N00174.AR.001965
NSWC INDIAN HEAD
5090.3a

VALIDATED DATA PACKAGE, 76624, NSWC INDIAN HEAD MD
8/26/2015
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

July 9, 2015

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

Attn: Ed Corack

Title: Report of Data: Case 76624

Project: CTO JU11 112G02622 NSF Indian Head, MD

Contract #: Prime contract # for DoD: Navy CLEAN. N62467-08-D-1001
Subcontract # 1045497, Work Release # 08-JU11

Dear Mr. Corack:

Fifteen soil samples were received June 11, 2015, at 3.0°C and 4.5°C. Written results for the requested analyses are being provided on this July 9, 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: 142

Sample receipt information

ARF: 76624

Project: CTO JU11 112G02622 NSF Indian Head, MD

Sample Receipt Information:

The soil samples were received on June 11 and 15, 2015, at 3.0°C and 4.5°C. The samples were assigned Analytical Request Form (ARF) number 76624. The sample numbers and requested analyses were compared to the chains of custody and email communications. Two samples S67-SS034-0001 and S67-SB034-0405 were received June 12, 2015. MS/MSD were added to sample S67-SS035-0001, as requested. An extra container labeled S67-SB038-0203 collected at 10:02 was set aside, as requested. Sample S67-SS038-0001 has a missing container. No other exception was encountered.

Sample Table

CLIENT ID	APPL ID	Matrix	Date Sampled	Date Received
S67-SS031-0001	AZ17433	SOIL	06/08/15	06/11/15
S67-SB031-0203	AZ17434	SOIL	06/08/15	06/11/15
S67-SS039-0001	AZ17435	SOIL	06/08/15	06/11/15
S67-SB039-0607	AZ17436	SOIL	06/08/15	06/11/15
S67-SS038-0001	AZ17437	SOIL	06/09/15	06/11/15
S67-SB038-0203	AZ17438	SOIL	06/09/15	06/11/15
S67-SS033-0001	AZ17439	SOIL	06/09/15	06/11/15
S67-SB033-0203	AZ17440	SOIL	06/09/15	06/11/15
S67-SS040-0001	AZ17441	SOIL	06/10/15	06/11/15
S67-SS040P-0001	AZ17442	SOIL	06/10/15	06/11/15
S67-SB040-1516	AZ17443	SOIL	06/10/15	06/11/15
S67-SS035-0001	AZ17444	SOIL	06/10/15	06/11/15
S67-SB035-0203	AZ17445	SOIL	06/10/15	06/11/15
S67-SS034-0001	AZ17446	SOIL	06/10/15	06/11/15
S67-SB034-0405	AZ17447	SOIL	06/10/15	06/11/15

Percent moisture was determined using CLP 4.0. 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 soil samples were extracted according to EPA method 3550B. Due to low surrogate recoveries, two samples were re-extracted, 24 and 22 days after collection. All other holding times were met.

The samples were analyzed according to EPA Method 8270D using an Agilent GC/MS.

Quality Control/Assurance

Spike Recovery

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

Sample S67-SS035-0001 was designated by the client for MS/MSD analysis. All acceptance criteria were met.

Method blanks

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

Surrogates

Surrogate recoveries are summarized on Form 2 & 8. The 150622A method blank recovered Phenol-d6 above the 100% upper control limit. The surrogate 2-Fluorobiphenyl recovered below the 45% lower control limit in two samples S67-SB031-0203 and S67-SB040-1516; the PAH extract for sample S67-SB040-1516 also had low 2-Fluorobiphenyl recovery. The samples were re-extracted, 24 and 22 days after collection; the re-extracted samples had acceptable surrogate recoveries. All other surrogate recoveries were within control limits.

Calibration

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

Tuning:

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

Internal Standards

The internal standard area counts were compared to the mid-point of the initial calibration according to method 8270. All method criteria were met.

Summary:

No other problem was encountered. All data generated are acceptable.

EPA Method 8270D-SIM - PAHs

Sample Preparation and Analysis Information:

The soil samples were extracted according to EPA method 3550B. Due to low surrogate recoveries, two samples were re-extracted, 28 and 26 days after collection. All other holding times were met.

The samples were analyzed according to EPA Method 8270D using an Agilent GC/MS with selective ion monitoring. Benzo(b)fluoranthene and Benzo(k)fluoranthene could not be chromatographically separated in some samples. As a result, each of these is reported from the sum of the two area counts and may be biased high. Some samples extracts are very dark. They were injected and reported at dilution factor of 10:1

Manual integrations were performed in accordance with APPL's SOP. Phenanthrene, anthracene, fluoranthene, and Benzo(b) fluoranthene were manually integrated in the second source standard. Chrysene was manually integrated in a CCV. The surrogate nitrobenzene-d5 was manually integrated in 150622A LCS, samples S67-SB031-0203, S67-SS033-0001, S67-SS040-0001, and S67-SS034-0001. Naphthalene, Anthracene and Chrysene were manually integrated in the 150622A LCS. Chromatograms of before and after manual integration are enclosed.

Quality Control/Assurance

Spike Recovery

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

Sample S67-SS035-0001 was designated by the client for MS/MSD analysis. Six analytes recovered below the control limits in MS/MSD. All other acceptance criteria were met.

Method blanks

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

Surrogates

Surrogate recoveries are summarized on Form 2 & 8. Samples S67-SB039-0607 and S67-SB040-1516 recovered the surrogate2-Fluorobiphenyl below the 45% lower control limit. The SVOC extract for sample S67-SB040-1516 also had low 2-Fluorobiphenyl recovery. The samples were re-extracted, 28 and 26 days after collection; the re-extracted samples had acceptable surrogate recoveries. All other surrogate recoveries were within control limits.

Calibration

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

Tuning:

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

Internal Standards

The internal standard area counts were compared to the mid-point of the initial calibration according to method 8270. All method criteria were met.

Summary:

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

EPA Method 6850

Perchlorate by LC-Mass Spec

Sample Preparation and Analysis Information:

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

Manual integrations were performed in accordance to APPL's SOP. Perchlorate was manually integrated in the calibration curve and in the samples. 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.

Sample S67-SS035-0001 was designated by the client for MS/MSD analysis. All acceptance criteria were met.

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 samples were dried and extracted according to EPA method 8330B, without using incremental sampling procedures. All holding times were met.

Analysis:

The samples were analyzed according to EPA Method 8330B using an Agilent 1290 HPLC with DA detector. Manual integrations were performed in accordance with APPL's SOP. The following analytes were manually integrated in the calibration standards: HMX, Nitroglycerin, PETN, 1,2-Dinitrobenzene, 1,3- Dinitrobenzene, Nitrobenzene, 2,4,6-Trinitrotoluene, Tetryl, 2,6-Dinitrotoluene, 2,4-Dinitrotoluene, 2-Nitrotoluene, 4-Nitrotoluene, 3-Nitrotoluene, 4-Amino-2,6-Dinitrotoluene, 2-Amino-4,6-Dinitrotoluene and 3,5-Dinitroaniline. HMX 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.

Sample S67-SS035-0001 was designated by the client for MS/MSD analysis. All acceptance criteria were met.

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
Metals

Digestion and Analysis Information:

The soil samples were digested according to EPA method 3050B. 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 blank.

Spikes:

Laboratory Control Spike (LCS), Matrix Spikes (MS/MSD), Post-Digestion Spike (PDS), and a Dilution Test (DT) were used for quality assurance. All LCS acceptance criteria were met.

Sample S67-SS035-0001 was designated by the client for MS/MSD analysis. Two metals fell above the upper control limit in the MS/MSD. In the DT, one metal exceeded the 10% deviation limit. The PDS met acceptance criteria.

Summary:

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

Amended Page

Inorganic Analyses

EPA Method 9045D and Walkley Black

Sample Preparation and Analysis

The samples were prepared and analyzed according to the methods. 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.

Sample S67-SS035-0001was designated by the client for MS/MSD analysis. All acceptance criteria were met.

Method blanks

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

Calibration

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

Summary:

No analytical exception was noted.

APPL LABS

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

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

76624

CHAIN OF CUSTODY RECORD

1 of 2

3.0

C.O.C. 51596

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

Project Name/Number	Sampler (Print)
NST-Indian Head Site67 112G0262a CTO-JU11	Jacob Birkett
Purchase Order Number	Sampler (Signature)

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Matrix: Sed.	Matrix: Soil	Analysis Requested/Method Number: Phthalates	PAHs	Metals	Energetics Perchlorate	pH	TOC	Comments
S67-SS031-0001	S31/MW17	6-8-15	1143	ET	3			3	2	→	→	→	1	→	
S67-SB031-0203	S31/MW17	6-8-15	1145	ET	2			2	2	→	→	→			
S67-SS039-0001	S39/MW25	6-8-15	1536	ET	3			3	2	→	→	→	1	→	
S67-SB039-0607	S39/MW25	6-8-15	1542	ET	2			2	2	→	→	→			
S67-SS038-0001	S38/MW24	6-9-15	1002	ET	3			3	2	→	→	→	1	→	
S67-SB038-0203	S38/MW24	6-9-15	1004	ET	2			2	2	→	→	→			
S67-SS033-0001	S33/MW19	6-9-15	1330	ET	3			3	2	→	→	→	1	→	
S67-SB033-0203	S33/MW19	6-9-15	1340	ET	2			2	2	→	→	→			
S67-SS040-0001	S40/MW26	6-10-15	0842	ET	3			3	2	→	→	→	1	→	
S67-SS040P-0001	S40/MW26	6-10-15	0847	ET	3			3	2	→	→	→	1	→	Duplicate
S67-SB040-1516	S40/MW26	6-10-15	0855	ET	2			2	2	→	→	→			

Date Shipped: 6-10-15
Carrier: FedEx
Waybill No.: 8744-8572-5084

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:
Jacob Birkett	6-10-15	1800	
Relinquished by:	Date	Time	Received by:

Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received at lab by:
	6/11/15	10:15	

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

See reverse side for Container Preservative and Sampling Information

APPL LABS

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

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

CHAIN OF CUSTODY RECORD

2 of 2

C.O.C. 51600

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

Project Name/Number: NSF-Indian Head Site67 112G02622 CTO-J011
Purchase Order Number:
Sampler (Print): Jacob Birkett
Sampler (Signature):

Date Shipped: 6-10-15
Carrier: FedEx
Waybill No.: 8744-3572-5084
Comments:

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Sed.	Soil	Analysis Requested/Method Number: Phthalates	PAHs	Metals	Energetics	Perchlorate	pH	TOC
S67-SS035-0001	S35/MW21	6-10-15	1145	ET	3			3	2	→	→	→	→	1	→
S67-SB035-0203	S35/MW21	6-10-15	1150	ET	2			2	2	→	→	→	→		
S67-SS034-0001	S34/MW20	6-10-15	1332	ET	3			3	2	→	→	→	→	1	→
S67-SB034-0405	S34/MW20	6-10-15	1337	ET	2			2	2	→	→	→	→		

6-10-15

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	6-10-15	1800					
Relinquished by:	Date	Time	Received by:	Relinquished by:	Date 6/11/15	Time 10:15	Received at lab by: Yang Zu

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

See reverse side for Container Preservative and Sampling Information

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

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

CHAIN OF CUSTODY RECORD 7 4.5

C.O.C. 51598

Report to: PLEASE PRINT	Invoice to: PLEASE PRINT
Company Name: Tetra Tech Phone: 757-466-4908	Company Name: See Phone:
Address: 5700 Lake Wright Dr. Suite 309 Norfolk, VA 23502 Fax:	Address: Contract Fax:
Attn: Ed Covack	Attn:

Project Name/Number: 112G02622 CTO-JW11 NSF-Indian Head Site 67
Purchase Order Number:
Sampler (Print): Jacob Birkett
Sampler (Signature):

Date Shipped: 6-11-15
Carrier: FedEx
Waybill No.: 8744-8572-5095
Comments:

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Sed.	Soil	Analysis Requested/Method Number: Phthalates	PAHs	Metals	Energetics	Perchlorate	PH	TOC
567-SS034-0001	S34/MW20	6-10-15	1332	ET	3		3		2	→	→	→	→	1	→
567-SB034-0405	S34/MW20	6-10-15	1337	ET	2		2		2	→	→	→	→		

6-11-15

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:
Jacob Birkett	6-11-15	1800	FedEx
Relinquished by:	Date	Time	Received by:

Relinquished by:	Date	Time	Received by:
Relinquished by:	Date 6/12/15	Time 09:40	Received at lab by: Yang Zu

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

See reverse side for Container Preservative and Sampling Information

Renee Patterson

From: Cynthia Clark [cclark@applinc.com]
Sent: Friday, June 12, 2015 11:20 AM
To: 'APPL - Receiving'
Cc: 'Chue Moua'; 'Renée Patterson'; 'Sharon Dehmlow'
Subject: RE: ARF 76624 Receiving Notes

regarding the extra 4oz jar - TTEC cannot formally say whether that is one sample or the other, so they would like us to set that jar aside and not to use it for analysis. We should have enough volume for the requested analyses without this jar

Sincerely,

Cynthia Clark
Project Manager

Agriculture & Priority Pollutants Laboratories, Inc.
WOSB. NELAP Accredited.

t. 559.275-2175 f. 559.275-4422
a. 908 N. Temperance Ave., Clovis, CA 93611

Website • Email

DoD accredited for ISM, Dioxins and PCB congeners.

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From: Cynthia Clark [mailto:cclark@applinc.com]
Sent: Friday, June 12, 2015 8:30 AM
To: 'APPL - Receiving'
Cc: 'Chue Moua'; 'Renée Patterson'; 'Sharon Dehmlow'
Subject: RE: ARF 76624 Receiving Notes

please log in that sample for MS/MSD

We will receive the 2 missing samples today

He has not yet responded regarding the ID for the extra 4oz jar

Sincerely,

Cynthia Clark

EPA 8270D SOILS

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

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SS031-0001
Sample Collection Date: 6/8/2015

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76624
APPL ID: AZ17433
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 18.1 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.200 U	0.81	0.200	0.076	mg/kg	6/22/2015	6/30/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.200 U	0.40	0.200	0.068	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.200 U	0.40	0.200	0.081	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.200 U	0.40	0.200	0.071	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIETHYL PHTHALATE	0.200 U	0.40	0.200	0.076	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIMETHYL PHTHALATE	0.200 U	0.40	0.200	0.077	mg/kg	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	58.6	35-125			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	57.4	45-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	57.0	35-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	71.4	35-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: PHENOL (S)	70.3	40-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	62.3	30-125			%	6/22/2015	6/30/2015

Quant Method: Y0625TT.M
Run #: 0625Y056
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/2/2015 3:37:39 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D SOILS

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-SB031-0203
Sample Collection Date: 6/8/2015

ARF: 76624
APPL ID: AZ17434
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.9 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.200 U	0.80	0.200	0.076	mg/kg	6/22/2015	6/30/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.200 U	0.40	0.200	0.068	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.200 U	0.40	0.200	0.080	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.200 U	0.40	0.200	0.071	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIETHYL PHTHALATE	0.200 U	0.40	0.200	0.076	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIMETHYL PHTHALATE	0.200 U	0.40	0.200	0.077	mg/kg	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	48.0	35-125			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	41.5 #	45-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	46.5	35-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	60.8	35-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: PHENOL (S)	62.4	40-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	63.0	30-125			%	6/22/2015	6/30/2015

= Recovery (or RPD) is outside QC limits.

Quant Method: Y0625TT.M
Run #: 0625Y057
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/2/2015 3:37:39 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D SOIL RE-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-SB031-0203
Sample Collection Date: 6/8/2015

ARF: 76624
APPL ID: AZ17434
QCG: #87DJU-150702A-198613

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.9 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.200 U	0.80	0.200	0.076	mg/kg	7/2/2015	7/6/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.200 U	0.40	0.200	0.068	mg/kg	7/2/2015	7/6/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.200 U	0.40	0.200	0.080	mg/kg	7/2/2015	7/6/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.200 U	0.40	0.200	0.071	mg/kg	7/2/2015	7/6/2015
EPA 8270D	DIETHYL PHTHALATE	0.200 U	0.40	0.200	0.076	mg/kg	7/2/2015	7/6/2015
EPA 8270D	DIMETHYL PHTHALATE	0.200 U	0.40	0.200	0.077	mg/kg	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	92.5	35-125			%	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	79.9	45-105			%	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	79.0	35-105			%	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	84.5	35-100			%	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: PHENOL (S)	94.6	40-100			%	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	92.1	30-125			%	7/2/2015	7/6/2015

Quant Method: Y0625TT.M
Run #: 0625Y103
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

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APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D SOILS

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-SS039-0001
Sample Collection Date: 6/8/2015

ARF: 76624
APPL ID: AZ17435
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 22.4 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.18 J	0.85	0.220	0.080	mg/kg	6/22/2015	6/30/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.220 U	0.43	0.220	0.072	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.220 U	0.43	0.220	0.085	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.220 U	0.43	0.220	0.075	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIETHYL PHTHALATE	0.220 U	0.43	0.220	0.080	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIMETHYL PHTHALATE	0.220 U	0.43	0.220	0.081	mg/kg	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	70.9	35-125			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	57.1	45-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	53.6	35-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	73.2	35-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: PHENOL (S)	65.4	40-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	62.7	30-125			%	6/22/2015	6/30/2015

J = Estimated value.

Quant Method: Y0625TT.M
Run #: 0625Y058
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/2/2015 3:37:39 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D SOILS

Tetra Tech
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Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76624

Sample ID: S67-SB039-0607

APPL ID: AZ17436

Sample Collection Date: 6/8/2015

QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.9 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.13 J	0.80	0.200	0.076	mg/kg	6/22/2015	6/30/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.200 U	0.40	0.200	0.068	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.200 U	0.40	0.200	0.080	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.200 U	0.40	0.200	0.071	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIETHYL PHTHALATE	0.200 U	0.40	0.200	0.076	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIMETHYL PHTHALATE	0.200 U	0.40	0.200	0.077	mg/kg	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	73.3	35-125			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	45.4	45-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	67.2	35-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	73.4	35-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: PHENOL (S)	78.5	40-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	66.2	30-125			%	6/22/2015	6/30/2015

J = Estimated value.

Quant Method: Y0625TT.M
Run #: 0625Y059
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/2/2015 3:37:39 PM

APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D SOILS

Tetra Tech
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Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76624

Sample ID: S67-SS038-0001

APPL ID: AZ17437

Sample Collection Date: 6/9/2015

QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.5 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.13 J	0.80	0.200	0.075	mg/kg	6/22/2015	6/30/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.200 U	0.40	0.200	0.068	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.200 U	0.40	0.200	0.080	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.200 U	0.40	0.200	0.070	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIETHYL PHTHALATE	0.200 U	0.40	0.200	0.075	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIMETHYL PHTHALATE	0.200 U	0.40	0.200	0.076	mg/kg	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	68.9	35-125			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	61.9	45-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	59.0	35-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	71.1	35-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: PHENOL (S)	72.2	40-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	70.3	30-125			%	6/22/2015	6/30/2015

J = Estimated value.

Quant Method: Y0625TT.M
Run #: 0625Y060
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

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APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D SOILS

Tetra Tech
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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SB038-0203
Sample Collection Date: 6/9/2015

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ARF: 76624
APPL ID: AZ17438
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 14.7 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.12 J	0.77	0.200	0.073	mg/kg	6/22/2015	6/30/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.200 U	0.39	0.200	0.066	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.200 U	0.39	0.200	0.077	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.200 U	0.39	0.200	0.068	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIETHYL PHTHALATE	0.200 U	0.39	0.200	0.073	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIMETHYL PHTHALATE	0.200 U	0.39	0.200	0.074	mg/kg	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	78.7	35-125			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	64.6	45-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	68.2	35-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	78.3	35-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: PHENOL (S)	84.5	40-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	74.0	30-125			%	6/22/2015	6/30/2015

J = Estimated value.

Quant Method: Y0625TT.M
Run #: 0625Y061
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/2/2015 3:37:39 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D SOILS

Tetra Tech
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APPL Inc.
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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SS033-0001
Sample Collection Date: 6/9/2015

ARF: 76624
APPL ID: AZ17439
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 26.6 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.230 U	0.90	0.230	0.084	mg/kg	6/22/2015	6/30/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.230 U	0.45	0.230	0.076	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.230 U	0.45	0.230	0.090	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.230 U	0.45	0.230	0.079	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIETHYL PHTHALATE	0.230 U	0.45	0.230	0.084	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIMETHYL PHTHALATE	0.230 U	0.45	0.230	0.086	mg/kg	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	69.7	35-125			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	58.9	45-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	58.9	35-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	76.1	35-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: PHENOL (S)	71.6	40-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	66.1	30-125			%	6/22/2015	6/30/2015

Quant Method: Y0625TT.M
Run #: 0625Y062
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/2/2015 3:37:39 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D SOILS

Tetra Tech
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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SB033-0203
Sample Collection Date: 6/9/2015

ARF: 76624
APPL ID: AZ17440
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 15.1 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.200 U	0.78	0.200	0.073	mg/kg	6/22/2015	6/30/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.200 U	0.39	0.200	0.066	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.200 U	0.39	0.200	0.078	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.200 U	0.39	0.200	0.068	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIETHYL PHTHALATE	0.200 U	0.39	0.200	0.073	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIMETHYL PHTHALATE	0.200 U	0.39	0.200	0.074	mg/kg	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	78.7	35-125			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	59.9	45-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	67.8	35-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	83.9	35-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: PHENOL (S)	81.3	40-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	72.6	30-125			%	6/22/2015	6/30/2015

Quant Method: Y0625TT.M
Run #: 0625Y063
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/2/2015 3:37:39 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D SOILS

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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SS040-0001
Sample Collection Date: 6/10/2015

ARF: 76624
APPL ID: AZ17441
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 20.0 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.210 U	0.83	0.210	0.078	mg/kg	6/22/2015	7/1/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.210 U	0.41	0.210	0.070	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.210 U	0.41	0.210	0.083	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.210 U	0.41	0.210	0.073	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIETHYL PHTHALATE	0.210 U	0.41	0.210	0.078	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIMETHYL PHTHALATE	0.210 U	0.41	0.210	0.079	mg/kg	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	71.2	35-125			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	65.7	45-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	60.7	35-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	72.6	35-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: PHENOL (S)	74.6	40-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	72.7	30-125			%	6/22/2015	7/1/2015

Quant Method: Y0625TT.M
Run #: 0625Y064
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/2/2015 3:37:39 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D SOILS

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Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SS040P-0001
Sample Collection Date: 6/10/2015

ARF: 76624
APPL ID: AZ17442
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 19.4 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.15 J	0.82	0.210	0.077	mg/kg	6/22/2015	7/1/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.210 U	0.41	0.210	0.069	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.210 U	0.41	0.210	0.082	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.210 U	0.41	0.210	0.072	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIETHYL PHTHALATE	0.210 U	0.41	0.210	0.077	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIMETHYL PHTHALATE	0.210 U	0.41	0.210	0.078	mg/kg	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	65.9	35-125			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	58.5	45-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	54.4	35-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	63.6	35-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: PHENOL (S)	66.0	40-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	66.9	30-125			%	6/22/2015	7/1/2015

J = Estimated value.

Quant Method: Y0625TT.M
Run #: 0625Y065
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/2/2015 3:37:39 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D SOILS

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Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76624

Sample ID: S67-SB040-1516

APPL ID: AZ17443

Sample Collection Date: 6/10/2015

QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 11.9 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.190 U	0.75	0.190	0.070	mg/kg	6/22/2015	7/1/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.190 U	0.37	0.190	0.064	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.190 U	0.37	0.190	0.075	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.190 U	0.37	0.190	0.066	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIETHYL PHTHALATE	0.190 U	0.37	0.190	0.070	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIMETHYL PHTHALATE	0.190 U	0.37	0.190	0.072	mg/kg	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	67.0	35-125			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	43.2 #	45-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	50.1	35-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	54.0	35-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: PHENOL (S)	57.3	40-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	51.2	30-125			%	6/22/2015	7/1/2015

= Recovery (or RPD) is outside QC limits.

Quant Method: Y0625TT.M
Run #: 0625Y066
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

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APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D SOIL RE-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-SB040-1516
Sample Collection Date: 6/10/2015

ARF: 76624
APPL ID: AZ17443
QCG: #87DJU-150702A-198613

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 11.9 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.12 J	0.75	0.190	0.070	mg/kg	7/2/2015	7/6/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.190 U	0.37	0.190	0.064	mg/kg	7/2/2015	7/6/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.190 U	0.37	0.190	0.075	mg/kg	7/2/2015	7/6/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.190 U	0.37	0.190	0.066	mg/kg	7/2/2015	7/6/2015
EPA 8270D	DIETHYL PHTHALATE	0.190 U	0.37	0.190	0.070	mg/kg	7/2/2015	7/6/2015
EPA 8270D	DIMETHYL PHTHALATE	0.190 U	0.37	0.190	0.072	mg/kg	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	77.1	35-125			%	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	70.2	45-105			%	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	65.9	35-105			%	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	71.5	35-100			%	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: PHENOL (S)	78.4	40-100			%	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	75.1	30-125			%	7/2/2015	7/6/2015

J = Estimated value.

Quant Method:	Y0625TT.M
Run #:	0625Y104
Instrument:	Yoda
Sequence:	Y150625
Dilution Factor:	1
Initials:	DA

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APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D SOILS

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-SS035-0001
Sample Collection Date: 6/10/2015

ARF: 76624
APPL ID: AZ17444
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 14.8 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.13 J	0.77	0.200	0.073	mg/kg	6/22/2015	7/1/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.200 U	0.39	0.200	0.066	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.200 U	0.39	0.200	0.077	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.200 U	0.39	0.200	0.068	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIETHYL PHTHALATE	0.200 U	0.39	0.200	0.073	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIMETHYL PHTHALATE	0.200 U	0.39	0.200	0.074	mg/kg	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	62.4	35-125			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	58.3	45-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	63.6	35-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	72.0	35-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: PHENOL (S)	79.5	40-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	69.3	30-125			%	6/22/2015	7/1/2015

J = Estimated value.

Quant Method: Y0625TT.M
Run #: 0625Y069
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

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APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D SOILS

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-SB035-0203
Sample Collection Date: 6/10/2015

ARF: 76624
APPL ID: AZ17445
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 15.6 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.14 J	0.78	0.200	0.073	mg/kg	6/22/2015	7/1/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.200 U	0.39	0.200	0.066	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.200 U	0.39	0.200	0.078	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.200 U	0.39	0.200	0.069	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIETHYL PHTHALATE	0.200 U	0.39	0.200	0.073	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIMETHYL PHTHALATE	0.200 U	0.39	0.200	0.075	mg/kg	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	57.1	35-125			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	48.7	45-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	48.8	35-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	69.8	35-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: PHENOL (S)	64.1	40-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	58.8	30-125			%	6/22/2015	7/1/2015

J = Estimated value.

Quant Method: Y0625TT.M
Run #: 0625Y070
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/2/2015 3:37:39 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D SOILS

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-SS034-0001
Sample Collection Date: 6/10/2015

ARF: 76624
APPL ID: AZ17446
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 12.3 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.190 U	0.75	0.190	0.071	mg/kg	6/22/2015	7/1/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.190 U	0.38	0.190	0.064	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.190 U	0.38	0.190	0.075	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.190 U	0.38	0.190	0.066	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIETHYL PHTHALATE	0.190 U	0.38	0.190	0.071	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIMETHYL PHTHALATE	0.190 U	0.38	0.190	0.072	mg/kg	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	73.3	35-125			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	55.0	45-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	61.2	35-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	64.7	35-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: PHENOL (S)	74.3	40-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	67.4	30-125			%	6/22/2015	7/1/2015

Quant Method: Y0625TT.M
Run #: 0625Y071
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

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APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D SOILS

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-SB034-0405
Sample Collection Date: 6/10/2015

ARF: 76624
APPL ID: AZ17447
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.0 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.15 J	0.80	0.200	0.075	mg/kg	6/22/2015	7/1/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.200 U	0.40	0.200	0.067	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.200 U	0.40	0.200	0.080	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.200 U	0.40	0.200	0.070	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIETHYL PHTHALATE	0.200 U	0.40	0.200	0.075	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIMETHYL PHTHALATE	0.200 U	0.40	0.200	0.076	mg/kg	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	74.2	35-125			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	65.3	45-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	62.9	35-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	73.5	35-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: PHENOL (S)	71.3	40-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	72.1	30-125			%	6/22/2015	7/1/2015

J = Estimated value.

Quant Method: Y0625TT.M
Run #: 0625Y072
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/2/2015 3:37:39 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Method Blank
EPA 8270D SOILS

Blank Name/QCG: **150622S-17444 - 198554**
Batch ID: #87DJU-150622A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	BIS (2-ETHYLHEXYL) PHTHALAT	0.167 U	0.66	0.167	0.062	mg/kg	6/22/2015	6/30/2015
BLANK	BUTYL BENZYL PHTHALATE	0.167 U	0.33	0.167	0.056	mg/kg	6/22/2015	6/30/2015
BLANK	DI-N-BUTYL PHTHALATE	0.167 U	0.33	0.167	0.066	mg/kg	6/22/2015	6/30/2015
BLANK	DI-N-OCTYL PHTHALATE	0.167 U	0.33	0.167	0.058	mg/kg	6/22/2015	6/30/2015
BLANK	DIETHYL PHTHALATE	0.167 U	0.33	0.167	0.062	mg/kg	6/22/2015	6/30/2015
BLANK	DIMETHYL PHTHALATE	0.167 U	0.33	0.167	0.063	mg/kg	6/22/2015	6/30/2015
BLANK	SURROGATE: 2,4,6-TRIBROMOP	75.9	35-125			%	6/22/2015	6/30/2015
BLANK	SURROGATE: 2-FLUORBIPHENY	79.4	45-105			%	6/22/2015	6/30/2015
BLANK	SURROGATE: 2-FLUOROPHENO	92.2	35-105			%	6/22/2015	6/30/2015
BLANK	SURROGATE: NITROBENZENE-	88.7	35-100			%	6/22/2015	6/30/2015
BLANK	SURROGATE: PHENOL (S)	101 #	40-100			%	6/22/2015	6/30/2015
BLANK	SURROGATE: TERPHENYL-D14	78.0	30-125			%	6/22/2015	6/30/2015

= Recovery (or RPD) is outside QC limits.

Quant Method: Y0625TT.M
Run #: 0625Y054
Instrument: Yoda
Sequence: Y150625
Initials: DA

GC SC-Blank-REG MDLs
Printed: 7/2/2015 3:38:03 PM

Method Blank
EPA 8270D SOIL RE-ANALYSIS

Blank Name/QCG: **150702S-17434 - 198613**
Batch ID: #87DJU-150702A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	BIS (2-ETHYLHEXYL) PHTHALAT	0.167 U	0.66	0.167	0.062	mg/kg	7/2/2015	7/6/2015
BLANK	BUTYL BENZYL PHTHALATE	0.167 U	0.33	0.167	0.056	mg/kg	7/2/2015	7/6/2015
BLANK	DI-N-BUTYL PHTHALATE	0.167 U	0.33	0.167	0.066	mg/kg	7/2/2015	7/6/2015
BLANK	DI-N-OCTYL PHTHALATE	0.167 U	0.33	0.167	0.058	mg/kg	7/2/2015	7/6/2015
BLANK	DIETHYL PHTHALATE	0.167 U	0.33	0.167	0.062	mg/kg	7/2/2015	7/6/2015
BLANK	DIMETHYL PHTHALATE	0.167 U	0.33	0.167	0.063	mg/kg	7/2/2015	7/6/2015
BLANK	SURROGATE: 2,4,6-TRIBROMOP	76.8	35-125			%	7/2/2015	7/6/2015
BLANK	SURROGATE: 2-FLUORBIPHENY	64.2	45-105			%	7/2/2015	7/6/2015
BLANK	SURROGATE: 2-FLUOROPHENO	58.7	35-105			%	7/2/2015	7/6/2015
BLANK	SURROGATE: NITROBENZENE-	62.9	35-100			%	7/2/2015	7/6/2015
BLANK	SURROGATE: PHENOL (S)	66.8	40-100			%	7/2/2015	7/6/2015
BLANK	SURROGATE: TERPHENYL-D14	78.9	30-125			%	7/2/2015	7/6/2015

Quant Method: Y0625TT.M
Run #: 0625Y101
Instrument: Yoda
Sequence: Y150625
Initials: DA

GC SC-Blank-REG MDLs
Printed: 7/7/2015 9:44:28 AM

Laboratory Control Spike Recovery
EPA 8270D SOILS

APPL ID: **150622S-17444 LCS - 198554**
Batch ID: #87DJU-150622A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level mg/kg	SPK Result mg/kg	SPK % Recovery	Recovery Limits
BIS (2-ETHYLHEXYL) PHTHALATE	1.67	1.35	80.8	45-125
BUTYL BENZYL PHTHALATE	1.67	1.42	85.0	50-125
DI-N-BUTYL PHTHALATE	1.67	1.43	85.6	55-110
DI-N-OCTYL PHTHALATE	1.67	1.46	87.4	40-130
DIETHYL PHTHALATE	1.67	1.25	74.9	50-115
DIMETHYL PHTHALATE	1.67	1.26	75.4	50-110
SURROGATE: 2,4,6-TRIBROMOPHENOL	6.67	5.46	81.9	35-125
SURROGATE: 2-FLUORBIPHENYL (S)	3.33	2.65	79.6	45-105
SURROGATE: 2-FLUOROPHENOL (S)	6.67	5.16	77.4	35-105
SURROGATE: NITROBENZENE-D5 (S)	3.33	2.74	82.3	35-100
SURROGATE: PHENOL (S)	6.67	5.66	84.9	40-100
SURROGATE: TERPHENYL-D14 (S)	3.33	2.51	75.4	30-125

Comments: _____

Primary	SPK
Quant Method :	Y0625TT.M
Extraction Date :	6/22/2015
Analysis Date :	6/30/2015
Instrument :	Yoda
Run :	0625Y055
Initials :	DA

Printed: 7/2/2015 3:37:52 PM
APPL Standard LCS

Laboratory Control Spike Recovery
EPA 8270D SOIL RE-ANALYSIS

APPL ID: **150702S-17434 LCS - 198613**
Batch ID: #87DJU-150702A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level mg/kg	SPK Result mg/kg	SPK % Recovery	Recovery Limits
BIS (2-ETHYLHEXYL) PHTHALATE	1.67	1.50	89.8	45-125
BUTYL BENZYL PHTHALATE	1.67	1.60	95.8	50-125
DI-N-BUTYL PHTHALATE	1.67	1.66	99.4	55-110
DI-N-OCTYL PHTHALATE	1.67	1.64	98.2	40-130
DIETHYL PHTHALATE	1.67	1.48	88.6	50-115
DIMETHYL PHTHALATE	1.67	1.42	85.0	50-110
SURROGATE: 2,4,6-TRIBROMOPHENOL	6.60	6.01	91.1	35-125
SURROGATE: 2-FLUORBIPHENYL (S)	3.30	2.67	80.9	45-105
SURROGATE: 2-FLUOROPHENOL (S)	6.60	4.66	70.6	35-105
SURROGATE: NITROBENZENE-D5 (S)	3.30	2.66	80.6	35-100
SURROGATE: PHENOL (S)	6.60	5.50	83.3	40-100
SURROGATE: TERPHENYL-D14 (S)	3.30	2.70	81.8	30-125

Comments: _____

Primary	SPK
Quant Method :	Y0625TT.M
Extraction Date :	7/2/2015
Analysis Date :	7/6/2015
Instrument :	Yoda
Run :	0625Y102
Initials :	DA

Printed: 7/7/2015 9:44:17 AM
APPL Standard LCS

Matrix Spike Recoveries

EPA 8270D SOILS

APPL ID: **150622S-17444 MS - 198554**
Batch ID: #87DJU-150622A
Sample ID: AZ17444
Client ID: S67-SS035-0001

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl mg/kg	Matrix Result mg/kg	SPK Result mg/kg	DUP Result mg/kg	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
BIS (2-ETHYLHEXYL) PHTHALATE	1.67	0.11	1.37	1.44	75.4	79.6	45-125	5.0	30
BUTYL BENZYL PHTHALATE	1.67	ND	1.37	1.50	82.0	89.8	50-125	9.1	30
DI-N-BUTYL PHTHALATE	1.67	0.0074	1.30	1.46	77.4	87.0	55-110	11.6	30
DI-N-OCTYL PHTHALATE	1.67	ND	1.44	1.54	86.2	92.2	40-130	6.7	30
DIETHYL PHTHALATE	1.67	ND	1.20	1.29	71.9	77.2	50-115	7.2	30
DIMETHYL PHTHALATE	1.67	ND	1.21	1.30	72.5	77.8	50-110	7.2	30
SURROGATE: 2,4,6-TRIBROMOPHENOL	6.67	NA	4.78	4.69	71.7	70.3	35-125		
SURROGATE: 2-FLUORBIPHENYL (S)	3.33	NA	2.09	2.09	62.8	62.8	45-105		
SURROGATE: 2-FLUOROPHENOL (S)	6.67	NA	4.66	4.88	69.9	73.2	35-105		
SURROGATE: NITROBENZENE-D5 (S)	3.33	NA	2.59	2.78	77.8	83.5	35-100		
SURROGATE: PHENOL (S)	6.67	NA	5.29	5.69	79.3	85.3	40-100		
SURROGATE: TERPHENYL-D14 (S)	3.33	NA	2.42	2.41	72.7	72.4	30-125		

Comments: _____

Primary	SPK	DUP
Quant Method :	Y0625TT.M	Y0625TT.M
Extraction Date :	6/22/2015	6/22/2015
Analysis Date :	7/1/2015	7/1/2015
Instrument :	Yoda	Yoda
Run :	0625Y067	0625Y068
Initials :	DA	

Printed: 7/2/2015 3:37:47 PM
APPL MSD SCII

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 06/30/15

Matrix: SOIL Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2,4,6-TRIBROMOPHENOL (S)			SURROGATE: 2-FLUORBIPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150622A-BLK	Blank	35-125	75.9		45-105	79.4	
150622A-LCS	Lab Control Spike	35-125	81.9		45-105	79.6	
AZ17433	S67-SS031-0001	35-125	58.6		45-105	57.4	
AZ17434	S67-SB031-0203	35-125	48.0		45-105	41.5	#
AZ17435	S67-SS039-0001	35-125	70.9		45-105	57.1	
AZ17436	S67-SB039-0607	35-125	73.3		45-105	45.4	
AZ17437	S67-SS038-0001	35-125	68.9		45-105	61.9	
AZ17438	S67-SB038-0203	35-125	78.7		45-105	64.6	
AZ17439	S67-SS033-0001	35-125	69.7		45-105	58.9	
AZ17440	S67-SB033-0203	35-125	78.7		45-105	59.9	
AZ17441	S67-SS040-0001	35-125	71.2		45-105	65.7	
AZ17442	S67-SS040P-0001	35-125	65.9		45-105	58.5	
AZ17443	S67-SB040-1516	35-125	67.0		45-105	43.2	#
AZ17444-MS	Matrix Spike	35-125	71.7		45-105	62.8	
AZ17444-MSD	Matrix SpikeD	35-125	70.3		45-105	62.8	
AZ17444	S67-SS035-0001	35-125	62.4		45-105	58.3	
AZ17445	S67-SB035-0203	35-125	57.1		45-105	48.7	
AZ17446	S67-SS034-0001	35-125	73.3		45-105	55.0	
AZ17447	S67-SB034-0405	35-125	74.2		45-105	65.3	

Comments: Batch: #87DJU-150622A

= Recovery outside of Control Limits on Sample.

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 06/30/15

Matrix: SOIL Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2-FLUOROPHENOL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150622A-BLK	Blank	35-105	92.2		35-100	88.7	
150622A-LCS	Lab Control Spike	35-105	77.4		35-100	82.3	
AZ17433	S67-SS031-0001	35-105	57.0		35-100	71.4	
AZ17434	S67-SB031-0203	35-105	46.5		35-100	60.8	
AZ17435	S67-SS039-0001	35-105	53.6		35-100	73.2	
AZ17436	S67-SB039-0607	35-105	67.2		35-100	73.4	
AZ17437	S67-SS038-0001	35-105	59.0		35-100	71.1	
AZ17438	S67-SB038-0203	35-105	68.2		35-100	78.3	
AZ17439	S67-SS033-0001	35-105	58.9		35-100	76.1	
AZ17440	S67-SB033-0203	35-105	67.8		35-100	83.9	
AZ17441	S67-SS040-0001	35-105	60.7		35-100	72.6	
AZ17442	S67-SS040P-0001	35-105	54.4		35-100	63.6	
AZ17443	S67-SB040-1516	35-105	50.1		35-100	54.0	
AZ17444-MS	Matrix Spike	35-105	69.9		35-100	77.8	
AZ17444-MSD	Matrix SpikeD	35-105	73.2		35-100	83.5	
AZ17444	S67-SS035-0001	35-105	63.6		35-100	72.0	
AZ17445	S67-SB035-0203	35-105	48.8		35-100	69.8	
AZ17446	S67-SS034-0001	35-105	61.2		35-100	64.7	
AZ17447	S67-SB034-0405	35-105	62.9		35-100	73.5	

Comments: Batch: #87DJU-150622A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 06/30/15

Matrix: SOIL Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: PHENOL (S)			SURROGATE: TERPHENYL-D14 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150622A-BLK	Blank	40-100	101	#	30-125	78.0	
150622A-LCS	Lab Control Spike	40-100	84.9		30-125	75.4	
AZ17433	S67-SS031-0001	40-100	70.3		30-125	62.3	
AZ17434	S67-SB031-0203	40-100	62.4		30-125	63.0	
AZ17435	S67-SS039-0001	40-100	65.4		30-125	62.7	
AZ17436	S67-SB039-0607	40-100	78.5		30-125	66.2	
AZ17437	S67-SS038-0001	40-100	72.2		30-125	70.3	
AZ17438	S67-SB038-0203	40-100	84.5		30-125	74.0	
AZ17439	S67-SS033-0001	40-100	71.6		30-125	66.1	
AZ17440	S67-SB033-0203	40-100	81.3		30-125	72.6	
AZ17441	S67-SS040-0001	40-100	74.6		30-125	72.7	
AZ17442	S67-SS040P-0001	40-100	66.0		30-125	66.9	
AZ17443	S67-SB040-1516	40-100	57.3		30-125	51.2	
AZ17444-MS	Matrix Spike	40-100	79.3		30-125	72.7	
AZ17444-MSD	Matrix SpikeD	40-100	85.3		30-125	72.4	
AZ17444	S67-SS035-0001	40-100	79.5		30-125	69.3	
AZ17445	S67-SB035-0203	40-100	64.1		30-125	58.8	
AZ17446	S67-SS034-0001	40-100	74.3		30-125	67.4	
AZ17447	S67-SB034-0405	40-100	71.3		30-125	72.1	

Comments: Batch: #87DJU-150622A

= Recovery outside of Control Limits on Sample.

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 07/06/15

Matrix: SOIL Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2,4,6-TRIBROMOPHENOL (S)			SURROGATE: 2-FLUORBIPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150702A-BLK	Blank	35-125	76.8		45-105	64.2	
150702A-LCS	Lab Control Spike	35-125	91.1		45-105	80.9	
AZ17434	S67-SB031-0203	35-125	92.5		45-105	79.9	
AZ17443	S67-SB040-1516	35-125	77.1		45-105	70.2	

Comments: Batch: #87DJU-150702A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 07/06/15

Matrix: SOIL Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2-FLUOROPHENOL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150702A-BLK	Blank	35-105	58.7		35-100	62.9	
150702A-LCS	Lab Control Spike	35-105	70.6		35-100	80.6	
AZ17434	S67-SB031-0203	35-105	79.0		35-100	84.5	
AZ17443	S67-SB040-1516	35-105	65.9		35-100	71.5	

Comments: Batch: #87DJU-150702A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 07/06/15

Matrix: SOIL Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: PHENOL (S)			SURROGATE: TERPHENYL-D14 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150702A-BLK	Blank	40-100	66.8		30-125	78.9	
150702A-LCS	Lab Control Spike	40-100	83.3		30-125	81.8	
AZ17434	S67-SB031-0203	40-100	94.6		30-125	92.1	
AZ17443	S67-SB040-1516	40-100	78.4		30-125	75.1	

Comments: Batch: #87DJU-150702A

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 06/30/15

Matrix: SOIL Instrument: Yoda

Blank ID: 150622A-BLK Time Analyzed: 1923

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150622A-BLK	Blank	0625Y054	06/30/15 1923
150622A-LCS	Lab Control Spike	0625Y055	06/30/15 1953
AZ17433	S67-SS031-0001	0625Y056	06/30/15 2023
AZ17434	S67-SB031-0203	0625Y057	06/30/15 2052
AZ17435	S67-SS039-0001	0625Y058	06/30/15 2122
AZ17436	S67-SB039-0607	0625Y059	06/30/15 2151
AZ17437	S67-SS038-0001	0625Y060	06/30/15 2221
AZ17438	S67-SB038-0203	0625Y061	06/30/15 2250
AZ17439	S67-SS033-0001	0625Y062	06/30/15 2320
AZ17440	S67-SB033-0203	0625Y063	06/30/15 2349
AZ17441	S67-SS040-0001	0625Y064	07/01/15 0019
AZ17442	S67-SS040P-0001	0625Y065	07/01/15 0048
AZ17443	S67-SB040-1516	0625Y066	07/01/15 0118
150622A-MS	Matrix Spike	0625Y067	07/01/15 0147
150622A-MSD	Matrix SpikeD	0625Y068	07/01/15 0216
AZ17444	S67-SS035-0001	0625Y069	07/01/15 0246
AZ17445	S67-SB035-0203	0625Y070	07/01/15 0315
AZ17446	S67-SS034-0001	0625Y071	07/01/15 0345
AZ17447	S67-SB034-0405	0625Y072	07/01/15 0414

Comments: Batch: #87DJU-150622A

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 07/06/15

Matrix: SOIL Instrument: Yoda

Blank ID: 150702A-BLK Time Analyzed: 1721

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150702A-BLK	Blank	0625Y101	07/06/15 1721
150702A-LCS	Lab Control Spike	0625Y102	07/06/15 1751
AZ17434	S67-SB031-0203	0625Y103	07/06/15 1821
AZ17443	S67-SB040-1516	0625Y104	07/06/15 1852

Comments: Batch: #87DJU-150702A

EPA 8270D LL SOILS

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-SS031-0001
Sample Collection Date: 06/08/15

ARF: 76624
APPL ID: AZ17433
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 18.1 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0210 U	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.0210 U	0.061	0.0210	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.0210 U	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.011 J	0.061	0.0210	0.0098	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.096	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.036 J	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.037 J	0.061	0.0210	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.017 J	0.061	0.0210	0.0160	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.0210 U	0.061	0.0210	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.0210 U	0.061	0.0210	0.0098	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.012 J	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	0.11	0.061	0.0210	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.0210 U	0.061	0.0210	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.0210 U	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.012 J	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.030 J	0.061	0.0210	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.075	0.061	0.0210	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	66.6	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	49.8	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	78.2	30-125			%	06/22/15	06/30/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L043
Instrument: Linus
Sequence: L150629
Dilution Factor: 10
Initials: MA

Printed: 07/09/15 4:55:38 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D LL SOILS

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-SB031-0203
Sample Collection Date: 06/08/15

ARF: 76624
APPL ID: AZ17434
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.9 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0210 U	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.0210 U	0.061	0.0210	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.071	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.068	0.061	0.0210	0.0097	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.32	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.35	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.91	0.061	0.0210	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.22	0.061	0.0210	0.0160	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.79	0.061	0.0210	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.12	0.061	0.0210	0.0097	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.068	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	0.68	0.061	0.0210	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.012 J	0.061	0.0210	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.23	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.019 J	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.23	0.061	0.0210	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.49	0.061	0.0210	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	52.2	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	59.5	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	75.1	30-125			%	06/22/15	06/30/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L044
Instrument: Linus
Sequence: L150629
Dilution Factor: 10
Initials: MA

Printed: 07/09/15 4:55:38 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D LL SOILS

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-SS039-0001
Sample Collection Date: 06/08/15

ARF: 76624
APPL ID: AZ17435
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 22.4 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.037 J	0.064	0.0220	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.0220 U	0.064	0.0220	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.014 J	0.064	0.0220	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.020 J	0.064	0.0220	0.0100	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.14	0.064	0.0220	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.071	0.064	0.0220	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.10	0.064	0.0220	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.066	0.064	0.0220	0.0170	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.0220 U	0.064	0.0220	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.0220 U	0.064	0.0220	0.0100	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.017 J	0.064	0.0220	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	0.13	0.064	0.0220	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.0220 U	0.064	0.0220	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.059 J	0.064	0.0220	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.022 J	0.064	0.0220	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.059 J	0.064	0.0220	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.11	0.064	0.0220	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	66.3	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	43.4	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	66.5	30-125			%	06/22/15	06/30/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L045
Instrument: Linus
Sequence: L150629
Dilution Factor: 10
Initials: MA

Printed: 07/09/15 4:55:38 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D LL SOILS

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-SB039-0607
Sample Collection Date: 06/08/15

ARF: 76624
APPL ID: AZ17436
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.9 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0021 U	0.006	0.0021	0.0011	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.0021 U	0.006	0.0021	0.0012	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.0021 U	0.006	0.0021	0.0011	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.0021 U	0.006	0.0021	0.0010	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.0021 U	0.006	0.0021	0.0011	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.0021 U	0.006	0.0021	0.0011	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.0021 U	0.006	0.0021	0.0013	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.0021 U	0.006	0.0021	0.0016	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.0021 U	0.006	0.0021	0.0012	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.0021 U	0.006	0.0021	0.0010	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.0021 U	0.006	0.0021	0.0011	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	0.0021 U	0.006	0.0021	0.0015	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.0021 U	0.006	0.0021	0.0012	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.0021 U	0.006	0.0021	0.0011	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.0011 J	0.006	0.0021	0.0011	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.0021 U	0.006	0.0021	0.0013	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.0021 U	0.006	0.0021	0.0015	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	21.6 #	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	45.6	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	66.7	30-125			%	06/22/15	06/30/15

J = Estimated value.
# = Recovery (or RPD) is outside QC limits.

Quant Method: P0629.M
Run #: 0629L071
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

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APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D LL SOILS RE-EXTRACT

Tetra Tech
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Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SB039-0607
Sample Collection Date: 06/08/15

ARF: 76624
APPL ID: AZ17436
QCG: #SIMDD-150706A-198646

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.9 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0021 U	0.006	0.0021	0.0011	mg/kg	07/06/15	07/07/15
8270D-LL	ACENAPHTHENE	0.0021 U	0.006	0.0021	0.0012	mg/kg	07/06/15	07/07/15
8270D-LL	ACENAPHTHYLENE	0.0021 U	0.006	0.0021	0.0011	mg/kg	07/06/15	07/07/15
8270D-LL	ANTHRACENE	0.0021 U	0.006	0.0021	0.0010	mg/kg	07/06/15	07/07/15
8270D-LL	BENZ (A) ANTHRACENE	0.0021 U	0.006	0.0021	0.0011	mg/kg	07/06/15	07/07/15
8270D-LL	BENZO (A) PYRENE	0.0021 U	0.006	0.0021	0.0011	mg/kg	07/06/15	07/07/15
8270D-LL	BENZO (B) FLUORANTHENE	0.0021 U	0.006	0.0021	0.0013	mg/kg	07/06/15	07/07/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.0021 U	0.006	0.0021	0.0016	mg/kg	07/06/15	07/07/15
8270D-LL	BENZO (K) FLUORANTHENE	0.0021 U	0.006	0.0021	0.0012	mg/kg	07/06/15	07/07/15
8270D-LL	CHRYSENE	0.0021 U	0.006	0.0021	0.0010	mg/kg	07/06/15	07/07/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.0021 U	0.006	0.0021	0.0011	mg/kg	07/06/15	07/07/15
8270D-LL	FLUORANTHENE	0.0021 U	0.006	0.0021	0.0015	mg/kg	07/06/15	07/07/15
8270D-LL	FLUORENE	0.0021 U	0.006	0.0021	0.0012	mg/kg	07/06/15	07/07/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.0021 U	0.006	0.0021	0.0011	mg/kg	07/06/15	07/07/15
8270D-LL	NAPHTHALENE	0.0021 U	0.006	0.0021	0.0011	mg/kg	07/06/15	07/07/15
8270D-LL	PHENANTHRENE	0.0021 U	0.006	0.0021	0.0013	mg/kg	07/06/15	07/07/15
8270D-LL	PYRENE	0.0021 U	0.006	0.0021	0.0015	mg/kg	07/06/15	07/07/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	47.9	45-105			%	07/06/15	07/07/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	71.2	35-100			%	07/06/15	07/07/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	76.0	30-125			%	07/06/15	07/07/15

Quant Method: P0629.M
Run #: 0629L204
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

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APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D LL SOILS

Tetra Tech
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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SS038-0001
Sample Collection Date: 06/09/15

ARF: 76624
APPL ID: AZ17437
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.5 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.030 J	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.074	0.061	0.0210	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.031 J	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.29	0.061	0.0210	0.0097	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.66	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.36	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.86	0.061	0.0210	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.29	0.061	0.0210	0.0160	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.79	0.061	0.0210	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.20	0.061	0.0210	0.0097	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.086	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	1.3	0.061	0.0210	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.087	0.061	0.0210	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.29	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.042 J	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.90	0.061	0.0210	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.92	0.061	0.0210	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	67.1	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	39.3	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	76.3	30-125			%	06/22/15	06/30/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L047
Instrument: Linus
Sequence: L150629
Dilution Factor: 10
Initials: MA

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APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D LL SOILS

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APPL Inc.
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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SB038-0203
Sample Collection Date: 06/09/15

ARF: 76624
APPL ID: AZ17438
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 14.7 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.034 J	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.0200 U	0.059	0.0200	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.0200 U	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.0200 U	0.059	0.0200	0.0094	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.12	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.053 J	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.047 J	0.059	0.0200	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.035 J	0.059	0.0200	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.0200 U	0.059	0.0200	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.0200 U	0.059	0.0200	0.0094	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.0200 U	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	0.12	0.059	0.0200	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.0200 U	0.059	0.0200	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.0200 U	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.011 J	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.15	0.059	0.0200	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.088	0.059	0.0200	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	57.3	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	45.0	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	64.6	30-125			%	06/22/15	06/30/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L048
Instrument: Linus
Sequence: L150629
Dilution Factor: 10
Initials: MA

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APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D LL SOILS

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APPL Inc.
908 North Temperance Avenue
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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SS033-0001
Sample Collection Date: 06/09/15

ARF: 76624
APPL ID: AZ17439
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 26.6 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0230 U	0.068	0.0230	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.025 J	0.068	0.0230	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.012 J	0.068	0.0230	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.080	0.068	0.0230	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.30	0.068	0.0230	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.15	0.068	0.0230	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.32	0.068	0.0230	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.14	0.068	0.0230	0.0180	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.12	0.068	0.0230	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.0230 U	0.068	0.0230	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.038 J	0.068	0.0230	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	0.50	0.068	0.0230	0.0160	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.023 J	0.068	0.0230	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.14	0.068	0.0230	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.0230 U	0.068	0.0230	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.32	0.068	0.0230	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.37	0.068	0.0230	0.0160	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	67.4	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	62.4	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	65.1	30-125			%	06/22/15	06/30/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L049
Instrument: Linus
Sequence: L150629
Dilution Factor: 10
Initials: MA

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APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D LL SOILS

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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SB033-0203
Sample Collection Date: 06/09/15

ARF: 76624
APPL ID: AZ17440
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 15.1 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.061	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.0200 U	0.059	0.0200	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.011 J	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.056 J	0.059	0.0200	0.0094	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.24	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.11	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.22	0.059	0.0200	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.095	0.059	0.0200	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.030 J	0.059	0.0200	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.0200 U	0.059	0.0200	0.0094	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.031 J	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	0.34	0.059	0.0200	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.032 J	0.059	0.0200	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.087	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.028 J	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.35	0.059	0.0200	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.24	0.059	0.0200	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	64.8	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	38.7	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	73.4	30-125			%	06/22/15	06/30/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L050
Instrument: Linus
Sequence: L150629
Dilution Factor: 10
Initials: MA

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APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D LL SOILS

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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SS040-0001
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17441
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 20.0 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0210 U	0.063	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.0210 U	0.063	0.0210	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.052 J	0.063	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.042 J	0.063	0.0210	0.0100	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.20	0.063	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.14	0.063	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.22	0.063	0.0210	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.13	0.063	0.0210	0.0160	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.042 J	0.063	0.0210	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.0210 U	0.063	0.0210	0.0100	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.014 J	0.063	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	0.24	0.063	0.0210	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.017 J	0.063	0.0210	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.12	0.063	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.016 J	0.063	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.16	0.063	0.0210	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.27	0.063	0.0210	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	72.0	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	54.7	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	77.7	30-125			%	06/22/15	06/30/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L051
Instrument: Linus
Sequence: L150629
Dilution Factor: 10
Initials: MA

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APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D LL SOILS

Tetra Tech
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Norfolk, VA 23502

APPL Inc.
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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SS040P-0001
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17442
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 19.4 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.014 J	0.062	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.0210 U	0.062	0.0210	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.079	0.062	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.049 J	0.062	0.0210	0.0099	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.23	0.062	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.18	0.062	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.32	0.062	0.0210	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.18	0.062	0.0210	0.0160	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.15	0.062	0.0210	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.0210 U	0.062	0.0210	0.0099	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.049 J	0.062	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	0.27	0.062	0.0210	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.0210 U	0.062	0.0210	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.16	0.062	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.022 J	0.062	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.13	0.062	0.0210	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.31	0.062	0.0210	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	87.4	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	60.6	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	94.9	30-125			%	06/22/15	06/30/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L052
Instrument: Linus
Sequence: L150629
Dilution Factor: 10
Initials: MA

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APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D LL SOILS

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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SB040-1516
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17443
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 11.9 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.0019 U	0.006	0.0019	0.0011	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.0019 U	0.006	0.0019	0.0009	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.0019 U	0.006	0.0019	0.0012	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.0019 U	0.006	0.0019	0.0015	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.0019 U	0.006	0.0019	0.0011	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.0019 U	0.006	0.0019	0.0009	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	0.0019 U	0.006	0.0019	0.0014	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.0019 U	0.006	0.0019	0.0011	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.0019 U	0.006	0.0019	0.0012	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.0019 U	0.006	0.0019	0.0014	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	39.5 #	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	46.1	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	74.6	30-125			%	06/22/15	06/30/15

= Recovery (or RPD) is outside QC limits.

Quant Method: P0629.M
Run #: 0629L072
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

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APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D LL SOILS RE-EXTRACT

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APPL Inc.
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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SB040-1516
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17443
QCG: #SIMDD-150706A-198646

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 11.9 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	07/06/15	07/07/15
8270D-LL	ACENAPHTHENE	0.0019 U	0.006	0.0019	0.0011	mg/kg	07/06/15	07/07/15
8270D-LL	ACENAPHTHYLENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	07/06/15	07/07/15
8270D-LL	ANTHRACENE	0.0019 U	0.006	0.0019	0.0009	mg/kg	07/06/15	07/07/15
8270D-LL	BENZ (A) ANTHRACENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	07/06/15	07/07/15
8270D-LL	BENZO (A) PYRENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	07/06/15	07/07/15
8270D-LL	BENZO (B) FLUORANTHENE	0.0019 U	0.006	0.0019	0.0012	mg/kg	07/06/15	07/07/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.0019 J	0.006	0.0019	0.0015	mg/kg	07/06/15	07/07/15
8270D-LL	BENZO (K) FLUORANTHENE	0.0019 U	0.006	0.0019	0.0011	mg/kg	07/06/15	07/07/15
8270D-LL	CHRYSENE	0.0019 U	0.006	0.0019	0.0009	mg/kg	07/06/15	07/07/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	07/06/15	07/07/15
8270D-LL	FLUORANTHENE	0.0019 U	0.006	0.0019	0.0014	mg/kg	07/06/15	07/07/15
8270D-LL	FLUORENE	0.0019 U	0.006	0.0019	0.0011	mg/kg	07/06/15	07/07/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	07/06/15	07/07/15
8270D-LL	NAPHTHALENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	07/06/15	07/07/15
8270D-LL	PHENANTHRENE	0.0019 U	0.006	0.0019	0.0012	mg/kg	07/06/15	07/07/15
8270D-LL	PYRENE	0.0023 J	0.006	0.0019	0.0014	mg/kg	07/06/15	07/07/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	51.3	45-105			%	07/06/15	07/07/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	68.0	35-100			%	07/06/15	07/07/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	84.6	30-125			%	07/06/15	07/07/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L205
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/09/15 4:55:38 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D LL SOILS

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APPL Inc.
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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SS035-0001
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17444
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 14.8 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0200 U	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.0200 U	0.059	0.0200	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.0200 U	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.020 J	0.059	0.0200	0.0094	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.12	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.058 J	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.085	0.059	0.0200	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.044 J	0.059	0.0200	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.0200 U	0.059	0.0200	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.0200 U	0.059	0.0200	0.0094	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.0200 U	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	0.12	0.059	0.0200	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.0200 U	0.059	0.0200	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.040 J	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.0200 U	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.059	0.059	0.0200	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.097	0.059	0.0200	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	57.9	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	38.2	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	65.2	30-125			%	06/22/15	06/30/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L056
Instrument: Linus
Sequence: L150629
Dilution Factor: 10
Initials: MA

Printed: 07/09/15 4:55:38 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D LL SOILS

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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SB035-0203
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17445
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 15.6 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.012 J	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.043 J	0.059	0.0200	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.0200 U	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.14	0.059	0.0200	0.0095	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.43	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.25	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.62	0.059	0.0200	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.22	0.059	0.0200	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.50	0.059	0.0200	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.079	0.059	0.0200	0.0095	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.075	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	0.88	0.059	0.0200	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.034 J	0.059	0.0200	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.21	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.012 J	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.47	0.059	0.0200	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.63	0.059	0.0200	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	61.2	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	42.5	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	72.0	30-125			%	06/22/15	06/30/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L057
Instrument: Linus
Sequence: L150629
Dilution Factor: 10
Initials: MA

Printed: 07/09/15 4:55:38 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D LL SOILS

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Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SS034-0001
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17446
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 12.3 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.034 J	0.057	0.0190	0.0100	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.0190 U	0.057	0.0190	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.0190 U	0.057	0.0190	0.0100	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.036 J	0.057	0.0190	0.0091	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.14	0.057	0.0190	0.0100	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.045 J	0.057	0.0190	0.0100	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.070	0.057	0.0190	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.035 J	0.057	0.0190	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.0190 U	0.057	0.0190	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.0190 U	0.057	0.0190	0.0091	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.017 J	0.057	0.0190	0.0100	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	0.15	0.057	0.0190	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.018 J	0.057	0.0190	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.039 J	0.057	0.0190	0.0100	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.018 J	0.057	0.0190	0.0100	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.19	0.057	0.0190	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.11	0.057	0.0190	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	59.5	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	49.2	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	66.8	30-125			%	06/22/15	06/30/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L058
Instrument: Linus
Sequence: L150629
Dilution Factor: 10
Initials: MA

Printed: 07/09/15 4:55:38 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D LL SOILS

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-SB034-0405
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17447
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.0 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0025 J	0.006	0.0020	0.0011	mg/kg	06/22/15	07/02/15
8270D-LL	ACENAPHTHENE	0.0013 J	0.006	0.0020	0.0012	mg/kg	06/22/15	07/02/15
8270D-LL	ACENAPHTHYLENE	0.0030 J	0.006	0.0020	0.0011	mg/kg	06/22/15	07/02/15
8270D-LL	ANTHRACENE	0.0065	0.006	0.0020	0.0010	mg/kg	06/22/15	07/02/15
8270D-LL	BENZ (A) ANTHRACENE	0.031	0.006	0.0020	0.0011	mg/kg	06/22/15	07/02/15
8270D-LL	BENZO (A) PYRENE	0.022	0.006	0.0020	0.0011	mg/kg	06/22/15	07/02/15
8270D-LL	BENZO (B) FLUORANTHENE	0.053	0.006	0.0020	0.0013	mg/kg	06/22/15	07/02/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.015	0.006	0.0020	0.0016	mg/kg	06/22/15	07/02/15
8270D-LL	BENZO (K) FLUORANTHENE	0.044	0.006	0.0020	0.0012	mg/kg	06/22/15	07/02/15
8270D-LL	CHRYSENE	0.0020 U	0.006	0.0020	0.0010	mg/kg	06/22/15	07/02/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.0020 U	0.006	0.0020	0.0011	mg/kg	06/22/15	07/02/15
8270D-LL	FLUORANTHENE	0.057	0.006	0.0020	0.0014	mg/kg	06/22/15	07/02/15
8270D-LL	FLUORENE	0.0020 J	0.006	0.0020	0.0012	mg/kg	06/22/15	07/02/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.0020 U	0.006	0.0020	0.0011	mg/kg	06/22/15	07/02/15
8270D-LL	NAPHTHALENE	0.0027 J	0.006	0.0020	0.0011	mg/kg	06/22/15	07/02/15
8270D-LL	PHENANTHRENE	0.024	0.006	0.0020	0.0013	mg/kg	06/22/15	07/02/15
8270D-LL	PYRENE	0.048	0.006	0.0020	0.0014	mg/kg	06/22/15	07/02/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	63.0	45-105			%	06/22/15	07/02/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	51.8	35-100			%	06/22/15	07/02/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	67.9	30-125			%	06/22/15	07/02/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L135
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/09/15 4:55:38 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Method Blank
EPA 8270D LL SOILS

Blank Name/QCG: **150622S-17444 - 198579**
Batch ID: #SIMDD-150622A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-METHYLNAPHTHALENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	06/30/15
BLANK	ACENAPHTHENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	06/22/15	06/30/15
BLANK	ACENAPHTHYLENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	06/30/15
BLANK	ANTHRACENE	0.0017 U	0.005	0.0017	0.0008	mg/kg	06/22/15	06/30/15
BLANK	BENZ (A) ANTHRACENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	06/30/15
BLANK	BENZO (A) PYRENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	06/30/15
BLANK	BENZO (B) FLUORANTHENE	0.0017 U	0.005	0.0017	0.0011	mg/kg	06/22/15	06/30/15
BLANK	BENZO (G,H,I) PERYLENE	0.0017 U	0.005	0.0017	0.0013	mg/kg	06/22/15	06/30/15
BLANK	BENZO (K) FLUORANTHENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	06/22/15	06/30/15
BLANK	CHRYSENE	0.0017 U	0.005	0.0017	0.0008	mg/kg	06/22/15	06/30/15
BLANK	DIBENZ (A,H) ANTHRACENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	06/30/15
BLANK	FLUORANTHENE	0.0017 U	0.005	0.0017	0.0012	mg/kg	06/22/15	06/30/15
BLANK	FLUORENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	06/22/15	06/30/15
BLANK	INDENO (1,2,3-CD) PYRENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	06/30/15
BLANK	NAPHTHALENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	06/30/15
BLANK	PHENANTHRENE	0.0017 U	0.005	0.0017	0.0011	mg/kg	06/22/15	06/30/15
BLANK	PYRENE	0.0017 U	0.005	0.0017	0.0012	mg/kg	06/22/15	06/30/15
BLANK	SURROGATE: 2-FLUORBIPHENY	56.6	45-105			%	06/22/15	06/30/15
BLANK	SURROGATE: NITROBENZENE-	35.5	35-100			%	06/22/15	06/30/15
BLANK	SURROGATE: TERPHENYL-D14 (	79.1	30-125			%	06/22/15	06/30/15

Quant Method: P0629.M
Run #: 0629L041
Instrument: Linus
Sequence: L150629
Initials: MA

GC SC-Blank-REG MDLs
Printed: 07/09/15 4:55:40 PM

Method Blank

EPA 8270D LL SOILS RE-EXTRACT

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150706S-17436 - 198646**
Batch ID: #SIMDD-150706A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-METHYLNAPHTHALENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/06/15	07/07/15
BLANK	ACENAPHTHENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	07/06/15	07/07/15
BLANK	ACENAPHTHYLENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/06/15	07/07/15
BLANK	ANTHRACENE	0.0017 U	0.005	0.0017	0.0008	mg/kg	07/06/15	07/07/15
BLANK	BENZ (A) ANTHRACENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/06/15	07/07/15
BLANK	BENZO (A) PYRENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/06/15	07/07/15
BLANK	BENZO (B) FLUORANTHENE	0.0017 U	0.005	0.0017	0.0011	mg/kg	07/06/15	07/07/15
BLANK	BENZO (G,H,I) PERYLENE	0.0017 U	0.005	0.0017	0.0013	mg/kg	07/06/15	07/07/15
BLANK	BENZO (K) FLUORANTHENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	07/06/15	07/07/15
BLANK	CHRYSENE	0.0017 U	0.005	0.0017	0.0008	mg/kg	07/06/15	07/07/15
BLANK	DIBENZ (A,H) ANTHRACENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/06/15	07/07/15
BLANK	FLUORANTHENE	0.0017 U	0.005	0.0017	0.0012	mg/kg	07/06/15	07/07/15
BLANK	FLUORENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	07/06/15	07/07/15
BLANK	INDENO (1,2,3-CD) PYRENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/06/15	07/07/15
BLANK	NAPHTHALENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/06/15	07/07/15
BLANK	PHENANTHRENE	0.0017 U	0.005	0.0017	0.0011	mg/kg	07/06/15	07/07/15
BLANK	PYRENE	0.0017 U	0.005	0.0017	0.0012	mg/kg	07/06/15	07/07/15
BLANK	SURROGATE: 2-FLUORBIPHENY	59.4	45-105			%	07/06/15	07/07/15
BLANK	SURROGATE: NITROBENZENE-	51.7	35-100			%	07/06/15	07/07/15
BLANK	SURROGATE: TERPHENYL-D14 (	80.0	30-125			%	07/06/15	07/07/15

Quant Method: P0629.M
Run #: 0629L202
Instrument: Linus
Sequence: L150629
Initials: MA

GC SC-Blank-REG MDLs
Printed: 07/09/15 4:55:40 PM

Laboratory Control Spike Recovery
EPA 8270D LL SOILS RE-EXTRACT

APPL ID: **150706S-17436 LCS - 198646**
Batch ID: #SIMDD-150706A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level mg/kg	SPK Result mg/kg	SPK % Recovery	Recovery Limits
2-METHYLNAPHTHALENE	0.167	0.0957	57.3	45-105
ACENAPHTHENE	0.167	0.0943	56.5	45-110
ACENAPHTHYLENE	0.167	0.0969	58.0	45-105
ANTHRACENE	0.167	0.104	62.3	55-105
BENZ (A) ANTHRACENE	0.167	0.126	75.4	50-110
BENZO (A) PYRENE	0.167	0.124	74.3	50-110
BENZO (B) FLUORANTHENE	0.167	0.117	70.1	45-115
BENZO (G,H,I) PERYLENE	0.167	0.106	63.5	40-125
BENZO (K) FLUORANTHENE	0.167	0.0925	55.4	45-125
CHRYSENE	0.167	0.0975	58.4	55-110
DIBENZ (A,H) ANTHRACENE	0.167	0.108	64.7	40-125
FLUORANTHENE	0.167	0.112	67.1	55-115
FLUORENE	0.167	0.102	61.1	50-110
INDENO (1,2,3-CD) PYRENE	0.167	0.116	69.5	40-120
NAPHTHALENE	0.167	0.0807	48.3	40-105
PHENANTHRENE	0.167	0.104	62.3	50-110
PYRENE	0.167	0.110	65.9	45-125
SURROGATE: 2-FLUORBIPHENYL (S)	0.083	0.050	60.2	45-105
SURROGATE: NITROBENZENE-D5 (S)	0.083	0.0487	58.7	35-100
SURROGATE: TERPHENYL-D14 (S)	0.083	0.0628	75.7	30-125

Comments: _____

Primary	SPK
Quant Method :	P0629.M
Extraction Date :	07/06/15
Analysis Date :	07/07/15
Instrument :	Linus
Run :	0629L203
Initials :	MA

Printed: 07/08/15 5:06:35 PM
APPL Standard LCS

Laboratory Control Spike Recovery
EPA 8270D LL SOILS

APPL ID: **150622S-17444 LCS - 198579**
Batch ID: #SIMDD-150622A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level mg/kg	SPK Result mg/kg	SPK % Recovery	Recovery Limits
2-METHYLNAPHTHALENE	0.167	0.0825	49.4	45-105
ACENAPHTHENE	0.167	0.0863	51.7	45-110
ACENAPHTHYLENE	0.167	0.0856	51.3	45-105
ANTHRACENE	0.167	0.0975	58.4	55-105
BENZ (A) ANTHRACENE	0.167	0.104	62.3	50-110
BENZO (A) PYRENE	0.167	0.111	66.5	50-110
BENZO (B) FLUORANTHENE	0.167	0.101	60.5	45-115
BENZO (G,H,I) PERYLENE	0.167	0.0957	57.3	40-125
BENZO (K) FLUORANTHENE	0.167	0.0892	53.4	45-125
CHRYSENE	0.167	0.0993	59.5	55-110
DIBENZ (A,H) ANTHRACENE	0.167	0.0989	59.2	40-125
FLUORANTHENE	0.167	0.0947	56.7	55-115
FLUORENE	0.167	0.0885	53.0	50-110
INDENO (1,2,3-CD) PYRENE	0.167	0.101	60.5	40-120
NAPHTHALENE	0.167	0.0676	40.5	40-105
PHENANTHRENE	0.167	0.0917	54.9	50-110
PYRENE	0.167	0.0972	58.2	45-125
SURROGATE: 2-FLUORBIPHENYL (S)	0.083	0.0443	53.4	45-105
SURROGATE: NITROBENZENE-D5 (S)	0.083	0.037	44.6	35-100
SURROGATE: TERPHENYL-D14 (S)	0.083	0.0579	69.8	30-125

Comments: _____

Primary	SPK
Quant Method :	P0629.M
Extraction Date :	06/22/15
Analysis Date :	06/30/15
Instrument :	Linus
Run :	0629L042
Initials :	MA

Printed: 07/08/15 5:06:35 PM
APPL Standard LCS

Matrix Spike Recoveries

EPA 8270D LL SOILS

APPL ID: **150622S-17444 MS - 198579**
Batch ID: #SIMDD-150622A
Sample ID: AZ17444
Client ID: S67-SS035-0001

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl mg/kg	Matrix Result mg/kg	SPK Result mg/kg	DUP Result mg/kg	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2-METHYLNAPHTHALENE	0.133	ND	0.108	0.111	81.2	83.5	45-105	2.7	30
ACENAPHTHENE	0.167	ND	0.0996	0.0984	59.6	58.9	45-110	1.2	30
ACENAPHTHYLENE	0.167	ND	0.106	0.105	63.5	62.9	45-105	0.95	30
ANTHRACENE	0.167	0.017	0.107	0.106	53.9 #	53.3 #	55-105	0.94	30
BENZ (A) ANTHRACENE	0.167	0.10	0.148	0.156	28.7 #	33.5 #	50-110	5.3	30
BENZO (A) PYRENE	0.167	0.049	0.148	0.145	59.3	57.5	50-110	2.0	30
BENZO (B) FLUORANTHENE	0.167	0.073	0.154	0.147	48.5	44.3 #	45-115	4.7	30
BENZO (G,H,I) PERYLENE	0.167	0.038	0.118	0.117	47.9	47.3	40-125	0.85	30
BENZO (K) FLUORANTHENE	0.167	ND	0.150	0.146	89.8	87.4	45-125	2.7	30
CHRYSENE	0.167	ND	0.159	0.122	95.2	73.1	55-110	26.3	30
DIBENZ (A,H) ANTHRACENE	0.167	ND	0.110	0.111	65.9	66.5	40-125	0.90	30
FLUORANTHENE	0.167	0.10	0.164	0.150	38.3 #	29.9 #	55-115	8.9	30
FLUORENE	0.167	ND	0.103	0.104	61.7	62.3	50-110	0.97	30
INDENO (1,2,3-CD) PYRENE	0.167	0.034	0.137	0.135	61.7	60.5	40-120	1.5	30
NAPHTHALENE	0.167	ND	0.101	0.102	60.5	61.1	40-105	0.99	30
PHENANTHRENE	0.167	0.050	0.128	0.127	46.7 #	46.1 #	50-110	0.78	30
PYRENE	0.167	0.083	0.158	0.146	44.9 #	37.7 #	45-125	7.9	30
SURROGATE: 2-FLUORBIPHENYL (S)	0.083	NA	0.0558	0.0577	67.2	69.5	45-105		
SURROGATE: NITROBENZENE-D5 (S)	0.083	NA	0.0547	0.0592	65.9	71.3	35-100		
SURROGATE: TERPHENYL-D14 (S)	0.083	NA	0.0602	0.0624	72.5	75.2	30-125		

= Recovery is outside QC limits.

Comments: _____

Primary	SPK	DUP
Quant Method :	P0629.M	P0629.M
Extraction Date :	06/22/15	06/22/15
Analysis Date :	07/02/15	07/02/15
Instrument :	Linus	Linus
Run :	0629L133	0629L134
Initials :	MA	

Printed: 07/08/15 5:06:37 PM
APPL MSD SCII

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 06/30/15

Matrix: SOIL Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-FLUORBIPHENYL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150622A-BLK	Blank	45-105	56.6		35-100	35.5	
150622A-LCS	Lab Control Spike	45-105	53.4		35-100	44.6	
AZ17433	S67-SS031-0001	45-105	66.6		35-100	49.8	
AZ17434	S67-SB031-0203	45-105	52.2		35-100	59.5	
AZ17435	S67-SS039-0001	45-105	66.3		35-100	43.4	
AZ17437	S67-SS038-0001	45-105	67.1		35-100	39.3	
AZ17438	S67-SB038-0203	45-105	57.3		35-100	45.0	
AZ17439	S67-SS033-0001	45-105	67.4		35-100	62.4	
AZ17440	S67-SB033-0203	45-105	64.8		35-100	38.7	
AZ17441	S67-SS040-0001	45-105	72.0		35-100	54.7	
AZ17442	S67-SS040P-0001	45-105	87.4		35-100	60.6	
AZ17444	S67-SS035-0001	45-105	57.9		35-100	38.2	
AZ17445	S67-SB035-0203	45-105	61.2		35-100	42.5	
AZ17446	S67-SS034-0001	45-105	59.5		35-100	49.2	
AZ17436	S67-SB039-0607	45-105	21.6	#	35-100	45.6	
AZ17443	S67-SB040-1516	45-105	39.5	#	35-100	46.1	
AZ17444-MS	Matrix Spike	45-105	67.2		35-100	65.9	
AZ17444-MSD	Matrix SpikeD	45-105	69.5		35-100	71.3	
AZ17447	S67-SB034-0405	45-105	63.0		35-100	51.8	

Comments: Batch: #SIMDD-150622A

= Recovery outside of Control Limits on Sample.

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 06/30/15

Matrix: SOIL Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: TERPHENYL-D14 (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
150622A-BLK	Blank	30-125	79.1				
150622A-LCS	Lab Control Spike	30-125	69.8				
AZ17433	S67-SS031-0001	30-125	78.2				
AZ17434	S67-SB031-0203	30-125	75.1				
AZ17435	S67-SS039-0001	30-125	66.5				
AZ17437	S67-SS038-0001	30-125	76.3				
AZ17438	S67-SB038-0203	30-125	64.6				
AZ17439	S67-SS033-0001	30-125	65.1				
AZ17440	S67-SB033-0203	30-125	73.4				
AZ17441	S67-SS040-0001	30-125	77.7				
AZ17442	S67-SS040P-0001	30-125	94.9				
AZ17444	S67-SS035-0001	30-125	65.2				
AZ17445	S67-SB035-0203	30-125	72.0				
AZ17446	S67-SS034-0001	30-125	66.8				
AZ17436	S67-SB039-0607	30-125	66.7				
AZ17443	S67-SB040-1516	30-125	74.6				
AZ17444-MS	Matrix Spike	30-125	72.5				
AZ17444-MSD	Matrix SpikeD	30-125	75.2				
AZ17447	S67-SB034-0405	30-125	67.9				

Comments: Batch: #SIMDD-150622A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 07/07/15

Matrix: SOIL Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-FLUORBIPHENYL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150706A-BLK	Blank	45-105	59.4		35-100	51.7	
150706A-LCS	Lab Control Spike	45-105	60.2		35-100	58.7	
AZ17436	S67-SB039-0607	45-105	47.9		35-100	71.2	
AZ17443	S67-SB040-1516	45-105	51.3		35-100	68.0	

Comments: Batch: #SIMDD-150706A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 07/07/15

Matrix: SOIL Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: TERPHENYL-D14 (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
150706A-BLK	Blank	30-125	80.0				
150706A-LCS	Lab Control Spike	30-125	75.7				
AZ17436	S67-SB039-0607	30-125	76.0				
AZ17443	S67-SB040-1516	30-125	84.6				

Comments: Batch: #SIMDD-150706A

8270D-LL

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 06/30/15

Matrix: SOIL Instrument: Linus

Blank ID: 150622A-BLK Time Analyzed: 0609

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150622A-BLK	Blank	0629L041	06/30/15 0609
150622A-LCS	Lab Control Spike	0629L042	06/30/15 0636
AZ17433	S67-SS031-0001	0629L043	06/30/15 0703
AZ17434	S67-SB031-0203	0629L044	06/30/15 0730
AZ17435	S67-SS039-0001	0629L045	06/30/15 0757
AZ17437	S67-SS038-0001	0629L047	06/30/15 0851
AZ17438	S67-SB038-0203	0629L048	06/30/15 0918
AZ17439	S67-SS033-0001	0629L049	06/30/15 0945
AZ17440	S67-SB033-0203	0629L050	06/30/15 1012
AZ17441	S67-SS040-0001	0629L051	06/30/15 1039
AZ17442	S67-SS040P-0001	0629L052	06/30/15 1116
AZ17444	S67-SS035-0001	0629L056	06/30/15 1304
AZ17445	S67-SB035-0203	0629L057	06/30/15 1332
AZ17446	S67-SS034-0001	0629L058	06/30/15 1359
AZ17436	S67-SB039-0607	0629L071	06/30/15 2038
AZ17443	S67-SB040-1516	0629L072	06/30/15 2104
150622A-MS	Matrix Spike	0629L133	07/02/15 1055
150622A-MSD	Matrix SpikeD	0629L134	07/02/15 1122
AZ17447	S67-SB034-0405	0629L135	07/02/15 1149

Comments: Batch: #SIMDD-150622A

8270D-LL

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 07/07/15

Matrix: SOIL Instrument: Linus

Blank ID: 150706A-BLK Time Analyzed: 1234

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150706A-BLK	Blank	0629L202	07/07/15 1234
150706A-LCS	Lab Control Spike	0629L203	07/07/15 1301
AZ17436	S67-SB039-0607	0629L204	07/07/15 1328
AZ17443	S67-SB040-1516	0629L205	07/07/15 1355

Comments: Batch: #SIMDD-150706A

PERCHLORATE EPA 6850 - SOIL

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

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SS031-0001
Sample Collection Date: 06/08/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76624
APPL ID: AZ17433
QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 18.1 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0033 J	0.006	0.0040	0.0020	mg/Kg	06/17/15	06/22/15

J = Estimated value.

Quant Method:	QTLMFL2
Run #:	T621_058.d
Instrument:	AGIL_6460
Sequence:	TQ062115
Dilution Factor:	1
Initials:	RP

Printed: 07/08/15 1:29:38 PM
APPL-F1-SC-MCResOnly-REG MDLs

PERCHLORATE EPA 6850 - SOIL

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-SB031-0203
Sample Collection Date: 06/08/15

ARF: 76624
APPL ID: AZ17434
QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 17.9 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/17/15	06/22/15

Quant Method:	QTLMFL2
Run #:	T621_059.d
Instrument:	AGIL_6460
Sequence:	TQ062115
Dilution Factor:	1
Initials:	RP

Printed: 07/08/15 1:29:38 PM
APPL-F1-SC-MCResOnly-REG MDLs

PERCHLORATE EPA 6850 - SOIL

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-SS039-0001
Sample Collection Date: 06/08/15

ARF: 76624
APPL ID: AZ17435
QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 22.4 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/17/15	06/22/15

Quant Method:	QTLMFL2
Run #:	T621_060.d
Instrument:	AGIL_6460
Sequence:	TQ062115
Dilution Factor:	1
Initials:	RP

Printed: 07/08/15 1:29:38 PM
APPL-F1-SC-MCResOnly-REG MDLs

PERCHLORATE EPA 6850 - SOIL

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

Attn: Ed Corack

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76624

Sample ID: S67-SB039-0607

APPL ID: AZ17436

Sample Collection Date: 06/08/15

QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 17.9 Percent Moisture.)								
EPA 6850	PERCHLORATE	17	0.006	0.0040	0.0020	mg/Kg	06/17/15	06/22/15

Quant Method:	QTLMFL2
Run #:	T621_065.d
Instrument:	AGIL_6460
Sequence:	TQ062115
Dilution Factor:	1
Initials:	RP

Printed: 07/08/15 1:29:38 PM
APPL-F1-SC-MCResOnly-REG MDLs

PERCHLORATE EPA 6850 - SOIL

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

Attn: Ed Corack

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76624

Sample ID: S67-SS038-0001

APPL ID: AZ17437

Sample Collection Date: 06/09/15

QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 17.5 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/17/15	06/22/15

Quant Method:	QTLMFL2
Run #:	T621_066.d
Instrument:	AGIL_6460
Sequence:	TQ062115
Dilution Factor:	1
Initials:	RP

Printed: 07/08/15 1:29:38 PM
APPL-F1-SC-MCResOnly-REG MDLs

PERCHLORATE EPA 6850 - SOIL

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-SB038-0203
Sample Collection Date: 06/09/15

ARF: 76624
APPL ID: AZ17438
QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 14.7 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0035 J	0.006	0.0040	0.0020	mg/Kg	06/17/15	06/22/15

J = Estimated value.

Quant Method:	QTLMFL2
Run #:	T621_067.d
Instrument:	AGIL_6460
Sequence:	TQ062115
Dilution Factor:	1
Initials:	RP

Printed: 07/08/15 1:29:38 PM
APPL-F1-SC-MCResOnly-REG MDLs

PERCHLORATE EPA 6850 - SOIL

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-SS033-0001
Sample Collection Date: 06/09/15

ARF: 76624
APPL ID: AZ17439
QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 26.6 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/17/15	06/22/15

Quant Method:	QTLMFL2
Run #:	T621_068.d
Instrument:	AGIL_6460
Sequence:	TQ062115
Dilution Factor:	1
Initials:	RP

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APPL-F1-SC-MCResOnly-REG MDLs

PERCHLORATE EPA 6850 - SOIL

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-SB033-0203
Sample Collection Date: 06/09/15

ARF: 76624
APPL ID: AZ17440
QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 15.1 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0062 J	0.006	0.0040	0.0020	mg/Kg	06/17/15	06/22/15

J = Estimated value.

Quant Method:	QTLMFL2
Run #:	T621_069.d
Instrument:	AGIL_6460
Sequence:	TQ062115
Dilution Factor:	1
Initials:	RP

Printed: 07/08/15 1:29:38 PM
APPL-F1-SC-MCResOnly-REG MDLs

PERCHLORATE EPA 6850 - SOIL

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-SS040-0001
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17441
QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 20.0 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/17/15	06/22/15

Quant Method:	QTLMFL2
Run #:	T621_070.d
Instrument:	AGIL_6460
Sequence:	TQ062115
Dilution Factor:	1
Initials:	RP

Printed: 07/08/15 1:29:38 PM
APPL-F1-SC-MCResOnly-REG MDLs

PERCHLORATE EPA 6850 - SOIL

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: 76624

Sample ID: S67-SS040P-0001

APPL ID: AZ17442

Sample Collection Date: 06/10/15

QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 19.4 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/17/15	06/22/15

Quant Method:	QTLMFL2
Run #:	T621_071.d
Instrument:	AGIL_6460
Sequence:	TQ062115
Dilution Factor:	1
Initials:	RP

Printed: 07/08/15 1:29:38 PM

APPL-F1-SC-MCResOnly-REG MDLs

PERCHLORATE EPA 6850 - SOIL

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

Attn: Ed Corack

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76624

Sample ID: S67-SB040-1516

APPL ID: AZ17443

Sample Collection Date: 06/10/15

QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 11.9 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.058	0.006	0.0040	0.0020	mg/Kg	06/17/15	06/22/15

Quant Method:	QTLMFL2
Run #:	T705_033.d
Instrument:	AGIL_6460
Sequence:	TQ070515
Dilution Factor:	1
Initials:	RP

Printed: 07/08/15 1:29:38 PM

APPL-F1-SC-MCResOnly-REG MDLs

PERCHLORATE EPA 6850 - SOIL

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-SS035-0001
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17444
QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 14.8 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/17/15	07/05/15

Quant Method:	QTLMFL2
Run #:	T705_034.d
Instrument:	AGIL_6460
Sequence:	TQ070515
Dilution Factor:	1
Initials:	RP

Printed: 07/08/15 1:29:38 PM
APPL-F1-SC-MCResOnly-REG MDLs

PERCHLORATE EPA 6850 - SOIL

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: 76624

Sample ID: S67-SB035-0203

APPL ID: AZ17445

Sample Collection Date: 06/10/15

QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 15.6 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/17/15	07/06/15

Quant Method:	QTLMFL2
Run #:	T705_037.d
Instrument:	AGIL_6460
Sequence:	TQ070515
Dilution Factor:	1
Initials:	RP

Printed: 07/08/15 1:29:38 PM

APPL-F1-SC-MCResOnly-REG MDLs

PERCHLORATE EPA 6850 - SOIL

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-SS034-0001
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17446
QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 12.3 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/17/15	07/06/15

Quant Method:	QTLMFL2
Run #:	T705_038.d
Instrument:	AGIL_6460
Sequence:	TQ070515
Dilution Factor:	1
Initials:	RP

Printed: 07/08/15 1:29:38 PM
APPL-F1-SC-MCResOnly-REG MDLs

PERCHLORATE EPA 6850 - SOIL

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-SB034-0405
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17447
QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 17.0 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/17/15	07/06/15

Quant Method:	QTLMFL2
Run #:	T705_039.d
Instrument:	AGIL_6460
Sequence:	TQ070515
Dilution Factor:	1
Initials:	RP

Printed: 07/08/15 1:29:38 PM
APPL-F1-SC-MCResOnly-REG MDLs

Method Blank

PERCHLORATE EPA 6850 - SOIL

Blank Name/QCG: **150617S-17444 - 198529**
Batch ID: #6850SM-150617A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/17/15	06/22/15

Quant Method: QTLMFL2
Run #: T621_055.d
Instrument: AGIL_6460
Sequence: TQ062115
Initials: RP

GC SC-Blank-REG MDLs
Printed: 07/08/15 1:29:30 PM

Laboratory Control Spike Recovery
PERCHLORATE EPA 6850 - SOIL

APPL ID: **150617S-17444 LCS - 198529**
Batch ID: #6850SM-150617A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level mg/Kg	SPK Result mg/Kg	SPK % Recovery	Recovery Limits
PERCHLORATE	0.00571	0.00556	97.4	80-120

Comments: _____

Primary	SPK
Quant Method :	QTLMFL2
Extraction Date :	06/17/15
Analysis Date :	06/22/15
Instrument :	AGIL_6460
Run :	T621_053.d
Initials :	RP

Printed: 07/08/15 1:29:35 PM
APPL Standard LCS

Matrix Spike Recoveries

PERCHLORATE EPA 6850 - SOIL

APPL ID: **150617S-17444 MS - 198529**
Batch ID: #6850SM-150617A
Sample ID: AZ17444
Client ID: S67-SS035-0001

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	SPK Lvl	DUP Lvl	Matrix Result	SPK Result	DUP Result	SPK %	DUP %	Recovery	RPD	RPD
	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	Recovery	Recovery	Limits	%	Limits
(Solid Concentrations have been adjusted to reflect 14.8 Percent Moisture.)										
PERCHLORATE	0.00613	0.00607	ND	0.00548	0.00598	89.4	98.5	80-120	9.7	15

Comments:

Primary	SPK	DUP
Quant Method :	QTLMFL2	QTLMFL2
Extraction Date :	06/17/15	06/17/15
Analysis Date :	07/05/15	07/05/15
Instrument :	AGIL_6460	AGIL_6460
Run :	T705_035.d	T705_036.d
Initials :	RP	

Printed: 07/08/15 1:29:36 PM
APPL MSD SCII

EPA 6850

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 06/22/15

Matrix: SOIL Instrument: AGIL_6460

Blank ID: 150617A-BLK Time Analyzed: 0926

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150617A-LCS	Lab Control Spike	T621_053.d	06/22/15 0848
150617A-BLK	Blank	T621_055.d	06/22/15 0926
AZ17433	S67-SS031-0001	T621_058.d	06/22/15 1022
AZ17434	S67-SB031-0203	T621_059.d	06/22/15 1040
AZ17435	S67-SS039-0001	T621_060.d	06/22/15 1059
AZ17436	S67-SB039-0607	T621_065.d	06/22/15 1232
AZ17437	S67-SS038-0001	T621_066.d	06/22/15 1251
AZ17438	S67-SB038-0203	T621_067.d	06/22/15 1309
AZ17439	S67-SS033-0001	T621_068.d	06/22/15 1328
AZ17440	S67-SB033-0203	T621_069.d	06/22/15 1346
AZ17441	S67-SS040-0001	T621_070.d	06/22/15 1405
AZ17442	S67-SS040P-0001	T621_071.d	06/22/15 1424
AZ17443	S67-SB040-1516	T705_033.d	06/22/15 1557
AZ17444	S67-SS035-0001	T705_034.d	07/05/15 2311
150617A-MS	Matrix Spike	T705_035.d	07/05/15 2340
150617A-MSD	Matrix SpikeD	T705_036.d	07/05/15 2359
AZ17445	S67-SB035-0203	T705_037.d	07/06/15 0018
AZ17446	S67-SS034-0001	T705_038.d	07/06/15 0036
AZ17447	S67-SB034-0405	T705_039.d	07/06/15 0055

Comments: Batch: #6850SM-150617A

EPA 8330B SOIL

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

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-SS031-0001

Sample Collection Date: 06/08/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76624

APPL ID: AZ17433

QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/18/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/18/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	88.0	70-130			%	06/17/15	06/18/15

Quant Method: W150610.M
Run #: 0618_000009
Instrument: Waldorf
Sequence: 150618
Dilution Factor: 1
Initials: MP

Printed: 06/23/15 9:37:11 AM
APPL-F1-SC-NoMC-REG MDLs

EPA 8330B SOIL

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-SB031-0203
Sample Collection Date: 06/08/15

ARF: 76624
APPL ID: AZ17434
QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/18/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/18/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	90.0	70-130			%	06/17/15	06/18/15

Quant Method:	W150610.M
Run #:	0618_000010
Instrument:	Waldorf
Sequence:	150618
Dilution Factor:	1
Initials:	MP

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APPL-F1-SC-NoMC-REG MDLs

EPA 8330B SOIL

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-SS039-0001
Sample Collection Date: 06/08/15

ARF: 76624
APPL ID: AZ17435
QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/18/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/18/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	88.6	70-130			%	06/17/15	06/18/15

Quant Method: W150610.M
Run #: 0618_000011
Instrument: Waldorf
Sequence: 150618
Dilution Factor: 1
Initials: MP

Printed: 06/23/15 9:37:11 AM
APPL-F1-SC-NoMC-REG MDLs

EPA 8330B SOIL

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

Attn: Ed Corack

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76624

Sample ID: S67-SB039-0607

APPL ID: AZ17436

Sample Collection Date: 06/08/15

QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/18/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/18/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	88.2	70-130			%	06/17/15	06/18/15

Quant Method: W150610.M
Run #: 0618_000012
Instrument: Waldorf
Sequence: 150618
Dilution Factor: 1
Initials: MP

Printed: 06/23/15 9:37:11 AM
APPL-F1-SC-NoMC-REG MDLs

EPA 8330B SOIL

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

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-SS038-0001

Sample Collection Date: 06/09/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76624

APPL ID: AZ17437

QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/18/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/18/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	88.2	70-130			%	06/17/15	06/18/15

Quant Method: W150610.M
Run #: 0618_000013
Instrument: Waldorf
Sequence: 150618
Dilution Factor: 1
Initials: MP

Printed: 06/23/15 9:37:11 AM
APPL-F1-SC-NoMC-REG MDLs

EPA 8330B SOIL

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

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SB038-0203
Sample Collection Date: 06/09/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76624
APPL ID: AZ17438
QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/18/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/18/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	89.5	70-130			%	06/17/15	06/18/15

Quant Method: W150610.M
Run #: 0618_000014
Instrument: Waldorf
Sequence: 150618
Dilution Factor: 1
Initials: MP

Printed: 06/23/15 9:37:11 AM
APPL-F1-SC-NoMC-REG MDLs

EPA 8330B SOIL

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

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SS033-0001
Sample Collection Date: 06/09/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76624
APPL ID: AZ17439
QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/18/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/18/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	89.0	70-130			%	06/17/15	06/18/15

Quant Method: W150610.M
Run #: 0618_000015
Instrument: Waldorf
Sequence: 150618
Dilution Factor: 1
Initials: MP

Printed: 06/23/15 9:37:11 AM
APPL-F1-SC-NoMC-REG MDLs

EPA 8330B SOIL

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Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76624

Sample ID: S67-SB033-0203

APPL ID: AZ17440

Sample Collection Date: 06/09/15

QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/18/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/18/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	89.2	70-130			%	06/17/15	06/18/15

Quant Method: W150610.M
Run #: 0618_000016
Instrument: Waldorf
Sequence: 150618
Dilution Factor: 1
Initials: MP

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APPL-F1-SC-NoMC-REG MDLs

EPA 8330B SOIL

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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SS040-0001
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17441
QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/18/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/18/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	88.9	70-130			%	06/17/15	06/18/15

Quant Method: W150610.M
Run #: 0618_000017
Instrument: Waldorf
Sequence: 150618
Dilution Factor: 1
Initials: MP

Printed: 06/23/15 9:37:11 AM
APPL-F1-SC-NoMC-REG MDLs

EPA 8330B SOIL

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Norfolk, VA 23502

Attn: Ed Corack

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Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76624

Sample ID: S67-SS040P-0001

APPL ID: AZ17442

Sample Collection Date: 06/10/15

QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/18/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/18/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	87.8	70-130			%	06/17/15	06/18/15

Quant Method: W150610.M
Run #: 0618_000018
Instrument: Waldorf
Sequence: 150618
Dilution Factor: 1
Initials: MP

Printed: 06/23/15 9:37:11 AM
APPL-F1-SC-NoMC-REG MDLs

EPA 8330B SOIL

Tetra Tech
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Norfolk, VA 23502

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Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SB040-1516
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17443
QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/21/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/21/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/21/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/21/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/21/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/21/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	99.1	70-130			%	06/17/15	06/21/15

Quant Method:	STE2_150522.M
Run #:	0621_000008
Instrument:	Statler
Sequence:	150621
Dilution Factor:	1
Initials:	MP

Printed: 06/23/15 9:37:11 AM
APPL-F1-SC-NoMC-REG MDLs

EPA 8330B SOIL

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

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SS035-0001
Sample Collection Date: 06/10/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76624
APPL ID: AZ17444
QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/21/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/21/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/21/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/21/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/21/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/21/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	99.7	70-130			%	06/17/15	06/21/15

Quant Method: STE2_150522.M
Run #: 0621_000009
Instrument: Statler
Sequence: 150621
Dilution Factor: 1
Initials: MP

Printed: 06/23/15 9:37:11 AM
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EPA 8330B SOIL

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Norfolk, VA 23502

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Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SB035-0203
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17445
QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/21/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/21/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/21/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/21/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/21/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/21/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	99.3	70-130			%	06/17/15	06/21/15

Quant Method: STE2_150522.M
Run #: 0621_000010
Instrument: Statler
Sequence: 150621
Dilution Factor: 1
Initials: MP

Printed: 06/23/15 9:37:11 AM
APPL-F1-SC-NoMC-REG MDLs

EPA 8330B SOIL

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

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SS034-0001
Sample Collection Date: 06/10/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76624
APPL ID: AZ17446
QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/21/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/21/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/21/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/21/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/21/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/21/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	96.6	70-130			%	06/17/15	06/21/15

Quant Method: STE2_150522.M
Run #: 0621_000011
Instrument: Statler
Sequence: 150621
Dilution Factor: 1
Initials: MP

Printed: 06/23/15 9:37:11 AM
APPL-F1-SC-NoMC-REG MDLs

EPA 8330B SOIL

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

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SB034-0405
Sample Collection Date: 06/10/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76624
APPL ID: AZ17447
QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/21/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/21/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/21/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/21/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/21/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/21/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	101	70-130			%	06/17/15	06/21/15

Quant Method:	STE2_150522.M
Run #:	0621_000012
Instrument:	Statler
Sequence:	150621
Dilution Factor:	1
Initials:	MP

Printed: 06/23/15 9:37:11 AM
APPL-F1-SC-NoMC-REG MDLs

Method Blank
EPA 8330B SOIL

Blank Name/QCG: **150617S-17444 - 198199**
Batch ID: #83BJU11S-150617

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
BLANK	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
BLANK	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
BLANK	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/18/15
BLANK	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
BLANK	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/18/15
BLANK	SURROGATE: 1,2-DINITROBENZ	86.0	70-130			%	06/17/15	06/18/15

Quant Method: W150610.M
Run #: 0618_00000
Instrument: Waldorf
Sequence: 150618
Initials: MP

GC SC-Blank-REG MDLs
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Laboratory Control Spike Recovery
EPA 8330B SOIL

APPL ID: **150617S-17444 LCS - 198199**
Batch ID: #83BJU11S-150617

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level mg/kg	SPK Result mg/kg	SPK % Recovery	Recovery Limits
2,4-DINITROTOLUENE	1.98	1.64	82.8	80-125
2,6-DINITROTOLUENE	1.98	1.72	86.9	80-120
HMX	1.98	1.85	93.4	75-125
NITROGLYCERIN	1.98	1.68	84.8	68-131
RDX	1.98	1.67	84.3	70-135
TETRYL	1.98	1.90	96.0	10-150
SURROGATE: 1,2-DINITROBENZENE (S	1.98	1.70	85.9	70-130

Comments: _____

Primary	SPK
Quant Method :	W150610.M
Extraction Date :	06/17/15
Analysis Date :	06/18/15
Instrument :	Waldorf
Run :	0618_000005
Initials :	MP

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APPL Standard LCS

Matrix Spike Recoveries

EPA 8330B SOIL

APPL ID: **150617S-17444 MS - 198199**
Batch ID: #83BJU11S-150617
Sample ID: AZ17444
Client ID: S67-SS035-0001

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	SPK Lvl	DUP Lvl	Matrix Result	SPK Result	DUP Result	SPK %	DUP %	Recovery	RPD	RPD
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	Recovery	Recovery	Limits	%	Limits
2,4-DINITROTOLUENE	1.96	1.97	ND	1.63	1.65	83.2	83.8	80-125	0.72	20
2,6-DINITROTOLUENE	1.96	1.97	ND	1.72	1.73	87.8	87.8	80-120	0	20
HMX	1.96	1.97	ND	1.80	1.83	91.8	92.9	75-125	1.2	20
NITROGLYCERIN	1.96	1.97	ND	1.68	1.67	85.7	84.8	68-131	1.1	20
RDX	1.96	1.97	ND	1.51	1.54	77.0	78.2	70-135	1.5	20
TETRYL	1.96	1.97	ND	1.64	1.67	83.7	84.8	10-150	1.3	20
SURROGATE: 1,2-DINITROBENZEN	1.96	1.97	NA	1.69	1.70	86.2	86.3	70-130		

Comments: _____

Primary	SPK	DUP
Quant Method :	W150610.M	W150610.M
Extraction Date :	06/17/15	06/17/15
Analysis Date :	06/18/15	06/18/15
Instrument :	Waldorf	Waldorf
Run :	0618_000006	0618_000007
Initials :	MP	

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APPL MSD SCII

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 06/18/15

Matrix: SOIL Instrument: Waldorf

APPL ID.	Client Sample No.	SURROGATE: 1,2-DINITROBENZENE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
150617-LCS	Lab Control Spike	70-130	85.9				
AZ17444-MS	Matrix Spike	70-130	86.2				
AZ17444-MSD	Matrix SpikeD	70-130	86.7				
150617-BLK	Blank	70-130	86.0				
AZ17433	S67-SS031-0001	70-130	88.0				
AZ17434	S67-SB031-0203	70-130	90.0				
AZ17435	S67-SS039-0001	70-130	88.6				
AZ17436	S67-SB039-0607	70-130	88.2				
AZ17437	S67-SS038-0001	70-130	88.2				
AZ17438	S67-SB038-0203	70-130	89.5				
AZ17439	S67-SS033-0001	70-130	89.0				
AZ17440	S67-SB033-0203	70-130	89.2				
AZ17441	S67-SS040-0001	70-130	88.9				
AZ17442	S67-SS040P-0001	70-130	87.8				
AZ17443	S67-SB040-1516	70-130	99.1				
AZ17444	S67-SS035-0001	70-130	99.7				
AZ17445	S67-SB035-0203	70-130	99.3				
AZ17446	S67-SS034-0001	70-130	96.6				
AZ17447	S67-SB034-0405	70-130	101				

Comments: Batch: #83BJU11S-150617

EPA 8330B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 06/18/15

Matrix: SOIL Instrument: Waldorf

Blank ID: 150617-BLK Time Analyzed: 1203

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150617-LCS	Lab Control Spike	0618_000005	06/18/15 1011
150617-MS	Matrix Spike	0618_000006	06/18/15 1048
150617-MSD	Matrix SpikeD	0618_000007	06/18/15 1126
150617-BLK	Blank	0618_000008	06/18/15 1203
AZ17433	S67-SS031-0001	0618_000009	06/18/15 1241
AZ17434	S67-SB031-0203	0618_000010	06/18/15 1318
AZ17435	S67-SS039-0001	0618_000011	06/18/15 1356
AZ17436	S67-SB039-0607	0618_000012	06/18/15 1433
AZ17437	S67-SS038-0001	0618_000013	06/18/15 1511
AZ17438	S67-SB038-0203	0618_000014	06/18/15 1548
AZ17439	S67-SS033-0001	0618_000015	06/18/15 1626
AZ17440	S67-SB033-0203	0618_000016	06/18/15 1703
AZ17441	S67-SS040-0001	0618_000017	06/18/15 1741
AZ17442	S67-SS040P-0001	0618_000018	06/18/15 1818
AZ17443	S67-SB040-1516	0621_000008	06/21/15 1830
AZ17444	S67-SS035-0001	0621_000009	06/21/15 1910
AZ17445	S67-SB035-0203	0621_000010	06/21/15 1949
AZ17446	S67-SS034-0001	0621_000011	06/21/15 2029
AZ17447	S67-SB034-0405	0621_000012	06/21/15 2108

Comments: Batch: #83BJU11S-150617

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Form 4, Blank Summary

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-SS031-0001
Sample Collection Date: 06/08/15

ARF: 76624
APPL ID: AZ17433

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 18.1 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	9260	1220.0	98.00	48.00	mg/Kg	20	06/30/15	07/01/15
6010C/3050B	BORON (B)	10.7	6.1	4.90	1.90	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	4.6	0.82	0.610	0.310	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	48.8	9.8	4.90	1.40	mg/Kg	1	06/30/15	07/01/15

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PL-F1-SC-MCRes/MCPQL-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-SB031-0203
Sample Collection Date: 06/08/15

ARF: 76624
APPL ID: AZ17434

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.9 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	2790	61.0	4.90	2.40	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	BORON (B)	8.9	6.1	4.90	1.90	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	2.7	0.82	0.610	0.300	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	61.5	9.7	4.90	1.40	mg/Kg	1	06/30/15	07/01/15

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PL-F1-SC-MCRes/MCPQL-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-SS039-0001
Sample Collection Date: 06/08/15

ARF: 76624
APPL ID: AZ17435

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 22.4 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	6660	1290.0	103.00	51.00	mg/Kg	20	06/30/15	07/01/15
6010C/3050B	BORON (B)	13.0	6.4	5.20	2.00	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	7.1	0.86	0.640	0.320	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	62.0	10.0	5.20	1.50	mg/Kg	1	06/30/15	07/01/15

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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-SB039-0607
Sample Collection Date: 06/08/15

ARF: 76624
APPL ID: AZ17436

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.9 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	5240	1220.0	97.00	48.00	mg/Kg	20	06/30/15	07/01/15
6010C/3050B	BORON (B)	5.5 J	6.1	4.90	1.90	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	6.3	0.82	0.610	0.300	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	13.0	9.7	4.90	1.40	mg/Kg	1	06/30/15	07/01/15

J = Estimated value.

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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-SS038-0001
Sample Collection Date: 06/09/15

ARF: 76624
APPL ID: AZ17437

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.5 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	8760	1210.0	97.00	48.00	mg/Kg	20	06/30/15	07/01/15
6010C/3050B	BORON (B)	9.0	6.1	4.80	1.90	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	10.4	0.81	0.610	0.300	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	328	194.0	97.00	28.00	mg/Kg	20	06/30/15	07/01/15

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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-SB038-0203
Sample Collection Date: 06/09/15

ARF: 76624
APPL ID: AZ17438

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 14.7 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	3800	59.0	4.70	2.30	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	BORON (B)	5.4 J	5.9	4.70	1.80	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	12.3	0.79	0.590	0.290	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	171	9.4	4.70	1.30	mg/Kg	1	06/30/15	07/01/15

J = Estimated value.

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PL-F1-SC-MCRes/MCPQL-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-SS033-0001
Sample Collection Date: 06/09/15

ARF: 76624
APPL ID: AZ17439

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 26.6 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	5300	68.0	5.40	2.70	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	BORON (B)	7.9	6.8	5.40	2.10	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	5.0	0.91	0.680	0.340	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	26.6	11.0	5.40	1.60	mg/Kg	1	06/30/15	07/01/15

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PL-F1-SC-MCRes/MCPQL-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-SB033-0203
Sample Collection Date: 06/09/15

ARF: 76624
APPL ID: AZ17440

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 15.1 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	7590	1180.0	94.00	47.00	mg/Kg	20	06/30/15	07/01/15
6010C/3050B	BORON (B)	11.1	5.9	4.70	1.80	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	8.5	0.79	0.590	0.290	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	42.6	9.4	4.70	1.40	mg/Kg	1	06/30/15	07/01/15

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PL-F1-SC-MCRes/MCPQL-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-SS040-0001
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17441

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 20.0 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	10900	1250.0	100.00	50.00	mg/Kg	20	06/30/15	07/01/15
6010C/3050B	BORON (B)	10.9	6.3	5.00	1.90	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	11.8	0.84	0.630	0.310	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	700	200.0	100.00	29.00	mg/Kg	20	06/30/15	07/01/15

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PL-F1-SC-MCRes/MCPQL-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-SS040P-0001
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17442

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 19.4 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	9860	1240.0	99.00	49.00	mg/Kg	20	06/30/15	07/01/15
6010C/3050B	BORON (B)	10.3	6.2	5.00	1.90	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	9.7	0.83	0.620	0.310	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	746	199.0	99.00	29.00	mg/Kg	20	06/30/15	07/01/15

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PL-F1-SC-MCRes/MCPQL-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-SB040-1516
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17443

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 11.9 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	2640	57.0	4.50	2.20	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	BORON (B)	11.5	5.7	4.50	1.80	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	1.7	0.76	0.570	0.280	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	20.2	9.1	4.50	1.30	mg/Kg	1	06/30/15	07/01/15

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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-SS035-0001
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17444

Method	Analyte	Result	PQL	MDL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 14.8 Percent Moisture.)								
6010C/3050B	ALUMINUM (AL)	6070	1170.0	46.00	mg/Kg	20	06/30/15	07/01/15
6010C/3050B	BORON (B)	18.4	5.9	1.80	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	5.2	0.79	0.290	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	40.4	9.4	1.30	mg/Kg	1	06/30/15	07/01/15

Amended Results.

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PL-F1-SC-MCRes/MCPQL-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-SB035-0203
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17445

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 15.6 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	5550	1180.0	95.00	47.00	mg/Kg	20	06/30/15	07/01/15
6010C/3050B	BORON (B)	17.7	5.9	4.70	1.80	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	5.2	0.79	0.590	0.300	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	172	9.5	4.70	1.40	mg/Kg	1	06/30/15	07/01/15

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PL-F1-SC-MCRes/MCPQL-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-SS034-0001
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17446

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 12.3 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	6430	1140.0	91.00	45.00	mg/Kg	20	06/30/15	07/01/15
6010C/3050B	BORON (B)	11.4	5.7	4.60	1.80	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	5.9	0.76	0.570	0.290	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	108	9.1	4.60	1.30	mg/Kg	1	06/30/15	07/01/15

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PL-F1-SC-MCRes/MCPQL-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-SB034-0405
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17447

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.0 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	7890	1200.0	96.00	48.00	mg/Kg	20	06/30/15	07/01/15
6010C/3050B	BORON (B)	30.7	6.0	4.80	1.90	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	6.6	0.81	0.600	0.300	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	34.8	9.6	4.80	1.40	mg/Kg	1	06/30/15	07/01/15

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PL-F1-SC-MCRes/MCPQL-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)	2.2 J	50.0	4.00	1.98	mg/Kg	06/30/15	07/01/15	#61CJU-150630A-AZ17444
6010C	BORON (B)	4.00 U	5.0	4.00	1.55	mg/Kg	06/30/15	07/01/15	#61CJU-150630A-AZ17444
6010C	LITHIUM (LI)	0.500 U	0.67	0.500	0.250	mg/Kg	06/30/15	07/01/15	#61CJU-150630A-AZ17444
6010C	ZINC (ZN)	4.00 U	8.0	4.00	1.15	mg/Kg	06/30/15	07/01/15	#61CJU-150630A-AZ17444

J = Estimated value.

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 mg/Kg	SPK Result mg/Kg	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 6010C	ALUMINUM (AL)	200	190	95.0	80-120	06/30/15	07/01/15	#61CJU-150630A-AZ17444
EPA 6010C	BORON (B)	25.0	25.0	100	80-120	06/30/15	07/01/15	#61CJU-150630A-AZ17444
EPA 6010C	LITHIUM (LI)	10.00	10.7	107	80-120	06/30/15	07/01/15	#61CJU-150630A-AZ17444
EPA 6010C	ZINC (ZN)	50.0	47.9	95.8	80-120	06/30/15	07/01/15	#61CJU-150630A-AZ17444

Comments: _____

Matrix Spike Recoveries

METALS

APPL ID: **150630S-17444 MS - 198532**

Sample ID: AZ17444

Client ID: S67-SS035-0001

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/Kg	Matrix Res mg/Kg	SPK Res mg/Kg	DUP Res mg/Kg	SPK % Recovery	DUP % Recovery	RPD	RPD Max	Recovery Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group	QC Sample
EPA 6010C	ALUMINUM (AL)	421	5170	8170	7970	713 #	665 #	2.5	20	80-120	06/30/15	07/01/15	06/30/15	07/01/15	198532	AZ17444
EPA 6010C	BORON (B)	52.6	15.7	65.4	57.9	94.5	80.2	12.2	20	80-120	06/30/15	07/01/15	06/30/15	07/01/15	198532	AZ17444
EPA 6010C	LITHIUM (LI)	21.1	4.4	31.2	29.2	127 #	118	6.6	20	80-120	06/30/15	07/01/15	06/30/15	07/01/15	198532	AZ17444
EPA 6010C	ZINC (ZN)	105	34.4	135	127	95.8	88.2	6.1	20	80-120	06/30/15	07/01/15	06/30/15	07/01/15	198532	AZ17444

AMENDED PAGE

= Recovery is outside QC limits.

Comments: _____

6010C/3050B^

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 07/01/15

Matrix: SOIL Instrument: Jules

Blank ID: 150630A-BLK Time Analyzed: 1434

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150630A-BLK	Blank	150701A	07/01/15 1434
AZ17434	S67-SB031-0203	150701A	07/01/15 1711
AZ17435	S67-SS039-0001	150701A	07/01/15 1718
AZ17436	S67-SB039-0607	150701A	07/01/15 1726
AZ17437	S67-SS038-0001	150701A	07/01/15 1733
AZ17438	S67-SB038-0203	150701A	07/01/15 1740
AZ17439	S67-SS033-0001	150701A	07/01/15 1748
AZ17440	S67-SB033-0203	150701A	07/01/15 1755
AZ17441	S67-SS040-0001	150701A	07/01/15 1802
AZ17442	S67-SS040P-0001	150701A	07/01/15 1809
AZ17443	S67-SB040-1516	150701A	07/01/15 1829
AZ17445	S67-SB035-0203	150701A	07/01/15 1857
AZ17446	S67-SS034-0001	150701A	07/01/15 1904
AZ17433	S67-SS031-0001	150701A	07/01/15 1704
AZ17444	S67-SS035-0001	150701A	07/01/15 1919
150630A-MSD	Matrix SpikeD	150701A	07/01/15 1850
AZ17433	S67-SS031-0001	150701A	07/01/15 1447
AZ17435	S67-SS039-0001	150701A	07/01/15 1458
AZ17436	S67-SB039-0607	150701A	07/01/15 1504
AZ17437	S67-SS038-0001	150701A	07/01/15 1510
AZ17440	S67-SB033-0203	150701A	07/01/15 1527
AZ17441	S67-SS040-0001	150701A	07/01/15 1533
AZ17442	S67-SS040P-0001	150701A	07/01/15 1538
AZ17444	S67-SS035-0001	150701A	07/01/15 1606
AZ17445	S67-SB035-0203	150701A	07/01/15 1622
AZ17446	S67-SS034-0001	150701A	07/01/15 1628
AZ17447	S67-SB034-0405	150701A	07/01/15 1633
150630A-LCS	Lab Control Spike	150701A	07/01/15 1440
150630A-MS	Matrix Spike	150701A	07/01/15 1843
AZ17447	S67-SB034-0405	150701A	07/01/15 1911

Comments: Batch: #61CJU-150630A

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-SS031-0001

Sample Collection Date: 06/08/15

APPL ID: AZ17433

ARF: 76624

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 9045D	PH	5.86@23.8C	NA			pH Units	1	06/11/15	06/11/15
WalkBlk	TOTAL ORGANIC CARBON	13200	200.0	150.00	100.00	mg/Kg	1	07/02/15	07/02/15

Printed: 07/09/15 12:49:00 PM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-SS039-0001

Sample Collection Date: 06/08/15

APPL ID: AZ17435

ARF: 76624

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 9045D	PH	6.88@24C	NA			pH Units	1	06/11/15	06/11/15
WalkBlk	TOTAL ORGANIC CARBON	38100	200.0	150.00	100.00	mg/Kg	1	07/02/15	07/02/15

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APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-SS038-0001

Sample Collection Date: 06/09/15

APPL ID: AZ17437

ARF: 76624

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 9045D	PH	6.06@23.8C	NA			pH Units	1	06/11/15	06/11/15
WalkBlk	TOTAL ORGANIC CARBON	30200	200.0	150.00	100.00	mg/Kg	1	07/02/15	07/02/15

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APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-SS033-0001

Sample Collection Date: 06/09/15

APPL ID: AZ17439

ARF: 76624

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 9045D	PH	6.06@23.8C	NA			pH Units	1	06/11/15	06/11/15
WalkBlk	TOTAL ORGANIC CARBON	33300	200.0	150.00	100.00	mg/Kg	1	07/02/15	07/02/15

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APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-SS040-0001

Sample Collection Date: 06/10/15

APPL ID: AZ17441

ARF: 76624

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 9045D	PH	5.95@23.5C	NA			pH Units	1	06/11/15	06/11/15
WalkBlk	TOTAL ORGANIC CARBON	27800	200.0	150.00	100.00	mg/Kg	1	07/02/15	07/02/15

Printed: 07/09/15 12:49:00 PM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-SS040P-0001

Sample Collection Date: 06/10/15

APPL ID: AZ17442

ARF: 76624

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 9045D	PH	5.98@23.6C	NA			pH Units	1	06/11/15	06/11/15
WalkBlk	TOTAL ORGANIC CARBON	27700	200.0	150.00	100.00	mg/Kg	1	07/02/15	07/02/15

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APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-SS035-0001

Sample Collection Date: 06/10/15

APPL ID: AZ17444

ARF: 76624

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 9045D	PH	6.29@23.5C	NA			pH Units	1	06/11/15	06/11/15
WalkBlk	TOTAL ORGANIC CARBON	10800	200.0	150.00	100.00	mg/Kg	1	07/02/15	07/02/15

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APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-SS034-0001

Sample Collection Date: 06/10/15

APPL ID: AZ17446

ARF: 76624

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 9045D	PH	4.78@24C	NA			pH Units	1	06/12/15	06/12/15
WalkBlk	TOTAL ORGANIC CARBON	11700	200.0	150.00	100.00	mg/Kg	1	07/02/15	07/02/15

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APPL-F1-SC-NoMC-REG MDLs

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
WalkBlk	TOTAL ORGANIC C	150.00 U	200.0	150.00	100.00	mg/Kg	07/02/15	07/02/15	TOC-WB-150702A-AZ17444

Wetlab SC-Blank-REG MDLs
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Laboratory Control Spike Recovery

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level mg/Kg	SPK Result mg/Kg	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
WalkBlk	TOTAL ORGANIC CARBON	2000	1900	95.0	80-120	07/02/15	07/02/15	#TOC-WB-150702A-AZ17444

Comments: _____

Matrix Spike Recoveries

WETLAB

APPL ID: **150702S-17444 MS - 198548**

Sample ID: AZ17444

Client ID: S67-SS035-0001

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/Kg	Matrix Res mg/Kg	SPK Res mg/Kg	DUP Res mg/Kg	SPK % Recovery	DUP % Recovery	RPD	RPD Max	Recovery Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group	QC Sample
WalkBlk	TOTAL ORGANIC CAR	2000	10800	12700	12800	95.0	100	0.78	20	80-120	07/02/15	07/02/15	07/02/15	07/02/15	198548	AZ17444

Comments: _____

EPA 9045D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed:

Matrix: SOIL Instrument: Tiamo

Blank ID: Time Analyzed:

APPL ID.	Client Sample No.	File ID.	Date Analyzed
AZ17433	S67-SS031-0001	3	06/11/15 1552
AZ17435	S67-SS039-0001	4	06/11/15 1558
AZ17437	S67-SS038-0001	5	06/11/15 1605
AZ17439	S67-SS033-0001	6	06/11/15 1610
AZ17441	S67-SS040-0001	7	06/11/15 1613
AZ17442	S67-SS040P-0001	8	06/11/15 1616
AZ17444	S67-SS035-0001	9	06/11/15 1620

Comments: Batch: #9045D-150611B

EPA 9045D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed:

Matrix: SOIL Instrument: Tiamo

Blank ID: Time Analyzed:

APPL ID.	Client Sample No.	File ID.	Date Analyzed
AZ17446	S67-SS034-0001	3	06/12/15 1212

Comments: Batch: #9045D-150612b

WalkBlk

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 07/02/15

Matrix: SOIL Instrument: manual

Blank ID: WB-150702A-BLK Time Analyzed: 1215

APPL ID.	Client Sample No.	File ID.	Date Analyzed
WB-150702A-MS	Matrix Spike		07/02/15 1224
WB-150702A-LCS	Lab Control Spike		07/02/15 1218
AZ17446	S67-SS034-0001		07/02/15 1248
WB-150702A-MSD	Matrix SpikeD		07/02/15 1227
AZ17444	S67-SS035-0001		07/02/15 1221
AZ17433	S67-SS031-0001		07/02/15 1230
AZ17435	S67-SS039-0001		07/02/15 1233
AZ17437	S67-SS038-0001		07/02/15 1236
AZ17439	S67-SS033-0001		07/02/15 1239
AZ17441	S67-SS040-0001		07/02/15 1242
AZ17442	S67-SS040P-0001		07/02/15 1245
WB-150702A-BLK	Blank		07/02/15 1215

Comments: Batch: #TOC-WB-150702A

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

July 9, 2015

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

Attn: Ed Corack

Title: Report of Data: Case 76624

Project: CTO JU11 112G02622 NSF Indian Head, MD

Contract #: Prime contract # for DoD: Navy CLEAN. N62467-08-D-1001
Subcontract # 1045497, Work Release # 08-JU11

Dear Mr. Corack:

Fifteen soil samples were received June 11, 2015, at 3.0°C and 4.5°C. Written results for the requested analyses are being provided on this July 9, 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: 1120

Data Validation Package

for

CTO JU11 112G02622 NSF Indian Head

ARF 76624

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SAMPLE RECEIPT INFORMATION

Sample receipt information

ARF: 76624

Project: CTO JU11 112G02622 NSF Indian Head, MD

Sample Receipt Information:

The soil samples were received on June 11 and 15, 2015, at 3.0°C and 4.5°C. The samples were assigned Analytical Request Form (ARF) number 76624. The sample numbers and requested analyses were compared to the chains of custody and email communications. Two samples S67-SS034-0001 and S67-SB034-0405 were received June 12, 2015. MS/MSD were added to sample S67-SS035-0001, as requested. An extra container labeled S67-SB038-0203 collected at 10:02 was set aside, as requested. Sample S67-SS038-0001 has a missing container. No other exception was encountered.

Sample Table

CLIENT ID	APPL ID	Matrix	Date Sampled	Date Received
S67-SS031-0001	AZ17433	SOIL	06/08/15	06/11/15
S67-SB031-0203	AZ17434	SOIL	06/08/15	06/11/15
S67-SS039-0001	AZ17435	SOIL	06/08/15	06/11/15
S67-SB039-0607	AZ17436	SOIL	06/08/15	06/11/15
S67-SS038-0001	AZ17437	SOIL	06/09/15	06/11/15
S67-SB038-0203	AZ17438	SOIL	06/09/15	06/11/15
S67-SS033-0001	AZ17439	SOIL	06/09/15	06/11/15
S67-SB033-0203	AZ17440	SOIL	06/09/15	06/11/15
S67-SS040-0001	AZ17441	SOIL	06/10/15	06/11/15
S67-SS040P-0001	AZ17442	SOIL	06/10/15	06/11/15
S67-SB040-1516	AZ17443	SOIL	06/10/15	06/11/15
S67-SS035-0001	AZ17444	SOIL	06/10/15	06/11/15
S67-SB035-0203	AZ17445	SOIL	06/10/15	06/11/15
S67-SS034-0001	AZ17446	SOIL	06/10/15	06/11/15
S67-SB034-0405	AZ17447	SOIL	06/10/15	06/11/15

Percent moisture was determined using CLP 4.0. 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 soil samples were extracted according to EPA method 3550B. Due to low surrogate recoveries, two samples were re-extracted, 24 and 22 days after collection. All other holding times were met.

The samples were analyzed according to EPA Method 8270D using an Agilent GC/MS.

Quality Control/Assurance

Spike Recovery

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

Sample S67-SS035-0001 was designated by the client for MS/MSD analysis. All acceptance criteria were met.

Method blanks

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

Surrogates

Surrogate recoveries are summarized on Form 2 & 8. The 150622A method blank recovered Phenol-d6 above the 100% upper control limit. The surrogate 2-Fluorobiphenyl recovered below the 45% lower control limit in two samples S67-SB031-0203 and S67-SB040-1516; the PAH extract for sample S67-SB040-1516 also had low 2-Fluorobiphenyl recovery. The samples were re-extracted, 24 and 22 days after collection; the re-extracted samples had acceptable surrogate recoveries. All other surrogate recoveries were within control limits.

Calibration

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

Tuning:

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

Internal Standards

The internal standard area counts were compared to the mid-point of the initial calibration according to method 8270. All method criteria were met.

Summary:

No other problem was encountered. All data generated are acceptable.

EPA Method 8270D-SIM - PAHs

Sample Preparation and Analysis Information:

The soil samples were extracted according to EPA method 3550B. Due to low surrogate recoveries, two samples were re-extracted, 28 and 26 days after collection. All other holding times were met.

The samples were analyzed according to EPA Method 8270D using an Agilent GC/MS with selective ion monitoring. Benzo(b)fluoranthene and Benzo(k)fluoranthene could not be chromatographically separated in some samples. As a result, each of these is reported from the sum of the two area counts and may be biased high. Some samples extracts are very dark. They were injected and reported at dilution factor of 10:1

Manual integrations were performed in accordance with APPL's SOP. Phenanthrene, anthracene, fluoranthene, and Benzo(b) fluoranthene were manually integrated in the second source standard. Chrysene was manually integrated in a CCV. The surrogate nitrobenzene-d5 was manually integrated in 150622A LCS, samples S67-SB031-0203, S67-SS033-0001, S67-SS040-0001, and S67-SS034-0001. Naphthalene, Anthracene and Chrysene were manually integrated in the 150622A LCS. Chromatograms of before and after manual integration are enclosed.

Quality Control/Assurance

Spike Recovery

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

Sample S67-SS035-0001 was designated by the client for MS/MSD analysis. Six analytes recovered below the control limits in MS/MSD. All other acceptance criteria were met.

Method blanks

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

Surrogates

Surrogate recoveries are summarized on Form 2 & 8. Samples S67-SB039-0607 and S67-SB040-1516 recovered the surrogate2-Fluorobiphenyl below the 45% lower control limit. The SVOC extract for sample S67-SB040-1516 also had low 2-Fluorobiphenyl recovery. The samples were re-extracted, 28 and 26 days after collection; the re-extracted samples had acceptable surrogate recoveries. All other surrogate recoveries were within control limits.

Calibration

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

Tuning:

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

Internal Standards

The internal standard area counts were compared to the mid-point of the initial calibration according to method 8270. All method criteria were met.

Summary:

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

EPA Method 6850

Perchlorate by LC-Mass Spec

Sample Preparation and Analysis Information:

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

Manual integrations were performed in accordance to APPL's SOP. Perchlorate was manually integrated in the calibration curve and in the samples. 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.

Sample S67-SS035-0001 was designated by the client for MS/MSD analysis. All acceptance criteria were met.

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 samples were dried and extracted according to EPA method 8330B, without using incremental sampling procedures. All holding times were met.

Analysis:

The samples were analyzed according to EPA Method 8330B using an Agilent 1290 HPLC with DA detector. Manual integrations were performed in accordance with APPL's SOP. The following analytes were manually integrated in the calibration standards: HMX, Nitroglycerin, PETN, 1,2-Dinitrobenzene, 1,3- Dinitrobenzene, Nitrobenzene, 2,4,6-Trinitrotoluene, Tetryl, 2,6-Dinitrotoluene, 2,4-Dinitrotoluene, 2-Nitrotoluene, 4-Nitrotoluene, 3-Nitrotoluene, 4-Amino-2,6-Dinitrotoluene, 2-Amino-4,6-Dinitrotoluene and 3,5-Dinitroaniline. HMX 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.

Sample S67-SS035-0001 was designated by the client for MS/MSD analysis. All acceptance criteria were met.

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
Metals

Digestion and Analysis Information:

The soil samples were digested according to EPA method 3050B. 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 blank.

Spikes:

Laboratory Control Spike (LCS), Matrix Spikes (MS/MSD), Post-Digestion Spike (PDS), and a Dilution Test (DT) were used for quality assurance. All LCS acceptance criteria were met.

Sample S67-SS035-0001 was designated by the client for MS/MSD analysis. Two metals fell above the upper control limit in the MS/MSD. In the DT, one metal exceeded the 10% deviation limit. The PDS met acceptance criteria.

Summary:

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

Amended Page

Inorganic Analyses

EPA Method 9045D and Walkley Black

Sample Preparation and Analysis

The samples were prepared and analyzed according to the methods. 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.

Sample S67-SS035-0001was designated by the client for MS/MSD analysis. All acceptance criteria were met.

Method blanks

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

Calibration

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

Summary:

No analytical exception was noted.

APPL Inc.
Abbreviations and Flags

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

CHAIN OF CUSTODY,

ARF, CRF, AND

CLIENT COMMUNICATION

APPL - Analysis Request Form 76624

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** # **51596,98,51600**
RAD Screen (Y/N): **Y** pH (Y/N): **N**
Turn Around Type: **STD**

Received by: **CM**
Date Received: **06/11/15** Time: **10:15**
Delivered by: **FED EX**
Shuttle Custody Seals (Y/N): **Y** Time Zone: **-4**
Chest Temp(s): **3.0,4.5°C**
Color: **C-BLK**
Samples Chilled until Placed in Refrig/Freezer: **Y**
Project Manager: **Cynthia Clark**
QC Report Type: **DVP4/LEDD/MD**
Due Date: **07/02/15**

Comments:
login to ed.corack@ amy.thomson@ & tobrena.sedlmyer@tetratech.com.
Rush results to Ed; 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/
EDD: email confirm to ed.corack@ amy.thomson@ & tobrena.sedlmyer@tetratech.com
Guidance: DOD QSM v4.2: DOD Forms, LOD Database
2 missing samples rec'd 06/12/15, @ 4.5°C; add MS/MSD to SS035-0001; discard SB038-0203 4-oz j

Sample Distribution:
GC: 15-$87DJU11S, 15-$SIMDDODSM
Extractions: 15-_HPLC6850GROSS, 15-_MSE018, 15-_SON009, 15-_SON009S
LCMS: 15-$6850SM, 15-$83BJU11S
Metals: 15-$61CJU11S2(Al,B,Li,Zn)
Wetlab: 8-$9045D, 8-$TOC-WB, 15-MOIST
Other: 15-_M3050

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-SS031-0001	AZ17433S	06/08/15 11:43	$61CJU11S2(Al,B,Li,Zn), $6850SM, $83BJU11S, $87DJU11S, $9045D, $SIMDDODSM, $TOC-WB, MOIST -- add Li Spike
2.	S67-SB031-0203	AZ17434S	06/08/15 11:45	$61CJU11S2(Al,B,Li,Zn), $6850SM, $83BJU11S, $87DJU11S, $SIMDDODSM, MOIST -- add Li Spike
3.	S67-SS039-0001	AZ17435S	06/08/15 15:36	$61CJU11S2(Al,B,Li,Zn), $6850SM, $83BJU11S, $87DJU11S, $9045D, $SIMDDODSM, $TOC-WB, MOIST -- add Li Spike

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

4.	S67-SB039-0607	AZ17436S	06/08/15	15:42	$61CJU11S2(Al,B,Li,Zn), $6850SM, $83BJU11S, $87DJU11S, $SIMDDODSM, MOIST -- add Li Spike
5.	S67-SS038-0001	AZ17437S	06/09/15	10:02	$61CJU11S2(Al,B,Li,Zn), $6850SM, $83BJU11S, $87DJU11S, $9045D, $SIMDDODSM, $TOC-WB, MOIST -- add Li Spike
6.	S67-SB038-0203	AZ17438S	06/09/15	10:04	$61CJU11S2(Al,B,Li,Zn), $6850SM, $83BJU11S, $87DJU11S, $SIMDDODSM, MOIST -- add Li Spike
7.	S67-SS033-0001	AZ17439S	06/09/15	13:30	$61CJU11S2(Al,B,Li,Zn), $6850SM, $83BJU11S, $87DJU11S, $9045D, $SIMDDODSM, $TOC-WB, MOIST -- add Li Spike
8.	S67-SB033-0203	AZ17440S	06/09/15	13:40	$61CJU11S2(Al,B,Li,Zn), $6850SM, $83BJU11S, $87DJU11S, $SIMDDODSM, MOIST -- add Li Spike
9.	S67-SS040-0001	AZ17441S	06/10/15	08:42	$61CJU11S2(Al,B,Li,Zn), $6850SM, $83BJU11S, $87DJU11S, $9045D, $SIMDDODSM, $TOC-WB, MOIST -- add Li Spike
10.	S67-SS040P-0001	AZ17442S	06/10/15	08:42	$61CJU11S2(Al,B,Li,Zn), $6850SM, $83BJU11S, $87DJU11S, $9045D, $SIMDDODSM, $TOC-WB, MOIST -- add Li Spike
11.	S67-SB040-1516	AZ17443S	06/10/15	08:55	$61CJU11S2(Al,B,Li,Zn), $6850SM, $83BJU11S, $87DJU11S, $SIMDDODSM, MOIST -- add Li Spike
12.	S67-SS035-0001 ms/msd	AZ17444S	06/10/15	11:45	$61CJU11S2(Al,B,Li,Zn), $6850SM, $83BJU11S, $87DJU11S, $9045D, $SIMDDODSM, $TOC-WB, MOIST -- add Li Spike
13.	S67-SB035-0203	AZ17445S	06/10/15	11:50	$61CJU11S2(Al,B,Li,Zn), $6850SM, $83BJU11S, $87DJU11S, $SIMDDODSM, MOIST -- add Li Spike
14.	S67-SS034-0001	AZ17446S	06/10/15	13:32	$61CJU11S2(Al,B,Li,Zn), $6850SM, $83BJU11S, $87DJU11S, $9045D, $SIMDDODSM, $TOC-WB, MOIST -- add Li Spike
15.	S67-SB034-0405	AZ17447S	06/10/15	13:37	$61CJU11S2(Al,B,Li,Zn), $6850SM, $83BJU11S, $87DJU11S, $SIMDDODSM, MOIST -- add Li Spike

APPL Sample Receipt Form

ARF# **76624**

Sample	Container Type	Count	pH
AZ17433	[20] 4oz Jar	1	NA
	[21] 8oz Jar	2	NA
AZ17434	[21] 8oz Jar	2	NA
AZ17435	[20] 4oz Jar	1	NA
	[21] 8oz Jar	2	NA
AZ17436	[21] 8oz Jar	2	NA
AZ17437	[21] 8oz Jar	2	NA
AZ17438	[21] 8oz Jar	2	NA
AZ17439	[20] 4oz Jar	1	NA
	[21] 8oz Jar	2	NA
AZ17440	[21] 8oz Jar	2	NA
AZ17441	[20] 4oz Jar	1	NA
	[21] 8oz Jar	2	NA
AZ17442	[20] 4oz Jar	1	NA
	[21] 8oz Jar	2	NA
AZ17443	[21] 8oz Jar	2	NA
AZ17444	[20] 4oz Jar	3	NA
	[21] 8oz Jar	6	NA
AZ17445	[21] 8oz Jar	2	NA
AZ17446	[20] 4oz Jar	1	NA
	[21] 8oz Jar	2	NA
AZ17447	[21] 8oz Jar	2	NA

Sample	Container Type	Count	pH

Renee Patterson

From: Cynthia Clark [cclark@applinc.com]
Sent: Friday, June 12, 2015 11:20 AM
To: 'APPL - Receiving'
Cc: 'Chue Moua'; 'Renée Patterson'; 'Sharon Dehmlow'
Subject: RE: ARF 76624 Receiving Notes

regarding the extra 4oz jar - TTEC cannot formally say whether that is one sample or the other, so they would like us to set that jar aside and not to use it for analysis. We should have enough volume for the requested analyses without this jar

Sincerely,

Cynthia Clark
Project Manager

Agriculture & Priority Pollutants Laboratories, Inc.
WOSB. NELAP Accredited.

t. 559.275-2175 f. 559.275-4422
a. 908 N. Temperance Ave., Clovis, CA 93611

Website • Email

DoD accredited for ISM, Dioxins and PCB congeners.

This is a PRIVATE and CONFIDENTIAL message. If you are not the intended recipient, please delete without copying and kindly advise us by e-mail of the mistake in delivery. NOTE: Regardless of content, this e-mail shall not operate to bind APPL, Inc. to any order or other contract unless pursuant to explicit written agreement or government initiative expressly permitting the use of e-mail for such purpose.

From: Cynthia Clark [mailto:cclark@applinc.com]
Sent: Friday, June 12, 2015 8:30 AM
To: 'APPL - Receiving'
Cc: 'Chue Moua'; 'Renée Patterson'; 'Sharon Dehmlow'
Subject: RE: ARF 76624 Receiving Notes

please log in that sample for MS/MSD

We will receive the 2 missing samples today

He has not yet responded regarding the ID for the extra 4oz jar

Sincerely,

Cynthia Clark

APPL LABS

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

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

76624

CHAIN OF CUSTODY RECORD

1 of 2
3.0

C.O.C. 51596

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

Project Name/Number	Sampler (Print)	Purchase Order Number	Sampler (Signature)
NST-Indian Head Site67 112G02622 C10-JU11	Jacob Birkett		

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Sed.	Soil	Analysis Requested/Method Number: Phthalates	PAHs	Metals	Energetics	Perchlorate	pH	TOC	Date Shipped: 6-10-15 / Carrier: FedEx / Waybill No.: 8744-8572-5084 / Comments:
S67-SS031-0001	S31/MW17	6-8-15	1143	ET	3			3	2	→	→	→	→	1	→	
S67-SB031-0203	S31/MW17	6-8-15	1145	ET	2			2	2	→	→	→	→			
S67-SS039-0001	S39/MW25	6-8-15	1536	ET	3			3	2	→	→	→	→	1	→	
S67-SB039-0607	S39/MW25	6-8-15	1542	ET	2			2	2	→	→	→	→			
S67-SS038-0001	S38/MW24	6-9-15	1002	ET	3			3	2	→	→	→	→	1	→	
S67-SB038-0203	S38/MW24	6-9-15	1004	ET	2			2	2	→	→	→	→			
S67-SS033-0001	S33/MW19	6-9-15	1330	ET	3			3	2	→	→	→	→	1	→	
S67-SB033-0203	S33/MW19	6-9-15	1340	ET	2			2	2	→	→	→	→			
S67-SS040-0001	S40/MW26	6-10-15	0842	ET	3			3	2	→	→	→	→	1	→	
S67-SS040P-0001	S40/MW26	6-10-15	0842	ET	3			3	2	→	→	→	→	1	→	Duplicate
S67-SB040-1516	S40/MW26	6-10-15	0855	ET	2			2	2	→	→	→	→			

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	6-10-15	1800					
Relinquished by:	Date	Time	Received by:	Relinquished by:	Date	Time	Received at lab by:
					6/11/15	10:15	

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

See reverse side for Container Preservative and Sampling Information

APPL, Inc.
908 N Temperance Ave
Clovis, CA 93611
Phone: (559) 275-2175
Fax: (559) 275-4422

CHAIN OF CUSTODY RECORD

2 of 2

C.O.C. 51600

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

Project Name/Number	Sampler (Print)
NSF-Indian Head Site G7 112G02622 CTO-JU11	Jacob Birkett
Purchase Order Number	Sampler (Signature)

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Matrix: Sed.	Matrix: Soil	Phthalates	PAHs	Metals	Energetics	Perchlorate	pH	TOC
S67-SS035-0001	S35/MW21	6-10-15	1145	ET	3			3	2	→	→	→	→	1	→
S67-SB035-0203	S35/MW21	6-10-15	1150	ET	2			2	2	→	→	→	→		
S67-SS034-0001	S34/MW20	6-10-15	1332	ET	3			3	2	→	→	→	→	1	→
S67-SB034-0405	S34/MW20	6-10-15	1337	ET	2			2	2	→	→	→	→		

JBS 6-10-15

Date Shipped: 6-10-15
Carrier: FedEx
Waybill No.: 8744-3572-5084
Comments:

Analysis Requested/Method Number

Shuttle Temperature:

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

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

Relinquished by sampler:	Date	Time	Received by:
Jacob Birkett	6-10-15	1800	
Relinquished by:	Date	Time	Received by:

Relinquished by:	Date	Time	Received by:
Relinquished by:	Date 6/11/15	Time 10:15	Received at lab by: Yang Zu

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

See reverse side for Container Preservative and Sampling Information

APPL LABS

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

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

CHAIN OF CUSTODY RECORD 7

4.5

C.O.C. 51598

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

Project Name/Number	Sampler (Print)	Purchase Order Number	Sampler (Signature)
112G02622 CTO-JW11 NSF-Indian Head Site 67	Jacob Birkett		

Sample Identification	Location	Date Collected	Time Collected	Time Zone	No. of Containers	Matrix: Aq	Matrix: Sed.	Matrix: Soil	Analysis Requested/Method Number: Phthalates	PAHs	Metals	Energetics	Perchlorate	pH	TOC
567-SS034-0001	SS4/MW20	6-10-15	1332	ET	3		3		2	→			→	1	→
567-SB034-0405	SS4/MW20	6-10-15	1337	ET	2		2		2	→			→		

6-11-15

Date Shipped: 6-11-15
Carrier: FedEx
Waybill No.: 8744-8572-5095
Comments:

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	6-11-15	1800	FedEx				
Relinquished by:	Date	Time	Received by:	Relinquished by:	Date	Time	Received at lab by:
					6/12/15	09:40	Yang

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

See reverse side for Container Preservative and Sampling Information

COOLER RECEIPT FORM **ARF: 76624**

1) Project: CTO JU11 112G02622 NSF Indian Head Date Received: 06/11/15

2) Coolers: Number of Coolers: 2

3) YES Were custody seals present and intact?
How many? 4 Name/Date on seal? See below

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

5) Type of packing in cooler: X bubble wrap __ popcorn __ foam X plastic bag
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 mp 6-12-15

1: 3.0 2: 4.5 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) mp 6-12-15 NO/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) NA Was the pH taken of all non-VOA preserved samples and written on the sample container?

20) NA 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: ____
Lab notified if pH was not adequate: ____

Notes/Deficiencies:

Sample S67-SS035-0001 - COC listed 3 containers but received total of 9 containers and is marked with MS/MSD, COC has no MS/MSD indication. Missing two samples; ID are S67-SS034-0001 and S67-SB034-0405. Received a 4 oz container with ID S67-SB038-0203 collected on 06/09/15 @ 10:02; Do not know which sample it goes too? is it Sample S67-SB038-0203 collected on 06/09/15 @ 10:04 (COC listed 2 containers and all container is accounted)) or Sample S67-SB038-0001 collected on 06/09/15 @ 10:02 (COC listed 3 containers and received only 2 of 3 containers).

Received both missing Samples on 06/12/15 @ 09:40. Temp. is 4.5°C

Personnel receiving samples: YL Second reviewer: Renée
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

Method Blank
EPA 8270D SOILS

Blank Name/QCG: **150622S-17444 - 198554**
Batch ID: #87DJU-150622A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	BIS (2-ETHYLHEXYL) PHTHALAT	0.167 U	0.66	0.167	0.062	mg/kg	6/22/2015	6/30/2015
BLANK	BUTYL BENZYL PHTHALATE	0.167 U	0.33	0.167	0.056	mg/kg	6/22/2015	6/30/2015
BLANK	DI-N-BUTYL PHTHALATE	0.167 U	0.33	0.167	0.066	mg/kg	6/22/2015	6/30/2015
BLANK	DI-N-OCTYL PHTHALATE	0.167 U	0.33	0.167	0.058	mg/kg	6/22/2015	6/30/2015
BLANK	DIETHYL PHTHALATE	0.167 U	0.33	0.167	0.062	mg/kg	6/22/2015	6/30/2015
BLANK	DIMETHYL PHTHALATE	0.167 U	0.33	0.167	0.063	mg/kg	6/22/2015	6/30/2015
BLANK	SURROGATE: 2,4,6-TRIBROMOP	75.9	35-125			%	6/22/2015	6/30/2015
BLANK	SURROGATE: 2-FLUORBIPHENY	79.4	45-105			%	6/22/2015	6/30/2015
BLANK	SURROGATE: 2-FLUOROPHENO	92.2	35-105			%	6/22/2015	6/30/2015
BLANK	SURROGATE: NITROBENZENE-	88.7	35-100			%	6/22/2015	6/30/2015
BLANK	SURROGATE: PHENOL (S)	101 #	40-100			%	6/22/2015	6/30/2015
BLANK	SURROGATE: TERPHENYL-D14	78.0	30-125			%	6/22/2015	6/30/2015

= Recovery (or RPD) is outside QC limits.

Quant Method: Y0625TT.M
Run #: 0625Y054
Instrument: Yoda
Sequence: Y150625
Initials: DA

GC SC-Blank-REG MDLs
Printed: 7/2/2015 3:38:01 PM

Method Blank
EPA 8270D SOIL RE-ANALYSIS

Blank Name/QCG: **150702S-17434 - 198613**
Batch ID: #87DJU-150702A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	BIS (2-ETHYLHEXYL) PHTHALAT	0.167 U	0.66	0.167	0.062	mg/kg	7/2/2015	7/6/2015
BLANK	BUTYL BENZYL PHTHALATE	0.167 U	0.33	0.167	0.056	mg/kg	7/2/2015	7/6/2015
BLANK	DI-N-BUTYL PHTHALATE	0.167 U	0.33	0.167	0.066	mg/kg	7/2/2015	7/6/2015
BLANK	DI-N-OCTYL PHTHALATE	0.167 U	0.33	0.167	0.058	mg/kg	7/2/2015	7/6/2015
BLANK	DIETHYL PHTHALATE	0.167 U	0.33	0.167	0.062	mg/kg	7/2/2015	7/6/2015
BLANK	DIMETHYL PHTHALATE	0.167 U	0.33	0.167	0.063	mg/kg	7/2/2015	7/6/2015
BLANK	SURROGATE: 2,4,6-TRIBROMOP	76.8	35-125			%	7/2/2015	7/6/2015
BLANK	SURROGATE: 2-FLUORBIPHENY	64.2	45-105			%	7/2/2015	7/6/2015
BLANK	SURROGATE: 2-FLUOROPHENO	58.7	35-105			%	7/2/2015	7/6/2015
BLANK	SURROGATE: NITROBENZENE-	62.9	35-100			%	7/2/2015	7/6/2015
BLANK	SURROGATE: PHENOL (S)	66.8	40-100			%	7/2/2015	7/6/2015
BLANK	SURROGATE: TERPHENYL-D14	78.9	30-125			%	7/2/2015	7/6/2015

Quant Method: Y0625TT.M
Run #: 0625Y101
Instrument: Yoda
Sequence: Y150625
Initials: DA

GC SC-Blank-REG MDLs
Printed: 7/7/2015 9:44:29 AM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 6/30/2015

Matrix: SOIL Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2,4,6-TRIBROMOPHENOL (S)			SURROGATE: 2-FLUORBIPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150622A-BLK	Blank	35-125	75.9		45-105	79.4	
150622A-LCS	Lab Control Spike	35-125	81.9		45-105	79.6	
AZ17433	S67-SS031-0001	35-125	58.6		45-105	57.4	
AZ17434	S67-SB031-0203	35-125	48.0		45-105	41.5	#
AZ17435	S67-SS039-0001	35-125	70.9		45-105	57.1	
AZ17436	S67-SB039-0607	35-125	73.3		45-105	45.4	
AZ17437	S67-SS038-0001	35-125	68.9		45-105	61.9	
AZ17438	S67-SB038-0203	35-125	78.7		45-105	64.6	
AZ17439	S67-SS033-0001	35-125	69.7		45-105	58.9	
AZ17440	S67-SB033-0203	35-125	78.7		45-105	59.9	
AZ17441	S67-SS040-0001	35-125	71.2		45-105	65.7	
AZ17442	S67-SS040P-0001	35-125	65.9		45-105	58.5	
AZ17443	S67-SB040-1516	35-125	67.0		45-105	43.2	#
AZ17444-MS	Matrix Spike	35-125	71.7		45-105	62.8	
AZ17444-MSD	Matrix SpikeD	35-125	70.3		45-105	62.8	
AZ17444	S67-SS035-0001	35-125	62.4		45-105	58.3	
AZ17445	S67-SB035-0203	35-125	57.1		45-105	48.7	
AZ17446	S67-SS034-0001	35-125	73.3		45-105	55.0	
AZ17447	S67-SB034-0405	35-125	74.2		45-105	65.3	

Comments: Batch: #87DJU-150622A

= Recovery outside of Control Limits on Sample.

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 6/30/2015

Matrix: SOIL Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2-FLUOROPHENOL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150622A-BLK	Blank	35-105	92.2		35-100	88.7	
150622A-LCS	Lab Control Spike	35-105	77.4		35-100	82.3	
AZ17433	S67-SS031-0001	35-105	57.0		35-100	71.4	
AZ17434	S67-SB031-0203	35-105	46.5		35-100	60.8	
AZ17435	S67-SS039-0001	35-105	53.6		35-100	73.2	
AZ17436	S67-SB039-0607	35-105	67.2		35-100	73.4	
AZ17437	S67-SS038-0001	35-105	59.0		35-100	71.1	
AZ17438	S67-SB038-0203	35-105	68.2		35-100	78.3	
AZ17439	S67-SS033-0001	35-105	58.9		35-100	76.1	
AZ17440	S67-SB033-0203	35-105	67.8		35-100	83.9	
AZ17441	S67-SS040-0001	35-105	60.7		35-100	72.6	
AZ17442	S67-SS040P-0001	35-105	54.4		35-100	63.6	
AZ17443	S67-SB040-1516	35-105	50.1		35-100	54.0	
AZ17444-MS	Matrix Spike	35-105	69.9		35-100	77.8	
AZ17444-MSD	Matrix SpikeD	35-105	73.2		35-100	83.5	
AZ17444	S67-SS035-0001	35-105	63.6		35-100	72.0	
AZ17445	S67-SB035-0203	35-105	48.8		35-100	69.8	
AZ17446	S67-SS034-0001	35-105	61.2		35-100	64.7	
AZ17447	S67-SB034-0405	35-105	62.9		35-100	73.5	

Comments: Batch: #87DJU-150622A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 6/30/2015

Matrix: SOIL Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: PHENOL (S)			SURROGATE: TERPHENYL-D14 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150622A-BLK	Blank	40-100	101	#	30-125	78.0	
150622A-LCS	Lab Control Spike	40-100	84.9		30-125	75.4	
AZ17433	S67-SS031-0001	40-100	70.3		30-125	62.3	
AZ17434	S67-SB031-0203	40-100	62.4		30-125	63.0	
AZ17435	S67-SS039-0001	40-100	65.4		30-125	62.7	
AZ17436	S67-SB039-0607	40-100	78.5		30-125	66.2	
AZ17437	S67-SS038-0001	40-100	72.2		30-125	70.3	
AZ17438	S67-SB038-0203	40-100	84.5		30-125	74.0	
AZ17439	S67-SS033-0001	40-100	71.6		30-125	66.1	
AZ17440	S67-SB033-0203	40-100	81.3		30-125	72.6	
AZ17441	S67-SS040-0001	40-100	74.6		30-125	72.7	
AZ17442	S67-SS040P-0001	40-100	66.0		30-125	66.9	
AZ17443	S67-SB040-1516	40-100	57.3		30-125	51.2	
AZ17444-MS	Matrix Spike	40-100	79.3		30-125	72.7	
AZ17444-MSD	Matrix SpikeD	40-100	85.3		30-125	72.4	
AZ17444	S67-SS035-0001	40-100	79.5		30-125	69.3	
AZ17445	S67-SB035-0203	40-100	64.1		30-125	58.8	
AZ17446	S67-SS034-0001	40-100	74.3		30-125	67.4	
AZ17447	S67-SB034-0405	40-100	71.3		30-125	72.1	

Comments: Batch: #87DJU-150622A

= Recovery outside of Control Limits on Sample.

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 7/6/2015

Matrix: SOIL Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2,4,6-TRIBROMOPHENOL (S)			SURROGATE: 2-FLUORBIPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150702A-BLK	Blank	35-125	76.8		45-105	64.2	
150702A-LCS	Lab Control Spike	35-125	91.1		45-105	80.9	
AZ17434	S67-SB031-0203	35-125	92.5		45-105	79.9	
AZ17443	S67-SB040-1516	35-125	77.1		45-105	70.2	

Comments: Batch: #87DJU-150702A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 7/6/2015

Matrix: SOIL Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2-FLUOROPHENOL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150702A-BLK	Blank	35-105	58.7		35-100	62.9	
150702A-LCS	Lab Control Spike	35-105	70.6		35-100	80.6	
AZ17434	S67-SB031-0203	35-105	79.0		35-100	84.5	
AZ17443	S67-SB040-1516	35-105	65.9		35-100	71.5	

Comments: Batch: #87DJU-150702A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 7/6/2015

Matrix: SOIL Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: PHENOL (S)			SURROGATE: TERPHENYL-D14 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150702A-BLK	Blank	40-100	66.8		30-125	78.9	
150702A-LCS	Lab Control Spike	40-100	83.3		30-125	81.8	
AZ17434	S67-SB031-0203	40-100	94.6		30-125	92.1	
AZ17443	S67-SB040-1516	40-100	78.4		30-125	75.1	

Comments: Batch: #87DJU-150702A

Laboratory Control Spike Recovery
EPA 8270D SOILS

APPL ID: **150622S-17444 LCS - 198554**
Batch ID: #87DJU-150622A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level mg/kg	SPK Result mg/kg	SPK % Recovery	Recovery Limits
BIS (2-ETHYLHEXYL) PHTHALATE	1.67	1.35	80.8	45-125
BUTYL BENZYL PHTHALATE	1.67	1.42	85.0	50-125
DI-N-BUTYL PHTHALATE	1.67	1.43	85.6	55-110
DI-N-OCTYL PHTHALATE	1.67	1.46	87.4	40-130
DIETHYL PHTHALATE	1.67	1.25	74.9	50-115
DIMETHYL PHTHALATE	1.67	1.26	75.4	50-110
SURROGATE: 2,4,6-TRIBROMOPHENOL	6.67	5.46	81.9	35-125
SURROGATE: 2-FLUORBIPHENYL (S)	3.33	2.65	79.6	45-105
SURROGATE: 2-FLUOROPHENOL (S)	6.67	5.16	77.4	35-105
SURROGATE: NITROBENZENE-D5 (S)	3.33	2.74	82.3	35-100
SURROGATE: PHENOL (S)	6.67	5.66	84.9	40-100
SURROGATE: TERPHENYL-D14 (S)	3.33	2.51	75.4	30-125

Comments: _____

Primary	SPK
Quant Method :	Y0625TT.M
Extraction Date :	6/22/2015
Analysis Date :	6/30/2015
Instrument :	Yoda
Run :	0625Y055
Initials :	DA

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APPL Standard LCS

Laboratory Control Spike Recovery
EPA 8270D SOIL RE-ANALYSIS

APPL ID: **150702S-17434 LCS - 198613**
Batch ID: #87DJU-150702A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level mg/kg	SPK Result mg/kg	SPK % Recovery	Recovery Limits
BIS (2-ETHYLHEXYL) PHTHALATE	1.67	1.50	89.8	45-125
BUTYL BENZYL PHTHALATE	1.67	1.60	95.8	50-125
DI-N-BUTYL PHTHALATE	1.67	1.66	99.4	55-110
DI-N-OCTYL PHTHALATE	1.67	1.64	98.2	40-130
DIETHYL PHTHALATE	1.67	1.48	88.6	50-115
DIMETHYL PHTHALATE	1.67	1.42	85.0	50-110
SURROGATE: 2,4,6-TRIBROMOPHENOL	6.60	6.01	91.1	35-125
SURROGATE: 2-FLUORBIPHENYL (S)	3.30	2.67	80.9	45-105
SURROGATE: 2-FLUOROPHENOL (S)	6.60	4.66	70.6	35-105
SURROGATE: NITROBENZENE-D5 (S)	3.30	2.66	80.6	35-100
SURROGATE: PHENOL (S)	6.60	5.50	83.3	40-100
SURROGATE: TERPHENYL-D14 (S)	3.30	2.70	81.8	30-125

Comments: _____

Primary	SPK
Quant Method :	Y0625TT.M
Extraction Date :	7/2/2015
Analysis Date :	7/6/2015
Instrument :	Yoda
Run :	0625Y102
Initials :	DA

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APPL Standard LCS

Matrix Spike Recoveries

EPA 8270D SOILS

APPL ID: **150622S-17444 MS - 198554**
Batch ID: #87DJU-150622A
Sample ID: AZ17444
Client ID: S67-SS035-0001

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl mg/kg	Matrix Result mg/kg	SPK Result mg/kg	DUP Result mg/kg	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
BIS (2-ETHYLHEXYL) PHTHALATE	1.67	0.11	1.37	1.44	75.4	79.6	45-125	5.0	30
BUTYL BENZYL PHTHALATE	1.67	ND	1.37	1.50	82.0	89.8	50-125	9.1	30
DI-N-BUTYL PHTHALATE	1.67	0.0074	1.30	1.46	77.4	87.0	55-110	11.6	30
DI-N-OCTYL PHTHALATE	1.67	ND	1.44	1.54	86.2	92.2	40-130	6.7	30
DIETHYL PHTHALATE	1.67	ND	1.20	1.29	71.9	77.2	50-115	7.2	30
DIMETHYL PHTHALATE	1.67	ND	1.21	1.30	72.5	77.8	50-110	7.2	30
SURROGATE: 2,4,6-TRIBROMOPHENOL	6.67	NA	4.78	4.69	71.7	70.3	35-125		
SURROGATE: 2-FLUORBIPHENYL (S)	3.33	NA	2.09	2.09	62.8	62.8	45-105		
SURROGATE: 2-FLUOROPHENOL (S)	6.67	NA	4.66	4.88	69.9	73.2	35-105		
SURROGATE: NITROBENZENE-D5 (S)	3.33	NA	2.59	2.78	77.8	83.5	35-100		
SURROGATE: PHENOL (S)	6.67	NA	5.29	5.69	79.3	85.3	40-100		
SURROGATE: TERPHENYL-D14 (S)	3.33	NA	2.42	2.41	72.7	72.4	30-125		

Comments: _____

Primary	SPK	DUP
Quant Method :	Y0625TT.M	Y0625TT.M
Extraction Date :	6/22/2015	6/22/2015
Analysis Date :	7/1/2015	7/1/2015
Instrument :	Yoda	Yoda
Run :	0625Y067	0625Y068
Initials :	DA	

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APPL MSD SCII

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc.
Case No: 76624
Matrix: SOIL
Blank ID: 150622A-BLK

SDG No: 76624
Date Analyzed: 6/30/2015
Instrument: Yoda
Time Analyzed: 1923

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150622A-BLK	Blank	0625Y054	6/30/2015 1923
150622A-LCS	Lab Control Spike	0625Y055	6/30/2015 1953
AZ17433	S67-SS031-0001	0625Y056	6/30/2015 2023
AZ17434	S67-SB031-0203	0625Y057	6/30/2015 2052
AZ17435	S67-SS039-0001	0625Y058	6/30/2015 2122
AZ17436	S67-SB039-0607	0625Y059	6/30/2015 2151
AZ17437	S67-SS038-0001	0625Y060	6/30/2015 2221
AZ17438	S67-SB038-0203	0625Y061	6/30/2015 2250
AZ17439	S67-SS033-0001	0625Y062	6/30/2015 2320
AZ17440	S67-SB033-0203	0625Y063	6/30/2015 2349
AZ17441	S67-SS040-0001	0625Y064	7/1/2015 0019
AZ17442	S67-SS040P-0001	0625Y065	7/1/2015 0048
AZ17443	S67-SB040-1516	0625Y066	7/1/2015 0118
150622A-MS	Matrix Spike	0625Y067	7/1/2015 0147
150622A-MSD	Matrix SpikeD	0625Y068	7/1/2015 0216
AZ17444	S67-SS035-0001	0625Y069	7/1/2015 0246
AZ17445	S67-SB035-0203	0625Y070	7/1/2015 0315
AZ17446	S67-SS034-0001	0625Y071	7/1/2015 0345
AZ17447	S67-SB034-0405	0625Y072	7/1/2015 0414

Comments: Batch: #87DJU-150622A

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Form 4, Blank Summary

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 7/6/2015

Matrix: SOIL Instrument: Yoda

Blank ID: 150702A-BLK Time Analyzed: 1721

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150702A-BLK	Blank	0625Y101	7/6/2015 1721
150702A-LCS	Lab Control Spike	0625Y102	7/6/2015 1751
AZ17434	S67-SB031-0203	0625Y103	7/6/2015 1821
AZ17443	S67-SB040-1516	0625Y104	7/6/2015 1852

Comments: Batch: #87DJU-150702A

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: ~~0625Y001.D~~ 76624
Matrix: Soil 7-9-15
ID: SV Tune 5/14/15

7-9-15
SDG No: ~~Yoda~~ 76624
Date Analyzed: 6/25/2015
Instrument: Yoda
Time Analyzed: 10:01

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		5ug/ml SVOC 06/25/15	0625Y002.D	6/25/2015 10:20
2		10ug/ml SVOC 06/25/1	0625Y003.D	6/25/2015 10:49
3		20ug/ml SVOC 06/25/1	0625Y004.D	6/25/2015 11:18
4		40ug/ml SVOC 06/25/1	0625Y005.D	6/25/2015 11:48
5		50ug/ml SVOC 06/25/1	0625Y006.D	6/25/2015 12:17
6		60ug/ml SVOC 06/25/1	0625Y007.D	6/25/2015 12:47
7		80ug/ml SVOC 06/25/1	0625Y008.D	6/25/2015 13:17
8		100ug/ml SVOC 06/25/	0625Y009.D	6/25/2015 13:46
9		50ug/ml SVOC SS 06/2	0625Y010.D	6/25/2015 14:15
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	0.3
127	40 - 60% of mass 198	46.7
197	0 - 1.4% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	29.2
365	1 - 100% of mass 198	3.5
441	0.01 - 100% of mass 443	77.0
442	40 - 150% of mass 198	104.5
443	17 - 23% of mass 442	19.0

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 76624
Matrix: Soil
ID: SV TUNE 5/14/15

SDG No: 76624
Date Analyzed: 6/30/2015
Instrument: Yoda
Time Analyzed: 18:35

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		CCV 50ug/ml SVOC 06/	0625Y053.D	6/30/2015 18:54
2	Blank	150622A BLK 1/30.10G	0625Y054.D	6/30/2015 19:23
3	Lab Control Spike	150622A LCS-1 1/30.2	0625Y055.D	6/30/2015 19:53
4	S67-SS031-0001	AZ17433S03 1/30.05G	0625Y056.D	6/30/2015 20:23
5	S67-SB031-0203	AZ17434S02 1/30.24G	0625Y057.D	6/30/2015 20:52
6	S67-SS039-0001	AZ17435S03 1/30.30G	0625Y058.D	6/30/2015 21:22
7	S67-SB039-0607	AZ17436S02 1/30.72G	0625Y059.D	6/30/2015 21:51
8	S67-SS038-0001	AZ17437S03 1/30.51G	0625Y060.D	6/30/2015 22:21
9	S67-SB038-0203	AZ17438S01 1/30.37G	0625Y061.D	6/30/2015 22:50
10	S67-SS033-0001	AZ17439S03 1/30.05G	0625Y062.D	6/30/2015 23:20
11	S67-SB033-0203	AZ17440S01 1/30.16G	0625Y063.D	6/30/2015 23:49
12	S67-SS040-0001	AZ17441S02 1/30.54G	0625Y064.D	7/1/2015 0:19
13	S67-SS040P-0001	AZ17442S02 1/30.45G	0625Y065.D	7/1/2015 0:48
14	S67-SB040-1516	AZ17443S01 1/30.74G	0625Y066.D	7/1/2015 1:18
15		AZ17444S05 MS-1 1/30	0625Y067.D	7/1/2015 1:47
16		AZ17444S05 MSD-1 1/3	0625Y068.D	7/1/2015 2:16
17	S67-SS035-0001	AZ17444S05 1/30.35G	0625Y069.D	7/1/2015 2:46
18	S67-SB035-0203	AZ17445S02 1/30.03G	0625Y070.D	7/1/2015 3:15
19	S67-SS034-0001	AZ17446S03 1/30.20G	0625Y071.D	7/1/2015 3:45
20	S67-SB034-0405	AZ17447S02 1/30.04G	0625Y072.D	7/1/2015 4:14
21				
22				

m/e		
51	29.95 - 60.04% of mass 198	33.8
68	0 - 2% of mass 69	0.1
70	0 - 2% of mass 69	0.5
127	40 - 60% of mass 198	47.8
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	26.0
365	1 - 100% of mass 198	2.9
441	0.01 - 100% of mass 443	75.3
442	40 - 150% of mass 198	87.7
443	17 - 23% of mass 442	19.5

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 76624
Matrix: Soil
ID: SV TUNE 5/14/15

SDG No: 76624
Date Analyzed: 7/6/2015
Instrument: Yoda
Time Analyzed: 15:11

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		CCV 50ug/ml SVOC 07/	0625Y099.D	7/6/2015 15:29
2	Blank	150702A BLK 1/30.86G	0625Y101.D	7/6/2015 17:21
3	Lab Control Spike	150702A LCS-1 1/30.5	0625Y102.D	7/6/2015 17:51
4	S67-SB031-0203	AZ17434S02 1/30.28G	0625Y103.D	7/6/2015 18:21
5	S67-SB040-1516	AZ17443S01 1/30.05G	0625Y104.D	7/6/2015 18:52
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
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19				
20				
21				
22				

m/e		
51	29.95 - 60.04% of mass 198	38.1
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.6
127	40 - 60% of mass 198	50.8
197	0 - 1.4% of mass 198	0.1
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.4
275	10 - 30% of mass 198	26.2
365	1 - 100% of mass 198	3.4
441	0.01 - 100% of mass 443	73.9
442	40 - 150% of mass 198	107.7
443	17 - 23% of mass 442	18.7

8A

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 76624

Lab File ID (Standard): 0625Y006.D Date Analyzed: 06/25/15

Instrument ID: Yoda Time Analyzed: 12:17

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	609828	5.33	2766350	6.76	1666410	8.78
	UPPER LIMIT	1219656	5.83	5532700	7.26	3332820	9.28
	LOWER LIMIT	304914	4.83	1383175	6.26	833205	8.28
	SAMPLE NO.						
01	50ug/ml SVOC SS 06/2	527215	5.33	2396380	6.76	1479580	8.78
02	CCV 50ug/ml SVOC 06/	721187	5.32	3081510	6.76	1679330	8.77
03	150622A BLK 1/30.10G	566118	5.32	2560650	6.75	1487670	8.77
04	150622A LCS-1 1/30.24	631132	5.33	2723830	6.75	1526670	8.78
05	AZ17433S03 1/30.05G	622340	5.32	2823520	6.75	1735970	8.77
06	AZ17434S02 1/30.24G	688279	5.32	3018290	6.75	1802680	8.77
07	AZ17435S03 1/30.30G	724308	5.32	3251690	6.75	1929210	8.77
08	AZ17436S02 1/30.72G	616724	5.32	2756280	6.75	1716930	8.77
09	AZ17437S03 1/30.51G	656132	5.32	2954710	6.75	1804460	8.77
10	AZ17438S01 1/30.37G	721119	5.33	3256310	6.75	1973870	8.77
11	AZ17439S03 1/30.05G	672423	5.33	2851580	6.75	1724180	8.77
12	AZ17440S01 1/30.16G	631968	5.32	2759640	6.75	1640190	8.77
13	AZ17441S02 1/30.54G	658705	5.33	3091880	6.75	1895910	8.77
14	AZ17442S02 1/30.45G	643749	5.32	2930000	6.75	1742870	8.77
15	AZ17443S01 1/30.74G	830791	5.33	3445300	6.76	2104140	8.77
16	AZ17444S05 MS-1 1/30	731410	5.32	3287660	6.75	1938770	8.78
17	AZ17444S05 MSD-1 1/3	667057	5.33	3056600	6.76	1818980	8.78
18	AZ17444S05 1/30.35G	705338	5.33	3199720	6.75	1914520	8.77
19	AZ17445S02 1/30.03G	723991	5.33	3312260	6.76	2017960	8.77
20	AZ17446S03 1/30.20G	835566	5.33	3860450	6.76	2360270	8.77
21	AZ17447S02 1/30.04G	651869	5.32	2855930	6.75	1764610	8.77
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.: 76624

Lab File ID (Standard): 0625Y006.D Date Analyzed: 06/25/15

Instrument ID: Yoda Time Analyzed: 12:17

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	2970620	10.52	2670450	13.61	1615430	15.44
	UPPER LIMIT	5941240	11.02	5340900	14.11	3230860	15.94
	LOWER LIMIT	1485310	10.02	1335225	13.11	807715	14.94
	SAMPLE NO.						
01	50ug/ml SVOC SS 06/2	2611830	10.52	2318530	13.61	1410320	15.43
02	CCV 50ug/ml SVOC 06/	2767550	10.51	2475630	13.61	1806360	15.43
03	150622A BLK 1/30.10G	2537040	10.51	2127460	13.60	1464040	15.42
04	150622A LCS-1 1/30.24	2567280	10.51	2330000	13.61	1611200	15.43
05	AZ17433S03 1/30.05G	3123800	10.51	2717160	13.60	1728190	15.42
06	AZ17434S02 1/30.24G	3217380	10.51	3077000	13.61	1951790	15.43
07	AZ17435S03 1/30.30G	3399580	10.51	2916530	13.60	1899240	15.42
08	AZ17436S02 1/30.72G	3179170	10.51	2638340	13.60	1654410	15.42
09	AZ17437S03 1/30.51G	3298540	10.51	2888590	13.60	2304590	15.42
10	AZ17438S01 1/30.37G	3442070	10.51	3047050	13.60	1933980	15.43
11	AZ17439S03 1/30.05G	3080420	10.51	2635030	13.60	1846640	15.42
12	AZ17440S01 1/30.16G	2990410	10.51	2514300	13.60	1603850	15.42
13	AZ17441S02 1/30.54G	3391630	10.51	2876050	13.61	1938760	15.43
14	AZ17442S02 1/30.45G	3208630	10.51	2703550	13.60	1722620	15.42
15	AZ17443S01 1/30.74G	3720760	10.51	3239150	13.61	2051880	15.43
16	AZ17444S05 MS-1 1/30	3455520	10.51	3103650	13.61	1968570	15.43
17	AZ17444S05 MSD-1 1/3	3322360	10.51	3047300	13.61	1888590	15.43
18	AZ17444S05 1/30.35G	3452550	10.51	2823190	13.60	1836710	15.42
19	AZ17445S02 1/30.03G	3610160	10.52	3217910	13.61	2247870	15.44
20	AZ17446S03 1/30.20G	4191830	10.51	3458890	13.61	2184250	15.43
21	AZ17447S02 1/30.04G	3176690	10.51	2667850	13.60	1643790	15.42
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.: 76624

Lab File ID (Standard): 0625Y006.D Date Analyzed: 06/25/15

Instrument ID: Yoda Time Analyzed: 12:17

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	2970620	10.52	2670450	13.61	1615430	15.44
	UPPER LIMIT	5941240	11.02	5340900	14.11	3230860	15.94
	LOWER LIMIT	1485310	10.02	1335225	13.11	807715	14.94
	SAMPLE NO.						
01	CCV 50ug/ml SVOC 07/	3928660	10.52	3675140	13.61	2277240	15.43
02	150702A BLK 1/30.86G	3472140	10.52	3107840	13.61	1936970	15.43
03	150702A LCS-1 1/30.57	3054310	10.51	2957460	13.61	1808400	15.43
04	AZ17434S02 1/30.28G	3567430	10.51	3201800	13.61	1798440	15.43
05	AZ17443S01 1/30.05G	3829800	10.51	3146930	13.60	1769700	15.42
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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
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8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 76624

Lab File ID (Standard): 0625Y006.D Date Analyzed: 06/25/15

Instrument ID: Yoda Time Analyzed: 12:17

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	609828	5.33	2766350	6.76	1666410	8.78
UPPER LIMIT	1219656	5.83	5532700	7.26	3332820	9.28
LOWER LIMIT	304914	4.83	1383175	6.26	833205	8.28
SAMPLE NO.						
01 CCV 50ug/ml SVOC 07/	749960	5.32	3598120	6.76	2184560	8.78
02 150702A BLK 1/30.86G	675859	5.32	3012190	6.75	1845340	8.77
03 150702A LCS-1 1/30.57	599875	5.32	2694220	6.75	1653190	8.77
04 AZ17434S02 1/30.28G	644311	5.32	3035270	6.75	1967930	8.77
05 AZ17443S01 1/30.05G	718827	5.32	3319020	6.75	2048080	8.77
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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 SOILS

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-SS031-0001
Sample Collection Date: 6/8/2015

ARF: 76624
APPL ID: AZ17433
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 18.1 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.200 U	0.81	0.200	0.076	mg/kg	6/22/2015	6/30/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.200 U	0.40	0.200	0.068	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.200 U	0.40	0.200	0.081	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.200 U	0.40	0.200	0.071	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIETHYL PHTHALATE	0.200 U	0.40	0.200	0.076	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIMETHYL PHTHALATE	0.200 U	0.40	0.200	0.077	mg/kg	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	58.6	35-125			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	57.4	45-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	57.0	35-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	71.4	35-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: PHENOL (S)	70.3	40-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	62.3	30-125			%	6/22/2015	6/30/2015

Quant Method: Y0625TT.M
Run #: 0625Y056
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/2/2015 3:37:38 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y056.D Vial: 56
Acq On : 30 Jun 15 20:23 Operator: MA
Sample : AZ17433S03 1/30.05G Inst : Yoda
Misc : soil Multiplr: 33.28

Quant Time: Jul 2 15:18 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:50:54 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.32	152	622340	40.00	ppb	0.00
7) Napthalene-D8(IS)	6.75	136	2823519	40.00	ppb	0.00
13) Acenaphthene-D10(IS)	8.77	164	1735968	40.00	ppb	0.00
23) Phenanthrene-D10(IS)	10.51	188	3123799	40.00	ppb	0.00
27) Chrysene-D12(IS)	13.60	240	2717161	40.00	ppb	0.00
32) Perylene-D12(IS)	15.42	264	1728188	40.00	ppb	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.80	112	2535769	3791.15	ppb	0.00
Spiked Amount 6655.574			Recovery =	56.962%		
3) Phenol-D6 (S)	4.90	99	3867294	4681.31	ppb	0.00
Spiked Amount 6655.574			Recovery =	70.337%		
8) Nitrobenzene-D5(S)	5.94	82	1976392	2376.11	ppb	0.00
Spiked Amount 3327.787			Recovery =	71.402%		
16) 2-Fluorobiphenyl(S)	7.99	172	3384330	1910.45	ppb	0.00
Spiked Amount 3327.787			Recovery =	57.409%		
22) 2,4,6-Tribromophenol(S)	9.70	330	670670	3903.41	ppb	0.00
Spiked Amount 6655.574			Recovery =	58.649%		
28) Terphenyl-D14(S)	12.38	244	4265337	2073.87	ppb	0.00
Spiked Amount 3327.787			Recovery =	62.320%		

Target Compounds Qvalue

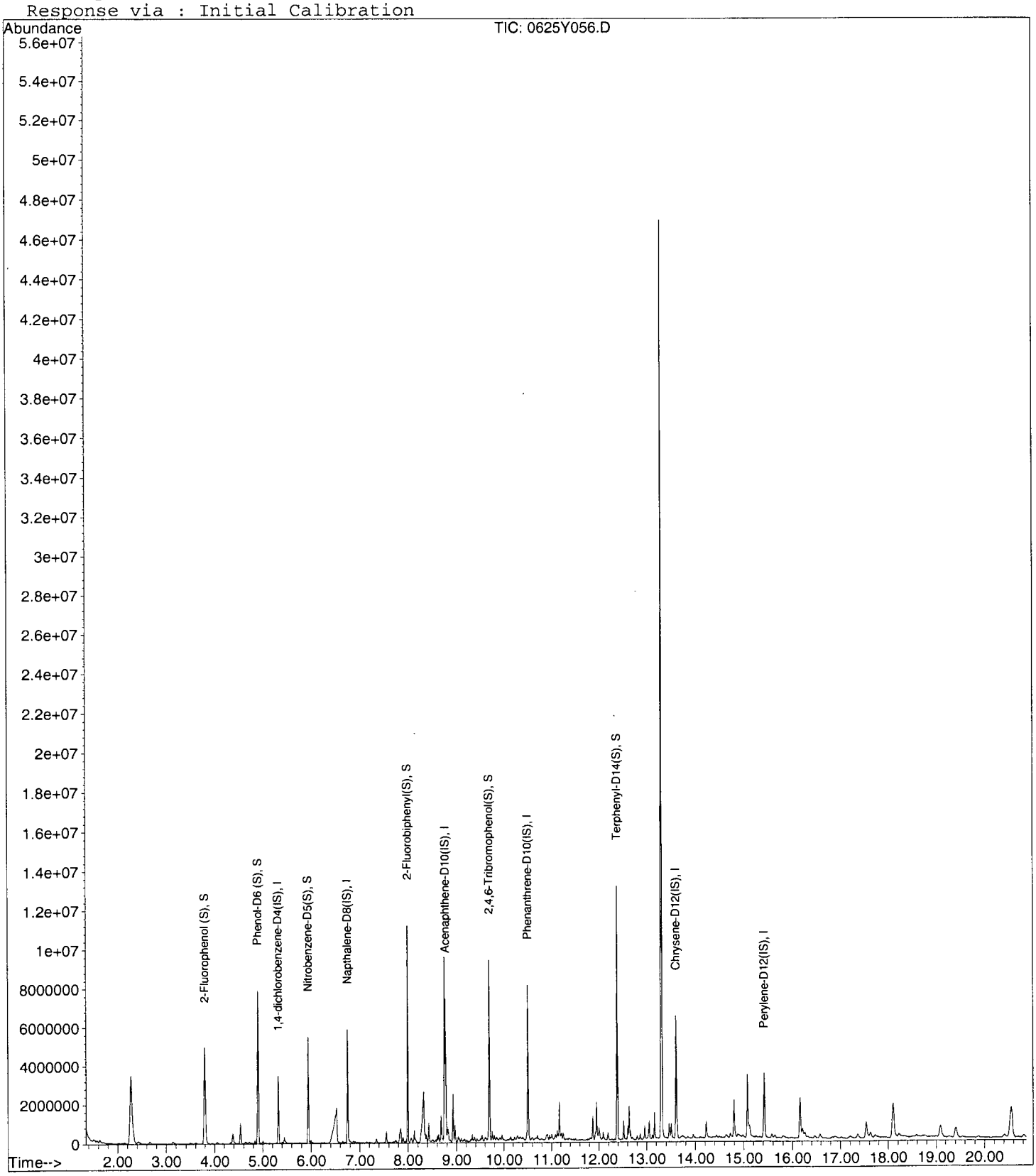
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y056.D Vial: 56
Acq On : 30 Jun 15 20:23 Operator: MA
Sample : AZ17433S03 1/30.05G Inst : Yoda
Misc : soil Multiplr: 33.28

Quant Time: Jul 2 15:18 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:50:54 2015
Response via : Initial Calibration



EPA 8270D SOILS

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-SB031-0203
Sample Collection Date: 6/8/2015

ARF: 76624
APPL ID: AZ17434
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.9 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.200 U	0.80	0.200	0.076	mg/kg	6/22/2015	6/30/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.200 U	0.40	0.200	0.068	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.200 U	0.40	0.200	0.080	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.200 U	0.40	0.200	0.071	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIETHYL PHTHALATE	0.200 U	0.40	0.200	0.076	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIMETHYL PHTHALATE	0.200 U	0.40	0.200	0.077	mg/kg	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	48.0	35-125			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	41.5 #	45-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	46.5	35-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	60.8	35-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: PHENOL (S)	62.4	40-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	63.0	30-125			%	6/22/2015	6/30/2015

= Recovery (or RPD) is outside QC limits.

Quant Method: Y0625TT.M
Run #: 0625Y057
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/2/2015 3:37:38 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y057.D Vial: 57
Acq On : 30 Jun 15 20:52 Operator: MA
Sample : AZ17434S02 1/30.24G Inst : Yoda
Misc : soil Multiplr: 33.07

Quant Time: Jul 2 15:17 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:50:54 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.32	152	688279	40.00	ppb	-0.01
7) Napthalene-D8(IS)	6.75	136	3018288	40.00	ppb	-0.01
13) Acenaphthene-D10(IS)	8.77	164	1802678	40.00	ppb	-0.01
23) Phenanthrene-D10(IS)	10.51	188	3217381	40.00	ppb	-0.01
27) Chrysene-D12(IS)	13.61	240	3077002	40.00	ppb	0.00
32) Perylene-D12(IS)	15.43	264	1951785	40.00	ppb	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.79	112	2289976	3076.23	ppb	-0.01
Spiked Amount 6613.757			Recovery =	46.513%		
3) Phenol-D6 (S)	4.91	99	3796828	4129.59	ppb	0.00
Spiked Amount 6613.757			Recovery =	62.439%		
8) Nitrobenzene-D5(S)	5.94	82	1798102	2009.56	ppb	-0.01
Spiked Amount 3306.878			Recovery =	60.769%		
16) 2-Fluorobiphenyl(S)	7.99	172	2538529	1371.29	ppb	-0.01
Spiked Amount 3306.878			Recovery =	41.468%		
22) 2,4,6-Tribromophenol(S)	9.69	330	570535	3177.64	ppb	0.00
Spiked Amount 6613.757			Recovery =	48.046%		
28) Terphenyl-D14(S)	12.38	244	4882466	2083.14	ppb	0.00
Spiked Amount 3306.878			Recovery =	62.994%		

Target Compounds Qvalue

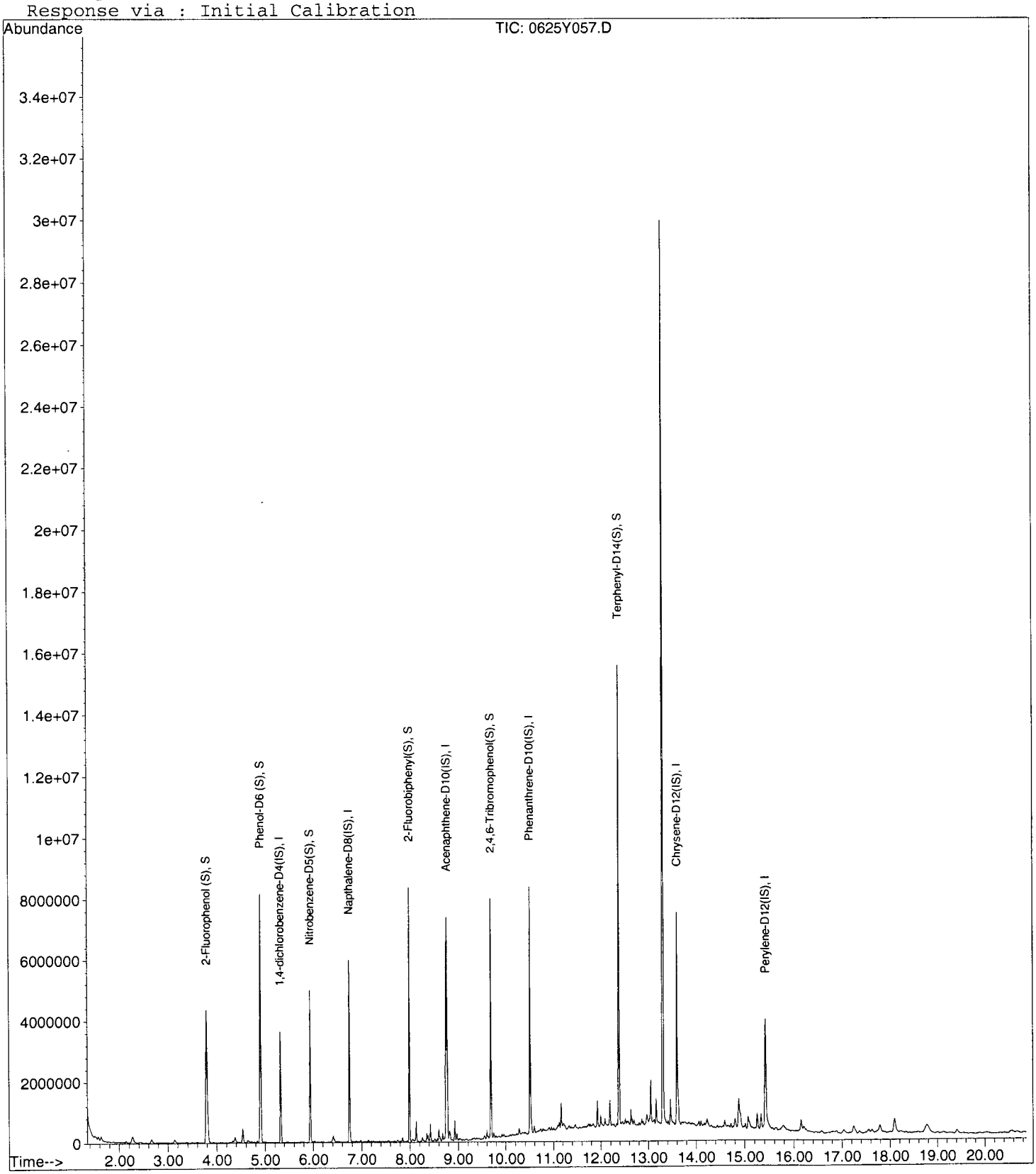
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y057.D Vial: 57
Acq On : 30 Jun 15 20:52 Operator: MA
Sample : AZ17434S02 1/30.24G Inst : Yoda
Misc : soil Multiplr: 33.07

Quant Time: Jul 2 15:17 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:50:54 2015
Response via : Initial Calibration



EPA 8270D SOIL RE-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-SB031-0203
Sample Collection Date: 6/8/2015

ARF: 76624
APPL ID: AZ17434
QCG: #87DJU-150702A-198613

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.9 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.200 U	0.80	0.200	0.076	mg/kg	7/2/2015	7/6/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.200 U	0.40	0.200	0.068	mg/kg	7/2/2015	7/6/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.200 U	0.40	0.200	0.080	mg/kg	7/2/2015	7/6/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.200 U	0.40	0.200	0.071	mg/kg	7/2/2015	7/6/2015
EPA 8270D	DIETHYL PHTHALATE	0.200 U	0.40	0.200	0.076	mg/kg	7/2/2015	7/6/2015
EPA 8270D	DIMETHYL PHTHALATE	0.200 U	0.40	0.200	0.077	mg/kg	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	92.5	35-125			%	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	79.9	45-105			%	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	79.0	35-105			%	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	84.5	35-100			%	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: PHENOL (S)	94.6	40-100			%	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	92.1	30-125			%	7/2/2015	7/6/2015

Quant Method: Y0625TT.M
Run #: 0625Y103
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/7/2015 9:44:07 AM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y103.D Vial: 3
Acq On : 6 Jul 15 18:21 Operator: MA
Sample : AZ17434S02 1/30.28G Inst : Yoda
Misc : soil Multiplr: 33.03

Quant Time: Jul 7 8:36 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.32	152	644311	40.00 ppb	-0.01
7) Napthalene-D8(IS)	6.75	136	3035267	40.00 ppb	-0.01
13) Acenaphthene-D10(IS)	8.77	164	1967927	40.00 ppb	-0.01
23) Phenanthrene-D10(IS)	10.51	188	3567432	40.00 ppb	-0.01
27) Chrysene-D12(IS)	13.61	240	3201803	40.00 ppb	0.00
32) Perylene-D12(IS)	15.43	264	1798442	40.00 ppb	-0.01
System Monitoring Compounds					
2) 2-Fluorophenol (S)	3.78	112	3639172	5215.37 ppb	-0.02
Spiked Amount 6605.020			Recovery =	78.961%	
3) Phenol-D6 (S)	4.91	99	5386813	6250.48 ppb	0.00
Spiked Amount 6605.020			Recovery =	94.632%	
8) Nitrobenzene-D5(S)	5.94	82	2513757	2789.97 ppb	-0.01
Spiked Amount 3302.510			Recovery =	84.480%	
16) 2-Fluorobiphenyl(S)	7.99	172	5338442	2638.14 ppb	-0.01
Spiked Amount 3302.510			Recovery =	79.883%	
22) 2,4,6-Tribromophenol(S)	9.70	330	1199077	6109.48 ppb	0.00
Spiked Amount 6605.020			Recovery =	92.497%	
28) Terphenyl-D14(S)	12.39	244	7430651	3042.74 ppb	0.00
Spiked Amount 3302.510			Recovery =	92.134%	
Target Compounds					Qvalue
25) Pentachlorophenol	10.28	266	5453	-54.80 ppb	97
26) Di-n-butylphthalate	11.20	149	27730	7.97 ppb	96

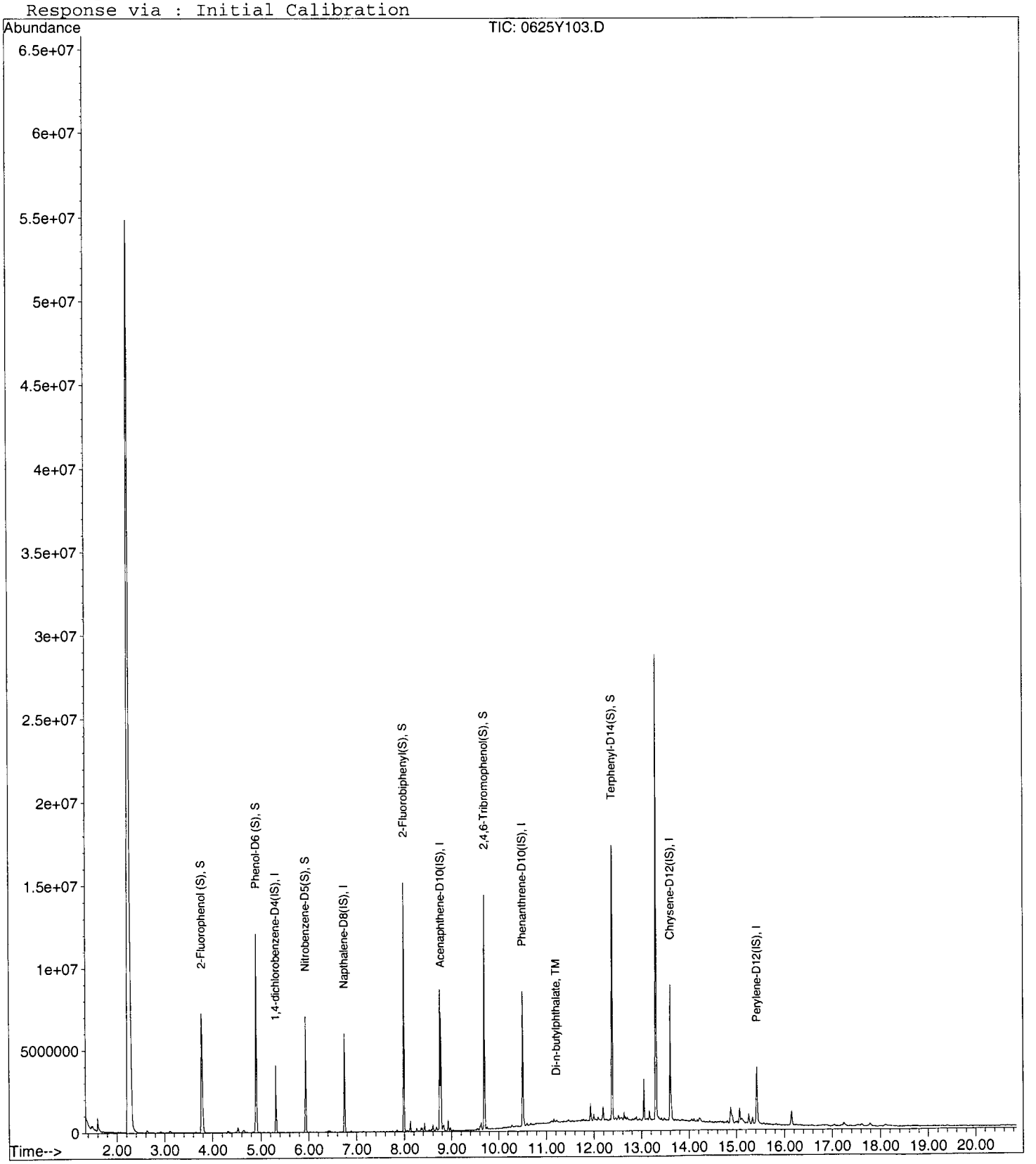
(#) = qualifier out of range (m) = manual integration

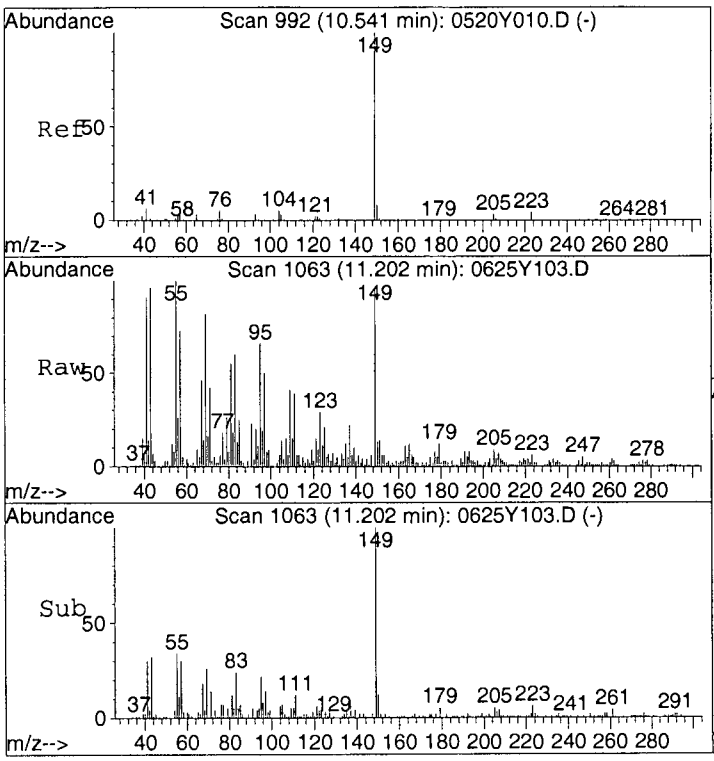
Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y103.D Vial: 3
Acq On : 6 Jul 15 18:21 Operator: MA
Sample : AZ17434S02 1/30.28G Inst : Yoda
Misc : soil Multiplr: 33.03

Quant Time: Jul 7 8:36 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration

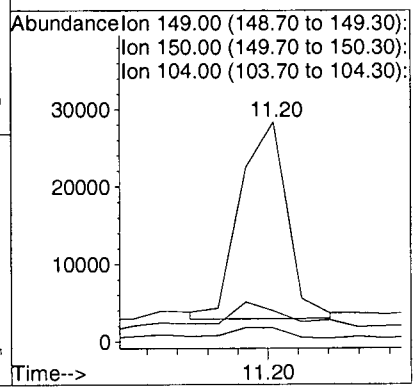




#26
Di-n-butylphthalate
Concen: 7.97 ppb
RT: 11.20 min Scan# 1063
Delta R.T. -0.01 min
Lab File: 0625Y103.D
Acq: 6 Jul 15 18:21

Tgt Ion:149 Resp: 27730

Ion	Ratio	Lower	Upper
149	100		
150	6.8	5.9	10.9
104	5.5	3.3	6.1



EPA 8270D SOILS

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-SS039-0001
Sample Collection Date: 6/8/2015

ARF: 76624
APPL ID: AZ17435
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 22.4 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.18 J	0.85	0.220	0.080	mg/kg	6/22/2015	6/30/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.220 U	0.43	0.220	0.072	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.220 U	0.43	0.220	0.085	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.220 U	0.43	0.220	0.075	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIETHYL PHTHALATE	0.220 U	0.43	0.220	0.080	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIMETHYL PHTHALATE	0.220 U	0.43	0.220	0.081	mg/kg	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	70.9	35-125			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	57.1	45-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	53.6	35-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	73.2	35-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: PHENOL (S)	65.4	40-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	62.7	30-125			%	6/22/2015	6/30/2015

J = Estimated value.

Quant Method:	Y0625TT.M
Run #:	0625Y058
Instrument:	Yoda
Sequence:	Y150625
Dilution Factor:	1
Initials:	DA

Printed: 7/2/2015 3:37:38 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y058.D Vial: 58
Acq On : 30 Jun 15 21:22 Operator: MA
Sample : AZ17435S03 1/30.30G Inst : Yoda
Misc : soil Multiplr: 33.00

Quant Time: Jul 2 15:19 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:50:54 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.32	152	724308	40.00	ppb	0.00
7) Napthalene-D8(IS)	6.75	136	3251687	40.00	ppb	0.00
13) Acenaphthene-D10(IS)	8.77	164	1929214	40.00	ppb	0.00
23) Phenanthrene-D10(IS)	10.51	188	3399582	40.00	ppb	0.00
27) Chrysene-D12(IS)	13.60	240	2916531	40.00	ppb	0.00
32) Perylene-D12(IS)	15.42	264	1899236	40.00	ppb	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.80	112	2776565	3537.33	ppb	0.00
Spiked Amount 6600.660			Recovery =	53.591%		
3) Phenol-D6 (S)	4.91	99	4188097	4320.00	ppb	0.00
Spiked Amount 6600.660			Recovery =	65.448%		
8) Nitrobenzene-D5(S)	5.94	82	2333202	2415.63	ppb	0.00
Spiked Amount 3300.330			Recovery =	73.193%		
16) 2-Fluorobiphenyl(S)	7.99	172	3743145	1885.65	ppb	0.00
Spiked Amount 3300.330			Recovery =	57.135%		
22) 2,4,6-Tribromophenol(S)	9.69	330	900581	4677.58	ppb	0.00
Spiked Amount 6600.660			Recovery =	70.865%		
28) Terphenyl-D14(S)	12.38	244	4605658	2069.05	ppb	0.00
Spiked Amount 3300.330			Recovery =	62.692%		
Target Compounds						Qvalue
30) Bis (2-ethylhexyl) phthala	13.62	149	103632	140.95	ppb	98

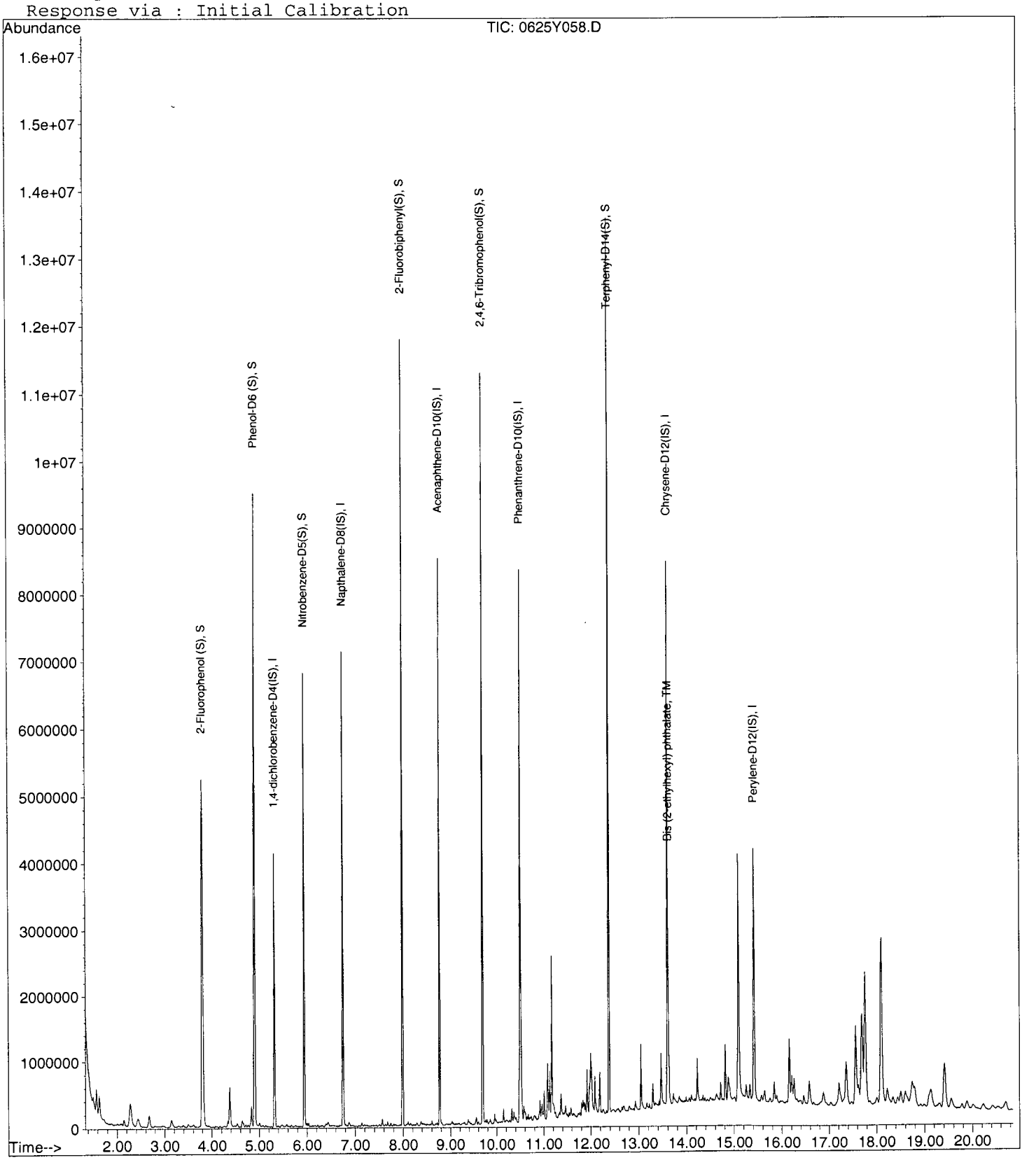
(#) = qualifier out of range (m) = manual integration

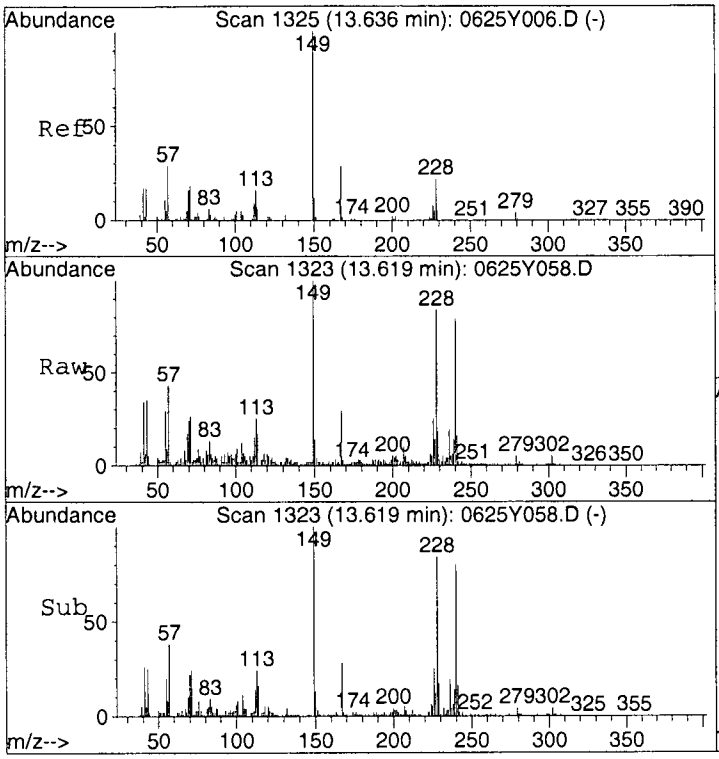
Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y058.D Vial: 58
Acq On : 30 Jun 15 21:22 Operator: MA
Sample : AZ17435S03 1/30.30G Inst : Yoda
Misc : soil Multiplr: 33.00

Quant Time: Jul 2 15:19 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:50:54 2015
Response via : Initial Calibration

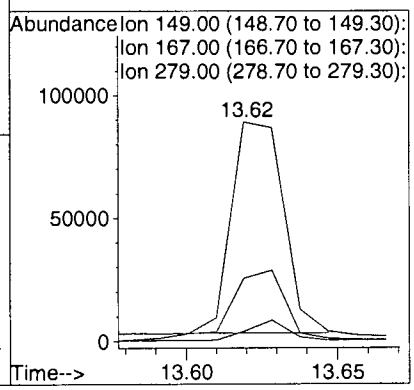




#30
Bis (2-ethylhexyl) phthalate
Concen: 140.95 ppb
RT: 13.62 min Scan# 1323
Delta R.T. -0.02 min
Lab File: 0625Y058.D
Acq: 30 Jun 15 21:22

Tgt Ion:149 Resp: 103632

Ion	Ratio	Lower	Upper
149	100		
167	28.3	20.3	37.7
279	4.3	3.7	6.9



EPA 8270D SOILS

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-SB039-0607
Sample Collection Date: 6/8/2015

ARF: 76624
APPL ID: AZ17436
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.9 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.13 J	0.80	0.200	0.076	mg/kg	6/22/2015	6/30/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.200 U	0.40	0.200	0.068	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.200 U	0.40	0.200	0.080	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.200 U	0.40	0.200	0.071	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIETHYL PHTHALATE	0.200 U	0.40	0.200	0.076	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIMETHYL PHTHALATE	0.200 U	0.40	0.200	0.077	mg/kg	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	73.3	35-125			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	45.4	45-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	67.2	35-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	73.4	35-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: PHENOL (S)	78.5	40-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	66.2	30-125			%	6/22/2015	6/30/2015

J = Estimated value.

Quant Method: Y0625TT.M
Run #: 0625Y059
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/2/2015 3:37:38 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y059.D Vial: 59
Acq On : 30 Jun 15 21:51 Operator: MA
Sample : AZ17436S02 1/30.72G Inst : Yoda
Misc : soil Multiplr: 32.55

Quant Time: Jul 2 15:19 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.32	152	616724	40.00	ppb	0.00
7) Napthalene-D8(IS)	6.75	136	2756283	40.00	ppb	0.00
13) Acenaphthene-D10(IS)	8.77	164	1716931	40.00	ppb	0.00
23) Phenanthrene-D10(IS)	10.51	188	3179173	40.00	ppb	0.00
27) Chrysene-D12(IS)	13.60	240	2638339	40.00	ppb	0.00
32) Perylene-D12(IS)	15.42	264	1654413	40.00	ppb	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.81	112	2963613	4373.64	ppb	0.00
Spiked Amount 6510.417			Recovery =	67.179%		
3) Phenol-D6 (S)	4.91	99	4277605	5111.18	ppb	0.00
Spiked Amount 6510.417			Recovery =	78.508%		
8) Nitrobenzene-D5(S)	5.94	82	1984401	2390.63	ppb	0.00
Spiked Amount 3255.208			Recovery =	73.440%		
16) 2-Fluorobiphenyl(S)	7.99	172	2647609	1478.18	ppb	0.00
Spiked Amount 3255.208			Recovery =	45.410%		
22) 2,4,6-Tribromophenol(S)	9.69	330	828827	4771.02	ppb	0.00
Spiked Amount 6510.417			Recovery =	73.283%		
28) Terphenyl-D14(S)	12.38	244	4399504	2154.97	ppb	0.00
Spiked Amount 3255.208			Recovery =	66.201%		
Target Compounds						Qvalue
30) Bis (2-ethylhexyl) phthala	13.62	149	20719	107.43	ppb	98

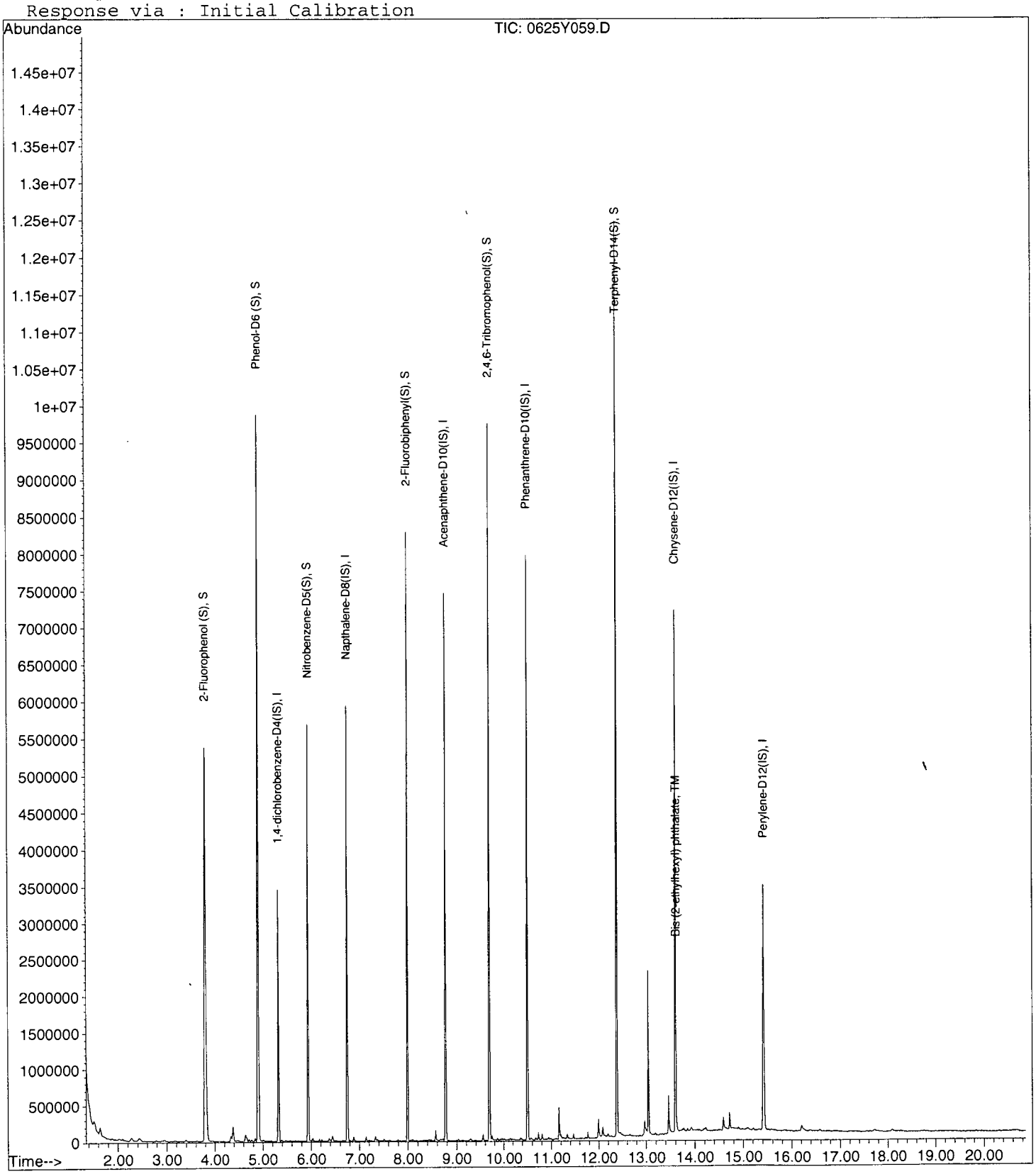
(#) = qualifier out of range (m) = manual integration

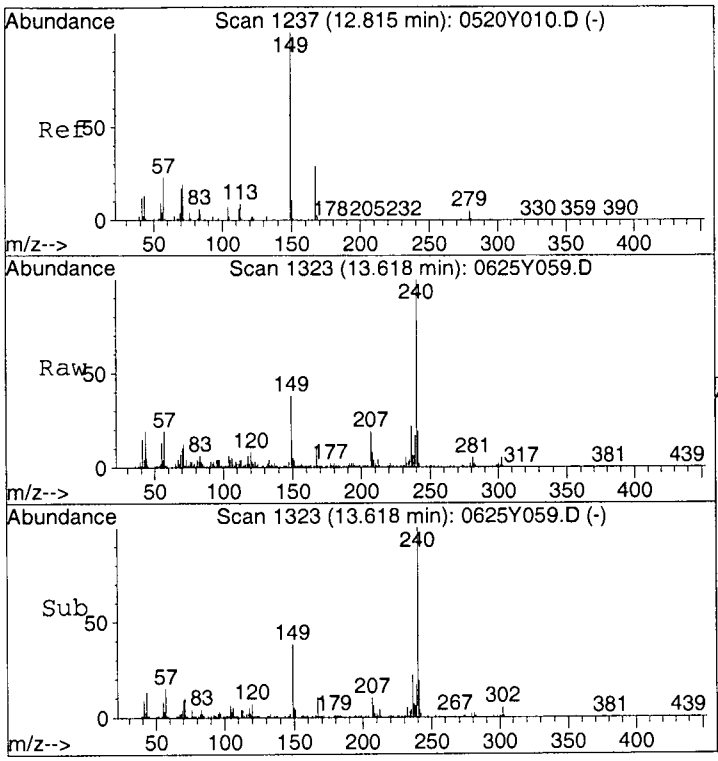
Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y059.D Vial: 59
Acq On : 30 Jun 15 21:51 Operator: MA
Sample : AZ17436S02 1/30.72G Inst : Yoda
Misc : soil Multiplr: 32.55

Quant Time: Jul 2 15:19 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:50:54 2015
Response via : Initial Calibration

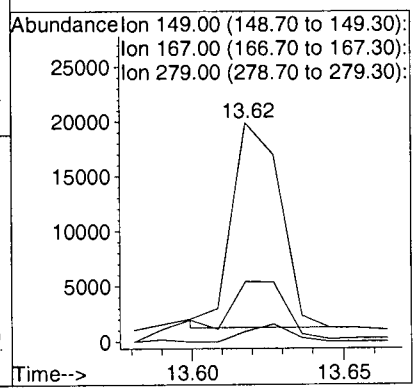




#30
Bis (2-ethylhexyl) phthalate
Concen: 107.43 ppb
RT: 13.62 min Scan# 1323
Delta R.T. -0.02 min
Lab File: 0625Y059.D
Acq: 30 Jun 15 21:51

Tgt Ion:149 Resp: 20719

Ion	Ratio	Lower	Upper
149	100		
167	28.0	20.3	37.7
279	5.1	3.7	6.9



EPA 8270D SOILS

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-SS038-0001
Sample Collection Date: 6/9/2015

ARF: 76624
APPL ID: AZ17437
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.5 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.13 J	0.80	0.200	0.075	mg/kg	6/22/2015	6/30/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.200 U	0.40	0.200	0.068	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.200 U	0.40	0.200	0.080	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.200 U	0.40	0.200	0.070	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIETHYL PHTHALATE	0.200 U	0.40	0.200	0.075	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIMETHYL PHTHALATE	0.200 U	0.40	0.200	0.076	mg/kg	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	68.9	35-125			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	61.9	45-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	59.0	35-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	71.1	35-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: PHENOL (S)	72.2	40-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	70.3	30-125			%	6/22/2015	6/30/2015

J = Estimated value.

Quant Method: Y0625TT.M
Run #: 0625Y060
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/2/2015 3:37:38 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y060.D Vial: 60
Acq On : 30 Jun 15 22:21 Operator: MA
Sample : AZ17437S03 1/30.51G Inst : Yoda
Misc : soil Multiplr: 32.78

Quant Time: Jul 2 15:20 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.32	152	656132	40.00	ppb	0.00
7) Napthalene-D8(IS)	6.75	136	2954710	40.00	ppb	0.00
13) Acenaphthene-D10(IS)	8.77	164	1804464	40.00	ppb	0.00
23) Phenanthrene-D10(IS)	10.51	188	3298540	40.00	ppb	0.00
27) Chrysene-D12(IS)	13.60	240	2888589	40.00	ppb	0.00
32) Perylene-D12(IS)	15.42	264	2304591	40.00	ppb	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.81	112	2767854	3865.84	ppb	0.00
Spiked Amount 6555.228			Recovery =	58.973%		
3) Phenol-D6 (S)	4.91	99	4182481	4729.70	ppb	0.00
Spiked Amount 6555.228			Recovery =	72.152%		
8) Nitrobenzene-D5(S)	5.94	82	2059667	2330.61	ppb	0.00
Spiked Amount 3277.614			Recovery =	71.107%		
16) 2-Fluorobiphenyl(S)	7.99	172	3790295	2027.36	ppb	0.00
Spiked Amount 3277.614			Recovery =	61.855%		
22) 2,4,6-Tribromophenol(S)	9.69	330	818943	4516.32	ppb	0.00
Spiked Amount 6555.228			Recovery =	68.897%		
28) Terphenyl-D14(S)	12.38	244	5116281	2304.70	ppb	0.00
Spiked Amount 3277.614			Recovery =	70.316%		
Target Compounds						Qvalue
30) Bis (2-ethylhexyl) phthala	13.62	149	26802	109.80	ppb	94

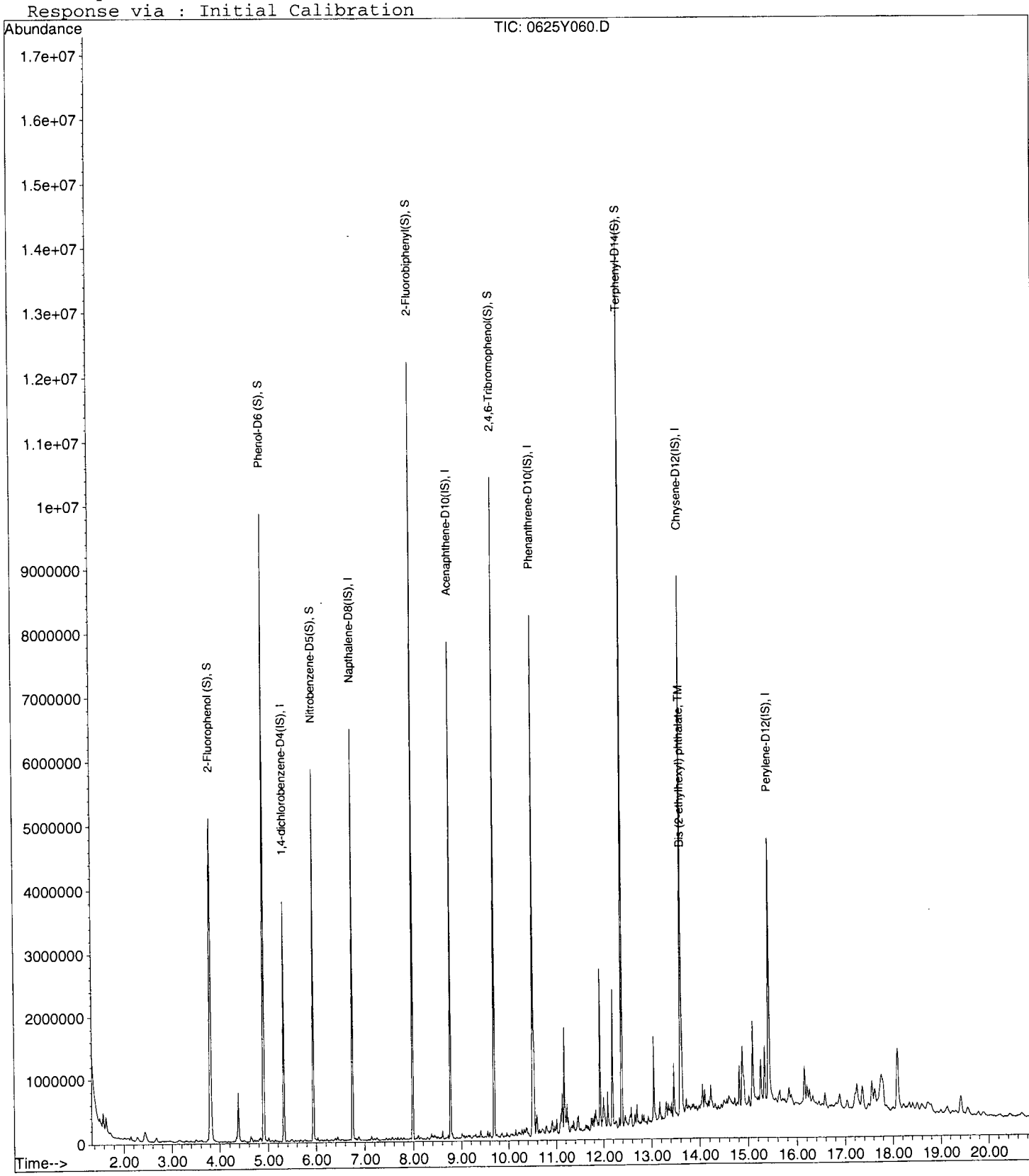
(#) = qualifier out of range (m) = manual integration

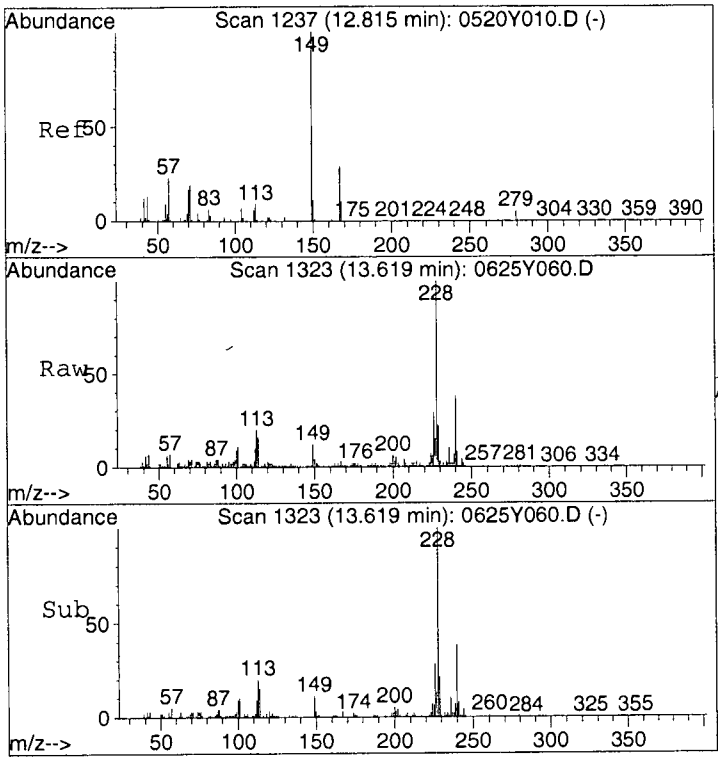
Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y060.D Vial: 60
Acq On : 30 Jun 15 22:21 Operator: MA
Sample : AZ17437S03 1/30.51G Inst : Yoda
Misc : soil Multiplr: 32.78

Quant Time: Jul 2 15:20 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:50:54 2015
Response via : Initial Calibration

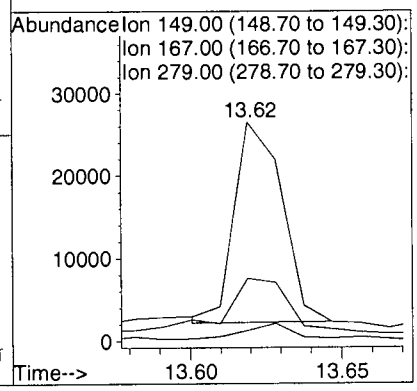




#30
Bis (2-ethylhexyl) phthalate
Concen: 109.80 ppb
RT: 13.62 min Scan# 1323
Delta R.T. -0.02 min
Lab File: 0625Y060.D
Acq: 30 Jun 15 22:21

Tgt Ion:149 Resp: 26802

Ion	Ratio	Lower	Upper
149	100		
167	25.4	20.3	37.7
279	4.1	3.7	6.9



EPA 8270D SOILS

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-SB038-0203
Sample Collection Date: 6/9/2015

ARF: 76624
APPL ID: AZ17438
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 14.7 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.12 J	0.77	0.200	0.073	mg/kg	6/22/2015	6/30/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.200 U	0.39	0.200	0.066	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.200 U	0.39	0.200	0.077	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.200 U	0.39	0.200	0.068	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIETHYL PHTHALATE	0.200 U	0.39	0.200	0.073	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIMETHYL PHTHALATE	0.200 U	0.39	0.200	0.074	mg/kg	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	78.7	35-125			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	64.6	45-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	68.2	35-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	78.3	35-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: PHENOL (S)	84.5	40-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	74.0	30-125			%	6/22/2015	6/30/2015

J = Estimated value.

Quant Method: Y0625TT.M
Run #: 0625Y061
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/2/2015 3:37:38 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y061.D Vial: 61
Acq On : 30 Jun 15 22:50 Operator: MA
Sample : AZ17438S01 1/30.37G Inst : Yoda
Misc : soil Multiplr: 32.93

Quant Time: Jul 2 15:20 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.33	152	721119	40.00	ppb	0.00
7) Napthalene-D8(IS)	6.75	136	3256305	40.00	ppb	-0.01
13) Acenaphthene-D10(IS)	8.77	164	1973868	40.00	ppb	-0.01
23) Phenanthrene-D10(IS)	10.51	188	3442067	40.00	ppb	-0.01
27) Chrysene-D12(IS)	13.60	240	3047050	40.00	ppb	-0.01
32) Perylene-D12(IS)	15.43	264	1933980	40.00	ppb	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.80	112	3519111	4492.78	ppb	0.00
Spiked Amount 6585.446			Recovery =	68.223%		
3) Phenol-D6 (S)	4.91	99	5383368	5564.61	ppb	0.00
Spiked Amount 6585.446			Recovery =	84.499%		
8) Nitrobenzene-D5(S)	5.94	82	2500356	2579.06	ppb	-0.01
Spiked Amount 3292.723			Recovery =	78.326%		
16) 2-Fluorobiphenyl(S)	7.99	172	4333041	2128.52	ppb	-0.01
Spiked Amount 3292.723			Recovery =	64.643%		
22) 2,4,6-Tribromophenol(S)	9.70	330	1023697	5184.78	ppb	0.00
Spiked Amount 6585.446			Recovery =	78.731%		
28) Terphenyl-D14(S)	12.38	244	5681556	2437.43	ppb	0.00
Spiked Amount 3292.723			Recovery =	74.025%		
Target Compounds						Qvalue
30) Bis (2-ethylhexyl) phthala	13.63	149	18414	106.57	ppb	97

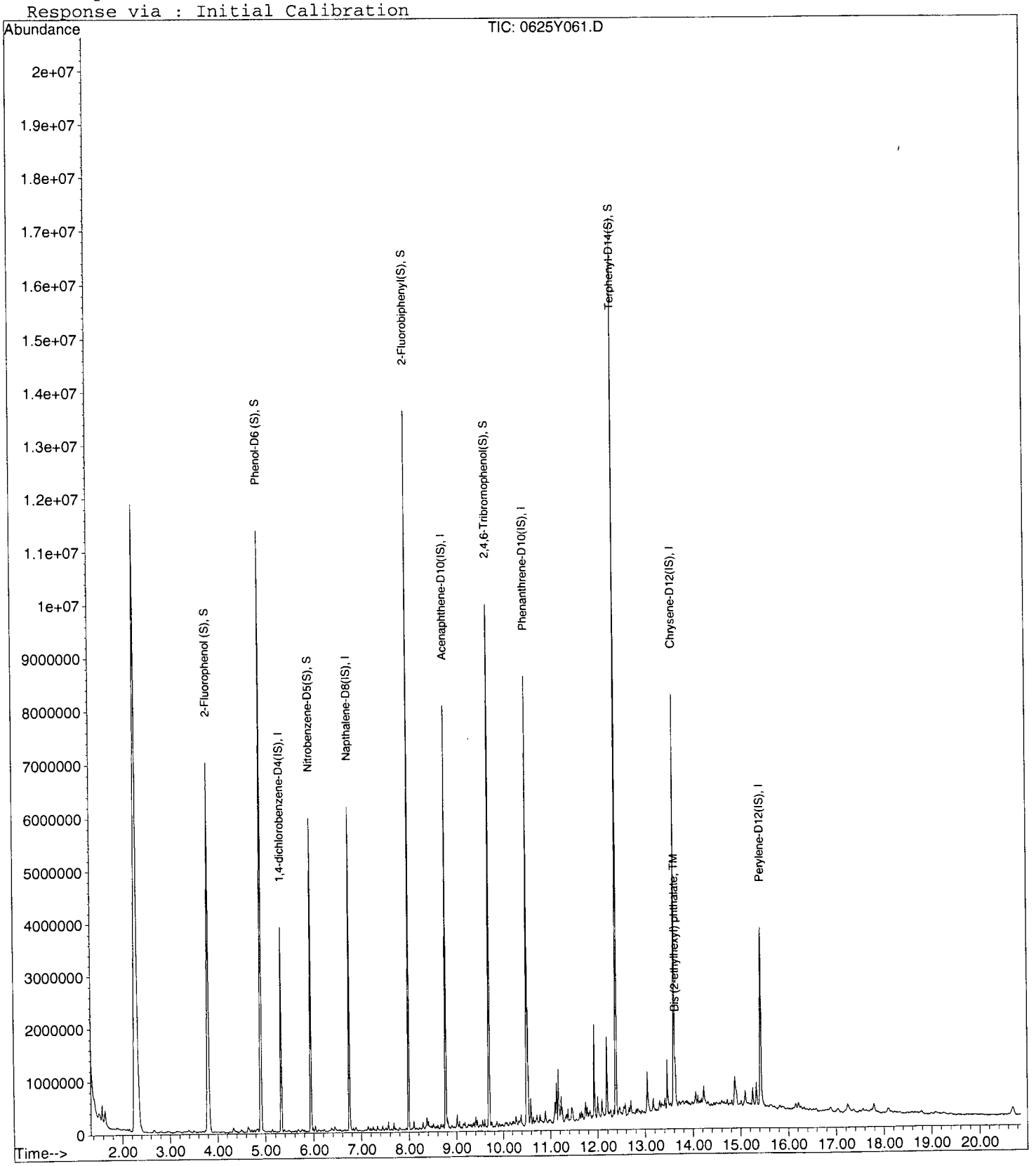
(#) = qualifier out of range (m) = manual integration

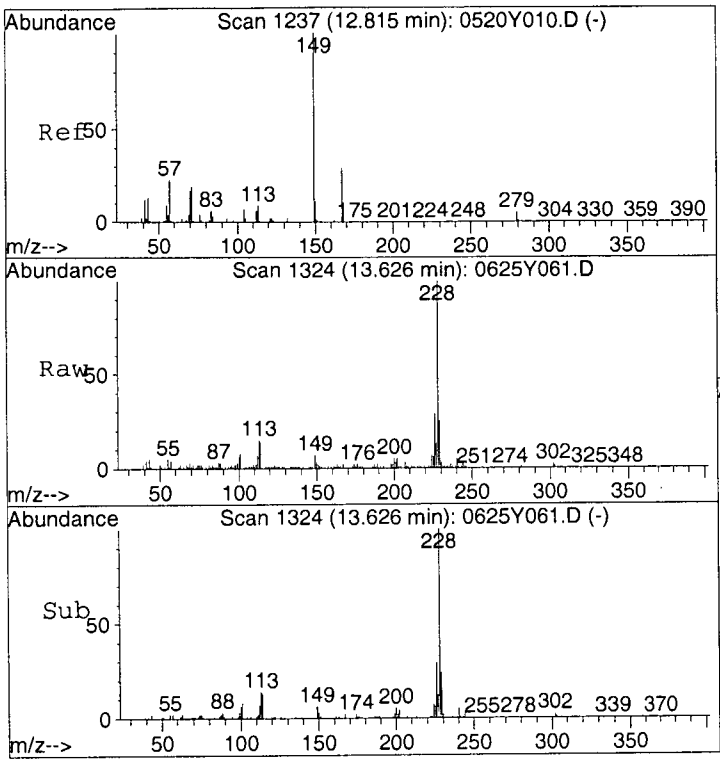
Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y061.D Vial: 61
Acq On : 30 Jun 15 22:50 Operator: MA
Sample : AZ17438S01 1/30.37G Inst : Yoda
Misc : soil Multiplr: 32.93

Quant Time: Jul 2 15:20 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:50:54 2015
Response via : Initial Calibration

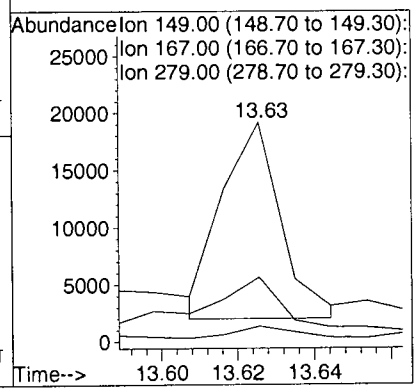




#30
Bis (2-ethylhexyl) phthalate
Concen: 106.57 ppb
RT: 13.63 min Scan# 1324
Delta R.T. -0.01 min
Lab File: 0625Y061.D
Acq: 30 Jun 15 22:50

Tgt Ion:149 Resp: 18414

Ion	Ratio	Lower	Upper
149	100		
167	27.3	20.3	37.7
279	6.6	3.7	6.9



EPA 8270D SOILS

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-SS033-0001
Sample Collection Date: 6/9/2015

ARF: 76624
APPL ID: AZ17439
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 26.6 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.230 U	0.90	0.230	0.084	mg/kg	6/22/2015	6/30/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.230 U	0.45	0.230	0.076	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.230 U	0.45	0.230	0.090	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.230 U	0.45	0.230	0.079	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIETHYL PHTHALATE	0.230 U	0.45	0.230	0.084	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIMETHYL PHTHALATE	0.230 U	0.45	0.230	0.086	mg/kg	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	69.7	35-125			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	58.9	45-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	58.9	35-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	76.1	35-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: PHENOL (S)	71.6	40-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	66.1	30-125			%	6/22/2015	6/30/2015

Quant Method: Y0625TT.M
Run #: 0625Y062
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/2/2015 3:37:38 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y062.D Vial: 62
Acq On : 30 Jun 15 23:20 Operator: MA
Sample : AZ17439S03 1/30.05G Inst : Yoda
Misc : soil Multiplr: 33.28

Quant Time: Jul 2 15:21 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.33	152	672423	40.00	ppb	0.00
7) Napthalene-D8(IS)	6.75	136	2851578	40.00	ppb	0.00
13) Acenaphthene-D10(IS)	8.77	164	1724179	40.00	ppb	-0.01
23) Phenanthrene-D10(IS)	10.51	188	3080416	40.00	ppb	-0.01
27) Chrysene-D12(IS)	13.60	240	2635032	40.00	ppb	-0.01
32) Perylene-D12(IS)	15.42	264	1846637	40.00	ppb	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.80	112	2831634	3918.17	ppb	0.00
Spiked Amount 6655.574			Recovery =	58.871%		
3) Phenol-D6 (S)	4.91	99	4254631	4766.59	ppb	0.00
Spiked Amount 6655.574			Recovery =	71.618%		
8) Nitrobenzene-D5(S)	5.94	82	2126290	2531.17	ppb	-0.01
Spiked Amount 3327.787			Recovery =	76.062%		
16) 2-Fluorobiphenyl(S)	7.99	172	3448562	1960.02	ppb	-0.01
Spiked Amount 3327.787			Recovery =	58.899%		
22) 2,4,6-Tribromophenol(S)	9.70	330	791331	4637.17	ppb	0.00
Spiked Amount 6655.574			Recovery =	69.673%		
28) Terphenyl-D14(S)	12.38	244	4389354	2200.69	ppb	0.00
Spiked Amount 3327.787			Recovery =	66.131%		

Target Compounds Qvalue

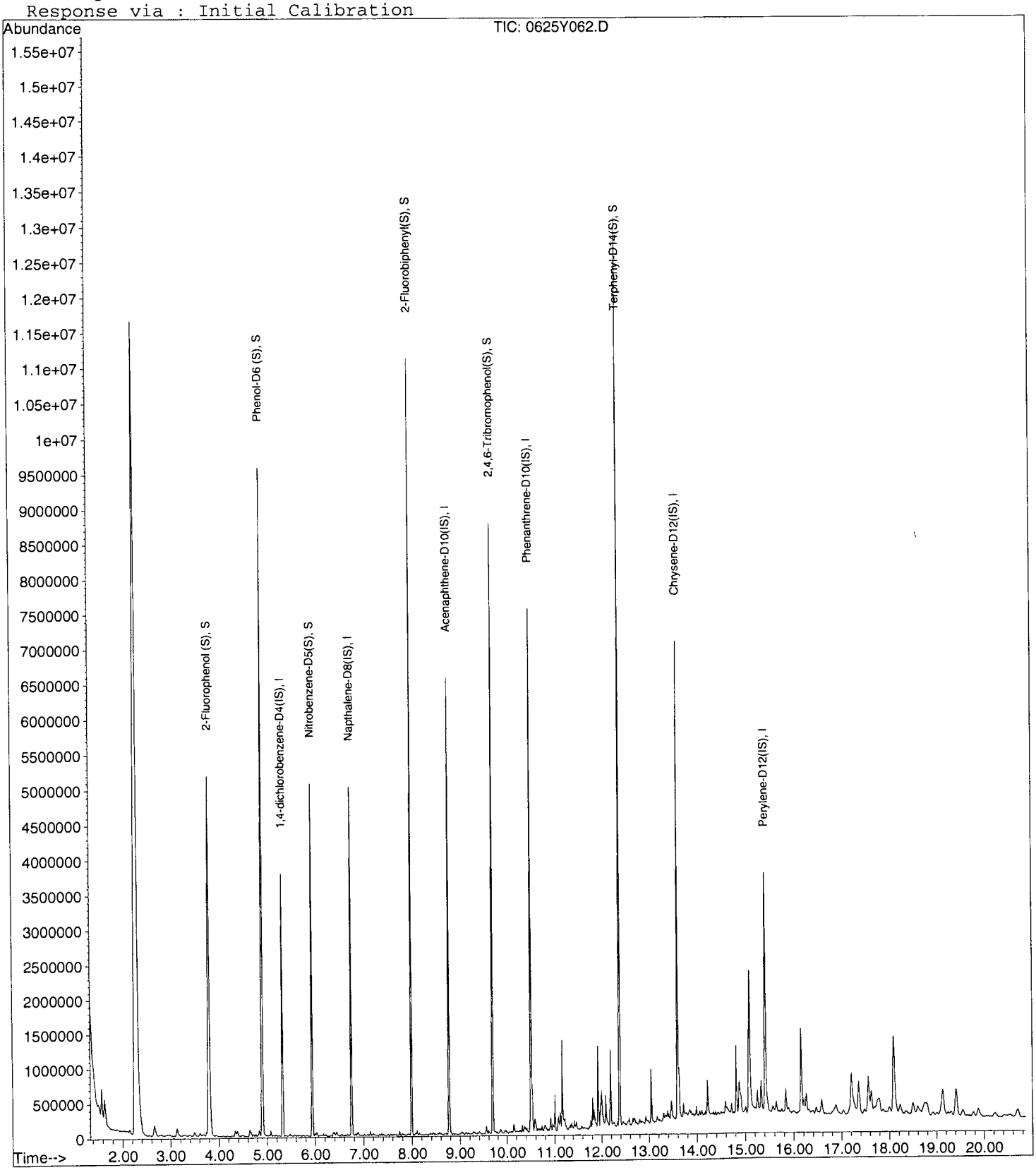
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y062.D Vial: 62
Acq On : 30 Jun 15 23:20 Operator: MA
Sample : AZ17439S03 1/30.05G Inst : Yoda
Misc : soil Multiplr: 33.28

Quant Time: Jul 2 15:21 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:50:54 2015
Response via : Initial Calibration



EPA 8270D SOILS

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

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SB033-0203
Sample Collection Date: 6/9/2015

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76624
APPL ID: AZ17440
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 15.1 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.200 U	0.78	0.200	0.073	mg/kg	6/22/2015	6/30/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.200 U	0.39	0.200	0.066	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.200 U	0.39	0.200	0.078	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.200 U	0.39	0.200	0.068	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIETHYL PHTHALATE	0.200 U	0.39	0.200	0.073	mg/kg	6/22/2015	6/30/2015
EPA 8270D	DIMETHYL PHTHALATE	0.200 U	0.39	0.200	0.074	mg/kg	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	78.7	35-125			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	59.9	45-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	67.8	35-105			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	83.9	35-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: PHENOL (S)	81.3	40-100			%	6/22/2015	6/30/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	72.6	30-125			%	6/22/2015	6/30/2015

Quant Method: Y0625TT.M
Run #: 0625Y063
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/2/2015 3:37:38 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y063.D Vial: 63
Acq On : 30 Jun 15 23:49 Operator: MA
Sample : AZ17440S01 1/30.16G Inst : Yoda
Misc : soil Multiplr: 33.16

Quant Time: Jul 2 15:21 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.32	152	631968	40.00	ppb	0.00
7) Napthalene-D8(IS)	6.75	136	2759637	40.00	ppb	0.00
13) Acenaphthene-D10(IS)	8.77	164	1640194	40.00	ppb	0.00
23) Phenanthrene-D10(IS)	10.51	188	2990408	40.00	ppb	0.00
27) Chrysene-D12(IS)	13.60	240	2514300	40.00	ppb	0.00
32) Perylene-D12(IS)	15.42	264	1603846	40.00	ppb	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.80	112	3063459	4493.86	ppb	0.00
Spiked Amount 6631.300			Recovery =	67.767%		
3) Phenol-D6 (S)	4.91	99	4540904	5393.23	ppb	0.00
Spiked Amount 6631.300			Recovery =	81.330%		
8) Nitrobenzene-D5(S)	5.94	82	2269384	2781.34	ppb	0.00
Spiked Amount 3315.650			Recovery =	83.885%		
16) 2-Fluorobiphenyl(S)	7.99	172	3333737	1984.51	ppb	0.00
Spiked Amount 3315.650			Recovery =	59.853%		
22) 2,4,6-Tribromophenol(S)	0.00	330	0d	0.00	ppb	
Spiked Amount 6631.300			Recovery =	0.000%		
28) Terphenyl-D14(S)	12.38	244	4599128	2407.77	ppb	0.00
Spiked Amount 3315.650			Recovery =	72.618%		
Target Compounds						Qvalue
21) Diethyl phthalate	9.28	149	7907	4.40	ppb	91

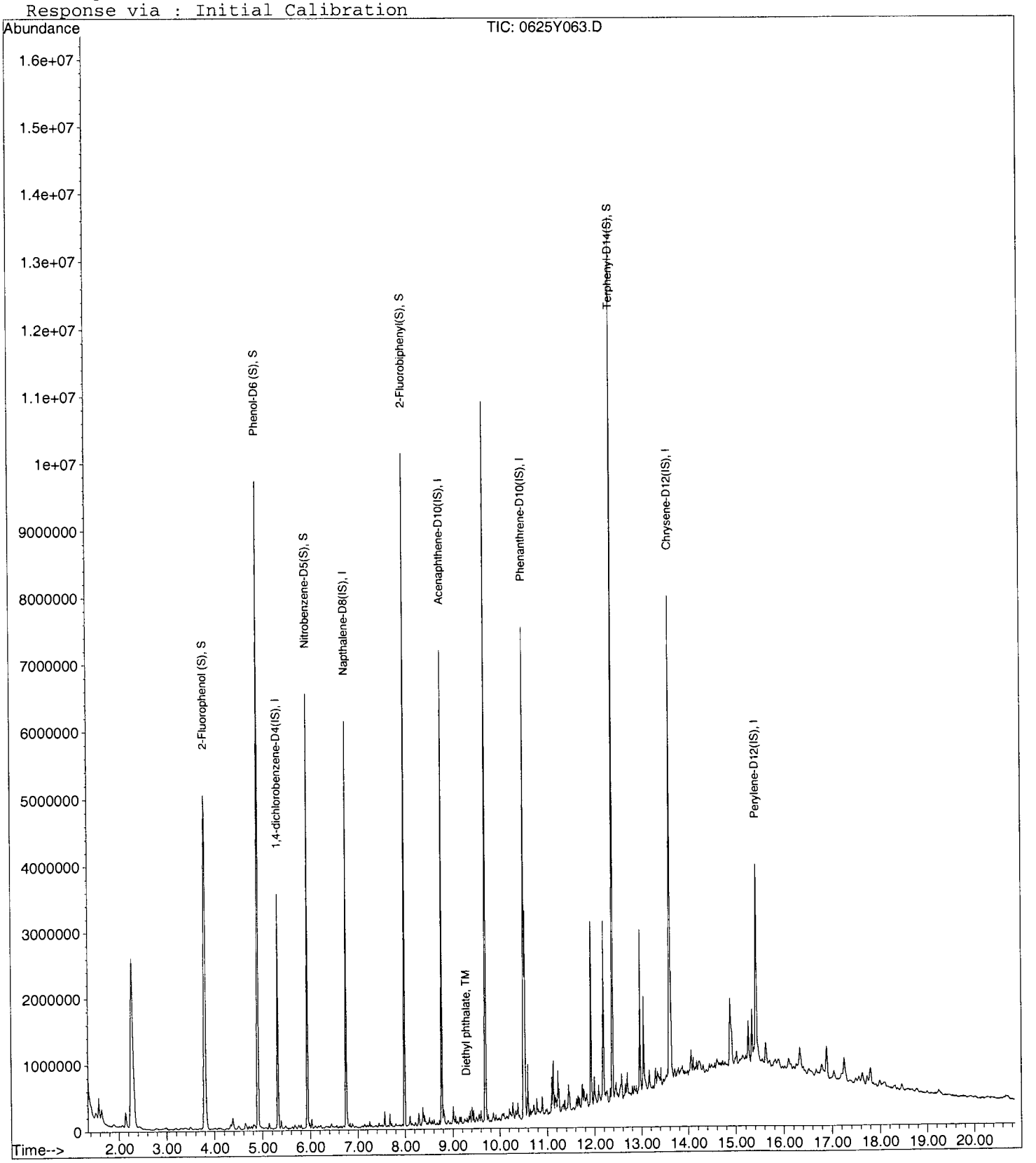
(#) = qualifier out of range (m) = manual integration

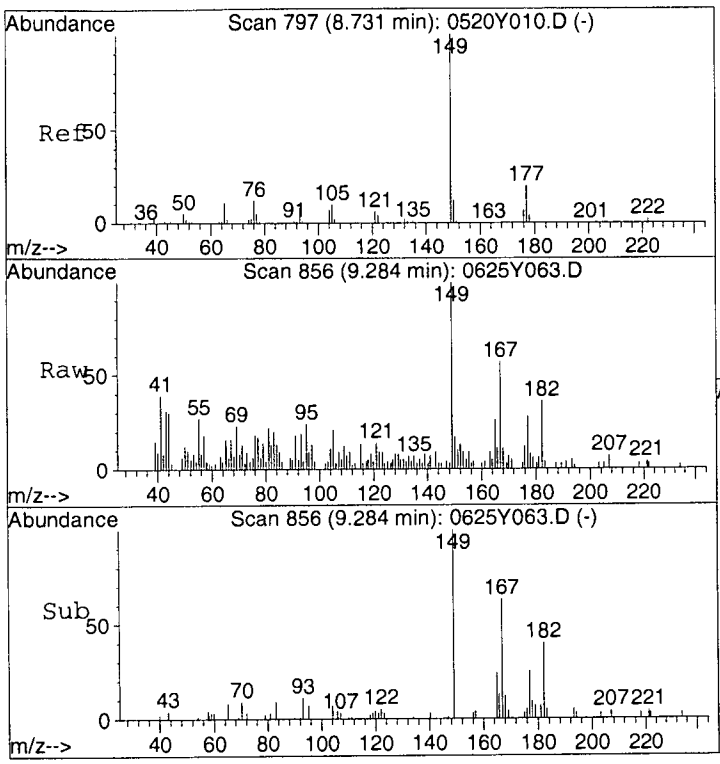
Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y063.D Vial: 63
Acq On : 30 Jun 15 23:49 Operator: MA
Sample : AZ17440S01 1/30.16G Inst : Yoda
Misc : soil Multiplr: 33.16

Quant Time: Jul 2 15:21 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:50:54 2015
Response via : Initial Calibration

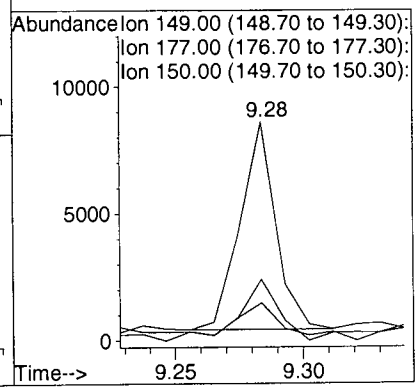




#21
Diethyl phthalate
Concen: 4.40 ppb
RT: 9.28 min Scan# 856
Delta R.T. -0.02 min
Lab File: 0625Y063.D
Acq: 30 Jun 15 23:49

Tgt Ion:149 Resp: 7907

Ion	Ratio	Lower	Upper
149	100		
177	25.7	14.1	26.1
150	13.9	8.5	15.7



EPA 8270D SOILS

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-SS040-0001
Sample Collection Date: 6/10/2015

ARF: 76624
APPL ID: AZ17441
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 20.0 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.210 U	0.83	0.210	0.078	mg/kg	6/22/2015	7/1/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.210 U	0.41	0.210	0.070	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.210 U	0.41	0.210	0.083	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.210 U	0.41	0.210	0.073	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIETHYL PHTHALATE	0.210 U	0.41	0.210	0.078	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIMETHYL PHTHALATE	0.210 U	0.41	0.210	0.079	mg/kg	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	71.2	35-125			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	65.7	45-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	60.7	35-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	72.6	35-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: PHENOL (S)	74.6	40-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	72.7	30-125			%	6/22/2015	7/1/2015

Quant Method: Y0625TT.M
Run #: 0625Y064
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/2/2015 3:37:38 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y064.D Vial: 64
Acq On : 1 Jul 15 00:19 Operator: MA
Sample : AZ17441S02 1/30.54G Inst : Yoda
Misc : soil Multiplr: 32.74

Quant Time: Jul 2 15:21 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.33	152	658705	40.00	ppb	0.00
7) Napthalene-D8(IS)	6.75	136	3091880	40.00	ppb	-0.01
13) Acenaphthene-D10(IS)	8.77	164	1895906	40.00	ppb	-0.01
23) Phenanthrene-D10(IS)	10.51	188	3391632	40.00	ppb	-0.01
27) Chrysene-D12(IS)	13.61	240	2876052	40.00	ppb	0.00
32) Perylene-D12(IS)	15.43	264	1938758	40.00	ppb	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.80	112	2861452	3977.04	ppb	0.00
Spiked Amount 6548.788			Recovery =	60.729%		
3) Phenol-D6 (S)	4.91	99	4338631	4882.31	ppb	0.00
Spiked Amount 6548.788			Recovery =	74.553%		
8) Nitrobenzene-D5(S)	5.94	82	2200804	2377.49	ppb	-0.01
Spiked Amount 3274.394			Recovery =	72.609%		
16) 2-Fluorobiphenyl(S)	7.99	172	4226989	2149.78	ppb	-0.01
Spiked Amount 3274.394			Recovery =	65.654%		
22) 2,4,6-Tribromophenol(S)	9.70	330	888990	4661.58	ppb	0.00
Spiked Amount 6548.788			Recovery =	71.182%		
28) Terphenyl-D14(S)	12.38	244	5267176	2380.68	ppb	0.00
Spiked Amount 3274.394			Recovery =	72.706%		

Target Compounds Qvalue

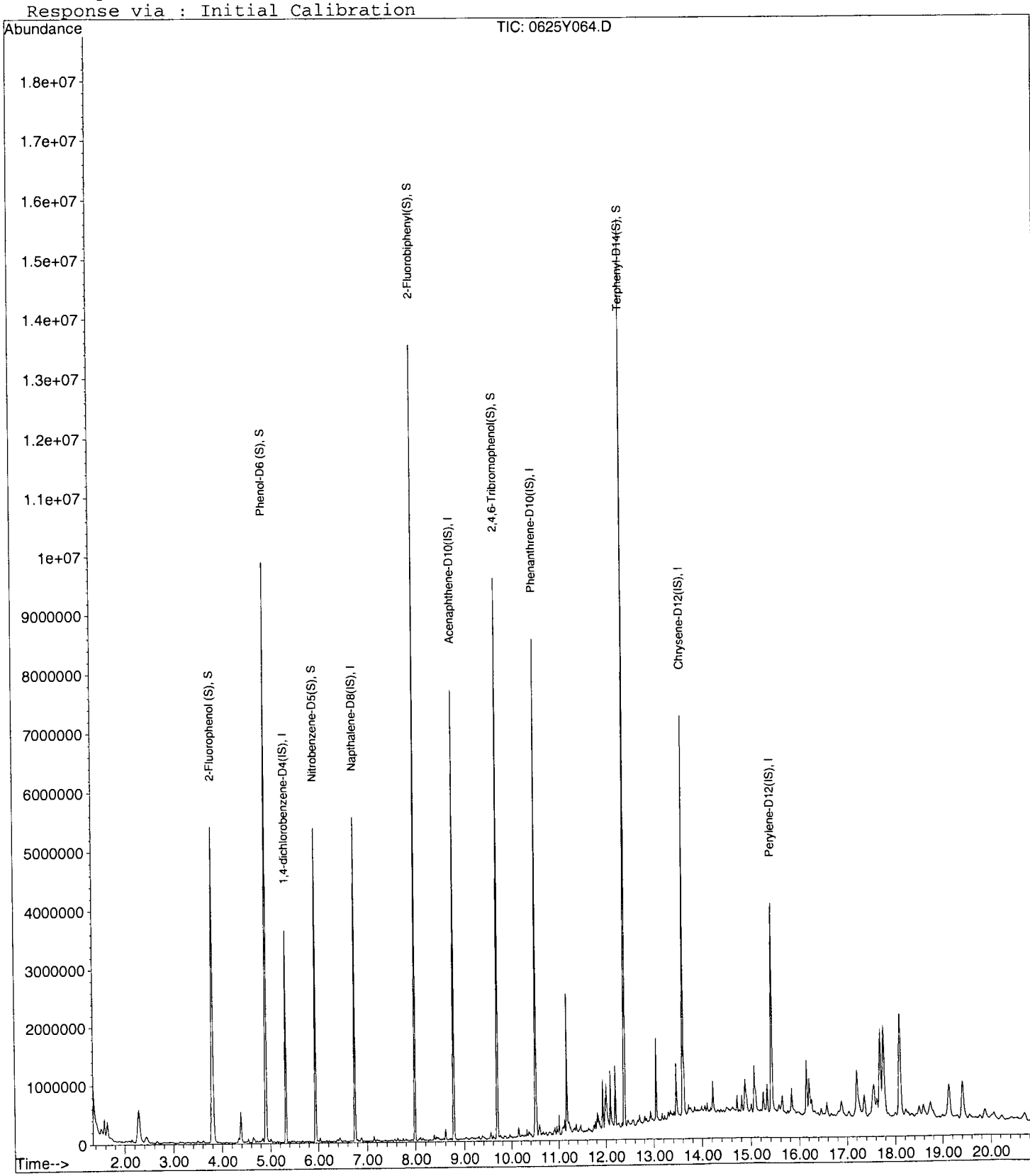
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y064.D Vial: 64
Acq On : 1 Jul 15 00:19 Operator: MA
Sample : AZ17441S02 1/30.54G Inst : Yoda
Misc : soil Multiplr: 32.74

Quant Time: Jul 2 15:21 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:50:54 2015
Response via : Initial Calibration



EPA 8270D SOILS

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-SS040P-0001
Sample Collection Date: 6/10/2015

ARF: 76624
APPL ID: AZ17442
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 19.4 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.15 J	0.82	0.210	0.077	mg/kg	6/22/2015	7/1/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.210 U	0.41	0.210	0.069	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.210 U	0.41	0.210	0.082	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.210 U	0.41	0.210	0.072	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIETHYL PHTHALATE	0.210 U	0.41	0.210	0.077	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIMETHYL PHTHALATE	0.210 U	0.41	0.210	0.078	mg/kg	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	65.9	35-125			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	58.5	45-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	54.4	35-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	63.6	35-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: PHENOL (S)	66.0	40-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	66.9	30-125			%	6/22/2015	7/1/2015

J = Estimated value.

Quant Method: Y0625TT.M
Run #: 0625Y065
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/2/2015 3:37:38 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y065.D Vial: 65
Acq On : 1 Jul 15 00:48 Operator: MA
Sample : AZ17442S02 1/30.45G Inst : Yoda
Misc : soil Multiplr: 32.84

Quant Time: Jul 2 15:22 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.32	152	643749	40.00	ppb	0.00
7) Napthalene-D8(IS)	6.75	136	2930000	40.00	ppb	0.00
13) Acenaphthene-D10(IS)	8.77	164	1742865	40.00	ppb	0.00
23) Phenanthrene-D10(IS)	10.51	188	3208625	40.00	ppb	0.00
27) Chrysene-D12(IS)	13.60	240	2703552	40.00	ppb	0.00
32) Perylene-D12(IS)	15.42	264	1722622	40.00	ppb	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.80	112	2503867	3571.42	ppb	0.00
Spiked Amount 6568.144			Recovery =	54.375%		
3) Phenol-D6 (S)	4.91	99	3755728	4337.33	ppb	0.00
Spiked Amount 6568.144			Recovery =	66.036%		
8) Nitrobenzene-D5(S)	5.94	82	1827966	2089.98	ppb	0.00
Spiked Amount 3284.072			Recovery =	63.640%		
16) 2-Fluorobiphenyl(S)	7.99	172	3461002	1920.43	ppb	0.00
Spiked Amount 3284.072			Recovery =	58.477%		
22) 2,4,6-Tribromophenol(S)	9.69	330	756560	4328.27	ppb	0.00
Spiked Amount 6568.144			Recovery =	65.898%		
28) Terphenyl-D14(S)	12.38	244	4557697	2197.92	ppb	0.00
Spiked Amount 3284.072			Recovery =	66.927%		
Target Compounds						Qvalue
30) Bis (2-ethylhexyl) phthala	13.62	149	49717	120.51	ppb	95

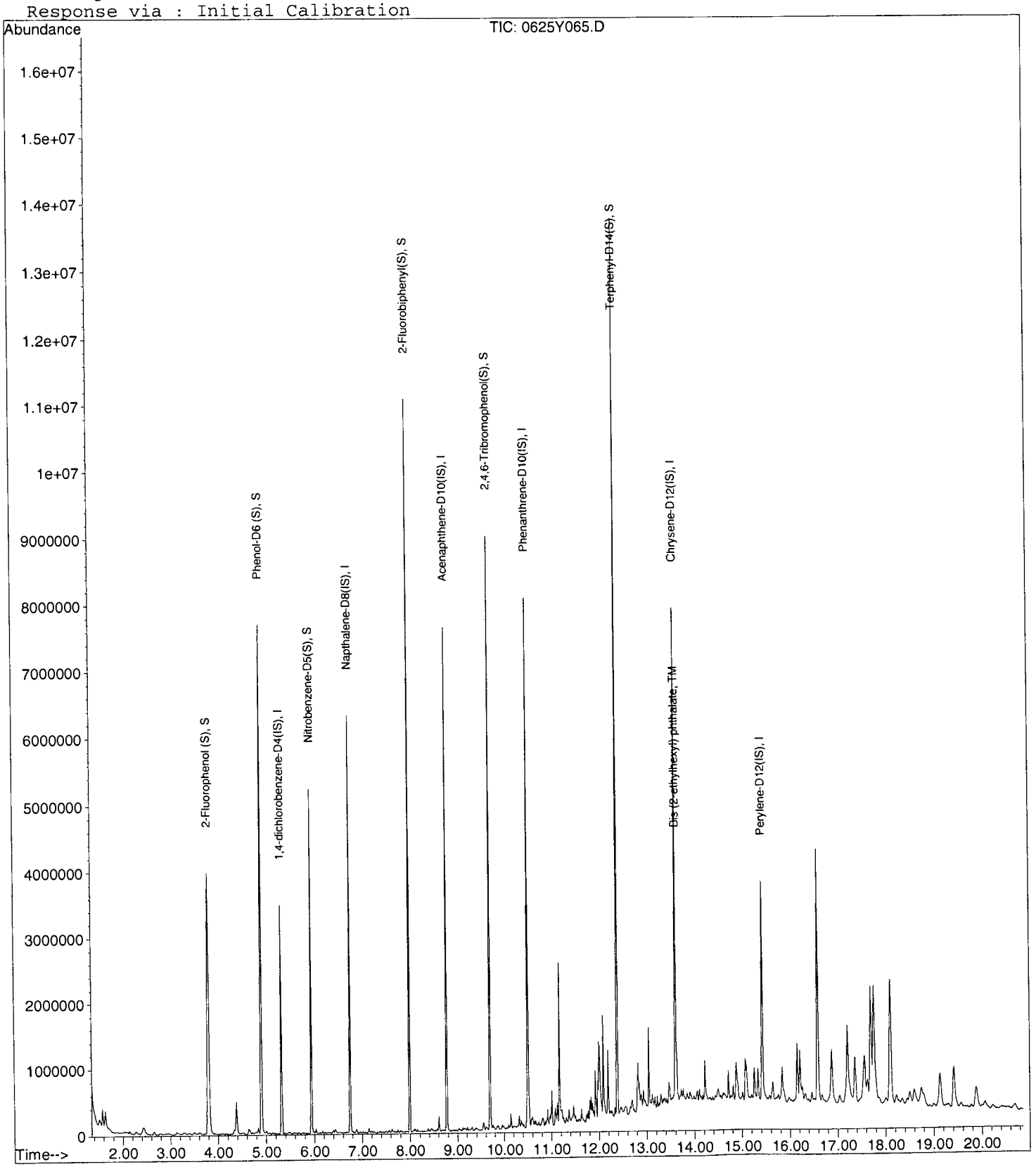
(#) = qualifier out of range (m) = manual integration

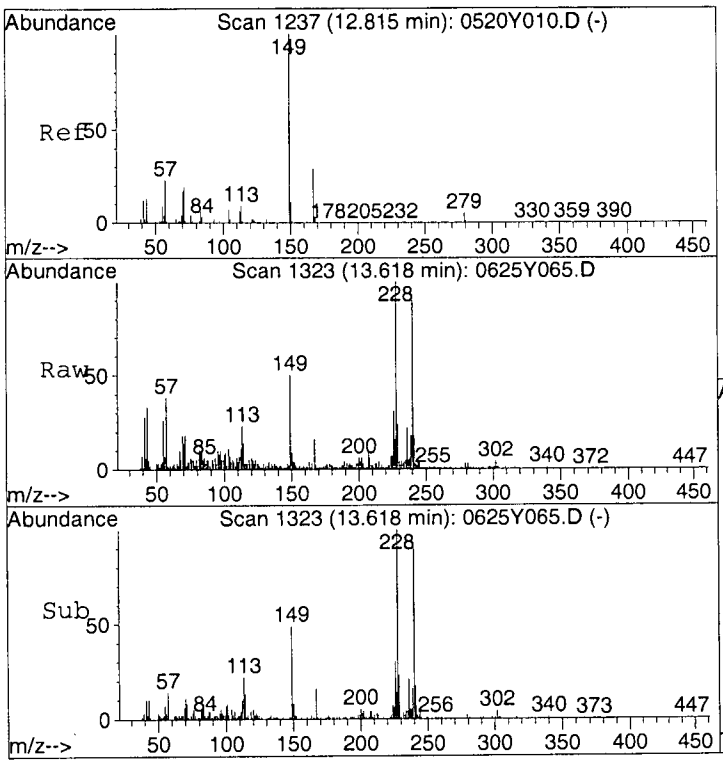
Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y065.D Vial: 65
Acq On : 1 Jul 15 00:48 Operator: MA
Sample : AZ17442S02 1/30.45G Inst : Yoda
Misc : soil Multiplr: 32.84

Quant Time: Jul 2 15:22 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:50:54 2015
Response via : Initial Calibration

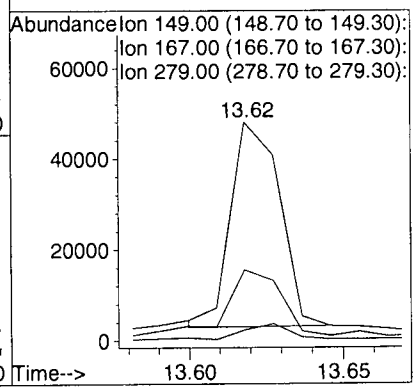




#30
Bis (2-ethylhexyl) phthalate
Concen: 120.51 ppb
RT: 13.62 min Scan# 1323
Delta R.T. -0.02 min
Lab File: 0625Y065.D
Acq: 1 Jul 15 00:48

Tgt Ion:149 Resp: 49717

Ion	Ratio	Lower	Upper
149	100		
167	32.3	20.3	37.7
279	4.7	3.7	6.9



EPA 8270D SOILS

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-SB040-1516
Sample Collection Date: 6/10/2015

ARF: 76624
APPL ID: AZ17443
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 11.9 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.190 U	0.75	0.190	0.070	mg/kg	6/22/2015	7/1/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.190 U	0.37	0.190	0.064	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.190 U	0.37	0.190	0.075	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.190 U	0.37	0.190	0.066	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIETHYL PHTHALATE	0.190 U	0.37	0.190	0.070	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIMETHYL PHTHALATE	0.190 U	0.37	0.190	0.072	mg/kg	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	67.0	35-125			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	43.2 #	45-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	50.1	35-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	54.0	35-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: PHENOL (S)	57.3	40-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	51.2	30-125			%	6/22/2015	7/1/2015

= Recovery (or RPD) is outside QC limits.

Quant Method: Y0625TT.M
Run #: 0625Y066
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/2/2015 3:37:38 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y066.D Vial: 66
Acq On : 1 Jul 15 1:18 Operator: MA
Sample : AZ17443S01 1/30.74G Inst : Yoda
Misc : soil Multiplr: 32.53

Quant Time: Jul 2 15:22 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.33	152	830791	40.00	ppb	0.00
7) Napthalene-D8(IS)	6.76	136	3445302	40.00	ppb	0.00
13) Acenaphthene-D10(IS)	8.77	164	2104141	40.00	ppb	-0.01
23) Phenanthrene-D10(IS)	10.51	188	3720764	40.00	ppb	-0.01
27) Chrysene-D12(IS)	13.61	240	3239150	40.00	ppb	0.00
32) Perylene-D12(IS)	15.43	264	2051875	40.00	ppb	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.80	112	2976638	3258.85	ppb	0.00
Spiked Amount 6506.181			Recovery =	50.088%		
3) Phenol-D6 (S)	4.91	99	4203476	3726.02	ppb	0.00
Spiked Amount 6506.181			Recovery =	57.269%		
8) Nitrobenzene-D5(S)	5.94	82	1822469	1755.33	ppb	-0.01
Spiked Amount 3253.090			Recovery =	53.959%		
16) 2-Fluorobiphenyl(S)	7.99	172	3087502	1405.65	ppb	-0.01
Spiked Amount 3253.090			Recovery =	43.210%		
22) 2,4,6-Tribromophenol(S)	9.70	330	928237	4357.14	ppb	0.00
Spiked Amount 6506.181			Recovery =	66.969%		
28) Terphenyl-D14(S)	12.38	244	4174170	1664.27	ppb	0.00
Spiked Amount 3253.090			Recovery =	51.160%		

Target Compounds Qvalue

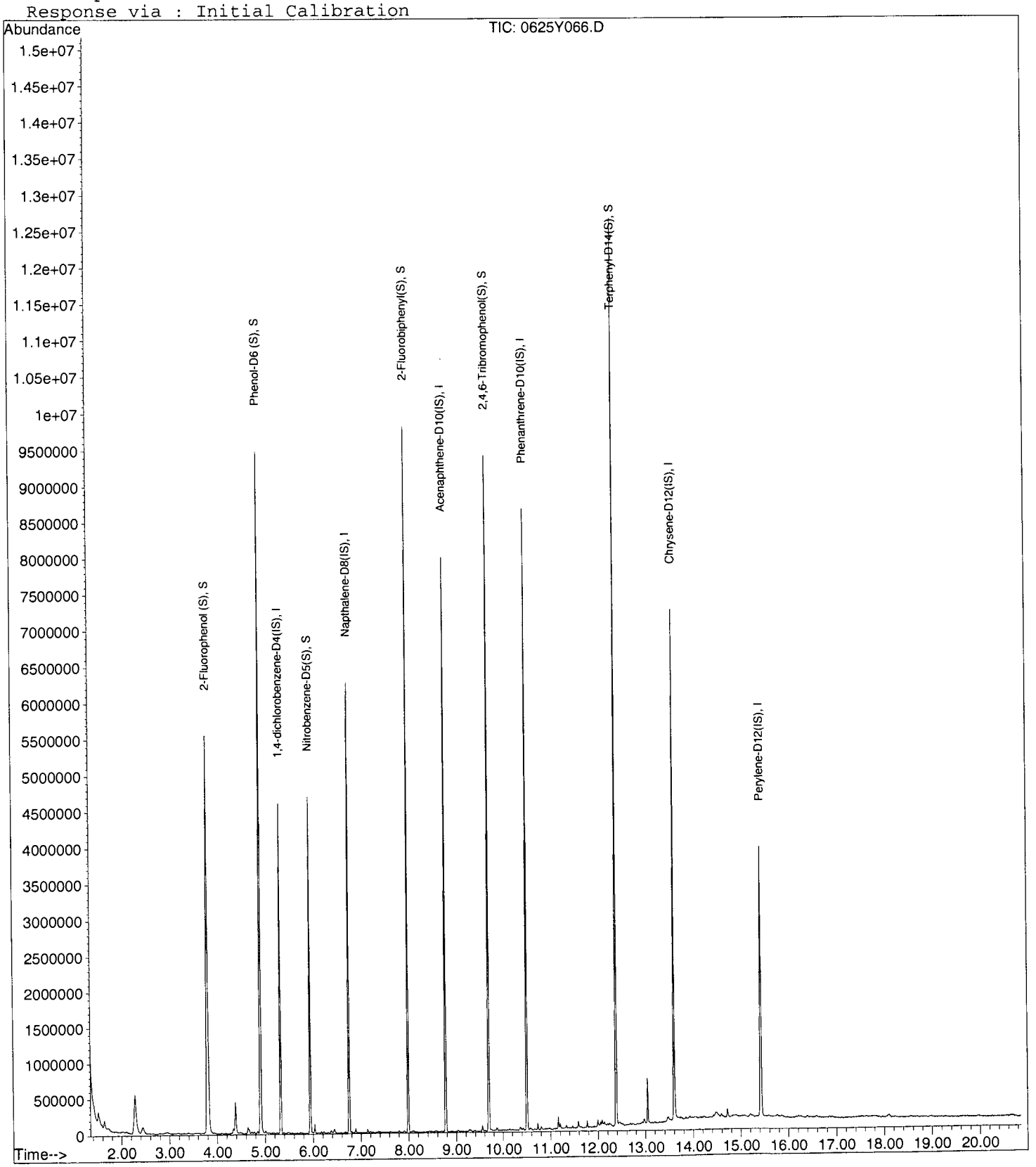
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y066.D Vial: 66
Acq On : 1 Jul 15 1:18 Operator: MA
Sample : AZ17443S01 1/30.74G Inst : Yoda
Misc : soil Multiplr: 32.53

Quant Time: Jul 2 15:22 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:50:54 2015
Response via : Initial Calibration



EPA 8270D SOIL RE-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-SB040-1516
Sample Collection Date: 6/10/2015

ARF: 76624
APPL ID: AZ17443
QCG: #87DJU-150702A-198613

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 11.9 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.12 J	0.75	0.190	0.070	mg/kg	7/2/2015	7/6/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.190 U	0.37	0.190	0.064	mg/kg	7/2/2015	7/6/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.190 U	0.37	0.190	0.075	mg/kg	7/2/2015	7/6/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.190 U	0.37	0.190	0.066	mg/kg	7/2/2015	7/6/2015
EPA 8270D	DIETHYL PHTHALATE	0.190 U	0.37	0.190	0.070	mg/kg	7/2/2015	7/6/2015
EPA 8270D	DIMETHYL PHTHALATE	0.190 U	0.37	0.190	0.072	mg/kg	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	77.1	35-125			%	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	70.2	45-105			%	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	65.9	35-105			%	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	71.5	35-100			%	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: PHENOL (S)	78.4	40-100			%	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	75.1	30-125			%	7/2/2015	7/6/2015

J = Estimated value.

Quant Method: Y0625TT.M
Run #: 0625Y104
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/7/2015 9:44:07 AM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y104.D Vial: 4
Acq On : 6 Jul 15 18:52 Operator: MA
Sample : AZ17443S01 1/30.05G Inst : Yoda
Misc : soil Multiplr: 33.28

Quant Time: Jul 7 8:37 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.32	152	718827	40.00 ppb	0.00
7) Napthalene-D8(IS)	6.75	136	3319022	40.00 ppb	0.00
13) Acenaphthene-D10(IS)	8.77	164	2048083	40.00 ppb	0.00
23) Phenanthrene-D10(IS)	10.51	188	3829799	40.00 ppb	0.00
27) Chrysene-D12(IS)	13.60	240	3146929	40.00 ppb	0.00
32) Perylene-D12(IS)	15.42	264	1769699	40.00 ppb	-0.02
System Monitoring Compounds					
2) 2-Fluorophenol (S)	3.78	112	3389153	4386.89 ppb	-0.03
Spiked Amount 6655.574			Recovery =	65.913%	
3) Phenol-D6 (S)	4.90	99	4977614	5216.58 ppb	0.00
Spiked Amount 6655.574			Recovery =	78.379%	
8) Nitrobenzene-D5(S)	5.94	82	2325196	2378.12 ppb	0.00
Spiked Amount 3327.787			Recovery =	71.463%	
16) 2-Fluorobiphenyl(S)	7.99	172	4882135	2335.97 ppb	0.00
Spiked Amount 3327.787			Recovery =	70.196%	
22) 2,4,6-Tribromophenol(S)	9.70	330	1040585	5133.43 ppb	0.00
Spiked Amount 6655.574			Recovery =	77.130%	
28) Terphenyl-D14(S)	12.38	244	5956566	2500.65 ppb	0.00
Spiked Amount 3327.787			Recovery =	75.145%	
Target Compounds					Qvalue
30) Bis (2-ethylhexyl) phthala	13.62	149	14147	105.90 ppb	98

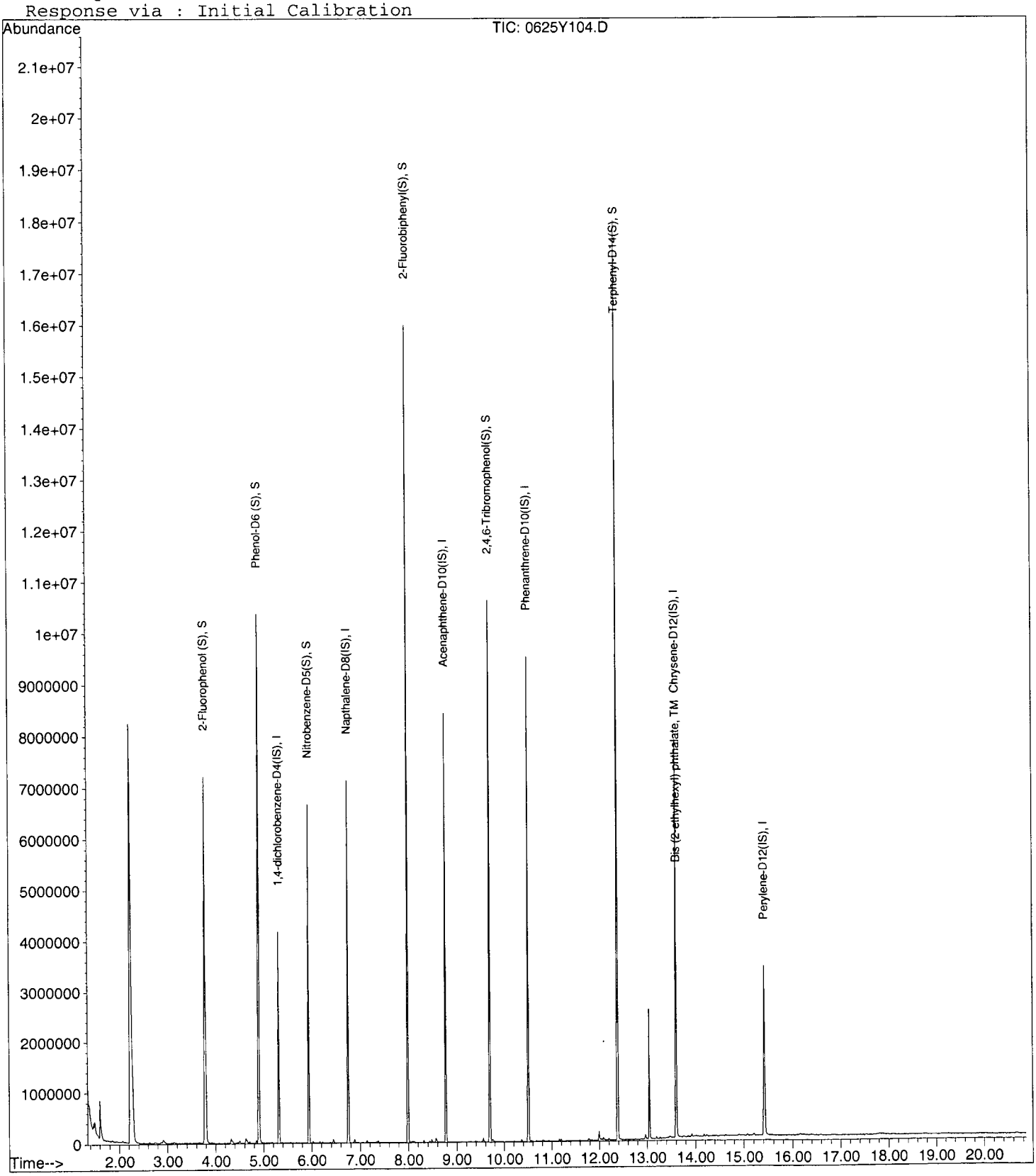
(#) = qualifier out of range (m) = manual integration

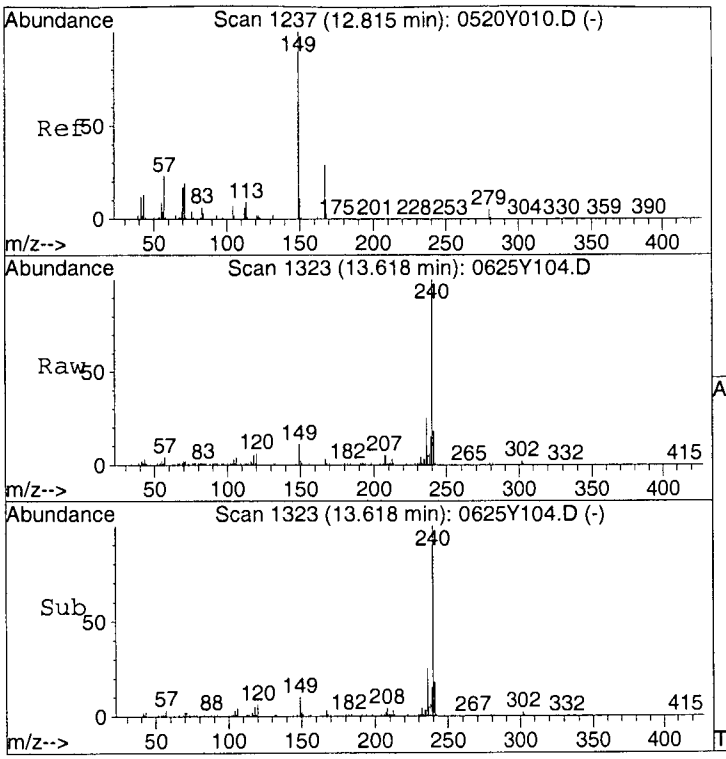
Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y104.D Vial: 4
Acq On : 6 Jul 15 18:52 Operator: MA
Sample : AZ17443S01 1/30.05G Inst : Yoda
Misc : soil Multiplr: 33.28

Quant Time: Jul 7 8:37 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration

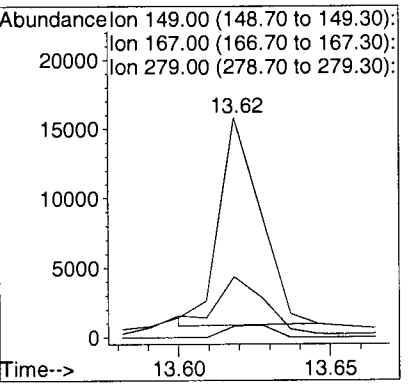




#30
Bis (2-ethylhexyl) phthalate
Concen: 105.90 ppb
RT: 13.62 min Scan# 1323
Delta R.T. -0.02 min
Lab File: 0625Y104.D
Acq: 6 Jul 15 18:52

Tgt Ion:149 Resp: 14147

Ion	Ratio	Lower	Upper
149	100		
167	27.8	20.3	37.7
279	5.5	3.7	6.9



EPA 8270D SOILS

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-SS035-0001
Sample Collection Date: 6/10/2015

ARF: 76624
APPL ID: AZ17444
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 14.8 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.13 J	0.77	0.200	0.073	mg/kg	6/22/2015	7/1/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.200 U	0.39	0.200	0.066	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.200 U	0.39	0.200	0.077	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.200 U	0.39	0.200	0.068	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIETHYL PHTHALATE	0.200 U	0.39	0.200	0.073	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIMETHYL PHTHALATE	0.200 U	0.39	0.200	0.074	mg/kg	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	62.4	35-125			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	58.3	45-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	63.6	35-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	72.0	35-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: PHENOL (S)	79.5	40-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	69.3	30-125			%	6/22/2015	7/1/2015

J = Estimated value.

Quant Method: Y0625TT.M
Run #: 0625Y069
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/2/2015 3:37:38 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y069.D Vial: 69
Acq On : 1 Jul 15 2:46 Operator: MA
Sample : AZ17444S05 1/30.35G Inst : Yoda
Misc : soil Multiplr: 32.95

Quant Time: Jul 2 15:23 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.33	152	705338	40.00	ppb	0.00
7) Napthalene-D8(IS)	6.75	136	3199719	40.00	ppb	0.00
13) Acenaphthene-D10(IS)	8.77	164	1914522	40.00	ppb	0.00
23) Phenanthrene-D10(IS)	10.51	188	3452554	40.00	ppb	0.00
27) Chrysene-D12(IS)	13.60	240	2823188	40.00	ppb	0.00
32) Perylene-D12(IS)	15.42	264	1836711	40.00	ppb	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.81	112	3209557	4192.02	ppb	0.00
Spiked Amount 6589.786			Recovery =	63.614%		
3) Phenol-D6 (S)	4.91	99	4955152	5240.03	ppb	0.00
Spiked Amount 6589.786			Recovery =	79.517%		
8) Nitrobenzene-D5(S)	5.94	82	2257113	2370.89	ppb	0.00
Spiked Amount 3294.893			Recovery =	71.957%		
16) 2-Fluorobiphenyl(S)	7.99	172	3791149	1921.32	ppb	0.00
Spiked Amount 3294.893			Recovery =	58.312%		
22) 2,4,6-Tribromophenol(S)	9.70	330	786768	4111.02	ppb	0.00
Spiked Amount 6589.786			Recovery =	62.385%		
28) Terphenyl-D14(S)	12.38	244	4931083	2284.72	ppb	0.00
Spiked Amount 3294.893			Recovery =	69.341%		
Target Compounds						Qvalue
30) Bis (2-ethylhexyl) phthala	13.62	149	28395	111.28	ppb	98

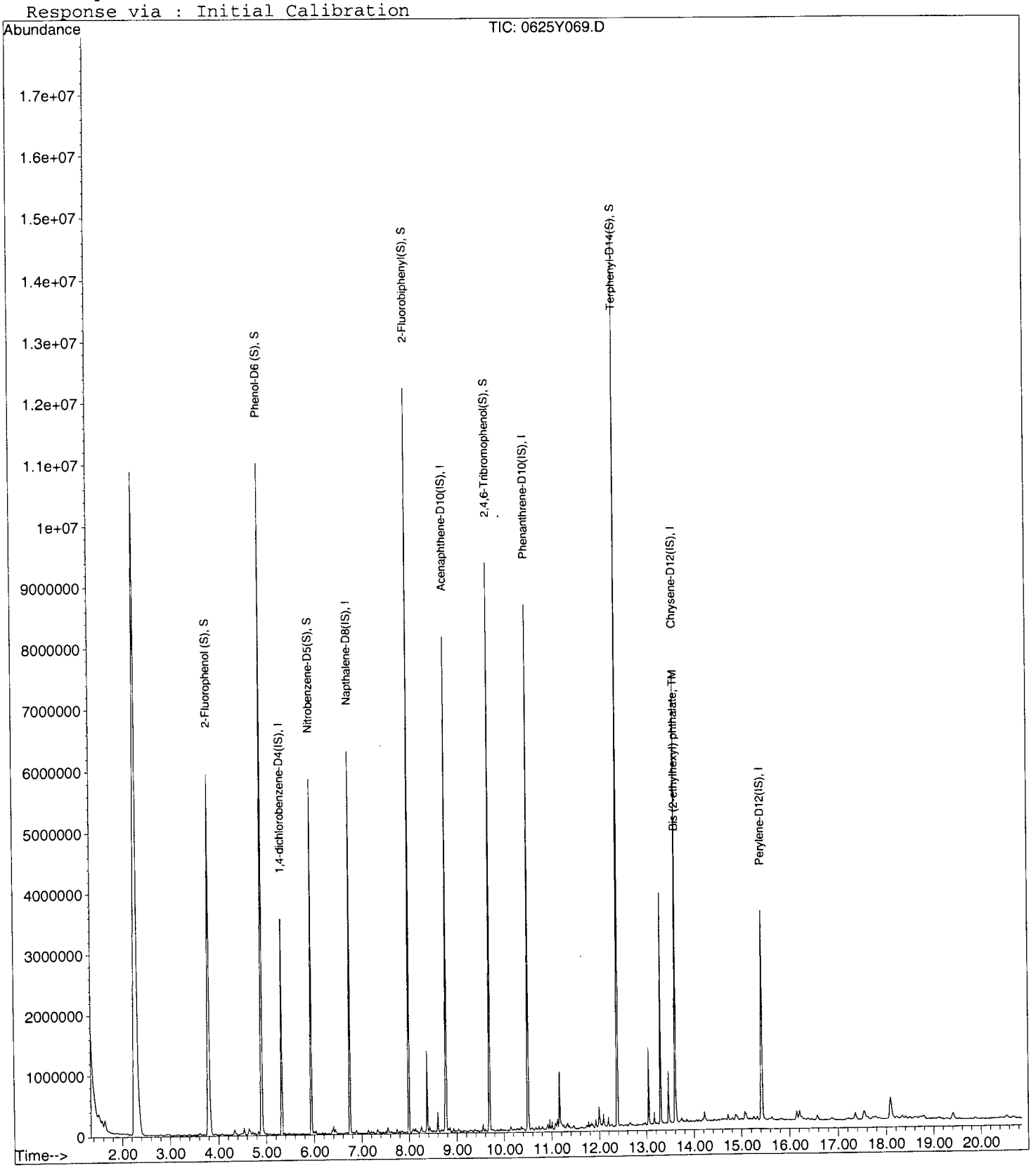
(#) = qualifier out of range (m) = manual integration

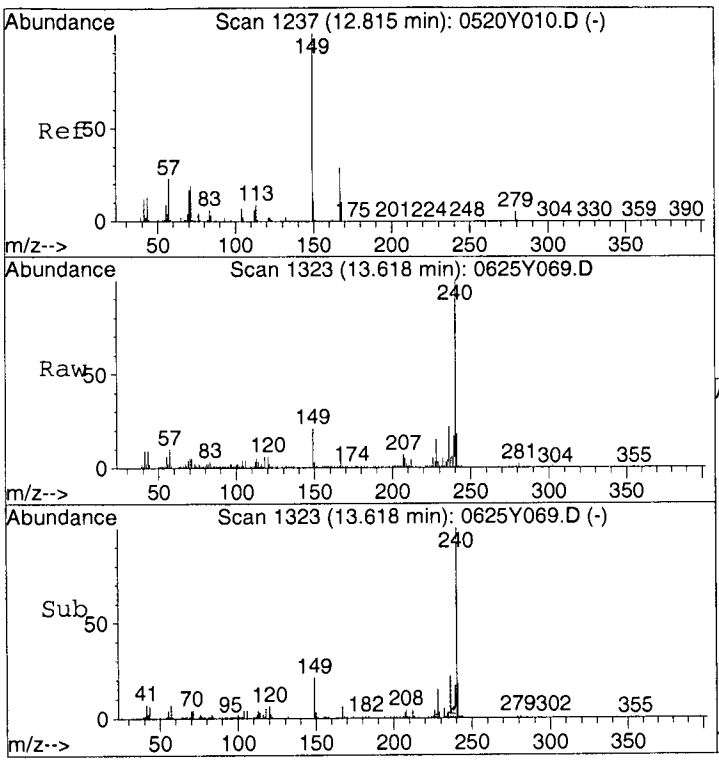
Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y069.D Vial: 69
Acq On : 1 Jul 15 2:46 Operator: MA
Sample : AZ17444S05 1/30.35G Inst : Yoda
Misc : soil Multiplr: 32.95

Quant Time: Jul 2 15:23 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:50:54 2015
Response via : Initial Calibration

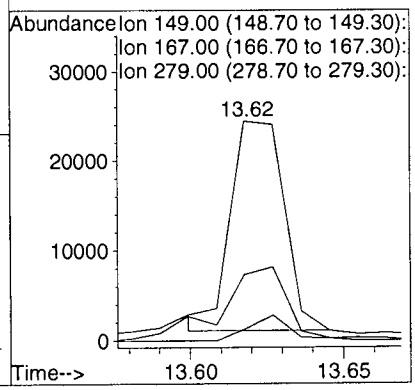




#30
Bis (2-ethylhexyl) phthalate
Concen: 111.28 ppb
RT: 13.62 min Scan# 1323
Delta R.T. -0.02 min
Lab File: 0625Y069.D
Acq: 1 Jul 15 2:46

Tgt Ion:149 Resp: 28395

Ion	Ratio	Lower	Upper
149	100		
167	30.4	20.3	37.7
279	5.5	3.7	6.9



EPA 8270D SOILS

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-SB035-0203
Sample Collection Date: 6/10/2015

ARF: 76624
APPL ID: AZ17445
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 15.6 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.14 J	0.78	0.200	0.073	mg/kg	6/22/2015	7/1/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.200 U	0.39	0.200	0.066	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.200 U	0.39	0.200	0.078	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.200 U	0.39	0.200	0.069	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIETHYL PHTHALATE	0.200 U	0.39	0.200	0.073	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIMETHYL PHTHALATE	0.200 U	0.39	0.200	0.075	mg/kg	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	57.1	35-125			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	48.7	45-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	48.8	35-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	69.8	35-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: PHENOL (S)	64.1	40-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	58.8	30-125			%	6/22/2015	7/1/2015

J = Estimated value.

Quant Method: Y0625TT.M
Run #: 0625Y070
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/2/2015 3:37:38 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y070.D Vial: 70
Acq On : 1 Jul 15 3:15 Operator: MA
Sample : AZ17445S02 1/30.03G Inst : Yoda
Misc : soil Multiplr: 33.30

Quant Time: Jul 2 15:23 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.33	152	723991	40.00	ppb	0.00
7) Napthalene-D8(IS)	6.76	136	3312261	40.00	ppb	0.00
13) Acenaphthene-D10(IS)	8.77	164	2017961	40.00	ppb	-0.01
23) Phenanthrene-D10(IS)	10.52	188	3610159	40.00	ppb	0.00
27) Chrysene-D12(IS)	13.61	240	3217907	40.00	ppb	0.00
32) Perylene-D12(IS)	15.44	264	2247870	40.00	ppb	0.00
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.80	112	2525605	3247.96	ppb	0.00
Spiked Amount 6660.007			Recovery =	48.768%		
3) Phenol-D6 (S)	4.91	99	4097239	4266.14	ppb	0.00
Spiked Amount 6660.007			Recovery =	64.056%		
8) Nitrobenzene-D5(S)	5.94	82	2266849	2324.72	ppb	-0.01
Spiked Amount 3330.003			Recovery =	69.811%		
16) 2-Fluorobiphenyl(S)	7.99	172	3335752	1620.97	ppb	-0.01
Spiked Amount 3330.003			Recovery =	48.678%		
22) 2,4,6-Tribromophenol(S)	9.70	330	759216	3803.81	ppb	0.00
Spiked Amount 6660.007			Recovery =	57.114%		
28) Terphenyl-D14(S)	12.38	244	4766338	1958.14	ppb	0.00
Spiked Amount 3330.003			Recovery =	58.803%		
Target Compounds						Qvalue
30) Bis (2-ethylhexyl) phthala	13.63	149	56714	121.30	ppb	95

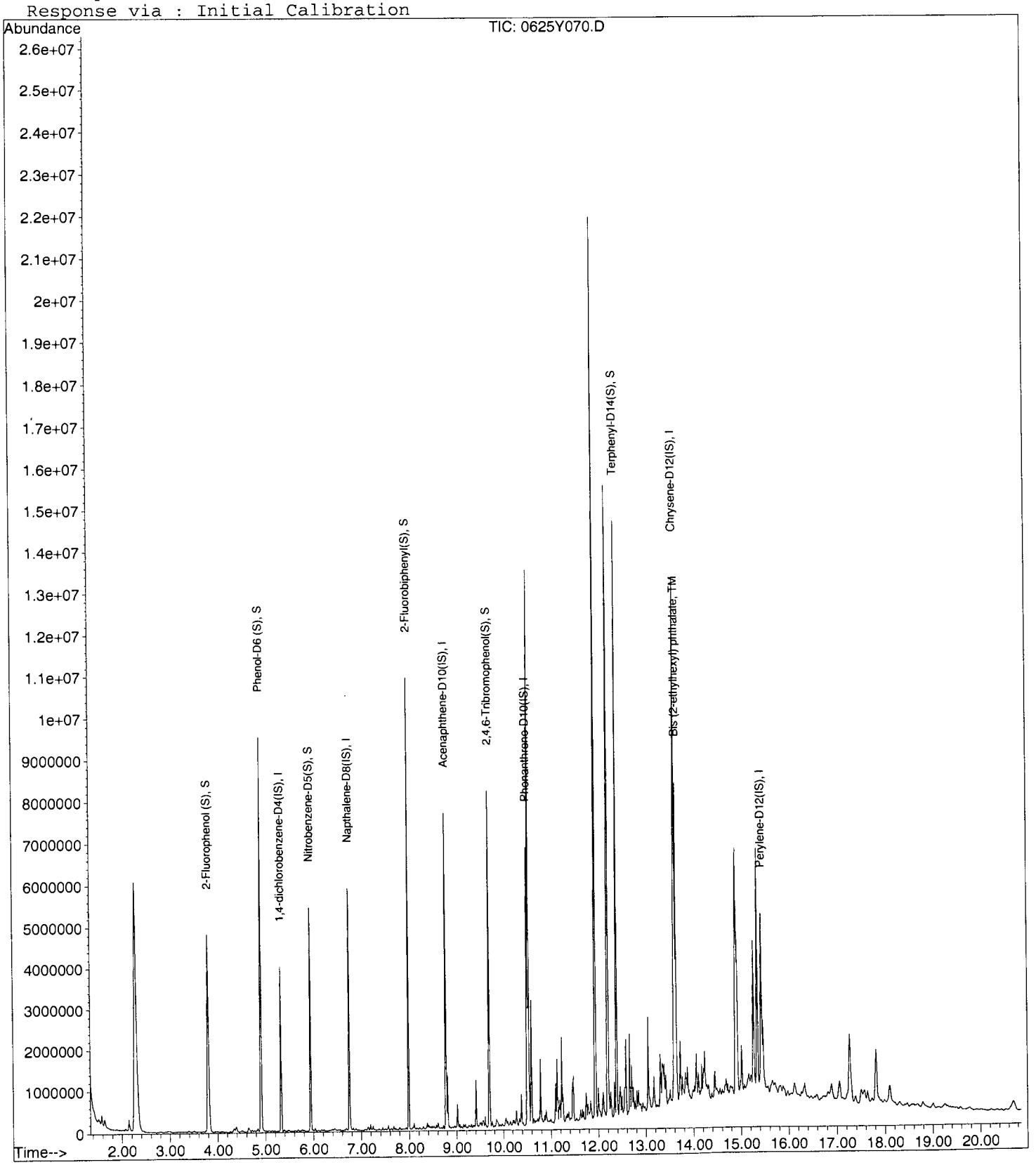
(#) = qualifier out of range (m) = manual integration

Quantitation Report

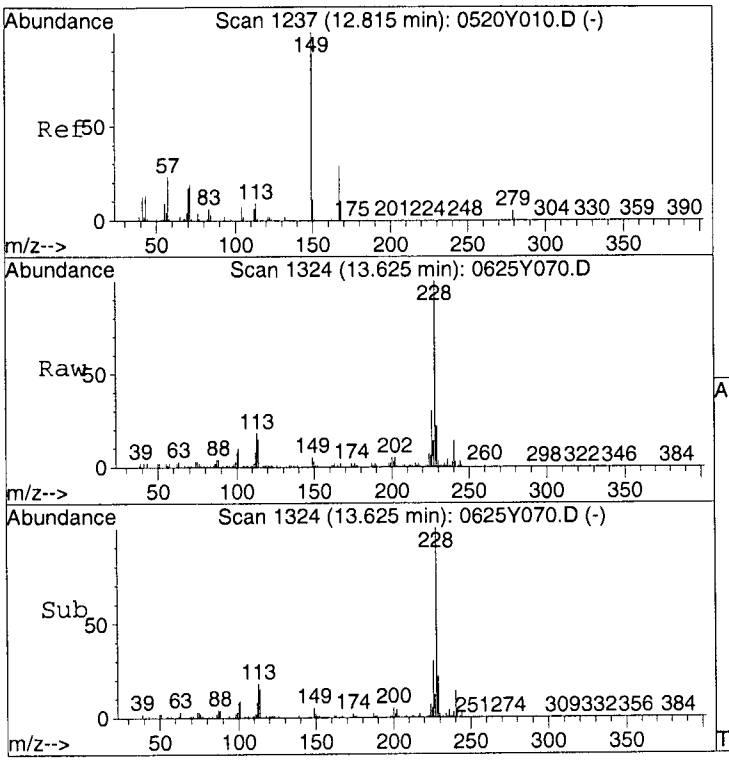
Data File : M:\YODA\DATA\Y150625\0625Y070.D Vial: 70
Acq On : 1 Jul 15 3:15 Operator: MA
Sample : AZ17445S02 1/30.03G Inst : Yoda
Misc : soil Multiplr: 33.30

Quant Time: Jul 2 15:23 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:50:54 2015
Response via : Initial Calibration



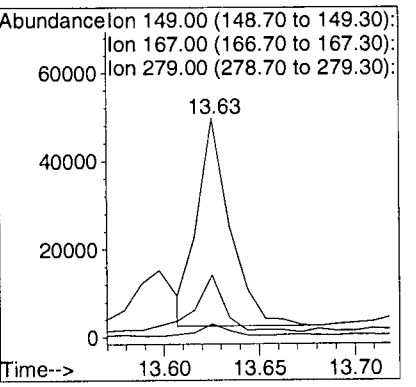
0625Y070.D Y0625TT.M Thu Jul 02 15:25:33 2015 Page 2



#30
Bis (2-ethylhexyl) phthalate
Concen: 121.30 ppb
RT: 13.63 min Scan# 1324
Delta R.T. -0.01 min
Lab File: 0625Y070.D
Acq: 1 Jul 15 3:15

Tgt Ion:149 Resp: 56714

Ion	Ratio	Lower	Upper
149	100		
167	25.8	20.3	37.7
279	5.5	3.7	6.9



EPA 8270D SOILS

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-SS034-0001
Sample Collection Date: 6/10/2015

ARF: 76624
APPL ID: AZ17446
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 12.3 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.190 U	0.75	0.190	0.071	mg/kg	6/22/2015	7/1/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.190 U	0.38	0.190	0.064	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.190 U	0.38	0.190	0.075	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.190 U	0.38	0.190	0.066	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIETHYL PHTHALATE	0.190 U	0.38	0.190	0.071	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIMETHYL PHTHALATE	0.190 U	0.38	0.190	0.072	mg/kg	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	73.3	35-125			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	55.0	45-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	61.2	35-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	64.7	35-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: PHENOL (S)	74.3	40-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	67.4	30-125			%	6/22/2015	7/1/2015

Quant Method: Y0625TT.M
Run #: 0625Y071
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/2/2015 3:37:39 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y071.D Vial: 71
Acq On : 1 Jul 15 3:45 Operator: MA
Sample : AZ17446S03 1/30.20G Inst : Yoda
Misc : soil Multiplr: 33.11

Quant Time: Jul 2 15:24 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.33	152	835566	40.00	ppb	0.00
7) Napthalene-D8(IS)	6.76	136	3860454	40.00	ppb	0.00
13) Acenaphthene-D10(IS)	8.77	164	2360265	40.00	ppb	-0.01
23) Phenanthrene-D10(IS)	10.51	188	4191830	40.00	ppb	-0.01
27) Chrysene-D12(IS)	13.61	240	3458892	40.00	ppb	0.00
32) Perylene-D12(IS)	15.43	264	2184246	40.00	ppb	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.80	112	3659644	4054.94	ppb	0.00
Spiked Amount 6622.517			Recovery =	61.230%		
3) Phenol-D6 (S)	4.92	99	5484599	4920.28	ppb	0.00
Spiked Amount 6622.517			Recovery =	74.296%		
8) Nitrobenzene-D5(S)	5.94	82	2449126	2142.86	ppb	-0.01
Spiked Amount 3311.258			Recovery =	64.714%		
16) 2-Fluorobiphenyl(S)	7.99	172	4405098	1819.85	ppb	-0.01
Spiked Amount 3311.258			Recovery =	54.960%		
22) 2,4,6-Tribromophenol(S)	9.70	330	1140096	4856.19	ppb	0.00
Spiked Amount 6622.517			Recovery =	73.328%		
28) Terphenyl-D14(S)	12.38	244	5872110	2231.71	ppb	0.00
Spiked Amount 3311.258			Recovery =	67.398%		

Target Compounds Qvalue

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

Quantitation Report

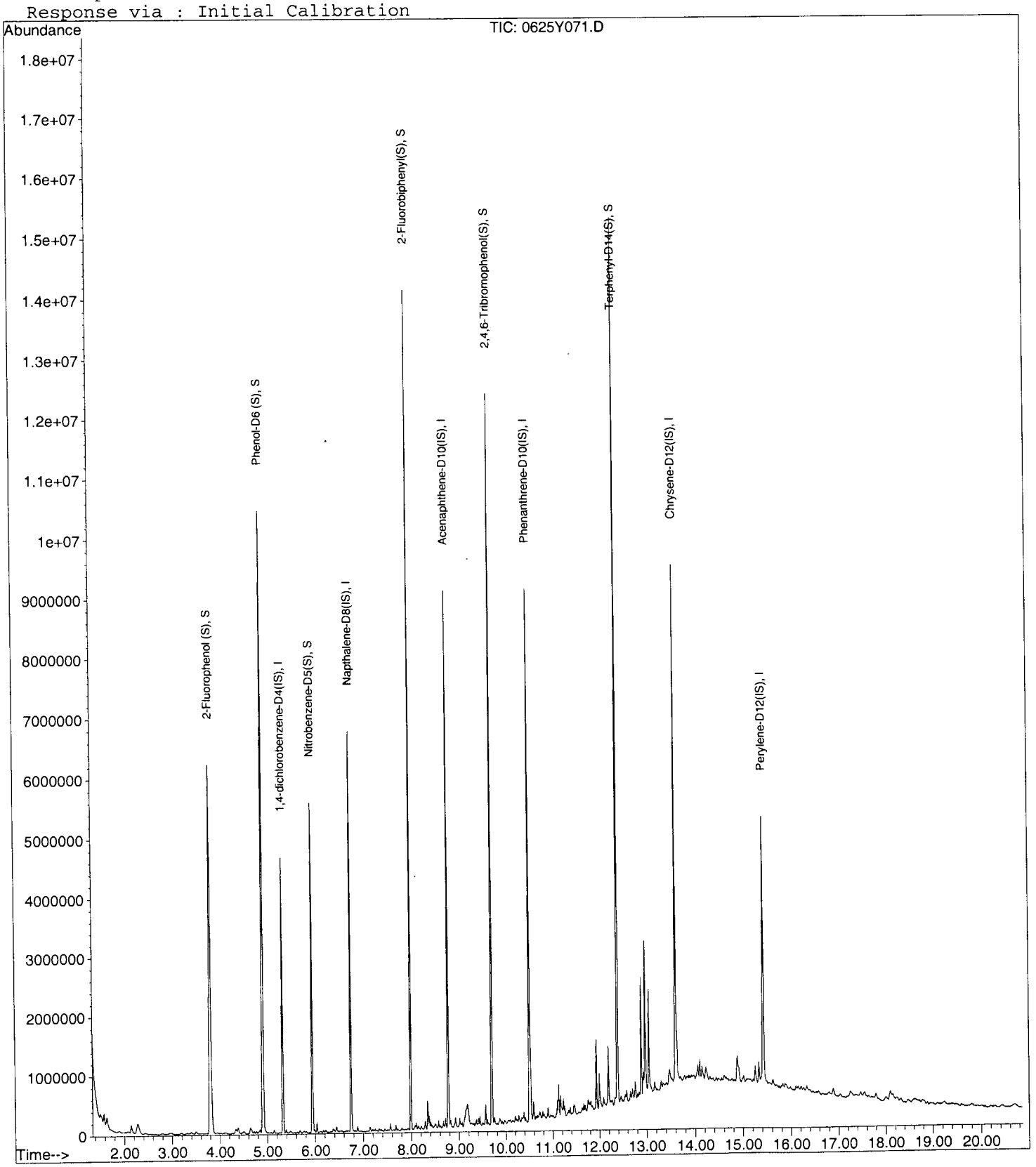
Data File : M:\YODA\DATA\Y150625\0625Y071.D
Acq On : 1 Jul 15 3:45
Sample : AZ17446S03 1/30.20G
Misc : soil

Vial: 71
Operator: MA
Inst : Yoda
Multiplr: 33.11

Quant Time: Jul 2 15:24 2015

Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:50:54 2015
Response via : Initial Calibration



EPA 8270D SOILS

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

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SB034-0405
Sample Collection Date: 6/10/2015

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76624
APPL ID: AZ17447
QCG: #87DJU-150622A-198554

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.0 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.15 J	0.80	0.200	0.075	mg/kg	6/22/2015	7/1/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.200 U	0.40	0.200	0.067	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.200 U	0.40	0.200	0.080	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.200 U	0.40	0.200	0.070	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIETHYL PHTHALATE	0.200 U	0.40	0.200	0.075	mg/kg	6/22/2015	7/1/2015
EPA 8270D	DIMETHYL PHTHALATE	0.200 U	0.40	0.200	0.076	mg/kg	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	74.2	35-125			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	65.3	45-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	62.9	35-105			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	73.5	35-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: PHENOL (S)	71.3	40-100			%	6/22/2015	7/1/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	72.1	30-125			%	6/22/2015	7/1/2015

J = Estimated value.

Quant Method: Y0625TT.M
Run #: 0625Y072
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/2/2015 3:37:39 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y072.D Vial: 72
Acq On : 1 Jul 15 4:14 Operator: MA
Sample : AZ17447S02 1/30.04G Inst : Yoda
Misc : soil Multiplr: 33.29

Quant Time: Jul 2 15:24 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.32	152	651869	40.00	ppb	0.00
7) Napthalene-D8(IS)	6.75	136	2855926	40.00	ppb	0.00
13) Acenaphthene-D10(IS)	8.77	164	1764609	40.00	ppb	0.00
23) Phenanthrene-D10(IS)	10.51	188	3176692	40.00	ppb	0.00
27) Chrysene-D12(IS)	13.60	240	2667847	40.00	ppb	0.00
32) Perylene-D12(IS)	15.42	264	1643793	40.00	ppb	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.81	112	2934434	4189.84	ppb	0.00
Spiked Amount 6657.790			Recovery =	62.931%		
3) Phenol-D6 (S)	4.91	99	4105413	4746.02	ppb	0.00
Spiked Amount 6657.790			Recovery =	71.285%		
8) Nitrobenzene-D5(S)	5.94	82	2058508	2447.57	ppb	0.00
Spiked Amount 3328.895			Recovery =	73.525%		
16) 2-Fluorobiphenyl(S)	7.99	172	3912695	2173.58	ppb	0.00
Spiked Amount 3328.895			Recovery =	65.294%		
22) 2,4,6-Tribromophenol(S)	9.70	330	862541	4940.30	ppb	0.00
Spiked Amount 6657.790			Recovery =	74.203%		
28) Terphenyl-D14(S)	12.38	244	4845926	2400.51	ppb	0.00
Spiked Amount 3328.895			Recovery =	72.111%		
Target Compounds						Qvalue
30) Bis (2-ethylhexyl) phthala	13.62	149	55531	124.99	ppb	96

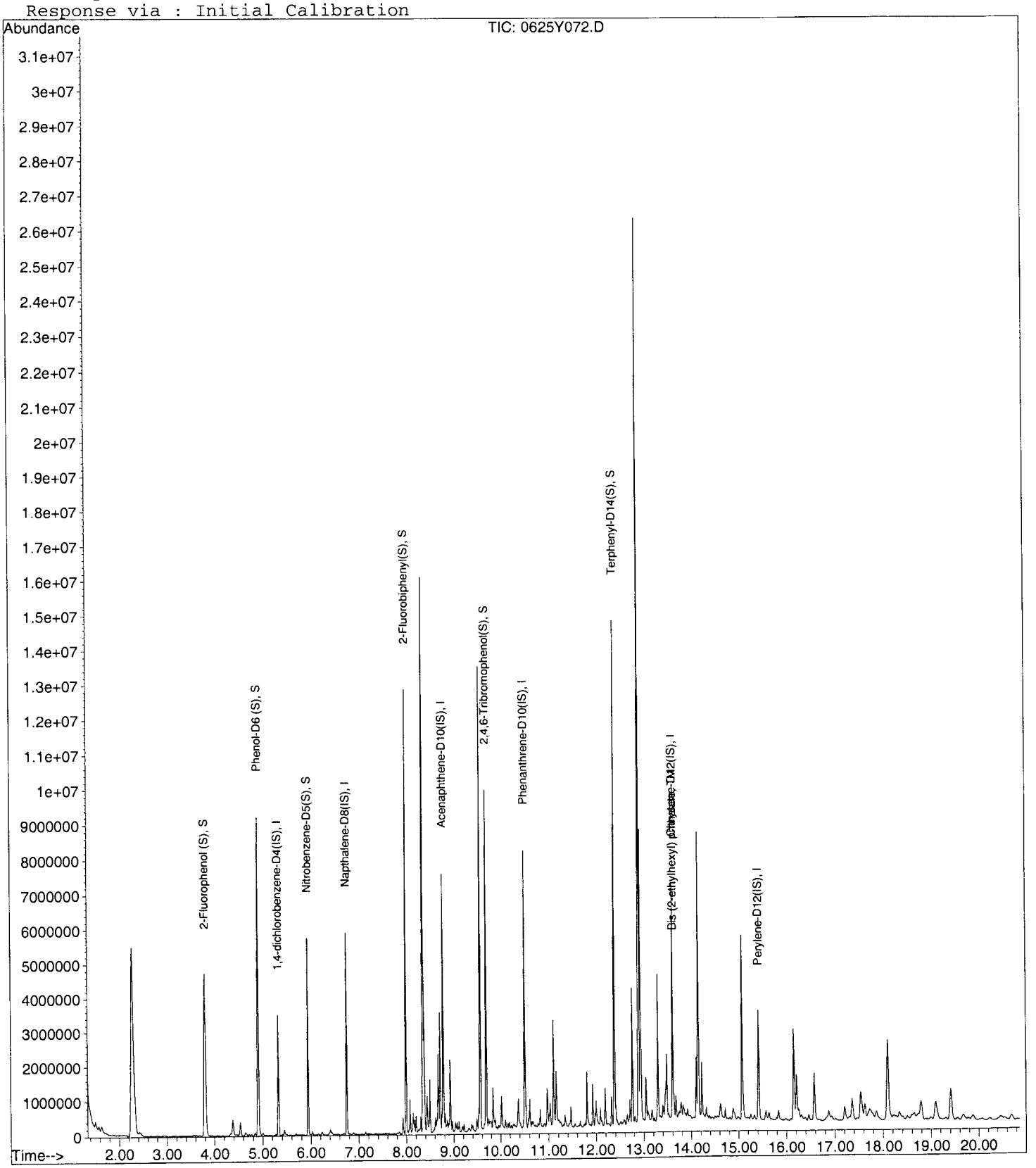
(#) = qualifier out of range (m) = manual integration

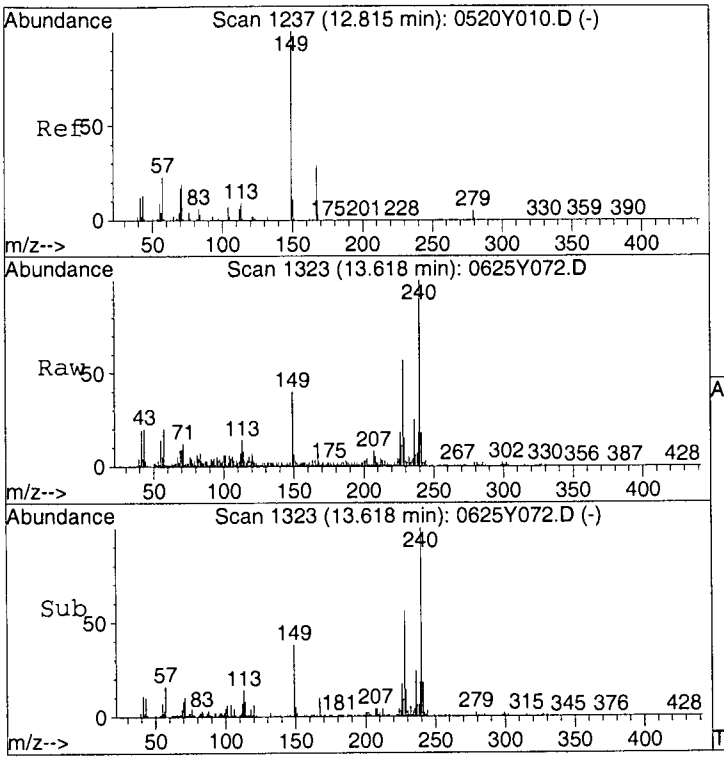
Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y072.D Vial: 72
Acq On : 1 Jul 15 4:14 Operator: MA
Sample : AZ17447S02 1/30.04G Inst : Yoda
Misc : soil Multiplr: 33.29

Quant Time: Jul 2 15:24 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:50:54 2015
Response via : Initial Calibration

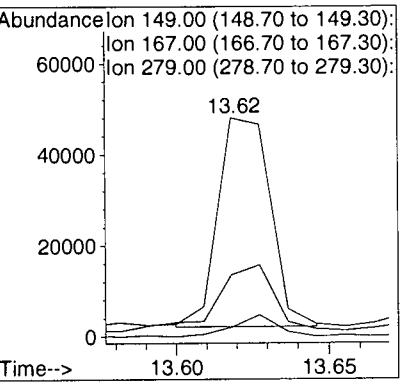




#30
Bis (2-ethylhexyl) phthalate
Concen: 124.99 ppb
RT: 13.62 min Scan# 1323
Delta R.T. -0.02 min
Lab File: 0625Y072.D
Acq: 1 Jul 15 4:14

Tgt Ion:149 Resp: 55531

Ion	Ratio	Lower	Upper
149	100		
167	26.5	20.3	37.7
279	4.5	3.7	6.9



EPA METHOD 8270D
Semivolatile Organic Compounds
Calibration Data

APPL, INC.

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: 76624
Case No: Initial Cal. Date: 6/25/2015
Matrix: Instrument: Yoda
Initials:

		Compound	0625Y002.D 5	0625Y003.D 10	0625Y004.D 20	0625Y005.D 40	0625Y006.D 50	0625Y007.D 60	0625Y008.D 80	0625Y009.D 100			Avg	%RSD		
1	I	1,4-dichlorobenzene-D4(IS)														
2	S	2-Fluorophenol (S)	1.412	1.494	1.491	1.350	1.387	1.346	1.324	1.641			1.4	7.4	S	
3	S	Phenol-D6 (S)		1.879	1.862	1.663	1.743	1.700	1.687	1.835			1.8	5.1	S	
4	*TM	Phenol	2.075	2.283	2.241	2.127	2.193	2.114	2.124	2.355			2.2	4.4	*TM	
5	*TM	1,4-DCB	1.828	1.886	1.769	1.697	1.744	1.657	1.657	2.230			1.8	10	*TM	
6	**TM	n-Nitrosodi-n-propylamine	1.362	1.659	1.640	1.602	1.671	1.604					1.6	7.2	**TM	
7	I	Napthalene-D8(IS)														
8	S	Nitrobenzene-D5(S)	0.3641	0.4119	0.4000	0.3556	0.3939	0.3897	0.3879	0.4340			0.39	6.4	S	
9	*TM	2-Nitrophenol	0.1759	0.2106	0.1990	0.1983	0.2102	0.2034	0.2033	0.2487			0.21	9.8	*TM	
10	*TM	2,4-Dichlorophenol	0.3100	0.3611	0.3335	0.3052	0.3282	0.3185	0.3210				0.33	5.7	*TM	
11	*TM	Hexachlorobutadiene	0.1877	0.2214	0.1916	0.1872	0.1881	0.1860	0.1867	0.2199			0.20	7.8	*TM	
12	*TM	4-Chloro-3-methylphenol	0.3025	0.3610	0.3520	0.3035	0.3328	0.3259	0.3651	0.3985			0.34	9.6	*TM	
13	I	Acenaphthene-D10(IS)														
14	**TMQ	Hexachlorocyclopentadiene	0.2362	0.3407	0.3722	0.3408	0.3699	0.3758	0.3801	0.4528			0.36	17	**TMQ	0.995
15	*TM	2,4,6-Trichlorophenol	0.4074	0.4431	0.4310	0.4164	0.4123	0.3965	0.3967	0.4594			0.42	5.3	*TM	
16	S	2-Fluorobiphenyl(S)	1.378	1.462	1.457	1.229	1.295	1.285	1.269	1.491			1.4	7.5	S	
17	TM	Dimethyl phthalate	1.399	1.632	1.532	1.367	1.484	1.465	1.444	1.717			1.5	7.9	TM	
18	*TM	Acenaphthene	1.651	1.718	1.698	1.579	1.593	1.578	1.560	1.883			1.7	6.5	*TM	
19	**TMQ	2,4-Dinitrophenol	0.0528	0.1144	0.1547	0.1785	0.1995	0.2023	0.2096	0.2524			0.17	37	**TMQ	0.996
20	**TM	4-Nitrophenol	0.2432	0.3032	0.3255	0.3137	0.3162	0.3165	0.2838	0.3351			0.30	9.6	**TM	
21	TM	Diethyl phthalate	1.287	1.583	1.500	1.340	1.450	1.434	1.386	1.646			1.5	8.3	TM	
22	S	2,4,6-Tribromophenol(S)		0.1326	0.1493	0.1103	0.1224	0.1217	0.1382	0.1479			0.13	11	S	
23	I	Phenanthrene-D10(IS)														
24	*TM	n-Nitrosodiphenylamine	1.149	1.210	1.251	1.079	1.112	1.104	1.140	1.254			1.2	5.8	*TM	
25	*TMQ	Pentachlorophenol	0.1096	0.1410	0.1607	0.1333	0.1409	0.1342	0.1441	0.1523			0.14	11	*TMQ	0.997
26	TM	Di-n-butylphthalate	0.9477	1.316	1.327	1.449	1.408	1.379	1.225	1.257			1.3	12	TM	
27	I	Chrysene-D12(IS)														
28	S	Terphenyl-D14(S)	1.022	1.065	1.020	0.9371	0.9490	0.9400	0.9663	1.162			1.0	7.7	S	
29	TM	Butyl benzylphthalate	0.4334	0.6529	0.6661	0.6555	0.6896	0.6900	0.6766				0.64	14	TM	
30	TML	Bis (2-ethylhexyl) phthalate	0.6298	0.9586	0.9839	0.9907	1.094	1.079	1.004	1.170			0.99	16	TML	0.990
31	*TML	Di-n-octylphthalate	0.8904	1.455	1.306	1.569	1.687	1.635	1.545	1.555			1.5	18	*TML	0.996
32	I	Perylene-D12(IS)														
33																
34																
35																

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y002.D Vial: 2
Acq On : 25 Jun 15 10:20 Operator: MA
Sample : 5ug/ml SVOC 06/25/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jul 2 13:28 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:27:46 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.33	152	374815	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.76	136	1635357	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.78	164	919003	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	10.51	188	1633980	40.00	ppb		-0.01
27) Chrysene-D12(IS)	13.61	240	1384055	40.00	ppb		0.00
32) Perylene-D12(IS)	15.43	264	783250	40.00	ppb		-0.01
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.79	112	132355	9.87	ppb		-0.01
Spiked Amount 200.000			Recovery = 4.937%				
3) Phenol-D6 (S)	4.89	99	164231	8.83	ppb		-0.02
Spiked Amount 200.000			Recovery = 4.417%				
8) Nitrobenzene-D5(S)	5.94	82	74425	4.64	ppb		-0.01
Spiked Amount 100.000			Recovery = 4.642%				
16) 2-Fluorobiphenyl(S)	7.99	172	158297	0.98	ppb		-0.01
Spiked Amount 100.000			Recovery = 0.977%				
22) 2,4,6-Tribromophenol(S)	9.69	330	25662	-933.47	ppb		-0.02
Spiked Amount 200.000			Recovery = -466.737%				
28) Terphenyl-D14(S)	12.38	244	176767	5.07	ppb		0.00
Spiked Amount 100.000			Recovery = 5.070%				
Target Compounds							Qvalue
4) Phenol	4.91	94	97230	4.74	ppb		98
5) 1,4-DCB	5.51	146	85640	5.05	ppb		97
6) n-Nitrosodi-n-propylamine	5.77	43	63798	5.02	ppb	#	63
9) 2-Nitrophenol	6.32	139	35965	4.27	ppb		92
10) 2,4-Dichlorophenol	6.84	162	63361	7.00	ppb		100
11) Hexachlorobutadiene	6.91	225	38369	4.79	ppb		98
12) 4-Chloro-3-methylphenol	7.38	107	61840	4.41	ppb	#	1
14) Hexachlorocyclopentadiene	7.75	237	27129	231.98	ppb	#	94
15) 2,4,6-Trichlorophenol	7.89	196	46802	0.96	ppb		96
17) Dimethyl phthalate	8.46	163	160696	0.93	ppb		93
18) Acenaphthene	8.11	154	189715	0.98	ppb	#	45
19) 2,4-Dinitrophenol	8.84	184	6070	178.01	ppb	#	20
20) 4-Nitrophenol	8.90	65	27938	0.86	ppb	#	1
21) Diethyl phthalate	9.29	149	147800	0.90	ppb		94
24) n-Nitrosodiphenylamine	10.79	167	234652	4.94	ppb		99
25) Pentachlorophenol	10.28	266	22384	2.53	ppb		93
26) Di-n-butylphthalate	11.21	149	193565	3.68	ppb		99
29) Butyl benzylphthalate	12.97	149	74989	3.29	ppb	#	91
30) Bis (2-ethylhexyl) phthala	13.64	149	108951	3.18	ppb		100
31) Di-n-octylphthalate	14.40	149	154039	3.06	ppb		98

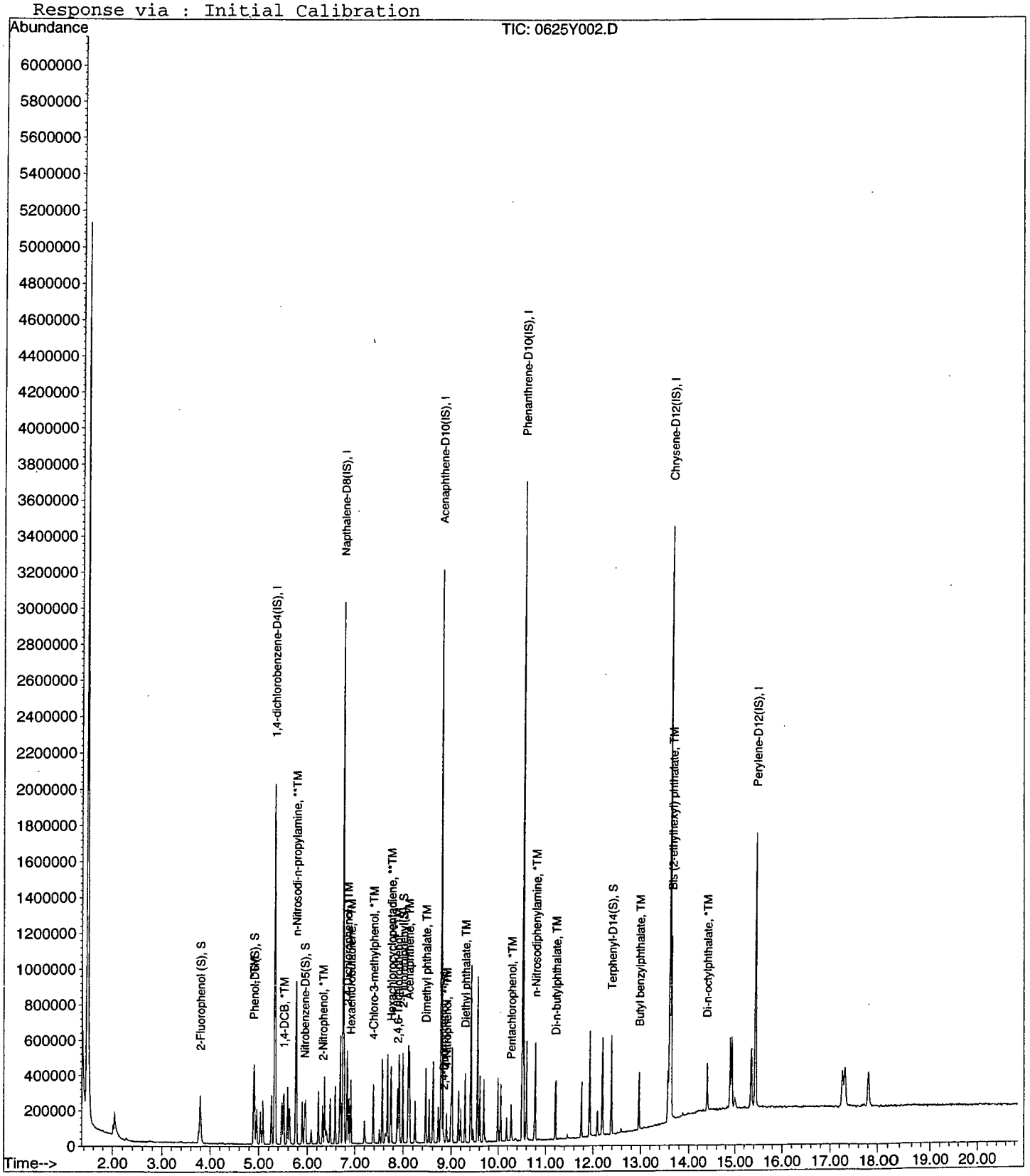
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y002.D Vial: 2
Acq On : 25 Jun 15 10:20 Operator: MA
Sample : 5ug/ml SVOC 06/25/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jul 2 13:28 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y003.D Vial: 3
Acq On : 25 Jun 15 10:49 Operator: MA
Sample : 10ug/ml SVOC 06/25/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jul 2 13:28 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:27:46 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.33	152	528824	40.00 ppb		0.00
7) Napthalene-D8(IS)	6.76	136	2306770	40.00 ppb		0.00
13) Acenaphthene-D10(IS)	8.77	164	1379093	40.00 ppb		-0.01
23) Phenanthrene-D10(IS)	10.51	188	2458159	40.00 ppb		0.00
27) Chrysene-D12(IS)	13.61	240	2168959	40.00 ppb		0.00
32) Perylene-D12(IS)	15.43	264	1291581	40.00 ppb		0.00
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.80	112	394974	20.88 ppb		0.00
Spiked Amount 200.000			Recovery =	10.442%		
3) Phenol-D6 (S)	4.89	99	496803	18.94 ppb		-0.02
Spiked Amount 200.000			Recovery =	9.469%		
8) Nitrobenzene-D5(S)	5.94	82	237511	10.50 ppb		0.00
Spiked Amount 100.000			Recovery =	10.503%		
16) 2-Fluorobiphenyl(S)	7.99	172	504184	2.07 ppb		0.00
Spiked Amount 100.000			Recovery =	2.073%		
22) 2,4,6-Tribromophenol(S)	9.69	330	91409	-866.72 ppb		-0.02
Spiked Amount 200.000			Recovery =	-433.361%		
28) Terphenyl-D14(S)	12.38	244	577347	10.57 ppb		0.00
Spiked Amount 100.000			Recovery =	10.568%		
Target Compounds						Qvalue
4) Phenol	4.91	94	301842	10.43 ppb		97
5) 1,4-DCB	5.51	146	249281	10.43 ppb		96
6) n-Nitrosodi-n-propylamine	5.77	43	219343	12.24 ppb	#	60
9) 2-Nitrophenol	6.32	139	121443	10.21 ppb		97
10) 2,4-Dichlorophenol	6.84	162	208265	12.75 ppb		99
11) Hexachlorobutadiene	6.92	225	127696	11.29 ppb		99
12) 4-Chloro-3-methylphenol	7.38	107	208174	10.53 ppb	#	1
14) Hexachlorocyclopentadiene	7.75	237	117452	227.85 ppb		98
15) 2,4,6-Trichlorophenol	7.89	196	152768	2.08 ppb		96
17) Dimethyl phthalate	8.47	163	562588	2.17 ppb		91
18) Acenaphthene	8.11	154	592385	2.03 ppb	#	46
19) 2,4-Dinitrophenol	8.85	184	39437	176.12 ppb	#	31
20) 4-Nitrophenol	8.90	65	104542	2.13 ppb	#	1
21) Diethyl phthalate	9.29	149	545881	2.22 ppb		95
24) n-Nitrosodiphenylamine	10.79	167	743880	10.41 ppb		98
25) Pentachlorophenol	10.28	266	86664	9.73 ppb		98
26) Di-n-butylphthalate	11.20	149	808863	10.21 ppb	#	96
29) Butyl benzylphthalate	12.97	149	354030	9.92 ppb	#	82
30) Bis (2-ethylhexyl) phthala	13.64	149	519782	9.69 ppb		97
31) Di-n-octylphthalate	14.39	149	789192	10.00 ppb		99

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

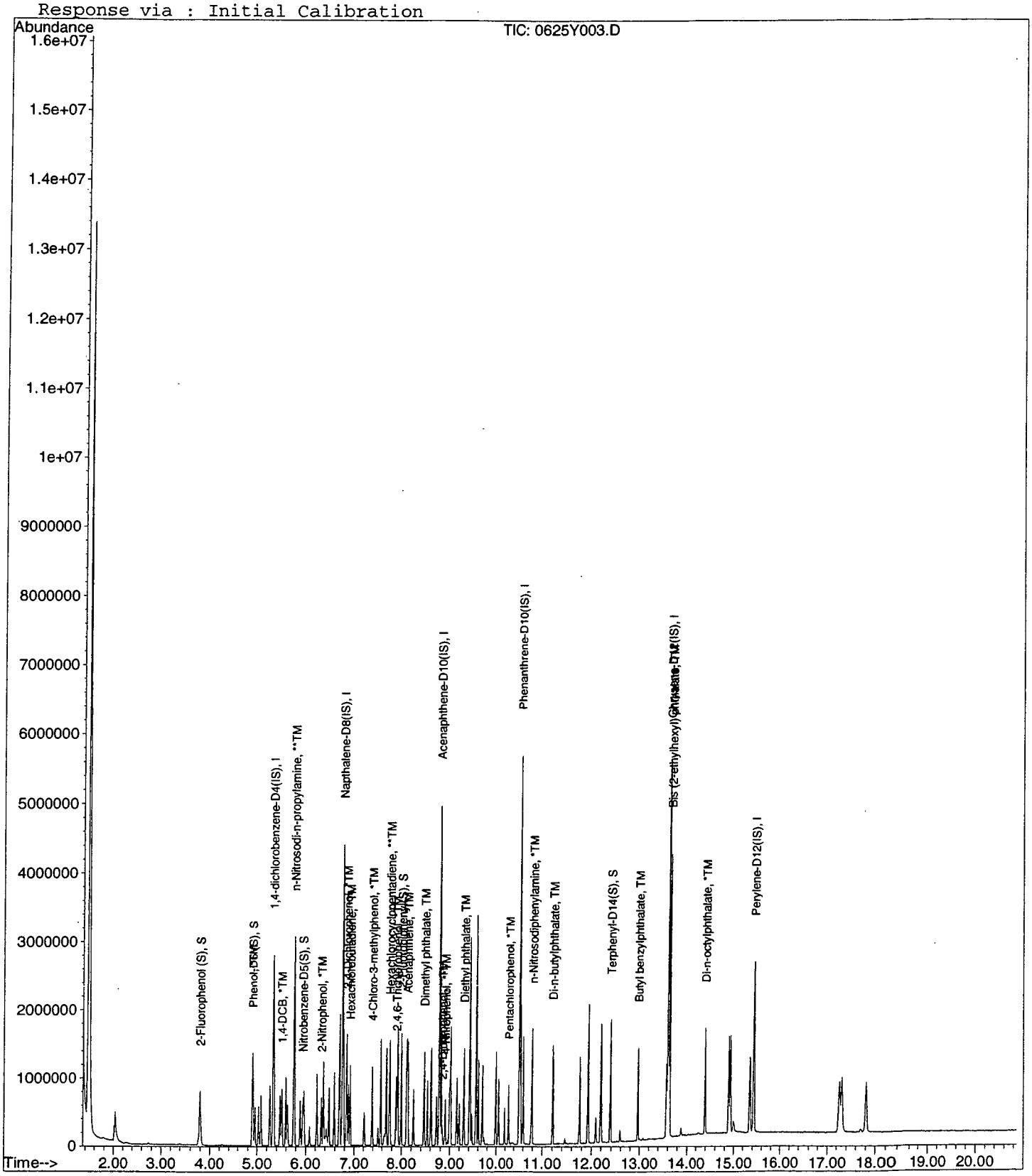
Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y003.D
Acq On : 25 Jun 15 10:49
Sample : 10ug/ml SVOC 06/25/15
Misc :

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

Quant Time: Jul 2 13:28 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y004.D Vial: 4
Acq On : 25 Jun 15 11:18 Operator: MA
Sample : 20ug/ml SVOC 06/25/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jul 2 13:28 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:27:46 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.33	152	565564	40.00 ppb		0.00
7) Napthalene-D8(IS)	6.76	136	2611003	40.00 ppb		0.00
13) Acenaphthene-D10(IS)	8.78	164	1485951	40.00 ppb		0.00
23) Phenanthrene-D10(IS)	10.52	188	2692269	40.00 ppb		0.00
27) Chrysene-D12(IS)	13.61	240	2902146	40.00 ppb		0.00
32) Perylene-D12(IS)	15.43	264	1395233	40.00 ppb		-0.01
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.79	112	843384	41.69 ppb		-0.01
Spiked Amount 200.000			Recovery = 20.847%			
3) Phenol-D6 (S)	4.90	99	1053280	37.54 ppb		-0.01
Spiked Amount 200.000			Recovery = 18.772%			
8) Nitrobenzene-D5(S)	5.94	82	522153	20.40 ppb		-0.01
Spiked Amount 100.000			Recovery = 20.399%			
16) 2-Fluorobiphenyl(S)	8.00	172	1082350	4.13 ppb		0.00
Spiked Amount 100.000			Recovery = 4.130%			
22) 2,4,6-Tribromophenol(S)	9.70	330	221887	-722.21 ppb		-0.01
Spiked Amount 200.000			Recovery = -361.106%			
28) Terphenyl-D14(S)	12.38	244	1479468	20.24 ppb		0.00
Spiked Amount 100.000			Recovery = 20.238%			
Target Compounds						Qvalue
4) Phenol	4.92	94	633780	20.48 ppb		99
5) 1,4-DCB	5.51	146	500226	19.56 ppb		97
6) n-Nitrosodi-n-propylamine	5.77	43	463695	24.20 ppb	#	52
9) 2-Nitrophenol	6.32	139	259778	19.30 ppb		91
10) 2,4-Dichlorophenol	6.85	162	435376	21.29 ppb		98
11) Hexachlorobutadiene	6.91	225	250142	19.54 ppb		94
12) 4-Chloro-3-methylphenol	7.38	107	459578	20.55 ppb	#	1
14) Hexachlorocyclopentadiene	7.75	237	276554	220.03 ppb		99
15) 2,4,6-Trichlorophenol	7.89	196	320242	4.05 ppb		97
17) Dimethyl phthalate	8.46	163	1138270	4.08 ppb		97
18) Acenaphthene	8.11	154	1261757	4.02 ppb	#	45
19) 2,4-Dinitrophenol	8.84	184	114943	171.80 ppb	#	65
20) 4-Nitrophenol	8.90	65	241857	4.58 ppb	#	1
21) Diethyl phthalate	9.29	149	1114405	4.20 ppb		98
24) n-Nitrosodiphenylamine	10.78	167	1684527	21.53 ppb		99
25) Pentachlorophenol	10.28	266	216337	23.95 ppb		99
26) Di-n-butylphthalate	11.21	149	1786907	20.60 ppb		99
29) Butyl benzylphthalate	12.97	149	966580	20.24 ppb	#	82
30) Bis (2-ethylhexyl) phthala	13.63	149	1427696	19.90 ppb		97
31) Di-n-octylphthalate	14.40	149	1895156	17.95 ppb		99

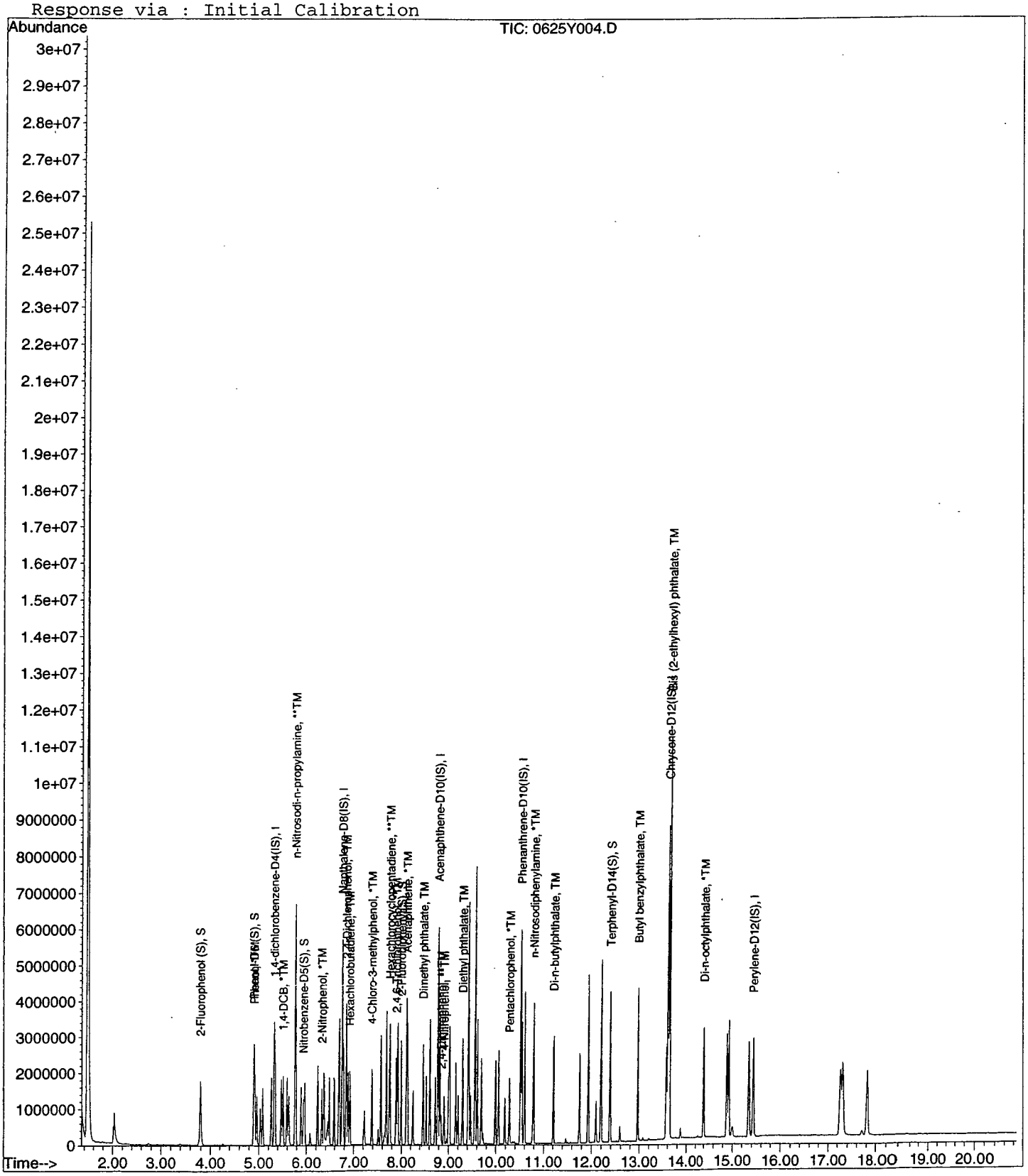
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y004.D Vial: 4
Acq On : 25 Jun 15 11:18 Operator: MA
Sample : 20ug/ml SVOC 06/25/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jul 2 13:28 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y005.D Vial: 5
Acq On : 25 Jun 15 11:48 Operator: MA
Sample : 40ug/ml SVOC 06/25/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jul 2 13:28 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:27:46 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.33	152	583381	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.76	136	2765570	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.78	164	1647595	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	10.52	188	2810482	40.00	ppb		0.00
27) Chrysene-D12(IS)	13.61	240	3130339	40.00	ppb		0.00
32) Perylene-D12(IS)	15.43	264	1826270	40.00	ppb		-0.01
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.80	112	1574807	75.48	ppb		0.00
Spiked Amount 200.000			Recovery = 37.738%				
3) Phenol-D6 (S)	4.91	99	1940410	67.05	ppb		0.00
Spiked Amount 200.000			Recovery = 33.526%				
8) Nitrobenzene-D5(S)	5.95	82	983387	36.27	ppb		0.00
Spiked Amount 100.000			Recovery = 36.272%				
16) 2-Fluorobiphenyl(S)	8.00	172	2024504	6.97	ppb		0.00
Spiked Amount 100.000			Recovery = 6.968%				
22) 2,4,6-Tribromophenol(S)	9.70	330	363318	-598.32	ppb		-0.01
Spiked Amount 200.000			Recovery = -299.161%				
28) Terphenyl-D14(S)	12.38	244	2933457	37.20	ppb		0.00
Spiked Amount 100.000			Recovery = 37.203%				
Target Compounds							Qvalue
4) Phenol	4.92	94	1240819	38.86	ppb		94
5) 1,4-DCB	5.51	146	990273	37.55	ppb		96
6) n-Nitrosodi-n-propylamine	5.78	43	934316	47.28	ppb	#	57
9) 2-Nitrophenol	6.32	139	548349	38.47	ppb		87
10) 2,4-Dichlorophenol	6.85	162	843998	36.76	ppb		99
11) Hexachlorobutadiene	6.92	225	517662	38.19	ppb		97
12) 4-Chloro-3-methylphenol	7.39	107	839397	35.43	ppb	#	1
14) Hexachlorocyclopentadiene	7.75	237	561435	207.03	ppb		97
15) 2,4,6-Trichlorophenol	7.89	196	686114	7.82	ppb		94
17) Dimethyl phthalate	8.47	163	2251681	7.27	ppb		89
18) Acenaphthene	8.11	154	2601744	7.47	ppb	#	45
19) 2,4-Dinitrophenol	8.84	184	294172	5.30	ppb		86
20) 4-Nitrophenol	8.91	65	516777	8.83	ppb	#	1
21) Diethyl phthalate	9.30	149	2208043	7.51	ppb		97
24) n-Nitrosodiphenylamine	10.79	167	3033005	37.13	ppb		99
25) Pentachlorophenol	10.28	266	374560	39.44	ppb		96
26) Di-n-butylphthalate	11.21	149	4073660	44.99	ppb		99
29) Butyl benzylphthalate	12.97	149	2051914	39.84	ppb		88
30) Bis (2-ethylhexyl) phthala	13.64	149	3101174	40.08	ppb		98
31) Di-n-octylphthalate	14.40	149	4911038	43.12	ppb		100

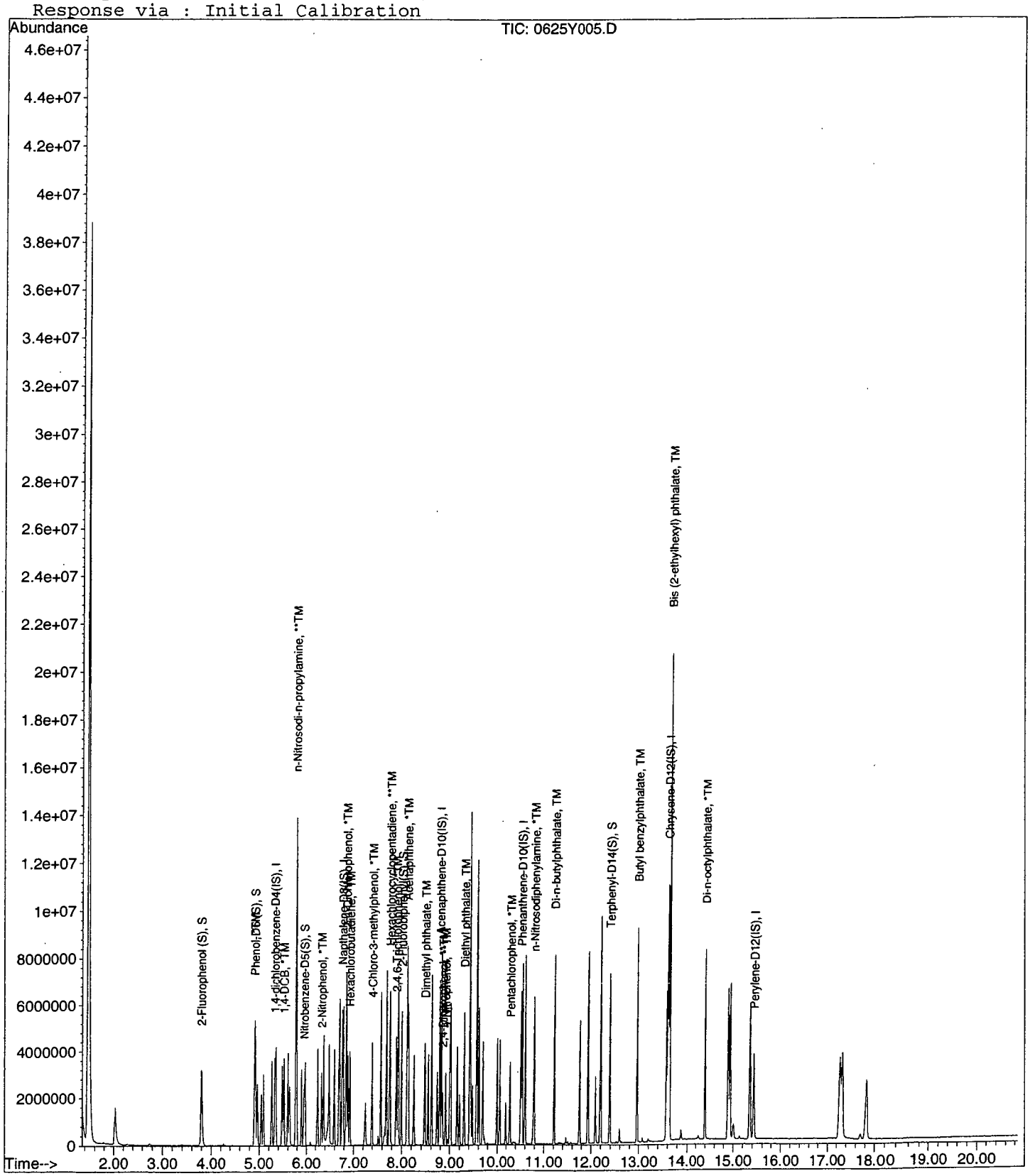
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y005.D Vial: 5
Acq On : 25 Jun 15 11:48 Operator: MA
Sample : 40ug/ml SVOC 06/25/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jul 2 13:28 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y006.D Vial: 6
Acq On : 25 Jun 15 12:17 Operator: MA
Sample : 50ug/ml SVOC 06/25/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jul 2 13:28 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:27:46 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.33	152	609828	40.00 ppb		0.00
7) Napthalene-D8(IS)	6.76	136	2766351	40.00 ppb		0.00
13) Acenaphthene-D10(IS)	8.78	164	1666409	40.00 ppb		0.00
23) Phenanthrene-D10(IS)	10.52	188	2970623	40.00 ppb		0.00
27) Chrysene-D12(IS)	13.61	240	2670451	40.00 ppb		0.00
32) Perylene-D12(IS)	15.44	264	1615433	40.00 ppb		0.00
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.80	112	2114212	96.93 ppb		0.00
Spiked Amount 200.000			Recovery =	48.467%		
3) Phenol-D6 (S)	4.91	99	2656861	87.83 ppb		0.00
Spiked Amount 200.000			Recovery =	43.913%		
8) Nitrobenzene-D5(S)	5.95	82	1362243	50.23 ppb		0.00
Spiked Amount 100.000			Recovery =	50.232%		
16) 2-Fluorobiphenyl(S)	8.00	172	2698423	9.18 ppb		0.00
Spiked Amount 100.000			Recovery =	9.182%		
22) 2,4,6-Tribromophenol(S)	9.70	330	509830	-449.65 ppb		-0.01
Spiked Amount 200.000			Recovery =	-224.827%		
28) Terphenyl-D14(S)	12.38	244	3167681	47.09 ppb		0.00
Spiked Amount 100.000			Recovery =	47.092%		
Target Compounds						Qvalue
4) Phenol	4.92	94	1672051	50.10 ppb		89
5) 1,4-DCB	5.51	146	1329315	48.21 ppb		98
6) n-Nitrosodi-n-propylamine	5.78	43	1274117	61.68 ppb	#	50
9) 2-Nitrophenol	6.32	139	726835	50.98 ppb		86
10) 2,4-Dichlorophenol	6.85	162	1134982	48.50 ppb		99
11) Hexachlorobutadiene	6.91	225	650571	47.98 ppb		100
12) 4-Chloro-3-methylphenol	7.39	107	1150964	48.57 ppb	#	1
14) Hexachlorocyclopentadiene	7.75	237	770474	195.69 ppb		99
15) 2,4,6-Trichlorophenol	7.89	196	858736	9.68 ppb		96
17) Dimethyl phthalate	8.47	163	3090809	9.87 ppb		92
18) Acenaphthene	8.11	154	3317714	9.42 ppb	#	45
19) 2,4-Dinitrophenol	8.85	184	415580	12.89 ppb		95
20) 4-Nitrophenol	8.91	65	658599	11.12 ppb	#	1
21) Diethyl phthalate	9.30	149	3020468	10.16 ppb		97
24) n-Nitrosodiphenylamine	10.80	167	4129593	47.83 ppb		98
25) Pentachlorophenol	10.28	266	523329	51.24 ppb		97
26) Di-n-butylphthalate	11.21	149	5226832	54.62 ppb		99
29) Butyl benzylphthalate	12.97	149	2302051	52.39 ppb		96
30) Bis (2-ethylhexyl) phthala	13.64	149	3653270	55.34 ppb		99
31) Di-n-octylphthalate	14.40	149	5630536	57.96 ppb		100

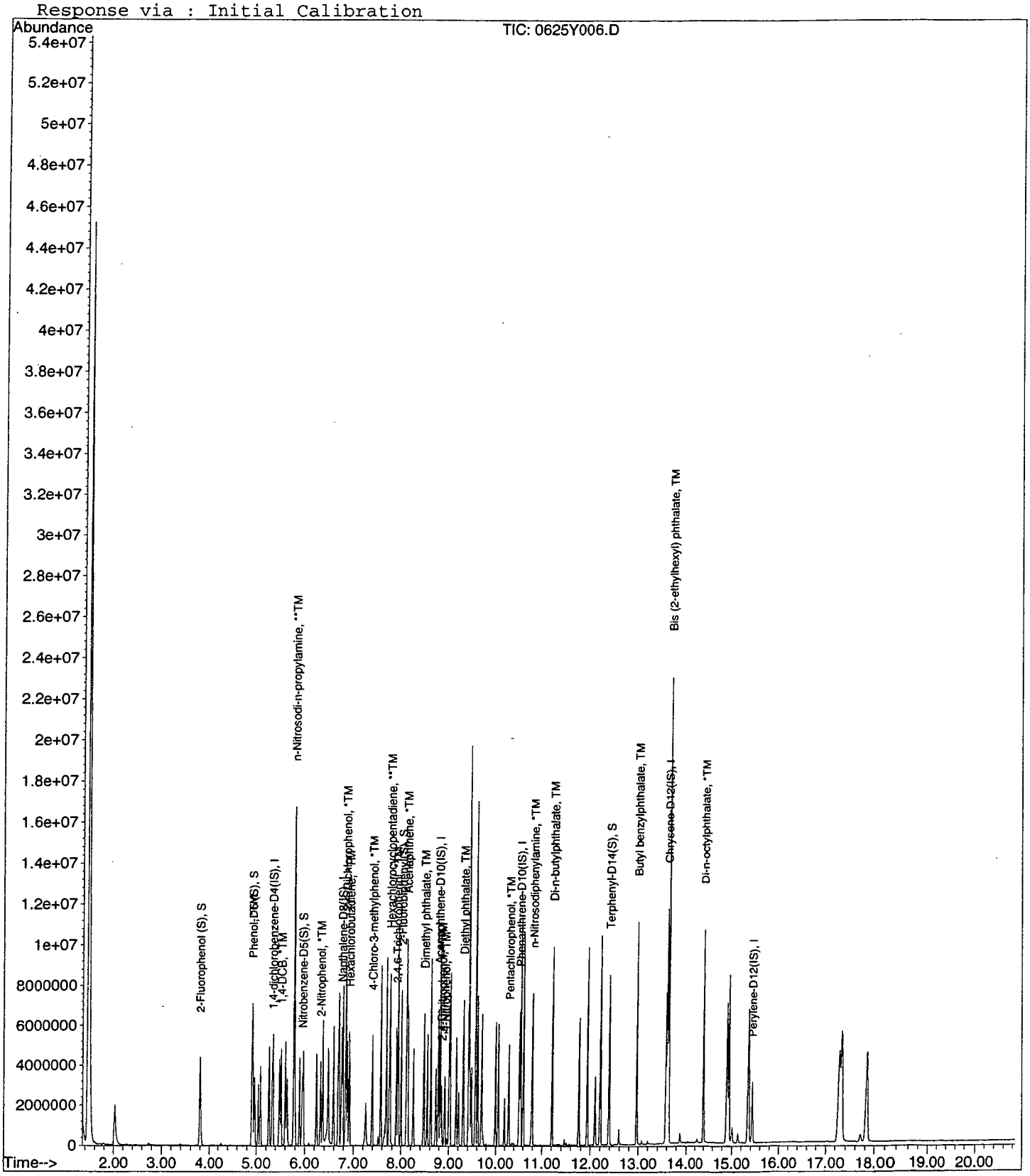
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y006.D Vial: 6
Acq On : 25 Jun 15 12:17 Operator: MA
Sample : 50ug/ml SVOC 06/25/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jul 2 13:28 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y007.D Vial: 7
Acq On : 25 Jun 15 12:47 Operator: MA
Sample : 60ug/ml SVOC 06/25/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jul 2 13:28 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:27:46 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.33	152	601640	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.76	136	2694275	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.78	164	1581668	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	10.51	188	2815609	40.00	ppb		0.00
27) Chrysene-D12(IS)	13.62	240	2516681	40.00	ppb		0.00
32) Perylene-D12(IS)	15.44	264	1477528	40.00	ppb		0.00
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.80	112	2430102	112.93	ppb		0.00
Spiked Amount 200.000			Recovery = 56.467%				
3) Phenol-D6 (S)	4.91	99	3068413	102.81	ppb		0.00
Spiked Amount 200.000			Recovery = 51.406%				
8) Nitrobenzene-D5(S)	5.95	82	1575085	59.63	ppb		0.00
Spiked Amount 100.000			Recovery = 59.634%				
16) 2-Fluorobiphenyl(S)	8.00	172	3049071	10.93	ppb		0.00
Spiked Amount 100.000			Recovery = 10.931%				
22) 2,4,6-Tribromophenol(S)	9.71	330	577317	-346.87	ppb		0.00
Spiked Amount 200.000			Recovery = -173.438%				
28) Terphenyl-D14(S)	12.39	244	3548625	55.98	ppb		0.00
Spiked Amount 100.000			Recovery = 55.978%				
Target Compounds							Qvalue
4) Phenol	4.93	94	1907643	57.94	ppb		96
5) 1,4-DCB	5.51	146	1495159	54.97	ppb		96
6) n-Nitrosodi-n-propylamine	5.78	43	1447101	71.00	ppb	#	41
9) 2-Nitrophenol	6.33	139	821936	59.19	ppb		93
10) 2,4-Dichlorophenol	6.85	162	1287316	56.04	ppb		98
11) Hexachlorobutadiene	6.92	225	751800	56.92	ppb		100
12) 4-Chloro-3-methylphenol	7.40	107	1316991	57.06	ppb	#	1
14) Hexachlorocyclopentadiene	7.75	237	891613	185.21	ppb		98
15) 2,4,6-Trichlorophenol	7.90	196	940599	11.17	ppb		98
17) Dimethyl phthalate	8.47	163	3475794	11.70	ppb		99
18) Acenaphthene	8.12	154	3744572	11.20	ppb	#	45
19) 2,4-Dinitrophenol	8.85	184	479917	19.29	ppb		90
20) 4-Nitrophenol	8.92	65	750945	13.36	ppb	#	1
21) Diethyl phthalate	9.30	149	3402060	12.06	ppb		98
24) n-Nitrosodiphenylamine	10.79	167	4664691	57.00	ppb		97
25) Pentachlorophenol	10.28	266	566813	57.87	ppb		97
26) Di-n-butylphthalate	11.21	149	5822735	64.20	ppb		99
29) Butyl benzylphthalate	12.97	149	2604788	62.90	ppb		99
30) Bis (2-ethylhexyl) phthala	13.63	149	4073531	65.48	ppb		98
31) Di-n-octylphthalate	14.40	149	6171088	67.40	ppb		100

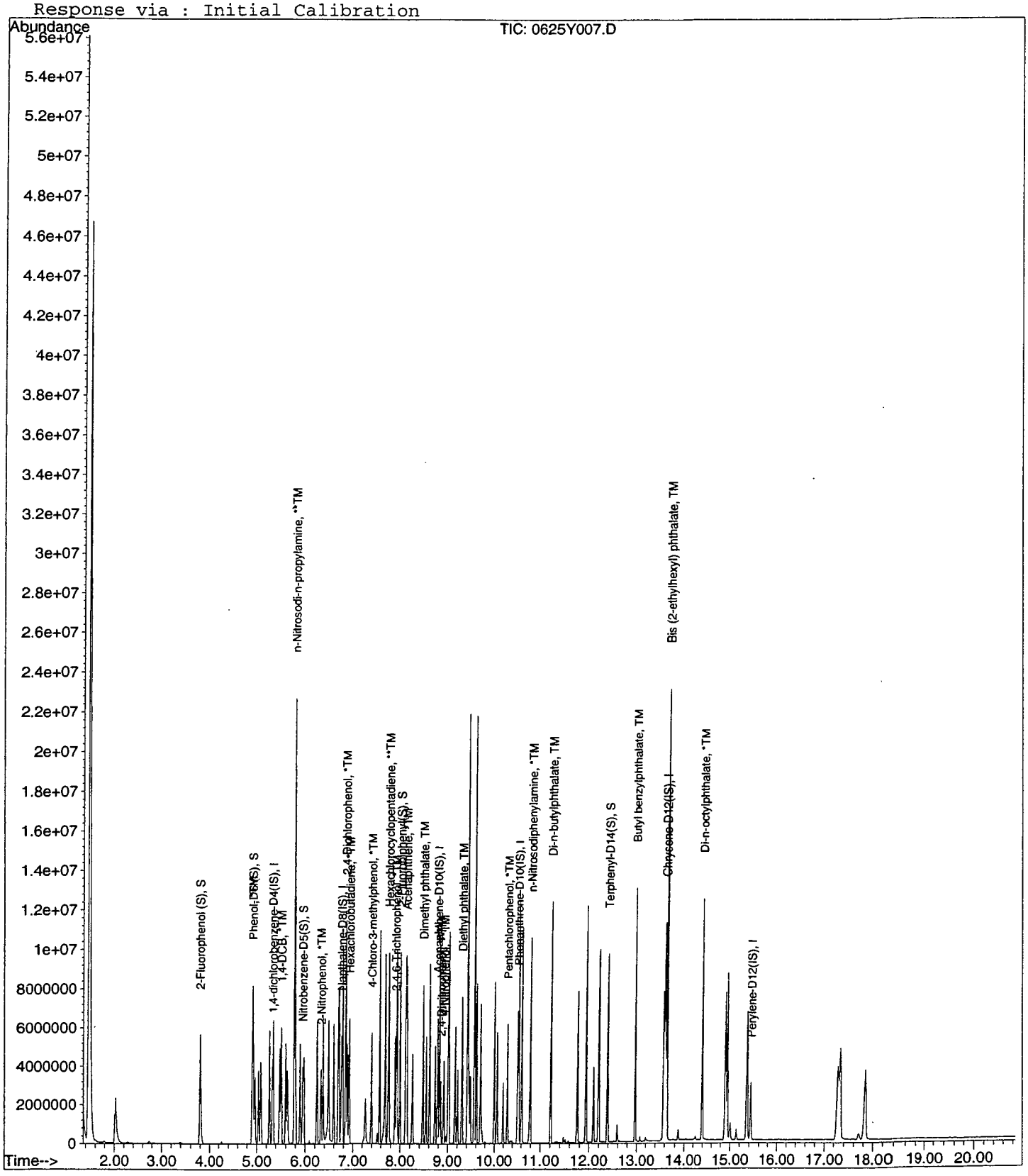
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y007.D Vial: 7
Acq On : 25 Jun 15 12:47 Operator: MA
Sample : 60ug/ml SVOC 06/25/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jul 2 13:28 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y008.D Vial: 8
Acq On : 25 Jun 15 13:17 Operator: MA
Sample : 80ug/ml SVOC 06/25/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jul 2 13:28 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:27:46 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.33	152	585601	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.76	136	2633251	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.78	164	2018267	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	10.52	188	3502423	40.00	ppb		0.00
27) Chrysene-D12(IS)	13.62	240	3228762	40.00	ppb		0.01
32) Perylene-D12(IS)	15.44	264	1967252	40.00	ppb		0.00
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.81	112	3100990	148.06	ppb		0.00
Spiked Amount 200.000			Recovery =	74.029%			
3) Phenol-D6 (S)	4.91	99	3951716	136.03	ppb		0.00
Spiked Amount 200.000			Recovery =	68.017%			
8) Nitrobenzene-D5(S)	5.95	82	2042916	79.14	ppb		0.00
Spiked Amount 100.000			Recovery =	79.138%			
16) 2-Fluorobiphenyl(S)	8.00	172	5121772	14.39	ppb		0.00
Spiked Amount 100.000			Recovery =	14.390%			
22) 2,4,6-Tribromophenol(S)	9.71	330	1115546	-20.20	ppb		0.00
Spiked Amount 200.000			Recovery =	-10.100%			
28) Terphenyl-D14(S)	12.39	244	6240151	76.73	ppb		0.01
Spiked Amount 100.000			Recovery =	76.727%			
Target Compounds							Qvalue
4) Phenol	4.93	94	2488178	77.64	ppb		96
5) 1,4-DCB	5.51	146	1941047	73.31	ppb		96
6) n-Nitrosodi-n-propylamine	5.81	43	484139	24.41	ppb		76
9) 2-Nitrophenol	6.32	139	1070628	78.88	ppb		83
10) 2,4-Dichlorophenol	6.85	162	1690433	74.37	ppb		98
11) Hexachlorobutadiene	6.92	225	983005	76.16	ppb		97
12) 4-Chloro-3-methylphenol	7.40	107	1922889	85.24	ppb	#	1
14) Hexachlorocyclopentadiene	7.75	237	1534268	19.53	ppb		99
15) 2,4,6-Trichlorophenol	7.89	196	1601316	14.90	ppb		95
17) Dimethyl phthalate	8.48	163	5828813	15.37	ppb		92
18) Acenaphthene	8.11	154	6297274	14.76	ppb	#	44
19) 2,4-Dinitrophenol	8.86	184	846105	35.78	ppb	#	54
20) 4-Nitrophenol	8.92	65	1145710	15.97	ppb	#	1
21) Diethyl phthalate	9.30	149	5596364	15.54	ppb		98
24) n-Nitrosodiphenylamine	10.80	167	7986382	78.46	ppb		97
25) Pentachlorophenol	10.29	266	1009292	79.49	ppb		96
26) Di-n-butylphthalate	11.21	149	8577803	76.03	ppb	#	94
29) Butyl benzylphthalate	12.97	149	4369254	82.24	ppb		89
30) Bis (2-ethylhexyl) phthala	13.64	149	6482624	81.23	ppb		98
31) Di-n-octylphthalate	14.40	149	9977415	84.94	ppb		96

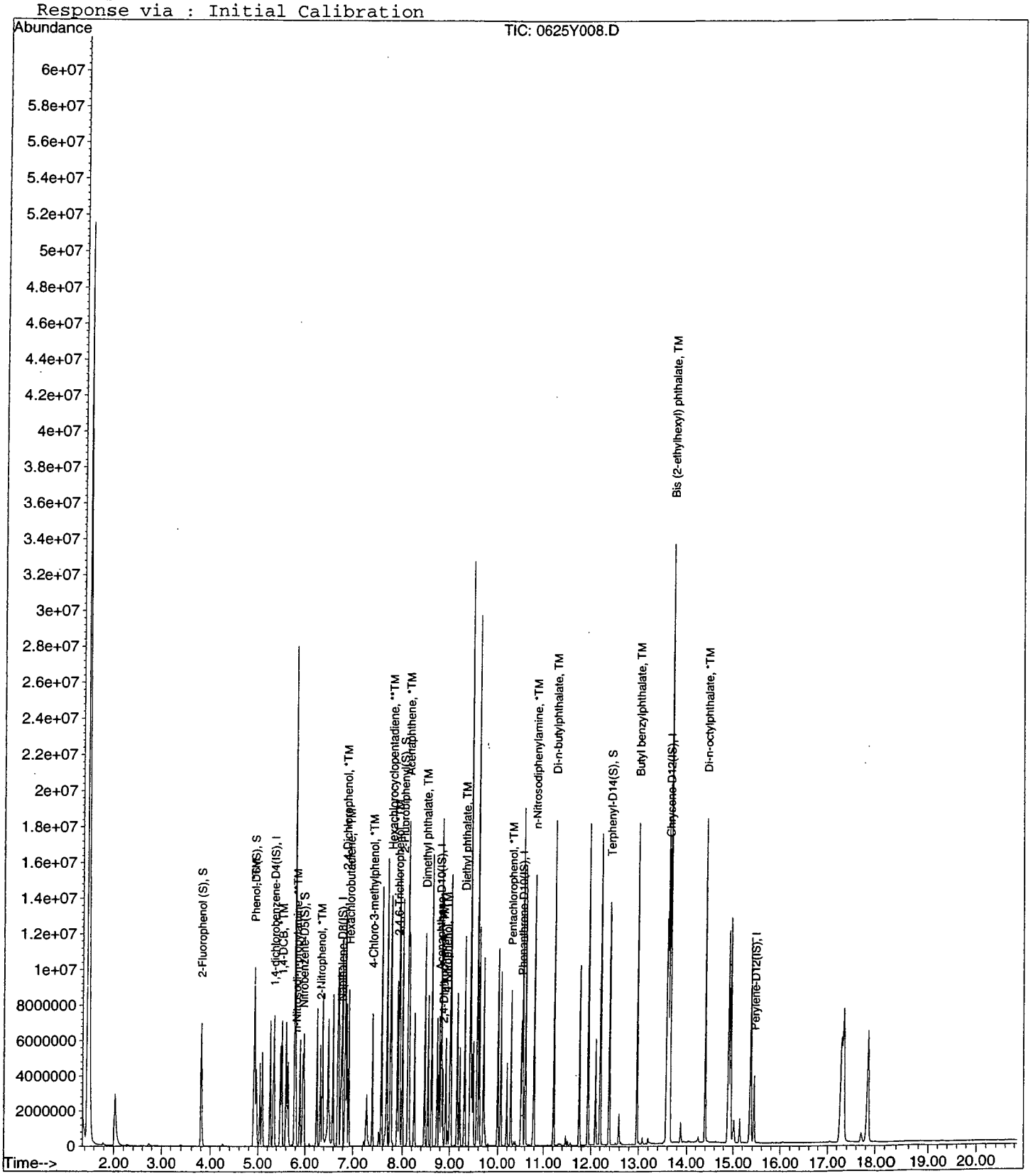
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y008.D Vial: 8
Acq On : 25 Jun 15 13:17 Operator: MA
Sample : 80ug/ml SVOC 06/25/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jul 2 13:28 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y009.D Vial: 9
Acq On : 25 Jun 15 13:46 Operator: MA
Sample : 100ug/ml SVOC 06/25/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jul 2 13:28 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:27:46 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.33	152	578387	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.76	136	2941160	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.78	164	1793012	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	10.52	188	3057652	40.00	ppb		0.00
27) Chrysene-D12(IS)	13.62	240	2873875	40.00	ppb		0.00
32) Perylene-D12(IS)	15.44	264	1751745	40.00	ppb		0.00
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.81	112	4745115	229.38	ppb		0.00
Spiked Amount 200.000			Recovery = 114.692%				
3) Phenol-D6 (S)	4.92	99	5305705	184.92	ppb		0.00
Spiked Amount 200.000			Recovery = 92.461%				
8) Nitrobenzene-D5(S)	5.95	82	3191024	110.67	ppb		0.00
Spiked Amount 100.000			Recovery = 110.673%				
16) 2-Fluorobiphenyl(S)	8.00	172	6685387	21.14	ppb		0.00
Spiked Amount 100.000			Recovery = 21.143%				
22) 2,4,6-Tribromophenol(S)	9.71	330	1325500	304.41	ppb		0.00
Spiked Amount 200.000			Recovery = 152.206%				
28) Terphenyl-D14(S)	12.39	244	8348732	115.33	ppb		0.00
Spiked Amount 100.000			Recovery = 115.330%				
Target Compounds							Qvalue
4) Phenol	4.94	94	3404562	107.56	ppb		96
5) 1,4-DCB	5.51	146	3224233	123.30	ppb		96
6) n-Nitrosodi-n-propylamine	5.82	43	1286625	65.67	ppb		86
9) 2-Nitrophenol	6.33	139	1828429	120.62	ppb		93
10) 2,4-Dichlorophenol	6.85	162	2781398	108.30	ppb		98
11) Hexachlorobutadiene	6.92	225	1616602	112.13	ppb		100
12) 4-Chloro-3-methylphenol	7.40	107	2929794	116.28	ppb	#	1
14) Hexachlorocyclopentadiene	7.75	237	2029826	-40.00	ppb		100
15) 2,4,6-Trichlorophenol	7.90	196	2059378	21.57	ppb		99
17) Dimethyl phthalate	8.48	163	7696552	22.85	ppb		96
18) Acenaphthene	8.12	154	8439960	22.26	ppb	#	44
19) 2,4-Dinitrophenol	8.86	184	1131277	-40.00	ppb		77
20) 4-Nitrophenol	8.93	65	1502210	23.58	ppb	#	1
21) Diethyl phthalate	9.31	149	7376309	23.06	ppb		96
24) n-Nitrosodiphenylamine	10.80	167	9584603	107.85	ppb		99
25) Pentachlorophenol	10.29	266	1163958	100.66	ppb		96
26) Di-n-butylphthalate	11.21	149	9608564	97.55	ppb	#	85
29) Butyl benzylphthalate	12.97	149	5755956	121.72	ppb		94
30) Bis (2-ethylhexyl) phthala	13.64	149	8403536	118.30	ppb		97
31) Di-n-octylphthalate	14.40	149	11168866	106.82	ppb	#	83

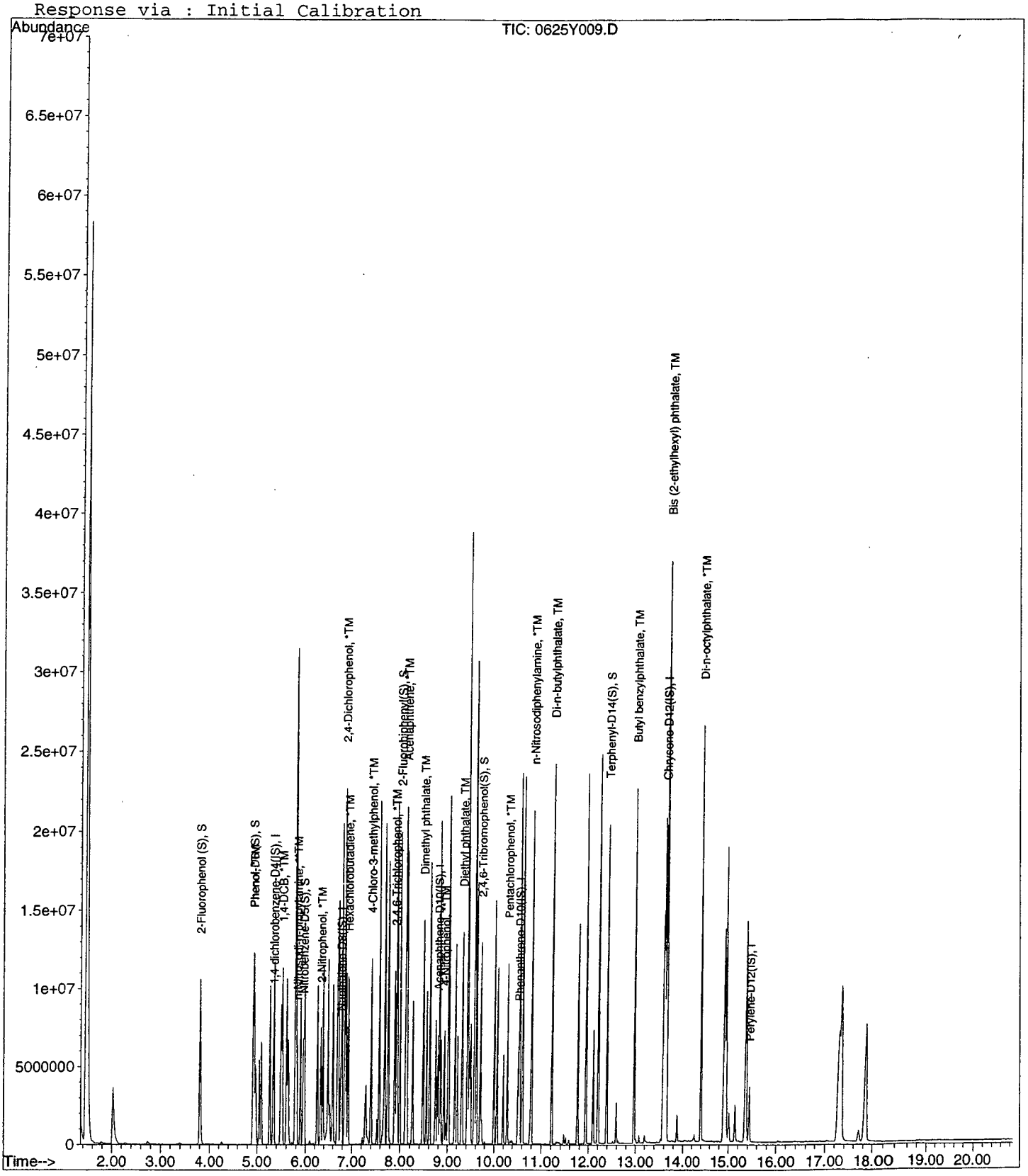
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y009.D Vial: 9
Acq On : 25 Jun 15 13:46 Operator: MA
Sample : 100ug/ml SVOC 06/25/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jul 2 13:28 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration



Form 7

Second Source Calibration

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

SDG No:
Date Analyzed: 6/25/2015
Instrument: Yoda
Initial Cal. Date: 6/25/2015
Data File: 0625Y010.D

		Compound	MEAN	CCRF	%D		%Drift
1	*TM	Phenol	2.189	2.158	1.4	*TM	
2	*TM	1,4-DCB	1.808	1.986	9.8	*TM	
3	**TM	n-Nitrosodi-n-propylamine	1.590	1.675	5.4	**TM	
4	*TM	2-Nitrophenol	0.2062	0.2115	2.6	*TM	
5	*TM	2,4-Dichlorophenol	0.3254	0.3349	2.9	*TM	
6	*TM	Hexachlorobutadiene	0.1961	0.2221	13	*TM	
7	*TM	4-Chloro-3-methylphenol	0.3427	0.3303	3.6	*TM	
8	**TMQ	Hexachlorocyclopentadiene	0.3586	0.3652	1.9	**TMQ	2.1
9	*TM	2,4,6-Trichlorophenol	0.4204	0.3843	8.6	*TM	
10	TM	Dimethyl phthalate	1.505	1.441	4.3	TM	
11	*TM	Acenaphthene	1.658	1.566	5.5	*TM	
12	**TMQ	2,4-Dinitrophenol	0.1705	0.1982	16	**TMQ	3.7
13	**TM	4-Nitrophenol	0.3047	0.3084	1.2	**TM	
14	TM	Diethyl phthalate	1.453	1.394	4.0	TM	
15	*TM	n-Nitrosodiphenylamine	1.163	1.070	7.9	*TM	
16	*TMQ	Pentachlorophenol	0.1395	0.1363	2.3	*TMQ	0.62
17	TM	Di-n-butylphthalate	1.289	1.281	0.60	TM	
18	TM	Butyl benzylphthalate	0.6377	0.6752	5.9	TM	
19	TML	Bis (2-ethylhexyl) phthalate	0.9887	1.056	6.8	TML	1.4
20	*TML	Di-n-octylphthalate	1.455	1.551	6.5	*TML	0.81
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			5.5		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y010.D Vial: 10
Acq On : 25 Jun 15 14:15 Operator: MA
Sample : 50ug/ml SVOC SS 06/25/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jul 2 13:38 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.33	152	527215	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.76	136	2396377	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.78	164	1479584	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	10.52	188	2611827	40.00	ppb		0.00
27) Chrysene-D12(IS)	13.61	240	2318530	40.00	ppb		0.00
32) Perylene-D12(IS)	15.43	264	1410315	40.00	ppb		-0.01
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)	0.00	99	0	0.00	ppb		
Spiked Amount 200.000			Recovery =	0.000%			
8) Nitrobenzene-D5(S)	5.89	82	189689	8.07	ppb		-0.06
Spiked Amount 100.000			Recovery =	8.075%			
16) 2-Fluorobiphenyl(S)	7.99	172	276	0.01	ppb		-0.01
Spiked Amount 100.000			Recovery =	0.005%			
22) 2,4,6-Tribromophenol(S)	0.00	330	0	0.00	ppb		
Spiked Amount 200.000			Recovery =	0.000%			
28) Terphenyl-D14(S)	12.38	244	929	0.02	ppb		0.00
Spiked Amount 100.000			Recovery =	0.016%			
Target Compounds							Qvalue
4) Phenol	4.92	94	1422102	49.29	ppb		98
5) 1,4-DCB	5.51	146	1308807	54.91	ppb		96
6) n-Nitrosodi-n-propylamine	5.78	43	1103775	52.69	ppb	#	52
9) 2-Nitrophenol	6.32	139	633541	51.29	ppb		86
10) 2,4-Dichlorophenol	6.85	162	1003114	51.46	ppb		99
11) Hexachlorobutadiene	6.92	225	665148	56.62	ppb		97
12) 4-Chloro-3-methylphenol	7.39	107	989268	48.19	ppb	#	1
14) Hexachlorocyclopentadiene	7.75	237	675501	51.04	ppb		99
15) 2,4,6-Trichlorophenol	7.89	196	710720	45.71	ppb		93
17) Dimethyl phthalate	8.47	163	2664754	47.87	ppb		93
18) Acenaphthene	8.11	154	2896022	47.23	ppb	#	45
19) 2,4-Dinitrophenol	8.84	184	366554	51.87	ppb		98
20) 4-Nitrophenol	8.91	65	570380	50.61	ppb	#	1
21) Diethyl phthalate	9.30	149	2578941	47.98	ppb		98
24) n-Nitrosodiphenylamine	10.79	167	3494220	46.03	ppb		99
25) Pentachlorophenol	10.28	266	445083	49.69	ppb		97
26) Di-n-butylphthalate	11.21	149	4181496	49.70	ppb		99
29) Butyl benzylphthalate	12.97	149	1956724	52.93	ppb		92
30) Bis (2-ethylhexyl) phthala	13.63	149	3060275	49.31	ppb		99
31) Di-n-octylphthalate	14.40	149	4493654	49.60	ppb		99

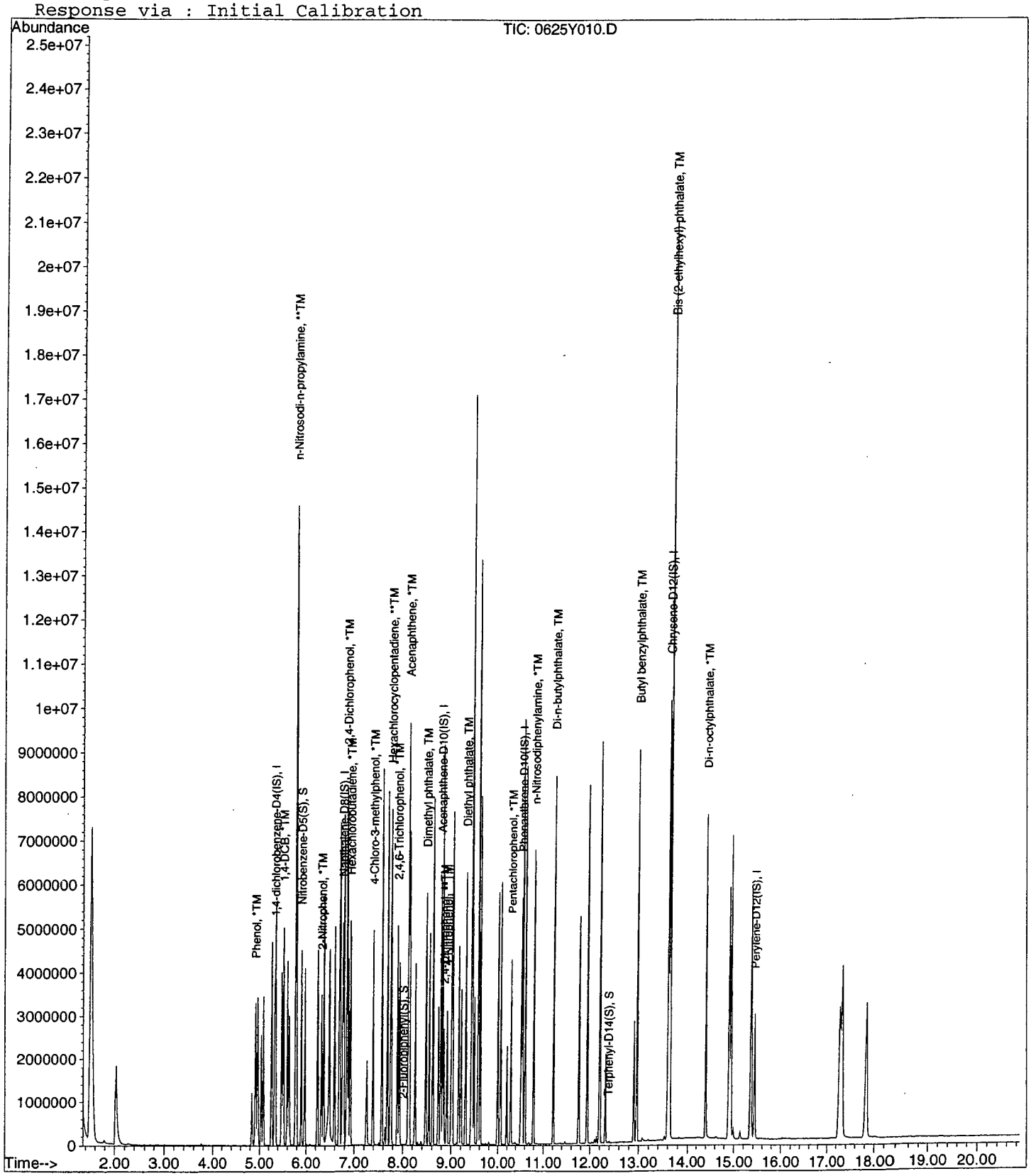
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y010.D Vial: 10
Acq On : 25 Jun 15 14:15 Operator: MA
Sample : 50ug/ml SVOC SS 06/25/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jul 2 13:38 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration



Form 7

Continuing Calibration

Lab Name: APPL, Inc. SDG No: 76624

Case No: Date Analyzed: 6/30/2015

Matrix: Instrument: Yoda

Initial Cal. Date: 6/25/2015

Data File: 0625Y053.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	S	2-Fluorophenol (S)	1.431	1.382	3.4	S	
3	S	Phenol-D6 (S)	1.767	1.712	3.1	S	
4	*TM	Phenol	2.189	2.059	5.9	*TM	
5	*TM	1,4-DCB	1.808	1.607	11	*TM	
6	**TM	n-Nitrosodi-n-propylamine	1.590	1.588	0.11	**TM	
7	I	Napthalene-D8(IS)	ISTD			I	
8	S	Nitrobenzene-D5(S)	0.3921	0.4121	5.1	S	
9	*TM	2-Nitrophenol	0.2062	0.1977	4.1	*TM	
10	*TM	2,4-Dichlorophenol	0.3254	0.3004	7.7	*TM	
11	*TM	Hexachlorobutadiene	0.1961	0.1773	9.6	*TM	
12	*TM	4-Chloro-3-methylphenol	0.3427	0.2993	13	*TM	
13	I	Acenaphthene-D10(IS)	ISTD			I	
14	**TMQ	Hexachlorocyclopentadiene	0.3586	0.3906	8.9	**TMQ	7.8
15	*TM	2,4,6-Trichlorophenol	0.4204	0.3775	10	*TM	
16	S	2-Fluorobiphenyl(S)	1.358	1.315	3.2	S	
17	TM	Dimethyl phthalate	1.505	1.351	10	TM	
18	*TM	Acenaphthene	1.658	1.538	7.2	*TM	
19	**TMQ	2,4-Dinitrophenol	0.1705	0.1884	11	**TMQ	0.14
20	**TM	4-Nitrophenol	0.3047	0.3018	0.94	**TM	
21	TM	Diethyl phthalate	1.453	1.282	12	TM	
22	S	2,4,6-Tribromophenol(S)	0.1317	0.1204	8.6	S	
23	I	Phenanthrene-D10(IS)	ISTD			I	
24	*TM	n-Nitrosodiphenylamine	1.163	1.074	7.6	*TM	
25	*TMQ	Pentachlorophenol	0.1395	0.1307	6.3	*TMQ	4.4
26	TM	Di-n-butylphthalate	1.289	1.281	0.61	TM	
27	I	Chrysene-D12(IS)	ISTD			I	
28	S	Terphenyl-D14(S)	1.008	0.8876	12	S	
29	TM	Butyl benzylphthalate	0.6377	0.6245	2.1	TM	
30	TML	Bis (2-ethylhexyl) phthalate	0.9887	0.9513	3.8	TML	11
31	*TML	Di-n-octylphthalate	1.455	1.639	13	*TML	4.7
32	I	Perylene-D12(IS)	ISTD			I	
33							
34							
35							
36							
37							
38							
39							
40							
		Average			6.9		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y053.D Vial: 53
Acq On : 30 Jun 15 18:54 Operator: MA
Sample : CCV 50ug/ml SVOC 06/30/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jul 2 13:39 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.32	152	721187	40.00 ppb		0.00
7) Napthalene-D8(IS)	6.76	136	3081509	40.00 ppb		0.00
13) Acenaphthene-D10(IS)	8.77	164	1679334	40.00 ppb		0.00
23) Phenanthrene-D10(IS)	10.51	188	2767550	40.00 ppb		0.00
27) Chrysene-D12(IS)	13.61	240	2475631	40.00 ppb		0.00
32) Perylene-D12(IS)	15.43	264	1806362	40.00 ppb		0.00
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.80	112	2491918	96.61 ppb		0.00
Spiked Amount 200.000			Recovery =	48.305%		
3) Phenol-D6 (S)	4.91	99	3087546	96.92 ppb		0.00
Spiked Amount 200.000			Recovery =	48.459%		
8) Nitrobenzene-D5(S)	5.94	82	1587278	52.54 ppb		0.00
Spiked Amount 100.000			Recovery =	52.543%		
16) 2-Fluorobiphenyl(S)	7.99	172	2761013	48.41 ppb		0.00
Spiked Amount 100.000			Recovery =	48.415%		
22) 2,4,6-Tribromophenol(S)	9.70	330	505317	91.36 ppb		0.00
Spiked Amount 200.000			Recovery =	45.679%		
28) Terphenyl-D14(S)	12.38	244	2746737	44.05 ppb		0.00
Spiked Amount 100.000			Recovery =	44.047%		
Target Compounds						Qvalue
4) Phenol	4.93	94	1856217	47.03 ppb		100
5) 1,4-DCB	5.50	146	1448451	44.42 ppb		93
6) n-Nitrosodi-n-propylamine	5.78	43	1431338	49.94 ppb	#	56
9) 2-Nitrophenol	6.32	139	761572	47.95 ppb		91
10) 2,4-Dichlorophenol	6.85	162	1157164	46.17 ppb		99
11) Hexachlorobutadiene	6.91	225	682996	45.22 ppb		99
12) 4-Chloro-3-methylphenol	7.39	107	1152839	43.67 ppb	#	1
14) Hexachlorocyclopentadiene	7.75	237	820020	53.91 ppb		99
15) 2,4,6-Trichlorophenol	7.89	196	792403	44.90 ppb		97
17) Dimethyl phthalate	8.47	163	2835024	44.87 ppb		94
18) Acenaphthene	8.11	154	3229306	46.40 ppb	#	45
19) 2,4-Dinitrophenol	8.85	184	395577	49.93 ppb		99
20) 4-Nitrophenol	8.91	65	633526	49.53 ppb	#	1
21) Diethyl phthalate	9.29	149	2691247	44.11 ppb		98
24) n-Nitrosodiphenylamine	10.79	167	3716787	46.21 ppb		99
25) Pentachlorophenol	10.28	266	452188	47.79 ppb		96
26) Di-n-butylphthalate	11.20	149	4430548	49.69 ppb		98
29) Butyl benzylphthalate	12.96	149	1932524	48.96 ppb		99
30) Bis (2-ethylhexyl) phthala	13.63	149	2943756	44.72 ppb		99
31) Di-n-octylphthalate	14.38	149	5073256	52.37 ppb		99

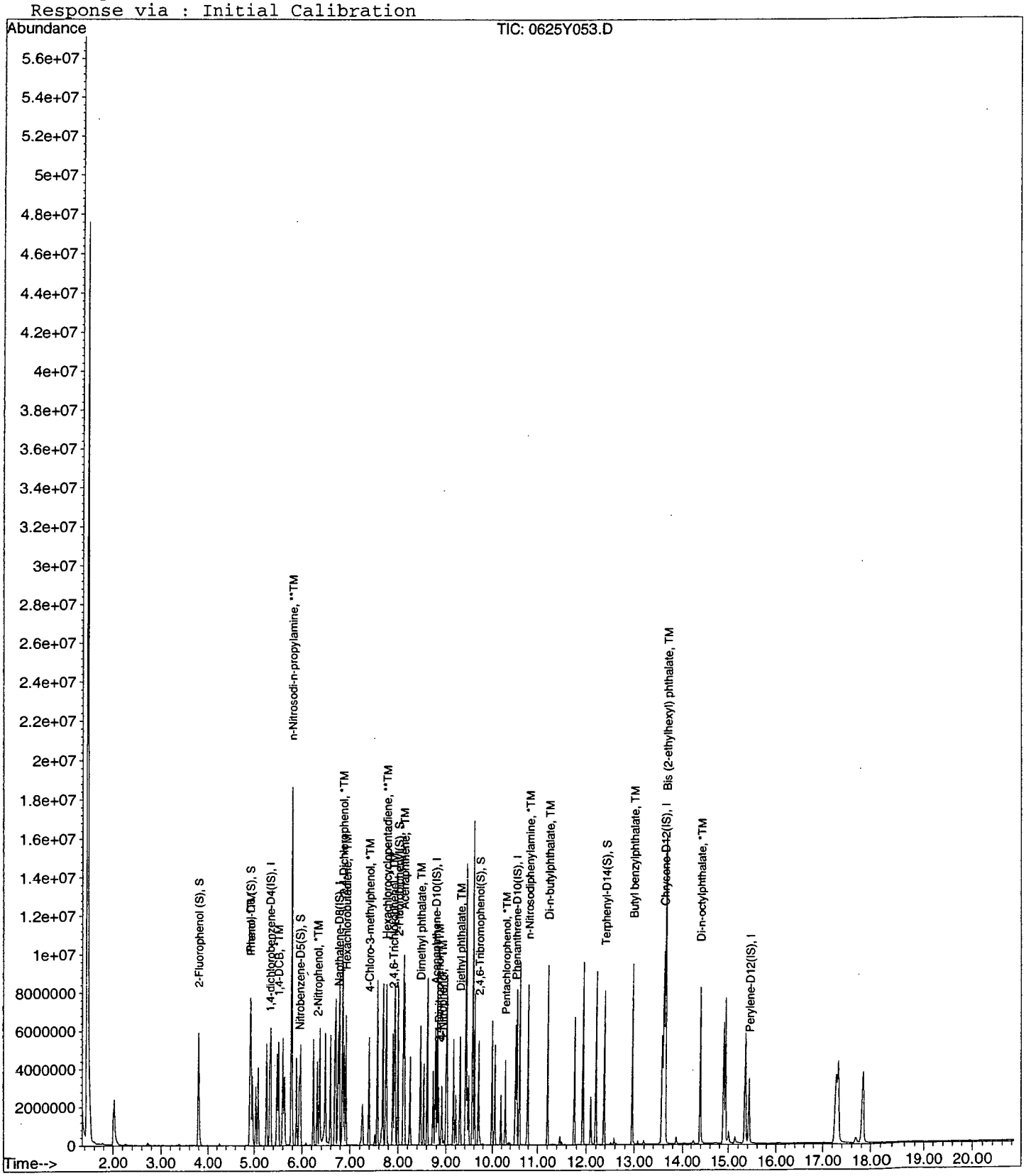
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y053.D Vial: 53
Acq On : 30 Jun 15 18:54 Operator: MA
Sample : CCV 50ug/ml SVOC 06/30/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jul 2 13:39 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration



Form 7

Continuing Calibration

Lab Name: APPL, Inc. SDG No: 76624

Case No: Date Analyzed: 6 Jul 15 15:29

Matrix: Instrument: Yoda

Initial Cal. Date: 6/25/2015

Data File: 0625Y099.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	S	2-Fluorophenol (S)	1.431	1.297	9.3	S	
3	S	Phenol-D6 (S)	1.767	1.706	3.5	S	
4	*TM	Phenol	2.189	2.101	4.0	*TM	
5	*TM	1,4-DCB	1.808	1.550	14	*TM	
6	**TM	n-Nitrosodi-n-propylamine	1.590	1.683	5.9	**TM	
7	I	Napthalene-D8(IS)	ISTD			I	
8	S	Nitrobenzene-D5(S)	0.3921	0.3624	7.6	S	
9	*TM	2-Nitrophenol	0.2062	0.1882	8.7	*TM	
10	*TM	2,4-Dichlorophenol	0.3254	0.2888	11	*TM	
11	*TM	Hexachlorobutadiene	0.1961	0.1587	19	*TM	
12	*TM	4-Chloro-3-methylphenol	0.3427	0.3069	10	*TM	
13	I	Acenaphthene-D10(IS)	ISTD			I	
14	**TMQ	Hexachlorocyclopentadiene	0.3586	0.3455	3.6	**TMQ	2.5
15	*TM	2,4,6-Trichlorophenol	0.4204	0.3544	16	*TM	
16	S	2-Fluorobiphenyl(S)	1.358	1.167	14	S	
17	TM	Dimethyl phthalate	1.505	1.353	10	TM	
18	*TM	Acenaphthene	1.658	1.441	13	*TM	
19	**TMQ	2,4-Dinitrophenol	0.1705	0.1999	17	**TMQ	4.4
20	**TM	4-Nitrophenol	0.3047	0.2886	5.3	**TM	
21	TM	Diethyl phthalate	1.453	1.349	7.2	TM	
22	S	2,4,6-Tribromophenol(S)	0.1317	0.1148	13	S	
23	I	Phenanthrene-D10(IS)	ISTD			I	
24	*TM	n-Nitrosodiphenylamine	1.163	1.055	9.2	*TM	
25	*TMQ	Pentachlorophenol	0.1395	0.1229	12	*TMQ	9.7
26	TM	Di-n-butylphthalate	1.289	1.359	5.5	TM	
27	I	Chrysene-D12(IS)	ISTD			I	
28	S	Terphenyl-D14(S)	1.008	0.8715	14	S	
29	TM	Butyl benzylphthalate	0.6377	0.6552	2.7	TM	
30	TML	Bis (2-ethylhexyl) phthalate	0.9887	1.074	8.6	TML	0.17
31	*TML	Di-n-octylphthalate	1.455	1.713	18	*TML	9.3
32	I	Perylene-D12(IS)	ISTD			I	
33							
34							
35							
36							
37							
38							
39							
40							
		Average			10.1		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y099.D Vial: 99
Acq On : 6 Jul 15 15:29 Operator: MA
Sample : CCV 50ug/ml SVOC 07/06/15 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Jul 6 16:59 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.32	152	749960	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.76	136	3598118	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.78	164	2184557	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	10.52	188	3928660	40.00	ppb		0.00
27) Chrysene-D12(IS)	13.61	240	3675143	40.00	ppb		0.00
32) Perylene-D12(IS)	15.43	264	2277238	40.00	ppb		0.00
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.79	112	2432037	90.67	ppb		-0.02
Spiked Amount 200.000			Recovery =	45.335%			
3) Phenol-D6 (S)	4.91	99	3197997	96.53	ppb		0.00
Spiked Amount 200.000			Recovery =	48.266%			
8) Nitrobenzene-D5(S)	5.94	82	1630058	46.21	ppb		0.00
Spiked Amount 100.000			Recovery =	46.212%			
16) 2-Fluorobiphenyl(S)	7.99	172	3187285	42.96	ppb		0.00
Spiked Amount 100.000			Recovery =	42.964%			
22) 2,4,6-Tribromophenol(S)	9.70	330	627127	87.16	ppb		0.00
Spiked Amount 200.000			Recovery =	43.580%			
28) Terphenyl-D14(S)	12.38	244	4003537	43.25	ppb		0.00
Spiked Amount 100.000			Recovery =	43.247%			
Target Compounds							Qvalue
4) Phenol	4.92	94	1969822	47.99	ppb		88
5) 1,4-DCB	5.50	146	1452709	42.84	ppb		95
6) n-Nitrosodi-n-propylamine	5.77	43	1577299	52.93	ppb	#	45
9) 2-Nitrophenol	6.32	139	846668	45.65	ppb		96
10) 2,4-Dichlorophenol	6.85	162	1298727	44.38	ppb		99
11) Hexachlorobutadiene	6.92	225	713836	40.47	ppb		99
12) 4-Chloro-3-methylphenol	7.40	107	1380465	44.79	ppb	#	1
14) Hexachlorocyclopentadiene	7.75	237	943467	48.77	ppb		99
15) 2,4,6-Trichlorophenol	7.89	196	967803	42.16	ppb		94
17) Dimethyl phthalate	8.47	163	3693392	44.94	ppb		95
18) Acenaphthene	8.11	154	3933683	43.45	ppb	#	44
19) 2,4-Dinitrophenol	8.86	184	545864	52.20	ppb	#	65
20) 4-Nitrophenol	8.92	65	787995	47.36	ppb	#	1
21) Diethyl phthalate	9.29	149	3682899	46.40	ppb		99
24) n-Nitrosodiphenylamine	10.80	167	5182740	45.39	ppb		97
25) Pentachlorophenol	10.29	266	603654	45.13	ppb		98
26) Di-n-butylphthalate	11.20	149	6674191	52.74	ppb		99
29) Butyl benzylphthalate	12.96	149	3009770	51.37	ppb		98
30) Bis (2-ethylhexyl) phthala	13.63	149	4932354	50.08	ppb		100
31) Di-n-octylphthalate	14.38	149	7867167	54.66	ppb		100

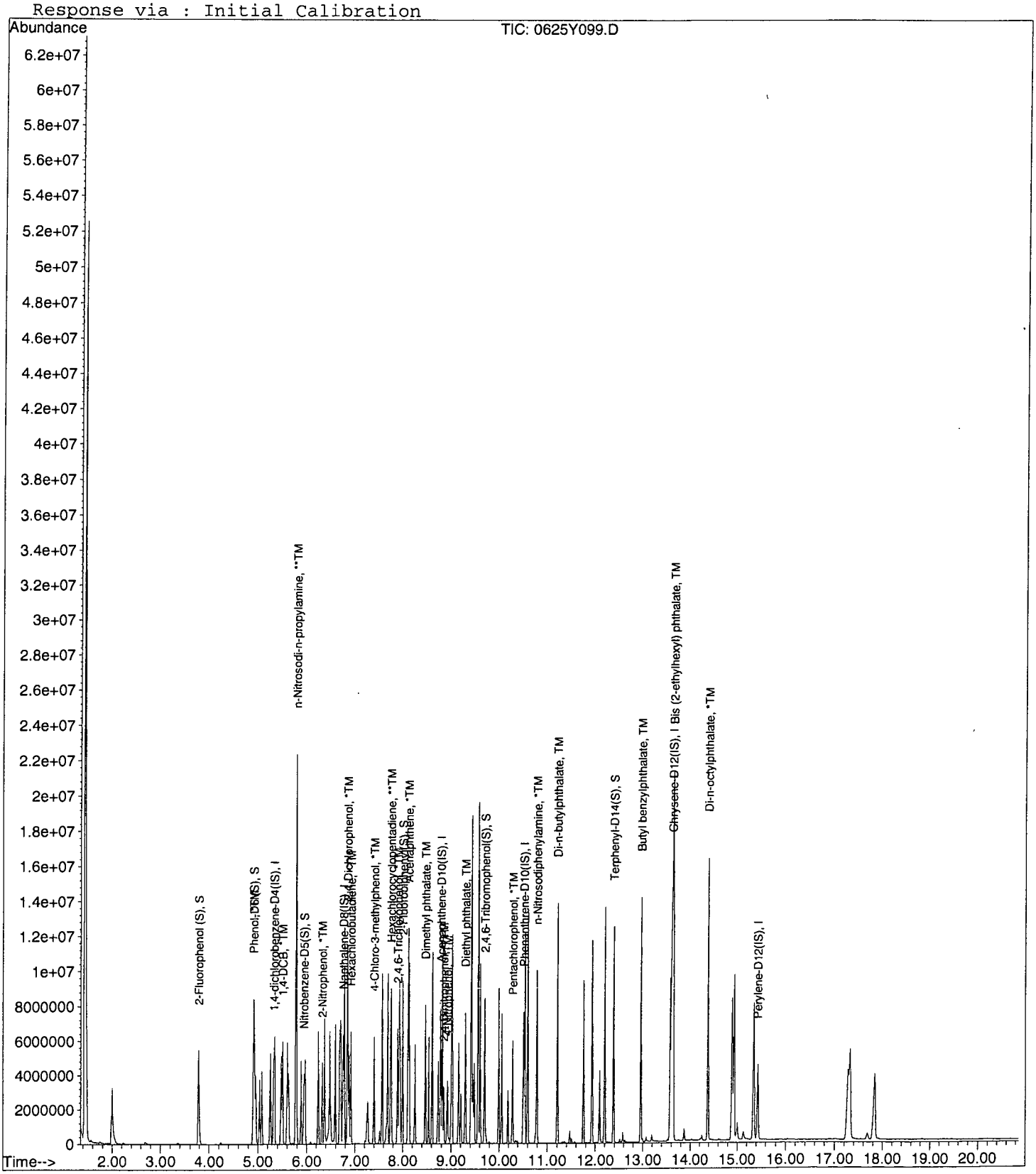
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y099.D Vial: 99
Acq On : 6 Jul 15 15:29 Operator: MA
Sample : CCV 50ug/ml SVOC 07/06/15 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Jul 6 16:59 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration



EPA METHOD 8270D
Semivolatile Organic Compounds
Raw Data

APPL, INC.

