N.D.	
12)	TM 4-AMINO-2...	7.473	0.000	1526	0	NoCal	N.D.	
13)	TM 2,4-DINIT...	8.584	0.000	10920	0	NoCal	N.D.	
14)	TM 2,6-DINIT...	8.975	0.000	14901	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.

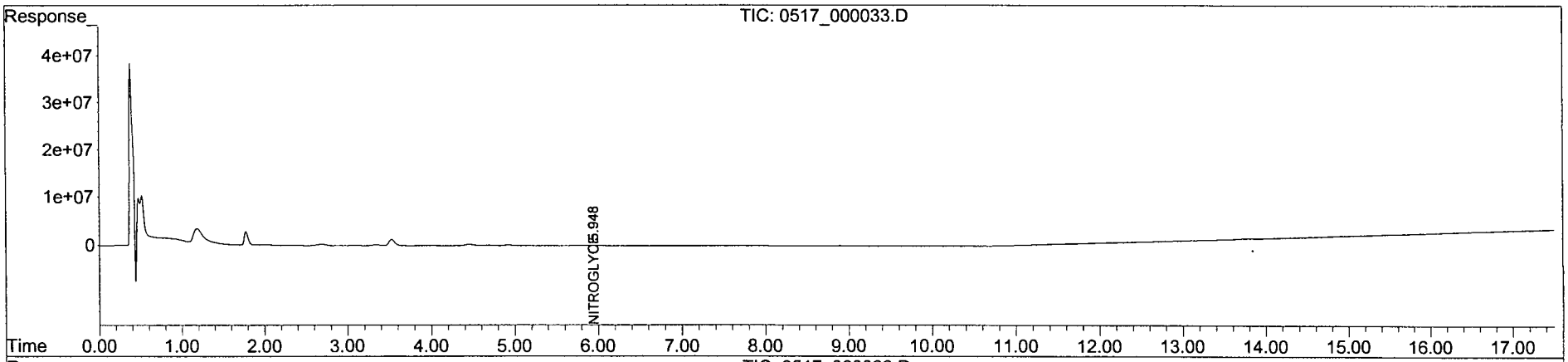
MP
05-19-15

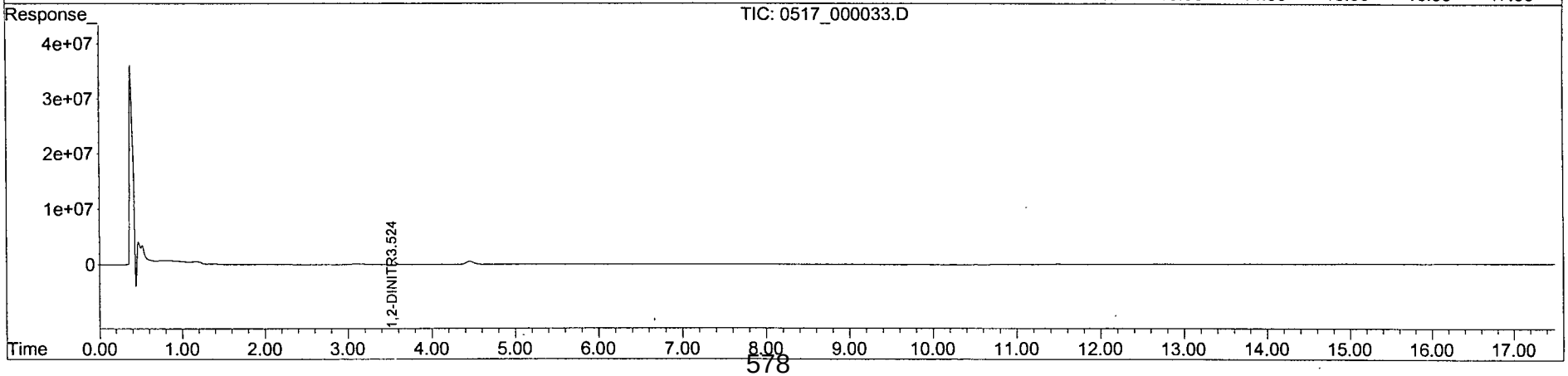
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000033.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 06:38:57
Operator : MP
Sample : 150515ABLKW 0.016 DF 05/15/15
Misc : Water
ALS Vial : 8451 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 18 09:48:08 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.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:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000049.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 22:48:46
Operator : MP
Sample : 150515ABLKW 0.016 DF 05/15/15
Misc : Water
ALS Vial : 4355 Sample Multiplier: 0.016

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 19 07:51:42 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 13:38:19 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	8.071	0	84296	N.D.	0.877 #
Spiked Amount 1.000			Recovery	=	0.00%	87.70%
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	12.031	0	573	N.D. d LDL	NoCal
9) TM TETRYL	12.053	0.000	672	0	NoCal LDL	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. d

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

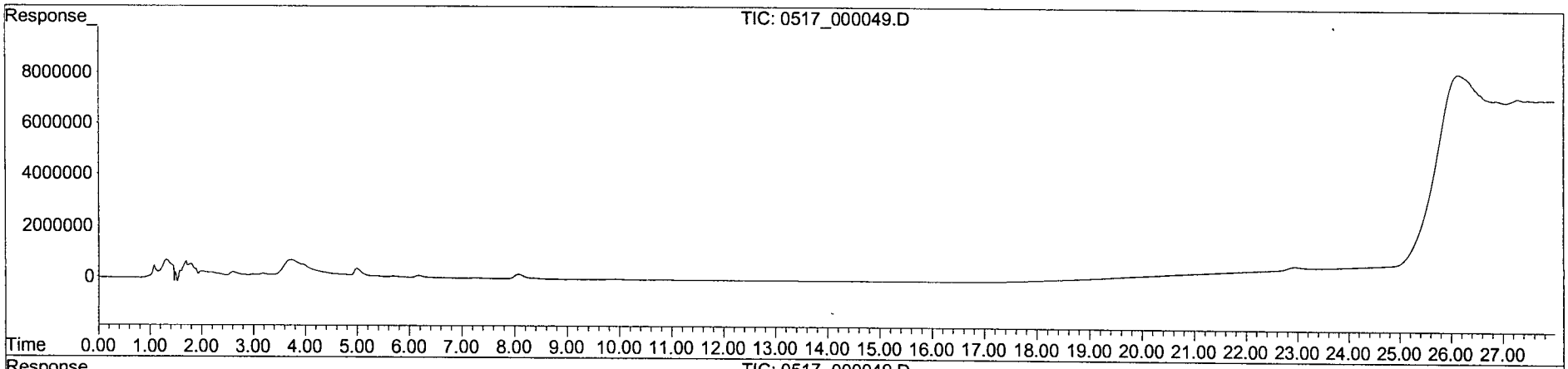
MP
05-19-15

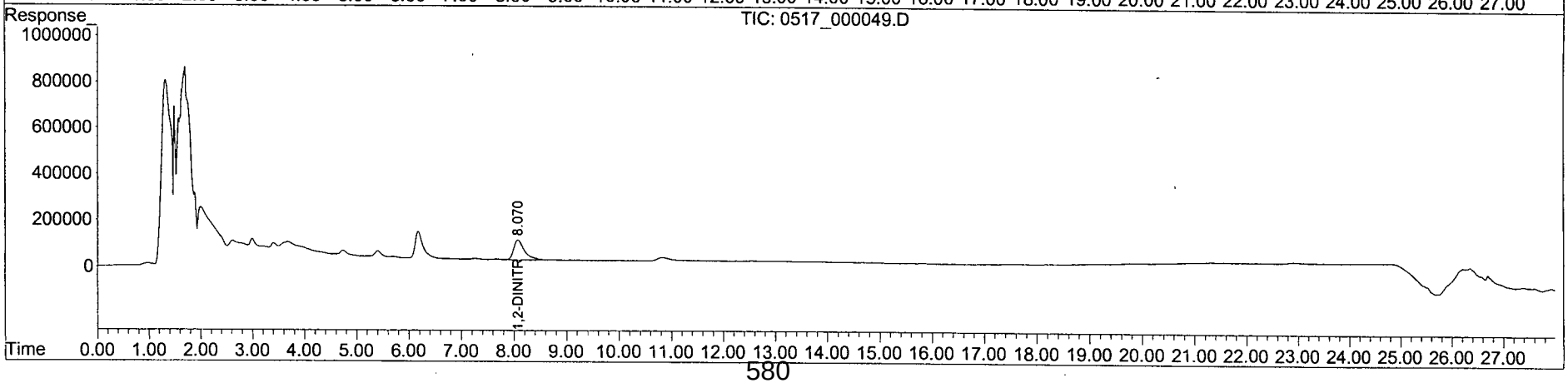
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150517\150517\
Data File : 0517_000049.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 22:48:46
Operator : MP
Sample : 150515ABLKW 0.016 DF 05/15/15
Misc : Water
ALS Vial : 4355 Sample Multiplier: 0.016

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 19 07:51:42 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150517\150517\STE2_150517.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon May 18 13:38:19 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: **150515W-16287 LCS - 197118**
Batch ID: #83BJU-150515A

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	7.14	89.3	60-135
2,6-DINITROTOLUENE	8.00	7.12	89.0	60-135
HMX	8.00	7.74	96.8	80-115
NITROGLYCERIN	8.00	7.43	92.9	70-130
RDX	8.00	7.16	89.5	50-160
TETRYL	8.00	7.43	92.9	20-175
SURROGATE: 1,2-DINITROBENZENE (S	8.00	7.22	90.3	70-130

Comments:

Primary	SPK
Quant Method :	W150517.M
Extraction Date :	05/15/15
Analysis Date :	05/18/15
Instrument :	Waldorf
Run :	0517_000030
Initials :	MP

Printed: 05/19/15 9:58:54 AM
APPL Standard LCS

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000030.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 04:46:27
Operator : MP
Sample : 150515ALCS-1 0.016 DF 05/15/15
Misc : Water
ALS Vial : 8448 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 18 09:47:59 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.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	3.550	0	6149750	N.D.	7.221	#
	Spiked Amount 1.000			Recovery	=	0.00%	722.10%	
	Target Compounds							
1)	TM HMX	0.000	0.917	0	12734886	N.D.	7.742	#
2)	TM RDX	0.000	1.728	0	7833621	N.D.	7.157	#
3)	TM 1,3,5-TRI...	0.000	2.816	0	14044757	N.D.	7.104	#
5)	TM 1,3-DINIT...	0.000	3.716	0	13285251	N.D.	7.034	#
6)	TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.	
7)	TM NITROBENZENE	0.000	5.047	0	6078692	N.D.	7.033	#
8)	TM NITROGLYC...	6.020	6.014	2586672	75644	7.426	NoCal	#
9)	TM TETRYL	6.404	6.404	7763064	4865215	NoCal	7.427	#
10)	TM 2,4,6-TRI...	6.881	6.881	7728912	5988277	NoCal	7.339	#
11)	TM 2-AMINO-4...	7.130	7.130	8205746	5446983	NoCal	7.024	#
12)	TM 4-AMINO-2...	7.475	7.476	6929355	3727682	NoCal	6.558	#
13)	TM 2,4-DINIT...	8.586	8.586	4132005	5652256	NoCal	7.139	#
14)	TM 2,6-DINIT...	8.947	8.946	4331453	3139990	NoCal	7.123	#
15)	TM 2-NITROTO...	0.000	12.303	0	2074921	N.D.	6.710	#
16)	TM 4-NITROTO...	0.000	12.900	0	2081162	N.D.	6.730	#
17)	TM 3-NITROTO...	0.000	13.787	0	2513087	N.D.	6.838	#
18)	TM PETN	0.000	0.000	0	0	N.D.	N.D.	

MP

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

Algorithm Check
HMX

$\frac{12734886}{658.0\ (40)} \times 0.016 = 7.7416$

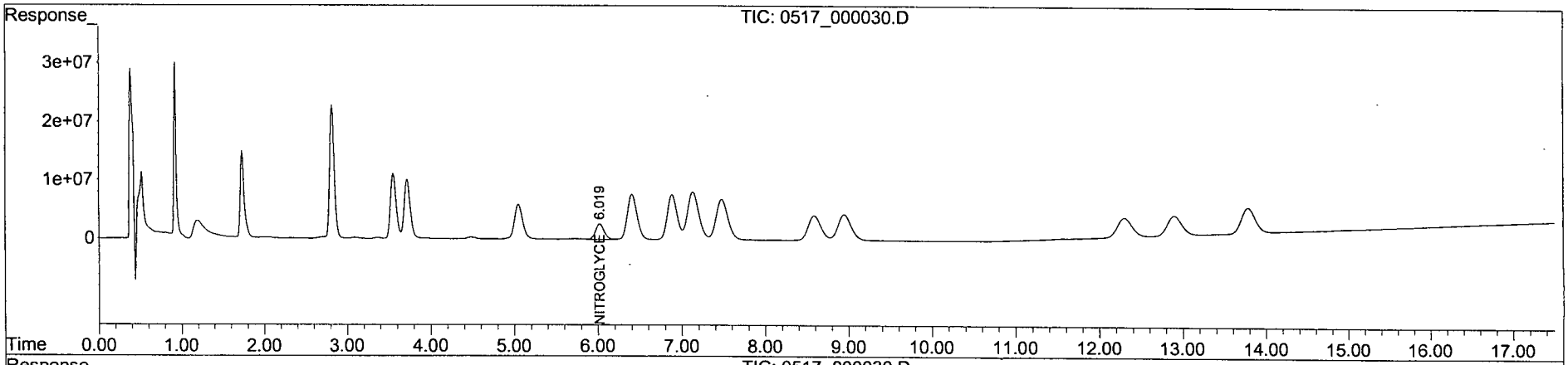
✓ MP 05-19-15

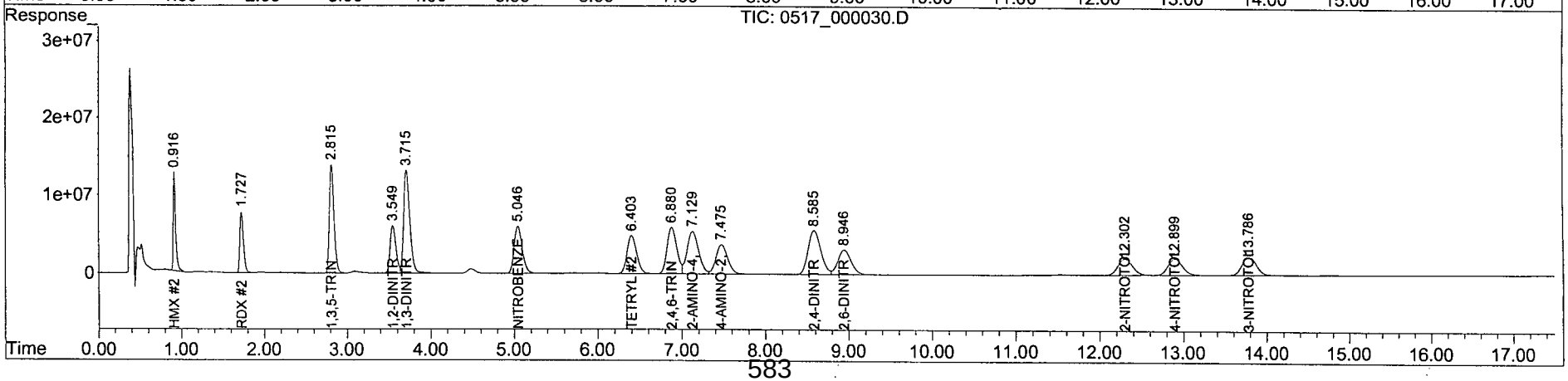
Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150517\150517\
Data File : 0517_000030.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-May-2015, 04:46:27
Operator : MP
Sample : 150515ALCS-1 0.016 DF 05/15/15
Misc : Water
ALS Vial : 8448 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 18 09:47:59 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150517\150517\W150517.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





125 Market Street
New Haven, CT 06513
USA

AccuStandard®, Inc.

Method 8330 - Explosives
Lot #: 211111132-01 - 32480
Rec: 6/13/13 MFR exp. 6/6/15

CERTIFICATE OF ANALYSIS

CATALOG NO: M-8330-R
DESCRIPTION: Method 8330 - Explosives by HPLC
LOT: 211111132-01

SOLVENT:		Ratio
	Methanol	50
	Acetonitrile	50

Refer to the MSDS for additional safety information

EXPIRATION: Jun 6 , 2015
DATE CERTIFIED: Jun 6, 2013
SAMPLE SIZE: 1 mL
STORAGE CONDITION: Freeze (<-10° C)
HAZARDS: HIGHLY FLAMMABLE

[X] Included on ISO/IEC 17025 Scope of Accreditation
[X] Included on ISO Guide 34 Scope of Accreditation

Component	Cas Number	Purity % (GC/MS)	Prepared Concentration[1] (µg/mL)	Certified Analyte Concentration[2] (µg/mL)
2-Amino-4,6-dinitrotoluene	35572-78-2	100	1000	1000
4-Amino-2,6-dinitrotoluene	19406-51-0	100	1001	1001
1,3-Dinitrobenzene	99-65-0	100	1001	1001
2,4-Dinitrotoluene	121-14-2	100	1001	1001
2,6-Dinitrotoluene	606-20-2	100	1001	1001
HMX	2691-41-0	98.9	1008	997
RDX	121-82-4	98.6	1002	988
Nitrobenzene	98-95-3	99.8	1005	1003
2-Nitrotoluene	88-72-2	99.0	1002	992
3-Nitrotoluene	99-08-1	98.7	1003	990
4-Nitrotoluene	99-99-0	99.2	1003	995
Tetryl	479-45-8	99.6	1003	999
TNT	118-96-7	100	1003	1003
1,3,5-Trinitrobenzene	99-35-4	100	1001	1001

14 Components

1. All weights are traceable through NIST, Test No. 822-275872-11
2. Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty associated with the gravimetric values reported on this certificate is ±0.24%. The CRM Uncertainty calculated for this product is ±5%. These values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.
3. A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot# has had its expiration date extended and is identical to the same lot# without the suffix.

For use in routine laboratory analysis.

Certified by: R. Cooper
Russ Cooper, QC Manager

AccuStandard is accredited to ISO Guide 34, ISO/IEC 17025 and certified to ISO 9001

OR-ORG/INO-001
Rev. 7/11

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

Nitroglycerin
Lot #: 213031341 - 32484
Rec: 6/13/13 MFR exp. 5/9/15

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-1-10X
Description: Nitroglycerin

Date Certified: May 9, 2013
Expiration: May 9, 2015
Sample Size: 1 mL
Storage Condition: Refrig (0-5° C)
Hazards: HIGHLY FLAMMABLE

Lot: 213031341

Solvent:		**Ratio**
	Ethanol	97
	Methanol	3

[X] Included on ISO/IEC 17025 Scope of Accreditation
[X] Included on ISO Guide 34 Scope of Accreditation

Component	CAS #	Purity % (HPLC)	Prepared Concentration[1] (µg/mL)	Certified Analyte Concentration[2] (µg/mL)
Nitroglycerin	55-63-0	99.4	1003	997

AccuStandard follows U.S. conventions in reporting numerical values on both certificates and labels:

A comma (,) is used to separate units of one-thousand or greater.
A period (.) is used as a decimal place marker.

1. All weights are traceable through NIST, Test No.822-275872-11
2. Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty associated with the gravimetric values reported on this certificate is ±0.24%. The CRM Uncertainty calculated for this product is ±5%. These values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.
3. A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot# has had its expiration date extended and is identical to the same lot# without the suffix.

For use in routine laboratory analysis.

See reverse side for additional information
Refer to the MSDS for additional safety information

Certified by: R. Cooper
Russ Cooper, QC Manager

AccuStandard is accredited to ISO Guide 34, ISO/IEC 17025 and certified to ISO 9001

OR-ORG/INO-001
Rev. 7/11

125 Market Street
New Haven, CT 06513
USA

AccuStandard® Inc.

PETN
Lot #: 213081209 - 33135
Rec: 11/18/13 MFR exp. 8/14/15

CERTIFICATE OF ANALYSIS

Catalog No: M-8330-ADD-2-10X
Description: PETN

Lot: 213081209
Solvent: Methanol

Date Certified: Aug 14, 2013
Expiration: Aug 14, 2015
Sample Size: 1 mL
Storage Condition: Refrig (0-5° C)
Hazards: HIGHLY FLAMMABLE

[X] Included on ISO/IEC 17025 Scope of Accreditation
[X] Included on ISO Guide 34 Scope of Accreditation

Component	CAS #	Purity % (HPLC)	Prepared Concentration[1] (µg/mL)	Certified Analyte Concentration[2] (µg/mL)
PETN	78-11-5	99.7	1002	999

AccuStandard follows U.S. conventions in reporting numerical values on both certificates and labels:

A comma (,) is used to separate units of one-thousand or greater.
A period (.) is used as a decimal place marker.

1. All weights are traceable through NIST, Test No622-276872-11
2. Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty associated with the gravimetric values reported on this certificate is ±0.24%. The CRM Uncertainty calculated for this product is ±5%. These values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.
3. A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot# has had its expiration date extended and is identical to the same lot# without the suffix.

For use in routine laboratory analysis.

See reverse side for additional information
Refer to the MSDS for additional safety information

Certified by: R. Cooper
Russ Cooper, QC Manager

AccuStandard is accredited to ISO Guide 34, ISO/IEC 17025 and certified to ISO 9001

OR-ORG/NO-001
Rev. 7/11

3,5-Dinitroaniline
Lot #: 199709 - 32133
Rec: 3/7/13 MFR exp. 11/21/15

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Quality System Audited & Registered by NSF-ISR to ISO 9001:2008

2030 Savage Road
Charleston, South Carolina 29407
Phone: 866.272.0932
Fax: 866.509.5146
www.o2si.com

ACCREDITED
ISO 17025 Accredited Chemical Testing Lab
Cert. No. 3031.01

Date Received: _____

Certificate of Analysis

Rev 0 **Page 1**

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
010612-04	199709	≤ -10 Degrees C	Acetonitrile	21-Nov-2015	3,5-Dinitroaniline (3,5-DNA) Solution, 1000 mg/L, 1 ml

Compound	CAS No.	Purity (%)	Neat Material Lot No.	Concentration, mg/L
3,5-dinitroaniline	618-87-1	97	612.1.1P	1010 +/- 15.75

Certified By: Elizabeth Ford
Elizabeth Ford

All weights are traceable through N. I. S. T. Test No. 822/264157-00. Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetricly.

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www.absolutestandards.com

Analytic[illegible]eference Material ARM

ISO 9[illegible] QS Registered
ISO 17025-[illegible]5-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

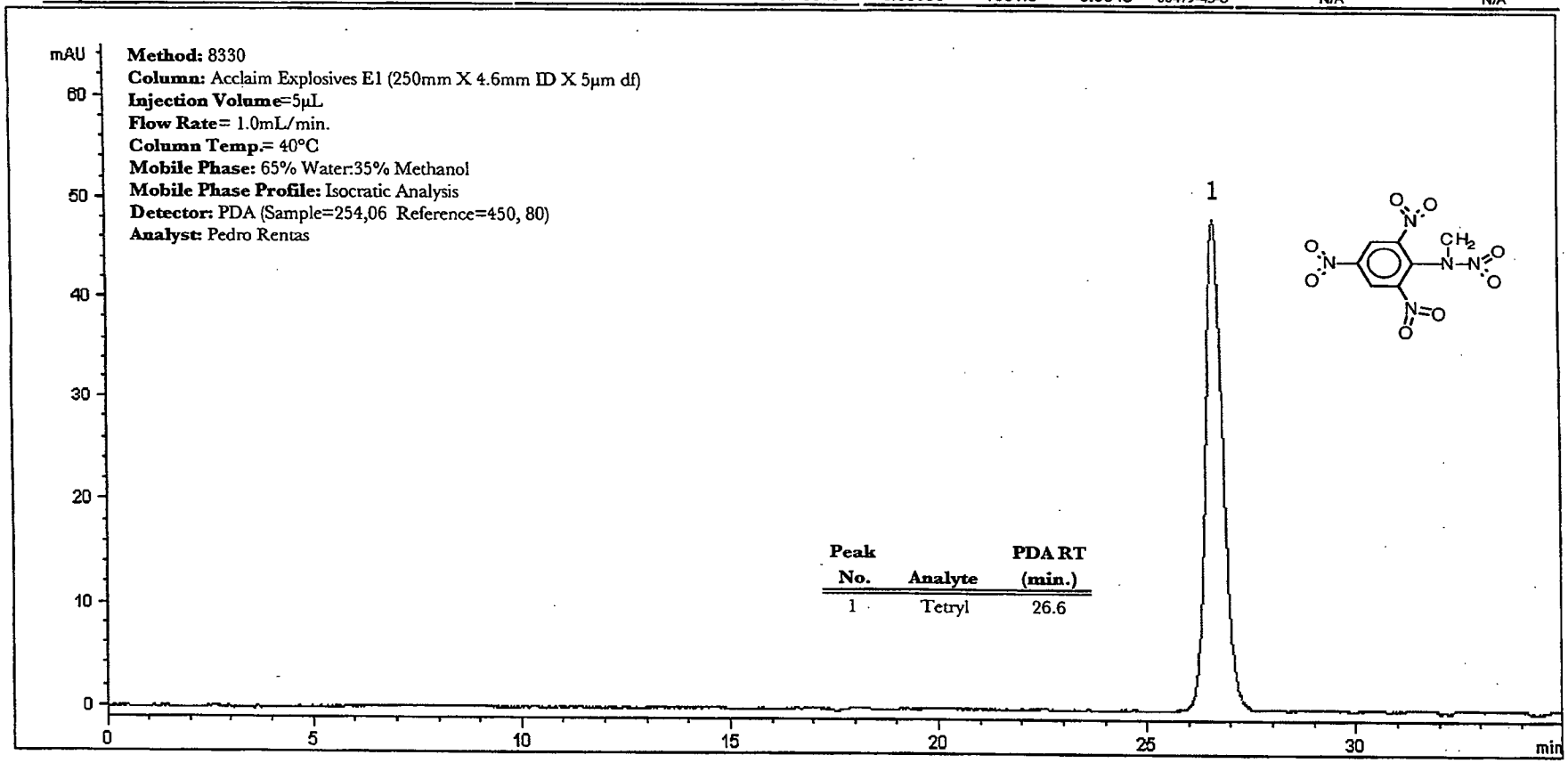
Part Number: 79080
Lot Number: 112310
Description: Tetryl
[Methyl-2,4,6-trinitrophenylnitramine]
Expiration Date: 112315
Storage: 0 °C
Nominal Concentration (µg/mL): 1000

Lot #
Solvent(s): 021310JC Acetonitrile

Formulated By:	Vincent K. Criscio, Jr.	112310 DATE
Reviewed By:	Pedro L. Rentas	112310 DATE

5E-05 Balance Uncertainty
Weight(s) shown below were combined and diluted to (mL): 50.0 0.002 Flask Uncertainty

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity (%)	Uncertainty ± Purity	Target Weight(g)	Actual Weight(g)	Actual Conc (µg/mL)	Expanded Uncertainty	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. Tetryl	1430	34268-43	1000	99	0.2	0.05049	0.05058	1001.8	0.0045	00479-45-8	N/A	N/A



EPA Method 8330 Analyte
Lot #: 112310 - 32716
Rec: 7/25/13 MFR exp. 11/23/15

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Analytica[illegible] [illegible]ference Material ARM

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ISO 17025-[illegible]5-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

Part Number: 79250
Lot Number: 071409
Description: Pentaerythritol tetranitrate [PETN]
Expiration Date: 071414