Method Blank
EPA 8270D SOILS

Blank Name/QCG: **150622S-17444 - 198554**
Batch ID: #87DJU-150622A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	BIS (2-ETHYLHEXYL) PHTHALAT	0.167 U	0.66	0.167	0.062	mg/kg	6/22/2015	6/30/2015
BLANK	BUTYL BENZYL PHTHALATE	0.167 U	0.33	0.167	0.056	mg/kg	6/22/2015	6/30/2015
BLANK	DI-N-BUTYL PHTHALATE	0.167 U	0.33	0.167	0.066	mg/kg	6/22/2015	6/30/2015
BLANK	DI-N-OCTYL PHTHALATE	0.167 U	0.33	0.167	0.058	mg/kg	6/22/2015	6/30/2015
BLANK	DIETHYL PHTHALATE	0.167 U	0.33	0.167	0.062	mg/kg	6/22/2015	6/30/2015
BLANK	DIMETHYL PHTHALATE	0.167 U	0.33	0.167	0.063	mg/kg	6/22/2015	6/30/2015
BLANK	SURROGATE: 2,4,6-TRIBROMOP	75.9	35-125			%	6/22/2015	6/30/2015
BLANK	SURROGATE: 2-FLUORBIPHENY	79.4	45-105			%	6/22/2015	6/30/2015
BLANK	SURROGATE: 2-FLUOROPHENO	92.2	35-105			%	6/22/2015	6/30/2015
BLANK	SURROGATE: NITROBENZENE-	88.7	35-100			%	6/22/2015	6/30/2015
BLANK	SURROGATE: PHENOL (S)	101 #	40-100			%	6/22/2015	6/30/2015
BLANK	SURROGATE: TERPHENYL-D14	78.0	30-125			%	6/22/2015	6/30/2015

= Recovery (or RPD) is outside QC limits.

Quant Method: Y0625TT.M
Run #: 0625Y054
Instrument: Yoda
Sequence: Y150625
Initials: DA

GC SC-Blank-REG MDLs
Printed: 7/2/2015 3:38:02 PM

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y054.D Vial: 54
Acq On : 30 Jun 15 19:23 Operator: MA
Sample : 150622A BLK 1/30.10G Inst : Yoda
Misc : soil Multiplr: 33.22

Quant Time: Jul 2 15:18 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:50:54 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.32	152	566118	40.00	ppb	0.00
7) Napthalene-D8(IS)	6.75	136	2560650	40.00	ppb	0.00
13) Acenaphthene-D10(IS)	8.77	164	1487669	40.00	ppb	0.00
23) Phenanthrene-D10(IS)	10.51	188	2537035	40.00	ppb	0.00
27) Chrysene-D12(IS)	13.60	240	2127462	40.00	ppb	0.00
32) Perylene-D12(IS)	15.42	264	1464039	40.00	ppb	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.80	112	3735114	6128.64	ppb	0.00
Spiked Amount 6644.518			Recovery =	92.236%		
3) Phenol-D6 (S)	4.91	99	5064462	6728.10	ppb	0.00
Spiked Amount 6644.518			Recovery =	101.258%		
8) Nitrobenzene-D5(S)	5.94	82	2226859	2947.17	ppb	0.00
Spiked Amount 3322.259			Recovery =	88.710%		
16) 2-Fluorobiphenyl(S)	7.99	172	4009754	2636.90	ppb	0.00
Spiked Amount 3322.259			Recovery =	79.371%		
22) 2,4,6-Tribromophenol(S)	9.69	330	743615	5041.93	ppb	0.00
Spiked Amount 6644.518			Recovery =	75.881%		
28) Terphenyl-D14(S)	12.38	244	4182397	2592.90	ppb	0.00
Spiked Amount 3322.259			Recovery =	78.046%		

Target Compounds Qvalue

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

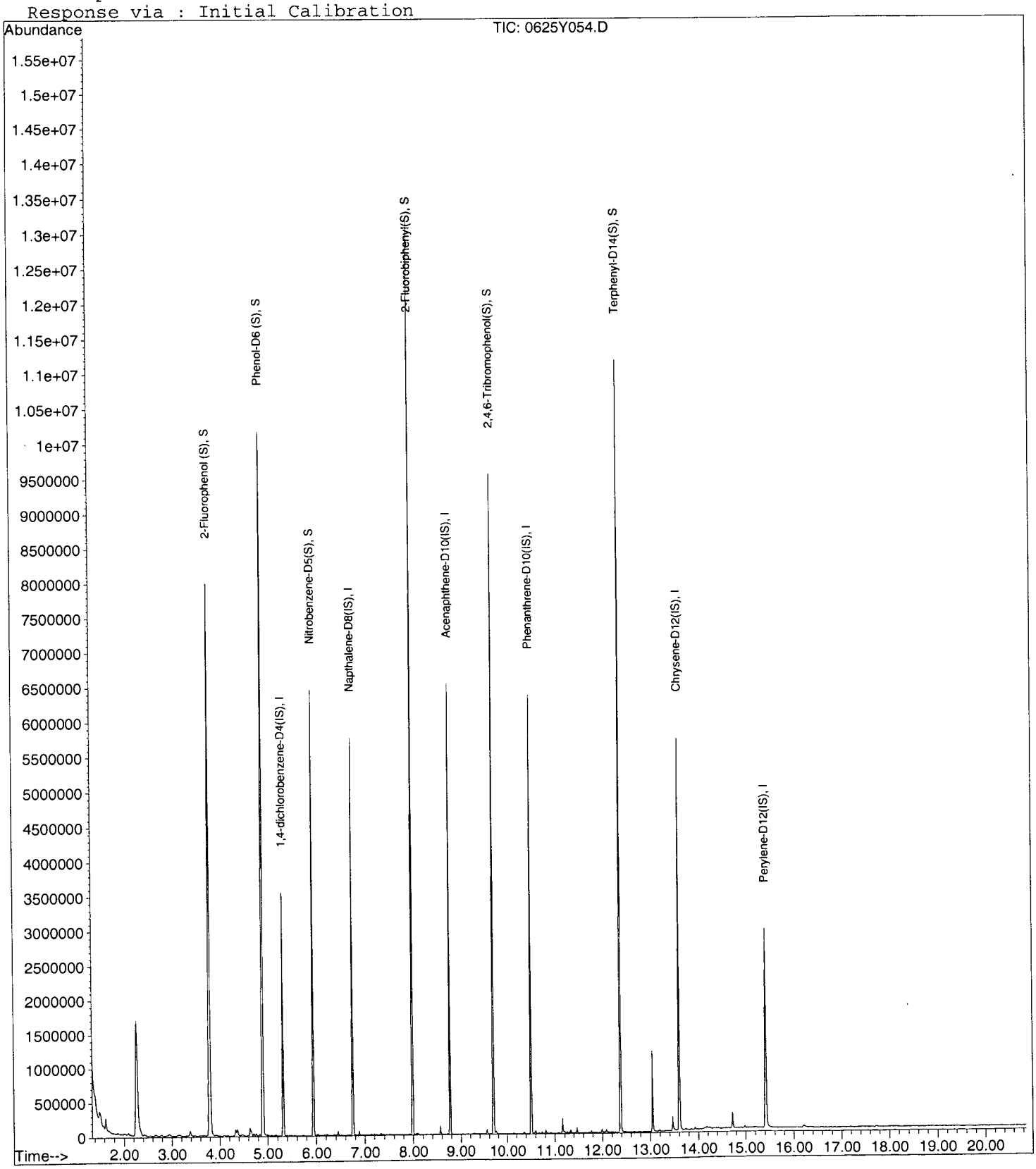
Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y054.D
Acq On : 30 Jun 15 19:23
Sample : 150622A BLK 1/30.10G
Misc : soil

Vial: 54
Operator: MA
Inst : Yoda
Multiplr: 33.22

Quant Time: Jul 2 15:18 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:50:54 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y055.D Vial: 55
Acq On : 30 Jun 15 19:53 Operator: MA
Sample : 150622A LCS-1 1/30.24G Inst : Yoda
Misc : soil Multiplr: 33.07

Quant Time: Jul 2 13:44 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.33	152	631132	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.75	136	2723831	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.78	164	1526674	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	10.51	188	2567279	40.00	ppb		-0.01
27) Chrysene-D12(IS)	13.61	240	2329998	40.00	ppb		0.00
32) Perylene-D12(IS)	15.43	264	1611200	40.00	ppb		-0.01
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.79	112	3521909	5159.53	ppb		-0.01
Spiked Amount 6613.757			Recovery =	78.012%			
3) Phenol-D6 (S)	4.91	99	4773014	5661.39	ppb		0.00
Spiked Amount 6613.757			Recovery =	85.600%			
8) Nitrobenzene-D5(S)	5.95	82	2214179	2742.08	ppb		0.00
Spiked Amount 3306.878			Recovery =	82.920%			
16) 2-Fluorobiphenyl(S)	8.00	172	4159108	2652.90	ppb		0.00
Spiked Amount 3306.878			Recovery =	80.224%			
22) 2,4,6-Tribromophenol(S)	9.70	330	830728	5463.27	ppb		0.00
Spiked Amount 6613.757			Recovery =	82.605%			
28) Terphenyl-D14(S)	12.38	244	4457094	2511.32	ppb		0.00
Spiked Amount 3306.878			Recovery =	75.942%			
Target Compounds							Qvalue
4) Phenol	4.93	94	1361422	1303.42	ppb		98
5) 1,4-DCB	5.51	146	1010025	1170.53	ppb		97
6) n-Nitrosodi-n-propylamine	5.78	43	1021643	1347.08	ppb	#	59
9) 2-Nitrophenol	6.32	139	551052	1298.01	ppb		91
10) 2,4-Dichlorophenol	6.85	162	835811	1247.51	ppb		98
11) Hexachlorobutadiene	6.91	225	470503	1165.31	ppb		99
12) 4-Chloro-3-methylphenol	7.39	107	861004	1220.20	ppb	#	1
14) Hexachlorocyclopentadiene	7.75	237	526088	1334.28	ppb		99
15) 2,4,6-Trichlorophenol	7.89	196	595424	1227.28	ppb		97
17) Dimethyl phthalate	8.46	163	2185944	1258.53	ppb		97
18) Acenaphthene	8.11	154	2387101	1247.71	ppb	#	45
19) 2,4-Dinitrophenol	8.84	184	285641	1384.69	ppb		94
20) 4-Nitrophenol	8.91	65	490886	1396.05	ppb	#	1
21) Diethyl phthalate	9.30	149	2093408	1248.09	ppb		95
24) n-Nitrosodiphenylamine	10.78	167	2942572	1304.12	ppb		99
25) Pentachlorophenol	10.28	266	332769	1270.18	ppb		97
26) Di-n-butylphthalate	11.20	149	3572145	1428.31	ppb		98
29) Butyl benzylphthalate	12.96	149	1598106	1422.60	ppb		98
30) Bis (2-ethylhexyl) phthala	13.62	149	2519793	1353.99	ppb		99
31) Di-n-octylphthalate	14.38	149	4019857	1464.14	ppb		99

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

Method Blank
EPA 8270D SOIL RE-ANALYSIS

Blank Name/QCG: **150702S-17434 - 198613**
Batch ID: #87DJU-150702A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	BIS (2-ETHYLHEXYL) PHTHALAT	0.167 U	0.66	0.167	0.062	mg/kg	7/2/2015	7/6/2015
BLANK	BUTYL BENZYL PHTHALATE	0.167 U	0.33	0.167	0.056	mg/kg	7/2/2015	7/6/2015
BLANK	DI-N-BUTYL PHTHALATE	0.167 U	0.33	0.167	0.066	mg/kg	7/2/2015	7/6/2015
BLANK	DI-N-OCTYL PHTHALATE	0.167 U	0.33	0.167	0.058	mg/kg	7/2/2015	7/6/2015
BLANK	DIETHYL PHTHALATE	0.167 U	0.33	0.167	0.062	mg/kg	7/2/2015	7/6/2015
BLANK	DIMETHYL PHTHALATE	0.167 U	0.33	0.167	0.063	mg/kg	7/2/2015	7/6/2015
BLANK	SURROGATE: 2,4,6-TRIBROMOP	76.8	35-125			%	7/2/2015	7/6/2015
BLANK	SURROGATE: 2-FLUORBIPHENY	64.2	45-105			%	7/2/2015	7/6/2015
BLANK	SURROGATE: 2-FLUOROPHENO	58.7	35-105			%	7/2/2015	7/6/2015
BLANK	SURROGATE: NITROBENZENE-	62.9	35-100			%	7/2/2015	7/6/2015
BLANK	SURROGATE: PHENOL (S)	66.8	40-100			%	7/2/2015	7/6/2015
BLANK	SURROGATE: TERPHENYL-D14	78.9	30-125			%	7/2/2015	7/6/2015

Quant Method: Y0625TT.M
Run #: 0625Y101
Instrument: Yoda
Sequence: Y150625
Initials: DA

GC SC-Blank-REG MDLs
Printed: 7/7/2015 9:44:27 AM

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y101.D
Acq On : 6 Jul 15 17:21
Sample : 150702A BLK 1/30.86G
Misc : soil

Vial: 1
Operator: MA
Inst : Yoda
Multiplr: 32.40

Quant Time: Jul 7 8:35 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.32	152	675859	40.00	ppb	-0.01
7) Napthalene-D8(IS)	6.75	136	3012192	40.00	ppb	-0.01
13) Acenaphthene-D10(IS)	8.77	164	1845344	40.00	ppb	-0.01
23) Phenanthrene-D10(IS)	10.52	188	3472141	40.00	ppb	0.00
27) Chrysene-D12(IS)	13.61	240	3107841	40.00	ppb	0.00
32) Perylene-D12(IS)	15.43	264	1936968	40.00	ppb	-0.01
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.78	112	2839941	3807.07	ppb	-0.03
Spiked Amount 6480.881			Recovery =	58.743%		
3) Phenol-D6 (S)	4.90	99	3986993	4327.39	ppb	-0.01
Spiked Amount 6480.881			Recovery =	66.772%		
8) Nitrobenzene-D5(S)	5.94	82	1857126	2037.94	ppb	-0.01
Spiked Amount 3240.441			Recovery =	62.891%		
16) 2-Fluorobiphenyl(S)	7.99	172	4023401	2080.50	ppb	-0.01
Spiked Amount 3240.441			Recovery =	64.204%		
22) 2,4,6-Tribromophenol(S)	9.70	330	933994	4979.58	ppb	0.00
Spiked Amount 6480.881			Recovery =	76.835%		
28) Terphenyl-D14(S)	12.39	244	6179400	2557.88	ppb	0.00
Spiked Amount 3240.441			Recovery =	78.936%		
Target Compounds						Qvalue
21) Diethyl phthalate	9.28	149	11004	5.32	ppb	97
26) Di-n-butylphthalate	11.20	149	30453	8.82	ppb	98

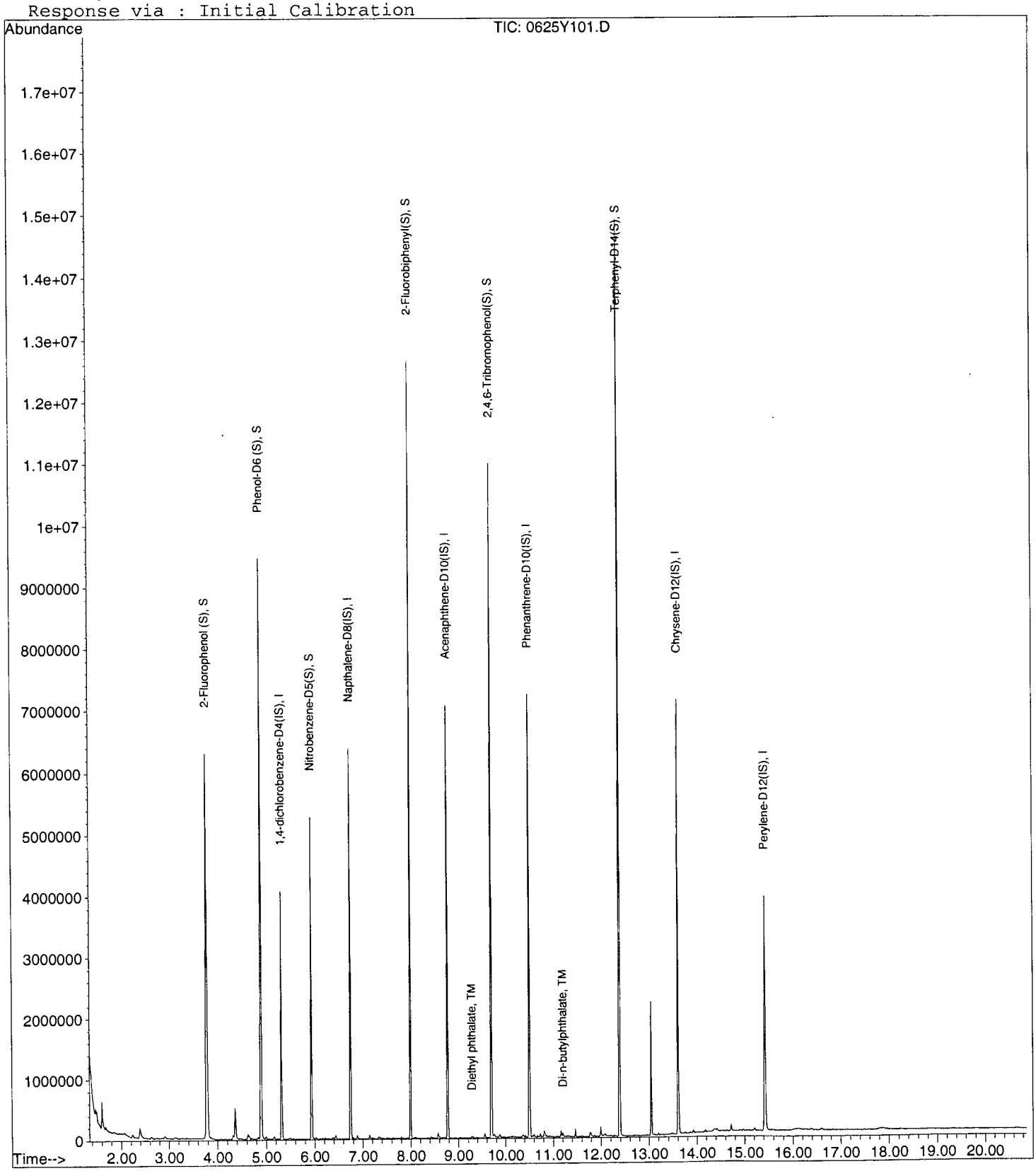
(#) = qualifier out of range (m) = manual integration

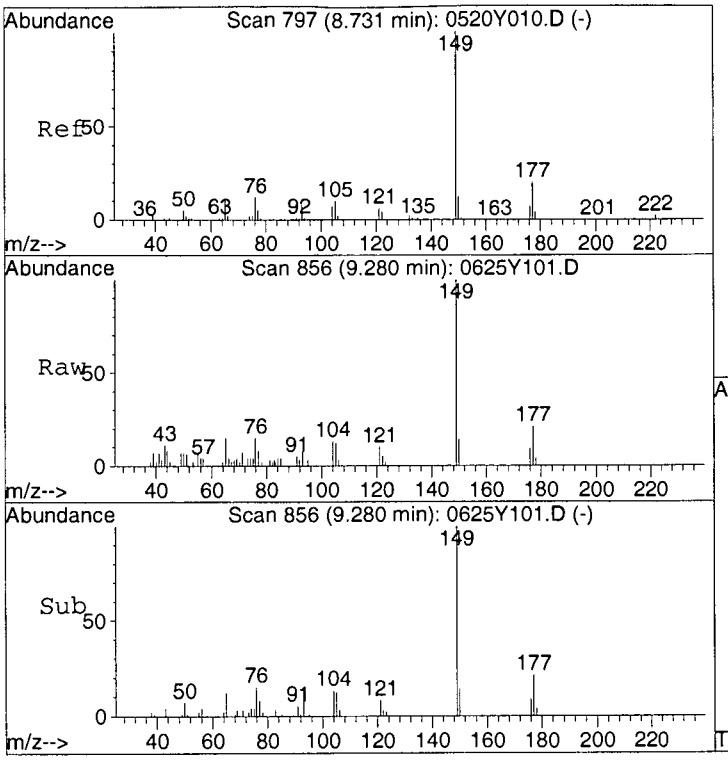
Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y101.D Vial: 1
Acq On : 6 Jul 15 17:21 Operator: MA
Sample : 150702A BLK 1/30.86G Inst : Yoda
Misc : soil Multiplr: 32.40

Quant Time: Jul 7 8:35 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration

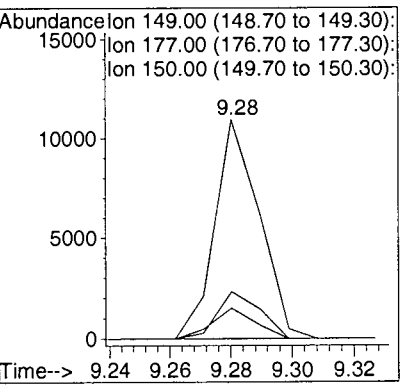


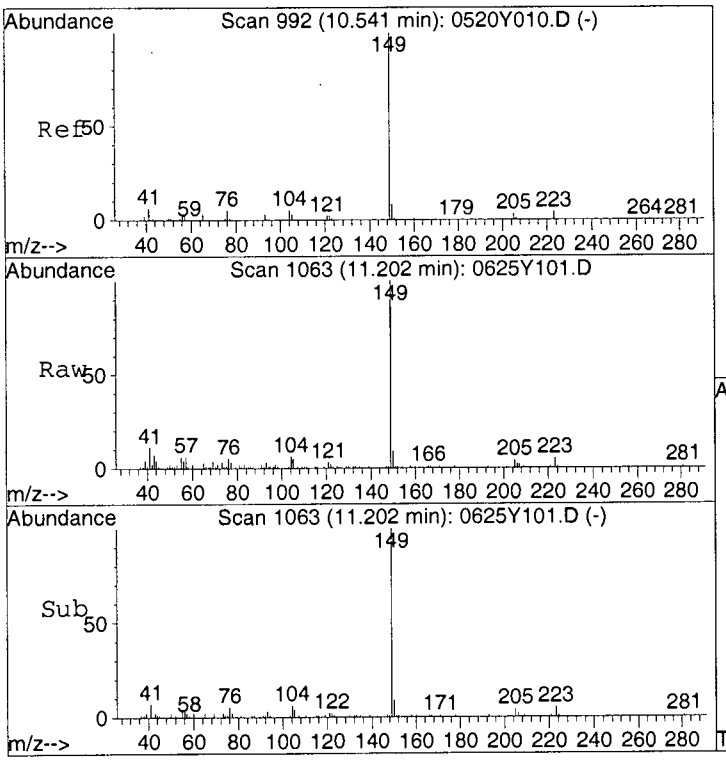


#21
Diethyl phthalate
Concen: 5.32 ppb
RT: 9.28 min Scan# 856
Delta R.T. -0.02 min
Lab File: 0625Y101.D
Acq: 6 Jul 15 17:21

Tgt Ion:149 Resp: 11004

Ion	Ratio	Lower	Upper
149	100		
177	21.2	14.1	26.1
150	13.9	8.5	15.7

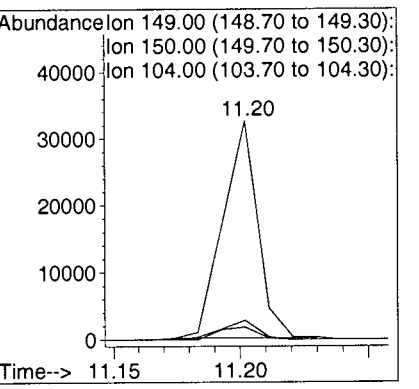




#26
Di-n-butylphthalate
Concen: 8.82 ppb
RT: 11.20 min Scan# 1063
Delta R.T. -0.01 min
Lab File: 0625Y101.D
Acq: 6 Jul 15 17:21

Tgt Ion:149 Resp: 30453

Ion	Ratio	Lower	Upper
149	100		
150	8.9	5.9	10.9
104	5.8	3.3	6.1



Laboratory Control Spike Recovery
EPA 8270D SOILS

APPL ID: **150622S-17444 LCS - 198554**
Batch ID: #87DJU-150622A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level mg/kg	SPK Result mg/kg	SPK % Recovery	Recovery Limits
BIS (2-ETHYLHEXYL) PHTHALATE	1.67	1.35	80.8	45-125
BUTYL BENZYL PHTHALATE	1.67	1.42	85.0	50-125
DI-N-BUTYL PHTHALATE	1.67	1.43	85.6	55-110
DI-N-OCTYL PHTHALATE	1.67	1.46	87.4	40-130
DIETHYL PHTHALATE	1.67	1.25	74.9	50-115
DIMETHYL PHTHALATE	1.67	1.26	75.4	50-110
SURROGATE: 2,4,6-TRIBROMOPHENOL	6.67	5.46	81.9	35-125
SURROGATE: 2-FLUORBIPHENYL (S)	3.33	2.65	79.6	45-105
SURROGATE: 2-FLUOROPHENOL (S)	6.67	5.16	77.4	35-105
SURROGATE: NITROBENZENE-D5 (S)	3.33	2.74	82.3	35-100
SURROGATE: PHENOL (S)	6.67	5.66	84.9	40-100
SURROGATE: TERPHENYL-D14 (S)	3.33	2.51	75.4	30-125

Comments: _____

Primary	SPK
Quant Method :	Y0625TT.M
Extraction Date :	6/22/2015
Analysis Date :	6/30/2015
Instrument :	Yoda
Run :	0625Y055
Initials :	DA

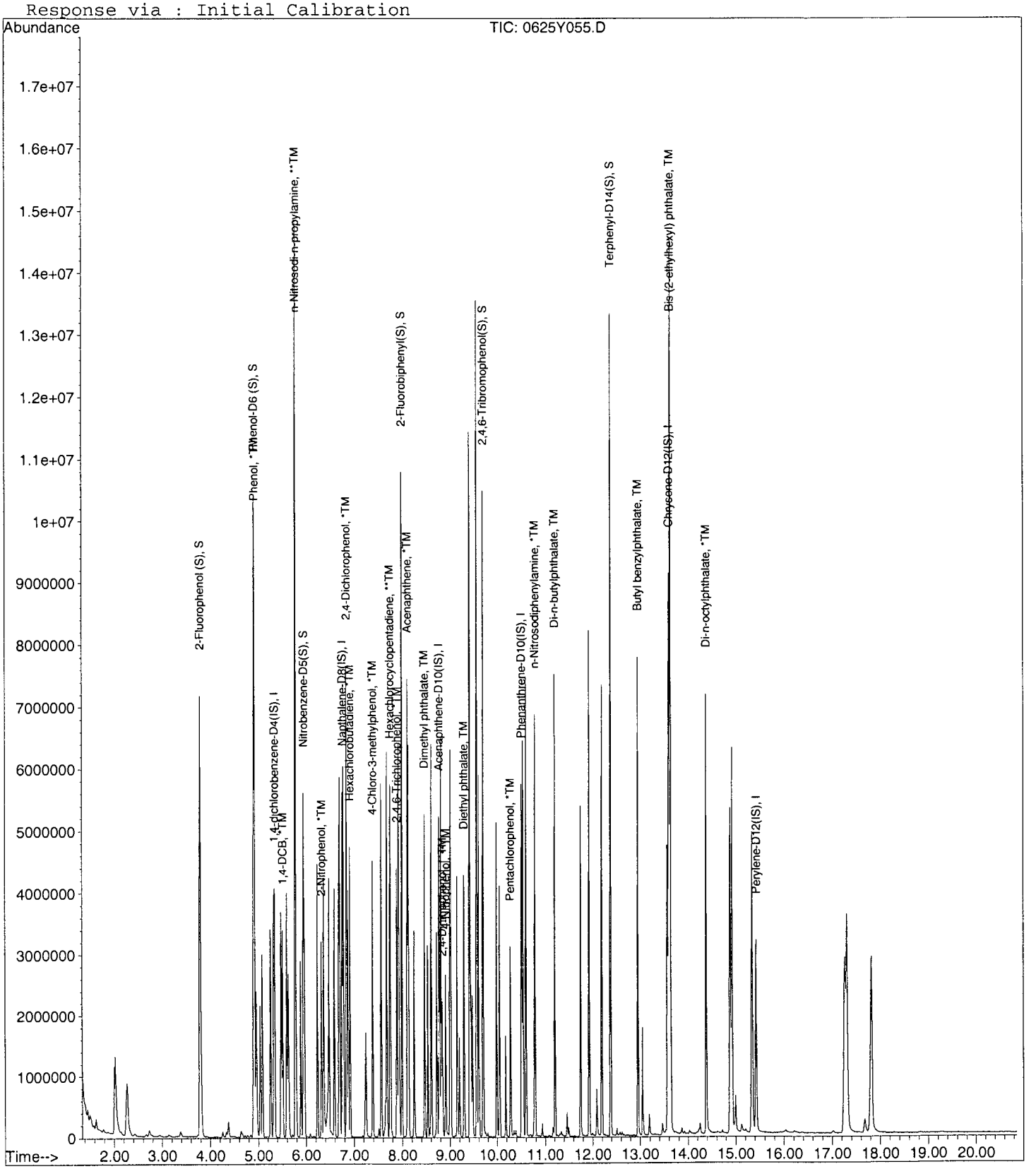
Printed: 7/2/2015 3:37:53 PM
APPL Standard LCS

Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y055.D Vial: 55
Acq On : 30 Jun 15 19:53 Operator: MA
Sample : 150622A LCS-1 1/30.24G Inst : Yoda
Misc : soil Multiplr: 33.07

Quant Time: Jul 2 13:44 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:50:54 2015
Response via : Initial Calibration



Laboratory Control Spike Recovery
EPA 8270D SOIL RE-ANALYSIS

APPL ID: **150702S-17434 LCS - 198613**
Batch ID: #87DJU-150702A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level mg/kg	SPK Result mg/kg	SPK % Recovery	Recovery Limits
BIS (2-ETHYLHEXYL) PHTHALATE	1.67	1.50	89.8	45-125
BUTYL BENZYL PHTHALATE	1.67	1.60	95.8	50-125
DI-N-BUTYL PHTHALATE	1.67	1.66	99.4	55-110
DI-N-OCTYL PHTHALATE	1.67	1.64	98.2	40-130
DIETHYL PHTHALATE	1.67	1.48	88.6	50-115
DIMETHYL PHTHALATE	1.67	1.42	85.0	50-110
SURROGATE: 2,4,6-TRIBROMOPHENOL	6.60	6.01	91.1	35-125
SURROGATE: 2-FLUORBIPHENYL (S)	3.30	2.67	80.9	45-105
SURROGATE: 2-FLUOROPHENOL (S)	6.60	4.66	70.6	35-105
SURROGATE: NITROBENZENE-D5 (S)	3.30	2.66	80.6	35-100
SURROGATE: PHENOL (S)	6.60	5.50	83.3	40-100
SURROGATE: TERPHENYL-D14 (S)	3.30	2.70	81.8	30-125

Comments: _____

Primary	SPK
Quant Method :	Y0625TT.M
Extraction Date :	7/2/2015
Analysis Date :	7/6/2015
Instrument :	Yoda
Run :	0625Y102
Initials :	DA

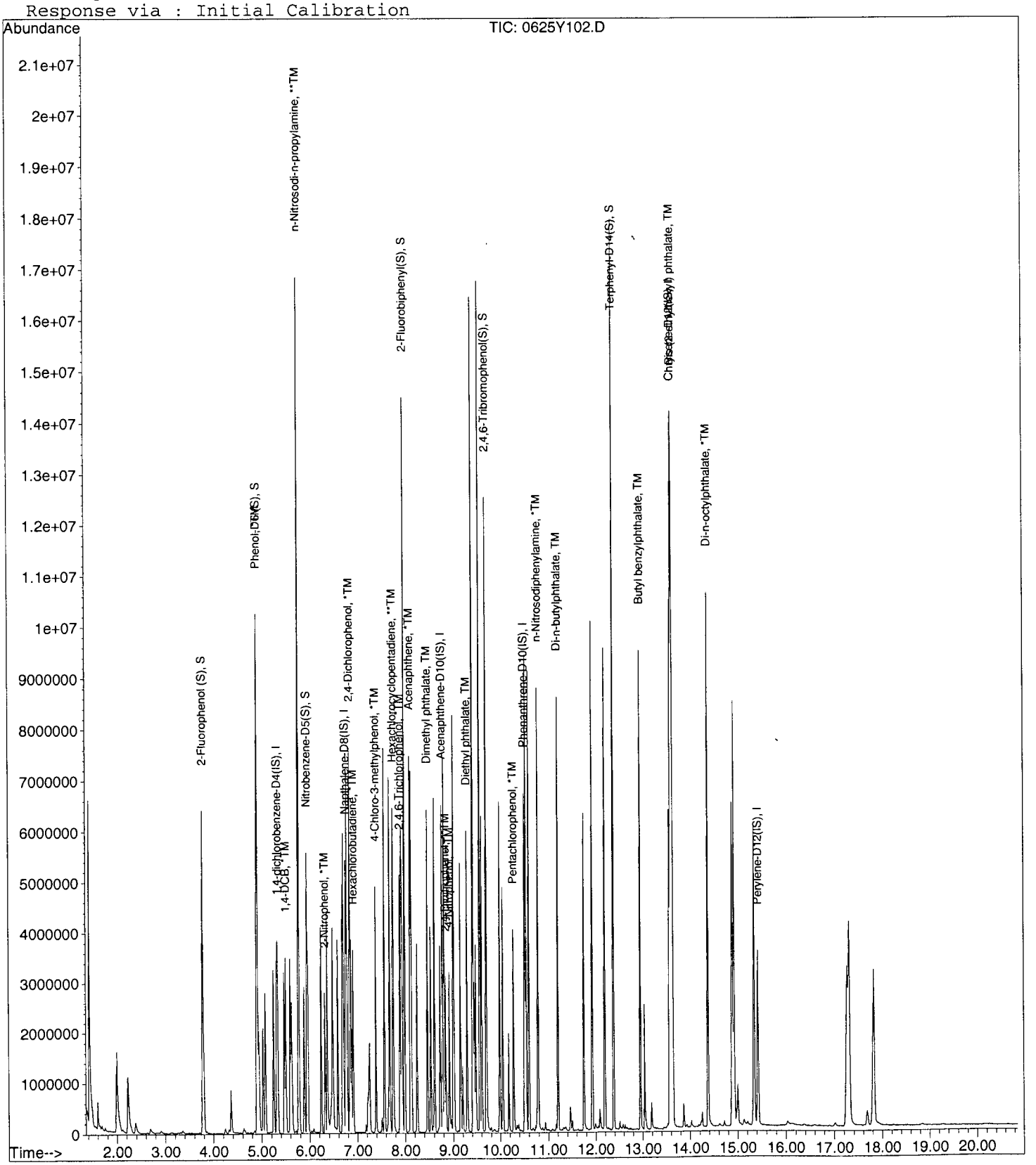
Printed: 7/7/2015 9:44:17 AM
APPL Standard LCS

Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y102.D Vial: 2
Acq On : 6 Jul 15 17:51 Operator: MA
Sample : 150702A LCS-1 1/30.57G Inst : Yoda
Misc : soil Multiplr: 32.71

Quant Time: Jul 7 8:35 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration

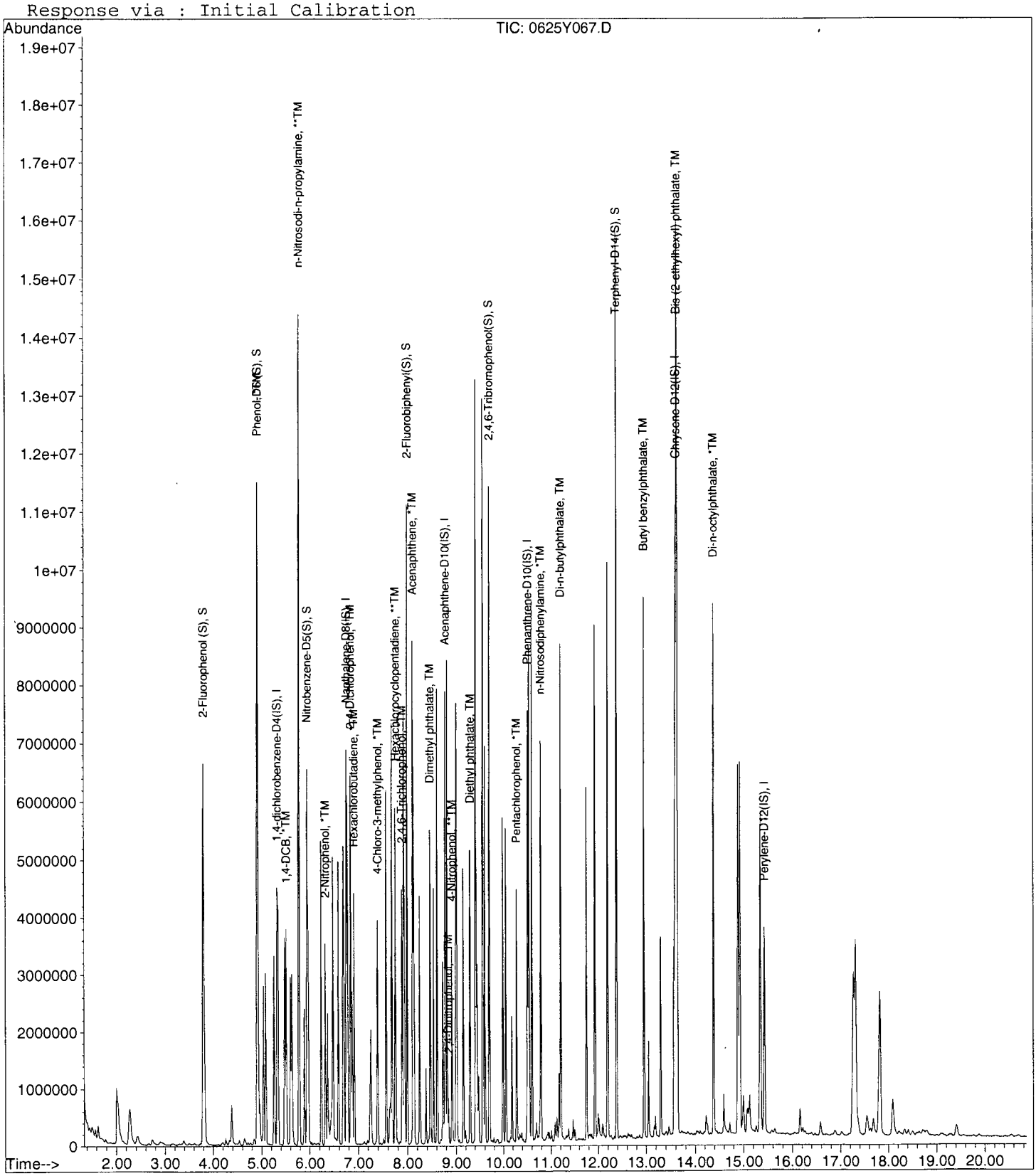


Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y067.D Vial: 67
Acq On : 1 Jul 15 1:47 Operator: MA
Sample : AZ17444S05 MS-1 1/30.36G Inst : Yoda
Misc : soil Multiplr: 32.94

Quant Time: Jul 2 13:44 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:50:54 2015
Response via : Initial Calibration



Matrix Spike Recoveries

EPA 8270D SOILS

APPL ID: **150622S-17444 MS - 198554**
Batch ID: #87DJU-150622A
Sample ID: AZ17444
Client ID: S67-SS035-0001

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl mg/kg	Matrix Result mg/kg	SPK Result mg/kg	DUP Result mg/kg	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
BIS (2-ETHYLHEXYL) PHTHALATE	1.67	0.11	1.37	1.44	75.4	79.6	45-125	5.0	30
BUTYL BENZYL PHTHALATE	1.67	ND	1.37	1.50	82.0	89.8	50-125	9.1	30
DI-N-BUTYL PHTHALATE	1.67	0.0074	1.30	1.46	77.4	87.0	55-110	11.6	30
DI-N-OCTYL PHTHALATE	1.67	ND	1.44	1.54	86.2	92.2	40-130	6.7	30
DIETHYL PHTHALATE	1.67	ND	1.20	1.29	71.9	77.2	50-115	7.2	30
DIMETHYL PHTHALATE	1.67	ND	1.21	1.30	72.5	77.8	50-110	7.2	30
SURROGATE: 2,4,6-TRIBROMOPHENOL	6.67	NA	4.78	4.69	71.7	70.3	35-125		
SURROGATE: 2-FLUORBIPHENYL (S)	3.33	NA	2.09	2.09	62.8	62.8	45-105		
SURROGATE: 2-FLUOROPHENOL (S)	6.67	NA	4.66	4.88	69.9	73.2	35-105		
SURROGATE: NITROBENZENE-D5 (S)	3.33	NA	2.59	2.78	77.8	83.5	35-100		
SURROGATE: PHENOL (S)	6.67	NA	5.29	5.69	79.3	85.3	40-100		
SURROGATE: TERPHENYL-D14 (S)	3.33	NA	2.42	2.41	72.7	72.4	30-125		

Comments: _____

Primary	SPK	DUP
Quant Method :	Y0625TT.M	Y0625TT.M
Extraction Date :	6/22/2015	6/22/2015
Analysis Date :	7/1/2015	7/1/2015
Instrument :	Yoda	Yoda
Run :	0625Y067	0625Y068
Initials :	DA	

Printed: 7/2/2015 3:37:48 PM
APPL MSD SCII

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y067.D Vial: 67
Acq On : 1 Jul 15 1:47 Operator: MA
Sample : AZ17444S05 MS-1 1/30.36G Inst : Yoda
Misc : soil Multiplr: 32.94

Quant Time: Jul 2 13:44 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.32	152	731410	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.75	136	3287657	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.78	164	1938772	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	10.51	188	3455524	40.00	ppb		0.00
27) Chrysene-D12(IS)	13.61	240	3103650	40.00	ppb		0.00
32) Perylene-D12(IS)	15.43	264	1968565	40.00	ppb		0.00
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.80	112	3703638	4663.37	ppb		0.00
Spiked Amount 6587.615			Recovery =	70.790%			
3) Phenol-D6 (S)	4.92	99	5189454	5290.44	ppb		0.00
Spiked Amount 6587.615			Recovery =	80.309%			
8) Nitrobenzene-D5(S)	5.95	82	2536632	2592.38	ppb		0.00
Spiked Amount 3293.808			Recovery =	78.705%			
16) 2-Fluorobiphenyl(S)	8.00	172	4173248	2087.83	ppb		0.00
Spiked Amount 3293.808			Recovery =	63.386%			
22) 2,4,6-Tribromophenol(S)	9.71	330	927035	4781.78	ppb		0.00
Spiked Amount 6587.615			Recovery =	72.587%			
28) Terphenyl-D14(S)	12.38	244	5749543	2422.41	ppb		0.00
Spiked Amount 3293.808			Recovery =	73.544%			
Target Compounds							Qvalue
4) Phenol	4.93	94	1443937	1188.17	ppb		86
5) 1,4-DCB	5.51	146	1033454	1029.40	ppb		96
6) n-Nitrosodi-n-propylamine	5.78	43	1190274	1348.90	ppb	#	58
9) 2-Nitrophenol	6.32	139	608544	1182.90	ppb		87
10) 2,4-Dichlorophenol	6.85	162	902230	1111.29	ppb		99
11) Hexachlorobutadiene	6.91	225	447155	913.93	ppb		99
12) 4-Chloro-3-methylphenol	7.40	107	959609	1122.26	ppb	#	1
14) Hexachlorocyclopentadiene	7.75	237	254669	534.69	ppb		99
15) 2,4,6-Trichlorophenol	7.89	196	688499	1113.07	ppb		94
17) Dimethyl phthalate	8.46	163	2684187	1212.09	ppb		94
18) Acenaphthene	8.11	154	2611671	1070.69	ppb	#	45
19) 2,4-Dinitrophenol	8.84	184	101617	501.54	ppb	#	20
20) 4-Nitrophenol	8.92	65	590059	1316.18	ppb	#	1
21) Diethyl phthalate	9.30	149	2565404	1199.63	ppb		95
24) n-Nitrosodiphenylamine	10.79	167	3752848	1230.81	ppb		98
25) Pentachlorophenol	10.28	266	440612	1245.42	ppb		99
26) Di-n-butylphthalate	11.20	149	4392681	1299.76	ppb		98
29) Butyl benzylphthalate	12.96	149	2056316	1368.76	ppb		92
30) Bis (2-ethylhexyl) phthala	13.62	149	3418937	1371.88	ppb		100
31) Di-n-octylphthalate	14.38	149	5284700	1439.81	ppb		99

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y102.D Vial: 2
Acq On : 6 Jul 15 17:51 Operator: MA
Sample : 150702A LCS-1 1/30.57G Inst : Yoda
Misc : soil Multiplr: 32.71

Quant Time: Jul 7 8:35 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.32	152	599875	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.75	136	2694222	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.77	164	1653185	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	10.51	188	3054311	40.00	ppb		0.00
27) Chrysene-D12(IS)	13.61	240	2957459	40.00	ppb		0.00
32) Perylene-D12(IS)	15.43	264	1808397	40.00	ppb		0.00
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.78	112	3054779	4657.55	ppb		-0.03
Spiked Amount 6542.362			Recovery =	71.191%			
3) Phenol-D6 (S)	4.91	99	4452926	5496.95	ppb		0.00
Spiked Amount 6542.362			Recovery =	84.021%			
8) Nitrobenzene-D5(S)	5.94	82	2145861	2657.67	ppb		0.00
Spiked Amount 3271.181			Recovery =	81.245%			
16) 2-Fluorobiphenyl(S)	7.99	172	4586705	2672.59	ppb		0.00
Spiked Amount 3271.181			Recovery =	81.701%			
22) 2,4,6-Tribromophenol(S)	9.70	330	1000763	6012.24	ppb		0.00
Spiked Amount 6542.362			Recovery =	91.897%			
28) Terphenyl-D14(S)	12.38	244	6147670	2699.51	ppb		0.00
Spiked Amount 3271.181			Recovery =	82.524%			
Target Compounds							Qvalue
4) Phenol	4.92	94	1349480	1344.63	ppb		97
5) 1,4-DCB	5.51	146	981526	1183.86	ppb		96
6) n-Nitrosodi-n-propylamine	5.77	43	1090892	1497.00	ppb	#	54
9) 2-Nitrophenol	6.32	139	581010	1368.68	ppb		93
10) 2,4-Dichlorophenol	6.84	162	902712	1347.47	ppb		98
11) Hexachlorobutadiene	6.92	225	485670	1202.97	ppb		98
12) 4-Chloro-3-methylphenol	7.39	107	971967	1377.56	ppb	#	1
14) Hexachlorocyclopentadiene	7.74	237	621064	1420.43	ppb		99
15) 2,4,6-Trichlorophenol	7.89	196	697878	1314.04	ppb		97
17) Dimethyl phthalate	8.47	163	2693380	1416.55	ppb		96
18) Acenaphthene	8.10	154	2737178	1306.95	ppb	#	45
19) 2,4-Dinitrophenol	8.85	184	400714	1668.98	ppb		89
20) 4-Nitrophenol	8.92	65	579618	1505.82	ppb	#	1
21) Diethyl phthalate	9.29	149	2713431	1477.82	ppb		98
24) n-Nitrosodiphenylamine	10.79	167	3770982	1389.60	ppb		98
25) Pentachlorophenol	10.29	266	445876	1406.76	ppb		96
26) Di-n-butylphthalate	11.21	149	4999145	1662.02	ppb		99
29) Butyl benzylphthalate	12.96	149	2308099	1601.23	ppb		89
30) Bis (2-ethylhexyl) phthala	13.62	149	3601012	1495.53	ppb		98
31) Di-n-octylphthalate	14.38	149	5789807	1638.36	ppb		100

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

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y068.D Vial: 68
Acq On : 1 Jul 15 2:16 Operator: MA
Sample : AZ17444S05 MSD-1 1/30.34G Inst : Yoda
Misc : soil Multiplr: 32.96

Quant Time: Jul 2 13:44 2015 Quant Results File: Y0625TT.RES

Quant Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:38:00 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.33	152	667057	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.76	136	3056600	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.78	164	1818977	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	10.51	188	3322355	40.00	ppb		-0.01
27) Chrysene-D12(IS)	13.61	240	3047297	40.00	ppb		0.00
32) Perylene-D12(IS)	15.43	264	1888585	40.00	ppb		-0.01
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.80	112	3534324	4882.72	ppb		0.00
Spiked Amount 6591.958			Recovery =	74.071%			
3) Phenol-D6 (S)	4.92	99	5085416	5688.28	ppb		0.00
Spiked Amount 6591.958			Recovery =	86.291%			
8) Nitrobenzene-D5(S)	5.95	82	2528761	2781.52	ppb		0.00
Spiked Amount 3295.979			Recovery =	84.391%			
16) 2-Fluorobiphenyl(S)	7.99	172	3909379	2086.00	ppb		-0.01
Spiked Amount 3295.979			Recovery =	63.289%			
22) 2,4,6-Tribromophenol(S)	9.70	330	853048	4693.02	ppb		0.00
Spiked Amount 6591.958			Recovery =	71.193%			
28) Terphenyl-D14(S)	12.38	244	5607675	2407.91	ppb		0.00
Spiked Amount 3295.979			Recovery =	73.056%			
Target Compounds							Qvalue
4) Phenol	4.93	94	1477868	1334.29	ppb		93
5) 1,4-DCB	5.51	146	1033954	1129.99	ppb		97
6) n-Nitrosodi-n-propylamine	5.78	43	1212101	1507.15	ppb	#	60
9) 2-Nitrophenol	6.32	139	621763	1300.82	ppb		90
10) 2,4-Dichlorophenol	6.85	162	952897	1263.26	ppb		98
11) Hexachlorobutadiene	6.91	225	478266	1052.10	ppb		100
12) 4-Chloro-3-methylphenol	7.39	107	985796	1240.85	ppb	#	1
14) Hexachlorocyclopentadiene	7.75	237	264623	594.71	ppb		99
15) 2,4,6-Trichlorophenol	7.89	196	720688	1242.66	ppb		96
17) Dimethyl phthalate	8.46	163	2689511	1295.34	ppb		96
18) Acenaphthene	8.11	154	2776002	1213.81	ppb	#	45
19) 2,4-Dinitrophenol	8.84	184	106899	549.94	ppb	#	20
20) 4-Nitrophenol	8.92	65	608639	1447.99	ppb	#	1
21) Diethyl phthalate	9.29	149	2580016	1286.77	ppb		98
24) n-Nitrosodiphenylamine	10.79	167	3783064	1291.30	ppb		99
25) Pentachlorophenol	10.28	266	454057	1331.61	ppb		97
26) Di-n-butylphthalate	11.20	149	4726416	1455.53	ppb		99
29) Butyl benzylphthalate	12.96	149	2206967	1497.20	ppb		98
30) Bis (2-ethylhexyl) phthala	13.63	149	3531275	1438.93	ppb		99
31) Di-n-octylphthalate	14.38	149	5550162	1538.45	ppb		100

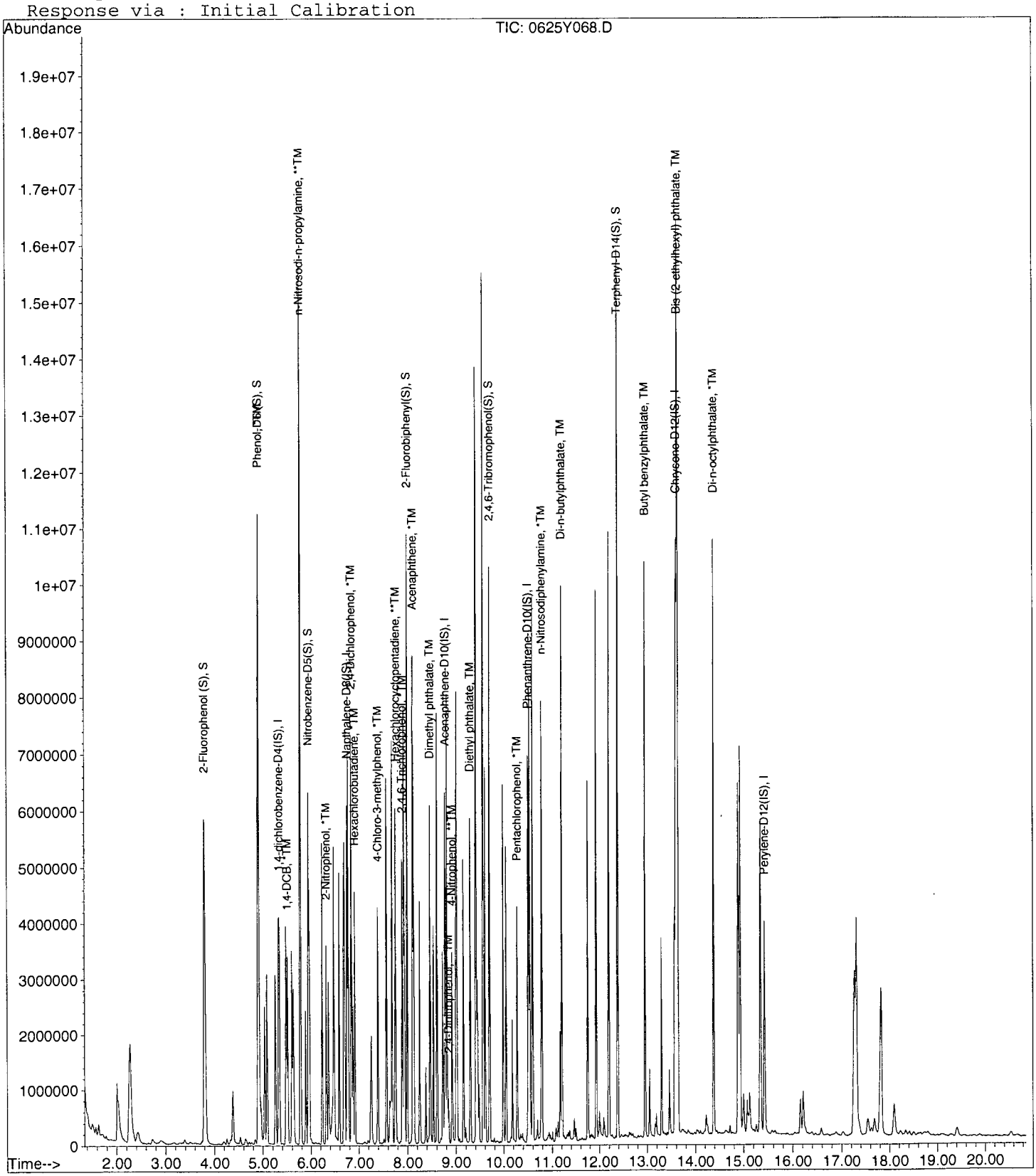
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y068.D Vial: 68
Acq On : 1 Jul 15 2:16 Operator: MA
Sample : AZ17444S05 MSD-1 1/30.34G Inst : Yoda
Misc : soil Multiplr: 32.96

Quant Time: Jul 2 13:44 2015 Quant Results File: Y0625TT.RES

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Thu Jul 02 13:50:54 2015
Response via : Initial Calibration



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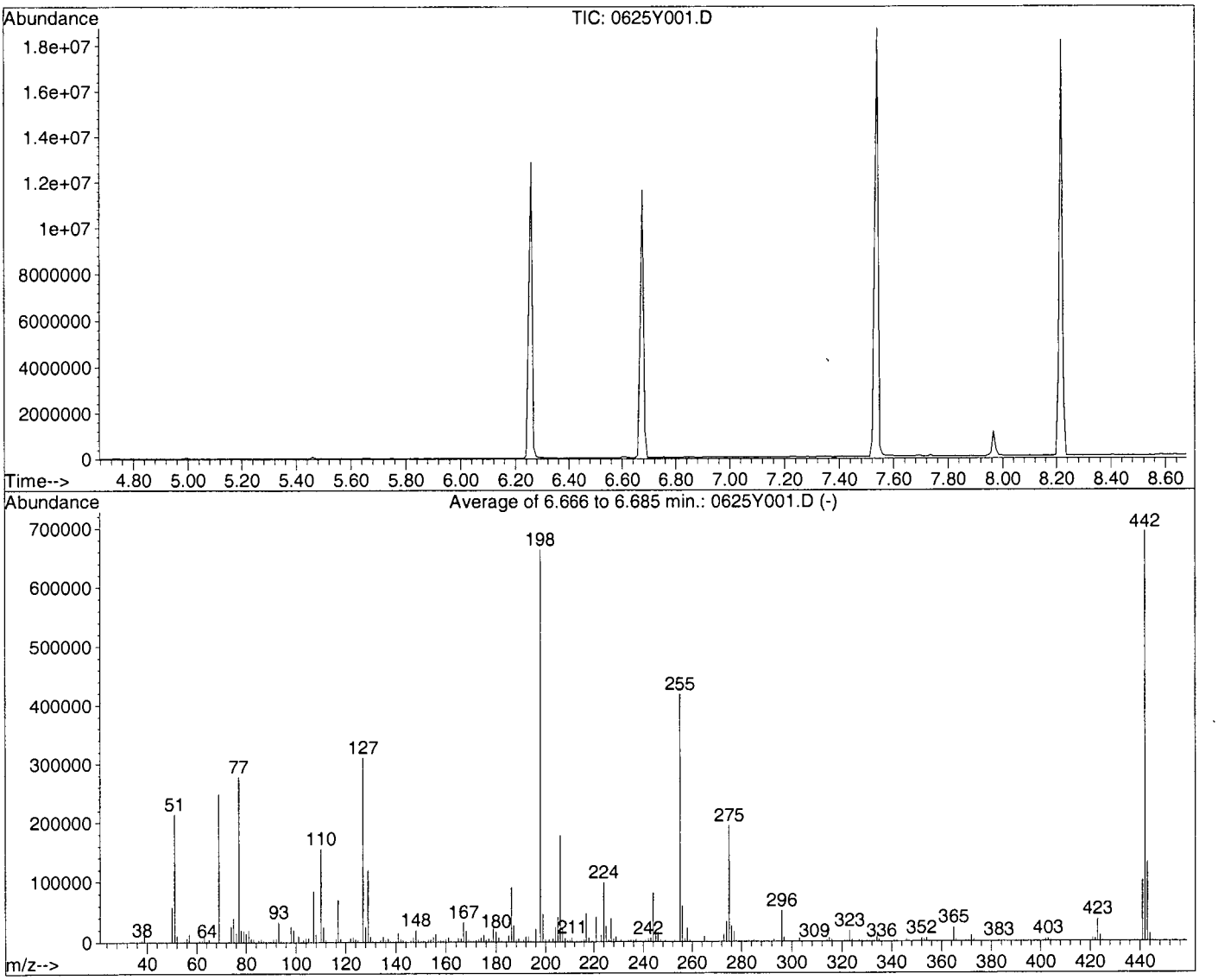
DFTPP

Data File : M:\YODA\DATA\Y150625\0625Y001.D Vial: 1
Acq On : 25 Jun 15 10:01 Operator: MA
Sample : SV Tune 5/14/15 Inst : Yoda
Misc : Multiplr: 1.00

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C



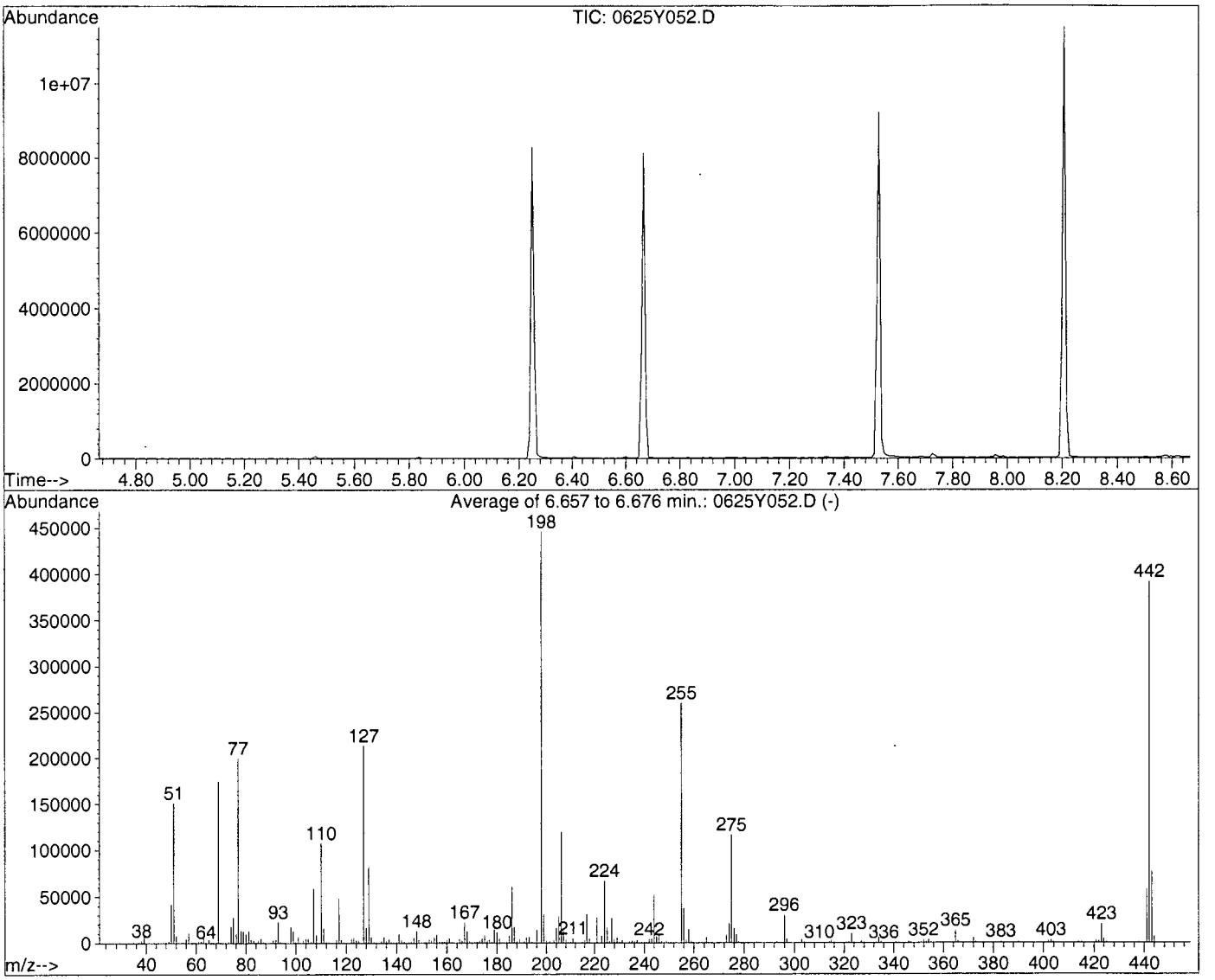
AutoFind: Scans 332, 333, 334; Background Corrected with Scan 329

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	32.3	214274	PASS
68	69	0.00	2	0.0	108	PASS
70	69	0.00	2	0.3	868	PASS
127	198	40	60	46.7	310460	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	664293	PASS
199	198	5	9	6.9	45726	PASS
275	198	10	30	29.2	193880	PASS
365	198	1	100	3.5	22928	PASS
441	443	0.01	100	77.0	101226	PASS
442	198	40	150	104.5	694019	PASS
443	442	17	23	19.0	131530	PASS

DFTPP

Data File : M:\YODA\DATA\Y150625\0625Y052.D Vial: 52
Acq On : 30 Jun 15 18:35 Operator: MA
Sample : SV TUNE 5/14/15 Inst : Yoda
Misc : Multiplr: 1.00

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C



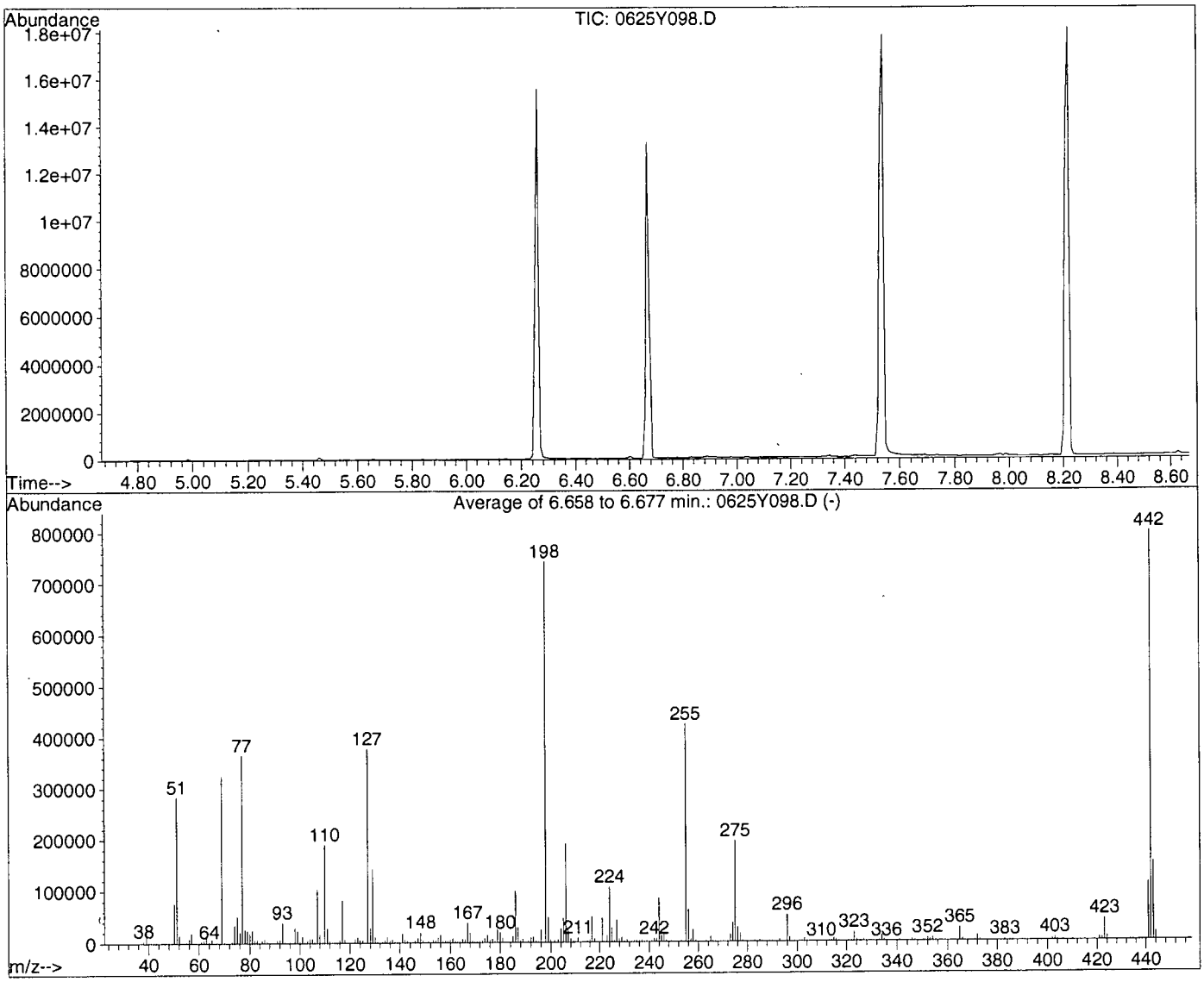
Spectrum Information: Average of 6.657 to 6.676 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	33.8	150897	PASS
68	69	0.00	2	0.1	149	PASS
70	69	0.00	2	0.5	873	PASS
127	198	40	60	47.8	213379	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	446125	PASS
199	198	5	9	6.8	30505	PASS
275	198	10	30	26.0	115936	PASS
365	198	1	100	2.9	13043	PASS
441	443	0.01	100	75.3	57359	PASS
442	198	40	150	87.7	391283	PASS
443	442	17	23	19.5	76141	PASS

Data File : M:\YODA\DATA\Y150625\0625Y098.D
Acq On : 6 Jul 15 15:11
Sample : SV TUNE 5/14/15
Misc : soil

Vial: 98
Operator: MA
Inst : Yoda
Multiplr: 1.00

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 331, 332, 333; Background Corrected with Scan 329

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	38.1	283459	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	2003	PASS
127	198	40	60	50.8	377448	PASS
197	198	0.00	1	0.1	477	PASS
198	198	100	100	100.0	743040	PASS
199	198	5	9	6.4	47873	PASS
275	198	10	30	26.2	194696	PASS
365	198	1	100	3.4	25290	PASS
441	443	0.01	100	73.9	110743	PASS
442	198	40	150	107.7	799948	PASS
443	442	17	23	18.7	149900	PASS

INDOXACARB CURVE											
Prep: 5/14/15 Ex: 7/31/15-L.H.											
Supplier	**ID#**	**ug/mL**	**LOT#**	**DATE**	**EXP.DATE**	**µL**	**µL**	**µL**	**µL**	**µL**	**µL**
INDOXACARB STD.		1		07/31/14	07/31/15	5	50	100	150	200	250
						995	950	900	850	800	750
	Hexane		051914A		**FINAL VOL**	1000	1000	1000	1000	1000	1000

8270 Full Scan Second Source Stock						
	5/14/15-L.H.					
8270 Second Source Stock						
Exp:	7/21/15					
		Conc.		Date	Exp.	
Supplier	ID #	µg/mL	Lot #	Code	Date	µL
o2si	116070-02	2000	34696-3398	5/14/15	5/14/16	1000
o2si	110391-01	2000	34693-3401	5/14/15	5/14/16	1000
o2si	010337-01	1000	17950-3514	5/14/15	11/14/15	1000
o2si	110396-01	2000	34698-3515	5/14/15	5/14/16	1000
o2si	110397-01	2000	50011-3505	5/14/15	7/21/15	1000
o2si	110393-01	2000	34694-3515	5/14/15	5/14/16	1000
o2si	110394-01	2000	35110-3515	5/14/15	5/14/16	1000
o2si	**110395-01**	2000	34697-3402	5/14/15	5/14/16	1000
o2si	110392-01	2000	18075-3397	5/14/15	5/14/16	1000
EM Science	Methylene Chloride		55006	11/06/14		1000
				Final Vol.		10000

Semivolatile (SV) Tuning Solution -L.H.						
PREP DATE:	5/14/15					
Semivolatile (SV) Tune Solution 50ug/ml						
Exp:	5/14/16					
		Conc.		Date		
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
Ultra Scient	Semivolatile	1000	CL-5063-3518	05/14/15	5/14/16	1000
EM Science	Methylene Chloride		47186	11/06/14		19000
				Final Vol.		20000

8270 Full Scan Standard Curve													
PREP DATE:	06/25/15-L.H.												
8270 Standard Curve													
Exp:	07/02/15					5	10	20	40	50	60	80	100
		Conc.		Date									
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL	µL	µL	µL	µL	µL	µL	µL
Absolute	8270 Stock	200	VAR	04/27/15	10/27/15	5	5	10	20	25	30	40	50
o2si	8270 BN:A (2	VAR	242352-34963	06/25/15	6/25/16	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	XA10079V-34496	05/21/15	5/21/16	4	2	2	2	2	2	2	2
				Final Vol.		204	102	102	102	102	102	102	102

		504/8011 SS STOCK				
Prep: 06/25/15-L.H. Ex: 12/25/15						
Compound	Initial Conc.	Source	Aliquot	Final Vol.	Final Conc.	Solvent
EDB	200ug/mL	Absolute	44uL	25mL	0.35ug/mL	Methanol
TCP		CAT 30096				070913A
DBCP		Lot 010615-34591				
		open 1/19/15				
		exp 1/19/16				

		504/8011 SS				
Prep: 06/25/15-L.H. Ex: 09/25/15						
Compound	Initial Conc.	Source	Aliquot	Final Vol.	Final Conc.	Solvent
EDB	0.35ug/mL	504/8011 SPIKE	1000uL	10mL	0.035ug/mL	Methanol
TCP		prep. 06/25/15				070913A
DBCP		Exp: 12/25/15				

	504/8011 SURROGATE					
Prep: 06/25/15-L.H. Ex: 09/25/15						
Compound	Initial Conc.	Source	Aliquot	Final Vol.	Final Conc.	Solvent
1,3 DBP	100	1,3 DBP STOCK	35ul	10mL	0.35ug/mL	Methanol
		prep.12/23/14				070913A
		exp. 12/23/15				

504/8011 M STD STOCK						
Prep: 06/25/15-L.H.		Ex: 12/16/15				
Compound	Initial Conc.	Source	Aliquot	Final Vol.	Final Conc.	Solvent
EDB	20ug/mL	504/DOHS STOCK	438uL	25mL	0.35ug/mL	Methanol
TCP		prep. 12/16/14				070913A
DBCP		exp 12/16/15				
1,3 DBP	100ug/mL	1,3 DBP STOCK	88uL			
		prep.12/23/14				
		exp. 12/23/15				

8270 Full Scan Second Source (SS)						
PREP DATE:	06/25/15-L.H.	EX. 07/02/15				
		Conc.		Date		
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
o2si	8270 Stock S	200	VAR	05/14/15	7/21/15	25
EM Science	Methylene Chloride		54200	11/06/14		75
Supelco	SV Internal	2000	A10079V-3449	05/21/15	5/21/16	2
				Final Vol.		102

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04/27/15
asc

GC/MS STANDARD PREPARATION BOOK # L PAGE

PREP DATE:	04/27/15					
8270 Stock/Spike Standard						
Exp:	**10/27/15**					
		Conc.				
Supplier	ID #	µg/mL	Lot #	Open Date	Exp.Date	µL
Absolute	10001	2000	053014-34968	04/01/15	05/03/17	1000
Absolute	10001	2000	053014-34967	04/01/15	05/03/17	1000
Absolute	10001	2000	053014-34966	04/01/15	05/03/17	1000
Absolute	10002	2000	111114-34973	04/01/15	11/11/17	1000
Absolute	10002	2000	111114-34972	04/01/15	11/11/17	1000
Absolute	10002	2000	111114-34971	04/01/15	11/11/17	1000
Absolute	10004	2000	010815-34978	04/01/15	01/08/20	1000
Absolute	10004	2000	010815-34977	04/01/15	01/08/20	1000
Absolute	10004	2000	010815-34976	04/01/15	01/08/20	1000
Absolute	10005	2000	110314-34983	04/01/15	11/03/19	1000
Absolute	10005	2000	110314-34982	04/01/15	11/03/19	1000
Absolute	10005	2000	110314-34981	04/01/15	11/03/19	1000
Absolute	10006	2000	031715-34988	04/01/15	03/17/18	1000
Absolute	10006	2000	031715-34987	04/01/15	03/17/18	1000
Absolute	10006	2000	031715-34986	04/01/15	03/17/18	1000
Absolute	10007	2000	020515-34993	04/01/15	02/05/20	1000
Absolute	10007	2000	020515-34992	04/01/15	02/05/20	1000
Absolute	10007	2000	020515-34991	04/01/15	02/05/20	1000
Absolute	10018	2000	020315-34998	04/01/15	02/03/20	1000
Absolute	10018	2000	020315-34997	04/01/15	02/03/20	1000
Absolute	10018	2000	020315-34996	04/01/15	02/03/20	1000
Absolute	70023	1000	112114-35003	04/01/15	11/21/19	1000
Absolute	70023	1000	112114-35002	04/01/15	11/21/19	1000
Absolute	70023	1000	112114-35001	04/01/15	11/21/19	1000
Absolute	82705	2000	031215-35008	04/01/15	03/12/18	1000
Absolute	82705	2000	031215-35007	04/01/15	03/12/18	1000
Absolute	82705	2000	031215-35006	04/01/15	03/12/18	1000
Absolute	94552	2000	082914-35013	04/01/15	08/29/19	1000
Absolute	94552	2000	082914-35012	04/01/15	08/29/19	1000
Absolute	94552	2000	082914-35011	04/01/15	08/29/19	1000
				Final Vol.		30000

04/21/15
csc

PREP DATE:	04/21/15					
8270 Continuing Calibration Verification 50ug/ml						**50**
Exp:	04/28/15					
		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 Surrogate	VAR	237956-34559	02/27/15	10/08/16	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

04/21/15
csc

PREP DATE:	04/21/15					
8270 Continuing Calibration Verification 50ug/ml						**50**
Exp:	04/28/15					
		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 Surrogate	VAR	237956-34559	02/27/15	10/08/16	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

	504/8011 M STD					
Prep: 06/25/15-L.H. Ex: 09/25/15						
Compound	**Initial Conc.**	**Source**	**Aliquot**	**Final Vol.**	**Final Conc.**	**Solvent**
EDB	0.35ug/mL	4/8011 M STD S	1000uL	10mL	0.035ug/mL	Methanol
TCP		prep.06/25/15				070913A
DBCP		exp: 12/16/15				
1,3 DBP						

8270 BNA Surrogate Stock 6/25/15-L.H. Ex: 6/25/16						
		Conc.				
Supplier	ID #	µg/mL	Lot #	Open Date	Exp.Date	µL
O2SI	110004-17	200/400	242352-34955	5/25/15	5/25/16	1000

SV Internal Stanard Stock Prep: 05/21/15-L.H. Ex: 5/21/16						
		Conc.				
Supplier	ID #	µg/mL	Lot #	Open Date	Exp.Date	µL
Supleco	CRM48902	2000	XA10079V-34489	5/21/15	5/21/16	1000

8270 BNA Surrogate Stock 5/21/15-L.H. Ex: 5/21/16						
		Conc.				
Supplier	ID #	µg/mL	Lot #	Open Date	Exp.Date	µL
O2SI	110004-17	200/400	242352-34956	5/21/15	5/21/16	1000

PREP DATE	05/21/15-L.H.					
8270 Lv. 1						
Exp:	05/28/15					5
		Conc.		Date		
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
Absolute	8270 Stock	200	VAR	04/27/15	10/27/15	5
o2si	8270 BN:A (200:400)	VAR	242352-34956	05/21/15	05/21/16	5
EM Science	Methylene Chloride		54200	11/06/14		190
Supelco	SV Internal S	2000	10079V-344	05/21/15	5/21/16	4
				Final Vol.		204

		AR 1254 CALIBRATION CURVE					
AR1254 STANDARD		Prep:4/16/15-L.H.					
		Exp: 10/1/15					
		final				Final Vol.	
	initial	conc.		Aliquot		Solvent	Solvent
LEVELS ID	conc.	(ug/ml)		(uL)			(ml)
LEVEL 10	1ug/ml	0.010		10 µL			1.0
LEVEL 50		0.050		50 µL		HEXANE	1.0
LEVEL 100		0.100		100 µL			1.0
LEVEL 250		0.250		250 µL		LOT #05191	1.0
LEVEL 1000		1.000		100 µL			1.0

MITC CURVE Prep: 5/21/15-L.H. Ex: 6/11/15												
						1	2	3	4	5	6	7
SUPPLIER	**ID#**	**ug/mL**	**LOT #**	**DATE**	**EXP.**	mL	mL	mL	mL	mL	mL	mL
					Final Conc.	0.02	0.13	0.25	1	2.5	3.5	5
	MITC STD	5		05/05/15	06/11/15	4	25	50	20	50	70	100
VWR	ETHYL ACETATE		043014E			996	975	950	80	50	30	N/A
					Final VOL.	1000	1000	1000	100	100	100	100

Prep: 5/21/15 Exp: 8/21/15 GA Diesel 400ppm CCV							
STANDARD	**INITIAL CONC.**	**SOURCE D**	**ALIQUOT**	**FINAL VOL**	**FINAL CONC**	**SOLVENT**	
DIESEL STD.	1000 µg/mL	Diesel Std.	2000µL	5mL	400 µg/ml	MC	
STANDARD	Prep:	12/05/14				55006	
DIESEL STD.	Exp:	11/24/15					

8270 Full Scan CCV

PREP DATE:	6/30/15-L.H.					
8270 Continuing Calibration Verification 50ug/ml						
Exp:	07/04/15					**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 (2	VAR	248285-35024	06/25/15	6/25/16	25
EM Science	Methylene Chloride		55006	11/06/14		50
Supelco	SV Internal	2000	A10079V-3449	05/21/15	5/21/16	2

8270 PAH SIM CCV

PREP DATE:	06/30/15-LH					
8270 PAH SIM Continuing Calibration Verification 5ug/ml						
Exp.DATE:	07/07/15					**5**
		Conc.		Date	Exp.	
Supplier	ID #	µg/mL	Lot #	Code	Date	µL
o2si	8270 PAH SIM	200	230271-34569	06/18/15	6/18/16	5
o2si	8270 BN:A (2	VAR	248285-35024	06/25/15	6/25/16	5
EM Science	Methylene Chloride		54200	11/06/14		190
Supelco	SIM SV Inter	125	A10079V-3449	06/01/15	12/1/15	4
				Final Vol.		204

8270 PAH SIM CCV						
PREP DATE:	07/06/15-LH					
8270 PAH SIM Continuing Calibration Verification 5ug/ml						
Exp.DATE:	07/15/15					5
		Conc.		Date	Exp.	
Supplier	ID #	µg/mL	Lot #	Code	Date	µL
o2si	8270 PAH SIM	200	230271-34569	06/18/15	6/18/16	5
o2si	8270 BN:A (2	VAR	248285-35024	06/25/15	6/25/16	5
EM Science	Methylene Chloride		54200	11/06/14		190
Supelco	SIM SV Inter	125	A10079V-3449	06/01/15	12/1/15	4
				Final Vol.		204

MOTOR OIL CCV 1000ppm						
Prep: 07/06/15-L.H. Ex: 01/06/16						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
MO STD.	2000 µg/mL	MO Std.	2500µL	5mL	1000 µg/ml	MC
	PREP:	05/08/15				55006
	Exp:	05/08/16				

DIESEL CCV 400ug/ml						
Prep: 07/06/15-L.H. Ex: 01/06/16						
STANDARD	INITIAL CONC.	SOURCE DATE	ALIQUOT	FINAL VOL	FINAL CONC.	SOLVENT /LOT#
DIESEL STD.	1000 µg/mL	Diesel Std.	2000µL	5mL	400 µg/ml	MC
	PREP:	06/12/15				55006
	Exp:	06/02/16				

8270 Full Scan CCV						
PREP DATE:	07/06/15-L.H.					
8270 Continuing Calibration Verification 50ug/ml						
Exp:	07/15/15					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 (2	VAR	248285-35024	06/25/15	6/25/16	25
EM Science	Methylene Chloride		55006	11/06/14		50
Supelco	SV Internal	2000	A10079V-3449	05/21/15	5/21/16	2

Diesel Spike
Source: o2si
Cat: 011598-01
Lot: 247469-34942
Op: 7/6/15-L.H.
Ex: 7/6/16

Organic Extraction Worksheet

Method	8270 Sonication Ext. Methylene c 3550	Extraction Set	150622A	Extraction Method	SON009	Units	mL

Spiked ID 1	8270T Spike 4-27-15 EXP 10-27-15	Surrogate ID 1	8270 Surrogate 248398-35192	
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:	06/22/15 9:15	
Spiked ID 8		Ext. End Time:	06/23/15 8:45	
		GC Requires Extract By:	**07/02/15 0:00**	

pH1			Water Bath Temp Criteria	79,81 °C
pH2				
pH3				

Spiked By: IC **Date** 06/22/15 **Witnessed By:** DC **Date** 06/22/15

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	150622A Blk				1	1 equip	30.10g E-WB7	1	NA	06/22/15 9:15	
2	150622A LCS-1		0.250	1	1	1 equip	30.24g E-WB7	1	NA	06/22/15 9:15	
3	AZ17433	AZ17433S03			1	1 equip	30.05g E-WB7	1	NA	06/22/15 9:15	76624
4	AZ17434	AZ17434S02			1	1 equip	30.24g E-WB7	1	NA	06/22/15 9:15	76624
5	AZ17435	AZ17435S03			1	1 equip	30.30g E-WB7	1	NA	06/22/15 9:15	76624
6	AZ17436	AZ17436S02			1	1 equip	30.72g E-WB7	1	NA	06/22/15 9:15	76624
7	AZ17437	AZ17437S03			1	1 equip	30.51g E-WB7	1	NA	06/22/15 9:15	76624
8	AZ17438	AZ17438S01			1	1 equip	30.37g E-WB7	1	NA	06/22/15 9:15	76624
9	AZ17439	AZ17439S03			1	1 equip	30.05g E-WB6	1	NA	06/22/15 9:15	76624
10	AZ17440	AZ17440S01			1	1 equip	30.16g E-WB6	1	NA	06/22/15 9:15	76624
11	AZ17441	AZ17441S02			1	1 equip	30.54g E-WB6	1	NA	06/22/15 9:15	76624
12	AZ17442	AZ17442S02			1	1 equip	30.45g E-WB6	1	NA	06/22/15 9:15	76624
13	AZ17443	AZ17443S01			1	1 equip	30.74g E-WB6	1	NA	06/22/15 9:15	76624
14	AZ17444 MS-1	AZ17444S05	0.250	1	1	1 equip	30.36g E-WB6	1	NA	06/22/15 9:15	76624
15	AZ17444 MSD-1	AZ17444S05	0.250	1	1	1 equip	30.34g E-WB6	1	NA	06/22/15 9:15	76624
16	AZ17444	AZ17444S05			1	1 equip	30.35g E-WB6	1	NA	06/22/15 9:15	76624

Solvent and Lot#	
B.Na2SO4	XE21E
MC	55006
Filter Paper	9624720
Acidified Na2SO4	5-20-15

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	LH
Date	6/23/15
Time	10:32
Refrigerator	GCC

	Technician's Initials
Scanned By	KY
Sample Preparation	KY
Extraction	IC
Concentration	IC

Modified	06/23/15 9:10:38 AM

Reviewed By: KY **Date** 6/23/15

Organic Extraction Worksheet

Method	8270 Sonication Ext. Methylene c 3550	Extraction Set	150622A	Extraction Method	SON009	Units	mL

Spiked ID 1	8270T Spike 4-27-15 EXP 10-27-15		Surrogate ID 1	8270 Surrogate 248398-35192	
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:	06/22/15 9:15	
Spiked ID 8			Ext. End Time:	06/23/15 8:45	
			GC Requires Extract By:	**07/02/15 0:00**	

pH1			Water Bath Temp Criteria	79,81 °C
pH2				
pH3				

Spiked By: IC **Date** 06/22/15 **Witnessed By:** DC **Date** 06/22/15

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ17445	AZ17445S02			1	1	30.03g	1	NA	06/22/15 9:15	76624
						equip	E-WB7				
18	AZ17446	AZ17446S03			1	1	30.20g	1	NA	06/22/15 9:15	76624
						equip	E-WB7				
19	AZ17447	AZ17447S02			1	1	30.04g	1	NA	06/22/15 9:15	76624
						equip	E-WB7				

KY 6/23/15

Solvent and Lot#	
Na2SO4	XE21E
MC	55006
Filter Paper	9624720
Acidified Na2SO4	5-20-15

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	LH
Date	6/23/15
Time	10:32
Refrigerator	GC-C

	Technician's Initials
Scanned By	KY
Sample Preparation	KY
Extraction	IC
Concentration	IC

Modified	06/23/15 9:10:38 AM

Reviewed By: Ky **Date** 6/23/15

_SON009

Organic Extraction Worksheet

Method	8270 Sonication Ext. Methylene c 3550	Extraction Set	150702A	Extraction Method	SON009	Units	mL

Spiked ID 1	8270T Spike 4-27-15 exp 10-27-15		Surrogate ID 1	8270 Surrogate 248398-35198	
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:	NO	
Spiked ID 7			Ext. Start Time:	07/02/15 10:00	
Spiked ID 8			Ext. End Time:	07/02/15 14:00	
			GC Requires Extract By:	**07/02/15 0:00**	

pH1			Water Bath Temp Criteria	80 °C
pH2				
pH3				

Spiked By: DL **Date** 07/02/15 **Witnessed By:** CFM **Date** 07/02/15

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	150702A Blk				1	1 equip	30.86g E-S1.1 E-WB7	1	NA	07/02/15 10:00	
2	150702A LCS-1		0.250	1	1	1 equip	30.57g E-S6 E-WB7	1	NA	07/02/15 10:00	
3	AZ17434	AZ17434S02			1	1 equip	30.28g E-S5 E-WB7	1	NA	07/02/15 14:37	76624
4	AZ17443	AZ17443S01			1	1 equip	30.05g E-S4 E-WB7	1	NA	07/02/15 14:37	76624
5	AZ17819	AZ17819S02			1	1 equip	30.24g E-S7 E-WB7	1	NA	07/02/15 10:00	76674

KY 7/2/15

Solvent and Lot#	
3.Na2SO4	XE21E
MC	55006
Filter Paper	9624720
Acidified Na2SO4	5-20-15

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	LH
Date	7/2/15
Time	4:50
Refrigerator	GC-C

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	IC
Concentration	IC

Modified	07/02/15 2:39:15 PM

Reviewed By: KY **Date** 7/2/15

7/02/15 3:52:00 PM Ext_ID 16748293

Injection Log

Directory: M:\YODA\DATA\Y150625

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0625Y001.D	1	SV Tune 5/14/15		06/25/2015 10:01
2	2	0625Y002.D	1	5ug/ml SVOC 06/25/15		06/25/2015 10:20
3	3	0625Y003.D	1	10ug/ml SVOC 06/25/15		06/25/2015 10:49
4	4	0625Y004.D	1	20ug/ml SVOC 06/25/15		06/25/2015 11:18
5	5	0625Y005.D	1	40ug/ml SVOC 06/25/15		06/25/2015 11:48
6	6	0625Y006.D	1	50ug/ml SVOC 06/25/15		06/25/2015 12:17
7	7	0625Y007.D	1	60ug/ml SVOC 06/25/15		06/25/2015 12:47
8	8	0625Y008.D	1	80ug/ml SVOC 06/25/15		06/25/2015 13:17
9	9	0625Y009.D	1	100ug/ml SVOC 06/25/15		06/25/2015 13:46
10	10	0625Y010.D	1	50ug/ml SVOC SS 06/25/15		06/25/2015 14:15
11	52	0625Y052.D	1	SV TUNE 5/14/15		06/30/2015 18:35
12	53	0625Y053.D	1	CCV 50ug/ml SVOC 06/30/15		06/30/2015 18:54
13	54	0625Y054.D	33.22259	150622A BLK 1/30.10G	soil	06/30/2015 19:23
14	55	0625Y055.D	33.06878	150622A LCS-1 1/30.24G	soil	06/30/2015 19:53
15	56	0625Y056.D	33.27787	AZ17433S03 1/30.05G	soil	06/30/2015 20:23
16	57	0625Y057.D	33.06878	AZ17434S02 1/30.24G	soil	06/30/2015 20:52
17	58	0625Y058.D	33.0033	AZ17435S03 1/30.30G	soil	06/30/2015 21:22
18	59	0625Y059.D	32.55208	AZ17436S02 1/30.72G	soil	06/30/2015 21:51
19	60	0625Y060.D	32.77614	AZ17437S03 1/30.51G	soil	06/30/2015 22:21
20	61	0625Y061.D	32.92723	AZ17438S01 1/30.37G	soil	06/30/2015 22:50
21	62	0625Y062.D	33.27787	AZ17439S03 1/30.05G	soil	06/30/2015 23:20
22	63	0625Y063.D	33.1565	AZ17440S01 1/30.16G	soil	06/30/2015 23:49
23	64	0625Y064.D	32.74394	AZ17441S02 1/30.54G	soil	07/01/2015 00:19
24	65	0625Y065.D	32.84072	AZ17442S02 1/30.45G	soil	07/01/2015 00:48
25	66	0625Y066.D	32.5309	AZ17443S01 1/30.74G	soil	07/01/2015 01:18
26	67	0625Y067.D	32.93808	AZ17444S05 MS-1 1/30.36G	soil	07/01/2015 01:47
27	68	0625Y068.D	32.95979	AZ17444S05 MSD-1 1/30.34G	soil	07/01/2015 02:16
28	69	0625Y069.D	32.94893	AZ17444S05 1/30.35G	soil	07/01/2015 02:46
29	70	0625Y070.D	33.30003	AZ17445S02 1/30.03G	soil	07/01/2015 03:15
30	71	0625Y071.D	33.11258	AZ17446S03 1/30.20G	soil	07/01/2015 03:45
31	72	0625Y072.D	33.28895	AZ17447S02 1/30.04G	soil	07/01/2015 04:14
32	98	0625Y098.D	1	SV TUNE 5/14/15	soil	07/06/2015 15:11
33	99	0625Y099.D	1	CCV 50ug/ml SVOC 07/06/15	soil	07/06/2015 15:29
34	1	0625Y101.D	32.4044	150702A BLK 1/30.86G	soil	07/06/2015 17:21
35	2	0625Y102.D	32.7118	150702A LCS-1 1/30.57G	soil	07/06/2015 17:51
36	3	0625Y103.D	33.0251	AZ17434S02 1/30.28G	soil	07/06/2015 18:21
37	4	0625Y104.D	33.2779	AZ17443S01 1/30.05G	soil	07/06/2015 18:52

EPA METHOD 8270D
Polynuclear Aromatic Hydrocarbons

APPL, INC.

EPA METHOD 8270D
Polynuclear Aromatic Hydrocarbons
QC Summary

APPL, INC.

Method Blank
EPA 8270D LL SOILS

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150622S-17444 - 198579**
Batch ID: #SIMDD-150622A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-METHYLNAPHTHALENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	06/30/15
BLANK	ACENAPHTHENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	06/22/15	06/30/15
BLANK	ACENAPHTHYLENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	06/30/15
BLANK	ANTHRACENE	0.0017 U	0.005	0.0017	0.0008	mg/kg	06/22/15	06/30/15
BLANK	BENZ (A) ANTHRACENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	06/30/15
BLANK	BENZO (A) PYRENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	06/30/15
BLANK	BENZO (B) FLUORANTHENE	0.0017 U	0.005	0.0017	0.0011	mg/kg	06/22/15	06/30/15
BLANK	BENZO (G,H,I) PERYLENE	0.0017 U	0.005	0.0017	0.0013	mg/kg	06/22/15	06/30/15
BLANK	BENZO (K) FLUORANTHENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	06/22/15	06/30/15
BLANK	CHRYSENE	0.0017 U	0.005	0.0017	0.0008	mg/kg	06/22/15	06/30/15
BLANK	DIBENZ (A,H) ANTHRACENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	06/30/15
BLANK	FLUORANTHENE	0.0017 U	0.005	0.0017	0.0012	mg/kg	06/22/15	06/30/15
BLANK	FLUORENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	06/22/15	06/30/15
BLANK	INDENO (1,2,3-CD) PYRENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	06/30/15
BLANK	NAPHTHALENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	06/30/15
BLANK	PHENANTHRENE	0.0017 U	0.005	0.0017	0.0011	mg/kg	06/22/15	06/30/15
BLANK	PYRENE	0.0017 U	0.005	0.0017	0.0012	mg/kg	06/22/15	06/30/15
BLANK	SURROGATE: 2-FLUORBIPHENY	56.6	45-105			%	06/22/15	06/30/15
BLANK	SURROGATE: NITROBENZENE-	35.5	35-100			%	06/22/15	06/30/15
BLANK	SURROGATE: TERPHENYL-D14 (	79.1	30-125			%	06/22/15	06/30/15

Quant Method:P0629.M
Run #:0629L041
Instrument:Linus
Sequence:L150629
Initials:MA

GC SC-Blank-REG MDLs
Printed: 07/02/15 4:54:42 PM

Method Blank

EPA 8270D LL SOILS RE-EXTRACT

Blank Name/QCG: **150706S-17436 - 198646**
Batch ID: #SIMDD-150706A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-METHYLNAPHTHALENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/06/15	07/07/15
BLANK	ACENAPHTHENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	07/06/15	07/07/15
BLANK	ACENAPHTHYLENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/06/15	07/07/15
BLANK	ANTHRACENE	0.0017 U	0.005	0.0017	0.0008	mg/kg	07/06/15	07/07/15
BLANK	BENZ (A) ANTHRACENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/06/15	07/07/15
BLANK	BENZO (A) PYRENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/06/15	07/07/15
BLANK	BENZO (B) FLUORANTHENE	0.0017 U	0.005	0.0017	0.0011	mg/kg	07/06/15	07/07/15
BLANK	BENZO (G,H,I) PERYLENE	0.0017 U	0.005	0.0017	0.0013	mg/kg	07/06/15	07/07/15
BLANK	BENZO (K) FLUORANTHENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	07/06/15	07/07/15
BLANK	CHRYSENE	0.0017 U	0.005	0.0017	0.0008	mg/kg	07/06/15	07/07/15
BLANK	DIBENZ (A,H) ANTHRACENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/06/15	07/07/15
BLANK	FLUORANTHENE	0.0017 U	0.005	0.0017	0.0012	mg/kg	07/06/15	07/07/15
BLANK	FLUORENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	07/06/15	07/07/15
BLANK	INDENO (1,2,3-CD) PYRENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/06/15	07/07/15
BLANK	NAPHTHALENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/06/15	07/07/15
BLANK	PHENANTHRENE	0.0017 U	0.005	0.0017	0.0011	mg/kg	07/06/15	07/07/15
BLANK	PYRENE	0.0017 U	0.005	0.0017	0.0012	mg/kg	07/06/15	07/07/15
BLANK	SURROGATE: 2-FLUORBIPHENY	59.4	45-105			%	07/06/15	07/07/15
BLANK	SURROGATE: NITROBENZENE-	51.7	35-100			%	07/06/15	07/07/15
BLANK	SURROGATE: TERPHENYL-D14 (	80.0	30-125			%	07/06/15	07/07/15

Quant Method:P0629.M
Run #:0629L202
Instrument:Linus
Sequence:L150629
Initials:MA

GC SC-Blank-REG MDLs
Printed: 07/08/15 9:41:26 AM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 06/30/15

Matrix: SOIL Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-FLUORBIPHENYL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150622A-BLK	Blank	45-105	56.6		35-100	35.5	
150622A-LCS	Lab Control Spike	45-105	53.4		35-100	44.6	
AZ17433	S67-SS031-0001	45-105	66.6		35-100	49.8	
AZ17434	S67-SB031-0203	45-105	52.2		35-100	59.5	
AZ17435	S67-SS039-0001	45-105	66.3		35-100	43.4	
AZ17437	S67-SS038-0001	45-105	67.1		35-100	39.3	
AZ17438	S67-SB038-0203	45-105	57.3		35-100	45.0	
AZ17439	S67-SS033-0001	45-105	67.4		35-100	62.4	
AZ17440	S67-SB033-0203	45-105	64.8		35-100	38.7	
AZ17441	S67-SS040-0001	45-105	72.0		35-100	54.7	
AZ17442	S67-SS040P-0001	45-105	87.4		35-100	60.6	
AZ17444	S67-SS035-0001	45-105	57.9		35-100	38.2	
AZ17445	S67-SB035-0203	45-105	61.2		35-100	42.5	
AZ17446	S67-SS034-0001	45-105	59.5		35-100	49.2	
AZ17436	S67-SB039-0607	45-105	21.6	#	35-100	45.6	
AZ17443	S67-SB040-1516	45-105	39.5	#	35-100	46.1	
AZ17444-MS	Matrix Spike	45-105	67.2		35-100	65.9	
AZ17444-MSD	Matrix SpikeD	45-105	69.5		35-100	71.3	
AZ17447	S67-SB034-0405	45-105	63.0		35-100	51.8	

Comments: Batch: #SIMDD-150622A

= Recovery outside of Control Limits on Sample.

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 06/30/15

Matrix: SOIL Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: TERPHENYL-D14 (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
150622A-BLK	Blank	30-125	79.1				
150622A-LCS	Lab Control Spike	30-125	69.8				
AZ17433	S67-SS031-0001	30-125	78.2				
AZ17434	S67-SB031-0203	30-125	75.1				
AZ17435	S67-SS039-0001	30-125	66.5				
AZ17437	S67-SS038-0001	30-125	76.3				
AZ17438	S67-SB038-0203	30-125	64.6				
AZ17439	S67-SS033-0001	30-125	65.1				
AZ17440	S67-SB033-0203	30-125	73.4				
AZ17441	S67-SS040-0001	30-125	77.7				
AZ17442	S67-SS040P-0001	30-125	94.9				
AZ17444	S67-SS035-0001	30-125	65.2				
AZ17445	S67-SB035-0203	30-125	72.0				
AZ17446	S67-SS034-0001	30-125	66.8				
AZ17436	S67-SB039-0607	30-125	66.7				
AZ17443	S67-SB040-1516	30-125	74.6				
AZ17444-MS	Matrix Spike	30-125	72.5				
AZ17444-MSD	Matrix SpikeD	30-125	75.2				
AZ17447	S67-SB034-0405	30-125	67.9				

Comments: Batch: #SIMDD-150622A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 07/07/15

Matrix: SOIL Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-FLUORBIPHENYL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150706A-BLK	Blank	45-105	59.4		35-100	51.7	
150706A-LCS	Lab Control Spike	45-105	60.2		35-100	58.7	
AZ17436	S67-SB039-0607	45-105	47.9		35-100	71.2	
AZ17443	S67-SB040-1516	45-105	51.3		35-100	68.0	

Comments: Batch: #SIMDD-150706A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 07/07/15

Matrix: SOIL Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: TERPHENYL-D14 (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
150706A-BLK	Blank	30-125	80.0				
150706A-LCS	Lab Control Spike	30-125	75.7				
AZ17436	S67-SB039-0607	30-125	76.0				
AZ17443	S67-SB040-1516	30-125	84.6				

Comments: Batch: #SIMDD-150706A

Laboratory Control Spike Recovery
EPA 8270D LL SOILS

APPL ID: **150622S-17444 LCS - 198579**
Batch ID: #SIMDD-150622A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level mg/kg	SPK Result mg/kg	SPK % Recovery	Recovery Limits
2-METHYLNAPHTHALENE	0.167	0.0825	49.4	45-105
ACENAPHTHENE	0.167	0.0863	51.7	45-110
ACENAPHTHYLENE	0.167	0.0856	51.3	45-105
ANTHRACENE	0.167	0.0975	58.4	55-105
BENZ (A) ANTHRACENE	0.167	0.104	62.3	50-110
BENZO (A) PYRENE	0.167	0.111	66.5	50-110
BENZO (B) FLUORANTHENE	0.167	0.101	60.5	45-115
BENZO (G,H,I) PERYLENE	0.167	0.0957	57.3	40-125
BENZO (K) FLUORANTHENE	0.167	0.0892	53.4	45-125
CHRYSENE	0.167	0.0993	59.5	55-110
DIBENZ (A,H) ANTHRACENE	0.167	0.0989	59.2	40-125
FLUORANTHENE	0.167	0.0947	56.7	55-115
FLUORENE	0.167	0.0885	53.0	50-110
INDENO (1,2,3-CD) PYRENE	0.167	0.101	60.5	40-120
NAPHTHALENE	0.167	0.0676	40.5	40-105
PHENANTHRENE	0.167	0.0917	54.9	50-110
PYRENE	0.167	0.0972	58.2	45-125
SURROGATE: 2-FLUORBIPHENYL (S)	0.083	0.0443	53.4	45-105
SURROGATE: NITROBENZENE-D5 (S)	0.083	0.037	44.6	35-100
SURROGATE: TERPHENYL-D14 (S)	0.083	0.0579	69.8	30-125

Comments: _____

Primary	SPK
Quant Method :	P0629.M
Extraction Date :	06/22/15
Analysis Date :	06/30/15
Instrument :	Linus
Run :	0629L042
Initials :	MA

Printed: 07/08/15 11:06:47 AM
APPL Standard LCS

Laboratory Control Spike Recovery
EPA 8270D LL SOILS RE-EXTRACT

APPL ID: **150706S-17436 LCS - 198646**
Batch ID: #SIMDD-150706A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level mg/kg	SPK Result mg/kg	SPK % Recovery	Recovery Limits
2-METHYLNAPHTHALENE	0.167	0.0957	57.3	45-105
ACENAPHTHENE	0.167	0.0943	56.5	45-110
ACENAPHTHYLENE	0.167	0.0969	58.0	45-105
ANTHRACENE	0.167	0.104	62.3	55-105
BENZ (A) ANTHRACENE	0.167	0.126	75.4	50-110
BENZO (A) PYRENE	0.167	0.124	74.3	50-110
BENZO (B) FLUORANTHENE	0.167	0.117	70.1	45-115
BENZO (G,H,I) PERYLENE	0.167	0.106	63.5	40-125
BENZO (K) FLUORANTHENE	0.167	0.0925	55.4	45-125
CHRYSENE	0.167	0.0975	58.4	55-110
DIBENZ (A,H) ANTHRACENE	0.167	0.108	64.7	40-125
FLUORANTHENE	0.167	0.112	67.1	55-115
FLUORENE	0.167	0.102	61.1	50-110
INDENO (1,2,3-CD) PYRENE	0.167	0.116	69.5	40-120
NAPHTHALENE	0.167	0.0807	48.3	40-105
PHENANTHRENE	0.167	0.104	62.3	50-110
PYRENE	0.167	0.110	65.9	45-125
SURROGATE: 2-FLUORBIPHENYL (S)	0.083	0.050	60.2	45-105
SURROGATE: NITROBENZENE-D5 (S)	0.083	0.0487	58.7	35-100
SURROGATE: TERPHENYL-D14 (S)	0.083	0.0628	75.7	30-125

Comments: _____

Primary	SPK
Quant Method :	P0629.M
Extraction Date :	07/06/15
Analysis Date :	07/07/15
Instrument :	Linus
Run :	0629L203
Initials :	MA

Printed: 07/08/15 9:41:27 AM
APPL Standard LCS

Matrix Spike Recoveries

EPA 8270D LL SOILS

APPL ID: **150622S-17444 MS - 198579**
Batch ID: #SIMDD-150622A
Sample ID: AZ17444
Client ID: S67-SS035-0001

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl mg/kg	Matrix Result mg/kg	SPK Result mg/kg	DUP Result mg/kg	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2-METHYLNAPHTHALENE	0.133	ND	0.108	0.111	81.2	83.5	45-105	2.7	30
ACENAPHTHENE	0.167	ND	0.0996	0.0984	59.6	58.9	45-110	1.2	30
ACENAPHTHYLENE	0.167	ND	0.106	0.105	63.5	62.9	45-105	0.95	30
ANTHRACENE	0.167	0.017	0.107	0.106	53.9 #	53.3 #	55-105	0.94	30
BENZ (A) ANTHRACENE	0.167	0.10	0.148	0.156	28.7 #	33.5 #	50-110	5.3	30
BENZO (A) PYRENE	0.167	0.049	0.148	0.145	59.3	57.5	50-110	2.0	30
BENZO (B) FLUORANTHENE	0.167	0.073	0.154	0.147	48.5	44.3 #	45-115	4.7	30
BENZO (G,H,I) PERYLENE	0.167	0.038	0.118	0.117	47.9	47.3	40-125	0.85	30
BENZO (K) FLUORANTHENE	0.167	ND	0.150	0.146	89.8	87.4	45-125	2.7	30
CHRYSENE	0.167	ND	0.159	0.122	95.2	73.1	55-110	26.3	30
DIBENZ (A,H) ANTHRACENE	0.167	ND	0.110	0.111	65.9	66.5	40-125	0.90	30
FLUORANTHENE	0.167	0.10	0.164	0.150	38.3 #	29.9 #	55-115	8.9	30
FLUORENE	0.167	ND	0.103	0.104	61.7	62.3	50-110	0.97	30
INDENO (1,2,3-CD) PYRENE	0.167	0.034	0.137	0.135	61.7	60.5	40-120	1.5	30
NAPHTHALENE	0.167	ND	0.101	0.102	60.5	61.1	40-105	0.99	30
PHENANTHRENE	0.167	0.050	0.128	0.127	46.7 #	46.1 #	50-110	0.78	30
PYRENE	0.167	0.083	0.158	0.146	44.9 #	37.7 #	45-125	7.9	30
SURROGATE: 2-FLUORBIPHENYL (S)	0.083	NA	0.0558	0.0577	67.2	69.5	45-105		
SURROGATE: NITROBENZENE-D5 (S)	0.083	NA	0.0547	0.0592	65.9	71.3	35-100		
SURROGATE: TERPHENYL-D14 (S)	0.083	NA	0.0602	0.0624	72.5	75.2	30-125		

= Recovery is outside QC limits.

Comments: _____

Primary	SPK	DUP
Quant Method :	P0629.M	P0629.M
Extraction Date :	06/22/15	06/22/15
Analysis Date :	07/02/15	07/02/15
Instrument :	Linus	Linus
Run :	0629L133	0629L134
Initials :	MA	

Printed: 07/02/15 4:54:58 PM
APPL MSD SCII

8270D-LL

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 06/30/15

Matrix: SOIL Instrument: Linus

Blank ID: 150622A-BLK Time Analyzed: 0609

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150622A-BLK	Blank	0629L041	06/30/15 0609
150622A-LCS	Lab Control Spike	0629L042	06/30/15 0636
AZ17433	S67-SS031-0001	0629L043	06/30/15 0703
AZ17434	S67-SB031-0203	0629L044	06/30/15 0730
AZ17435	S67-SS039-0001	0629L045	06/30/15 0757
AZ17437	S67-SS038-0001	0629L047	06/30/15 0851
AZ17438	S67-SB038-0203	0629L048	06/30/15 0918
AZ17439	S67-SS033-0001	0629L049	06/30/15 0945
AZ17440	S67-SB033-0203	0629L050	06/30/15 1012
AZ17441	S67-SS040-0001	0629L051	06/30/15 1039
AZ17442	S67-SS040P-0001	0629L052	06/30/15 1116
AZ17444	S67-SS035-0001	0629L056	06/30/15 1304
AZ17445	S67-SB035-0203	0629L057	06/30/15 1332
AZ17446	S67-SS034-0001	0629L058	06/30/15 1359
AZ17436	S67-SB039-0607	0629L071	06/30/15 2038
AZ17443	S67-SB040-1516	0629L072	06/30/15 2104
150622A-MS	Matrix Spike	0629L133	07/02/15 1055
150622A-MSD	Matrix SpikeD	0629L134	07/02/15 1122
AZ17447	S67-SB034-0405	0629L135	07/02/15 1149

Comments: Batch: #SIMDD-150622A

8270D-LL

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 07/07/15

Matrix: SOIL Instrument: Linus

Blank ID: 150706A-BLK Time Analyzed: 1234

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150706A-BLK	Blank	0629L202	07/07/15 1234
150706A-LCS	Lab Control Spike	0629L203	07/07/15 1301
AZ17436	S67-SB039-0607	0629L204	07/07/15 1328
AZ17443	S67-SB040-1516	0629L205	07/07/15 1355

Comments: Batch: #SIMDD-150706A

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 76624
Matrix: Water
ID: SV Tune 05/14/15

SDG No: 76624
Date Analyzed: 06/29/15
Instrument: Linus
Time Analyzed: 12:12

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		0.1ug/ml PAH 06/29/1	0629L003.D	06/29/15 12:29
2		0.2ug/ml PAH	0629L004.D	06/29/15 12:56
3		0.5ug/ml PAH	0629L005.D	06/29/15 13:23
4		1.0ug/ml PAH	0629L006.D	06/29/15 13:50
5		5.0ug/ml PAH	0629L007.D	06/29/15 14:17
6		10ug/ml PAH	0629L008.D	06/29/15 14:44
7		50ug/ml PAH	0629L009.D	06/29/15 15:12
8		100ug/ml PAH	0629L010.D	06/29/15 15:39
9		5.0ug/ml PAH SS 06/2	0629L012.D	06/29/15 17:28
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60% of mass 198	34.9
68	0 - 2.05% of mass 69	1.2
70	0 - 2% of mass 69	0.5
127	39.5 - 60% of mass 198	46.1
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	22.6
365	1 - 100% of mass 198	2.2
441	0.01 - 100% of mass 443	78.4
442	50 - 150% of mass 198	72.4
443	17 - 23% of mass 442	19.8

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 76624
Matrix: Soil
ID: SV TUNE 5/14/15

SDG No: 76624
Date Analyzed: 06/30/15
Instrument: Linus
Time Analyzed: 4:31

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		5.0ug/ml PAH 06/29/1	0629L038.D	06/30/15 4:48
2	Blank	150622A BLK 1/30.00G	0629L041.D	06/30/15 6:09
3	Lab Control Spike	150622A LCS-1 1/30.1	0629L042.D	06/30/15 6:36
4	S67-SS031-0001	AZ17433S03 1/30.15G	0629L043.D	06/30/15 7:03
5	S67-SB031-0203	AZ17434S02 1/30.38G	0629L044.D	06/30/15 7:30
6	S67-SS039-0001	AZ17435S03 1/30.05G	0629L045.D	06/30/15 7:57
7	S67-SS038-0001	AZ17437S03 1/30.01G	0629L047.D	06/30/15 8:51
8	S67-SB038-0203	AZ17438S01 1/30.08G	0629L048.D	06/30/15 9:18
9	S67-SS033-0001	AZ17439S03 1/30.25G	0629L049.D	06/30/15 9:45
10	S67-SB033-0203	AZ17440S01 1/30.11G	0629L050.D	06/30/15 10:12
11	S67-SS040-0001	AZ17441S02 1/30.01G	0629L051.D	06/30/15 10:39
12	S67-SS040P-0001	AZ17442S02 1/30.18G	0629L052.D	06/30/15 11:16
13	S67-SS035-0001	AZ17444S05 1/30.01G	0629L056.D	06/30/15 13:04
14	S67-SB035-0203	AZ17445S02 1/30.00G	0629L057.D	06/30/15 13:32
15	S67-SS034-0001	AZ17446S03 1/30.02G	0629L058.D	06/30/15 13:59
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60% of mass 198	32.4
68	0 - 2.05% of mass 69	1.4
70	0 - 2% of mass 69	0.6
127	39.5 - 60% of mass 198	45.4
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	22.5
365	1 - 100% of mass 198	1.5
441	0.01 - 100% of mass 443	76.4
442	50 - 150% of mass 198	72.4
443	17 - 23% of mass 442	19.5

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 76624
Matrix: Soil
ID: SV TUNE 5/14/15

SDG No: 76624
Date Analyzed: 06/30/15
Instrument: Linus
Time Analyzed: 14:52

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		CCV 5.0ug/ml PAH 06/	0629L061.D	06/30/15 16:07
2	S67-SB039-0607	AZ17436S02 1/30.19G	0629L071.D	06/30/15 20:38
3	S67-SB040-1516	AZ17443S01 1/30.27G	0629L072.D	06/30/15 21:04
4				
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19				
20				
21				
22				

m/e		
51	29.95 - 60% of mass 198	36.4
68	0 - 2.05% of mass 69	1.6
70	0 - 2% of mass 69	0.6
127	39.5 - 60% of mass 198	47.0
197	0 - 1% of mass 198	0.5
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.5
275	10 - 30% of mass 198	23.8
365	1 - 100% of mass 198	2.4
441	0.01 - 100% of mass 443	78.7
442	50 - 150% of mass 198	86.8
443	17 - 23% of mass 442	19.2

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 76624
Matrix: Soil
ID: SV TUNE 5/14/15

SDG No: 76624
Date Analyzed: 07/02/15
Instrument: Linus
Time Analyzed: 9:44

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		CCV 5.0ug/ml PAH 06/	0629L131.D	07/02/15 10:01
2		AZ17444S05 MS-1 1/30	0629L133.D	07/02/15 10:55
3		AZ17444S05 MSD-1 1/3	0629L134.D	07/02/15 11:22
4	S67-SB034-0405	AZ17447S02 1/30.03G	0629L135.D	07/02/15 11:49
5				
6				
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9				
10				
11				
12				
13				
14				
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16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60% of mass 198	32.2
68	0 - 2.05% of mass 69	1.6
70	0 - 2% of mass 69	0.5
127	39.5 - 60% of mass 198	45.2
197	0 - 1% of mass 198	0.4
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	23.7
365	1 - 100% of mass 198	2.2
441	0.01 - 100% of mass 443	78.5
442	50 - 150% of mass 198	72.1
443	17 - 23% of mass 442	19.4

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 76624
Matrix: Soil
ID: SV TUNE 5/14/15

SDG No: 76624
Date Analyzed: 07/07/15
Instrument: Linus
Time Analyzed: 11:02

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		CCV 5.0ug/ml PAH 07/	0629L201.D	07/07/15 11:19
2	Blank	150706A BLK 1/30.48G	0629L202.D	07/07/15 12:34
3	Lab Control Spike	150706A LCS-1 1/30.6	0629L203.D	07/07/15 13:01
4	S67-SB039-0607	AZ17436S02 1/30.21G	0629L204.D	07/07/15 13:28
5	S67-SB040-1516	AZ17443S01 1/30.24G	0629L205.D	07/07/15 13:55
6				
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12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60% of mass 198	31.2
68	0 - 2.05% of mass 69	0.7
70	0 - 2% of mass 69	0.0
127	39.5 - 60% of mass 198	46.3
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	22.6
365	1 - 100% of mass 198	2.3
441	0.01 - 100% of mass 443	78.8
442	50 - 150% of mass 198	79.6
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.: 76624

Lab File ID (Standard): 0629L007.D Date Analyzed: 06/29/15

Instrument ID: Linus Time Analyzed: 14:17

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

		Chrysene-D12(IS)		Perylene-D12(IS)			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	6233	13.03	3777	15.66		
	UPPER LIMIT	12466	13.53	7554	16.16		
	LOWER LIMIT	3117	12.53	1889	15.16		
	SAMPLE NO.						
01	5.0ug/ml PAH 06/29/15	7256	13.03	4498	15.66		
02	150622A BLK 1/30.00G	6378	13.04	3840	15.69		
03	150622A LCS-1 1/30.10	9194	13.03	5666	15.66		
04	AZ17433S03 1/30.15G x	6738	13.03	3967	15.67		
05	AZ17434S02 1/30.38G x	7657	13.03	4755	15.66		
06	AZ17435S03 1/30.05G x	7102	13.03	4437	15.67		
07	AZ17437S03 1/30.01G x	7372	13.03	4589	15.65		
08	AZ17438S01 1/30.08G x	8080	13.03	5039	15.67		
09	AZ17439S03 1/30.25G x	7089	13.03	4555	15.67		
10	AZ17440S01 1/30.11G x	8083	13.03	5043	15.66		
11	AZ17441S02 1/30.01G x	6284	13.03	4164	15.66		
12	AZ17442S02 1/30.18G x	6331	13.03	4160	15.67		
13	AZ17444S05 1/30.01G x	6984	13.04	4215	15.67		
14	AZ17445S02 1/30.00G x	7605	13.03	4805	15.67		
15	AZ17446S03 1/30.02G x	8477	13.04	5212	15.67		
16	CCV 5.0ug/ml PAH 06/3	7098	13.03	4330	15.66		
17	AZ17436S02 1/30.19G	6280	13.06	3593	15.69		
18	AZ17443S01 1/30.27G	4961	13.06	2881	15.69		
19	CCV 5.0ug/ml PAH 06/3	6042	13.03	3739	15.66		
20	AZ17444S05 MS-1 1/30	6229	13.02	4038	15.63		
21	AZ17444S05 MSD-1 1/3	6308	13.02	4104	15.63		
22	AZ17447S02 1/30.03G	6721	13.02	4030	15.63		

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.

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: SDG No.: 76624

Lab File ID (Standard): 0629L007.D Date Analyzed: 06/29/15

Instrument ID: Linus Time Analyzed: 14:17

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

		Chrysene-D12(IS)		Perylene-D12(IS)					
		AREA	#	RT	#	AREA	#	RT	#	AREA	#	RT	#
	12 HOUR STD	6233		13.033		3777		15.658					
	UPPER LIMIT	12466		13.533		7554		16.158					
	LOWER LIMIT	3116.5		12.533		1888.5		15.158					
	SAMPLE NO.												
23	CCV 5.0ug/ml PAH 07/0	5082		13.06		3248		15.69					
24	150706A BLK 1/30.48G	5105		13.06		3241		15.72					
25	150706A LCS-1 1/30.60	5328		13.06		3348		15.69					
26	AZ17436S02 1/30.21G	4706		13.07		2927		15.72					
27	AZ17443S01 1/30.24G	4325		13.07		2692		15.72					
28													
29													
30													
31													
32													
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													
43													
44													

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 SOILS

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-SS031-0001
Sample Collection Date: 06/08/15

ARF: 76624
APPL ID: AZ17433
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 18.1 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0210 U	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.0210 U	0.061	0.0210	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.0210 U	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.011 J	0.061	0.0210	0.0098	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.096	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.036 J	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.037 J	0.061	0.0210	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.017 J	0.061	0.0210	0.0160	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.0210 U	0.061	0.0210	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.0210 U	0.061	0.0210	0.0098	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.012 J	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	0.11	0.061	0.0210	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.0210 U	0.061	0.0210	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.0210 U	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.012 J	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.030 J	0.061	0.0210	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.075	0.061	0.0210	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	66.6	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	49.8	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	78.2	30-125			%	06/22/15	06/30/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L043
Instrument: Linus
Sequence: L150629
Dilution Factor: 10
Initials: MA

Printed: 07/02/15 4:55:06 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L043.D Vial: 43
Acq On : 30 Jun 15 7:03 Operator: MA
Sample : AZ17433S03 1/30.15G x10 Inst : Linus
Misc : soil Multiplr: 331.67

Quant Time: Jul 1 12:56 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.05	136	7521	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.10	164	3608	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.86	188	5892	2.50000 ppb	0.00
15) Chrysene-D12(IS)	13.03	240	6738	2.50000 ppb	0.00
21) Perylene-D12(IS)	15.67	264	3967	2.50000 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.20	82	93	41.28705 ppb	0.02
Spiked Amount 82.919			Recovery = 49.792%		
7) Surrogate Recovery (FBP)	7.31	172	364	55.19392 ppb	0.00
Spiked Amount 82.919			Recovery = 66.564%		
17) Surrogate Recovery (TPH)	11.71	244	482	64.81865 ppb	-0.01
Spiked Amount 82.919			Recovery = 78.172%		
Target Compounds					Qvalue
3) Naphthalene	6.07	128	117	9.46340 ppb #	92
12) Phenanthrene	9.88	178	262	24.44873 ppb	91
13) Anthracene	9.96	178	97	8.75491 ppb #	84
14) Fluoranthene	11.27	202	1194	86.40841 ppb	97
16) Pyrene	11.54	202	909	61.06618 ppb	91
18) Benz (a) anthracene	13.02	228	320	78.41012 ppb	95
22) Benzo (b) fluoranthene	14.86	252	923	29.91409 ppb	98
24) Benzo (a) pyrene	15.44	252	294	29.13384 ppb	92
25) Dibenz (a,h) anthracene	17.92	278	113	10.15364 ppb	88
26) Benzo (g,h,i) perylene	18.43	276	158	13.78878 ppb	95

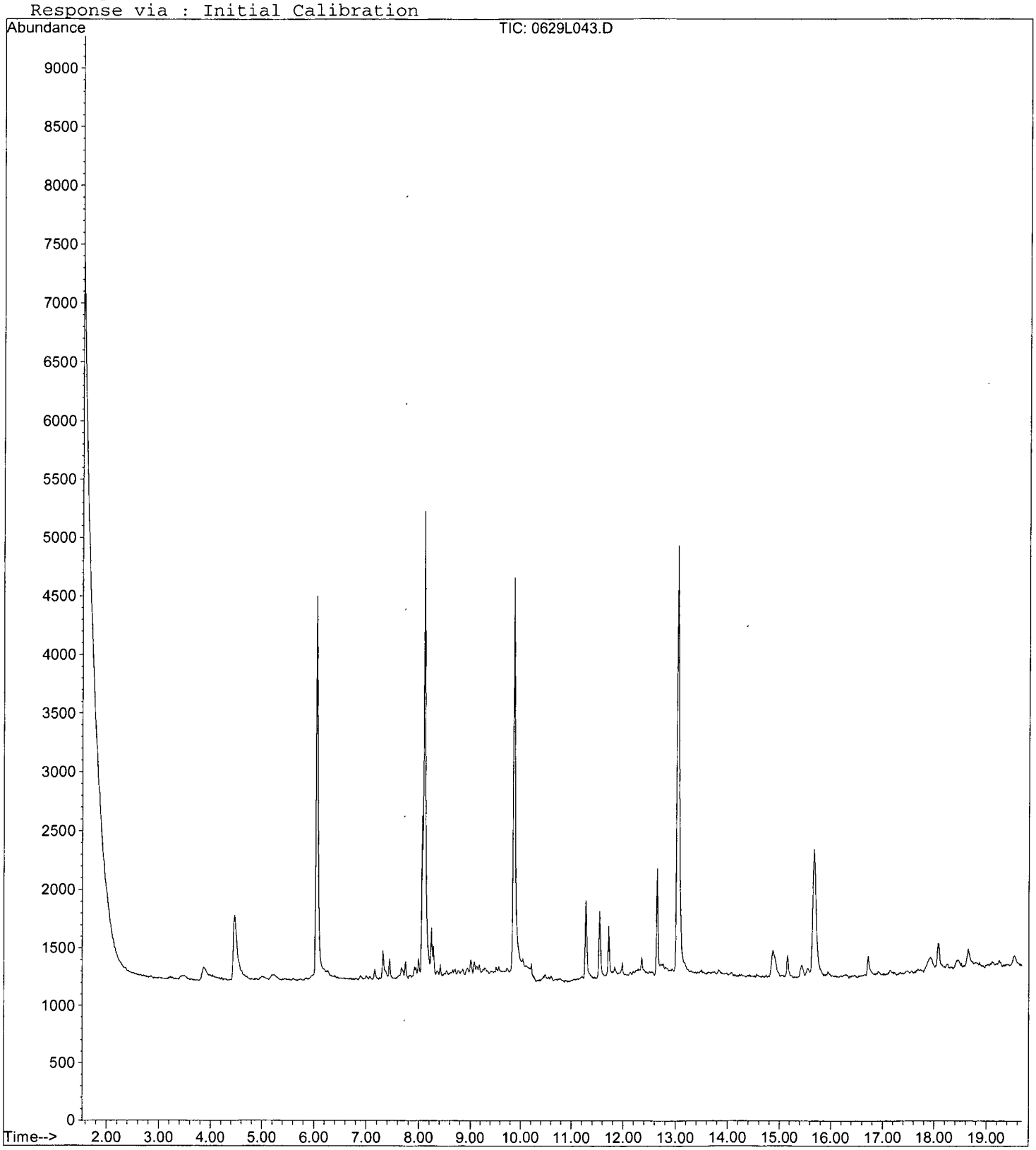
(#) = qualifier out of range (m) = manual integration

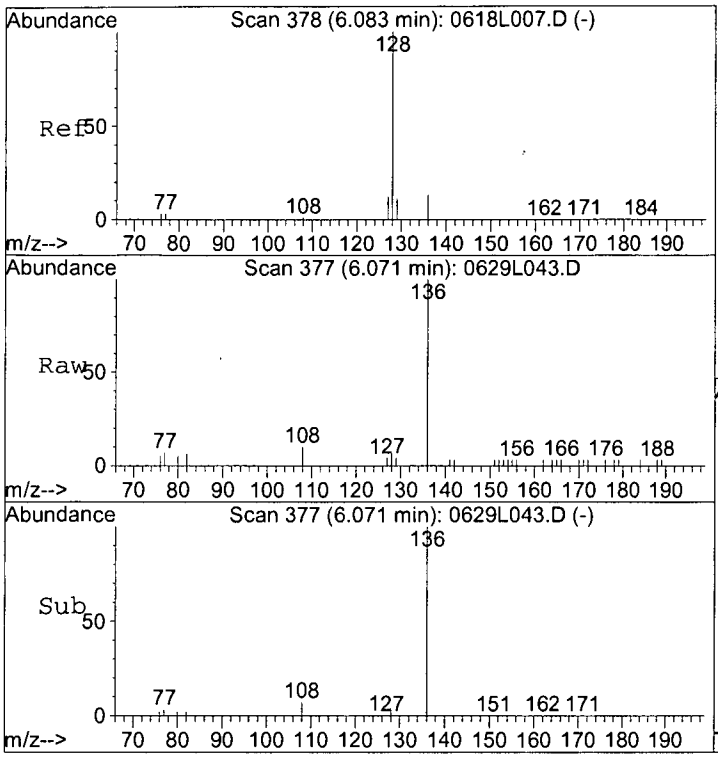
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L043.D Vial: 43
Acq On : 30 Jun 15 7:03 Operator: MA
Sample : AZ17433S03 1/30.15G x10 Inst : Linus
Misc : soil Multiplr: 331.67

Quant Time: Jul 1 12:56 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration

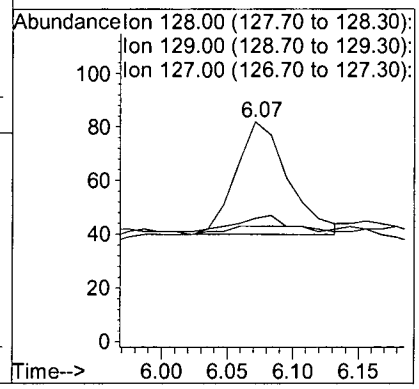


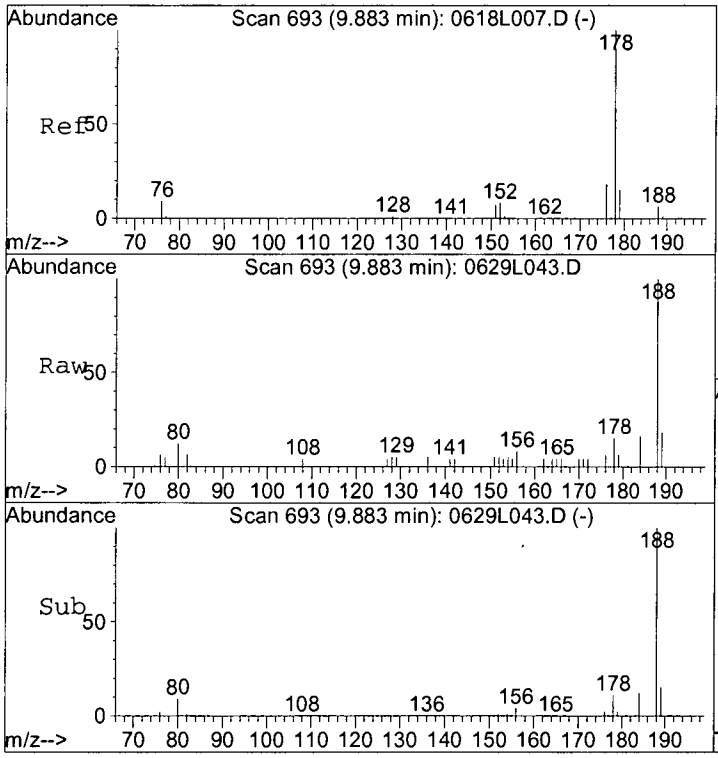


#3
Naphthalene
Concen: 9.46340 ppb
RT: 6.07 min Scan# 377
Delta R.T. -0.00 min
Lab File: 0629L043.D
Acq: 30 Jun 15 7:03

Tgt Ion:128 Resp: 117

Ion	Ratio	Lower	Upper
128	100		
129	11.9	7.4	13.8
127	7.1	8.4	15.6#

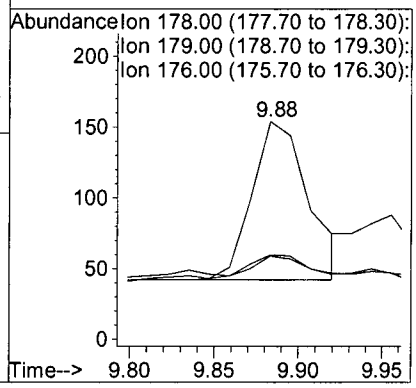


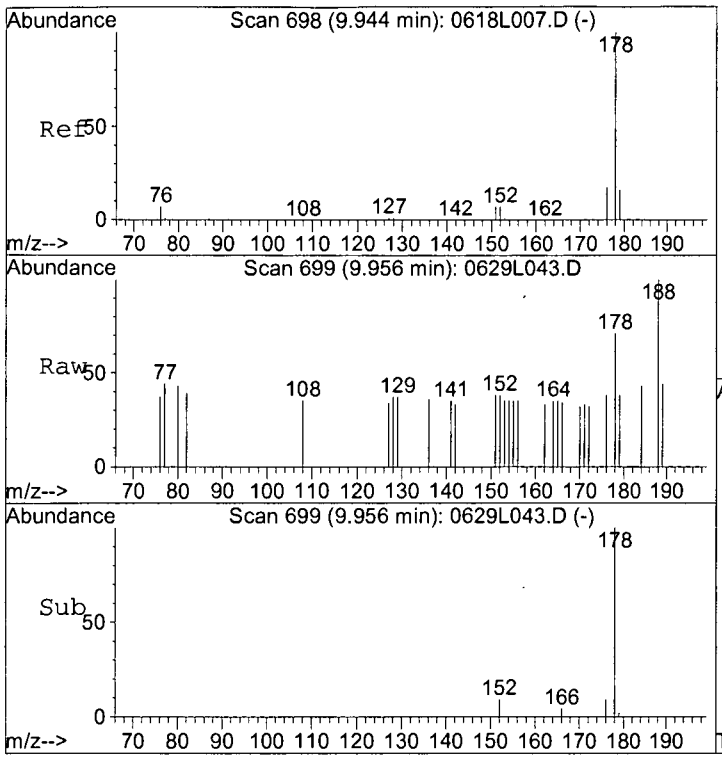


#12
Phenanthrene
Concen: 24.44873 ppb
RT: 9.88 min Scan# 693
Delta R.T. -0.00 min
Lab File: 0629L043.D
Acq: 30 Jun 15 7:03

Tgt Ion:178 Resp: 262

Ion	Ratio	Lower	Upper
178	100		
179	12.5	10.5	19.5
176	12.5	12.3	22.8

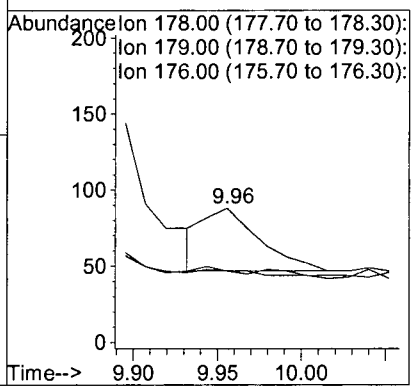


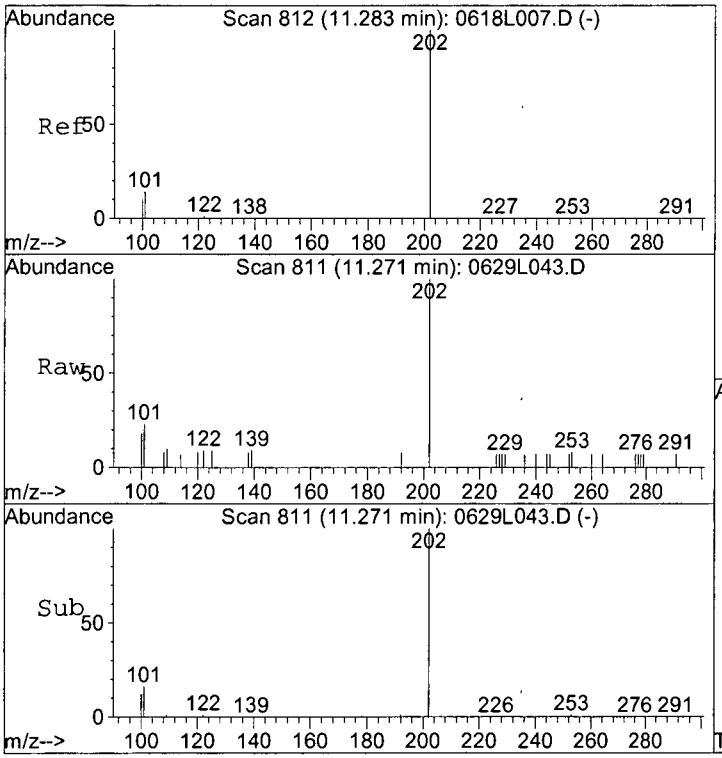


#13
Anthracene
Concen: 8.75491 ppb
RT: 9.96 min Scan# 699
Delta R.T. 0.01 min
Lab File: 0629L043.D
Acq: 30 Jun 15 7:03

Tgt Ion:178 Resp: 97

Ion	Ratio	Lower	Upper
178	100		
179	7.3	10.9	20.3#
176	12.2	12.2	22.6

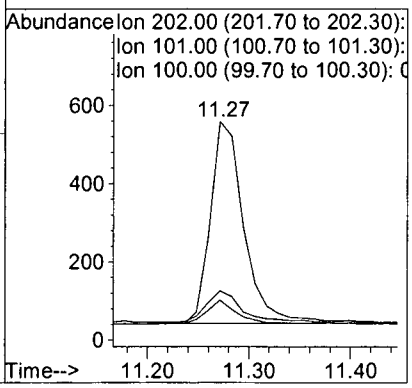


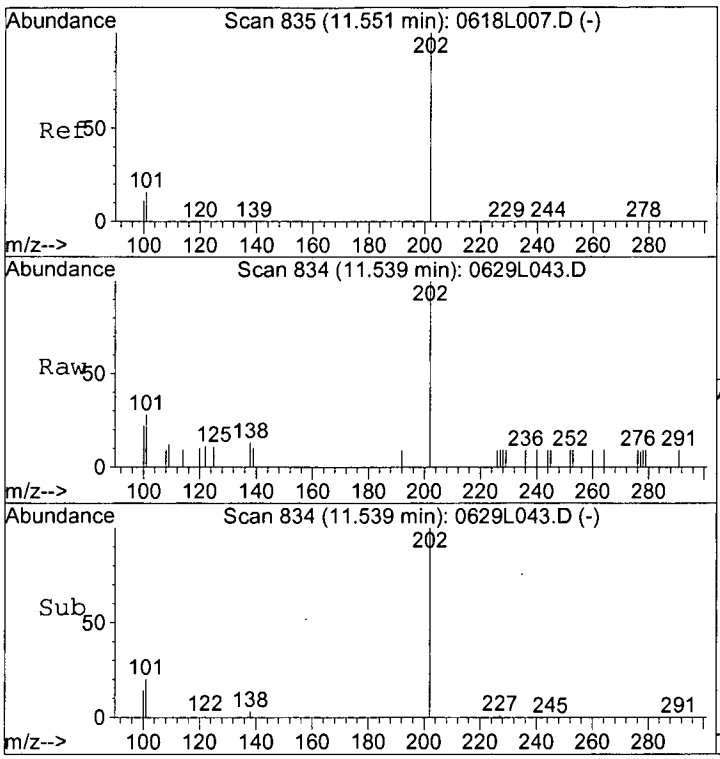


#14
Fluoranthene
Concen: 86.40841 ppb
RT: 11.27 min Scan# 811
Delta R.T. -0.01 min
Lab File: 0629L043.D
Acq: 30 Jun 15 7:03

Tgt Ion:202 Resp: 1194

Ion	Ratio	Lower	Upper
202	100		
101	15.3	9.7	18.1
100	11.6	7.4	13.7

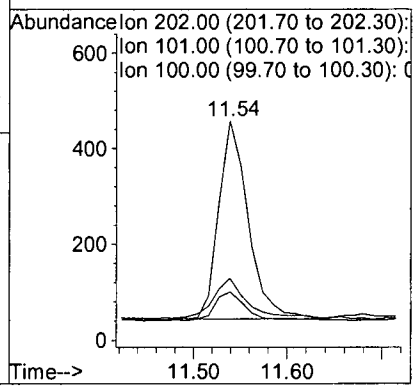


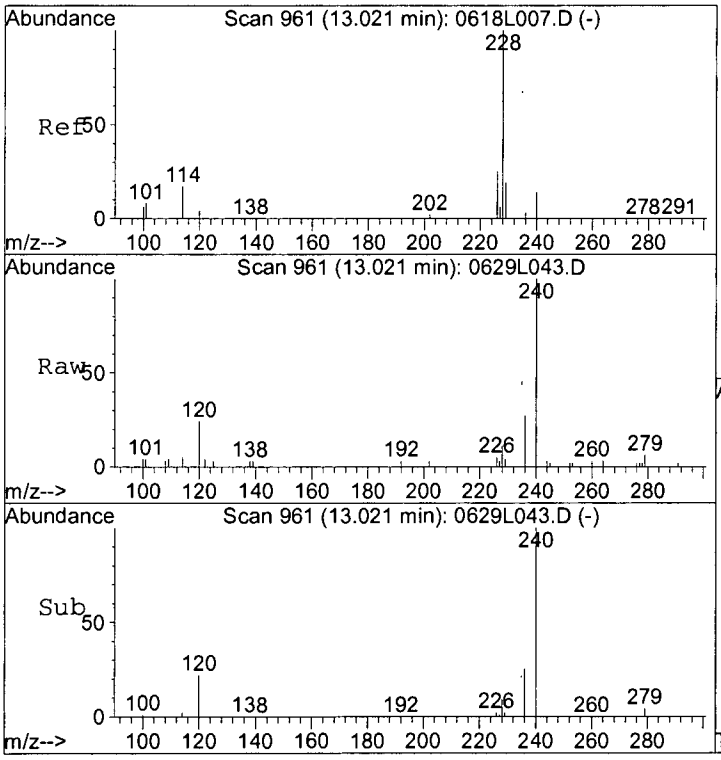


#16
Pyrene
Concen: 61.06618 ppb
RT: 11.54 min Scan# 834
Delta R.T. -0.00 min
Lab File: 0629L043.D
Acq: 30 Jun 15 7:03

Tgt Ion:202 Resp: 909

Ion	Ratio	Lower	Upper
202	100		
101	19.6	11.0	20.4
100	14.5	7.9	14.7

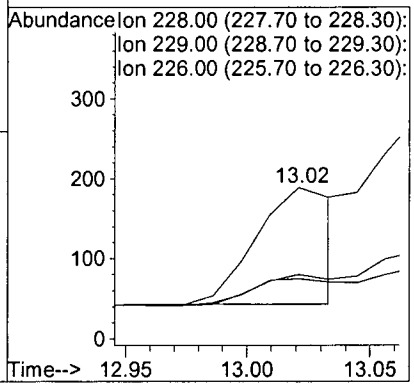


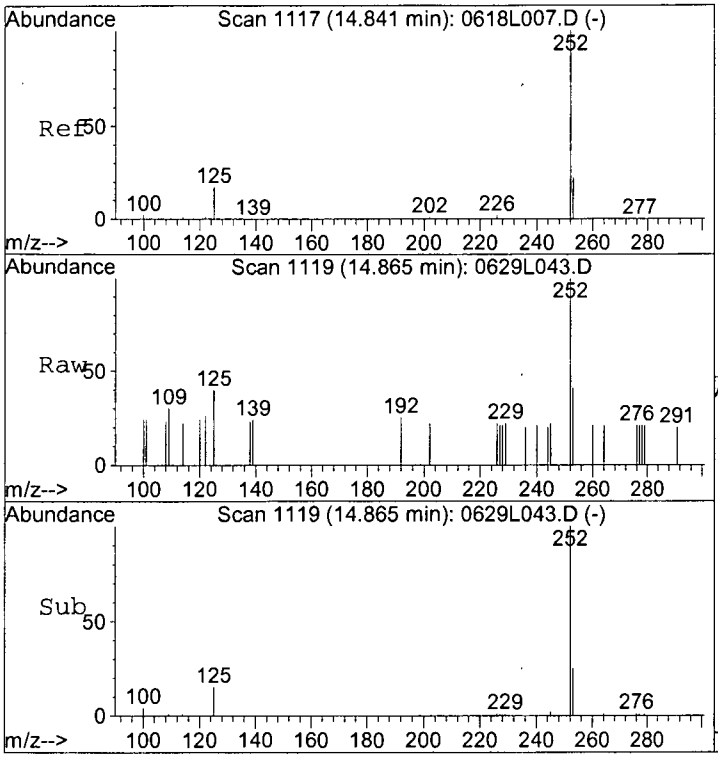


#18
Benz (a) anthracene
Concen: 78.41012 ppb
RT: 13.02 min Scan# 961
Delta R.T. 0.00 min
Lab File: 0629L043.D
Acq: 30 Jun 15 7:03

Tgt Ion:228 Resp: 320

Ion	Ratio	Lower	Upper
228	100		
229	22.6	13.4	25.0
226	26.0	17.2	32.0

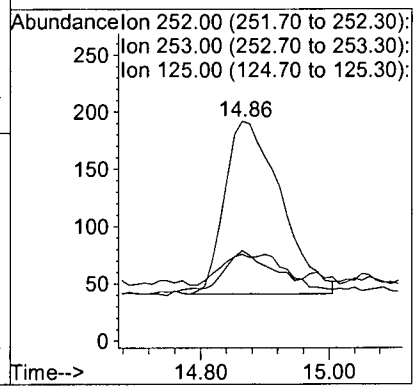


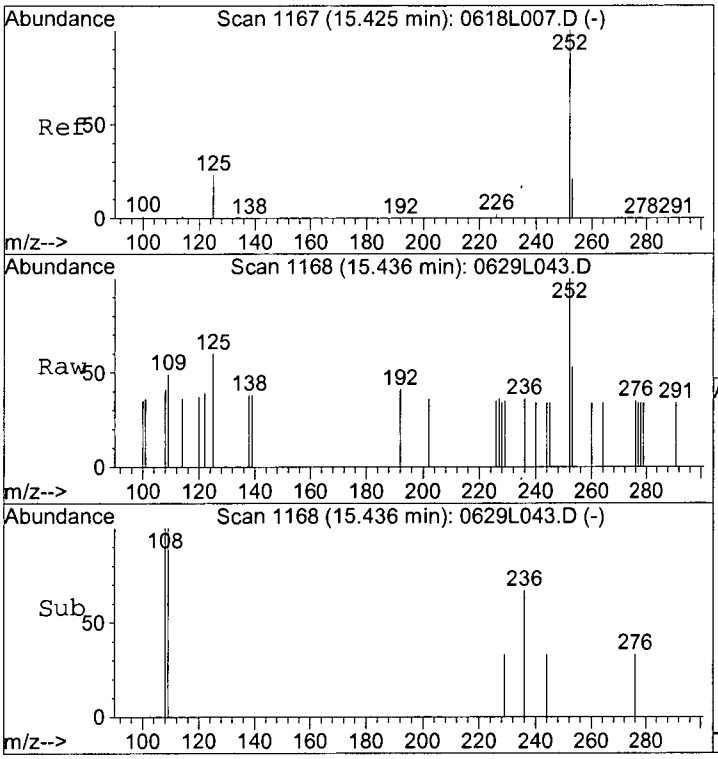


#22
Benzo (b) fluoranthene
Concen: 29.91409 ppb
RT: 14.86 min Scan# 1119
Delta R.T. 0.02 min
Lab File: 0629L043.D
Acq: 30 Jun 15 7:03

Tgt Ion:252 Resp: 923

Ion	Ratio	Lower	Upper
252	100		
253	22.5	15.7	29.1
125	17.9	11.3	20.9

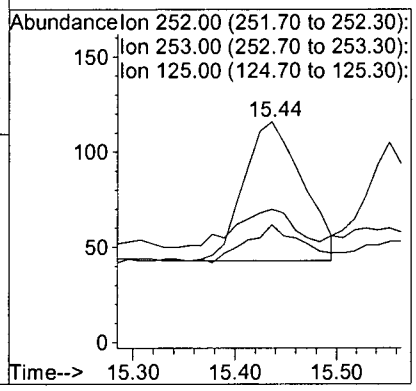


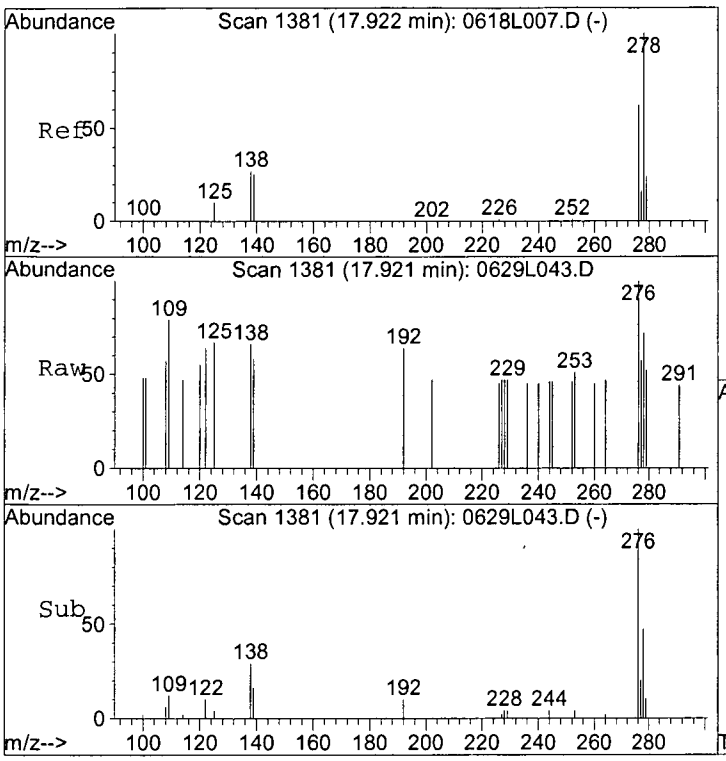


#24
Benzo (a) pyrene
Concen: 29.13384 ppb
RT: 15.44 min Scan# 1168
Delta R.T. 0.02 min
Lab File: 0629L043.D
Acq: 30 Jun 15 7:03

Tgt Ion:252 Resp: 294

Ion	Ratio	Lower	Upper
252	100		
253	26.0	15.2	28.2
125	26.0	16.1	29.9

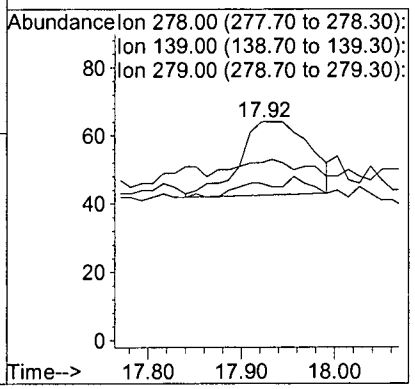


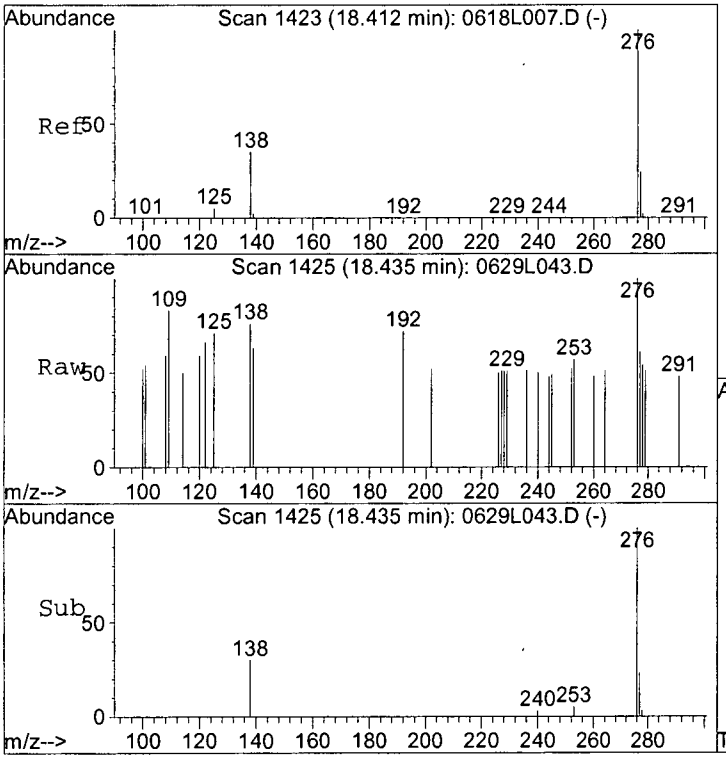


#25
Dibenz (a,h) anthracene
Concen: 10.15364 ppb
RT: 17.92 min Scan# 1381
Delta R.T. 0.01 min
Lab File: 0629L043.D
Acq: 30 Jun 15 7:03

Tgt Ion:278 Resp: 113

Ion	Ratio	Lower	Upper
278	100		
139	19.0	18.5	34.3
279	19.0	16.7	30.9

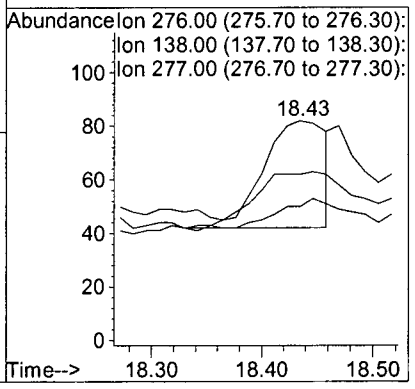




#26
Benzo (g,h,i) perylene
Concen: 13.78878 ppb
RT: 18.43 min Scan# 1425
Delta R.T. 0.02 min
Lab File: 0629L043.D
Acq: 30 Jun 15 7:03

Tgt Ion:276 Resp: 158

Ion	Ratio	Lower	Upper
276	100		
138	35.0	23.7	44.1
277	20.0	17.3	32.1



EPA 8270D LL SOILS

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-SB031-0203
Sample Collection Date: 06/08/15

ARF: 76624
APPL ID: AZ17434
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.9 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0210 U	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.0210 U	0.061	0.0210	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.071	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.068	0.061	0.0210	0.0097	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.32	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.35	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.91	0.061	0.0210	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.22	0.061	0.0210	0.0160	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.79	0.061	0.0210	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.12	0.061	0.0210	0.0097	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.068	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	0.68	0.061	0.0210	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.012 J	0.061	0.0210	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.23	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.019 J	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.23	0.061	0.0210	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.49	0.061	0.0210	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	52.2	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	59.5	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	75.1	30-125			%	06/22/15	06/30/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L044
Instrument: Linus
Sequence: L150629
Dilution Factor: 10
Initials: MA

Printed: 07/02/15 4:55:06 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L044.D Vial: 44
Acq On : 30 Jun 15 7:30 Operator: MA
Sample : AZ17434S02 1/30.38G x10 Inst : Linus
Misc : soil Multiplr: 329.16

Quant Time: Jul 1 12:58 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	6.05	136	7777	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	8.10	164	3691	2.50000	ppb		0.00
11) Phenanthrene-D10(IS)	9.86	188	6291	2.50000	ppb		0.00
15) Chrysene-D12(IS)	13.03	240	7657	2.50000	ppb		0.00
21) Perylene-D12(IS)	15.66	264	4755	2.50000	ppb		0.00
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.19	82	115m	48.99951	ppb		0.01
Spiked Amount 82.291			Recovery = 59.545%				
7) Surrogate Recovery (FBP)	7.31	172	292	42.95312	ppb		0.00
Spiked Amount 82.291			Recovery = 52.196%				
17) Surrogate Recovery (TPH)	11.71	244	526	61.77470	ppb		-0.01
Spiked Amount 82.291			Recovery = 75.069%				
Target Compounds							Qvalue
3) Naphthalene	6.07	128	204	15.83632	ppb		97
8) Acenaphthylene	7.94	152	732	58.11707	ppb		99
10) Fluorene	8.76	166	79	9.71221	ppb		72
12) Phenanthrene	9.88	178	2169	188.12960	ppb		97
13) Anthracene	9.94	178	665	55.78842	ppb	#	89
14) Fluoranthene	11.27	202	8283	557.16259	ppb		98
16) Pyrene	11.54	202	6884	403.87748	ppb		97
18) Benz (a) anthracene	13.02	228	3032	262.49794	ppb		90
19) Chrysene	13.07	228	4880	99.44670	ppb		99
20) Indeno (1,2,3-cd) pyrene	17.87	276	2732	188.03175	ppb	#	98
22) Benzo (b) fluoranthene	14.84	252	10110	743.85925	ppb		98
23) Benzo (k) fluoranthene	14.84	252	7655	645.93988	ppb		98
24) Benzo (a) pyrene	15.42	252	3516	288.47655	ppb		96
25) Dibenz (a,h) anthracene	17.91	278	755	56.16961	ppb		95
26) Benzo (g,h,i) perylene	18.42	276	2482	179.34185	ppb		97

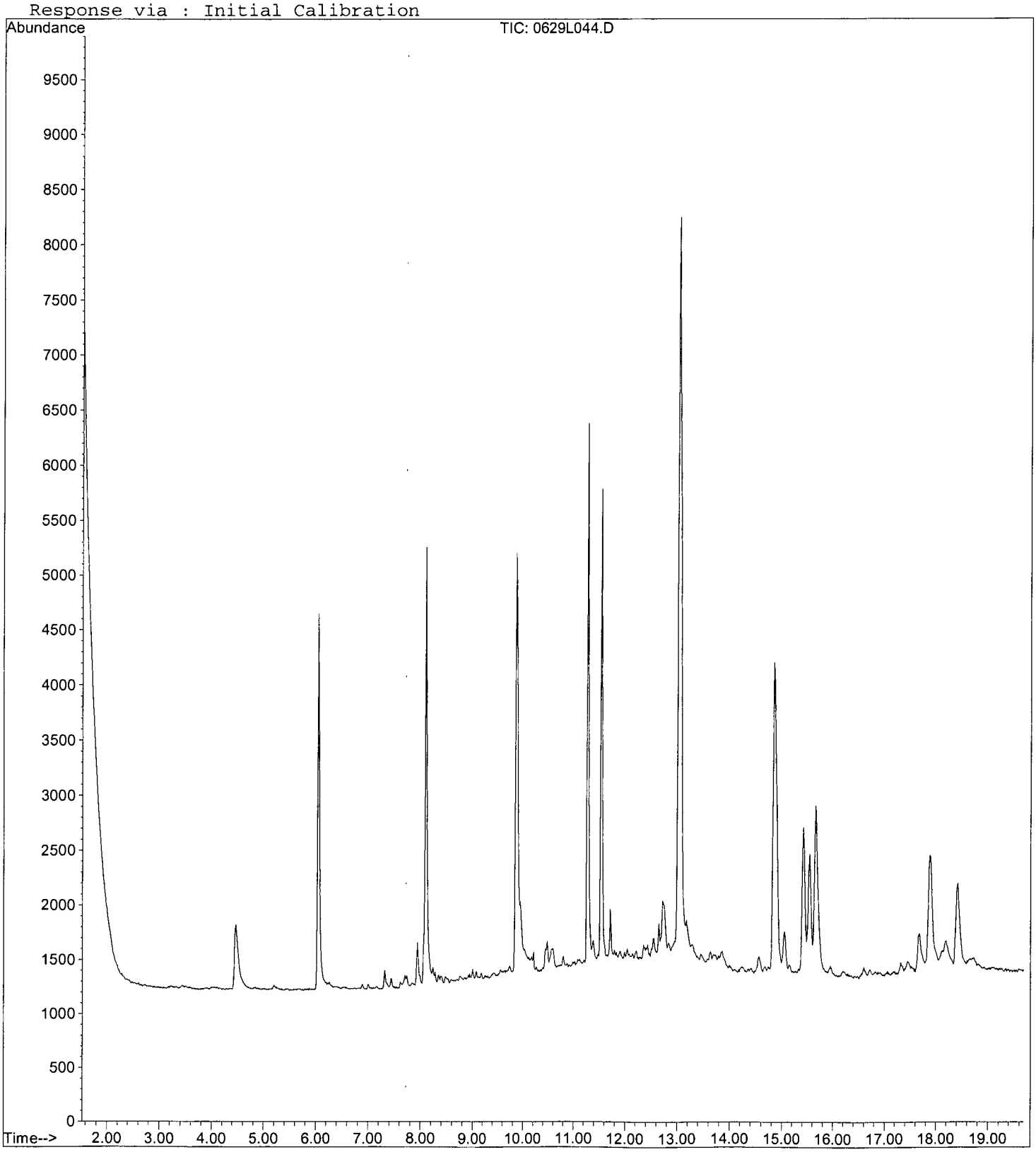
(#) = qualifier out of range (m) = manual integration

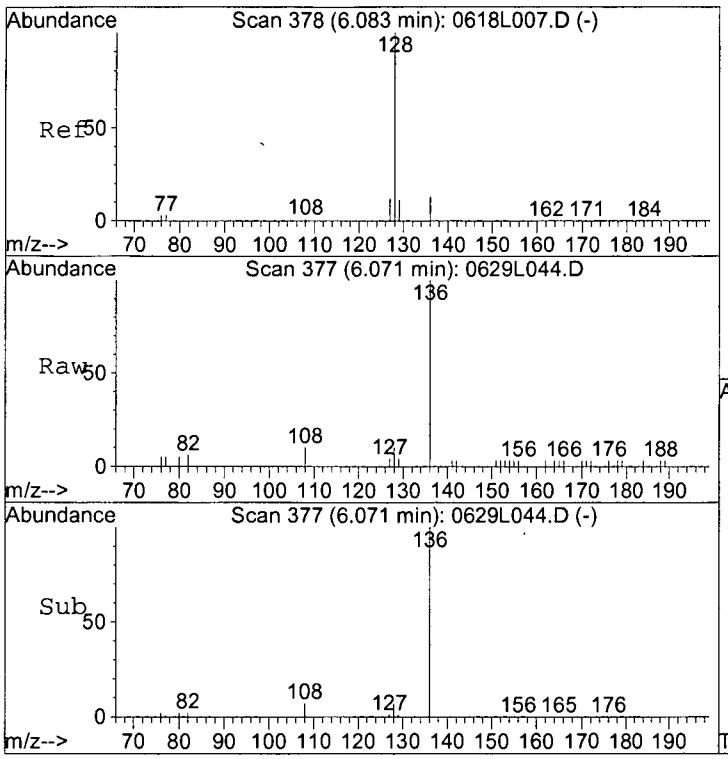
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L044.D Vial: 44
Acq On : 30 Jun 15 7:30 Operator: MA
Sample : AZ17434S02 1/30.38G x10 Inst : Linus
Misc : soil Multiplr: 329.16

Quant Time: Jul 1 12:58 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration

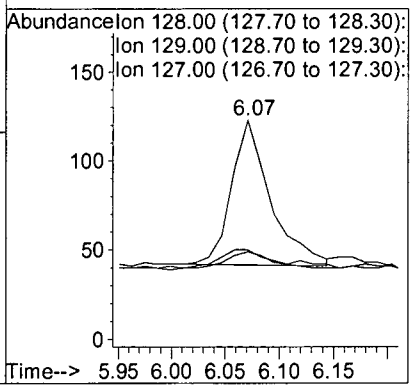


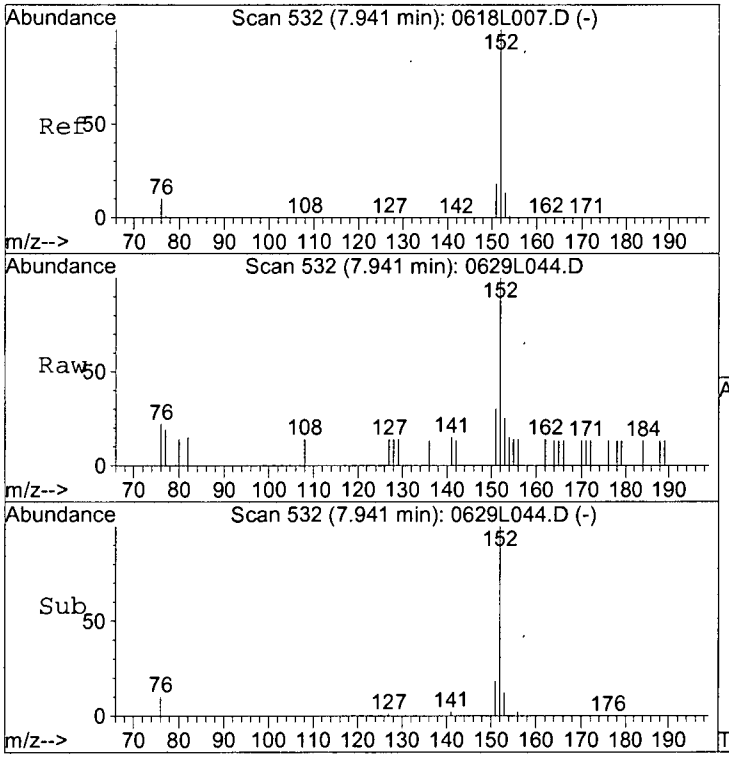


#3
Naphthalene
Concen: 15.83632 ppb
RT: 6.07 min Scan# 377
Delta R.T. -0.00 min
Lab File: 0629L044.D
Acq: 30 Jun 15 7:30

Tgt Ion:128 Resp: 204

Ion	Ratio	Lower	Upper
128	100		
129	12.3	7.4	13.8
127	11.1	8.4	15.6

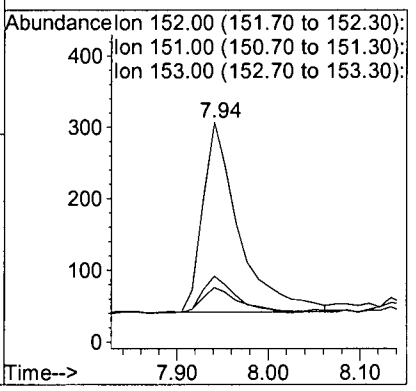


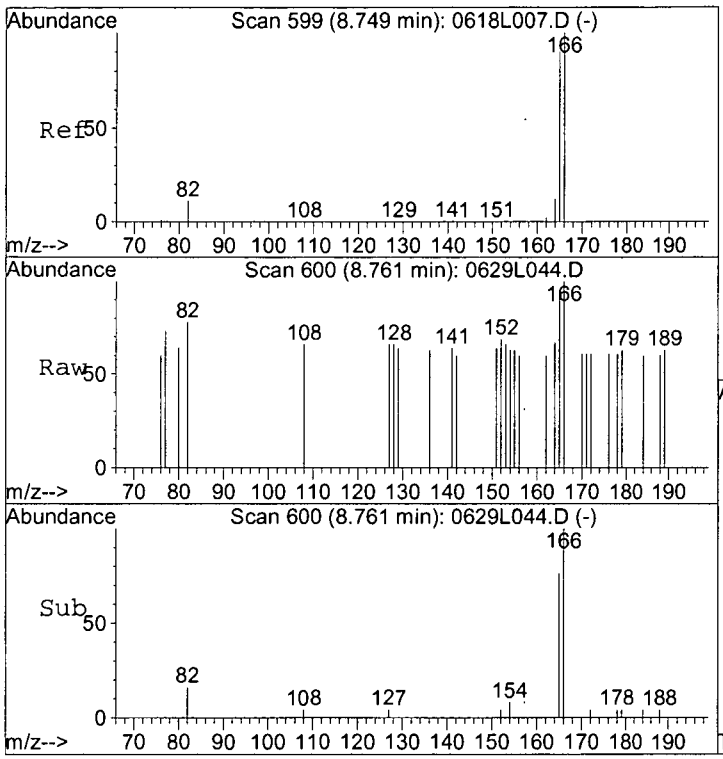


#8
Acenaphthylene
Concen: 58.11707 ppb
RT: 7.94 min Scan# 532
Delta R.T. -0.00 min
Lab File: 0629L044.D
Acq: 30 Jun 15 7:30

Tgt Ion:152 Resp: 732

Ion	Ratio	Lower	Upper
152	100		
151	18.9	12.7	23.7
153	12.8	9.0	16.8

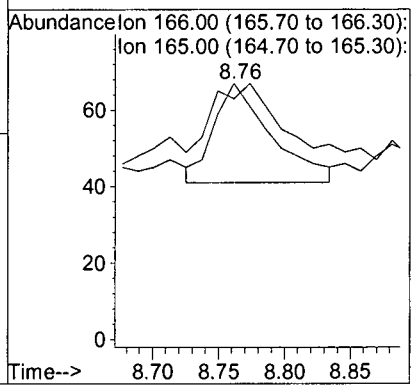


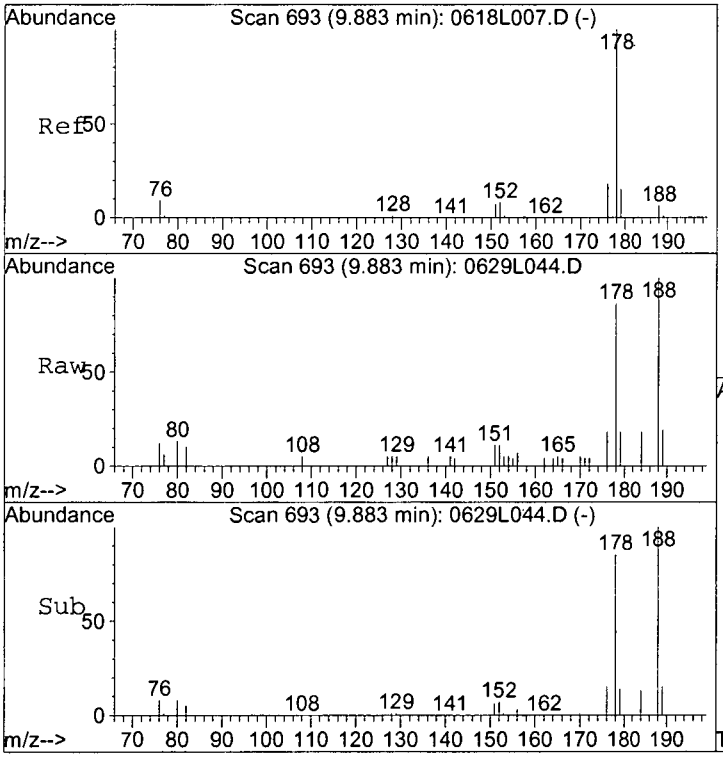


#10
Fluorene
Concen: 9.71221 ppb
RT: 8.76 min Scan# 600
Delta R.T. 0.01 min
Lab File: 0629L044.D
Acq: 30 Jun 15 7:30

Tgt Ion:166 Resp: 79

Ion	Ratio	Lower	Upper
166	100		
165	63.6	63.1	117.1

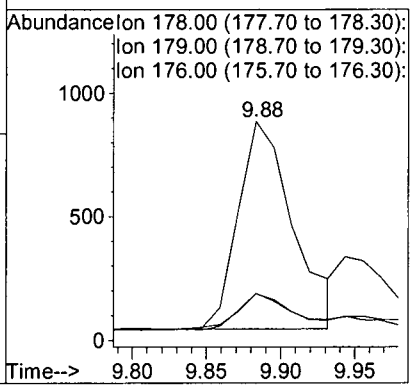


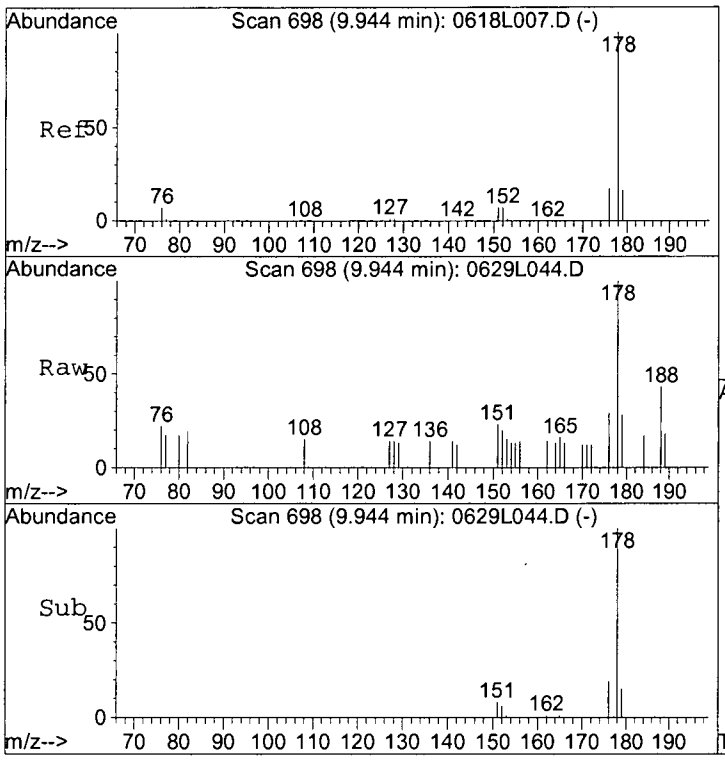


#12
Phenanthrene
Concen: 188.12960 ppb
RT: 9.88 min Scan# 693
Delta R.T. -0.00 min
Lab File: 0629L044.D
Acq: 30 Jun 15 7:30

Tgt Ion:178 Resp: 2169

Ion	Ratio	Lower	Upper
178	100		
179	16.9	10.5	19.5
176	17.1	12.3	22.8

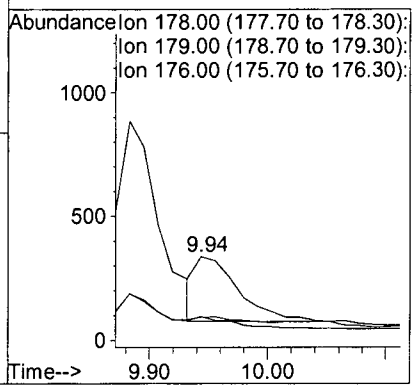


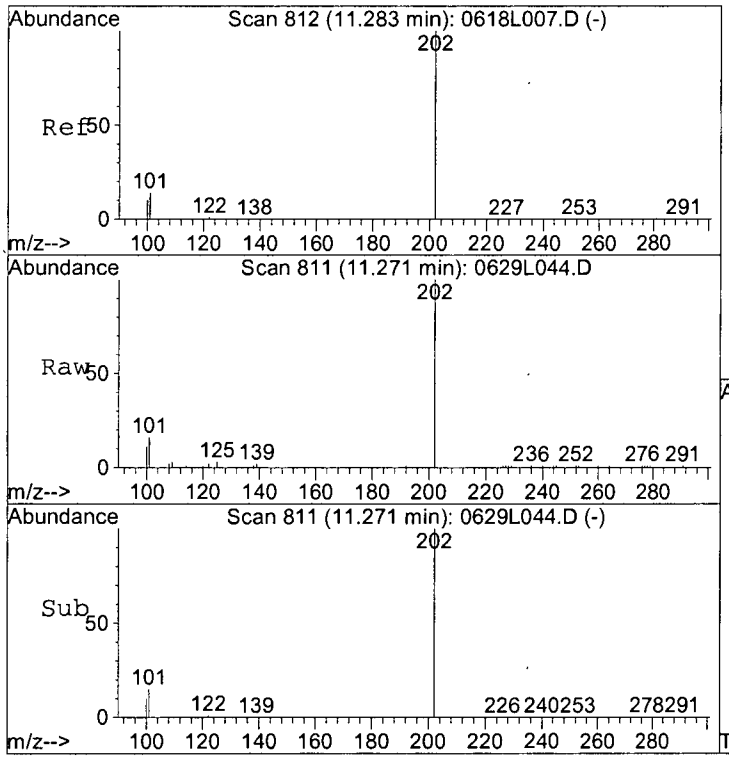


#13
Anthracene
Concen: 55.78842 ppb
RT: 9.94 min Scan# 698
Delta R.T. -0.00 min
Lab File: 0629L044.D
Acq: 30 Jun 15 7:30

Tgt Ion:178 Resp: 665

Ion	Ratio	Lower	Upper
178	100		
179	7.3	10.9	20.3#
176	18.8	12.2	22.6

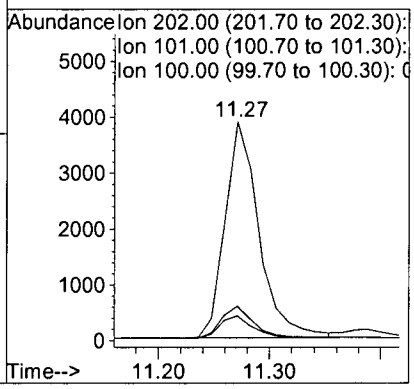


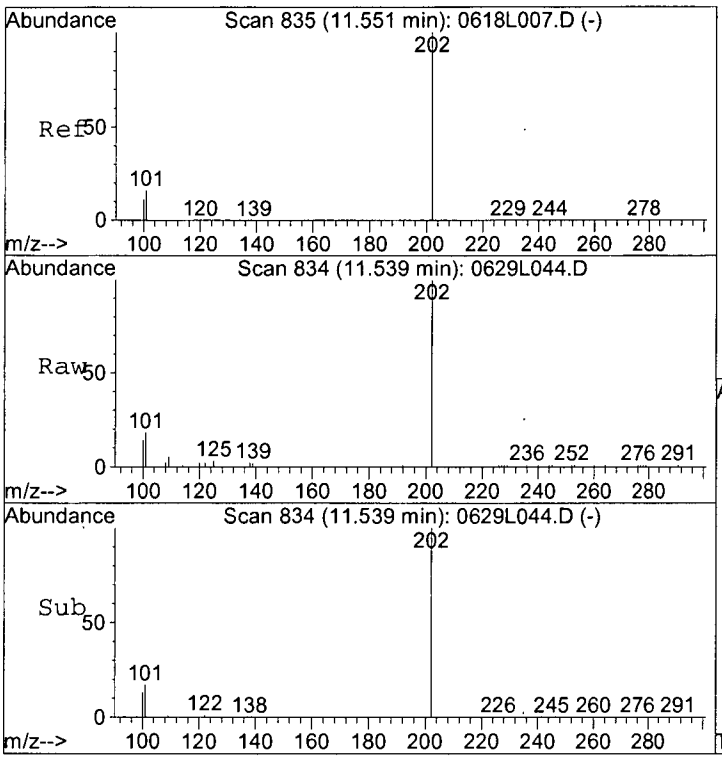


#14
Fluoranthene
Concen: 557.16259 ppb
RT: 11.27 min Scan# 811
Delta R.T. -0.01 min
Lab File: 0629L044.D
Acq: 30 Jun 15 7:30

Tgt Ion:202 Resp: 8283

Ion	Ratio	Lower	Upper
202	100		
101	15.0	9.7	18.1
100	10.5	7.4	13.7

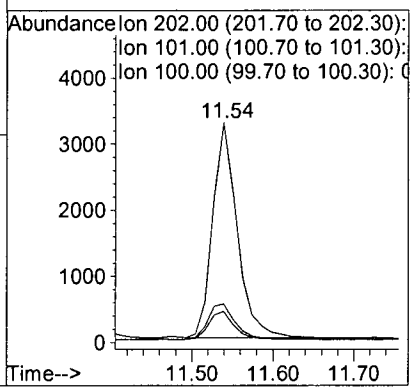


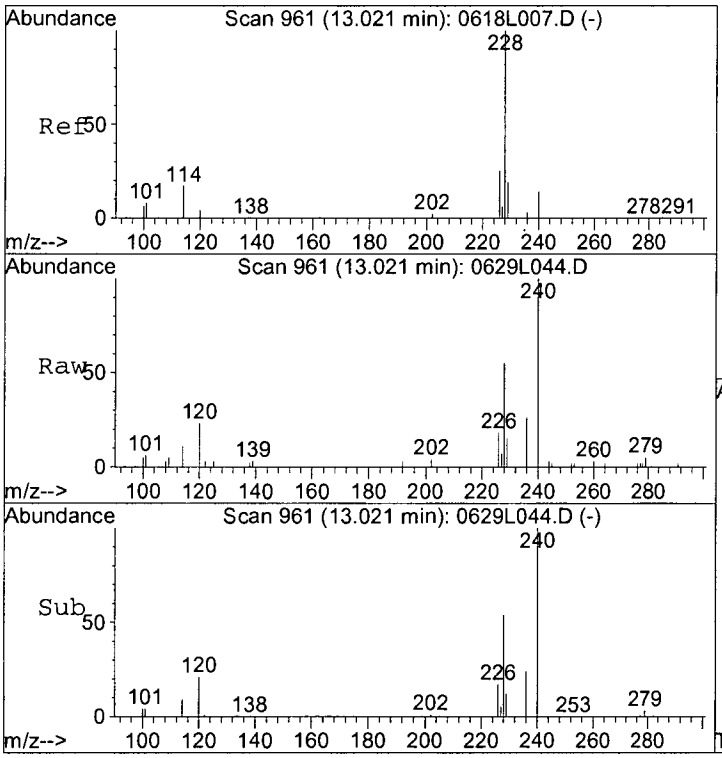


#16
Pyrene
Concen: 403.87748 ppb
RT: 11.54 min Scan# 834
Delta R.T. -0.00 min
Lab File: 0629L044.D
Acq: 30 Jun 15 7:30

Tgt Ion:202 Resp: 6884

Ion	Ratio	Lower	Upper
202	100		
101	16.5	11.0	20.4
100	13.3	7.9	14.7

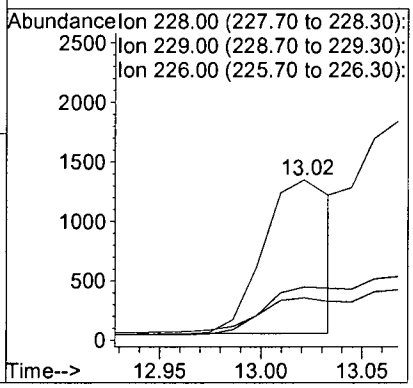


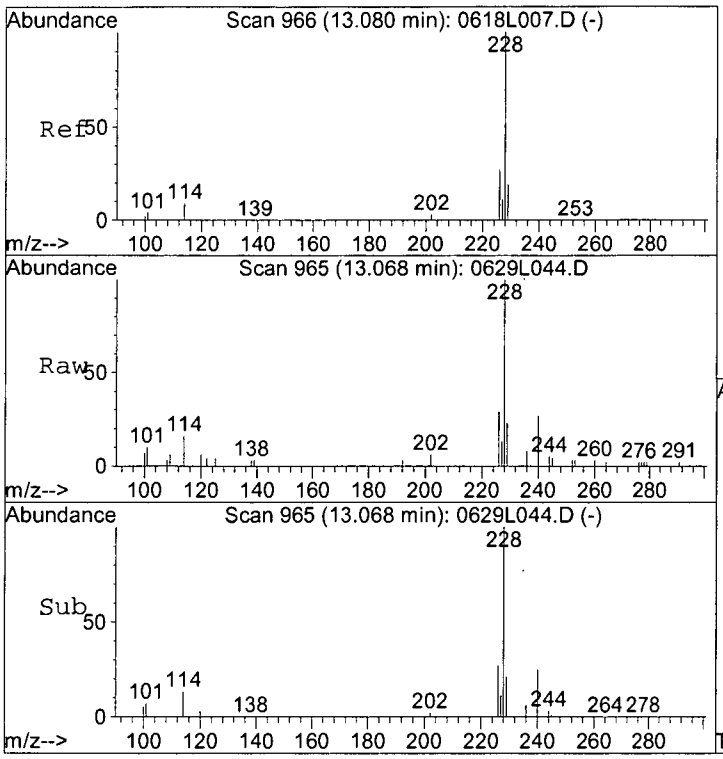


#18
Benz (a) anthracene
Concen: 262.49794 ppb
RT: 13.02 min Scan# 961
Delta R.T. 0.00 min
Lab File: 0629L044.D
Acq: 30 Jun 15 7:30

Tgt Ion:228 Resp: 3032

Ion	Ratio	Lower	Upper
228	100		
229	22.0	13.4	25.0
226	31.0	17.2	32.0

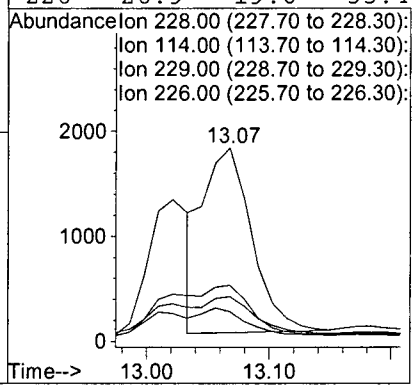


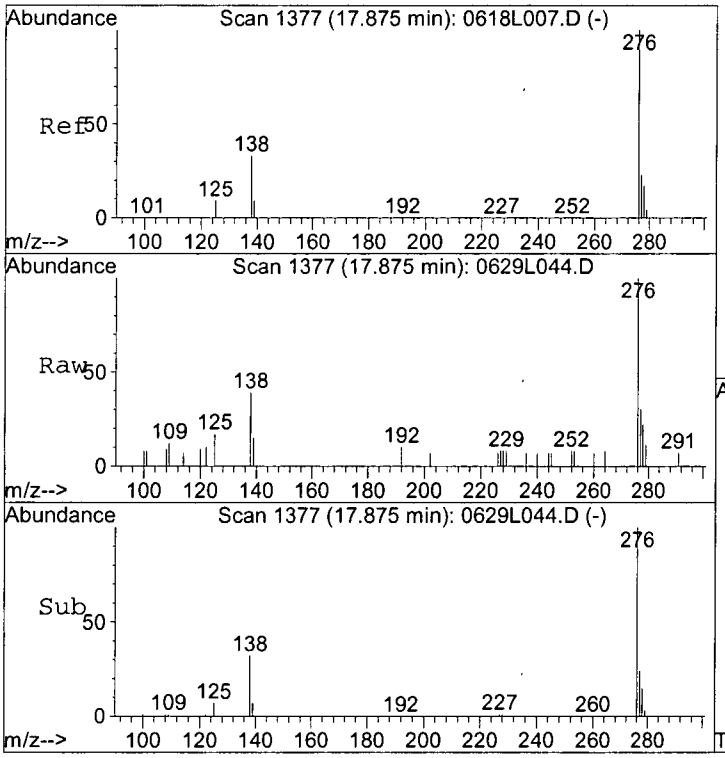


#19
Chrysene
Concen: 99.44670 ppb
RT: 13.07 min Scan# 965
Delta R.T. 0.00 min
Lab File: 0629L044.D
Acq: 30 Jun 15 7:30

Tgt Ion:228 Resp: 4880

Ion	Ratio	Lower	Upper
228	100		
114	13.3	9.5	17.6
229	20.2	13.6	25.2
226	26.9	19.0	35.4

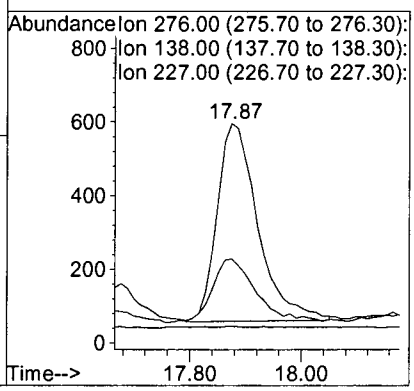


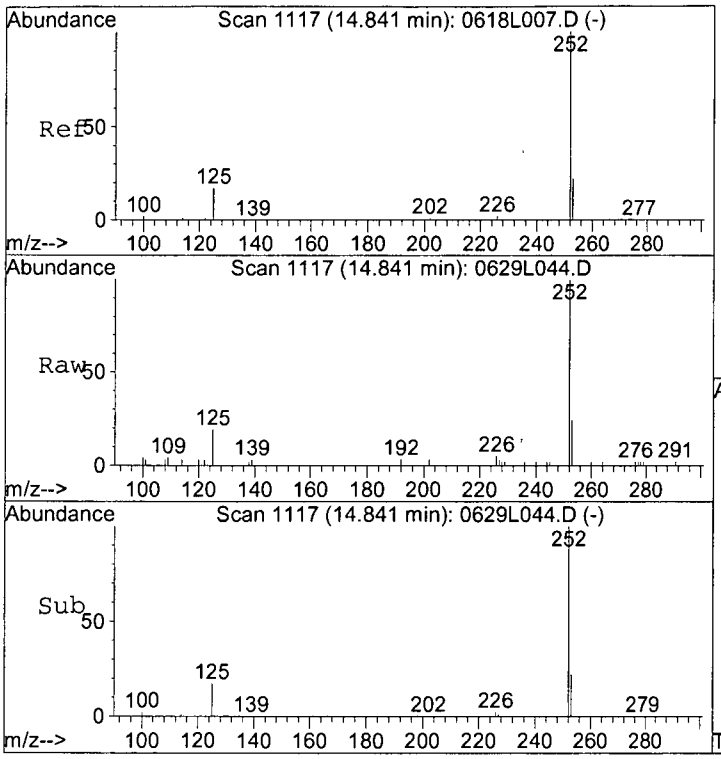


#20
Indeno (1,2,3-cd) pyrene
Concen: 188.03175 ppb
RT: 17.87 min Scan# 1377
Delta R.T. -0.00 min
Lab File: 0629L044.D
Acq: 30 Jun 15 7:30

Tgt Ion:276 Resp: 2732

Ion	Ratio	Lower	Upper
276	100		
138	31.8	23.0	42.8
227	0.6	0.1	0.1#

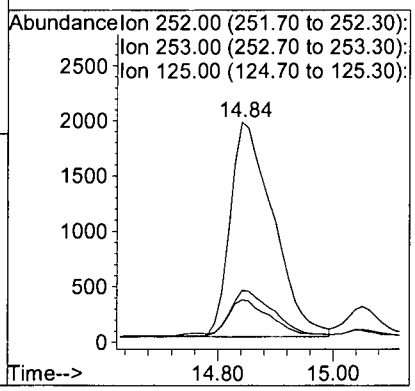


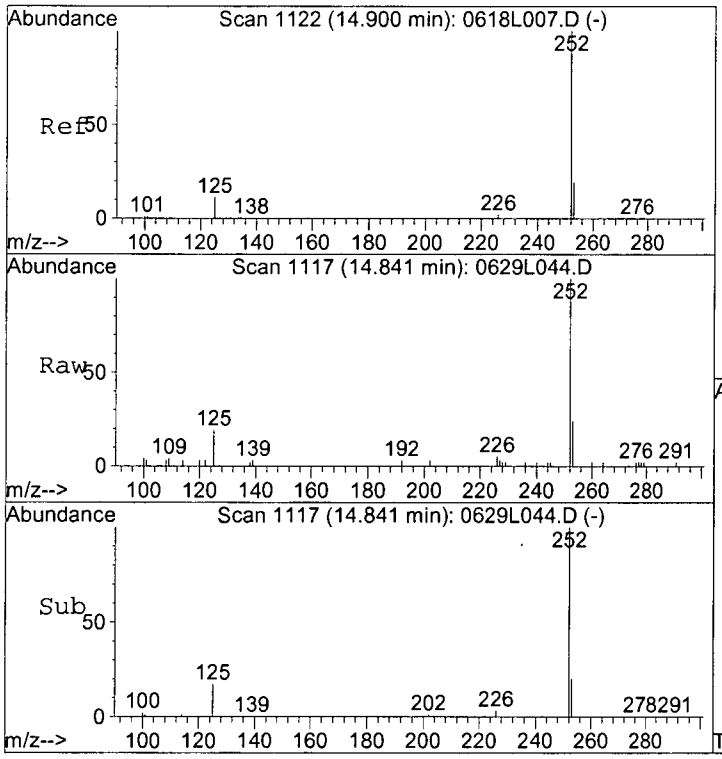


#22
Benzo (b) fluoranthene
Concen: 743.85925 ppb
RT: 14.84 min Scan# 1117
Delta R.T. -0.00 min
Lab File: 0629L044.D
Acq: 30 Jun 15 7:30

Tgt Ion:252 Resp: 10110

Ion	Ratio	Lower	Upper
252	100		
253	20.7	15.7	29.1
125	16.5	11.3	20.9

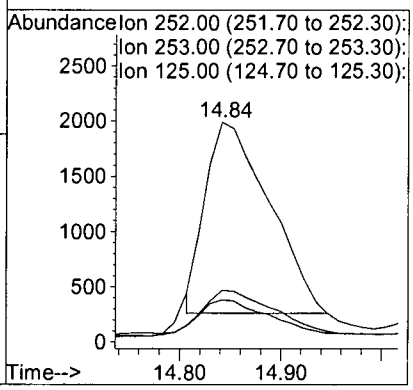


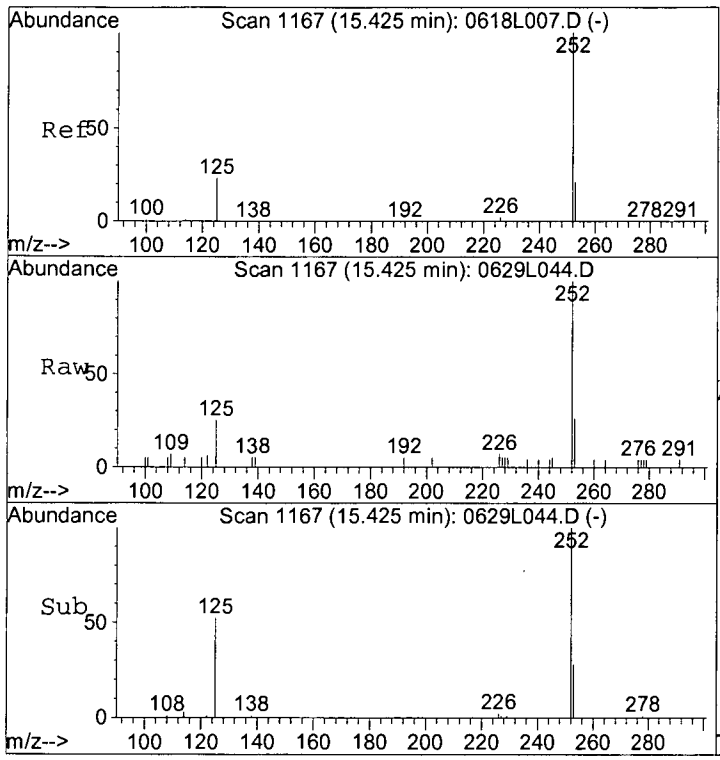


#23
Benzo (k) fluoranthene
Concen: 645.93988 ppb
RT: 14.84 min Scan# 1117
Delta R.T. -0.05 min
Lab File: 0629L044.D
Acq: 30 Jun 15 7:30

Tgt Ion:252 Resp: 7655

Ion	Ratio	Lower	Upper
252	100		
253	21.4	15.8	29.3
125	17.6	11.6	21.5

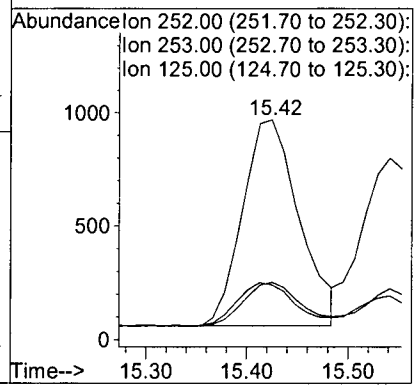


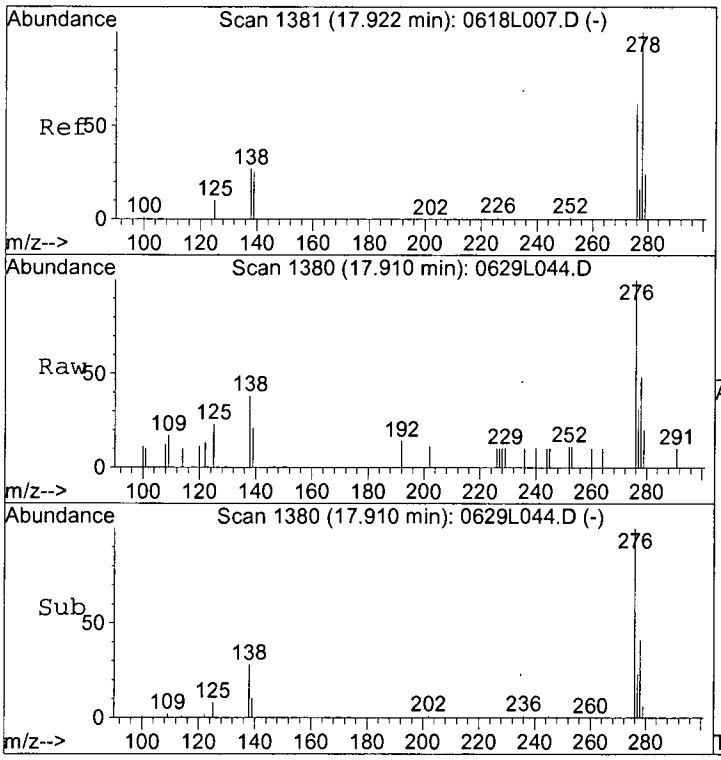


#24
Benzo (a) pyrene
Concen: 288.47655 ppb
RT: 15.42 min Scan# 1167
Delta R.T. 0.01 min
Lab File: 0629L044.D
Acq: 30 Jun 15 7:30

Tgt Ion:252 Resp: 3516

Ion	Ratio	Lower	Upper
252	100		
253	21.2	15.2	28.2
125	20.2	16.1	29.9

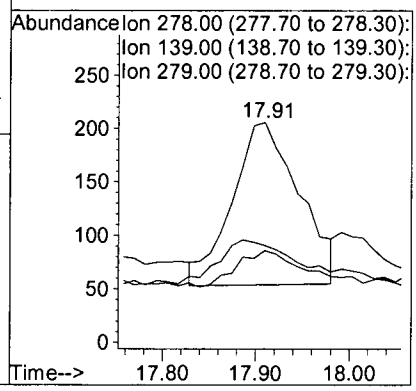


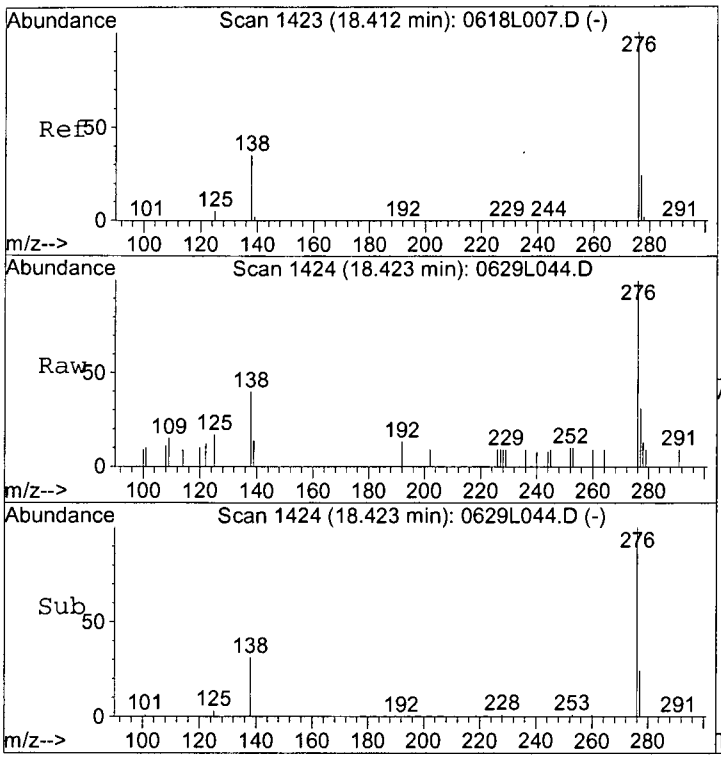


#25
Dibenz (a,h) anthracene
Concen: 56.16961 ppb
RT: 17.91 min Scan# 1380
Delta R.T. -0.00 min
Lab File: 0629L044.D
Acq: 30 Jun 15 7:30

Tgt Ion:278 Resp: 755

Ion	Ratio	Lower	Upper
278	100		
139	22.1	18.5	34.3
279	22.9	16.7	30.9

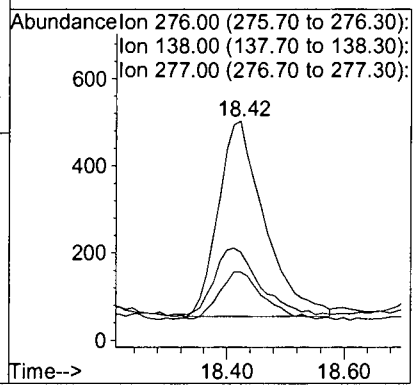




#26
Benzo (g,h,i) perylene
Concen: 179.34185 ppb
RT: 18.42 min Scan# 1424
Delta R.T. 0.01 min
Lab File: 0629L044.D
Acq: 30 Jun 15 7:30

Tgt Ion:276 Resp: 2482

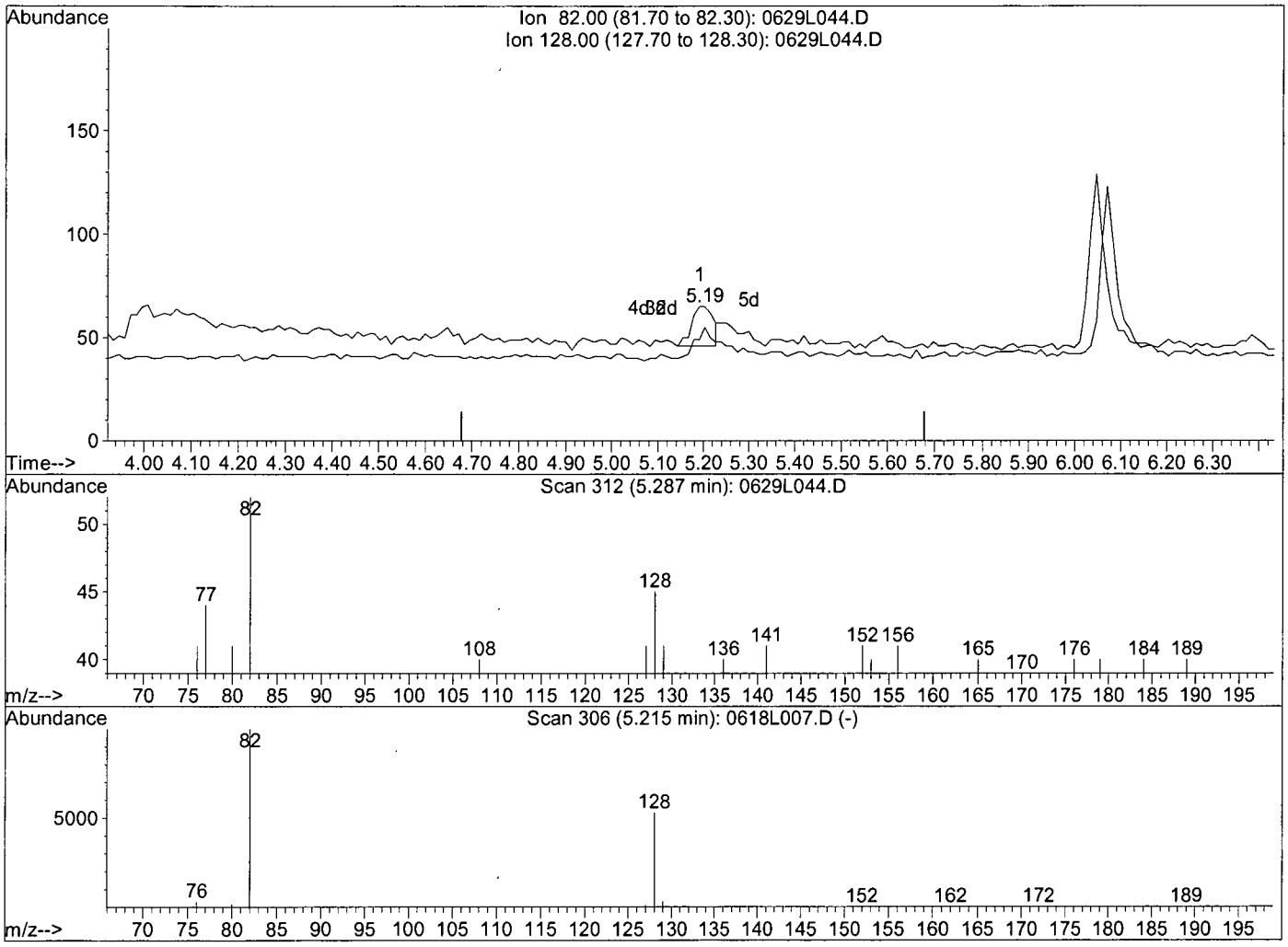
Ion	Ratio	Lower	Upper
276	100		
138	32.1	23.7	44.1
277	23.7	17.3	32.1



Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L044.D Vial: 44
Acq On : 30 Jun 15 7:30 Operator: MA
Sample : AZ17434S02 1/30.38G x10 Inst : Linus
Misc : soil Multiplr: 329.16
Quant Time: Jun 30 9:16 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Multiple Level Calibration



TIC: 0629L044.D

(2) Surrogate Recovery (NBZ) (S)

5.19min 27.2693ppb

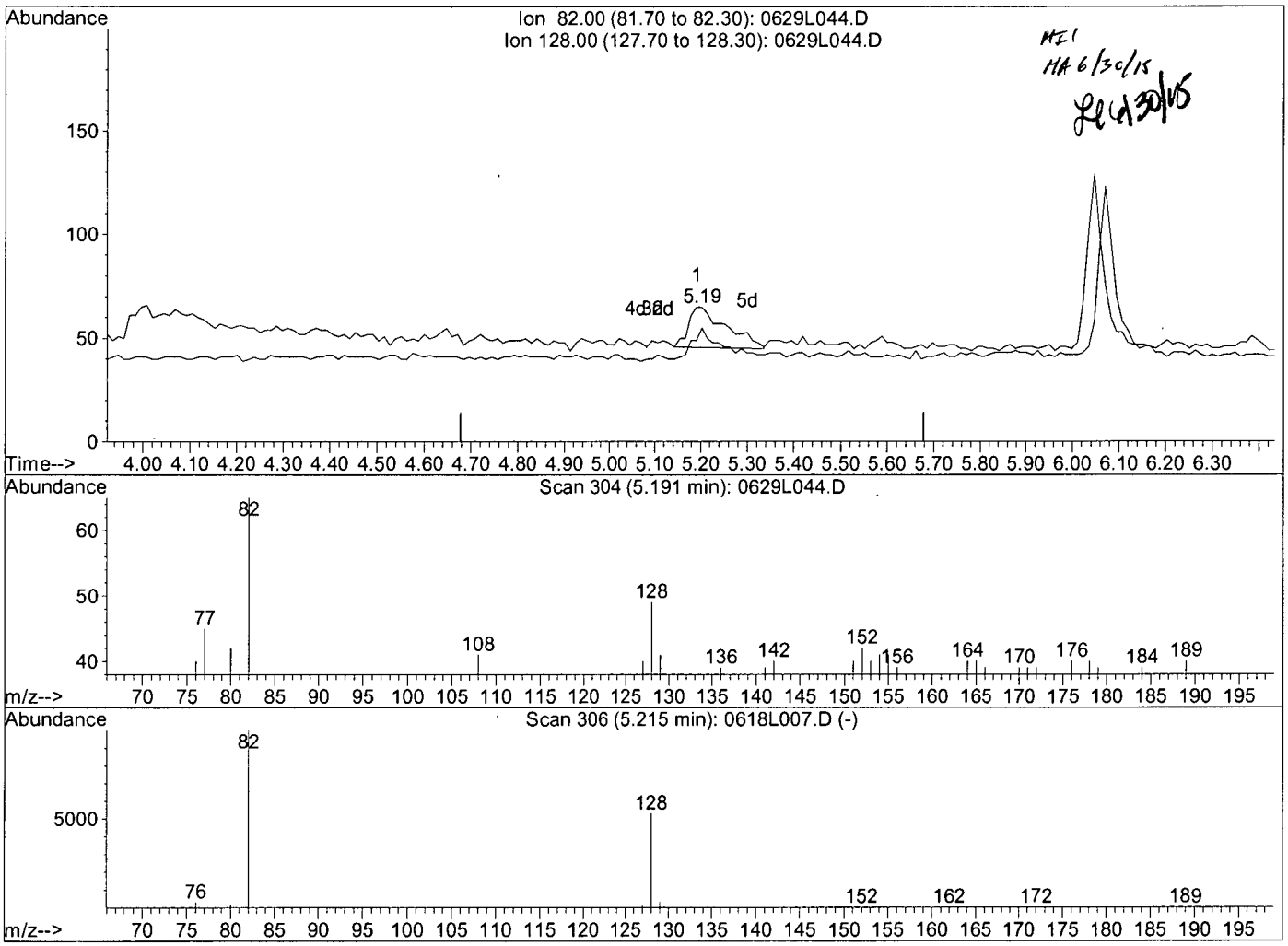
response 64

Ion	Exp%	Act%
82.00	100	100
128.00	52.70	47.37
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L044.D Vial: 44
Acq On : 30 Jun 15 7:30 Operator: MA
Sample : AZ17434S02 1/30.38G x10 Inst : Linus
Misc : soil Multiplr: 329.16
Quant Time: Jun 30 12:35 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Multiple Level Calibration



TIC: 0629L044.D

(2) Surrogate Recovery (NBZ) (S)

5.19min 48.9995ppb m

response 115

Ion	Exp%	Act%
82.00	100	100
128.00	52.70	75.38#
0.00	0.00	0.00
0.00	0.00	0.00

EPA 8270D LL SOILS

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-SS039-0001
Sample Collection Date: 06/08/15

ARF: 76624
APPL ID: AZ17435
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 22.4 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.037 J	0.064	0.0220	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.0220 U	0.064	0.0220	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.014 J	0.064	0.0220	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.020 J	0.064	0.0220	0.0100	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.14	0.064	0.0220	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.071	0.064	0.0220	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.10	0.064	0.0220	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.066	0.064	0.0220	0.0170	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.0220 U	0.064	0.0220	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.0220 U	0.064	0.0220	0.0100	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.017 J	0.064	0.0220	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	0.13	0.064	0.0220	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.0220 U	0.064	0.0220	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.059 J	0.064	0.0220	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.022 J	0.064	0.0220	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.059 J	0.064	0.0220	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.11	0.064	0.0220	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	66.3	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	43.4	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	66.5	30-125			%	06/22/15	06/30/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L045
Instrument: Linus
Sequence: L150629
Dilution Factor: 10
Initials: MA

Printed: 07/02/15 4:55:06 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L045.D Vial: 45
Acq On : 30 Jun 15 7:57 Operator: MA
Sample : AZ17435S03 1/30.05G x10 Inst : Linus
Misc : soil Multiplr: 332.78

Quant Time: Jul 1 12:59 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	6.05	136	8165	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	8.10	164	3683	2.50000	ppb		0.00
11) Phenanthrene-D10(IS)	9.86	188	6187	2.50000	ppb		0.00
15) Chrysene-D12(IS)	13.03	240	7102	2.50000	ppb		0.00
21) Perylene-D12(IS)	15.67	264	4437	2.50000	ppb		0.01
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.19	82	88	36.10570	ppb		0.01
Spiked Amount 83.195			Recovery = 43.399%				
7) Surrogate Recovery (FBP)	7.31	172	370	55.14412	ppb		0.00
Spiked Amount 83.195			Recovery = 66.283%				
17) Surrogate Recovery (TPH)	11.71	244	432	55.30061	ppb		-0.01
Spiked Amount 83.195			Recovery = 66.472%				
Target Compounds							Qvalue
3) Naphthalene	6.07	128	225	16.81922	ppb		93
4) 2-Methylnaphthalene	6.89	142	230	28.34933	ppb		99
5) 1-Methylnaphthalene	7.00	142	130	14.27171	ppb		97
8) Acenaphthylene	7.94	152	137	11.02044	ppb		92
12) Phenanthrene	9.88	178	514	45.82934	ppb		99
13) Anthracene	9.94	178	178	15.35060	ppb		96
14) Fluoranthene	11.27	202	1420	98.18960	ppb		98
16) Pyrene	11.54	202	1318	84.28406	ppb		96
18) Benz (a) anthracene	13.02	228	699	105.95863	ppb		91
20) Indeno (1,2,3-cd) pyrene	17.90	276	613	45.98670	ppb	#	97
22) Benzo (b) fluoranthene	14.85	252	1616	80.17128	ppb		99
24) Benzo (a) pyrene	15.42	252	621	55.20236	ppb		96
25) Dibenz (a,h) anthracene	17.93	278	168	13.54154	ppb		91
26) Benzo (g,h,i) perylene	18.42	276	651	50.96420	ppb		93

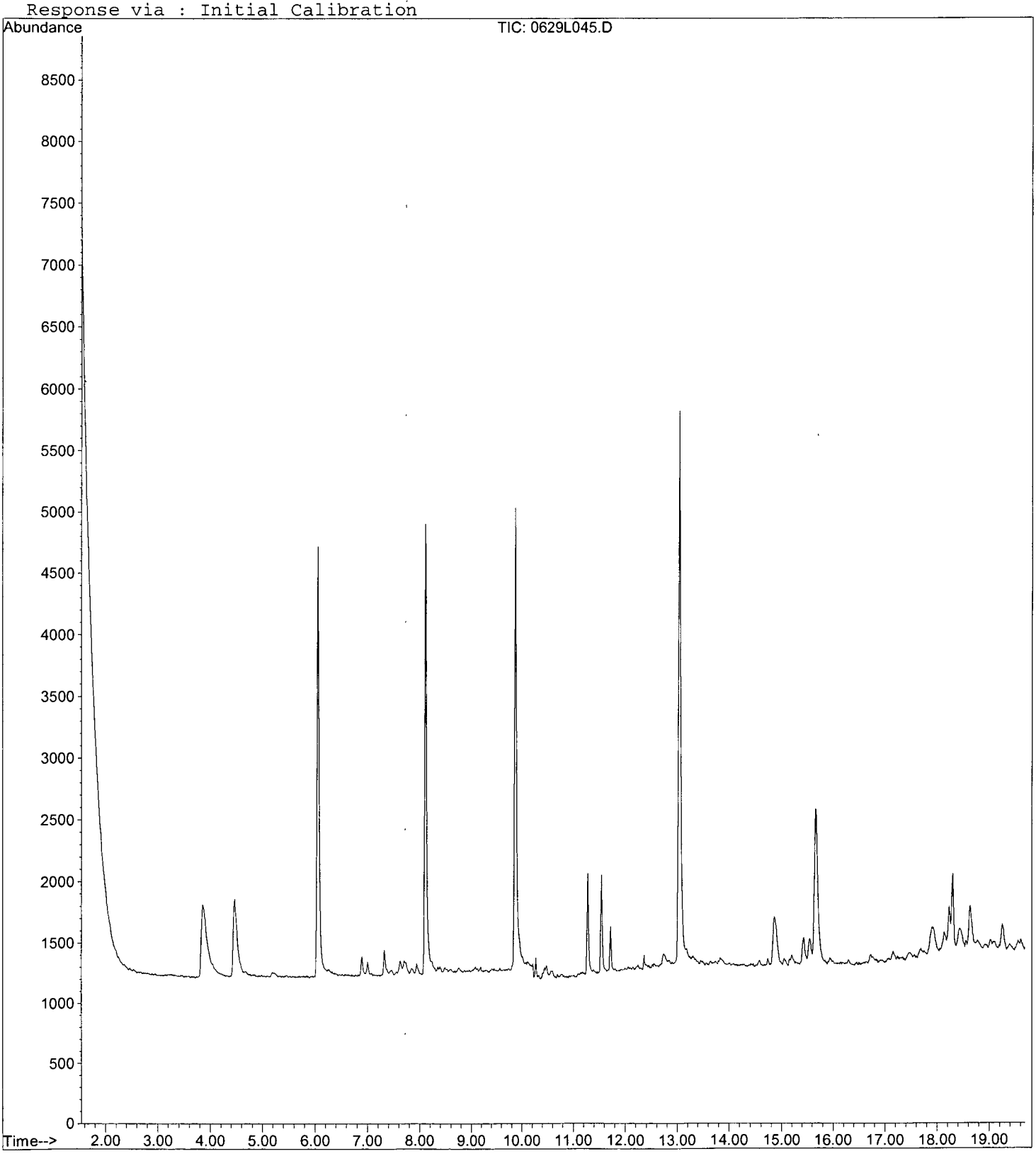
(#) = qualifier out of range (m) = manual integration

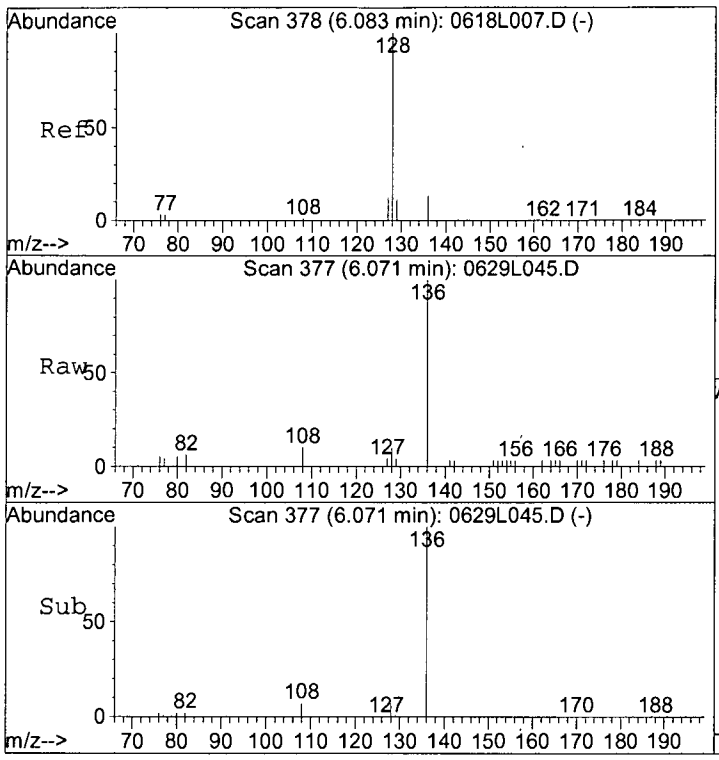
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L045.D Vial: 45
Acq On : 30 Jun 15 7:57 Operator: MA
Sample : AZ17435S03 1/30.05G x10 Inst : Linus
Misc : soil Multiplr: 332.78

Quant Time: Jul 1 12:59 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration

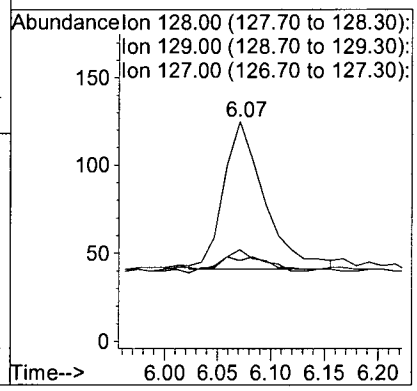


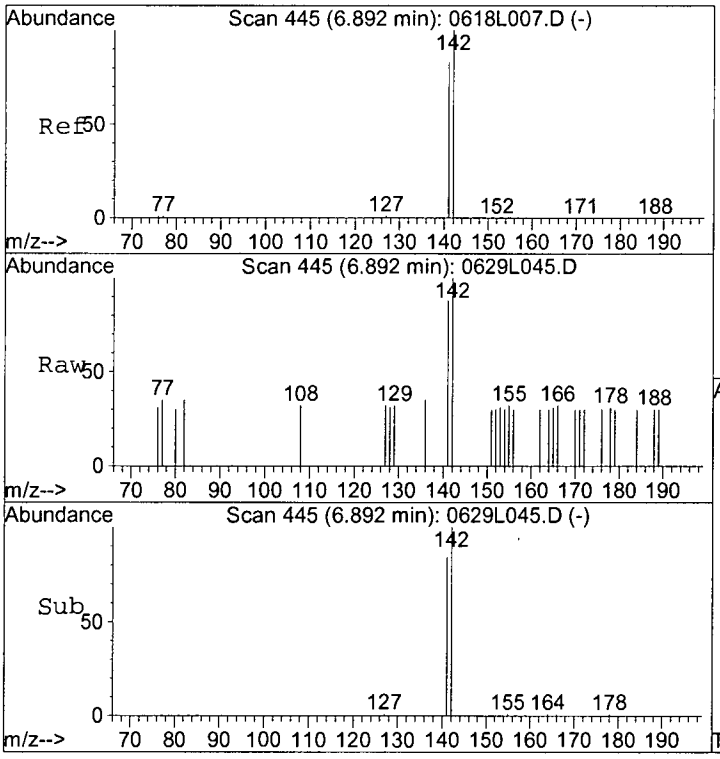


#3
Naphthalene
Concen: 16.81922 ppb
RT: 6.07 min Scan# 377
Delta R.T. -0.00 min
Lab File: 0629L045.D
Acq: 30 Jun 15 7:57

Tgt Ion:128 Resp: 225

Ion	Ratio	Lower	Upper
128	100		
129	12.2	7.4	13.8
127	8.5	8.4	15.6

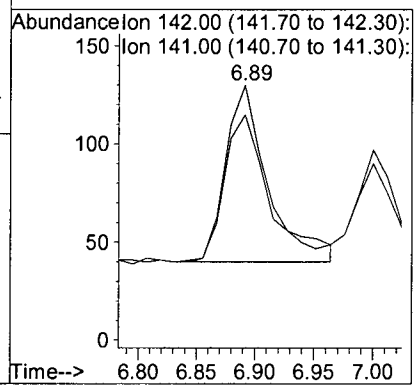


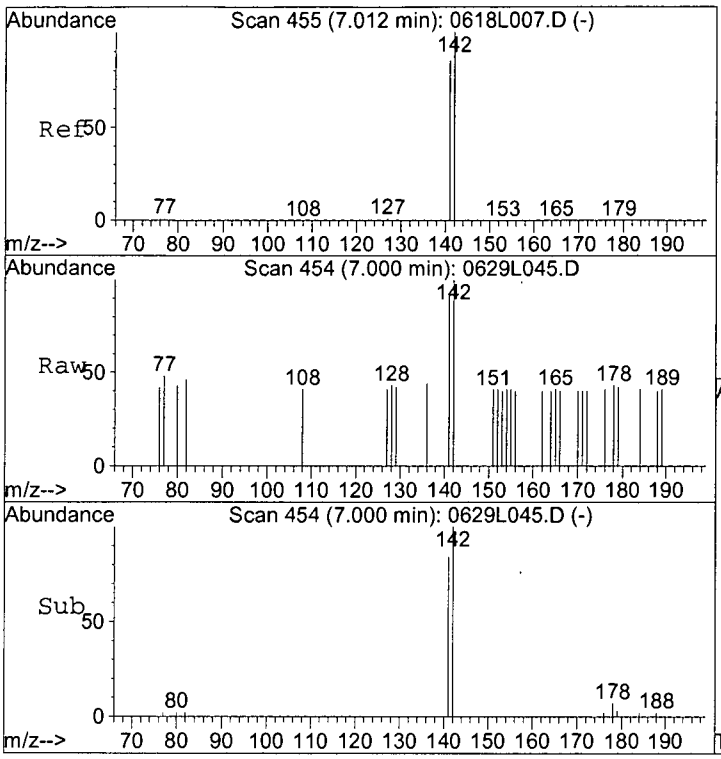


#4
2-Methylnaphthalene
Concen: 28.34933 ppb
RT: 6.89 min Scan# 445
Delta R.T. 0.01 min
Lab File: 0629L045.D
Acq: 30 Jun 15 7:57

Tgt Ion:142 Resp: 230

Ion	Ratio	Lower	Upper
142	100		
141	82.2	58.3	108.3

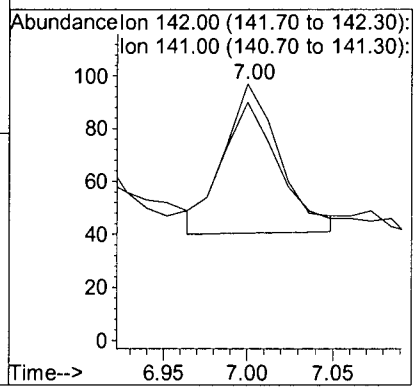


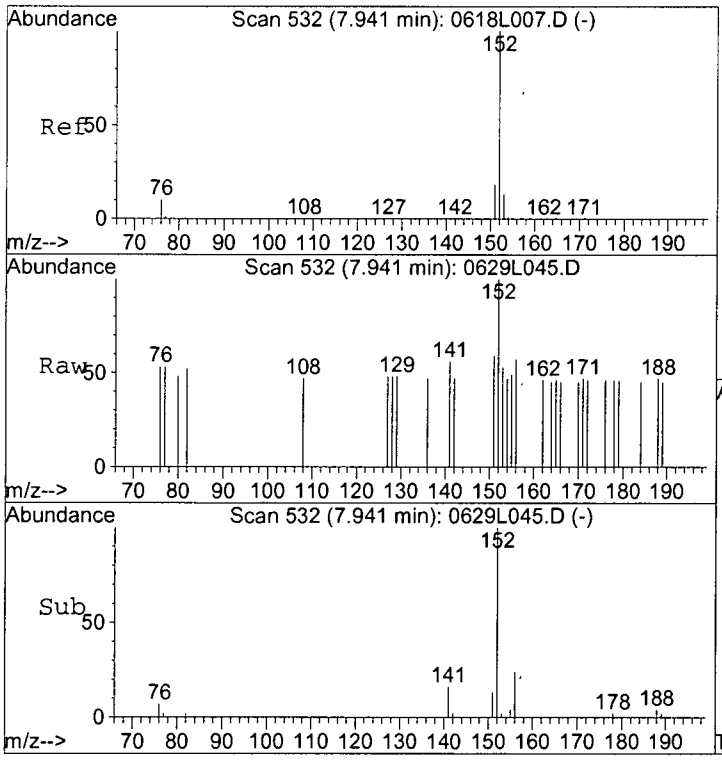


#5
1-Methylnaphthalene
Concen: 14.27171 ppb
RT: 7.00 min Scan# 454
Delta R.T. 0.00 min
Lab File: 0629L045.D
Acq: 30 Jun 15 7:57

Tgt Ion:142 Resp: 130

Ion	Ratio	Lower	Upper
142	100		
141	88.0	59.5	110.5

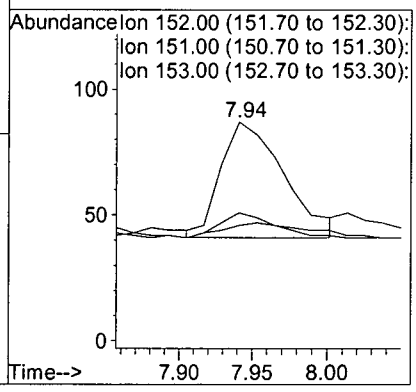


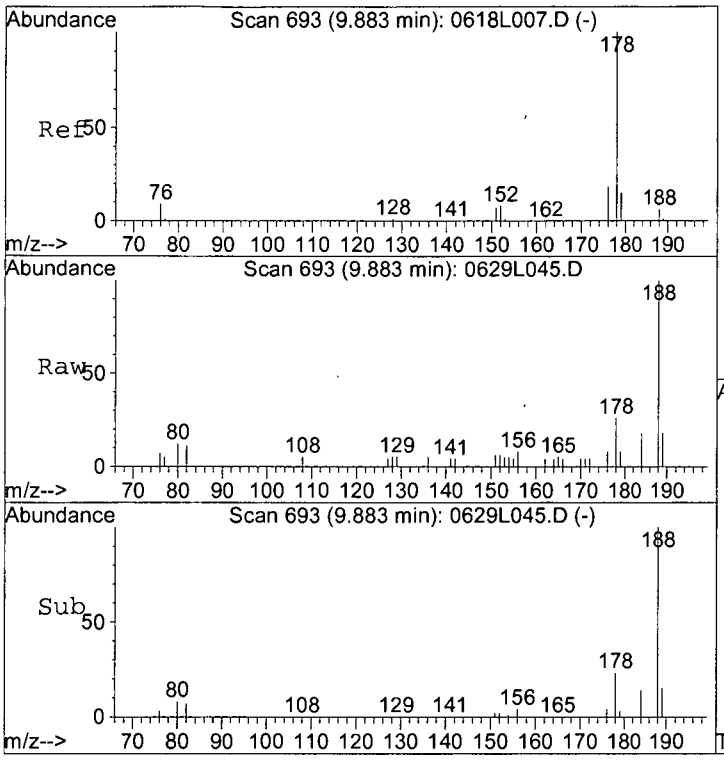


#8
Acenaphthylene
Concen: 11.02044 ppb
RT: 7.94 min Scan# 532
Delta R.T. -0.00 min
Lab File: 0629L045.D
Acq: 30 Jun 15 7:57

Tgt Ion:152 Resp: 137

Ion	Ratio	Lower	Upper
152	100		
151	23.3	12.7	23.7
153	11.6	9.0	16.8

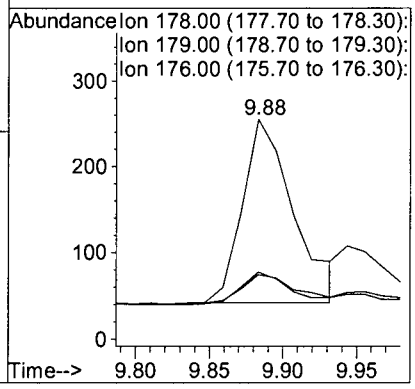


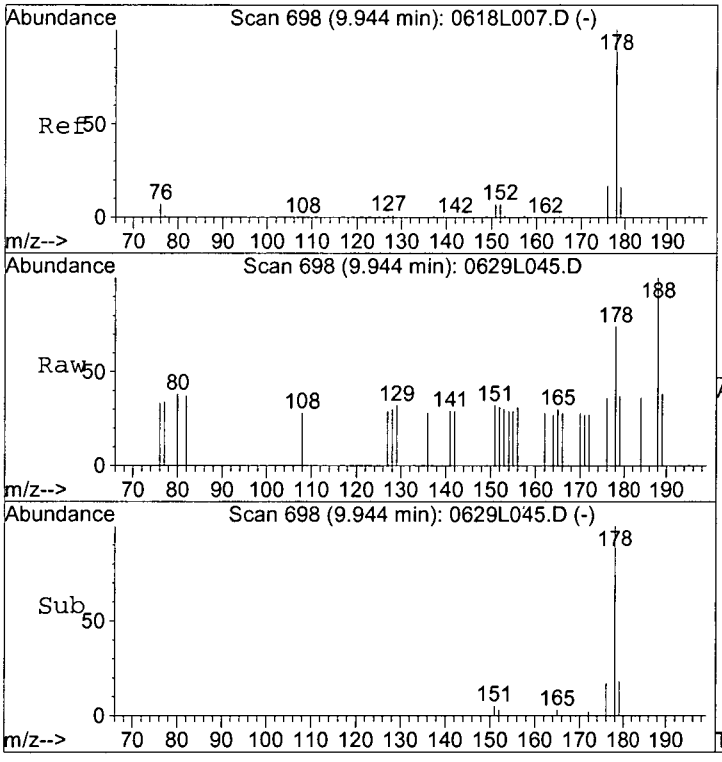


#12
Phenanthrene
Concen: 45.82934 ppb
RT: 9.88 min Scan# 693
Delta R.T. -0.00 min
Lab File: 0629L045.D
Acq: 30 Jun 15 7:57

Tgt Ion:178 Resp: 514

Ion	Ratio	Lower	Upper
178	100		
179	16.0	10.5	19.5
176	17.8	12.3	22.8

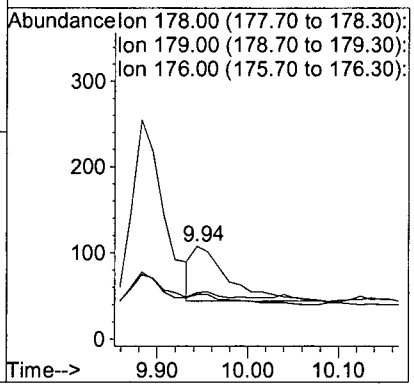


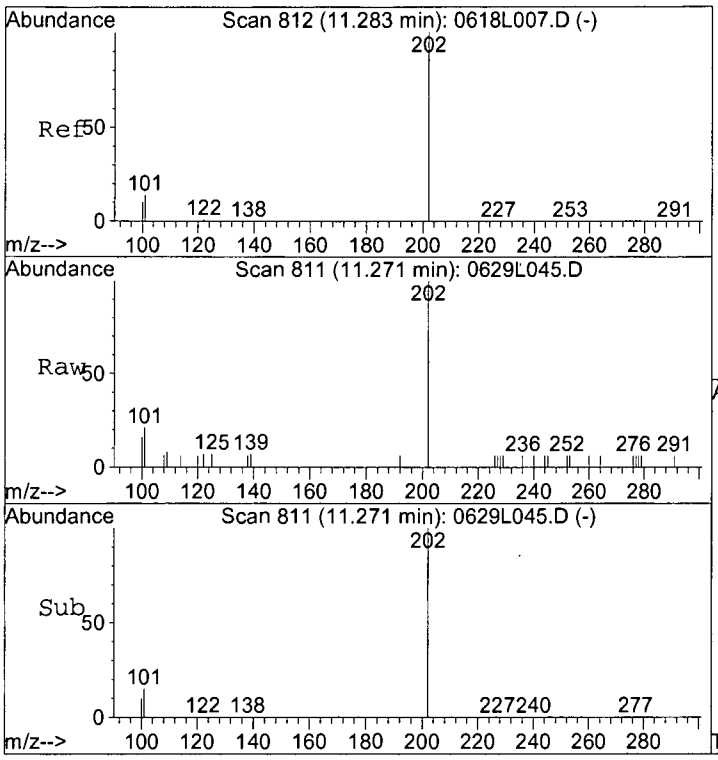


#13
Anthracene
Concen: 15.35060 ppb
RT: 9.94 min Scan# 698
Delta R.T. 0.00 min
Lab File: 0629L045.D
Acq: 30 Jun 15 7:57

Tgt Ion:178 Resp: 178

Ion	Ratio	Lower	Upper
178	100		
179	17.2	10.9	20.3
176	15.6	12.2	22.6

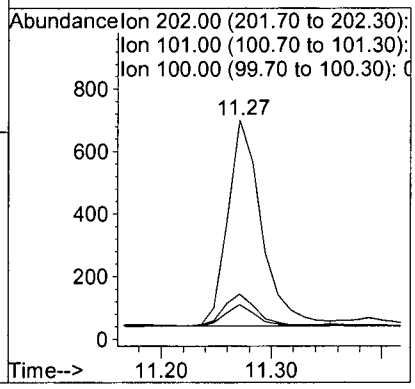


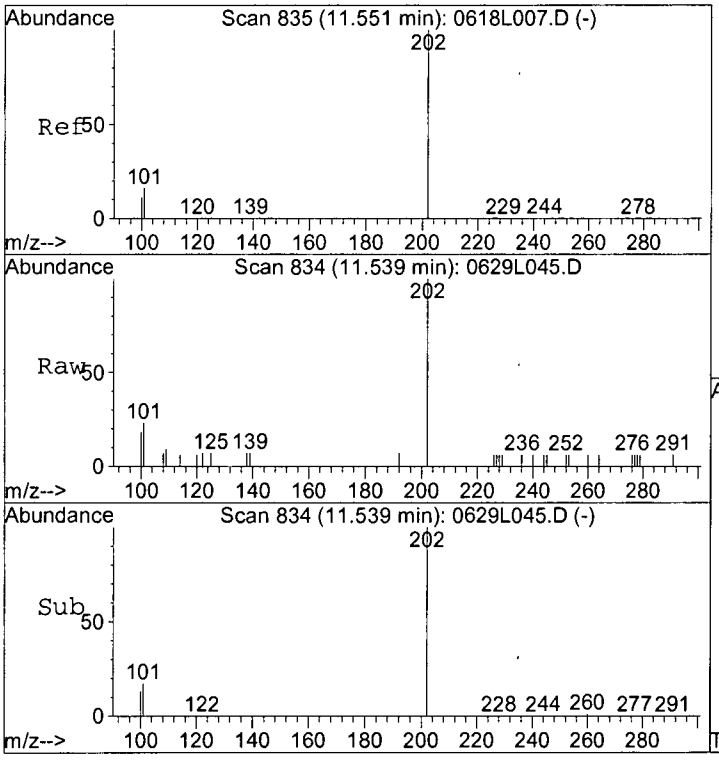


#14
Fluoranthene
Concen: 98.18960 ppb
RT: 11.27 min Scan# 811
Delta R.T. -0.01 min
Lab File: 0629L045.D
Acq: 30 Jun 15 7:57

Tgt Ion:202 Resp: 1420

Ion	Ratio	Lower	Upper
202	100		
101	15.5	9.7	18.1
100	10.3	7.4	13.7

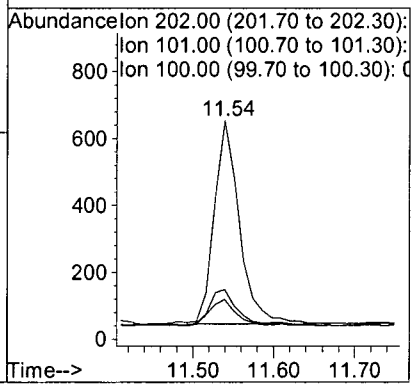


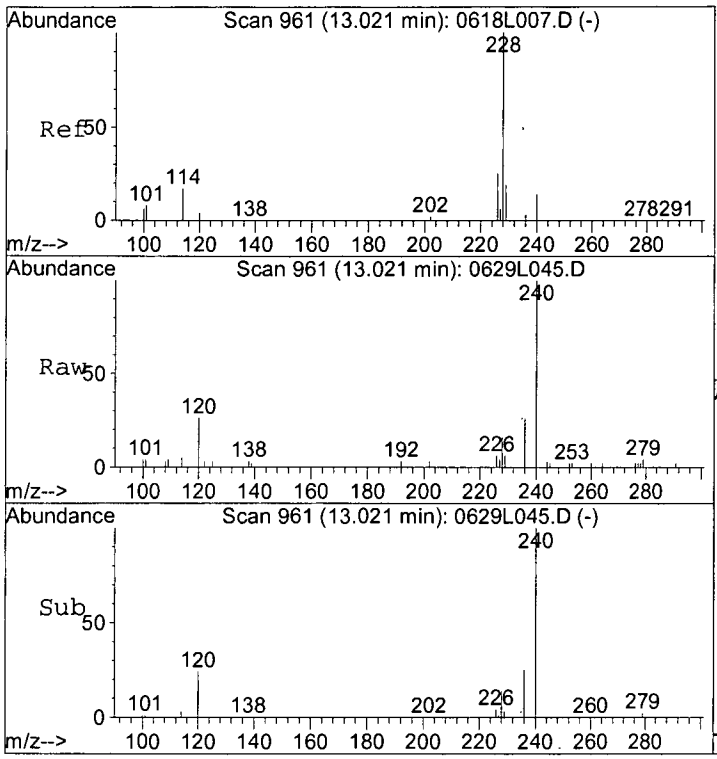


#16
Pyrene
Concen: 84.28406 ppb
RT: 11.54 min Scan# 834
Delta R.T. -0.00 min
Lab File: 0629L045.D
Acq: 30 Jun 15 7:57

Tgt Ion:202 Resp: 1318

Ion	Ratio	Lower	Upper
202	100		
101	17.5	11.0	20.4
100	13.0	7.9	14.7

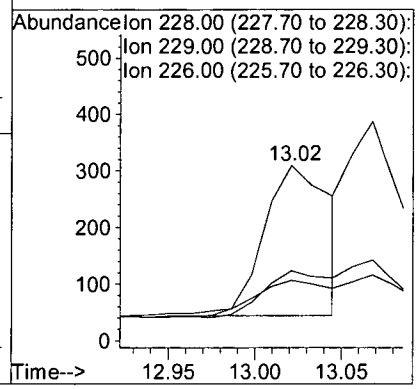


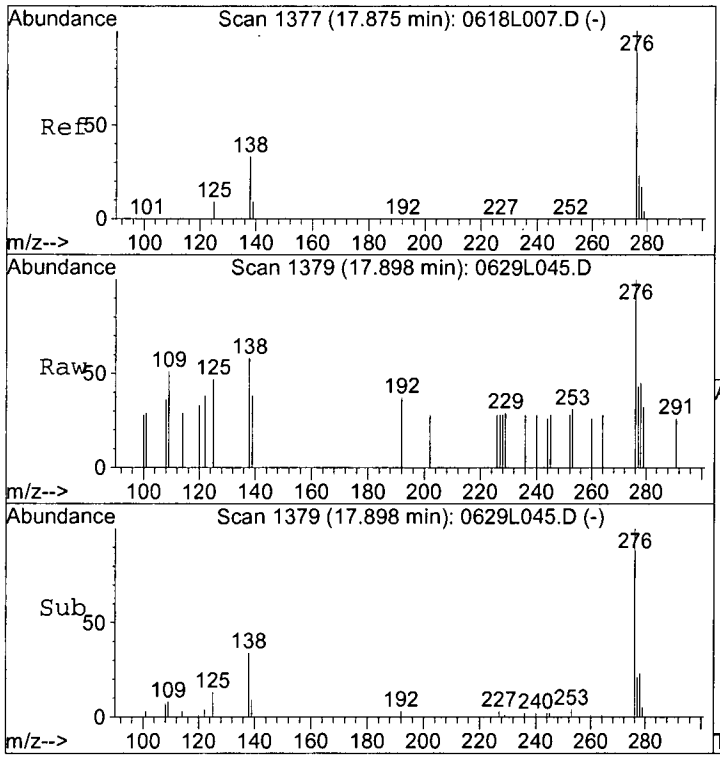


#18
Benz (a) anthracene
Concen: 105.95863 ppb
RT: 13.02 min Scan# 961
Delta R.T. 0.00 min
Lab File: 0629L045.D
Acq: 30 Jun 15 7:57

Tgt Ion:228 Resp: 699

Ion	Ratio	Lower	Upper
228	100		
229	22.2	13.4	25.0
226	30.5	17.2	32.0

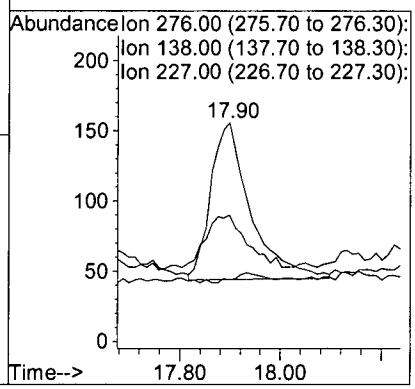


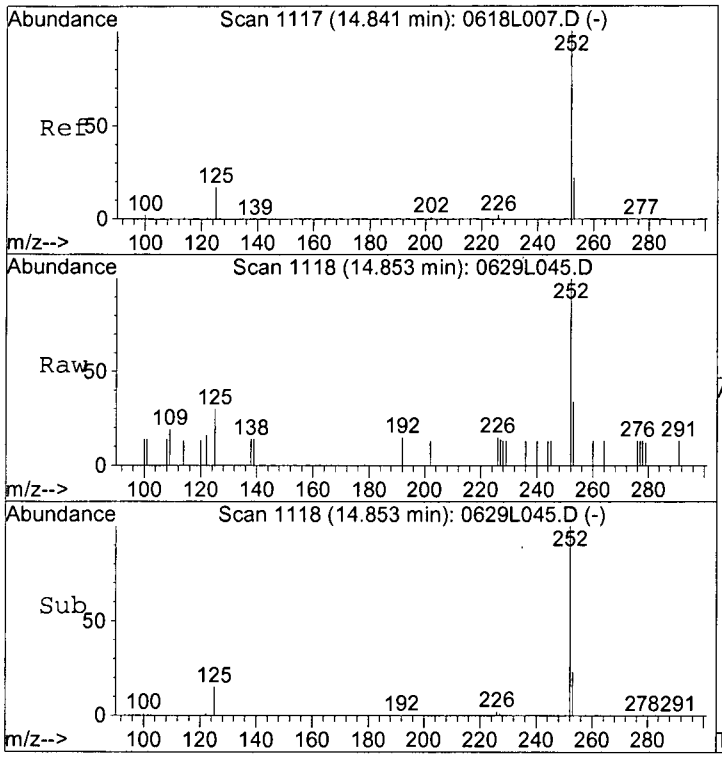


#20
Indeno (1,2,3-cd) pyrene
Concen: 45.98670 ppb
RT: 17.90 min Scan# 1379
Delta R.T. 0.02 min
Lab File: 0629L045.D
Acq: 30 Jun 15 7:57

Tgt Ion:276 Resp: 613

Ion	Ratio	Lower	Upper
276	100		
138	31.5	23.0	42.8
227	0.9	0.1	0.1#

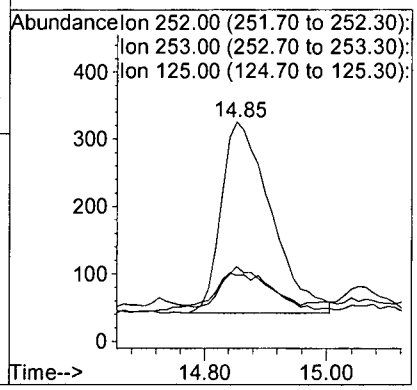


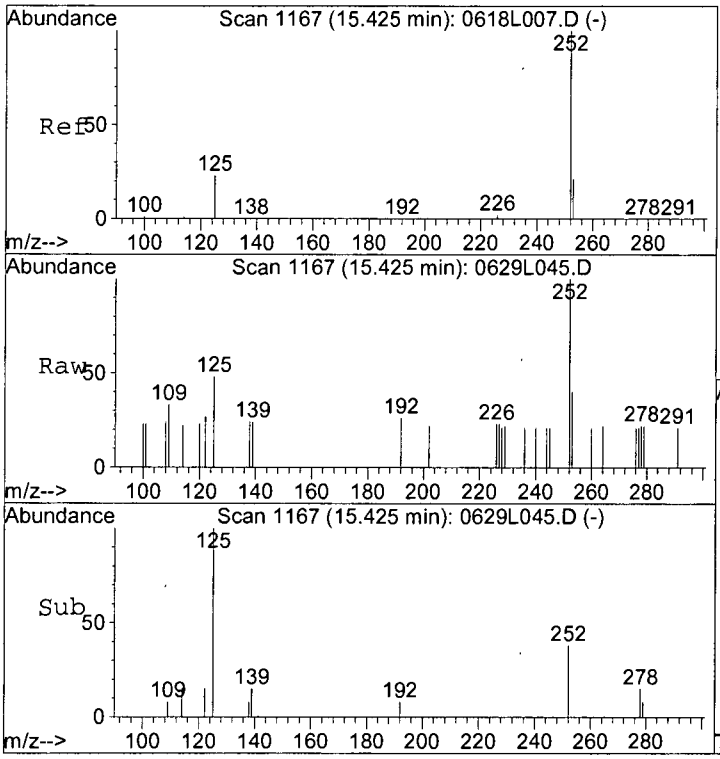


#22
Benzo (b) fluoranthene
Concen: 80.17128 ppb
RT: 14.85 min Scan# 1118
Delta R.T. 0.01 min
Lab File: 0629L045.D
Acq: 30 Jun 15 7:57

Tgt Ion:252 Resp: 1616

Ion	Ratio	Lower	Upper
252	100		
253	21.8	15.7	29.1
125	15.5	11.3	20.9

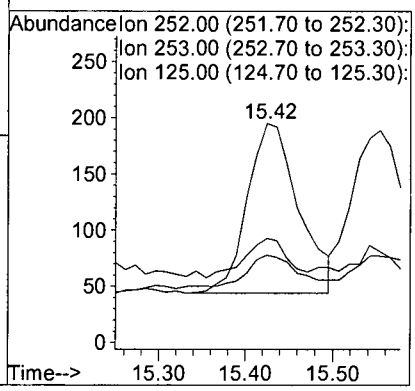


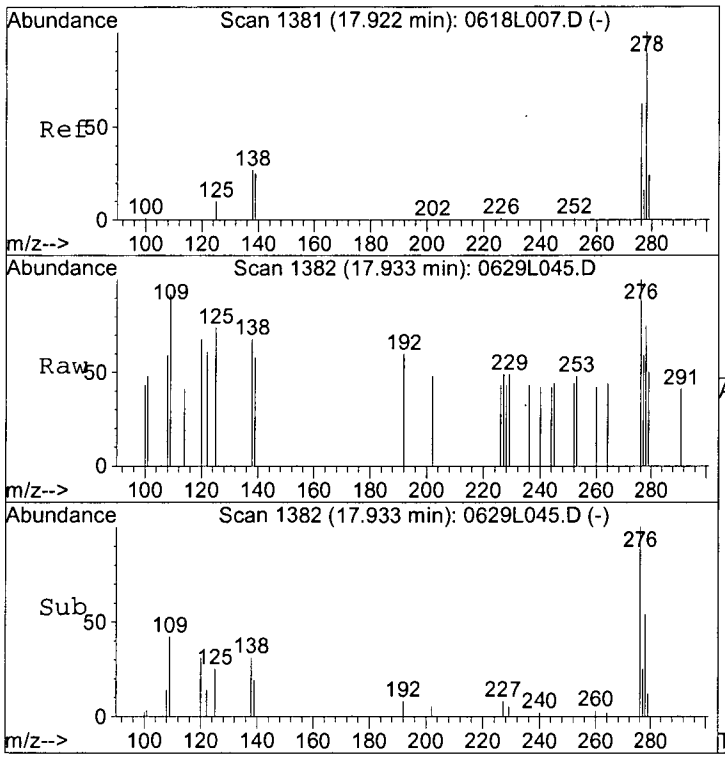


#24
Benzo (a) pyrene
Concen: 55.20236 ppb
RT: 15.42 min Scan# 1167
Delta R.T. 0.01 min
Lab File: 0629L045.D
Acq: 30 Jun 15 7:57

Tgt Ion:252 Resp: 621

Ion	Ratio	Lower	Upper
252	100		
253	18.5	15.2	28.2
125	22.5	16.1	29.9

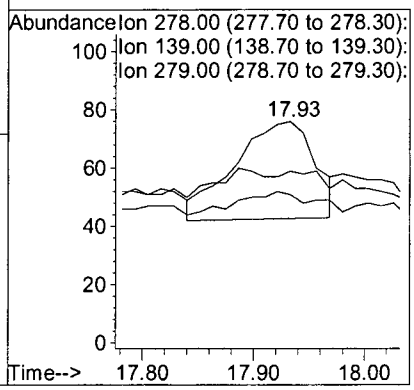


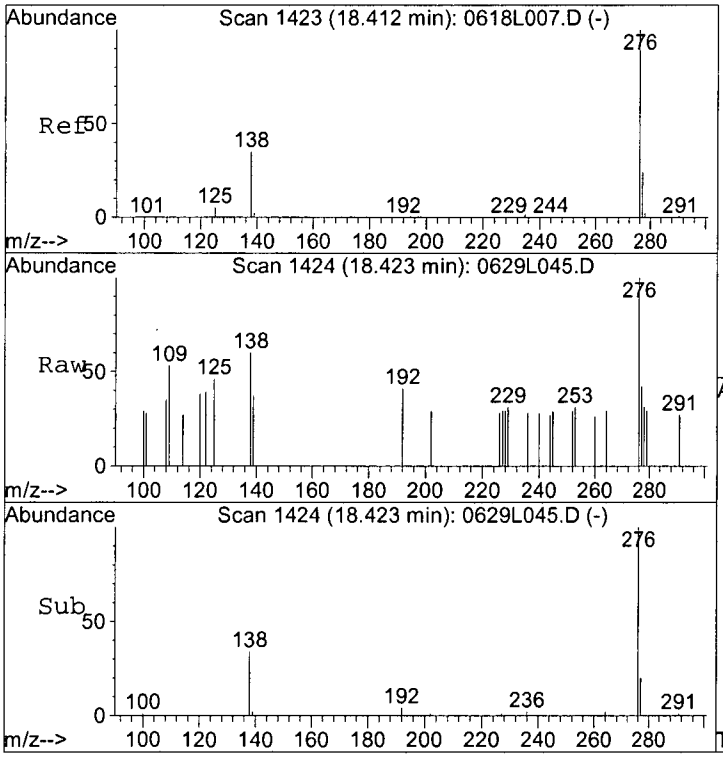


#25
Dibenz (a,h) anthracene
Concen: 13.54154 ppb
RT: 17.93 min Scan# 1382
Delta R.T. 0.02 min
Lab File: 0629L045.D
Acq: 30 Jun 15 7:57

Tgt Ion:278 Resp: 168

Ion	Ratio	Lower	Upper
278	100		
139	33.3	18.5	34.3
279	25.9	16.7	30.9

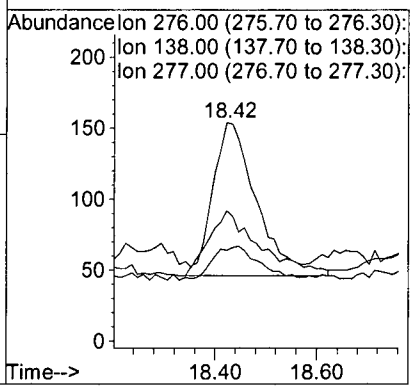




#26
Benzo (g,h,i) perylene
Concen: 50.96420 ppb
RT: 18.42 min Scan# 1424
Delta R.T. 0.01 min
Lab File: 0629L045.D
Acq: 30 Jun 15 7:57

Tgt Ion:276 Resp: 651

Ion	Ratio	Lower	Upper
276	100		
138	33.3	23.7	44.1
277	17.6	17.3	32.1



EPA 8270D LL SOILS

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-SB039-0607
Sample Collection Date: 06/08/15

ARF: 76624
APPL ID: AZ17436
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.9 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0021 U	0.006	0.0021	0.0011	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.0021 U	0.006	0.0021	0.0012	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.0021 U	0.006	0.0021	0.0011	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.0021 U	0.006	0.0021	0.0010	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.0021 U	0.006	0.0021	0.0011	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.0021 U	0.006	0.0021	0.0011	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.0021 U	0.006	0.0021	0.0013	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.0021 U	0.006	0.0021	0.0016	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.0021 U	0.006	0.0021	0.0012	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.0021 U	0.006	0.0021	0.0010	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.0021 U	0.006	0.0021	0.0011	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	0.0021 U	0.006	0.0021	0.0015	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.0021 U	0.006	0.0021	0.0012	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.0021 U	0.006	0.0021	0.0011	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.0011 J	0.006	0.0021	0.0011	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.0021 U	0.006	0.0021	0.0013	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.0021 U	0.006	0.0021	0.0015	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	21.6 #	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	45.6	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	66.7	30-125			%	06/22/15	06/30/15

J = Estimated value.
# = Recovery (or RPD) is outside QC limits.

Quant Method: P0629.M
Run #: 0629L071
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/02/15 4:55:06 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L071.D Vial: 71
Acq On : 30 Jun 15 20:38 Operator: MA
Sample : AZ17436S02 1/30.19G Inst : Linus
Misc : soil Multiplr: 33.12

Quant Time: Jul 1 12:23 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8(IS)	6.05	136	7167	2.50000	ppb	0.00
6) Acenaphthene-D10(IS)	8.11	164	3292	2.50000	ppb	0.01
11) Phenanthrene-D10(IS)	9.87	188	5525	2.50000	ppb	0.01
15) Chrysene-D12(IS)	13.06	240	6280	2.50000	ppb	0.02
21) Perylene-D12(IS)	15.69	264	3593	2.50000	ppb	0.03
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.19	82	812	37.77896	ppb	0.01
Spiked Amount 82.809			Recovery = 45.622%			
7) Surrogate Recovery (FBP)	7.31	172	1076	17.85803	ppb	0.00
Spiked Amount 82.809			Recovery = 21.565%			
17) Surrogate Recovery (TPH)	11.73	244	3834	55.24606	ppb	0.00
Spiked Amount 82.809			Recovery = 66.715%			
Target Compounds						Qvalue
3) Naphthalene	6.07	128	103	0.87309	ppb	98

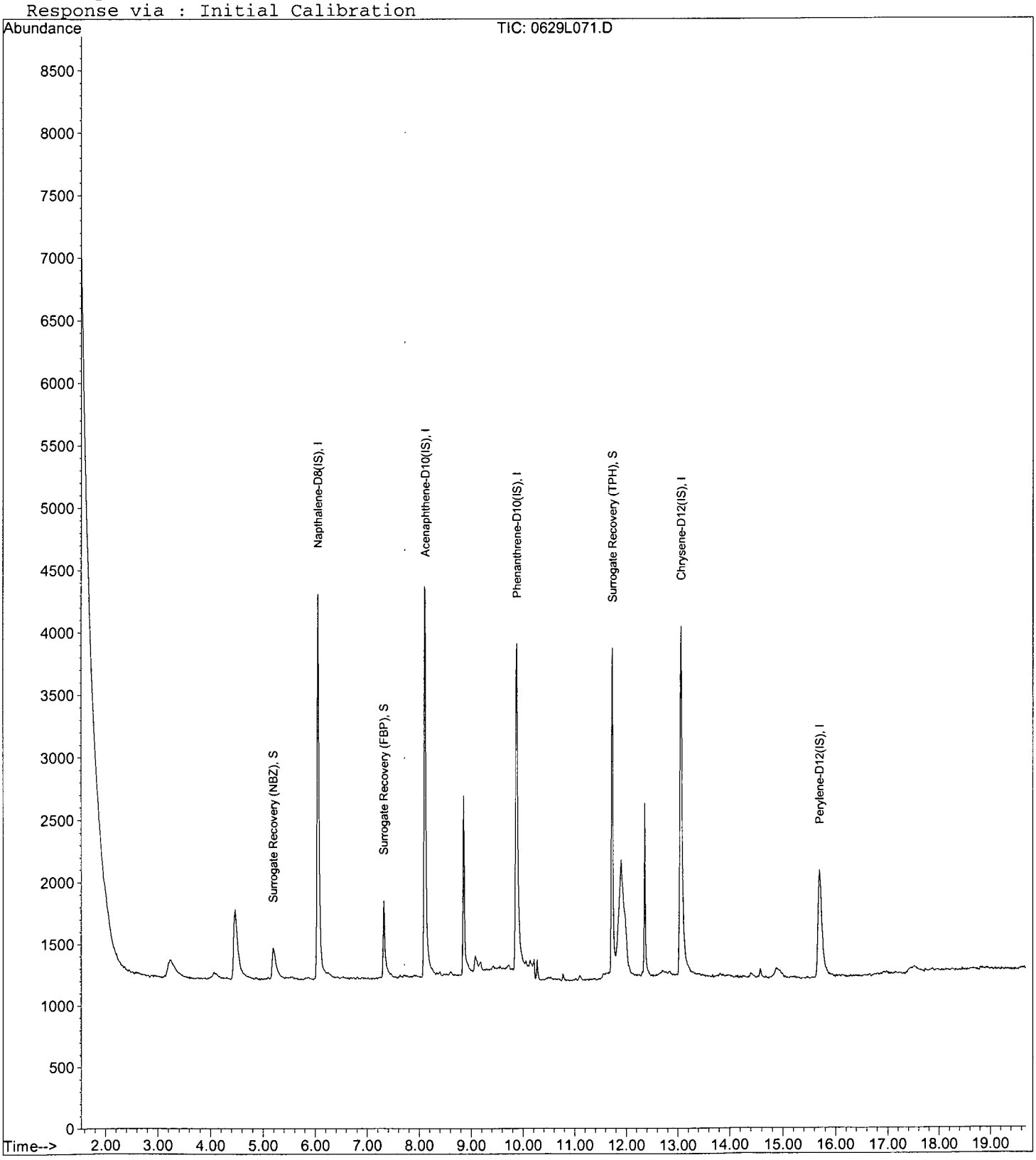
(#) = qualifier out of range (m) = manual integration

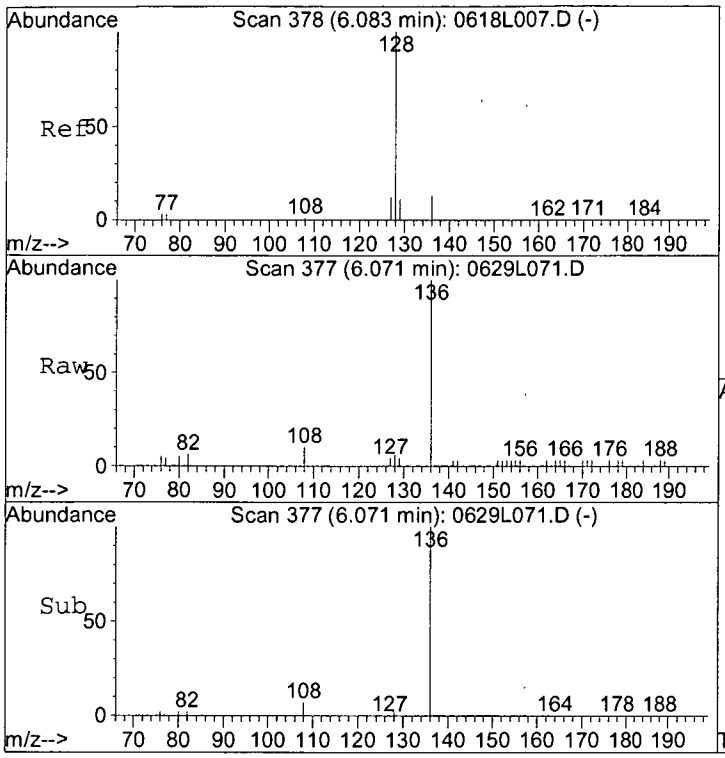
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L071.D Vial: 71
Acq On : 30 Jun 15 20:38 Operator: MA
Sample : AZ17436S02 1/30.19G Inst : Linus
Misc : soil Multiplr: 33.12

Quant Time: Jul 1 12:23 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration

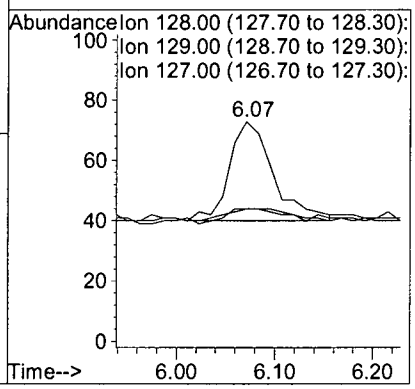




#3
Naphthalene
Concen: 0.87309 ppb
RT: 6.07 min Scan# 377
Delta R.T. -0.00 min
Lab File: 0629L071.D
Acq: 30 Jun 15 20:38

Tgt Ion:128 Resp: 103

Ion	Ratio	Lower	Upper
128	100		
129	12.1	7.4	13.8
127	12.1	8.4	15.6



EPA 8270D LL SOILS RE-EXTRACT

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-SB039-0607
Sample Collection Date: 06/08/15

ARF: 76624
APPL ID: AZ17436
QCG: #SIMDD-150706A-198646

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.9 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0021 U	0.006	0.0021	0.0011	mg/kg	07/06/15	07/07/15
8270D-LL	ACENAPHTHENE	0.0021 U	0.006	0.0021	0.0012	mg/kg	07/06/15	07/07/15
8270D-LL	ACENAPHTHYLENE	0.0021 U	0.006	0.0021	0.0011	mg/kg	07/06/15	07/07/15
8270D-LL	ANTHRACENE	0.0021 U	0.006	0.0021	0.0010	mg/kg	07/06/15	07/07/15
8270D-LL	BENZ (A) ANTHRACENE	0.0021 U	0.006	0.0021	0.0011	mg/kg	07/06/15	07/07/15
8270D-LL	BENZO (A) PYRENE	0.0021 U	0.006	0.0021	0.0011	mg/kg	07/06/15	07/07/15
8270D-LL	BENZO (B) FLUORANTHENE	0.0021 U	0.006	0.0021	0.0013	mg/kg	07/06/15	07/07/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.0021 U	0.006	0.0021	0.0016	mg/kg	07/06/15	07/07/15
8270D-LL	BENZO (K) FLUORANTHENE	0.0021 U	0.006	0.0021	0.0012	mg/kg	07/06/15	07/07/15
8270D-LL	CHRYSENE	0.0021 U	0.006	0.0021	0.0010	mg/kg	07/06/15	07/07/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.0021 U	0.006	0.0021	0.0011	mg/kg	07/06/15	07/07/15
8270D-LL	FLUORANTHENE	0.0021 U	0.006	0.0021	0.0015	mg/kg	07/06/15	07/07/15
8270D-LL	FLUORENE	0.0021 U	0.006	0.0021	0.0012	mg/kg	07/06/15	07/07/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.0021 U	0.006	0.0021	0.0011	mg/kg	07/06/15	07/07/15
8270D-LL	NAPHTHALENE	0.0021 U	0.006	0.0021	0.0011	mg/kg	07/06/15	07/07/15
8270D-LL	PHENANTHRENE	0.0021 U	0.006	0.0021	0.0013	mg/kg	07/06/15	07/07/15
8270D-LL	PYRENE	0.0021 U	0.006	0.0021	0.0015	mg/kg	07/06/15	07/07/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	47.9	45-105			%	07/06/15	07/07/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	71.2	35-100			%	07/06/15	07/07/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	76.0	30-125			%	07/06/15	07/07/15

Quant Method: P0629.M
Run #: 0629L204
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/08/15 9:41:30 AM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L204.D Vial: 4
Acq On : 7 Jul 15 13:28 Operator: MA
Sample : AZ17436S02 1/30.21G Inst : Linus
Misc : soil Multiplr: 33.10

Quant Time: Jul 8 9:31 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8(IS)	6.07	136	4603	2.50000	ppb	0.02
6) Acenaphthene-D10(IS)	8.11	164	2235	2.50000	ppb	0.01
11) Phenanthrene-D10(IS)	9.87	188	3740	2.50000	ppb	0.01
15) Chrysene-D12(IS)	13.07	240	4706	2.50000	ppb	0.04
21) Perylene-D12(IS)	15.72	264	2927	2.50000	ppb	0.06
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.21	82	814	58.92865	ppb	0.04
Spiked Amount 82.754			Recovery = 71.210%			
7) Surrogate Recovery (FBP)	7.33	172	1623	39.64915	ppb	0.01
Spiked Amount 82.754			Recovery = 47.912%			
17) Surrogate Recovery (TPH)	11.73	244	3271	62.85635	ppb	0.00
Spiked Amount 82.754			Recovery = 75.955%			

Target Compounds Qvalue

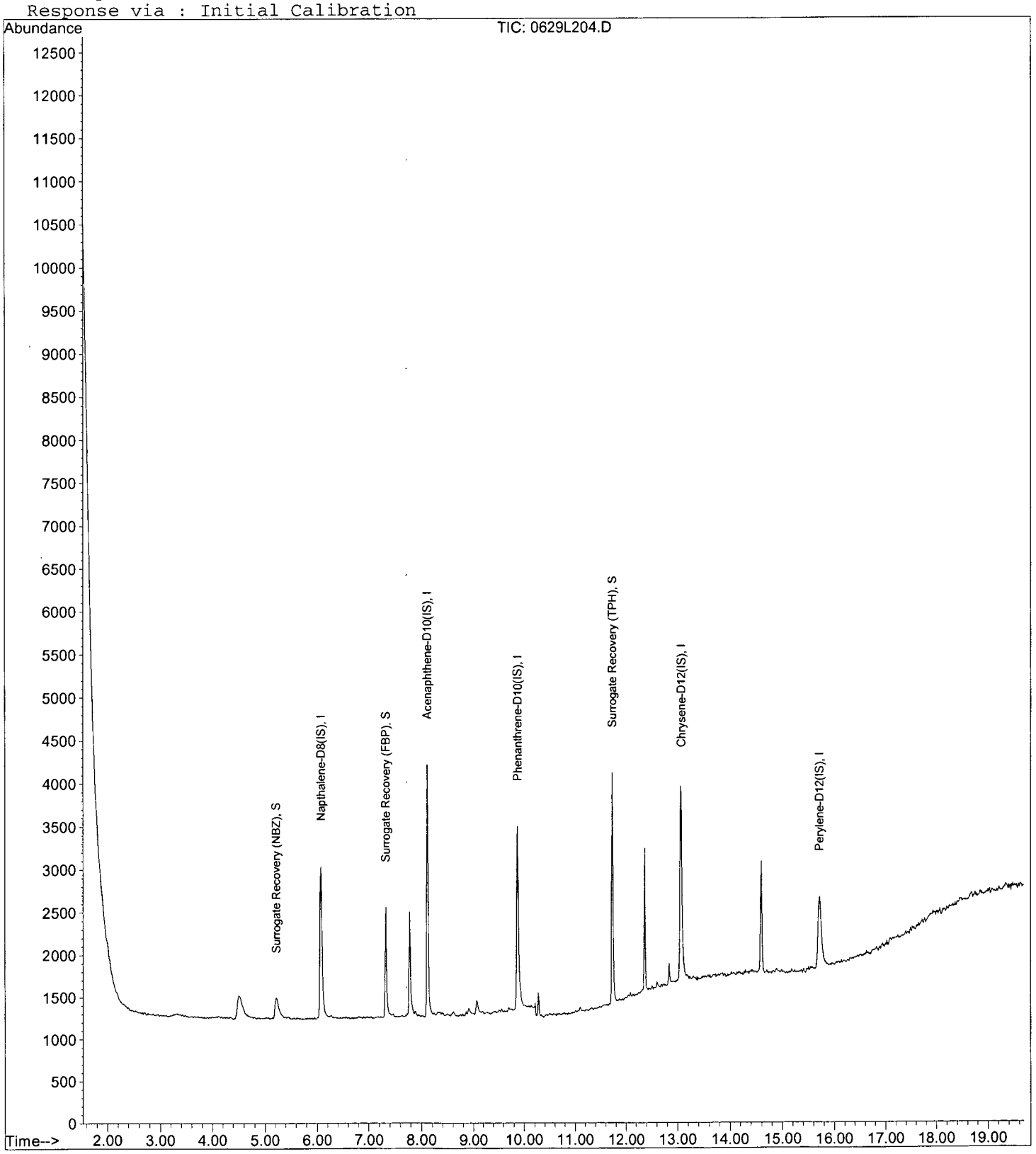
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L204.D Vial: 4
Acq On : 7 Jul 15 13:28 Operator: MA
Sample : AZ17436S02 1/30.21G Inst : Linus
Misc : soil Multiplr: 33.10

Quant Time: Jul 8 9:31 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration



EPA 8270D LL SOILS

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-SS038-0001
Sample Collection Date: 06/09/15

ARF: 76624
APPL ID: AZ17437
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.5 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.030 J	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.074	0.061	0.0210	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.031 J	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.29	0.061	0.0210	0.0097	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.66	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.36	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.86	0.061	0.0210	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.29	0.061	0.0210	0.0160	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.79	0.061	0.0210	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.20	0.061	0.0210	0.0097	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.086	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	1.3	0.061	0.0210	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.087	0.061	0.0210	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.29	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.042 J	0.061	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.90	0.061	0.0210	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.92	0.061	0.0210	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	67.1	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	39.3	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	76.3	30-125			%	06/22/15	06/30/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L047
Instrument: Linus
Sequence: L150629
Dilution Factor: 10
Initials: MA

Printed: 07/02/15 4:55:06 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L047.D Vial: 47
Acq On : 30 Jun 15 8:51 Operator: MA
Sample : AZ17437S03 1/30.01G x10 Inst : Linus
Misc : soil Multiplr: 333.22

Quant Time: Jun 30 9:16 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.05	136	7687	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.10	164	3442	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.86	188	5928	2.50000 ppb		0.00
15) Chrysene-D12(IS)	13.03	240	7372	2.50000 ppb		0.00
21) Perylene-D12(IS)	15.65	264	4589	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.19	82	75	32.72896 ppb		0.01
Spiked Amount 83.306			Recovery = 39.288%			
7) Surrogate Recovery (FBP)	7.33	172	350	55.89010 ppb		0.01
Spiked Amount 83.306			Recovery = 67.090%			
17) Surrogate Recovery (TPH)	11.71	244	515	63.59562 ppb		-0.01
Spiked Amount 83.306			Recovery = 76.341%			
Target Compounds						Qvalue
3) Naphthalene	6.07	128	441	35.06225 ppb		97
4) 2-Methylnaphthalene	6.89	142	191	25.03953 ppb		98
5) 1-Methylnaphthalene	7.00	142	189	22.06847 ppb		91
8) Acenaphthylene	7.95	152	295	25.42551 ppb		99
9) Acenaphthene	8.13	154	431	60.78453 ppb		93
10) Fluorene	8.76	166	537	71.66717 ppb		93
12) Phenanthrene	9.88	178	7925	738.46535 ppb		99
13) Anthracene	9.94	178	2623	236.40355 ppb		99
14) Fluoranthene	11.27	202	14581	1053.69488 ppb		98
16) Pyrene	11.54	202	12313	759.56991 ppb		99
18) Benz (a) anthracene	13.02	228	6714	541.90007 ppb		95
19) Chrysene	13.07	228	5352	161.50449 ppb		98
20) Indeno (1,2,3-cd) pyrene	17.86	276	3283	237.58361 ppb	#	98
22) Benzo (b) fluoranthene	14.84	252	9255	711.25820 ppb		96
23) Benzo (k) fluoranthene	14.84	252	7387	653.81332 ppb		96
24) Benzo (a) pyrene	15.41	252	3409	293.38837 ppb		93
25) Dibenz (a,h) anthracene	17.90	278	911	71.09304 ppb		99
26) Benzo (g,h,i) perylene	18.40	276	3135	237.61380 ppb		96

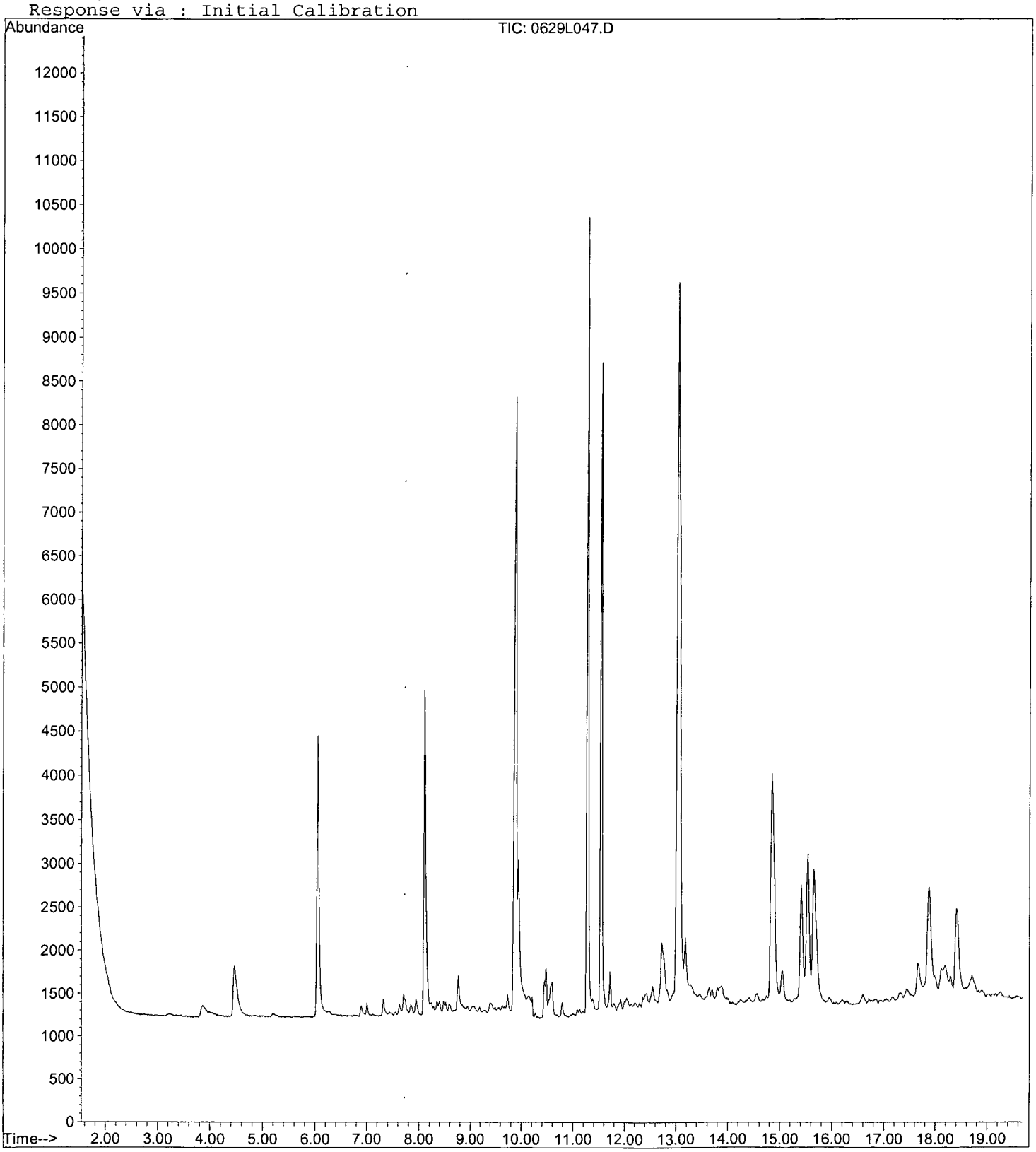
(#) = qualifier out of range (m) = manual integration

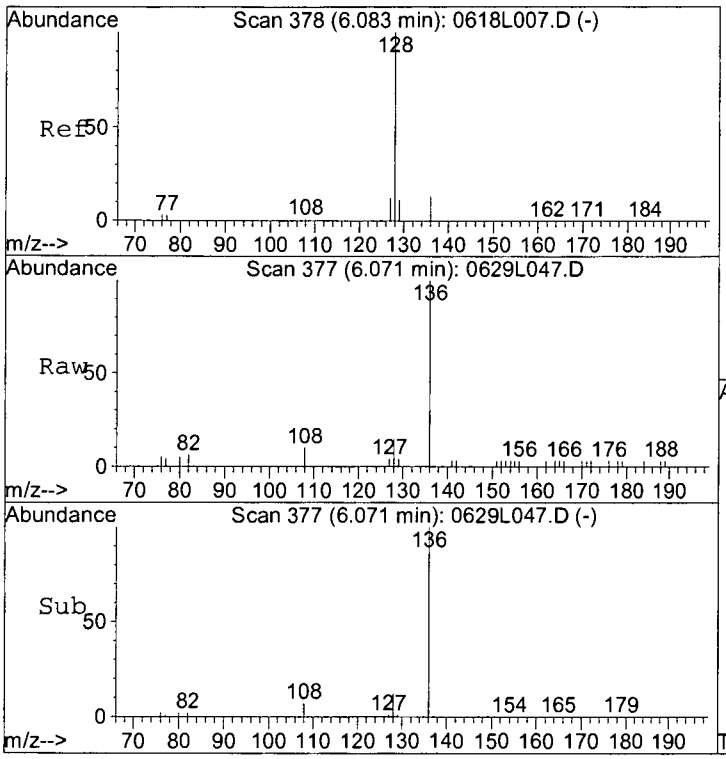
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L047.D Vial: 47
Acq On : 30 Jun 15 8:51 Operator: MA
Sample : AZ17437S03 1/30.01G x10 Inst : Linus
Misc : soil Multiplr: 333.22

Quant Time: Jun 30 9:16 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration

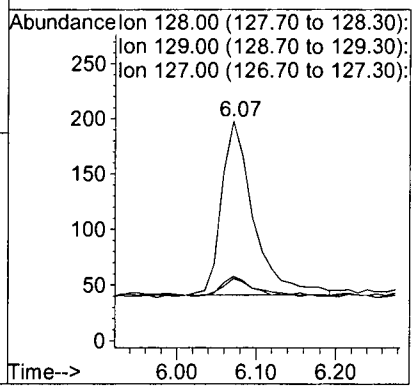


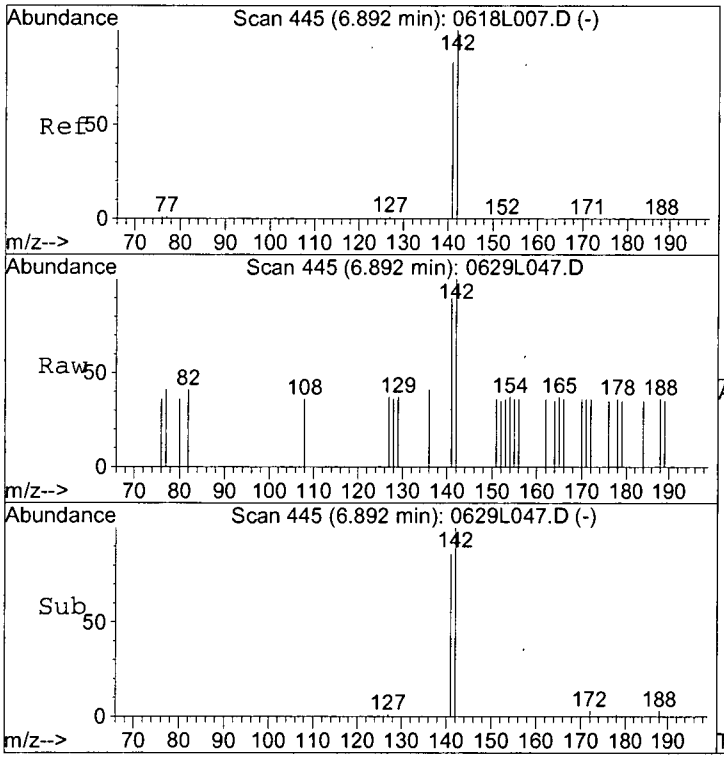


#3
Naphthalene
Concen: 35.06225 ppb
RT: 6.07 min Scan# 377
Delta R.T. -0.00 min
Lab File: 0629L047.D
Acq: 30 Jun 15 8:51

Tgt Ion:128 Resp: 441

Ion	Ratio	Lower	Upper
128	100		
129	10.8	7.4	13.8
127	10.2	8.4	15.6

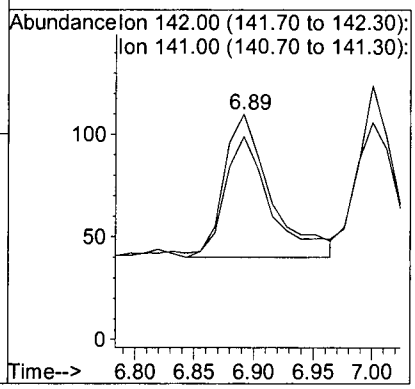


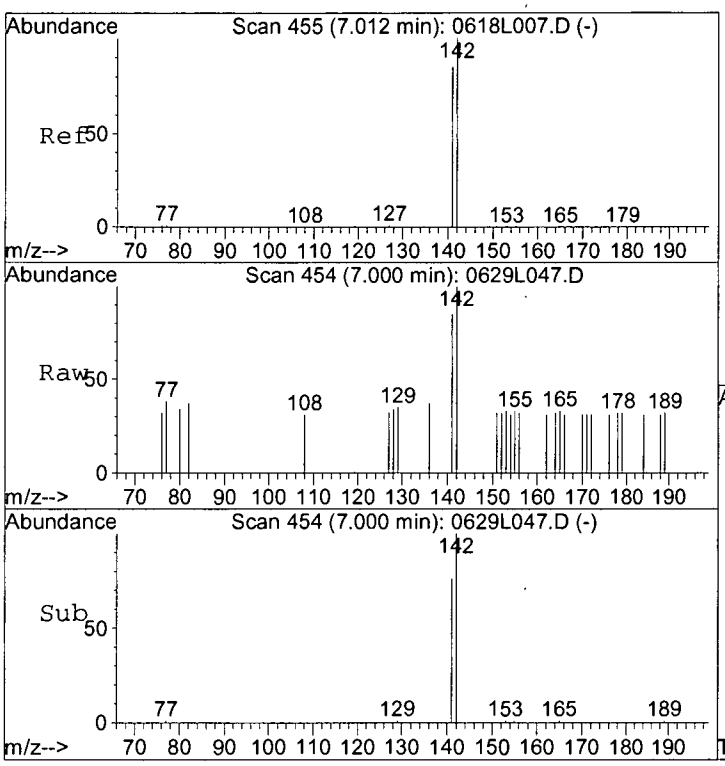


#4
2-Methylnaphthalene
Concen: 25.03953 ppb
RT: 6.89 min Scan# 445
Delta R.T. 0.01 min
Lab File: 0629L047.D
Acq: 30 Jun 15 8:51

Tgt Ion:142 Resp: 191

Ion	Ratio	Lower	Upper
142	100		
141	81.4	58.3	108.3

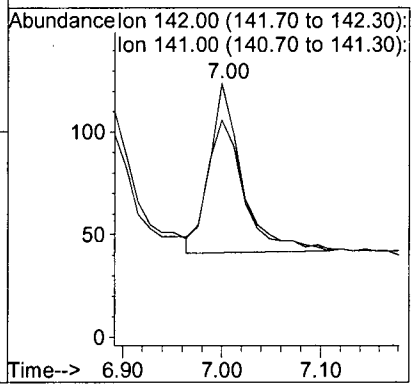


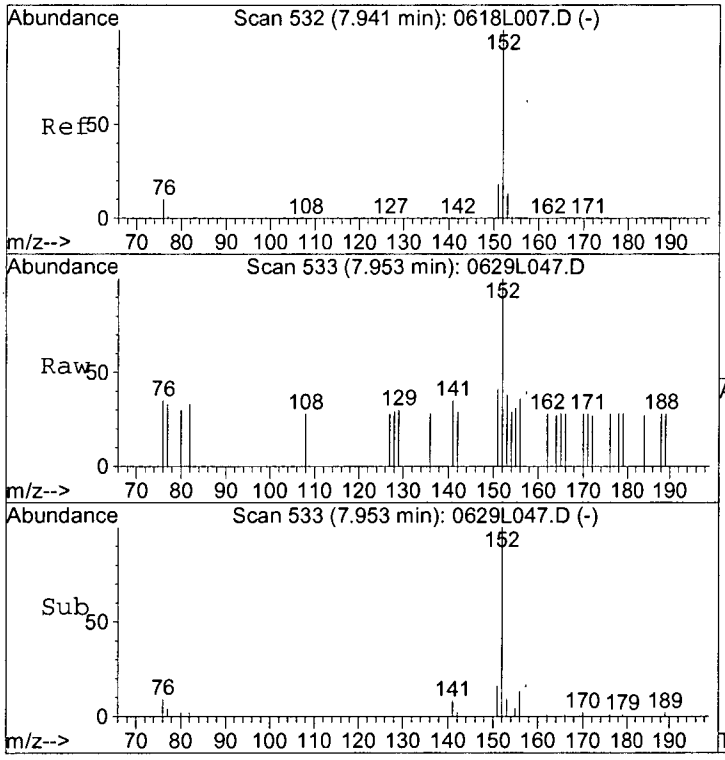


#5
1-Methylnaphthalene
Concen: 22.06847 ppb
RT: 7.00 min Scan# 454
Delta R.T. 0.00 min
Lab File: 0629L047.D
Acq: 30 Jun 15 8:51

Tgt Ion:142 Resp: 189

Ion	Ratio	Lower	Upper
142	100		
141	76.8	59.5	110.5

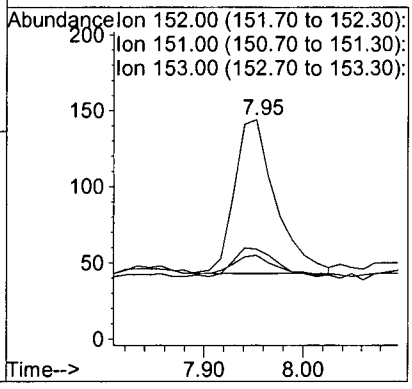


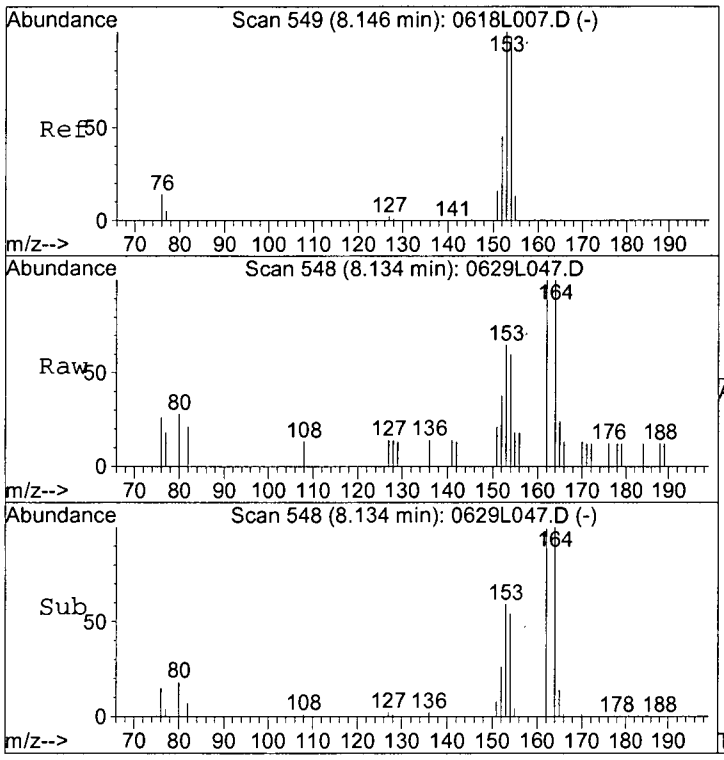


#8
Acenaphthylene
Concen: 25.42551 ppb
RT: 7.95 min Scan# 533
Delta R.T. 0.01 min
Lab File: 0629L047.D
Acq: 30 Jun 15 8:51

Tgt Ion:152 Resp: 295

Ion	Ratio	Lower	Upper
152	100		
151	17.8	12.7	23.7
153	12.9	9.0	16.8

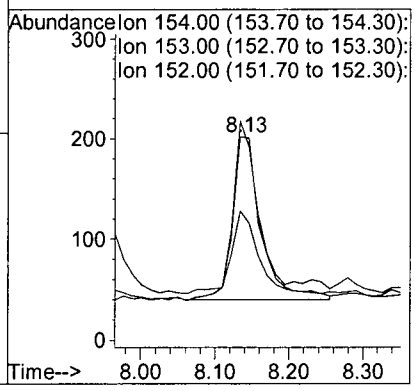


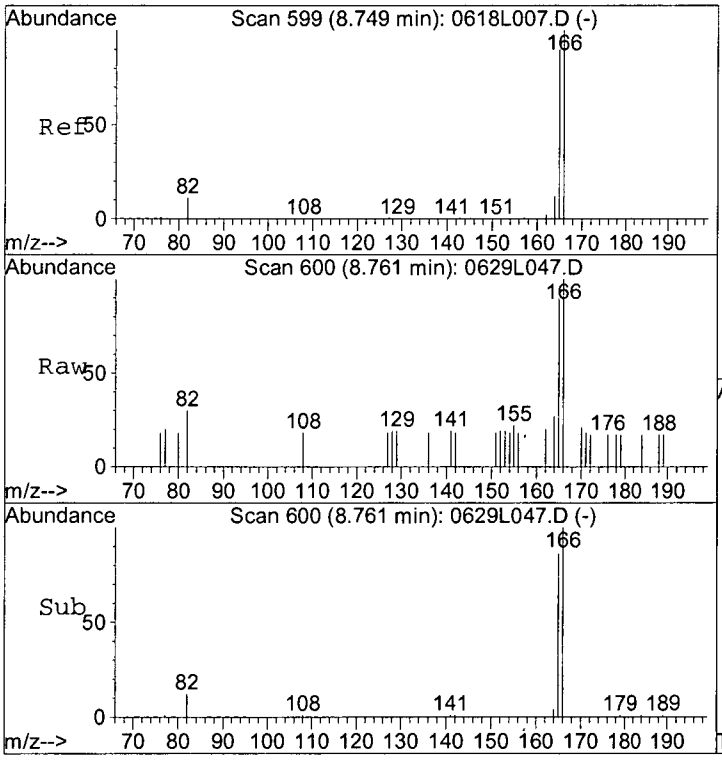


#9
Acenaphthene
Concen: 60.78453 ppb
RT: 8.13 min Scan# 548
Delta R.T. -0.00 min
Lab File: 0629L047.D
Acq: 30 Jun 15 8:51

Tgt Ion:154 Resp: 431

Ion	Ratio	Lower	Upper
154	100		
153	110.5	71.8	133.4
152	50.6	32.7	60.7

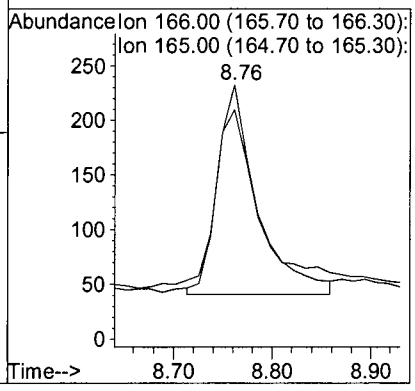


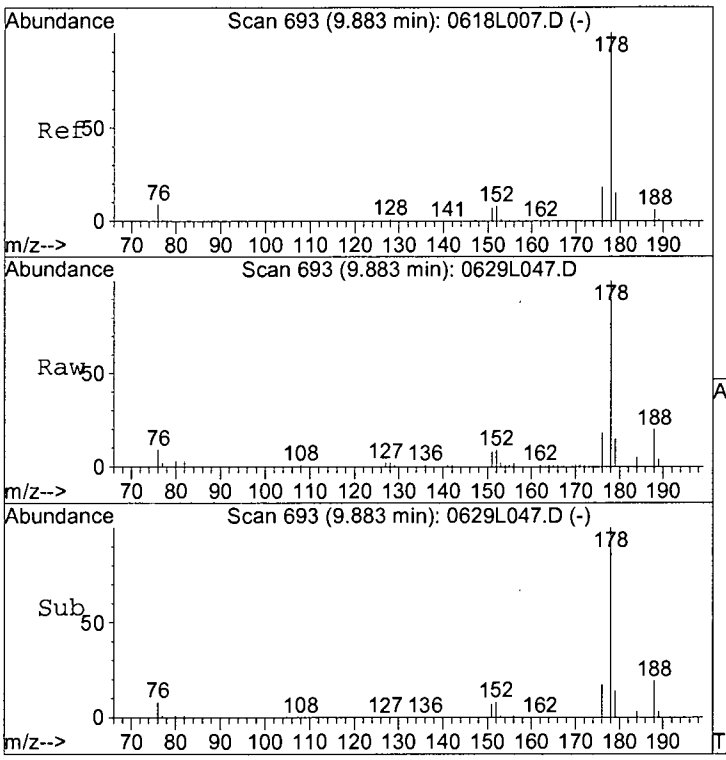


#10
Fluorene
Concen: 71.66717 ppb
RT: 8.76 min Scan# 600
Delta R.T. 0.01 min
Lab File: 0629L047.D
Acq: 30 Jun 15 8:51

Tgt Ion:166 Resp: 537

Ion	Ratio	Lower	Upper
166	100		
165	83.9	63.1	117.1

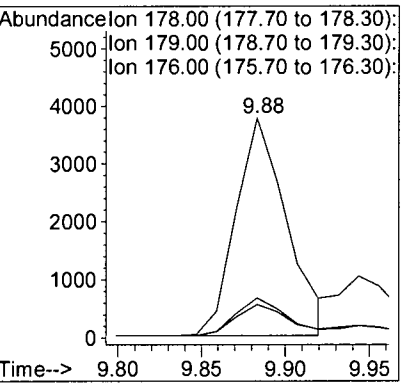


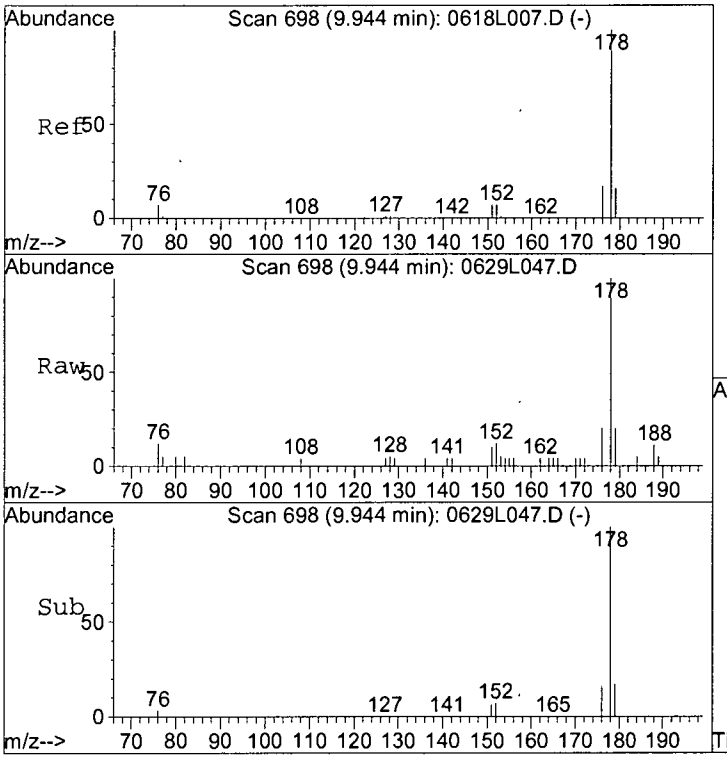


#12
Phenanthrene
Concen: 738.46535 ppb
RT: 9.88 min Scan# 693
Delta R.T. -0.00 min
Lab File: 0629L047.D
Acq: 30 Jun 15 8:51

Tgt Ion:178 Resp: 7925

Ion	Ratio	Lower	Upper
178	100		
179	14.3	10.5	19.5
176	17.2	12.3	22.8

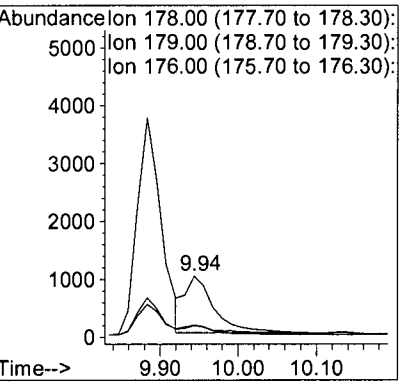


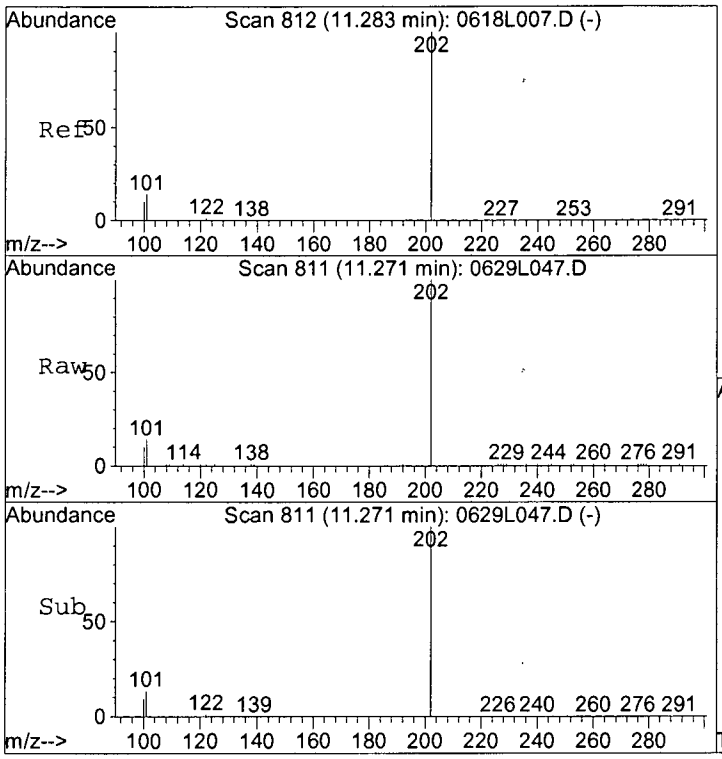


#13
Anthracene
Concen: 236.40355 ppb
RT: 9.94 min Scan# 698
Delta R.T. -0.00 min
Lab File: 0629L047.D
Acq: 30 Jun 15 8:51

Tgt Ion:178 Resp: 2623

Ion	Ratio	Lower	Upper
178	100		
179	15.6	10.9	20.3
176	16.8	12.2	22.6

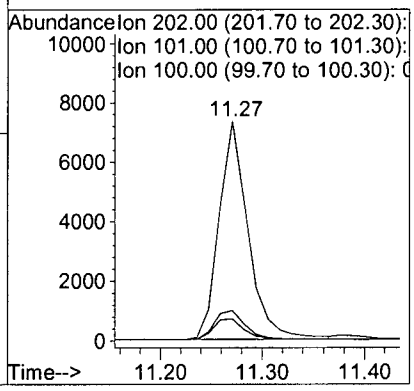


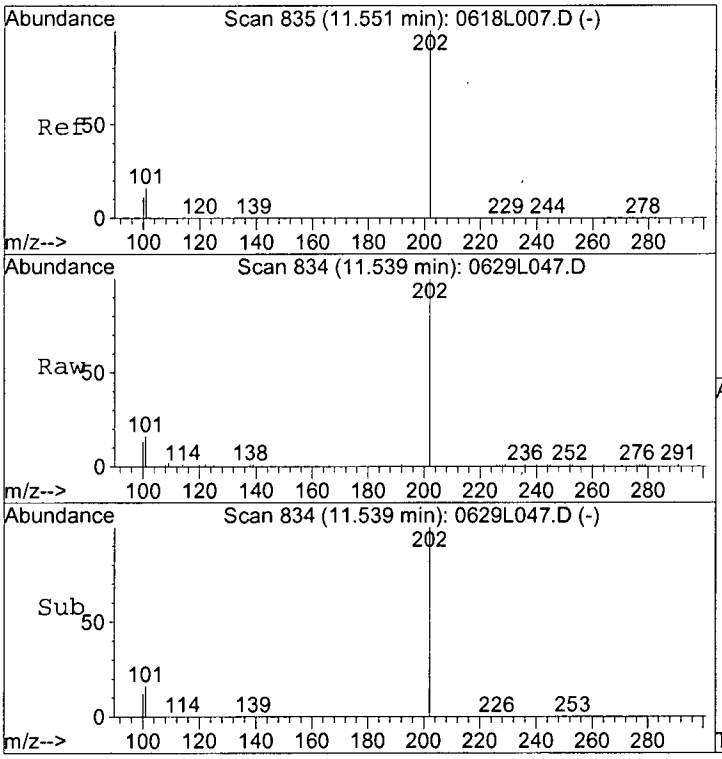


#14
Fluoranthene
Concen: 1053.69488 ppb
RT: 11.27 min Scan# 811
Delta R.T. -0.01 min
Lab File: 0629L047.D
Acq: 30 Jun 15 8:51

Tgt Ion:202 Resp: 14581

Ion	Ratio	Lower	Upper
202	100		
101	13.4	9.7	18.1
100	9.5	7.4	13.7

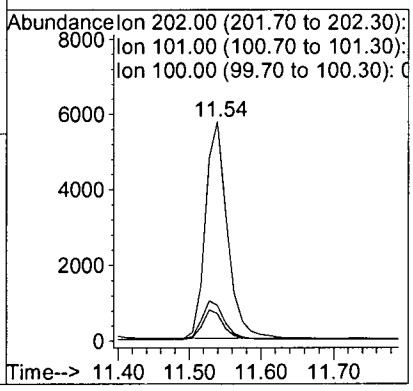


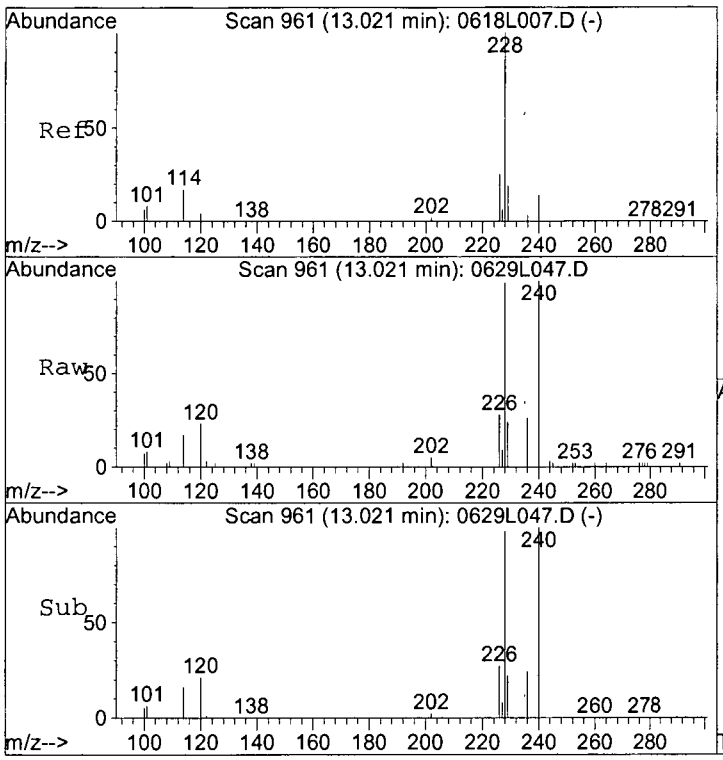


#16
Pyrene
Concen: 759.56991 ppb
RT: 11.54 min Scan# 834
Delta R.T. -0.00 min
Lab File: 0629L047.D
Acq: 30 Jun 15 8:51

Tgt Ion:202 Resp: 12313

Ion	Ratio	Lower	Upper
202	100		
101	15.7	11.0	20.4
100	11.9	7.9	14.7

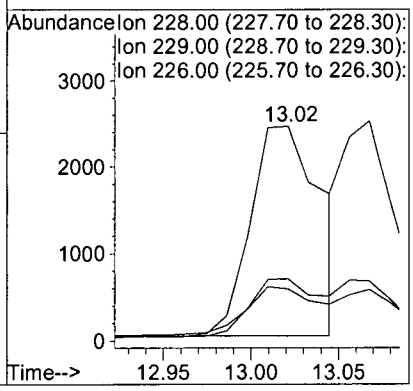


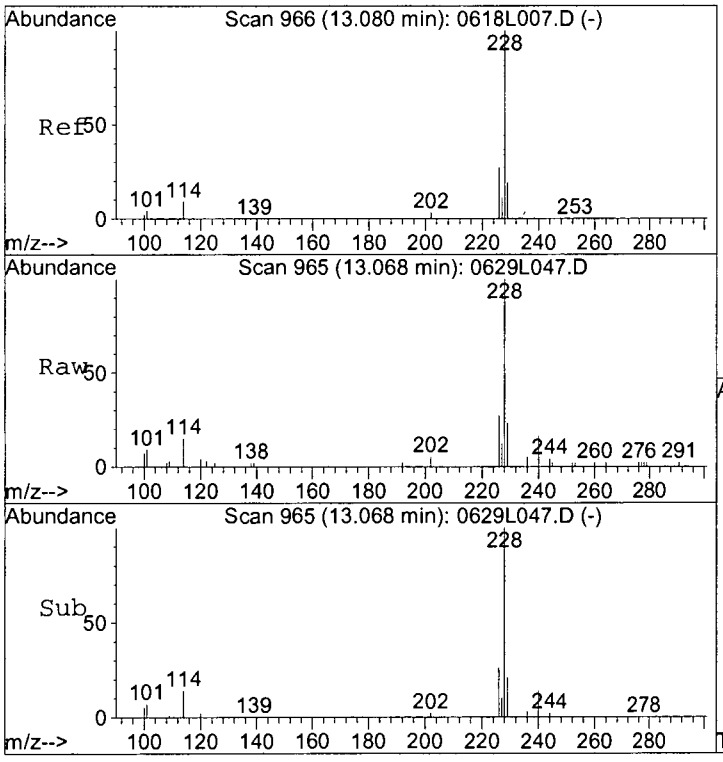


#18
Benz (a) anthracene
Concen: 541.90007 ppb
RT: 13.02 min Scan# 961
Delta R.T. 0.00 min
Lab File: 0629L047.D
Acq: 30 Jun 15 8:51

Tgt Ion:228 Resp: 6714

Ion	Ratio	Lower	Upper
228	100		
229	21.3	13.4	25.0
226	27.4	17.2	32.0

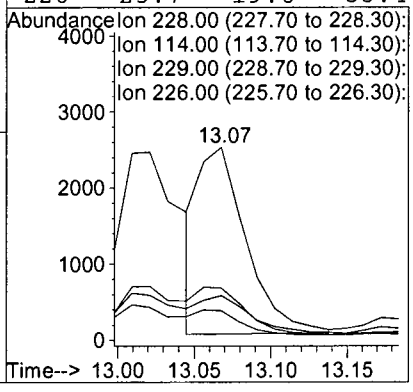


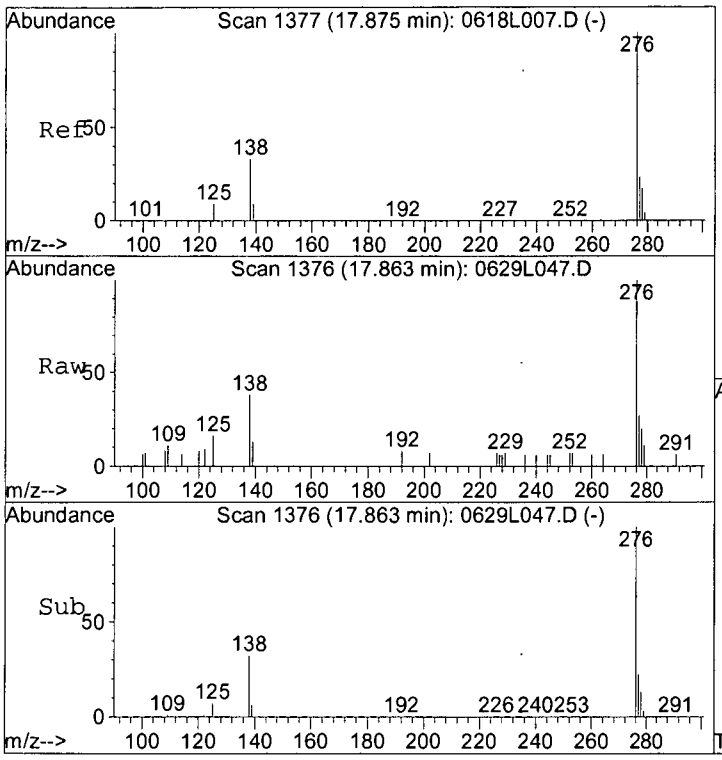


#19
Chrysene
Concen: 161.50449 ppb
RT: 13.07 min Scan# 965
Delta R.T. 0.00 min
Lab File: 0629L047.D
Acq: 30 Jun 15 8:51

Tgt Ion:228 Resp: 5352

Ion	Ratio	Lower	Upper
228	100		
114	13.5	9.5	17.6
229	20.3	13.6	25.2
226	25.7	19.0	35.4

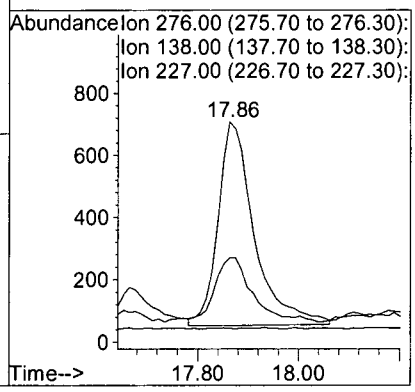


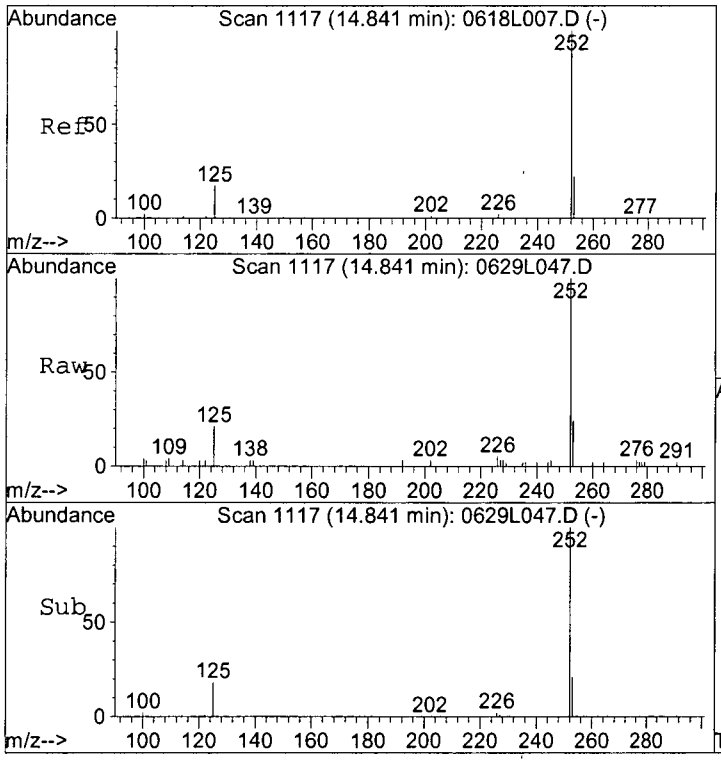


#20
Indeno (1,2,3-cd) pyrene
Concen: 237.58361 ppb
RT: 17.86 min Scan# 1376
Delta R.T. -0.01 min
Lab File: 0629L047.D
Acq: 30 Jun 15 8:51

Tgt Ion:276 Resp: 3283

Ion	Ratio	Lower	Upper
276	100		
138	31.5	23.0	42.8
227	0.3	0.1	0.1#

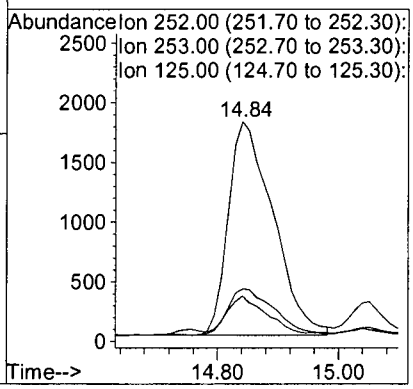


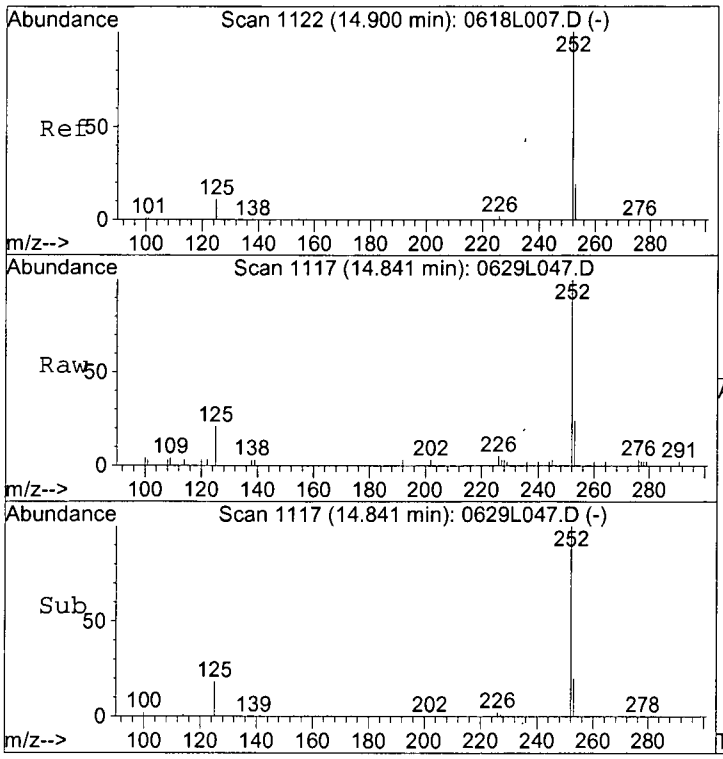


#22
Benzo (b) fluoranthene
Concen: 711.25820 ppb
RT: 14.84 min Scan# 1117
Delta R.T. -0.00 min
Lab File: 0629L047.D
Acq: 30 Jun 15 8:51

Tgt Ion:252 Resp: 9255

Ion	Ratio	Lower	Upper
252	100		
253	20.4	15.7	29.1
125	18.2	11.3	20.9

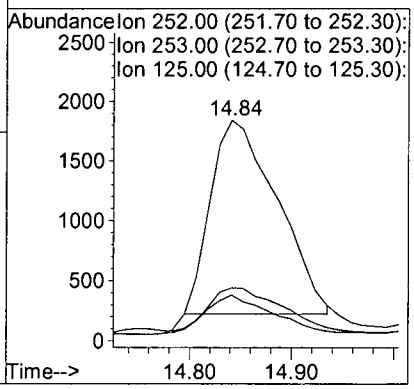


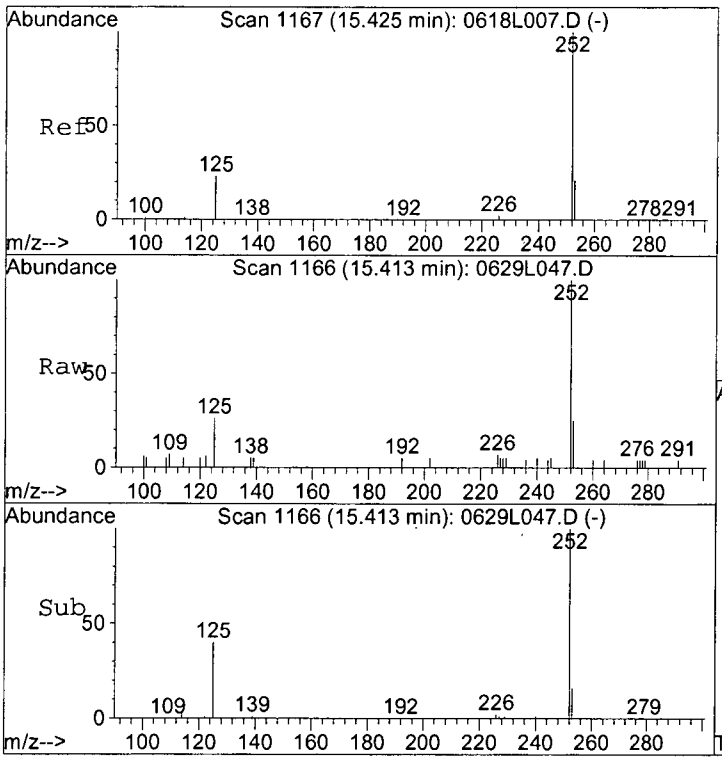


#23
Benzo (k) fluoranthene
Concen: 653.81332 ppb
RT: 14.84 min Scan# 1117
Delta R.T. -0.05 min
Lab File: 0629L047.D
Acq: 30 Jun 15 8:51

Tgt Ion:252 Resp: 7387

Ion	Ratio	Lower	Upper
252	100		
253	20.7	15.8	29.3
125	18.6	11.6	21.5

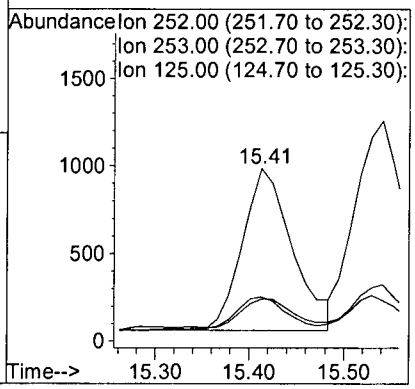


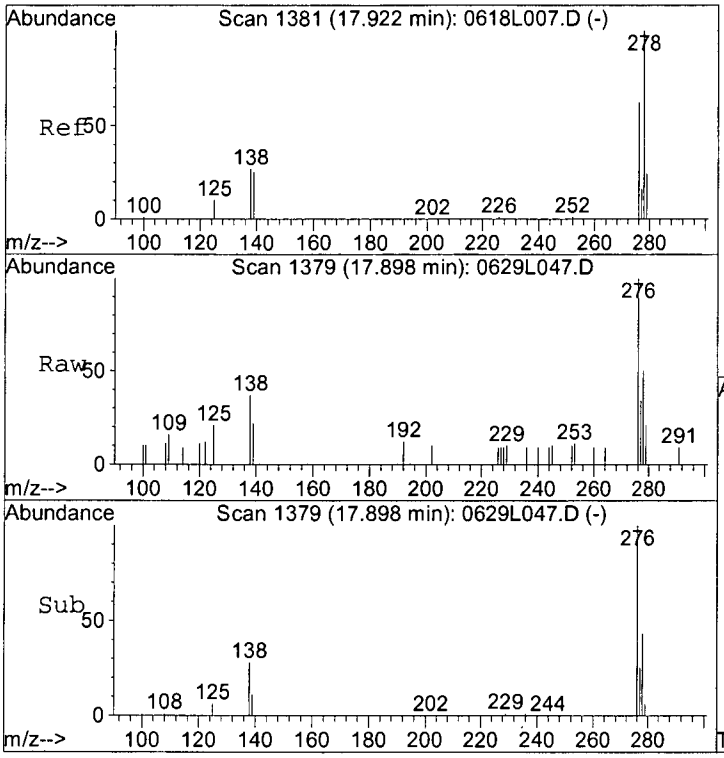


#24
Benzo (a) pyrene
Concen: 293.38837 ppb
RT: 15.41 min Scan# 1166
Delta R.T. -0.00 min
Lab File: 0629L047.D
Acq: 30 Jun 15 8:51

Tgt Ion:252 Resp: 3409

Ion	Ratio	Lower	Upper
252	100		
253	17.5	15.2	28.2
125	20.7	16.1	29.9

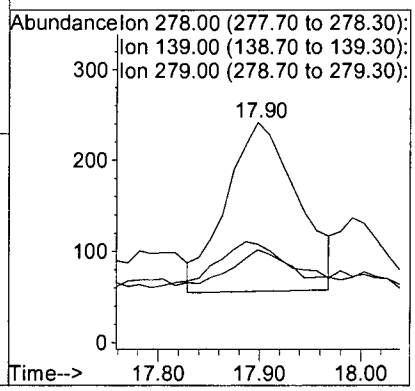


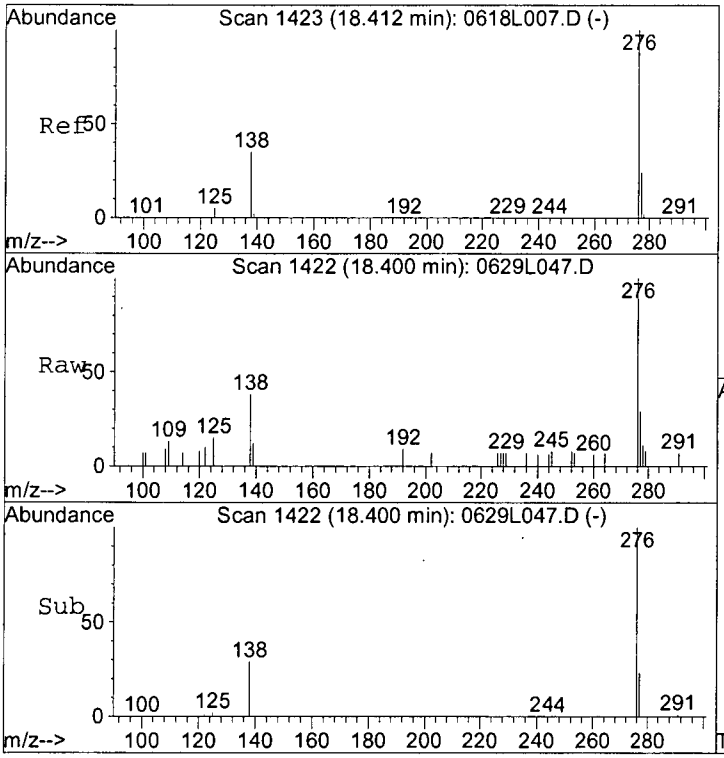


#25
Dibenz (a,h) anthracene
Concen: 71.09304 ppb
RT: 17.90 min Scan# 1379
Delta R.T. -0.01 min
Lab File: 0629L047.D
Acq: 30 Jun 15 8:51

Tgt Ion:278 Resp: 911

Ion	Ratio	Lower	Upper
278	100		
139	26.0	18.5	34.3
279	23.4	16.7	30.9

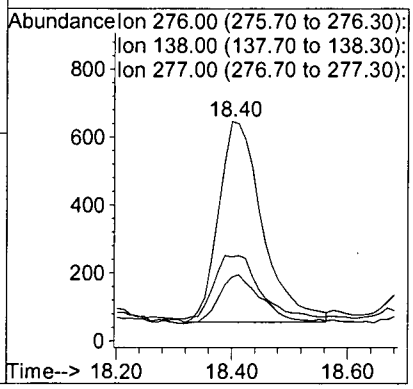




#26
Benzo (g,h,i) perylene
Concen: 237.61380 ppb
RT: 18.40 min Scan# 1422
Delta R.T. -0.01 min
Lab File: 0629L047.D
Acq: 30 Jun 15 8:51

Tgt Ion:276 Resp: 3135

Ion	Ratio	Lower	Upper
276	100		
138	31.0	23.7	44.1
277	23.4	17.3	32.1



EPA 8270D LL SOILS

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-SB038-0203
Sample Collection Date: 06/09/15

ARF: 76624
APPL ID: AZ17438
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 14.7 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.034 J	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.0200 U	0.059	0.0200	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.0200 U	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.0200 U	0.059	0.0200	0.0094	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.12	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.053 J	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.047 J	0.059	0.0200	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.035 J	0.059	0.0200	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.0200 U	0.059	0.0200	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.0200 U	0.059	0.0200	0.0094	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.0200 U	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	0.12	0.059	0.0200	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.0200 U	0.059	0.0200	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.0200 U	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.011 J	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.15	0.059	0.0200	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.088	0.059	0.0200	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	57.3	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	45.0	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	64.6	30-125			%	06/22/15	06/30/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L048
Instrument: Linus
Sequence: L150629
Dilution Factor: 10
Initials: MA

Printed: 07/02/15 4:55:06 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L048.D Vial: 48
Acq On : 30 Jun 15 9:18 Operator: MA
Sample : AZ17438S01 1/30.08G x10 Inst : Linus
Misc : soil Multiplr: 332.45

Quant Time: Jul 1 13:44 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.05	136	8769	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.10	164	4183	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.86	188	7015	2.50000 ppb	0.00
15) Chrysene-D12(IS)	13.03	240	8080	2.50000 ppb	0.00
21) Perylene-D12(IS)	15.67	264	5039	2.50000 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.19	82	98	37.40178 ppb	0.01
Spiked Amount 83.112			Recovery = 45.002%		
7) Surrogate Recovery (FBP)	7.31	172	363	47.58662 ppb	0.00
Spiked Amount 83.112			Recovery = 57.257%		
17) Surrogate Recovery (TPH)	11.73	244	478	53.72918 ppb	0.00
Spiked Amount 83.112			Recovery = 64.647%		
Target Compounds					Qvalue
3) Naphthalene	6.07	128	138	9.59568 ppb #	93
4) 2-Methylnaphthalene	6.89	142	254	29.12203 ppb	94
5) 1-Methylnaphthalene	7.00	142	279	28.49115 ppb	93
12) Phenanthrene	9.88	178	1581	124.20288 ppb	99
14) Fluoranthene	11.28	202	1725	105.09586 ppb	98
16) Pyrene	11.54	202	1342	75.35616 ppb	94
18) Benz (a) anthracene	13.03	228	758	103.38498 ppb	96
22) Benzo (b) fluoranthene	14.85	252	1304	39.93054 ppb	97
24) Benzo (a) pyrene	15.44	252	582	45.50939 ppb #	91
26) Benzo (g,h,i) perylene	18.42	276	435	29.95611 ppb	92

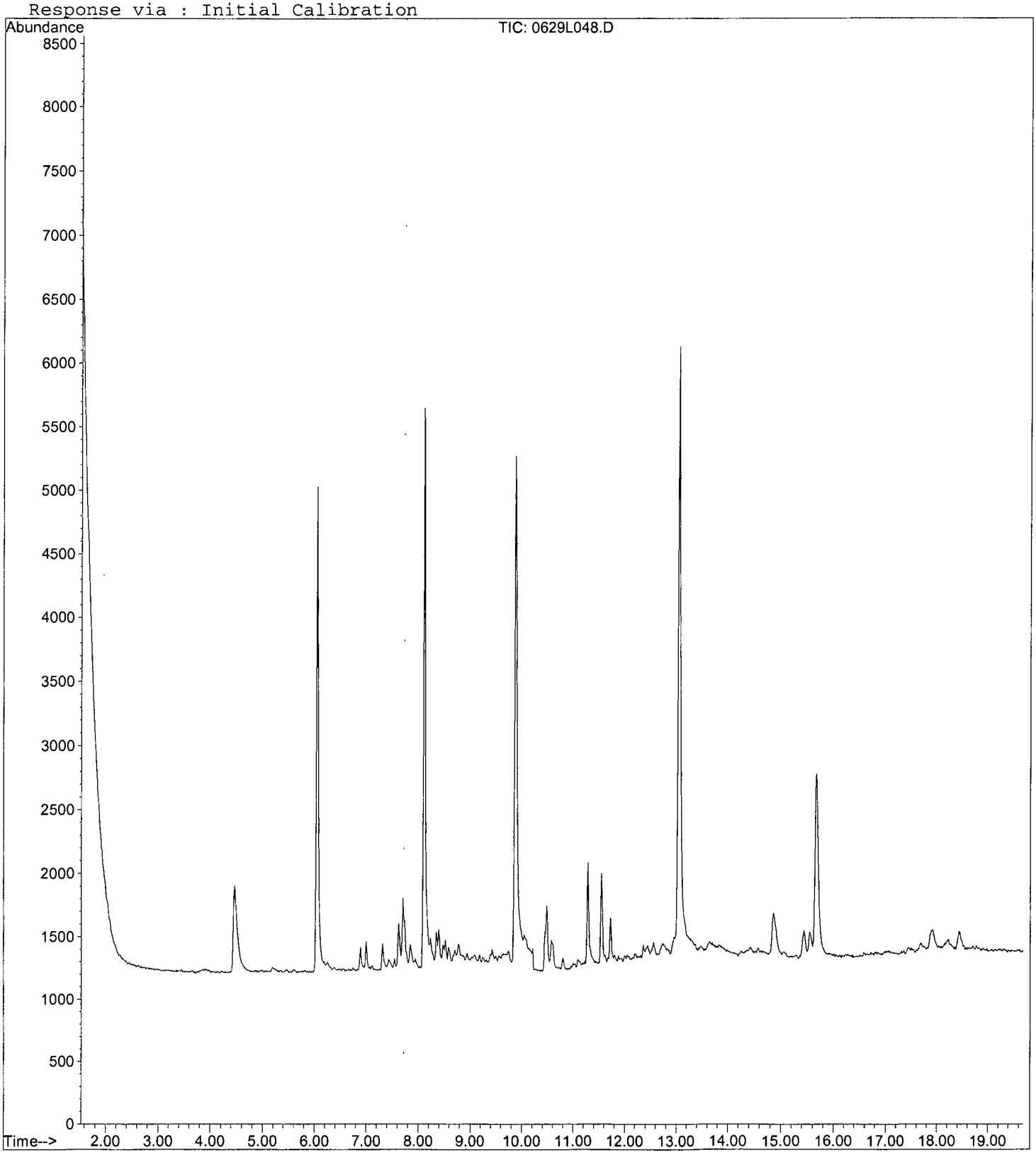
(#) = qualifier out of range (m) = manual integration

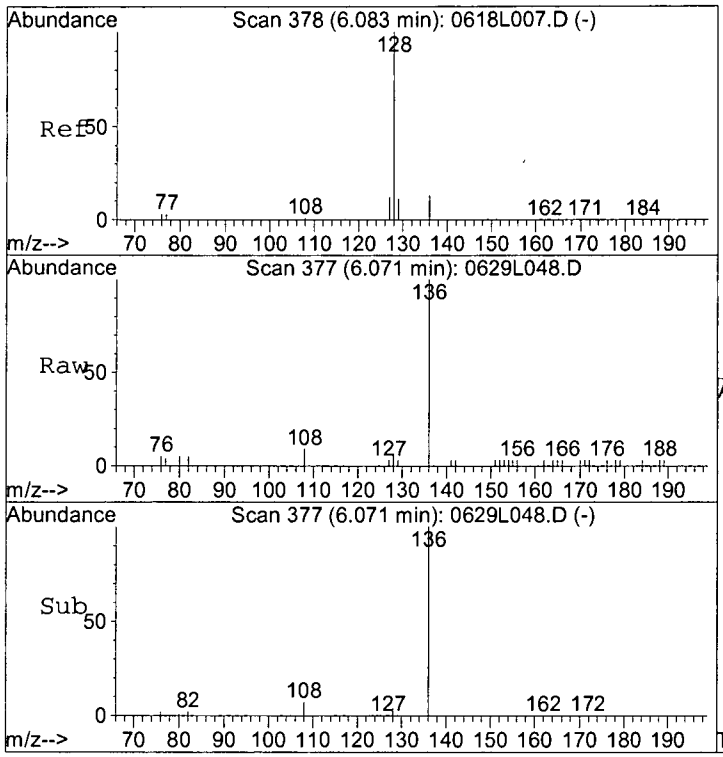
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L048.D Vial: 48
Acq On : 30 Jun 15 9:18 Operator: MA
Sample : AZ17438S01 1/30.08G x10 Inst : Linus
Misc : soil Multiplr: 332.45

Quant Time: Jul 1 13:44 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration

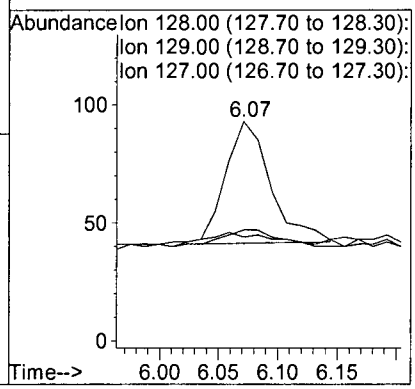


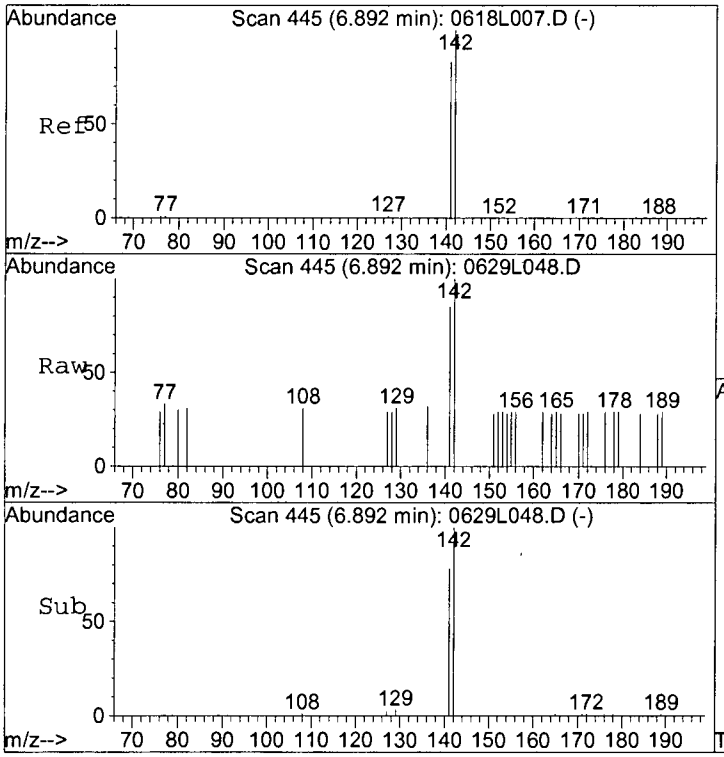


#3
Naphthalene
Concen: 9.59568 ppb
RT: 6.07 min Scan# 377
Delta R.T. 0.00 min
Lab File: 0629L048.D
Acq: 30 Jun 15 9:18

Tgt Ion:128 Resp: 138

Ion	Ratio	Lower	Upper
128	100		
129	11.8	7.4	13.8
127	7.8	8.4	15.6#

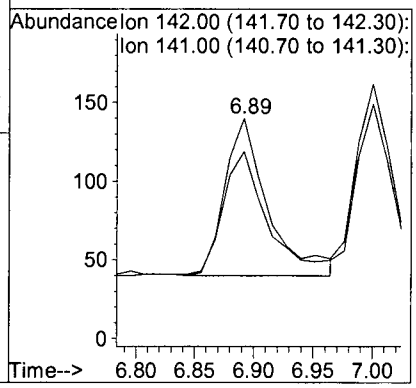


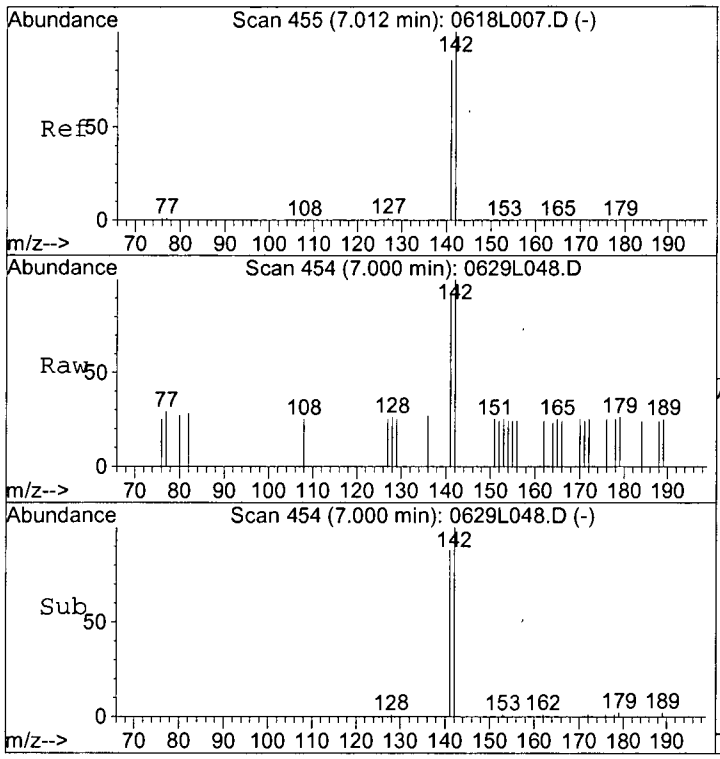


#4
2-Methylnaphthalene
Concen: 29.12203 ppb
RT: 6.89 min Scan# 445
Delta R.T. 0.01 min
Lab File: 0629L048.D
Acq: 30 Jun 15 9:18

Tgt Ion:142 Resp: 254

Ion	Ratio	Lower	Upper
142	100		
141	78.0	58.3	108.3

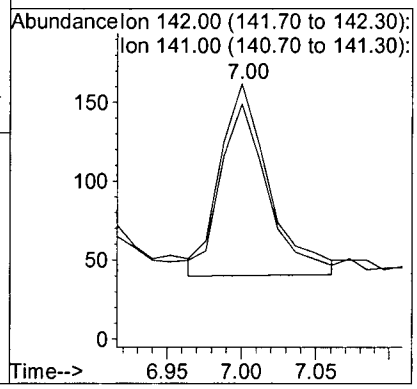


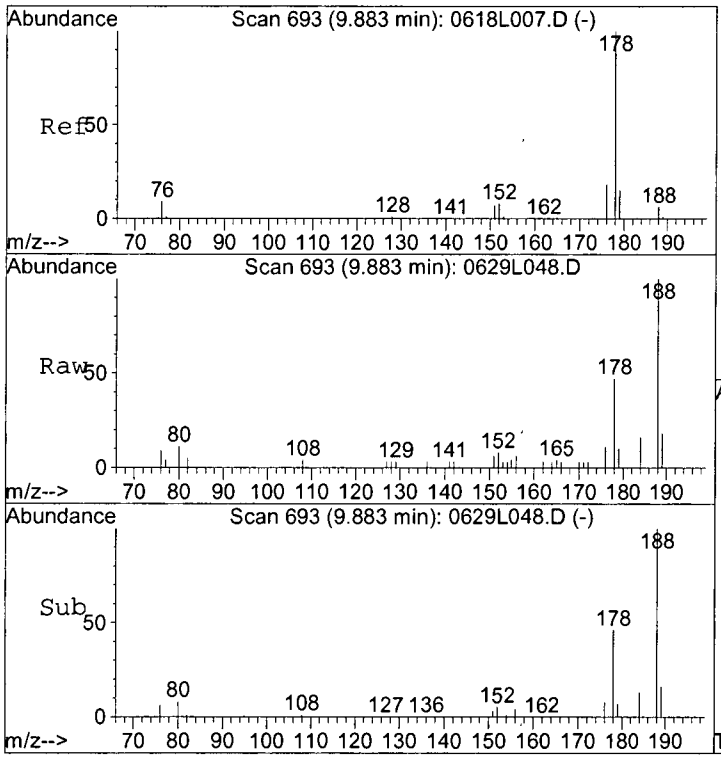


#5
1-Methylnaphthalene
Concen: 28.49115 ppb
RT: 7.00 min Scan# 454
Delta R.T. 0.00 min
Lab File: 0629L048.D
Acq: 30 Jun 15 9:18

Tgt Ion:142 Resp: 279

Ion	Ratio	Lower	Upper
142	100		
141	91.1	59.5	110.5

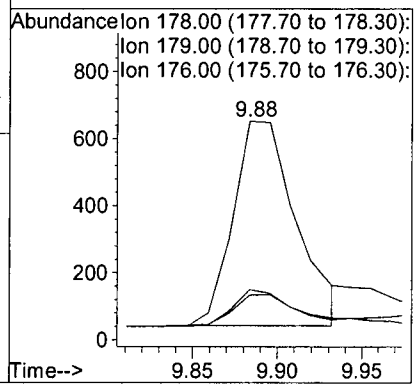


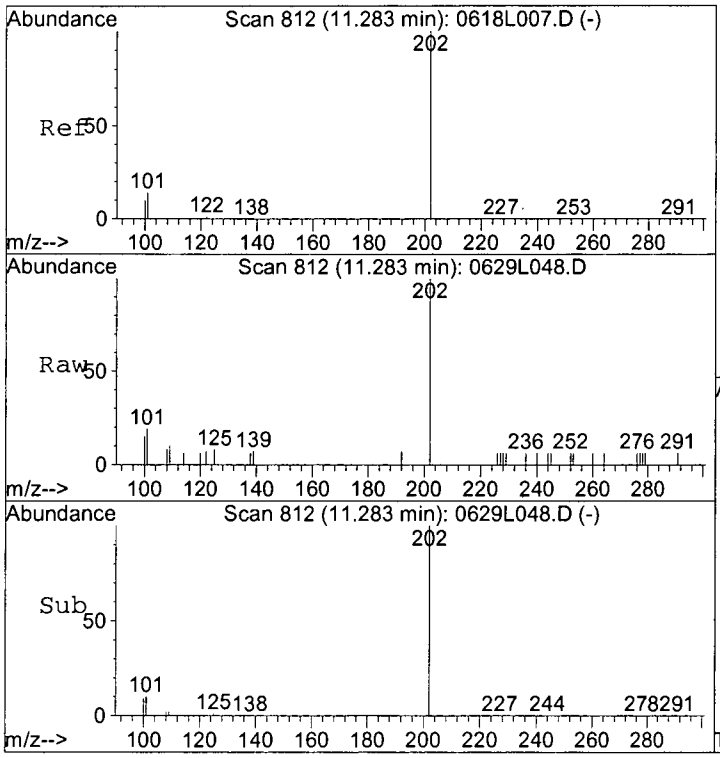


#12
Phenanthrene
Concen: 124.20288 ppb
RT: 9.88 min Scan# 693
Delta R.T. 0.00 min
Lab File: 0629L048.D
Acq: 30 Jun 15 9:18

Tgt Ion:178 Resp: 1581

Ion	Ratio	Lower	Upper
178	100		
179	14.6	10.5	19.5
176	17.9	12.3	22.8

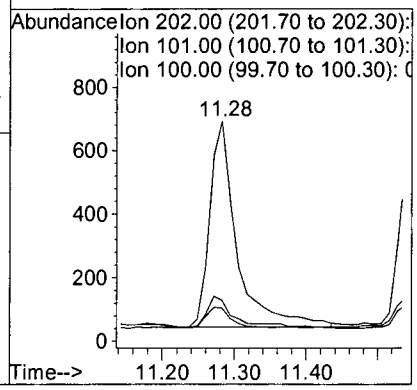


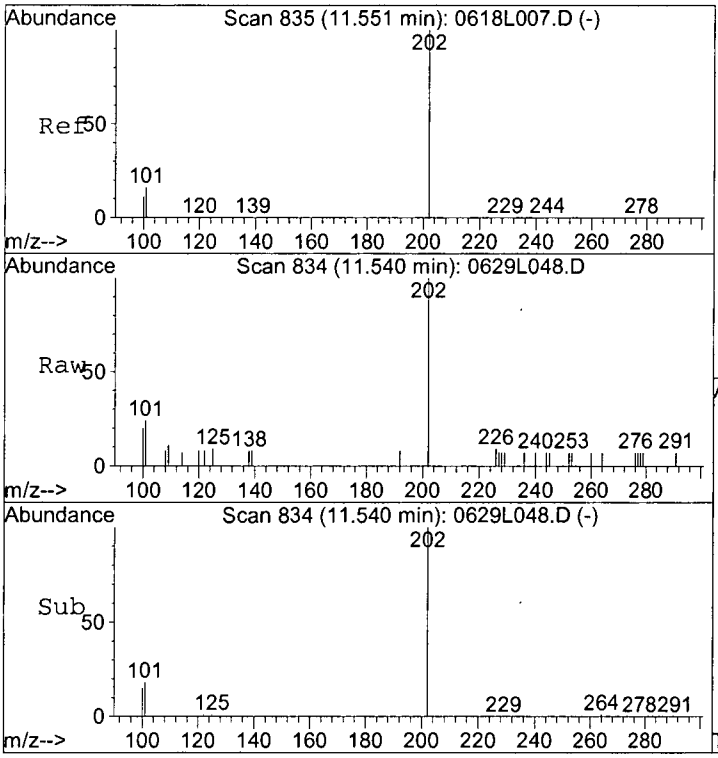


#14
Fluoranthene
Concen: 105.09586 ppb
RT: 11.28 min Scan# 812
Delta R.T. 0.00 min
Lab File: 0629L048.D
Acq: 30 Jun 15 9:18

Tgt Ion:202 Resp: 1725

Ion	Ratio	Lower	Upper
202	100		
101	13.1	9.7	18.1
100	9.7	7.4	13.7

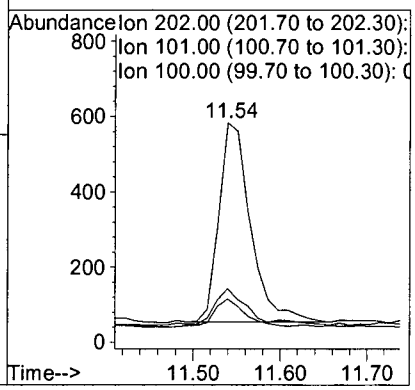


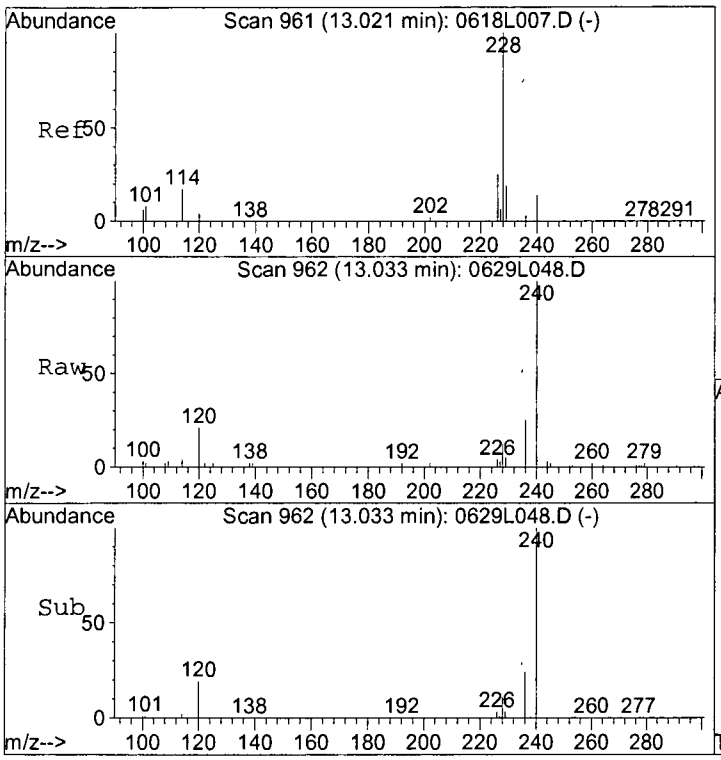


#16
Pyrene
Concen: 75.35616 ppb
RT: 11.54 min Scan# 834
Delta R.T. 0.00 min
Lab File: 0629L048.D
Acq: 30 Jun 15 9:18

Tgt Ion:202 Resp: 1342

Ion	Ratio	Lower	Upper
202	100		
101	18.1	11.0	20.4
100	13.6	7.9	14.7

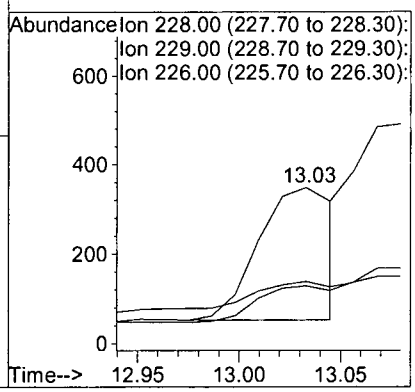


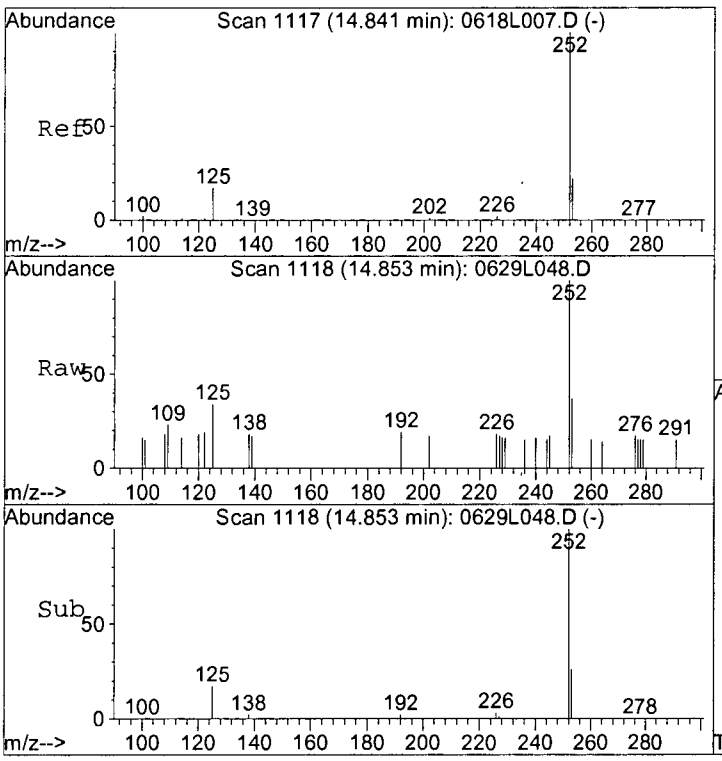


#18
Benz (a) anthracene
Concen: 103.38498 ppb
RT: 13.03 min Scan# 962
Delta R.T. 0.01 min
Lab File: 0629L048.D
Acq: 30 Jun 15 9:18

Tgt Ion:228 Resp: 758

Ion	Ratio	Lower	Upper
228	100		
229	20.3	13.4	25.0
226	27.4	17.2	32.0

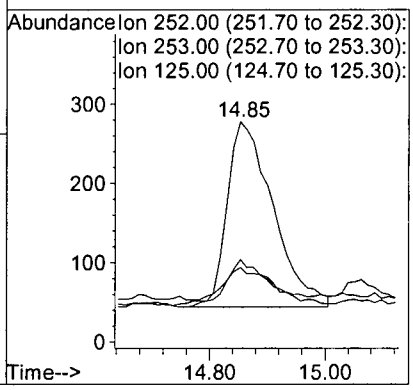


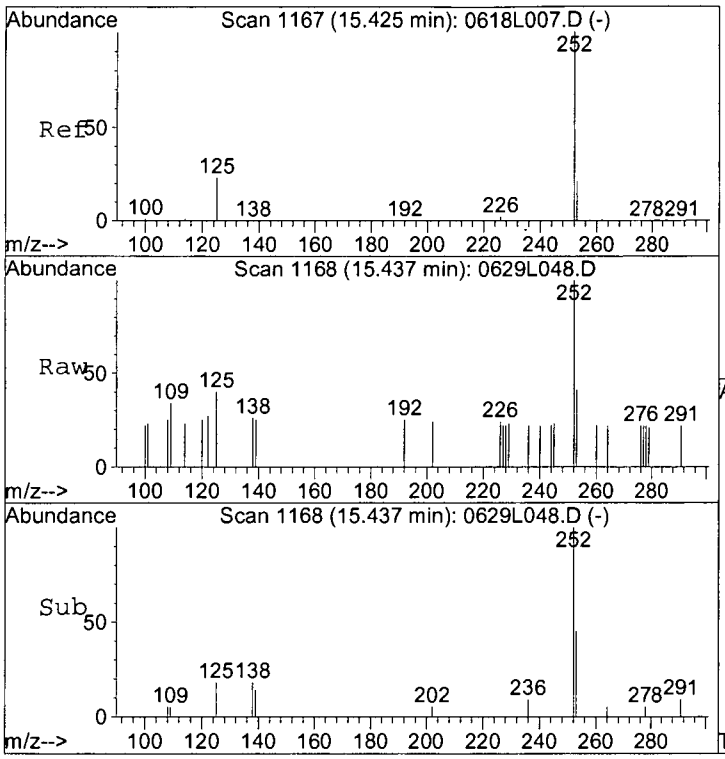


#22
Benzo (b) fluoranthene
Concen: 39.93054 ppb
RT: 14.85 min Scan# 1118
Delta R.T. 0.01 min
Lab File: 0629L048.D
Acq: 30 Jun 15 9:18

Tgt Ion:252 Resp: 1304

Ion	Ratio	Lower	Upper
252	100		
253	23.9	15.7	29.1
125	17.5	11.3	20.9

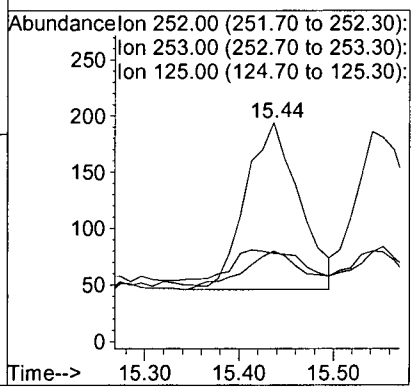


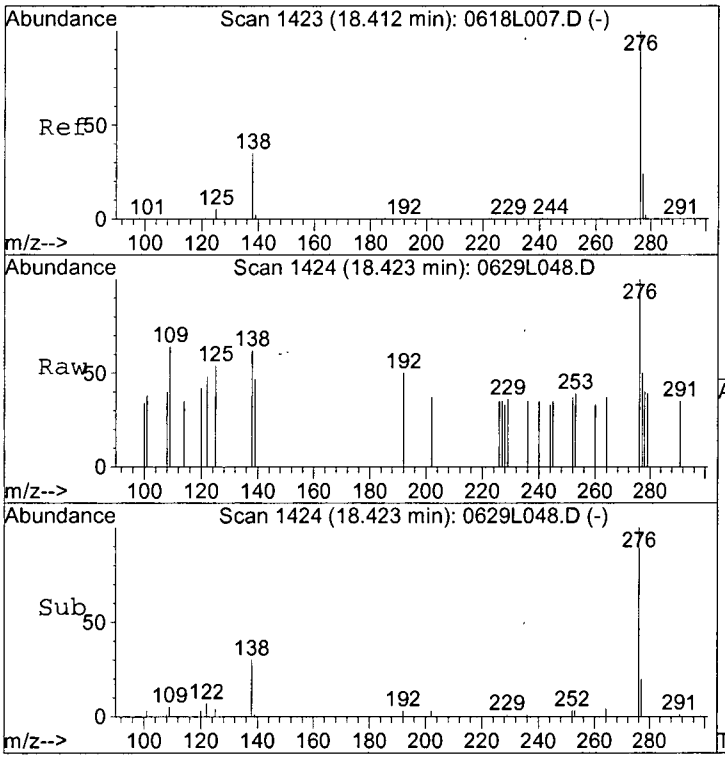


#24
Benzo (a) pyrene
Concen: 45.50939 ppb
RT: 15.44 min Scan# 1168
Delta R.T. 0.02 min
Lab File: 0629L048.D
Acq: 30 Jun 15 9:18

Tgt Ion:252 Resp: 582

Ion	Ratio	Lower	Upper
252	100		
253	20.3	15.2	28.2
125	15.5	16.1	29.9#

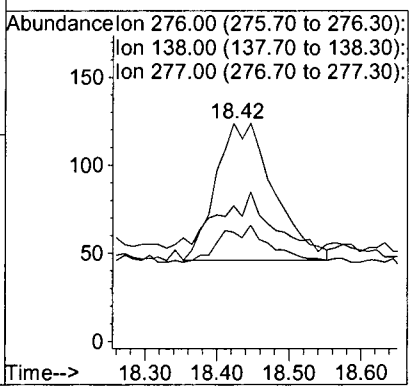




#26
Benzo (g,h,i) perylene
Concen: 29.95611 ppb
RT: 18.42 min Scan# 1424
Delta R.T. 0.01 min
Lab File: 0629L048.D
Acq: 30 Jun 15 9:18

Tgt Ion:276 Resp: 435

Ion	Ratio	Lower	Upper
276	100		
138	28.2	23.7	44.1
277	21.8	17.3	32.1



EPA 8270D LL SOILS

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-SS033-0001
Sample Collection Date: 06/09/15

ARF: 76624
APPL ID: AZ17439
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 26.6 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0230 U	0.068	0.0230	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.025 J	0.068	0.0230	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.012 J	0.068	0.0230	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.080	0.068	0.0230	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.30	0.068	0.0230	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.15	0.068	0.0230	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.32	0.068	0.0230	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.14	0.068	0.0230	0.0180	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.12	0.068	0.0230	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.0230 U	0.068	0.0230	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.038 J	0.068	0.0230	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	0.50	0.068	0.0230	0.0160	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.023 J	0.068	0.0230	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.14	0.068	0.0230	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.0230 U	0.068	0.0230	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.32	0.068	0.0230	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.37	0.068	0.0230	0.0160	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	67.4	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	62.4	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	65.1	30-125			%	06/22/15	06/30/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L049
Instrument: Linus
Sequence: L150629
Dilution Factor: 10
Initials: MA

Printed: 07/02/15 4:55:06 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L049.D Vial: 49
Acq On : 30 Jun 15 9:45 Operator: MA
Sample : AZ17439S03 1/30.25G x10 Inst : Linus
Misc : soil Multiplr: 330.58

Quant Time: Jul 1 13:48 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	6.05	136	7875	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	8.10	164	3505	2.50000	ppb		0.00
11) Phenanthrene-D10(IS)	9.86	188	5834	2.50000	ppb		0.00
15) Chrysene-D12(IS)	13.03	240	7089	2.50000	ppb		0.00
21) Perylene-D12(IS)	15.67	264	4555	2.50000	ppb		0.01
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.20	82	122m	51.55582	ppb		0.02
Spiked Amount 82.645			Recovery = 62.383%				
7) Surrogate Recovery (FBP)	7.31	172	358	55.69463	ppb		0.00
Spiked Amount 82.645			Recovery = 67.391%				
17) Surrogate Recovery (TPH)	11.71	244	422	53.76175	ppb		-0.01
Spiked Amount 82.645			Recovery = 65.052%				
Target Compounds							Qvalue
8) Acenaphthylene	7.95	152	103	8.64865	ppb		93
9) Acenaphthene	8.13	154	134	18.41128	ppb		95
10) Fluorene	8.77	166	129	16.77255	ppb		84
12) Phenanthrene	9.90	178	2462	231.26041	ppb		99
13) Anthracene	9.96	178	649	58.96343	ppb		97
14) Fluoranthene	11.27	202	5000	364.23355	ppb		98
16) Pyrene	11.54	202	4296	273.40667	ppb		98
18) Benz (a) anthracene	13.02	228	2243	221.27538	ppb		97
20) Indeno (1,2,3-cd) pyrene	17.89	276	1380	103.03046	ppb	#	94
22) Benzo (b) fluoranthene	14.85	252	3544	236.39749	ppb		98
23) Benzo (k) fluoranthene	14.85	252	2633	88.65555	ppb		98
24) Benzo (a) pyrene	15.42	252	1247	107.26367	ppb		90
25) Dibenz (a,h) anthracene	17.92	278	356	27.76700	ppb		92
26) Benzo (g,h,i) perylene	18.42	276	1324	100.29803	ppb		99

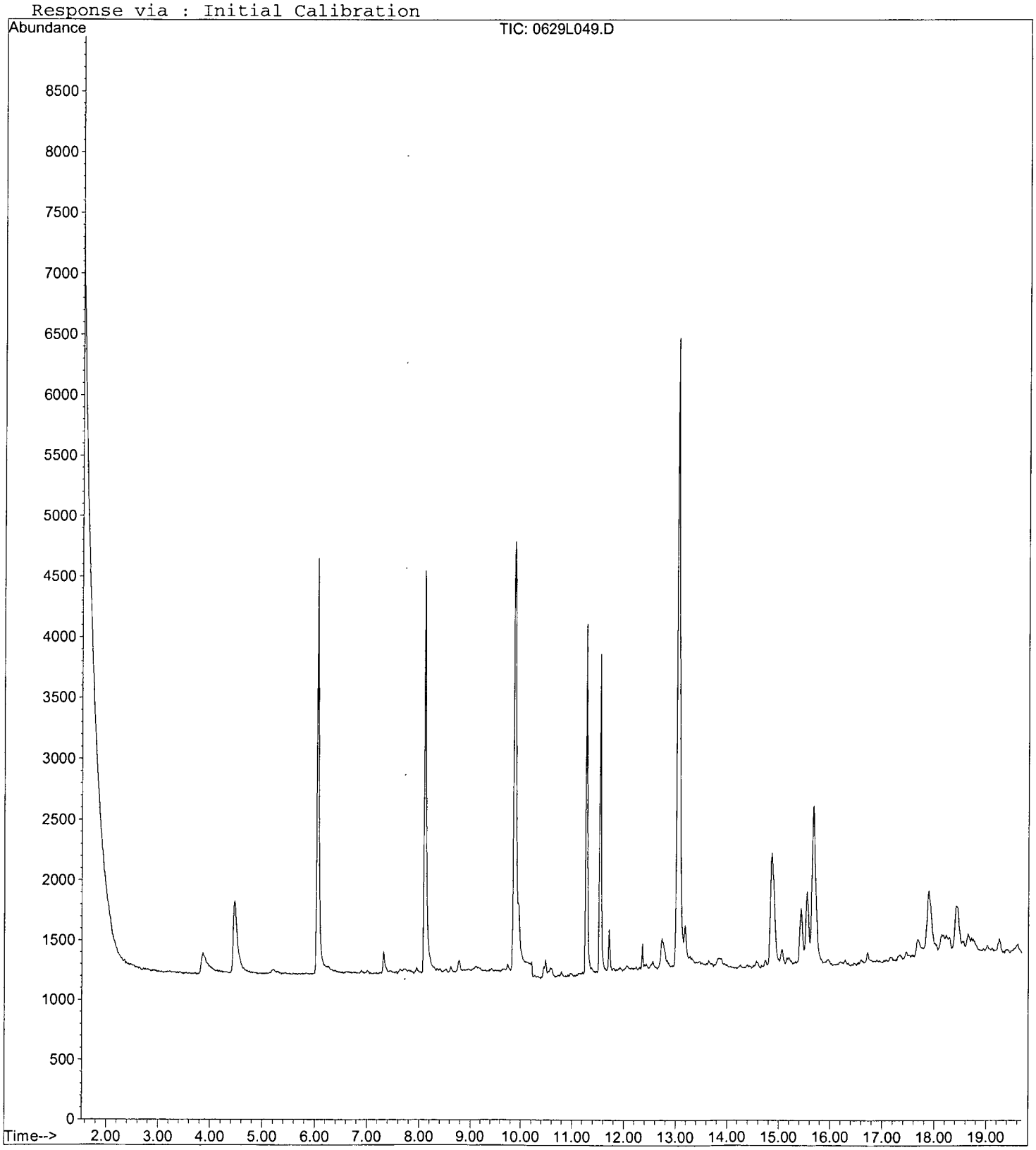
(#) = qualifier out of range (m) = manual integration

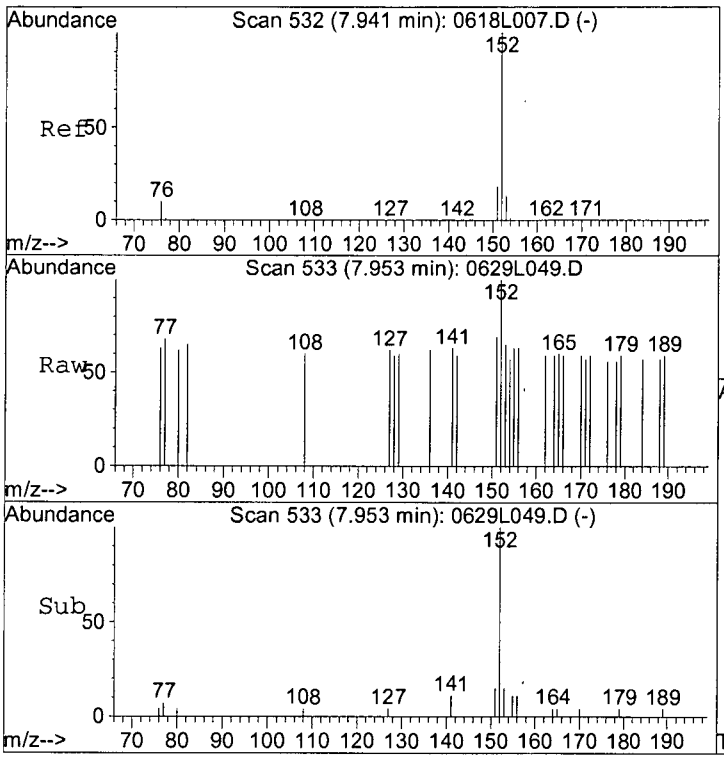
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L049.D Vial: 49
Acq On : 30 Jun 15 9:45 Operator: MA
Sample : AZ17439S03 1/30.25G x10 Inst : Linus
Misc : soil Multiplr: 330.58

Quant Time: Jul 1 13:48 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration

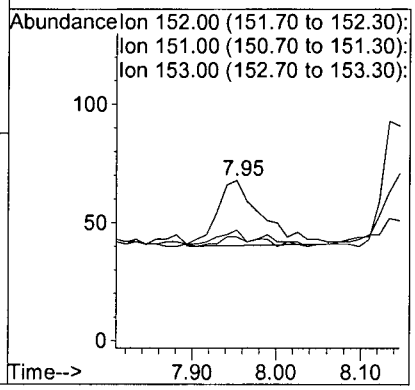


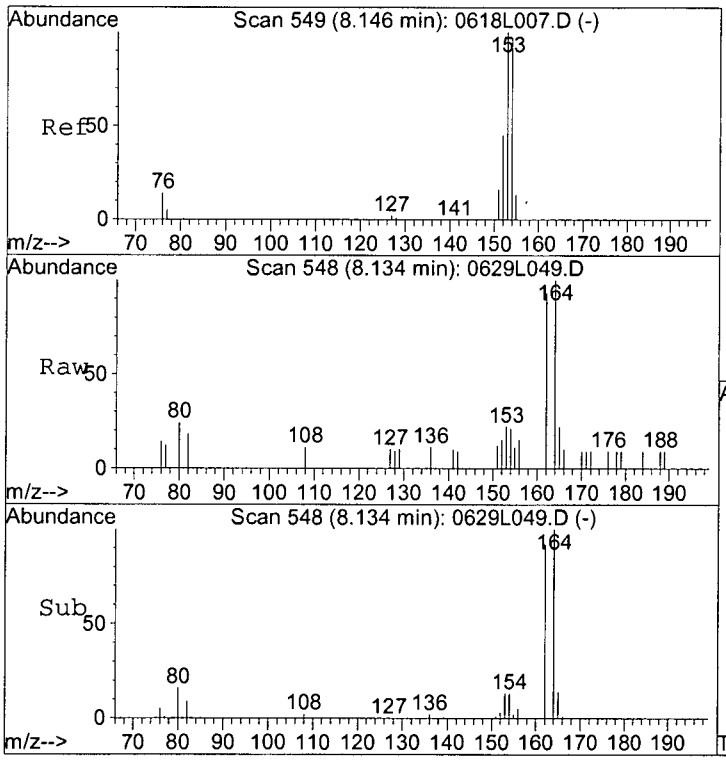


#8
Acenaphthylene
Concen: 8.64865 ppb
RT: 7.95 min Scan# 533
Delta R.T. 0.01 min
Lab File: 0629L049.D
Acq: 30 Jun 15 9:45