Solvent(s): Lot # J087 Acetonitrile

Storage: 0 °C

Nominal Concentration (µg/mL): 1000

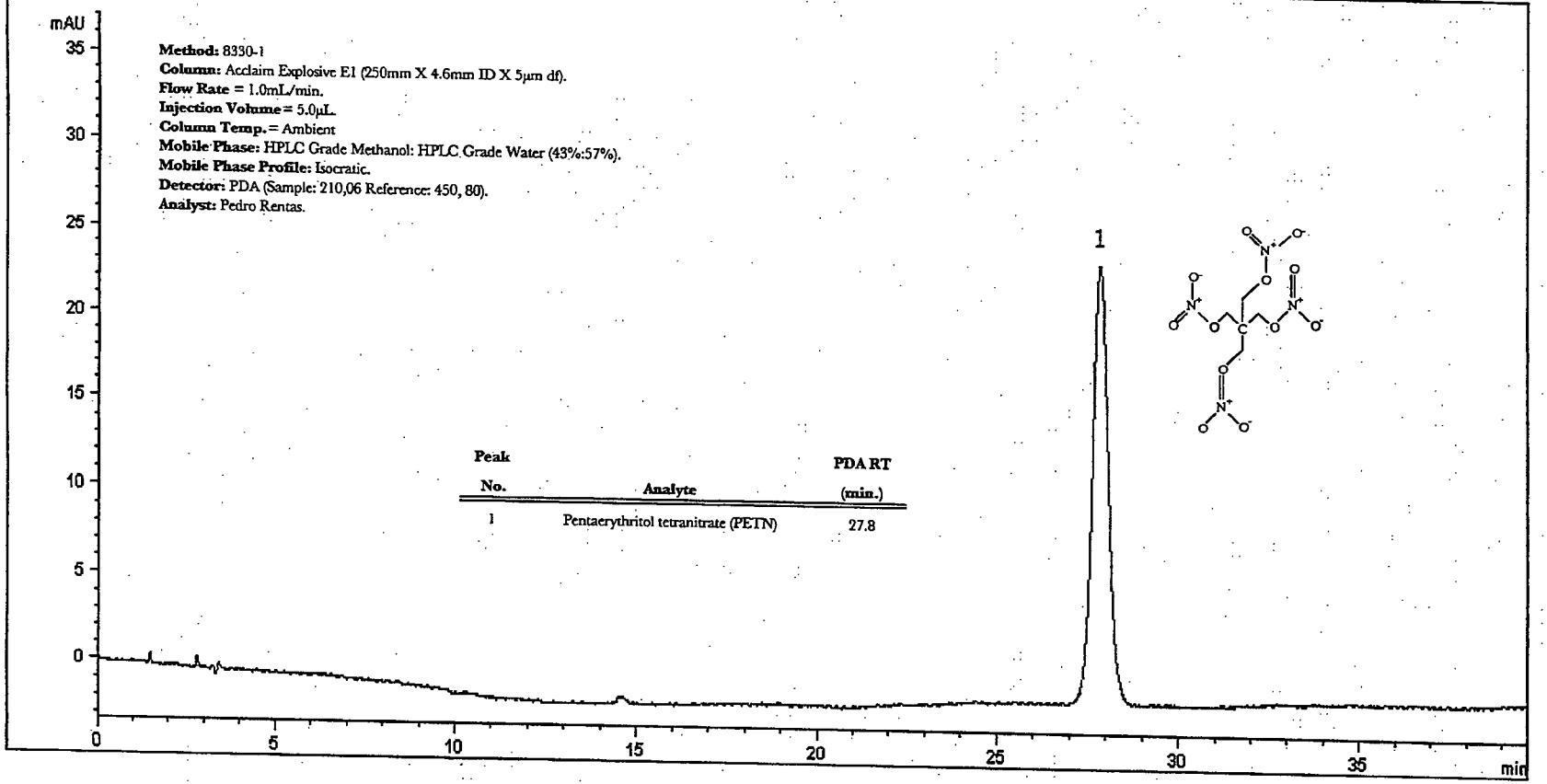
Weight(s) shown below were combined and diluted to (mL): 10.0 0.002 Flask Uncertainty 5E-05

Formulated By: Vincent K. Criscio, Jr. 071409 DATE

[illegible]ewed By: Pedro L. Rentas 071409 DATE

MSDS Information
(Solvent Safety Info. On Attached pg.)

Compound	RM#	Lot Number	Nominal Conc (µg/mL)	Purity	Uncertainty Purity	Target Weight(g)	Actual Weight(g)	*Actual Conc (µg/mL)	Expanded Uncertainty	CAS#	OSHA PEL (TWA)	LD50
1. Pentaerythritol tetranitrate	2350	ER102208-01	1000	99	0.2	0.01010	0.01012	1002.2	0.0107	00078-11-5	N/A	N/A



Method: 8330-1
Column: Acclaim Explosive E1 (250mm X 4.6mm ID X 5µm df).
Flow Rate = 1.0mL/min.
Injection Volume = 5.0µL.
Column Temp. = Ambient
Mobile Phase: HPLC Grade Methanol: HPLC Grade Water (43%:57%).
Mobile Phase Profile: Isocratic.
Detector: PDA (Sample: 210,06 Reference: 450, 80).
Analyst: Pedro Rentas.

Peak No.	Analyte	PDA RT (min.)
1	Pentaerythritol tetranitrate (PETN)	27.8

PETN
Lot #: 071409 - 30126
Rec: 12/20/11 MFR exp. 07/14/14

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Analytical Reference Material ARM

ISO (I QS Registered
ISO 17025-34-35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

		Lot #	Solvent(s):
Part Number:	95093	120711	Acetonitrile
Lot Number:	121311		
Description:	8330 Mix A		
	9 components		
Expiration Date:	121314		

Storage: 0 °C

Nominal Concentration (µg/mL): 100

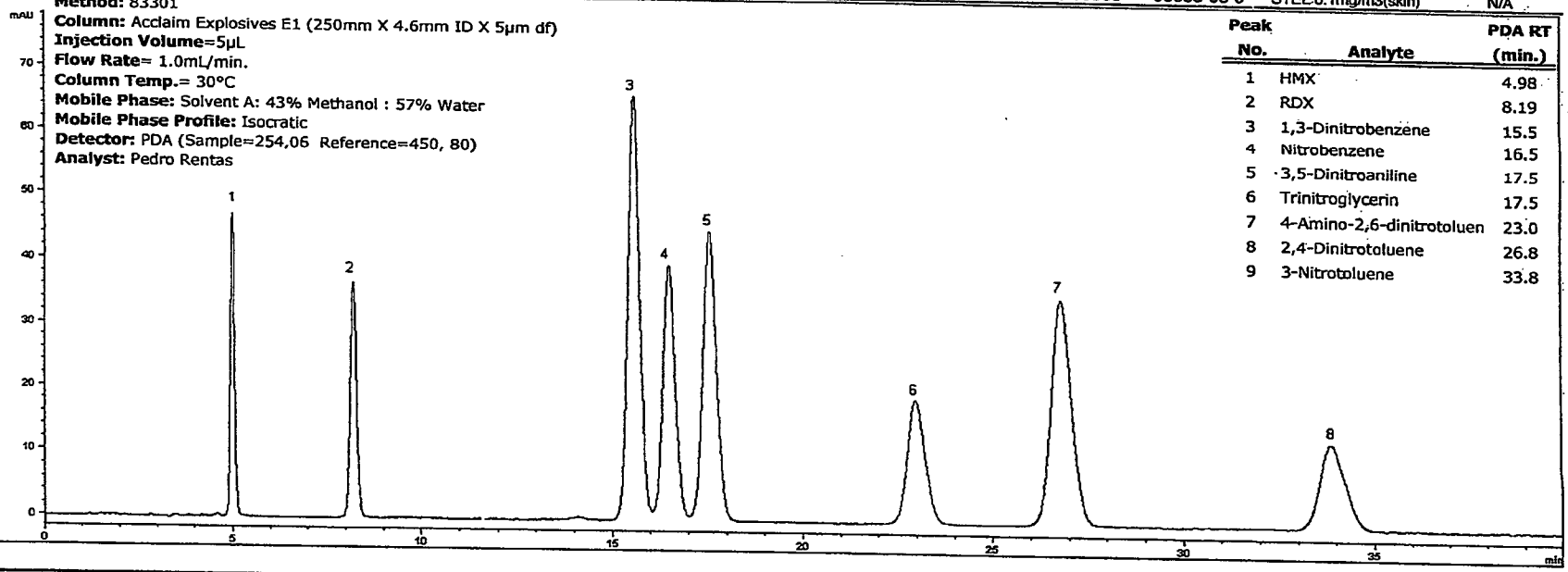
5E-05 Balance Uncertainty

Volume(s) shown below were combined and diluted to: 10.0 0.005 Flask Uncertainty

Formulated By:	Justin Dippold	121311 DATE
Reviewed By:	Pedro L. Rentas	121311 DATE

Compound	Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Uncertainty Pipette	Initial Conc.(ug/mL)	Final Conc.(ug/mL)	Expanded Uncertainty (+/-)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 4-Amino-2,6-dinitrotoluene	79070	032511	0.10	1.00	0.002	1002.6	100.3	0.00417	19406-51-0	N/A	N/A
2. 3,5-Dinitroaniline	71772	070811	0.10	1.00	0.002	1004.5	100.5	0.00565	00618-87-1	N/A	N/A
3. 1,3-Dinitrobenzene	79071	100711	0.10	1.00	0.002	1005.9	100.7	0.00572	00099-65-0	1mg/m3/8H (skin)	orl-rat 83mg/kg
4. 2,4-Dinitrotoluene	79072	110510	0.10	1.00	0.002	1001.0	100.2	0.00424	00121-14-2	1.5mg/m3/8H (skin)	orl-rat 268mg/kg
5. HMX	79074	070108	0.10	1.00	0.002	1000.9	100.2	0.00451	02691-41-0	N/A	N/A
6. Nitrobenzene	79075	082509	0.10	1.00	0.002	1002.9	100.4	0.00417	00098-95-3	1 ppm (5mg/m3/8H)(skin)	orl-rat 780mg/kg
7. 3-Nitrotoluene	79077	110510	0.10	1.00	0.002	1004.0	100.5	0.00416	00099-08-1	2 ppm (11mg/m3/8H)(skin)	orl-rat 1072mg/kg
8. RDX	79079	111408	0.10	1.00	0.002	1001.9	100.3	0.00566	00121-82-4	N/A	N/A
9. Trinitroglycerin	79252	061308	0.10	1.00	0.002	1001.6	100.2	0.00566	00055-63-0	STEL 0.1mg/m3(skin)	N/A

Method: 83301
Column: Acclaim Explosives E1 (250mm X 4.6mm ID X 5µm df)
Injection Volume=5µL
Flow Rate= 1.0mL/min.
Column Temp.= 30°C
Mobile Phase: Solvent A: 43% Methanol : 57% Water
Mobile Phase Profile: Isocratic
Detector: PDA (Sample=254,06 Reference=450, 80)
Analyst: Pedro Rentas



Peak No.	Analyte	PDA RT (min.)
1	HMX	4.98
2	RDX	8.19
3	1,3-Dinitrobenzene	15.5
4	Nitrobenzene	16.5
5	3,5-Dinitroaniline	17.5
6	Trinitroglycerin	17.5
7	4-Amino-2,6-dinitrotoluen	23.0
8	2,4-Dinitrotoluene	26.8
9	3-Nitrotoluene	33.8

8330 Mix A
Lot #: 121311 - 30132
Rec: 12/20/11 MFR exp. 12/13/14

Absolute S[illegible]dards, Inc.
800-368-1131
www.absolutestandards.com

Analytic[illegible]teference Material ARM

ISO [illegible]1 QS Registered
ISO 17025-[illegible]35-43 Accredited
Scopes: http://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT

		Lot #	Solvent(s):
Part Number:	95094	120711	Acetonitrile
Lot Number:	051412		
Description:	8330 Mix B 8 components		
Expiration Date:	051415		

Storage: 0 °C

Nominal Concentration (µg/mL): 100

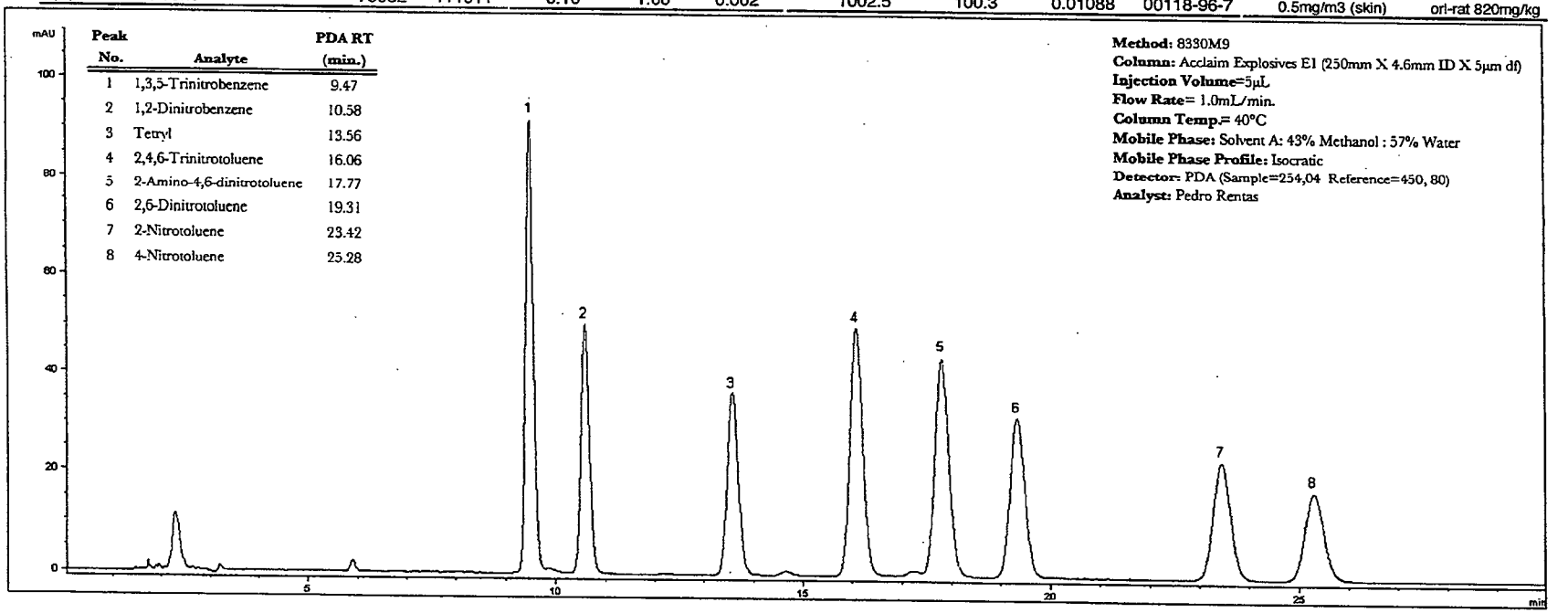
5E-05 Balance Uncertainty

Volume(s) shown below were combined and diluted to: 10.0 0.005 Flask Uncertainty

Gabriel Helland 051412
Formulated By: Gabriel Helland DATE

Pedro Rentas 051412
Reviewed By: Pedro L. Rentas DATE

Compound	Part Number	Lot Number	Dil. Factor	Initial Vol. (mL)	Uncertainty Pipette	Initial Conc.(ug/mL)	Final Conc.(ug/mL)	Expanded Uncertainty (+/-) (µg/mL)	MSDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50
1. 2-Amino-4,6-dinitrotoluene	79069	032511	0.10	1.00	0.002	1001.9	100.3	0.00416	35572-78-2	N/A	N/A
2. 1,2-Dinitrobenzene	79404	021712	0.10	1.00	0.002	1002.1	100.3	0.00566	00528-29-0	1mg/m3/8H (skin)	N/A
3. 2,6-Dinitrotoluene	79073	110510	0.10	1.00	0.002	1003.2	100.4	0.00416	00606-20-2	1.5mg/m3/8H (skin)	orl-rat 177mg/kg
4. 2-Nitrotoluene	79076	110510	0.10	1.00	0.002	1002.5	100.3	0.00416	00088-72-2	2 ppm (11mg/m3/8H)(skin)	orl-rat 891mg/kg
5. 4-Nitrotoluene	79078	110510	0.10	1.00	0.002	1004.0	100.5	0.00416	00099-99-0	2 ppm (11mg/m3/8H)(skin)	orl-rat 1960mg/kg
6. Tetryl	79080	112310	0.10	1.00	0.002	1001.8	100.2	0.00450	00479-45-8	N/A	N/A
7. 1,3,5-Trinitrobenzene	79081	011612	0.10	1.00	0.002	1004.5	100.5	0.00416	00099-35-4	N/A	N/A
8. 2,4,6-Trinitrotoluene	79082	111011	0.10	1.00	0.002	1002.5	100.3	0.01088	00118-96-7	0.5mg/m3 (skin)	orl-rat 820mg/kg



Peak No.	Analyte	PDA RT (min.)
1	1,3,5-Trinitrobenzene	9.47
2	1,2-Dinitrobenzene	10.58
3	Tetryl	13.56
4	2,4,6-Trinitrotoluene	16.06
5	2-Amino-4,6-dinitrotoluene	17.77
6	2,6-Dinitrotoluene	19.31
7	2-Nitrotoluene	23.42
8	4-Nitrotoluene	25.28

Method: 8330M9
Column: Acclaim Explosives E1 (250mm X 4.6mm ID X 5µm df)
Injection Volume=5µL
Flow Rate= 1.0mL/min.
Column Temp.= 40°C
Mobile Phase: Solvent A: 43% Methanol : 57% Water
Mobile Phase Profile: Isocratic
Detector: PDA (Sample=254,04 Reference=450, 80)
Analyst: Pedro Rentas

8330 Mix B
Lot #: 051412 - 30759
Rec: 5/16/12 MFR exp. 05/14/15

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Quality System Audited & Registered by NSF-ISR to ISO 9001:2008

2030 Savage Road
Charleston, South Carolina 29407
Phone: 866.272.0932
Fax: 866.509.5146
www.o2si.com

1,2-Dinitrobenzene
Lot #: 216681 : 33116
Rec: 11/15/13 MFR exp. 10/25/16

ACCREDITED
ISO 17025 Accredited Chemical Testing Lab
Cert. No. 3031.01

Date Received: _____

Certificate of Analysis

Rev 0 **Page 1**

Catalog No.:	Lot No.:	Storage:	Solvent:	Exp. Date:	Description:
010086-01	216681	<10 Degrees C	Acetonitrile	25-Oct-2016	1,2-Dinitrobenzene Solution, 1,000 mg/L, 1 mL

Compound	CAS No.	Purity (%)	Neat Material Lot No.	Concentration	
1,2-dinitrobenzene	528-29-0	100	86.7.1P	1005 +/- 4.58	mg/L

Certified By: Kimberly A King
Kimberly King

All weights are traceable through N. I. S. T. Test No. 822/264157-00. Concentration (correct for purity) and uncertainty (95% confidence) values listed are determined gravimetrically.

Pentaerythritol tetranitrate
Lot #: 2416400 - 33320
Rec: 2/20/14 MFR exp. 2/28/15

660 Tower Lane • P.O. Box 599 • West Chester, PA 19381-0599
1-800-452-9994 • 1-610-692-3026 • Fax 1-610-692-8729
info@chemservice.com • www.chemservice.com

CERTIFICATE OF ANALYSIS

Pentaerythritol tetranitrate Solution

CONCENTRATION	1000ug/ml In Acetonitrile
CATALOG NUMBER	S-12837A4-5ML
LOT NUMBER	2416400
DATE CERTIFIED	02/04/14
EXPIRATION DATE	02/28/15
STORAGE	Room Temperature
HANDLING	See MSDS.
INTENDED USE	For laboratory use only.

Analytical Test	Value
CONCENTRATION (HPLC)	VERIFIED

Instructions for Use:
Mix/shake solution prior to use. If particles are present, sonicate for homogeneity. If sample is diluted to lower concentrations, Class A volumetric glassware must be used.
Minimum Sample Size- 0.2 uL for Direct Injection.
Chem Service Inc. guarantees the expanded uncertainty of the above analyte to be +/- 2.0% of the certified concentration based on gravimetric preparation. The test results published in this report were obtained using equipment capable of producing results that are traceable to NIST and through NIST to the International System of Units (SI). The reported expanded uncertainty of measurement is stated as the combined standard uncertainty of measurement multiplied by the coverage factor k (k=2) such that the coverage probability corresponds to approximately 95%. For certified reference materials, homogeneity and thermal stability testing are available upon request.

Certified By:

Mary Beth O'Donnell

Mary Beth O'Donnell
CSM/TC

COA Form
Revision 1 (01/2013)

ISO 9001
Certificate Number:31610

ISO/IEC 17025
Accreditation Number:63520

Reference Material Producer
ISO GUIDE 34
Accreditation Number:63520

LCMS Standard Prep Log #103 Page 13

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT 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	MP 8/31/13
8330_MX-B	10.0 ppm	07/01/13						MP	
8330_CB 1:1 0.1 PPM									
8330_CB 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							

LC/MS STANDARD PREP LOG# 103 PAGE 65

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT 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 Stk	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 JH
	Ash Std 20 ug/ml						
8321MX29-8	400	11-20-13	0.250	5.0	20	Methanol	12-26-13 JH
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 Stk	1000	9-5-13	0.100				
	8330MXA-SS 100 ug/ml						12-27-13 JH
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
8330MIX-B-SS 100 ug/ml						4.N 12-27-13	12-27-13
8330MIX-B 100 ug/ml Absolute Part #9509B, Lot #~~121341~~ 051412-30759, I broke open the vial on a 12-27-13 transferred to an amber 1.8ml injection vial → 8330MIX-B-SS 100 ug/ml 12-27-13							
	Ash std 0.40 DF						
Ash std	20	12-26-13	0.80	2.0	0.40DF	Methanol	53206	12-30-13
HPLCS	100	7-12-13	0.020	1	1.0	1	1
	Ash std 0.20 DF						
Ash std	20	12-26-13	0.40	2.0	0.20DF	Methanol	53206	12-30-13
HPLCS	100	7-12-13	0.020	1	1.0	1	1
	Ash std 0.10 DF						
Ash std	20	12-26-13	0.20	2.0	0.10	Methanol	53206	12-30-13
HPLCS	100	7-12-13	0.020	1	1.0	1	1
	Ash std 0.08 DF						
Ash std	20	12-26-13	0.160	2.0	0.08	Methanol	53206	12-30-13
HPLCS	100	7-12-13	0.020	1	1.0	1	1
	(Prepared 2 portions)						
	Ash std 0.06 DF						
Ash std	20	12-26-13	0.120	2.0	0.06	Methanol	53206	12-30-13
HPLCS	100	7-12-13	0.020	1	1.0	1	1
	Ash std 0.04 DF						
Ash std	20	12-26-13	0.080	2.0	0.04	Methanol	53206	12-30-13
HPLCS	100	7-12-13	0.020	1	1.0	1	1

008 STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N LOT #	DATE / INITIALS
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
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

1,2-Dinitrobenzene
Solution, 1,000 mg/L, 1 mL
R&D only, not for human consumption. Made in the USA
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

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

R LABORATORY USE ONLY
NING: This product contains nicals known to the State of Califor use cancer and birth defects or oth oductive 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

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	2.0	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 HP

1,2-Dinitrobenzene
Solution, 1,000 mg/L, 1 mL
R&D only, not human consumption. Made in the USA.
016486-01
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 human consumption. Made in the USA.
016486-01
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 02-19-14. 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 100 ug/ml 06-12-14

LC/MS 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 KP

8321MX6-7 500 ug/ml 06-12-14 KP

o2si smart solutions
Custom Pesticide Solution, 6-7, 500 mg/L, 5 x 2 ml
130287-01-05
Made in USA
Lot No: 160093
Exp: 6/1/2013
Date Opened:
Storage: <= -10 Degrees C
Custom Pesticide Solution 6-7
Lot #: 160093 - 26674
Rec: 6/7/10 MFR exp. 06/01/13

I broke open the vial labeled above and transferred to an amber 1.8ml injection vial → 8321MX6-7 500ug/ml (to be QC'd) KP

8321MX6-7 20ug/ml 06-12-14 KP
8321MX6-7 500 06-12-14 0.080 2.0 20 Methanol/53235

8321MX6-7 0.02DF (OLD) KP
8321MX6-7 20 06-12-14 0.040 2.0 0.02 MeOH/53235 06-12-14
MPCES 100 03-17-14 0.020 1 1.0 1

LC/MS STANDARD PREP LOG# 104 PAGE# 37

037

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE INITIALS
	Spinosad 100 ng/ml						
Spinosad	1000	04-14-14	0.075	1.0	100	Methanol/53235	hp 07-14-14
	Spinosad 50 ng/ml						
Spinosad	500	07-14-14	0.10	1.0	50	Methanol/53235	hp 07-14-14
	Spinosad 20 ng/ml						hp
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 hp
	Picric Acid spk 2.0 ng/ml						
Picric Acid	100	04-16-14	0.160	8.0	2.0	ACN/DI509	07-15-14 hp
	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 hp
	HPLC IS 1.0 ng/ml						
HPLC IS	1000	04-22-14	0.20	200	1.0	MeOH/53235	07-15-14 hp
	HPLC IS 1000 ng/ml						07-15-14 hp

Custom 8321 Internal Standard Pesticide Mix, 4-8, 1,000 mg/L, 5 x 1 ml
130285-01-05
R&D only, not human consumption. Made in the USA
Lot# 209160 | Storage ≤ -10 Degrees C | Expiry 5/20/15
Solv: M-t-BE

Custom 8321 Internal Std Mix 4-8
Lot #: 209160 - 32460
Rec: 5/29/13 MFR exp. 5/20/15

I broke open the vial labeled 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 hp
	Tetryl SS 100 ng/ml						hp
Tetryl SS	1000	08-27-13	0.10	1.0	100	1:1 ACN/MeOH	07-01-14
							02-15-14

LC/MS STANDARD PREP LOG# 104 PAGE 45

045

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE INITIALS
8321V 0.2 ug/ml							
8321V	2.0	08-05-14	0.20	2.0	0.2	MeOH/53235	8-05-14 P
8321V IS	100	7-31-14	0.020	1	1.0	1	1
8321V 0.1 ug/ml							
8321V	2.0	8-5-14	0.10	2.0	0.10	MeOH/53235	8-05-14 P
8321V IS	100	7-31-14	0.020	1	1.0	1	1
Mx-8330R 1000 ug/ml							08-06-14 M

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 - 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 oth
ductive 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 M

1,2-Dinitrobenzene
Solution, 1,000 mg/L, 1 mL
616686-01
Lot # 216681 Storage <10 Degrees C Expiry 10/25/16
Solv: Acetonitrile
LED only, not human carcinogen. Made in the USA

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 1000 ug/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
LED only, not human carcinogen. Made in the USA

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

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046

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N LOT #	DATE INITIALS
Nitroglycerin 1000 ug/ml							08-06-14 KP

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 KP

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 10ug/ml							KV
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 10ug/ml							KV
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								
8321 mix 67	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 KP
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: RP
DATE: 08-06-14

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT 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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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N. 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	SOL'VENT	SOL'VENT 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							
8321MX29-8	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 HP	0.200	⊥	⊥	⊥		⊥ 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
	83TS_stock							
8321MX6-7	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	SOLVENT LOT#	DATE INITIALS
83TS/spk/Surr 100 DF					100 mg/L		
832HTS Sp	20	09-25-14	0.10	1.0	10 DF	~~[illegible]~~	12-22-14
832H Surr	20	12-18-14	0.10				
83TS spk/Surr 100DF		12-22-14	0.10	1.0	100DF	100 mg/L	12-22-14

Tetryl SS 1000 mg/L 12-23-14
Tetryl 1000 mg/L Absolute Lot 112310-33875, I broke open the vial and transferred to an amber 1.8 ml injection vial → Tetryl SS 1000 mg/L 12-23-14

1:1 ACN/MeOH 12-23-14
I took 0.250 ml Methanol Lot 54115 and added 0.250 ml Acetonitrile Lot DK902.