Tgt Ion:152 Resp: 103

Ion	Ratio	Lower	Upper
152	100		
151	22.2	12.7	23.7
153	11.1	9.0	16.8

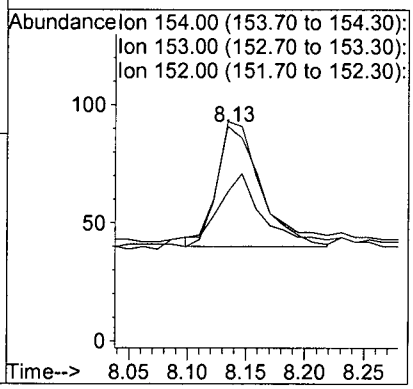


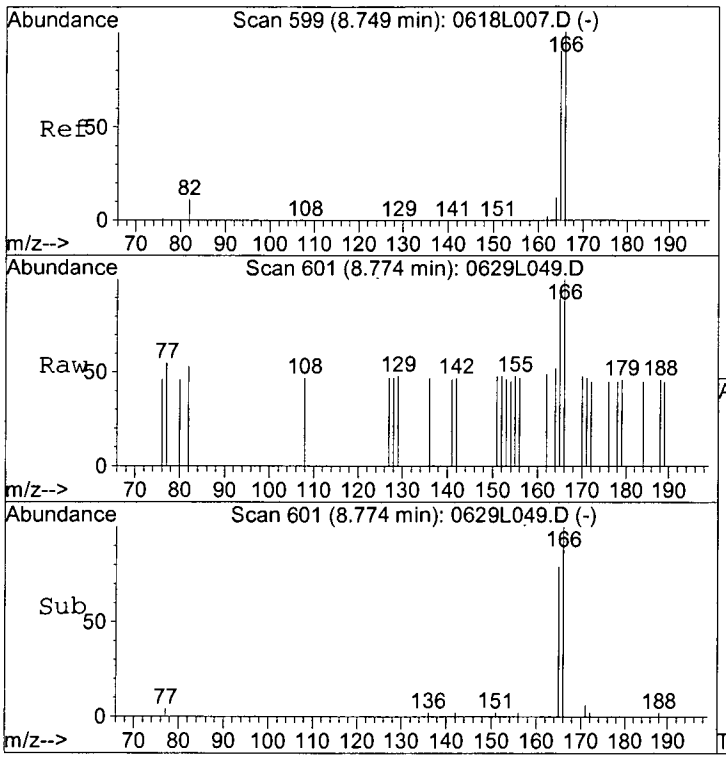


#9
Acenaphthene
Concen: 18.41128 ppb
RT: 8.13 min Scan# 548
Delta R.T. 0.00 min
Lab File: 0629L049.D
Acq: 30 Jun 15 9:45

Tgt Ion:154 Resp: 134

Ion	Ratio	Lower	Upper
154	100		
153	106.0	71.8	133.4
152	40.0	32.7	60.7

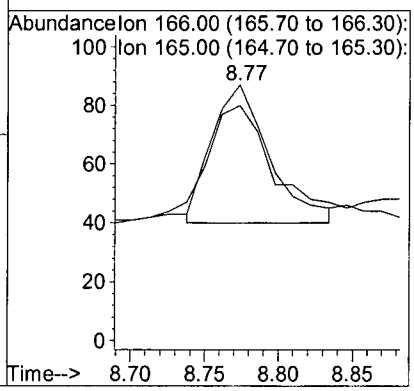


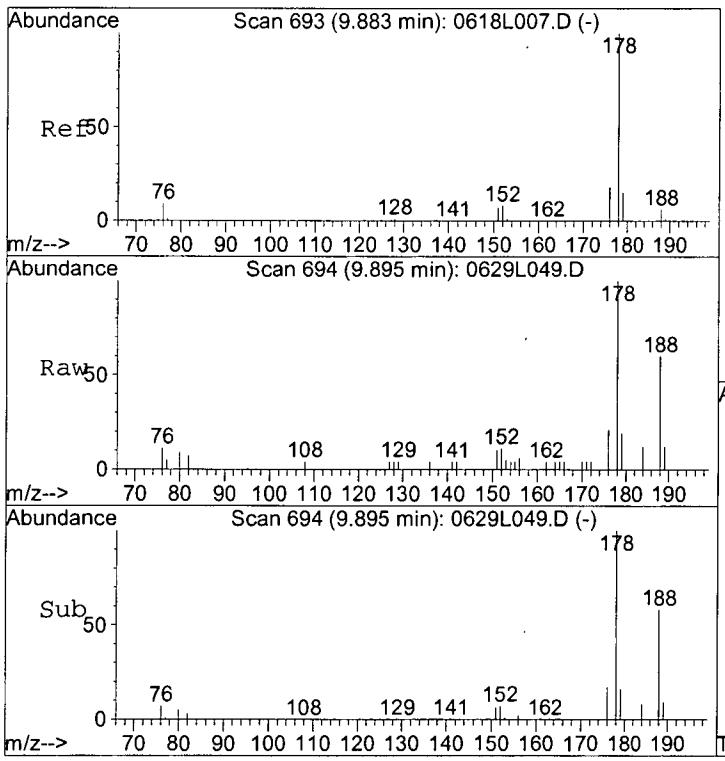


#10
Fluorene
Concen: 16.77255 ppb
RT: 8.77 min Scan# 601
Delta R.T. 0.02 min
Lab File: 0629L049.D
Acq: 30 Jun 15 9:45

Tgt Ion:166 Resp: 129

Ion	Ratio	Lower	Upper
166	100		
165	75.0	63.1	117.1

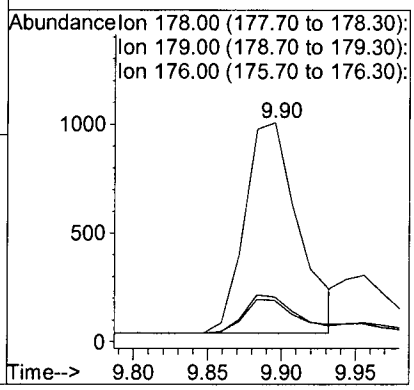


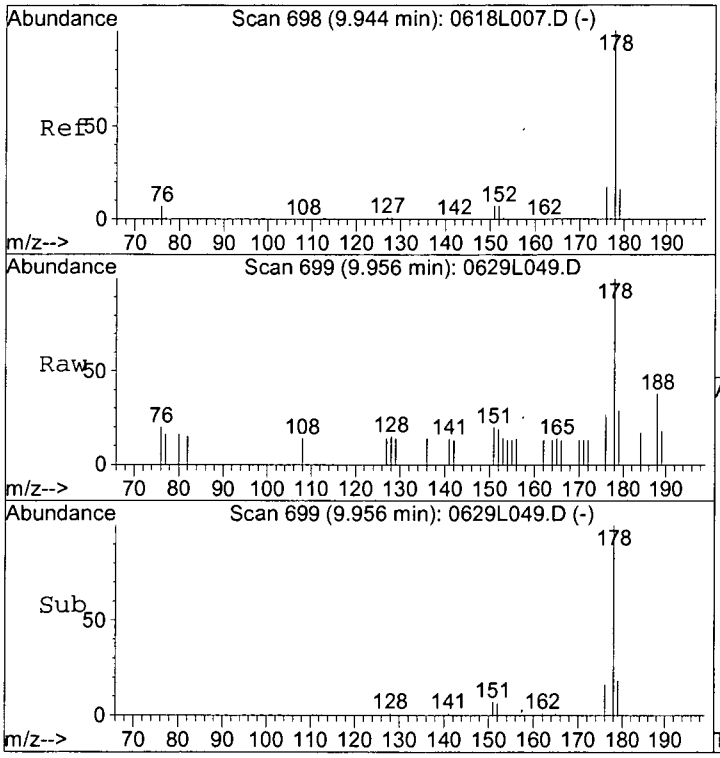


#12
Phenanthrene
Concen: 231.26041 ppb
RT: 9.90 min Scan# 694
Delta R.T. 0.01 min
Lab File: 0629L049.D
Acq: 30 Jun 15 9:45

Tgt Ion:178 Resp: 2462

Ion	Ratio	Lower	Upper
178	100		
179	15.6	10.5	19.5
176	17.4	12.3	22.8

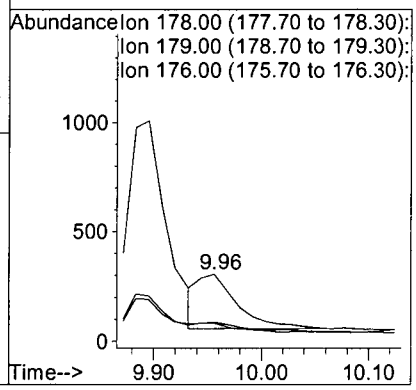


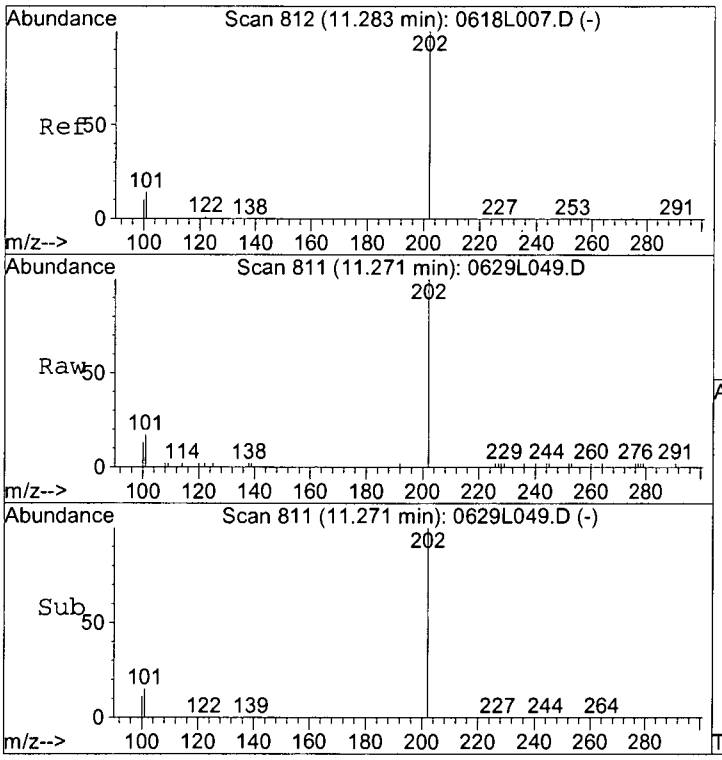


#13
Anthracene
Concen: 58.96343 ppb
RT: 9.96 min Scan# 699
Delta R.T. 0.01 min
Lab File: 0629L049.D
Acq: 30 Jun 15 9:45

Tgt Ion:178 Resp: 649

Ion	Ratio	Lower	Upper
178	100		
179	16.9	10.9	20.3
176	16.1	12.2	22.6

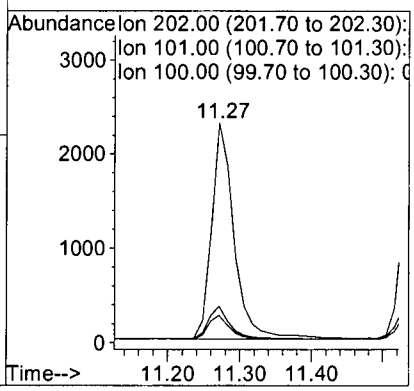


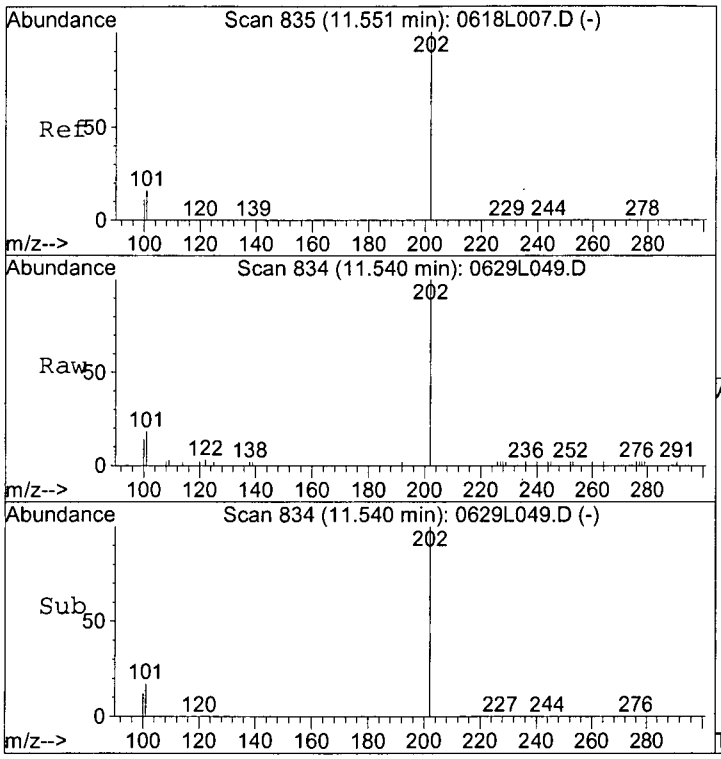


#14
Fluoranthene
Concen: 364.23355 ppb
RT: 11.27 min Scan# 811
Delta R.T. -0.01 min
Lab File: 0629L049.D
Acq: 30 Jun 15 9:45

Tgt Ion:202 Resp: 5000

Ion	Ratio	Lower	Upper
202	100		
101	15.0	9.7	18.1
100	11.0	7.4	13.7

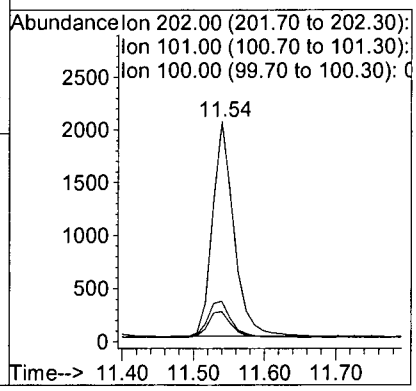


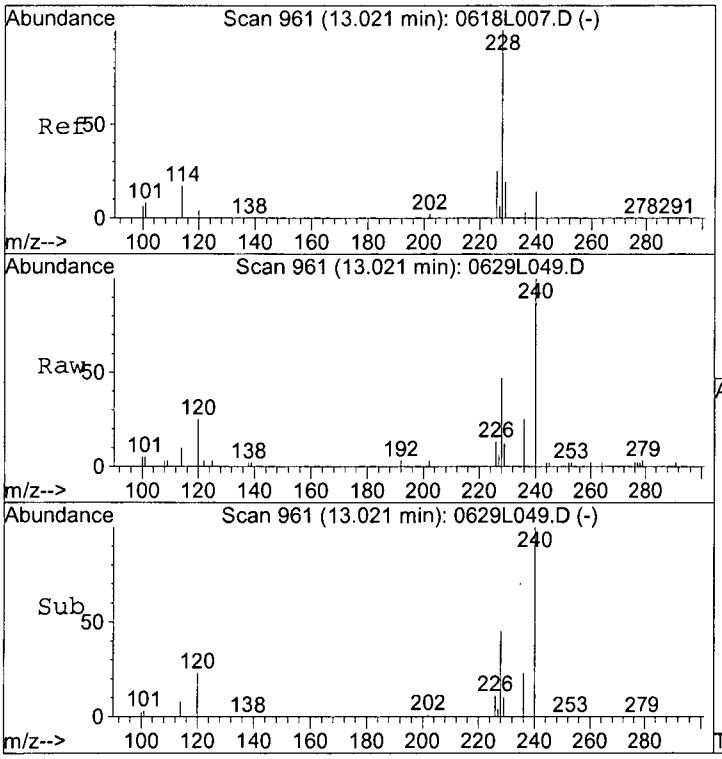


#16
Pyrene
Concen: 273.40667 ppb
RT: 11.54 min Scan# 834
Delta R.T. 0.00 min
Lab File: 0629L049.D
Acq: 30 Jun 15 9:45

Tgt Ion:202 Resp: 4296

Ion	Ratio	Lower	Upper
202	100		
101	16.7	11.0	20.4
100	12.0	7.9	14.7

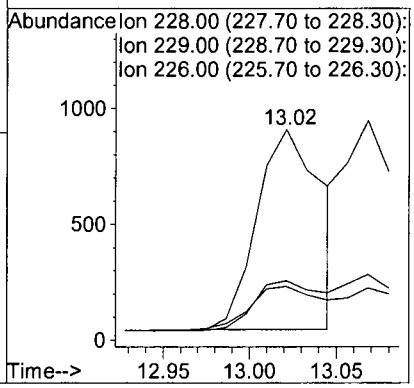


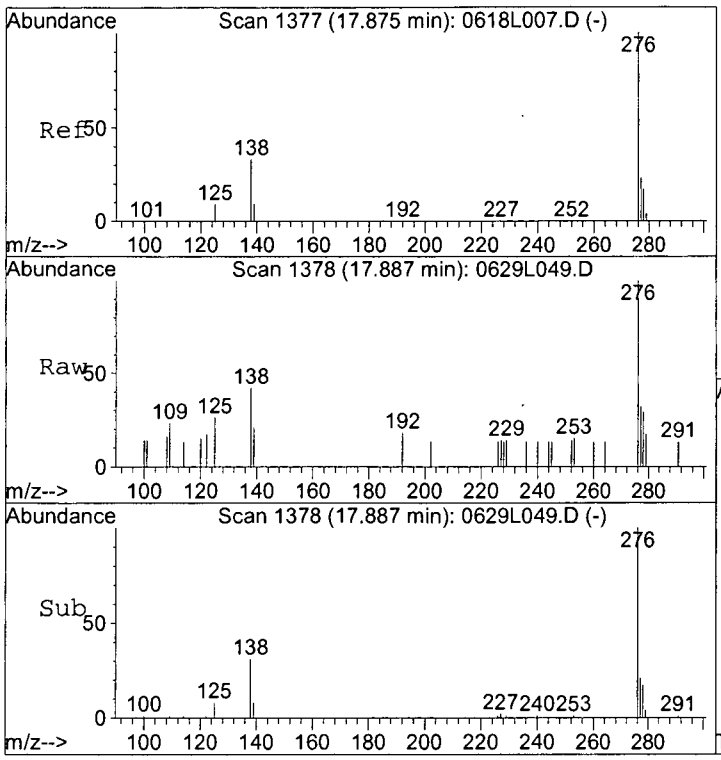


#18
Benz (a) anthracene
Concen: 221.27538 ppb
RT: 13.02 min Scan# 961
Delta R.T. 0.00 min
Lab File: 0629L049.D
Acq: 30 Jun 15 9:45

Tgt Ion:228 Resp: 2243

Ion	Ratio	Lower	Upper
228	100		
229	21.5	13.4	25.0
226	25.0	17.2	32.0

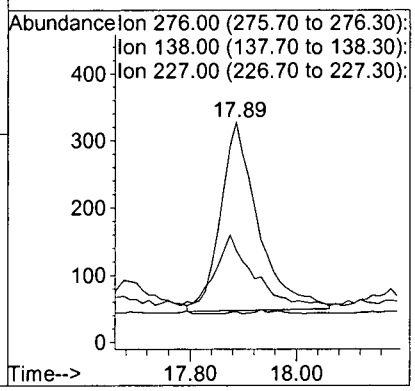


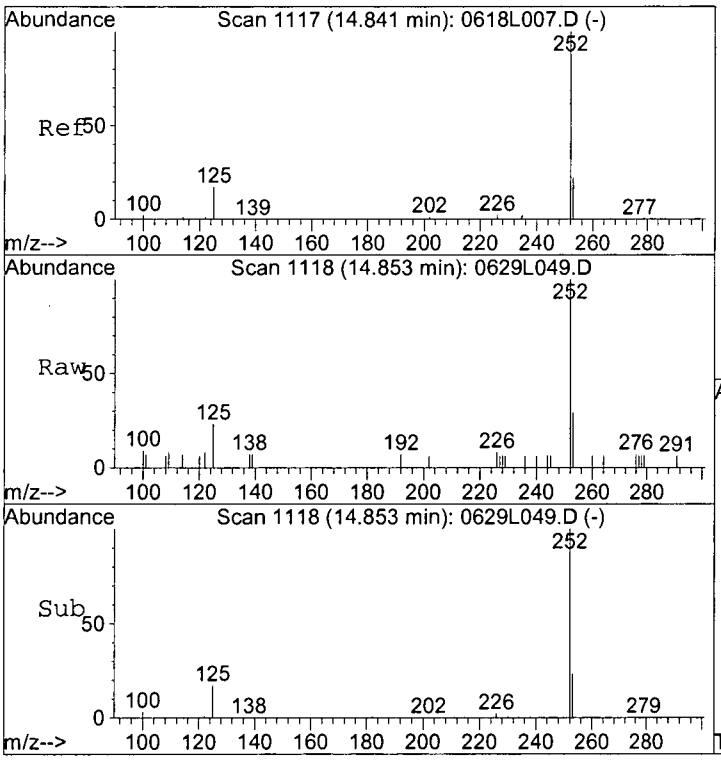


#20
Indeno (1,2,3-cd) pyrene
Concen: 103.03046 ppb
RT: 17.89 min Scan# 1378
Delta R.T. 0.01 min
Lab File: 0629L049.D
Acq: 30 Jun 15 9:45

Tgt Ion:276 Resp: 1380

Ion	Ratio	Lower	Upper
276	100		
138	29.3	23.0	42.8
227	0.7	0.1	0.1#

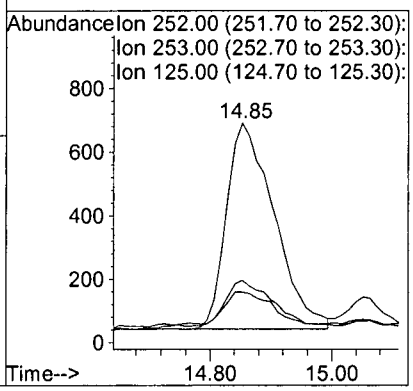


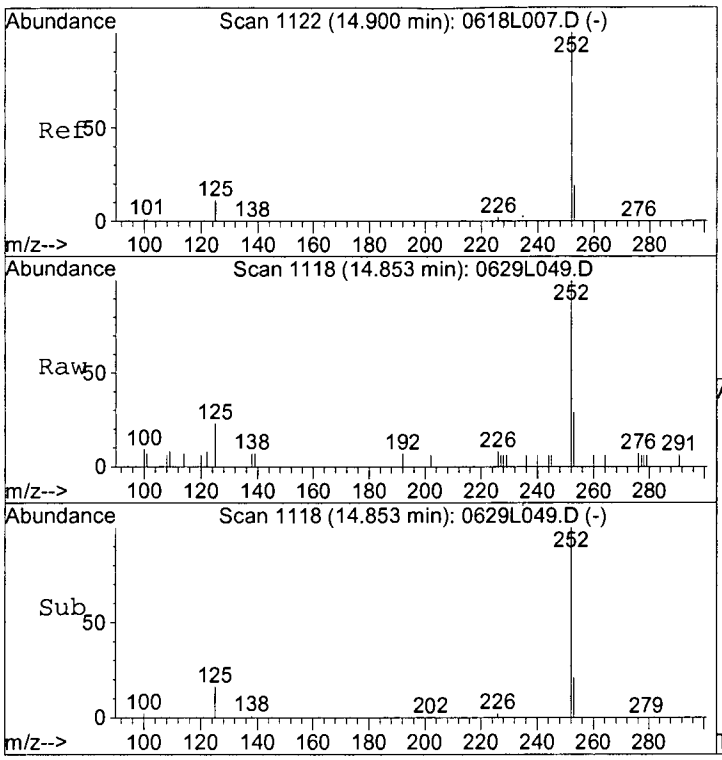


#22
Benzo (b) fluoranthene
Concen: 236.39749 ppb
RT: 14.85 min Scan# 1118
Delta R.T. 0.01 min
Lab File: 0629L049.D
Acq: 30 Jun 15 9:45

Tgt Ion:252 Resp: 3544

Ion	Ratio	Lower	Upper
252	100		
253	21.5	15.7	29.1
125	16.5	11.3	20.9

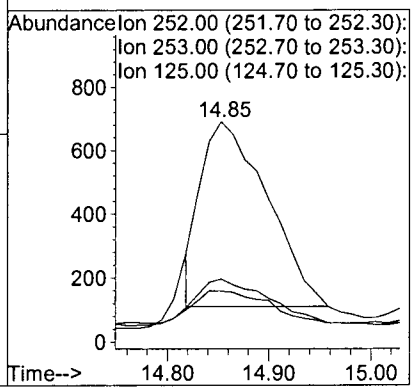


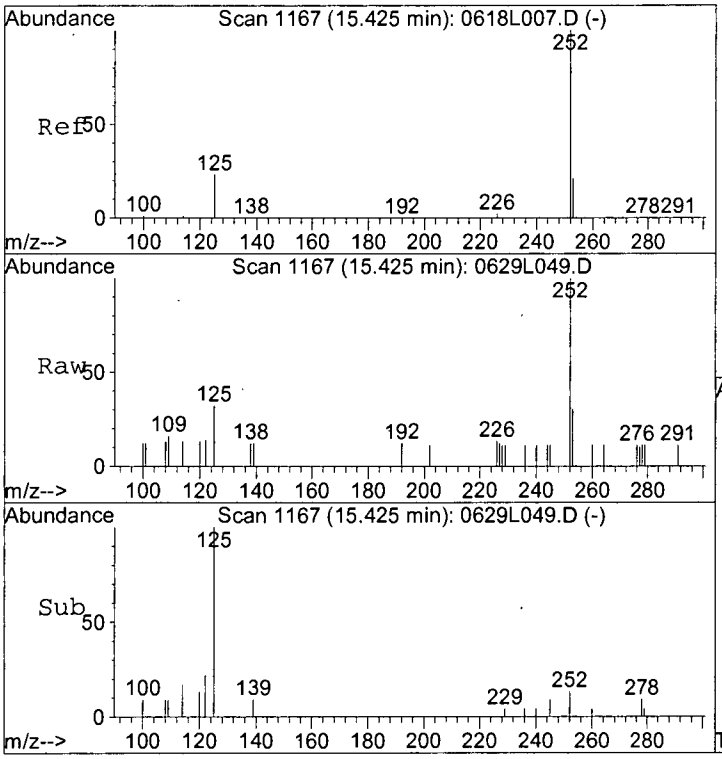


#23
Benzo (k) fluoranthene
Concen: 88.65555 ppb
RT: 14.85 min Scan# 1118
Delta R.T. -0.03 min
Lab File: 0629L049.D
Acq: 30 Jun 15 9:45

Tgt Ion:252 Resp: 2633

Ion	Ratio	Lower	Upper
252	100		
253	23.6	15.8	29.3
125	17.2	11.6	21.5

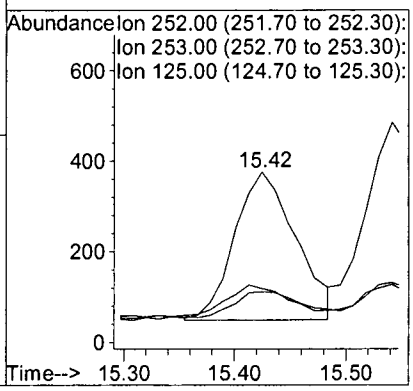


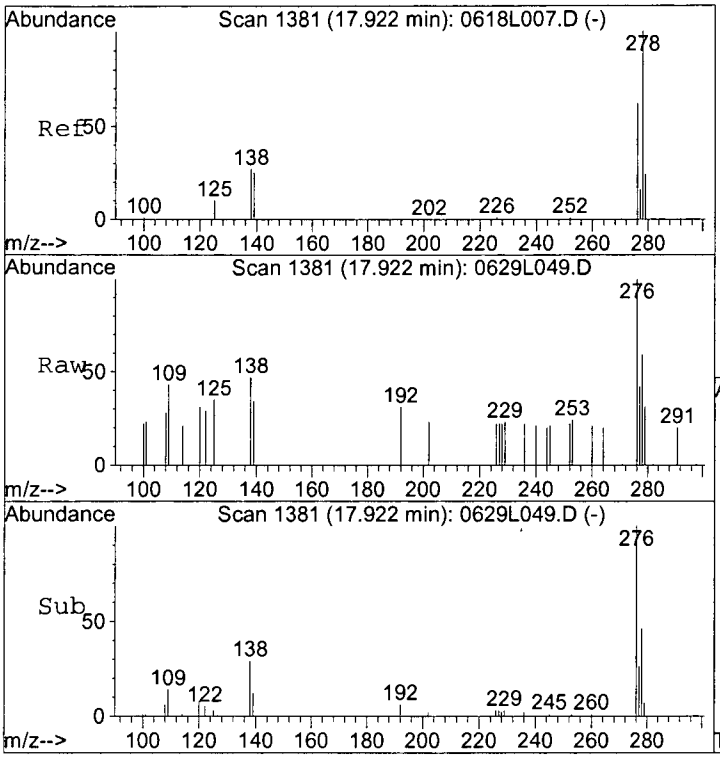


#24
Benzo (a) pyrene
Concen: 107.26367 ppb
RT: 15.42 min Scan# 1167
Delta R.T. 0.01 min
Lab File: 0629L049.D
Acq: 30 Jun 15 9:45

Tgt Ion:252 Resp: 1247

Ion	Ratio	Lower	Upper
252	100		
253	16.8	15.2	28.2
125	18.3	16.1	29.9

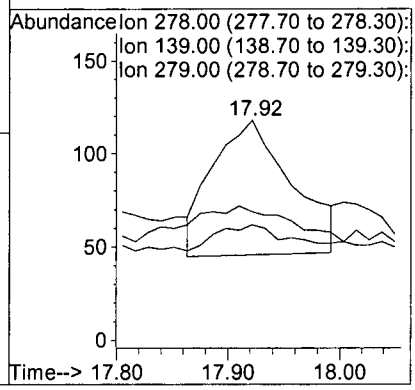


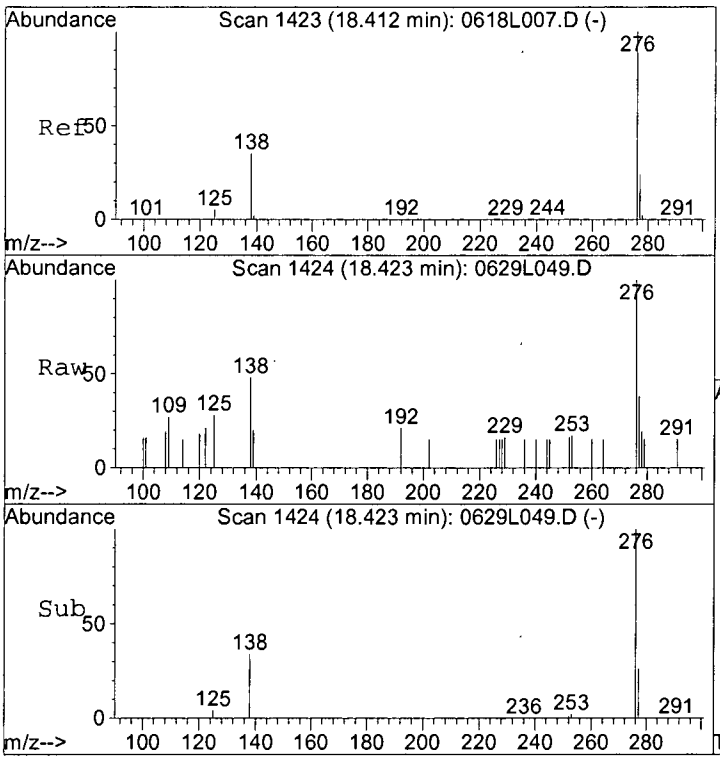


#25
Dibenz (a,h) anthracene
Concen: 27.76700 ppb
RT: 17.92 min Scan# 1381
Delta R.T. 0.01 min
Lab File: 0629L049.D
Acq: 30 Jun 15 9:45

Tgt Ion:278 Resp: 356

Ion	Ratio	Lower	Upper
278	100		
139	21.2	18.5	34.3
279	26.9	16.7	30.9

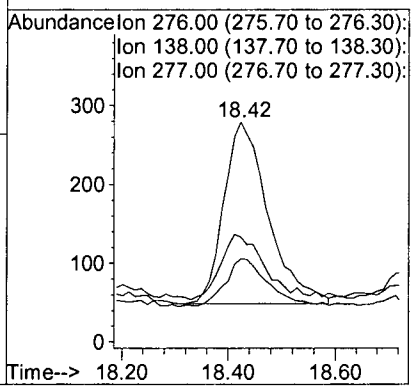




#26
Benzo (g,h,i) perylene
Concen: 100.29803 ppb
RT: 18.42 min Scan# 1424
Delta R.T. 0.01 min
Lab File: 0629L049.D
Acq: 30 Jun 15 9:45

Tgt Ion:276 Resp: 1324

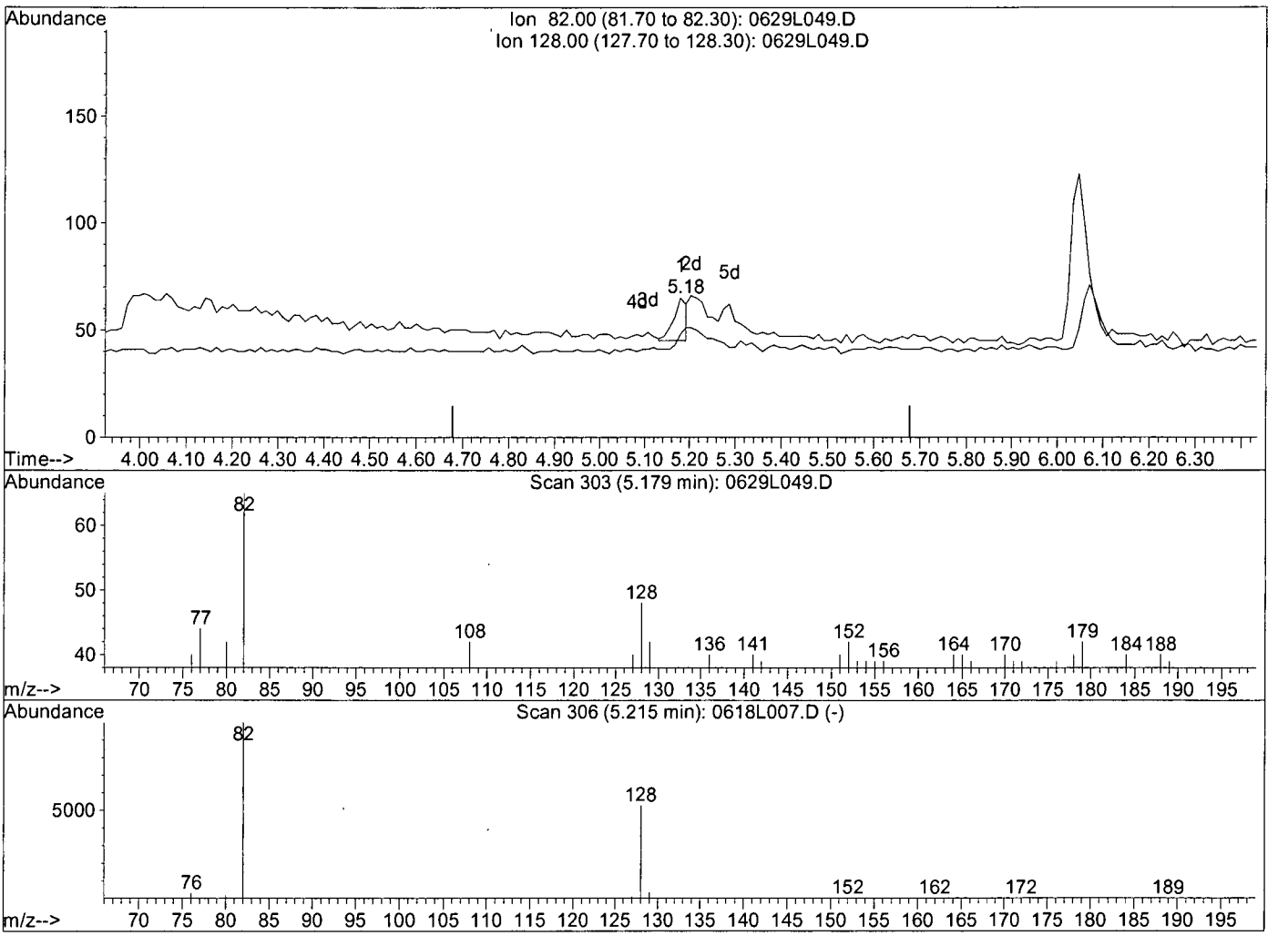
Ion	Ratio	Lower	Upper
276	100		
138	33.5	23.7	44.1
277	25.7	17.3	32.1



Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L049.D Vial: 49
Acq On : 30 Jun 15 9:45 Operator: MA
Sample : AZ17439S03 1/30.25G x10 Inst : Linus
Misc : soil Multiplr: 330.58
Quant Time: Jun 30 12:29 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Multiple Level Calibration



TIC: 0629L049.D

(2) Surrogate Recovery (NBZ) (S)

5.18min 17.3261ppb

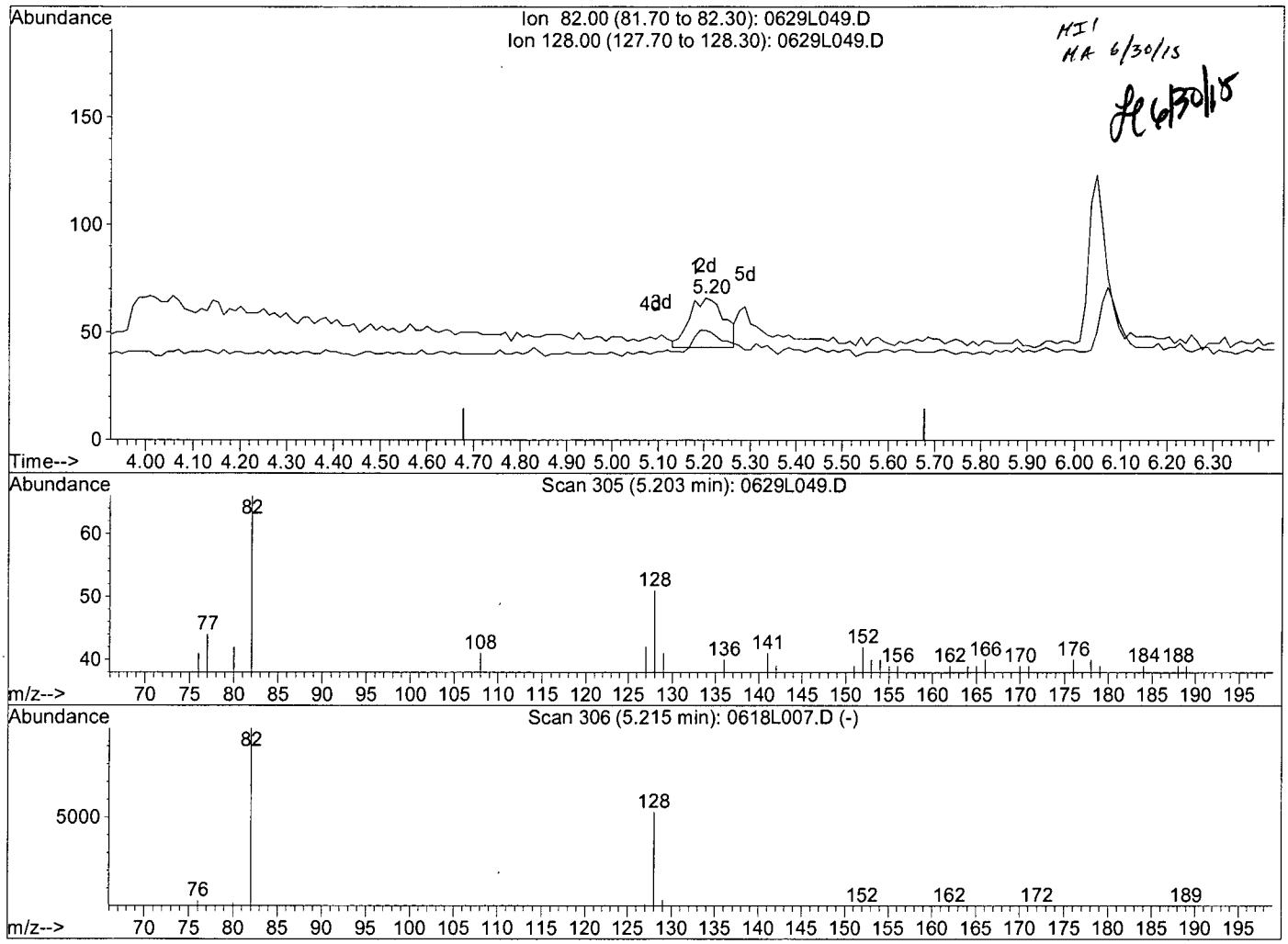
response 41

Ion	Exp%	Act%
82.00	100	100
128.00	52.70	36.84#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L049.D Vial: 49
Acq On : 30 Jun 15 9:45 Operator: MA
Sample : AZ17439S03 1/30.25G x10 Inst : Linus
Misc : soil Multiplr: 330.58
Quant Time: Jun 30 12:37 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Multiple Level Calibration



TIC: 0629L049.D

(2) Surrogate Recovery (NBZ) (S)

5.20min 51.5558ppb m

response 122

Ion	Exp%	Act%
82.00	100	100
128.00	52.70	77.27#
0.00	0.00	0.00
0.00	0.00	0.00

EPA 8270D LL SOILS

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-SB033-0203
Sample Collection Date: 06/09/15

ARF: 76624
APPL ID: AZ17440
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 15.1 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.061	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.0200 U	0.059	0.0200	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.011 J	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.056 J	0.059	0.0200	0.0094	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.24	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.11	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.22	0.059	0.0200	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.095	0.059	0.0200	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.030 J	0.059	0.0200	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.0200 U	0.059	0.0200	0.0094	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.031 J	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	0.34	0.059	0.0200	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.032 J	0.059	0.0200	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.087	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.028 J	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.35	0.059	0.0200	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.24	0.059	0.0200	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	64.8	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	38.7	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	73.4	30-125			%	06/22/15	06/30/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L050
Instrument: Linus
Sequence: L150629
Dilution Factor: 10
Initials: MA

Printed: 07/02/15 4:55:06 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L050.D Vial: 50
Acq On : 30 Jun 15 10:12 Operator: MA
Sample : AZ17440S01 1/30.11G x10 Inst : Linus
Misc : soil Multiplr: 332.12

Quant Time: Jul 1 13:51 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.05	136	8216	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.10	164	4091	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.86	188	6955	2.50000 ppb		0.00
15) Chrysene-D12(IS)	13.03	240	8083	2.50000 ppb		0.00
21) Perylene-D12(IS)	15.66	264	5043	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.18	82	79	32.14769 ppb		0.00
Spiked Amount 83.029			Recovery = 38.719%			
7) Surrogate Recovery (FBP)	7.31	172	402	53.83064 ppb		0.00
Spiked Amount 83.029			Recovery = 64.834%			
17) Surrogate Recovery (TPH)	11.71	244	543	60.95198 ppb		-0.01
Spiked Amount 83.029			Recovery = 73.411%			
Target Compounds						Qvalue
3) Naphthalene	6.07	128	318	23.57654 ppb	#	94
4) 2-Methylnaphthalene	6.89	142	425	51.95572 ppb		94
5) 1-Methylnaphthalene	7.00	142	504	54.87730 ppb		98
8) Acenaphthylene	7.94	152	133	9.61249 ppb	#	91
10) Fluorene	8.77	166	242	27.08307 ppb		73
12) Phenanthrene	9.88	178	3764	297.95232 ppb		99
13) Anthracene	9.94	178	621	47.54596 ppb	#	84
14) Fluoranthene	11.27	202	4653	285.64519 ppb		94
16) Pyrene	11.54	202	3592	201.42260 ppb		95
18) Benz (a) anthracene	13.02	228	2233	200.83744 ppb		98
20) Indeno (1,2,3-cd) pyrene	17.87	276	1122	73.80851 ppb	#	95
22) Benzo (b) fluoranthene	14.85	252	3306	190.88544 ppb		98
23) Benzo (k) fluoranthene	14.85	252	2325	25.26133 ppb		99
24) Benzo (a) pyrene	15.42	252	1226	95.69532 ppb		99
25) Dibenz (a,h) anthracene	17.90	278	377	26.68299 ppb		90
26) Benzo (g,h,i) perylene	18.41	276	1169	80.35871 ppb		98

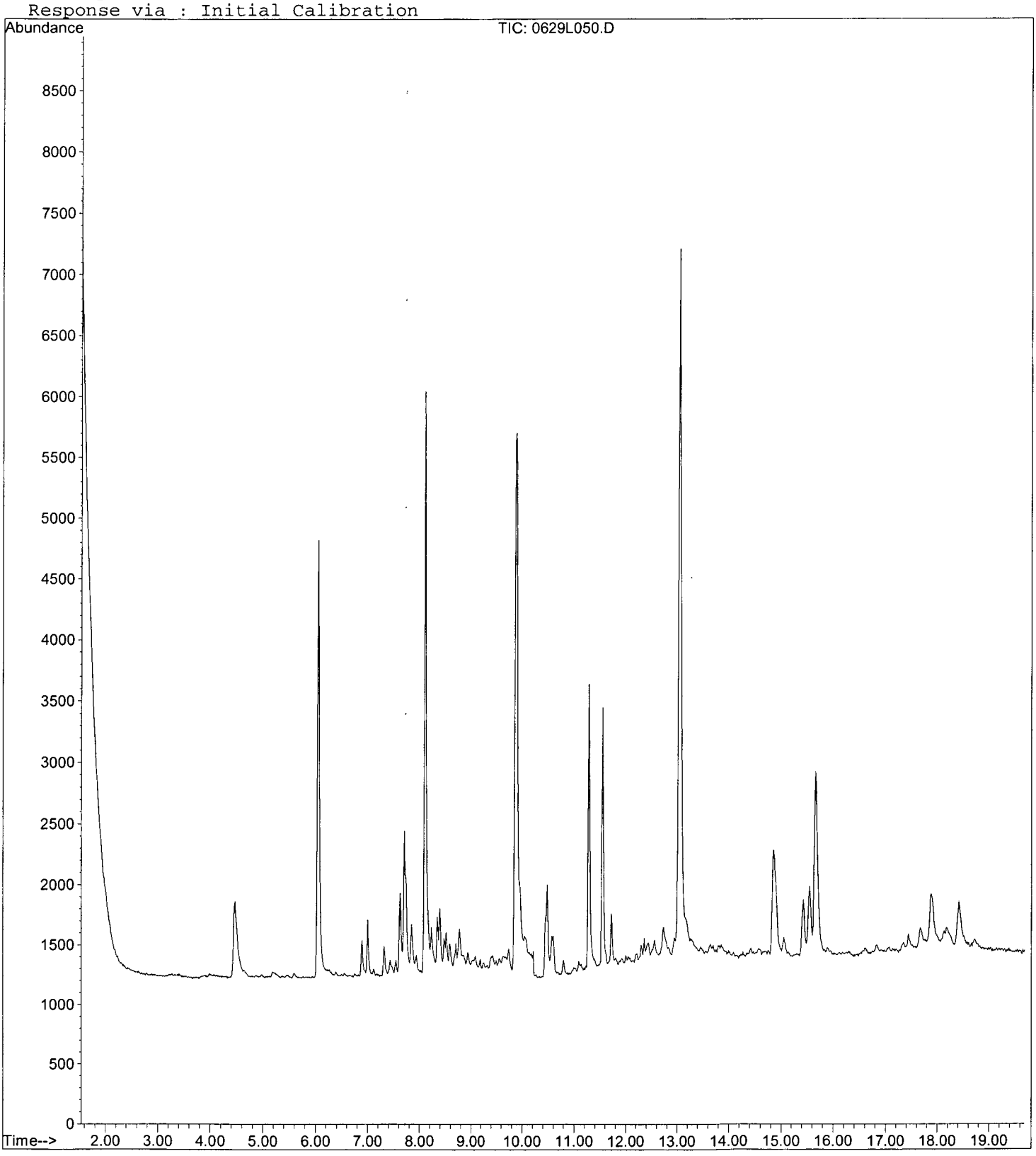
(#) = qualifier out of range (m) = manual integration

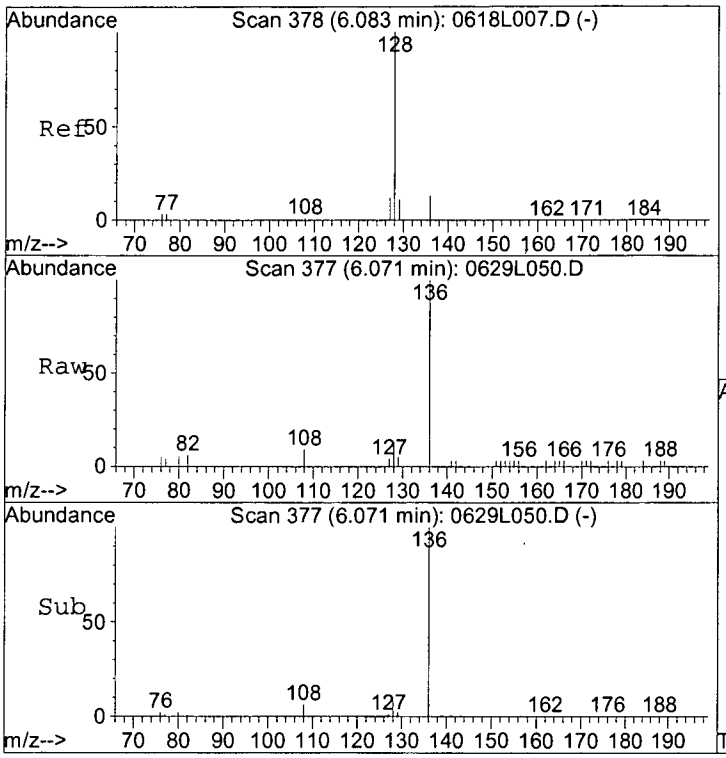
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L050.D Vial: 50
Acq On : 30 Jun 15 10:12 Operator: MA
Sample : AZ17440S01 1/30.11G x10 Inst : Linus
Misc : soil Multiplr: 332.12

Quant Time: Jul 1 13:51 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration

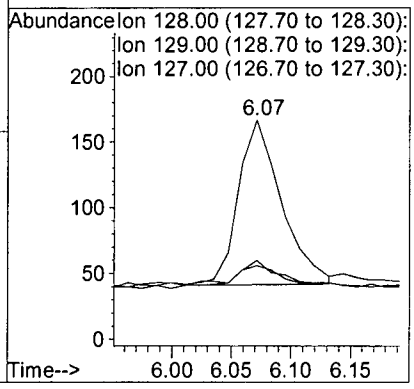


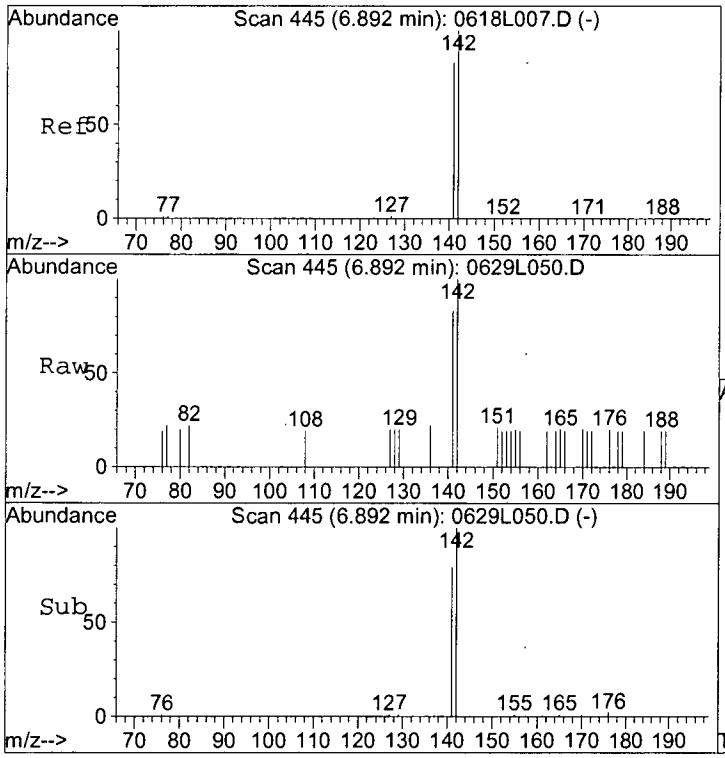


#3
Naphthalene
Concen: 23.57654 ppb
RT: 6.07 min Scan# 377
Delta R.T. 0.00 min
Lab File: 0629L050.D
Acq: 30 Jun 15 10:12

Tgt Ion:128 Resp: 318

Ion	Ratio	Lower	Upper
128	100		
129	15.2	7.4	13.8#
127	12.0	8.4	15.6

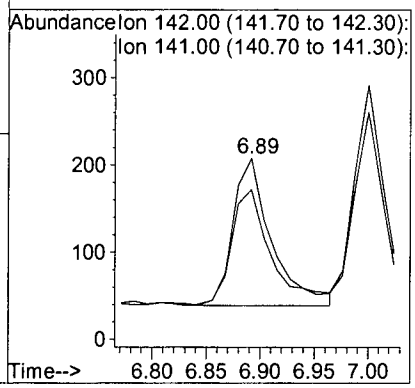


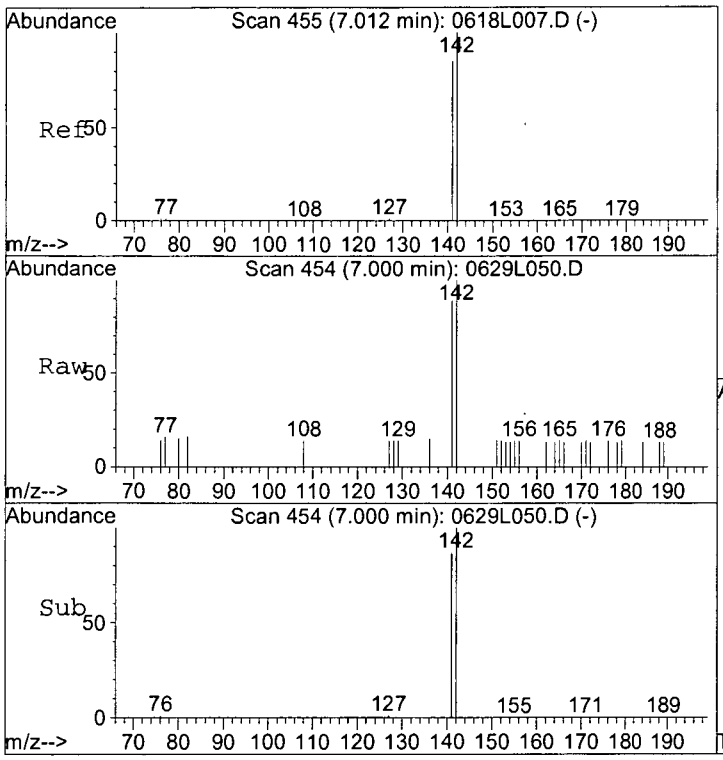


#4
2-Methylnaphthalene
Concen: 51.95572 ppb
RT: 6.89 min Scan# 445
Delta R.T. 0.01 min
Lab File: 0629L050.D
Acq: 30 Jun 15 10:12

Tgt Ion:142 Resp: 425

Ion	Ratio	Lower	Upper
142	100		
141	77.5	58.3	108.3

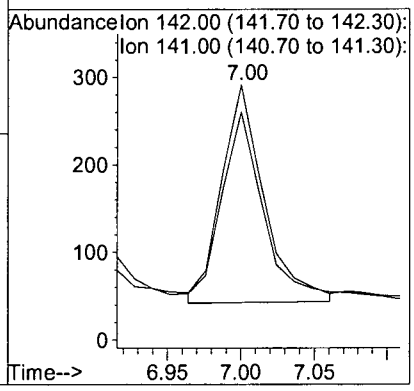


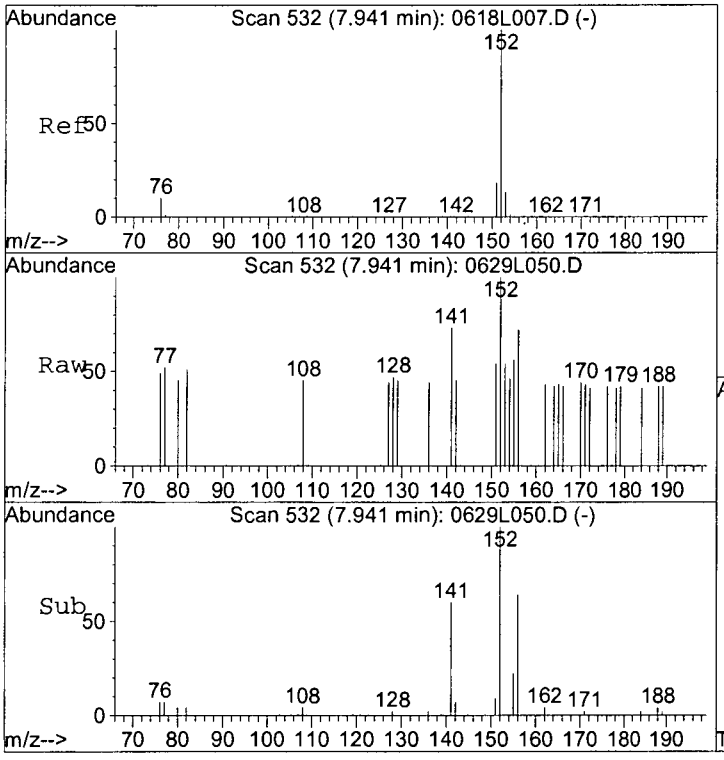


#5
1-Methylnaphthalene
Concen: 54.87730 ppb
RT: 7.00 min Scan# 454
Delta R.T. 0.00 min
Lab File: 0629L050.D
Acq: 30 Jun 15 10:12

Tgt Ion:142 Resp: 504

Ion	Ratio	Lower	Upper
142	100		
141	87.0	59.5	110.5

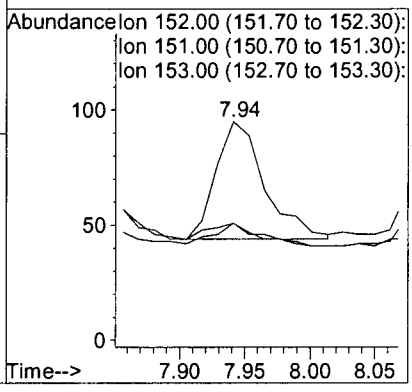


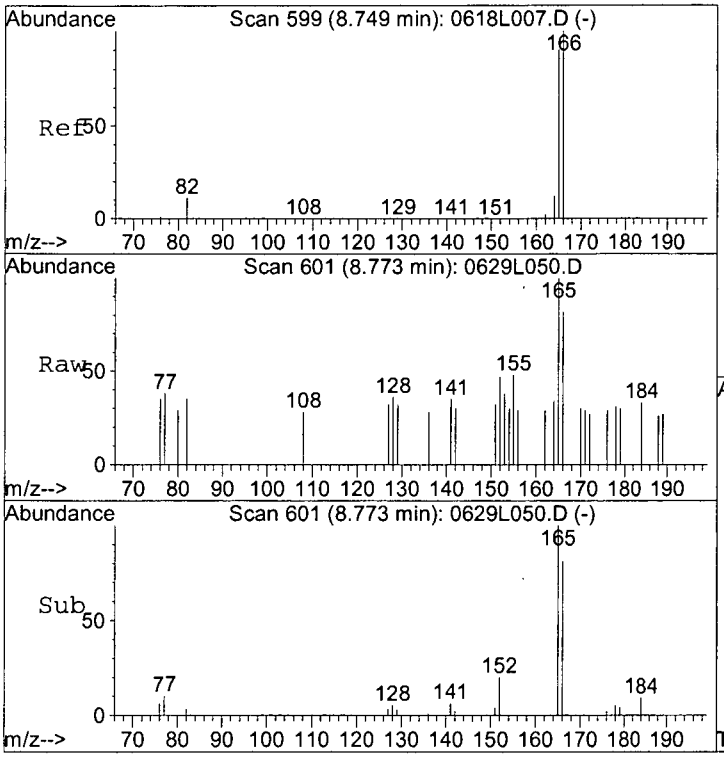


#8
Acenaphthylene
Concen: 9.61249 ppb
RT: 7.94 min Scan# 532
Delta R.T. 0.00 min
Lab File: 0629L050.D
Acq: 30 Jun 15 10:12

Tgt Ion:152 Resp: 133

Ion	Ratio	Lower	Upper
152	100		
151	19.6	12.7	23.7
153	19.6	9.0	16.8#

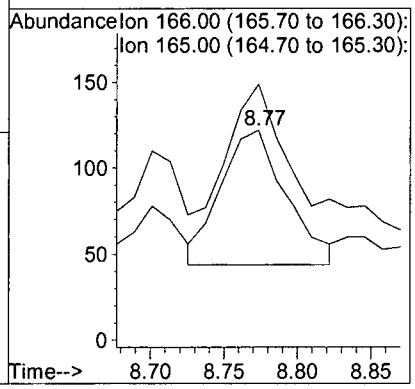


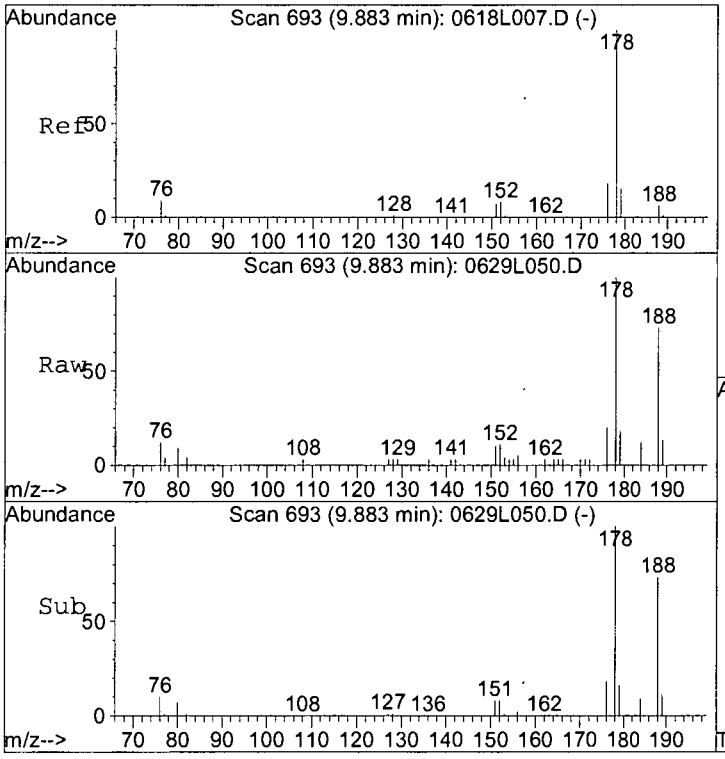


#10
Fluorene
Concen: 27.08307 ppb
RT: 8.77 min Scan# 601
Delta R.T. 0.02 min
Lab File: 0629L050.D
Acq: 30 Jun 15 10:12

Tgt Ion:166 Resp: 242

Ion	Ratio	Lower	Upper
166	100		
165	115.2	63.1	117.1

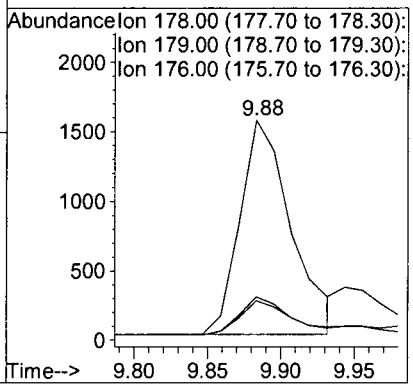


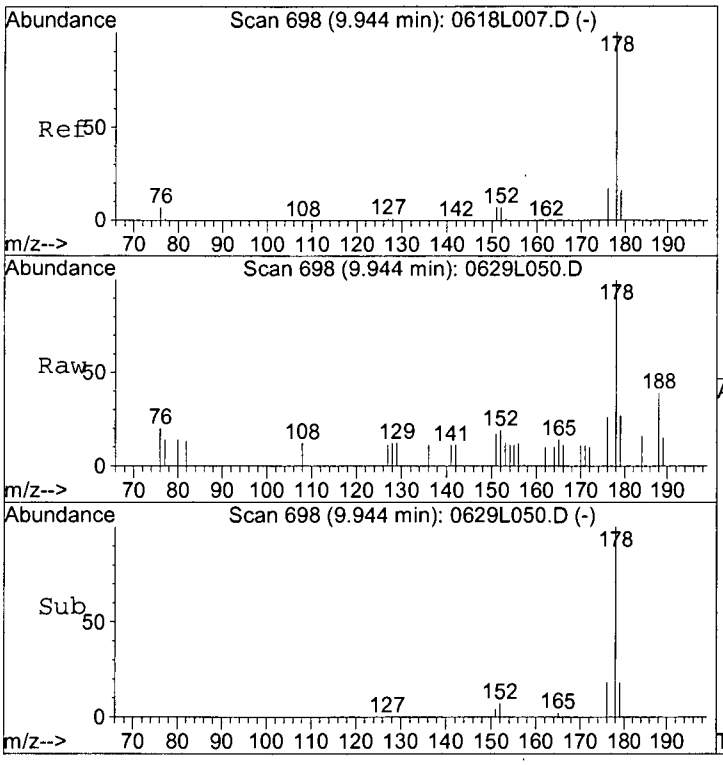


#12
Phenanthrene
Concen: 297.95232 ppb
RT: 9.88 min Scan# 693
Delta R.T. 0.00 min
Lab File: 0629L050.D
Acq: 30 Jun 15 10:12

Tgt Ion:178 Resp: 3764

Ion	Ratio	Lower	Upper
178	100		
179	15.7	10.5	19.5
176	17.8	12.3	22.8

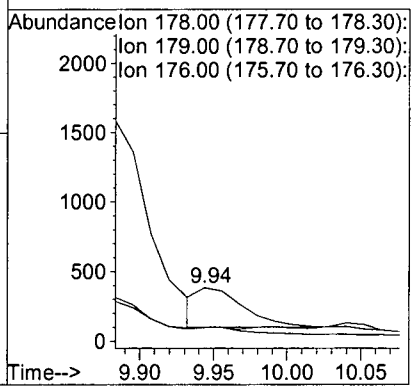


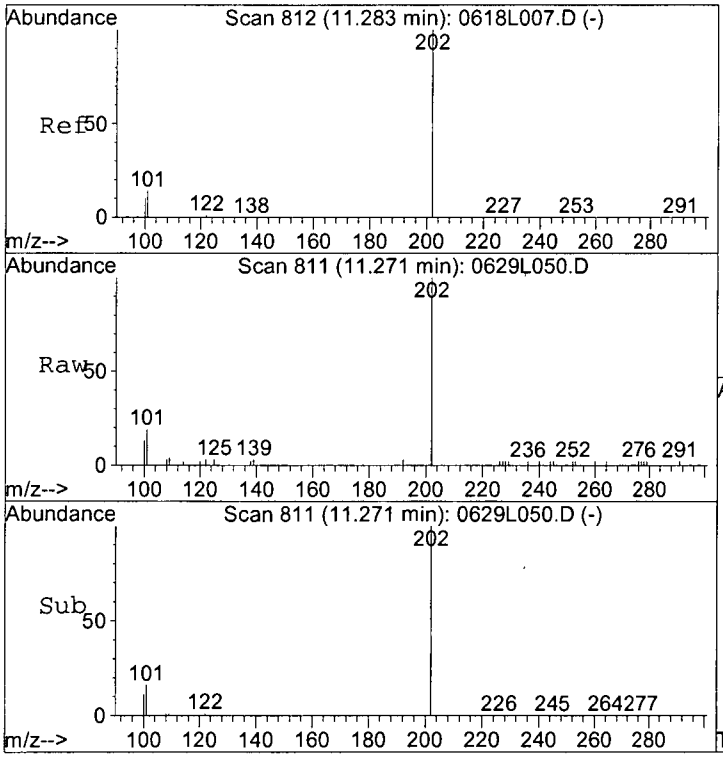


#13
Anthracene
Concen: 47.54596 ppb
RT: 9.94 min Scan# 698
Delta R.T. 0.00 min
Lab File: 0629L050.D
Acq: 30 Jun 15 10:12

Tgt Ion:178 Resp: 621

Ion	Ratio	Lower	Upper
178	100		
179	1.8	10.9	20.3#
176	17.4	12.2	22.6

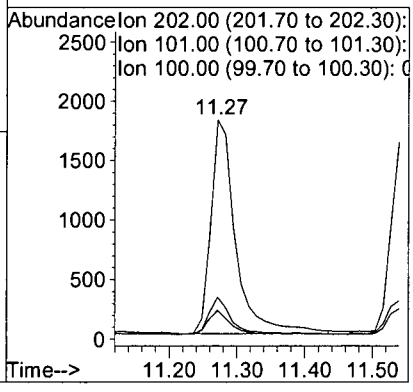


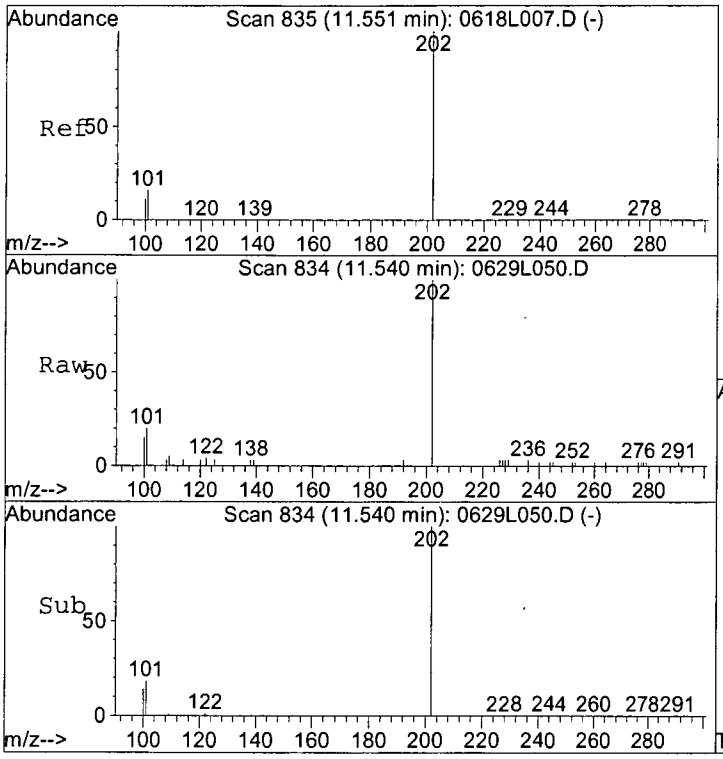


#14
Fluoranthene
Concen: 285.64519 ppb
RT: 11.27 min Scan# 811
Delta R.T. -0.01 min
Lab File: 0629L050.D
Acq: 30 Jun 15 10:12

Tgt Ion:202 Resp: 4653

Ion	Ratio	Lower	Upper
202	100		
101	17.3	9.7	18.1
100	11.3	7.4	13.7

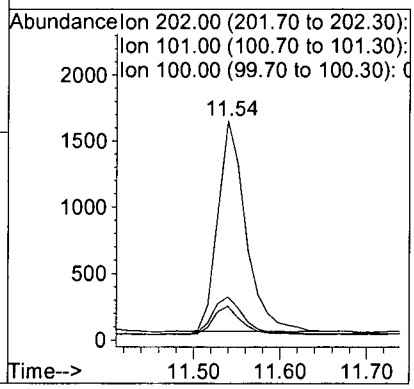


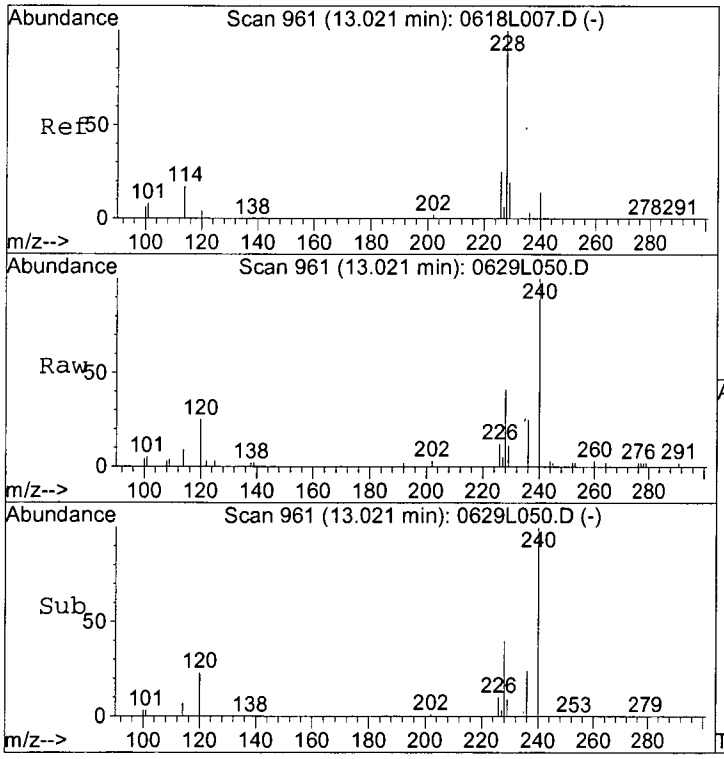


#16
Pyrene
Concen: 201.42260 ppb
RT: 11.54 min Scan# 834
Delta R.T. 0.00 min
Lab File: 0629L050.D
Acq: 30 Jun 15 10:12

Tgt Ion:202 Resp: 3592

Ion	Ratio	Lower	Upper
202	100		
101	17.4	11.0	20.4
100	13.5	7.9	14.7

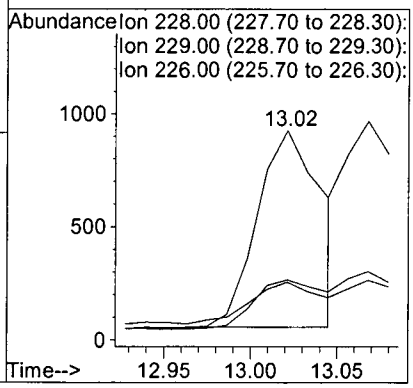


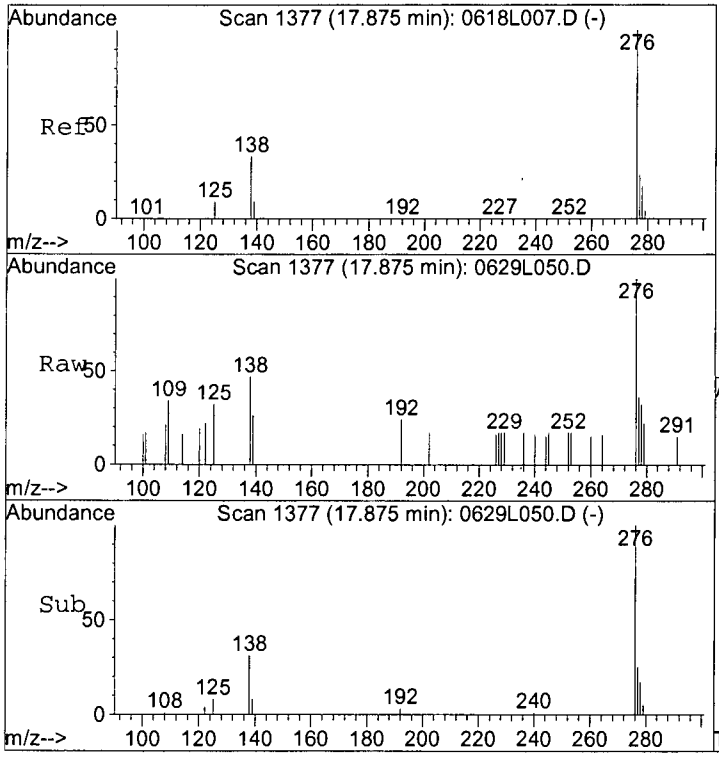


#18
Benz (a) anthracene
Concen: 200.83744 ppb
RT: 13.02 min Scan# 961
Delta R.T. 0.00 min
Lab File: 0629L050.D
Acq: 30 Jun 15 10:12

Tgt Ion:228 Resp: 2233

Ion	Ratio	Lower	Upper
228	100		
229	21.3	13.4	25.0
226	24.9	17.2	32.0

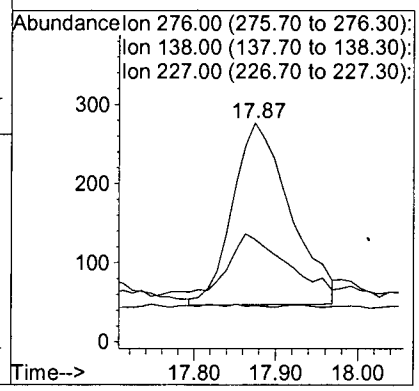


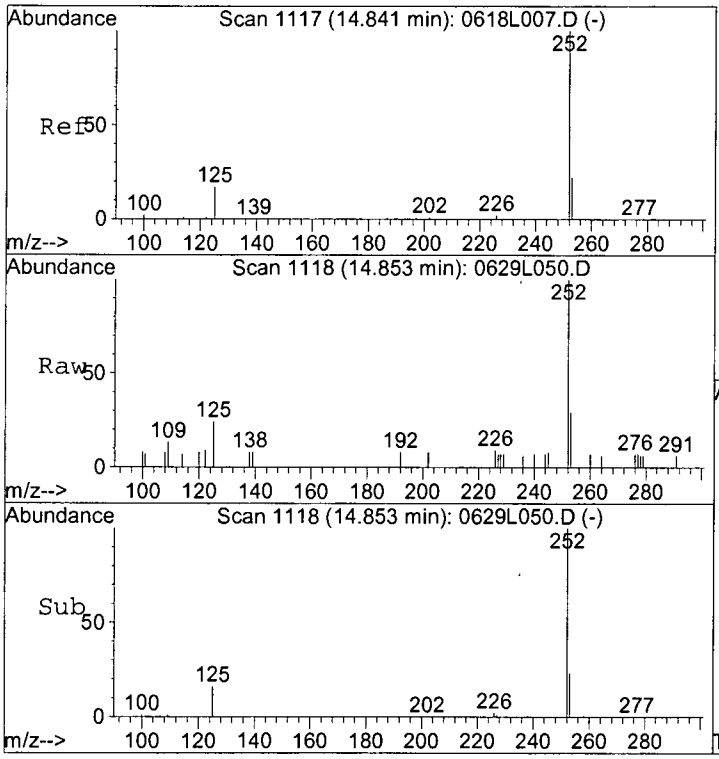


#20
Indeno (1,2,3-cd) pyrene
Concen: 73.80851 ppb
RT: 17.87 min Scan# 1377
Delta R.T. 0.00 min
Lab File: 0629L050.D
Acq: 30 Jun 15 10:12

Tgt Ion:276 Resp: 1122

Ion	Ratio	Lower	Upper
276	100		
138	30.0	23.0	42.8
227	0.4	0.1	0.1#

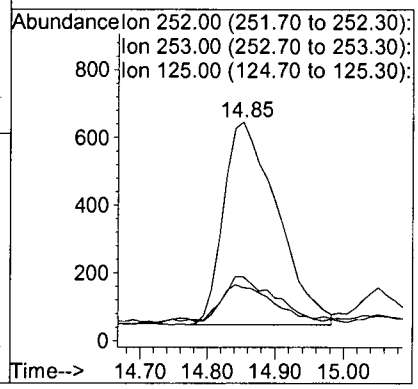


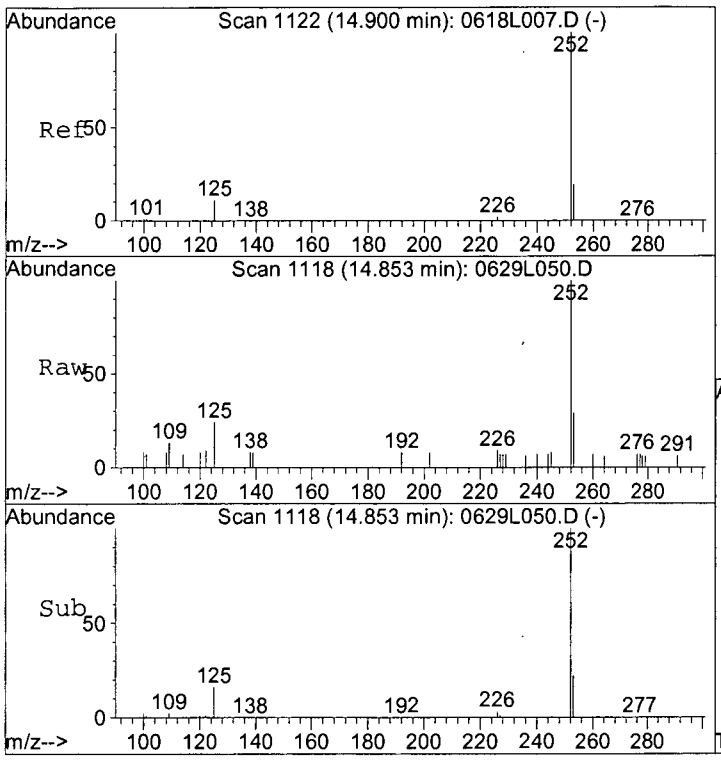


#22
Benzo (b) fluoranthene
Concen: 190.88544 ppb
RT: 14.85 min Scan# 1118
Delta R.T. 0.01 min
Lab File: 0629L050.D
Acq: 30 Jun 15 10:12

Tgt Ion:252 Resp: 3306

Ion	Ratio	Lower	Upper
252	100		
253	21.0	15.7	29.1
125	16.0	11.3	20.9

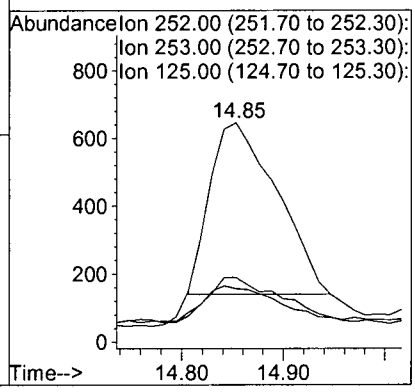


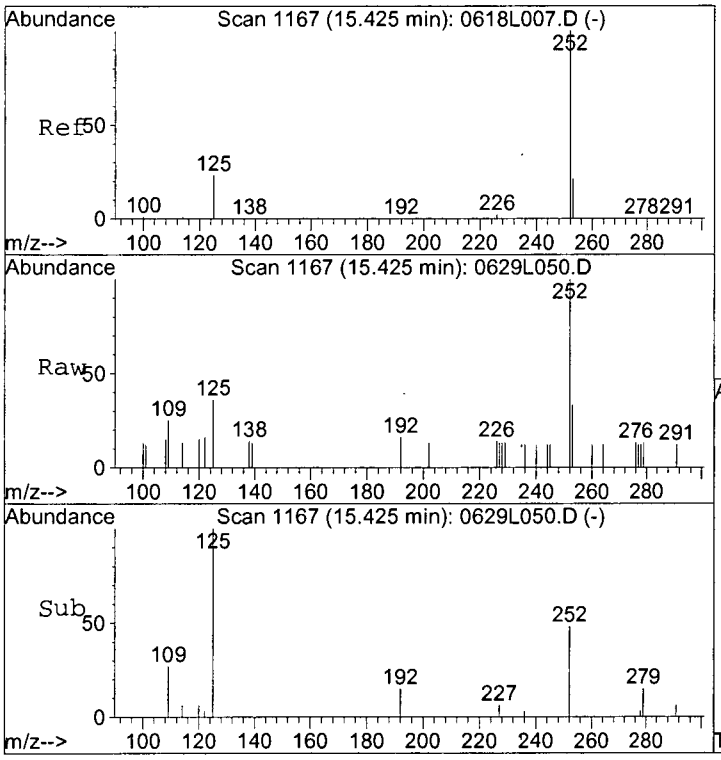


#23
Benzo (k) fluoranthene
Concen: 25.26133 ppb
RT: 14.85 min Scan# 1118
Delta R.T. -0.03 min
Lab File: 0629L050.D
Acq: 30 Jun 15 10:12

Tgt Ion:252 Resp: 2325

Ion	Ratio	Lower	Upper
252	100		
253	22.9	15.8	29.3
125	17.0	11.6	21.5

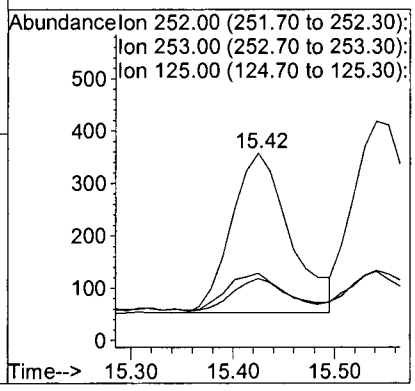


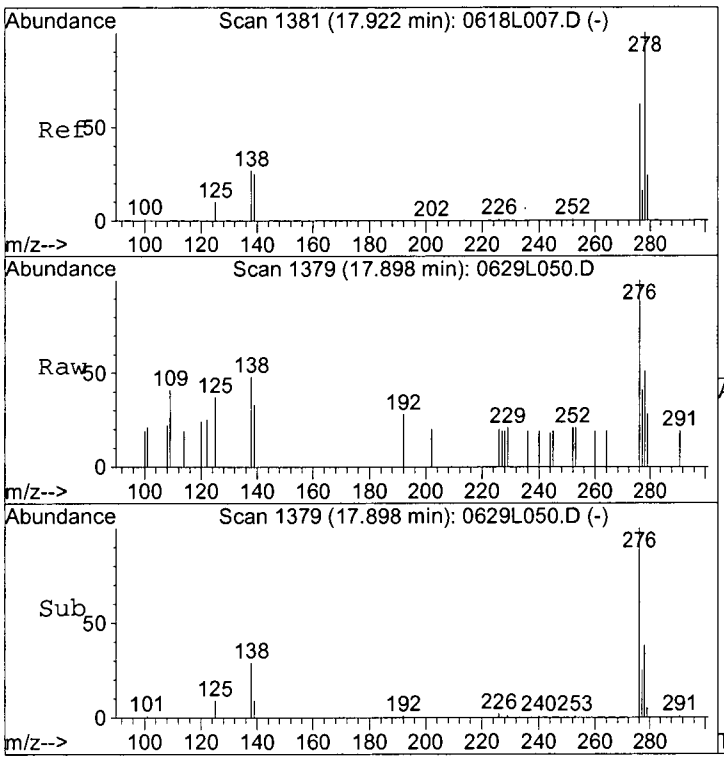


#24
Benzo (a) pyrene
Concen: 95.69532 ppb
RT: 15.42 min Scan# 1167
Delta R.T. 0.01 min
Lab File: 0629L050.D
Acq: 30 Jun 15 10:12

Tgt Ion:252 Resp: 1226

Ion	Ratio	Lower	Upper
252	100		
253	20.7	15.2	28.2
125	23.0	16.1	29.9

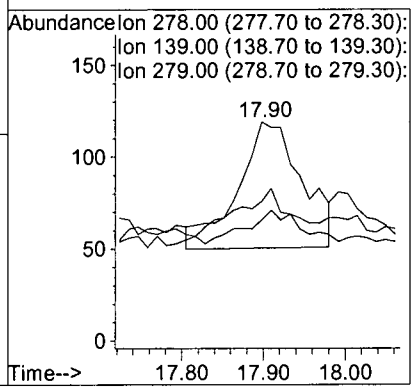


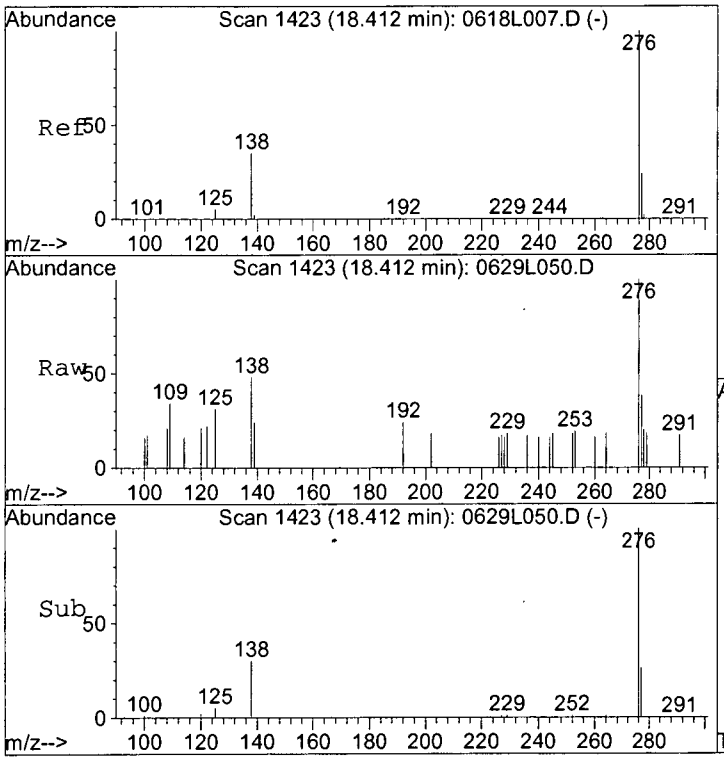


#25
Dibenz (a,h) anthracene
Concen: 26.68299 ppb
RT: 17.90 min Scan# 1379
Delta R.T. -0.01 min
Lab File: 0629L050.D
Acq: 30 Jun 15 10:12

Tgt Ion:278 Resp: 377

Ion	Ratio	Lower	Upper
278	100		
139	31.6	18.5	34.3
279	19.3	16.7	30.9

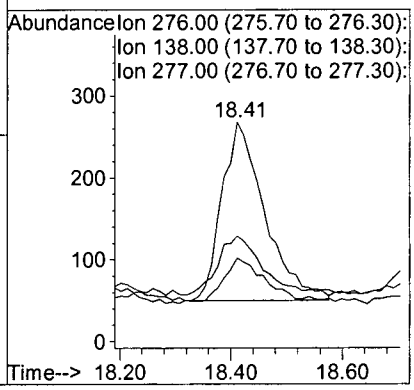




#26
Benzo (g,h,i) perylene
Concen: 80.35871 ppb
RT: 18.41 min Scan# 1423
Delta R.T. 0.00 min
Lab File: 0629L050.D
Acq: 30 Jun 15 10:12

Tgt Ion:276 Resp: 1169

Ion	Ratio	Lower	Upper
276	100		
138	33.0	23.7	44.1
277	23.4	17.3	32.1



EPA 8270D LL SOILS

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-SS040-0001
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17441
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 20.0 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0210 U	0.063	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.0210 U	0.063	0.0210	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.052 J	0.063	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.042 J	0.063	0.0210	0.0100	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.20	0.063	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.14	0.063	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.22	0.063	0.0210	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.13	0.063	0.0210	0.0160	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.042 J	0.063	0.0210	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.0210 U	0.063	0.0210	0.0100	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.014 J	0.063	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	0.24	0.063	0.0210	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.017 J	0.063	0.0210	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.12	0.063	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.016 J	0.063	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.16	0.063	0.0210	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.27	0.063	0.0210	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	72.0	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	54.7	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	77.7	30-125			%	06/22/15	06/30/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L051
Instrument: Linus
Sequence: L150629
Dilution Factor: 10
Initials: MA

Printed: 07/02/15 4:55:06 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L051.D Vial: 51
Acq On : 30 Jun 15 10:39 Operator: MA
Sample : AZ17441S02 1/30.01G x10 Inst : Linus
Misc : soil Multiplr: 333.22

Quant Time: Jul 1 13:54 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	6.05	136	6921	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	8.11	164	3224	2.50000	ppb		0.01
11) Phenanthrene-D10(IS)	9.87	188	5352	2.50000	ppb		0.01
15) Chrysene-D12(IS)	13.03	240	6284	2.50000	ppb		0.00
21) Perylene-D12(IS)	15.66	264	4164	2.50000	ppb		0.00
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.19	82	94m	45.56032	ppb		0.01
Spiked Amount 83.306			Recovery = 54.690%				
7) Surrogate Recovery (FBP)	7.31	172	352	60.01023	ppb		0.00
Spiked Amount 83.306			Recovery = 72.036%				
17) Surrogate Recovery (TPH)	11.71	244	447	64.75550	ppb		-0.01
Spiked Amount 83.306			Recovery = 77.732%				
Target Compounds							Qvalue
3) Naphthalene	6.07	128	143	12.62773	ppb		95
8) Acenaphthylene	7.95	152	454	41.77527	ppb		96
10) Fluorene	8.76	166	95	13.53585	ppb		88
12) Phenanthrene	9.90	178	1232	127.15506	ppb		97
13) Anthracene	9.96	178	339	33.84133	ppb	#	89
14) Fluoranthene	11.27	202	2412	193.06207	ppb		95
16) Pyrene	11.54	202	2936	212.47561	ppb		98
18) Benz (a) anthracene	13.02	228	1269	161.63629	ppb	#	86
20) Indeno (1,2,3-cd) pyrene	17.89	276	1112	94.40599	ppb	#	93
22) Benzo (b) fluoranthene	14.86	252	2596	179.25632	ppb		96
23) Benzo (k) fluoranthene	14.86	252	1985	33.91887	ppb		96
24) Benzo (a) pyrene	15.42	252	1152	109.26365	ppb		98
25) Dibenz (a,h) anthracene	17.90	278	134	11.52447	ppb	#	87
26) Benzo (g,h,i) perylene	18.43	276	1285	107.33579	ppb		95

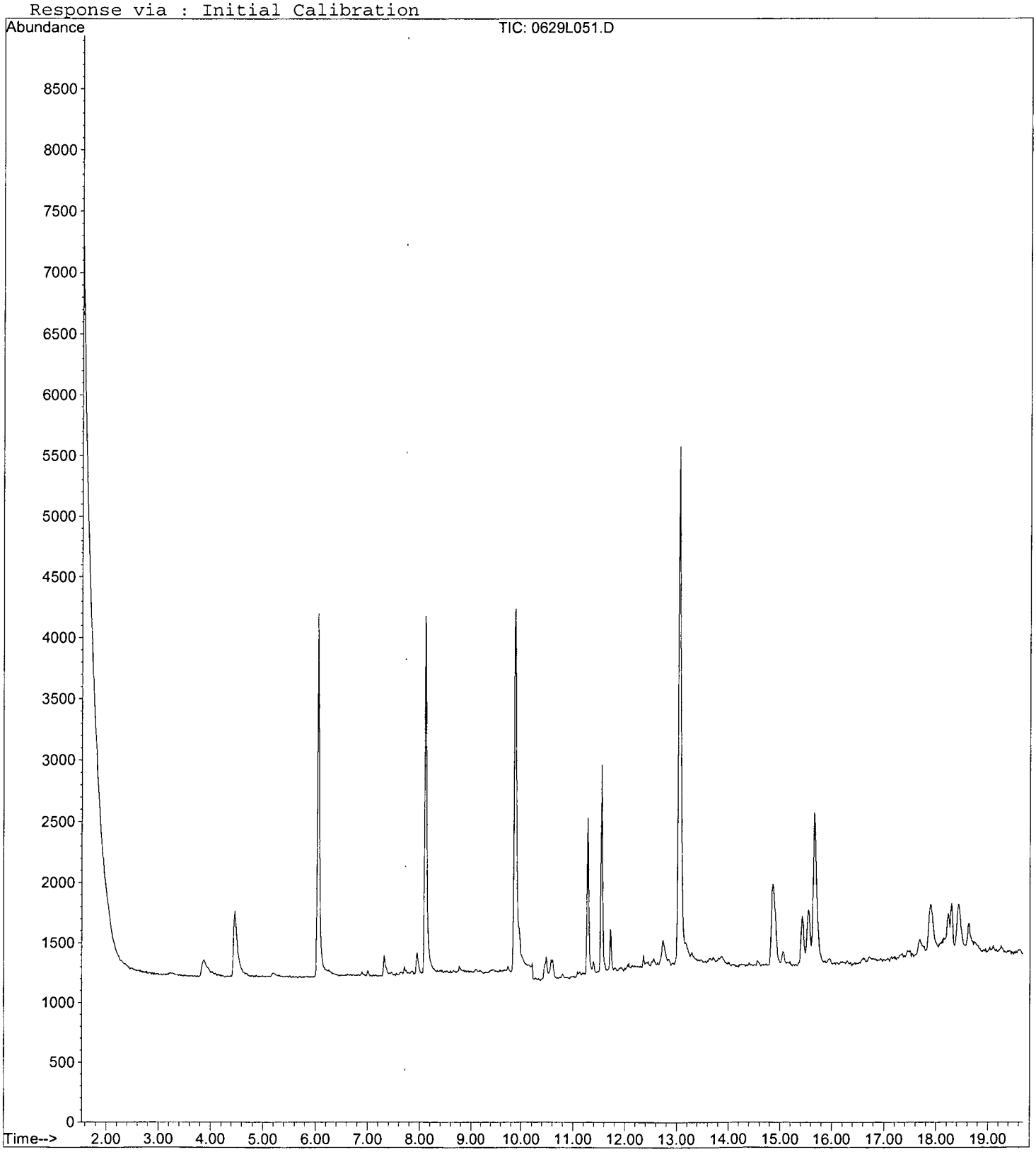
(#) = qualifier out of range (m) = manual integration

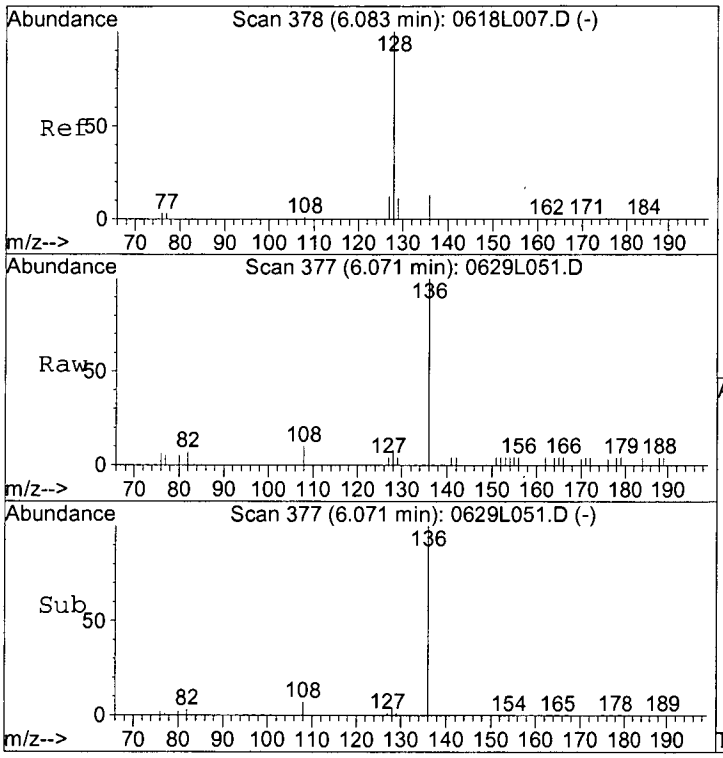
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L051.D Vial: 51
Acq On : 30 Jun 15 10:39 Operator: MA
Sample : AZ17441S02 1/30.01G x10 Inst : Linus
Misc : soil Multiplr: 333.22

Quant Time: Jul 1 13:54 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration

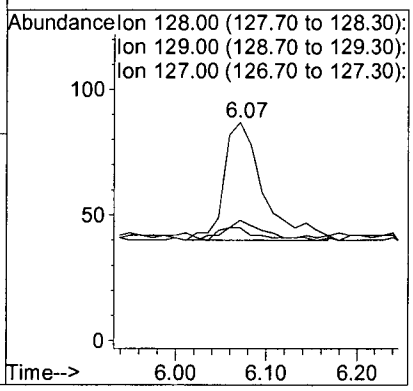


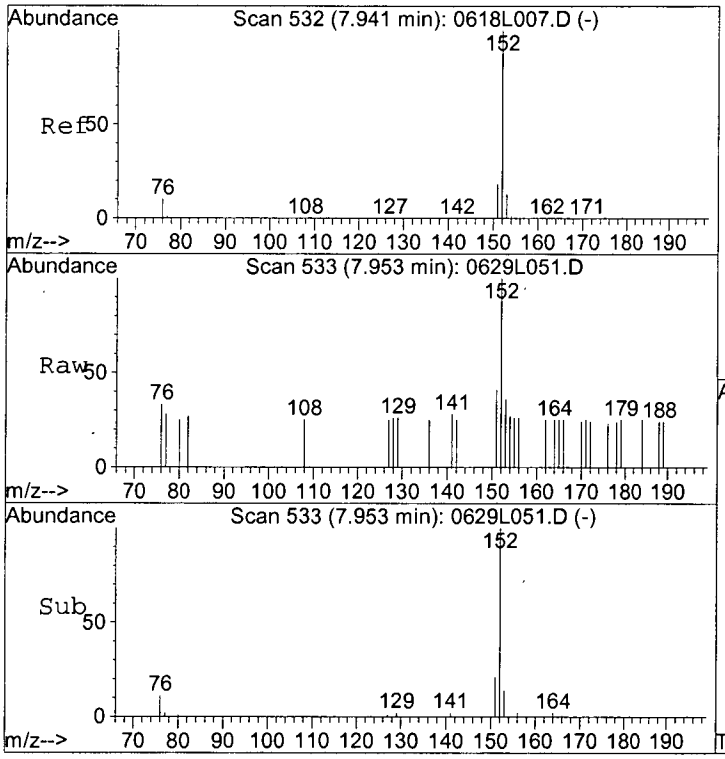


#3
Naphthalene
Concen: 12.62773 ppb
RT: 6.07 min Scan# 377
Delta R.T. -0.00 min
Lab File: 0629L051.D
Acq: 30 Jun 15 10:39

Tgt Ion:128 Resp: 143

Ion	Ratio	Lower	Upper
128	100		
129	12.8	7.4	13.8
127	10.6	8.4	15.6

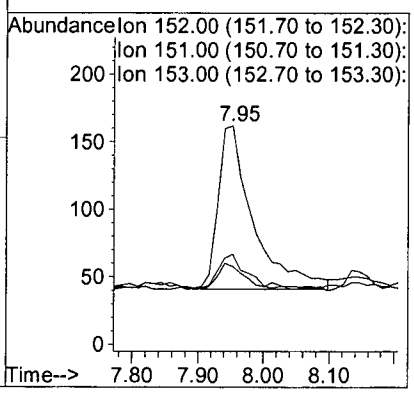


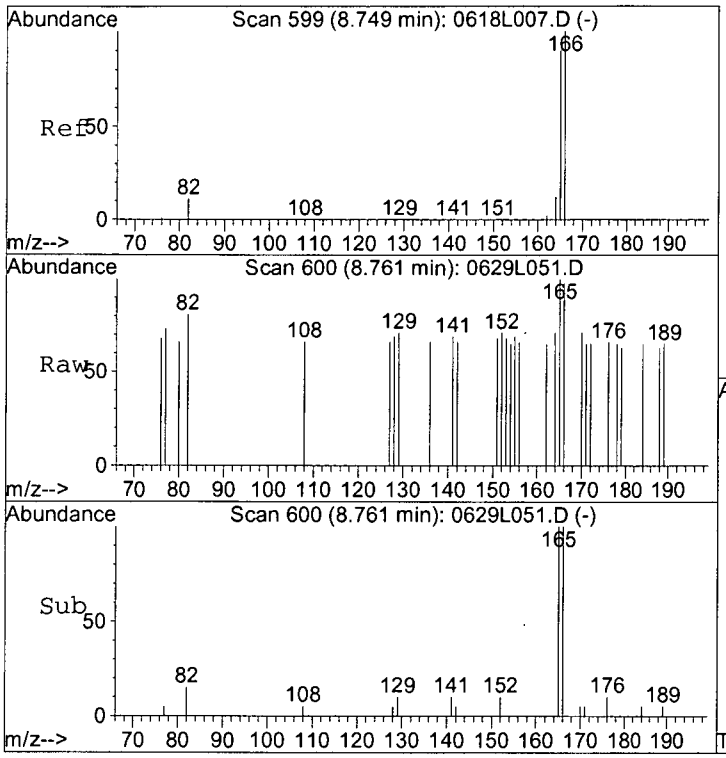


#8
Acenaphthylene
Concen: 41.77527 ppb
RT: 7.95 min Scan# 533
Delta R.T. 0.01 min
Lab File: 0629L051.D
Acq: 30 Jun 15 10:39

Tgt Ion:152 Resp: 454

Ion	Ratio	Lower	Upper
152	100		
151	19.8	12.7	23.7
153	14.9	9.0	16.8

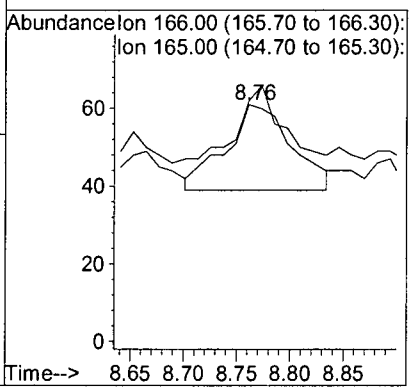


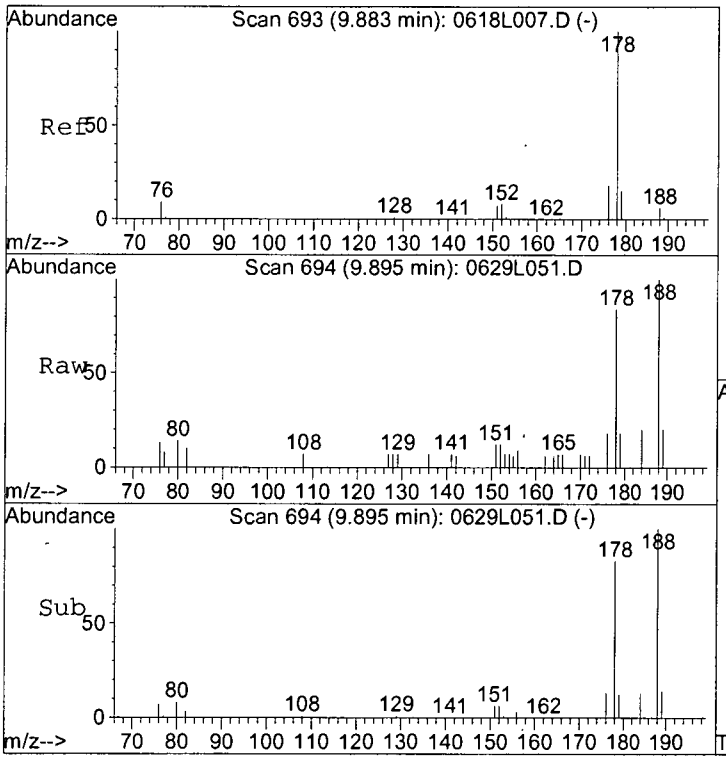


#10
Fluorene
Concen: 13.53585 ppb
RT: 8.76 min Scan# 600
Delta R.T. 0.01 min
Lab File: 0629L051.D
Acq: 30 Jun 15 10:39

Tgt Ion:166 Resp: 95

Ion	Ratio	Lower	Upper
166	100		
165	78.9	63.1	117.1

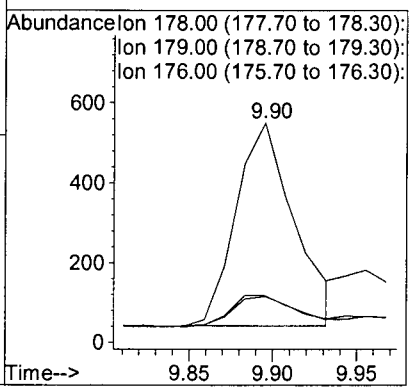


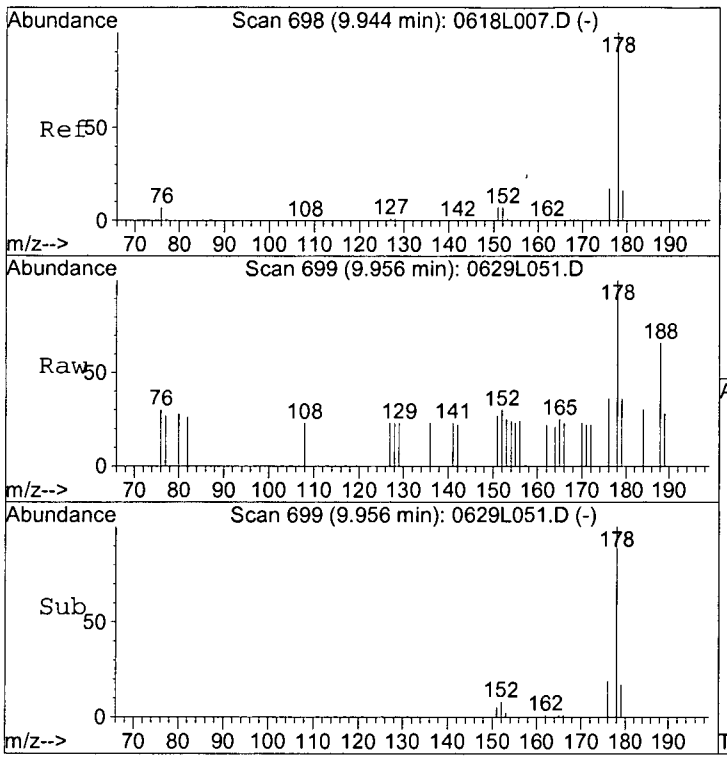


#12
Phenanthrene
Concen: 127.15506 ppb
RT: 9.90 min Scan# 694
Delta R.T. 0.01 min
Lab File: 0629L051.D
Acq: 30 Jun 15 10:39

Tgt Ion:178 Resp: 1232

Ion	Ratio	Lower	Upper
178	100		
179	14.6	10.5	19.5
176	15.7	12.3	22.8

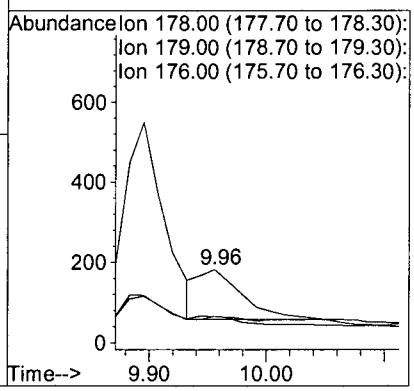


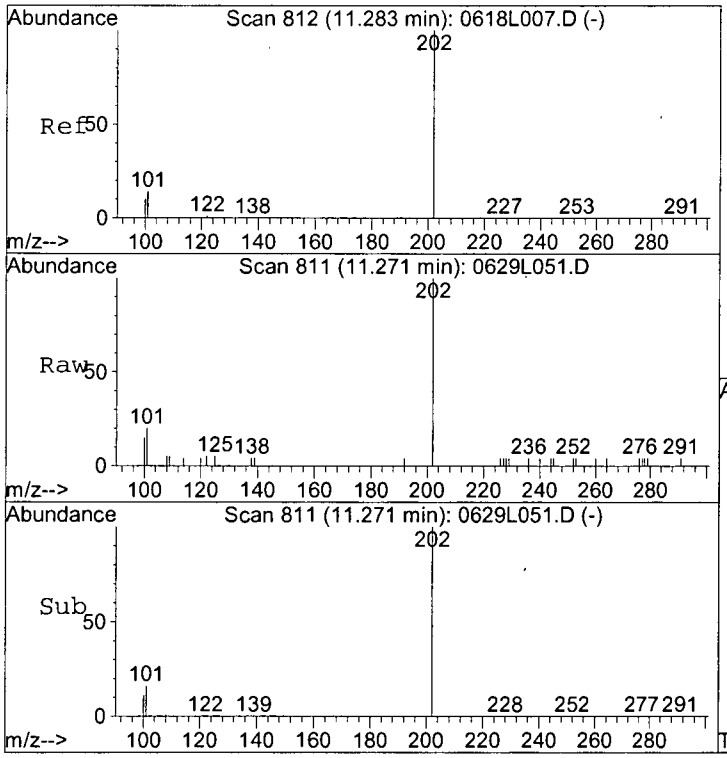


#13
Anthracene
Concen: 33.84133 ppb
RT: 9.96 min Scan# 699
Delta R.T. 0.01 min
Lab File: 0629L051.D
Acq: 30 Jun 15 10:39

Tgt Ion:178 Resp: 339

Ion	Ratio	Lower	Upper
178	100		
179	7.2	10.9	20.3#
176	18.4	12.2	22.6

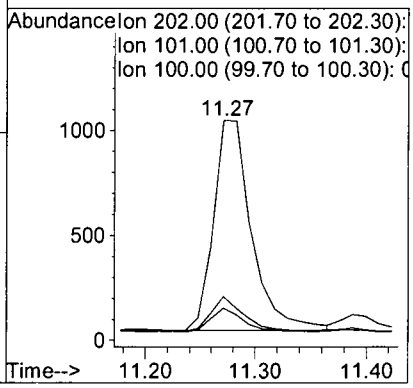


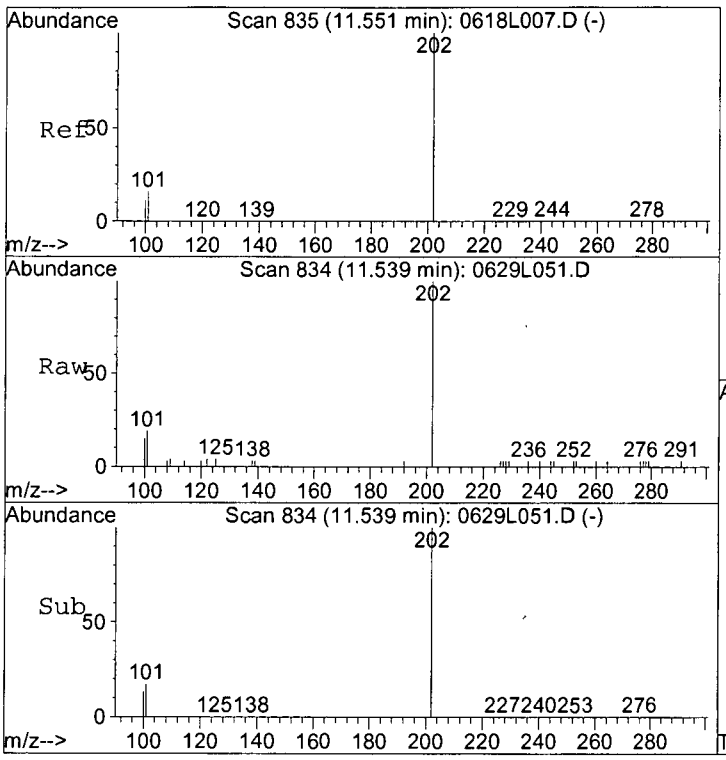


#14
Fluoranthene
Concen: 193.06207 ppb
RT: 11.27 min Scan# 811
Delta R.T. -0.01 min
Lab File: 0629L051.D
Acq: 30 Jun 15 10:39

Tgt Ion:202 Resp: 2412

Ion	Ratio	Lower	Upper
202	100		
101	16.6	9.7	18.1
100	11.4	7.4	13.7

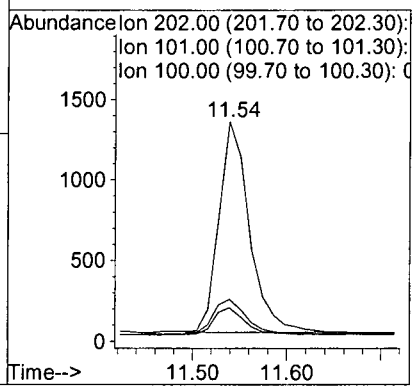


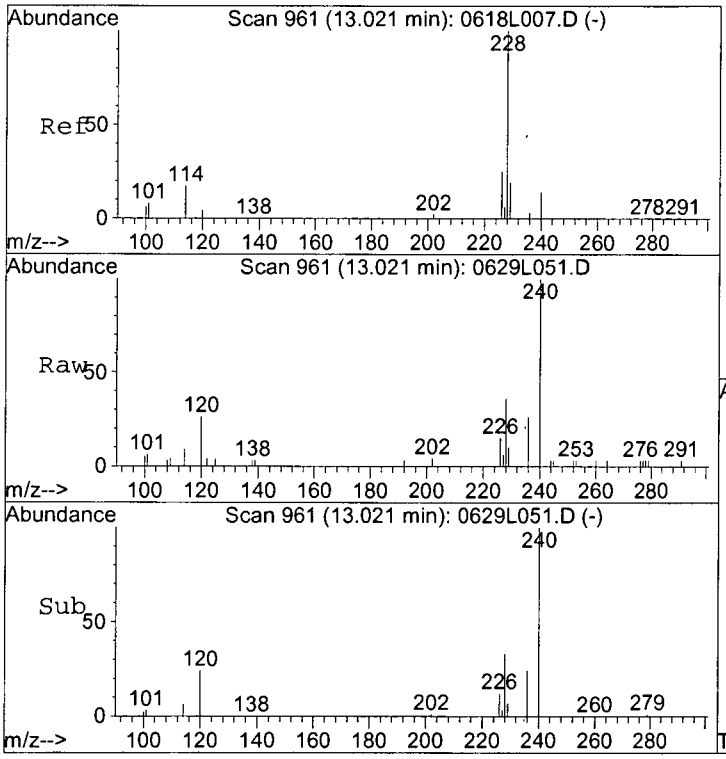


#16
Pyrene
Concen: 212.47561 ppb
RT: 11.54 min Scan# 834
Delta R.T. -0.00 min
Lab File: 0629L051.D
Acq: 30 Jun 15 10:39

Tgt Ion:202 Resp: 2936

Ion	Ratio	Lower	Upper
202	100		
101	16.2	11.0	20.4
100	12.7	7.9	14.7

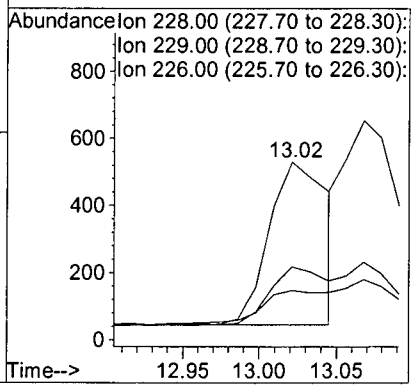


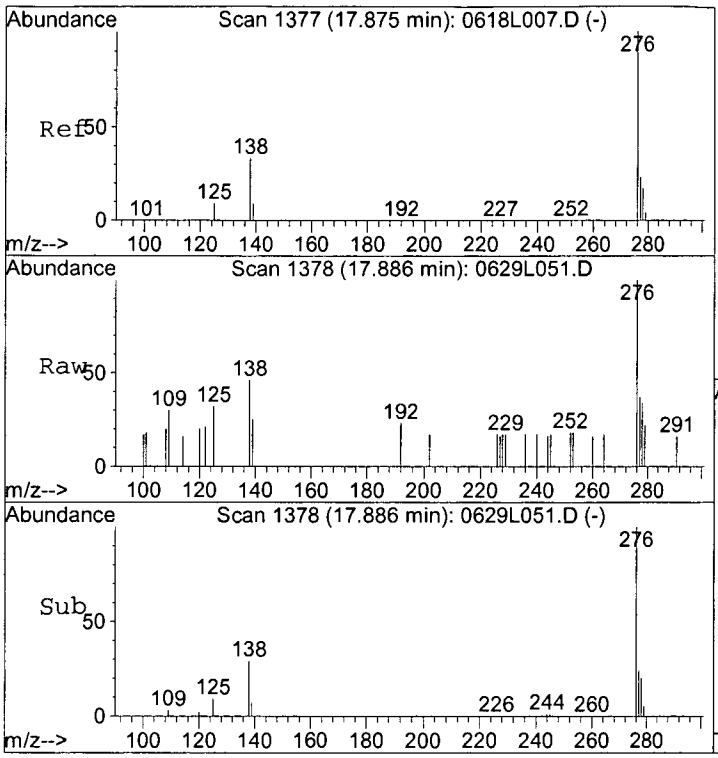


#18
Benz (a) anthracene
Concen: 161.63629 ppb
RT: 13.02 min Scan# 961
Delta R.T. 0.00 min
Lab File: 0629L051.D
Acq: 30 Jun 15 10:39

Tgt Ion:228 Resp: 1269

Ion	Ratio	Lower	Upper
228	100		
229	20.2	13.4	25.0
226	35.9	17.2	32.0#

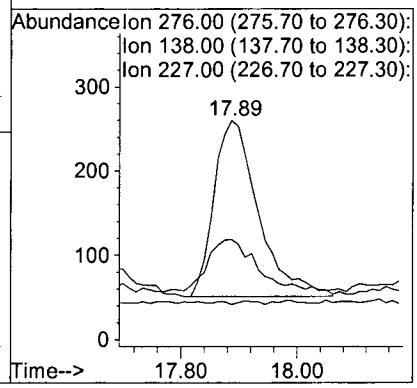


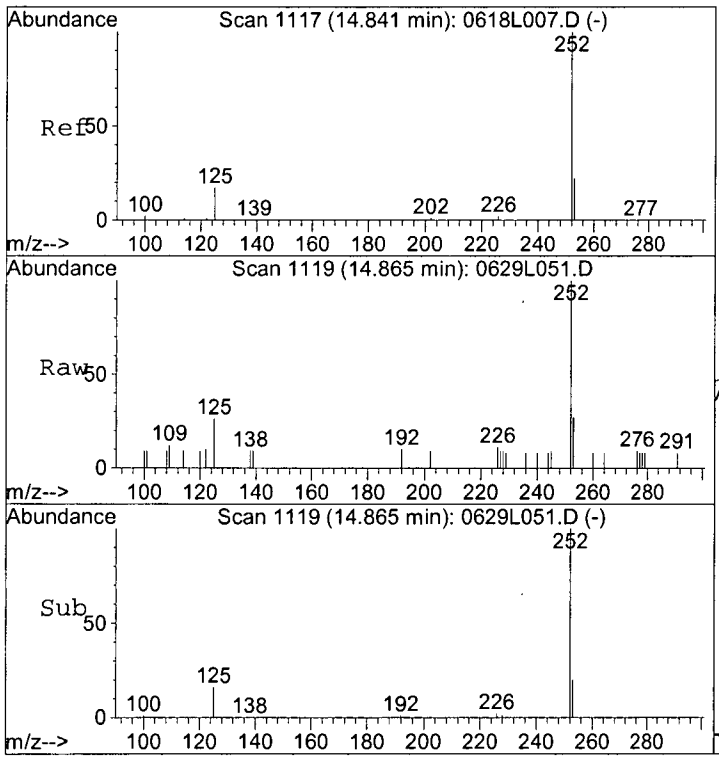


#20
Indeno (1,2,3-cd) pyrene
Concen: 94.40599 ppb
RT: 17.89 min Scan# 1378
Delta R.T. 0.01 min
Lab File: 0629L051.D
Acq: 30 Jun 15 10:39

Tgt Ion:276 Resp: 1112

Ion	Ratio	Lower	Upper
276	100		
138	28.7	23.0	42.8
227	0.0	0.1	0.1#

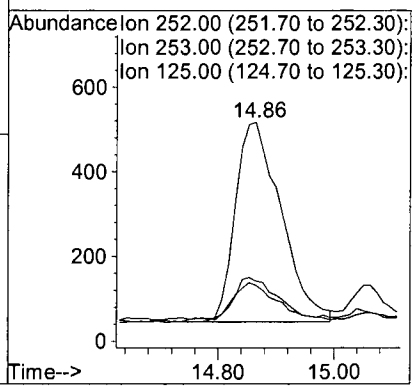


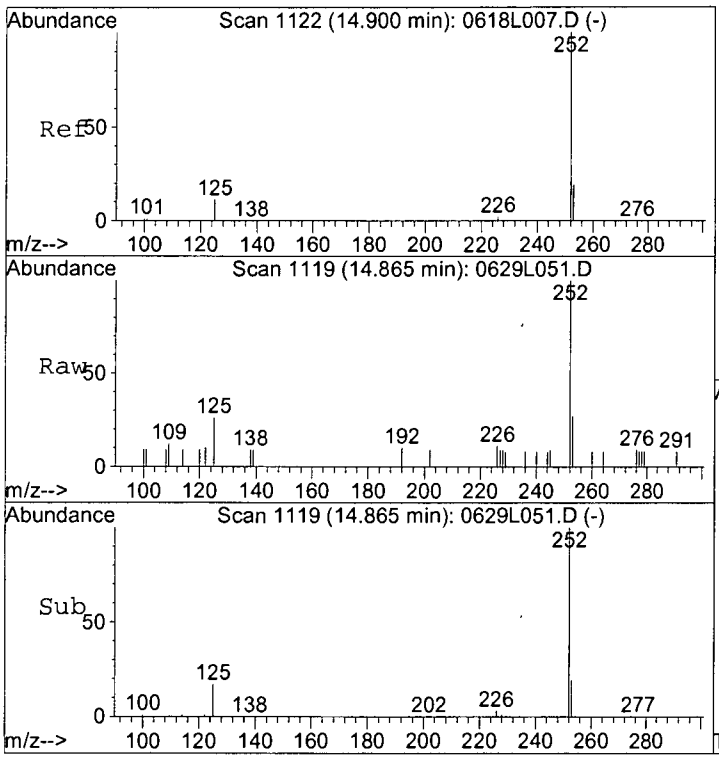


#22
Benzo (b) fluoranthene
Concen: 179.25632 ppb
RT: 14.86 min Scan# 1119
Delta R.T. 0.02 min
Lab File: 0629L051.D
Acq: 30 Jun 15 10:39

Tgt Ion:252 Resp: 2596

Ion	Ratio	Lower	Upper
252	100		
253	19.3	15.7	29.1
125	16.7	11.3	20.9

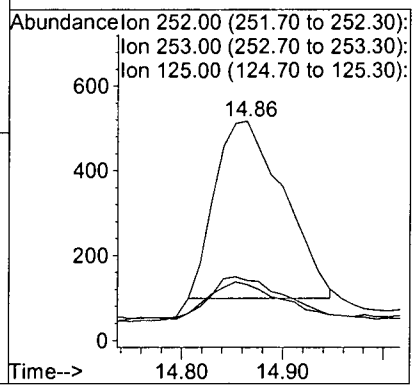


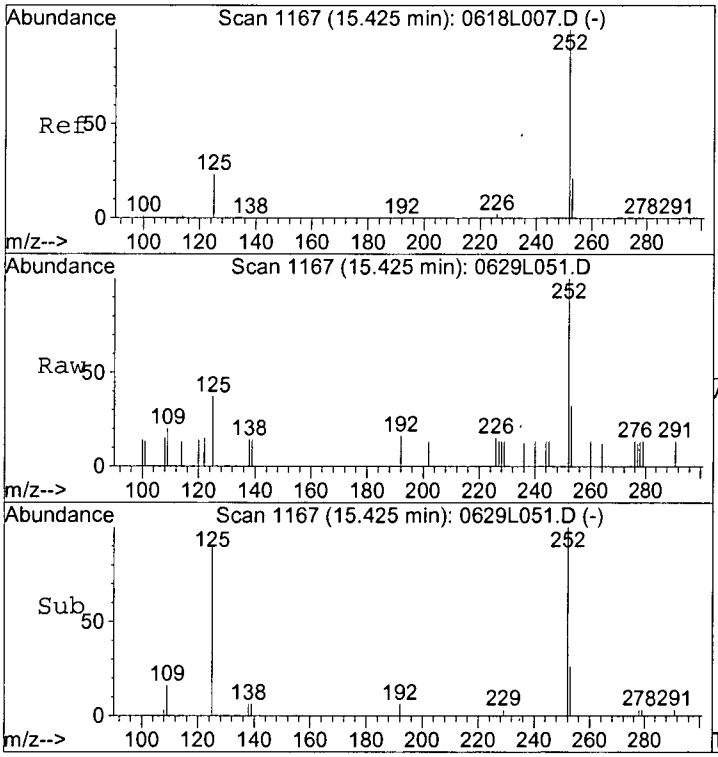


#23
Benzo (k) fluoranthene
Concen: 33.91887 ppb
RT: 14.86 min Scan# 1119
Delta R.T. -0.02 min
Lab File: 0629L051.D
Acq: 30 Jun 15 10:39

Tgt Ion:252 Resp: 1985

Ion	Ratio	Lower	Upper
252	100		
253	19.4	15.8	29.3
125	17.0	11.6	21.5

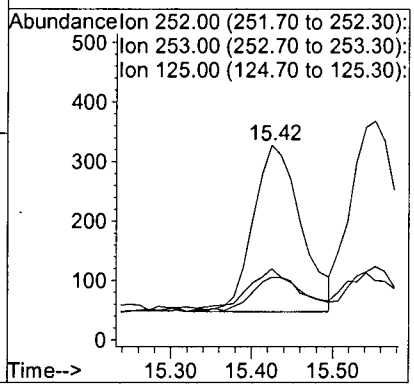


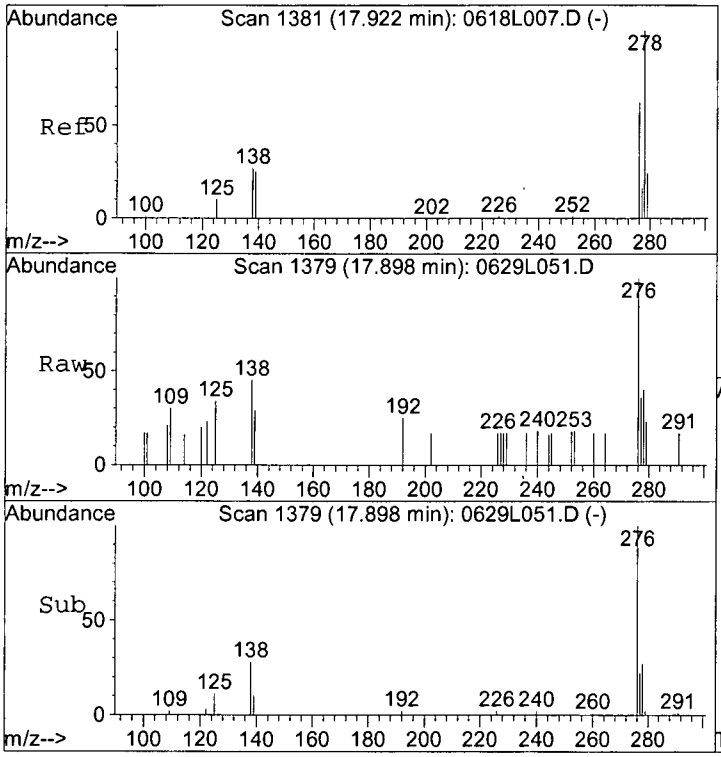


#24
Benzo (a) pyrene
Concen: 109.26365 ppb
RT: 15.42 min Scan# 1167
Delta R.T. 0.01 min
Lab File: 0629L051.D
Acq: 30 Jun 15 10:39

Tgt Ion:252 Resp: 1152

Ion	Ratio	Lower	Upper
252	100		
253	20.4	15.2	28.2
125	22.9	16.1	29.9

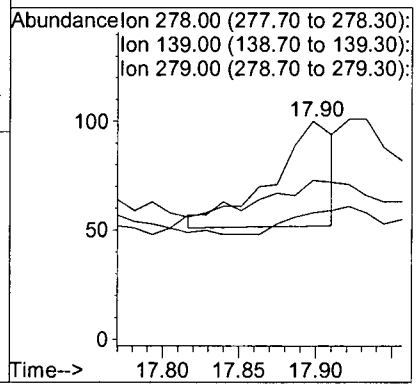


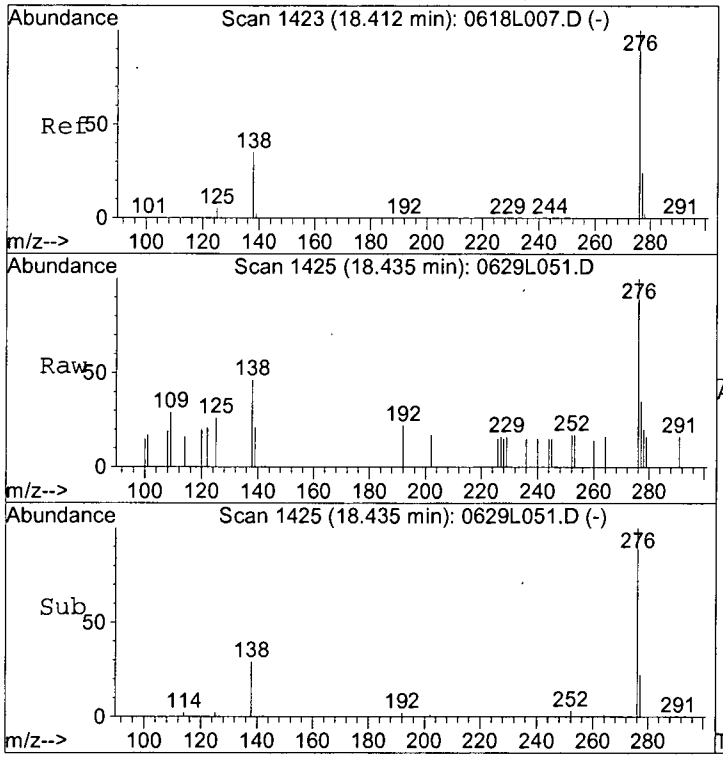


#25
Dibenz (a,h) anthracene
Concen: 11.52447 ppb
RT: 17.90 min Scan# 1379
Delta R.T. -0.01 min
Lab File: 0629L051.D
Acq: 30 Jun 15 10:39

Tgt Ion:278 Resp: 134

Ion	Ratio	Lower	Upper
278	100		
139	36.4	18.5	34.3#
279	20.5	16.7	30.9

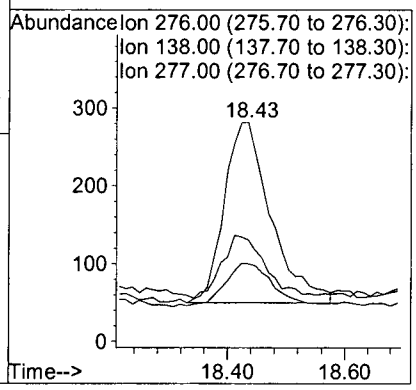




#26
Benzo (g,h,i) perylene
Concen: 107.33579 ppb
RT: 18.43 min Scan# 1425
Delta R.T. 0.02 min
Lab File: 0629L051.D
Acq: 30 Jun 15 10:39

Tgt Ion:276 Resp: 1285

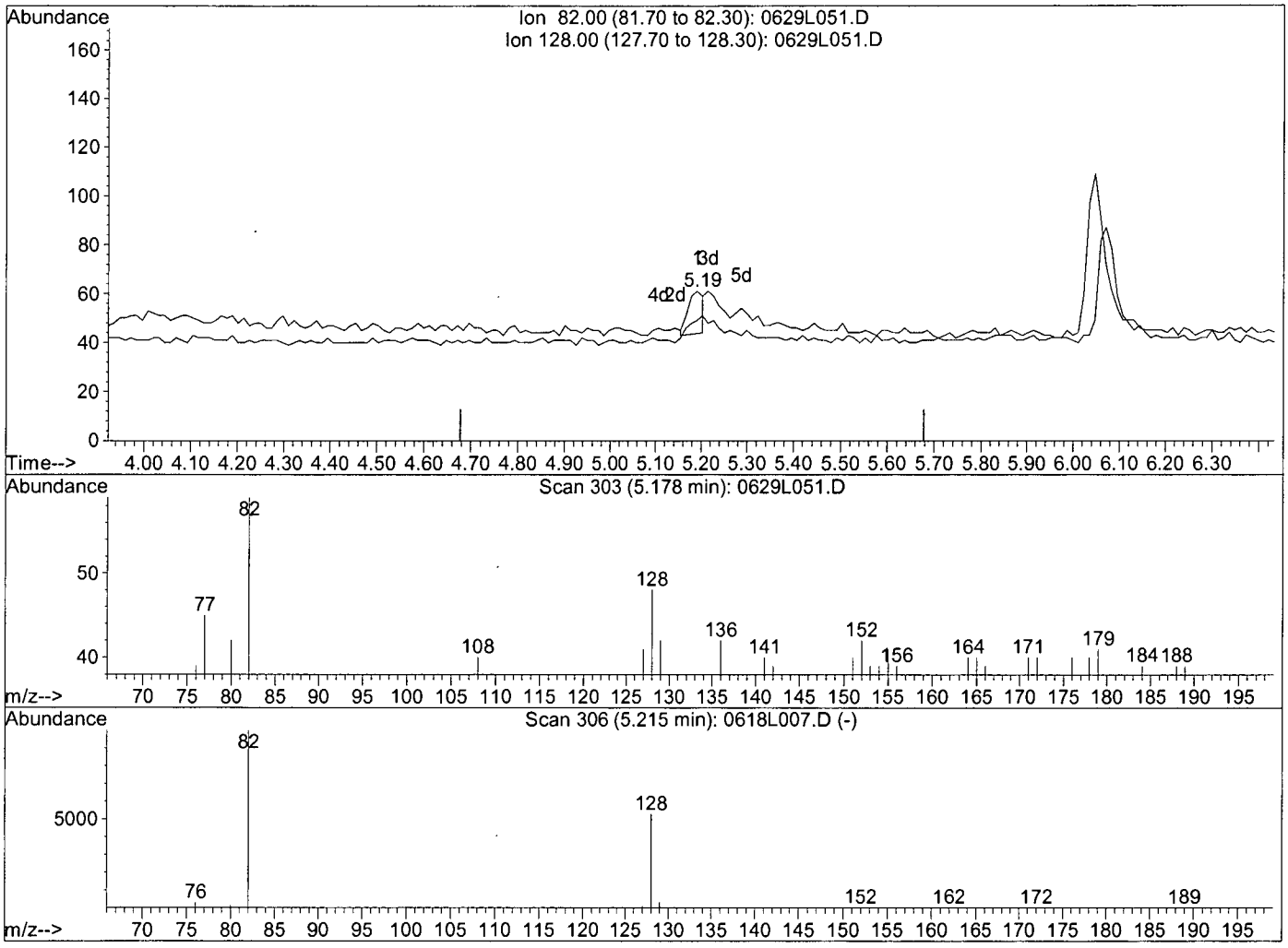
Ion	Ratio	Lower	Upper
276	100		
138	30.6	23.7	44.1
277	23.3	17.3	32.1



Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L051.D Vial: 51
Acq On : 30 Jun 15 10:39 Operator: MA
Sample : AZ17441S02 1/30.01G x10 Inst : Linus
Misc : soil Multiplr: 333.22
Quant Time: Jun 30 12:29 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Multiple Level Calibration



TIC: 0629L051.D

(2) Surrogate Recovery (NBZ) (S)

5.19min 19.8721ppb

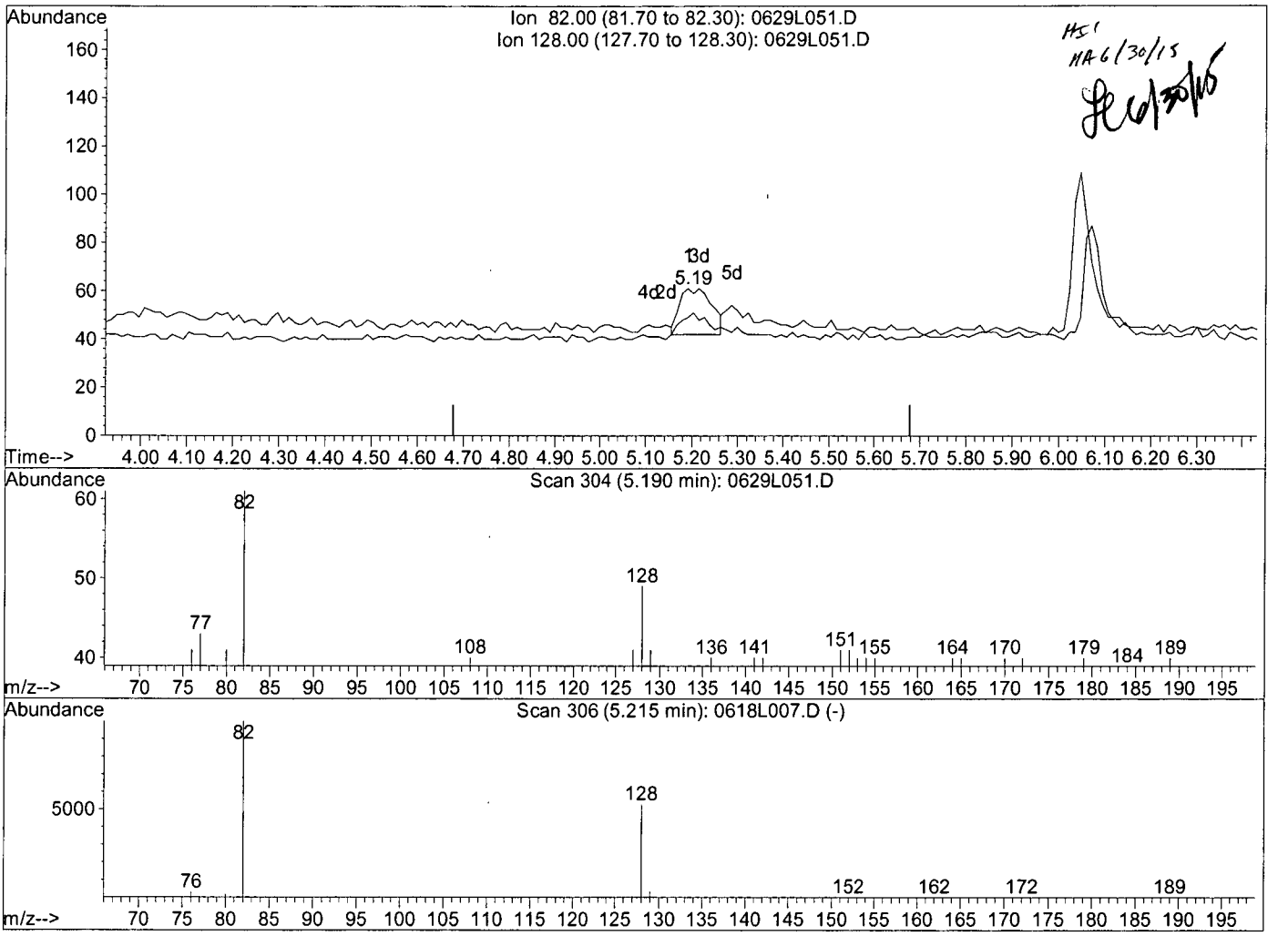
response 41

Ion	Exp%	Act%
82.00	100	100
128.00	52.70	43.75
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L051.D Vial: 51
Acq On : 30 Jun 15 10:39 Operator: MA
Sample : AZ17441S02 1/30.01G x10 Inst : Linus
Misc : soil Multiplr: 333.22
Quant Time: Jun 30 12:38 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Multiple Level Calibration



TIC: 0629L051.D

(2) Surrogate Recovery (NBZ) (S)

5.19min 45.5603ppb m

response 94

Ion	Exp%	Act%
82.00	100	100
128.00	52.70	80.33#
0.00	0.00	0.00
0.00	0.00	0.00

EPA 8270D LL SOILS

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-SS040P-0001
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17442
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 19.4 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.014 J	0.062	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.0210 U	0.062	0.0210	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.079	0.062	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.049 J	0.062	0.0210	0.0099	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.23	0.062	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.18	0.062	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.32	0.062	0.0210	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.18	0.062	0.0210	0.0160	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.15	0.062	0.0210	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.0210 U	0.062	0.0210	0.0099	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.049 J	0.062	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	0.27	0.062	0.0210	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.0210 U	0.062	0.0210	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.16	0.062	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.022 J	0.062	0.0210	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.13	0.062	0.0210	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.31	0.062	0.0210	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	87.4	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	60.6	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	94.9	30-125			%	06/22/15	06/30/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L052
Instrument: Linus
Sequence: L150629
Dilution Factor: 10
Initials: MA

Printed: 07/02/15 4:55:06 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L052.D Vial: 52
Acq On : 30 Jun 15 11:16 Operator: MA
Sample : AZ17442S02 1/30.18G x10 Inst : Linus
Misc : soil Multiplr: 331.35

Quant Time: Jul 1 13:55 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.05	136	7108	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.11	164	3222	2.50000 ppb		0.01
11) Phenanthrene-D10(IS)	9.86	188	5381	2.50000 ppb		0.00
15) Chrysene-D12(IS)	13.03	240	6331	2.50000 ppb		0.00
21) Perylene-D12(IS)	15.67	264	4160	2.50000 ppb		0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.19	82	107	50.21239 ppb		0.01
Spiked Amount 82.836			Recovery = 60.616%			
7) Surrogate Recovery (FBP)	7.31	172	427	72.43138 ppb		0.00
Spiked Amount 82.836			Recovery = 87.439%			
17) Surrogate Recovery (TPH)	11.71	244	550	78.63981 ppb		-0.01
Spiked Amount 82.836			Recovery = 94.934%			
Target Compounds						Qvalue
3) Naphthalene	6.07	128	208	17.78365 ppb		99
4) 2-Methylnaphthalene	6.89	142	81	11.41916 ppb		99
5) 1-Methylnaphthalene	7.00	142	83	10.42185 ppb		96
8) Acenaphthylene	7.94	152	694	63.53882 ppb		97
12) Phenanthrene	9.88	178	1014	103.50487 ppb		100
13) Anthracene	9.96	178	398	39.29441 ppb	#	90
14) Fluoranthene	11.27	202	2781	220.15092 ppb		98
16) Pyrene	11.54	202	3474	248.13810 ppb		97
18) Benz (a) anthracene	13.02	228	1608	188.49105 ppb	#	82
20) Indeno (1,2,3-cd) pyrene	17.89	276	1510	126.52674 ppb	#	96
22) Benzo (b) fluoranthene	14.85	252	3507	261.61759 ppb		96
23) Benzo (k) fluoranthene	14.85	252	2666	123.03726 ppb		96
24) Benzo (a) pyrene	15.42	252	1530	144.43712 ppb		98
25) Dibenz (a,h) anthracene	17.92	278	458	39.20538 ppb	#	87
26) Benzo (g,h,i) perylene	18.42	276	1773	147.40572 ppb		97

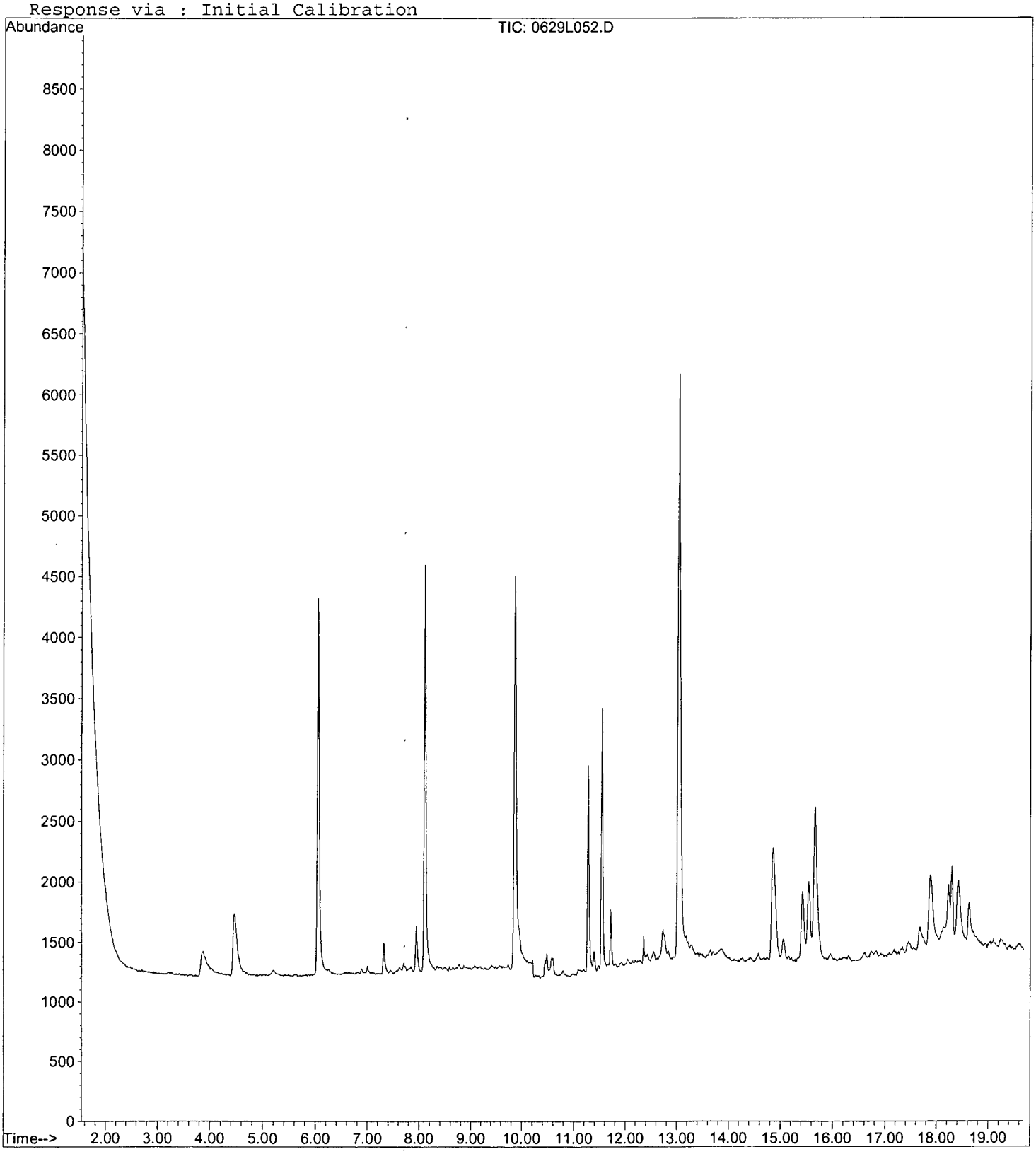
(#) = qualifier out of range (m) = manual integration

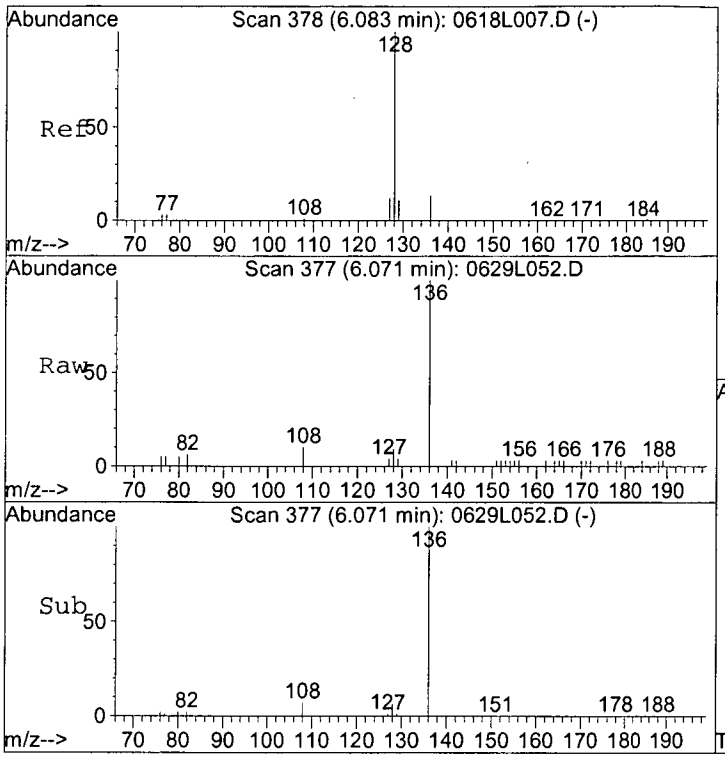
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L052.D Vial: 52
Acq On : 30 Jun 15 11:16 Operator: MA
Sample : AZ17442S02 1/30.18G x10 Inst : Linus
Misc : soil Multiplr: 331.35

Quant Time: Jul 1 13:55 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration

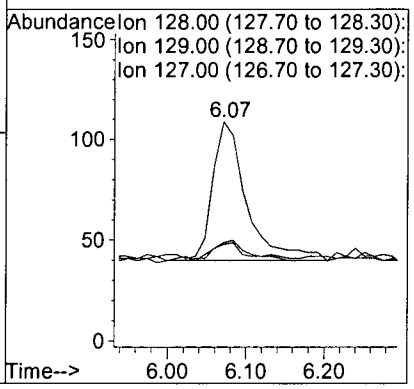


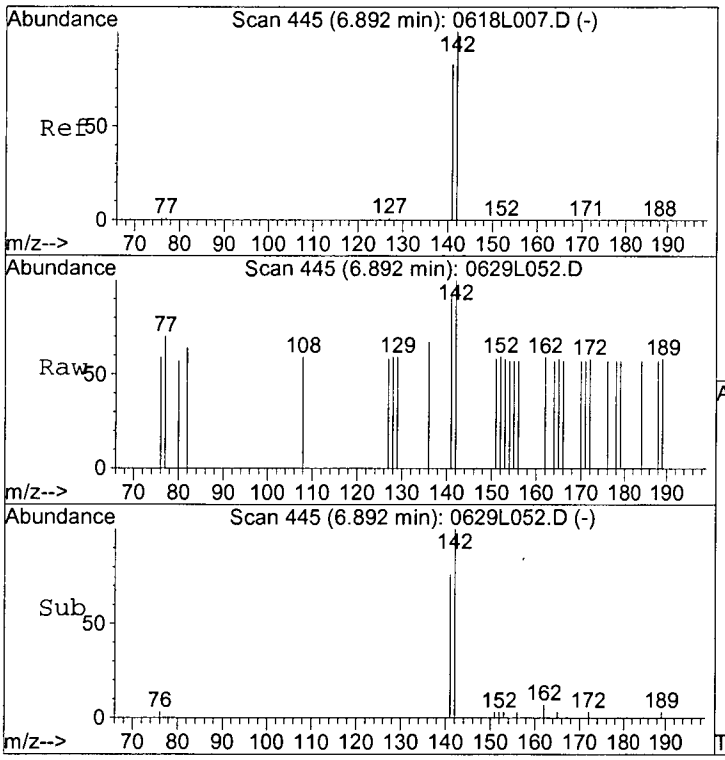


#3
Naphthalene
Concen: 17.78365 ppb
RT: 6.07 min Scan# 377
Delta R.T. 0.00 min
Lab File: 0629L052.D
Acq: 30 Jun 15 11:16

Tgt Ion:128 Resp: 208

Ion	Ratio	Lower	Upper
128	100		
129	10.1	7.4	13.8
127	11.6	8.4	15.6

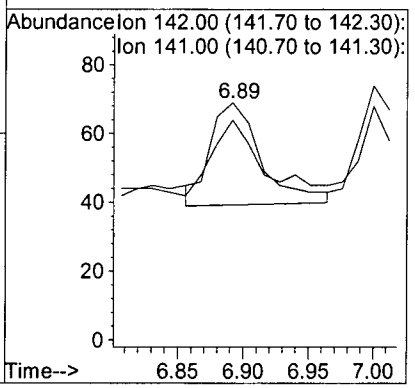


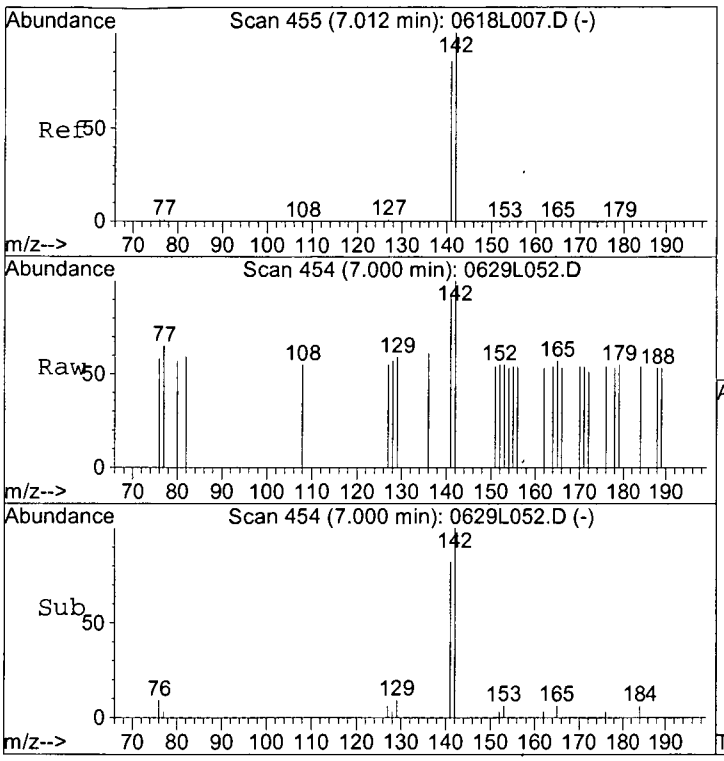


#4
2-Methylnaphthalene
Concen: 11.41916 ppb
RT: 6.89 min Scan# 445
Delta R.T. 0.01 min
Lab File: 0629L052.D
Acq: 30 Jun 15 11:16

Tgt Ion:142 Resp: 81

Ion	Ratio	Lower	Upper
142	100		
141	84.6	58.3	108.3

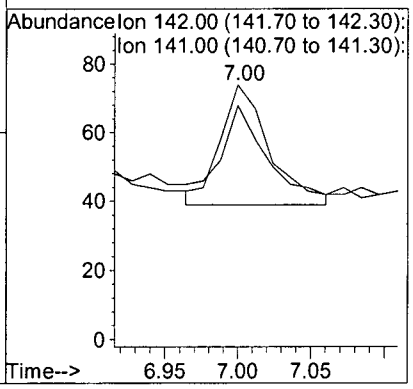


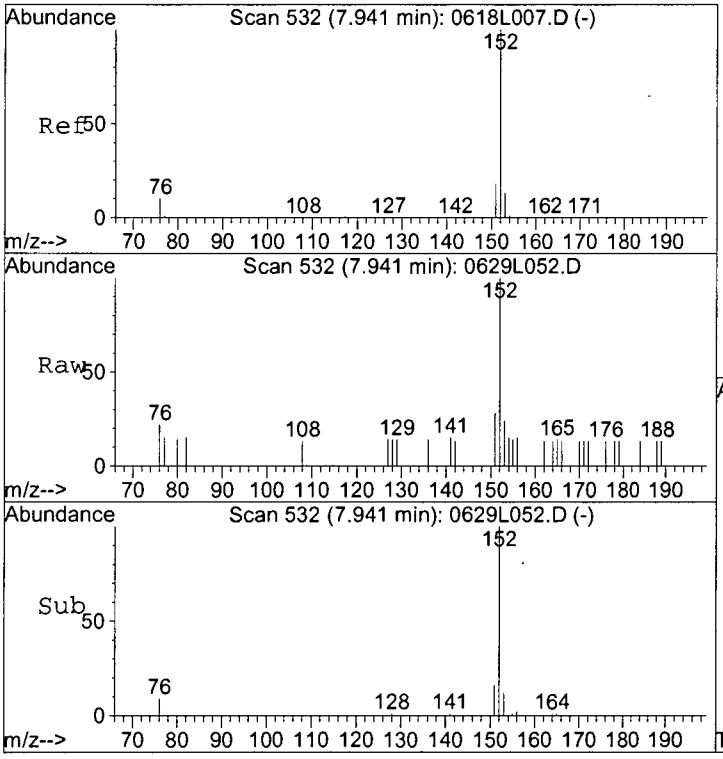


#5
1-Methylnaphthalene
Concen: 10.42185 ppb
RT: 7.00 min Scan# 454
Delta R.T. 0.00 min
Lab File: 0629L052.D
Acq: 30 Jun 15 11:16

Tgt Ion:142 Resp: 83

Ion	Ratio	Lower	Upper
142	100		
141	81.3	59.5	110.5

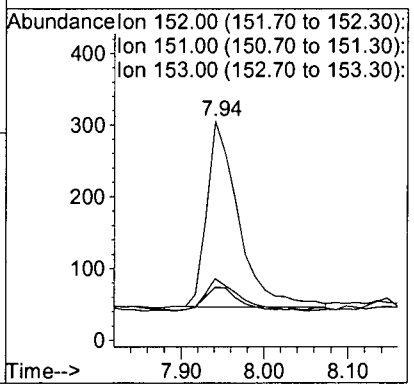


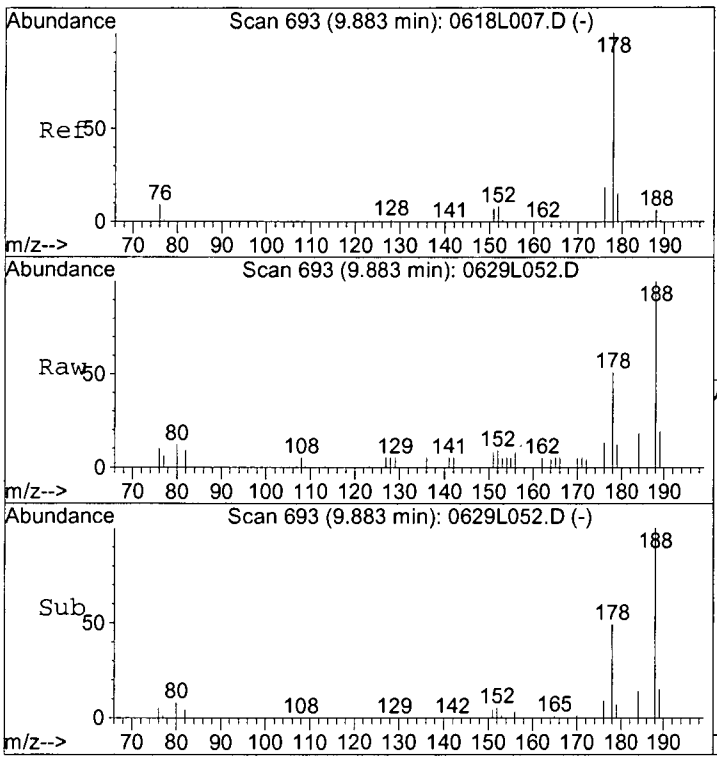


#8
Acenaphthylene
Concen: 63.53882 ppb
RT: 7.94 min Scan# 532
Delta R.T. 0.00 min
Lab File: 0629L052.D
Acq: 30 Jun 15 11:16

Tgt Ion:152 Resp: 694

Ion	Ratio	Lower	Upper
152	100		
151	16.6	12.7	23.7
153	12.0	9.0	16.8

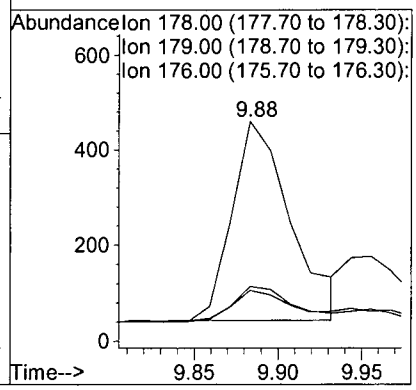


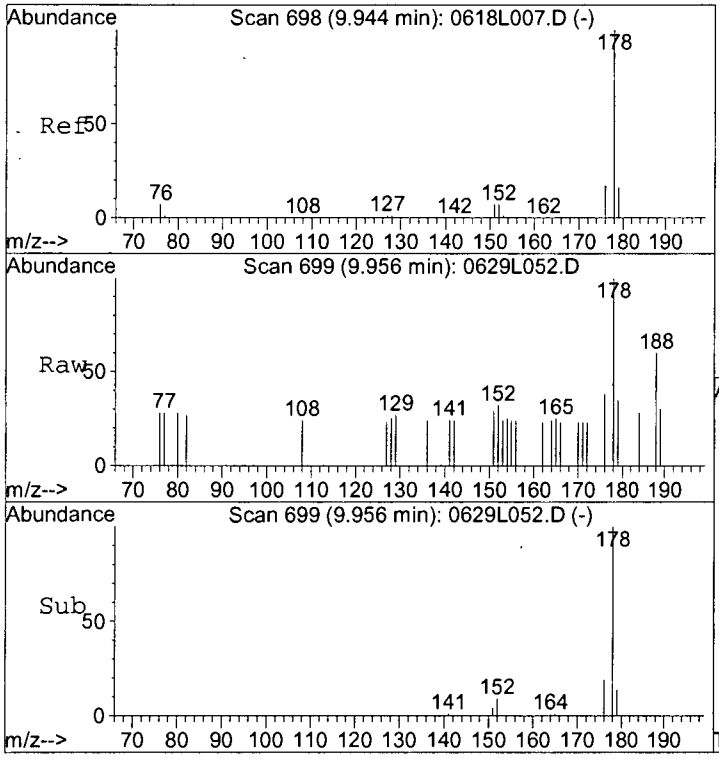


#12
Phenanthrene
Concen: 103.50487 ppb
RT: 9.88 min Scan# 693
Delta R.T. 0.00 min
Lab File: 0629L052.D
Acq: 30 Jun 15 11:16

Tgt Ion:178 Resp: 1014

Ion	Ratio	Lower	Upper
178	100		
179	15.1	10.5	19.5
176	17.5	12.3	22.8

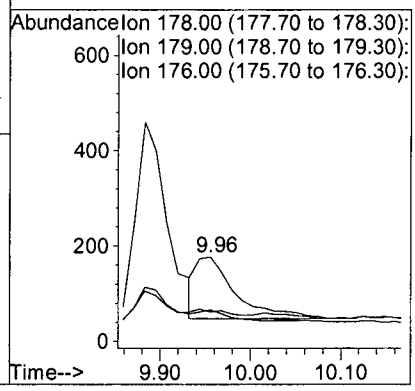


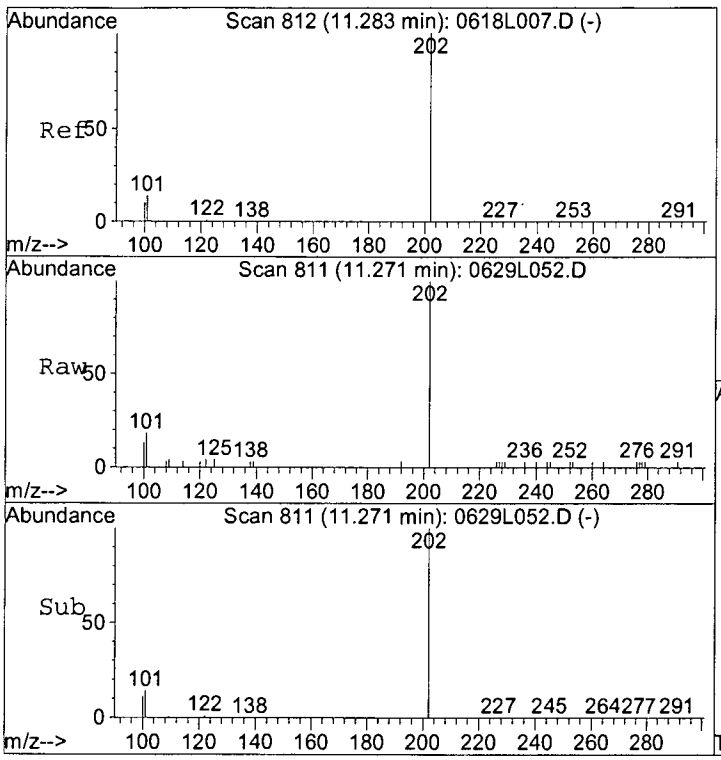


#13
Anthracene
Concen: 39.29441 ppb
RT: 9.96 min Scan# 699
Delta R.T. 0.01 min
Lab File: 0629L052.D
Acq: 30 Jun 15 11:16

Tgt Ion:178 Resp: 398

Ion	Ratio	Lower	Upper
178	100		
179	10.1	10.9	20.3#
176	20.2	12.2	22.6

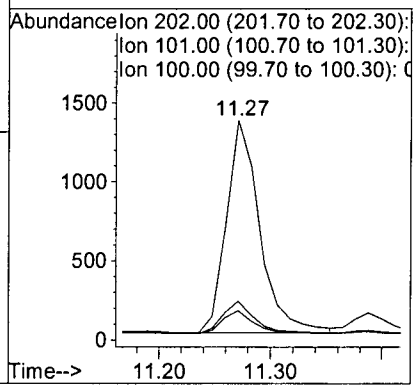


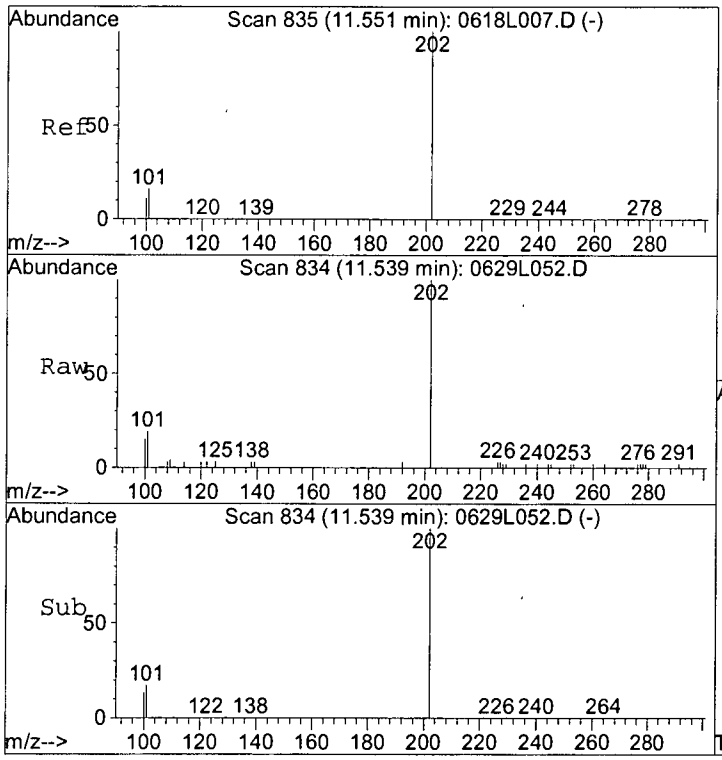


#14
Fluoranthene
Concen: 220.15092 ppb
RT: 11.27 min Scan# 811
Delta R.T. -0.01 min
Lab File: 0629L052.D
Acq: 30 Jun 15 11:16

Tgt Ion:202 Resp: 2781

Ion	Ratio	Lower	Upper
202	100		
101	14.9	9.7	18.1
100	10.9	7.4	13.7

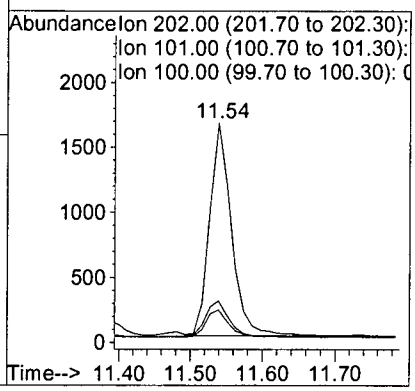


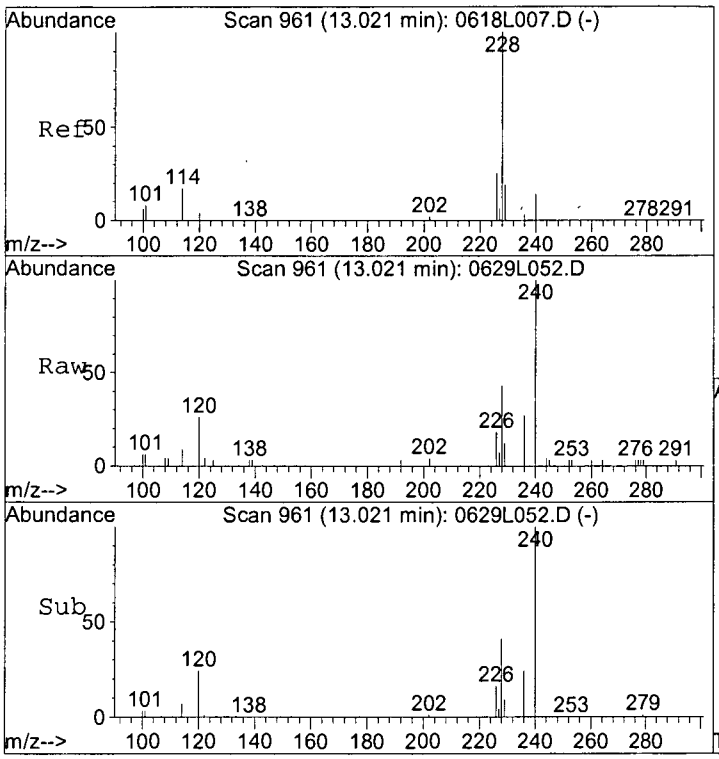


#16
Pyrene
Concen: 248.13810 ppb
RT: 11.54 min Scan# 834
Delta R.T. 0.00 min
Lab File: 0629L052.D
Acq: 30 Jun 15 11:16

Tgt Ion:202 Resp: 3474

Ion	Ratio	Lower	Upper
202	100		
101	16.8	11.0	20.4
100	12.8	7.9	14.7

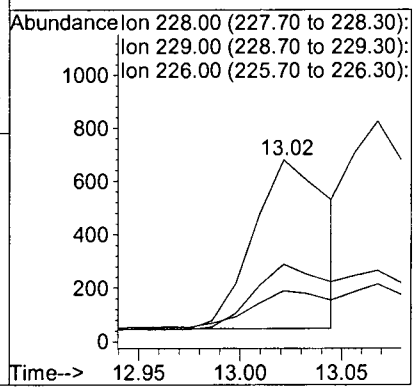


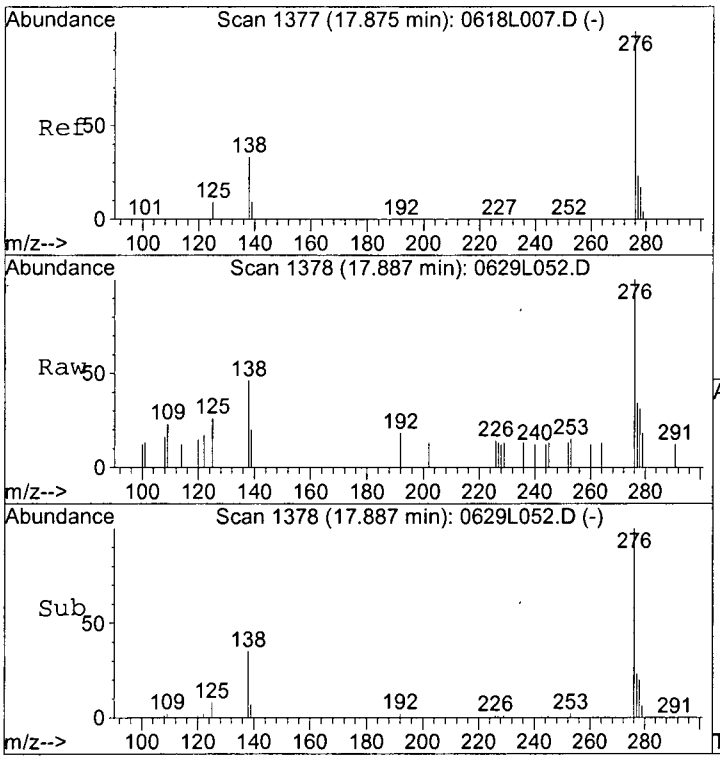


#18
Benz (a) anthracene
Concen: 188.49105 ppb
RT: 13.02 min Scan# 961
Delta R.T. 0.00 min
Lab File: 0629L052.D
Acq: 30 Jun 15 11:16

Tgt Ion:228 Resp: 1608

Ion	Ratio	Lower	Upper
228	100		
229	21.4	13.4	25.0
226	38.4	17.2	32.0#

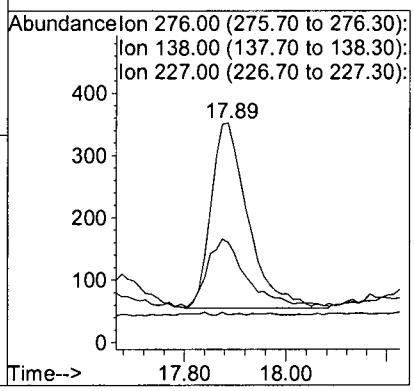


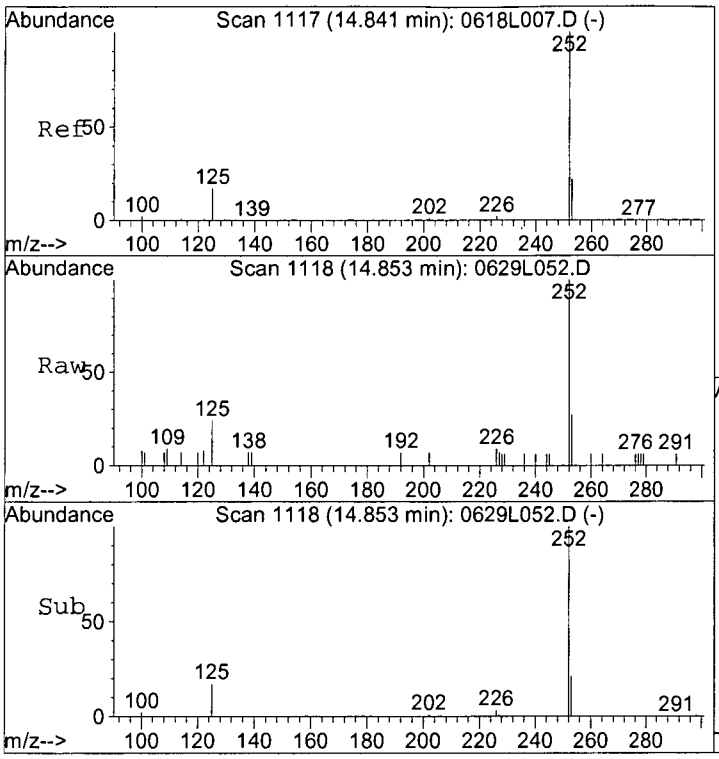


#20
Indeno (1,2,3-cd) pyrene
Concen: 126.52674 ppb
RT: 17.89 min Scan# 1378
Delta R.T. 0.01 min
Lab File: 0629L052.D
Acq: 30 Jun 15 11:16

Tgt Ion:276 Resp: 1510

Ion	Ratio	Lower	Upper
276	100		
138	35.0	23.0	42.8
227	0.0	0.1	0.1#

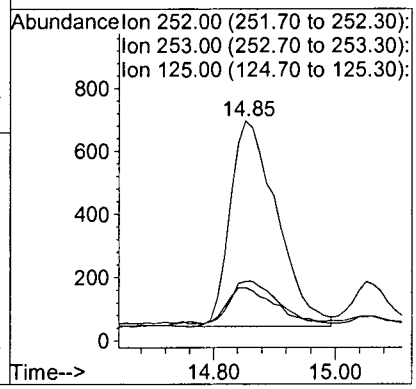


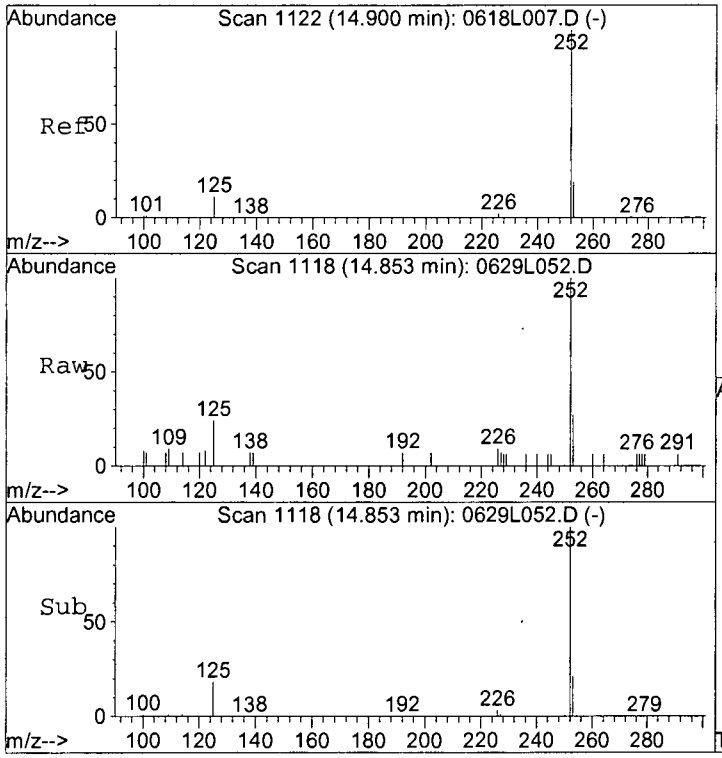


#22
Benzo (b) fluoranthene
Concen: 261.61759 ppb
RT: 14.85 min Scan# 1118
Delta R.T. 0.01 min
Lab File: 0629L052.D
Acq: 30 Jun 15 11:16

Tgt Ion:252 Resp: 3507

Ion	Ratio	Lower	Upper
252	100		
253	20.6	15.7	29.1
125	17.6	11.3	20.9

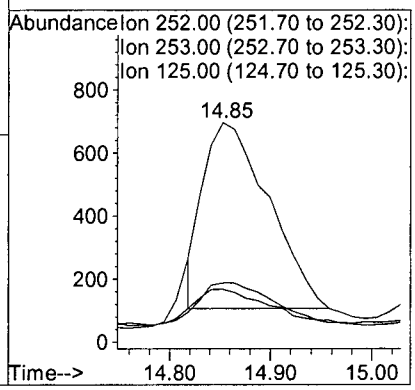


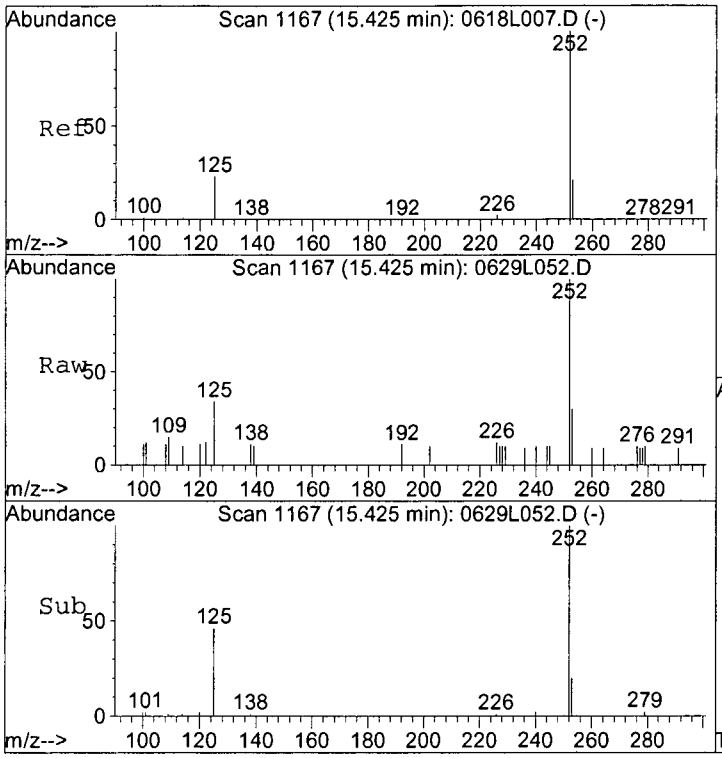


#23
Benzo (k) fluoranthene
Concen: 123.03726 ppb
RT: 14.85 min Scan# 1118
Delta R.T. -0.03 min
Lab File: 0629L052.D
Acq: 30 Jun 15 11:16

Tgt Ion:252 Resp: 2666

Ion	Ratio	Lower	Upper
252	100		
253	20.0	15.8	29.3
125	18.0	11.6	21.5

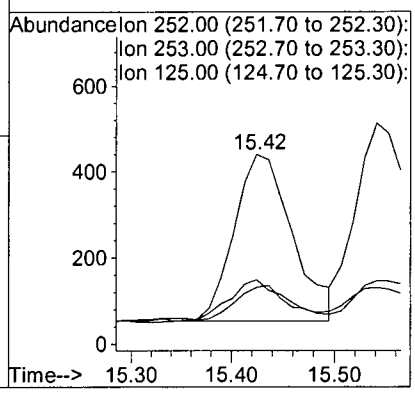


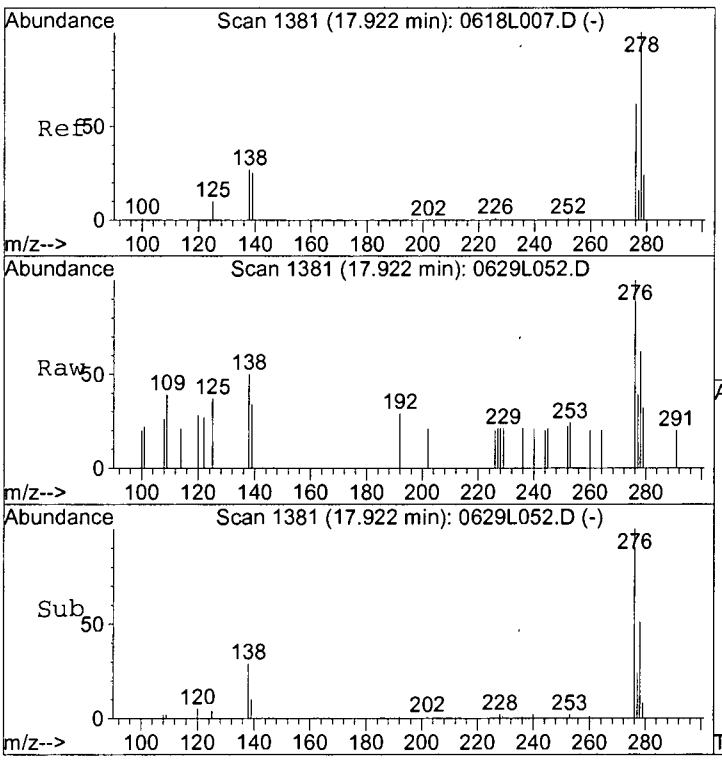


#24
Benzo (a) pyrene
Concen: 144.43712 ppb
RT: 15.42 min Scan# 1167
Delta R.T. 0.01 min
Lab File: 0629L052.D
Acq: 30 Jun 15 11:16

Tgt Ion:252 Resp: 1530

Ion	Ratio	Lower	Upper
252	100		
253	19.6	15.2	28.2
125	23.2	16.1	29.9

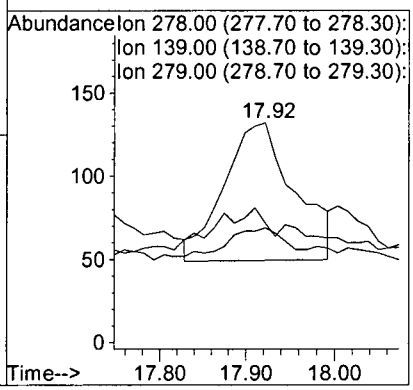


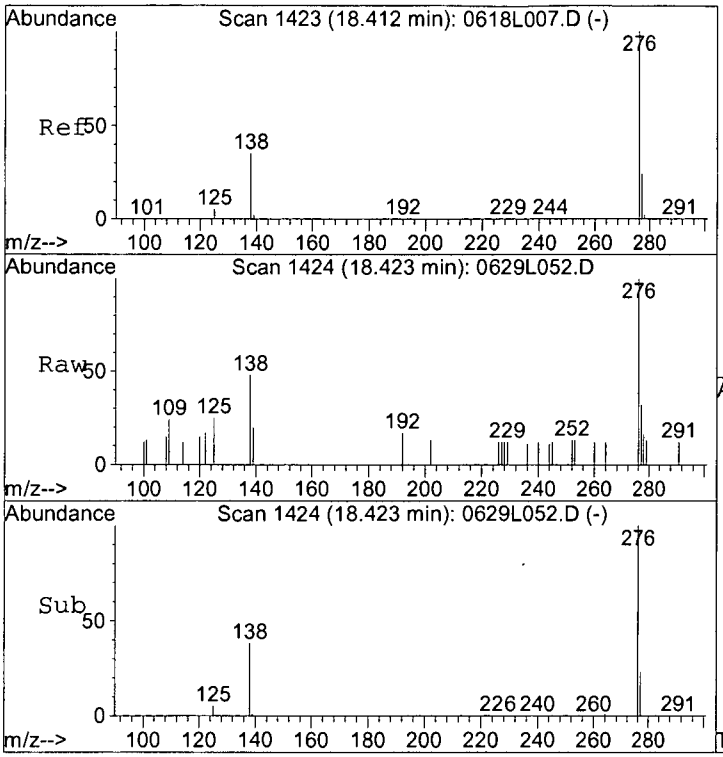


#25
Dibenz (a,h) anthracene
Concen: 39.20538 ppb
RT: 17.92 min Scan# 1381
Delta R.T. 0.01 min
Lab File: 0629L052.D
Acq: 30 Jun 15 11:16

Tgt Ion:278 Resp: 458

Ion	Ratio	Lower	Upper
278	100		
139	14.3	18.5	34.3#
279	24.3	16.7	30.9

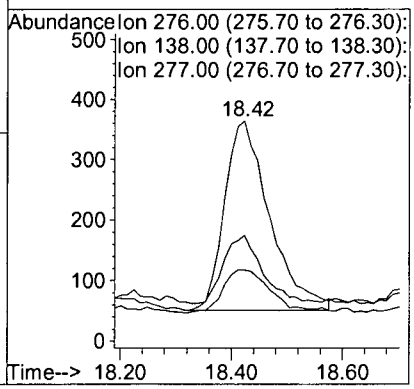




#26
Benzo (g,h,i) perylene
Concen: 147.40572 ppb
RT: 18.42 min Scan# 1424
Delta R.T. 0.01 min
Lab File: 0629L052.D
Acq: 30 Jun 15 11:16

Tgt Ion:276 Resp: 1773

Ion	Ratio	Lower	Upper
276	100		
138	35.1	23.7	44.1
277	22.7	17.3	32.1



EPA 8270D LL SOILS

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-SB040-1516
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17443
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 11.9 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.0019 U	0.006	0.0019	0.0011	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.0019 U	0.006	0.0019	0.0009	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.0019 U	0.006	0.0019	0.0012	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.0019 U	0.006	0.0019	0.0015	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.0019 U	0.006	0.0019	0.0011	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.0019 U	0.006	0.0019	0.0009	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	0.0019 U	0.006	0.0019	0.0014	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.0019 U	0.006	0.0019	0.0011	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.0019 U	0.006	0.0019	0.0012	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.0019 U	0.006	0.0019	0.0014	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	39.5 #	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	46.1	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	74.6	30-125			%	06/22/15	06/30/15

= Recovery (or RPD) is outside QC limits.

Quant Method: P0629.M
Run #: 0629L072
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/02/15 4:55:06 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L072.D Vial: 72
Acq On : 30 Jun 15 21:04 Operator: MA
Sample : AZ17443S01 1/30.27G Inst : Linus
Misc : soil Multiplr: 33.04

Quant Time: Jul 1 12:25 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.05	136	6412	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.11	164	2847	2.50000 ppb	0.01
11) Phenanthrene-D10(IS)	9.87	188	4553	2.50000 ppb	0.01
15) Chrysene-D12(IS)	13.06	240	4961	2.50000 ppb	0.02
21) Perylene-D12(IS)	15.69	264	2881	2.50000 ppb	0.04
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.19	82	734	38.07009 ppb	0.01
Spiked Amount 82.590			Recovery = 46.095%		
7) Surrogate Recovery (FBP)	7.31	172	1703	32.59556 ppb	0.00
Spiked Amount 82.590			Recovery = 39.467%		
17) Surrogate Recovery (TPH)	11.73	244	3386	61.59942 ppb	0.00
Spiked Amount 82.590			Recovery = 74.584%		

Target Compounds Qvalue

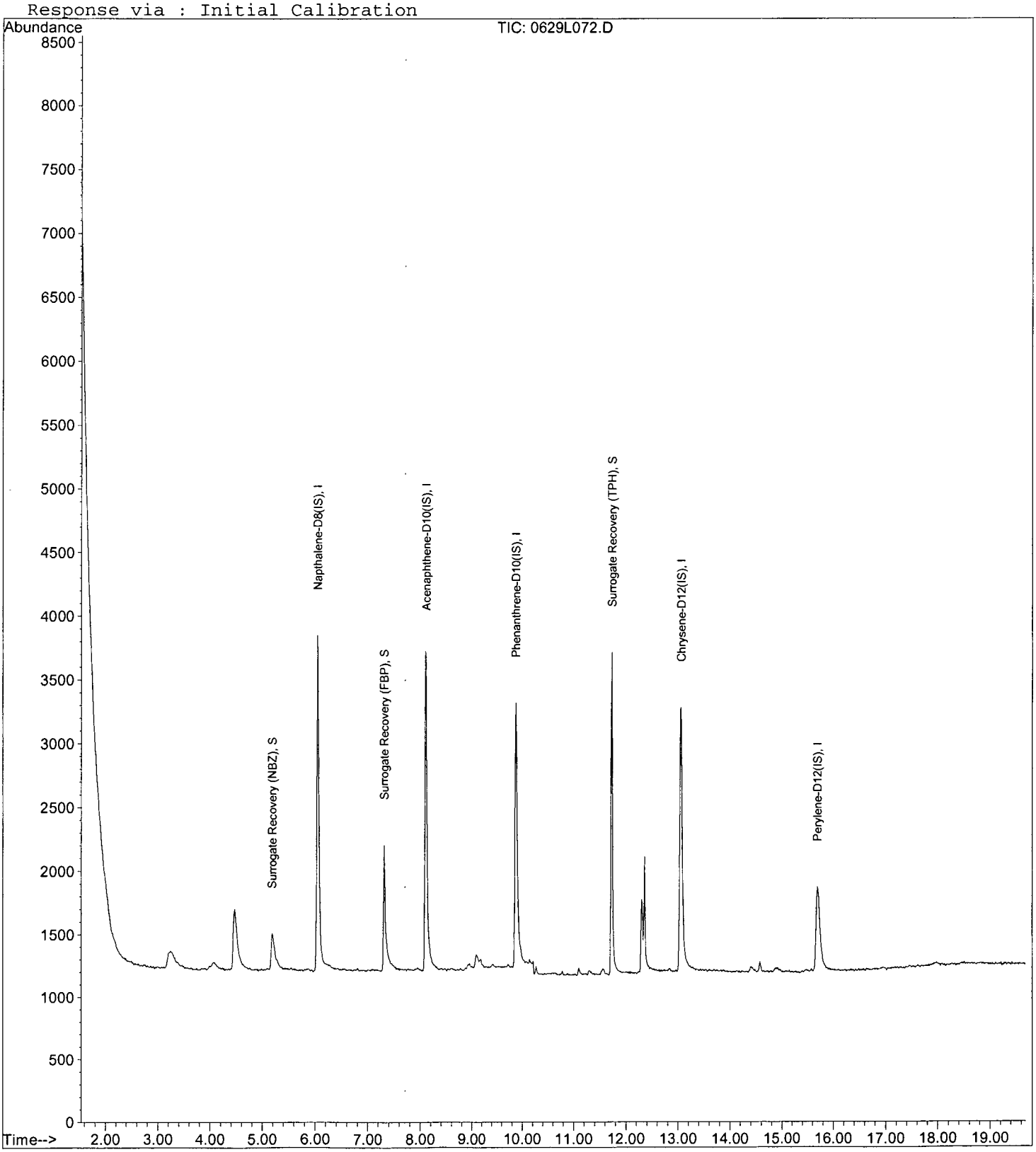
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L072.D Vial: 72
Acq On : 30 Jun 15 21:04 Operator: MA
Sample : AZ17443S01 1/30.27G Inst : Linus
Misc : soil Multiplr: 33.04

Quant Time: Jul 1 12:25 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration



EPA 8270D LL SOILS RE-EXTRACT

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-SB040-1516
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17443
QCG: #SIMDD-150706A-198646

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 11.9 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	07/06/15	07/07/15
8270D-LL	ACENAPHTHENE	0.0019 U	0.006	0.0019	0.0011	mg/kg	07/06/15	07/07/15
8270D-LL	ACENAPHTHYLENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	07/06/15	07/07/15
8270D-LL	ANTHRACENE	0.0019 U	0.006	0.0019	0.0009	mg/kg	07/06/15	07/07/15
8270D-LL	BENZ (A) ANTHRACENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	07/06/15	07/07/15
8270D-LL	BENZO (A) PYRENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	07/06/15	07/07/15
8270D-LL	BENZO (B) FLUORANTHENE	0.0019 U	0.006	0.0019	0.0012	mg/kg	07/06/15	07/07/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.0019 J	0.006	0.0019	0.0015	mg/kg	07/06/15	07/07/15
8270D-LL	BENZO (K) FLUORANTHENE	0.0019 U	0.006	0.0019	0.0011	mg/kg	07/06/15	07/07/15
8270D-LL	CHRYSENE	0.0019 U	0.006	0.0019	0.0009	mg/kg	07/06/15	07/07/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	07/06/15	07/07/15
8270D-LL	FLUORANTHENE	0.0019 U	0.006	0.0019	0.0014	mg/kg	07/06/15	07/07/15
8270D-LL	FLUORENE	0.0019 U	0.006	0.0019	0.0011	mg/kg	07/06/15	07/07/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	07/06/15	07/07/15
8270D-LL	NAPHTHALENE	0.0019 U	0.006	0.0019	0.0010	mg/kg	07/06/15	07/07/15
8270D-LL	PHENANTHRENE	0.0019 U	0.006	0.0019	0.0012	mg/kg	07/06/15	07/07/15
8270D-LL	PYRENE	0.0023 J	0.006	0.0019	0.0014	mg/kg	07/06/15	07/07/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	51.3	45-105			%	07/06/15	07/07/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	68.0	35-100			%	07/06/15	07/07/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	84.6	30-125			%	07/06/15	07/07/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L205
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/08/15 10:05:37 AM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L205.D Vial: 5
Acq On : 7 Jul 15 13:55 Operator: MA
Sample : AZ17443S01 1/30.24G Inst : Linus
Misc : soil Multiplr: 33.07

Quant Time: Jul 8 10:03 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	6.07	136	4438	2.50000	ppb		0.02
6) Acenaphthene-D10(IS)	8.11	164	2168	2.50000	ppb		0.01
11) Phenanthrene-D10(IS)	9.87	188	3486	2.50000	ppb		0.01
15) Chrysene-D12(IS)	13.07	240	4325	2.50000	ppb		0.04
21) Perylene-D12(IS)	15.72	264	2692	2.50000	ppb		0.06
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.21	82	749	56.18320	ppb		0.04
Spiked Amount 82.672			Recovery = 67.959%				
7) Surrogate Recovery (FBP)	7.33	172	1687	42.44413	ppb		0.01
Spiked Amount 82.672			Recovery = 51.340%				
17) Surrogate Recovery (TPH)	11.73	244	3349	69.95496	ppb		0.00
Spiked Amount 82.672			Recovery = 84.618%				
Target Compounds							Qvalue
16) Pyrene	11.56	202	197	2.05567	ppb		94
26) Benzo (g,h,i) perylene	18.49	276	129	1.65406	ppb	#	82

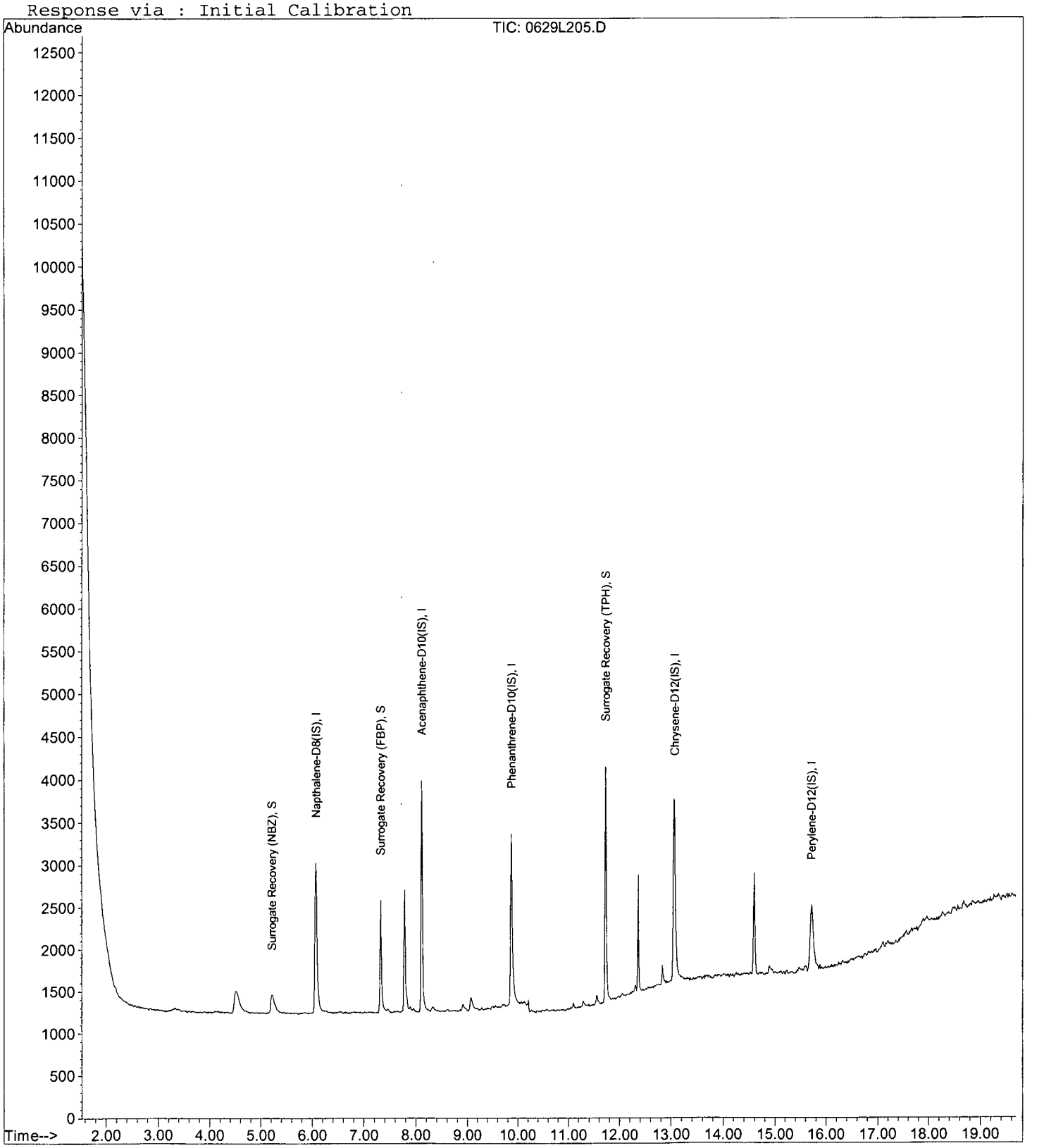
(#) = qualifier out of range (m) = manual integration

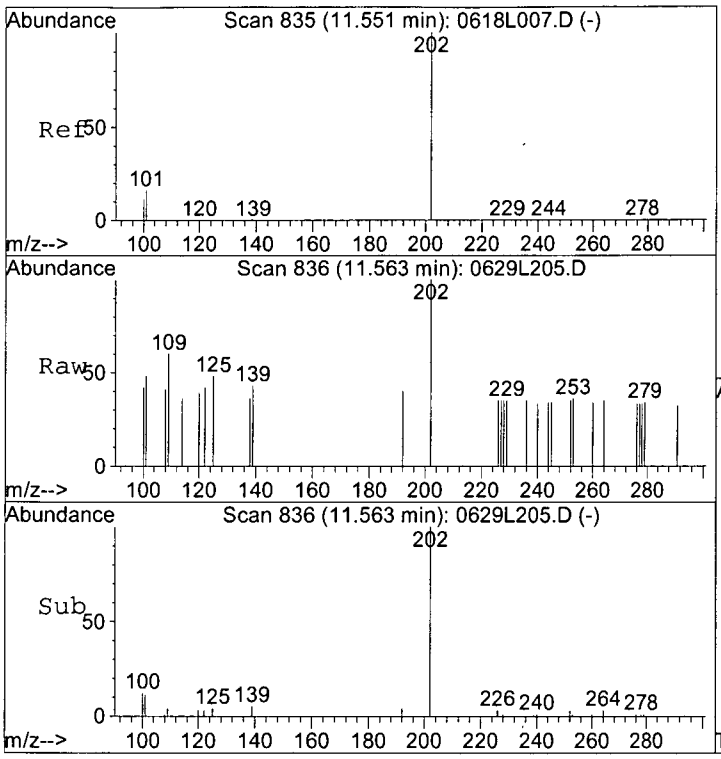
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L205.D Vial: 5
Acq On : 7 Jul 15 13:55 Operator: MA
Sample : AZ17443S01 1/30.24G Inst : Linus
Misc : soil Multiplr: 33.07

Quant Time: Jul 8 10:03 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration

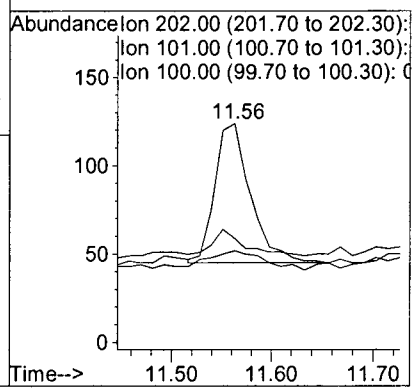


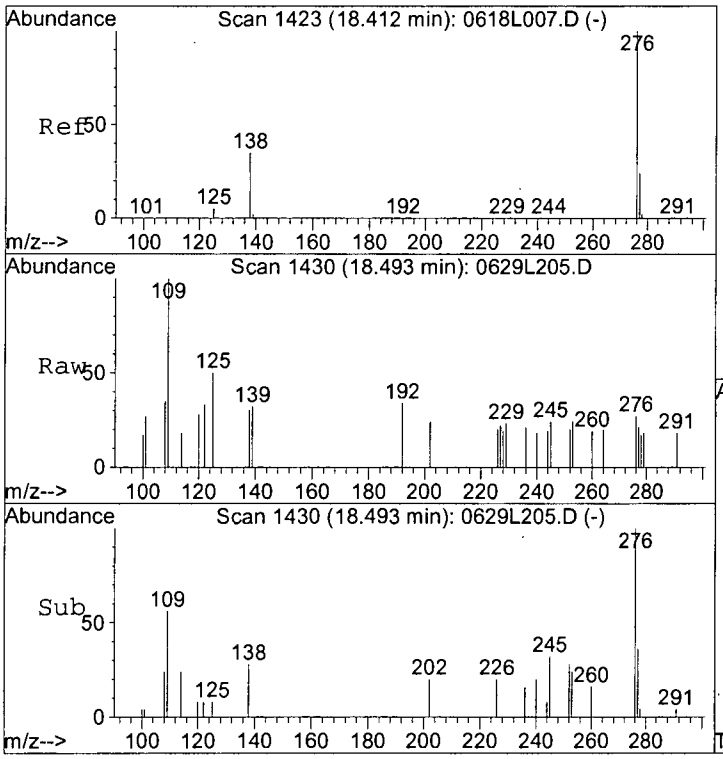


#16
Pyrene
Concen: 2.05567 ppb
RT: 11.56 min Scan# 836
Delta R.T. 0.02 min
Lab File: 0629L205.D
Acq: 7 Jul 15 13:55

Tgt Ion:202 Resp: 197

Ion	Ratio	Lower	Upper
202	100		
101	11.4	11.0	20.4
100	11.4	7.9	14.7

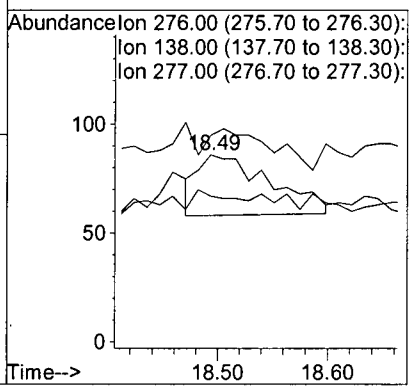




#26
Benzo (g,h,i) perylene
Concen: 1.65406 ppb
RT: 18.49 min Scan# 1430
Delta R.T. 0.08 min
Lab File: 0629L205.D
Acq: 7 Jul 15 13:55

Tgt Ion:276 Resp: 129

Ion	Ratio	Lower	Upper
276	100		
138	17.4	23.7	44.1#
277	26.1	17.3	32.1



EPA 8270D LL SOILS

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-SS035-0001
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17444
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 14.8 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0200 U	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.0200 U	0.059	0.0200	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.0200 U	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.020 J	0.059	0.0200	0.0094	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.12	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.058 J	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.085	0.059	0.0200	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.044 J	0.059	0.0200	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.0200 U	0.059	0.0200	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.0200 U	0.059	0.0200	0.0094	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.0200 U	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	0.12	0.059	0.0200	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.0200 U	0.059	0.0200	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.040 J	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.0200 U	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.059	0.059	0.0200	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.097	0.059	0.0200	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	57.9	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	38.2	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	65.2	30-125			%	06/22/15	06/30/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L056
Instrument: Linus
Sequence: L150629
Dilution Factor: 10
Initials: MA

Printed: 07/02/15 4:55:06 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L056.D Vial: 56
Acq On : 30 Jun 15 13:04 Operator: MA
Sample : AZ17444S05 1/30.01G x10 Inst : Linus
Misc : soil Multiplr: 333.22

Quant Time: Jul 1 14:13 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.05	136	8121	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.11	164	3780	2.50000 ppb		0.01
11) Phenanthrene-D10(IS)	9.87	188	6130	2.50000 ppb		0.01
15) Chrysene-D12(IS)	13.04	240	6984	2.50000 ppb		0.01
21) Perylene-D12(IS)	15.67	264	4215	2.50000 ppb		0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.19	82	77	31.80597 ppb		0.01
Spiked Amount 83.306			Recovery =	38.180%		
7) Surrogate Recovery (FBP)	7.33	172	332	48.27515 ppb		0.01
Spiked Amount 83.306			Recovery =	57.949%		
17) Surrogate Recovery (TPH)	11.73	244	417	54.35466 ppb		0.00
Spiked Amount 83.306			Recovery =	65.248%		
Target Compounds						Qvalue
12) Phenanthrene	9.90	178	557	50.19188 ppb		98
13) Anthracene	9.96	178	197	17.16996 ppb		96
14) Fluoranthene	11.28	202	1467	102.51916 ppb		97
16) Pyrene	11.55	202	1267	82.50139 ppb		96
18) Benz (a) anthracene	13.03	228	630	101.69158 ppb		96
20) Indeno (1,2,3-cd) pyrene	17.91	276	443	33.83998 ppb	#	90
22) Benzo (b) fluoranthene	14.88	252	1453	72.83691 ppb		93
24) Benzo (a) pyrene	15.45	252	528	49.47320 ppb		98
26) Benzo (g,h,i) perylene	18.45	276	459	37.87625 ppb		99

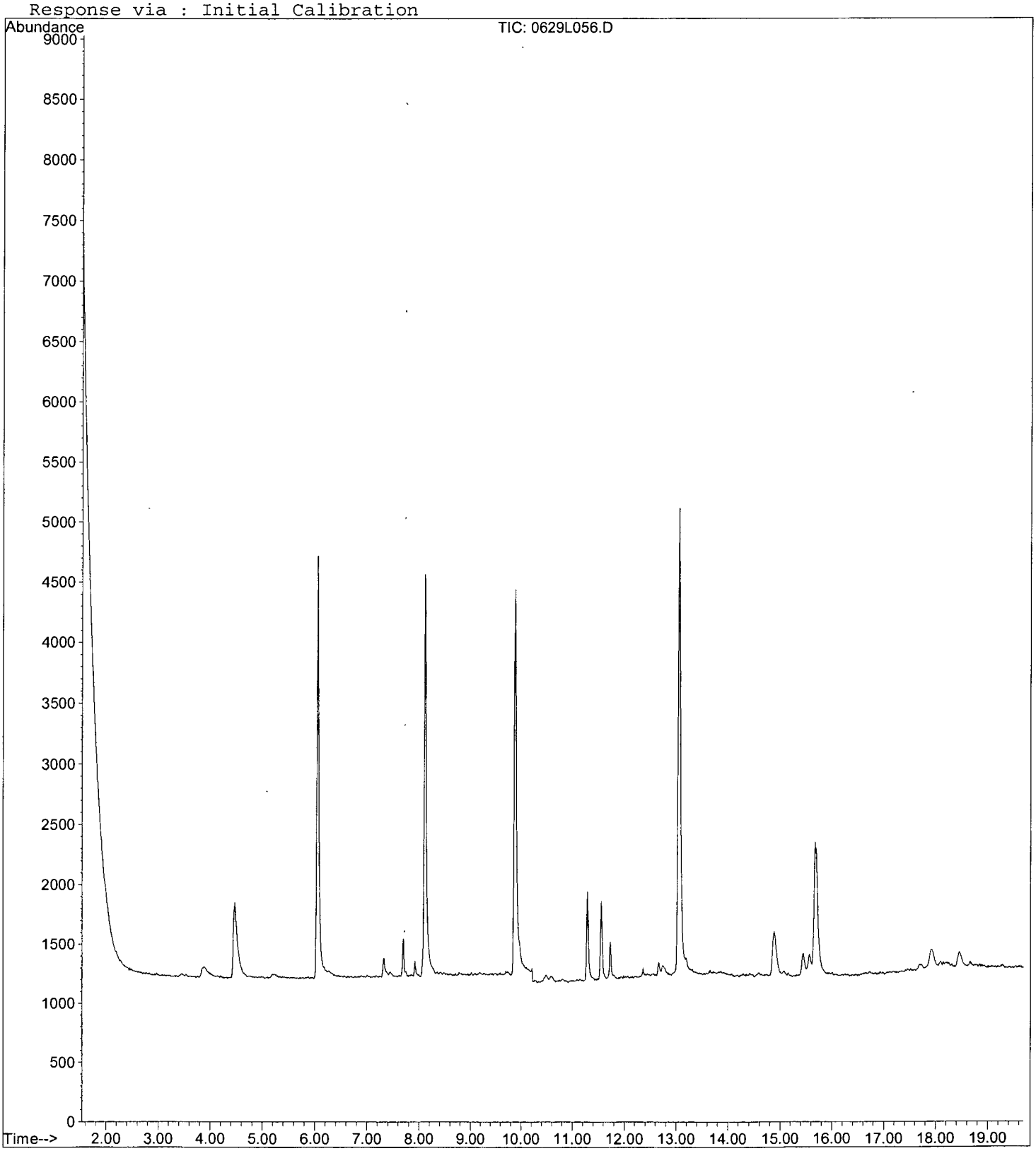
(#) = qualifier out of range (m) = manual integration

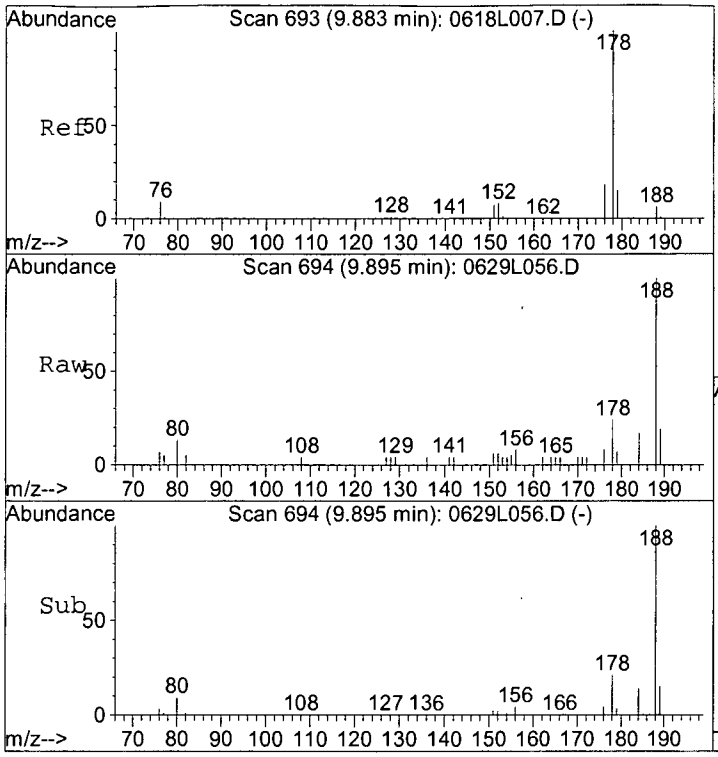
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L056.D Vial: 56
Acq On : 30 Jun 15 13:04 Operator: MA
Sample : AZ17444S05 1/30.01G x10 Inst : Linus
Misc : soil Multiplr: 333.22

Quant Time: Jul 1 14:13 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration

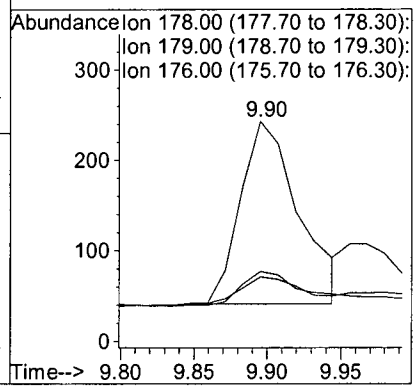


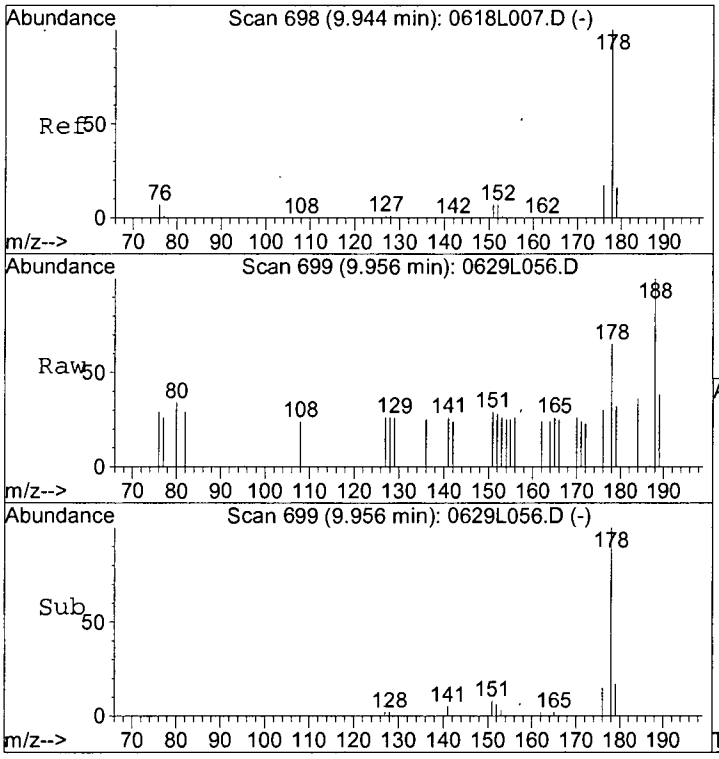


#12
Phenanthrene
Concen: 50.19188 ppb
RT: 9.90 min Scan# 694
Delta R.T. 0.01 min
Lab File: 0629L056.D
Acq: 30 Jun 15 13:04

Tgt Ion:178 Resp: 557

Ion	Ratio	Lower	Upper
178	100		
179	14.4	10.5	19.5
176	18.3	12.3	22.8

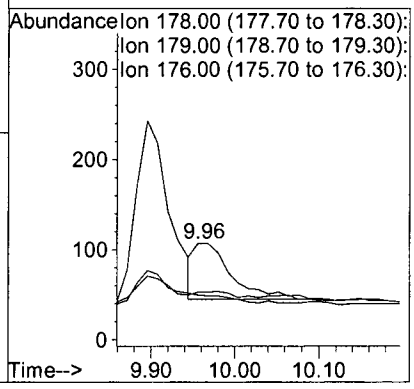


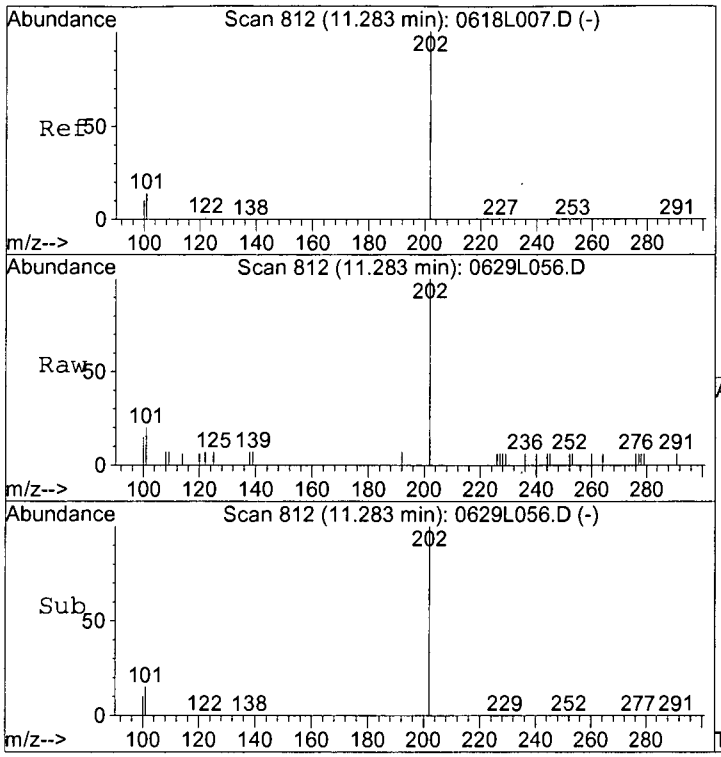


#13
Anthracene
Concen: 17.16996 ppb
RT: 9.96 min Scan# 699
Delta R.T. 0.01 min
Lab File: 0629L056.D
Acq: 30 Jun 15 13:04

Tgt Ion:178 Resp: 197

Ion	Ratio	Lower	Upper
178	100		
179	16.1	10.9	20.3
176	14.5	12.2	22.6

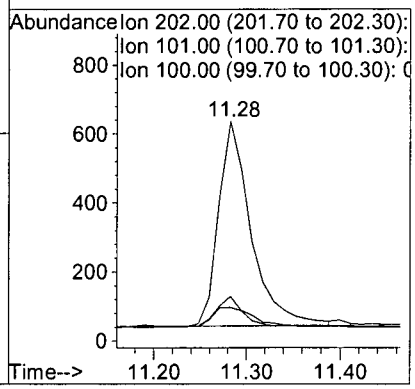


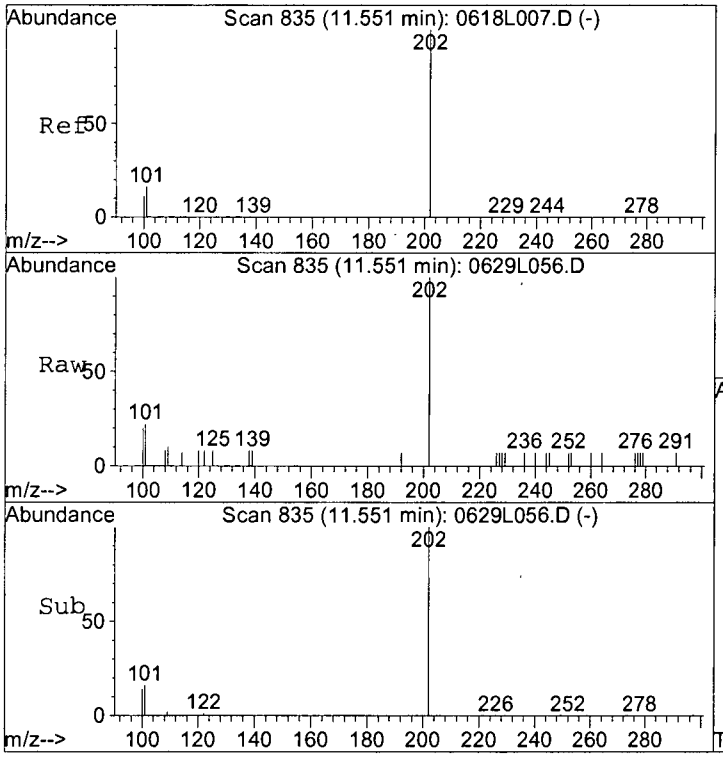


#14
Fluoranthene
Concen: 102.51916 ppb
RT: 11.28 min Scan# 812
Delta R.T. 0.00 min
Lab File: 0629L056.D
Acq: 30 Jun 15 13:04

Tgt Ion:202 Resp: 1467

Ion	Ratio	Lower	Upper
202	100		
101	14.8	9.7	18.1
100	9.4	7.4	13.7

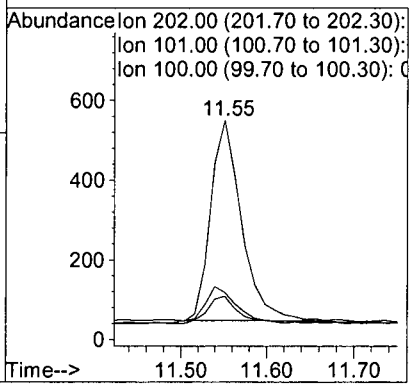


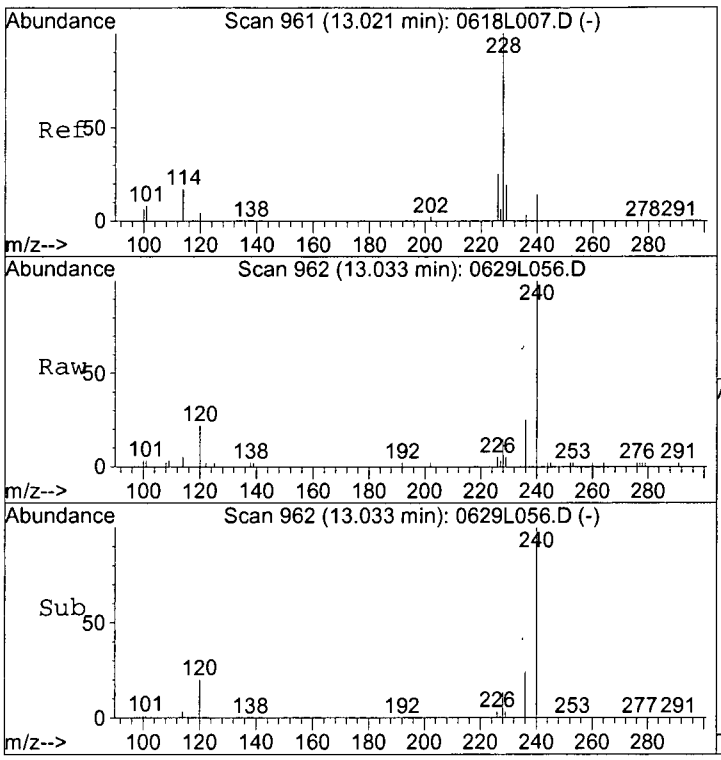


#16
Pyrene
Concen: 82.50139 ppb
RT: 11.55 min Scan# 835
Delta R.T. 0.01 min
Lab File: 0629L056.D
Acq: 30 Jun 15 13:04

Tgt Ion:202 Resp: 1267

Ion	Ratio	Lower	Upper
202	100		
101	14.7	11.0	20.4
100	13.5	7.9	14.7

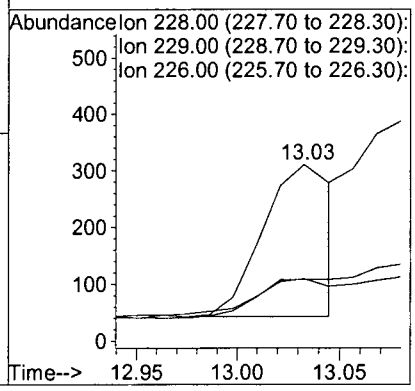


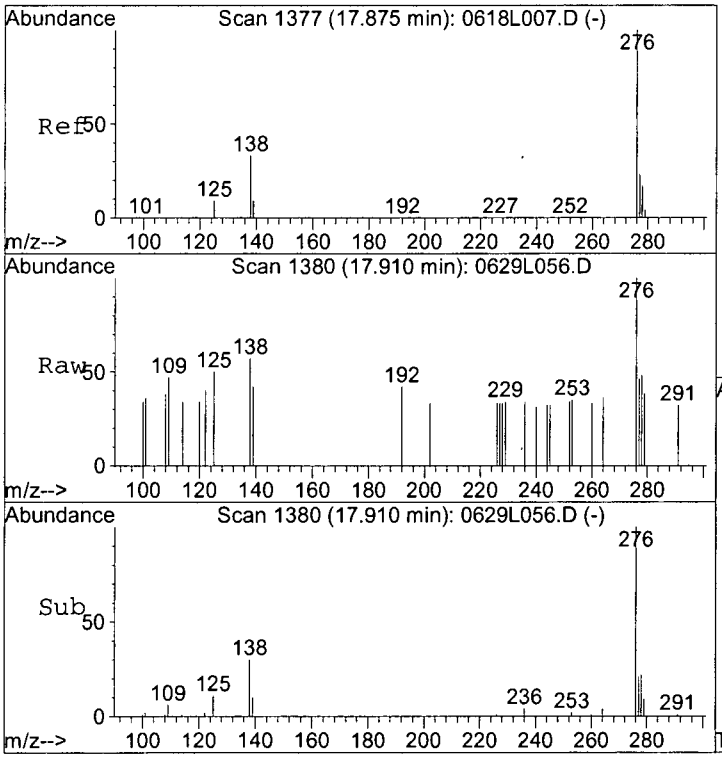


#18
Benz (a) anthracene
Concen: 101.69158 ppb
RT: 13.03 min Scan# 962
Delta R.T. 0.01 min
Lab File: 0629L056.D
Acq: 30 Jun 15 13:04

Tgt Ion:228 Resp: 630

Ion	Ratio	Lower	Upper
228	100		
229	23.1	13.4	25.0
226	25.0	17.2	32.0

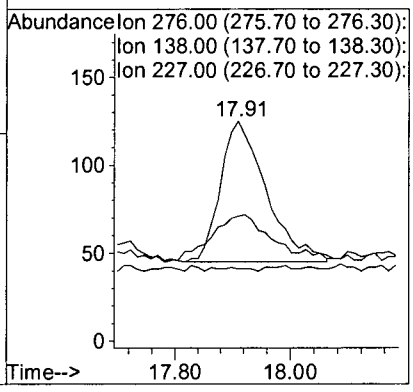


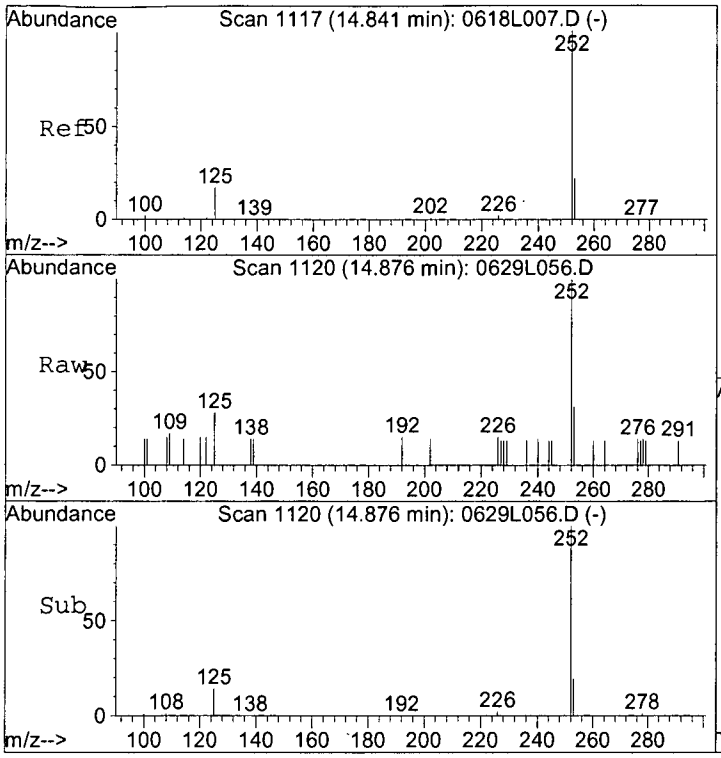


#20
Indeno (1,2,3-cd) pyrene
Concen: 33.83998 ppb
RT: 17.91 min Scan# 1380
Delta R.T. 0.04 min
Lab File: 0629L056.D
Acq: 30 Jun 15 13:04

Tgt Ion:276 Resp: 443

Ion	Ratio	Lower	Upper
276	100		
138	27.5	23.0	42.8
227	1.3	0.1	0.1#

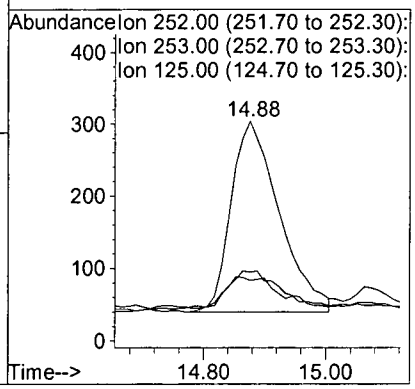


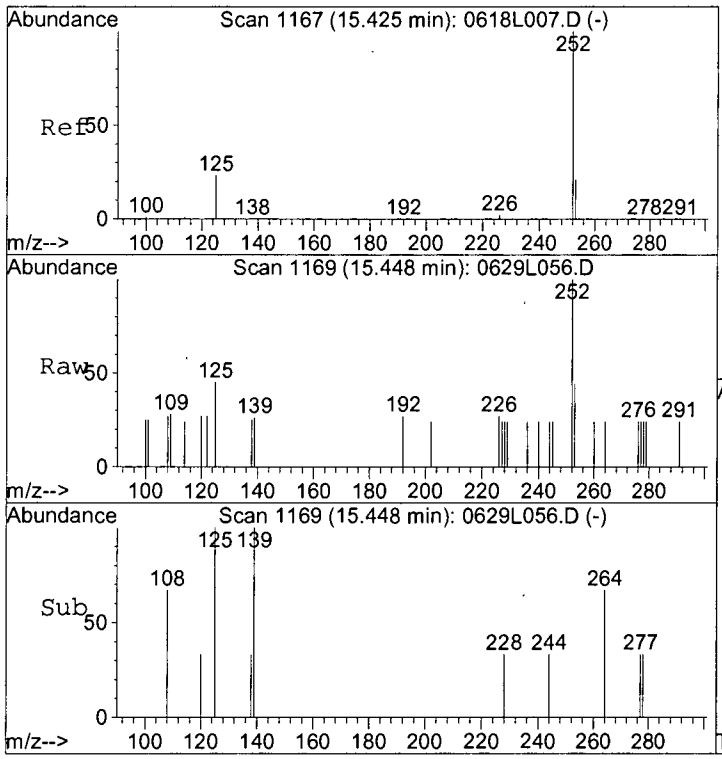


#22
Benzo (b) fluoranthene
Concen: 72.83691 ppb
RT: 14.88 min Scan# 1120
Delta R.T. 0.04 min
Lab File: 0629L056.D
Acq: 30 Jun 15 13:04

Tgt Ion:252 Resp: 1453

Ion	Ratio	Lower	Upper
252	100		
253	18.6	15.7	29.1
125	14.0	11.3	20.9

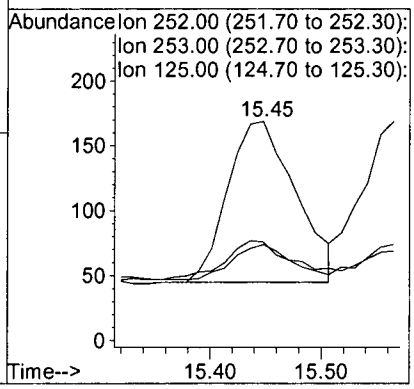


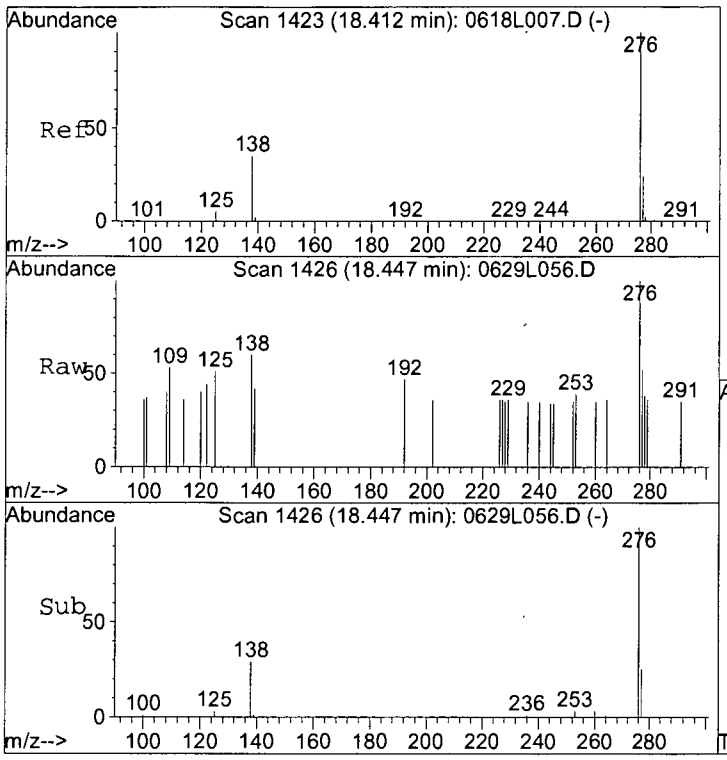


#24
Benzo (a) pyrene
Concen: 49.47320 ppb
RT: 15.45 min Scan# 1169
Delta R.T. 0.04 min
Lab File: 0629L056.D
Acq: 30 Jun 15 13:04

Tgt Ion:252 Resp: 528

Ion	Ratio	Lower	Upper
252	100		
253	21.8	15.2	28.2
125	21.0	16.1	29.9

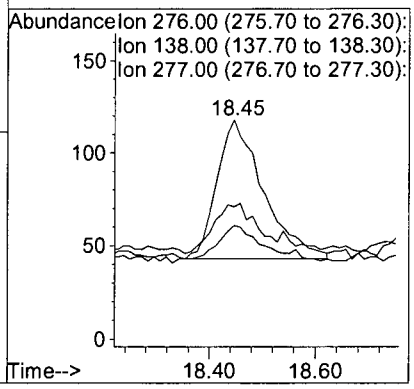




#26
Benzo (g,h,i) perylene
Concen: 37.87625 ppb
RT: 18.45 min Scan# 1426
Delta R.T. 0.04 min
Lab File: 0629L056.D
Acq: 30 Jun 15 13:04

Tgt Ion:276 Resp: 459

Ion	Ratio	Lower	Upper
276	100		
138	33.3	23.7	44.1
277	24.0	17.3	32.1



EPA 8270D LL SOILS

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-SB035-0203
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17445
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 15.6 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.012 J	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.043 J	0.059	0.0200	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.0200 U	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.14	0.059	0.0200	0.0095	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.43	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.25	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.62	0.059	0.0200	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.22	0.059	0.0200	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.50	0.059	0.0200	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.079	0.059	0.0200	0.0095	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.075	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	0.88	0.059	0.0200	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.034 J	0.059	0.0200	0.0120	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.21	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.012 J	0.059	0.0200	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.47	0.059	0.0200	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.63	0.059	0.0200	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	61.2	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	42.5	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	72.0	30-125			%	06/22/15	06/30/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L057
Instrument: Linus
Sequence: L150629
Dilution Factor: 10
Initials: MA

Printed: 07/02/15 4:55:06 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L057.D Vial: 57
Acq On : 30 Jun 15 13:32 Operator: MA
Sample : AZ17445S02 1/30.00G x10 Inst : Linus
Misc : soil Multiplr: 333.33

Quant Time: Jul 1 14:14 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.05	136	7769	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.11	164	3569	2.50000 ppb		0.01
11) Phenanthrene-D10(IS)	9.86	188	5985	2.50000 ppb		0.00
15) Chrysene-D12(IS)	13.03	240	7605	2.50000 ppb		0.00
21) Perylene-D12(IS)	15.67	264	4805	2.50000 ppb		0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.19	82	82	35.41774 ppb		0.01
Spiked Amount 83.333			Recovery = 42.502%			
7) Surrogate Recovery (FBP)	7.33	172	331	50.99216 ppb		0.01
Spiked Amount 83.333			Recovery = 61.190%			
17) Surrogate Recovery (TPH)	11.73	244	501	59.99128 ppb		0.00
Spiked Amount 83.333			Recovery = 71.989%			
Target Compounds						Qvalue
3) Naphthalene	6.07	128	124	9.75796 ppb		97
4) 2-Methylnaphthalene	6.89	142	75	9.73173 ppb		76
9) Acenaphthene	8.15	154	266	36.19145 ppb		97
10) Fluorene	8.77	166	224	28.84049 ppb		93
12) Phenanthrene	9.90	178	4306	397.55134 ppb		100
13) Anthracene	9.96	178	1322	118.05258 ppb		99
14) Fluoranthene	11.28	202	10344	740.63532 ppb		96
16) Pyrene	11.54	202	8910	532.98132 ppb		94
18) Benz (a) anthracene	13.02	228	4419	365.15292 ppb		96
19) Chrysene	13.07	228	4472	66.87710 ppb		98
20) Indeno (1,2,3-cd) pyrene	17.87	276	2541	178.31204 ppb	#	96
22) Benzo (b) fluoranthene	14.85	252	7353	525.67921 ppb		96
23) Benzo (k) fluoranthene	14.85	252	5665	418.28657 ppb		97
24) Benzo (a) pyrene	15.42	252	2592	213.11787 ppb		94
25) Dibenz (a,h) anthracene	17.91	278	846	63.07366 ppb		94
26) Benzo (g,h,i) perylene	18.42	276	2551	184.71984 ppb		94

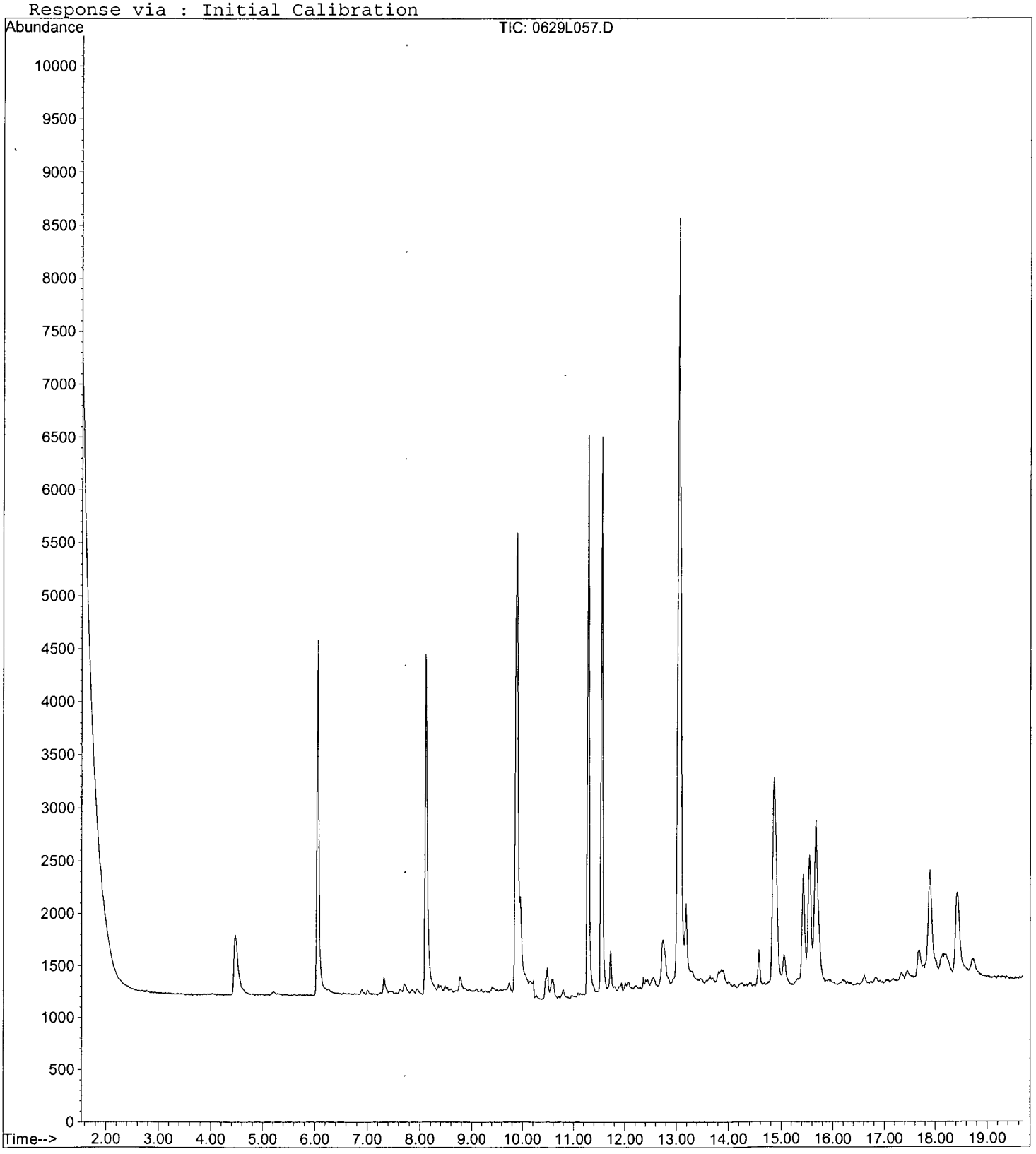
(#) = qualifier out of range (m) = manual integration

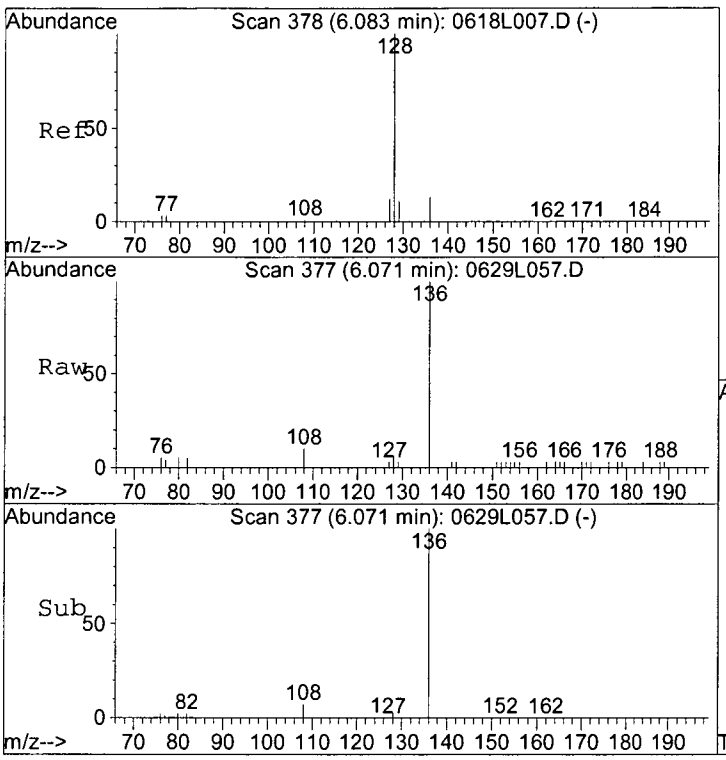
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L057.D Vial: 57
Acq On : 30 Jun 15 13:32 Operator: MA
Sample : AZ17445S02 1/30.00G x10 Inst : Linus
Misc : soil Multiplr: 333.33

Quant Time: Jul 1 14:14 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration

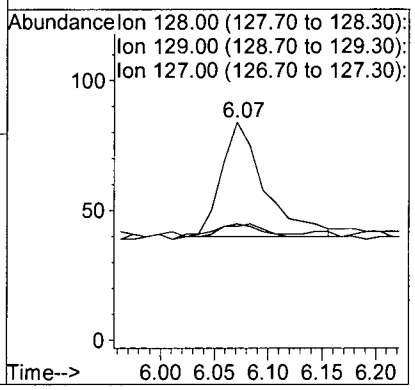


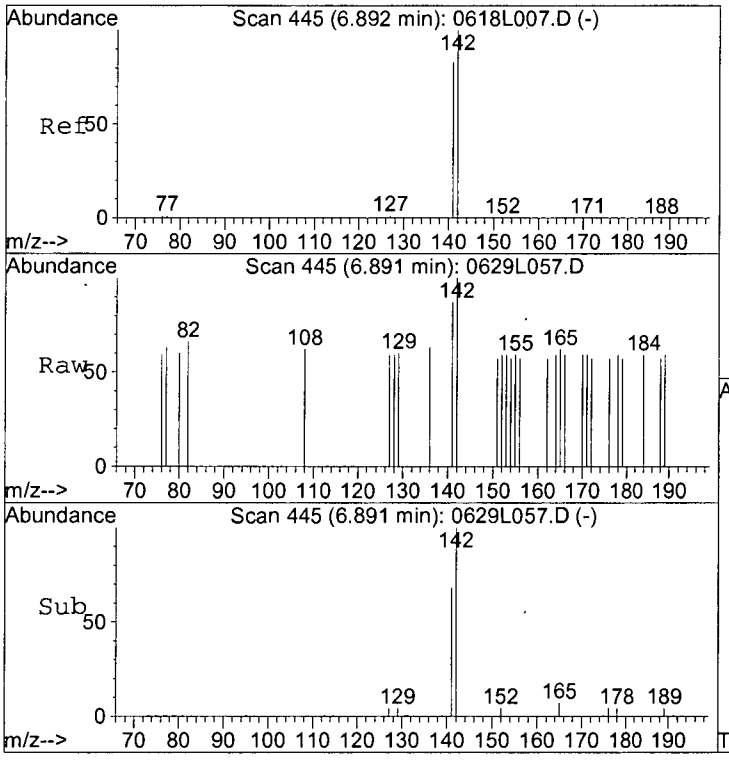


#3
Naphthalene
Concen: 9.75796 ppb
RT: 6.07 min Scan# 377
Delta R.T. -0.00 min
Lab File: 0629L057.D
Acq: 30 Jun 15 13:32

Tgt Ion:128 Resp: 124

Ion	Ratio	Lower	Upper
128	100		
129	9.1	7.4	13.8
127	11.4	8.4	15.6

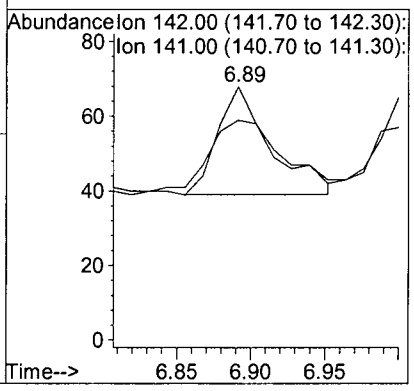


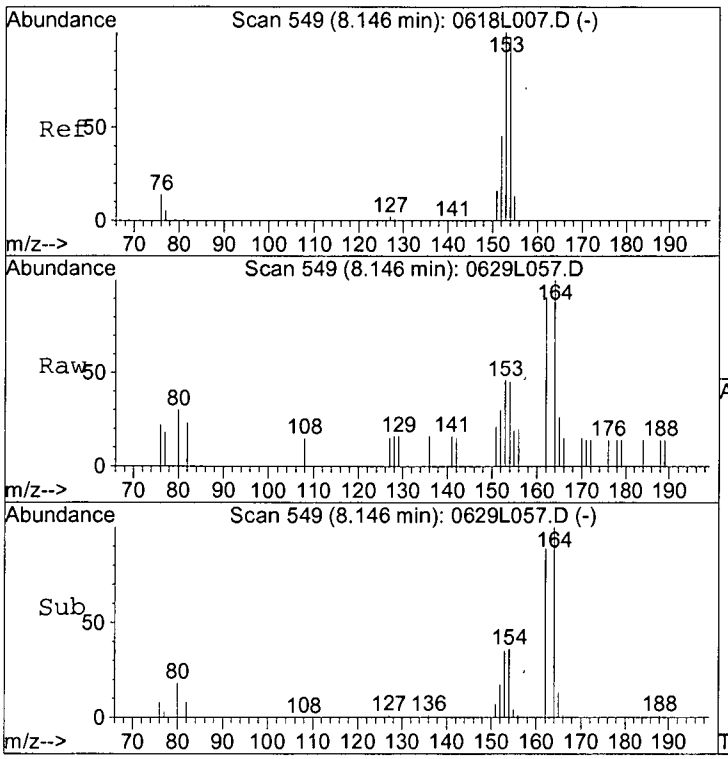


#4
2-Methylnaphthalene
Concen: 9.73173 ppb
RT: 6.89 min Scan# 445
Delta R.T. 0.01 min
Lab File: 0629L057.D
Acq: 30 Jun 15 13:32

Tgt Ion:142 Resp: 75

Ion	Ratio	Lower	Upper
142	100		
141	62.1	58.3	108.3

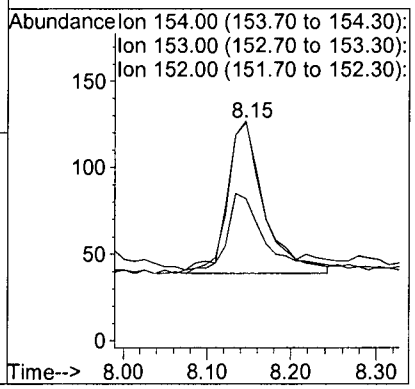


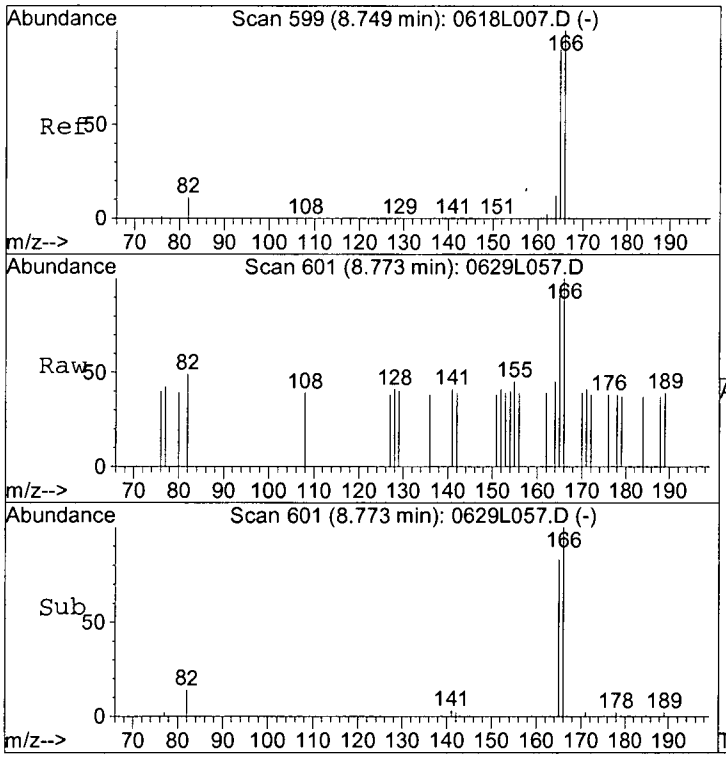


#9
Acenaphthene
Concen: 36.19145 ppb
RT: 8.15 min Scan# 549
Delta R.T. 0.01 min
Lab File: 0629L057.D
Acq: 30 Jun 15 13:32

Tgt Ion:154 Resp: 266

Ion	Ratio	Lower	Upper
154	100		
153	98.9	71.8	133.4
152	47.1	32.7	60.7

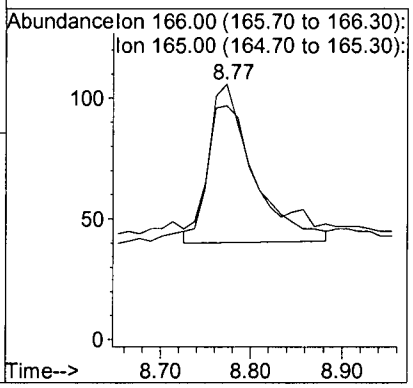


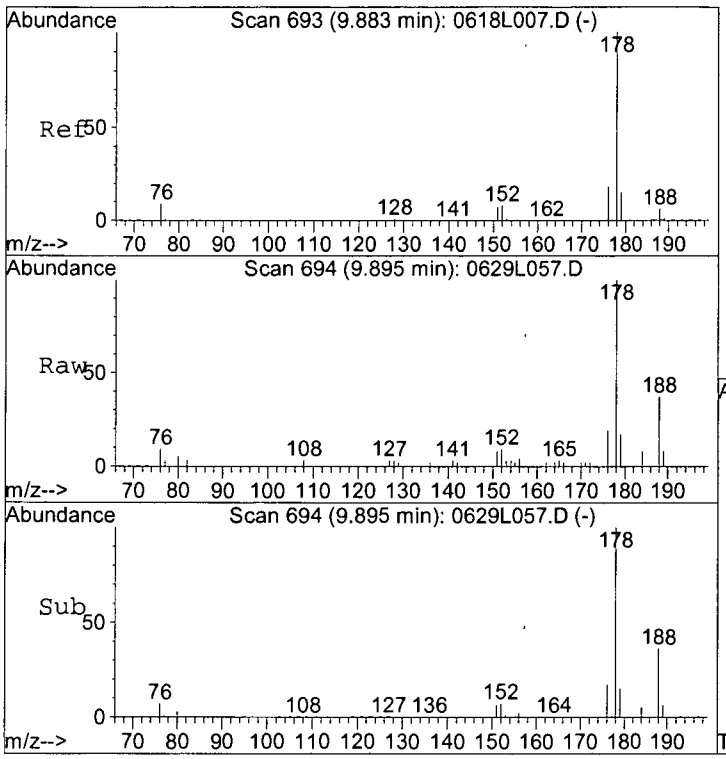


#10
Fluorene
Concen: 28.84049 ppb
RT: 8.77 min Scan# 601
Delta R.T. 0.02 min
Lab File: 0629L057.D
Acq: 30 Jun 15 13:32

Tgt Ion:166 Resp: 224

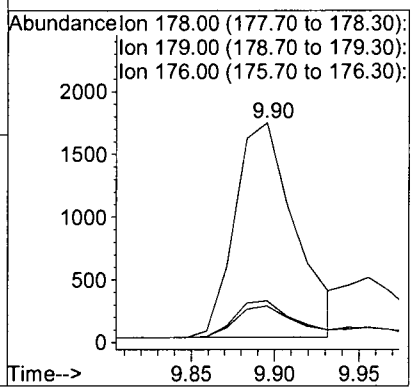
Ion	Ratio	Lower	Upper
166	100		
165	83.6	63.1	117.1

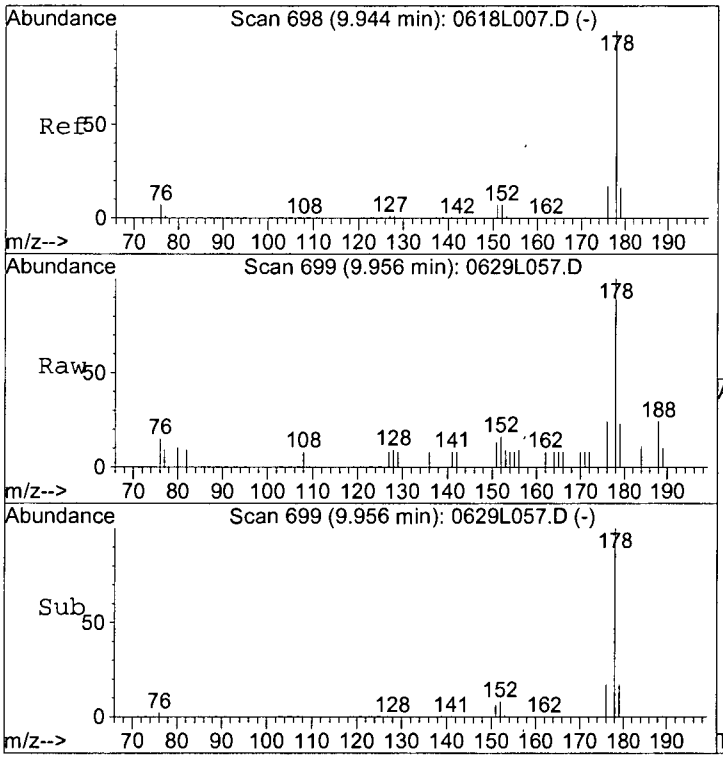




#12
Phenanthrene
Concen: 397.55134 ppb
RT: 9.90 min Scan# 694
Delta R.T. 0.01 min
Lab File: 0629L057.D
Acq: 30 Jun 15 13:32

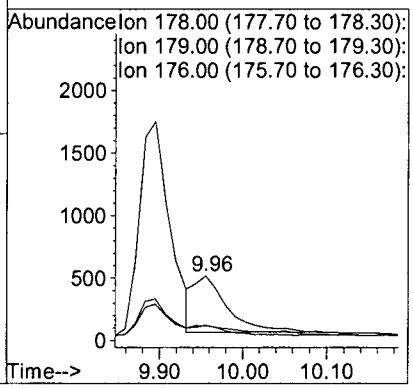
Tgt Ion:178	Resp:	4306	
Ion	Ratio	Lower	Upper
178	100		
179	14.9	10.5	19.5
176	17.3	12.3	22.8

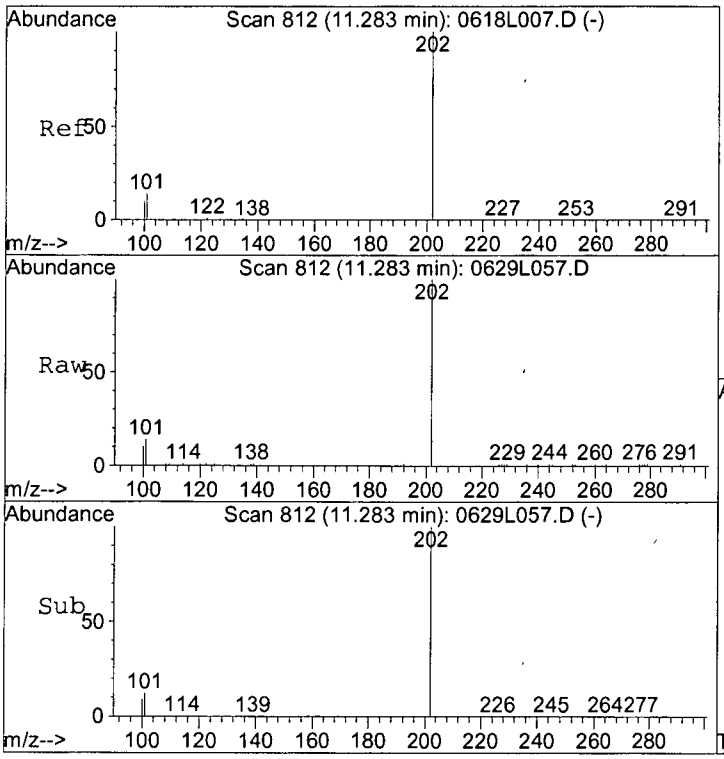




#13
Anthracene
Concen: 118.05258 ppb
RT: 9.96 min Scan# 699
Delta R.T. 0.01 min
Lab File: 0629L057.D
Acq: 30 Jun 15 13:32

Tgt Ion:178	Resp:	1322	
Ion	Ratio	Lower	Upper
178	100		
179	15.1	10.9	20.3
176	17.3	12.2	22.6

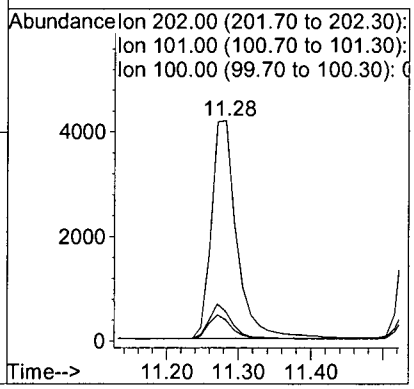


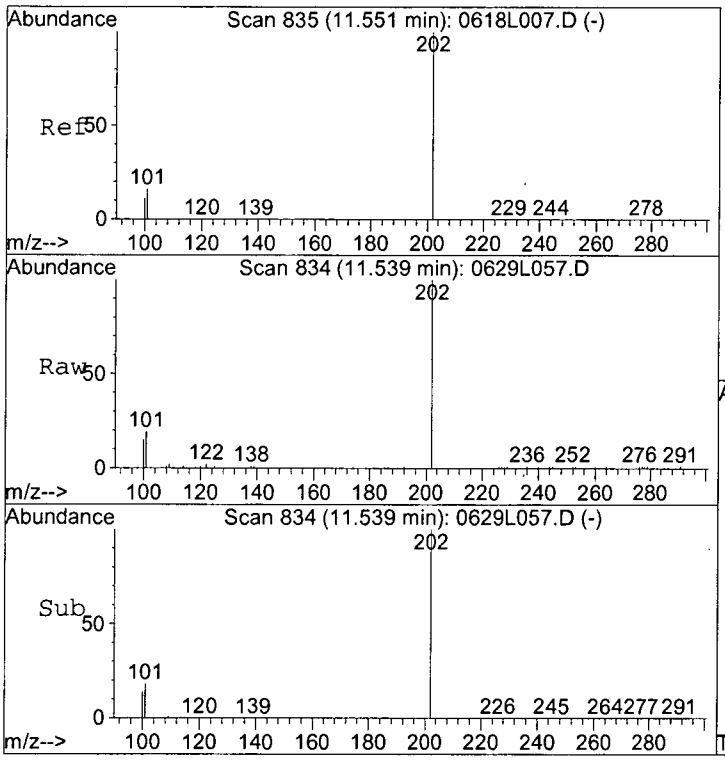


#14
Fluoranthene
Concen: 740.63532 ppb
RT: 11.28 min Scan# 812
Delta R.T. -0.00 min
Lab File: 0629L057.D
Acq: 30 Jun 15 13:32

Tgt Ion:202 Resp: 10344

Ion	Ratio	Lower	Upper
202	100		
101	12.6	9.7	18.1
100	8.8	7.4	13.7

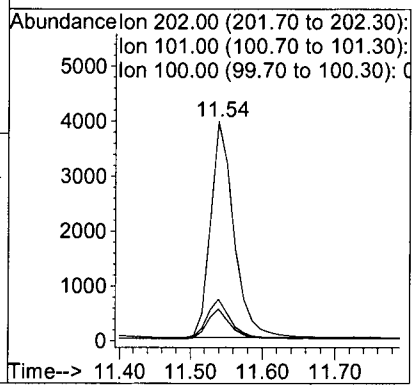


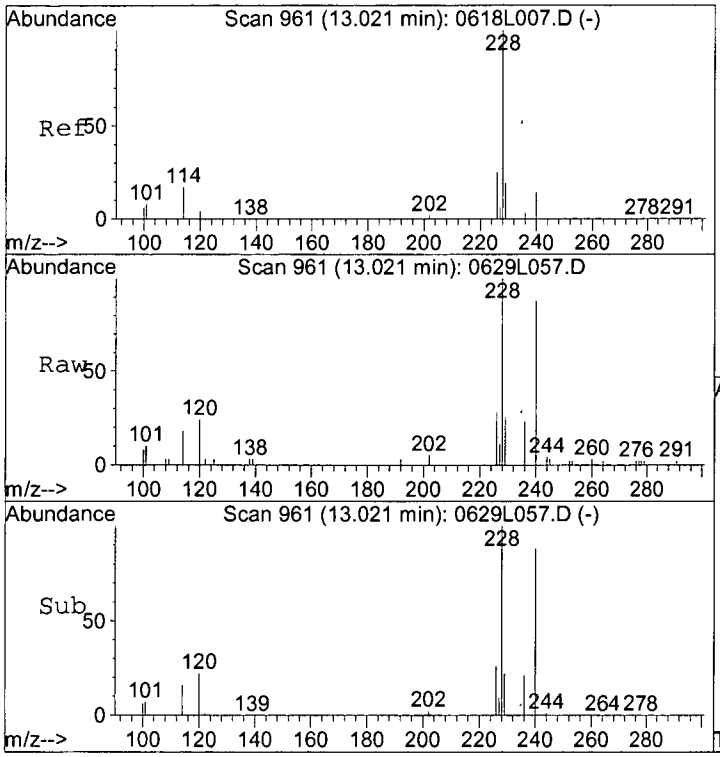


#16
Pyrene
Concen: 532.98132 ppb
RT: 11.54 min Scan# 834
Delta R.T. -0.00 min
Lab File: 0629L057.D
Acq: 30 Jun 15 13:32

Tgt Ion:202 Resp: 8910

Ion	Ratio	Lower	Upper
202	100		
101	18.2	11.0	20.4
100	13.8	7.9	14.7

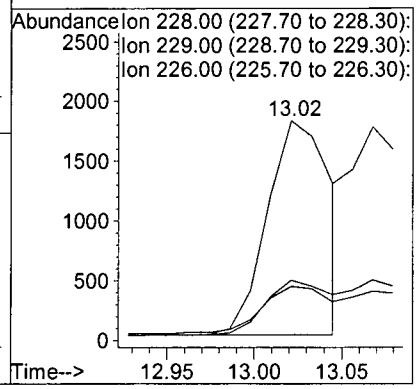


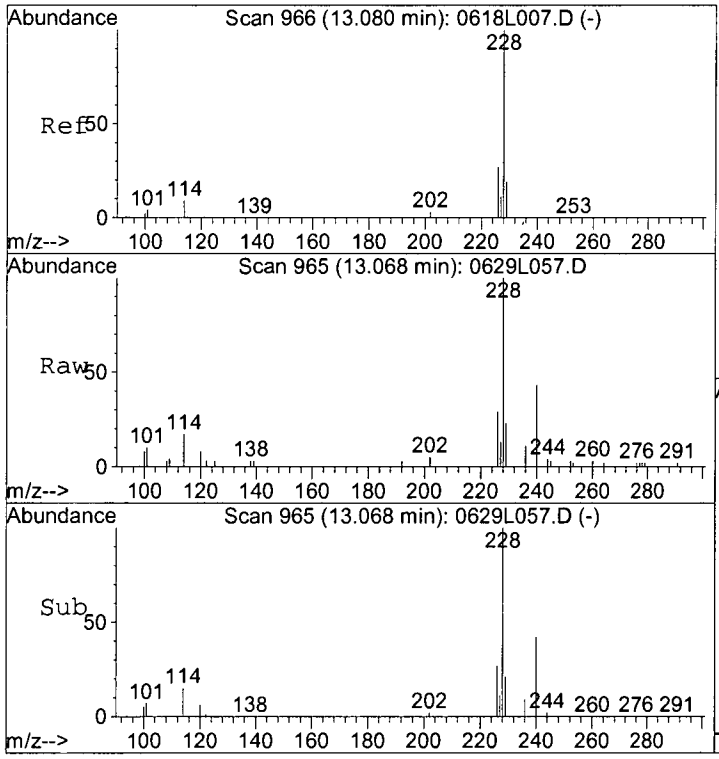


#18
Benz (a) anthracene
Concen: 365.15292 ppb
RT: 13.02 min Scan# 961
Delta R.T. 0.00 min
Lab File: 0629L057.D
Acq: 30 Jun 15 13:32

Tgt Ion:228 Resp: 4419

Ion	Ratio	Lower	Upper
228	100		
229	21.5	13.4	25.0
226	25.8	17.2	32.0

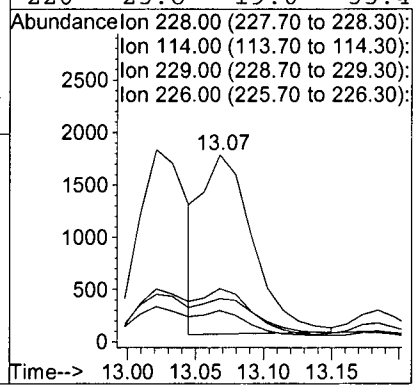


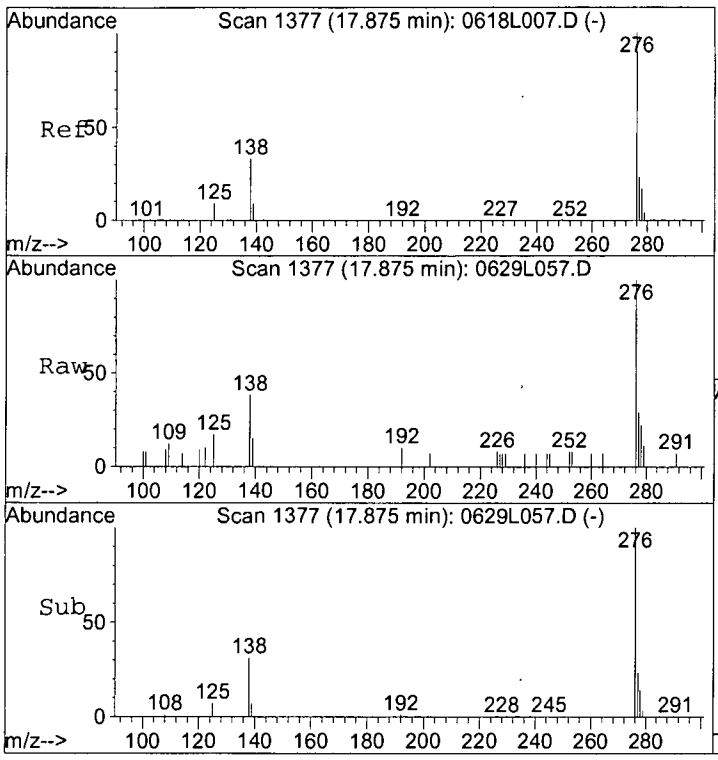


#19
Chrysene
Concen: 66.87710 ppb
RT: 13.07 min Scan# 965
Delta R.T. 0.00 min
Lab File: 0629L057.D
Acq: 30 Jun 15 13:32

Tgt Ion:228 Resp: 4472

Ion	Ratio	Lower	Upper
228	100		
114	14.5	9.5	17.6
229	19.9	13.6	25.2
226	25.8	19.0	35.4

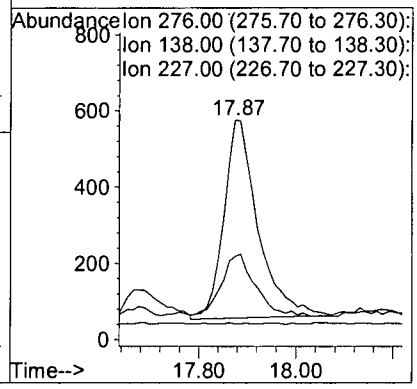


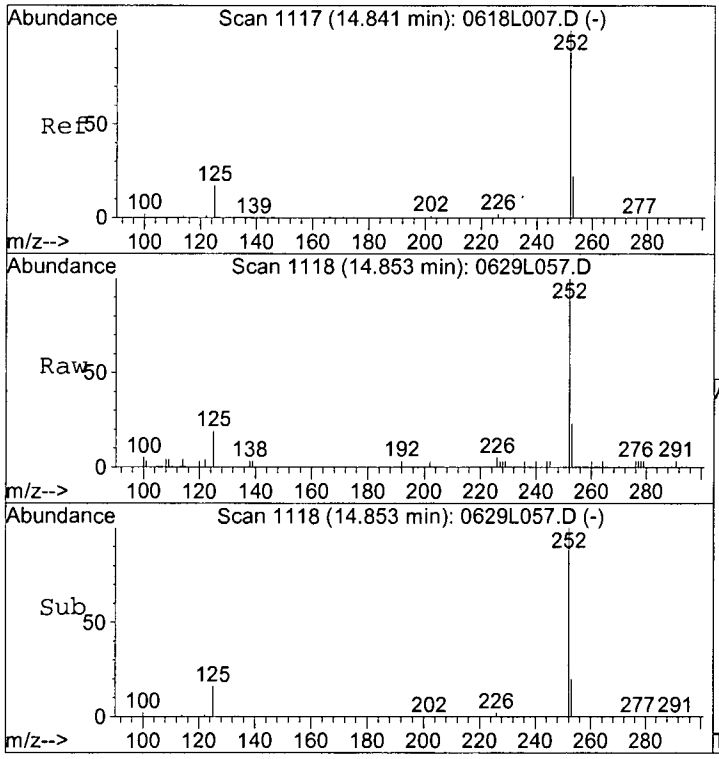


#20
Indeno (1,2,3-cd) pyrene
Concen: 178.31204 ppb
RT: 17.87 min Scan# 1377
Delta R.T. -0.00 min
Lab File: 0629L057.D
Acq: 30 Jun 15 13:32

Tgt Ion:276 Resp: 2541

Ion	Ratio	Lower	Upper
276	100		
138	30.9	23.0	42.8
227	0.0	0.1	0.1#

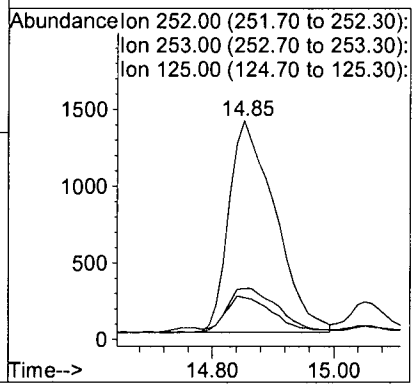


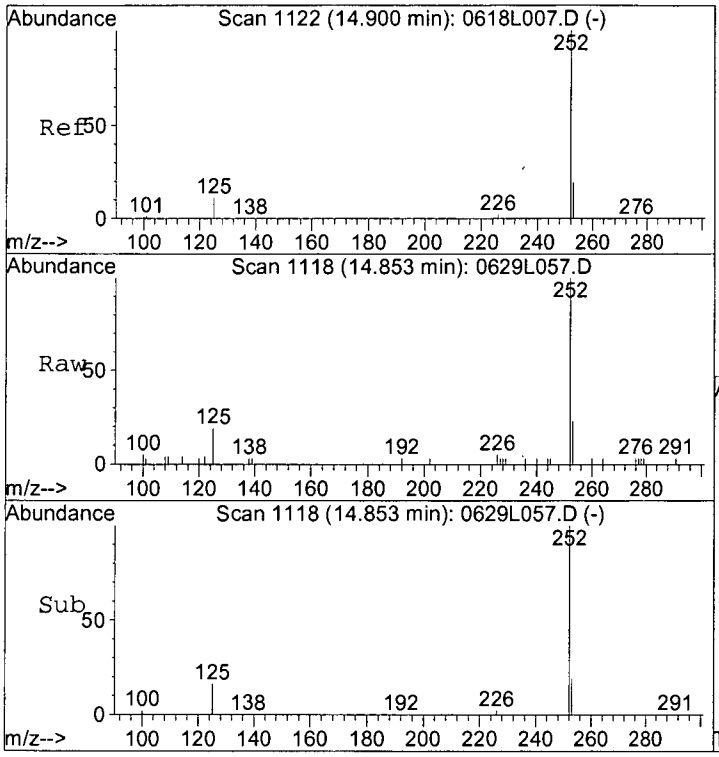


#22
Benzo (b) fluoranthene
Concen: 525.67921 ppb
RT: 14.85 min Scan# 1118
Delta R.T. 0.01 min
Lab File: 0629L057.D
Acq: 30 Jun 15 13:32

Tgt Ion:252 Resp: 7353

Ion	Ratio	Lower	Upper
252	100		
253	19.3	15.7	29.1
125	16.5	11.3	20.9

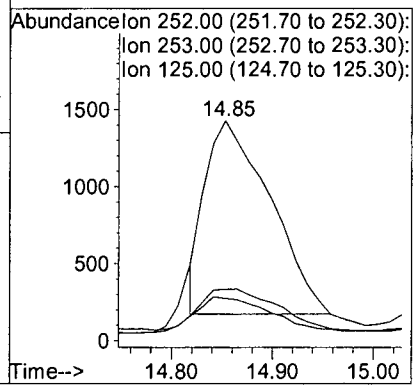


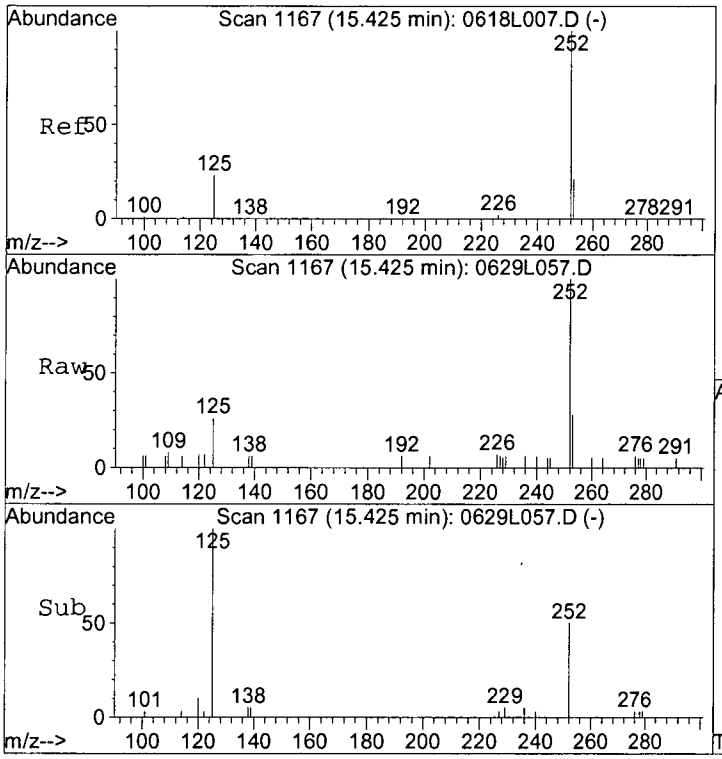


#23
Benzo (k) fluoranthene
Concen: 418.28657 ppb
RT: 14.85 min Scan# 1118
Delta R.T. -0.04 min
Lab File: 0629L057.D
Acq: 30 Jun 15 13:32

Tgt Ion:252 Resp: 5665

Ion	Ratio	Lower	Upper
252	100		
253	20.3	15.8	29.3
125	16.0	11.6	21.5

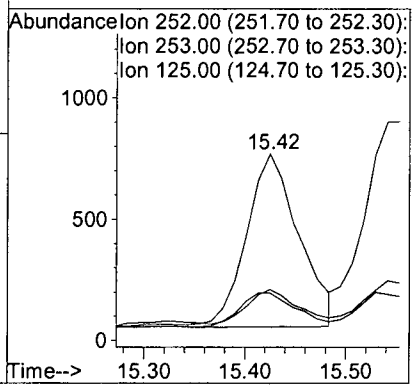


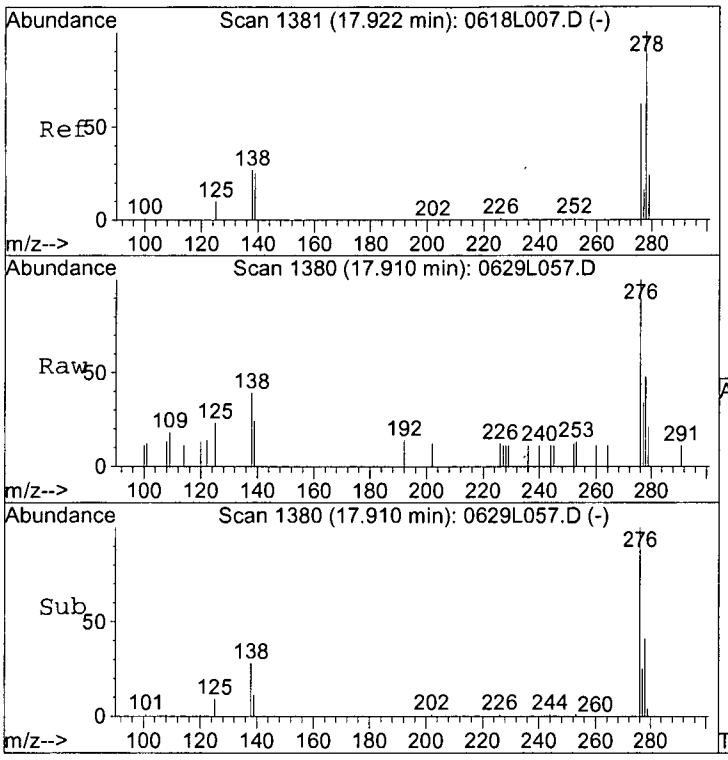


#24
Benzo (a) pyrene
Concen: 213.11787 ppb
RT: 15.42 min Scan# 1167
Delta R.T. 0.01 min
Lab File: 0629L057.D
Acq: 30 Jun 15 13:32

Tgt Ion:252 Resp: 2592

Ion	Ratio	Lower	Upper
252	100		
253	19.5	15.2	28.2
125	19.7	16.1	29.9

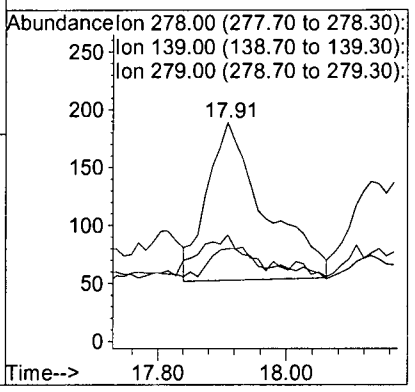


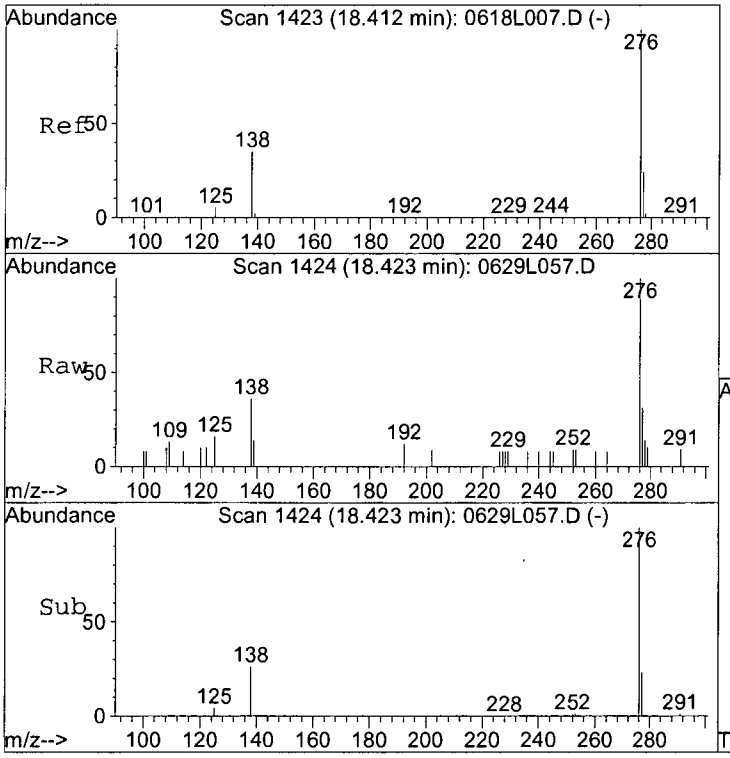


#25
Dibenz (a,h) anthracene
Concen: 63.07366 ppb
RT: 17.91 min Scan# 1380
Delta R.T. -0.00 min
Lab File: 0629L057.D
Acq: 30 Jun 15 13:32

Tgt Ion:278 Resp: 846

Ion	Ratio	Lower	Upper
278	100		
139	30.3	18.5	34.3
279	21.8	16.7	30.9

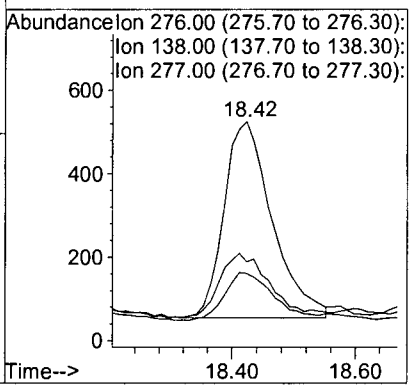




#26
Benzo (g,h,i) perylene
Concen: 184.71984 ppb
RT: 18.42 min Scan# 1424
Delta R.T. 0.01 min
Lab File: 0629L057.D
Acq: 30 Jun 15 13:32

Tgt Ion:276 Resp: 2551

Ion	Ratio	Lower	Upper
276	100		
138	28.3	23.7	44.1
277	23.8	17.3	32.1



EPA 8270D LL SOILS

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-SS034-0001
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17446
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 12.3 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.034 J	0.057	0.0190	0.0100	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHENE	0.0190 U	0.057	0.0190	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	ACENAPHTHYLENE	0.0190 U	0.057	0.0190	0.0100	mg/kg	06/22/15	06/30/15
8270D-LL	ANTHRACENE	0.036 J	0.057	0.0190	0.0091	mg/kg	06/22/15	06/30/15
8270D-LL	BENZ (A) ANTHRACENE	0.14	0.057	0.0190	0.0100	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (A) PYRENE	0.045 J	0.057	0.0190	0.0100	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (B) FLUORANTHENE	0.070	0.057	0.0190	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.035 J	0.057	0.0190	0.0150	mg/kg	06/22/15	06/30/15
8270D-LL	BENZO (K) FLUORANTHENE	0.0190 U	0.057	0.0190	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	CHRYSENE	0.0190 U	0.057	0.0190	0.0091	mg/kg	06/22/15	06/30/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.017 J	0.057	0.0190	0.0100	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORANTHENE	0.15	0.057	0.0190	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	FLUORENE	0.018 J	0.057	0.0190	0.0110	mg/kg	06/22/15	06/30/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.039 J	0.057	0.0190	0.0100	mg/kg	06/22/15	06/30/15
8270D-LL	NAPHTHALENE	0.018 J	0.057	0.0190	0.0100	mg/kg	06/22/15	06/30/15
8270D-LL	PHENANTHRENE	0.19	0.057	0.0190	0.0130	mg/kg	06/22/15	06/30/15
8270D-LL	PYRENE	0.11	0.057	0.0190	0.0140	mg/kg	06/22/15	06/30/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	59.5	45-105			%	06/22/15	06/30/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	49.2	35-100			%	06/22/15	06/30/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	66.8	30-125			%	06/22/15	06/30/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L058
Instrument: Linus
Sequence: L150629
Dilution Factor: 10
Initials: MA

Printed: 07/02/15 4:55:06 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L058.D Vial: 58
Acq On : 30 Jun 15 13:59 Operator: MA
Sample : AZ17446S03 1/30.02G x10 Inst : Linus
Misc : soil Multiplr: 333.11

Quant Time: Jul 1 14:16 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.05	136	9010	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.10	164	4346	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.85	188	7458	2.50000 ppb		-0.01
15) Chrysene-D12(IS)	13.04	240	8477	2.50000 ppb		0.01
21) Perylene-D12(IS)	15.67	264	5212	2.50000 ppb		0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.20	82	110m	40.94027 ppb		0.02
Spiked Amount 83.278			Recovery = 49.161%			
7) Surrogate Recovery (FBP)	7.31	172	392	49.55974 ppb		0.00
Spiked Amount 83.278			Recovery = 59.512%			
17) Surrogate Recovery (TPH)	11.73	244	518	55.60935 ppb		0.00
Spiked Amount 83.278			Recovery = 66.775%			
Target Compounds						Qvalue
3) Naphthalene	6.07	128	239	16.20639 ppb		95
4) 2-Methylnaphthalene	6.89	142	268	29.96502 ppb		91
5) 1-Methylnaphthalene	7.00	142	242	24.09977 ppb		98
10) Fluorene	8.76	166	153	16.16641 ppb		89
12) Phenanthrene	9.88	178	2214	163.92653 ppb		98
13) Anthracene	9.94	178	444	31.79651 ppb	#	87
14) Fluoranthene	11.28	202	2322	133.33082 ppb		97
16) Pyrene	11.54	202	1854	99.42869 ppb		93
18) Benz (a) anthracene	13.02	228	1076	121.35392 ppb		92
20) Indeno (1,2,3-cd) pyrene	17.90	276	543	34.16202 ppb	#	98
22) Benzo (b) fluoranthene	14.86	252	1646	61.77739 ppb		96
24) Benzo (a) pyrene	15.44	252	521	39.46592 ppb		92
25) Dibenz (a,h) anthracene	17.93	278	211	14.49305 ppb	#	86
26) Benzo (g,h,i) perylene	18.45	276	456	30.42059 ppb		93

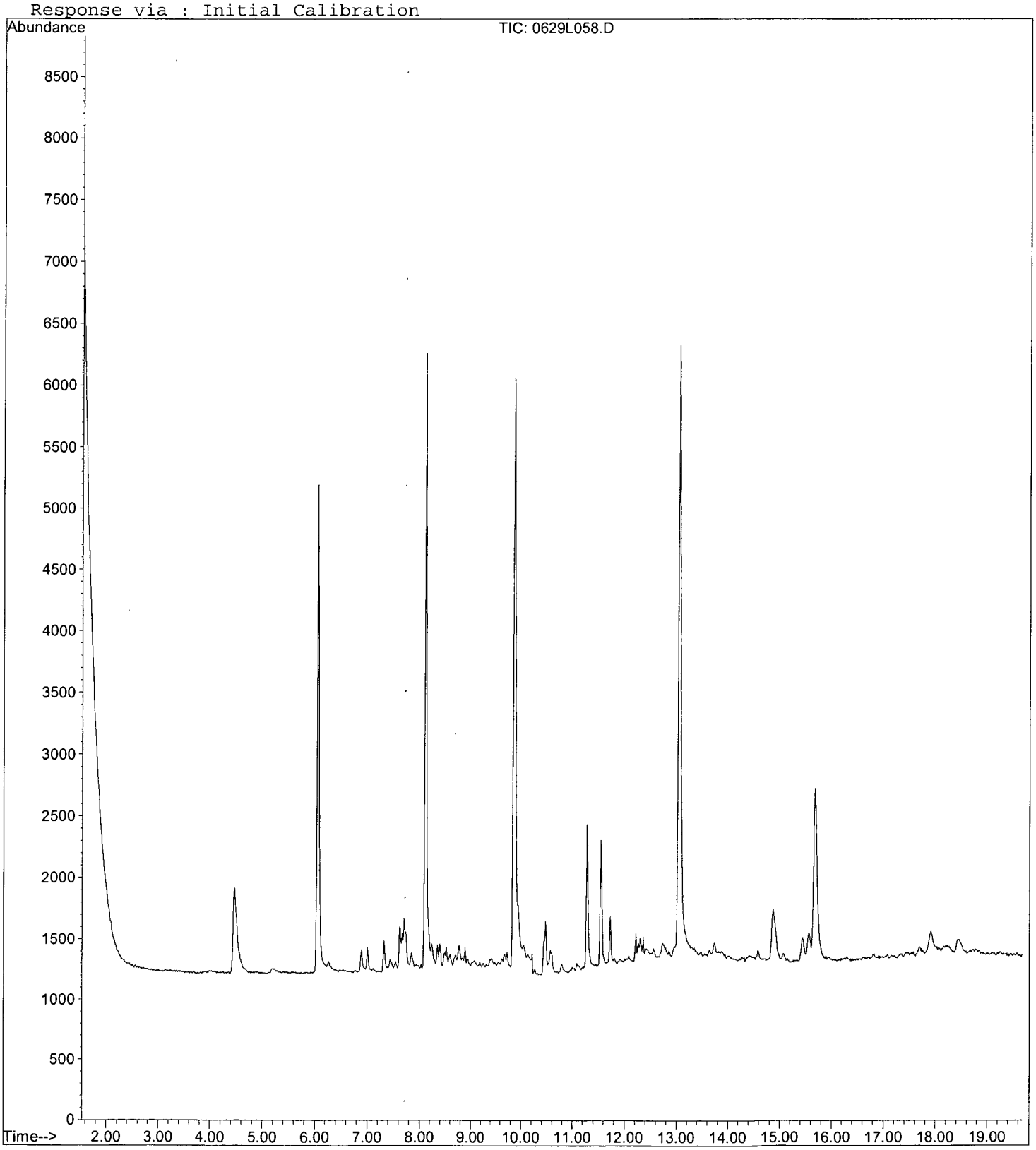
(#) = qualifier out of range (m) = manual integration

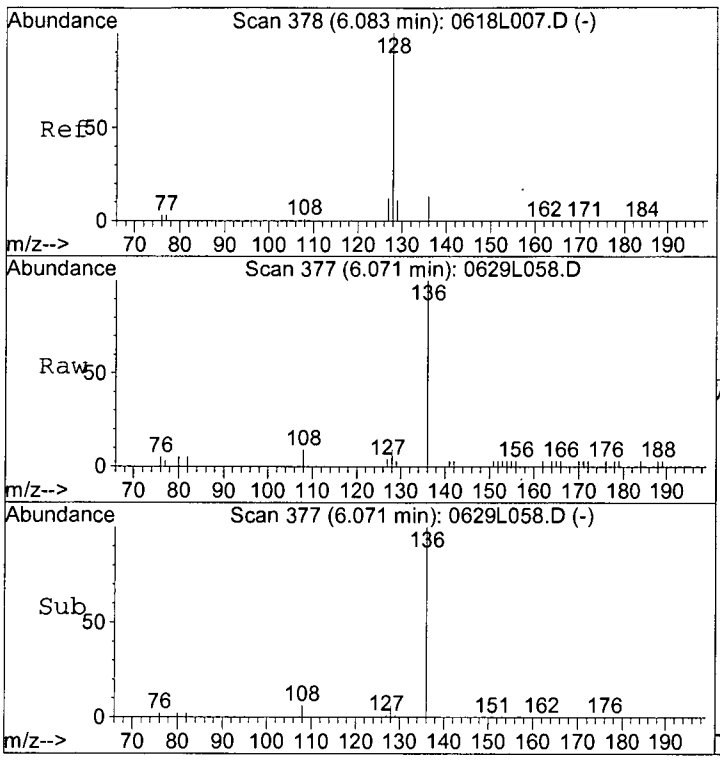
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L058.D Vial: 58
Acq On : 30 Jun 15 13:59 Operator: MA
Sample : AZ17446S03 1/30.02G x10 Inst : Linus
Misc : soil Multiplr: 333.11

Quant Time: Jul 1 14:16 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration

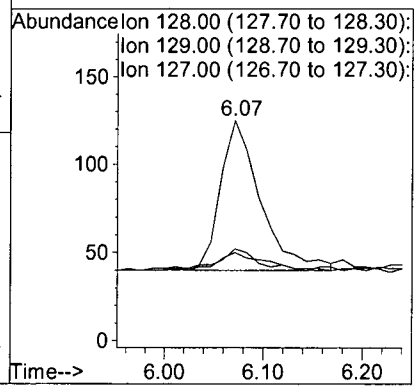


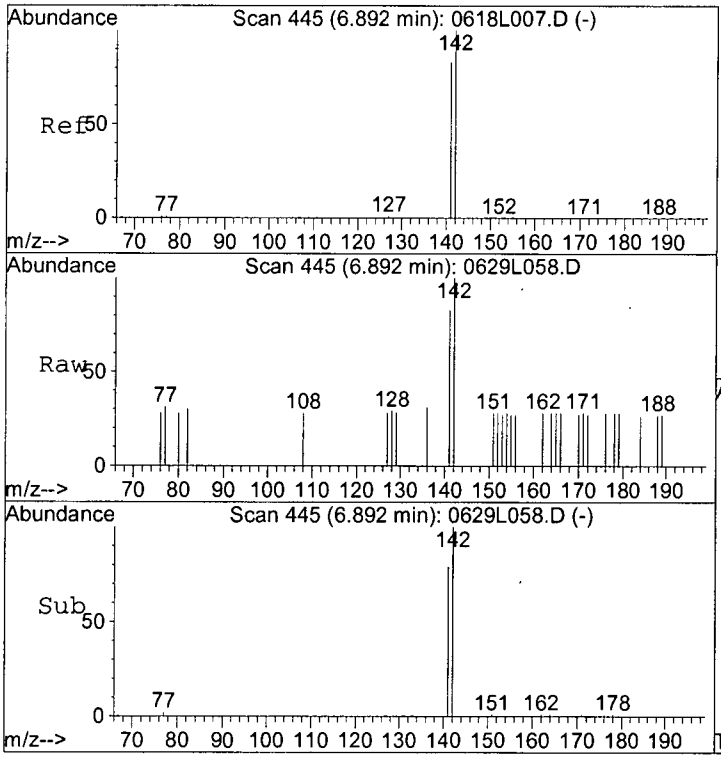


#3
Naphthalene
Concen: 16.20639 ppb
RT: 6.07 min Scan# 377
Delta R.T. 0.00 min
Lab File: 0629L058.D
Acq: 30 Jun 15 13:59

Tgt Ion:128 Resp: 239

Ion	Ratio	Lower	Upper
128	100		
129	11.9	7.4	13.8
127	14.3	8.4	15.6

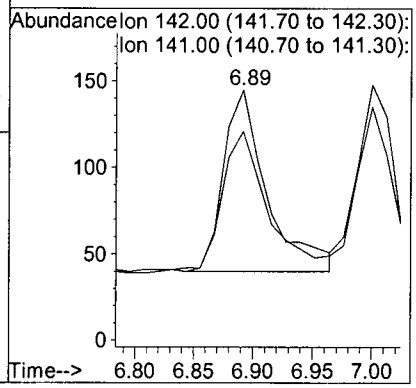


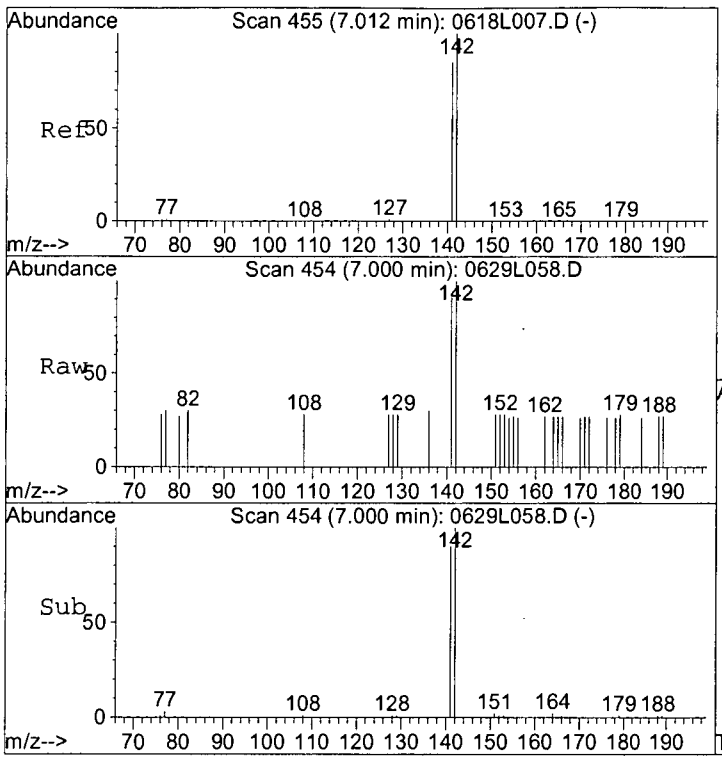


#4
2-Methylnaphthalene
Concen: 29.96502 ppb
RT: 6.89 min Scan# 445
Delta R.T. 0.01 min
Lab File: 0629L058.D
Acq: 30 Jun 15 13:59

Tgt Ion:142 Resp: 268

Ion	Ratio	Lower	Upper
142	100		
141	75.2	58.3	108.3

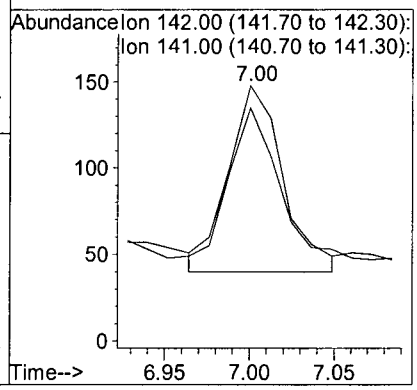


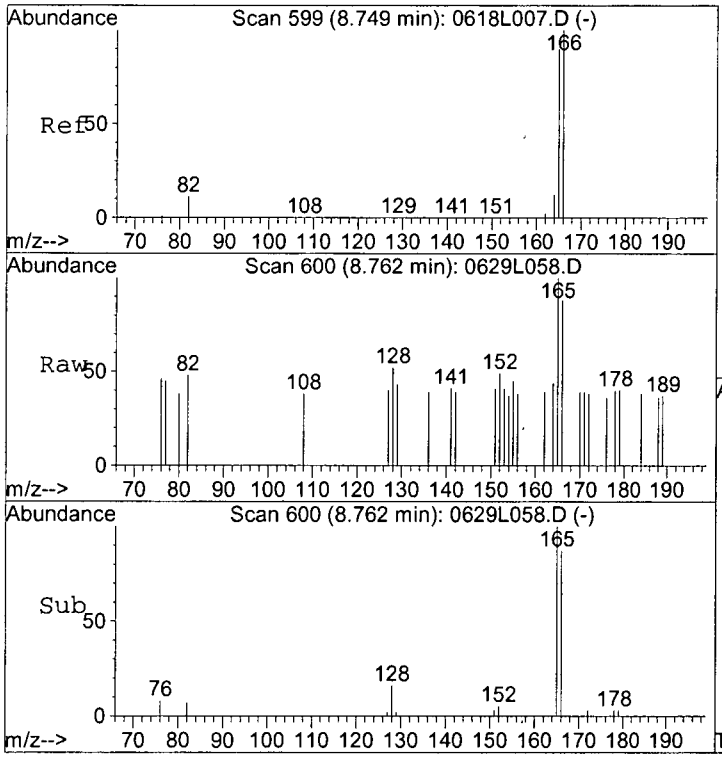


#5
1-Methylnaphthalene
Concen: 24.09977 ppb
RT: 7.00 min Scan# 454
Delta R.T. 0.00 min
Lab File: 0629L058.D
Acq: 30 Jun 15 13:59

Tgt Ion:142 Resp: 242

Ion	Ratio	Lower	Upper
142	100		
141	86.9	59.5	110.5

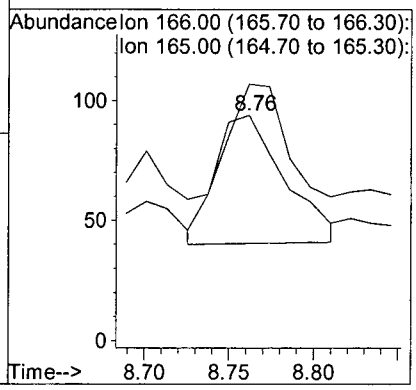


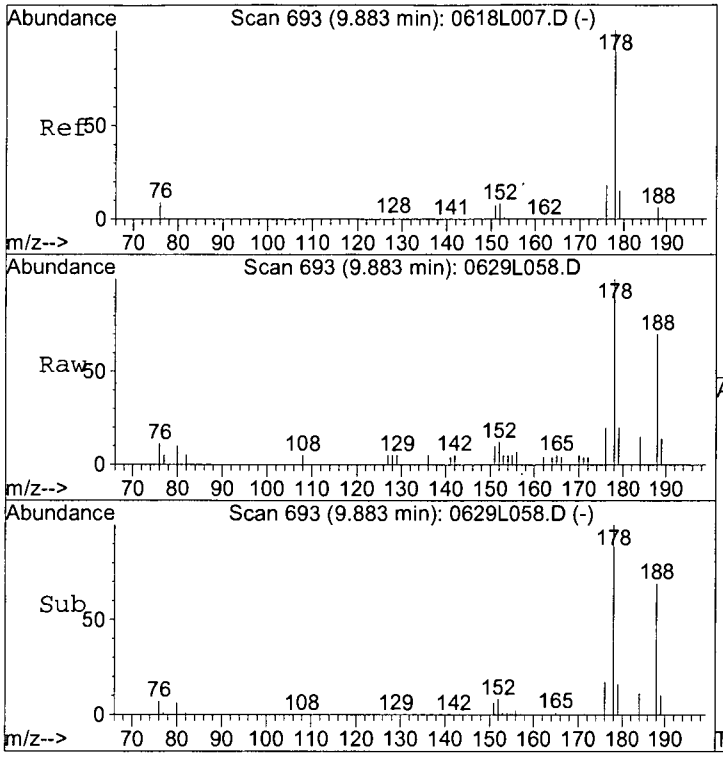


#10
Fluorene
Concen: 16.16641 ppb
RT: 8.76 min Scan# 600
Delta R.T. 0.01 min
Lab File: 0629L058.D
Acq: 30 Jun 15 13:59

Tgt Ion:166 Resp: 153

Ion	Ratio	Lower	Upper
166	100		
165	100.0	63.1	117.1

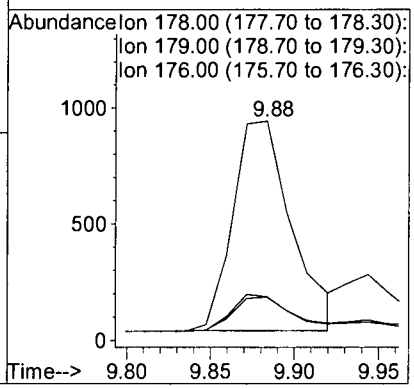


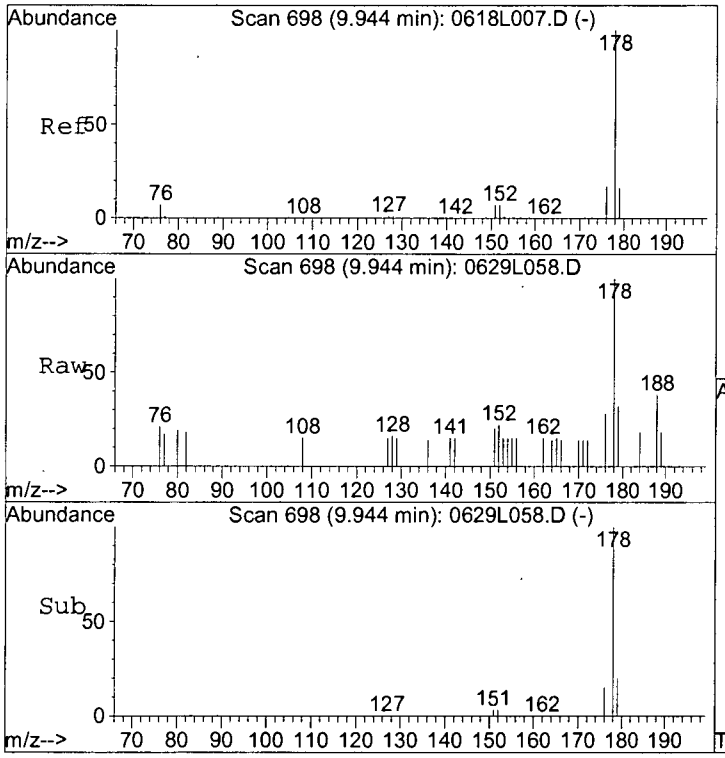


#12
Phenanthrene
Concen: 163.92653 ppb
RT: 9.88 min Scan# 693
Delta R.T. 0.00 min
Lab File: 0629L058.D
Acq: 30 Jun 15 13:59

Tgt Ion:178 Resp: 2214

Ion	Ratio	Lower	Upper
178	100		
179	15.9	10.5	19.5
176	16.7	12.3	22.8

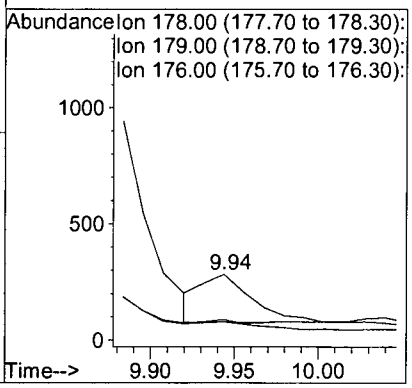


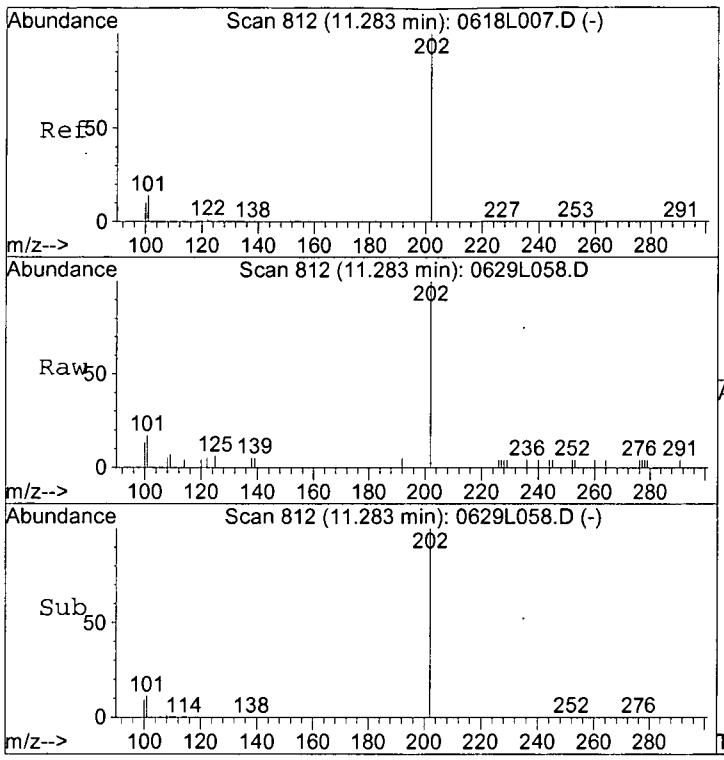


#13
Anthracene
Concen: 31.79651 ppb
RT: 9.94 min Scan# 698
Delta R.T. 0.00 min
Lab File: 0629L058.D
Acq: 30 Jun 15 13:59

Tgt Ion:178 Resp: 444

Ion	Ratio	Lower	Upper
178	100		
179	7.3	10.9	20.3#
176	14.6	12.2	22.6

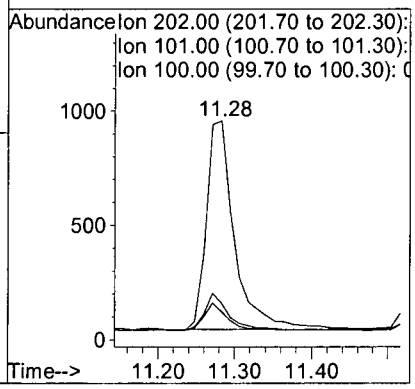


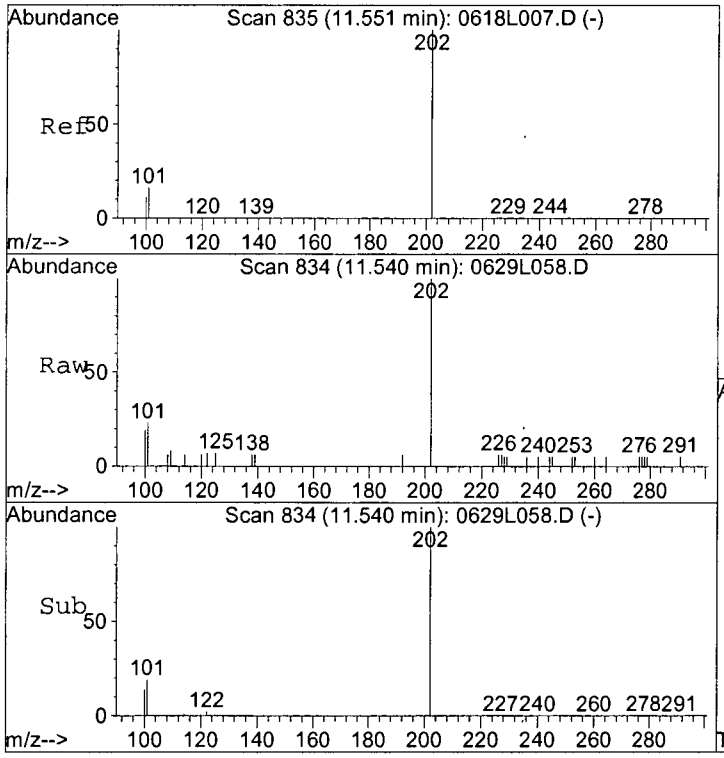


#14
Fluoranthene
Concen: 133.33082 ppb
RT: 11.28 min Scan# 812
Delta R.T. 0.00 min
Lab File: 0629L058.D
Acq: 30 Jun 15 13:59

Tgt Ion:202 Resp: 2322

Ion	Ratio	Lower	Upper
202	100		
101	13.1	9.7	18.1
100	9.1	7.4	13.7

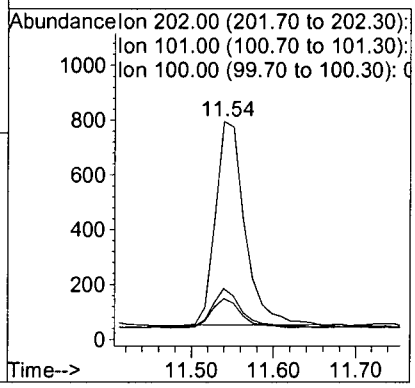


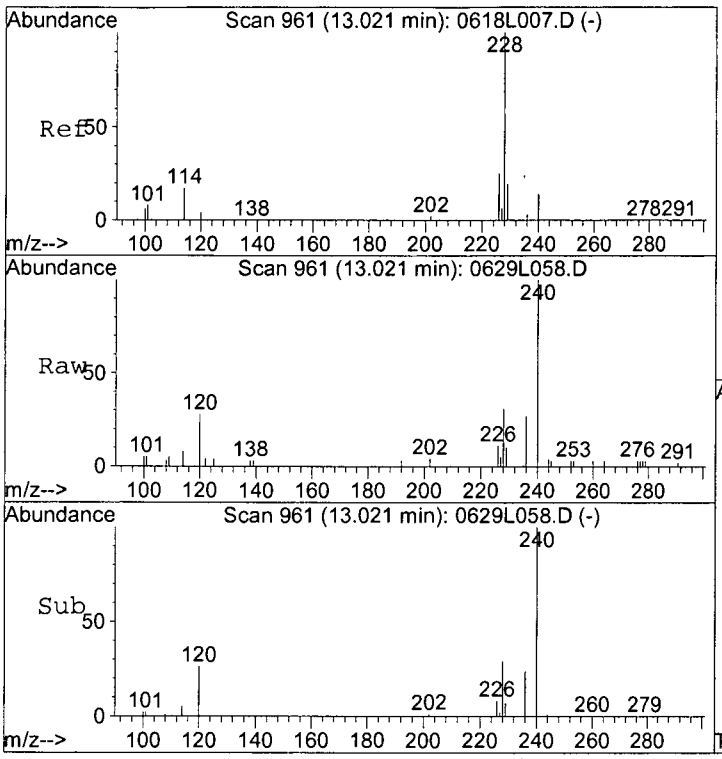


#16
Pyrene
Concen: 99.42869 ppb
RT: 11.54 min Scan# 834
Delta R.T. 0.00 min
Lab File: 0629L058.D
Acq: 30 Jun 15 13:59

Tgt Ion:202 Resp: 1854

Ion	Ratio	Lower	Upper
202	100		
101	18.7	11.0	20.4
100	14.4	7.9	14.7

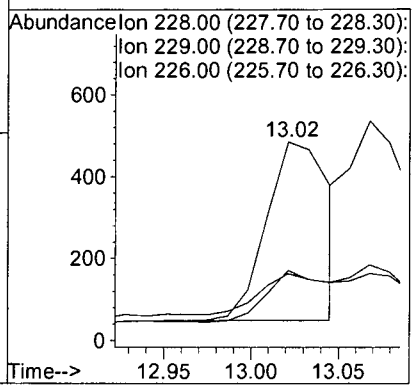


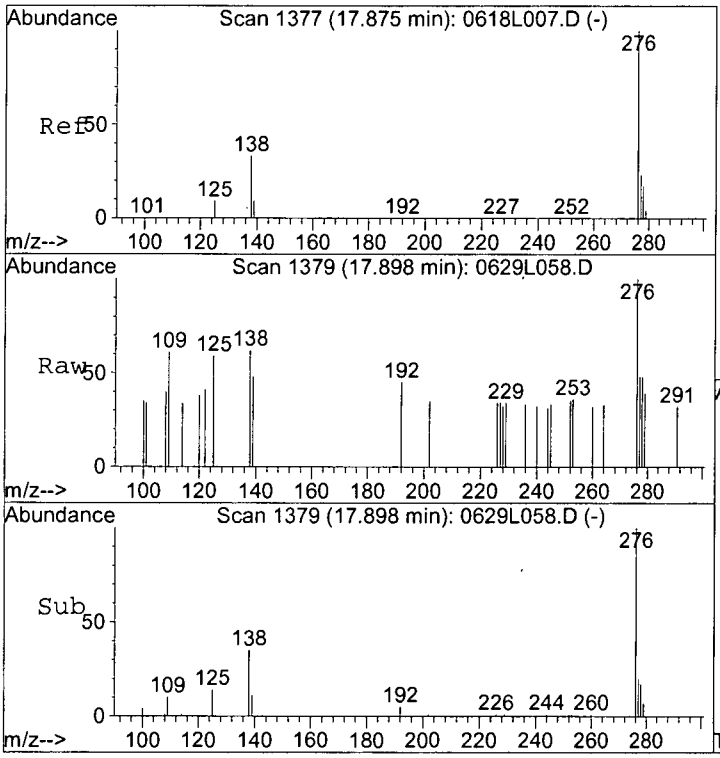


#18
Benz (a) anthracene
Concen: 121.35392 ppb
RT: 13.02 min Scan# 961
Delta R.T. 0.00 min
Lab File: 0629L058.D
Acq: 30 Jun 15 13:59

Tgt Ion:228 Resp: 1076

Ion	Ratio	Lower	Upper
228	100		
229	22.9	13.4	25.0
226	28.6	17.2	32.0

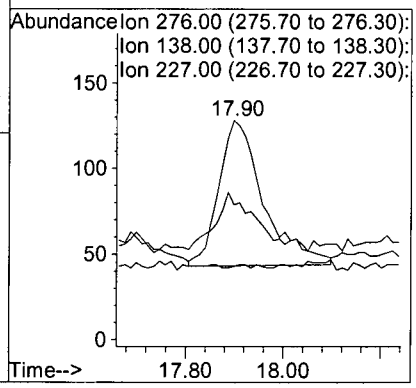


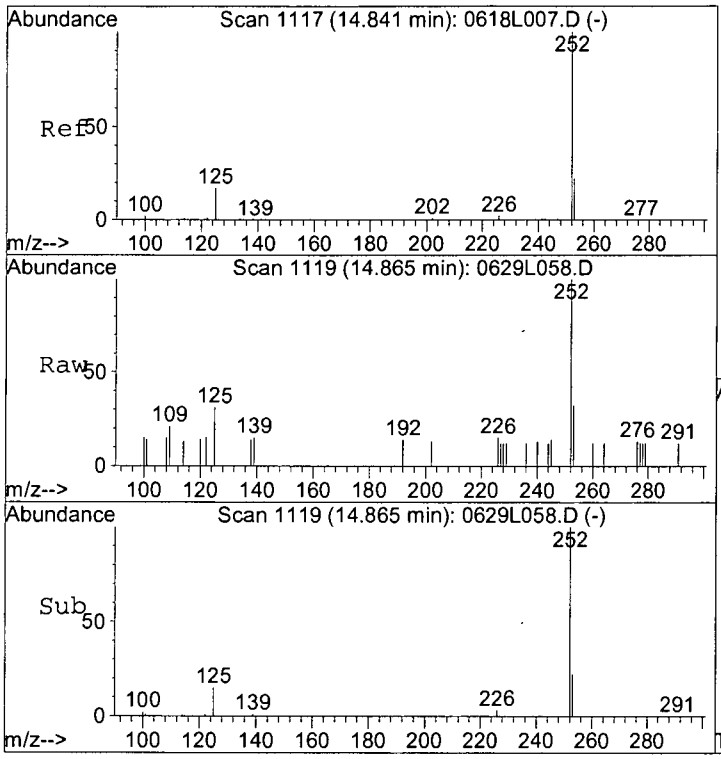


#20
Indeno (1,2,3-cd) pyrene
Concen: 34.16202 ppb
RT: 17.90 min Scan# 1379
Delta R.T. 0.02 min
Lab File: 0629L058.D
Acq: 30 Jun 15 13:59

Tgt Ion:276 Resp: 543

Ion	Ratio	Lower	Upper
276	100		
138	31.7	23.0	42.8
227	0.0	0.1	0.1#

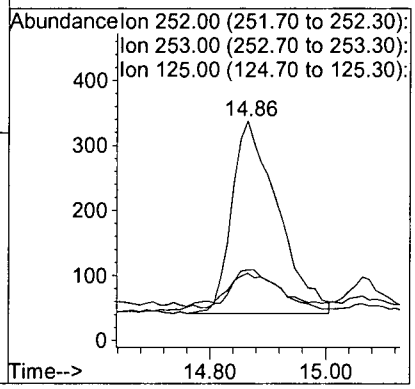


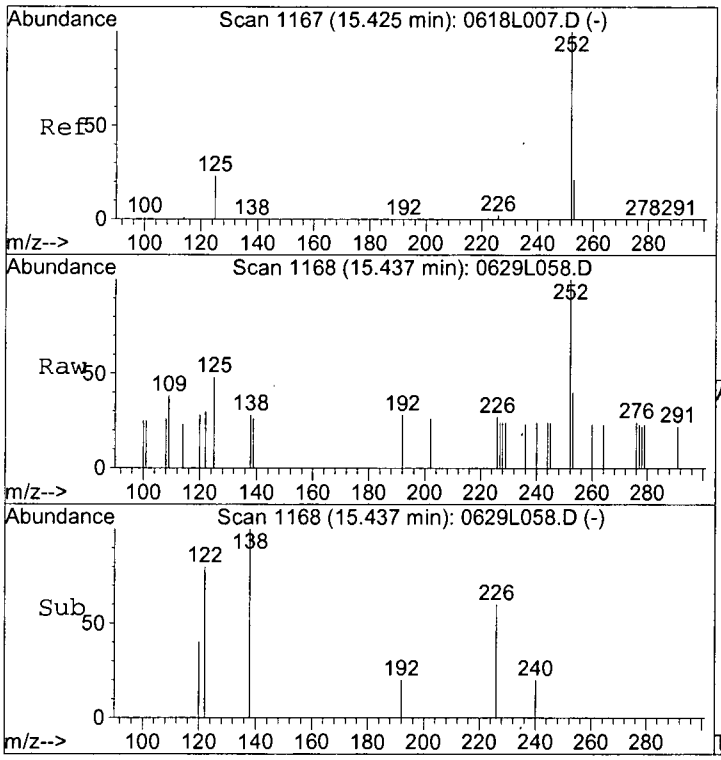


#22
Benzo (b) fluoranthene
Concen: 61.77739 ppb
RT: 14.86 min Scan# 1119
Delta R.T. 0.02 min
Lab File: 0629L058.D
Acq: 30 Jun 15 13:59

Tgt Ion:252 Resp: 1646

Ion	Ratio	Lower	Upper
252	100		
253	20.3	15.7	29.1
125	17.2	11.3	20.9

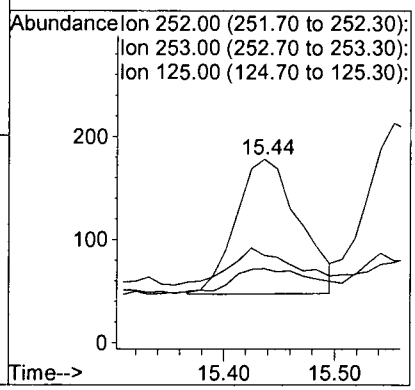


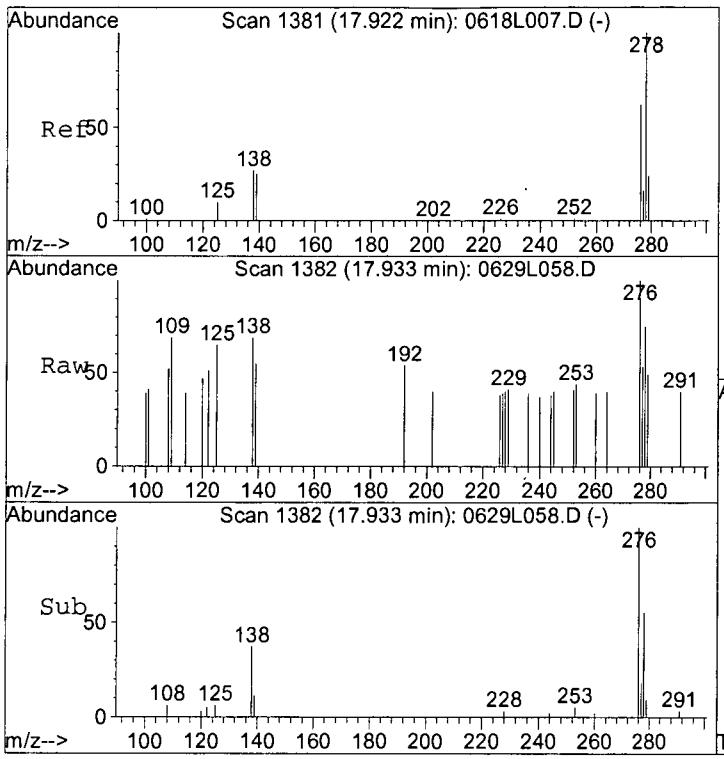


#24
Benzo (a) pyrene
Concen: 39.46592 ppb
RT: 15.44 min Scan# 1168
Delta R.T. 0.02 min
Lab File: 0629L058.D
Acq: 30 Jun 15 13:59

Tgt Ion:252 Resp: 521

Ion	Ratio	Lower	Upper
252	100		
253	17.1	15.2	28.2
125	20.2	16.1	29.9

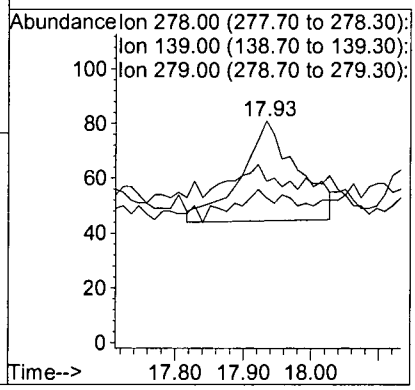


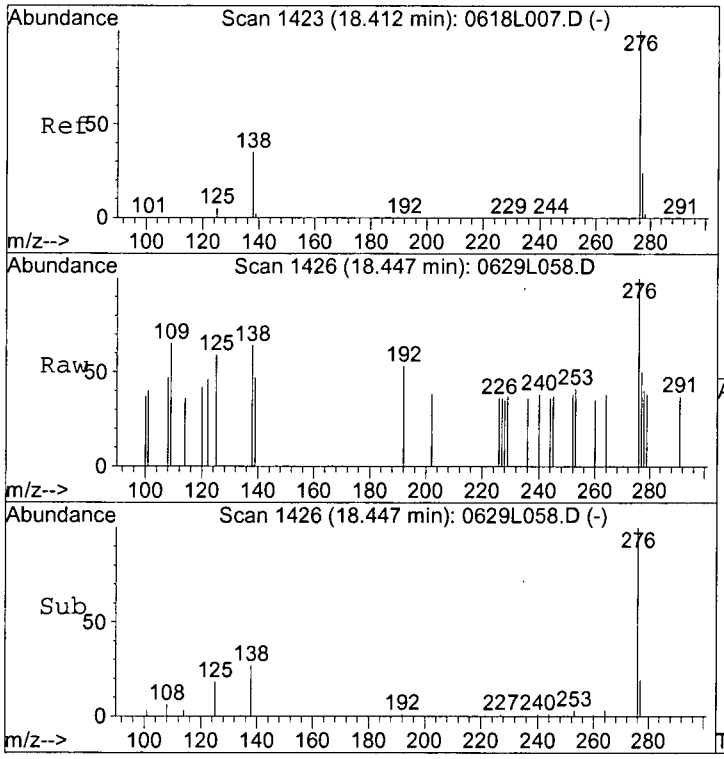


#25
Dibenz (a,h) anthracene
Concen: 14.49305 ppb
RT: 17.93 min Scan# 1382
Delta R.T. 0.02 min
Lab File: 0629L058.D
Acq: 30 Jun 15 13:59

Tgt Ion:278 Resp: 211

Ion	Ratio	Lower	Upper
278	100		
139	18.2	18.5	34.3#
279	18.2	16.7	30.9

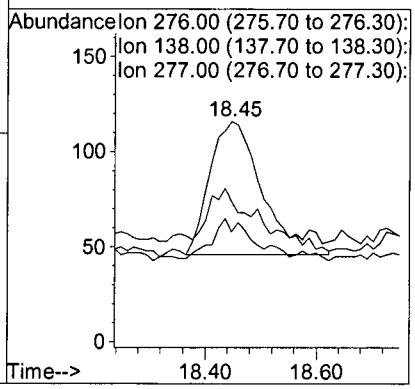




#26
Benzo (g,h,i) perylene
Concen: 30.42059 ppb
RT: 18.45 min Scan# 1426
Delta R.T. 0.04 min
Lab File: 0629L058.D
Acq: 30 Jun 15 13:59

Tgt Ion:276 Resp: 456

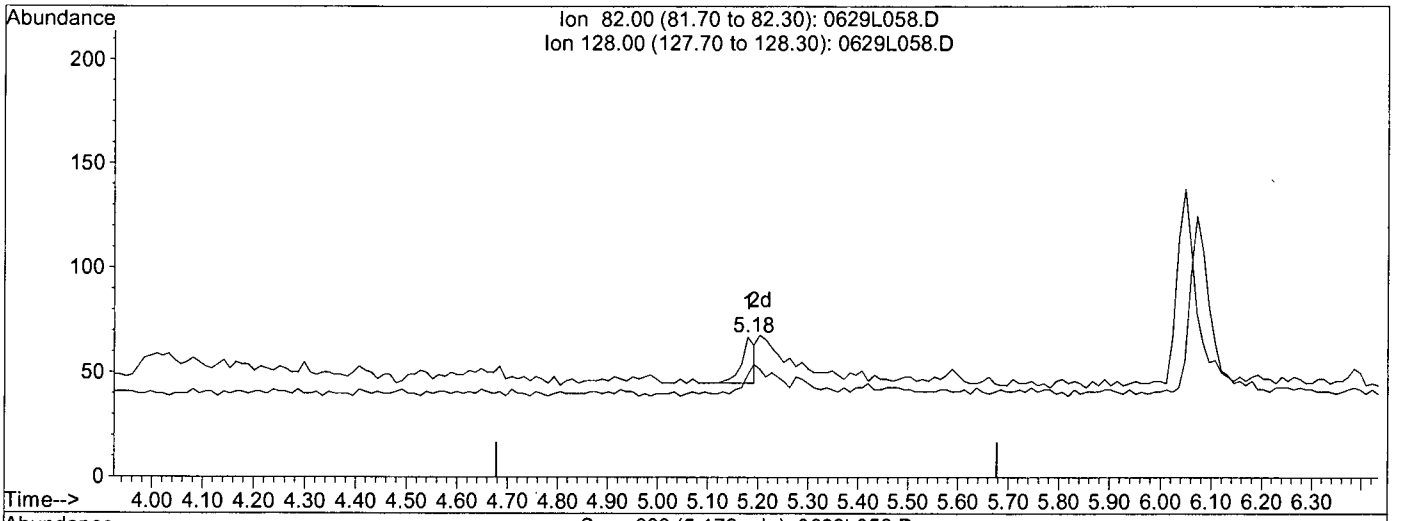
Ion	Ratio	Lower	Upper
276	100		
138	30.0	23.7	44.1
277	21.4	17.3	32.1

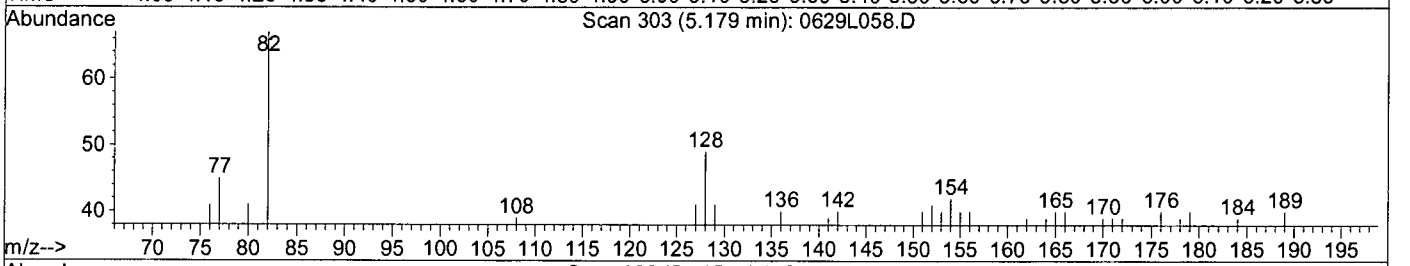


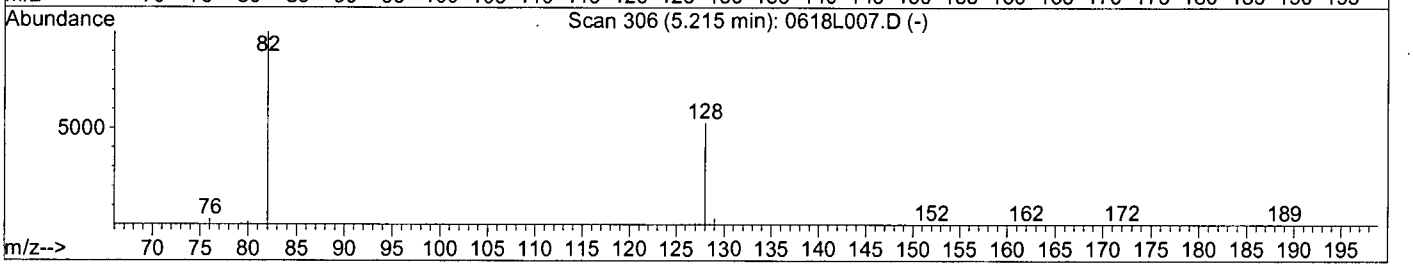
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L058.D Vial: 58
Acq On : 30 Jun 15 13:59 Operator: MA
Sample : AZ17446S03 1/30.02G x10 Inst : Linus
Misc : soil Multiplr: 333.11
Quant Time: Jun 30 14:32 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Multiple Level Calibration







TIC: 0629L058.D

(2) Surrogate Recovery (NBZ) (S)

5.18min 15.2596ppb

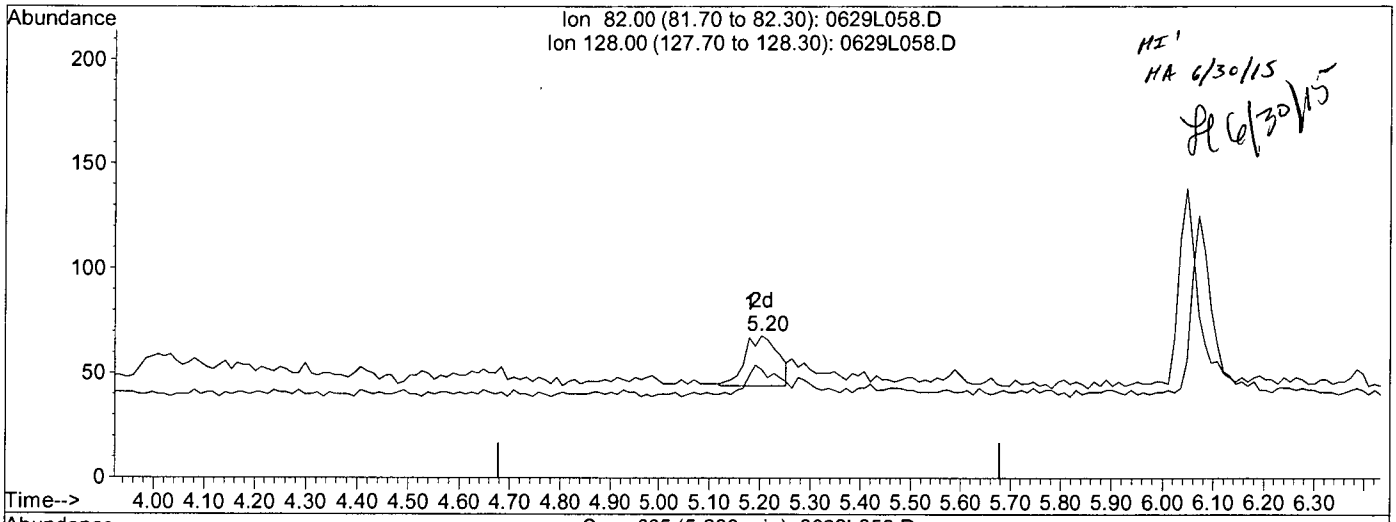
response 41

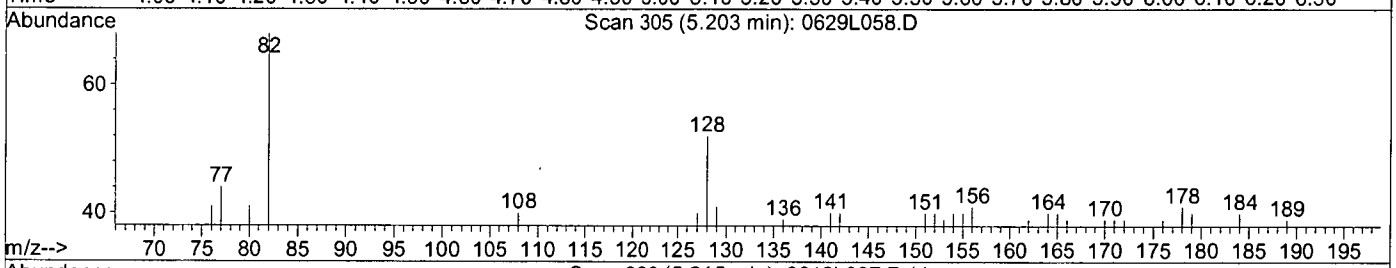
Ion	Exp%	Act%
82.00	100	100
128.00	52.70	40.91
0.00	0.00	0.00
0.00	0.00	0.00

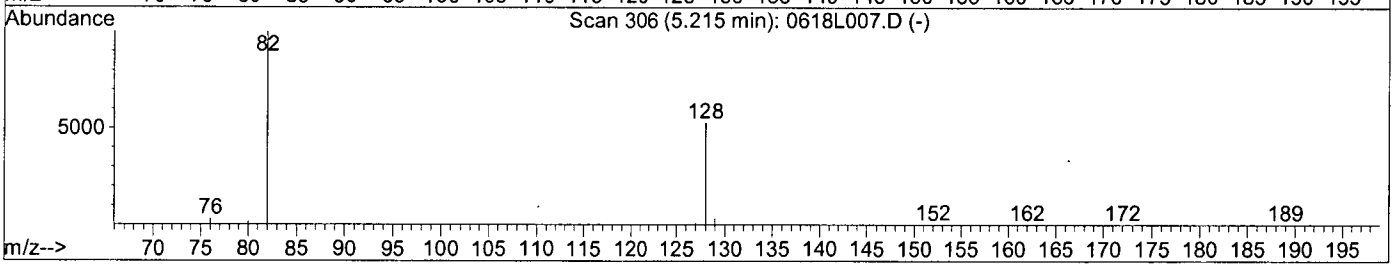
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L058.D Vial: 58
Acq On : 30 Jun 15 13:59 Operator: MA
Sample : AZ17446S03 1/30.02G x10 Inst : Linus
Misc : soil Multiplr: 333.11
Quant Time: Jun 30 14:32 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Multiple Level Calibration







TIC: 0629L058.D

(2) Surrogate Recovery (NBZ) (S)

5.20min 40.9403ppb m

response 110

Ion	Exp%	Act%
82.00	100	100
128.00	52.70	76.47#
0.00	0.00	0.00
0.00	0.00	0.00

EPA 8270D LL SOILS

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-SB034-0405
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17447
QCG: #SIMDD-150622A-198579

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.0 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0025 J	0.006	0.0020	0.0011	mg/kg	06/22/15	07/02/15
8270D-LL	ACENAPHTHENE	0.0013 J	0.006	0.0020	0.0012	mg/kg	06/22/15	07/02/15
8270D-LL	ACENAPHTHYLENE	0.0030 J	0.006	0.0020	0.0011	mg/kg	06/22/15	07/02/15
8270D-LL	ANTHRACENE	0.0065	0.006	0.0020	0.0010	mg/kg	06/22/15	07/02/15
8270D-LL	BENZ (A) ANTHRACENE	0.031	0.006	0.0020	0.0011	mg/kg	06/22/15	07/02/15
8270D-LL	BENZO (A) PYRENE	0.022	0.006	0.0020	0.0011	mg/kg	06/22/15	07/02/15
8270D-LL	BENZO (B) FLUORANTHENE	0.053	0.006	0.0020	0.0013	mg/kg	06/22/15	07/02/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.015	0.006	0.0020	0.0016	mg/kg	06/22/15	07/02/15
8270D-LL	BENZO (K) FLUORANTHENE	0.044	0.006	0.0020	0.0012	mg/kg	06/22/15	07/02/15
8270D-LL	CHRYSENE	0.0020 U	0.006	0.0020	0.0010	mg/kg	06/22/15	07/02/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.0020 U	0.006	0.0020	0.0011	mg/kg	06/22/15	07/02/15
8270D-LL	FLUORANTHENE	0.057	0.006	0.0020	0.0014	mg/kg	06/22/15	07/02/15
8270D-LL	FLUORENE	0.0020 J	0.006	0.0020	0.0012	mg/kg	06/22/15	07/02/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.0020 U	0.006	0.0020	0.0011	mg/kg	06/22/15	07/02/15
8270D-LL	NAPHTHALENE	0.0027 J	0.006	0.0020	0.0011	mg/kg	06/22/15	07/02/15
8270D-LL	PHENANTHRENE	0.024	0.006	0.0020	0.0013	mg/kg	06/22/15	07/02/15
8270D-LL	PYRENE	0.048	0.006	0.0020	0.0014	mg/kg	06/22/15	07/02/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	63.0	45-105			%	06/22/15	07/02/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	51.8	35-100			%	06/22/15	07/02/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	67.9	30-125			%	06/22/15	07/02/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L135
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/02/15 4:55:06 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L135.D Vial: 35
Acq On : 2 Jul 15 11:49 Operator: MA
Sample : AZ17447S02 1/30.03G Inst : Linus
Misc : soil Multiplr: 33.30

Quant Time: Jul 2 16:45 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	6.05	136	7989	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	8.10	164	3700	2.50000	ppb		0.00
11) Phenanthrene-D10(IS)	9.85	188	6380	2.50000	ppb		-0.01
15) Chrysene-D12(IS)	13.02	240	6721	2.50000	ppb		-0.01
21) Perylene-D12(IS)	15.63	264	4030	2.50000	ppb		-0.02
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.19	82	1028	43.13589	ppb		0.01
Spiked Amount 83.250			Recovery = 51.815%				
7) Surrogate Recovery (FBP)	7.31	172	3532	52.43326	ppb		0.00
Spiked Amount 83.250			Recovery = 62.983%				
17) Surrogate Recovery (TPH)	11.70	244	4174	56.49813	ppb		-0.02
Spiked Amount 83.250			Recovery = 67.865%				
Target Compounds							Qvalue
3) Naphthalene	6.07	128	290	2.21704	ppb		97
4) 2-Methylnaphthalene	6.88	142	167	2.10515	ppb		98
5) 1-Methylnaphthalene	7.00	142	117	1.31362	ppb		90
8) Acenaphthylene	7.94	152	308	2.46784	ppb	#	88
9) Acenaphthene	8.13	154	80	1.04888	ppb	#	88
10) Fluorene	8.74	166	137	1.69975	ppb		87
12) Phenanthrene	9.87	178	2281	19.73576	ppb		99
13) Anthracene	9.93	178	641	5.36428	ppb	#	94
14) Fluoranthene	11.26	202	7084	47.53394	ppb		97
16) Pyrene	11.53	202	5871	39.69882	ppb		99
18) Benz (a) anthracene	13.01	228	2552	25.68331	ppb	#	82
22) Benzo (b) fluoranthene	14.82	252	5272	44.04118	ppb		98
23) Benzo (k) fluoranthene	14.82	252	4393	36.92590	ppb		98
24) Benzo (a) pyrene	15.40	252	1831	17.93195	ppb		96
26) Benzo (g,h,i) perylene	18.39	276	1468	12.66145	ppb		93

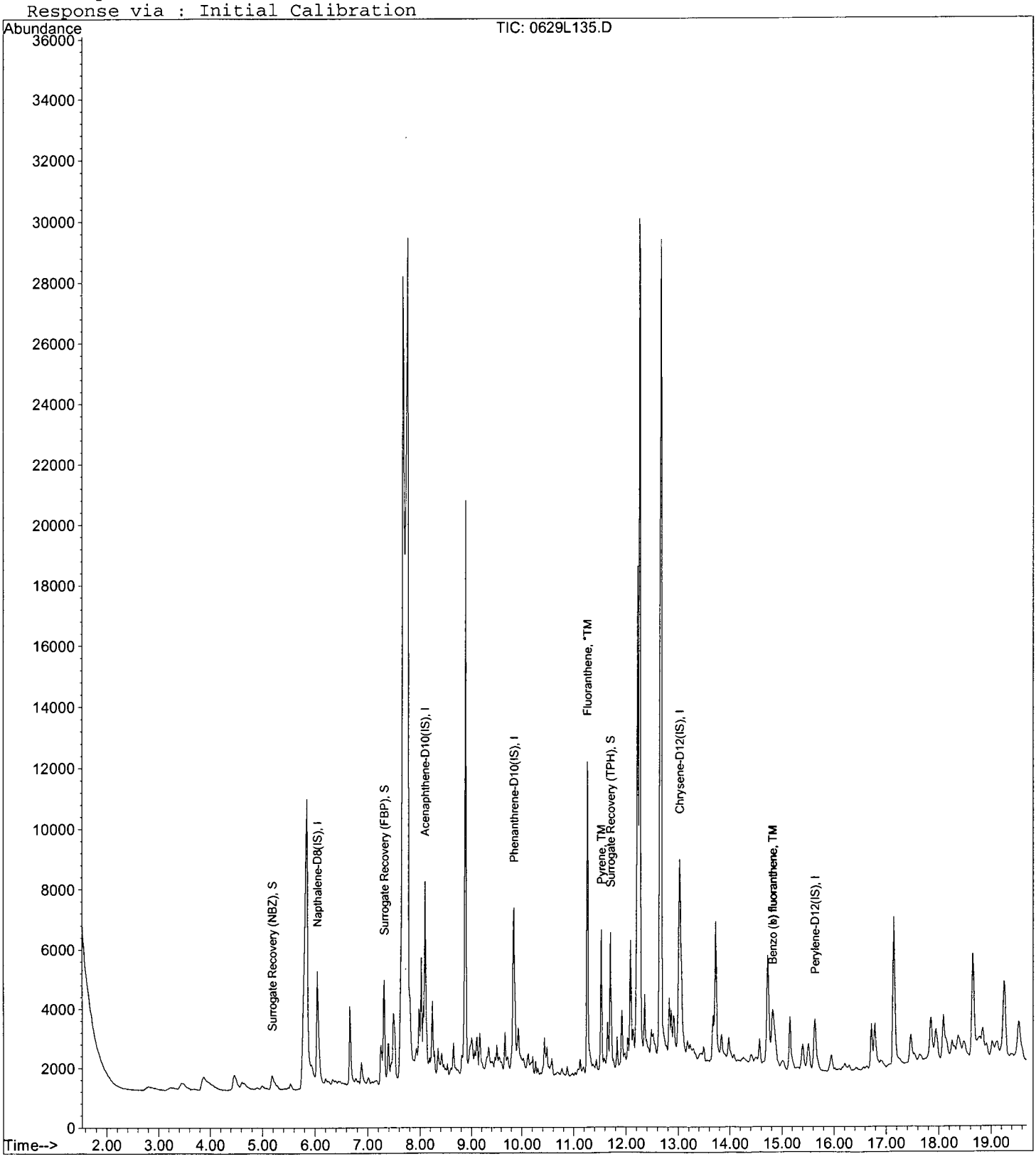
(#) = qualifier out of range (m) = manual integration

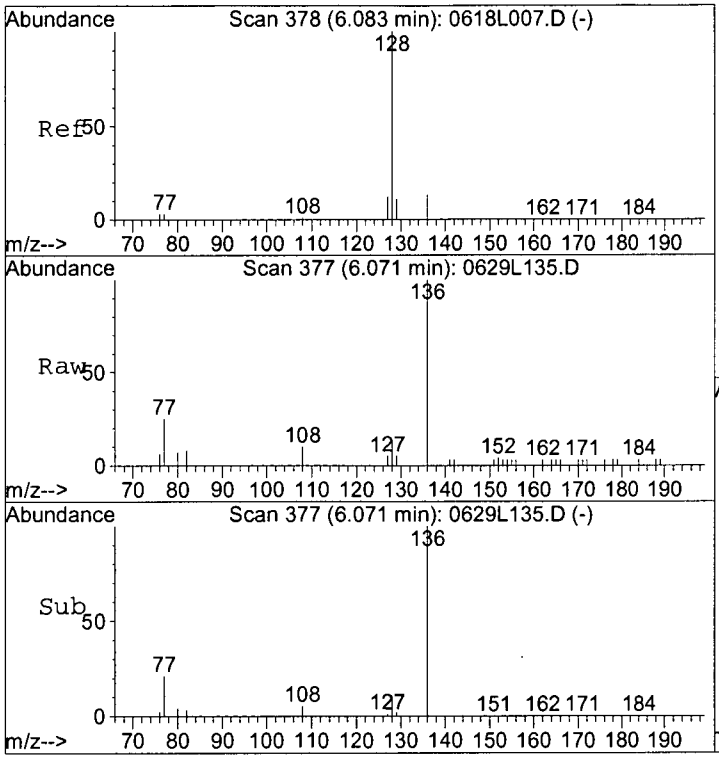
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L135.D Vial: 35
Acq On : 2 Jul 15 11:49 Operator: MA
Sample : AZ17447S02 1/30.03G Inst : Linus
Misc : soil Multiplr: 33.30

Quant Time: Jul 2 16:45 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration

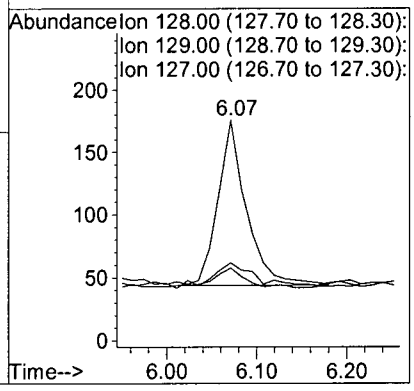


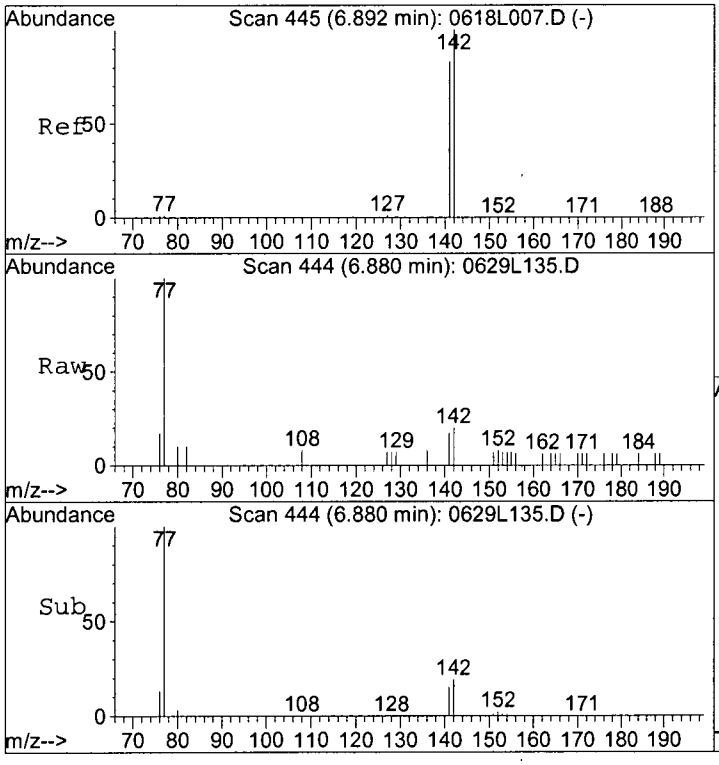


#3
Naphthalene
Concen: 2.21704 ppb
RT: 6.07 min Scan# 377
Delta R.T. 0.00 min
Lab File: 0629L135.D
Acq: 2 Jul 15 11:49

Tgt Ion:128 Resp: 290

Ion	Ratio	Lower	Upper
128	100		
129	12.2	7.4	13.8
127	11.5	8.4	15.6

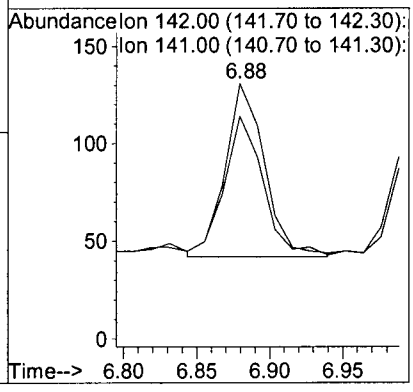


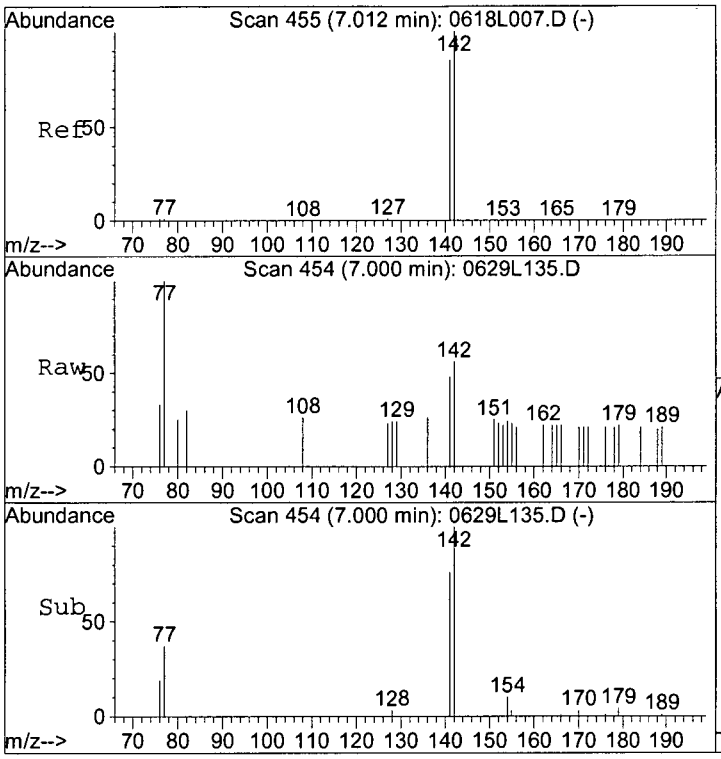


#4
2-Methylnaphthalene
Concen: 2.10515 ppb
RT: 6.88 min Scan# 444
Delta R.T. 0.00 min
Lab File: 0629L135.D
Acq: 2 Jul 15 11:49

Tgt Ion:142 Resp: 167

Ion	Ratio	Lower	Upper
142	100		
141	81.6	58.3	108.3

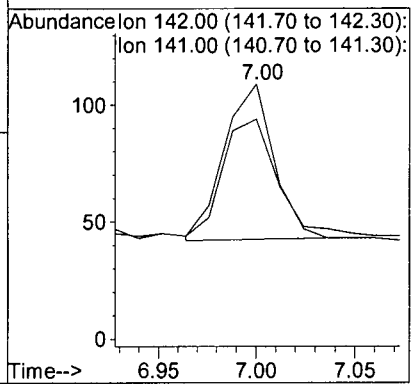


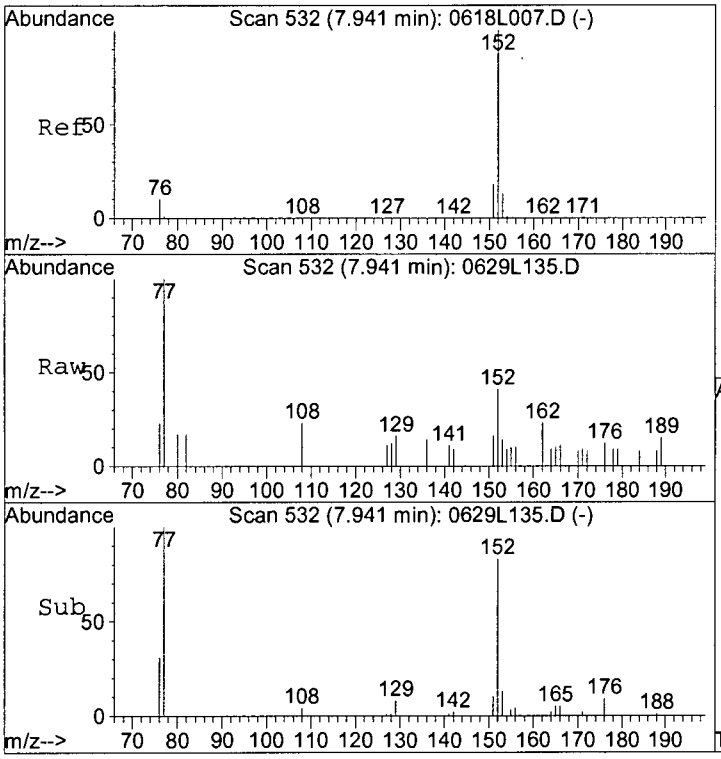


#5
1-Methylnaphthalene
Concen: 1.31362 ppb
RT: 7.00 min Scan# 454
Delta R.T. 0.00 min
Lab File: 0629L135.D
Acq: 2 Jul 15 11:49

Tgt Ion:142 Resp: 117

Ion	Ratio	Lower	Upper
142	100		
141	75.8	59.5	110.5

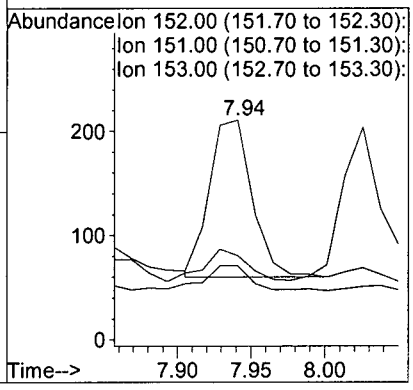


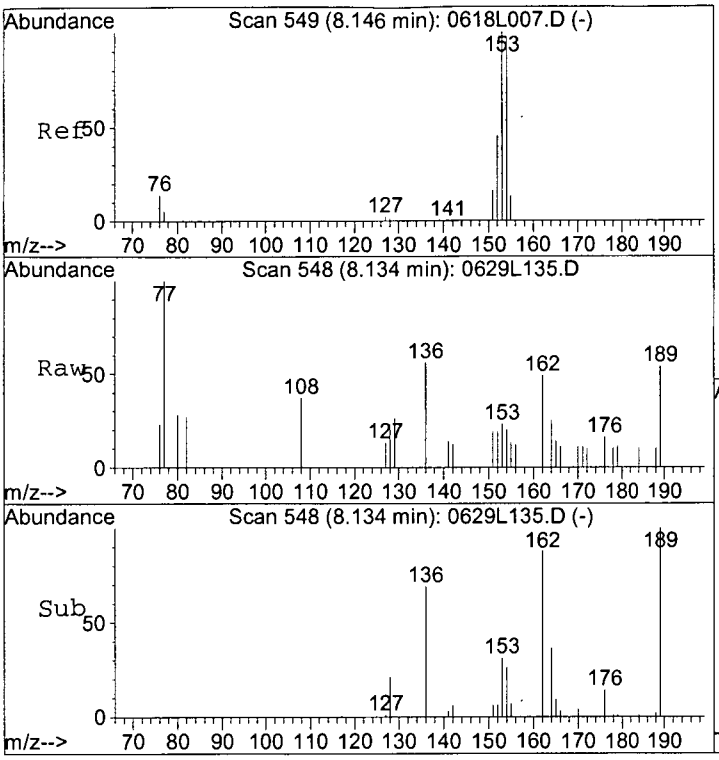


#8
Acenaphthylene
Concen: 2.46784 ppb
RT: 7.94 min Scan# 532
Delta R.T. 0.00 min
Lab File: 0629L135.D
Acq: 2 Jul 15 11:49

Tgt Ion:152 Resp: 308

Ion	Ratio	Lower	Upper
152	100		
151	11.3	12.7	23.7#
153	15.9	9.0	16.8

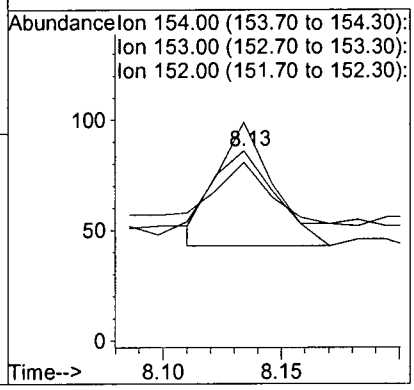


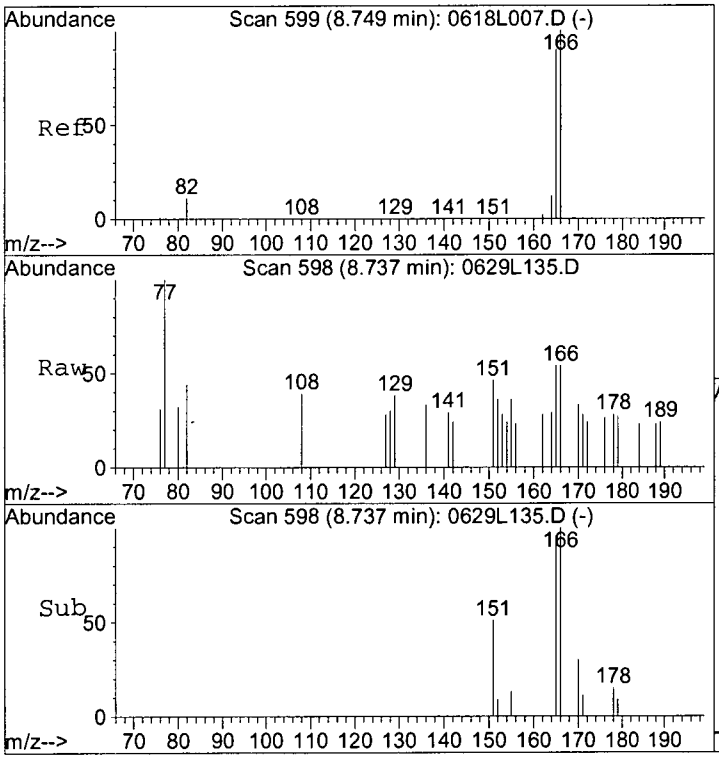


#9
Acenaphthene
Concen: 1.04888 ppb
RT: 8.13 min Scan# 548
Delta R.T. 0.00 min
Lab File: 0629L135.D
Acq: 2 Jul 15 11:49

Tgt Ion:154 Resp: 80

Ion	Ratio	Lower	Upper
154	100		
153	107.0	71.8	133.4
152	65.1	32.7	60.7#

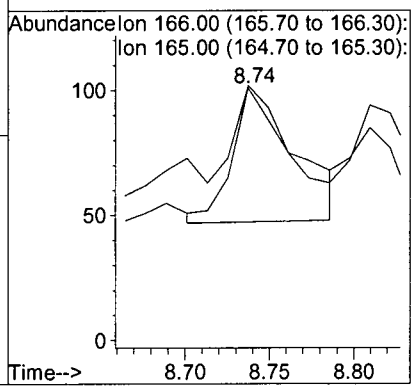


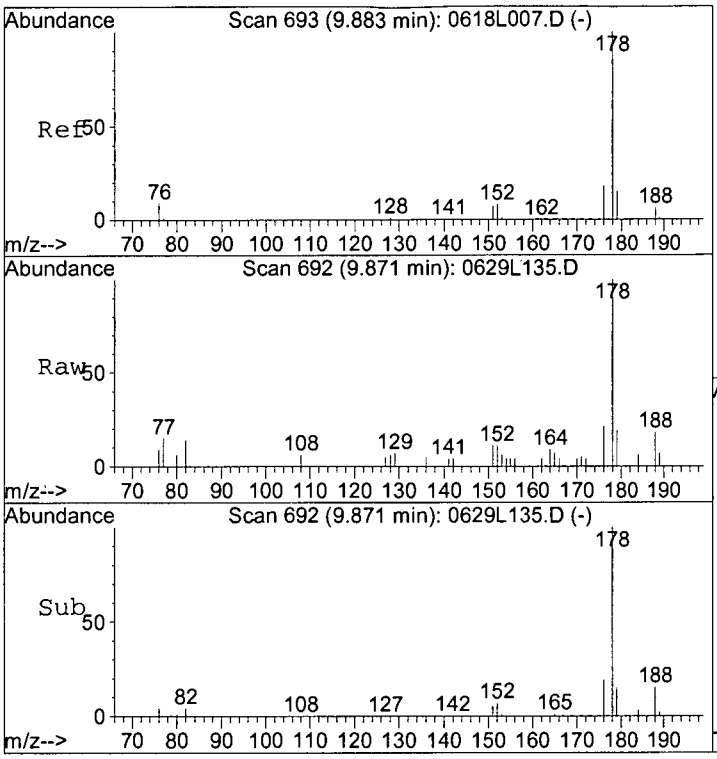


#10
Fluorene
Concen: 1.69975 ppb
RT: 8.74 min Scan# 598
Delta R.T. -0.01 min
Lab File: 0629L135.D
Acq: 2 Jul 15 11:49

Tgt Ion:166 Resp: 137

Ion	Ratio	Lower	Upper
166	100		
165	78.0	63.1	117.1

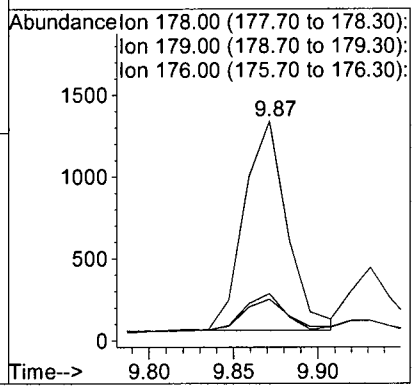


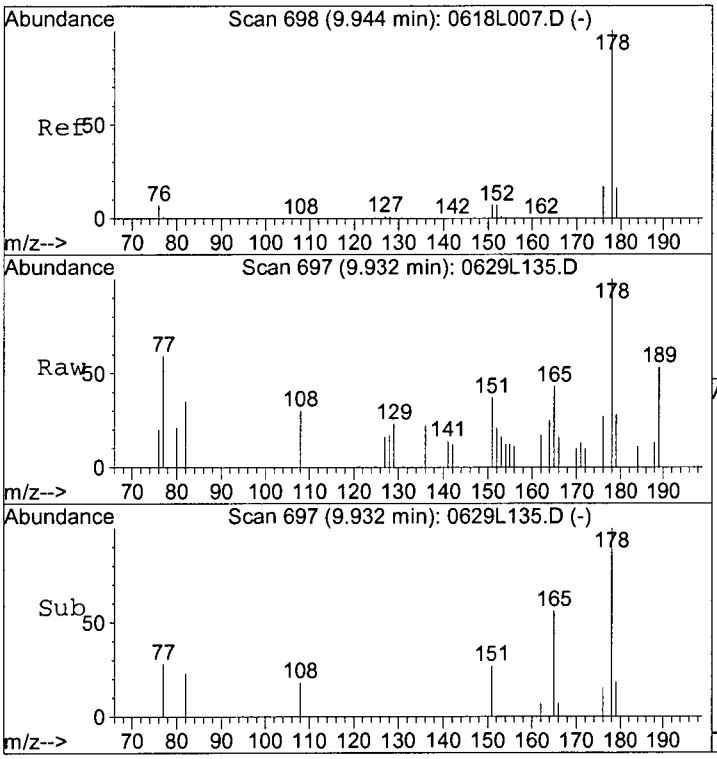


#12
Phenanthrene
Concen: 19.73576 ppb
RT: 9.87 min Scan# 692
Delta R.T. -0.01 min
Lab File: 0629L135.D
Acq: 2 Jul 15 11:49

Tgt Ion:178 Resp: 2281

Ion	Ratio	Lower	Upper
178	100		
179	15.0	10.5	19.5
176	17.0	12.3	22.8

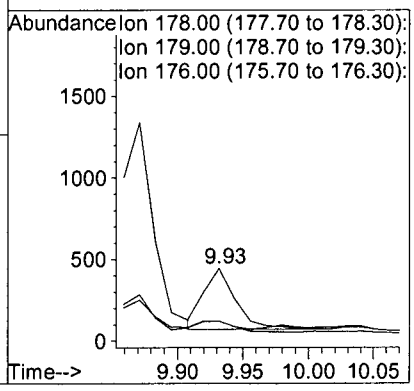


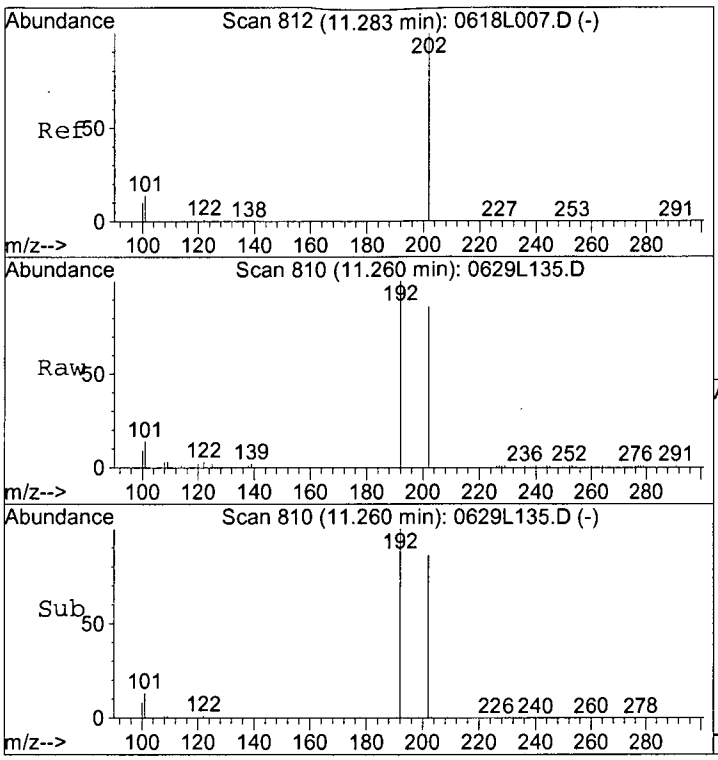


#13
Anthracene
Concen: 5.36428 ppb
RT: 9.93 min Scan# 697
Delta R.T. -0.01 min
Lab File: 0629L135.D
Acq: 2 Jul 15 11:49

Tgt Ion:178 Resp: 641

Ion	Ratio	Lower	Upper
178	100		
179	10.7	10.9	20.3#
176	17.3	12.2	22.6

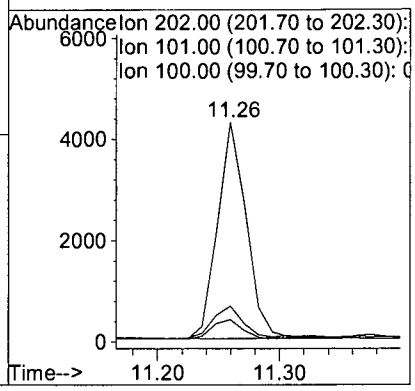


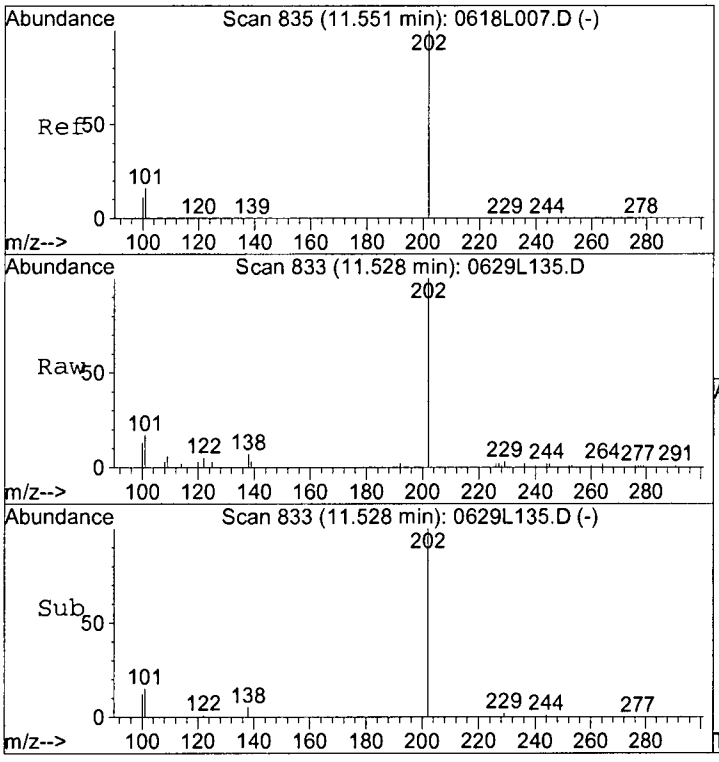


#14
Fluoranthene
Concen: 47.53394 ppb
RT: 11.26 min Scan# 810
Delta R.T. -0.02 min
Lab File: 0629L135.D
Acq: 2 Jul 15 11:49

Tgt Ion:202 Resp: 7084

Ion	Ratio	Lower	Upper
202	100		
101	14.8	9.7	18.1
100	9.0	7.4	13.7

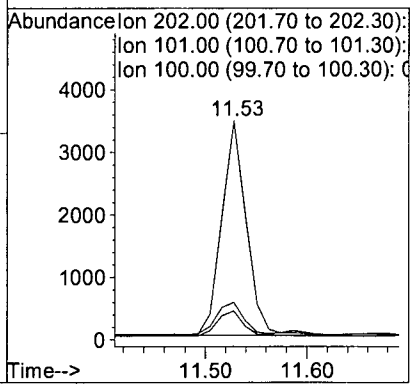


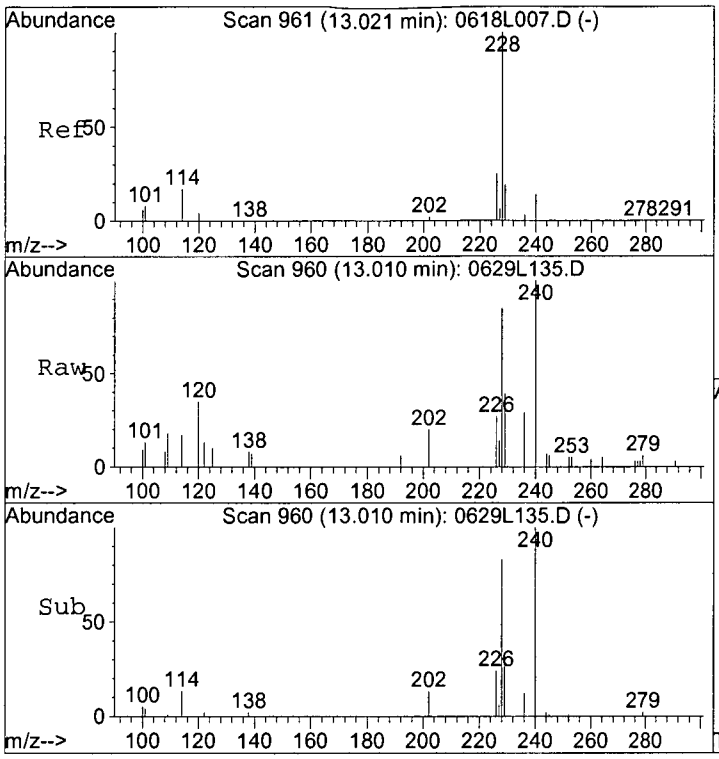


#16
Pyrene
Concen: 39.69882 ppb
RT: 11.53 min Scan# 833
Delta R.T. -0.01 min
Lab File: 0629L135.D
Acq: 2 Jul 15 11:49

Tgt Ion:202 Resp: 5871

Ion	Ratio	Lower	Upper
202	100		
101	15.1	11.0	20.4
100	11.8	7.9	14.7

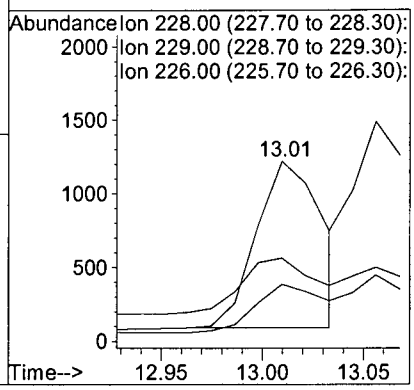


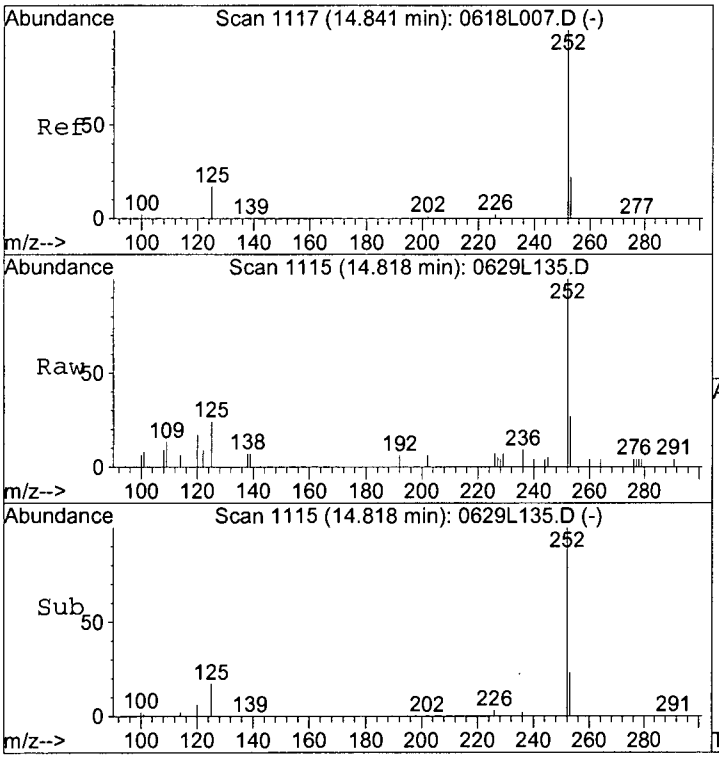


#18
Benz (a) anthracene
Concen: 25.68331 ppb
RT: 13.01 min Scan# 960
Delta R.T. -0.01 min
Lab File: 0629L135.D
Acq: 2 Jul 15 11:49

Tgt Ion:228 Resp: 2552

Ion	Ratio	Lower	Upper
228	100		
229	32.6	13.4	25.0#
226	29.1	17.2	32.0

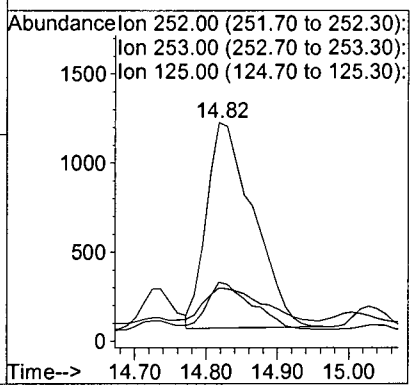


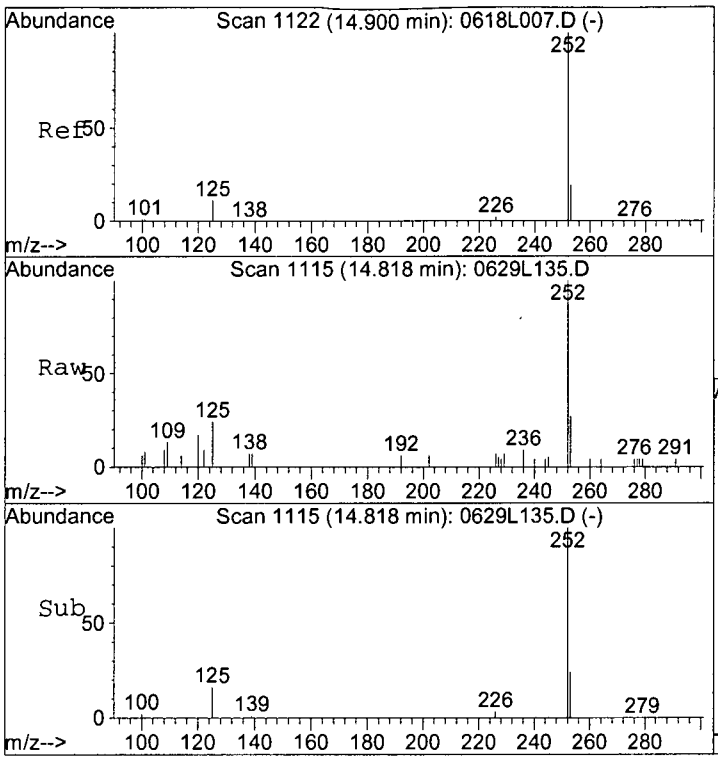


#22
Benzo (b) fluoranthene
Concen: 44.04118 ppb
RT: 14.82 min Scan# 1115
Delta R.T. -0.02 min
Lab File: 0629L135.D
Acq: 2 Jul 15 11:49

Tgt Ion:252 Resp: 5272

Ion	Ratio	Lower	Upper
252	100		
253	23.2	15.7	29.1
125	15.5	11.3	20.9

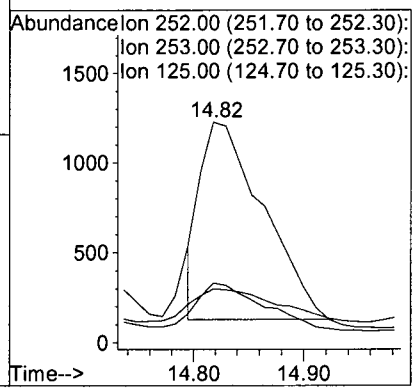


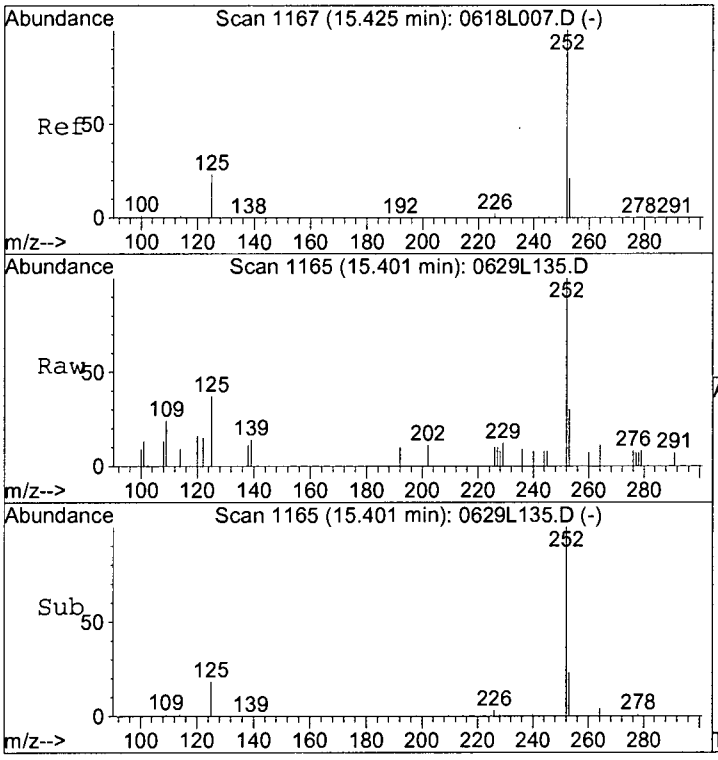


#23
Benzo (k) fluoranthene
Concen: 36.92590 ppb
RT: 14.82 min Scan# 1115
Delta R.T. -0.07 min
Lab File: 0629L135.D
Acq: 2 Jul 15 11:49

Tgt Ion:252 Resp: 4393

Ion	Ratio	Lower	Upper
252	100		
253	23.2	15.8	29.3
125	14.9	11.6	21.5

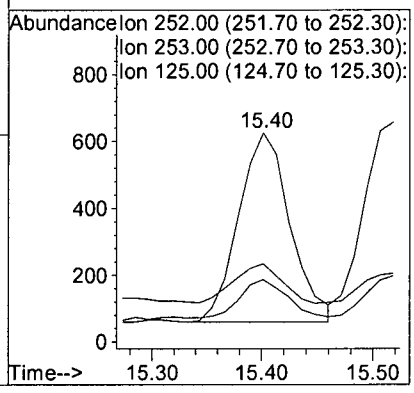


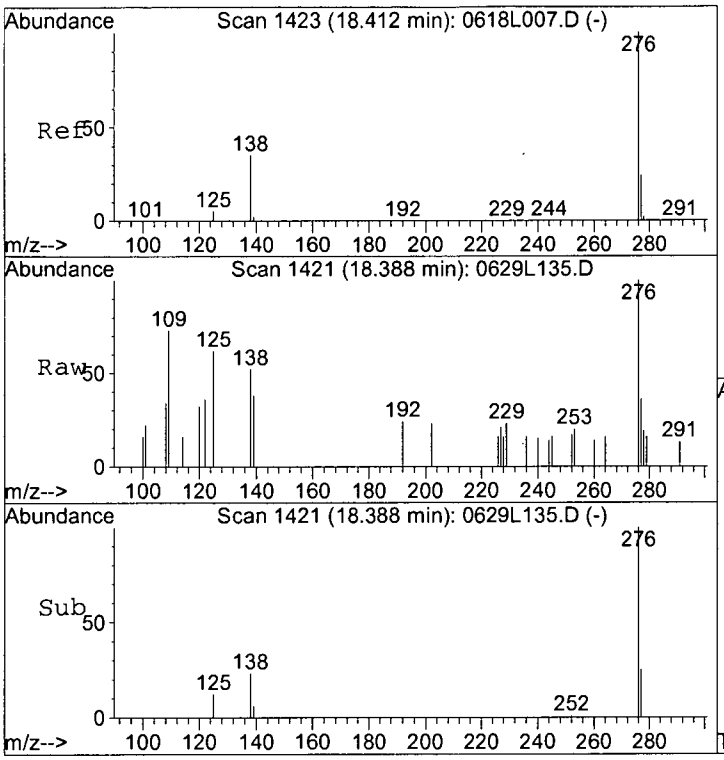


#24
Benzo (a) pyrene
Concen: 17.93195 ppb
RT: 15.40 min Scan# 1165
Delta R.T. -0.01 min
Lab File: 0629L135.D
Acq: 2 Jul 15 11:49

Tgt Ion:252 Resp: 1831

Ion	Ratio	Lower	Upper
252	100		
253	20.3	15.2	28.2
125	20.5	16.1	29.9

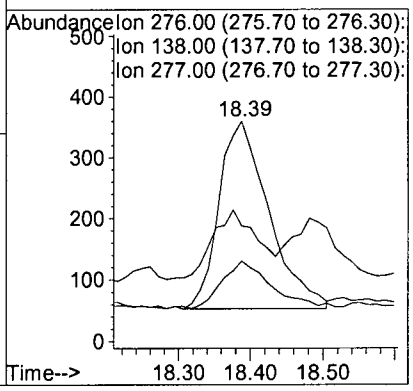




#26
Benzo (g,h,i) perylene
Concen: 12.66145 ppb
RT: 18.39 min Scan# 1421
Delta R.T. -0.02 min
Lab File: 0629L135.D
Acq: 2 Jul 15 11:49

Tgt Ion:276 Resp: 1468

Ion	Ratio	Lower	Upper
276	100		
138	27.7	23.7	44.1
277	24.1	17.3	32.1



EPA METHOD 8270D
Polynuclear Aromatic Hydrocarbons
Calibration Data

APPL, INC.