1,2-DNB 1000 mg/L 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 mg/L 12-23-14

R&D only, not human consump. Made in the USA

1,2-Dinitrobenzene Solution, 1,000 mg/L, 1 mL
010086-01

Lot #	Storage	Expiry
227342	<10 Degrees C	3/May/2017

Solv: Acetonitrile

1,2-Dinitrobenzene
Lot #: 227342 - 34120
Rec: 10/6/14 MFR exp. 5/3/17

3,5-DNA 1000 mg/L 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 mg/L 12-23-14

R&D only, not human consump. Made in the USA

3,5-Dinitroaniline (3,5-DNA) Solution, 1000 mg/L, 1 ml
010612-04

Lot #	Storage	Expiry
199709	≤ -10 Degrees C	11/21/15

Solv: Acetonitrile

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
	8330 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
						12-27-14	

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

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N LOT#	DATE / INITIALS
PETN	1000 ug/ml						NP 12-29-14

S-12837A4-5ML Exp 4/30/2015
CHEMTRON
P.O.BOX 599
Pentaerythritol tetranitrate
Lot #: 2377700 - 34516
Rec: 12/16/14 MFR exp. 4/30/15
Pentaeryth
Lot: 2677700
1000ug/ml In Acetonitrile
FLAMMABLE-POISON-LACHRYMATOR

I broke open the vial labeled to the left and transferred to an 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
NP 1-6-14	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	100	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

TCMS STANDARD PREP LOG# 105 PAGE 17

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT/ LOT #01	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	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 TETRYL_SS	100 100	08/06/14 01/15/15	0.01 0.01	1.00	1.0	1:1:6_ACN MEOH: MILLIPORE	03/12/15

PETN_SS 100 08-06-14 the Solution was QC'd on 03-13-15 on Stather, Data File 0312_000047.D

HP 03-16-15

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL. INI. / LOT #	DATE / INITIALS
Scav_spk 30 ug/ml (5ml)							
Hexahydro-135-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. EN. 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#	DATE / INITIALS
PER JS	0.005 µg/ml						04-20-15: JBl
02SI $^{18}O_4$ Perchlorate					100 µg/L		04-21-
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 ng/ml							04-21-15 JP
8330 Mix A, 100 ng/ml, Absolute Lot #103014-34464, I broke the vial open and transferred to an amber 1.8ml injection vial → 8330MX-A SS 100 ng/ml 04-21-15							
8330 MXB SS 100 ng/ml							04-21-15 JP
8330 Mix B, 100 ng/ml, Absolute Lot #103014-34467, I broke the vial open and transferred to an amber 1.8ml injection vial → 8330MX-B SS 100 ng/ml 04-21-15							
Tetryl SS 100 ng/ml					03-05-15		P
Tetryl (SS)	1000	12-23-14	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 KP

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 KP

Standard prep performed as dated, documented here 04-22-15 KP

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

042 LC/MS 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

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE/ INITIALS
Scav spk 30 ng/ml							
Hexahydro-1,3,5-tris hydroxyethyl triazine							HP
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-Trimethyl-hexahydro-1,3,5-triazine							HP
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 HP
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 HP
8330mixA-SS 100 ng/ml							04-28-15 HP
8330mix-A 100 ng/ml Absolute lot 103014-34465, I broke open the vial and transferred to an amber 1.8ml injection vial → 8330mix-A SS 100 ng/ml							04-28-15
8330mixB-SS 100 ng/ml							04-28-15 HP
8330 mixB 100 ng/ml Absolute lot 103014-34468, I broke open the vial and transferred to an amber 1.8ml injection vial → 8330mixB-SS 100 ng/ml							04-28-15

GC/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- S-weight	Balance reading
20 g	20.0000
1 g	1.0002
100 mg	0.1000
20 mg	~~0.020~~ 0.0020 hp 4-28-15

GC/MS 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							NP

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	04/29/15
TETRYL_SS	100	04/28/15	0.01			MEOH: MILLIPORE	
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

NP

_MWE3535

Organic Extraction Worksheet

Method	EPA Method 3535A	Extraction Set	150515A	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:	YES
Spiked ID 7			Ext. Start Time:	05/15/15 10:55
Spiked ID 8			Ext. End Time:	05/15/15 15:23
			GC Requires Extract By:	

pH1	2	5/15/15 10:45:00 AM	Water Bath Temp Criteria
pH2			
pH3			

Spiked By: CFM **Date** 05/15/15 10:50:00 AM **Witnessed By:** DL **Date** 05/15/15 10:50:00 AM

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	150515A Blk				0.100	1 equip	500	2ML	2	05/15/15 10:55	
2	150515A LCS-1		0.040	1-2	NA	NA equip	500	2ML	2	05/15/15 10:55	
3	AZ16235	AZ16235W07			0.100	1 equip	500	2ML	2	05/15/15 10:55	76401
4	AZ16236	AZ16236W07			0.100	1 equip	470	2ML	2	05/15/15 10:55	76401
5	AZ16287 MS-1	AZ16287W26	0.040	1-2	NA	NA equip	470	2ML	2	05/15/15 10:55	76413
6	AZ16287 MSD-1	AZ16287W27	0.040	1-2	NA	NA equip	470	2ML	2	05/15/15 10:55	76413
7	AZ16287	AZ16287W25			0.100	1 equip	500	2ML	2	05/15/15 10:55	76413
8	AZ16288	AZ16288W09			0.100	1 equip	465	2ML	2	05/15/15 10:55	76413
9	AZ16289	AZ16289W09			0.100	1 equip	500	2ML	2	05/15/15 10:55	76413
10	AZ16290	AZ16290W09			0.100	1 equip	500	2ML	2	05/15/15 10:55	76413

np 05-16-15

Solvent and Lot#	
Acetonitrile	DM 394
Cartridge Sorbent Lot	S311-032
Serial No	512616
Sodium Bisulfate	234615
PH Strip	HC 431579

Extraction COC Transfer	
Extraction lab employee Initials	CFM
GC analyst's initials	np
Date	05-15-15
Time	1430
Refrigerator	Brown

	Technician's Initials
Scanned By	CFM
Sample Preparation	CFM
Extraction	CFM
Concentration	----------

Modified	05/15/15 2:40:07 PM

Reviewed By: np **Date** 05-16-15

Injection Log

Directory: Z:\WALDORF\CHEM32\2\DATA\150517\150517

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	0	0517_000006.D		8330CB 0.005 PPM 05/17/15		5/17/15 16:26
2	0	0517_000007.D		8330CB 0.010 PPM 05/17/15		5/17/15 16:53
3	0	0517_000008.D		8330CB 0.020 PPM 05/17/15		5/17/15 17:21
4	0	0517_000009.D		8330CB 0.050 PPM 05/17/15		5/17/15 17:48
5	0	0517_000010.D		8330CB 0.10 PPM 05/17/15		5/17/15 18:16
6	0	0517_000011.D		8330CB 0.20 PPM 05/17/15		5/17/15 18:43
7	0	0517_000012.D		8330CB 0.50 PPM 05/17/15		5/17/15 19:11
8	0	0517_000013.D		8330CB 1.0 PPM 05/17/15		5/17/15 19:38
9	0	0517_000014.D		8330MXA 2.0 PPM 05/17/15		5/17/15 20:06
10	0	0517_000015.D		8330MXB 2.0 PPM 05/17/15		5/17/15 20:33
11	0	0517_000016.D		8330_SS 1.0 PPM 05/17/15		5/17/15 21:01
12	0	0517_000017.D		PETN_TETRYL_SS 1.0 PPM 05/17/15		5/17/15 21:28

Injection Log

Directory: Z:\WALDORF\CHEM32\2\DATA\150517\150517

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	0	0517_000029.D		8330_CCV 1.0 PPM 05/17/15		5/18/15 4:18
2	0	0517_000030.D	0.016	150515ALCS-1 0.016 DF 05/15/15	Water	5/18/15 4:46
3	0	0517_000033.D	0.016	150515ABLKW 0.016 DF 05/15/15	Water	5/18/15 6:38
4	0	0517_000034.D	0.016	AZ16235W07 0.016 DF 05/15/15	Water	5/18/15 7:16
5	0	0517_000035.D	0.016	AZ16236W04 0.017 DF 05/15/15	Water	5/18/15 7:53
6	0	0517_000040.D		8330_CCV 1.0 PPM 05/17/15		5/18/15 11:01

Injection Log

Directory: Z:\STATLER\CHEM32\1\DATA\150517\150517

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	0	0517_000004.D		8330MXA_CB 0.005 PPM 05/16/15		5/17/15 17:08
2	0	0517_000005.D		8330MXB_CB 0.005 PPM 05/16/15		5/17/15 17:47
3	0	0517_000006.D		8330MXA_CB 0.010 PPM 05/16/15		5/17/15 18:27
4	0	0517_000007.D		8330MXB_CB 0.010 PPM 05/16/15		5/17/15 19:06
5	0	0517_000008.D		8330MXA_CB 0.020 PPM 05/16/15		5/17/15 19:46
6	0	0517_000009.D		8330MXB_CB 0.020 PPM 05/16/15		5/17/15 20:25
7	0	0517_000010.D		8330MXA_CB 0.050 PPM 05/16/15		5/17/15 21:05
8	0	0517_000011.D		8330MXB_CB 0.050 PPM 05/16/15		5/17/15 21:44
9	0	0517_000012.D		8330MXA_CB 0.10 PPM 05/16/15		5/17/15 22:24
10	0	0517_000013.D		8330MXB_CB 0.10 PPM 05/16/15		5/17/15 23:03
11	0	0517_000014.D		8330MXA_CB 0.20 PPM 05/16/15		5/17/15 23:43
12	0	0517_000015.D		8330MXB_CB 0.20 PPM 05/16/15		5/18/15 0:22
13	0	0517_000016.D		8330MXA_CB 0.50 PPM 05/16/15		5/18/15 1:02
14	0	0517_000017.D		8330MXB_CB 0.50 PPM 05/16/15		5/18/15 1:42
15	0	0517_000018.D		8330MXA_CB 1.0 PPM 05/16/15		5/18/15 2:21
16	0	0517_000019.D		8330MXB_CB 1.0 PPM 05/16/15		5/18/15 3:01
17	0	0517_000020.D		8330MXA_CB 2.0 PPM 05/16/15		5/18/15 3:40
18	0	0517_000021.D		8330MXB_CB 2.0 PPM 05/16/15		5/18/15 4:20
19	0	0517_000028.D		8330MXB_SS 1.0 PPM 05/18/15		5/18/15 8:56
20	0	0517_000029.D		PETN_TETRYL_SS 1.0 PPM 05/18/15		5/18/15 9:36
21	0	0517_000030.D		8330MXA_SS 1.0 PPM 05/18/15		5/18/15 10:15

Injection Log

Directory: Z:\STATLER\CHEM32\1\DATA\150517\150517

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	0	0517_000043.D		8330MXA_CCV 1.0 PPM 05/18/15		5/18/15 18:51
2	0	0517_000044.D		8330MXB_CCV 1.0 PPM 05/18/15		5/18/15 19:31
3	0	0517_000049.D	0.016	150515ABLKW 0.016 DF 05/15/15	Water	5/18/15 22:48
4	0	0517_000051.D		8330MXA_CCV 1.0 PPM 05/16/15		5/19/15 0:07
5	0	0517_000052.D		8330MXB_CCV 1.0 PPM 05/16/15		5/19/15 0:47

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-150526A-AZ16235
6010C	BORON (B)	40.00 U	50.0	40.00	29.40	ug/L	05/26/15	06/04/15	#61CJU-150526A-AZ16235
6010C	LITHIUM (LI)	0.80 U	1.0	0.80	0.40	ug/L	05/26/15	06/04/15	#61CJU-150526A-AZ16235
6010C	ZINC (ZN)	20.00 U	150.0	20.00	13.70	ug/L	05/26/15	06/04/15	#61CJU-150526A-AZ16235
6010C	ALUMINUM (AL) (DI	80.00 U	300.0	80.00	27.40	ug/L	05/26/15	06/04/15	#61CJU-150526A1-AZ16235
6010C	BORON (B) (DISSOL	40.00 U	50.0	40.00	29.40	ug/L	05/26/15	06/04/15	#61CJU-150526A1-AZ16235
6010C	LITHIUM (LI) (DISSO	0.80 U	1.0	0.80	0.40	ug/L	05/26/15	06/04/15	#61CJU-150526A1-AZ16235
6010C	ZINC (ZN) (DISSOLV	20.00 U	150.0	20.00	13.70	ug/L	05/26/15	06/04/15	#61CJU-150526A1-AZ16235

Metals SC-Blank-REG MDLs
Printed: 06/17/15 11:05:59 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-150526A1-AZ16235
EPA 6010C	BORON (B) (DISSOLVED)	250	239	95.6	80-120	05/26/15	06/04/15	#61CJU-150526A1-AZ16235
EPA 6010C	LITHIUM (LI) (DISSOLVED)	100.0	92.7	92.7	80-120	05/26/15	06/04/15	#61CJU-150526A1-AZ16235
EPA 6010C	ZINC (ZN) (DISSOLVED)	500	468	93.6	80-120	05/26/15	06/04/15	#61CJU-150526A1-AZ16235
EPA 6010C	ALUMINUM (AL)	2000	2020	101	80-120	05/26/15	06/04/15	#61CJU-150526A-AZ16235
EPA 6010C	BORON (B)	250	246	98.4	80-120	05/26/15	06/04/15	#61CJU-150526A-AZ16235
EPA 6010C	LITHIUM (LI)	100.0	94.5	94.5	80-120	05/26/15	06/04/15	#61CJU-150526A-AZ16235
EPA 6010C	ZINC (ZN)	500	480	96.0	80-120	05/26/15	06/04/15	#61CJU-150526A-AZ16235

Comments: _____

6010C/3010A^

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76401
Matrix: WATER
Blank ID: 150526A-BLK

SDG No: 76401
Date Analyzed: 06/04/15
Instrument: Jules
Time Analyzed: 1700

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150526A-LCS	Lab Control Spike	150610A	06/04/15 1707
150526A-BLK	Blank	150610A	06/04/15 1700
AZ16236	S67-MW011-051115	150610A	06/10/15 1658
AZ16235	S67-MW012-051115	150610A	06/10/15 1650

Comments: Batch: #61CJU-150526A

6010C/3010A^

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76401
Matrix: WATER
Blank ID: 150526A1-BLK

SDG No: 76401
Date Analyzed: 06/04/15
Instrument: Jules
Time Analyzed: 1712

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150526A1-LCS	Lab Control Spike	150610A	06/04/15 1719
150526A1-BLK	Blank	150610A	06/04/15 1712
AZ16236	S67-MW011-051115	150610A	06/10/15 1712
AZ16235	S67-MW012-051115	150610A	06/10/15 1704

Comments: Batch: #61CJU-150526A1

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-MW012-051115
Sample Collection Date: 05/11/15

ARF: 76401
APPL ID: AZ16235

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	179J	300.0	80.00	27.40	ug/L	1	05/26/15	06/10/15
6010C/3010A	BORON (B)	105	50.0	40.00	29.40	ug/L	1	05/26/15	06/10/15
6010C/3010A	LITHIUM (LI)	6.1	1.0	0.80	0.40	ug/L	1	05/26/15	06/10/15
6010C/3010A	ZINC (ZN)	50.1J	150.0	20.00	13.70	ug/L	1	05/26/15	06/10/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	148J	300.0	80.00	27.40	ug/L	1	05/26/15	06/10/15
6010C/3010A	BORON (B) (DISSOLVED)	106	50.0	40.00	29.40	ug/L	1	05/26/15	06/10/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	5.6	1.0	0.80	0.40	ug/L	1	05/26/15	06/10/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	42.2J	150.0	20.00	13.70	ug/L	1	05/26/15	06/10/15

J = Estimated value.

Printed: 06/17/15 11:06:09 AM

APPL-F1-SC-NoMC-REG MDLs

Sequence No.: 16
Sample ID: AZ16235W12
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 41
Date Collected: 06/10/15 4:50:34 PM
Data Type: Reprocessed on 06/11/15 10:12:40 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16235W12

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	198985.8	99.24	%	0.635				0.64%
Y Radial	13840.2	103.8	%	0.56				0.54%
Ag 338.289†	78.9	0.485	ug/L	0.3190	0.485	ug/L	0.3190	65.74%
Al 308.215†	220.5	178.5	ug/L	3.59	178.5	ug/L	3.59	2.01%
As 188.979†	18.1	3.794	ug/L	0.6511	3.794	ug/L	0.6511	17.16%
B 249.677†	3260.9	104.9	ug/L	0.50	104.9	ug/L	0.50	0.48%
Ba 233.527†	29988.4	80.73	ug/L	0.502	80.73	ug/L	0.502	0.62%
Be 313.107†	2302.9	0.710	ug/L	0.0117	0.710	ug/L	0.0117	1.64%
Ca 315.887†	73582.2	5283	ug/L	63.17	5283	ug/L	63.17	1.20%
Cd 214.440†	170.5	0.827	ug/L	0.0227	0.827	ug/L	0.0227	2.75%
Co 228.616†	2600.9	30.04	ug/L	0.111	30.04	ug/L	0.111	0.37%
Cr 267.716†	54.2	0.452	ug/L	0.0617	0.452	ug/L	0.0617	13.65%
Cu 327.393†	2297.3	12.73	ug/L	0.306	12.73	ug/L	0.306	2.40%
Fe 273.955†	46917.9	702.8	ug/L	4.92	702.8	ug/L	4.92	0.70%
K 766.490†	14795.3	2820	ug/L	30.14	2820	ug/L	30.14	1.07%
Mg 285.213†	113108.1	7813	ug/L	98.65	7813	ug/L	98.65	1.26%
Mn 257.610†	23994.9	313.5	ug/L	0.48	313.5	ug/L	0.48	0.15%
Mo 202.031†	19.2	0.705	ug/L	0.2050	0.705	ug/L	0.2050	29.09%
Na 589.592†	225919.9	40680	ug/L	604.30	40680	ug/L	604.30	1.49%
Ni 231.604†	732.5	16.96	ug/L	0.225	16.96	ug/L	0.225	1.33%
P 213.617†	16.9	5.902	ug/L	0.8091	5.902	ug/L	0.8091	13.71%
Pb 220.353†	14.5	2.860	ug/L	1.0597	2.860	ug/L	1.0597	37.06%
Sb 206.836†	30.4	4.698	ug/L	1.0269	4.698	ug/L	1.0269	21.86%
Se 196.026†	0.7	0.305	ug/L	3.2802	0.305	ug/L	3.2802	>999.9%
Sn 189.927†	10.4	2.106	ug/L	0.7018	2.106	ug/L	0.7018	33.32%
Sr 421.552†	20036.3	60.61	ug/L	0.934	60.61	ug/L	0.934	1.54%
Ti 337.279†	38.6	1.041	ug/L	0.2506	1.041	ug/L	0.2506	24.07%
Tl 190.801†	0.0	0.004	ug/L	0.7244	0.004	ug/L	0.7244	>999.9%
V 292.402†	38.3	0.407	ug/L	0.0522	0.407	ug/L	0.0522	12.82%
Zn 206.200†	3923.4	50.15	ug/L	0.575	50.15	ug/L	0.575	1.15%
Li 670.784	83800.2	6.068	ug/L	0.0542	6.068	ug/L	0.0542	0.89%

Sequence No.: 18
Sample ID: AZ16235W11 F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 43
Date Collected: 06/10/15 5:04:35 PM
Data Type: Reprocessed on 06/11/15 10:12:43 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16235W11 F

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	197112.5	98.30	%	0.200				0.20%
Y Radial	13935.2	104.5	%	0.66				0.64%
Ag 338.289†	70.3	0.432	ug/L	0.0346	0.432	ug/L	0.0346	8.01%
Al 308.215†	183.6	148.2	ug/L	1.03	148.2	ug/L	1.03	0.69%
As 188.979†	13.9	2.874	ug/L	0.9431	2.874	ug/L	0.9431	32.82%
B 249.677†	3291.2	105.5	ug/L	0.55	105.5	ug/L	0.55	0.52%
Ba 233.527†	29641.0	79.80	ug/L	0.210	79.80	ug/L	0.210	0.26%
Be 313.107†	2250.7	0.694	ug/L	0.0081	0.694	ug/L	0.0081	1.16%
Ca 315.887†	71348.6	5123	ug/L	37.32	5123	ug/L	37.32	0.73%
Cd 214.440†	150.9	0.752	ug/L	0.0620	0.752	ug/L	0.0620	8.24%
Co 228.616†	2591.8	29.94	ug/L	0.112	29.94	ug/L	0.112	0.38%
Cr 267.716†	41.0	0.288	ug/L	0.0430	0.288	ug/L	0.0430	14.94%
Cu 327.393†	1254.3	6.851	ug/L	0.2836	6.851	ug/L	0.2836	4.14%
Fe 273.955†	36797.4	551.1	ug/L	1.77	551.1	ug/L	1.77	0.32%
K 766.490†	13888.2	2646	ug/L	14.26	2646	ug/L	14.26	0.54%
Mg 285.213†	109938.1	7594	ug/L	57.02	7594	ug/L	57.02	0.75%
Mn 257.610†	23574.7	308.0	ug/L	0.78	308.0	ug/L	0.78	0.25%
Mo 202.031†	8.0	0.338	ug/L	0.1011	0.338	ug/L	0.1011	29.89%
Na 589.592†	223926.9	40320	ug/L	279.28	40320	ug/L	279.28	0.69%
Ni 231.604†	725.5	16.79	ug/L	0.321	16.79	ug/L	0.321	1.91%
P 213.617†	12.9	4.492	ug/L	2.3853	4.492	ug/L	2.3853	53.10%
Pb 220.353†	2.2	0.651	ug/L	0.8620	0.651	ug/L	0.8620	132.37%
Sb 206.836†	10.3	1.586	ug/L	0.9029	1.586	ug/L	0.9029	56.92%
Se 196.026†	-1.1	-0.427	ug/L	3.9348	-0.427	ug/L	3.9348	921.66%
Sn 189.927†	3.6	0.738	ug/L	0.7273	0.738	ug/L	0.7273	98.53%
Sr 421.552†	19998.3	60.50	ug/L	0.389	60.50	ug/L	0.389	0.64%
Ti 337.279†	26.5	0.678	ug/L	0.3143	0.678	ug/L	0.3143	46.34%
Tl 190.801†	-4.5	-0.901	ug/L	0.5559	-0.901	ug/L	0.5559	61.68%
V 292.402†	28.2	0.300	ug/L	0.0856	0.300	ug/L	0.0856	28.52%
Zn 206.200†	3289.6	42.19	ug/L	0.230	42.19	ug/L	0.230	0.54%
Li 670.784	76661.3	5.551	ug/L	0.0202	5.551	ug/L	0.0202	0.36%

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-MW011-051115
Sample Collection Date: 05/11/15

ARF: 76401
APPL ID: AZ16236

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	673	300.0	80.00	27.40	ug/L	1	05/26/15	06/10/15
6010C/3010A	BORON (B)	126	50.0	40.00	29.40	ug/L	1	05/26/15	06/10/15
6010C/3010A	LITHIUM (LI)	6.8	1.0	0.80	0.40	ug/L	1	05/26/15	06/10/15
6010C/3010A	ZINC (ZN)	228	150.0	20.00	13.70	ug/L	1	05/26/15	06/10/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	928	300.0	80.00	27.40	ug/L	1	05/26/15	06/10/15
6010C/3010A	BORON (B) (DISSOLVED)	130	50.0	40.00	29.40	ug/L	1	05/26/15	06/10/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	7.0	1.0	0.80	0.40	ug/L	1	05/26/15	06/10/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	242	150.0	20.00	13.70	ug/L	1	05/26/15	06/10/15

Printed: 06/17/15 11:06:09 AM
APPL-F1-SC-NoMC-REG MDLs

Sequence No.: 17
Sample ID: AZ16236W12
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 42
Date Collected: 06/10/15 4:58:19 PM
Data Type: Reprocessed on 06/11/15 10:12:42 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16236W12

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	204996.4	102.2	%	0.53				0.51%
Y Radial	14115.3	105.9	%	0.63				0.59%
Ag 338.289†	64.4	0.396	ug/L	0.1625	0.396	ug/L	0.1625	40.99%
Al 308.215†	823.7	673.2	ug/L	2.43	673.2	ug/L	2.43	0.36%
As 188.979†	25.8	4.570	ug/L	1.5075	4.570	ug/L	1.5075	32.99%
B 249.677†	3974.8	126.2	ug/L	0.96	126.2	ug/L	0.96	0.76%
Ba 233.527†	10879.8	29.29	ug/L	0.155	29.29	ug/L	0.155	0.53%
Be 313.107†	4095.3	1.263	ug/L	0.0144	1.263	ug/L	0.0144	1.14%
Ca 315.887†	169530.7	12180	ug/L	59.32	12180	ug/L	59.32	0.49%
Cd 214.440†	293.4	1.349	ug/L	0.0377	1.349	ug/L	0.0377	2.80%
Co 228.616†	1049.2	12.08	ug/L	0.123	12.08	ug/L	0.123	1.02%
Cr 267.716†	53.5	0.473	ug/L	0.0488	0.473	ug/L	0.0488	10.31%
Cu 327.393†	1753.0	9.707	ug/L	0.2048	9.707	ug/L	0.2048	2.11%
Fe 273.955†	12718.6	189.8	ug/L	5.89	189.8	ug/L	5.89	3.10%
K 766.490†	11937.8	2294	ug/L	14.86	2294	ug/L	14.86	0.65%
Mg 285.213†	153454.8	10600	ug/L	52.54	10600	ug/L	52.54	0.50%
Mn 257.610†	26073.1	340.5	ug/L	1.77	340.5	ug/L	1.77	0.52%
Mo 202.031†	10.6	0.403	ug/L	0.3806	0.403	ug/L	0.3806	94.37%
Na 589.592†	62421.6	11240	ug/L	46.80	11240	ug/L	46.80	0.42%
Ni 231.604†	966.6	22.52	ug/L	0.163	22.52	ug/L	0.163	0.72%
P 213.617†	8.9	3.105	ug/L	0.8305	3.105	ug/L	0.8305	26.75%
Pb 220.353†	4.8	1.401	ug/L	0.9932	1.401	ug/L	0.9932	70.89%
Sb 206.836†	9.9	1.535	ug/L	0.6237	1.535	ug/L	0.6237	40.62%
Se 196.026†	4.2	1.221	ug/L	0.8129	1.221	ug/L	0.8129	66.55%
Sn 189.927†	-1.9	-0.381	ug/L	0.2271	-0.381	ug/L	0.2271	59.67%
Sr 421.552†	41424.6	125.3	ug/L	0.84	125.3	ug/L	0.84	0.67%
Ti 337.279†	28.1	0.677	ug/L	0.4546	0.677	ug/L	0.4546	67.14%
Tl 190.801†	2.2	0.443	ug/L	0.8596	0.443	ug/L	0.8596	193.98%
V 292.402†	45.8	0.487	ug/L	0.0919	0.487	ug/L	0.0919	18.86%
Zn 206.200†	18131.5	227.9	ug/L	1.61	227.9	ug/L	1.61	0.70%
Li 670.784	93519.7	6.771	ug/L	0.0558	6.771	ug/L	0.0558	0.82%

Sequence No.: 19
Sample ID: AZ16236W11 F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 44
Date Collected: 06/10/15 5:12:21 PM
Data Type: Reprocessed on 06/11/15 10:12:44 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ16236W11 F

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	206055.2	102.8	%	1.56				1.52%
Y Radial	14055.4	105.4	%	0.43				0.41%
Ag 338.289†	86.4	0.532	ug/L	0.1711	0.532	ug/L	0.1711	32.17%
Al 308.215†	1134.9	928.1	ug/L	1.56	928.1	ug/L	1.56	0.17%
As 188.979†	27.8	5.003	ug/L	0.6734	5.003	ug/L	0.6734	13.46%
B 249.677†	4046.2	129.6	ug/L	1.53	129.6	ug/L	1.53	1.18%
Ba 233.527†	10982.3	29.54	ug/L	0.369	29.54	ug/L	0.369	1.25%
Be 313.107†	4370.2	1.347	ug/L	0.0247	1.347	ug/L	0.0247	1.84%
Ca 315.887†	180199.9	12940	ug/L	110.76	12940	ug/L	110.76	0.86%
Cd 214.440†	313.1	1.411	ug/L	0.0623	1.411	ug/L	0.0623	4.41%
Co 228.616†	1106.2	12.72	ug/L	0.133	12.72	ug/L	0.133	1.04%
Cr 267.716†	67.4	0.638	ug/L	0.1264	0.638	ug/L	0.1264	19.83%
Cu 327.393†	1301.2	7.122	ug/L	0.0522	7.122	ug/L	0.0522	0.73%
Fe 273.955†	46304.2	693.2	ug/L	7.87	693.2	ug/L	7.87	1.14%
K 766.490†	12784.2	2456	ug/L	39.92	2456	ug/L	39.92	1.63%
Mg 285.213†	164368.0	11350	ug/L	97.91	11350	ug/L	97.91	0.86%
Mn 257.610†	27316.2	356.7	ug/L	0.79	356.7	ug/L	0.79	0.22%
Mo 202.031†	19.1	0.688	ug/L	0.1577	0.688	ug/L	0.1577	22.93%
Na 589.592†	67296.6	12120	ug/L	39.64	12120	ug/L	39.64	0.33%
Ni 231.604†	1031.8	24.05	ug/L	0.528	24.05	ug/L	0.528	2.19%
P 213.617†	20.3	7.094	ug/L	0.6244	7.094	ug/L	0.6244	8.80%
Pb 220.353†	-3.5	-0.100	ug/L	0.8845	-0.100	ug/L	0.8845	886.74%
Sb 206.836†	16.1	2.494	ug/L	0.7759	2.494	ug/L	0.7759	31.11%
Se 196.026†	-0.2	-0.224	ug/L	1.4063	-0.224	ug/L	1.4063	626.52%
Sn 189.927†	-2.6	-0.534	ug/L	0.3865	-0.534	ug/L	0.3865	72.42%
Sr 421.552†	44638.0	135.0	ug/L	0.55	135.0	ug/L	0.55	0.41%
Ti 337.279†	60.8	1.651	ug/L	0.2038	1.651	ug/L	0.2038	12.35%
Tl 190.801†	-3.4	-0.678	ug/L	1.1300	-0.678	ug/L	1.1300	166.76%
V 292.402†	79.8	0.849	ug/L	0.1207	0.849	ug/L	0.1207	14.23%
Zn 206.200†	19255.3	242.1	ug/L	3.39	242.1	ug/L	3.39	1.40%
Li 670.784	96046.5	6.954	ug/L	0.0682	6.954	ug/L	0.0682	0.98%

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: 76401 SDG: 76401
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: 76401 SDG: 76401
Initial Calibration Source: CPI
Continuing Calibration Source: Environmental Express
Analysis Date: 06/10/15 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 15:30	%R(1)	True CCV1	Found 16:02	%R(1)	True CCV2	Found 16:34	%R(1)	
Aluminum (Al)	12500	11970	95.8	10000	9954	99.5	7500	7370	98.3	P
Boron (B)	500	485.6	97.1	500	498.4	99.7	375	384.5	103	P
Lithium (Li)	250	270.2	108	250	236.7	94.7	187.5	169.7	90.5	P
Zinc (Zn)	500	498.8	99.8	500	508.8	102	375	391.5	104	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: 76401 SDG: 76401
Initial Calibration Source: CPI
Continuing Calibration Source: Environmental Express
Analysis Date: 06/10/15 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 15:30	%R(1)	True CCV1	Found 17:17	%R(1)	True	Found	%R(1)	
Aluminum (Al)	12500	11970	95.8	10000	9916	99.2				P
Boron (B)	500	485.6	97.1	500	505.1	101				P
Lithium (Li)	250	270.2	108	250	240	96.0				P
Zinc (Zn)	500	498.8	99.8	500	499.2	99.8				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.: 76401 SDG: 76401

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.: 76401 SDG: 76401

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.: 76401 SDG: 76401

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 06/10/15

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
	15:41		16:08		16:44		17:28				
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)	.67	J	.44	J	.41	J	.42	J			P
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. Contract: Tetra Tech
ARF No.: 76401 SDG: 76401
ICP ID Number: Jules 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.: 76401
SDG: 76401
ICP ID Number: Jules
ICS Source: Environmental Express

Analysis Date: 06/10/15
Concentration Units: ug/L

Analyte	True		Initial Found		
	Sol A	Sol AB	Sol A 15:47	Sol AB 15:54	%R(1)
Aluminum (Al)	100000	100000	102200	102700	103
Boron (B)			-14.46	-12.51	
Calcium (Ca)	100000	100000	108000	107400	107
Iron (Fe)	100000	100000	101300	101100	101
Lithium (Li)		0	2.456	1.922	
Magnesium (Mg)	100000	100000	103700	103000	103
Zinc (Zn)		500	2.374	512	102

(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.

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%								

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.: 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	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample 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	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample 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.	Calib. Units	Std.Dev.	Sample Conc.	Sample 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): 150610A6010
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 150610RJS I:JL O:R
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 06/10/15 2:54:31 PM
Data Type: Reprocessed on 06/11/15 10:12:22 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CalBlk 150610RJS I:JL O:R

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	200512.3	596.43	0.30%	100.0	%
Y Radial	13333.9	135.61	1.02%	100.0	%
Ag 338.289†	-27.6	46.75	169.35%	[0.00]	ug/L
Al 308.215†	67.7	8.71	12.88%	[0.00]	ug/L
As 188.979†	-78.4	0.21	0.27%	[0.00]	ug/L
B 249.677†	50.2	11.50	22.89%	[0.00]	ug/L
Ba 233.527†	-54.1	6.69	12.36%	[0.00]	ug/L
Be 313.107†	1951.9	14.33	0.73%	[0.00]	ug/L
Ca 315.887†	-389.6	19.53	5.01%	[0.00]	ug/L
Cd 214.440†	-309.6	3.81	1.23%	[0.00]	ug/L
Co 228.616†	-224.4	4.22	1.88%	[0.00]	ug/L
Cr 267.716†	33.0	1.13	3.43%	[0.00]	ug/L
Cu 327.393†	-1522.9	25.19	1.65%	[0.00]	ug/L
Fe 273.955†	47.9	11.09	23.14%	[0.00]	ug/L
K 766.490†	-784.2	83.97	10.71%	[0.00]	ug/L
Mg 285.213†	91.2	8.63	9.46%	[0.00]	ug/L
Mn 257.610†	67.3	1.02	1.52%	[0.00]	ug/L
Mo 202.031†	-77.0	1.76	2.29%	[0.00]	ug/L
Na 589.592†	639.3	53.52	8.37%	[0.00]	ug/L
Ni 231.604†	-154.9	11.90	7.68%	[0.00]	ug/L
P 213.617†	-69.3	5.41	7.81%	[0.00]	ug/L
Pb 220.353†	31.2	1.90	6.09%	[0.00]	ug/L
Sb 206.836†	-11.6	3.00	25.77%	[0.00]	ug/L
Se 196.026†	17.8	1.50	8.42%	[0.00]	ug/L
Sn 189.927†	-0.5	1.80	347.31%	[0.00]	ug/L
Sr 421.552†	-65.2	27.31	41.88%	[0.00]	ug/L
Ti 337.279†	-39.7	27.45	69.12%	[0.00]	ug/L
Tl 190.801†	-16.6	3.48	20.94%	[0.00]	ug/L
V 292.402†	-105.2	6.16	5.85%	[0.00]	ug/L
Zn 206.200†	154.0	7.31	4.75%	[0.00]	ug/L
Li 670.784	4496.1	115.50	2.57%	[0.00]	ug/L

Sequence No.: 2
Sample ID: STD 1 150610RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 2
Date Collected: 06/10/15 3:00:43 PM
Data Type: Reprocessed on 06/11/15 10:12:23 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 1 150610RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	198443.0	651.10	0.33%	98.97	%
Y Radial	13495.9	54.87	0.41%	101.2	%
Ag 338.289†	866.9	38.15	4.40%	[0.5]	ug/L
Al 308.215†	300.1	0.57	0.19%	[50]	ug/L
As 188.979†	52.2	5.56	10.66%	[2]	ug/L
B 249.677†	1069.0	6.08	0.57%	[25]	ug/L
Ba 233.527†	4547.5	12.85	0.28%	[1.5]	ug/L
Be 313.107†	34209.4	38.26	0.11%	[1]	ug/L
Ca 315.887†	8687.2	26.05	0.30%	[50]	ug/L
Cd 214.440†	2585.5	10.83	0.42%	[0.25]	ug/L
Co 228.616†	1139.6	6.56	0.58%	[2.5]	ug/L
Cr 267.716†	793.8	1.54	0.19%	[0.5]	ug/L
Cu 327.393†	2313.7	46.87	2.03%	[2.5]	ug/L
Fe 273.955†	15185.6	39.64	0.26%	[25]	ug/L
K 766.490†	3487.0	117.00	3.36%	[500]	ug/L
Mg 285.213†	7567.5	27.03	0.36%	[25]	ug/L
Mn 257.610†	836.2	1.09	0.13%	[1]	ug/L
Mo 202.031†	325.7	4.02	1.23%	[1]	ug/L
Na 589.592†	3995.2	48.60	1.22%	[500]	ug/L
Ni 231.604†	472.8	4.51	0.95%	[1]	ug/L
P 213.617†	168.6	4.24	2.52%	[12.5]	ug/L
Pb 220.353†	68.4	6.46	9.45%	[1.5]	ug/L
Sb 206.836†	69.9	3.88	5.55%	[2]	ug/L
Se 196.026†	28.6	0.97	3.40%	[2]	ug/L
Sn 189.927†	61.7	2.00	3.25%	[3]	ug/L
Sr 421.552†	3567.1	55.77	1.56%	[1]	ug/L
Ti 337.279†	413.8	13.10	3.17%	[2.5]	ug/L
Tl 190.801†	64.5	6.13	9.50%	[2]	ug/L
V 292.402†	1017.8	5.09	0.50%	[0.5]	ug/L
Zn 206.200†	3045.9	6.03	0.20%	[25]	ug/L
Li 670.784	48381.5	428.02	0.88%	[5]	ug/L

Sequence No.: 3
Sample ID: STD 2 150610RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 06/10/15 3:06:57 PM
Data Type: Reprocessed on 06/11/15 10:12:24 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 2 150610RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	189082.8	1349.92	0.71%	94.30	%
Y Radial	13043.6	106.11	0.81%	97.82	%
Ag 338.289†	40320.8	132.58	0.33%	[250]	ug/L
Al 308.215†	12092.9	29.85	0.25%	[10000]	ug/L
As 188.979†	2215.9	23.24	1.05%	[500]	ug/L
B 249.677†	15014.0	29.36	0.20%	[500]	ug/L
Ba 233.527†	185068.2	254.99	0.14%	[500]	ug/L
Be 313.107†	1616479.7	2777.78	0.17%	[500]	ug/L
Ca 315.887†	352288.0	713.65	0.20%	[25000]	ug/L
Cd 214.440†	122577.6	139.63	0.11%	[500]	ug/L
Co 228.616†	43286.5	114.36	0.26%	[500]	ug/L
Cr 267.716†	38617.4	315.40	0.82%	[500]	ug/L
Cu 327.393†	87769.5	65.26	0.07%	[500]	ug/L
Fe 273.955†	667846.4	756.31	0.11%	[10000]	ug/L
K 766.490†	51009.4	106.87	0.21%	[10000]	ug/L
Mg 285.213†	366577.1	945.66	0.26%	[25000]	ug/L
Mn 257.610†	38179.2	106.13	0.28%	[500]	ug/L
Mo 202.031†	15336.0	109.99	0.72%	[500]	ug/L
Na 589.592†	69805.9	277.32	0.40%	[12500]	ug/L
Ni 231.604†	21534.5	176.42	0.82%	[500]	ug/L
P 213.617†	7037.0	56.28	0.80%	[2500]	ug/L
Pb 220.353†	2769.5	18.25	0.66%	[500]	ug/L
Sb 206.836†	3167.8	21.04	0.66%	[500]	ug/L
Se 196.026†	1333.2	5.29	0.40%	[500]	ug/L
Sn 189.927†	2450.8	24.01	0.98%	[500]	ug/L
Sr 421.552†	163659.8	1224.66	0.75%	[500]	ug/L
Ti 337.279†	16513.7	51.70	0.31%	[500]	ug/L
Tl 190.801†	2537.5	20.01	0.79%	[500]	ug/L
V 292.402†	46758.8	81.43	0.17%	[500]	ug/L
Zn 206.200†	39649.3	30.52	0.08%	[500]	ug/L
Li 670.784	3238838.8	14856.35	0.46%	[250]	ug/L

Sequence No.: 4
Sample ID: STD 3 150610RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 4
Date Collected: 06/10/15 3:12:46 PM
Data Type: Reprocessed on 06/11/15 10:12:25 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 3 150610RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	185916.8	421.86	0.23%	92.72	%
Y Radial	12926.8	114.32	0.88%	96.95	%
Ag 338.289†	81449.7	65.82	0.08%	[500]	ug/L
Al 308.215†	24468.8	197.47	0.81%	[20000]	ug/L
As 188.979†	4513.4	48.49	1.07%	[1000]	ug/L
B 249.677†	31905.6	419.79	1.32%	[1000]	ug/L
Ba 233.527†	371607.6	238.75	0.06%	[1000]	ug/L
Be 313.107†	3246467.0	3283.82	0.10%	[1000]	ug/L
Ca 315.887†	693788.7	4847.91	0.70%	[50000]	ug/L
Cd 214.440†	245469.6	142.33	0.06%	[1000]	ug/L
Co 228.616†	86284.2	87.03	0.10%	[1000]	ug/L
Cr 267.716†	77611.9	825.67	1.06%	[1000]	ug/L
Cu 327.393†	177578.6	186.15	0.10%	[1000]	ug/L
Fe 273.955†	1333672.7	279.56	0.02%	[20000]	ug/L
K 766.490†	103916.0	605.35	0.58%	[20000]	ug/L
Mg 285.213†	721580.9	5208.25	0.72%	[50000]	ug/L
Mn 257.610†	76518.2	539.63	0.71%	[1000]	ug/L
Mo 202.031†	31009.8	314.88	1.02%	[1000]	ug/L
Na 589.592†	138605.0	1058.92	0.76%	[25000]	ug/L
Ni 231.604†	42852.6	487.21	1.14%	[1000]	ug/L
P 213.617†	14395.6	165.66	1.15%	[5000]	ug/L
Pb 220.353†	5548.9	80.16	1.44%	[1000]	ug/L
Sb 206.836†	6499.2	97.23	1.50%	[1000]	ug/L
Se 196.026†	2708.2	32.62	1.20%	[1000]	ug/L
Sn 189.927†	4950.1	67.80	1.37%	[1000]	ug/L
Sr 421.552†	329900.5	2026.33	0.61%	[1000]	ug/L
Ti 337.279†	33138.6	216.91	0.65%	[1000]	ug/L
Tl 190.801†	4987.0	43.66	0.88%	[1000]	ug/L
V 292.402†	94187.8	112.56	0.12%	[1000]	ug/L
Zn 206.200†	79838.4	58.18	0.07%	[1000]	ug/L
Li 670.784	7012791.8	51100.02	0.73%	[500]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 338.289	3	Lin Thru 0	0.0	162.6	0.00000	0.999955	
Al 308.215	3	Lin Thru 0	0.0	1.221	0.00000	0.999951	
As 188.979	3	Lin Thru 0	0.0	4.497	0.00000	0.999937	
B 249.677	3	Lin Thru 0	0.0	31.54	0.00000	0.999685	
Ba 233.527	3	Lin Thru 0	0.0	371.3	0.00000	0.999953	
Be 313.107	3	Lin Thru 0	0.0	3244	0.00000	0.999962	
Ca 315.887	3	Lin Thru 0	0.0	13.92	0.00000	0.999928	
Cd 214.440	3	Lin Thru 0	0.0	245.4	0.00000	0.999958	
Co 228.616	3	Lin Thru 0	0.0	86.34	0.00000	0.999953	
Cr 267.716	3	Lin Thru 0	0.0	77.54	0.00000	0.999960	
Cu 327.393	3	Lin Thru 0	0.0	177.2	0.00000	0.999945	
Fe 273.955	3	Lin Thru 0	0.0	66.70	0.00000	0.999959	
K 766.490	3	Lin Thru 0	0.0	5.178	0.00000	0.999943	
Mg 285.213	3	Lin Thru 0	0.0	14.48	0.00000	0.999940	
Mn 257.610	3	Lin Thru 0	0.0	76.49	0.00000	0.999960	
Mo 202.031	3	Lin Thru 0	0.0	30.94	0.00000	0.999954	
Na 589.592	3	Lin Thru 0	0.0	5.553	0.00000	0.999965	
Ni 231.604	3	Lin Thru 0	0.0	42.90	0.00000	0.999958	
P 213.617	3	Lin Thru 0	0.0	2.866	0.00000	0.999925	
Pb 220.353	3	Lin Thru 0	0.0	5.547	0.00000	0.999953	
Sb 206.836	3	Lin Thru 0	0.0	6.467	0.00000	0.999918	
Se 196.026	3	Lin Thru 0	0.0	2.700	0.00000	0.999951	

Sn 189.927	3	Lin Thru 0	0.0	4.940	0.00000	0.999956
Sr 421.552	3	Lin Thru 0	0.0	329.4	0.00000	0.999956
Ti 337.279	3	Lin Thru 0	0.0	33.12	0.00000	0.999959
Tl 190.801	3	Lin Thru 0	0.0	5.005	0.00000	0.999928
V 292.402	3	Lin Thru 0	0.0	94.05	0.00000	0.999953
Zn 206.200	3	Lin Thru 0	0.0	79.75	0.00000	0.999927
Li 670.784	3	Lin Thru 0	0.0	13810	0.00000	0.999516

Sequence No.: 5
Sample ID: ICV 150610RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 06/10/15 3:30:58 PM
Data Type: Reprocessed on 06/11/15 10:12:27 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICV 150610RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	190546.1	95.03	%	0.377				0.40%
Y Radial	12970.7	97.28	%	0.588				0.60%
Ag 338.289†	38924.0	239.4	ug/L	1.36	239.4	ug/L	1.36	0.57%
QC value within limits for Ag 338.289 Recovery = 95.77%								
Al 308.215†	14577.2	11970	ug/L	72.20	11970	ug/L	72.20	0.60%
QC value within limits for Al 308.215 Recovery = 95.72%								
As 188.979†	1932.7	426.7	ug/L	3.67	426.7	ug/L	3.67	0.86%
QC value less than the lower limit for As 188.979 Recovery = 85.35%								
B 249.677†	14414.8	485.6	ug/L	1.97	485.6	ug/L	1.97	0.41%
QC value within limits for B 249.677 Recovery = 97.12%								
Ba 233.527†	177854.4	478.6	ug/L	1.59	478.6	ug/L	1.59	0.33%
QC value within limits for Ba 233.527 Recovery = 95.71%								
Be 313.107†	1541622.2	475.3	ug/L	1.36	475.3	ug/L	1.36	0.29%
QC value within limits for Be 313.107 Recovery = 95.05%								
Ca 315.887†	172936.4	12420	ug/L	60.49	12420	ug/L	60.49	0.49%
QC value within limits for Ca 315.887 Recovery = 99.36%								
Cd 214.440†	118627.1	483.5	ug/L	1.82	483.5	ug/L	1.82	0.38%
QC value within limits for Cd 214.440 Recovery = 96.69%								
Co 228.616†	41582.3	481.5	ug/L	1.94	481.5	ug/L	1.94	0.40%
QC value within limits for Co 228.616 Recovery = 96.30%								
Cr 267.716†	37386.9	482.1	ug/L	3.18	482.1	ug/L	3.18	0.66%
QC value within limits for Cr 267.716 Recovery = 96.43%								
Cu 327.393†	86656.6	489.2	ug/L	1.68	489.2	ug/L	1.68	0.34%
QC value within limits for Cu 327.393 Recovery = 97.84%								
Fe 273.955†	809900.1	12100	ug/L	43.08	12100	ug/L	43.08	0.36%
QC value within limits for Fe 273.955 Recovery = 96.83%								
K 766.490†	61278.2	11810	ug/L	46.47	11810	ug/L	46.47	0.39%
QC value within limits for K 766.490 Recovery = 94.48%								
Mg 285.213†	176934.5	12230	ug/L	62.53	12230	ug/L	62.53	0.51%
QC value within limits for Mg 285.213 Recovery = 97.84%								
Mn 257.610†	36576.2	477.9	ug/L	1.98	477.9	ug/L	1.98	0.42%
QC value within limits for Mn 257.610 Recovery = 95.58%								
Mo 202.031†	14515.7	469.7	ug/L	3.35	469.7	ug/L	3.35	0.71%
QC value within limits for Mo 202.031 Recovery = 93.93%								
Na 589.592†	66681.7	11990	ug/L	51.66	11990	ug/L	51.66	0.43%
QC value within limits for Na 589.592 Recovery = 95.94%								
Ni 231.604†	21149.1	492.1	ug/L	2.59	492.1	ug/L	2.59	0.53%
QC value within limits for Ni 231.604 Recovery = 98.42%								
P 213.617†	6846.4	2389	ug/L	12.02	2389	ug/L	12.02	0.50%
QC value within limits for P 213.617 Recovery = 95.54%								
Pb 220.353†	2708.1	490.8	ug/L	4.24	490.8	ug/L	4.24	0.86%
QC value within limits for Pb 220.353 Recovery = 98.17%								
Sb 206.836†	3103.2	479.9	ug/L	3.35	479.9	ug/L	3.35	0.70%
QC value within limits for Sb 206.836 Recovery = 95.98%								
Se 196.026†	1308.7	488.5	ug/L	1.54	488.5	ug/L	1.54	0.31%
QC value within limits for Se 196.026 Recovery = 97.69%								
Sn 189.927†	1204.7	243.8	ug/L	1.25	243.8	ug/L	1.25	0.51%
QC value within limits for Sn 189.927 Recovery = 97.54%								
Sr 421.552†	158780.5	481.6	ug/L	4.54	481.6	ug/L	4.54	0.94%
QC value within limits for Sr 421.552 Recovery = 96.31%								
Ti 337.279†	15813.8	477.3	ug/L	1.68	477.3	ug/L	1.68	0.35%
QC value within limits for Ti 337.279 Recovery = 95.47%								
Tl 190.801†	2453.7	490.3	ug/L	4.75	490.3	ug/L	4.75	0.97%
QC value within limits for Tl 190.801 Recovery = 98.06%								
V 292.402†	44699.9	475.3	ug/L	1.46	475.3	ug/L	1.46	0.31%
QC value within limits for V 292.402 Recovery = 95.05%								
Zn 206.200†	39311.9	498.8	ug/L	1.33	498.8	ug/L	1.33	0.27%
QC value within limits for Zn 206.200 Recovery = 99.77%								

Li 670.784	3731439.3	270.2 ug/L	2.24	270.2 ug/L	2.24	0.83%

QC value within limits for Li 670.784 Recovery = 108.07%
QC Failed. Continue with analysis.