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: 76624
Case No: Initial Cal. Date: 06/29/15
Matrix: Instrument: Linus
Initials: MA

		Compound	0629L003.D 0.1	0629L004.D 0.2	0629L005.D 0.5	0629L006.D 1	0629L007.D 5	0629L008.D 10	0629L009.D 50	0629L010.D 100			Avg	%RSD		
1	I	Napthalene-D8(IS)														
2	S	Surrogate Recovery (NBZ)			0.2153	0.2159	0.2325	0.2358	0.3061	0.2843			0.25	15	S	
3	TM	Naphthalene	1.642	1.427	1.303	1.411	1.378	1.319	1.275	1.150			1.4	11	TM	
4	TM	2-Methylnaphthalene	0.9150	0.7773	0.7567	0.8291	0.8720	0.8486	0.8436	0.7709			0.83	6.6	TM	
5	TM	1-Methylnaphthalene	1.007	1.020	0.9012	0.9581	0.9899	0.9279	0.8553	0.7656			0.93	9.3	TM	
6	I	Acenaphthene-D10(IS)														
7	S	Surrogate Recovery (FBP)	1.726	1.466	1.478	1.471	1.470	1.487	1.594	1.433			1.5	6.4	S	
8	TM	Acenaphthylene	3.252	2.996	2.657	2.791	2.779	2.694	2.786	2.510			2.8	8.1	TM	
9	*TM	Acenaphthene	1.973	1.944	1.648	1.763	1.688	1.619	1.631	1.463			1.7	10.0	*TM	
10	TM	Fluorene	2.037	1.911	1.795	1.837	1.778	1.726	1.800	1.624			1.8	6.8	TM	
11	I	Phenanthrene-D10(IS)														
12	TM	Phenanthrene	1.875	1.432	1.426	1.488	1.501	1.486	1.477	1.379			1.5	10	TM	
13	TM	Anthracene	1.892	1.795	1.622	1.558	1.409	1.485	1.465	1.248			1.6	13	TM	
14	*TM	Fluoranthene	2.415	2.103	1.915	1.895	1.803	1.858	1.871	1.697			1.9	11	*TM	
15	I	Chrysene-D12(IS)														
16	TM	Pyrene	2.328	1.994	1.841	1.839	1.760	1.769	1.643	1.481			1.8	14	TM	
17	S	Surrogate Recovery (TPH)	1.167	0.9472	0.8823	0.8857	0.8519	0.8893	0.8951	0.8026			0.92	12	S	
18	TML	Benz (a) anthracene	1.918	1.231	1.196	1.253	1.350	1.553	1.548				1.4	18	TML	1.000
19	TML	Chrysene	2.060	2.072	1.982	1.952	1.618	1.480	1.298	1.210			1.7	21	TML	0.999
20	TM	Indeno (1,2,3-cd) pyrene	1.072	1.743	1.593	1.627	1.634	1.686	1.634	1.503			1.6	13	TM	
21	I	Perylene-D12(IS)														
22	TML	Benzo (b) fluoranthene	1.891	2.434	1.412	1.578	2.196	2.222	2.300	2.158			2.0	18	TML	0.999
23	TML	Benzo (k) fluoranthene	1.263	0.7444	1.510	1.606	1.537	1.501	1.794	1.472			1.4	22	TML	0.991
24	*TM	Benzo (a) pyrene	2.518	2.129	2.081	2.031	2.076	2.143	2.064	1.833			2.1	9.1	*TM	
25	TM	Dibenz (a,h) anthracene	2.982	2.252	2.210	2.264	2.290	2.337	2.257	2.017			2.3	12	TM	
26	TM	Benzo (g,h,i) perylene	3.085	2.472	2.331	2.381	2.309	2.355	2.227	2.001			2.4	13	TM	
27																
28																
29																
30																
31																
32																
33																
34																
35																

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L003.D Vial: 3
Acq On : 29 Jun 15 12:29 Operator: MA
Sample : 0.1ug/ml PAH 06/29/15 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 29 13:15 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Fri Jun 26 11:18:27 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.05	136	6257	2.50000 ppb		-0.01
6) Acenaphthene-D10(IS)	8.11	164	2737	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.88	188	4307	2.50000 ppb		0.02
15) Chrysene-D12(IS)	13.06	240	4757	2.50000 ppb		0.01
21) Perylene-D12(IS)	15.69	264	2909	2.50000 ppb		0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.18	82	46	0.76497 ppb		-0.04
Spiked Amount 2.500			Recovery = 30.600%			
7) Surrogate Recovery (FBP)	7.31	172	189	0.14110 ppb		0.00
Spiked Amount 2.500			Recovery = 5.640%			
17) Surrogate Recovery (TPH)	11.74	244	222	0.15006 ppb		0.01
Spiked Amount 2.500			Recovery = 6.000%			
Target Compounds						Qvalue
3) Naphthalene	6.07	128	411	0.14788 ppb		96
4) 2-Methylnaphthalene	6.89	142	229	0.30463 ppb		99
5) 1-Methylnaphthalene	7.00	142	252	0.12901 ppb		99
8) Acenaphthylene	7.94	152	356	0.14448 ppb		96
9) Acenaphthene	8.15	154	216	0.14080 ppb		93
10) Fluorene	8.77	166	223	0.14166 ppb		93
12) Phenanthrene	9.91	178	323	0.15646 ppb		97
13) Anthracene	9.97	178	326	0.15623 ppb		99
14) Fluoranthene	11.31	202	416	0.15714 ppb		96
16) Pyrene	11.56	202	443	0.15798 ppb		92
18) Benz (a) anthracene	13.04	228	365	0.59840 ppb		95
19) Chrysene	13.08	228	392	0.15289 ppb	#	94
20) Indeno (1,2,3-cd) pyrene	17.93	276	204	0.07543 ppb	#	79
22) Benzo (b) fluoranthene	14.88	252	220	0.53726 ppb		92
23) Benzo (k) fluoranthene	14.91	252	147	-0.21407 ppb	#	52
24) Benzo (a) pyrene	15.46	252	293	0.14221 ppb		91
25) Dibenz (a,h) anthracene	17.96	278	347	0.15430 ppb		92
26) Benzo (g,h,i) perylene	18.46	276	359	0.15672 ppb		95

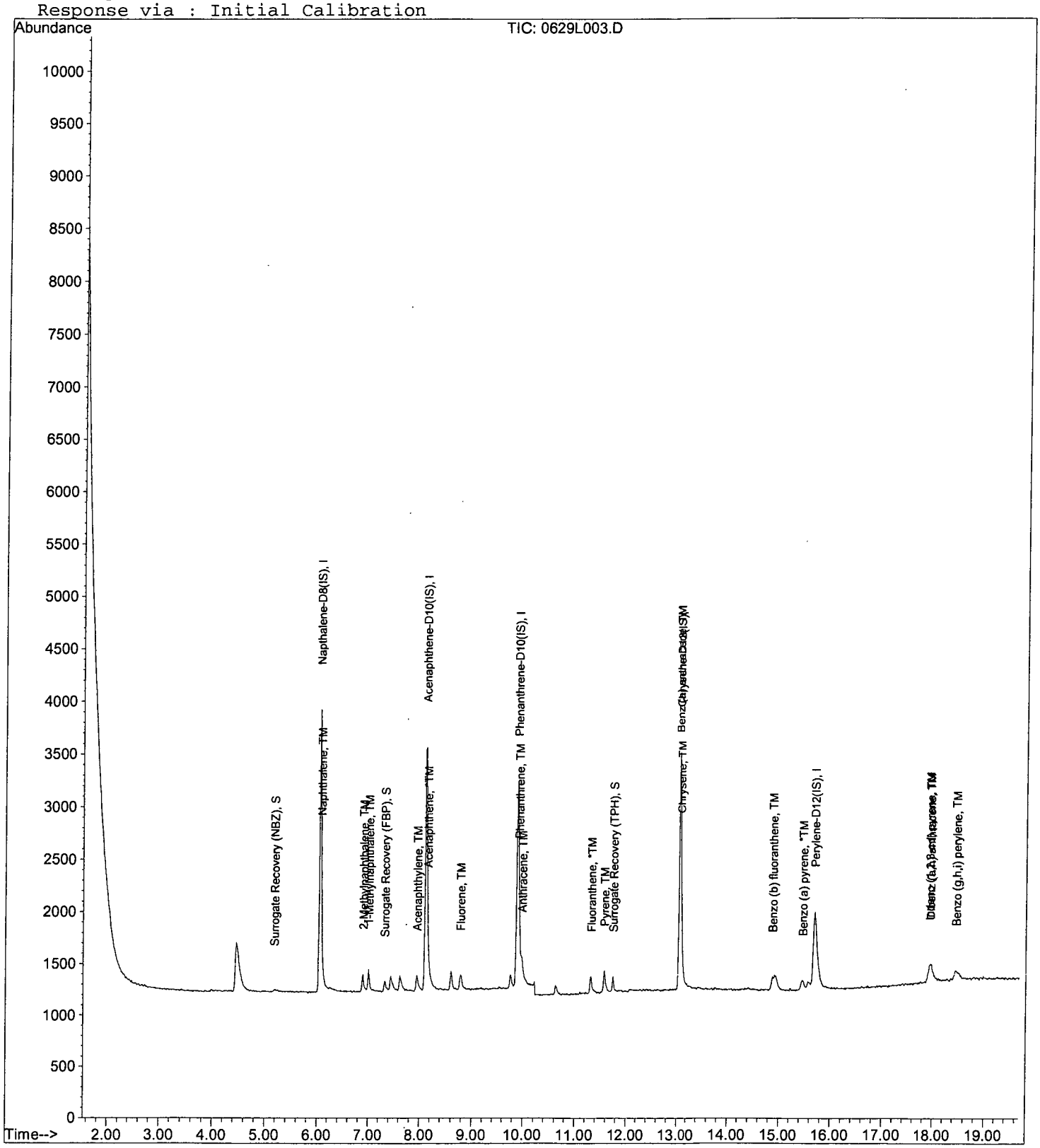
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L003.D Vial: 3
Acq On : 29 Jun 15 12:29 Operator: MA
Sample : 0.1ug/ml PAH 06/29/15 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 29 13:15 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L004.D Vial: 4
Acq On : 29 Jun 15 12:56 Operator: MA
Sample : 0.2ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 29 15:58 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Fri Jun 26 11:18:27 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

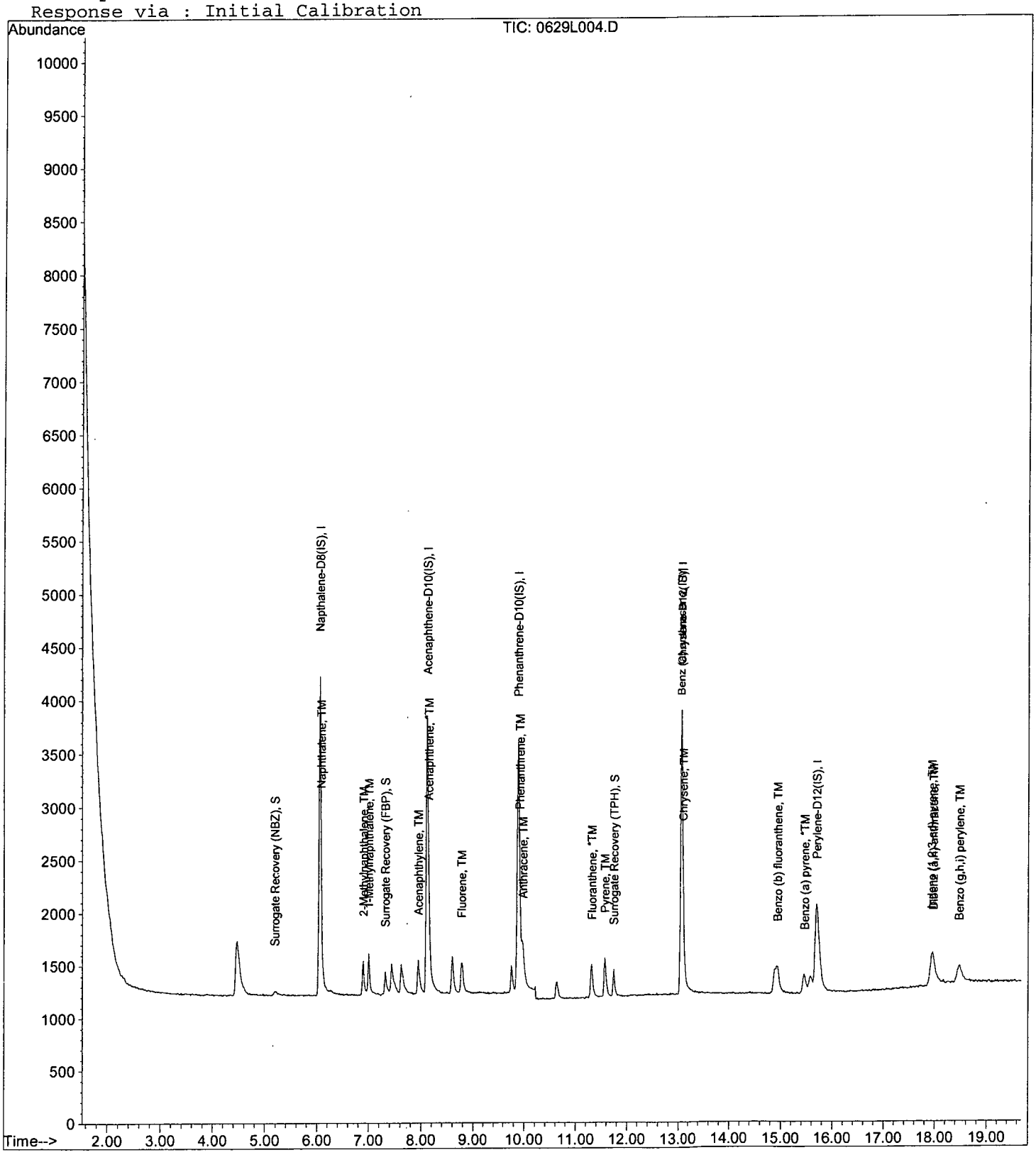
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.05	136	6947	2.50000 ppb		-0.01
6) Acenaphthene-D10(IS)	8.11	164	3087	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.87	188	4957	2.50000 ppb		0.01
15) Chrysene-D12(IS)	13.06	240	5292	2.50000 ppb		0.01
21) Perylene-D12(IS)	15.69	264	3241	2.50000 ppb		0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.19	82	116	0.84102 ppb		-0.02
Spiked Amount 2.500			Recovery = 33.640%			
7) Surrogate Recovery (FBP)	7.31	172	362	0.23961 ppb		0.00
Spiked Amount 2.500			Recovery = 9.600%			
17) Surrogate Recovery (TPH)	11.74	244	401	0.24365 ppb		0.01
Spiked Amount 2.500			Recovery = 9.760%			
Target Compounds						Qvalue
3) Naphthalene	6.07	128	793	0.25699 ppb		98
4) 2-Methylnaphthalene	6.89	142	432	0.38391 ppb		95
5) 1-Methylnaphthalene	7.00	142	567	0.25710 ppb		91
8) Acenaphthylene	7.94	152	740	0.26627 ppb		98
9) Acenaphthene	8.13	154	480	0.27742 ppb		97
10) Fluorene	8.77	166	472	0.26584 ppb		91
12) Phenanthrene	9.91	178	568	0.23906 ppb		97
13) Anthracene	9.97	178	712	0.29648 ppb		97
14) Fluoranthene	11.31	202	834	0.27373 ppb		96
16) Pyrene	11.56	202	844	0.27055 ppb		97
18) Benz (a) anthracene	13.04	228	521	0.63496 ppb		95
19) Chrysene	13.09	228	877	0.30748 ppb		94
20) Indeno (1,2,3-cd) pyrene	17.93	276	738	0.24530 ppb	#	96
22) Benzo (b) fluoranthene	14.93	252	631	0.66881 ppb		98
23) Benzo (k) fluoranthene	14.93	252	193	-0.20156 ppb	#	90
24) Benzo (a) pyrene	15.46	252	552	0.24048 ppb		95
25) Dibenz (a,h) anthracene	17.97	278	584	0.23308 ppb	#	91
26) Benzo (g,h,i) perylene	18.47	276	641	0.25116 ppb		94

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

Data File : M:\LINUS\DATA\L150629\0629L004.D Vial: 4
Acq On : 29 Jun 15 12:56 Operator: MA
Sample : 0.2ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 29 15:58 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L005.D Vial: 5
Acq On : 29 Jun 15 13:23 Operator: MA
Sample : 0.5ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 29 15:58 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Fri Jun 26 11:18:27 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.05	136	7407	2.50000 ppb		-0.01
6) Acenaphthene-D10(IS)	8.10	164	3440	2.50000 ppb		-0.01
11) Phenanthrene-D10(IS)	9.87	188	5491	2.50000 ppb		0.01
15) Chrysene-D12(IS)	13.06	240	5905	2.50000 ppb		0.01
21) Perylene-D12(IS)	15.68	264	3572	2.50000 ppb		0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.19	82	319	1.05558 ppb		-0.02
Spiked Amount 2.500			Recovery = 42.240%			
7) Surrogate Recovery (FBP)	7.31	172	1017	0.60409 ppb		0.00
Spiked Amount 2.500			Recovery = 24.160%			
17) Surrogate Recovery (TPH)	11.74	244	1042	0.56740 ppb		0.01
Spiked Amount 2.500			Recovery = 22.680%			
Target Compounds						Qvalue
3) Naphthalene	6.07	128	1930	0.58662 ppb		98
4) 2-Methylnaphthalene	6.89	142	1121	0.66017 ppb		99
5) 1-Methylnaphthalene	7.00	142	1335	0.56263 ppb		96
8) Acenaphthylene	7.94	152	1828	0.59027 ppb		100
9) Acenaphthene	8.13	154	1134	0.58814 ppb		97
10) Fluorene	8.77	166	1235	0.62421 ppb		99
12) Phenanthrene	9.90	178	1566	0.59500 ppb		99
13) Anthracene	9.97	178	1781	0.66949 ppb		99
14) Fluoranthene	11.29	202	2103	0.62312 ppb		100
16) Pyrene	11.56	202	2174	0.62454 ppb		96
18) Benz (a) anthracene	13.03	228	1413	0.87204 ppb		99
19) Chrysene	13.09	228	2341	0.73556 ppb		98
20) Indeno (1,2,3-cd) pyrene	17.92	276	1881	0.56031 ppb	#	94
22) Benzo (b) fluoranthene	14.86	252	1009	0.76580 ppb		99
23) Benzo (k) fluoranthene	14.92	252	1079	0.13492 ppb		97
24) Benzo (a) pyrene	15.45	252	1487	0.58778 ppb		97
25) Dibenz (a,h) anthracene	17.94	278	1579	0.57180 ppb		97
26) Benzo (g,h,i) perylene	18.46	276	1665	0.59194 ppb		95

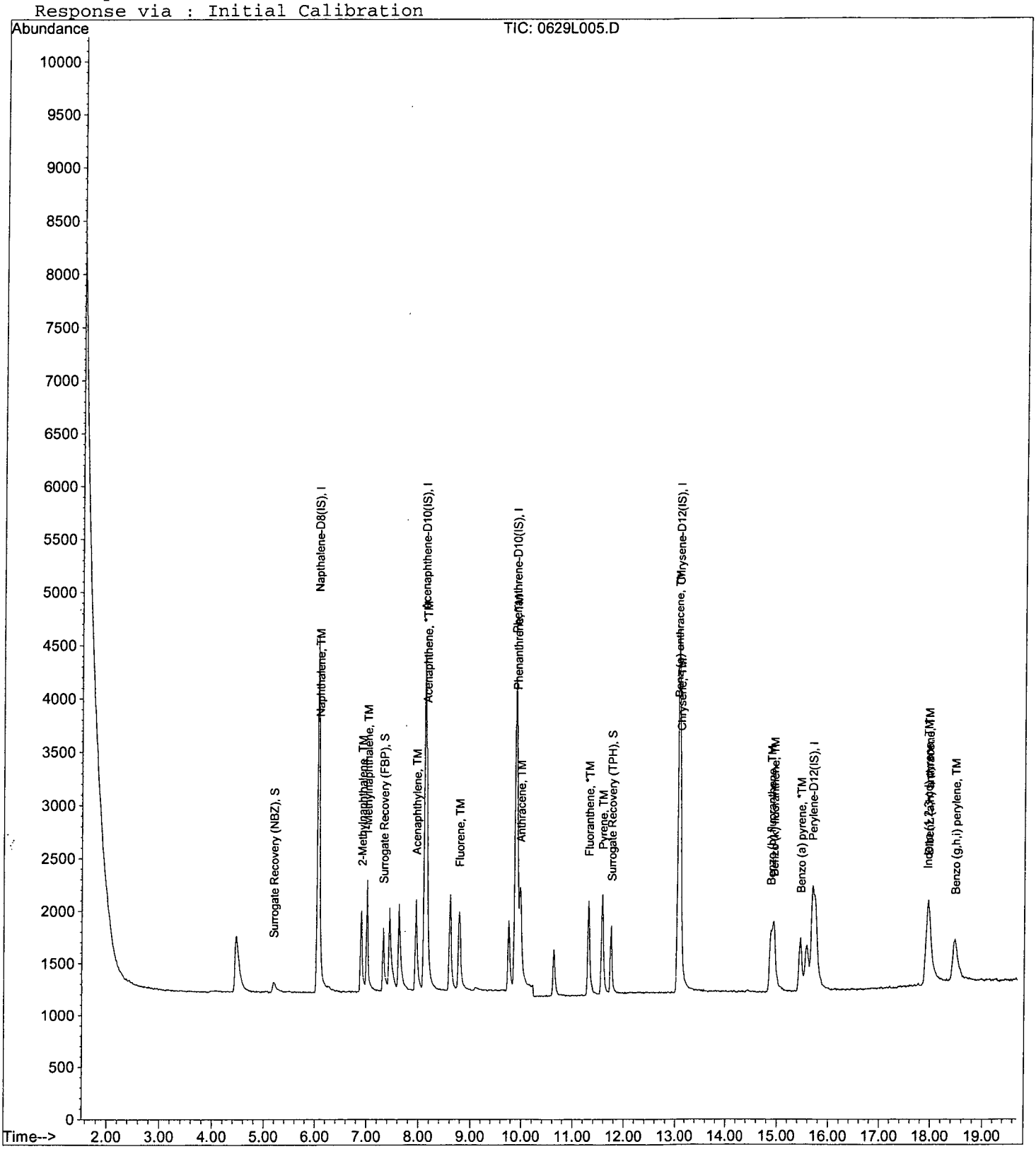
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L005.D Vial: 5
Acq On : 29 Jun 15 13:23 Operator: MA
Sample : 0.5ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 29 15:58 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L006.D Vial: 6
Acq On : 29 Jun 15 13:50 Operator: MA
Sample : 1.0ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 29 15:58 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Fri Jun 26 11:18:27 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.05	136	6727	2.50000 ppb		-0.01
6) Acenaphthene-D10(IS)	8.10	164	3339	2.50000 ppb		-0.01
11) Phenanthrene-D10(IS)	9.87	188	5489	2.50000 ppb		0.01
15) Chrysene-D12(IS)	13.06	240	5868	2.50000 ppb		0.01
21) Perylene-D12(IS)	15.68	264	3648	2.50000 ppb		0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.19	82	581	1.40790 ppb		-0.02
Spiked Amount 2.500			Recovery = 56.320%			
7) Surrogate Recovery (FBP)	7.31	172	1964	1.20188 ppb		0.00
Spiked Amount 2.500			Recovery = 48.080%			
17) Surrogate Recovery (TPH)	11.74	244	2079	1.13921 ppb		0.01
Spiked Amount 2.500			Recovery = 45.560%			
Target Compounds						Qvalue
3) Naphthalene	6.07	128	3798	1.27109 ppb		99
4) 2-Methylnaphthalene	6.89	142	2231	1.21885 ppb		99
5) 1-Methylnaphthalene	7.00	142	2578	1.19156 ppb		98
8) Acenaphthylene	7.94	152	3728	1.24021 ppb		99
9) Acenaphthene	8.13	154	2355	1.25836 ppb		94
10) Fluorene	8.77	166	2453	1.27733 ppb		98
12) Phenanthrene	9.90	178	3267	1.24175 ppb		99
13) Anthracene	9.97	178	3421	1.28644 ppb		97
14) Fluoranthene	11.29	202	4160	1.23305 ppb		99
16) Pyrene	11.56	202	4317	1.24799 ppb		98
18) Benz (a) anthracene	13.03	228	2942	1.31319 ppb		99
19) Chrysene	13.08	228	4582	1.44878 ppb		98
20) Indeno (1,2,3-cd) pyrene	17.91	276	3818	1.14447 ppb	#	98
22) Benzo (b) fluoranthene	14.86	252	2303	1.15123 ppb		99
23) Benzo (k) fluoranthene	14.91	252	2344	0.60729 ppb		95
24) Benzo (a) pyrene	15.44	252	2963	1.14680 ppb		99
25) Dibenz (a,h) anthracene	17.94	278	3304	1.17154 ppb		99
26) Benzo (g,h,i) perylene	18.45	276	3475	1.20970 ppb		95

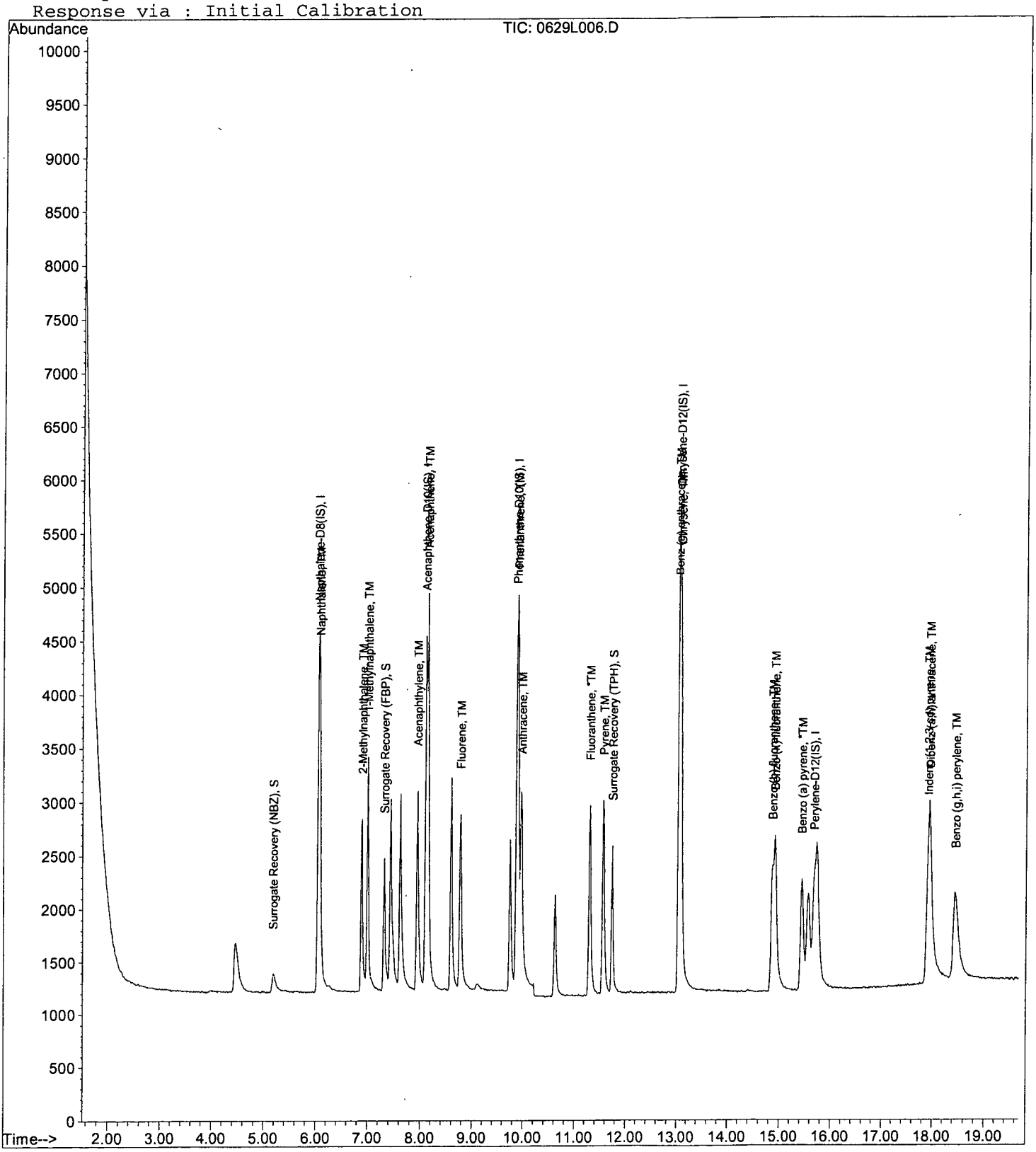
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L006.D Vial: 6
Acq On : 29 Jun 15 13:50 Operator: MA
Sample : 1.0ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 29 15:58 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration



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Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L007.D Vial: 7
Acq On : 29 Jun 15 14:17 Operator: MA
Sample : 5.0ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 29 15:59 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Fri Jun 26 11:18:27 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.05	136	6750	2.50000 ppb		-0.01
6) Acenaphthene-D10(IS)	8.10	164	3406	2.50000 ppb		-0.01
11) Phenanthrene-D10(IS)	9.86	188	5719	2.50000 ppb		0.00
15) Chrysene-D12(IS)	13.03	240	6233	2.50000 ppb		-0.01
21) Perylene-D12(IS)	15.66	264	3777	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.18	82	3139	4.48894 ppb		-0.04
Spiked Amount 2.500			Recovery	= 179.560%		
7) Surrogate Recovery (FBP)	7.31	172	10012	6.00637 ppb		0.00
Spiked Amount 2.500			Recovery	= 240.240%		
17) Surrogate Recovery (TPH)	11.73	244	10620	5.47859 ppb		0.00
Spiked Amount 2.500			Recovery	= 219.160%		
Target Compounds						Qvalue
3) Naphthalene	6.07	128	18605	6.20537 ppb		100
4) 2-Methylnaphthalene	6.88	142	11772	5.59509 ppb		99
5) 1-Methylnaphthalene	7.00	142	13363	6.13775 ppb		99
8) Acenaphthylene	7.94	152	18929	6.17331 ppb		99
9) Acenaphthene	8.13	154	11497	6.02239 ppb		98
10) Fluorene	8.75	166	12110	6.18189 ppb		99
12) Phenanthrene	9.88	178	17174	6.26514 ppb		100
13) Anthracene	9.94	178	16115	5.81621 ppb		99
14) Fluoranthene	11.28	202	20628	5.86837 ppb		96
16) Pyrene	11.54	202	21935	5.96980 ppb		95
18) Benz (a) anthracene	13.02	228	16824	5.01282 ppb		100
19) Chrysene	13.07	228	20166	6.00287 ppb		98
20) Indeno (1,2,3-cd) pyrene	17.87	276	20374	5.74958 ppb	#	98
22) Benzo (b) fluoranthene	14.84	252	16587	5.30599 ppb		98
23) Benzo (k) fluoranthene	14.89	252	11614	3.98197 ppb		99
24) Benzo (a) pyrene	15.41	252	15681	5.86191 ppb		99
25) Dibenz (a,h) anthracene	17.91	278	17300	5.92478 ppb		99
26) Benzo (g,h,i) perylene	18.41	276	17441	5.86411 ppb		98

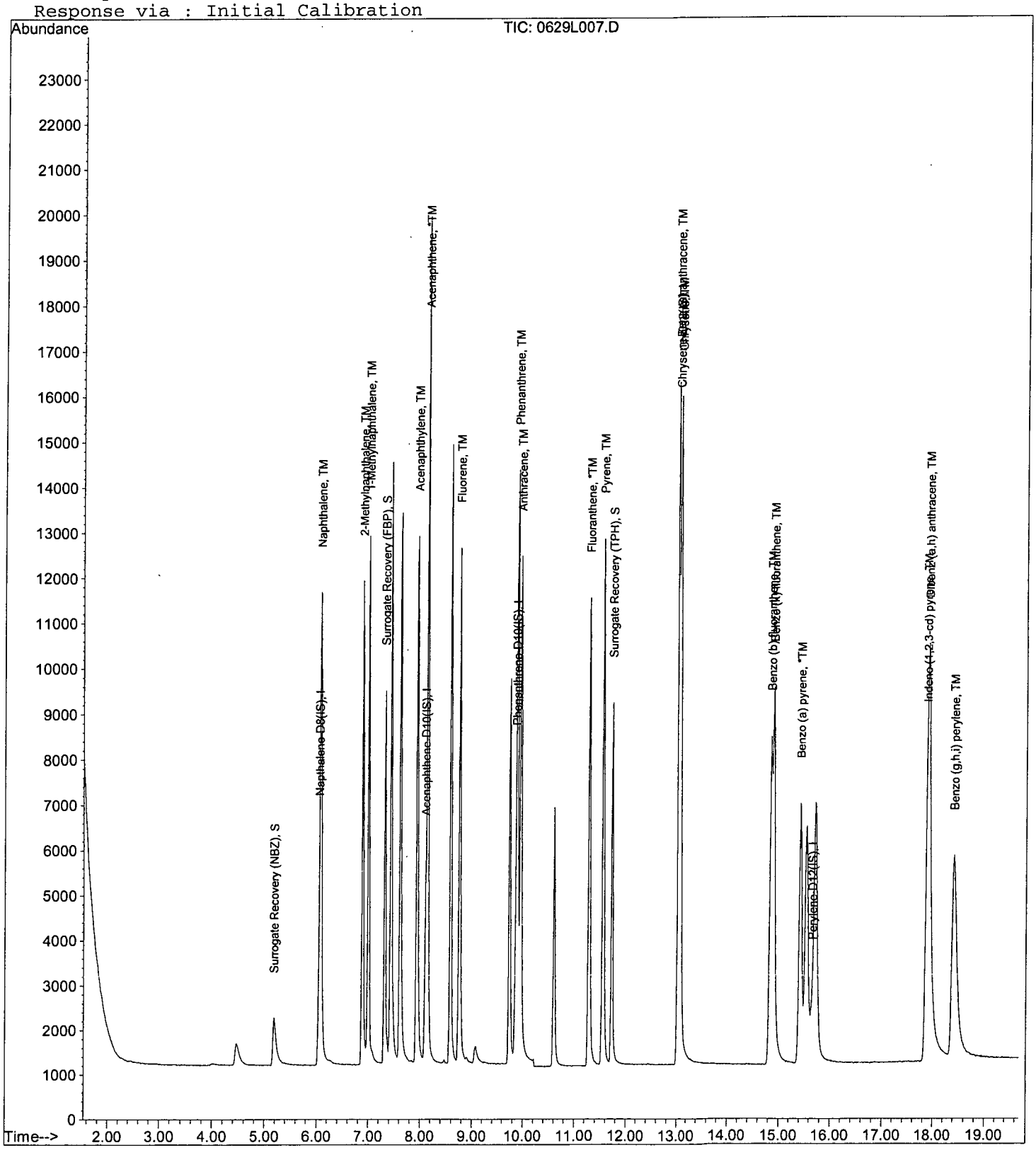
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L007.D Vial: 7
Acq On : 29 Jun 15 14:17 Operator: MA
Sample : 5.0ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 29 15:59 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L008.D Vial: 8
Acq On : 29 Jun 15 14:44 Operator: MA
Sample : 10ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 29 15:59 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Fri Jun 26 11:18:27 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.05	136	6358	2.50000 ppb		-0.01
6) Acenaphthene-D10(IS)	8.10	164	3196	2.50000 ppb		-0.01
11) Phenanthrene-D10(IS)	9.85	188	5100	2.50000 ppb		-0.01
15) Chrysene-D12(IS)	13.03	240	5590	2.50000 ppb		-0.01
21) Perylene-D12(IS)	15.65	264	3355	2.50000 ppb		-0.02
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.18	82	5997	8.37970 ppb		-0.04
Spiked Amount 2.500			Recovery = 335.200%			
7) Surrogate Recovery (FBP)	7.31	172	19015	12.15698 ppb		0.00
Spiked Amount 2.500			Recovery = 486.280%			
17) Surrogate Recovery (TPH)	11.71	244	19884	11.43755 ppb		-0.01
Spiked Amount 2.500			Recovery = 457.520%			
Target Compounds						Qvalue
3) Naphthalene	6.07	128	33537	11.87532 ppb		99
4) 2-Methylnaphthalene	6.88	142	21582	10.70913 ppb		100
5) 1-Methylnaphthalene	7.00	142	23598	11.50335 ppb		99
8) Acenaphthylene	7.93	152	34434	11.96784 ppb		100
9) Acenaphthene	8.13	154	20697	11.55392 ppb		98
10) Fluorene	8.75	166	22059	12.00054 ppb		99
12) Phenanthrene	9.88	178	30321	12.40375 ppb		99
13) Anthracene	9.94	178	30287	12.25791 ppb		99
14) Fluoranthene	11.27	202	37899	12.09034 ppb		100
16) Pyrene	11.54	202	39554	12.00323 ppb		98
18) Benz (a) anthracene	13.02	228	34735	10.92899 ppb		99
19) Chrysene	13.07	228	33102	10.98699 ppb		99
20) Indeno (1,2,3-cd) pyrene	17.86	276	37697	11.86184 ppb	#	99
22) Benzo (b) fluoranthene	14.83	252	29821	10.27469 ppb		98
23) Benzo (k) fluoranthene	14.88	252	20149	8.04806 ppb		99
24) Benzo (a) pyrene	15.41	252	28761	12.10385 ppb		98
25) Dibenz (a,h) anthracene	17.91	278	31362	12.09161 ppb		95
26) Benzo (g,h,i) perylene	18.40	276	31598	11.96038 ppb		98

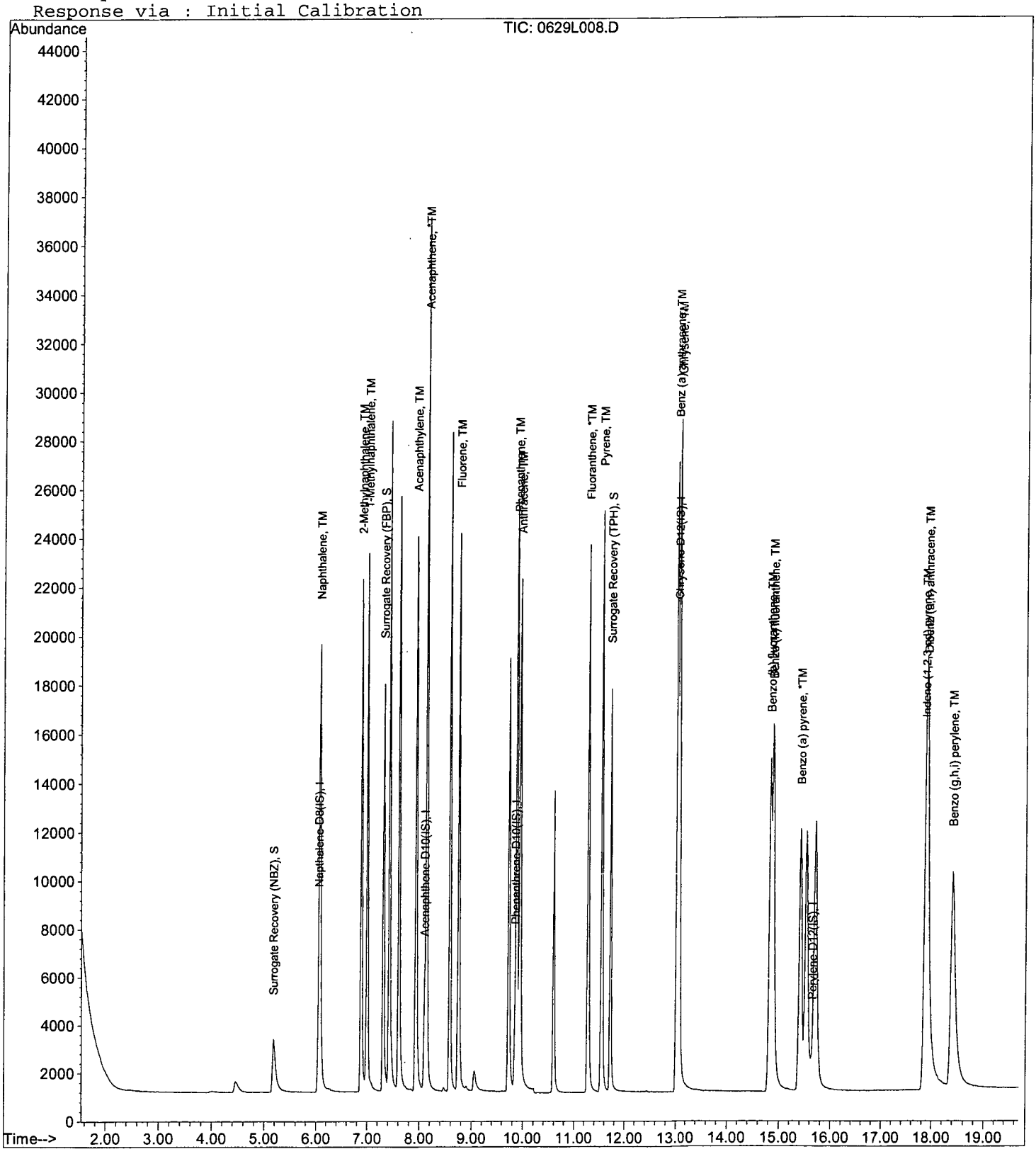
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L008.D Vial: 8
Acq On : 29 Jun 15 14:44 Operator: MA
Sample : 10ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 29 15:59 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L009.D Vial: 9
Acq On : 29 Jun 15 15:12 Operator: MA
Sample : 50ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 29 15:59 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Fri Jun 26 11:18:27 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.05	136	6909	2.50000 ppb	-0.01
6) Acenaphthene-D10(IS)	8.10	164	3274	2.50000 ppb	-0.01
11) Phenanthrene-D10(IS)	9.85	188	5525	2.50000 ppb	-0.01
15) Chrysene-D12(IS)	13.02	240	6441	2.50000 ppb	-0.02
21) Perylene-D12(IS)	15.63	264	3917	2.50000 ppb	-0.04
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.18	82	42300	50.52065 ppb	-0.04
Spiked Amount 2.500			Recovery	= 2020.840%	
7) Surrogate Recovery (FBP)	7.31	172	104374	65.14031 ppb	0.00
Spiked Amount 2.500			Recovery	= 2605.600%	
17) Surrogate Recovery (TPH)	11.70	244	115303	57.56102 ppb	-0.02
Spiked Amount 2.500			Recovery	= 2302.440%	
Target Compounds					Qvalue
3) Naphthalene	6.07	128	176135	57.39474 ppb	99
4) 2-Methylnaphthalene	6.88	142	116575	52.47275 ppb	99
5) 1-Methylnaphthalene	7.00	142	118182	53.00059 ppb	99
8) Acenaphthylene	7.93	152	182435	61.89628 ppb	99
9) Acenaphthene	8.13	154	106789	58.19379 ppb	100
10) Fluorene	8.74	166	117892	62.60765 ppb	100
12) Phenanthrene	9.87	178	163222	61.63483 ppb	99
13) Anthracene	9.93	178	161904	60.48608 ppb	99
14) Fluoranthene	11.26	202	206781	60.89184 ppb	99
16) Pyrene	11.53	202	211679	55.74988 ppb	97
18) Benz (a) anthracene	13.00	228	199455	52.59560 ppb	99
19) Chrysene	13.06	228	167162	48.15269 ppb	99
20) Indeno (1,2,3-cd) pyrene	17.84	276	210491	57.48273 ppb	98
22) Benzo (b) fluoranthene	14.82	252	180221	51.29045 ppb	97
23) Benzo (k) fluoranthene	14.86	252	140558	49.50130 ppb	99
24) Benzo (a) pyrene	15.40	252	161655	58.27035 ppb	96
25) Dibenz (a,h) anthracene	17.89	278	176809	58.38802 ppb	95
26) Benzo (g,h,i) perylene	18.38	276	174425	56.55005 ppb	96

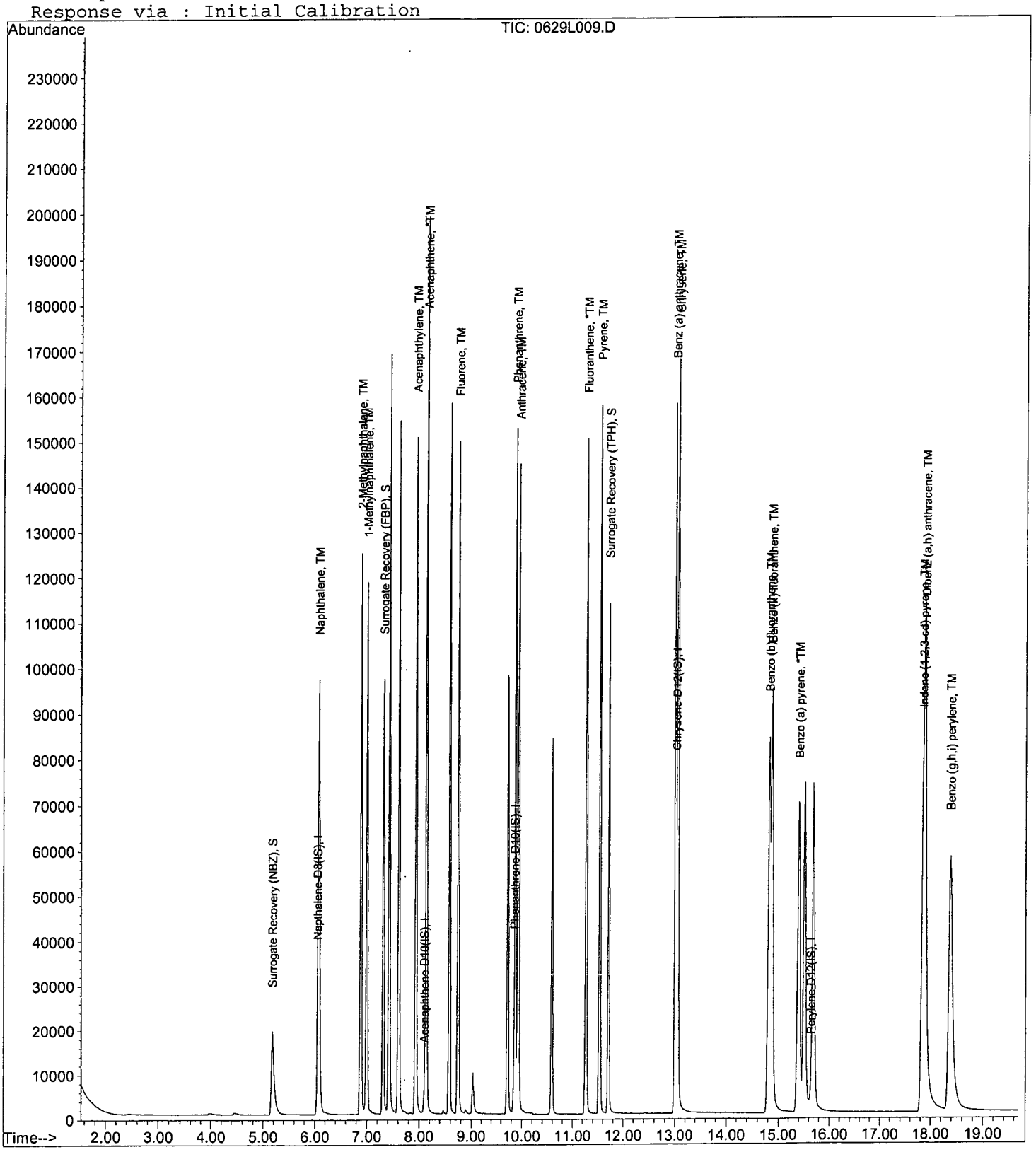
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L009.D Vial: 9
Acq On : 29 Jun 15 15:12 Operator: MA
Sample : 50ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 29 15:59 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L010.D Vial: 10
Acq On : 29 Jun 15 15:39 Operator: MA
Sample : 100ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 29 15:59 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Fri Jun 26 11:18:27 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.05	136	8233	2.50000 ppb	-0.01
6) Acenaphthene-D10(IS)	8.10	164	3916	2.50000 ppb	-0.01
11) Phenanthrene-D10(IS)	9.85	188	6624	2.50000 ppb	-0.01
15) Chrysene-D12(IS)	13.02	240	7759	2.50000 ppb	-0.02
21) Perylene-D12(IS)	15.63	264	4835	2.50000 ppb	-0.03
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.18	82	93637	93.24498 ppb	-0.04
Spiked Amount 2.500			Recovery	= 3729.800%	
7) Surrogate Recovery (FBP)	7.31	172	224483	117.13238 ppb	0.00
Spiked Amount 2.500			Recovery	= 4685.280%	
17) Surrogate Recovery (TPH)	11.70	244	249102	103.23160 ppb	-0.02
Spiked Amount 2.500			Recovery	= 4129.280%	
Target Compounds					Qvalue
3) Naphthalene	6.07	128	378603	103.53032 ppb	99
4) 2-Methylnaphthalene	6.88	142	253857	95.73206 ppb	99
5) 1-Methylnaphthalene	7.00	142	252140	94.88835 ppb	100
8) Acenaphthylene	7.93	152	393188	111.53024 ppb	99
9) Acenaphthene	8.13	154	229203	104.42546 ppb	100
10) Fluorene	8.74	166	254457	112.97789 ppb	100
12) Phenanthrene	9.87	178	365349	115.07139 ppb	99
13) Anthracene	9.93	178	330542	102.99983 ppb	100
14) Fluoranthene	11.26	202	449663	110.44539 ppb	99
16) Pyrene	11.53	202	459679	100.50054 ppb	97
18) Benz (a) anthracene	13.01	228	428337	93.39704 ppb	99
19) Chrysene	13.06	228	375551	89.80478 ppb	99
20) Indeno (1,2,3-cd) pyrene	17.85	276	466509	105.75756 ppb	98
22) Benzo (b) fluoranthene	14.83	252	417397	95.83842 ppb	97
23) Benzo (k) fluoranthene	14.83	252	284721	81.41614 ppb	95
24) Benzo (a) pyrene	15.40	252	354485	103.51742 ppb	99
25) Dibenz (a,h) anthracene	17.90	278	389993	104.33578 ppb	93
26) Benzo (g,h,i) perylene	18.39	276	387045	101.65830 ppb	96

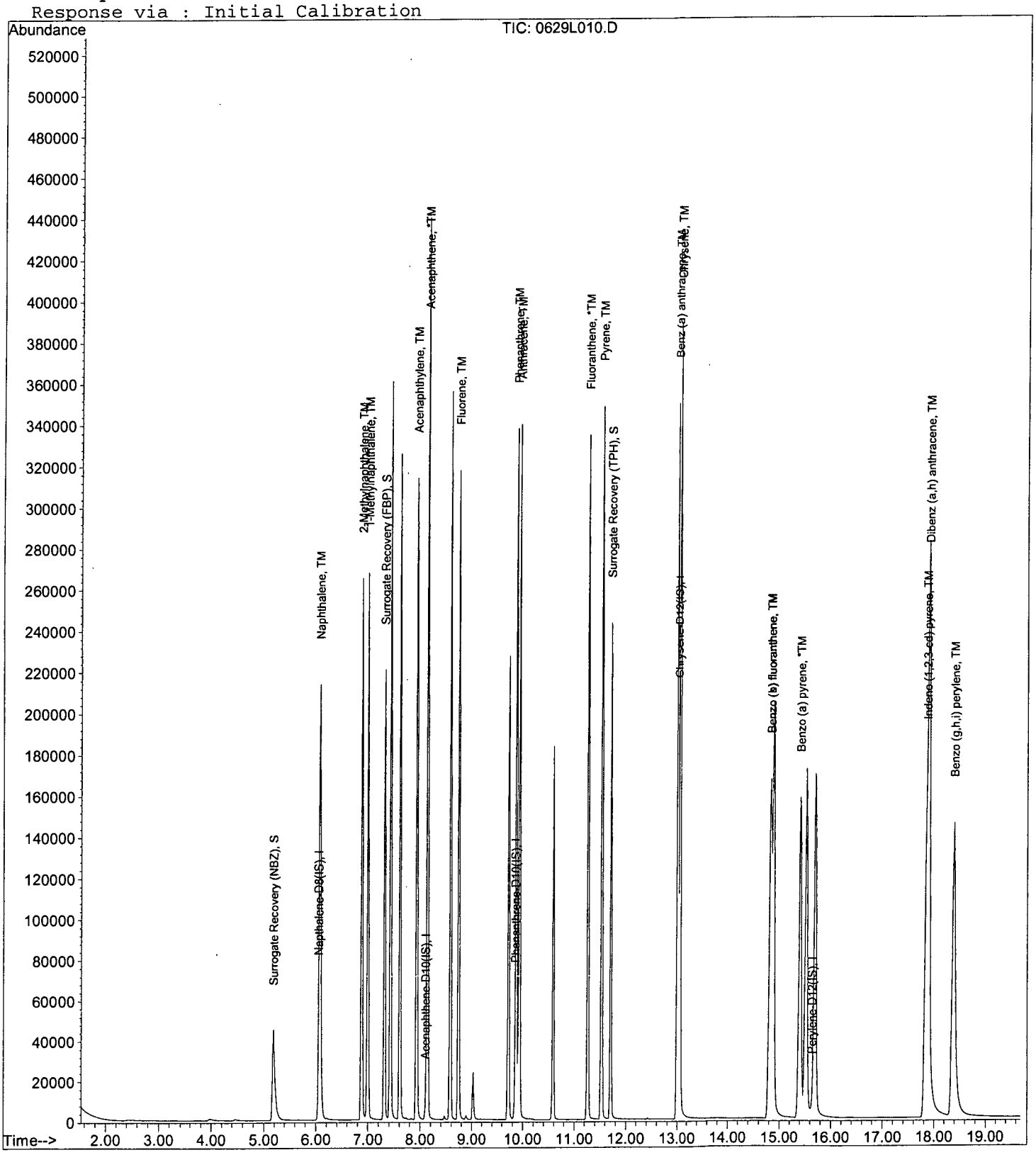
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L010.D Vial: 10
Acq On : 29 Jun 15 15:39 Operator: MA
Sample : 100ug/ml PAH Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 29 15:59 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration



Form 7

Second Source Calibration

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

SDG No: 76624
Date Analyzed: 06/29/15
Instrument: Linus
Initial Cal. Date: 06/29/15
Data File: 0629L012.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	Naphthalene	1.363	1.200	12	TM	
2	TM	2-Methylnaphthalene	0.8267	0.7314	12	TM	
3	TM	1-Methylnaphthalene	0.9281	0.8273	11	TM	
4	TM	Acenaphthylene	2.808	2.344	17	TM	
5	*TM	Acenaphthene	1.716	1.454	15	*TM	
6	TM	Fluorene	1.813	1.538	15	TM	
7	TM	Phenanthrene	1.508	1.218	19	TM	
8	TM	Anthracene	1.559	1.328	15	TM	
9	*TM	Fluoranthene	1.945	1.580	19	*TM	
10	TM	Pyrene	1.832	1.525	17	TM	
11	TML	Benz (a) anthracene	1.436	1.214	15	TML	19
12	TML	Chrysene	1.709	1.366	20	TML	7.7
13	TM	Indeno (1,2,3-cd) pyrene	1.562	1.370	12	TM	
14	TML	Benzo (b) fluoranthene	2.024	1.823	9.9	TML	20
15	TML	Benzo (k) fluoranthene	1.429	1.591	11	TML	9.1
16	*TM	Benzo (a) pyrene	2.109	1.872	11	*TM	
17	TM	Dibenz (a,h) anthracene	2.326	1.925	17	TM	
18	TM	Benzo (g,h,i) perylene	2.395	1.906	20	TM	
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			14.9		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L012.D Vial: 12
Acq On : 29 Jun 15 17:28 Operator: MA
Sample : 5.0ug/ml PAH SS 06/29/15 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 30 9:09 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.05	136	6523	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.10	164	3373	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.86	188	5642	2.50000 ppb		0.00
15) Chrysene-D12(IS)	13.04	240	6039	2.50000 ppb		0.01
21) Perylene-D12(IS)	15.67	264	3671	2.50000 ppb		0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	0.00	82	0d	0.00000 ppb		
Spiked Amount 2.500			Recovery	= 0.000%		
7) Surrogate Recovery (FBP)	0.00	172	0d	0.00000 ppb		
Spiked Amount 2.500			Recovery	= 0.000%		
17) Surrogate Recovery (TPH)	0.00	244	0d	0.00000 ppb		
Spiked Amount 2.500			Recovery	= 0.000%		
Target Compounds						Qvalue
3) Naphthalene	6.07	128	15652	4.40095 ppb		99
4) 2-Methylnaphthalene	6.89	142	9542	4.42392 ppb		98
5) 1-Methylnaphthalene	7.00	142	10793	4.45685 ppb		99
8) Acenaphthylene	7.94	152	15815	4.17424 ppb		99
9) Acenaphthene	8.13	154	9808	4.23601 ppb		97
10) Fluorene	8.76	166	10373	4.23946 ppb		97
12) Phenanthrene	9.88	178	13743m	4.03788 ppb		99
13) Anthracene	9.96	178	14986m	4.25875 ppb		99
14) Fluoranthene	11.28	202	17828m	4.06229 ppb		98
16) Pyrene	11.55	202	18423	4.16342 ppb		97
18) Benz (a) anthracene	13.03	228	14660	4.06831 ppb		100
19) Chrysene	13.08	228	16496	4.61406 ppb		99
20) Indeno (1,2,3-cd) pyrene	17.90	276	16547	4.38683 ppb	#	100
22) Benzo (b) fluoranthene	14.85	252	13385m	4.00147 ppb		98
23) Benzo (k) fluoranthene	14.90	252	11680	4.54313 ppb		98
24) Benzo (a) pyrene	15.42	252	13743	4.43708 ppb		98
25) Dibenz (a,h) anthracene	17.93	278	14133	4.13755 ppb		95
26) Benzo (g,h,i) perylene	18.42	276	13996	3.97958 ppb		97

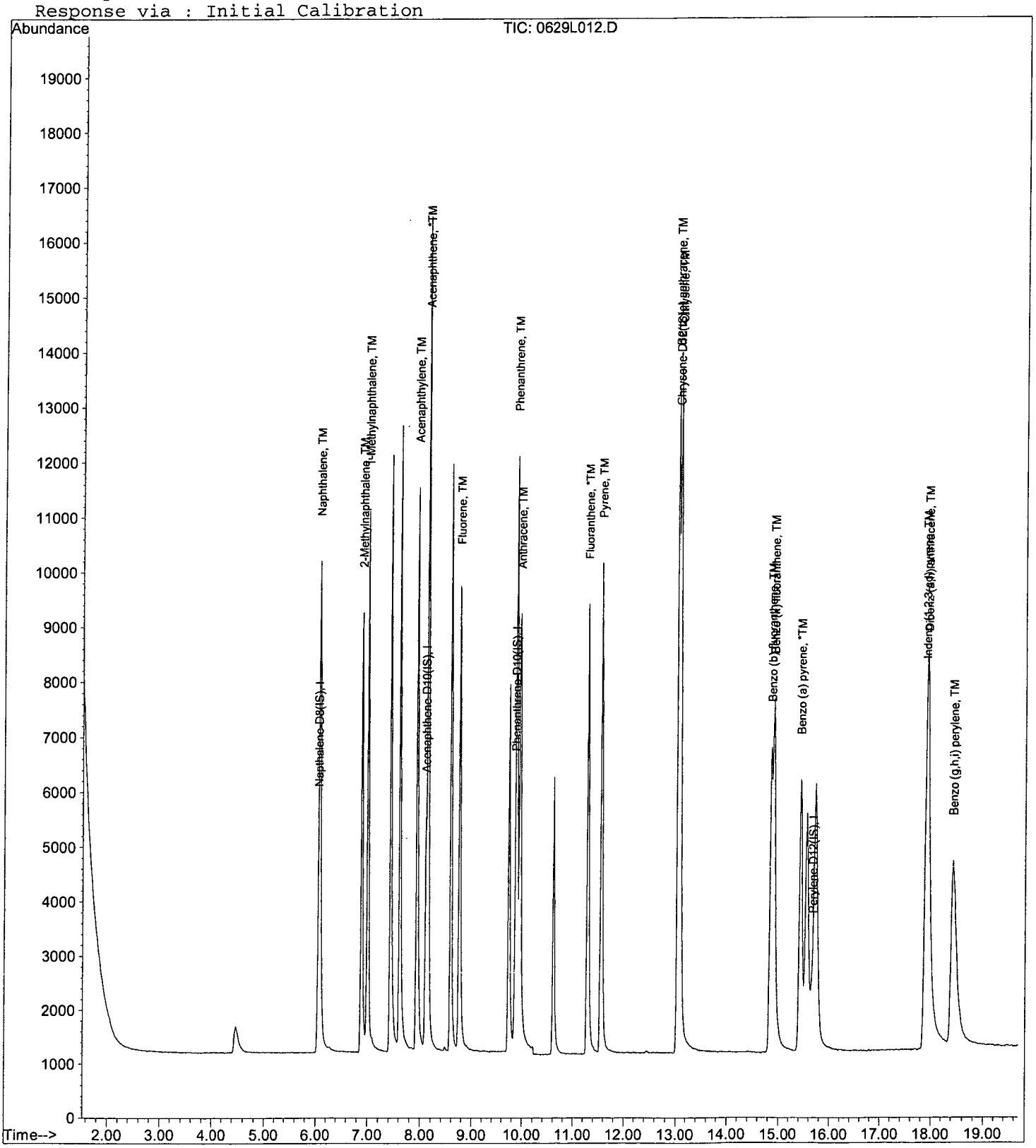
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L012.D Vial: 12
Acq On : 29 Jun 15 17:28 Operator: MA
Sample : 5.0ug/ml PAH SS 06/29/15 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 30 9:09 2015 Quant Results File: P0629.RES

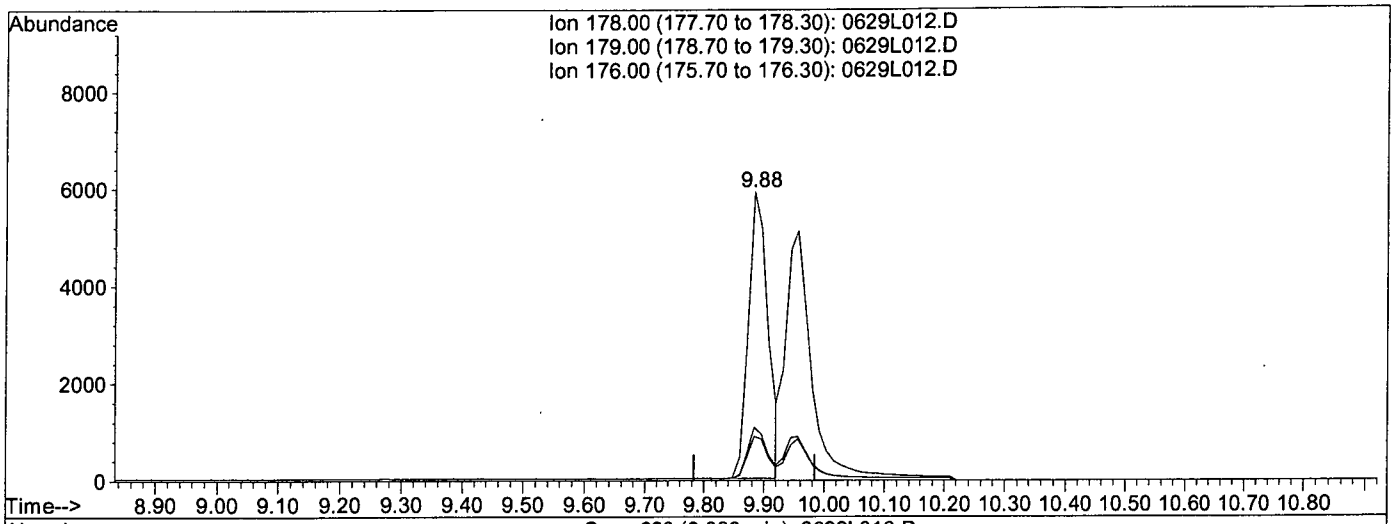
Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration

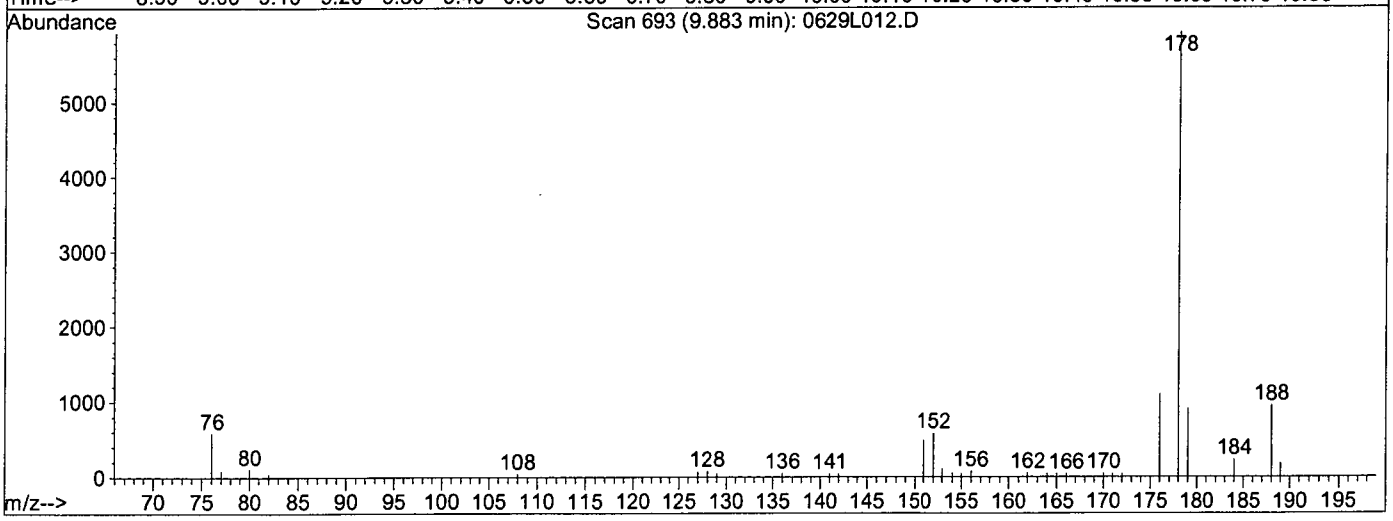


Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L012.D Vial: 12
Acq On : 29 Jun 15 17:28 Operator: MA
Sample : 5.0ug/ml PAH SS 06/29/15 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Jun 30 8:54 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Multiple Level Calibration





TIC: 0629L012.D

(12) Phenanthrene (TM)

9.88min 3.9544ppb

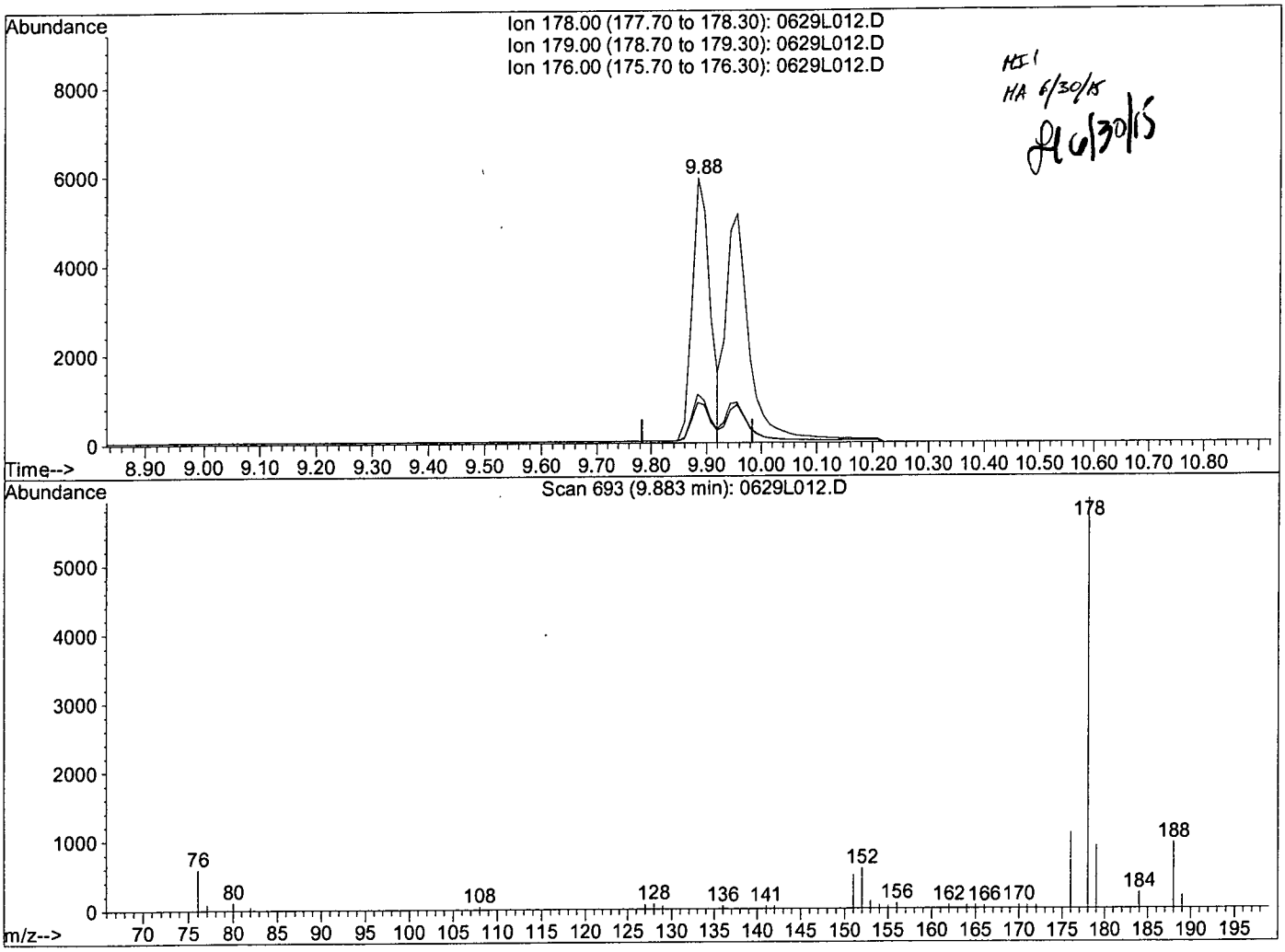
response 13459

Ion	Exp%	Act%
178.00	100	100
179.00	15.00	14.65
176.00	17.50	17.85
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L012.D Vial: 12
Acq On : 29 Jun 15 17:28 Operator: MA
Sample : 5.0ug/ml PAH SS 06/29/15 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Jun 30 9:08 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Multiple Level Calibration



TIC: 0629L012.D

(12) Phenanthrene (TM)

9.88min 4.0379ppb m

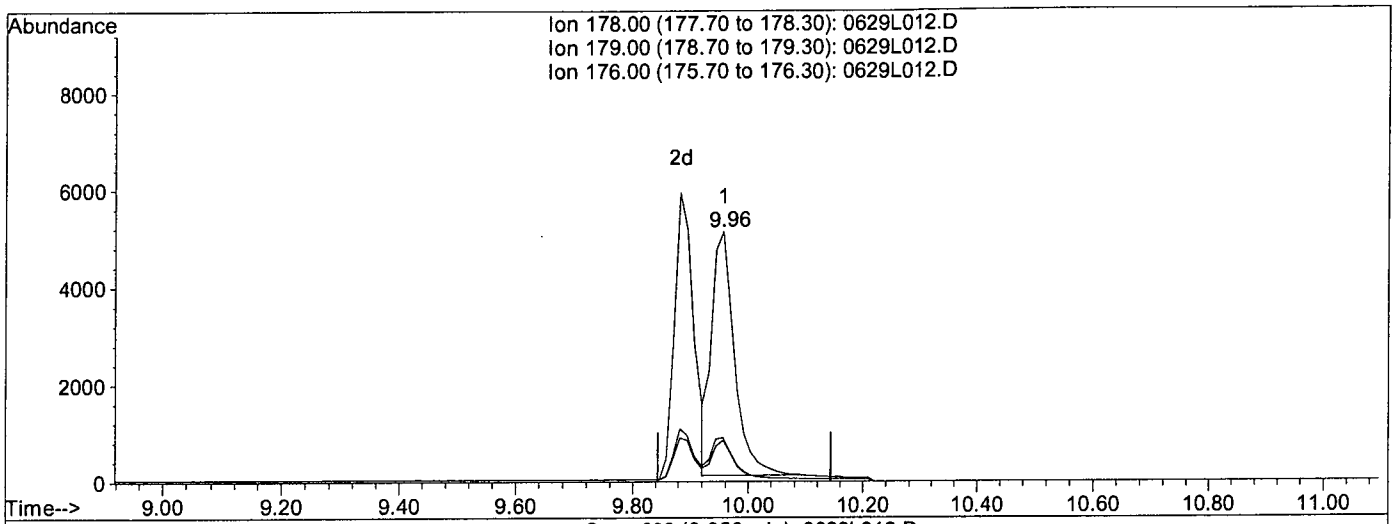
response 13743

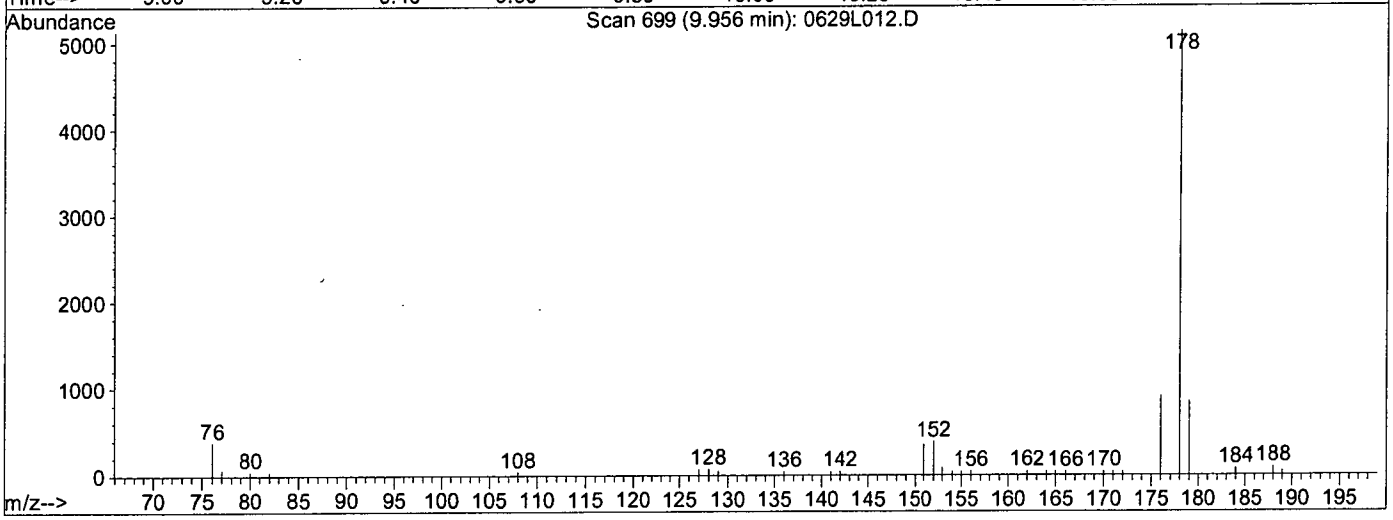
Ion	Exp%	Act%
178.00	100	100
179.00	15.00	15.22
176.00	17.50	18.39
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L012.D Vial: 12
Acq On : 29 Jun 15 17:28 Operator: MA
Sample : 5.0ug/ml PAH SS 06/29/15 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Jun 30 9:08 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Multiple Level Calibration





TIC: 0629L012.D

(13) Anthracene (TM)

9.96min 3.9331ppb

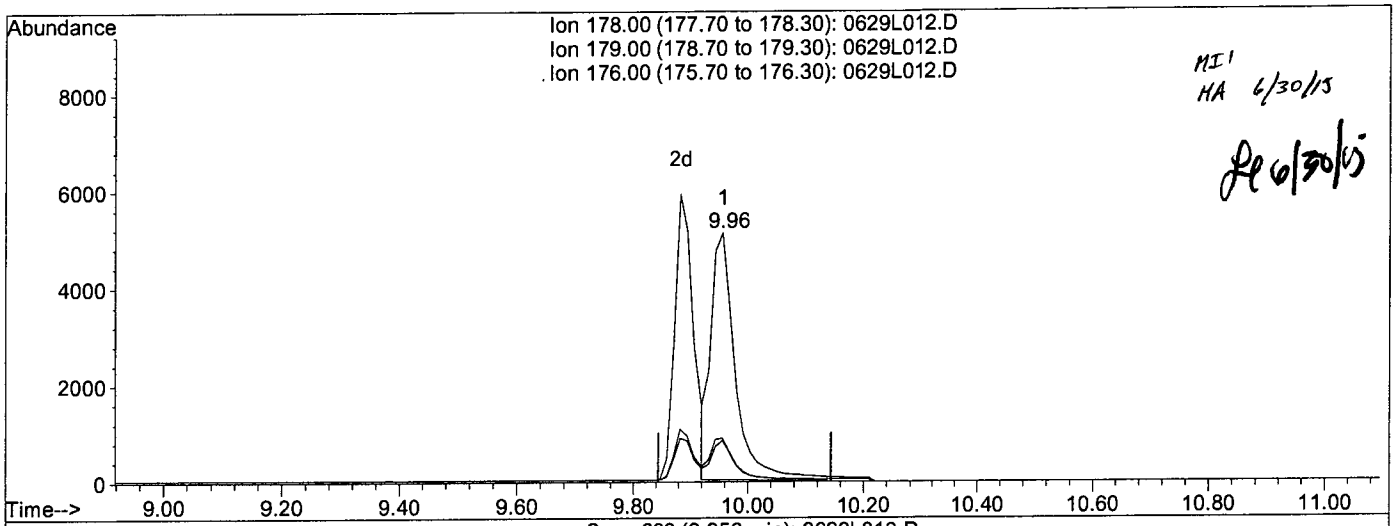
response 13840

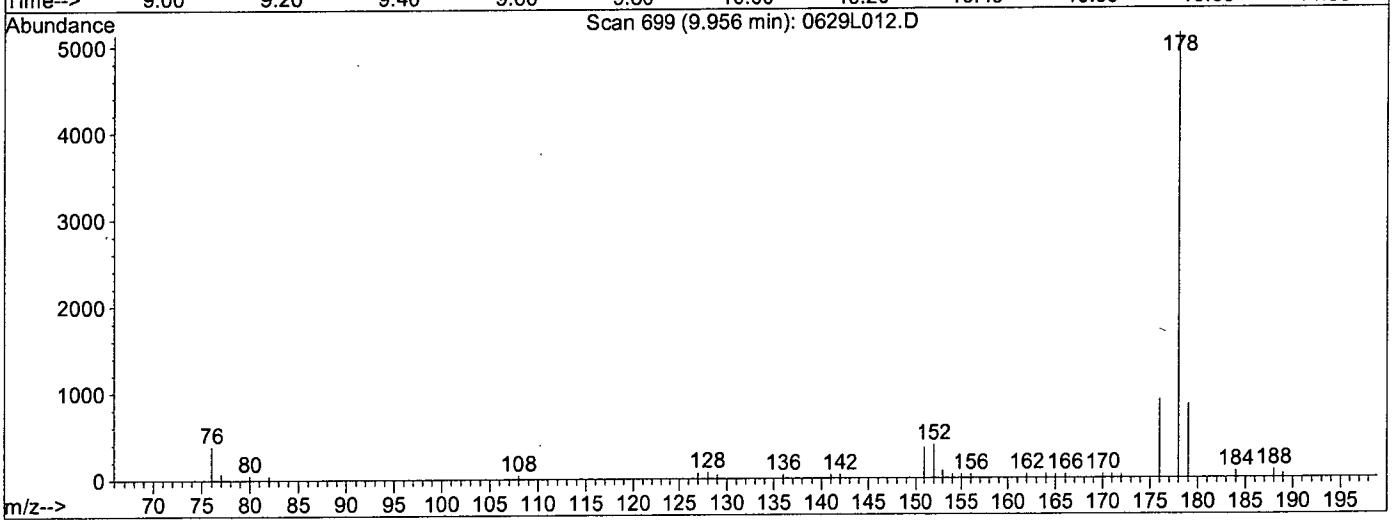
Ion	Exp%	Act%
178.00	100	100
179.00	15.60	15.92
176.00	17.40	16.98
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L012.D Vial: 12
Acq On : 29 Jun 15 17:28 Operator: MA
Sample : 5.0ug/ml PAH SS 06/29/15 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Jun 30 9:08 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Multiple Level Calibration





TIC: 0629L012.D

(13) Anthracene (TM)

9.96min 4.2588ppb m

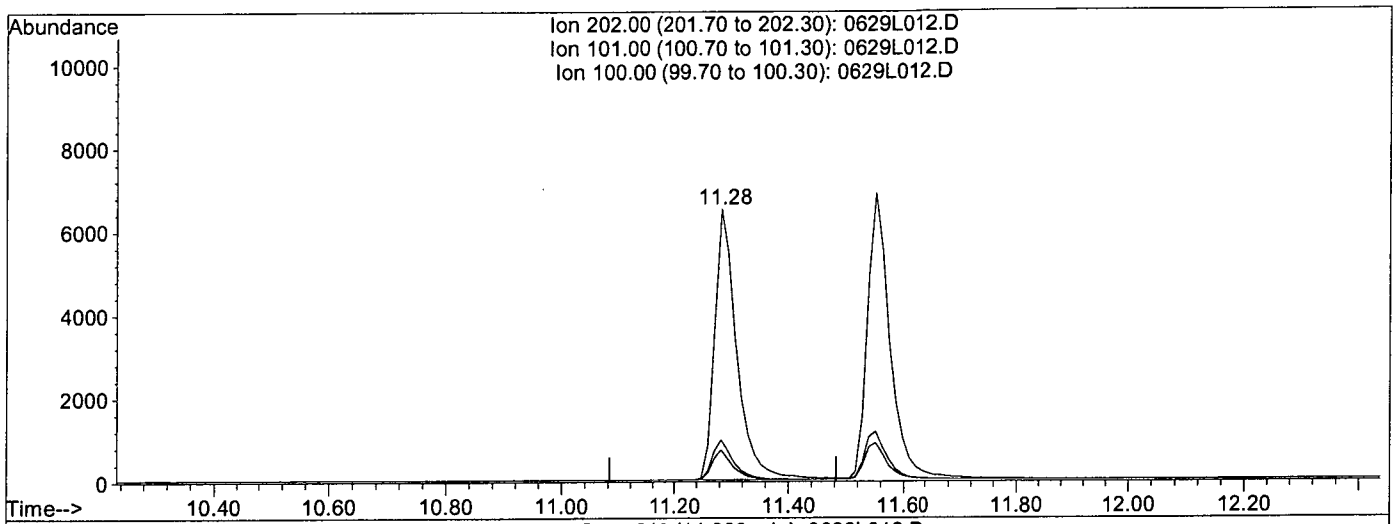
response 14986

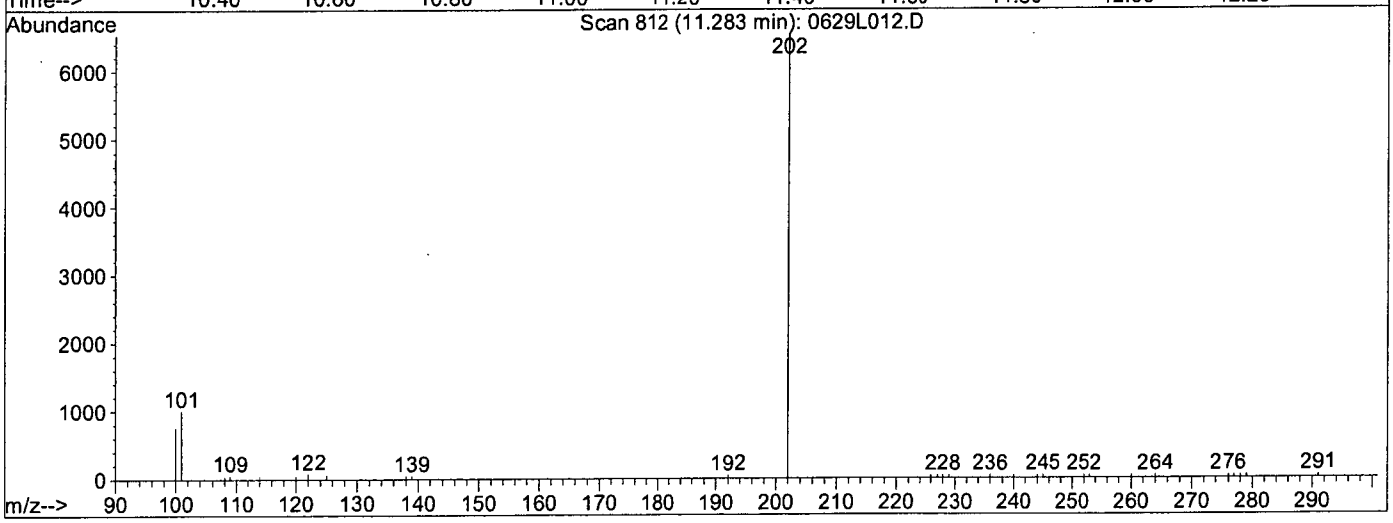
Ion	Exp%	Act%
178.00	100	100
179.00	15.60	16.57
176.00	17.40	17.62
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L012.D Vial: 12
Acq On : 29 Jun 15 17:28 Operator: MA
Sample : 5.0ug/ml PAH SS 06/29/15 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Jun 30 9:08 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Multiple Level Calibration





TIC: 0629L012.D

(14) Fluoranthene (*TM)

11.28min 3.9570ppb

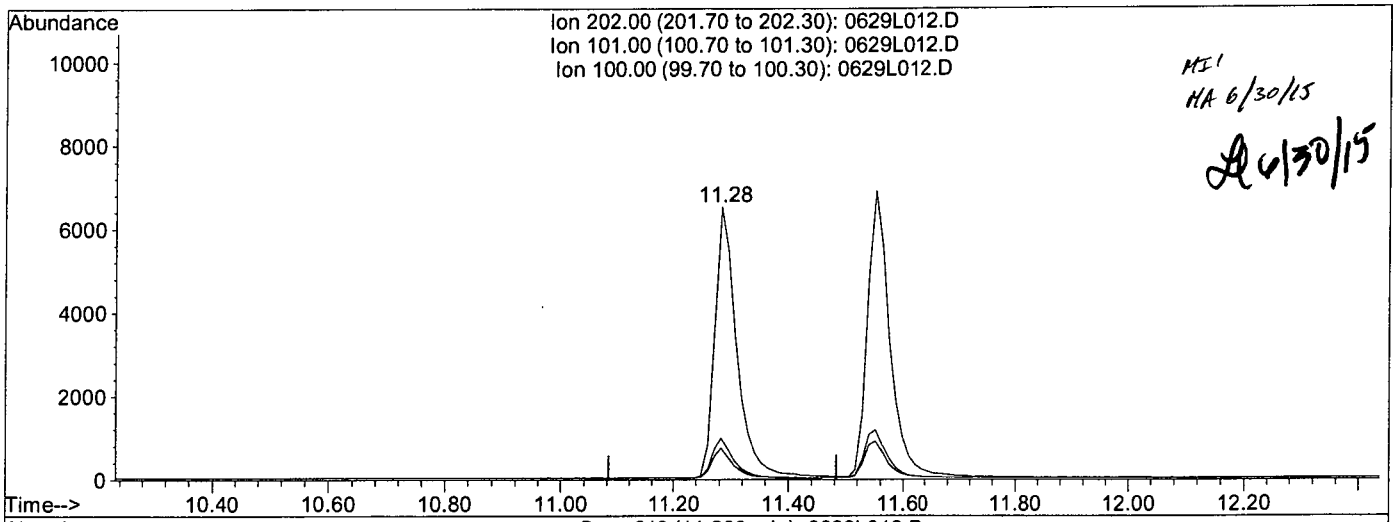
response 17366

Ion	Exp%	Act%
202.00	100	100
101.00	13.90	14.76
100.00	10.50	11.08
0.00	0.00	0.00

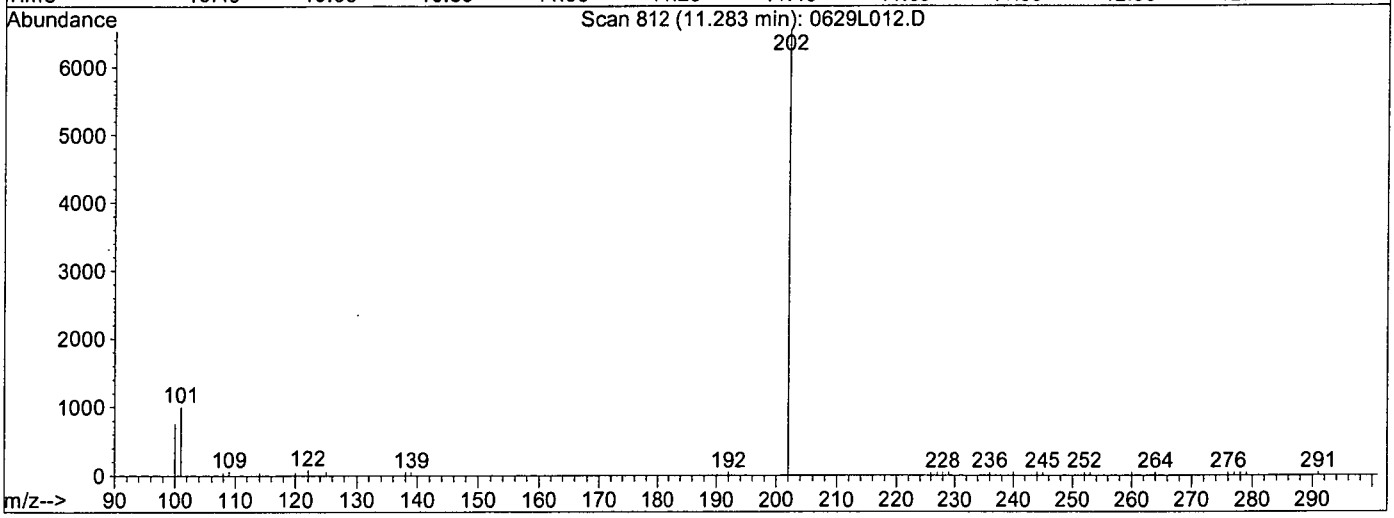
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L012.D Vial: 12
Acq On : 29 Jun 15 17:28 Operator: MA
Sample : 5.0ug/ml PAH SS 06/29/15 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Jun 30 9:09 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Multiple Level Calibration



MI
HA 6/30/15
6/30/15



TIC: 0629L012.D

(14) Fluoranthene (*TM)

11.28min 4.0623ppb m

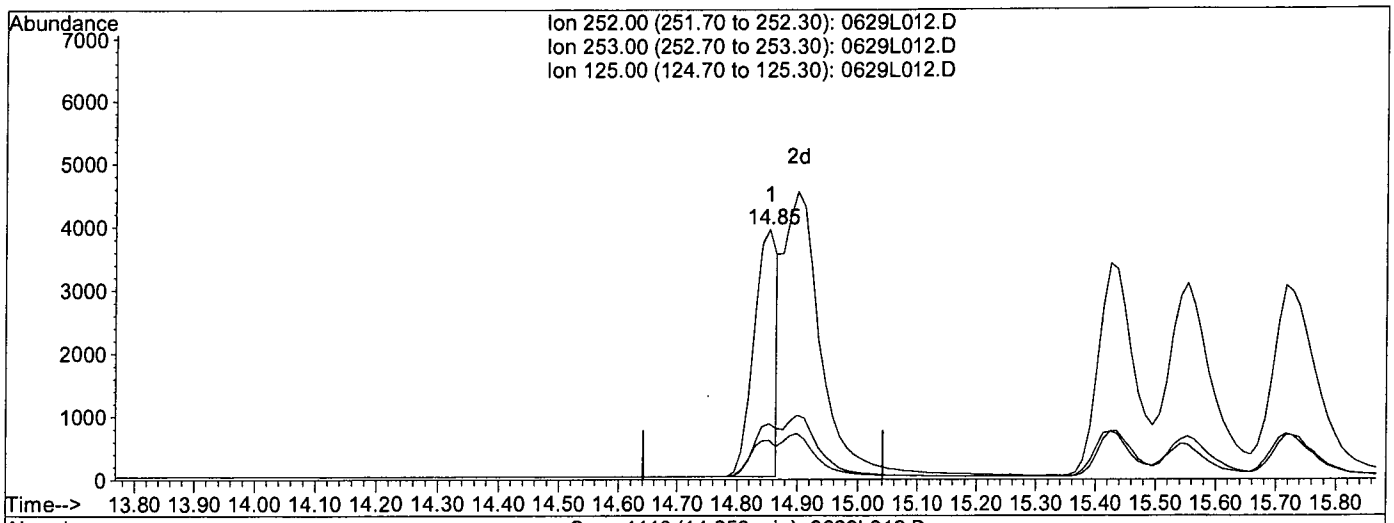
response 17828

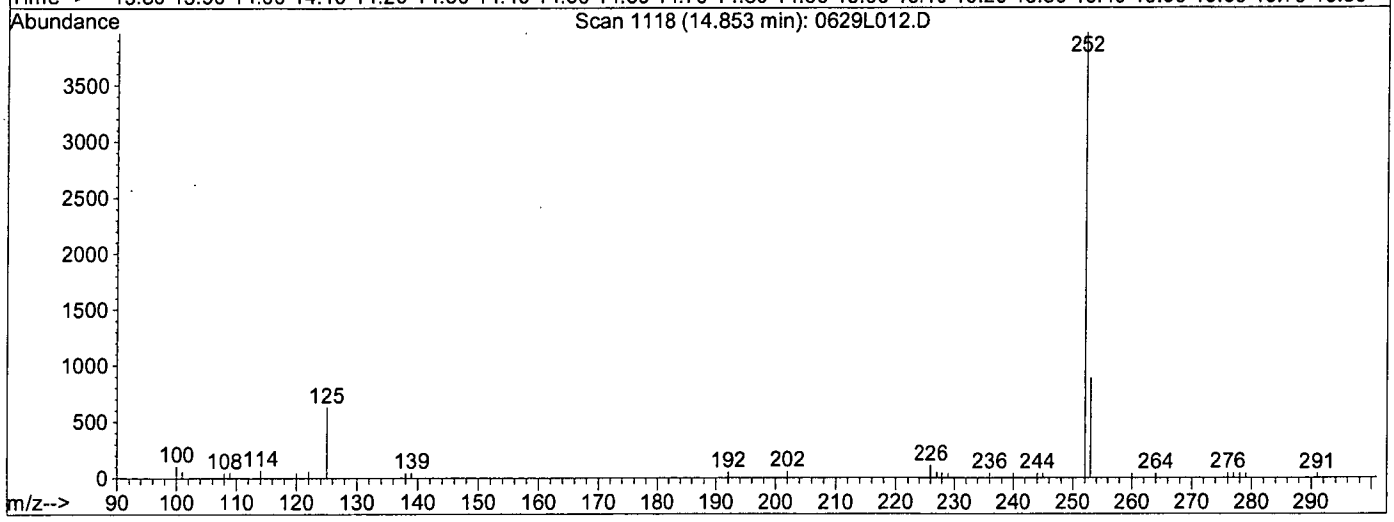
Ion	Exp%	Act%
202.00	100	100
101.00	13.90	15.30
100.00	10.50	11.60
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L012.D Vial: 12
Acq On : 29 Jun 15 17:28 Operator: MA
Sample : 5.0ug/ml PAH SS 06/29/15 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Jun 30 9:09 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Multiple Level Calibration





TIC: 0629L012.D

(22) Benzo (b) fluoranthene (TM)

14.85min 3.2083ppb

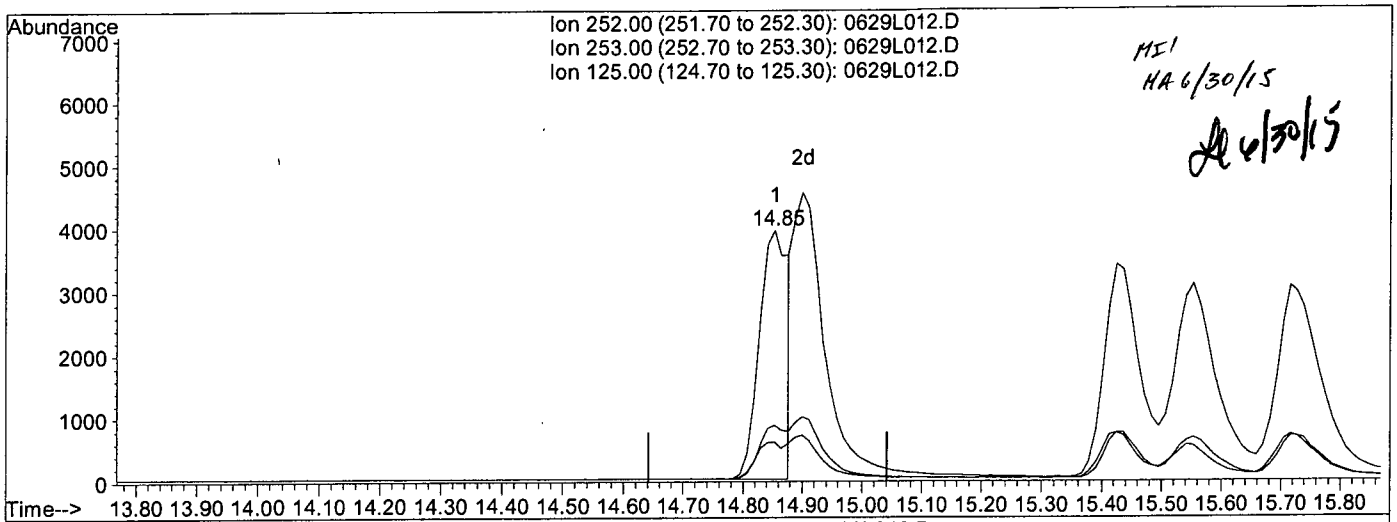
response 10844

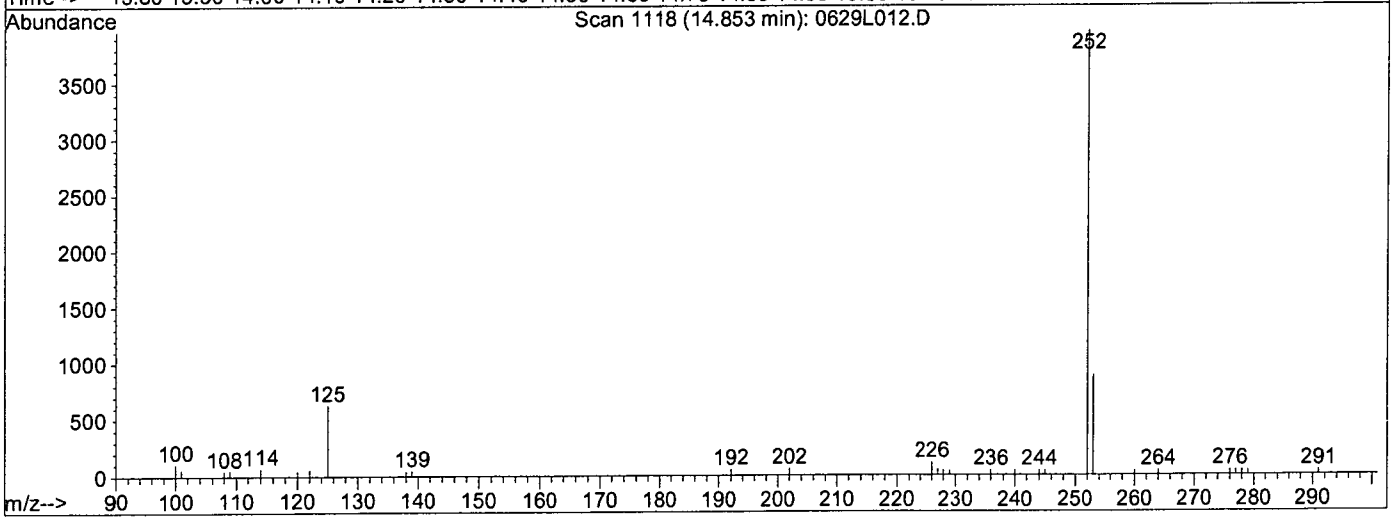
Ion	Exp%	Act%
252.00	100	100
253.00	22.40	21.58
125.00	16.10	14.80
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L012.D Vial: 12
Acq On : 29 Jun 15 17:28 Operator: MA
Sample : 5.0ug/ml PAH SS 06/29/15 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Jun 30 9:09 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Multiple Level Calibration





TIC: 0629L012.D

(22) Benzo (b) fluoranthene (TM)

14.85min 4.0015ppb m

response 13385

Ion	Exp%	Act%
252.00	100	100
253.00	22.40	22.40
125.00	16.10	15.80
0.00	0.00	0.00

Form 7

Continuing Calibration

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

SDG No: 76624
Date Analyzed: 06/30/15
Instrument: Linus
Initial Cal. Date: 06/29/15
Data File: 0629L038.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	S	Surrogate Recovery (NBZ)	0.2483	0.2313	6.9	S	
3	TM	Naphthalene	1.363	1.342	1.5	TM	
4	TM	2-Methylnaphthalene	0.8267	0.8679	5.0	TM	
5	TM	1-Methylnaphthalene	0.9281	0.9613	3.6	TM	
6	I	Acenaphthene-D10(IS)	ISTD			I	
7	S	Surrogate Recovery (FBP)	1.516	1.477	2.6	S	
8	TM	Acenaphthylene	2.808	2.729	2.8	TM	
9	*TM	Acenaphthene	1.716	1.608	6.3	*TM	
10	TM	Fluorene	1.813	1.764	2.7	TM	
11	I	Phenanthrene-D10(IS)	ISTD			I	
12	TM	Phenanthrene	1.508	1.525	1.1	TM	
13	TM	Anthracene	1.559	1.423	8.7	TM	
14	*TM	Fluoranthene	1.945	1.847	5.0	*TM	
15	I	Chrysene-D12(IS)	ISTD			I	
16	TM	Pyrene	1.832	1.773	3.2	TM	
17	S	Surrogate Recovery (TPH)	0.9151	0.8906	2.7	S	
18	TML	Benz (a) anthracene	1.436	1.457	1.5	TML	2.9
19	TML	Chrysene	1.709	1.590	6.9	TML	11
20	TM	Indeno (1,2,3-cd) pyrene	1.562	1.708	9.4	TM	
21	I	Perylene-D12(IS)	ISTD			I	
22	TML	Benzo (b) fluoranthene	2.024	2.250	11	TML	0.40
23	TML	Benzo (k) fluoranthene	1.429	1.739	22	TML	0.58
24	*TM	Benzo (a) pyrene	2.109	2.090	0.90	*TM	
25	TM	Dibenz (a,h) anthracene	2.326	2.314	0.51	TM	
26	TM	Benzo (g,h,i) perylene	2.395	2.344	2.1	TM	
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			5.1		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L038.D Vial: 38
Acq On : 30 Jun 15 4:48 Operator: MA
Sample : 5.0ug/ml PAH 06/29/15 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 30 9:15 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.05	136	7981	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.10	164	4103	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.86	188	6730	2.50000 ppb	0.00
15) Chrysene-D12(IS)	13.03	240	7256	2.50000 ppb	0.00
21) Perylene-D12(IS)	15.66	264	4498	2.50000 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.18	82	3692	4.65691 ppb	0.00
Spiked Amount 2.500			Recovery	= 186.280%	
7) Surrogate Recovery (FBP)	7.31	172	12117	4.87121 ppb	0.00
Spiked Amount 2.500			Recovery	= 194.840%	
17) Surrogate Recovery (TPH)	11.73	244	12925	4.86636 ppb	0.00
Spiked Amount 2.500			Recovery	= 194.640%	
Target Compounds					Qvalue
3) Naphthalene	6.07	128	21423	4.92320 ppb	99
4) 2-Methylnaphthalene	6.88	142	13853	5.24931 ppb	99
5) 1-Methylnaphthalene	7.00	142	15344	5.17863 ppb	99
8) Acenaphthylene	7.94	152	22397	4.85974 ppb	99
9) Acenaphthene	8.13	154	13192	4.68384 ppb	98
10) Fluorene	8.75	166	14475	4.86340 ppb	100
12) Phenanthrene	9.88	178	20526	5.05585 ppb	100
13) Anthracene	9.94	178	19152	4.56277 ppb	99
14) Fluoranthene	11.27	202	24858	4.74846 ppb	97
16) Pyrene	11.54	202	25731	4.83966 ppb	95
18) Benz (a) anthracene	13.02	228	21150	4.85282 ppb	99
19) Chrysene	13.07	228	23079	5.53873 ppb	99
20) Indeno (1,2,3-cd) pyrene	17.87	276	24792	5.47030 ppb	96
22) Benzo (b) fluoranthene	14.84	252	20242	4.98010 ppb	98
23) Benzo (k) fluoranthene	14.89	252	15642	5.02889 ppb	99
24) Benzo (a) pyrene	15.41	252	18805	4.95512 ppb	99
25) Dibenz (a,h) anthracene	17.91	278	20820	4.97455 ppb	97
26) Benzo (g,h,i) perylene	18.41	276	21090	4.89413 ppb	98

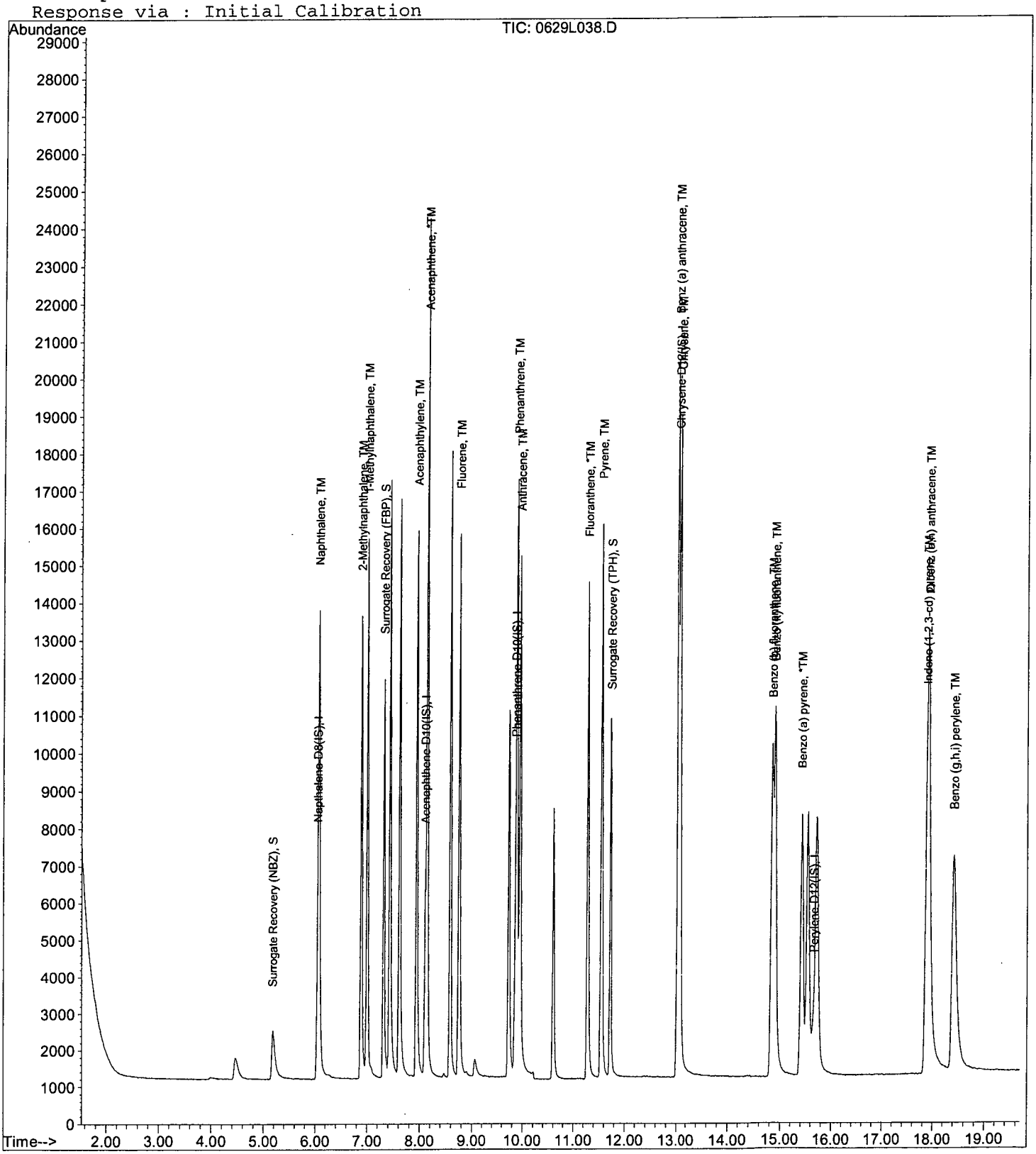
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L038.D Vial: 38
Acq On : 30 Jun 15 4:48 Operator: MA
Sample : 5.0ug/ml PAH 06/29/15 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 30 9:15 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration



Form 7

Continuing Calibration

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

SDG No: 76624
Date Analyzed: 06/30/15
Instrument: Linus
Initial Cal. Date: 06/29/15
Data File: 0629L061.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	S	Surrogate Recovery (NBZ)	0.2483	0.2234	10	S	
3	TM	Naphthalene	1.363	1.348	1.1	TM	
4	TM	2-Methylnaphthalene	0.8267	0.8524	3.1	TM	
5	TM	1-Methylnaphthalene	0.9281	0.9391	1.2	TM	
6	I	Acenaphthene-D10(IS)	ISTD			I	
7	S	Surrogate Recovery (FBP)	1.516	1.492	1.6	S	
8	TM	Acenaphthylene	2.808	2.738	2.5	TM	
9	*TM	Acenaphthene	1.716	1.654	3.6	*TM	
10	TM	Fluorene	1.813	1.762	2.8	TM	
11	I	Phenanthrene-D10(IS)	ISTD			I	
12	TM	Phenanthrene	1.508	1.510	0.09	TM	
13	TM	Anthracene	1.559	1.420	8.9	TM	
14	*TM	Fluoranthene	1.945	1.824	6.2	*TM	
15	I	Chrysene-D12(IS)	ISTD			I	
16	TM	Pyrene	1.832	1.778	3.0	TM	
17	S	Surrogate Recovery (TPH)	0.9151	0.8903	2.7	S	
18	TML	Benz (a) anthracene	1.436	1.397	2.7	TML	6.8
19	TML	Chrysene	1.709	1.617	5.4	TML	13
20	TM	Indeno (1,2,3-cd) pyrene	1.562	1.677	7.4	TM	
21	I	Perylene-D12(IS)	ISTD			I	
22	TML	Benzo (b) fluoranthene	2.024	2.185	8.0	TML	3.4
23	TML	Benzo (k) fluoranthene	1.429	1.737	22	TML	0.46
24	*TM	Benzo (a) pyrene	2.109	2.086	1.1	*TM	
25	TM	Dibenz (a,h) anthracene	2.326	2.321	0.22	TM	
26	TM	Benzo (g,h,i) perylene	2.395	2.315	3.4	TM	
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			4.6		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L061.D Vial: 61
Acq On : 30 Jun 15 16:07 Operator: MA
Sample : CCV 5.0ug/ml PAH 06/30/15 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 30 16:27 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.05	136	7884	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.10	164	3975	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.86	188	6574	2.50000 ppb		0.00
15) Chrysene-D12(IS)	13.03	240	7098	2.50000 ppb		0.00
21) Perylene-D12(IS)	15.66	264	4330	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.19	82	3523	4.49842 ppb		0.01
Spiked Amount 2.500			Recovery	= 179.920%		
7) Surrogate Recovery (FBP)	7.31	172	11858	4.92060 ppb		0.00
Spiked Amount 2.500			Recovery	= 196.840%		
17) Surrogate Recovery (TPH)	11.73	244	12639	4.86461 ppb		0.00
Spiked Amount 2.500			Recovery	= 194.600%		
Target Compounds						Qvalue
3) Naphthalene	6.07	128	21256	4.94492 ppb		99
4) 2-Methylnaphthalene	6.88	142	13440	5.15547 ppb		100
5) 1-Methylnaphthalene	7.00	142	14808	5.05922 ppb		98
8) Acenaphthylene	7.94	152	21766	4.87490 ppb		99
9) Acenaphthene	8.13	154	13153	4.82037 ppb		99
10) Fluorene	8.75	166	14011	4.85909 ppb		99
12) Phenanthrene	9.88	178	19847	5.00461 ppb		99
13) Anthracene	9.94	178	18675	4.55471 ppb		99
14) Fluoranthene	11.28	202	23980	4.68944 ppb		96
16) Pyrene	11.54	202	25236	4.85221 ppb		95
18) Benz (a) anthracene	13.02	228	19831	4.65810 ppb		99
19) Chrysene	13.07	228	22950	5.64709 ppb		99
20) Indeno (1,2,3-cd) pyrene	17.87	276	23805	5.36944 ppb	#	100
22) Benzo (b) fluoranthene	14.84	252	18923	4.83113 ppb		98
23) Benzo (k) fluoranthene	14.89	252	15042	5.02291 ppb		99
24) Benzo (a) pyrene	15.41	252	18066	4.94509 ppb		99
25) Dibenz (a,h) anthracene	17.92	278	20101	4.98910 ppb		97
26) Benzo (g,h,i) perylene	18.41	276	20044	4.83186 ppb		98

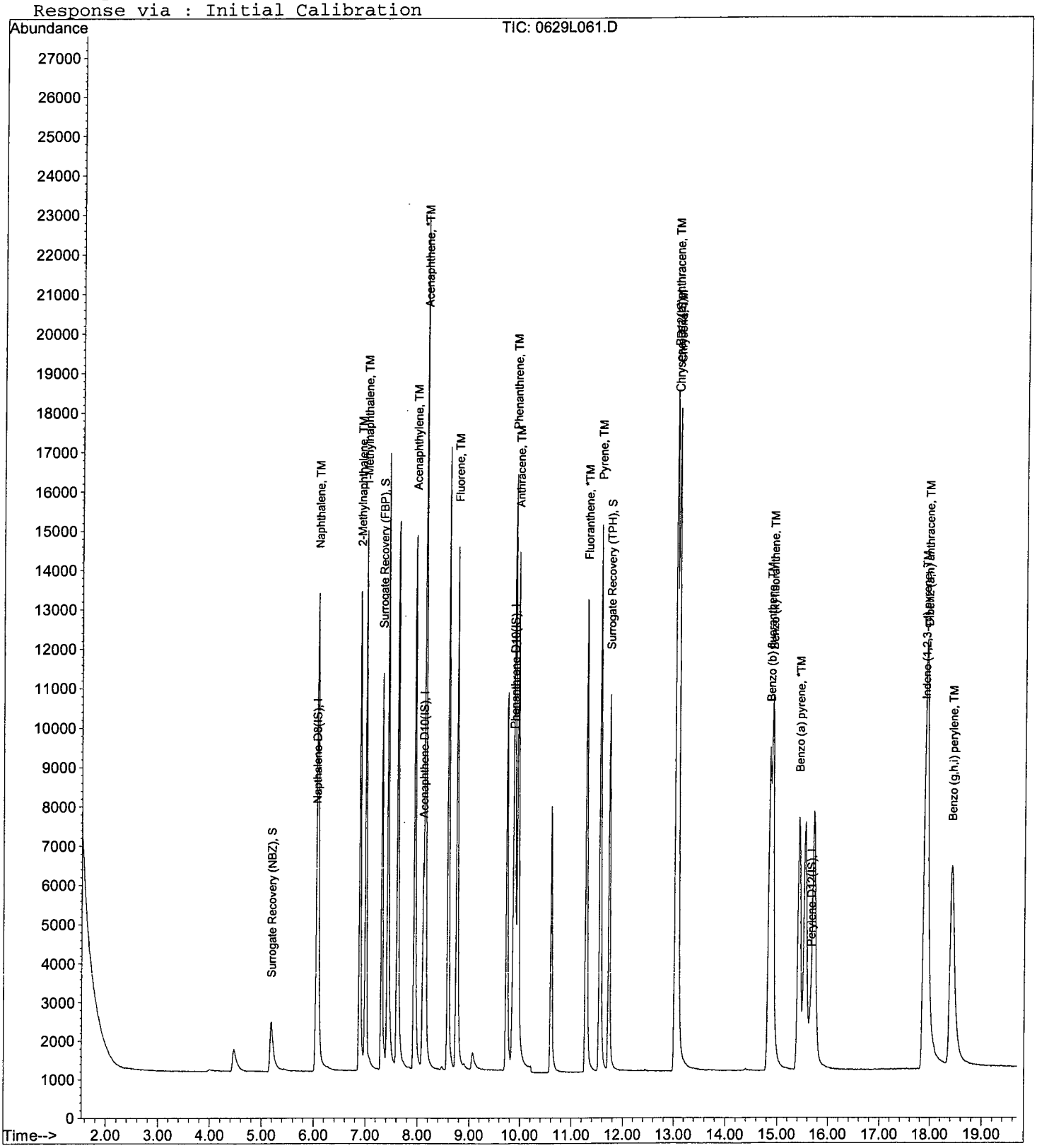
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L061.D Vial: 61
Acq On : 30 Jun 15 16:07 Operator: MA
Sample : CCV 5.0ug/ml PAH 06/30/15 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jun 30 16:27 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration



Form 7

Continuing Calibration

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

SDG No: 76624
Date Analyzed: 2 Jul 15 10:01
Instrument: Linus
Initial Cal. Date: 06/29/15
Data File: 0629L131.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	S	Surrogate Recovery (NBZ)	0.2483	0.2381	4.1	S	
3	TM	Naphthalene	1.363	1.299	4.7	TM	
4	TM	2-Methylnaphthalene	0.8267	0.8408	1.7	TM	
5	TM	1-Methylnaphthalene	0.9281	0.9400	1.3	TM	
6	I	Acenaphthene-D10(IS)	ISTD			I	
7	S	Surrogate Recovery (FBP)	1.516	1.419	6.4	S	
8	TM	Acenaphthylene	2.808	2.614	6.9	TM	
9	*TM	Acenaphthene	1.716	1.562	9.0	*TM	
10	TM	Fluorene	1.813	1.713	5.5	TM	
11	I	Phenanthrene-D10(IS)	ISTD			I	
12	TM	Phenanthrene	1.508	1.331	12	TM	
13	TM	Anthracene	1.559	1.397	10	TM	
14	*TM	Fluoranthene	1.945	1.728	11	*TM	
15	I	Chrysene-D12(IS)	ISTD			I	
16	TM	Pyrene	1.832	1.604	12	TM	
17	S	Surrogate Recovery (TPH)	0.9151	0.8534	6.7	S	
18	TML	Benz (a) anthracene	1.436	1.425	0.77	TML	5.1
19	TML	Chrysene	1.709	1.385	19	TML	6.1
20	TM	Indeno (1,2,3-cd) pyrene	1.562	1.555	0.42	TM	
21	I	Perylene-D12(IS)	ISTD			I	
22	TML	Benzo (b) fluoranthene	2.024	1.866	7.8	TML	18
23	TML	Benzo (k) fluoranthene	1.429	1.957	37	TML	15
24	*TM	Benzo (a) pyrene	2.109	1.976	6.3	*TM	
25	TM	Dibenz (a,h) anthracene	2.326	2.091	10	TM	
26	TM	Benzo (g,h,i) perylene	2.395	2.063	14	TM	
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			8.9		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L131.D Vial: 31
Acq On : 2 Jul 15 10:01 Operator: MA
Sample : CCV 5.0ug/ml PAH 06/30/15 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Jul 2 10:21 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.05	136	5843	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.10	164	3117	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.85	188	5423	2.50000 ppb		-0.01
15) Chrysene-D12(IS)	13.03	240	6042	2.50000 ppb		0.00
21) Perylene-D12(IS)	15.66	264	3739	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.18	82	2783	4.79481 ppb		0.00
Spiked Amount 2.500			Recovery	= 191.800%		
7) Surrogate Recovery (FBP)	7.31	172	8847	4.68169 ppb		0.00
Spiked Amount 2.500			Recovery	= 187.280%		
17) Surrogate Recovery (TPH)	11.71	244	10312	4.66266 ppb		-0.01
Spiked Amount 2.500			Recovery	= 186.520%		
Target Compounds						Qvalue
3) Naphthalene	6.07	128	15185	4.76654 ppb		99
4) 2-Methylnaphthalene	6.88	142	9825	5.08525 ppb		99
5) 1-Methylnaphthalene	7.00	142	10985	5.06404 ppb		99
8) Acenaphthylene	7.94	152	16295	4.65417 ppb		99
9) Acenaphthene	8.13	154	9738	4.55120 ppb		99
10) Fluorene	8.75	166	10680	4.72343 ppb		98
12) Phenanthrene	9.88	178	14435	4.41247 ppb		99
13) Anthracene	9.94	178	15156	4.48100 ppb		99
14) Fluoranthene	11.27	202	18744	4.44349 ppb		98
16) Pyrene	11.54	202	19380	4.37752 ppb		99
18) Benz (a) anthracene	13.02	228	17216	4.74746 ppb		99
19) Chrysene	13.07	228	16740	4.69442 ppb		98
20) Indeno (1,2,3-cd) pyrene	17.87	276	18790	4.97901 ppb	#	99
22) Benzo (b) fluoranthene	14.83	252	13955	4.10017 ppb		97
23) Benzo (k) fluoranthene	14.89	252	14631	5.74400 ppb		97
24) Benzo (a) pyrene	15.41	252	14776	4.68383 ppb		95
25) Dibenz (a,h) anthracene	17.91	278	15635	4.49402 ppb		95
26) Benzo (g,h,i) perylene	18.40	276	15427	4.30670 ppb		98

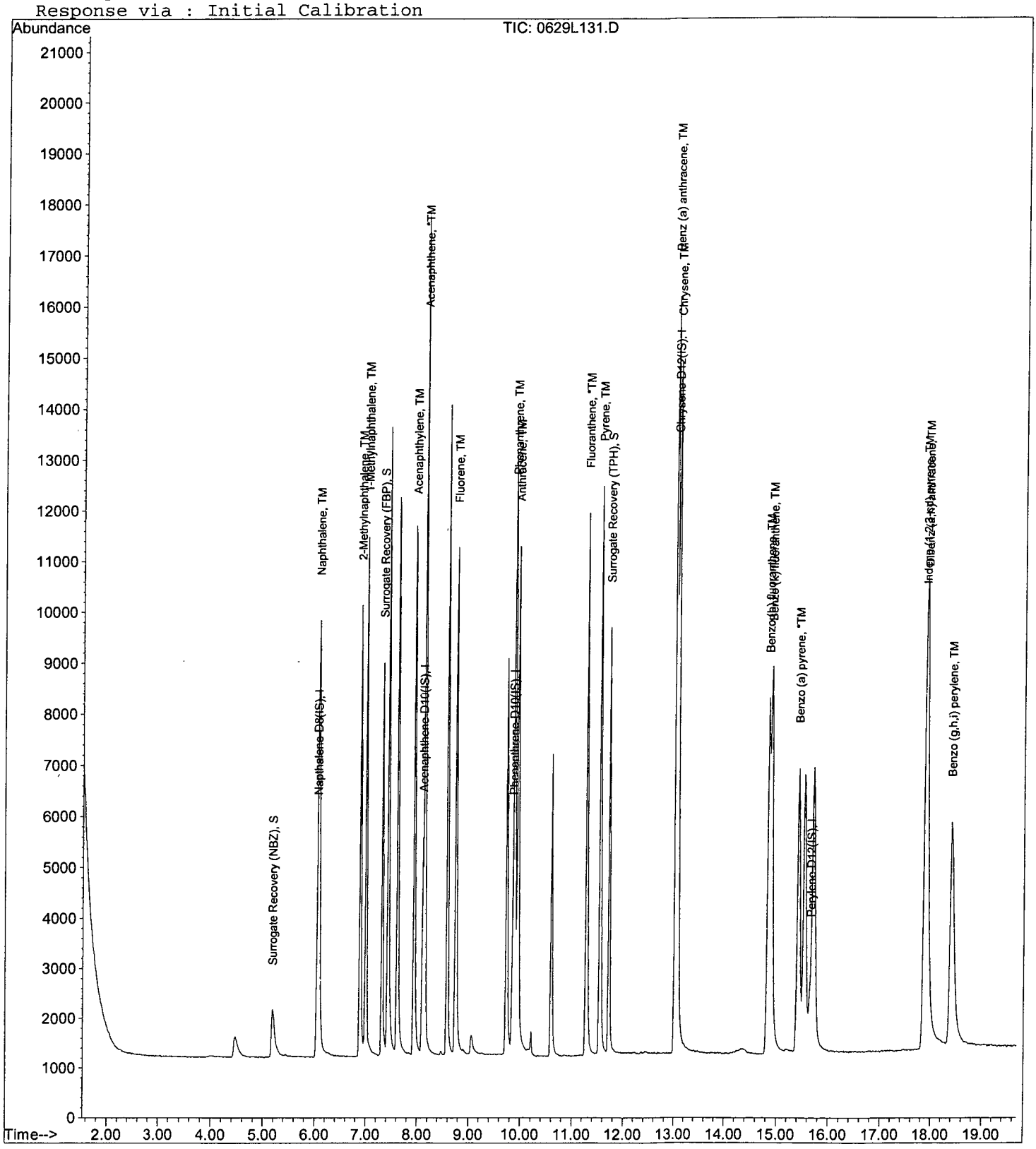
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L131.D Vial: 31
Acq On : 2 Jul 15 10:01 Operator: MA
Sample : CCV 5.0ug/ml PAH 06/30/15 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Jul 2 10:21 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration



Form 7

Ending Continuing Calibration

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

SDG No: 76624
Date Analyzed: 7 Jul 15 11:19
Instrument: Linus
Initial Cal. Date: 06/29/15
Data File: 0629L201.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	S	Surrogate Recovery (NBZ)	0.2483	0.2477	0.25	S	
3	TM	Naphthalene	1.363	1.205	12	TM	
4	TM	2-Methylnaphthalene	0.8267	0.8107	1.9	TM	
5	TM	1-Methylnaphthalene	0.9281	0.8428	9.2	TM	
6	I	Acenaphthene-D10(IS)	ISTD			I	
7	S	Surrogate Recovery (FBP)	1.516	1.367	9.8	S	
8	TM	Acenaphthylene	2.808	2.520	10	TM	
9	*TM	Acenaphthene	1.716	1.475	14	*TM	
10	TM	Fluorene	1.813	1.634	9.9	TM	
11	I	Phenanthrene-D10(IS)	ISTD			I	
12	TM	Phenanthrene	1.508	1.258	17	TM	
13	TM	Anthracene	1.559	1.315	16	TM	
14	*TM	Fluoranthene	1.945	1.651	15	*TM	
15	I	Chrysene-D12(IS)	ISTD			I	
16	TM	Pyrene	1.832	1.602	13	TM	
17	S	Surrogate Recovery (TPH)	0.9151	0.8411	8.1	S	
18	TML	Benz (a) anthracene	1.436	1.526	6.3	TML	1.5
19	TML	Chrysene	1.709	1.229	28	TML	19
20	TM	Indeno (1,2,3-cd) pyrene	1.562	1.562	0.04	TM	
21	I	Perylene-D12(IS)	ISTD			I	
22	TML	Benzo (b) fluoranthene	2.024	2.193	8.3	TML	3.0
23	TML	Benzo (k) fluoranthene	1.429	1.421	0.51	TML	20
24	*TM	Benzo (a) pyrene	2.109	1.857	12	*TM	
25	TM	Dibenz (a,h) anthracene	2.326	2.038	12	TM	
26	TM	Benzo (g,h,i) perylene	2.395	2.047	15	TM	
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			10.4		

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L201.D Vial: 1
Acq On : 7 Jul 15 11:19 Operator: MA
Sample : CCV 5.0ug/ml PAH 07/07/15 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jul 7 12:12 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Napthalene-D8(IS)	6.07	136	5143	2.50000 ppb		0.02
6) Acenaphthene-D10(IS)	8.11	164	2701	2.50000 ppb		0.01
11) Phenanthrene-D10(IS)	9.86	188	4757	2.50000 ppb		0.00
15) Chrysene-D12(IS)	13.06	240	5082	2.50000 ppb		0.02
21) Perylene-D12(IS)	15.69	264	3248	2.50000 ppb		0.03
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.21	82	2548	4.98743 ppb		0.04
Spiked Amount 2.500			Recovery	= 199.480%		
7) Surrogate Recovery (FBP)	7.33	172	7385	4.50993 ppb		0.01
Spiked Amount 2.500			Recovery	= 180.400%		
17) Surrogate Recovery (TPH)	11.73	244	8549	4.59570 ppb		0.00
Spiked Amount 2.500			Recovery	= 183.840%		
Target Compounds						Qvalue
3) Naphthalene	6.10	128	12395	4.42032 ppb		99
4) 2-Methylnaphthalene	6.90	142	8339	4.90358 ppb		98
5) 1-Methylnaphthalene	7.01	142	8669	4.54031 ppb		100
8) Acenaphthylene	7.95	152	13612	4.48665 ppb		99
9) Acenaphthene	8.15	154	7969	4.29805 ppb		98
10) Fluorene	8.76	166	8827	4.50517 ppb		98
12) Phenanthrene	9.90	178	11965	4.16951 ppb		99
13) Anthracene	9.96	178	12514	4.21787 ppb		97
14) Fluoranthene	11.28	202	15712	4.24620 ppb		95
16) Pyrene	11.55	202	16286	4.37356 ppb		96
18) Benz (a) anthracene	13.03	228	15514	5.07485 ppb		99
19) Chrysene	13.09	228	12493m	4.05137 ppb		97
20) Indeno (1,2,3-cd) pyrene	17.91	276	15878	5.00217 ppb	#	91
22) Benzo (b) fluoranthene	14.88	252	14245	4.84896 ppb	#	93
23) Benzo (k) fluoranthene	14.92	252	9234	3.98699 ppb		96
24) Benzo (a) pyrene	15.46	252	12063	4.40189 ppb		94
25) Dibenz (a,h) anthracene	17.94	278	13238	4.38025 ppb		94
26) Benzo (g,h,i) perylene	18.46	276	13298	4.27355 ppb		91

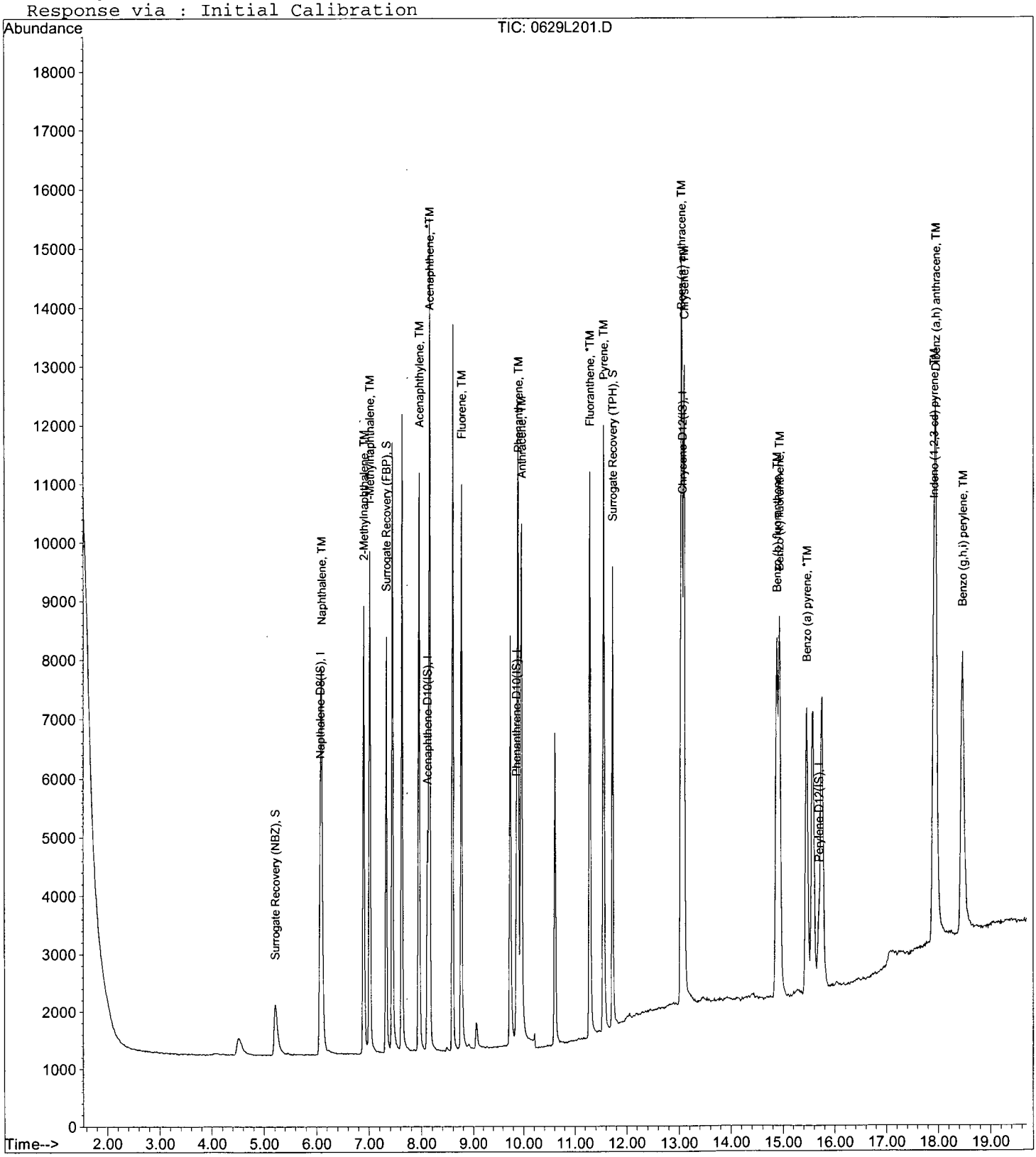
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L201.D Vial: 1
Acq On : 7 Jul 15 11:19 Operator: MA
Sample : CCV 5.0ug/ml PAH 07/07/15 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jul 7 12:12 2015 Quant Results File: P0629.RES

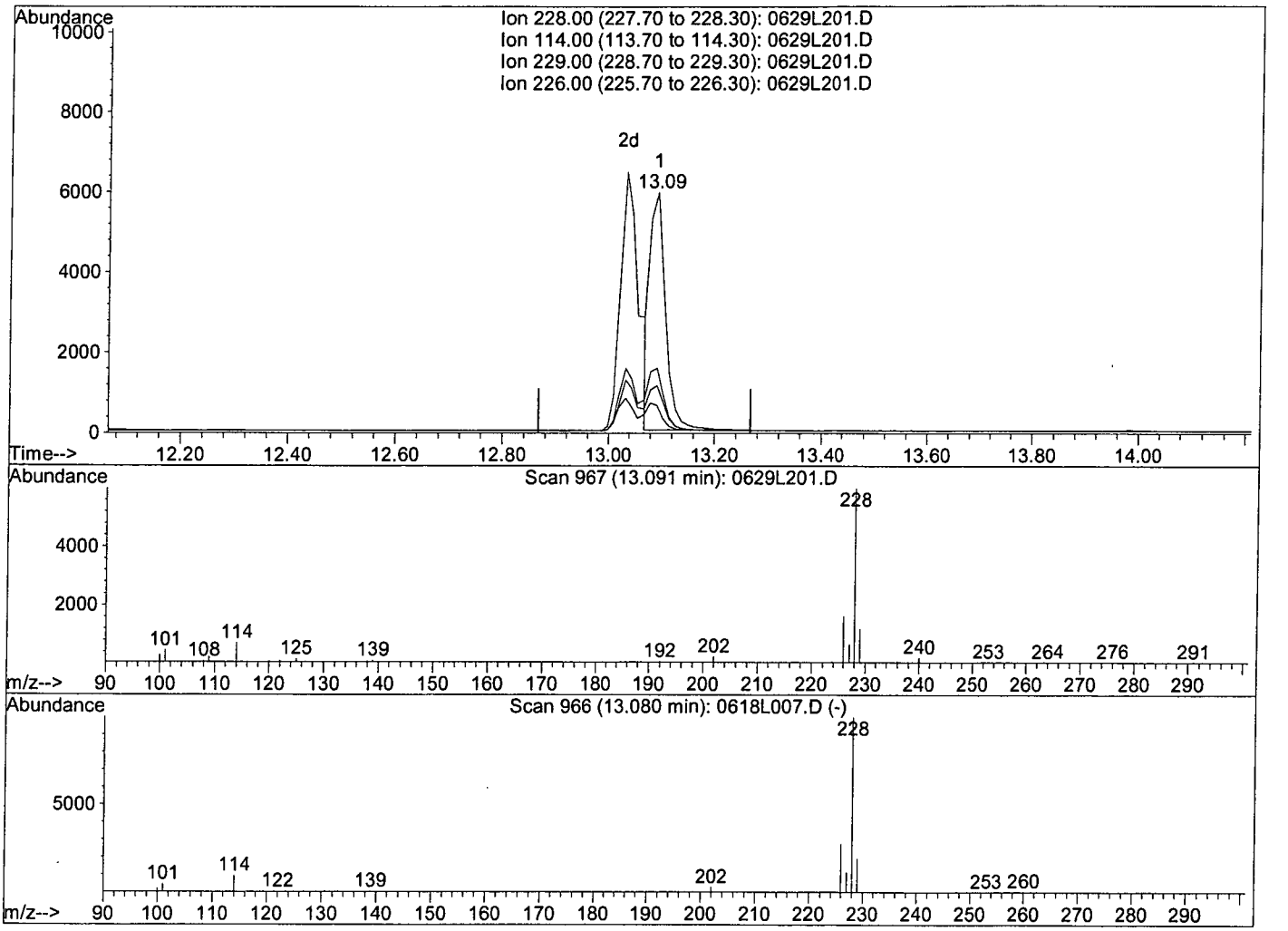
Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration



Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L201.D Vial: 1
Acq On : 7 Jul 15 11:19 Operator: MA
Sample : CCV 5.0ug/ml PAH 07/07/15 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Jul 7 12:11 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Multiple Level Calibration



TIC: 0629L201.D

(19) Chrysene (TM)

13.09min 3.8533ppb

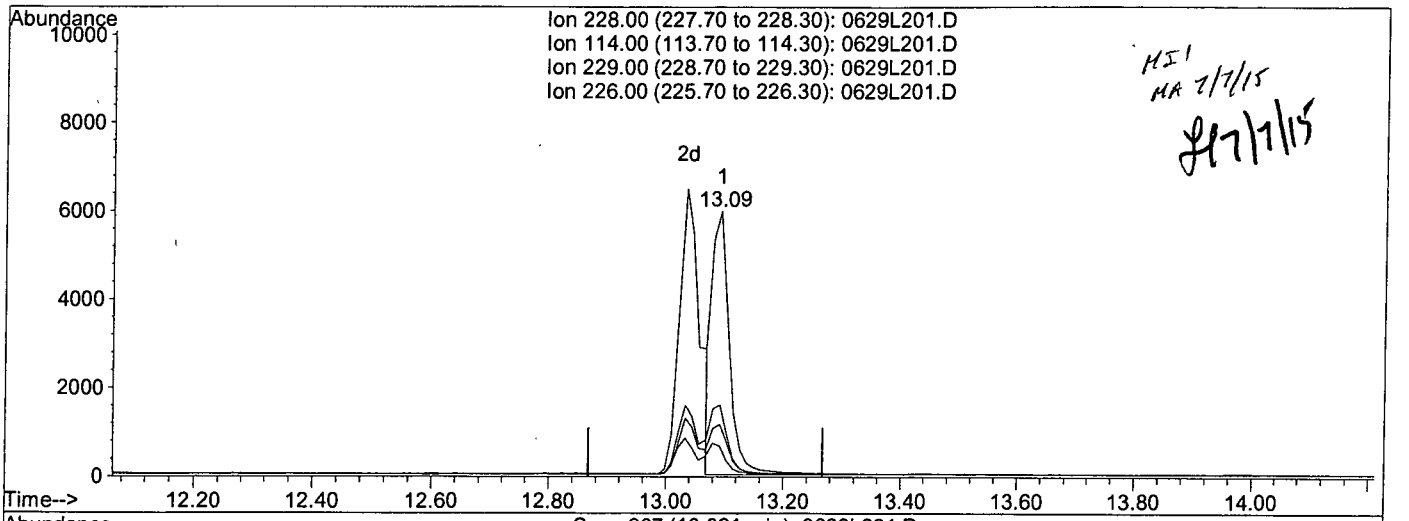
response 12004

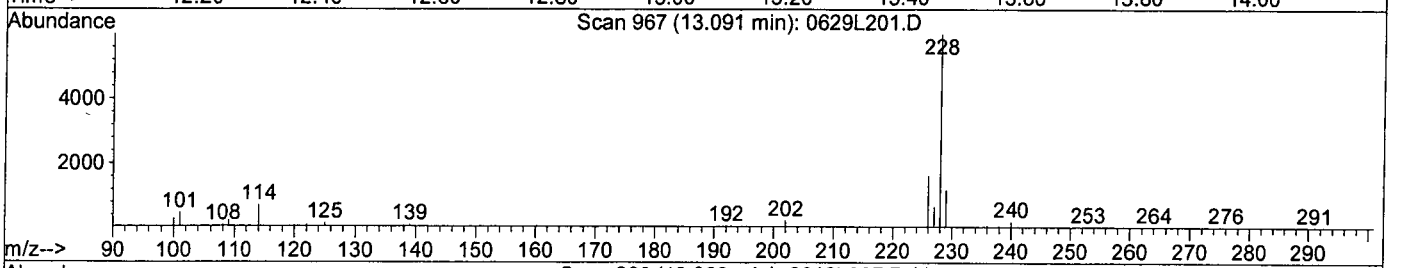
Ion	Exp%	Act%
228.00	100	100
114.00	13.50	10.72
229.00	19.40	18.82
226.00	27.20	26.47

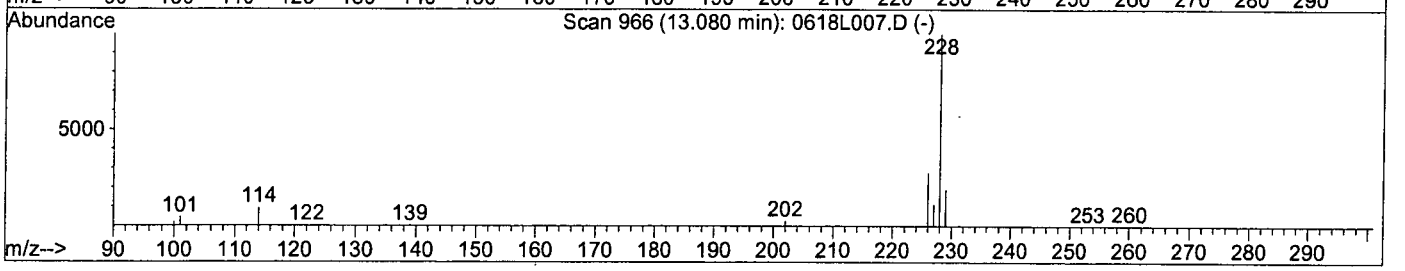
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L201.D Vial: 1
Acq On : 7 Jul 15 11:19 Operator: MA
Sample : CCV 5.0ug/ml PAH 07/07/15 Inst : Linus
Misc : Multiplr: 1.00
Quant Time: Jul 7 12:12 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Multiple Level Calibration







TIC: 0629L201.D

(19) Chrysene (TM)

13.09min 4.0514ppb m

response 12493

Ion	Exp%	Act%
228.00	100	100
114.00	13.50	11.72
229.00	19.40	19.84
226.00	27.20	27.14

EPA METHOD 8270D
Polynuclear Aromatic Hydrocarbons
Raw Data

APPL, INC.

Method Blank
EPA 8270D LL SOILS

Blank Name/QCG: **150622S-17444 - 198579**
Batch ID: #SIMDD-150622A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-METHYLNAPHTHALENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	06/30/15
BLANK	ACENAPHTHENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	06/22/15	06/30/15
BLANK	ACENAPHTHYLENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	06/30/15
BLANK	ANTHRACENE	0.0017 U	0.005	0.0017	0.0008	mg/kg	06/22/15	06/30/15
BLANK	BENZ (A) ANTHRACENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	06/30/15
BLANK	BENZO (A) PYRENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	06/30/15
BLANK	BENZO (B) FLUORANTHENE	0.0017 U	0.005	0.0017	0.0011	mg/kg	06/22/15	06/30/15
BLANK	BENZO (G,H,I) PERYLENE	0.0017 U	0.005	0.0017	0.0013	mg/kg	06/22/15	06/30/15
BLANK	BENZO (K) FLUORANTHENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	06/22/15	06/30/15
BLANK	CHRYSENE	0.0017 U	0.005	0.0017	0.0008	mg/kg	06/22/15	06/30/15
BLANK	DIBENZ (A,H) ANTHRACENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	06/30/15
BLANK	FLUORANTHENE	0.0017 U	0.005	0.0017	0.0012	mg/kg	06/22/15	06/30/15
BLANK	FLUORENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	06/22/15	06/30/15
BLANK	INDENO (1,2,3-CD) PYRENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	06/30/15
BLANK	NAPHTHALENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	06/30/15
BLANK	PHENANTHRENE	0.0017 U	0.005	0.0017	0.0011	mg/kg	06/22/15	06/30/15
BLANK	PYRENE	0.0017 U	0.005	0.0017	0.0012	mg/kg	06/22/15	06/30/15
BLANK	SURROGATE: 2-FLUORBIPHENY	56.6	45-105			%	06/22/15	06/30/15
BLANK	SURROGATE: NITROBENZENE-	35.5	35-100			%	06/22/15	06/30/15
BLANK	SURROGATE: TERPHENYL-D14 (	79.1	30-125			%	06/22/15	06/30/15

Quant Method:P0629.M
Run #:0629L041
Instrument:Linus
Sequence:L150629
Initials:MA

GC SC-Blank-REG MDLs
Printed: 07/02/15 4:55:11 PM

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L041.D Vial: 41
Acq On : 30 Jun 15 6:09 Operator: MA
Sample : 150622A BLK 1/30.00G Inst : Linus
Misc : soil Multiplr: 33.33

Quant Time: Jul 1 12:54 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.05	136	7485	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.10	164	3524	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.87	188	5748	2.50000 ppb	0.01
15) Chrysene-D12(IS)	13.04	240	6378	2.50000 ppb	0.01
21) Perylene-D12(IS)	15.69	264	3840	2.50000 ppb	0.04
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.19	82	660	29.58859 ppb	0.01
Spiked Amount 83.333			Recovery = 35.507%		
7) Surrogate Recovery (FBP)	7.31	172	3023	47.16548 ppb	0.00
Spiked Amount 83.333			Recovery = 56.598%		
17) Surrogate Recovery (TPH)	11.73	244	4615	65.89262 ppb	0.00
Spiked Amount 83.333			Recovery = 79.072%		
Target Compounds					Qvalue

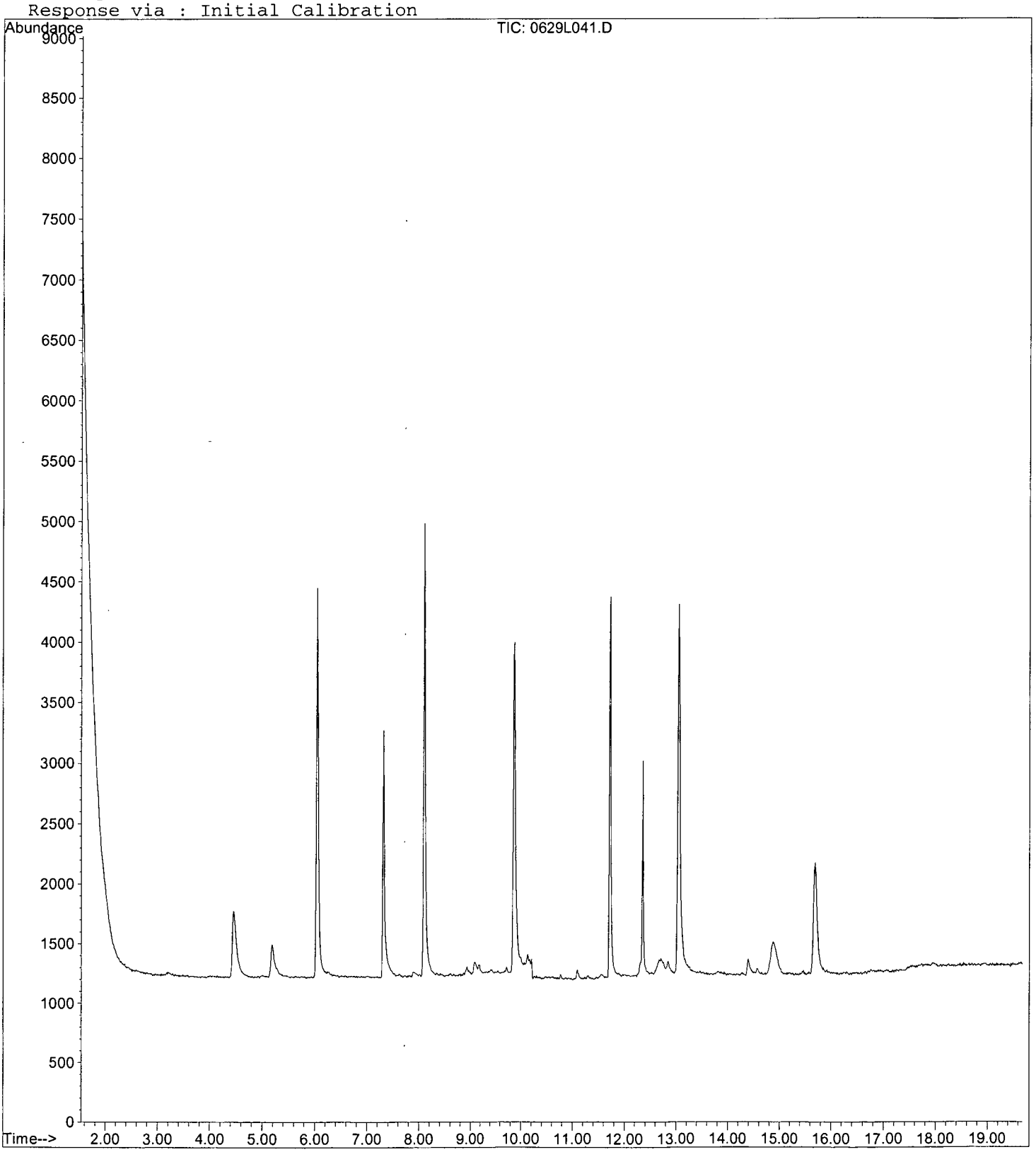
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L041.D Vial: 41
Acq On : 30 Jun 15 6:09 Operator: MA
Sample : 150622A BLK 1/30.00G Inst : Linus
Misc : soil Multiplr: 33.33

Quant Time: Jul 1 12:54 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration



Method Blank

EPA 8270D LL SOILS RE-EXTRACT

Blank Name/QCG: **150706S-17436 - 198646**
Batch ID: #SIMDD-150706A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-METHYLNAPHTHALENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/06/15	07/07/15
BLANK	ACENAPHTHENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	07/06/15	07/07/15
BLANK	ACENAPHTHYLENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/06/15	07/07/15
BLANK	ANTHRACENE	0.0017 U	0.005	0.0017	0.0008	mg/kg	07/06/15	07/07/15
BLANK	BENZ (A) ANTHRACENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/06/15	07/07/15
BLANK	BENZO (A) PYRENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/06/15	07/07/15
BLANK	BENZO (B) FLUORANTHENE	0.0017 U	0.005	0.0017	0.0011	mg/kg	07/06/15	07/07/15
BLANK	BENZO (G,H,I) PERYLENE	0.0017 U	0.005	0.0017	0.0013	mg/kg	07/06/15	07/07/15
BLANK	BENZO (K) FLUORANTHENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	07/06/15	07/07/15
BLANK	CHRYSENE	0.0017 U	0.005	0.0017	0.0008	mg/kg	07/06/15	07/07/15
BLANK	DIBENZ (A,H) ANTHRACENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/06/15	07/07/15
BLANK	FLUORANTHENE	0.0017 U	0.005	0.0017	0.0012	mg/kg	07/06/15	07/07/15
BLANK	FLUORENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	07/06/15	07/07/15
BLANK	INDENO (1,2,3-CD) PYRENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/06/15	07/07/15
BLANK	NAPHTHALENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/06/15	07/07/15
BLANK	PHENANTHRENE	0.0017 U	0.005	0.0017	0.0011	mg/kg	07/06/15	07/07/15
BLANK	PYRENE	0.0017 U	0.005	0.0017	0.0012	mg/kg	07/06/15	07/07/15
BLANK	SURROGATE: 2-FLUORBIPHENY	59.4	45-105			%	07/06/15	07/07/15
BLANK	SURROGATE: NITROBENZENE-	51.7	35-100			%	07/06/15	07/07/15
BLANK	SURROGATE: TERPHENYL-D14 (	80.0	30-125			%	07/06/15	07/07/15

Quant Method:P0629.M
Run #:0629L202
Instrument:Linus
Sequence:L150629
Initials:MA

GC SC-Blank-REG MDLs
Printed: 07/08/15 9:41:30 AM

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L202.D Vial: 2
Acq On : 7 Jul 15 12:34 Operator: MA
Sample : 150706A BLK 1/30.48G Inst : Linus
Misc : soil Multiplr: 32.81

Quant Time: Jul 8 9:29 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8(IS)	6.07	136	5189	2.50000	ppb	0.02
6) Acenaphthene-D10(IS)	8.12	164	2629	2.50000	ppb	0.02
11) Phenanthrene-D10(IS)	9.87	188	4441	2.50000	ppb	0.01
15) Chrysene-D12(IS)	13.06	240	5105	2.50000	ppb	0.02
21) Perylene-D12(IS)	15.72	264	3241	2.50000	ppb	0.06
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.21	82	666	42.39058	ppb	0.04
Spiked Amount 82.021			Recovery = 51.683%			
7) Surrogate Recovery (FBP)	7.33	172	2366	48.70268	ppb	0.01
Spiked Amount 82.021			Recovery = 59.379%			
17) Surrogate Recovery (TPH)	11.73	244	3738	65.62962	ppb	0.00
Spiked Amount 82.021			Recovery = 80.016%			

Target Compounds	Qvalue

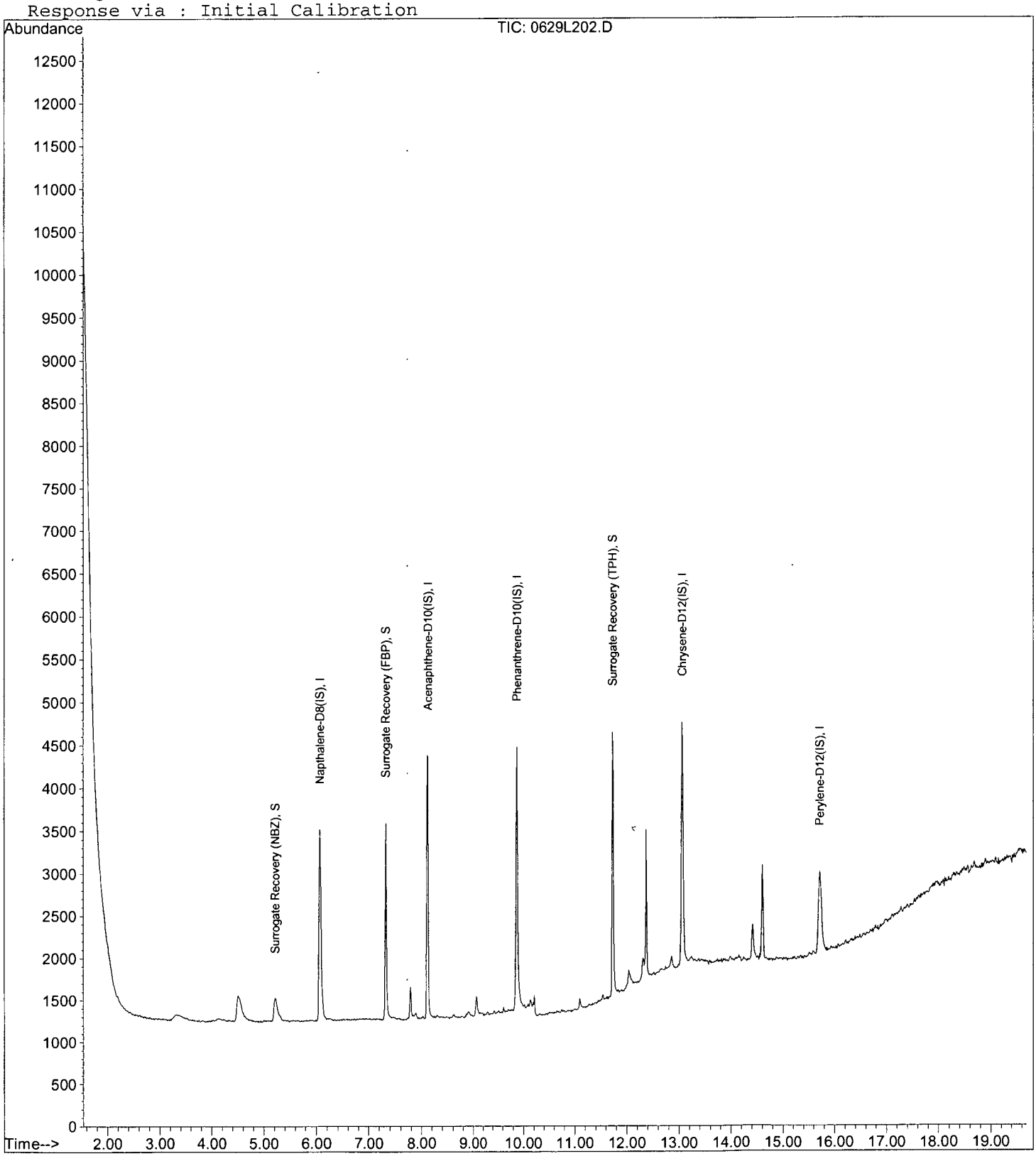
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L202.D Vial: 2
Acq On : 7 Jul 15 12:34 Operator: MA
Sample : 150706A BLK 1/30.48G Inst : Linus
Misc : soil Multiplr: 32.81

Quant Time: Jul 8 9:29 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration



Laboratory Control Spike Recovery
EPA 8270D LL SOILS

APPL ID: **150622S-17444 LCS - 198579**
Batch ID: #SIMDD-150622A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level mg/kg	SPK Result mg/kg	SPK % Recovery	Recovery Limits
2-METHYLNAPHTHALENE	0.167	0.0825	49.4	45-105
ACENAPHTHENE	0.167	0.0863	51.7	45-110
ACENAPHTHYLENE	0.167	0.0856	51.3	45-105
ANTHRACENE	0.167	0.0975	58.4	55-105
BENZ (A) ANTHRACENE	0.167	0.104	62.3	50-110
BENZO (A) PYRENE	0.167	0.111	66.5	50-110
BENZO (B) FLUORANTHENE	0.167	0.101	60.5	45-115
BENZO (G,H,I) PERYLENE	0.167	0.0957	57.3	40-125
BENZO (K) FLUORANTHENE	0.167	0.0892	53.4	45-125
CHRYSENE	0.167	0.0993	59.5	55-110
DIBENZ (A,H) ANTHRACENE	0.167	0.0989	59.2	40-125
FLUORANTHENE	0.167	0.0947	56.7	55-115
FLUORENE	0.167	0.0885	53.0	50-110
INDENO (1,2,3-CD) PYRENE	0.167	0.101	60.5	40-120
NAPHTHALENE	0.167	0.0676	40.5	40-105
PHENANTHRENE	0.167	0.0917	54.9	50-110
PYRENE	0.167	0.0972	58.2	45-125
SURROGATE: 2-FLUORBIPHENYL (S)	0.083	0.0443	53.4	45-105
SURROGATE: NITROBENZENE-D5 (S)	0.083	0.037	44.6	35-100
SURROGATE: TERPHENYL-D14 (S)	0.083	0.0579	69.8	30-125

Comments: _____

Primary	SPK
Quant Method :	P0629.M
Extraction Date :	06/22/15
Analysis Date :	06/30/15
Instrument :	Linus
Run :	0629L042
Initials :	MA

Printed: 07/08/15 11:06:52 AM
APPL Standard LCS

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L042.D Vial: 42
Acq On : 30 Jun 15 6:36 Operator: MA
Sample : 150622A LCS-1 1/30.10G Inst : Linus
Misc : soil Multiplr: 33.22

Quant Time: Jul 8 11:02 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Napthalene-D8(IS)	6.05	136	9766	2.50000	ppb	0.00
6) Acenaphthene-D10(IS)	8.10	164	5201	2.50000	ppb	0.00
11) Phenanthrene-D10(IS)	9.85	188	8527	2.50000	ppb	-0.01
15) Chrysene-D12(IS)	13.03	240	9194	2.50000	ppb	0.00
21) Perylene-D12(IS)	15.66	264	5666	2.50000	ppb	0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.19	82	1081m	37.02000	ppb	0.01
Spiked Amount 83.056			Recovery = 44.572%			
7) Surrogate Recovery (FBP)	7.31	172	4204	44.29484	ppb	0.00
Spiked Amount 83.056			Recovery = 53.331%			
17) Surrogate Recovery (TPH)	11.71	244	5869	57.93814	ppb	-0.01
Spiked Amount 83.056			Recovery = 69.757%			
Target Compounds						Qvalue
3) Naphthalene	6.07	128	10834m	67.59738	ppb	99
4) 2-Methylnaphthalene	6.88	142	8016	82.46891	ppb	99
5) 1-Methylnaphthalene	7.00	142	9324	85.43829	ppb	99
8) Acenaphthylene	7.93	152	15056	85.62110	ppb	99
9) Acenaphthene	8.13	154	9278	86.33637	ppb	99
10) Fluorene	8.75	166	10046	88.46322	ppb	99
12) Phenanthrene	9.88	178	14195	91.68067	ppb	100
13) Anthracene	9.94	178	15612m	97.52721	ppb	99
14) Fluoranthene	11.27	202	18905	94.69254	ppb	99
16) Pyrene	11.54	202	19713	97.21584	ppb	99
18) Benz (a) anthracene	13.02	228	16930	103.80832	ppb	99
19) Chrysene	13.07	228	17855m	99.28324	ppb	99
20) Indeno (1,2,3-cd) pyrene	17.87	276	17537	101.45684	ppb	97
22) Benzo (b) fluoranthene	14.84	252	15966	101.40843	ppb	98
23) Benzo (k) fluoranthene	14.89	252	11612	89.17072	ppb	97
24) Benzo (a) pyrene	15.41	252	16002	111.20678	ppb	98
25) Dibenz (a,h) anthracene	17.91	278	15692	98.88448	ppb	98
26) Benzo (g,h,i) perylene	18.41	276	15635	95.69144	ppb	98

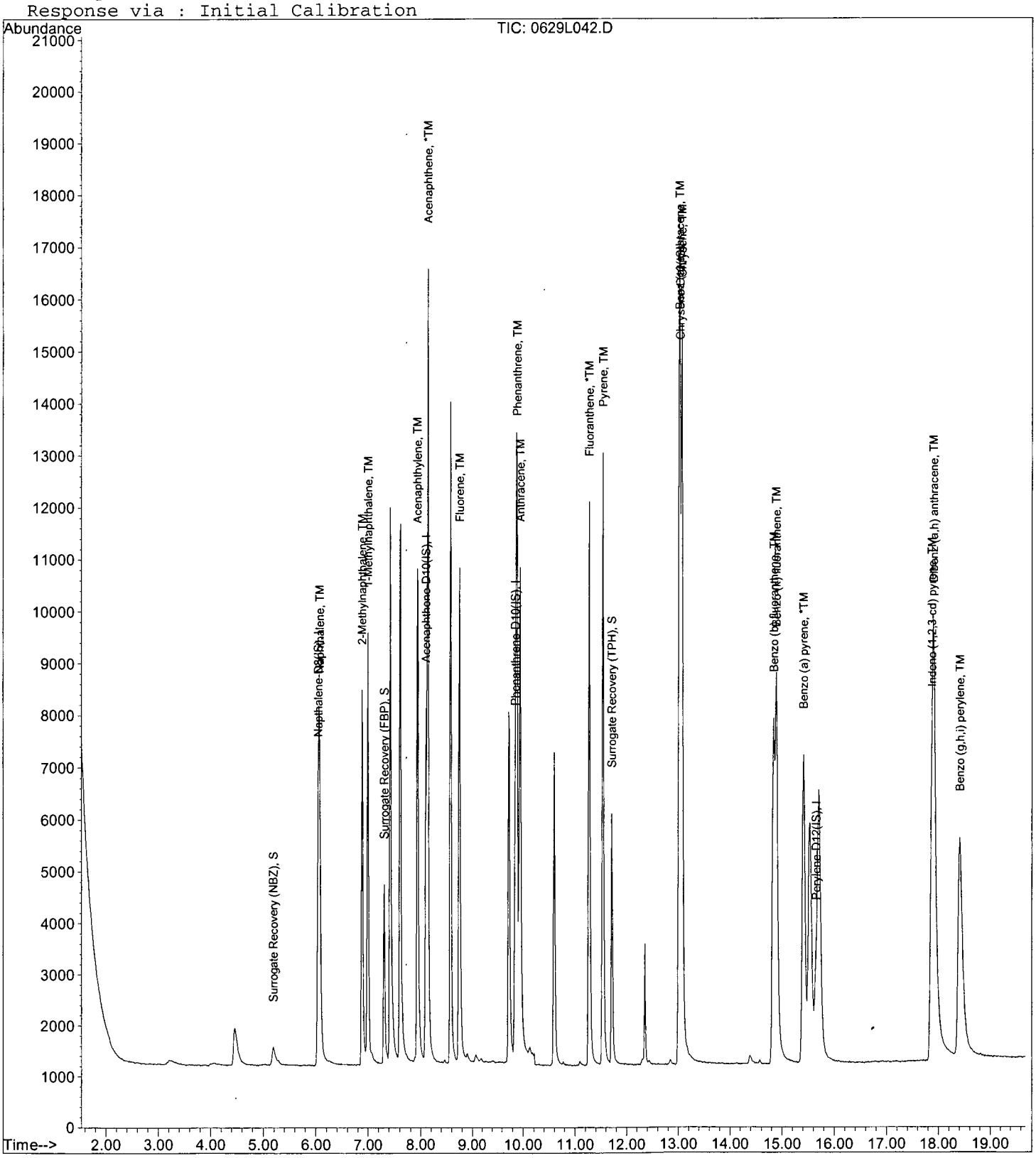
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L042.D Vial: 42
Acq On : 30 Jun 15 6:36 Operator: MA
Sample : 150622A LCS-1 1/30.10G Inst : Linus
Misc : soil Multiplr: 33.22

Quant Time: Jul 8 11:02 2015 Quant Results File: P0629.RES

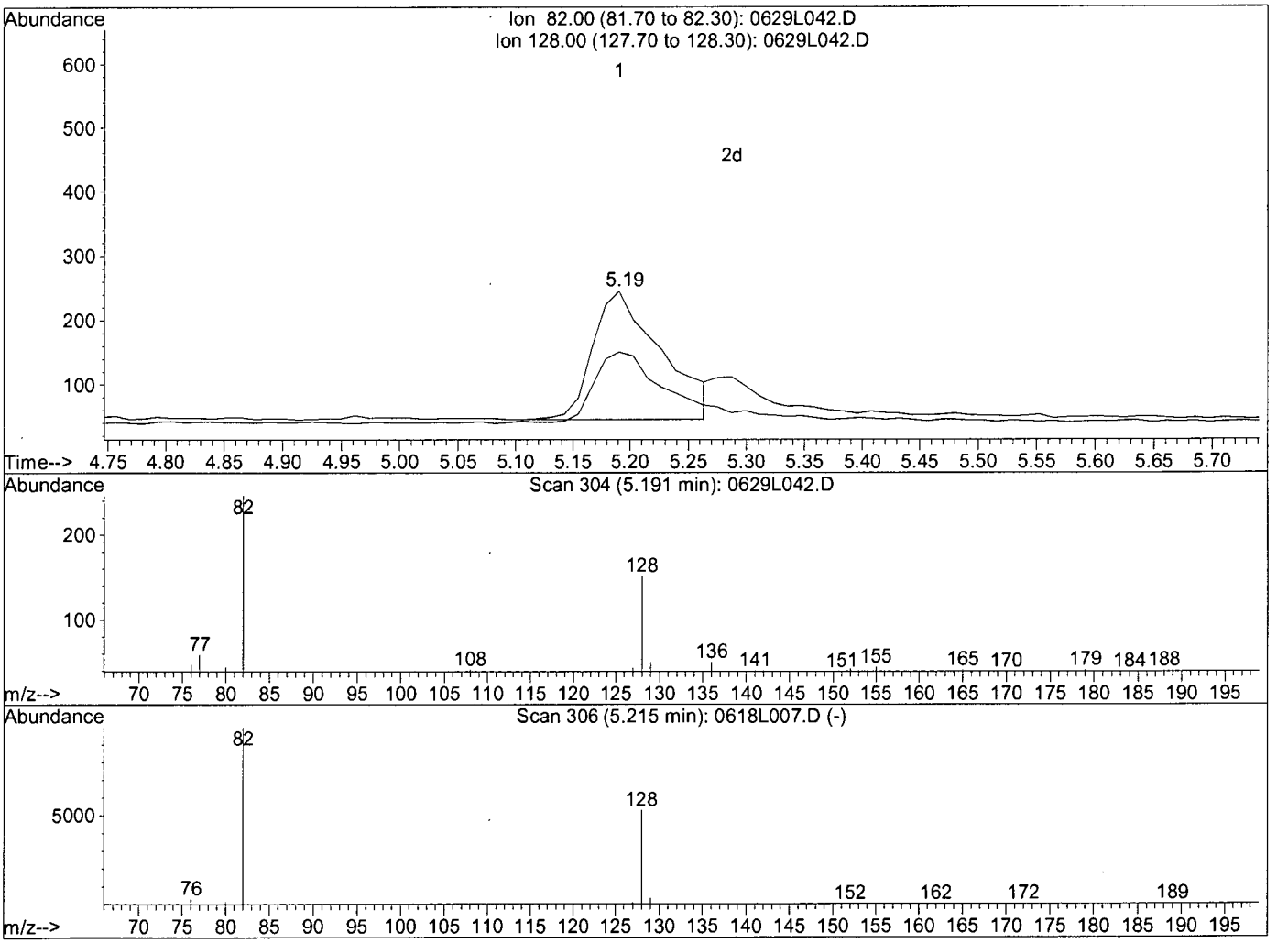
Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration



Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L042.D Vial: 42
Acq On : 30 Jun 15 6:36 Operator: MA
Sample : 150622A LCS-1 1/30.10G Inst : Linus
Misc : soil Multiplr: 33.22
Quant Time: Jul 2 17:15 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Multiple Level Calibration



TIC: 0629L042.D

(2) Surrogate Recovery (NBZ) (S)

5.19min 28.3557ppb

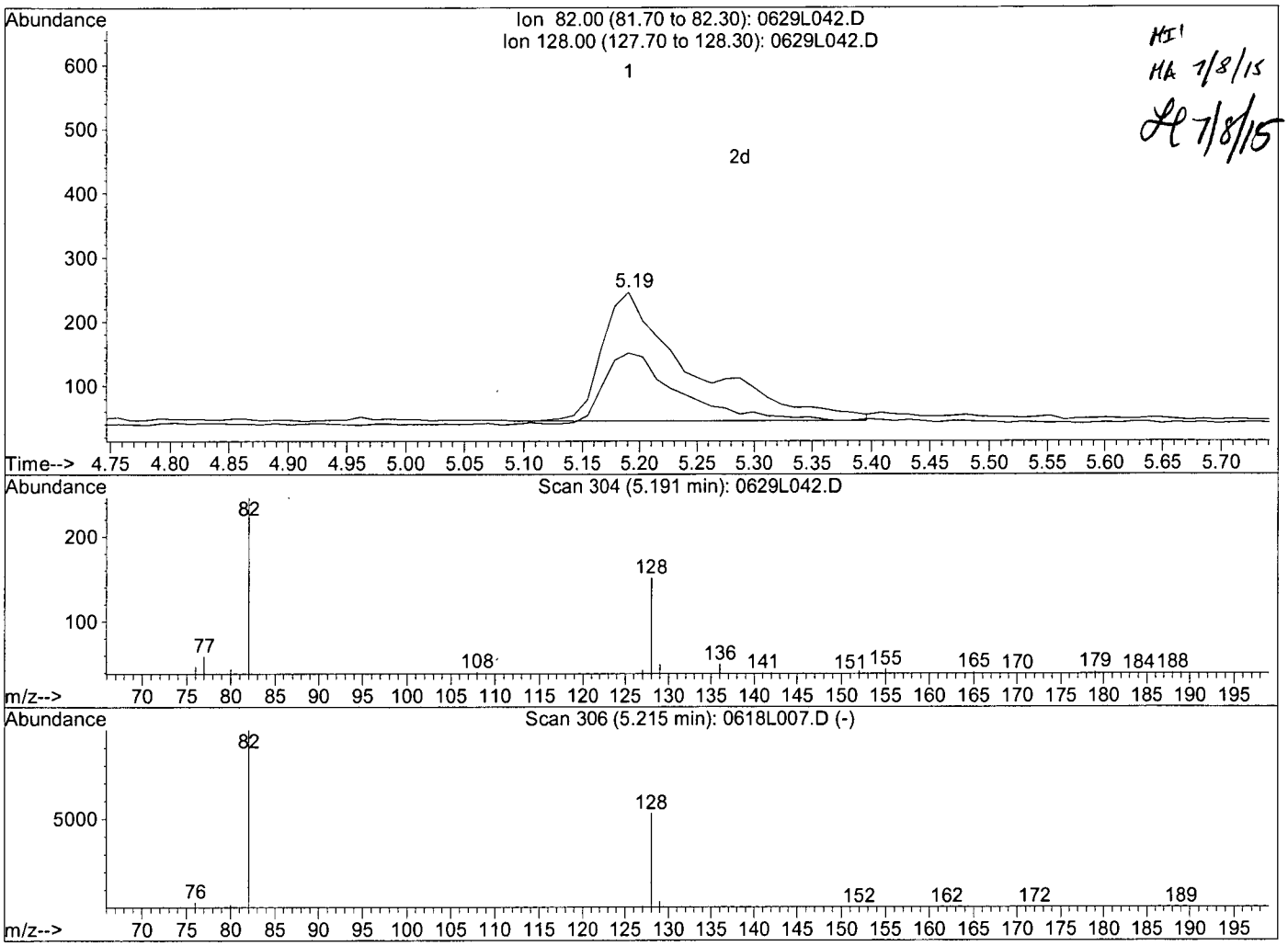
response 828

Ion	Exp%	Act%
82.00	100	100
128.00	52.70	53.73
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L042.D Vial: 42
Acq On : 30 Jun 15 6:36 Operator: MA
Sample : 150622A LCS-1 1/30.10G Inst : Linus
Misc : soil Multiplr: 33.22
Quant Time: Jul 8 11:02 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Multiple Level Calibration



HI
HA 7/8/15
7/8/15

TIC: 0629L042.D

(2) Surrogate Recovery (NBZ) (S)

5.19min 37.0200ppb m

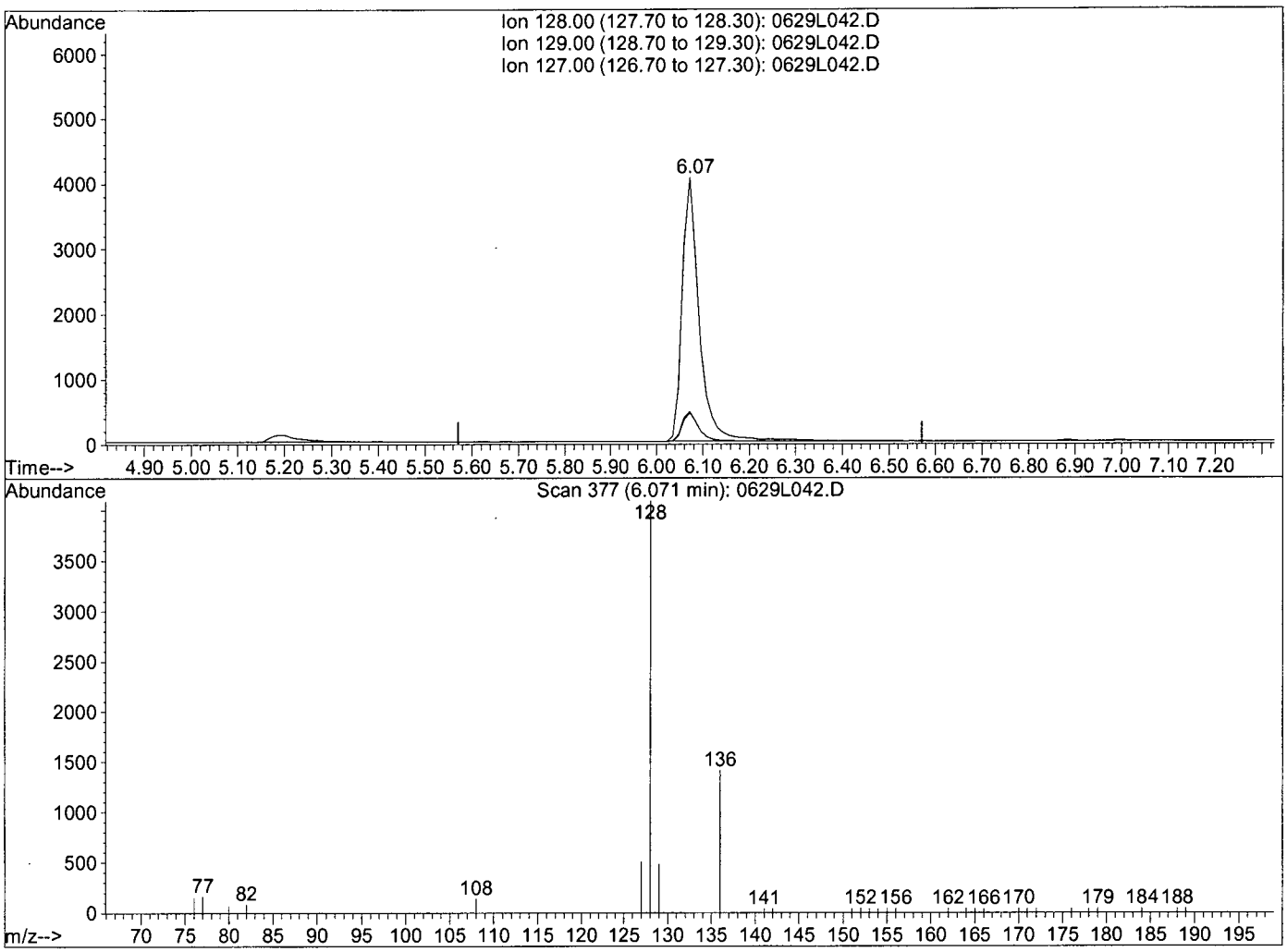
response 1081

Ion	Exp%	Act%
82.00	100	100
128.00	52.70	61.38
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L042.D Vial: 42
Acq On : 30 Jun 15 6:36 Operator: MA
Sample : 150622A LCS-1 1/30.10G Inst : Linus
Misc : soil Multiplr: 33.22
Quant Time: Jul 2 17:11 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Multiple Level Calibration



TIC: 0629L042.D

(3) Naphthalene (TM)

6.07min 63.5231ppb

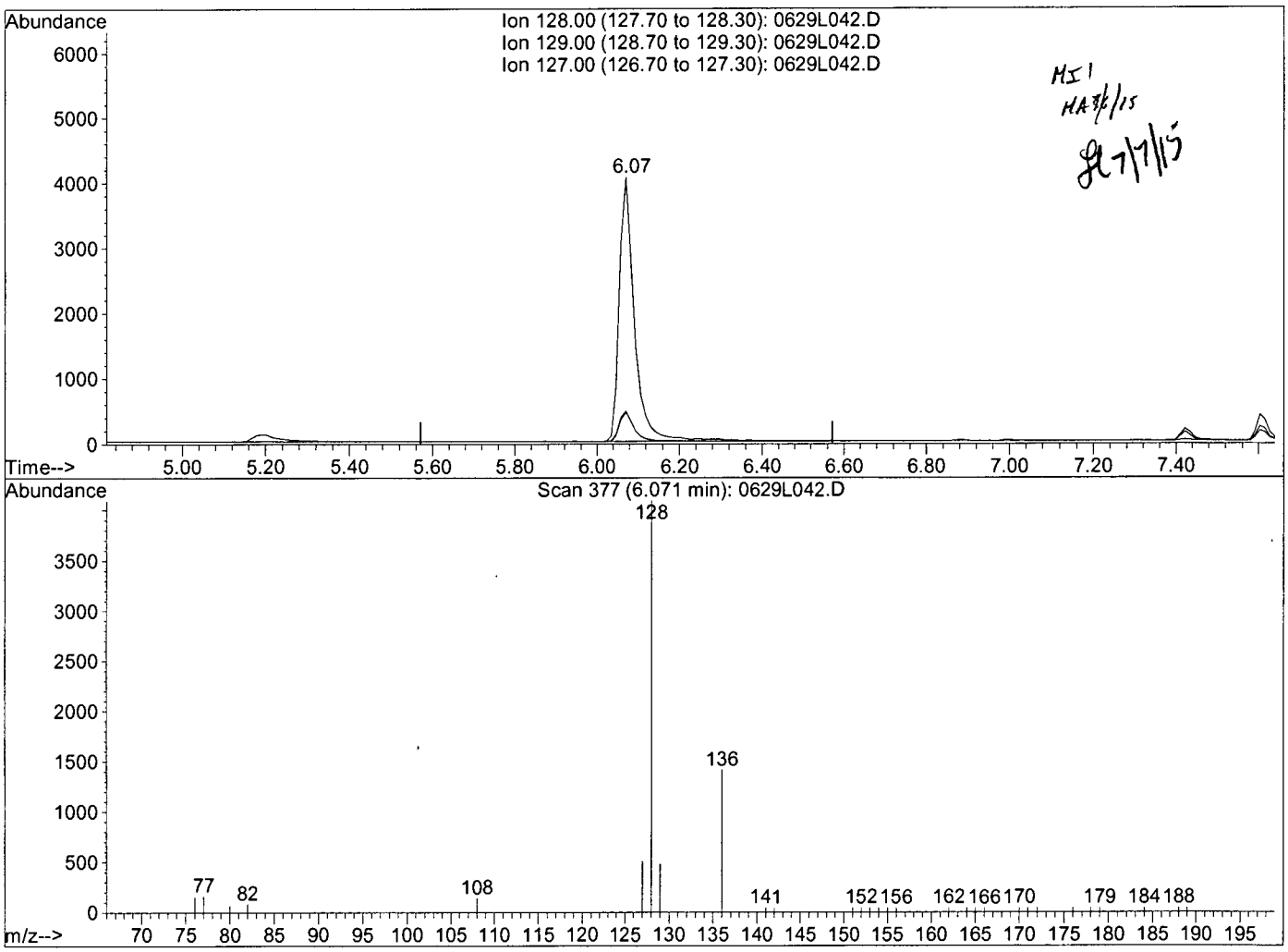
response 10181

Ion	Exp%	Act%
128.00	100	100
129.00	10.60	10.86
127.00	12.00	11.53
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L042.D Vial: 42
Acq On : 30 Jun 15 6:36 Operator: MA
Sample : 150622A LCS-1 1/30.10G Inst : Linus
Misc : soil Multiplr: 33.22
Quant Time: Jul 2 17:15 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Multiple Level Calibration



MS1
MA 7/1/15
7/7/15

TIC: 0629L042.D

(3) Naphthalene (TM)

6.07min 67.5974ppb m

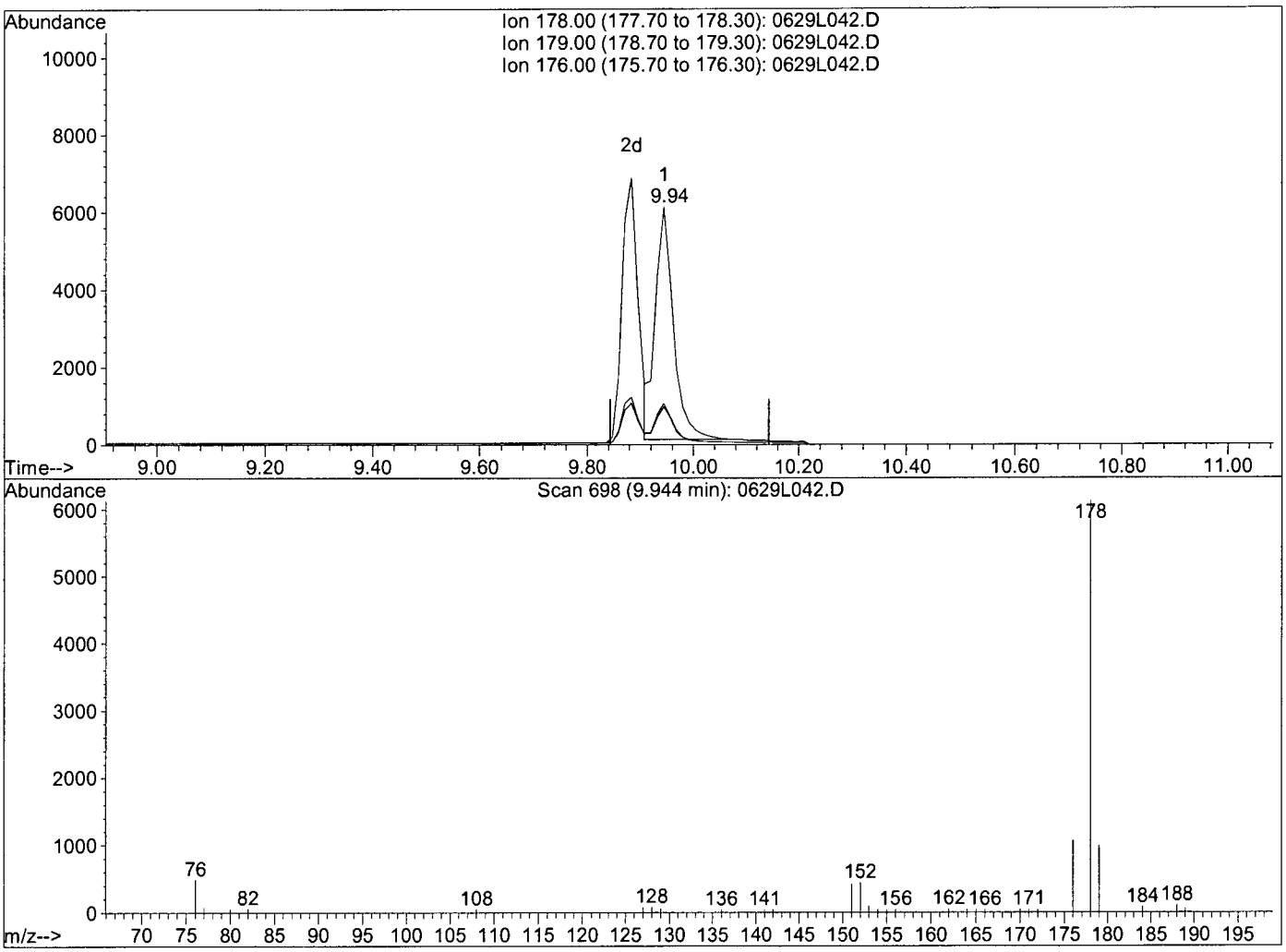
response 10834

Ion	Exp%	Act%
128.00	100	100
129.00	10.60	11.76
127.00	12.00	12.39
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L042.D Vial: 42
Acq On : 30 Jun 15 6:36 Operator: MA
Sample : 150622A LCS-1 1/30.10G Inst : Linus
Misc : soil Multiplr: 33.22
Quant Time: Jul 2 17:12 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Multiple Level Calibration



TIC: 0629L042.D

(13) Anthracene (TM)

9.94min 88.7065ppb

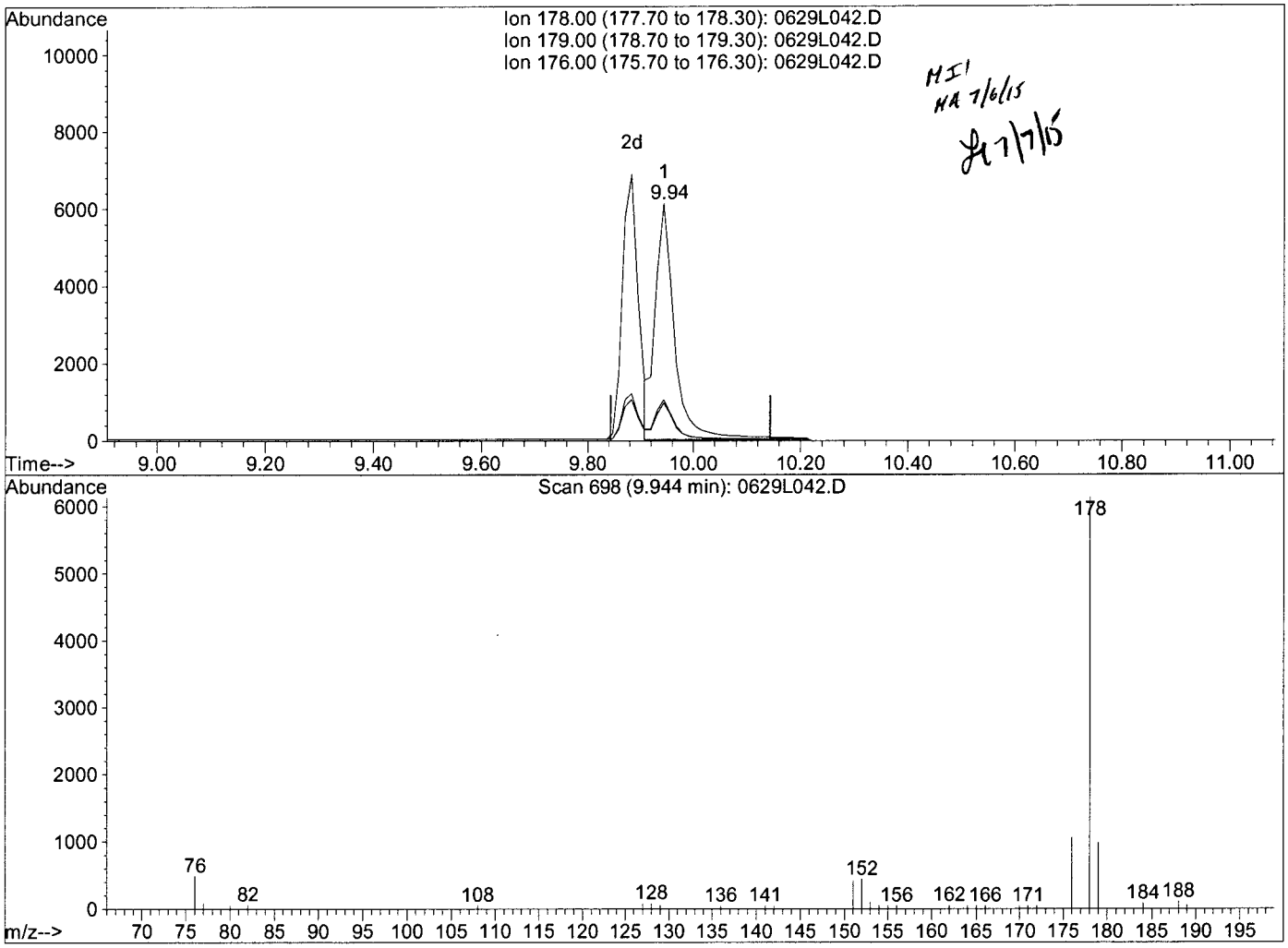
response 14200

Ion	Exp%	Act%
178.00	100	100
179.00	15.60	15.37
176.00	17.40	16.84
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L042.D Vial: 42
Acq On : 30 Jun 15 6:36 Operator: MA
Sample : 150622A LCS-1 1/30.10G Inst : Linus
Misc : soil Multiplr: 33.22
Quant Time: Jul 2 17:12 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Multiple Level Calibration



TIC: 0629L042.D

(13) Anthracene (TM)

9.94min 97.5272ppb m

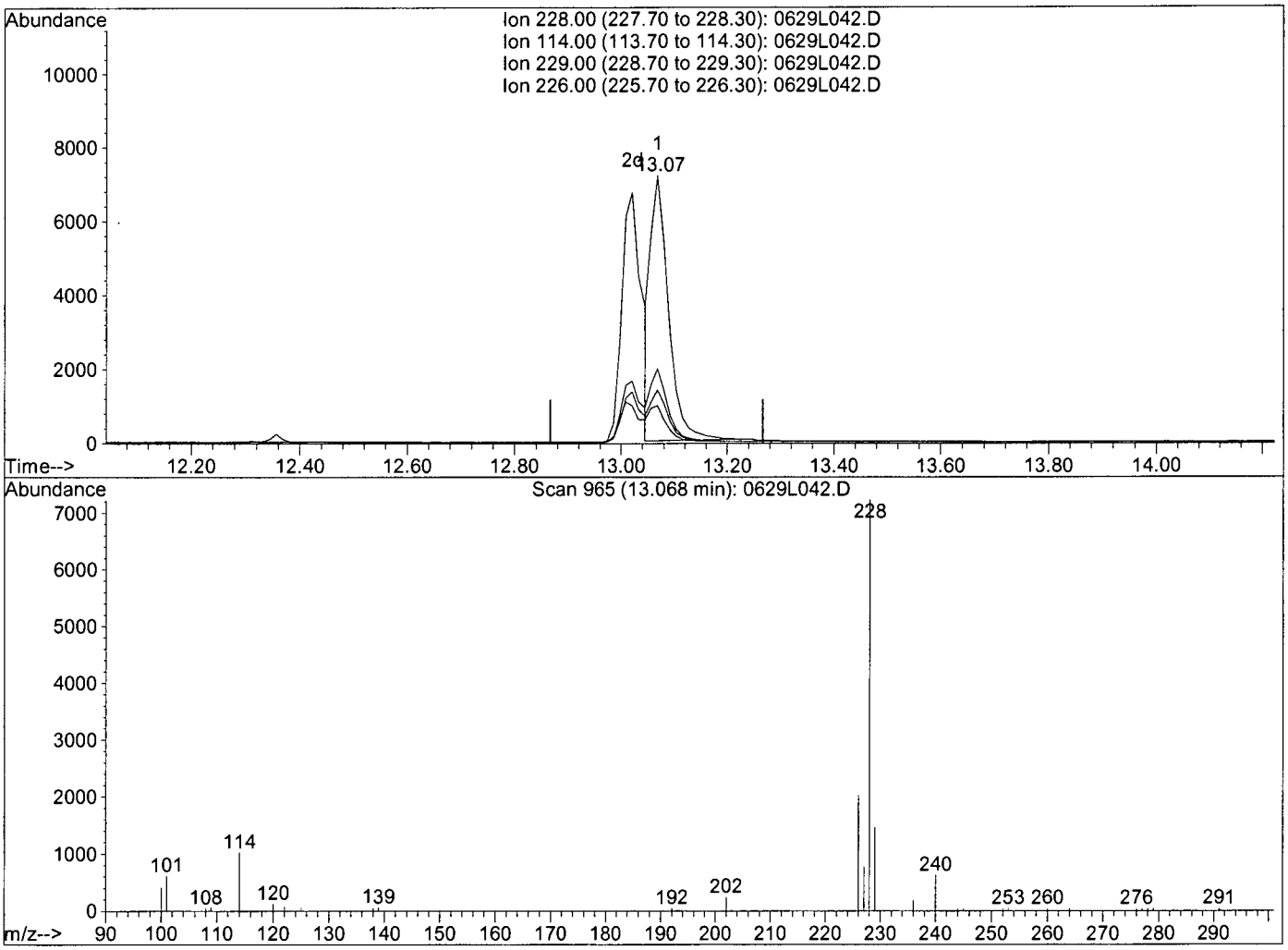
response 15612

Ion	Exp%	Act%
178.00	100	100
179.00	15.60	16.02
176.00	17.40	17.34
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L042.D Vial: 42
Acq On : 30 Jun 15 6:36 Operator: MA
Sample : 150622A LCS-1 1/30.10G Inst : Linus
Misc : soil Multiplr: 33.22
Quant Time: Jul 2 17:12 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Multiple Level Calibration



TIC: 0629L042.D

(19) Chrysene (TM)

13.07min 91.1588ppb

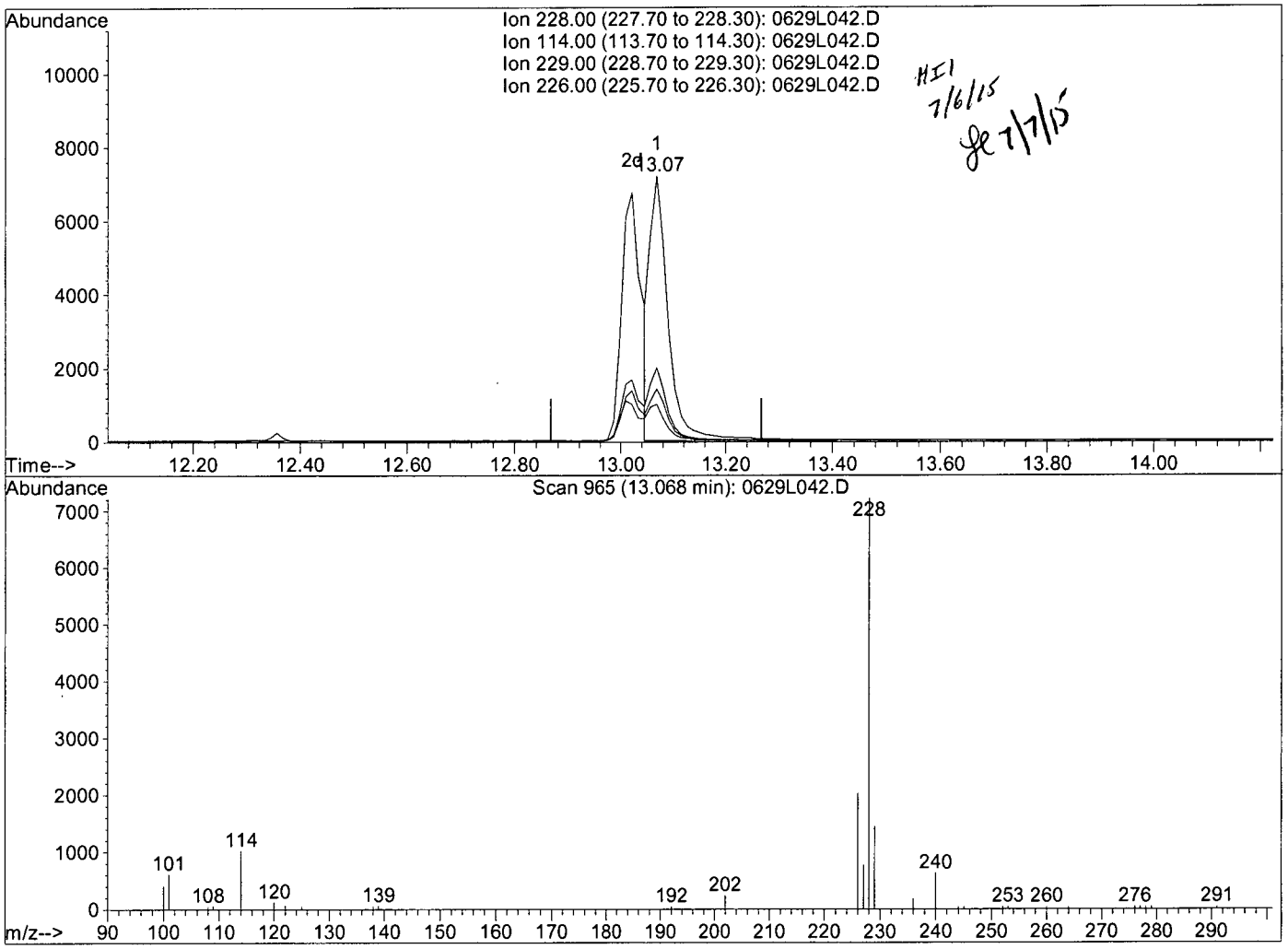
response 16763

Ion	Exp%	Act%
228.00	100	100
114.00	13.50	13.65
229.00	19.40	19.67
226.00	27.20	27.59

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L042.D Vial: 42
Acq On : 30 Jun 15 6:36 Operator: MA
Sample : 150622A LCS-1 1/30.10G Inst : Linus
Misc : soil Multiplr: 33.22
Quant Time: Jul 2 17:13 2015 Quant Results File: temp.res

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Multiple Level Calibration



TIC: 0629L042.D

(19) Chrysene (TM)

13.07min 99.2832ppb m

response 17855

Ion	Exp%	Act%
228.00	100	100
114.00	13.50	14.20
229.00	19.40	20.11
226.00	27.20	27.98

Laboratory Control Spike Recovery
EPA 8270D LL SOILS RE-EXTRACT

APPL ID: **150706S-17436 LCS - 198646**
Batch ID: #SIMDD-150706A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level mg/kg	SPK Result mg/kg	SPK % Recovery	Recovery Limits
2-METHYLNAPHTHALENE	0.167	0.0957	57.3	45-105
ACENAPHTHENE	0.167	0.0943	56.5	45-110
ACENAPHTHYLENE	0.167	0.0969	58.0	45-105
ANTHRACENE	0.167	0.104	62.3	55-105
BENZ (A) ANTHRACENE	0.167	0.126	75.4	50-110
BENZO (A) PYRENE	0.167	0.124	74.3	50-110
BENZO (B) FLUORANTHENE	0.167	0.117	70.1	45-115
BENZO (G,H,I) PERYLENE	0.167	0.106	63.5	40-125
BENZO (K) FLUORANTHENE	0.167	0.0925	55.4	45-125
CHRYSENE	0.167	0.0975	58.4	55-110
DIBENZ (A,H) ANTHRACENE	0.167	0.108	64.7	40-125
FLUORANTHENE	0.167	0.112	67.1	55-115
FLUORENE	0.167	0.102	61.1	50-110
INDENO (1,2,3-CD) PYRENE	0.167	0.116	69.5	40-120
NAPHTHALENE	0.167	0.0807	48.3	40-105
PHENANTHRENE	0.167	0.104	62.3	50-110
PYRENE	0.167	0.110	65.9	45-125
SURROGATE: 2-FLUORBIPHENYL (S)	0.083	0.050	60.2	45-105
SURROGATE: NITROBENZENE-D5 (S)	0.083	0.0487	58.7	35-100
SURROGATE: TERPHENYL-D14 (S)	0.083	0.0628	75.7	30-125

Comments: _____

Primary	SPK
Quant Method :	P0629.M
Extraction Date :	07/06/15
Analysis Date :	07/07/15
Instrument :	Linus
Run :	0629L203
Initials :	MA

Printed: 07/08/15 9:41:31 AM
APPL Standard LCS

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L203.D Vial: 3
Acq On : 7 Jul 15 13:01 Operator: MA
Sample : 150706A LCS-1 1/30.60G Inst : Linus
Misc : soil Multiplr: 32.68

Quant Time: Jul 8 9:26 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	6.07	136	5313	2.50000	ppb		0.02
6) Acenaphthene-D10(IS)	8.11	164	2878	2.50000	ppb		0.01
11) Phenanthrene-D10(IS)	9.86	188	4746	2.50000	ppb		0.00
15) Chrysene-D12(IS)	13.06	240	5328	2.50000	ppb		0.02
21) Perylene-D12(IS)	15.69	264	3348	2.50000	ppb		0.04
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.21	82	787	48.73122	ppb		0.04
Spiked Amount 81.699			Recovery = 59.647%				
7) Surrogate Recovery (FBP)	7.33	172	2667	49.95219	ppb		0.01
Spiked Amount 81.699			Recovery = 61.141%				
17) Surrogate Recovery (TPH)	11.73	244	3748	62.80370	ppb		0.00
Spiked Amount 81.699			Recovery = 76.872%				
Target Compounds							Qvalue
3) Naphthalene	6.10	128	7153	80.69583	ppb		99
4) 2-Methylnaphthalene	6.90	142	5146	95.72474	ppb		96
5) 1-Methylnaphthalene	7.01	142	5633	93.32799	ppb		100
8) Acenaphthylene	7.95	152	9582	96.86534	ppb		99
9) Acenaphthene	8.15	154	5698	94.25467	ppb		100
10) Fluorene	8.76	166	6512	101.93540	ppb		99
12) Phenanthrene	9.90	178	9087	103.72332	ppb		99
13) Anthracene	9.96	178	9450	104.33080	ppb		99
14) Fluoranthene	11.28	202	12696	112.38789	ppb		95
16) Pyrene	11.55	202	13174	110.27758	ppb		95
18) Benz (a) anthracene	13.03	228	12251	126.20651	ppb		99
19) Chrysene	13.09	228	10333	97.48260	ppb		97
20) Indeno (1,2,3-cd) pyrene	17.92	276	11842	116.28839	ppb	#	87
22) Benzo (b) fluoranthene	14.88	252	10938	116.57062	ppb		94
23) Benzo (k) fluoranthene	14.92	252	7158	92.46636	ppb		95
24) Benzo (a) pyrene	15.46	252	10731	124.14616	ppb		94
25) Dibenz (a,h) anthracene	17.96	278	10301	108.06009	ppb	#	91
26) Benzo (g,h,i) perylene	18.47	276	10372	105.67538	ppb		92

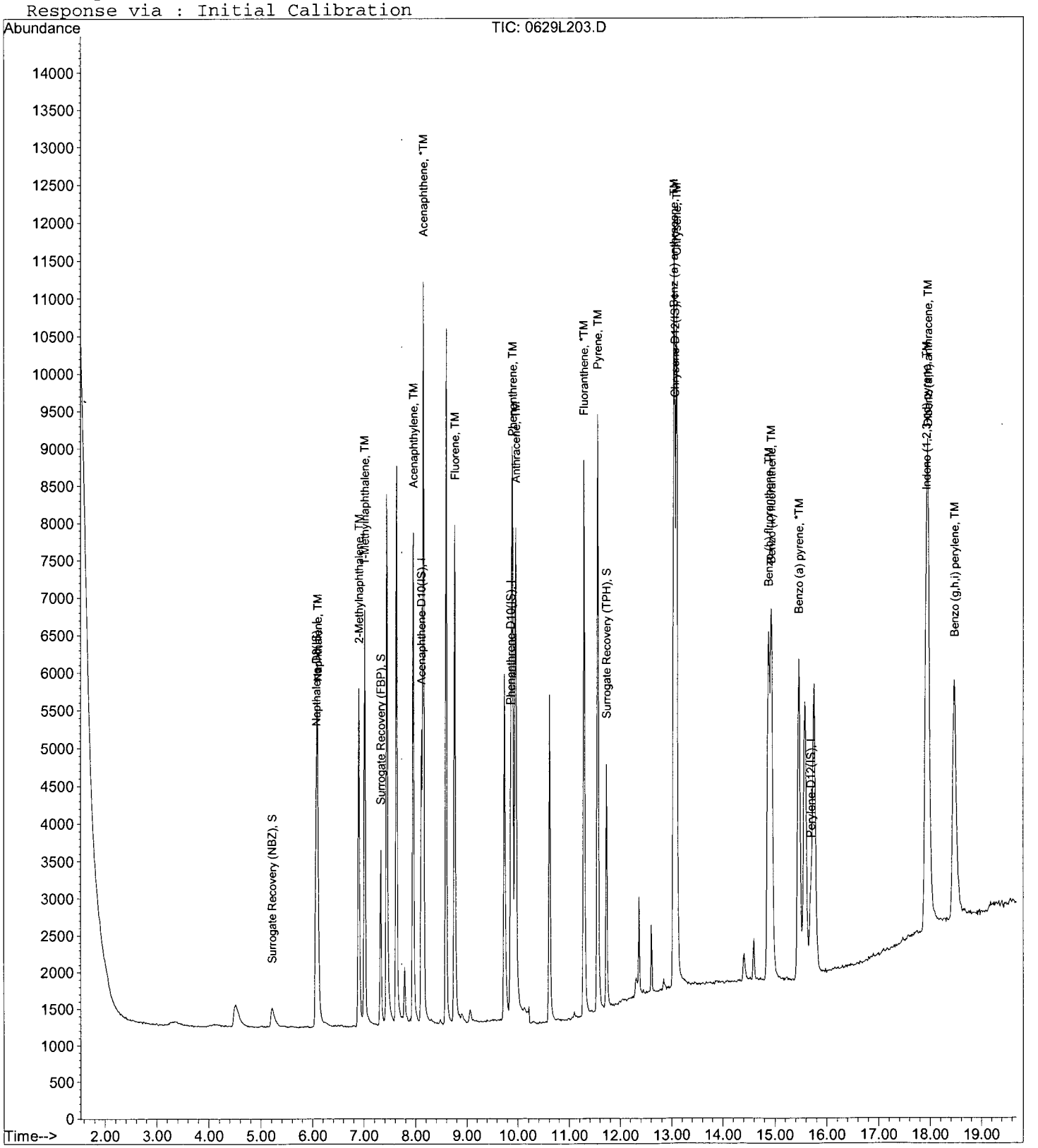
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L203.D Vial: 3
Acq On : 7 Jul 15 13:01 Operator: MA
Sample : 150706A LCS-1 1/30.60G Inst : Linus
Misc : soil Multiplr: 32.68

Quant Time: Jul 8 9:26 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration



Matrix Spike Recoveries
EPA 8270D LL SOILS

APPL ID: **150622S-17444 MS - 198579**
Batch ID: #SIMDD-150622A
Sample ID: AZ17444
Client ID: S67-SS035-0001

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl mg/kg	Matrix Result mg/kg	SPK Result mg/kg	DUP Result mg/kg	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
2-METHYLNAPHTHALENE	0.133	ND	0.108	0.111	81.2	83.5	45-105	2.7	30
ACENAPHTHENE	0.167	ND	0.0996	0.0984	59.6	58.9	45-110	1.2	30
ACENAPHTHYLENE	0.167	ND	0.106	0.105	63.5	62.9	45-105	0.95	30
ANTHRACENE	0.167	0.017	0.107	0.106	53.9 #	53.3 #	55-105	0.94	30
BENZ (A) ANTHRACENE	0.167	0.10	0.148	0.156	28.7 #	33.5 #	50-110	5.3	30
BENZO (A) PYRENE	0.167	0.049	0.148	0.145	59.3	57.5	50-110	2.0	30
BENZO (B) FLUORANTHENE	0.167	0.073	0.154	0.147	48.5	44.3 #	45-115	4.7	30
BENZO (G,H,I) PERYLENE	0.167	0.038	0.118	0.117	47.9	47.3	40-125	0.85	30
BENZO (K) FLUORANTHENE	0.167	ND	0.150	0.146	89.8	87.4	45-125	2.7	30
CHRYSENE	0.167	ND	0.159	0.122	95.2	73.1	55-110	26.3	30
DIBENZ (A,H) ANTHRACENE	0.167	ND	0.110	0.111	65.9	66.5	40-125	0.90	30
FLUORANTHENE	0.167	0.10	0.164	0.150	38.3 #	29.9 #	55-115	8.9	30
FLUORENE	0.167	ND	0.103	0.104	61.7	62.3	50-110	0.97	30
INDENO (1,2,3-CD) PYRENE	0.167	0.034	0.137	0.135	61.7	60.5	40-120	1.5	30
NAPHTHALENE	0.167	ND	0.101	0.102	60.5	61.1	40-105	0.99	30
PHENANTHRENE	0.167	0.050	0.128	0.127	46.7 #	46.1 #	50-110	0.78	30
PYRENE	0.167	0.083	0.158	0.146	44.9 #	37.7 #	45-125	7.9	30
SURROGATE: 2-FLUORBIPHENYL (S)	0.083	NA	0.0558	0.0577	67.2	69.5	45-105		
SURROGATE: NITROBENZENE-D5 (S)	0.083	NA	0.0547	0.0592	65.9	71.3	35-100		
SURROGATE: TERPHENYL-D14 (S)	0.083	NA	0.0602	0.0624	72.5	75.2	30-125		

= Recovery is outside QC limits.

Comments:

Primary	SPK	DUP
Quant Method :	P0629.M	P0629.M
Extraction Date :	06/22/15	06/22/15
Analysis Date :	07/02/15	07/02/15
Instrument :	Linus	Linus
Run :	0629L133	0629L134
Initials :	MA	

Printed: 07/02/15 4:55:20 PM
APPL MSD SCII

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L133.D Vial: 33
Acq On : 2 Jul 15 10:55 Operator: MA
Sample : AZ17444S05 MS-1 1/30.01G Inst : Linus
Misc : soil Multiplr: 33.22

Quant Time: Jul 2 12:05 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

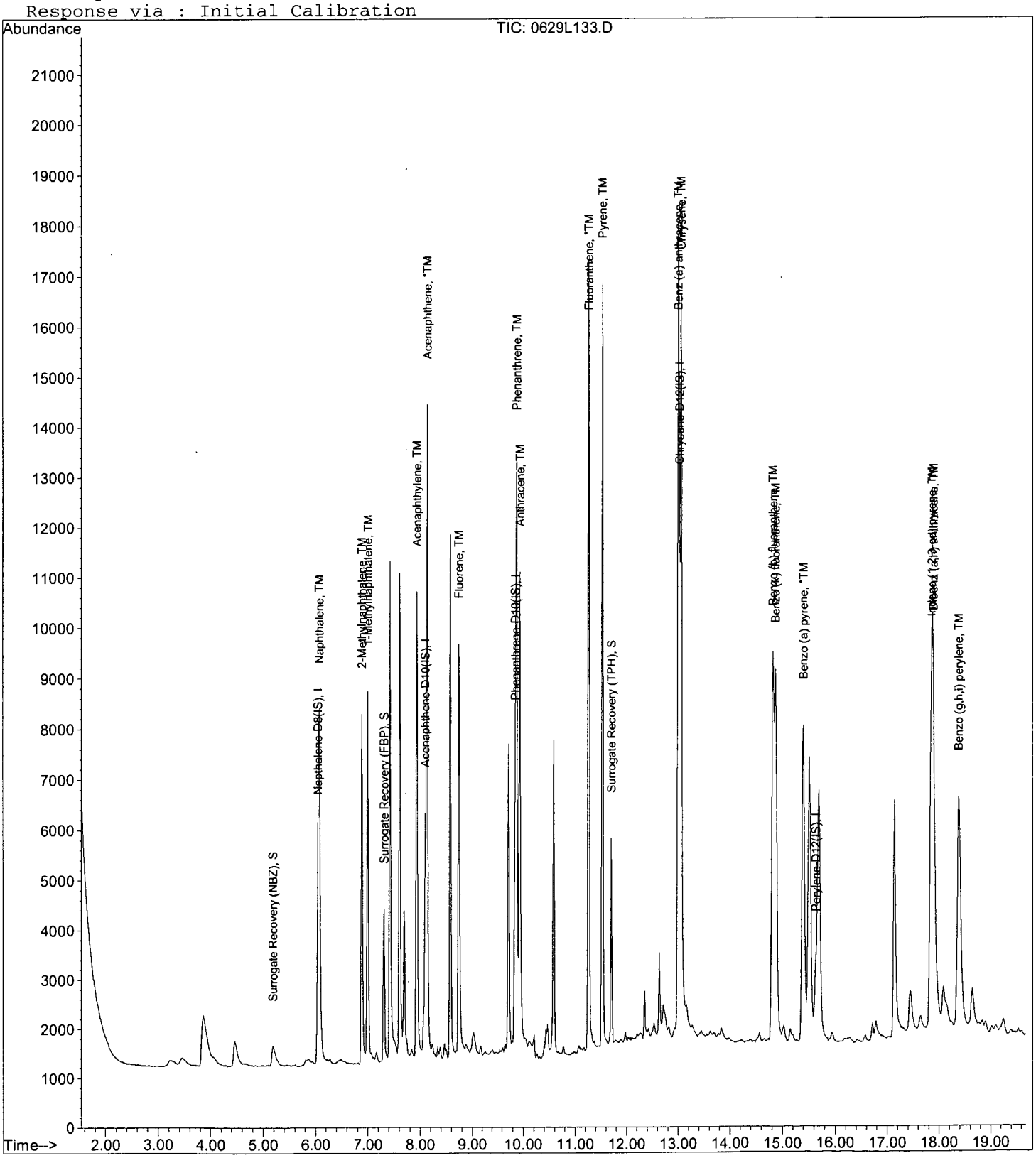
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Napthalene-D8(IS)	6.05	136	6820	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.10	164	3496	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.85	188	5791	2.50000 ppb	-0.01
15) Chrysene-D12(IS)	13.02	240	6229	2.50000 ppb	-0.01
21) Perylene-D12(IS)	15.63	264	4038	2.50000 ppb	-0.02
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.19	82	1115	54.67867 ppb	0.01
Spiked Amount 83.056			Recovery = 65.834%		
7) Surrogate Recovery (FBP)	7.31	172	3562	55.83414 ppb	0.00
Spiked Amount 83.056			Recovery = 67.224%		
17) Surrogate Recovery (TPH)	11.70	244	4129	60.16327 ppb	-0.02
Spiked Amount 83.056			Recovery = 72.436%		
Target Compounds					Qvalue
3) Naphthalene	6.07	128	11348	101.38943 ppb	99
4) 2-Methylnaphthalene	6.88	142	7362	108.45777 ppb	99
5) 1-Methylnaphthalene	7.00	142	7898	103.63340 ppb	98
8) Acenaphthylene	7.93	152	12584	106.46463 ppb	100
9) Acenaphthene	8.13	154	7193	99.57834 ppb	100
10) Fluorene	8.74	166	7886	103.30986 ppb	99
12) Phenanthrene	9.87	178	13438	127.79673 ppb	99
13) Anthracene	9.93	178	11635	107.02280 ppb	99
14) Fluoranthene	11.26	202	22229	163.94634 ppb	97
16) Pyrene	11.53	202	21764	158.41970 ppb	98
18) Benz (a) anthracene	13.00	228	16626	148.08121 ppb	99
19) Chrysene	13.06	228	17514	158.77093 ppb	98
20) Indeno (1,2,3-cd) pyrene	17.85	276	16048	137.03551 ppb #	100
22) Benzo (b) fluoranthene	14.82	252	16979	154.20605 ppb	97
23) Benzo (k) fluoranthene	14.86	252	12777	149.97981 ppb	99
24) Benzo (a) pyrene	15.40	252	15212	148.33839 ppb	95
25) Dibenz (a,h) anthracene	17.89	278	12492	110.45670 ppb	95
26) Benzo (g,h,i) perylene	18.38	276	13773	118.28073 ppb	96

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

Data File : M:\LINUS\DATA\L150629\0629L133.D Vial: 33
Acq On : 2 Jul 15 10:55 Operator: MA
Sample : AZ17444S05 MS-1 1/30.01G Inst : Linus
Misc : soil Multiplr: 33.22

Quant Time: Jul 2 12:05 2015 Quant Results File: P0629.RES

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L134.D Vial: 34
Acq On : 2 Jul 15 11:22 Operator: MA
Sample : AZ17444S05 MSD-1 1/30.01G Inst : Linus
Misc : soil Multiplr: 33.32

Quant Time: Jul 2 12:06 2015 Quant Results File: P0629.RES

Quant Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration
DataAcq Meth : 87SIMAQA

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Napthalene-D8(IS)	6.05	136	6572	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	8.10	164	3465	2.50000	ppb		0.00
11) Phenanthrene-D10(IS)	9.85	188	5828	2.50000	ppb		-0.01
15) Chrysene-D12(IS)	13.02	240	6308	2.50000	ppb		-0.01
21) Perylene-D12(IS)	15.63	264	4104	2.50000	ppb		-0.02
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.19	82	1159	59.15798	ppb		0.01
Spiked Amount 83.306			Recovery = 71.013%				
7) Surrogate Recovery (FBP)	7.31	172	3639	57.72397	ppb		0.00
Spiked Amount 83.306			Recovery = 69.292%				
17) Surrogate Recovery (TPH)	11.70	244	4326	62.43093	ppb		-0.02
Spiked Amount 83.306			Recovery = 74.942%				
Target Compounds							Qvalue
3) Naphthalene	6.07	128	10915	101.50419	ppb		99
4) 2-Methylnaphthalene	6.88	142	7223	110.75653	ppb		99
5) 1-Methylnaphthalene	7.00	142	7721	105.44914	ppb		99
8) Acenaphthylene	7.93	152	12252	104.89671	ppb		100
9) Acenaphthene	8.13	154	7025	98.41684	ppb		98
10) Fluorene	8.74	166	7873	104.37428	ppb		100
12) Phenanthrene	9.87	178	13420	127.19548	ppb		100
13) Anthracene	9.93	178	11615	106.47882	ppb		99
14) Fluoranthene	11.26	202	20392	149.89105	ppb		98
16) Pyrene	11.53	202	20312	146.43668	ppb		99
18) Benz (a) anthracene	13.00	228	17736	156.17221	ppb		97
19) Chrysene	13.06	228	14346	122.37451	ppb		98
20) Indeno (1,2,3-cd) pyrene	17.85	276	16016	135.45435	ppb	#	98
22) Benzo (b) fluoranthene	14.82	252	16422	146.90439	ppb		97
23) Benzo (k) fluoranthene	14.86	252	12641	145.83229	ppb		97
24) Benzo (a) pyrene	15.40	252	15115	145.45693	ppb		96
25) Dibenz (a,h) anthracene	17.89	278	12665	110.51578	ppb		94
26) Benzo (g,h,i) perylene	18.38	276	13760	116.61728	ppb		96

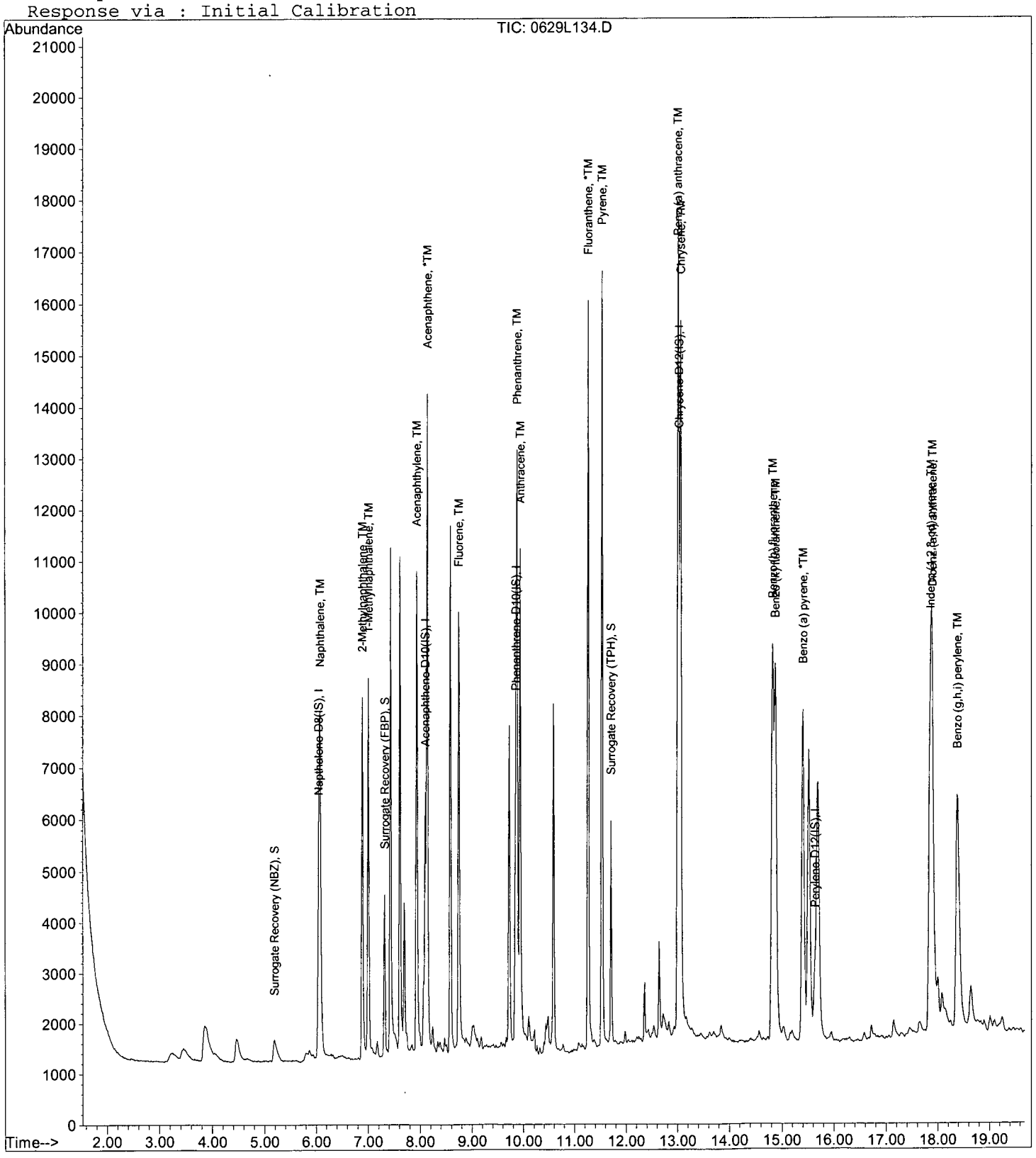
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L134.D Vial: 34
Acq On : 2 Jul 15 11:22 Operator: MA
Sample : AZ17444S05 MSD-1 1/30.01G Inst : Linus
Misc : soil Multiplr: 33.32

Quant Time: Jul 2 12:06 2015 Quant Results File: P0629.RES

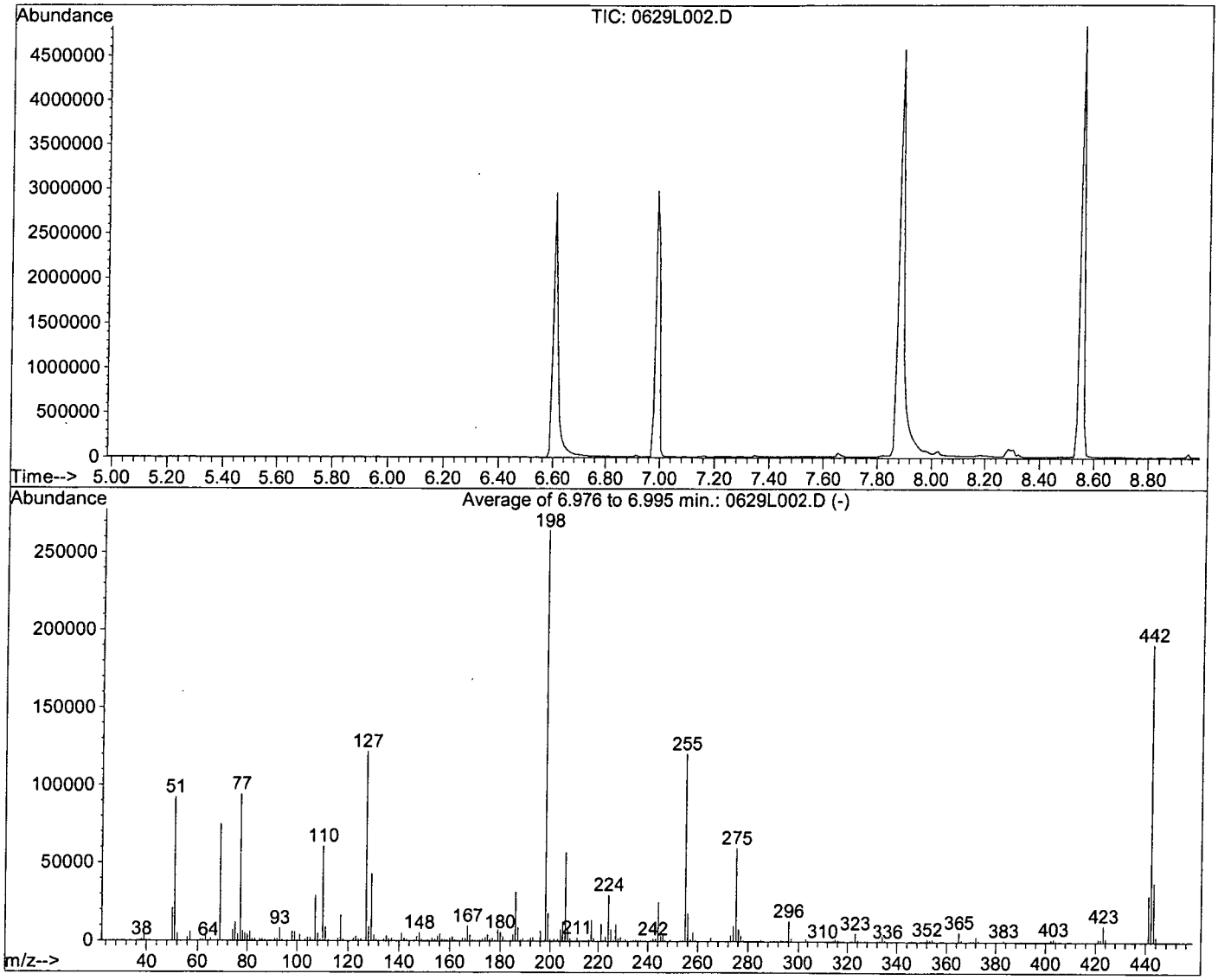
Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration



DFTPP

Data File : M:\LINUS\DATA\L150629\0629L002.D Vial: 2
Acq On : 29 Jun 15 12:12 Operator: MA
Sample : SV Tune 05/14/15 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270



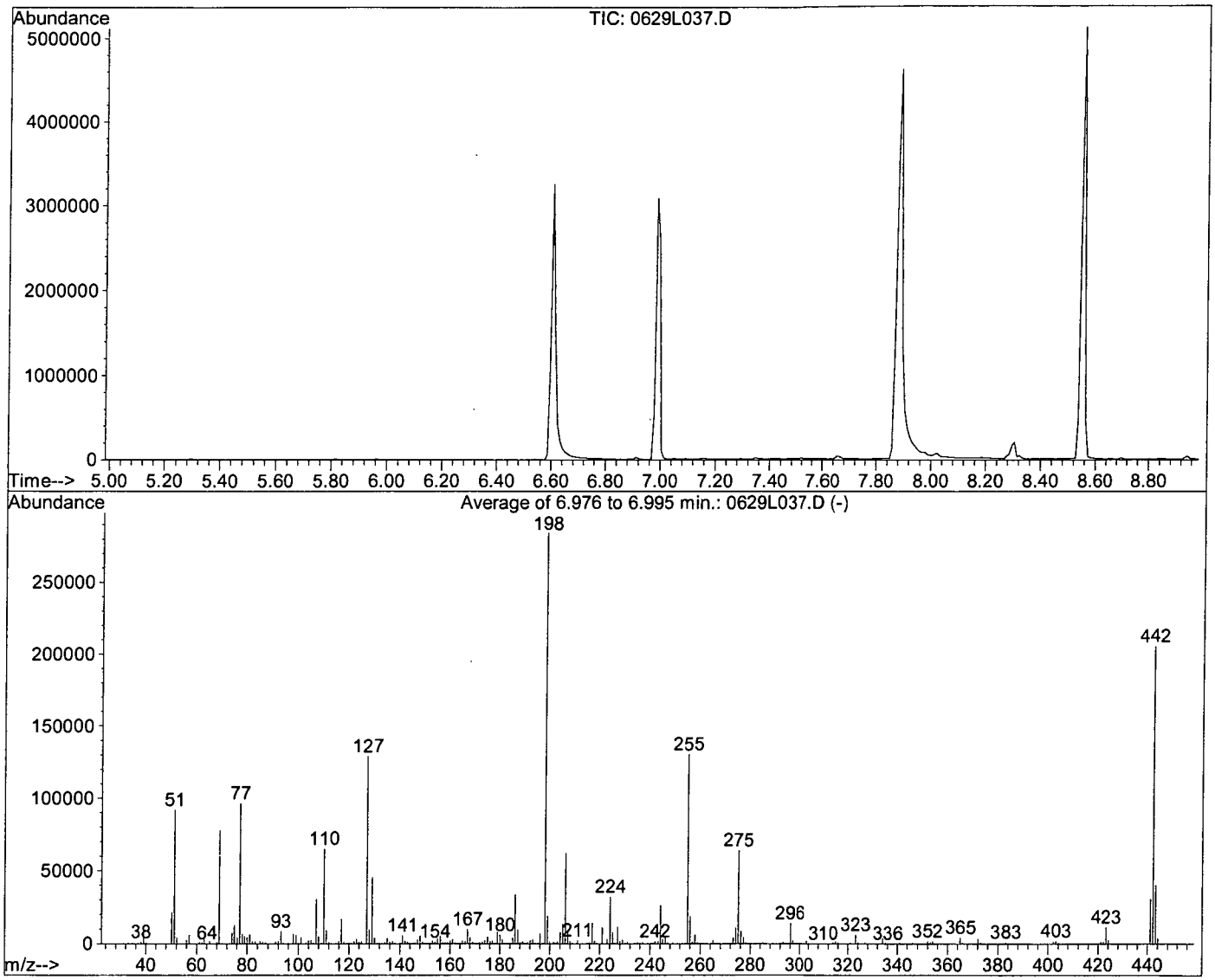
AutoFind: Scans 474, 475, 476; Background Corrected with Scan 471

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	34.9	92376	PASS
68	69	0.00	2	1.2	906	PASS
70	69	0.00	2	0.5	373	PASS
127	198	40	60	46.1	121773	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	264419	PASS
199	198	5	9	6.8	17949	PASS
275	198	10	30	22.6	59728	PASS
365	198	1	100	2.2	5941	PASS
441	443	0.01	100	78.4	29746	PASS
442	198	50	150	72.4	191416	PASS
443	442	17	23	19.8	37959	PASS

0629L002.D P0629.M Tue Jun 30 12:22:24 2015

Data File : M:\LINUS\DATA\L150629\0629L037.D Vial: 37
Acq On : 30 Jun 15 4:31 Operator: MA
Sample : SV TUNE 5/14/15 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270



AutoFind: Scans 474, 475, 476; Background Corrected with Scan 471

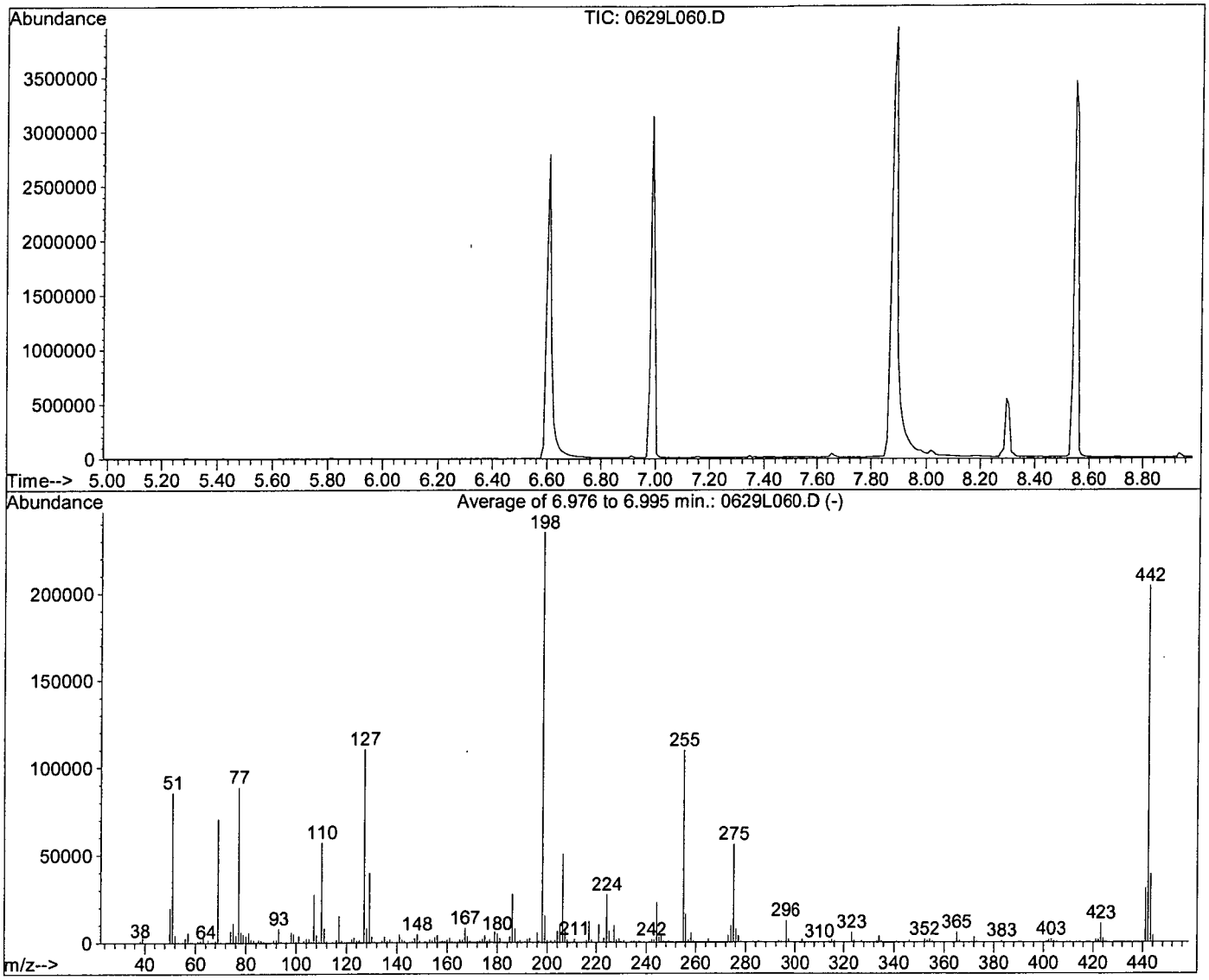
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	32.4	91922	PASS
68	69	0.00	2	1.4	1065	PASS
70	69	0.00	2	0.6	492	PASS
127	198	40	60	45.4	129048	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	284048	PASS
199	198	5	9	6.7	19020	PASS
275	198	10	30	22.5	63842	PASS
365	198	1	100	1.5	4177	PASS
441	443	0.01	100	76.4	30577	PASS
442	198	50	150	72.4	205575	PASS
443	442	17	23	19.5	40000	PASS

0629L037.D P0629.M Tue Jun 30 09:15:02 2015

DFTPP

Data File : M:\LINUS\DATA\L150629\0629L060.D Vial: 60
Acq On : 30 Jun 15 14:52 Operator: MA
Sample : SV TUNE 5/14/15 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270



AutoFind: Scans 474, 475, 476; Background Corrected with Scan 471

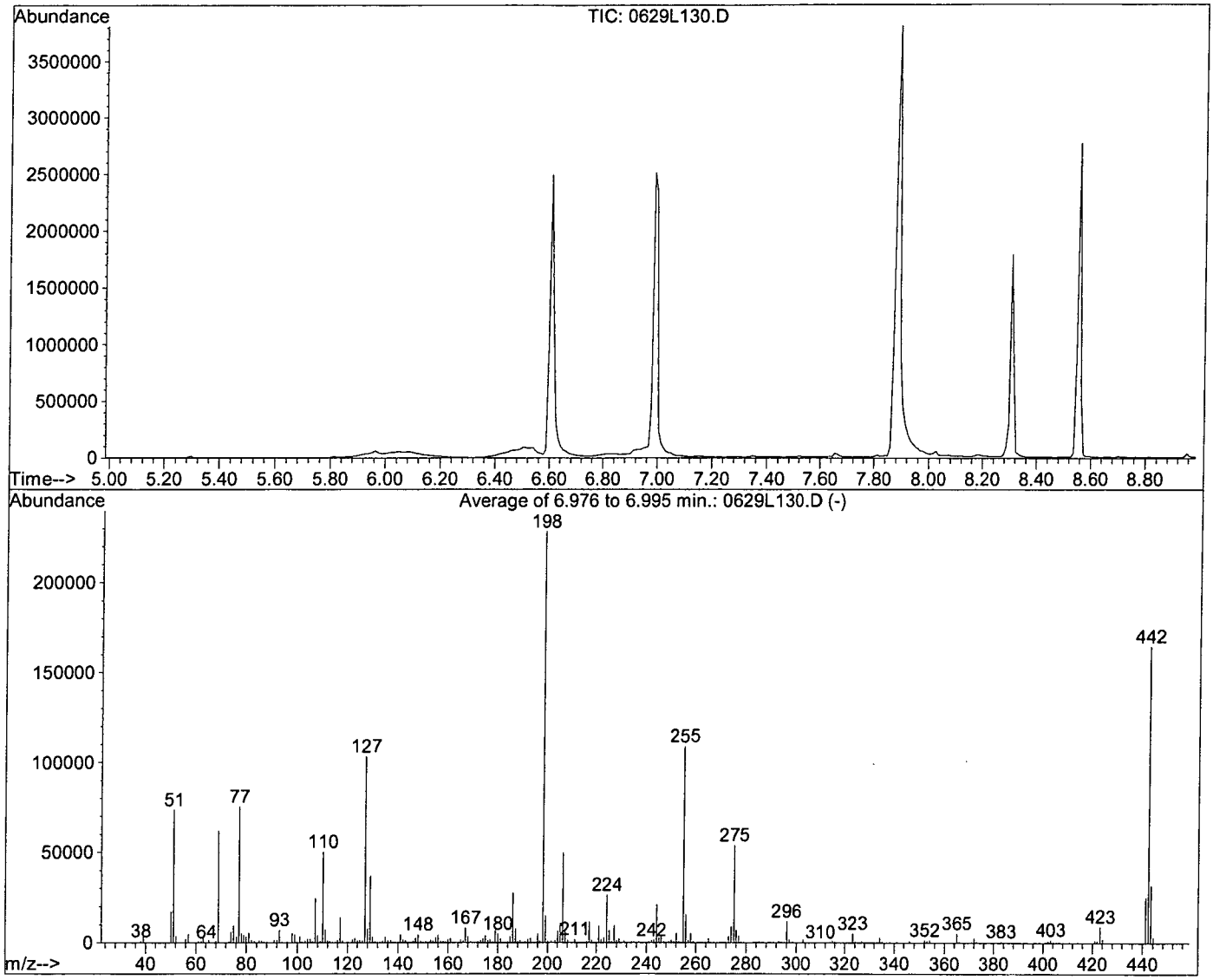
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	36.4	85768	PASS
68	69	0.00	2	1.6	1105	PASS
70	69	0.00	2	0.6	401	PASS
127	198	40	60	47.0	110525	PASS
197	198	0.00	1	0.5	1064	PASS
198	198	100	100	100.0	235365	PASS
199	198	5	9	6.5	15400	PASS
275	198	10	30	23.8	56054	PASS
365	198	1	100	2.4	5612	PASS
441	443	0.01	100	78.7	30800	PASS
442	198	50	150	86.8	204204	PASS
443	442	17	23	19.2	39119	PASS

0629L060.D P0629.M Tue Jun 30 15:03:49 2015

DFTPP

Data File : M:\LINUS\DATA\L150629\0629L130.D Vial: 30
Acq On : 2 Jul 15 9:44 Operator: MA
Sample : SV TUNE 5/14/15 Inst : Linus
Misc : water Multiplr: 1.00

Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270



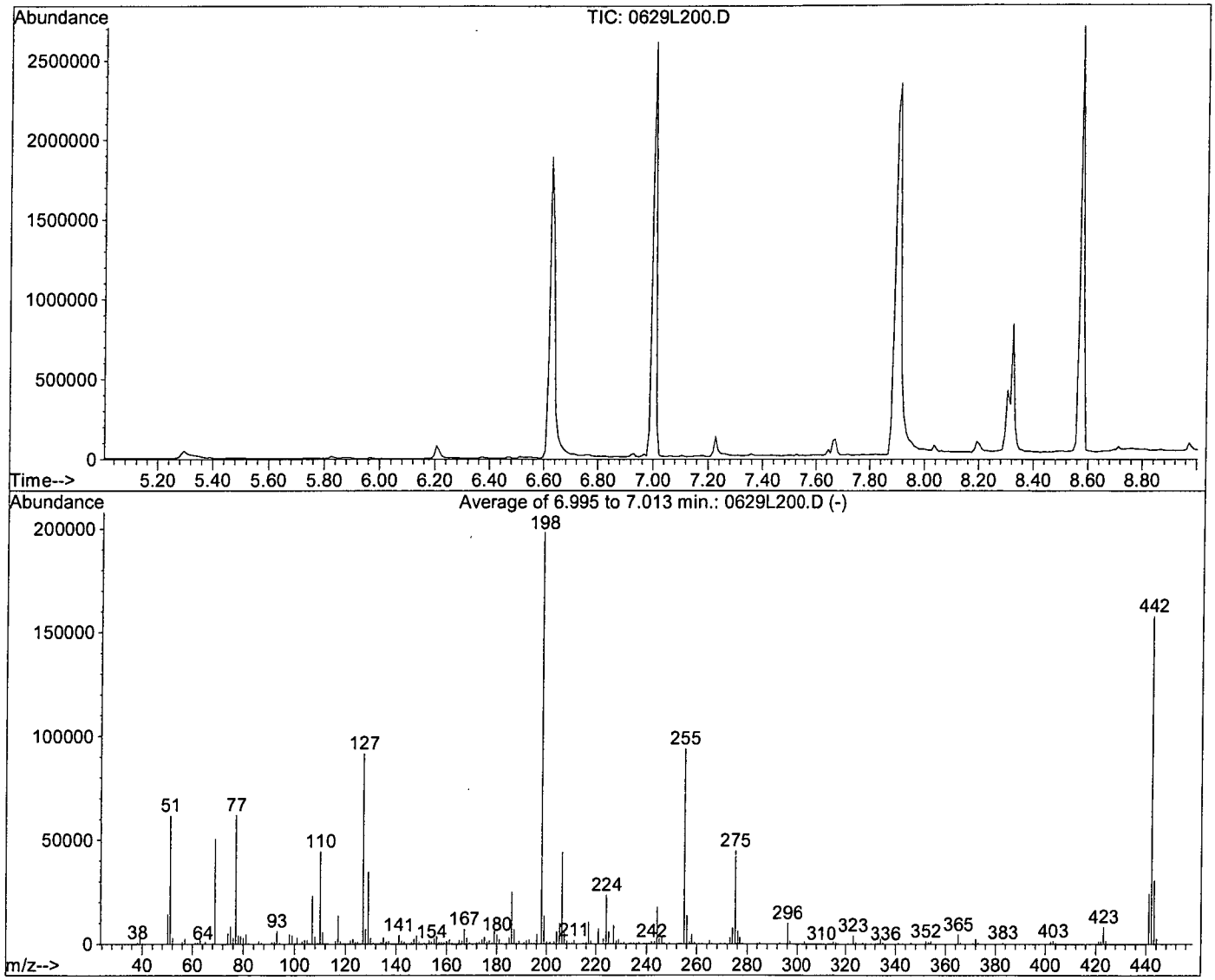
AutoFind: Scans 474, 475, 476; Background Corrected with Scan 472

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	32.2	73672	PASS
68	69	0.00	2	1.6	977	PASS
70	69	0.00	2	0.5	308	PASS
127	198	40	60	45.2	103232	PASS
197	198	0.00	1	0.4	952	PASS
198	198	100	100	100.0	228478	PASS
199	198	5	9	6.6	14975	PASS
275	198	10	30	23.7	54039	PASS
365	198	1	100	2.2	5122	PASS
441	443	0.01	100	78.5	25082	PASS
442	198	50	150	72.1	164753	PASS
443	442	17	23	19.4	31965	PASS

DFTPP

Data File : M:\LINUS\DATA\L150629\0629L200.D Vial: 100
Acq On : 7 Jul 15 11:02 Operator: MA
Sample : SV TUNE 5/14/15 Inst : Linus
Misc : Multiplr: 1.00

Method : M:\LINUS\DATA\L150629\P0629.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	31.2	61778	PASS
68	69	0.00	2	0.7	340	PASS
70	69	0.00	2	0.0	0	PASS
127	198	40	60	46.3	91730	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	198160	PASS
199	198	5	9	6.8	13417	PASS
275	198	10	30	22.6	44856	PASS
365	198	1	100	2.3	4537	PASS
441	443	0.01	100	78.8	24156	PASS
442	198	50	150	79.6	157827	PASS
443	442	17	23	19.4	30666	PASS

INDOXACARB CURVE											
Prep: 5/14/15 Ex: 7/31/15-L.H.											
Supplier	**ID#**	**ug/mL**	**LOT#**	**DATE**	**EXP.DATE**	**µL**	**µL**	**µL**	**µL**	**µL**	**µL**
INDOXACARB STD.		1		07/31/14	07/31/15	5	50	100	150	200	250
						995	950	900	850	800	750
	Hexane		051914A		**FINAL VOL**	1000	1000	1000	1000	1000	1000

8270 Full Scan Second Source Stock						
	5/14/15-L.H.					
8270 Second Source Stock						
Exp:	7/21/15					
		Conc.		Date	Exp.	
Supplier	ID #	µg/mL	Lot #	Code	Date	µL
o2si	116070-02	2000	34696-3398	5/14/15	5/14/16	1000
o2si	110391-01	2000	34693-3401	5/14/15	5/14/16	1000
o2si	010337-01	1000	17950-3514	5/14/15	11/14/15	1000
o2si	110396-01	2000	34698-3515	5/14/15	5/14/16	1000
o2si	110397-01	2000	50011-3505	5/14/15	7/21/15	1000
o2si	110393-01	2000	34694-3515	5/14/15	5/14/16	1000
o2si	110394-01	2000	35110-3515	5/14/15	5/14/16	1000
o2si	**110395-01**	2000	34697-3402	5/14/15	5/14/16	1000
o2si	110392-01	2000	18075-3397	5/14/15	5/14/16	1000
EM Science	Methylene Chloride		55006	11/06/14		1000
				Final Vol.		10000

Semivolatile (SV) Tuning Solution -L.H.						
PREP DATE:	5/14/15					
Semivolatile (SV) Tune Solution 50ug/ml						
Exp:	5/14/16					
		Conc.		Date		
Supplier	ID #	µg/mL	Lot #	Code	Exp.Date	µL
Ultra Scient	Semivolatile	1000	CL-5063-3518	05/14/15	5/14/16	1000
EM Science	Methylene Chloride		47186	11/06/14		19000
				Final Vol.		20000

Sulfolane Standard Curve

PREP DATE:	06/29/15-L.H.												
Sulfolane Standard Curve													
EXP.DATE	09/11/15					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 Ca	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								

1,4-Dioxane Standard Curve

PREP DATE:	6/26/15-L.H.												
1,4-Dioxane Standard Curve													
Exp.	9/13/15					0.5	1	2	4	5	6	8	10
		Conc.		Date	Exp.								
Supplier	ID #	µg/mL	Lot #	Code	Date	µL	µL	µL	µL	µL	µL	µL	µL
Restek	1,4-Dioxane	200	098213-3361	6/26/15	12/29/15	5	5	10	20	25	30	40	50
o2si	8270 BN:A	VAR	237956-3455	6/25/15	6/25/16	5	5	10	20	25	30	40	50
J.T. Baker	MeOH		070913A	10/10/13		190	90	80	60	50	40	20	0
Supelco	SV Internal	2000	A10079V-344	05/21/15	05/21/16	4	2	2	2	2	2	2	2
				Final Vol.		204	102	102	102	102	102	102	102

8270 PAH SIM Standard Curve

PREP DATE:	6/29/15-L.H.												
8270 PAH SIM STANDARD CURVE													
Exp.DATE:	07/06/15					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 SIN	200	230271-3456	06/18/15	06/18/16	0	0	0	0	5	5	25	50
	5.0ug/mL	5		06/29/15	07/06/15	0	0	10	20	0	0	0	0
	1.0ug/mL	1		06/29/15	07/06/15	10	20	0	0	0	0	0	0
o2si	8270 BN:A (2	VAR	242352-3496	06/25/15	06/25/16	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 Inter	125	A10079V-344	06/01/15	12/1/15	2	2	2	2	4	2	2	2
				Final Vol.		102	102	102	102	204	102	102	102

8270 PAH SIM SS

PREP DATE:	06/29/15-L.H.					
8270 PAH SIM Second Source 5µg/mL						
Exp.DATE:	07/06/15					5
		Conc.		Date	Exp.	
Supplier	ID #	µg/mL	Lot #	Code	Date	µL
o2si	8270 PAH SIN	200	243252-3460	02/26/15	8/26/15	5
EM Science	Methylene Chloride		54200	11/06/14		195
Supelco	SIM SV Inter	125	A10079V-344	06/01/15	12/01/15	4
				Final Vol.		204

8270 BNA Surrogate Stock 06/18/15-L.H. Ex: 06/18/16						
		Conc.				
Supplier	ID #	µg/mL	Lot #	Open Date	Exp.Date	µL
O2SI	110004-17	200/400	248285-35024	6/18/15	6/18/16	1000

PAH SIM STD prep: 06/18/16-L.H.						
Exp:	10/27/15					
		Conc.				
Supplier	ID #	mg/L	Lot #	Open Date	Exp.Date	µL
o2si	110780-01	200	242353-34583	06/18/15	06/18/16	1000
o2si	110780-01	200	242353-34584	06/18/15	06/18/16	1000
o2si	110780-01	200	242353-34585	06/18/15	06/18/16	1000
o2si	110780-01	200	230271-34571	06/18/15	06/18/16	1000
o2si	110780-01	200	230271-34572	06/18/15	06/18/16	1000
				Fin Vol.		5000

Herbicide CCV LVL 3 prep: 06/18/15-L.H. Ex: 12/18/15					
	CONC	CONCENTRATION			
COMPOUND	IN MIX	OF STOCK	ALIQUOT	STOCK	FINAL VOL (ml)
	(ug/ml)	(ug/ml)	(uL)	SOURCE	SOLVENT
Herb Spk STD	100	VARIOUS	100 µL	HERB SPK STD	1mL
MIX	200			PREP: 5/26/15	MTBE
				EXP: 4/31/16	LOT # 50223

OP/F CURVE	Prep: 06/18/15-L.H. Ex: 12/18/15												
						IA	IB	1	2	3	4	5	6
SUPPLIER	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	mL	mL	mL	mL	mL	mL	mL	mL
	OP/F STD	5		06/08/15	01/06/16	2	5	10	50	20	100	70	100
VWR	Hexane		051914A			998	995	990	950	80	100	30	NA
					Final VOL.	1000	1000	1000	1000	100	200	100	100

OPC CURVE		Prep: 06/18/15-L.H. Ex: 8/15/15									
						1	2	3	4	5	6
SUPPLIER	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
	OPC STD	5		04/24/15	08/15/15	10	50	20	100	70	1000
	Hexane		051914A			990	950	80	100	30	NA
					Final VOL.	1000	1000	100	200	100	1000

	504/8011 M STD					
Prep: 06/25/15-L.H. Ex: 09/25/15						
Compound	**Initial Conc.**	**Source**	**Aliquot**	**Final Vol.**	**Final Conc.**	**Solvent**
EDB	0.35ug/mL	8011 M STD	1000uL	10mL	0.035ug/mL	Methanol
TCP		prep.06/25/15				070913A
DBCP		exp: 12/16/15				
1,3 DBP						

8270 BNA Surrogate Stock 6/25/15-L.H. Ex: 6/25/16						
		Conc.				
Supplier	ID #	µg/mL	Lot #	Open Date	Exp.Date	µL
o2si	110004-17	200/400	242352-34955	5/25/15	5/25/16	1000

Standard	Init.Conc.	Source Date	Aliquot	Final Vol.	Final Conc	Solvent
AR 1016	1000ug/mL	O2SI	1250uL	25mL	50ug/mL	Acetone
1260	Cat:	130011-03				#051314C
	Lot:	2354787-34300	2354787-34301			
	Op:	05/22/15	06/01/15			
	Exp:	05/22/16	06/01/16			

8270 SIM PAH Internal Standard						
PREP DATE:	6/1/15-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	2000	XA10079V-34491	05/15/15	5/15/16	350
EM Science	Methylene Chloride		47186	11/06/14		5250
				Final Vol.		5600

507B CURVE											
SUPPLIER	ID#	µg/mL	LOT #	DATE	EXP.	µL	µL	µL	µL	µL	µL
	507B STD	5		04/09/15	04/09/16	10	50	20	100	70	100
	MTBE		50223			990	950	80	100	30	NA
					Final VOL.	1000	1000	100	200	100	100
prep: 06/01/15-L.H. ex: 12/01/15											

Vel/Fen Curve						1	2	3	4	5	6
SUPPLIER	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
VELPAR STD		10		04/15/15	01/31/16	10	50	20	100	70	100
VWR	Hexane		051914A			990	950	80	100	30	N/A
					Final VOL.	1000	1000	100	200	100	100
prep: 06/01/15-L.H. ex: 12/01/15											

PAC ECO CURVE													
						1a	1b	1	2	3	4	5	6
	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL	µL	µL
PAC ECO CAL ST		5		05/07/15	11/19/15	2	5	10	50	20	100	70	1000
						998	995	990	950	80	100	30	N/A
	Hexane		051914A		Final VOL.	1000	1000	1000	1000	100	200	100	1000
prep: 06/01/15-L.H. ex: 12/01/15													

02/27/15 CSC

8270D PAH SIM Solution, Second Source, 200 mg/L, 1 mL

110760-61-SS

Lot #	Storage	Expiry
243252	≤ -10 °C	15/Jan/2017

Solv: Methylene Chloride

8270D PAH SIM (SS)
Lot #: 243252 - 34609
Rec: 1/23/15 MFR exp. 1/15/17

Received : 01/23/15
Opened : 02/27/15
Expired: 01/15/17

02/27/15 CSC

Part #: 30031 Laboratory Use Only - See MSDS
Lot #: 060111 Exp:060116 Storage 20 °C

EPA Method 525 - Internal Standard
4 components CAUTION: Sonicate Before Use
500 ug/mL in acetc
ABSOLUTE STANDA

EPA Method 525 Internal Std
Lot #: 060111 - 32256
Rec: 4/16/13 MFR exp. 6/1/16

Received : 04/16/13
opened : 02/27/15
Expired : 06/01/16

02/27/15 CSC

PREP DATE:	02/27/15						CSC
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						CSC
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					CSC
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

REP DATE:	02/26/15		EXP:	03/03/15										CSC
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 Full Scan CCV

PREP DATE:	6/30/15-L.H.					
8270 Continuing Calibration Verification 50ug/ml						
Exp:	07/04/15					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 (2	VAR	248285-35024	06/25/15	6/25/16	25
EM Science	Methylene Chloride		55006	11/06/14		50
Supelco	SV Internal	2000	A10079V-3449	05/21/15	5/21/16	2

8270 PAH SIM CCV

PREP DATE:	06/30/15-LH					
8270 PAH SIM Continuing Calibration Verification 5ug/ml						
Exp.DATE:	07/07/15					5
		Conc.		Date	Exp.	
Supplier	ID #	µg/mL	Lot #	Code	Date	µL
o2si	8270 PAH SIN	200	230271-34569	06/18/15	6/18/16	5
o2si	8270 BN:A (2	VAR	248285-35024	06/25/15	6/25/16	5
EM Science	Methylene Chloride		54200	11/06/14		190
Supelco	SIM SV Inter	125	A10079V-3449	06/01/15	12/1/15	4
				Final Vol.		204

8270 PAH SIM CCV

PREP DATE:	07/07/15-LH					
8270 PAH SIM Continuing Calibration Verification 5ug/ml						
Exp.DATE:	07/16/15					5
		Conc.		Date	Exp.	
Supplier	ID #	µg/mL	Lot #	Code	Date	µL
o2si	8270 PAH SIN	200	230271-34569	06/18/15	6/18/16	5
o2si	8270 BN:A (2	VAR	248285-35024	06/25/15	6/25/16	5
EM Science	Methylene Chloride		54200	11/06/14		190
Supelco	SIM SV Inter	125	A10079V-3449	06/01/15	12/1/15	4
				Final Vol.		204

8270 Full Scan CCV

PREP DATE:	07/07/15-L.H.					
8270 Continuing Calibration Verification 50ug/ml						
Exp:	07/16/15					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 (2	VAR	248285-35024	06/25/15	6/25/16	25
EM Science	Methylene Chloride		55006	11/06/14		50
Supelco	SV Internal	2000	A10079V-3449	05/21/15	5/21/16	2

Vel\Fen Curve											
prep: 7/7/15-L.H. ex: 1/7/16						1	2	3	4	5	6
SUPPLIER	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL
VEL/FEN STD		10		04/15/15	01/31/16	10	50	20	100	70	100
	Hexane		051914A			990	950	80	100	30	N/A
					Final VOL.	1000	1000	100	200	100	100

PAC ECO CURVE													
prep: 7/7/15-L.H. ex: 11/19/15						1a	1b	1	2	3	4	5	6
	ID#	[µg/mL]	LOT #	DATE	EXP. DATE	µL	µL	µL	µL	µL	µL	µL	µL
	PAC ECO CAL ST	5		06/10/15	11/19/15	2	5	10	50	20	100	70	1000
						998	995	990	950	80	100	30	N/A
	Hexane		051914A		Final VOL.	1000	1000	1000	1000	100	200	100	1000

507B CURVE											
Prep: 7/7/15-L.H. Ex:1/7/16											
SUPPLIER	ID#	µg/mL	LOT #	DATE	EXP.	µL	µL	µL	µL	µL	µL
	507B STD	5		04/09/15	04/09/16	10	50	20	100	70	100
	MTBE		50223			990	950	80	100	30	NA
					Final VOL.	1000	1000	100	200	100	100

_SON009S

Organic Extraction Worksheet

Method	SIM Sonicat Ext. Methylene c 3550	Extraction Set	150622A	Extraction Method	SON009S	Units	mL

Spiked ID 1	SIM Spike 230271-33746		Surrogate ID 1	SIM Surrogate 248398-35192	
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:	06/22/15 9:25	
Spiked ID 8			Ext. End Time:	06/24/15 14:20	
			GC Requires Extract By:	**07/02/15 0:00**	

pH1			Water Bath Temp Criteria	75,78 °C
pH2				
pH3				

Spiked By: IC **Date** 06/22/15 **Witnessed By:** DC **Date** 06/22/15

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	150622A Blk				0.0250	1 equip	30.00g E-S5 E-WB7	1	NA	06/22/15 9:25	
2	150622A LCS-1		0.0250	1	0.0250	1 equip	30.10g E-S4 E-WB7	1	NA	06/22/15 9:25	
3	AZ17433	AZ17433S03			0.0250	1 equip	30.15g E-S3.1 E-WB7	1	NA	06/22/15 9:25	76624
4	AZ17434	AZ17434S02			0.0250	1 equip	30.38g E-S2 E-WB7	1	NA	06/22/15 9:25	76624
5	AZ17435	AZ17435S03			0.0250	1 equip	30.05g E-S1.2 E-WB7	1	NA	06/22/15 9:25	76624
6	AZ17436	AZ17436S02			0.0250	1 equip	30.19g E-S1.1 E-WB7	1	NA	06/22/15 9:25	76624
7	AZ17437	AZ17437S03			0.0250	1 equip	30.01g E-S6 E-WB7	1	NA	06/22/15 9:25	76624
8	AZ17438	AZ17438S01			0.0250	1 equip	30.08g E-S7 E-WB7	1	NA	06/22/15 9:25	76624
9	AZ17439	AZ17439S03			0.0250	1 equip	30.25g E-S5 E-WB6	1	NA	06/22/15 9:25	76624
10	AZ17440	AZ17440S01			0.0250	1 equip	30.11g E-S4 E-WB6	1	NA	06/22/15 9:25	76624
11	AZ17441	AZ17441S02			0.0250	1 equip	30.01g E-S3.1 E-WB6	1	NA	06/22/15 9:25	76624
12	AZ17442	AZ17442S02			0.0250	1 equip	30.18g E-S2 E-WB6	1	NA	06/22/15 9:25	76624
13	AZ17443	AZ17443S01			0.0250	1 equip	30.27g E-S1.2 E-WB6	1	NA	06/22/15 9:25	76624
14	AZ17444 MS-1	AZ17444S05	0.0250	1	0.0250	1 equip	30.01g E-S1.1 E-WB6	1	NA	06/22/15 9:25	76624
15	AZ17444 MSD-1	AZ17444S05	0.0250	1	0.0250	1 equip	30.01g E-S6 E-WB6	1	NA	06/22/15 9:25	76624
16	AZ17444	AZ17444S05			0.0250	1 equip	30.01g E-S7 E-WB7	1	NA	06/22/15 9:25	76624

Solvent and Lot#	
SAND	WF27C
MC	55006
Filter Paper	9624720
3.Na2SO4	XE21E

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	LH
Date	6/24/15
Time	4:40
Refrigerator	GC-C

	Technician's Initials
Scanned By	KY
Sample Preparation	KY
Extraction	IC
Concentration	IC

Modified	06/24/15 2:29:02 PM

Reviewed By: KY **Date** 6/24/15

Organic Extraction Worksheet

Method	SIM Sonicat Ext. Methylene c 3550	Extraction Set	150622A	Extraction Method	SON009S	Units	mL

Spiked ID 1	SIM Spike 230271-33746		Surrogate ID 1	SIM Surrogate 248398-35192	
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:	06/22/15 9:25	
Spiked ID 8			Ext. End Time:	06/24/15 14:20	
			GC Requires Extract By:	**07/02/15 0:00**	

pH1			Water Bath Temp Criteria	75,78 °C
pH2				
pH3				

Spiked By: IC **Date** 06/22/15 **Witnessed By:** DC **Date** 06/22/15

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ17445	AZ17445S02			0.0250	1	30.00g	1	NA	06/22/15 9:25	76624
						equip	E-S5 E-WB7				
18	AZ17446	AZ17446S03			0.0250	1	30.02g	1	NA	06/22/15 9:25	76624
						equip	E-S4 E-WB7				
19	AZ17447	AZ17447S02			0.0250	1	30.03g	1	NA	06/22/15 9:25	76624
						equip	E-S3.1 E-WB7				

Rvr 6/24/15

olvent and Lot#	
AND	WF27C
IC	55006
ilter Paper	9624720
.Na2SO4	XE21E

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	LH
Date	6/24/15
Time	4:40
Refrigerator	GC-C

	Technician's Initials
Scanned By	KY
Sample Preparation	KY
Extraction	IC
Concentration	IC

Modified	06/24/15 2:29:02 PM

Reviewed By: Rvr **Date** 6/24/15

_SON009S

Organic Extraction Worksheet

Method	SIM Sonicat Ext. Methylene c 3550	Extraction Set	150706A	Extraction Method	SON009S	Units	mL

Spiked ID 1	SIM Spike 230271-33746		Surrogate ID 1	SIM Surrogate 248398-35192	
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:	NO	
Spiked ID 7			Ext. Start Time:	07/06/15 15:35	
Spiked ID 8			Ext. End Time:	07/06/15 10:30	
			GC Requires Extract By:	**07/02/15 0:00**	

pH1			Water Bath Temp Criteria	78 °C
pH2				
pH3				

Spiked By: DL **Date** 07/06/15 **Witnessed By:** DC **Date** 07/06/15

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	150706A Blk				0.0250	1 equip	30.48g E-S1.1 E-WB6	1	NA	07/06/15 15:35	
2	150706A LCS-1		0.0250	1	0.0250	1 equip	30.60g E-S1.2 E-WB6	1	NA	07/06/15 15:35	
3	AZ17436	AZ17436S02			0.0250	1 equip	30.21g E-S2 E-WB6	1	NA	07/06/15 15:35	76624
4	AZ17443	AZ17443S01			0.0250	1 equip	30.24g E-S3.1 E-WB6	1	NA	07/06/15 15:35	76624

KW 7/7/15

Solvent and Lot#	
SAND	wf27c
MC	55006
Filter Paper	9624720
B.Na2SO4	xe21e

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	LH
Date	7/7/15
Time	12:35
Refrigerator	GC-C

	Technician's Initials
Scanned By	KY
Sample Preparation	KY
Extraction	DL
Concentration	DL,IC

Modified	07/07/15 10:42:53 AM

Reviewed By: KW **Date** 7/7/15

Nonconforming Work Report NWR Tracking No.: 719

Client: Tetra Tech
ARF #s: 76624
Matrix: soil
Method # and Instrument: 8270SIM-Linus
Prep/Analysis date: 06-22-15 06-30-15
Project Manager: Cynthya Clark
Analyst: Monica Aguilera

Explain what the problem is:
Samples S67-SB039-0607 and S67-SB040-1516 had surrogate FBP below the control limits.

Explain what caused the problem:
Unknown. – possible extraction in-efficiency. JE 7-8-15

Explain why the problem occurred:
Unknown

Record any corrections made to remediate the situation and to improve the quality of the data:
The samples were re-extracted out of holding time at the 28th and 26th days from collection respectively. Surrogates were in control limits in the re-extracts. Both sets were reported.

Explain if data quality was affected:
Possible low bias in the results.

Was work stopped:
No.

Was corrective action initiated:
No.

Required initials:

Project Manager: JE for CC **Date:** 7-8-15

QAU: [signature] **Date:** 7/8/15

Injection Log

Directory: M:\LINUS\DATA\L150629\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	0629L002.D	1	SV Tune 05/14/15		29 Jun 15 12:12
2	3	0629L003.D	1	0.1ug/ml PAH 06/29/15		29 Jun 15 12:29
3	4	0629L004.D	1	0.2ug/ml PAH		29 Jun 15 12:56
4	5	0629L005.D	1	0.5ug/ml PAH		29 Jun 15 13:23
5	6	0629L006.D	1	1.0ug/ml PAH		29 Jun 15 13:50
6	7	0629L007.D	1	5.0ug/ml PAH		29 Jun 15 14:17
7	8	0629L008.D	1	10ug/ml PAH		29 Jun 15 14:44
8	9	0629L009.D	1	50ug/ml PAH		29 Jun 15 15:12
9	10	0629L010.D	1	100ug/ml PAH		29 Jun 15 15:39
10	12	0629L012.D	1	5.0ug/ml PAH SS 06/29/15		29 Jun 15 17:28
11	37	0629L037.D	1	SV TUNE 5/14/15		30 Jun 15 4:31
12	38	0629L038.D	1	5.0ug/ml PAH 06/29/15		30 Jun 15 4:48
13	41	0629L041.D	33.3333	150622A BLK 1/30.00G	soil	30 Jun 15 6:09
14	42	0629L042.D	33.2226	150622A LCS-1 1/30.10G	soil	30 Jun 15 6:36
15	43	0629L043.D	331.675	AZ17433S03 1/30.15G x10	soil	30 Jun 15 7:03
16	44	0629L044.D	329.164	AZ17434S02 1/30.38G x10	soil	30 Jun 15 7:30
17	45	0629L045.D	332.779	AZ17435S03 1/30.05G x10	soil	30 Jun 15 7:57
18	47	0629L047.D	333.222	AZ17437S03 1/30.01G x10	soil	30 Jun 15 8:51
19	48	0629L048.D	332.447	AZ17438S01 1/30.08G x10	soil	30 Jun 15 9:18
20	49	0629L049.D	330.579	AZ17439S03 1/30.25G x10	soil	30 Jun 15 9:45
21	50	0629L050.D	332.116	AZ17440S01 1/30.11G x10	soil	30 Jun 15 10:12
22	51	0629L051.D	333.222	AZ17441S02 1/30.01G x10	soil	30 Jun 15 10:39
23	52	0629L052.D	331.345	AZ17442S02 1/30.18G x10	soil	30 Jun 15 11:16
24	56	0629L056.D	333.222	AZ17444S05 1/30.01G x10	soil	30 Jun 15 13:04
25	57	0629L057.D	333.333	AZ17445S02 1/30.00G x10	soil	30 Jun 15 13:32
26	58	0629L058.D	333.111	AZ17446S03 1/30.02G x10	soil	30 Jun 15 13:59
27	60	0629L060.D	1	SV TUNE 5/14/15		30 Jun 15 14:52
28	61	0629L061.D	1	CCV 5.0ug/ml PAH 06/30/15		30 Jun 15 16:07
29	71	0629L071.D	33.1236	AZ17436S02 1/30.19G	soil	30 Jun 15 20:38
30	72	0629L072.D	33.036	AZ17443S01 1/30.27G	soil	30 Jun 15 21:04
31	30	0629L130.D	1	SV TUNE 5/14/15	water	2 Jul 15 9:44
32	31	0629L131.D	1	CCV 5.0ug/ml PAH 06/30/15	water	2 Jul 15 10:01
33	33	0629L133.D	33.2226	AZ17444S05 MS-1 1/30.01G	soil	2 Jul 15 10:55
34	34	0629L134.D	33.3222	AZ17444S05 MSD-1 1/30.01G	soil	2 Jul 15 11:22
35	35	0629L135.D	33.3	AZ17447S02 1/30.03G	soil	2 Jul 15 11:49
36	100	0629L200.D	1	SV TUNE 5/14/15		7 Jul 15 11:02
37	1	0629L201.D	1	CCV 5.0ug/ml PAH 07/07/15		7 Jul 15 11:19
38	2	0629L202.D	32.8084	150706A BLK 1/30.48G	soil	7 Jul 15 12:34
39	3	0629L203.D	32.6797	150706A LCS-1 1/30.60G	soil	7 Jul 15 13:01
40	4	0629L204.D	33.1016	AZ17436S02 1/30.21G	soil	7 Jul 15 13:28
41	5	0629L205.D	33.0688	AZ17443S01 1/30.24G	soil	7 Jul 15 13:55

EPA METHOD 6850
Perchlorate
LC/MS

APPL, INC.

EPA METHOD 6850
Perchlorate
LC/MS

QC Summary

APPL, INC.

Method Blank
PERCHLORATE EPA 6850 - SOIL

Blank Name/QCG: **150617S-17444 - 198529**
Batch ID: #6850SM-150617A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/17/15	06/22/15

Quant Method: QTLMFL2
Run #: T621_055.d
Instrument: AGIL_6460
Sequence: TQ062115
Initials: RP

GC SC-Blank-REG MDLs
Printed: 07/02/15 9:59:19 AM

Laboratory Control Spike Recovery
PERCHLORATE EPA 6850 - SOIL

APPL ID: **150617S-17444 LCS - 198529**
Batch ID: #6850SM-150617A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level mg/Kg	SPK Result mg/Kg	SPK % Recovery	Recovery Limits
PERCHLORATE	0.00571	0.00556	97.4	80-120

Comments: _____

Primary	SPK
Quant Method :	QTLMFL2
Extraction Date :	06/17/15
Analysis Date :	06/22/15
Instrument :	AGIL_6460
Run :	T621_053.d
Initials :	RP

Printed: 07/02/15 9:59:12 AM
APPL Standard LCS

Interferrence Check Sample

Perchlorate EPA 6850 Soil

APPL ID: 150617S-17444 ICS - 198529
Batch ID: #6850SM-150617A

APPL Inc.
908 N. Temperance Ave.
Clovis, CA 93711

Compound Name	Spike Level mg/Kg	Spk Result mg/Kg	SPK% Recovery	Recovery Limits
Perchlorate	0.00576	0.00587	101.9%	70-130

Comments:

Quant Method:	QTLMFL2
Extraction Date:	06/17/15
Analysis Date:	06/22/15
Instrument:	AGIL_6560
Run:	T621_054.D
Initials:	RP

Matrix Spike Recoveries

PERCHLORATE EPA 6850 - SOIL

APPL ID: **150617S-17444 MS - 198529**
Batch ID: #6850SM-150617A
Sample ID: AZ17444
Client ID: S67-SS035-0001

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	SPK Lvl	DUP Lvl	Matrix Result	SPK Result	DUP Result	SPK %	DUP %	Recovery	RPD	RPD
	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	Recovery	Recovery	Limits	%	Limits
(Solid Concentrations have been adjusted to reflect 14.8 Percent Moisture.)										
PERCHLORATE	0.00613	0.00607	ND	0.00548	0.00598	89.4	98.5	80-120	9.7	15

Comments:

Primary	SPK	DUP
Quant Method :	QTLMFL2	QTLMFL2
Extraction Date :	06/17/15	06/17/15
Analysis Date :	07/05/15	07/05/15
Instrument :	AGIL_6460	AGIL_6460
Run :	T705_035.d	T705_036.d
Initials :	RP	

Printed: 07/08/15 7:53:09 AM
APPL MSD SCII

EPA 6850

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 06/22/15

Matrix: SOIL Instrument: AGIL_6460

Blank ID: 150617A-BLK Time Analyzed: 0926

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150617A-LCS	Lab Control Spike	T621_053.d	06/22/15 0848
150617A-BLK	Blank	T621_055.d	06/22/15 0926
AZ17433	S67-SS031-0001	T621_058.d	06/22/15 1022
AZ17434	S67-SB031-0203	T621_059.d	06/22/15 1040
AZ17435	S67-SS039-0001	T621_060.d	06/22/15 1059
AZ17436	S67-SB039-0607	T621_065.d	06/22/15 1232
AZ17437	S67-SS038-0001	T621_066.d	06/22/15 1251
AZ17438	S67-SB038-0203	T621_067.d	06/22/15 1309
AZ17439	S67-SS033-0001	T621_068.d	06/22/15 1328
AZ17440	S67-SB033-0203	T621_069.d	06/22/15 1346
AZ17441	S67-SS040-0001	T621_070.d	06/22/15 1405
AZ17442	S67-SS040P-0001	T621_071.d	06/22/15 1424
AZ17443	S67-SB040-1516	T705_033.d	06/22/15 1557
AZ17444	S67-SS035-0001	T705_034.d	07/05/15 2311
150617A-MS	Matrix Spike	T705_035.d	07/05/15 2340
150617A-MSD	Matrix SpikeD	T705_036.d	07/05/15 2359
AZ17445	S67-SB035-0203	T705_037.d	07/06/15 0018
AZ17446	S67-SS034-0001	T705_038.d	07/06/15 0036
AZ17447	S67-SB034-0405	T705_039.d	07/06/15 0055

Comments: Batch: #6850SM-150617A

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.** **76624**

Lab File ID (Standard): T621_003.d

Instrument ID: Agilent 6460 Triple Quad LC/MS

	PER_IS			
	12_HOUR_STD AVERAGE	3612259		
	UPPER LIMIT RESPONSE	5418389		
	LOWER LIMIT RESPONSE	1806130		
Data File ID:	Sample ID:	Analysis Date and Time	IS AREA COUNT #	IS R.T. #
T621_002.d	PER_CCV 0.0004 ug/ml 06/11/15	6/21/15 16:58	3616272	13.701
T621_003.d	PER_CCV 0.002 ug/ml 06/11/15	6/21/15 17:17	3612259	14.262
T621_050.d	PER_CCV 0.0004 ug/ml 06/11/15	6/22/15 7:53	3697116	14.007
T621_051.d	PER_CCV 0.002 ug/ml 06/11/15	6/22/15 8:11	4265032	14.455
T621_053.d	150617SA_LCS-1 10025.1 DF 06/17/15	6/22/15 8:48	3693190	14.302
T621_054.d	150617S_ICSA 10121.5 DF 06/17/15	6/22/15 9:07	3401125	13.192
T621_055.d	150627SBLKA 10422.1 DF 06/17/15	6/22/15 9:26	3618778	14.557
T621_058.d	AZ17433_S02 8288.4 DF 06/17/15	6/22/15 10:22	3640409	14.914
T621_059.d	AZ17434_S01 8097.2 DF 06/17/15	6/22/15 10:40	4156230	15.107
T621_060.d	AZ17435_S02 8223.7 DF 06/17/15	6/22/15 10:59	4047757	15.158
T621_062.d	PER_CCV 0.0004 ug/ml 06/11/15	6/22/15 11:36	4138039	14.445
T621_063.d	PER_CCV 0.002 ug/ml 06/11/15	6/22/15 11:55	4650592	14.995
T621_065.d	AZ17436_S01 8097.2 DF 06/17/15	6/22/15 12:32	3820810	15.056
T621_066.d	AZ17437_S02 8628.1 DF 06/17/15	6/22/15 12:51	4200332	15.056
T621_067.d	AZ17438_S01 8699.4 DF 06/17/15	6/22/15 13:09	4019283	15.046
T621_068.d	AZ17439_S02 7797.3 DF 06/17/15	6/22/15 13:28	3860498	14.893
T621_069.d	AZ17440_S01 8771.9 DF 06/17/15	6/22/15 13:46	3873398	14.863
T621_070.d	AZ17441_S03 8489.0 DF 06/17/15	6/22/15 14:05	3948124	15.189
T621_071.d	AZ17442_S02 8558.0 DF 06/17/15	6/22/15 14:24	4139756	15.28
T621_073.d	PER_CCV 0.0004 ug/ml 06/11/15	6/22/15 15:01	4557123	14.567
T621_074.d	PER_CCV 0.002 ug/ml 06/11/15	6/22/15 15:20	5031753	14.608

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.** **Page 1 of 1**

Lab File ID (Standard):T705_003.d **Date Analyzed: 07/05/15 13:44 thru 07/06/15 01:51**

Instrument ID: Agilent 6460 Triple Quad LC/MS

	PER_IS			
	12_HOUR_STD AVERAGE	8885934		
	UPPER LIMIT RESPONSE	13328901		
	LOWER LIMIT RESPONSE	4442967		
Data File ID:	Sample ID:	Analysis Date and Time	IS AREA COUNT #	IS R.T. #
T705_003.d	PER_CCV 0.002 ug/ml 06/27/15	07/05/15 13:44	8885934	13.406
T705_028.d	PER_CCV 0.0004 ug/ml 06/27/15	07/05/15 21:30	6048909	12.794
T705_029.d	PER_CCV 0.002 ug/ml 06/27/15	07/05/15 21:49	8149373	13.344
T705_033.d	AZ17443_S02 8920.6 DF 06/17/15	07/05/15 23:03	6176347	13.416
T705_034.d	AZ17444_S08 9153.3 DF 06/17/15	07/05/15 23:22	6311294	13.487
T705_035.d	AZ17444_S08_MS-1 9153.3 DF 06/17/15	07/05/15 23:40	6320078	13.416
T705_036.d	AZ17444_S08_MSD-1 9074.4 DF 06/17/15	07/05/15 23:59	6456988	13.518
T705_037.d	AZ17445_S02 8558.0 DF 06/17/15	07/06/15 0:18	6621197	13.457
T705_038.d	AZ17446_S02 8996.9 DF 06/17/15	07/06/15 0:36	6847180	13.457
T705_039.d	AZ17447_S01 8421.1 DF 06/17/15	07/06/15 0:55	7270013	13.558
T705_041.d	PER_CCV 0.0004 ug/ml 06/27/15	07/06/15 1:32	5679595	13.151
T705_042.d	PER_CCV 0.002 ug/ml 06/27/15	07/06/15 1:51	6440015	13.620

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	

Date Aquired: 03/12/15 20:02 Vial Number: NA
Sample Name: PER_SS 0.0004 ug/ml 11/11/14 Data File ID: T312_010.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.942	1472839	3.3
2)	Perchlorate_85	13.959	440675	

Date Aquired: 03/12/15 20:21 Vial Number: NA
Sample Name: PER_SS 0.002 ug/ml 11/11/14 Data File ID: T312_011.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.014	7468678	3.4
2)	Perchlorate_85	14	2222387	

Date Aquired: 03/12/15 20:40 Vial Number: NA
Sample Name: PER_IS_50:50 0.005 ug/ml 11/11/14 Data File ID: T312_012.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.657	10916	2.0
2)	Perchlorate_85	13.776	5521	

Date Aquired: 03/12/15 20:58 Vial Number: NA
Sample Name: PER_CCV_1 0.0004 ug/ml 11/11/14 Data File ID: T312_013.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.105	1267031	3.1
2)	Perchlorate_85	14.143	410558	

Date Aquired: 03/12/15 21:17 Vial Number: NA
Sample Name: PER_CCV_1 0.002 ug/ml 11/11/14 Data File ID: T312_014.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.146	6907110	3.3
2)	Perchlorate_85	14.122	2093567	

Date Aquired: 03/12/15 21:36 Vial Number: NA
Sample Name: PER_IS_50:50 0.005 ug/ml 11/11/14 Data File ID: T312_015.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.36	64783	9.6
2)	Perchlorate_85	13.715	6730	

Date Aquired: 03/12/15 18:48 Vial Number: NA
Sample Name: PERCHLORATE 0.002 ug/ml 11/11/14 Data File ID: T312_006.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.83	6351752	3.3
2)	Perchlorate_85	13.817	1920912	

Date Aquired: 06/21/15 16:40 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/11/15 Data File ID: T621_001.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.187	9215	0.9
2)	Perchlorate_85	14.265	10785	

Date Aquired: 06/21/15 16:58 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 06/11/15 Data File ID: T621_002.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.718	373241	2.8
2)	Perchlorate_85	13.654	134911	

Date Aquired: 06/21/15 17:17 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 06/11/15 Data File ID: T621_003.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.248	1702545	3.1
2)	Perchlorate_85	14.285	545597	

Date Aquired: 06/22/15 7:15 Vial Number: NA
Sample Name: AZ17697_W01 1052.6 DF 06/17/15 Data File ID: T621_048.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.248	861514	3.1
2)	Perchlorate_85	14.224	282275	

Date Aquired: 06/22/15 7:34 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/11/15 Data File ID: T621_049.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.615	12980	2.9
2)	Perchlorate_85	14.041	4504	

Date Aquired: 06/22/15 7:53 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 06/11/15 Data File ID: T621_050.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.003	380901	2.8
2)	Perchlorate_85	13.99	137565	

Date Aquired: 06/22/15 8:11 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 06/11/15 Data File ID: T621_051.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.452	2009262	3.2
2)	Perchlorate_85	14.438	620569	

Date Aquired: 06/22/15 8:30 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/11/15 Data File ID: T621_052.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.258	10336	1.3
2)	Perchlorate_85	14.306	7940	

Date Aquired: 06/22/15 8:48 Vial Number: NA
Sample Name: 150617SA_LCS-1 10025.1 DF 06/17/15 Data File ID: T621_053.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.309	520443	2.9
2)	Perchlorate_85	14.346	180467	

Date Aquired: 06/22/15 9:07 Vial Number: NA
Sample Name: 150617S_ICSA 10121.5 DF 06/17/15 Data File ID: T621_054.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.26	501477	2.7
2)	Perchlorate_85	13.144	185944	

Date Aquired: 06/22/15 9:26 Vial Number: NA
Sample Name: 150627SBLKA 10422.1 DF 06/17/15 Data File ID: T621_055.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.217	387	0.1
2)	Perchlorate_85	14.102	3636	

Date Aquired: 06/22/15 9:44 Vial Number: NA
Sample Name: 6850_S_LOD 10422.1 DF 06/17/15 Data File ID: T621_056.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.207	352247	2.6
2)	Perchlorate_85	14.204	135227	

Date Aquired: 06/22/15 10:03 Vial Number: NA
Sample Name: 6850_S_LOQ 10121.5 DF 06/17/15 Data File ID: T621_057.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.696	499504	3.0
2)	Perchlorate_85	14.683	165220	

Date Aquired: 06/22/15 10:22 Vial Number: NA
Sample Name: AZ17433_S02 8288.4 DF 06/17/15 Data File ID: T621_058.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.931	296230	3.0
2)	Perchlorate_85	14.937	99185	

Date Aquired: 06/22/15 10:40 Vial Number: NA
Sample Name: AZ17434_S01 8097.2 DF 06/17/15 Data File ID: T621_059.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	15.094	16514	4.5
2)	Perchlorate_85	14.132	3650	

Date Aquired: 06/22/15 10:59 Vial Number: NA
Sample Name: AZ17435_S02 8223.7 DF 06/17/15 Data File ID: T621_060.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	15.155	41846	8.1
2)	Perchlorate_85	14.173	5139	

Date Aquired: 06/22/15 11:18 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/11/15 Data File ID: T621_061.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	15.297	12863	3.1
2)	Perchlorate_85	14.275	4215	

Date Aquired: 06/22/15 11:36 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 06/11/15 Data File ID: T621_062.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.482	405121	2.6
2)	Perchlorate_85	14.448	156639	

Date Aquired: 06/22/15 11:55 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 06/11/15 Data File ID: T621_063.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	15.012	2179910	3.3
2)	Perchlorate_85	15.009	659808	

Date Aquired: 06/22/15 12:13 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/11/15 Data File ID: T621_064.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.961	12844	2.4
2)	Perchlorate_85	14.336	5424	

Date Aquired: 06/22/15 12:32 Vial Number: NA
Sample Name: AZ17436_S01 8097.2 DF 06/17/15 Data File ID: T621_065.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	15.073	1734596	3.2
2)	Perchlorate_85	15.1	540656	

Date Aquired: 06/22/15 12:51 Vial Number: NA
Sample Name: AZ17437_S02 8628.1 DF 06/17/15 Data File ID: T621_066.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	15.104	83421	2.5
2)	Perchlorate_85	15.07	33868	

Date Aquired: 06/22/15 13:09 Vial Number: NA
Sample Name: AZ17438_S01 8699.4 DF 06/17/15 Data File ID: T621_067.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	15.073	350062	2.9
2)	Perchlorate_85	15.06	121012	

Date Aquired: 06/22/15 13:28 Vial Number: NA
Sample Name: AZ17439_S02 7797.3 DF 06/17/15 Data File ID: T621_068.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.88	133962	2.5
2)	Perchlorate_85	14.866	52613	

Date Aquired: 06/22/15 13:46 Vial Number: NA
Sample Name: AZ17440_S01 8771.9 DF 06/17/15 Data File ID: T621_069.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.859	596820	3.1
2)	Perchlorate_85	14.876	192260	

Date Aquired: 06/22/15 14:05 Vial Number: NA
Sample Name: AZ17441_S03 8489.0 DF 06/17/15 Data File ID: T621_070.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	15.246	33246	21.2
2)	Perchlorate_85	14.357	1565	

Date Aquired: 06/22/15 14:24 Vial Number: NA
Sample Name: AZ17442_S02 8558.0 DF 06/17/15 Data File ID: T621_071.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	15.226	32913	10.8
2)	Perchlorate_85	14.194	3038	

Date Aquired: 06/22/15 14:42 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/11/15 Data File ID: T621_072.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	15.267	12125	13.6
2)	Perchlorate_85	14.367	892	

Date Aquired: 06/22/15 15:01 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 06/11/15 Data File ID: T621_073.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.574	464555	2.9
2)	Perchlorate_85	14.52	162420	

Date Aquired: 06/22/15 15:20 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 06/11/15 Data File ID: T621_074.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.605	2349622	3.2
2)	Perchlorate_85	14.601	735486	

Date Aquired: 06/22/15 15:38 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/11/15 Data File ID: T621_075.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.798	12191	11.4
2)	Perchlorate_85	14.214	1068	

Date Aquired: 06/22/15 15:57 Vial Number: NA
Sample Name: AZ17443_S02 8920.6 DF 06/17/15 Data File ID: T621_076.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.808	5857557	3.5
2)	Perchlorate_85	14.785	1688104	

Date Aquired: 06/22/15 16:15 Vial Number: NA
Sample Name: AZ17444_S08 9153.3 DF 06/17/15 Data File ID: T621_077.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.768	12094	7.1
2)	Perchlorate_85	14.275	1710	

Date Aquired: 06/22/15 16:34 Vial Number: NA
Sample Name: AZ17444_S08_MS-1 9153.3 DF 06/17/15 Data File ID: T621_078.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.768	562445	2.9
2)	Perchlorate_85	14.805	192189	

Date Aquired: 06/22/15 16:53 Vial Number: NA
Sample Name: AZ17444_S08_MSD-1 9074.4 DF 06/17/15 Data File ID: T621_079.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.747	598883	2.8
2)	Perchlorate_85	14.764	214891	

Date Aquired: 06/22/15 17:11 Vial Number: NA
Sample Name: AZ17445_S02 8558.0 DF 06/17/15 Data File ID: T621_080.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.472	53324	2.4
2)	Perchlorate_85	14.489	22507	

Date Aquired: 06/22/15 17:30 Vial Number: NA
Sample Name: AZ17446_S02 8996.9 DF 06/17/15 Data File ID: T621_081.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.615	39899	1.9
2)	Perchlorate_85	14.672	21446	

Date Aquired: 06/22/15 17:49 Vial Number: NA
Sample Name: AZ17447_S01 8421.1 DF 06/17/15 Data File ID: T621_082.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.492	18441	3.3
2)	Perchlorate_85	14.143	5657	

Date Aquired: 06/22/15 18:07 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/11/15 Data File ID: T621_083.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.197	12593	1.1
2)	Perchlorate_85	14.285	11648	

Date Aquired: 06/22/15 18:26 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 06/11/15 Data File ID: T621_084.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.718	423934	2.5
2)	Perchlorate_85	13.694	168227	

Date Aquired: 06/22/15 18:44 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 06/11/15 Data File ID: T621_085.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.115	2624332	3.2
2)	Perchlorate_85	14.102	813383	

Date Aquired: 06/22/15 19:03 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/11/15 Data File ID: T621_086.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.095	10705	3.5
2)	Perchlorate_85	14.245	3033	

Date Aquired: 06/22/15 19:22 Vial Number: NA
Sample Name: AZ17692_W01 10526.3 DF 06/17/15_6/22 Data File ID: T621_087.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.024	1616464	3.2
2)	Perchlorate_85	14.041	512334	

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\150705
Instrument Name : TQ (Agilent 6460 Triple Quad LC/MS)
Method File : 6460_ESI_PER_N_NEWER_K'_COLUMN.m
Operator : BA

Date Aquired: 07/05/15 13:44 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 06/27/15 Data File ID: T705_003.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.412	4169858	3.3
2)	Perchlorate_85	13.44	1250542	

Date Aquired: 07/05/15 21:30 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 06/27/15 Data File ID: T705_028.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.811	610878	2.8
2)	Perchlorate_85	12.859	215112	

Date Aquired: 07/05/15 21:49 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 06/27/15 Data File ID: T705_029.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.351	3859193	3.4
2)	Perchlorate_85	13.378	1146076	

Date Aquired: 07/05/15 23:03 Vial Number: NA
Sample Name: AZ17443_S02 8920.6 DF 06/17/15 Data File ID: T705_033.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.423	8957756	3.5
2)	Perchlorate_85	13.419	2594421	

Date Aquired: 07/05/15 23:22 Vial Number: NA
Sample Name: AZ17444_S08 9153.3 DF 06/17/15 Data File ID: T705_034.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.463	23838	2.7
2)	Perchlorate_85	13.358	8732	

Date Aquired: 07/05/15 23:40 Vial Number: NA
Sample Name: AZ17444_S08_MS-1 9153.3 DF 06/17/15 Data File ID: T705_035.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.433	819385	3.1
2)	Perchlorate_85	13.409	265574	

Date Aquired: 07/05/15 23:59 Vial Number: NA
Sample Name: AZ17444_S08_MSD-1 9074.4 DF 06/17/15 Data File ID: T705_036.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.514	921622	3.2
2)	Perchlorate_85	13.531	289206	

Date Aquired: 07/06/15 0:18 Vial Number: NA
Sample Name: AZ17445_S02 8558.0 DF 06/17/15 Data File ID: T705_037.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.504	78333	4.6
2)	Perchlorate_85	13.48	17200	

Date Aquired: 07/06/15 0:36 Vial Number: NA
Sample Name: AZ17446_S02 8996.9 DF 06/17/15 Data File ID: T705_038.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.463	58015	4.6
2)	Perchlorate_85	13.389	12750	

Date Aquired: 07/06/15 0:55 Vial Number: NA
Sample Name: AZ17447_S01 8421.1 DF 06/17/15 Data File ID: T705_039.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.535	36870	2.0
2)	Perchlorate_85	13.521	18143	

Date Aquired: 07/06/15 1:32 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 06/27/15 Data File ID: T705_041.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.107	601216	2.9
2)	Perchlorate_85	13.164	209739	

Date Aquired: 07/06/15 1:51 Vial Number: NA

Sample Name: PER_CCV 0.002 ug/ml 06/27/15 Data File ID: T705_042.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.647	3021143	3.4
2)	Perchlorate_85	13.623	901370	

EPA METHOD 6850
Perchlorate
LC/MS

Sample Data

APPL, INC.

PERCHLORATE EPA 6850 - SOIL

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-SS031-0001
Sample Collection Date: 06/08/15

ARF: 76624
APPL ID: AZ17433
QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 18.1 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0033 J	0.006	0.0040	0.0020	mg/Kg	06/17/15	06/22/15

J = Estimated value.

Quant Method:	QTLMFL2
Run #:	T621_058.d
Instrument:	AGIL_6460
Sequence:	TQ062115
Dilution Factor:	1
Initials:	RP

Printed: 07/02/15 9:59:16 AM
APPL-F1-SC-MCResOnly-REG MDLs

Data File ID: T621_058.d

Date Injected : 06/22/15

Time Injected : 10:22

Sample ID : AZ17433_S02 8288.4 DF 06/17/15

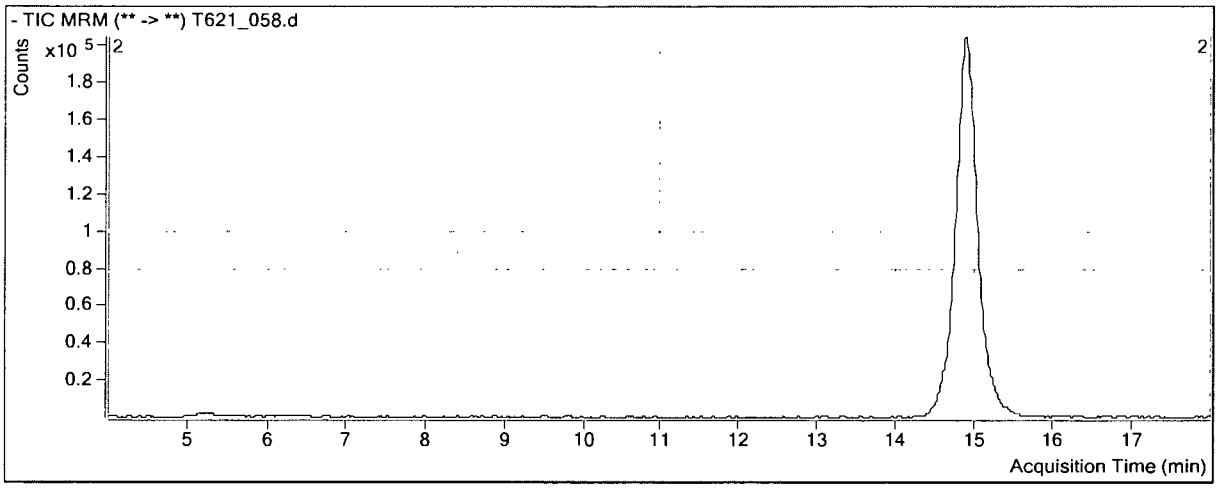
Client ID : S67-SS031-0001

Retention Time		Area Count Response	Compound_ID Product Ion			
14.914		3640409	PER_IS_89			
14.931		296230	Perchlorate_83	(296230 * 0.0050) / (1.27 * 3640409.00) *	8288.40 =	2.654780 ppb
14.937	*	99185	Perchlorate_85	(99185 * 0.0050) / (0.39 * 3640409.00) *	8288.40 =	2.883290 ppb

* MANUAL INTEGRAION

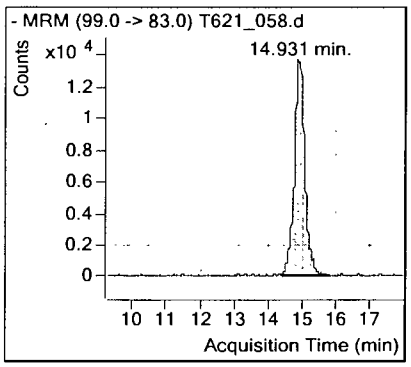
Quantitative Analysis Sample Report

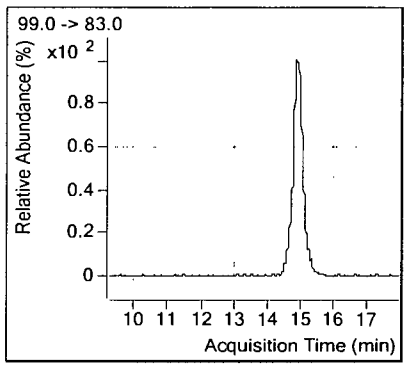
Batch Data Path	D:\MassHunter\Data\150621\QuantResults\150621_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T621_058.d	**Sample Name**	AZ17433_S02 8288.4 DF 06/17/15
Sample Type	Sample	**Acq_Date**	06/22/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	10:22
ClientID	S67-SS031-0001	**Inj Vol**	20

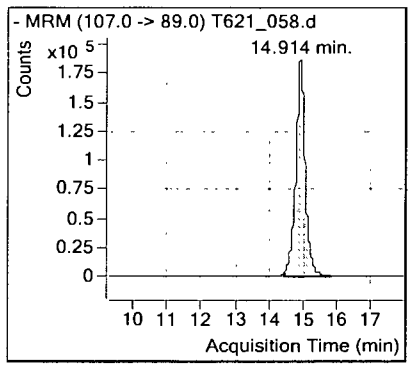


Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108		14.931	296230	3640409	
Perchlorate_102	PER_IS_108	*	14.937	99185	3640409	* MANUAL INT

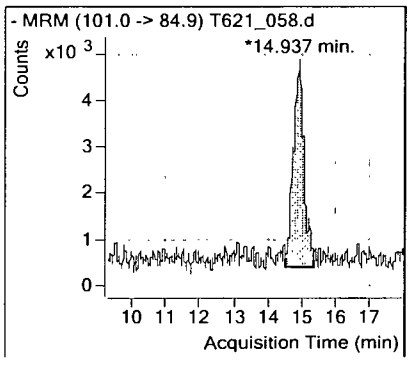
Perchlorate_100

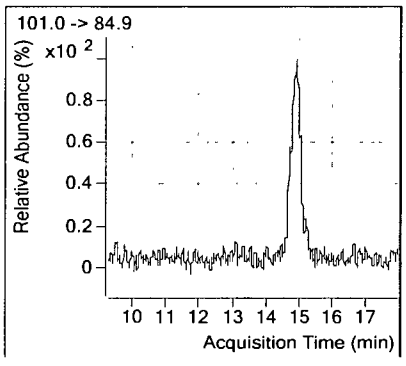


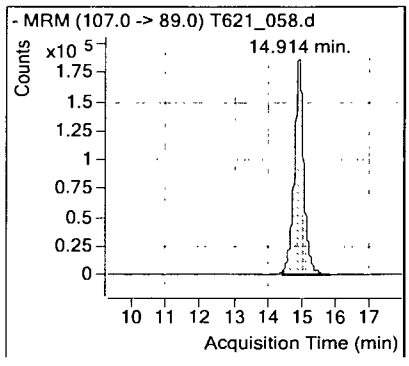


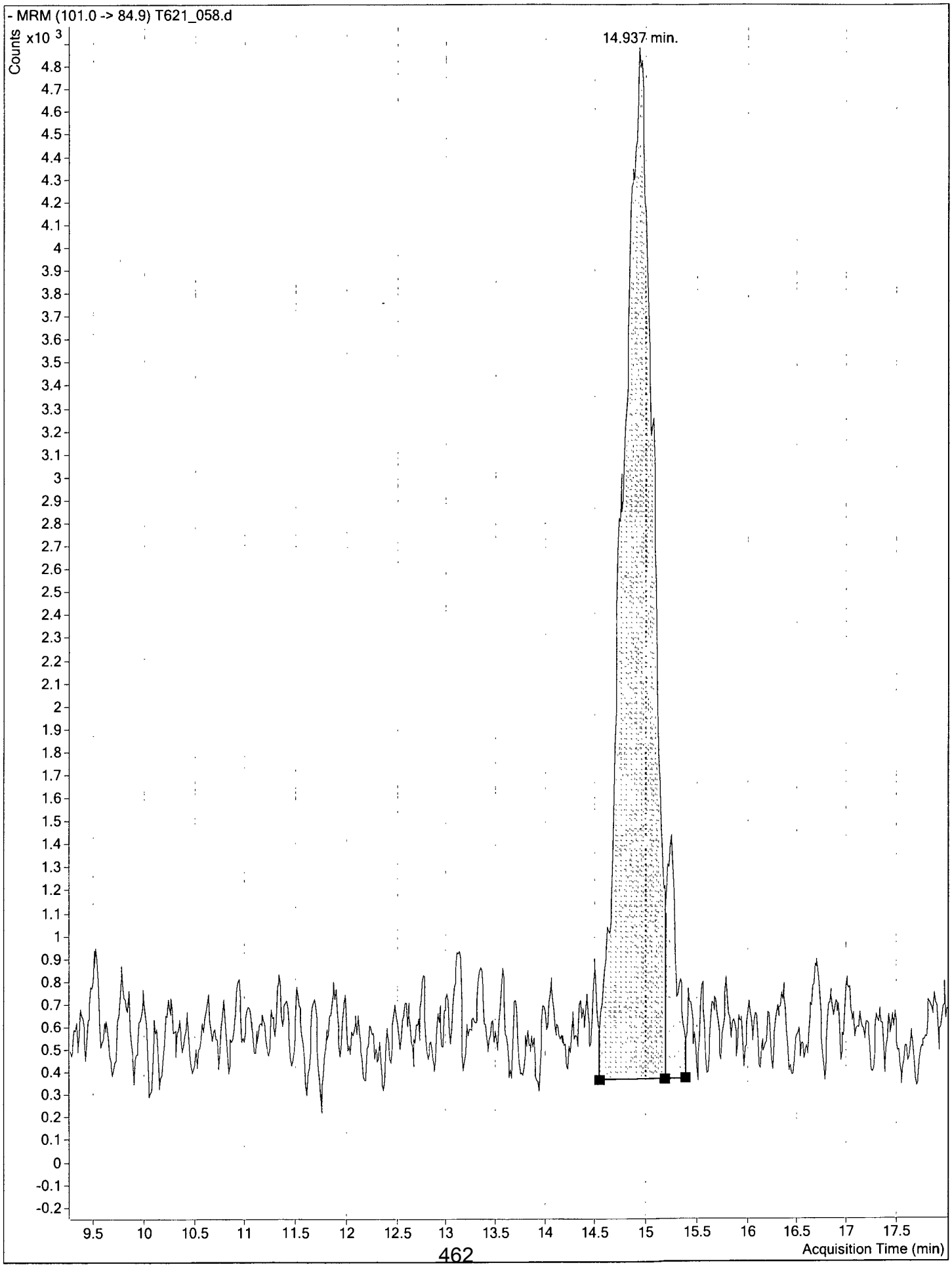


Perchlorate_102





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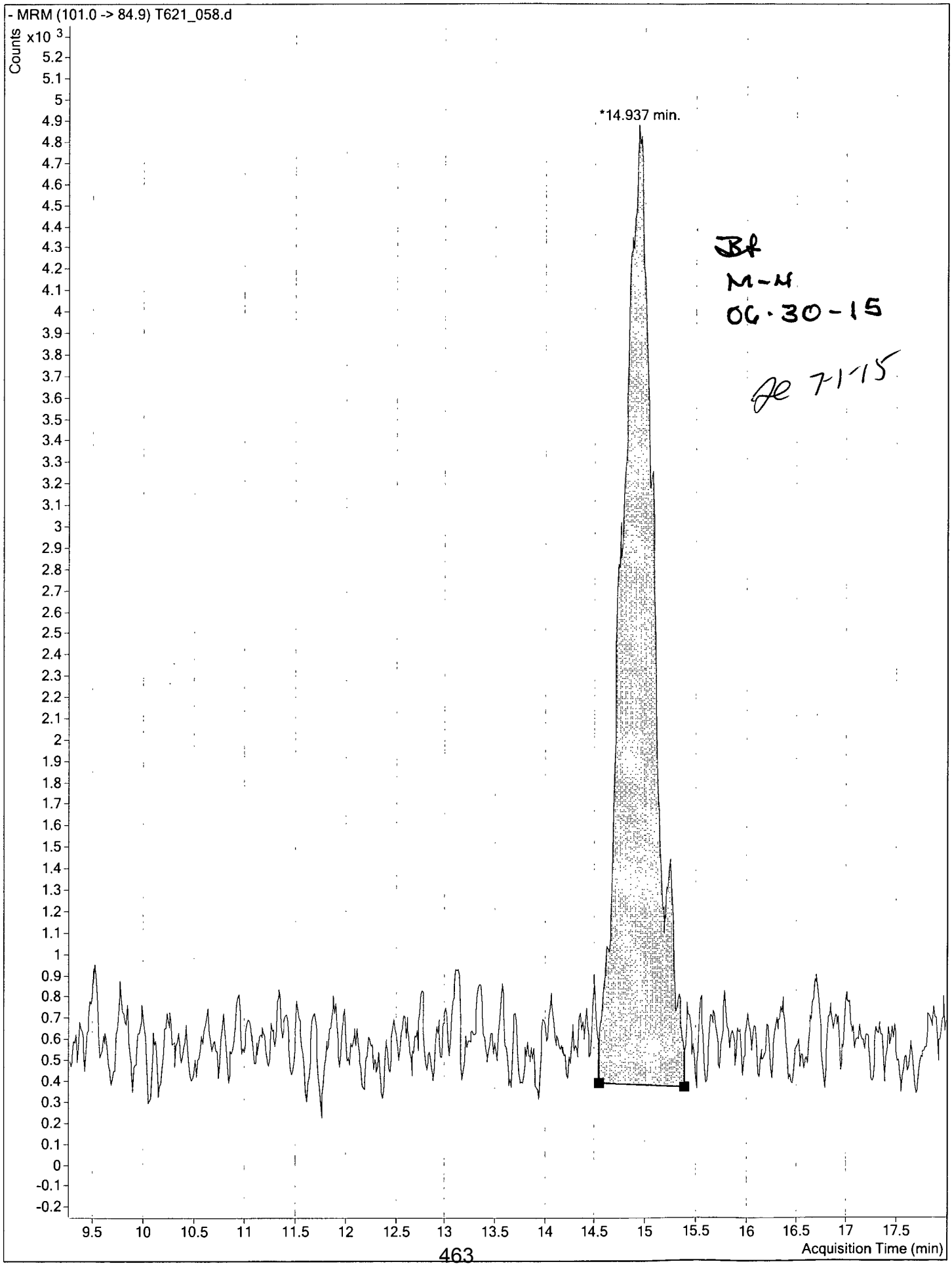
Acquisition Time (min)



JB
M-M
06.30-15

JE 7-1-15

PERCHLORATE EPA 6850 - SOIL

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-SB031-0203
Sample Collection Date: 06/08/15

ARF: 76624
APPL ID: AZ17434
QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 17.9 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/17/15	06/22/15

Quant Method:	QTLMFL2
Run #:	T621_059.d
Instrument:	AGIL_6460
Sequence:	TQ062115
Dilution Factor:	1
Initials:	RP

Printed: 07/02/15 9:59:16 AM
APPL-F1-SC-MCResOnly-REG MDLs

Data File ID: T621_059.d

Date Injected : 06/22/15

Time Injected : 10:40

Sample ID : AZ17434_S01 8097.2 DF 06/17/15

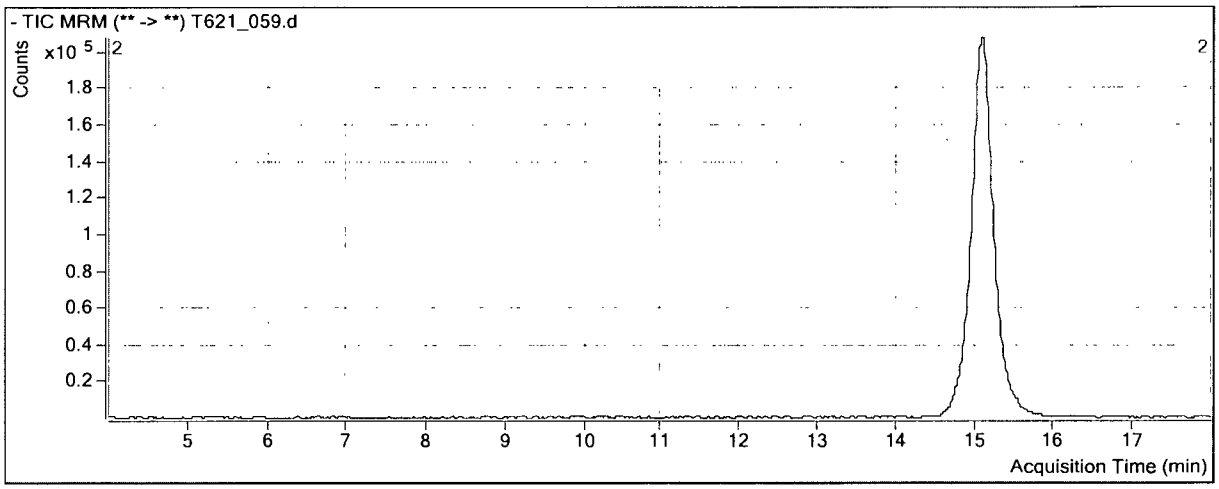
Client ID : S67-SB031-0203

Retention Time		Area Count Response	Compound_ID Product Ion			
15.107		4156230	PER_IS_89			
15.094	*	16514	Perchlorate_83	(16514 * 0.0050) / (1.27 * 4156230.00) *	8097.20 =	0.126639 ppb
14.132		3650	Perchlorate_85	(3650 * 0.0050) / (0.39 * 4156230.00) *	8097.20 =	0.090792 ppb

* MANUAL INTEGRAION

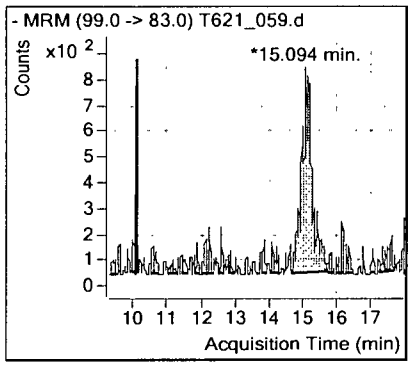
Quantitative Analysis Sample Report

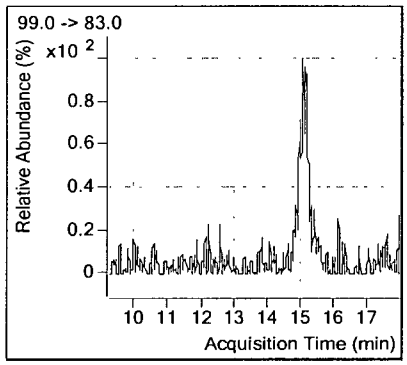
Batch Data Path	D:\MassHunter\Data\150621\QuantResults\150621_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T621_059.d	**Sample Name**	AZ17434_S01 8097.2 DF 06/17/15
Sample Type	Sample	**Acq_Date**	06/22/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	10:40
ClientID	S67-SB031-0203	**Inj Vol**	20

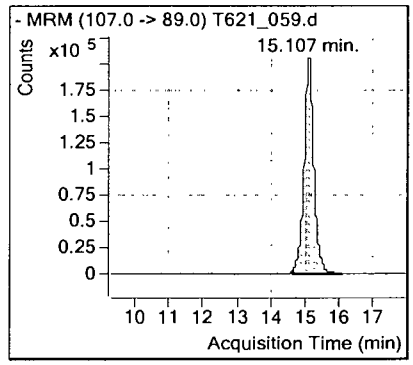


Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108	*	15.094	16514	4156230	* MANUAL INT
Perchlorate_102	PER_IS_108		14.132	3650	4156230	

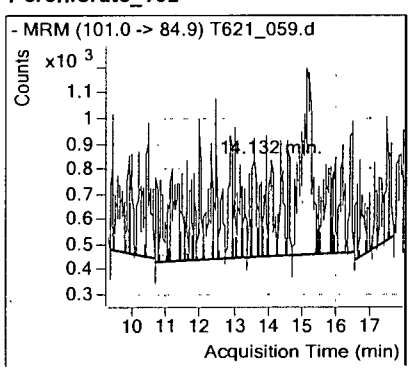
Perchlorate_100

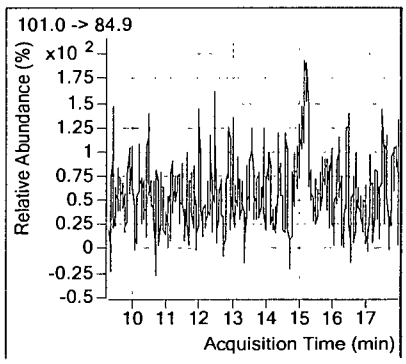


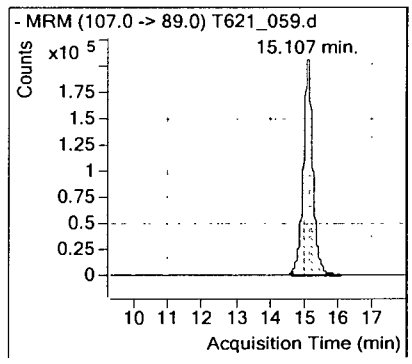


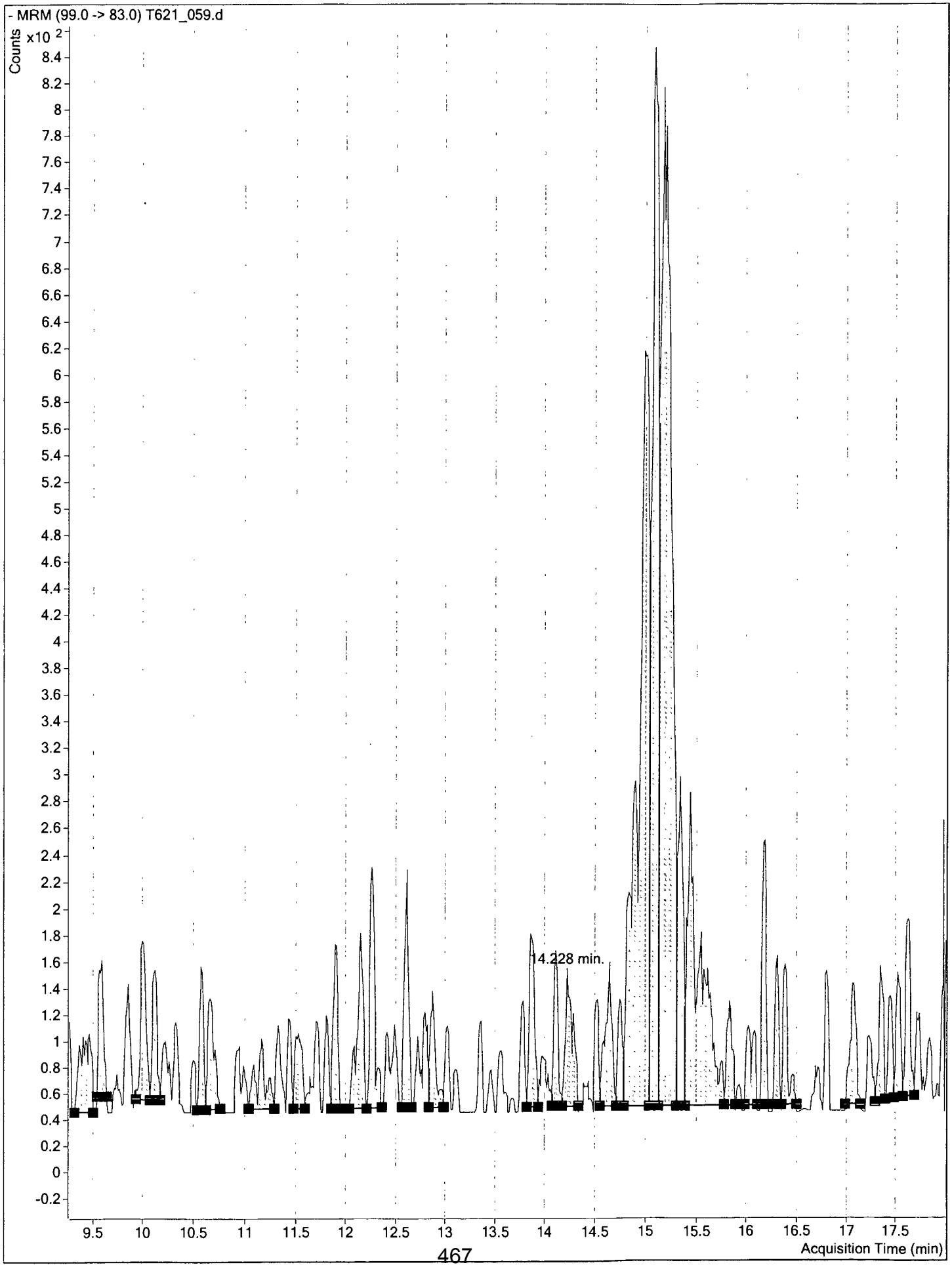


Perchlorate_102








- MRM (99.0 -> 83.0) T621_059.d
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7.8
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1.8
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0.8
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0.2
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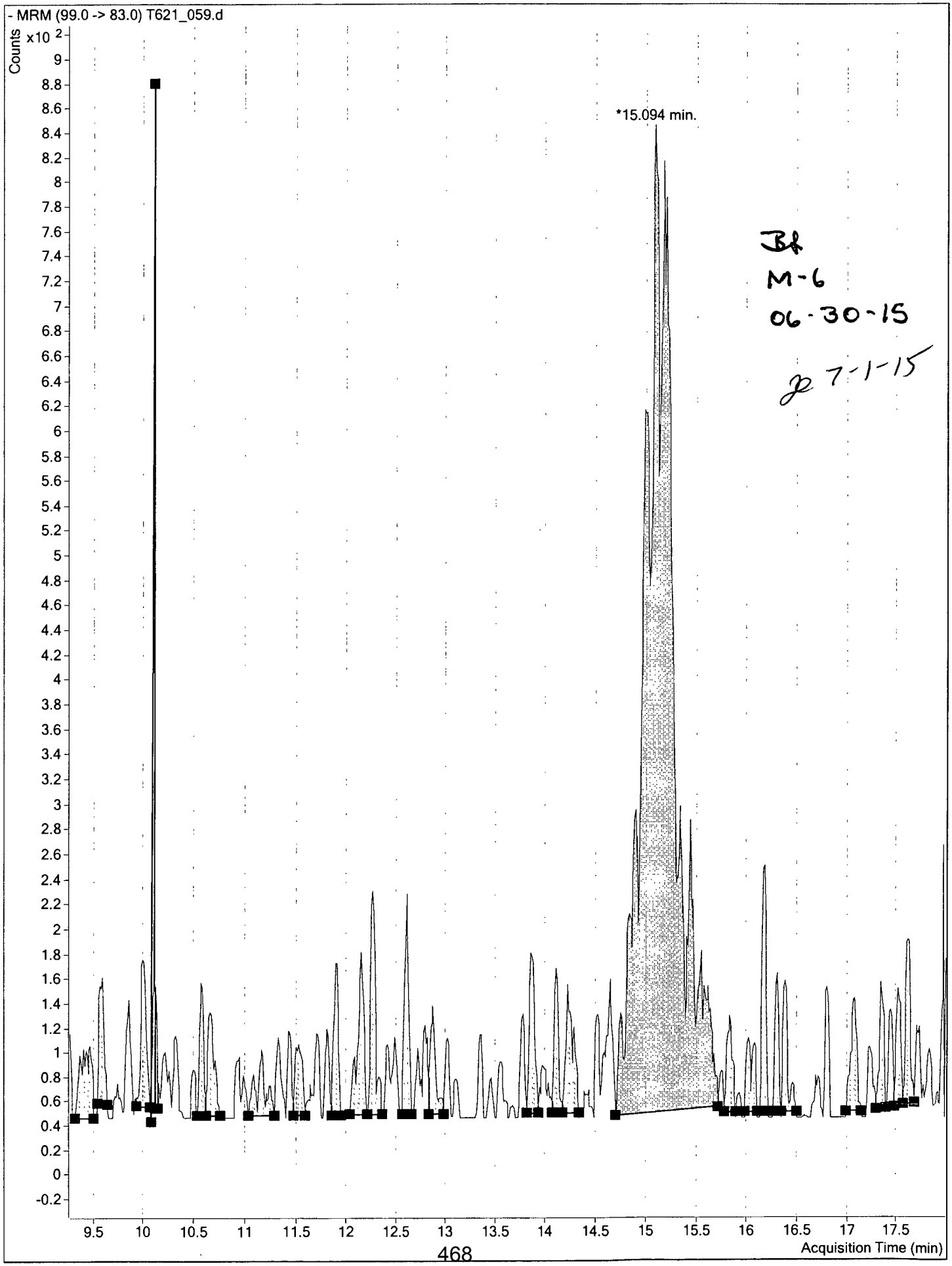
9.5
10
10.5
11
11.5
12
12.5
13
13.5
14
14.5
15
15.5
16
16.5
17
17.5
Acquisition Time (min)



JF
M-6
06-30-15
JF 7-1-15

PERCHLORATE EPA 6850 - SOIL

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: 76624

Sample ID: S67-SS039-0001

APPL ID: AZ17435

Sample Collection Date: 06/08/15

QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 22.4 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/17/15	06/22/15

Quant Method:	QTLMFL2
Run #:	T621_060.d
Instrument:	AGIL_6460
Sequence:	TQ062115
Dilution Factor:	1
Initials:	RP

Printed: 07/02/15 9:59:16 AM

APPL-F1-SC-MCResOnly-REG MDLs

Data File ID: T621_060.d

Date Injected : 06/22/15

Time Injected : 10:59

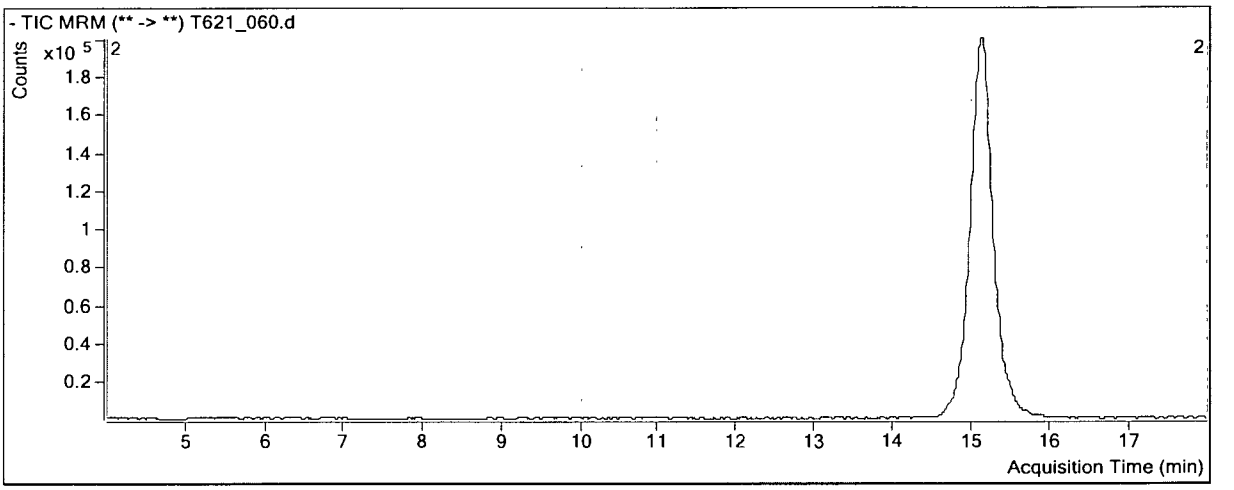
Sample ID : AZ17435_S02 8223.7 DF 06/17/15

Client ID : S67-SS039-0001

Retention Time	Area Count Response	Compound_ID Product Ion			
15.158	4047757	PER_IS_89			
15.155	41846	Perchlorate_83	(41846 * 0.0050) / (1.27 * 4047757.00) *	8223.70 =	0.334646 ppb
14.173	5139	Perchlorate_85	(5139 * 0.0050) / (0.39 * 4047757.00) *	8223.70 =	0.133307 ppb

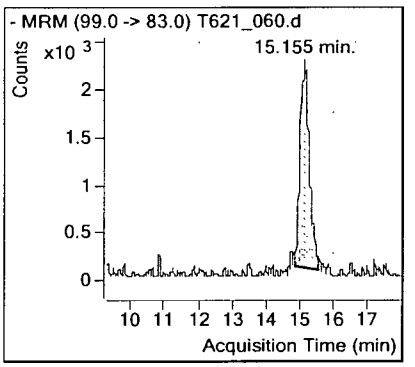
Quantitative Analysis Sample Report

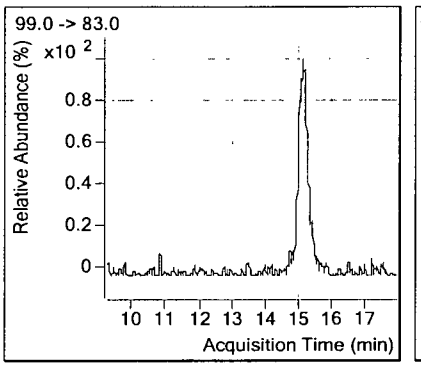
Batch Data Path	D:\MassHunter\Data\150621\QuantResults\150621_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T621_060.d	**Sample Name**	AZ17435_S02 8223.7 DF 06/17/15
Sample Type	Sample	**Acq_Date**	06/22/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	10:59
ClientID	S67-SS039-0001	**Inj Vol**	20

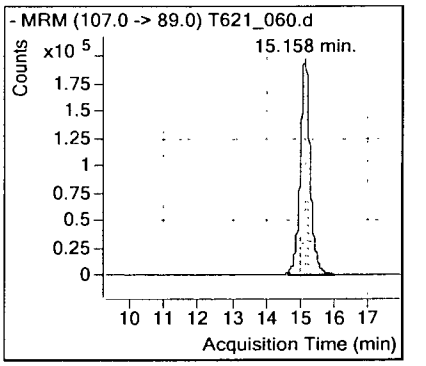


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	15.155	41846	4047757
Perchlorate_102	PER_IS_108	14.173	5139	4047757

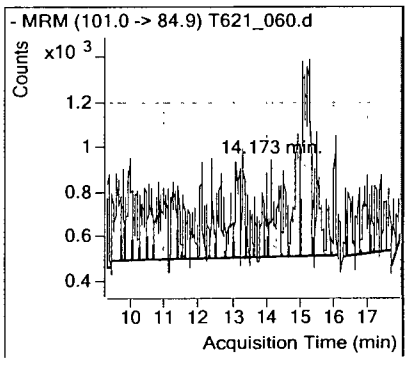
Perchlorate_100

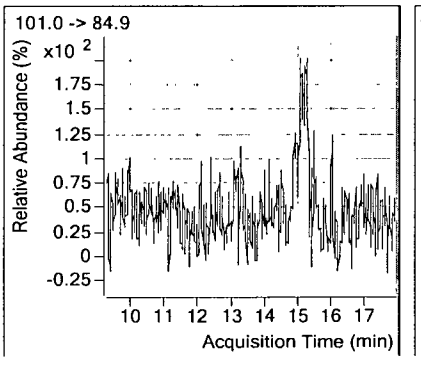


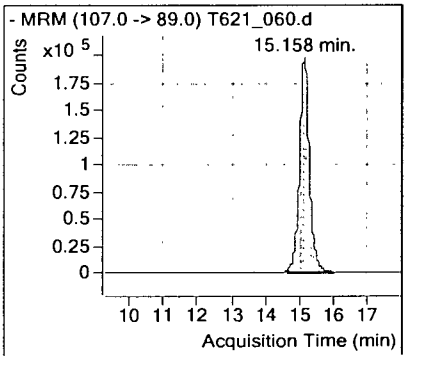




Perchlorate_102







PERCHLORATE EPA 6850 - SOIL

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-SB039-0607
Sample Collection Date: 06/08/15

ARF: 76624
APPL ID: AZ17436
QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 17.9 Percent Moisture.)								
EPA 6850	PERCHLORATE	17	0.006	0.0040	0.0020	mg/Kg	06/17/15	06/22/15

Quant Method: QTLMFL2
Run #: T621_065.d
Instrument: AGIL_6460
Sequence: TQ062115
Dilution Factor: 1
Initials: RP

Printed: 07/02/15 9:59:16 AM
APPL-F1-SC-MCResOnly-REG MDLs

Data File ID: T621_065.d

Date Injected : 06/22/15

Time Injected : 12:32

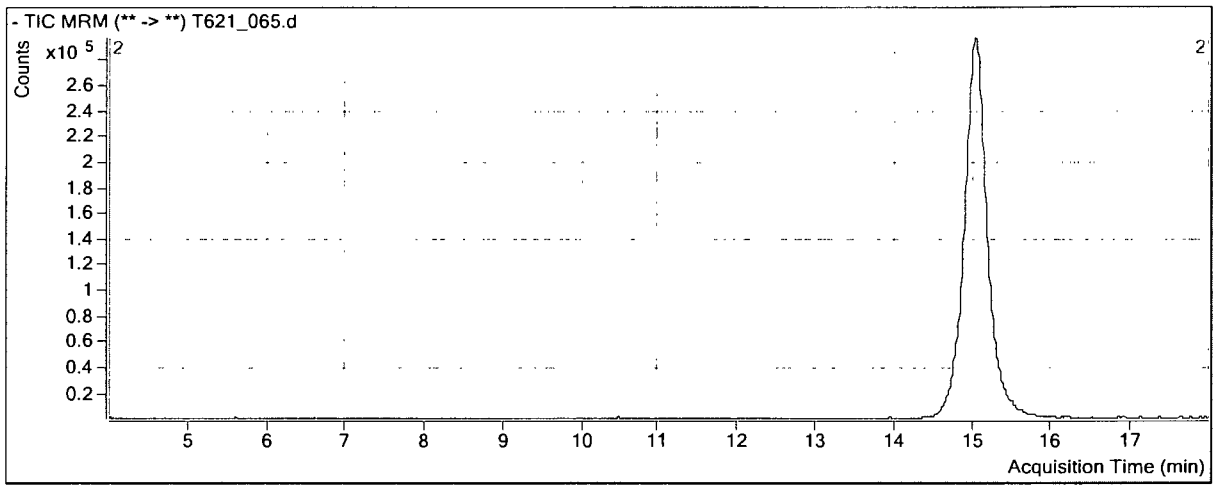
Sample ID : AZ17436_S01 8097.2 DF 06/17/15

Client ID : S67-SB039-0607

Retention Time	Area Count Response	Compound_ID Product Ion		
15.056	3820810	PER_IS_89		
15.073	1734596	Perchlorate_83	(1734596 * 0.0050) / (1.27 * 3820810.00) * 8097.20 =	14.469608 ppb
15.000	540656	Perchlorate_85	(540656 * 0.0050) / (0.39 * 3820810.00) * 8097.20 =	14.629256 ppb

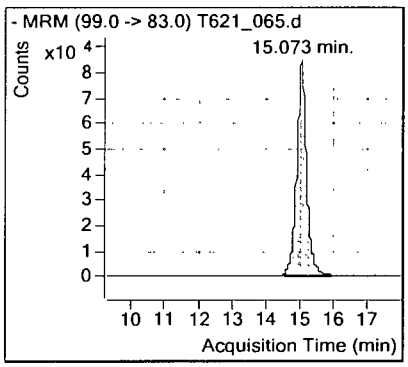
Quantitative Analysis Sample Report

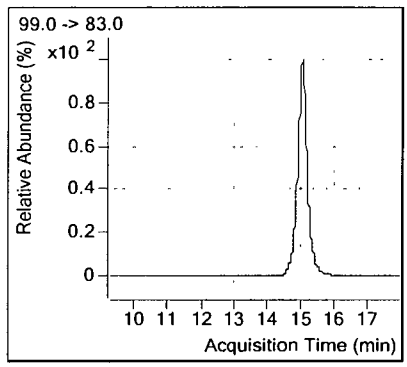
Batch Data Path	D:\MassHunter\Data\150621\QuantResults\150621_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T621_065.d	**Sample Name**	AZ17436_S01 8097.2 DF 06/17/15
Sample Type	Sample	**Acq_Date**	06/22/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	12:32
ClientID	S67-SB039-0607	**Inj Vol**	20

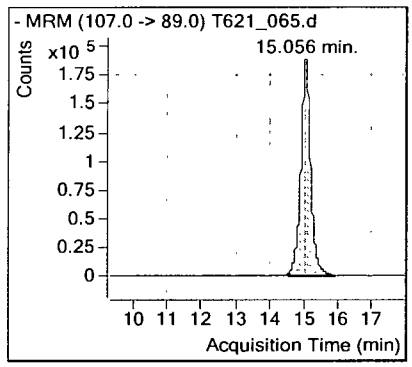


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	15.073	1734596	3820810
Perchlorate_102	PER_IS_108	15.100	540656	3820810

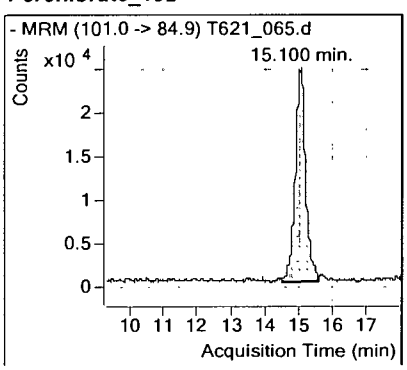
Perchlorate_100

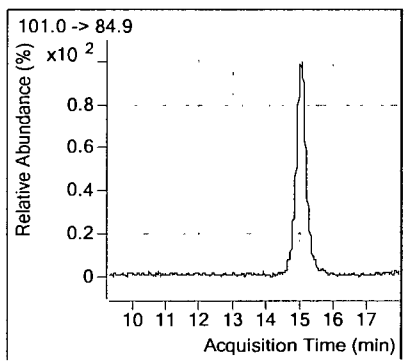


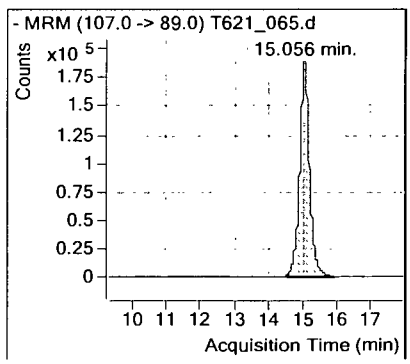




Perchlorate_102







PERCHLORATE EPA 6850 - SOIL

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: 76624

Sample ID: S67-SS038-0001

APPL ID: AZ17437

Sample Collection Date: 06/09/15

QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 17.5 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/17/15	06/22/15

Quant Method:	QTLMFL2
Run #:	T621_066.d
Instrument:	AGIL_6460
Sequence:	TQ062115
Dilution Factor:	1
Initials:	RP

Printed: 07/02/15 9:59:16 AM

APPL-F1-SC-MCResOnly-REG MDLs

Data File ID: T621_066.d

Date Injected : 06/22/15

Time Injected : 12:51

Sample ID : AZ17437_S02 8628.1 DF 06/17/15

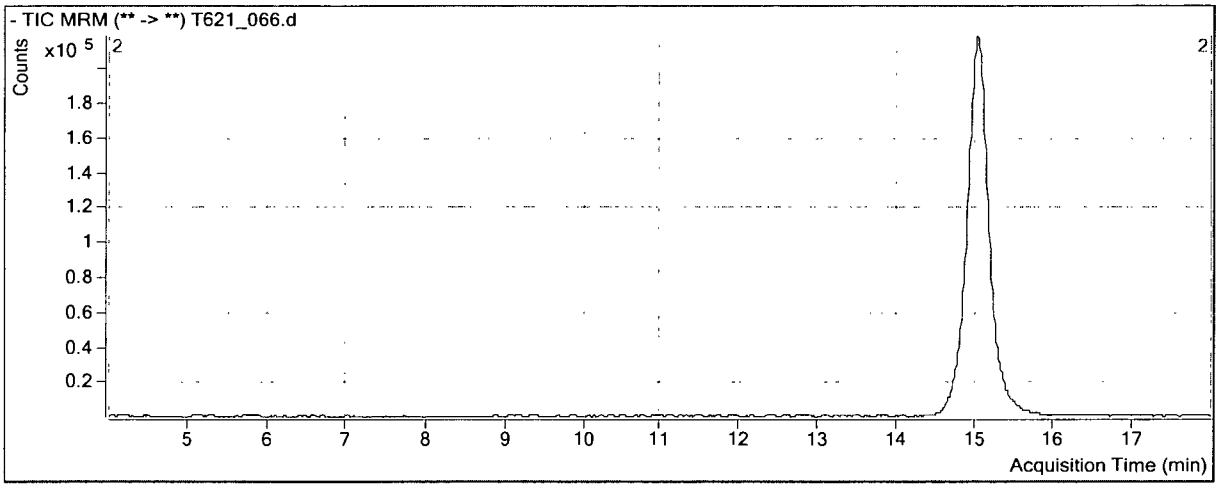
Client ID : S67-SS038-0001

Retention Time		Area Count Response	Compound_ID Product Ion			
15.056		4200332	PER_IS_89			
15.104		83421	Perchlorate_83	(83421 * 0.0050) / (1.27 * 4200332.00) *	8628.10 =	0.674506 ppb
15.000	*	33868	Perchlorate_85	(33868 * 0.0050) / (0.39 * 4200332.00) *	8628.10 =	0.888266 ppb

* MANUAL INTEGRAION

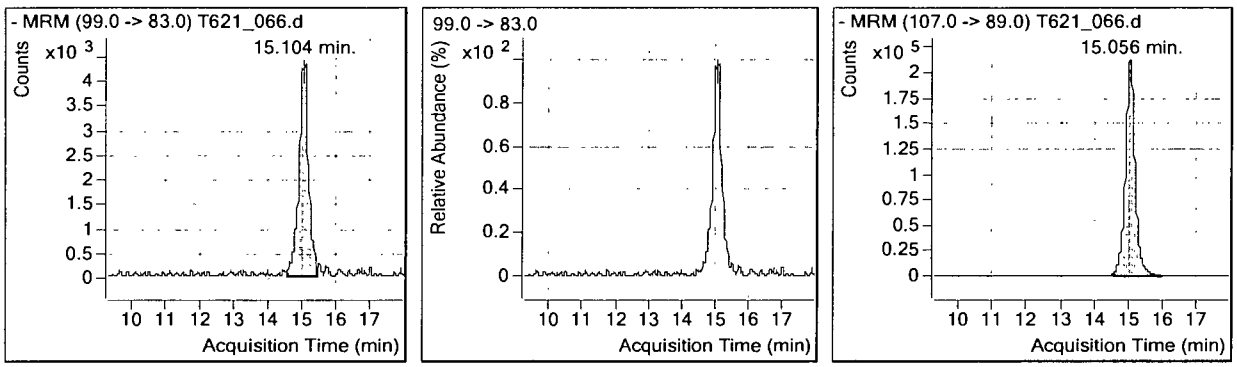
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150621\QuantResults\150621_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T621_066.d	**Sample Name**	AZ17437_S02 8628.1 DF 06/17/15
Sample Type	Sample	**Acq_Date**	06/22/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	12:51
ClientID	S67-SS038-0001	**Inj Vol**	20

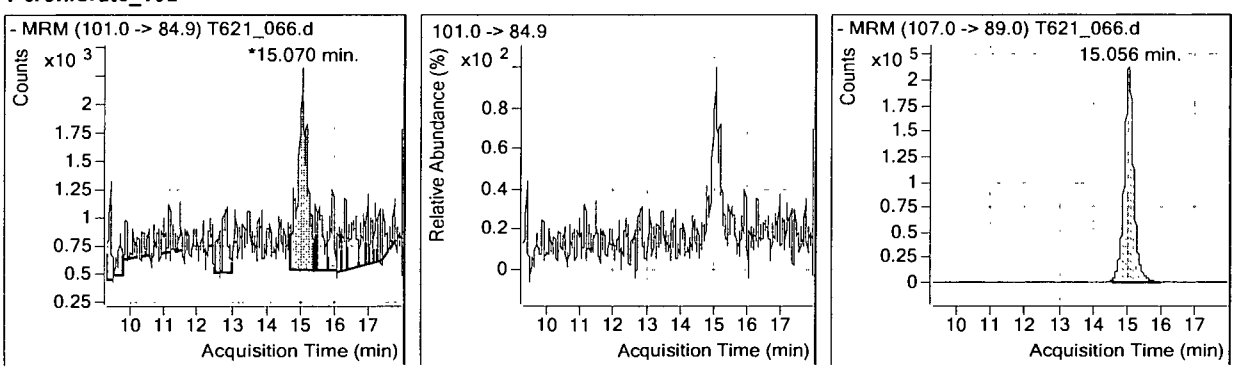


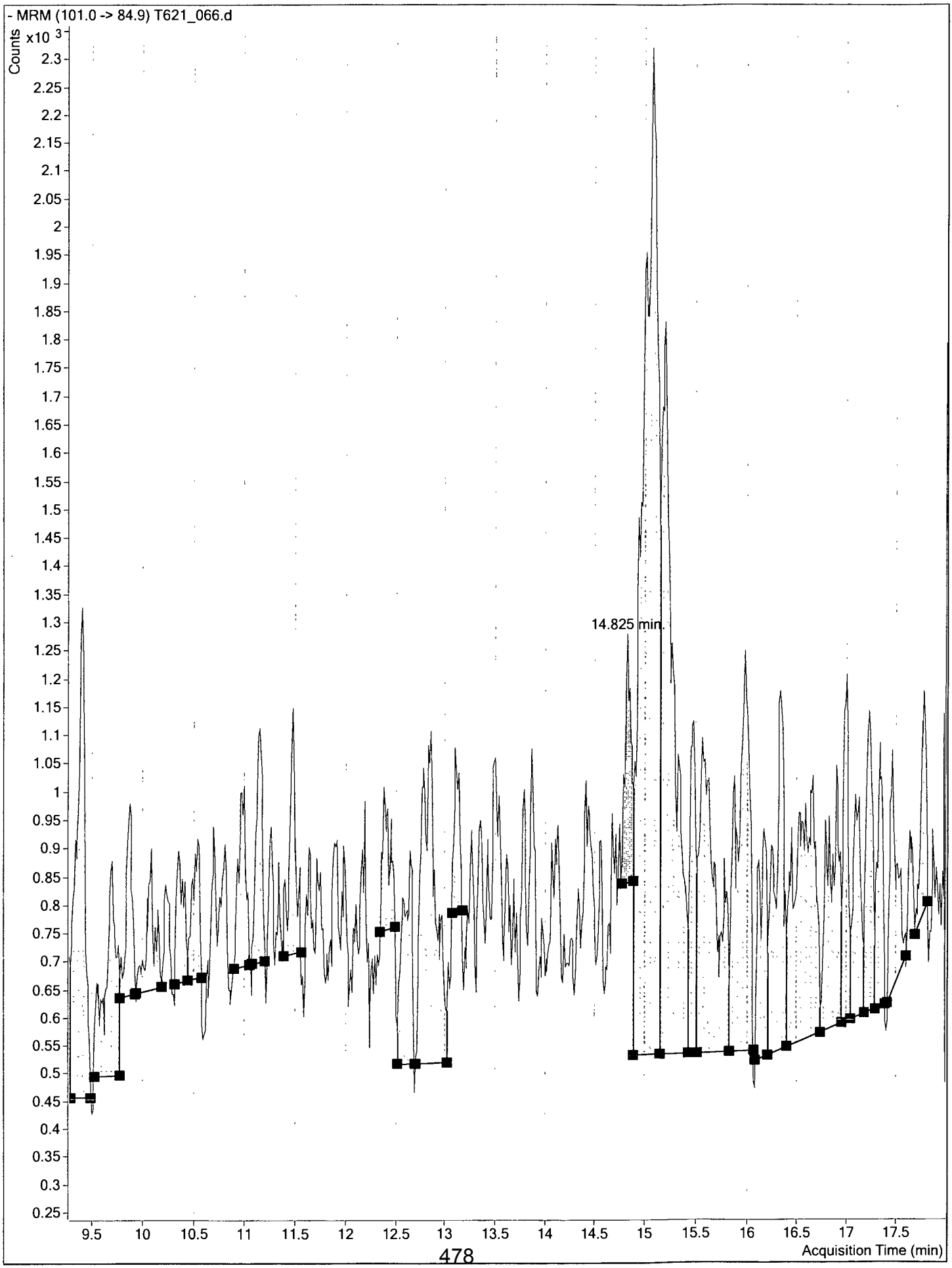
Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108		15.104	83421	4200332	
Perchlorate_102	PER_IS_108	*	15.070	33868	4200332	* MANUAL INT

Perchlorate_100



Perchlorate_102




- MRM (101.0 -> 84.9) T621_066.d
Counts
x10 3
2.3
2.25
2.2
2.15
2.1
2.05
2
1.95
1.9
1.85
1.8
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
14.825 min.
9.5
10
10.5
11
11.5
12
12.5
13
13.5
14
14.5
15
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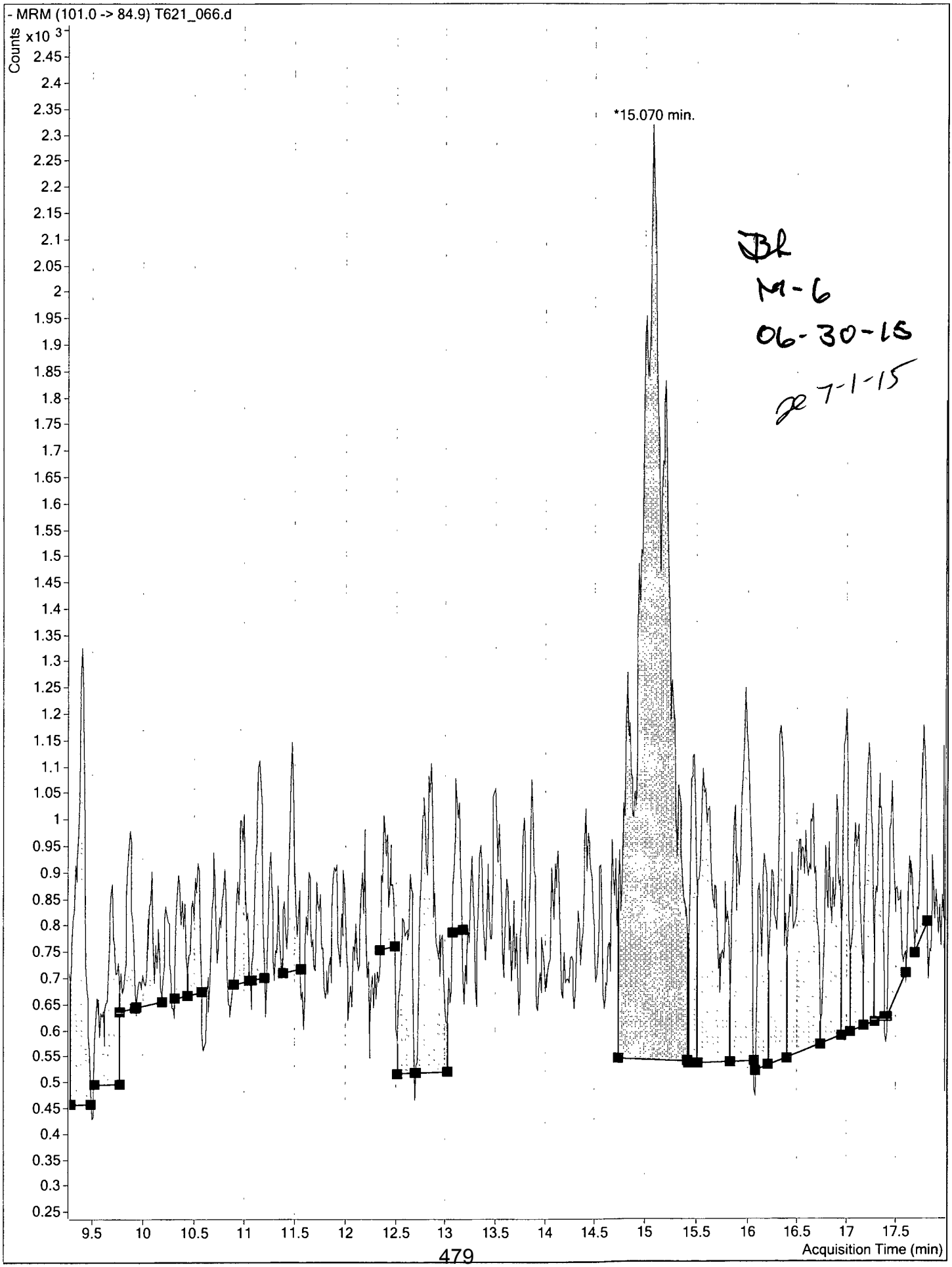
16
16.5
17
17.5
Acquisition Time (min)


- MRM (101.0 -> 84.9) T621_066.d
Counts
x10 3
*15.070 min.
JBL
M-6
06-30-15
JE 7-1-15
Acquisition Time (min)

PERCHLORATE EPA 6850 - SOIL

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: 76624

Sample ID: S67-SB038-0203

APPL ID: AZ17438

Sample Collection Date: 06/09/15

QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 14.7 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0035 J	0.006	0.0040	0.0020	mg/Kg	06/17/15	06/22/15

J = Estimated value.

Quant Method:	QTLMFL2
Run #:	T621_067.d
Instrument:	AGIL_6460
Sequence:	TQ062115
Dilution Factor:	1
Initials:	RP

Printed: 07/02/15 9:59:16 AM

APPL-F1-SC-MCResOnly-REG MDLs

Data File ID: T621_067.d

Date Injected : 06/22/15

Time Injected : 13:09

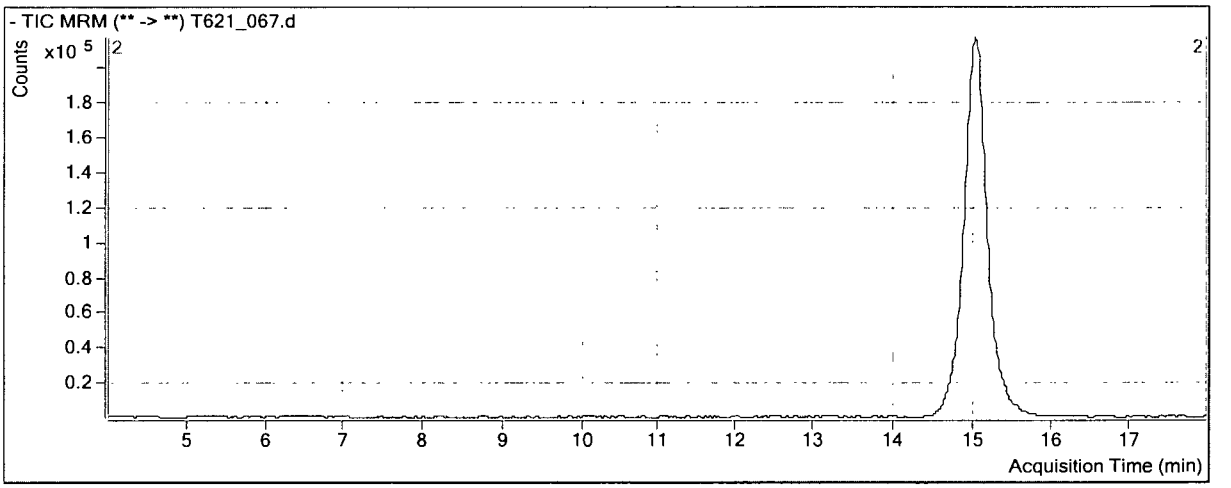
Sample ID : AZ17438_S01 8699.4 DF 06/17/15

Client ID : S67-SB038-0203

Retention Time	Area Count Response	Compound_ID Product Ion			
15.046	4019283	PER_IS_89			
15.073	350062	Perchlorate_83	(350062 * 0.0050) / (1.27 * 4019283.00) *	8699.40 =	2.982392 ppb
15.000	121012	Perchlorate_85	(121012 * 0.0050) / (0.39 * 4019283.00) *	8699.40 =	3.344190 ppb

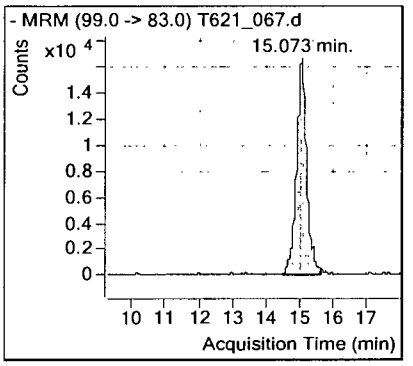
Quantitative Analysis Sample Report

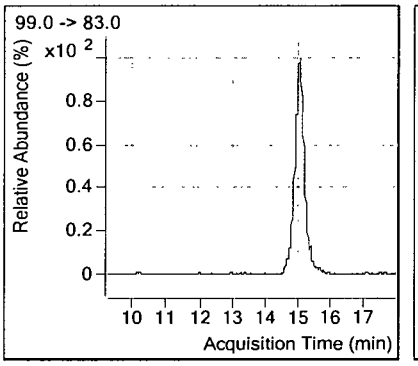
Batch Data Path	D:\MassHunter\Data\150621\QuantResults\150621_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T621_067.d	**Sample Name**	AZ17438_S01 8699.4 DF 06/17/15
Sample Type	Sample	**Acq_Date**	06/22/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	13:09
ClientID	S67-SB038-0203	**Inj Vol**	20

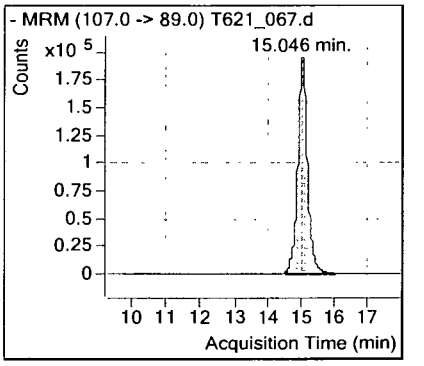


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	15.073	350062	4019283
Perchlorate_102	PER_IS_108	15.060	121012	4019283

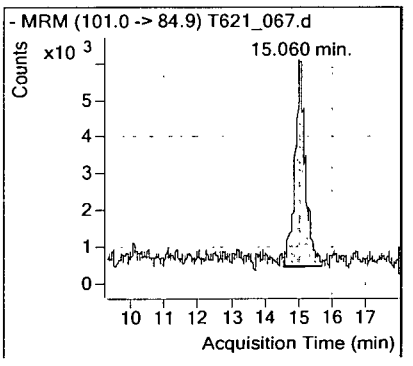
Perchlorate_100

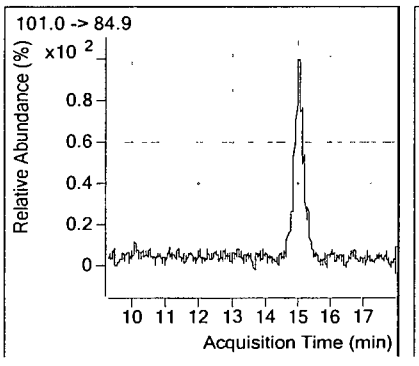


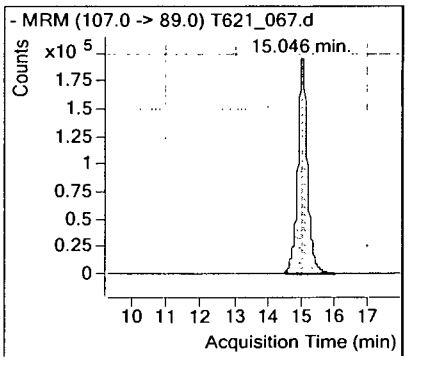




Perchlorate_102







PERCHLORATE EPA 6850 - SOIL

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-SS033-0001
Sample Collection Date: 06/09/15

ARF: 76624
APPL ID: AZ17439
QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 26.6 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/17/15	06/22/15

Quant Method:	QTLMFL2
Run #:	T621_068.d
Instrument:	AGIL_6460
Sequence:	TQ062115
Dilution Factor:	1
Initials:	RP

Printed: 07/02/15 9:59:16 AM
APPL-F1-SC-MCResOnly-REG MDLs

Data File ID: T621_068.d

Date Injected : 06/22/15

Time Injected : 13:28

Sample ID : AZ17439_S02 7797.3 DF 06/17/15

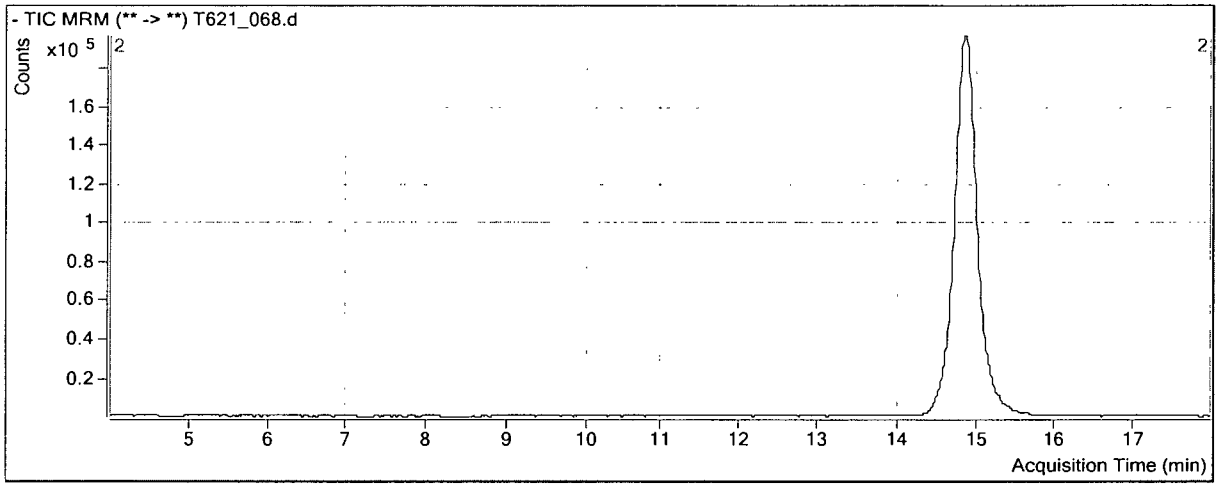
Client ID : S67-SS033-0001

Retention Time		Area Count Response	Compound_ID Product Ion			
14.893		3860498	PER_IS_89			
14.800		133962	Perchlorate_83	(133962 * 0.0050) / (1.27 * 3860498.00) *	7797.30 =	1.065029 ppb
14.866	*	52613	Perchlorate_85	(52613 * 0.0050) / (0.39 * 3860498.00) *	7797.30 =	1.356800 ppb

* MANUAL INTEGRAION

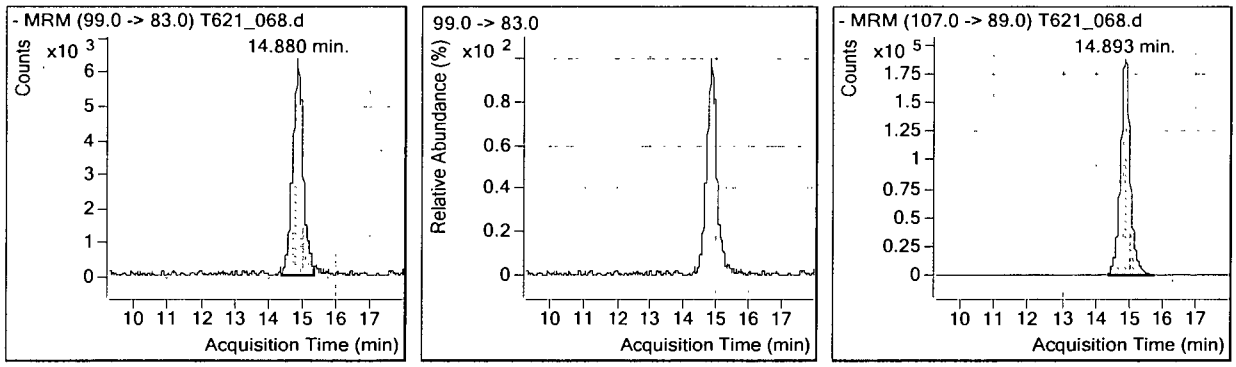
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150621\QuantResults\150621_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T621_068.d	**Sample Name**	AZ17439_S02 7797.3 DF 06/17/15
Sample Type	Sample	**Acq_Date**	06/22/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	13:28
ClientID	S67-SS033-0001	**Inj Vol**	20

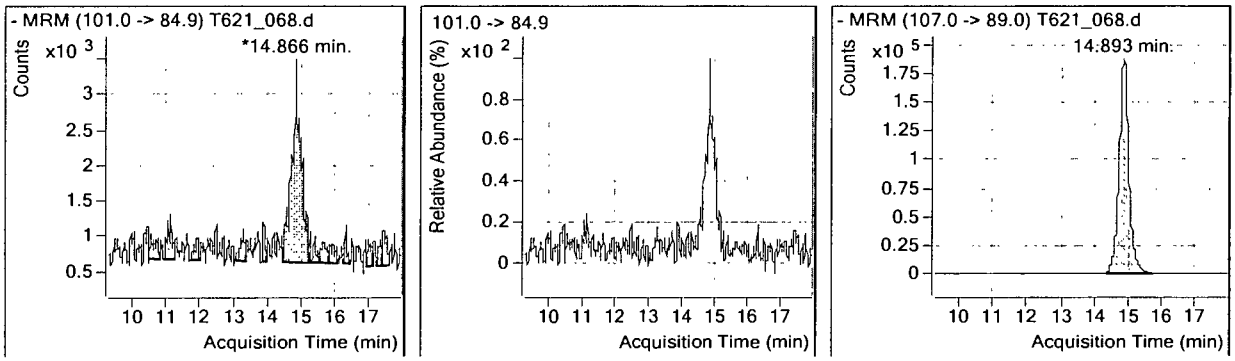


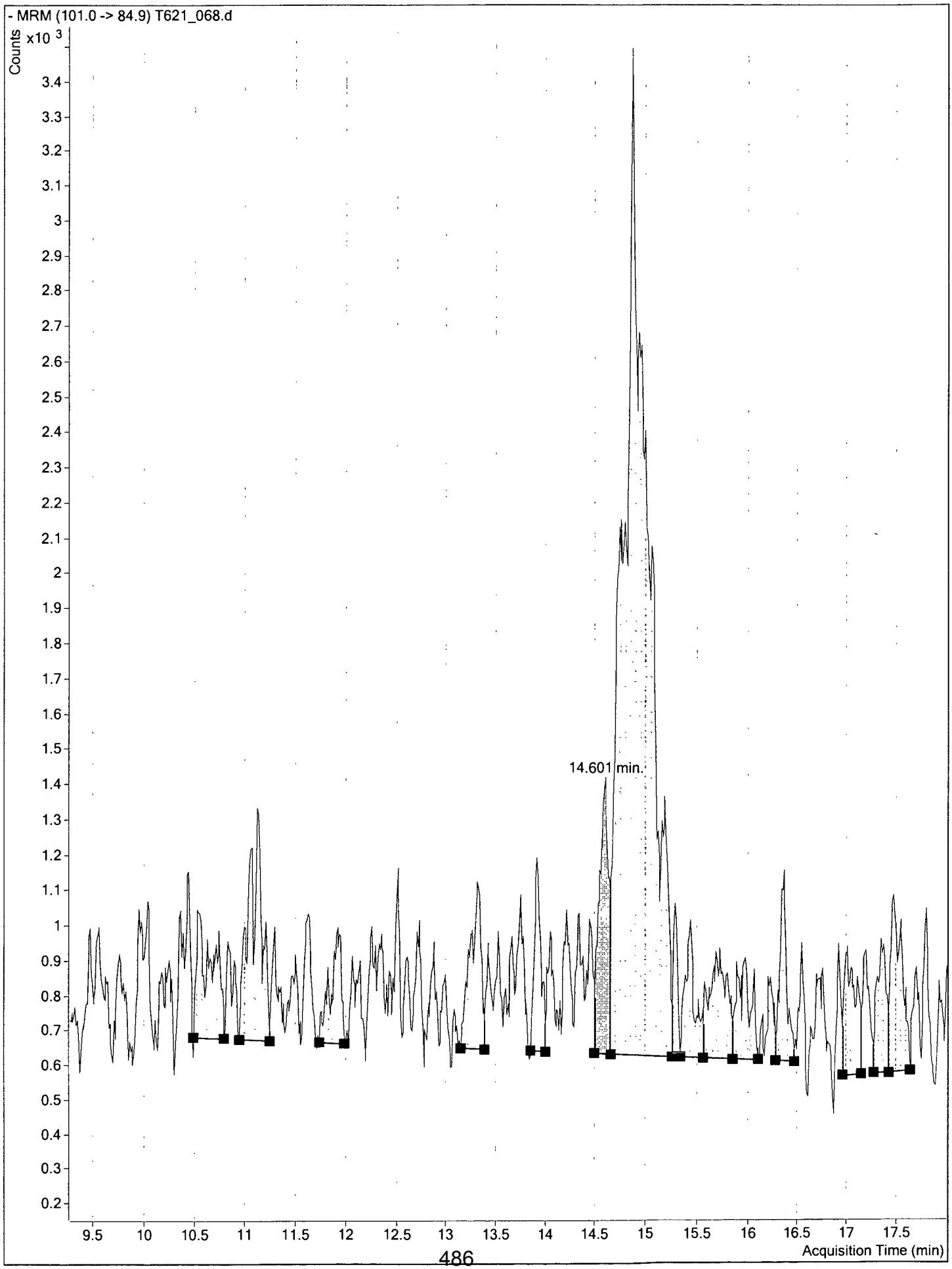
Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108		14.880	133962	3860498	
Perchlorate_102	PER_IS_108	*	14.866	52613	3860498	* MANUAL INT

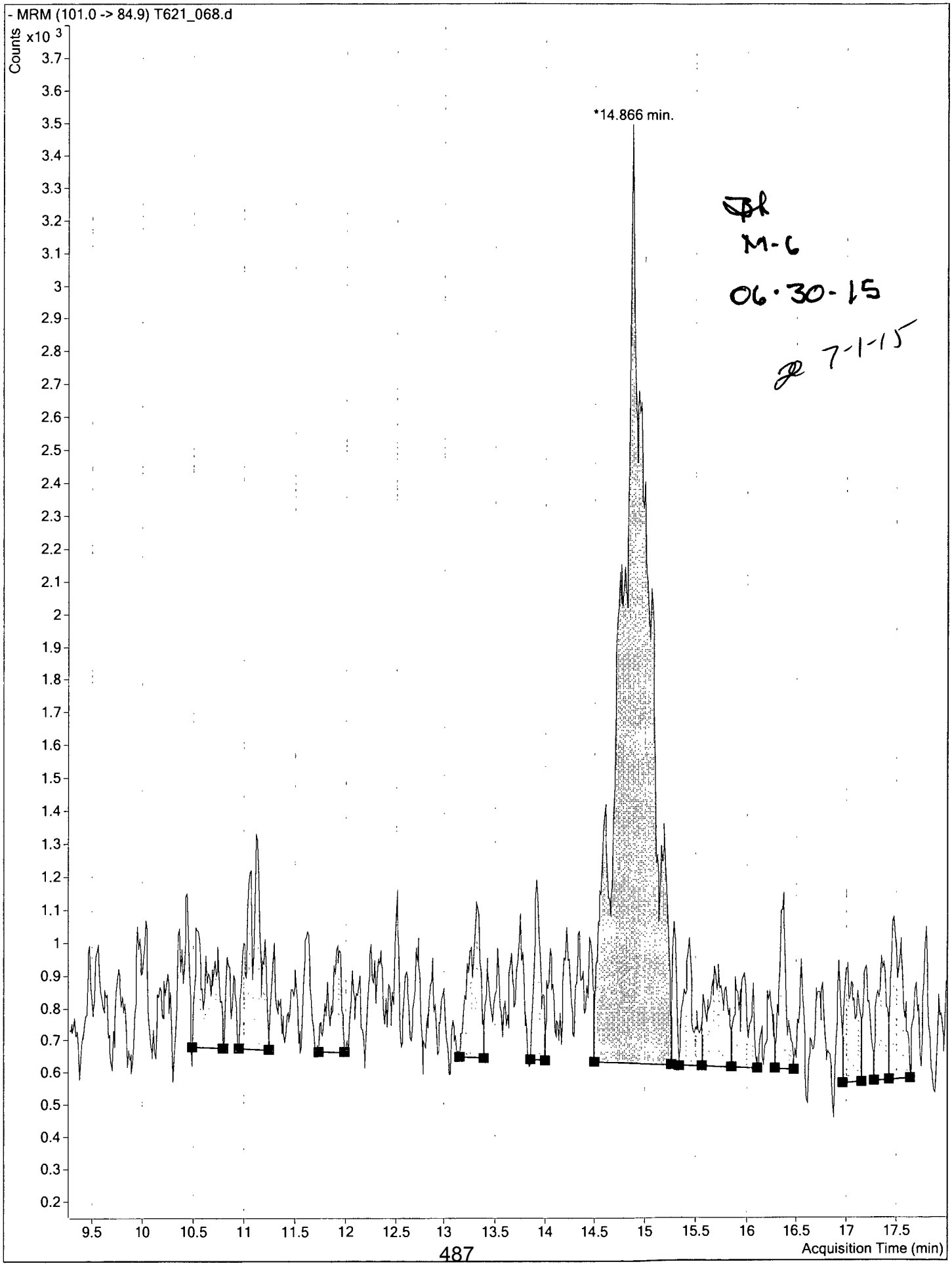
Perchlorate_100



Perchlorate_102




- MRM (101.0 -> 84.9) T621_068.d
Counts
x10 3
3.4
3.3
3.2
3.1
3
2.9
2.8
2.7
2.6
2.5
2.4
2.3
2.2
2.1
2
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
14.601 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)



JH
M-6
06·30·15
JH 7-1-15

PERCHLORATE EPA 6850 - SOIL

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-SB033-0203
Sample Collection Date: 06/09/15

ARF: 76624
APPL ID: AZ17440
QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 15.1 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0062 J	0.006	0.0040	0.0020	mg/Kg	06/17/15	06/22/15

J = Estimated value.