Sequence No.: 6
Sample ID: ICB 150610RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 06/10/15 3:41:26 PM
Data Type: Reprocessed on 06/11/15 10:12:28 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICB 150610RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	198726.2	99.11	%	0.372				0.38%
Y Radial	13361.7	100.2	%	0.84				0.84%
Ag 338.289†	59.6	0.367	ug/L	0.3232	0.367	ug/L	0.3232	88.16%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	-5.3	-4.381	ug/L	0.8652	-4.381	ug/L	0.8652	19.75%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	19.2	4.273	ug/L	0.7889	4.273	ug/L	0.7889	18.46%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	66.5	2.109	ug/L	0.1506	2.109	ug/L	0.1506	7.14%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	5.5	0.014	ug/L	0.0223	0.014	ug/L	0.0223	154.36%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	24.6	0.008	ug/L	0.0068	0.008	ug/L	0.0068	89.18%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	35.4	2.548	ug/L	1.0435	2.548	ug/L	1.0435	40.95%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	-39.6	-0.161	ug/L	0.0361	-0.161	ug/L	0.0361	22.42%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	6.9	0.082	ug/L	0.0806	0.082	ug/L	0.0806	97.79%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-11.1	-0.144	ug/L	0.1223	-0.144	ug/L	0.1223	85.18%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	457.5	2.582	ug/L	0.3143	2.582	ug/L	0.3143	12.17%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	5.2	0.076	ug/L	0.1579	0.076	ug/L	0.1579	208.39%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	13.8	2.709	ug/L	22.6947	2.709	ug/L	22.6947	837.89%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	10.3	0.713	ug/L	0.1725	0.713	ug/L	0.1725	24.18%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	-5.4	-0.071	ug/L	0.0391	-0.071	ug/L	0.0391	55.01%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	23.8	0.770	ug/L	0.3498	0.770	ug/L	0.3498	45.45%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-232.6	-41.89	ug/L	2.888	-41.89	ug/L	2.888	6.89%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	2.3	0.053	ug/L	0.0806	0.053	ug/L	0.0806	152.60%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-6.0	-2.080	ug/L	1.5143	-2.080	ug/L	1.5143	72.80%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-1.6	-0.295	ug/L	0.9760	-0.295	ug/L	0.9760	330.73%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	19.0	2.934	ug/L	0.3980	2.934	ug/L	0.3980	13.57%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-1.0	-0.363	ug/L	2.6699	-0.363	ug/L	2.6699	734.61%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	4.5	0.913	ug/L	0.3373	0.913	ug/L	0.3373	36.95%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	39.0	0.118	ug/L	0.0437	0.118	ug/L	0.0437	37.01%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	6.0	0.182	ug/L	0.2627	0.182	ug/L	0.2627	144.14%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	5.9	1.175	ug/L	0.9177	1.175	ug/L	0.9177	78.08%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	3.5	0.037	ug/L	0.0368	0.037	ug/L	0.0368	99.31%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-18.2	-0.230	ug/L	0.0386	-0.230	ug/L	0.0386	16.77%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	9202.3	0.666 ug/L	0.0030	0.666 ug/L	0.0030	0.45%

QC value within limits for Li 670.784 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 7
Sample ID: ICSA 150610RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 6
Date Collected: 06/10/15 3:47:36 PM
Data Type: Reprocessed on 06/11/15 10:12:29 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSA 150610RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	185014.6	92.27	%	0.301				0.33%
Y Radial	13040.8	97.80	%	1.634				1.67%
Ag 338.289†	-35.4	-0.217	ug/L	0.1359	-0.217	ug/L	0.1359	62.49%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	124750.2	102200	ug/L	1870.33	102200	ug/L	1870.33	1.83%
QC value within limits for Al 308.215 Recovery = 102.20%								
As 188.979†	39.9	9.026	ug/L	0.4256	9.026	ug/L	0.4256	4.72%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-8227.4	-14.46	ug/L	2.278	-14.46	ug/L	2.278	15.75%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1644.8	-1.287	ug/L	0.0447	-1.287	ug/L	0.0447	3.47%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	119.5	0.037	ug/L	0.0072	0.037	ug/L	0.0072	19.64%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	1502930.2	108000	ug/L	1959.71	108000	ug/L	1959.71	1.81%
QC value within limits for Ca 315.887 Recovery = 107.97%								
Cd 214.440†	867.3	-0.450	ug/L	0.0898	-0.450	ug/L	0.0898	19.94%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	109.0	-1.714	ug/L	0.0993	-1.714	ug/L	0.0993	5.79%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	91.9	0.255	ug/L	0.2046	0.255	ug/L	0.2046	80.22%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	927.7	-1.286	ug/L	0.5515	-1.286	ug/L	0.5515	42.88%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	6755257.2	101300	ug/L	517.43	101300	ug/L	517.43	0.51%
QC value within limits for Fe 273.955 Recovery = 101.27%								
K 766.490†	82.2	-83.39	ug/L	7.783	-83.39	ug/L	7.783	9.33%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	1500844.7	103700	ug/L	1933.59	103700	ug/L	1933.59	1.86%
QC value within limits for Mg 285.213 Recovery = 103.75%								
Mn 257.610†	120.6	-1.883	ug/L	0.1657	-1.883	ug/L	0.1657	8.80%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-77.0	-1.030	ug/L	0.6555	-1.030	ug/L	0.6555	63.64%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-141.9	-38.07	ug/L	4.036	-38.07	ug/L	4.036	10.60%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-92.6	0.355	ug/L	0.1712	0.355	ug/L	0.1712	48.22%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-112.3	-39.18	ug/L	0.188	-39.18	ug/L	0.188	0.48%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-59.3	-0.557	ug/L	2.5839	-0.557	ug/L	2.5839	463.66%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	18.1	2.799	ug/L	0.7313	2.799	ug/L	0.7313	26.12%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-124.0	-6.163	ug/L	1.1160	-6.163	ug/L	1.1160	18.11%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	23.7	4.802	ug/L	0.9985	4.802	ug/L	0.9985	20.79%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	205.0	-3.601	ug/L	0.0662	-3.601	ug/L	0.0662	1.84%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	30.7	-0.862	ug/L	0.8630	-0.862	ug/L	0.8630	100.17%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-23.5	-4.688	ug/L	1.6583	-4.688	ug/L	1.6583	35.37%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	52.4	0.557	ug/L	0.1198	0.557	ug/L	0.1198	21.50%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	241.3	2.374	ug/L	0.3127	2.374	ug/L	0.3127	13.17%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	33920.4	2.456 ug/L	0.0104	2.456 ug/L	0.0104	0.42%

All analyte(s) passed QC.

Sequence No.: 8
Sample ID: ICSAB 150610RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 7
Date Collected: 06/10/15 3:54:52 PM
Data Type: Reprocessed on 06/11/15 10:12:31 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSAB 150610RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	185533.4	92.53	%	0.782				0.84%
Y Radial	13082.2	98.11	%	0.762				0.78%
Ag 338.289†	85362.1	525.1	ug/L	1.90	525.1	ug/L	1.90	0.36%
QC value within limits for Ag 338.289 Recovery = 105.01%								
Al 308.215†	125310.6	102700	ug/L	1544.30	102700	ug/L	1544.30	1.50%
QC value within limits for Al 308.215 Recovery = 102.67%								
As 188.979†	1167.0	257.9	ug/L	3.51	257.9	ug/L	3.51	1.36%
QC value within limits for As 188.979 Recovery = 103.17%								
B 249.677†	-8134.0	-12.51	ug/L	2.279	-12.51	ug/L	2.279	18.21%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	96259.7	253.7	ug/L	1.16	253.7	ug/L	1.16	0.46%
QC value within limits for Ba 233.527 Recovery = 101.48%								
Be 313.107†	832069.1	256.5	ug/L	0.45	256.5	ug/L	0.45	0.18%
QC value within limits for Be 313.107 Recovery = 102.60%								
Ca 315.887†	1494272.3	107400	ug/L	1504.71	107400	ug/L	1504.71	1.40%
QC value within limits for Ca 315.887 Recovery = 107.35%								
Cd 214.440†	125714.5	508.5	ug/L	1.44	508.5	ug/L	1.44	0.28%
QC value within limits for Cd 214.440 Recovery = 101.71%								
Co 228.616†	22508.9	258.4	ug/L	2.14	258.4	ug/L	2.14	0.83%
QC value within limits for Co 228.616 Recovery = 103.35%								
Cr 267.716†	19555.4	251.4	ug/L	2.20	251.4	ug/L	2.20	0.88%
QC value within limits for Cr 267.716 Recovery = 100.54%								
Cu 327.393†	47455.6	261.1	ug/L	0.98	261.1	ug/L	0.98	0.38%
QC value within limits for Cu 327.393 Recovery = 104.45%								
Fe 273.955†	6742368.1	101100	ug/L	104.34	101100	ug/L	104.34	0.10%
QC value within limits for Fe 273.955 Recovery = 101.05%								
K 766.490†	97.9	-81.86	ug/L	15.598	-81.86	ug/L	15.598	19.05%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	1490178.8	103000	ug/L	1495.38	103000	ug/L	1495.38	1.45%
QC value within limits for Mg 285.213 Recovery = 103.01%								
Mn 257.610†	19486.6	251.4	ug/L	0.60	251.4	ug/L	0.60	0.24%
QC value within limits for Mn 257.610 Recovery = 100.55%								
Mo 202.031†	7612.8	247.7	ug/L	1.91	247.7	ug/L	1.91	0.77%
QC value within limits for Mo 202.031 Recovery = 99.09%								
Na 589.592†	-153.9	-41.26	ug/L	10.198	-41.26	ug/L	10.198	24.71%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	21507.4	503.3	ug/L	3.54	503.3	ug/L	3.54	0.70%
QC value within limits for Ni 231.604 Recovery = 100.65%								
P 213.617†	-199.5	-69.60	ug/L	2.215	-69.60	ug/L	2.215	3.18%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	2784.7	513.2	ug/L	3.42	513.2	ug/L	3.42	0.67%
QC value within limits for Pb 220.353 Recovery = 102.64%								
Sb 206.836†	1759.8	272.1	ug/L	1.60	272.1	ug/L	1.60	0.59%
QC value within limits for Sb 206.836 Recovery = 108.85%								
Se 196.026†	585.7	256.0	ug/L	5.68	256.0	ug/L	5.68	2.22%
QC value within limits for Se 196.026 Recovery = 102.41%								
Sn 189.927†	13.9	2.817	ug/L	1.3239	2.817	ug/L	1.3239	46.99%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	183.6	-3.642	ug/L	0.0689	-3.642	ug/L	0.0689	1.89%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	34.8	-0.678	ug/L	0.6856	-0.678	ug/L	0.6856	101.09%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	1215.7	242.9	ug/L	1.52	242.9	ug/L	1.52	0.63%
QC value within limits for Tl 190.801 Recovery = 97.16%								
V 292.402†	25557.9	271.7	ug/L	2.19	271.7	ug/L	2.19	0.81%
QC value within limits for V 292.402 Recovery = 108.69%								
Zn 206.200†	40660.4	512.0	ug/L	2.48	512.0	ug/L	2.48	0.48%
QC value within limits for Zn 206.200 Recovery = 102.40%								

Li 670.784	26551.9	1.922 ug/L	0.0115	1.922 ug/L	0.0115	0.60%

All analyte(s) passed QC.

Sequence No.: 9
Sample ID: CCV1 150610RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 06/10/15 4:02:11 PM
Data Type: Reprocessed on 06/11/15 10:12:32 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV1 150610RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	191204.5	95.36	%	0.643				0.67%
Y Radial	13175.6	98.81	%	1.029				1.04%
Ag 338.289†	40419.7	248.6	ug/L	0.94	248.6	ug/L	0.94	0.38%
QC value within limits for Ag 338.289 Recovery = 99.45%								
Al 308.215†	12122.2	9954	ug/L	98.12	9954	ug/L	98.12	0.99%
QC value within limits for Al 308.215 Recovery = 99.54%								
As 188.979†	2249.1	495.3	ug/L	7.73	495.3	ug/L	7.73	1.56%
QC value within limits for As 188.979 Recovery = 99.06%								
B 249.677†	14990.4	498.4	ug/L	2.13	498.4	ug/L	2.13	0.43%
QC value within limits for B 249.677 Recovery = 99.68%								
Ba 233.527†	186030.4	500.7	ug/L	0.79	500.7	ug/L	0.79	0.16%
QC value within limits for Ba 233.527 Recovery = 100.14%								
Be 313.107†	1619278.5	499.2	ug/L	0.99	499.2	ug/L	0.99	0.20%
QC value within limits for Be 313.107 Recovery = 99.84%								
Ca 315.887†	355793.8	25560	ug/L	202.60	25560	ug/L	202.60	0.79%
QC value within limits for Ca 315.887 Recovery = 102.23%								
Cd 214.440†	123539.4	503.7	ug/L	1.01	503.7	ug/L	1.01	0.20%
QC value within limits for Cd 214.440 Recovery = 100.75%								
Co 228.616†	43520.4	504.0	ug/L	1.30	504.0	ug/L	1.30	0.26%
QC value within limits for Co 228.616 Recovery = 100.80%								
Cr 267.716†	38853.9	501.0	ug/L	4.99	501.0	ug/L	4.99	1.00%
QC value within limits for Cr 267.716 Recovery = 100.20%								
Cu 327.393†	87855.3	496.1	ug/L	0.64	496.1	ug/L	0.64	0.13%
QC value within limits for Cu 327.393 Recovery = 99.21%								
Fe 273.955†	672695.7	10050	ug/L	20.22	10050	ug/L	20.22	0.20%
QC value within limits for Fe 273.955 Recovery = 100.45%								
K 766.490†	50925.2	9811	ug/L	69.69	9811	ug/L	69.69	0.71%
QC value within limits for K 766.490 Recovery = 98.11%								
Mg 285.213†	370542.6	25600	ug/L	214.67	25600	ug/L	214.67	0.84%
QC value within limits for Mg 285.213 Recovery = 102.41%								
Mn 257.610†	38468.4	502.0	ug/L	4.08	502.0	ug/L	4.08	0.81%
QC value within limits for Mn 257.610 Recovery = 100.41%								
Mo 202.031†	15434.8	499.3	ug/L	5.40	499.3	ug/L	5.40	1.08%
QC value within limits for Mo 202.031 Recovery = 99.86%								
Na 589.592†	68133.7	12260	ug/L	106.07	12260	ug/L	106.07	0.87%
QC value within limits for Na 589.592 Recovery = 98.05%								
Ni 231.604†	21715.1	505.3	ug/L	4.75	505.3	ug/L	4.75	0.94%
QC value within limits for Ni 231.604 Recovery = 101.06%								
P 213.617†	7112.1	2481	ug/L	25.22	2481	ug/L	25.22	1.02%
QC value within limits for P 213.617 Recovery = 99.25%								
Pb 220.353†	2792.9	506.5	ug/L	5.37	506.5	ug/L	5.37	1.06%
QC value within limits for Pb 220.353 Recovery = 101.31%								
Sb 206.836†	3179.0	491.6	ug/L	8.60	491.6	ug/L	8.60	1.75%
QC value within limits for Sb 206.836 Recovery = 98.32%								
Se 196.026†	1348.1	501.8	ug/L	6.80	501.8	ug/L	6.80	1.36%
QC value within limits for Se 196.026 Recovery = 100.36%								
Sn 189.927†	2464.5	498.8	ug/L	4.45	498.8	ug/L	4.45	0.89%
QC value within limits for Sn 189.927 Recovery = 99.77%								
Sr 421.552†	157220.3	476.3	ug/L	9.38	476.3	ug/L	9.38	1.97%
QC value within limits for Sr 421.552 Recovery = 95.26%								
Ti 337.279†	16593.9	500.7	ug/L	4.40	500.7	ug/L	4.40	0.88%
QC value within limits for Ti 337.279 Recovery = 100.14%								
Tl 190.801†	2550.6	509.6	ug/L	4.25	509.6	ug/L	4.25	0.83%
QC value within limits for Tl 190.801 Recovery = 101.93%								
V 292.402†	46745.9	497.0	ug/L	1.12	497.0	ug/L	1.12	0.23%
QC value within limits for V 292.402 Recovery = 99.40%								
Zn 206.200†	40040.9	508.8	ug/L	0.90	508.8	ug/L	0.90	0.18%
QC value within limits for Zn 206.200 Recovery = 101.77%								

Li 670.784	3269548.4	236.7 ug/L	2.03	236.7 ug/L	2.03	0.86%

QC value within limits for Li 670.784 Recovery = 94.69%

All analyte(s) passed QC.

Sequence No.: 10
Sample ID: CCB 150610RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 06/10/15 4:08:00 PM
Data Type: Reprocessed on 06/11/15 10:12:33 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150610RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	201167.5	100.3	%	0.34				0.33%
Y Radial	13152.1	98.64	%	1.313				1.33%
Ag 338.289†	-44.6	-0.274	ug/L	0.5309	-0.274	ug/L	0.5309	193.42%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	11.0	8.978	ug/L	15.0923	8.978	ug/L	15.0923	168.11%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	4.6	1.019	ug/L	0.5010	1.019	ug/L	0.5010	49.18%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	98.4	3.129	ug/L	0.3115	3.129	ug/L	0.3115	9.95%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	26.5	0.071	ug/L	0.0320	0.071	ug/L	0.0320	45.37%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	9.1	0.003	ug/L	0.0068	0.003	ug/L	0.0068	240.46%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	32.1	2.309	ug/L	1.8347	2.309	ug/L	1.8347	79.45%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	-24.1	-0.098	ug/L	0.0126	-0.098	ug/L	0.0126	12.90%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	1.9	0.027	ug/L	0.0199	0.027	ug/L	0.0199	74.29%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-4.4	-0.057	ug/L	0.1043	-0.057	ug/L	0.1043	181.84%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	417.7	2.357	ug/L	0.0908	2.357	ug/L	0.0908	3.85%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	201.5	3.025	ug/L	0.1329	3.025	ug/L	0.1329	4.39%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	-92.5	-17.83	ug/L	9.299	-17.83	ug/L	9.299	52.15%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	40.1	2.774	ug/L	0.2883	2.774	ug/L	0.2883	10.40%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	2.0	0.026	ug/L	0.0707	0.026	ug/L	0.0707	273.94%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	42.6	1.377	ug/L	0.1146	1.377	ug/L	0.1146	8.32%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-231.4	-41.65	ug/L	8.086	-41.65	ug/L	8.086	19.41%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	2.0	0.047	ug/L	0.2355	0.047	ug/L	0.2355	504.01%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-2.6	-0.924	ug/L	0.3642	-0.924	ug/L	0.3642	39.40%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	1.3	0.243	ug/L	0.5495	0.243	ug/L	0.5495	226.16%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	30.8	4.761	ug/L	0.1107	4.761	ug/L	0.1107	2.33%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	1.8	0.665	ug/L	2.5135	0.665	ug/L	2.5135	377.93%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	3.6	0.725	ug/L	0.3017	0.725	ug/L	0.3017	41.61%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	53.3	0.162	ug/L	0.0825	0.162	ug/L	0.0825	51.03%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-6.2	-0.186	ug/L	0.1484	-0.186	ug/L	0.1484	79.69%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	6.7	1.332	ug/L	0.7548	1.332	ug/L	0.7548	56.68%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-2.8	-0.030	ug/L	0.0155	-0.030	ug/L	0.0155	52.05%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	61.1	0.765	ug/L	0.1770	0.765	ug/L	0.1770	23.14%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	6037.2	0.437 ug/L	0.0080	0.437 ug/L	0.0080	1.83%

QC value within limits for Li 670.784 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 14
Sample ID: CCV2 150610RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 8
Date Collected: 06/10/15 4:34:32 PM
Data Type: Reprocessed on 06/11/15 10:12:38 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV2 150610RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	196121.5	97.81	%	0.599				0.61%
Y Radial	13615.4	102.1	%	1.27				1.24%
Ag 338.289†	29994.6	184.5	ug/L	0.27	184.5	ug/L	0.27	0.15%
QC value within limits for Ag 338.289 Recovery = 98.40%								
Al 308.215†	8974.4	7370	ug/L	105.92	7370	ug/L	105.92	1.44%
QC value within limits for Al 308.215 Recovery = 98.27%								
As 188.979†	1655.4	364.7	ug/L	4.16	364.7	ug/L	4.16	1.14%
QC value within limits for As 188.979 Recovery = 97.24%								
B 249.677†	11586.7	384.5	ug/L	4.93	384.5	ug/L	4.93	1.28%
QC value within limits for B 249.677 Recovery = 102.53%								
Ba 233.527†	138340.1	372.4	ug/L	0.58	372.4	ug/L	0.58	0.16%
QC value within limits for Ba 233.527 Recovery = 99.29%								
Be 313.107†	1196395.9	368.8	ug/L	0.50	368.8	ug/L	0.50	0.14%
QC value within limits for Be 313.107 Recovery = 98.35%								
Ca 315.887†	251311.6	18050	ug/L	107.06	18050	ug/L	107.06	0.59%
QC value within limits for Ca 315.887 Recovery = 96.28%								
Cd 214.440†	91297.1	372.3	ug/L	0.66	372.3	ug/L	0.66	0.18%
QC value within limits for Cd 214.440 Recovery = 99.27%								
Co 228.616†	33801.5	391.4	ug/L	3.62	391.4	ug/L	3.62	0.93%
QC value within limits for Co 228.616 Recovery = 104.39%								
Cr 267.716†	28339.8	365.4	ug/L	3.25	365.4	ug/L	3.25	0.89%
QC value within limits for Cr 267.716 Recovery = 97.45%								
Cu 327.393†	65887.9	372.0	ug/L	0.43	372.0	ug/L	0.43	0.12%
QC value within limits for Cu 327.393 Recovery = 99.21%								
Fe 273.955†	499163.1	7454	ug/L	13.08	7454	ug/L	13.08	0.18%
QC value within limits for Fe 273.955 Recovery = 99.38%								
K 766.490†	38685.8	7453	ug/L	63.25	7453	ug/L	63.25	0.85%
QC value within limits for K 766.490 Recovery = 99.38%								
Mg 285.213†	264960.5	18310	ug/L	102.05	18310	ug/L	102.05	0.56%
QC value within limits for Mg 285.213 Recovery = 97.64%								
Mn 257.610†	28340.0	369.9	ug/L	3.91	369.9	ug/L	3.91	1.06%
QC value within limits for Mn 257.610 Recovery = 98.63%								
Mo 202.031†	11322.3	366.3	ug/L	4.47	366.3	ug/L	4.47	1.22%
QC value within limits for Mo 202.031 Recovery = 97.67%								
Na 589.592†	48573.7	8737	ug/L	44.65	8737	ug/L	44.65	0.51%
QC value within limits for Na 589.592 Recovery = 93.20%								
Ni 231.604†	15925.2	370.5	ug/L	3.43	370.5	ug/L	3.43	0.93%
QC value within limits for Ni 231.604 Recovery = 98.81%								
P 213.617†	5209.0	1817	ug/L	20.29	1817	ug/L	20.29	1.12%
QC value within limits for P 213.617 Recovery = 96.92%								
Pb 220.353†	2085.9	378.2	ug/L	4.95	378.2	ug/L	4.95	1.31%
QC value within limits for Pb 220.353 Recovery = 100.86%								
Sb 206.836†	2379.1	367.9	ug/L	5.65	367.9	ug/L	5.65	1.54%
QC value within limits for Sb 206.836 Recovery = 98.11%								
Se 196.026†	992.2	369.3	ug/L	4.18	369.3	ug/L	4.18	1.13%
QC value within limits for Se 196.026 Recovery = 98.49%								
Sn 189.927†	1823.8	369.1	ug/L	2.79	369.1	ug/L	2.79	0.76%
QC value within limits for Sn 189.927 Recovery = 98.44%								
Sr 421.552†	114169.7	345.9	ug/L	1.62	345.9	ug/L	1.62	0.47%
QC value within limits for Sr 421.552 Recovery = 92.24%								
Ti 337.279†	12303.2	371.2	ug/L	3.81	371.2	ug/L	3.81	1.03%
QC value within limits for Ti 337.279 Recovery = 99.00%								
Tl 190.801†	1940.9	387.8	ug/L	3.14	387.8	ug/L	3.14	0.81%
QC value within limits for Tl 190.801 Recovery = 103.42%								
V 292.402†	35002.6	372.2	ug/L	0.59	372.2	ug/L	0.59	0.16%
QC value within limits for V 292.402 Recovery = 99.24%								
Zn 206.200†	30833.3	391.5	ug/L	3.53	391.5	ug/L	3.53	0.90%
QC value within limits for Zn 206.200 Recovery = 104.41%								

Li 670.784	2343832.1	169.7 ug/L	0.21	169.7 ug/L	0.21	0.13%

QC value within limits for Li 670.784 Recovery = 90.51%

All analyte(s) passed QC.

Sequence No.: 15
Sample ID: CCB 150610RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 06/10/15 4:44:17 PM
Data Type: Reprocessed on 06/11/15 10:12:39 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150610RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	200906.5	100.2	%	0.63				0.63%
Y Radial	13327.4	99.95	%	1.161				1.16%
Ag 338.289†	50.8	0.312	ug/L	0.4773	0.312	ug/L	0.4773	152.84%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	11.3	9.184	ug/L	2.5279	9.184	ug/L	2.5279	27.52%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	4.1	0.909	ug/L	0.8853	0.909	ug/L	0.8853	97.36%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	84.3	2.675	ug/L	0.0714	2.675	ug/L	0.0714	2.67%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	10.1	0.027	ug/L	0.0279	0.027	ug/L	0.0279	104.79%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	91.0	0.028	ug/L	0.0118	0.028	ug/L	0.0118	42.07%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	46.2	3.322	ug/L	0.1383	3.322	ug/L	0.1383	4.16%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	-26.6	-0.108	ug/L	0.0367	-0.108	ug/L	0.0367	34.02%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	5.9	0.070	ug/L	0.0182	0.070	ug/L	0.0182	26.12%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-0.4	-0.005	ug/L	0.1214	-0.005	ug/L	0.1214	>999.9%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	598.7	3.379	ug/L	0.2889	3.379	ug/L	0.2889	8.55%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	74.2	1.122	ug/L	0.3740	1.122	ug/L	0.3740	33.34%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	4.5	0.901	ug/L	3.6930	0.901	ug/L	3.6930	409.88%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	30.7	2.123	ug/L	1.1458	2.123	ug/L	1.1458	53.98%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	16.2	0.211	ug/L	0.0698	0.211	ug/L	0.0698	33.00%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	18.7	0.605	ug/L	0.2442	0.605	ug/L	0.2442	40.33%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-187.9	-33.84	ug/L	5.792	-33.84	ug/L	5.792	17.11%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	6.7	0.155	ug/L	0.1283	0.155	ug/L	0.1283	82.66%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	0.4	0.123	ug/L	0.5538	0.123	ug/L	0.5538	449.44%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	5.6	1.009	ug/L	0.2816	1.009	ug/L	0.2816	27.92%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	32.3	4.996	ug/L	0.5410	4.996	ug/L	0.5410	10.83%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	4.6	1.712	ug/L	0.2599	1.712	ug/L	0.2599	15.18%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	3.5	0.706	ug/L	0.2927	0.706	ug/L	0.2927	41.44%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	13.8	0.042	ug/L	0.0544	0.042	ug/L	0.0544	130.27%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	5.0	0.151	ug/L	0.0118	0.151	ug/L	0.0118	7.85%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	8.4	1.672	ug/L	0.7104	1.672	ug/L	0.7104	42.49%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-11.4	-0.121	ug/L	0.0622	-0.121	ug/L	0.0622	51.46%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	121.4	1.521	ug/L	0.1252	1.521	ug/L	0.1252	8.23%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	5589.4	0.405 ug/L	0.0074	0.405 ug/L	0.0074	1.84%

QC value within limits for Li 670.784 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 20
Sample ID: CCV1 150610RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 06/10/15 5:17:51 PM
Data Type: Reprocessed on 06/11/15 10:12:45 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV1 150610RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	191091.8	95.30	%	0.933				0.98%
Y Radial	13452.4	100.9	%	0.34				0.33%
Ag 338.289†	40608.5	249.8	ug/L	2.03	249.8	ug/L	2.03	0.81%
QC value within limits for Ag 338.289 Recovery = 99.91%								
Al 308.215†	12074.4	9916	ug/L	32.74	9916	ug/L	32.74	0.33%
QC value within limits for Al 308.215 Recovery = 99.16%								
As 188.979†	2247.5	495.1	ug/L	6.50	495.1	ug/L	6.50	1.31%
QC value within limits for As 188.979 Recovery = 99.02%								
B 249.677†	15201.0	505.1	ug/L	3.09	505.1	ug/L	3.09	0.61%
QC value within limits for B 249.677 Recovery = 101.02%								
Ba 233.527†	186860.7	503.0	ug/L	2.96	503.0	ug/L	2.96	0.59%
QC value within limits for Ba 233.527 Recovery = 100.59%								
Be 313.107†	1635844.6	504.3	ug/L	3.24	504.3	ug/L	3.24	0.64%
QC value within limits for Be 313.107 Recovery = 100.86%								
Ca 315.887†	336049.2	24140	ug/L	66.75	24140	ug/L	66.75	0.28%
QC value within limits for Ca 315.887 Recovery = 96.56%								
Cd 214.440†	122318.0	498.8	ug/L	3.16	498.8	ug/L	3.16	0.63%
QC value within limits for Cd 214.440 Recovery = 99.75%								
Co 228.616†	43638.4	505.4	ug/L	3.16	505.4	ug/L	3.16	0.62%
QC value within limits for Co 228.616 Recovery = 101.08%								
Cr 267.716†	38877.4	501.3	ug/L	5.25	501.3	ug/L	5.25	1.05%
QC value within limits for Cr 267.716 Recovery = 100.26%								
Cu 327.393†	89064.2	502.9	ug/L	2.57	502.9	ug/L	2.57	0.51%
QC value within limits for Cu 327.393 Recovery = 100.58%								
Fe 273.955†	672449.2	10040	ug/L	61.66	10040	ug/L	61.66	0.61%
QC value within limits for Fe 273.955 Recovery = 100.41%								
K 766.490†	50942.7	9814	ug/L	9.28	9814	ug/L	9.28	0.09%
QC value within limits for K 766.490 Recovery = 98.14%								
Mg 285.213†	364527.0	25190	ug/L	52.89	25190	ug/L	52.89	0.21%
QC value within limits for Mg 285.213 Recovery = 100.75%								
Mn 257.610†	37666.1	491.6	ug/L	1.35	491.6	ug/L	1.35	0.27%
QC value within limits for Mn 257.610 Recovery = 98.31%								
Mo 202.031†	15490.9	501.1	ug/L	5.60	501.1	ug/L	5.60	1.12%
QC value within limits for Mo 202.031 Recovery = 100.23%								
Na 589.592†	69053.1	12420	ug/L	8.75	12420	ug/L	8.75	0.07%
QC value within limits for Na 589.592 Recovery = 99.37%								
Ni 231.604†	21729.6	505.6	ug/L	4.87	505.6	ug/L	4.87	0.96%
QC value within limits for Ni 231.604 Recovery = 101.12%								
P 213.617†	7161.2	2498	ug/L	25.86	2498	ug/L	25.86	1.03%
QC value within limits for P 213.617 Recovery = 99.94%								
Pb 220.353†	2886.6	523.4	ug/L	7.47	523.4	ug/L	7.47	1.43%
QC value within limits for Pb 220.353 Recovery = 104.68%								
Sb 206.836†	3308.9	511.7	ug/L	7.97	511.7	ug/L	7.97	1.56%
QC value within limits for Sb 206.836 Recovery = 102.34%								
Se 196.026†	1348.8	502.0	ug/L	7.80	502.0	ug/L	7.80	1.55%
QC value within limits for Se 196.026 Recovery = 100.41%								
Sn 189.927†	2484.1	502.8	ug/L	6.21	502.8	ug/L	6.21	1.23%
QC value within limits for Sn 189.927 Recovery = 100.56%								
Sr 421.552†	160039.2	484.9	ug/L	1.63	484.9	ug/L	1.63	0.34%
QC value within limits for Sr 421.552 Recovery = 96.99%								
Ti 337.279†	16486.0	497.5	ug/L	0.12	497.5	ug/L	0.12	0.02%
QC value within limits for Ti 337.279 Recovery = 99.49%								
Tl 190.801†	2701.5	539.8	ug/L	3.89	539.8	ug/L	3.89	0.72%
QC value within limits for Tl 190.801 Recovery = 107.96%								
V 292.402†	47786.7	508.1	ug/L	3.22	508.1	ug/L	3.22	0.63%
QC value within limits for V 292.402 Recovery = 101.62%								
Zn 206.200†	39274.3	499.2	ug/L	3.80	499.2	ug/L	3.80	0.76%
QC value within limits for Zn 206.200 Recovery = 99.84%								

Li 670.784	3315279.1	240.0 ug/L	1.06	240.0 ug/L	1.06	0.44%

QC value within limits for Li 670.784 Recovery = 96.02%

All analyte(s) passed QC.