Quant Method:	QTLMFL2
Run #:	T621_069.d
Instrument:	AGIL_6460
Sequence:	TQ062115
Dilution Factor:	1
Initials:	RP

Printed: 07/02/15 9:59:16 AM
APPL-F1-SC-MCResOnly-REG MDLs

Data File ID: T621_069.d

Date Injected : 06/22/15

Time Injected : 13:46

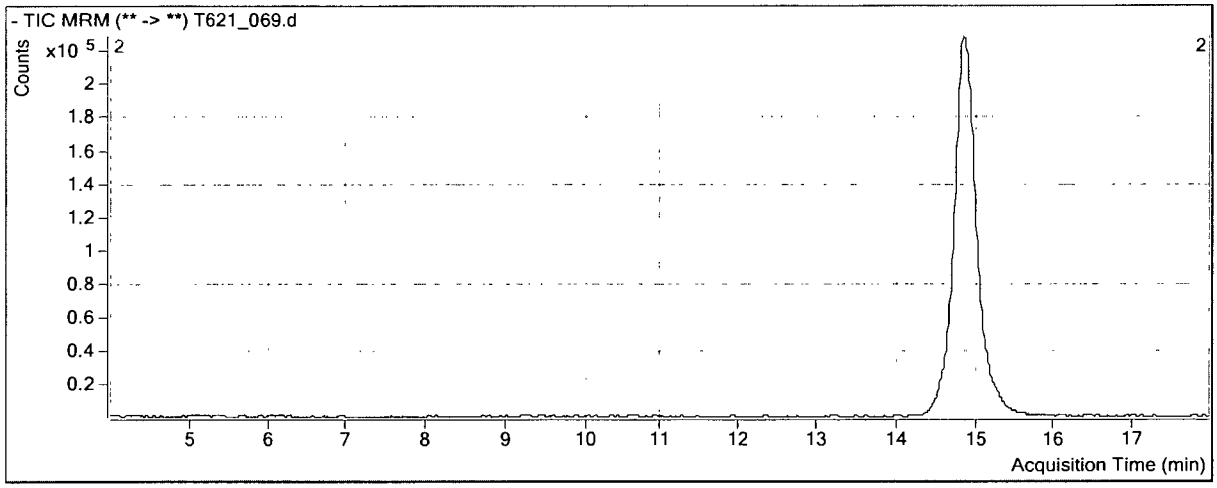
Sample ID : AZ17440_S01 8771.9 DF 06/17/15

Client ID : S67-SB033-0203

Retention Time	Area Count Response	Compound_ID Product Ion			
14.863	3873398	PER_IS_89			
14.859	596820	Perchlorate_83	(596820 * 0.0050) / (1.27 * 3873398.00) *	8771.90 =	5.320150 ppb
14.876	192260	Perchlorate_85	(192260 * 0.0050) / (0.39 * 3873398.00) *	8771.90 =	5.559200 ppb

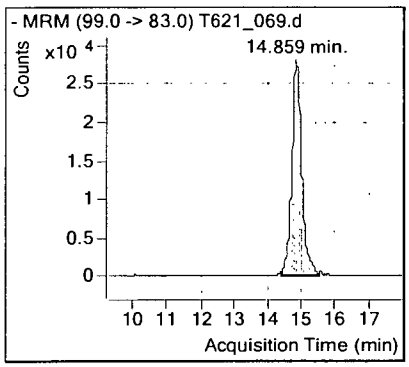
Quantitative Analysis Sample Report

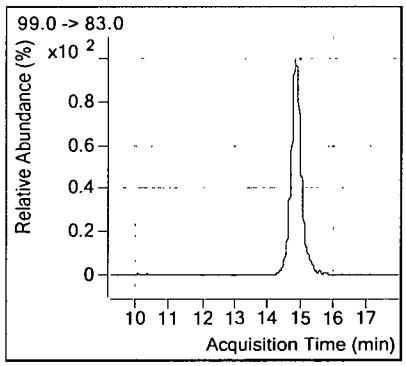
Batch Data Path	D:\MassHunter\Data\150621\QuantResults\150621_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T621_069.d	**Sample Name**	AZ17440_S01 8771.9 DF 06/17/15
Sample Type	Sample	**Acq_Date**	06/22/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	13:46
ClientID	S67-SB033-0203	**Inj Vol**	20

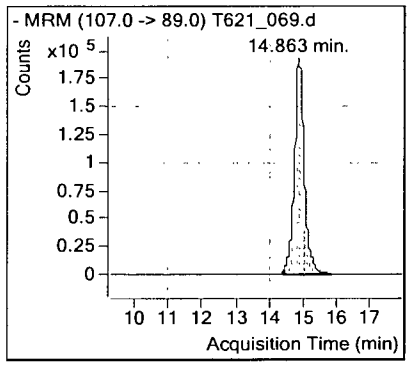


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.859	596820	3873398
Perchlorate_102	PER_IS_108	14.876	192260	3873398

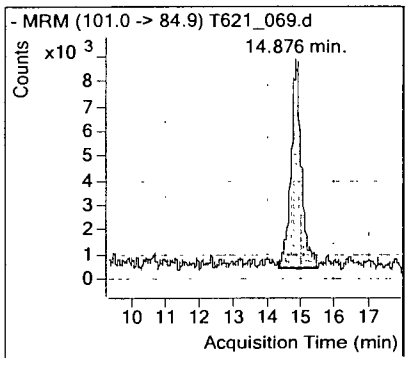
Perchlorate_100

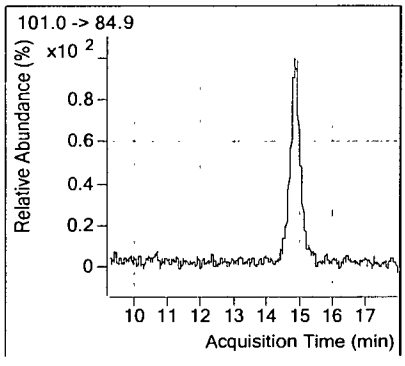


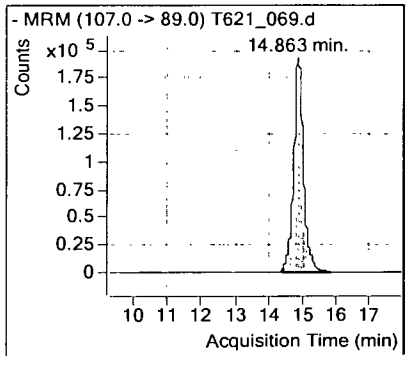




Perchlorate_102







PERCHLORATE EPA 6850 - SOIL

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-SS040-0001
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17441
QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 20.0 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/17/15	06/22/15

Quant Method:	QTLMFL2
Run #:	T621_070.d
Instrument:	AGIL_6460
Sequence:	TQ062115
Dilution Factor:	1
Initials:	RP

Printed: 07/02/15 9:59:16 AM
APPL-F1-SC-MCResOnly-REG MDLs

Data File ID: T621_070.d

Date Injected : 06/22/15

Time Injected : 14:05

Sample ID : AZ17441_S03 8489.0 DF 06/17/15

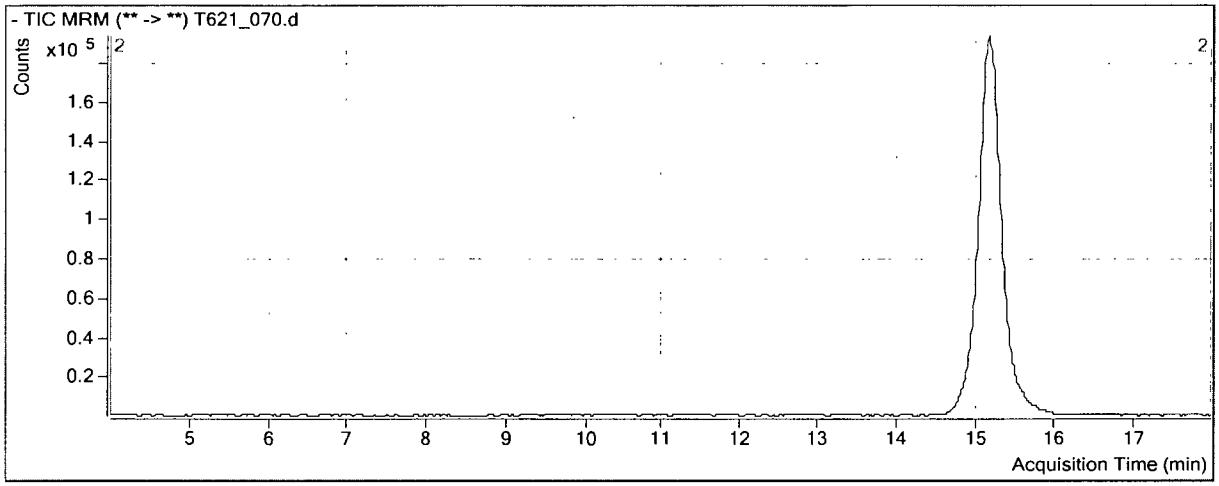
Client ID : S67-SS040-0001

Retention Time		Area Count Response	Compound_ID Product Ion			
15.189		3948124	PER_IS_89			
15.246	*	33246	Perchlorate_83	(33246 * 0.0050) / (1.27 * 3948124.00) *	8489.00 =	0.281374 ppb
14.357		1565	Perchlorate_85	(1565 * 0.0050) / (0.39 * 3948124.00) *	8489.00 =	0.042964 ppb

* MANUAL INTEGRAION

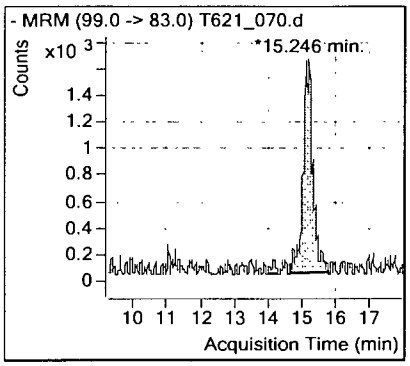
Quantitative Analysis Sample Report

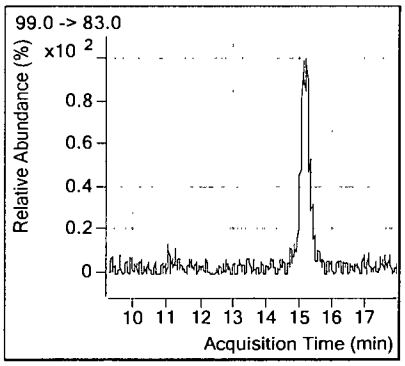
Batch Data Path	D:\MassHunter\Data\150621\QuantResults\150621_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T621_070.d	**Sample Name**	AZ17441_S03 8489.0 DF 06/17/15
Sample Type	Sample	**Acq_Date**	06/22/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	14:05
ClientID	S67-SS040-0001	**Inj Vol**	20

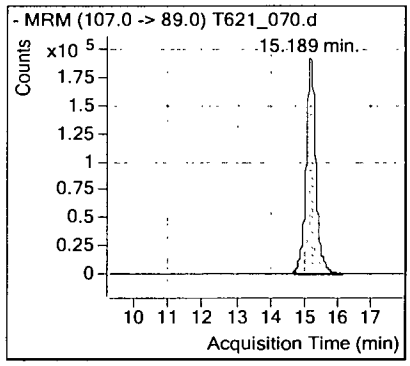


Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108	*	15.246	33246	3948124	* MANUAL INT
Perchlorate_102	PER_IS_108		14.357	1565	3948124	

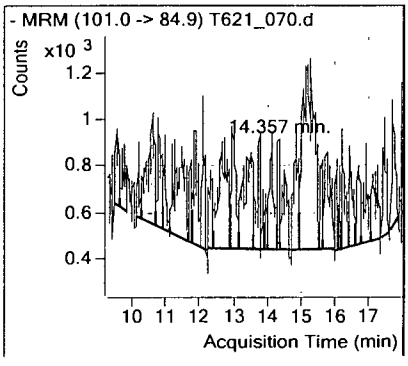
Perchlorate_100

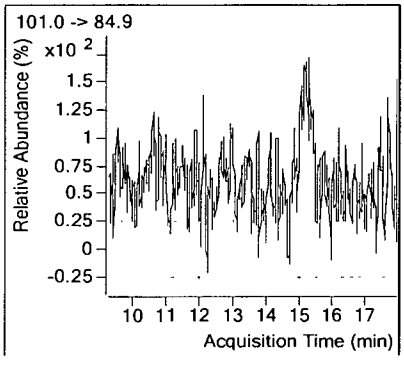


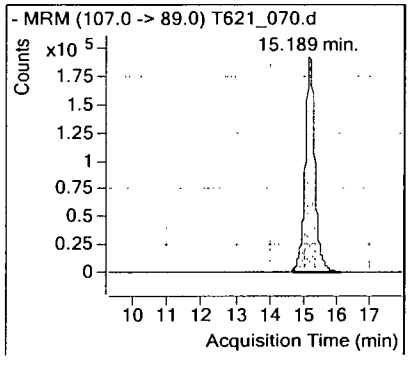


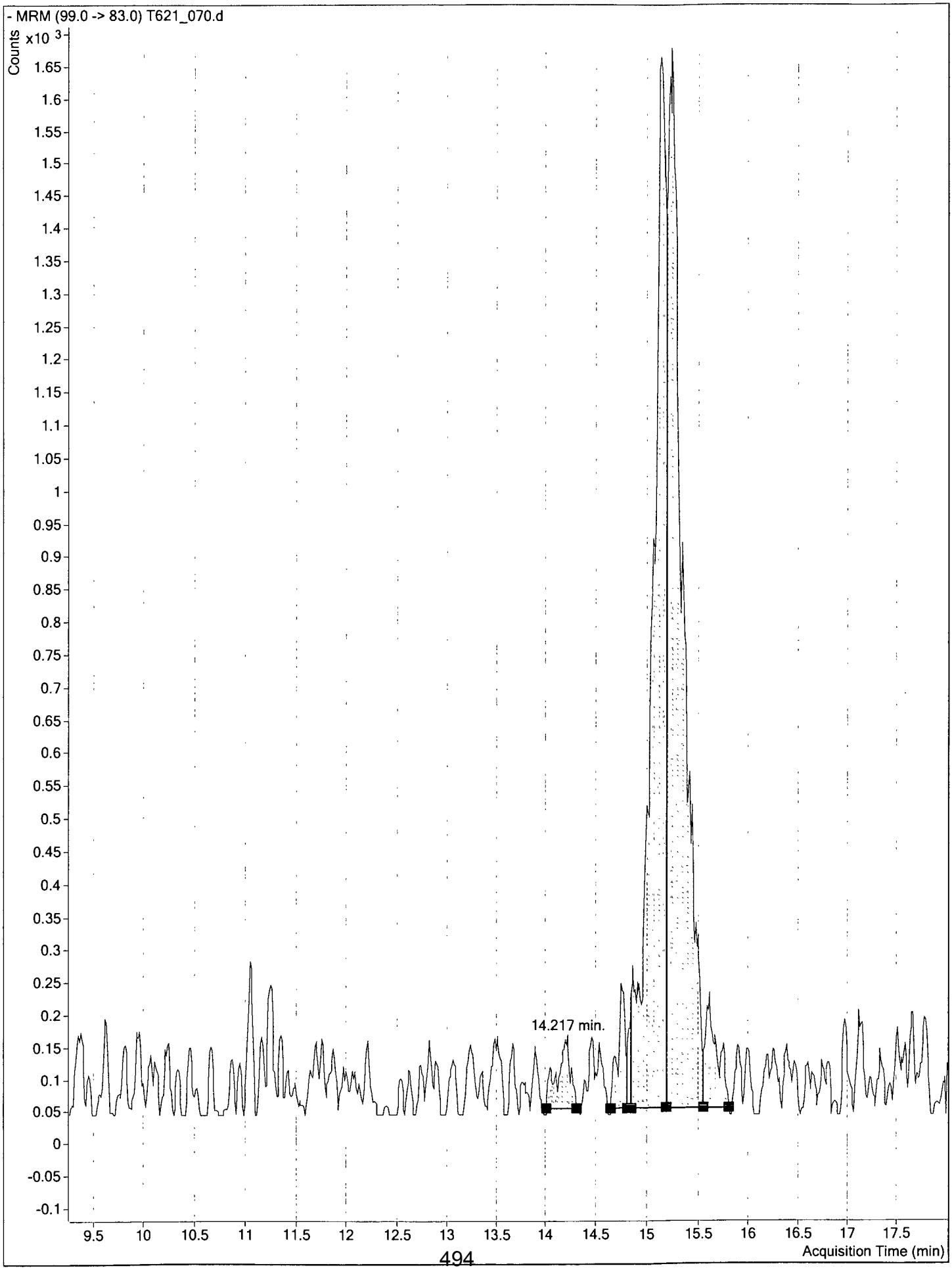


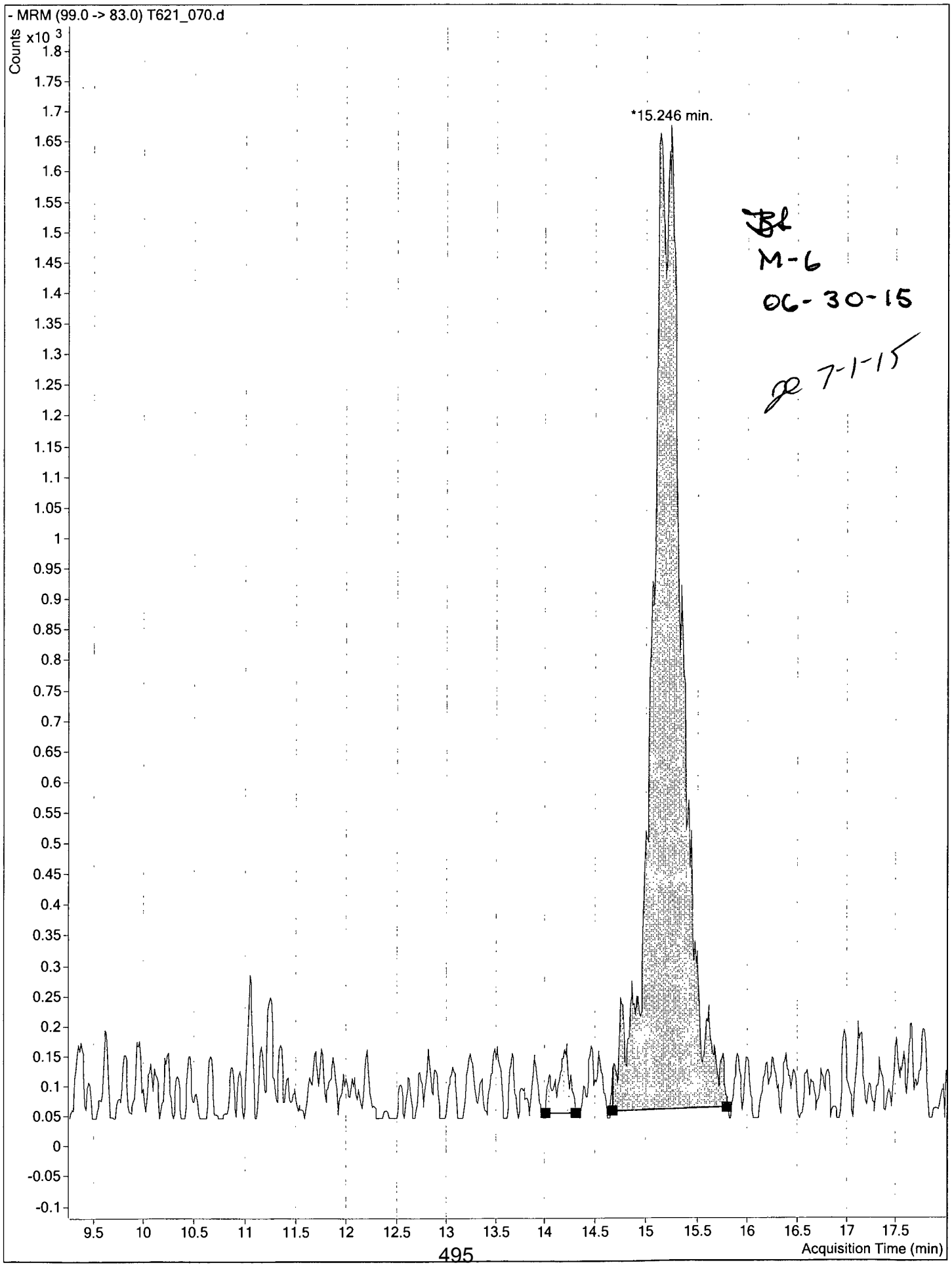
Perchlorate_102








- MRM (99.0 -> 83.0) T621_070.d
Counts
x10 3
1.65
1.6
1.55
1.5
1.45
1.4
1.35
1.3
1.25
1.2
1.15
1.1
1.05
1
0.95
0.9
0.85
0.8
0.75
0.7
0.65
0.6
0.55
0.5
0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
-0.05
-0.1
14.217 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)



JBL
M-6
06-30-15
JBL 7-1-15

PERCHLORATE EPA 6850 - SOIL

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: 76624

Sample ID: S67-SS040P-0001

APPL ID: AZ17442

Sample Collection Date: 06/10/15

QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 19.4 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/17/15	06/22/15

Quant Method: QTLMFL2
Run #: T621_071.d
Instrument: AGIL_6460
Sequence: TQ062115
Dilution Factor: 1
Initials: RP

Printed: 07/02/15 9:59:16 AM

APPL-F1-SC-MCResOnly-REG MDLs

Data File ID: T621_071.d

Date Injected : 06/22/15

Time Injected : 14:24

Sample ID : AZ17442_S02 8558.0 DF 06/17/15

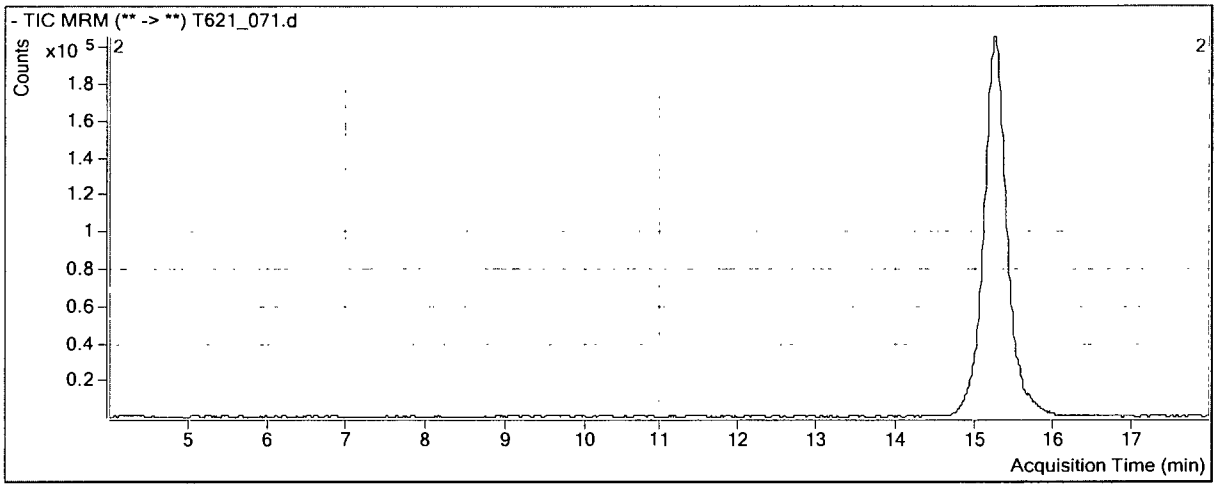
Client ID : S67-SS040P-0001

Retention Time		Area Count Response	Compound_ID Product Ion			
15.200		4139756	PER_IS_89			
15.226	*	32913	Perchlorate_83	(32913 * 0.0050) / (1.27 * 4139756.00) *	8558.00 =	0.267821 ppb
14.194		3038	Perchlorate_85	(3038 * 0.0050) / (0.39 * 4139756.00) *	8558.00 =	0.080188 ppb

* MANUAL INTEGRAION

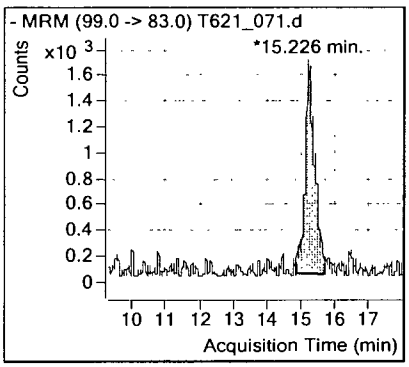
Quantitative Analysis Sample Report

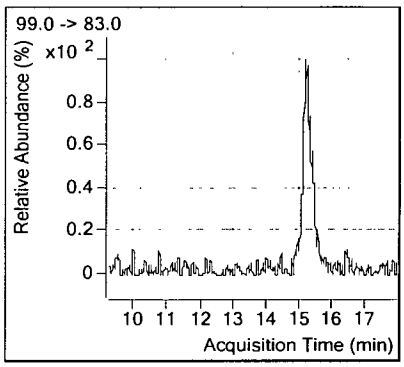
Batch Data Path	D:\MassHunter\Data\150621\QuantResults\150621_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T621_071.d	**Sample Name**	AZ17442_S02 8558.0 DF 06/17/15
Sample Type	Sample	**Acq_Date**	06/22/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	14:24
ClientID	S67-SS040P-0001	**Inj Vol**	20

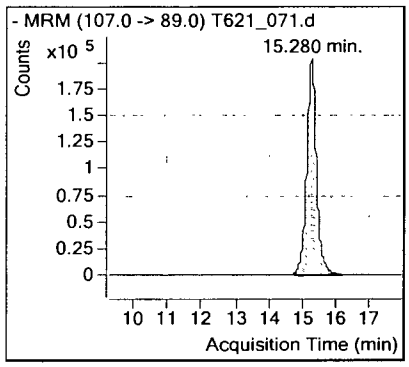


Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108	*	15.226	32913	4139756	* MANUAL INT
Perchlorate_102	PER_IS_108		14.194	3038	4139756	

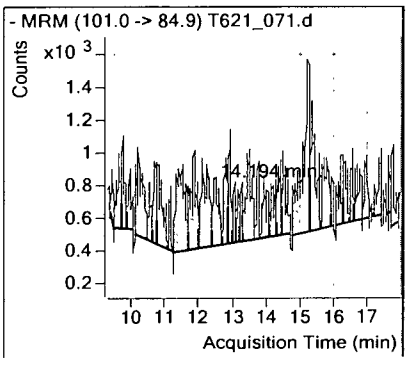
Perchlorate_100

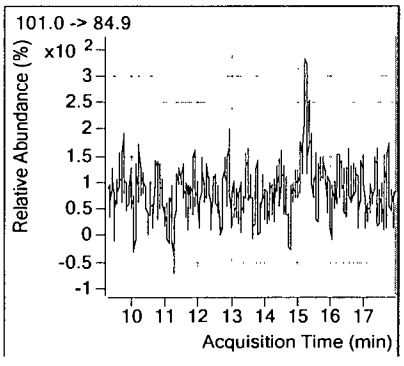


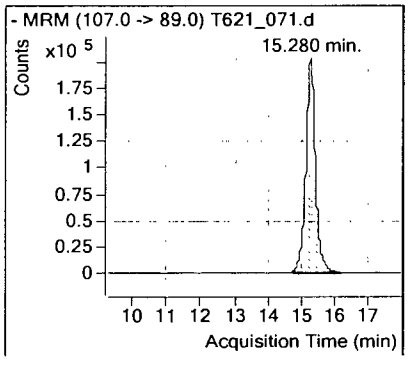


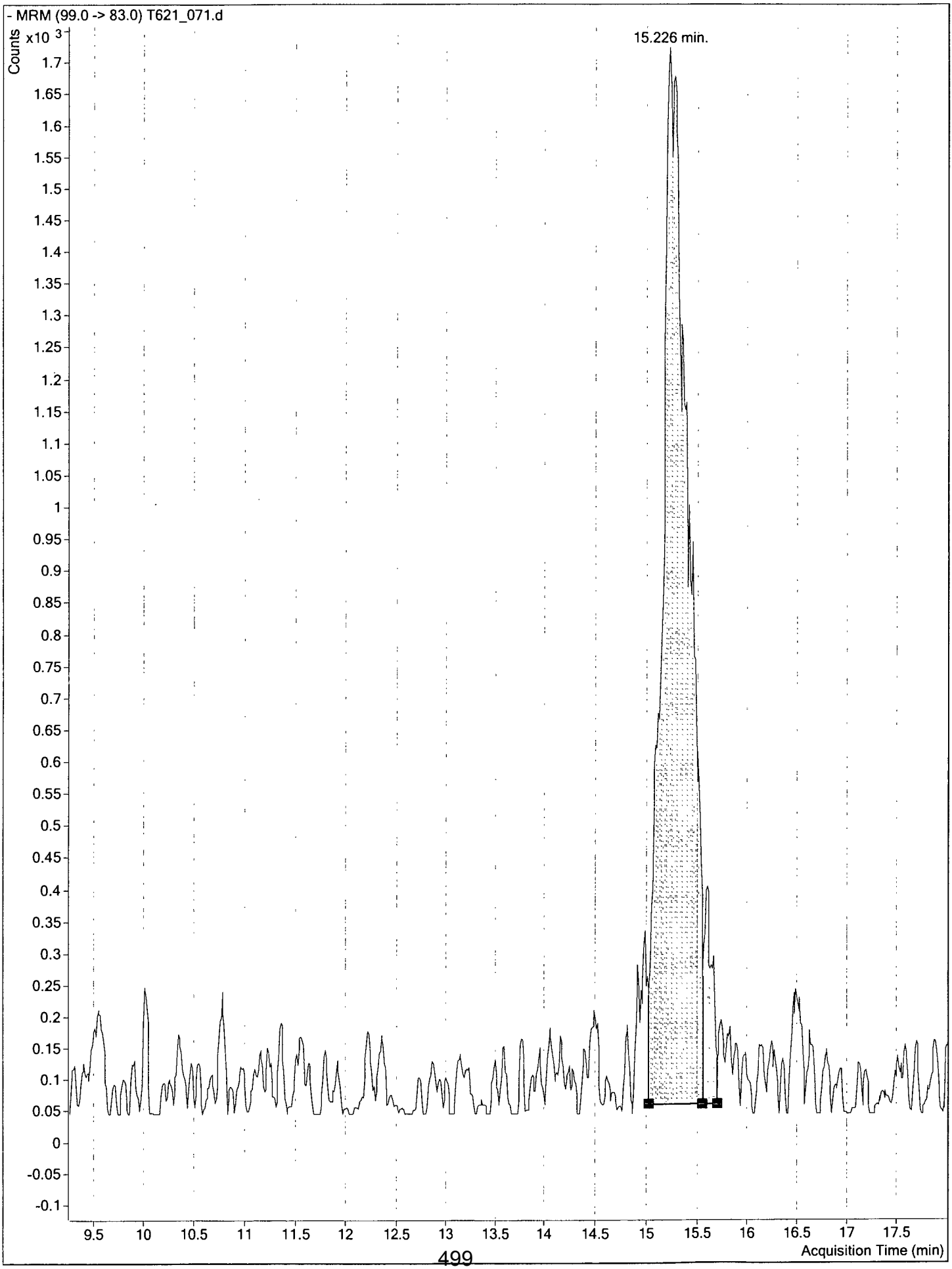


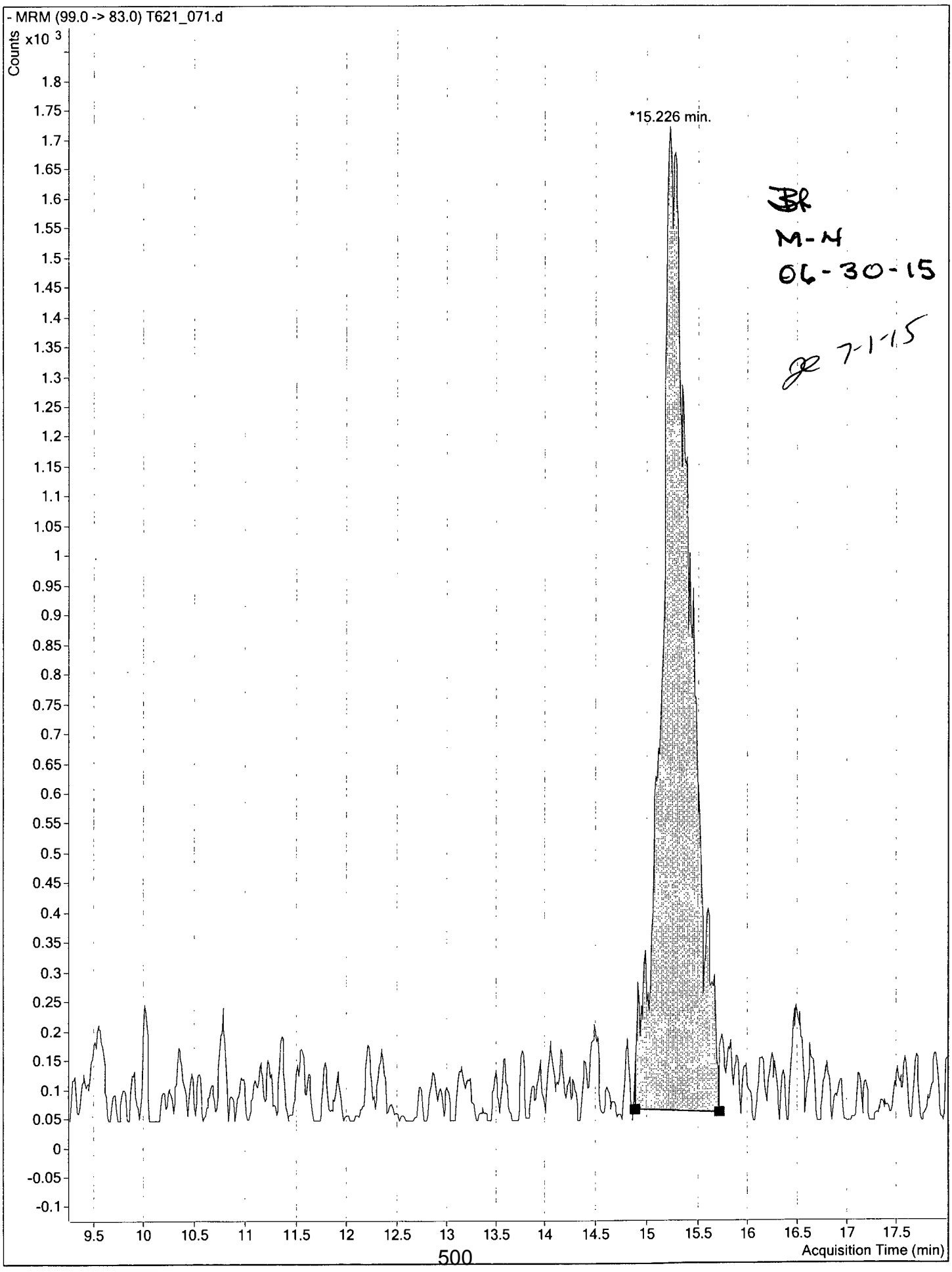
Perchlorate_102








- MRM (99.0 -> 83.0) T621_071.d
Counts
x10 3
15.226 min.
Acquisition Time (min)


- MRM (99.0 -> 83.0) T621_071.d
Counts x10 3
*15.226 min.
JR
M-N
06-30-15
JR 7-1-15
Acquisition Time (min)

PERCHLORATE EPA 6850 - SOIL

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-SB040-1516
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17443
QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 11.9 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.058	0.006	0.0040	0.0020	mg/Kg	06/17/15	06/22/15

Quant Method:	QTLMFL2
Run #:	T705_033.d
Instrument:	AGIL_6460
Sequence:	TQ070515
Dilution Factor:	1
Initials:	RP

Printed: 07/08/15 7:53:13 AM
APPL-F1-SC-MCResOnly-REG MDLs

Data File ID: T705_033.d

Date Injected : 07/05/15

Time Injected : 23:03

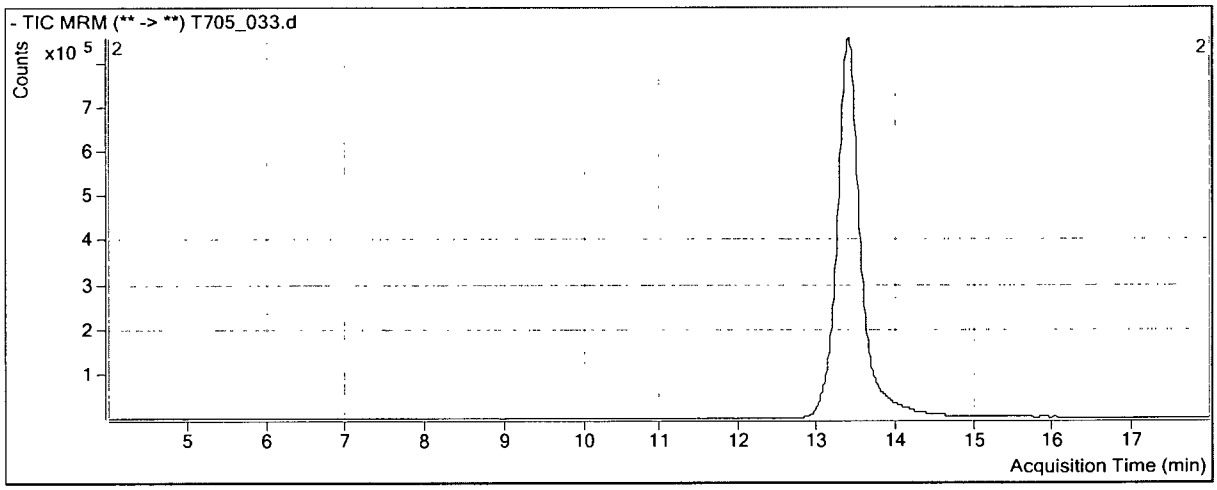
Sample ID : AZ17443_S02 8920.6 DF 06/17/15

Client ID : S67-SB040-1516

Retention Time	Area Count Response	Compound_ID Product Ion		
13.416	6176347	PER_IS_89		
13.423	8957756	Perchlorate_83	(8957756 * 0.0050) / (1.27 * 6176347.00) * 8920.60 =	50.926122 ppb
13.419	2594421	Perchlorate_85	(2594421 * 0.0050) / (0.39 * 6176347.00) * 8920.60 =	47.843683 ppb

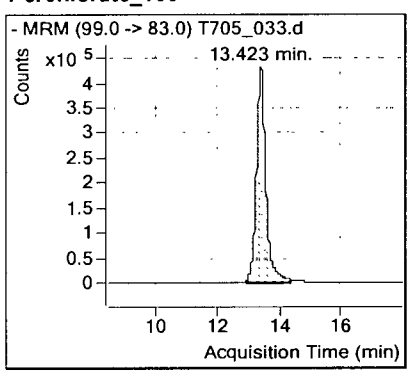
Quantitative Analysis Sample Report

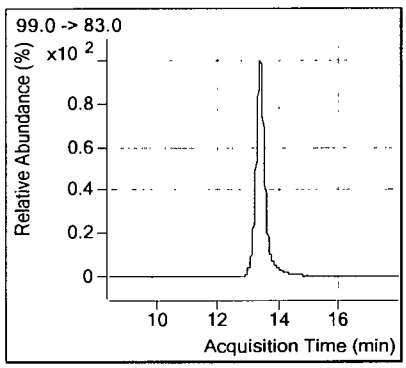
Batch Data Path	D:\MassHunter\Data\150705\QuantResults\150705_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T705_033.d	**Sample Name**	AZ17443_S02 8920.6 DF 06/17/15
Sample Type	Sample	**Acq_Date**	07/05/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	23:03
ClientID	S67-SB040-1516	**Inj Vol**	20

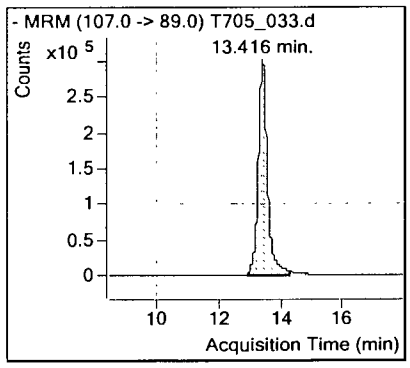


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.423	8957756	6176347
Perchlorate_102	PER_IS_108	13.419	2594421	6176347

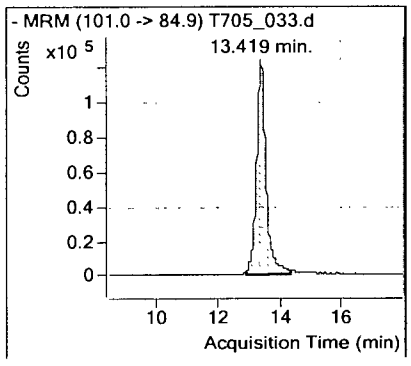
Perchlorate_100

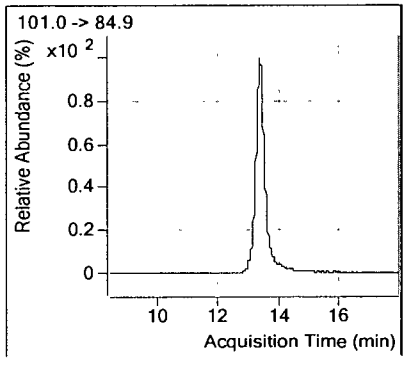


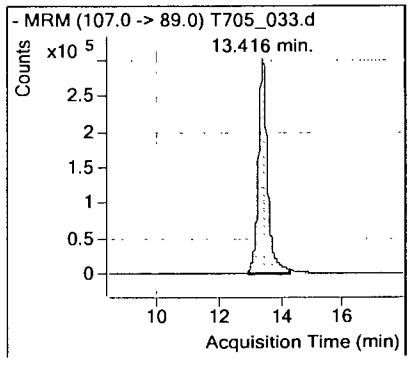




Perchlorate_102







PERCHLORATE EPA 6850 - SOIL

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-SS035-0001
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17444
QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 14.8 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/17/15	07/05/15

Quant Method:	QTLMFL2
Run #:	T705_034.d
Instrument:	AGIL_6460
Sequence:	TQ070515
Dilution Factor:	1
Initials:	RP

Printed: 07/08/15 7:53:13 AM
APPL-F1-SC-MCResOnly-REG MDLs

Data File ID: T705_034.d

Date Injected : 07/05/15

Time Injected : 23:22

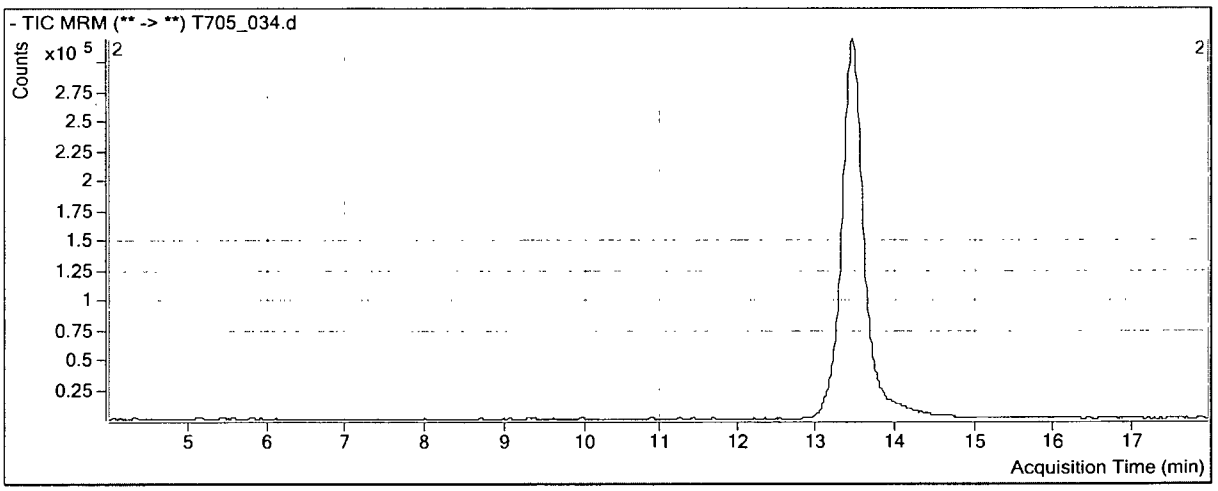
Sample ID : AZ17444_S08 9153.3 DF 06/17/15

Client ID : S67-SS035-0001

Retention Time	Area Count Response	Compound_ID Product Ion					
13.487	6311294	PER_IS_89					
13.463	23838	Perchlorate_83	(23838 * 0.0050) / (1.27 *	6311294.00) *	9153.30 =	0.136084	ppb
13.358	8732	Perchlorate_85	(8732 * 0.0050) / (0.39 *	6311294.00) *	9153.30 =	0.161694	ppb

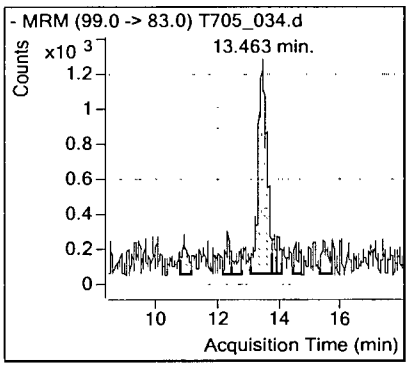
Quantitative Analysis Sample Report

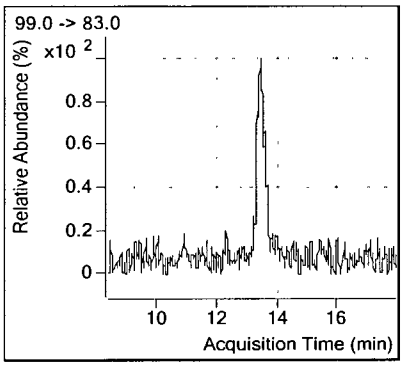
Batch Data Path	D:\MassHunter\Data\150705\QuantResults\150705_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T705_034.d	**Sample Name**	AZ17444_S08 9153.3 DF 06/17/15
Sample Type	Sample	**Acq_Date**	07/05/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	23:22
ClientID	S67-SS035-0001	**Inj Vol**	20

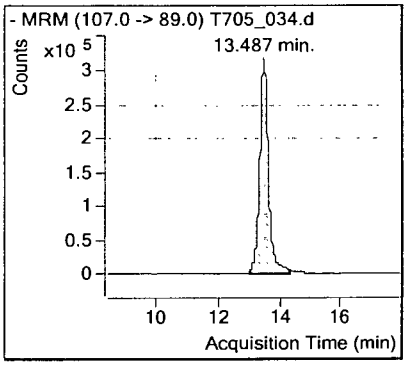


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.463	23838	6311294
Perchlorate_102	PER_IS_108	13.358	8732	6311294

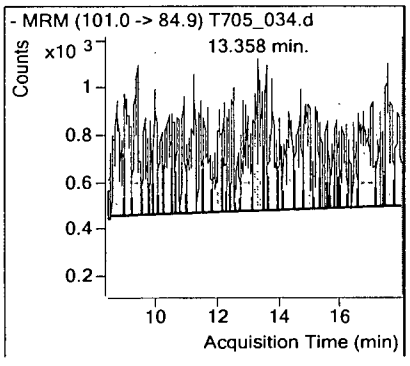
Perchlorate_100

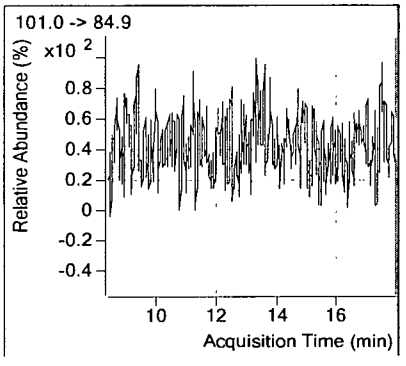


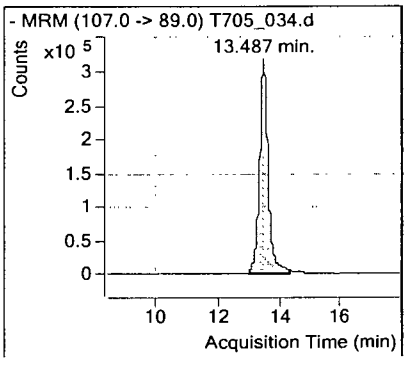




Perchlorate_102







PERCHLORATE EPA 6850 - SOIL

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-SB035-0203
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17445
QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 15.6 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/17/15	07/06/15

Quant Method:	QTLMFL2
Run #:	T705_037.d
Instrument:	AGIL_6460
Sequence:	TQ070515
Dilution Factor:	1
Initials:	RP

Printed: 07/08/15 7:53:13 AM
APPL-F1-SC-MCResOnly-REG MDLs

Data File ID: T705_037.d

Date Injected : 07/06/15

Time Injected : 0:18

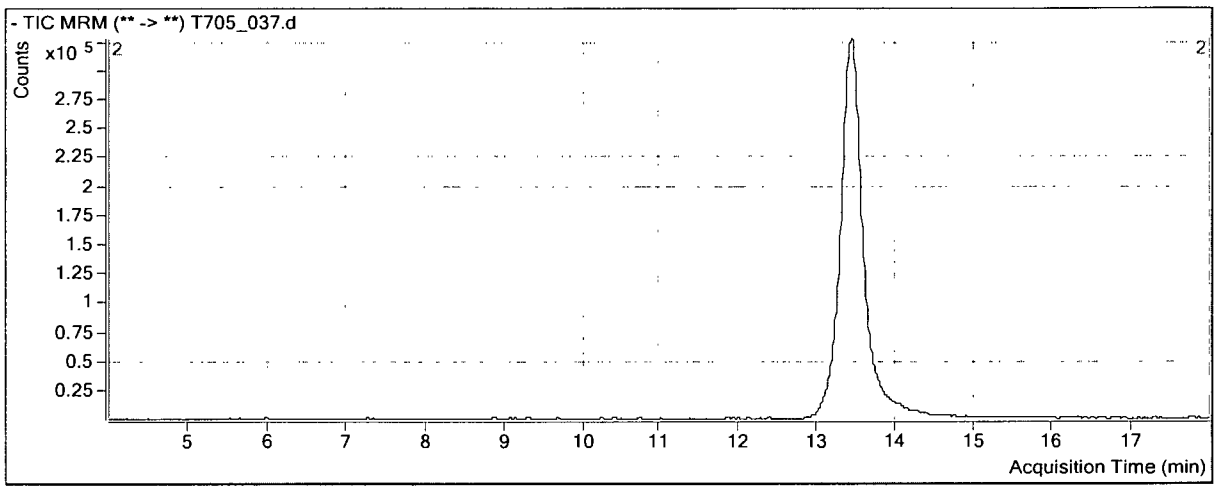
Sample ID : AZ17445_S02 8558.0 DF 06/17/15

Client ID : S67-SB035-0203

Retention Time	Area Count Response	Compound_ID Product Ion				
13.457	6621197	PER_IS_89				
13.504	78333	Perchlorate_83	(78333 * 0.0050) / (1.27 *	6621197.00) *	8558.00 =	0.398529 ppb
13.400	17200	Perchlorate_85	(17200 * 0.0050) / (0.39 *	6621197.00) *	8558.00 =	0.283848 ppb

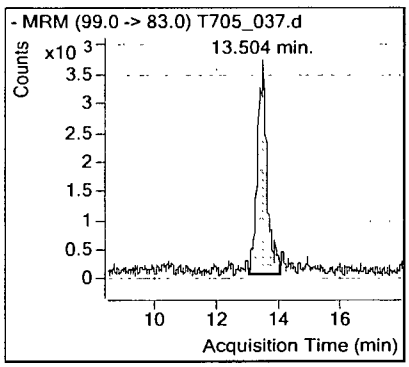
Quantitative Analysis Sample Report

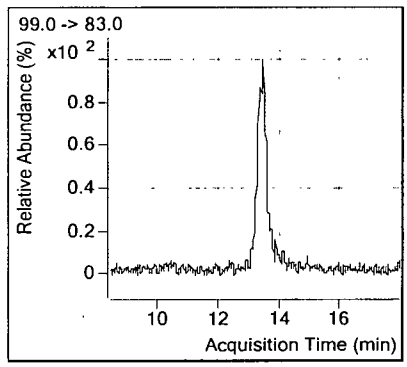
Batch Data Path	D:\MassHunter\Data\150705\QuantResults\150705_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T705_037.d	**Sample Name**	AZ17445_S02 8558.0 DF 06/17/15
Sample Type	Sample	**Acq_Date**	07/06/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	0:18
ClientID	S67-SB035-0203	**Inj Vol**	20

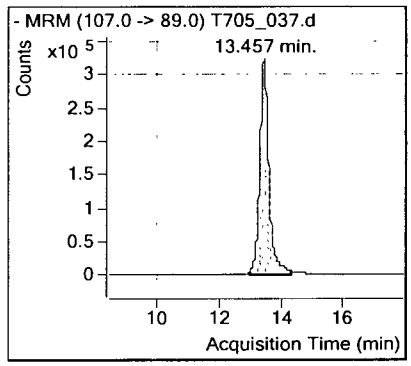


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.504	78333	6621197
Perchlorate_102	PER_IS_108	13.480	17200	6621197

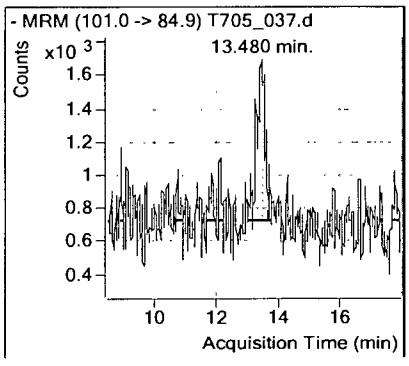
Perchlorate_100

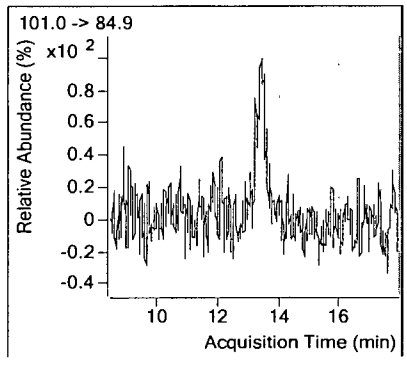


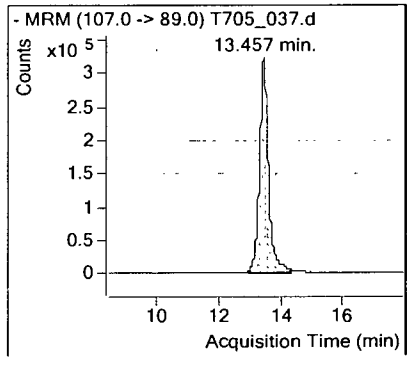




Perchlorate_102







PERCHLORATE EPA 6850 - SOIL

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-SS034-0001
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17446
QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 12.3 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/17/15	07/06/15

Quant Method:	QTLMFL2
Run #:	T705_038.d
Instrument:	AGIL_6460
Sequence:	TQ070515
Dilution Factor:	1
Initials:	RP

Printed: 07/08/15 7:53:13 AM
APPL-F1-SC-MCResOnly-REG MDLs

Data File ID: T705_038.d

Date Injected : 07/06/15

Time Injected : 0:36

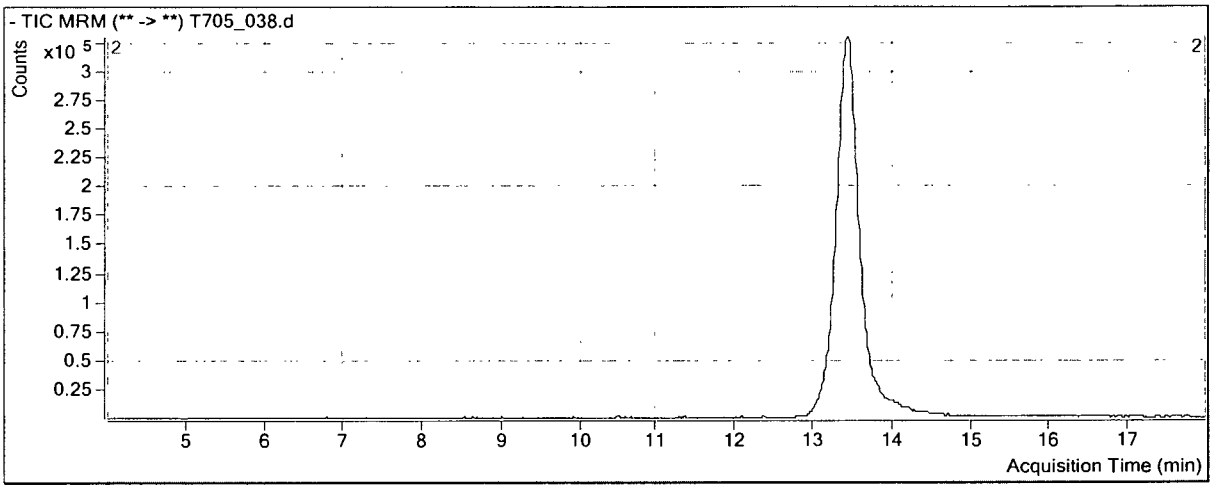
Sample ID : AZ17446_S02 8996.9 DF 06/17/15

Client ID : S67-SS034-0001

Retention Time	Area Count Response	Compound_ID Product Ion				
13.457	6847180	PER_IS_89				
13.463	58015	Perchlorate_83	(58015 * 0.0050) / (1.27 *	6847180.00) *	8996.90 =	0.300055 ppb
13.389	12750	Perchlorate_85	(12750 * 0.0050) / (0.39 *	6847180.00) *	8996.90 =	0.213901 ppb

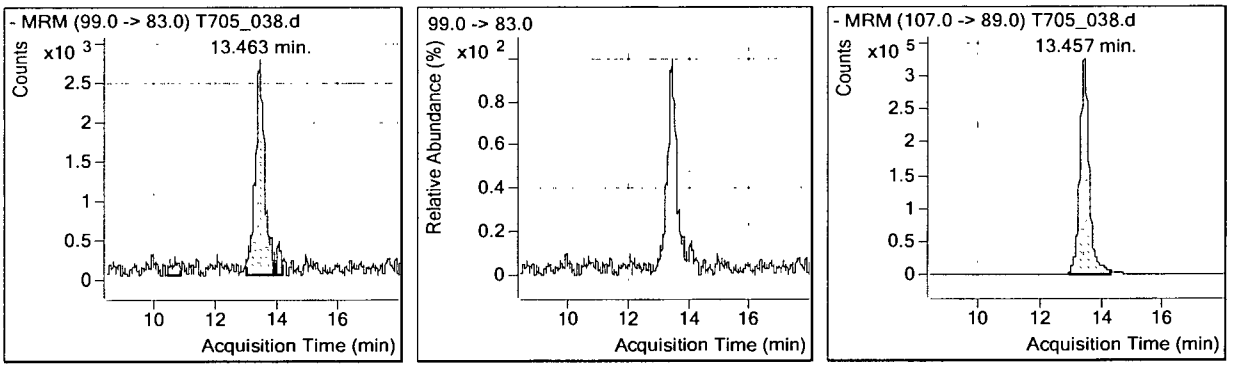
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150705\QuantResults\150705_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T705_038.d	**Sample Name**	AZ17446_S02 8996.9 DF 06/17/15
Sample Type	Sample	**Acq_Date**	07/06/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	0:36
ClientID	S67-SS034-0001	**Inj Vol**	20

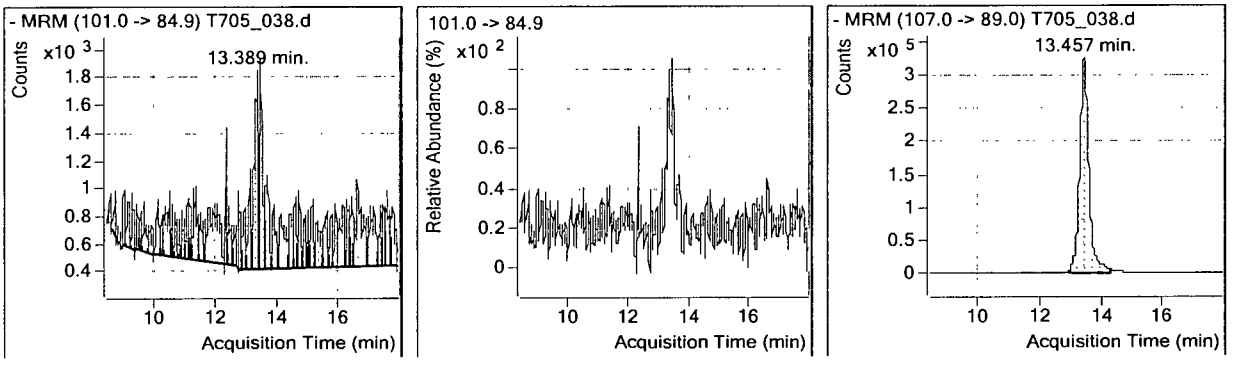


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.463	58015	6847180
Perchlorate_102	PER_IS_108	13.389	12750	6847180

Perchlorate_100



Perchlorate_102



PERCHLORATE EPA 6850 - SOIL

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-SB034-0405
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17447
QCG: #6850SM-150617A-198529

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 17.0 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/17/15	07/06/15

Quant Method:	QTLMFL2
Run #:	T705_039.d
Instrument:	AGIL_6460
Sequence:	TQ070515
Dilution Factor:	1
Initials:	RP

Printed: 07/08/15 7:53:13 AM
APPL-F1-SC-MCResOnly-REG MDLs

Data File ID: T705_039.d

Date Injected : 07/06/15

Time Injected : 0:55

Sample ID : AZ17447_S01 8421.1 DF 06/17/15

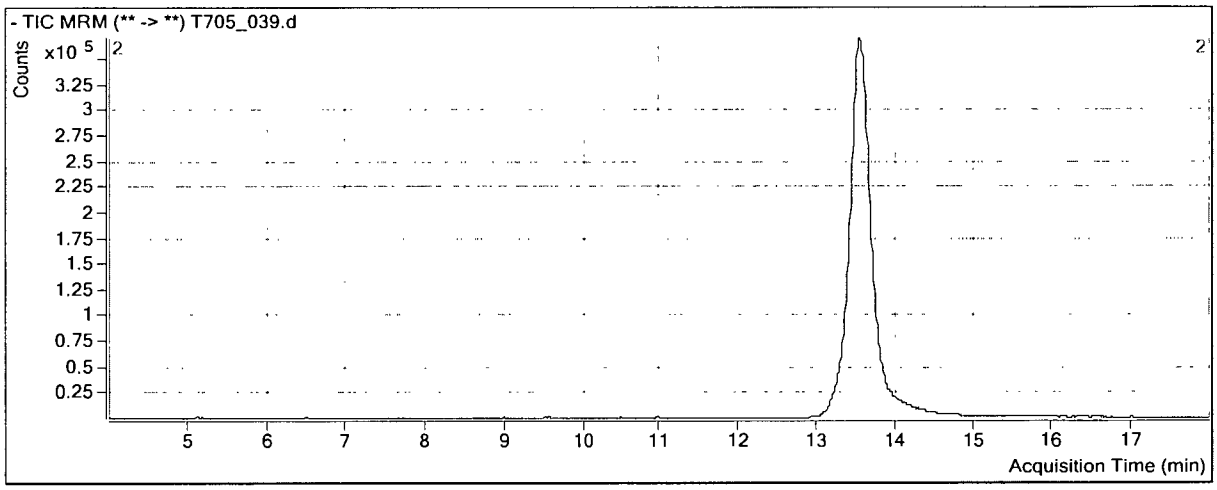
Client ID : S67-SB034-0405

Retention Time		Area Count Response	Compound_ID Product Ion			
13.558		7270013	PER_IS_89			
13.535	*	36870	Perchlorate_83	(36870 * 0.0050) / (1.27 * 7270013.00) *	8421.10 =	0.168107 ppb
13.521		18143	Perchlorate_85	(18143 * 0.0050) / (0.39 * 7270013.00) *	8421.10 =	0.268327 ppb

* MANUAL INTEGRAION

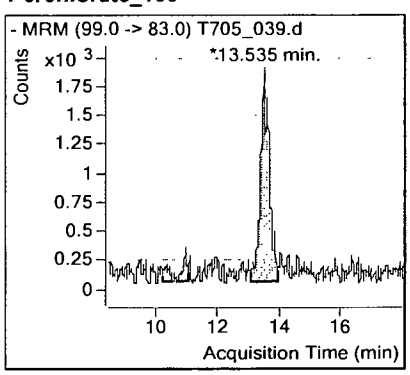
Quantitative Analysis Sample Report

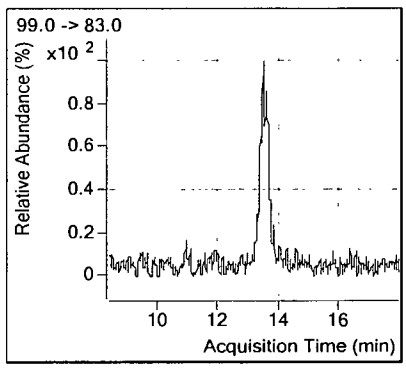
Batch Data Path	D:\MassHunter\Data\150705\QuantResults\150705_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T705_039.d	**Sample Name**	AZ17447_S01 8421.1 DF 06/17/15
Sample Type	Sample	**Acq_Date**	07/06/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	0:55
ClientID	S67-SB034-0405	**Inj Vol**	20

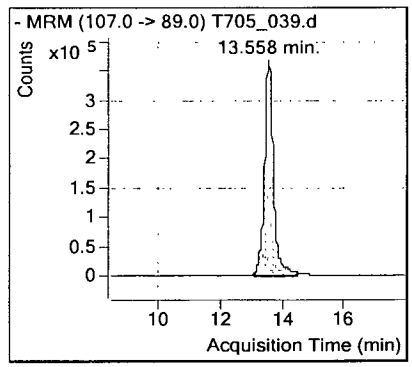


Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108	*	13.535	36870	7270013	* MANUAL INT
Perchlorate_102	PER_IS_108		13.521	18143	7270013	

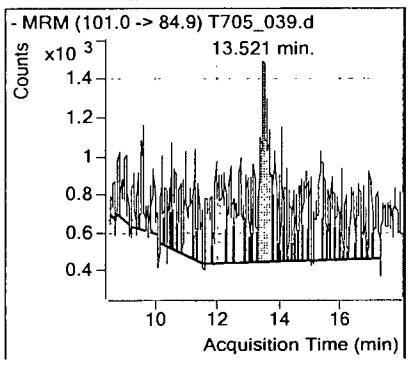
Perchlorate_100

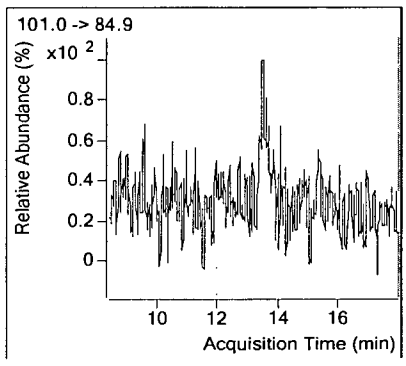


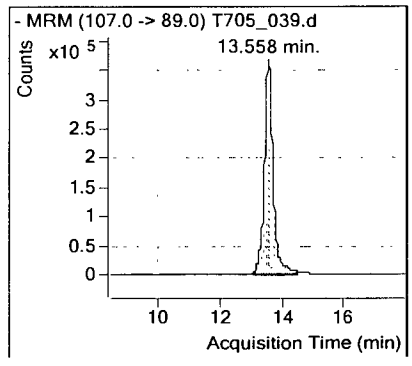


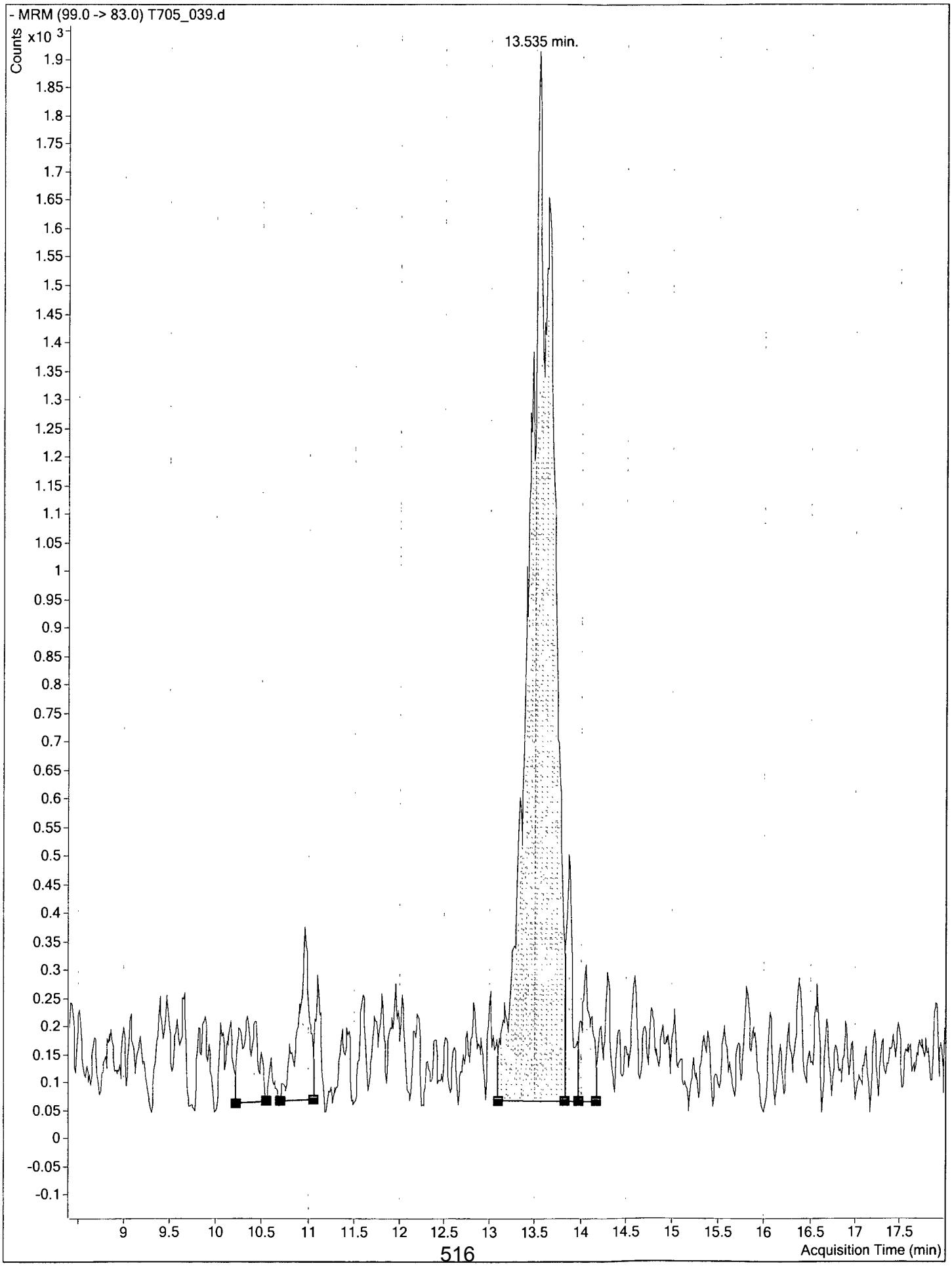


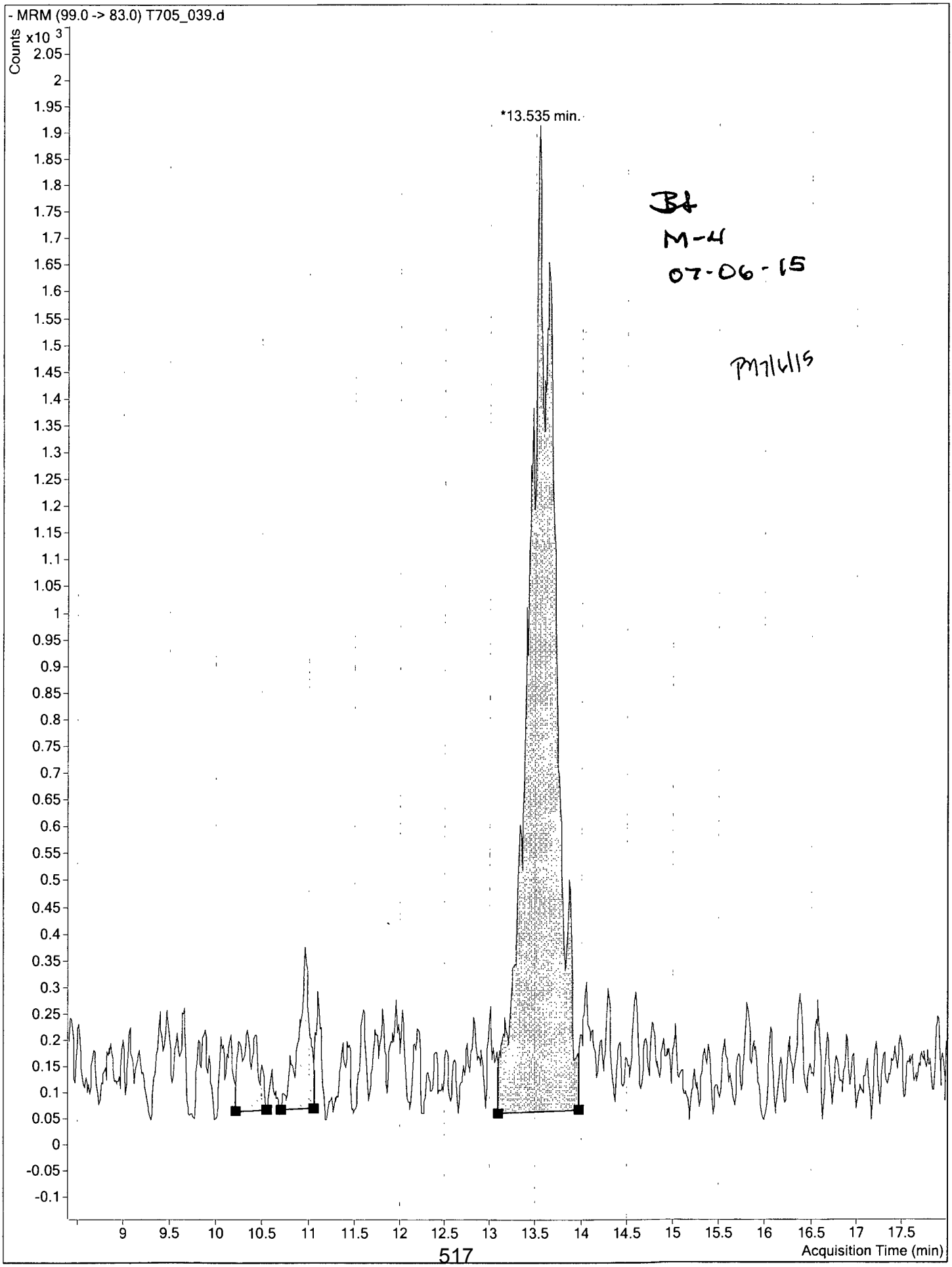
Perchlorate_102








- MRM (99.0 -> 83.0) T705_039.d
Counts
x10 3
13.535 min.
1.9
1.85
1.8
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
-0.1
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) T705_039.d
Counts
x10 3
*13.535 min.
Acquisition Time (min)
BL
M-4
07-06-15
PM7/6/15

EPA METHOD 6850
Perchlorate
LC/MS

Calibration Data

APPL, INC.

METHOD 6850 CALIBRATION SUMMARY

Lab Name: APPL Inc. DETECTOR ID : Agilent 6460 Triple Quad LC/MS

Average Relative Response Factor Summary

Analyte Id:	R.R.F.#1 PERCHLORATE 0.0002 PPM	R.R.F.#2 PERCHLORATE 0.0004 PPM	R.R.F.#3 PERCHLORATE 0.001 PPM	R.R.F.#4 PERCHLORATE 0.002 PPM	R.R.F.#5 PERCHLORATE 0.005 PPM	R.R.F.#6 PERCHLORATE 0.010 PPM	AVERAGE REL.RESP. FACTOR	%RSD RRF
Perchlorate_83	1.339537	1.198791	1.165697	1.173646	1.314663	1.429198	1.270255	8.44
Perchlorate_85	0.434068	0.395112	0.366889	0.354937	0.381638	0.416989	0.391605	7.67

FILE ID : TQ0312A.FRB

Perchlorate_83

RESPONSE FACTOR CALCULATIONS - AREA COUNTS

DATA FILES : T312_003.d - T312_008.d

The Data points that were Read Were

Standard Response	Standard Concentration µg/ml	Internal Standard Response	Internal Standard Concentration µg/ml	Response Factor	RPD	%RSD
446712.00	0.0002	8337058.00	0.0050	1.339537	5.45	8.44
1023403.00	0.0004	10671196.00	0.0050	1.198791	5.63	
2483393.00	0.0010	10651968.00	0.0050	1.165697	8.23	
6351752.00	0.0020	13529952.00	0.0050	1.173646	7.61	
14499255.00	0.0050	11028880.00	0.0050	1.314663	3.50	
34223790.00	0.0100	11973072.00	0.0050	1.429198	12.51	

The Average Response Factor = 1.270255

Perchlorate_85

RESPONSE FACTOR CALCULATIONS - AREA COUNTS

DATA FILES : T312_003.d - T312_008.d

The Data points that were Read Were

Standard Response	Standard Concentration µg/ml	Internal Standard Response	Internal Standard Concentration µg/ml	Response Factor	RPD	%RSD
144754.00	0.0002	8337058.00	0.0050	0.434068	10.84	7.67
337305.00	0.0004	10671196.00	0.0050	0.395112	0.90	
781617.00	0.0010	10651968.00	0.0050	0.366889	6.31	
1920912.00	0.0020	13529952.00	0.0050	0.354937	9.36	
4209044.00	0.0050	11028880.00	0.0050	0.381638	2.55	
9985270.00	0.0100	11973072.00	0.0050	0.416989	6.48	

The Average Response Factor = 0.391605

Data File ID: T312_003.d

Date Injected : 03/12/15

Time Injected : 17:52

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

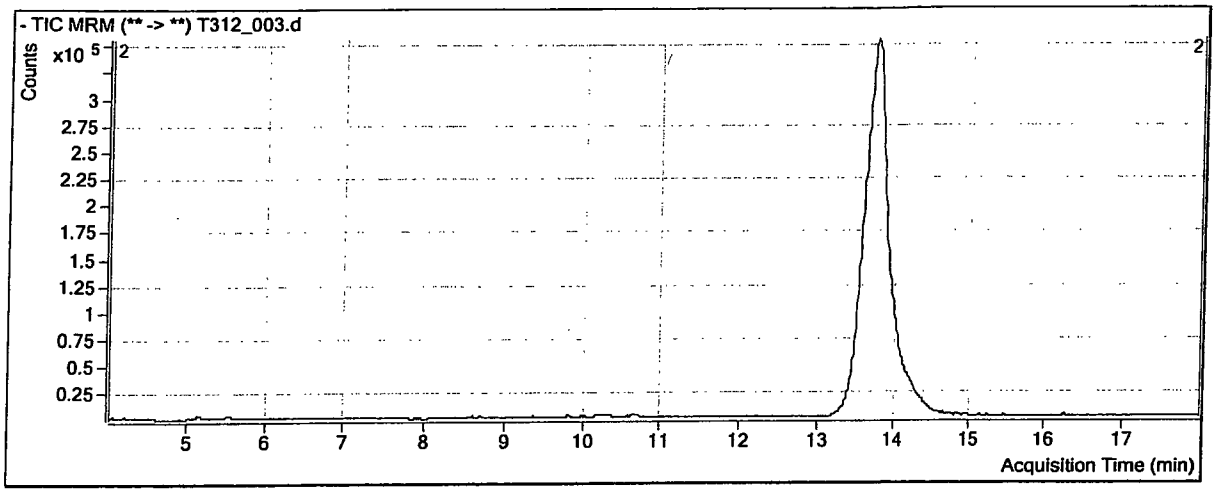
Client ID : NA

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

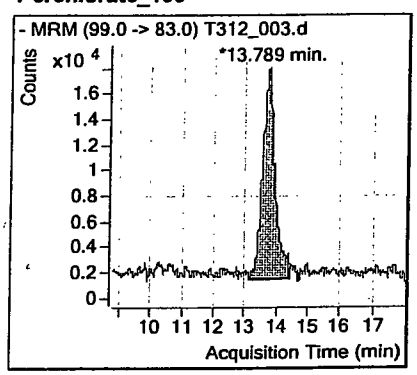
Quantitative Analysis Sample Report

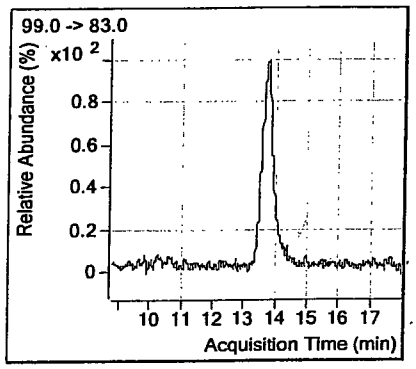
Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_003.d	**Sample Name**	PERCHLORATE 0.0002 ug/ml 11/11/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	17:52
ClientID	NA	**Inj Vol**	20

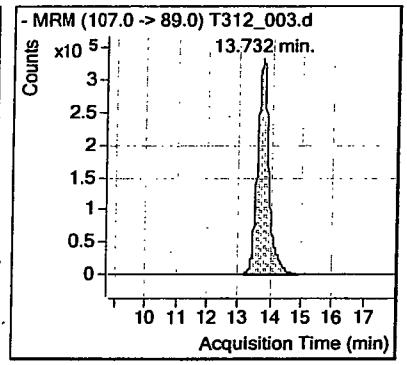


Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108	*	13.789	446712	8337058	* MANUAL INT
Perchlorate_102	PER_IS_108		13.704	144754	8337058	

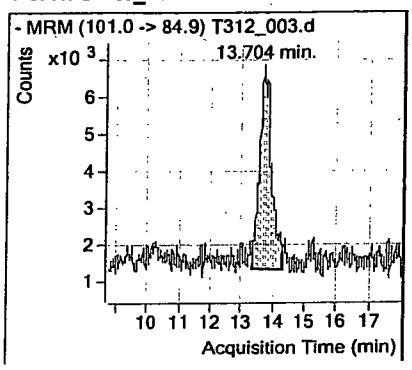
Perchlorate_100

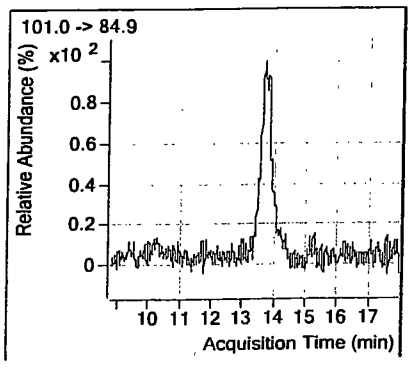


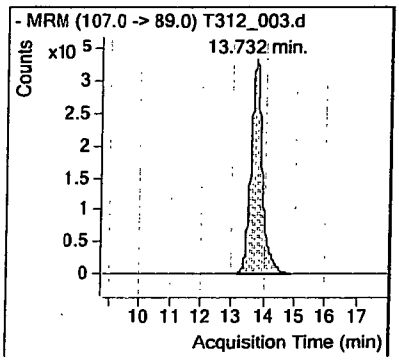


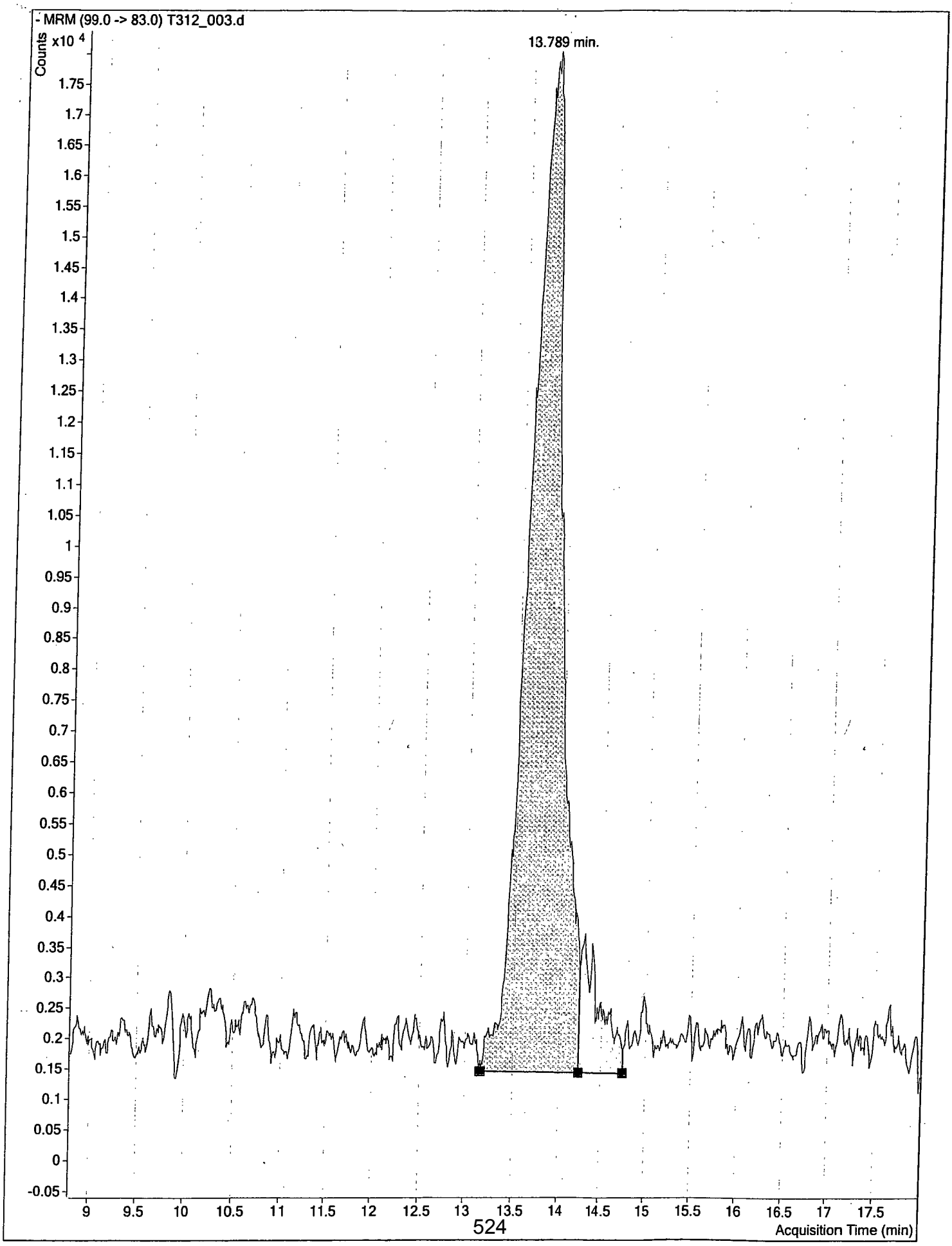


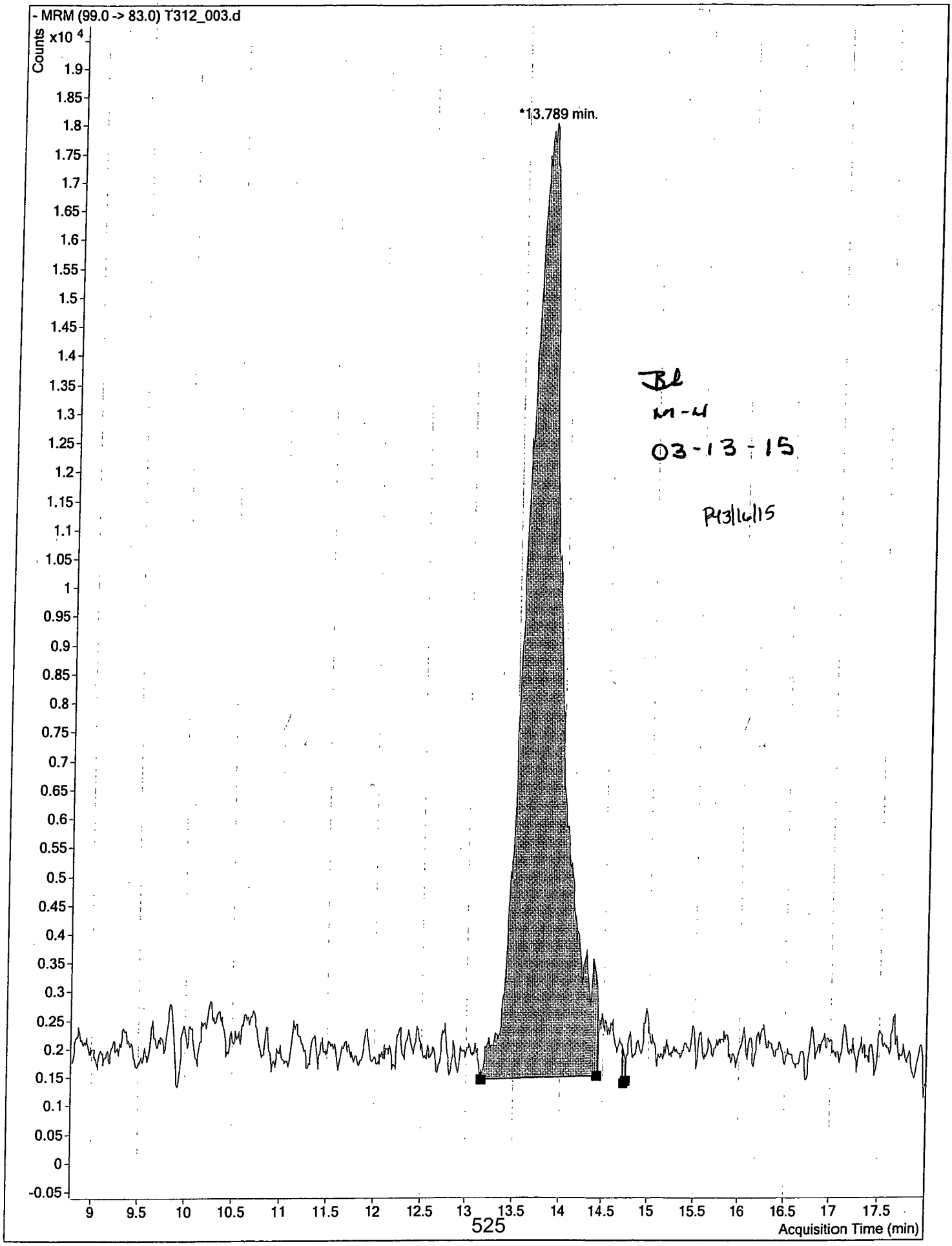
Perchlorate_102








- 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)



JL
M-4
03-13-15

P13/16/15

Data File ID: T312_004.d

Date Injected : 03/12/15

Time Injected : 18:11

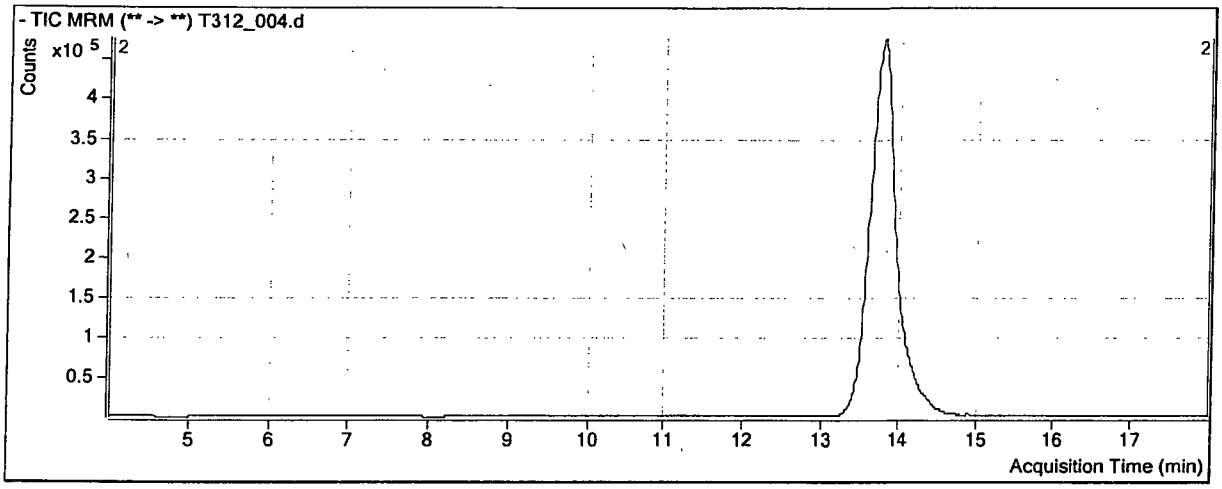
Sample ID : PERCHLORATE 0.0004 ug/ml 11/11/14

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

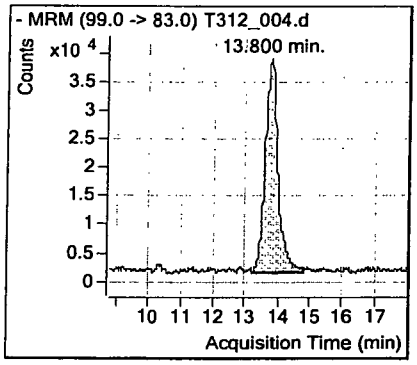
Quantitative Analysis Sample Report

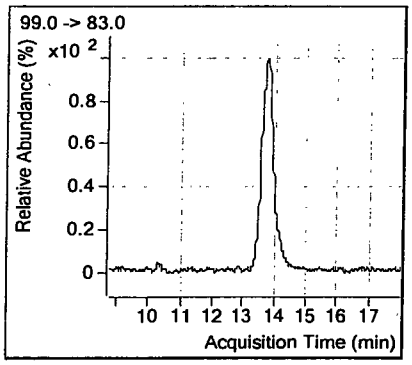
Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_004.d	**Sample Name**	PERCHLORATE 0.0004 ug/ml 11/11/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	18:11
ClientID	NA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

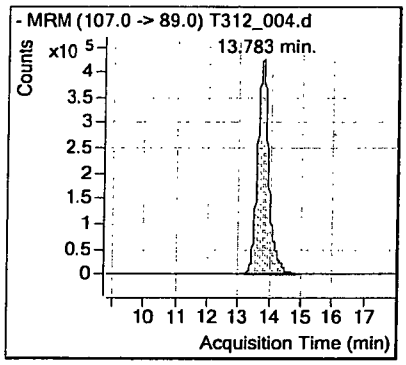


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.800	1023403	10671196
Perchlorate_102	PER_IS_108	13.827	337305	10671196

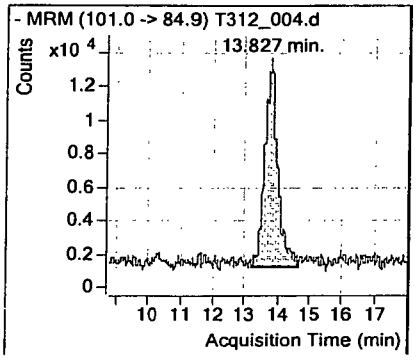
Perchlorate_100

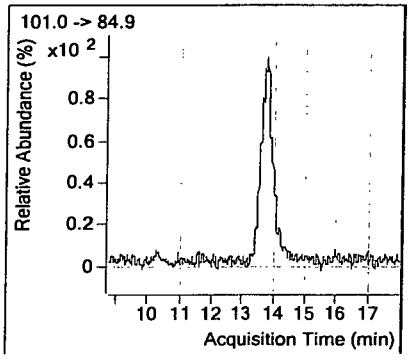


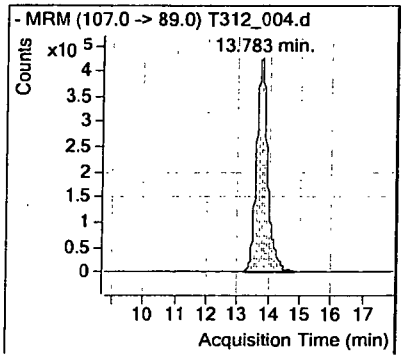




Perchlorate_102







Data File ID: T312_005.d

Date Injected : 03/12/15

Time Injected : 18:29

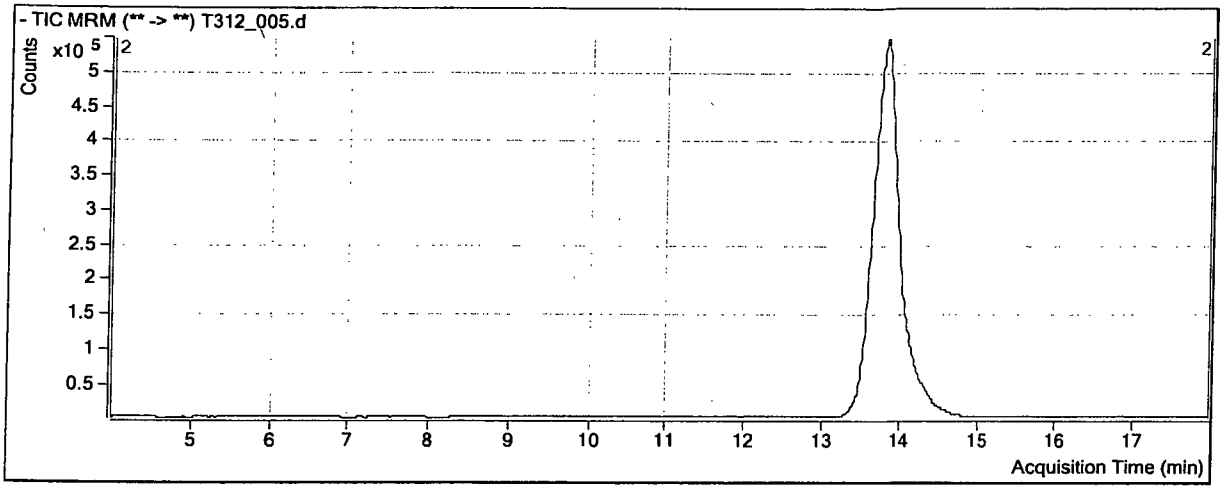
Sample ID : PERCHLORATE 0.001 ug/ml 11/11/14

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

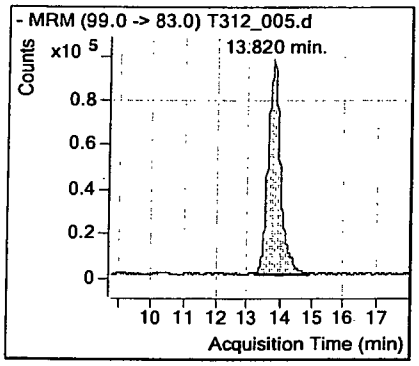
Quantitative Analysis Sample Report

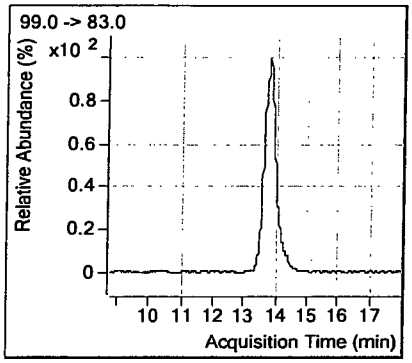
Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_005.d	**Sample Name**	PERCHLORATE 0.001 ug/ml 11/11/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	18:29
ClientID	NA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

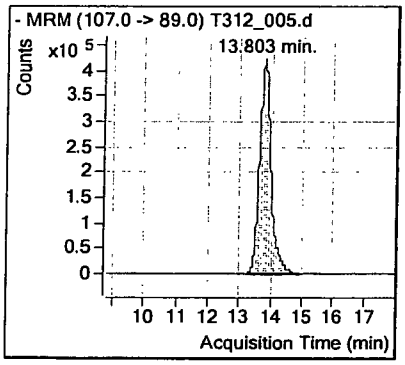


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.820	2483393	10651968
Perchlorate_102	PER_IS_108	13.827	781617	10651968

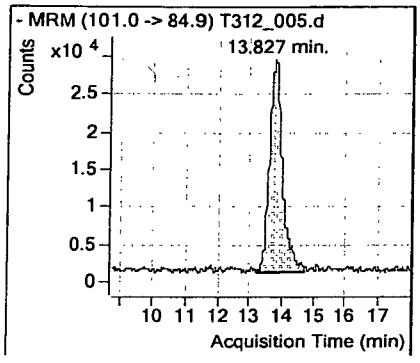
Perchlorate_100

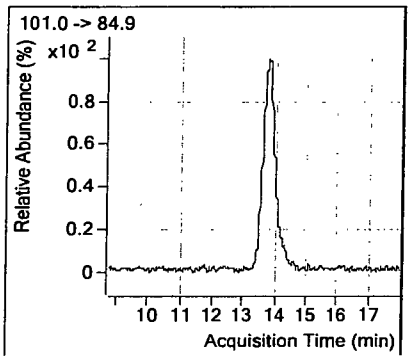


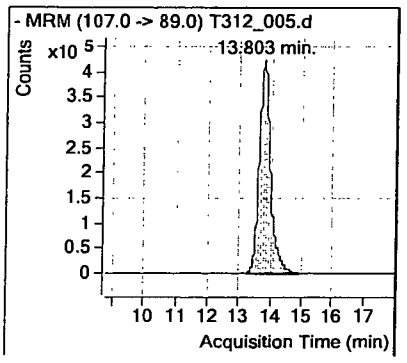




Perchlorate_102







Data File ID: T312_006.d

Date Injected : 03/12/15

Time Injected : 18:48

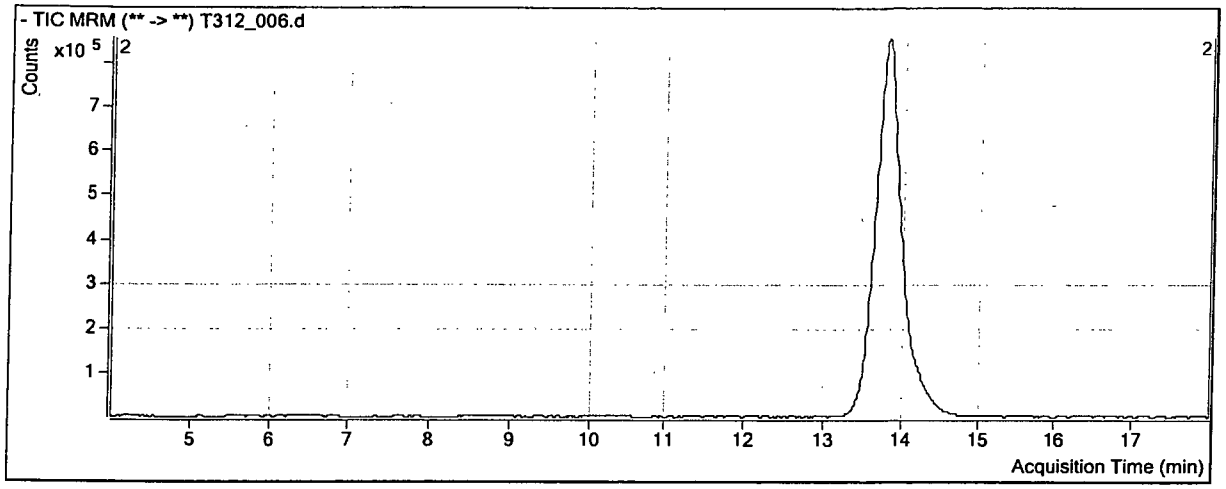
Sample ID : PERCHLORATE 0.002 ug/ml 11/11/14

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

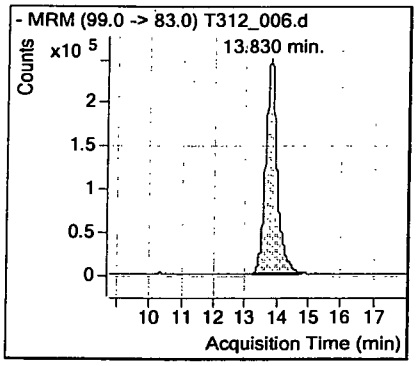
Quantitative Analysis Sample Report

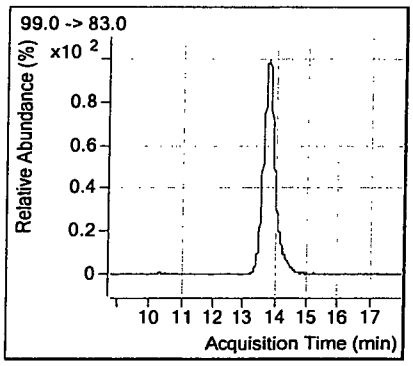
Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_006.d	**Sample Name**	PERCHLORATE 0.002 ug/ml 11/11/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	18:48
ClientID	NA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

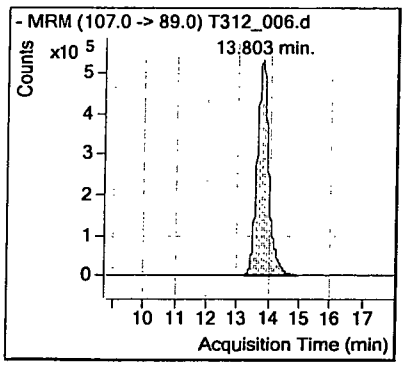


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.830	6351752	13529952
Perchlorate_102	PER_IS_108	13.817	1920912	13529952

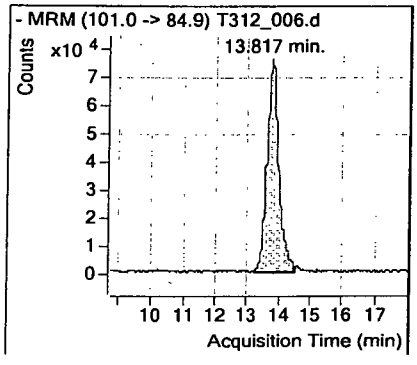
Perchlorate_100

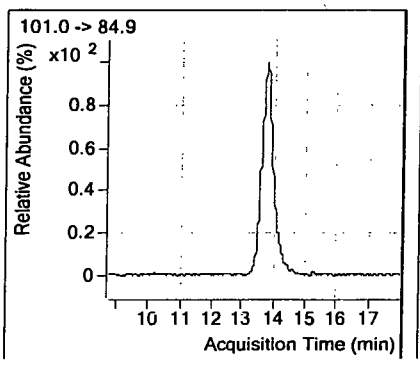


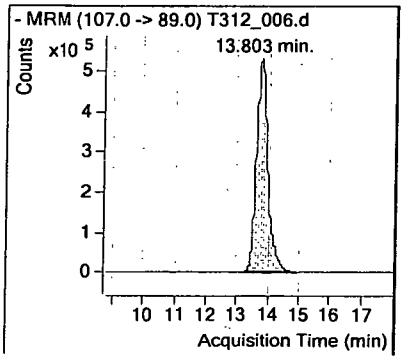




Perchlorate_102







Data File ID: T312_007.d

Date Injected : 03/12/15

Time Injected : 19:07

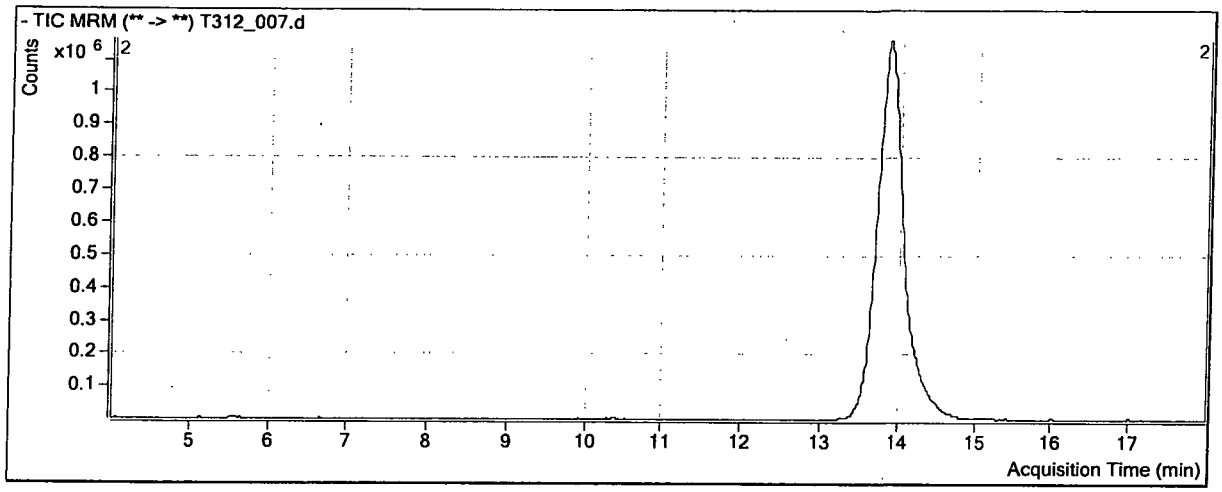
Sample ID : PERCHLORATE 0.005 ug/ml 11/11/14

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

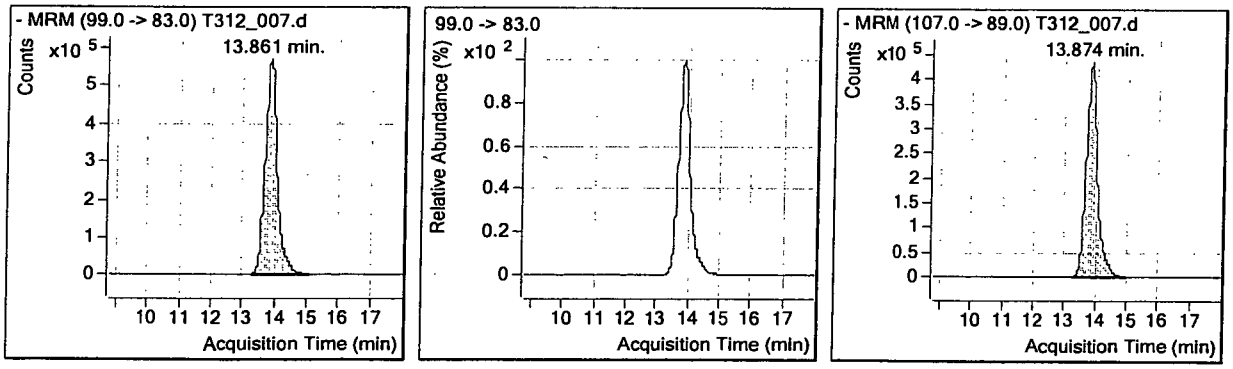
Quantitative Analysis Sample Report

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

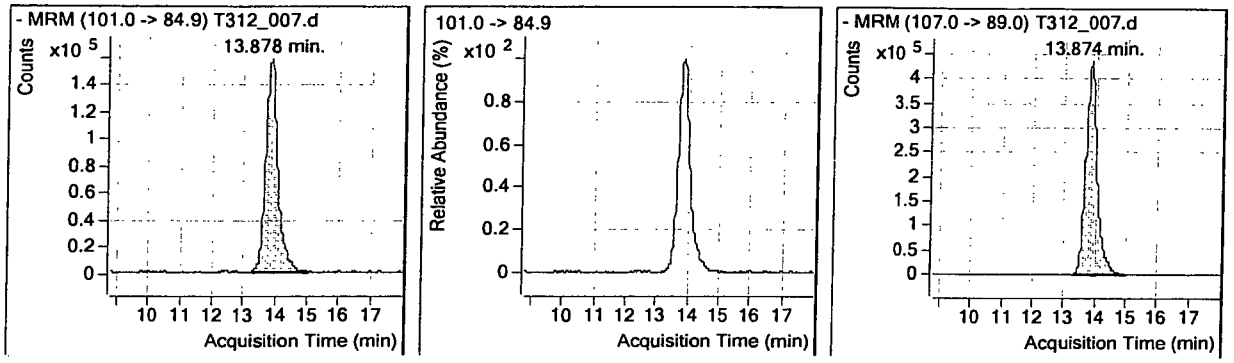


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.861	14499255	11028880
Perchlorate_102	PER_IS_108	13.878	4209044	11028880

Perchlorate_100



Perchlorate_102



Data File ID: T312_008.d

Date Injected : 03/12/15

Time Injected : 19:25

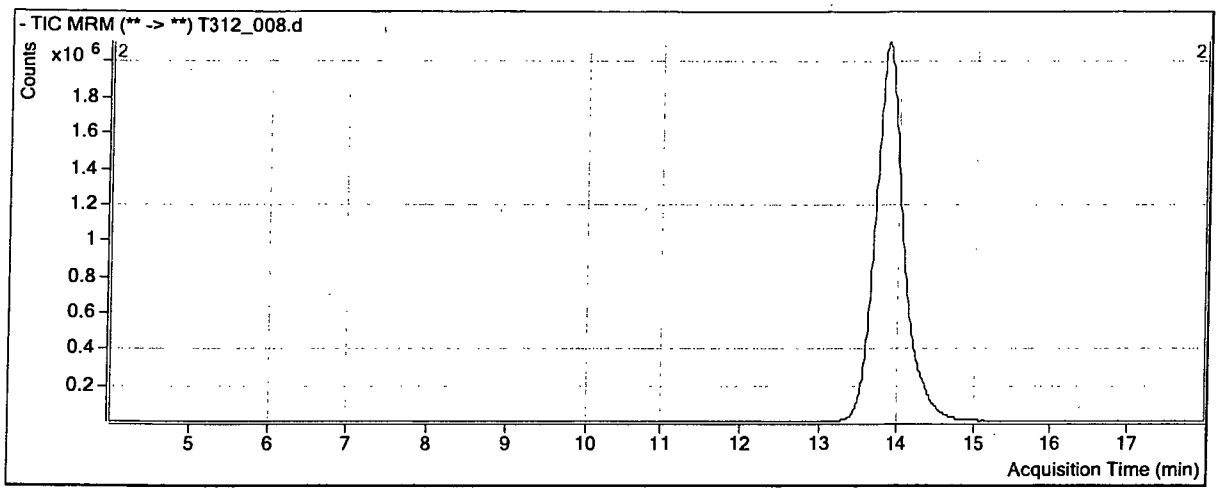
Sample ID : PERCHLORATE 0.010 ug/ml 08/27/14

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

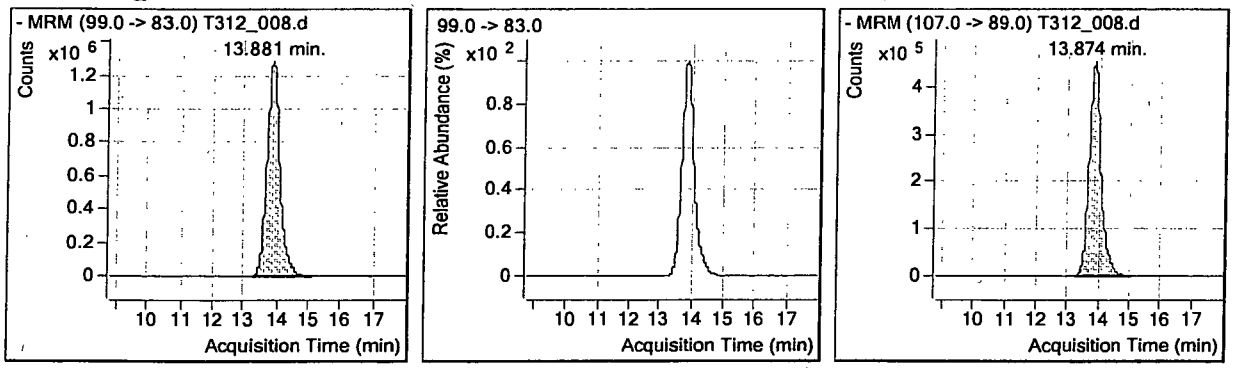
Quantitative Analysis Sample Report

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

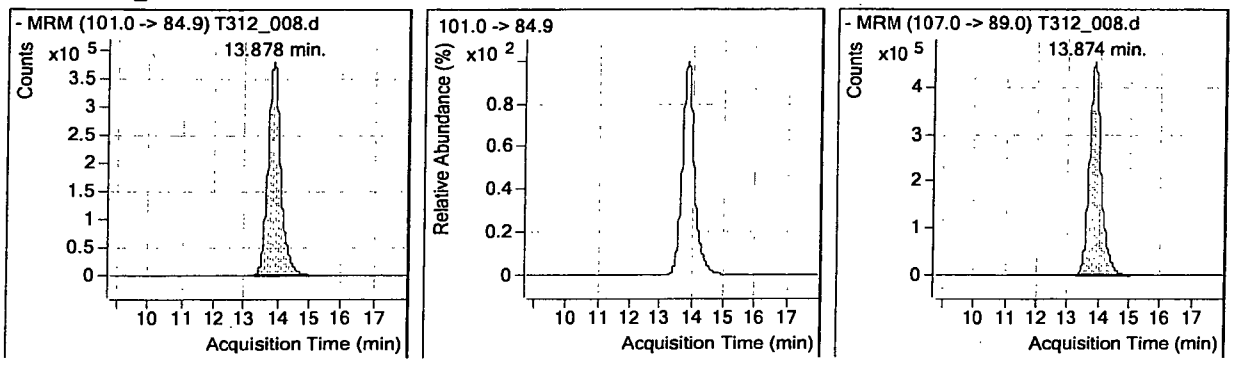


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.881	34223790	11973072
Perchlorate_102	PER_IS_108	13.878	9985270	11973072

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

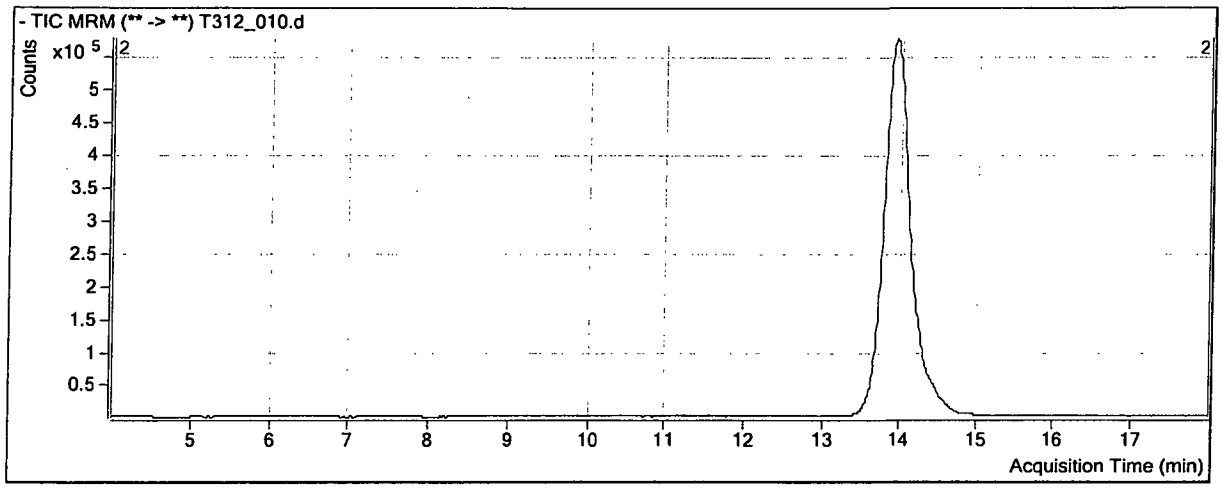
Sample ID : PER_SS 0.0004 ug/ml 11/11/14

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

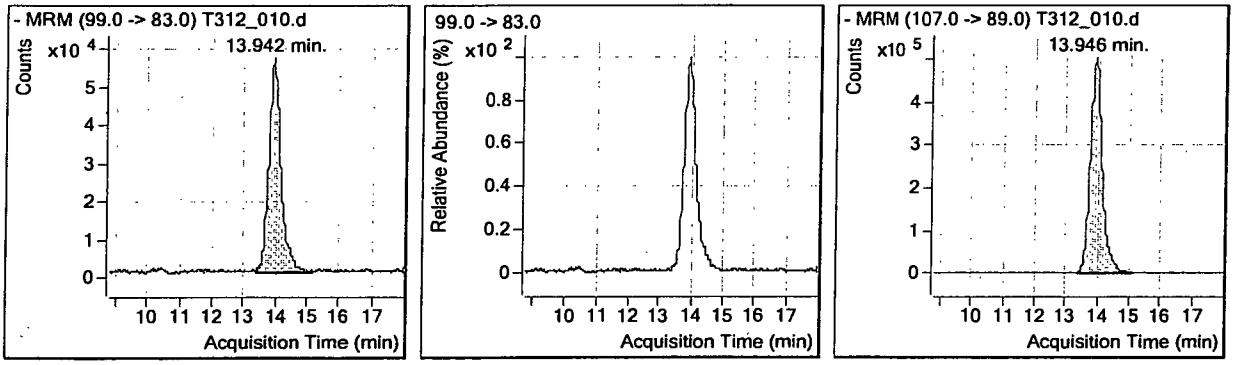
Quantitative Analysis Sample Report

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

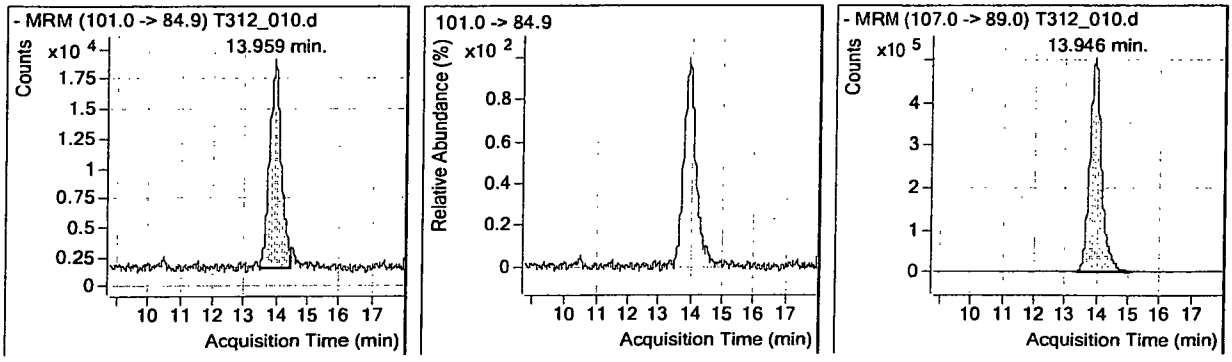


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.942	1472839	12977621
Perchlorate_102	PER_IS_108	13.959	440675	12977621

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

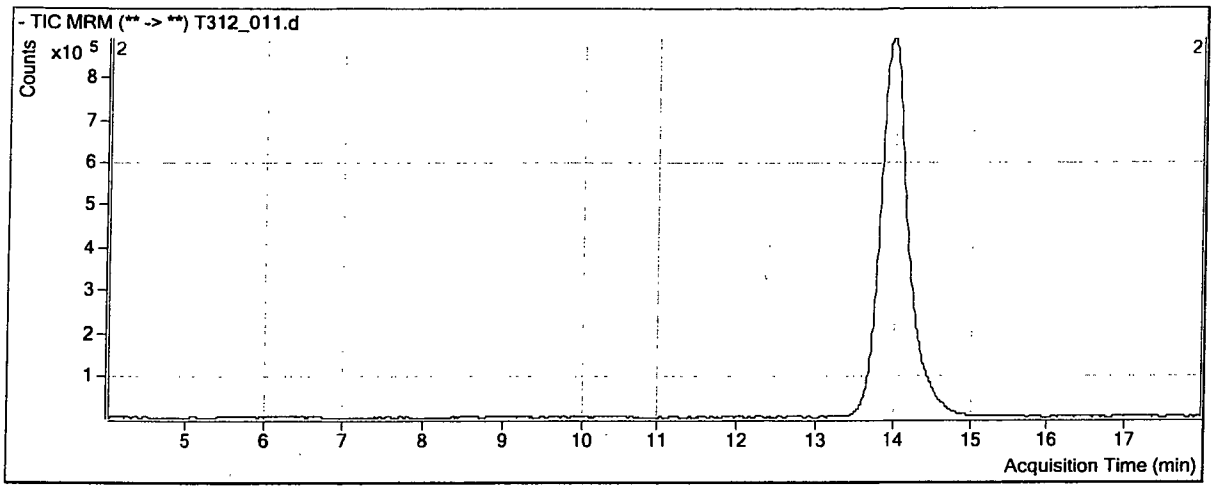
Sample ID : PER_SS 0.002 ug/ml 11/11/14

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

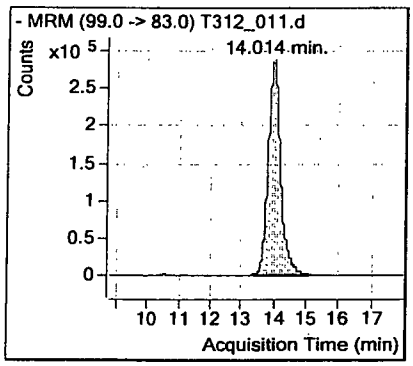
Quantitative Analysis Sample Report

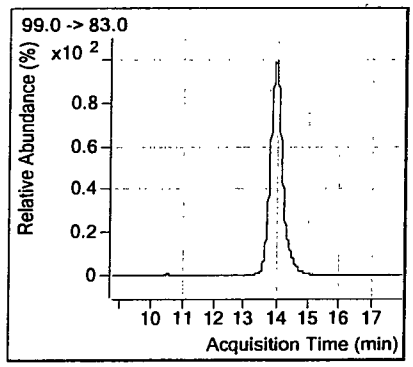
Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_011.d	**Sample Name**	PER_SS 0.002 ug/ml 11/11/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	20:21
ClientID	NA	**Inj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

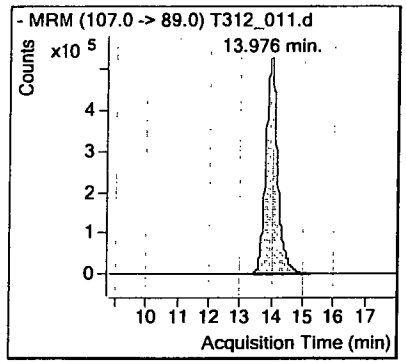


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.014	7468678	13747369
Perchlorate_102	PER_IS_108	14.000	2222387	13747369

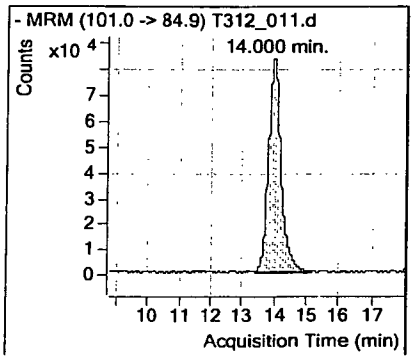
Perchlorate_100

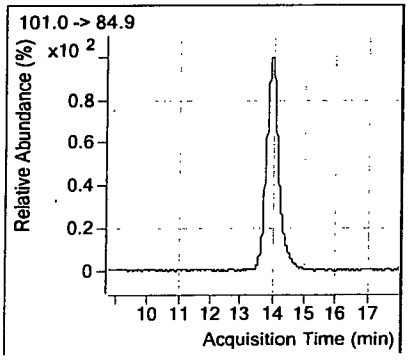


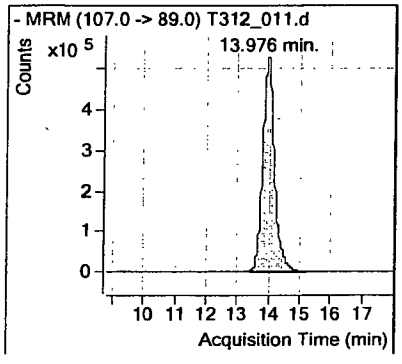




Perchlorate_102







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

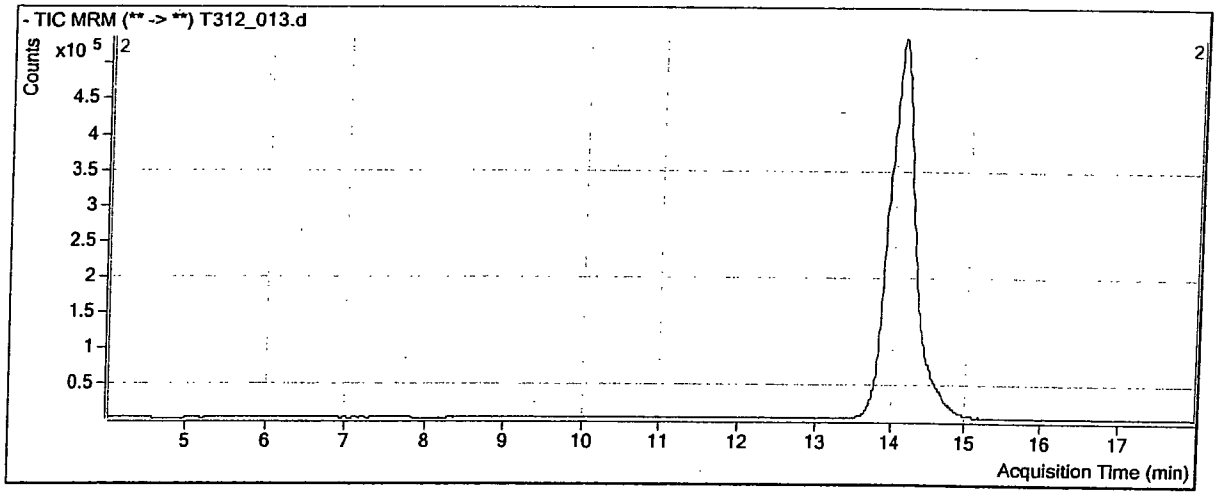
Sample ID : PER_CCV_1 0.0004 ug/ml 11/11/14

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

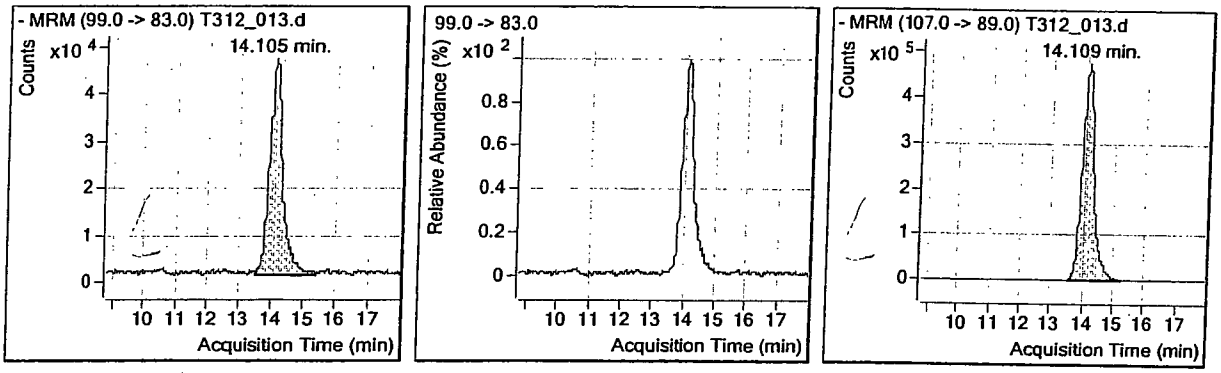
Quantitative Analysis Sample Report

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

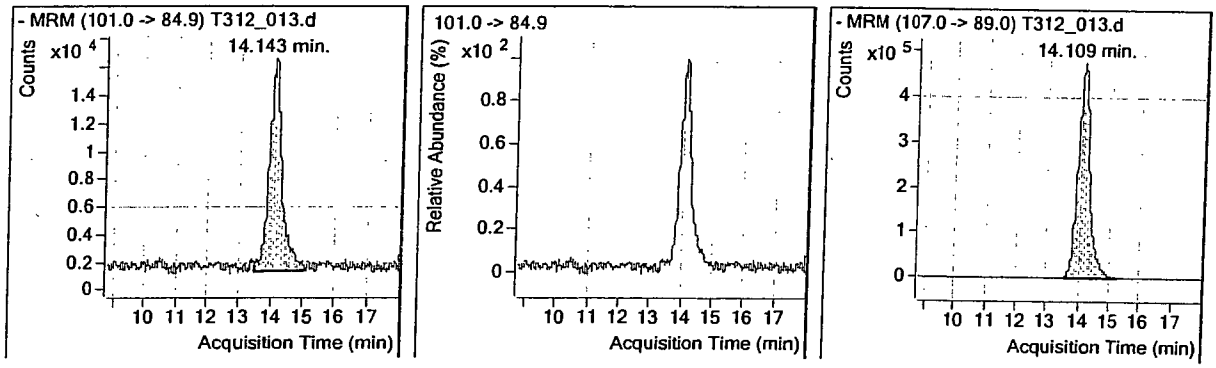


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.105	1267031	12323795
Perchlorate_102	PER_IS_108	14.143	410558	12323795

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

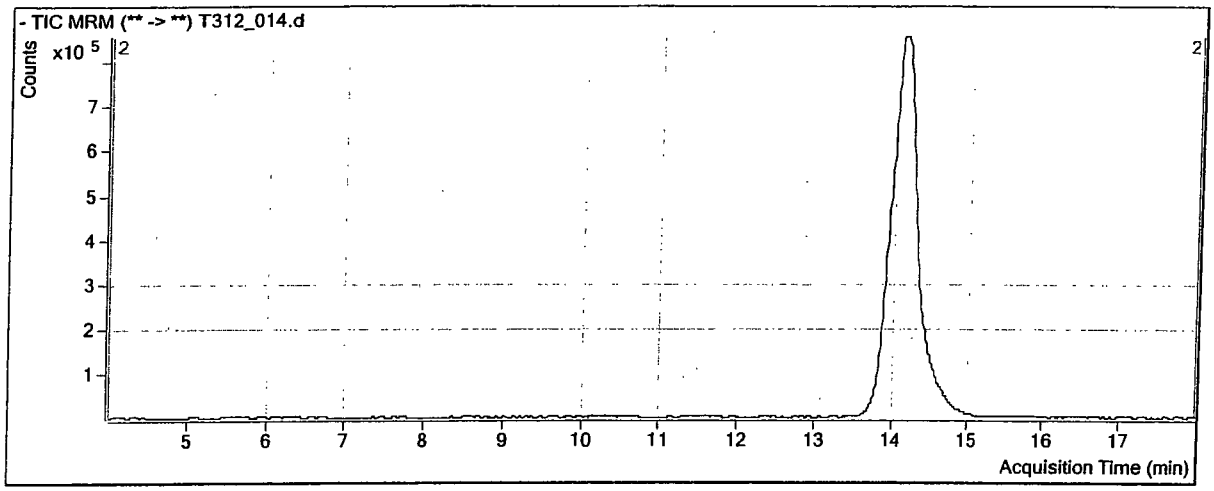
Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T312_014.d

	Date (s) of Analysis From:03/12/15 To:03/12/15 Time (s) of Analysis From:17:33 To:20:40				Date of Analysis: 03/12/15 Time of Analysis: 21:17 Standard Id: PER_CCV_1 (Standard) 0.002 ug/ml			
COMPOUND	RT	RT WINDOW FROM	TO	AVERAGE RELATIVE RESPONSE FACTOR	RT	CALCULATED RELATIVE RESPONSE FACTOR	QNT Y/N	%D
Perchlorate_83	13.50	13.40	13.60	1.270255	14.15	1.271875	N	0.1
Perchlorate_85	13.54	13.44	13.64	0.391605	14.12	0.385509	N	1.6

ILE ID : TQCK1214.RFB

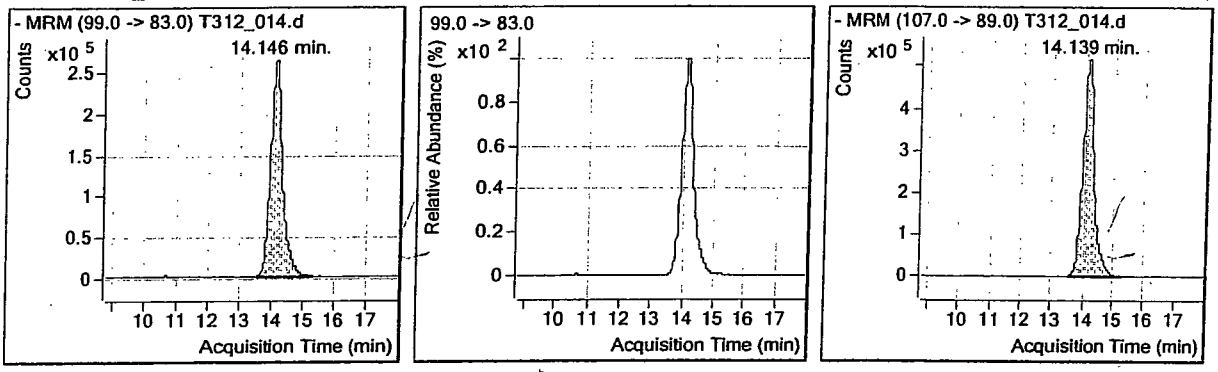
Quantitative Analysis Sample Report

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

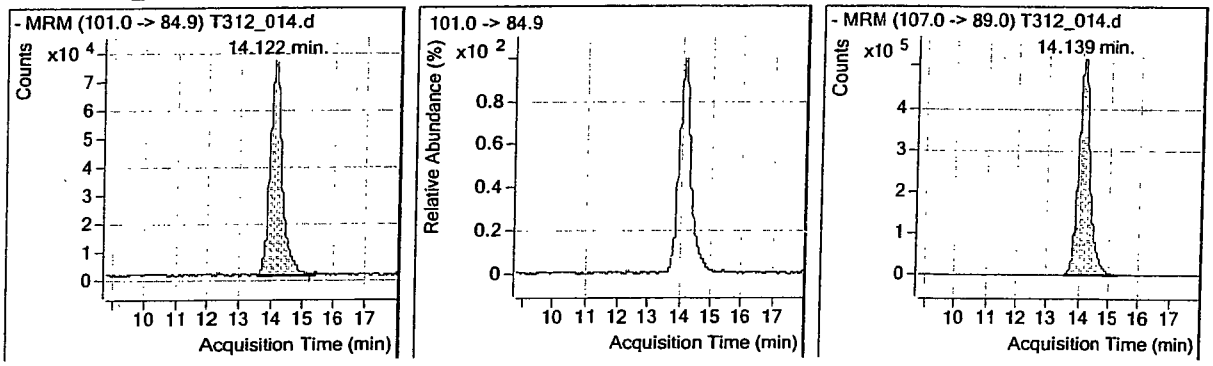


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.146	6907110	13576634
Perchlorate_102	PER_IS_108	14.122	2093567	13576634

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T621_002.d

	Date (s) of Analysis From:03/12/15 To:06/21/15 Time (s) of Analysis From:17:52 To:16:40				Date of Analysis: 06/21/15 Time of Analysis: 16:58 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	13.72	1.290144	N	1.6
Perchlorate_85	13.70	13.60	13.80	0.391605	13.65	0.466333	N	19.1

FILE ID : TQCK2102.RFB

Data File ID: T621_002.d

Date Injected : 06/21/15

Time Injected : 16:58

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

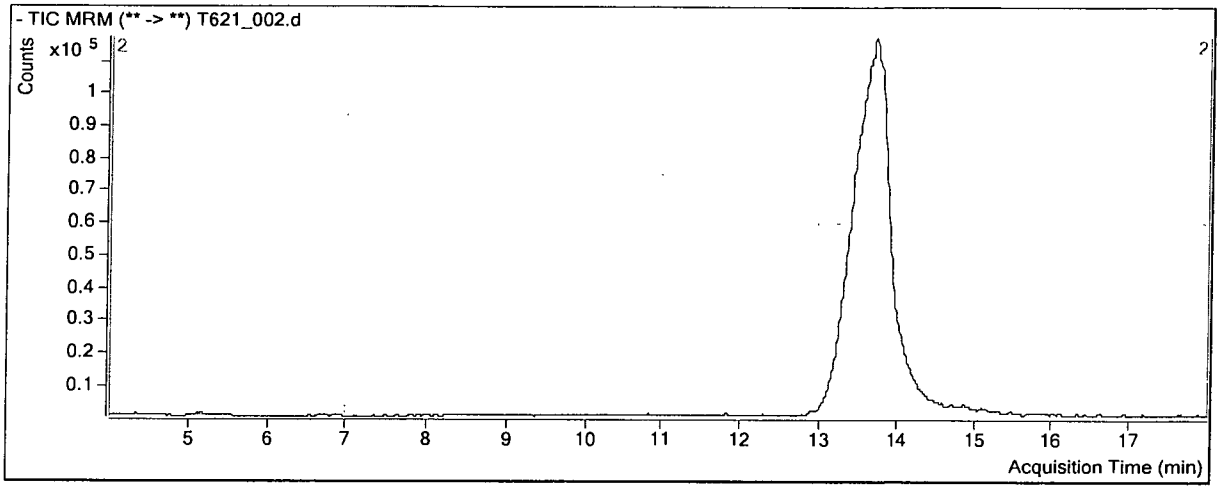
Client ID : NA

Retention Time		Area Count Response	Compound_ID Product Ion
13.701		3616272	PER_IS_89
13.718		373241	Perchlorate_83
13.654	*	134911	Perchlorate_85

* MANUAL INTEGRAION

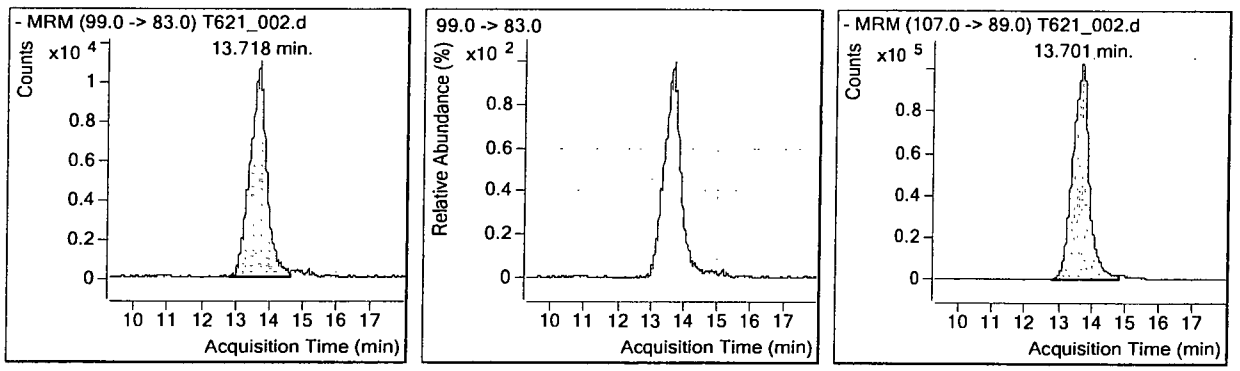
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150621\QuantResults\150621_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T621_002.d	**Sample Name**	PER_CCV 0.0004 ug/ml 06/11/15
Sample Type	Sample	**Acq_Date**	06/21/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	16:58
ClientID	NA	**Inj Vol**	20

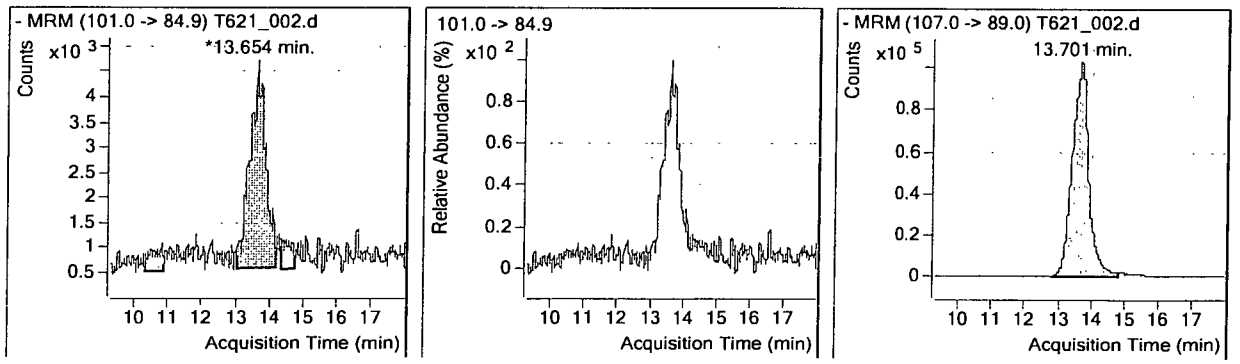


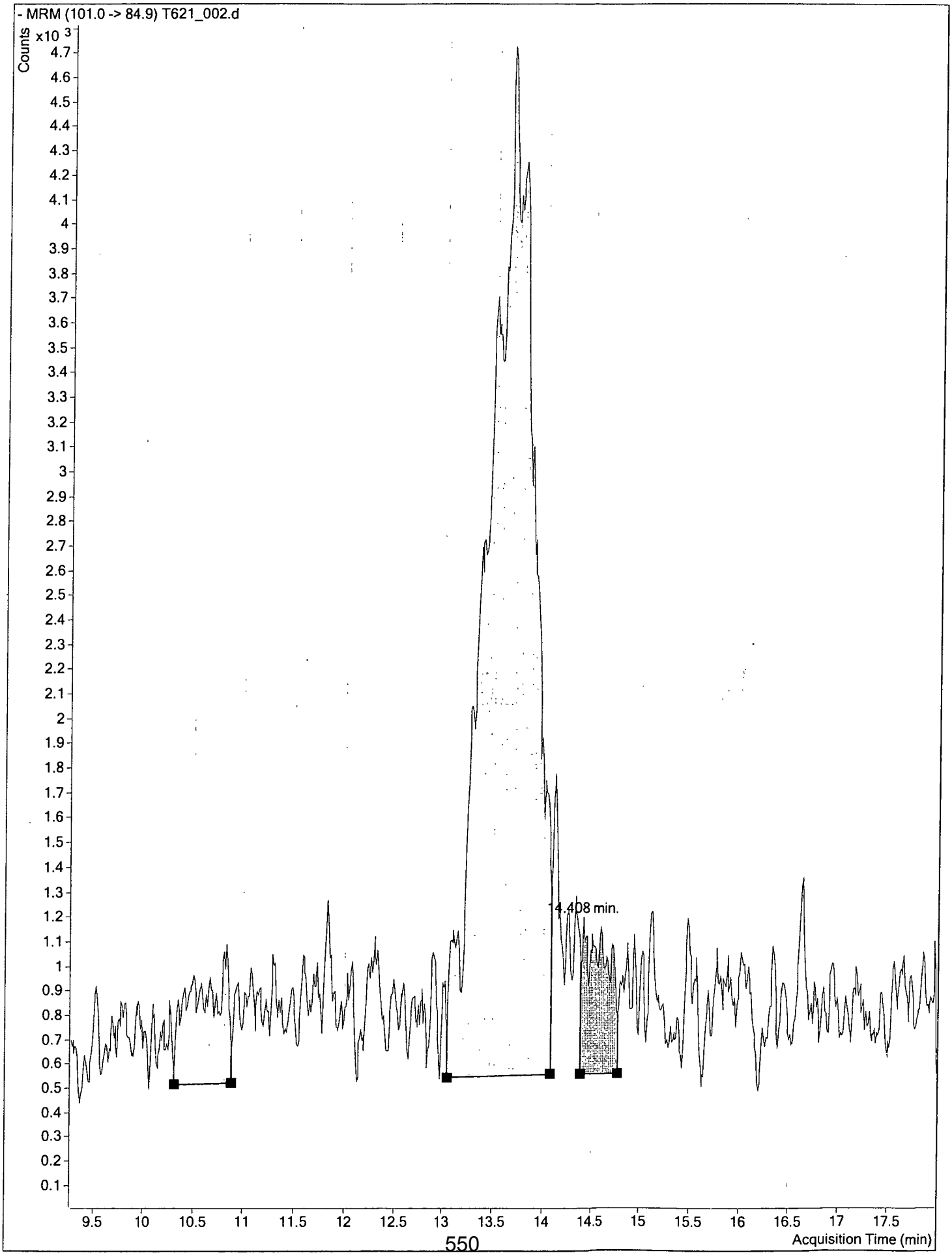
Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108		13.718	373241	3616272	
Perchlorate_102	PER_IS_108	*	13.654	134911	3616272	* MANUAL INT

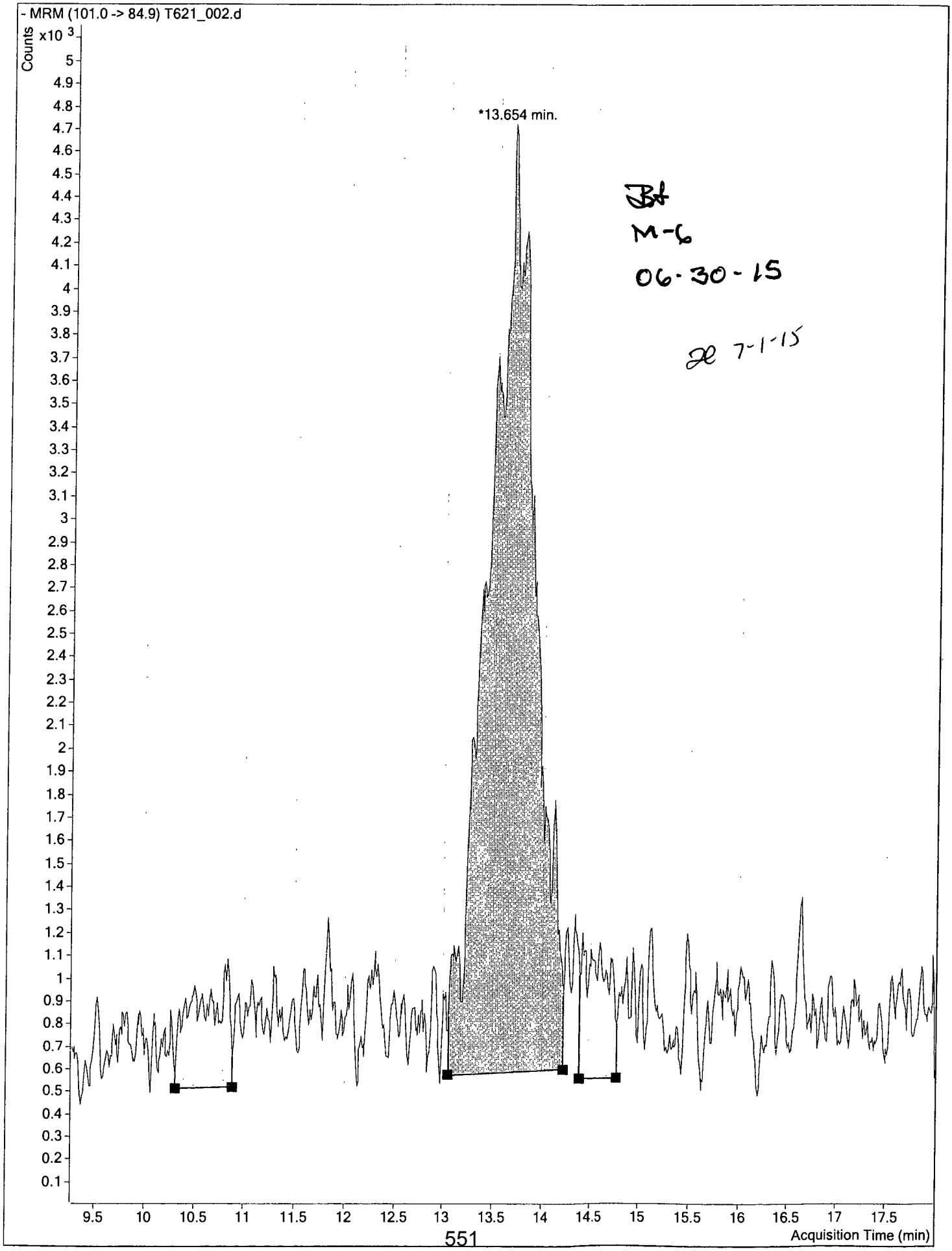
Perchlorate_100



Perchlorate_102




- MRM (101.0 -> 84.9) T621_002.d
Counts
x10 3
4.7
4.6
4.5
4.4
4.3
4.2
4.1
4
3.9
3.8
3.7
3.6
3.5
3.4
3.3
3.2
3.1
3
2.9
2.8
2.7
2.6
2.5
2.4
2.3
2.2
2.1
2
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
14.408 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 (101.0 -> 84.9) T621_002.d
Counts
x10 3
*13.654 min.
JB
M-6
06-30-15
JB 7-1-15
Acquisition Time (min)

CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T621_003.d

	Date (s) of Analysis From:03/12/15 To:06/21/15 Time (s) of Analysis From:17:52 To:16:40				Date of Analysis: 06/21/15 Time of Analysis: 17:17 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	14.25	1.178310	N	7.2
Perchlorate_85	13.70	13.60	13.80	0.391605	14.28	0.377601	N	3.6

FILE ID : TQCK2103.RFB

Data File ID: T621_003.d

Date Injected : 06/21/15

Time Injected : 17:17

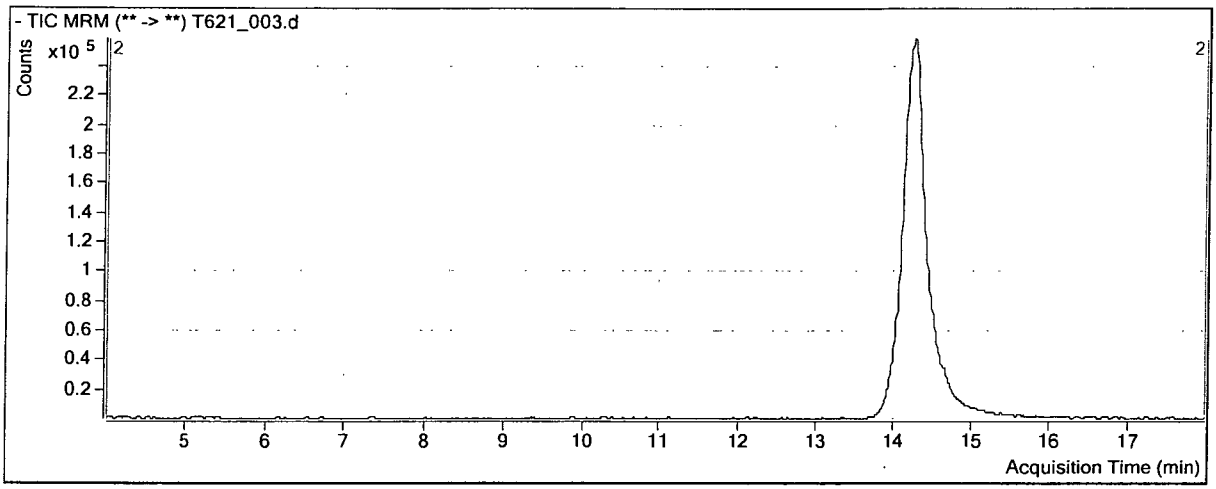
Sample ID : PER_CCV 0.002 ug/ml 06/11/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
14.262	3612259	PER_IS_89
14.248	1702545	Perchlorate_83
14.285	545597	Perchlorate_85

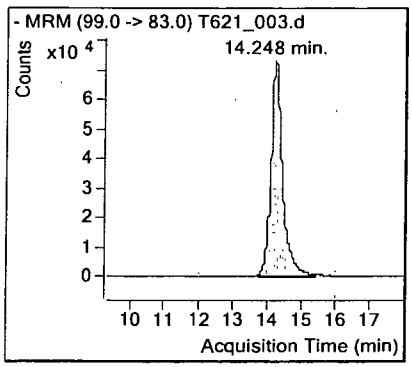
Quantitative Analysis Sample Report

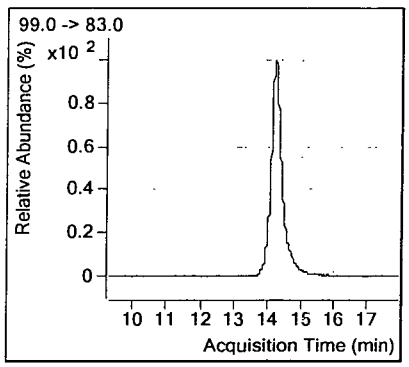
Batch Data Path	D:\MassHunter\Data\150621\QuantResults\150621_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T621_003.d	**Sample Name**	PER_CCV 0.002 ug/ml 06/11/15
Sample Type	Sample	**Acq_Date**	06/21/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	17:17
ClientID	NA	**Inj Vol**	20

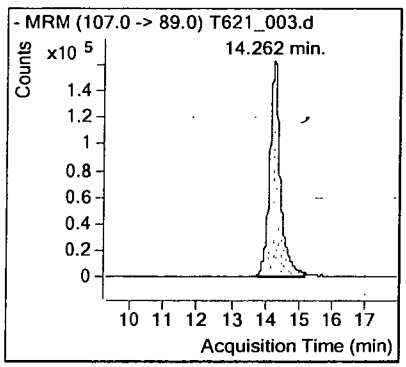


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.248	1702545	3612259
Perchlorate_102	PER_IS_108	14.285	545597	3612259

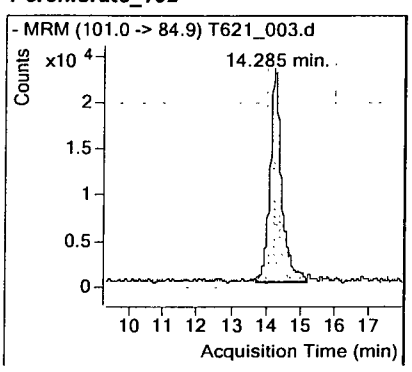
Perchlorate_100

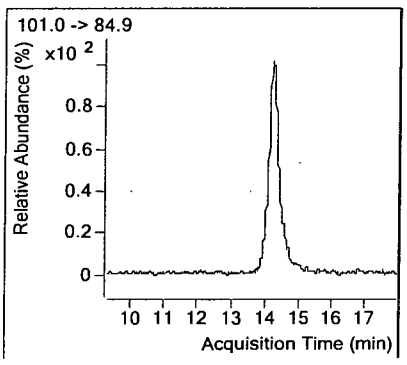


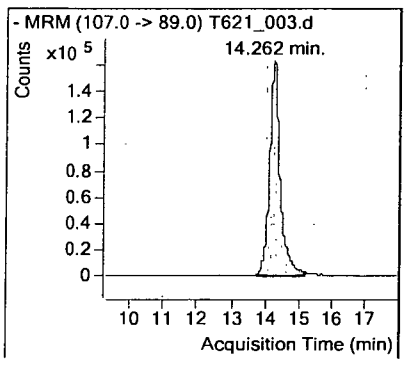




Perchlorate_102







CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T621_050.d

	Date (s) of Analysis From:03/12/15 To:06/22/15 Time (s) of Analysis From:17:52 To:7:15				Date of Analysis: 06/22/15 Time of Analysis: 7:53 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	14.00	1.287832	N	1.4
Perchlorate_85	13.70	13.60	13.80	0.391605	13.99	0.465109	N	18.8

FILE ID : TQCK2150.RFB

Data File ID: T621_050.d

Date Injected : 06/22/15

Time Injected : 7:53

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

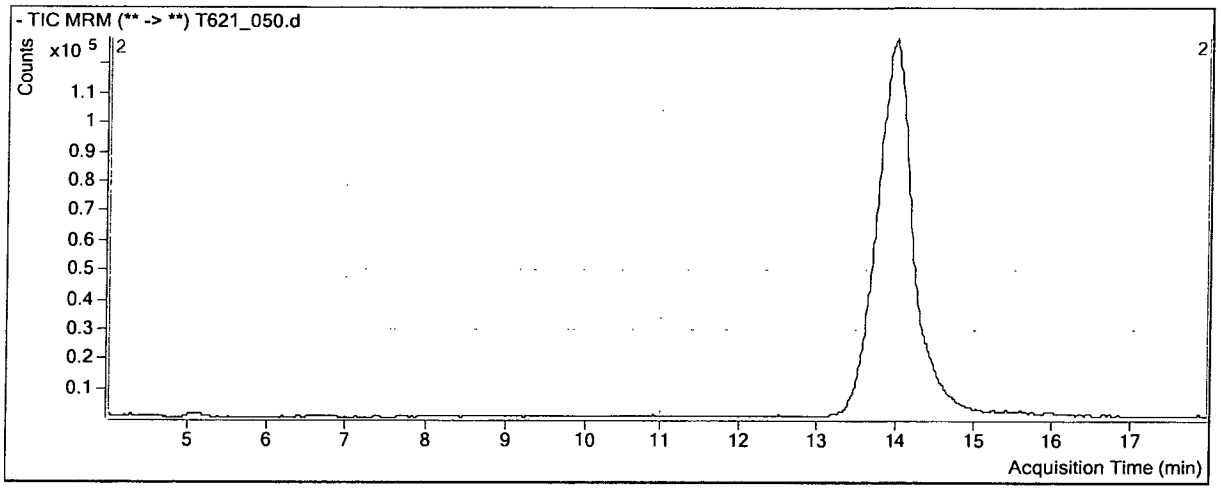
Client ID : NA

Retention Time		Area Count Response	Compound_ID Product Ion
14.007		3697116	PER_IS_89
14.003		380901	Perchlorate_83
13.900	*	137565	Perchlorate_85

* MANUAL INTEGRAION

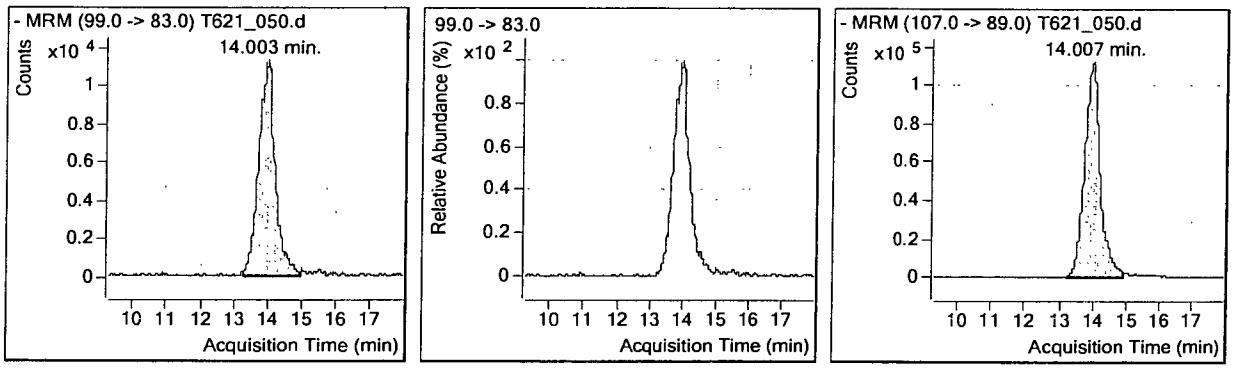
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150621\QuantResults\150621_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T621_050.d	**Sample Name**	PER_CCV 0.0004 ug/ml 06/11/15
Sample Type	Sample	**Acq_Date**	06/22/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	7:53
ClientID	NA	**Inj Vol**	20

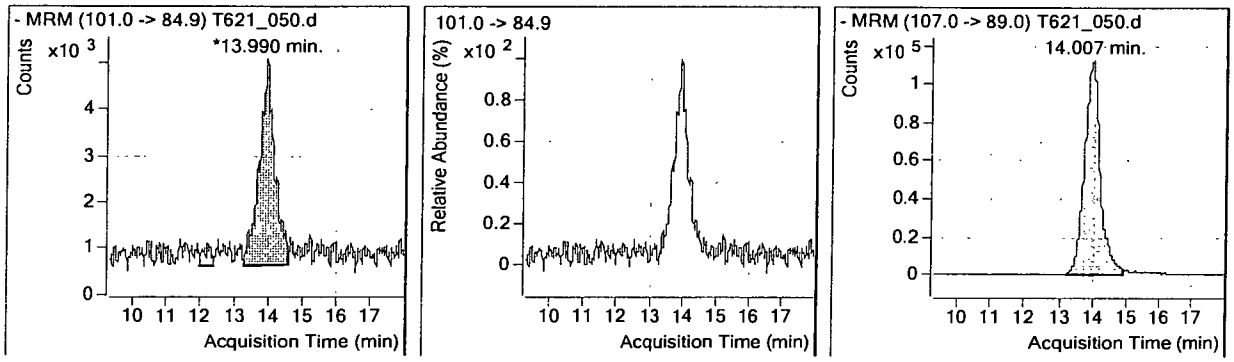


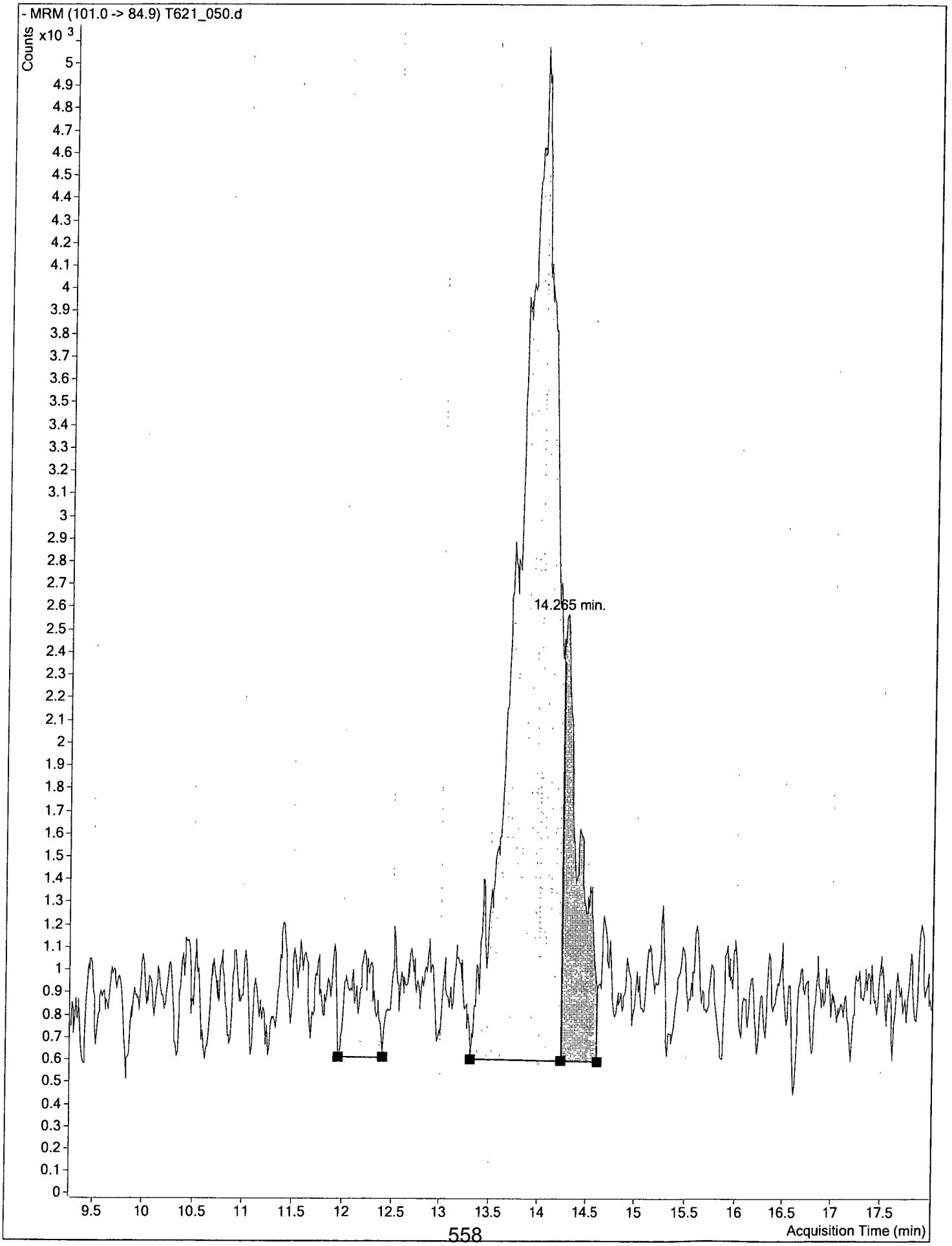
Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108		14.003	380901	3697116	
Perchlorate_102	PER_IS_108	*	13.990	137565	3697116	* MANUAL INT

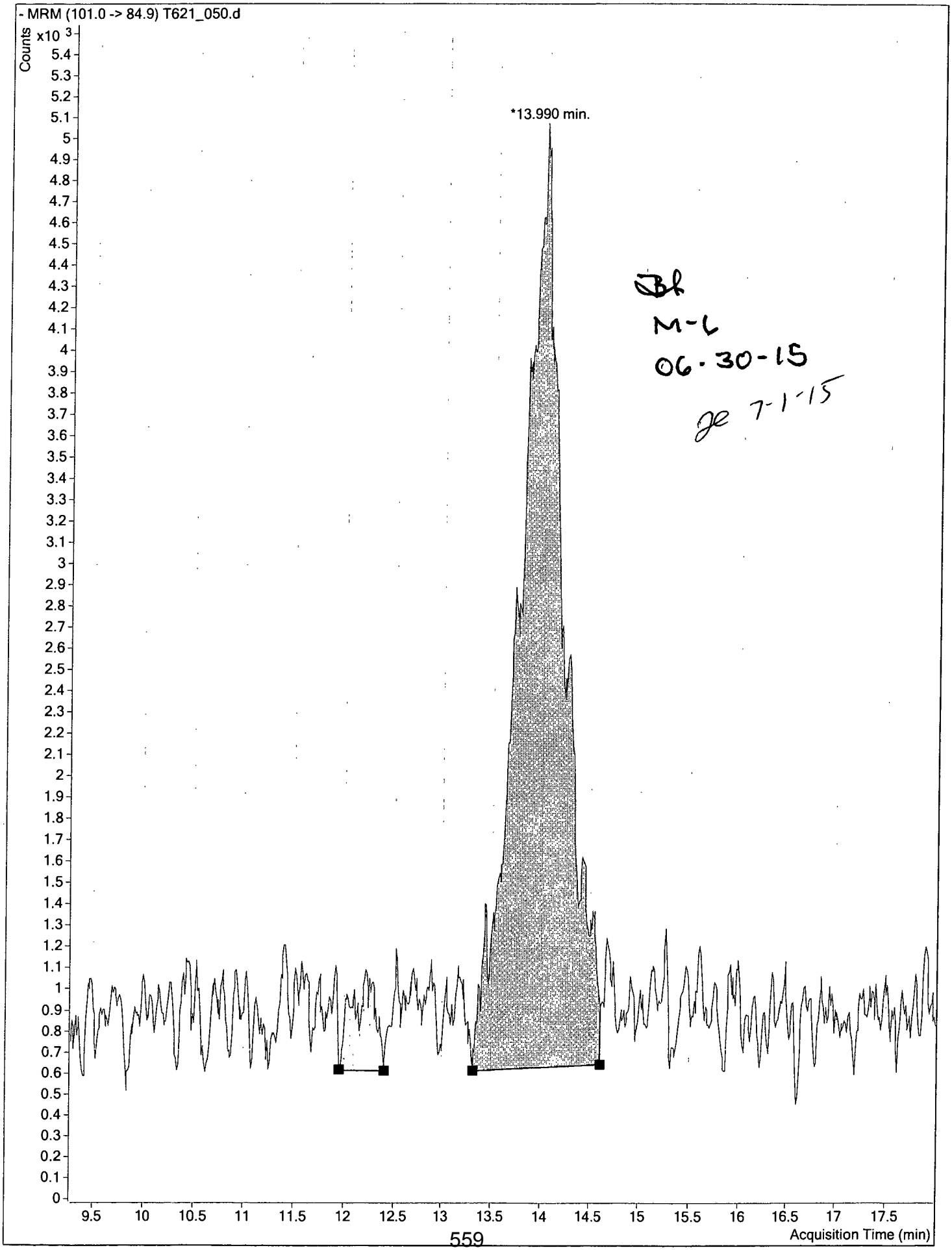
Perchlorate_100



Perchlorate_102




- MRM (101.0 -> 84.9) T621_050.d
Counts
x10 3
14.265 min.
Acquisition Time (min)


- MRM (101.0 -> 84.9) T621_050.d
Counts
x10 3
*13.990 min.
Acquisition Time (min)
M-6
06-30-15
7-1-15

CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T621_051.d

	Date (s) of Analysis From:03/12/15 To:06/22/15 Time (s) of Analysis From:17:52 To:7:15				Date of Analysis: 06/22/15 Time of Analysis: 8:11 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	14.45	1.177753	N	7.3
Perchlorate_85	13.70	13.60	13.80	0.391605	14.44	0.363754	N	7.1

FILE ID : TQCK2151.RFB

Data File ID: T621_051.d

Date Injected : 06/22/15

Time Injected : 8:11

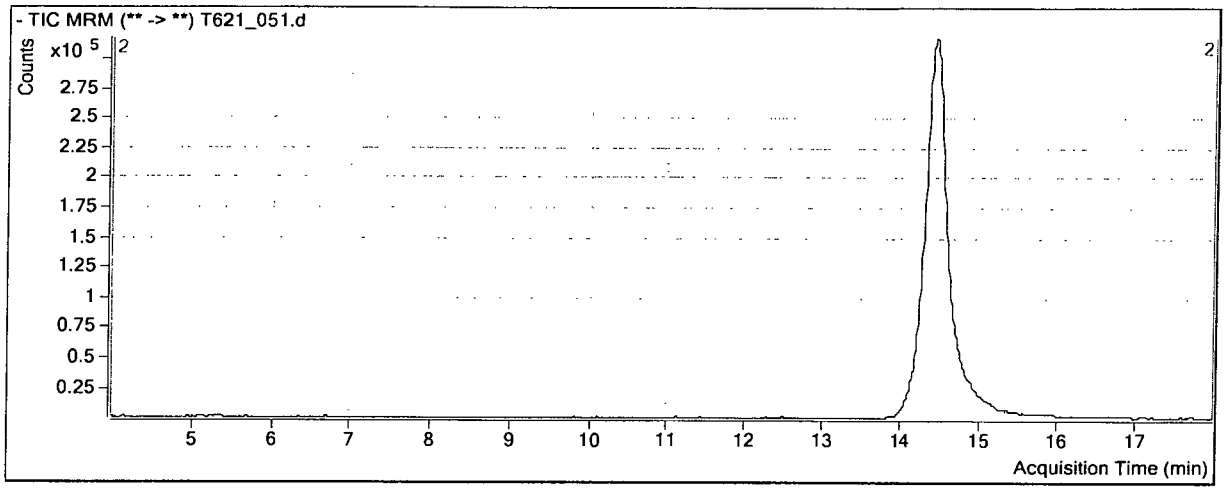
Sample ID : PER_CCV 0.002 ug/ml 06/11/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
14.455	4265032	PER_IS_89
14.452	2009262	Perchlorate_83
14.438	620569	Perchlorate_85

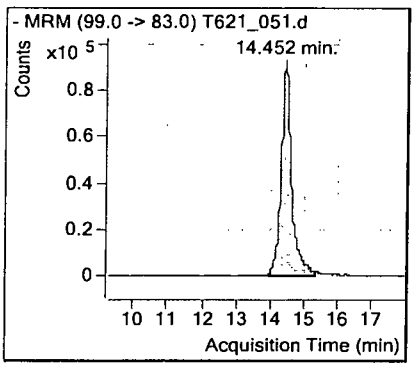
Quantitative Analysis Sample Report

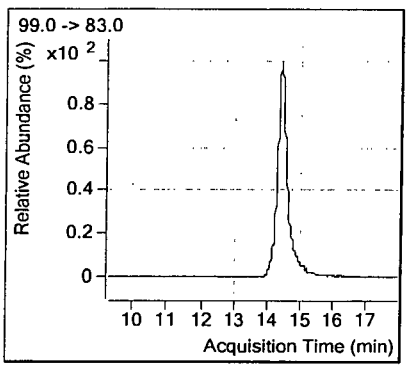
Batch Data Path	D:\MassHunter\Data\150621\QuantResults\150621_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T621_051.d	**Sample Name**	PER_CCV 0.002 ug/ml 06/11/15
Sample Type	Sample	**Acq_Date**	06/22/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	8:11
ClientID	NA	**Inj Vol**	20

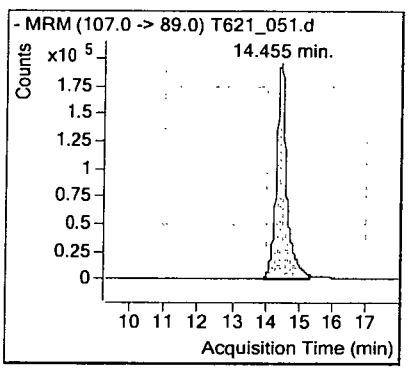


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.452	2009262	4265032
Perchlorate_102	PER_IS_108	14.438	620569	4265032

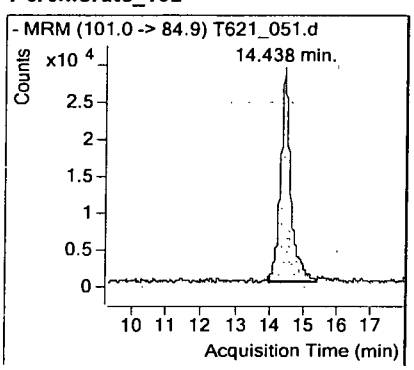
Perchlorate_100

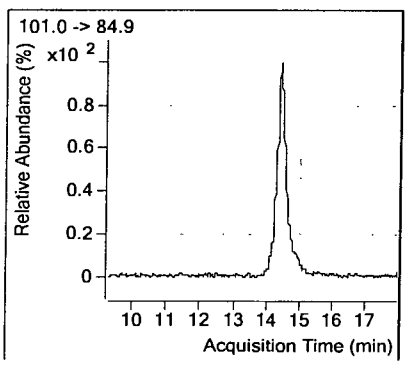


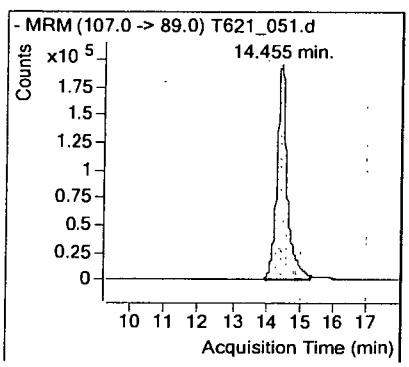




Perchlorate_102







CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T621_062.d

	Date (s) of Analysis From:03/12/15 To:06/22/15 Time (s) of Analysis From:17:52 To:10:59				Date of Analysis: 06/22/15 Time of Analysis: 11:36 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	14.48	1.223771	N	3.7
Perchlorate_85	13.70	13.60	13.80	0.391605	14.45	0.473168	N	20.8

FILE ID : TQCK2162.RFB

Data File ID: T621_062.d

Date Injected : 06/22/15

Time Injected : 11:36

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

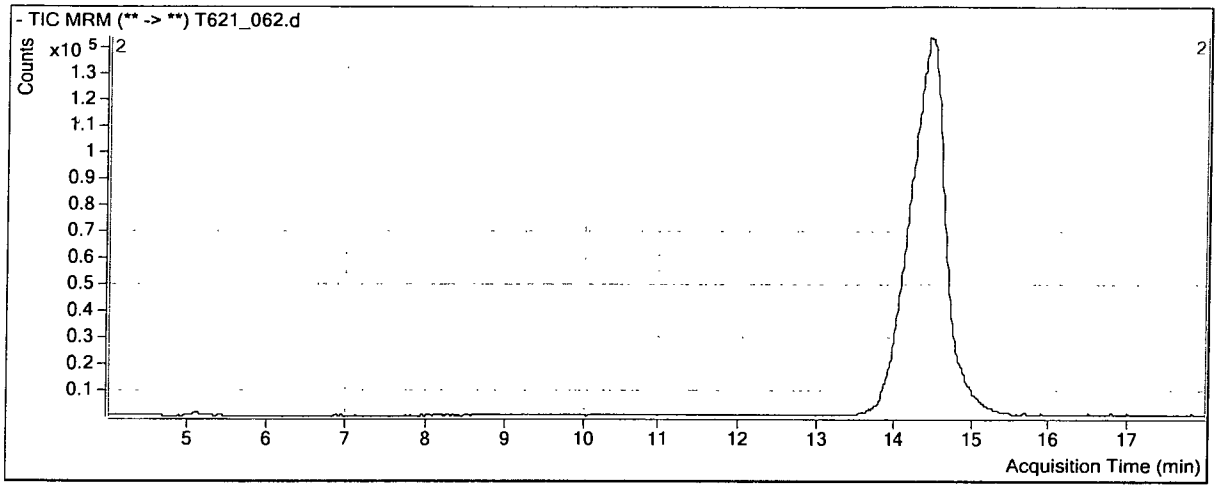
Client ID : NA

Retention Time		Area Count Response	Compound_ID Product Ion
14.445		4138039	PER_IS_89
14.482		405121	Perchlorate_83
14.448	*	156639	Perchlorate_85

* MANUAL INTEGRAION

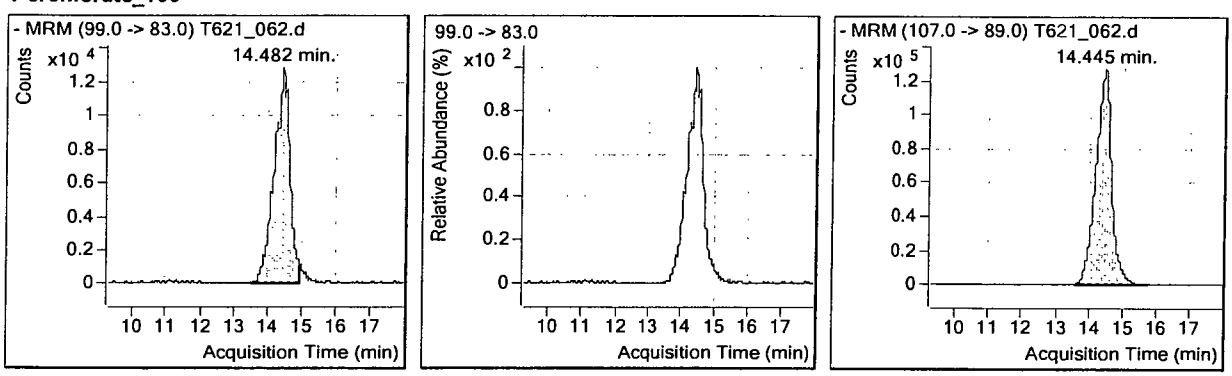
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150621\QuantResults\150621_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T621_062.d	**Sample Name**	PER_CCV 0.0004 ug/ml 06/11/15
Sample Type	Sample	**Acq_Date**	06/22/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	11:36
ClientID	NA	**Inj Vol**	20

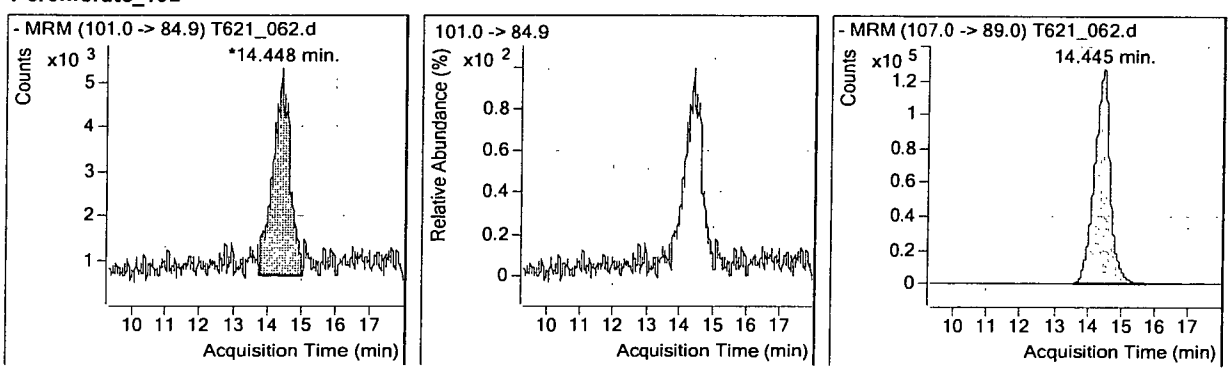


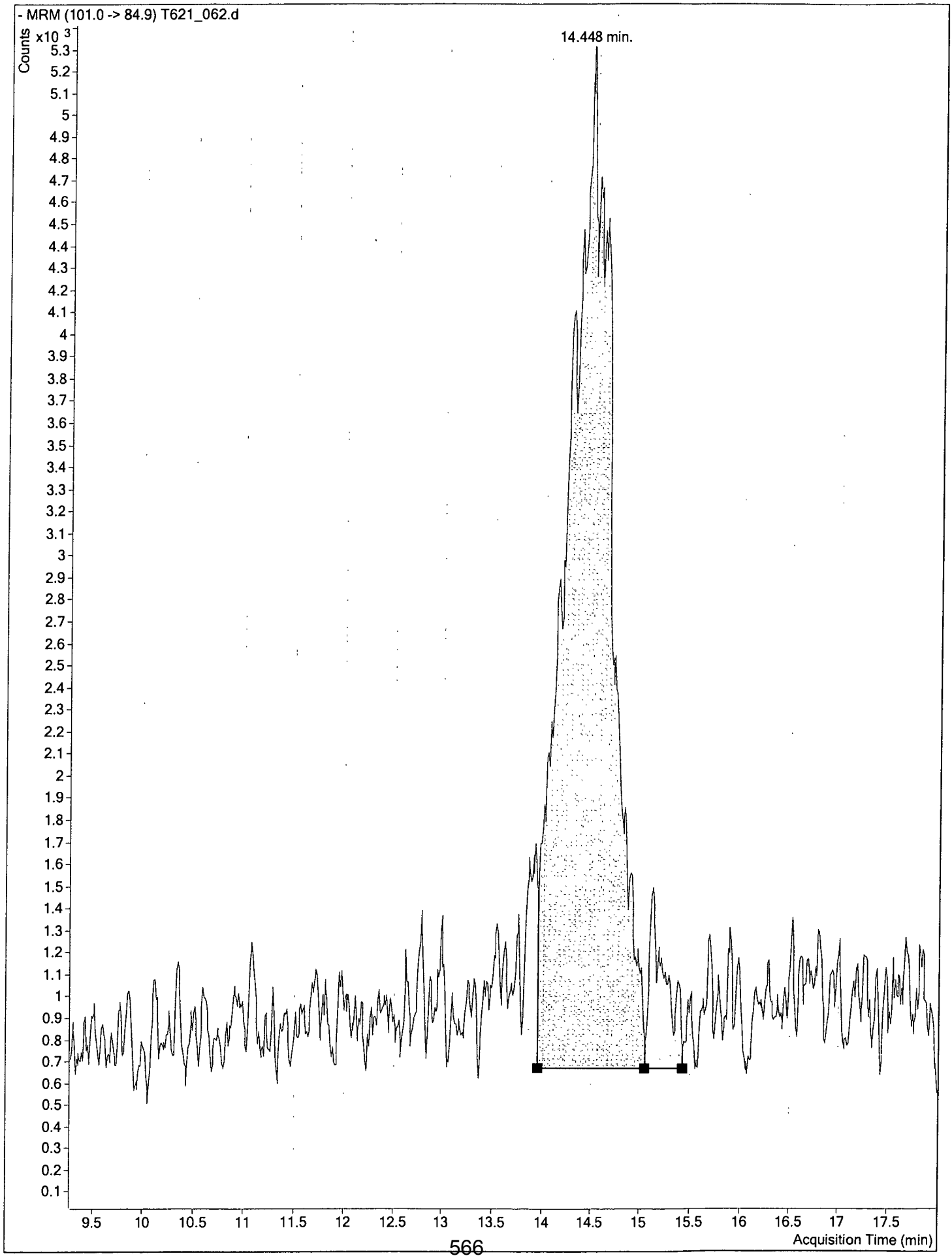
Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108		14.482	405121	4138039	
Perchlorate_102	PER_IS_108	*	14.448	156639	4138039	* MANUAL INT

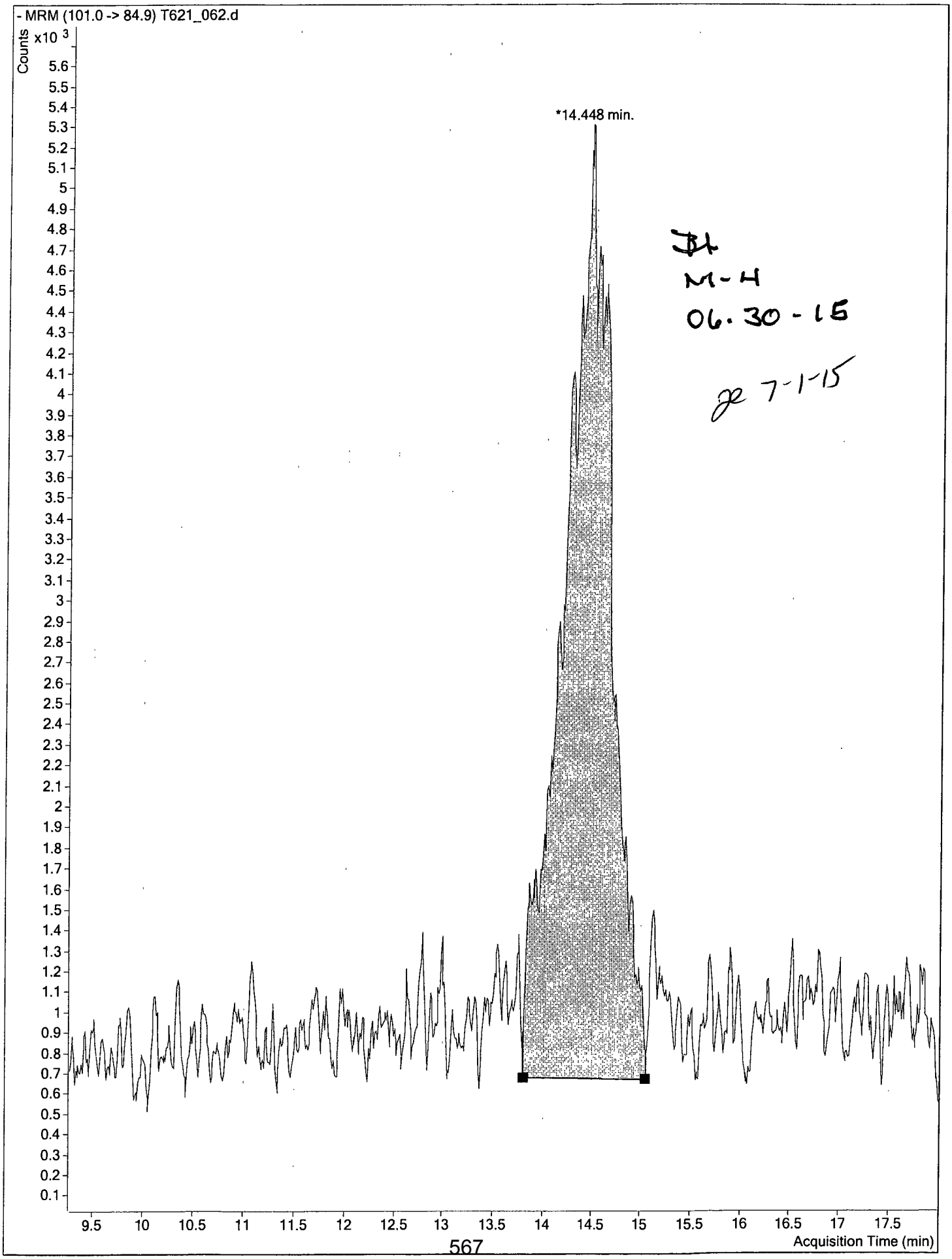
Perchlorate_100



Perchlorate_102




- MRM (101.0 -> 84.9) T621_062.d
Counts
x10 3
14.448 min.
Acquisition Time (min)



SH
M-H
06.30-15

JE 7-1-15

CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T621_063.d

	Date (s) of Analysis From:03/12/15 To:06/22/15 Time (s) of Analysis From:17:52 To:10:59				Date of Analysis: 06/22/15 Time of Analysis: 11:55 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	15.01	1.171845	N	7.7
Perchlorate_85	13.70	13.60	13.80	0.391605	15.01	0.354690	N	9.4

FILE ID : TQCK2163.RFB

Data File ID: T621_063.d

Date Injected : 06/22/15

Time Injected : 11:55

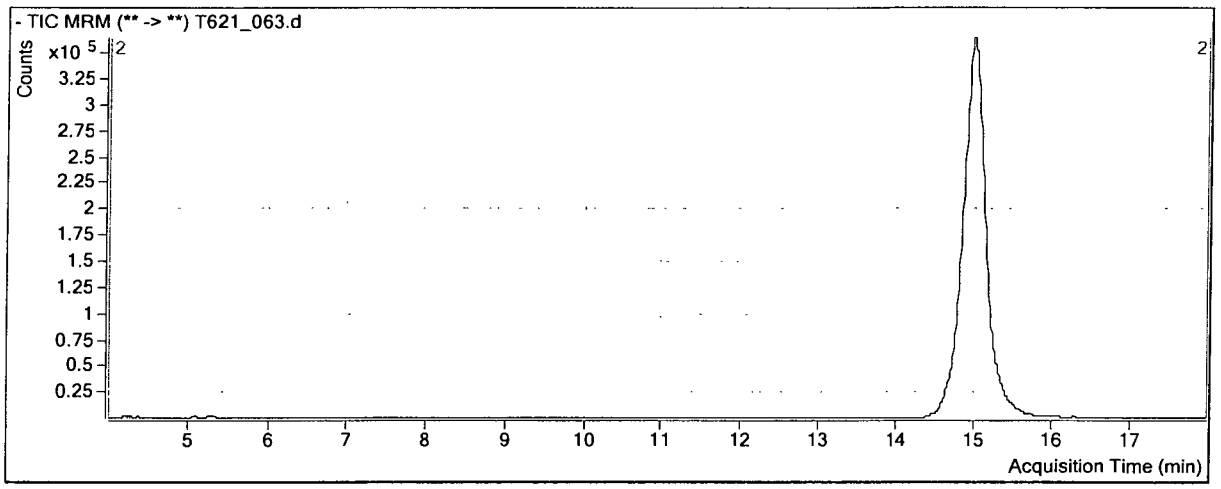
Sample ID : PER_CCV 0.002 ug/ml 06/11/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
14.995	4650592	PER_IS_89
15.012	2179910	Perchlorate_83
15.009	659808	Perchlorate_85

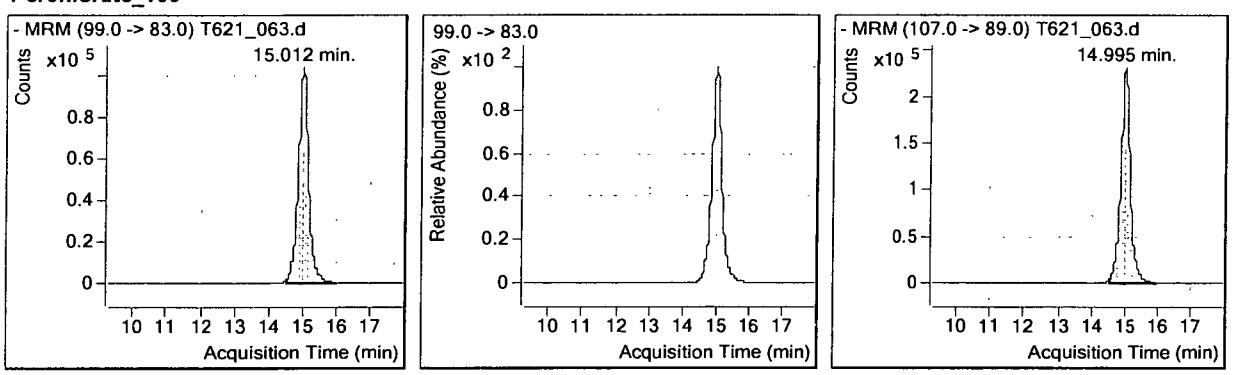
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150621\QuantResults\150621_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T621_063.d	**Sample Name**	PER_CCV 0.002 ug/ml 06/11/15
Sample Type	Sample	**Acq_Date**	06/22/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	11:55
ClientID	NA	**Inj Vol**	20

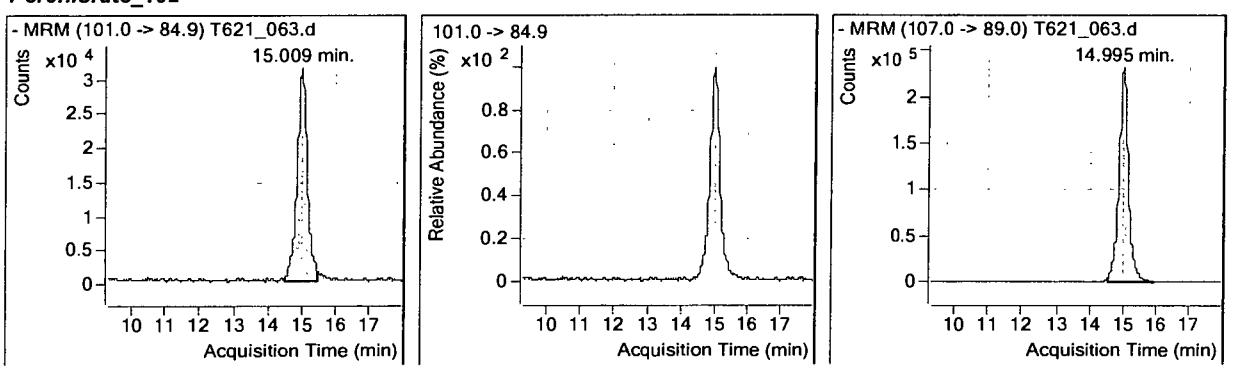


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	15.012	2179910	4650592
Perchlorate_102	PER_IS_108	15.009	659808	4650592

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T621_073.d

	Date (s) of Analysis From:03/12/15 To:06/22/15 Time (s) of Analysis From:17:52 To:14:24				Date of Analysis: 06/22/15 Time of Analysis: 15:01 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	14.57	1.274255	N	0.3
Perchlorate_85	13.70	13.60	13.80	0.391605	14.52	0.445511	N	13.8

FILE ID : TQCK2173.RFB

Data File ID: T621_073.d

Date Injected : 06/22/15

Time Injected : 15:01

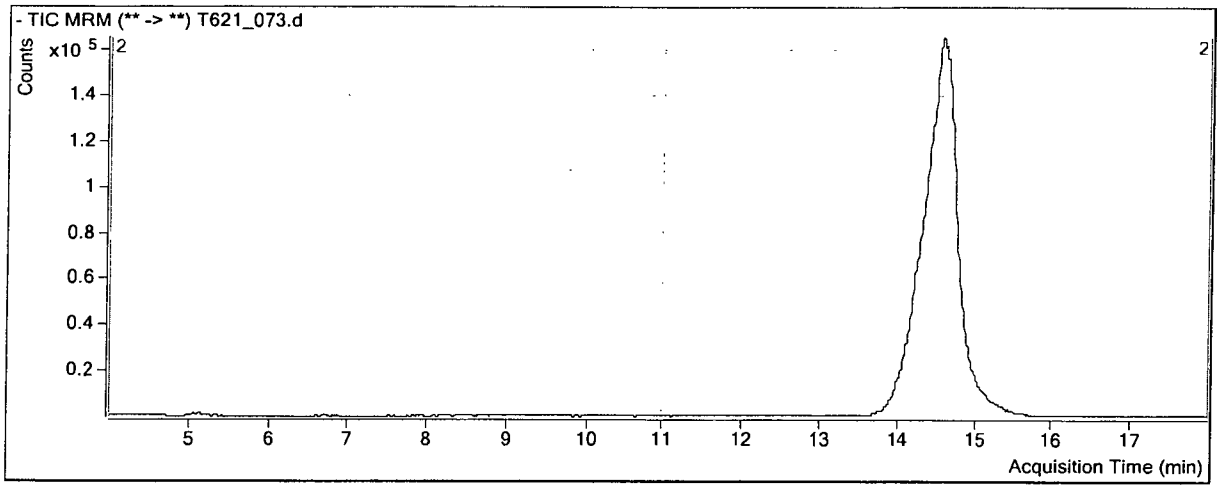
Sample ID : PER_CCV 0.0004 ug/ml 06/11/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
14.567	4557123	PER_IS_89
14.574	464555	Perchlorate_83
14.500	162420	Perchlorate_85

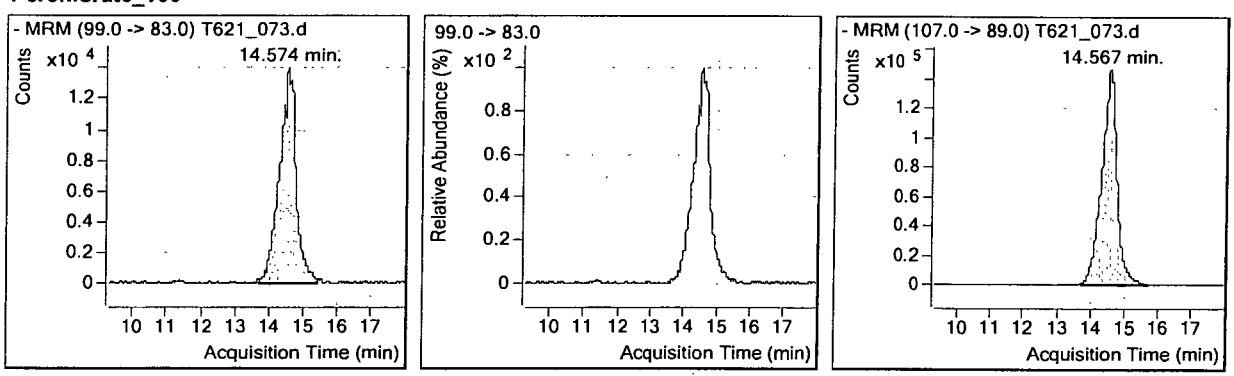
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150621\QuantResults\150621_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T621_073.d	**Sample Name**	PER_CCV 0.0004 ug/ml 06/11/15
Sample Type	Sample	**Acq_Date**	06/22/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	15:01
ClientID	NA	**Inj Vol**	20

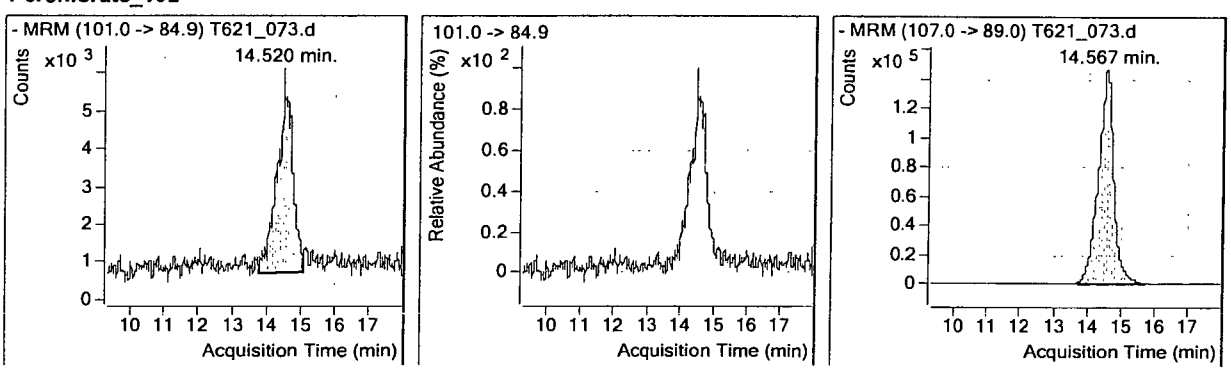


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.574	464555	4557123
Perchlorate_102	PER_IS_108	14.520	162420	4557123

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T621_074.d

	Date (s) of Analysis From:03/12/15 To:06/22/15 Time (s) of Analysis From:17:52 To:14:24				Date of Analysis: 06/22/15 Time of Analysis: 15:20 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	14.60	1.167397	N	8.1
Perchlorate_85	13.70	13.60	13.80	0.391605	14.60	0.365422	N	6.7

FILE ID : TQCK2174.RFB

Data File ID: T621_074.d

Date Injected : 06/22/15

Time Injected : 15:20

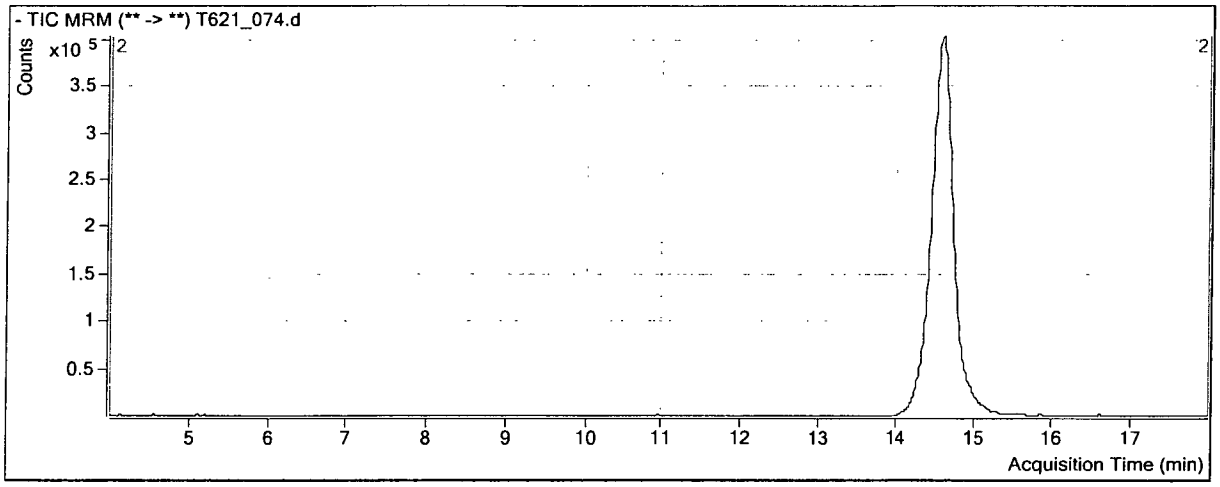
Sample ID : PER_CCV 0.002 ug/ml 06/11/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
14.608	5031753	PER_IS_89
14.605	2349622	Perchlorate_83
14.601	735486	Perchlorate_85

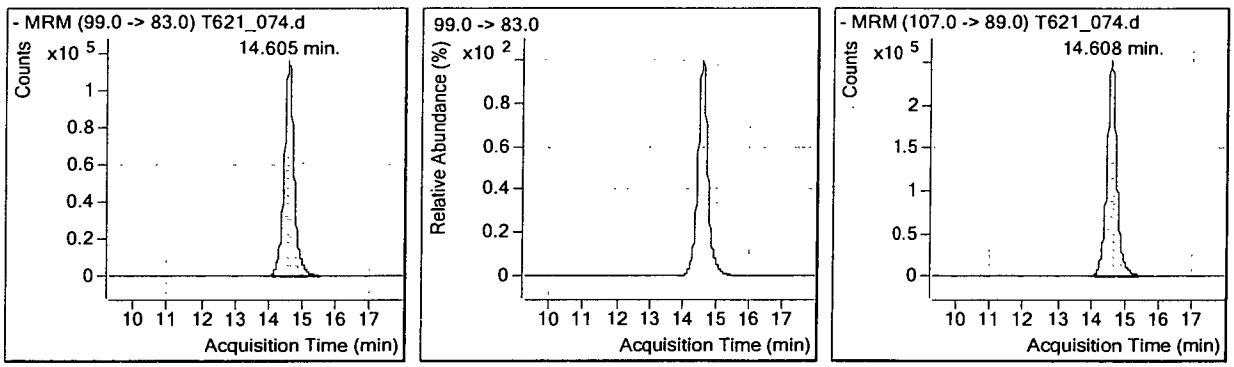
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150621\QuantResults\150621_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T621_074.d	**Sample Name**	PER_CCV 0.002 ug/ml 06/11/15
Sample Type	Sample	**Acq_Date**	06/22/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	15:20
ClientID	NA	**Inj Vol**	20

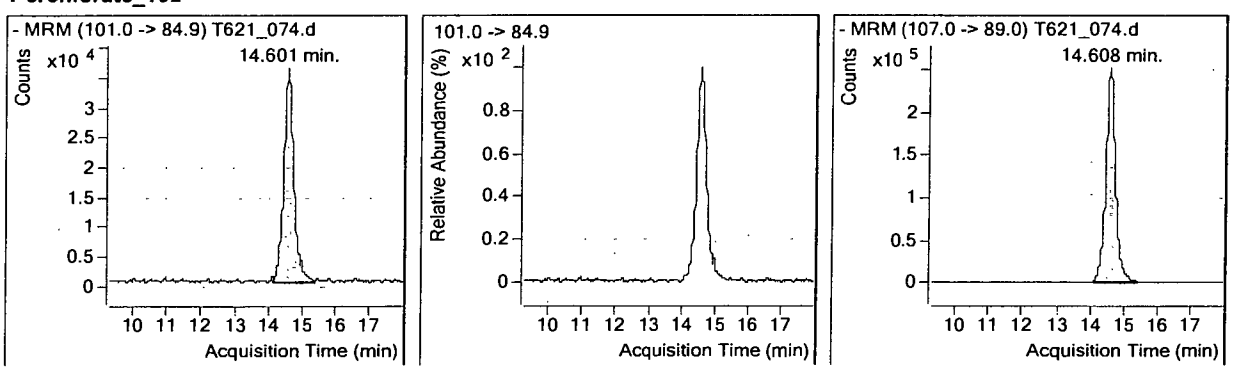


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.605	2349622	5031753
Perchlorate_102	PER_IS_108	14.601	735486	5031753

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T705_003.d

	Date (s) of Analysis From:03/12/15 To:07/05/15 Time (s) of Analysis From:17:52 To:13:06				Date of Analysis: 07/05/15 Time of Analysis: 13:44 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	13.41	1.173163	N	7.6
Perchlorate_85	13.70	13.60	13.80	0.391605	13.44	0.351832	N	10.2

FILE ID : TQCK0503.RFB

Data File ID: T705_003.d

Date Injected : 07/05/15

Time Injected : 13:44

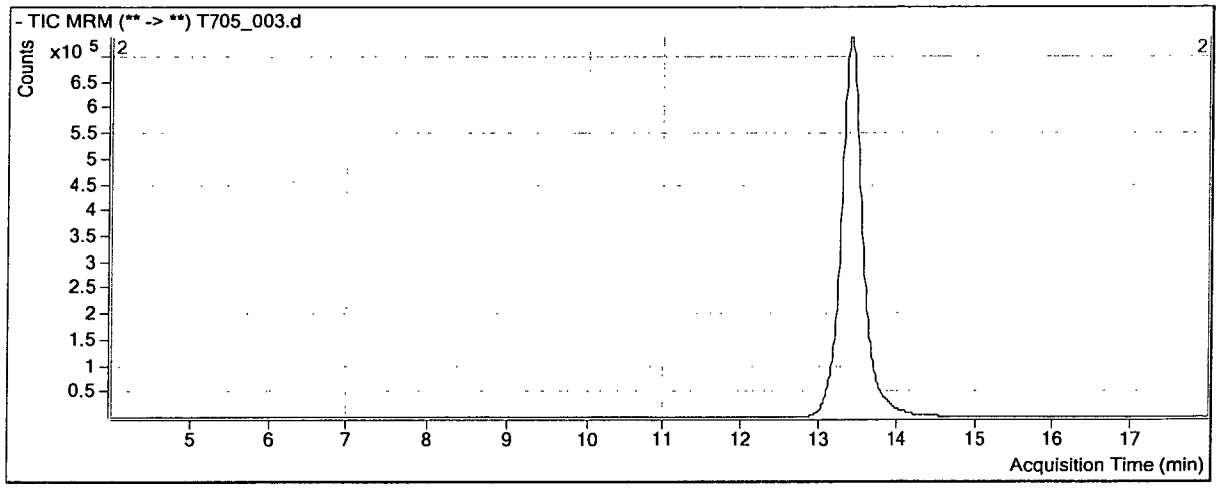
Sample ID : PER_CCV 0.002 ug/ml 06/27/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.406	8885934	PER_IS_89
13.412	4169858	Perchlorate_83
13.400	1250542	Perchlorate_85

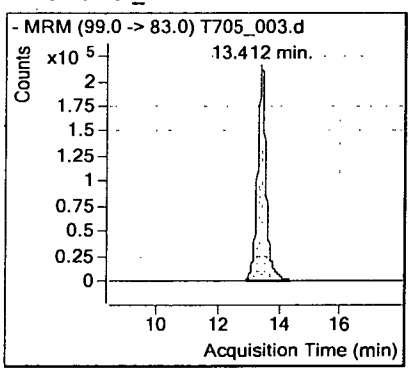
Quantitative Analysis Sample Report

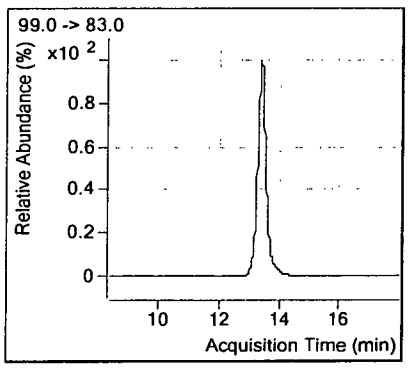
Batch Data Path	D:\MassHunter\Data\150705\QuantResults\150705_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T705_003.d	**Sample Name**	PER_CCV 0.002 ug/ml 06/27/15
Sample Type	Sample	**Acq_Date**	07/05/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	13:44
ClientID	NA	**Inj Vol**	20

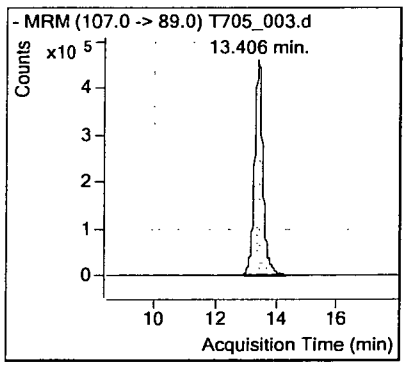


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.412	4169858	8885934
Perchlorate_102	PER_IS_108	13.440	1250542	8885934

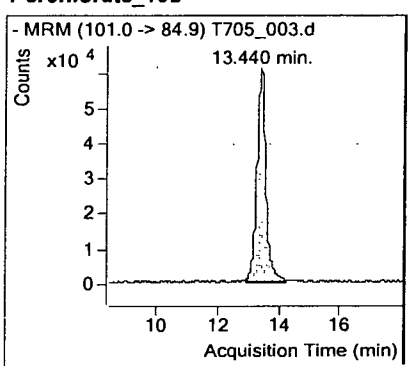
Perchlorate_100

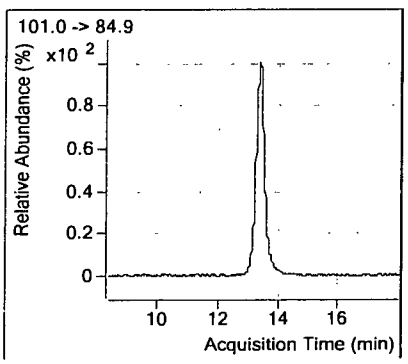


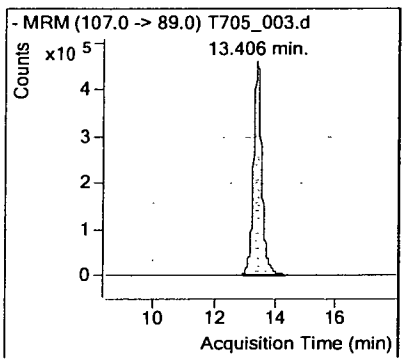




Perchlorate_102







CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T705_028.d

	Date (s) of Analysis From:03/12/15 To:07/05/15 Time (s) of Analysis From:17:52 To:20:53				Date of Analysis: 07/05/15 Time of Analysis: 21:30 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	12.81	1.262372	N	0.6
Perchlorate_85	13.70	13.60	13.80	0.391605	12.86	0.444526	N	13.5

FILE ID : TQCK0528.RFB

Data File ID: T705_028.d

Date Injected : 07/05/15

Time Injected : 21:30

Sample ID : PER_CCV 0.0004 ug/ml 06/27/15

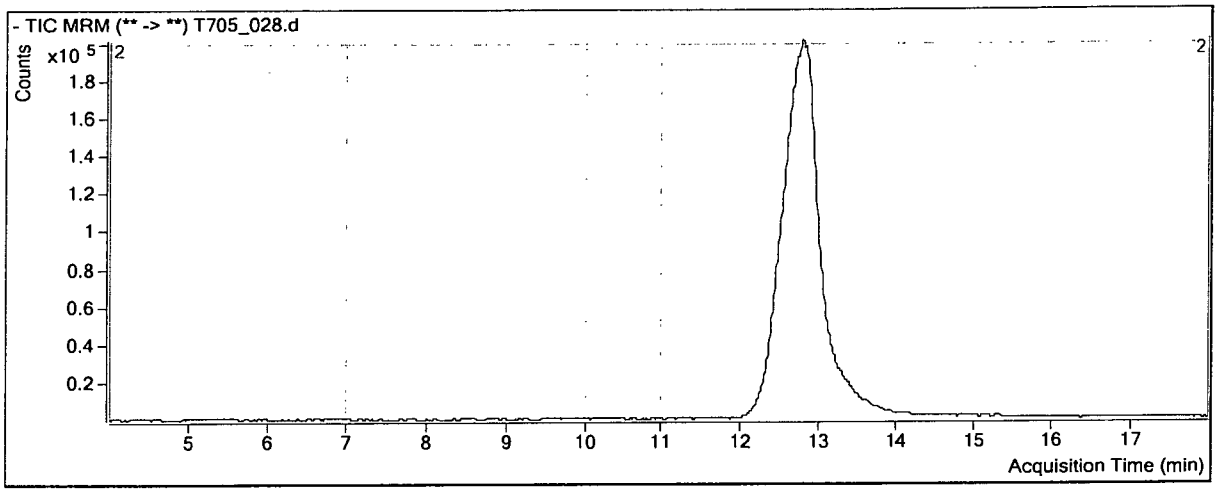
Client ID : NA

Retention Time		Area Count Response	Compound_ID Product Ion
12.794		6048909	PER_IS_89
12.811	*	610878	Perchlorate_83
12.859		215112	Perchlorate_85

* MANUAL INTEGRAION

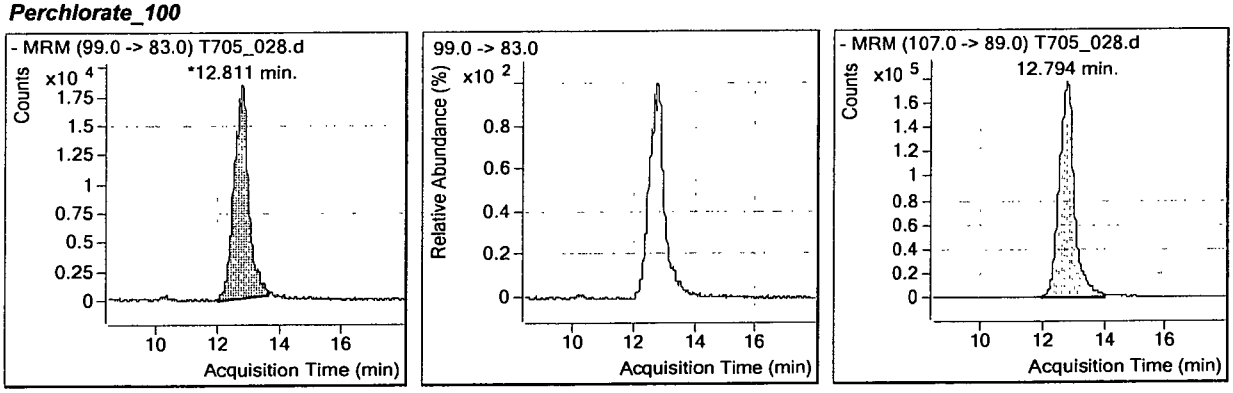
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150705\QuantResults\150705_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T705_028.d	**Sample Name**	PER_CCV 0.0004 ug/ml 06/27/15
Sample Type	Sample	**Acq_Date**	07/05/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	21:30
ClientID	NA	**Inj Vol**	20

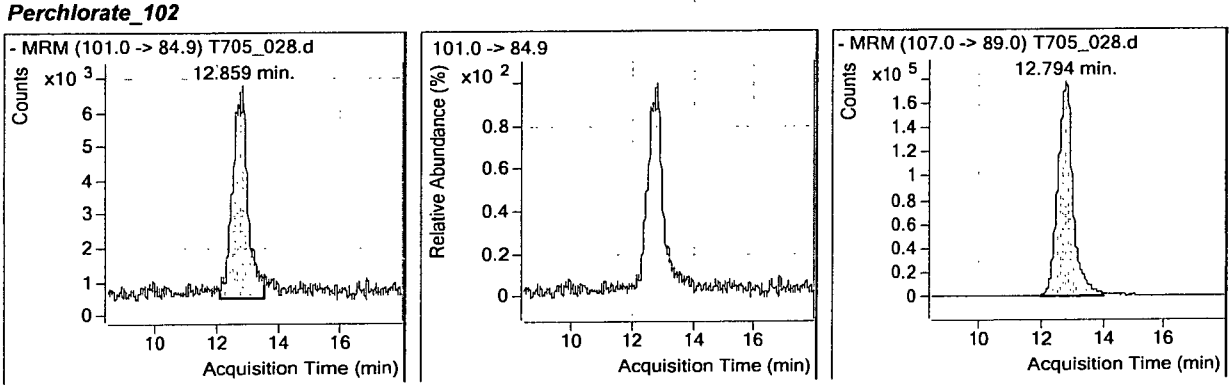


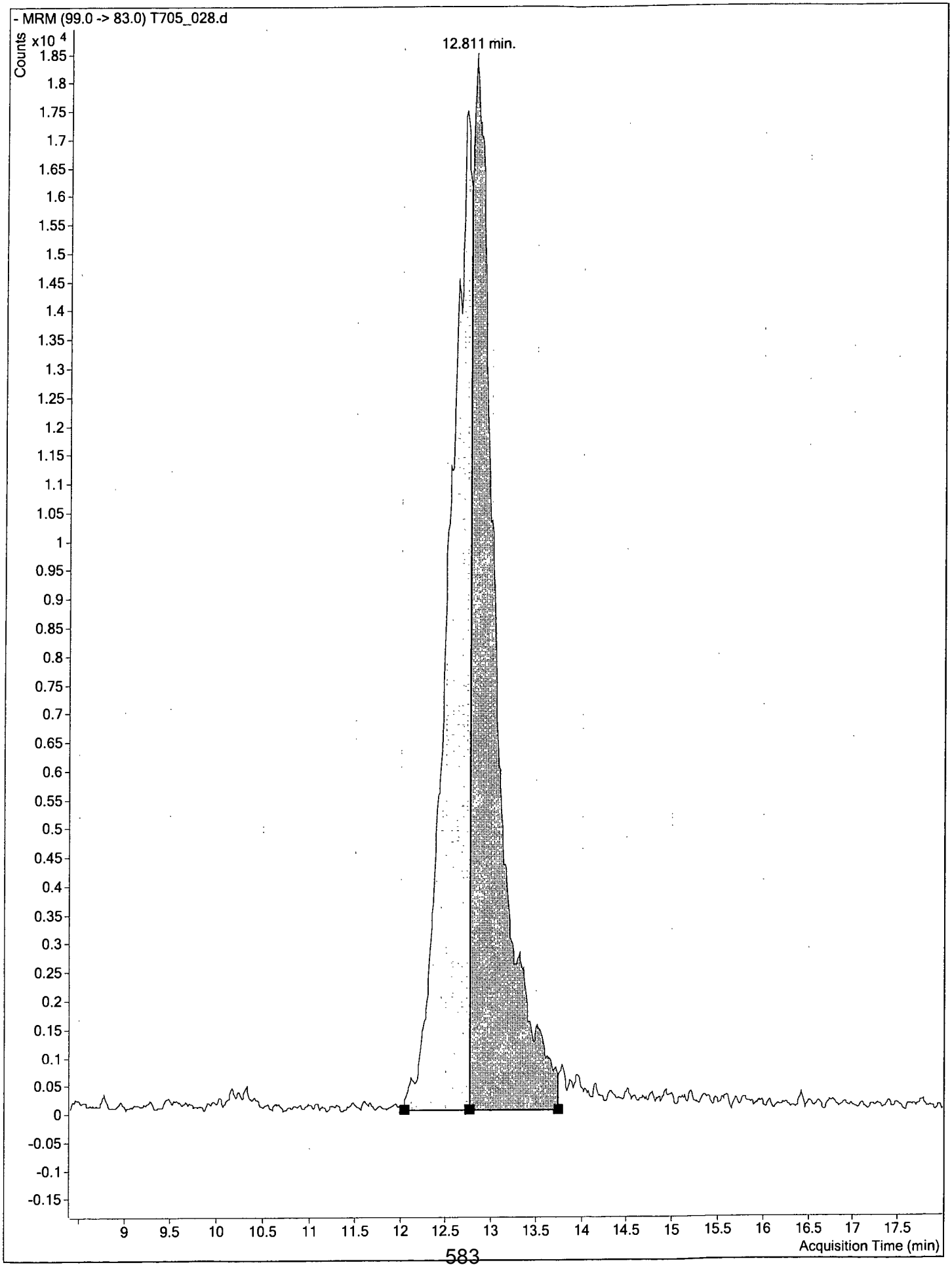
Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108	*	12.811	610878	6048909	* MANUAL INT
Perchlorate_102	PER_IS_108		12.859	215112	6048909	

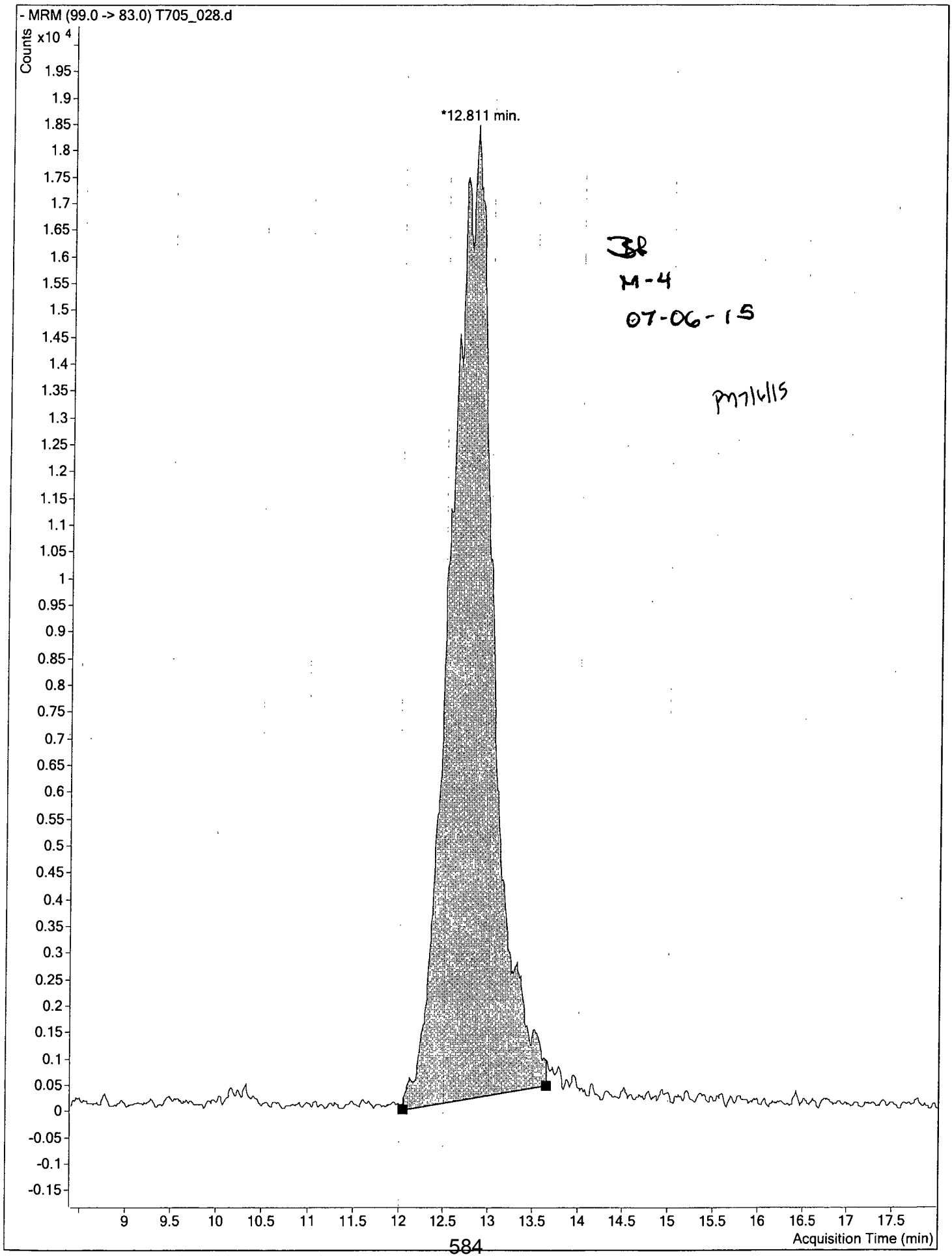
Perchlorate_100



Perchlorate_102




- MRM (99.0 -> 83.0) T705_028.d
Counts
x10 4
12.811 min.
Acquisition Time (min)


- MRM (99.0 -> 83.0) T705_028.d
Counts
x10 4
*12.811 min.
3R
M-4
07-06-15
pm 7/6/15
Acquisition Time (min)

CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T705_029.d

	Date (s) of Analysis From:03/12/15 To:07/05/15 Time (s) of Analysis From:17:52 To:20:53				Date of Analysis: 07/05/15 Time of Analysis: 21:49 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	13.35	1.183893	N	6.8
Perchlorate_85	13.70	13.60	13.80	0.391605	13.38	0.351584	N	10.2

FILE ID : TQCK0529.RFB

Data File ID: T705_029.d

Date Injected : 07/05/15

Time Injected : 21:49

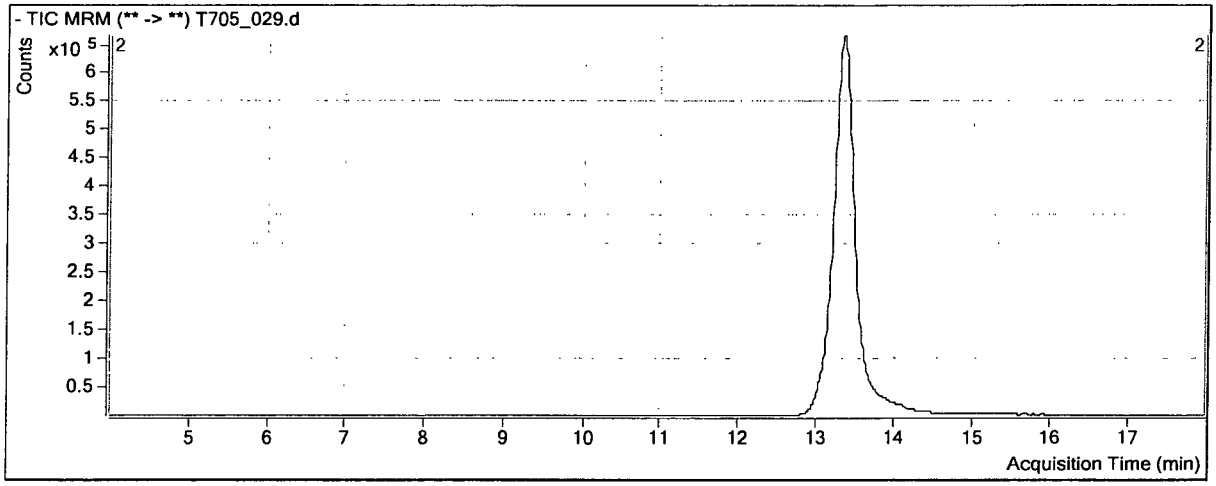
Sample ID : PER_CCV 0.002 ug/ml 06/27/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.344	8149373	PER_IS_89
13.351	3859193	Perchlorate_83
13.378	1146076	Perchlorate_85

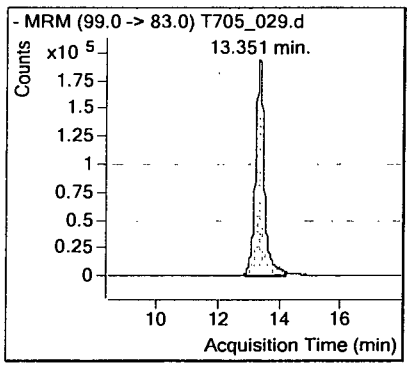
Quantitative Analysis Sample Report

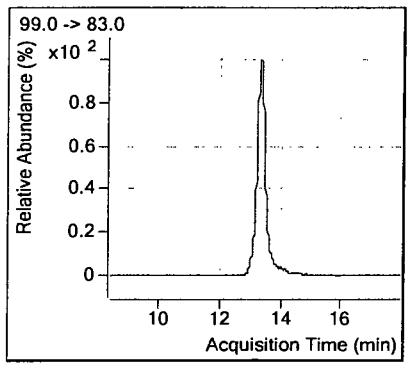
Batch Data Path	D:\MassHunter\Data\150705\QuantResults\150705_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T705_029.d	**Sample Name**	PER_CCV 0.002 ug/ml 06/27/15
Sample Type	Sample	**Acq_Date**	07/05/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	21:49
ClientID	NA	**Inj Vol**	20

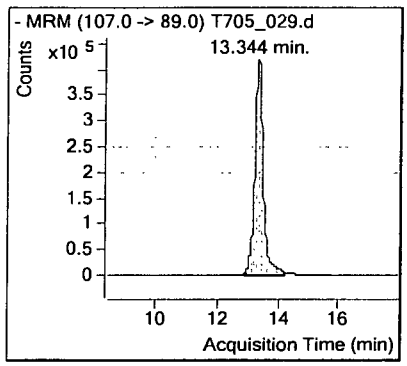


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.351	3859193	8149373
Perchlorate_102	PER_IS_108	13.378	1146076	8149373

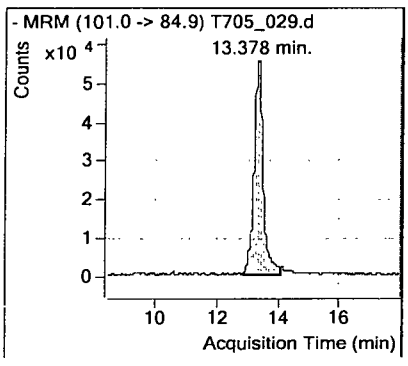
Perchlorate_100

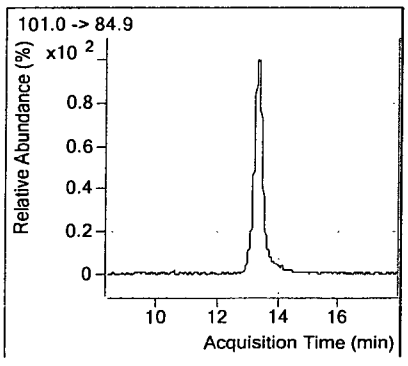


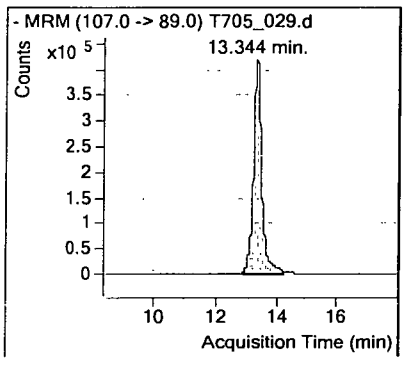




Perchlorate_102







CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T705_041.d

	Date (s) of Analysis From:03/12/15 To:07/06/15 Time (s) of Analysis From:17:52 To:0:55				Date of Analysis: 07/06/15 Time of Analysis: 1:32 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	13.11	1.323193	N	4.2
Perchlorate_85	13.70	13.60	13.80	0.391605	13.16	0.461606	N	17.9

FILE ID : TQCK0541.RFB

Data File ID: T705_041.d

Date Injected : 07/06/15

Time Injected : 1:32

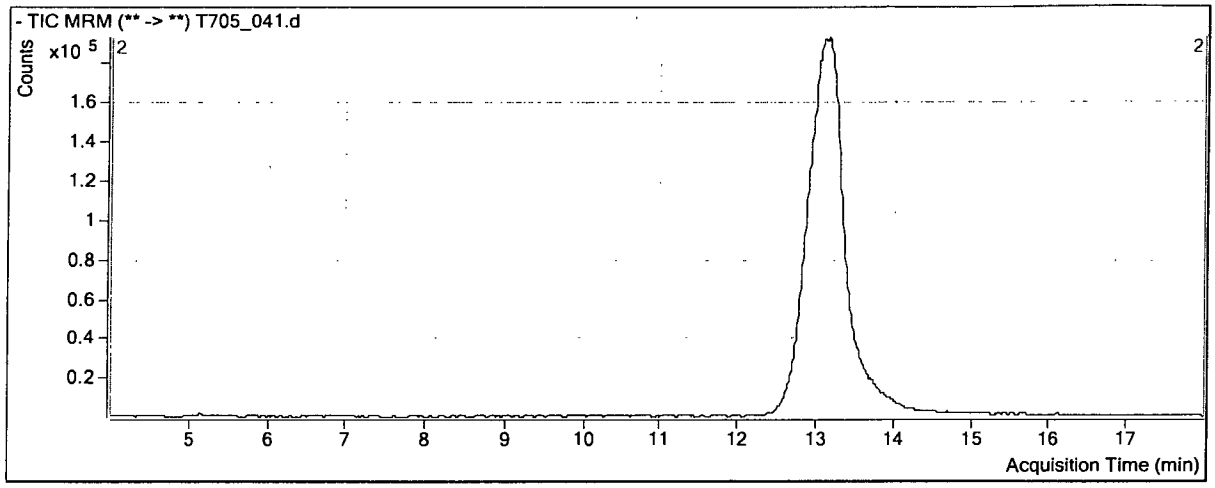
Sample ID : PER_CCV 0.0004 ug/ml 06/27/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.151	5679595	PER_IS_89
13.107	601216	Perchlorate_83
13.164	209739	Perchlorate_85

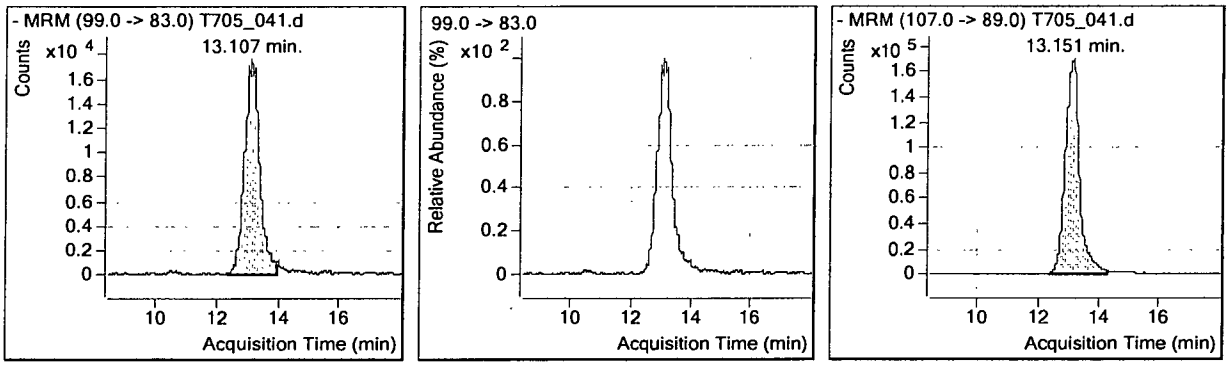
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150705\QuantResults\150705_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T705_041.d	**Sample Name**	PER_CCV 0.0004 ug/ml 06/27/15
Sample Type	Sample	**Acq_Date**	07/06/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	1:32
ClientID	NA	**Inj Vol**	20

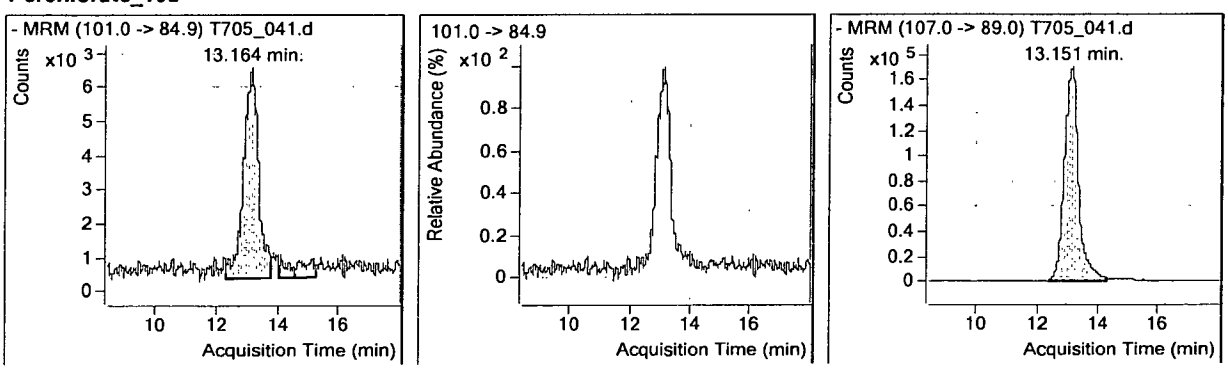


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.107	601216	5679595
Perchlorate_102	PER_IS_108	13.164	209739	5679595

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T705_042.d

	Date (s) of Analysis From:03/12/15 To:07/06/15 Time (s) of Analysis From:17:52 To:0:55				Date of Analysis: 07/06/15 Time of Analysis: 1:51 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	1.172801	N	7.7
Perchlorate_85	13.70	13.60	13.80	0.391605	13.62	0.349910	N	10.6

FILE ID : TQCK0542.RFB

Data File ID: T705_042.d

Date Injected : 07/06/15

Time Injected : 1:51

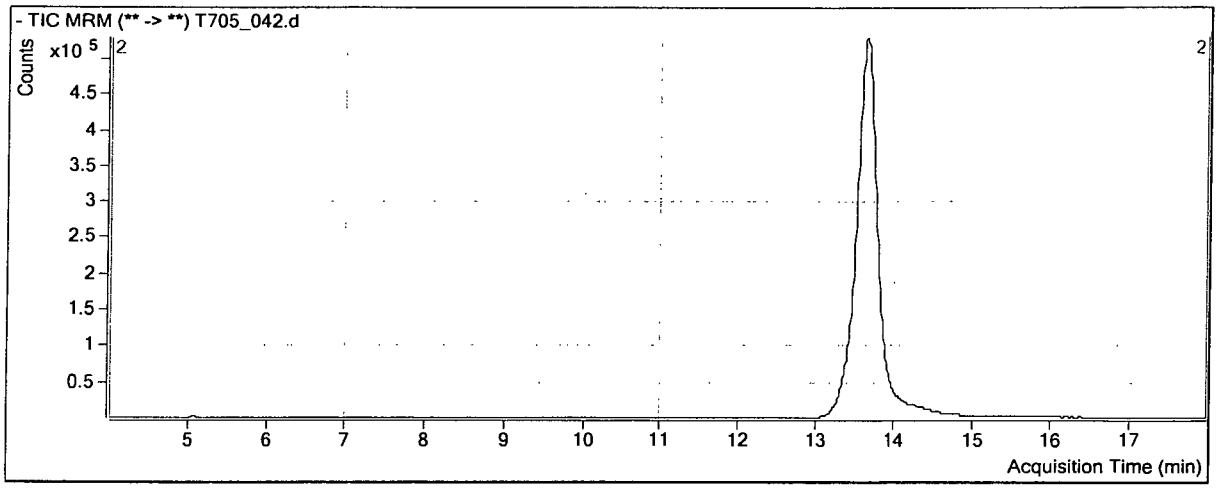
Sample ID : PER_CCV 0.002 ug/ml 06/27/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.600	6440015	PER_IS_89
13.647	3021143	Perchlorate_83
13.623	901370	Perchlorate_85

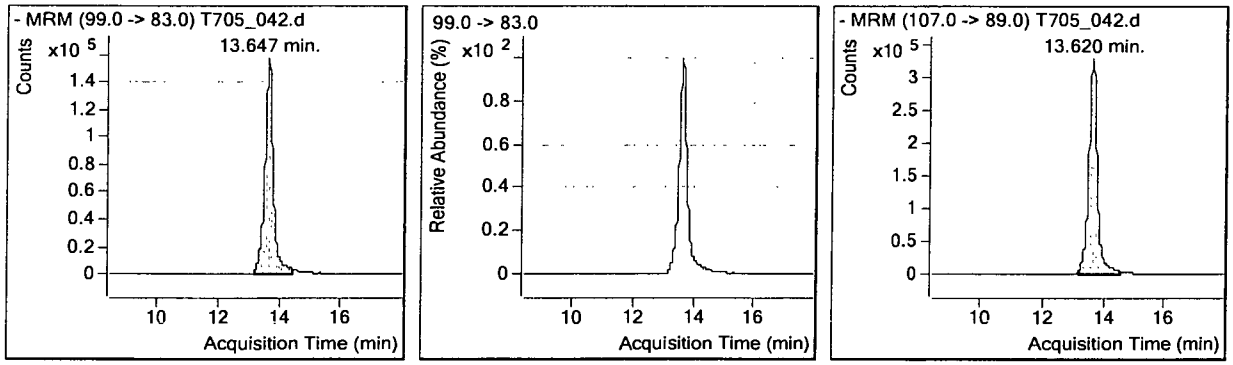
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150705\QuantResults\150705_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T705_042.d	**Sample Name**	PER_CCV 0.002 ug/ml 06/27/15
Sample Type	Sample	**Acq_Date**	07/06/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	1:51
ClientID	NA	**Inj Vol**	20

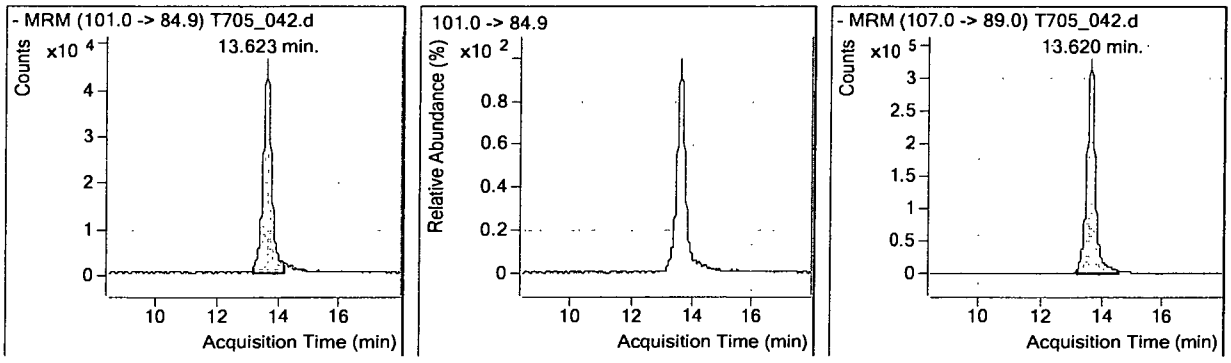


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.647	3021143	6440015
Perchlorate_102	PER_IS_108	13.623	901370	6440015

Perchlorate_100



Perchlorate_102



EPA METHOD 6850
Perchlorate
LC/MS

Raw Data

APPL, INC.

Method Blank
PERCHLORATE EPA 6850 - SOIL

Blank Name/QCG: **150617S-17444 - 198529**
Batch ID: #6850SM-150617A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/17/15	06/22/15

Quant Method: QTLMFL2
Run #: T621_055.d
Instrument: AGIL_6460
Sequence: TQ062115
Initials: RP

GC SC-Blank-REG MDLs
Printed: 07/02/15 9:59:20 AM

Data File ID: T621_055.d

Date Injected : 06/22/15

Time Injected : 9:26

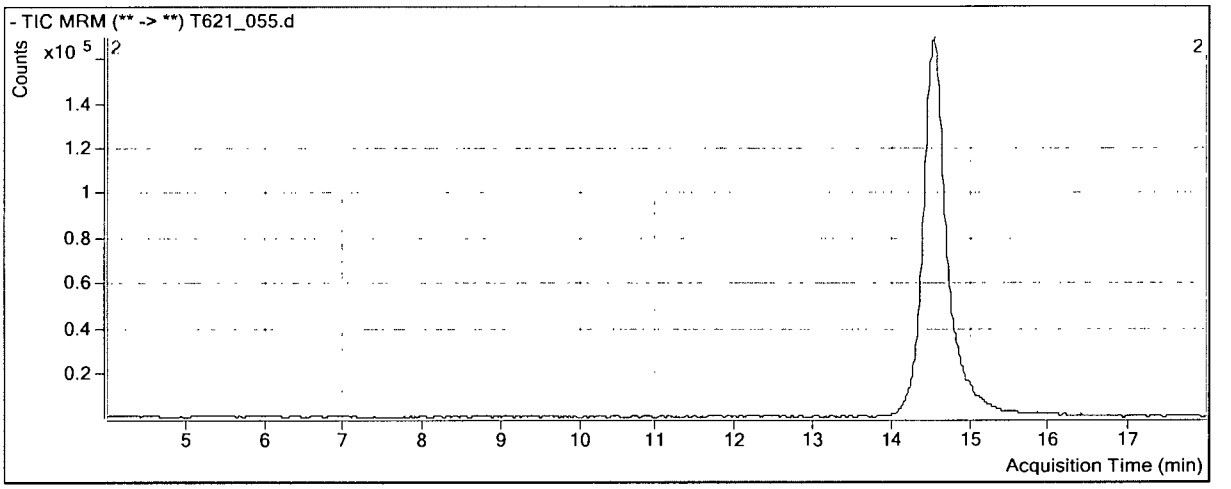
Sample ID : 150627SBLKA 10422.1 DF 06/17/15

Client ID : LAB

Retention Time	Area Count Response	Compound_ID Product Ion				
14.557	3618778	PER_IS_89				
14.217	387	Perchlorate_83	(387 * 0.0050) / (1.27 * 3618778.00) *	10422.10 =	0.004387	ppb
14.102	3636	Perchlorate_85	(3636 * 0.0050) / (0.39 * 3618778.00) *	10422.10 =	0.133702	ppb

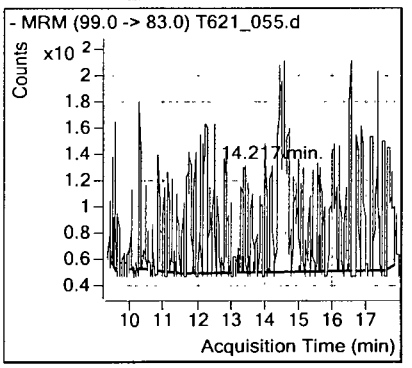
Quantitative Analysis Sample Report

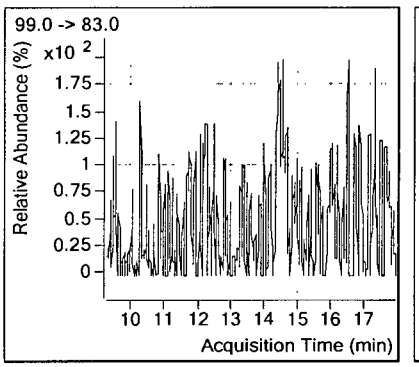
Batch Data Path	D:\MassHunter\Data\150621\QuantResults\150621_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T621_055.d	**Sample Name**	150627SBLKA 10422.1 DF 06/17/15
Sample Type	Sample	**Acq_Date**	06/22/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	9:26
ClientID	LAB	**Inj Vol**	20

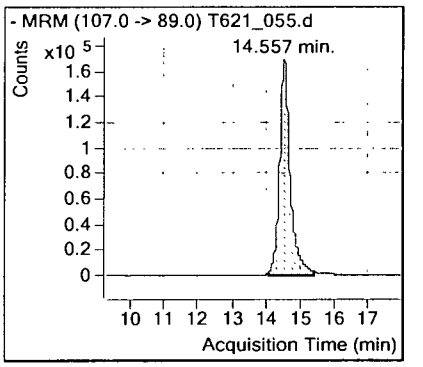


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.217	387	3618778
Perchlorate_102	PER_IS_108	14.102	3636	3618778

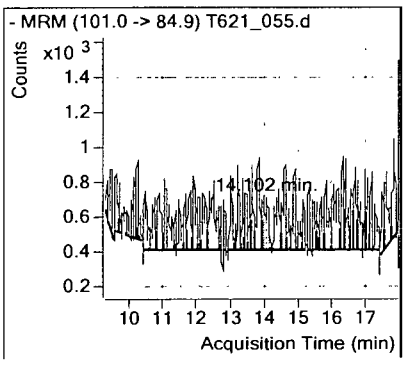
Perchlorate_100

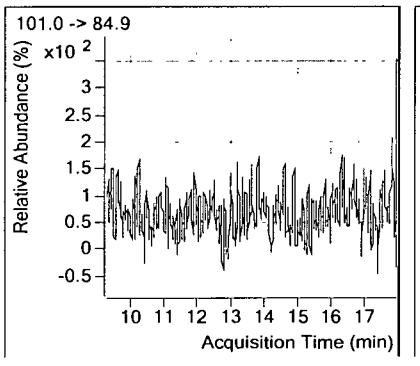


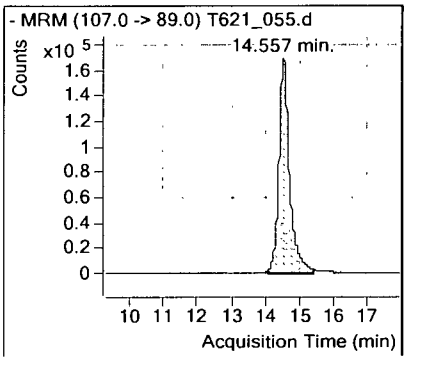




Perchlorate_102







Laboratory Control Spike Recovery
PERCHLORATE EPA 6850 - SOIL

APPL ID: **150617S-17444 LCS - 198529**
Batch ID: #6850SM-150617A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level mg/Kg	SPK Result mg/Kg	SPK % Recovery	Recovery Limits
PERCHLORATE	0.00571	0.00556	97.4	80-120

Comments: _____

Primary	SPK
Quant Method :	QTLMFL2
Extraction Date :	06/17/15
Analysis Date :	06/22/15
Instrument :	AGIL_6460
Run :	T621_053.d
Initials :	RP

Printed: 07/02/15 9:59:12 AM
APPL Standard LCS

Data File ID: T621_053.d

Date Injected : 06/22/15

Time Injected : 8:48

Sample ID : 150617SA_LCS-1 10025.1 DF 06/17/15

Client ID : LAB_CNTL_S_SPKA

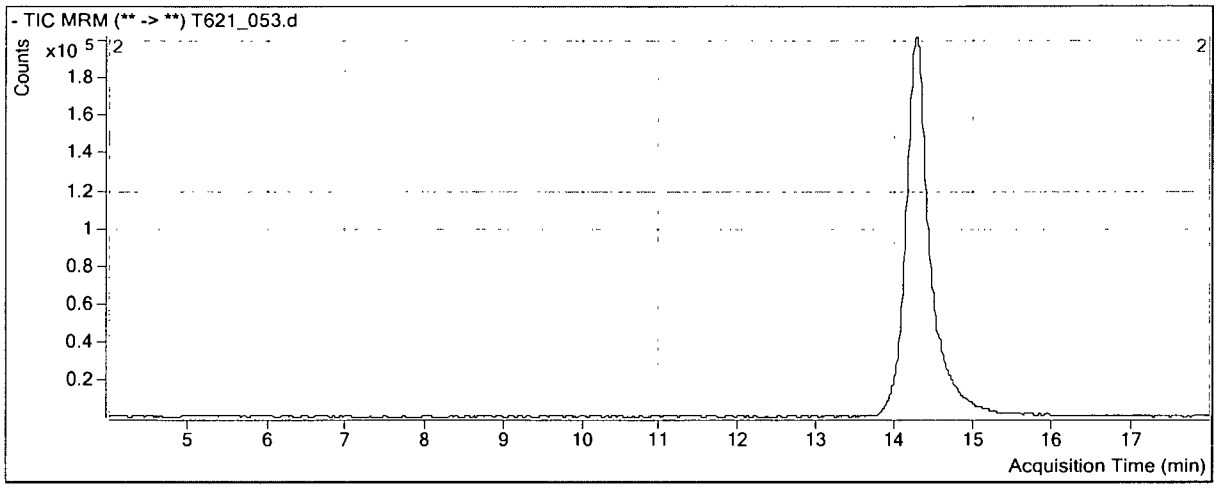
Retention Time	Area Count Response	Compound_ID Product Ion				
14.302	3693190	PER_IS_89				
14.309	520443	Perchlorate_83	(520443 * 0.0050) / (1.27 * 3693190.00) *	10025.10 =	5.560825	ppb
14.346	180467	Perchlorate_85	(180467 * 0.0050) / (0.39 * 3693190.00) *	10025.10 =	6.254702	ppb

$$\frac{(10025.1)(520443)(0.005)}{(1.270255)(3693190)} = 5.560826$$

7/2/15
PP

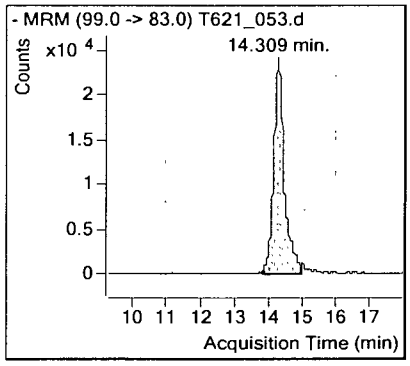
Quantitative Analysis Sample Report

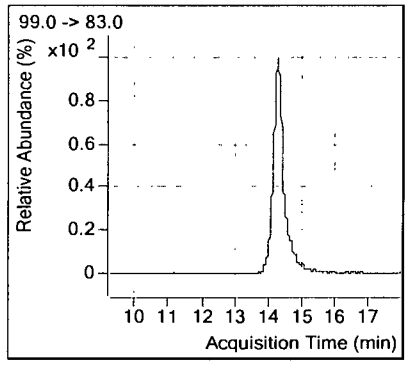
Batch Data Path	D:\MassHunter\Data\150621\QuantResults\150621_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T621_053.d	**Sample Name**	150617SA_LCS-1 10025.1 DF 06/17/15
Sample Type	Sample	**Acq_Date**	06/22/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	8:48
ClientID	LAB_CNTL_S_SPKA	**Inj Vol**	20

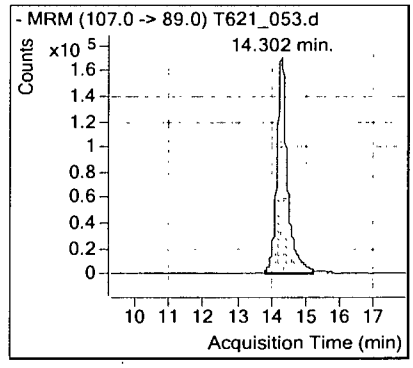


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.309	520443	3693190
Perchlorate_102	PER_IS_108	14.346	180467	3693190

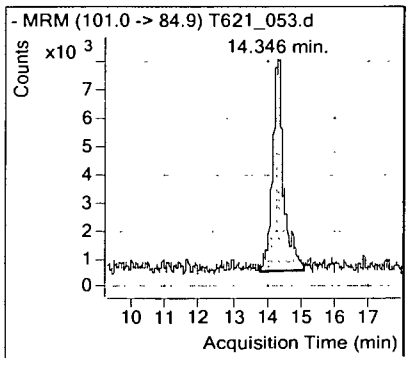
Perchlorate_100

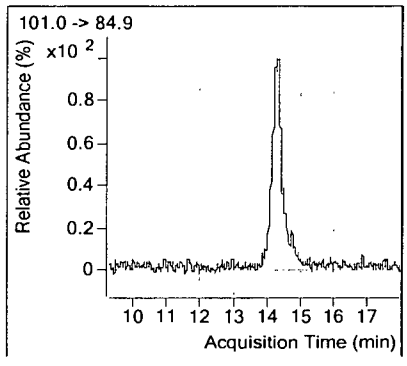


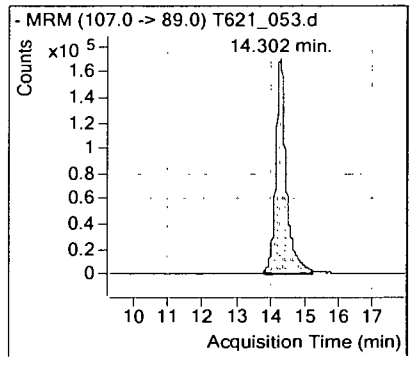




Perchlorate_102







Interferrence Check Sample

Perchlorate EPA 6850 Soil

APPL ID: 150617S-17444 ICS - 198529
Batch ID: #6850SM-150617A

APPL Inc.
908 N. Temperance Ave.
Clovis, CA 93711

Compound Name	Spike Level mg/Kg	Spk Result mg/Kg	SPK% Recovery	Recovery Limits
Perchlorate	0.00576	0.00587	101.9%	70-130

Comments:

Quant Method:	QTLMFL2
Extraction Date:	06/17/15
Analysis Date:	06/22/15
Instrument:	AGIL_6560
Run:	T621_054.D
Initials:	RP

Data File ID: T621_054.d

Date Injected : 06/22/15

Time Injected : 9:07

Sample ID : 150617S_ICSA 10121.5 DF 06/17/15

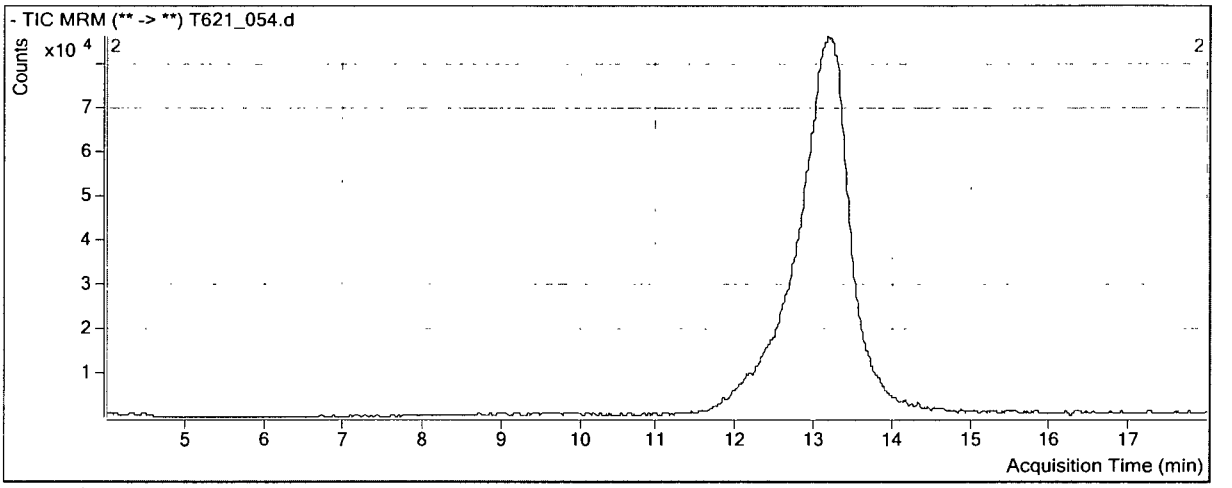
Client ID : LAB_CNTL_S_ICSA

Retention Time		Area Count Response	Compound_ID Product Ion			
13.192		3401125	PER_IS_89			
13.200		501477	Perchlorate_83	(501477 * 0.0050) / (1.27 * 3401125.00) *	10121.50 =	5.874248 ppb
13.144	*	185944	Perchlorate_85	(185944 * 0.0050) / (0.39 * 3401125.00) *	10121.50 =	7.065229 ppb

* MANUAL INTEGRAION

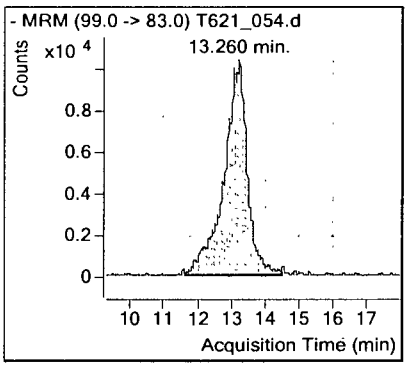
Quantitative Analysis Sample Report

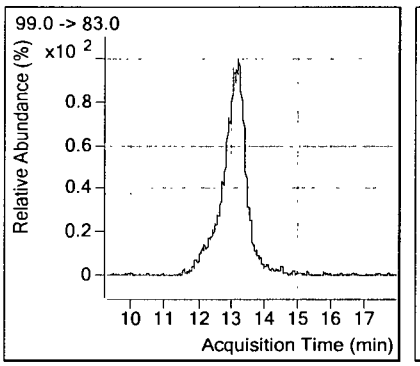
Batch Data Path	D:\MassHunter\Data\150621\QuantResults\150621_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T621_054.d	**Sample Name**	150617S_ICSA 10121.5 DF 06/17/15
Sample Type	Sample	**Acq_Date**	06/22/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	9:07
ClientID	LAB_CNTL_S_ICSA	**Inj Vol**	20

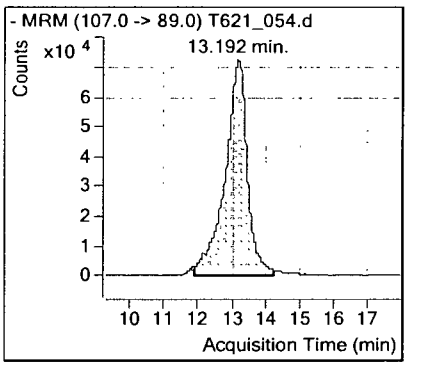


Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108		13.260	501477	3401125	
Perchlorate_102	PER_IS_108	*	13.144	185944	3401125	* MANUAL INT

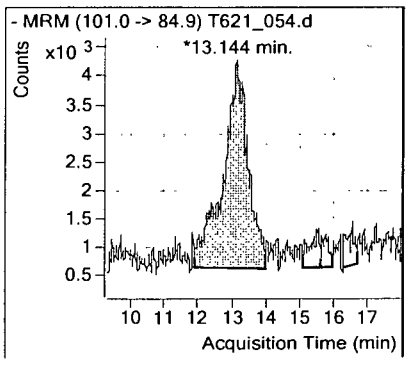
Perchlorate_100

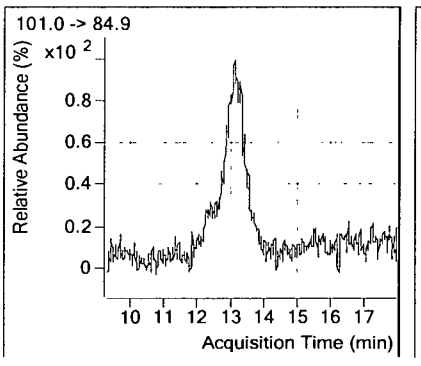


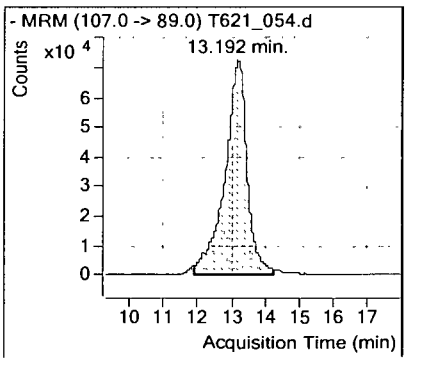


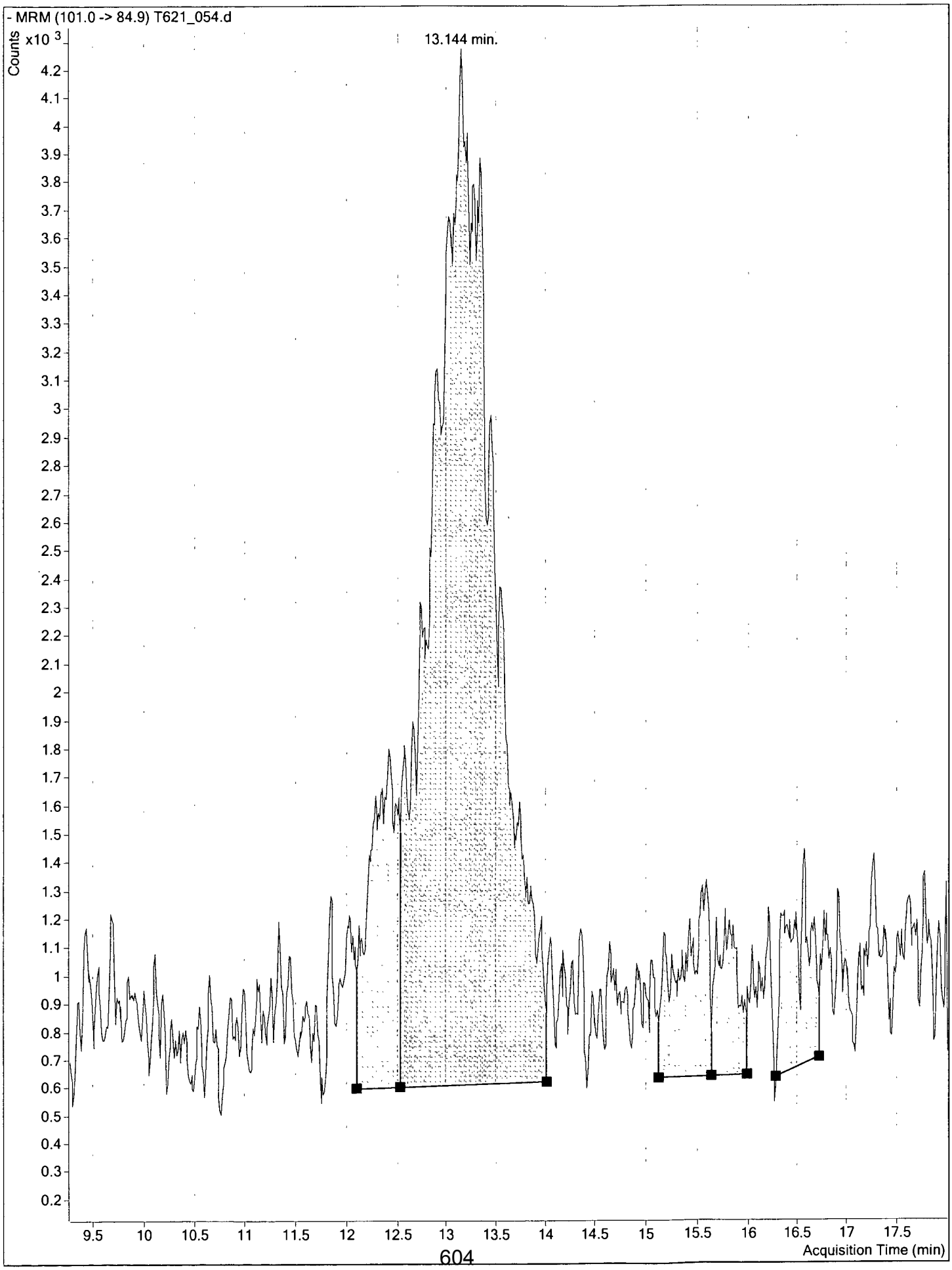


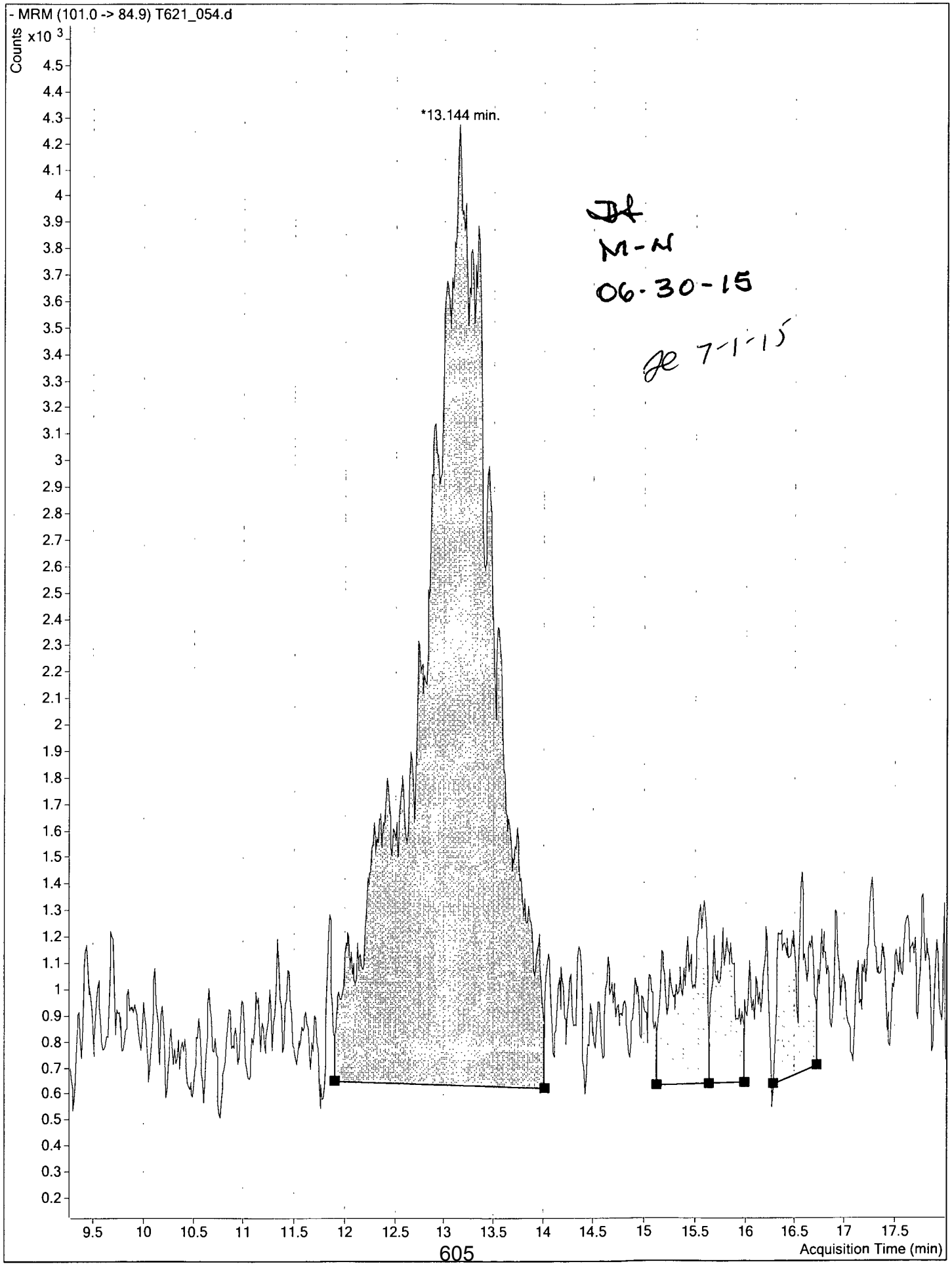
Perchlorate_102








- MRM (101.0 -> 84.9) T621_054.d
Counts
x10 3
13.144 min.
4.2
4.1
4
3.9
3.8
3.7
3.6
3.5
3.4
3.3
3.2
3.1
3
2.9
2.8
2.7
2.6
2.5
2.4
2.3
2.2
2.1
2
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
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)



DK
M-N
06-30-15

JE 7-1-15

Matrix Spike Recoveries

PERCHLORATE EPA 6850 - SOIL

APPL ID: **150617S-17444 MS - 198529**
Batch ID: #6850SM-150617A
Sample ID: AZ17444
Client ID: S67-SS035-0001

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	SPK Lvl	DUP Lvl	Matrix Result	SPK Result	DUP Result	SPK %	DUP %	Recovery	RPD	RPD
	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	Recovery	Recovery	Limits	%	Limits
(Solid Concentrations have been adjusted to reflect 14.8 Percent Moisture.)										
PERCHLORATE	0.00613	0.00607	ND	0.00548	0.00598	89.4	98.5	80-120	9.7	15

Comments:

Primary	SPK	DUP
Quant Method :	QTLMFL2	QTLMFL2
Extraction Date :	06/17/15	06/17/15
Analysis Date :	07/05/15	07/05/15
Instrument :	AGIL_6460	AGIL_6460
Run :	T705_035.d	T705_036.d
Initials :	RP	

Printed: 07/08/15 7:53:08 AM
APPL MSD SCII

Data File ID: T705_035.d

Date Injected : 07/05/15

Time Injected : 23:40

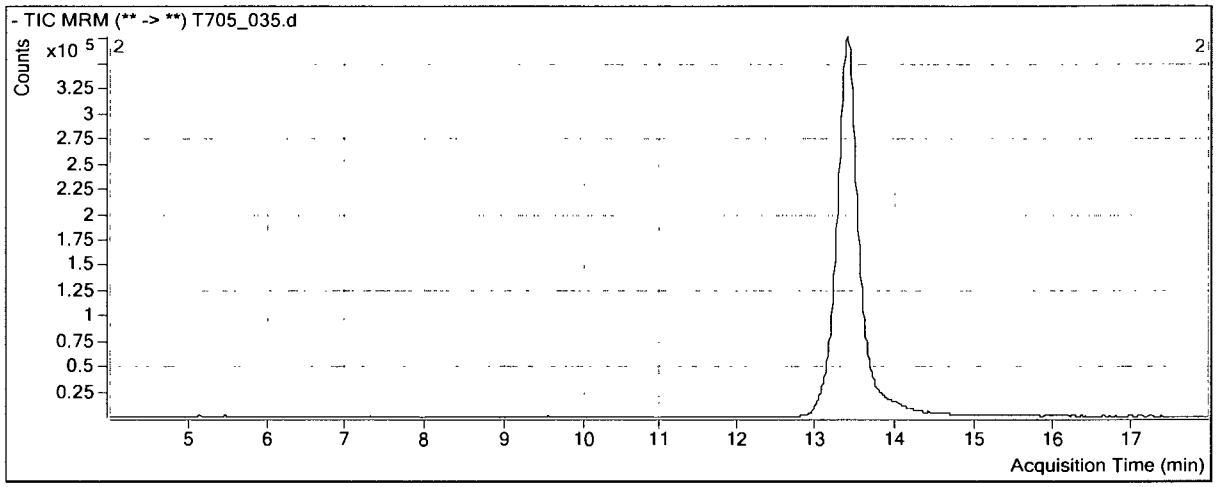
Sample ID : AZ17444_S08_MS-1 9153.3 DF 06/17/15

Client ID : S67-SS035-0001_MS-1

Retention Time	Area Count Response	Compound_ID Product Ion					
13.416	6320078	PER_IS_89					
13.433	819385	Perchlorate_83	(819385 * 0.0050) / (1.27 *	6320078.00) *	9153.30 =	4.671133	ppb
13.409	265574	Perchlorate_85	(265574 * 0.0050) / (0.39 *	6320078.00) *	9153.30 =	4.910917	ppb

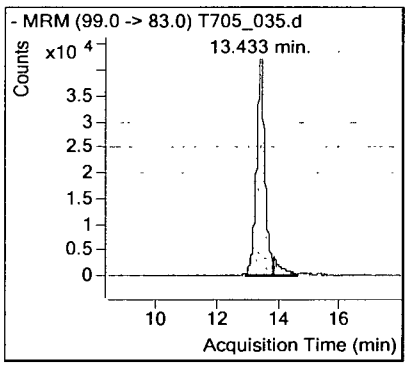
Quantitative Analysis Sample Report

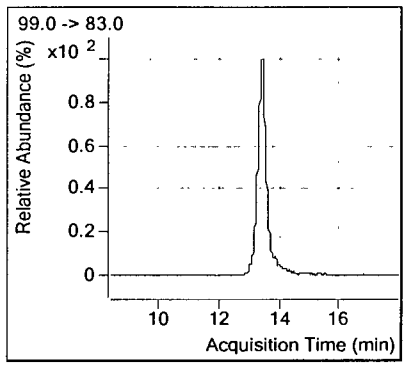
Batch Data Path	D:\MassHunter\Data\150705\QuantResults\150705_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T705_035.d	**Sample Name**	AZ17444_S08_MS-1 9153.3 DF 06/17/15
Sample Type	Sample	**Acq_Date**	07/05/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	23:40
ClientID	S67-SS035-0001_MS-1	**Inj Vol**	20

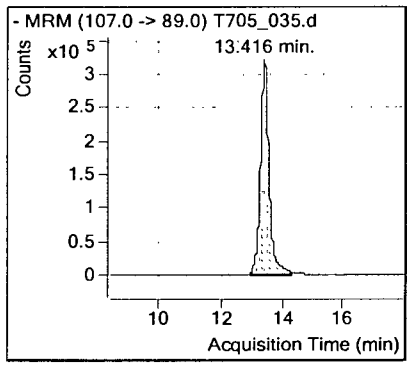


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.433	819385	6320078
Perchlorate_102	PER_IS_108	13.409	265574	6320078

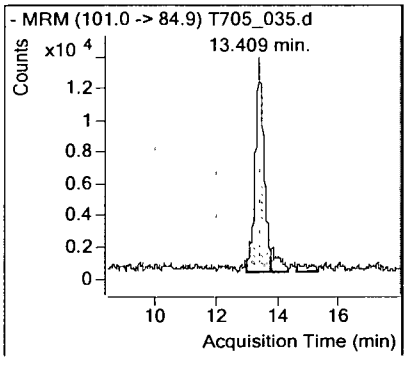
Perchlorate_100

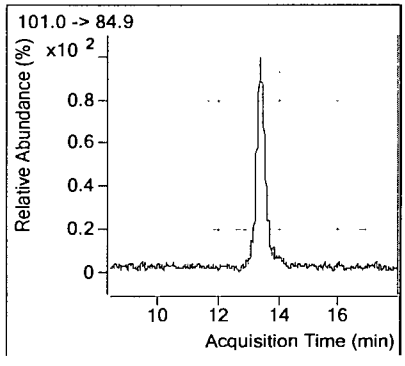


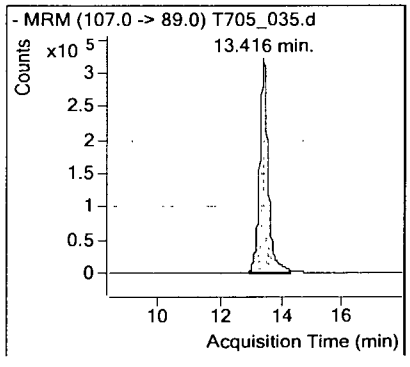




Perchlorate_102







Data File ID: T705_036.d

Date Injected : 07/05/15

Time Injected : 23:59

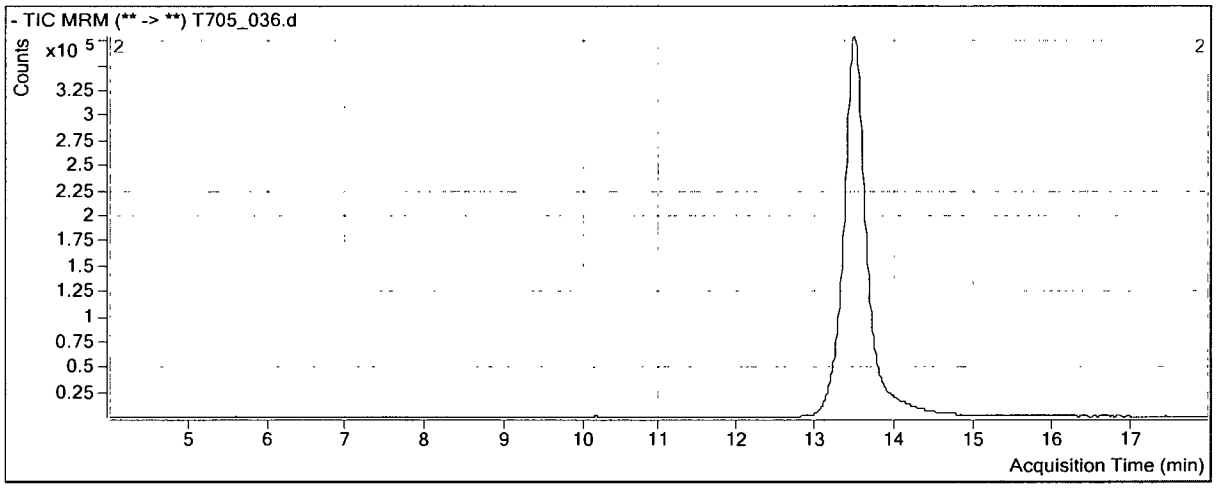
Sample ID : AZ17444_S08_MSD-1 9074.4 DF 06/17/15

Client ID : S67-SS035-0001_MSD-1

Retention Time	Area Count Response	Compound_ID Product Ion					
13.518	6456988	PER_IS_89					
13.514	921622	Perchlorate_83	(921622 * 0.0050) / (1.27 *	6456988.00) *	9074.40 =	5.098234	ppb
13.531	289206	Perchlorate_85	(289206 * 0.0050) / (0.39 *	6456988.00) *	9074.40 =	5.189398	ppb

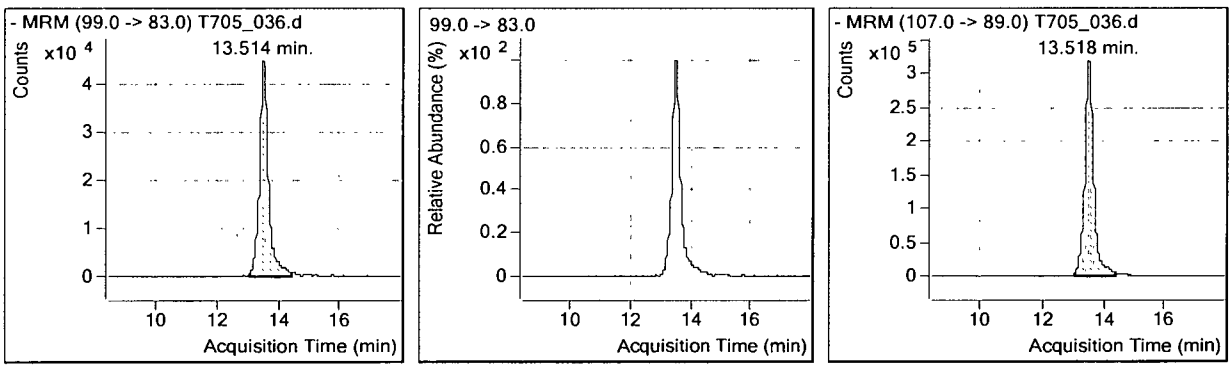
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150705\QuantResults\150705_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T705_036.d	**Sample Name**	AZ17444_S08_MSD-1 9074.4 DF 06/17/15
Sample Type	Sample	**Acq_Date**	07/05/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	23:59
ClientID	S67-SS035-0001_MSD-1	**Inj Vol**	20

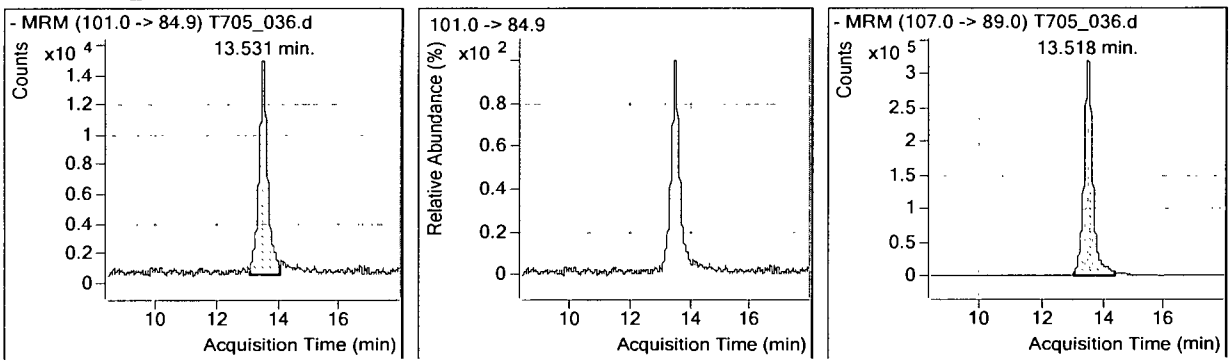


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.514	921622	6456988
Perchlorate_102	PER_IS_108	13.531	289206	6456988

Perchlorate_100



Perchlorate_102



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.

LCMS STANDARD PREP LOG# 102 PAGE# 37

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE / INITIALS
Scav spk 250 ng/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: BL 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 02SI $^{18}O_{11}$ 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 02SI $^{18}O_4$ Perchlorate 100 µg/L lot 1059192-33479

040 LC/MS STANDARD PREP LOG# 105 PAGE 40

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE/ INITIALS
PER IS	0.005 µg/mL						04-20-15: JL
025I	$^{18}O_4$ Perchlorate	100 µg/L					04-21-15

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. JR

STANDARD	INITIAL CONC	SOURCE	DATE	ALIQUOT VOLUME	FINAL VOLUME	FINAL CONC	SOL'N. LOT #	DATE INITIALS

NOTE: THE FOLLOWING DOCUMENTATION JL
WAS PERFORMED AS DATED: 05-19-15

PER. CCV 0.0004 µg/mL 05:07-15: JL
PER. SS 0.010 µg/mL 08-28-14 took 05-07-15
0.040 mL and added to 0.910 mL
Laboratory Source DI-H20 that
had previously received 0.050 mL
025I $^{18}O_4$ Perchlorate 100µg/L
lot 1074176-35163

PER. CCV 0.002 µg/mL 05-07-15:
PER. SS 0.010 µg/mL 08-28-14
took 0.200 mL and added to
0.750 ML Laboratory Source
DI-H20 that had previously
received 0.050 mL 025I $^{18}O_4$
Perchlorate 100µg/L lot
1074176-35163

PER. IS 0.005µg/mL 05-07-15:
025I $^{18}O_4$ Perchlorate 100µg/L
Lot 1074176-35163 took 0.050
mL and added to 0.950 mL
Laboratory Source DI-H20
NOTE: Repeated the above
process four times in order
to prepare 2-2mL vials
that were full.

STANDARD PREP LOG# 105 PAGE 103

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N. LOT #	DATE INITIALS

NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED: JF 06-19-15 — JF 06-19-15

PER_CCV ~~0.000µ~~ 0.004 µg/ml 05-29-15: — JF 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 100µg/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.

LCMS STANDARD PREP LOG# 105 PAGE# 108

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CNC	SOL'N. LOT #	DATE & INITIALS

NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED: JH 06-28-15 — JH 06-28-15

AZ17047_W01 21052.6 DF 06-04-15_6/5: JH
AZ17047_W01 1052.6 DF 06-04-15 — 06-05-15
TOOK 0.050 mL AND ADDED TO
0.950 mL PER_IS_50:50 0.005 µg/mL
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 0.005 µg/mL
06-03-15

PER_CCV 0.0004 µg/mL 06-11-15: JH
PER_SS 0.010 µg/mL 08-28-14 — 06-11-15
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 107N176-35163

PER_CCV 0.002 µg/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 02SI $^{18}O_4$ Perchlorate
100 µg/L lot 107N176-35163

LC/MS STANDARD PREP LOG# 105 PAGE# 109

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	VOL EN. LOT#	DATE INITIALS

NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED: JL 06.29.15 06.29.15

PER_IS 0.005 µg/mL 06.11.15: JL

02SI $^{18}O_4$ Perchlorate 100 µg/L 06-11-15
Lot 1074176-35163 took 0.050 mL and added to 0.950 mL Laboratory Source DI_H20
NOTE: Repeated the above process four times in order to prepare 2-2 mL vials that were full.

AZ16235_W01 10526.3 DF 05-12-15_6/12: JL

AZ16235-W01 1052.6 DF 05-12-15 06.12.15
TOOK 0.050 mL AND ADDED TO 0.450 mL PER_IS_50:50 0.005µg/mL
06-03-15

~~AZ16963_W01 10526.3 DF 06-02-15_6/3~~ JL 6.29.15

619

110

LC/MS STANDARD PREP LOG# 105 PAGE# 110

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N. LOT #	DATE/ INITIALS
NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED! JH 07-01-15							JH 07-01-15
AZ17695_W01 10526.3 DF 06-17-15_6/22							JH
AZ17695_W01 1052.6 DF 06-17-15 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 06-03-15							06.22.15
AZ17695_W01 105263.2 DF 06-17-15_6/22: AZ17695_W01 10526.3 DF 06-17-15_6/22 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 06-03-15							
AZ17695_W01 1052631.6 DF 06-17-15_6/22 ~~AZ17695~~ JH AZ17695_W01 105263.2 DF 06-17-15_6/22 TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 06-03-15							
PER_CCV 0.0004 µg/ml 06-27-15: PER_SS 0.010 µg/ml 08-28-15 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 107H176-35163: Repeated the above process and then combined the aliquots into a single vial.							JH 06.22.15

LCMS STANDARD PREP LOG# 105 PAGE# 111

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N LOT #	DATE INITIALS

NOTE: THE FOLLOWING DOCUMENTATION JR
WAS PERFORMED AS DATED: JR 07-01-15 07-01-15

PER-CCV 0.002 µg/mL 06-27-15: JR
PER-SS 0.010 µg/mL 08-28-15 06-27-15
TOOK 0.200 mL and added to 0.750 mL Laboratory Source DI H20 that had received 0.050 mL 02SI $^{18}O_4$ Perchlorate 100 µg/L lot 10TN176-35163. Repeated the above process and then combined the aliquots into a single vial.

AZ17826-W03 10526.3 DF 06-23-15_6/28 JR 7 JR
AZ17826-W03 1052.6 DF 06-23-15 06-28-15
TOOK 0.050 mL AND ADDED TO 0.450 mL PER-IS-50:50 0.005 µg/mL 06-03-15

AZ17826-W03 105263.2 DF 06-23-15_6/28 7 JR
AZ17826-W03 10526.3 DF 06-23-15_6/28 JR
TOOK 0.050 mL AND ADDED TO 0.450 mL PER-IS-50:50 0.005 µg/mL 06-03-15

AZ17826-W03 1052631.6 DF 06-23-15_6/28 7 JR
AZ17826-W03 10526.3 DF 06-23-15_6/28 JR
TOOK 0.050 mL AND ADDED TO 0.450 mL PER-IS-50:50 0.005 µg/mL 06-03-15

_HPLC6850G

Organic Extraction Worksheet

Method	EPA 6850 HPLC Perchlorate Extraction	Extraction Set	150617A	Extraction Method	HPLC6850GROS	Units	mL

Spiked ID 1	Perchlorate Spike Mix 0.1ppm 8-28-14 exp 7-31-15		Surrogate ID 1		
Spiked ID 2	Mix Anions 25,000ppm 2-10-15 exp 2-10-16		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:	06/17/15 12:08	
Spiked ID 8			Ext. End Time:	06/17/15 13:29	
			GC Requires Extract By:		

pH1			Water Bath Temp Criteria	
pH2				
pH3				

Spiked By: CFM **Date** 06/17/15 11:50:00 AM **Witnessed By:** RP **Date** 06/17/15 11:50:00 AM

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	150617A Blk				NA	NA equip	1.01g	10ML	NA	06/17/15 12:08	
2	150617A LCS-1		0.060	1	NA	NA equip	1.05g	10ML	NA	06/17/15 12:08	
3	150617A ICS		0.060/0.120	1/2	NA	NA equip	1.04g	10ML	NA	06/17/15 12:08	
4	6850_LOD		0.040	1	NA	NA equip	1.01g	10ML	NA	06/17/15 12:08	LOD
5	6850_LOQ		0.060	1	NA	NA equip	1.00g	10ML	NA	06/17/15 12:08	LOQ
6	AZ17433	AZ17433S02			NA	NA equip	1.27g	10ML	NA	06/17/15 12:08	76624
7	AZ17434	AZ17434S01			NA	NA equip	1.30g	10ML	NA	06/17/15 12:08	76624
8	AZ17435	AZ17435S02			NA	NA equip	1.28g	10ML	NA	06/17/15 12:08	76624
9	AZ17436	AZ17436S01			NA	NA equip	1.30g	10ML	NA	06/17/15 12:08	76624
10	AZ17437	AZ17437S02			NA	NA equip	1.22g	10ML	NA	06/17/15 12:08	76624
11	AZ17438	AZ17438S01			NA	NA equip	1.21g	10ML	NA	06/17/15 12:08	76624
12	AZ17439	AZ17439S02			NA	NA equip	1.35g	10ML	NA	06/17/15 12:08	76624
13	AZ17440	AZ17440S01			NA	NA equip	1.20g	10ML	NA	06/17/15 12:08	76624
14	AZ17441	AZ17441S03			NA	NA equip	1.24g	10ML	NA	06/17/15 12:08	76624
15	AZ17442	AZ17442S02			NA	NA equip	1.23g	10ML	NA	06/17/15 12:08	76624
16	AZ17443	AZ17443S02			NA	NA equip	1.18g	10ML	NA	06/17/15 12:08	76624

Solvent and Lot#	
DI WATER	6-17-15
SAND	3223C517

Extraction COC Transfer	
Extraction lab employee Initials	CFM
GC analyst's initials	PM
Date	6/17/15
Time	1:00
Refrigerator	NA

	Technician's Initials
Scanned By	CFM
Sample Preparation	CFM
Extraction	CFM
Concentration	----------

Modified	06/17/15 12:50:41 PM

Reviewed By: PM **Date** 6/17/15

_HPLC6850G

Organic Extraction Worksheet

Method	EPA 6850 HPLC Perchlorate Extraction	Extraction Set	150617A	Extraction Method	HPLC6850GROS	Units	mL

Spiked ID 1	Perchlorate Spike Mix 0.1ppm 8-28-14 exp 7-31-15		Surrogate ID 1		
Spiked ID 2	Mix Anions 25,000ppm 2-10-15 exp 2-10-16		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:	06/17/15 12:08	
Spiked ID 8			Ext. End Time:	06/17/15 13:29	
			GC Requires Extract By:		

pH1			Water Bath Temp Criteria	
pH2				
pH3				

Spiked By: CFM **Date** 06/17/15 11:50:00 AM **Witnessed By:** RP **Date** 06/17/15 11:50:00 AM

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ17444 MS-1	AZ17444S08	0.060	1	NA	NA equip	1.15g	10ML	NA	06/17/15 12:08	76624
18	AZ17444 MSD-1	AZ17444S08	0.060	1	NA	NA equip	1.16g	10ML	NA	06/17/15 12:08	76624
19	AZ17444	AZ17444S08			NA	NA equip	1.17g	10ML	NA	06/17/15 12:08	76624
20	AZ17445	AZ17445S02			NA	NA equip	1.23g	10ML	NA	06/17/15 12:08	76624
21	AZ17446	AZ17446S02			NA	NA equip	1.17g	10ML	NA	06/17/15 12:08	76624
22	AZ17447	AZ17447S01			NA	NA equip	1.25g	10ML	NA	06/17/15 12:08	76624

PM 6/17/15

Solvent and Lot#	
DI WATER	6-17-15
SAND	3223C517

Extraction COC Transfer	
Extraction lab employee Initials	CFM
GC analyst's initials	PM
Date	6/17/15
Time	1:00
Refrigerator	NA

	Technician's Initials
Scanned By	CFM
Sample Preparation	CFM
Extraction	CFM
Concentration	----------

Modified	06/17/15 12:50:41 PM

Reviewed By: PM **Date** 6/17/15

METHOD 6850 INJECTION LOG: 03/12/15, 06/21/15

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 06/11/15	T621_002.d	06/21/15 16:58
PER_CCV 0.002 ug/ml 06/11/15	T621_003.d	06/21/15 17:17
PER_CCV 0.0004 ug/ml 06/11/15	T621_050.d	06/22/15 7:53
PER_CCV 0.002 ug/ml 06/11/15	T621_051.d	06/22/15 8:11
150617SA_LCS-1 10025.1 DF 06/17/15	T621_053.d	06/22/15 8:48
150617S_ICSA 10121.5 DF 06/17/15	T621_054.d	06/22/15 9:07
150627SBLKA 10422.1 DF 06/17/15	T621_055.d	06/22/15 9:26
AZ17433_S02 8288.4 DF 06/17/15	T621_058.d	06/22/15 10:22
AZ17434_S01 8097.2 DF 06/17/15	T621_059.d	06/22/15 10:40
AZ17435_S02 8223.7 DF 06/17/15	T621_060.d	06/22/15 10:59
PER_CCV 0.0004 ug/ml 06/11/15	T621_062.d	06/22/15 11:36
PER_CCV 0.002 ug/ml 06/11/15	T621_063.d	06/22/15 11:55
AZ17436_S01 8097.2 DF 06/17/15	T621_065.d	06/22/15 12:32
AZ17437_S02 8628.1 DF 06/17/15	T621_066.d	06/22/15 12:51
AZ17438_S01 8699.4 DF 06/17/15	T621_067.d	06/22/15 13:09
AZ17439_S02 7797.3 DF 06/17/15	T621_068.d	06/22/15 13:28
AZ17440_S01 8771.9 DF 06/17/15	T621_069.d	06/22/15 13:46
AZ17441_S03 8489.0 DF 06/17/15	T621_070.d	06/22/15 14:05
AZ17442_S02 8558.0 DF 06/17/15	T621_071.d	06/22/15 14:24
PER_CCV 0.0004 ug/ml 06/11/15	T621_073.d	06/22/15 15:01
PER_CCV 0.002 ug/ml 06/11/15	T621_074.d	06/22/15 15:20

METHOD 6850 INJECTION LOG : 07/05/15 THRU 07/06/15

DETECTOR ID : Agilent 6460 Triple Quad LC/MS PAGE 1 OF 1

SAMPLE INJECTION ID :				DATA FILE ID:	INJECTION DATE/TIME
PER_CCV	0.002	ug/ml	06/27/15	T705_003.d	07/05/15 13:44
PER_CCV	0.0004	ug/ml	06/27/15	T705_028.d	07/05/15 21:30
PER_CCV	0.002	ug/ml	06/27/15	T705_029.d	07/05/15 21:49
AZ17443_S02	8920.6	DF	06/17/15	T705_033.d	07/05/15 23:03
AZ17444_S08	9153.3	DF	06/17/15	T705_034.d	07/05/15 23:22
AZ17444_S08_MS-1	9153.3	DF	06/17/15	T705_035.d	07/05/15 23:40
AZ17444_S08_MSD-1	9074.4	DF	06/17/15	T705_036.d	07/05/15 23:59
AZ17445_S02	8558.0	DF	06/17/15	T705_037.d	07/06/15 0:18
AZ17446_S02	8996.9	DF	06/17/15	T705_038.d	07/06/15 0:36
AZ17447_S01	8421.1	DF	06/17/15	T705_039.d	07/06/15 0:55
PER_CCV	0.0004	ug/ml	06/27/15	T705_041.d	07/06/15 1:32
PER_CCV	0.002	ug/ml	06/27/15	T705_042.d	07/06/15 1:51

FILE ID : R76624.SEQ

EXPLOSIVES
EPA METHOD 8330

APPL, INC.

EPA 8330
EXPLOSIVES

QC Summary

APPL, INC.

Method Blank
EPA 8330B SOIL

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150617S-17444 - 198199**
Batch ID: #83BJU11S-150617

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
BLANK	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
BLANK	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
BLANK	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/18/15
BLANK	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
BLANK	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/18/15
BLANK	SURROGATE: 1,2-DINITROBENZ	86.0	70-130			%	06/17/15	06/18/15

Quant Method: W150610.M
Run #: 0618_000008
Instrument: Waldorf
Sequence: 150618
Initials: MP

GC SC-Blank-REG MDLs
Printed: 06/22/15 10:30:46 AM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 06/18/15

Matrix: SOIL Instrument: Waldorf

APPL ID.	Client Sample No.	SURROGATE: 1,2-DINITROBENZENE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
150617-LCS	Lab Control Spike	70-130	85.9				
AZ17444-MS	Matrix Spike	70-130	86.2				
AZ17444-MSD	Matrix SpikeD	70-130	86.7				
150617-BLK	Blank	70-130	86.0				
AZ17433	S67-SS031-0001	70-130	88.0				
AZ17434	S67-SB031-0203	70-130	90.0				
AZ17435	S67-SS039-0001	70-130	88.6				
AZ17436	S67-SB039-0607	70-130	88.2				
AZ17437	S67-SS038-0001	70-130	88.2				
AZ17438	S67-SB038-0203	70-130	89.5				
AZ17439	S67-SS033-0001	70-130	89.0				
AZ17440	S67-SB033-0203	70-130	89.2				
AZ17441	S67-SS040-0001	70-130	88.9				
AZ17442	S67-SS040P-0001	70-130	87.8				
AZ17443	S67-SB040-1516	70-130	99.1				
AZ17444	S67-SS035-0001	70-130	99.7				
AZ17445	S67-SB035-0203	70-130	99.3				
AZ17446	S67-SS034-0001	70-130	96.6				
AZ17447	S67-SB034-0405	70-130	101				

Comments: Batch: #83BJU11S-150617

Laboratory Control Spike Recovery
EPA 8330B SOIL

APPL ID: **150617S-17444 LCS - 198199**
Batch ID: #83BJU11S-150617

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level mg/kg	SPK Result mg/kg	SPK % Recovery	Recovery Limits
2,4-DINITROTOLUENE	1.98	1.64	82.8	80-125
2,6-DINITROTOLUENE	1.98	1.72	86.9	80-120
HMX	1.98	1.85	93.4	75-125
NITROGLYCERIN	1.98	1.68	84.8	68-131
RDX	1.98	1.67	84.3	70-135
TETRYL	1.98	1.90	96.0	10-150
SURROGATE: 1,2-DINITROBENZENE (S	1.98	1.70	85.9	70-130

Comments: _____

Primary	SPK
Quant Method :	W150610.M
Extraction Date :	06/17/15
Analysis Date :	06/18/15
Instrument :	Waldorf
Run :	0618_000005
Initials :	MP

Printed: 06/22/15 10:30:32 AM
APPL Standard LCS

Matrix Spike Recoveries

EPA 8330B SOIL

APPL ID: **150617S-17444 MS - 198199**
Batch ID: #83BJU11S-150617
Sample ID: AZ17444
Client ID: S67-SS035-0001

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	SPK Lvl	DUP Lvl	Matrix Result	SPK Result	DUP Result	SPK %	DUP %	Recovery	RPD	RPD
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	Recovery	Recovery	Limits	%	Limits
2,4-DINITROTOLUENE	1.96	1.97	ND	1.63	1.65	83.2	83.8	80-125	0.72	20
2,6-DINITROTOLUENE	1.96	1.97	ND	1.72	1.73	87.8	87.8	80-120	0	20
HMX	1.96	1.97	ND	1.80	1.83	91.8	92.9	75-125	1.2	20
NITROGLYCERIN	1.96	1.97	ND	1.68	1.67	85.7	84.8	68-131	1.1	20
RDX	1.96	1.97	ND	1.51	1.54	77.0	78.2	70-135	1.5	20
TETRYL	1.96	1.97	ND	1.64	1.67	83.7	84.8	10-150	1.3	20
SURROGATE: 1,2-DINITROBENZEN	1.96	1.97	NA	1.69	1.70	86.2	86.3	70-130		

Comments: _____

Primary	SPK	DUP
Quant Method :	W150610.M	W150610.M
Extraction Date :	06/17/15	06/17/15
Analysis Date :	06/18/15	06/18/15
Instrument :	Waldorf	Waldorf
Run :	0618_000006	0618_000007
Initials :	MP	

Printed: 06/22/15 10:30:27 AM
APPL MSD SCII

EPA 8330B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 06/18/15

Matrix: SOIL Instrument: Waldorf

Blank ID: 150617-BLK Time Analyzed: 1203

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150617-LCS	Lab Control Spike	0618_000005	06/18/15 1011
150617-MS	Matrix Spike	0618_000006	06/18/15 1048
150617-MSD	Matrix SpikeD	0618_000007	06/18/15 1126
150617-BLK	Blank	0618_000008	06/18/15 1203
AZ17433	S67-SS031-0001	0618_000009	06/18/15 1241
AZ17434	S67-SB031-0203	0618_000010	06/18/15 1318
AZ17435	S67-SS039-0001	0618_000011	06/18/15 1356
AZ17436	S67-SB039-0607	0618_000012	06/18/15 1433
AZ17437	S67-SS038-0001	0618_000013	06/18/15 1511
AZ17438	S67-SB038-0203	0618_000014	06/18/15 1548
AZ17439	S67-SS033-0001	0618_000015	06/18/15 1626
AZ17440	S67-SB033-0203	0618_000016	06/18/15 1703
AZ17441	S67-SS040-0001	0618_000017	06/18/15 1741
AZ17442	S67-SS040P-0001	0618_000018	06/18/15 1818
AZ17443	S67-SB040-1516	0621_000008	06/21/15 1830
AZ17444	S67-SS035-0001	0621_000009	06/21/15 1910
AZ17445	S67-SB035-0203	0621_000010	06/21/15 1949
AZ17446	S67-SS034-0001	0621_000011	06/21/15 2029
AZ17447	S67-SB034-0405	0621_000012	06/21/15 2108

Comments: Batch: #83BJU11S-150617

Printed: 06/22/15 10:30:04 AM

Form 4, Blank Summary

EPA 8330
EXPLOSIVES

Sample Data

APPL, INC.

EPA 8330B SOIL

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-SS031-0001
Sample Collection Date: 06/08/15

ARF: 76624
APPL ID: AZ17433
QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/18/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/18/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	88.0	70-130			%	06/17/15	06/18/15

Quant Method: W150610.M
Run #: 0618_000009
Instrument: Waldorf
Sequence: 150618
Dilution Factor: 1
Initials: MP

Printed: 06/22/15 10:30:57 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 12:41:05
Operator : MP
Sample : AZ17433S02 7.929 DF 06/17/15
Misc : Soil
ALS Vial : 4100 Sample Multiplier: 7.92864

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 18 16:32:30 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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	3.522	0	721501	N.D.	523.222	#
	Spiked Amount 594.648			Recovery	=	0.00%	87.99%	
	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	LOS/N N.D.	
9)	TM TETRYL	6.440	0.000	105392	0	NoCal	LOL N.D.	d
10)	TM 2,4,6-TRI...	6.877	0.000	28743	0	NoCal	N.D.	
11)	TM 2-AMINO-4...	7.042	0.000	28886	0	NoCal	NT N.D.	d
12)	TM 4-AMINO-2...	7.551	0.000	38310	0	NoCal	NT N.D.	d
13)	TM 2,4-DINIT...	8.593	0.000	23021	0	NoCal	N.D.	
14)	TM 2,6-DINIT...	8.833	0.000	8228	0	NoCal	N.D.	
15)	TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.	
16)	TM 4-NITROTO...	0.000	0.000	0	0	N.D.	NT N.D.	d
17)	TM 3-NITROTO...	0.000	0.000	0	0	N.D.	NT N.D.	d
18)	TM PETN	0.000	0.000	0	0	N.D. d	NT N.D.	

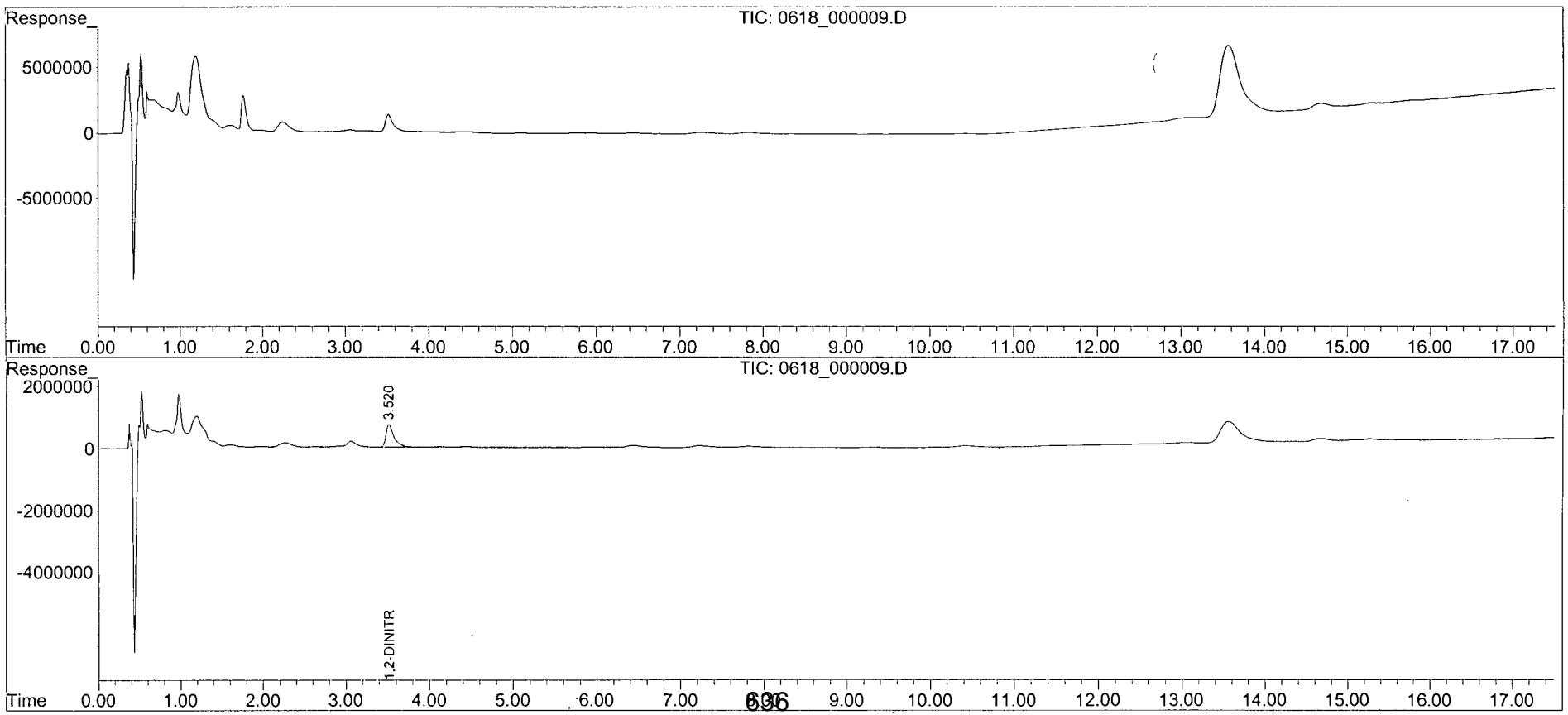
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int. MP
06-22-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 12:41:05
Operator : MP
Sample : AZ17433S02 7.929 DF 06/17/15
Misc : Soil
ALS Vial : 4100 Sample Multiplier: 7.92864

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 18 16:32:30 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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 SOIL

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

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SB031-0203
Sample Collection Date: 06/08/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76624
APPL ID: AZ17434
QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/18/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/18/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	90.0	70-130			%	06/17/15	06/18/15

Quant Method: W150610.M
Run #: 0618_000010
Instrument: Waldorf
Sequence: 150618
Dilution Factor: 1
Initials: MP

Printed: 06/22/15 10:30:57 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000010.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 13:18:35
Operator : MP
Sample : AZ17434S01 7.937 DF 06/17/15
Misc : Soil
ALS Vial : 4101 Sample Multiplier: 7.93651

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 21 14:41:03 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
4) S	1,2-DINIT...	0.000	3.526	0	737624	N.D.	535.445	#
	Spiked Amount 595.238			Recovery	=	0.00%	89.95%	
	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<2 S/N	N.D.	
9) TM	TETRYL	6.435	0.000	136514	0	NoCal DRT	N.D.	d
10) TM	2,4,6-TRI...	6.763	0.000	60399	0	NoCal	N.D.	
11) TM	2-AMINO-4...	6.980	0.000	40701	0	NoCal	N.D.	
12) TM	4-AMINO-2...	7.525	0.000	51594	0	NoCal NT	N.D.	d
13) TM	2,4-DINIT...	8.531	0.000	34474	0	NoCal	N.D.	
14) TM	2,6-DINIT...	8.928	0.000	29015	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.

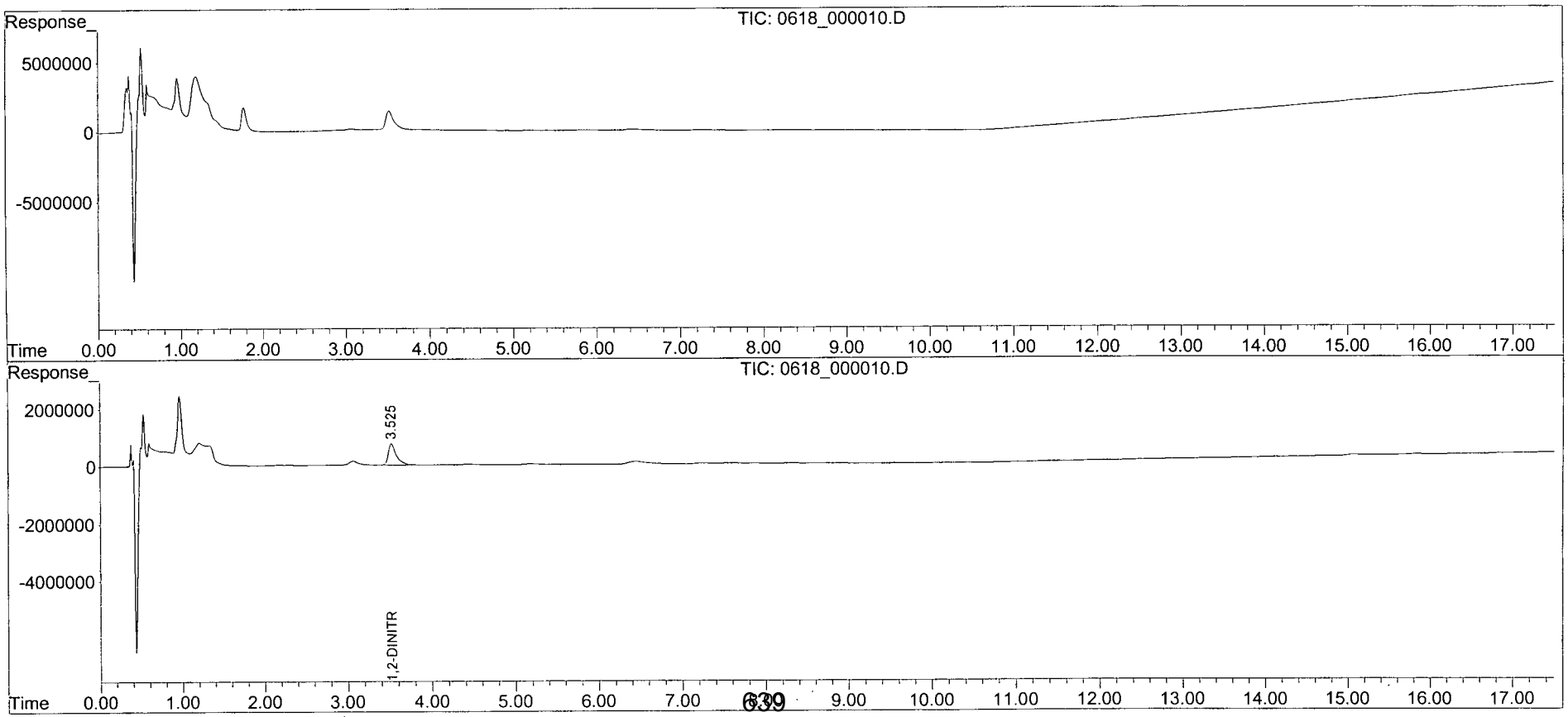
MP
06-22-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000010.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 13:18:35
Operator : MP
Sample : AZ17434S01 7.937 DF 06/17/15
Misc : Soil
ALS Vial : 4101 Sample Multiplier: 7.93651

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 21 14:41:03 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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 SOIL

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

Attn: Ed Corack

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76624

Sample ID: S67-SS039-0001

APPL ID: AZ17435

Sample Collection Date: 06/08/15

QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/18/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/18/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	88.6	70-130			%	06/17/15	06/18/15

Quant Method:	W150610.M
Run #:	0618_000011
Instrument:	Waldorf
Sequence:	150618
Dilution Factor:	1
Initials:	MP

Printed: 06/22/15 10:30:57 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 13:56:07
Operator : MP
Sample : AZ17435S02 7.882 DF 06/17/15
Misc : Soil
ALS Vial : 4102 Sample Multiplier: 7.88177

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 18 16:37:50 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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	726205	N.D.	523.520 #
	Spiked Amount 591.133			Recovery	=	0.00%	88.56%
	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	6.398	0.000	19277	0	NoCal	N.D.
10) TM	2,4,6-TRI...	6.846	0.000	16362	0	NoCal	N.D.
11) TM	2-AMINO-4...	7.120	0.000	7366	0	NoCal	N.D.
12) TM	4-AMINO-2...	7.405	0.000	15106	0	NoCal	N.D.
13) TM	2,4-DINIT...	8.536	0.000	3377	0	NoCal	N.D.
14) TM	2,6-DINIT...	8.821	0.000	7830	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.

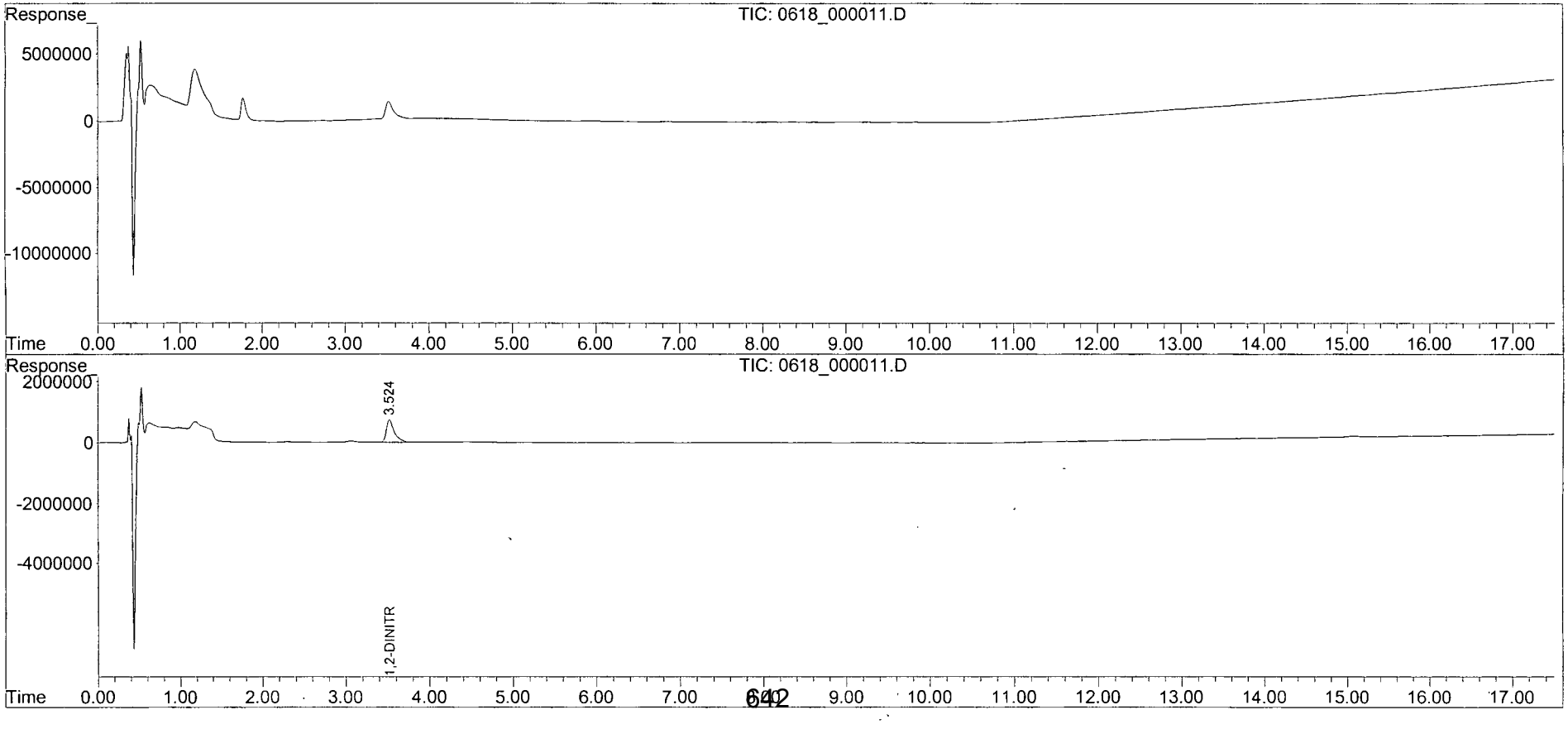
MP
06-22-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 13:56:07
Operator : MP
Sample : AZ17435S02 7.882 DF 06/17/15
Misc : Soil
ALS Vial : 4102 Sample Multiplier: 7.88177

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 18 16:37:50 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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 SOIL

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

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SB039-0607
Sample Collection Date: 06/08/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76624
APPL ID: AZ17436
QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/18/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/18/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	88.2	70-130			%	06/17/15	06/18/15

Quant Method: W150610.M
Run #: 0618_000012
Instrument: Waldorf
Sequence: 150618
Dilution Factor: 1
Initials: MP

Printed: 06/22/15 10:30:57 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 14:33:37
Operator : MP
Sample : AZ17436S01 7.960 DF 06/17/15
Misc : Soil
ALS Vial : 4103 Sample Multiplier: 7.9602

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 18 16:38:48 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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	3.518	0	723004	N.D.		526.398 #
	Spiked Amount 597.015			Recovery	=	0.00%		88.17%
	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.	dqL	N.D.
9)	TM TETRYL	6.370	0.000	8676	0	NoCal		N.D.
10)	TM 2,4,6-TRI...	6.778	0.000	19581	0	NoCal		N.D.
11)	TM 2-AMINO-4...	7.090	0.000	28385	0	NoCal		N.D.
12)	TM 4-AMINO-2...	7.473	0.000	28789	0	NoCal		N.D.
13)	TM 2,4-DINIT...	8.498	0.000	13464	0	NoCal		N.D.
14)	TM 2,6-DINIT...	8.846	0.000	12795	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.

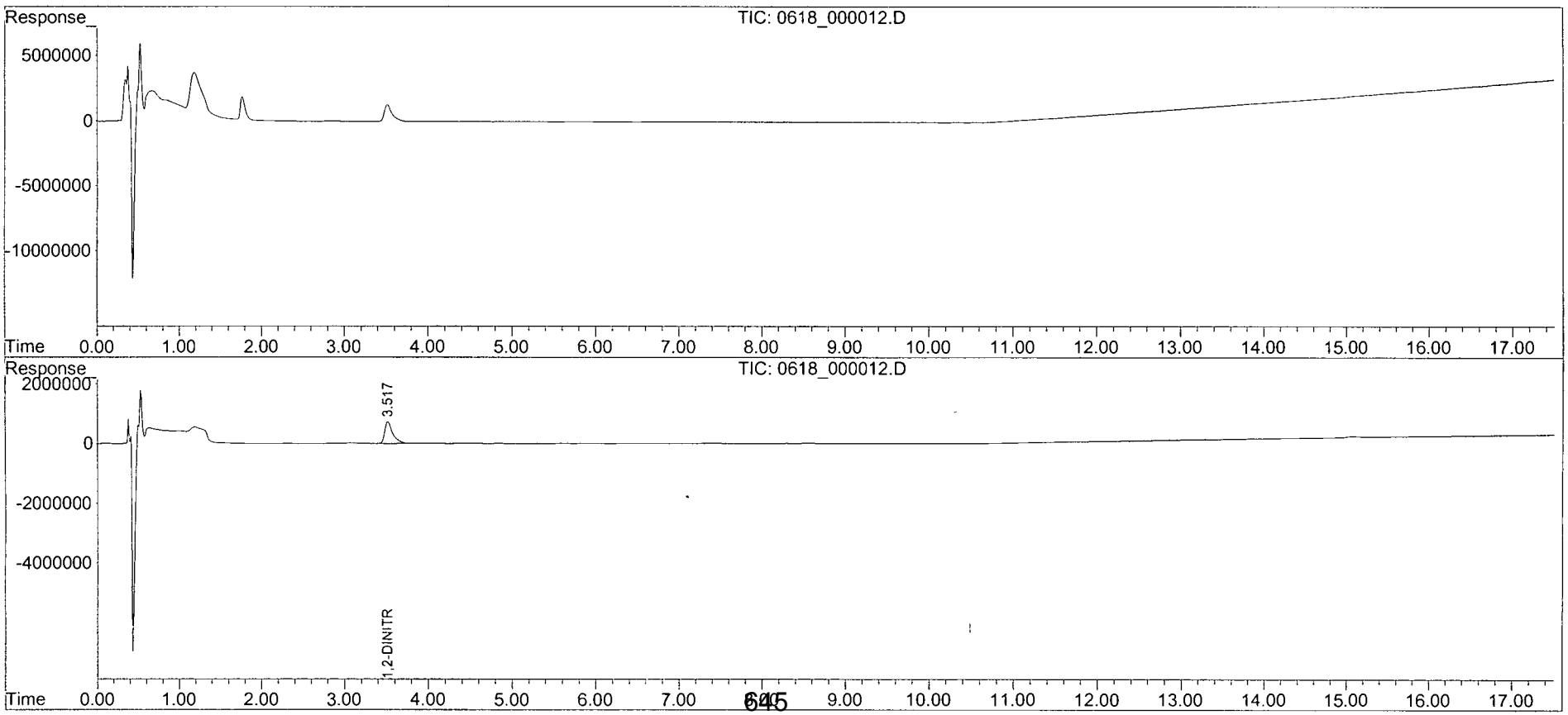
MP
06-22-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 14:33:37
Operator : MP
Sample : AZ17436S01 7.960 DF 06/17/15
Misc : Soil
ALS Vial : 4103 Sample Multiplier: 7.9602

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 18 16:38:48 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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 SOIL

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

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SS038-0001
Sample Collection Date: 06/09/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76624
APPL ID: AZ17437
QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/18/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/18/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	88.2	70-130			%	06/17/15	06/18/15

Quant Method: W150610.M
Run #: 0618_000013
Instrument: Waldorf
Sequence: 150618
Dilution Factor: 1
Initials: MP

Printed: 06/22/15 10:30:57 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 15:11:07
Operator : MP
Sample : AZ17437S02 7.859 DF 06/17/15
Misc : Soil
ALS Vial : 4104 Sample Multiplier: 7.85855

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 18 16:39:34 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb		ppb
	System Monitoring Compounds							
4) S	1,2-DINIT...	0.000	3.526	0	722851	N.D.		519.566 #
Spiked Amount	589.391			Recovery	=	0.00%		88.15%
	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.	dLDL	N.D.
9) TM	TETRYL	6.322	0.000	18656	0	NoCal		N.D.
10) TM	2,4,6-TRI...	6.911	0.000	8181	0	NoCal		N.D.
11) TM	2-AMINO-4...	7.063	0.000	7076	0	NoCal		N.D.
12) TM	4-AMINO-2...	7.388	0.000	14893	0	NoCal		N.D.
13) TM	2,4-DINIT...	8.581	0.000	18033	0	NoCal		N.D.
14) TM	2,6-DINIT...	8.877	0.000	16168	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.

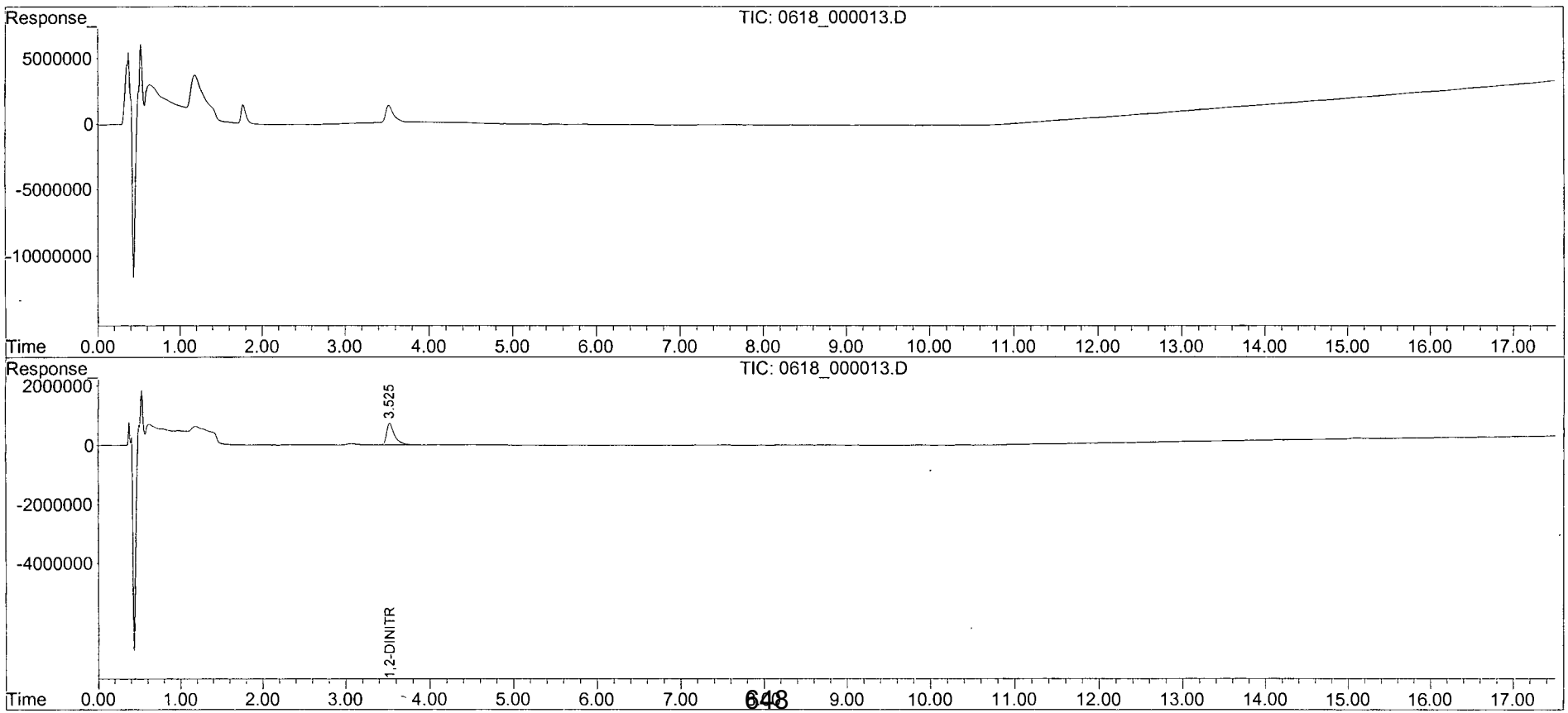
MP
06-22-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 15:11:07
Operator : MP
Sample : AZ17437S02 7.859 DF 06/17/15
Misc : Soil
ALS Vial : 4104 Sample Multiplier: 7.85855

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 18 16:39:34 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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 SOIL

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: 76624

Sample ID: S67-SB038-0203

APPL ID: AZ17438

Sample Collection Date: 06/09/15

QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/18/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/18/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	89.5	70-130			%	06/17/15	06/18/15

Quant Method: W150610.M
Run #: 0618_000014
Instrument: Waldorf
Sequence: 150618
Dilution Factor: 1
Initials: MP

Printed: 06/22/15 10:30:57 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 15:48:37
Operator : MP
Sample : AZ17438S01 7.992 DF 06/17/15
Misc : Soil
ALS Vial : 4160 Sample Multiplier: 7.99201

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 18 16:40:32 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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	733447	N.D.		536.136 #
	Spiked Amount 599.401			Recovery	=	0.00%		89.45%
	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	6.367	0.000	2137	0	NoCal		N.D.
10) TM	2,4,6-TRI...	6.885	0.000	19949	0	NoCal		N.D.
11) TM	2-AMINO-4...	6.993	0.000	21034	0	NoCal		N.D.
12) TM	4-AMINO-2...	7.464	0.000	22682	0	NoCal		N.D.
13) TM	2,4-DINIT...	8.537	0.000	29730	0	NoCal	<DL	N.D. d
14) TM	2,6-DINIT...	8.865	0.000	31698	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.

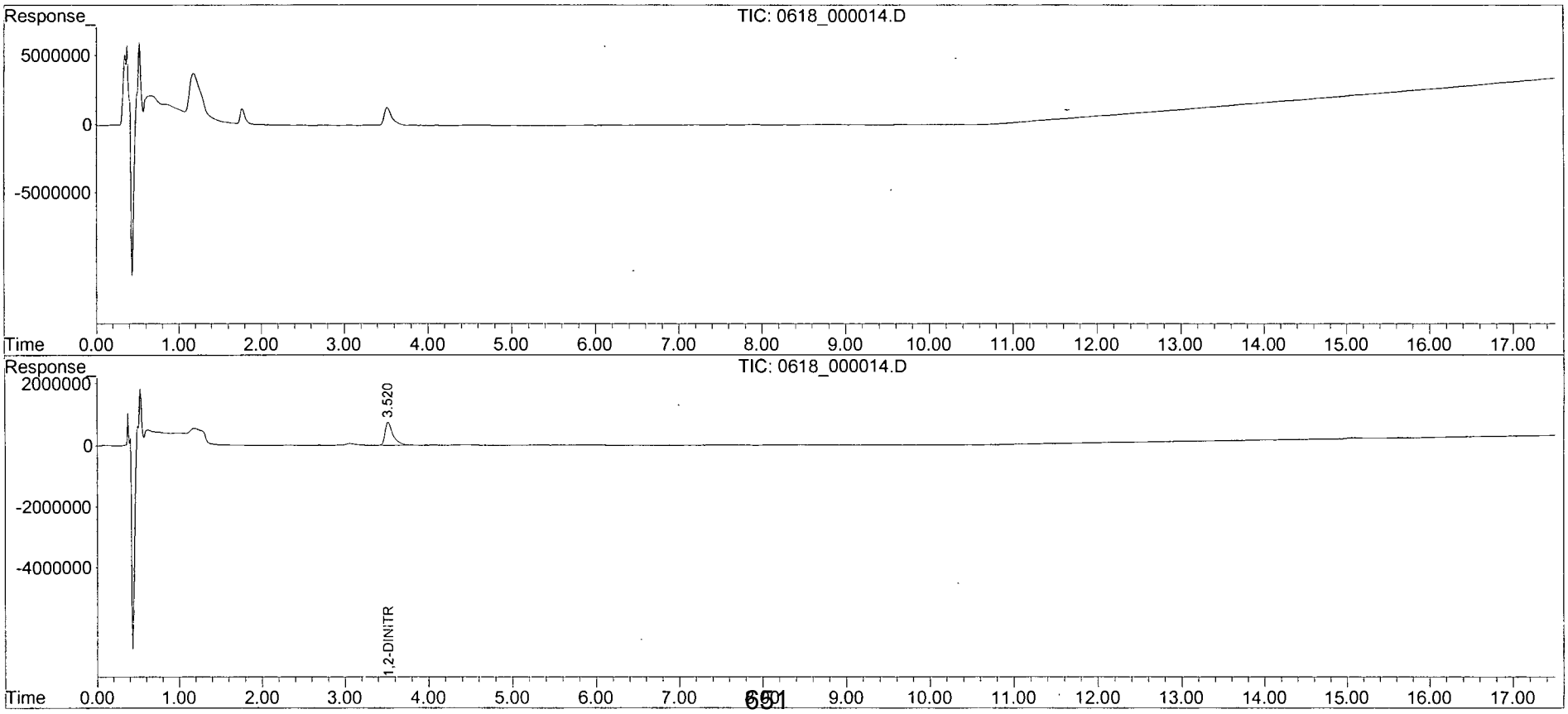
N
06-22-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 15:48:37
Operator : MP
Sample : AZ17438S01 7.992 DF 06/17/15
Misc : Soil
ALS Vial : 4160 Sample Multiplier: 7.99201

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 18 16:40:32 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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 SOIL

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

Attn: Ed Corack

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76624

Sample ID: S67-SS033-0001

APPL ID: AZ17439

Sample Collection Date: 06/09/15

QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/18/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/18/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	89.0	70-130			%	06/17/15	06/18/15

Quant Method: W150610.M
Run #: 0618_000015
Instrument: Waldorf
Sequence: 150618
Dilution Factor: 1
Initials: MP

Printed: 06/22/15 10:30:57 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 16:26:08
Operator : MP
Sample : AZ17439S02 7.929 DF 06/17/15
Misc : Soil
ALS Vial : 4161 Sample Multiplier: 7.92864

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 18 17:05:37 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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	3.514	0	729850	N.D.	529.276 #
Spiked Amount	594.648			Recovery	=	0.00%	89.01%
	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	N.D. d
9) TM	TETRYL	6.389	0.000	61351	0	NoCal	N.D.
10) TM	2,4,6-TRI...	6.882	0.000	59890	0	NoCal	N.D.
11) TM	2-AMINO-4...	7.079	0.000	36888	0	NoCal	N.D.
12) TM	4-AMINO-2...	7.321	0.000	56060	0	NoCal	N.D.
13) TM	2,4-DINIT...	8.549	0.000	24191	0	NoCal	N.D.
14) TM	2,6-DINIT...	8.865	0.000	32295	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.

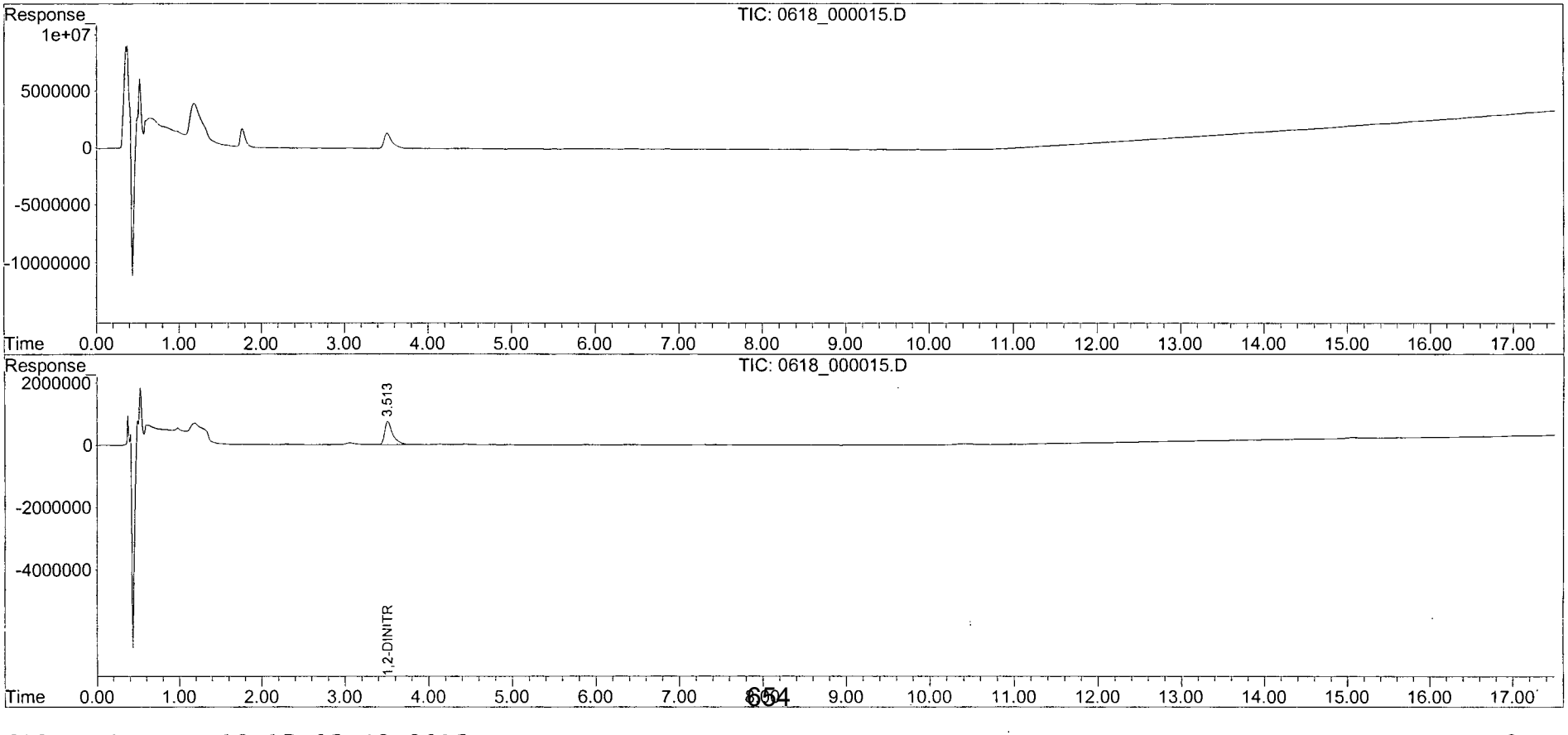
MP
6-22-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 16:26:08
Operator : MP
Sample : AZ17439S02 7.929 DF 06/17/15
Misc : Soil
ALS Vial : 4161 Sample Multiplier: 7.92864

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 18 17:05:37 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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 SOIL

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

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SB033-0203
Sample Collection Date: 06/09/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76624
APPL ID: AZ17440
QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/18/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/18/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	89.2	70-130			%	06/17/15	06/18/15

Quant Method: W150610.M
Run #: 0618_000016
Instrument: Waldorf
Sequence: 150618
Dilution Factor: 1
Initials: MP

Printed: 06/22/15 10:30:58 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 17:03:38
Operator : MP
Sample : AZ17440S01 8.000 DF 06/17/15
Misc : Soil
ALS Vial : 4162 Sample Multiplier: 8

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 19 08:01:23 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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	3.530	0	731446	N.D.	535.207 #
	Spiked Amount 600.000			Recovery	=	0.00%	89.20%
	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...	0.000	0.000	0	0	N.D. d	LDL N.D.
9) TM	TETRYL	6.377	0.000	10001	0	NoCal	N.D.
10) TM	2,4,6-TRI...	6.918	0.000	76428	0	NoCal	NT N.D. d
11) TM	2-AMINO-4...	7.097	0.000	56383	0	NoCal	N.D.
12) TM	4-AMINO-2...	7.368	7.566	59583	23116	NoCal	NT 23.632 #
13) TM	2,4-DINIT...	8.609	0.000	58921	0	NoCal	N.D.
14) TM	2,6-DINIT...	8.874	0.000	61589	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.

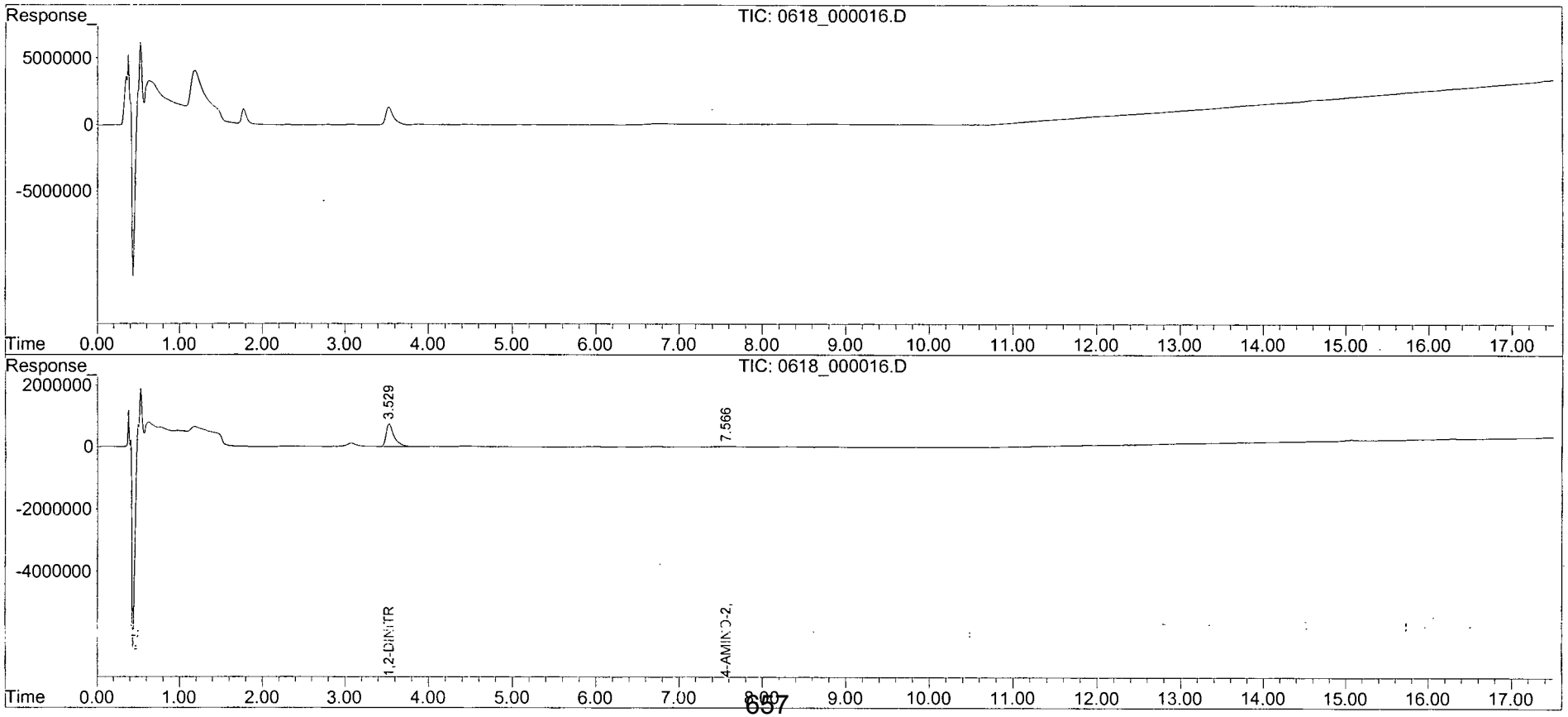
MP
06-22-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 17:03:38
Operator : MP
Sample : AZ17440S01 8.000 DF 06/17/15
Misc : Soil
ALS Vial : 4162 Sample Multiplier: 8

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 19 08:01:23 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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 SOIL

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

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-SS040-0001

Sample Collection Date: 06/10/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76624

APPL ID: AZ17441

QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/18/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/18/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	88.9	70-130			%	06/17/15	06/18/15

Quant Method: W150610.M
Run #: 0618_000017
Instrument: Waldorf
Sequence: 150618
Dilution Factor: 1
Initials: MP

Printed: 06/22/15 10:30:58 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 17:41:08
Operator : MP
Sample : AZ17441S03 7.921 DF 06/17/15
Misc : Soil
ALS Vial : 4163 Sample Multiplier: 7.92079

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 19 08:02:33 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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	3.517	0	729082	N.D.		528.196 #
	Spiked Amount 594.059			Recovery	=	0.00%		88.91%
	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	6.410	0.000	23166	0	NoCal		N.D.
10)	TM 2,4,6-TRI...	6.812	0.000	26878	0	NoCal		N.D.
11)	TM 2-AMINO-4...	7.091	0.000	26519	0	NoCal		N.D.
12)	TM 4-AMINO-2...	7.432	0.000	27473	0	NoCal		N.D.
13)	TM 2,4-DINIT...	8.552	0.000	10703	0	NoCal		N.D.
14)	TM 2,6-DINIT...	8.818	0.000	15403	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.

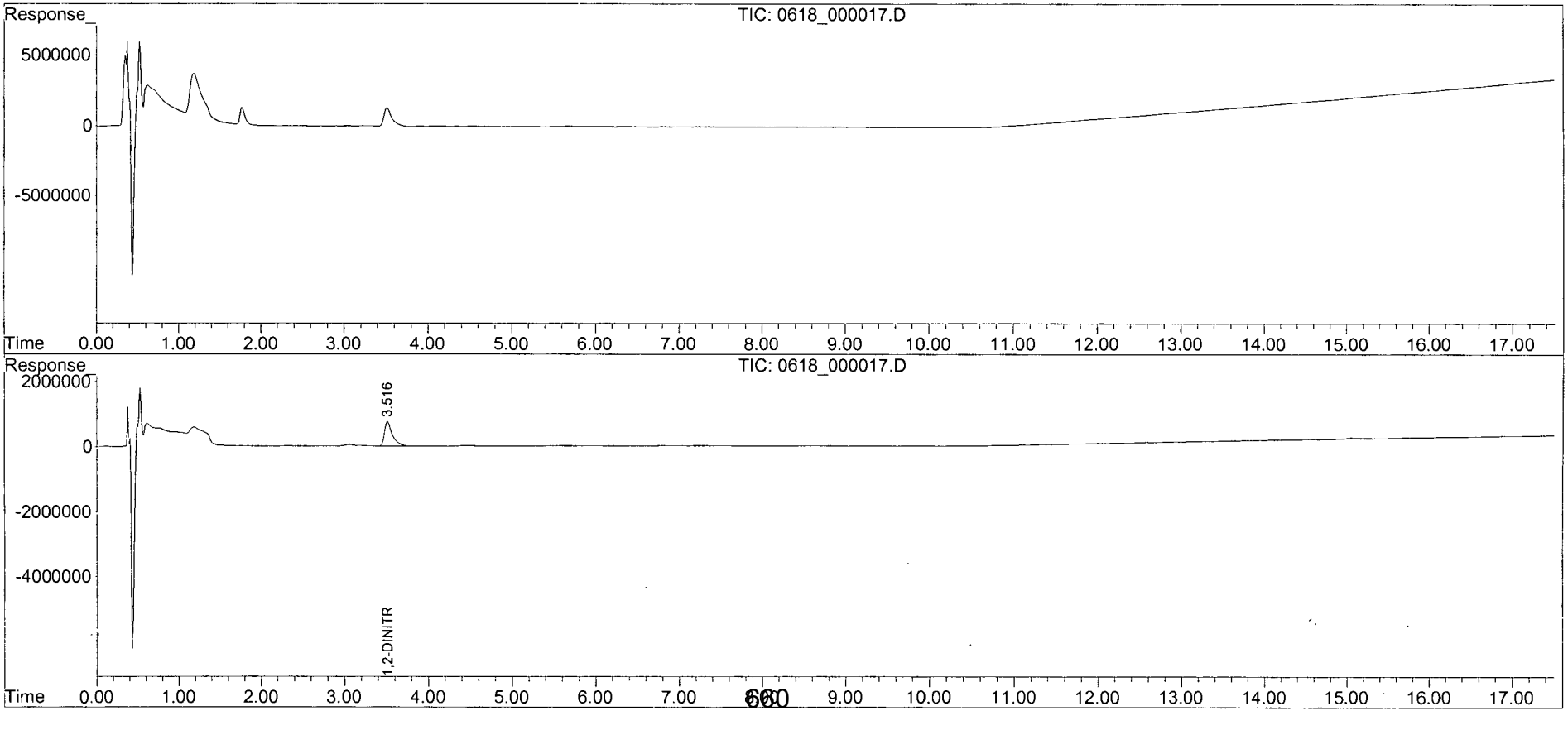
MP
06-22-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 17:41:08
Operator : MP
Sample : AZ17441S03 7.921 DF 06/17/15
Misc : Soil
ALS Vial : 4163 Sample Multiplier: 7.92079

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 19 08:02:33 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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 SOIL

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

Attn: Ed Corack

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76624

Sample ID: S67-SS040P-0001

APPL ID: AZ17442

Sample Collection Date: 06/10/15

QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/18/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/18/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	87.8	70-130			%	06/17/15	06/18/15

Quant Method: W150610.M
Run #: 0618_000018
Instrument: Waldorf
Sequence: 150618
Dilution Factor: 1
Initials: MP

Printed: 06/22/15 10:30:58 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000018.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 18:18:39
Operator : MP
Sample : AZ17442S02 7.952 DF 06/17/15
Misc : Soil
ALS Vial : 4164 Sample Multiplier: 7.95229

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 19 08:03:19 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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	3.511	0	719531	N.D.		523.349 #
Spiked Amount	596.421			Recovery	=	0.00%		87.75%
	Target Compounds							
1) TM	HMX	0.000	0.000	0	0	N.D.		N.D.
2) TM	RDX	0.000	0.000	0	0	N.D.		N.D.
3) TM	1,3,5-TRI...	0.000	0.000	0	0	N.D.		N.D.
5) TM	1,3-DINIT...	0.000	0.000	0	0	N.D.		N.D.
6) TM	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.	dL DL	N.D.
9) TM	TETRYL	6.366	0.000	7211	0	NoCal		N.D.
10) TM	2,4,6-TRI...	6.784	0.000	16002	0	NoCal		N.D.
11) TM	2-AMINO-4...	7.093	0.000	14571	0	NoCal		N.D.
12) TM	4-AMINO-2...	7.419	0.000	16295	0	NoCal		N.D.
13) TM	2,4-DINIT...	8.494	0.000	14382	0	NoCal		N.D.
14) TM	2,6-DINIT...	8.897	0.000	4149	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.

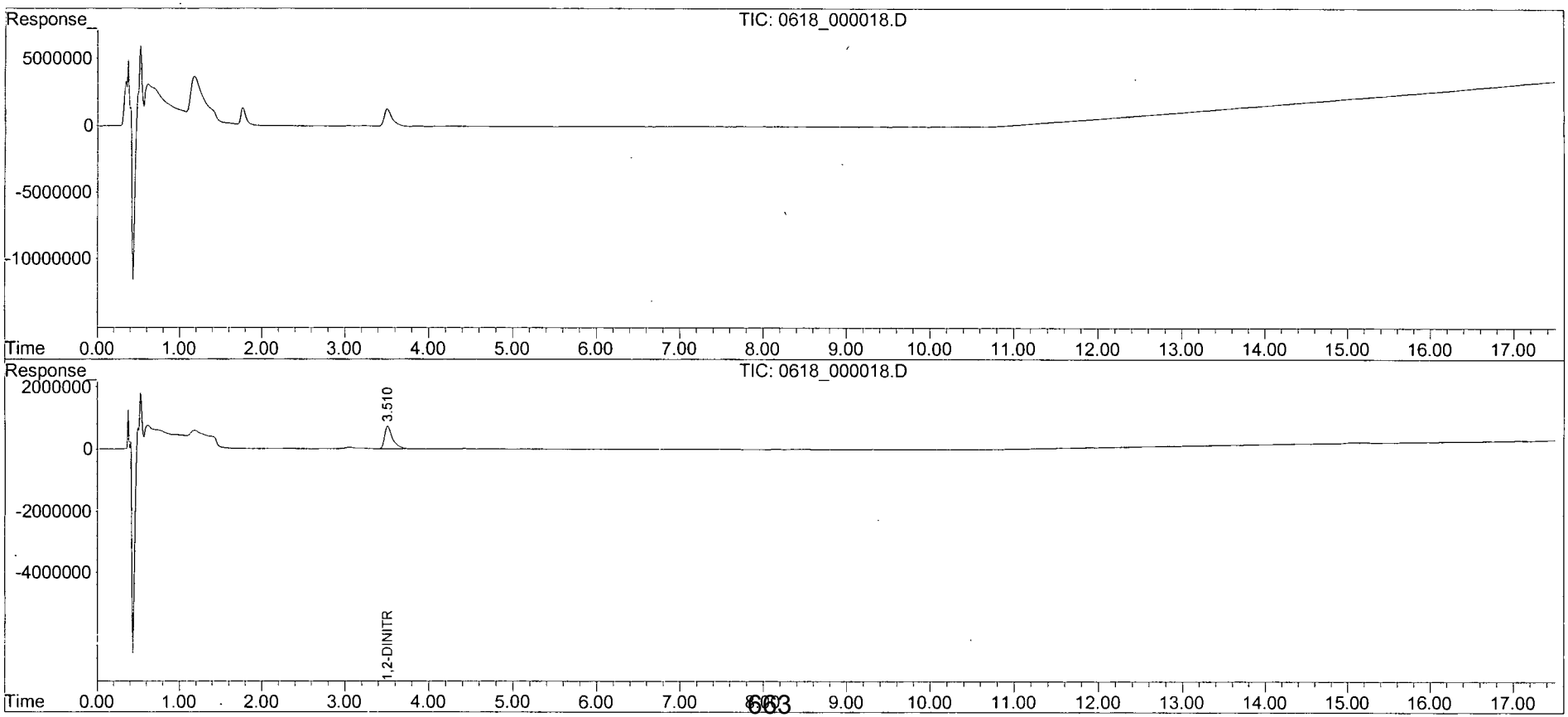
NP
06-22-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000018.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 18:18:39
Operator : MP
Sample : AZ17442S02 7.952 DF 06/17/15
Misc : Soil
ALS Vial : 4164 Sample Multiplier: 7.95229

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 19 08:03:19 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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



W150610.M Fri Jun 19 08:03:24 2015 WALDORF Page: 2

EPA 8330B SOIL

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

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-SB040-1516

Sample Collection Date: 06/10/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76624

APPL ID: AZ17443

QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/21/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/21/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/21/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/21/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/21/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/21/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	99.1	70-130			%	06/17/15	06/21/15

Quant Method:	STE2_150522.M
Run #:	0621_000008
Instrument:	Statler
Sequence:	150621
Dilution Factor:	1
Initials:	MP

Printed: 06/22/15 10:30:58 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150621\
Data File : 0621_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 21-Jun-2015, 18:30:55
Operator : MP
Sample : AZ17443S02 7.905 DF 06/17/15
Misc : Soil
ALS Vial : 4096 Sample Multiplier: 7.90514

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 22 08:00:28 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150621\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4)	S 1,2-DINIT...	0.000	8.100	0	131613	N.D.	587.335 #
	Spiked Amount 592.885			Recovery	=	0.00%	99.06%
	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.	<DL N.D. 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	11.935	0	231	N.D.	NoCal
9)	TM TETRYL	0.000	0.000	0	0	N.D.	<DL N.D. d
10)	TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11)	TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12)	TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13)	TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
14)	TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
15)	TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16)	TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17)	TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18)	TM PETN	0.000	0.000	0	0	N.D.	N.D.

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

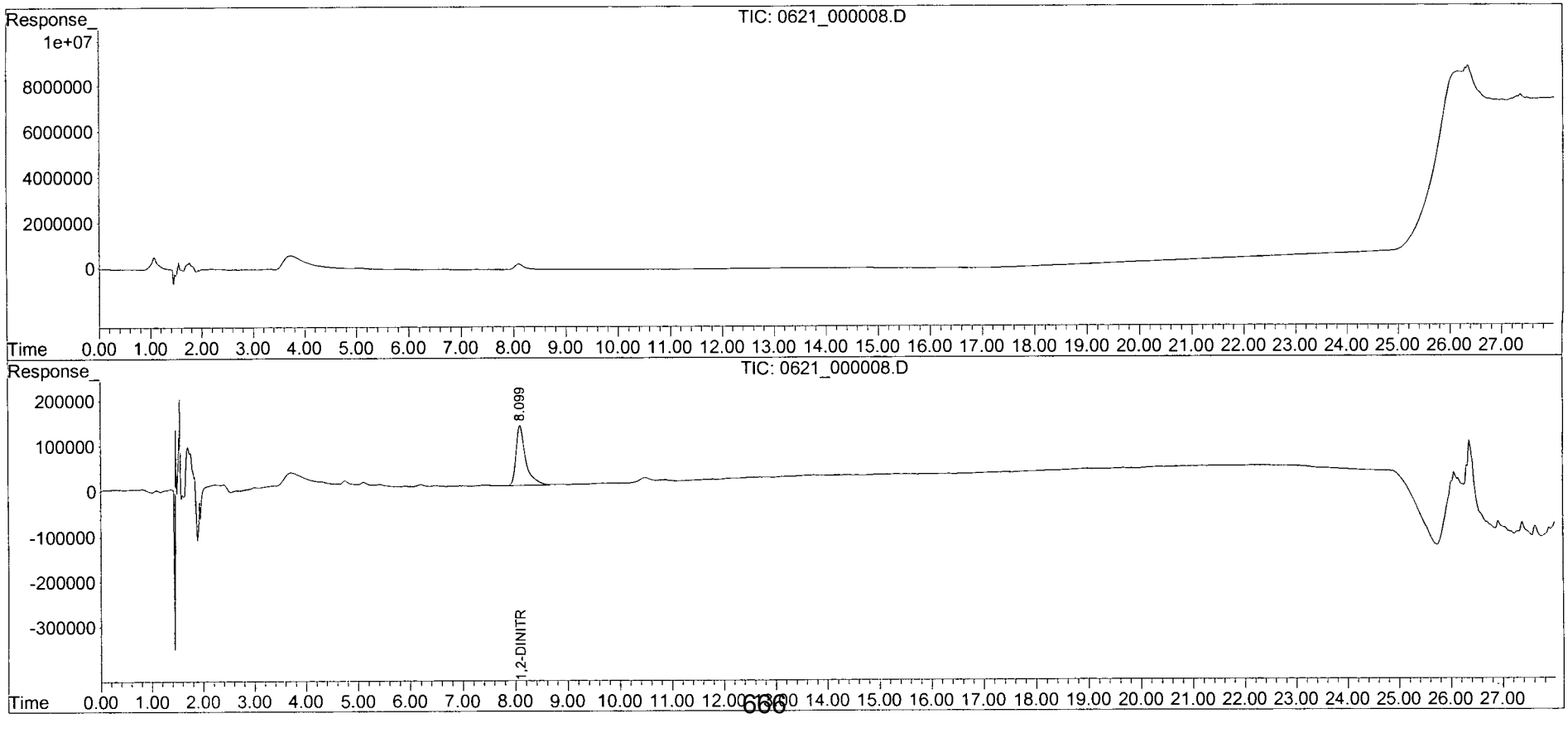
MP
06-22-15

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150621\
Data File : 0621_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 21-Jun-2015, 18:30:55
Operator : MP
Sample : AZ17443S02 7.905 DF 06/17/15
Misc : Soil
ALS Vial : 4096 Sample Multiplier: 7.90514

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 22 08:00:28 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150621\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



EPA 8330B SOIL

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

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SS035-0001
Sample Collection Date: 06/10/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76624
APPL ID: AZ17444
QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/21/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/21/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/21/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/21/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/21/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/21/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	99.7	70-130			%	06/17/15	06/21/15

Quant Method: STE2_150522.M
Run #: 0621_000009
Instrument: Statler
Sequence: 150621
Dilution Factor: 1
Initials: MP

Printed: 06/22/15 10:30:58 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150621\
Data File : 0621_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 21-Jun-2015, 19:10:27
Operator : MP
Sample : AZ17444S08 7.929 DF 06/17/15
Misc : Soil
ALS Vial : 4097 Sample Multiplier: 7.92864

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 22 08:01:23 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150621\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
4)	S 1,2-DINIT...	0.000	8.107	0	132422	N.D.	592.699 #	
	Spiked Amount 594.648			Recovery =		0.00%	99.67%	
	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.	CDL N.D.	d
3)	TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.	NJ 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.	NJ N.D.	d
7)	TM 2,4,6-TRI...	0.000	0.000	0	0	N.D.	NJ N.D.	d
8)	TM NITROGLYC...	0.000	11.944	0	596	N.D.	NoCal	
9)	TM TETRYL	0.000	0.000	0	0	N.D.	CDL 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.	N.D.	

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

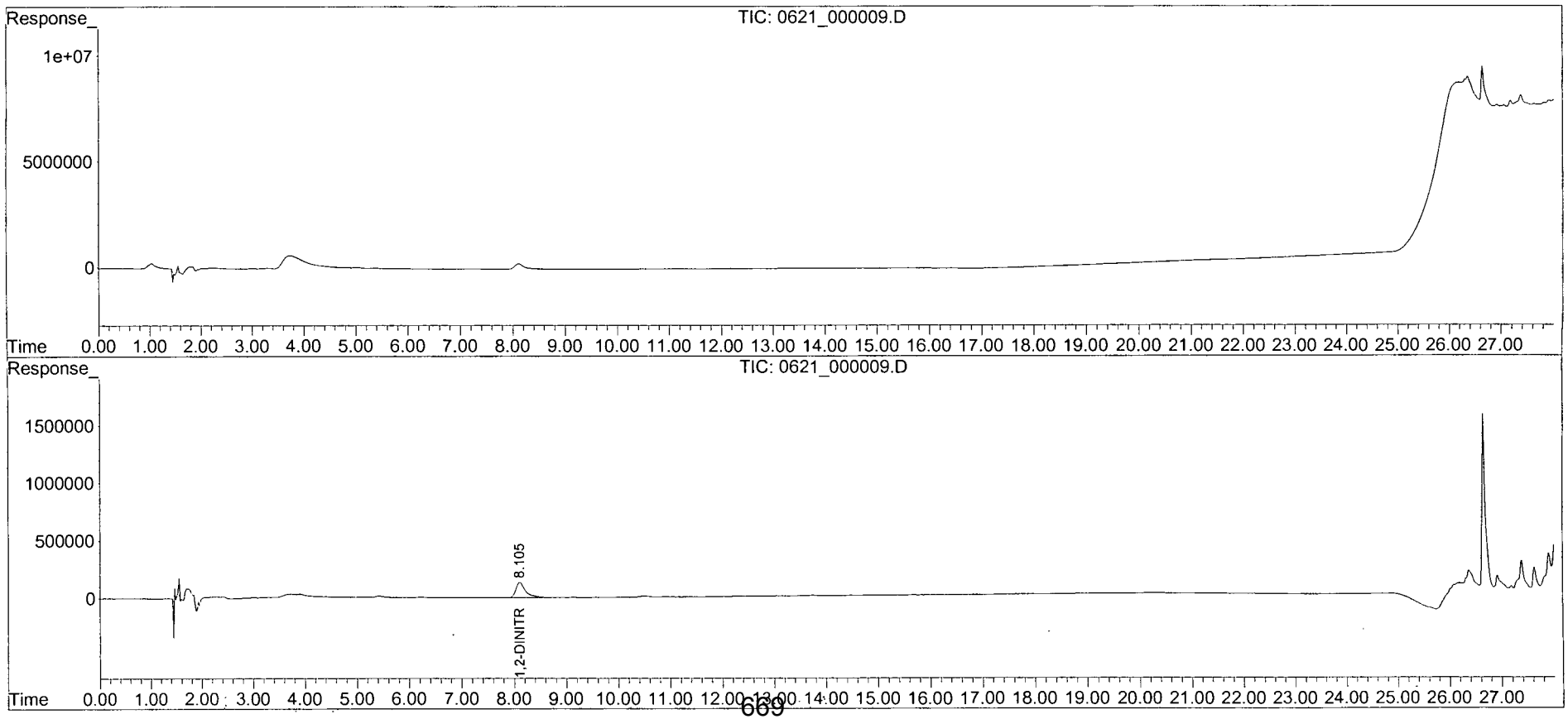
MP
06-22-15

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150621\
Data File : 0621_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 21-Jun-2015, 19:10:27
Operator : MP
Sample : AZ17444S08 7.929 DF 06/17/15
Misc : Soil
ALS Vial : 4097 Sample Multiplier: 7.92864

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 22 08:01:23 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150621\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



EPA 8330B SOIL

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-SB035-0203
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17445
QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/21/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/21/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/21/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/21/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/21/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/21/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	99.3	70-130			%	06/17/15	06/21/15

Quant Method: STE2_150522.M
Run #: 0621_000010
Instrument: Statler
Sequence: 150621
Dilution Factor: 1
Initials: MP

Printed: 06/22/15 10:30:58 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150621\
Data File : 0621_000010.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 21-Jun-2015, 19:49:56
Operator : MP
Sample : AZ17445S02 8.000 DF 06/17/15
Misc : Soil
ALS Vial : 4098 Sample Multiplier: 8

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 22 08:02:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150621\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
System Monitoring Compounds							
4) S 1,2-DINIT...	0.000	8.096	0	131952	N.D.	595.910 #	
Spiked Amount 600.000			Recovery	=	0.00%	99.32%	
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.	CDL N.D.	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	11.920	0	390	N.D.	NoCal	
9) TM TETRYL	0.000	0.000	0	0	N.D.	CDL 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.	N.D.	

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

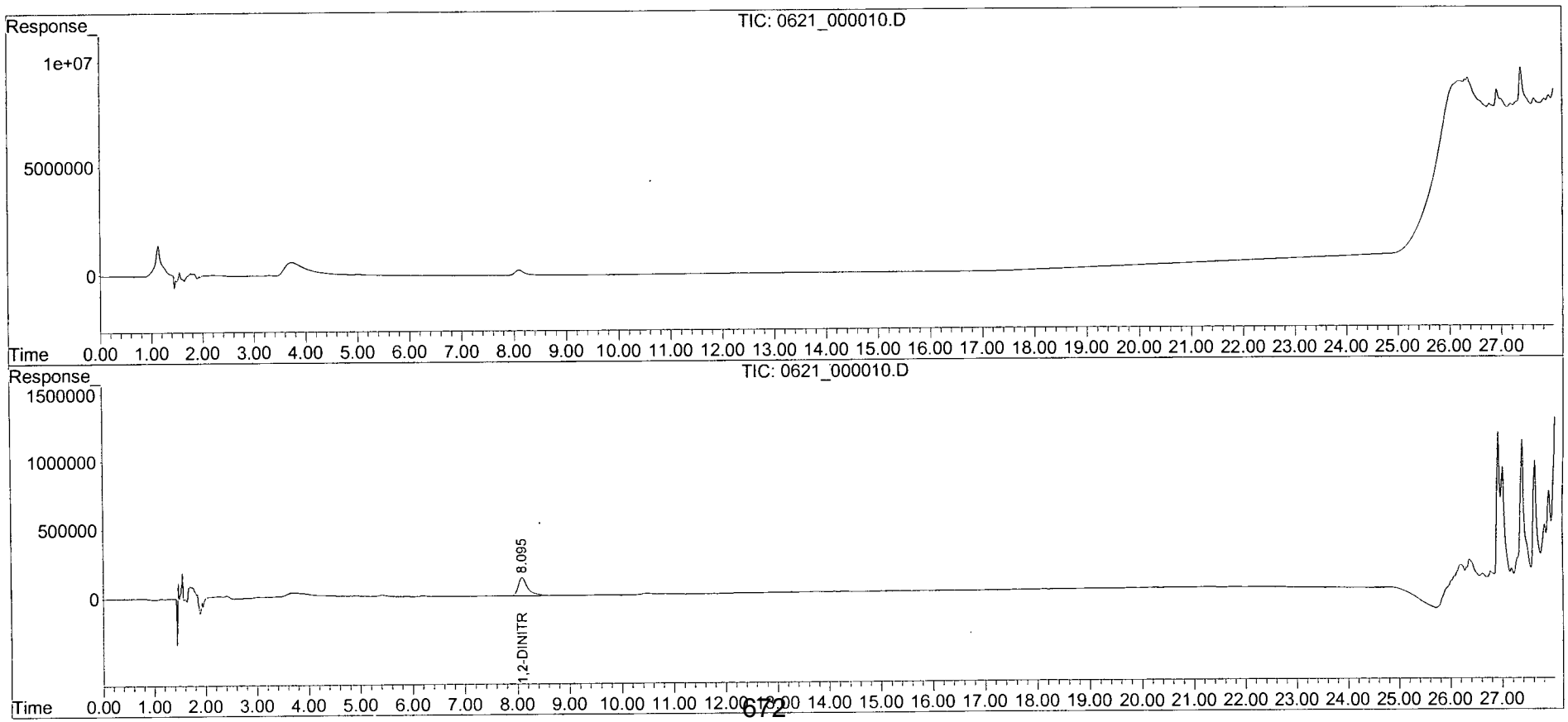
MP
06-22-15

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150621\
Data File : 0621_000010.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 21-Jun-2015, 19:49:56
Operator : MP
Sample : AZ17445S02 8.000 DF 06/17/15
Misc : Soil
ALS Vial : 4098 Sample Multiplier: 8

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 22 08:02:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150621\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



EPA 8330B SOIL

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

Attn: Ed Corack

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76624

Sample ID: S67-SS034-0001

APPL ID: AZ17446

Sample Collection Date: 06/10/15

QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/21/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/21/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/21/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/21/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/21/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/21/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	96.6	70-130			%	06/17/15	06/21/15

Quant Method: STE2_150522.M
Run #: 0621_000011
Instrument: Statler
Sequence: 150621
Dilution Factor: 1
Initials: MP

Printed: 06/22/15 10:30:58 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150621\
Data File : 0621_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 21-Jun-2015, 20:29:27
Operator : MP
Sample : AZ17446S02 7.921 DF 06/17/15
Misc : Soil
ALS Vial : 4099 Sample Multiplier: 7.92079

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 22 08:02:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150621\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	8.102	0	128342	N.D.	573.869 #
Spiked Amount 594.059			Recovery	=	0.00%	96.60%
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.	CDL N.D. 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	11.844	0	474	N.D.	NoCal
9) TM TETRYL	0.000	0.000	0	0	N.D.	CDL 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.	N.D.

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

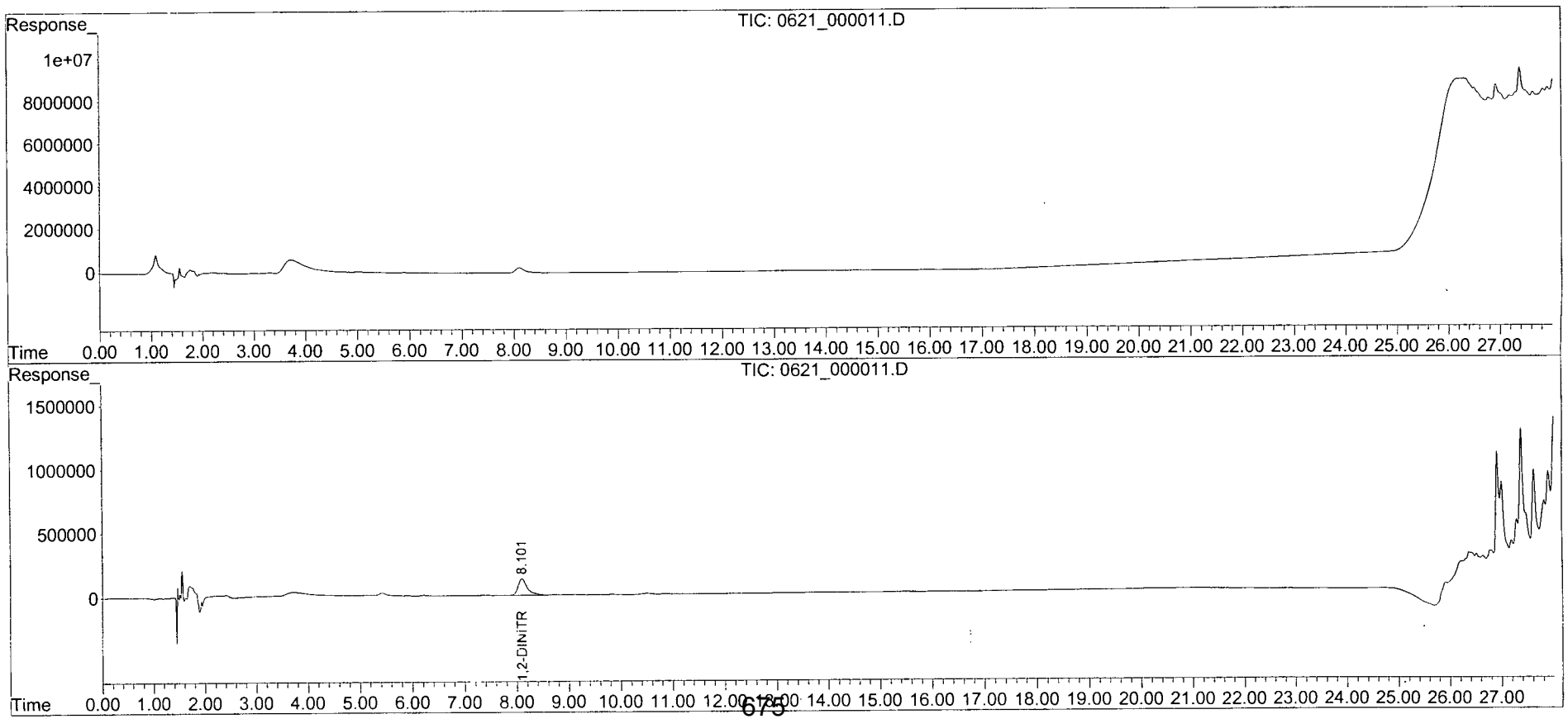
MP
06-22-15

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150621\
Data File : 0621_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 21-Jun-2015, 20:29:27
Operator : MP
Sample : AZ17446S02 7.921 DF 06/17/15
Misc : Soil
ALS Vial : 4099 Sample Multiplier: 7.92079

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 22 08:02:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150621\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



EPA 8330B SOIL

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-SB034-0405
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17447
QCG: #83BJU11S-150617-198199

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/21/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/21/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/21/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/21/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/21/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/21/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	101	70-130			%	06/17/15	06/21/15

Quant Method: STE2_150522.M
Run #: 0621_000012
Instrument: Statler
Sequence: 150621
Dilution Factor: 1
Initials: MP

Printed: 06/22/15 10:30:58 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150621\
Data File : 0621_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 21-Jun-2015, 21:08:58
Operator : MP
Sample : AZ17447S01 7.929 DF 06/17/15
Misc : Soil
ALS Vial : 4100 Sample Multiplier: 7.92864

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 22 08:03:51 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150621\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	8.097	0	134290	N.D.	601.060 #
Spiked Amount 594.648			Recovery	=	0.00%	101.08%
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.	LDL N.D. 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	12.092	0	434	N.D.	NoCal
9) TM TETRYL	0.000	0.000	0	0	N.D.	LDL N.D. d
10) TM 2,6-DINIT...	13.173f	0.000	1847	0	NoCal	N.D.
11) TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13) TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
15) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

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

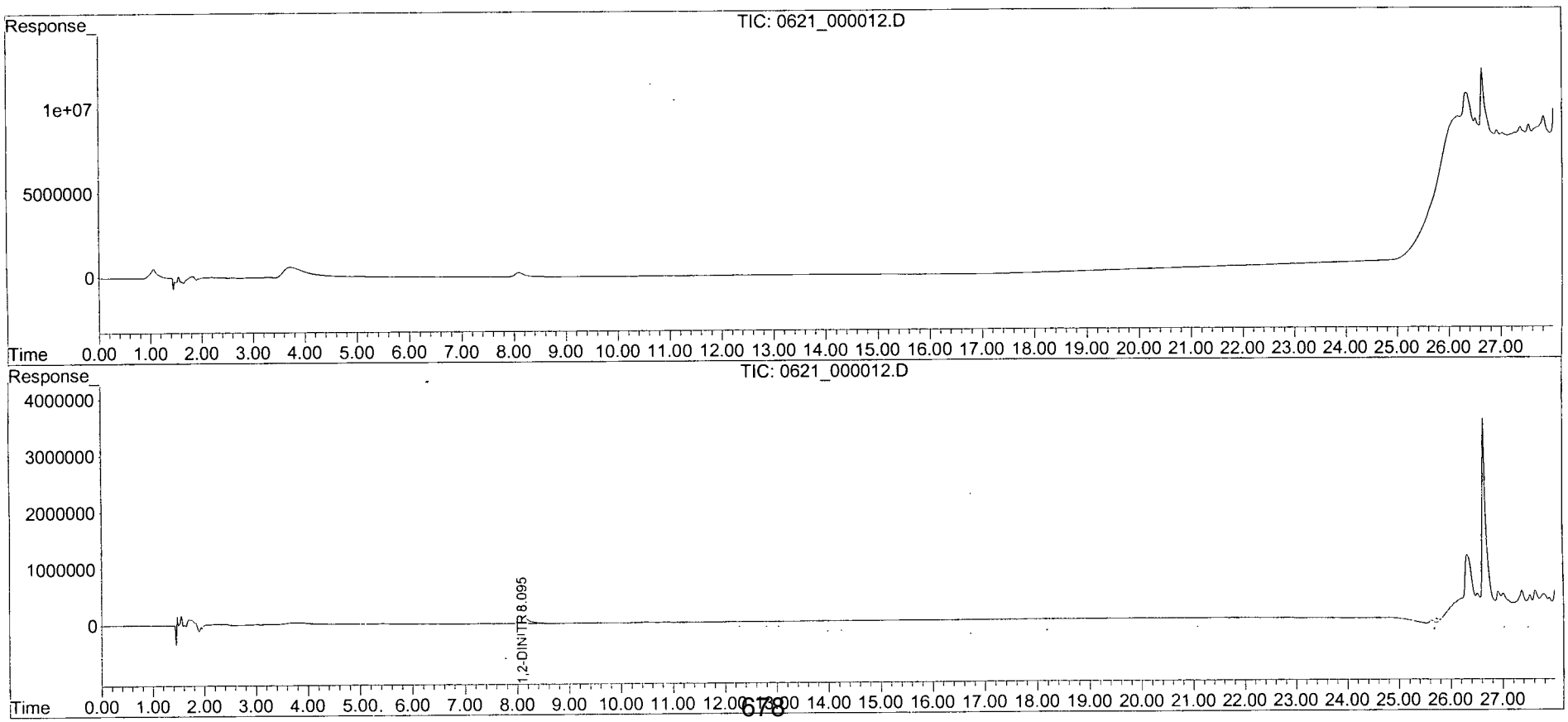
MP
06-22-15

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150621\
Data File : 0621_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 21-Jun-2015, 21:08:58
Operator : MP
Sample : AZ17447S01 7.929 DF 06/17/15
Misc : Soil
ALS Vial : 4100 Sample Multiplier: 7.92864

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 22 08:03:51 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150621\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



EPA 8330
EXPLOSIVES

Calibration Data

APPL, INC.

Initial Calibration

Lab Name: APPL, Inc. SDG No: 76624

Case No: Initial Cal. Date: 06/10/15

Matrix: Instrument: Waldorf Initials: MP

			0610_000012.D	0610_000013.D	0610_000014.D	0610_000015.D	0610_000016.D	0610_000017.D	0610_000018.D	0610_000019.D	0610_000021.D				
		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	
####	TM	NITROGLYCERIN	108	113	113	106	109	110	110	109	111		110	2.1	TM
####	TM	PETN			78.2	79.0	88.0	87.6	87.6	88.4	89.3		85.41	5.5	TM
####		Signal #2													
####	TM	HMX #2	562	553	581	597	587	591	590	588	586		581.7	2.5	TM
####	TM	RDX #2	369	364	383	386	369	379	382	383	385		377.7	2.1	TM
####	TM	1,3,5-TRINITROBENZENE #2	629	625	637	649	639	649	651	651	656		642.8	1.7	TM
####	S	1,2-DINITROBENZENE #2		263	271	274	270	274	275	277	283		273.3	2.1	S
####	TM	1,3-DINITROBENZENE #2	604	602	613	618	609	619	622	626	636		616.7	1.8	TM
####	TM	3,5-DINITROANILINE #2	478	482	490	498	490	500	503	505	489		492.7	1.9	TM
####	TM	NITROBENZENE #2	277	272	277	279	274	278	279	280	283		277.7	1.2	TM
####	TM	TETRYL #2	196	197	200	201	193	193	195	200	194		196.7	1.5	TM
####	TM	2,4,6-TRINITROTOLUENE #2	237	257	254	257	257	262	262	261	267		257.1	3.2	TM
####	TM	2-AMINO-4,6-DINITROTOLUENE	263	278	279	284	280	287	287	289	296		282.5	3.3	TM
####	TM	4-AMINO-2,6-DINITROTOLUENE	186	189	195	199	195	198	199	199	201		195.6	2.5	TM
####	TM	2,4-DINITROTOLUENE #2	249	248	244	246	242	248	249	249	254		247.5	1.4	TM
####	TM	2,6-DINITROTOLUENE #2	162	159	155	157	153	156	156	156	158		156.9	1.7	TM
####	TM	2-NITROTOLUENE #2	86.3	92.2	89.1	91.8	88.5	90.2	91.2	91.3	91.5		90.24	2.1	TM
####	TM	4-NITROTOLUENE #2	88.5	77.2	88.8	89.2	87.1	88.5	89.1	88.4	90.0		87.42	4.5	TM
####	TM	3-NITROTOLUENE #2		108	104	107	105	107	107	108	109		106.7	1.6	TM
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Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 19:59:38
Operator : MP
Sample : 8330CB 0.005 PPM 06/10/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:39:14 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 07:21:35 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	3.520	0	148303	N.D.	11.461 #
	Spiked Amount 62.500			Recovery =		0.00%	18.34%
	Target Compounds						
1)	TM HMX	0.000	0.915	0	112373	N.D.	4.326m#
2)	TM RDX	0.000	1.718	0	73847	N.D.	4.336 #
3)	TM 1,3,5-TRI...	0.000	2.808	0	125708	N.D.	4.062 #
5)	TM 1,3-DINIT...	0.000	3.690	0	120749	N.D.	4.143 #
6)	TM 3,5-DINIT...	0.000	3.897	0	95672	N.D.	4.303 #
7)	TM NITROBENZENE	0.000	4.991	0	55426	N.D.	4.151 #
8)	TM NITROGLYC...	5.939	0.000	21631	0	4.114m	N.D. #
9)	TM TETRYL	6.335	6.329	80512	39249	NoCal	4.286 #
10)	TM 2,4,6-TRI...	6.832	6.827	92385	47448	NoCal	3.792 #
11)	TM 2-AMINO-4...	7.023	7.025	91505	52660	NoCal	4.684 #
12)	TM 4-AMINO-2...	7.356	7.354	85821	37252	NoCal	4.601 #
13)	TM 2,4-DINIT...	8.518	8.494	44135	49717	NoCal	4.210 #
14)	TM 2,6-DINIT...	8.817	8.820	50026	32475	NoCal	4.994 #
15)	TM 2-NITROTO...	0.000	12.148	0	17258	N.D.	3.849m#
16)	TM 4-NITROTO...	0.000	12.792	0	17703	N.D.	3.992m#
17)	TM 3-NITROTO...	0.000	13.709	0	17822	N.D.	3.365 #
18)	TM PETN	0.000	0.000	0	0	N.D.	N.D.

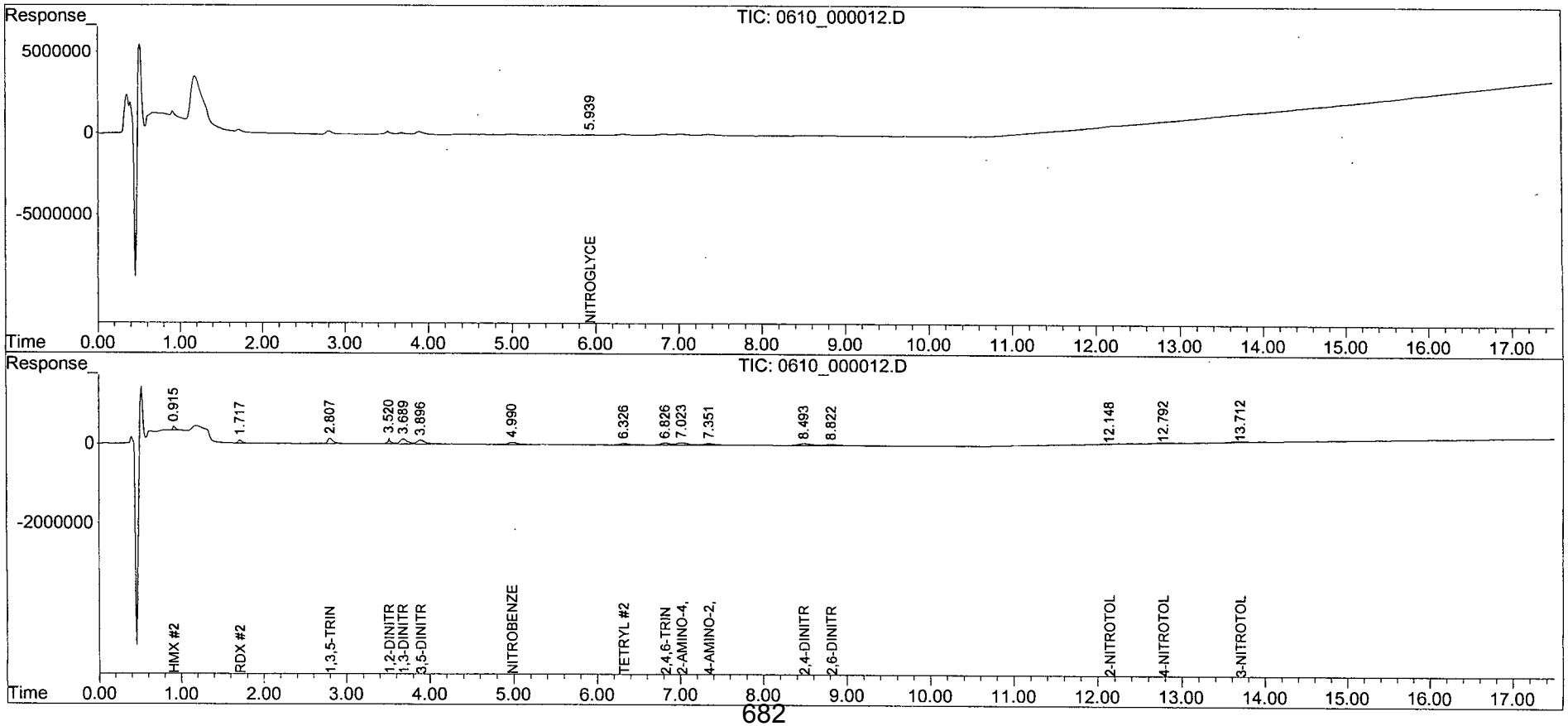
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 19:59:38
Operator : MP
Sample : 8330CB 0.005 PPM 06/10/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:39:14 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 07:21:35 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

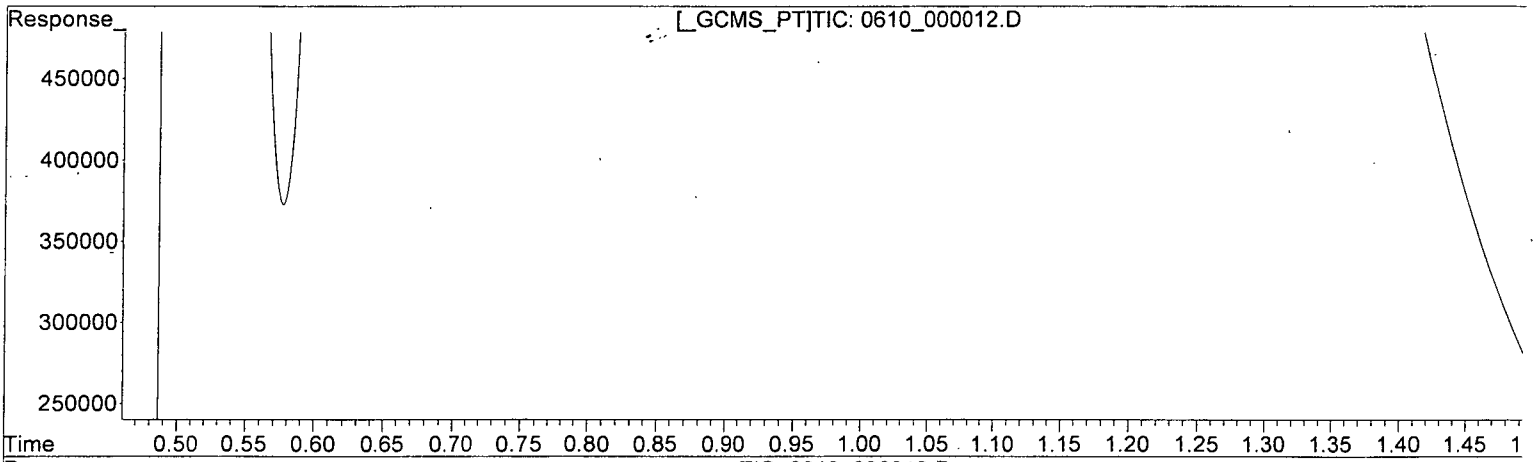


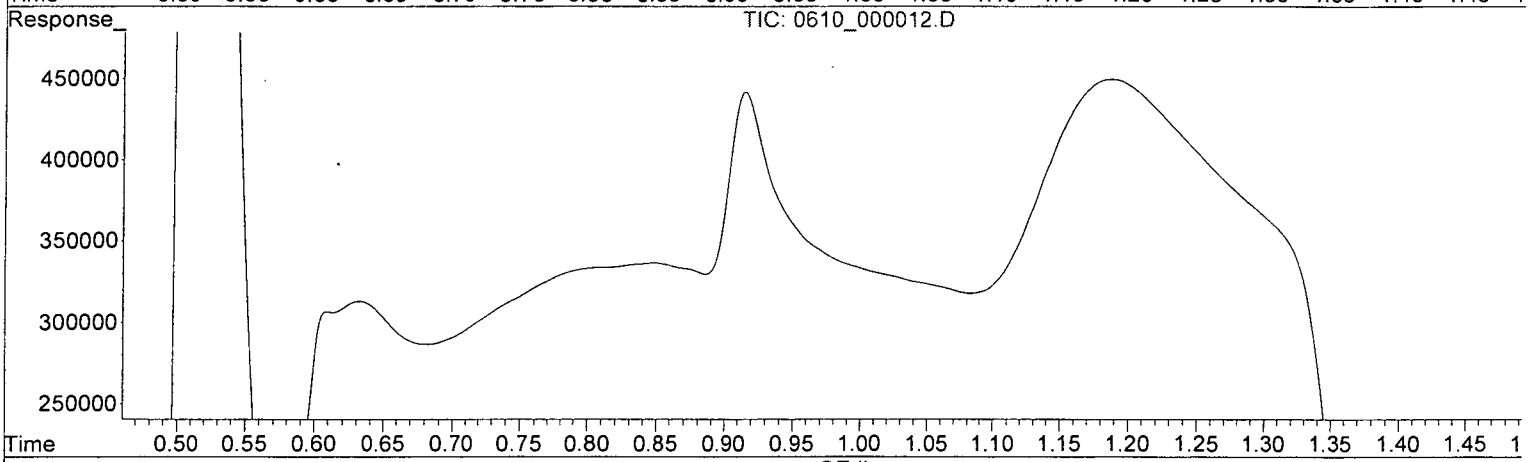
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 19:59:38
Operator : MP
Sample : 8330CB 0.005 PPM 06/10/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:46 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 07:21:35 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

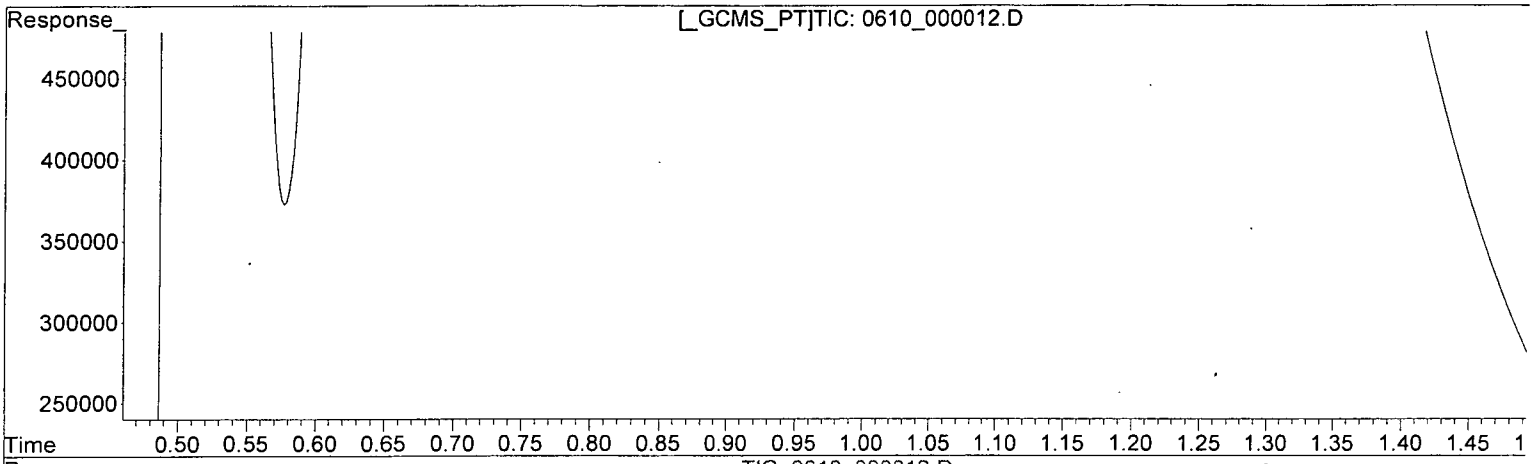
(+) = Expected Retention Time

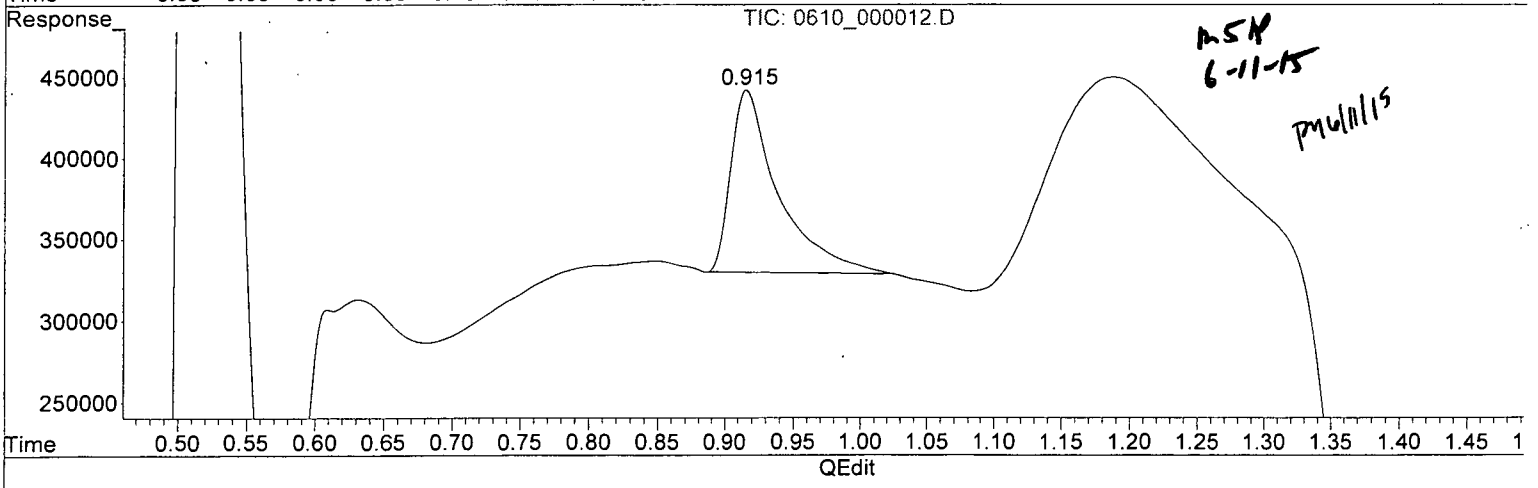
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 19:59:38
Operator : MP
Sample : 8330CB 0.005 PPM 06/10/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:46 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 07:21:35 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





MSN 6-11-15

pm6/11/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.915min 4.326 ppb m

response 112373

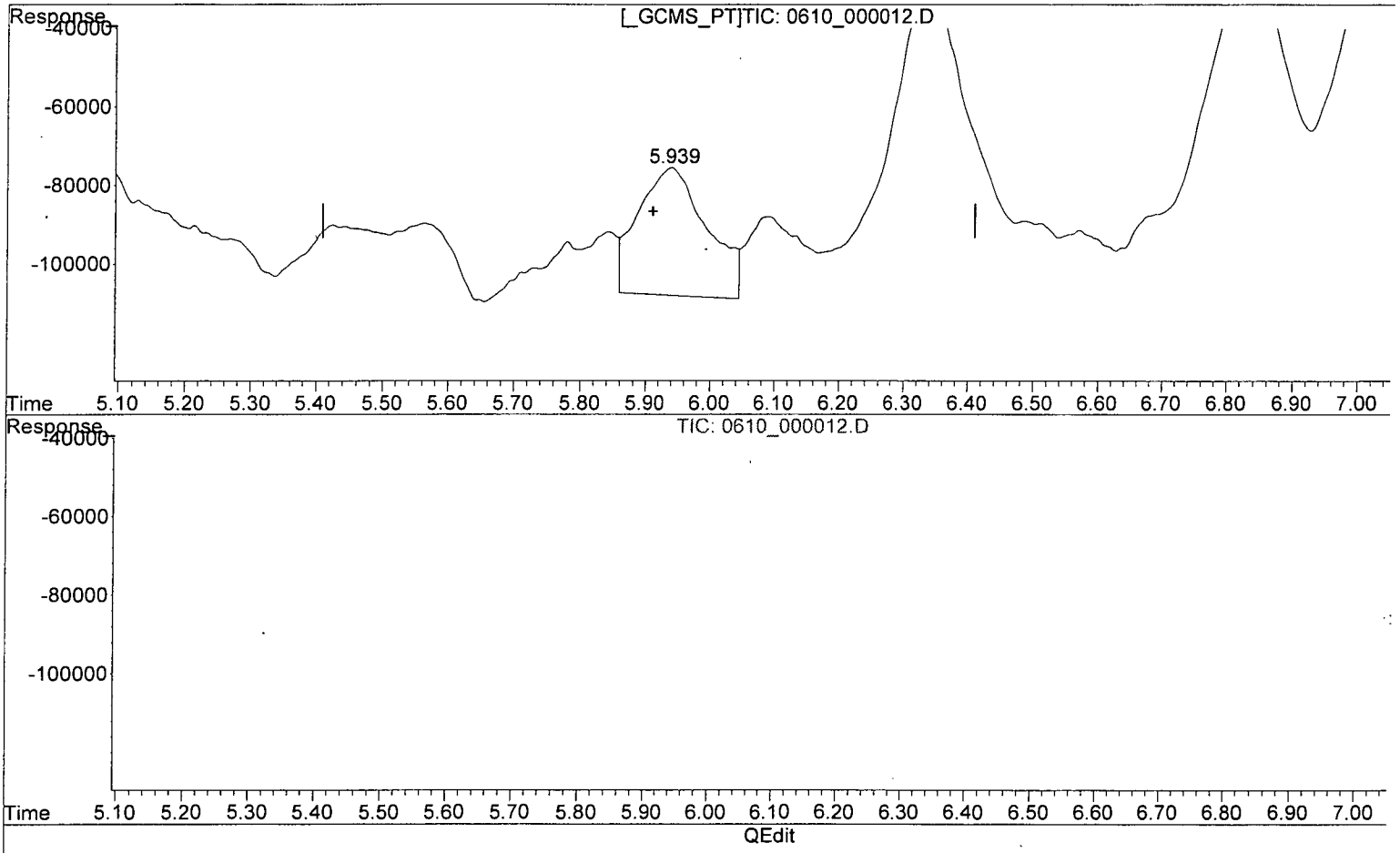
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 19:59:38
Operator : MP
Sample : 8330CB 0.005 PPM 06/10/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:46 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 07:21:35 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)

5.939min 6.186 ppb

response 32525

(8) NITROGLYCERIN #2 (TM)

0.000min 0.000 ppb

response 0

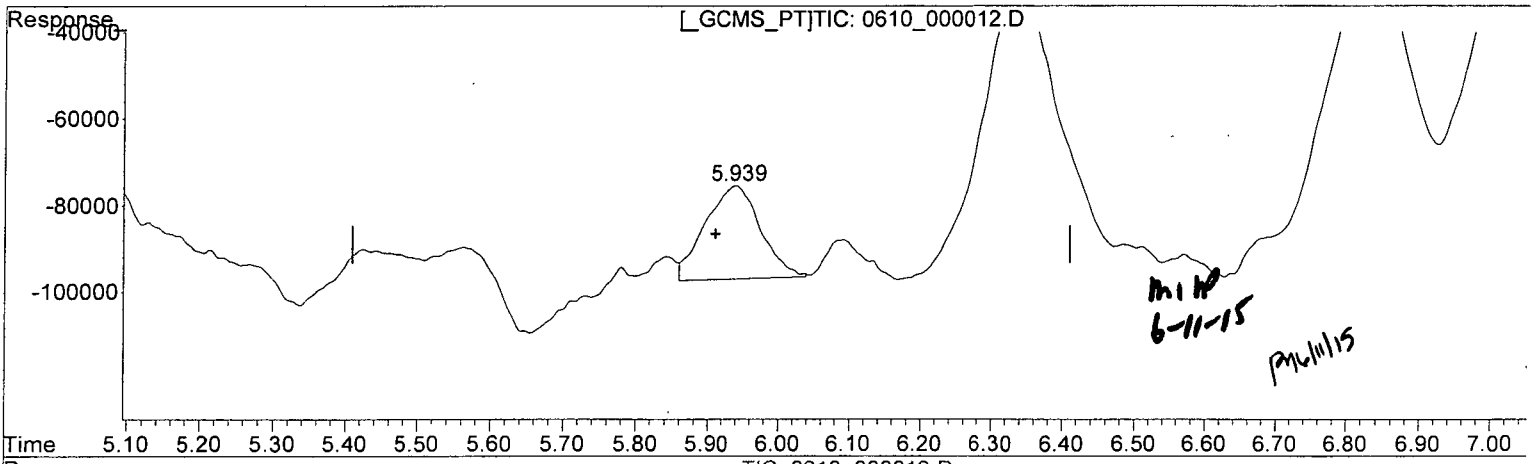
(+) = Expected Retention Time

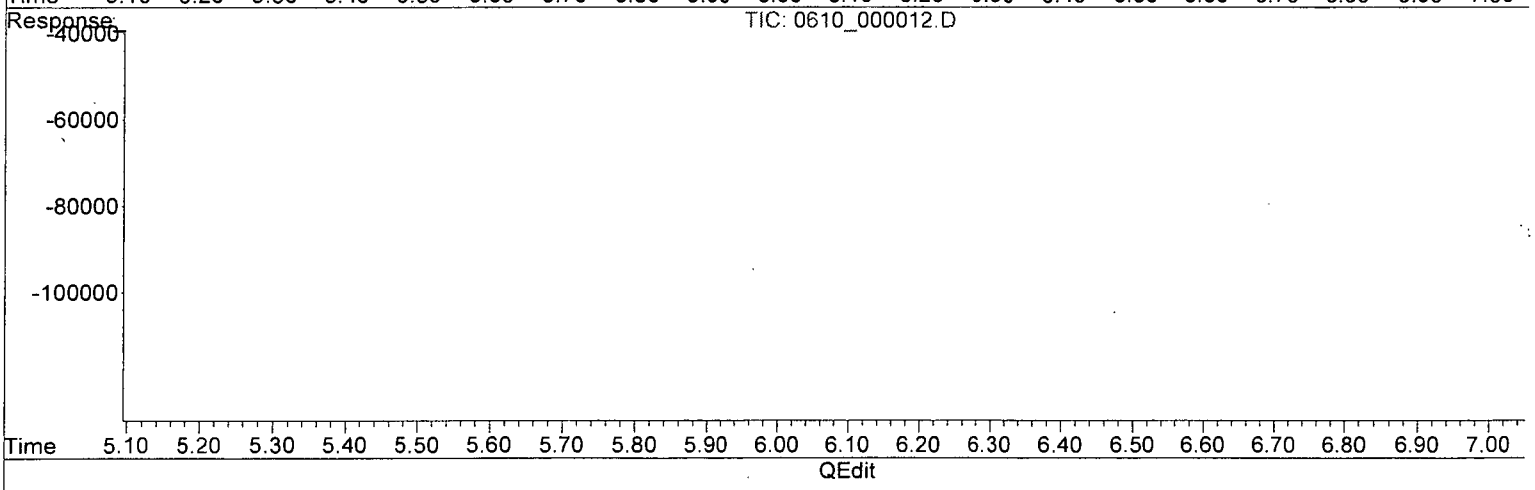
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 19:59:38
Operator : MP
Sample : 8330CB 0.005 PPM 06/10/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:46 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 07:21:35 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)

5.939min 4.114 ppb m

response 21631

(8) NITROGLYCERIN #2 (TM)

0.000min 0.000 ppb

response 0

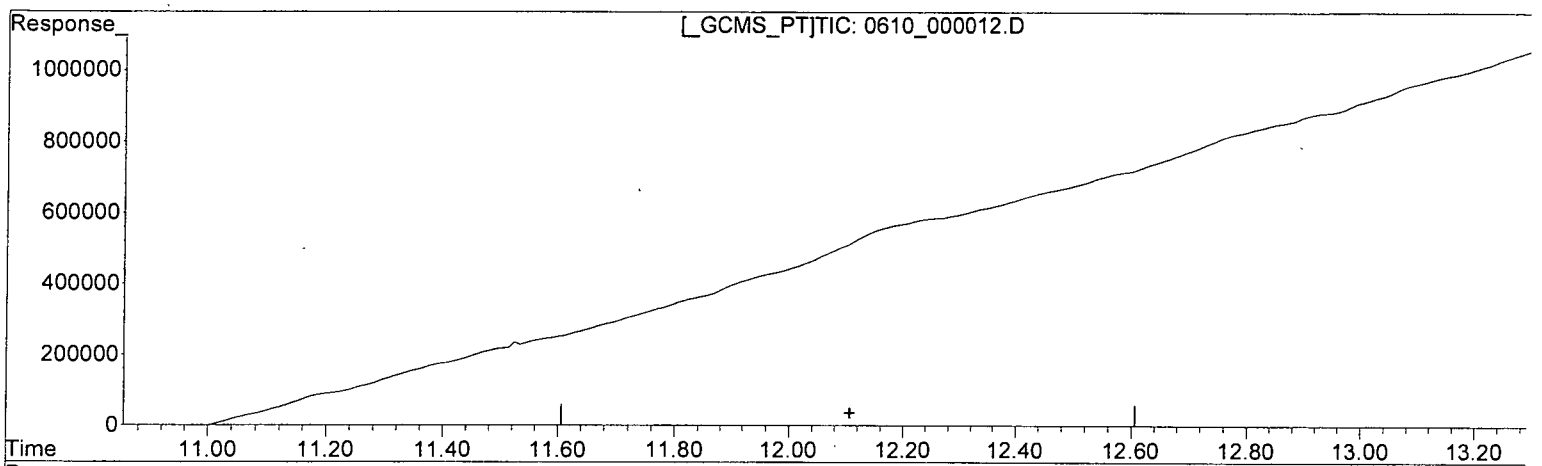
(+) = Expected Retention Time

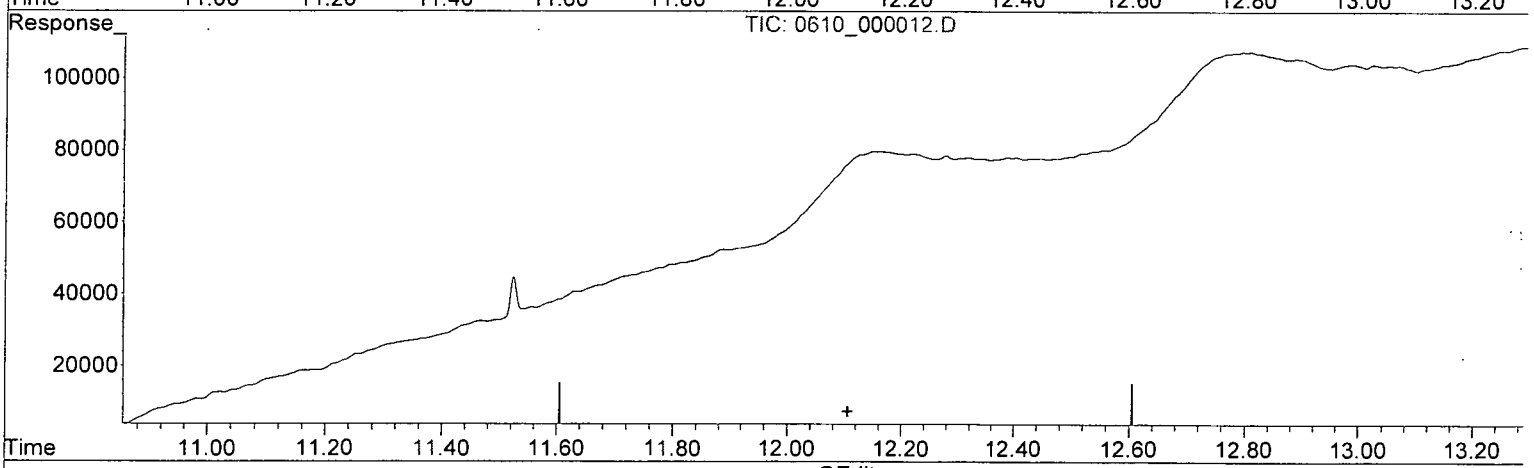
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 19:59:38
Operator : MP
Sample : 8330CB 0.005 PPM 06/10/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:46 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 07:21:35 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





QEdit

(15) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 2-NITROTOLUENE #2 (TM)

0.000min 0.000 ppb

response 0

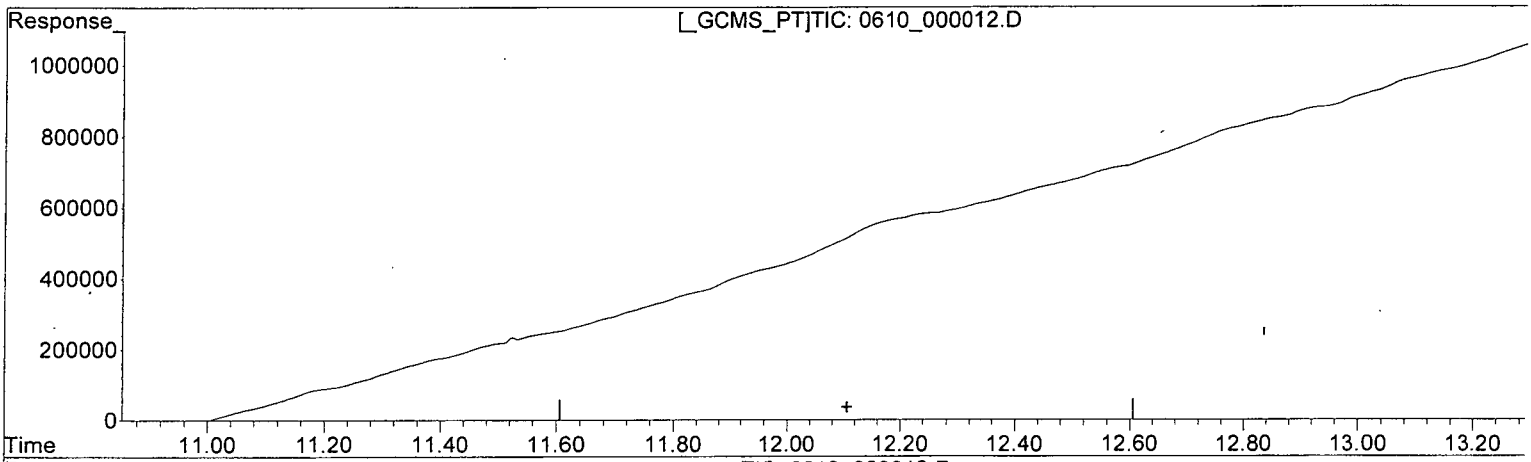
(+) = Expected Retention Time

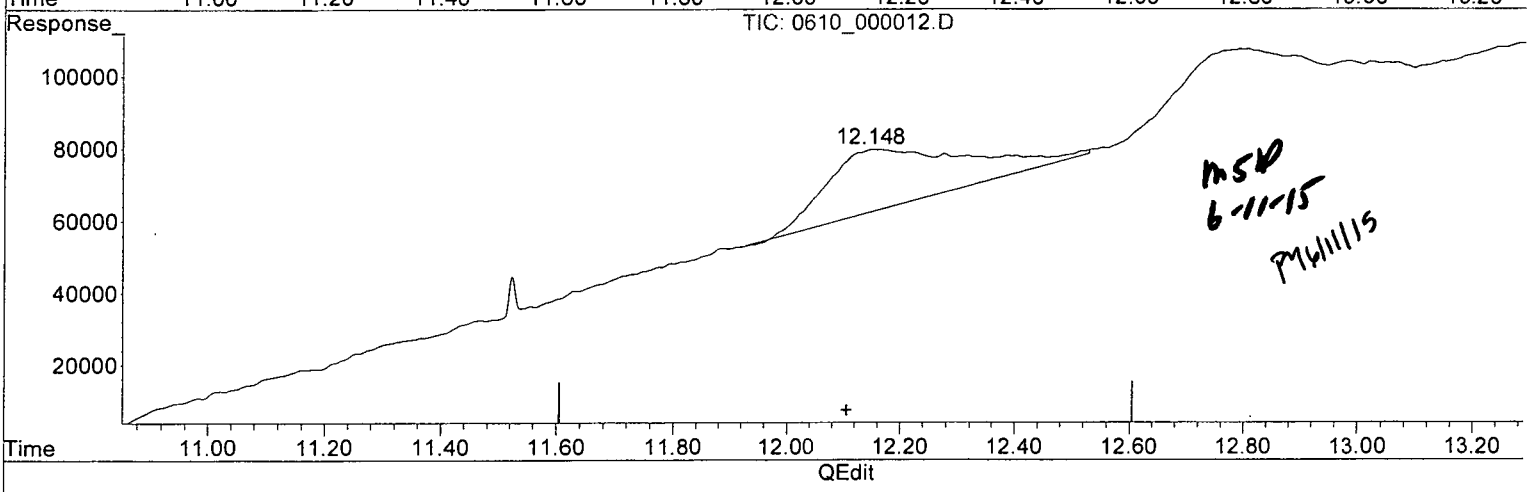
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 19:59:38
Operator : MP
Sample : 8330CB 0.005 PPM 06/10/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:46 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 07:21:35 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)

12.148min ƒ 3.849 ppb m

response 17258

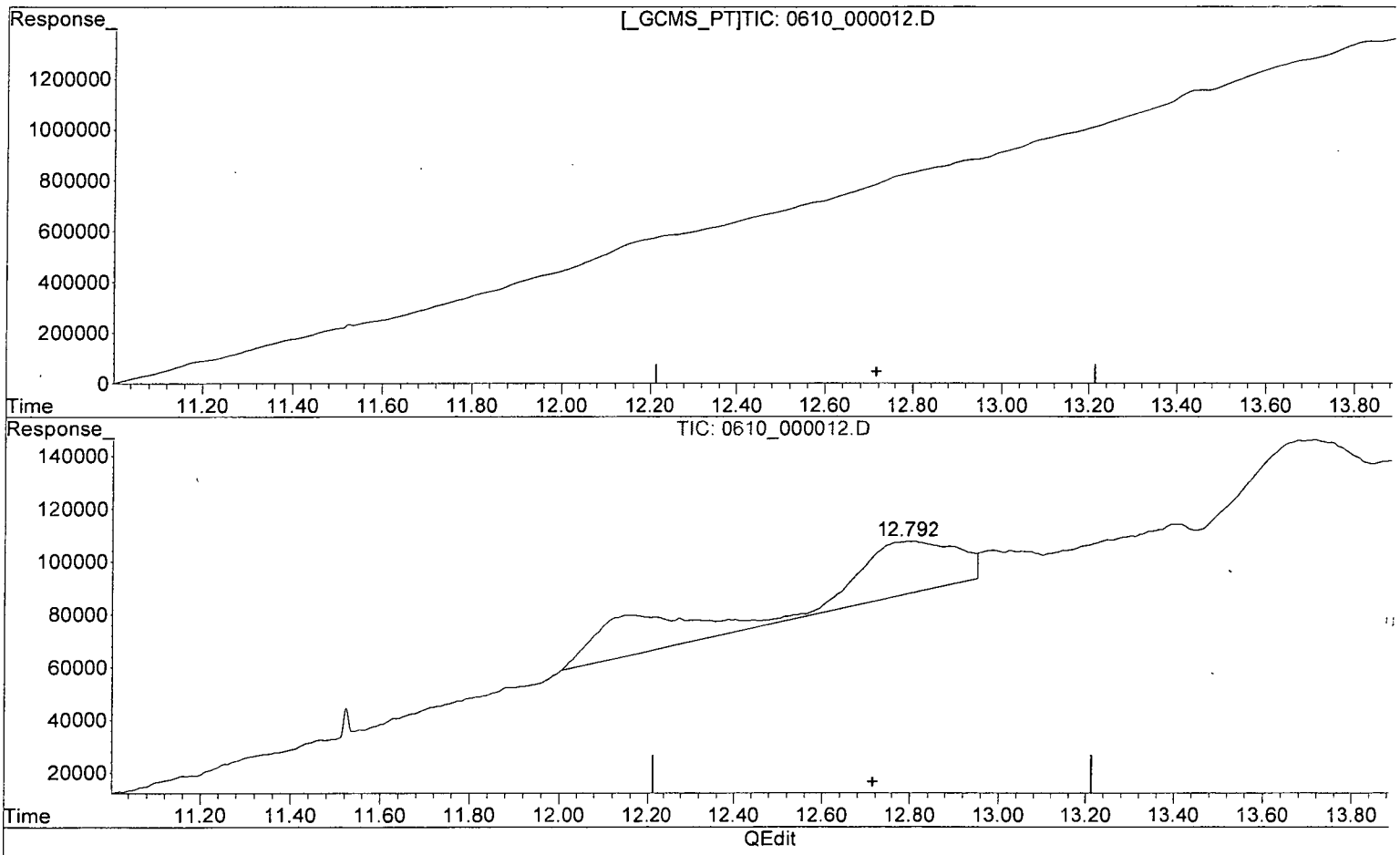
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 19:59:38
Operator : MP
Sample : 8330CB 0.005 PPM 06/10/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:46 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 07:21:35 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



(16) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-NITROTOLUENE #2 (TM)

12.798min 4.411 ppb

response 19562

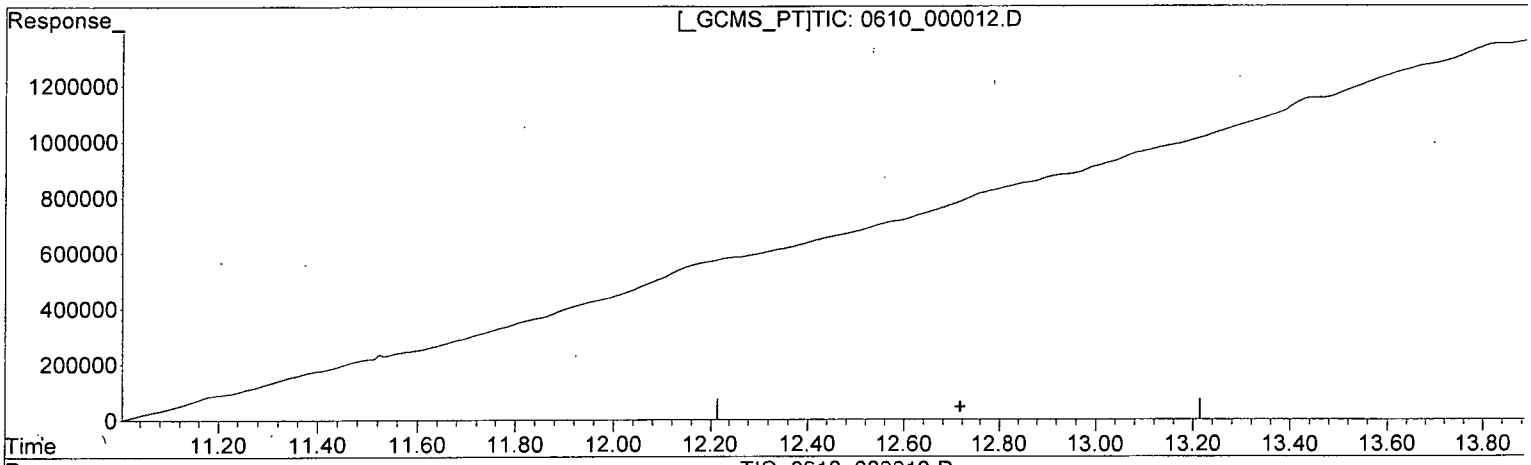
(+) = Expected Retention Time

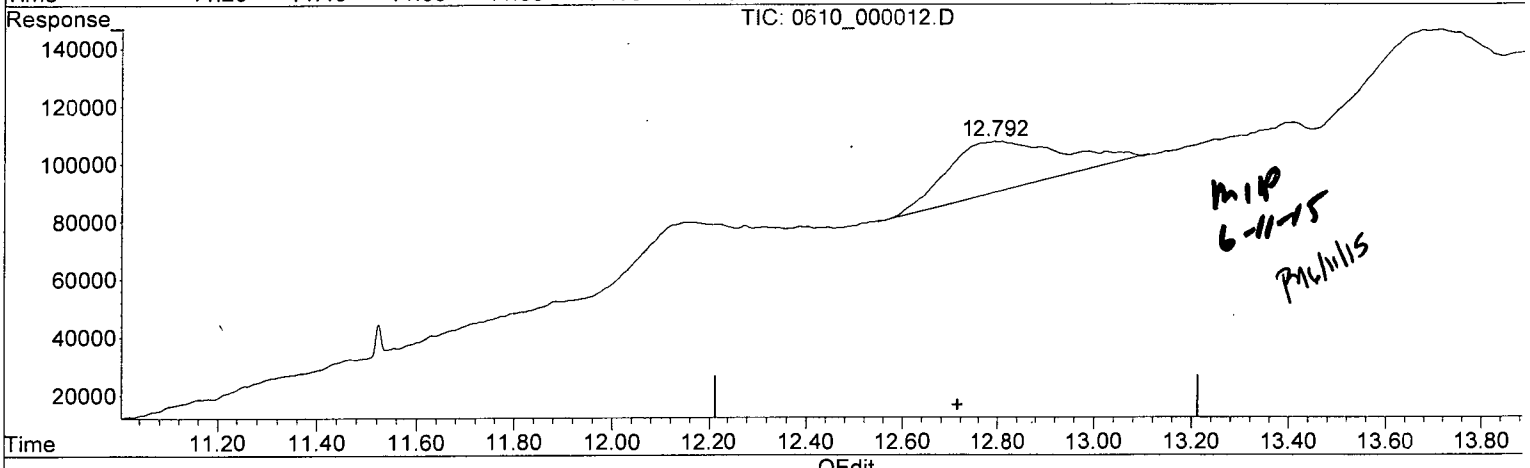
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 19:59:38
Operator : MP
Sample : 8330CB 0.005 PPM 06/10/15
Misc :
ALS Vial : 4096 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:46 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 07:21:35 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

MP 6-11-15

(16) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-NITROTOLUENE #2 (TM)

12.792min 3.992 ppb m

response 17703

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 20:27:09
Operator : MP
Sample : 8330CB 0.010 PPM 06/10/15
Misc :
ALS Vial : 4097 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:36:25 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4) S	1,2-DINIT...	0.000	3.515	0	105313	N.D.	8.139 #
	Spiked Amount 62.500			Recovery =		0.00%	13.02%
	Target Compounds						
1) TM	HMX	0.000	0.916	0	221374	N.D.	8.522 #
2) TM	RDX	0.000	1.715	0	145602	N.D.	8.549m#
3) TM	1,3,5-TRI...	0.000	2.803	0	250122	N.D.	8.082 #
5) TM	1,3-DINIT...	0.000	3.683	0	240805	N.D.	8.261 #
6) TM	3,5-DINIT...	0.000	3.891	0	192966	N.D.	8.680 #
7) TM	NITROBENZENE	0.000	4.984	0	108692	N.D.	8.141 #
8) TM	NITROGLYC...	5.927	0.000	45176	0	8.593	N.D. #
9) TM	TETRYL	6.320	6.322	124582	78753	NoCal	8.601 #
10) TM	2,4,6-TRI...	6.816	6.815	138964	102807	NoCal	8.217 #
11) TM	2-AMINO-4...	7.016	7.012	174884	111128	NoCal	9.884 #
12) TM	4-AMINO-2...	7.343	7.337	166462	75793	NoCal	9.362 #
13) TM	2,4-DINIT...	8.476	8.473	81829	99063	NoCal	8.390 #
14) TM	2,6-DINIT...	8.817	8.803	85947	63503	NoCal	9.765 #
15) TM	2-NITROTO...	0.000	12.147	0	36877	N.D.	8.225m#
16) TM	4-NITROTO...	0.000	12.762	0	30899	N.D.	6.967 #
17) TM	3-NITROTO...	0.000	13.636	0	43110	N.D.	8.141 #
18) TM	PETN	0.000	0.000	0	0	N.D.	N.D.

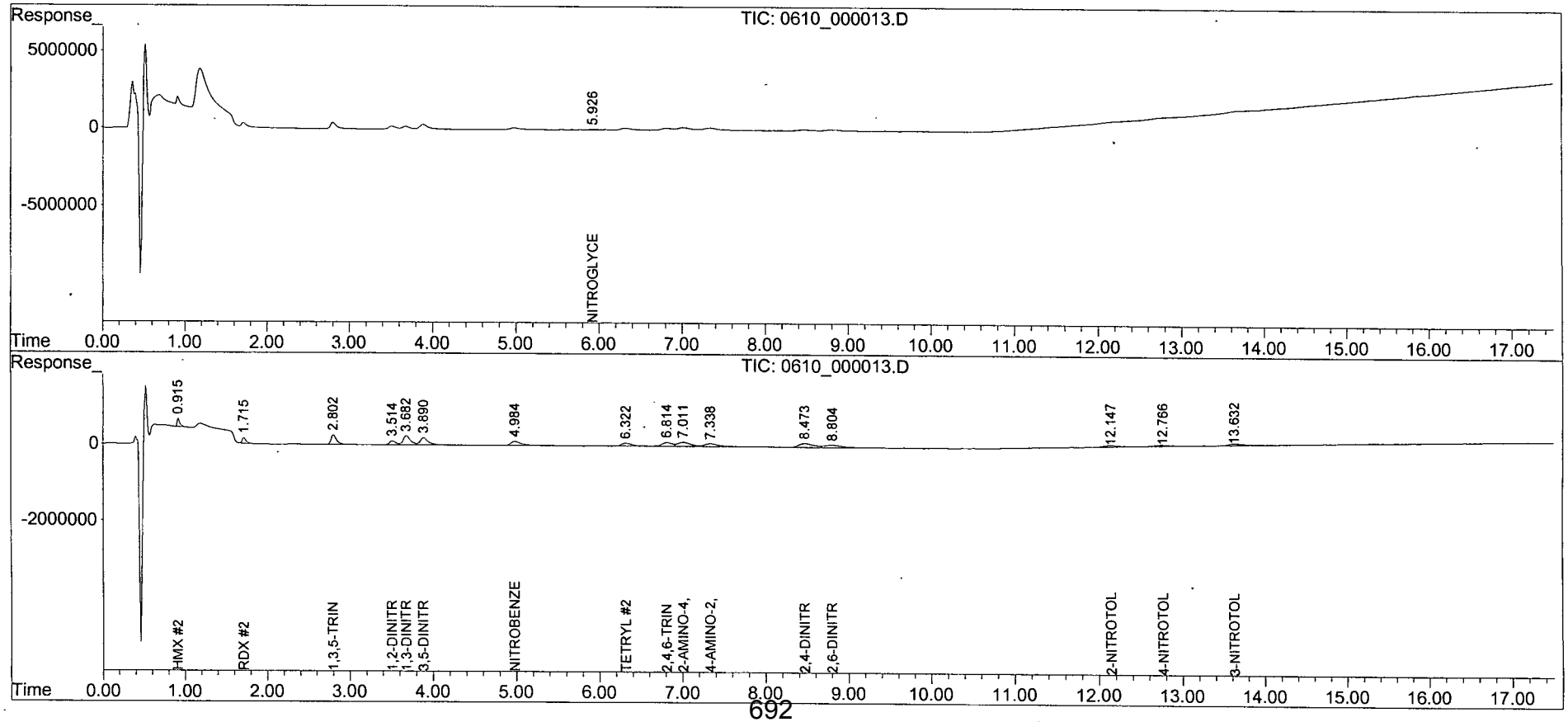
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 20:27:09
Operator : MP
Sample : 8330CB 0.010 PPM 06/10/15
Misc :
ALS Vial : 4097 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:36:25 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



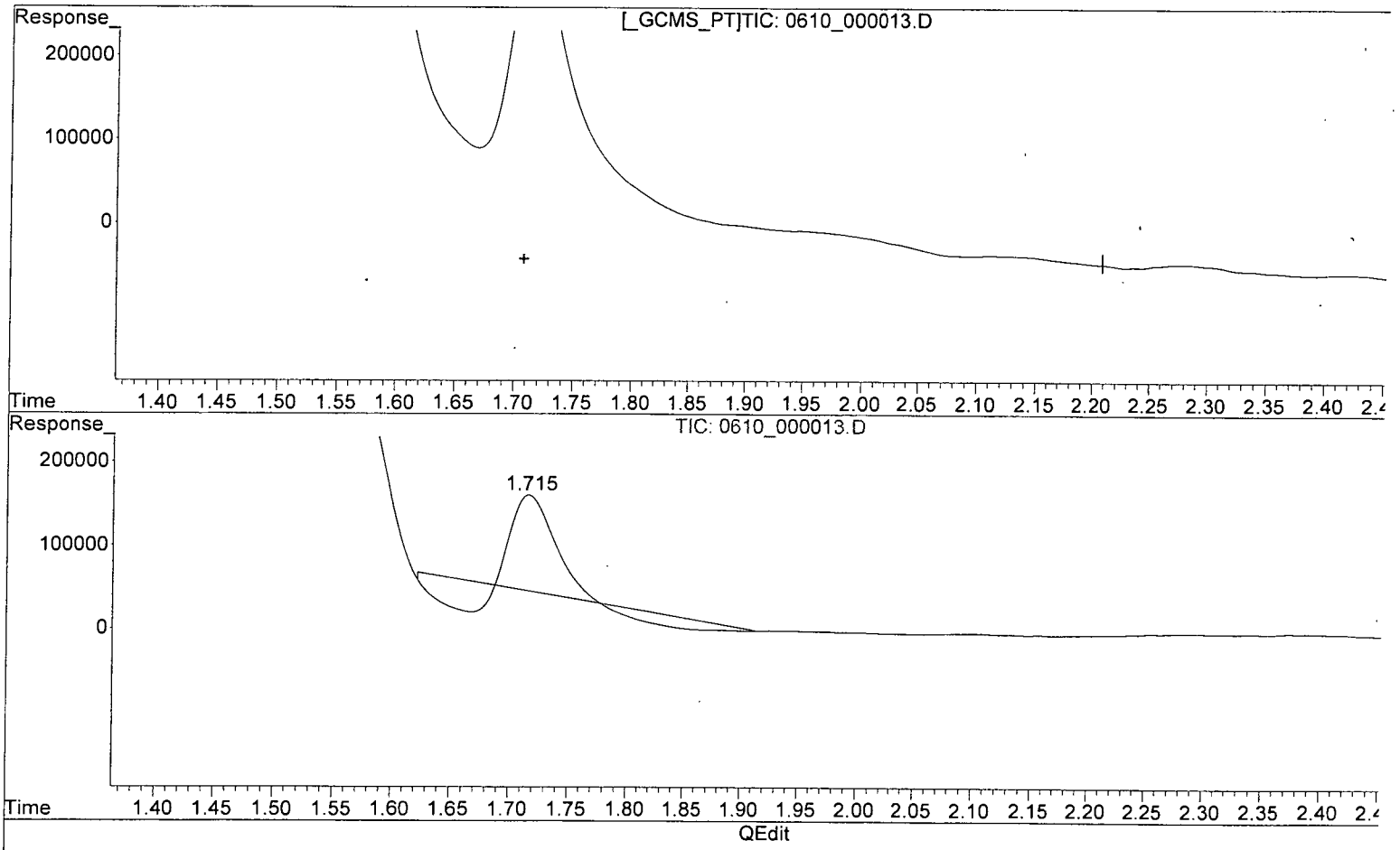
W150610.M Thu Jun 11 07:36:45 2015 WALDORF Page: 2

Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 20:27:09
Operator : MP
Sample : 8330CB 0.010 PPM 06/10/15
Misc :
ALS Vial : 4097 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:49 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0



(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

1.716min 6.722 ppb

response 114490

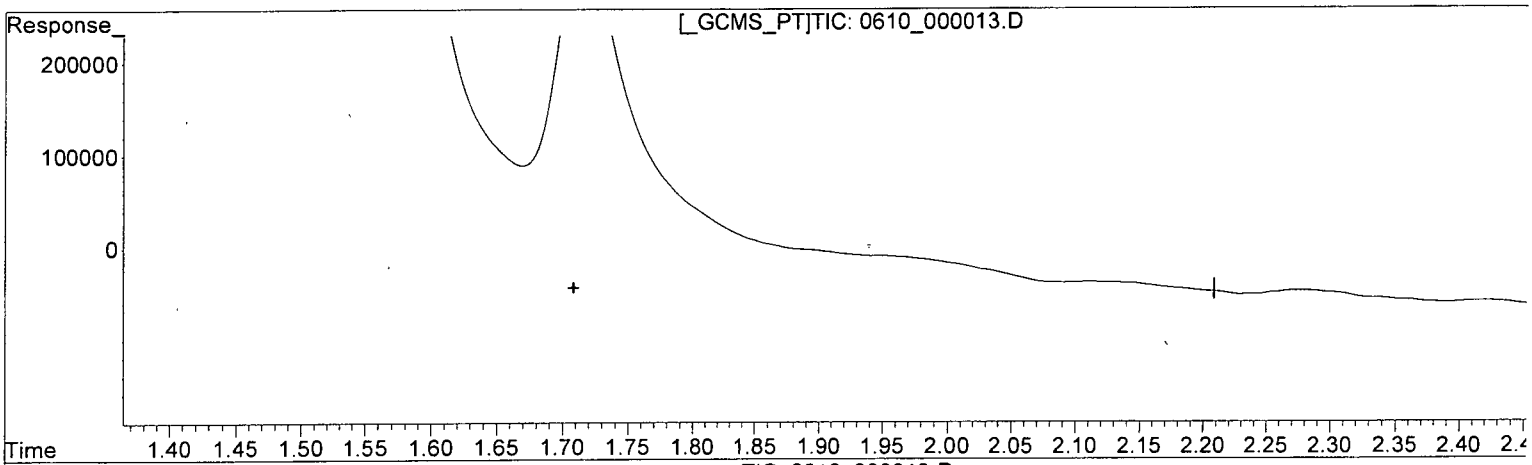
(+) = Expected Retention Time

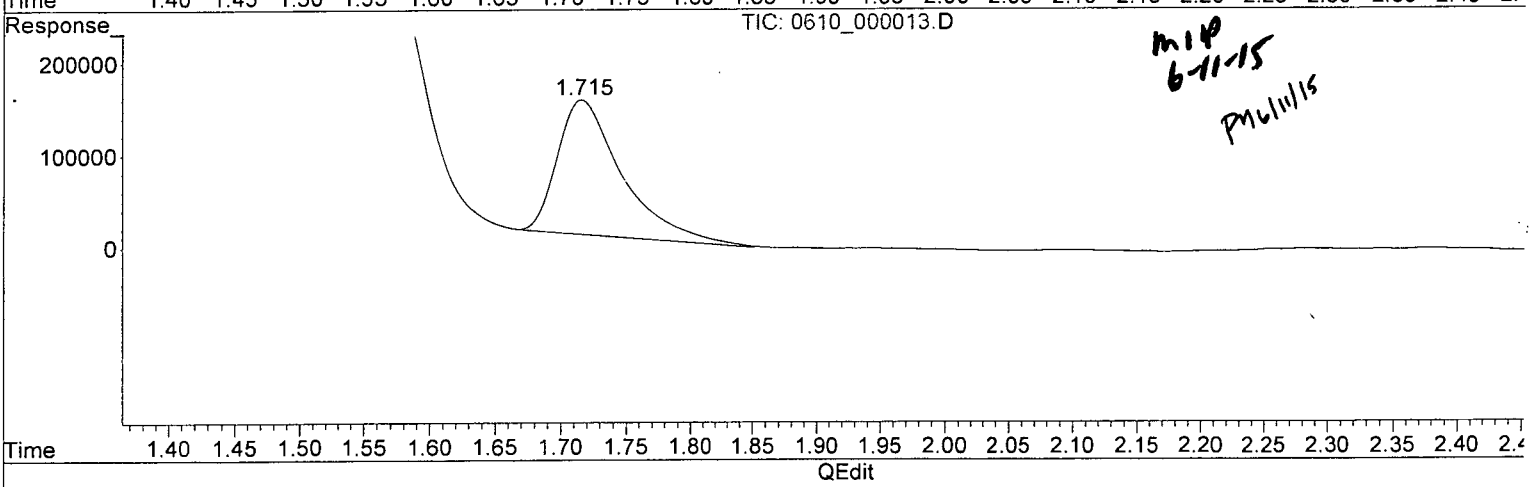
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 20:27:09
Operator : MP
Sample : 8330CB 0.010 PPM 06/10/15
Misc :
ALS Vial : 4097 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:49 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





MP 6-11-15
PM 6/11/15

(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

1.715min 8.549 ppb m

response 145602

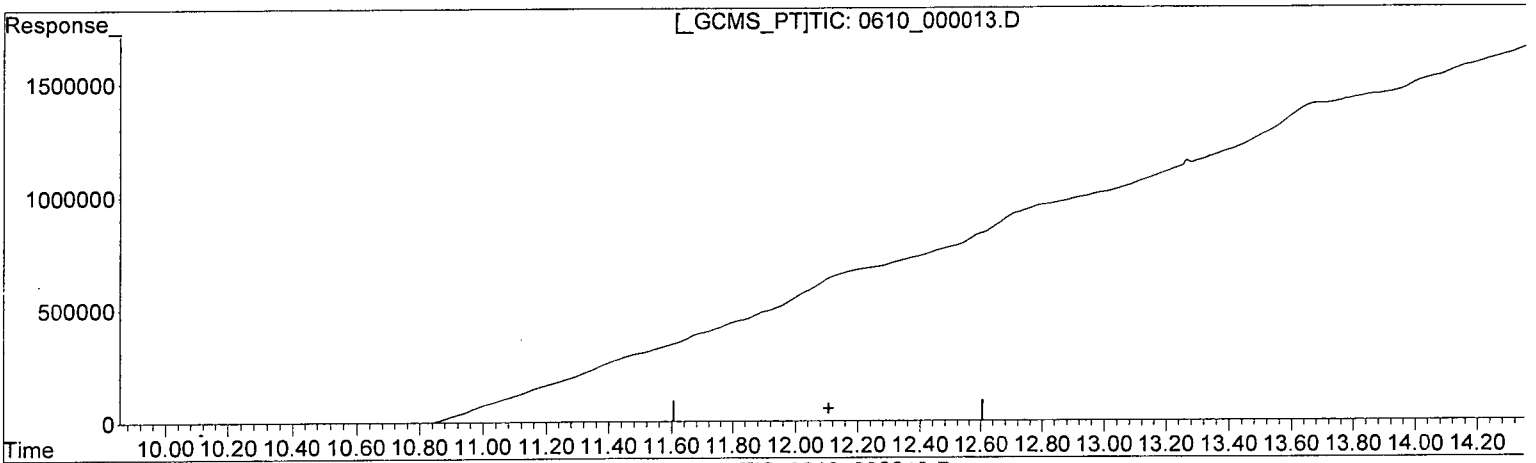
(+) = Expected Retention Time

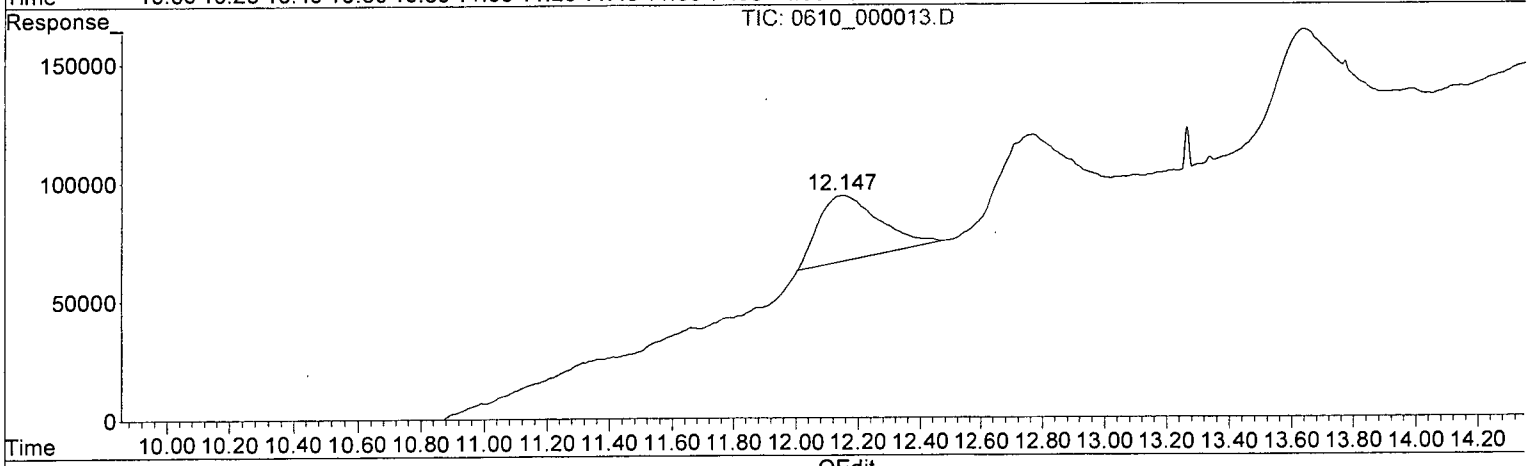
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 20:27:09
Operator : MP
Sample : 8330CB 0.010 PPM 06/10/15
Misc :
ALS Vial : 4097 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:49 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(15) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 2-NITROTOLUENE #2 (TM)

12.148min 6.211 ppb

response 27848

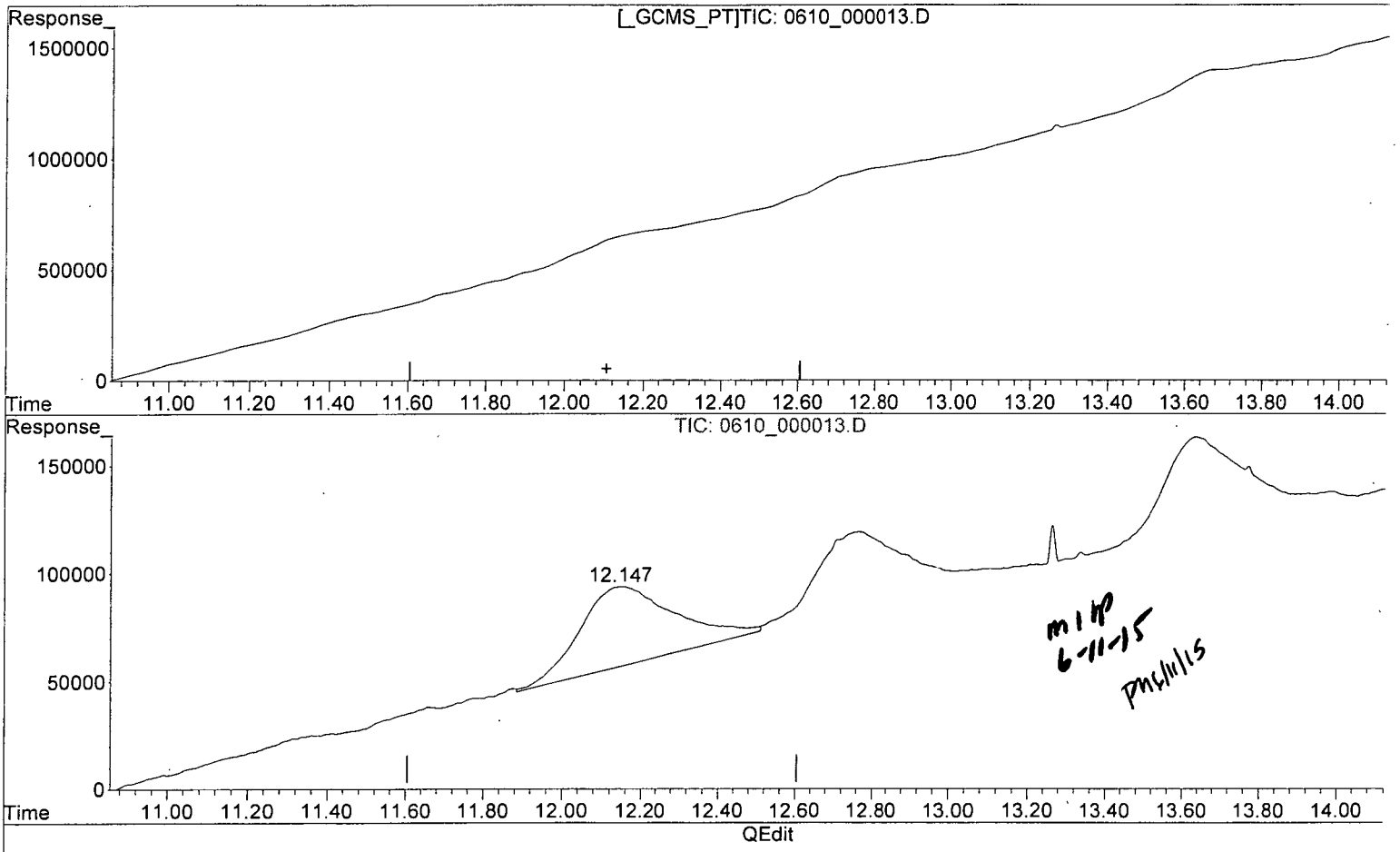
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 20:27:09
Operator : MP
Sample : 8330CB 0.010 PPM 06/10/15
Misc :
ALS Vial : 4097 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:49 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0



(15) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 2-NITROTOLUENE #2 (TM)

12.147min 8.225 ppb m

response 36877

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 20:54:39
Operator : MP
Sample : 8330CB 0.020 PPM 06/10/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:58:10 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4)	S 1,2-DINIT...	0.000	3.507	0	216525	N.D.	16.733 #
	Spiked Amount 62.500			Recovery	=	0.00%	26.77%
	Target Compounds						
1)	TM HMX	0.000	0.914	0	465169	N.D.	17.906 #
2)	TM RDX	0.000	1.713	0	306127	N.D.	17.974 #
3)	TM 1,3,5-TRI...	0.000	2.797	0	509536	N.D.	16.463 #
5)	TM 1,3-DINIT...	0.000	3.676	0	490709	N.D.	16.835 #
6)	TM 3,5-DINIT...	0.000	3.883	0	391639	N.D.	17.616 #
7)	TM NITROBENZENE	0.000	4.976	0	221275	N.D.	16.573 #
8)	TM NITROGLYC...	5.920	0.000	90102	0	17.138	N.D. #
9)	TM TETRYL	6.315	6.311	259895	159881	NoCal	17.461 #
10)	TM 2,4,6-TRI...	6.805	6.806	265741	203445	NoCal	16.260 #
11)	TM 2-AMINO-4...	7.005	7.005	322951	223025	NoCal	19.836 #
12)	TM 4-AMINO-2...	7.333	7.338	290571	156080	NoCal	19.279 #
13)	TM 2,4-DINIT...	8.469	8.468	159282	194966	NoCal	16.512 #
14)	TM 2,6-DINIT...	8.797	8.798	170766	123822	NoCal	19.041 #
15)	TM 2-NITROTO...	0.000	12.133	0	71309	N.D.	15.905m#
16)	TM 4-NITROTO...	0.000	12.737	0	71010	N.D.	16.011m#
17)	TM 3-NITROTO...	0.000	13.637	0	82892	N.D.	15.653 #
18)	TM PETN	15.842	0.000	62559	0	15.420m	N.D. #

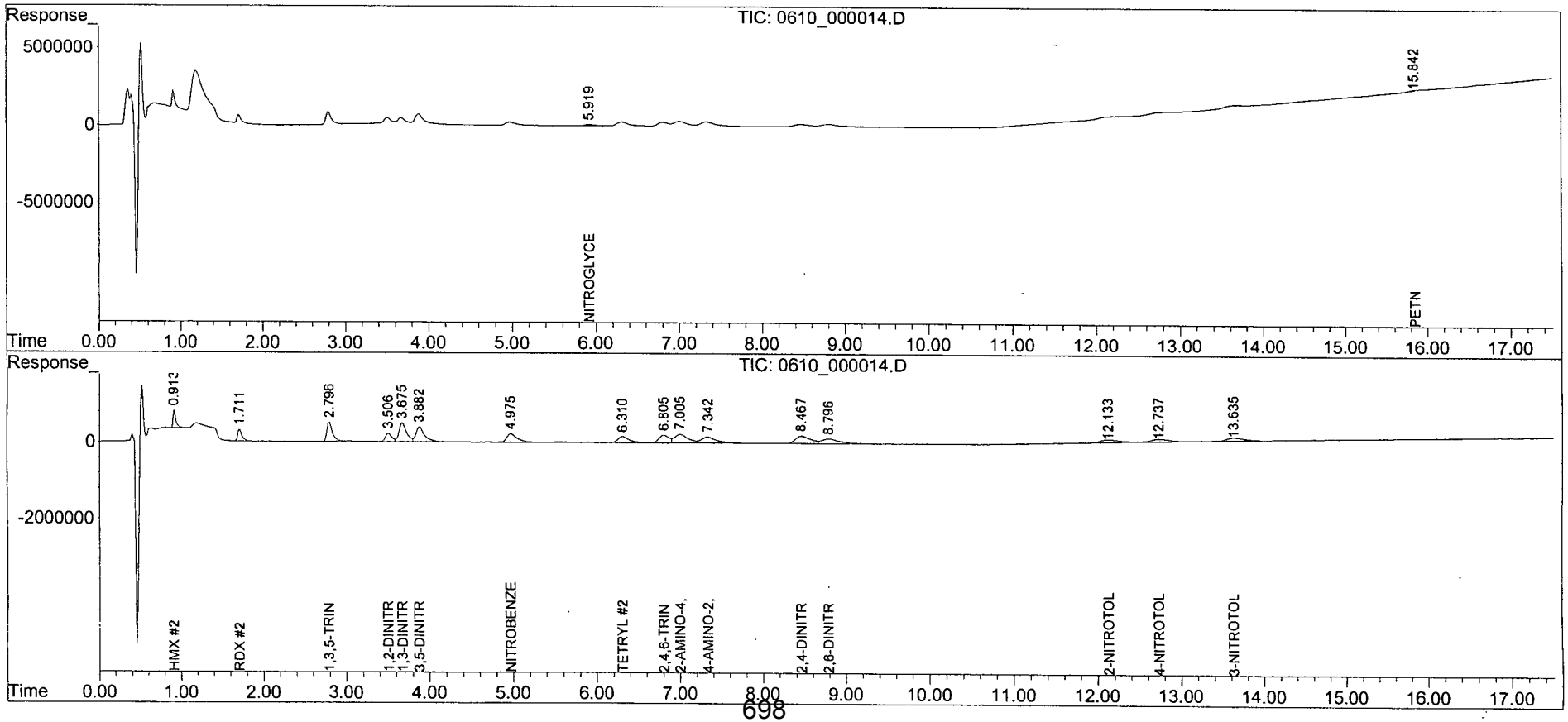
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 20:54:39
Operator : MP
Sample : 8330CB 0.020 PPM 06/10/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:58:10 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

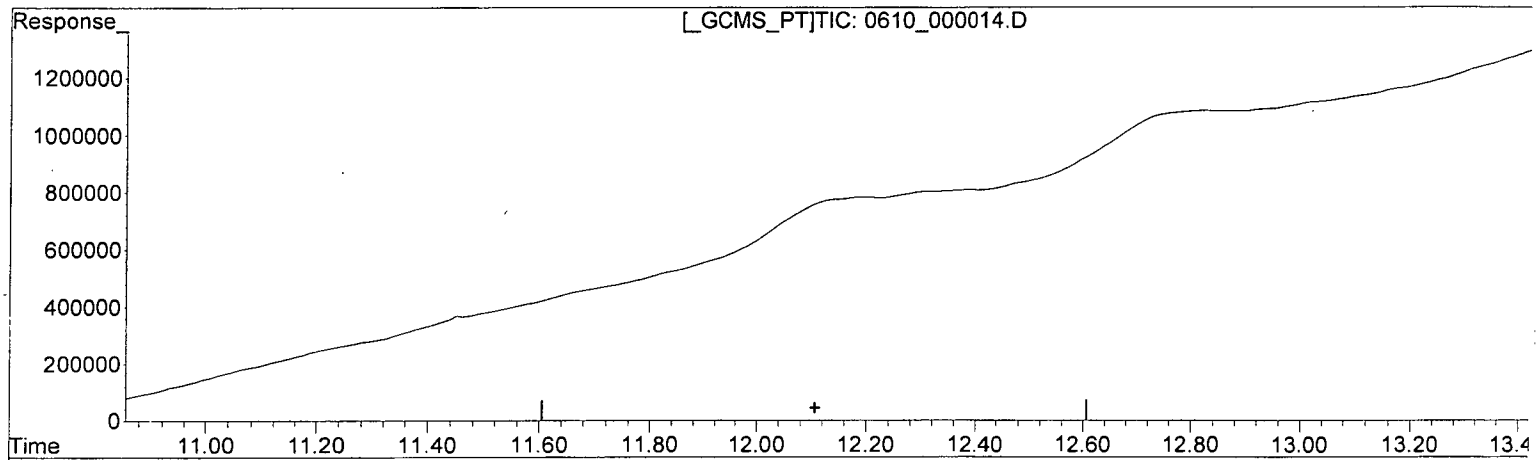


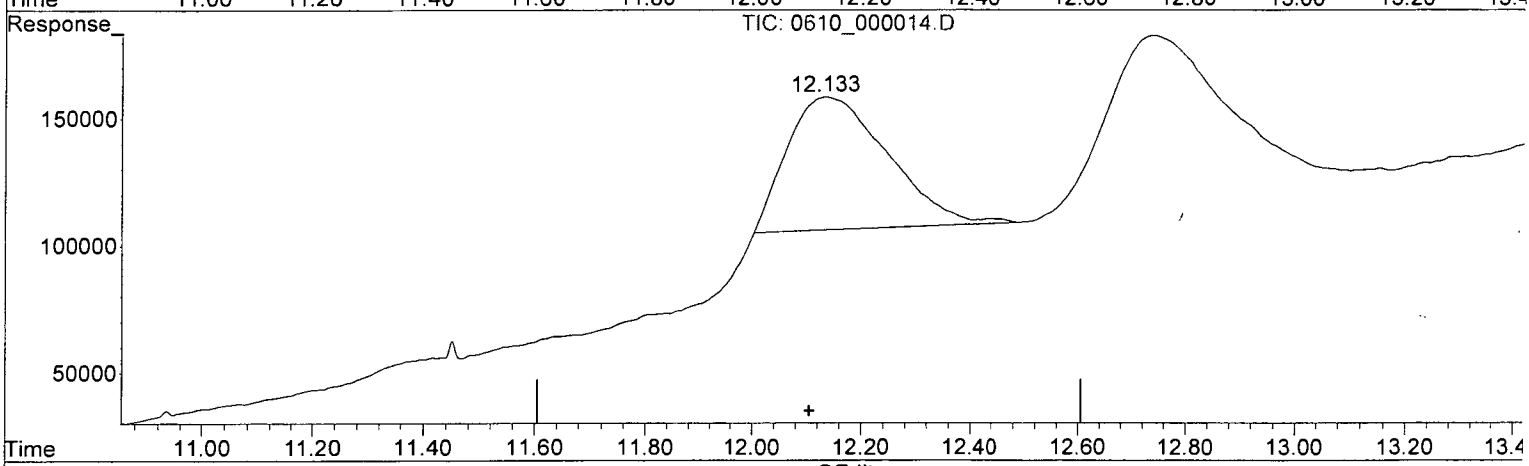
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 20:54:39
Operator : MP
Sample : 8330CB 0.020 PPM 06/10/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:52 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0r





(15) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 2-NITROTOLUENE #2 (TM)

12.134min 11.683 ppb

response 52382

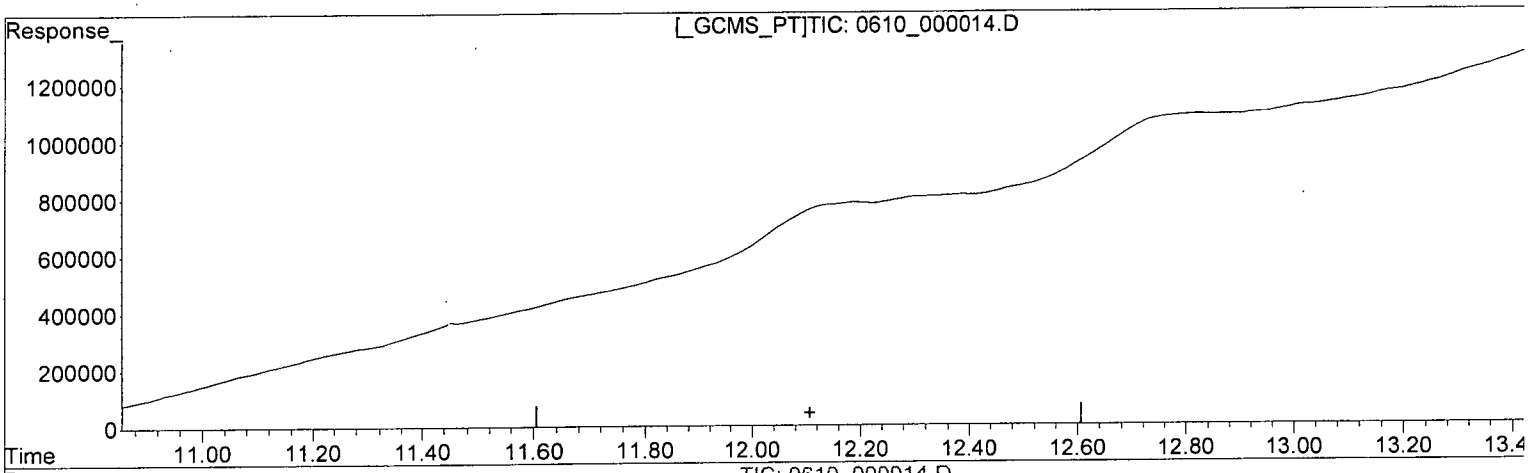
(+) = Expected Retention Time

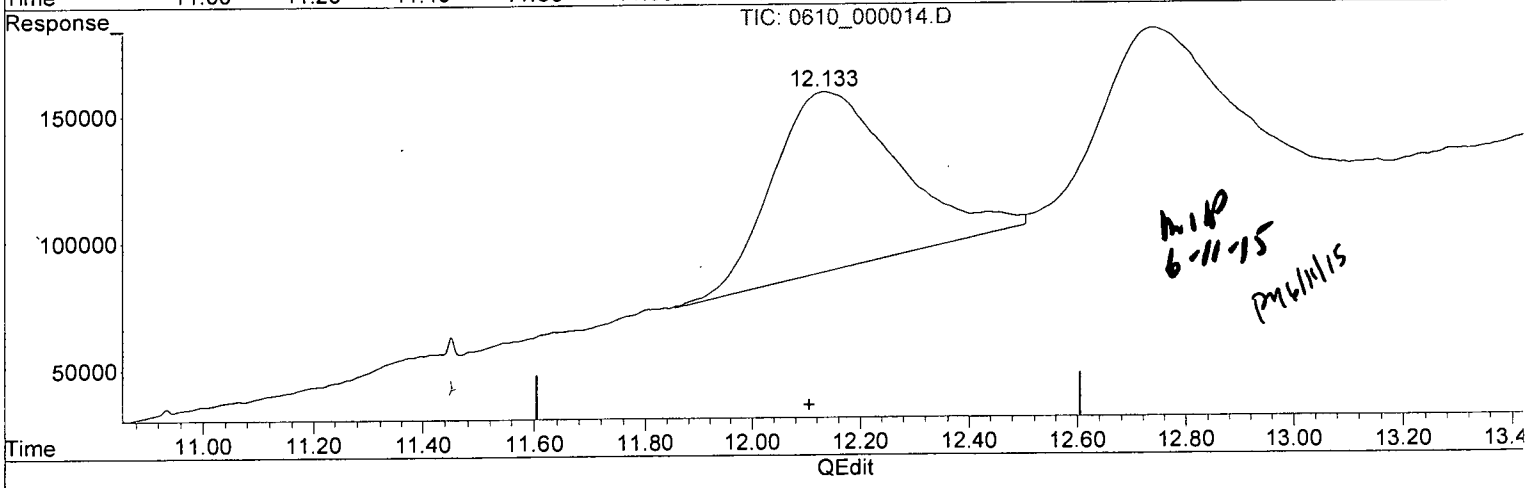
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 20:54:39
Operator : MP
Sample : 8330CB 0.020 PPM 06/10/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:52 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





AMP 6-11-15 PM 6/11/15

(15) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 2-NITROTOLUENE #2 (TM)

12.133min 15.905 ppb m

response 71309

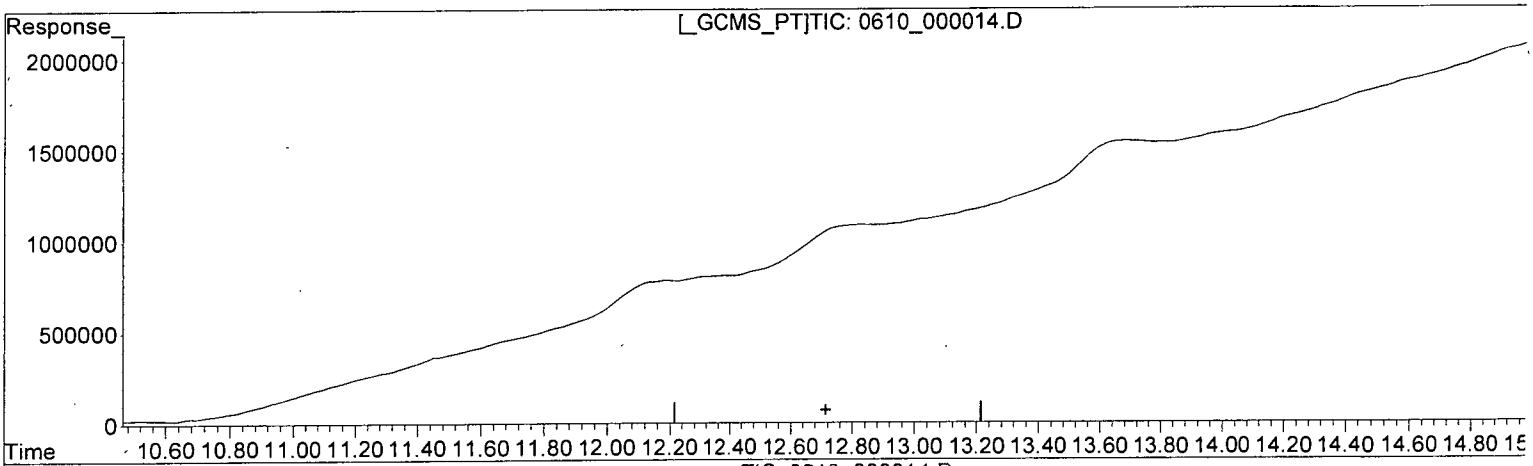
(+) = Expected Retention Time

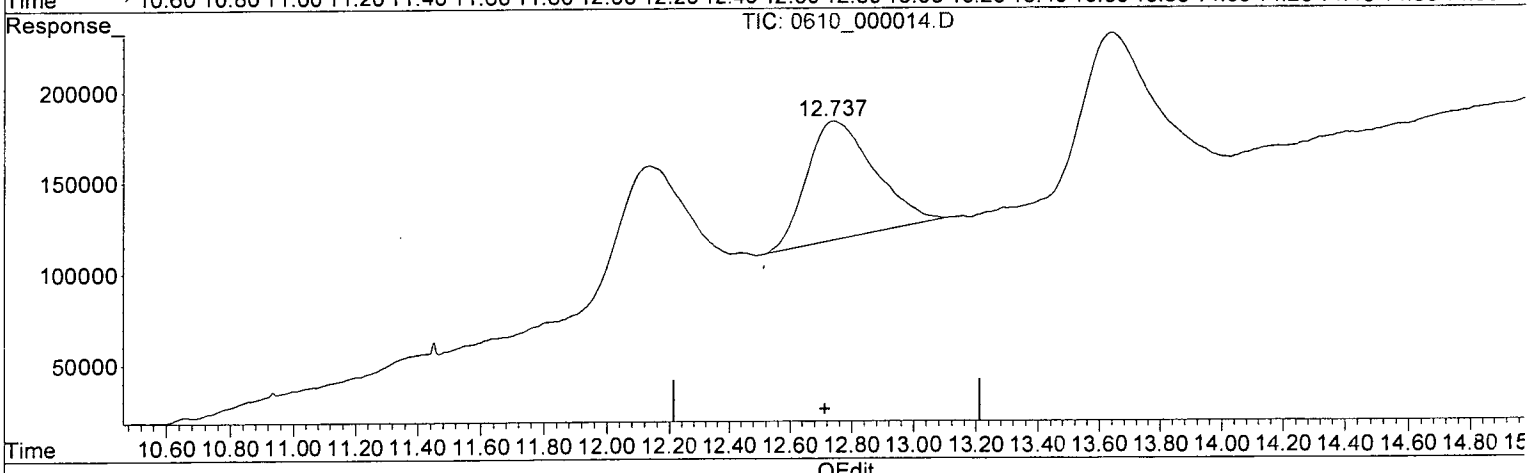
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 20:54:39
Operator : MP
Sample : 8330CB 0.020 PPM 06/10/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:52 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0r





QEdit

(16) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-NITROTOLUENE #2 (TM)

12.739min 14.773 ppb

response 65516

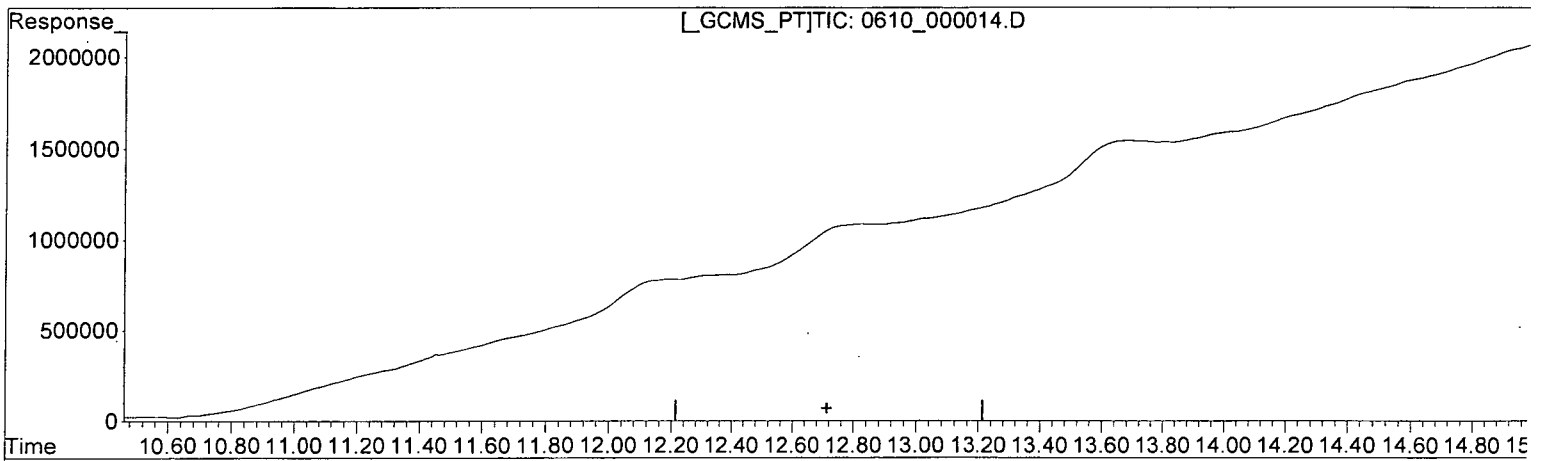
(+) = Expected Retention Time

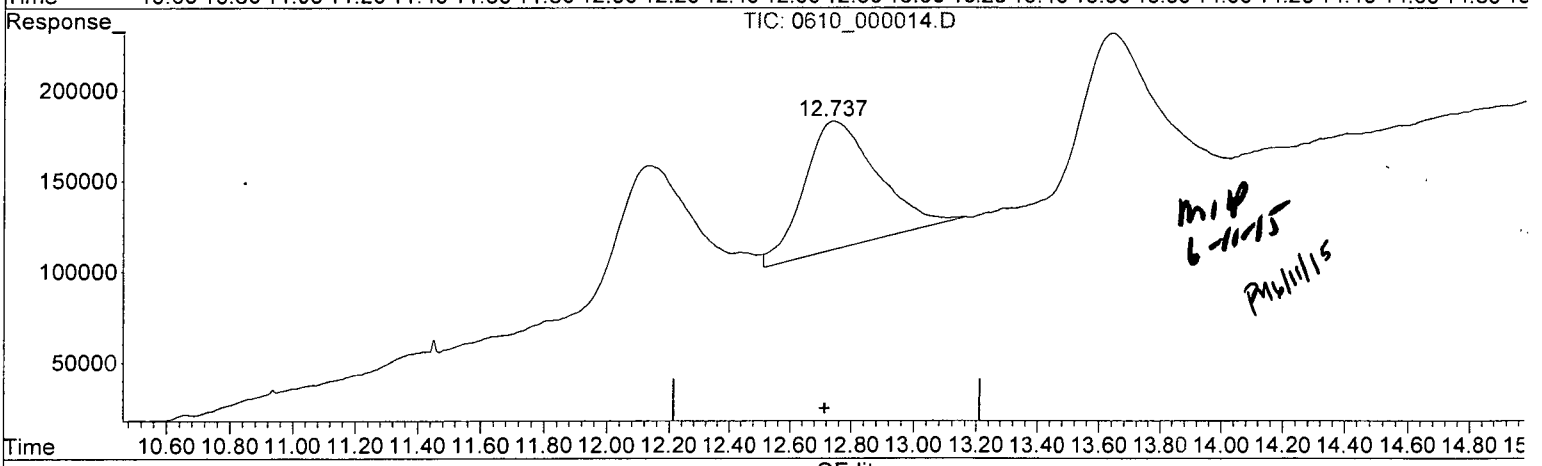
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 20:54:39
Operator : MP
Sample : 8330CB 0.020 PPM 06/10/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:52 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





MLP 6-11-15 PM 6/11/15

(16) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-NITROTOLUENE #2 (TM)

12.737min 16.011 ppb m

response 71010

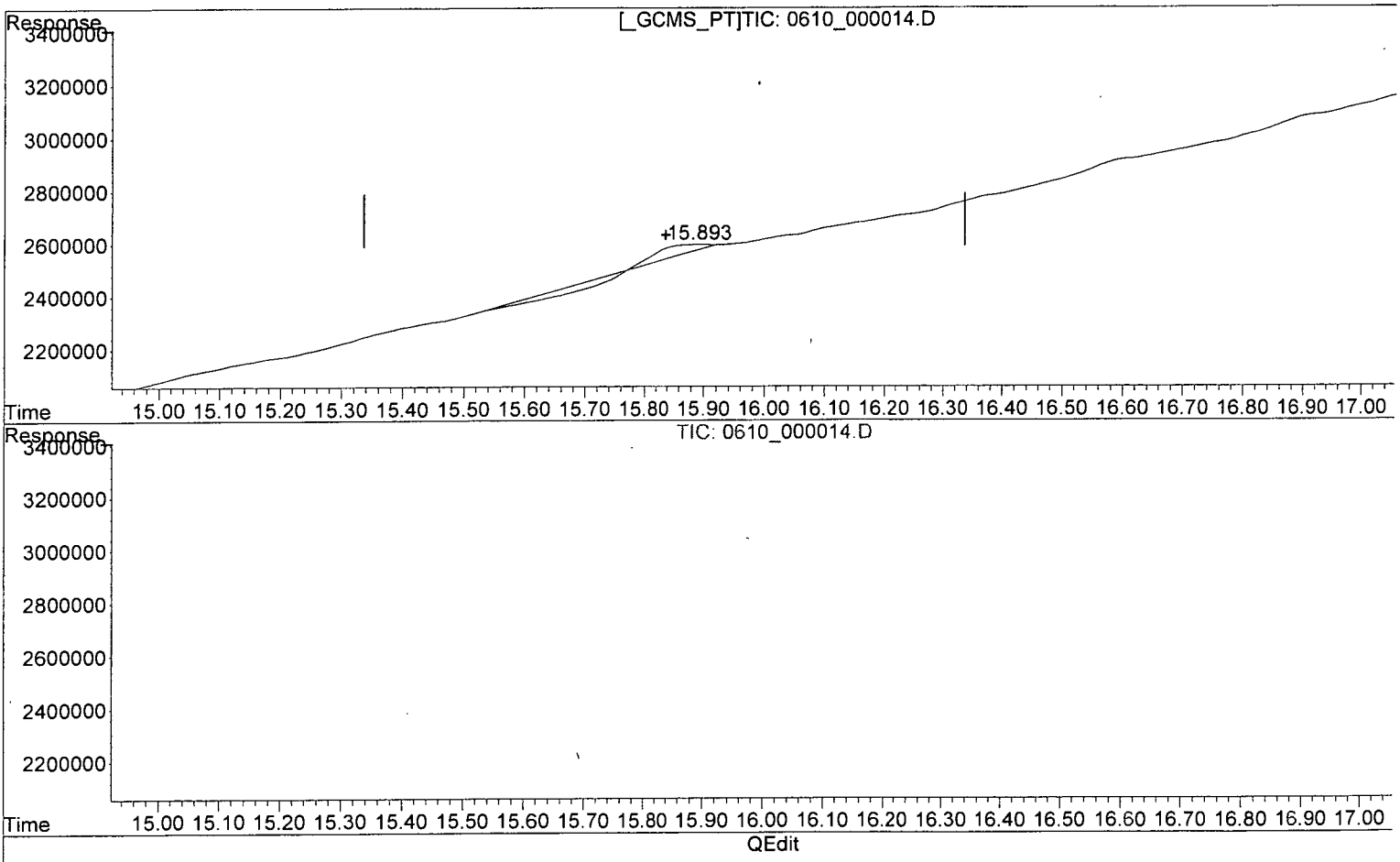
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 20:54:39
Operator : MP
Sample : 8330CB 0.020 PPM 06/10/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:52 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0



(18) PETN (TM)

15.893min 4.608 ppb

response 18695

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

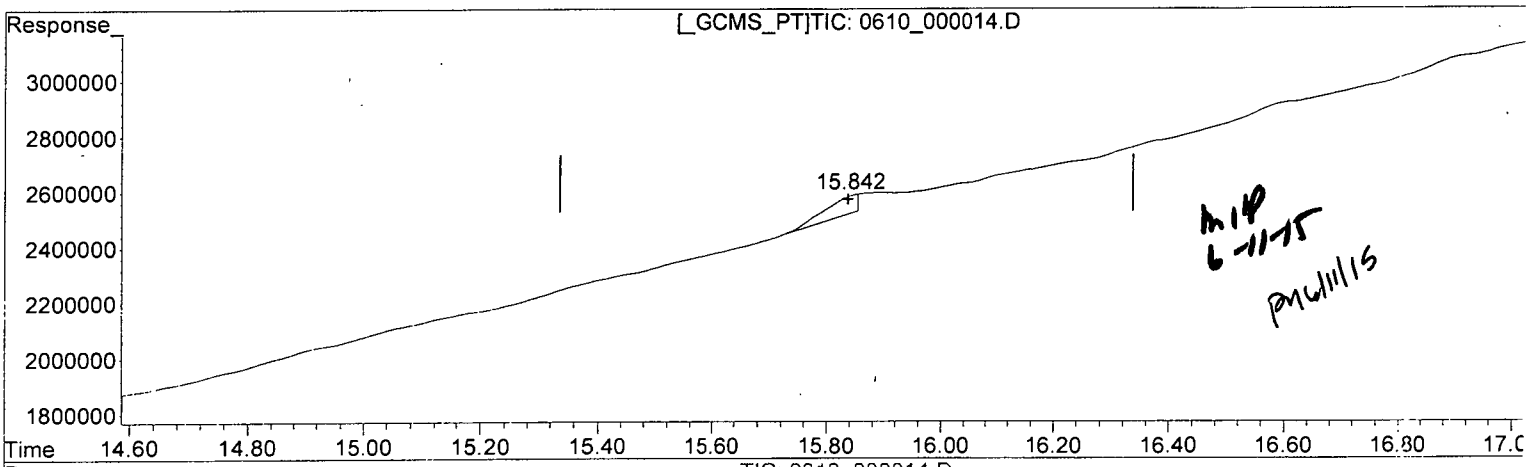
(+) = Expected Retention Time

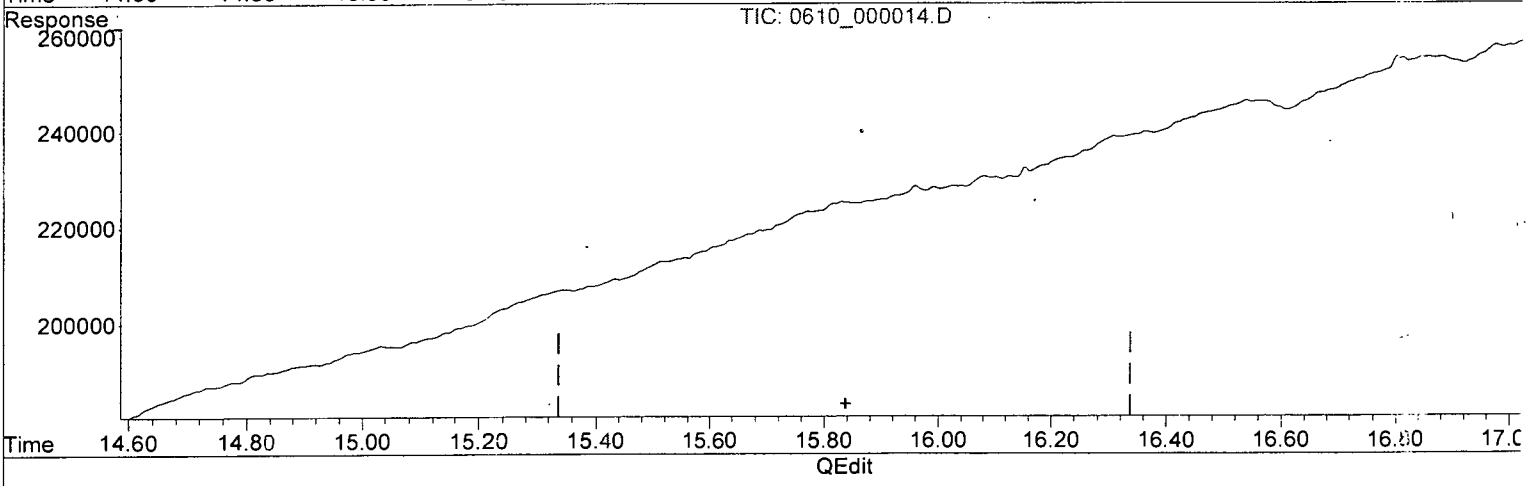
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 20:54:39
Operator : MP
Sample : 8330CB 0.020 PPM 06/10/15
Misc :
ALS Vial : 4098 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:34:07 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(18) PETN (TM)

15.842min 15.420 ppb m

response 62559

(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\150610\150610\
Data File : 0610_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 21:22:10
Operator : MP
Sample : 8330CB 0.050 PPM 06/10/15
Misc :
ALS Vial : 4099 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:32:29 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
4)	S 1,2-DINIT...	0.000	3.508	0	547711	N.D.	42.328	#
	Spiked Amount 62.500			Recovery	=	0.00%	67.72%	
	Target Compounds							
1)	TM HMX	0.000	0.916	0	1194265	N.D.	45.972	#
2)	TM RDX	0.000	1.715	0	771176	N.D.	45.279	#
3)	TM 1,3,5-TRI...	0.000	2.798	0	1298180	N.D.	41.945	#
5)	TM 1,3-DINIT...	0.000	3.677	0	1236057	N.D.	42.405	#
6)	TM 3,5-DINIT...	0.000	3.883	0	996059	N.D.	44.803	#
7)	TM NITROBENZENE	0.000	4.979	0	558828	N.D.	41.856	#
8)	TM NITROGLYC...	5.926	0.000	211339	0	40.198	N.D.	#
9)	TM TETRYL	6.314	6.313	653101	402110	NoCal	43.915	#
10)	TM 2,4,6-TRI...	6.809	6.809	661771	514835	NoCal	41.147	#
11)	TM 2-AMINO-4...	7.004	7.003	837707	567803	NoCal	50.500	#
12)	TM 4-AMINO-2...	7.332	7.331	722259	398149	NoCal	49.179	#
13)	TM 2,4-DINIT...	8.473	8.471	369066	491612	NoCal	41.634	#
14)	TM 2,6-DINIT...	8.805	8.800	419497	313247	NoCal	48.170	#
15)	TM 2-NITROTO...	0.000	12.131	0	183695	N.D.	40.972	m#
16)	TM 4-NITROTO...	0.000	12.738	0	178372	N.D.	40.219	m#
17)	TM 3-NITROTO...	0.000	13.633	0	213093	N.D.	40.240	#
18)	TM PETN	15.860	0.000	157914	0	38.924	N.D.	#

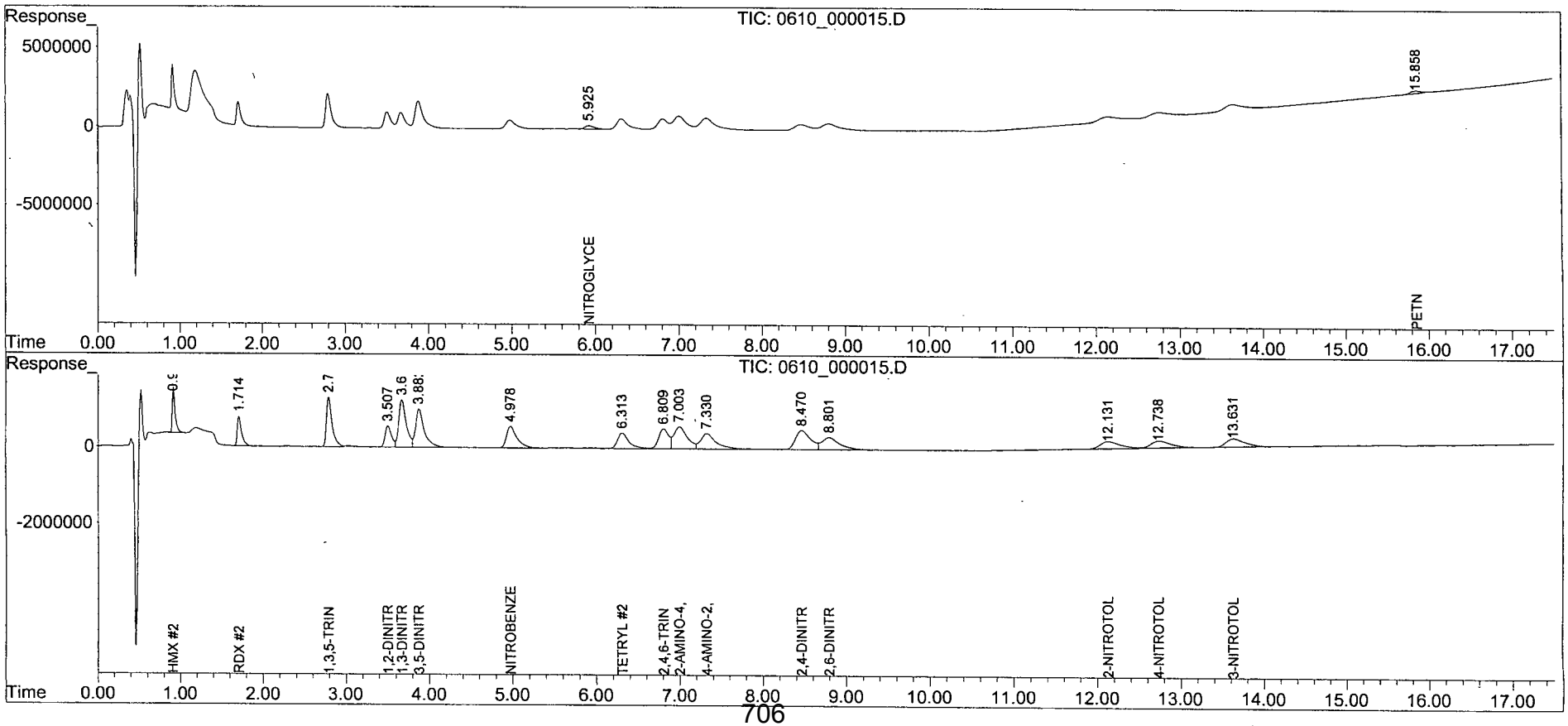
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 21:22:10
Operator : MP
Sample : 8330CB 0.050 PPM 06/10/15
Misc :
ALS Vial : 4099 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:32:29 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

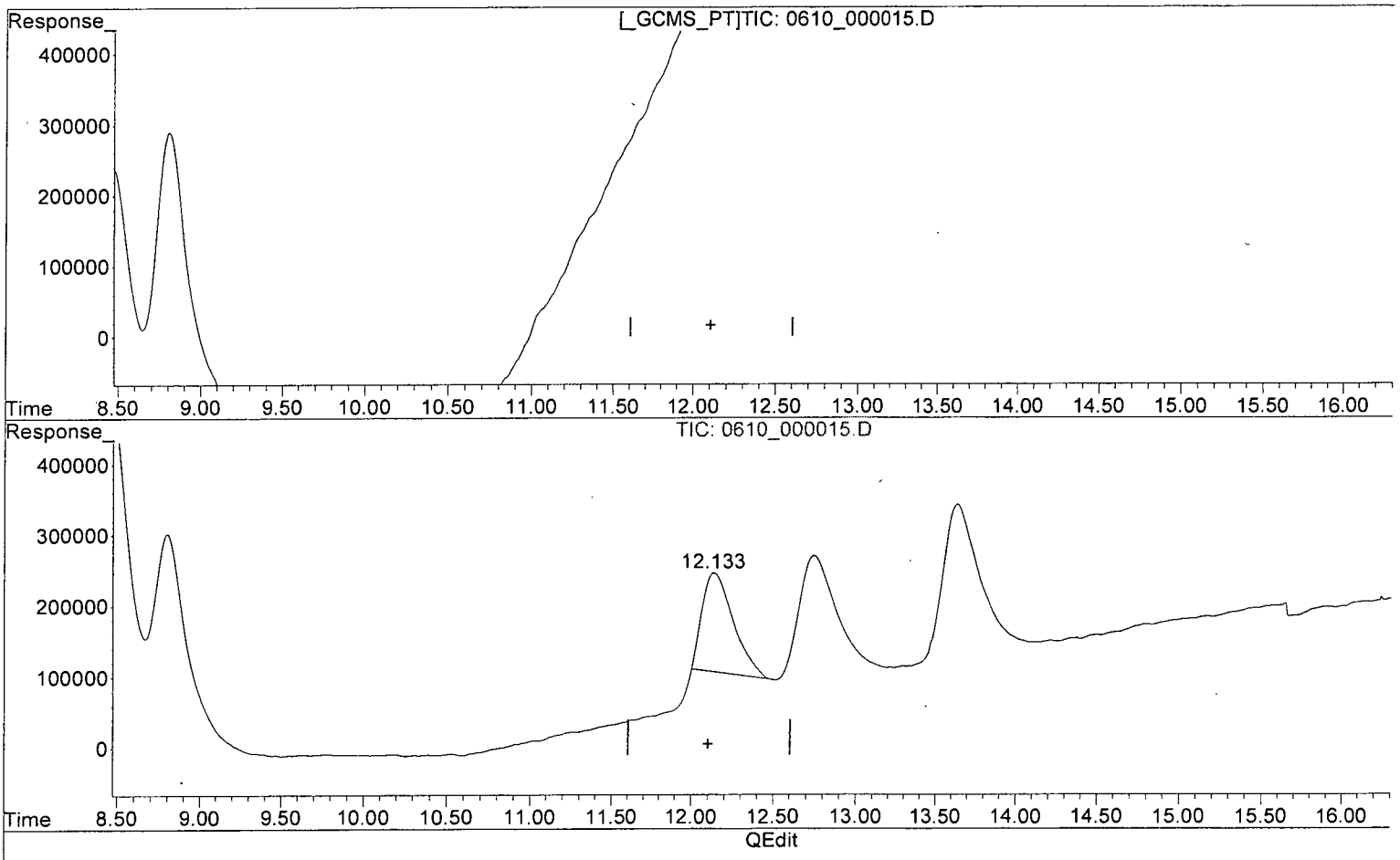


Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 21:22:10
Operator : MP
Sample : 8330CB 0.050 PPM 06/10/15
Misc :
ALS Vial : 4099 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:56 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0



(15) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 2-NITROTOLUENE #2 (TM)

12.135min 30.990 ppb

response 138942

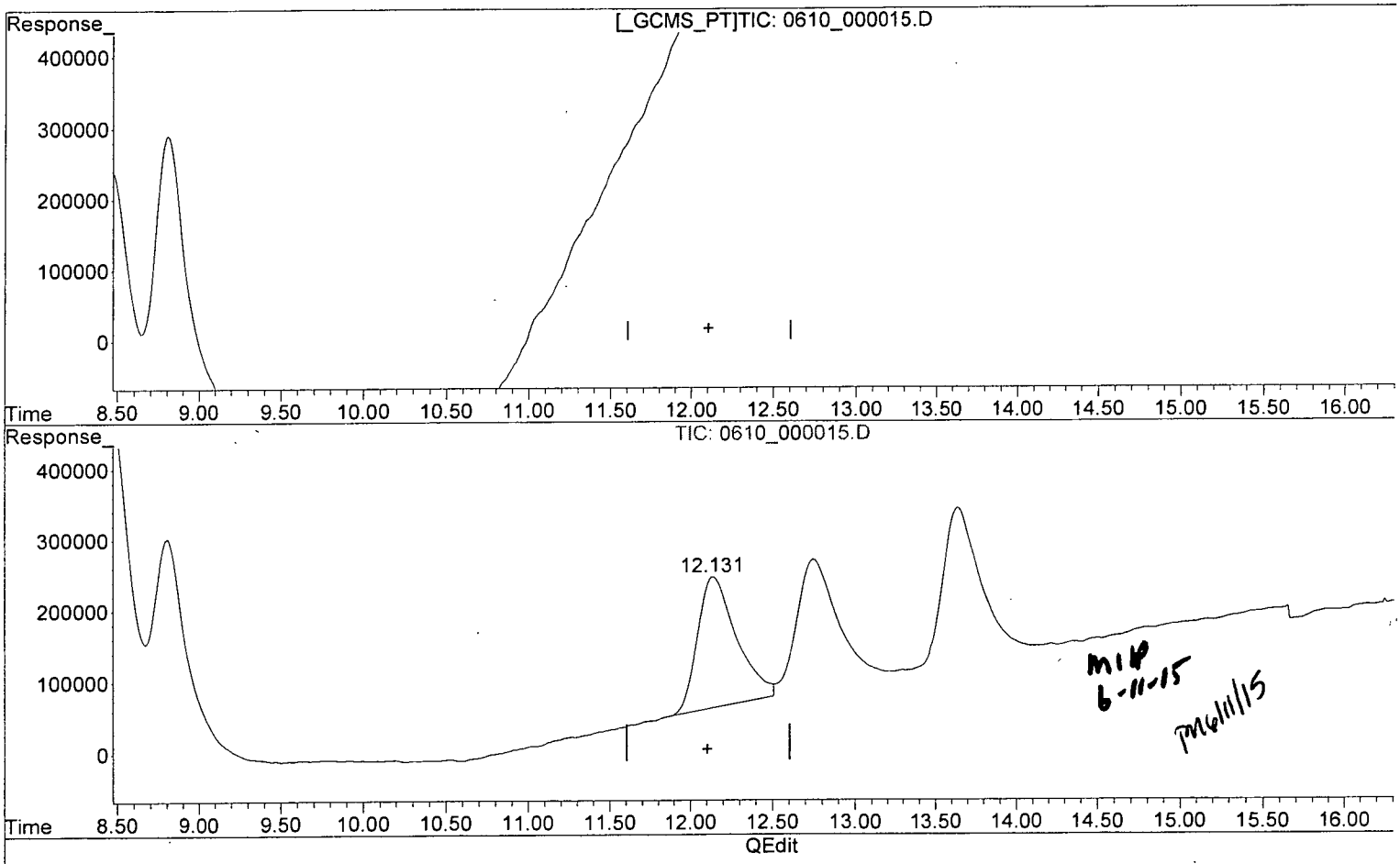
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 21:22:10
Operator : MP
Sample : 8330CB 0.050 PPM 06/10/15
Misc :
ALS Vial : 4099 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:56 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0



(15) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 2-NITROTOLUENE #2 (TM)

12.131min 40.972 ppb m

response 183695

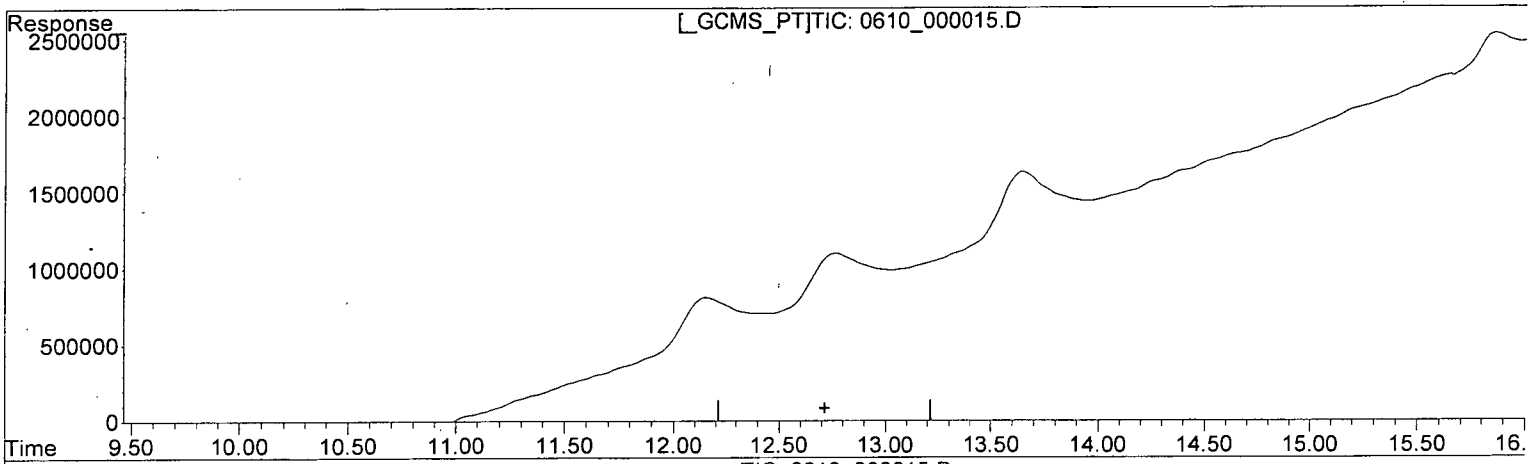
(+) = Expected Retention Time

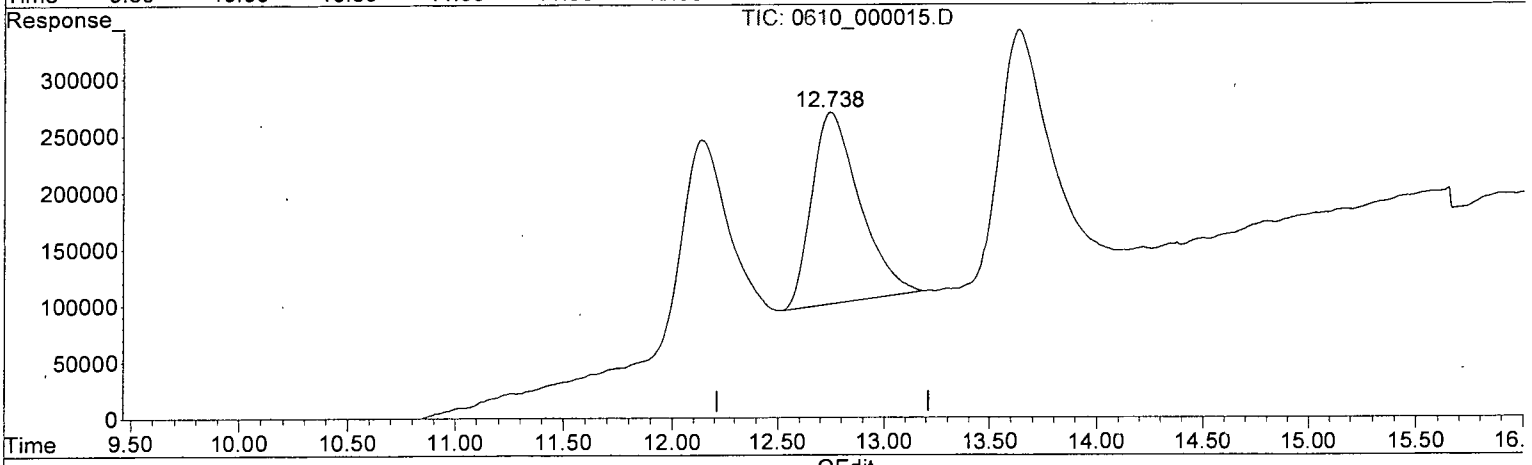
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 21:22:10
Operator : MP
Sample : 8330CB 0.050 PPM 06/10/15
Misc :
ALS Vial : 4099 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:56 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0r





(16) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-NITROTOLUENE #2 (TM)

12.743min 38.075 ppb

response 168862

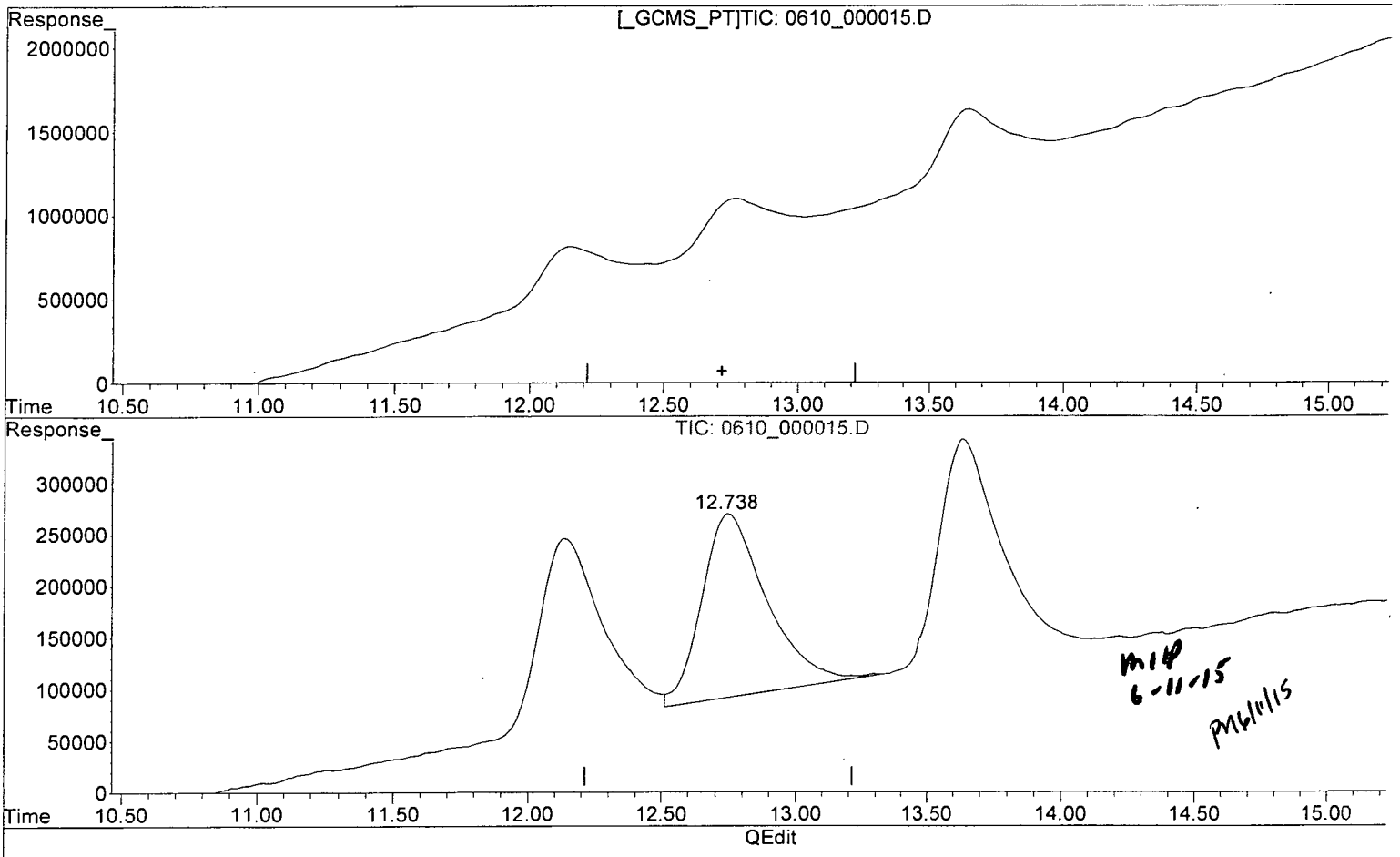
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 21:22:10
Operator : MP
Sample : 8330CB 0.050 PPM 06/10/15
Misc :
ALS Vial : 4099 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:56 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0



(16) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-NITROTOLUENE #2 (TM)

12.738min 40.219 ppb m

response 178372

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 21:49:40
Operator : MP
Sample : 8330CB 0.10 PPM 06/10/15
Misc :
ALS Vial : 4100 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:30:57 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
4)	S 1,2-DINIT...	0.000	3.507	0	1079938	N.D.	83.459	#
	Spiked Amount 62.500			Recovery	=	0.00%	133.53%	
	Target Compounds							
1)	TM HMX	0.000	0.915	0	2347034	N.D.	90.347	#
2)	TM RDX	0.000	1.714	0	1474915	N.D.	86.598	#
3)	TM 1,3,5-TRI...	0.000	2.797	0	2554211	N.D.	82.528	#
5)	TM 1,3-DINIT...	0.000	3.676	0	2434784	N.D.	83.530	#
6)	TM 3,5-DINIT...	0.000	3.882	0	1958376	N.D.	88.089	#
7)	TM NITROBENZENE	0.000	4.975	0	1094319	N.D.	81.964	#
8)	TM NITROGLYC...	5.919	0.000	436372	0	83.000	N.D.	#
9)	TM TETRYL	6.307	6.307	1254687	773791	NoCal	84.507	#
10)	TM 2,4,6-TRI...	6.801	6.801	1338857	1026391	NoCal	82.032	#
11)	TM 2-AMINO-4...	6.998	6.997	1667940	1118540	NoCal	99.482	#
12)	TM 4-AMINO-2...	7.324	7.324	1433466	778782	NoCal	96.193	#
13)	TM 2,4-DINIT...	8.460	8.461	725026	969839	NoCal	82.135	#
14)	TM 2,6-DINIT...	8.794	8.789	815784	612761	NoCal	94.228	#
15)	TM 2-NITROTO...	0.000	12.127	0	354107	N.D.	78.980	m#
16)	TM 4-NITROTO...	0.000	12.739	0	348307	N.D.	78.537	m#
17)	TM 3-NITROTO...	0.000	13.631	0	421101	N.D.	79.519	#
18)	TM PETN	15.851	0.000	351869	0	86.732m	N.D.	#

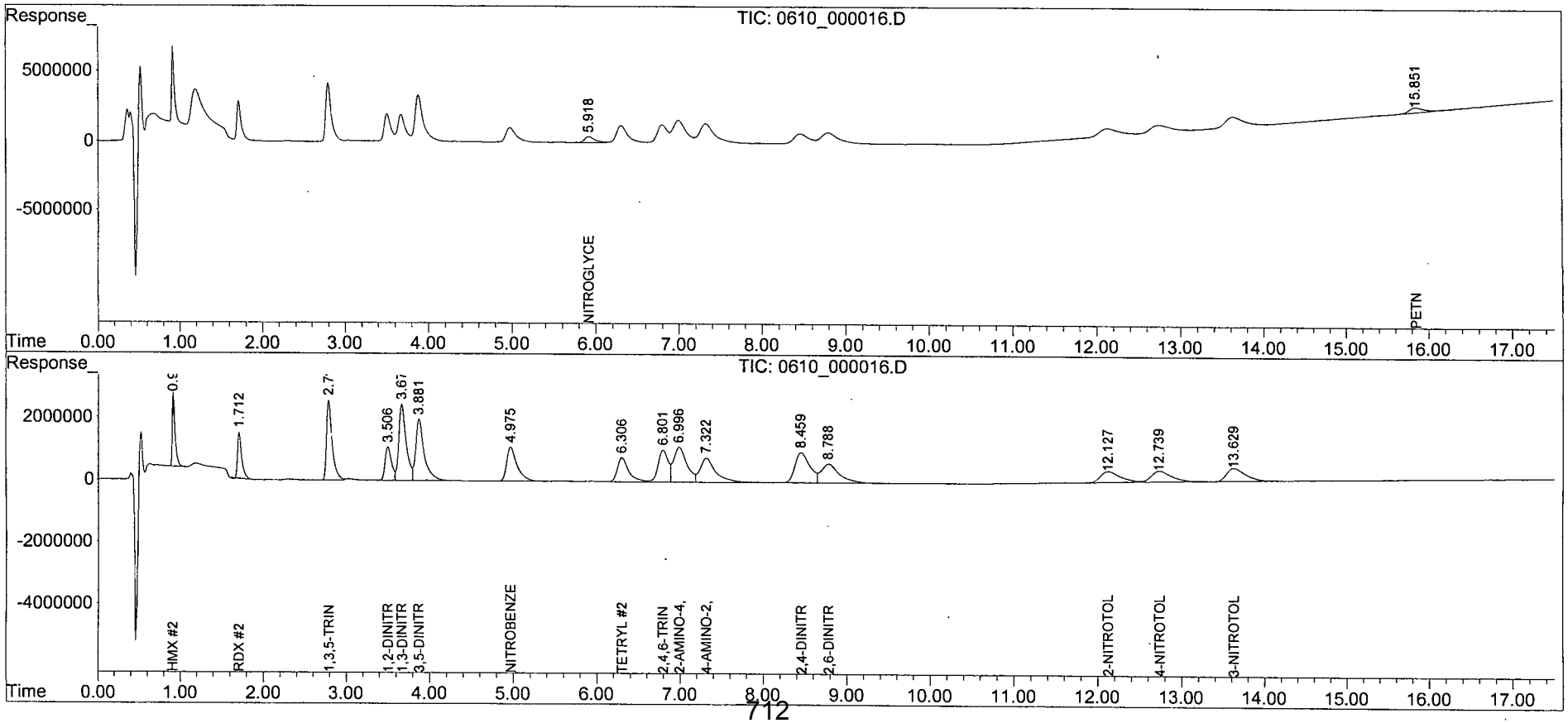
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 21:49:40
Operator : MP
Sample : 8330CB 0.10 PPM 06/10/15
Misc :
ALS Vial : 4100 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:30:57 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



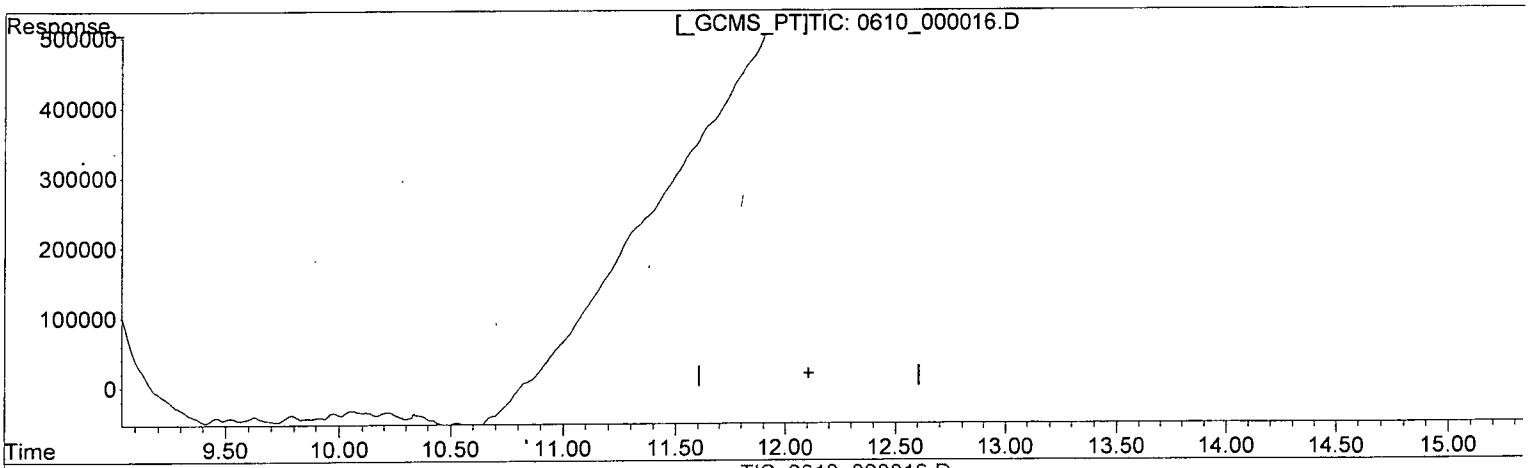
W150610.M Thu Jun 11 07:31:05 2015 WALDORF Page: 2

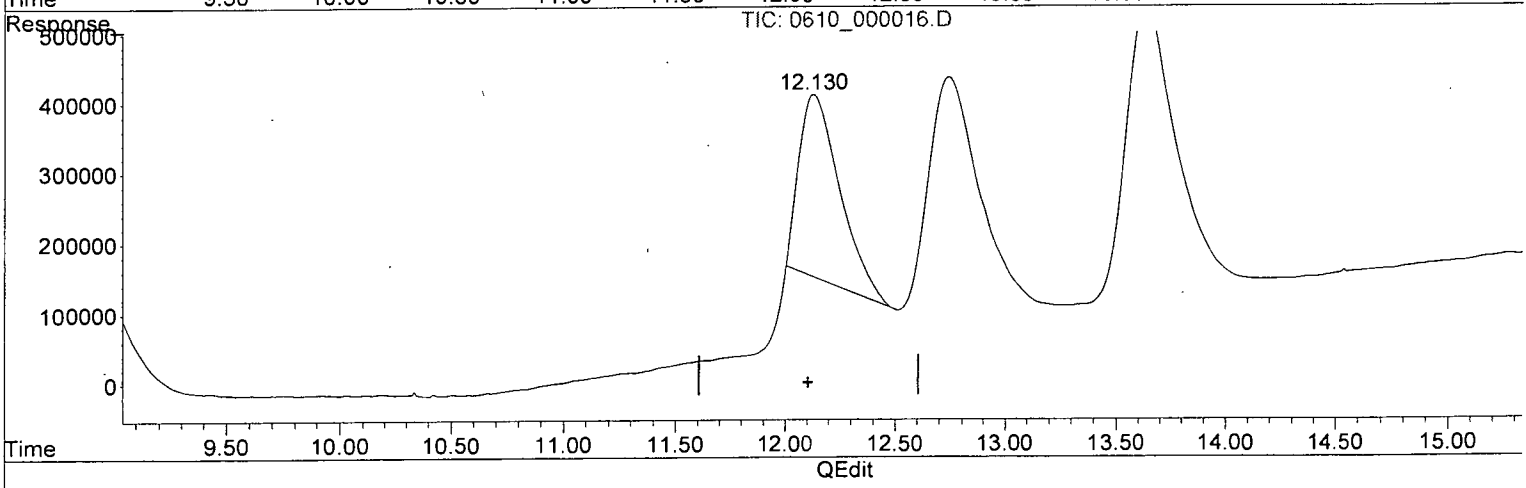
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 21:49:40
Operator : MP
Sample : 8330CB 0.10 PPM 06/10/15
Misc :
ALS Vial : 4100 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:58 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0r





(15) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 2-NITROTOLUENE #2 (TM)

12.128min 57.955 ppb

response 259839

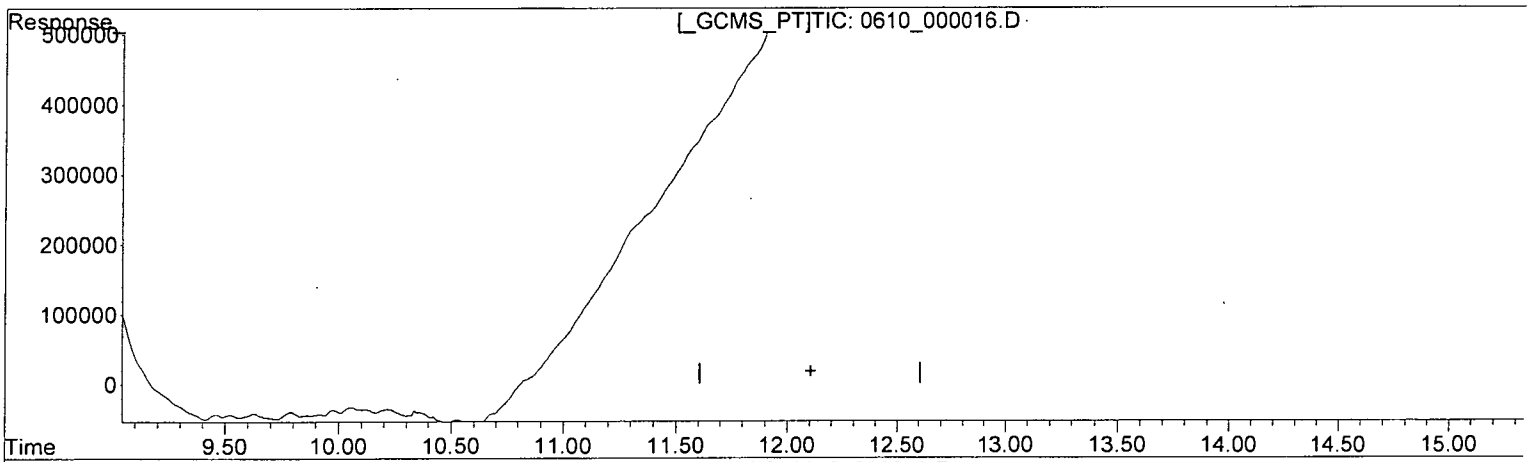
(+) = Expected Retention Time

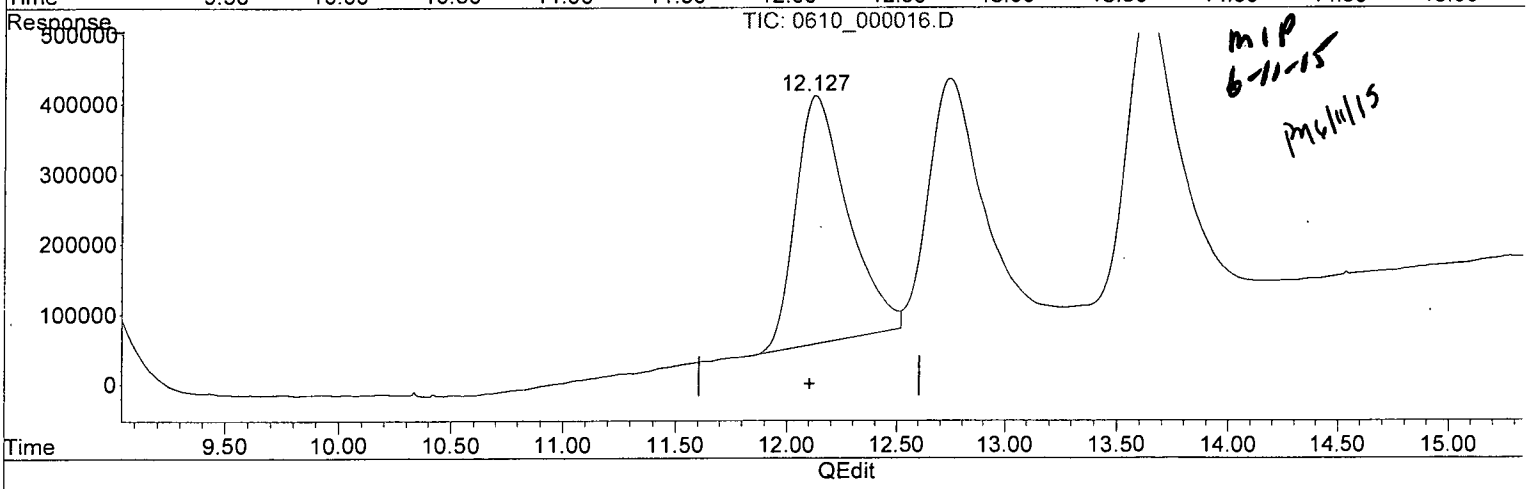
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 21:49:40
Operator : MP
Sample : 8330CB 0.10 PPM 06/10/15
Misc :
ALS Vial : 4100 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:58 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0r





MP 6-11-15 pm6/11/15

(15) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 2-NITROTOLUENE #2 (TM)

12.127min 78.980 ppb m

response 354107

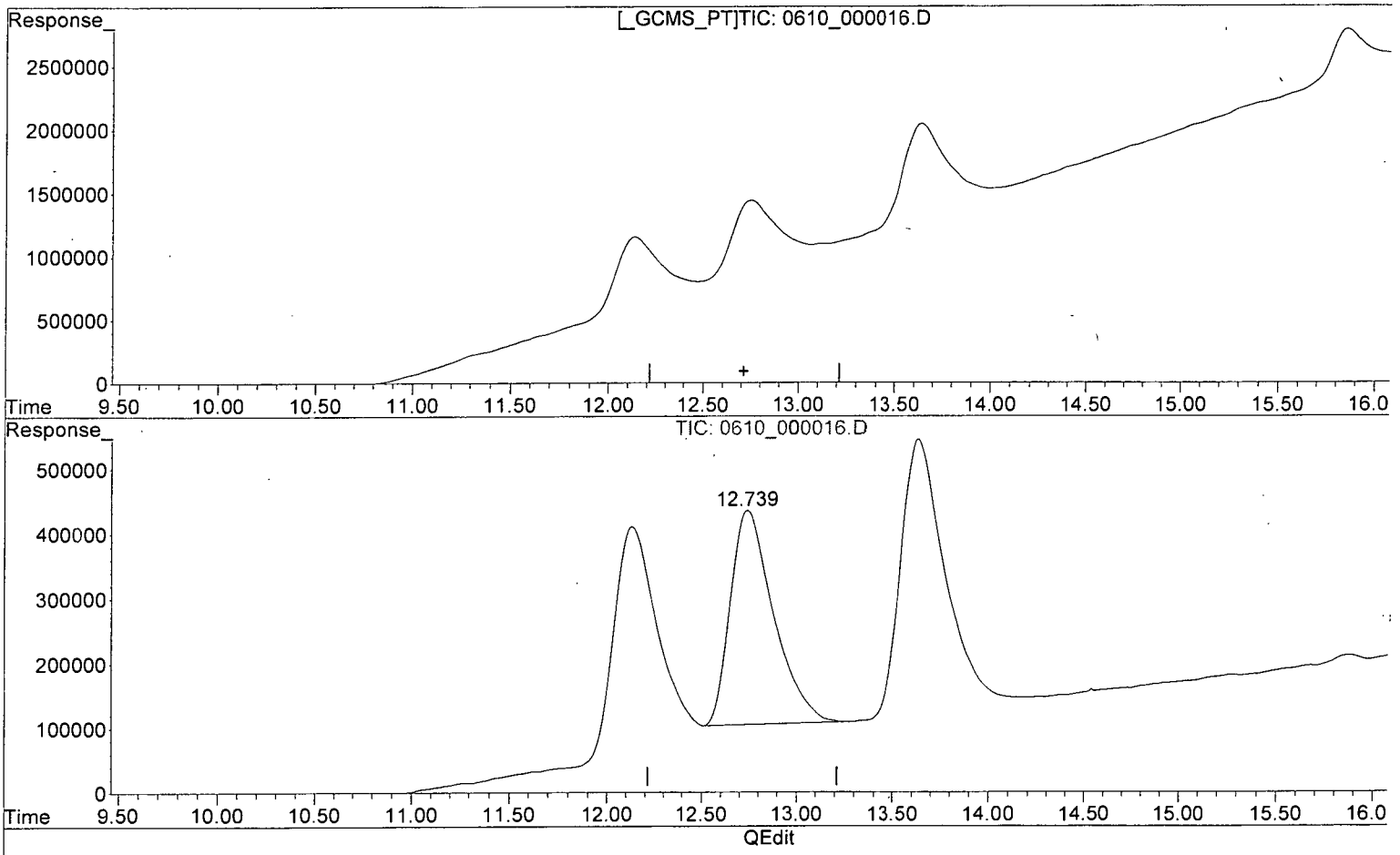
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 21:49:40
Operator : MP
Sample : 8330CB 0.10 PPM 06/10/15
Misc :
ALS Vial : 4100 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:58 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0



(16) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-NITROTOLUENE #2 (TM)

12.739min 74.554 ppb

response 330642

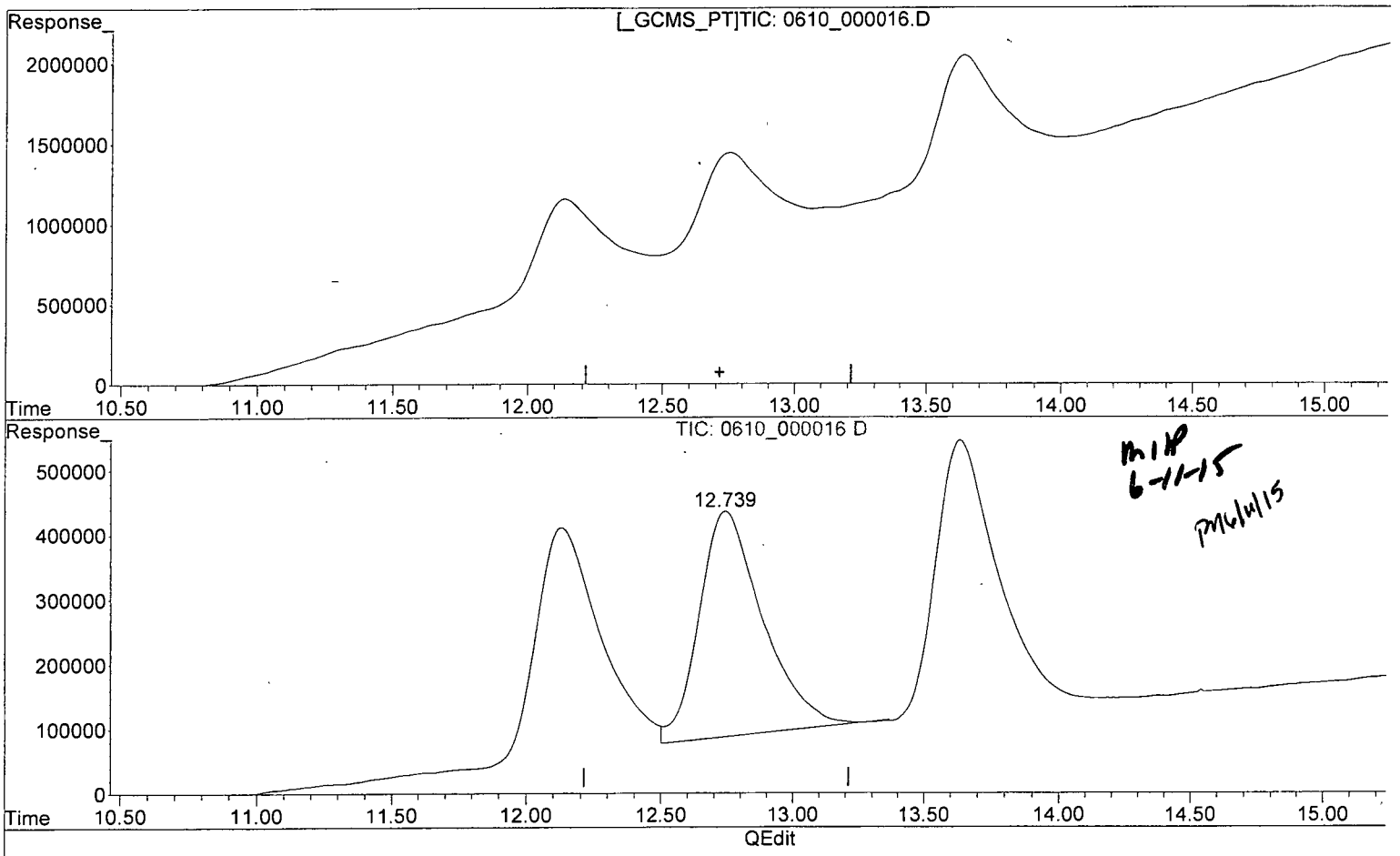
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 21:49:40
Operator : MP
Sample : 8330CB 0.10 PPM 06/10/15
Misc :
ALS Vial : 4100 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:58 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0



MHP 6-11-15
PM 6/11/15

(16) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-NITROTOLUENE #2 (TM)

12.739min 78.537 ppb m

response 348307

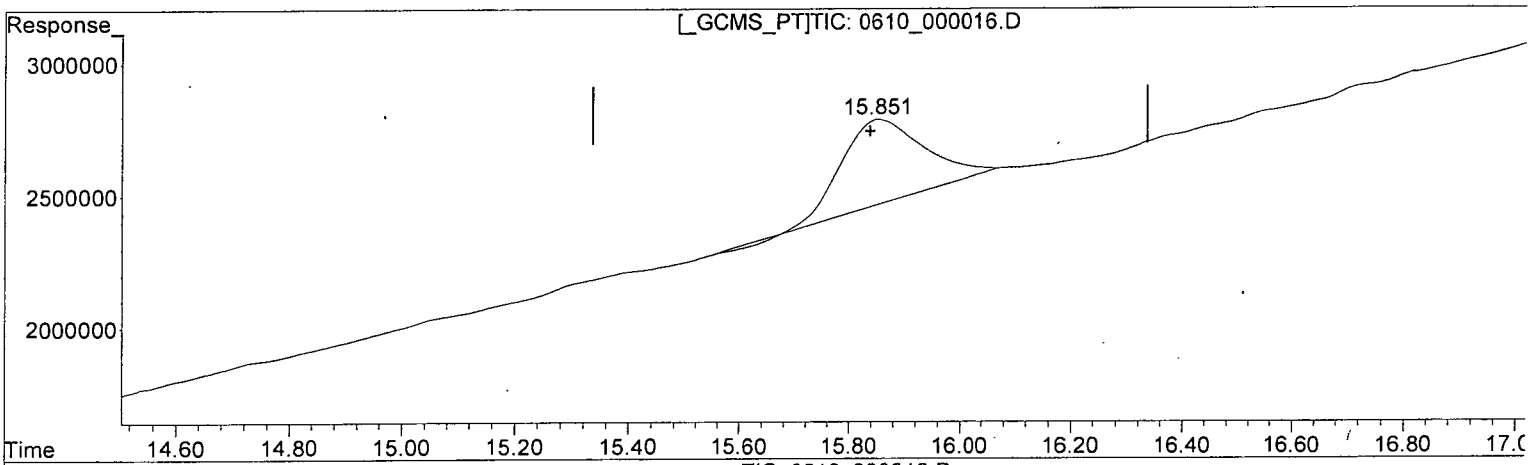
(+) = Expected Retention Time

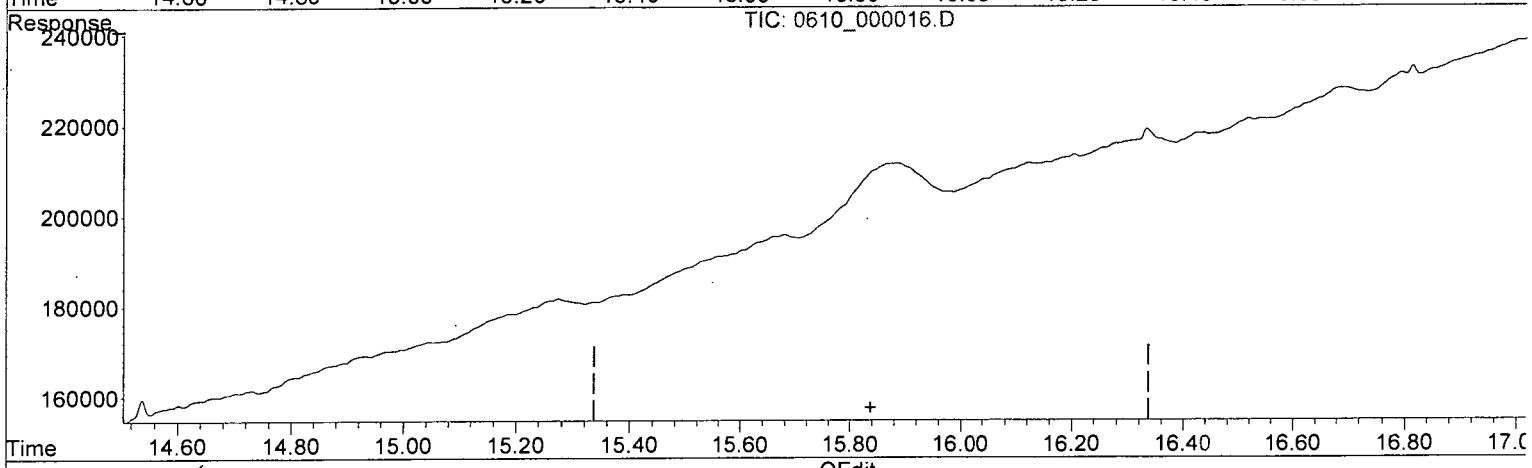
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 21:49:40
Operator : MP
Sample : 8330CB 0.10 PPM 06/10/15
Misc :
ALS Vial : 4100 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:58 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





QEdit

(18) PETN (TM)

15.852min 79.066 ppb

response 320767

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

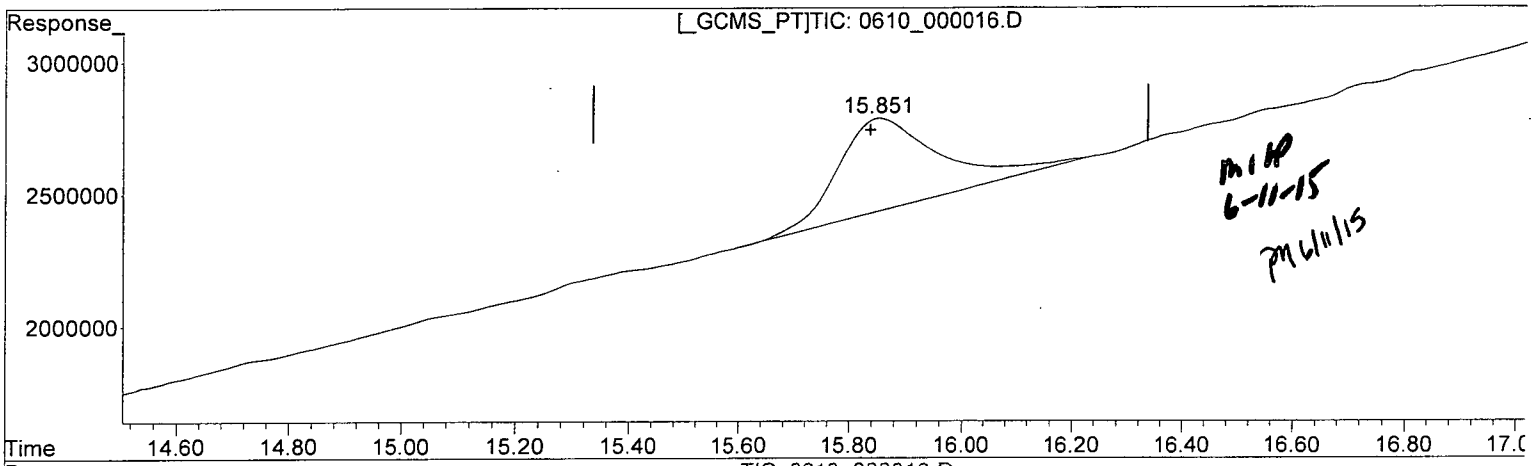
(+) = Expected Retention Time

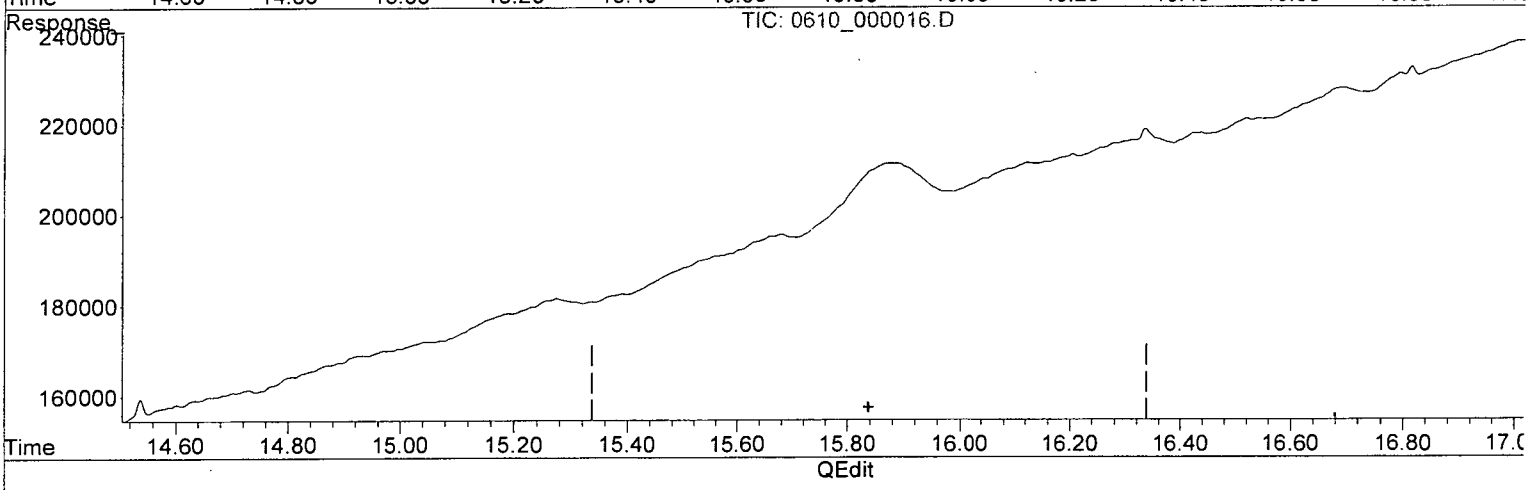
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 21:49:40
Operator : MP
Sample : 8330CB 0.10 PPM 06/10/15
Misc :
ALS Vial : 4100 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:21:58 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0r





(18) PETN (TM)

15.851min 86.732 ppb m

response 351869

(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\150610\150610\
Data File : 0610_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 22:17:10
Operator : MP
Sample : 8330CB 0.20 PPM 06/10/15
Misc :
ALS Vial : 4101 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:29:02 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4) S	1,2-DINIT...	0.000	3.502	0	2190578	N.D.	169.290 #
	Spiked Amount 62.500			Recovery	=	0.00%	270.86%
	Target Compounds						
1) TM	HMX	0.000	0.913	0	4727146	N.D.	181.967 #
2) TM	RDX	0.000	1.708	0	3032971	N.D.	178.077m#
3) TM	1,3,5-TRI...	0.000	2.793	0	5194929	N.D.	167.851 #
5) TM	1,3-DINIT...	0.000	3.671	0	4950066	N.D.	169.821 #
6) TM	3,5-DINIT...	0.000	3.874	0	3999825	N.D.	179.915 #
7) TM	NITROBENZENE	0.000	4.967	0	2227577	N.D.	166.844 #
8) TM	NITROGLYC...	5.911	5.912	879313	26926	167.249	NoCal #
9) TM	TETRYL	6.292	6.293	2501066	1546794	NoCal	168.928 #
10) TM	2,4,6-TRI...	6.790	6.790	2712305	2092457	NoCal	167.235 #
11) TM	2-AMINO-4...	6.981	6.980	3396242	2295746	NoCal	204.181 #
12) TM	4-AMINO-2...	7.308	7.307	2896870	1585175	NoCal	195.797 #
13) TM	2,4-DINIT...	8.445	8.445	1483454	1980961	NoCal	167.766 #
14) TM	2,6-DINIT...	8.777	8.773	1646088	1246214	NoCal	191.637 #
15) TM	2-NITROTO...	0.000	12.108	0	721824	N.D.	160.997m#
16) TM	4-NITROTO...	0.000	12.718	0	708053	N.D.	159.653m#
17) TM	3-NITROTO...	0.000	13.616	0	854600	N.D.	161.380 #
18) TM	PETN	15.847	0.000	700426	0	172.648m	N.D. #

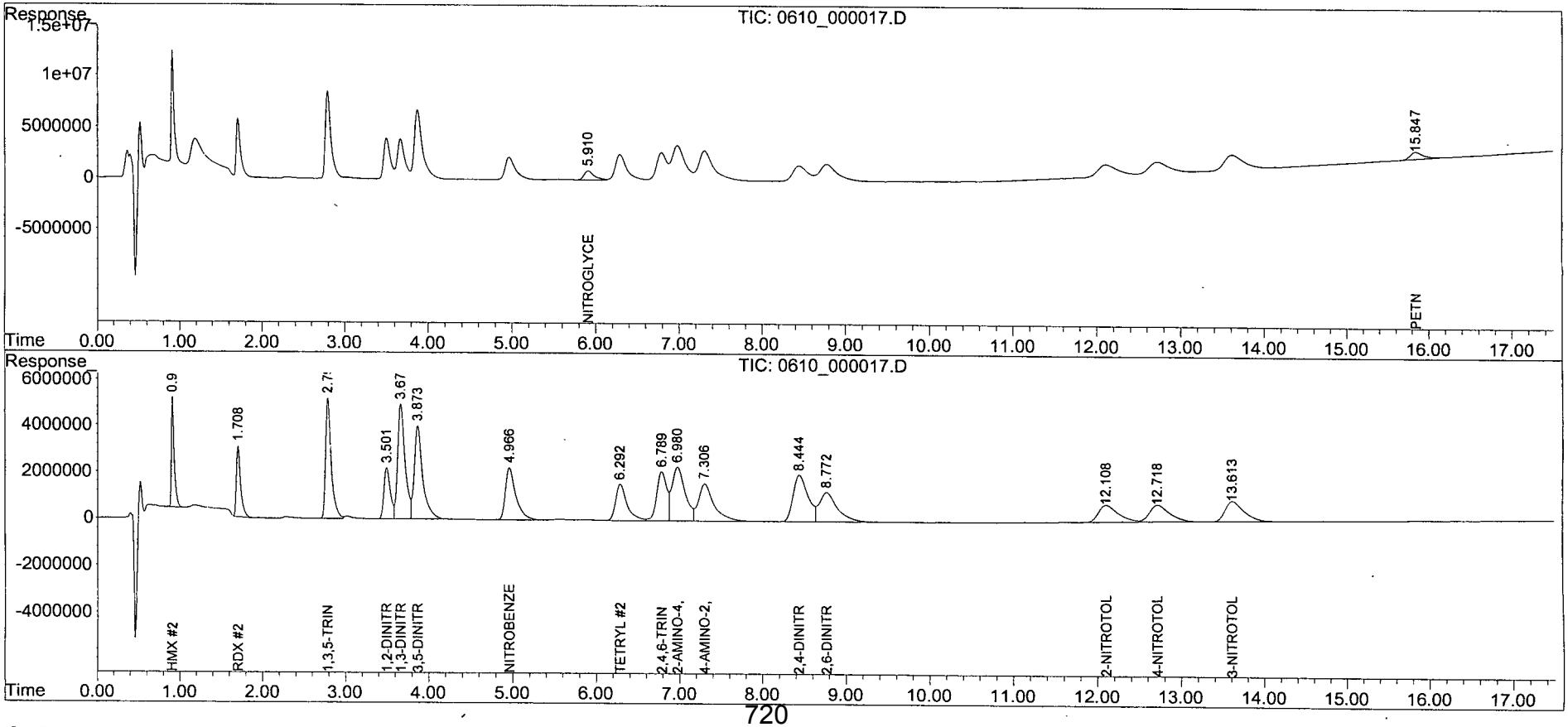
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 22:17:10
Operator : MP
Sample : 8330CB 0.20 PPM 06/10/15
Misc :
ALS Vial : 4101 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:29:02 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

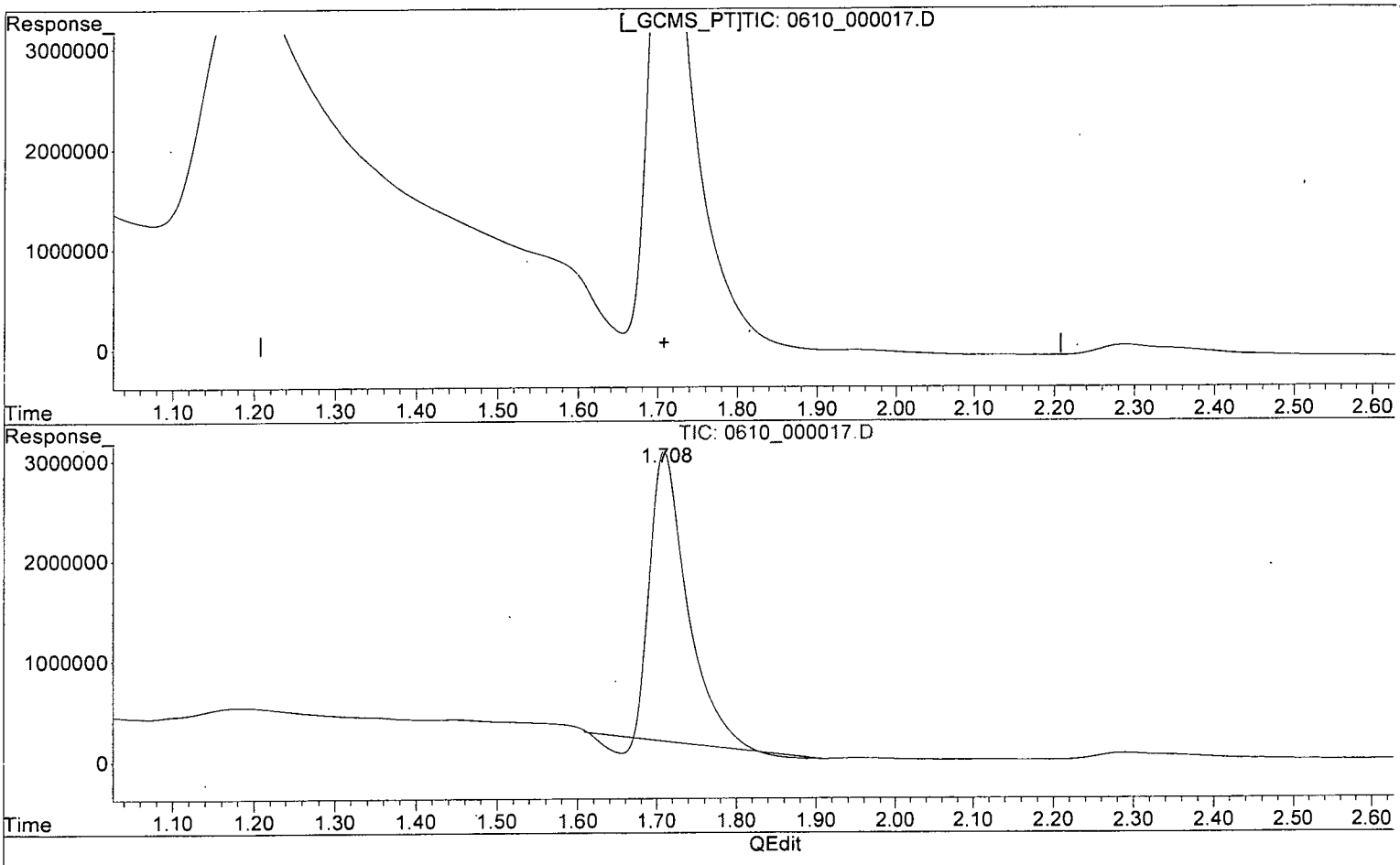


Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 22:17:10
Operator : MP
Sample : 8330CB 0.20 PPM 06/10/15
Misc :
ALS Vial : 4101 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:22:01 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0r



(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

1.709min 169.558 ppb

response 2887872

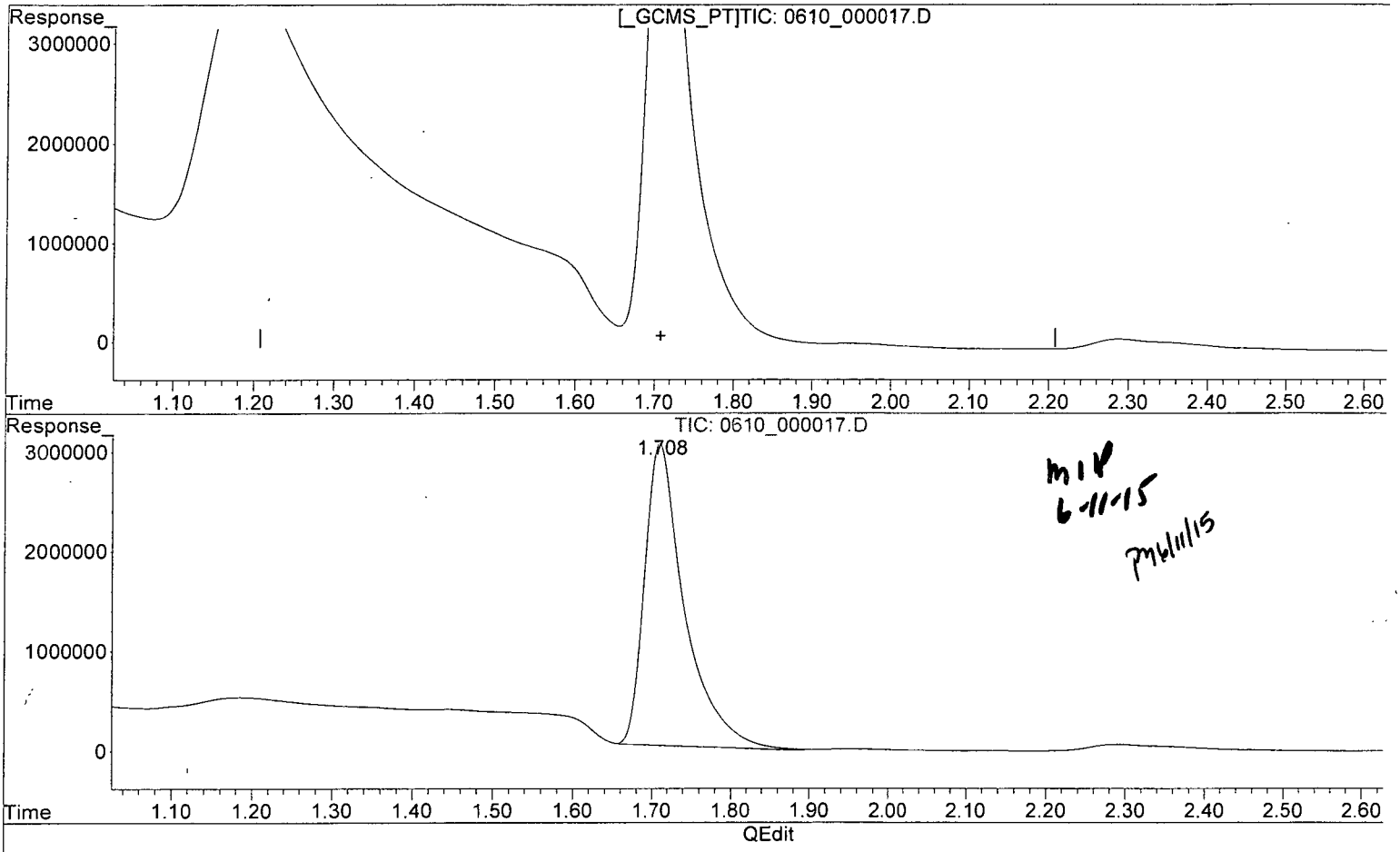
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 22:17:10
Operator : MP
Sample : 8330CB 0.20 PPM 06/10/15
Misc :
ALS Vial : 4101 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:22:01 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0



MLP 6-11-15 pm 6/11/15

(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

1.708min 178.077 ppb m

response 3032971

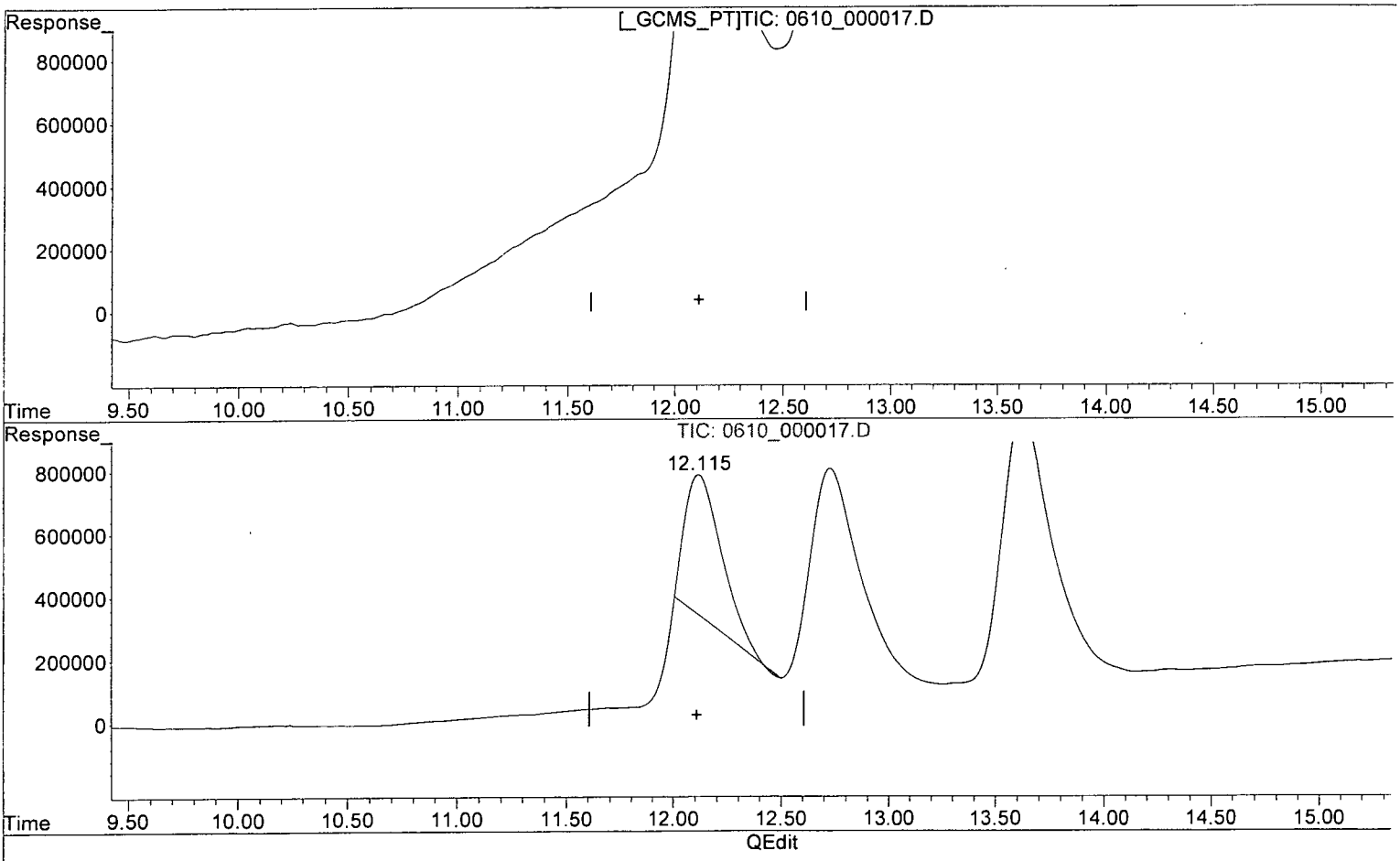
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000017.D
Signal(s) : Signal #1: DAD1B.ch Signa1 #2: DAD1A.ch
Acq On : 10-Jun-2015, 22:17:10
Operator : MP
Sample : 8330CB 0.20 PPM 06/10/15
Misc :
ALS Vial : 4101 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:22:01 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0



(15) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 2-NITROTOLUENE #2 (TM)

12.109min 99.159 ppb

response 444576

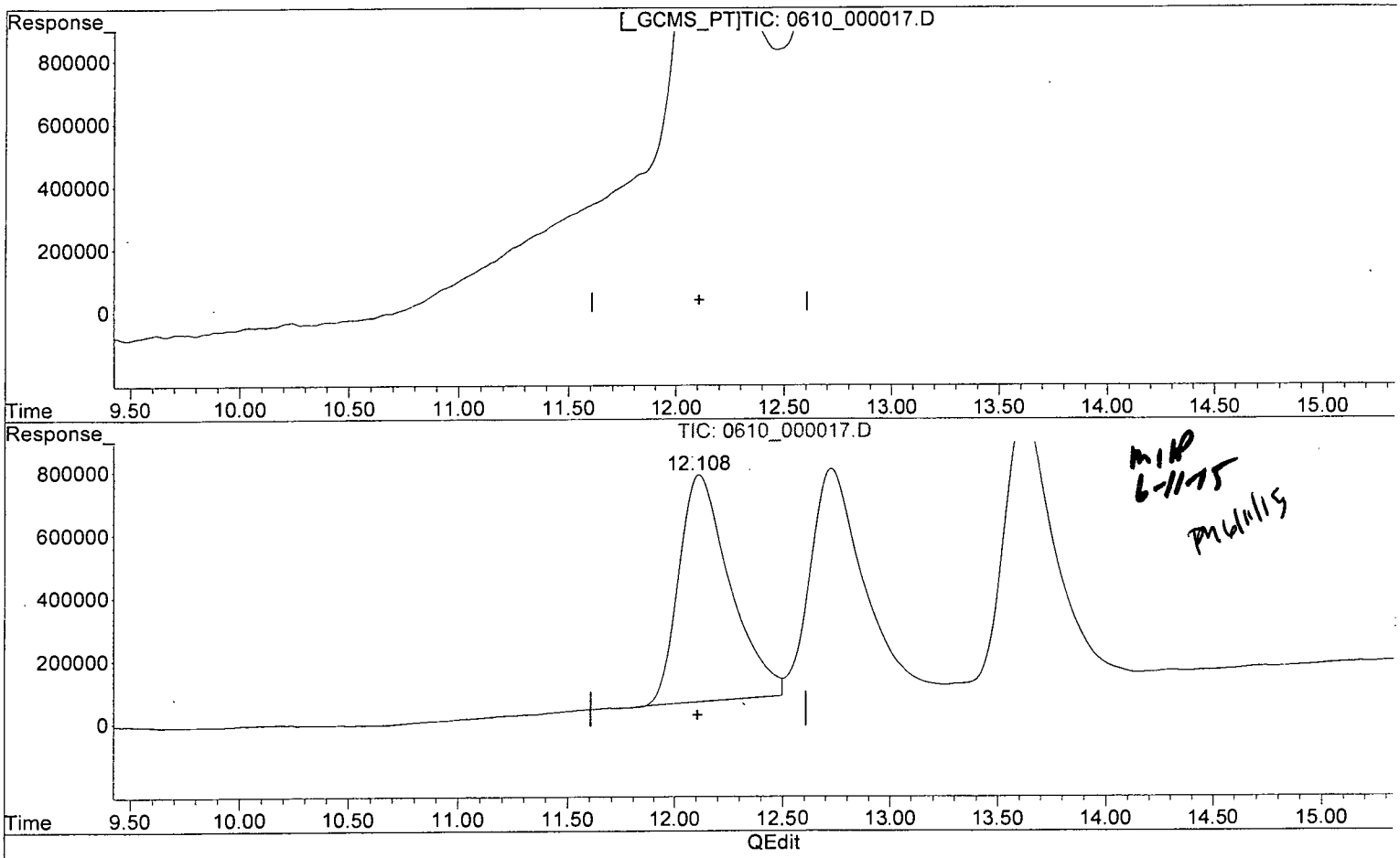
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 22:17:10
Operator : MP
Sample : 8330CB 0.20 PPM 06/10/15
Misc :
ALS Vial : 4101 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:22:01 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0r



(15) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 2-NITROTOLUENE #2 (TM)

12.108min 160.997 ppb m

response 721824

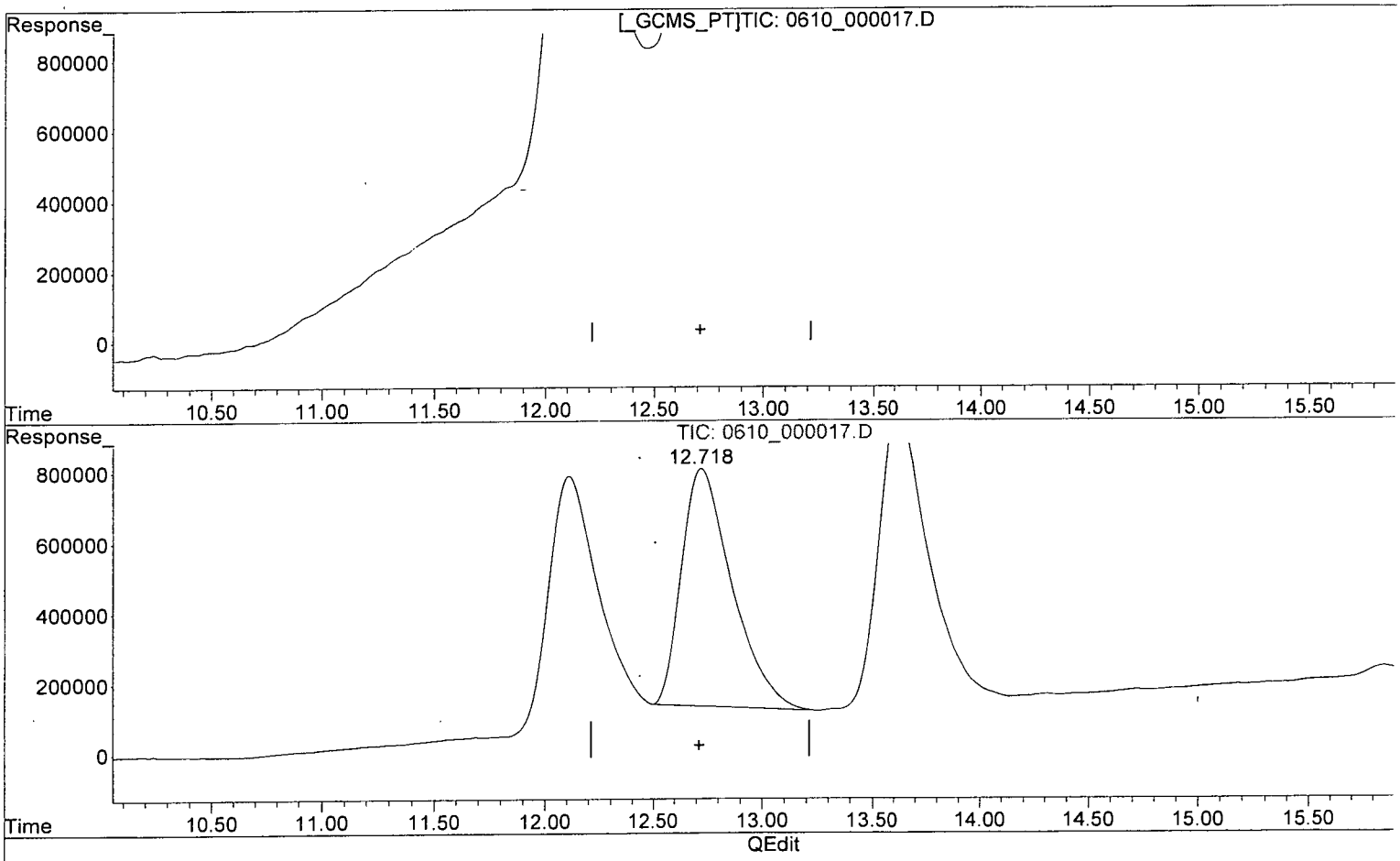
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 22:17:10
Operator : MP
Sample : 8330CB 0.20 PPM 06/10/15
Misc :
ALS Vial : 4101 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:22:01 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0r



(16) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-NITROTOLUENE #2 (TM)

12.721min 151.777 ppb

response 673125

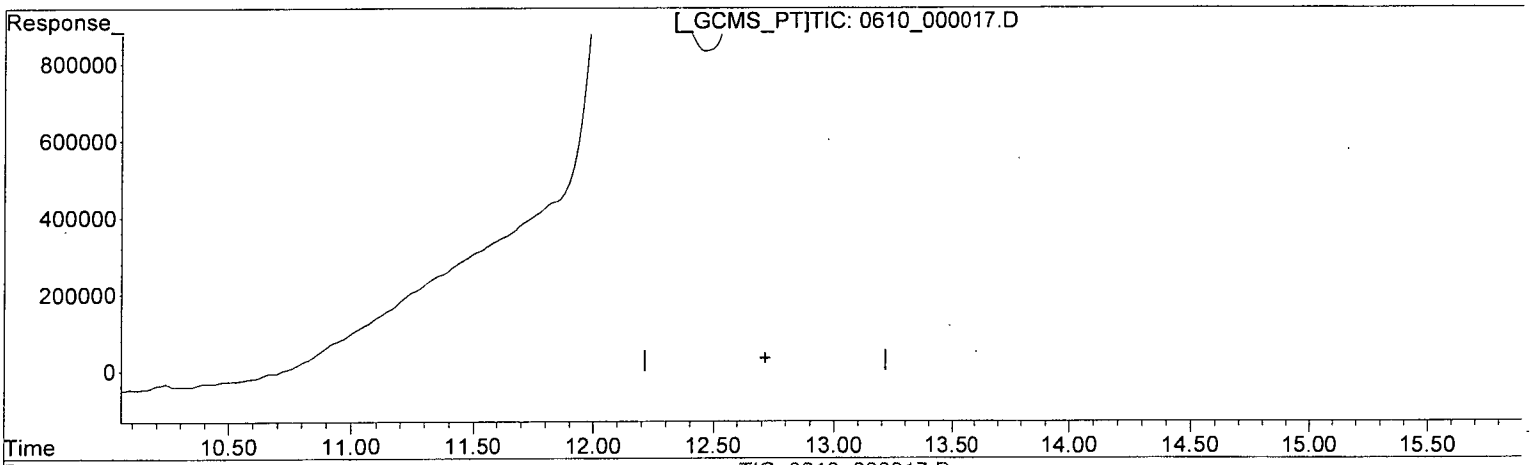
(+) = Expected Retention Time

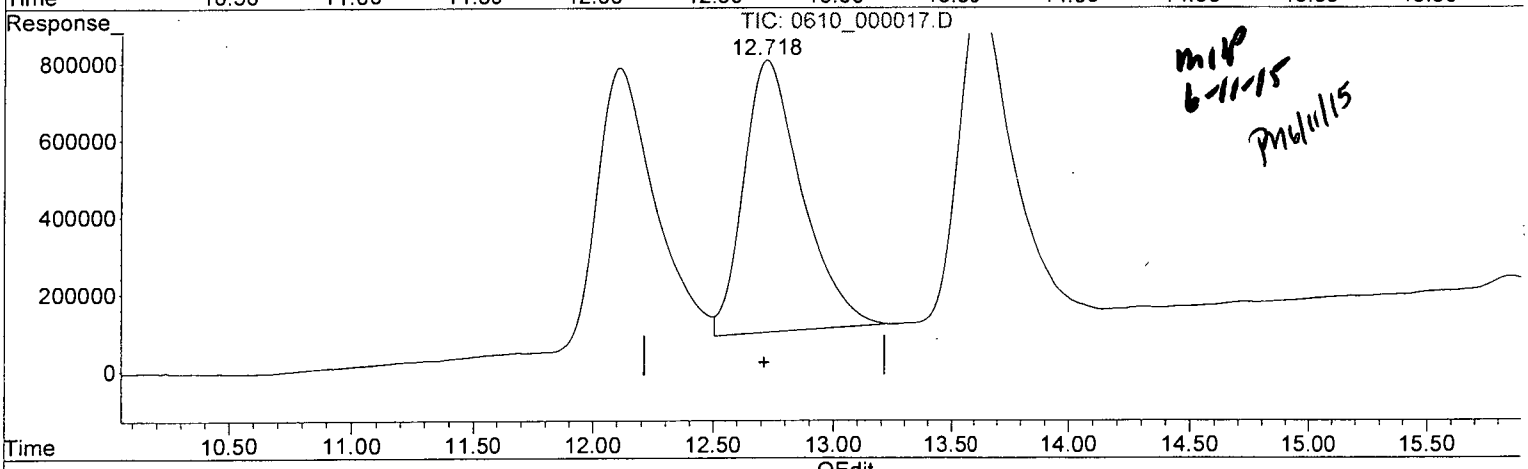
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 22:17:10
Operator : MP
Sample : 8330CB 0.20 PPM 06/10/15
Misc :
ALS Vial : 4101 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:22:01 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0r





MHP 6-11-15
PM 6/11/15

(16) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-NITROTOLUENE #2 (TM)

12.718min 159.653 ppb m

response 708053

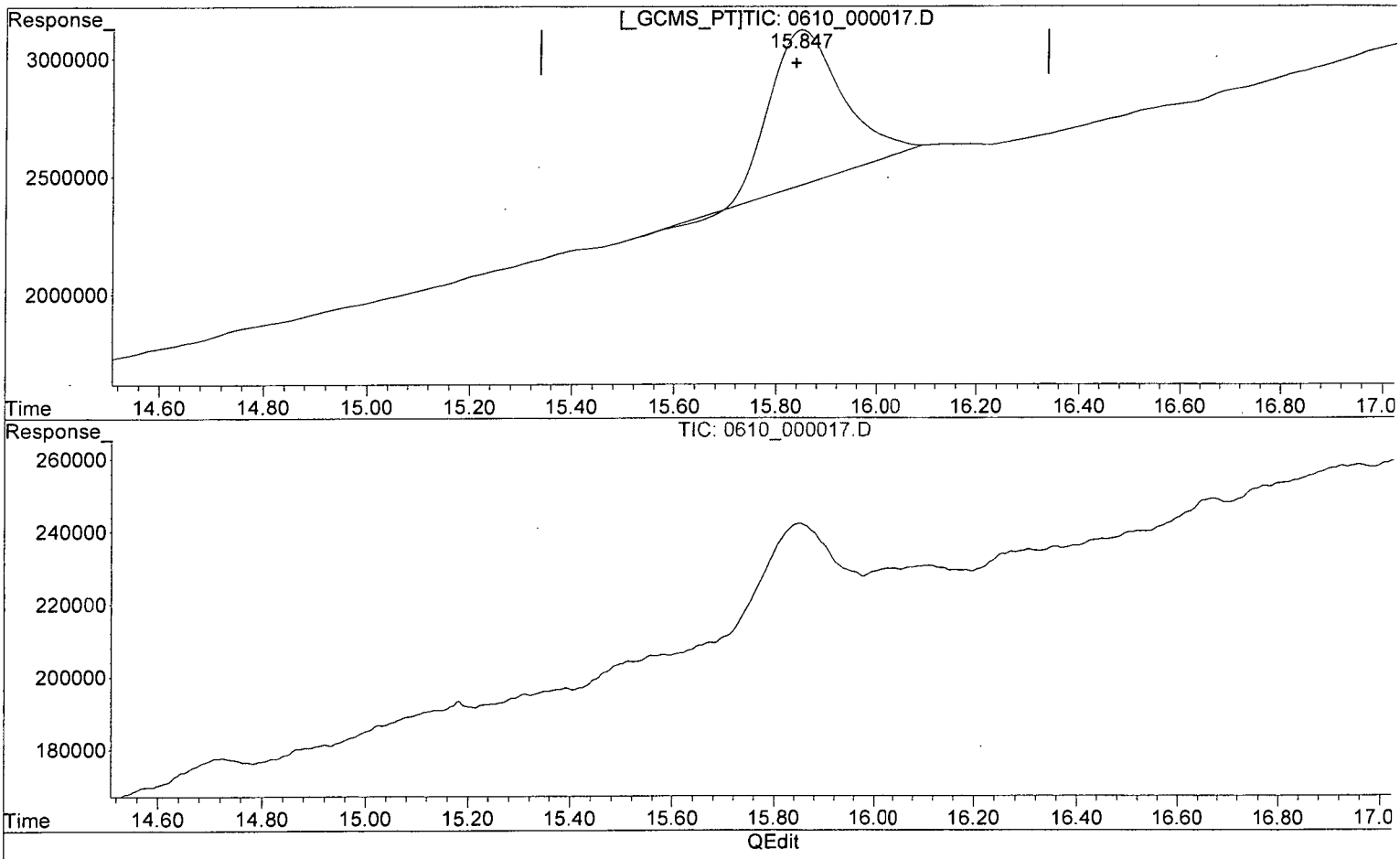
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 22:17:10
Operator : MP
Sample : 8330CB 0.20 PPM 06/10/15
Misc :
ALS Vial : 4101 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:22:01 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0r



(18) PETN (TM)

15.848min 162.066 ppb

response 657495

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

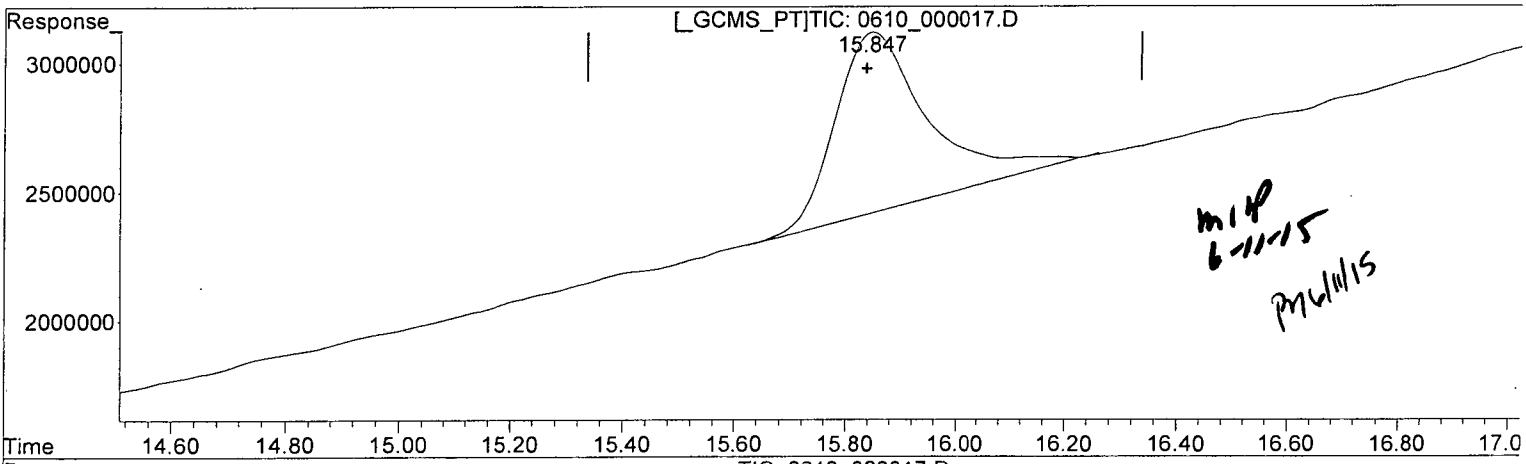
(+) = Expected Retention Time

Quantitation Report (Qedit)

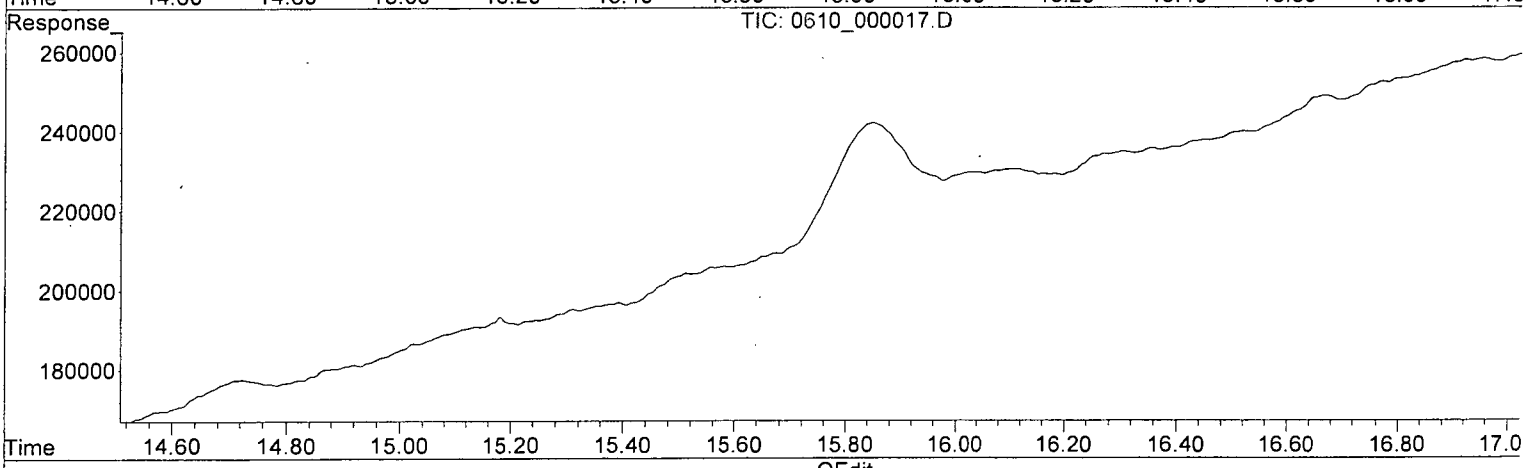
Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 22:17:10
Operator : MP
Sample : 8330CB 0.20 PPM 06/10/15
Misc :
ALS Vial : 4101 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:22:01 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0r



MP 6-11-15 PM 6/11/15



QEdit

(18) PETN (TM)

15.847min 172.648 ppb m

response 700426

(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\150610\150610\
Data File : 0610_000018.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 22:44:42
Operator : MP
Sample : 8330CB 0.50 PPM 06/10/15
Misc :
ALS Vial : 4102 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:26:39 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
4)	S 1,2-DINIT...	0.000	3.500	0	5503069	N.D.	425.283	#
	Spiked Amount 62.500			Recovery	=	0.00%	680.45%	
	Target Compounds							
1)	TM HMX	0.000	0.913	0	11808009	N.D.	454.538	#
2)	TM RDX	0.000	1.710	0	7643792	N.D.	448.796	#
3)	TM 1,3,5-TRI...	0.000	2.791	0	13020538	N.D.	420.702	#
5)	TM 1,3-DINIT...	0.000	3.669	0	12446653	N.D.	427.004	#
6)	TM 3,5-DINIT...	0.000	3.874	0	10051051	N.D.	452.103	#
7)	TM NITROBENZENE	0.000	4.967	0	5581943	N.D.	418.085	#
8)	TM NITROGLYC...	5.910	5.901	2204849	73470	419.371	NoCal	#
9)	TM TETRYL	6.295	6.295	6321470	3908773	NoCal	426.883	#
10)	TM 2,4,6-TRI...	6.791	6.791	6767051	5235761	NoCal	418.457	#
11)	TM 2-AMINO-4...	6.985	6.984	8500200	5747498	NoCal	511.176	#
12)	TM 4-AMINO-2...	7.312	7.311	7252897	3971536	NoCal	490.555	#
13)	TM 2,4-DINIT...	8.446	8.447	3707477	4970677	NoCal	420.963	#
14)	TM 2,6-DINIT...	8.780	8.775	4135045	3121473	NoCal	480.007	#
15)	TM 2-NITROTO...	0.000	12.106	0	1823241	N.D.	406.658	m#
16)	TM 4-NITROTO...	0.000	12.713	0	1782255	N.D.	401.865	m#
17)	TM 3-NITROTO...	0.000	13.612	0	2141807	N.D.	404.452	#
18)	TM PETN	15.838	0.000	1751720	0	431.781	N.D.	#

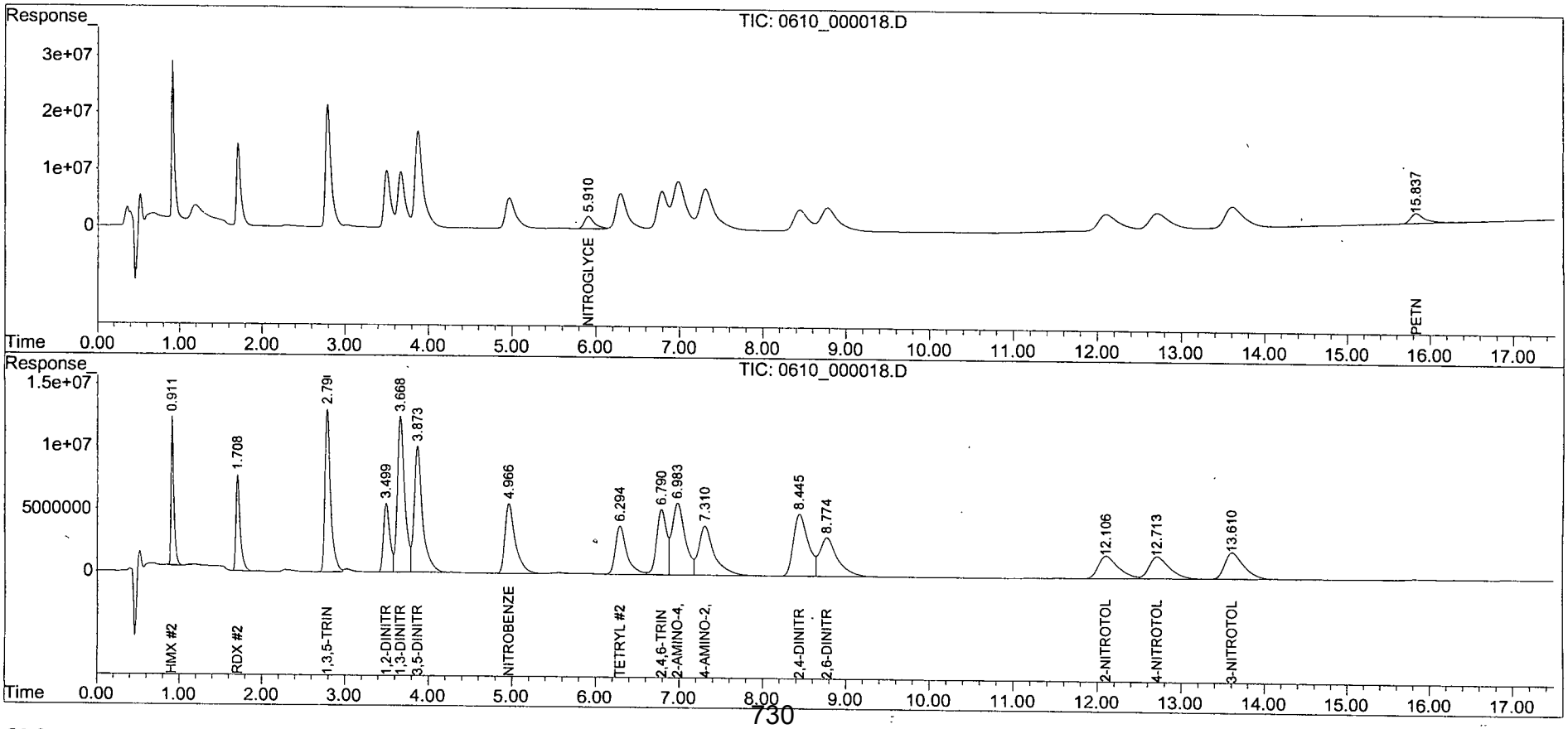
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000018.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 22:44:42
Operator : MP
Sample : 8330CB 0.50 PPM 06/10/15
Misc :
ALS Vial : 4102 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:26:39 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



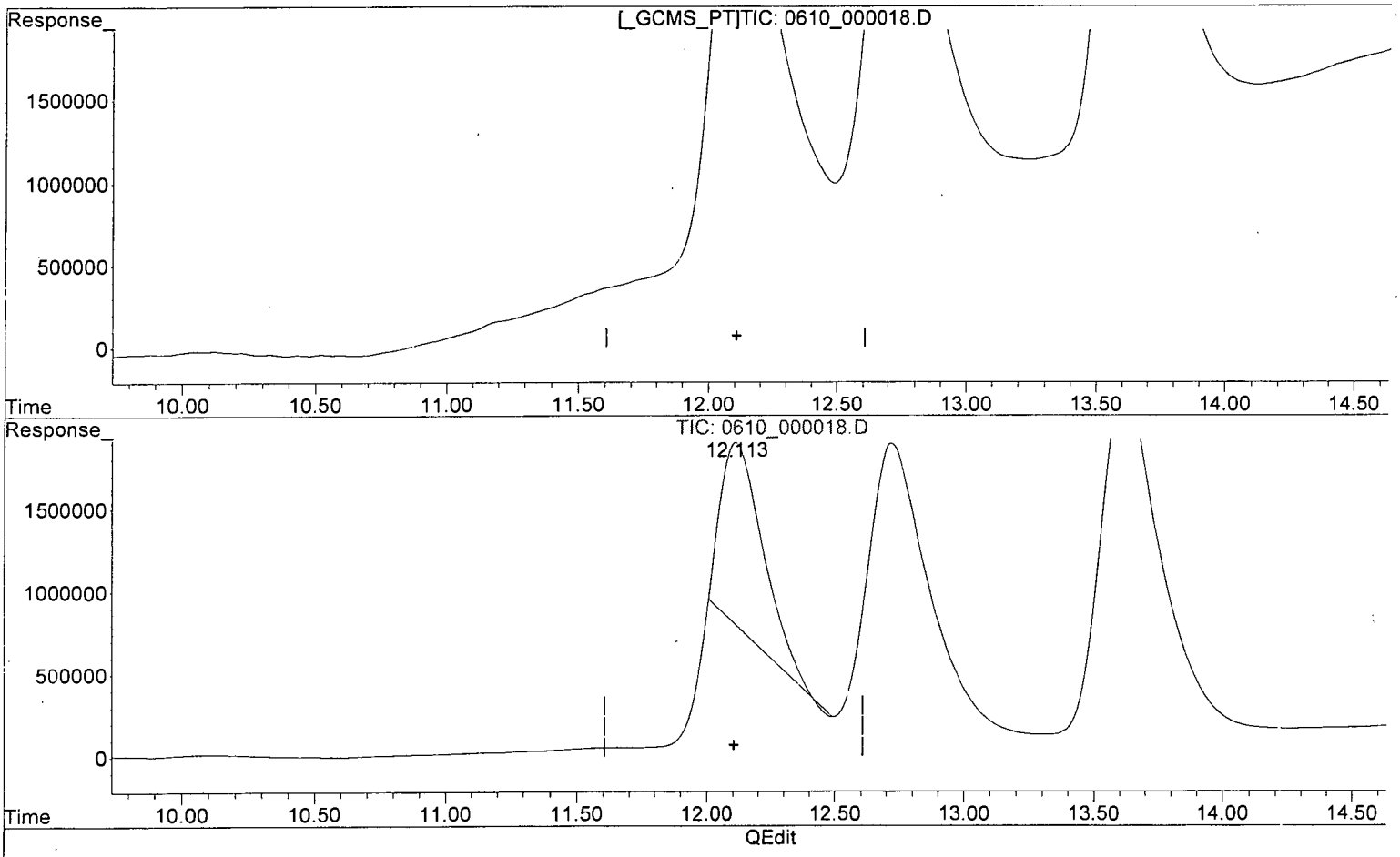
W150610.M Thu Jun 11 07:26:52 2015 WALDORF Page: 2

Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000018.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 22:44:42
Operator : MP
Sample : 8330CB 0.50 PPM 06/10/15
Misc :
ALS Vial : 4102 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:22:04 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0



(15) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 2-NITROTOLUENE #2 (TM)

12.107min 244.931 ppb

response 1098140

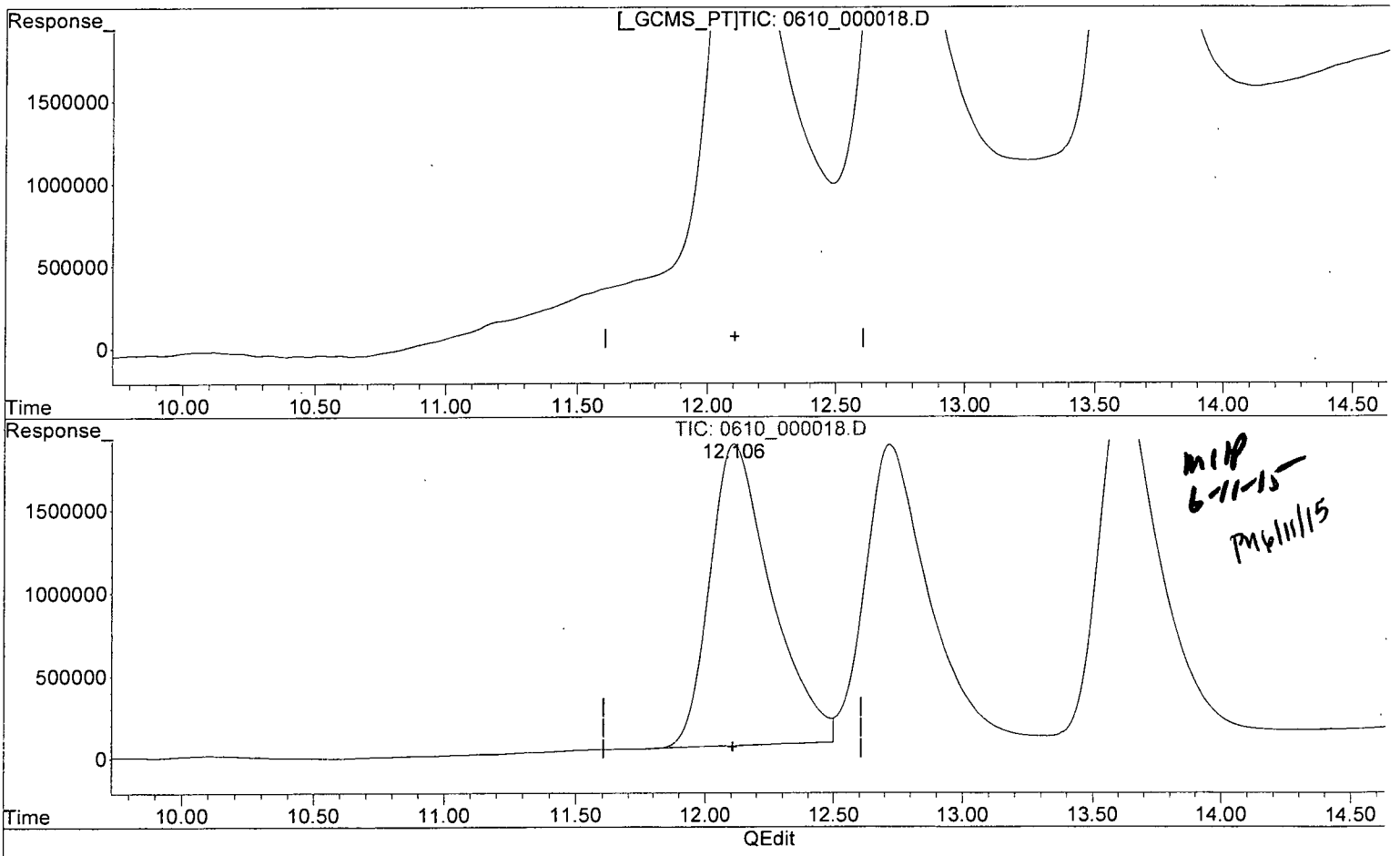
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000018.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 22:44:42
Operator : MP
Sample : 8330CB 0.50 PPM 06/10/15
Misc :
ALS Vial : 4102 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:22:04 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0r



MP 6-11-15

PM 6/11/15

(15) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 2-NITROTOLUENE #2 (TM)

12.106min 406.658 ppb m

response 1823241

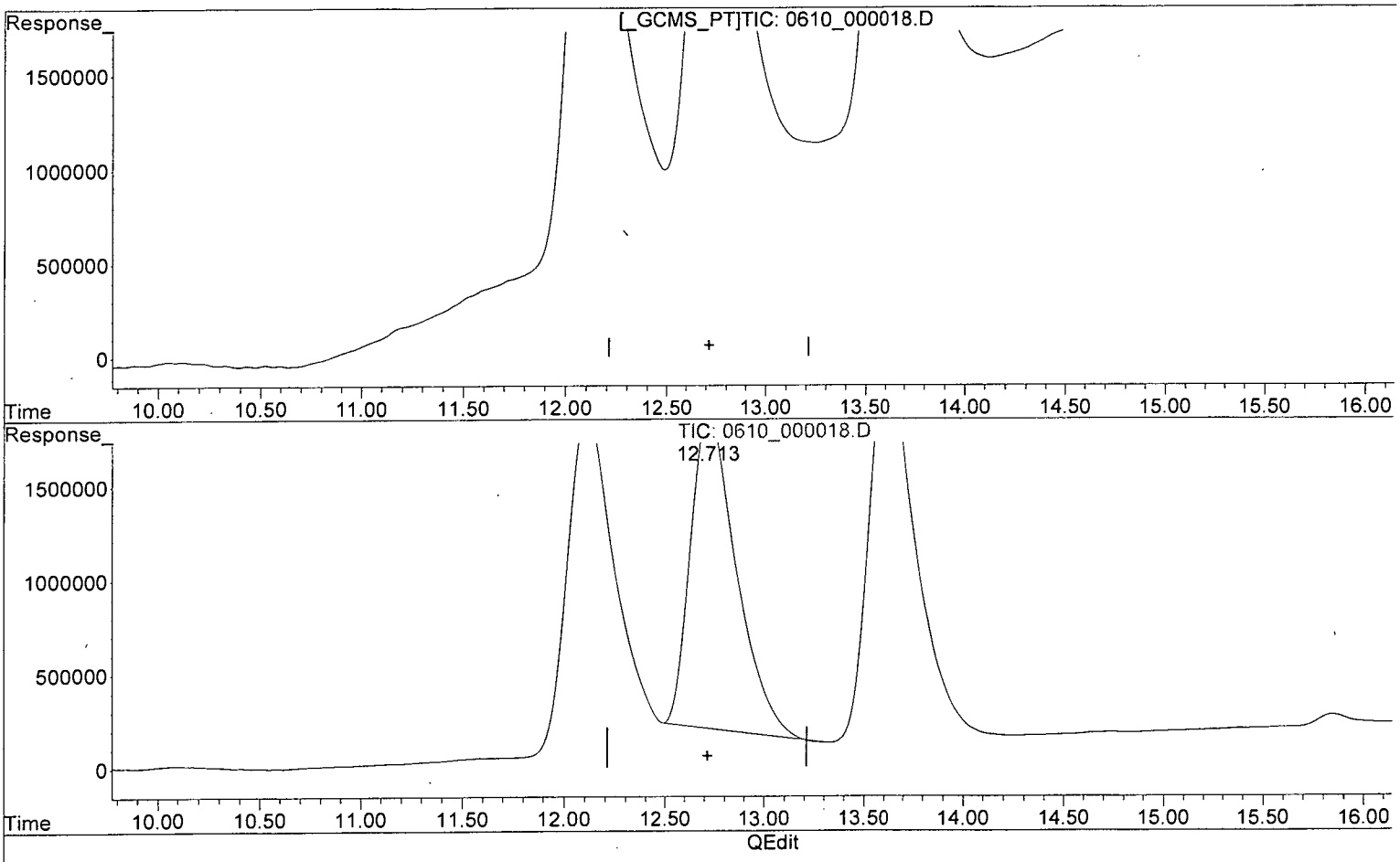
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000018.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 22:44:42
Operator : MP
Sample : 8330CB 0.50 PPM 06/10/15
Misc :
ALS Vial : 4102 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:22:04 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0r



(16) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-NITROTOLUENE #2 (TM)

12.716min 379.356 ppb

response 1682429

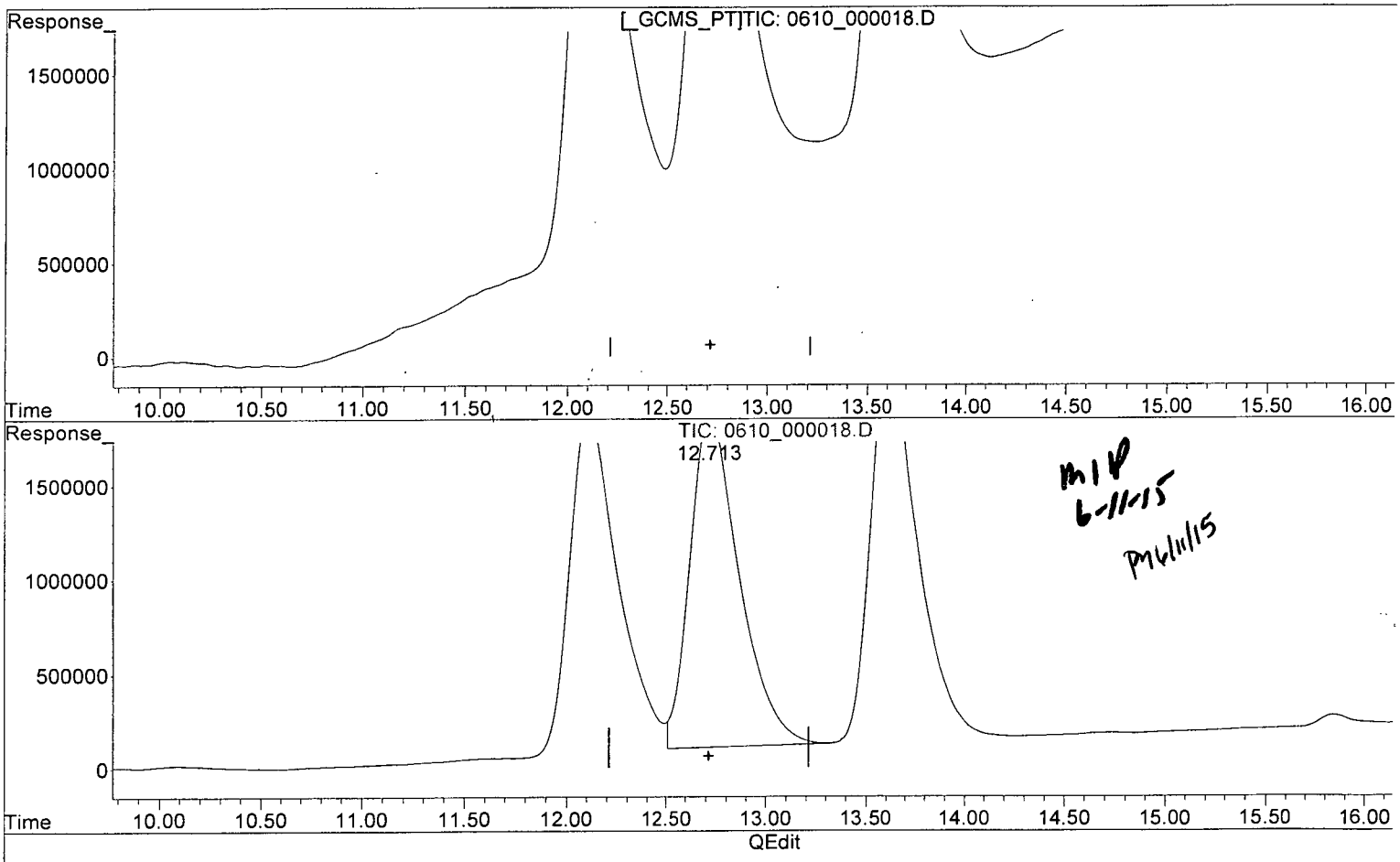
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000018.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 22:44:42
Operator : MP
Sample : 8330CB 0.50 PPM 06/10/15
Misc :
ALS Vial : 4102 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:22:04 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0



MP 6-11-15

PM 6/11/15

(16) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-NITROTOLUENE #2 (TM)

12.713min 401.865 ppb m

response 1782255

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 23:12:12
Operator : MP
Sample : 8330CB 1.0 PPM 06/10/15
Misc :
ALS Vial : 4103 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:25:23 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
4)	S 1,2-DINIT...	0.000	3.498	0	11086005	N.D.	856.738	#
	Spiked Amount 62.500			Recovery =		0.00%	1370.78%	
	Target Compounds							
1)	TM HMX	0.000	0.912	0	23512709	N.D.	905.099	#
2)	TM RDX	0.000	1.708	0	15312339	N.D.	899.046	#
3)	TM 1,3,5-TRI...	0.000	2.790	0	26045044	N.D.	841.532	#
5)	TM 1,3-DINIT...	0.000	3.667	0	25059751	N.D.	859.719	#
6)	TM 3,5-DINIT...	0.000	3.870	0	20198410	N.D.	908.539	#
7)	TM NITROBENZENE	0.000	4.965	0	11199063	N.D.	838.804	#
8)	TM NITROGLYC...	5.909	5.898	4365575	157949	830.350	NoCal	#
9)	TM TETRYL	6.290	6.290	12903083	7992643	NoCal	872.888	#
10)	TM 2,4,6-TRI...	6.788	6.788	13447960	10434643	NoCal	833.966	#
11)	TM 2-AMINO-4...	6.976	6.975	17054257	11563934	NoCal	1028.484	#
12)	TM 4-AMINO-2...	7.303	7.303	14494887	7943727	NoCal	981.192	#
13)	TM 2,4-DINIT...	8.439	8.440	7413610	9968183	NoCal	844.198	#
14)	TM 2,6-DINIT...	8.773	8.769	8256028	6248698	NoCal	960.899	#
15)	TM 2-NITROTO...	0.000	12.101	0	3651131	N.D.	814.353	m#
16)	TM 4-NITROTO...	0.000	12.706	0	3534646	N.D.	796.996	m#
17)	TM 3-NITROTO...	0.000	13.603	0	4302135	N.D.	812.402	#
18)	TM PETN	15.832	0.000	3534093	0	871.118	N.D.	#

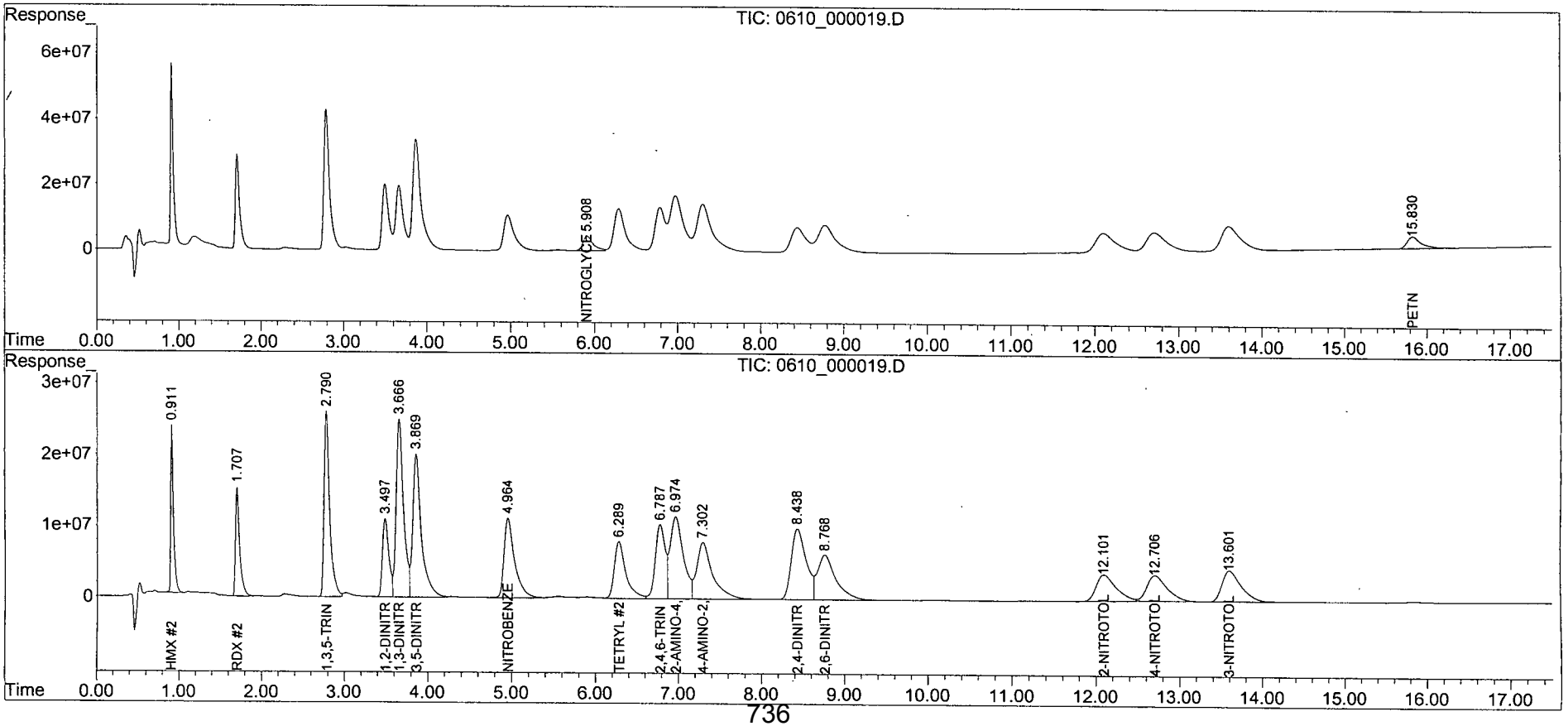
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 23:12:12
Operator : MP
Sample : 8330CB 1.0 PPM 06/10/15
Misc :
ALS Vial : 4103 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:25:23 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

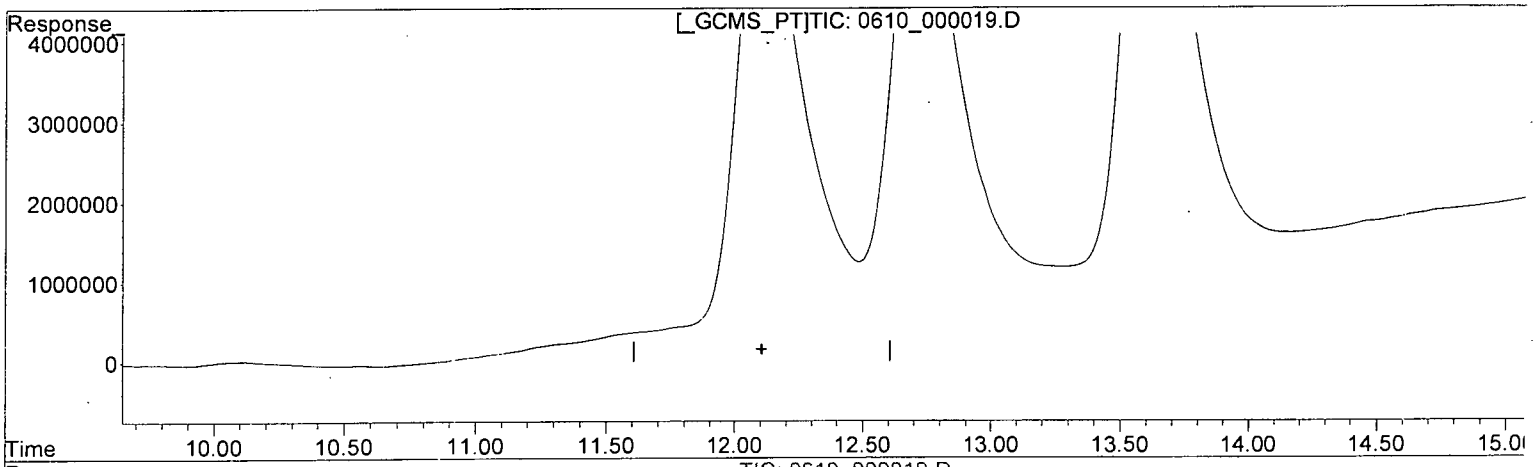


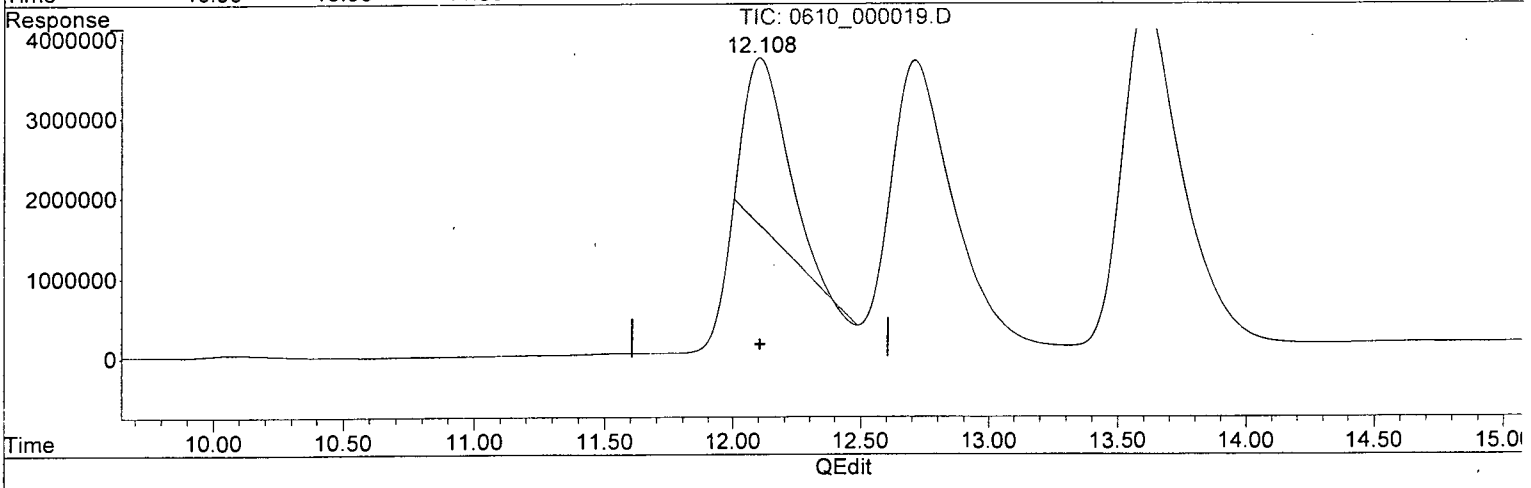
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 23:12:12
Operator : MP
Sample : 8330CB 1.0 PPM 06/10/15
Misc :
ALS Vial : 4103 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:22:08 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(15) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 2-NITROTOLUENE #2 (TM)

12.102min 465.492 ppb

response 2087022

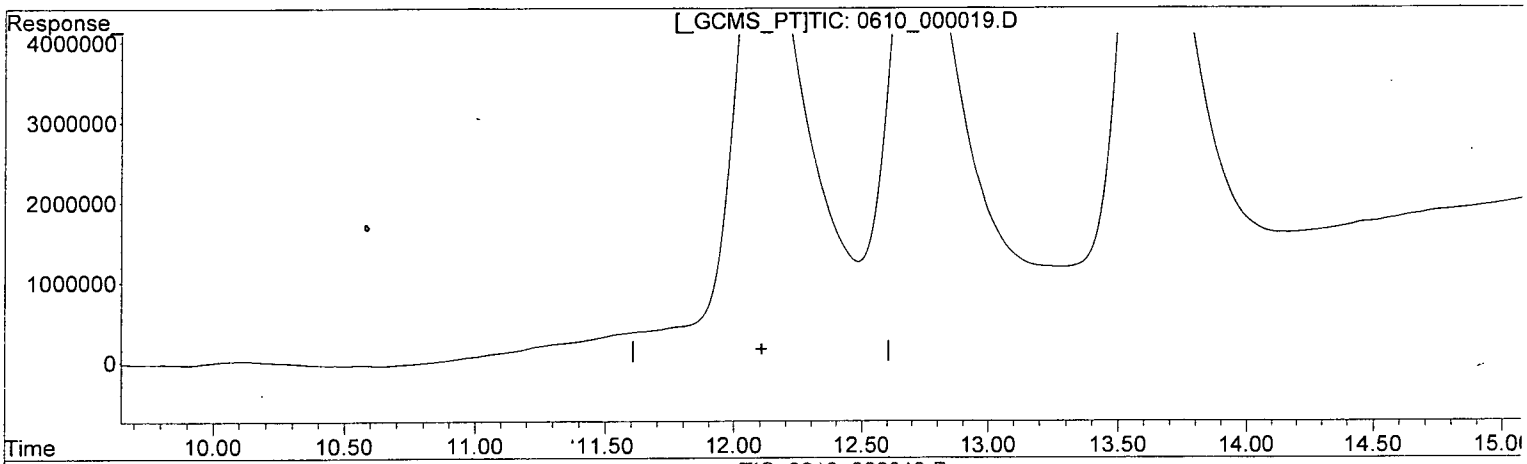
(+) = Expected Retention Time

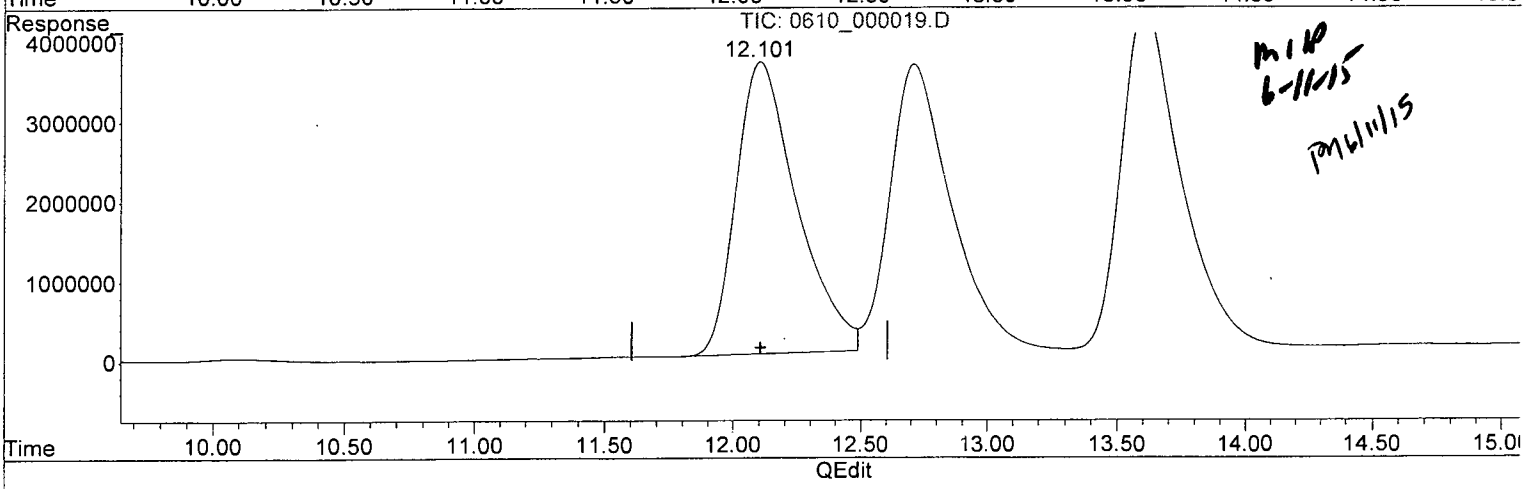
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 23:12:12
Operator : MP
Sample : 8330CB 1.0 PPM 06/10/15
Misc :
ALS Vial : 4103 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:22:08 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0r





MP 6-11-15

PM 6/11/15

(15) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 2-NITROTOLUENE #2 (TM)

12.101min 814.353 ppb m

response 3651131

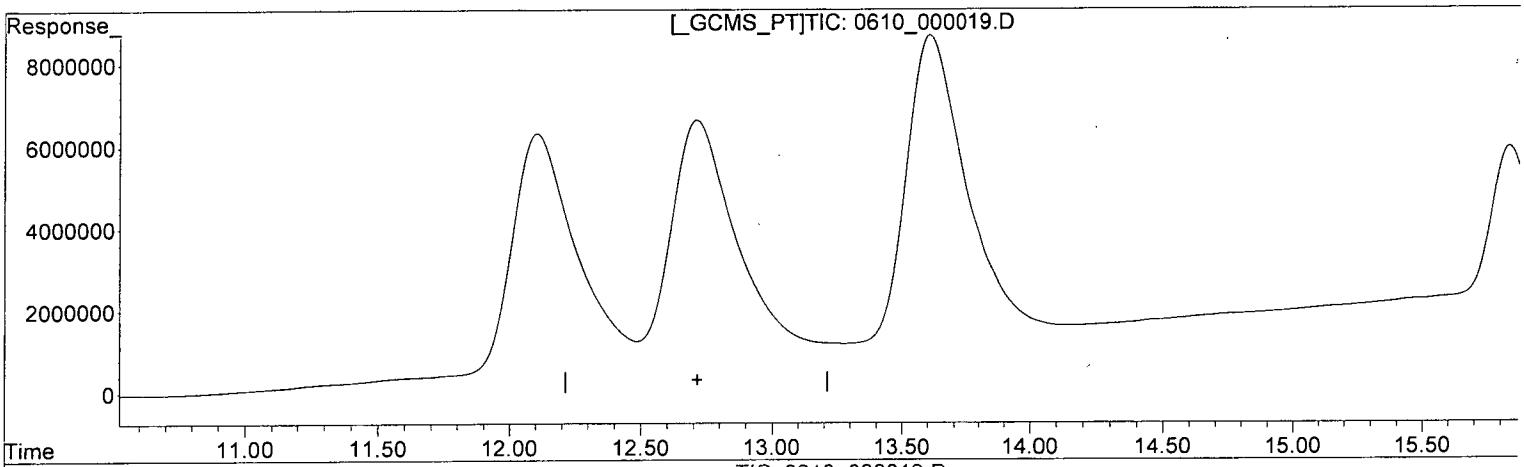
(+) = Expected Retention Time

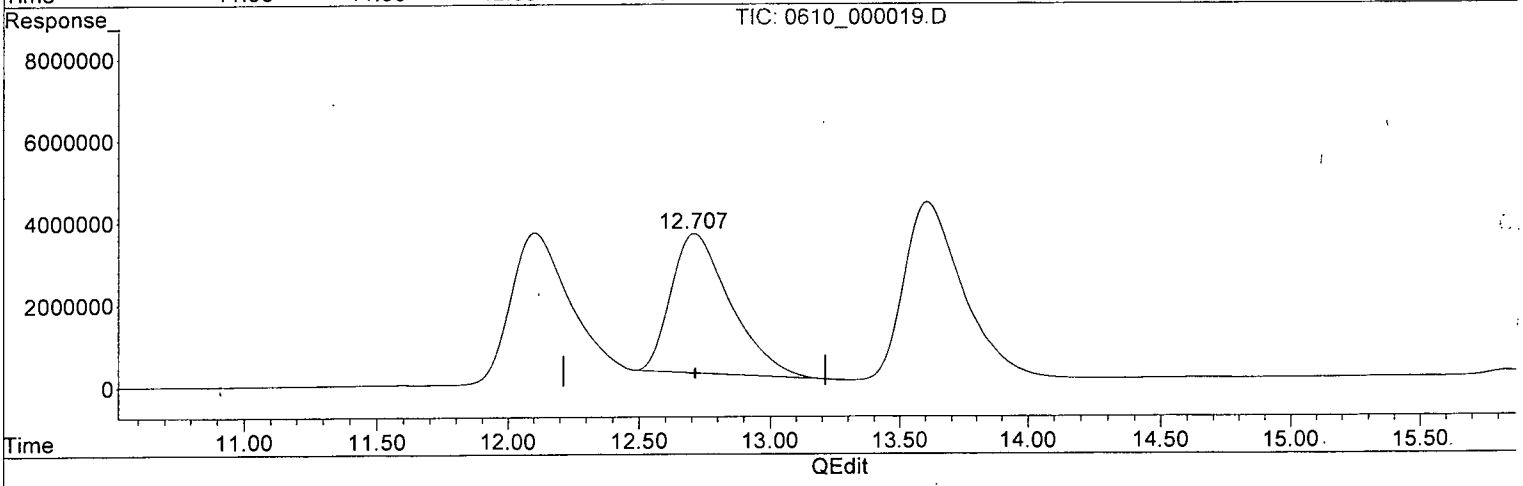
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 23:12:12
Operator : MP
Sample : 8330CB 1.0 PPM 06/10/15
Misc :
ALS Vial : 4103 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:22:08 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0r





(16) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-NITROTOLUENE #2 (TM)

12.708min 761.080 ppb

response 3375359

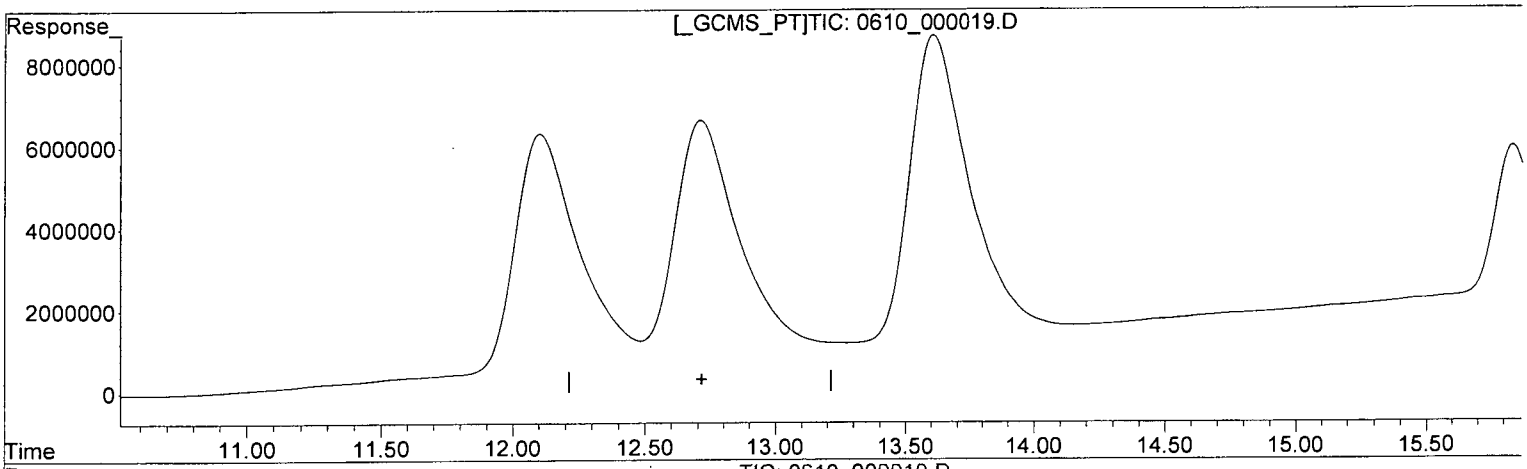
(+) = Expected Retention Time

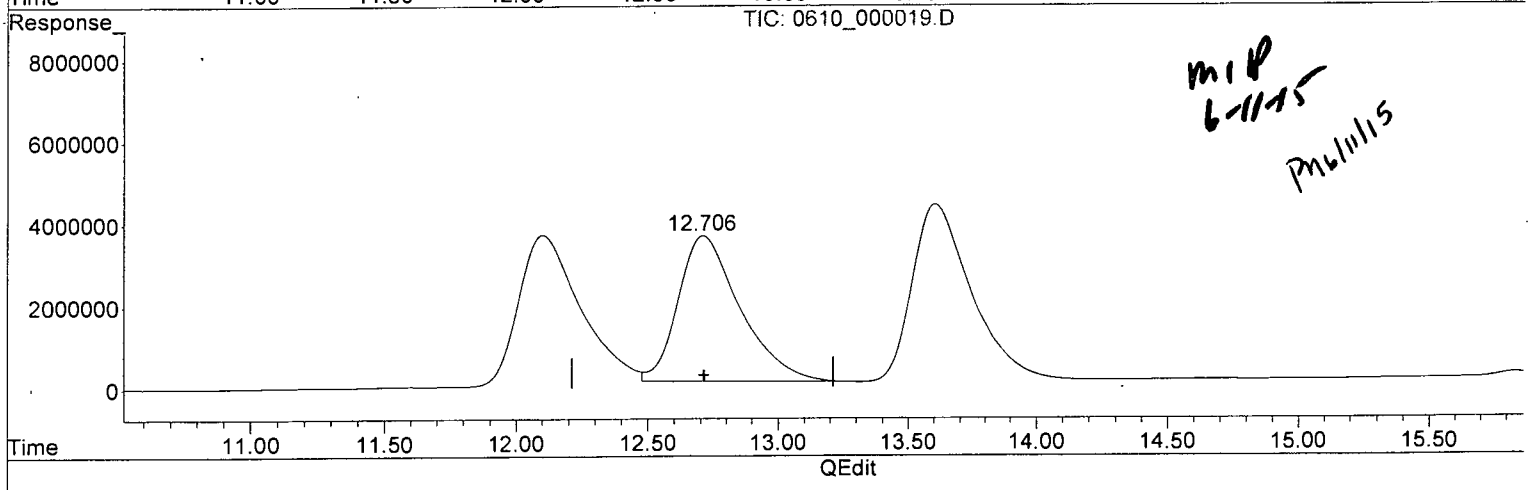
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 23:12:12
Operator : MP
Sample : 8330CB 1.0 PPM 06/10/15
Misc :
ALS Vial : 4103 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:22:08 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





MLP 6-11-15
PM 6/11/15

(16) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-NITROTOLUENE #2 (TM)

12.706min 796.996 ppb m

response 3534646

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000020.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 23:39:41
Operator : MP
Sample : 8330MXA 2.0 PPM 06/10/15
Misc :
ALS Vial : 4104 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:24:10 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4) S	1,2-DINIT...	0.000	3.491	0	22619868	N.D.	1748.087 #
	Spiked Amount 62.500			Recovery	=	0.00%	2796.94%
	Target Compounds						
1) TM	HMX	0.000	0.911	0	46873070	N.D.	1804.333 #
2) TM	RDX	0.000	1.706	0	30774149	N.D.	1806.868 #
3) TM	1,3,5-TRI...	0.000	2.787	0	52446527	N.D.	1694.581 #
5) TM	1,3-DINIT...	0.000	3.660	0	50913590	N.D.	1746.681 #
6) TM	3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
7) TM	NITROBENZENE	0.000	4.956	0	22642910	N.D.	1695.943 #
8) TM	NITROGLYC...	0.000	0.000	0	0	N.D.	N.D.
9) TM	TETRYL	6.279	6.278	25131309	15524647	NoCal	1695.469 #
10) TM	2,4,6-TRI...	6.778	6.778	27630901	21336194	NoCal	1705.249 #
11) TM	2-AMINO-4...	6.962	6.961	34944817	23683116	NoCal	2106.350 #
12) TM	4-AMINO-2...	7.291	7.290	29436027	16063228	NoCal	1984.095 #
13) TM	2,4-DINIT...	8.429	8.429	15133998	20339864	NoCal	1722.567 #
14) TM	2,6-DINIT...	8.764	8.760	16736532	12672976	NoCal	1948.797 #
15) TM	2-NITROTO...	0.000	12.092	0	7318686	N.D.	1632.369m#
16) TM	4-NITROTO...	0.000	12.698	0	7201376	N.D.	1623.775m#
17) TM	3-NITROTO...	0.000	13.596	0	8739768	N.D.	1650.391 #
18) TM	PETN	0.000	0.000	0	0	N.D.	N.D.

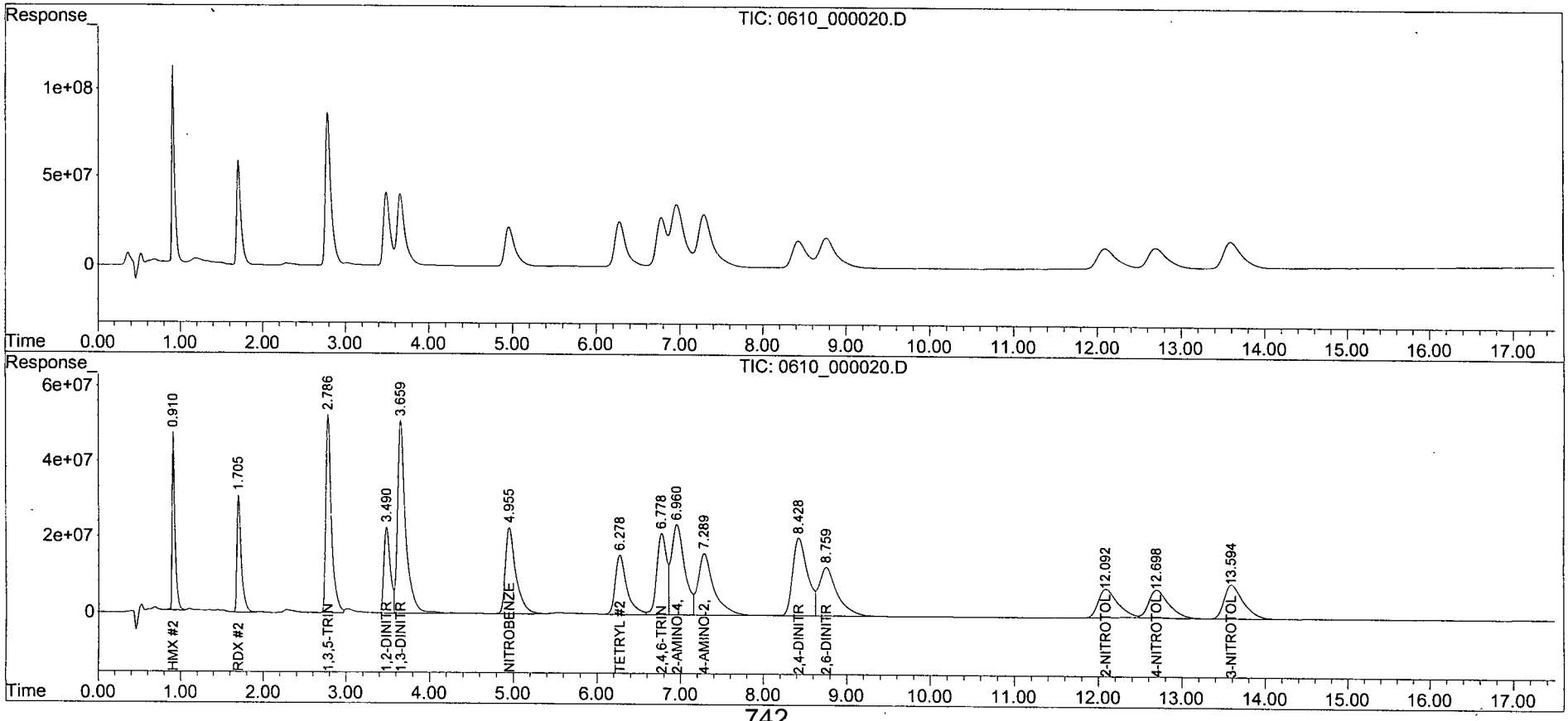
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000020.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 23:39:41
Operator : MP
Sample : 8330MXA 2.0 PPM 06/10/15
Misc :
ALS Vial : 4104 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:24:10 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



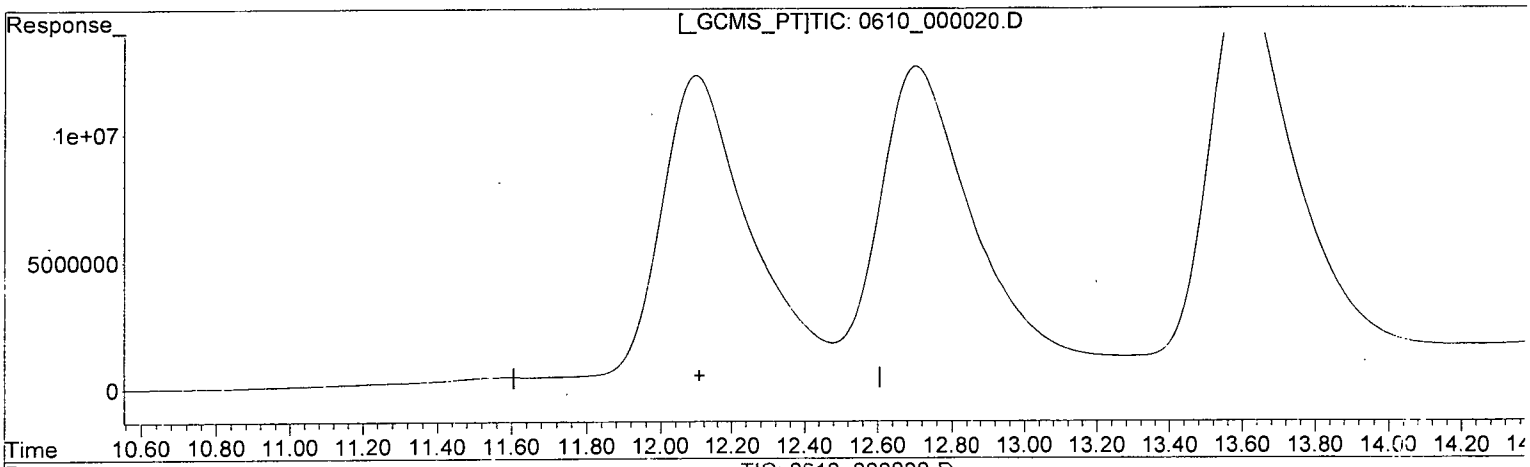
W150610.M Thu Jun 11 07:24:25 2015 WALDORF Page: 2

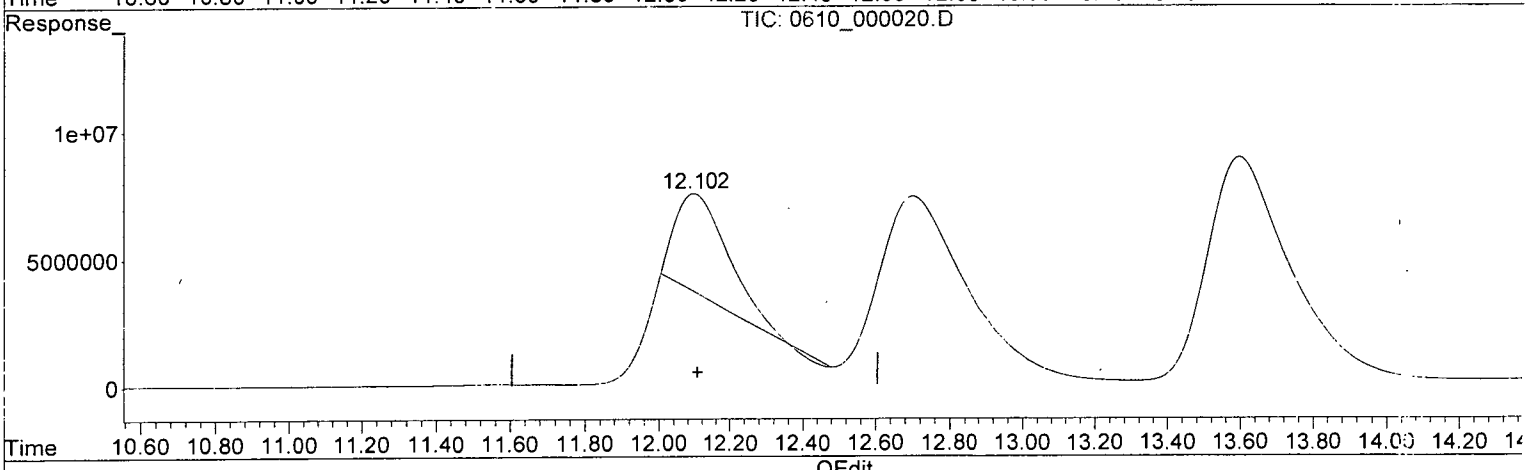
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000020.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 23:39:41
Operator : MP
Sample : 8330MXA 2.0 PPM 06/10/15
Misc :
ALS Vial : 4104 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:22:10 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(15) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 2-NITROTOLUENE #2 (TM)

12.093min 852.090 ppb

response 3820325

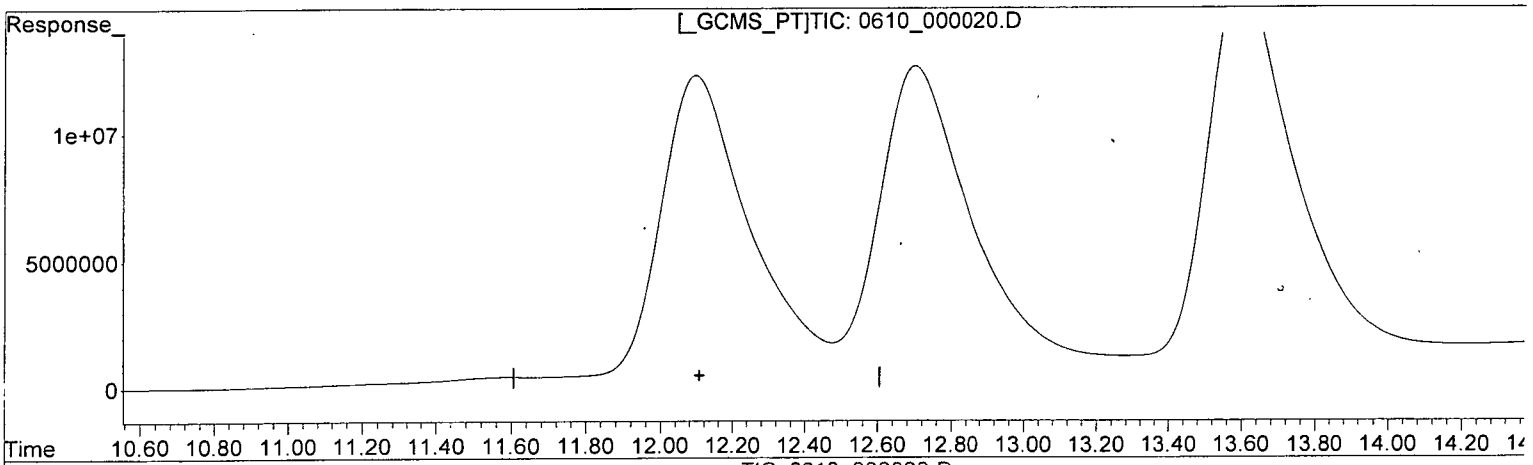
(+) = Expected Retention Time

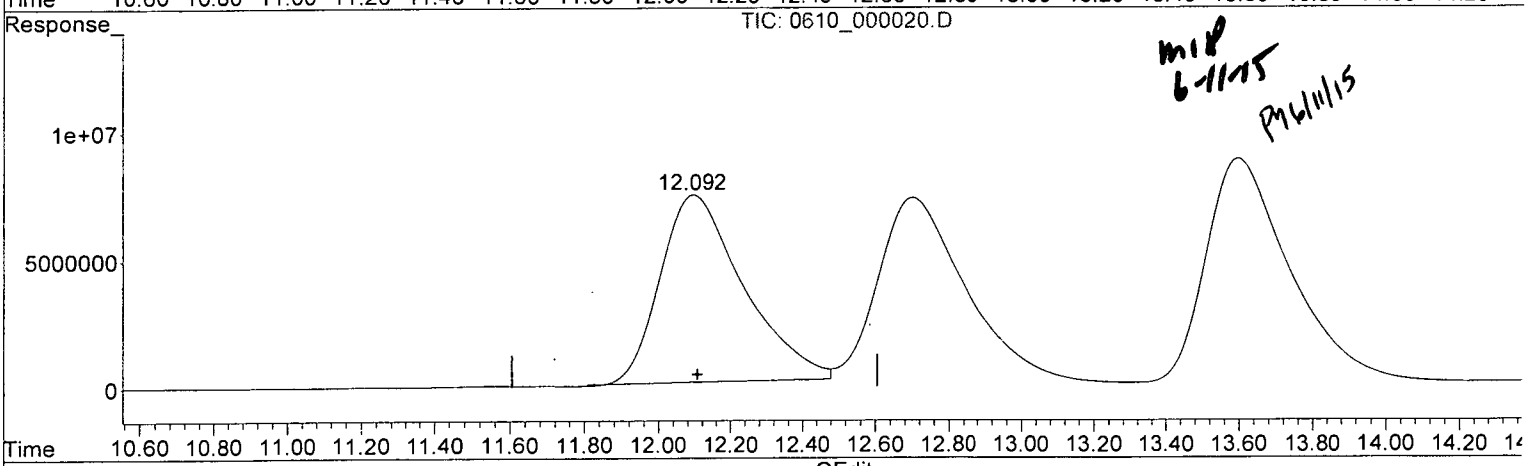
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000020.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 23:39:41
Operator : MP
Sample : 8330MXA 2.0 PPM 06/10/15
Misc :
ALS Vial : 4104 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:22:10 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





MLP 6-11-15 PM 6/11/15

(15) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 2-NITROTOLUENE #2 (TM)

12.092min 1632.369 ppb m

response 7318686

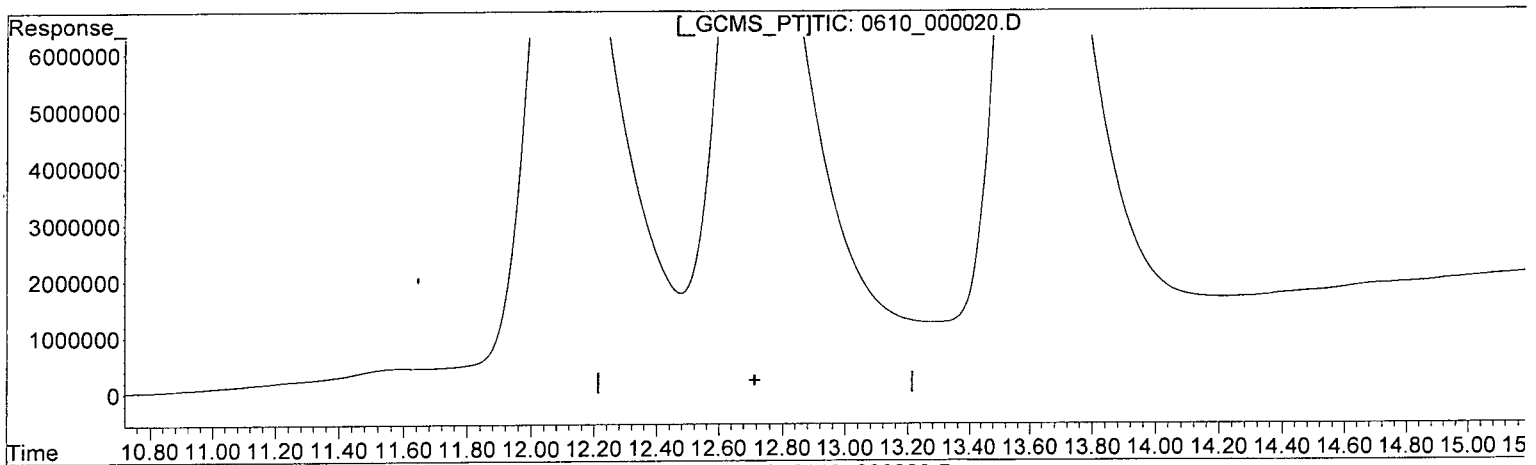
(+) = Expected Retention Time

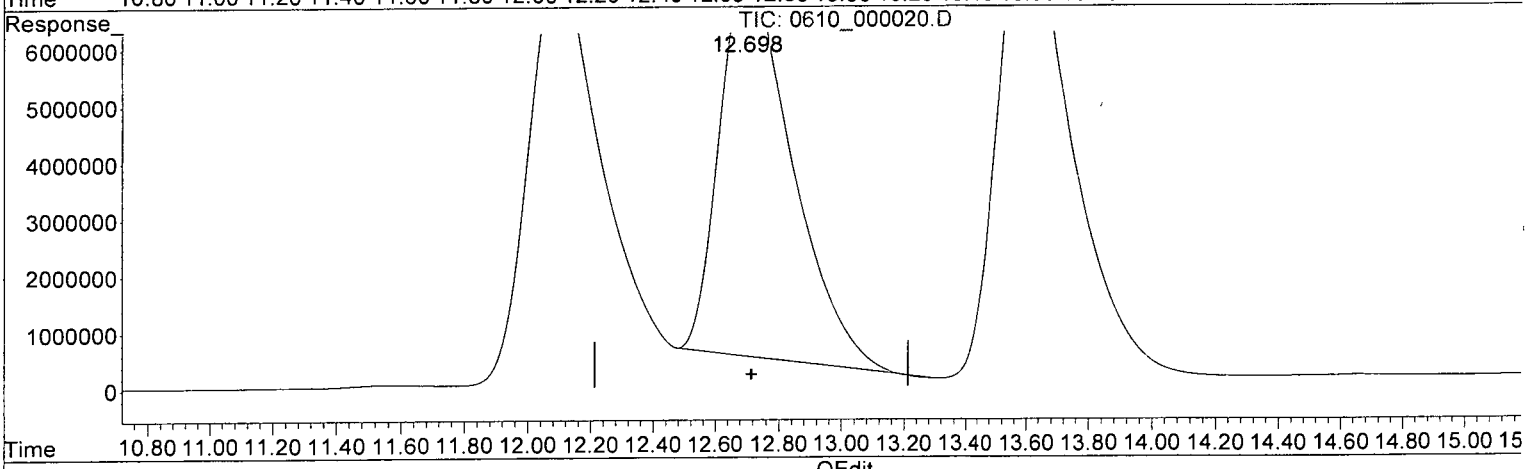
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000020.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 23:39:41
Operator : MP
Sample : 8330MXA 2.0 PPM 06/10/15
Misc :
ALS Vial : 4104 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:22:10 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





QEdit

(16) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-NITROTOLUENE #2 (TM)

12.700min 1541.564 ppb

response 6836775

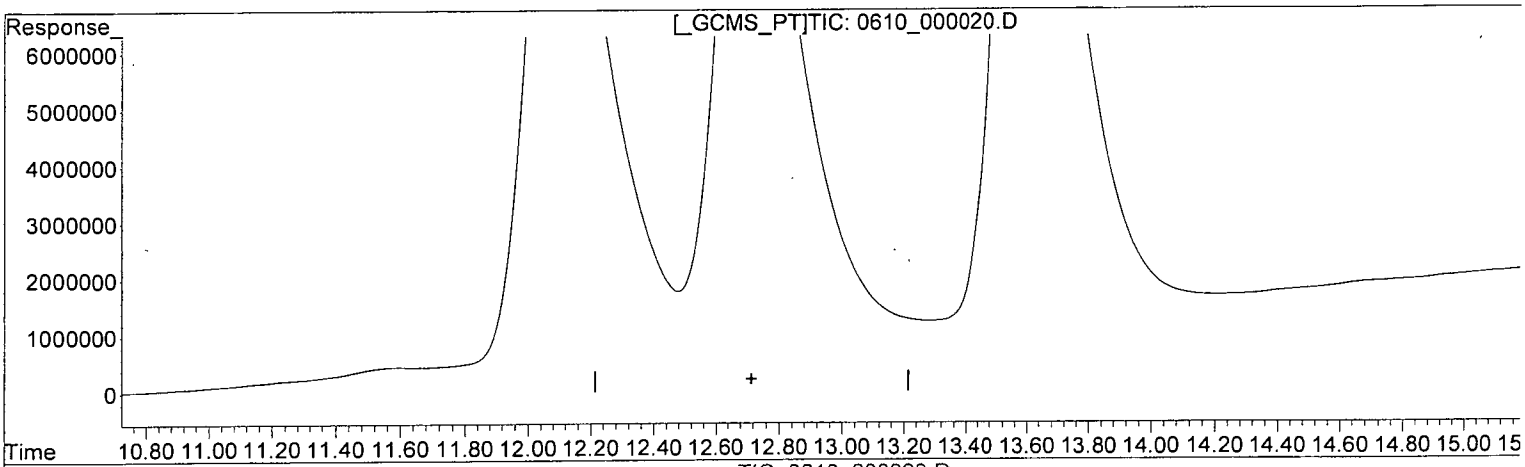
(+) = Expected Retention Time

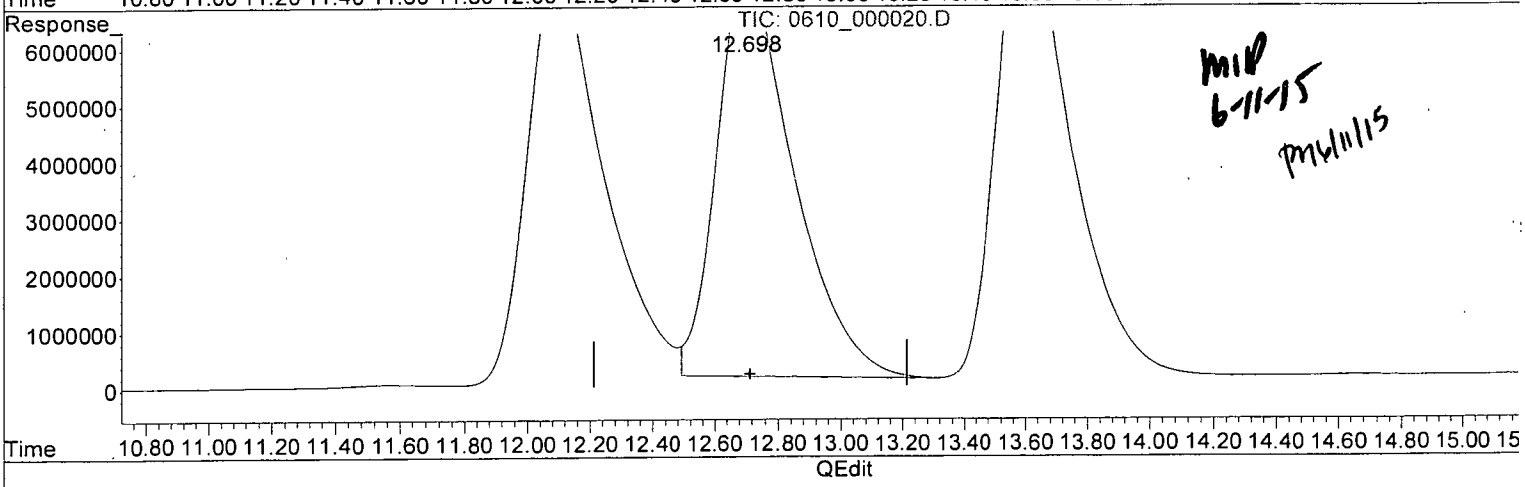
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000020.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 10-Jun-2015, 23:39:41
Operator : MP
Sample : 8330MXA 2.0 PPM 06/10/15
Misc :
ALS Vial : 4104 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:22:10 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0r





MP 6-11-15 PM 6/11/15

(16) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-NITROTOLUENE #2 (TM)

12.698min 1623.775 ppb m

response 7201376

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000021.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 11-Jun-2015, 00:07:11
Operator : MP
Sample : 8330MXB 2.0 PPM 06/10/15
Misc :
ALS Vial : 4160 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:22:29 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4)	S 1,2-DINIT...	0.000	0.000	0	0	N.D.	N.D.
	Spiked Amount 62.500			Recovery	=	0.00%	0.00%
	Target Compounds						
1)	TM HMX	0.000	0.000	0	0	N.D.	N.D.
2)	TM RDX	0.000	0.000	0	0	N.D.	N.D.
3)	TM 1,3,5-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
5)	TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.
6)	TM 3,5-DINIT...	0.000	3.862	0	39136717	N.D.	1760.397 #
7)	TM NITROBENZENE	0.000	0.000	0	0	N.D. d	N.D. d
8)	TM NITROGLYC...	5.899	5.899	8898429	175980	1692.518	NoCal #
9)	TM TETRYL	0.000	0.000	0	0	N.D.	N.D.
10)	TM 2,4,6-TRI...	6.776	0.000	38834	0	NoCal	N.D.
11)	TM 2-AMINO-4...	7.005	0.000	6837	0	NoCal	N.D.
12)	TM 4-AMINO-2...	7.305	0.000	12387	0	NoCal	N.D.
13)	TM 2,4-DINIT...	8.516	0.000	3064	0	NoCal	N.D.
14)	TM 2,6-DINIT...	8.739	0.000	4261	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	15.819	0.000	7143067	0	1760.694	N.D. #

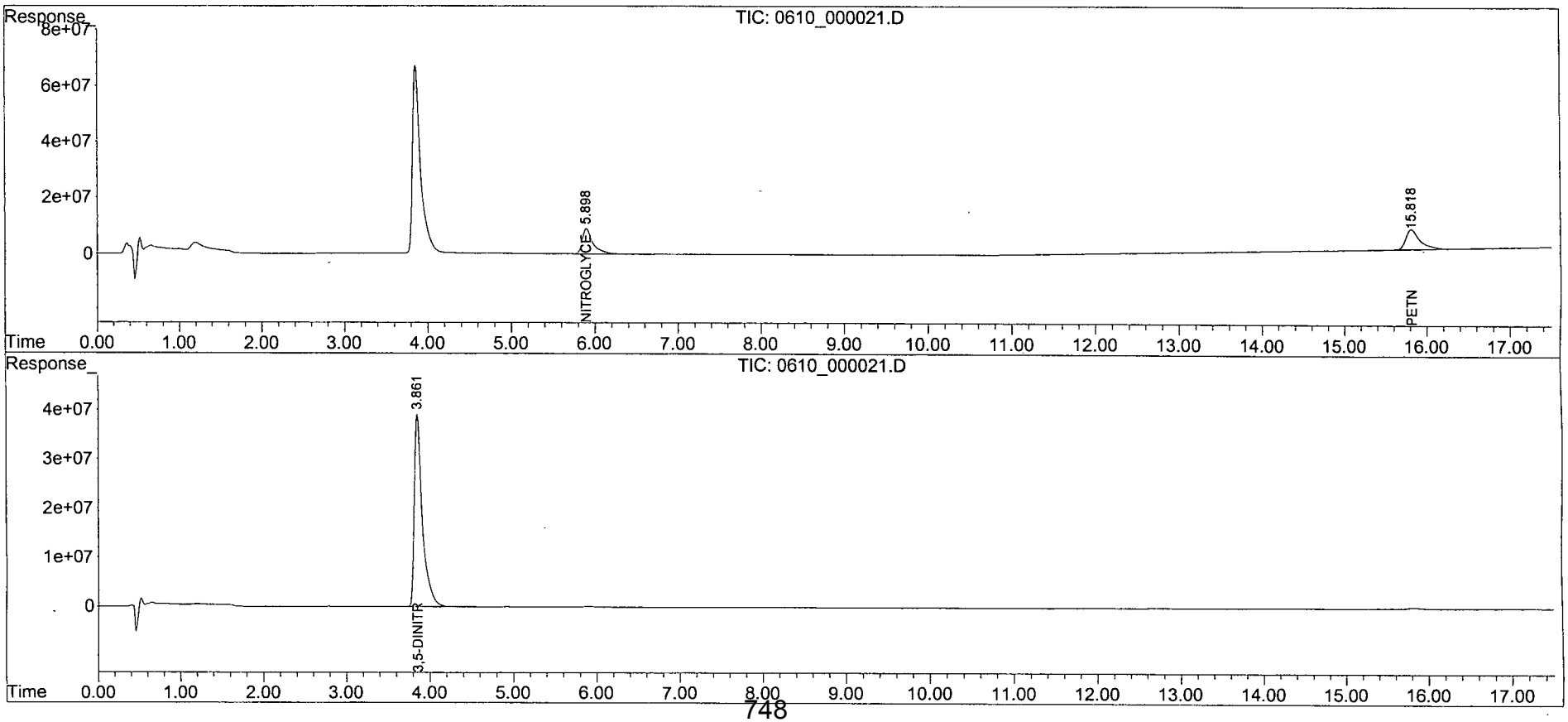
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000021.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 11-Jun-2015, 00:07:11
Operator : MP
Sample : 8330MXB 2.0 PPM 06/10/15
Misc :
ALS Vial : 4160 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 07:22:29 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sat May 23 09:16:20 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



Form 7

Second Source Calibration

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

SDG No: 76624
Date Analyzed: 11-Jun-2015, 02:34:50
Instrument: Waldorf
Initial Cal. Date: 06/10/15
Data File: 0610_000026-27.D

		Compound	MEAN	CCRF	%D	%Drift	
1	TM	NITROGLYCERIN	110	109	1.2	TM	
2	TM	PETN	85.4	83.1	2.7	TM	
3		Signal #2					
4	TM	HMX	582	561	3.6	TM	
5	TM	RDX	378	366	3.2	TM	
6	TM	1,3,5-TRINITROBENZENE	643	556	13	TM	
7	S	1,2-DINITROBENZENE	273	276	0.83	S	
8	TM	1,3-DINITROBENZENE	617	603	2.2	TM	
9	TM	3,5-DINITROANILINE	493	509	3.4	TM	
10	TM	NITROBENZENE	278	272	2.0	TM	
11	TM	NITROGLYCERIN	0.0000	0.0000		TM	
12	TM	2,4,6-TRINITROTOLUENE	257	254	1.1	TM	
13	TM	2-AMINO-4,6-DINITROTOLUEN	283	258	8.8	TM	
14	TM	4-AMINO-2,6-DINITROTOLUEN	196	204	4.1	TM	
15	TM	2,4-DINITROTOLUENE	248	248	0.34	TM	
16	TM	2,6-DINITROTOLUENE	157	154	1.6	TM	
17	TM	2-NITROTOLUENE	90.2	92.6	2.6	TM	
18	TM	4-NITROTOLUENE	87.4	88.5	1.3	TM	
19	TM	3-NITROTOLUENE	107	109	2.4	TM	
20	TM	TETRYL	197	197	0.29	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:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000026.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 11-Jun-2015, 02:34:50
Operator : MP
Sample : 8330_SS 1.0 PPM 06/10/15
Misc :
ALS Vial : 4161 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 08:04:15 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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	3.500	0	11024368	N.D.	1008.332	#
	Spiked Amount 62.500			Recovery	=	0.00%	1613.33%	
	Target Compounds							
1)	TM HMX	0.000	0.914	0	22433589	N.D.	964.069	#
2)	TM RDX	0.000	1.711	0	14621841	N.D.	967.903	#
3)	TM 1,3,5-TRI...	0.000	2.793	0	22248036	N.D.	865.232	#
5)	TM 1,3-DINIT...	0.000	3.669	0	24134616	N.D.	978.453	#
6)	TM 3,5-DINIT...	0.000	3.875	0	20372283	N.D.	1033.625	#
7)	TM NITROBENZENE	0.000	4.968	0	10886705	N.D.	980.194	#
8)	TM NITROGLYC...	5.917	5.909	4341530	140772	987.699	NoCal	#
9)	TM TETRYL	6.300	6.300	8509900	5280077	NoCal	671.141	#
10)	TM 2,4,6-TRI...	6.798	6.797	13223329	10166270	NoCal	988.726	#
11)	TM 2-AMINO-4...	6.989	6.988	15212294	10308717	NoCal	912.125	#
12)	TM 4-AMINO-2...	7.317	7.316	14887283	8146177	NoCal	1040.989	#
13)	TM 2,4-DINIT...	8.454	8.454	7346018	9935026	NoCal	1003.392	#
14)	TM 2,6-DINIT...	8.789	8.785	8113684	6177390	NoCal	984.215	#
15)	TM 2-NITROTO...	0.000	12.121	0	3702849	N.D.	1025.851	m#
16)	TM 4-NITROTO...	0.000	12.729	0	3540630	N.D.	1012.521	m#
17)	TM 3-NITROTO...	0.000	13.624	0	4372833	N.D.	1024.168	#
18)	TM PETN	0.000	0.000	0	0	N.D.	N.D.	

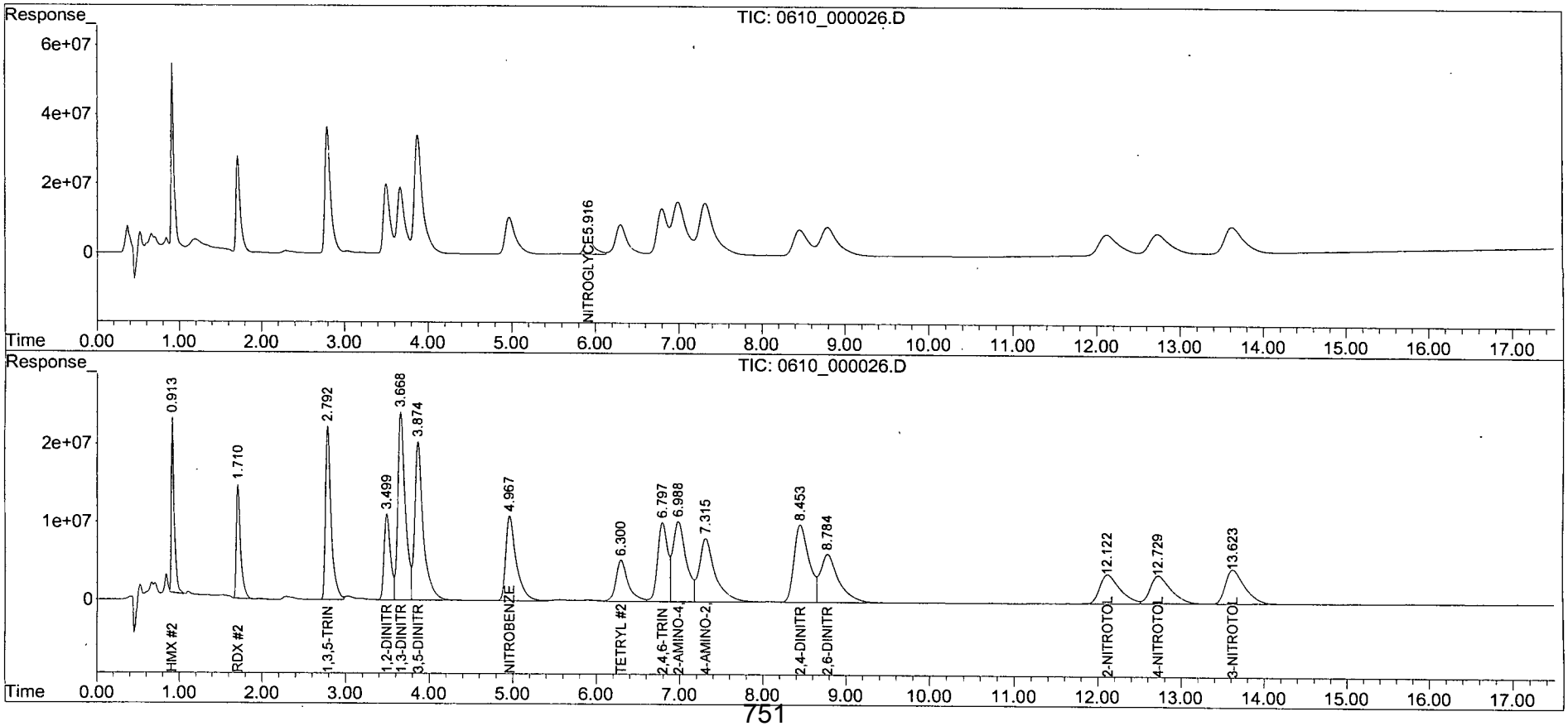
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000026.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 11-Jun-2015, 02:34:50
Operator : MP
Sample : 8330_SS 1.0 PPM 06/10/15
Misc :
ALS Vial : 4161 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 08:04:15 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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

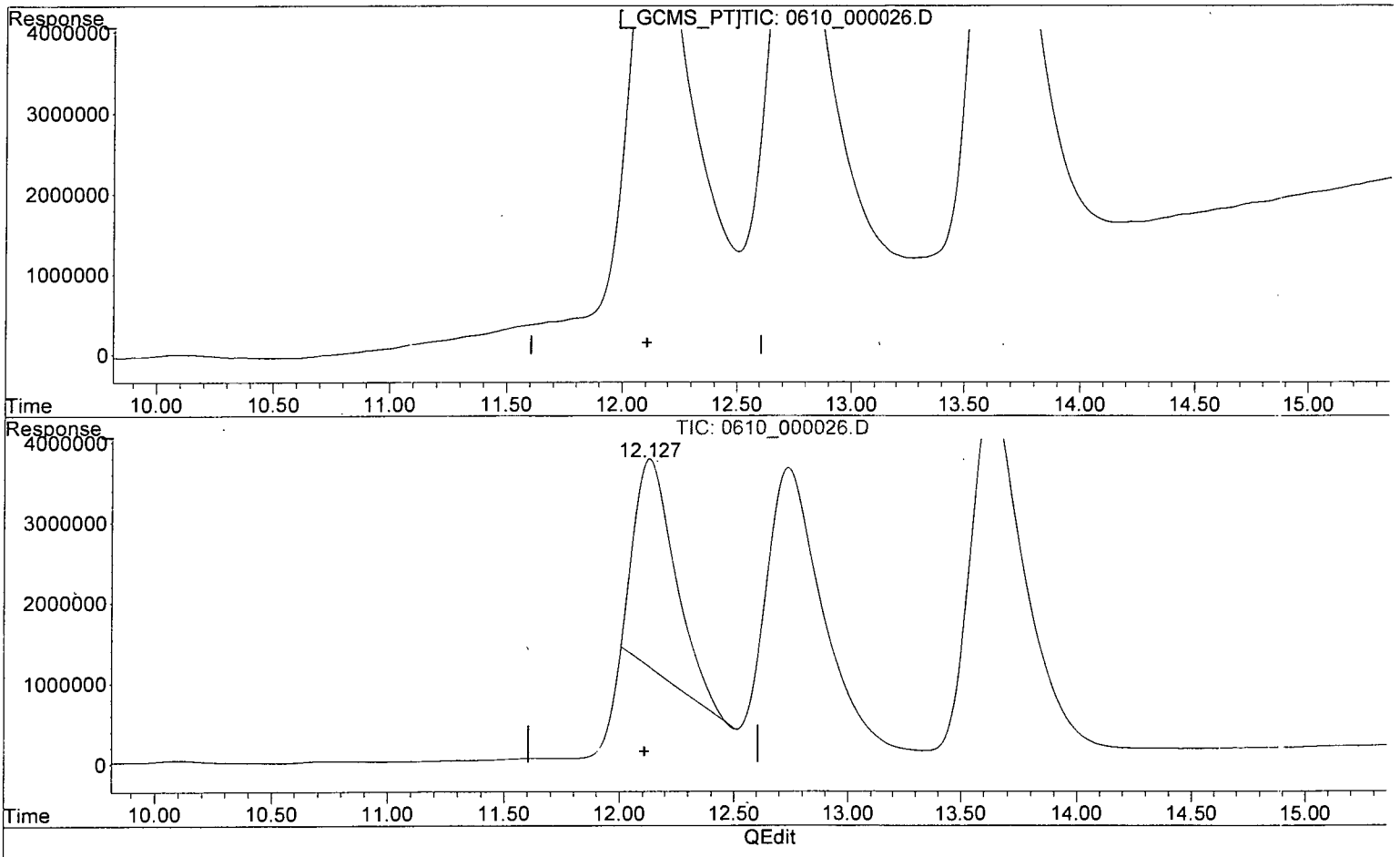


Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000026.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 11-Jun-2015, 02:34:50
Operator : MP
Sample : 8330_SS 1.0 PPM 06/10/15
Misc :
ALS Vial : 4161 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 08:03:04 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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



(15) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 2-NITROTOLUENE #2 (TM)

12.123min 715.495 ppb

response 2582605

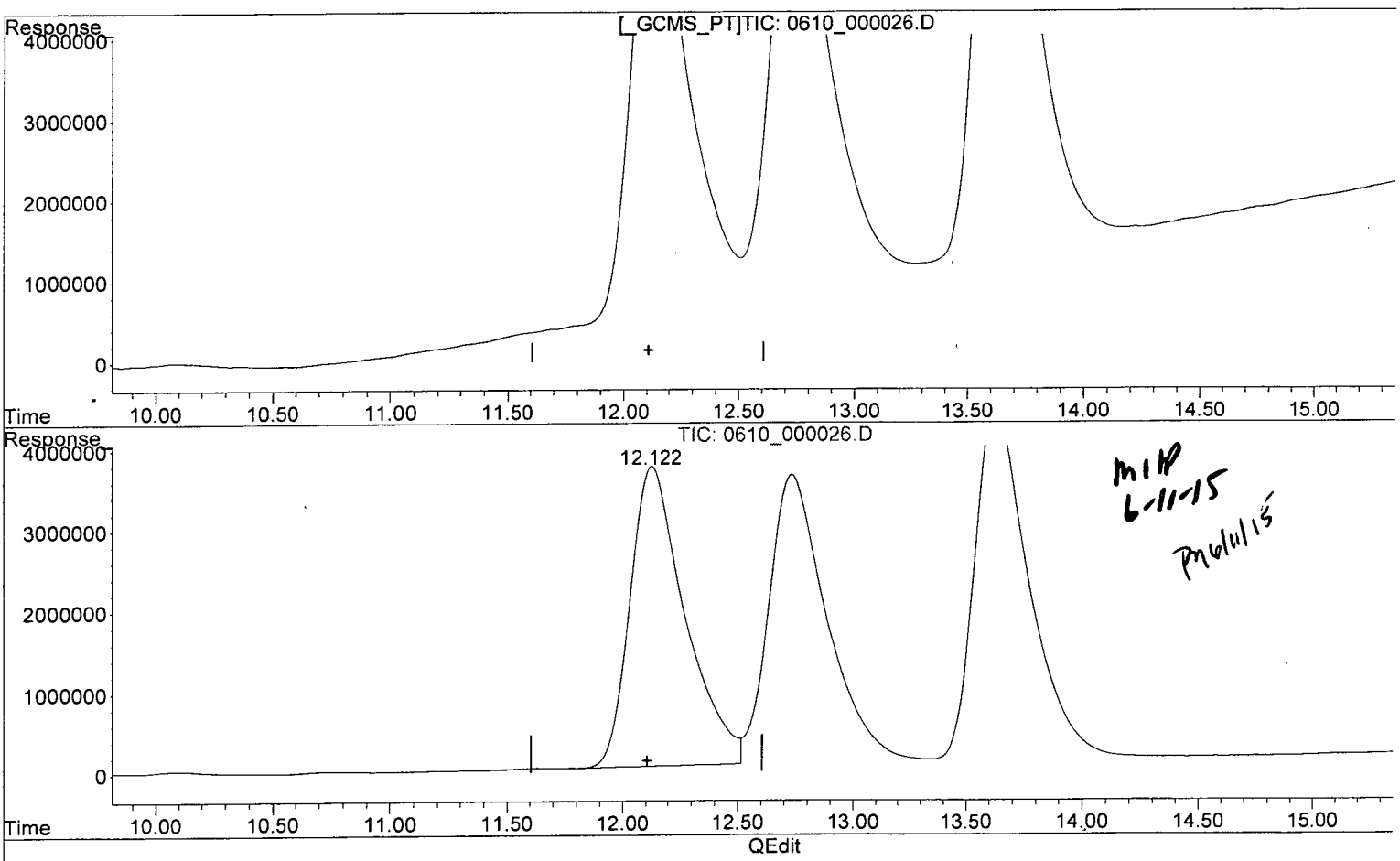
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000026.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 11-Jun-2015, 02:34:50
Operator : MP
Sample : 8330_SS 1.0 PPM 06/10/15
Misc :
ALS Vial : 4161 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 08:03:04 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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



MHP 6-11-15
PM 6/11/15

(15) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 2-NITROTOLUENE #2 (TM)

12.121min 1025.851 ppb m

response 3702849

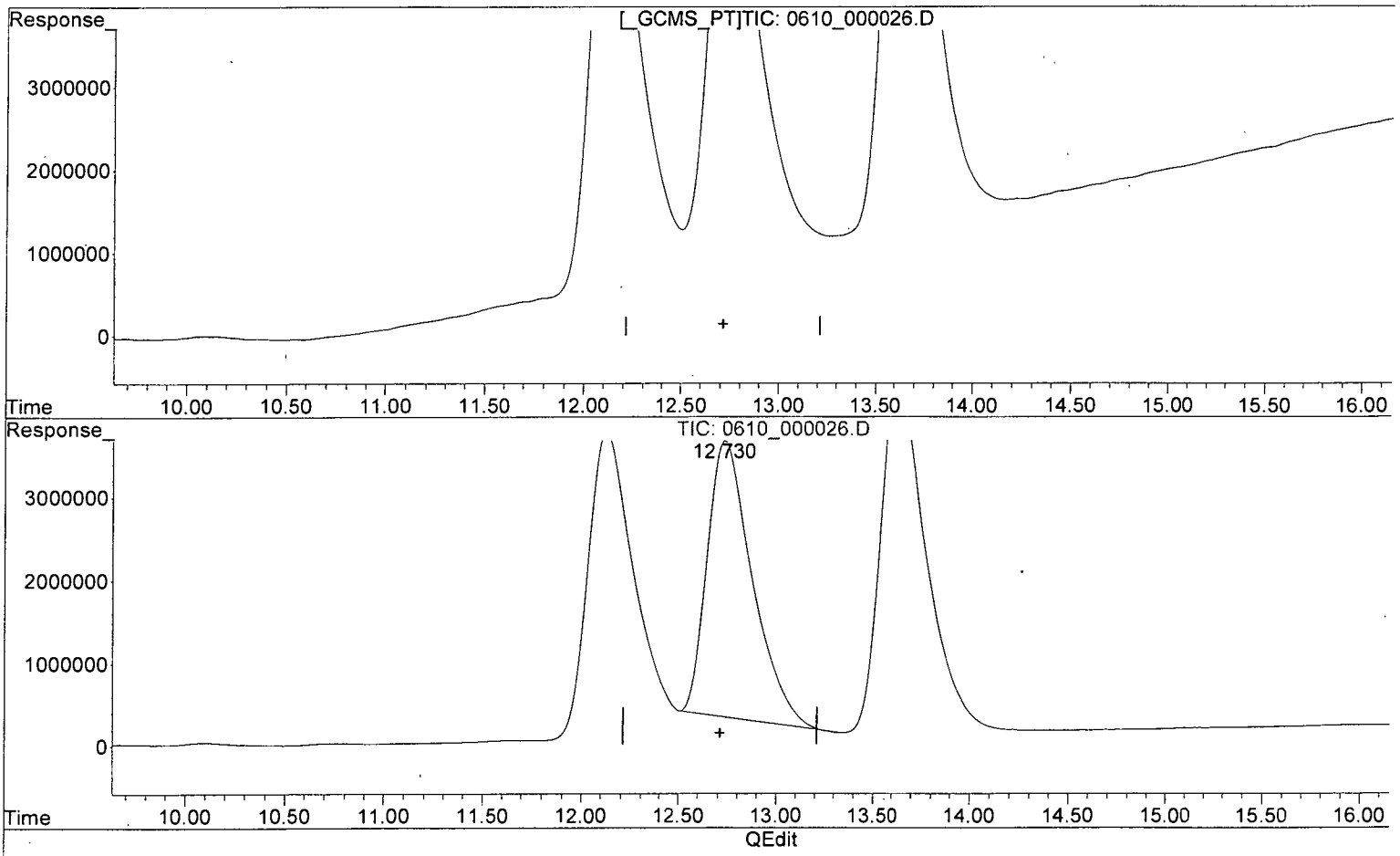
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000026.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 11-Jun-2015, 02:34:50
Operator : MP
Sample : 8330_SS 1.0 PPM 06/10/15
Misc :
ALS Vial : 4161 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 08:03:04 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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



(16) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-NITROTOLUENE #2 (TM)

12.730min 951.386 ppb

response 3326849

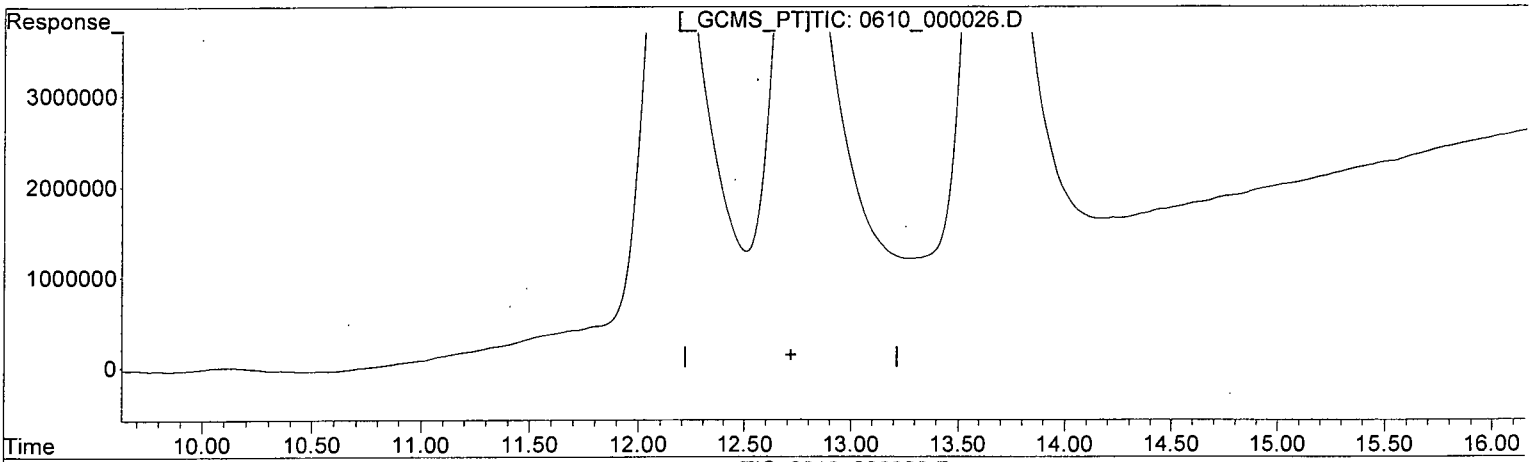
(+) = Expected Retention Time

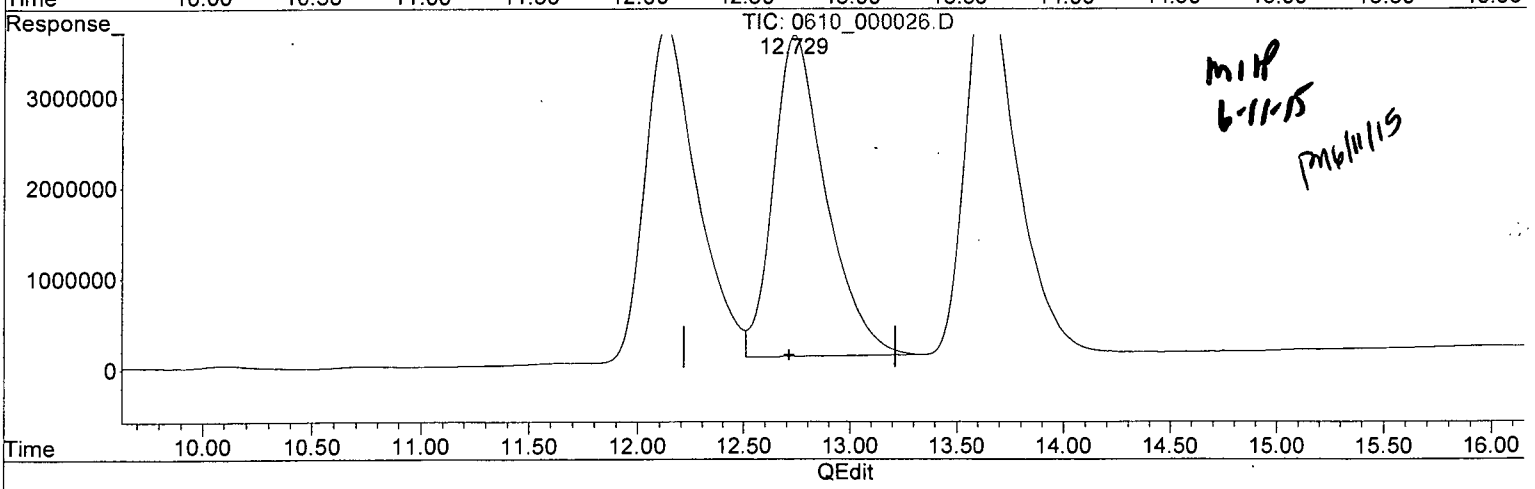
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000026.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 11-Jun-2015, 02:34:50
Operator : MP
Sample : 8330_SS 1.0 PPM 06/10/15
Misc :
ALS Vial : 4161 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 08:03:04 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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





MHP 6-11-15 PM6/11/15

(16) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-NITROTOLUENE #2 (TM)

12.729min 1012.521 ppb m

response 3540630

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000027.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 11-Jun-2015, 03:02:20
Operator : MP
Sample : PETN_TETRYL_SS 1.0 PPM 06/10/15
Misc :
ALS Vial : 4162 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 08:05:40 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	0.000	0	0	N.D.	N.D.
Spiked Amount 62.500			Recovery	=	0.00%	0.00%
Target Compounds						
1) TM HMX	0.000	0.000	0	0	N.D.	N.D.
2) TM RDX	0.000	0.000	0	0	N.D.	N.D.
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.	N.D.
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.
6) TM 3,5-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
7) TM NITROBENZENE	0.000	0.000	0	0	N.D.	N.D.
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	6.301	6.301	12850285	7890341	NoCal	1002.928 #
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.	N.D.
12) TM 4-AMINO-2...	7.291	0.000	13354	0	NoCal	N.D.
13) TM 2,4-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
14) TM 2,6-DINIT...	8.957	0.000	24695	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	15.846	0.000	3322677	0	972.512	N.D. #

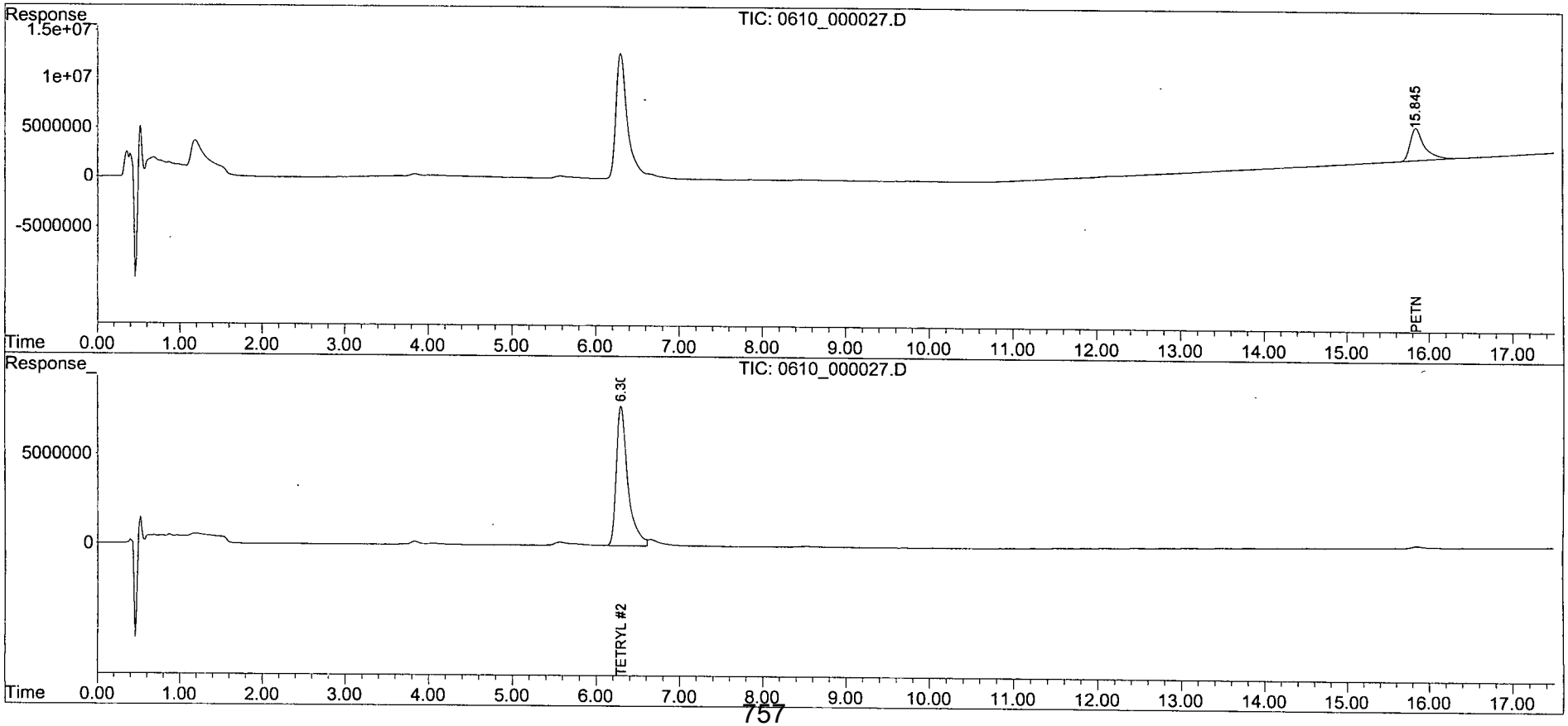
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150610\
Data File : 0610_000027.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 11-Jun-2015, 03:02:20
Operator : MP
Sample : PETN_TETRYL_SS 1.0 PPM 06/10/15
Misc :
ALS Vial : 4162 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 11 08:05:40 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150610\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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. SDG No: 76624

Case No: Date Analyzed: 18-Jun-2015, 09:40:13

Matrix: Instrument: Waldorf

Initial Cal. Date: 06/10/15

Data File: 0618_000004.D

		Compound	MEAN	CCRF	%D	%Drift	
1	TM	NITROGLYCERIN	110	102	7.0	TM	
2	TM	PETN	85.4	81.2	5.0	TM	
3		Signal #2					
4	TM	HMX	582	560	3.7	TM	
5	TM	RDX	378	358	5.1	TM	
6	TM	1,3,5-TRINITROBENZENE	643	609	5.2	TM	
7	S	1,2-DINITROBENZENE	273	253	7.5	S	
8	TM	1,3-DINITROBENZENE	617	578	6.2	TM	
9	TM	3,5-DINITROANILINE	493	455	7.6	TM	
10	TM	NITROBENZENE	278	258	7.1	TM	
11	TM	TETRYL	197	183	6.7	TM	
12	TM	2,4,6-TRINITROTOLUENE	257	235	8.7	TM	
13	TM	2-AMINO-4,6-DINITROTOLUEN	283	255	9.7	TM	
14	TM	4-AMINO-2,6-DINITROTOLUEN	196	179	8.6	TM	
15	TM	2,4-DINITROTOLUENE	248	220	11	TM	
16	TM	2,6-DINITROTOLUENE	157	145	7.5	TM	
17	TM	2-NITROTOLUENE	90.2	82.7	8.4	TM	
18	TM	4-NITROTOLUENE	87.4	81.2	7.1	TM	
19	TM	3-NITROTOLUENE	107	97.2	9.0	TM	
20							
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Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 09:40:13
Operator : MP
Sample : 8330_CCV 1.0 PPM 06/18/15
Misc :
ALS Vial : 4424 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 18 10:08:05 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 18 10:07:56 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	3.540	0	10114415	N.D.	925.104	#
	Spiked Amount 62.500			Recovery =		0.00%	1480.17%	
	Target Compounds							
1)	TM HMX	0.000	0.919	0	22405726	N.D.	962.872	#
2)	TM RDX	0.000	1.728	0	14334057	N.D.	948.853	#
3)	TM 1,3,5-TRI...	0.000	2.818	0	24368333	N.D.	947.691	#
5)	TM 1,3-DINIT...	0.000	3.706	0	23134957	N.D.	937.925	#
6)	TM 3,5-DINIT...	0.000	3.922	0	18203229	N.D.	923.574	#
7)	TM NITROBENZENE	0.000	5.016	0	10317256	N.D.	928.924	#
8)	TM NITROGLYC...	5.977	5.965	4087508	147183	929.909	NoCal	#
9)	TM TETRYL	6.376	6.376	12017314	7337244	NoCal	932.624	#
10)	TM 2,4,6-TRI...	6.864	6.864	12076819	9383086	NoCal	912.557	#
11)	TM 2-AMINO-4...	7.071	7.069	14920028	10209131	NoCal	903.314	#
12)	TM 4-AMINO-2...	7.400	7.399	12889979	7149895	NoCal	913.676	#
13)	TM 2,4-DINIT...	8.534	8.534	6481236	8780593	NoCal	886.800	#
14)	TM 2,6-DINIT...	8.869	8.862	7450279	5806765	NoCal	925.165	#
15)	TM 2-NITROTO...	0.000	12.203	0	3307241	N.D.	916.251	#
16)	TM 4-NITROTO...	0.000	12.808	0	3247308	N.D.	928.639	#
17)	TM 3-NITROTO...	0.000	13.700	0	3887271	N.D.	910.444	#
18)	TM PETN	15.929	0.000	3246821	0	950.310	N.D.	#

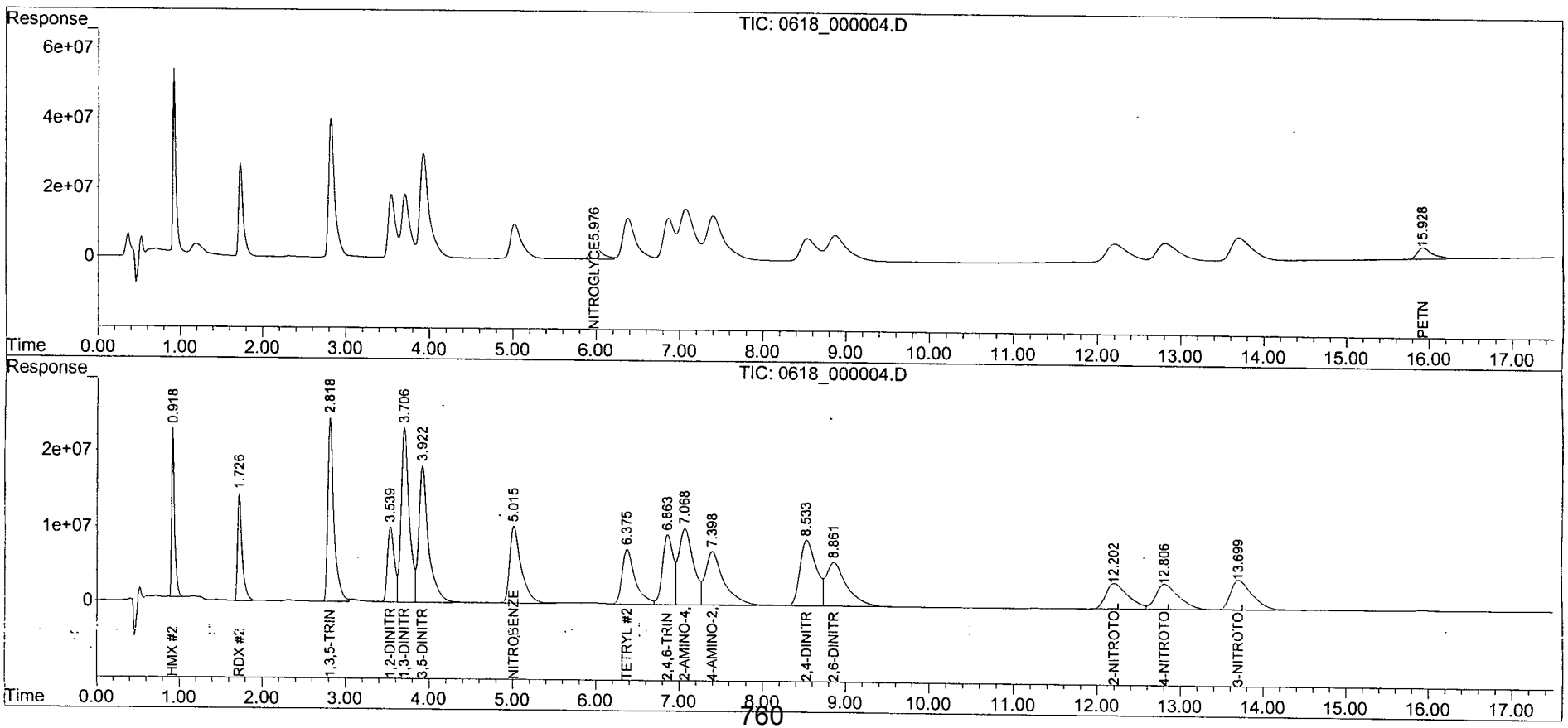
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 09:40:13
Operator : MP
Sample : 8330_CCV 1.0 PPM 06/18/15
Misc :
ALS Vial : 4424 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 18 10:08:05 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 18 10:07:56 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



W150610.M Thu Jun 18 15:58:15 2015 WALDORF Page: 2

Form 7

Continuing Calibration

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

SDG No: 76624
Date Analyzed: 18-Jun-2015, 18:56:13
Instrument: Waldorf
Initial Cal. Date: 06/10/15
Data File: 0618_000019.D

		Compound	MEAN	CCRF	%D	%Drift	
1	TM	NITROGLYCERIN	110	100	8.9	TM	
2	TM	PETN	85.4	81.0	5.2	TM	
3		Signal #2					
4	TM	HMX	582	570	2.1	TM	
5	TM	RDX	378	362	4.1	TM	
6	TM	1,3,5-TRINITROBENZENE	643	616	4.2	TM	
7	S	1,2-DINITROBENZENE	273	256	6.2	S	
8	TM	1,3-DINITROBENZENE	617	583	5.5	TM	
9	TM	3,5-DINITROANILINE	493	462	6.2	TM	
10	TM	NITROBENZENE	278	260	6.3	TM	
11	TM	TETRYL	197	182	7.5	TM	
12	TM	2,4,6-TRINITROTOLUENE	257	238	7.2	TM	
13	TM	2-AMINO-4,6-DINITROTOLUEN	283	268	5.3	TM	
14	TM	4-AMINO-2,6-DINITROTOLUEN	196	181	7.5	TM	
15	TM	2,4-DINITROTOLUENE	248	222	10	TM	
16	TM	2,6-DINITROTOLUENE	157	147	6.2	TM	
17	TM	2-NITROTOLUENE	90.2	82.4	8.7	TM	
18	TM	4-NITROTOLUENE	87.4	81.2	7.1	TM	
19	TM	3-NITROTOLUENE	107	97.2	8.9	TM	
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Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 18:56:13
Operator : MP
Sample : 8330_CCV 1.0 PPM 06/16/15
Misc :
ALS Vial : 4423 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 19 07:31:55 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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	3.516	0	10251753	N.D.	937.666	#
	Spiked Amount 62.500			Recovery	=	0.00%	1500.27%	
	Target Compounds							
1)	TM HMX	0.000	0.915	0	22789276	N.D.	979.355	#
2)	TM RDX	0.000	1.717	0	14486429	N.D.	958.939	#
3)	TM 1,3,5-TRI...	0.000	2.806	0	24637824	N.D.	958.172	#
5)	TM 1,3-DINIT...	0.000	3.685	0	23320934	N.D.	945.465	#
6)	TM 3,5-DINIT...	0.000	3.891	0	18482484	N.D.	937.742	#
7)	TM NITROBENZENE	0.000	4.989	0	10403476	N.D.	936.686	#
8)	TM NITROGLYC...	5.953	5.941	4002210	149389	910.504	NoCal	#
9)	TM TETRYL	6.332	6.332	11797964	7274371	NoCal	924.633	#
10)	TM 2,4,6-TRI...	6.832	6.832	12213059	9538640	NoCal	927.686	#
11)	TM 2-AMINO-4...	7.013	7.012	15534074	10706471	NoCal	947.319	#
12)	TM 4-AMINO-2...	7.343	7.341	12973960	7234754	NoCal	924.520	#
13)	TM 2,4-DINIT...	8.487	8.487	6576254	8888872	NoCal	897.736	#
14)	TM 2,6-DINIT...	8.820	8.813	7537495	5887714	NoCal	938.062	#
15)	TM 2-NITROTO...	0.000	12.149	0	3296963	N.D.	913.403	#
16)	TM 4-NITROTO...	0.000	12.755	0	3249748	N.D.	929.337	#
17)	TM 3-NITROTO...	0.000	13.648	0	3889537	N.D.	910.974	#
18)	TM PETN	15.901	0.000	3238528	0	947.883	N.D.	#

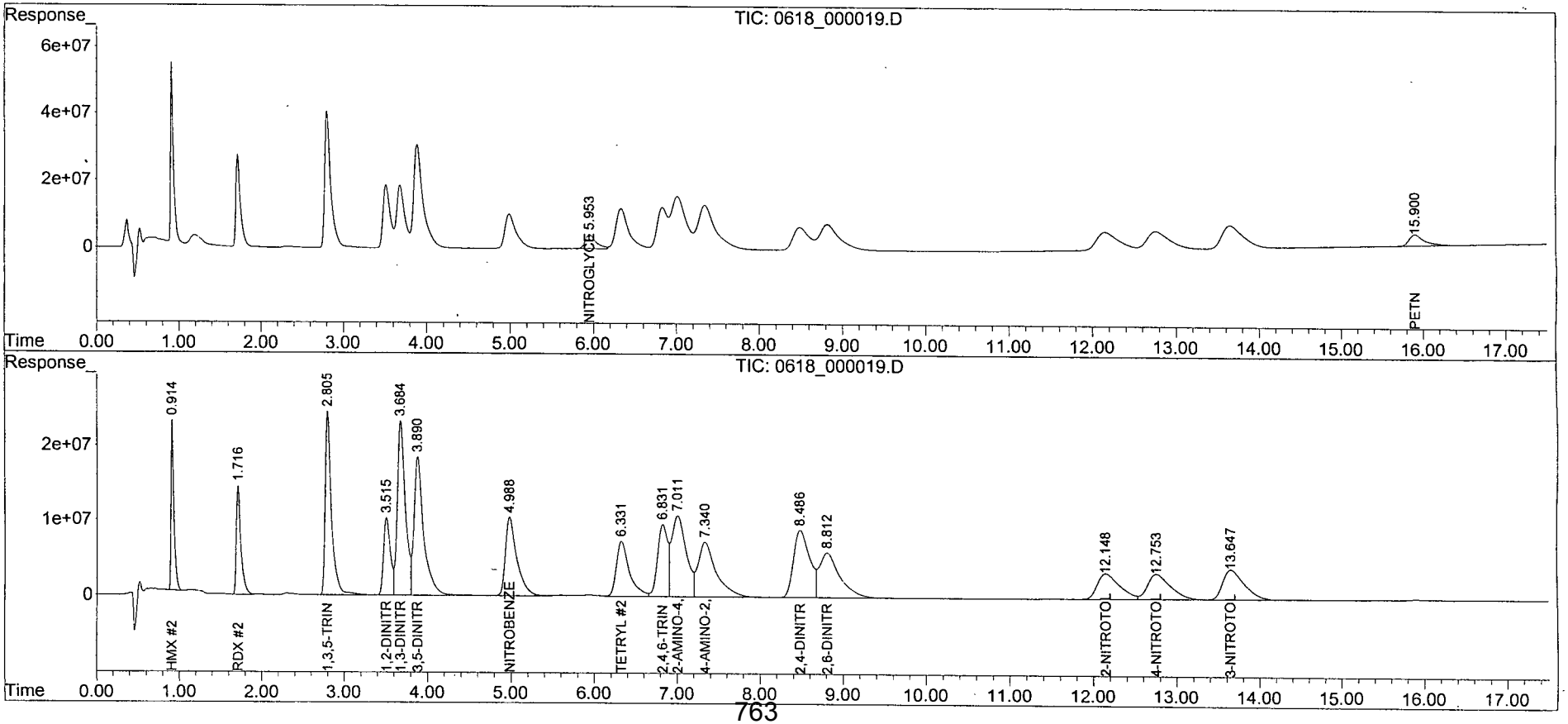
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 18:56:13
Operator : MP
Sample : 8330_CCV 1.0 PPM 06/16/15
Misc :
ALS Vial : 4423 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 19 07:31:55 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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



W150610.M Fri Jun 19 07:32:12 2015 WALDORF Page: 2

Initial Calibration

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

SDG No: 76624
Initial Cal. Date: 05/22/15
Instrument: Statler

Initials: MP

0522_000010.D	0522_000012.D	0522_000014.D	0522_000016.D	0522_000018.D	0522_000020.D	0522_000022.D	0522_000024.D	0522_000026.D

		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	
####	TM	NITROGLYCERIN		20.8	18.0	18.1	17.8	18.4	18.4	18.3	18.5		18.55	5.0	TM
####	TM	PETN			17.5	15.7	17.4	18.9	19.1	19.0	19.3		18.15	7.2	TM
####		Signal #2													
####	TM	HMX #2	40.3	42.0	46.4	46.8	46.8	48.8	48.8	47.9	48.6		46.27	6.7	TM
####	TM	RDX #2	38.4	40.4	38.6	40.0	39.6	40.9	40.3	39.6	40.1		39.77	2.1	TM
####	TM	1,3,5-TRINITROBENZENE #2	98.9	96.4	98.4	97.8	95.8	98.9	98.3	97.4	99.2		97.91	1.2	TM
####	S	1,2-DINITROBENZENE #2	46.4	43.2	44.9	43.7	42.6	46.2	44.0	43.3	44.3		44.29	2.9	S
####	TM	1,3-DINITROBENZENE #2	86.5	96.4	98.9	96.6	95.6	101	97.8	97.0	99.5		96.56	4.3	TM
####	TM	NITROBENZENE #2	57.2	50.2	53.4	53.1	55.0	56.0	54.7	53.7	54.7		54.22	3.7	TM
####	TM	2,4,6-TRINITROTOLUENE #2		48.9	50.9	49.7	49.6	51.4	50.2	49.8	51.2		50.21	1.8	TM
####	TM	TETRYL #2		35.9	39.1	36.0	36.2	36.4	36.1	36.4	36.3		36.56	2.8	TM
####	TM	2,6-DINITROTOLUENE #2	31.2	26.8	30.6	29.7	29.7	30.8	29.9	30.3	31.0		30.00	4.4	TM
####	TM	2,4-DINITROTOLUENE #2	47.8	51.9	51.1	51.9	51.6	53.3	52.0	52.3	53.5		51.72	3.2	TM
####	TM	2-NITROTOLUENE #2		21.5	21.4	20.6	21.0	21.5	20.8	21.0	21.4		21.16	1.5	TM
####	TM	4-NITROTOLUENE #2			16.3	18.1	18.6	18.9	18.4	18.5	18.9		18.26	4.9	TM
####	TM	3,5-DINITROANILINE #2	37.6	43.2	41.6	41.2	41.3	42.3	42.1	41.3	41.4		41.34	3.7	TM
####	TM	3-NITROTOLUENE #2		22.8	23.9	24.0	23.1	22.9	22.2	22.0	22.4		22.92	3.3	TM
####	TM	4-AMINO-2,6-DINITROTOLUENE #2		33.3	38.0	35.5	34.3	34.1	32.9	32.4	32.8		34.16	5.4	TM
####	TM	2-AMINO-4,6-DINITROTOLUENE #2		38.8	45.9	44.8	43.1	44.3	42.6	42.0	42.4		42.99	5.0	TM
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Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:11:18 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	8.113	0	9274	N.D.	4.396m#
Spiked Amount 62.500			Recovery	=	0.00%	7.03%
Target Compounds						
1) TM HMX	0.000	4.080	0	8051	N.D.	3.829m#
2) TM RDX	0.000	6.415	0	7675	N.D.	4.144m#
3) TM 1,3,5-TRI...	0.000	6.754	0	19781	N.D.	4.426m#
5) TM 1,3-DINIT...	0.000	8.432	0	17298	N.D.	3.846m#
6) TM NITROBENZENE	0.000	9.166	0	11437	N.D.	4.465m#
7) TM 2,4,6-TRI...	0.000	11.443	0	7160	N.D.	2.820 #
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	11.981	12.005	7668	6007	NoCal	3.647 #
10) TM 2,6-DINIT...	0.000	13.440	0	6231	N.D.	4.218m#
11) TM 2,4-DINIT...	0.000	14.078	0	9567	N.D.	3.797m#
12) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13) TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
15) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

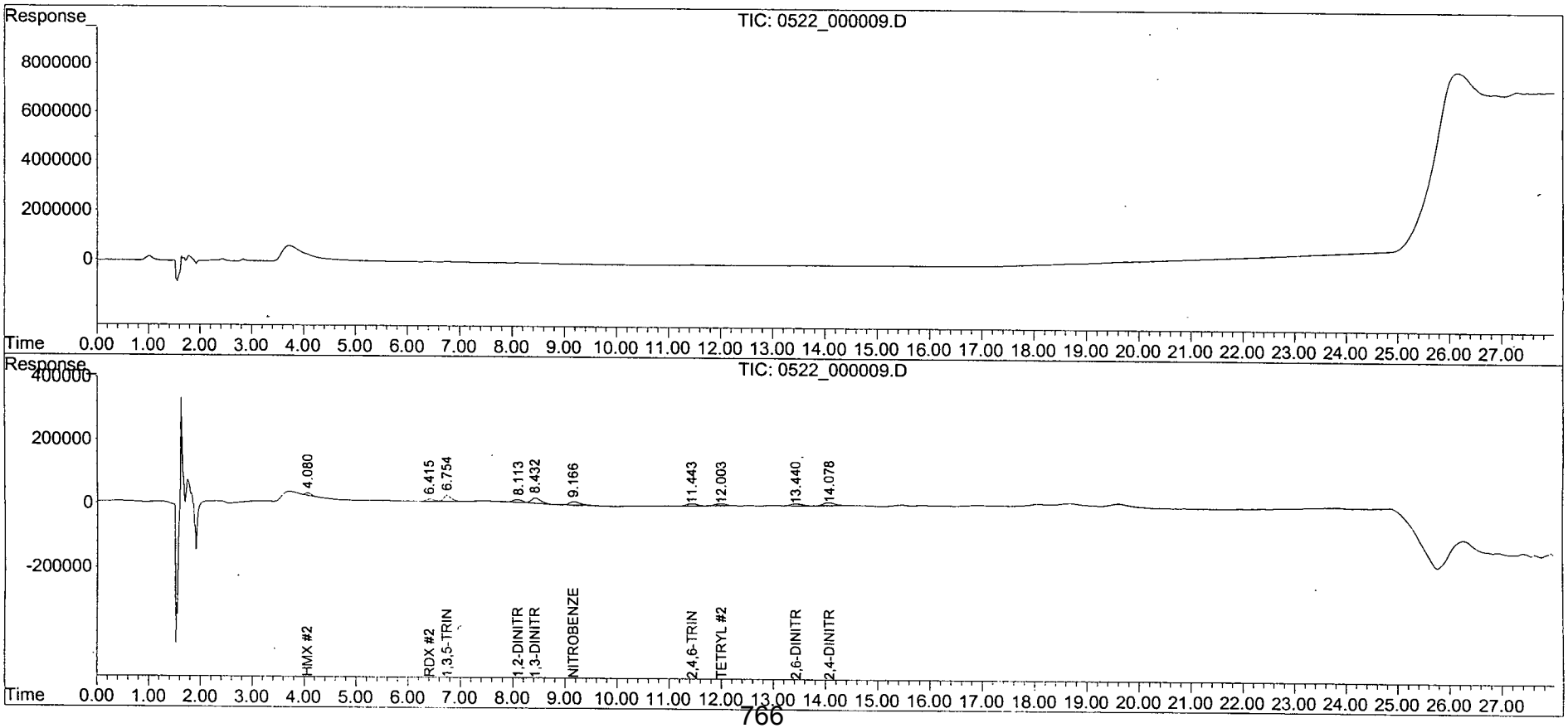
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:11:18 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

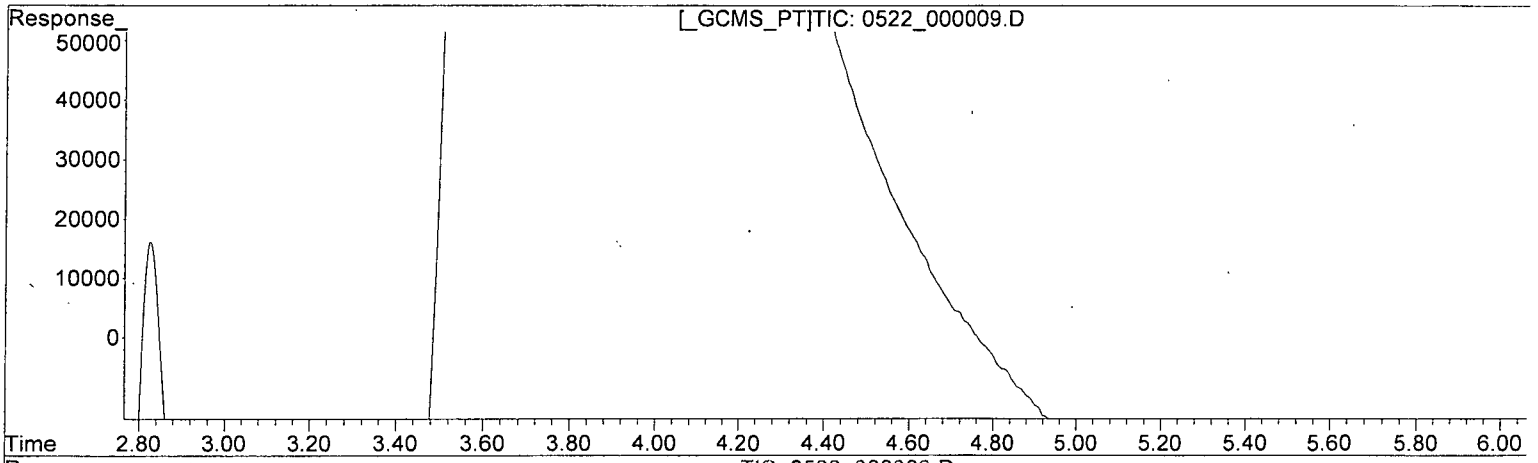


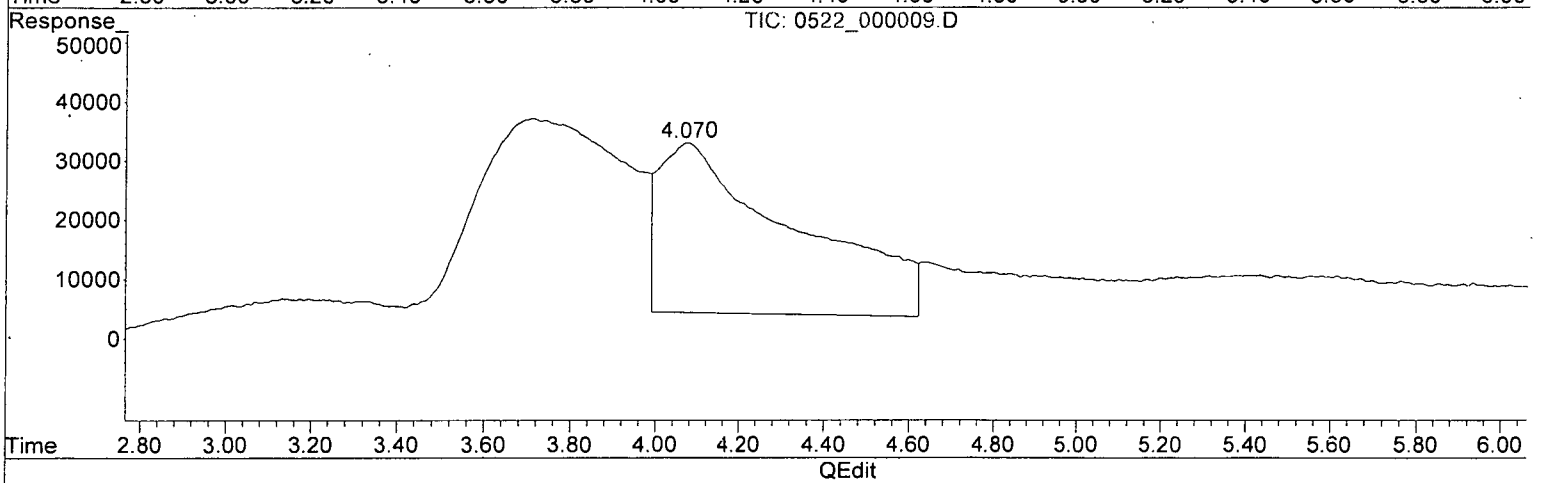
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ





QEdit

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.074min 13.606 ppb

response 28611

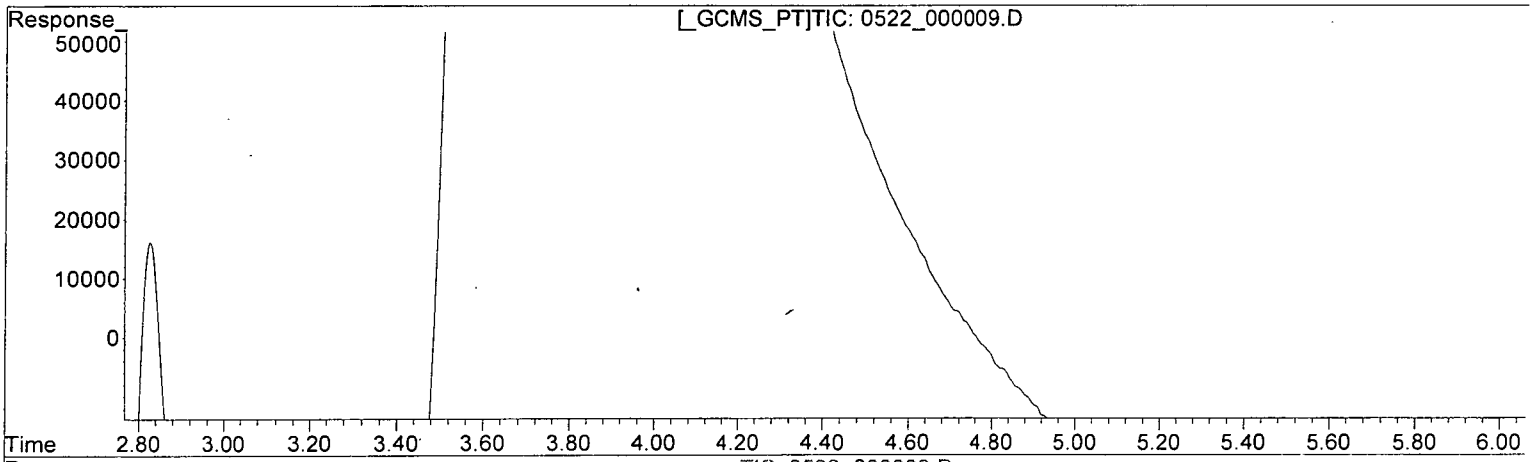
(+) = Expected Retention Time

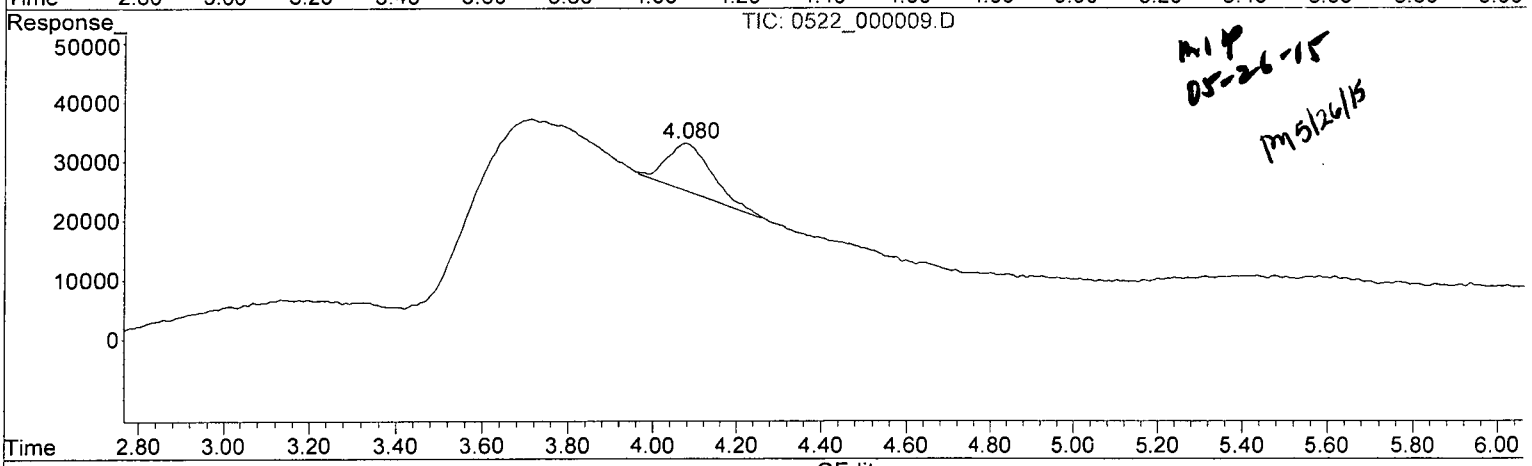
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MP 05-26-15 jm5/26/15

QEdit

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.080min 3.829 ppb m

response 8051

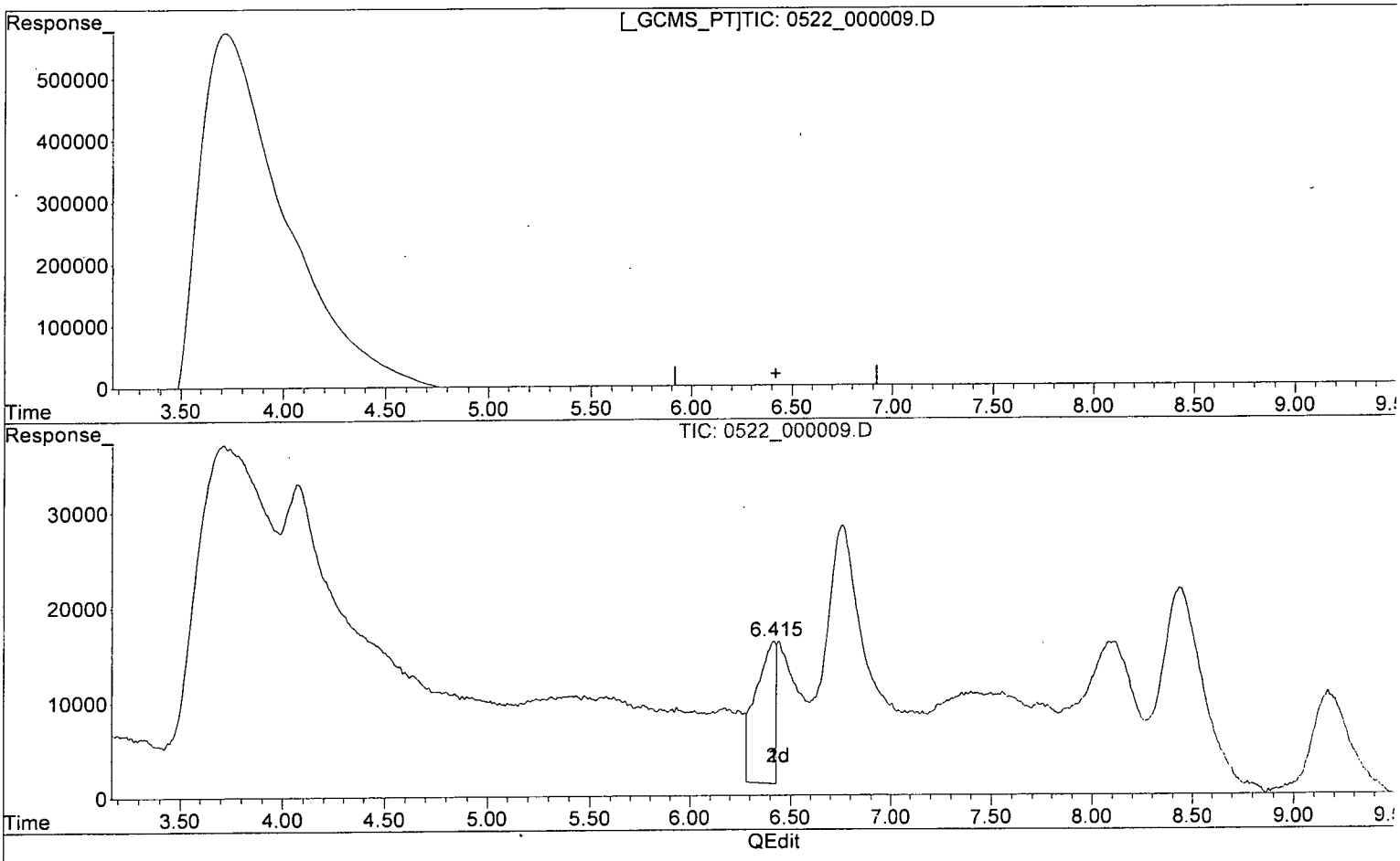
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.415min 8.101 ppb

response 15004

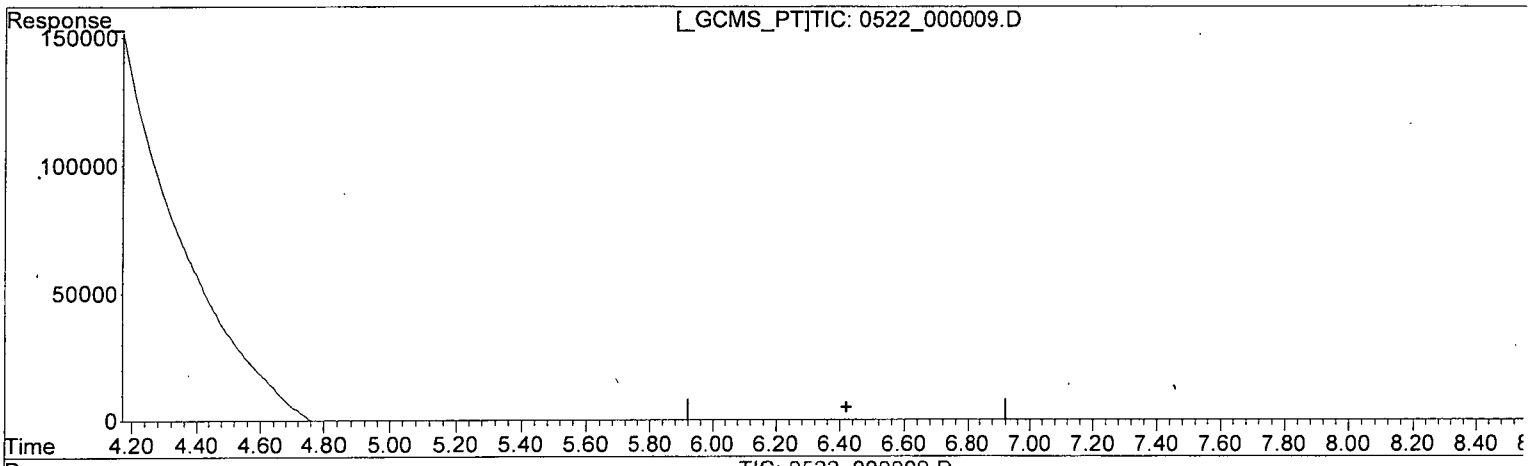
(+) = Expected Retention Time

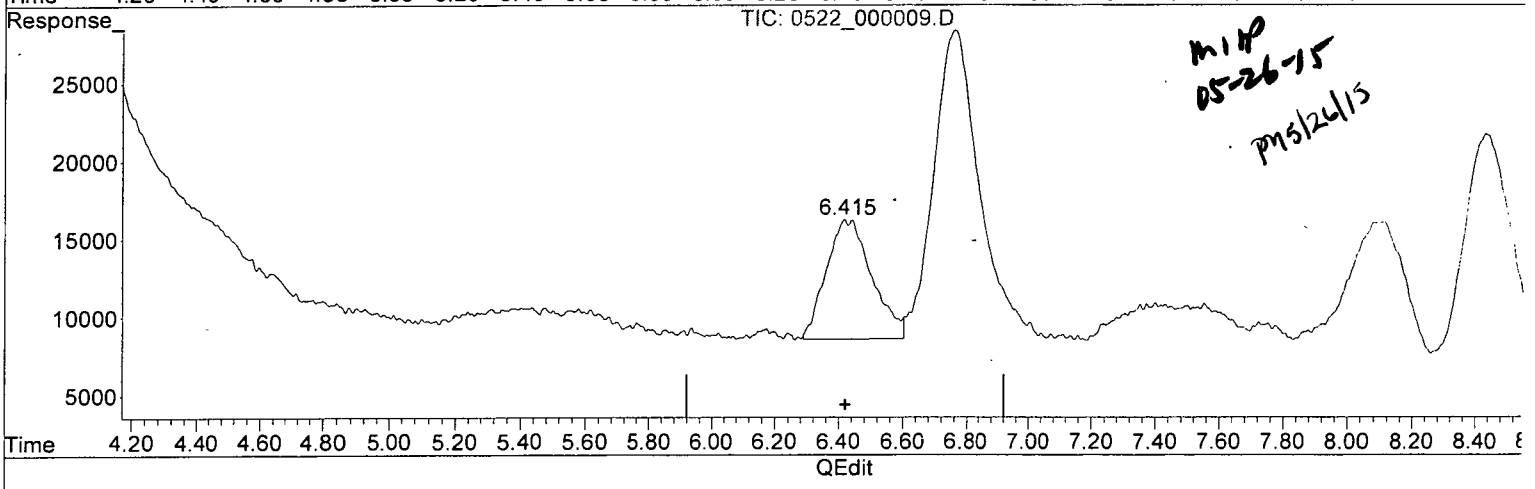
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MHP 05-26-15

PM 5/26/15

(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.415min 4.144 ppb m

response 7675

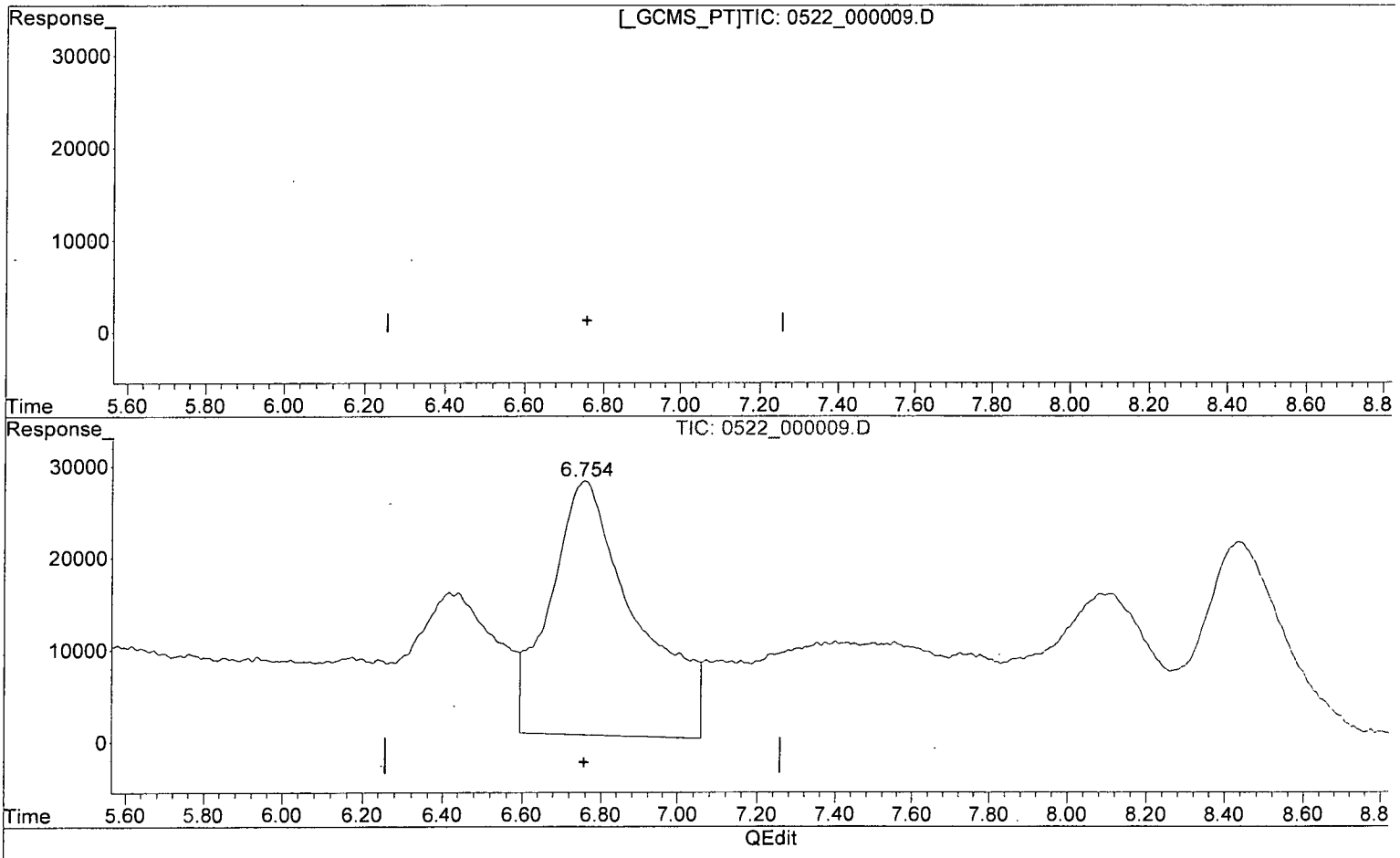
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.756min 6.174 ppb

response 27597

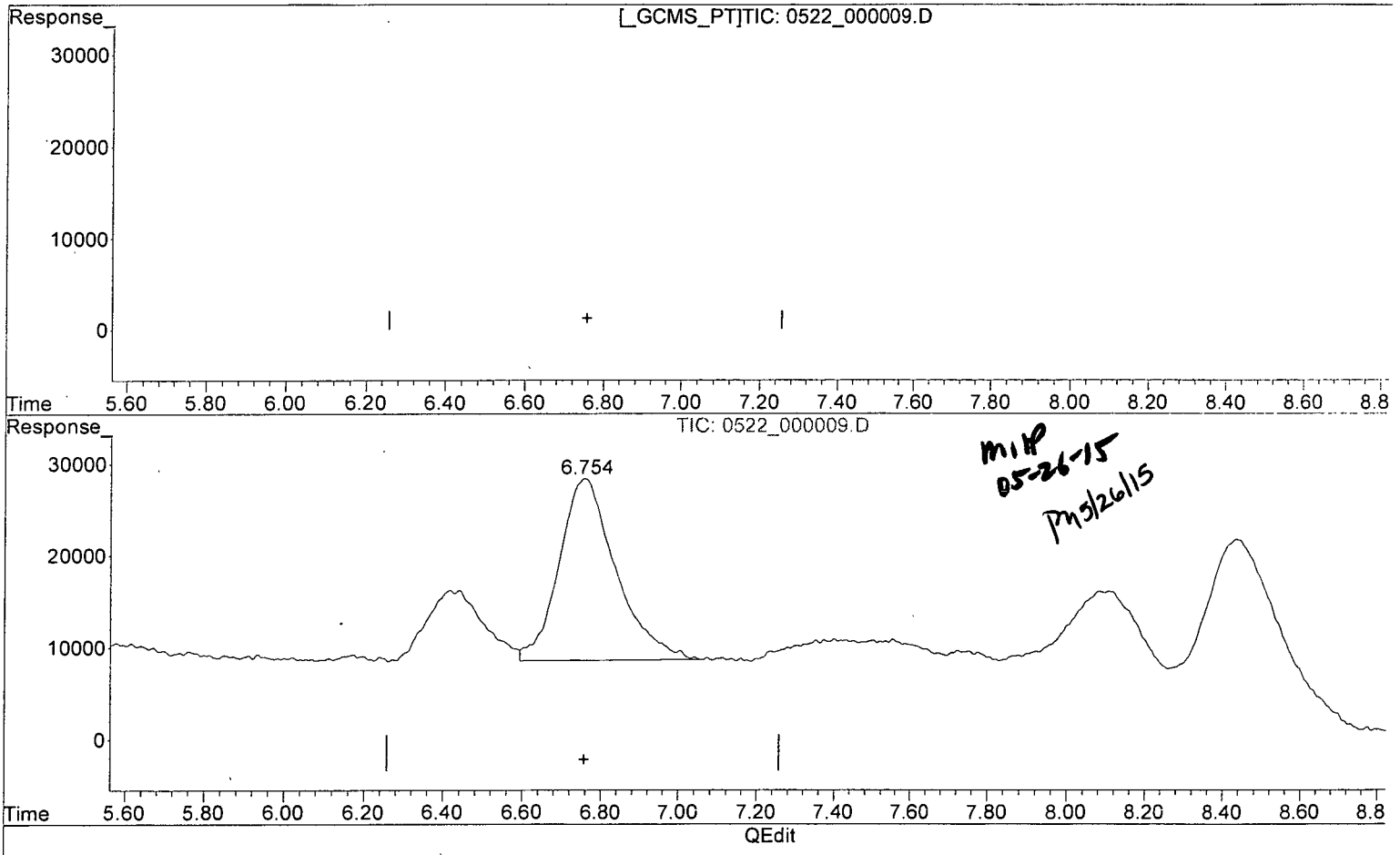
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.754min 4.426 ppb m

response 19781

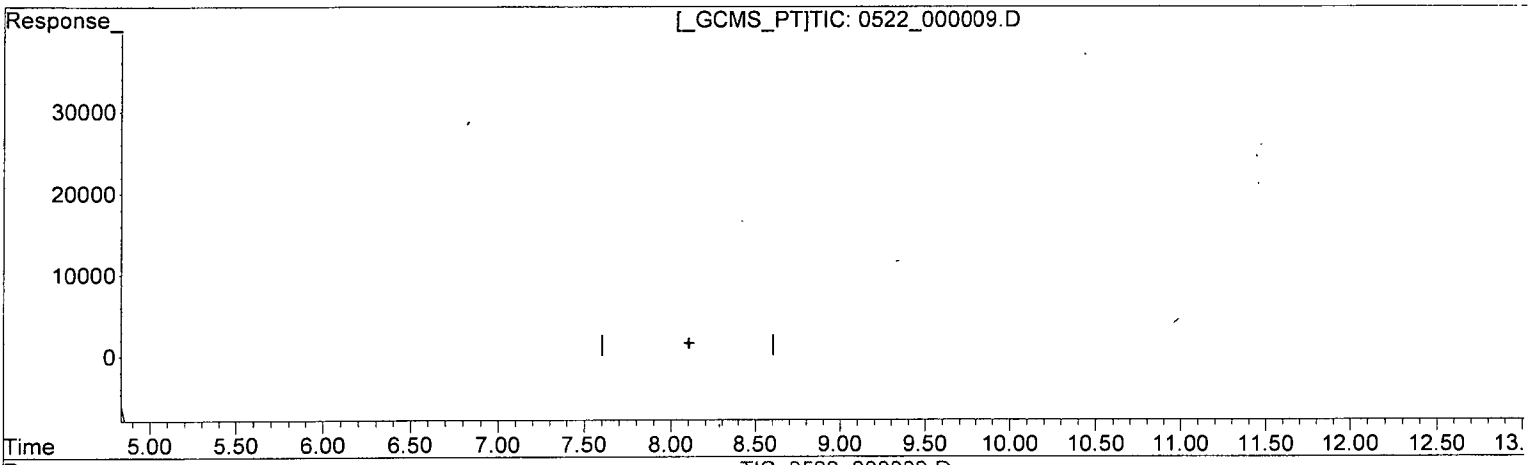
(+) = Expected Retention Time

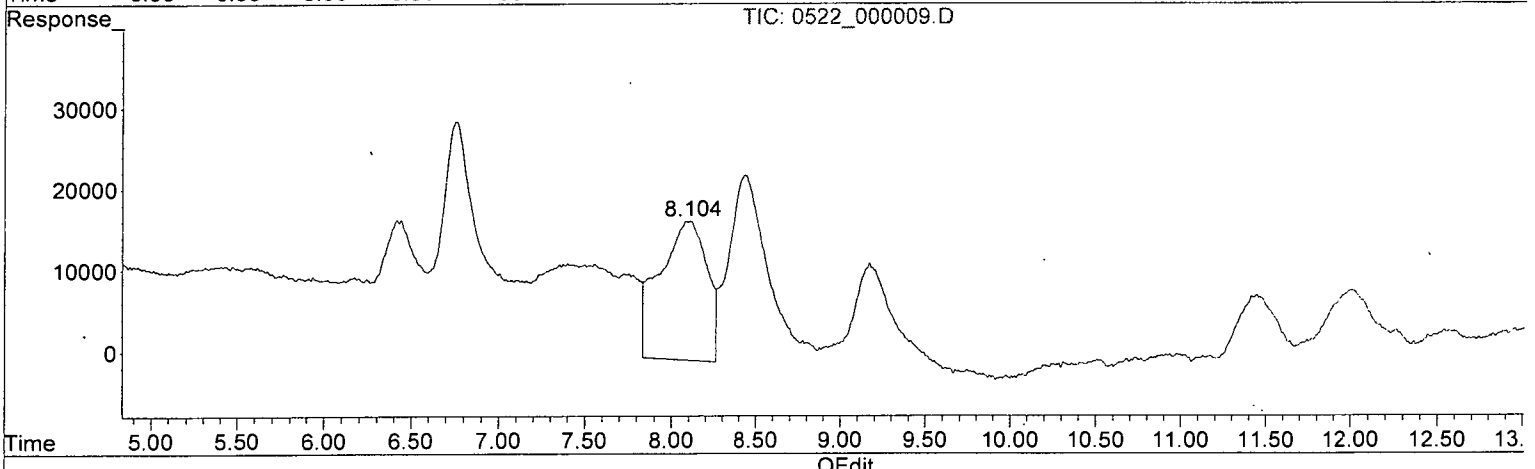
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





QEdit

(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

8.106min 8.094 ppb

response 17077

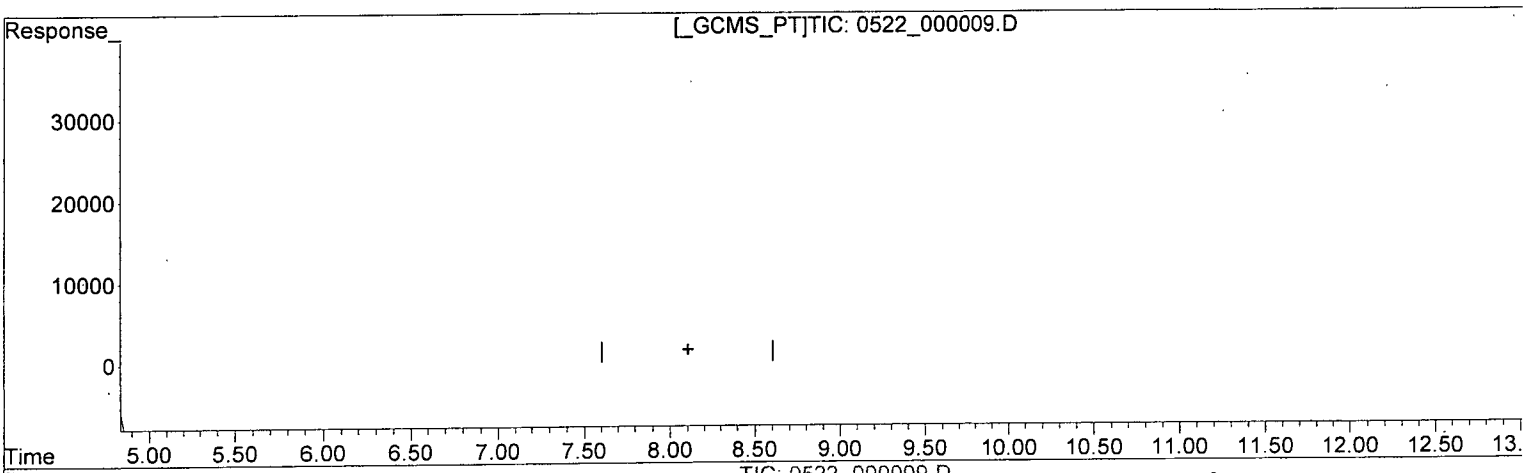
(+) = Expected Retention Time

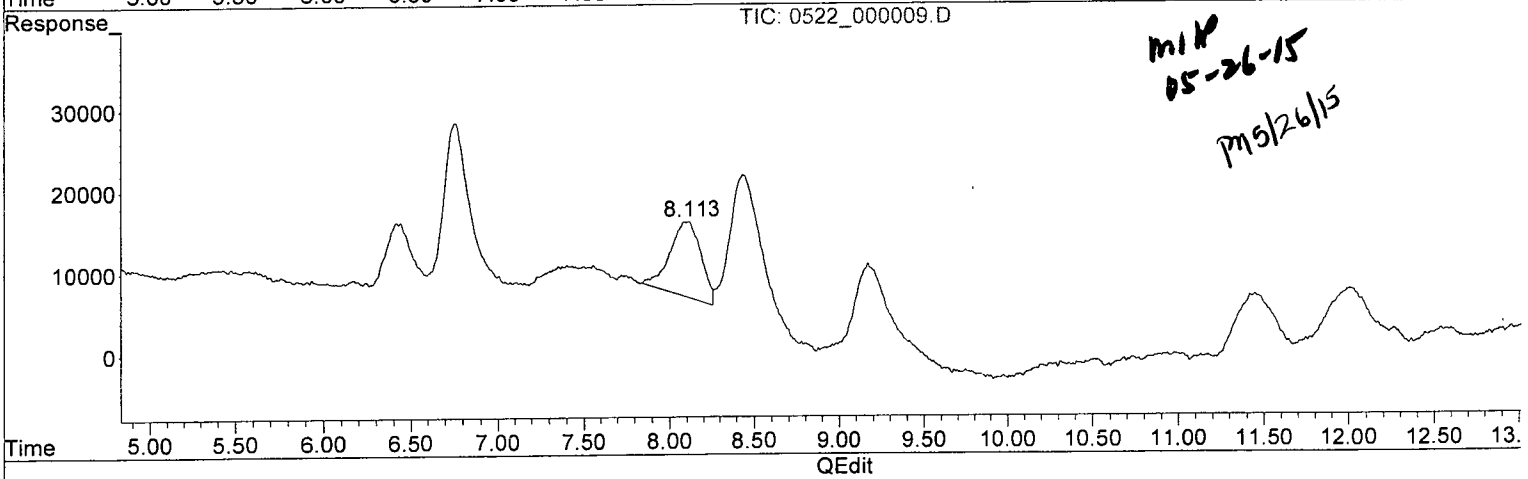
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r





MLP 05-26-15

m5/26/15

(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

8.113min 4.396 ppb m

response 9274

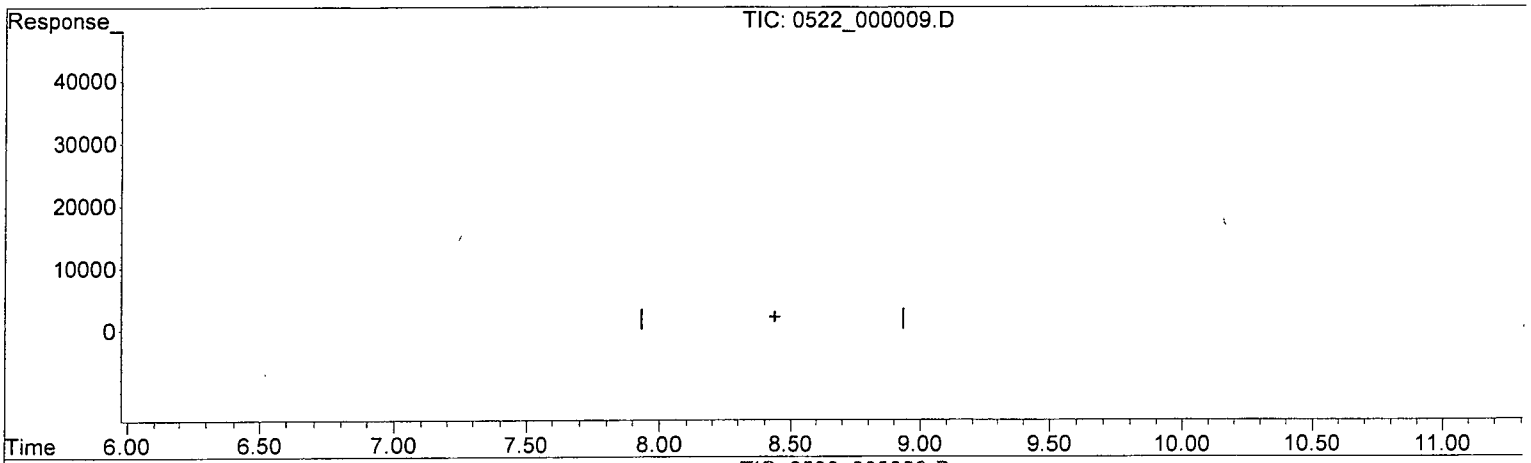
(+) = Expected Retention Time

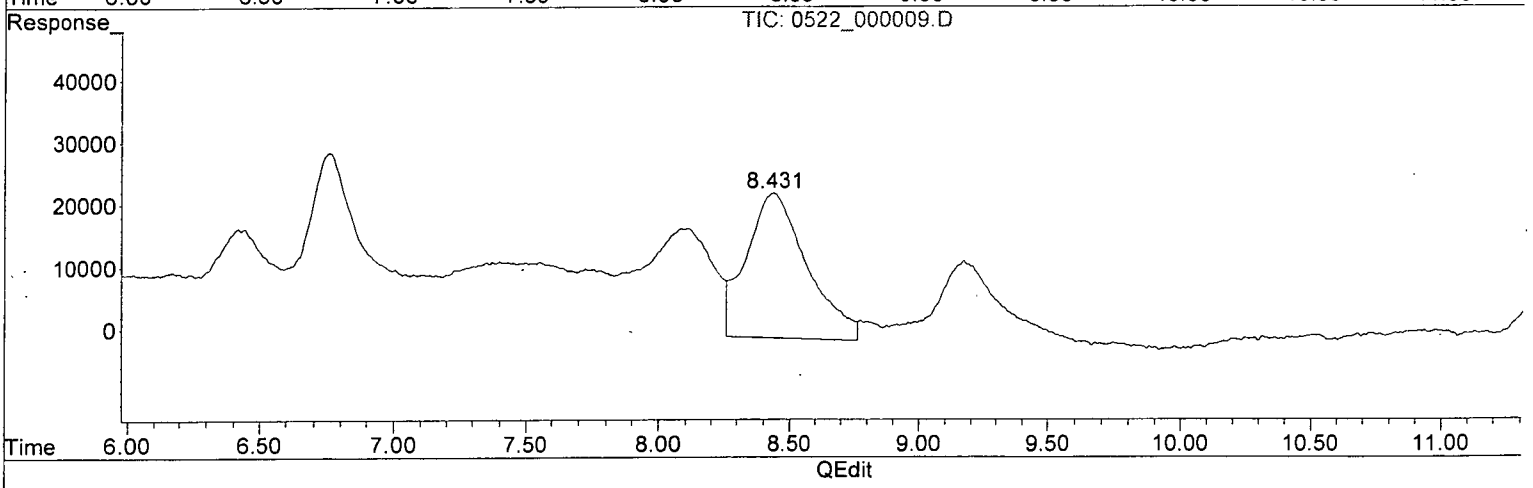
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ





QEdit

(5) 1,3-DINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(5) 1,3-DINITROBENZENE #2 (TM)

8.434min 5.153 ppb

response 23173

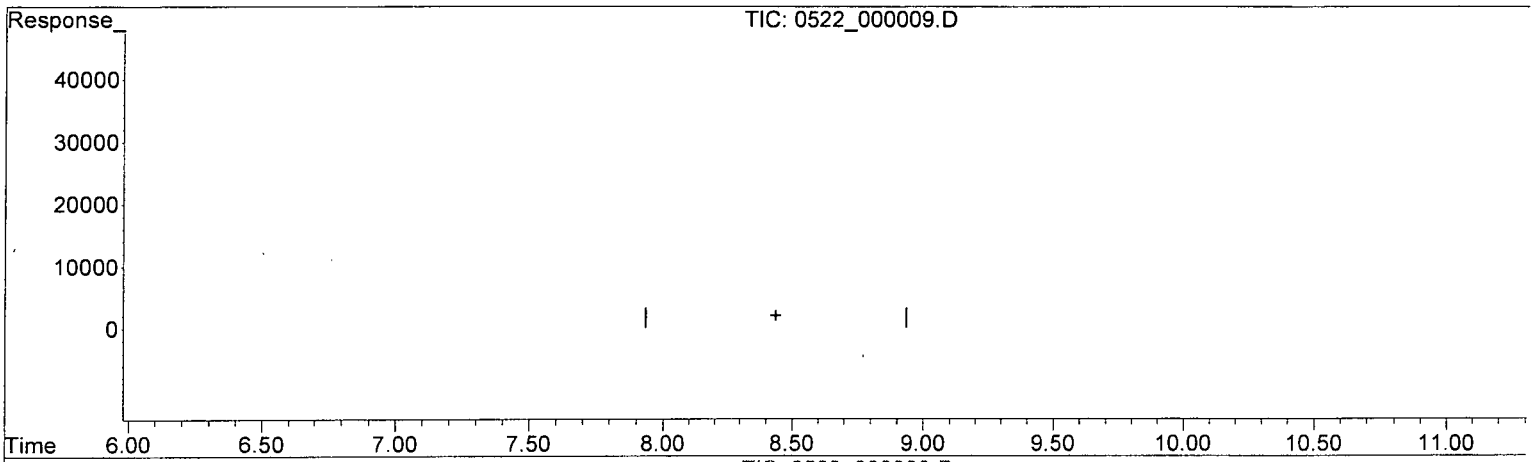
(+) = Expected Retention Time

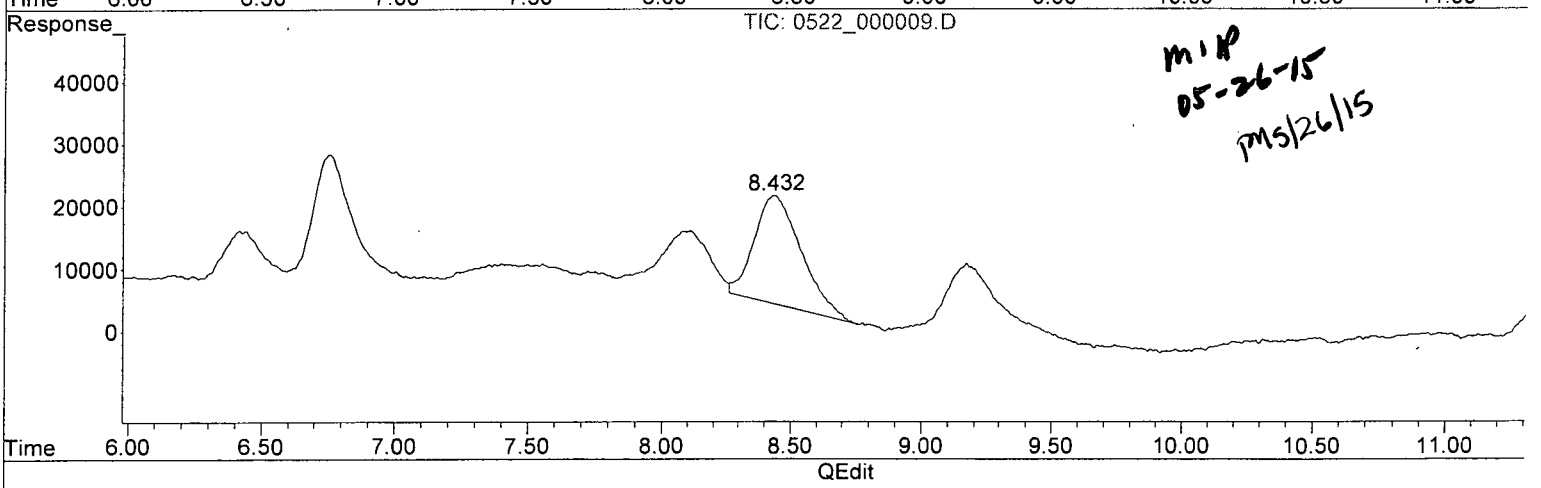
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r





MHP 05-26-15 PM5/26/15

QEdit

(5) 1,3-DINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(5) 1,3-DINITROBENZENE #2 (TM)

8.432min 3.846 ppb m

response 17298

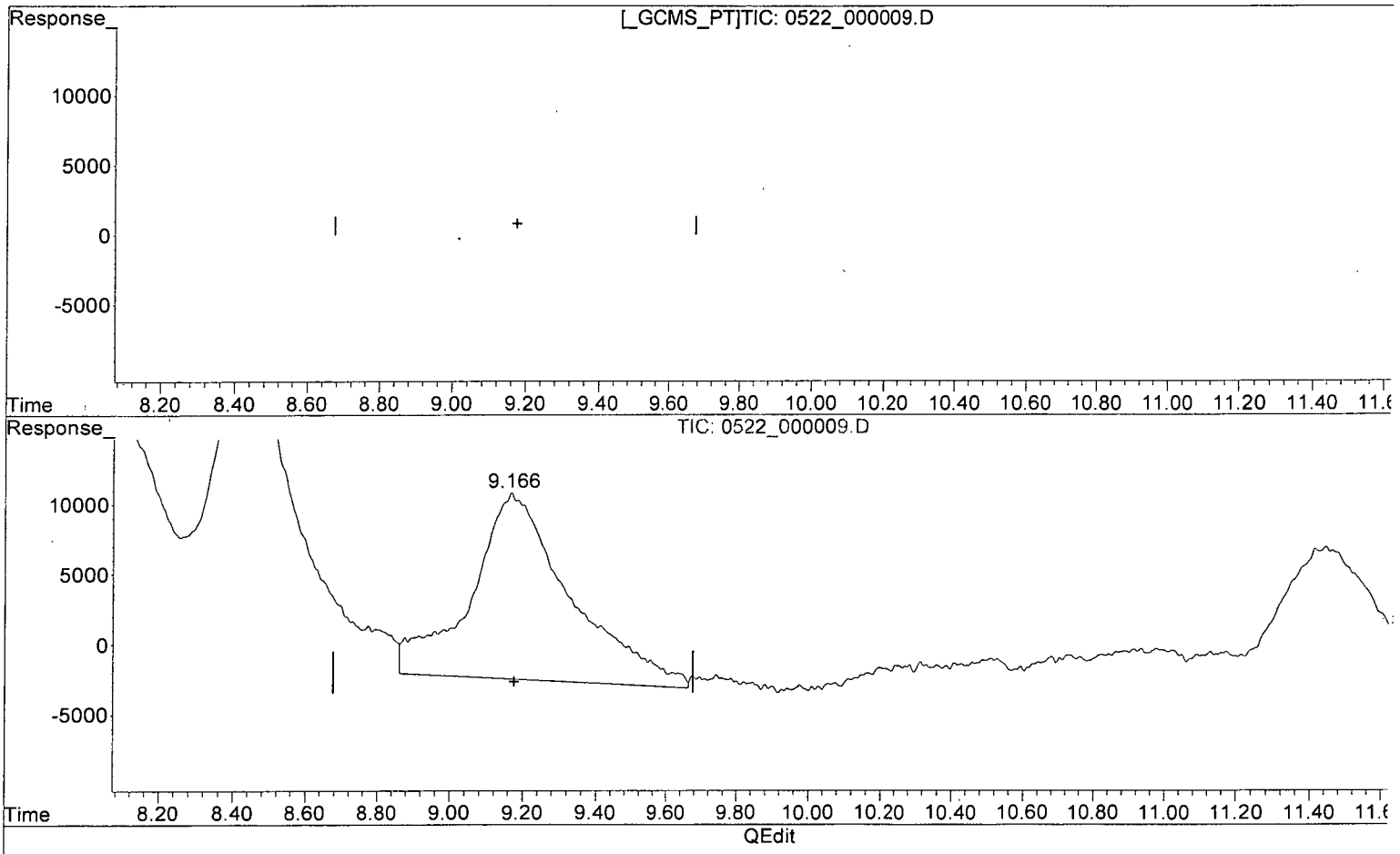
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(6) NITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(6) NITROBENZENE #2 (TM)

9.167min 5.196 ppb

response 13311

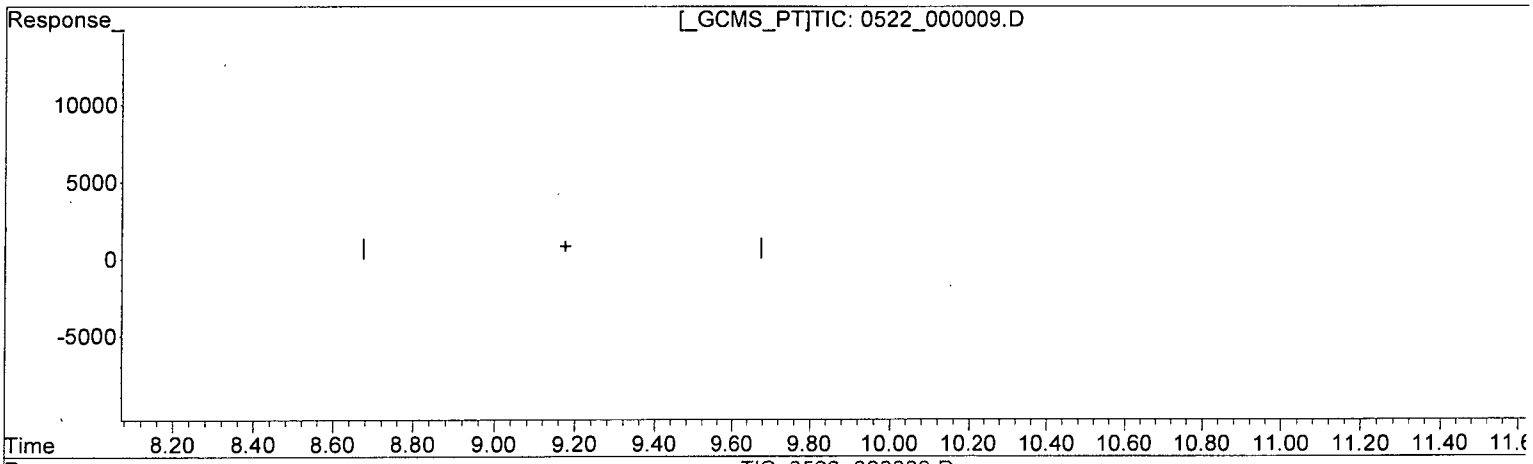
(+) = Expected Retention Time

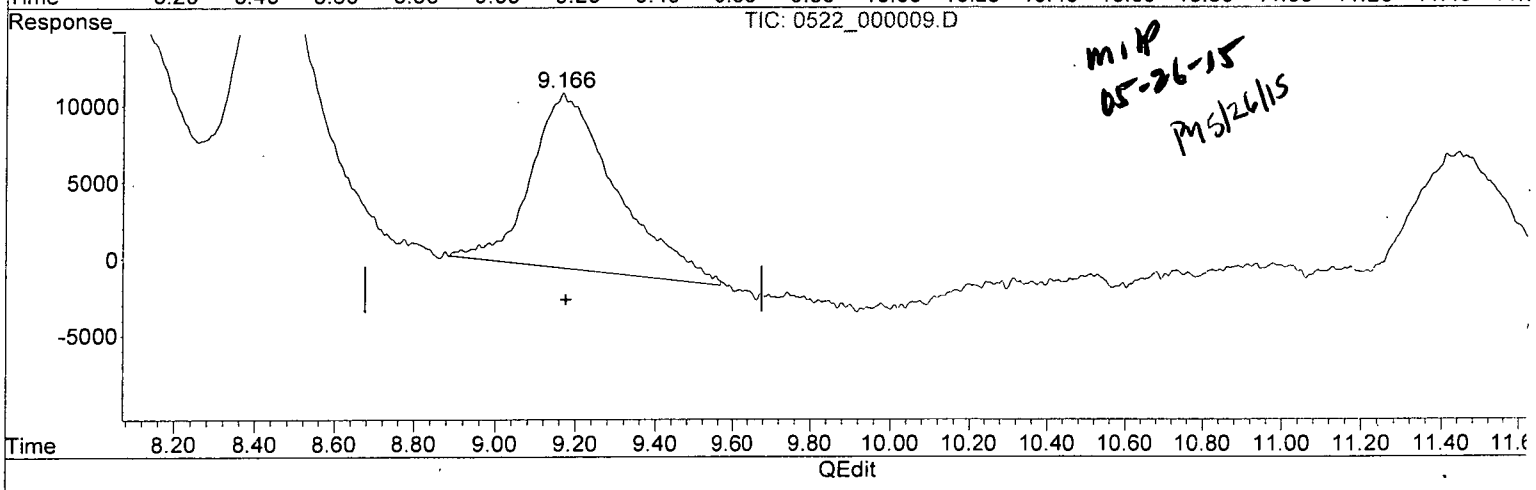
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MIP 05-26-15 PM 5/26/15

(6) NITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(6) NITROBENZENE #2 (TM)

9.166min 4.465 ppb m

response 11437

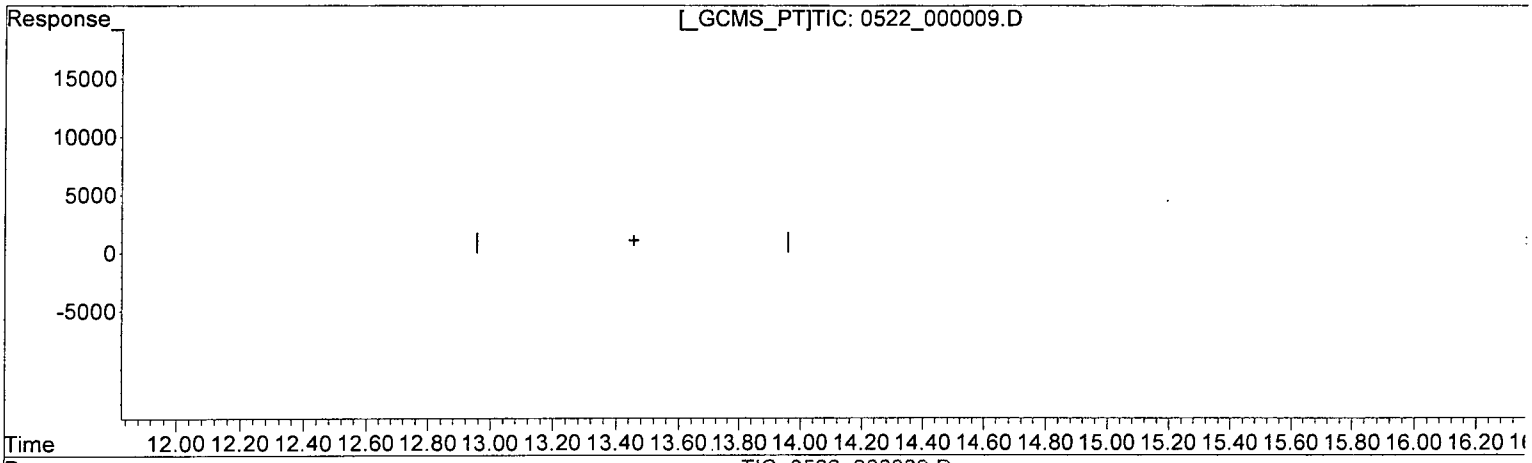
(+) = Expected Retention Time

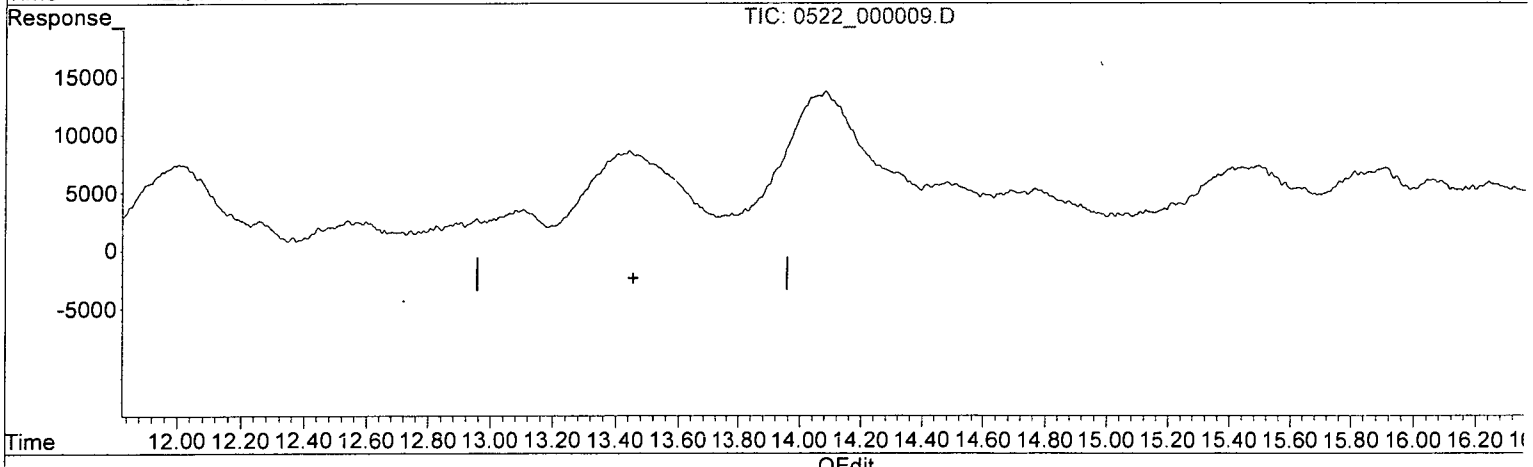
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ





QEdit

(10) 2,6-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(10) 2,6-DINITROTOLUENE #2 (TM)

0.000min 0.000 ppb

response 0

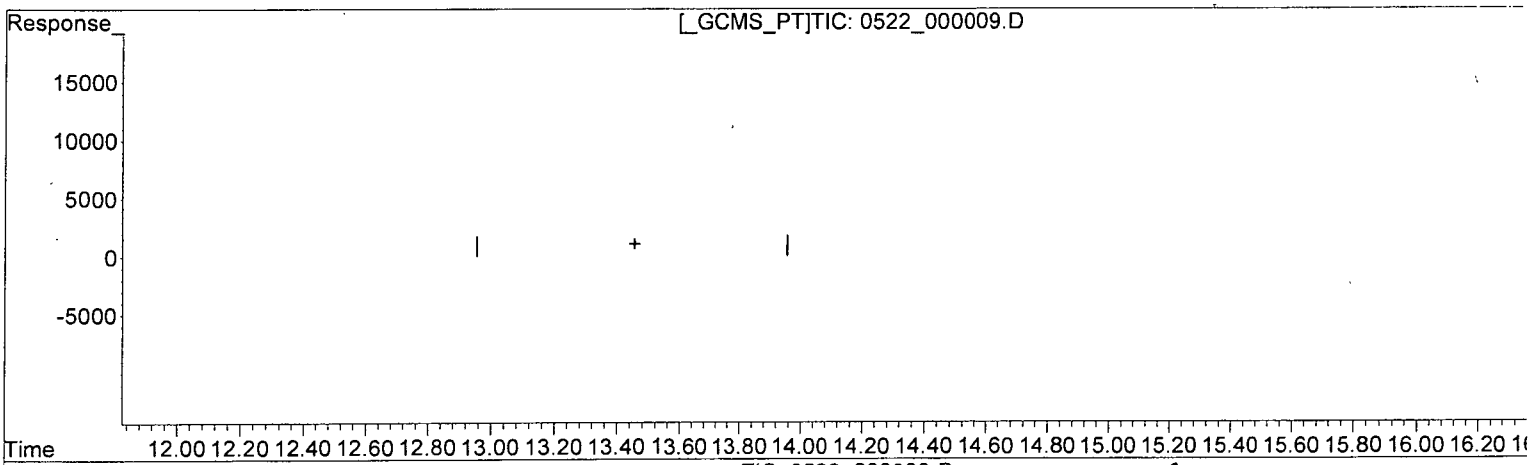
(+) = Expected Retention Time

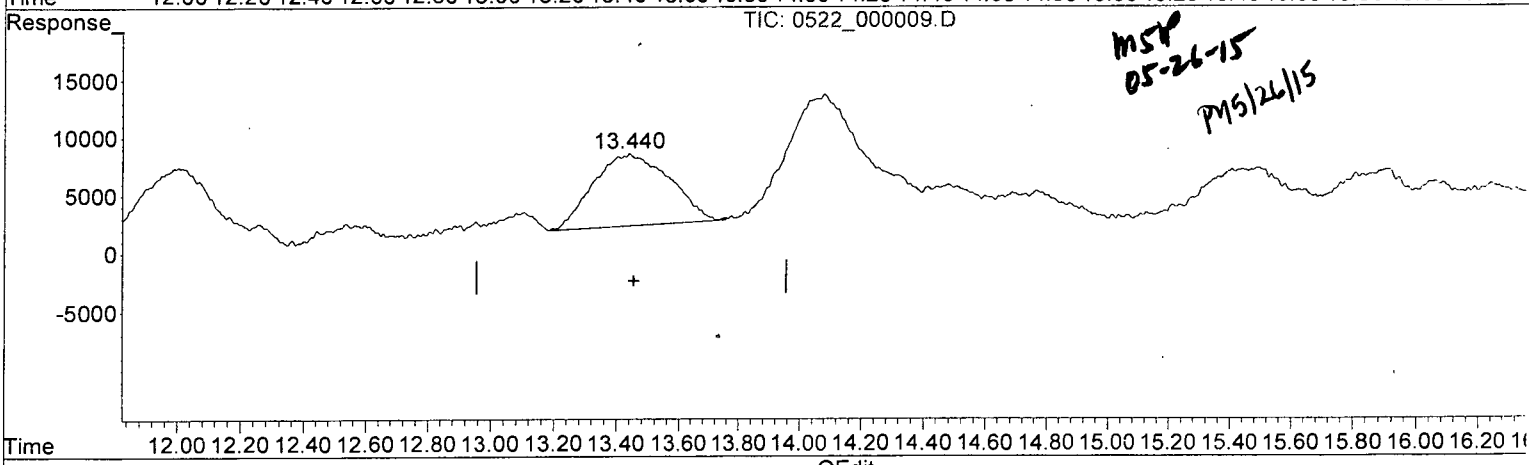
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MSP 05-26-15

PMS/26/15

QEdit

(10) 2,6-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(10) 2,6-DINITROTOLUENE #2 (TM)

13.440min 4.218 ppb m

response 6231

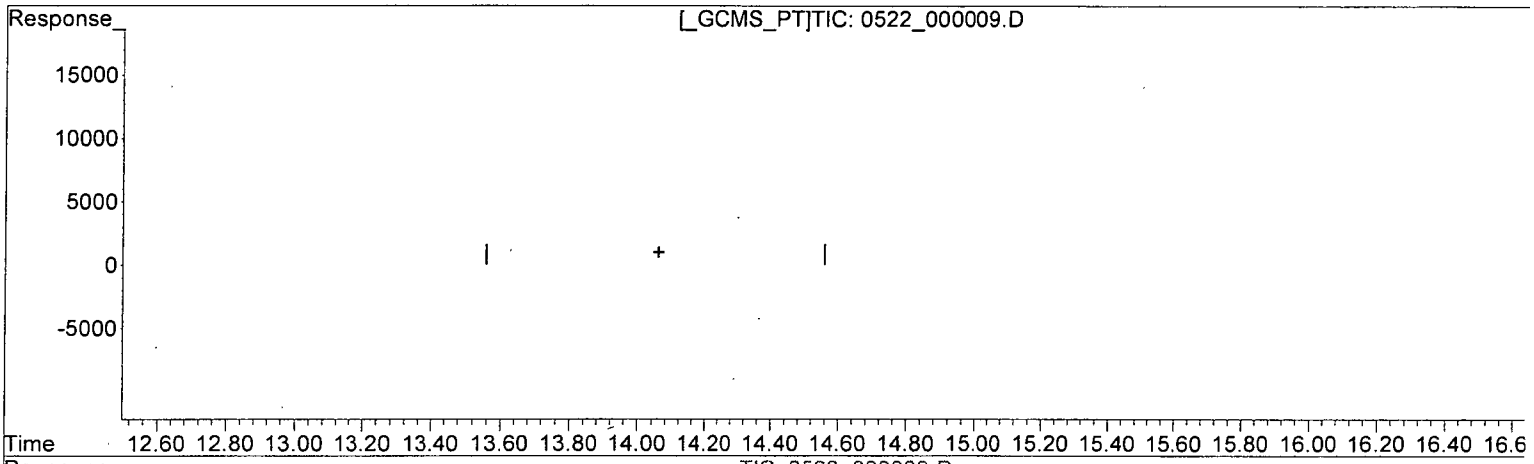
(+) = Expected Retention Time

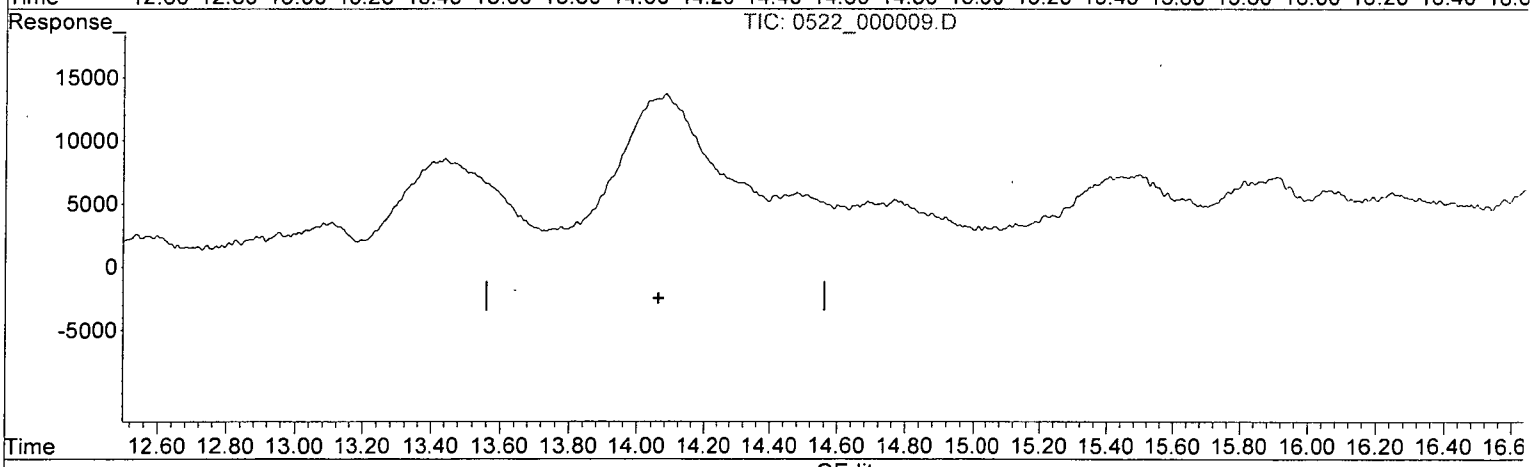
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r





QEdit

(11) 2,4-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(11) 2,4-DINITROTOLUENE #2 (TM)

0.000min 0.000 ppb

response 0

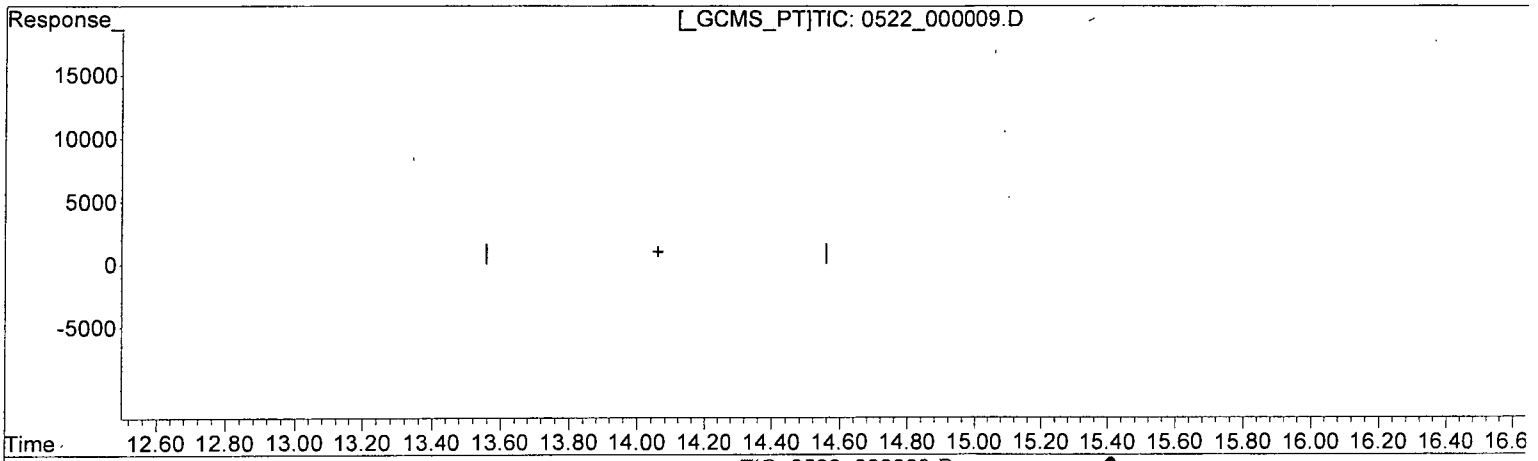
(+) = Expected Retention Time

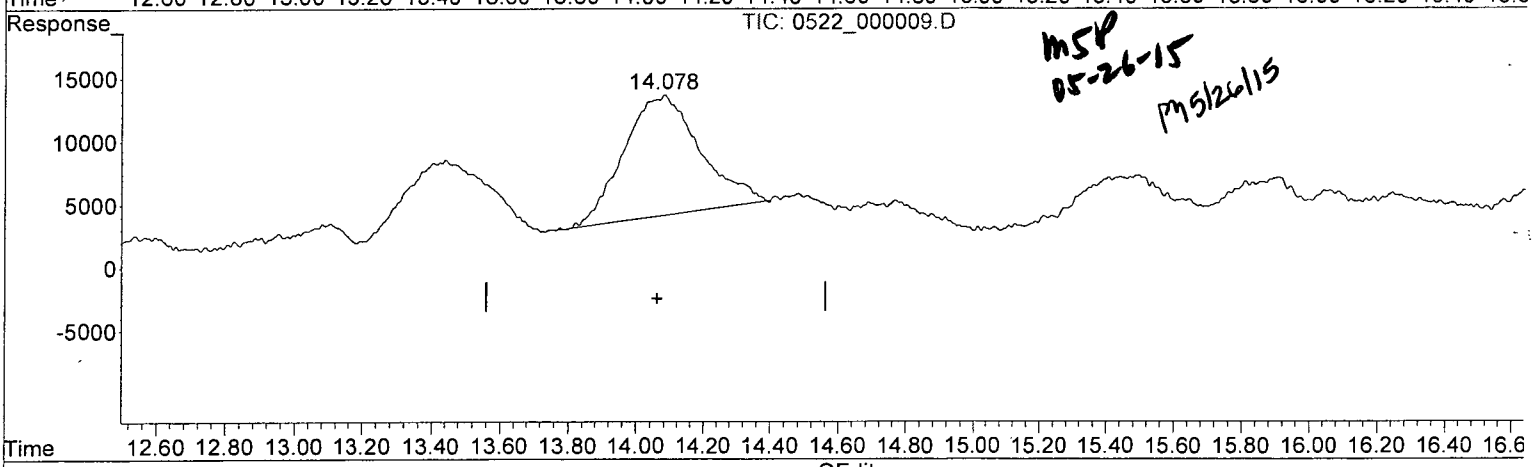
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MSP 05-26-15 MS 5/26/15

QEdit

(11) 2,4-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(11) 2,4-DINITROTOLUENE #2 (TM)

14.078min 3.797 ppb m

response 9567

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000010.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:52:39
Operator : MP
Sample : 8330MXB_CV 0.005 PPM 05/22/15
Misc :
ALS Vial : 4225 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:07:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

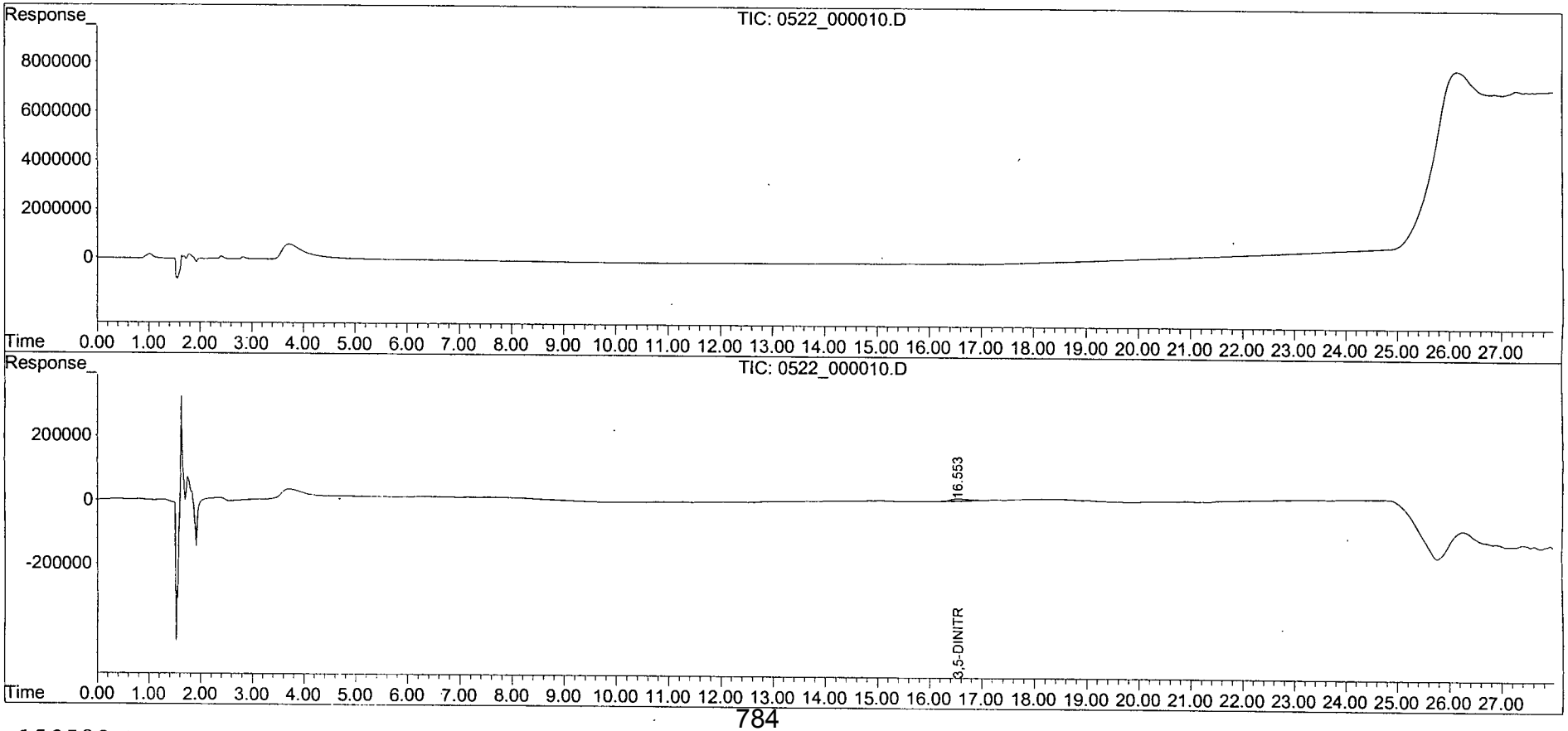
	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4)	S 1,2-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 62.500			Recovery	=	0.00%	0.00%
	Target Compounds						
1)	TM HMX	0.000	0.000	0	0	N.D.	N.D.
2)	TM RDX	0.000	0.000	0	0	N.D. d	N.D. d
3)	TM 1,3,5-TRI...	0.000	0.000	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...	0.000	12.058	0	885	N.D. d	NoCal
9)	TM TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10)	TM 2,6-DINIT...	13.254	0.000	538	0	NoCal	N.D.
11)	TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12)	TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13)	TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
14)	TM 3,5-DINIT...	0.000	16.553	0	7523	N.D.	3.769m#
15)	TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16)	TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17)	TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18)	TM PETN	0.000	0.000	0	0	N.D.	N.D.