Sequence No.: 21
Sample ID: CCB 150610RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 06/10/15 5:28:16 PM
Data Type: Reprocessed on 06/11/15 10:12:46 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150610RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	200503.8	100.00	%	0.596				0.60%
Y Radial	13440.1	100.8	%	0.39				0.39%
Ag 338.289†	62.4	0.384	ug/L	0.3759	0.384	ug/L	0.3759	97.99%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	0.7	0.604	ug/L	8.3633	0.604	ug/L	8.3633	>999.9%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	3.4	0.760	ug/L	0.8871	0.760	ug/L	0.8871	116.71%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	41.1	1.315	ug/L	0.1467	1.315	ug/L	0.1467	11.15%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-10.2	-0.028	ug/L	0.0334	-0.028	ug/L	0.0334	120.22%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	141.0	0.043	ug/L	0.0067	0.043	ug/L	0.0067	15.30%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	-29.7	-2.128	ug/L	1.2262	-2.128	ug/L	1.2262	57.63%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	0.4	0.001	ug/L	0.0631	0.001	ug/L	0.0631	>999.9%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	-1.2	-0.013	ug/L	0.0919	-0.013	ug/L	0.0919	705.34%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	2.3	0.031	ug/L	0.1070	0.031	ug/L	0.1070	349.84%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	369.2	2.084	ug/L	0.1265	2.084	ug/L	0.1265	6.07%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	277.9	4.173	ug/L	0.2086	4.173	ug/L	0.2086	5.00%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	-46.1	-8.873	ug/L	8.4945	-8.873	ug/L	8.4945	95.74%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	10.6	0.738	ug/L	0.0886	0.738	ug/L	0.0886	12.02%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	-93.4	-1.221	ug/L	0.0920	-1.221	ug/L	0.0920	7.54%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	5.5	0.179	ug/L	0.3397	0.179	ug/L	0.3397	190.11%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-265.4	-47.78	ug/L	8.823	-47.78	ug/L	8.823	18.47%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	5.2	0.121	ug/L	0.1510	0.121	ug/L	0.1510	124.94%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	2.7	0.931	ug/L	1.3513	0.931	ug/L	1.3513	145.10%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	2.0	0.353	ug/L	0.8777	0.353	ug/L	0.8777	248.58%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	9.5	1.473	ug/L	0.6283	1.473	ug/L	0.6283	42.64%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	0.9	0.319	ug/L	0.4400	0.319	ug/L	0.4400	137.94%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	4.3	0.875	ug/L	0.5090	0.875	ug/L	0.5090	58.16%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	13.5	0.041	ug/L	0.0391	0.041	ug/L	0.0391	95.23%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-1.0	-0.030	ug/L	0.3817	-0.030	ug/L	0.3817	>999.9%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	3.9	0.774	ug/L	0.9885	0.774	ug/L	0.9885	127.79%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-8.2	-0.087	ug/L	0.0284	-0.087	ug/L	0.0284	32.47%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-33.4	-0.419	ug/L	0.0519	-0.419	ug/L	0.0519	12.40%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	5864.1	0.425 ug/L	0.0008	0.425 ug/L	0.0008	0.19%

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-150526A-AZ16235
6010C	BORON (B)	40.00 U	50.0	40.00	29.40	ug/L	05/26/15	06/04/15	#61CJU-150526A-AZ16235
6010C	LITHIUM (LI)	0.80 U	1.0	0.80	0.40	ug/L	05/26/15	06/04/15	#61CJU-150526A-AZ16235
6010C	ZINC (ZN)	20.00 U	150.0	20.00	13.70	ug/L	05/26/15	06/04/15	#61CJU-150526A-AZ16235
6010C	ALUMINUM (AL) (DI	80.00 U	300.0	80.00	27.40	ug/L	05/26/15	06/04/15	#61CJU-150526A1-AZ16235
6010C	BORON (B) (DISSOL	40.00 U	50.0	40.00	29.40	ug/L	05/26/15	06/04/15	#61CJU-150526A1-AZ16235
6010C	LITHIUM (LI) (DISSO	0.80 U	1.0	0.80	0.40	ug/L	05/26/15	06/04/15	#61CJU-150526A1-AZ16235
6010C	ZINC (ZN) (DISSOLV	20.00 U	150.0	20.00	13.70	ug/L	05/26/15	06/04/15	#61CJU-150526A1-AZ16235

Metals SC-Blank-REG MDLs
Printed: 06/17/15 11:06:11 AM

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	Conc.	Calib. Units	Std.Dev.	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%

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	Conc.	Calib. Units	Std.Dev.	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%

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-150526A1-AZ16235
EPA 6010C	BORON (B) (DISSOLVED)	250	239	95.6	80-120	05/26/15	06/04/15	#61CJU-150526A1-AZ16235
EPA 6010C	LITHIUM (LI) (DISSOLVED)	100.0	92.7	92.7	80-120	05/26/15	06/04/15	#61CJU-150526A1-AZ16235
EPA 6010C	ZINC (ZN) (DISSOLVED)	500	468	93.6	80-120	05/26/15	06/04/15	#61CJU-150526A1-AZ16235
EPA 6010C	ALUMINUM (AL)	2000	2020	101	80-120	05/26/15	06/04/15	#61CJU-150526A-AZ16235
EPA 6010C	BORON (B)	250	246	98.4	80-120	05/26/15	06/04/15	#61CJU-150526A-AZ16235
EPA 6010C	LITHIUM (LI)	100.0	94.5	94.5	80-120	05/26/15	06/04/15	#61CJU-150526A-AZ16235
EPA 6010C	ZINC (ZN)	500	480	96.0	80-120	05/26/15	06/04/15	#61CJU-150526A-AZ16235

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	Conc.	Calib. Units	Std.Dev.	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	06/10/15	1mL	Al	CPI	14D237-33868	01/15/16
20 mL	HNO3	JT BAKER	0000067379	06/10/15	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	06/10/15	1mL	Al	CPI	14D237-33868	01/15/16
20 mL	HNO3	JT BAKER	0000067379	06/10/15	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				

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

_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	1703
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

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		150610A6010	1.
2	04 Jun 2015	15:43	STD 1 150604RJS I:JL O:RJ		150610A6010	1.
3	04 Jun 2015	15:48	STD 2 150604RJS I:JL O:RJ		150610A6010	1.
4	04 Jun 2015	15:52	STD 3 150604RJS I:JL O:RJ		150610A6010	1.
5	04 Jun 2015	16:00	ICV 150604RJS I:JL O:RJS		150610A6010	1.
6	04 Jun 2015	16:14	ICB 150604RJS I:JL O:RJS		150610A6010	1.
8	04 Jun 2015	16:27	ICSA 150604RJS I:JL O:RJS		150610A6010	1.
9	04 Jun 2015	16:39	ICSAB 150604RJS I:JL O:RJ		150610A6010	1.
10	04 Jun 2015	16:49	CCV1 150604RJS I:JL O:RJS		150610A6010	1.
11	04 Jun 2015	16:54	CCB 150604RJS I:JL O:RJS		150610A6010	1.
12	04 Jun 2015	17:00	150526A-3010-BLK		150610A6010	1.
13	04 Jun 2015	17:07	150526A-3010-LCS		150610A6010	1.
14	04 Jun 2015	17:12	150526A-3010F-BLK		150610A6010	1.
15	04 Jun 2015	17:19	150526A-3010F-LCS		150610A6010	1.
18	04 Jun 2015	17:37	CCV2 150604RJS I:JL O:RJS		150610A6010	1.
19	04 Jun 2015	17:57	CCB 150604RJS I:JL O:RJS		150610A6010	1.

6010 Injection Log

Directory: K:\ICAP JULES\Backup Excel\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
47	10 Jun 2015	14:54	CalBlk 150610RJS I:JL O:R		150610A6010	1.
48	10 Jun 2015	15:00	STD 1 150610RJS I:JL O:RJ		150610A6010	1.
49	10 Jun 2015	15:06	STD 2 150610RJS I:JL O:RJ		150610A6010	1.
50	10 Jun 2015	15:12	STD 3 150610RJS I:JL O:RJ		150610A6010	1.
51	10 Jun 2015	15:30	ICV 150610RJS I:JL O:RJS		150610A6010	1.
52	10 Jun 2015	15:41	ICB 150610RJS I:JL O:RJS		150610A6010	1.
53	10 Jun 2015	15:47	ICSA 150610RJS I:JL O:RJS		150610A6010	1.
54	10 Jun 2015	15:54	ICSAB 150610RJS I:JL O:RJ		150610A6010	1.
55	10 Jun 2015	16:02	CCV1 150610RJS I:JL O:RJS		150610A6010	1.
56	10 Jun 2015	16:08	CCB 150610RJS I:JL O:RJS		150610A6010	1.
60	10 Jun 2015	16:34	CCV2 150610RJS I:JL O:RJS		150610A6010	1.
61	10 Jun 2015	16:44	CCB 150610RJS I:JL O:RJS		150610A6010	1.
62	10 Jun 2015	16:50	AZ16235W12		150610A6010	1.
63	10 Jun 2015	16:58	AZ16236W12		150610A6010	1.
64	10 Jun 2015	17:04	AZ16235W11 F		150610A6010	1.
65	10 Jun 2015	17:12	AZ16236W11 F		150610A6010	1.
66	10 Jun 2015	17:17	CCV1 150610RJS I:JL O:RJS		150610A6010	1.
67	10 Jun 2015	17:28	CCB 150610RJS I:JL O:RJS		150610A6010	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
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	05/13/15	05/13/15	#300W-150513A-AZ16235
EPA 300.0	NITRATE	0.18 U	0.5	0.18	0.04	mg/L	05/13/15	05/13/15	#300W-150513A-AZ16235
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	05/13/15	05/13/15	#300W-150513A-AZ16235
EPA 300.0	SULFATE	1.1	1.0	0.20	0.09	mg/L	05/13/15	05/13/15	#300W-150513A-AZ16235
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

Wetlab SC-Blank-REG MDLs
Printed: 06/05/15 12:05:51 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	18.6	93.0	90-110	05/13/15	05/13/15	#300W-150513A-AZ16235
EPA 300.0	NITRATE	22.1	22.0	99.5	90-110	05/13/15	05/13/15	#300W-150513A-AZ16235
EPA 300.0	NITRITE	9.98	9.47	94.9	90-110	05/13/15	05/13/15	#300W-150513A-AZ16235
EPA 300.0	SULFATE	20.0	19.1	95.5	90-110	05/13/15	05/13/15	#300W-150513A-AZ16235
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: 76401
Matrix: WATER
Blank ID: 150513A-BLK

SDG No: 76401
Date Analyzed: 05/13/15
Instrument: Dionex
Time Analyzed: 0850

APPL ID.	Client Sample No.	File ID.	Date Analyzed
AZ16235	S67-MW012-051115	23	05/13/15 1323
AZ16236	S67-MW011-051115	24	05/13/15 1334
150513A-BLK	Blank	5	05/13/15 0850
150513A-LCS	Lab Control Spike	6	05/13/15 0900

Comments: Batch: #300W-150513A

SW846 9060

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76401
Matrix: WATER
Blank ID: 150519A-BLK

SDG No: 76401
Date Analyzed: 05/19/15
Instrument: Tekmar
Time Analyzed: 1212

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150519A-BLK	Blank	2	05/19/15 1212
150519A-LCS	Lab Control Spike	3	05/19/15 1244
AZ16235	S67-MW012-051115	6	05/19/15 1413
AZ16236	S67-MW011-051115	7	05/19/15 1442

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-MW012-051115

Sample Collection Date: 05/11/15

APPL ID: AZ16235

ARF: 76401

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	83.1	2.0	0.40	0.16	mg/L	2	05/13/15	05/13/15
EPA 300.0	NITRATE	1.7	1.0	0.36	0.08	mg/L	2	05/13/15	05/13/15
EPA 300.0	NITRITE	0.26 U	0.6	0.26	0.06	mg/L	2	05/13/15	05/13/15
EPA 300.0	SULFATE	37.6	2.0	0.40	0.18	mg/L	2	05/13/15	05/13/15
SW846 9060	TOTAL ORGANIC CARBON	0.26 J	0.5	0.35	0.13	mg/L	1	05/19/15	05/19/15

J = Estimated value.

Printed: 06/05/15 12:05:47 PM

APPL-F1-SC-NoMC-REG MDLs

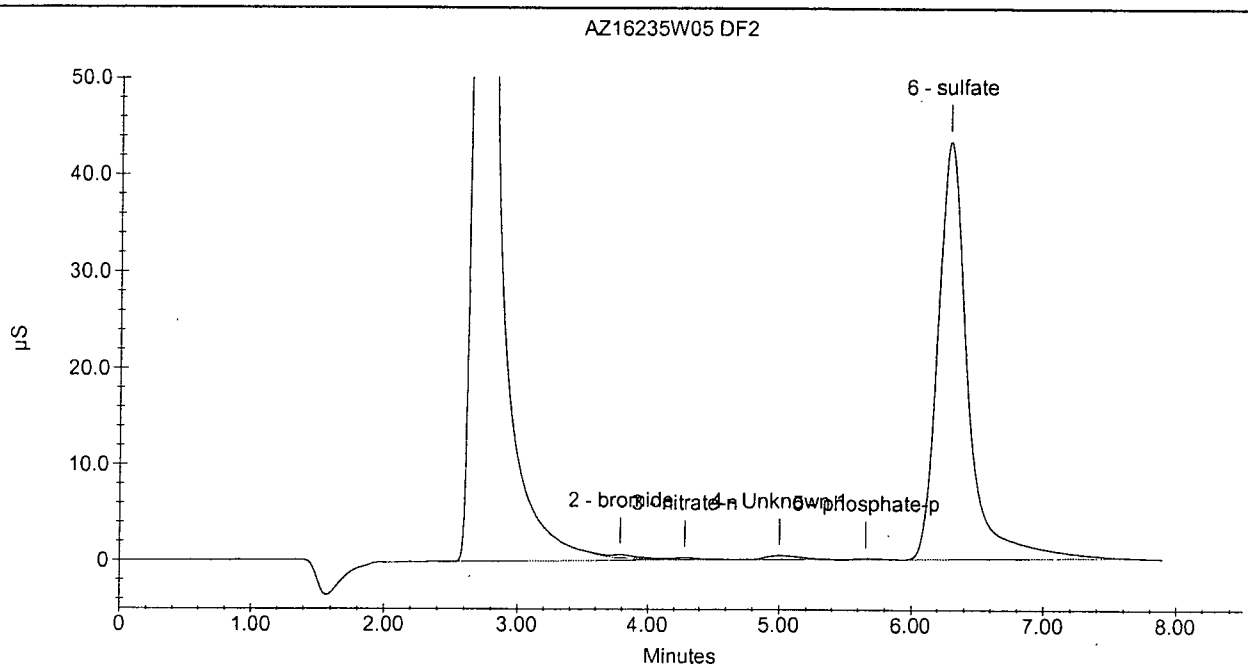
Sample Analysis Report

Sample Name : AZ16235W05 DF2
Data File Name : I:\DIONEX\D1ANIONS\DATA\150513A\150513a_023.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150505a.met
Date Time Collected : 5/13/15 13:23:28
System Operator : jm
Injection Number : 23
Multiplier : 2.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	2.71	chloride	83.1482	22826417	2785348
2	3.79	bromide	0.9206	53823	3618
3	4.28	nitrate-n	0.3879	29481	2195
4	5.00	Unknown 1	0.0000	78138	4241
5	5.65	phosphate-p	-0.3113	19380	1388
6	6.28	sulfate	37.5668	6853305	431777



APPL, Inc.

Current Date : 5/13/15
Current Time : 13:33:59

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-MW011-051115

Sample Collection Date: 05/11/15

APPL ID: AZ16236

ARF: 76401

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	17.2	2.0	0.40	0.16	mg/L	2	05/13/15	05/13/15
EPA 300.0	NITRATE	2.9	1.0	0.36	0.08	mg/L	2	05/13/15	05/13/15
EPA 300.0	NITRITE	0.26 U	0.6	0.26	0.06	mg/L	2	05/13/15	05/13/15
EPA 300.0	SULFATE	94.0	2.0	0.40	0.18	mg/L	2	05/13/15	05/13/15
SW846 9060	TOTAL ORGANIC CARBON	0.49 J	0.5	0.35	0.13	mg/L	1	05/19/15	05/19/15

J = Estimated value.

Printed: 06/05/15 12:05:47 PM

APPL-F1-SC-NoMC-REG MDLs

Sample Analysis Report

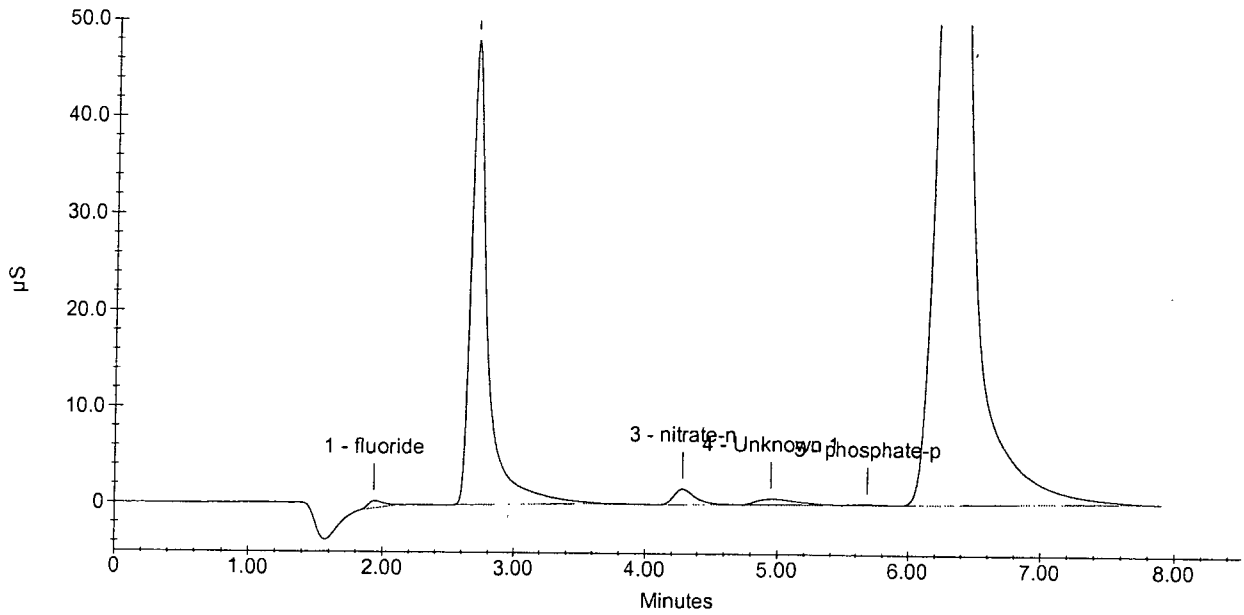
Sample Name : AZ16236W05 DF2
Data File Name : I:\DIONEX\D1ANIONS\DATA\150513A\150513a_024.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150505a.met
Date Time Collected : 5/13/15 13:34:04
System Operator : jm
Injection Number : 24
Multiplier : 2.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.93	fluoride	0.2448	57881	7460
2	2.69	chloride	17.2458	4244769	480034
3	4.28	nitrate-n	0.6443	201196	16305
4	4.95	Unknown 1	0.0000	123495	5960
5	5.68	phosphate-p	-0.3174	18032	1153
6	6.29	sulfate	93.9995	17721389	1141726

AZ16236W05 DF2

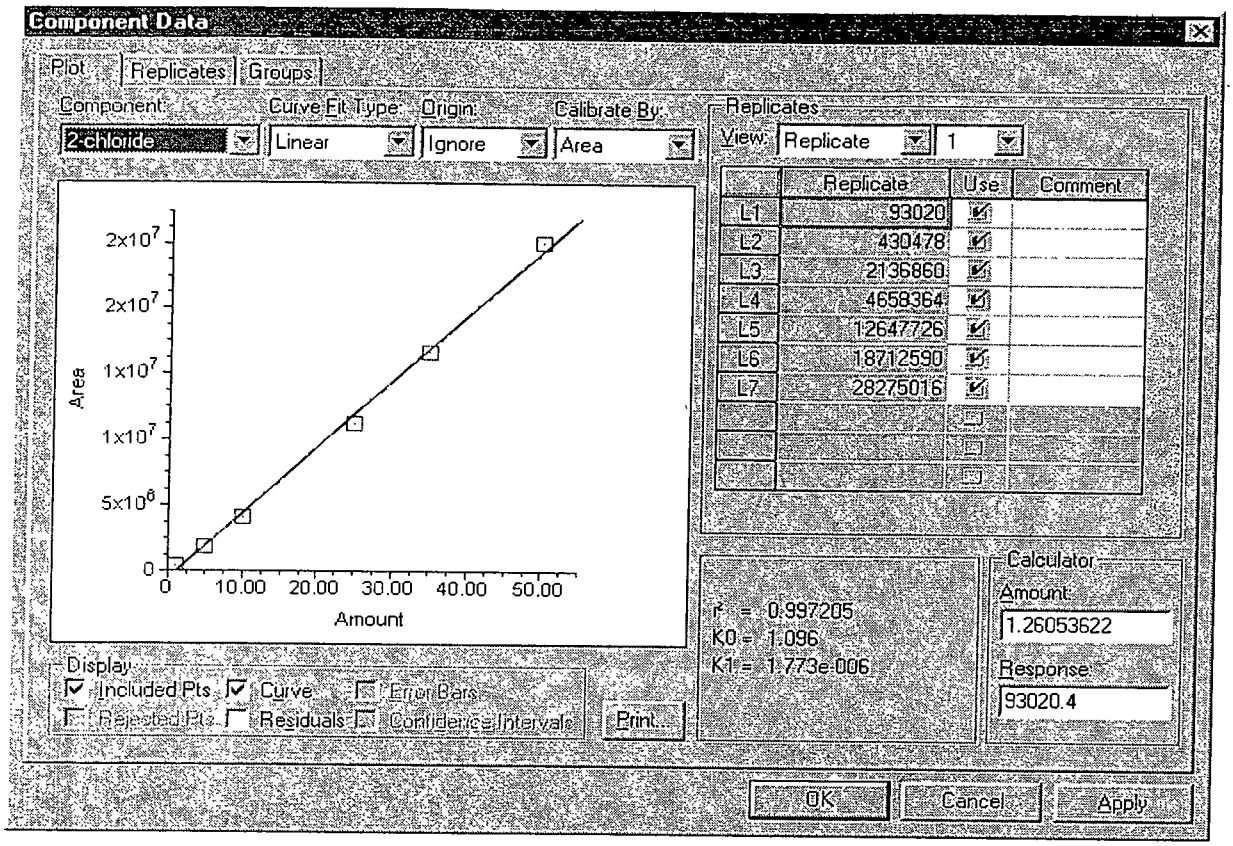


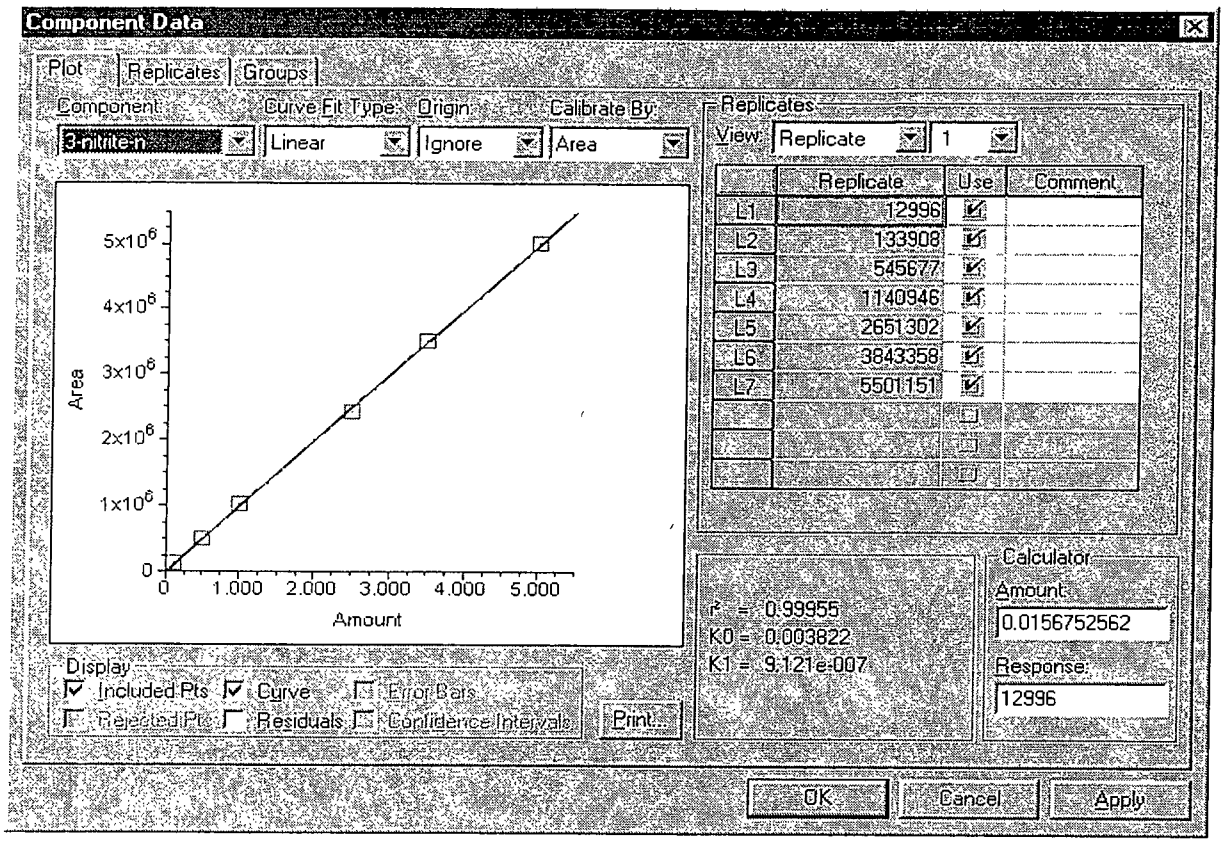
APPL, Inc.