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

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000010.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:52:39
Operator : MP
Sample : 8330MXB_CV 0.005 PPM 05/22/15
Misc :
ALS Vial : 4225 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:07:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

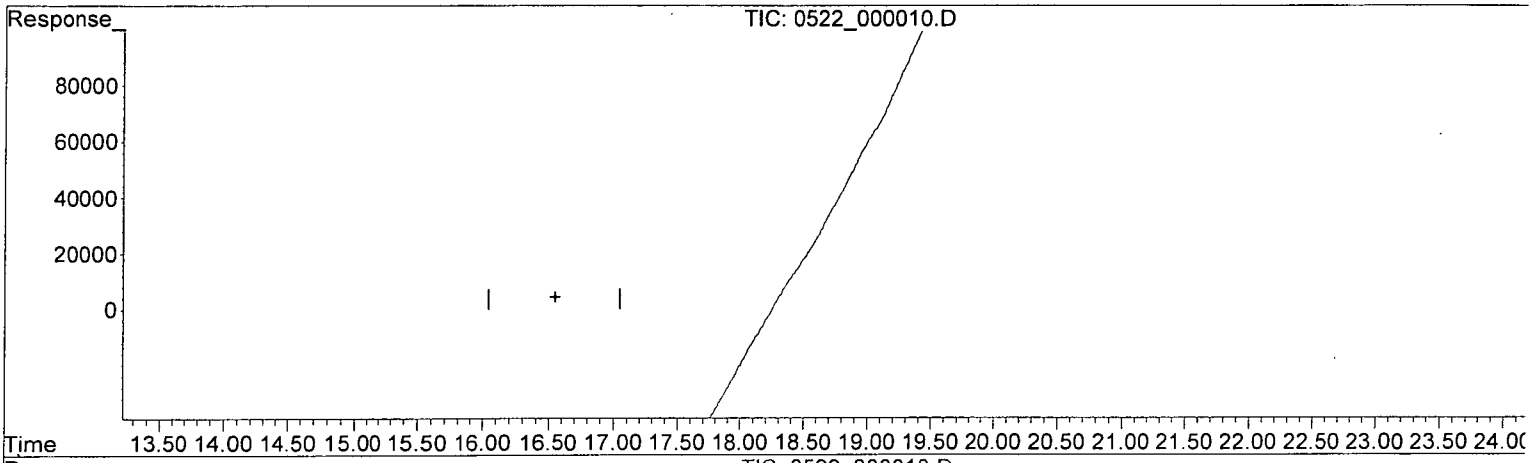


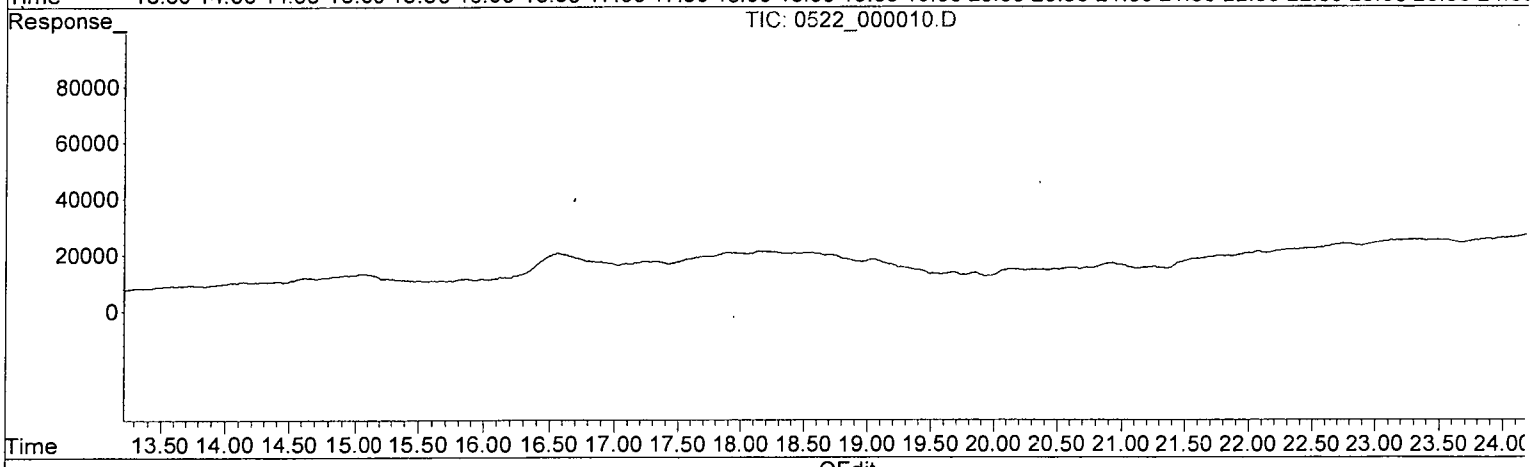
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000010.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:52:39
Operator : MP
Sample : 8330MXB_CV 0.005 PPM 05/22/15
Misc :
ALS Vial : 4225 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:02 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ





QEdit

(14) 3,5-DINITROANILINE (TM)

0.000min 0.000 ppb

response 0

(14) 3,5-DINITROANILINE #2 (TM)

0.000min 0.000 ppb

response 0

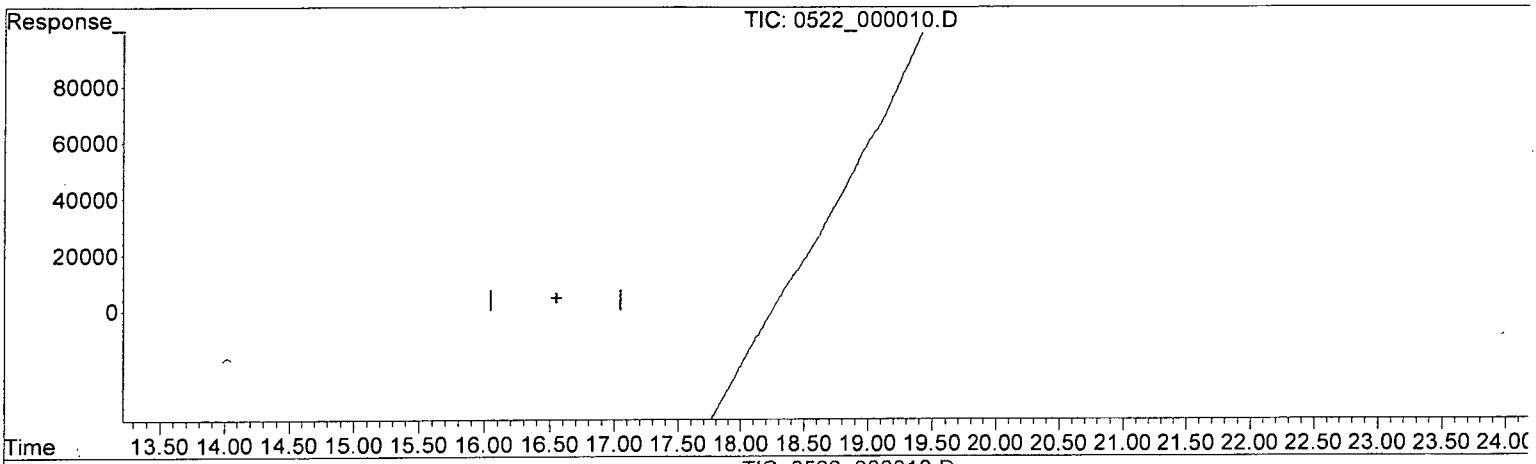
(+) = Expected Retention Time

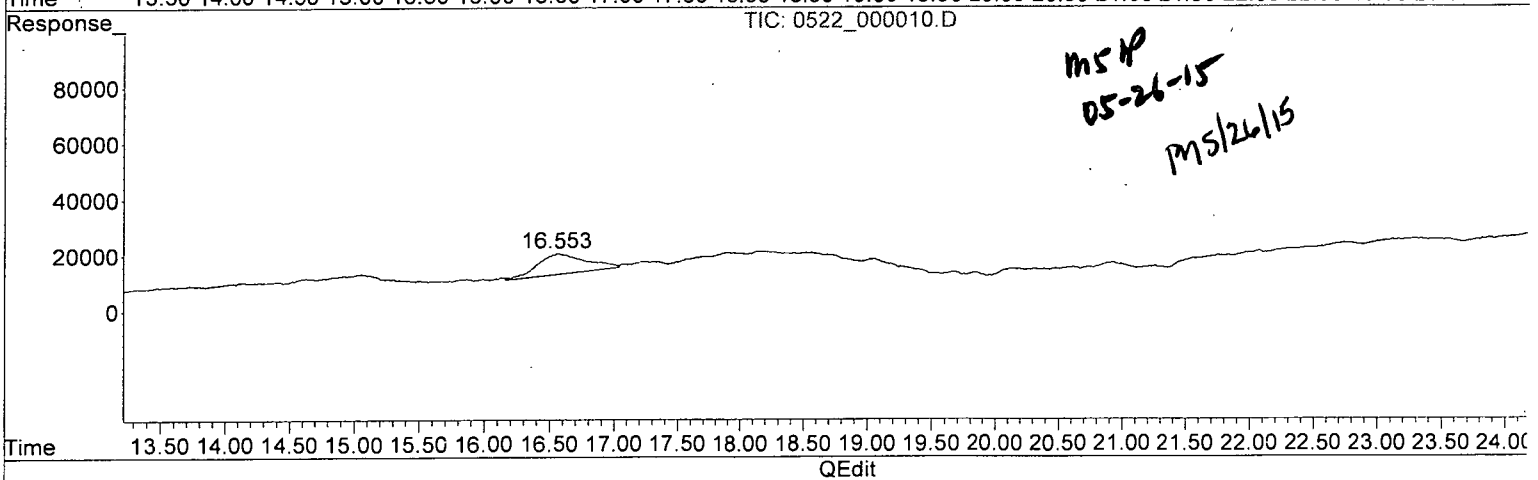
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000010.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:52:39
Operator : MP
Sample : 8330MXB_CV 0.005 PPM 05/22/15
Misc :
ALS Vial : 4225 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:02 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ





MSP 05-26-15 M5/26/15

QEdit

(14) 3,5-DINITROANILINE (TM)

0.000min 0.000 ppb

response 0

(14) 3,5-DINITROANILINE #2 (TM)

16.553min 3.769 ppb m

response 7523

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:06:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4) S	1,2-DINIT...	0.000	8.102	0	17296	N.D.	8.198m#
Spiked Amount	62.500			Recovery	=	0.00%	13.12%
	Target Compounds						
1) TM	HMX	0.000	4.082	0	16807	N.D.	7.993m#
2) TM	RDX	0.000	6.417	0	16148	N.D.	8.719m#
3) TM	1,3,5-TRI...	0.000	6.753	0	38559	N.D.	8.627m#
5) TM	1,3-DINIT...	0.000	8.433	0	38569	N.D.	8.576m#
6) TM	NITROBENZENE	0.000	9.177	0	20086	N.D.	7.841m#
7) TM	2,4,6-TRI...	0.000	11.450	0	19541	N.D.	7.697 #
8) TM	NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM	TETRYL	11.986	11.978	13853	14357	NoCal	8.715 #
10) TM	2,6-DINIT...	13.457	13.467	21588	10727	NoCal	7.263m#
11) TM	2,4-DINIT...	0.000	14.062	0	20758	N.D.	8.239m#
12) TM	2-NITROTO...	0.000	15.468	0	8585	N.D.	8.142m#
13) TM	4-NITROTO...	0.000	16.858	0	4467	N.D.	5.100m#
14) TM	3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
15) TM	3-NITROTO...	0.000	18.086	0	9136	N.D.	8.544m#
16) TM	4-AMINO-2...	0.000	18.658	0	13310	N.D.	9.500m#
17) TM	2-AMINO-4...	0.000	19.621	0	15539	N.D.	7.623 #
18) TM	PETN	0.000	0.000	0	0	N.D.	N.D.

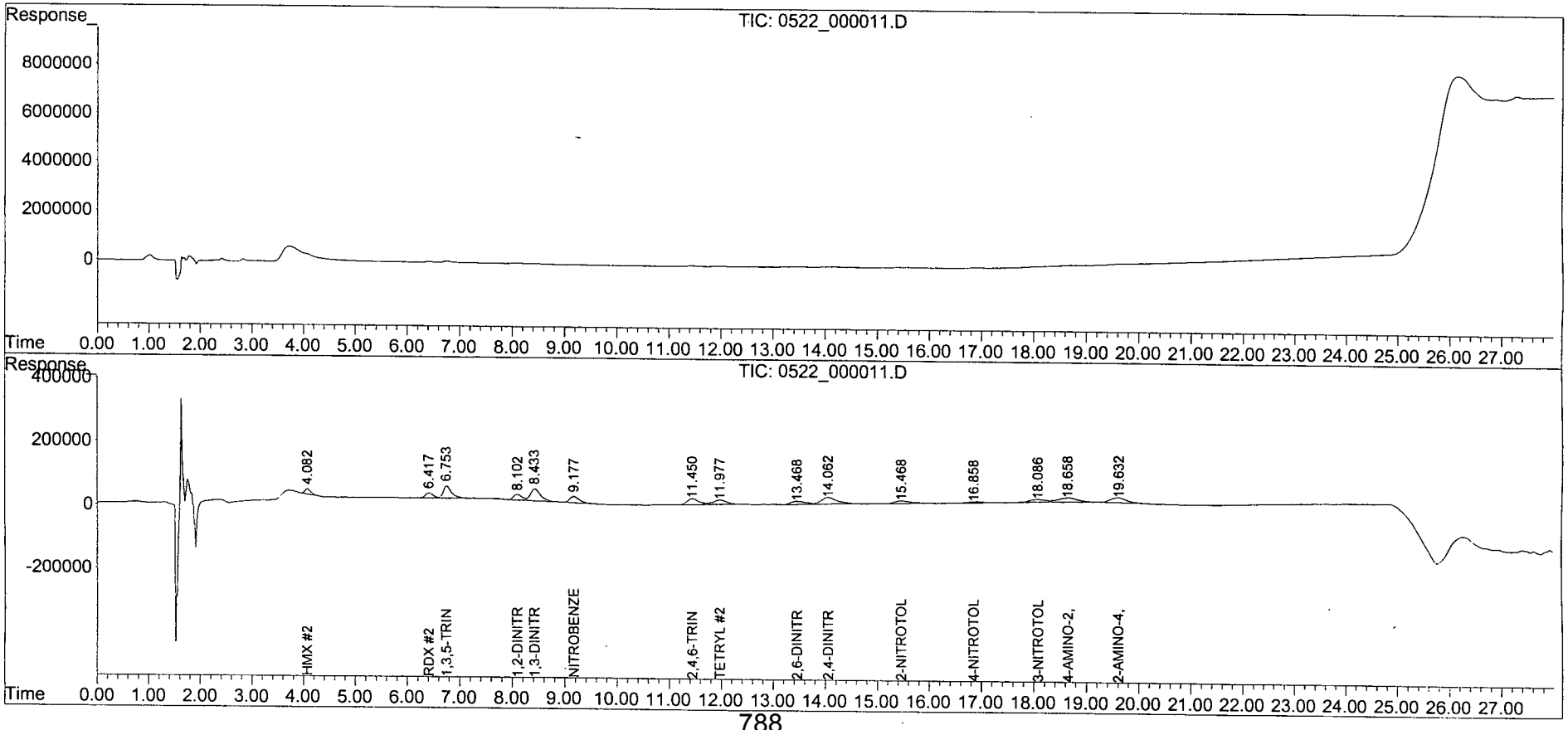
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:06:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Stat1er
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

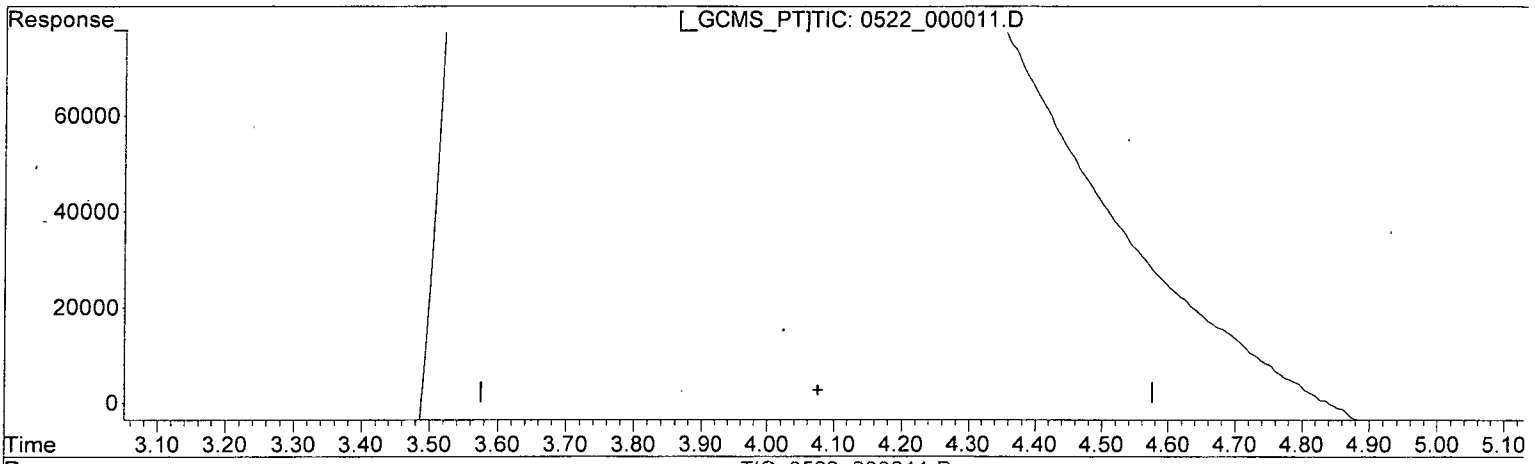


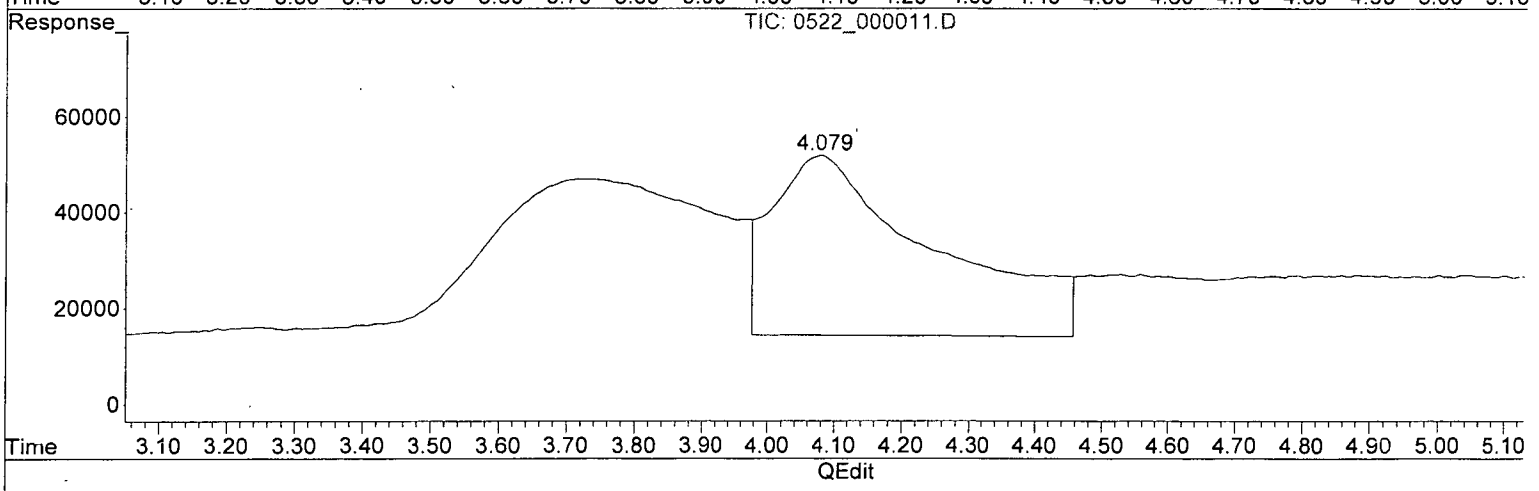
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





QEdit

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.078min 17.847 ppb

response 37530

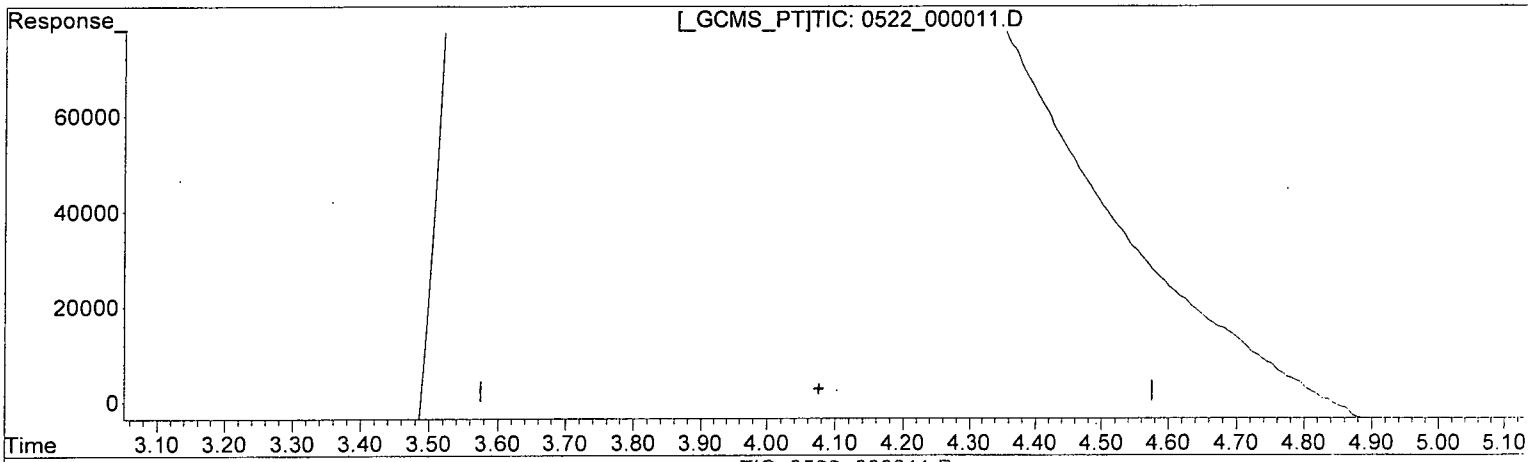
(+) = Expected Retention Time

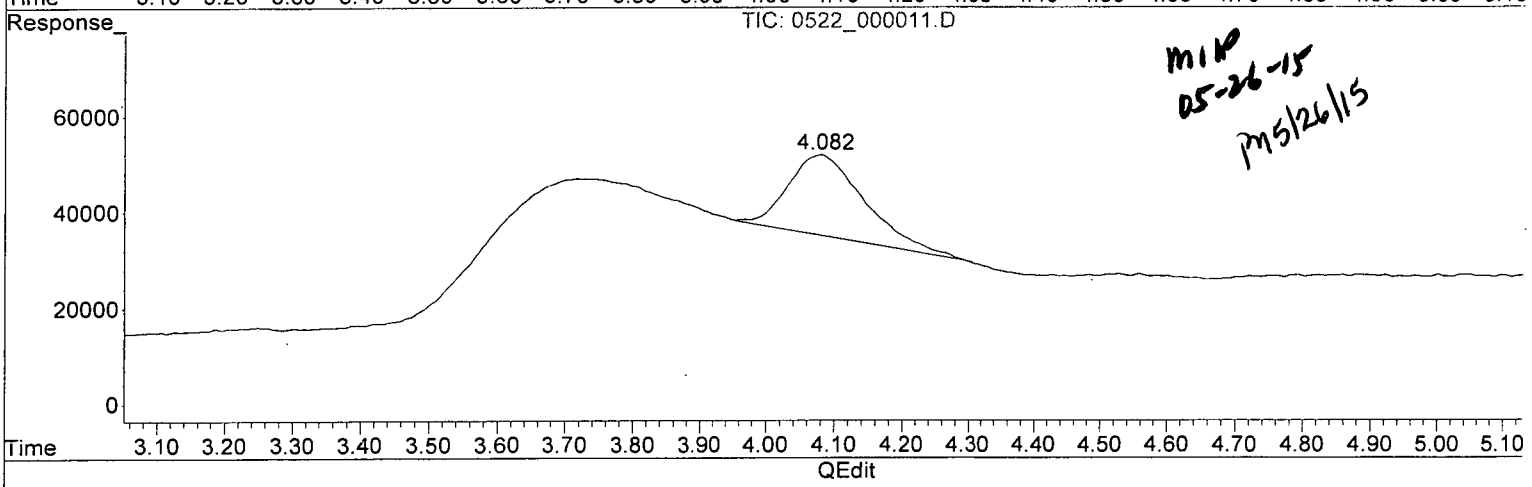
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r





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QEdit

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.082min 7.993 ppb m

response 16807

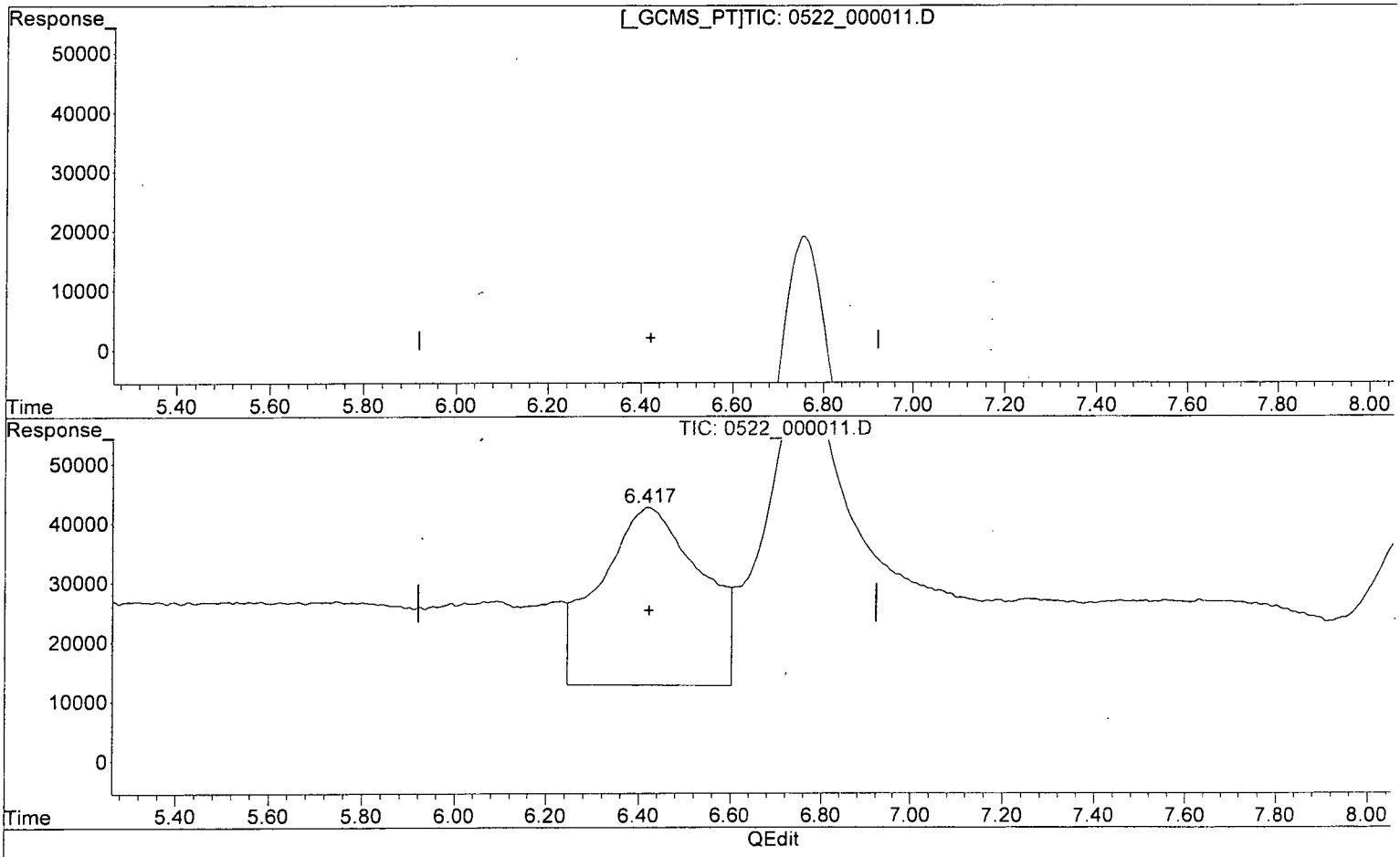
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.418min 16.136 ppb

response 29887

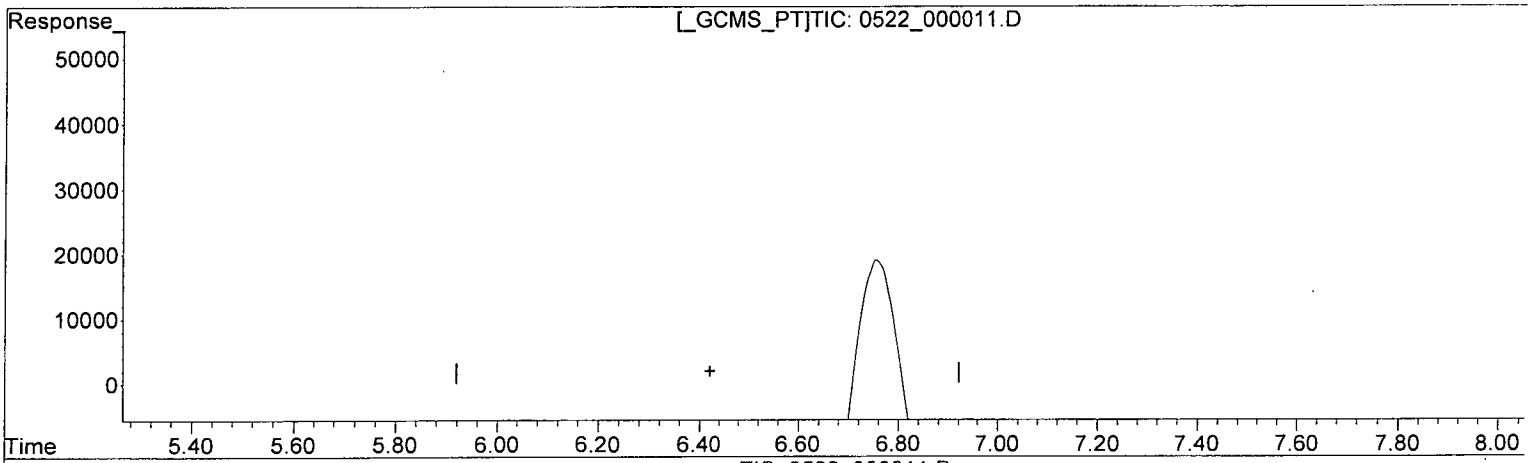
(+) = Expected Retention Time

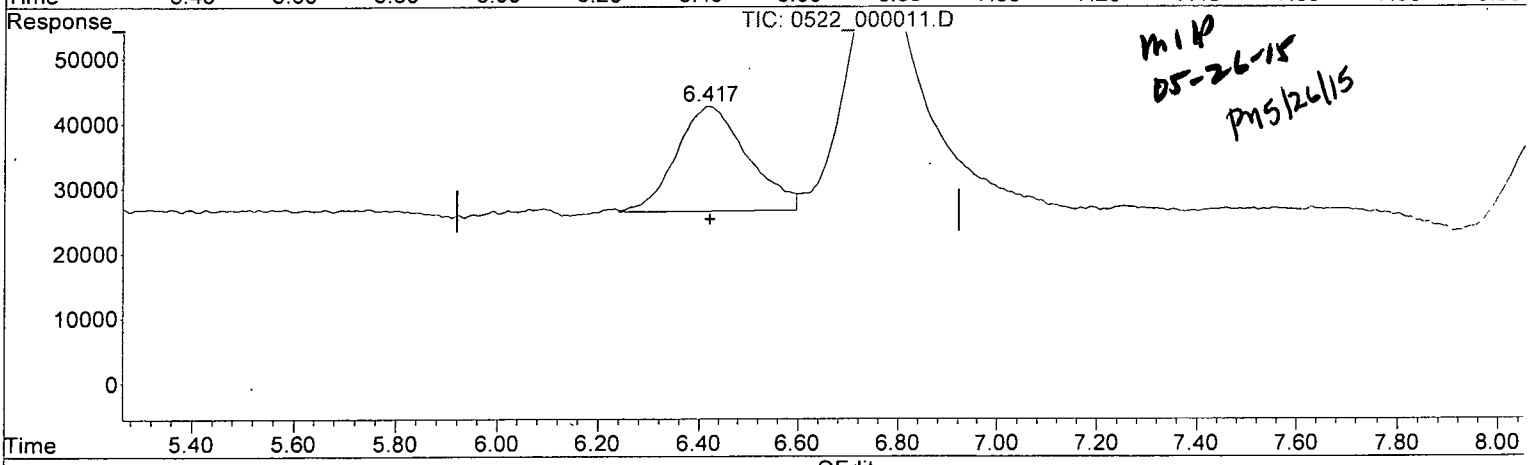
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





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QEdit

(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.417min 8.719 ppb m

response 16148

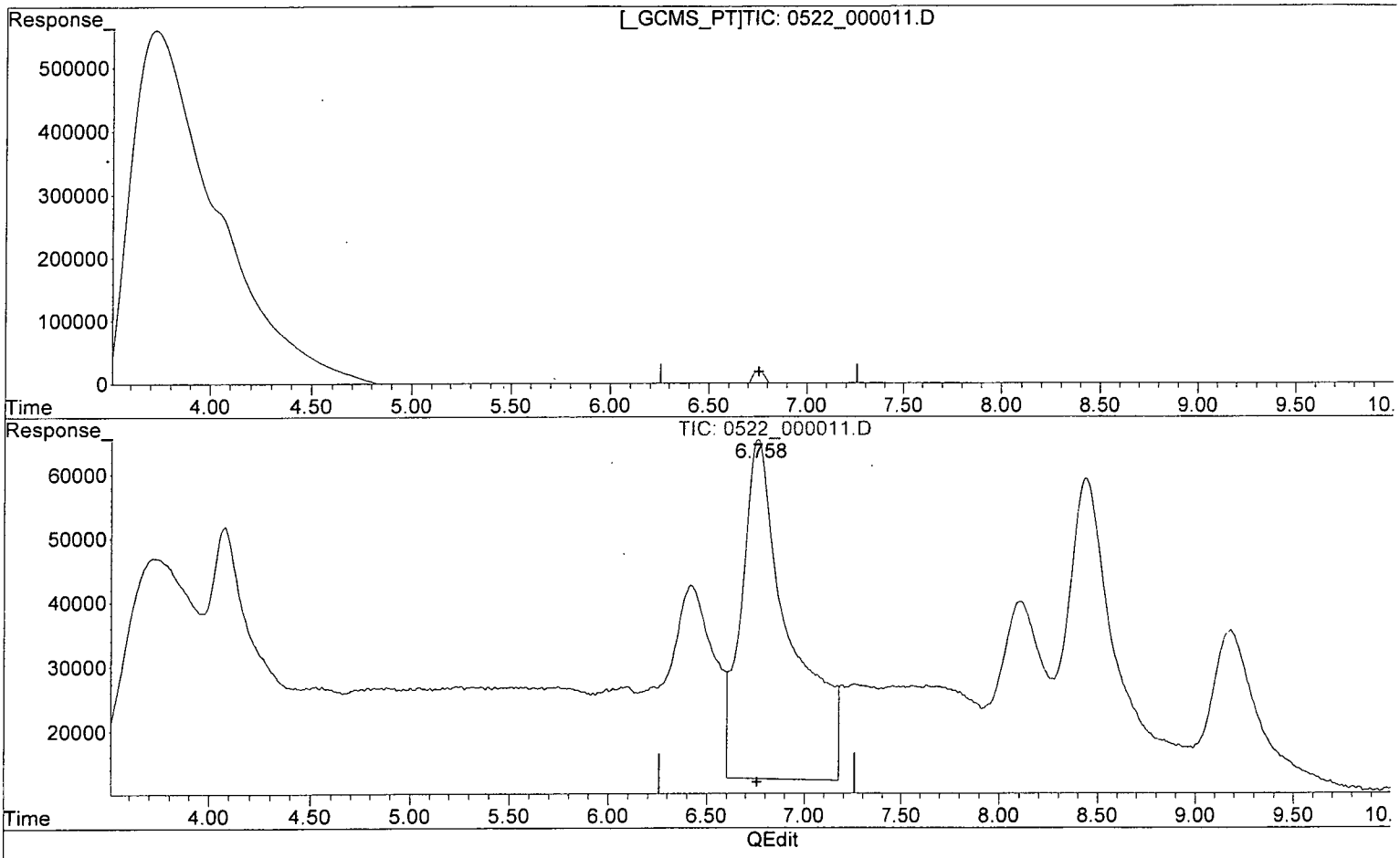
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ



(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.757min 11.817 ppb

response 52819

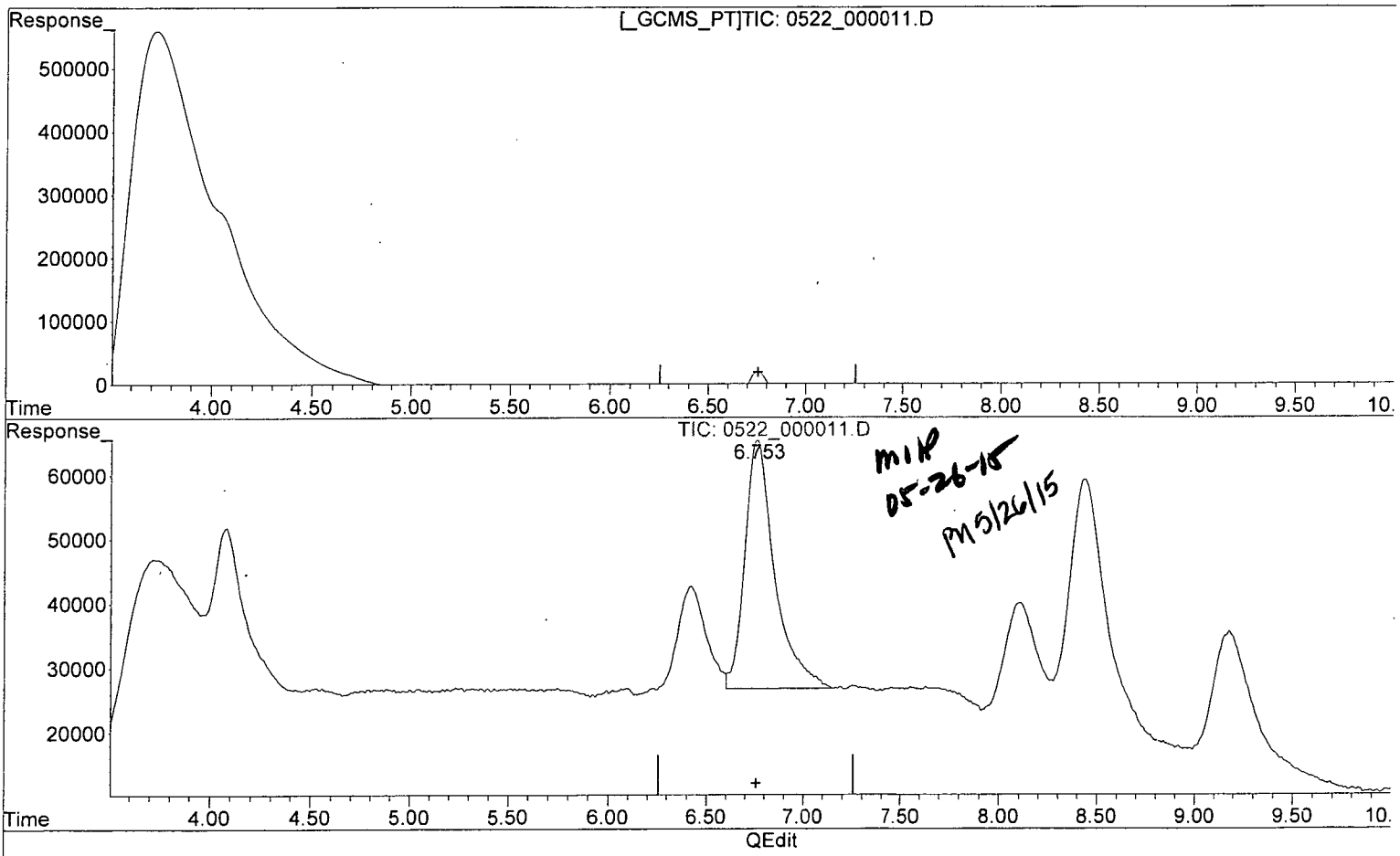
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ



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(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.753min 8.627 ppb m

response 38559

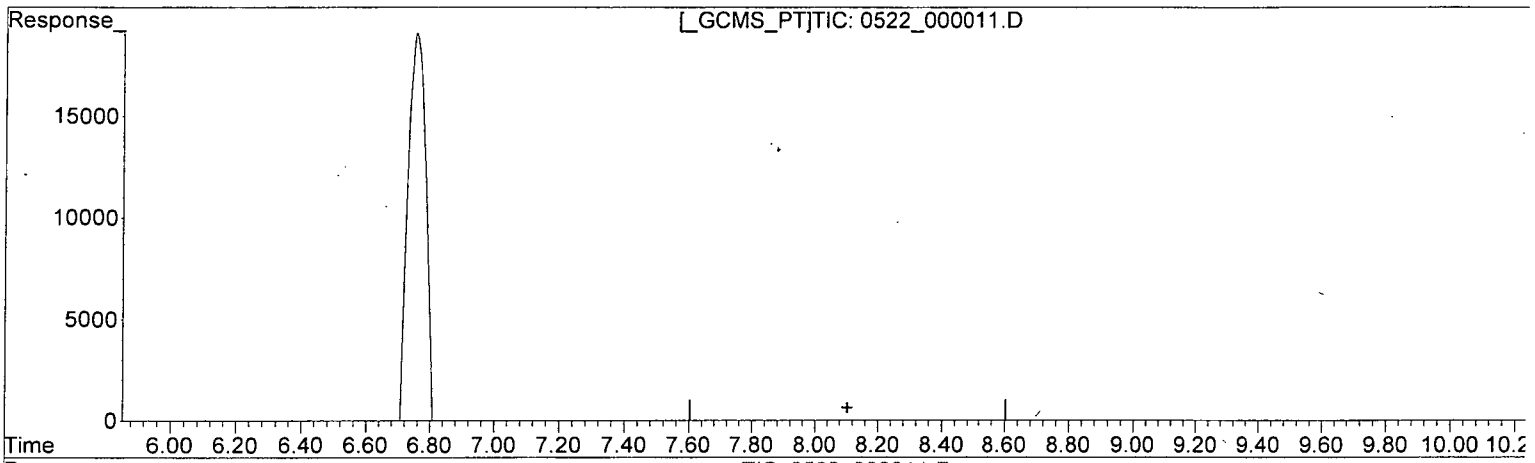
(+) = Expected Retention Time

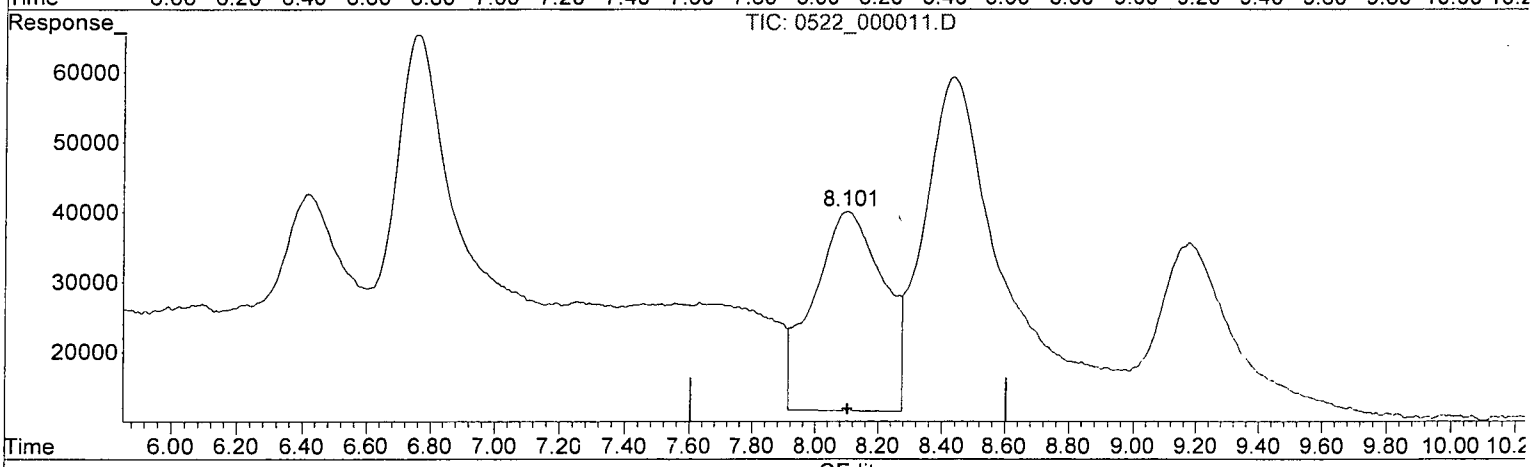
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ





QEdit

(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

8.101min 13.504 ppb

response 28490

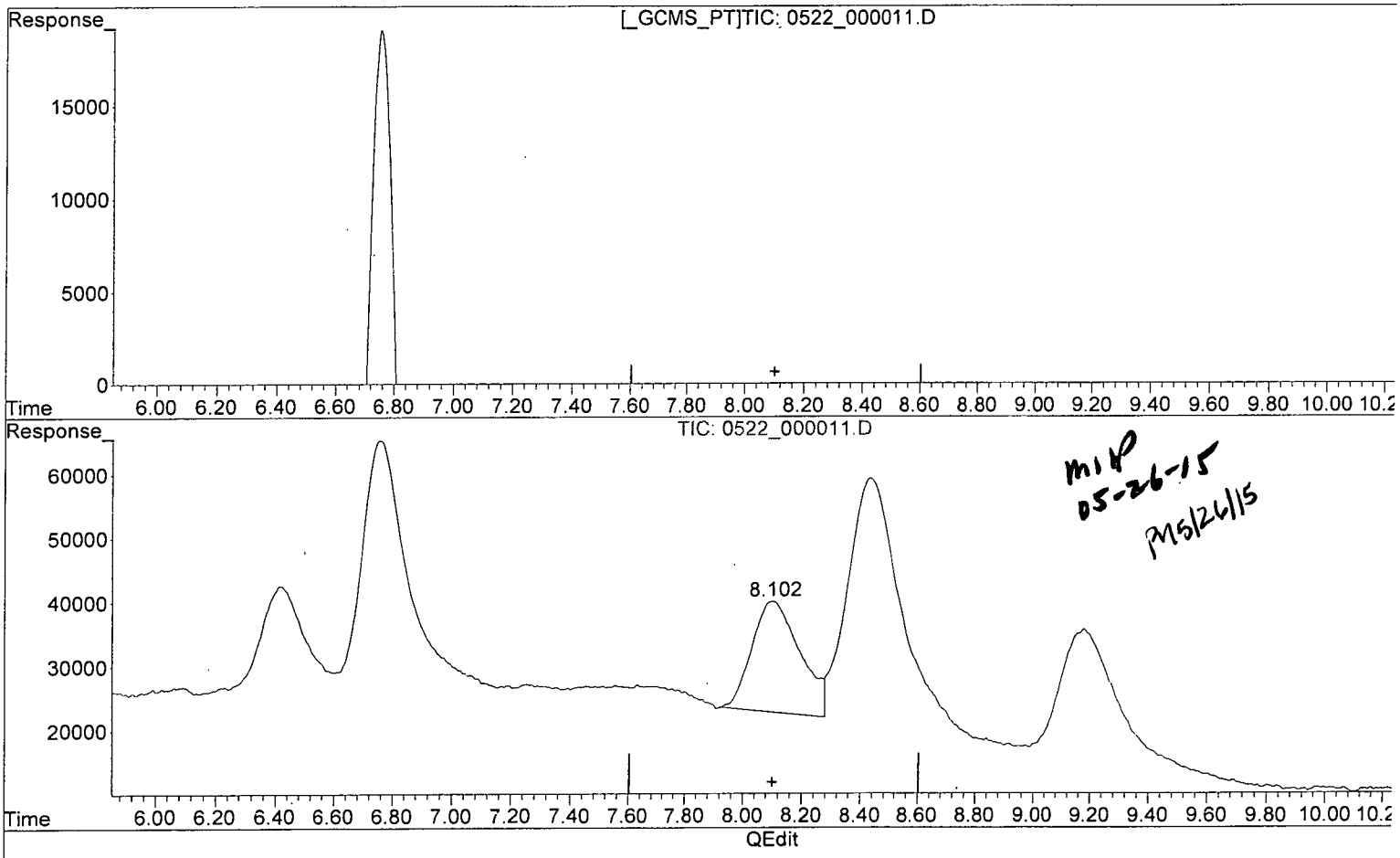
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



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(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

8.102min 8.198 ppb m

response 17296

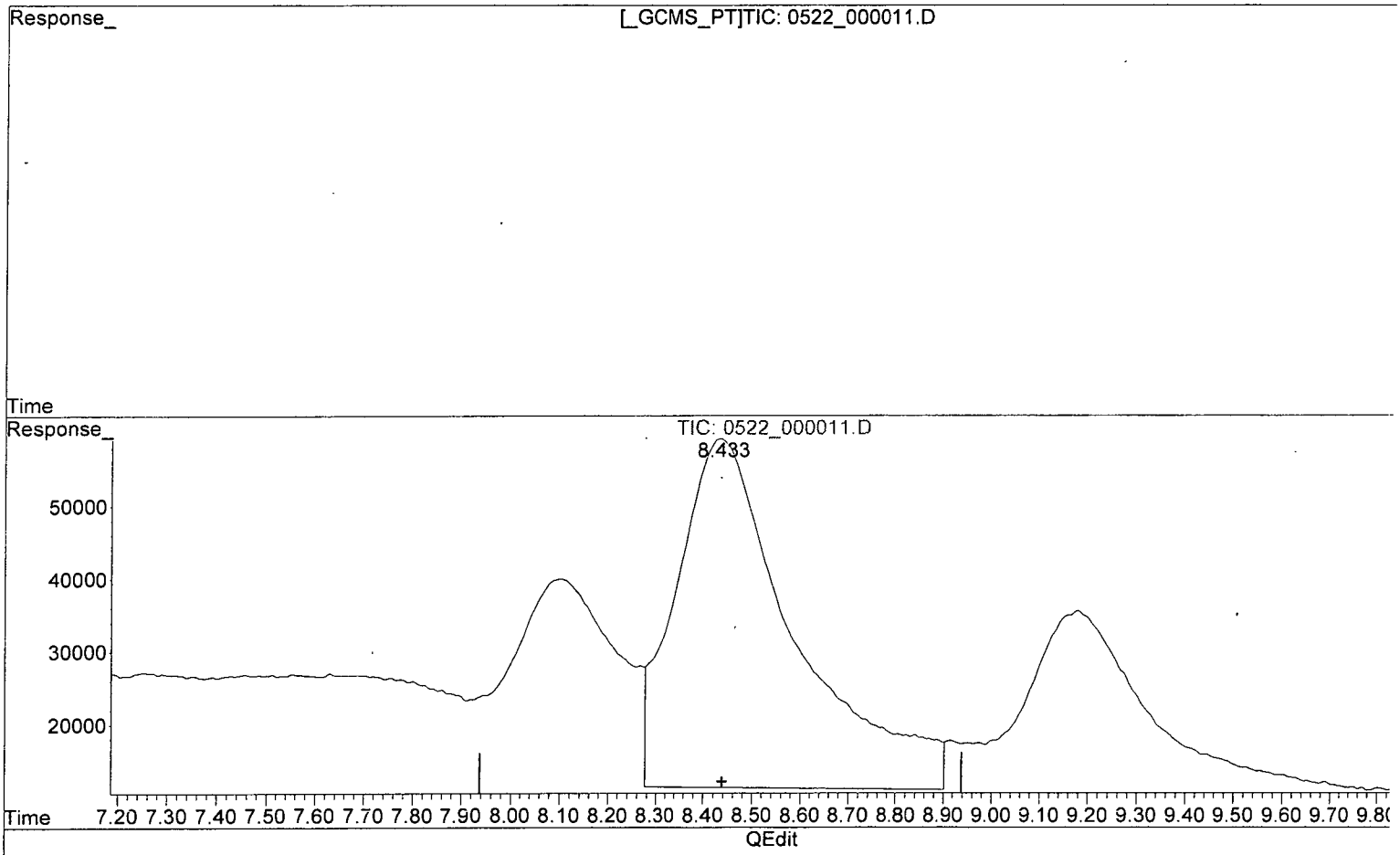
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(5) 1,3-DINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(5) 1,3-DINITROBENZENE #2 (TM)

8.431min 10.647 ppb

response 47884

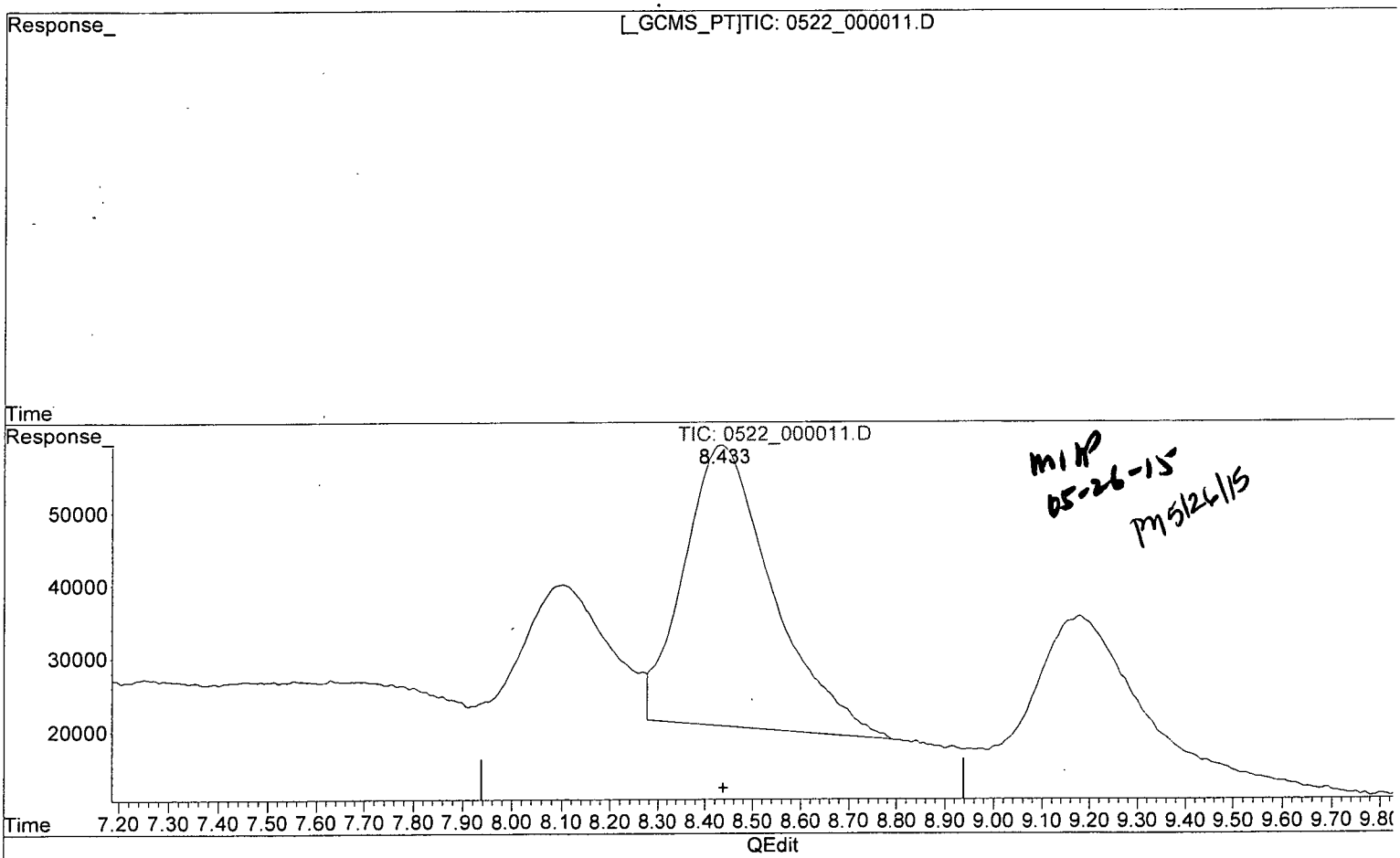
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(5) 1,3-DINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(5) 1,3-DINITROBENZENE #2 (TM)

8.433min 8.576 ppb m

response 38569

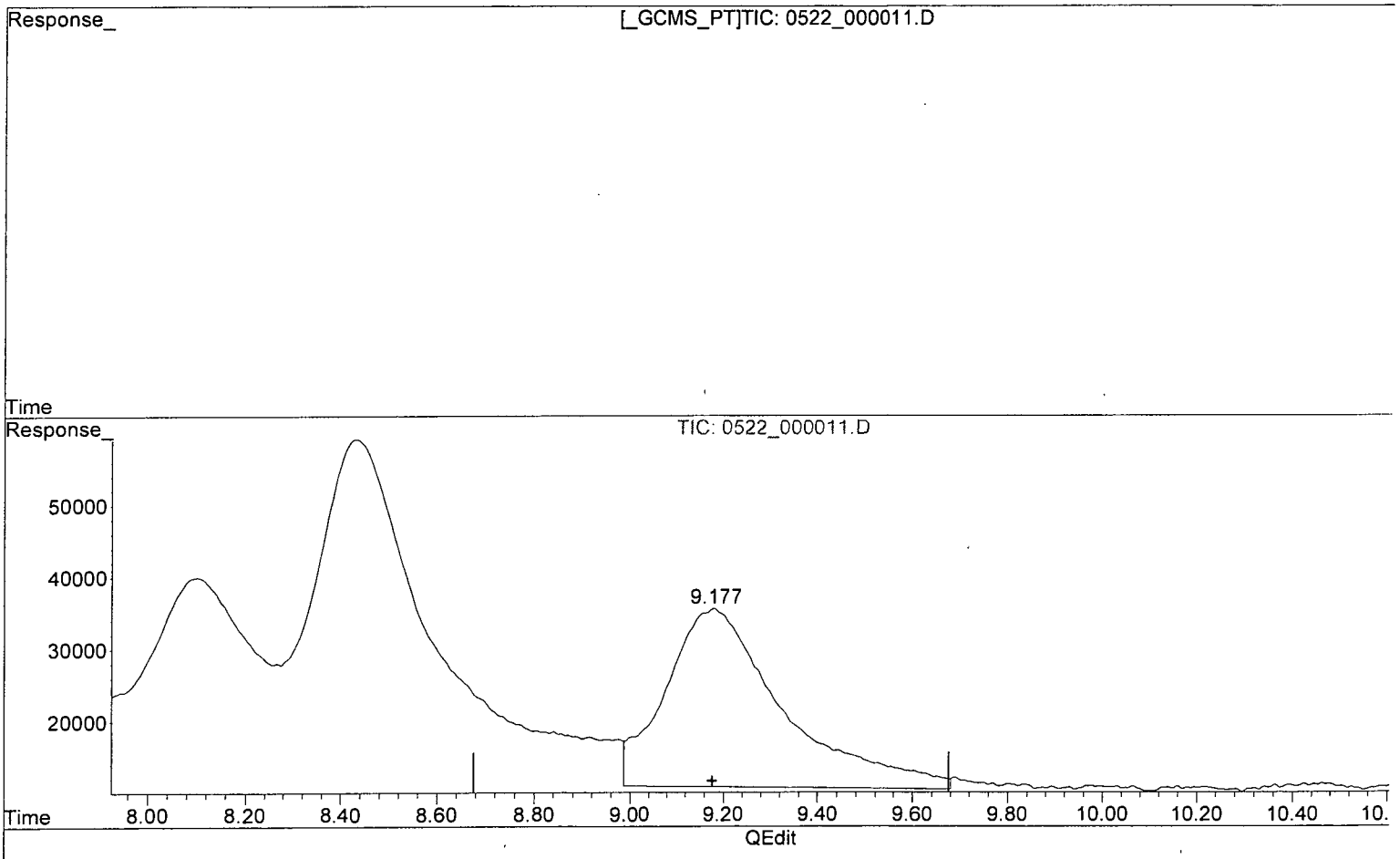
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ



(6) NITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(6) NITROBENZENE #2 (TM)

9.178min 9.671 ppb

response 24773

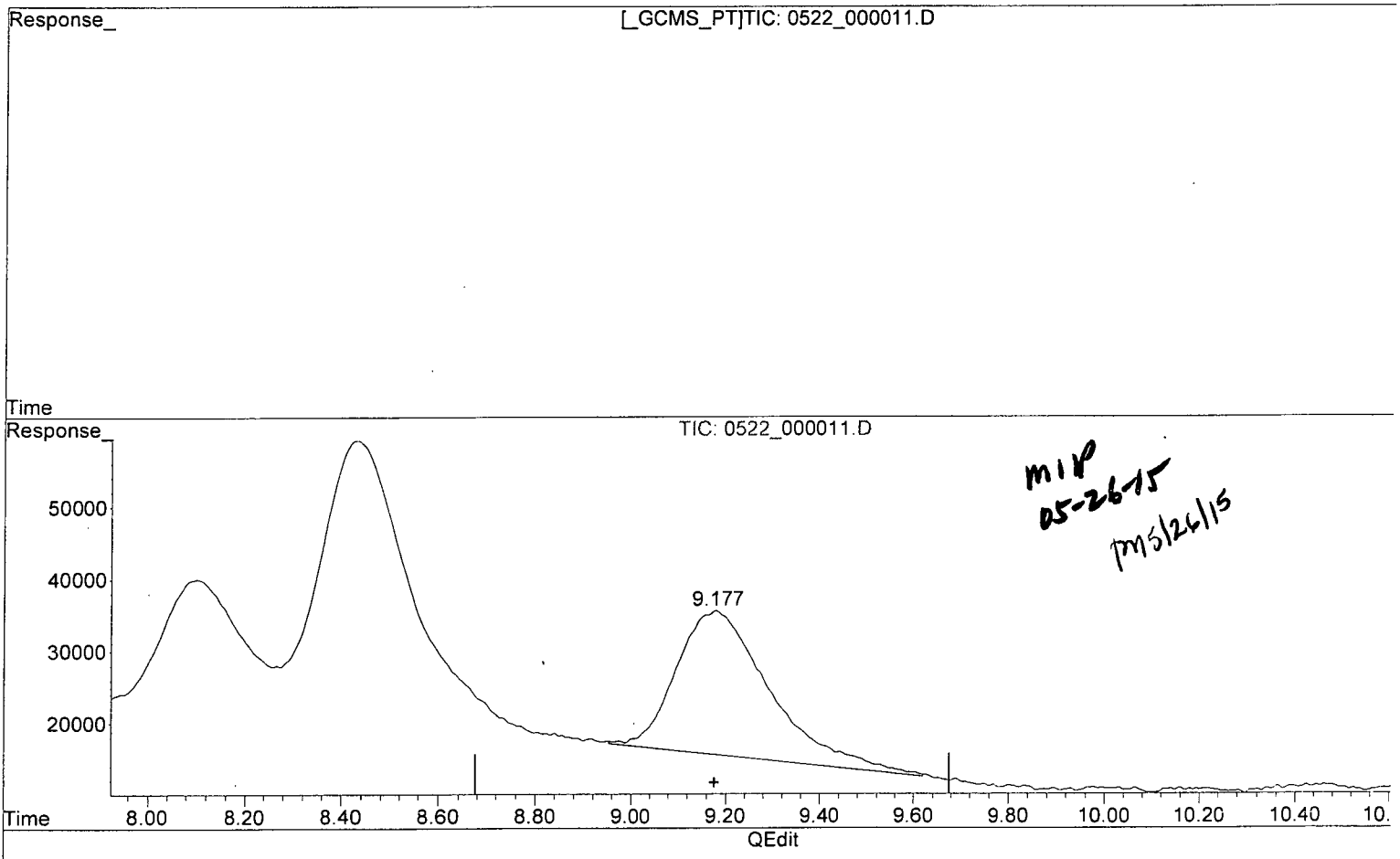
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ



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(6) NITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(6) NITROBENZENE #2 (TM)

9.177min 7.841 ppb m

response 20086

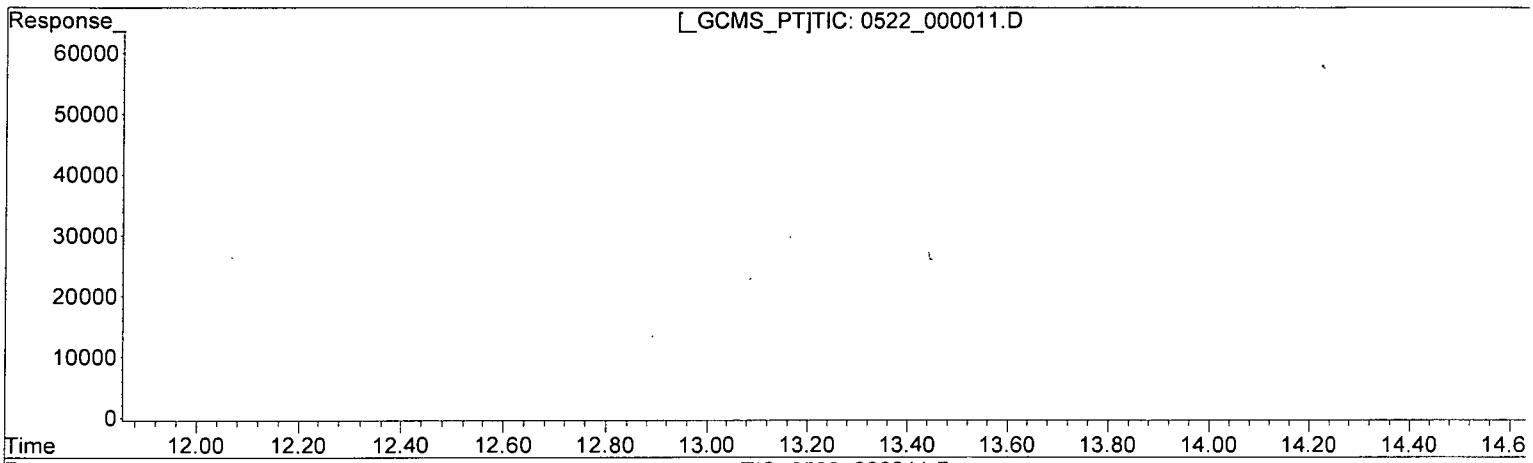
(+) = Expected Retention Time

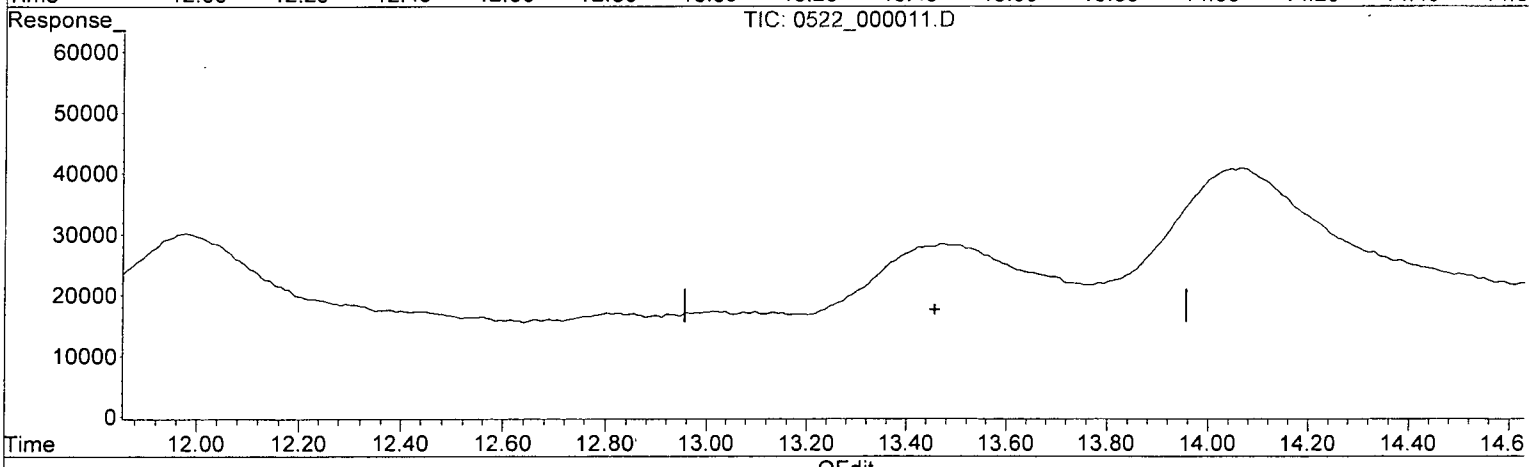
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ





QEdit

(10) 2,6-DINITROTOLUENE (TM)

13.457min 0.000 ppb

response 21588

(10) 2,6-DINITROTOLUENE #2 (TM)

0.000min 0.000 ppb

response 0

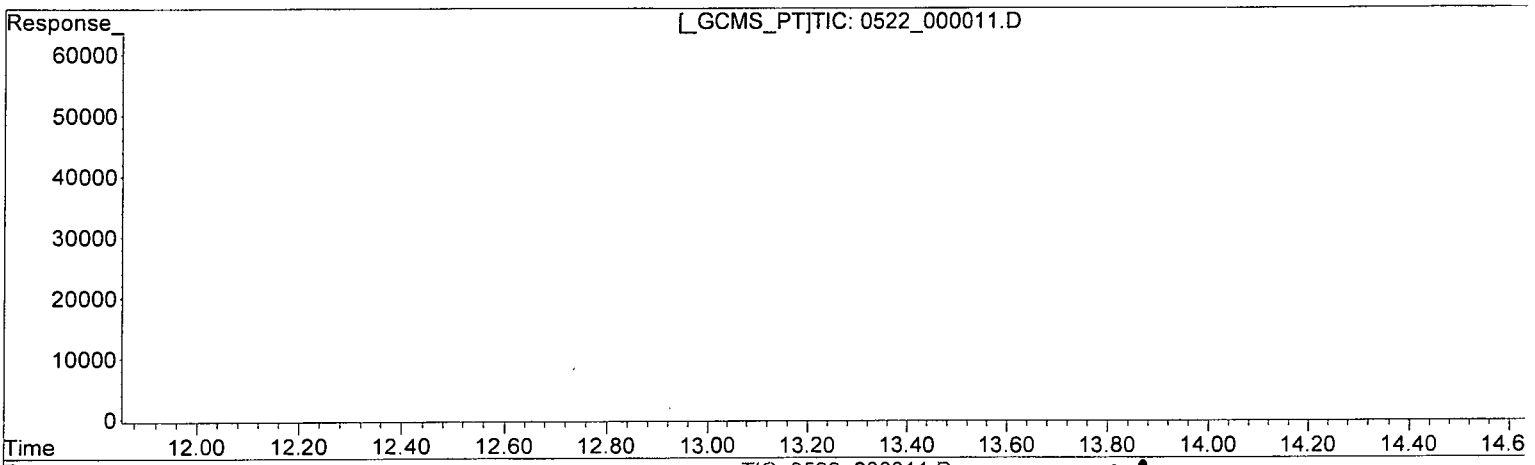
(+) = Expected Retention Time

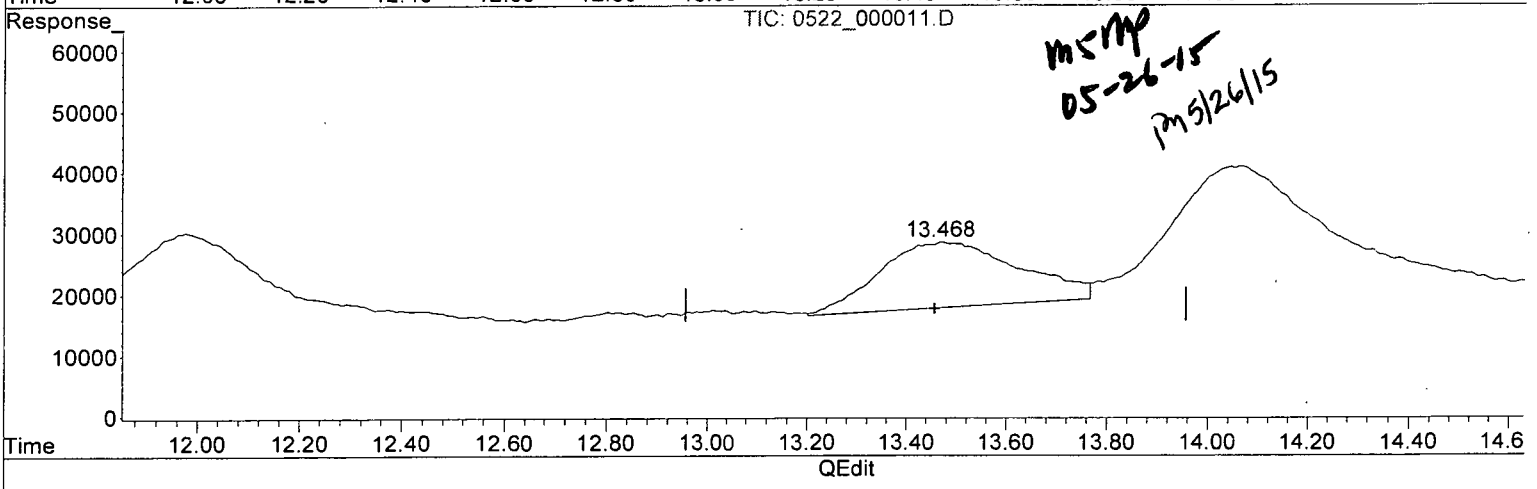
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





QEdit

(10) 2,6-DINITROTOLUENE (TM)

13.457min 0.000 ppb

response 21588

(10) 2,6-DINITROTOLUENE #2 (TM)

13.467min 7.263 ppb m

response 10727

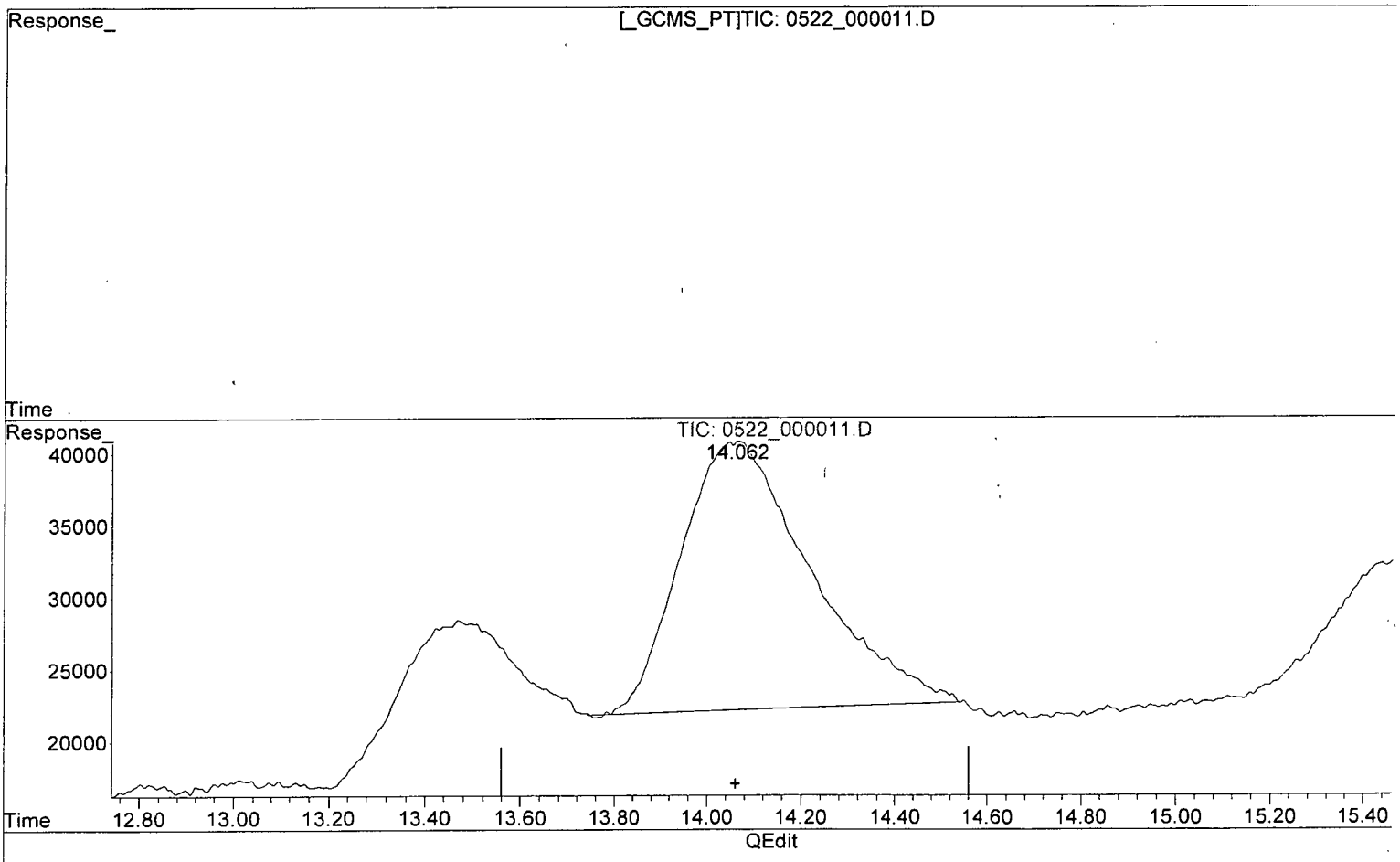
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ



(11) 2,4-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(11) 2,4-DINITROTOLUENE #2 (TM)

14.065min 7.394 ppb

response 18629

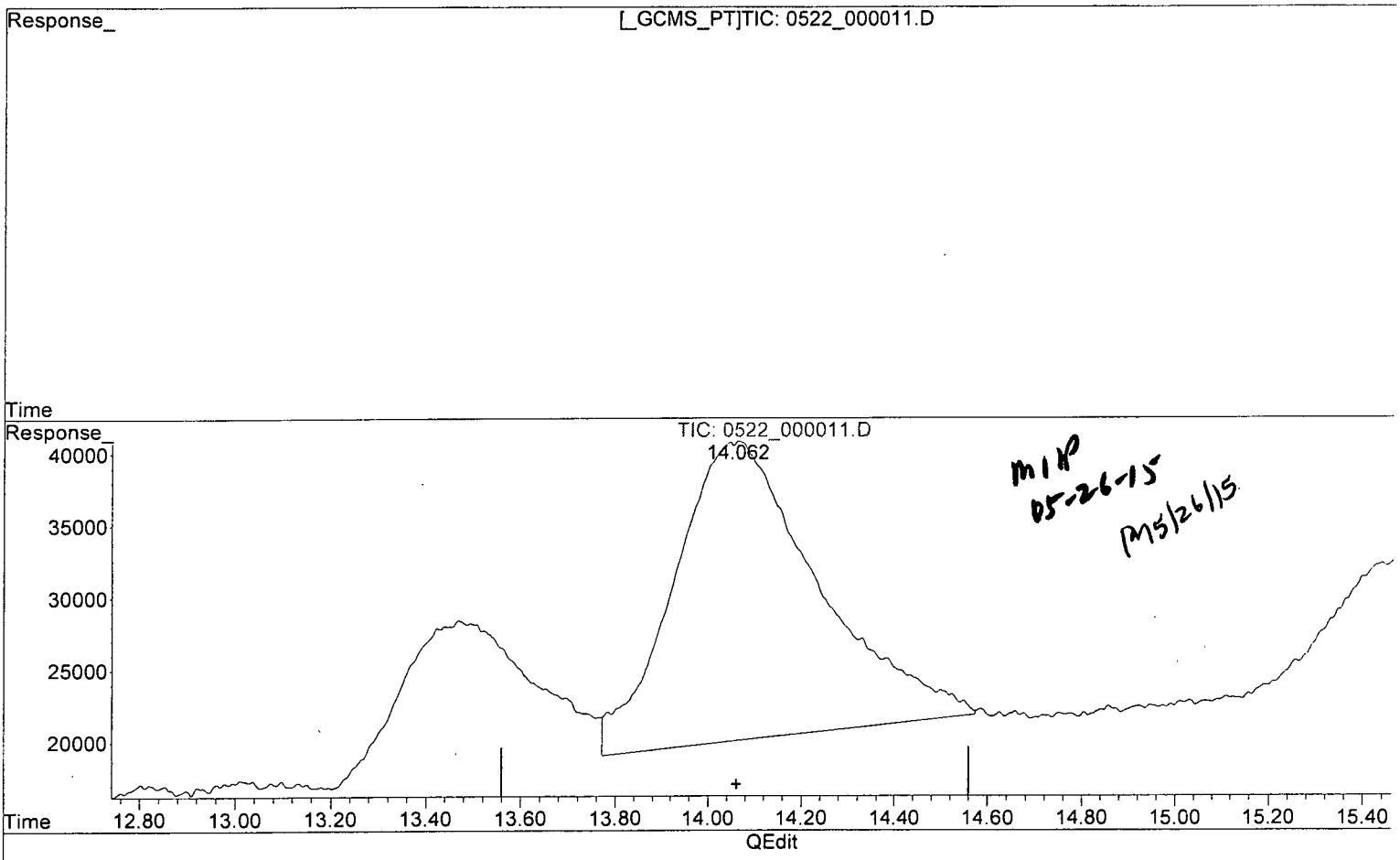
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ



(11) 2,4-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(11) 2,4-DINITROTOLUENE #2 (TM)

14.062min 8.239 ppb m

response 20758

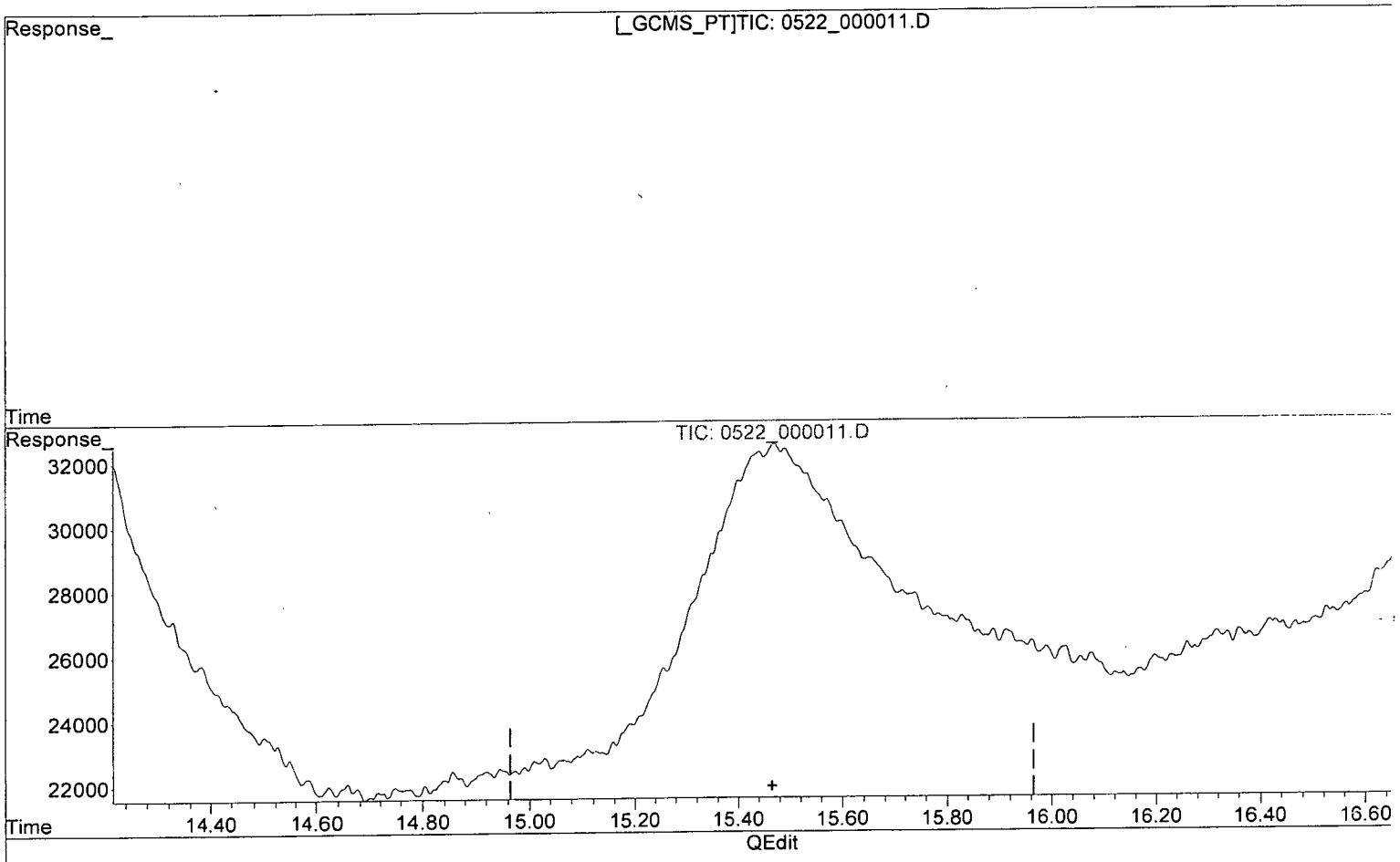
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ



(12) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(12) 2-NITROTOLUENE #2 (TM)

0.000min 0.000 ppb

response 0

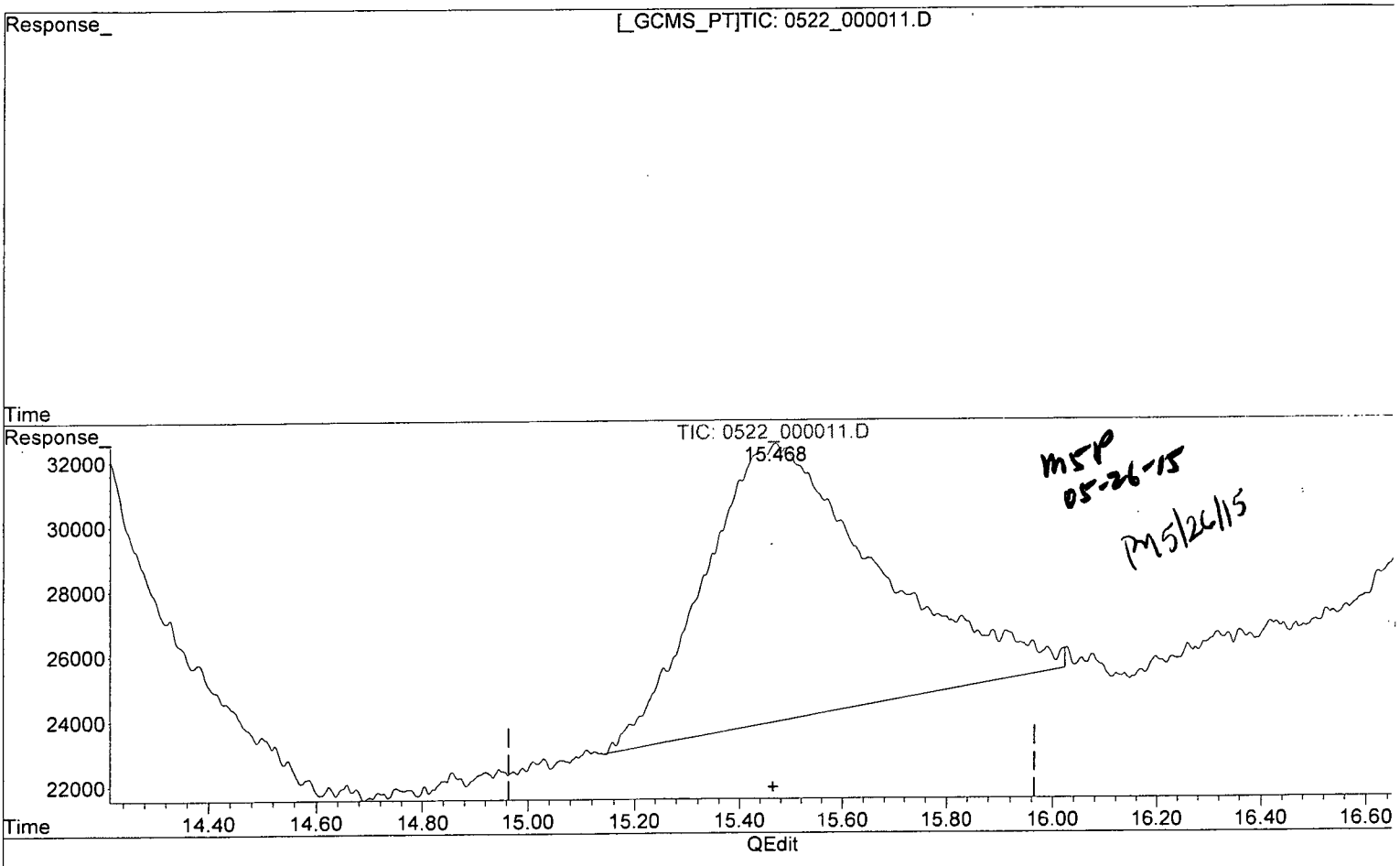
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r



MSP 05-26-15
PM 5/26/15

(12) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(12) 2-NITROTOLUENE #2 (TM)

15.468min 8.142 ppb m

response 8585

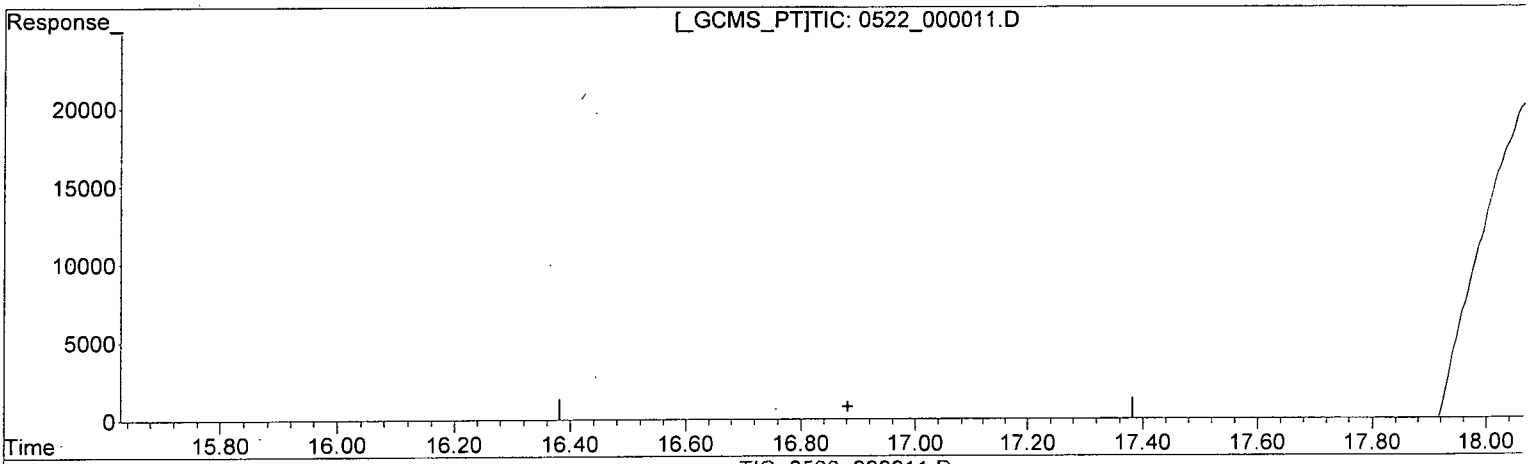
(+) = Expected Retention Time

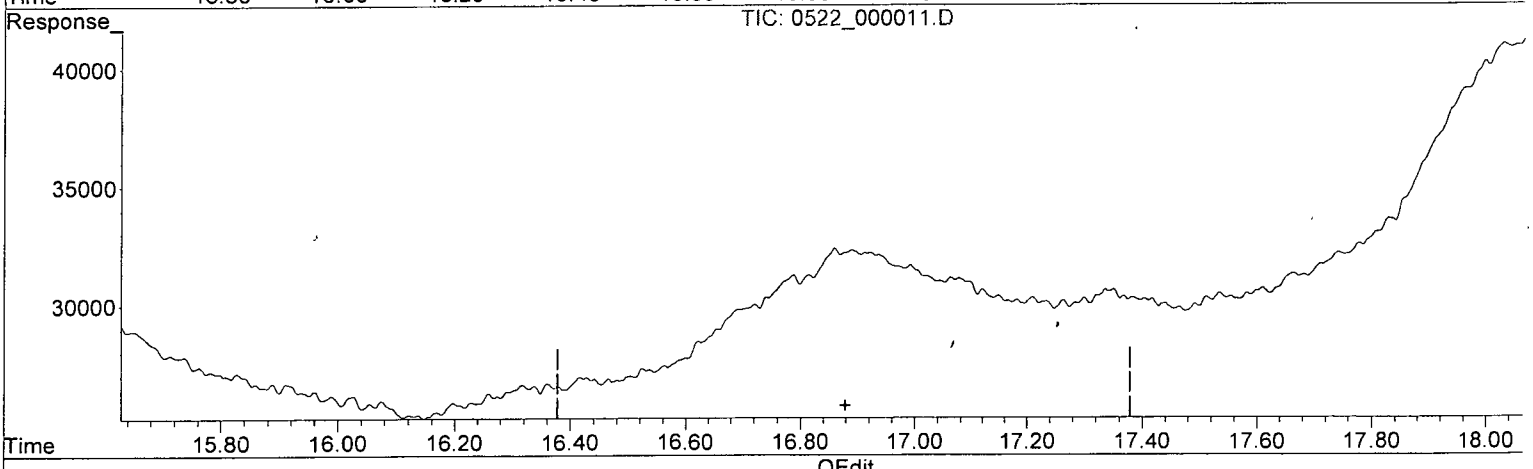
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ





QEdit

(13) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(13) 4-NITROTOLUENE #2 (TM)

0.000min 0.000 ppb

response 0

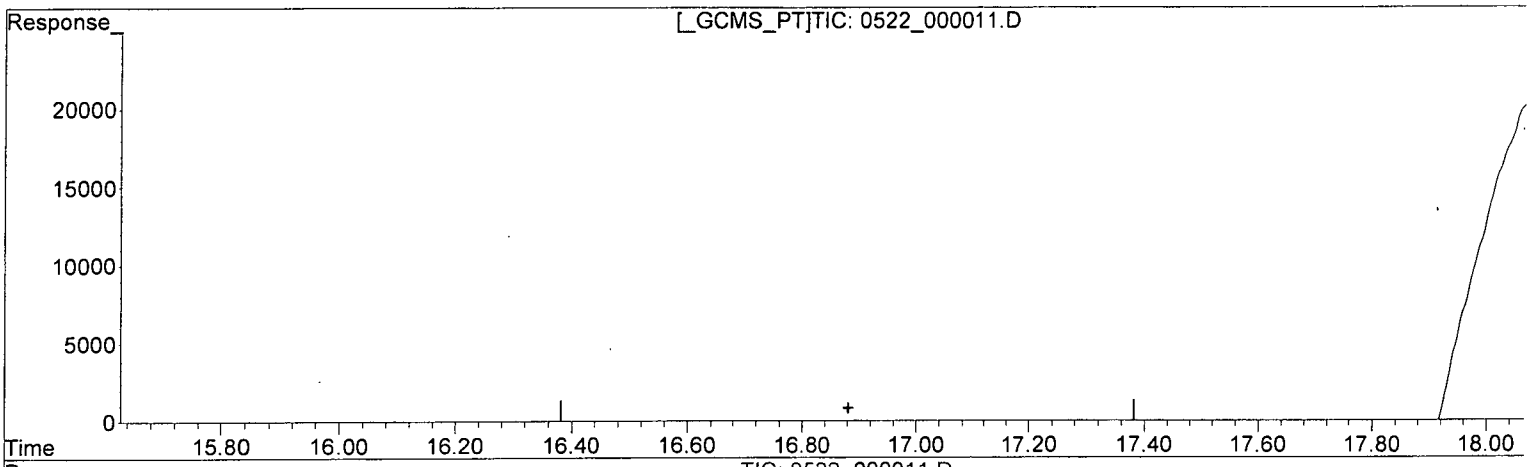
(+) = Expected Retention Time

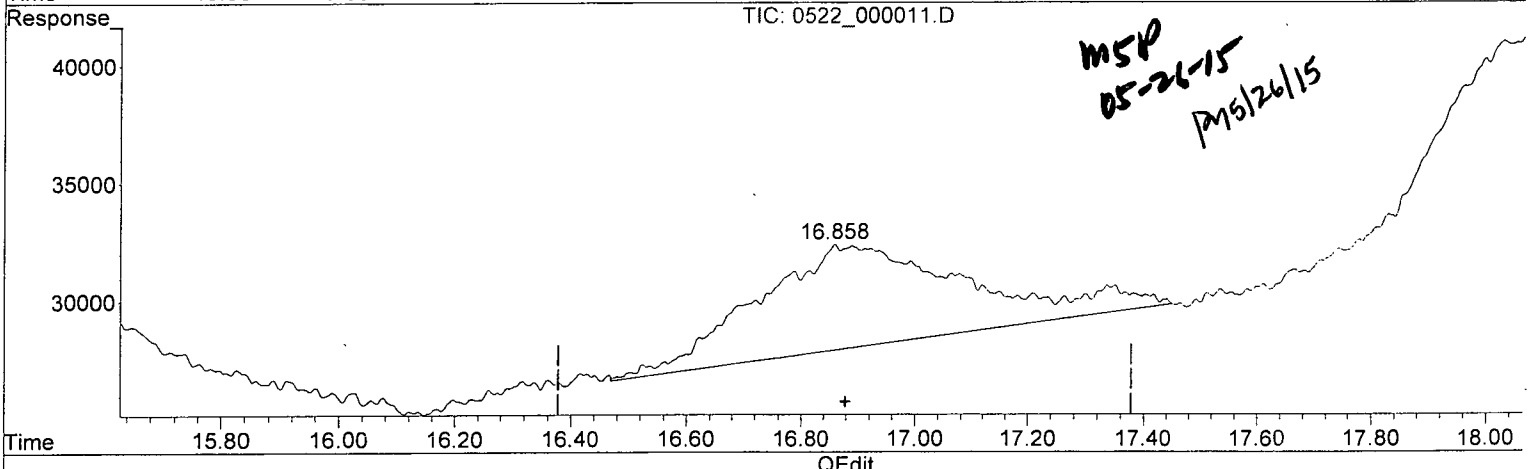
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ





QEdit

(13) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(13) 4-NITROTOLUENE #2 (TM)

16.858min 5.100 ppb m

response 4467

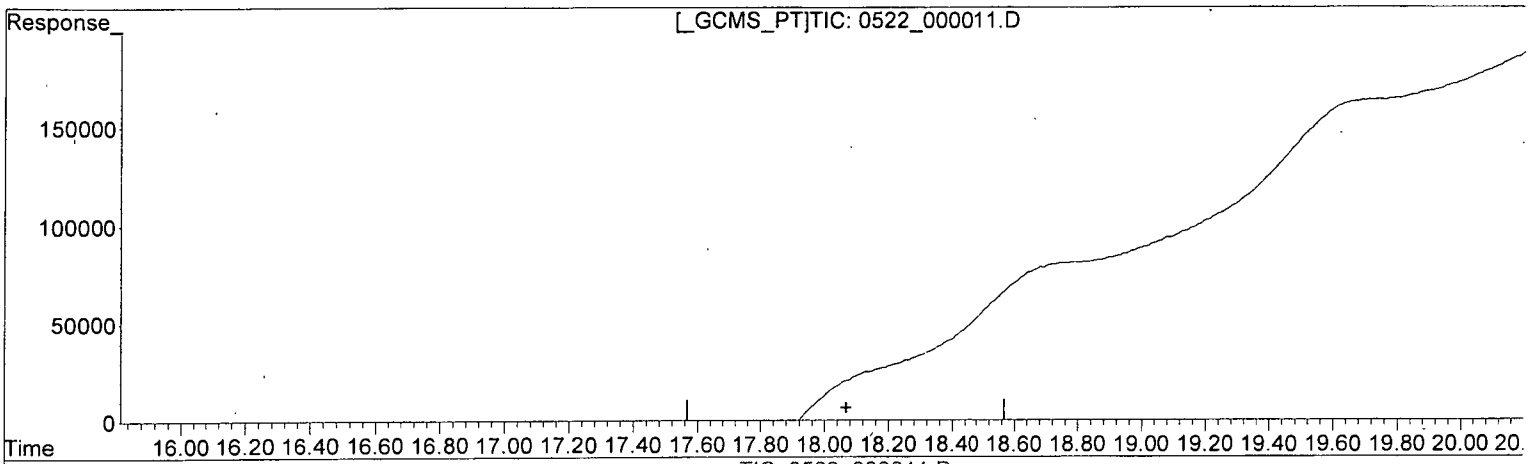
(+) = Expected Retention Time

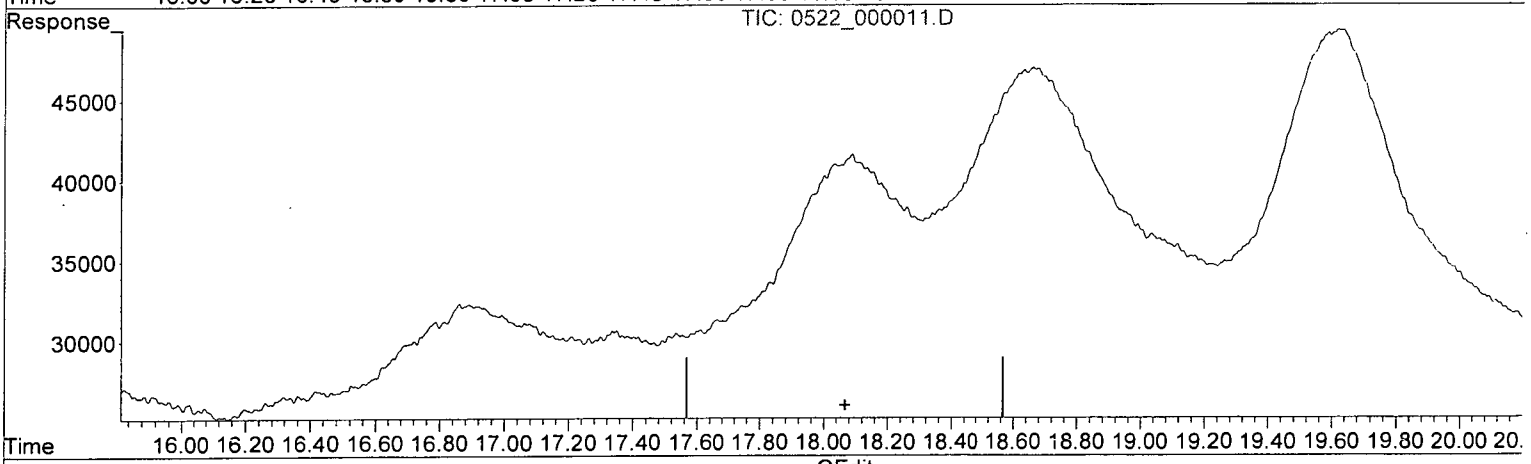
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ





QEdit

(15) 3-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 3-NITROTOLUENE #2 (TM)

0.000min 0.000 ppb

response 0

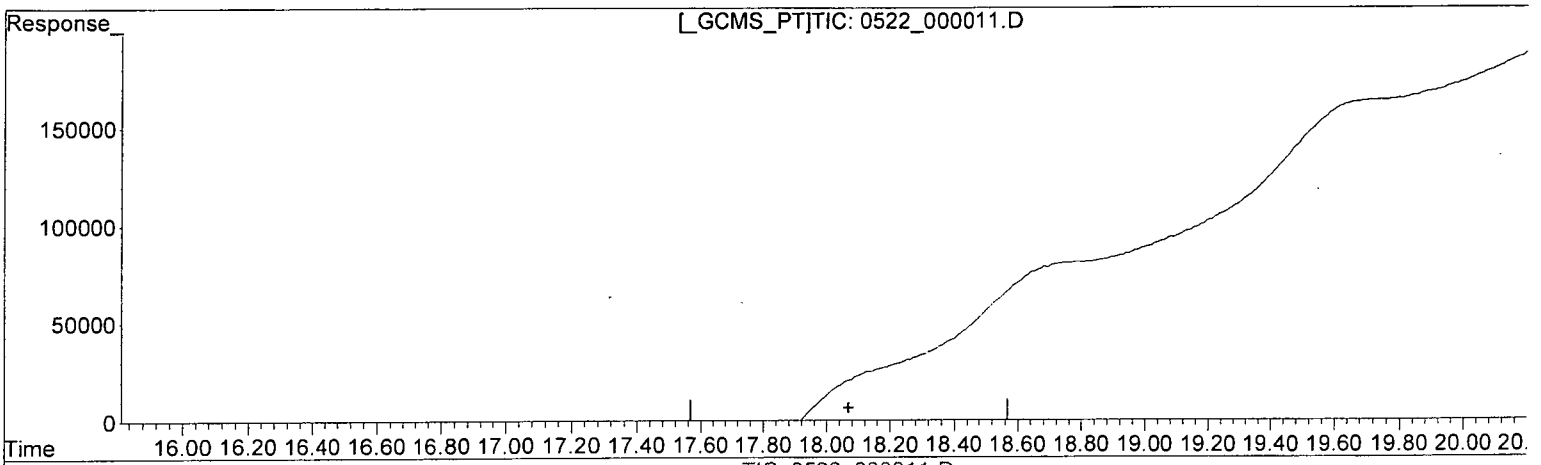
(+) = Expected Retention Time

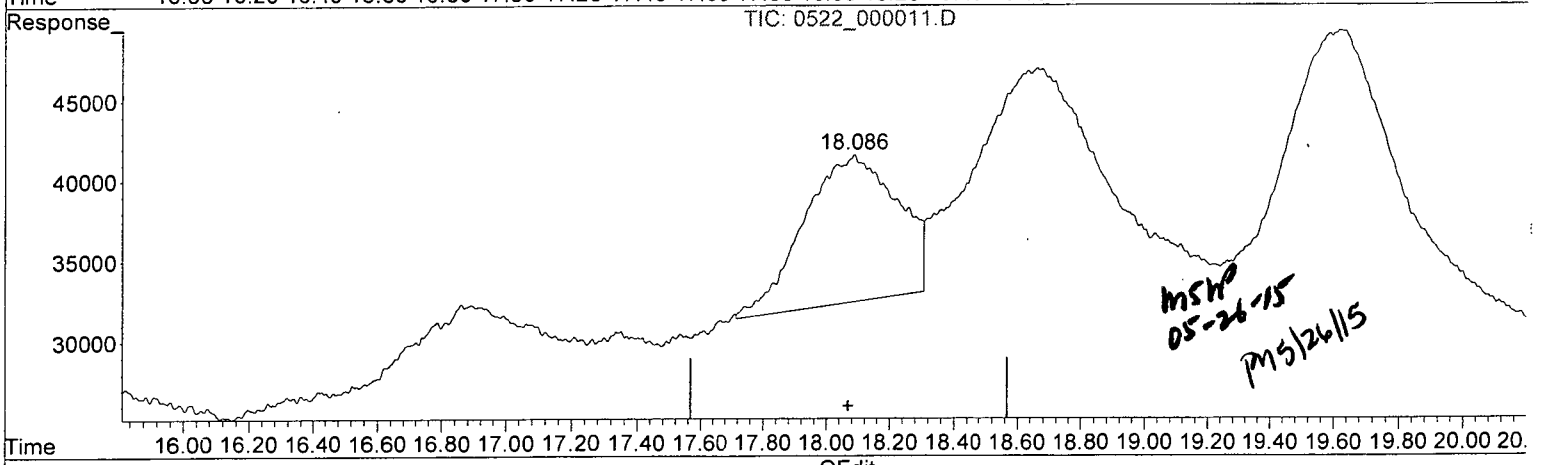
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





QEdit

(15) 3-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 3-NITROTOLUENE #2 (TM)

18.086min 8.544 ppb m

response 9136

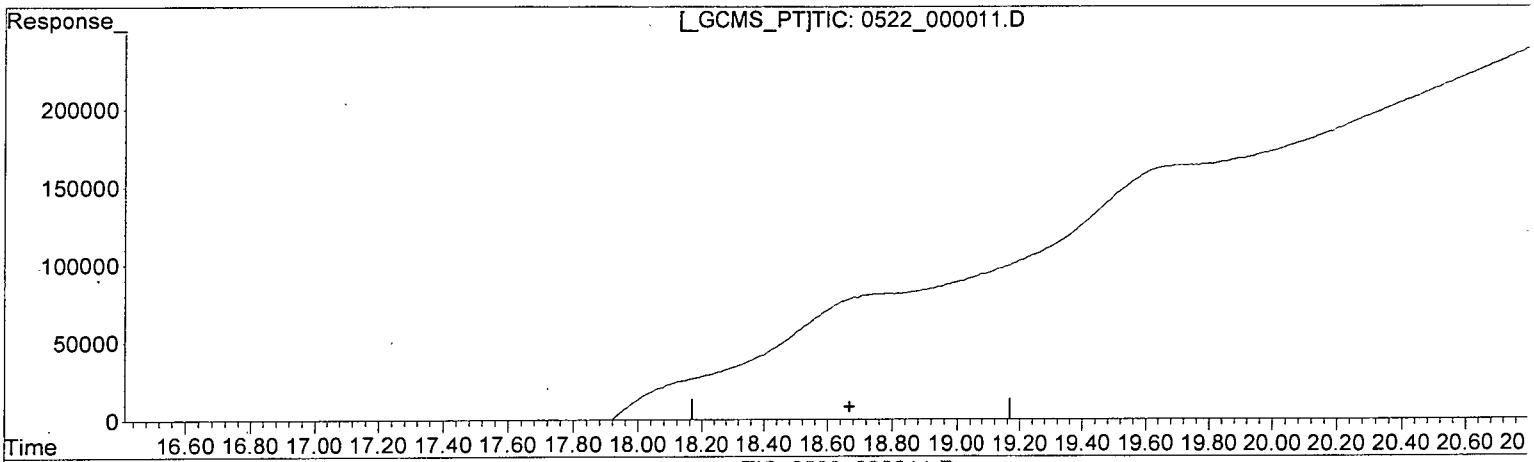
(+) = Expected Retention Time

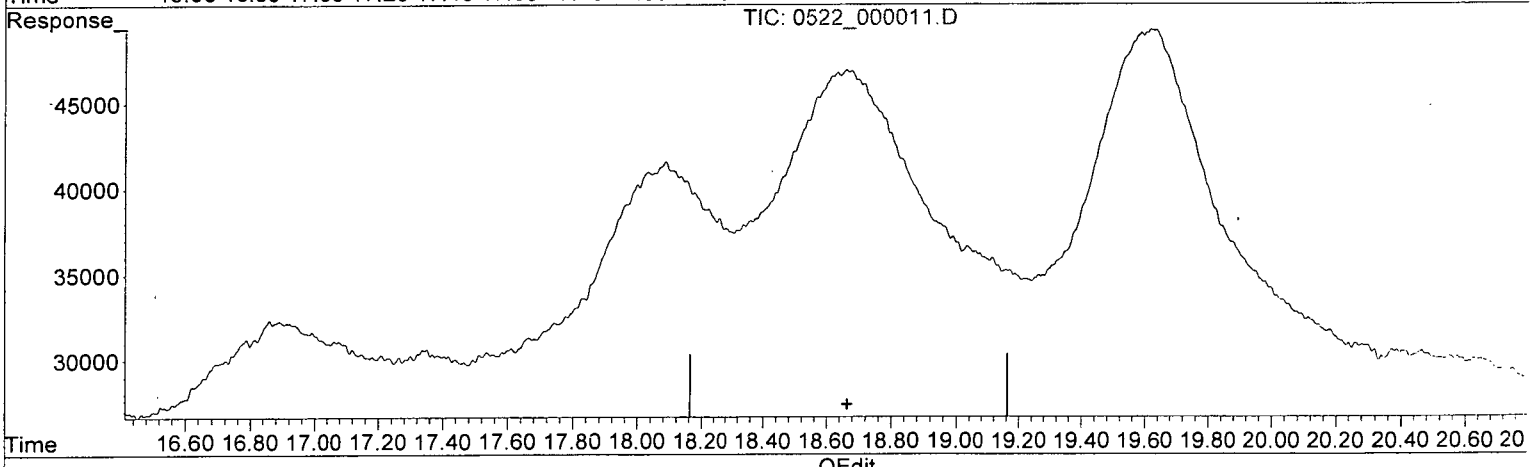
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ





QEdit

(16) 4-AMINO-2,6-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-AMINO-2,6-DINITROTOLUENE #2 (TM)

0.000min 0.000 ppb

response 0

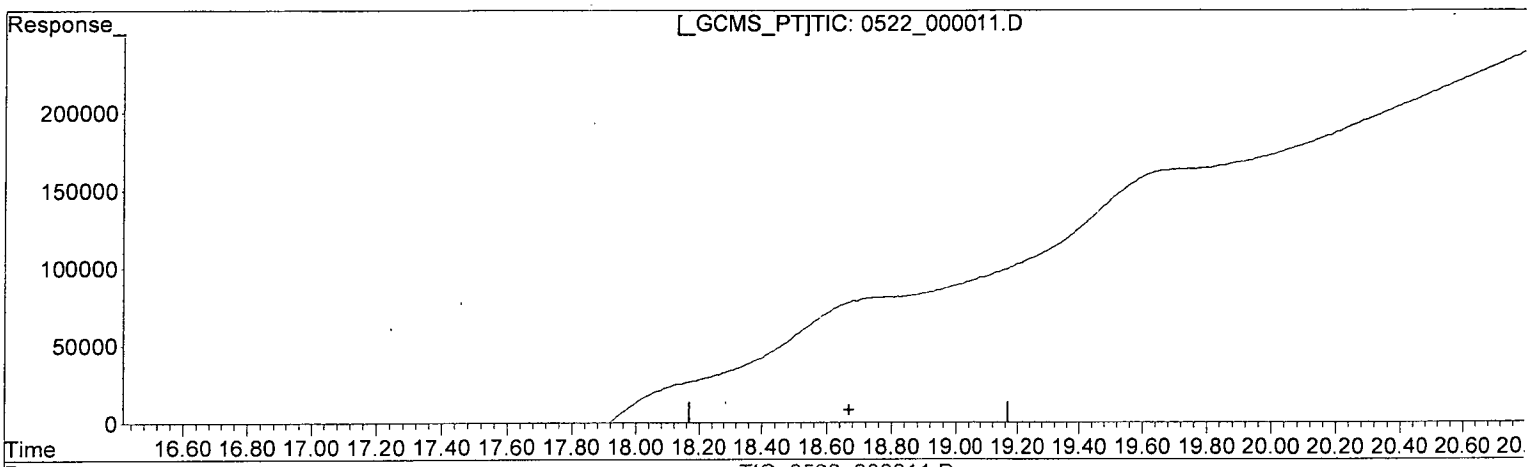
(+) = Expected Retention Time

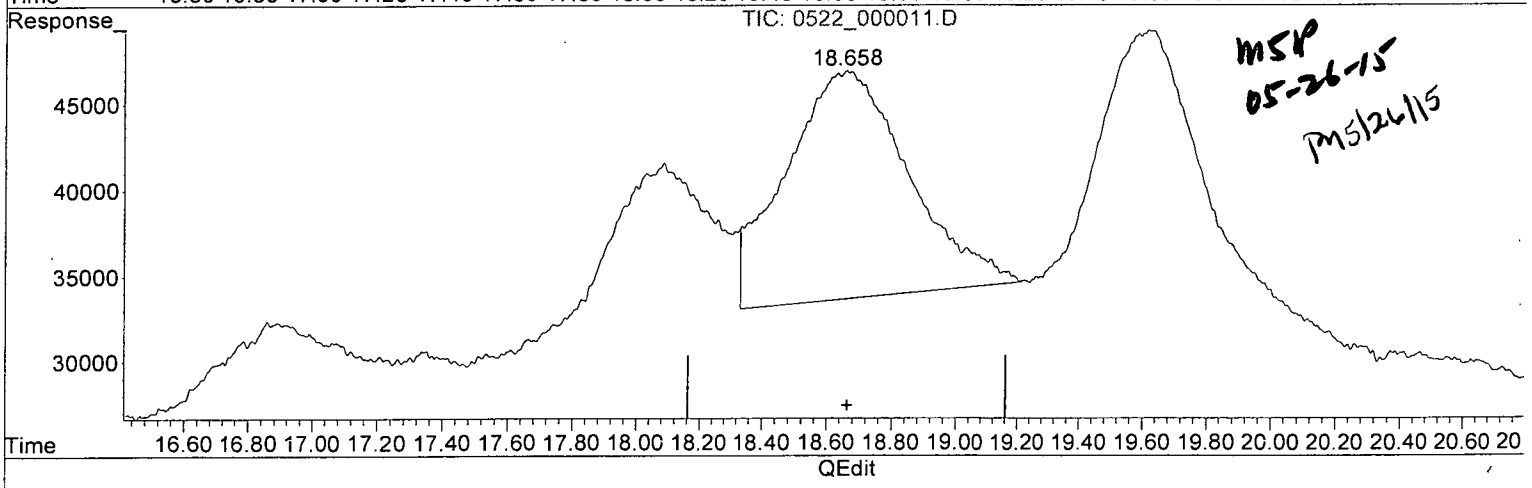
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r





QEdit

(16) 4-AMINO-2,6-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-AMINO-2,6-DINITROTOLUENE #2 (TM)

18.658min 9.500 ppb m

response 13310

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:11:42
Operator : MP
Sample : 8330MXB_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4227 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:03:03 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4)	S 1,2-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 62.500			Recovery	=	0.00%	0.00%
	Target Compounds						
1)	TM HMX	0.000	0.000	0	0	N.D.	N.D.
2)	TM RDX	0.000	0.000	0	0	N.D. d	N.D. d
3)	TM 1,3,5-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
5)	TM 1,3-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
6)	TM NITROBENZENE	0.000	0.000	0	0	N.D. d	N.D. d
7)	TM 2,4,6-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
8)	TM NITROGLYC...	12.069	12.012	8300	427	9.114	NoCal #
9)	TM TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10)	TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11)	TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12)	TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13)	TM 4-NITROTO...	0.000	0.000	0	0	N.D. d	N.D. d
14)	TM 3,5-DINIT...	0.000	16.538	0	17290	N.D.	8.662m#
15)	TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16)	TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17)	TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18)	TM PETN	0.000	0.000	0	0	N.D.	N.D.

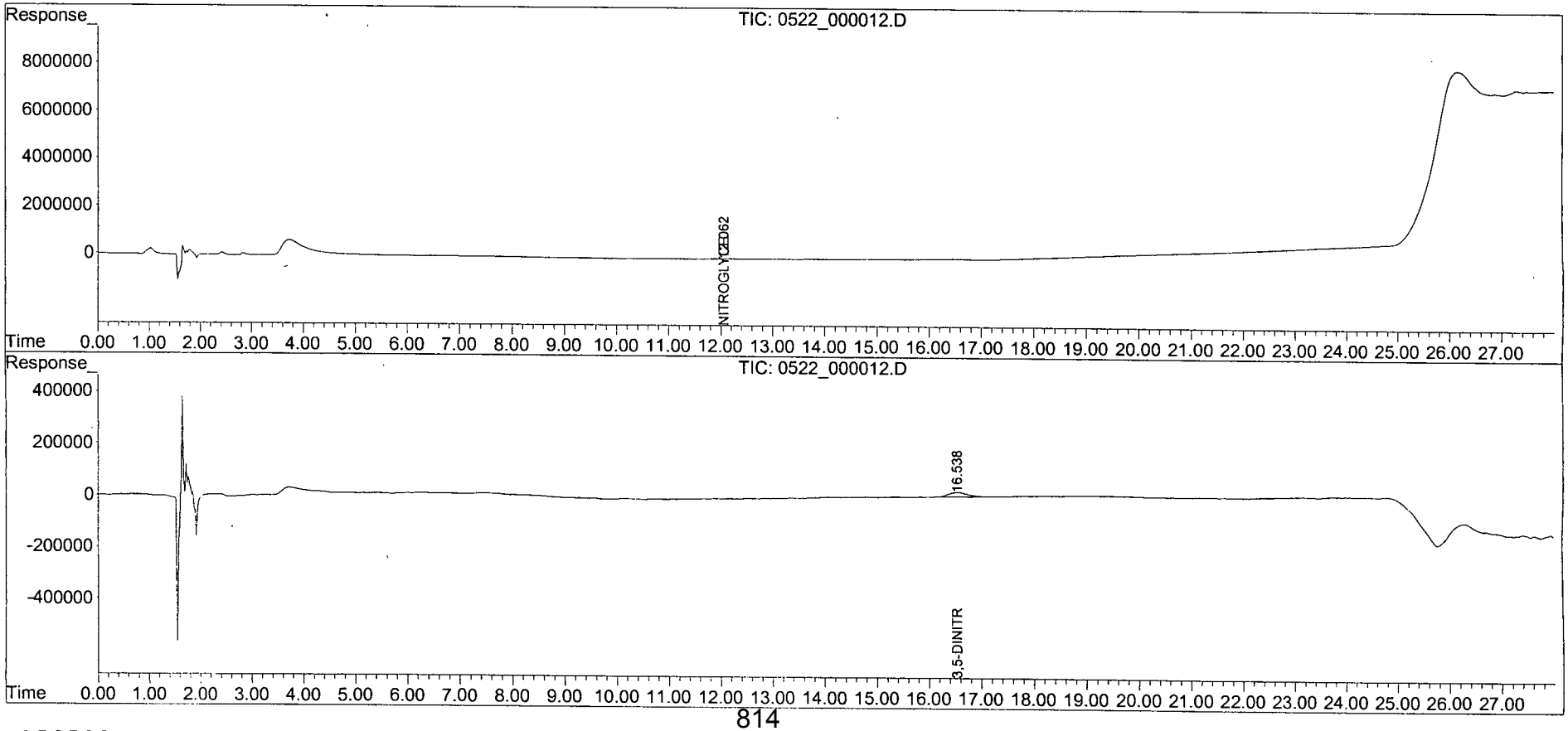
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:11:42
Operator : MP
Sample : 8330MXB_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4227 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:03:03 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

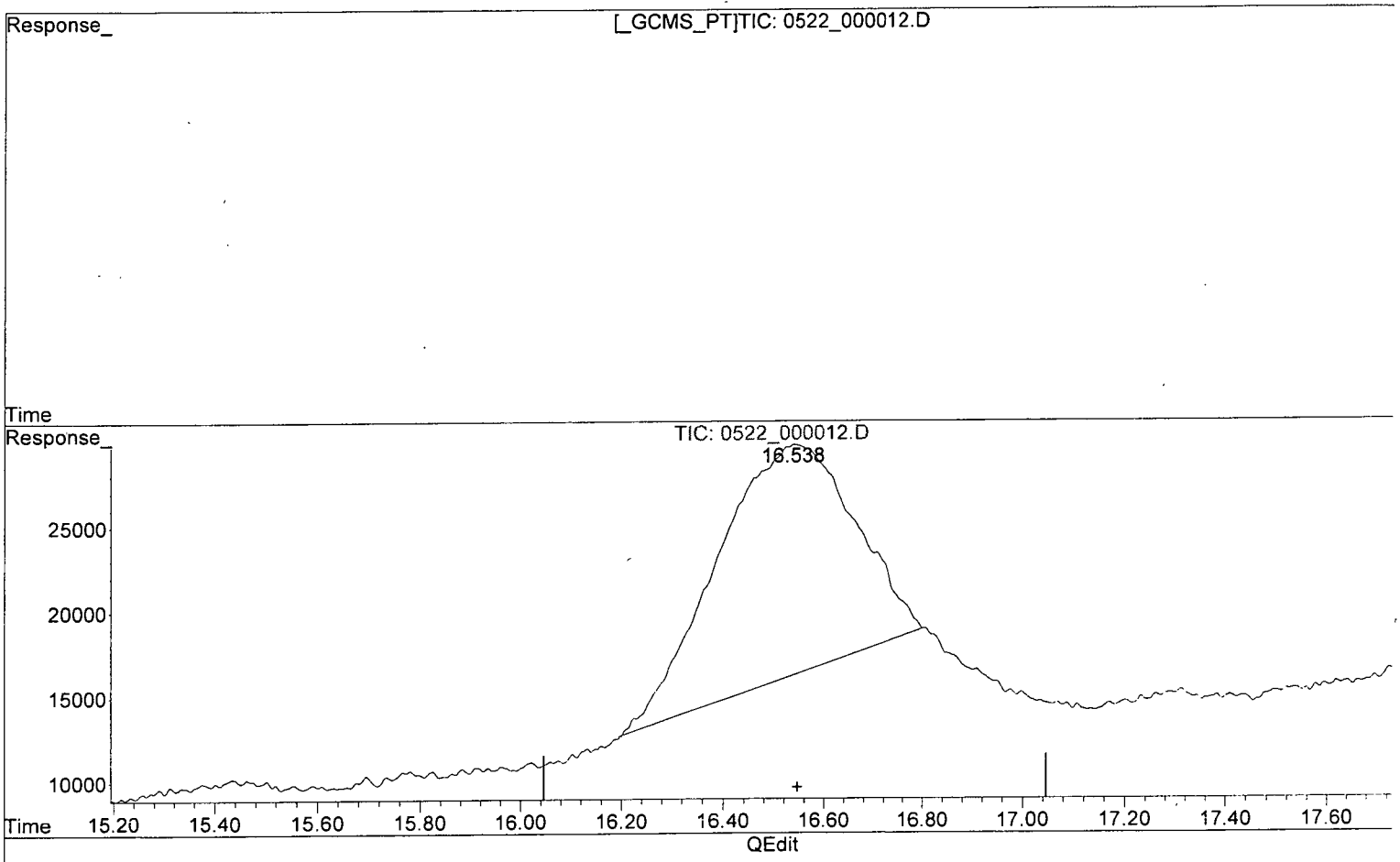


Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:11:42
Operator : MP
Sample : 8330MXB_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4227 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:08 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ



(14) 3,5-DINITROANILINE (TM)

0.000min 0.000 ppb

response 0

(14) 3,5-DINITROANILINE #2 (TM)

16.542min 6.767 ppb

response 13506

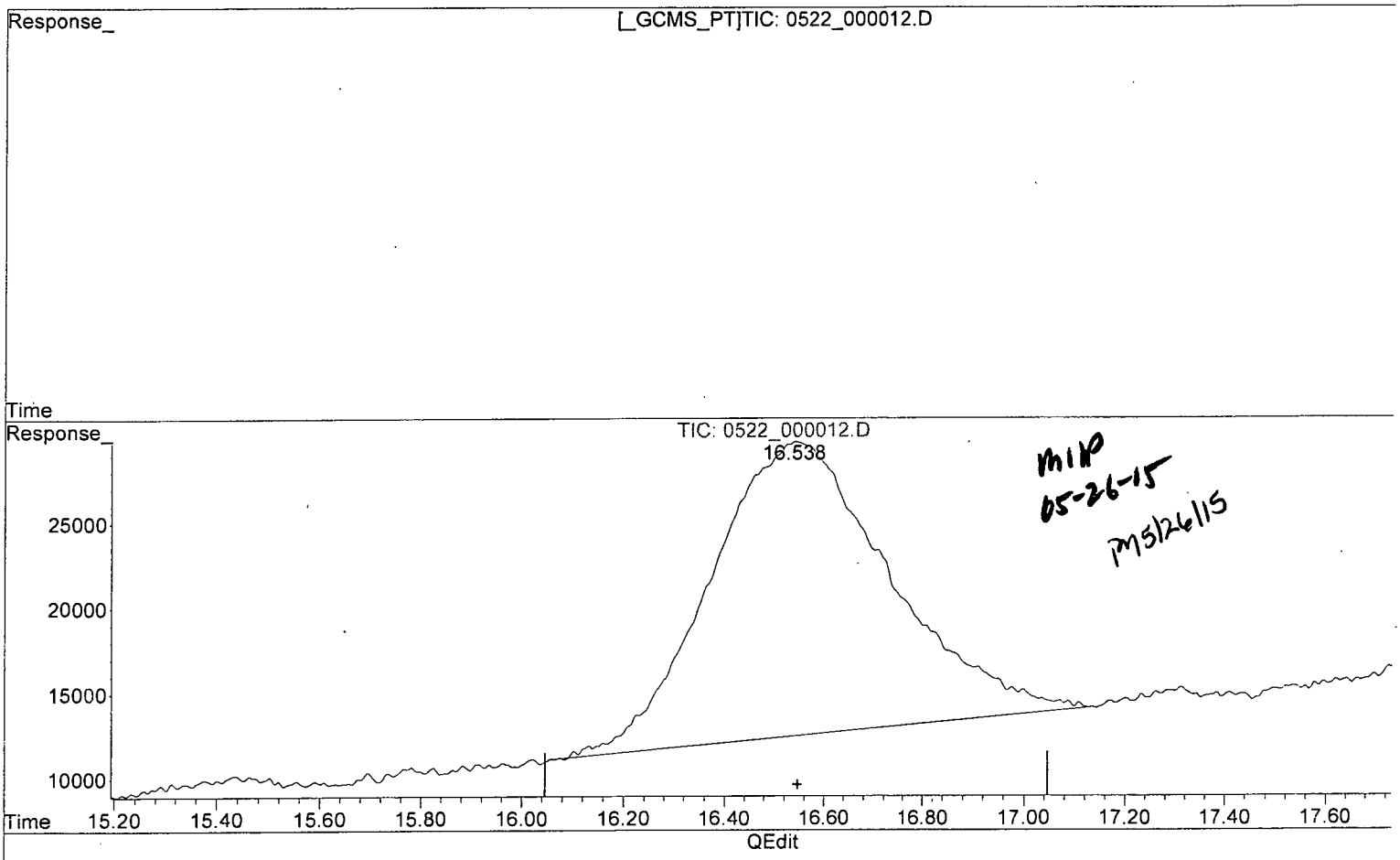
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:11:42
Operator : MP
Sample : 8330MXB_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4227 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:08 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ



(14) 3,5-DINITROANILINE (TM)

0.000min 0.000 ppb

response 0

(14) 3,5-DINITROANILINE #2 (TM)

16.538min 8.662 ppb m

response 17290

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:50:55 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

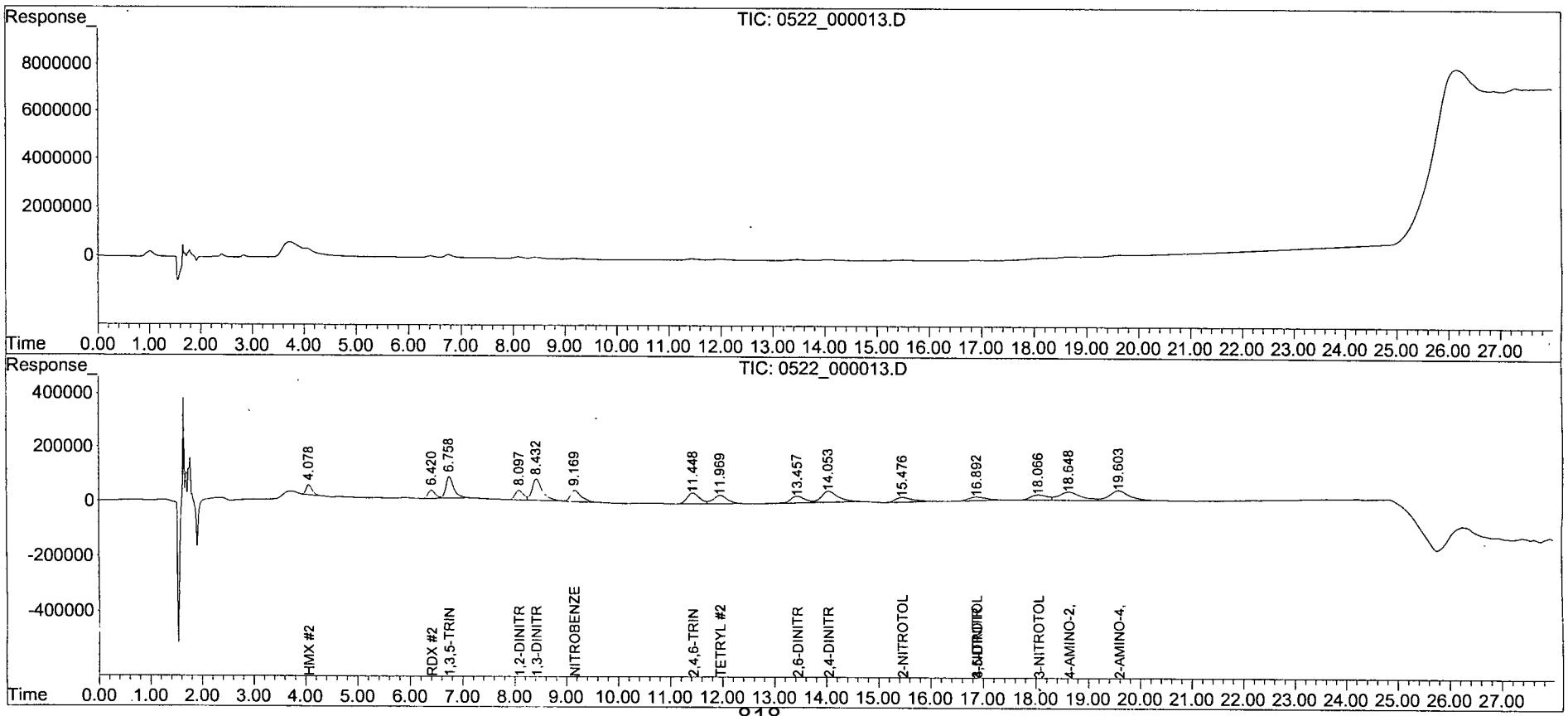
Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	8.097	0	35930	N.D.	17.030m#
Spiked Amount 62.500			Recovery	=	0.00%	27.25%
Target Compounds						
1) TM HMX	0.000	4.078	0	37138	N.D.	17.661m#
2) TM RDX	0.000	6.420	0	30890	N.D.	16.678m#
3) TM 1,3,5-TRI...	0.000	6.758	0	78697	N.D.	17.607m#
5) TM 1,3-DINIT...	0.000	8.432	0	79097	N.D.	17.588m#
6) TM NITROBENZENE	0.000	9.169	0	42712	N.D.	16.674m#
7) TM 2,4,6-TRI...	0.000	11.447	0	40720	N.D.	16.040 #
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	11.979	11.969	25584	31272	NoCal	18.984 #
10) TM 2,6-DINIT...	13.451	13.456	39681	24473	NoCal	16.568 #
11) TM 2,4-DINIT...	0.000	14.055	0	40841	N.D.	16.210 #
12) TM 2-NITROTO...	0.000	15.476	0	17127	N.D.	16.245m#
13) TM 4-NITROTO...	0.000	16.897	0	13066	N.D.	14.919 #
14) TM 3,5-DINIT...	0.000	16.897f	0	13066	N.D.	6.546 #
15) TM 3-NITROTO...	0.000	18.069	0	19154	N.D.	17.914 #
16) TM 4-AMINO-2...	0.000	18.648	0	30398	N.D.	21.698 #
17) TM 2-AMINO-4...	0.000	19.600	0	36708	N.D.	18.007 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

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

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:50:55 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

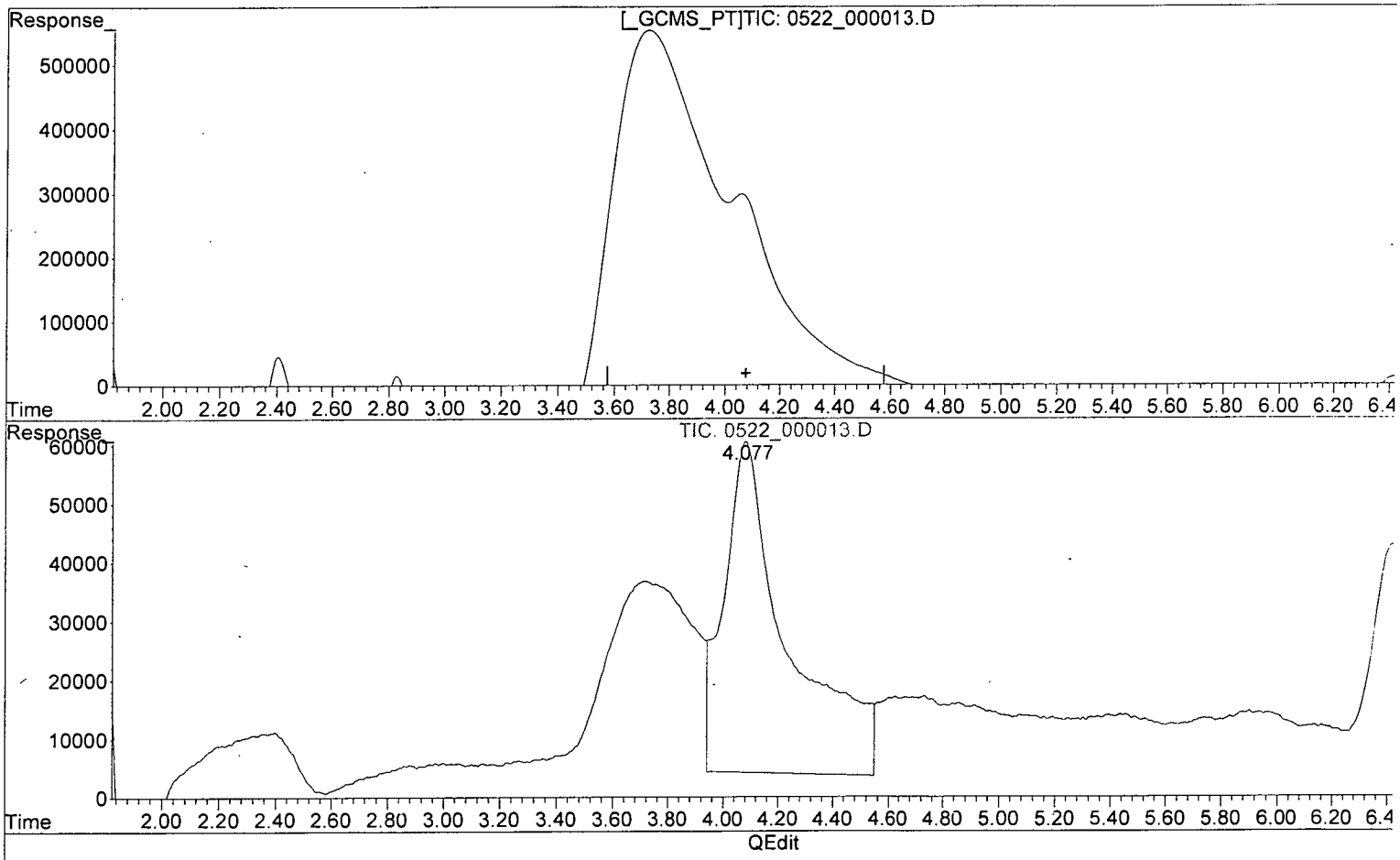


Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.077min 26.787 ppb

response 56329

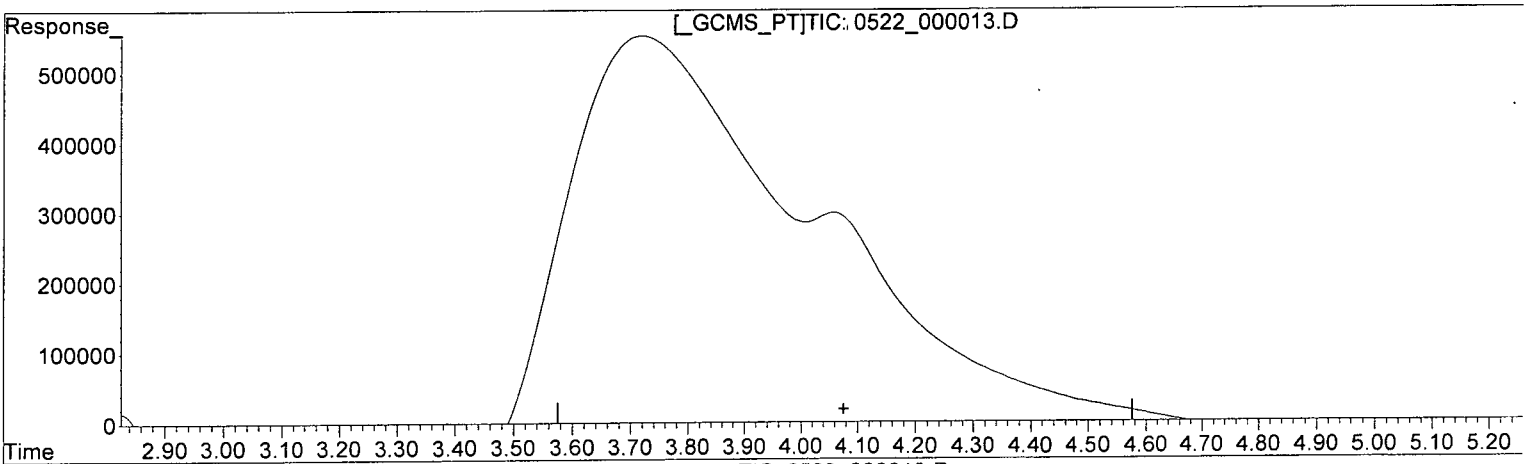
(+) = Expected Retention Time

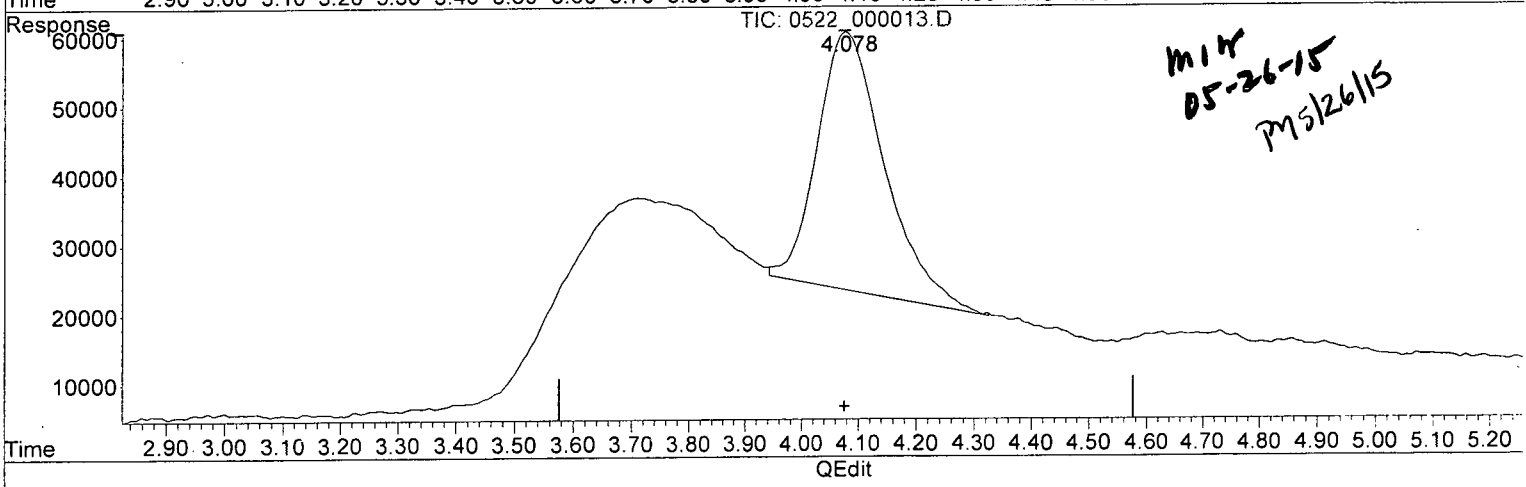
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ





MM 05-26-15 PM 5/26/15

QEdit

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.078min 17.661 ppb m

response 37138

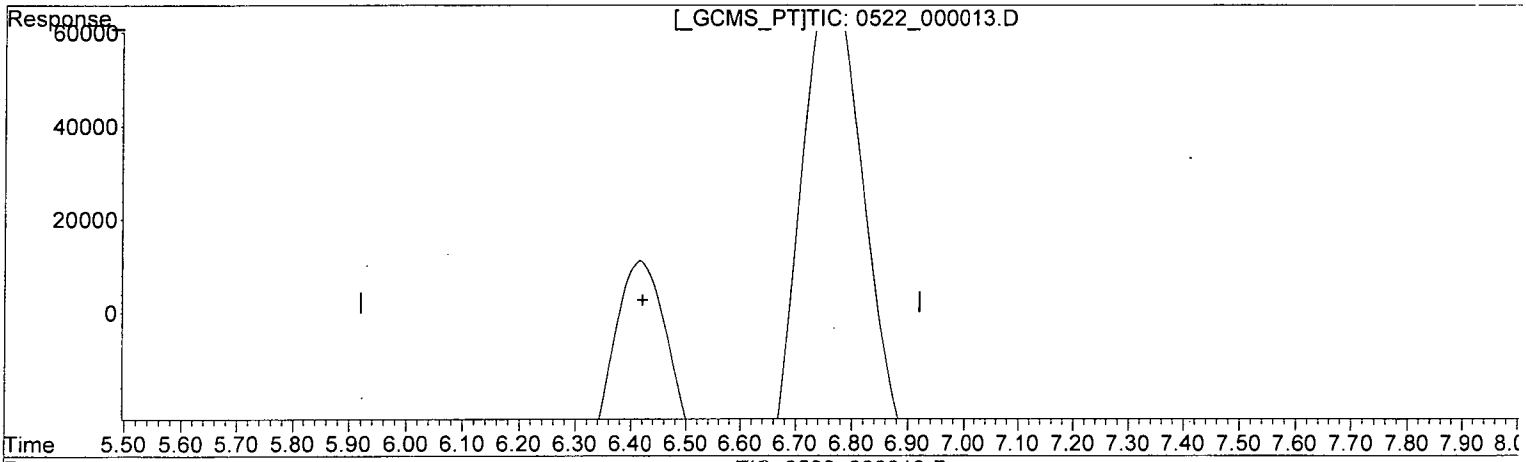
(+) = Expected Retention Time

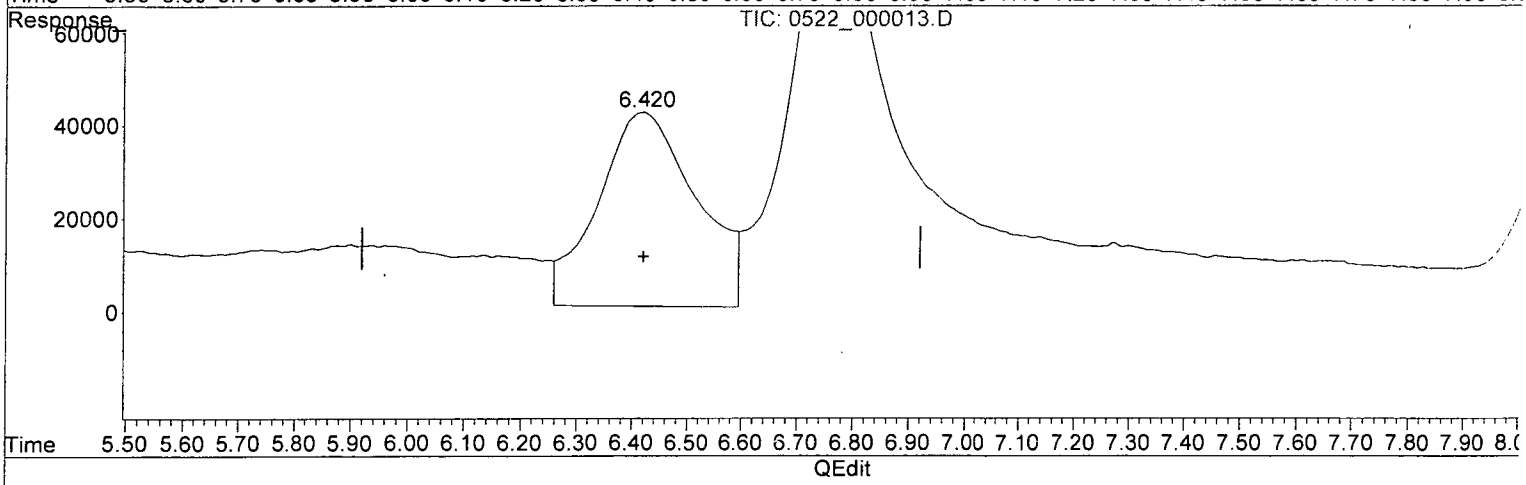
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





QEdit

(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.418min 22.479 ppb

response 41634

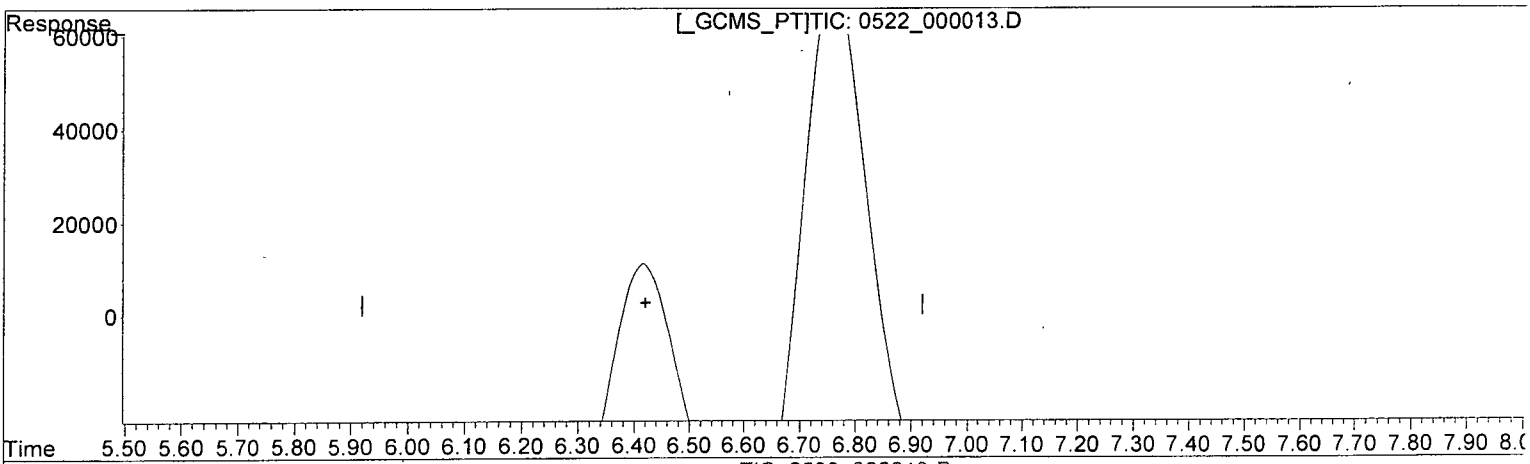
(+) = Expected Retention Time

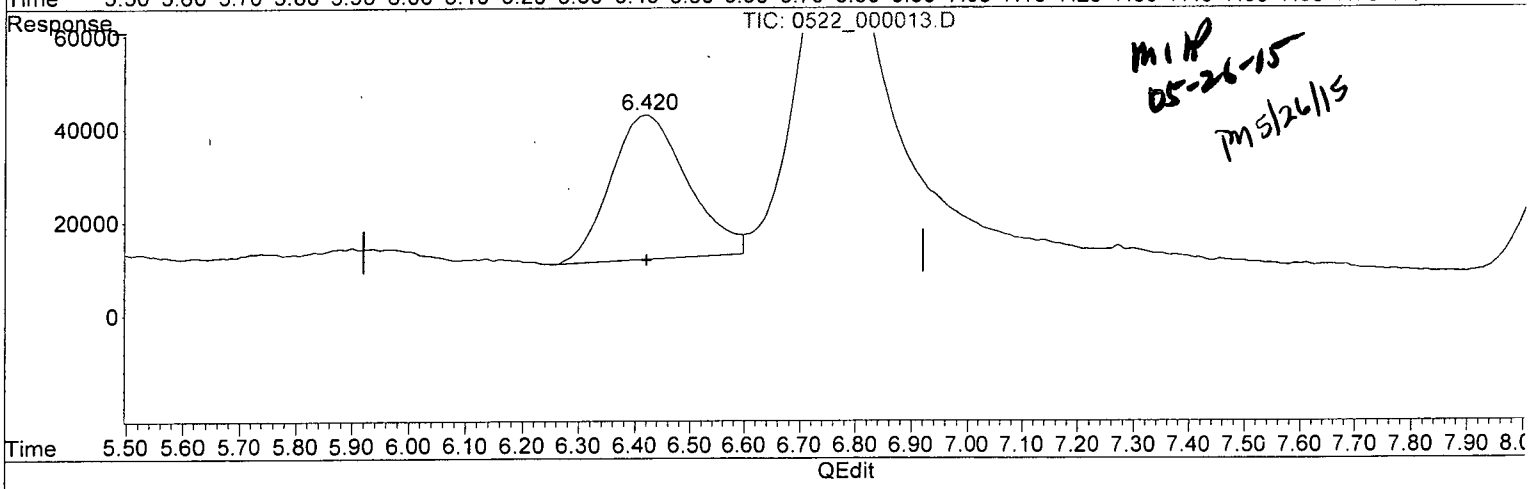
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ





MP 05-26-15 pm 5/26/15

(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.420min 16.678 ppb m

response 30890

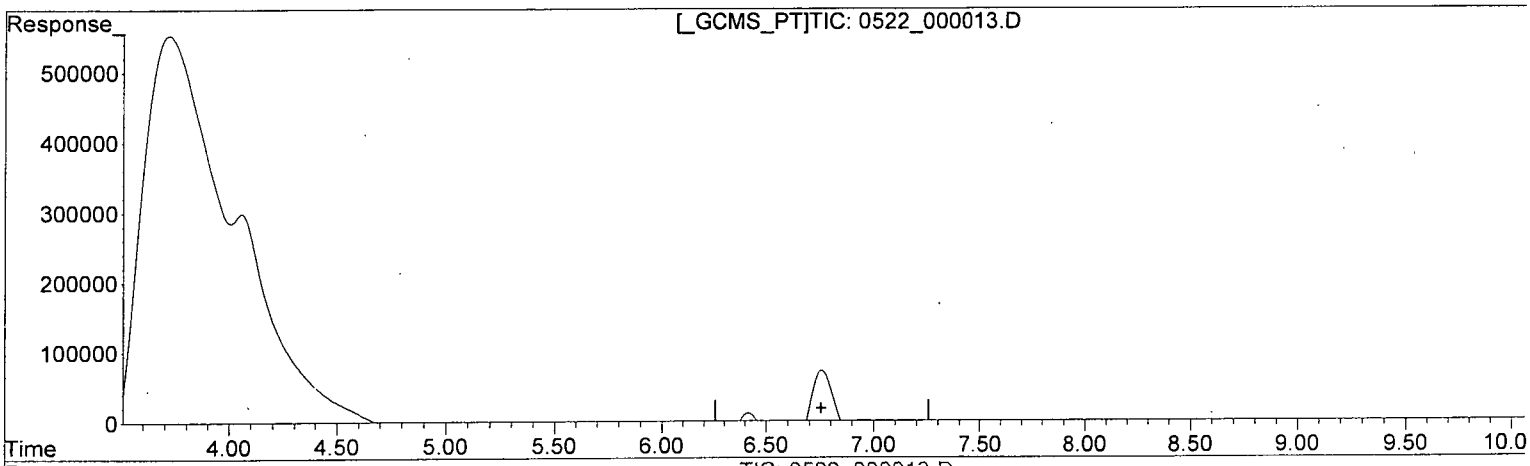
(+) = Expected Retention Time

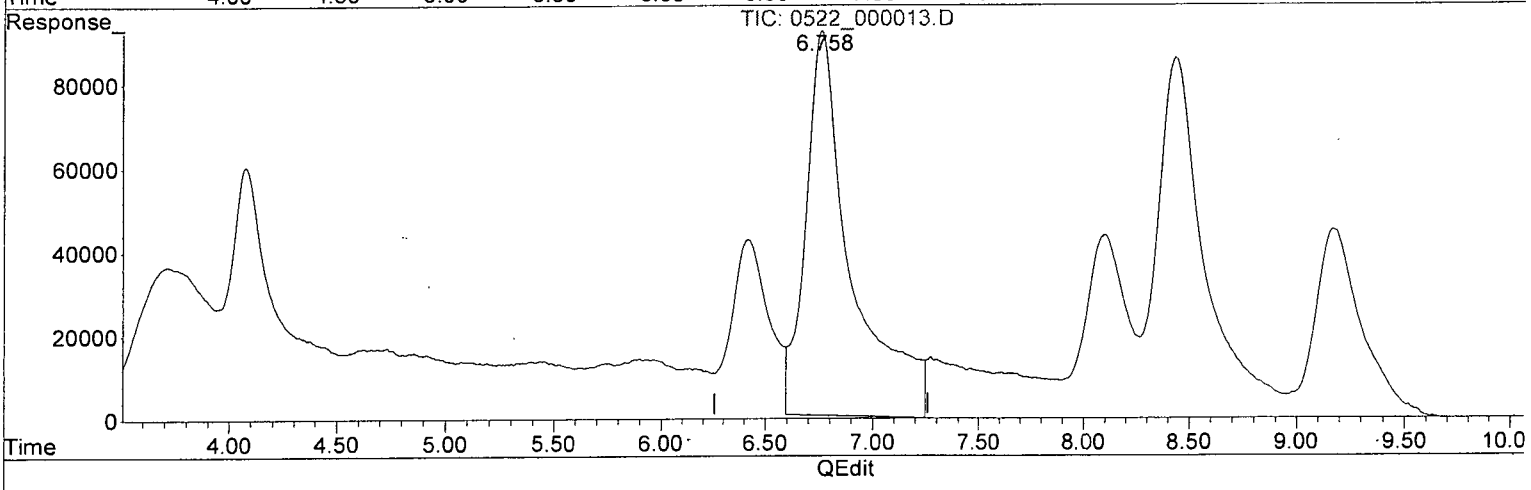
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ





(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.759min 20.535 ppb

response 91787

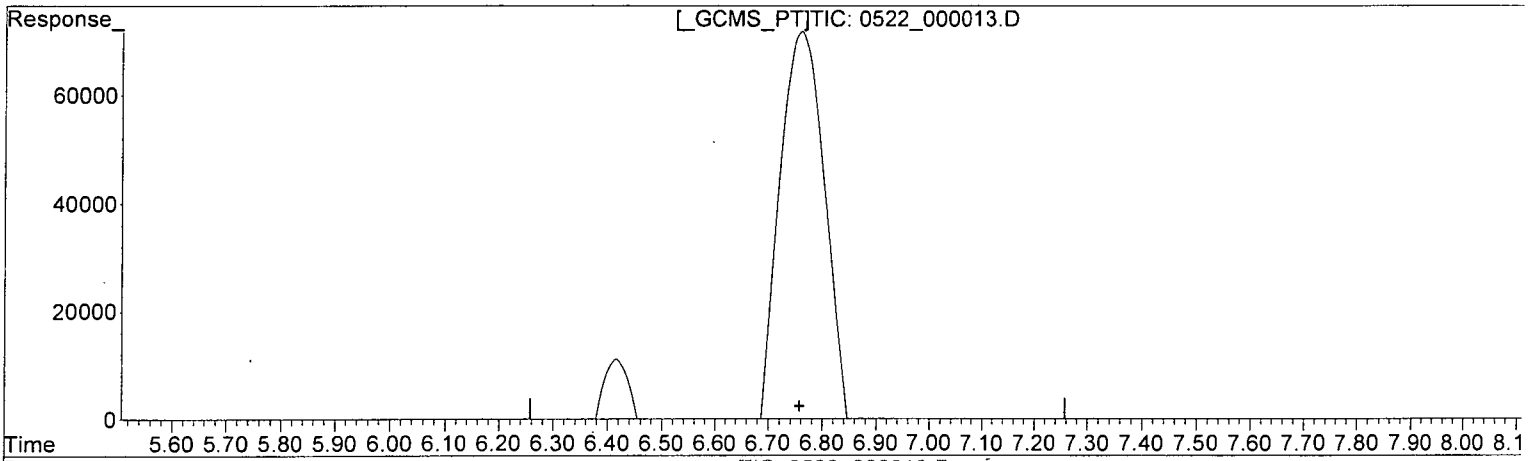
(+) = Expected Retention Time

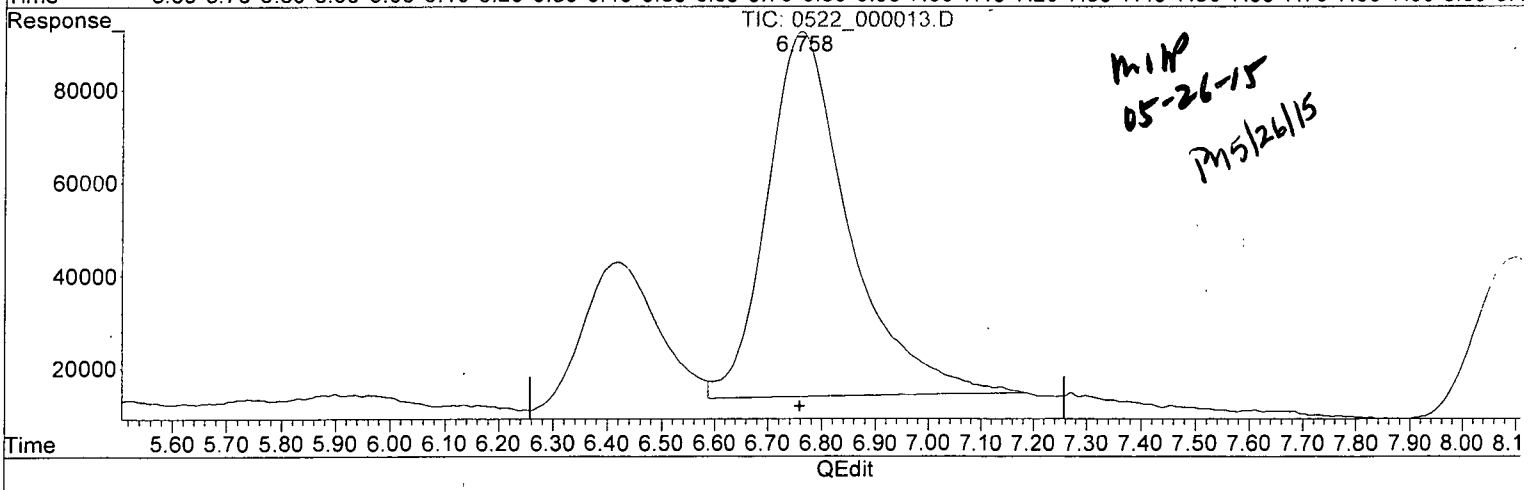
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r





MHP 05-26-15
PM 5/26/15

(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.758min 17.607 ppb m

response 78697

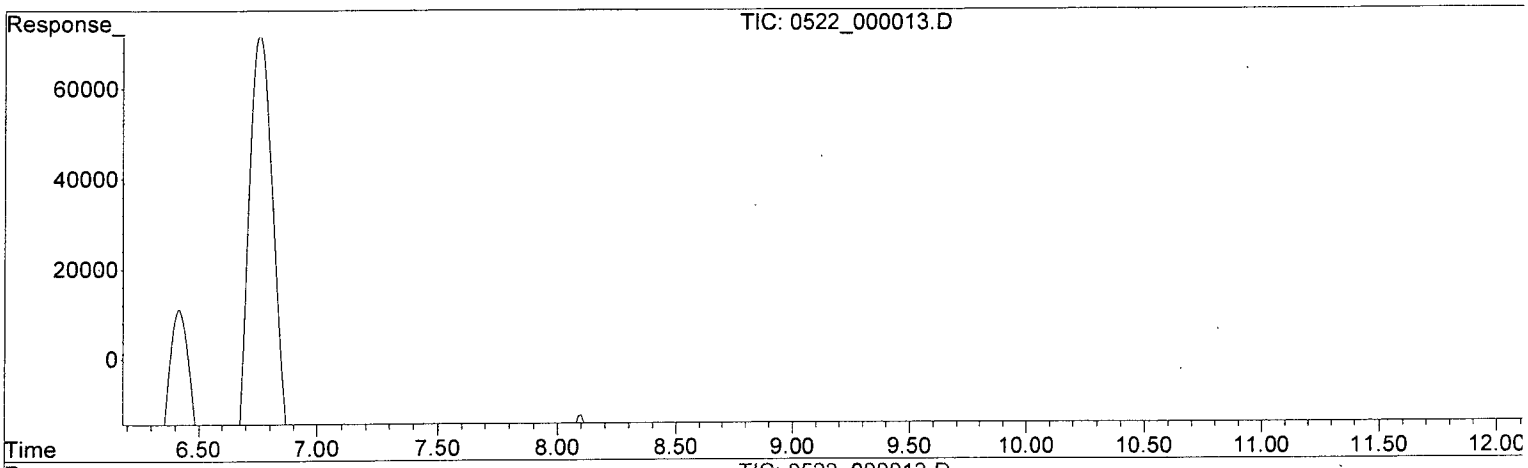
(+) = Expected Retention Time

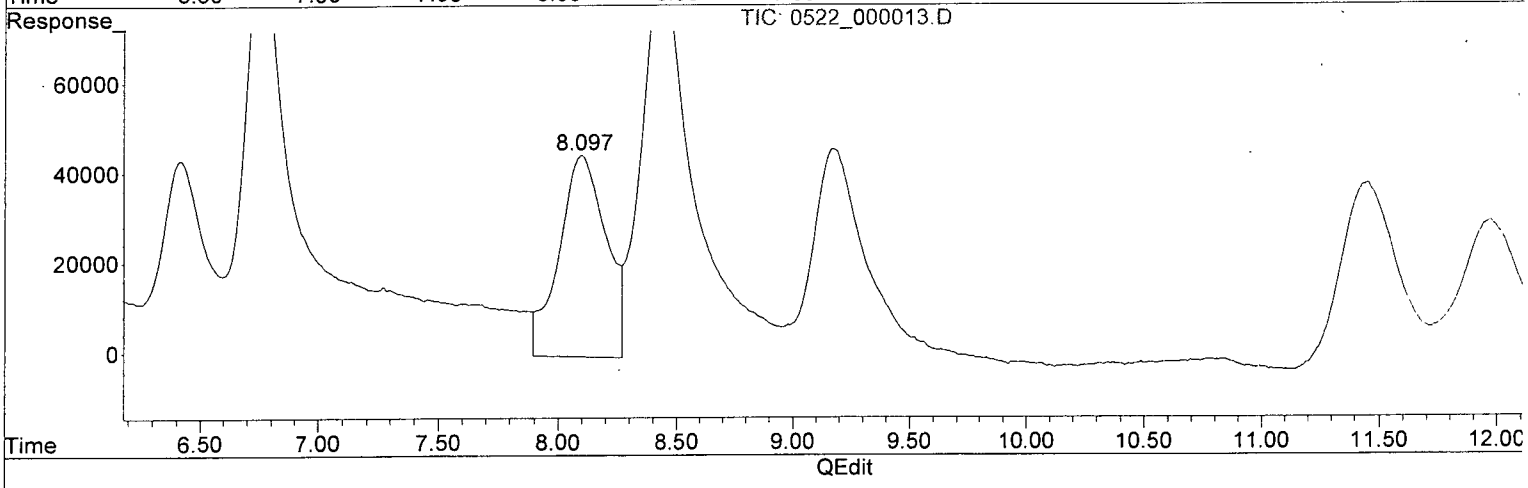
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

8.098min 21.218 ppb

response 44767

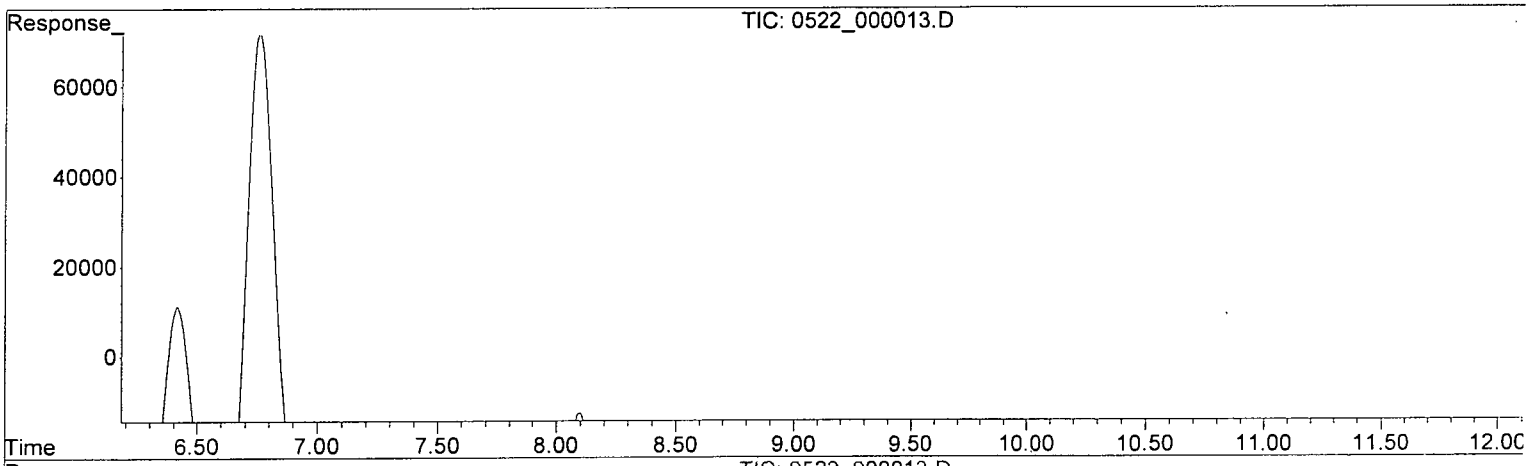
(+) = Expected Retention Time

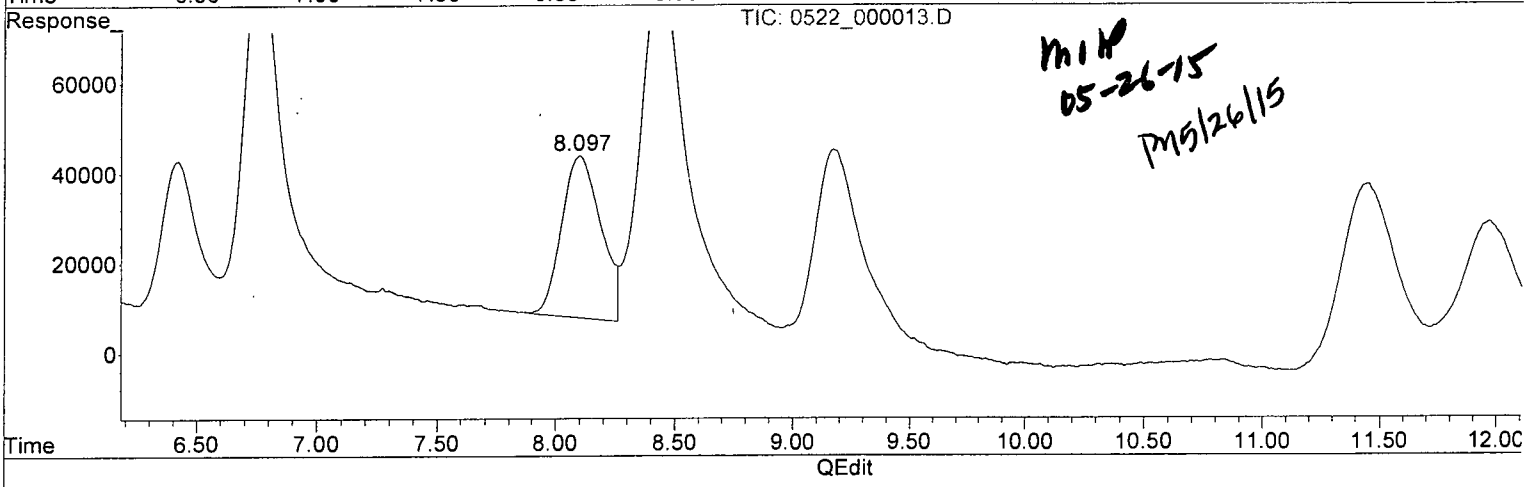
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ





MH 05-26-15 PM 5/26/15

(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

8.097min 17.030 ppb m

response 35930

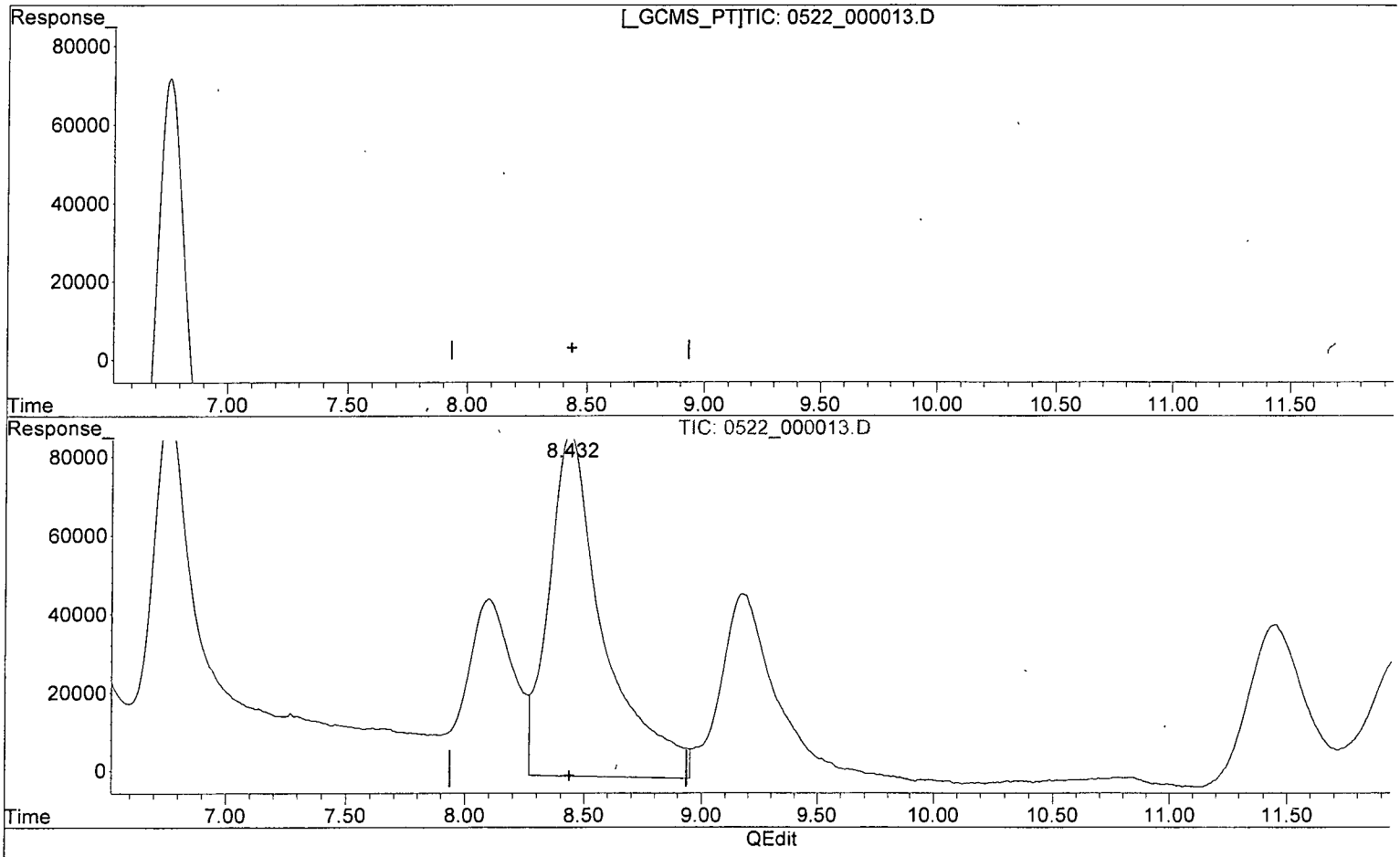
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ



(5) 1,3-DINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(5) 1,3-DINITROBENZENE #2 (TM)

8.433min 19.439 ppb

response 87423

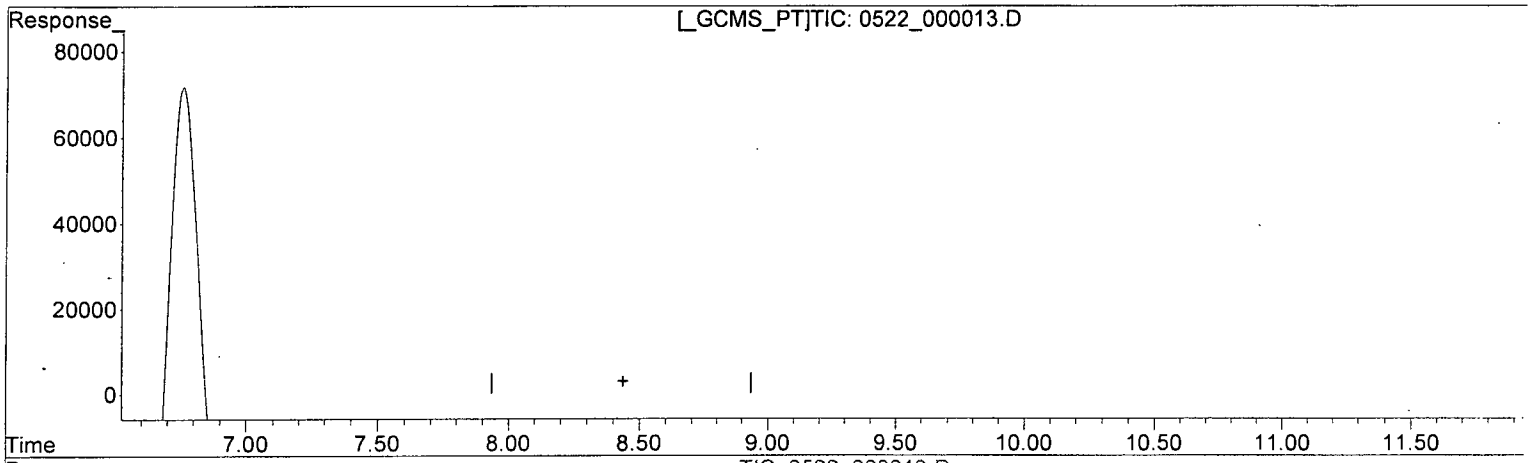
(+) = Expected Retention Time

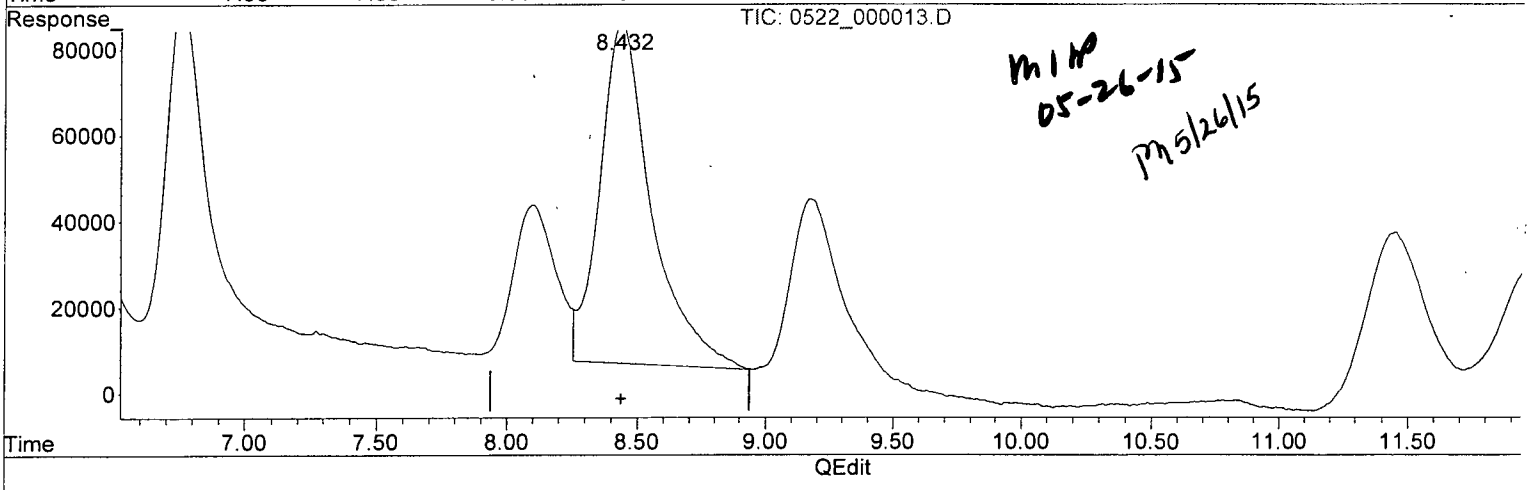
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MHP 05-26-15

m 5/26/15

(5) 1,3-DINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(5) 1,3-DINITROBENZENE #2 (TM)

8.432min 17.588 ppb m

response 79097

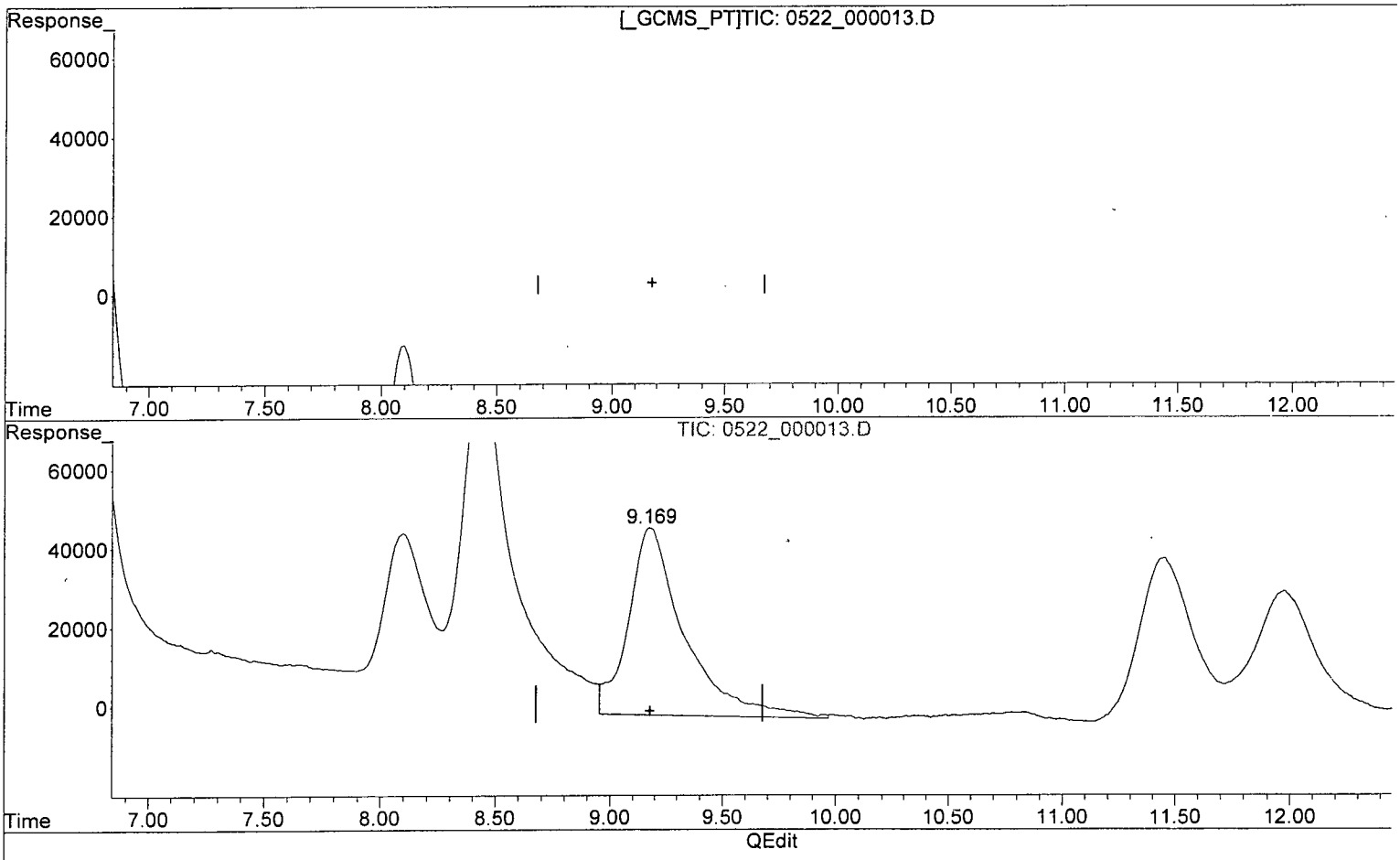
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ



(6) NITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(6) NITROBENZENE #2 (TM)

9.171min 18.468 ppb

response 47307

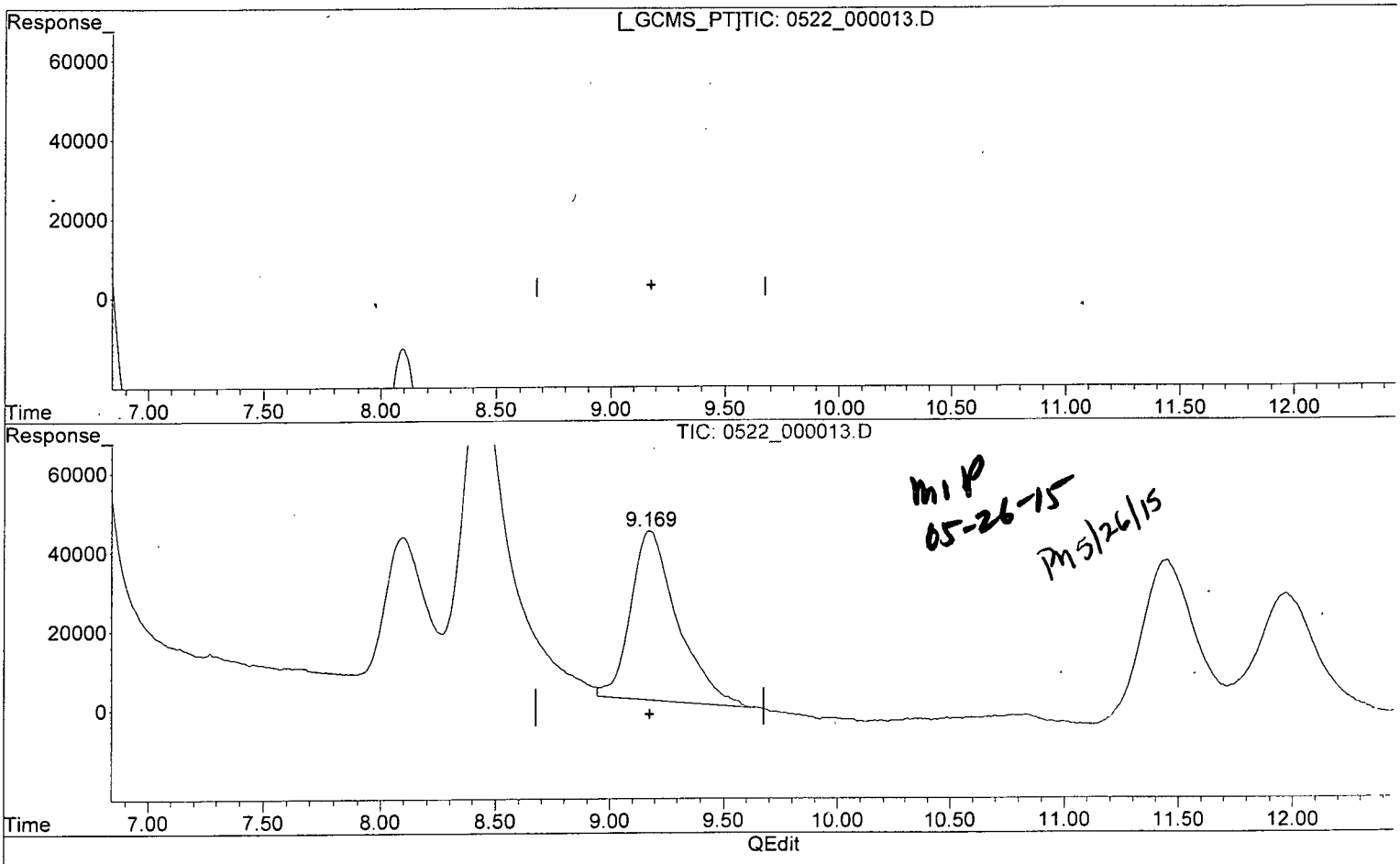
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(6) NITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(6) NITROBENZENE #2 (TM)

9.169min 16.674 ppb m

response 42712

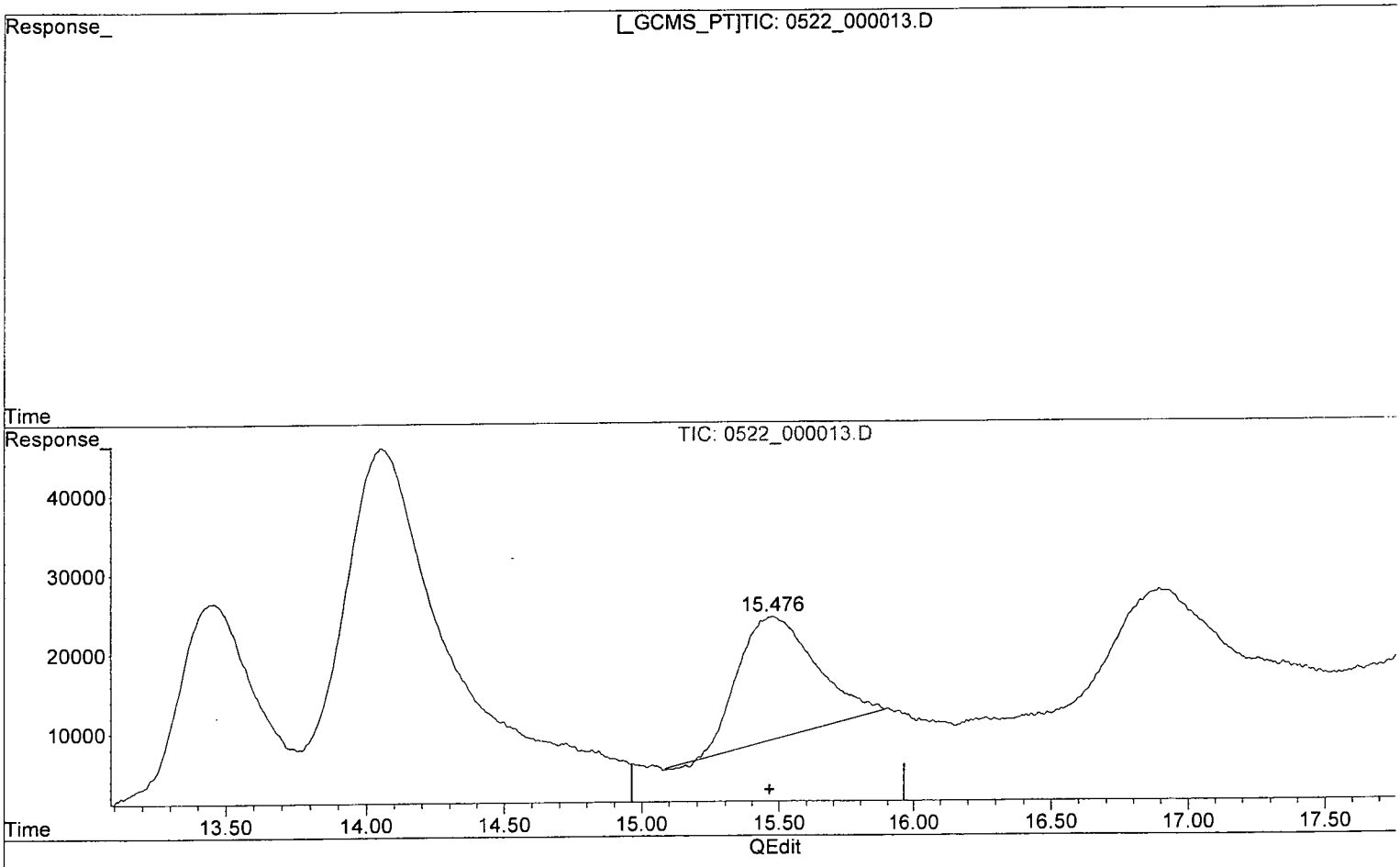
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ



(12) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(12) 2-NITROTOLUENE #2 (TM)

15.474min 14.676 ppb

response 15473

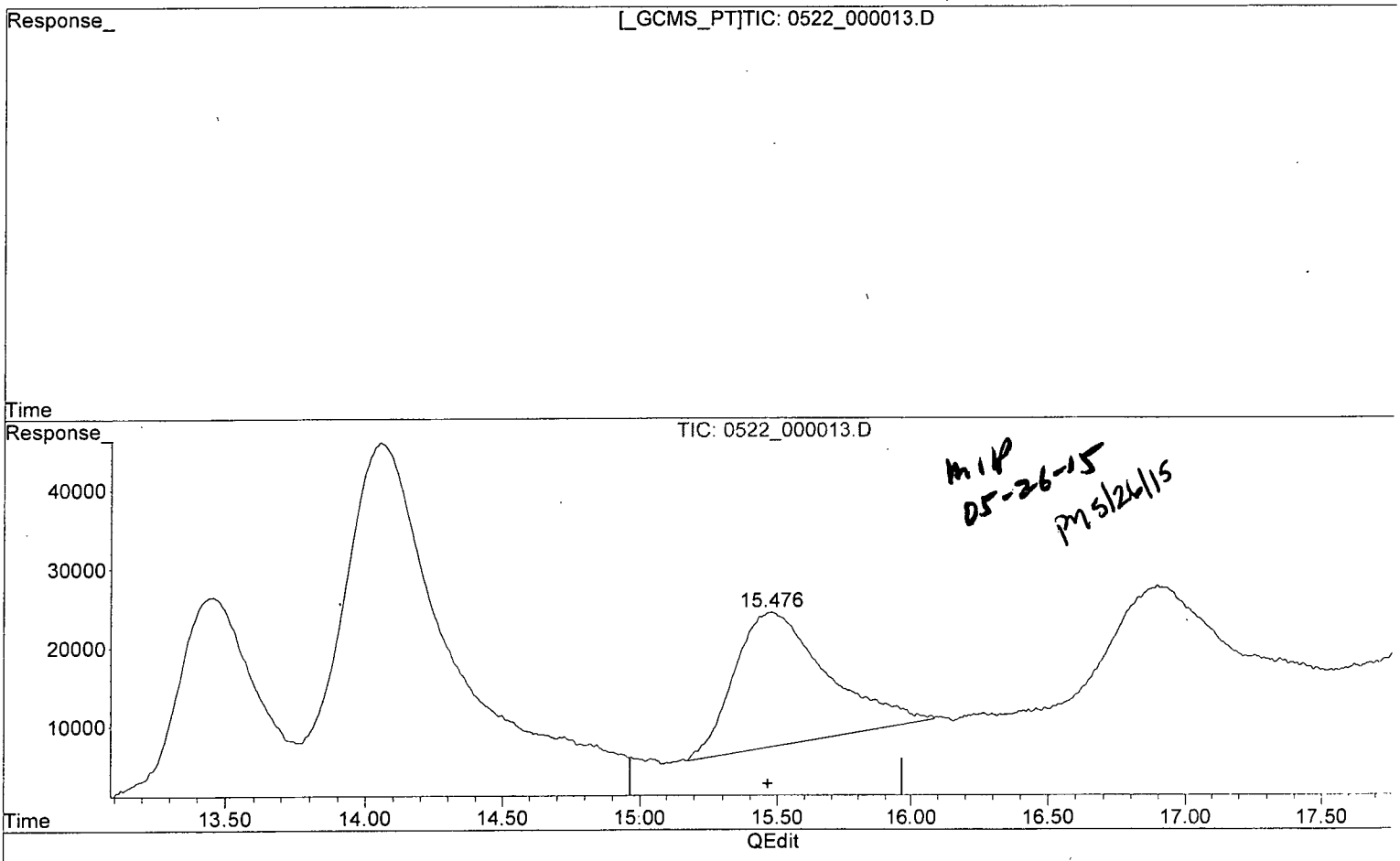
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r



MLP 05-26-15 pm 5/26/15

(12) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(12) 2-NITROTOLUENE #2 (TM)

15.476min 16.245 ppb m

response 17127

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 17:30:43
Operator : MP
Sample : 8330MXB_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4229 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:47:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

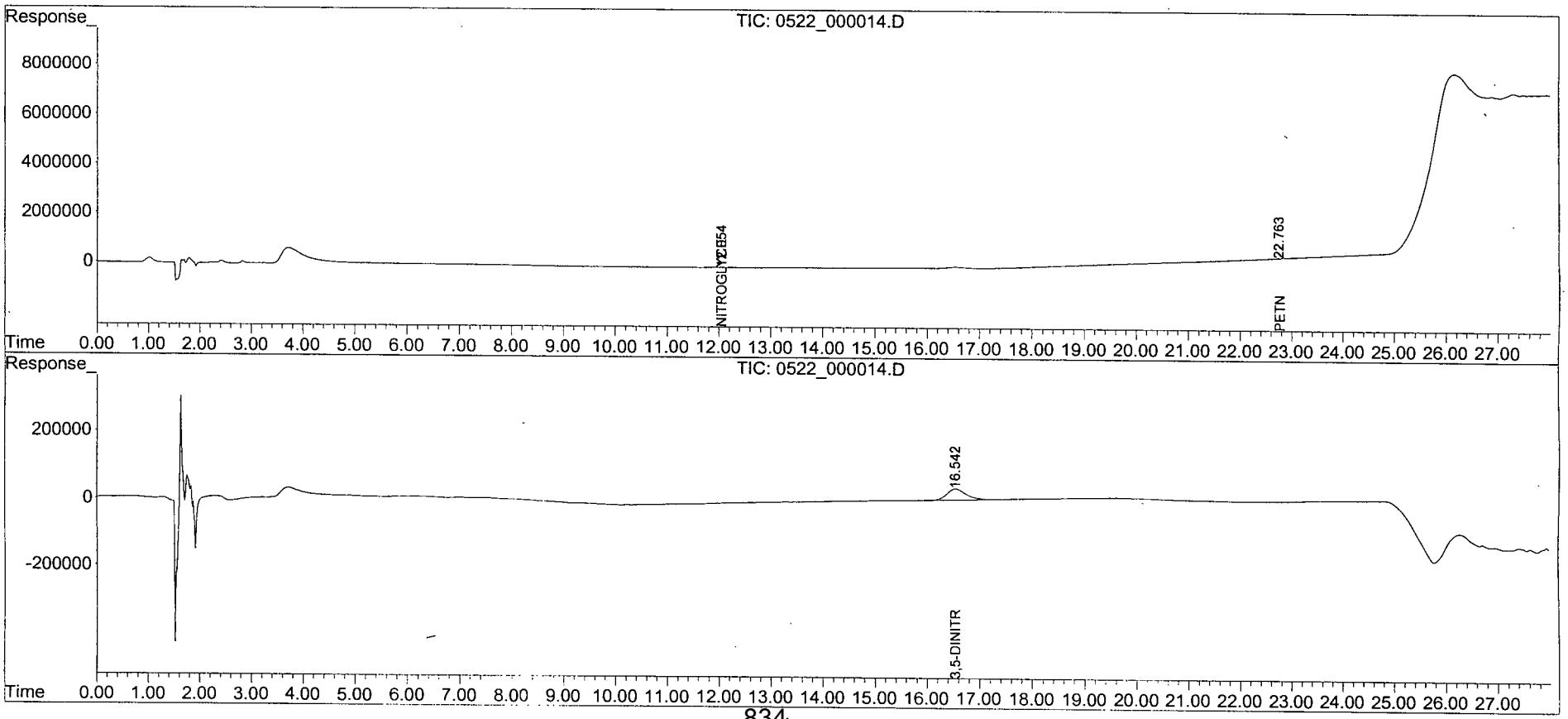
	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4) S	1,2-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 62.500			Recovery	=	0.00%	0.00%
	Target Compounds						
1) TM	HMX	0.000	0.000	0	0	N.D.	N.D.
2) TM	RDX	0.000	0.000	0	0	N.D. d	N.D. d
3) TM	1,3,5-TRI...	0.000	0.000	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...	12.062	0.000	14397	0	15.809	N.D. d#
9) TM	TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10) TM	2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11) TM	2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12) TM	2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13) TM	4-NITROTO...	0.000	0.000	0	0	N.D. d	N.D. d
14) TM	3,5-DINIT...	0.000	16.542	0	33313	N.D.	16.689m#
15) TM	3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM	4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM	2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18) TM	PETN	22.763	0.000	14034	0	15.381m	N.D. #

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

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 17:30:43
Operator : MP
Sample : 8330MXB_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4229 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:47:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

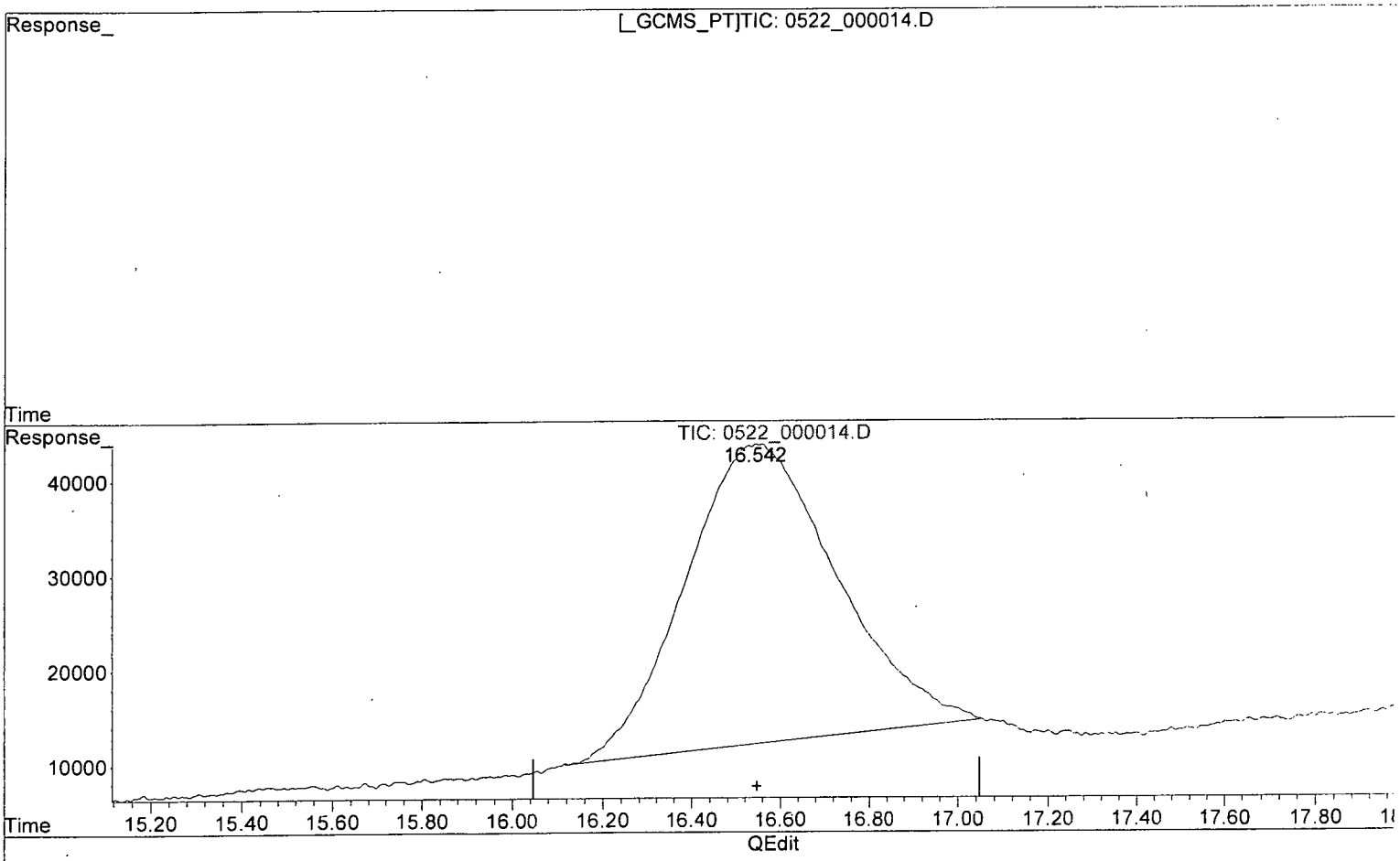


Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 17:30:43
Operator : MP
Sample : 8330MXB_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4229 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:14 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(14) 3,5-DINITROANILINE (TM)

0.000min 0.000 ppb

response 0

(14) 3,5-DINITROANILINE #2 (TM)

16.546min 15.824 ppb

response 31586

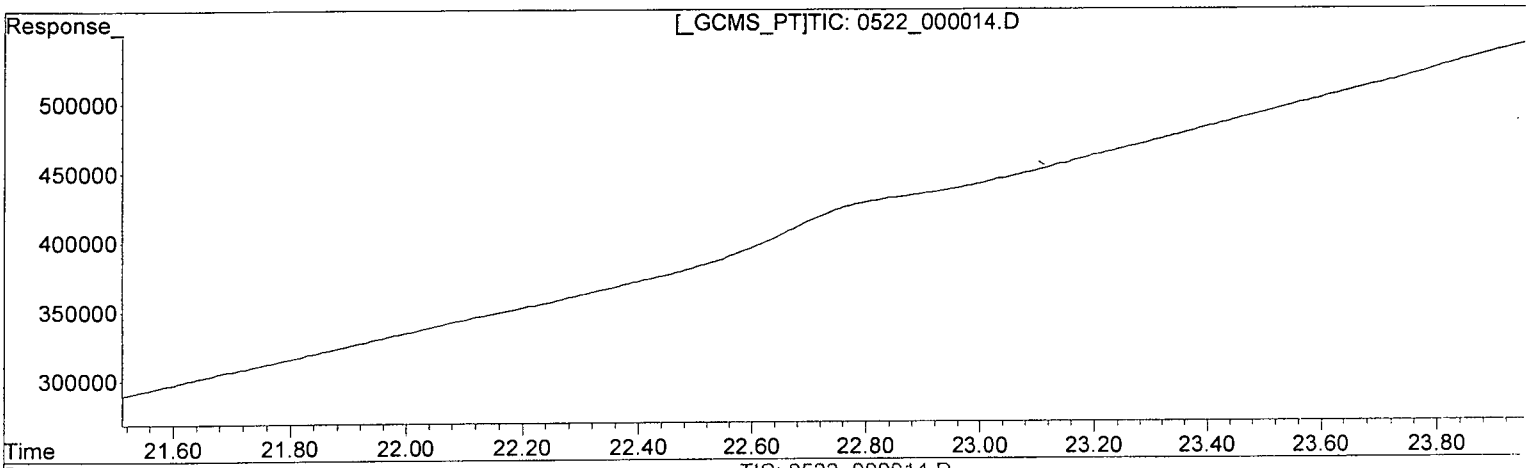
(+) = Expected Retention Time

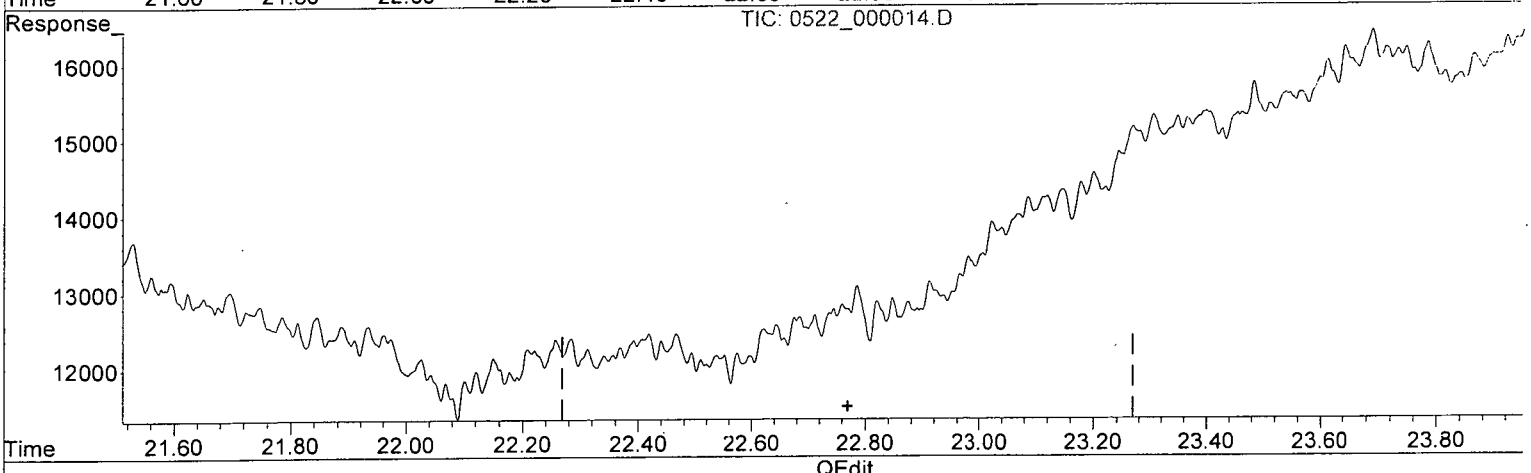
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 17:30:43
Operator : MP
Sample : 8330MXB_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4229 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:14 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ





QEdit

(18) PETN (TM)

0.000min 0.000 ppb

response 0

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

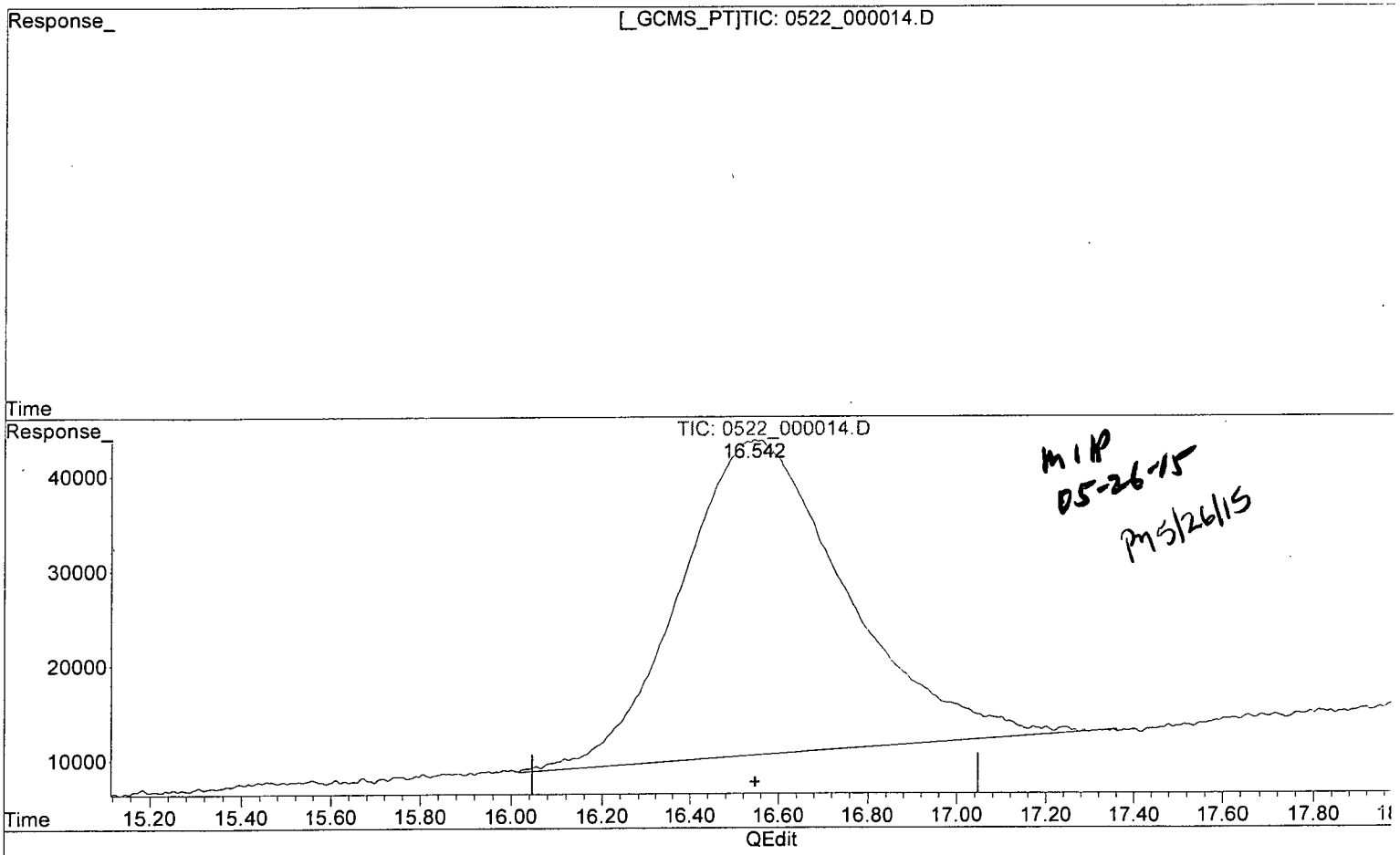
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 17:30:43
Operator : MP
Sample : 8330MXB_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4229 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:14 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



MIP 05-26-15 PM 5/26/15

(14) 3,5-DINITROANILINE (TM)

0.000min 0.000 ppb

response 0

(14) 3,5-DINITROANILINE #2 (TM)

16.542min 16.689 ppb m

response 33313

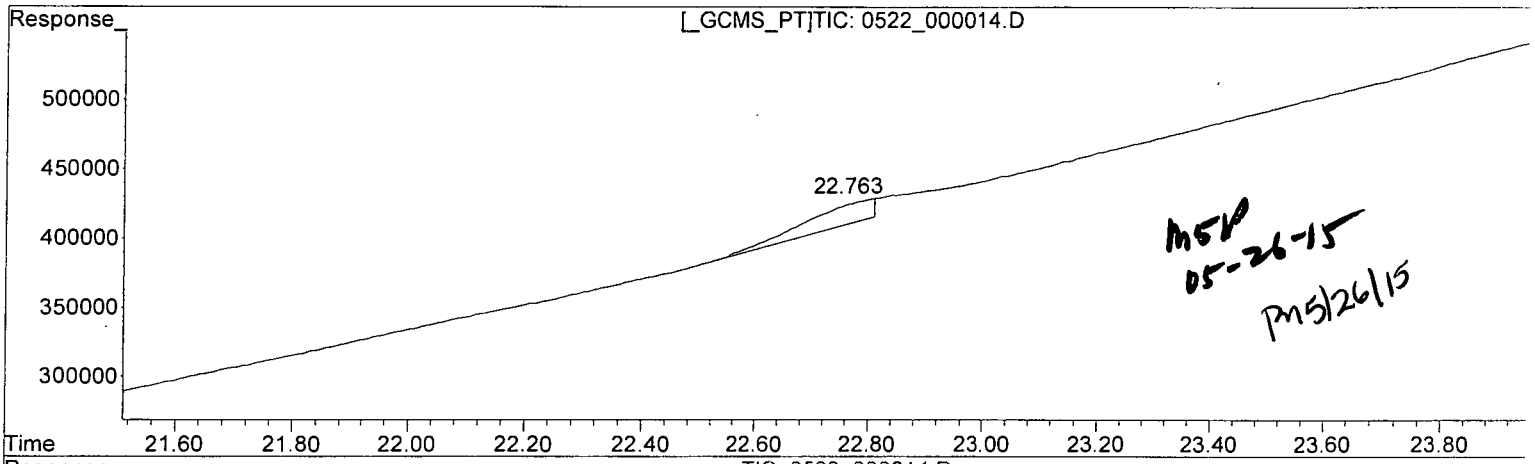
(+) = Expected Retention Time

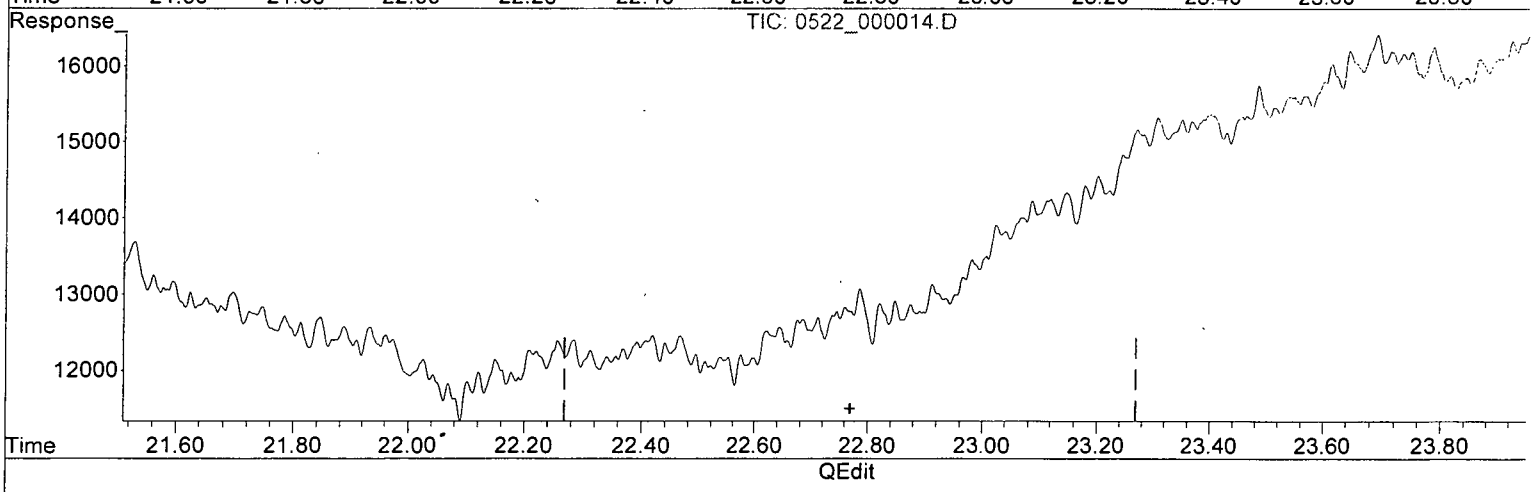
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 17:30:43
Operator : MP
Sample : 8330MXB_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4229 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:14 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





QEdit

(18) PETN (TM)

22.763min 15.381 ppb m

response 14034

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:46:09 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	8.092	0	87334	N.D.	41.395m#
Spiked Amount 62.500			Recovery	=	0.00%	66.23%
Target Compounds						
1) TM HMX	0.000	4.077	0	93606	N.D.	44.514m#
2) TM RDX	0.000	6.412	0	80036	N.D.	43.213m#
3) TM 1,3,5-TRI...	0.000	6.752	0	195589	N.D.	43.759m#
5) TM 1,3-DINIT...	0.000	8.429	0	193271	N.D.	42.975m#
6) TM NITROBENZENE	0.000	9.168	0	106151	N.D.	41.438m#
7) TM 2,4,6-TRI...	0.000	11.440	0	99469	N.D.	39.181 #
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	11.972	11.971	64180	71983	NoCal	43.697 #
10) TM 2,6-DINIT...	13.446	13.444	94573	59327	NoCal	40.165 #
11) TM 2,4-DINIT...	0.000	14.052	0	103731	N.D.	41.171 #
12) TM 2-NITROTO...	0.000	15.459	0	41226	N.D.	39.102 #
13) TM 4-NITROTO...	0.000	16.870	0	36293	N.D.	41.440 #
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
15) TM 3-NITROTO...	0.000	18.065	0	48059	N.D.	44.948 #
16) TM 4-AMINO-2...	0.000	18.644	0	71020	N.D.	50.694 #
17) TM 2-AMINO-4...	0.000	19.600	0	89551	N.D.	43.931 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

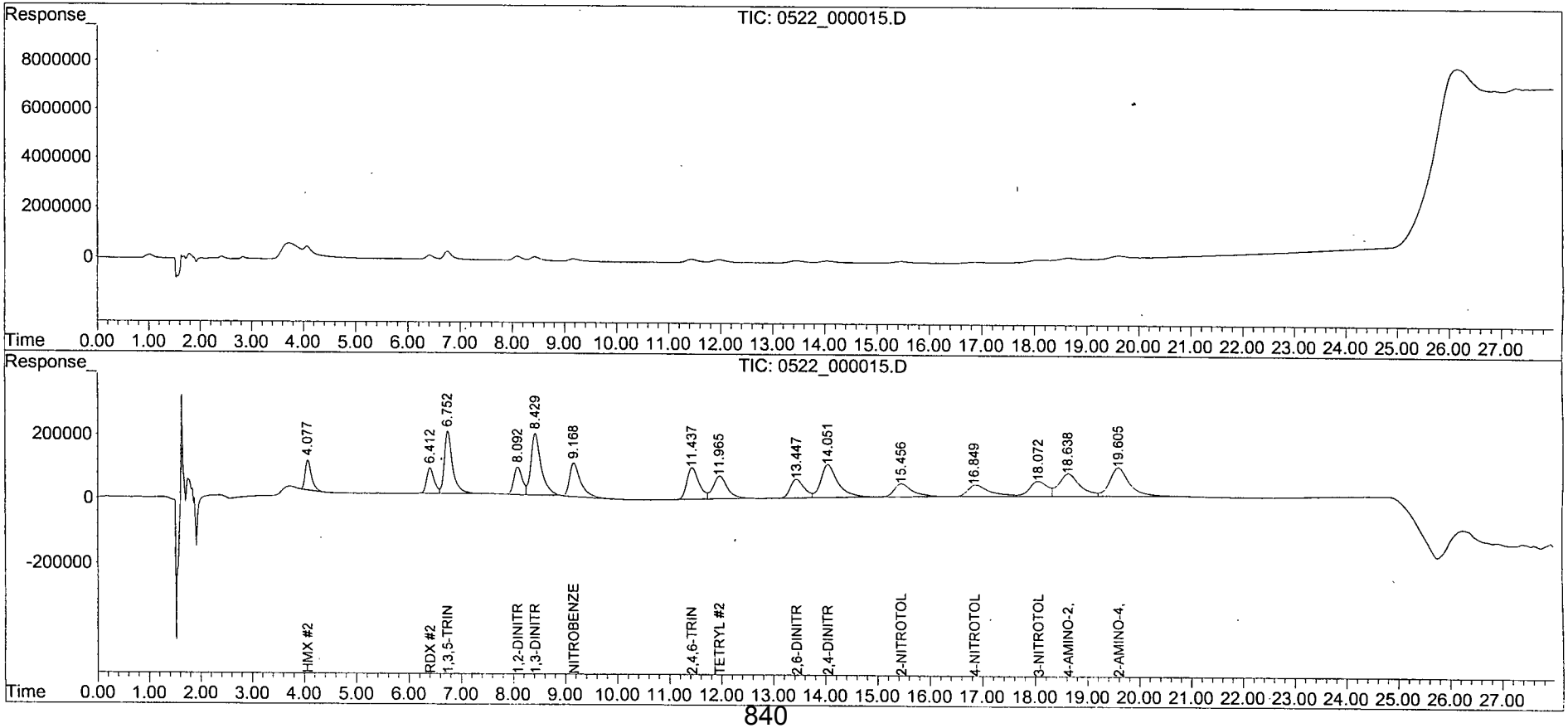
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:46:09 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

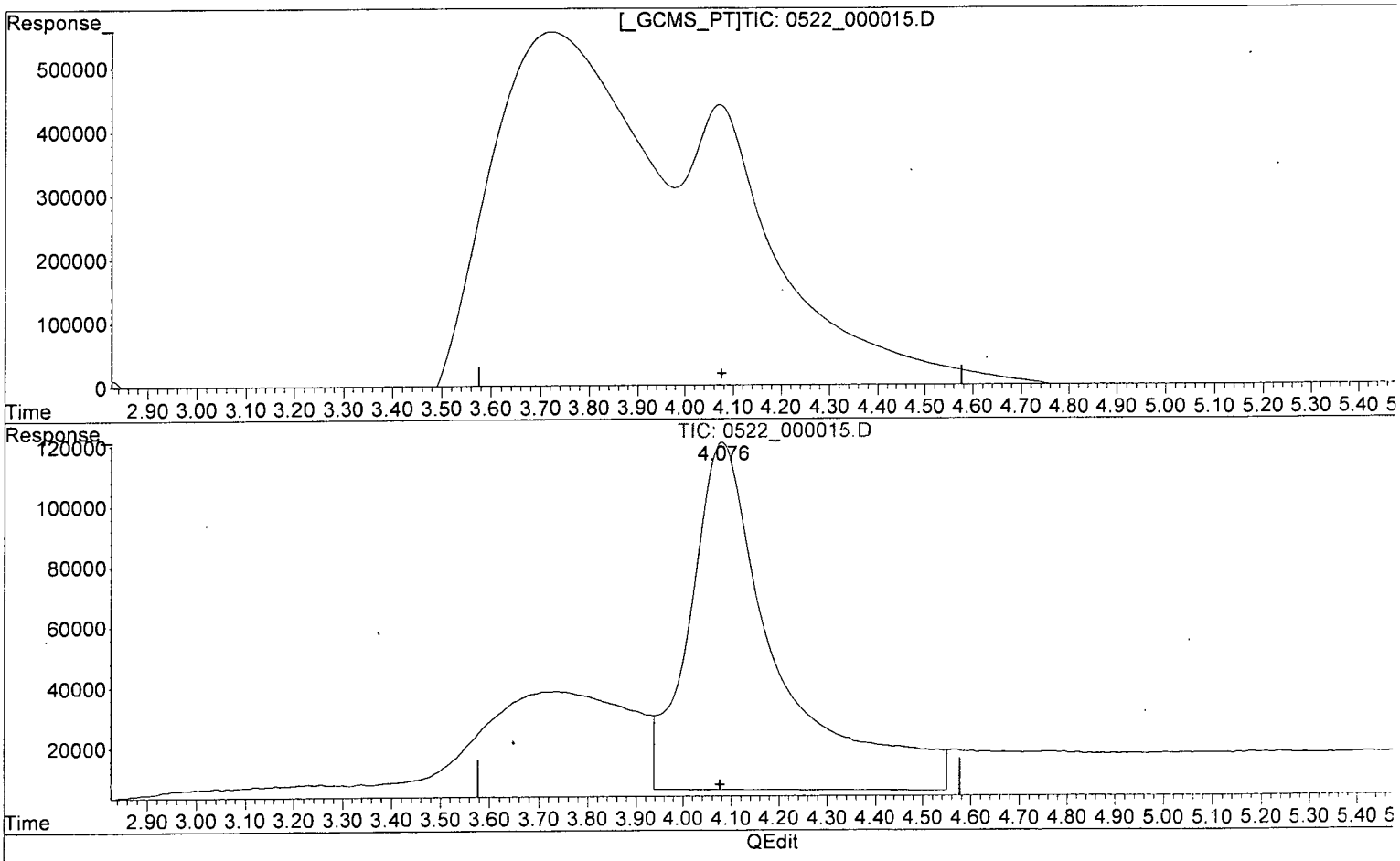


Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.077min 54.675 ppb

response 114973

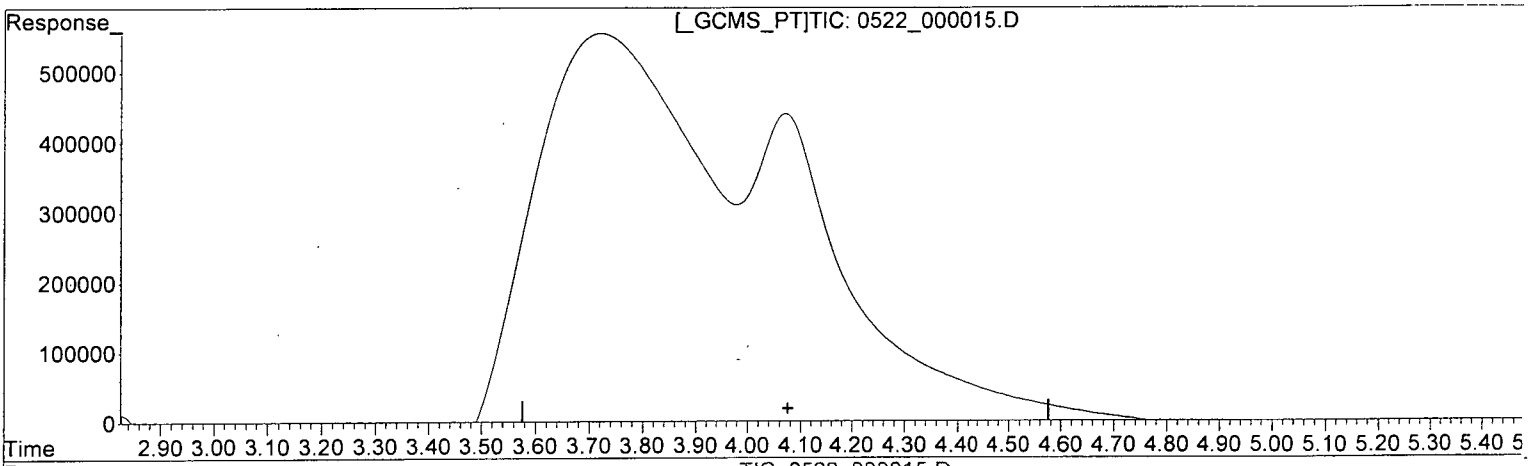
(+) = Expected Retention Time

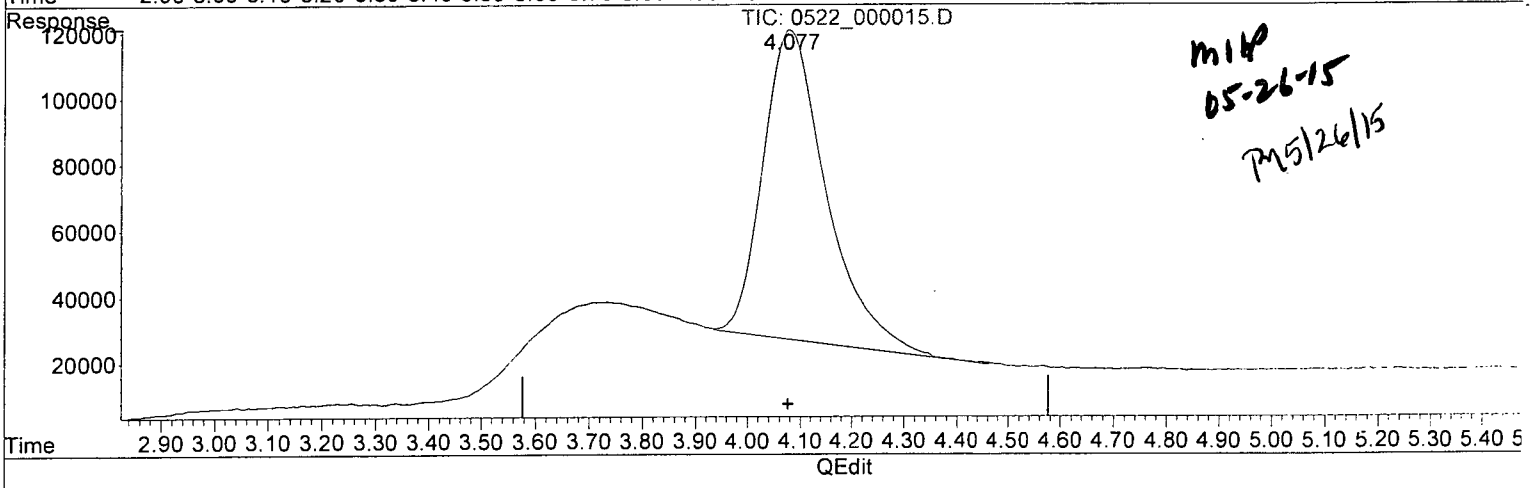
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ





MHP 05-26-15 PM 5/26/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.077min 44.514 ppb m

response 93606

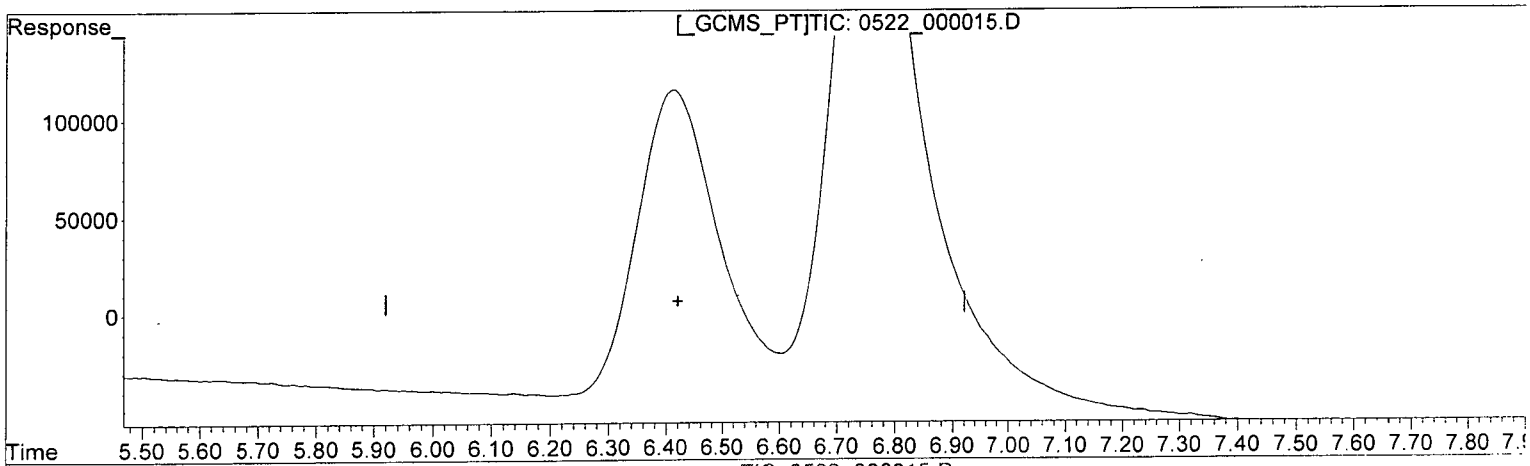
(+) = Expected Retention Time

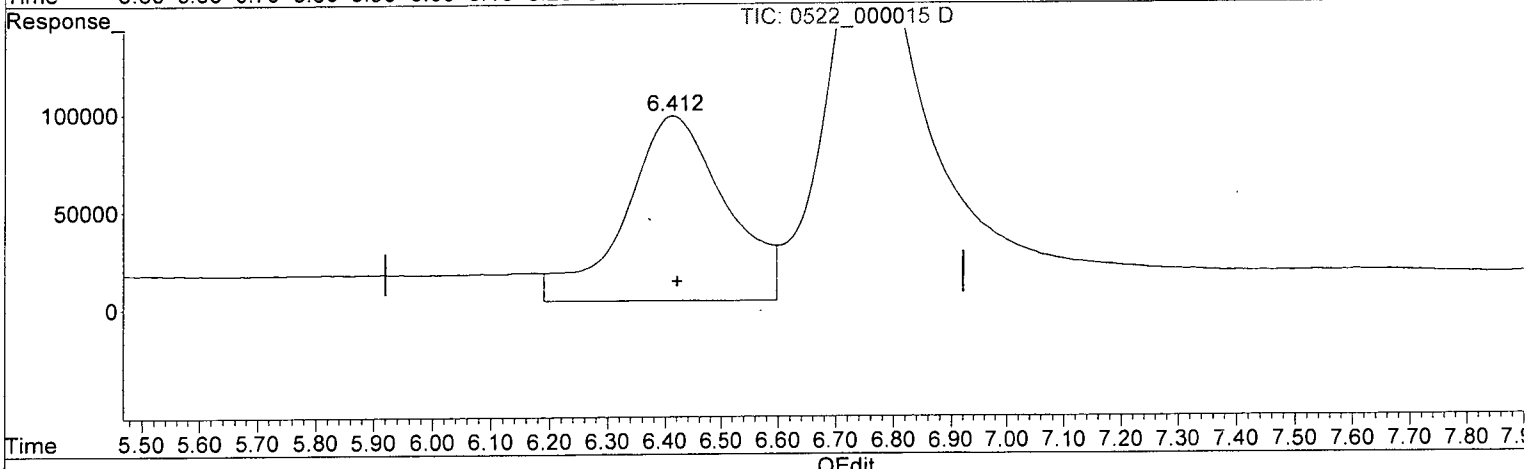
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.412min 51.095 ppb

response 94635

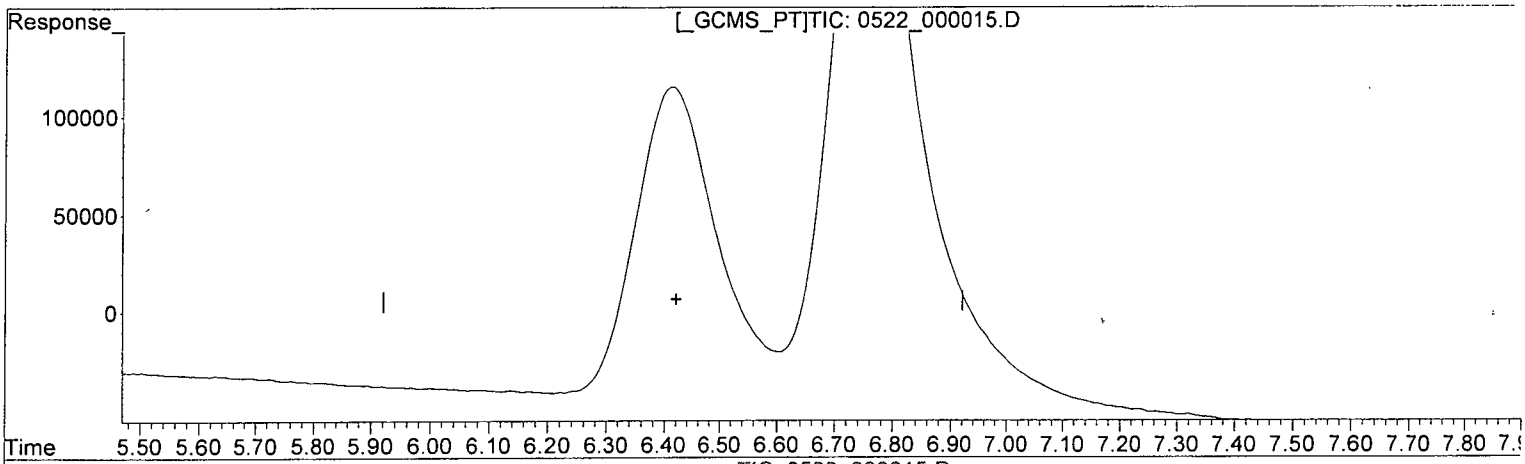
(+) = Expected Retention Time

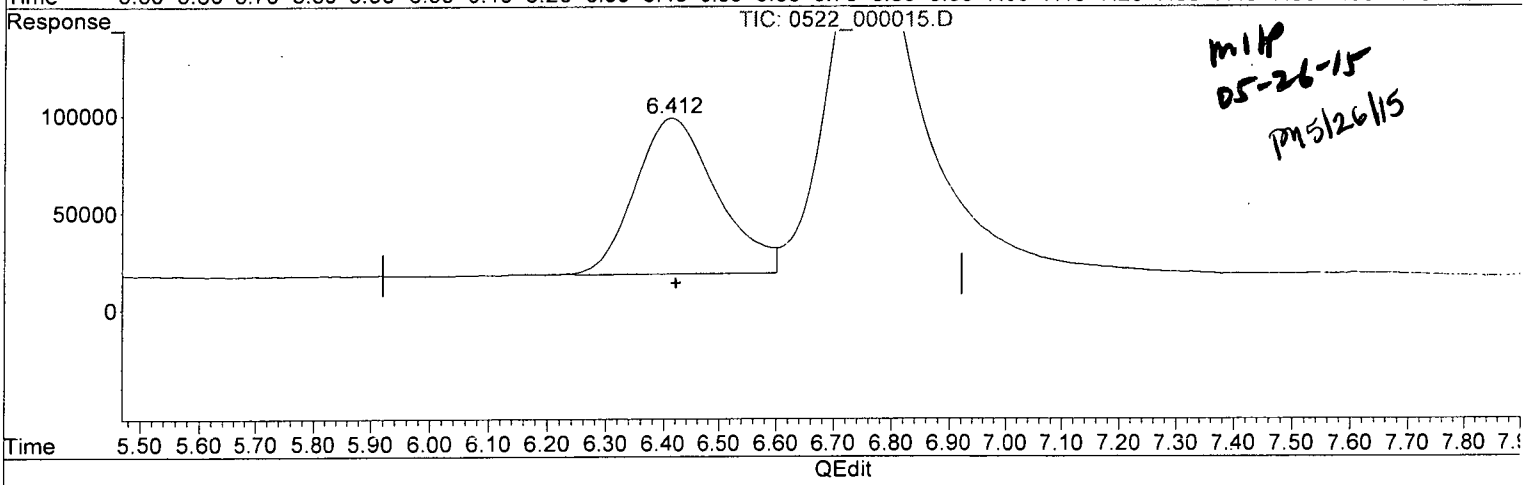
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MHP 05-26-15 PM 5/26/15

QEdit

(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.412min 43.213 ppb m

response 80036

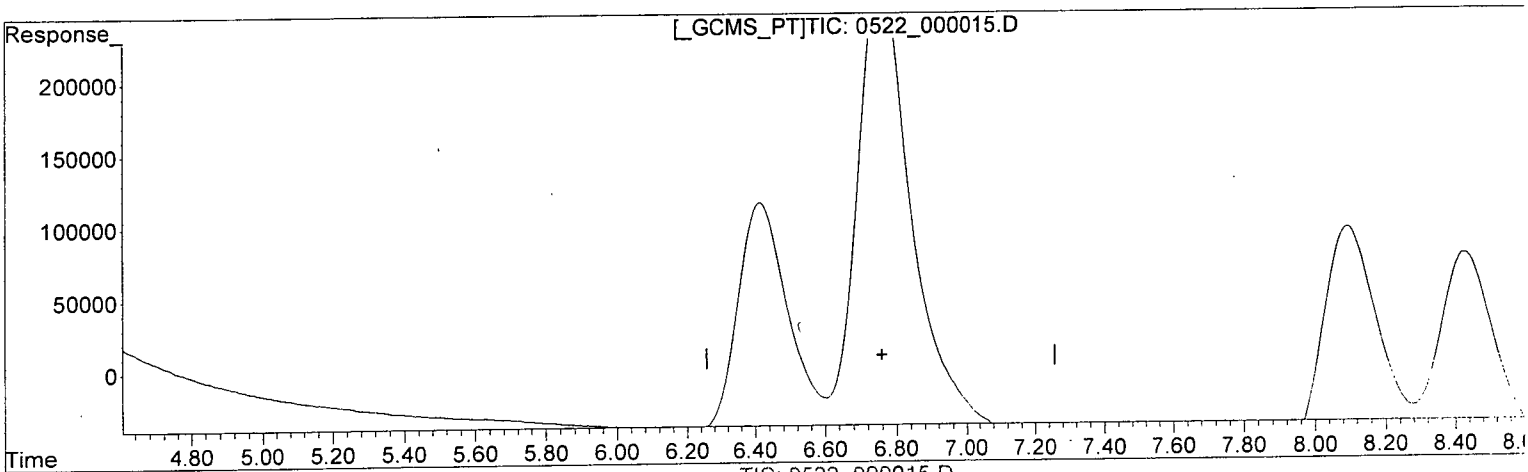
(+) = Expected Retention Time

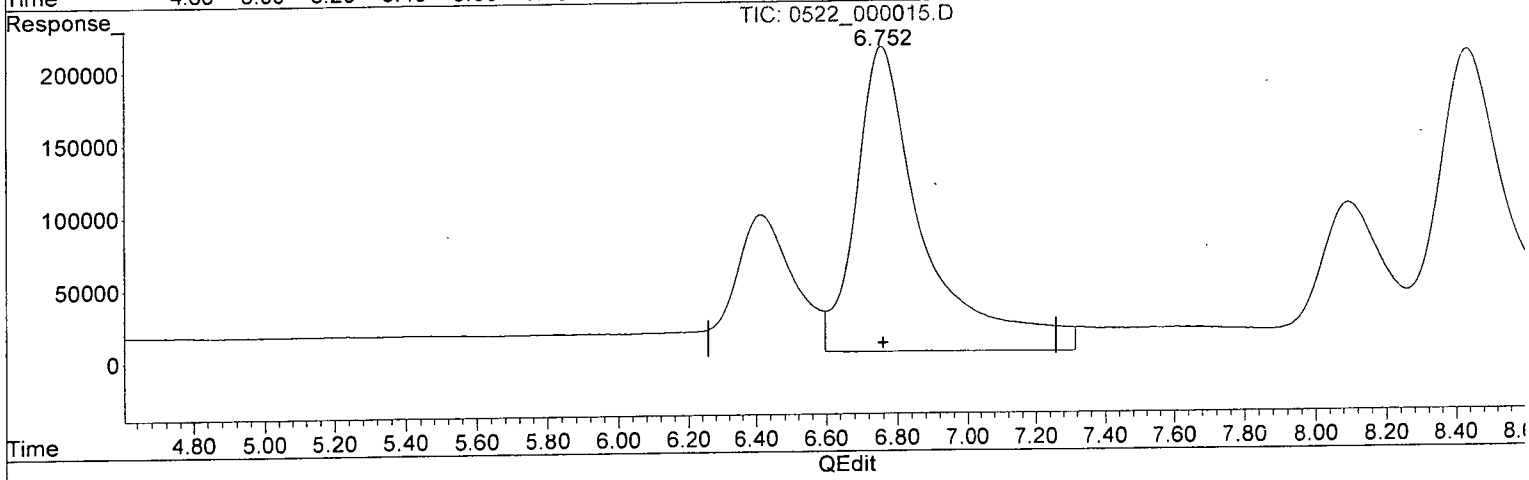
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.753min 47.022 ppb

response 210176

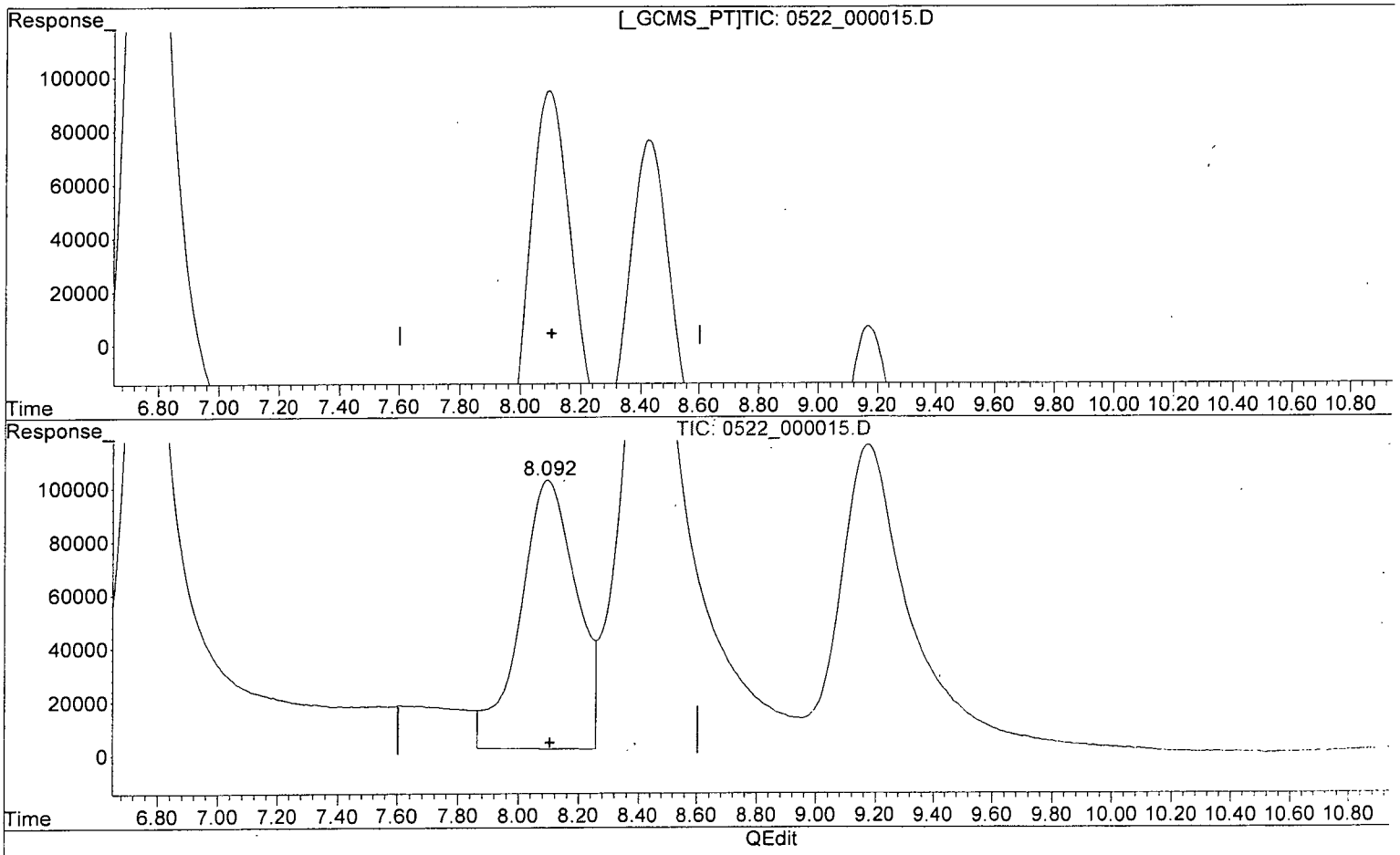
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

8.093min 47.687 ppb

response 100611

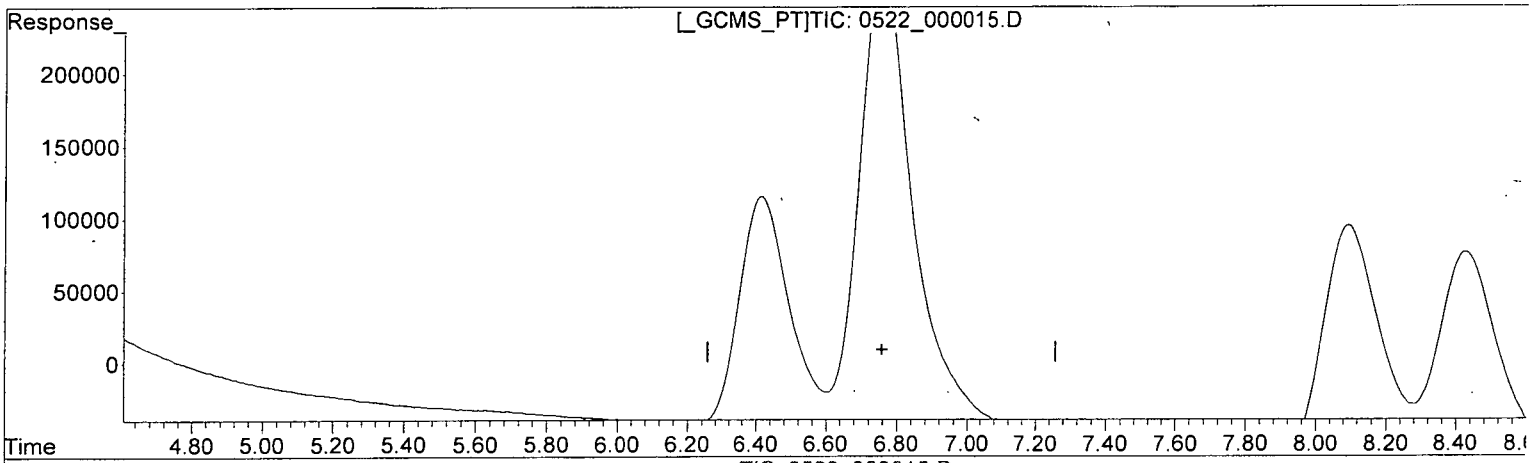
(+) = Expected Retention Time

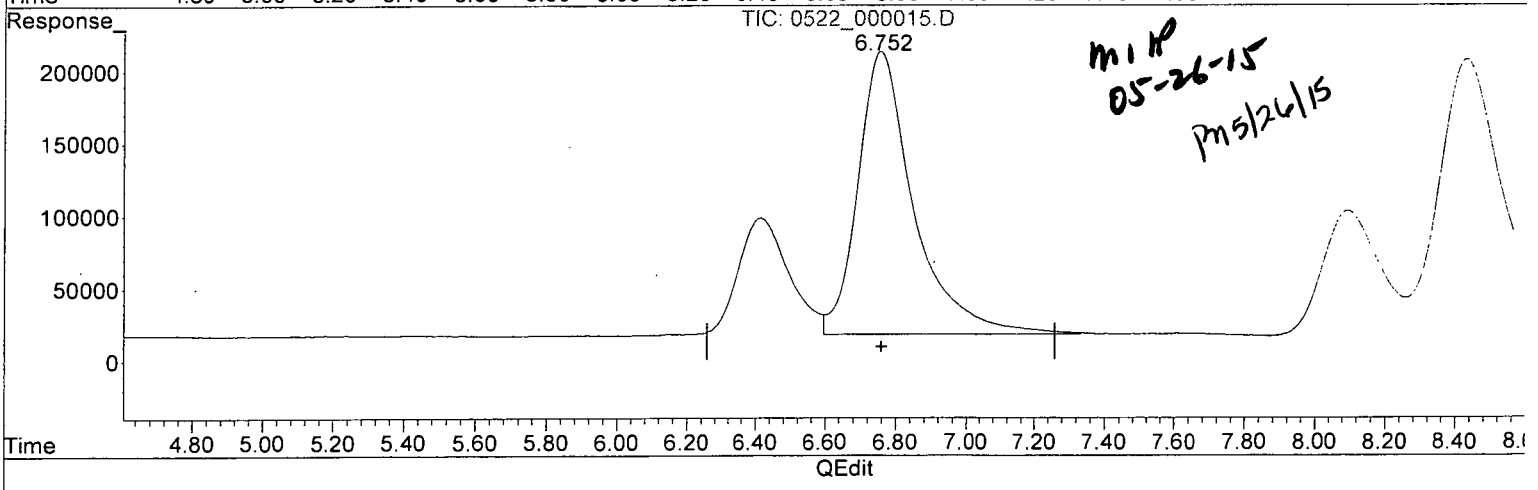
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





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(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.752min 43.759 ppb m

response 195589

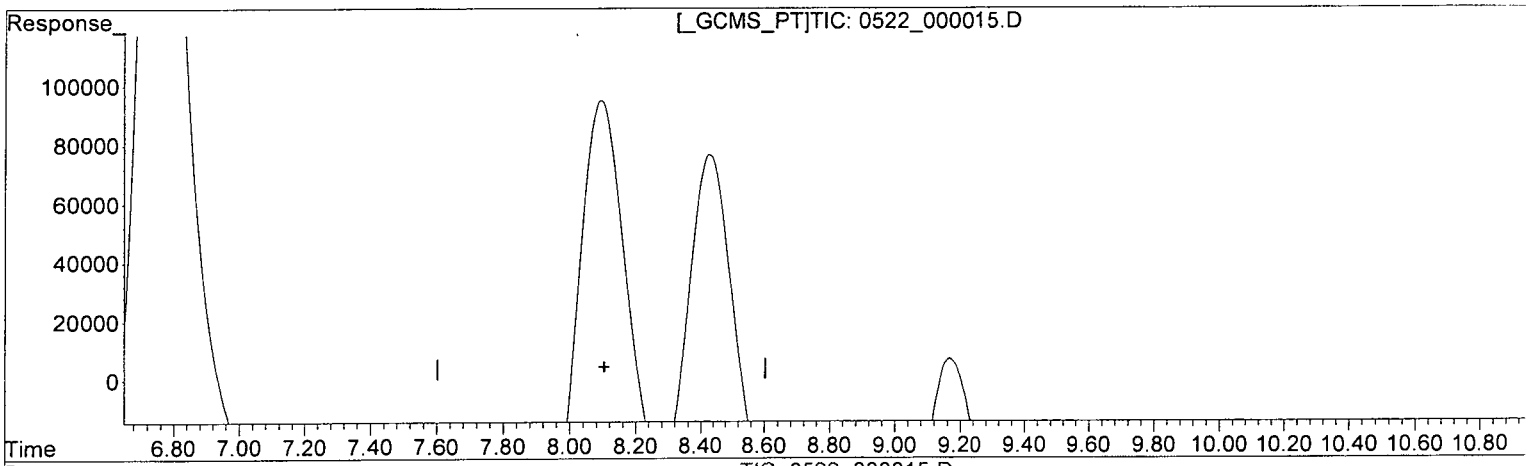
(+) = Expected Retention Time

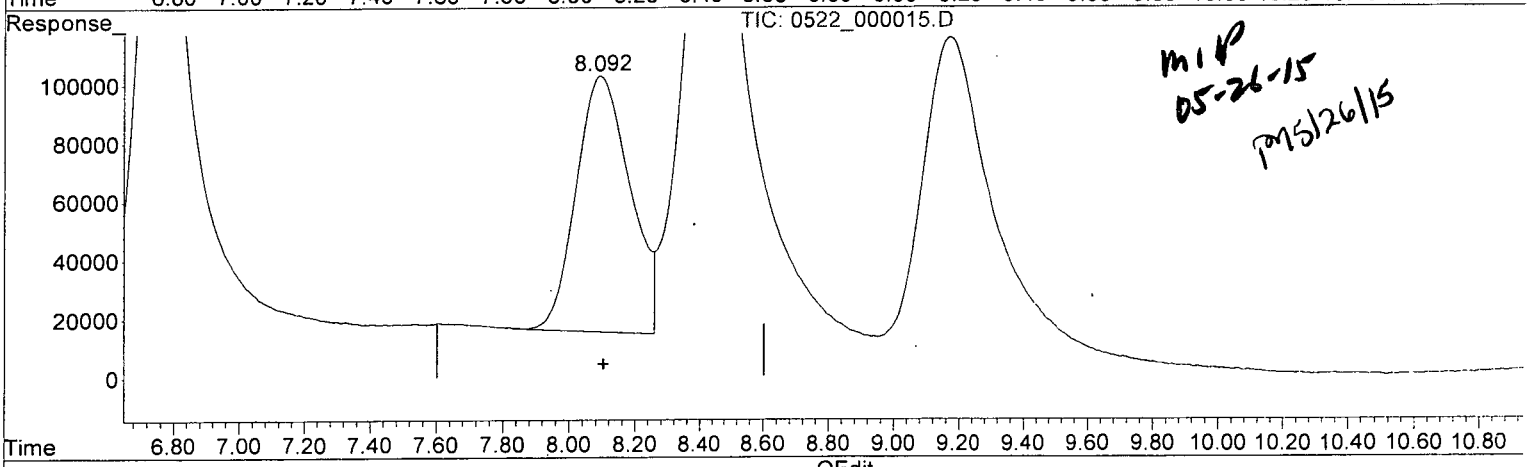
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





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(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

8.092min 41.395 ppb m

response 87334

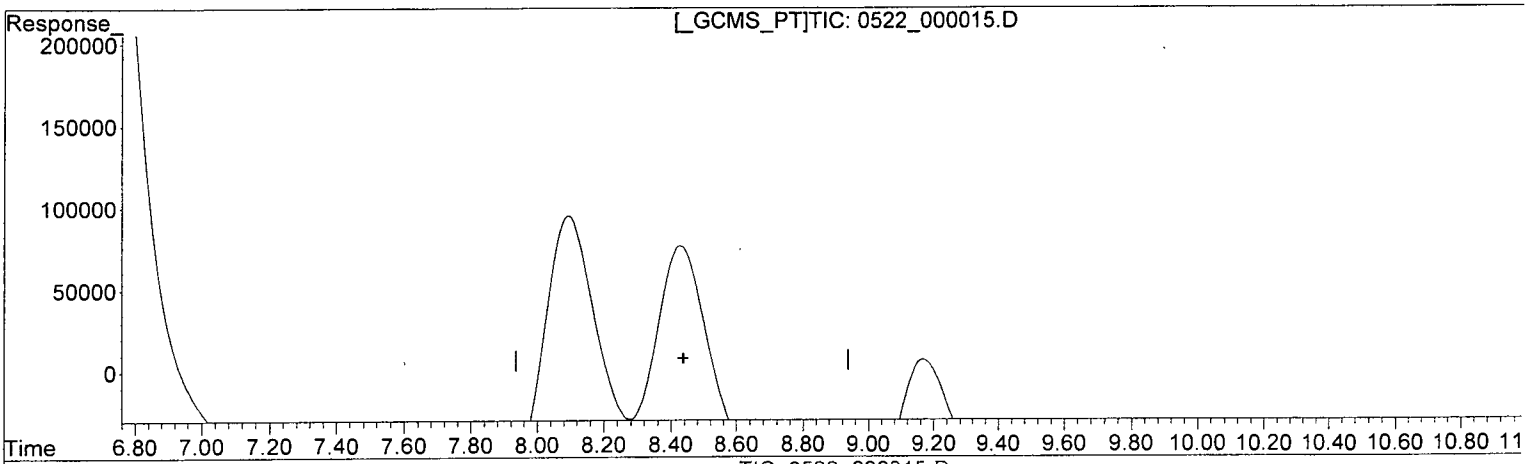
(+) = Expected Retention Time

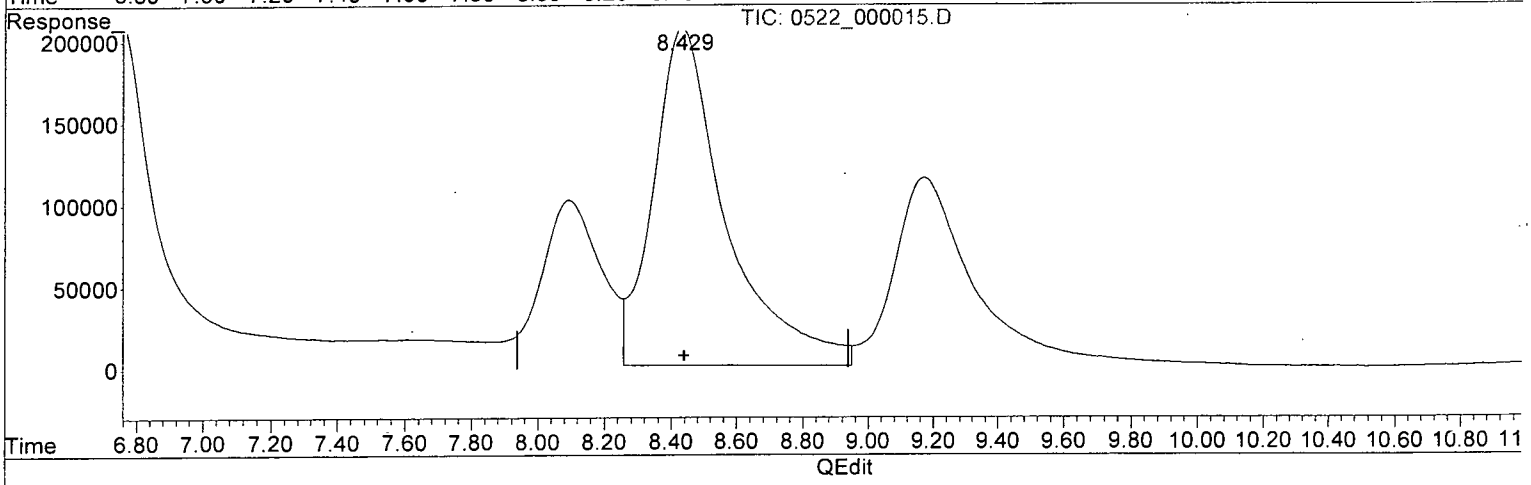
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r





(5) 1,3-DINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(5) 1,3-DINITROBENZENE #2 (TM)

8.429min 45.755 ppb

response 205777

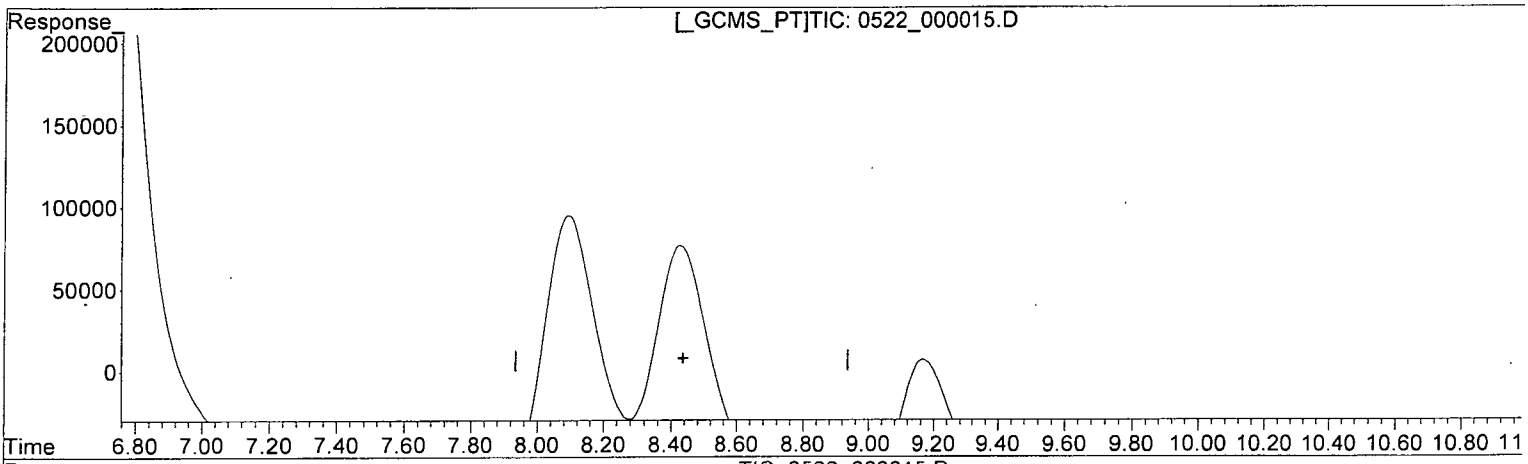
(+) = Expected Retention Time

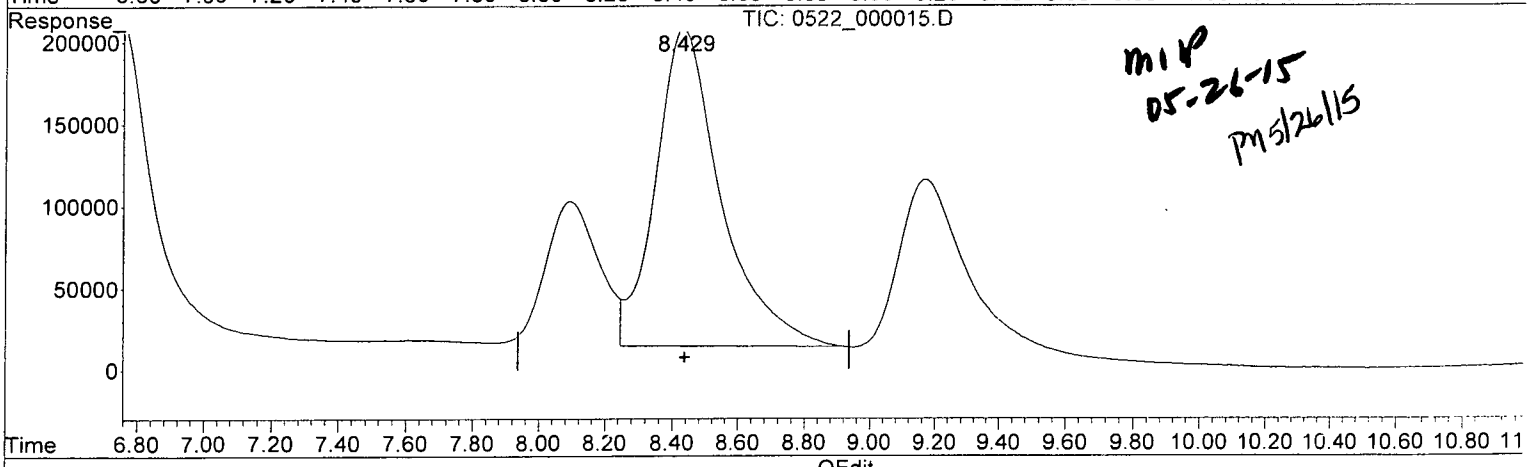
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





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QEdit

(5) 1,3-DINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(5) 1,3-DINITROBENZENE #2 (TM)

8.429min 42.975 ppb m

response 193271

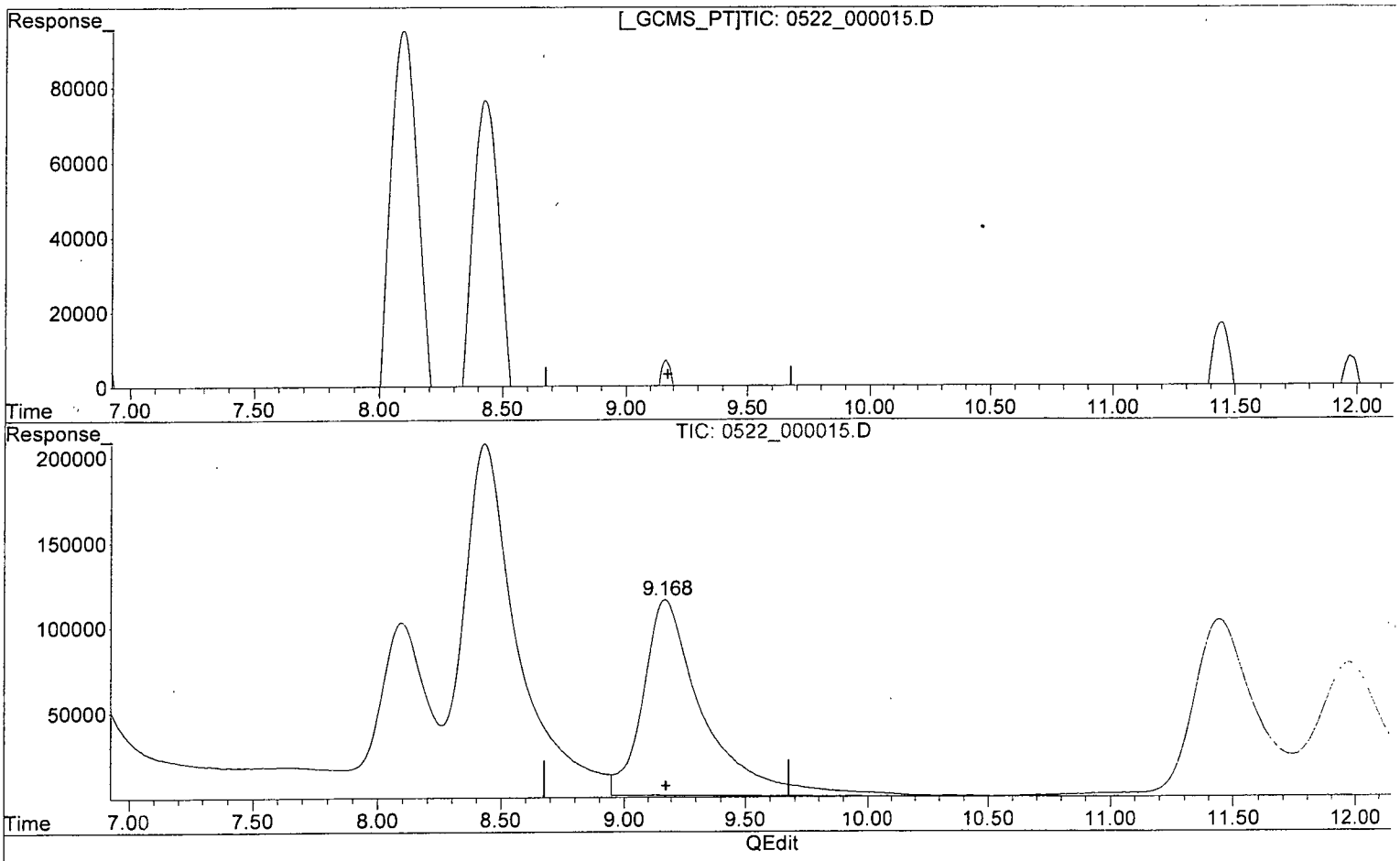
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ



(6) NITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(6) NITROBENZENE #2 (TM)

9.169min 44.660 ppb

response 114402

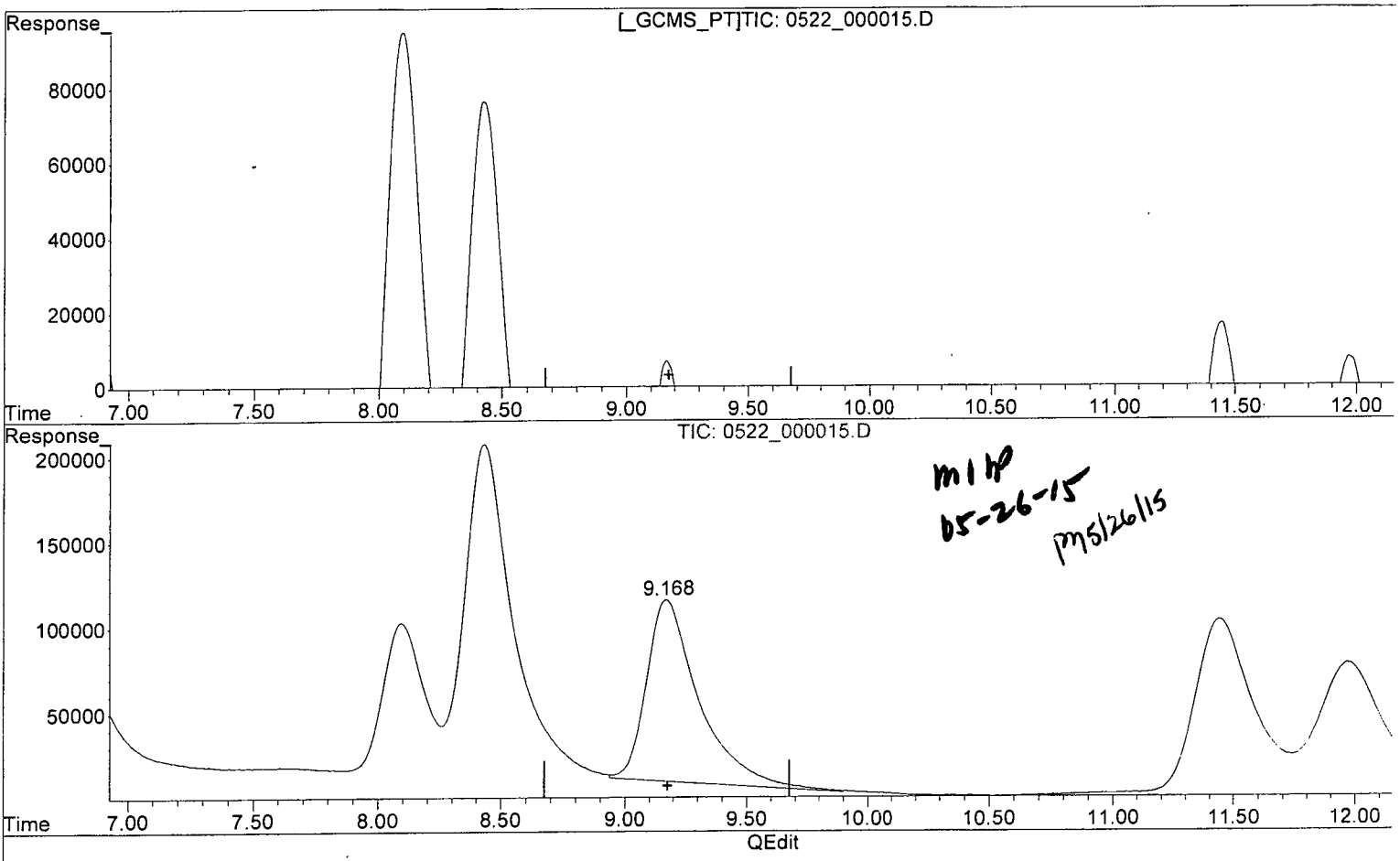
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ



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(6) NITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(6) NITROBENZENE #2 (TM)

9.168min 41.438 ppb m

response 106151

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:49:46
Operator : MP
Sample : 8330MXB_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4231 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:43:41 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-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...	12.066	0.000	36214	0	39.765	N.D. d#
9) TM TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10) TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11) TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13) TM 4-NITROTO...	0.000	0.000	0	0	N.D. d	N.D. d
14) TM 3,5-DINIT...	0.000	16.543	0	82461	N.D.	41.312 #
15) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	22.806	0.000	31484	0	34.504m	N.D. #

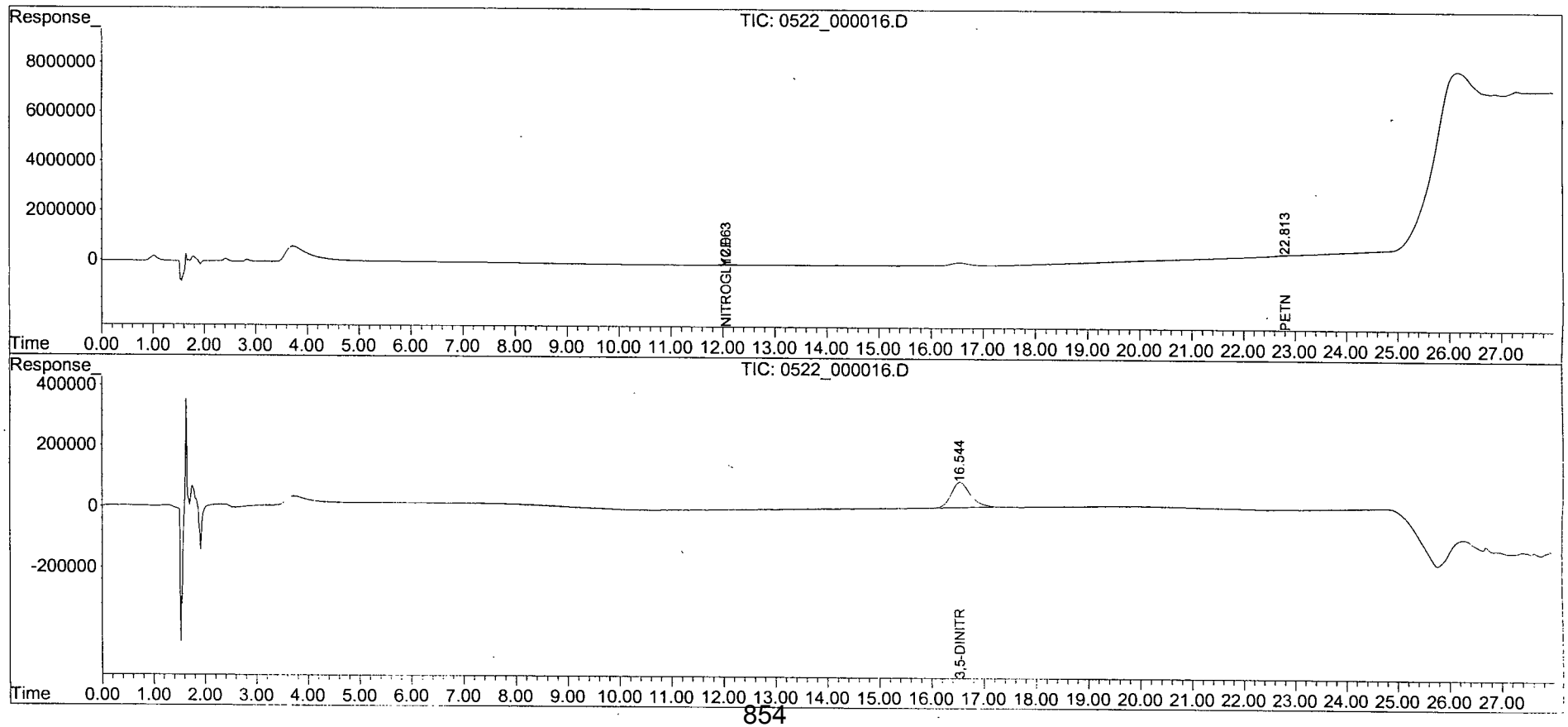
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:49:46
Operator : MP
Sample : 8330MXB_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4231 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:43:41 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

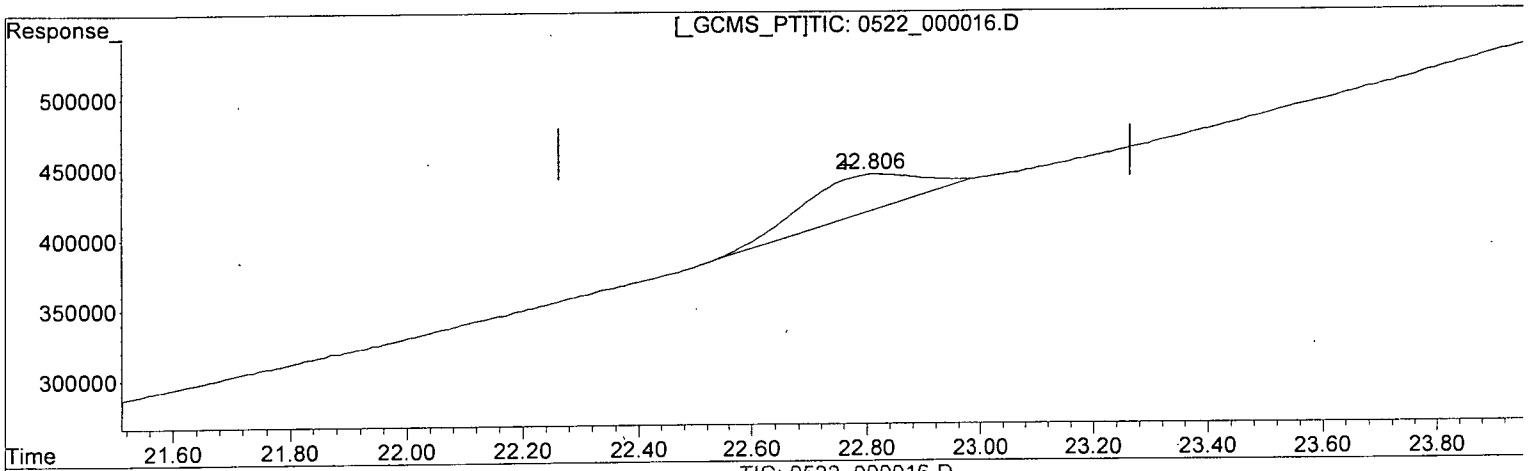


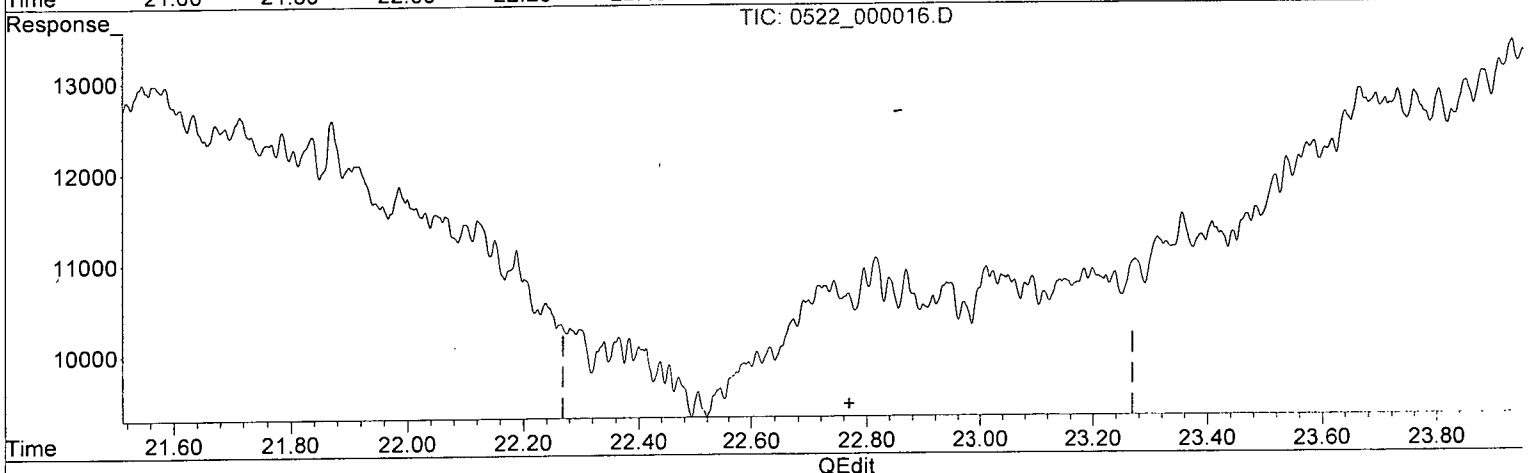
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:49:46
Operator : MP
Sample : 8330MXB_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4231 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:20 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ





QEdit

(18) PETN (TM)

22.821min 26.079 ppb

response 23796

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

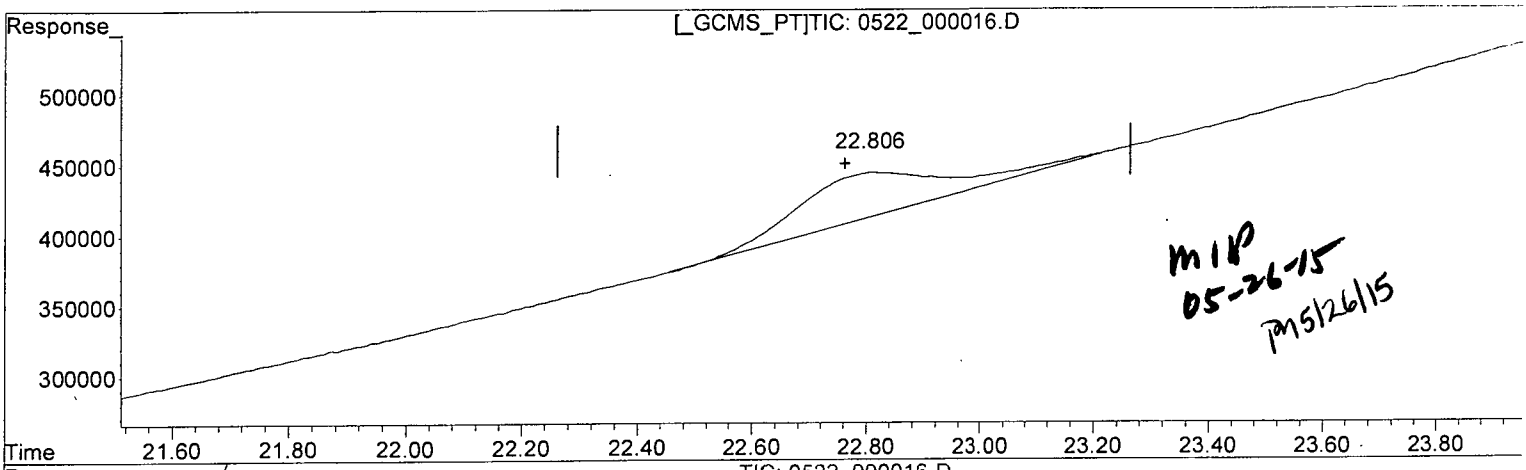
(+) = Expected Retention Time

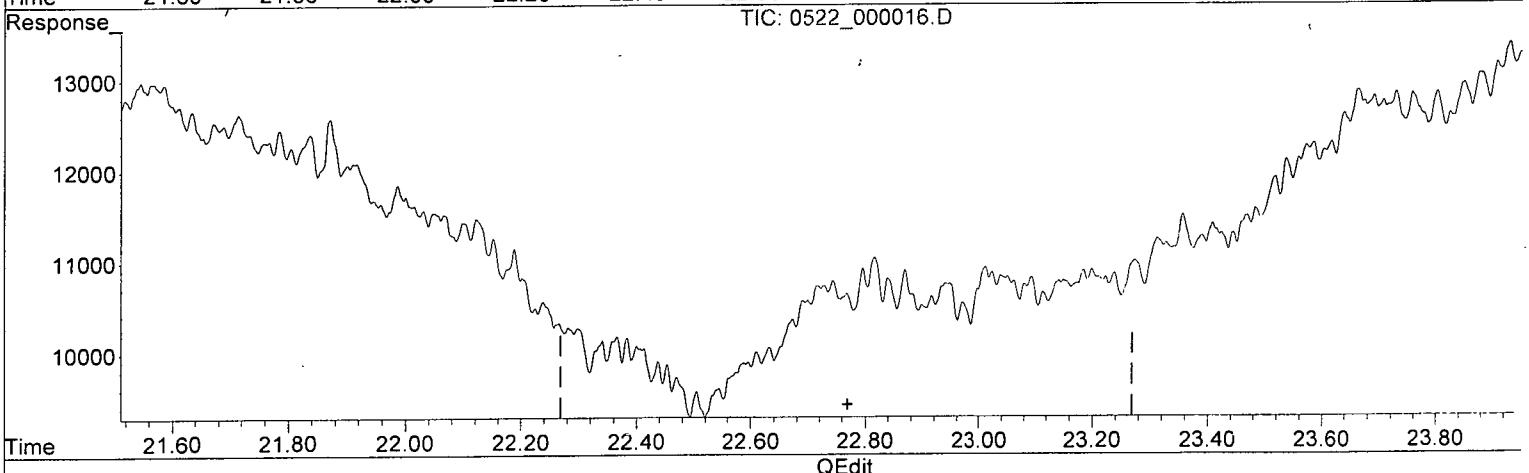
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:49:46
Operator : MP
Sample : 8330MXB_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4231 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:20 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





QEdit

(18) PETN (TM)

22.806min 34.504 ppb m

response 31484

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:29:17
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4232 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:42:38 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4) S	1,2-DINIT...	0.000	8.096	0	170391	N.D.	80.762m#
	Spiked Amount 62.500			Recovery	=	0.00%	129.22%
	Target Compounds						
1) TM	HMX	0.000	4.078	0	187333	N.D.	89.085m#
2) TM	RDX	0.000	6.416	0	158283	N.D.	85.460m#
3) TM	1,3,5-TRI...	0.000	6.754	0	383111	N.D.	85.713m#
5) TM	1,3-DINIT...	0.000	8.432	0	382410	N.D.	85.031m#
6) TM	NITROBENZENE	0.000	9.173	0	220159	N.D.	85.944 #
7) TM	2,4,6-TRI...	0.000	11.447	0	198494	N.D.	78.187 #
8) TM	NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM	TETRYL	11.982	11.980	121440	144767	NoCal	87.881 #
10) TM	2,6-DINIT...	13.453	13.452	184036	118801	NoCal	80.430 #
11) TM	2,4-DINIT...	0.000	14.059	0	206563	N.D.	81.985 #
12) TM	2-NITROTO...	0.000	15.467	0	84122	N.D.	79.789 #
13) TM	4-NITROTO...	0.000	16.888	0	74548	N.D.	85.119 #
14) TM	3,5-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
15) TM	3-NITROTO...	0.000	18.071	0	92548	N.D.	86.556 #
16) TM	4-AMINO-2...	0.000	18.658	0	137010	N.D.	97.797 #
17) TM	2-AMINO-4...	0.000	19.613	0	172579	N.D.	84.662 #
18) TM	PETN	0.000	0.000	0	0	N.D.	N.D.

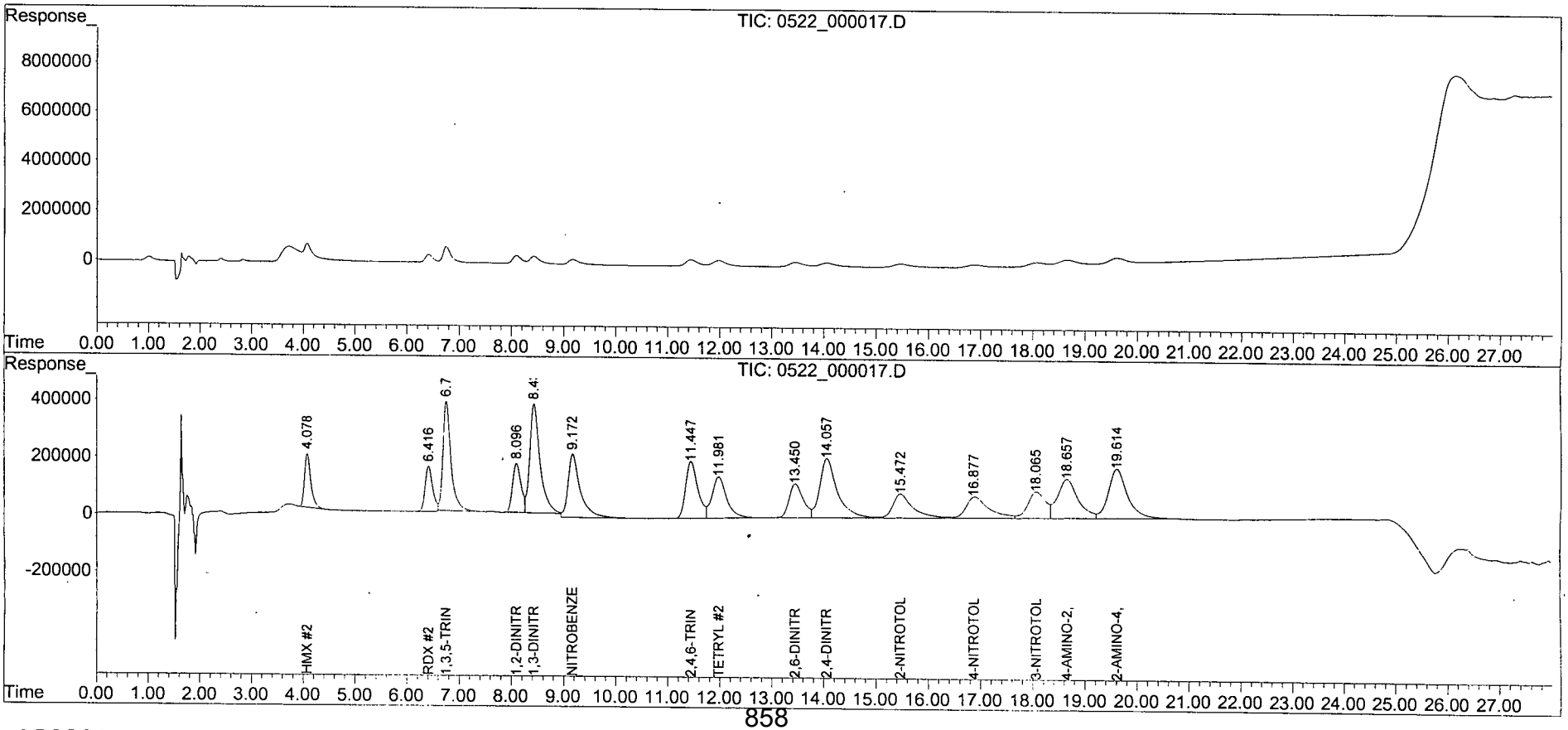
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:29:17
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4232 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:42:38 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

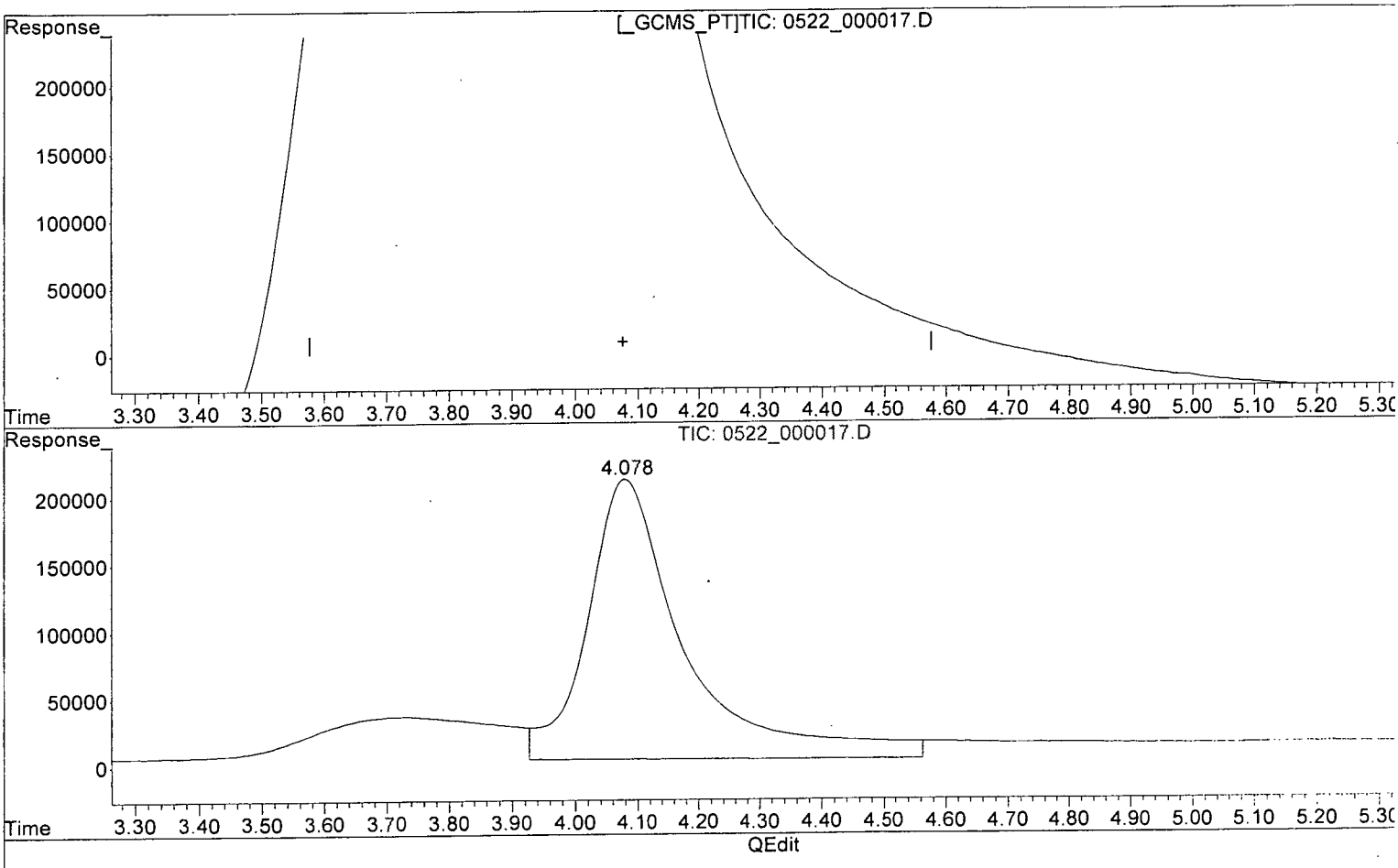


Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:29:17
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4232 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:23 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r



(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.079min 98.980 ppb

response 208141

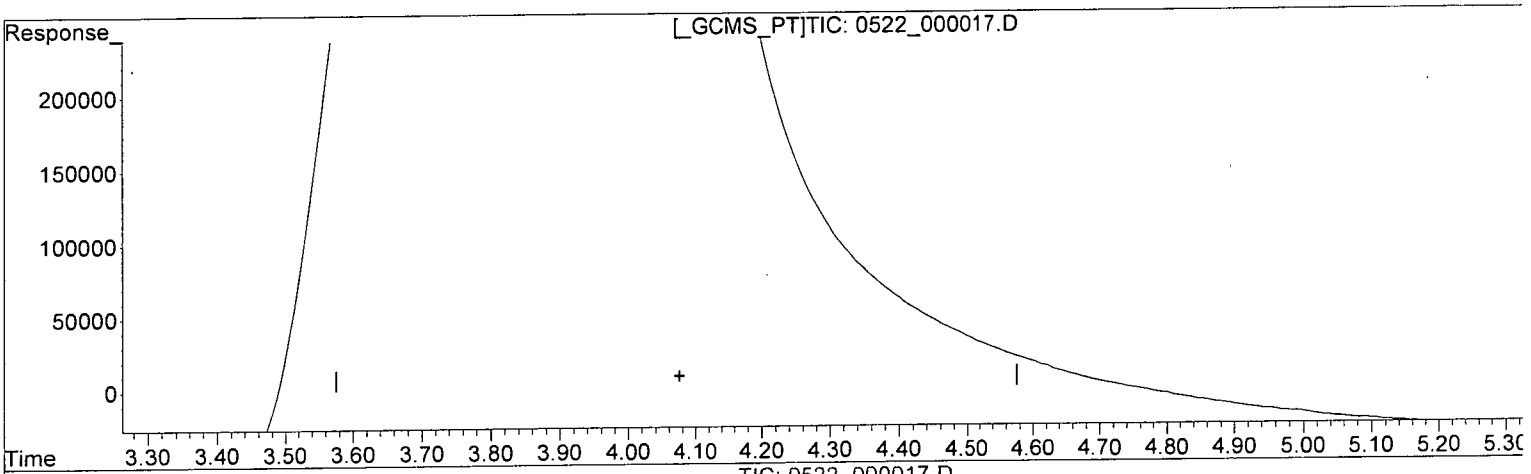
(+) = Expected Retention Time

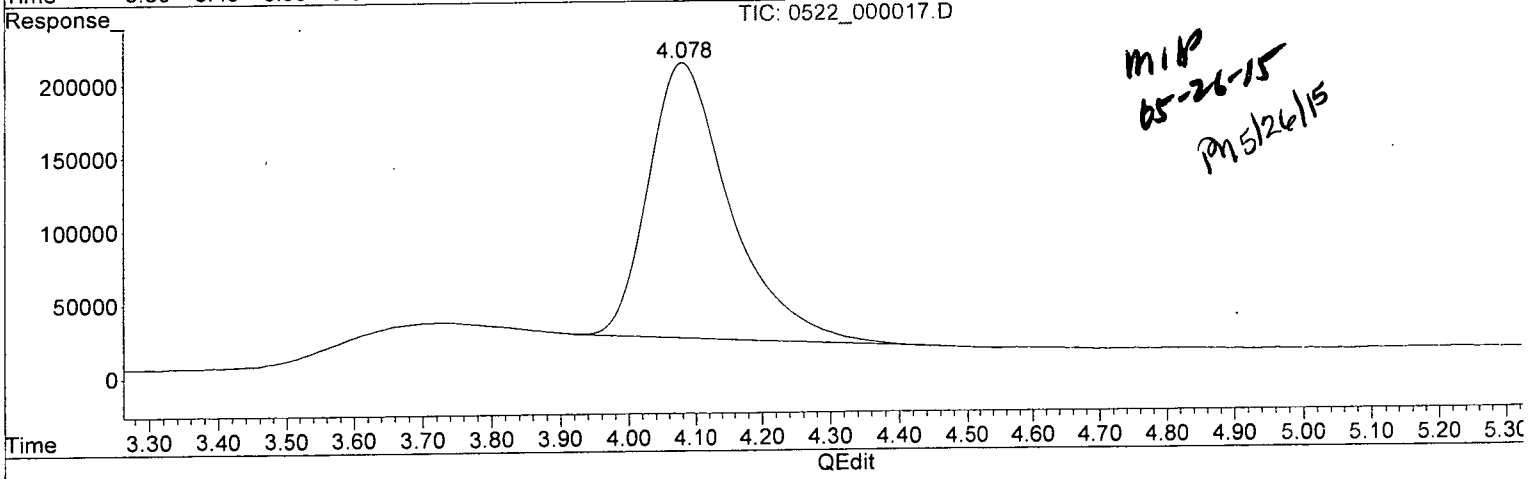
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:29:17
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4232 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:23 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r





MLP 05-26-15 pm 5/26/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.078min 89.085 ppb m

response 187333

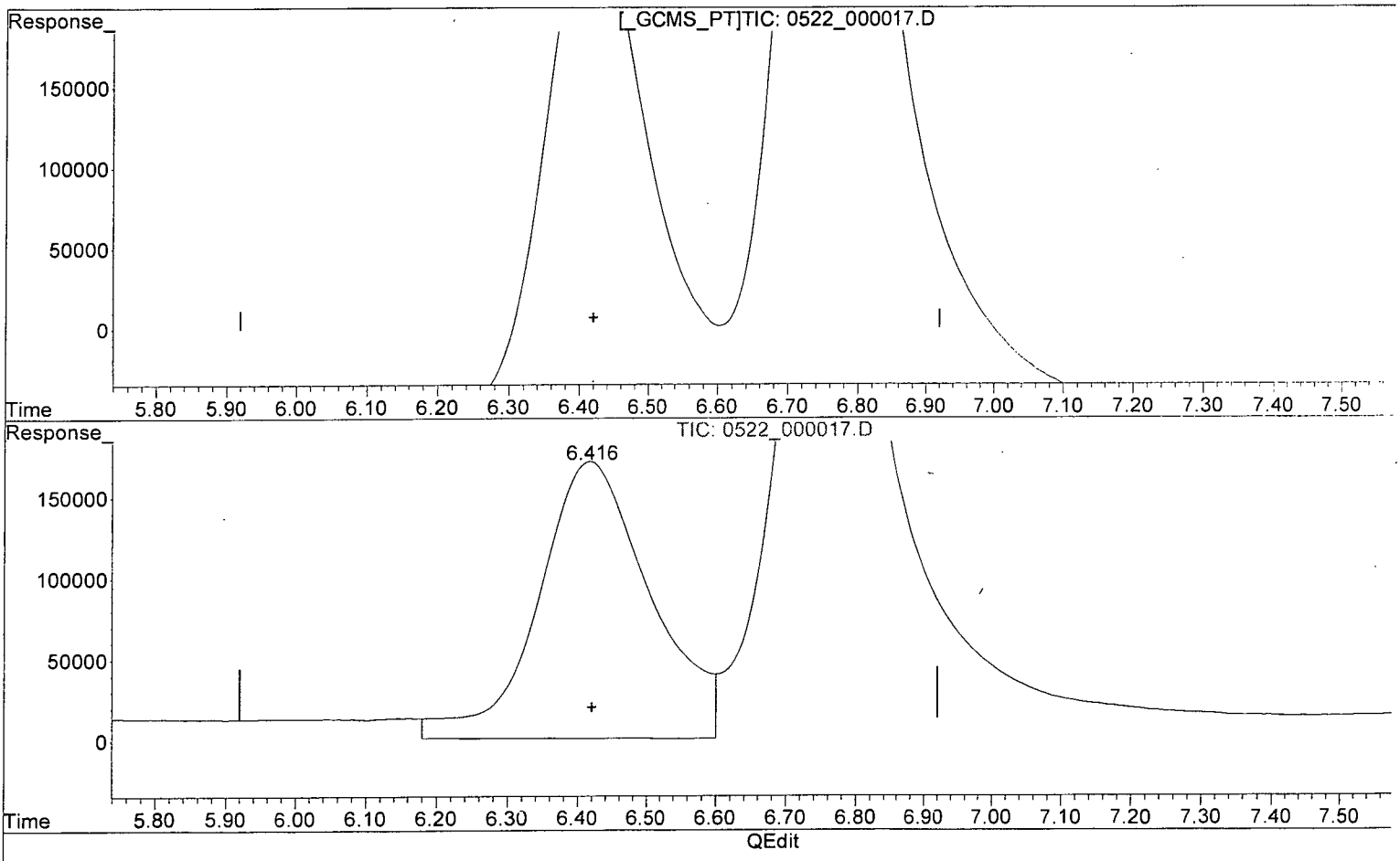
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:29:17
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4232 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:23 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ



(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.417min 92.221 ppb

response 170806

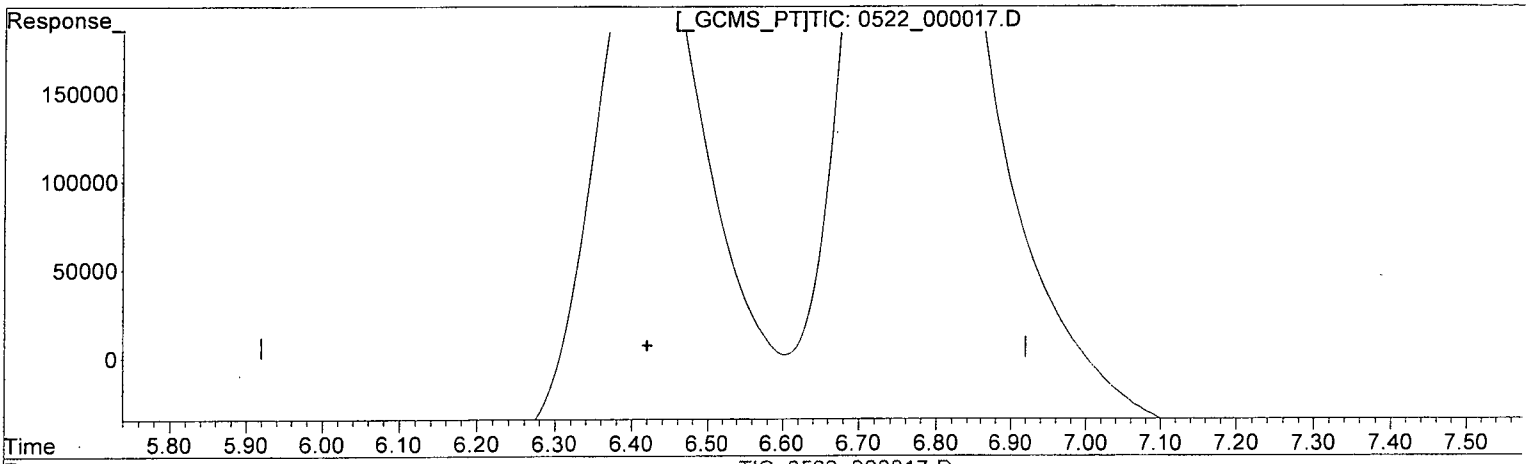
(+) = Expected Retention Time

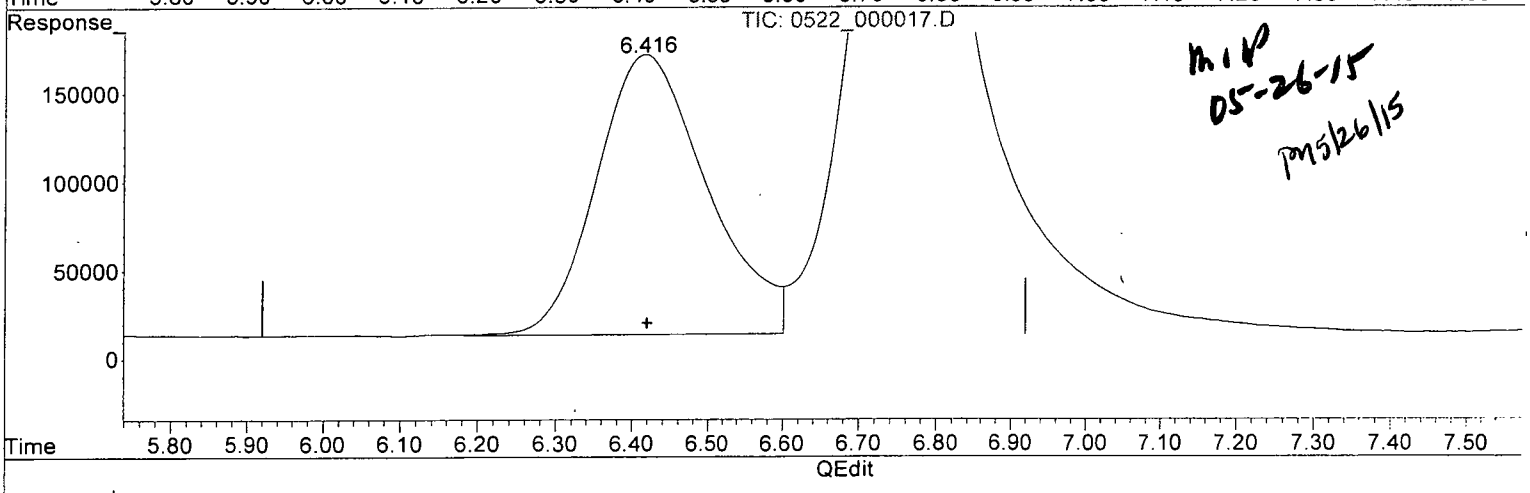
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:29:17
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4232 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:23 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MP 05-26-15 pm5/26/15

(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.416min 85.460 ppb m

response 158283

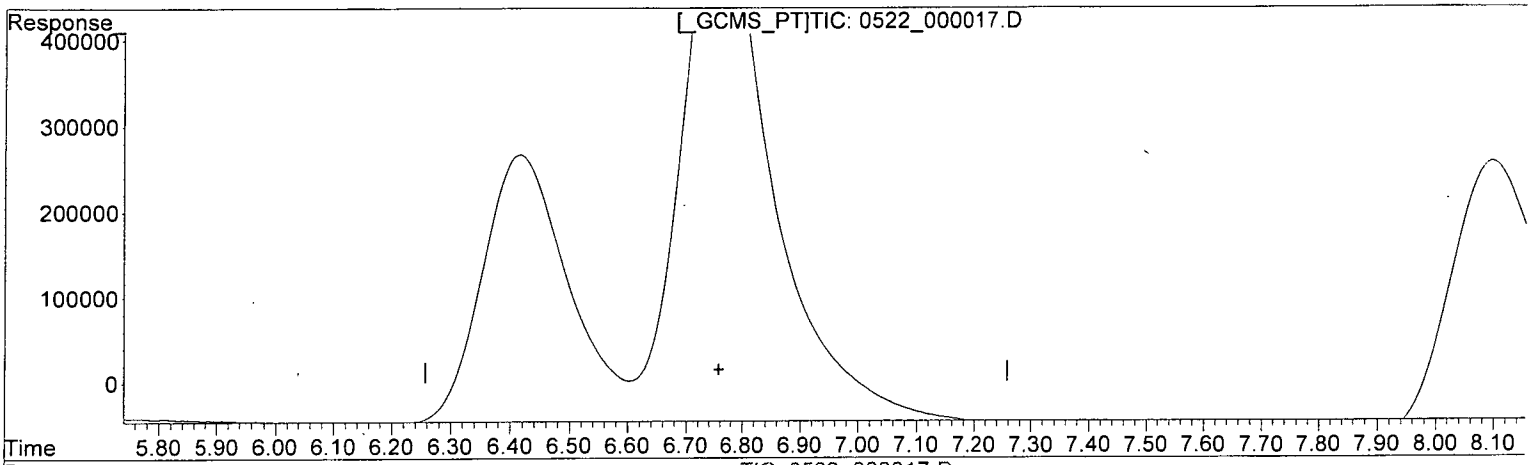
(+) = Expected Retention Time

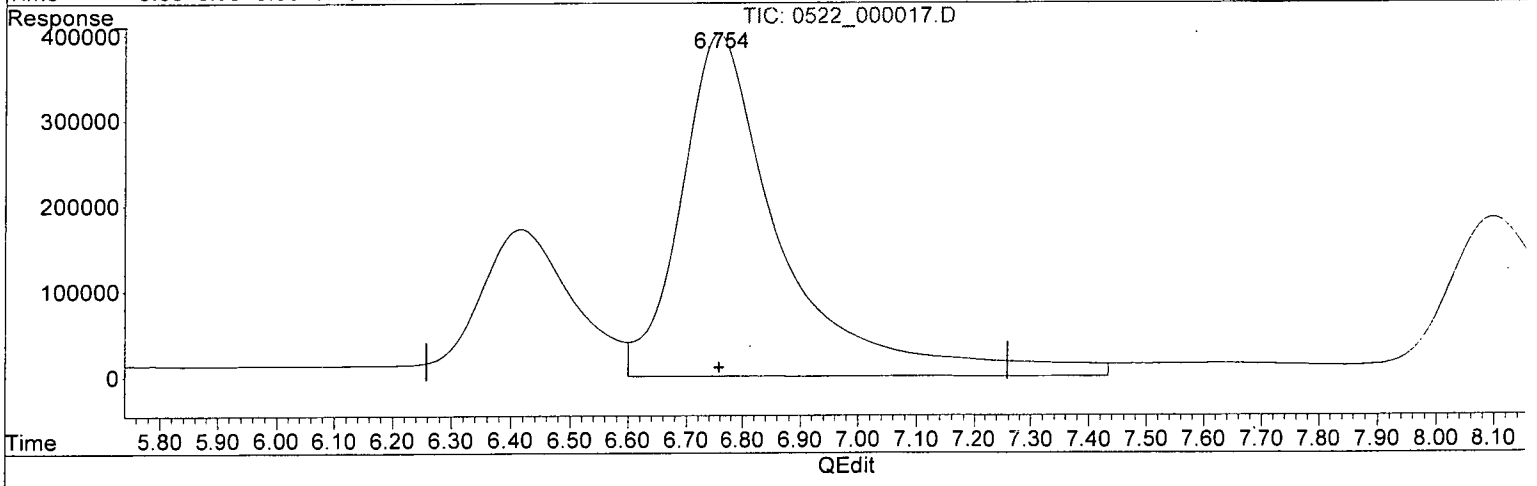
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:29:17
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4232 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:23 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r





(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.755min 89.469 ppb

response 399898

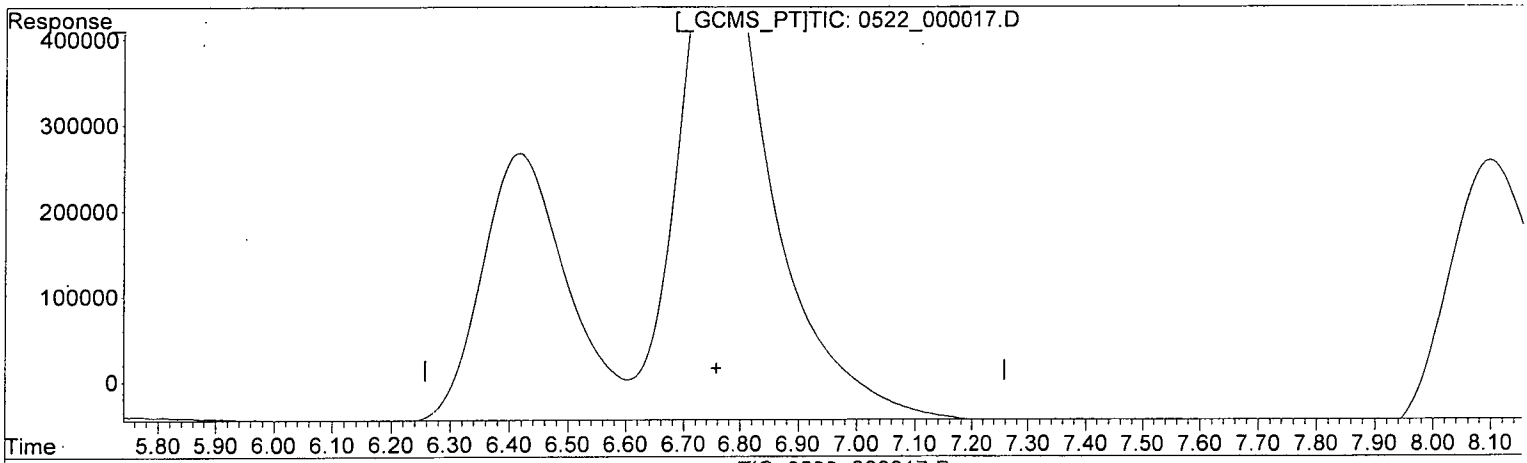
(+) = Expected Retention Time

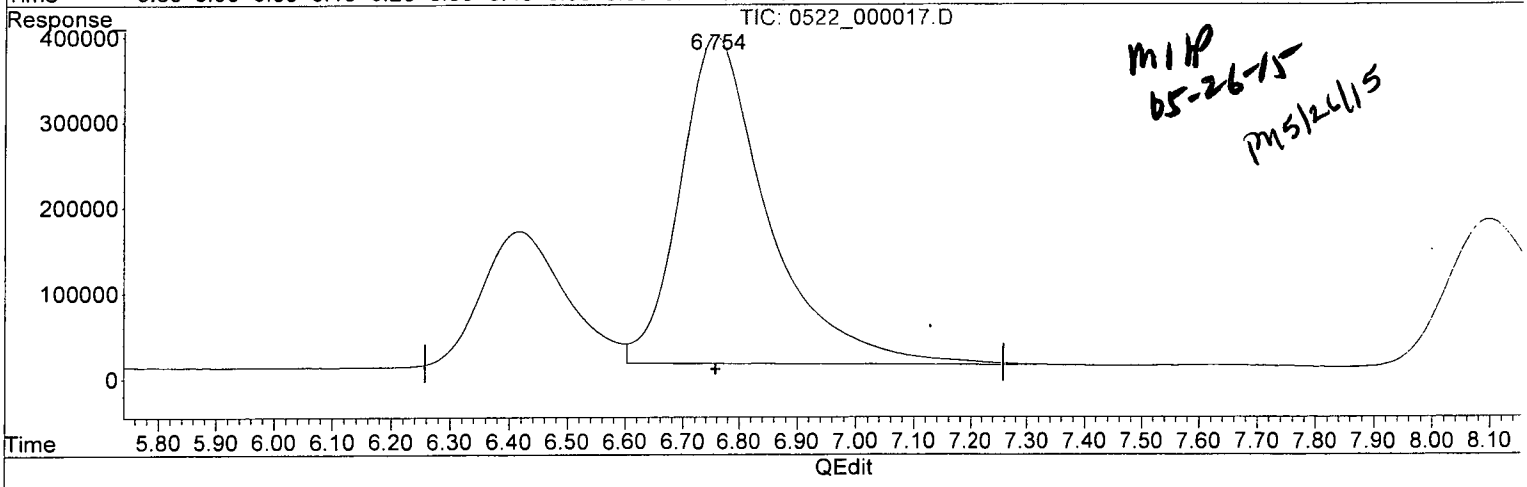
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:29:17
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4232 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:23 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MHP 05-26-15 PM 5/26/15

(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.754min 85.713 ppb m

response 383111

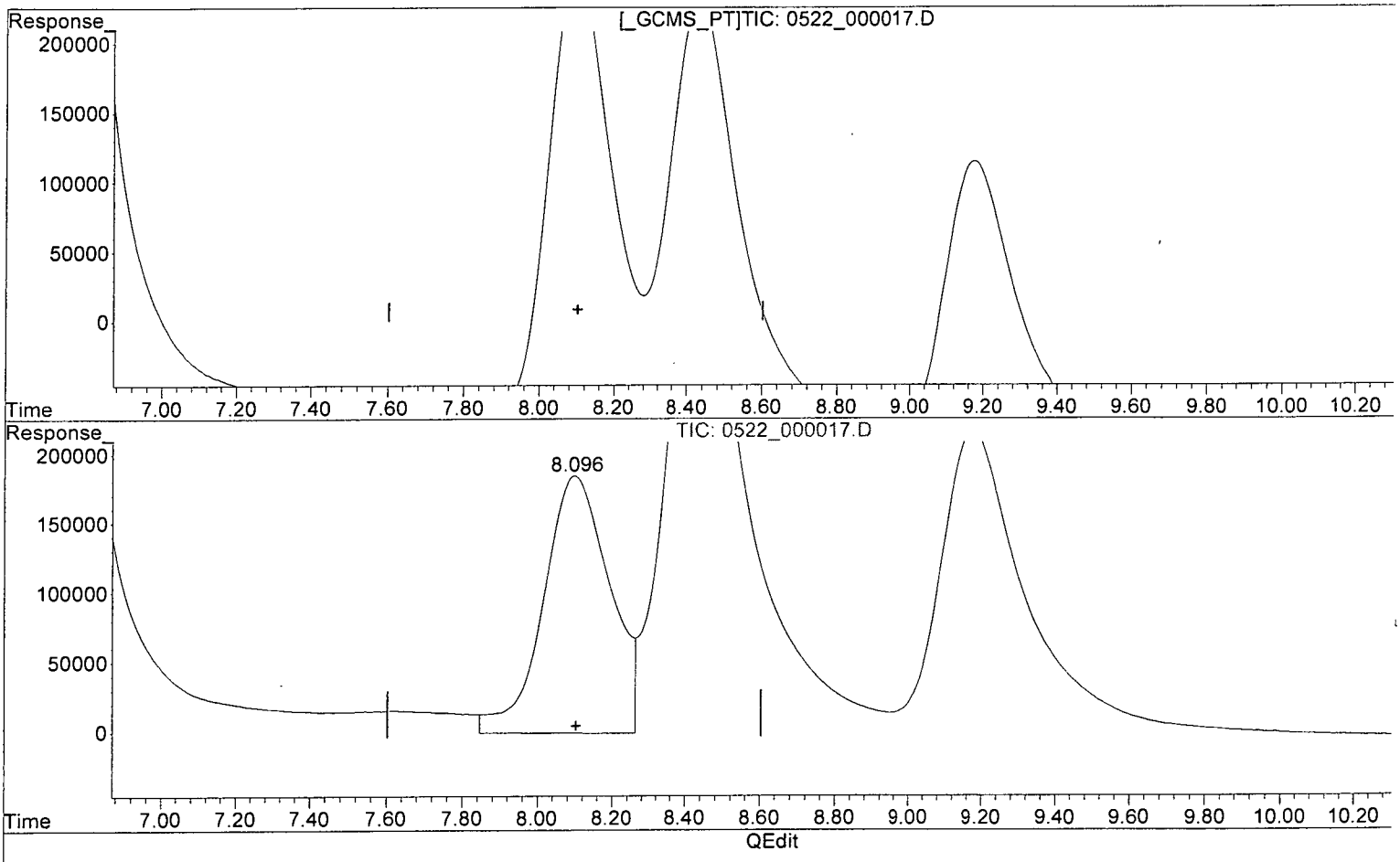
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:29:17
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4232 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:23 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

8.097min 87.674 ppb

response 184974

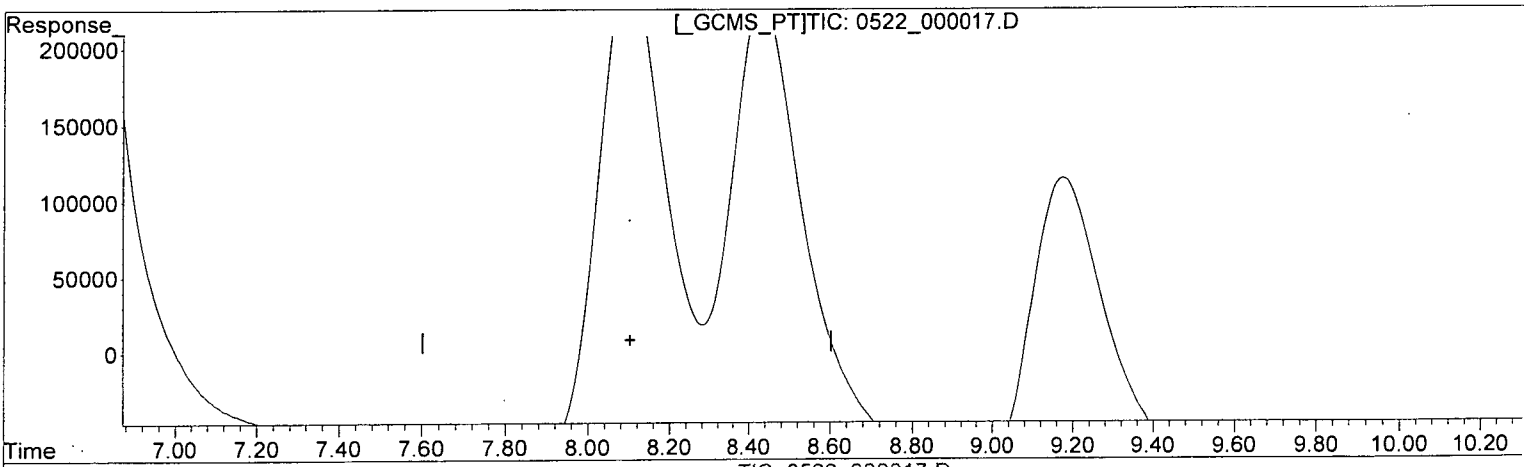
(+) = Expected Retention Time

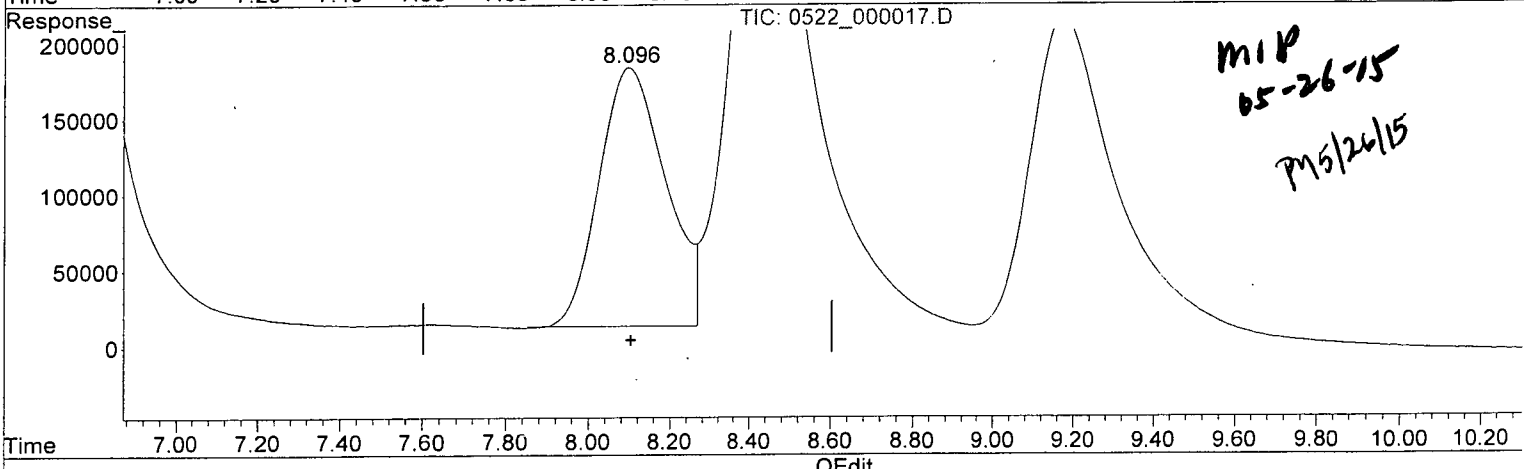
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:29:17
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4232 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:23 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ





MIP 05-26-15

PM 5/26/15

QEdit

(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

8.096min 80.762 ppb m

response 170391

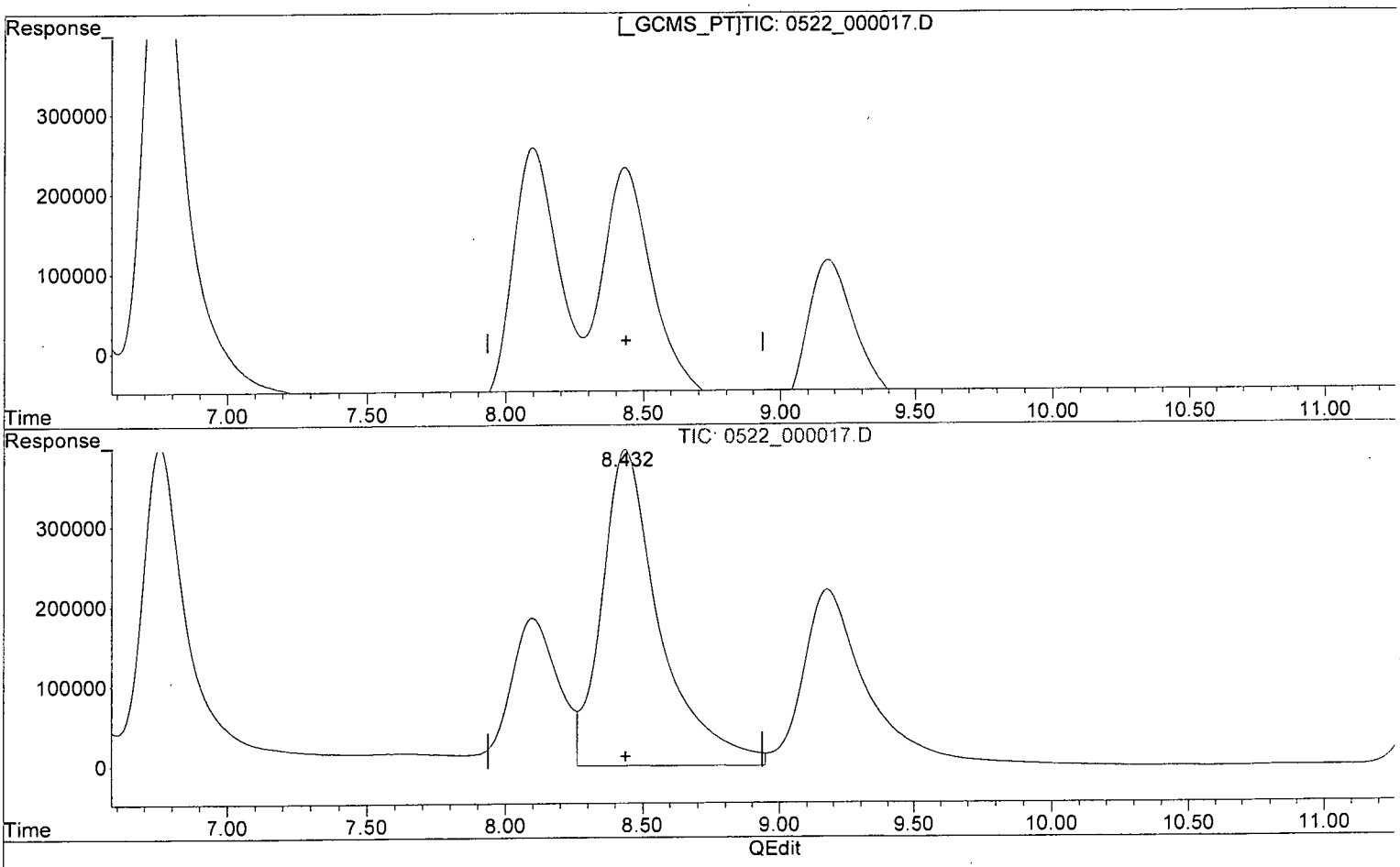
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:29:17
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4232 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:23 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r



(5) 1,3-DINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(5) 1,3-DINITROBENZENE #2 (TM)

8.433min 88.015 ppb

response 395834

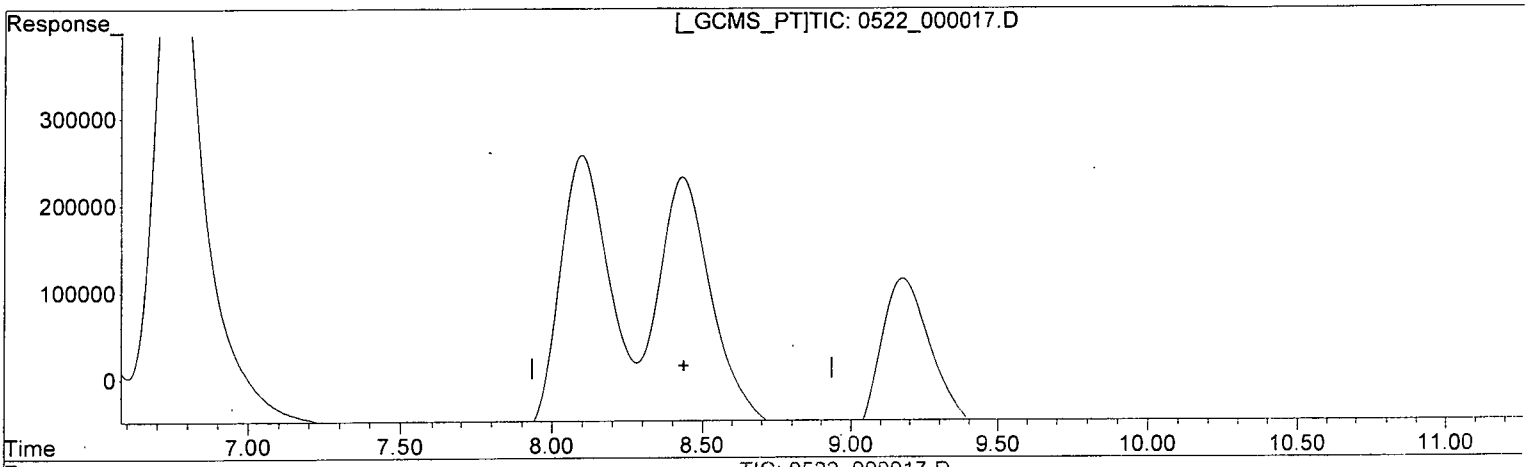
(+) = Expected Retention Time

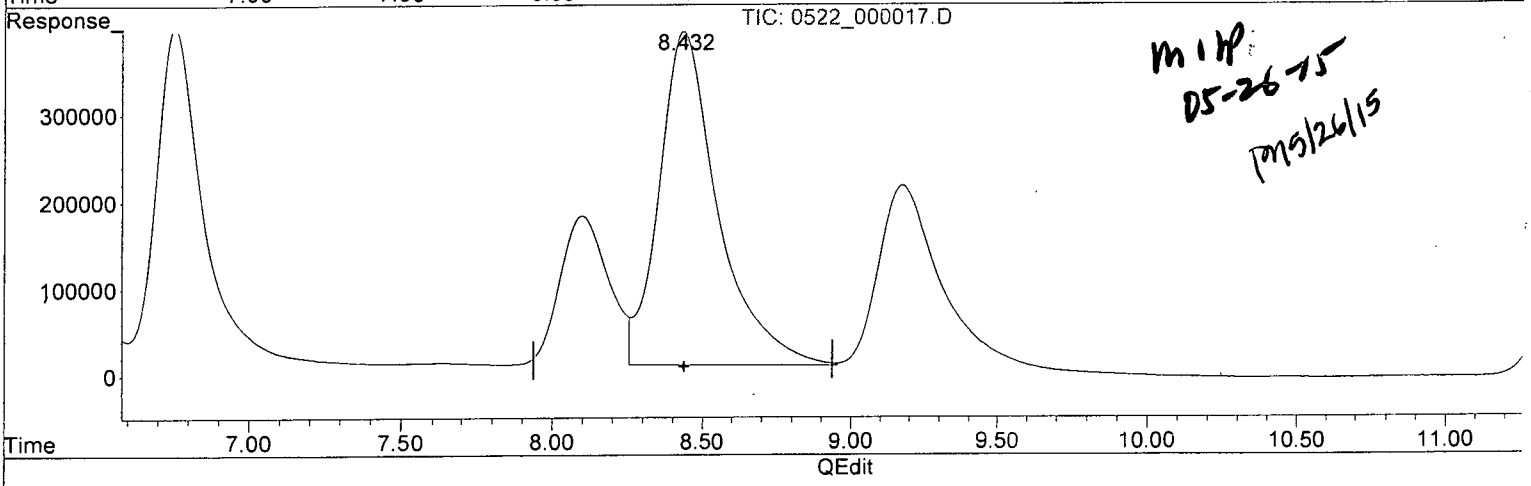
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 19:29:17
Operator : MP
Sample : 8330MXA_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4232 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:23 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





MHP
05-26-15
PM 5/26/15

(5) 1,3-DINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(5) 1,3-DINITROBENZENE #2 (TM)

8.432min 85.031 ppb m

response 382410

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000018.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:08:48
Operator : MP
Sample : 8330MXB_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4288 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:40:38 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-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.	N.D.
7) TM 2,4,6-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
8) TM NITROGLYC...	12.070	0.000	71317	0	78.310	N.D. d#
9) TM TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10) TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11) TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13) TM 4-NITROTO...	0.000	0.000	0	0	N.D. d	N.D. d
14) TM 3,5-DINIT...	0.000	16.571	0	165081	N.D.	82.703 #
15) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	22.803	0.000	69644	0	76.325m	N.D. #

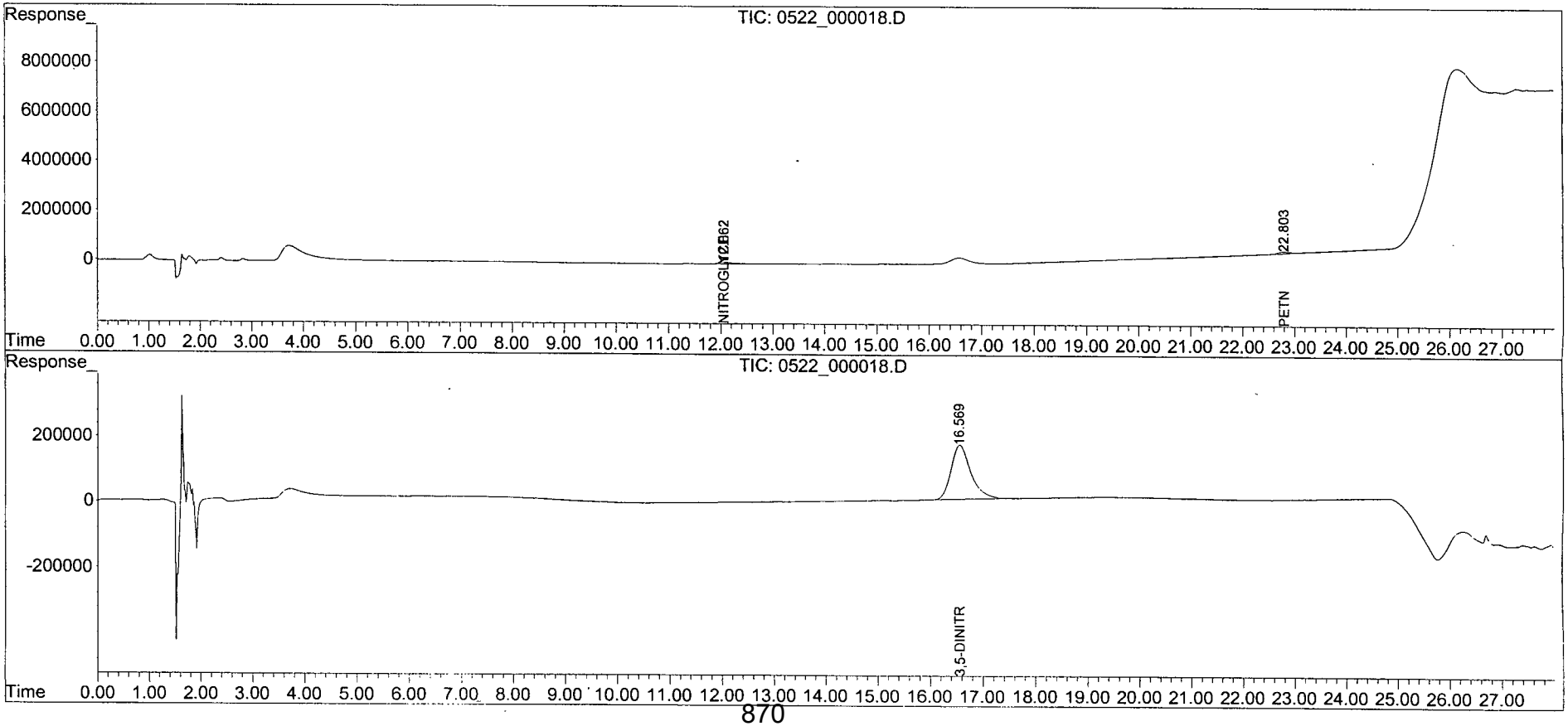
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000018.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:08:48
Operator : MP
Sample : 8330MXB_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4288 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:40:38 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

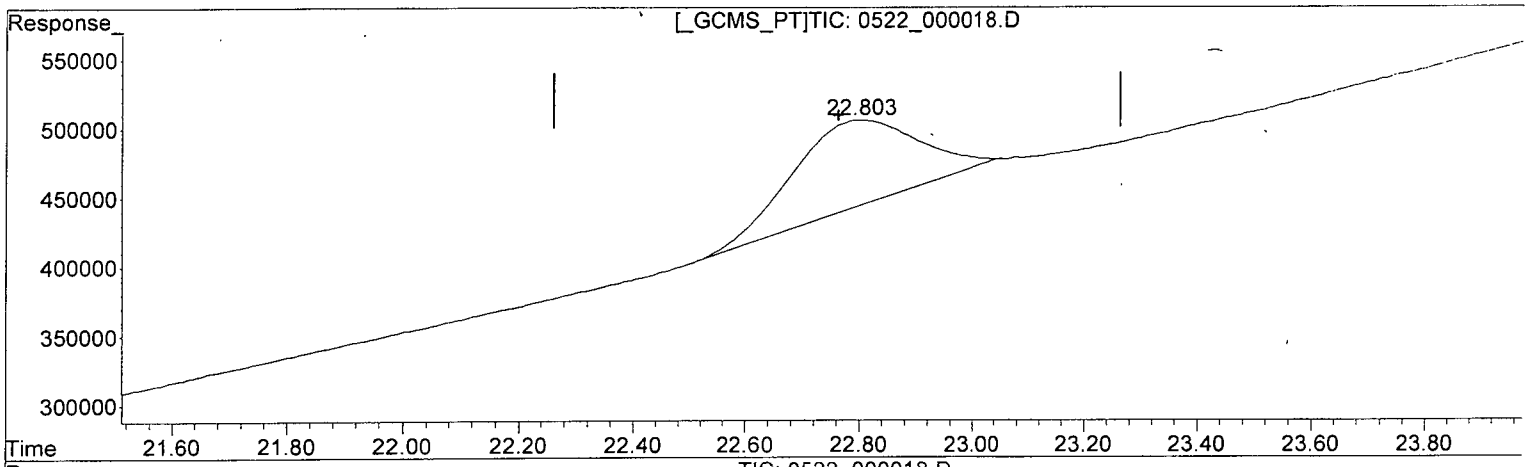


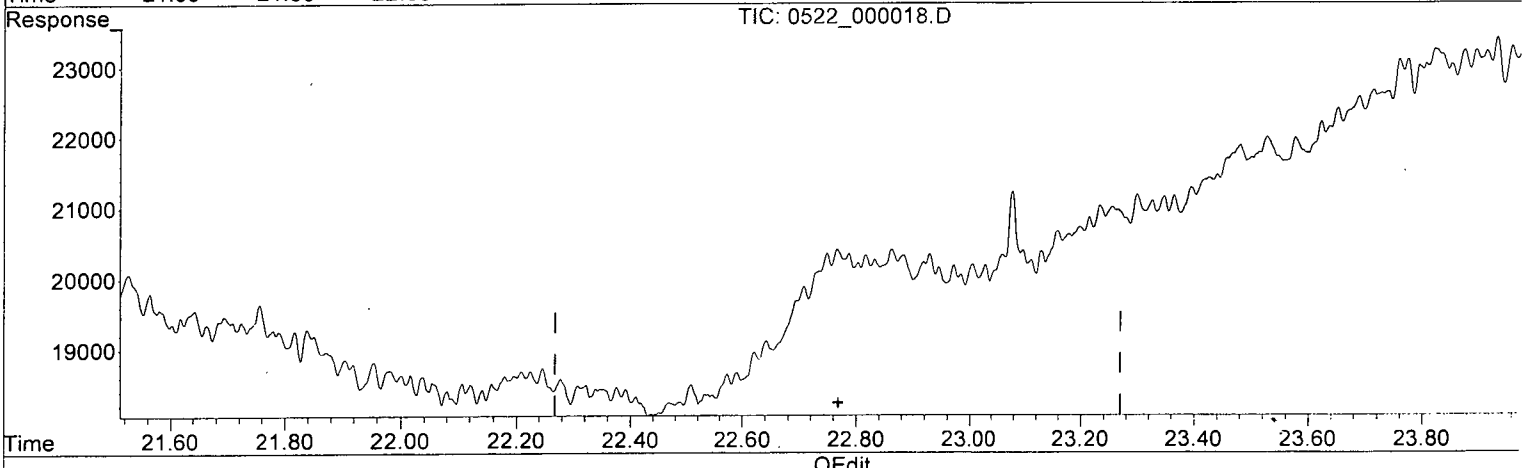
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000018.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:08:48
Operator : MP
Sample : 8330MXB_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4288 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:26 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





QEdit

(18) PETN (TM)

22.803min 67.152 ppb

response 61273

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

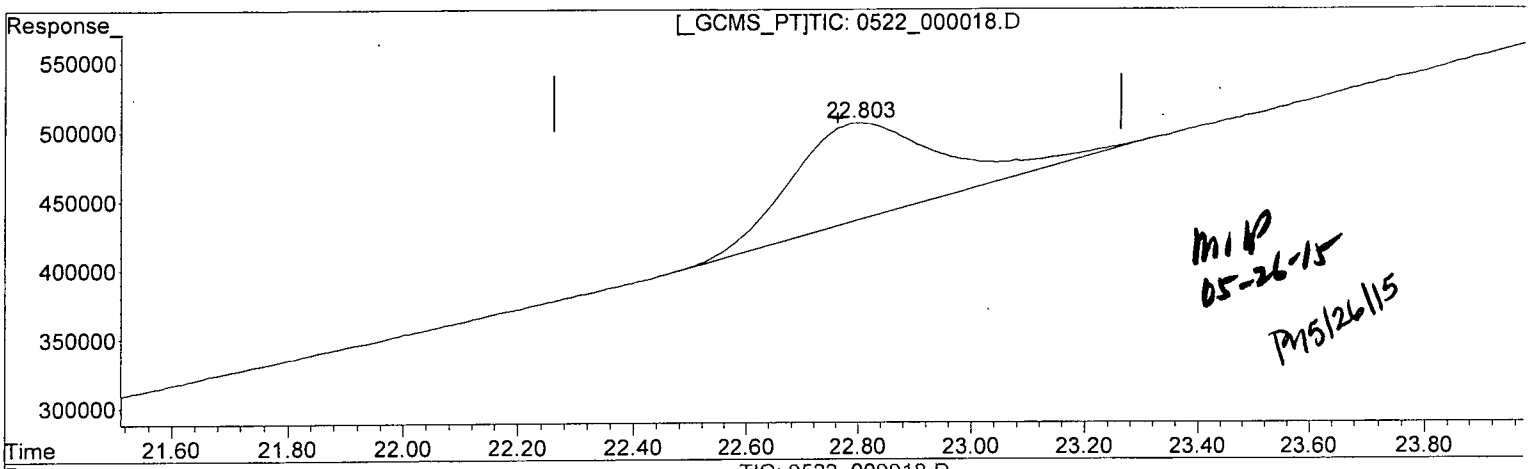
(+) = Expected Retention Time

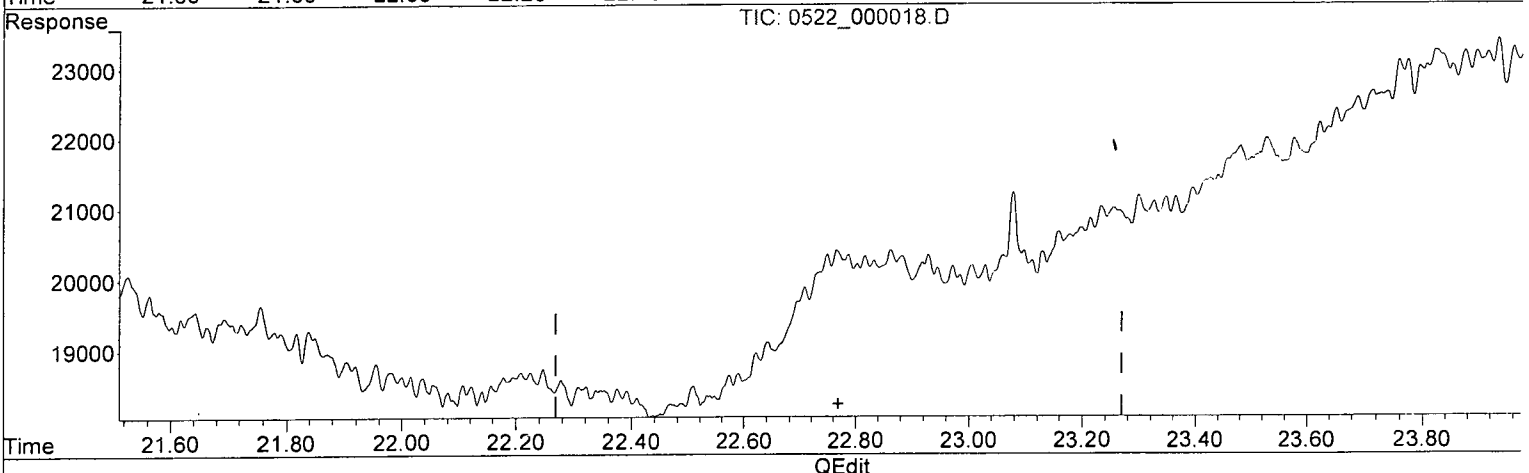
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000018.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:08:48
Operator : MP
Sample : 8330MXB_CB 0.10 PPM 05/22/15
Misc :
ALS Vial : 4288 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:26 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





QEdit

(18) PETN (TM)

22.803min 76.325 ppb m

response 69644

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:48:19
Operator : MP
Sample : 8330MXA_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4289 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:39:49 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	8.109	0	369362	N.D.	175.070 #
Spiked Amount 62.500			Recovery	=	0.00%	280.11%
Target Compounds						
1) TM HMX	0.000	4.082	0	390500	N.D.	185.700m#
2) TM RDX	0.000	6.425	0	327561	N.D.	176.857m#
3) TM 1,3,5-TRI...	0.000	6.764	0	791378	N.D.	177.055m#
5) TM 1,3-DINIT...	0.000	8.444	0	805920	N.D.	179.200 #
6) TM NITROBENZENE	0.000	9.184	0	448189	N.D.	174.961 #
7) TM 2,4,6-TRI...	0.000	11.459	0	411367	N.D.	162.038 #
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	11.994	11.993	302328	291196	NoCal	176.771 #
10) TM 2,6-DINIT...	0.000	13.467	0	246741	N.D.	167.047 #
11) TM 2,4-DINIT...	0.000	14.072	0	426389	N.D.	169.233 #
12) TM 2-NITROTO...	0.000	15.478	0	171906	N.D.	163.051 #
13) TM 4-NITROTO...	0.000	16.897	0	151010	N.D.	172.424 #
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
15) TM 3-NITROTO...	0.000	18.081	0	182896	N.D.	171.055 #
16) TM 4-AMINO-2...	0.000	18.671	0	272848	N.D.	194.758 #
17) TM 2-AMINO-4...	0.000	19.625	0	354480	N.D.	173.896 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

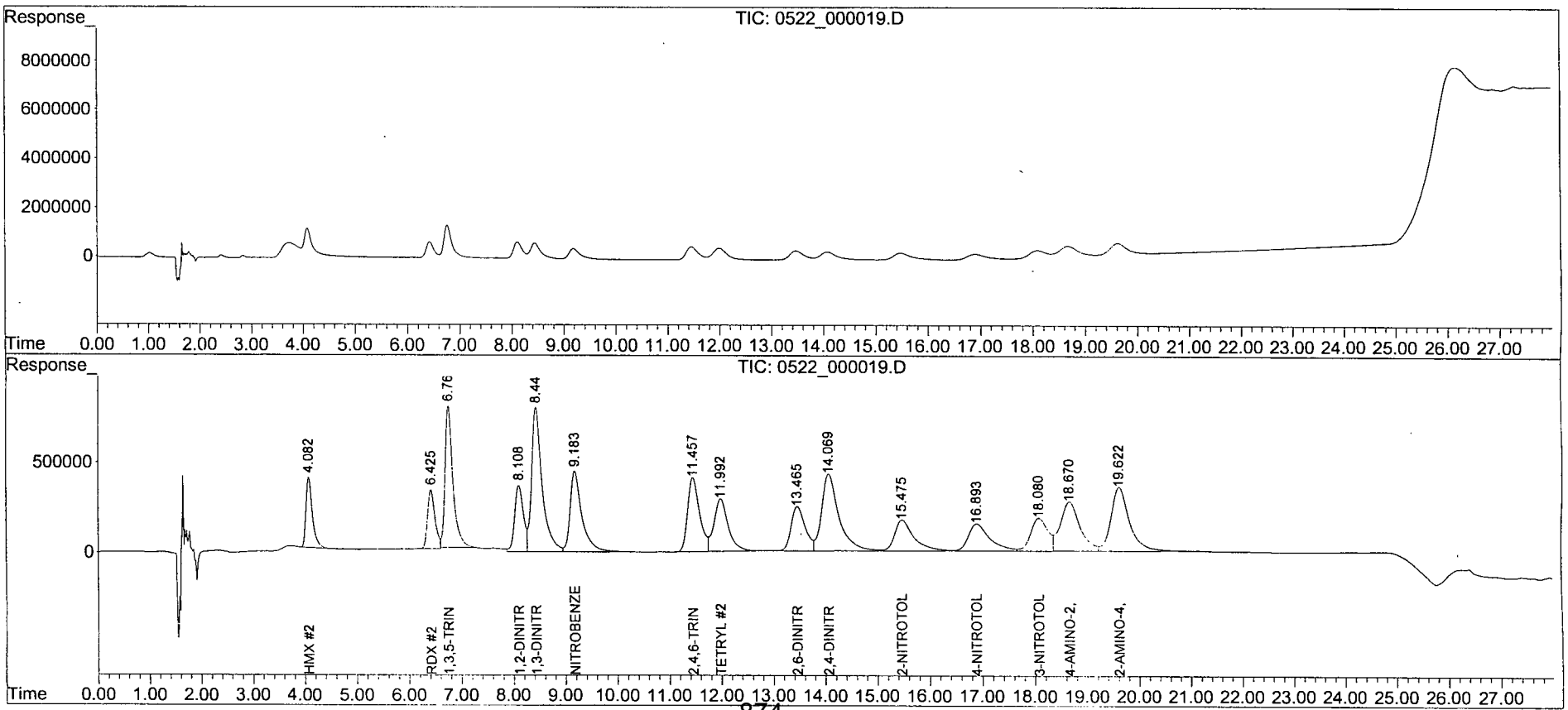
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:48:19
Operator : MP
Sample : 8330MXA_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4289 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:39:49 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

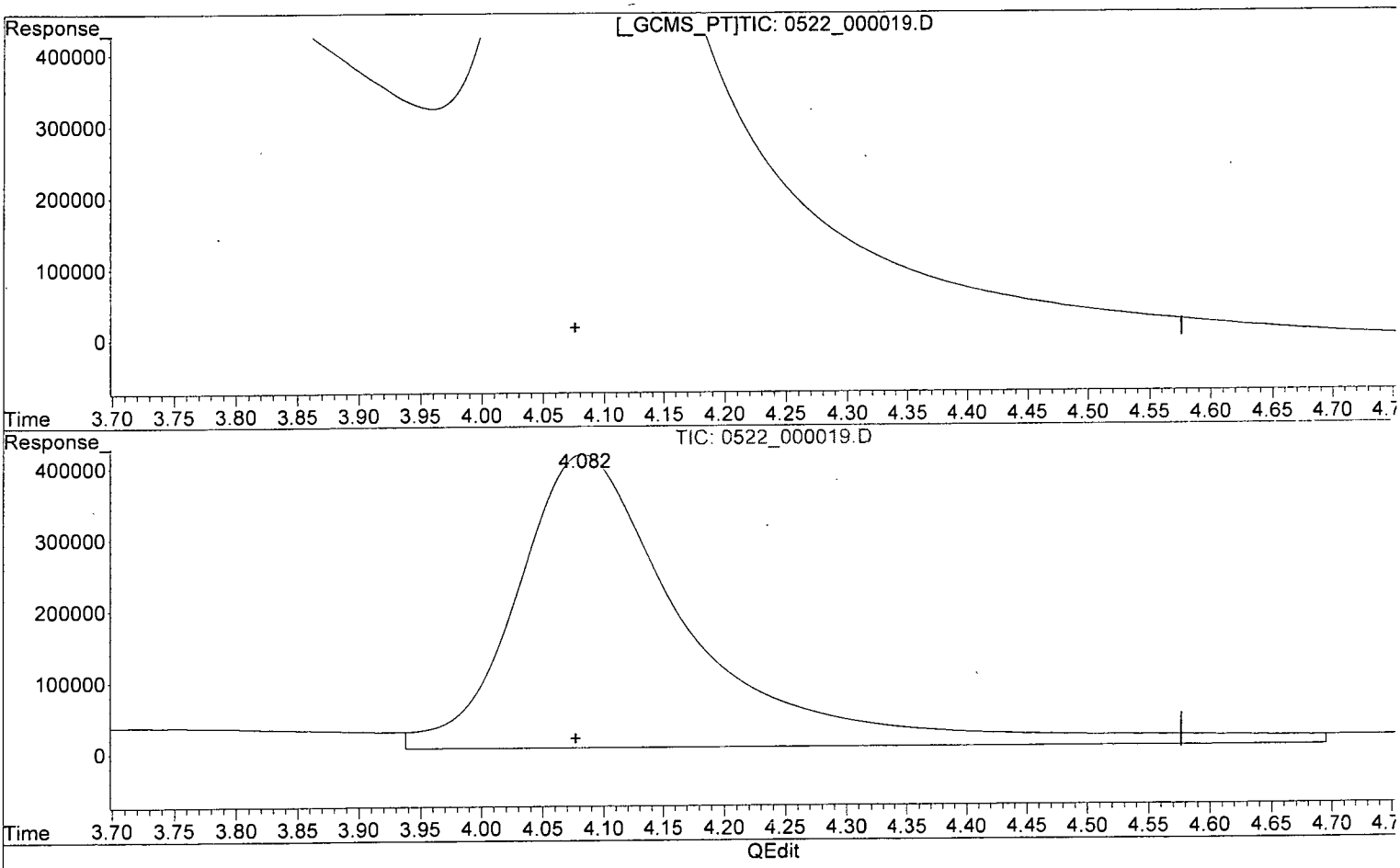


Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:48:19
Operator : MP
Sample : 8330MXA_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4289 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:29 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.083min 195.469 ppb

response 411042

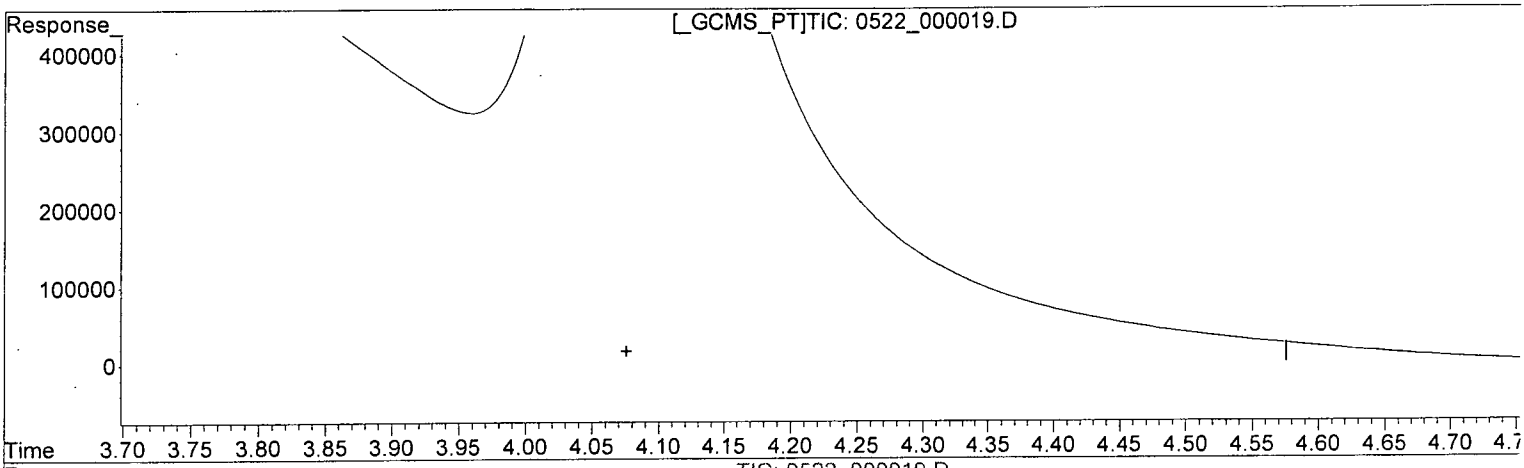
(+) = Expected Retention Time

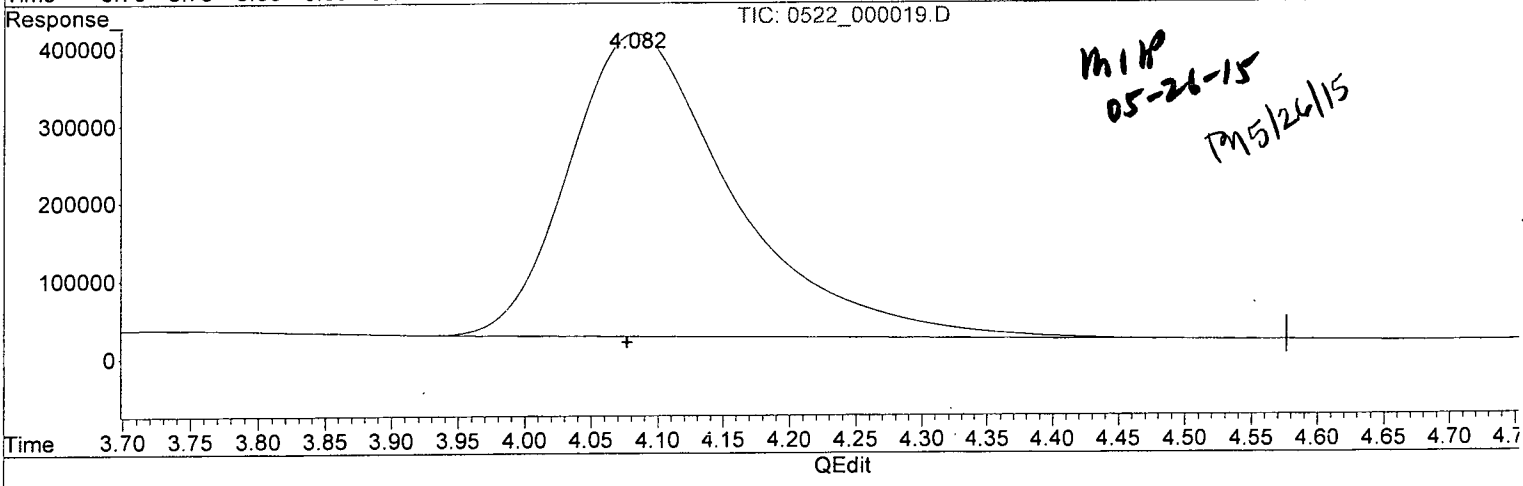
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:48:19
Operator : MP
Sample : 8330MXA_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4289 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:29 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ





MHP 05-26-15

[M5/26/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.082min 185.700 ppb m

response 390500

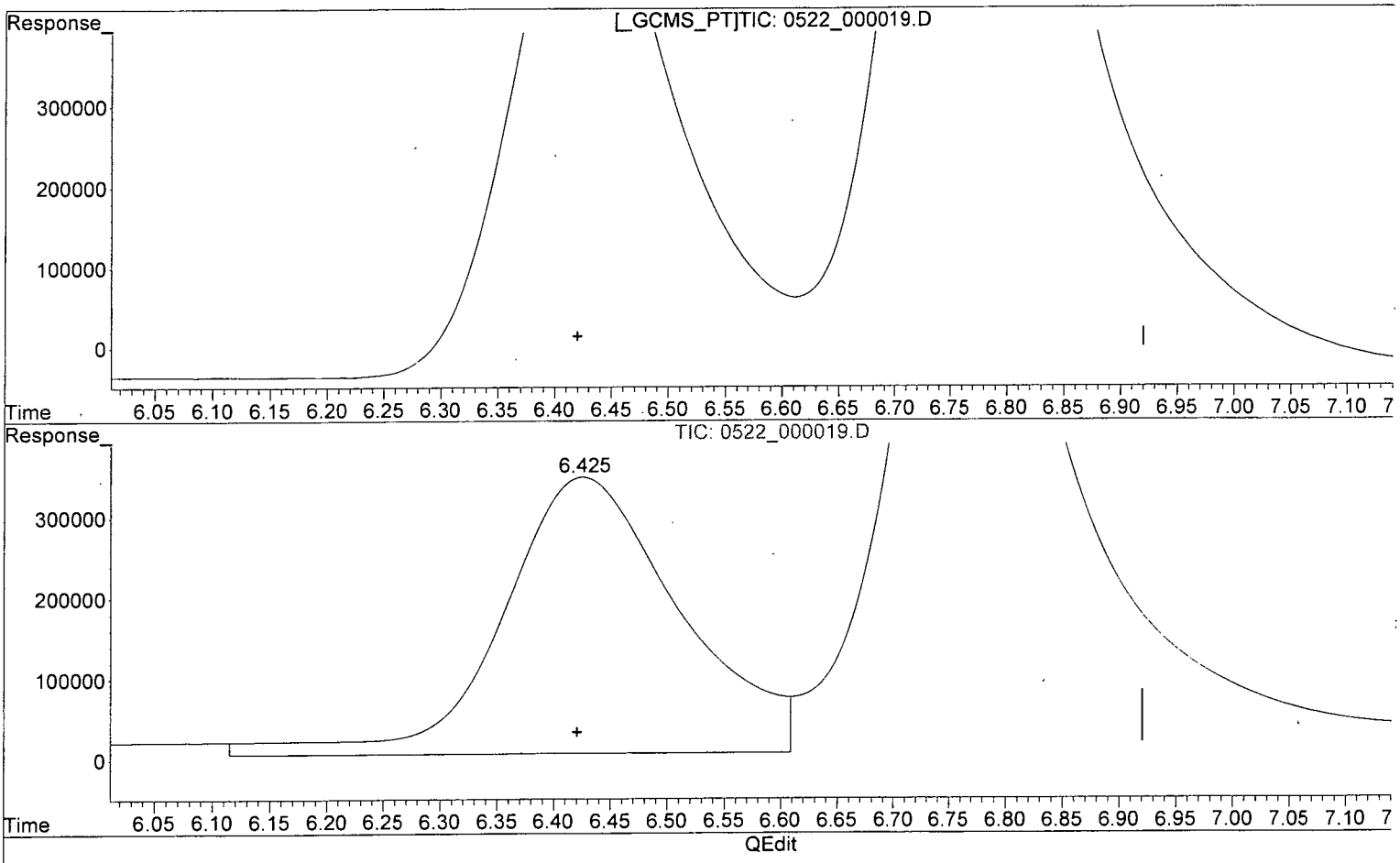
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:48:19
Operator : MP
Sample : 8330MXA_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4289 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:29 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0=I



(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.426min 185.202 ppb

response 343017

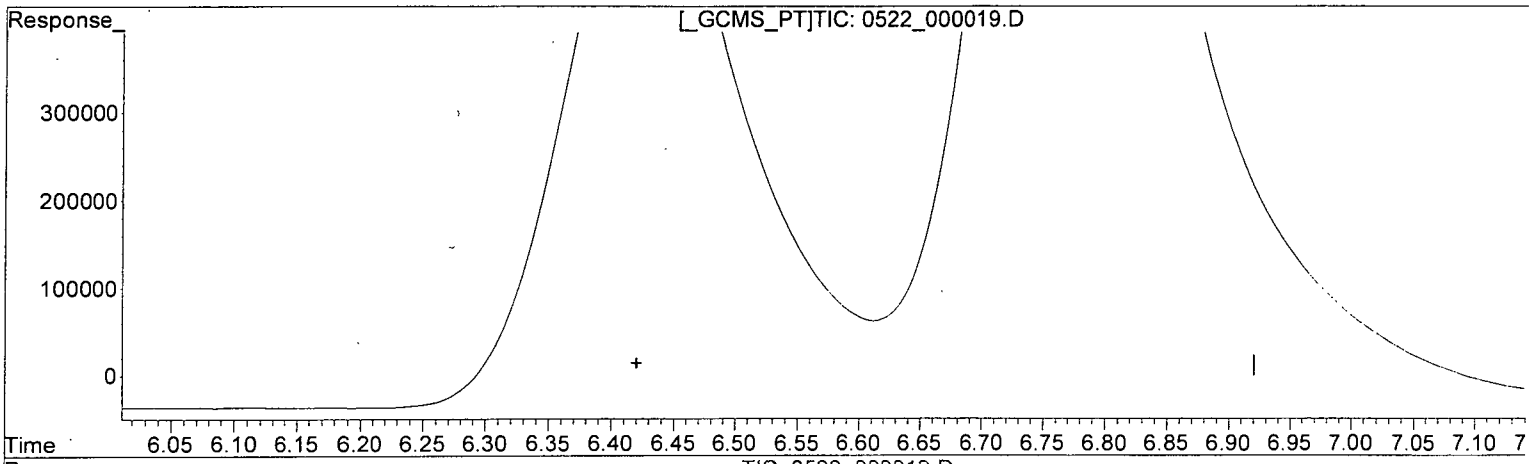
(+) = Expected Retention Time

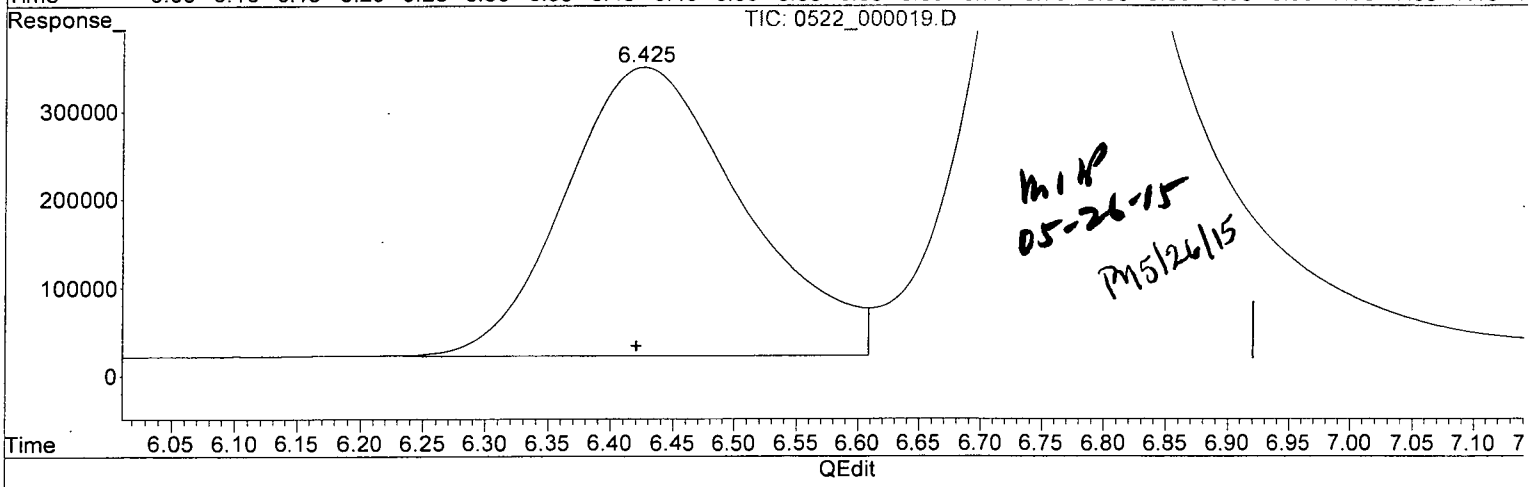
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:48:19
Operator : MP
Sample : 8330MXA_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4289 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:29 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ





MHP 05-26-15 PM 5/26/15

(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.425min 176.857 ppb m

response 327561

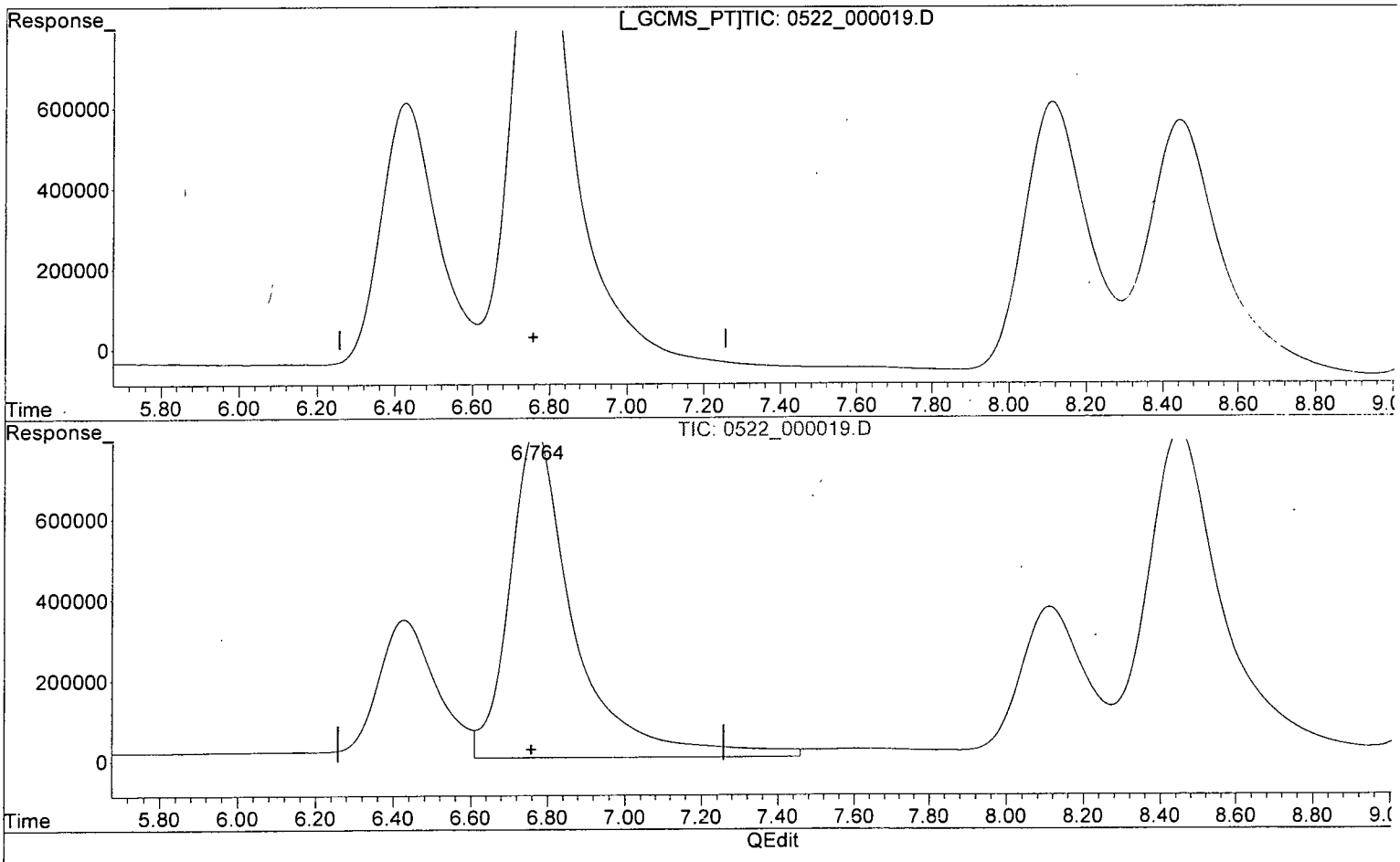
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:48:19
Operator : MP
Sample : 8330MXA_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4289 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:29 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r



(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.765min 182.230 ppb

response 814511

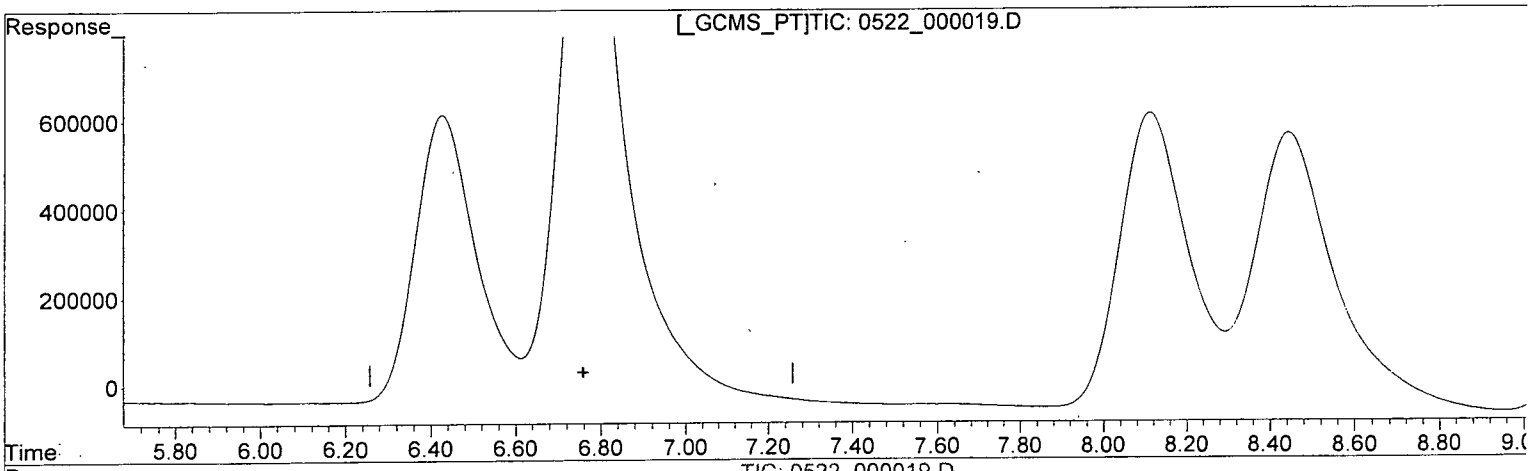
(+) = Expected Retention Time

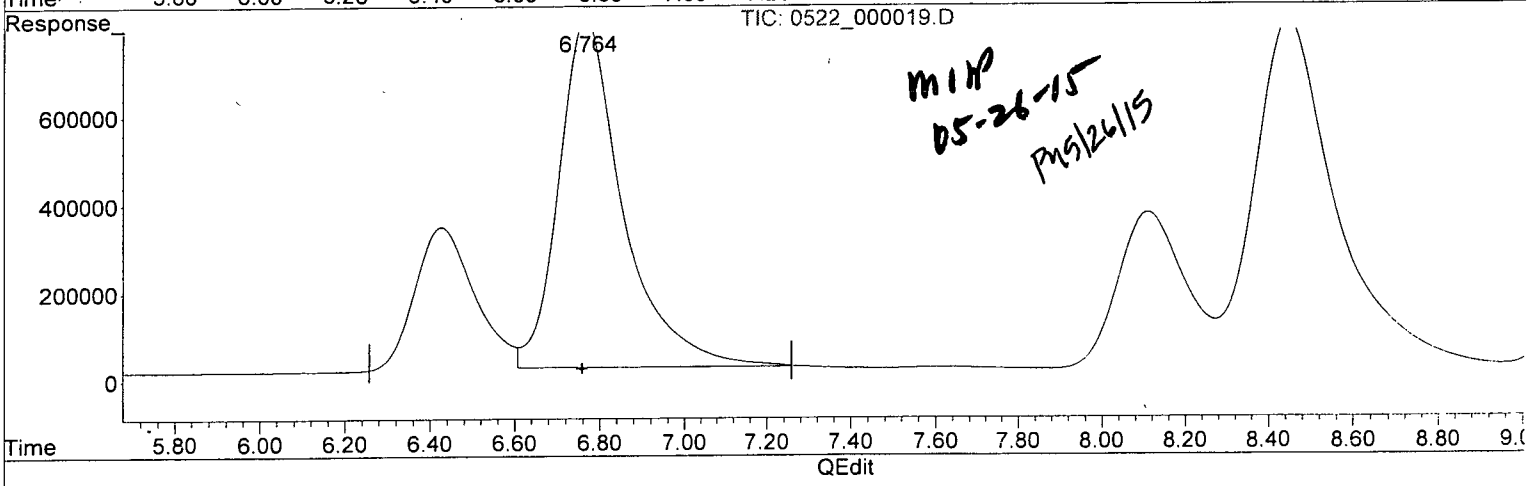
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:48:19
Operator : MP
Sample : 8330MXA_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4289 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:29 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ





MHP 05-26-15 PMS/26/15

(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.764min 177.055 ppb m

response 791378

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000020.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 21:27:50
Operator : MP
Sample : 8330MXB_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4290 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:37:53 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-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...	12.049	0.000	147567	0	162.036	N.D. d#
9) TM TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10) TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11) TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13) TM 4-NITROTO...	0.000	0.000	0	0	N.D. d	N.D. d
14) TM 3,5-DINIT...	0.000	16.545	0	338483	N.D.	169.574 #
15) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	22.768	0.000	151578	0	166.120m	N.D. #

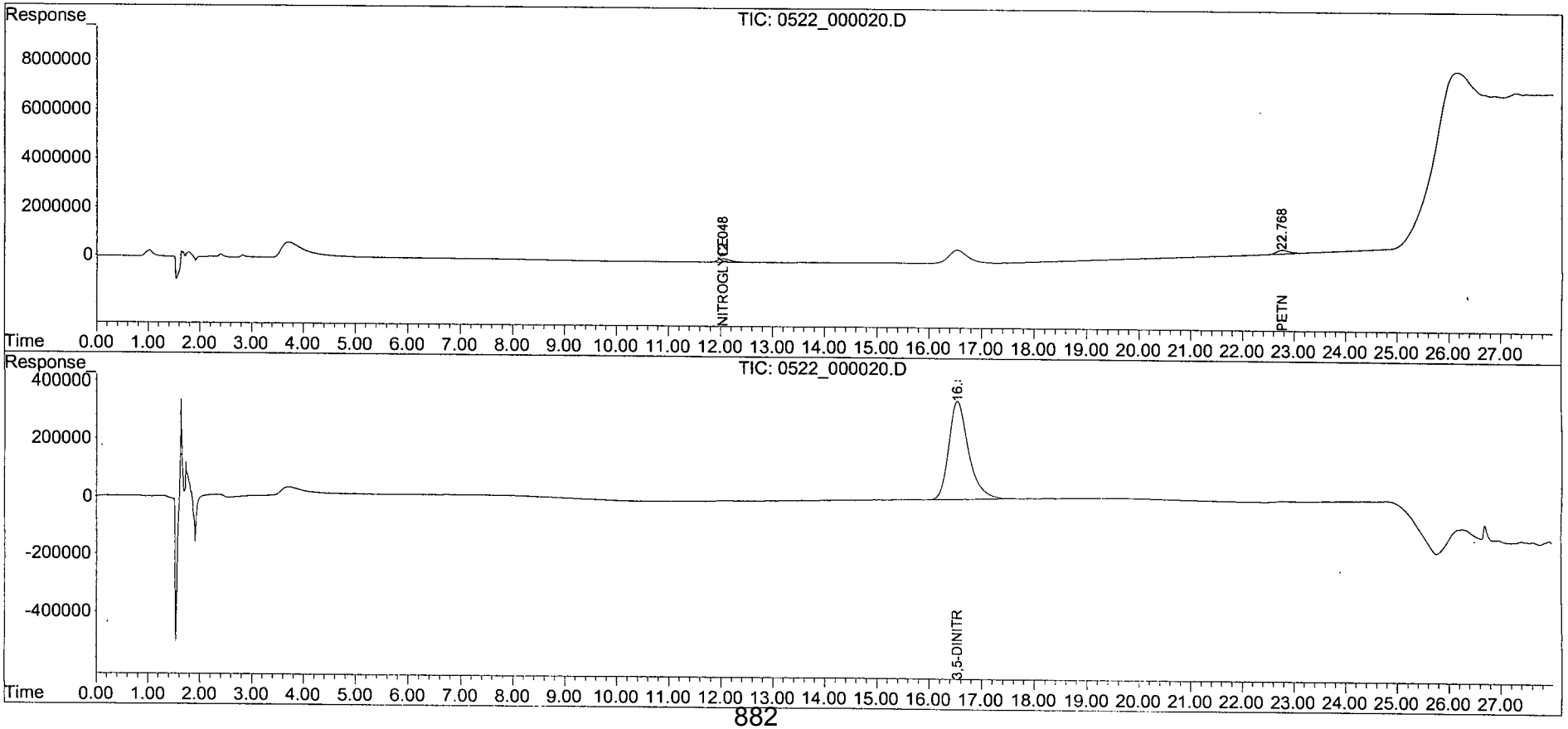
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000020.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 21:27:50
Operator : MP
Sample : 8330MXB_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4290 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:37:53 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

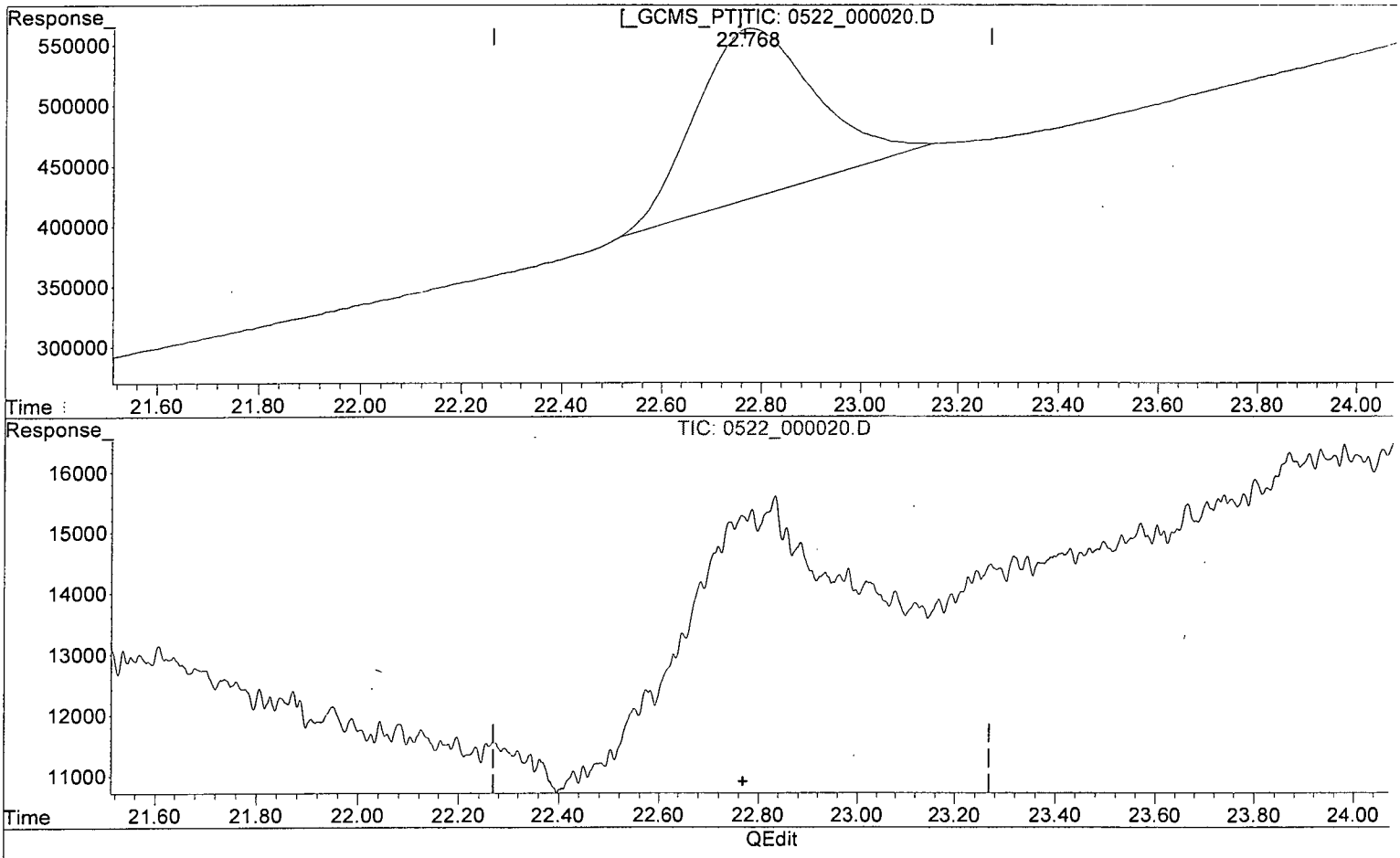


Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000020.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 21:27:50
Operator : MP
Sample : 8330MXB_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4290 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:32 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(18) PETN (TM)

22.776min 154.013 ppb

response 140531

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

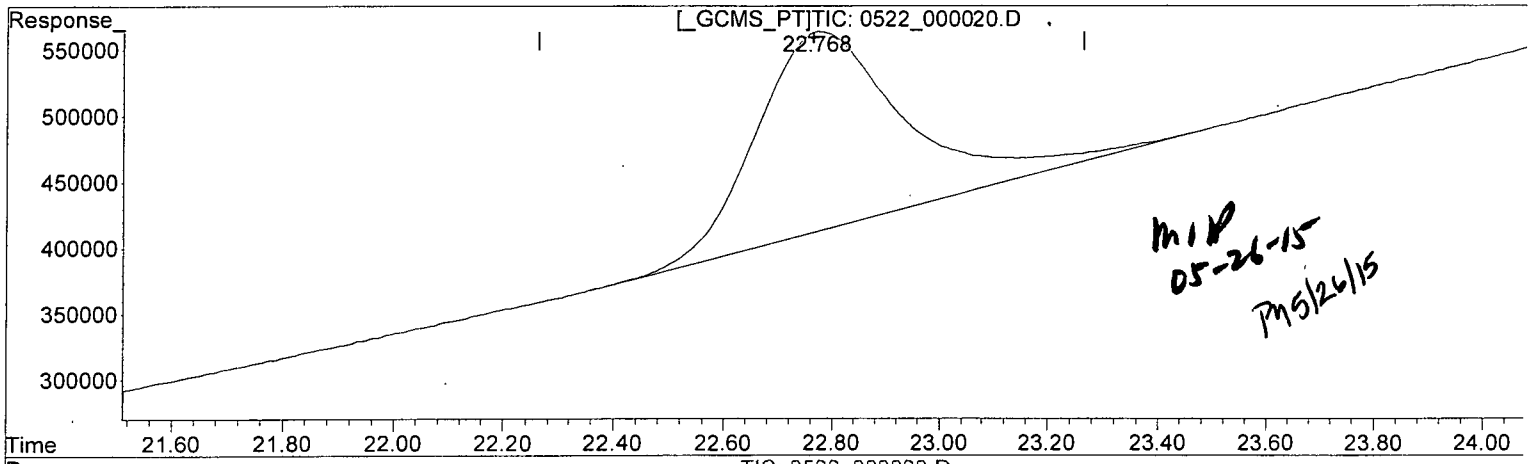
(+) = Expected Retention Time

Quantitation Report (Qedit)

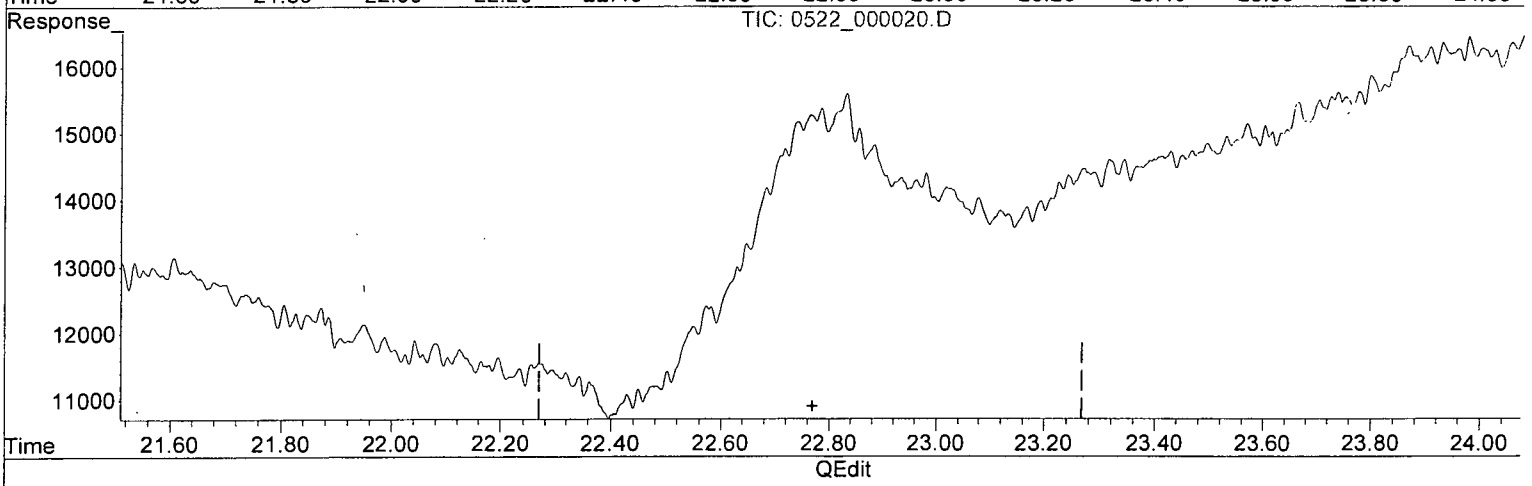
Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000020.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 21:27:50
Operator : MP
Sample : 8330MXB_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4290 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:32 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ



MJP 05-26-15 PMS/26/15



QEdit

(18) PETN (TM)

22.768min 166.120 ppb m

response 151578

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000021.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 22:07:21
Operator : MP
Sample : 8330MXA_CB 0.50 PPM 05/22/15
Misc :
ALS Vial : 4291 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:36:44 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	8.105	0	879728	N.D.	416.972 #
Spiked Amount 62.500			Recovery	=	0.00%	667.16%
Target Compounds						
1) TM HMX	0.000	4.078	0	976770	N.D.	464.498 #
2) TM RDX	0.000	6.421	0	806821	N.D.	435.619 #
3) TM 1,3,5-TRI...	0.000	6.759	0	1966354	N.D.	439.931 #
5) TM 1,3-DINIT...	0.000	8.439	0	1956143	N.D.	434.957 #
6) TM NITROBENZENE	0.000	9.178	0	1093580	N.D.	426.904 #
7) TM 2,4,6-TRI...	0.000	11.450	0	1003936	N.D.	395.451 #
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	11.986	11.985	592326	722593	NoCal	438.651 #
10) TM 2,6-DINIT...	13.458	13.457	927172	598770	NoCal	405.376 #
11) TM 2,4-DINIT...	0.000	14.061	0	1040938	N.D.	413.147 #
12) TM 2-NITROTO...	0.000	15.466	0	416863	N.D.	395.391 #
13) TM 4-NITROTO...	0.000	16.881	0	367088	N.D.	419.141 #
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
15) TM 3-NITROTO...	0.000	18.068	0	443247	N.D.	414.550 #
16) TM 4-AMINO-2...	0.000	18.667	0	657332	N.D.	469.201 #
17) TM 2-AMINO-4...	0.000	19.622	0	851433	N.D.	417.685 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

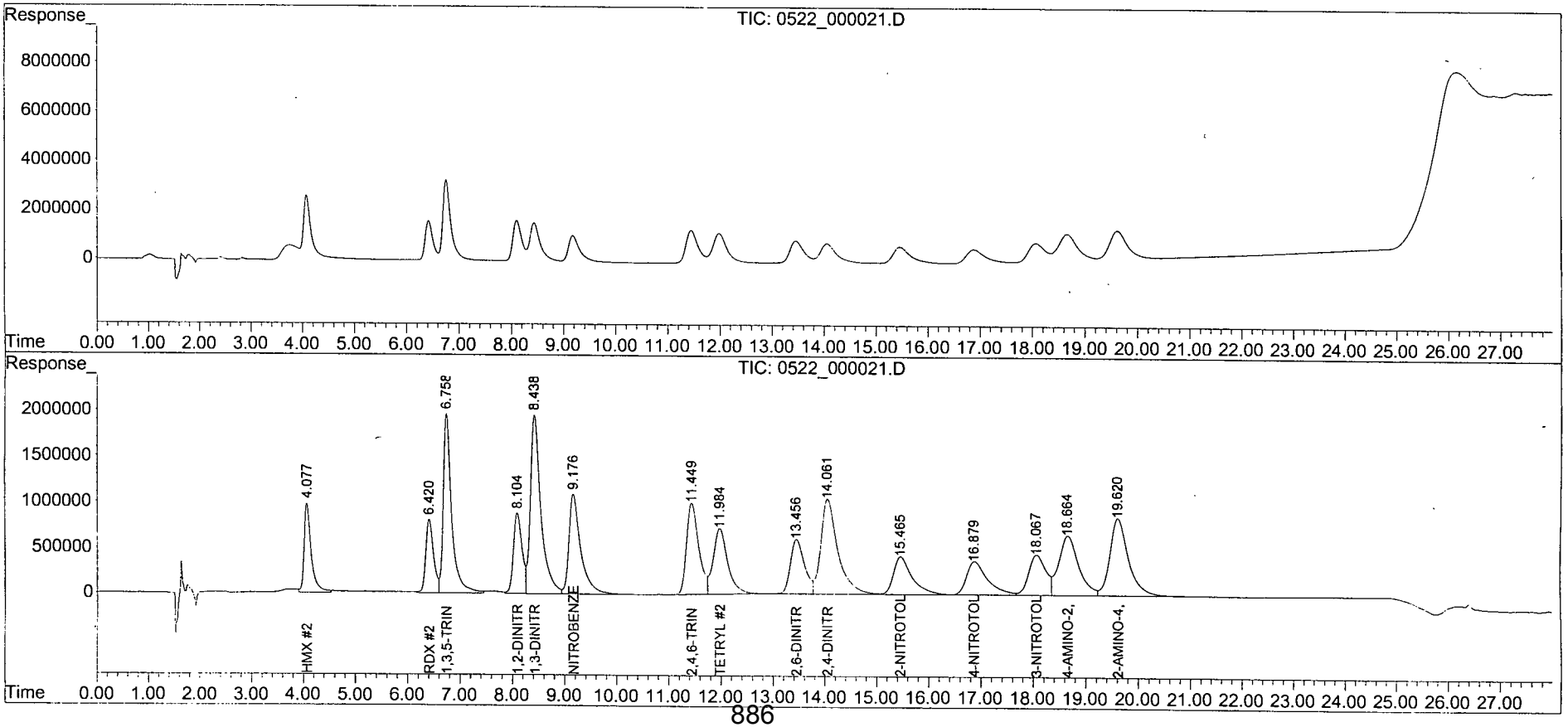
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000021.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 22:07:21
Operator : MP
Sample : 8330MXA_CB 0.50 PPM 05/22/15
Misc :
ALS Vial : 4291 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:36:44 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000022.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 22:46:51
Operator : MP
Sample : 8330MXB_CB 0.50 PPM 05/22/15
Misc :
ALS Vial : 4292 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:35:42 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-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...	12.050	0.000	368668	0	404.817	N.D. d#
9) TM TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10) TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11) TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13) TM 4-NITROTO...	0.000	0.000	0	0	N.D. d	N.D. d
14) TM 3,5-DINIT...	0.000	16.548	0	841116	N.D.	421.385 #
15) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	22.762	0.000	382271	0	418.944m	N.D. #

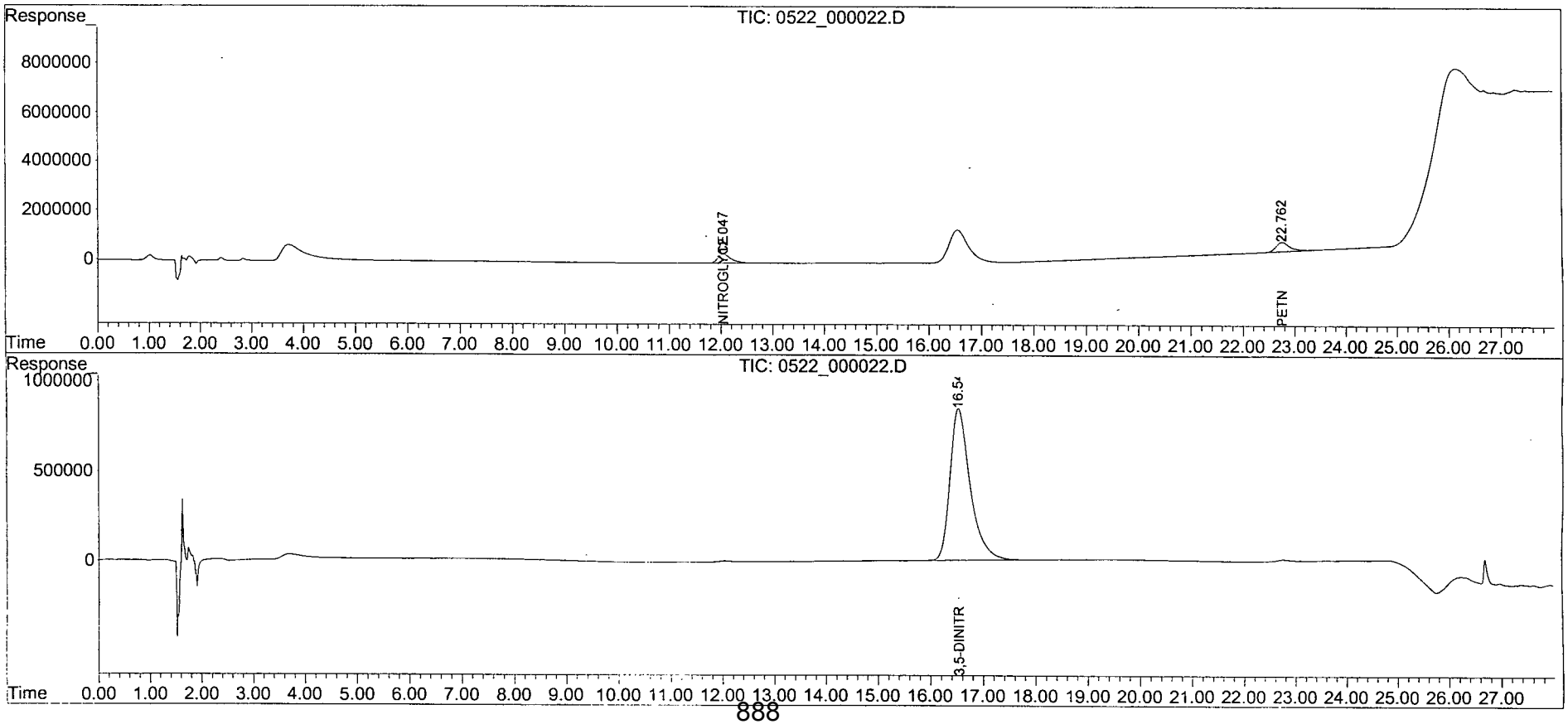
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000022.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 22:46:51
Operator : MP
Sample : 8330MXB_CB 0.50 PPM 05/22/15
Misc :
ALS Vial : 4292 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:35:42 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

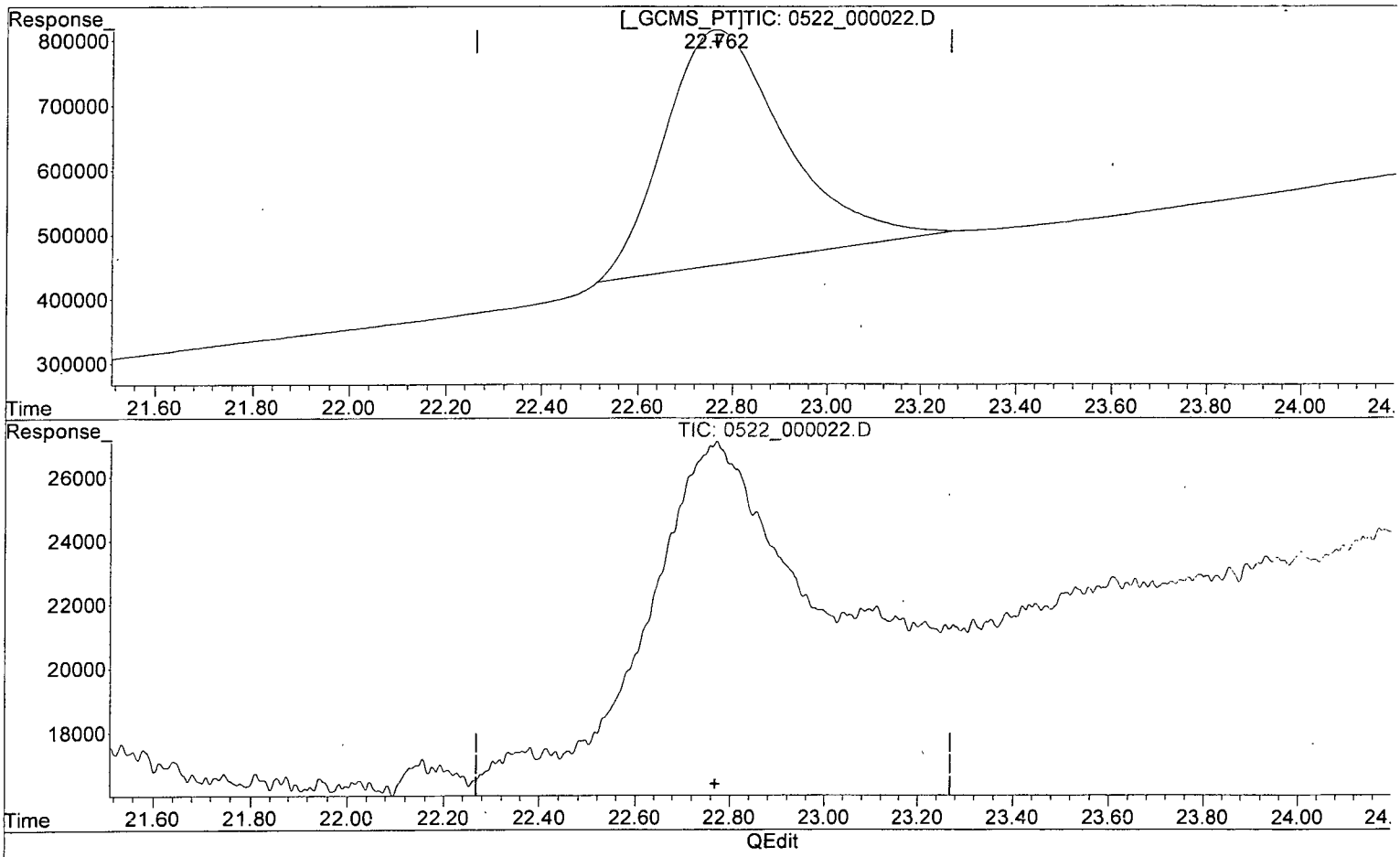


Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000022.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 22:46:51
Operator : MP
Sample : 8330MXB_CB 0.50 PPM 05/22/15
Misc :
ALS Vial : 4292 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:38 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r



(18) PETN (TM)

22.763min 398.817 ppb

response 363907

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

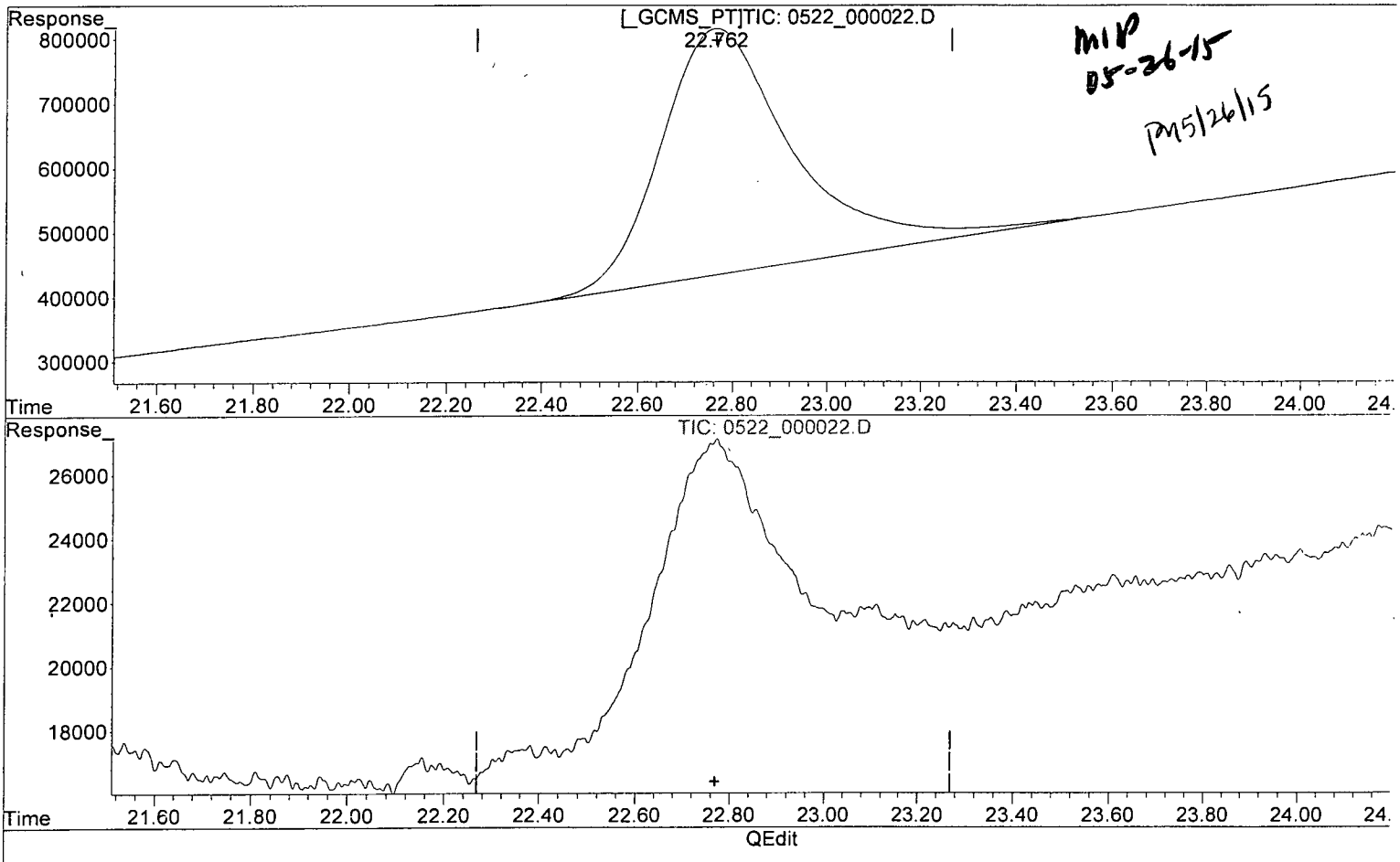
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000022.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 22:46:51
Operator : MP
Sample : 8330MXB_CB 0.50 PPM 05/22/15
Misc :
ALS Vial : 4292 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:38 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ



(18) PETN (TM)

22.762min 418.944 ppb m

response 382271

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000023.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 23:26:22
Operator : MP
Sample : 8330MXA_CB 1.0 PPM 05/22/15
Misc :
ALS Vial : 4293 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:34:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4)	S 1,2-DINIT...	0.000	8.103	0	1733160	N.D.	821.480 #
	Spiked Amount 62.500			Recovery	=	0.00%	1314.37%
	Target Compounds						
1)	TM HMX	0.000	4.076	0	1915374	N.D.	910.846 #
2)	TM RDX	0.000	6.419	0	1584395	N.D.	855.448 #
3)	TM 1,3,5-TRI...	0.000	6.755	0	3897389	N.D.	871.960 #
5)	TM 1,3-DINIT...	0.000	8.437	0	3879893	N.D.	862.711 #
6)	TM NITROBENZENE	0.000	9.177	0	2146298	N.D.	837.857 #
7)	TM 2,4,6-TRI...	0.000	11.454	0	1991874	N.D.	784.599 #
8)	TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9)	TM TETRYL	11.994	11.993	1524497	1456381	NoCal	884.099 #
10)	TM 2,6-DINIT...	13.465	13.464	1616524	1211988	NoCal	820.534 #
11)	TM 2,4-DINIT...	0.000	14.067	0	2092031	N.D.	830.325 #
12)	TM 2-NITROTO...	0.000	15.472	0	841920	N.D.	798.554 #
13)	TM 4-NITROTO...	0.000	16.885	0	741632	N.D.	846.795 #
14)	TM 3,5-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
15)	TM 3-NITROTO...	0.000	18.073	0	881637	N.D.	824.558 #
16)	TM 4-AMINO-2...	0.000	18.677	0	1297906	N.D.	926.440 #
17)	TM 2-AMINO-4...	0.000	19.631	0	1678327	N.D.	823.332 #
18)	TM PETN	0.000	0.000	0	0	N.D.	N.D.