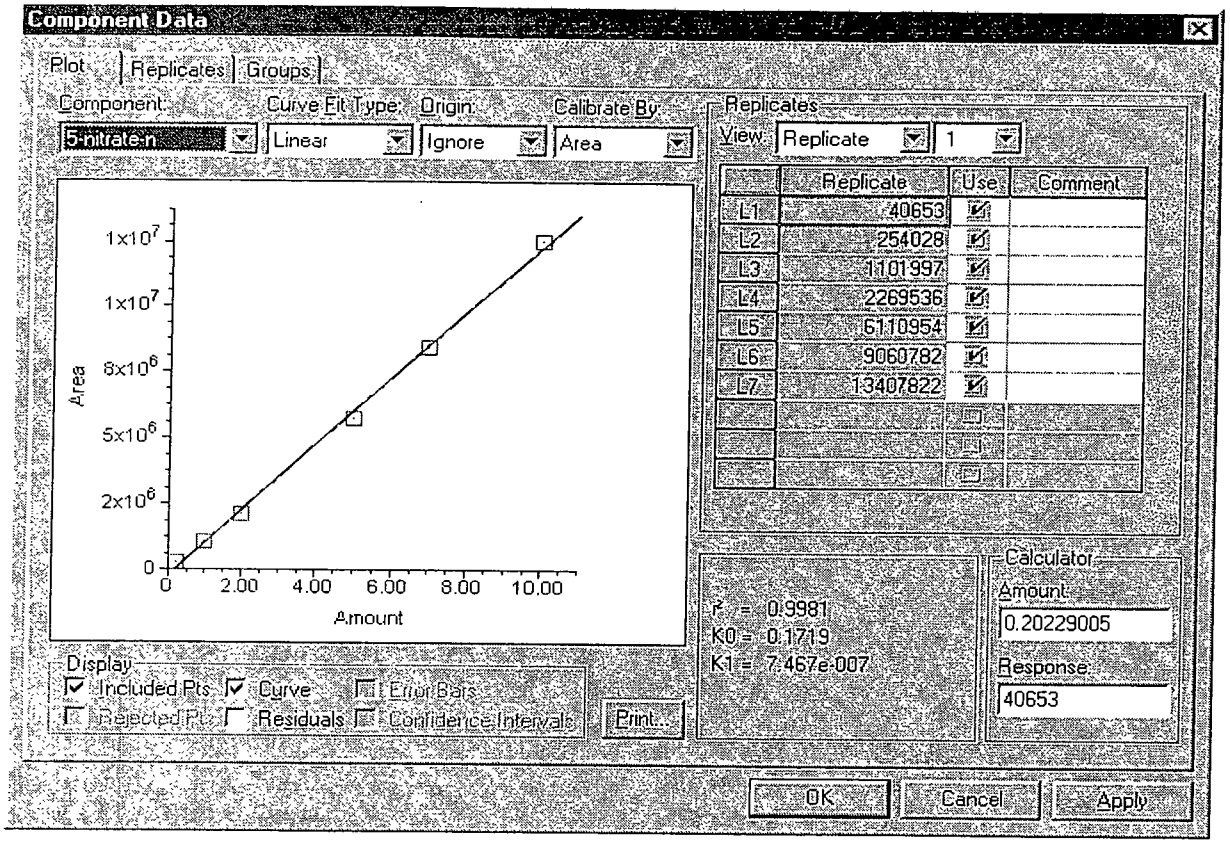
Current Date : 5/13/15
Current Time : 13:44:36

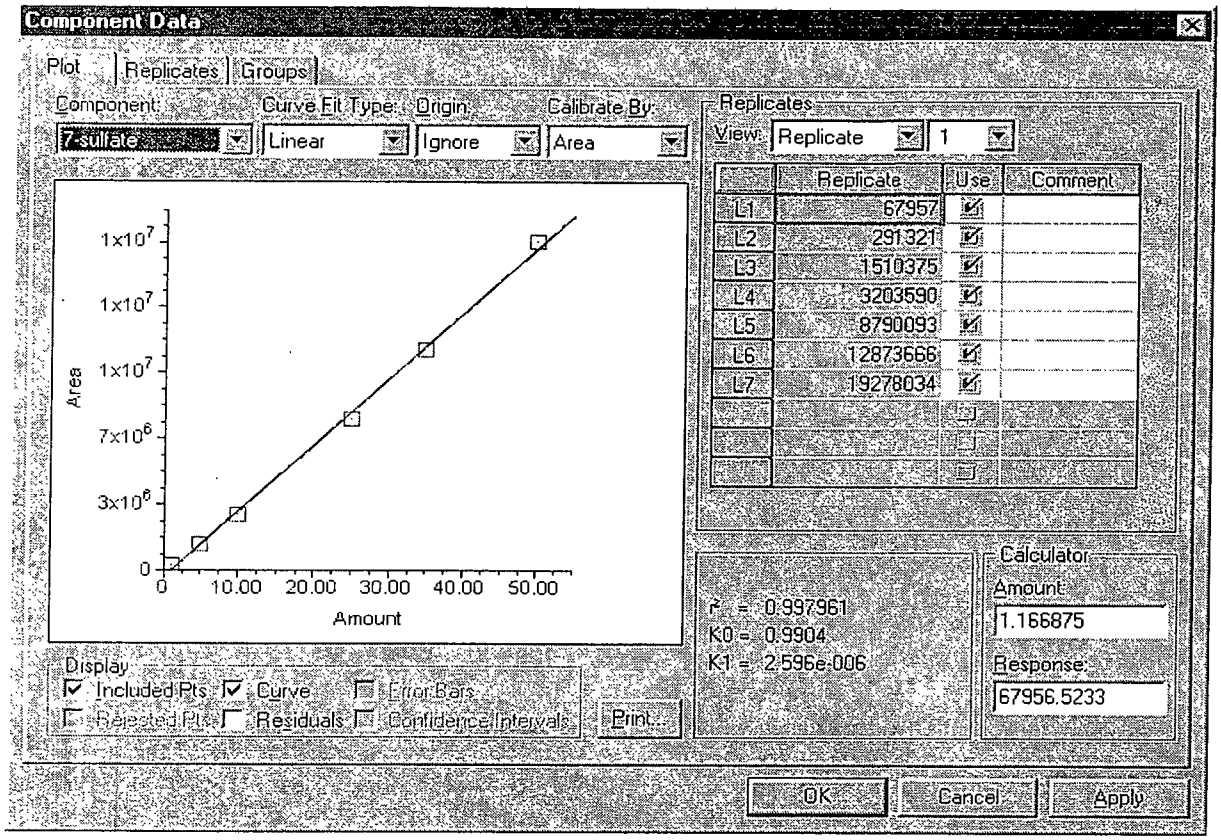
INORGANIC ANALYSIS
Calibration Data

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
r = 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-nitrite-n
Linear
Ignore
Area
Area
Amount
5x10^6
4x10^6
3x10^6
2x10^6
1x10^6
0
0
1.000
2.000
3.000
4.000
5.000
Replicates
View
Replicate
1
Replicate
Use
Comment
L1 12996
L2 133908
L3 545677
L4 1140946
L5 2651302
L6 3843358
L7 5501151
r = 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
Replicates
View:
Replicate
1
Replicate
Use
Comment
L1 40653
L2 254028
L3 1101997
L4 2269536
L5 6110954
L6 9060782
L7 13407822
1x10^7
1x10^7
8x10^6
5x10^6
2x10^6
0
Area
0
2.00
4.00
6.00
8.00
10.00
Amount
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
1x10^7
1x10^7
1x10^7
7x10^6
3x10^6
0
0
10.00
20.00
30.00
40.00
50.00
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

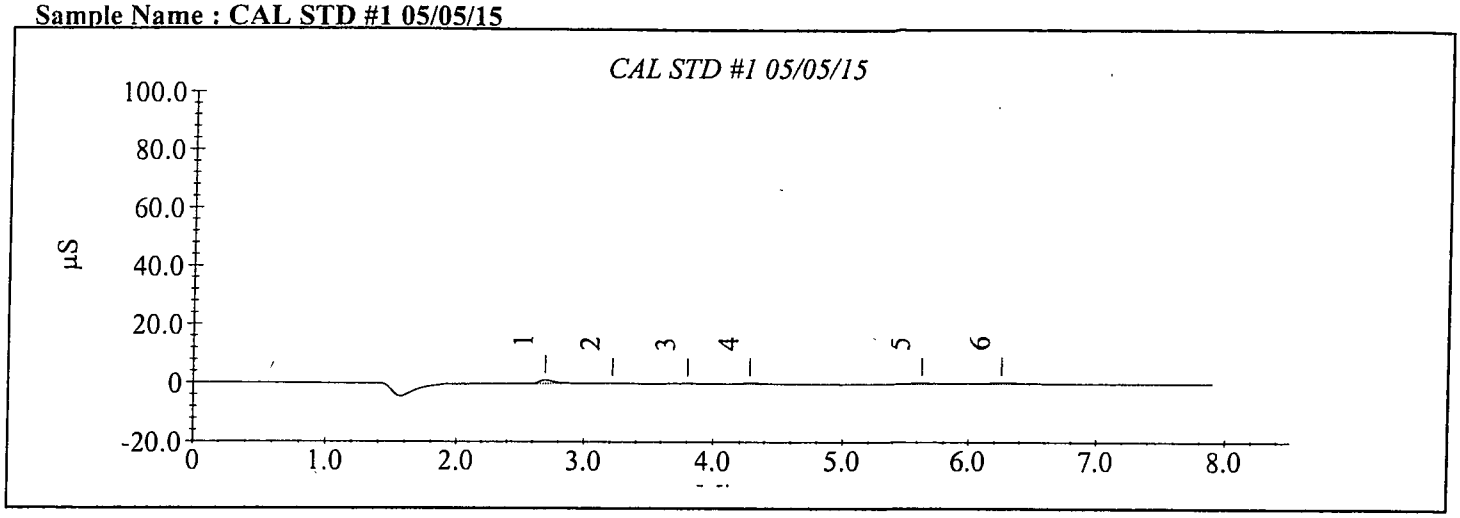
Peak Information : All Components

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

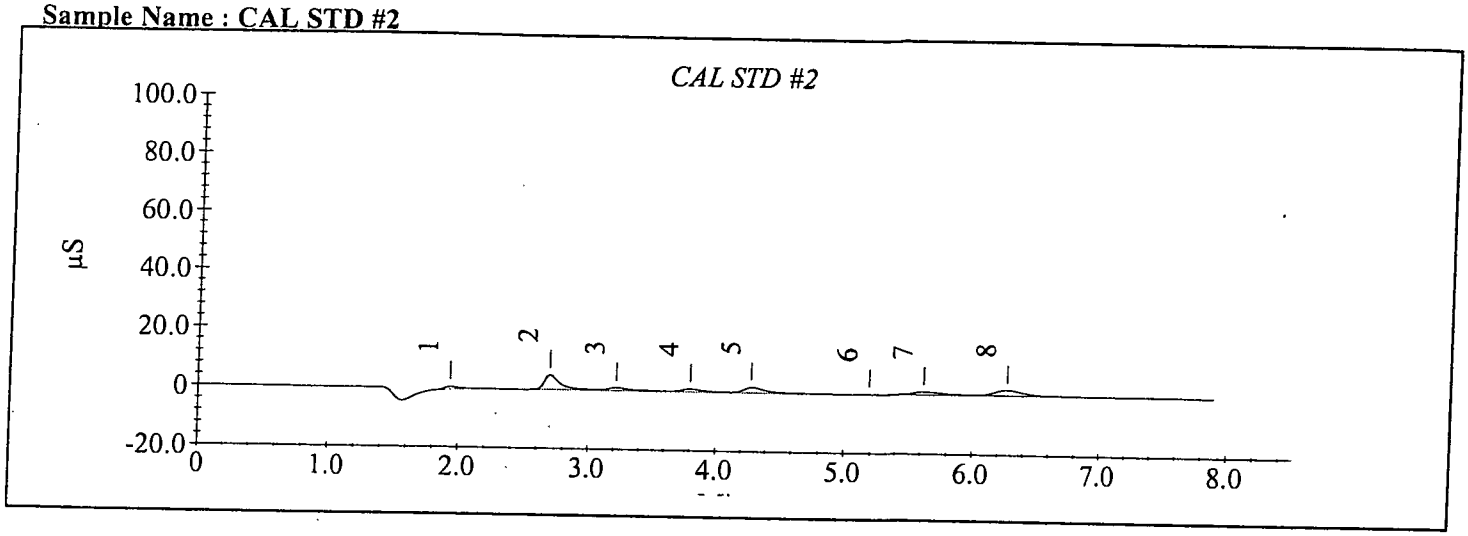
Peak Information : All Components

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

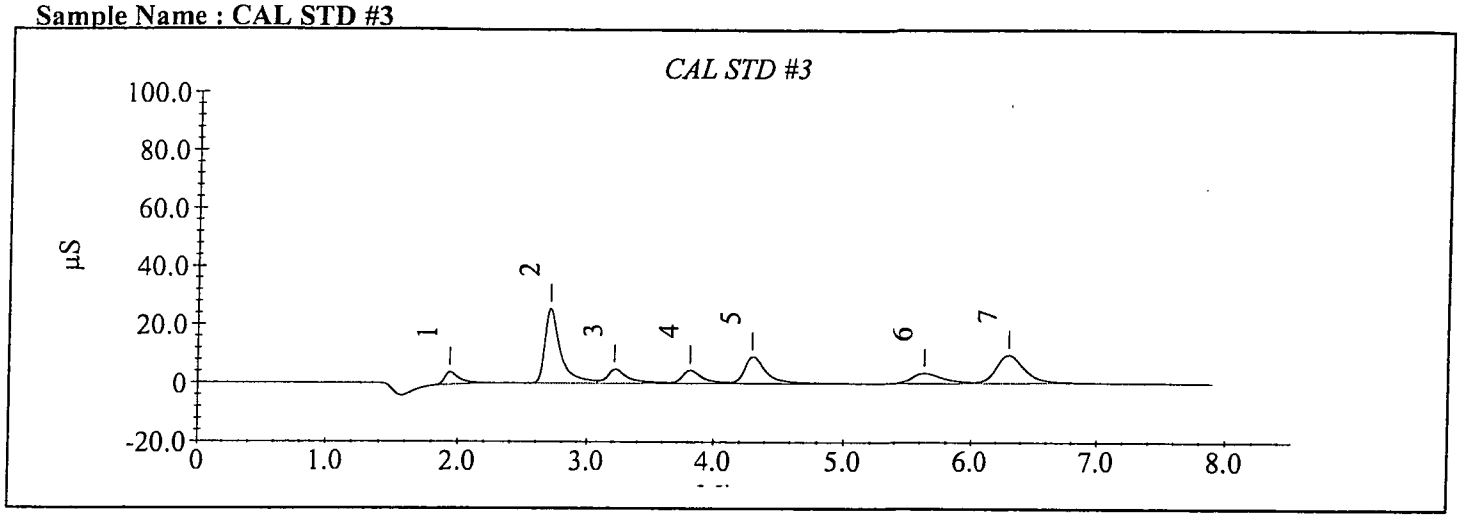
Peak Information : All Components

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

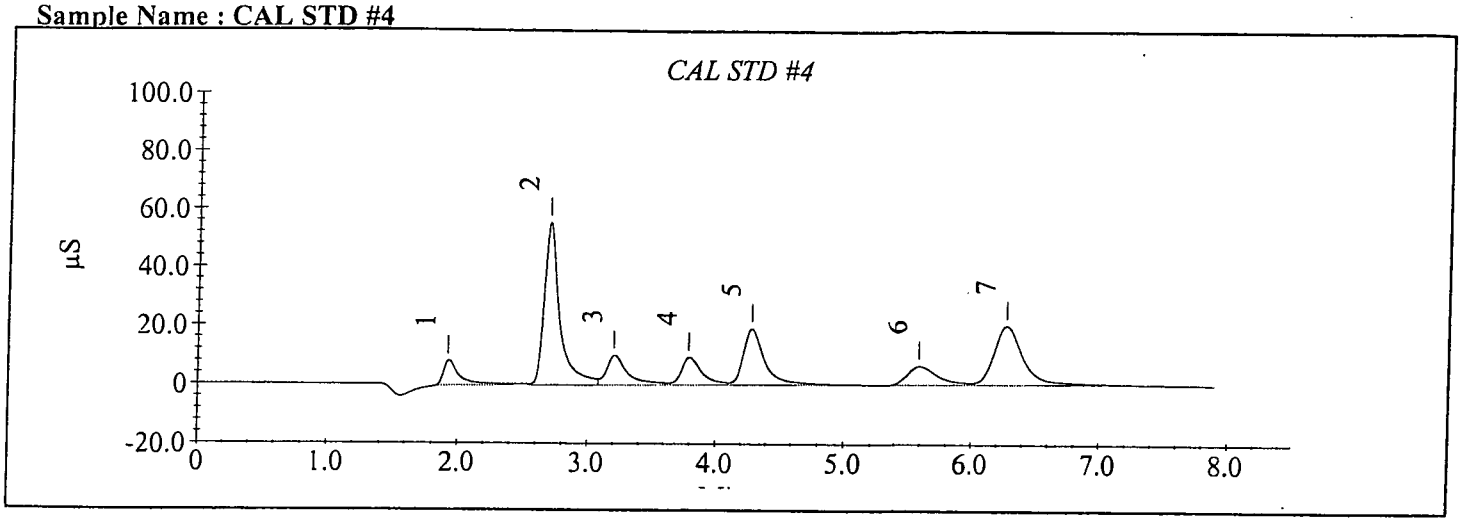
Peak Information : All Components

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

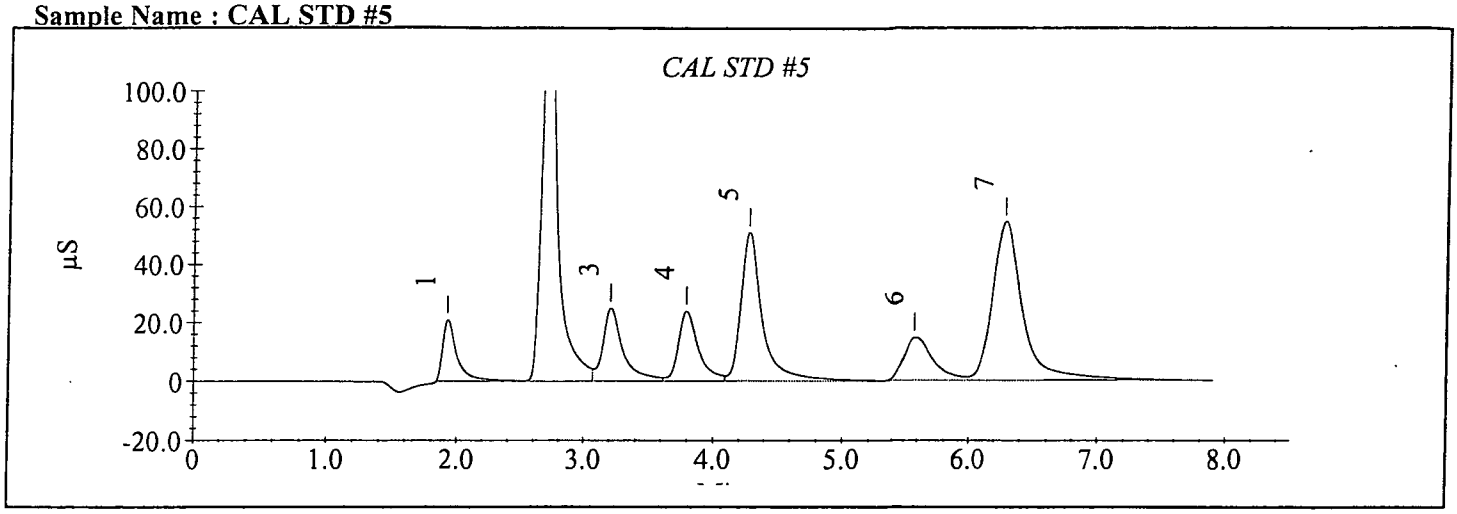
Peak Information : All Components

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	

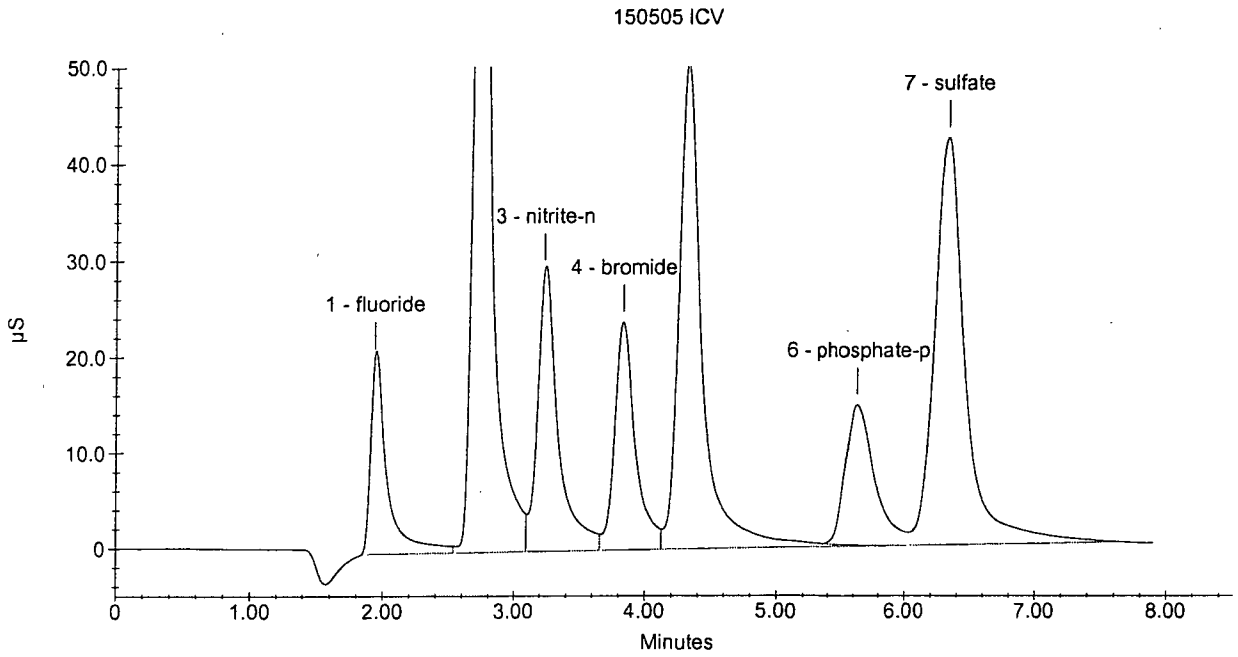
Sample Analysis Report

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



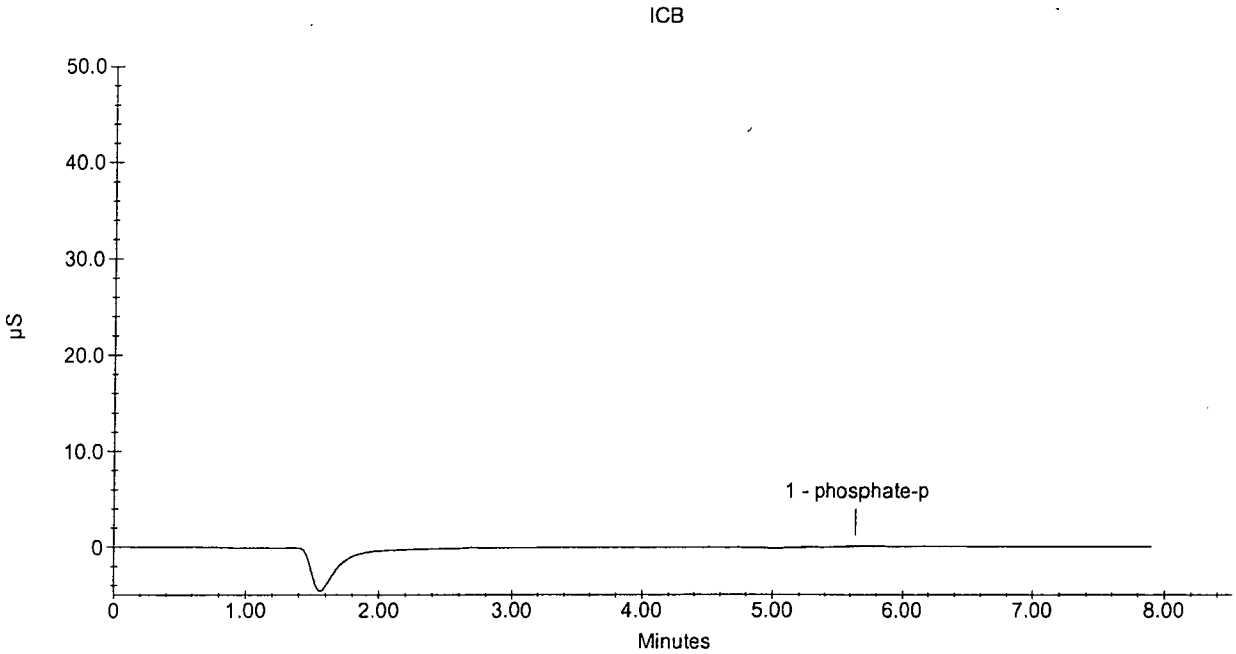
Sample Analysis Report

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: 76401 SDG: 76401
Initial Calibration Source: o2si
Continuing Calibration Source: o2si
Analysis Date: 05/13/15

Analyte	Calibration Verification									M
	True CCV1	Found 8:35	%R(1) -	True CCV1	Found 12:09	%R(1)	True CCV1	Found 14:16	%R(1)	
chloride	25	23.8581	95.4	25	23.9931	96.0	25	24.0603	96.2	
Nitrate(NO3)	22.1	21.2360	96.1	22.1	21.8621	98.9	22.1	21.5243	97.4	
Nitrite(NO2)	8.211	8.36312	102	8.211	8.37733	102	8.211	8.20792	100	
sulfate	25	23.7264	94.9	25	24.2779	97.1	25	23.8955	95.6	

(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.: 76401 SDG: 76401

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	CCB 05/13/15 08:50	C	CCB 05/13/15 12:19	C	CCB 05/13/15 14:27	C		C		C	
chloride	1.000	U	1.000	U	1.000	U					
Nitrate(NO3)	.500	U	.500	U	.500	U					
Nitrite(NO2)	.300	U	.300	U	.300	U					
sulfate	1.130	*	1.000	U	1.000	U					*

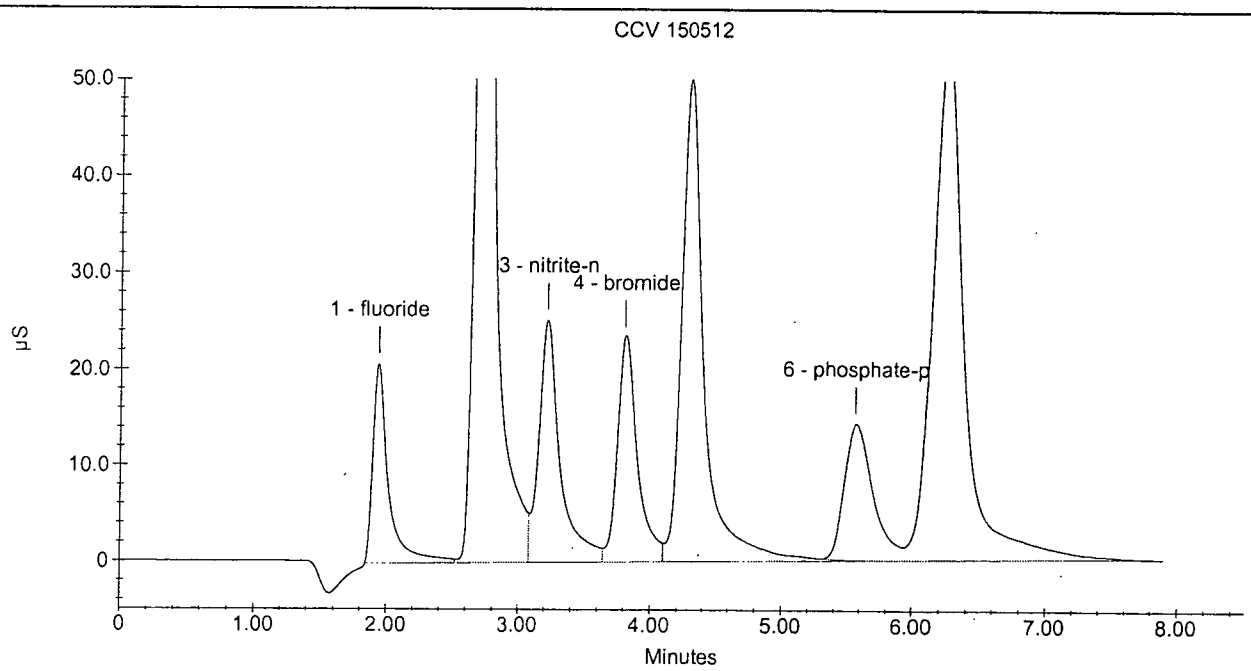
Sample Analysis Report

Sample Name : CCV 150512
Data File Name : I:\DIONEX\D1ANIONS\DATA\150513A\150513A_004.DXD

Method File Name : I:\DIONEX\D1ANIONS\METHODS\ANIONS 150505A.met
Date Time Collected : 5/13/15 08:35:29
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	1.93	fluoride	2.4228	1707671	207493
2	2.71	chloride	23.8582	12836156	1615468
3	3.21	nitrite-n	2.5462	2787456	251415
4	3.80	bromide	11.8801	2472862	233066
5	4.28	nitrate-n	4.7952	6191984	497395
6	5.56	phosphate-p	4.7114	2172447	141660
7	6.23	sulfate	23.7264	8757220	534951



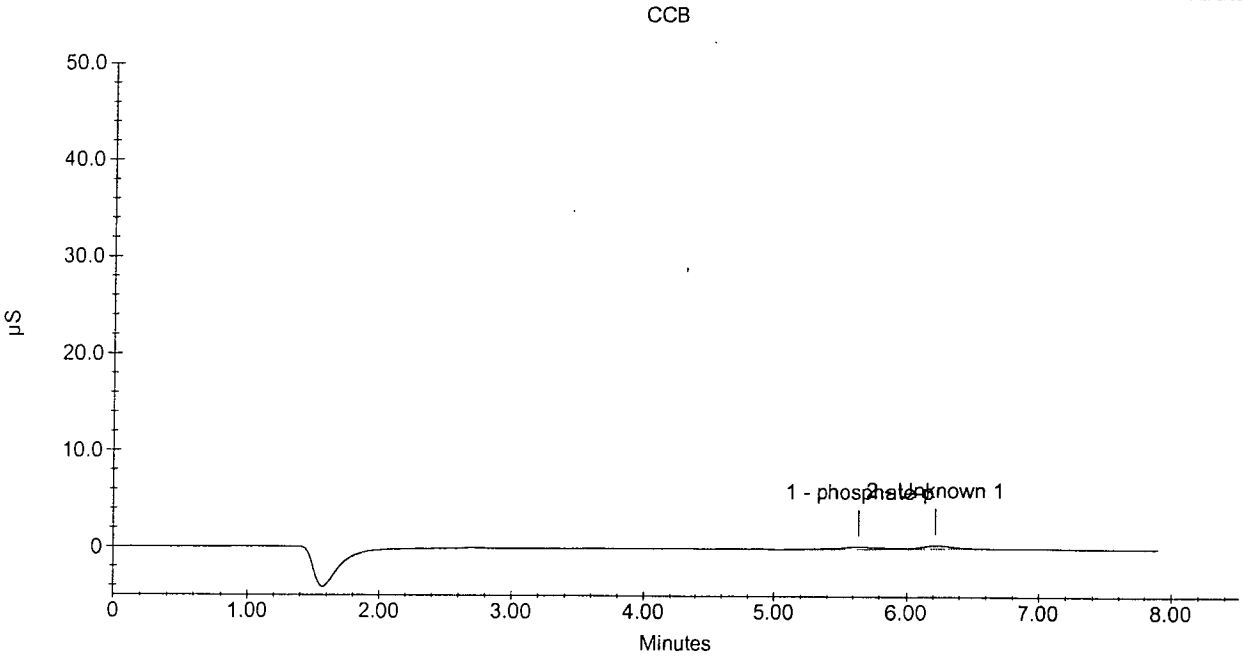
Sample Analysis Report

Sample Name : CCB
Data File Name : I:\DIONEX\D1ANIONS\DATA\150513A\150513a_005.DXD

Method File Name : I:\DIONEX\D1ANIONS\METHODS\ANIONS 150505A.met
Date Time Collected : 5/13/15 08:50:11
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	5.64	phosphate-p	-0.0411	70083	2443
2	6.21	Unknown 1	0.0000	54809	3464



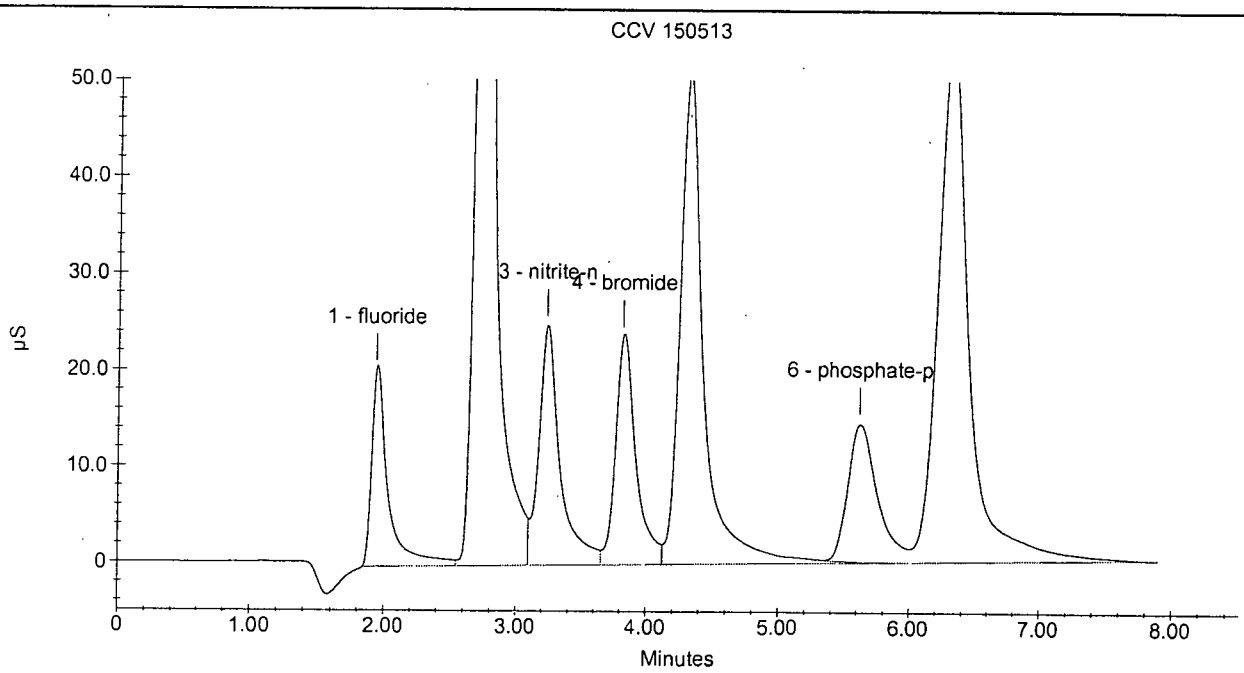
Sample Analysis Report

Sample Name : CCV 150513
Data File Name : I:\DIONEX\D1ANIONS\DATA\150513A\150513a_016.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150505a.met
Date Time Collected : 5/13/15 12:09:08
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	1.93	fluoride	2.5647	1809437	202978
2	2.72	chloride	23.9931	12912248	1598244
3	3.23	nitrite-n	2.5505	2792202	247584
4	3.81	bromide	12.3798	2578702	235826
5	4.31	nitrate-n	4.9366	6381330	507543
6	5.61	phosphate-p	4.8827	2248233	142934
7	6.29	sulfate	24.2780	8969658	541616



APPL, Inc.

Current Date : 5/13/15
Current Time : 12:19:47

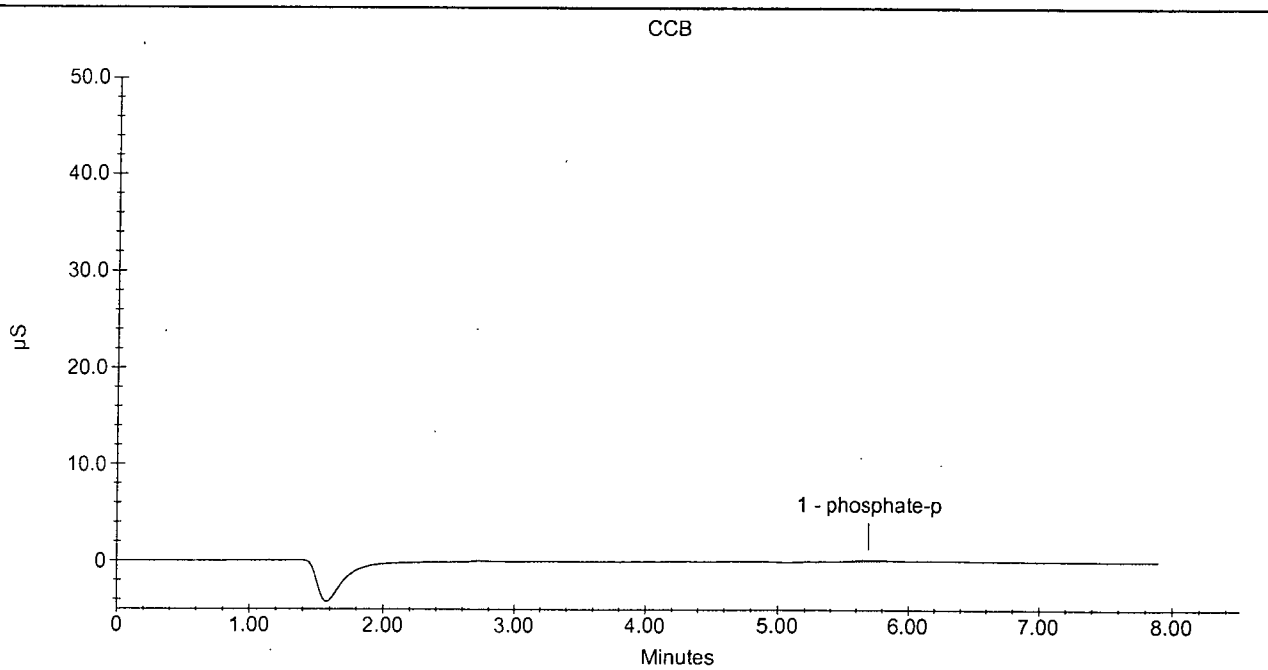
Sample Analysis Report

Sample Name : CCB
Data File Name : I:\DIONEX\D1ANIONS\DATA\150513A\150513a_017.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150505a.met
Date Time Collected : 5/13/15 12:19:51
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	5.69	phosphate-p	-0.1181	36017	1410



APPL, Inc.

Current Date : 5/13/15
Current Time : 12:30:14

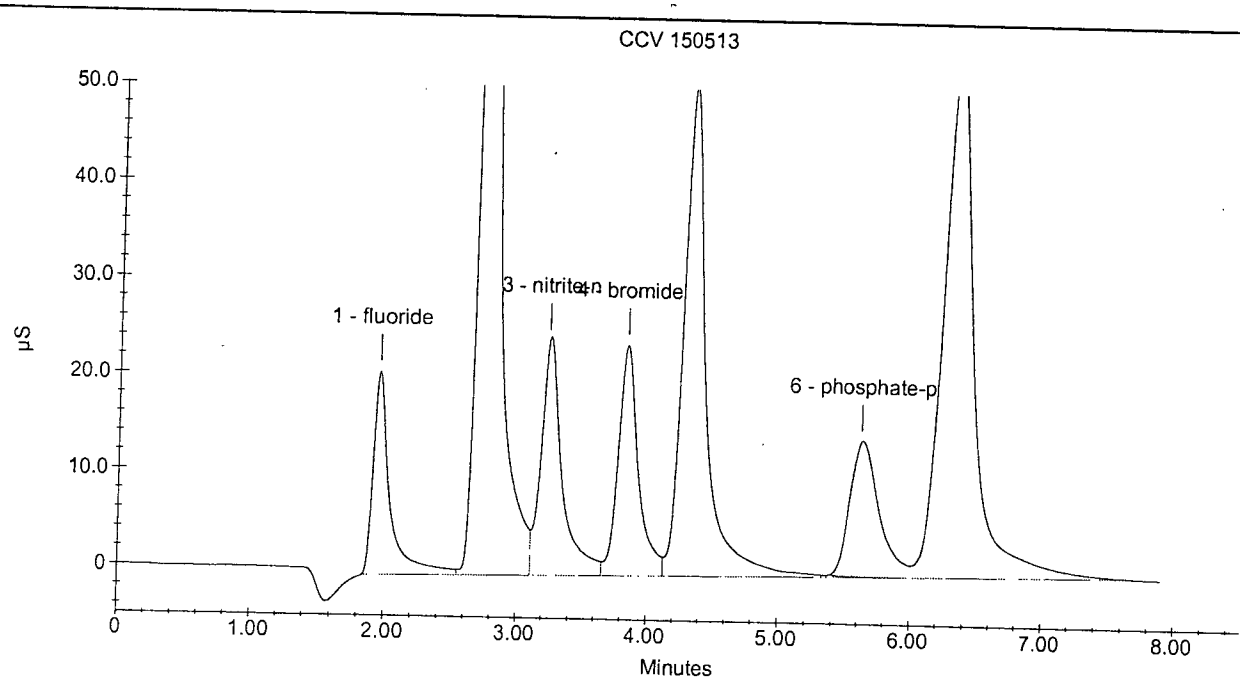
Sample Analysis Report

Sample Name : CCV 150513
Data File Name : I:\DIONEX\D1ANIONS\DATA\150513A\150513a_028.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150505a.met
Date Time Collected : 5/13/15 14:16:26
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	1.95	fluoride	2.5900	1827580	210936
2	2.72	chloride	24.0604	12950177	1587642
3	3.23	nitrite-n	2.4989	2735651	243852
4	3.83	bromide	12.3015	2562122	239275
5	4.31	nitrate-n	4.8603	6279161	505958
6	5.61	phosphate-p	4.7515	2190185	140541
7	6.31	sulfate	23.8955	8822346	543377



APPL, Inc.

Current Date : 5/13/15
Current Time : 14:27:05

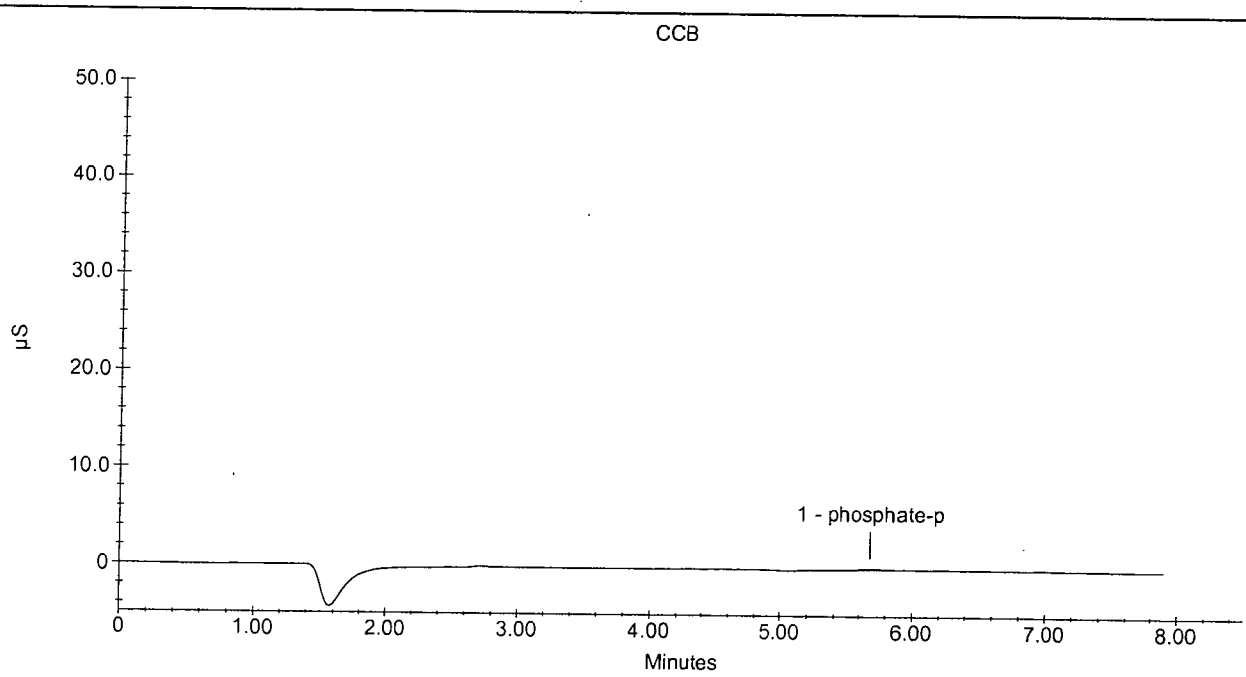
Sample Analysis Report

Sample Name : CCB
Data File Name : I:\DIONEX\D1ANIONS\DATA\150513A\150513a_029.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150505a.met
Date Time Collected : 5/13/15 14:27:09
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	5.68	phosphate-p	-0.0986	44615	1454



APPL, Inc.

Current Date : 5/13/15
Current Time : 14:37:33

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: 76401 SDG: 76401
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	Found	%R(1)	
Total Organic Carbon	5	5.00117	100	10	11 8947	119				

(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.: 76401 SDG: 76401

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		C		C		C	
Total Organic Carbon	.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
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	05/13/15	05/13/15	#300W-150513A-AZ16235
EPA 300.0	NITRATE	0.18 U	0.5	0.18	0.04	mg/L	05/13/15	05/13/15	#300W-150513A-AZ16235
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	05/13/15	05/13/15	#300W-150513A-AZ16235
EPA 300.0	SULFATE	1.1	1.0	0.20	0.09	mg/L	05/13/15	05/13/15	#300W-150513A-AZ16235
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

Wetlab SC-Blank-REG MDLs
Printed: 06/05/15 12:05:51 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	18.6	93.0	90-110	05/13/15	05/13/15	#300W-150513A-AZ16235
EPA 300.0	NITRATE	22.1	22.0	99.5	90-110	05/13/15	05/13/15	#300W-150513A-AZ16235
EPA 300.0	NITRITE	9.98	9.47	94.9	90-110	05/13/15	05/13/15	#300W-150513A-AZ16235
EPA 300.0	SULFATE	20.0	19.1	95.5	90-110	05/13/15	05/13/15	#300W-150513A-AZ16235
SW846 906	TOTAL ORGANIC CARBON	10.00	10.8	108	90-110	05/19/15	05/19/15	#906-150519A-AZ16287

Comments: _____

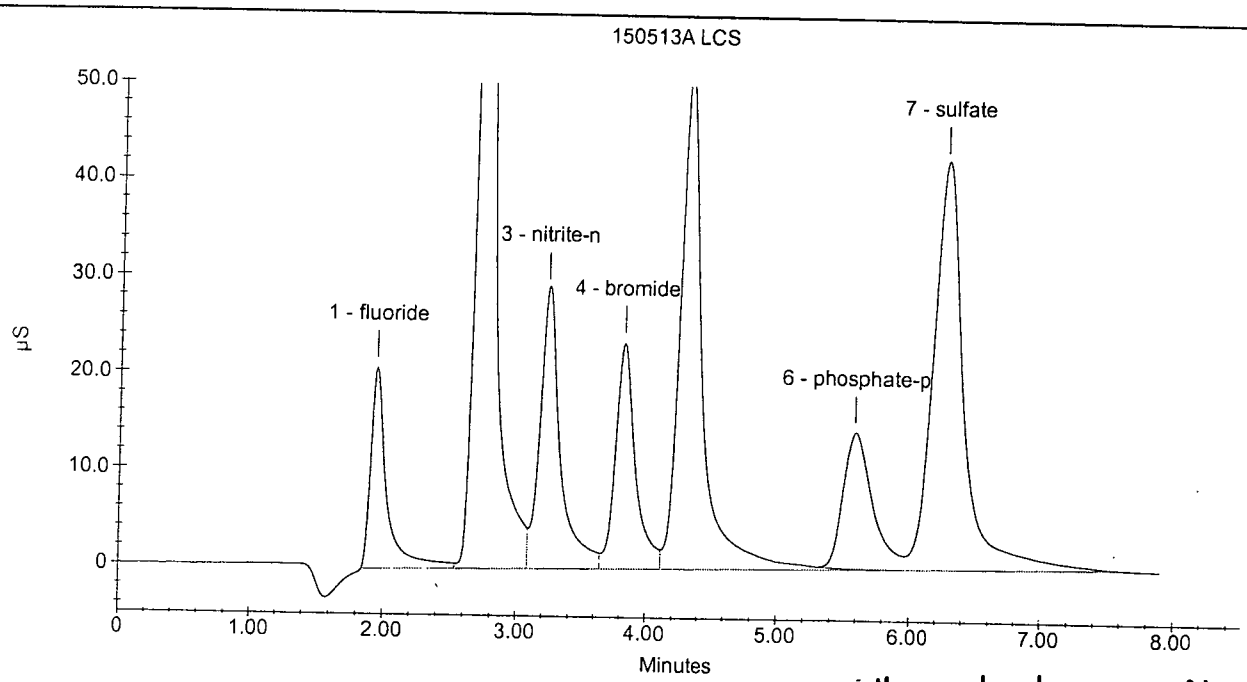
Sample Analysis Report

Sample Name : 150513A LCS
Data File Name : I:\DIONEX\D1ANIONS\DATA\150513A\150513a_006.DXD

Method File Name : I:\DIONEX\D1ANIONS\METHODS\ANIONS 150505A.met
Date Time Collected : 5/13/15 09:00:47
System Operator : jm
Injection Number : 6
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	2.4790	1747946	208301
2	2.71	chloride	18.5936	9867377	1219614
3	3.21	nitrite-n	2.8844	3158254	289093
4	3.81	bromide	12.0334	2505329	234210
5	4.29	nitrate-n	4.9767	6435019	515858
6	5.57	phosphate-p	4.7722	2199338	141187
7	6.24	sulfate	19.1357 ✓	6989021	420959



algorithm check SO4 DS
$(6989021 \times 2.596 \times 10^{-6}) + .9904 = 19.1$ ✓

APPL, Inc.

Current Date : 5/13/15
Current Time : 09:19:23

Detailed Analysis Report Print Date/Time: 2015/06/05 12:11:22

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
AD 6.5.15
$\left(\frac{(668673 - 38538)}{118800} \times 2\right) =$
10.6 ✓

Sample ID: AZ16235W06 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 05190728
Cal. Curve: 150416I9 Timestamp: 2015/05/19 14:13
Operator ID: DT Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.4601	0.2301	65868	54.265	54.464	150
2	0.1886	0.0943	49741	54.270	54.469	150
3	0.2321	0.1160	52323	54.250	54.449	153
4	0.1755	0.0877	48962	54.292	54.491	150

<<<Statistics>>> Mean: 0.2641 Std Dev: 0.1329 RSD: 50.33

Sample ID: AZ16236W06 Mode: TOC
Method: TOC 0 - 20 ppmC Filename: 05190728
Cal. Curve: 150416I9 Timestamp: 2015/05/19 14:42
Operator ID: DT Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.6546	0.3273	77424	54.486	54.685	150
2	0.5097	0.2548	68812	54.450	54.648	154
3	0.4564	0.2282	65647	54.513	54.711	151
4	0.3443	0.1722	58989	54.555	54.752	156

<<<Statistics>>> Mean: 0.4913 Std Dev: 0.1289 RSD: 26.24

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

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.
05/07/15 mm 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

KQ2.

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

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

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	

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.

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

02/24/1
exp 02/
02/25/1
exp 02
02/26/1
exp 0
02/27
exp 0
02/27/
exp 0
03/02
exp 03
03/03/
exp 03
03/04/1
03/04/
exp 0
03/05
exp
03/06
exp
03/00

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	

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

300/9056 Injection Log

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.

300/9056 Injection Log

Directory: I:\Dionex\D1Anions\data\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
4	13 May 2015	08:35	CCV 150512		150513a	1.
5	13 May 2015	08:50	CCB		150513a	1.
6	13 May 2015	09:00	150513A LCS		150513a	1.
16	13 May 2015	12:09	CCV 150513		150513a	1.
17	13 May 2015	12:19	CCB		150513a	1.
23	13 May 2015	13:23	AZ16235W05 DF2		150513a	2.
24	13 May 2015	13:34	AZ16236W05 DF2		150513a	2.
28	13 May 2015	14:16	CCV 150513		150513a	1.
29	13 May 2015	14:27	CCB		150513a	1.

415/9060 Injection Log

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.

415/9060 Injection Log

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.
6	19 May 2015	14:13	AZ16235W06		150519A9-T	1.
7	19 May 2015	14:42	AZ16236W06		150519A9-T	1.
18	19 May 2015	20:07	CCV1 10PPM		150519A9-T	1.
19	19 May 2015	20:32	CCB		150519A9-T	1.