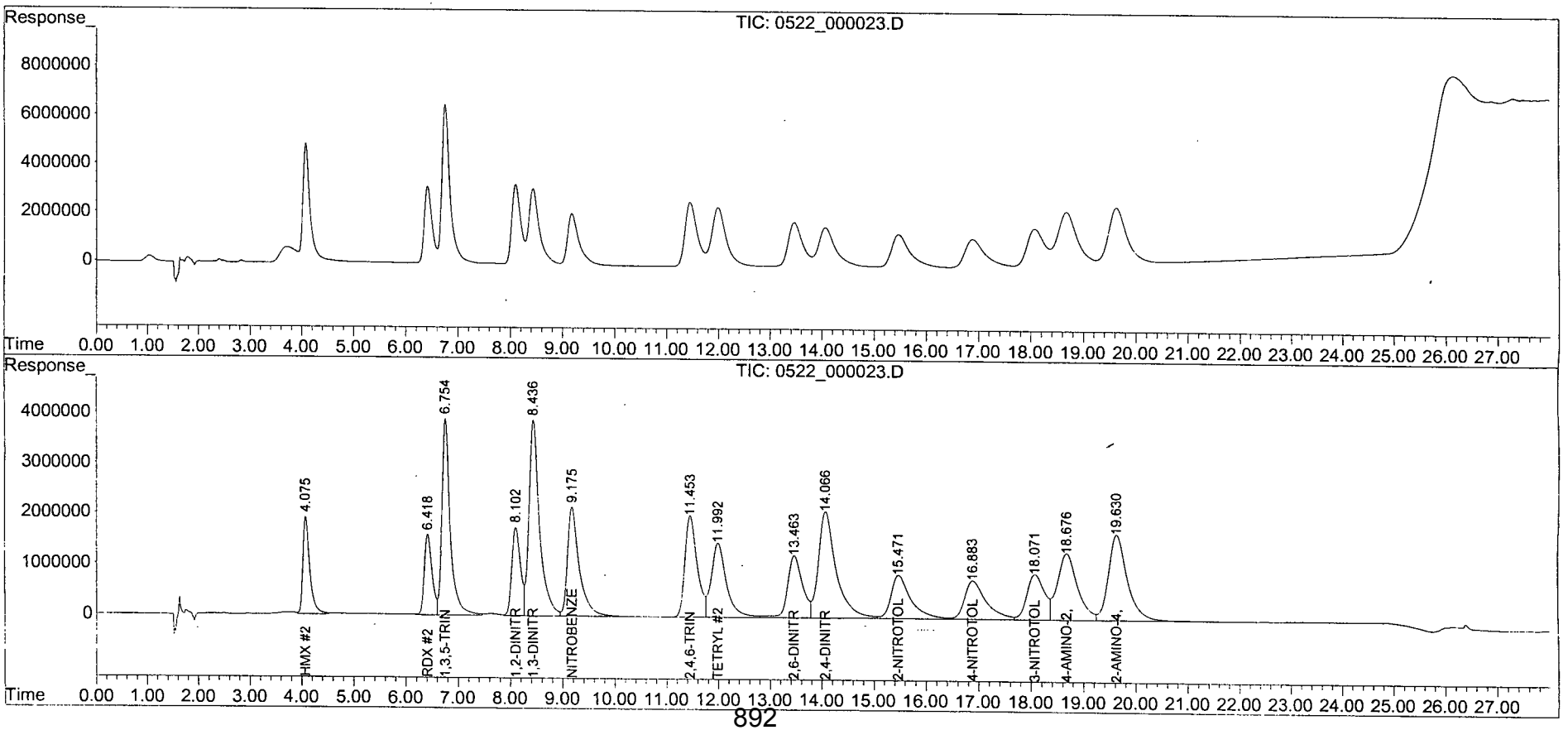
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000023.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 23:26:22
Operator : MP
Sample : 8330MXA_CB 1.0 PPM 05/22/15
Misc :
ALS Vial : 4293 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:34:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



STE2_150522.M Sat May 23 09:35:14 2015 WALDORF

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000024.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 00:05:53
Operator : MP
Sample : 8330MXB_CB 1.0 PPM 05/22/15
Misc :
ALS Vial : 4294 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:33:30 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
Spiked Amount 62.500			Recovery	=	0.00%	0.00%
Target Compounds						
1) TM HMX	0.000	0.000	0	0	N.D.	N.D.
2) TM RDX	0.000	0.000	0	0	N.D. d	N.D. d
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
6) TM NITROBENZENE	0.000	0.000	0	0	N.D. d	N.D. d
7) TM 2,4,6-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
8) TM NITROGLYC...	12.057	12.058	732317	11067	804.122	NoCal #
9) TM TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10) TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11) TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13) TM 4-NITROTO...	0.000	0.000	0	0	N.D. d	N.D. d
14) TM 3,5-DINIT...	0.000	16.552	0	1652281	N.D.	827.765 #
15) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	22.770	22.770	761676	14524	834.745m	NoCal #

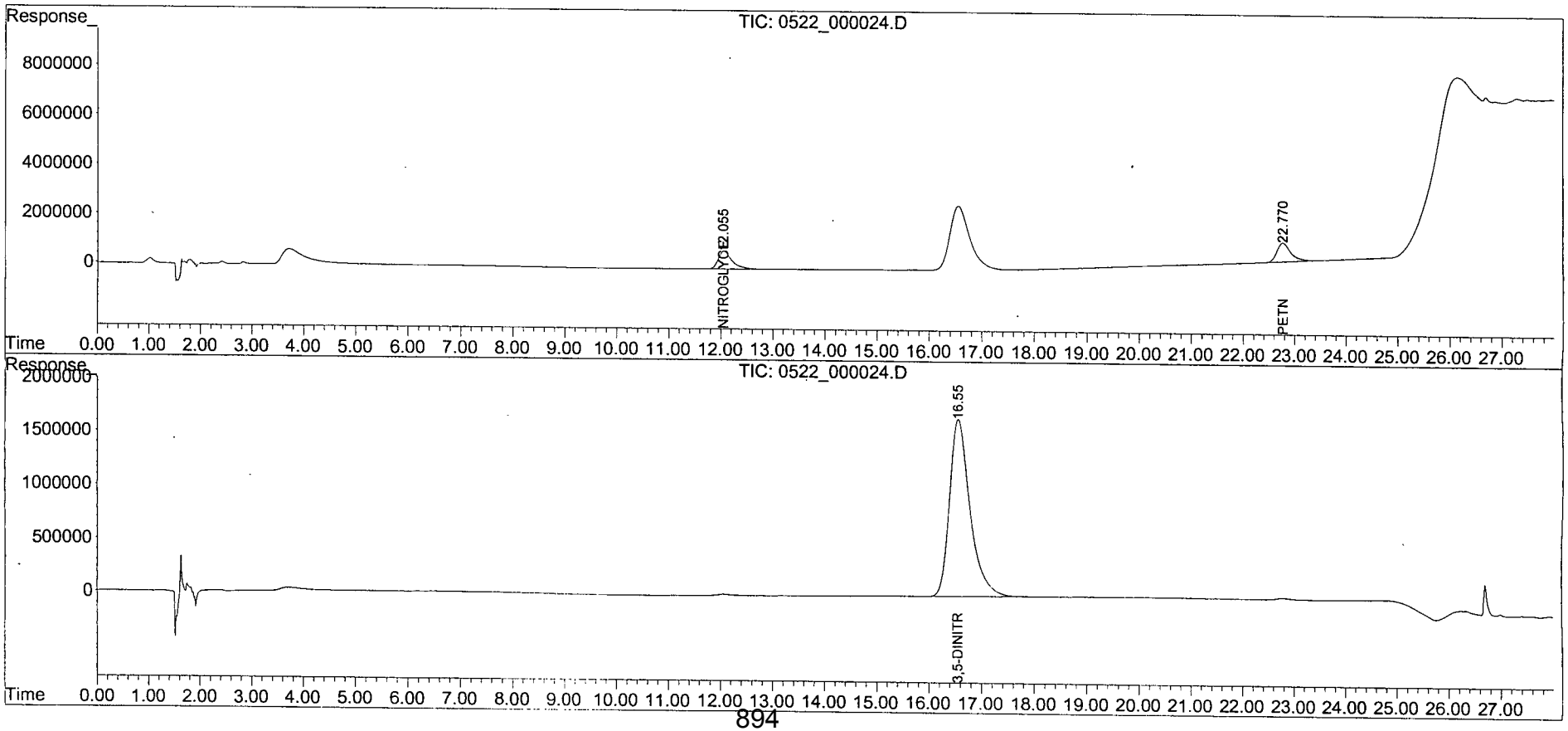
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000024.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 00:05:53
Operator : MP
Sample : 8330MXB_CB 1.0 PPM 05/22/15
Misc :
ALS Vial : 4294 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:33:30 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

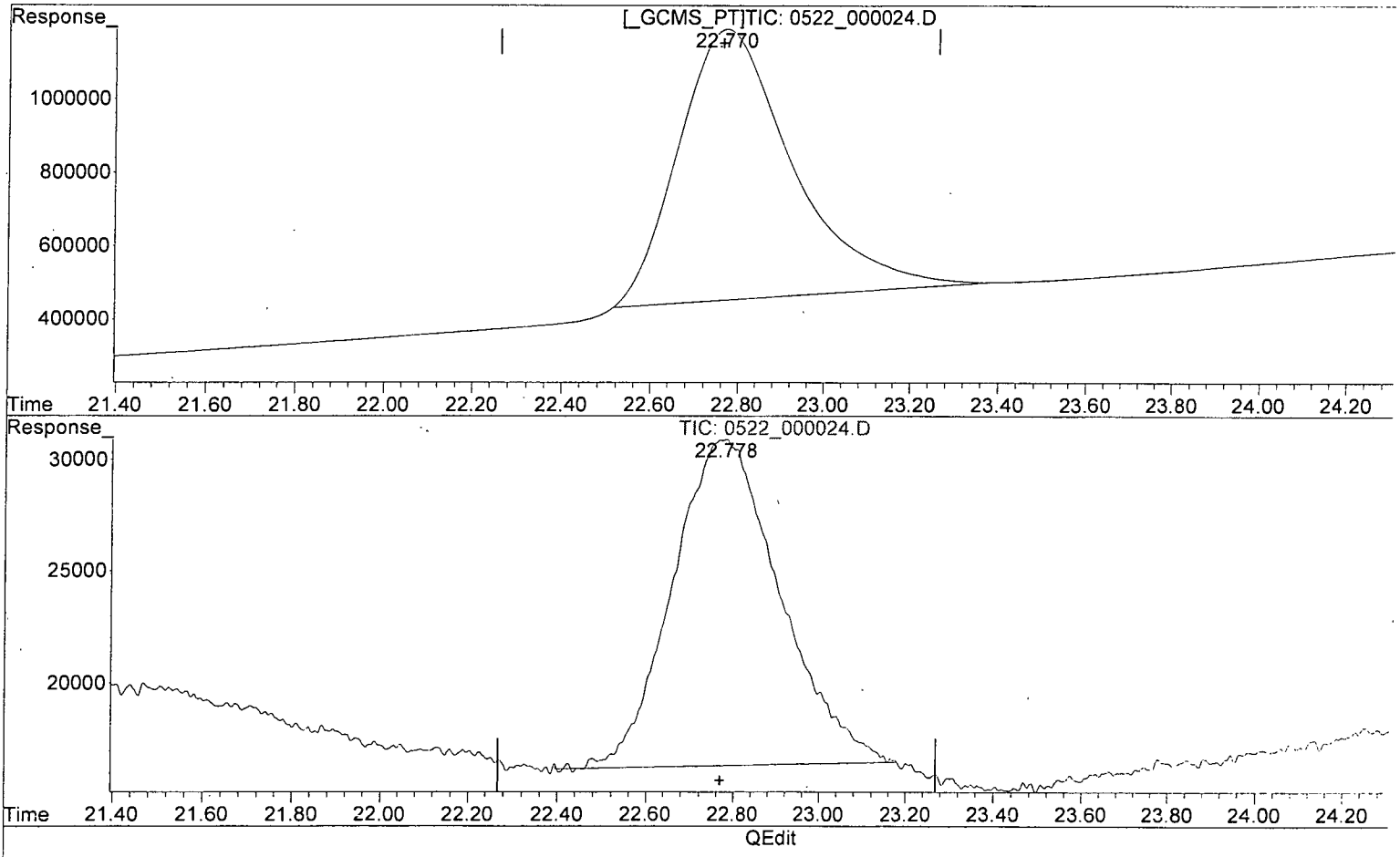


Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000024.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 00:05:53
Operator : MP
Sample : 8330MXB_CB 1.0 PPM 05/22/15
Misc :
ALS Vial : 4294 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:44 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(18) PETN (TM)

22.770min 806.856 ppb

response 736228

(18) PETN #2 (TM)

22.770min 0.000 ppb

response 14524

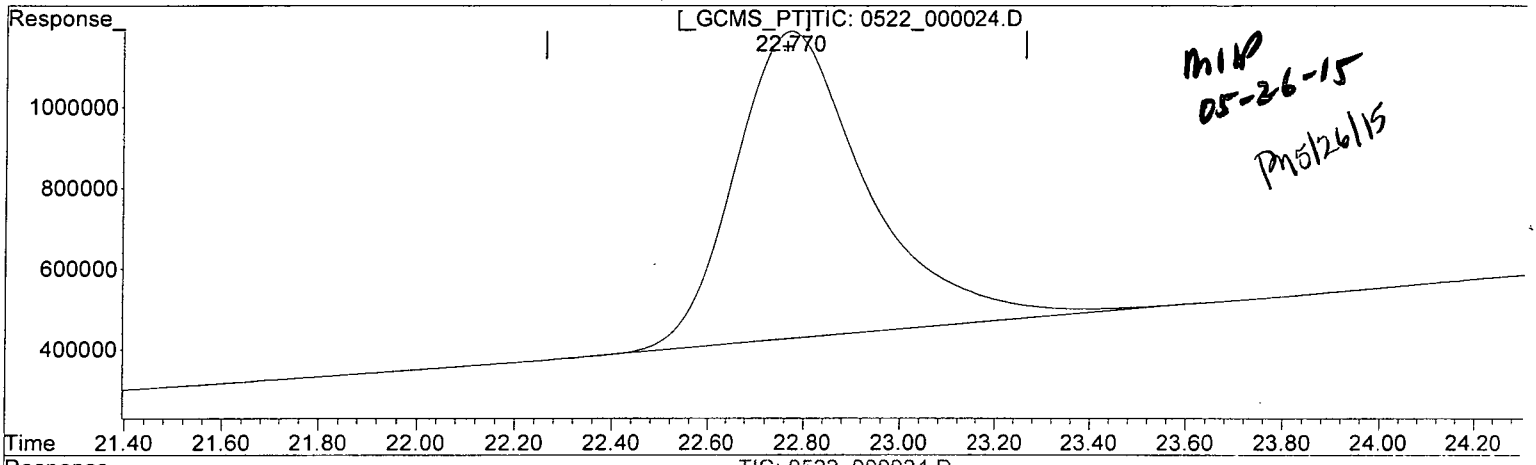
(+) = Expected Retention Time

Quantitation Report (Qedit)

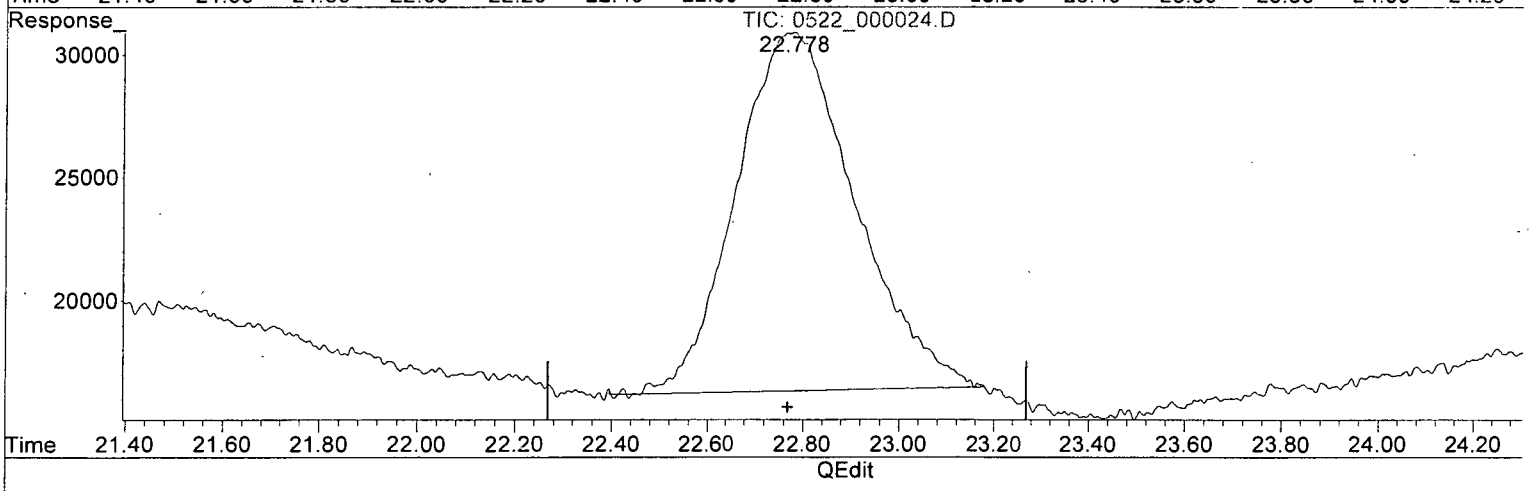
Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000024.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 00:05:53
Operator : MP
Sample : 8330MXB_CB 1.0 PPM 05/22/15
Misc :
ALS Vial : 4294 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:44 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r



MHP 05-26-15 PM 5/26/15



QEdit

(18) PETN (TM)

22.770min 834.745 ppb m

response 761676

(18) PETN #2 (TM)

22.770min 0.000 ppb

response 14524

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000025.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 00:45:24
Operator : MP
Sample : 8330MXA_CB 2.0 PPM 05/22/15
Misc :
ALS Vial : 4295 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:32:47 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4)	S 1,2-DINIT...	0.000	8.102	0	3543855	N.D.	1679.710 #
	Spiked Amount 62.500			Recovery	=	0.00%	2687.54%
	Target Compounds						
1)	TM HMX	0.000	4.070	0	3887061	N.D.	1848.472 #
2)	TM RDX	0.000	6.417	0	3207829	N.D.	1731.975 #
3)	TM 1,3,5-TRI...	0.000	6.755	0	7939225	N.D.	1776.238 #
5)	TM 1,3-DINIT...	0.000	8.437	0	7959675	N.D.	1769.868 #
6)	TM NITROBENZENE	0.000	9.174	0	4377753	N.D.	1708.958 #
7)	TM 2,4,6-TRI...	0.000	11.451	0	4093556	N.D.	1612.453 #
8)	TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9)	TM TETRYL	11.989	11.988	3002965	2907952	NoCal	1765.277 #
10)	TM 2,6-DINIT...	13.461	13.460	3322547	2479312	NoCal	1678.531 #
11)	TM 2,4-DINIT...	0.000	14.063	0	4282975	N.D.	1699.909 #
12)	TM 2-NITROTO...	0.000	15.467	0	1710462	N.D.	1622.358 #
13)	TM 4-NITROTO...	0.000	16.876	0	1514123	N.D.	1728.826 #
14)	TM 3,5-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
15)	TM 3-NITROTO...	0.000	18.066	0	1790750	N.D.	1674.813 #
16)	TM 4-AMINO-2...	0.000	18.668	0	2625200	N.D.	1873.858 #
17)	TM 2-AMINO-4...	0.000	19.623	0	3392979	N.D.	1664.484 #
18)	TM PETN	0.000	0.000	0	0	N.D.	N.D.

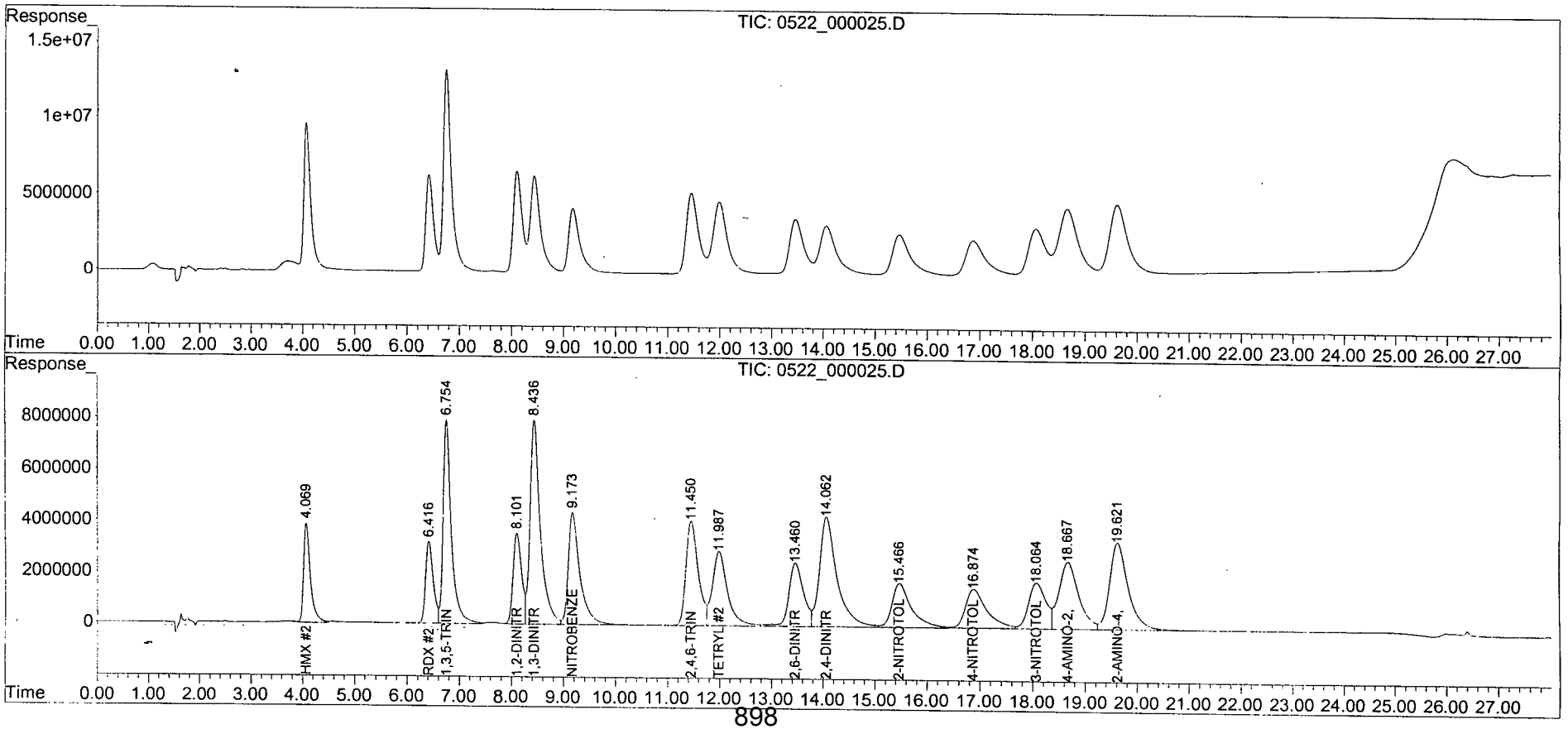
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000025.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 00:45:24
Operator : MP
Sample : 8330MXA_CB 2.0 PPM 05/22/15
Misc :
ALS Vial : 4295 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:32:47 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000026.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 01:24:56
Operator : MP
Sample : 8330MXB_CB 2.0 PPM 05/22/15
Misc :
ALS Vial : 4296 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:31:36 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-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...	12.061	0.000	1482681	0	1628.060	N.D. d#
9) TM TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10) TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11) TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13) TM 4-NITROTO...	0.000	0.000	0	0	N.D. d	N.D. d
14) TM 3,5-DINIT...	0.000	16.541	0	3311418	N.D.	1658.965 #
15) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	22.767	22.769	1542843	30238	1690.853m	NoCal #

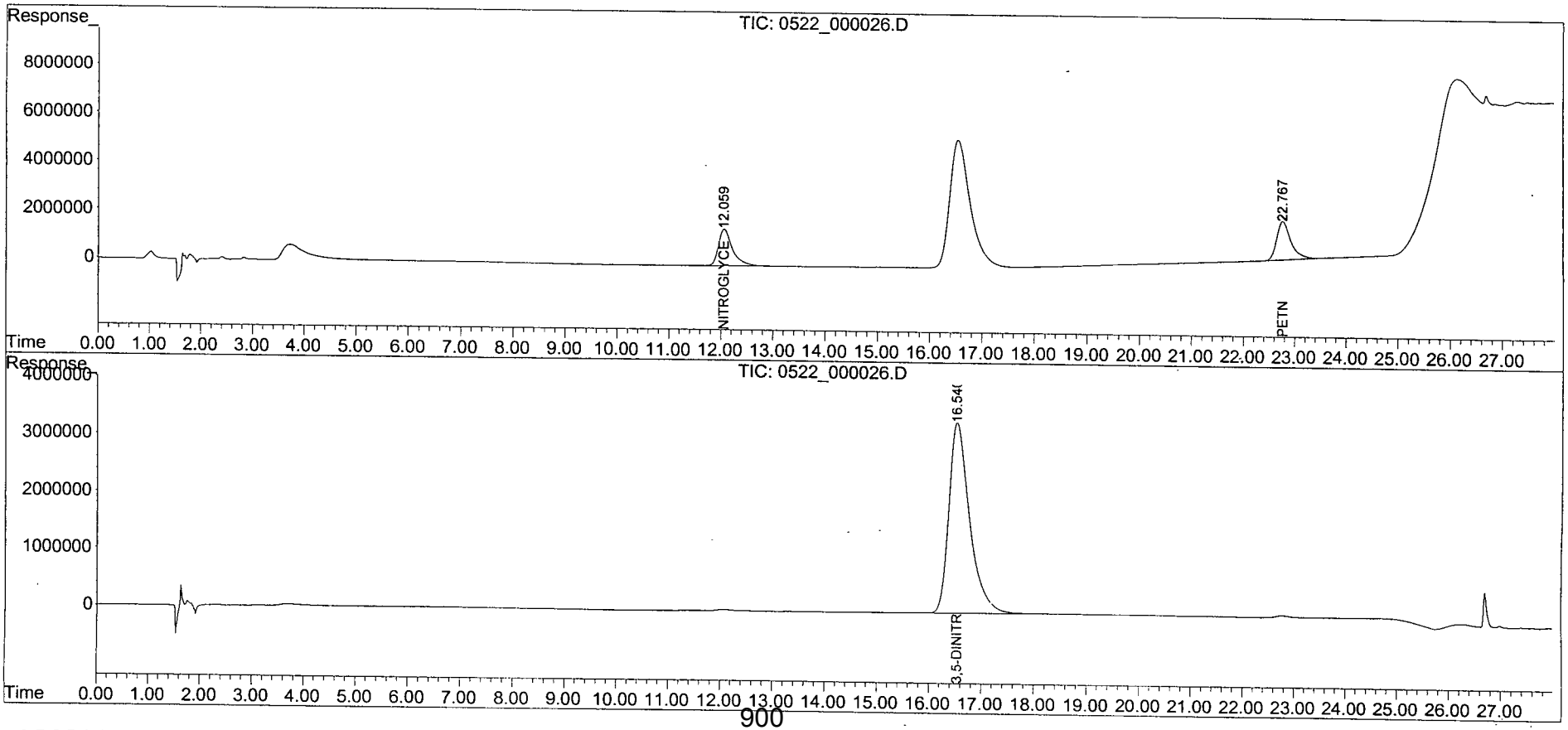
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000026.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 01:24:56
Operator : MP
Sample : 8330MXB_CB 2.0 PPM 05/22/15
Misc :
ALS Vial : 4296 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:31:36 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

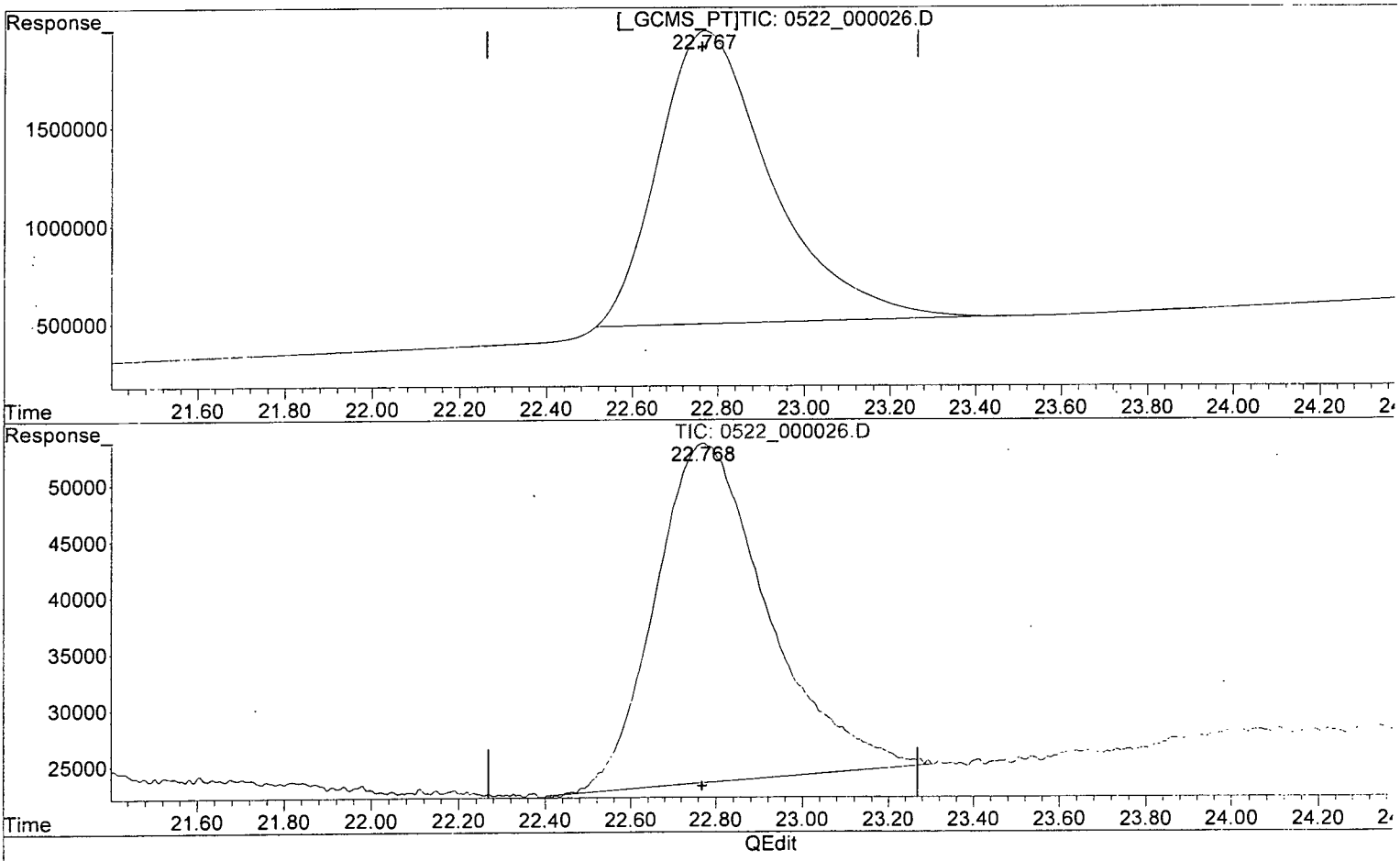


Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000026.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 01:24:56
Operator : MP
Sample : 8330MXB_CB 2.0 PPM 05/22/15
Misc :
ALS Vial : 4296 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:50 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(18) PETN (TM)

22.769min 1638.003 ppb

response 1494619

(18) PETN #2 (TM)

22.769min 0.000 ppb

response 30238

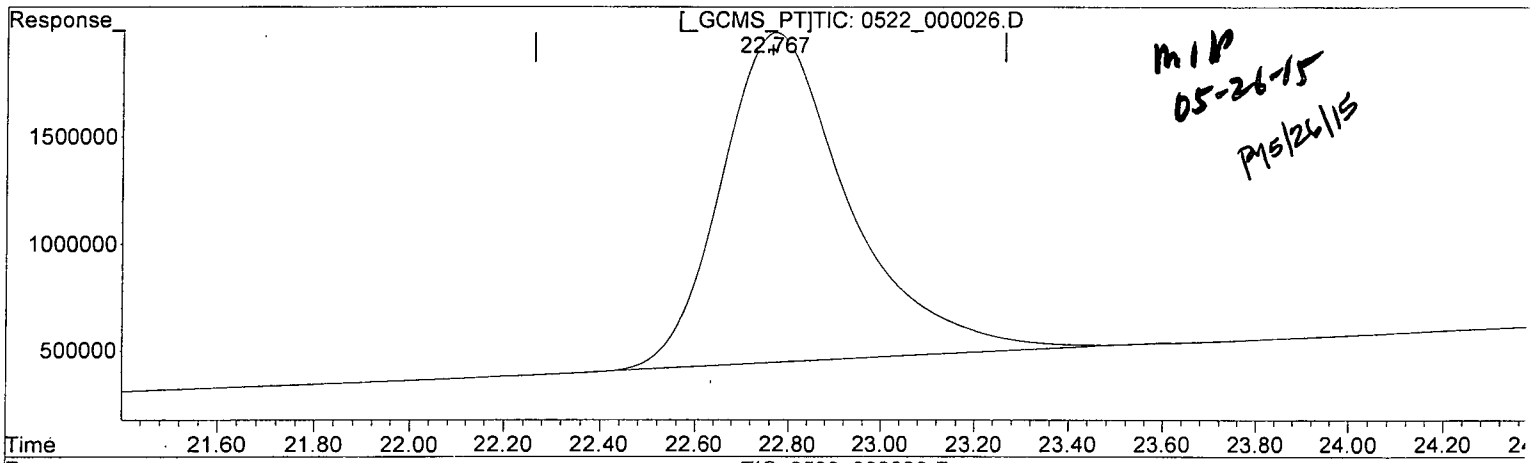
(+) = Expected Retention Time

Quantitation Report (Qedit)

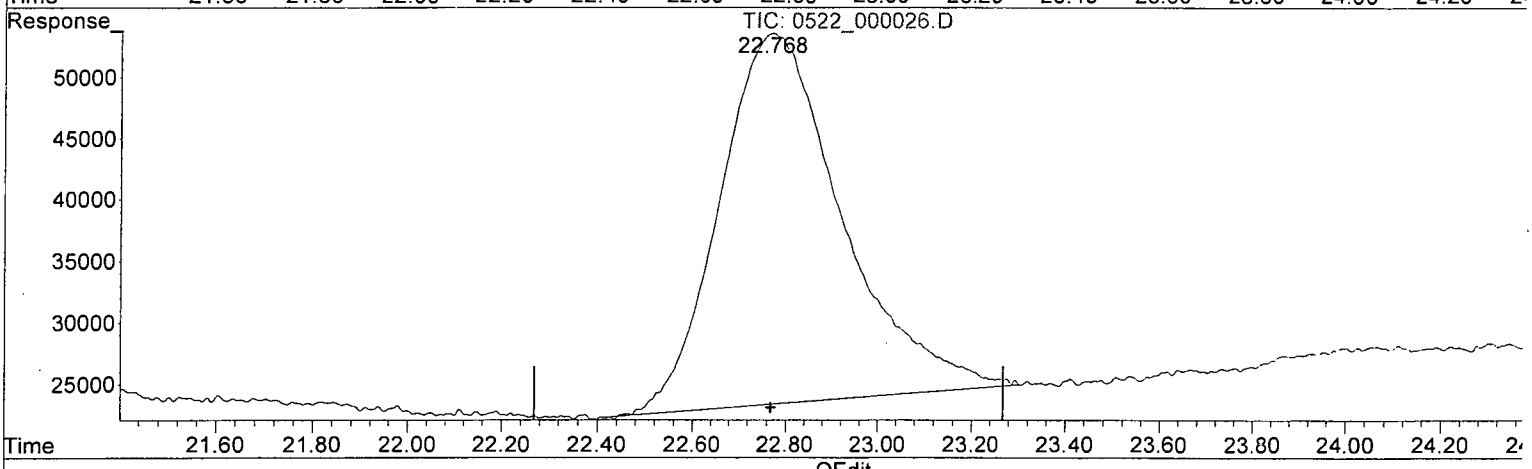
Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000026.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 01:24:56
Operator : MP
Sample : 8330MXB_CB 2.0 PPM 05/22/15
Misc :
ALS Vial : 4296 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:50 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



MLP 05-26-15 PM5/26/15



(18) PETN (TM)

22.767min 1690.853 ppb m

response 1542843

(18) PETN #2 (TM)

22.769min 0.000 ppb

response 30238

(+) = Expected Retention Time

Form 7

Second Source Calibration

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

SDG No: 16624
Date Analyzed: 23-May-2015, 04:42:30
Instrument: Statler
Initial Cal. Date: 05/22/15
Data File: 0522_000031-33.D

		Compound	MEAN	CCRF	%D	%Drift	
1	TM	NITROGLYCERIN	18.6	18.4	0.69	TM	
2	TM	PETN	18.2	18.5	1.9	TM	
3		Signal #2					
4	TM	HMX	46.3	47.1	1.8	TM	
5	TM	RDX	39.8	39.8	0.03	TM	
6	TM	1,3-DINITROBENZENE	96.6	94.7	1.9	TM	
7	TM	NITROBENZENE	54.2	53.8	0.71	TM	
8	TM	2,4-DINITROTOLUENE	51.7	53.0	2.4	TM	
9	TM	3,5-DINITROANILINE	41.3	42.8	3.6	TM	
10	TM	3-NITROTOLUENE	22.9	22.8	0.74	TM	
11	TM	4-AMINO-2,6-DINITROTOLUEN	34.2	34.3	0.55	TM	
12	TM	1,3,5-TRINITROBENZENE	97.9	89.7	8.4	TM	
13	S	1,2-DINITROBENZENE	44.3	44.5	0.48	S	
14	TM	2,4,6-TRINITROTOLUENE	50.2	49.8	0.83	TM	
15	TM	2,6-DINITROTOLUENE	30.0	31.8	6.1	TM	
16	TM	2-NITROTOLUENE	21.2	21.7	2.8	TM	
17	TM	4-NITROTOLUENE	18.3	18.5	1.6	TM	
18	TM	2-AMINO-4,6-DINITROTOLUEN	43.0	38.7	10	TM	
19	TM	TETRYL	36.6	32.0	12	TM	
20							
21							
22							
23							
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40							

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000031.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 04:42:30
Operator : MP
Sample : 8330MXA_SS 1.0 PPM 05/22/15
Misc :
ALS Vial : 4352 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:23:15 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:19:47 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-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	4.073	0	1883754	N.D.	1017.745 #
2)	TM RDX	0.000	6.415	0	1590397	N.D.	999.716 #
3)	TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.	N.D.
5)	TM 1,3-DINIT...	0.000	8.427	0	3787591	N.D.	980.606 #
6)	TM NITROBENZENE	0.000	9.161	0	2153367	N.D.	992.865 #
7)	TM 2,4,6-TRI...	0.000	0.000	0	0	N.D.	N.D. d
8)	TM NITROGLYC...	12.040	0.000	736934	0	993.140	N.D. d#
9)	TM TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10)	TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11)	TM 2,4-DINIT...	0.000	14.047	0	2118885	N.D.	1024.231 #
12)	TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13)	TM 4-NITROTO...	0.000	0.000	0	0	N.D. d	N.D. d
14)	TM 3,5-DINIT...	0.000	16.551	0	1712548	N.D.	1035.686 #
15)	TM 3-NITROTO...	0.000	18.047	0	910222	N.D.	992.617 #
16)	TM 4-AMINO-2...	0.000	18.671	0	1373815	N.D.	1005.467 #
17)	TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18)	TM PETN	0.000	0.000	0	0	N.D.	N.D.

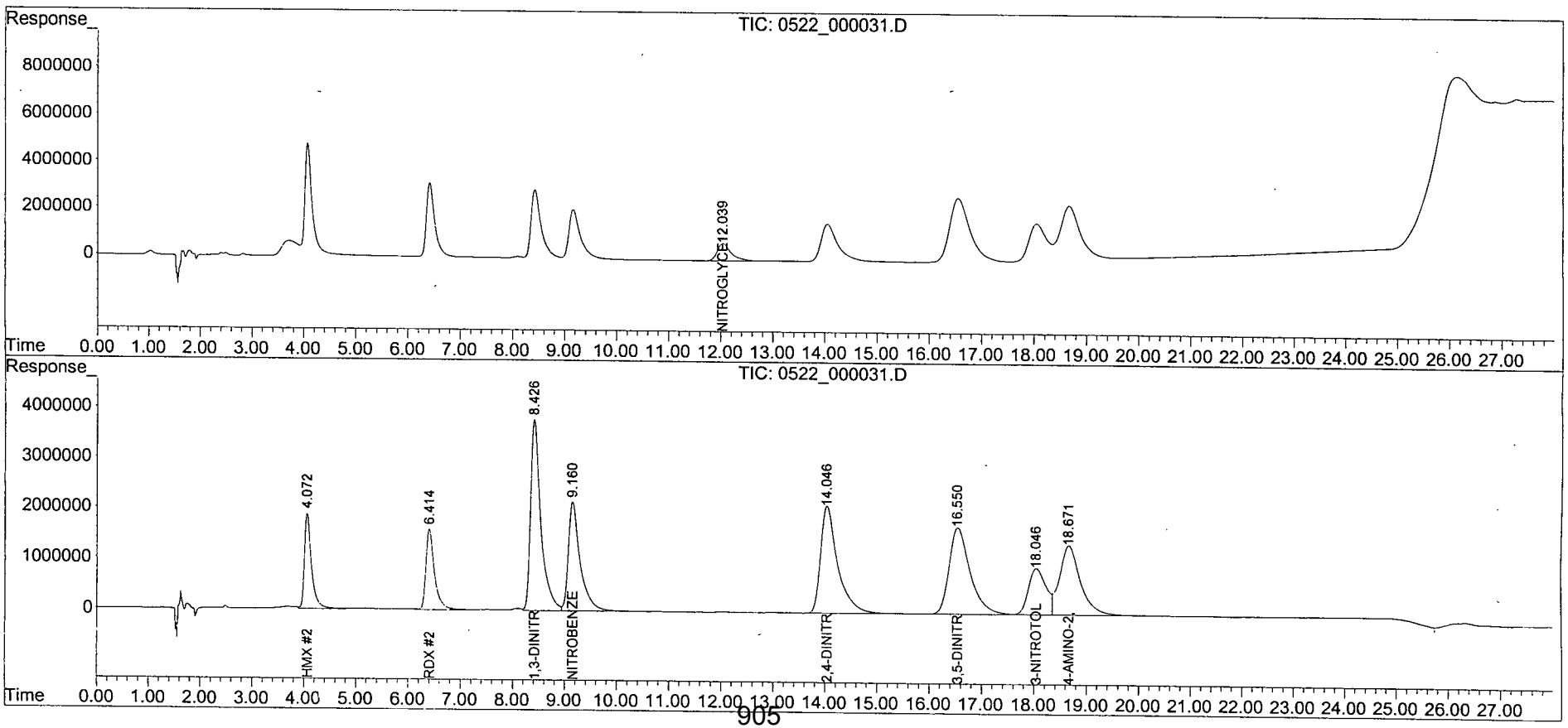
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000031.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 04:42:30
Operator : MP
Sample : 8330MXA_SS 1.0 PPM 05/22/15
Misc :
ALS Vial : 4352 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:23:15 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:19:47 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000032.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 05:22:00
Operator : MP
Sample : 8330MXB_SS 1.0 PPM 05/22/15
Misc :
ALS Vial : 4353 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:24:52 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:19:47 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	8.108	0	1779983	N.D.	1004.829 #
Spiked Amount 62.500			Recovery =		0.00%	1607.73%
Target Compounds						
1) TM HMX	0.000	0.000	0	0	N.D.	N.D.
2) TM RDX	0.000	0.000	0	0	N.D.	N.D. d
3) TM 1,3,5-TRI...	0.000	6.758	0	3587912	N.D.	916.157 #
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.
6) TM NITROBENZENE	0.000	0.000	0	0	N.D.	N.D. d
7) TM 2,4,6-TRI...	0.000	11.451	0	1991880	N.D.	991.740 #
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10) TM 2,6-DINIT...	0.000	13.467	0	1273233	N.D.	1061.031 #
11) TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12) TM 2-NITROTO...	0.000	15.471	0	869951	N.D.	1027.863 #
13) TM 4-NITROTO...	0.000	16.886	0	741713	N.D.	1015.531 #
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
15) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM 2-AMINO-4...	0.000	19.659	0	1547413	N.D.	899.911 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

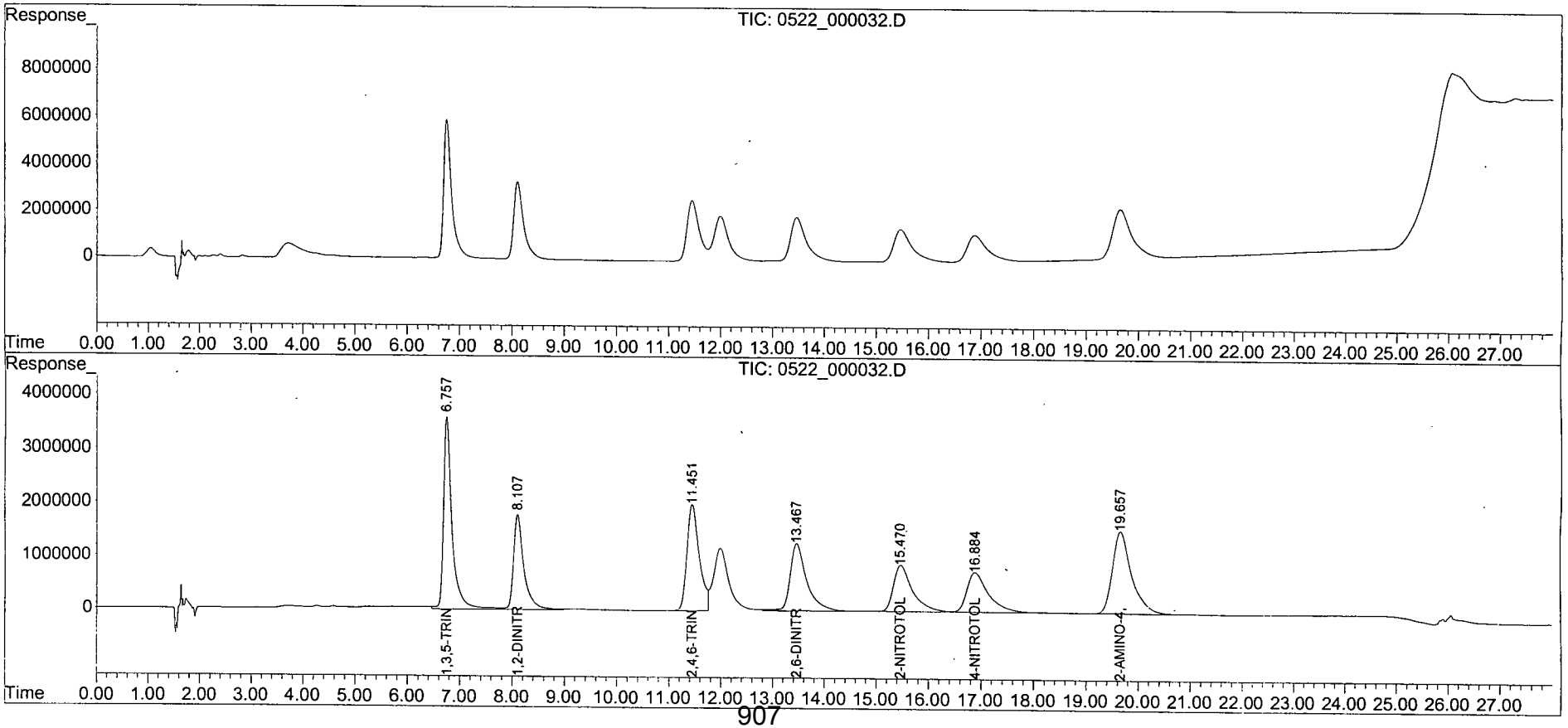
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000032.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 05:22:00
Operator : MP
Sample : 8330MXB_SS 1.0 PPM 05/22/15
Misc :
ALS Vial : 4353 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:24:52 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:19:47 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000033.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 06:01:31
Operator : MP
Sample : PETN_TETRYL_SS 1.0 PPM 05/22/15
Misc :
ALS Vial : 4354 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:26:04 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:19:47 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-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...	0.000	0.000	0	0	N.D. d	N.D. d
9)	TM TETRYL	0.000	12.005	0	1280291	N.D. d	875.551
10)	TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11)	TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12)	TM 2-NITROTO...	0.000	0.000	0	0	N.D. d	N.D. d
13)	TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
14)	TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
15)	TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16)	TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17)	TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18)	TM PETN	22.767	0.000	739734	0	1018.644m	N.D. #

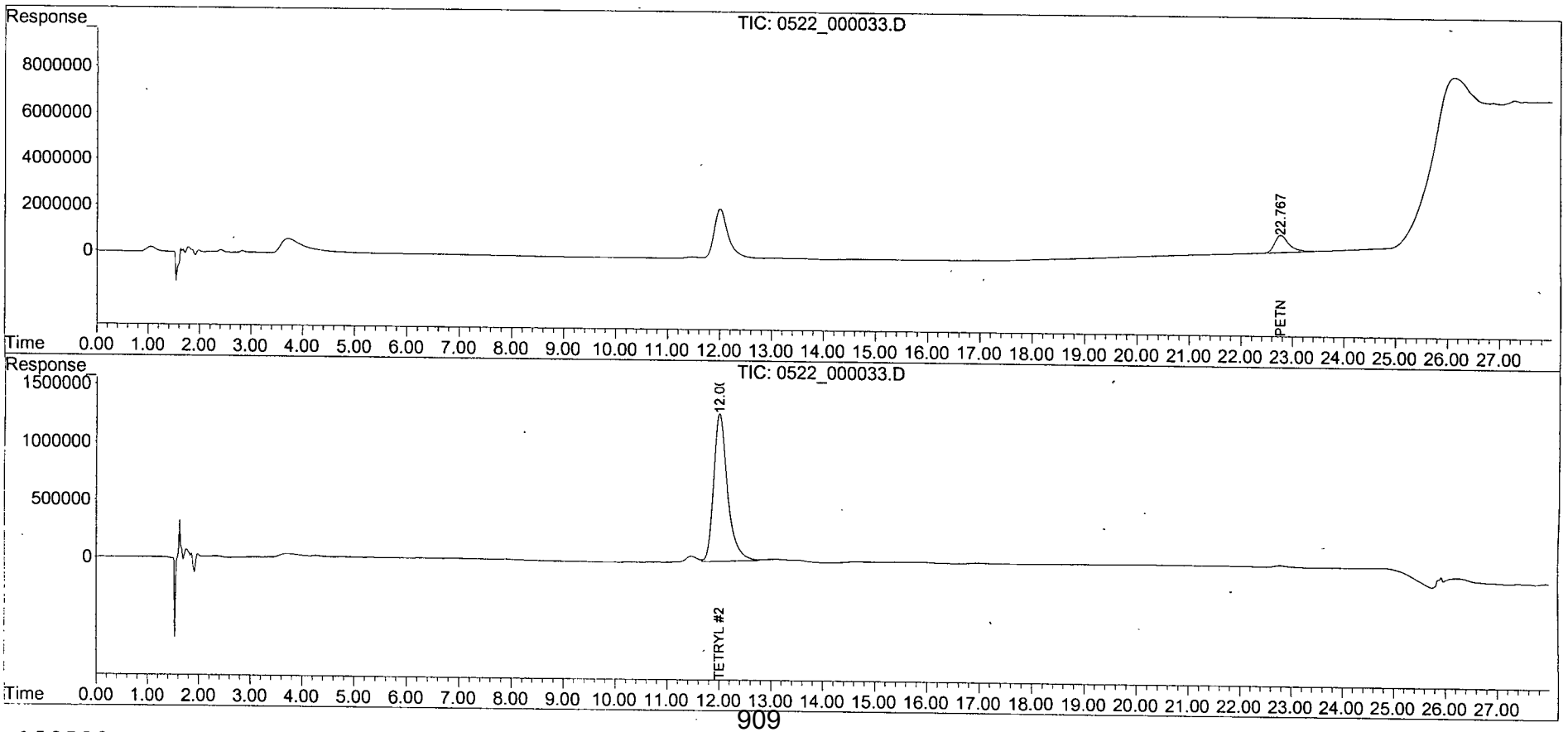
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000033.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 06:01:31
Operator : MP
Sample : PETN_TETRYL_SS 1.0 PPM 05/22/15
Misc :
ALS Vial : 4354 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:26:04 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:19:47 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

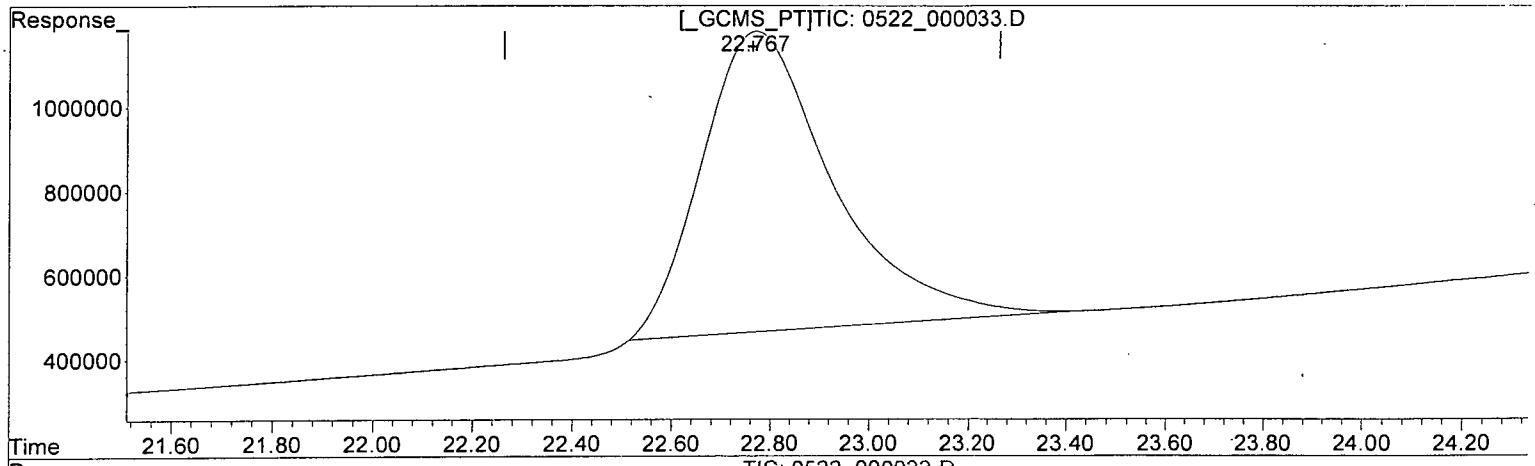


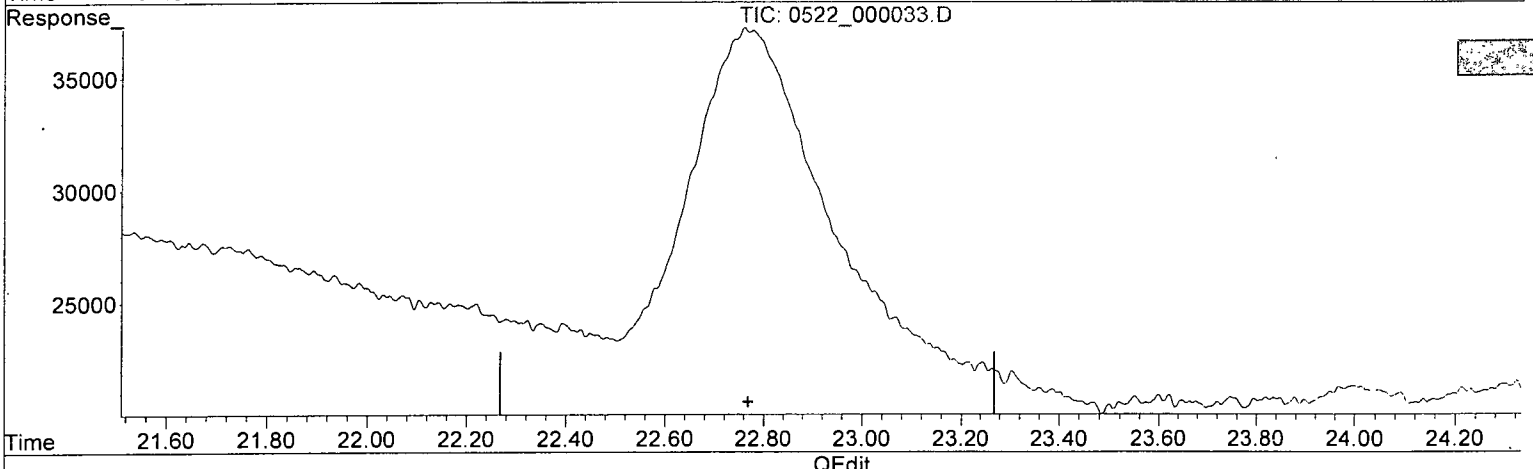
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000033.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 06:01:31
Operator : MP
Sample : PETN_TETRYL_SS 1.0 PPM 05/22/15
Misc :
ALS Vial : 4354 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:22:41 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:19:47 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ





QEdit

(18) PETN (TM)

22.769min 982.640 ppb

response 713587

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

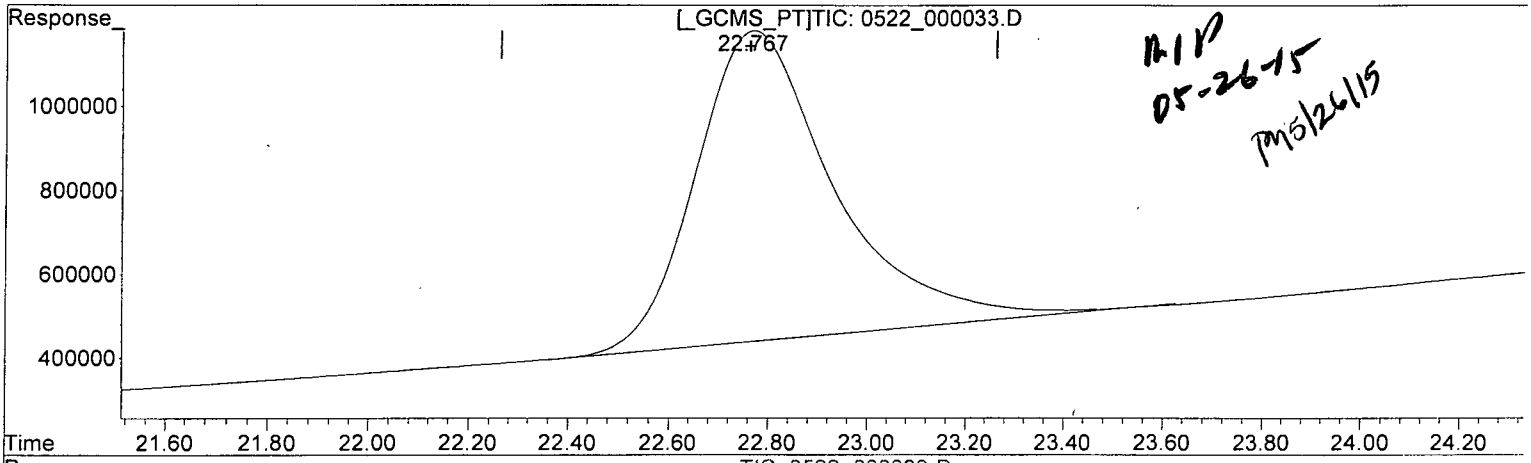
(+) = Expected Retention Time

Quantitation Report (Qedit)

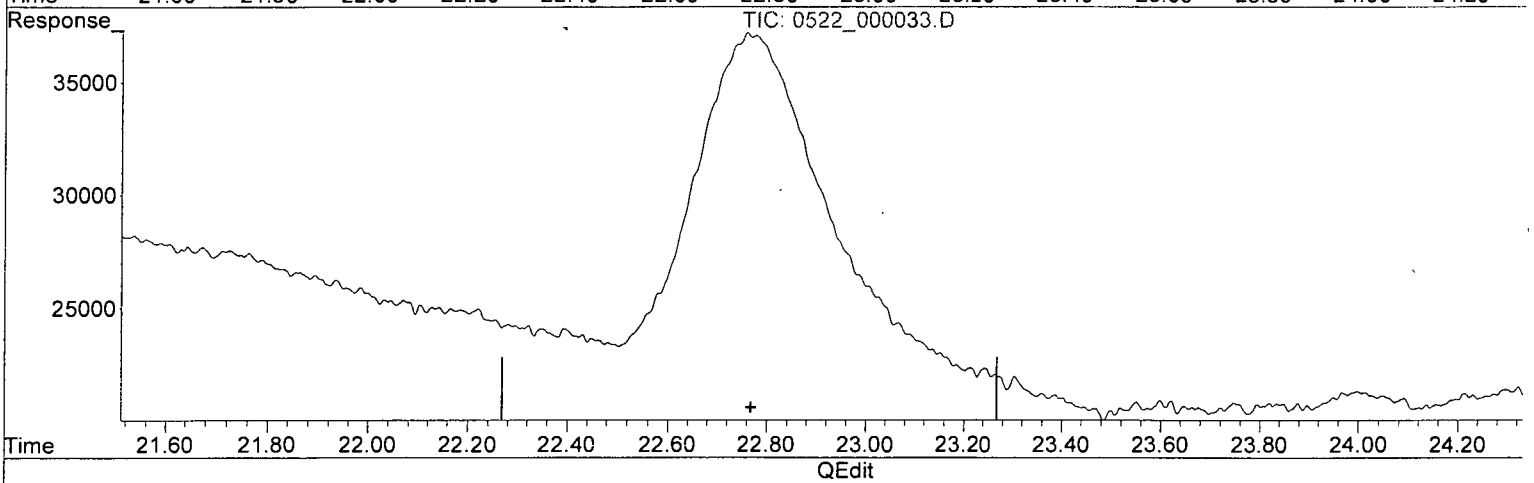
Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000033.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 06:01:31
Operator : MP
Sample : PETN_TETRYL_SS 1.0 PPM 05/22/15
Misc :
ALS Vial : 4354 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:22:41 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:19:47 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ



MP 05-26-15 5/26/15



QEdit

(18) PETN (TM)

22.767min 1018.644 ppb m

response 739734

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

(+) = Expected Retention Time

Form 7

Continuing Calibration

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

SDG No: 76624
Date Analyzed: 21-Jun-2015, 17:51:25
Instrument: Statler
Initial Cal. Date: 05/22/15
Data File: 0621_000006-07.D

		Compound	MEAN	CCRF	%D	%Drift	
1	TM	NITROGLYCERIN	18.6	19.3	3.9	TM	
2	TM	PETN	18.2	20.1	10	TM	
3		Signal #2					
4	TM	3,5-DINITROANILINE	41.3	44.0	6.3	TM	
5	TM	HMX	46.3	51.7	12	TM	
6	TM	RDX	39.8	42.8	7.7	TM	
7	TM	1,3,5-TRINITROBENZENE	97.9	104	6.3	TM	
8	S	1,2-DINITROBENZENE	44.3	46.5	5.1	S	
9	TM	1,3-DINITROBENZENE	96.6	104	7.4	TM	
10	TM	NITROBENZENE	54.2	57.5	6.0	TM	
11	TM	2,4,6-TRINITROTOLUENE	50.2	53.8	7.1	TM	
12	TM	TETRYL	36.6	39.0	6.6	TM	
13	TM	2,6-DINITROTOLUENE	30.0	31.9	6.2	TM	
14	TM	2,4-DINITROTOLUENE	51.7	56.0	8.2	TM	
15	TM	2-NITROTOLUENE	21.2	21.9	3.7	TM	
16	TM	4-NITROTOLUENE	18.3	19.4	6.2	TM	
17	TM	3-NITROTOLUENE	22.9	22.9	0.31	TM	
18	TM	4-AMINO-2,6-DINITROTOLUEN	34.2	35.3	3.3	TM	
19	TM	2-AMINO-4,6-DINITROTOLUEN	43.0	44.8	4.2	TM	
20							
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Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150621\
Data File : 0621_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 21-Jun-2015, 17:11:57
Operator : MP
Sample : 8330MXA_CCV 1.0 PPM 06/21/15
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: Jun 22 07:32:12 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150621\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon Jun 22 07:30:34 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 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	8.092	0	1861314	N.D.	1050.742	#
	Spiked Amount 62.500			Recovery	=	0.00%	1681.19%	
	Target Compounds							
1)	TM HMX	0.000	4.061	0	2066780	N.D.	1116.630	#
2)	TM RDX	0.000	6.397	0	1713871	N.D.	1077.332	#
3)	TM 1,3,5-TRI...	0.000	6.753	0	4161681	N.D.	1062.666	#
5)	TM 1,3-DINIT...	0.000	8.428	0	4147807	N.D.	1073.865	#
6)	TM NITROBENZENE	0.000	9.173	0	2299785	N.D.	1060.375	#
7)	TM 2,4,6-TRI...	0.000	11.443	0	2151189	N.D.	1071.058	#
8)	TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d	
9)	TM TETRYL	11.958	11.957	1257975	1558840	NoCal	1066.042	#
10)	TM 2,6-DINIT...	13.451	13.451	1936496	1274797	NoCal	1062.334	#
11)	TM 2,4-DINIT...	0.000	14.050	0	2238473	N.D.	1082.038	#
12)	TM 2-NITROTO...	0.000	15.472	0	877485	N.D.	1036.765	#
13)	TM 4-NITROTO...	0.000	16.881	0	775909	N.D.	1062.351	#
14)	TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.	
15)	TM 3-NITROTO...	0.000	18.074	0	914177	N.D.	996.930	#
16)	TM 4-AMINO-2...	0.000	18.596	0	1411317	N.D.	1032.914	#
17)	TM 2-AMINO-4...	0.000	19.555	0	1791080	N.D.	1041.658	#
18)	TM PETN	0.000	0.000	0	0	N.D.	N.D.	

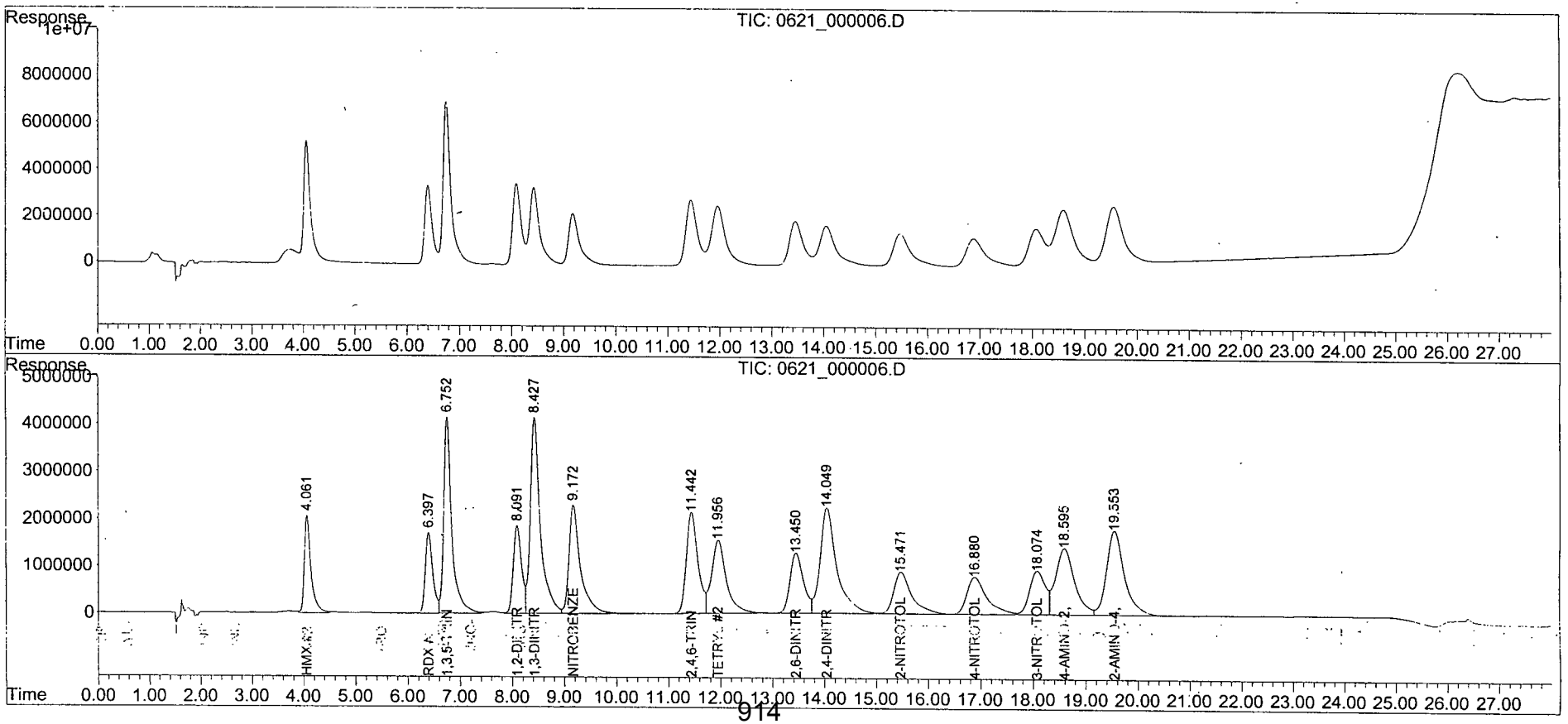
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150621\
Data File : 0621_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 21-Jun-2015, 17:11:57
Operator : MP
Sample : 8330MXA_CCV 1.0 PPM 06/21/15
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: Jun 22 07:32:12 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150621\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Mon Jun 22 07:30:34 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150621\
Data File : 0621_000007.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 21-Jun-2015, 17:51:25
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 06/21/15
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: Jun 22 07:31:15 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150621\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4)	S 1,2-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 62.500			Recovery	=	0.00%	0.00%
	Target Compounds						
1)	TM HMX	0.000	0.000	0	0	N.D.	N.D.
2)	TM RDX	0.000	0.000	0	0	N.D. d	N.D. d
3)	TM 1,3,5-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
5)	TM 1,3-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
6)	TM NITROBENZENE	0.000	0.000	0	0	N.D. d	N.D. d
7)	TM 2,4,6-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
8)	TM NITROGLYC...	12.050	12.043	770756	12783	1038.721	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.	N.D.
14)	TM 3,5-DINIT...	0.000	16.445	0	1758306	N.D.	1063.359 #
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	22.766	22.771	802382	16161	1104.914m	NoCal #

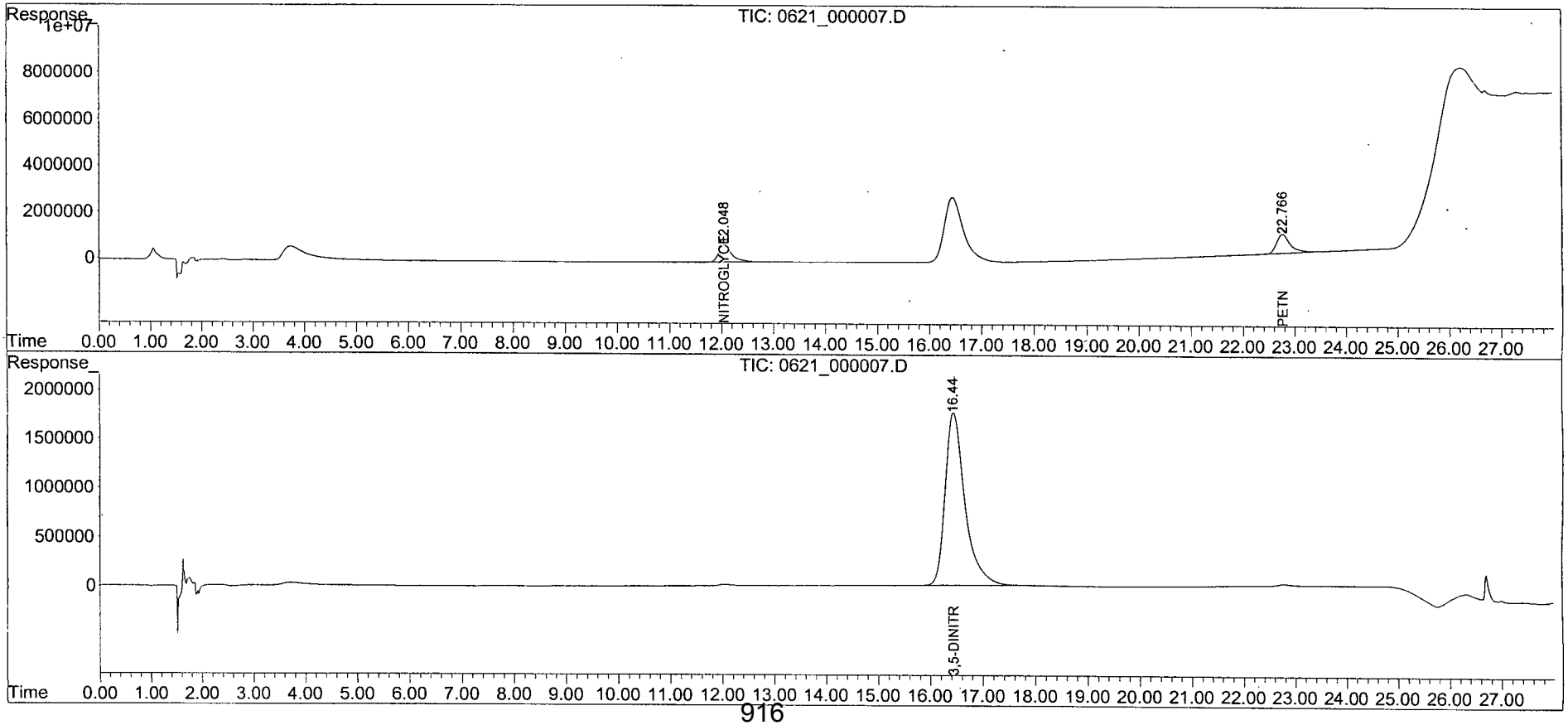
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150621\
Data File : 0621_000007.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 21-Jun-2015, 17:51:25
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 06/21/15
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: Jun 22 07:31:15 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150621\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

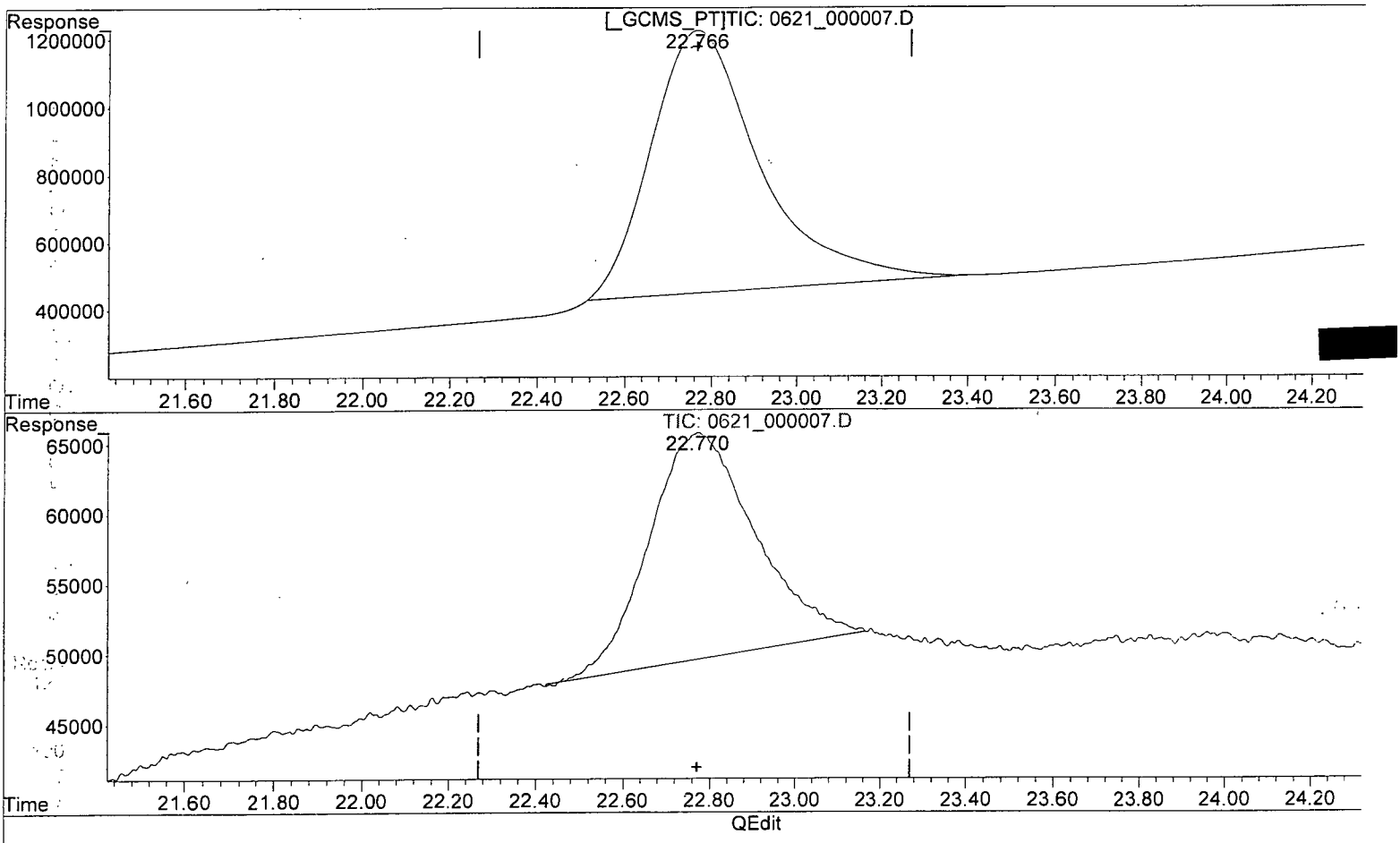


Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150621\
Data File : 0621_000007.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 21-Jun-2015, 17:51:25
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 06/21/15
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: Jun 22 07:30:51 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150621\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(18) PETN (TM)

22.767min 1069.036 ppb

response 776328

(18) PETN #2 (TM)

22.771min 0.000 ppb

response 16161

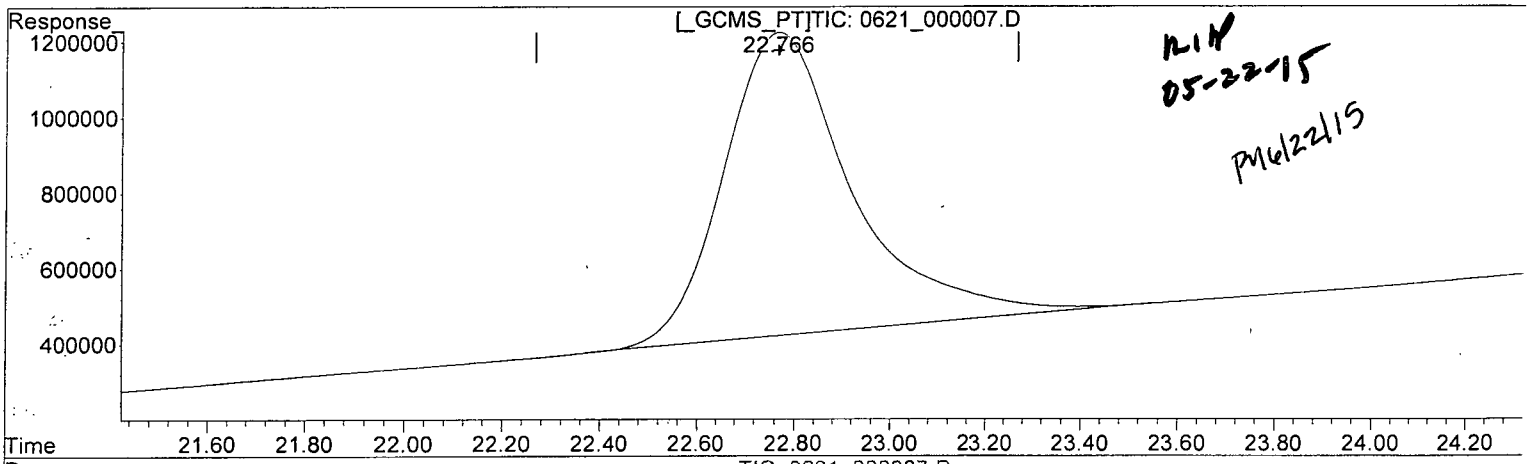
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150621\
Data File : 0621_000007.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 21-Jun-2015, 17:51:25
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 06/21/15
Misc :
ALS Vial : 4424 Sample Multiplier: 1

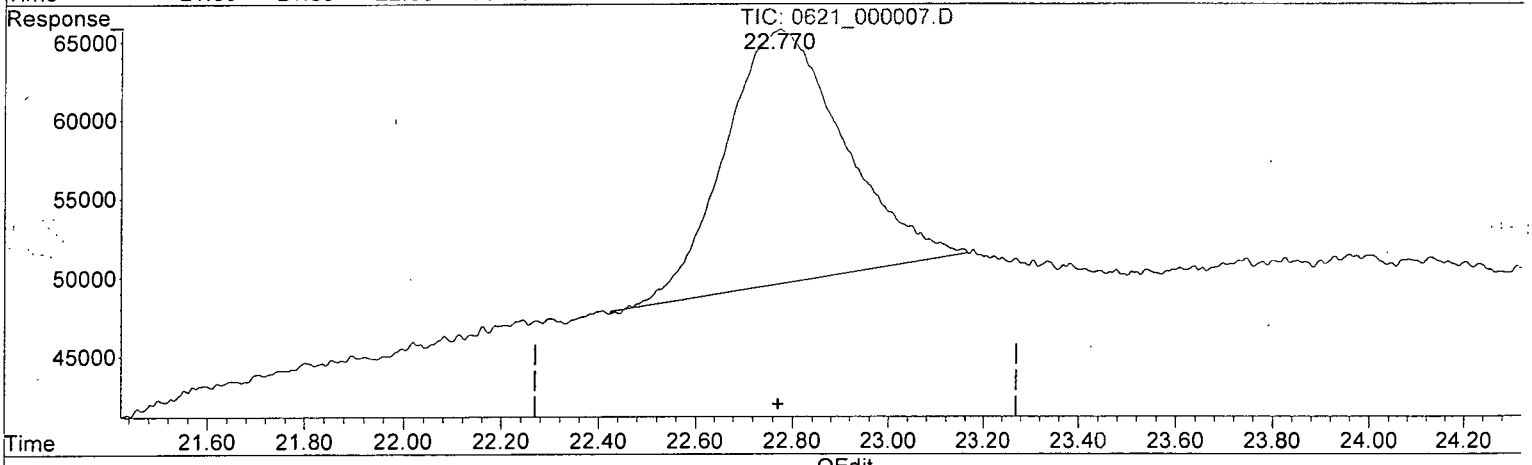
Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 22 07:30:51 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150621\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



NLH 05-22-15

PM 6/22/15



QEdit

(18) PETN (TM)

22.766min 1104.914 ppb m

response 802382

(18) PETN #2 (TM)

22.771min 0.000 ppb

response 16161

(+) = Expected Retention Time

Form 7

Continuing Calibration

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

SDG No: 76624
Date Analyzed: 21-Jun-2015, 22:27:56
Instrument: Statler
Initial Cal. Date: 05/22/15
Data File: 0621_000013-14.D

		Compound	MEAN	CCRF	%D	%Drift	
1	TM	NITROGLYCERIN	18.6	19.2	3.6	TM	
2	TM	PETN	18.2	20.0	10	TM	
3		Signal #2					
4	TM	3,5-DINITROANILINE	41.3	43.7	5.6	TM	
5	TM	HMX	46.3	51.5	11	TM	
6	TM	RDX	39.8	42.8	7.6	TM	
7	TM	1,3,5-TRINITROBENZENE	97.9	104	6.5	TM	
8	S	1,2-DINITROBENZENE	44.3	46.5	5.0	S	
9	TM	1,3-DINITROBENZENE	96.6	104	7.5	TM	
10	TM	NITROBENZENE	54.2	57.1	5.3	TM	
11	TM	2,4,6-TRINITROTOLUENE	50.2	54.1	7.7	TM	
12	TM	TETRYL	36.6	38.7	5.8	TM	
13	TM	2,6-DINITROTOLUENE	30.0	32.6	8.6	TM	
14	TM	2,4-DINITROTOLUENE	51.7	56.6	9.5	TM	
15	TM	2-NITROTOLUENE	21.2	22.2	4.7	TM	
16	TM	4-NITROTOLUENE	18.3	19.7	8.0	TM	
17	TM	3-NITROTOLUENE	22.9	23.3	1.6	TM	
18	TM	4-AMINO-2,6-DINITROTOLUEN	34.2	35.7	4.6	TM	
19	TM	2-AMINO-4,6-DINITROTOLUEN	43.0	45.2	5.1	TM	
20							
21							
22							
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39							

Quantitation Report (Not Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150621\
Data File : 0621_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 21-Jun-2015, 21:48:27
Operator : MP
Sample : 8330MXA_CCV 1.0 PPM 06/21/15
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: Jun 22 07:35:48 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150621\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	8.111	0	1860502	N.D.	1050.233 #
Spiked Amount 62.500			Recovery	=	0.00%	1680.45%
Target Compounds						
1) TM HMX	0.000	4.071	0	2060620	N.D.	1113.302 #
2) TM RDX	0.000	6.413	0	1712029	N.D.	1076.174 #
3) TM 1,3,5-TRI...	0.000	6.766	0	4170904	N.D.	1065.021 #
5) TM 1,3-DINIT...	0.000	8.446	0	4152949	N.D.	1075.197 #
6) TM NITROBENZENE	0.000	9.191	0	2283029	N.D.	1052.649 #
7) TM 2,4,6-TRI...	0.000	11.466	0	2163284	N.D.	1077.080 #
8) TM NITROGLYC...	11.984	11.983	1026392	1547138	1383.232	NoCal #
9) TM TETRYL	11.984	11.983	1026392	1547138	NoCal	1058.039 #
10) TM 2,6-DINIT...	0.000	13.479	0	1303153	N.D.	1085.964 #
11) TM 2,4-DINIT...	0.000	14.078	0	2265420	N.D.	1095.063 #
12) TM 2-NITROTO...	0.000	15.501	0	886018	N.D.	1046.847 #
13) TM 4-NITROTO...	0.000	16.914	0	788596	N.D.	1079.722 #
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
15) TM 3-NITROTO...	0.000	18.105	0	931236	N.D.	1015.534 #
16) TM 4-AMINO-2...	0.000	18.633	0	1429857	N.D.	1046.483 #
17) TM 2-AMINO-4...	0.000	19.589	0	1807011	N.D.	1050.883 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

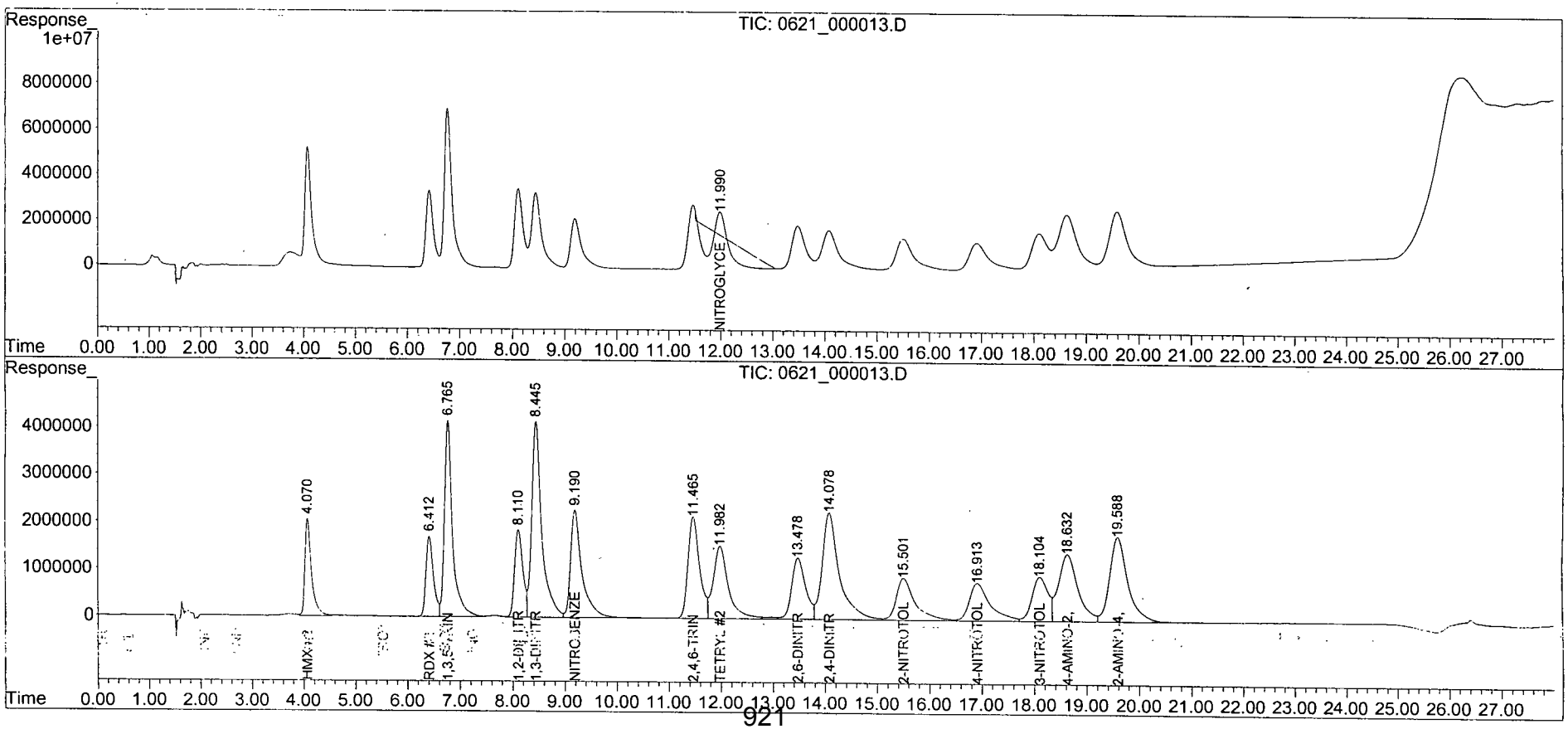
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150621\
Data File : 0621_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 21-Jun-2015, 21:48:27
Operator : MP
Sample : 8330MXA_CCV 1.0 PPM 06/21/15
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: Jun 22 07:35:48 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150621\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150621\
Data File : 0621_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 21-Jun-2015, 22:27:56
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 06/21/15
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: Jun 22 07:34:08 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150621\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4) S	1,2-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 62.500			Recovery	=	0.00%	0.00%
	Target Compounds						
1) TM	HMX	0.000	0.000	0	0	N.D.	N.D.
2) TM	RDX	0.000	0.000	0	0	N.D. d	N.D. d
3) TM	1,3,5-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
5) TM	1,3-DINIT...	0.000	0.000	0	0	N.D. 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...	12.072	12.069	768900	12555	1036.220	NoCal #
9) TM	TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10) TM	2,6-DINIT...	13.389	0.000	1373	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	16.491	0	1746948	N.D.	1056.490 #
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	22.785	22.797	798763	15217	1099.931m	NoCal #

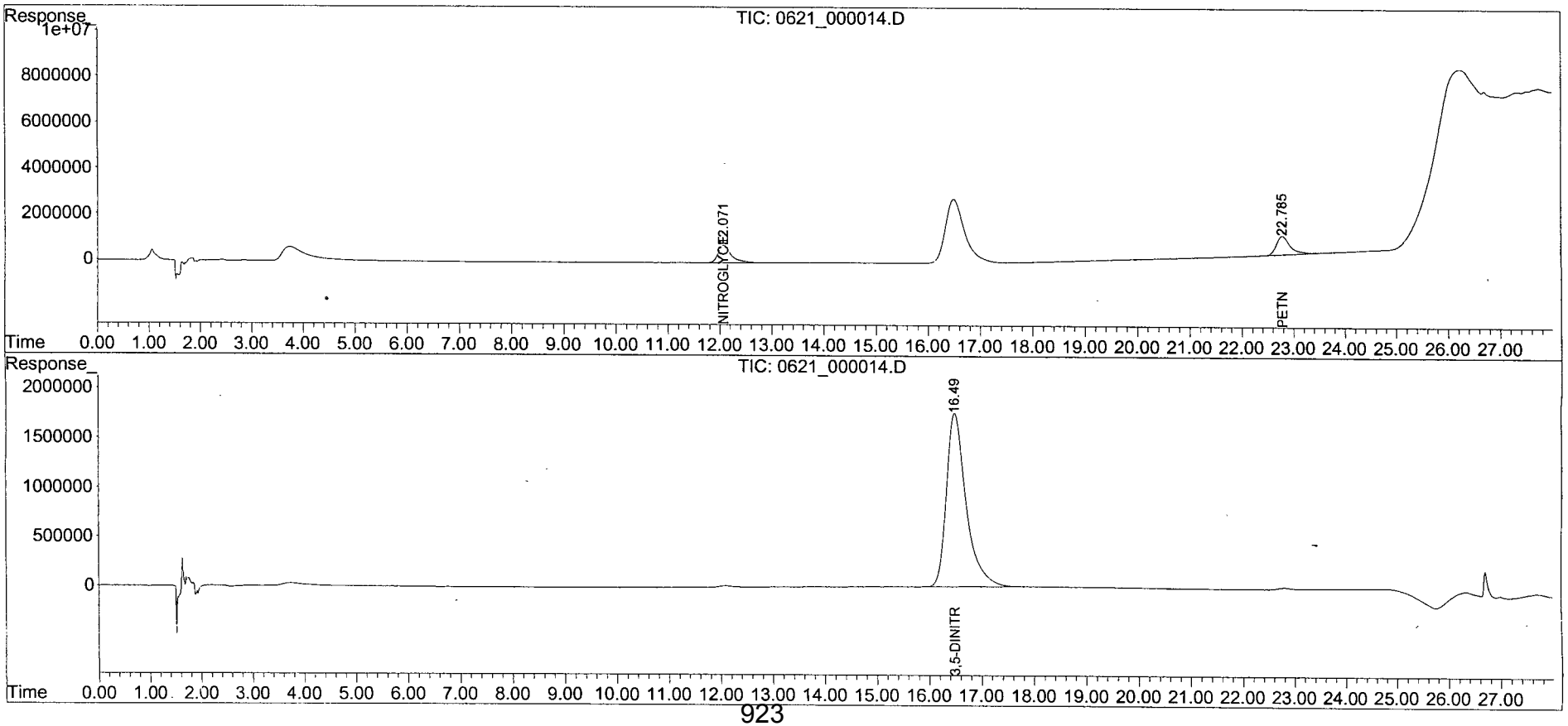
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150621\
Data File : 0621_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 21-Jun-2015, 22:27:56
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 06/21/15
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: Jun 22 07:34:08 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150621\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

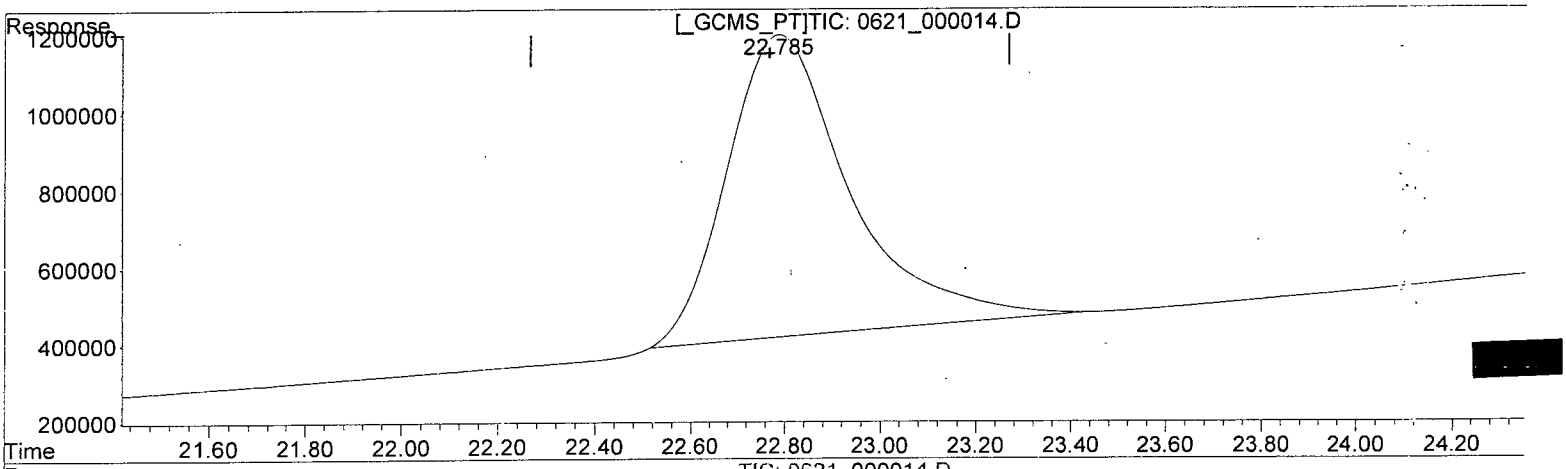


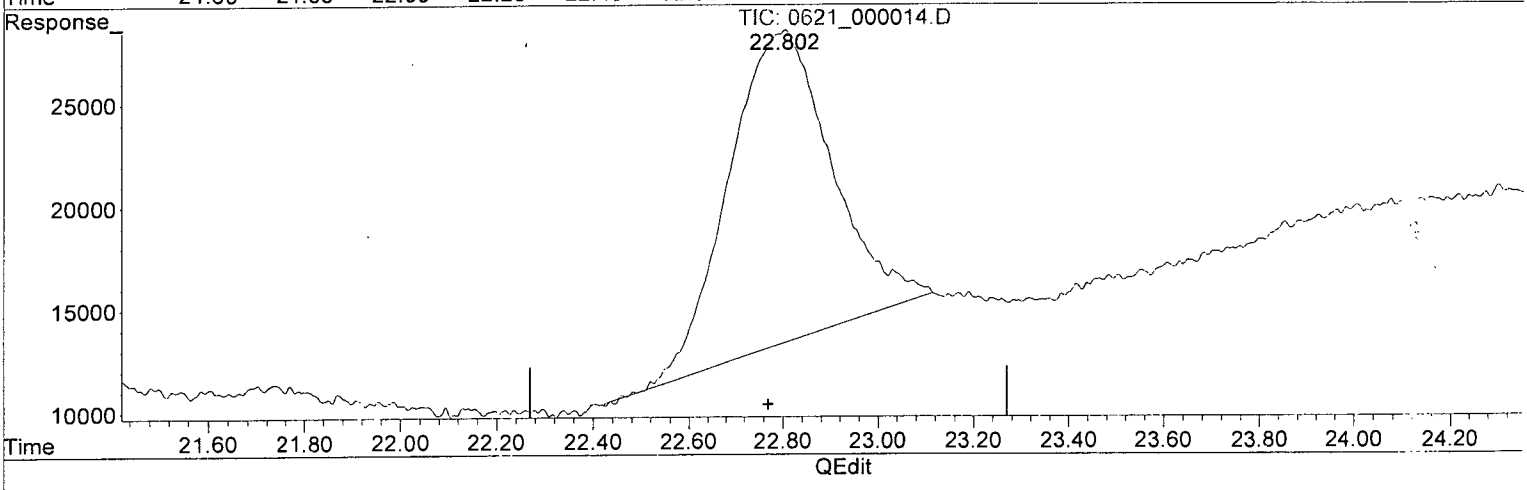
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150621\
Data File : 0621_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 21-Jun-2015, 22:27:56
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 06/21/15
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: Jun 22 07:33:45 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150621\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ





(18) PETN (TM)

22.787min 1078.392 ppb

response 783122

(18) PETN #2 (TM)

22.797min 0.000 ppb

response 15217

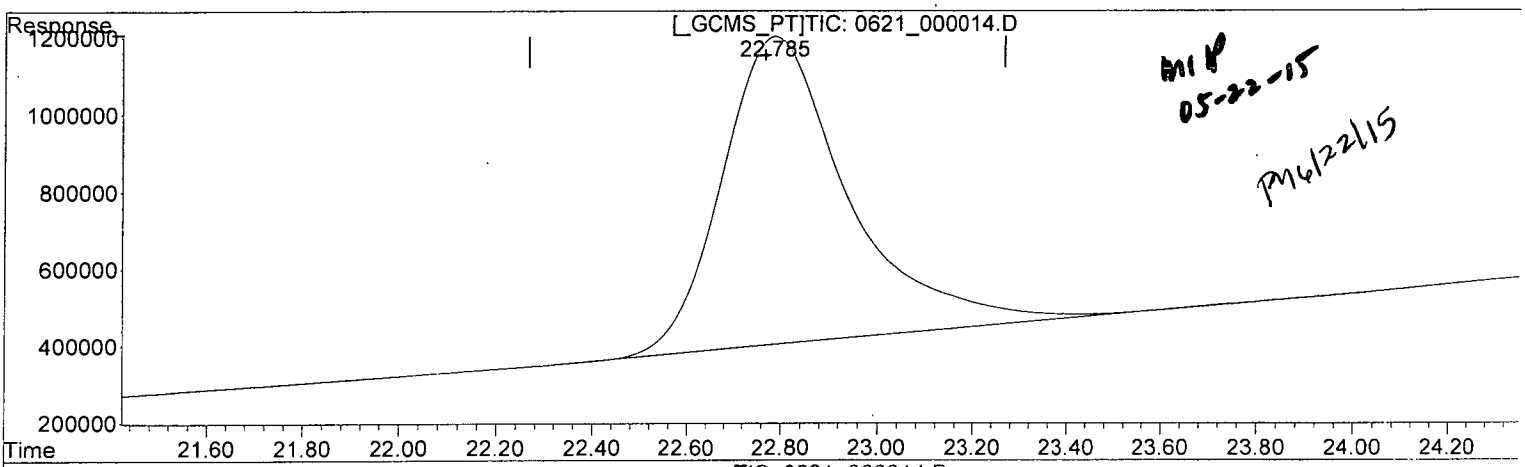
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150621\
Data File : 0621_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 21-Jun-2015, 22:27:56
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 06/21/15
Misc :
ALS Vial : 4424 Sample Multiplier: 1

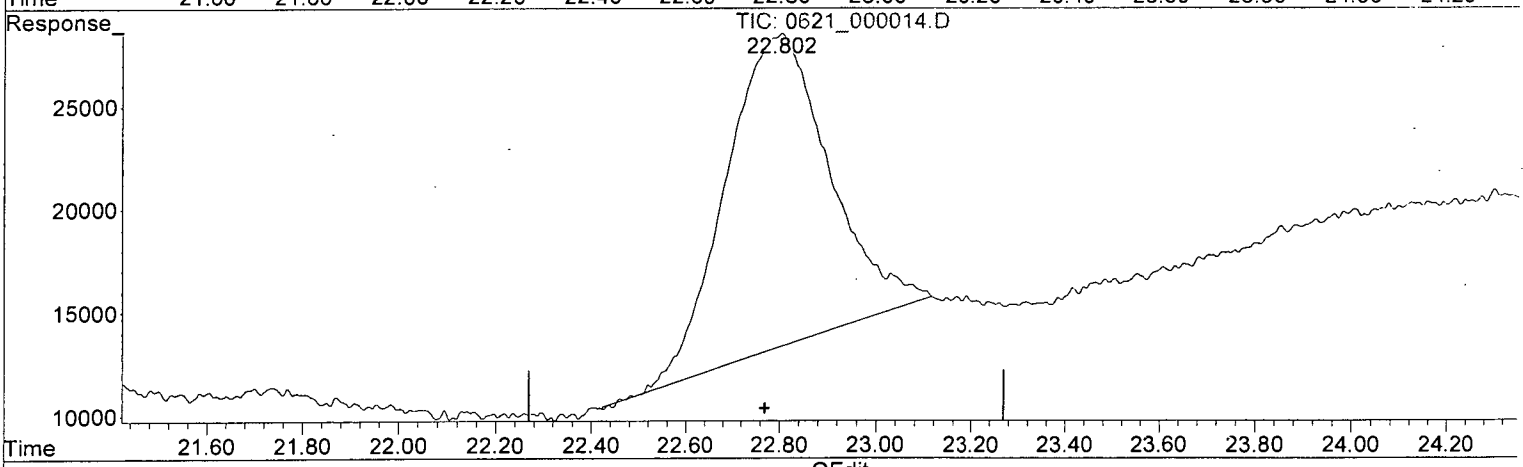
Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 22 07:33:45 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150621\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ



MLP 05-22-15

JM 6/22/15



QEdit

(18) PETN (TM)

22.785min 1099.931 ppb m

response 798763

(18) PETN #2 (TM)

22.797min 0.000 ppb

response 15217

(+) = Expected Retention Time

EPA 8330
EXPLOSIVES

Raw Data

APPL, INC.

Method Blank
EPA 8330B SOIL

Blank Name/QCG: **150617S-17444 - 198199**
Batch ID: #83BJU11S-150617

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2,4-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
BLANK	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/17/15	06/18/15
BLANK	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
BLANK	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/17/15	06/18/15
BLANK	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/17/15	06/18/15
BLANK	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/17/15	06/18/15
BLANK	SURROGATE: 1,2-DINITROBENZ	86.0	70-130			%	06/17/15	06/18/15

Quant Method: W150610.M
Run #: 0618_000008
Instrument: Waldorf
Sequence: 150618
Initials: MP

GC SC-Blank-REG MDLs
Printed: 06/22/15 10:30:46 AM

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 12:03:34
Operator : MP
Sample : 150617ABLKS 7.866 DF 06/17/15
Misc : Soil
ALS Vial : 4099 Sample Multiplier: 7.86627

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 18 15:56:27 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4)	S 1,2-DINIT...	0.000	3.532	0	704818	N.D.	507.103 #
	Spiked Amount 589.971			Recovery	=	0.00%	85.95%
	Target Compounds						
1)	TM HMX	0.000	0.000	0	0	N.D.	N.D.
2)	TM RDX	0.000	0.000	0	0	N.D.	N.D.
3)	TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.	N.D.
5)	TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.
6)	TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
7)	TM NITROBENZENE	0.000	0.000	0	0	N.D.	N.D.
8)	TM NITROGLYC...	0.000	0.000	0	0	N.D.	N.D.
9)	TM TETRYL	6.372	0.000	7833	0	NoCal	N.D.
10)	TM 2,4,6-TRI...	6.846	0.000	16797	0	NoCal	N.D.
11)	TM 2-AMINO-4...	6.998	0.000	15102	0	NoCal	N.D.
12)	TM 4-AMINO-2...	7.407	0.000	19713	0	NoCal	N.D.
13)	TM 2,4-DINIT...	8.516	0.000	9689	0	NoCal	N.D.
14)	TM 2,6-DINIT...	8.874	0.000	10033	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.

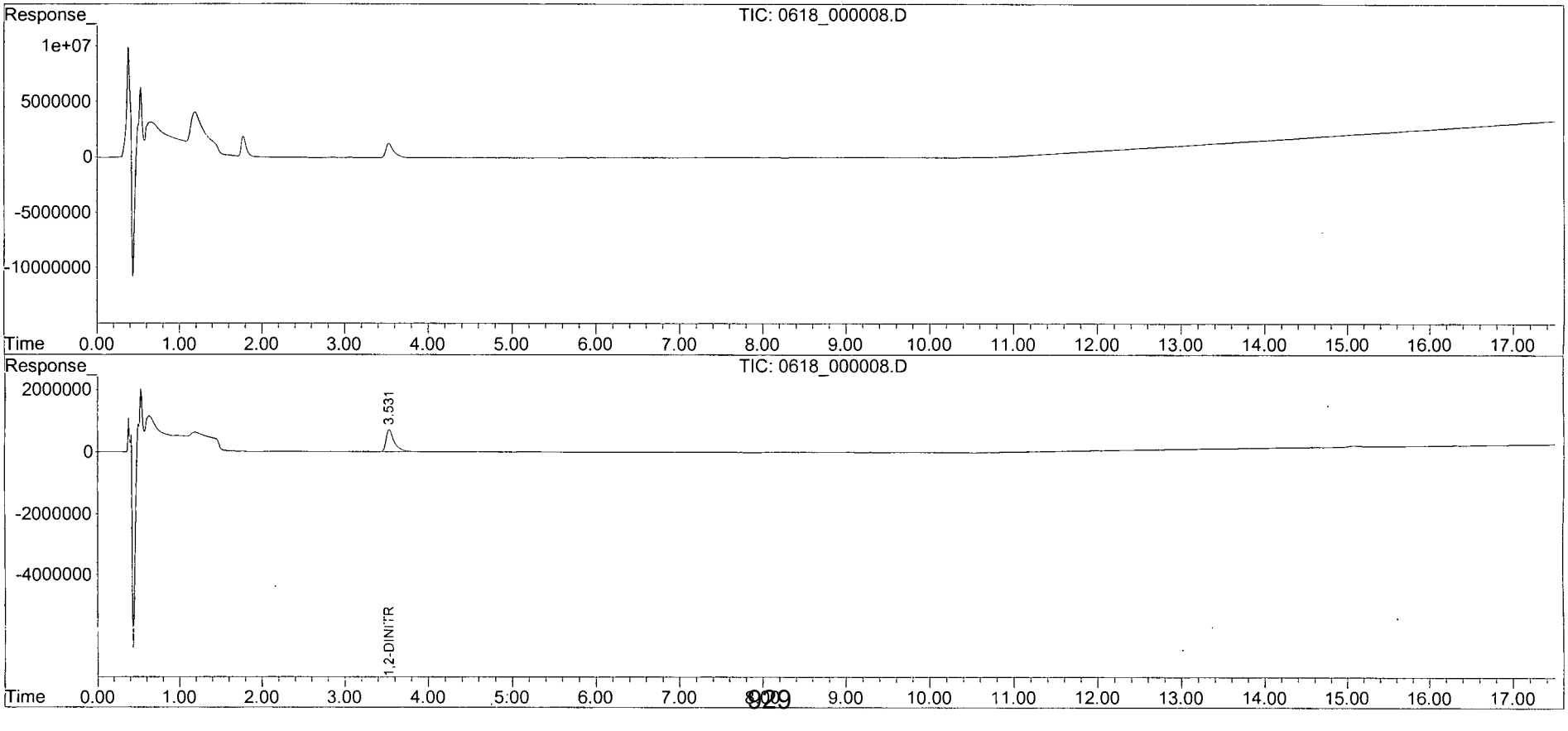
MP
06-22-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 12:03:34
Operator : MP
Sample : 150617ABLKS 7.866 DF 06/17/15
Misc : Soil
ALS Vial : 4099 Sample Multiplier: 7.86627

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 18 15:56:27 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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



Laboratory Control Spike Recovery
EPA 8330B SOIL

APPL ID: **150617S-17444 LCS - 198199**
Batch ID: #83BJU11S-150617

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level mg/kg	SPK Result mg/kg	SPK % Recovery	Recovery Limits
2,4-DINITROTOLUENE	1.98	1.64	82.8	80-125
2,6-DINITROTOLUENE	1.98	1.72	86.9	80-120
HMX	1.98	1.85	93.4	75-125
NITROGLYCERIN	1.98	1.68	84.8	68-131
RDX	1.98	1.67	84.3	70-135
TETRYL	1.98	1.90	96.0	10-150
SURROGATE: 1,2-DINITROBENZENE (S	1.98	1.70	85.9	70-130

Comments: _____

Primary	SPK
Quant Method :	W150610.M
Extraction Date :	06/17/15
Analysis Date :	06/18/15
Instrument :	Waldorf
Run :	0618_000005
Initials :	MP

Printed: 06/22/15 10:30:32 AM
APPL Standard LCS

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000005.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 10:11:03
Operator : MP
Sample : 150617ALCS-1 7.913 DF 06/17/15
Misc : Soil
ALS Vial : 4096 Sample Multiplier: 7.91296

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 18 11:23:08 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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	3.533	0	2355275	N.D.	1704.632	#
	Spiked Amount 593.472			Recovery	=	0.00%	287.23%	
	Target Compounds							
1)	TM HMX	0.000	0.922	0	5453467	N.D.	1854.476	#
2)	TM RDX	0.000	1.722	0	3192118	N.D.	1672.043	#
3)	TM 1,3,5-TRI...	0.000	2.816	0	5624431	N.D.	1730.847	#
5)	TM 1,3-DINIT...	0.000	3.700	0	5269468	N.D.	1690.461	#
6)	TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.	
7)	TM NITROBENZENE	0.000	5.006	0	2377304	N.D.	1693.711	#
8)	TM NITROGLYC...	5.972	5.954	935072	34457	1683.317	NoCal	#
9)	TM TETRYL	6.362	6.363	3063553	1884128	NoCal	1895.061	#
10)	TM 2,4,6-TRI...	6.852	6.852	2873920	2248474	NoCal	1730.379	#
11)	TM 2-AMINO-4...	7.051	7.049	3547806	2432566	NoCal	1703.152	#
12)	TM 4-AMINO-2...	7.381	7.380	2877222	1608548	NoCal	1626.543	#
13)	TM 2,4-DINIT...	8.522	8.524	1523607	2056121	NoCal	1643.196	#
14)	TM 2,6-DINIT...	8.859	8.852	1749602	1362357	NoCal	1717.571	#
15)	TM 2-NITROTO...	0.000	12.202	0	771500	N.D.	1691.311	#
16)	TM 4-NITROTO...	0.000	12.811	0	767945	N.D.	1737.772	#
17)	TM 3-NITROTO...	0.000	13.704	0	925589	N.D.	1715.400	#
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 06-22-15

Algorithm check

HMX

$\frac{5453467}{581.7\ (40)} \times 7.91296 = 1854.61$

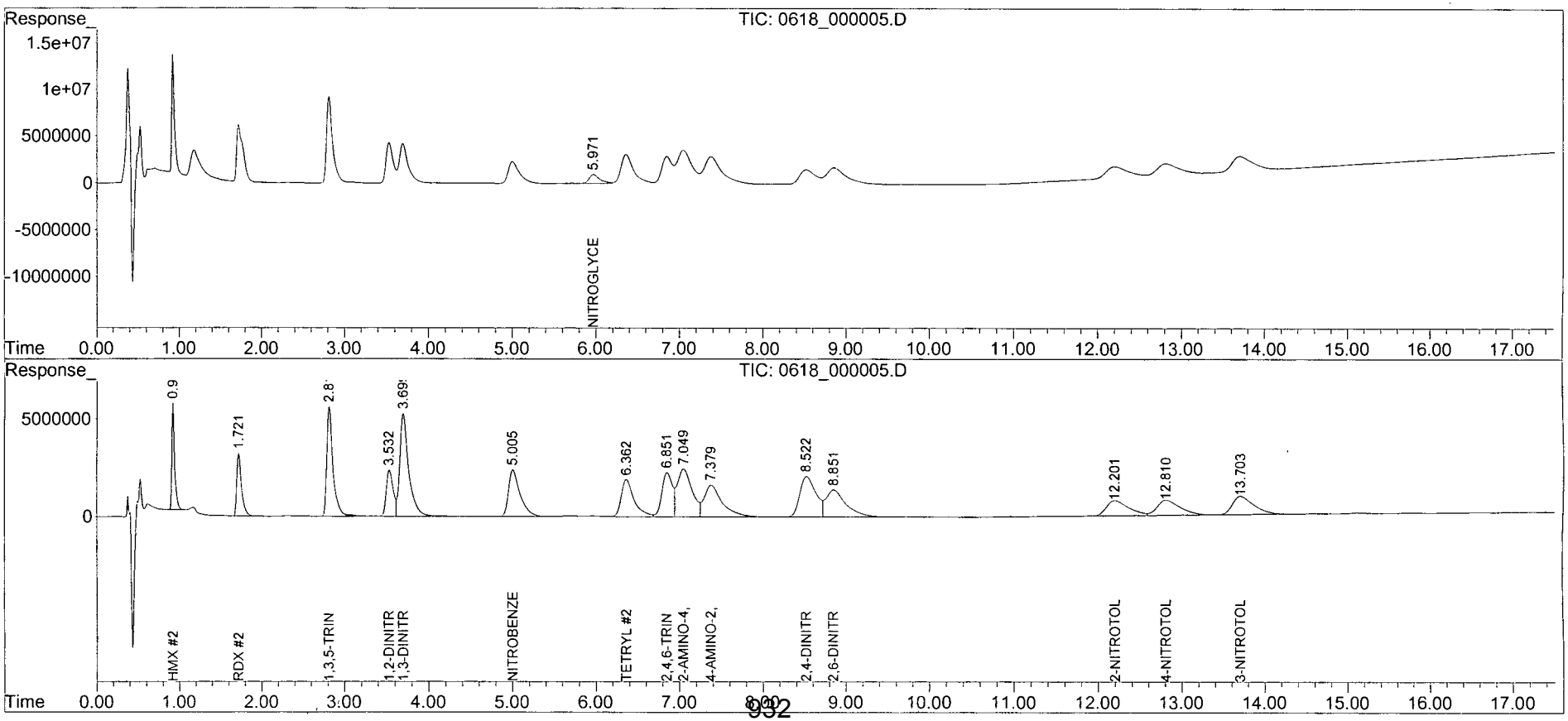
✓ MP 6-22-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000005.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 10:11:03
Operator : MP
Sample : 150617ALCS-1 7.913 DF 06/17/15
Misc : Soil
ALS Vial : 4096 Sample Multiplier: 7.91296

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 18 11:23:08 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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



Matrix Spike Recoveries

EPA 8330B SOIL

APPL ID: **150617S-17444 MS - 198199**
Batch ID: #83BJU11S-150617
Sample ID: AZ17444
Client ID: S67-SS035-0001

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	SPK Lvl	DUP Lvl	Matrix Result	SPK Result	DUP Result	SPK %	DUP %	Recovery	RPD	RPD
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	Recovery	Recovery	Limits	%	Limits
2,4-DINITROTOLUENE	1.96	1.97	ND	1.63	1.65	83.2	83.8	80-125	0.72	20
2,6-DINITROTOLUENE	1.96	1.97	ND	1.72	1.73	87.8	87.8	80-120	0	20
HMX	1.96	1.97	ND	1.80	1.83	91.8	92.9	75-125	1.2	20
NITROGLYCERIN	1.96	1.97	ND	1.68	1.67	85.7	84.8	68-131	1.1	20
RDX	1.96	1.97	ND	1.51	1.54	77.0	78.2	70-135	1.5	20
TETRYL	1.96	1.97	ND	1.64	1.67	83.7	84.8	10-150	1.3	20
SURROGATE: 1,2-DINITROBENZEN	1.96	1.97	NA	1.69	1.70	86.2	86.3	70-130		

Comments: _____

Primary	SPK	DUP
Quant Method :	W150610.M	W150610.M
Extraction Date :	06/17/15	06/17/15
Analysis Date :	06/18/15	06/18/15
Instrument :	Waldorf	Waldorf
Run :	0618_000006	0618_000007
Initials :	MP	

Printed: 06/22/15 10:30:27 AM
APPL MSD SCII

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 10:48:33
Operator : MP
Sample : AZ17444S08_MS-1 7.859 DF 06/17/15
Misc : Soil
ALS Vial : 4097 Sample Multiplier: 7.85855

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 18 14:25:06 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4) S	1,2-DINIT...	0.000	3.535	0	2346644	N.D.	1686.707 #
	Spiked Amount 589.391			Recovery	=	0.00%	286.18%
	Target Compounds						
1) TM	HMX	0.000	0.922	0	5332409	N.D.	1800.841 #
2) TM	RDX	0.000	1.722	0	2905782	N.D.	1511.594 #
3) TM	1,3,5-TRI...	0.000	2.818	0	5526624	N.D.	1689.053 #
5) TM	1,3-DINIT...	0.000	3.701	0	5239942	N.D.	1669.430 #
6) TM	3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
7) TM	NITROBENZENE	0.000	5.006	0	2374545	N.D.	1680.113 #
8) TM	NITROGLYC...	5.973	5.959	941040	36617	1682.413	NoCal #
9) TM	TETRYL	6.365	6.366	2656460	1643875	NoCal	1642.045 #
10) TM	2,4,6-TRI...	6.855	6.856	2863264	2241416	NoCal	1713.087 #
11) TM	2-AMINO-4...	7.053	7.051	3491465	2399721	NoCal	1668.603 #
12) TM	4-AMINO-2...	7.382	7.381	2825200	1574518	NoCal	1581.184 #
13) TM	2,4-DINIT...	8.523	8.523	1525914	2051607	NoCal	1628.315 #
14) TM	2,6-DINIT...	8.857	8.850	1789095	1373100	NoCal	1719.212 #
15) TM	2-NITROTO...	0.000	12.189	0	769600	N.D.	1675.544 #
16) TM	4-NITROTO...	0.000	12.796	0	773422	N.D.	1738.131 #
17) TM	3-NITROTO...	0.000	13.684	0	919367	N.D.	1692.154 #
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.

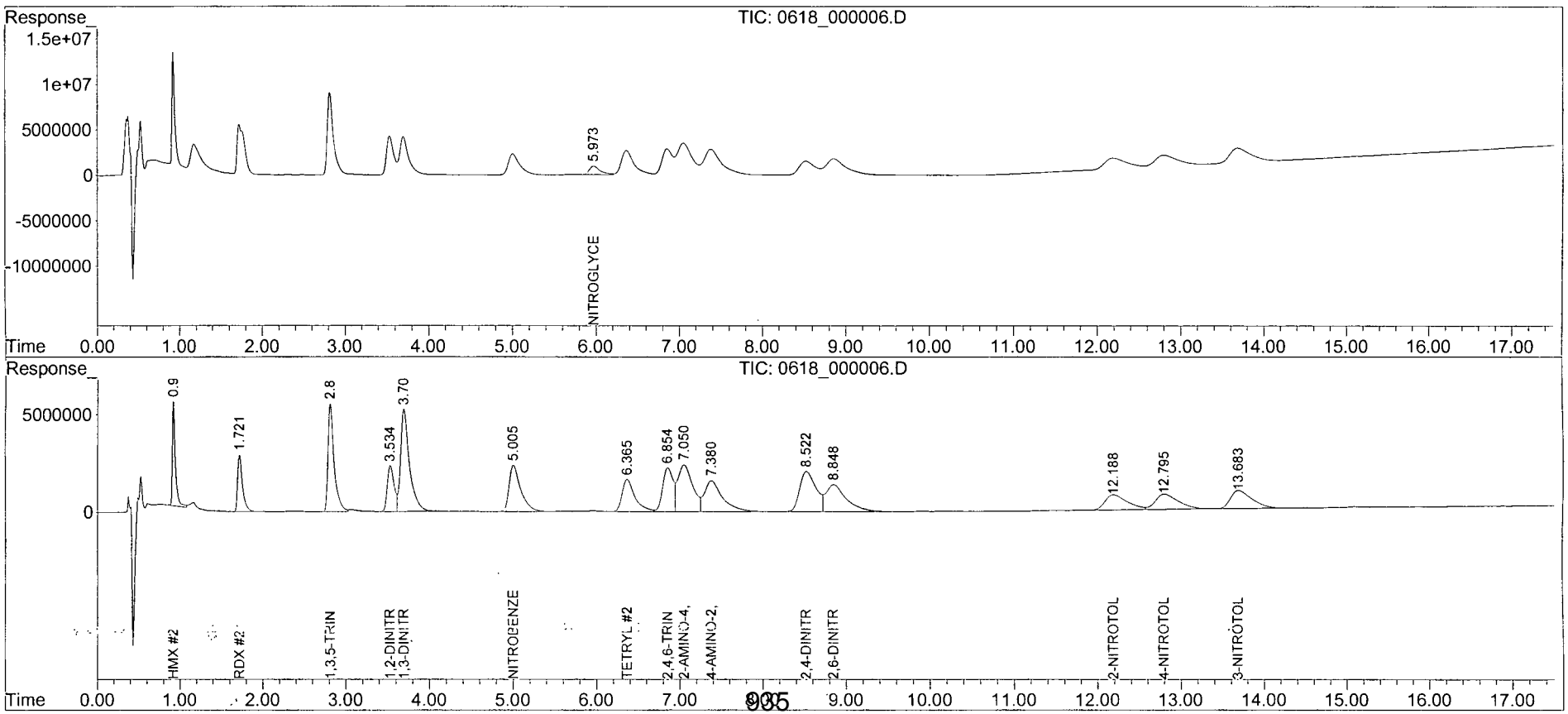
N
06-22-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 10:48:33
Operator : MP
Sample : AZ17444S08_MS-1 7.859 DF 06/17/15
Misc : Soil
ALS Vial : 4097 Sample Multiplier: 7.85855

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 18 14:25:06 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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\150610\150618\
Data File : 0618_000007.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 11:26:04
Operator : MP
Sample : AZ17444S08_MSD-1 7.890 DF 06/17/15
Misc : Soil
ALS Vial : 4098 Sample Multiplier: 7.88955

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 18 14:25:09 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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	3.536	0	2351379	N.D.	1696.777	#
	Spiked Amount 591.716			Recovery	=	0.00%	286.76%	
	Target Compounds							
1)	TM HMX	0.000	0.923	0	5383632	N.D.	1825.312	#
2)	TM RDX	0.000	1.723	0	2945509	N.D.	1538.304	#
3)	TM 1,3,5-TRI...	0.000	2.819	0	5545935	N.D.	1701.641	#
5)	TM 1,3-DINIT...	0.000	3.703	0	5246507	N.D.	1678.115	#
6)	TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.	
7)	TM NITROBENZENE	0.000	5.009	0	2380612	N.D.	1691.051	#
8)	TM NITROGLYC...	5.975	5.955	930080	37094	1669.377	NoCal	#
9)	TM TETRYL	6.368	6.369	2688799	1667099	NoCal	1671.812	#
10)	TM 2,4,6-TRI...	6.858	6.859	2876466	2242091	NoCal	1720.362	#
11)	TM 2-AMINO-4...	7.056	7.055	3509954	2410459	NoCal	1682.681	#
12)	TM 4-AMINO-2...	7.385	7.384	2808908	1574373	NoCal	1587.275	#
13)	TM 2,4-DINIT...	8.525	8.526	1515745	2064723	NoCal	1645.189	#
14)	TM 2,6-DINIT...	8.860	8.853	1764011	1376830	NoCal	1730.683	#
15)	TM 2-NITROTO...	0.000	12.193	0	772403	N.D.	1688.280	#
16)	TM 4-NITROTO...	0.000	12.801	0	771720	N.D.	1741.148	#
17)	TM 3-NITROTO...	0.000	13.690	0	925368	N.D.	1709.917	#
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.

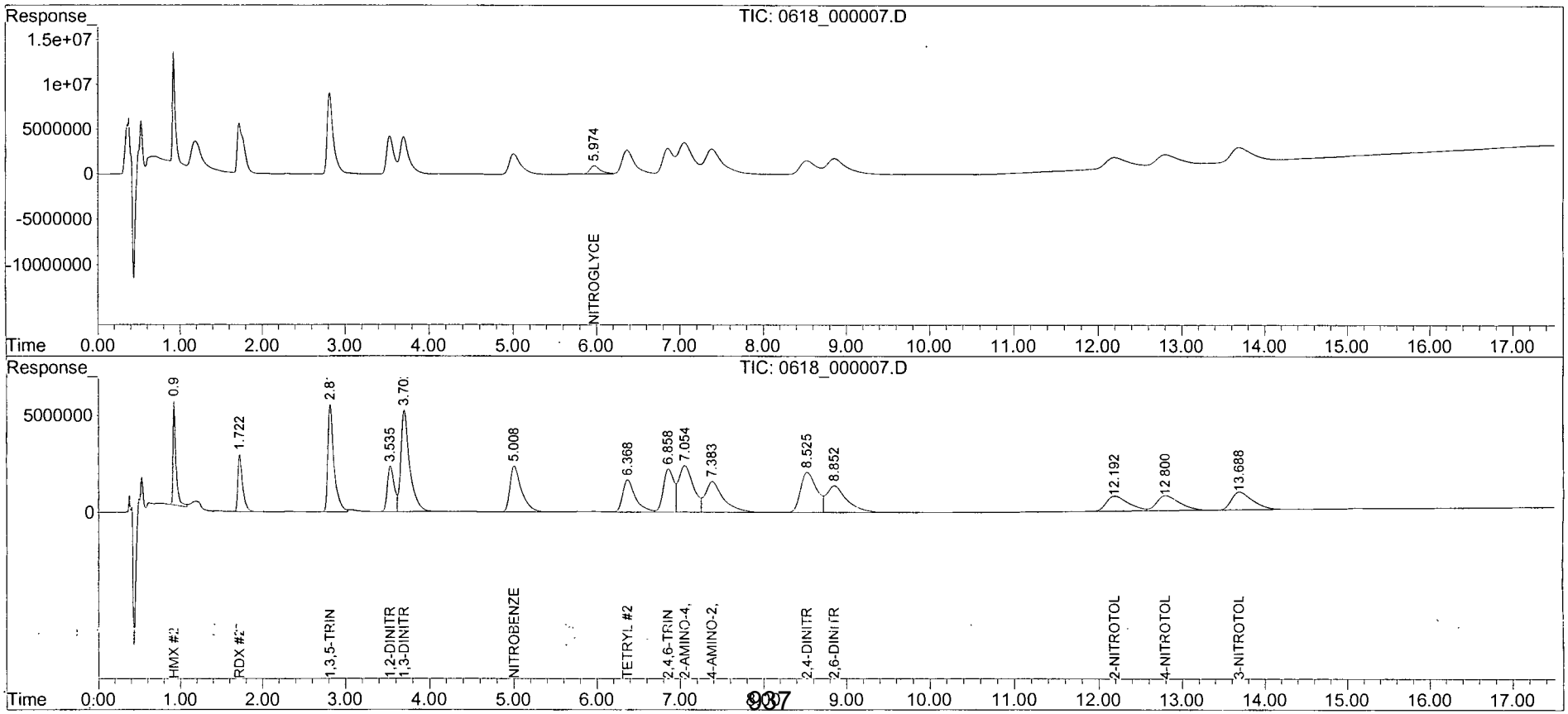
MP
06-22-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150610\150618\
Data File : 0618_000007.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 18-Jun-2015, 11:26:04
Operator : MP
Sample : AZ17444S08_MSD-1 7.890 DF 06/17/15
Misc : Soil
ALS Vial : 4098 Sample Multiplier: 7.88955

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 18 14:25:09 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150610\150618\W150610.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Thu Jun 11 08:00:51 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



LCMS Standard Prep Log #103 Page 13

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N LOT#	DATE	INITIALS
Tetryl_SS 1000 ug/ml							8-29-13	MP
Tetryl 1000 ug/ml Absolute Lot# 112310-32716								
I broke open the vial and transferred to								
6ea amber 1.8ml 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
8330_MX-B	10.0 ppm	07/01/13						MP	8/31/13
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							

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065

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 Surr 5.0 ug/ml 09-03-13 N

1,2-DNB	1000	10-30-13	0.10	20.0	5.0	1:1 AcN/MeOH	12-23-13

PA_Intstd 0.10 ug/ml

4-Nitrophenol	10.0	8-15-13	0.20	20	0.10	ACN/ DI509	12-26-13 JH

Asl Std 20 ug/ml

8321MX25-S	400	11-20-13	0.250	5.0	20	Methanol	12-26-13 JH
8321MX 10-A	1000	8-29-13	0.100				
8321MX 6-T	1000	9-27-13	0.100				
Isoxaben	1058	10-8-13	0.0945				
8141 Surr	1000	9-5-13	0.100				

8330MXA-SS 100 ug/ml 12-27-13 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

GCMS STANDARD PREP LOG# 103 PAGE 66

066

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N. LOT #	DATE/ INITIALS
8330NB-B-55 100 µg/mL						4	12-27-13
8330NB-B 100 µg/mL Absolute Part #95098, Lot #~~2137~~ 051412-30759, I broke open the vial on a 12-27-13 transferred to an amber 1.8mL injection vial → 8330NB-B-55 100 µg/mL 12-27-13							
Ash std 0.40 DF							
Ash std	20	12-26-13	0.80	2.0	0.40 DF	Methanol	53206	12-30-13
HPLCFS	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	0.20 DF	Methanol	53206	12-30-13
HPLCFS	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
HPLCFS	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
HPLCFS	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
HPLCFS	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
HPLCFS	100	7-12-13	0.020	1	1.0	1		1

940

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008 STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL. EN. LOT #	DATE / INITIALS

1,2-DNB 1000 ug/ml 04-23-14

1,2-Dinitrobenzene
Solution, 1,000 mg/L, 1 mL
010086-01
Lot # 216681 Storage <10 Degrees C Expiry 10/25/16
Solv: Acetonitrile
R&D only, not human consump. Made in the USA

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 ug/ml 04-23-14

1,2-DNB 100 ug/ml

1,2-DNB 1000 04-23-14 1.0 10.0 100 1:1 ACN/MeOH 04-23-14
02-19-14

MX-8330R 1000 ug/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 ug/ml 04-23-14

MX-8330 100 ug/ml

MX-8330R 1000 04-23-14 1.0 10.0 100 1:1 ACN/MeOH 04-23-14
02-19-14

1,2-DNB 5.0 ug/ml

1,2-DNB 100 04-23-14 0.50 10.0 5.0 1:1 ACN/MeOH 04-23-14
02-19-14

LC/MS STANDARD PREP LOG# 104 PAGE# 23

023

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL EN. LOT#	DATE INITIALS
	8321TS 0.005 DF						
8321TS	0.10DF	06-12-14	0.10	2.0	0.005	Reoke/53235	06-12-14 P
HPLCFS	100	03-17-14	0.020	1	1.0	1	1
	8321TS 0.0025 DF						
8321TS	0.10DF	06-12-14	0.050	2.0	0.0025	Reoke/53235	06-12-14 P
HPLCFS	100	03-17-14	0.020	1	1.0	1	1
	1,2-DNB 100 ug/ml						06-12-14 P

1,2-Dinitrobenzene
Solution, 1,000 mg/L, 1 mL
010086-01
Lot # 216681 Storage <10 Degrees C Expiry 10/25/16
Solv: Acetonitrile
R&D only, not human consump. Made in the USA

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
010086-01
Lot # 216681 Storage <10 Degrees C Expiry 10/25/16
Solv: Acetonitrile
R&D only, not human consump. Made in the USA

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 Reoke 02-19-14. I labeled this solution 1,2-DNB 100ug/ml 06-12-14

I combined the remaining balance of the 2 vials above and transferred to an amber 1.8ml injection vial. I labeled this solution 1,2-DNB 1000ug/ml 06-12-14 P 06-12-14

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025

STANDARD	INITIAL CONC	SOURCE	DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE INITIALS
PETN	1000 ug/ml							06-12-14

I broke open the vial labeled to the left and transferred to an 8ml Amber Vial

→ PETN 1000ug/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

PETN 100 ug/ml

PETN 1000	06-12-14	1.0	10.0	100	1:1 ACN/MeOH	06-12-14		

8321 MX6-7 500 ug/ml 06-12-14

o2si smart solutions

Custom Pesticide Solution, 6-7, 500 mg/L, 5 x 2 ml

130287-01-05

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 → 8321 MX6-7 500 ug/ml (to be QC'd)

8321 MX6-7 20 ug/ml 06-12-14

8321 MX6-7	500	06-12-14	0.080	2.0	20	MeOH/53235		

8321 MX6-7 0.02 DF (OLD)

8321 MX6-7	20	06-12-14	0.040	2.0	0.02	MeOH/53235	06-12-14	
MRCS	100	03-17-14	0.020	1	1.0	1	1	

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037

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N LOT#	INITIALS
	Sp.nos-d 100 ug/mL						
Spinos-d	1000	04-14-14	0.075	1.0	100	Methanol/53235	HP 07-14-14
	Sp.nos-d 50 ug/mL						
Sp.nos-d	500	07-14-14	0.10	1.0	50	Methanol/53235	HP 07-14-14
	Spinos-d 20 ug/mL						HP
Sp.nos-d	200	07-14-14	0.10	1.0	20	Methanol/53235	07-14-14
	Sp.nos-d 10 ug/mL						
Sp.nos-d	100	07-14-14	0.10	1.0	10	Methanol/53235	07-14-14 HP
	Picric Acid spk 2.0 ug/mL						
Picric Acid	100	04-16-14	0.160	8.0	2.0	ACN/DI509	07-15-14 HP
	Picric Acid spk 0.2 ug/mL						
Picric Acid spk	2.0	07-15-14	0.80	8.0	0.2	ACN/DI509	07-15-14 HP
	HPLC FS 1.0 ug/mL						
HPLC FS	1000	04-22-14	0.20	200	1.0	MeOH/53235	07-15-14 HP
	HPLC FS 1000 ug/mL						07-15-14 HP

Custom 8321 Internal Standard Pesticide Mix, 4-8, 1,000 mg/L, 5 x 1 ml
130285-01-05
Lot# 209160 Storage ≤ -10 Degrees C Expiry 5/20/15
Solv: M-t-BE
R&D only, not human consumption
Made in the USA

Custom 8321 Internal Std Mix 4-8
Lot #: 209160 - 32460
Rec: 5/29/13 MFR exp. 5/20/15

I broke open the vial I billed to the left and transferred to an amber 1.8 ml Agilent Vial → HPLC FS 100 ug/mL 07-15-14

	HPLC FS 100 ug/mL						
HPLC FS	1000	07-15-14	1.0	10.0	100	MeOH/53235	07-15-14 HP
	Tebufenpyrad 100 ug/mL						HP
tebufenpyrad	1000	08-22-13	0.10	1.0	100	1:1 ACN/MeOH	07-20-14

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045

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE INITIALS
8321V 0.2ug/mL							
8321V	2.0	08-05-14	0.20	2.0	0.2	MeOH/53235	8-05-14 M
8321VIS	100	7-31-14	0.020	1.0	1.0	1	1
8321V 0.1ug/mL							
8321V	2.0	8-5-14	0.10	2.0	0.10	MeOH/53235	8-05-14 M
8321VIS	100	7-31-14	0.020	1.0	1.0	1	1
mx-8330A 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 Californ
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-8330A 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
010686-01
Lot # 216681 | Storage <10 Degrees C | Expiry 10/25/16
Solv: Acetonitrile
LRD only, not human consump. 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
LRD only, not human consump. 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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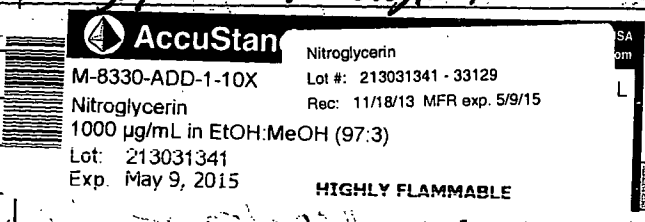
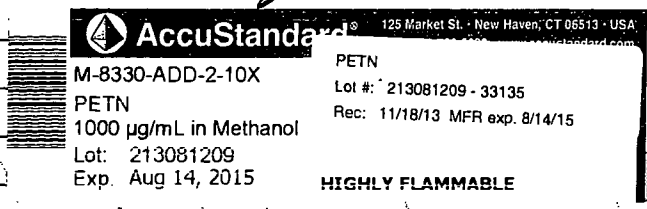
046

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N LOT #	DATE INITIALS
Nitroglycerin 1000 ug/mL							08-06-14 HP


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 HP


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

8330MIXA 10 ug/mL								N
MX-8330	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	"
8330MIX-B 10 ug/mL								N
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'N. 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 M
8321 SS 20 ng/mL							M
Tetryl	1024	03-10-14	0.195	10.0	20	MeOH/53235	08-07-14
8141 SS	1000	07-31-14	0.20	1	1	1	1
8321 TS_SPL 1 DF							
8321 MXB-7	1000	06-12-14	0.10	5.0	20	MeOH/53235	08-07-14 M

M
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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049

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT/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				

DATE / INITIALS

6-14 MP

MP 08-06-14

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STANDARD	INITIAL CONC	SOURCE	DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT	LOT #	DATE INITIALS
									08/06/14 MP
8330MXA_CB 0.50 PPM 8330MXA	10.0		08/06/14	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	08/06/14	
8330MXA_CB 1.0 PPM 8330MXA	10.0		08/06/14	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	08/06/14	
8330MXA_CB 2.0 PPM 8330MXA_CB 2.0 PPM	10.0		08/06/14	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	08/06/14	
8330MXB_CB 0.005 PPM 8330MXB_CB(1:1)	0.1		08/06/14	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	08/06/14	
8330MXB_CB 0.010 PPM 8330MXB_CB(1:1)	0.1		08/06/14	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	08/06/14	
8330MXB_CB 0.020 PPM 8330MXB_CB(1:1)	0.1		08/06/14	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	08/06/14	
8330MXB_CB 0.050 PPM 8330MXB_CB(1:1)	1.0		08/06/14	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	08/06/14	
8330MXB_CB 0.10 PPM 8330MXB_CB(1:1)	1.0		08/06/14	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	08/06/14	
8330MXB_CB 0.20 PPM 8330MXB_CB(1:1)	1.0		08/06/14	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	08/06/14	
8330MXB_CB 0.50 PPM 8330MXB_CB	10.0		08/06/14	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	08/06/14	
8330MXB_CB 1.0 PPM 8330MXB_CB	10.0		08/06/14	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	08/06/14	
8330MXB_CB 2.0 PPM 8330MXB_CB	10.0		08/06/14	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	08/06/14	
8330MXA_SS 1.0 PPM 8330MXA_SS	100		12/27/13	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	08/06/14	
8330MXB_SS 1.0 PPM 8330MXB_SS	100		12/27/13	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	08/06/14	
PETN_TET_SS 1.0 PPM PETN_SS TETRYL_SS	100 100		08/06/14 07/01/14	0.01 0.01	1.00	1.0	1:1:6_ACN MEOH: MILLIPORE	08/06/14	

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'VENT LOT #	DATE / INITIALS
8330MXA_CB(1:1) 1.0 PPM 8330MXA	10.0	08/06/14	0.100	1.0	1.0	1:1 ACN/MEOH 07/02/14	09/05/14
8330MXA_CB(1:1) 0.10 PPM 8330MXA_CB(1:1)	1.0	08/06/14	0.100	1.0	0.1	1:1 ACN/MEOH 07/02/14	09/05/14
8330MXB_CB(1:1) 1.0 PPM 8330MXB	10.0	08/06/14	0.100	1.0	1.0	1:1 ACN/MEOH 07/02/14	09/05/14
8330MXB_CB(1:1) 0.10 PPM 8330MXB_CB(1:1)	1.0	08/06/14	0.100	1.0	0.1	1:1 ACN/MEOH 07/02/14	09/05/14
8330MXA_CB 0.005 PPM 8330MXA_CB(1:1)	0.1	08/06/14	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXA_CB 0.010 PPM 8330MXA_CB(1:1)	0.1	08/06/14	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXA_CB 0.020 PPM 8330MXA_CB(1:1)	0.1	08/06/14	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXA_CB 0.050 PPM 8330MXA_CB(1:1)	1.0	08/06/14	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXA_CB 0.10 PPM 8330MXA_CB(1:1)	1.0	08/06/14	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXA_CB 0.20 PPM 8330MXA_CB(1:1)	1.0	08/06/14	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXA_CB 0.50 PPM 8330MXA	10.0	08/06/14	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXA_CB 1.0 PPM 8330MXA	10.0	08/06/14	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXA_CB 2.0 PPM 8330MXA_CB 2.0 PPM	10.0	08/06/14	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXB_CB 0.005 PPM 8330MXB_CB(1:1)	0.1	08/06/14	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXB_CB 0.010 PPM 8330MXB_CB(1:1)	0.1	08/06/14	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXB_CB 0.020 PPM 8330MXB_CB(1:1)	0.1	08/06/14	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	09/05/14

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SOL'N. 059

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	LOT #	DATE INITIALS
8330MXB_CB 0.050 PPM 8330MXB_CB(1:1)	1.0	08/06/14	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXB_CB 0.10 PPM 8330MXB_CB(1:1)	1.0	08/06/14	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXB_CB 0.20 PPM 8330MXB_CB(1:1)	1.0	08/06/14	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXB_CB 0.50 PPM 8330MXB_CB	10.0	08/06/14	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXB_CB 1.0 PPM 8330MXB_CB	10.0	08/06/14	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXB_CB 2.0 PPM 8330MXB_CB	10.0	08/06/14	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXA_SS 1.0 PPM 8330MXA_SS	100	12/27/13	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	09/05/14
8330MXB_SS 1.0 PPM 8330MXB_SS	100	12/27/13	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	09/05/14
PETN_TET_SS 1.0 PPM PETN_SS TETRYL_SS	100 100	08/06/14 07/01/14	0.01 0.01	1.00	1.0	1:1:6_ACN MEOH: MILLIPORE	09/05/14

09/05/14

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	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 MP
	HPLC_IS 1.0 ug/mL						
HPLCIS	100	10-02-14	2.0	200	1.0	MeOH/54115	12-15-14 MP
	HPLCISAQ 1.0 ug/mL				12-16-14		
HPLCIS	100	10-02-14	1.0	100	1.0	Milliporewater	12-16-14 MP
	Carb sph 10 ug/mL						
8321MX29-8	400	09-22-14	0.050	2.0	10	MeOH/54115	12-17-14 MP
	8321_surr 10 ug/mL						
Isoxaben	1024	03-10-14	0.025	3.0	10.0	MeOH/54115	12-17-14 MP
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 MP
8141 surr	1000	~~10-30-14~~ 12-03-14 MP	0.200	〃	〃	〃	〃
	PETN 100 ug/mL				07-02-14		
PETN	1000	08-06-14	0.50	5.0	100	1:1 ACN/MeOH	12-19-14 MP
	Nitroglycerin 100 ug/mL						
Nitroglycerin	1000	02-25-14	0.50	5.0	100	1:1 ACN/MeOH	12-19-14 MP
	83TS_Stock						
8321MX67	1000	09-25-14	0.050	10.0	5.0	MeOH/54115	12-22-14 MP
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/sph/surr 100 DF					HPLCFS 1 ug/ml		
8324TS SP	20	09-25-14	0.10	1.0	10 DF	~~[illegible]~~ HP 12-22-14	12-22-14 HP
8321 Surr	20	12-18-14	0.10	⊥	⊥		
83TS sph/surr 10DF		12-22-14	0.10	1.0	100DF	HPLCFS 1 ug/ml	12-22-14 HP

Tetryl SS 1000 ug/ml 12-23-14
Tetryl 1000 ug/ml Absolute Lot 112310-33879, I broke open the vial and transferred to an amber 1.8 ml injection Vial → Tetryl SS 1000 ug/ml 12-23-14

1:1 ACN/Meoh 12-23-14 HP
I took 0.250 ml Methanol Lot 54115 and added 0.250 ml Acetonitrile Lot DK902. HP

1,2-DNB 1000 ug/ml 12-23-14
I broke open the vial labeled to the left and transferred to an amber 1.8 ml injection Vial → 1,2,DNB 1000 ug/ml 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 # 227342 Storage <10 Degrees C Expiry 3/May/2017
Solv: Acetonitrile
1,2-Dinitrobenzene
Lot #: 227342 - 34120
Rec: 10/6/14 MFR exp. 5/3/17

3,5-DNA 1000 ug/ml 12-23-14
I broke open the vial labeled to the left and transferred to an amber 1.8 ml injection vial → 3,5-DNA 1000 ug/ml 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 # 199709 Storage ≤ -10 Degrees C Expiry 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 #	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-ES 100 ug/mL						N
Tetryl-ES	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					M	12-29-14

S-12837A4-5ML Exp 4/30/2015
CH PO BOX 599
Pentaerythritol tetranitrate
Lot #: 2377700 - 34516
Pentaeryth Rec: 12/16/14 MFR exp. 4/30/15
Lot: 2677700
1000ug/ml In Acetonitrile
FLAMMABLE-POISON-LACHRYMATOR

I broke open the vial labeled to the left and transferred to amber 8ml vial → PETN 1000ug/ml 12-29-14

	PETN 100 ug/ml								M
PETN	1000	12-29-14	0.5	5.0	100	1:1 ACN/MeOH	07-2-14	12-29-14	
M1-6-14	PGDN spike 10 ug/ml								M
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								M
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								M
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								M
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								M
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	01-15-15
4-Nitrophenol	10	01-13-15	0.020	1	0.10	1	1
mx8330 sph 100ug/mL							
mx-8330A	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	01-15-15
						12-23-14	

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC.	SOVENT/LOT	DATE/IN.
8330MXA_CB(1:1) 1.0 PPM 8330MXA	10.0	12/23/14	0.100	1.0	1.0	1:1 ACN/MEOH 07/02/14	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

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N LOT #	DATE / INITIALS
8330MXA_CB 1.0 PPM 8330MXA	10.0	12/23/14	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXA_CB 2.0 PPM 8330MXA_CB 2.0 PPM	10.0	12/23/14	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 0.005 PPM 8330MXB_CB(1:1)	0.1	01/15/15	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 0.010 PPM 8330MXB_CB(1:1)	0.1	01/15/15	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 0.020 PPM 8330MXB_CB(1:1)	0.1	01/15/15	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 0.050 PPM 8330MXB_CB(1:1)	1.0	01/15/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 0.10 PPM 8330MXB_CB(1:1)	1.0	01/15/15	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 0.20 PPM 8330MXB_CB(1:1)	1.0	01/15/15	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 0.50 PPM 8330MXB_CB	10.0	12/23/14	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 1.0 PPM 8330MXB_CB	10.0	12/23/14	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 2.0 PPM 8330MXB_CB	10.0	12/23/14	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXA_SS 1.0 PPM 8330MXA_SS	100	10/01/14	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_SS 1.0 PPM 8330MXB_SS	100	10/01/14	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	01/15/15
PETN_TET_SS 1.0 PPM PETN_SS TETRYL_SS	100 100	08/06/14 01/15/15	0.01 0.01	1.00	1.0	1:1:6_ACN MEOH: MILLIPORE	01/15/15

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'VENT / LOT#	DATE / INITIALS
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_D00047.D NP 03-16-15

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOVENT/LOT	DATE/IN.
Scav_spk 30 mg/mL (5mL)							
Hexahydro-1,3,5-tris(hydroxyethyl) triazine							
1180	03-18-15	0.127	5.0	30	MeOH/54115	03-19-15	
2,2'-thiodiethanol							
1030	03-19-15	0.146					
2-(1,3,5-Dithiazinan-5-yl) ethanol							
525	03-11-15	0.286					
Scav spk 3.0 mg/mL 5mL							
Scav spk 30	03-19-15	0.50	5.0	3.0	MeOH/54115	03-19-15	

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC.	SOVENT/LOT	DATE/IN.
8330MXA_CB(1:1) 1.0 PPM 8330MXA	10.0	03/05/15	0.100	1.0	1.0	1:1 ACN/MEOH 07/02/14	03/17/15
8330MXA_CB(1:1) 0.10 PPM 8330MXA_CB(1:1)	1.0	03/17/15	0.100	1.0	0.1	1:1 ACN/MEOH 07/02/14	03/17/15
8330MXB_CB(1:1) 1.0 PPM 8330MXB	10.0	03/05/15	0.100	1.0	1.0	1:1 ACN/MEOH 07/02/14	03/17/15
8330MXB_CB(1:1) 0.10 PPM 8330MXB_CB(1:1)	1.0	03/17/15	0.100	1.0	0.1	1:1 ACN/MEOH 07/02/14	03/17/15
8330MXA_CB 0.005 PPM 8330MXA_CB(1:1)	0.1	03/17/15	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXA_CB 0.010 PPM 8330MXA_CB(1:1)	0.1	03/17/15	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXA_CB 0.020 PPM 8330MXA_CB(1:1)	0.1	03/17/15	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXA_CB 0.050 PPM 8330MXA_CB(1:1)	1.0	03/17/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXA_CB 0.10 PPM 8330MXA_CB(1:1)	1.0	03/17/15	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXA_CB 0.20 PPM 8330MXA_CB(1:1)	1.0	03/17/15	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXA_CB 0.50 PPM 8330MXA	10.0	03/05/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	03/17/15

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N LOT #	DATE / INITIALS
8330MXA_CB 1.0 PPM 8330MXA	10.0	03/05/15	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXA_CB 2.0 PPM 8330MXA_CB 2.0 PPM	10.0	03/05/15	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXB_CB 0.005 PPM 8330MXB_CB(1:1)	0.1	03/17/15	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXB_CB 0.010 PPM 8330MXB_CB(1:1)	0.1	03/17/15	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXB_CB 0.020 PPM 8330MXB_CB(1:1)	0.1	03/17/15	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXB_CB 0.050 PPM 8330MXB_CB(1:1)	1.0	03/17/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXB_CB 0.10 PPM 8330MXB_CB(1:1)	1.0	03/17/15	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXB_CB 0.20 PPM 8330MXB_CB(1:1)	1.0	03/17/15	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXB_CB 0.50 PPM 8330MXB_CB	10.0	03/05/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXB_CB 1.0 PPM 8330MXB_CB	10.0	03/05/15	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXB_CB 2.0 PPM 8330MXB_CB	10.0	03/05/15	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXA_SS 1.0 PPM 8330MXA_SS	100	10/01/14	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXB_SS 1.0 PPM 8330MXB_SS	100	10/01/14	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	03/17/15
PETN_TET_SS 1.0 PPM PETN_SS TETRYL_SS	100 100	08/06/14 01/15/15	0.01 0.01	1.00	1.0	1:1:6_ACN MEOH: MILLIPORE	03/17/15

040 LC/MS STANDARD PREP LOG# 105 PAGE 40

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE / INITIALS
PER IS	0.005µg/mL	04-20-15:					JB
02SI $^{18}O_4$ Perchlorate	100µg/L						04-21-
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. JB							
8330 MX-A SS	100 mg/L						04-21-15 JP
8330 MIX A, 100 mg/L, Absolute Lot # 103014-34464, I broke the vial open and transferred to an amber 1.8mL injection vial →							
8330 MX-A SS	100 mg/L						04-21-15
8330 MXB-SS	100 mg/L						04-21-15 JP
8330 MIX B, 100 mg/L, Absolute Lot # 103014-34467, I broke the vial open and transferred to an amber 1.8mL injection vial →							
8330 MX-B SS	100 mg/L						04-21-15
Tehg1 SS	100 mg/L						03-05-15 JP
Tehg1 (SS)	1000	12-22-14	0.10	1.0	100	1:1 ACN/MeOH	04-22-15

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT/LOT	DATE/INITIALS

1,2-DNB 1000 ug/mL 04-22-15 MP

I broke open the vial labeled to the left and transferred to an amber 1.8ml injection vial → 1,2-DNB 1000 ug/mL 04-22-15

1,2-Dinitrobenzene Solution, 1,000 mg/L, 1 mL
010086-01
Lot # 227342 Storage <10 Degrees C Expiry 3/May/2017
Solv: Acetonitrile
1,2-Dinitrobenzene
Lot #: 227342 - 34115
Rec: 10/6/14 MFR exp. 5/3/17

1,2-DNB 100 ug/mL 03/05-15

1,2-DNB 1000 04-22-15 1.0 10 100 1:1 ACN/MeOH 04-22-15 MP

Standard prep performed as dated, documented here 04-22-15 MP

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC.	SOVENT/LOT	DATE/IN.
8330MXA_CB(1:1) 1.0 PPM 8330MXA	10.0	03/05/15	0.100	1.0	1.0	1:1 ACN/MEOH 03/05/15	04/21/15
8330MXA_CB(1:1) 0.10 PPM 8330MXA_CB(1:1)	1.0	04/21/15	0.100	1.0	0.1	1:1 ACN/MEOH 03/05/15	04/21/15
8330MXB_CB(1:1) 1.0 PPM 8330MXB	10.0	03/05/15	0.100	1.0	1.0	1:1 ACN/MEOH 03/05/15	04/21/15
8330MXB_CB(1:1) 0.10 PPM 8330MXB_CB(1:1)	1.0	03/17/15	0.100	1.0	0.1	1:1 ACN/MEOH 03/05/15	04/21/15
8330MXA_CB 0.005 PPM 8330MXA_CB(1:1)	0.1	04/21/15	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	04/21/15
8330MXA_CB 0.010 PPM 8330MXA_CB(1:1)	0.1	04/21/15	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	04/21/15
8330MXA_CB 0.020 PPM 8330MXA_CB(1:1)	0.1	04/21/15	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	04/21/15
8330MXA_CB 0.050 PPM 8330MXA_CB(1:1)	1.0	04/21/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	04/21/15
8330MXA_CB 0.10 PPM 8330MXA_CB(1:1)	1.0	04/21/15	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	04/21/15

042 PAMS 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
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
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

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE / INITIALS
Scav_spk 30 ug/mL							
Hexahydro-1,3,5-trishydroxyethyltriazine							NP
1010	04-10-15	0.594	20	30	ACN/DMJ94		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 ug/mL							
1,3,5-Trimethylhexahydro-1,3,5-triazine							NP
1077	04-17-15	0.557	20	30	ACN/DMJ94		04-23-15
PETN SS 100 ug/mL						3-5-15	
PETN 1000	06-09-14	0.10	1.0	100	1:1 ACN/MeOH		04-28-15 NP
Tetryl SS 100 ug/mL						3-5-15	
Tetryl SS 1000	12-22-14	0.10	1.0	100	1:1 ACN/MeOH		04-28-15 NP
8330mxA-SS 100 ug/mL							04-28-15 NP
8330mx-A 100 ug/mL Absolute lot 103014-34465, I broke open the vial and transferred to an amber 1.8 ml injection vial → 8330mx-A-SS 100 ug/mL 04-28-15							
8330mxB-SS 100 ug/mL							04-28-15 NP
8330 mixB 100 ug/mL Absolute lot 103014-34468, I broke open the vial and transferred to an amber 1.8 ml injection vial → 8330mxB-SS 100 ug/mL 04-28-15							

044 LC/MS STANDARD PREP LOG# 105 PAGE 44

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE / INITIALS
PETN_ss	1000 ug/mL						

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA

M-8330-ADD-2-10X
PETN
1000 µg/mL in Methanol
Lot: 214091329
Exp: Sep 18, 2016

PETN
Lot #: 214091329 - 34515
Rec: 12/16/14 MFR exp. 9/18/16

1 comp(s)
HIGHLY FLAMMABLE

FOR LABORATORY USE ONLY
H225 H320 H315 H311
H332 H301 P338 P360
P331 P404 P262 P202
P264 P284 P280

Storage: Refrig (0-5° C)
2 Danger

04-28-15 hp

I broke open the vial labeled above and transferred to an amber 1.8 mL injection vial → PETN_ss 1000 ug/mL 4-28-15

PETN_ss 100 ug/mL 3-5-15 hp

PETN_ss	1000	04-28-15	0.10	1.0	100	1:1 ACN/MeOH	4-28-15

Soleus weight Comparison 04-28-15 hp
Balance ID: Mettler AT-200 #J-28448

S-weight	Balance reading
20 g	20.0000
1 g	1.0002
100 mg	0.1000
20 mg	~~0.0020~~ 0.0070 hp 4-28-15

048 LCMS 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

LCMS STANDARD PREP LOG# 105 PAGE 49

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N LOT#	DATE / INITIALS
Standard Prep performed as Dated, documented here 05-01-15							MP

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC.	SOVENT/LOT	DATE/IN.
8330MXA_SS 1.0 PPM							
8330MXA_SS	100	04/28/15	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	04/27/15
8330MXB_SS 1.0 PPM							
8330MXB_SS	100	04/28/15	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	04/27/15
PETN_TET_SS 1.0 PPM							
PETN_SS	100	04/28/15	0.01	1.00	1.0	1:1:6_ACN	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

_MSE018

Organic Extraction Worksheet

Method	Explosives Soil Extraction 8330B	Extraction Set	150617A	Extraction Method	MSE018	Units	mL

Spiked ID 1	8330 100ppm STK 5-5-15 exp 11-5-15		Surrogate ID 1	1,2-DNB STK 100 PPM 6-15-15 exp 12-15-15	
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:	06/17/15 14:05	
Spiked ID 8			Ext. End Time:	06/18/17 8:05	
			GC Requires Extract By:		

pH1			Water Bath Temp Criteria	
pH2				
pH3				

Spiked By: CFM **Date** 06/17/15 1:50:00 PM **Witnessed By:** RP **Date** 06/01/1715 1:50:00 PM

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	150617A Blk				0.060	1 equip	10.17g	20mLs	NA	06/17/15 14:05	
2	150617A LCS-1		0.200	1-2	NA	NA equip	10.11g	20mLs	NA	06/17/15 14:05	
3	AZ17433	AZ17433S02			0.060	1 equip	10.09g	20mLs	NA	06/17/15 14:05	76624
4	AZ17434	AZ17434S01			0.060	1 equip	10.08g	20mLs	NA	06/17/15 14:05	76624
5	AZ17435	AZ17435S02			0.060	1 equip	10.15g	20mLs	NA	06/17/15 14:05	76624
6	AZ17436	AZ17436S01			0.060	1 equip	10.05g	20mLs	NA	06/17/15 14:05	76624
7	AZ17437	AZ17437S02			0.060	1 equip	10.18g	20mLs	NA	06/17/15 14:05	76624
8	AZ17438	AZ17438S01			0.060	1 equip	10.01g	20mLs	NA	06/17/15 14:05	76624
9	AZ17439	AZ17439S02			0.060	1 equip	10.09g	20mLs	NA	06/17/15 14:05	76624
10	AZ17440	AZ17440S01			0.060	1 equip	10.00g	20mLs	NA	06/17/15 14:05	76624
11	AZ17441	AZ17441S03			0.060	1 equip	10.10g	20mLs	NA	06/17/15 14:05	76624
12	AZ17442	AZ17442S02			0.060	1 equip	10.06g	20mLs	NA	06/17/15 14:05	76624
13	AZ17443	AZ17443S02			0.060	1 equip	10.12g	20mLs	NA	06/17/15 14:05	76624
14	AZ17444 MS-1	AZ17444S08	0.200	1-2	NA	NA equip	10.18g	20mLs	NA	06/17/15 14:05	76624
15	AZ17444 MSD-1	AZ17444S08	0.200	1-2	NA	NA equip	10.14g	20mLs	NA	06/17/15 14:05	76624
16	AZ17444	AZ17444S08			0.060	1 equip	10.09g	20mLs	NA	06/17/15 14:05	76624

Solvent and Lot#	
Acetonitrile	DM 394
Silica Sand	041913

Extraction COC Transfer	
Extraction lab employee Initials	CFM
GC analyst's initials	MP
Date	06-18-15
Time	0855
Refrigerator	BIOWA

	Technician's Initials
Scanned By	CFM
Sample Preparation	CFM
Extraction	CFM
Concentration	----------

Modified	06/18/15 7:44:11 AM

Reviewed By: MP **Date** 06-18-15

06/18/15 7:44:39 AM

969

Ext_ID 48146

Organic Extraction Worksheet

Method	Explosives Soil Extraction 8330B	Extraction Set	150617A	Extraction Method	MSE018	Units	mL

Spiked ID 1	8330 100ppm STK 5-5-15 exp 11-5-15		Surrogate ID 1	1,2-DNB STK 100 PPM 6-15-15 exp 12-15-15	
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:	06/17/15 14:05	
Spiked ID 8			Ext. End Time:	06/18/17 8:05	
			GC Requires Extract By:		

pH1			Water Bath Temp Criteria	
pH2				
pH3				

Spiked By: CFM **Date** 06/17/15 1:50:00 PM **Witnessed By:** RP **Date** 06/01/1715 1:50:00 PM

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ17445	AZ17445S02			0.060	1 equip	10.00g	20mLs	NA	06/17/15 14:05	76624
18	AZ17446	AZ17446S02			0.060	1 equip	10.10g	20mLs	NA	06/17/15 14:05	76624
19	AZ17447	AZ17447S01			0.060	1 equip	10.09g	20mLs	NA	06/17/15 14:05	76624

MP 06-18-15

Solvent and Lot#	
Acetonitrile	DM 394
Silica Sand	041913

Extraction COC Transfer	
Extraction lab employee Initials	CFM
GC analyst's initials	MP
Date	06-18-15
Time	0855
Refrigerator	Brown

	Technician's Initials
Scanned By	CFM
Sample Preparation	CFM
Extraction	CFM
Concentration	----------

Modified	06/18/15 7:44:11 AM

Reviewed By: MP **Date** 06-18-15

Injection Log

Directory: Z:\WALDORF\CHEM32\2\DATA\150610\150610

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	0	0610_000012.D		8330CB 0.005 PPM 06/10/15		6/10/15 19:59
2	0	0610_000013.D		8330CB 0.010 PPM 06/10/15		6/10/15 20:27
3	0	0610_000014.D		8330CB 0.020 PPM 06/10/15		6/10/15 20:54
4	0	0610_000015.D		8330CB 0.050 PPM 06/10/15		6/10/15 21:22
5	0	0610_000016.D		8330CB 0.10 PPM 06/10/15		6/10/15 21:49
6	0	0610_000017.D		8330CB 0.20 PPM 06/10/15		6/10/15 22:17
7	0	0610_000018.D		8330CB 0.50 PPM 06/10/15		6/10/15 22:44
8	0	0610_000019.D		8330CB 1.0 PPM 06/10/15		6/10/15 23:12
9	0	0610_000020.D		8330MXA 2.0 PPM 06/10/15		6/10/15 23:39
10	0	0610_000021.D		8330MXB 2.0 PPM 06/10/15		6/11/15 0:07
11	0	0610_000026.D		8330_SS 1.0 PPM 06/10/15		6/11/15 2:34
12	0	0610_000027.D		PETN_TETRYL_SS 1.0 PPM 06/10/15		6/11/15 3:02

Injection Log

Directory: Z:\WALDORF\CHEM32\2\DATA\150610\150618

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	0	0618_000004.D		8330_CCV 1.0 PPM 06/18/15		6/18/15 9:40
2	0	0618_000005.D	7.91296	150617ALCS-1 7.913 DF 06/17/15	Soil	6/18/15 10:11
3	0	0618_000006.D	7.85855	AZ17444S08_MS-1 7.859 DF 06/17/15	Soil	6/18/15 10:48
4	0	0618_000007.D	7.88955	AZ17444S08_MSD-1 7.890 DF 06/17/15	Soil	6/18/15 11:26
5	0	0618_000008.D	7.86627	150617ABLKS 7.866 DF 06/17/15	Soil	6/18/15 12:03
6	0	0618_000009.D	7.92864	AZ17433S02 7.929 DF 06/17/15	Soil	6/18/15 12:41
7	0	0618_000010.D	7.93651	AZ17434S01 7.937 DF 06/17/15	Soil	6/18/15 13:18
8	0	0618_000011.D	7.88177	AZ17435S02 7.882 DF 06/17/15	Soil	6/18/15 13:56
9	0	0618_000012.D	7.9602	AZ17436S01 7.960 DF 06/17/15	Soil	6/18/15 14:33
10	0	0618_000013.D	7.85855	AZ17437S02 7.859 DF 06/17/15	Soil	6/18/15 15:11
11	0	0618_000014.D	7.99201	AZ17438S01 7.992 DF 06/17/15	Soil	6/18/15 15:48
12	0	0618_000015.D	7.92864	AZ17439S02 7.929 DF 06/17/15	Soil	6/18/15 16:26
13	0	0618_000016.D	8	AZ17440S01 8.000 DF 06/17/15	Soil	6/18/15 17:03
14	0	0618_000017.D	7.92079	AZ17441S03 7.921 DF 06/17/15	Soil	6/18/15 17:41
15	0	0618_000018.D	7.95229	AZ17442S02 7.952 DF 06/17/15	Soil	6/18/15 18:18
16	0	0618_000019.D		8330_CCV 1.0 PPM 06/16/15		6/18/15 18:56

Injection Log

Directory: Z:\STATLER\CHEM32\1\DATA\150522\150522

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	0	0522_000009.D		8330MXA_CB 0.005 PPM 05/22/15		5/22/15 14:13
2	0	0522_000010.D		8330MXB_CV 0.005 PPM 05/22/15		5/22/15 14:52
3	0	0522_000011.D		8330MXA_CB 0.010 PPM 05/22/15		5/22/15 15:32
4	0	0522_000012.D		8330MXB_CB 0.010 PPM 05/22/15		5/22/15 16:11
5	0	0522_000013.D		8330MXA_CB 0.020 PPM 05/22/15		5/22/15 16:51
6	0	0522_000014.D		8330MXB_CB 0.020 PPM 05/22/15		5/22/15 17:30
7	0	0522_000015.D		8330MXA_CB 0.050 PPM 05/22/15		5/22/15 18:10
8	0	0522_000016.D		8330MXB_CB 0.050 PPM 05/22/15		5/22/15 18:49
9	0	0522_000017.D		8330MXA_CB 0.10 PPM 05/22/15		5/22/15 19:29
10	0	0522_000018.D		8330MXB_CB 0.10 PPM 05/22/15		5/22/15 20:08
11	0	0522_000019.D		8330MXA_CB 0.20 PPM 05/22/15		5/22/15 20:48
12	0	0522_000020.D		8330MXB_CB 0.20 PPM 05/22/15		5/22/15 21:27
13	0	0522_000021.D		8330MXA_CB 0.50 PPM 05/22/15		5/22/15 22:07
14	0	0522_000022.D		8330MXB_CB 0.50 PPM 05/22/15		5/22/15 22:46
15	0	0522_000023.D		8330MXA_CB 1.0 PPM 05/22/15		5/22/15 23:26
16	0	0522_000024.D		8330MXB_CB 1.0 PPM 05/22/15		5/23/15 0:05
17	0	0522_000025.D		8330MXA_CB 2.0 PPM 05/22/15		5/23/15 0:45
18	0	0522_000026.D		8330MXB_CB 2.0 PPM 05/22/15		5/23/15 1:24
19	0	0522_000031.D		8330MXA_SS 1.0 PPM 05/22/15		5/23/15 4:42
20	0	0522_000032.D		8330MXB_SS 1.0 PPM 05/22/15		5/23/15 5:22
21	0	0522_000033.D		PETN_TETRYL_SS 1.0 PPM 05/22/15		5/23/15 6:01

Injection Log

Directory: Z:\STATLER\CHEM32\1\DATA\150522\150621

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	0	0621_000006.D		8330MXA_CCV 1.0 PPM 06/21/15		6/21/15 17:11
2	0	0621_000007.D		8330MXB_CCV 1.0 PPM 06/21/15		6/21/15 17:51
3	0	0621_000008.D	7.90514	AZ17443S02 7.905 DF 06/17/15	Soil	6/21/15 18:30
4	0	0621_000009.D	7.92864	AZ17444S08 7.929 DF 06/17/15	Soil	6/21/15 19:10
5	0	0621_000010.D	8	AZ17445S02 8.000 DF 06/17/15	Soil	6/21/15 19:49
6	0	0621_000011.D	7.92079	AZ17446S02 7.921 DF 06/17/15	Soil	6/21/15 20:29
7	0	0621_000012.D	7.92864	AZ17447S01 7.929 DF 06/17/15	Soil	6/21/15 21:08
8	0	0621_000013.D		8330MXA_CCV 1.0 PPM 06/21/15		6/21/15 21:48
9	0	0621_000014.D		8330MXB_CCV 1.0 PPM 06/21/15		6/21/15 22:27

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)	2.2 J	50.0	4.00	1.98	mg/Kg	06/30/15	07/01/15	#61CJU-150630A-AZ17444
6010C	BORON (B)	4.00 U	5.0	4.00	1.55	mg/Kg	06/30/15	07/01/15	#61CJU-150630A-AZ17444
6010C	LITHIUM (LI)	0.500 U	0.67	0.500	0.250	mg/Kg	06/30/15	07/01/15	#61CJU-150630A-AZ17444
6010C	ZINC (ZN)	4.00 U	8.0	4.00	1.15	mg/Kg	06/30/15	07/01/15	#61CJU-150630A-AZ17444

J = Estimated value.

Metals SC-Blank-REG MDLs
Printed: 07/06/15 2:21:34 PM

Laboratory Control Spike Recovery

METALS

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level mg/Kg	SPK Result mg/Kg	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 6010C	ALUMINUM (AL)	200	190	95.0	80-120	06/30/15	07/01/15	#61CJU-150630A-AZ17444
EPA 6010C	BORON (B)	25.0	25.0	100	80-120	06/30/15	07/01/15	#61CJU-150630A-AZ17444
EPA 6010C	LITHIUM (LI)	10.00	10.7	107	80-120	06/30/15	07/01/15	#61CJU-150630A-AZ17444
EPA 6010C	ZINC (ZN)	50.0	47.9	95.8	80-120	06/30/15	07/01/15	#61CJU-150630A-AZ17444

Comments: _____

Matrix Spike Recoveries

METALS

APPL ID: **150630S-17444 MS - 198532**

Sample ID: AZ17444

Client ID: S67-SS035-0001

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/Kg	Matrix Res mg/Kg	SPK Res mg/Kg	DUP Res mg/Kg	SPK % Recovery	DUP % Recovery	RPD	RPD Max	Recovery Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group	QC Sample
EPA 6010C	ALUMINUM (AL)	421	5170	8170	7970	713 #	665 #	2.5	20	80-120	06/30/15	07/01/15	06/30/15	07/01/15	198532	AZ17444
EPA 6010C	BORON (B)	52.6	15.7	65.4	57.9	94.5	80.2	12.2	20	80-120	06/30/15	07/01/15	06/30/15	07/01/15	198532	AZ17444
EPA 6010C	LITHIUM (LI)	21.1	4.4	31.2	29.2	127 #	118	6.6	20	80-120	06/30/15	07/01/15	06/30/15	07/01/15	198532	AZ17444
EPA 6010C	ZINC (ZN)	105	34.4	135	127	95.8	88.2	6.1	20	80-120	06/30/15	07/01/15	06/30/15	07/01/15	198532	AZ17444

AMENDED PAGE

= Recovery is outside QC limits.

Comments: _____

6010C/3050B^

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 07/01/15

Matrix: SOIL Instrument: Jules

Blank ID: 150630A-BLK Time Analyzed: 1434

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150630A-BLK	Blank	150701A	07/01/15 1434
AZ17434	S67-SB031-0203	150701A	07/01/15 1711
AZ17435	S67-SS039-0001	150701A	07/01/15 1718
AZ17436	S67-SB039-0607	150701A	07/01/15 1726
AZ17437	S67-SS038-0001	150701A	07/01/15 1733
AZ17438	S67-SB038-0203	150701A	07/01/15 1740
AZ17439	S67-SS033-0001	150701A	07/01/15 1748
AZ17440	S67-SB033-0203	150701A	07/01/15 1755
AZ17441	S67-SS040-0001	150701A	07/01/15 1802
AZ17442	S67-SS040P-0001	150701A	07/01/15 1809
AZ17443	S67-SB040-1516	150701A	07/01/15 1829
AZ17445	S67-SB035-0203	150701A	07/01/15 1857
AZ17446	S67-SS034-0001	150701A	07/01/15 1904
AZ17433	S67-SS031-0001	150701A	07/01/15 1704
AZ17444	S67-SS035-0001	150701A	07/01/15 1919
150630A-MSD	Matrix SpikeD	150701A	07/01/15 1850
AZ17433	S67-SS031-0001	150701A	07/01/15 1447
AZ17435	S67-SS039-0001	150701A	07/01/15 1458
AZ17436	S67-SB039-0607	150701A	07/01/15 1504
AZ17437	S67-SS038-0001	150701A	07/01/15 1510
AZ17440	S67-SB033-0203	150701A	07/01/15 1527
AZ17441	S67-SS040-0001	150701A	07/01/15 1533
AZ17442	S67-SS040P-0001	150701A	07/01/15 1538
AZ17444	S67-SS035-0001	150701A	07/01/15 1606
AZ17445	S67-SB035-0203	150701A	07/01/15 1622
AZ17446	S67-SS034-0001	150701A	07/01/15 1628
AZ17447	S67-SB034-0405	150701A	07/01/15 1633
150630A-LCS	Lab Control Spike	150701A	07/01/15 1440
150630A-MS	Matrix Spike	150701A	07/01/15 1843
AZ17447	S67-SB034-0405	150701A	07/01/15 1911

Comments: Batch: #61CJU-150630A

6010C/3050B^

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 76624

Case No: 76624 Date Analyzed: 07/01/15

Matrix: SOIL Instrument: Jules

LCS ID: 150630A-LCS Time Analyzed: 1440

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150630A-BLK	Blank	150701A	07/01/15 1434
AZ17434	S67-SB031-0203	150701A	07/01/15 1711
AZ17435	S67-SS039-0001	150701A	07/01/15 1718
AZ17436	S67-SB039-0607	150701A	07/01/15 1726
AZ17437	S67-SS038-0001	150701A	07/01/15 1733
AZ17438	S67-SB038-0203	150701A	07/01/15 1740
AZ17439	S67-SS033-0001	150701A	07/01/15 1748
AZ17440	S67-SB033-0203	150701A	07/01/15 1755
AZ17441	S67-SS040-0001	150701A	07/01/15 1802
AZ17442	S67-SS040P-0001	150701A	07/01/15 1809
AZ17443	S67-SB040-1516	150701A	07/01/15 1829
AZ17445	S67-SB035-0203	150701A	07/01/15 1857
AZ17446	S67-SS034-0001	150701A	07/01/15 1904
AZ17433	S67-SS031-0001	150701A	07/01/15 1704
AZ17444	S67-SS035-0001	150701A	07/01/15 1919
150630A-MSD	Matrix SpikeD	150701A	07/01/15 1850
AZ17433	S67-SS031-0001	150701A	07/01/15 1447
AZ17435	S67-SS039-0001	150701A	07/01/15 1458
AZ17436	S67-SB039-0607	150701A	07/01/15 1504
AZ17437	S67-SS038-0001	150701A	07/01/15 1510
AZ17440	S67-SB033-0203	150701A	07/01/15 1527
AZ17441	S67-SS040-0001	150701A	07/01/15 1533
AZ17442	S67-SS040P-0001	150701A	07/01/15 1538
AZ17444	S67-SS035-0001	150701A	07/01/15 1606
AZ17445	S67-SB035-0203	150701A	07/01/15 1622
AZ17446	S67-SS034-0001	150701A	07/01/15 1628
AZ17447	S67-SB034-0405	150701A	07/01/15 1633
150630A-LCS	Lab Control Spike	150701A	07/01/15 1440
150630A-MS	Matrix Spike	150701A	07/01/15 1843
AZ17447	S67-SB034-0405	150701A	07/01/15 1911

Comments: Batch: #61CJU-150630A

Printed: 07/06/15 2:21:50 PM

Form 4, LCS Summary

METALS

Sample Data

APPL, INC.

Metals Analysis

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

Attn: Ed Corack

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76624

Sample ID: S67-SS031-0001

APPL ID: AZ17433

Sample Collection Date: 06/08/15

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 18.1 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	9260	1220.0	98.00	48.00	mg/Kg	20	06/30/15	07/01/15
6010C/3050B	BORON (B)	10.7	6.1	4.90	1.90	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	4.6	0.82	0.610	0.310	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	48.8	9.8	4.90	1.40	mg/Kg	1	06/30/15	07/01/15

Printed: 07/06/15 2:23:01 PM

PL-F1-SC-MCRes/MCPQL-REG MDLs

Sequence No.: 13
Sample ID: AZ17433S03-1/20
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.99 g
Dilution: 20X
Wash Time:

Autosampler Location: 40
Date Collected: 07/01/15 2:47:54 PM
Data Type: Reprocessed on 07/02/15 8:56:03 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17433S03-1/20

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	236337.0	99.66	%	0.157				0.16%
Y Radial	16051.3	101.9	%	1.15				1.12%
Ag 338.289†	-163.6	-0.895	ug/L	0.1501	-1.808	mg/kg	0.3032	16.77%
Al 308.215†	5070.8	3753	ug/L	12.69	7581	mg/kg	25.63	0.34%
As 188.979†	0.9	0.909	ug/L	0.6121	1.837	mg/kg	1.2366	67.31%
B 249.677†	-348.6	8.037	ug/L	0.2374	16.24	mg/kg	0.480	2.95%
Ba 233.527†	1852.9	3.866	ug/L	0.0242	7.809	mg/kg	0.0490	0.63%
Be 313.107†	-88.0	-0.024	ug/L	0.0015	-0.048	mg/kg	0.0030	6.16%
Ca 315.887†	12623.0	796.5	ug/L	1.52	1609	mg/kg	3.08	0.19%
Cd 214.440†	512.2	1.454	ug/L	0.0631	2.937	mg/kg	0.1276	4.34%
Co 228.616†	1289.0	12.29	ug/L	0.143	24.83	mg/kg	0.289	1.16%
Cr 267.716†	10925.5	125.1	ug/L	0.47	252.7	mg/kg	0.94	0.37%
Cu 327.393†	2372.3	11.99	ug/L	0.122	24.22	mg/kg	0.246	1.02%
Fe 273.955†	490121.2	6237	ug/L	11.51	12600	mg/kg	23.24	0.18%
K 766.490†	638.3	75.78	ug/L	11.706	153.1	mg/kg	23.65	15.45%
Mg 285.213†	170552.6	10180	ug/L	27.82	20560	mg/kg	56.19	0.27%
Mn 257.610†	9353.6	105.9	ug/L	0.36	214.0	mg/kg	0.73	0.34%
Mo 202.031†	24.9	0.810	ug/L	0.0319	1.637	mg/kg	0.0645	3.94%
Na 589.592†	930.1	98.48	ug/L	1.111	199.0	mg/kg	2.24	1.13%
Ni 231.604†	9664.9	190.0	ug/L	0.81	383.8	mg/kg	1.63	0.43%
P 213.617†	244.7	70.73	ug/L	1.482	142.9	mg/kg	2.99	2.10%
Pb 220.353†	53.5	8.461	ug/L	0.7375	17.09	mg/kg	1.490	8.72%
Sb 206.836†	34.7	4.686	ug/L	0.9753	9.467	mg/kg	1.9703	20.81%
Se 196.026†	-10.3	-0.131	ug/L	0.6150	-0.264	mg/kg	1.2424	470.04%
Sn 189.927†	5.8	0.955	ug/L	0.1857	1.929	mg/kg	0.3752	19.45%
Sr 421.552†	1541.6	2.604	ug/L	0.0469	5.260	mg/kg	0.0948	1.80%
Ti 337.279†	2288.4	60.65	ug/L	0.601	122.5	mg/kg	1.21	0.99%
Tl 190.801†	-3.8	-0.691	ug/L	0.8970	-1.395	mg/kg	1.8121	129.89%
V 292.402†	526.7	4.908	ug/L	0.0620	9.915	mg/kg	0.1252	1.26%
Zn 206.200†	2134.0	22.97	ug/L	0.142	46.39	mg/kg	0.286	0.62%
Li 670.784	35362.4	1.637	ug/L	0.0088	3.306	mg/kg	0.0178	0.54%

Sequence No.: 36
Sample ID: AZ17433S03
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.99 g
Dilution:
Wash Time:

Autosampler Location: 59
Date Collected: 07/01/15 5:04:26 PM
Data Type: Reprocessed on 07/02/15 8:56:29 AM

Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17433S03

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	250373.2	105.6	%	0.72				0.68%
Y Radial	16660.0	105.8	%	0.73				0.69%
Ag 338.289†	-1894.8	-10.37	ug/L	0.323	-1.047	mg/kg	0.0327	3.12%
Al 308.215†	97018.3	71800	ug/L	290.41	7252	mg/kg	29.33	0.40%
As 188.979†	36.4	18.59	ug/L	0.950	1.878	mg/kg	0.0960	5.11%
B 249.677†	-7198.3	87.32	ug/L	4.370	8.820	mg/kg	0.4414	5.00%
Ba 233.527†	30315.0	63.28	ug/L	0.232	6.392	mg/kg	0.0234	0.37%
Be 313.107†	-938.3	-0.254	ug/L	0.0032	-0.026	mg/kg	0.0003	1.25%
Ca 315.887†	231334.3	14600	ug/L	38.39	1475	mg/kg	3.88	0.26%
Cd 214.440†	10082.1	29.69	ug/L	0.173	2.999	mg/kg	0.0175	0.58%
Co 228.616†	21671.1	206.5	ug/L	1.16	20.85	mg/kg	0.117	0.56%
Cr 267.716†	184594.0	2113	ug/L	4.29	213.5	mg/kg	0.43	0.20%
Cu 327.393†	46526.3	234.7	ug/L	1.50	23.71	mg/kg	0.151	0.64%
Fe 273.955†	7973949.4	101500	ug/L	1144.56	10250	mg/kg	115.61	1.13%
K 766.490†	8719.2	1019	ug/L	9.14	103.0	mg/kg	0.92	0.90%
Mg 285.213†	2958663.8	176600	ug/L	2373.60	17840	mg/kg	239.76	1.34%
Mn 257.610†	170797.0	1934	ug/L	5.03	195.4	mg/kg	0.51	0.26%
Mo 202.031†	-38.6	0.952	ug/L	0.1000	0.096	mg/kg	0.0101	10.51%
Na 589.592†	18797.5	1991	ug/L	6.93	201.2	mg/kg	0.70	0.35%
Ni 231.604†	155526.7	3057	ug/L	6.35	308.8	mg/kg	0.64	0.21%
P 213.617†	4072.4	1177	ug/L	6.12	118.9	mg/kg	0.62	0.52%
Pb 220.353†	1048.6	168.0	ug/L	0.38	16.97	mg/kg	0.038	0.23%
Sb 206.836†	565.9	76.42	ug/L	0.315	7.719	mg/kg	0.0319	0.41%
Se 196.026†	-121.3	12.31	ug/L	1.520	1.244	mg/kg	0.1536	12.35%
Sn 189.927†	41.6	6.896	ug/L	1.3696	0.697	mg/kg	0.1383	19.86%
Sr 421.552†	26236.1	44.28	ug/L	0.137	4.472	mg/kg	0.0138	0.31%
Ti 337.279†	42196.6	1119	ug/L	3.62	113.0	mg/kg	0.37	0.32%
Tl 190.801†	-67.8	-12.35	ug/L	1.818	-1.248	mg/kg	0.1836	14.71%
V 292.402†	9448.6	88.04	ug/L	0.590	8.893	mg/kg	0.0596	0.67%
Zn 206.200†	36864.0	396.5	ug/L	1.18	40.05	mg/kg	0.120	0.30%
Li 670.784	808369.6	37.41	ug/L	0.284	3.779	mg/kg	0.0287	0.76%

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-SB031-0203
Sample Collection Date: 06/08/15

ARF: 76624
APPL ID: AZ17434

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.9 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	2790	61.0	4.90	2.40	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	BORON (B)	8.9	6.1	4.90	1.90	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	2.7	0.82	0.610	0.300	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	61.5	9.7	4.90	1.40	mg/Kg	1	06/30/15	07/01/15

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PL-F1-SC-MCRes/MCPQL-REG MDLs

Sequence No.: 37
Sample ID: AZ17434S02
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 1.04 g
Dilution:
Wash Time:

Autosampler Location: 60
Date Collected: 07/01/15 5:11:52 PM
Data Type: Reprocessed on 07/02/15 8:56:30 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17434S02

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	268983.0	113.4	%	0.68				0.60%
Y Radial	17764.6	112.8	%	0.97				0.86%
Ag 338.289†	950.2	5.199	ug/L	0.5713	0.500	mg/kg	0.0549	10.99%
Al 308.215†	32122.3	23770	ug/L	63.22	2286	mg/kg	6.08	0.27%
As 188.979†	11735.7	2180	ug/L	11.89	209.6	mg/kg	1.14	0.55%
B 249.677†	-5154.7	76.32	ug/L	1.481	7.339	mg/kg	0.1424	1.94%
Ba 233.527†	108899.5	242.8	ug/L	0.37	23.35	mg/kg	0.035	0.15%
Be 313.107†	4057.2	1.097	ug/L	0.0116	0.105	mg/kg	0.0011	1.05%
Ca 315.887†	61621.2	3889	ug/L	1.18	374.0	mg/kg	0.11	0.03%
Cd 214.440†	7439.2	19.78	ug/L	0.177	1.902	mg/kg	0.0170	0.89%
Co 228.616†	3860.1	34.23	ug/L	0.183	3.291	mg/kg	0.0176	0.54%
Cr 267.716†	9429.0	107.4	ug/L	0.92	10.33	mg/kg	0.088	0.85%
Cu 327.393†	32172.1	164.4	ug/L	0.68	15.81	mg/kg	0.066	0.42%
Fe 273.955†	6029590.0	76740	ug/L	484.61	7379	mg/kg	46.60	0.63%
K 766.490†	17668.4	2174	ug/L	2.84	209.0	mg/kg	0.27	0.13%
Mg 285.213†	111387.3	6708	ug/L	12.29	645.0	mg/kg	1.18	0.18%
Mn 257.610†	63278.6	719.3	ug/L	0.86	69.16	mg/kg	0.083	0.12%
Mo 202.031†	91.3	3.980	ug/L	0.3283	0.383	mg/kg	0.0316	8.25%
Na 589.592†	17524.7	1860	ug/L	3.35	178.8	mg/kg	0.32	0.18%
Ni 231.604†	6680.8	132.6	ug/L	0.85	12.75	mg/kg	0.081	0.64%
P 213.617†	2587.7	748.0	ug/L	6.45	71.92	mg/kg	0.620	0.86%
Pb 220.353†	9133.8	1417	ug/L	10.92	136.3	mg/kg	1.05	0.77%
Sb 206.836†	594.7	80.31	ug/L	1.229	7.722	mg/kg	0.1182	1.53%
Se 196.026†	-83.6	11.03	ug/L	1.587	1.060	mg/kg	0.1526	14.39%
Sn 189.927†	164.5	27.28	ug/L	0.283	2.623	mg/kg	0.0272	1.04%
Sr 421.552†	16218.5	27.56	ug/L	0.061	2.650	mg/kg	0.0058	0.22%
Ti 337.279†	30504.3	810.4	ug/L	0.74	77.92	mg/kg	0.072	0.09%
Tl 190.801†	-13.1	-2.386	ug/L	1.0540	-0.229	mg/kg	0.1013	44.18%
V 292.402†	8528.9	79.47	ug/L	0.438	7.642	mg/kg	0.0421	0.55%
Zn 206.200†	52003.0	524.8	ug/L	0.63	50.46	mg/kg	0.060	0.12%
Li 670.784	488649.6	22.61	ug/L	0.042	2.174	mg/kg	0.0041	0.19%

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-SS039-0001
Sample Collection Date: 06/08/15

ARF: 76624
APPL ID: AZ17435

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 22.4 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	6660	1290.0	103.00	51.00	mg/Kg	20	06/30/15	07/01/15
6010C/3050B	BORON (B)	13.0	6.4	5.20	2.00	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	7.1	0.86	0.640	0.320	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	62.0	10.0	5.20	1.50	mg/Kg	1	06/30/15	07/01/15

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PL-F1-SC-MCRes/MCPQL-REG MDLs

Sequence No.: 15
Sample ID: AZ17435S03-1/20
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.97 g
Dilution: 20X
Wash Time:

Autosampler Location: 42
Date Collected: 07/01/15 2:58:54 PM
Data Type: Reprocessed on 07/02/15 8:56:05 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17435S03-1/20

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	237108.3	99.98	%	0.238				0.24%
Y Radial	15942.6	101.2	%	0.11				0.11%
Ag 338.289†	30.6	0.168	ug/L	0.5441	0.345	mg/kg	1.1218	324.78%
Al 308.215†	3386.4	2506	ug/L	29.22	5168	mg/kg	60.25	1.17%
As 188.979†	19.5	3.657	ug/L	1.0575	7.540	mg/kg	2.1804	28.92%
B 249.677†	-255.0	8.720	ug/L	0.4465	17.98	mg/kg	0.921	5.12%
Ba 233.527†	5969.6	13.24	ug/L	0.061	27.30	mg/kg	0.125	0.46%
Be 313.107†	152.8	0.041	ug/L	0.0060	0.085	mg/kg	0.0124	14.59%
Ca 315.887†	103519.0	6537	ug/L	28.82	13480	mg/kg	59.42	0.44%
Cd 214.440†	110.8	0.128	ug/L	0.0473	0.264	mg/kg	0.0976	36.91%
Co 228.616†	534.8	4.923	ug/L	0.0402	10.15	mg/kg	0.083	0.82%
Cr 267.716†	1823.8	20.78	ug/L	0.111	42.85	mg/kg	0.230	0.54%
Cu 327.393†	3536.6	17.89	ug/L	0.187	36.90	mg/kg	0.386	1.05%
Fe 273.955†	438403.2	5579	ug/L	14.77	11500	mg/kg	30.45	0.26%
K 766.490†	1965.5	243.1	ug/L	3.70	501.3	mg/kg	7.62	1.52%
Mg 285.213†	143453.1	8562	ug/L	29.60	17650	mg/kg	61.04	0.35%
Mn 257.610†	8176.2	92.58	ug/L	0.395	190.9	mg/kg	0.81	0.43%
Mo 202.031†	33.4	1.024	ug/L	0.0121	2.111	mg/kg	0.0250	1.18%
Na 589.592†	1904.3	202.0	ug/L	1.89	416.4	mg/kg	3.90	0.94%
Ni 231.604†	2720.2	53.57	ug/L	0.161	110.5	mg/kg	0.33	0.30%
P 213.617†	470.7	136.1	ug/L	0.70	280.5	mg/kg	1.44	0.51%
Pb 220.353†	124.4	19.39	ug/L	0.970	39.99	mg/kg	2.000	5.00%
Sb 206.836†	0.8	0.110	ug/L	0.1892	0.227	mg/kg	0.3900	172.08%
Se 196.026†	-14.4	-1.854	ug/L	2.7625	-3.823	mg/kg	5.6959	149.00%
Sn 189.927†	5.3	0.884	ug/L	0.3477	1.822	mg/kg	0.7169	39.34%
Sr 421.552†	4687.9	7.774	ug/L	0.0380	16.03	mg/kg	0.078	0.49%
Ti 337.279†	2696.4	71.52	ug/L	0.450	147.5	mg/kg	0.93	0.63%
Tl 190.801†	-5.7	-1.046	ug/L	1.0976	-2.157	mg/kg	2.2632	104.93%
V 292.402†	1173.2	10.93	ug/L	0.042	22.54	mg/kg	0.087	0.39%
Zn 206.200†	2896.7	29.63	ug/L	0.048	61.10	mg/kg	0.099	0.16%
Li 670.784	47636.6	2.205	ug/L	0.0124	4.545	mg/kg	0.0255	0.56%

Sequence No.: 38
Sample ID: AZ17435S03
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.97 g
Dilution:
Wash Time:

Autosampler Location: 61
Date Collected: 07/01/15 5:18:58 PM
Data Type: Reprocessed on 07/02/15 8:56:31 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17435S03

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	272586.3	114.9	%	3.07				2.67%
Y Radial	18388.6	116.7	%	0.38				0.33%
Ag 338.289†	1231.9	6.740	ug/L	0.5097	0.695	mg/kg	0.0525	7.56%
Al 308.215†	60838.8	45030	ug/L	51.42	4642	mg/kg	5.30	0.11%
As 188.979†	258.7	47.67	ug/L	1.959	4.914	mg/kg	0.2020	4.11%
B 249.677†	-5233.1	97.88	ug/L	1.901	10.09	mg/kg	0.196	1.94%
Ba 233.527†	93504.9	207.4	ug/L	5.64	21.38	mg/kg	0.581	2.72%
Be 313.107†	3854.6	1.042	ug/L	0.0474	0.107	mg/kg	0.0049	4.55%
Ca 315.887†	1743745.7	110100	ug/L	767.29	11350	mg/kg	79.10	0.70%
Cd 214.440†	2724.8	5.491	ug/L	0.0392	0.566	mg/kg	0.0040	0.71%
Co 228.616†	7942.1	72.56	ug/L	1.881	7.481	mg/kg	0.1939	2.59%
Cr 267.716†	28968.4	330.1	ug/L	9.65	34.03	mg/kg	0.995	2.92%
Cu 327.393†	63040.2	318.6	ug/L	9.60	32.84	mg/kg	0.989	3.01%
Fe 273.955†	6772546.4	86180	ug/L	2333.36	8885	mg/kg	240.55	2.71%
K 766.490†	31369.6	3880	ug/L	7.74	400.0	mg/kg	0.80	0.20%
Mg 285.213†	2338970.6	139600	ug/L	909.94	14390	mg/kg	93.81	0.65%
Mn 257.610†	137689.0	1559	ug/L	2.97	160.8	mg/kg	0.31	0.19%
Mo 202.031†	64.6	3.314	ug/L	0.6062	0.342	mg/kg	0.0625	18.29%
Na 589.592†	34373.6	3646	ug/L	2.84	375.9	mg/kg	0.29	0.08%
Ni 231.604†	40928.8	806.2	ug/L	22.96	83.11	mg/kg	2.367	2.85%
P 213.617†	7864.0	2273	ug/L	60.31	234.3	mg/kg	6.22	2.65%
Pb 220.353†	2147.8	336.4	ug/L	9.53	34.68	mg/kg	0.982	2.83%
Sb 206.836†	86.5	11.68	ug/L	0.379	1.204	mg/kg	0.0391	3.25%
Se 196.026†	-111.8	4.517	ug/L	1.7763	0.466	mg/kg	0.1831	39.33%
Sn 189.927†	39.4	6.540	ug/L	0.5792	0.674	mg/kg	0.0597	8.86%
Sr 421.552†	76231.5	126.3	ug/L	0.31	13.02	mg/kg	0.032	0.25%
Ti 337.279†	46250.9	1227	ug/L	0.84	126.5	mg/kg	0.09	0.07%
Tl 190.801†	-54.8	-9.977	ug/L	1.6266	-1.029	mg/kg	0.1677	16.30%
V 292.402†	18779.5	175.0	ug/L	5.15	18.04	mg/kg	0.531	2.94%
Zn 206.200†	45545.6	466.3	ug/L	12.29	48.07	mg/kg	1.267	2.64%
Li 670.784	1150626.1	53.25	ug/L	0.499	5.490	mg/kg	0.0514	0.94%

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-SB039-0607
Sample Collection Date: 06/08/15

ARF: 76624
APPL ID: AZ17436

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.9 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	5240	1220.0	97.00	48.00	mg/Kg	20	06/30/15	07/01/15
6010C/3050B	BORON (B)	5.5 J	6.1	4.90	1.90	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	6.3	0.82	0.610	0.300	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	13.0	9.7	4.90	1.40	mg/Kg	1	06/30/15	07/01/15

J = Estimated value.

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PL-F1-SC-MCRes/MCPQL-REG MDLs

Sequence No.: 16
Sample ID: AZ17436S02-1/20
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 1 g
Dilution: 20X
Wash Time:

Autosampler Location: 43
Date Collected: 07/01/15 3:04:24 PM
Data Type: Reprocessed on 07/02/15 8:56:06 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17436S02-1/20

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	238042.4	100.4	%	0.12				0.12%
Y Radial	16128.9	102.4	%	0.41				0.40%
Ag 338.289†	33.3	0.182	ug/L	0.1759	0.364	mg/kg	0.3517	96.63%
Al 308.215†	2902.9	2149	ug/L	7.49	4297	mg/kg	14.97	0.35%
As 188.979†	3.4	0.908	ug/L	1.7277	1.817	mg/kg	3.4554	190.18%
B 249.677†	-97.6	4.742	ug/L	0.3146	9.484	mg/kg	0.6292	6.63%
Ba 233.527†	4671.7	10.46	ug/L	0.050	20.91	mg/kg	0.100	0.48%
Be 313.107†	80.2	0.022	ug/L	0.0051	0.043	mg/kg	0.0103	23.67%
Ca 315.887†	2277.2	143.7	ug/L	0.92	287.5	mg/kg	1.83	0.64%
Cd 214.440†	-28.8	-0.229	ug/L	0.0341	-0.457	mg/kg	0.0681	14.90%
Co 228.616†	115.9	0.986	ug/L	0.0776	1.972	mg/kg	0.1552	7.87%
Cr 267.716†	350.4	4.006	ug/L	0.0512	8.012	mg/kg	0.1024	1.28%
Cu 327.393†	434.9	2.323	ug/L	0.1855	4.647	mg/kg	0.3711	7.99%
Fe 273.955†	204711.4	2605	ug/L	4.82	5210	mg/kg	9.65	0.19%
K 766.490†	1577.2	196.6	ug/L	10.72	393.3	mg/kg	21.45	5.45%
Mg 285.213†	3196.1	192.8	ug/L	1.22	385.6	mg/kg	2.44	0.63%
Mn 257.610†	573.8	6.534	ug/L	0.0295	13.07	mg/kg	0.059	0.45%
Mo 202.031†	28.9	0.844	ug/L	0.1994	1.689	mg/kg	0.3989	23.62%
Na 589.592†	896.6	94.97	ug/L	3.147	189.9	mg/kg	6.29	3.31%
Ni 231.604†	78.9	1.595	ug/L	0.0814	3.190	mg/kg	0.1628	5.10%
P 213.617†	51.6	14.92	ug/L	0.764	29.84	mg/kg	1.529	5.12%
Pb 220.353†	7.9	1.376	ug/L	0.2162	2.751	mg/kg	0.4323	15.71%
Sb 206.836†	-3.7	-0.505	ug/L	0.5719	-1.010	mg/kg	1.1439	113.22%
Se 196.026†	-8.4	-1.234	ug/L	2.9206	-2.468	mg/kg	5.8412	236.66%
Sn 189.927†	4.5	0.754	ug/L	0.3493	1.508	mg/kg	0.6985	46.31%
Sr 421.552†	1045.0	1.782	ug/L	0.0377	3.565	mg/kg	0.0754	2.11%
Ti 337.279†	1535.1	40.78	ug/L	0.422	81.57	mg/kg	0.844	1.03%
Tl 190.801†	-2.7	-0.488	ug/L	0.2470	-0.977	mg/kg	0.4939	50.57%
V 292.402†	703.2	6.552	ug/L	0.0722	13.10	mg/kg	0.144	1.10%
Zn 206.200†	506.0	5.058	ug/L	0.0826	10.12	mg/kg	0.165	1.63%
Li 670.784	45353.3	2.099	ug/L	0.0233	4.198	mg/kg	0.0466	1.11%

Sequence No.: 39
Sample ID: AZ17436S02
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 1 g
Dilution:
Wash Time:

Autosampler Location: 62
Date Collected: 07/01/15 5:26:26 PM
Data Type: Reprocessed on 07/02/15 8:56:32 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17436S02

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	258848.7	109.1	%	0.42				0.38%
Y Radial	17185.7	109.1	%	0.53				0.49%
Ag 338.289†	788.8	4.315	ug/L	0.2164	0.432	mg/kg	0.0216	5.01%
Al 308.215†	54789.9	40550	ug/L	87.59	4055	mg/kg	8.76	0.22%
As 188.979†	52.6	14.62	ug/L	0.597	1.462	mg/kg	0.0597	4.08%
B 249.677†	-2977.1	45.44	ug/L	1.274	4.544	mg/kg	0.1274	2.80%
Ba 233.527†	80363.8	179.9	ug/L	0.20	17.99	mg/kg	0.020	0.11%
Be 313.107†	3596.9	0.973	ug/L	0.0078	0.097	mg/kg	0.0008	0.80%
Ca 315.887†	37205.5	2348	ug/L	6.25	234.8	mg/kg	0.63	0.27%
Cd 214.440†	573.5	-0.386	ug/L	0.0332	-0.039	mg/kg	0.0033	8.59%
Co 228.616†	1565.6	12.59	ug/L	0.112	1.259	mg/kg	0.0112	0.89%
Cr 267.716†	6584.3	75.29	ug/L	0.478	7.529	mg/kg	0.0478	0.63%
Cu 327.393†	8073.5	43.01	ug/L	0.503	4.301	mg/kg	0.0503	1.17%
Fe 273.955†	3535436.1	44990	ug/L	310.59	4499	mg/kg	31.06	0.69%
K 766.490†	25465.5	3171	ug/L	14.39	317.1	mg/kg	1.44	0.45%
Mg 285.213†	59004.1	3557	ug/L	5.98	355.7	mg/kg	0.60	0.17%
Mn 257.610†	10462.3	119.1	ug/L	0.57	11.91	mg/kg	0.057	0.47%
Mo 202.031†	64.8	2.600	ug/L	0.2623	0.260	mg/kg	0.0262	10.09%
Na 589.592†	19442.0	2061	ug/L	8.82	206.1	mg/kg	0.88	0.43%
Ni 231.604†	1326.6	26.81	ug/L	0.424	2.681	mg/kg	0.0424	1.58%
P 213.617†	737.7	213.2	ug/L	1.82	21.32	mg/kg	0.182	0.86%
Pb 220.353†	292.6	48.96	ug/L	1.132	4.896	mg/kg	0.1132	2.31%
Sb 206.836†	17.1	2.306	ug/L	0.5030	0.231	mg/kg	0.0503	21.82%
Se 196.026†	-53.0	6.316	ug/L	0.4293	0.632	mg/kg	0.0429	6.80%
Sn 189.927†	24.5	4.070	ug/L	0.4552	0.407	mg/kg	0.0455	11.18%
Sr 421.552†	17069.8	29.11	ug/L	0.116	2.911	mg/kg	0.0116	0.40%
Ti 337.279†	28413.1	754.9	ug/L	0.23	75.49	mg/kg	0.023	0.03%
Tl 190.801†	-24.0	-4.380	ug/L	0.7236	-0.438	mg/kg	0.0724	16.52%
V 292.402†	12950.4	120.7	ug/L	0.76	12.07	mg/kg	0.076	0.63%
Zn 206.200†	10635.8	106.7	ug/L	0.70	10.67	mg/kg	0.070	0.66%
Li 670.784	1115595.5	51.63	ug/L	0.477	5.163	mg/kg	0.0477	0.92%

Metals Analysis

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

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SS038-0001
Sample Collection Date: 06/09/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76624
APPL ID: AZ17437

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.5 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	8760	1210.0	97.00	48.00	mg/Kg	20	06/30/15	07/01/15
6010C/3050B	BORON (B)	9.0	6.1	4.80	1.90	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	10.4	0.81	0.610	0.300	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	328	194.0	97.00	28.00	mg/Kg	20	06/30/15	07/01/15

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PL-F1-SC-MCRes/MCPQL-REG MDLs

Sequence No.: 17
Sample ID: AZ17437S03-1/20
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 1.03 g
Dilution: 20X
Wash Time:

Autosampler Location: 44
Date Collected: 07/01/15 3:10:39 PM
Data Type: Reprocessed on 07/02/15 8:56:07 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17437S03-1/20

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	236836.9	99.87	%	0.407				0.41%
Y Radial	16046.1	101.9	%	0.84				0.82%
Ag 338.289†	151.9	0.831	ug/L	0.5212	1.614	mg/kg	1.0120	62.70%
Al 308.215†	5027.9	3721	ug/L	21.29	7226	mg/kg	41.35	0.57%
As 188.979†	22.7	5.117	ug/L	0.7691	9.936	mg/kg	1.4934	15.03%
B 249.677†	-503.9	8.197	ug/L	0.1262	15.92	mg/kg	0.245	1.54%
Ba 233.527†	10801.9	24.08	ug/L	0.023	46.75	mg/kg	0.044	0.09%
Be 313.107†	499.4	0.135	ug/L	0.0047	0.262	mg/kg	0.0092	3.50%
Ca 315.887†	7066.5	446.1	ug/L	1.89	866.1	mg/kg	3.67	0.42%
Cd 214.440†	84.0	-0.171	ug/L	0.0282	-0.332	mg/kg	0.0548	16.50%
Co 228.616†	256.1	2.141	ug/L	0.0695	4.158	mg/kg	0.1349	3.24%
Cr 267.716†	624.4	7.109	ug/L	0.1502	13.80	mg/kg	0.292	2.11%
Cu 327.393†	1644.3	8.582	ug/L	0.1475	16.66	mg/kg	0.286	1.72%
Fe 273.955†	609965.4	7763	ug/L	5.72	15070	mg/kg	11.12	0.07%
K 766.490†	2745.9	340.5	ug/L	5.44	661.1	mg/kg	10.56	1.60%
Mg 285.213†	8035.0	485.7	ug/L	1.83	943.2	mg/kg	3.55	0.38%
Mn 257.610†	3382.2	38.47	ug/L	0.193	74.69	mg/kg	0.374	0.50%
Mo 202.031†	37.0	1.175	ug/L	0.1592	2.281	mg/kg	0.3092	13.56%
Na 589.592†	1205.0	127.5	ug/L	4.11	247.5	mg/kg	7.98	3.23%
Ni 231.604†	255.4	5.151	ug/L	0.1541	10.00	mg/kg	0.299	2.99%
P 213.617†	535.3	154.7	ug/L	2.56	300.4	mg/kg	4.98	1.66%
Pb 220.353†	624.0	96.99	ug/L	1.120	188.3	mg/kg	2.18	1.16%
Sb 206.836†	-1.7	-0.233	ug/L	0.4140	-0.453	mg/kg	0.8038	177.36%
Se 196.026†	-8.5	1.159	ug/L	0.2062	2.251	mg/kg	0.4004	17.79%
Sn 189.927†	14.9	2.469	ug/L	0.1549	4.795	mg/kg	0.3008	6.27%
Sr 421.552†	3377.3	5.761	ug/L	0.0850	11.19	mg/kg	0.165	1.48%
Ti 337.279†	3163.0	84.03	ug/L	0.662	163.2	mg/kg	1.29	0.79%
Tl 190.801†	-2.8	-0.507	ug/L	0.8860	-0.985	mg/kg	1.7205	174.70%
V 292.402†	1117.9	10.42	ug/L	0.038	20.23	mg/kg	0.075	0.37%
Zn 206.200†	13760.8	139.3	ug/L	0.21	270.5	mg/kg	0.41	0.15%
Li 670.784	73572.5	3.405	ug/L	0.0195	6.611	mg/kg	0.0378	0.57%

Sequence No.: 40
Sample ID: AZ17437S03
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 1.03 g
Dilution:
Wash Time:

Autosampler Location: 63
Date Collected: 07/01/15 5:33:36 PM
Data Type: Reprocessed on 07/02/15 8:56:33 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17437S03

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	314201.7	132.5	%	0.93				0.71%
Y Radial	20513.5	130.2	%	0.54				0.42%
Ag 338.289†	1655.7	9.058	ug/L	0.4965	0.879	mg/kg	0.0482	5.48%
Al 308.215†	81295.6	60170	ug/L	174.62	5842	mg/kg	16.95	0.29%
As 188.979†	301.9	68.38	ug/L	0.273	6.639	mg/kg	0.0265	0.40%
B 249.677†	-8288.7	76.35	ug/L	1.878	7.412	mg/kg	0.1823	2.46%
Ba 233.527†	165641.4	369.9	ug/L	0.38	35.91	mg/kg	0.037	0.10%
Be 313.107†	9267.8	2.506	ug/L	0.0179	0.243	mg/kg	0.0017	0.71%
Ca 315.887†	108069.8	6822	ug/L	31.89	662.3	mg/kg	3.10	0.47%
Cd 214.440†	2255.8	1.365	ug/L	0.0590	0.133	mg/kg	0.0057	4.32%
Co 228.616†	3407.1	27.89	ug/L	0.209	2.708	mg/kg	0.0203	0.75%
Cr 267.716†	9657.0	110.0	ug/L	0.55	10.68	mg/kg	0.053	0.50%
Cu 327.393†	25906.5	134.7	ug/L	0.63	13.08	mg/kg	0.061	0.47%
Fe 273.955†	8447375.9	107500	ug/L	675.92	10440	mg/kg	65.62	0.63%
K 766.490†	38997.4	4834	ug/L	14.80	469.3	mg/kg	1.44	0.31%
Mg 285.213†	127149.7	7674	ug/L	28.00	745.0	mg/kg	2.72	0.36%
Mn 257.610†	52298.8	594.8	ug/L	1.84	57.74	mg/kg	0.179	0.31%
Mo 202.031†	157.1	6.487	ug/L	0.0329	0.630	mg/kg	0.0032	0.51%
Na 589.592†	20858.6	2208	ug/L	7.73	214.4	mg/kg	0.75	0.35%
Ni 231.604†	3491.3	70.40	ug/L	0.406	6.835	mg/kg	0.0394	0.58%
P 213.617†	7981.0	2307	ug/L	15.29	224.0	mg/kg	1.48	0.66%
Pb 220.353†	9472.6	1475	ug/L	8.66	143.2	mg/kg	0.84	0.59%
Sb 206.836†	60.9	8.222	ug/L	0.8387	0.798	mg/kg	0.0814	10.20%
Se 196.026†	-127.6	13.47	ug/L	1.252	1.308	mg/kg	0.1216	9.29%
Sn 189.927†	179.0	29.69	ug/L	0.797	2.883	mg/kg	0.0773	2.68%
Sr 421.552†	47884.1	81.67	ug/L	0.191	7.929	mg/kg	0.0185	0.23%
Ti 337.279†	49764.7	1322	ug/L	3.06	128.4	mg/kg	0.30	0.23%
Tl 190.801†	-32.4	-5.900	ug/L	1.6899	-0.573	mg/kg	0.1641	28.64%
V 292.402†	17408.1	162.2	ug/L	0.88	15.75	mg/kg	0.085	0.54%
Zn 206.200†	206201.6	2088	ug/L	1.78	202.7	mg/kg	0.17	0.09%
Li 670.784	1912190.7	88.49	ug/L	0.628	8.592	mg/kg	0.0610	0.71%

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-SB038-0203
Sample Collection Date: 06/09/15

ARF: 76624
APPL ID: AZ17438

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 14.7 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	3800	59.0	4.70	2.30	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	BORON (B)	5.4 J	5.9	4.70	1.80	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	12.3	0.79	0.590	0.290	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	171	9.4	4.70	1.30	mg/Kg	1	06/30/15	07/01/15

J = Estimated value.

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ᵓL-F1-SC-MCRes/MCPQL-REG MDLs

Sequence No.: 41
Sample ID: AZ17438S01
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 1.05 g
Dilution:
Wash Time:

Autosampler Location: 64
Date Collected: 07/01/15 5:40:46 PM
Data Type: Reprocessed on 07/02/15 8:56:34 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17438S01

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	393705.1	166.0	%	0.59				0.36%
Y Radial	25701.5	163.1	%	1.47				0.90%
Ag 338.289†	813.3	4.449	ug/L	0.0686	0.424	mg/kg	0.0065	1.54%
Al 308.215†	46010.2	34050	ug/L	70.05	3243	mg/kg	6.67	0.21%
As 188.979†	357.4	71.72	ug/L	0.481	6.831	mg/kg	0.0458	0.67%
B 249.677†	-3535.8	48.42	ug/L	0.993	4.611	mg/kg	0.0946	2.05%
Ba 233.527†	161082.1	362.6	ug/L	0.43	34.53	mg/kg	0.041	0.12%
Be 313.107†	21367.6	5.778	ug/L	0.0163	0.550	mg/kg	0.0016	0.28%
Ca 315.887†	85715.5	5411	ug/L	19.35	515.4	mg/kg	1.84	0.36%
Cd 214.440†	1893.4	3.427	ug/L	0.0564	0.326	mg/kg	0.0054	1.65%
Co 228.616†	6476.9	61.04	ug/L	0.073	5.813	mg/kg	0.0070	0.12%
Cr 267.716†	4971.9	56.59	ug/L	0.102	5.390	mg/kg	0.0097	0.18%
Cu 327.393†	13865.0	71.52	ug/L	0.059	6.811	mg/kg	0.0056	0.08%
Fe 273.955†	4044500.3	51470	ug/L	194.56	4902	mg/kg	18.53	0.38%
K 766.490†	18225.1	2256	ug/L	4.71	214.9	mg/kg	0.45	0.21%
Mg 285.213†	94027.0	5652	ug/L	16.07	538.3	mg/kg	1.53	0.28%
Mn 257.610†	35138.1	399.4	ug/L	1.00	38.04	mg/kg	0.095	0.25%
Mo 202.031†	108.4	4.095	ug/L	0.0609	0.390	mg/kg	0.0058	1.49%
Na 589.592†	13682.4	1450	ug/L	1.40	138.1	mg/kg	0.13	0.10%
Ni 231.604†	3542.4	70.36	ug/L	0.213	6.701	mg/kg	0.0203	0.30%
P 213.617†	1945.3	562.3	ug/L	0.50	53.55	mg/kg	0.048	0.09%
Pb 220.353†	11686.5	1821	ug/L	4.58	173.4	mg/kg	0.44	0.25%
Sb 206.836†	24.3	3.281	ug/L	0.3012	0.312	mg/kg	0.0287	9.18%
Se 196.026†	-62.8	5.989	ug/L	0.2575	0.570	mg/kg	0.0245	4.30%
Sn 189.927†	33.4	5.546	ug/L	0.0994	0.528	mg/kg	0.0095	1.79%
Sr 421.552†	37588.8	64.13	ug/L	0.186	6.108	mg/kg	0.0177	0.29%
Ti 337.279†	22434.5	596.0	ug/L	1.84	56.76	mg/kg	0.176	0.31%
Tl 190.801†	-13.8	-2.522	ug/L	0.1629	-0.240	mg/kg	0.0155	6.46%
V 292.402†	8368.1	77.97	ug/L	0.078	7.426	mg/kg	0.0074	0.10%
Zn 206.200†	150873.5	1529	ug/L	0.58	145.6	mg/kg	0.06	0.04%
Li 670.784	2385516.9	110.4	ug/L	0.33	10.51	mg/kg	0.032	0.30%

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-SS033-0001
Sample Collection Date: 06/09/15

ARF: 76624
APPL ID: AZ17439

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 26.6 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	5300	68.0	5.40	2.70	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	BORON (B)	7.9	6.8	5.40	2.10	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	5.0	0.91	0.680	0.340	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	26.6	11.0	5.40	1.60	mg/Kg	1	06/30/15	07/01/15

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PL-F1-SC-MCRes/MCPQL-REG MDLs

Sequence No.: 42
Sample ID: AZ17439S03
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 1.02 g
Dilution:
Wash Time:

Autosampler Location: 65
Date Collected: 07/01/15 5:48:02 PM
Data Type: Reprocessed on 07/02/15 8:56:35 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17439S03

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	288971.6	121.9	%	0.49				0.40%
Y Radial	19368.5	122.9	%	0.76				0.62%
Ag 338.289†	678.0	3.709	ug/L	0.1916	0.364	mg/kg	0.0188	5.17%
Al 308.215†	53663.2	39720	ug/L	337.74	3894	mg/kg	33.11	0.85%
As 188.979†	74.3	21.52	ug/L	0.978	2.110	mg/kg	0.0959	4.55%
B 249.677†	-5380.1	58.86	ug/L	2.651	5.770	mg/kg	0.2599	4.50%
Ba 233.527†	94257.5	209.9	ug/L	0.11	20.57	mg/kg	0.010	0.05%
Be 313.107†	6233.0	1.685	ug/L	0.0045	0.165	mg/kg	0.0004	0.27%
Ca 315.887†	181874.8	11480	ug/L	93.85	1126	mg/kg	9.20	0.82%
Cd 214.440†	1672.4	1.387	ug/L	0.0055	0.136	mg/kg	0.0005	0.39%
Co 228.616†	1660.6	13.24	ug/L	0.103	1.299	mg/kg	0.0101	0.78%
Cr 267.716†	6962.5	79.51	ug/L	0.760	7.795	mg/kg	0.0745	0.96%
Cu 327.393†	9899.4	52.52	ug/L	0.289	5.149	mg/kg	0.0283	0.55%
Fe 273.955†	5735638.8	72990	ug/L	644.41	7156	mg/kg	63.18	0.88%
K 766.490†	29753.8	3695	ug/L	27.01	362.2	mg/kg	2.65	0.73%
Mg 285.213†	92908.4	5603	ug/L	44.00	549.3	mg/kg	4.31	0.79%
Mn 257.610†	31786.8	361.5	ug/L	3.44	35.44	mg/kg	0.337	0.95%
Mo 202.031†	72.8	3.339	ug/L	0.2829	0.327	mg/kg	0.0277	8.47%
Na 589.592†	15143.5	1603	ug/L	9.50	157.2	mg/kg	0.93	0.59%
Ni 231.604†	1978.3	40.26	ug/L	0.070	3.947	mg/kg	0.0069	0.17%
P 213.617†	6635.2	1918	ug/L	17.34	188.0	mg/kg	1.70	0.90%
Pb 220.353†	2408.5	374.9	ug/L	2.63	36.75	mg/kg	0.258	0.70%
Sb 206.836†	25.8	3.485	ug/L	0.1804	0.342	mg/kg	0.0177	5.18%
Se 196.026†	-82.7	10.02	ug/L	2.825	0.982	mg/kg	0.2770	28.20%
Sn 189.927†	24.3	4.030	ug/L	0.6128	0.395	mg/kg	0.0601	15.21%
Sr 421.552†	29697.9	50.37	ug/L	0.292	4.938	mg/kg	0.0286	0.58%
Ti 337.279†	20752.3	551.2	ug/L	5.01	54.04	mg/kg	0.492	0.91%
Tl 190.801†	-16.3	-2.964	ug/L	0.8681	-0.291	mg/kg	0.0851	29.28%
V 292.402†	15116.1	140.9	ug/L	1.17	13.81	mg/kg	0.115	0.83%
Zn 206.200†	19809.4	198.4	ug/L	1.17	19.46	mg/kg	0.114	0.59%
Li 670.784	815293.9	37.73	ug/L	0.227	3.699	mg/kg	0.0222	0.60%

Metals Analysis

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

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-SB033-0203

Sample Collection Date: 06/09/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76624

APPL ID: AZ17440

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 15.1 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	7590	1180.0	94.00	47.00	mg/Kg	20	06/30/15	07/01/15
6010C/3050B	BORON (B)	11.1	5.9	4.70	1.80	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	8.5	0.79	0.590	0.290	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	42.6	9.4	4.70	1.40	mg/Kg	1	06/30/15	07/01/15

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PL-F1-SC-MCRes/MCPQL-REG MDLs

Sequence No.: 20
Sample ID: AZ17440S01-1/20
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 1.02 g
Dilution: 20X
Wash Time:

Autosampler Location: 47
Date Collected: 07/01/15 3:27:55 PM
Data Type: Reprocessed on 07/02/15 8:56:10 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17440S01-1/20

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	234919.6	99.06	%	0.331				0.33%
Y Radial	16036.1	101.8	%	1.35				1.33%
Ag 338.289†	80.9	0.443	ug/L	0.3508	0.868	mg/kg	0.6878	79.27%
Al 308.215†	4438.0	3284	ug/L	18.33	6440	mg/kg	35.94	0.56%
As 188.979†	18.1	4.580	ug/L	0.3482	8.981	mg/kg	0.6828	7.60%
B 249.677†	-702.6	10.97	ug/L	0.466	21.50	mg/kg	0.914	4.25%
Ba 233.527†	10311.4	22.80	ug/L	0.114	44.71	mg/kg	0.223	0.50%
Be 313.107†	398.9	0.108	ug/L	0.0070	0.212	mg/kg	0.0138	6.51%
Ca 315.887†	21125.5	1334	ug/L	3.49	2615	mg/kg	6.84	0.26%
Cd 214.440†	72.1	-0.407	ug/L	0.0166	-0.797	mg/kg	0.0326	4.08%
Co 228.616†	360.9	3.100	ug/L	0.0252	6.078	mg/kg	0.0494	0.81%
Cr 267.716†	648.1	7.307	ug/L	0.1322	14.33	mg/kg	0.259	1.81%
Cu 327.393†	3195.1	16.42	ug/L	0.085	32.19	mg/kg	0.167	0.52%
Fe 273.955†	837140.2	10650	ug/L	9.88	20890	mg/kg	19.37	0.09%
K 766.490†	2330.1	286.3	ug/L	7.14	561.5	mg/kg	13.99	2.49%
Mg 285.213†	6109.4	373.3	ug/L	2.21	731.9	mg/kg	4.34	0.59%
Mn 257.610†	15771.4	179.3	ug/L	1.29	351.5	mg/kg	2.53	0.72%
Mo 202.031†	38.8	1.278	ug/L	0.2914	2.506	mg/kg	0.5713	22.79%
Na 589.592†	660.5	69.58	ug/L	7.402	136.4	mg/kg	14.51	10.64%
Ni 231.604†	276.3	5.612	ug/L	0.3078	11.00	mg/kg	0.604	5.49%
P 213.617†	328.5	94.96	ug/L	1.858	186.2	mg/kg	3.64	1.96%
Pb 220.353†	264.2	40.47	ug/L	0.437	79.35	mg/kg	0.857	1.08%
Sb 206.836†	-3.5	-0.471	ug/L	0.5683	-0.923	mg/kg	1.1142	120.72%
Se 196.026†	-13.5	0.907	ug/L	2.3663	1.779	mg/kg	4.6398	260.78%
Sn 189.927†	60.4	10.02	ug/L	0.646	19.65	mg/kg	1.266	6.44%
Sr 421.552†	6094.5	10.38	ug/L	0.062	20.35	mg/kg	0.121	0.59%
Ti 337.279†	3141.3	83.45	ug/L	0.751	163.6	mg/kg	1.47	0.90%
Tl 190.801†	-3.6	-0.652	ug/L	0.3857	-1.278	mg/kg	0.7563	59.18%
V 292.402†	1047.4	9.760	ug/L	0.0759	19.14	mg/kg	0.149	0.78%
Zn 206.200†	2381.6	23.65	ug/L	0.158	46.38	mg/kg	0.310	0.67%
Li 670.784	63508.3	2.939	ug/L	0.0086	5.763	mg/kg	0.0168	0.29%

Sequence No.: 43
Sample ID: AZ17440S01
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 1.02 g
Dilution:
Wash Time:

Autosampler Location: 66
Date Collected: 07/01/15 5:55:11 PM
Data Type: Reprocessed on 07/02/15 8:56:36 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17440S01

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	279892.7	118.0	%	0.65				0.55%
Y Radial	18341.3	116.4	%	0.90				0.77%
Ag 338.289†	1545.1	8.453	ug/L	0.1911	0.829	mg/kg	0.0187	2.26%
Al 308.215†	78375.9	58000	ug/L	179.87	5687	mg/kg	17.63	0.31%
As 188.979†	248.4	63.50	ug/L	0.565	6.226	mg/kg	0.0554	0.89%
B 249.677†	-12539.6	95.71	ug/L	2.822	9.383	mg/kg	0.2766	2.95%
Ba 233.527†	160011.1	354.4	ug/L	0.75	34.75	mg/kg	0.073	0.21%
Be 313.107†	7628.0	2.063	ug/L	0.0040	0.202	mg/kg	0.0004	0.19%
Ca 315.887†	353966.0	22350	ug/L	202.90	2191	mg/kg	19.89	0.91%
Cd 214.440†	2357.0	-1.482	ug/L	0.0637	-0.145	mg/kg	0.0062	4.30%
Co 228.616†	5271.1	44.75	ug/L	0.475	4.387	mg/kg	0.0466	1.06%
Cr 267.716†	10964.3	123.7	ug/L	1.01	12.13	mg/kg	0.099	0.82%
Cu 327.393†	55222.6	282.8	ug/L	0.69	27.73	mg/kg	0.068	0.25%
Fe 273.955†	12229002.8	155600	ug/L	715.99	15260	mg/kg	70.19	0.46%
K 766.490†	36154.2	4446	ug/L	19.97	435.9	mg/kg	1.96	0.45%
Mg 285.213†	103996.5	6333	ug/L	18.77	620.9	mg/kg	1.84	0.30%
Mn 257.610†	268660.8	3054	ug/L	7.59	299.4	mg/kg	0.74	0.25%
Mo 202.031†	39.4	4.151	ug/L	0.1887	0.407	mg/kg	0.0185	4.54%
Na 589.592†	14142.4	1493	ug/L	3.28	146.4	mg/kg	0.32	0.22%
Ni 231.604†	3982.9	80.87	ug/L	0.849	7.928	mg/kg	0.0832	1.05%
P 213.617†	5330.0	1541	ug/L	15.17	151.0	mg/kg	1.49	0.98%
Pb 220.353†	4610.7	710.3	ug/L	6.20	69.64	mg/kg	0.608	0.87%
Sb 206.836†	79.3	10.71	ug/L	0.272	1.050	mg/kg	0.0267	2.54%
Se 196.026†	-181.1	18.20	ug/L	1.329	1.784	mg/kg	0.1303	7.31%
Sn 189.927†	899.6	149.2	ug/L	1.09	14.63	mg/kg	0.107	0.73%
Sr 421.552†	92361.1	157.2	ug/L	0.34	15.41	mg/kg	0.033	0.22%
Ti 337.279†	53614.7	1424	ug/L	2.45	139.6	mg/kg	0.24	0.17%
Tl 190.801†	-50.4	-9.179	ug/L	1.0071	-0.900	mg/kg	0.0987	10.97%
V 292.402†	18172.0	169.3	ug/L	1.61	16.60	mg/kg	0.158	0.95%
Zn 206.200†	37161.6	369.7	ug/L	0.27	36.24	mg/kg	0.026	0.07%
Li 670.784	1586720.2	73.43	ug/L	0.370	7.199	mg/kg	0.0363	0.50%

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-SS040-0001
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17441

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 20.0 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	10900	1250.0	100.00	50.00	mg/Kg	20	06/30/15	07/01/15
6010C/3050B	BORON (B)	10.9	6.3	5.00	1.90	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	11.8	0.84	0.630	0.310	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	700	200.0	100.00	29.00	mg/Kg	20	06/30/15	07/01/15

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PL-F1-SC-MCRes/MCPQL-REG MDLs

Sequence No.: 21
Sample ID: AZ17441S02-1/20
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 1.05 g
Dilution: 20X
Wash Time:

Autosampler Location: 48
Date Collected: 07/01/15 3:33:26 PM
Data Type: Reprocessed on 07/02/15 8:56:11 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17441S02-1/20

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	239980.9	101.2	%	0.20				0.20%
Y Radial	16071.9	102.0	%	0.49				0.48%
Ag 338.289†	98.6	0.540	ug/L	0.3062	1.028	mg/kg	0.5833	56.75%
Al 308.215†	6166.3	4564	ug/L	23.96	8693	mg/kg	45.64	0.52%
As 188.979†	152.4	29.17	ug/L	0.175	55.57	mg/kg	0.334	0.60%
B 249.677†	-523.6	9.910	ug/L	0.1877	18.88	mg/kg	0.358	1.89%
Ba 233.527†	14318.3	32.01	ug/L	0.193	60.98	mg/kg	0.368	0.60%
Be 313.107†	515.5	0.139	ug/L	0.0040	0.265	mg/kg	0.0076	2.88%
Ca 315.887†	10303.4	650.4	ug/L	0.75	1239	mg/kg	1.44	0.12%
Cd 214.440†	270.6	0.404	ug/L	0.0624	0.769	mg/kg	0.1188	15.46%
Co 228.616†	269.3	2.286	ug/L	0.1439	4.354	mg/kg	0.2742	6.30%
Cr 267.716†	695.9	7.923	ug/L	0.0366	15.09	mg/kg	0.070	0.46%
Cu 327.393†	1670.3	8.663	ug/L	0.1339	16.50	mg/kg	0.255	1.55%
Fe 273.955†	671887.1	8551	ug/L	18.35	16290	mg/kg	34.95	0.21%
K 766.490†	3009.0	372.9	ug/L	11.76	710.3	mg/kg	22.40	3.15%
Mg 285.213†	6914.9	419.6	ug/L	2.81	799.2	mg/kg	5.35	0.67%
Mn 257.610†	5139.8	58.45	ug/L	0.161	111.3	mg/kg	0.31	0.27%
Mo 202.031†	38.9	1.263	ug/L	0.0346	2.407	mg/kg	0.0659	2.74%
Na 589.592†	905.8	95.50	ug/L	3.441	181.9	mg/kg	6.55	3.60%
Ni 231.604†	197.0	4.012	ug/L	0.1759	7.643	mg/kg	0.3350	4.38%
P 213.617†	408.1	117.9	ug/L	1.06	224.7	mg/kg	2.02	0.90%
Pb 220.353†	2238.9	348.6	ug/L	0.62	664.0	mg/kg	1.19	0.18%
Sb 206.836†	5.3	0.718	ug/L	1.5479	1.368	mg/kg	2.9483	215.52%
Se 196.026†	-15.2	-0.454	ug/L	1.2777	-0.864	mg/kg	2.4337	281.60%
Sn 189.927†	14.2	2.349	ug/L	0.2111	4.474	mg/kg	0.4021	8.99%
Sr 421.552†	2708.5	4.607	ug/L	0.0161	8.776	mg/kg	0.0306	0.35%
Ti 337.279†	2518.5	66.90	ug/L	0.802	127.4	mg/kg	1.53	1.20%
Tl 190.801†	-5.3	-0.966	ug/L	0.6317	-1.840	mg/kg	1.2032	65.38%
V 292.402†	1393.4	12.98	ug/L	0.109	24.73	mg/kg	0.208	0.84%
Zn 206.200†	29014.8	294.0	ug/L	0.26	560.0	mg/kg	0.50	0.09%
Li 670.784	84070.0	3.891	ug/L	0.0274	7.411	mg/kg	0.0522	0.70%

Sequence No.: 44
Sample ID: AZ17441S02
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 1.05 g
Dilution:
Wash Time:

Autosampler Location: 67
Date Collected: 07/01/15 6:02:41 PM
Data Type: Reprocessed on 07/02/15 8:56:37 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17441S02

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	304703.4	128.5	%	17.20				13.39%
Y Radial	18120.5	115.0	%	7.69				6.68%
Ag 338.289†	1112.7	6.087	ug/L	0.3246	0.580	mg/kg	0.0309	5.33%
Al 308.215†	114956.6	85080	ug/L	5511.96	8103	mg/kg	524.95	6.48%
As 188.979†	2332.3	444.7	ug/L	54.50	42.35	mg/kg	5.191	12.26%
B 249.677†	-9277.8	90.92	ug/L	6.928	8.659	mg/kg	0.6598	7.62%
Ba 233.527†	225176.3	504.1	ug/L	69.35	48.01	mg/kg	6.605	13.76%
Be 313.107†	9243.2	2.499	ug/L	0.4220	0.238	mg/kg	0.0402	16.88%
Ca 315.887†	181567.2	11460	ug/L	749.62	1092	mg/kg	71.39	6.54%
Cd 214.440†	5324.2	10.87	ug/L	0.995	1.035	mg/kg	0.0948	9.16%
Co 228.616†	3651.8	30.19	ug/L	3.866	2.875	mg/kg	0.3682	12.81%
Cr 267.716†	11044.2	125.7	ug/L	15.91	11.97	mg/kg	1.515	12.65%
Cu 327.393†	27270.6	141.0	ug/L	18.17	13.43	mg/kg	1.730	12.88%
Fe 273.955†	9613124.0	122300	ug/L	14903.87	11650	mg/kg	1419.42	12.18%
K 766.490†	48277.0	5988	ug/L	396.53	570.3	mg/kg	37.76	6.62%
Mg 285.213†	123308.7	7457	ug/L	472.61	710.2	mg/kg	45.01	6.34%
Mn 257.610†	90189.5	1025	ug/L	67.82	97.67	mg/kg	6.459	6.61%
Mo 202.031†	107.2	5.696	ug/L	0.5135	0.542	mg/kg	0.0489	9.01%
Na 589.592†	19051.1	2012	ug/L	133.24	191.6	mg/kg	12.69	6.62%
Ni 231.604†	2624.6	53.52	ug/L	6.587	5.097	mg/kg	0.6274	12.31%
P 213.617†	6242.0	1804	ug/L	223.69	171.8	mg/kg	21.30	12.40%
Pb 220.353†	34689.2	5406	ug/L	753.22	514.9	mg/kg	71.74	13.93%
Sb 206.836†	118.8	16.04	ug/L	1.663	1.527	mg/kg	0.1584	10.37%
Se 196.026†	-137.7	18.02	ug/L	4.090	1.716	mg/kg	0.3896	22.70%
Sn 189.927†	187.6	31.11	ug/L	3.316	2.963	mg/kg	0.3158	10.66%
Sr 421.552†	41834.9	71.12	ug/L	4.604	6.773	mg/kg	0.4385	6.47%
Ti 337.279†	44208.6	1174	ug/L	77.73	111.8	mg/kg	7.40	6.62%
Tl 190.801†	-22.7	-4.138	ug/L	0.6404	-0.394	mg/kg	0.0610	15.48%
V 292.402†	21850.7	203.6	ug/L	28.57	19.39	mg/kg	2.721	14.03%
Zn 206.200†	440842.1	4468	ug/L	608.02	425.5	mg/kg	57.91	13.61%
Li 670.784	2139065.6	98.99	ug/L	0.667	9.428	mg/kg	0.0635	0.67%

Metals Analysis

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

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SS040P-0001
Sample Collection Date: 06/10/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76624
APPL ID: AZ17442

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 19.4 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	9860	1240.0	99.00	49.00	mg/Kg	20	06/30/15	07/01/15
6010C/3050B	BORON (B)	10.3	6.2	5.00	1.90	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	9.7	0.83	0.620	0.310	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	746	199.0	99.00	29.00	mg/Kg	20	06/30/15	07/01/15

Printed: 07/06/15 2:23:01 PM

PL-F1-SC-MCRes/MCPQL-REG MDLs

Sequence No.: 22
Sample ID: AZ17442S02-1/20
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 1.03 g
Dilution: 20X
Wash Time:

Autosampler Location: 49
Date Collected: 07/01/15 3:38:57 PM
Data Type: Reprocessed on 07/02/15 8:56:12 AM

Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17442S02-1/20

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	238881.5	100.7	%	0.74				0.73%
Y Radial	16072.4	102.0	%	0.74				0.72%
Ag 338.289†	78.3	0.428	ug/L	0.4691	0.832	mg/kg	0.9109	109.55%
Al 308.215†	5528.4	4092	ug/L	23.33	7945	mg/kg	45.31	0.57%
As 188.979†	147.7	28.35	ug/L	0.593	55.05	mg/kg	1.152	2.09%
B 249.677†	-559.3	9.707	ug/L	0.3882	18.85	mg/kg	0.754	4.00%
Ba 233.527†	11858.5	26.42	ug/L	0.163	51.30	mg/kg	0.317	0.62%
Be 313.107†	515.9	0.139	ug/L	0.0077	0.271	mg/kg	0.0150	5.55%
Ca 315.887†	10192.9	643.5	ug/L	3.93	1249	mg/kg	7.63	0.61%
Cd 214.440†	286.8	0.431	ug/L	0.0455	0.837	mg/kg	0.0883	10.56%
Co 228.616†	277.5	2.370	ug/L	0.0790	4.602	mg/kg	0.1534	3.33%
Cr 267.716†	699.4	7.959	ug/L	0.0930	15.46	mg/kg	0.181	1.17%
Cu 327.393†	1733.9	8.982	ug/L	0.2152	17.44	mg/kg	0.418	2.40%
Fe 273.955†	693390.8	8825	ug/L	50.80	17140	mg/kg	98.64	0.58%
K 766.490†	2728.0	337.5	ug/L	5.25	655.3	mg/kg	10.19	1.56%
Mg 285.213†	6248.1	380.0	ug/L	2.79	737.9	mg/kg	5.42	0.73%
Mn 257.610†	5717.6	65.02	ug/L	0.243	126.2	mg/kg	0.47	0.37%
Mo 202.031†	40.8	1.323	ug/L	0.2268	2.569	mg/kg	0.4404	17.14%
Na 589.592†	756.4	79.68	ug/L	2.040	154.7	mg/kg	3.96	2.56%
Ni 231.604†	184.5	3.771	ug/L	0.0558	7.322	mg/kg	0.1084	1.48%
P 213.617†	437.6	126.5	ug/L	2.36	245.6	mg/kg	4.58	1.86%
Pb 220.353†	2685.2	418.0	ug/L	2.06	811.6	mg/kg	4.00	0.49%
Sb 206.836†	5.2	0.705	ug/L	0.3485	1.370	mg/kg	0.6768	49.40%
Se 196.026†	-13.0	0.297	ug/L	0.2806	0.576	mg/kg	0.5449	94.60%
Sn 189.927†	15.2	2.529	ug/L	0.4925	4.910	mg/kg	0.9564	19.48%
Sr 421.552†	2477.6	4.212	ug/L	0.1088	8.178	mg/kg	0.2113	2.58%
Ti 337.279†	2355.9	62.58	ug/L	0.097	121.5	mg/kg	0.19	0.15%
Tl 190.801†	4.0	0.734	ug/L	0.4455	1.424	mg/kg	0.8650	60.73%
V 292.402†	1383.3	12.89	ug/L	0.140	25.03	mg/kg	0.273	1.09%
Zn 206.200†	30542.4	309.5	ug/L	1.82	600.9	mg/kg	3.53	0.59%
Li 670.784	73166.3	3.386	ug/L	0.0247	6.575	mg/kg	0.0479	0.73%

Sequence No.: 45
Sample ID: AZ17442S02
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 1.03 g
Dilution:
Wash Time:

Autosampler Location: 68
Date Collected: 07/01/15 6:09:59 PM
Data Type: Reprocessed on 07/02/15 8:56:38 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17442S02

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	293097.1	123.6	%	0.34				0.27%
Y Radial	18327.4	116.3	%	4.14				3.56%
Ag 338.289†	1161.2	6.353	ug/L	0.2261	0.617	mg/kg	0.0220	3.56%
Al 308.215†	100727.7	74550	ug/L	2614.02	7238	mg/kg	253.79	3.51%
As 188.979†	2344.4	448.2	ug/L	2.69	43.51	mg/kg	0.261	0.60%
B 249.677†	-10164.1	85.33	ug/L	2.613	8.284	mg/kg	0.2537	3.06%
Ba 233.527†	190046.4	424.1	ug/L	0.60	41.17	mg/kg	0.058	0.14%
Be 313.107†	9635.5	2.605	ug/L	0.0069	0.253	mg/kg	0.0007	0.26%
Ca 315.887†	174131.9	10990	ug/L	400.35	1067	mg/kg	38.87	3.64%
Cd 214.440†	5791.9	11.80	ug/L	0.097	1.145	mg/kg	0.0095	0.83%
Co 228.616†	3820.4	31.86	ug/L	0.227	3.093	mg/kg	0.0221	0.71%
Cr 267.716†	11442.8	130.3	ug/L	0.49	12.65	mg/kg	0.048	0.38%
Cu 327.393†	29319.9	151.3	ug/L	0.23	14.69	mg/kg	0.023	0.15%
Fe 273.955†	10131694.6	128900	ug/L	896.20	12520	mg/kg	87.01	0.70%
K 766.490†	43318.7	5362	ug/L	184.15	520.6	mg/kg	17.88	3.43%
Mg 285.213†	108947.5	6606	ug/L	225.53	641.4	mg/kg	21.90	3.41%
Mn 257.610†	98543.4	1120	ug/L	39.31	108.8	mg/kg	3.82	3.51%
Mo 202.031†	129.4	6.486	ug/L	0.1302	0.630	mg/kg	0.0126	2.01%
Na 589.592†	16628.1	1756	ug/L	69.91	170.5	mg/kg	6.79	3.98%
Ni 231.604†	2632.4	53.80	ug/L	0.047	5.224	mg/kg	0.0046	0.09%
P 213.617†	6978.0	2017	ug/L	9.09	195.8	mg/kg	0.88	0.45%
Pb 220.353†	42762.4	6660	ug/L	5.90	646.6	mg/kg	0.57	0.09%
Sb 206.836†	125.2	16.90	ug/L	0.179	1.641	mg/kg	0.0174	1.06%
Se 196.026†	-142.2	19.31	ug/L	2.518	1.875	mg/kg	0.2444	13.04%
Sn 189.927†	227.6	37.75	ug/L	1.064	3.665	mg/kg	0.1033	2.82%
Sr 421.552†	37489.5	63.69	ug/L	2.364	6.183	mg/kg	0.2295	3.71%
Ti 337.279†	41290.9	1097	ug/L	40.12	106.5	mg/kg	3.90	3.66%
Tl 190.801†	-34.3	-6.244	ug/L	2.4017	-0.606	mg/kg	0.2332	38.46%
V 292.402†	22354.8	208.3	ug/L	0.29	20.22	mg/kg	0.028	0.14%
Zn 206.200†	475310.3	4817	ug/L	6.24	467.7	mg/kg	0.61	0.13%
Li 670.784	1736622.3	80.37	ug/L	0.466	7.803	mg/kg	0.0453	0.58%

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-SB040-1516
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17443

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 11.9 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	2640	57.0	4.50	2.20	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	BORON (B)	11.5	5.7	4.50	1.80	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	1.7	0.76	0.570	0.280	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	20.2	9.1	4.50	1.30	mg/Kg	1	06/30/15	07/01/15

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PL-F1-SC-MCRes/MCPQL-REG MDLs

Sequence No.: 48
Sample ID: AZ17443S01
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.95 g
Dilution:
Wash Time:

Autosampler Location: 69
Date Collected: 07/01/15 6:29:21 PM
Data Type: Reprocessed on 07/02/15 8:56:42 AM

Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17443S01

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	312882.2	131.9	%	0.30				0.23%
Y Radial	20248.5	128.5	%	2.07				1.61%
Ag 338.289†	728.7	3.987	ug/L	0.3308	0.420	mg/kg	0.0348	8.30%
Al 308.215†	29883.0	22120	ug/L	271.23	2329	mg/kg	28.55	1.23%
As 188.979†	114.4	43.57	ug/L	0.931	4.586	mg/kg	0.0980	2.14%
B 249.677†	-13754.2	95.96	ug/L	2.665	10.10	mg/kg	0.281	2.78%
Ba 233.527†	30135.3	59.15	ug/L	0.068	6.227	mg/kg	0.0072	0.12%
Be 313.107†	22941.9	6.203	ug/L	0.0252	0.653	mg/kg	0.0027	0.41%
Ca 315.887†	12211.0	767.8	ug/L	9.04	80.82	mg/kg	0.952	1.18%
Cd 214.440†	2410.5	-2.774	ug/L	0.0694	-0.292	mg/kg	0.0073	2.50%
Co 228.616†	3299.8	26.58	ug/L	0.307	2.798	mg/kg	0.0323	1.16%
Cr 267.716†	11125.0	126.8	ug/L	0.89	13.35	mg/kg	0.094	0.70%
Cu 327.393†	8918.7	51.39	ug/L	0.401	5.409	mg/kg	0.0422	0.78%
Fe 273.955†	13118577.1	167000	ug/L	1031.36	17580	mg/kg	108.56	0.62%
K 766.490†	18610.2	2240	ug/L	24.17	235.8	mg/kg	2.54	1.08%
Mg 285.213†	18318.3	1231	ug/L	14.06	129.6	mg/kg	1.48	1.14%
Mn 257.610†	21708.3	247.6	ug/L	3.35	26.07	mg/kg	0.352	1.35%
Mo 202.031†	-21.3	2.325	ug/L	0.6798	0.245	mg/kg	0.0716	29.23%
Na 589.592†	13250.7	1405	ug/L	18.18	147.9	mg/kg	1.91	1.29%
Ni 231.604†	1924.0	41.00	ug/L	0.304	4.316	mg/kg	0.0320	0.74%
P 213.617†	13428.6	3881	ug/L	24.19	408.6	mg/kg	2.55	0.62%
Pb 220.353†	628.4	80.03	ug/L	1.017	8.424	mg/kg	0.1071	1.27%
Sb 206.836†	46.7	6.304	ug/L	0.4563	0.664	mg/kg	0.0480	7.24%
Se 196.026†	-190.4	21.02	ug/L	2.064	2.212	mg/kg	0.2173	9.82%
Sn 189.927†	14.0	2.327	ug/L	0.3316	0.245	mg/kg	0.0349	14.25%
Sr 421.552†	6244.2	10.52	ug/L	0.194	1.107	mg/kg	0.0204	1.85%
Ti 337.279†	29604.6	786.4	ug/L	8.87	82.78	mg/kg	0.934	1.13%
Tl 190.801†	-11.9	-2.168	ug/L	1.8722	-0.228	mg/kg	0.1971	86.34%
V 292.402†	12738.7	118.7	ug/L	0.88	12.49	mg/kg	0.092	0.74%
Zn 206.200†	17359.8	168.9	ug/L	0.93	17.78	mg/kg	0.098	0.55%
Li 670.784	305832.5	14.15	ug/L	0.053	1.490	mg/kg	0.0056	0.37%

Metals Analysis

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76624

Sample ID: S67-SS035-0001

APPL ID: AZ17444

Sample Collection Date: 06/10/15

Method	Analyte	Result	PQL	MDL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 14.8 Percent Moisture.)								
6010C/3050B	ALUMINUM (AL)	6070	1170.0	46.00	mg/Kg	20	06/30/15	07/01/15
6010C/3050B	BORON (B)	18.4	5.9	1.80	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	5.2	0.79	0.290	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	40.4	9.4	1.30	mg/Kg	1	06/30/15	07/01/15

Amended Results.

Printed: 08/25/15 9:51:10 AM

PL-F1-SC-MCRes/MCPQL-REG MDLs

Sequence No.: 26
Sample ID: AZ17444S05-1/20
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.95 g
Dilution: 20X
Wash Time:

Autosampler Location: 51
Date Collected: 07/01/15 4:06:20 PM
Data Type: Reprocessed on 07/02/15 8:56:17 AM

Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17444S05-1/20

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	237055.2	99.96	%	0.519				0.52%
Y Radial	15740.7	99.91	%	1.245				1.25%
Ag 338.289†	101.6	0.556	ug/L	0.1026	1.171	mg/kg	0.2161	18.46%
Al 308.215†	3315.0	2454	ug/L	46.83	5166	mg/kg	98.59	1.91%
As 188.979†	22.8	4.958	ug/L	0.7299	10.44	mg/kg	1.537	14.72%
B 249.677†	-181.5	12.81	ug/L	0.244	26.96	mg/kg	0.514	1.91%
Ba 233.527†	8068.7	17.96	ug/L	0.134	37.82	mg/kg	0.283	0.75%
Be 313.107†	575.6	0.156	ug/L	0.0064	0.328	mg/kg	0.0135	4.12%
Ca 315.887†	7963.1	502.7	ug/L	6.79	1058	mg/kg	14.31	1.35%
Cd 214.440†	-5.1	-0.378	ug/L	0.0354	-0.795	mg/kg	0.0746	9.38%
Co 228.616†	182.1	1.545	ug/L	0.1145	3.252	mg/kg	0.2410	7.41%
Cr 267.716†	785.3	8.968	ug/L	0.1430	18.88	mg/kg	0.301	1.59%
Cu 327.393†	882.0	4.660	ug/L	0.1502	9.810	mg/kg	0.3162	3.22%
Fe 273.955†	487665.7	6206	ug/L	27.33	13070	mg/kg	57.55	0.44%
K 766.490†	5616.4	703.8	ug/L	24.16	1482	mg/kg	50.86	3.43%
Mg 285.213†	9435.7	568.0	ug/L	5.98	1196	mg/kg	12.59	1.05%
Mn 257.610†	2465.3	28.03	ug/L	0.350	59.01	mg/kg	0.738	1.25%
Mo 202.031†	49.7	1.487	ug/L	0.1653	3.130	mg/kg	0.3480	11.12%
Na 589.592†	808.6	85.03	ug/L	3.243	179.0	mg/kg	6.83	3.81%
Ni 231.604†	190.9	3.865	ug/L	0.2183	8.136	mg/kg	0.4596	5.65%
P 213.617†	304.4	87.98	ug/L	0.455	185.2	mg/kg	0.96	0.52%
Pb 220.353†	189.3	29.24	ug/L	0.342	61.55	mg/kg	0.720	1.17%
Sb 206.836†	3.6	0.488	ug/L	0.3564	1.027	mg/kg	0.7503	73.08%
Se 196.026†	-11.5	-0.506	ug/L	1.3003	-1.065	mg/kg	2.7376	257.08%
Sn 189.927†	5.0	0.832	ug/L	0.1278	1.751	mg/kg	0.2692	15.38%
Sr 421.552†	2122.0	3.610	ug/L	0.0585	7.601	mg/kg	0.1232	1.62%
Ti 337.279†	1560.7	41.45	ug/L	0.123	87.26	mg/kg	0.260	0.30%
Tl 190.801†	-1.5	-0.275	ug/L	1.3246	-0.579	mg/kg	2.7885	481.76%
V 292.402†	898.6	8.373	ug/L	0.0961	17.63	mg/kg	0.202	1.15%
Zn 206.200†	1933.6	19.43	ug/L	0.272	40.90	mg/kg	0.572	1.40%
Li 670.784	39322.9	1.820	ug/L	0.0119	3.831	mg/kg	0.0250	0.65%

Sequence No.: 49
Sample ID: AZ17444S05
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.95 g
Dilution:
Wash Time:

Autosampler Location: 70
Date Collected: 07/01/15 6:36:31 PM
Data Type: Reprocessed on 07/02/15 8:56:43 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17444S05

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	271659.1	114.6	%	0.17				0.14%
Y Radial	16496.6	104.7	%	4.02				3.84%
Ag 338.289†	650.3	3.558	ug/L	0.0783	0.374	mg/kg	0.0082	2.20%
Al 308.215†	64430.5	47690	ug/L	2085.11	5020	mg/kg	219.49	4.37%
As 188.979†	369.4	79.44	ug/L	0.867	8.362	mg/kg	0.0913	1.09%
B 249.677†	-4582.7	148.9	ug/L	1.63	15.67	mg/kg	0.171	1.09%
Ba 233.527†	130390.3	290.5	ug/L	2.29	30.58	mg/kg	0.241	0.79%
Be 313.107†	11253.7	3.043	ug/L	0.0212	0.320	mg/kg	0.0022	0.70%
Ca 315.887†	144461.2	9119	ug/L	377.03	959.9	mg/kg	39.69	4.13%
Cd 214.440†	1597.3	-0.197	ug/L	0.0414	-0.021	mg/kg	0.0044	21.03%
Co 228.616†	2419.8	19.59	ug/L	0.156	2.062	mg/kg	0.0165	0.80%
Cr 267.716†	13654.1	156.0	ug/L	0.53	16.42	mg/kg	0.055	0.34%
Cu 327.393†	13954.0	73.86	ug/L	0.204	7.775	mg/kg	0.0215	0.28%
Fe 273.955†	7572954.5	96380	ug/L	451.58	10150	mg/kg	47.53	0.47%
K 766.490†	96774.4	12130	ug/L	527.67	1277	mg/kg	55.54	4.35%
Mg 285.213†	175669.2	10560	ug/L	452.47	1111	mg/kg	47.63	4.29%
Mn 257.610†	44923.9	510.7	ug/L	21.67	53.76	mg/kg	2.281	4.24%
Mo 202.031†	218.7	7.814	ug/L	0.5897	0.823	mg/kg	0.0621	7.55%
Na 589.592†	17731.3	1869	ug/L	85.88	196.7	mg/kg	9.04	4.60%
Ni 231.604†	2880.8	58.33	ug/L	0.334	6.140	mg/kg	0.0351	0.57%
P 213.617†	4948.8	1430	ug/L	6.58	150.6	mg/kg	0.69	0.46%
Pb 220.353†	3599.0	558.9	ug/L	3.44	58.83	mg/kg	0.362	0.61%
Sb 206.836†	70.6	9.538	ug/L	0.3322	1.004	mg/kg	0.0350	3.48%
Se 196.026†	-112.5	12.31	ug/L	1.192	1.296	mg/kg	0.1255	9.68%
Sn 189.927†	40.8	6.771	ug/L	0.3144	0.713	mg/kg	0.0331	4.64%
Sr 421.552†	33471.0	56.90	ug/L	2.618	5.990	mg/kg	0.2756	4.60%
Ti 337.279†	29664.0	787.9	ug/L	35.81	82.93	mg/kg	3.769	4.54%
Tl 190.801†	-23.1	-4.208	ug/L	1.2732	-0.443	mg/kg	0.1340	30.25%
V 292.402†	16505.9	153.8	ug/L	0.52	16.19	mg/kg	0.054	0.34%
Zn 206.200†	32445.9	326.5	ug/L	2.33	34.37	mg/kg	0.245	0.71%
Li 670.784	898802.4	41.59	ug/L	0.107	4.378	mg/kg	0.0113	0.26%

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-SB035-0203
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17445

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 15.6 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	5550	1180.0	95.00	47.00	mg/Kg	20	06/30/15	07/01/15
6010C/3050B	BORON (B)	17.7	5.9	4.70	1.80	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	5.2	0.79	0.590	0.300	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	172	9.5	4.70	1.40	mg/Kg	1	06/30/15	07/01/15

Printed: 07/06/15 2:23:01 PM

PL-F1-SC-MCRes/MCPQL-REG MDLs

Sequence No.: 29
Sample ID: AZ17445S02-1/20
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 1.03 g
Dilution: 20X
Wash Time:

Autosampler Location: 54
Date Collected: 07/01/15 4:22:53 PM
Data Type: Reprocessed on 07/02/15 8:56:21 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17445S02-1/20

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	239116.4	100.8	%	0.38				0.38%
Y Radial	15725.6	99.82	%	1.383				1.39%
Ag 338.289†	119.9	0.656	ug/L	0.4370	1.273	mg/kg	0.8486	66.64%
Al 308.215†	3256.5	2410	ug/L	20.48	4680	mg/kg	39.76	0.85%
As 188.979†	77.9	15.34	ug/L	0.991	29.78	mg/kg	1.923	6.46%
B 249.677†	-343.5	13.35	ug/L	0.173	25.92	mg/kg	0.336	1.30%
Ba 233.527†	22553.2	50.72	ug/L	0.107	98.48	mg/kg	0.207	0.21%
Be 313.107†	646.0	0.175	ug/L	0.0089	0.339	mg/kg	0.0173	5.10%
Ca 315.887†	16113.9	1017	ug/L	7.55	1975	mg/kg	14.67	0.74%
Cd 214.440†	153.0	0.026	ug/L	0.0675	0.051	mg/kg	0.1310	258.41%
Co 228.616†	260.5	2.220	ug/L	0.0574	4.311	mg/kg	0.1114	2.58%
Cr 267.716†	713.0	8.131	ug/L	0.0622	15.79	mg/kg	0.121	0.77%
Cu 327.393†	18966.8	95.05	ug/L	0.171	184.6	mg/kg	0.33	0.18%
Fe 273.955†	626441.3	7973	ug/L	5.45	15480	mg/kg	10.58	0.07%
K 766.490†	4516.4	563.8	ug/L	2.17	1095	mg/kg	4.21	0.38%
Mg 285.213†	8715.0	526.5	ug/L	3.56	1022	mg/kg	6.92	0.68%
Mn 257.610†	3345.8	38.05	ug/L	0.152	73.88	mg/kg	0.295	0.40%
Mo 202.031†	51.8	1.582	ug/L	0.0946	3.073	mg/kg	0.1837	5.98%
Na 589.592†	1553.3	164.4	ug/L	7.00	319.2	mg/kg	13.59	4.26%
Ni 231.604†	361.3	7.248	ug/L	0.0520	14.07	mg/kg	0.101	0.72%
P 213.617†	198.0	57.22	ug/L	0.840	111.1	mg/kg	1.63	1.47%
Pb 220.353†	589.0	91.18	ug/L	0.779	177.1	mg/kg	1.51	0.85%
Sb 206.836†	11.8	1.599	ug/L	0.9250	3.105	mg/kg	1.7961	57.85%
Se 196.026†	-9.4	0.937	ug/L	1.5633	1.819	mg/kg	3.0355	166.91%
Sn 189.927†	54.0	8.952	ug/L	0.3197	17.38	mg/kg	0.621	3.57%
Sr 421.552†	9433.2	16.11	ug/L	0.068	31.29	mg/kg	0.132	0.42%
Ti 337.279†	2435.8	64.70	ug/L	0.644	125.6	mg/kg	1.25	0.99%
Tl 190.801†	-3.1	-0.568	ug/L	1.1330	-1.103	mg/kg	2.2001	199.55%
V 292.402†	889.4	8.288	ug/L	0.0668	16.09	mg/kg	0.130	0.81%
Zn 206.200†	9590.3	97.01	ug/L	0.183	188.4	mg/kg	0.36	0.19%
Li 670.784	40542.2	1.876	ug/L	0.0113	3.643	mg/kg	0.0219	0.60%

Sequence No.: 52
Sample ID: AZ17445S02
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 1.03 g
Dilution:
Wash Time:

Autosampler Location: 73
Date Collected: 07/01/15 6:57:19 PM
Data Type: Reprocessed on 07/02/15 8:56:46 AM

Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17445S02

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	282918.1	119.3	%	0.80				0.67%
Y Radial	18644.2	118.3	%	0.97				0.82%
Ag 338.289†	1072.4	5.867	ug/L	0.0876	0.570	mg/kg	0.0085	1.49%
Al 308.215†	56054.2	41490	ug/L	195.44	4028	mg/kg	18.97	0.47%
As 188.979†	1283.1	250.9	ug/L	2.32	24.36	mg/kg	0.225	0.93%
B 249.677†	-6752.2	153.3	ug/L	1.84	14.89	mg/kg	0.179	1.20%
Ba 233.527†	377743.5	850.3	ug/L	3.64	82.56	mg/kg	0.354	0.43%
Be 313.107†	12576.1	3.400	ug/L	0.0232	0.330	mg/kg	0.0022	0.68%
Ca 315.887†	266382.6	16820	ug/L	73.50	1633	mg/kg	7.14	0.44%
Cd 214.440†	3642.1	4.945	ug/L	0.0182	0.480	mg/kg	0.0018	0.37%
Co 228.616†	3700.1	31.02	ug/L	0.221	3.012	mg/kg	0.0215	0.71%
Cr 267.716†	11961.5	136.5	ug/L	0.86	13.25	mg/kg	0.084	0.63%
Cu 327.393†	319417.5	1600	ug/L	7.58	155.4	mg/kg	0.74	0.47%
Fe 273.955†	9352478.8	119000	ug/L	287.69	11560	mg/kg	27.93	0.24%
K 766.490†	69847.6	8721	ug/L	38.89	846.7	mg/kg	3.78	0.45%
Mg 285.213†	143683.8	8669	ug/L	44.86	841.7	mg/kg	4.36	0.52%
Mn 257.610†	54095.8	615.1	ug/L	2.26	59.72	mg/kg	0.219	0.37%
Mo 202.031†	252.7	9.255	ug/L	0.3459	0.899	mg/kg	0.0336	3.74%
Na 589.592†	27383.2	2899	ug/L	20.38	281.5	mg/kg	1.98	0.70%
Ni 231.604†	5356.0	107.4	ug/L	0.76	10.43	mg/kg	0.074	0.71%
P 213.617†	3337.8	964.8	ug/L	6.50	93.67	mg/kg	0.632	0.67%
Pb 220.353†	10590.2	1642	ug/L	13.24	159.5	mg/kg	1.29	0.81%
Sb 206.836†	183.0	24.72	ug/L	0.489	2.400	mg/kg	0.0475	1.98%
Se 196.026†	-132.7	16.37	ug/L	2.106	1.589	mg/kg	0.2044	12.86%
Sn 189.927†	793.2	131.5	ug/L	1.28	12.77	mg/kg	0.124	0.97%
Sr 421.552†	134190.4	229.1	ug/L	2.26	22.24	mg/kg	0.219	0.99%
Ti 337.279†	39756.9	1056	ug/L	7.08	102.5	mg/kg	0.69	0.67%
Tl 190.801†	-22.1	-4.022	ug/L	0.3918	-0.390	mg/kg	0.0380	9.74%
V 292.402†	15885.7	148.0	ug/L	0.89	14.37	mg/kg	0.087	0.60%
Zn 206.200†	147839.1	1496	ug/L	7.72	145.2	mg/kg	0.75	0.52%
Li 670.784	975694.7	45.15	ug/L	0.164	4.384	mg/kg	0.0159	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-SS034-0001
Sample Collection Date: 06/10/15

ARF: 76624
APPL ID: AZ17446

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 12.3 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	6430	1140.0	91.00	45.00	mg/Kg	20	06/30/15	07/01/15
6010C/3050B	BORON (B)	11.4	5.7	4.60	1.80	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	5.9	0.76	0.570	0.290	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	108	9.1	4.60	1.30	mg/Kg	1	06/30/15	07/01/15

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PL-F1-SC-MCRes/MCPQL-REG MDLs

Sequence No.: 30
Sample ID: AZ17446S03-1/20
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.98 g
Dilution: 20X
Wash Time:

Autosampler Location: 55
Date Collected: 07/01/15 4:28:24 PM
Data Type: Reprocessed on 07/02/15 8:56:22 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17446S03-1/20

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	237600.9	100.2	%	0.57				0.56%
Y Radial	16127.1	102.4	%	0.20				0.20%
Ag 338.289†	89.4	0.489	ug/L	0.3531	0.999	mg/kg	0.7205	72.15%
Al 308.215†	3733.3	2763	ug/L	8.89	5639	mg/kg	18.15	0.32%
As 188.979†	54.9	11.28	ug/L	1.168	23.02	mg/kg	2.384	10.35%
B 249.677†	-562.5	10.45	ug/L	0.348	21.32	mg/kg	0.710	3.33%
Ba 233.527†	8907.9	19.70	ug/L	0.189	40.21	mg/kg	0.385	0.96%
Be 313.107†	364.3	0.099	ug/L	0.0028	0.201	mg/kg	0.0058	2.89%
Ca 315.887†	7776.8	490.9	ug/L	3.24	1002	mg/kg	6.62	0.66%
Cd 214.440†	57.0	-0.367	ug/L	0.0361	-0.750	mg/kg	0.0737	9.83%
Co 228.616†	342.4	2.989	ug/L	0.0529	6.100	mg/kg	0.1079	1.77%
Cr 267.716†	373.5	4.229	ug/L	0.0086	8.631	mg/kg	0.0175	0.20%
Cu 327.393†	4297.9	21.86	ug/L	0.179	44.62	mg/kg	0.366	0.82%
Fe 273.955†	714992.6	9100	ug/L	26.78	18570	mg/kg	54.65	0.29%
K 766.490†	1712.5	209.6	ug/L	6.66	427.7	mg/kg	13.59	3.18%
Mg 285.213†	4666.4	285.9	ug/L	1.55	583.5	mg/kg	3.16	0.54%
Mn 257.610†	3026.5	34.44	ug/L	0.188	70.28	mg/kg	0.383	0.55%
Mo 202.031†	39.5	1.257	ug/L	0.1562	2.565	mg/kg	0.3189	12.43%
Na 589.592†	1558.6	165.3	ug/L	3.27	337.3	mg/kg	6.68	1.98%
Ni 231.604†	300.3	6.067	ug/L	0.2467	12.38	mg/kg	0.503	4.07%
P 213.617†	234.6	67.82	ug/L	1.074	138.4	mg/kg	2.19	1.58%
Pb 220.353†	101.3	15.17	ug/L	0.427	30.97	mg/kg	0.871	2.81%
Sb 206.836†	1.4	0.188	ug/L	0.4054	0.385	mg/kg	0.8273	215.13%
Se 196.026†	-13.0	0.386	ug/L	1.6200	0.787	mg/kg	3.3062	419.96%
Sn 189.927†	5.3	0.881	ug/L	0.2721	1.798	mg/kg	0.5554	30.89%
Sr 421.552†	3042.2	5.184	ug/L	0.0762	10.58	mg/kg	0.155	1.47%
Ti 337.279†	2650.4	70.41	ug/L	0.890	143.7	mg/kg	1.82	1.26%
Tl 190.801†	-5.2	-0.942	ug/L	1.2169	-1.923	mg/kg	2.4835	129.18%
V 292.402†	799.8	7.453	ug/L	0.0245	15.21	mg/kg	0.050	0.33%
Zn 206.200†	5919.0	59.64	ug/L	0.435	121.7	mg/kg	0.89	0.73%
Li 670.784	46291.6	2.142	ug/L	0.0131	4.372	mg/kg	0.0268	0.61%

Sequence No.: 53
Sample ID: AZ17446S03
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.98 g
Dilution:
Wash Time:

Autosampler Location: 74
Date Collected: 07/01/15 7:04:47 PM
Data Type: Reprocessed on 07/02/15 8:56:48 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17446S03

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	284707.7	120.1	%	1.19				0.99%
Y Radial	17615.5	111.8	%	6.86				6.13%
Ag 338.289†	1257.5	6.880	ug/L	0.4989	0.702	mg/kg	0.0509	7.25%
Al 308.215†	68527.8	50720	ug/L	3427.57	5175	mg/kg	349.75	6.76%
As 188.979†	853.4	174.4	ug/L	3.15	17.80	mg/kg	0.321	1.80%
B 249.677†	-10478.8	98.34	ug/L	4.481	10.03	mg/kg	0.457	4.56%
Ba 233.527†	138552.1	306.8	ug/L	3.21	31.31	mg/kg	0.328	1.05%
Be 313.107†	7758.0	2.098	ug/L	0.0239	0.214	mg/kg	0.0024	1.14%
Ca 315.887†	134256.4	8475	ug/L	573.39	864.8	mg/kg	58.51	6.77%
Cd 214.440†	2201.2	-0.926	ug/L	0.0764	-0.095	mg/kg	0.0078	8.25%
Co 228.616†	4998.8	43.03	ug/L	0.666	4.391	mg/kg	0.0680	1.55%
Cr 267.716†	6358.6	72.08	ug/L	1.031	7.355	mg/kg	0.1052	1.43%
Cu 327.393†	71791.5	364.8	ug/L	2.87	37.23	mg/kg	0.293	0.79%
Fe 273.955†	10709890.9	136300	ug/L	2059.47	13910	mg/kg	210.15	1.51%
K 766.490†	26610.7	3256	ug/L	229.01	332.3	mg/kg	23.37	7.03%
Mg 285.213†	82168.5	5015	ug/L	335.71	511.7	mg/kg	34.26	6.69%
Mn 257.610†	52706.8	599.6	ug/L	40.35	61.19	mg/kg	4.117	6.73%
Mo 202.031†	88.5	4.934	ug/L	0.2017	0.503	mg/kg	0.0206	4.09%
Na 589.592†	29432.7	3123	ug/L	223.54	318.6	mg/kg	22.81	7.16%
Ni 231.604†	4470.6	90.31	ug/L	1.325	9.215	mg/kg	0.1353	1.47%
P 213.617†	3580.9	1035	ug/L	14.74	105.6	mg/kg	1.50	1.42%
Pb 220.353†	1917.7	291.7	ug/L	4.69	29.76	mg/kg	0.479	1.61%
Sb 206.836†	49.3	6.659	ug/L	0.2873	0.680	mg/kg	0.0293	4.31%
Se 196.026†	-154.5	18.35	ug/L	1.305	1.872	mg/kg	0.1332	7.11%
Sn 189.927†	40.5	6.711	ug/L	0.3830	0.685	mg/kg	0.0391	5.71%
Sr 421.552†	46144.5	78.60	ug/L	5.532	8.020	mg/kg	0.5645	7.04%
Ti 337.279†	46658.1	1240	ug/L	82.60	126.5	mg/kg	8.43	6.66%
Tl 190.801†	-27.2	-4.963	ug/L	1.4986	-0.506	mg/kg	0.1529	30.20%
V 292.402†	14138.4	131.7	ug/L	1.90	13.44	mg/kg	0.194	1.44%
Zn 206.200†	92164.7	929.0	ug/L	9.18	94.79	mg/kg	0.937	0.99%
Li 670.784	1109127.7	51.33	ug/L	0.648	5.238	mg/kg	0.0662	1.26%

Metals Analysis

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

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-SB034-0405

Sample Collection Date: 06/10/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76624

APPL ID: AZ17447

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 17.0 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	7890	1200.0	96.00	48.00	mg/Kg	20	06/30/15	07/01/15
6010C/3050B	BORON (B)	30.7	6.0	4.80	1.90	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	LITHIUM (LI)	6.6	0.81	0.600	0.300	mg/Kg	1	06/30/15	07/01/15
6010C/3050B	ZINC (ZN)	34.8	9.6	4.80	1.40	mg/Kg	1	06/30/15	07/01/15

Printed: 07/06/15 2:23:02 PM

PL-F1-SC-MCRes/MCPQL-REG MDLs

Sequence No.: 31
Sample ID: AZ17447S02-1/20
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 1.03 g
Dilution: 20X
Wash Time:

Autosampler Location: 56
Date Collected: 07/01/15 4:33:55 PM
Data Type: Reprocessed on 07/02/15 8:56:23 AM

Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17447S02-1/20

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	238786.4	100.7	%	0.72				0.71%
Y Radial	15985.0	101.5	%	0.28				0.28%
Ag 338.289†	102.3	0.560	ug/L	0.3087	1.087	mg/kg	0.5994	55.13%
Al 308.215†	4554.8	3371	ug/L	13.11	6546	mg/kg	25.45	0.39%
As 188.979†	13.1	3.349	ug/L	0.5461	6.504	mg/kg	1.0604	16.30%
B 249.677†	-77.8	19.60	ug/L	0.168	38.05	mg/kg	0.326	0.86%
Ba 233.527†	4864.1	10.62	ug/L	0.095	20.63	mg/kg	0.185	0.90%
Be 313.107†	764.0	0.207	ug/L	0.0077	0.401	mg/kg	0.0149	3.71%
Ca 315.887†	3694.6	233.0	ug/L	3.05	452.5	mg/kg	5.92	1.31%
Cd 214.440†	21.1	-0.360	ug/L	0.0186	-0.699	mg/kg	0.0362	5.18%
Co 228.616†	140.6	1.071	ug/L	0.0168	2.079	mg/kg	0.0326	1.57%
Cr 267.716†	1408.3	16.11	ug/L	0.086	31.28	mg/kg	0.167	0.53%
Cu 327.393†	850.5	4.565	ug/L	0.2745	8.863	mg/kg	0.5330	6.01%
Fe 273.955†	592996.5	7547	ug/L	11.56	14650	mg/kg	22.45	0.15%
K 766.490†	10689.2	1343	ug/L	22.79	2607	mg/kg	44.25	1.70%
Mg 285.213†	14462.7	868.9	ug/L	2.05	1687	mg/kg	3.99	0.24%
Mn 257.610†	1800.5	20.48	ug/L	0.328	39.76	mg/kg	0.637	1.60%
Mo 202.031†	38.3	1.196	ug/L	0.1726	2.323	mg/kg	0.3352	14.43%
Na 589.592†	864.1	90.19	ug/L	1.632	175.1	mg/kg	3.17	1.81%
Ni 231.604†	130.5	2.699	ug/L	0.1819	5.240	mg/kg	0.3532	6.74%
P 213.617†	262.7	75.95	ug/L	1.018	147.5	mg/kg	1.98	1.34%
Pb 220.353†	67.3	10.27	ug/L	0.111	19.94	mg/kg	0.215	1.08%
Sb 206.836†	-1.5	-0.203	ug/L	0.1872	-0.394	mg/kg	0.3635	92.22%
Se 196.026†	-11.5	0.152	ug/L	1.0327	0.296	mg/kg	2.0053	677.49%
Sn 189.927†	3.0	0.496	ug/L	0.3855	0.962	mg/kg	0.7486	77.80%
Sr 421.552†	1357.0	2.309	ug/L	0.0372	4.484	mg/kg	0.0722	1.61%
Ti 337.279†	2047.7	54.38	ug/L	0.889	105.6	mg/kg	1.73	1.63%
Tl 190.801†	-1.4	-0.254	ug/L	0.4340	-0.494	mg/kg	0.8428	170.69%
V 292.402†	1263.8	11.78	ug/L	0.063	22.87	mg/kg	0.122	0.53%
Zn 206.200†	1741.2	17.51	ug/L	0.264	34.00	mg/kg	0.512	1.51%
Li 670.784	49813.1	2.305	ug/L	0.0081	4.476	mg/kg	0.0158	0.35%

Sequence No.: 54
Sample ID: AZ17447S02
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 1.03 g
Dilution:
Wash Time:

Autosampler Location: 75
Date Collected: 07/01/15 7:11:58 PM
Data Type: Reprocessed on 07/02/15 8:56:49 AM

Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17447S02

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	276763.6	116.7	%	0.55				0.47%
Y Radial	18288.8	116.1	%	0.38				0.33%
Ag 338.289†	538.1	2.944	ug/L	0.1914	0.286	mg/kg	0.0186	6.50%
Al 308.215†	82816.5	61300	ug/L	247.58	5951	mg/kg	24.04	0.40%
As 188.979†	159.2	43.68	ug/L	1.016	4.241	mg/kg	0.0986	2.33%
B 249.677†	-2650.9	262.3	ug/L	2.88	25.47	mg/kg	0.280	1.10%
Ba 233.527†	78206.0	171.1	ug/L	0.16	16.61	mg/kg	0.016	0.10%
Be 313.107†	15197.3	4.109	ug/L	0.0096	0.399	mg/kg	0.0009	0.23%
Ca 315.887†	60467.8	3814	ug/L	10.75	370.3	mg/kg	1.04	0.28%
Cd 214.440†	1688.2	-0.938	ug/L	0.0215	-0.091	mg/kg	0.0021	2.29%
Co 228.616†	1828.1	12.89	ug/L	0.062	1.252	mg/kg	0.0060	0.48%
Cr 267.716†	24515.3	280.5	ug/L	1.67	27.23	mg/kg	0.162	0.59%
Cu 327.393†	16542.5	87.60	ug/L	0.277	8.505	mg/kg	0.0269	0.32%
Fe 273.955†	9177380.1	116800	ug/L	1040.79	11340	mg/kg	101.05	0.89%
K 766.490†	171103.8	21490	ug/L	40.99	2087	mg/kg	3.98	0.19%
Mg 285.213†	253109.7	15190	ug/L	58.19	1475	mg/kg	5.65	0.38%
Mn 257.610†	30335.6	344.9	ug/L	0.98	33.49	mg/kg	0.095	0.28%
Mo 202.031†	123.2	5.535	ug/L	0.1253	0.537	mg/kg	0.0122	2.26%
Na 589.592†	19114.6	2005	ug/L	10.64	194.7	mg/kg	1.03	0.53%
Ni 231.604†	2078.0	42.86	ug/L	0.269	4.161	mg/kg	0.0261	0.63%
P 213.617†	4097.6	1184	ug/L	4.76	115.0	mg/kg	0.46	0.40%
Pb 220.353†	1523.7	236.2	ug/L	1.61	22.93	mg/kg	0.156	0.68%
Sb 206.836†	85.0	11.48	ug/L	0.437	1.114	mg/kg	0.0425	3.81%
Se 196.026†	-132.4	16.59	ug/L	3.675	1.611	mg/kg	0.3568	22.15%
Sn 189.927†	24.1	4.001	ug/L	0.5392	0.388	mg/kg	0.0524	13.48%
Sr 421.552†	19994.9	34.01	ug/L	0.235	3.302	mg/kg	0.0228	0.69%
Ti 337.279†	35065.3	931.3	ug/L	1.76	90.41	mg/kg	0.171	0.19%
Tl 190.801†	-29.6	-5.392	ug/L	0.8100	-0.523	mg/kg	0.0786	15.02%
V 292.402†	21909.5	204.2	ug/L	0.63	19.82	mg/kg	0.062	0.31%
Zn 206.200†	29522.9	297.5	ug/L	0.59	28.89	mg/kg	0.057	0.20%
Li 670.784	1223821.7	56.64	ug/L	0.169	5.499	mg/kg	0.0164	0.30%

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: 76624 SDG: 76624
Initial Calibration Source: CPI
Continuing Calibration Source: Environmental Express
Analysis Date: 07/01/15 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 13:24	%R(1)	True CCV1	Found 13:54	%R(1)	True CCV2	Found 15:44	%R(1)	
Aluminum (Al)	12500	12430	99.4	10000	9884	98.8	7500	7577	101	P
Boron (B)	500	532	106	500	520.3	104	375	402.1	107	P
Lithium (Li)	250	266.3	107	250	247.8	99.1	187.5	192.7	103	P
Zinc (Zn)	500	529.5	106	500	511.3	102	375	410.5	109	P

(1) Control Limits: Metals 90-110

A.P.P.L. INC.
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Tetra Tech
ARF No: 76624 SDG: 76624
Initial Calibration Source: CPI
Continuing Calibration Source: Environmental Express
Analysis Date: 07/01/15 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 13:24	%R(1)	True CCV1	Found 16:52	%R(1)	True CCV2	Found 18:17	%R(1)	
Aluminum (Al)	12500	12430	99.4	10000	9632	96.3	7500	7325	97.7	P
Boron (B)	500	532	106	500	509.4	102	375	400.9	107	P
Lithium (Li)	250	266.3	107	250	258.7	103	187.5	183.3	97.8	P
Zinc (Zn)	500	529.5	106	500	505	101	375	388.5	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: 76624 SDG: 76624
Initial Calibration Source: CPI
Continuing Calibration Source: Environmental Express
Analysis Date: 07/01/15 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 13:24	%R(1)	True CCV1	Found 19:33	%R(1)	True	Found	%R(1)	
Aluminum (Al)	12500	12430	99.4	10000	9573	95.7				P
Boron (B)	500	532	106	500	523.9	105				P
Lithium (Li)	250	266.3	107	250	250.6	100				P
Zinc (Zn)	500	529.5	106	500	520.7	104				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.: 76624 SDG: 76624

Preparation Blank Matrix (soil/water): soil

Preparation Blank Concentration Units (ug/L or mg/kg): mg/Kg

Analysis Date: 07/01/15

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)								Preparation Blank			M
		C	1	C	2	C	3	C		C				
	13:29		14:06		15:53		16:58				14:34			
Aluminum (Al)	500.00	U	500.00	U	500.00	U	500.00	U			2.16	J		P
Boron (B)	50.00	U	50.00	U	50.00	U	50.00	U			5.00	U		P
Lithium (Li)	6.70	U	6.70	U	6.70	U	6.70	U			.67	U		P
Zinc (Zn)	80.00	U	80.00	U	80.00	U	80.00	U			8.00	U		P

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No.: 76624 SDG: 76624

Preparation Blank Matrix (soil/water): soil

Preparation Blank Concentration Units (ug/L or mg/kg): mg/Kg

Analysis Date: 07/01/15

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
	13:29		18:23		19:39				14:34		
Aluminum (Al)	500.00	U	500.00	U	500.00	U			2.16	J	P
Boron (B)	50.00	U	50.00	U	50.00	U			5.00	U	P
Lithium (Li)	6.70	U	6.70	U	6.70	U			.67	U	P
Zinc (Zn)	80.00	U	80.00	U	80.00	U			8.00	U	P

A.P.P.L. INC.
4
ICP INTERFERENCE CHECK SAMPLE

Lab Name:	A.P.P.L. INC.	Contract:	Tetra Tech
ARF No.:	76624	SDG:	76624
ICP ID Number:	Jules	ICS Source:	Environmental Express

Analysis Date: 07/01/15 Concentration Units: ug/L

Analyte	True		Initial Found		
	Sol A	Sol AB	Sol A 13:40	Sol AB 13:48	%R(1)
Aluminum (Al)	100000	100000	107300	102300	102
Boron (B)			37.91	35.22	
Calcium (Ca)	100000	100000	112000	106200	106
Iron (Fe)	100000	100000	102100	104700	105
Lithium (Li)		0	0.749	0.807	
Magnesium (Mg)	100000	100000	107000	101900	102
Zinc (Zn)		500	1.235	550.8	110

(1) Control Limits: Metals 80-120

A.P.P.L. INC.

9

ICP SERIAL DILUTION

CLIENT SAMPLE NO.

S67-SS035-0001

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No.: 76624 SDG: 76624

Matrix: soil

Analysis Date: 07/01/15 Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	%D	Q	M
Zinc (Zn)	34.37		42.07		22.4		M

Comments:

07/01/15 18:36 AZ17444S05

07/01/15 19:26 AZ17444S05-1/5

Sequence No.: 56
Sample ID: AZ17444S05-1/5
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.95 g
Dilution: 5X
Wash Time:

Autosampler Location: 77
Date Collected: 07/01/15 7:26:11 PM
Data Type: Reprocessed on 07/02/15 8:56:51 AM

Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17444S05-1/5

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	250431.0	105.6	%	0.66				0.63%
Y Radial	15967.1	101.4	%	10.45				10.31%
Ag 338.289†	117.7	0.644	ug/L	0.2159	0.339	mg/kg	0.1136	33.52%
Al 308.215†	13704.0	10140	ug/L	1029.01	5339	mg/kg	541.58	10.14%
As 188.979†	88.5	19.13	ug/L	0.381	10.07	mg/kg	0.200	1.99%
B 249.677†	-980.5	39.85	ug/L	0.916	20.98	mg/kg	0.482	2.30%
Ba 233.527†	29517.3	65.68	ug/L	0.462	34.57	mg/kg	0.243	0.70%
Be 313.107†	2382.9	0.644	ug/L	0.0148	0.339	mg/kg	0.0078	2.30%
Ca 315.887†	31202.4	1970	ug/L	206.48	1037	mg/kg	108.68	10.48%
Cd 214.440†	377.4	-0.108	ug/L	0.0240	-0.057	mg/kg	0.0126	22.25%
Co 228.616†	591.6	4.849	ug/L	0.0420	2.552	mg/kg	0.0221	0.87%
Cr 267.716†	3153.9	36.03	ug/L	0.105	18.96	mg/kg	0.055	0.29%
Cu 327.393†	2790.0	14.91	ug/L	0.124	7.850	mg/kg	0.0653	0.83%
Fe 273.955†	1836992.9	23380	ug/L	235.80	12300	mg/kg	124.11	1.01%
K 766.490†	21139.1	2649	ug/L	255.46	1394	mg/kg	134.45	9.64%
Mg 285.213†	37660.2	2266	ug/L	231.48	1192	mg/kg	121.83	10.22%
Mn 257.610†	9838.7	111.9	ug/L	11.59	58.88	mg/kg	6.102	10.36%
Mo 202.031†	69.0	2.335	ug/L	0.2313	1.229	mg/kg	0.1217	9.91%
Na 589.592†	3567.9	375.8	ug/L	47.37	197.8	mg/kg	24.93	12.61%
Ni 231.604†	700.9	14.20	ug/L	0.211	7.472	mg/kg	0.1111	1.49%
P 213.617†	1164.9	336.7	ug/L	2.46	177.2	mg/kg	1.30	0.73%
Pb 220.353†	861.6	133.5	ug/L	0.87	70.24	mg/kg	0.460	0.65%
Sb 206.836†	24.1	3.256	ug/L	0.2529	1.714	mg/kg	0.1331	7.77%
Se 196.026†	-26.9	3.063	ug/L	0.3441	1.612	mg/kg	0.1811	11.23%
Sn 189.927†	11.2	1.851	ug/L	0.3413	0.974	mg/kg	0.1796	18.43%
Sr 421.552†	7108.2	12.08	ug/L	1.193	6.358	mg/kg	0.6277	9.87%
Ti 337.279†	6354.3	168.8	ug/L	16.56	88.82	mg/kg	8.715	9.81%
Tl 190.801†	-3.3	-0.609	ug/L	0.7050	-0.321	mg/kg	0.3711	115.74%
V 292.402†	3820.5	35.60	ug/L	0.142	18.74	mg/kg	0.075	0.40%
Zn 206.200†	7946.7	79.94	ug/L	0.128	42.07	mg/kg	0.067	0.16%
Li 670.784	155830.0	7.212	ug/L	0.0354	3.796	mg/kg	0.0186	0.49%

A.P.P.L. INC.
9
ICP SERIAL DILUTION

CLIENT SAMPLE NO.
S67-SS035-0001

Lab Name: A.P.P.L. INC. Contract: Tetra Tech
ARF No.: 76624 SDG: 76624
Matrix: soil

Analysis Date: 07/01/15 Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	%D	Q	M
Aluminum (Al)	5166		4800		7.08		

Comments:

07/01/15 16:06 AZ17444S05-1/20
07/01/15 16:46 AZ17444S05-1/100

Sequence No.: 33
Sample ID: AZ17444S05-1/100
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.95 g
Dilution: 100X
Wash Time:

Autosampler Location: 58
Date Collected: 07/01/15 4:46:41 PM
Data Type: Reprocessed on 07/02/15 8:56:25 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17444S05-1/100

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	244645.6	103.2	%	0.18				0.17%
Y Radial	16362.2	103.9	%	0.29				0.28%
Ag 338.289†	7.9	0.043	ug/L	0.1446	0.457	mg/kg	1.5217	333.25%
Al 308.215†	616.2	456.0	ug/L	3.83	4800	mg/kg	40.34	0.84%
As 188.979†	21.5	4.110	ug/L	0.3297	43.26	mg/kg	3.471	8.02%
B 249.677†	44.3	4.655	ug/L	0.2467	49.00	mg/kg	2.597	5.30%
Ba 233.527†	1591.4	3.545	ug/L	0.0523	37.32	mg/kg	0.551	1.48%
Be 313.107†	13.6	0.004	ug/L	0.0048	0.039	mg/kg	0.0507	131.18%
Ca 315.887†	1740.6	109.9	ug/L	0.47	1157	mg/kg	4.95	0.43%
Cd 214.440†	-41.2	-0.203	ug/L	0.0034	-2.140	mg/kg	0.0361	1.69%
Co 228.616†	67.0	0.614	ug/L	0.0804	6.464	mg/kg	0.8466	13.10%
Cr 267.716†	138.6	1.583	ug/L	0.1136	16.66	mg/kg	1.196	7.18%
Cu 327.393†	278.8	1.441	ug/L	0.3140	15.17	mg/kg	3.305	21.79%
Fe 273.955†	92690.6	1180	ug/L	2.35	12420	mg/kg	24.72	0.20%
K 766.490†	1164.5	146.0	ug/L	10.57	1537	mg/kg	111.28	7.24%
Mg 285.213†	1799.8	108.3	ug/L	0.20	1140	mg/kg	2.08	0.18%
Mn 257.610†	477.1	5.424	ug/L	0.0984	57.10	mg/kg	1.036	1.81%
Mo 202.031†	38.9	1.097	ug/L	0.1515	11.54	mg/kg	1.595	13.82%
Na 589.592†	68.2	7.049	ug/L	3.6722	74.20	mg/kg	38.655	52.10%
Ni 231.604†	52.7	1.057	ug/L	0.1826	11.13	mg/kg	1.922	17.26%
P 213.617†	67.7	19.57	ug/L	0.649	206.0	mg/kg	6.83	3.32%
Pb 220.353†	32.5	5.009	ug/L	0.2037	52.73	mg/kg	2.144	4.07%
Sb 206.836†	10.2	1.376	ug/L	1.1463	14.49	mg/kg	12.066	83.28%
Se 196.026†	-5.2	-1.004	ug/L	0.4075	-10.57	mg/kg	4.289	40.57%
Sn 189.927†	10.9	1.801	ug/L	0.2905	18.95	mg/kg	3.058	16.14%
Sr 421.552†	430.7	0.733	ug/L	0.0139	7.711	mg/kg	0.1459	1.89%
Ti 337.279†	306.7	8.146	ug/L	0.2832	85.74	mg/kg	2.981	3.48%
Tl 190.801†	0.9	0.173	ug/L	1.2335	1.820	mg/kg	12.9838	713.45%
V 292.402†	165.5	1.542	ug/L	0.1443	16.23	mg/kg	1.519	9.36%
Zn 206.200†	287.2	2.877	ug/L	0.0968	30.28	mg/kg	1.019	3.37%
Li 670.784	9744.7	0.451	ug/L	0.0030	4.747	mg/kg	0.0319	0.67%

A.P.P.L. INC.

5B

POST DIGEST SPIKE SAMPLE RECOVERY

CLIENT SAMPLE NO.

S67-SS035-0001

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No.: 76624 SDG: 76624

Analysis Date: 07/01/15 Concentration Units: mg/kg

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Boron (B)	75-125	59.12		15.67		52.632	82.6		
Lithium (Li)	75-125	26.71		4.378		21.053	106		
Zinc (Zn)	75-125	117		34.37		105.263	78.5		

Comments:

07/01/15 18:36 AZ17444S05

07/01/15 19:19 AZ17444S05-A

Sequence No.: 55
Sample ID: AZ17444S05-A
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.95 g
Dilution:
Wash Time:

Autosampler Location: 76
Date Collected: 07/01/15 7:19:23 PM
Data Type: Reprocessed on 07/02/15 8:56:50 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17444S05-A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	265456.1	111.9	%	0.60				0.54%
Y Radial	18036.8	114.5	%	0.77				0.67%
Ag 338.289†	29301.7	160.3	ug/L	0.36	16.87	mg/kg	0.038	0.23%
Al 308.215†	61084.6	45230	ug/L	126.87	4761	mg/kg	13.35	0.28%
As 188.979†	2513.3	469.0	ug/L	1.20	49.36	mg/kg	0.127	0.26%
B 249.677†	10434.0	561.6	ug/L	4.00	59.12	mg/kg	0.421	0.71%
Ba 233.527†	301042.5	678.0	ug/L	0.91	71.37	mg/kg	0.096	0.13%
Be 313.107†	320925.4	86.78	ug/L	0.077	9.134	mg/kg	0.0081	0.09%
Ca 315.887†	797634.9	50360	ug/L	515.91	5301	mg/kg	54.31	1.02%
Cd 214.440†	26399.5	82.19	ug/L	0.387	8.652	mg/kg	0.0407	0.47%
Co 228.616†	43986.8	428.4	ug/L	1.88	45.10	mg/kg	0.198	0.44%
Cr 267.716†	49397.2	566.0	ug/L	2.69	59.58	mg/kg	0.283	0.48%
Cu 327.393†	96643.0	486.8	ug/L	1.21	51.24	mg/kg	0.127	0.25%
Fe 273.955†	7345731.0	93450	ug/L	1247.62	9837	mg/kg	131.33	1.34%
K 766.490†	150373.8	18850	ug/L	41.79	1984	mg/kg	4.40	0.22%
Mg 285.213†	845080.8	50490	ug/L	483.36	5314	mg/kg	50.88	0.96%
Mn 257.610†	73949.8	839.0	ug/L	1.57	88.31	mg/kg	0.166	0.19%
Mo 202.031†	14054.2	390.6	ug/L	1.42	41.12	mg/kg	0.149	0.36%
Na 589.592†	394434.2	41940	ug/L	339.75	4415	mg/kg	35.76	0.81%
Ni 231.604†	22373.1	440.7	ug/L	1.36	46.39	mg/kg	0.143	0.31%
P 213.617†	16019.1	4630	ug/L	16.81	487.4	mg/kg	1.77	0.36%
Pb 220.353†	5787.0	902.3	ug/L	2.68	94.98	mg/kg	0.282	0.30%
Sb 206.836†	3132.7	423.0	ug/L	1.60	44.53	mg/kg	0.169	0.38%
Se 196.026†	1235.9	415.4	ug/L	2.13	43.73	mg/kg	0.224	0.51%
Sn 189.927†	2269.5	376.4	ug/L	2.11	39.62	mg/kg	0.222	0.56%
Sr 421.552†	260047.2	443.4	ug/L	3.22	46.67	mg/kg	0.339	0.73%
Ti 337.279†	40896.0	1086	ug/L	1.91	114.3	mg/kg	0.20	0.18%
Tl 190.801†	1984.8	361.7	ug/L	1.51	38.07	mg/kg	0.159	0.42%
V 292.402†	58187.9	542.2	ug/L	0.60	57.07	mg/kg	0.063	0.11%
Zn 206.200†	109056.8	1111	ug/L	0.29	117.0	mg/kg	0.03	0.03%
Li 670.784	5483127.9	253.7	ug/L	1.46	26.71	mg/kg	0.154	0.58%

A.P.P.L. INC.

5B

POST DIGEST SPIKE SAMPLE RECOVERY

CLIENT SAMPLE NO.

S67-SS035-0001

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No.: 76624 SDG: 76624

Analysis Date: 07/01/15 Concentration Units: mg/kg

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum (Al)	75-125	12770		5166		8421.053	90.3		

Comments:

07/01/15 16:06 AZ17444S05-1/20

07/01/15 16:39 AZ17444S05-A 1/20

Sequence No.: 32
Sample ID: AZ17444S05-1/20 A
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.95 g
Dilution: 20X
Wash Time:

Autosampler Location: 57
Date Collected: 07/01/15 4:39:25 PM
Data Type: Reprocessed on 07/02/15 8:56:24 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17444S05-1/20 A

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	227100.8	95.76	%	0.632				0.66%
Y Radial	15333.2	97.33	%	1.048				1.08%
Ag 338.289†	34401.6	188.2	ug/L	0.50	396.2	mg/kg	1.06	0.27%
Al 308.215†	8172.6	6067	ug/L	39.39	12770	mg/kg	82.92	0.65%
As 188.979†	2161.6	392.8	ug/L	2.61	826.9	mg/kg	5.49	0.66%
B 249.677†	16653.2	488.6	ug/L	2.28	1029	mg/kg	4.80	0.47%
Ba 233.527†	211662.1	479.9	ug/L	1.02	1010	mg/kg	2.14	0.21%
Be 313.107†	343600.2	92.91	ug/L	0.194	195.6	mg/kg	0.41	0.21%
Ca 315.887†	777821.6	49110	ug/L	679.15	103400	mg/kg	1429.80	1.38%
Cd 214.440†	29508.9	97.45	ug/L	0.589	205.1	mg/kg	1.24	0.60%
Co 228.616†	46402.8	455.8	ug/L	1.34	959.6	mg/kg	2.82	0.29%
Cr 267.716†	41342.6	474.1	ug/L	0.91	998.1	mg/kg	1.92	0.19%
Cu 327.393†	96751.2	483.8	ug/L	1.03	1018	mg/kg	2.16	0.21%
Fe 273.955†	592716.3	7506	ug/L	9.01	15800	mg/kg	18.96	0.12%
K 766.490†	80756.6	10130	ug/L	143.87	21320	mg/kg	302.88	1.42%
Mg 285.213†	813959.6	48560	ug/L	727.02	102200	mg/kg	1530.57	1.50%
Mn 257.610†	44263.6	501.1	ug/L	1.94	1055	mg/kg	4.08	0.39%
Mo 202.031†	16652.9	460.9	ug/L	1.59	970.4	mg/kg	3.34	0.34%
Na 589.592†	482243.1	51300	ug/L	790.24	108000	mg/kg	1663.67	1.54%
Ni 231.604†	23659.0	464.4	ug/L	2.41	977.6	mg/kg	5.07	0.52%
P 213.617†	13679.6	3954	ug/L	23.70	8324	mg/kg	49.90	0.60%
Pb 220.353†	2795.2	439.0	ug/L	0.56	924.3	mg/kg	1.18	0.13%
Sb 206.836†	3173.6	428.6	ug/L	1.35	902.3	mg/kg	2.85	0.32%
Se 196.026†	1593.6	481.9	ug/L	2.25	1014	mg/kg	4.73	0.47%
Sn 189.927†	2517.0	417.4	ug/L	1.15	878.8	mg/kg	2.41	0.27%
Sr 421.552†	298843.2	510.0	ug/L	7.91	1074	mg/kg	16.65	1.55%
Ti 337.279†	19329.0	512.9	ug/L	1.99	1080	mg/kg	4.19	0.39%
Tl 190.801†	2001.5	364.7	ug/L	1.27	767.8	mg/kg	2.67	0.35%
V 292.402†	49568.4	461.9	ug/L	0.83	972.4	mg/kg	1.74	0.18%
Zn 206.200†	95089.5	973.0	ug/L	2.24	2048	mg/kg	4.72	0.23%
Li 670.784	4672136.7	216.2	ug/L	0.85	455.2	mg/kg	1.79	0.39%

Sequence No.: 1
Sample ID: CalBlk 150701RJS I:JL O:R
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 07/01/15 12:42:56 PM
Data Type: Reprocessed on 07/02/15 8:55:47 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CalBlk 150701RJS I:JL O:R

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	237153.2	2073.17	0.87%	100.0	%
Y Radial	15754.1	56.18	0.36%	100.0	%
Ag 338.289†	-231.7	22.53	9.72%	[0.00]	ug/L
Al 308.215†	68.7	31.08	45.26%	[0.00]	ug/L
As 188.979†	-81.2	2.09	2.58%	[0.00]	ug/L
B 249.677†	63.3	9.14	14.45%	[0.00]	ug/L
Ba 233.527†	-36.8	4.80	13.03%	[0.00]	ug/L
Be 313.107†	2025.0	31.69	1.56%	[0.00]	ug/L
Ca 315.887†	-246.1	12.05	4.90%	[0.00]	ug/L
Cd 214.440†	-419.5	4.45	1.06%	[0.00]	ug/L
Co 228.616†	-213.6	11.94	5.59%	[0.00]	ug/L
Cr 267.716†	33.7	4.36	12.94%	[0.00]	ug/L
Cu 327.393†	-1323.5	18.99	1.43%	[0.00]	ug/L
Fe 273.955†	225.1	6.17	2.74%	[0.00]	ug/L
K 766.490†	-937.0	72.82	7.77%	[0.00]	ug/L
Mg 285.213†	72.4	11.09	15.32%	[0.00]	ug/L
Mn 257.610†	-54.0	3.06	5.67%	[0.00]	ug/L
Mo 202.031†	-69.1	1.87	2.71%	[0.00]	ug/L
Na 589.592†	701.5	37.75	5.38%	[0.00]	ug/L
Ni 231.604†	-153.2	8.55	5.58%	[0.00]	ug/L
P 213.617†	-61.9	3.00	4.84%	[0.00]	ug/L
Pb 220.353†	24.7	3.72	15.02%	[0.00]	ug/L
Sb 206.836†	-14.3	8.43	59.10%	[0.00]	ug/L
Se 196.026†	18.0	5.72	31.81%	[0.00]	ug/L
Sn 189.927†	3.0	2.20	74.13%	[0.00]	ug/L
Sr 421.552†	-30.8	5.45	17.72%	[0.00]	ug/L
Ti 337.279†	-42.1	10.79	25.64%	[0.00]	ug/L
Tl 190.801†	-16.6	4.18	25.25%	[0.00]	ug/L
V 292.402†	-102.0	8.97	8.80%	[0.00]	ug/L
Zn 206.200†	258.2	20.08	7.78%	[0.00]	ug/L
Li 670.784	4575.3	31.41	0.69%	[0.00]	ug/L

Sequence No.: 2
Sample ID: STD 1 150701RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 2
Date Collected: 07/01/15 12:49:09 PM
Data Type: Reprocessed on 07/02/15 8:55:49 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 1 150701RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	240176.1	1615.64	0.67%	101.3	%
Y Radial	16007.2	19.91	0.12%	101.6	%
Ag 338.289†	925.6	115.96	12.53%	[0.5]	ug/L
Al 308.215†	307.7	10.20	3.32%	[50]	ug/L
As 188.979†	65.5	0.99	1.52%	[2]	ug/L
B 249.677†	1242.7	23.06	1.86%	[25]	ug/L
Ba 233.527†	5304.9	51.03	0.96%	[1.5]	ug/L
Be 313.107†	38559.0	123.10	0.32%	[1]	ug/L
Ca 315.887†	11341.4	28.77	0.25%	[50]	ug/L
Cd 214.440†	3230.3	28.49	0.88%	[0.25]	ug/L
Co 228.616†	1340.3	16.62	1.24%	[2.5]	ug/L
Cr 267.716†	935.4	10.36	1.11%	[0.5]	ug/L
Cu 327.393†	2548.5	28.95	1.14%	[2.5]	ug/L
Fe 273.955†	17608.6	41.36	0.23%	[25]	ug/L
K 766.490†	5389.0	95.21	1.77%	[500]	ug/L
Mg 285.213†	8837.8	20.03	0.23%	[25]	ug/L
Mn 257.610†	964.5	4.60	0.48%	[1]	ug/L
Mo 202.031†	384.8	6.58	1.71%	[1]	ug/L
Na 589.592†	6717.9	31.15	0.46%	[500]	ug/L
Ni 231.604†	570.3	12.15	2.13%	[1]	ug/L
P 213.617†	200.9	3.92	1.95%	[12.5]	ug/L
Pb 220.353†	71.6	6.10	8.52%	[1.5]	ug/L
Sb 206.836†	74.0	6.32	8.55%	[2]	ug/L
Se 196.026†	38.7	5.54	14.30%	[2]	ug/L
Sn 189.927†	74.7	3.20	4.28%	[3]	ug/L
Sr 421.552†	6160.0	66.23	1.08%	[1]	ug/L
Ti 337.279†	459.5	18.08	3.94%	[2.5]	ug/L
Tl 190.801†	68.0	1.85	2.72%	[2]	ug/L
V 292.402†	1154.5	3.69	0.32%	[0.5]	ug/L
Zn 206.200†	3830.1	29.58	0.77%	[25]	ug/L
Li 670.784	75482.1	349.85	0.46%	[5]	ug/L

Sequence No.: 3
Sample ID: STD 2 150701RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 07/01/15 12:55:23 PM
Data Type: Reprocessed on 07/02/15 8:55:50 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 2 150701RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	226743.9	1234.88	0.54%	95.61	%
Y Radial	15301.2	144.34	0.94%	97.13	%
Ag 338.289†	45163.8	105.32	0.23%	[250]	ug/L
Al 308.215†	13381.3	57.36	0.43%	[10000]	ug/L
As 188.979†	2645.7	17.24	0.65%	[500]	ug/L
B 249.677†	17416.2	73.38	0.42%	[500]	ug/L
Ba 233.527†	219390.4	403.72	0.18%	[500]	ug/L
Be 313.107†	1842245.6	2226.11	0.12%	[500]	ug/L
Ca 315.887†	396111.1	3590.14	0.91%	[25000]	ug/L
Cd 214.440†	152515.4	295.59	0.19%	[500]	ug/L
Co 228.616†	51000.2	55.98	0.11%	[500]	ug/L
Cr 267.716†	43358.7	45.58	0.11%	[500]	ug/L
Cu 327.393†	99087.0	239.22	0.24%	[500]	ug/L
Fe 273.955†	785551.5	1248.16	0.16%	[10000]	ug/L
K 766.490†	77847.5	404.73	0.52%	[10000]	ug/L
Mg 285.213†	432662.2	2438.64	0.56%	[25000]	ug/L
Mn 257.610†	43903.0	228.15	0.52%	[500]	ug/L
Mo 202.031†	17879.1	151.17	0.85%	[500]	ug/L
Na 589.592†	119136.5	784.45	0.66%	[12500]	ug/L
Ni 231.604†	25511.6	171.15	0.67%	[500]	ug/L
P 213.617†	8481.0	48.26	0.57%	[2500]	ug/L
Pb 220.353†	3224.4	18.26	0.57%	[500]	ug/L
Sb 206.836†	3602.2	34.46	0.96%	[500]	ug/L
Se 196.026†	1634.9	10.04	0.61%	[500]	ug/L
Sn 189.927†	2978.4	22.80	0.77%	[500]	ug/L
Sr 421.552†	290746.7	2628.84	0.90%	[500]	ug/L
Ti 337.279†	18692.1	144.13	0.77%	[500]	ug/L
Tl 190.801†	2783.0	26.11	0.94%	[500]	ug/L
V 292.402†	53313.8	26.66	0.05%	[500]	ug/L
Zn 206.200†	49067.8	96.22	0.20%	[500]	ug/L
Li 670.784	5057966.2	20365.73	0.40%	[250]	ug/L

Sequence No.: 4
Sample ID: STD 3 150701RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 4
Date Collected: 07/01/15 1:01:13 PM
Data Type: Reprocessed on 07/02/15 8:55:51 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 3 150701RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	222995.4	1106.24	0.50%	94.03	%
Y Radial	15390.5	200.68	1.30%	97.69	%
Ag 338.289†	91655.8	98.61	0.11%	[500]	ug/L
Al 308.215†	27090.9	64.74	0.24%	[20000]	ug/L
As 188.979†	5436.6	59.25	1.09%	[1000]	ug/L
B 249.677†	35662.4	23.64	0.07%	[1000]	ug/L
Ba 233.527†	441377.4	405.98	0.09%	[1000]	ug/L
Be 313.107†	3701782.7	2512.82	0.07%	[1000]	ug/L
Ca 315.887†	791657.2	7476.12	0.94%	[50000]	ug/L
Cd 214.440†	305275.0	568.24	0.19%	[1000]	ug/L
Co 228.616†	101684.6	212.66	0.21%	[1000]	ug/L
Cr 267.716†	87263.8	71.67	0.08%	[1000]	ug/L
Cu 327.393†	200831.6	203.18	0.10%	[1000]	ug/L
Fe 273.955†	1571337.7	2002.69	0.13%	[20000]	ug/L
K 766.490†	159259.1	442.77	0.28%	[20000]	ug/L
Mg 285.213†	831430.0	7759.01	0.93%	[50000]	ug/L
Mn 257.610†	88056.9	307.17	0.35%	[1000]	ug/L
Mo 202.031†	36266.4	251.99	0.69%	[1000]	ug/L
Na 589.592†	234093.6	2171.20	0.93%	[25000]	ug/L
Ni 231.604†	50832.8	319.78	0.63%	[1000]	ug/L
P 213.617†	17382.0	85.28	0.49%	[5000]	ug/L
Pb 220.353†	6413.8	49.56	0.77%	[1000]	ug/L
Sb 206.836†	7455.2	30.41	0.41%	[1000]	ug/L
Se 196.026†	3328.9	45.78	1.38%	[1000]	ug/L
Sn 189.927†	6047.7	50.87	0.84%	[1000]	ug/L
Sr 421.552†	584408.4	5185.13	0.89%	[1000]	ug/L
Ti 337.279†	37690.8	123.50	0.33%	[1000]	ug/L
Tl 190.801†	5468.3	42.43	0.78%	[1000]	ug/L
V 292.402†	107489.7	87.16	0.08%	[1000]	ug/L
Zn 206.200†	98646.8	167.43	0.17%	[1000]	ug/L
Li 670.784	10976611.1	53153.86	0.48%	[500]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 338.289	3	Lin Thru 0	0.0	182.8	0.00000	0.999950	
Al 308.215	3	Lin Thru 0	0.0	1.351	0.00000	0.999957	
As 188.979	3	Lin Thru 0	0.0	5.408	0.00000	0.999901	
B 249.677	3	Lin Thru 0	0.0	35.50	0.00000	0.999916	
Ba 233.527	3	Lin Thru 0	0.0	440.9	0.00000	0.999953	
Be 313.107	3	Lin Thru 0	0.0	3698	0.00000	0.999963	
Ca 315.887	3	Lin Thru 0	0.0	15.84	0.00000	0.999929	
Cd 214.440	3	Lin Thru 0	0.0	305.2	0.00000	0.999957	
Co 228.616	3	Lin Thru 0	0.0	101.7	0.00000	0.999954	
Cr 267.716	3	Lin Thru 0	0.0	87.15	0.00000	0.999955	
Cu 327.393	3	Lin Thru 0	0.0	200.3	0.00000	0.999944	
Fe 273.955	3	Lin Thru 0	0.0	78.57	0.00000	0.999960	
K 766.490	3	Lin Thru 0	0.0	7.929	0.00000	0.999927	
Mg 285.213	3	Lin Thru 0	0.0	16.76	0.00000	0.999829	
Mn 257.610	3	Lin Thru 0	0.0	88.01	0.00000	0.999960	
Mo 202.031	3	Lin Thru 0	0.0	36.17	0.00000	0.999947	
Na 589.592	3	Lin Thru 0	0.0	9.398	0.00000	0.999945	
Ni 231.604	3	Lin Thru 0	0.0	50.87	0.00000	0.999957	
P 213.617	3	Lin Thru 0	0.0	3.460	0.00000	0.999920	
Pb 220.353	3	Lin Thru 0	0.0	6.421	0.00000	0.999960	
Sb 206.836	3	Lin Thru 0	0.0	7.405	0.00000	0.999883	
Se 196.026	3	Lin Thru 0	0.0	3.317	0.00000	0.999937	

Sn 189.927	3	Lin Thru 0	0.0	6.030	0.00000	0.999947
Sr 421.552	3	Lin Thru 0	0.0	583.8	0.00000	0.999962
Ti 337.279	3	Lin Thru 0	0.0	37.63	0.00000	0.999957
Tl 190.801	3	Lin Thru 0	0.0	5.488	0.00000	0.999931
V 292.402	3	Lin Thru 0	0.0	107.3	0.00000	0.999953
Zn 206.200	3	Lin Thru 0	0.0	98.57	0.00000	0.999921
Li 670.784	3	Lin Thru 0	0.0	21610	0.00000	0.999489

Sequence No.: 5
Sample ID: ICV 150701RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 07/01/15 1:24:08 PM
Data Type: Reprocessed on 07/02/15 8:55:53 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICV 150701RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	230024.5	96.99	%	0.585				0.60%
Y Radial	15621.1	99.16	%	0.269				0.27%
Ag 338.289†	46537.7	254.6	ug/L	0.73	254.6	ug/L	0.73	0.29%
QC value within limits for Ag 338.289 Recovery = 101.84%								
Al 308.215†	16762.2	12430	ug/L	30.20	12430	ug/L	30.20	0.24%
QC value within limits for Al 308.215 Recovery = 99.43%								
As 188.979†	2454.5	450.6	ug/L	2.92	450.6	ug/L	2.92	0.65%
QC value within limits for As 188.979 Recovery = 90.13%								
B 249.677†	17645.1	532.0	ug/L	1.16	532.0	ug/L	1.16	0.22%
QC value within limits for B 249.677 Recovery = 106.40%								
Ba 233.527†	222714.7	504.8	ug/L	0.37	504.8	ug/L	0.37	0.07%
QC value within limits for Ba 233.527 Recovery = 100.95%								
Be 313.107†	1851228.3	500.6	ug/L	0.91	500.6	ug/L	0.91	0.18%
QC value within limits for Be 313.107 Recovery = 100.11%								
Ca 315.887†	213262.5	13460	ug/L	11.90	13460	ug/L	11.90	0.09%
QC value within limits for Ca 315.887 Recovery = 107.70%								
Cd 214.440†	155839.4	510.6	ug/L	0.32	510.6	ug/L	0.32	0.06%
QC value within limits for Cd 214.440 Recovery = 102.13%								
Co 228.616†	51888.1	509.9	ug/L	0.74	509.9	ug/L	0.74	0.15%
QC value within limits for Co 228.616 Recovery = 101.98%								
Cr 267.716†	44410.0	509.5	ug/L	0.76	509.5	ug/L	0.76	0.15%
QC value within limits for Cr 267.716 Recovery = 101.90%								
Cu 327.393†	103336.6	517.0	ug/L	0.53	517.0	ug/L	0.53	0.10%
QC value within limits for Cu 327.393 Recovery = 103.40%								
Fe 273.955†	994886.7	12620	ug/L	5.80	12620	ug/L	5.80	0.05%
QC value within limits for Fe 273.955 Recovery = 100.99%								
K 766.490†	98707.2	12420	ug/L	8.18	12420	ug/L	8.18	0.07%
QC value within limits for K 766.490 Recovery = 99.38%								
Mg 285.213†	217658.7	12990	ug/L	3.15	12990	ug/L	3.15	0.02%
QC value within limits for Mg 285.213 Recovery = 103.95%								
Mn 257.610†	44443.6	504.6	ug/L	0.49	504.6	ug/L	0.49	0.10%
QC value within limits for Mn 257.610 Recovery = 100.93%								
Mo 202.031†	17971.0	497.5	ug/L	1.46	497.5	ug/L	1.46	0.29%
QC value within limits for Mo 202.031 Recovery = 99.50%								
Na 589.592†	122537.9	13020	ug/L	3.85	13020	ug/L	3.85	0.03%
QC value within limits for Na 589.592 Recovery = 104.17%								
Ni 231.604†	26491.0	519.8	ug/L	1.08	519.8	ug/L	1.08	0.21%
QC value within limits for Ni 231.604 Recovery = 103.96%								
P 213.617†	8721.8	2521	ug/L	12.14	2521	ug/L	12.14	0.48%
QC value within limits for P 213.617 Recovery = 100.84%								
Pb 220.353†	3276.1	513.6	ug/L	2.39	513.6	ug/L	2.39	0.47%
QC value within limits for Pb 220.353 Recovery = 102.72%								
Sb 206.836†	3767.8	508.8	ug/L	2.41	508.8	ug/L	2.41	0.47%
QC value within limits for Sb 206.836 Recovery = 101.76%								
Se 196.026†	1703.9	518.6	ug/L	4.98	518.6	ug/L	4.98	0.96%
QC value within limits for Se 196.026 Recovery = 103.71%								
Sn 189.927†	1556.4	258.1	ug/L	0.72	258.1	ug/L	0.72	0.28%
QC value within limits for Sn 189.927 Recovery = 103.25%								
Sr 421.552†	308474.8	527.8	ug/L	4.49	527.8	ug/L	4.49	0.85%
QC value within limits for Sr 421.552 Recovery = 105.57%								
Ti 337.279†	19051.7	506.1	ug/L	0.28	506.1	ug/L	0.28	0.06%
QC value within limits for Ti 337.279 Recovery = 101.22%								
Tl 190.801†	2758.5	502.7	ug/L	4.82	502.7	ug/L	4.82	0.96%
QC value within limits for Tl 190.801 Recovery = 100.53%								
V 292.402†	53500.2	498.5	ug/L	0.92	498.5	ug/L	0.92	0.18%
QC value within limits for V 292.402 Recovery = 99.70%								
Zn 206.200†	51576.4	529.5	ug/L	1.37	529.5	ug/L	1.37	0.26%
QC value within limits for Zn 206.200 Recovery = 105.90%								

Li 670.784	5755095.6	266.3 ug/L	0.27	266.3 ug/L	0.27	0.10%

QC value within limits for Li 670.784 Recovery = 106.53%
All analyte(s) passed QC.

Sequence No.: 6
Sample ID: ICB 150701RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 07/01/15 1:29:59 PM
Data Type: Reprocessed on 07/02/15 8:55:54 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICB 150701RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	238472.4	100.6	%	0.52				0.51%
Y Radial	16128.3	102.4	%	0.21				0.20%
Ag 338.289†	-42.1	-0.230	ug/L	0.4293	-0.230	ug/L	0.4293	186.54%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	-28.5	-21.17	ug/L	6.650	-21.17	ug/L	6.650	31.41%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	12.0	2.208	ug/L	0.5682	2.208	ug/L	0.5682	25.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	70.5	1.989	ug/L	0.1682	1.989	ug/L	0.1682	8.46%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	35.0	0.079	ug/L	0.0019	0.079	ug/L	0.0019	2.44%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-78.2	-0.021	ug/L	0.0060	-0.021	ug/L	0.0060	28.47%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	61.6	3.885	ug/L	0.2760	3.885	ug/L	0.2760	7.10%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	-9.0	-0.029	ug/L	0.0749	-0.029	ug/L	0.0749	257.62%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	5.2	0.055	ug/L	0.1167	0.055	ug/L	0.1167	210.95%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	2.0	0.023	ug/L	0.0555	0.023	ug/L	0.0555	238.45%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	306.5	1.531	ug/L	0.1683	1.531	ug/L	0.1683	11.00%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	15.3	0.199	ug/L	0.2374	0.199	ug/L	0.2374	119.31%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	122.4	15.44	ug/L	4.096	15.44	ug/L	4.096	26.53%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	8.5	0.508	ug/L	0.3398	0.508	ug/L	0.3398	66.85%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	-0.2	-0.002	ug/L	0.0749	-0.002	ug/L	0.0749	>999.9%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	46.1	1.274	ug/L	0.2602	1.274	ug/L	0.2602	20.42%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-26.5	-2.837	ug/L	3.6441	-2.837	ug/L	3.6441	128.44%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	0.7	0.013	ug/L	0.0742	0.013	ug/L	0.0742	551.89%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-2.5	-0.709	ug/L	0.1292	-0.709	ug/L	0.1292	18.23%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	3.6	0.554	ug/L	0.7534	0.554	ug/L	0.7534	136.11%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	65.0	8.780	ug/L	0.5736	8.780	ug/L	0.5736	6.53%
QC value greater than the upper limit for Sb 206.836 Recovery = Not calculated								
Se 196.026†	0.3	0.082	ug/L	2.2923	0.082	ug/L	2.2923	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	3.7	0.619	ug/L	0.3364	0.619	ug/L	0.3364	54.32%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	5.0	0.009	ug/L	0.0127	0.009	ug/L	0.0127	148.86%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-0.8	-0.020	ug/L	0.1957	-0.020	ug/L	0.1957	958.16%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-2.1	-0.374	ug/L	0.7284	-0.374	ug/L	0.7284	194.97%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-6.3	-0.058	ug/L	0.0788	-0.058	ug/L	0.0788	135.11%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-61.8	-0.626	ug/L	0.1239	-0.626	ug/L	0.1239	19.80%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	3764.8	0.174 ug/L	0.0056	0.174 ug/L	0.0056	3.24%

QC value within limits for Li 670.784 Recovery = Not calculated
QC Failed. Continue with analysis.

Sequence No.: 7
Sample ID: ICSA 150701RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 6
Date Collected: 07/01/15 1:40:44 PM
Data Type: Reprocessed on 07/02/15 8:55:55 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSA 150701RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	225709.8	95.17	%	0.785				0.83%
Y Radial	15525.1	98.55	%	0.427				0.43%
Ag 338.289†	-6.7	-0.037	ug/L	0.0773	-0.037	ug/L	0.0773	210.26%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	144965.6	107300	ug/L	1059.84	107300	ug/L	1059.84	0.99%
QC value within limits for Al 308.215 Recovery = 107.27%								
As 188.979†	20.5	3.499	ug/L	0.6472	3.499	ug/L	0.6472	18.50%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-8990.6	37.91	ug/L	2.157	37.91	ug/L	2.157	5.69%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1877.8	-1.506	ug/L	0.0849	-1.506	ug/L	0.0849	5.63%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	25.0	0.007	ug/L	0.0105	0.007	ug/L	0.0105	154.98%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	1773149.0	112000	ug/L	1083.37	112000	ug/L	1083.37	0.97%
QC value within limits for Ca 315.887 Recovery = 111.97%								
Cd 214.440†	1121.5	-0.247	ug/L	0.0859	-0.247	ug/L	0.0859	34.79%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	143.5	-1.607	ug/L	0.1138	-1.607	ug/L	0.1138	7.08%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	90.7	0.097	ug/L	0.1825	0.097	ug/L	0.1825	187.69%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	342.6	3.107	ug/L	0.3772	3.107	ug/L	0.3772	12.14%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	8020771.2	102100	ug/L	1090.21	102100	ug/L	1090.21	1.07%
QC value within limits for Fe 273.955 Recovery = 102.08%								
K 766.490†	175.7	-79.49	ug/L	5.656	-79.49	ug/L	5.656	7.12%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	1793000.7	107000	ug/L	1121.19	107000	ug/L	1121.19	1.05%
QC value within limits for Mg 285.213 Recovery = 107.04%								
Mn 257.610†	304.2	-0.120	ug/L	0.2037	-0.120	ug/L	0.2037	170.43%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-98.6	-1.264	ug/L	0.2446	-1.264	ug/L	0.2446	19.35%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	186.4	6.724	ug/L	1.7407	6.724	ug/L	1.7407	25.89%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-111.3	0.361	ug/L	0.0628	0.361	ug/L	0.0628	17.41%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-138.5	-40.03	ug/L	0.745	-40.03	ug/L	0.745	1.86%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-87.6	2.629	ug/L	1.1630	2.629	ug/L	1.1630	44.24%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	22.6	3.047	ug/L	1.7071	3.047	ug/L	1.7071	56.02%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-150.2	3.347	ug/L	2.4376	3.347	ug/L	2.4376	72.82%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	28.4	4.717	ug/L	0.1092	4.717	ug/L	0.1092	2.31%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	344.9	-3.786	ug/L	0.0870	-3.786	ug/L	0.0870	2.30%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	47.2	-0.588	ug/L	0.4250	-0.588	ug/L	0.4250	72.33%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-34.0	-6.200	ug/L	0.8887	-6.200	ug/L	0.8887	14.34%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	16.2	0.151	ug/L	0.0369	0.151	ug/L	0.0369	24.40%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	174.5	1.235	ug/L	0.1897	1.235	ug/L	0.1897	15.36%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	16174.3	0.749 ug/L	0.0119	0.749 ug/L	0.0119	1.58%

All analyte(s) passed QC.

Sequence No.: 8
Sample ID: ICSAB 150701RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 7
Date Collected: 07/01/15 1:48:01 PM
Data Type: Reprocessed on 07/02/15 8:55:57 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSAB 150701RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	218669.8	92.21	%	0.449				0.49%
Y Radial	16391.7	104.0	%	5.01				4.81%
Ag 338.289†	102558.1	561.1	ug/L	2.16	561.1	ug/L	2.16	0.39%
QC value within limits for Ag 338.289 Recovery = 112.22%								
Al 308.215†	138266.9	102300	ug/L	6089.08	102300	ug/L	6089.08	5.95%
QC value within limits for Al 308.215 Recovery = 102.33%								
As 188.979†	1422.5	262.1	ug/L	4.98	262.1	ug/L	4.98	1.90%
QC value within limits for As 188.979 Recovery = 104.82%								
B 249.677†	-9350.6	35.22	ug/L	2.523	35.22	ug/L	2.523	7.17%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	119141.1	264.5	ug/L	1.08	264.5	ug/L	1.08	0.41%
QC value within limits for Ba 233.527 Recovery = 105.80%								
Be 313.107†	1011966.8	273.6	ug/L	1.11	273.6	ug/L	1.11	0.41%
QC value within limits for Be 313.107 Recovery = 109.45%								
Ca 315.887†	1682187.0	106200	ug/L	6308.22	106200	ug/L	6308.22	5.94%
QC value within limits for Ca 315.887 Recovery = 106.22%								
Cd 214.440†	162455.1	528.3	ug/L	2.36	528.3	ug/L	2.36	0.45%
QC value within limits for Cd 214.440 Recovery = 105.65%								
Co 228.616†	27142.0	264.4	ug/L	1.63	264.4	ug/L	1.63	0.62%
QC value within limits for Co 228.616 Recovery = 105.75%								
Cr 267.716†	23836.5	272.6	ug/L	1.66	272.6	ug/L	1.66	0.61%
QC value within limits for Cr 267.716 Recovery = 109.06%								
Cu 327.393†	59704.8	299.4	ug/L	1.79	299.4	ug/L	1.79	0.60%
QC value within limits for Cu 327.393 Recovery = 119.77%								
Fe 273.955†	8230582.8	104700	ug/L	175.07	104700	ug/L	175.07	0.17%
QC value within limits for Fe 273.955 Recovery = 104.73%								
K 766.490†	269.5	-68.86	ug/L	8.887	-68.86	ug/L	8.887	12.91%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	1706928.2	101900	ug/L	6019.68	101900	ug/L	6019.68	5.91%
QC value within limits for Mg 285.213 Recovery = 101.91%								
Mn 257.610†	22367.2	250.8	ug/L	13.48	250.8	ug/L	13.48	5.37%
QC value within limits for Mn 257.610 Recovery = 100.33%								
Mo 202.031†	9251.2	257.6	ug/L	2.26	257.6	ug/L	2.26	0.88%
QC value within limits for Mo 202.031 Recovery = 103.02%								
Na 589.592†	67.4	-6.404	ug/L	2.3555	-6.404	ug/L	2.3555	36.78%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	26104.1	515.1	ug/L	3.34	515.1	ug/L	3.34	0.65%
QC value within limits for Ni 231.604 Recovery = 103.02%								
P 213.617†	-293.7	-84.88	ug/L	3.383	-84.88	ug/L	3.383	3.99%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	3194.7	513.0	ug/L	4.92	513.0	ug/L	4.92	0.96%
QC value within limits for Pb 220.353 Recovery = 102.60%								
Sb 206.836†	2117.5	286.0	ug/L	2.18	286.0	ug/L	2.18	0.76%
QC value within limits for Sb 206.836 Recovery = 114.38%								
Se 196.026†	768.7	280.9	ug/L	4.54	280.9	ug/L	4.54	1.62%
QC value within limits for Se 196.026 Recovery = 112.37%								
Sn 189.927†	21.3	3.536	ug/L	1.3902	3.536	ug/L	1.3902	39.31%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	374.7	-3.518	ug/L	0.1679	-3.518	ug/L	0.1679	4.77%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	45.5	-0.507	ug/L	0.9730	-0.507	ug/L	0.9730	191.83%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	1299.3	236.8	ug/L	0.94	236.8	ug/L	0.94	0.40%
QC value within limits for Tl 190.801 Recovery = 94.70%								
V 292.402†	29472.4	274.6	ug/L	2.07	274.6	ug/L	2.07	0.75%
QC value within limits for V 292.402 Recovery = 109.85%								
Zn 206.200†	54080.3	550.8	ug/L	4.34	550.8	ug/L	4.34	0.79%
QC value within limits for Zn 206.200 Recovery = 110.16%								

Li 670.784	17446.8	0.807 ug/L	0.0198	0.807 ug/L	0.0198	2.45%

All analyte(s) passed QC.

Sequence No.: 9
Sample ID: CCV1 150701RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 07/01/15 1:54:34 PM
Data Type: Reprocessed on 07/02/15 8:55:58 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV1 150701RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	227029.5	95.73	%	0.382				0.40%
Y Radial	15727.9	99.83	%	0.793				0.79%
Ag 338.289†	45848.1	250.8	ug/L	0.21	250.8	ug/L	0.21	0.08%
QC value within limits for Ag 338.289 Recovery = 100.33%								
Al 308.215†	13325.7	9884	ug/L	16.25	9884	ug/L	16.25	0.16%
QC value within limits for Al 308.215 Recovery = 98.84%								
As 188.979†	2683.8	491.5	ug/L	3.87	491.5	ug/L	3.87	0.79%
QC value within limits for As 188.979 Recovery = 98.31%								
B 249.677†	17498.5	520.3	ug/L	2.26	520.3	ug/L	2.26	0.44%
QC value within limits for B 249.677 Recovery = 104.07%								
Ba 233.527†	220565.2	500.0	ug/L	0.70	500.0	ug/L	0.70	0.14%
QC value within limits for Ba 233.527 Recovery = 100.00%								
Be 313.107†	1831959.8	495.3	ug/L	0.43	495.3	ug/L	0.43	0.09%
QC value within limits for Be 313.107 Recovery = 99.07%								
Ca 315.887†	397190.8	25080	ug/L	216.88	25080	ug/L	216.88	0.86%
QC value within limits for Ca 315.887 Recovery = 100.31%								
Cd 214.440†	153836.8	504.3	ug/L	0.47	504.3	ug/L	0.47	0.09%
QC value within limits for Cd 214.440 Recovery = 100.87%								
Co 228.616†	51076.8	502.0	ug/L	0.69	502.0	ug/L	0.69	0.14%
QC value within limits for Co 228.616 Recovery = 100.39%								
Cr 267.716†	43664.4	500.9	ug/L	0.58	500.9	ug/L	0.58	0.12%
QC value within limits for Cr 267.716 Recovery = 100.17%								
Cu 327.393†	100512.8	502.8	ug/L	1.69	502.8	ug/L	1.69	0.34%
QC value within limits for Cu 327.393 Recovery = 100.56%								
Fe 273.955†	796172.1	10090	ug/L	10.85	10090	ug/L	10.85	0.11%
QC value within limits for Fe 273.955 Recovery = 100.95%								
K 766.490†	79829.2	10040	ug/L	31.32	10040	ug/L	31.32	0.31%
QC value within limits for K 766.490 Recovery = 100.42%								
Mg 285.213†	437447.2	26100	ug/L	87.00	26100	ug/L	87.00	0.33%
QC value within limits for Mg 285.213 Recovery = 104.41%								
Mn 257.610†	44326.4	502.7	ug/L	2.29	502.7	ug/L	2.29	0.46%
QC value within limits for Mn 257.610 Recovery = 100.55%								
Mo 202.031†	18220.2	504.3	ug/L	3.63	504.3	ug/L	3.63	0.72%
QC value within limits for Mo 202.031 Recovery = 100.86%								
Na 589.592†	126347.1	13430	ug/L	34.12	13430	ug/L	34.12	0.25%
QC value within limits for Na 589.592 Recovery = 107.44%								
Ni 231.604†	25979.3	509.8	ug/L	2.58	509.8	ug/L	2.58	0.51%
QC value within limits for Ni 231.604 Recovery = 101.96%								
P 213.617†	8558.6	2474	ug/L	14.55	2474	ug/L	14.55	0.59%
QC value within limits for P 213.617 Recovery = 98.95%								
Pb 220.353†	3127.3	490.6	ug/L	1.94	490.6	ug/L	1.94	0.40%
QC value within limits for Pb 220.353 Recovery = 98.11%								
Sb 206.836†	3601.4	486.3	ug/L	5.59	486.3	ug/L	5.59	1.15%
QC value within limits for Sb 206.836 Recovery = 97.27%								
Se 196.026†	1675.6	508.5	ug/L	2.55	508.5	ug/L	2.55	0.50%
QC value within limits for Se 196.026 Recovery = 101.69%								
Sn 189.927†	3014.4	499.9	ug/L	4.42	499.9	ug/L	4.42	0.88%
QC value within limits for Sn 189.927 Recovery = 99.99%								
Sr 421.552†	311862.3	533.2	ug/L	5.51	533.2	ug/L	5.51	1.03%
QC value within limits for Sr 421.552 Recovery = 106.64%								
Ti 337.279†	18841.1	500.3	ug/L	2.02	500.3	ug/L	2.02	0.40%
QC value within limits for Ti 337.279 Recovery = 100.06%								
Tl 190.801†	2580.9	470.3	ug/L	1.34	470.3	ug/L	1.34	0.28%
QC value within limits for Tl 190.801 Recovery = 94.06%								
V 292.402†	52496.4	489.2	ug/L	0.49	489.2	ug/L	0.49	0.10%
QC value within limits for V 292.402 Recovery = 97.83%								
Zn 206.200†	49726.4	511.3	ug/L	0.66	511.3	ug/L	0.66	0.13%
QC value within limits for Zn 206.200 Recovery = 102.25%								

Li 670.784	5353505.1	247.8 ug/L	0.47	247.8 ug/L	0.47	0.19%

QC value within limits for Li 670.784 Recovery = 99.10%
All analyte(s) passed QC.

Sequence No.: 10
Sample ID: CCB 150701RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 07/01/15 2:06:04 PM
Data Type: Reprocessed on 07/02/15 8:55:59 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150701RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	240158.1	101.3	%	0.19				0.19%
Y Radial	16249.2	103.1	%	0.46				0.45%
Ag 338.289†	-13.2	-0.072	ug/L	0.1026	-0.072	ug/L	0.1026	142.41%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	-19.2	-14.23	ug/L	6.873	-14.23	ug/L	6.873	48.31%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	1.1	0.194	ug/L	0.5761	0.194	ug/L	0.5761	297.02%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	39.6	1.128	ug/L	0.3166	1.128	ug/L	0.3166	28.07%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	46.7	0.105	ug/L	0.0187	0.105	ug/L	0.0187	17.69%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-28.3	-0.008	ug/L	0.0037	-0.008	ug/L	0.0037	48.19%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	106.7	6.739	ug/L	0.7249	6.739	ug/L	0.7249	10.76%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	-30.4	-0.100	ug/L	0.0170	-0.100	ug/L	0.0170	17.08%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	14.0	0.140	ug/L	0.0653	0.140	ug/L	0.0653	46.63%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-8.9	-0.103	ug/L	0.0501	-0.103	ug/L	0.0501	48.82%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	38.0	0.190	ug/L	0.0979	0.190	ug/L	0.0979	51.58%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	286.9	3.657	ug/L	0.3583	3.657	ug/L	0.3583	9.80%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	119.0	15.03	ug/L	8.794	15.03	ug/L	8.794	58.53%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	12.8	0.765	ug/L	0.2512	0.765	ug/L	0.2512	32.85%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	5.0	0.056	ug/L	0.0555	0.056	ug/L	0.0555	98.32%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	23.1	0.639	ug/L	0.4013	0.639	ug/L	0.4013	62.80%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-209.3	-22.29	ug/L	2.964	-22.29	ug/L	2.964	13.30%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	2.5	0.049	ug/L	0.1846	0.049	ug/L	0.1846	376.09%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-7.0	-2.030	ug/L	1.6290	-2.030	ug/L	1.6290	80.26%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-0.9	-0.140	ug/L	1.4455	-0.140	ug/L	1.4455	>999.9%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-4.8	-0.642	ug/L	0.8841	-0.642	ug/L	0.8841	137.74%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-3.4	-1.031	ug/L	0.5399	-1.031	ug/L	0.5399	52.38%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	-0.2	-0.036	ug/L	0.4777	-0.036	ug/L	0.4777	>999.9%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	-2.8	-0.005	ug/L	0.0079	-0.005	ug/L	0.0079	154.12%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-7.6	-0.202	ug/L	0.3457	-0.202	ug/L	0.3457	171.50%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-2.4	-0.437	ug/L	0.9451	-0.437	ug/L	0.9451	216.50%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-10.0	-0.094	ug/L	0.0364	-0.094	ug/L	0.0364	38.88%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-163.4	-1.659	ug/L	0.0412	-1.659	ug/L	0.0412	2.48%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	2995.0	0.139 ug/L	0.0012	0.139 ug/L	0.0012	0.88%

QC value within limits for Li 670.784 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 23
Sample ID: CCV2 150701RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 8
Date Collected: 07/01/15 3:44:30 PM
Data Type: Reprocessed on 07/02/15 8:56:14 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV2 150701RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	227342.0	95.86	%	0.634				0.66%
Y Radial	15042.6	95.48	%	10.760				11.27%
Ag 338.289†	35322.6	193.3	ug/L	0.73	193.3	ug/L	0.73	0.38%
QC value within limits for Ag 338.289 Recovery = 103.07%								
Al 308.215†	10218.4	7577	ug/L	862.09	7577	ug/L	862.09	11.38%
QC value within limits for Al 308.215 Recovery = 101.03%								
As 188.979†	1989.8	364.3	ug/L	3.94	364.3	ug/L	3.94	1.08%
QC value within limits for As 188.979 Recovery = 97.14%								
B 249.677†	13538.3	402.1	ug/L	4.17	402.1	ug/L	4.17	1.04%
QC value within limits for B 249.677 Recovery = 107.23%								
Ba 233.527†	166687.6	377.9	ug/L	1.61	377.9	ug/L	1.61	0.43%
QC value within limits for Ba 233.527 Recovery = 100.76%								
Be 313.107†	1342996.3	363.1	ug/L	2.10	363.1	ug/L	2.10	0.58%
QC value within limits for Be 313.107 Recovery = 96.84%								
Ca 315.887†	319503.5	20170	ug/L	2285.58	20170	ug/L	2285.58	11.33%
QC value within limits for Ca 315.887 Recovery = 107.59%								
Cd 214.440†	116593.8	382.3	ug/L	1.52	382.3	ug/L	1.52	0.40%
QC value within limits for Cd 214.440 Recovery = 101.94%								
Co 228.616†	38458.9	377.9	ug/L	1.89	377.9	ug/L	1.89	0.50%
QC value within limits for Co 228.616 Recovery = 100.78%								
Cr 267.716†	34996.3	401.4	ug/L	3.19	401.4	ug/L	3.19	0.80%
QC value within limits for Cr 267.716 Recovery = 107.04%								
Cu 327.393†	77185.9	386.1	ug/L	0.99	386.1	ug/L	0.99	0.26%
QC value within limits for Cu 327.393 Recovery = 102.96%								
Fe 273.955†	603283.5	7650	ug/L	38.50	7650	ug/L	38.50	0.50%
QC value within limits for Fe 273.955 Recovery = 102.00%								
K 766.490†	63339.4	7968	ug/L	877.67	7968	ug/L	877.67	11.01%
QC value within limits for K 766.490 Recovery = 106.24%								
Mg 285.213†	340981.2	20350	ug/L	2287.86	20350	ug/L	2287.86	11.24%
QC value within limits for Mg 285.213 Recovery = 108.51%								
Mn 257.610†	35050.0	397.5	ug/L	44.91	397.5	ug/L	44.91	11.30%
QC value within limits for Mn 257.610 Recovery = 106.01%								
Mo 202.031†	13674.2	378.5	ug/L	3.21	378.5	ug/L	3.21	0.85%
QC value within limits for Mo 202.031 Recovery = 100.92%								
Na 589.592†	102769.9	10920	ug/L	1213.68	10920	ug/L	1213.68	11.11%
QC value greater than the upper limit for Na 589.592 Recovery = 116.52%								
Ni 231.604†	19568.2	384.0	ug/L	3.54	384.0	ug/L	3.54	0.92%
QC value within limits for Ni 231.604 Recovery = 102.40%								
P 213.617†	6304.1	1822	ug/L	14.49	1822	ug/L	14.49	0.80%
QC value within limits for P 213.617 Recovery = 97.18%								
Pb 220.353†	2158.2	338.8	ug/L	3.84	338.8	ug/L	3.84	1.13%
QC value within limits for Pb 220.353 Recovery = 90.35%								
Sb 206.836†	2618.4	353.6	ug/L	4.57	353.6	ug/L	4.57	1.29%
QC value within limits for Sb 206.836 Recovery = 94.29%								
Se 196.026†	1258.1	381.8	ug/L	2.78	381.8	ug/L	2.78	0.73%
QC value within limits for Se 196.026 Recovery = 101.81%								
Sn 189.927†	2228.4	369.6	ug/L	3.91	369.6	ug/L	3.91	1.06%
QC value within limits for Sn 189.927 Recovery = 98.55%								
Sr 421.552†	263654.3	450.8	ug/L	53.61	450.8	ug/L	53.61	11.89%
QC value greater than the upper limit for Sr 421.552 Recovery = 120.22%								
Ti 337.279†	14754.0	391.8	ug/L	44.27	391.8	ug/L	44.27	11.30%
QC value within limits for Ti 337.279 Recovery = 104.48%								
Tl 190.801†	1630.2	297.1	ug/L	4.38	297.1	ug/L	4.38	1.47%
QC value less than the lower limit for Tl 190.801 Recovery = 79.22%								
V 292.402†	38078.7	354.8	ug/L	2.29	354.8	ug/L	2.29	0.64%
QC value within limits for V 292.402 Recovery = 94.62%								
Zn 206.200†	39925.8	410.5	ug/L	3.29	410.5	ug/L	3.29	0.80%
QC value within limits for Zn 206.200 Recovery = 109.46%								

Li 670.784	4164766.1	192.7 ug/L	0.85	192.7 ug/L	0.85	0.44%

QC value within limits for Li 670.784 Recovery = 102.79%
QC Failed. Continue with analysis.

Sequence No.: 24
Sample ID: CCB 150701RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 07/01/15 3:53:48 PM
Data Type: Reprocessed on 07/02/15 8:56:15 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150701RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	236825.0	99.86	%	0.949				0.95%
Y Radial	15790.0	100.2	%	0.26				0.26%
Ag 338.289†	29.7	0.163	ug/L	0.1190	0.163	ug/L	0.1190	73.17%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	-40.5	-30.01	ug/L	0.407	-30.01	ug/L	0.407	1.36%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	-0.3	-0.059	ug/L	0.6455	-0.059	ug/L	0.6455	>999.9%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	44.1	1.244	ug/L	0.0233	1.244	ug/L	0.0233	1.87%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	102.5	0.232	ug/L	0.0158	0.232	ug/L	0.0158	6.79%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-81.2	-0.022	ug/L	0.0043	-0.022	ug/L	0.0043	19.52%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	231.9	14.64	ug/L	0.463	14.64	ug/L	0.463	3.16%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	-80.1	-0.263	ug/L	0.0186	-0.263	ug/L	0.0186	7.09%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	25.9	0.258	ug/L	0.0306	0.258	ug/L	0.0306	11.84%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-15.0	-0.172	ug/L	0.1012	-0.172	ug/L	0.1012	58.78%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	32.2	0.161	ug/L	0.3513	0.161	ug/L	0.3513	218.24%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	-17.6	-0.212	ug/L	0.3836	-0.212	ug/L	0.3836	181.01%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	156.0	19.70	ug/L	10.049	19.70	ug/L	10.049	51.01%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	13.8	0.819	ug/L	0.6581	0.819	ug/L	0.6581	80.39%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	5.1	0.058	ug/L	0.0500	0.058	ug/L	0.0500	86.88%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	36.7	1.013	ug/L	0.0412	1.013	ug/L	0.0412	4.06%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-259.8	-27.66	ug/L	4.254	-27.66	ug/L	4.254	15.38%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	8.3	0.162	ug/L	0.1618	0.162	ug/L	0.1618	99.57%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-3.9	-1.141	ug/L	0.2918	-1.141	ug/L	0.2918	25.58%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-12.0	-1.876	ug/L	1.0963	-1.876	ug/L	1.0963	58.42%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	12.4	1.675	ug/L	1.1339	1.675	ug/L	1.1339	67.69%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-5.3	-1.585	ug/L	1.6023	-1.585	ug/L	1.6023	101.12%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	4.8	0.789	ug/L	0.3251	0.789	ug/L	0.3251	41.19%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	3.7	0.006	ug/L	0.0197	0.006	ug/L	0.0197	336.79%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	1.3	0.035	ug/L	0.3031	0.035	ug/L	0.3031	869.40%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	2.7	0.500	ug/L	0.6499	0.500	ug/L	0.6499	129.97%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-18.4	-0.172	ug/L	0.0357	-0.172	ug/L	0.0357	20.80%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-154.8	-1.572	ug/L	0.0195	-1.572	ug/L	0.0195	1.24%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	219.8	0.010 ug/L	0.0058	0.010 ug/L	0.0058	57.40%

QC value within limits for Li 670.784 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 34
Sample ID: CCV1 150701RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 07/01/15 4:52:57 PM
Data Type: Reprocessed on 07/02/15 8:56:26 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV1 150701RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	234097.4	98.71	%	0.140				0.14%
Y Radial	15833.3	100.5	%	0.46				0.46%
Ag 338.289†	45753.8	250.3	ug/L	0.32	250.3	ug/L	0.32	0.13%
QC value within limits for Ag 338.289 Recovery = 100.13%								
Al 308.215†	12988.2	9632	ug/L	77.73	9632	ug/L	77.73	0.81%
QC value within limits for Al 308.215 Recovery = 96.32%								
As 188.979†	2598.4	475.8	ug/L	1.71	475.8	ug/L	1.71	0.36%
QC value within limits for As 188.979 Recovery = 95.17%								
B 249.677†	17126.1	509.4	ug/L	1.22	509.4	ug/L	1.22	0.24%
QC value within limits for B 249.677 Recovery = 101.88%								
Ba 233.527†	216954.3	491.8	ug/L	0.42	491.8	ug/L	0.42	0.08%
QC value within limits for Ba 233.527 Recovery = 98.36%								
Be 313.107†	1765128.2	477.3	ug/L	0.54	477.3	ug/L	0.54	0.11%
QC value within limits for Be 313.107 Recovery = 95.45%								
Ca 315.887†	392730.5	24800	ug/L	246.11	24800	ug/L	246.11	0.99%
QC value within limits for Ca 315.887 Recovery = 99.18%								
Cd 214.440†	151241.6	495.8	ug/L	0.49	495.8	ug/L	0.49	0.10%
QC value within limits for Cd 214.440 Recovery = 99.17%								
Co 228.616†	49983.1	491.2	ug/L	0.31	491.2	ug/L	0.31	0.06%
QC value within limits for Co 228.616 Recovery = 98.24%								
Cr 267.716†	42941.9	492.6	ug/L	1.19	492.6	ug/L	1.19	0.24%
QC value within limits for Cr 267.716 Recovery = 98.51%								
Cu 327.393†	100294.6	501.7	ug/L	0.40	501.7	ug/L	0.40	0.08%
QC value within limits for Cu 327.393 Recovery = 100.33%								
Fe 273.955†	783078.0	9930	ug/L	8.12	9930	ug/L	8.12	0.08%
QC value within limits for Fe 273.955 Recovery = 99.30%								
K 766.490†	78967.6	9934	ug/L	66.83	9934	ug/L	66.83	0.67%
QC value within limits for K 766.490 Recovery = 99.34%								
Mg 285.213†	431319.6	25740	ug/L	195.24	25740	ug/L	195.24	0.76%
QC value within limits for Mg 285.213 Recovery = 102.95%								
Mn 257.610†	43868.4	497.5	ug/L	3.90	497.5	ug/L	3.90	0.78%
QC value within limits for Mn 257.610 Recovery = 99.51%								
Mo 202.031†	17840.9	493.8	ug/L	0.52	493.8	ug/L	0.52	0.11%
QC value within limits for Mo 202.031 Recovery = 98.76%								
Na 589.592†	124804.5	13270	ug/L	77.14	13270	ug/L	77.14	0.58%
QC value within limits for Na 589.592 Recovery = 106.13%								
Ni 231.604†	25378.9	498.0	ug/L	0.85	498.0	ug/L	0.85	0.17%
QC value within limits for Ni 231.604 Recovery = 99.61%								
P 213.617†	8306.5	2401	ug/L	7.86	2401	ug/L	7.86	0.33%
QC value within limits for P 213.617 Recovery = 96.04%								
Pb 220.353†	2871.7	450.7	ug/L	0.70	450.7	ug/L	0.70	0.16%
QC value within limits for Pb 220.353 Recovery = 90.13%								
Sb 206.836†	3511.5	474.2	ug/L	1.51	474.2	ug/L	1.51	0.32%
QC value within limits for Sb 206.836 Recovery = 94.84%								
Se 196.026†	1633.0	495.6	ug/L	1.28	495.6	ug/L	1.28	0.26%
QC value within limits for Se 196.026 Recovery = 99.12%								
Sn 189.927†	2900.4	481.0	ug/L	0.78	481.0	ug/L	0.78	0.16%
QC value within limits for Sn 189.927 Recovery = 96.20%								
Sr 421.552†	309000.1	528.3	ug/L	4.62	528.3	ug/L	4.62	0.87%
QC value within limits for Sr 421.552 Recovery = 105.66%								
Ti 337.279†	18531.9	492.1	ug/L	5.04	492.1	ug/L	5.04	1.02%
QC value within limits for Ti 337.279 Recovery = 98.42%								
Tl 190.801†	2245.1	409.1	ug/L	4.74	409.1	ug/L	4.74	1.16%
QC value less than the lower limit for Tl 190.801 Recovery = 81.82%								
V 292.402†	50023.9	466.1	ug/L	0.79	466.1	ug/L	0.79	0.17%
QC value within limits for V 292.402 Recovery = 93.23%								
Zn 206.200†	49116.8	505.0	ug/L	0.12	505.0	ug/L	0.12	0.02%
QC value within limits for Zn 206.200 Recovery = 100.99%								

Li 670.784	5590855.7	258.7 ug/L	1.37	258.7 ug/L	1.37	0.53%

QC value within limits for Li 670.784 Recovery = 103.49%
QC Failed. Continue with analysis.

Sequence No.: 35
Sample ID: CCB 150701RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 07/01/15 4:58:49 PM
Data Type: Reprocessed on 07/02/15 8:56:27 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150701RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	242052.7	102.1	%	0.31				0.31%
Y Radial	16199.4	102.8	%	0.19				0.19%
Ag 338.289†	-34.1	-0.186	ug/L	0.4878	-0.186	ug/L	0.4878	261.63%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	-34.6	-25.65	ug/L	4.466	-25.65	ug/L	4.466	17.41%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	8.5	1.566	ug/L	0.8194	1.566	ug/L	0.8194	52.34%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	104.4	2.949	ug/L	0.1060	2.949	ug/L	0.1060	3.60%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	56.2	0.127	ug/L	0.0229	0.127	ug/L	0.0229	18.12%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-115.3	-0.031	ug/L	0.0068	-0.031	ug/L	0.0068	21.79%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	95.6	6.036	ug/L	0.6204	6.036	ug/L	0.6204	10.28%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	-52.1	-0.170	ug/L	0.0178	-0.170	ug/L	0.0178	10.47%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	27.2	0.273	ug/L	0.0551	0.273	ug/L	0.0551	20.21%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-11.3	-0.131	ug/L	0.0254	-0.131	ug/L	0.0254	19.44%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	180.6	0.902	ug/L	0.1293	0.902	ug/L	0.1293	14.32%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	176.1	2.251	ug/L	4.3157	2.251	ug/L	4.3157	191.75%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	145.2	18.34	ug/L	12.431	18.34	ug/L	12.431	67.79%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	11.4	0.678	ug/L	0.3023	0.678	ug/L	0.3023	44.60%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	2.0	0.023	ug/L	0.0539	0.023	ug/L	0.0539	232.31%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	64.2	1.774	ug/L	0.3733	1.774	ug/L	0.3733	21.05%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-156.7	-16.69	ug/L	7.829	-16.69	ug/L	7.829	46.91%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	3.9	0.076	ug/L	0.1916	0.076	ug/L	0.1916	251.02%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-5.2	-1.500	ug/L	0.7372	-1.500	ug/L	0.7372	49.14%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-9.1	-1.422	ug/L	0.0845	-1.422	ug/L	0.0845	5.94%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	38.0	5.126	ug/L	0.8636	5.126	ug/L	0.8636	16.85%
QC value greater than the upper limit for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-5.8	-1.746	ug/L	0.7292	-1.746	ug/L	0.7292	41.75%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	5.5	0.916	ug/L	0.4215	0.916	ug/L	0.4215	46.00%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	2.6	0.004	ug/L	0.0377	0.004	ug/L	0.0377	883.68%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	10.2	0.271	ug/L	0.1641	0.271	ug/L	0.1641	60.61%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	0.3	0.058	ug/L	0.7515	0.058	ug/L	0.7515	>999.9%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-12.6	-0.118	ug/L	0.0636	-0.118	ug/L	0.0636	53.93%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-147.9	-1.501	ug/L	0.1222	-1.501	ug/L	0.1222	8.14%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	1631.3	0.075 ug/L	0.0053	0.075 ug/L	0.0053	7.02%

QC value within limits for Li 670.784 Recovery = Not calculated
QC Failed. Continue with analysis.

Sequence No.: 46
Sample ID: CCV2 150701RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 8
Date Collected: 07/01/15 6:17:17 PM
Data Type: Reprocessed on 07/02/15 8:56:39 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV2 150701RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	234660.1	98.95	%	0.177				0.18%
Y Radial	15871.1	100.7	%	0.56				0.56%
Ag 338.289†	33953.6	185.8	ug/L	0.48	185.8	ug/L	0.48	0.26%
QC value within limits for Ag 338.289 Recovery = 99.07%								
Al 308.215†	9875.1	7325	ug/L	28.09	7325	ug/L	28.09	0.38%
QC value within limits for Al 308.215 Recovery = 97.66%								
As 188.979†	1998.4	365.9	ug/L	0.41	365.9	ug/L	0.41	0.11%
QC value within limits for As 188.979 Recovery = 97.58%								
B 249.677†	13507.1	400.9	ug/L	0.89	400.9	ug/L	0.89	0.22%
QC value within limits for B 249.677 Recovery = 106.92%								
Ba 233.527†	165531.6	375.2	ug/L	0.58	375.2	ug/L	0.58	0.16%
QC value within limits for Ba 233.527 Recovery = 100.07%								
Be 313.107†	1353486.1	366.0	ug/L	0.88	366.0	ug/L	0.88	0.24%
QC value within limits for Be 313.107 Recovery = 97.59%								
Ca 315.887†	308381.4	19470	ug/L	120.81	19470	ug/L	120.81	0.62%
QC value within limits for Ca 315.887 Recovery = 103.84%								
Cd 214.440†	116228.5	381.1	ug/L	0.12	381.1	ug/L	0.12	0.03%
QC value within limits for Cd 214.440 Recovery = 101.62%								
Co 228.616†	38441.3	377.8	ug/L	0.29	377.8	ug/L	0.29	0.08%
QC value within limits for Co 228.616 Recovery = 100.74%								
Cr 267.716†	34485.9	395.6	ug/L	0.43	395.6	ug/L	0.43	0.11%
QC value within limits for Cr 267.716 Recovery = 105.49%								
Cu 327.393†	74540.3	372.9	ug/L	0.57	372.9	ug/L	0.57	0.15%
QC value within limits for Cu 327.393 Recovery = 99.43%								
Fe 273.955†	594812.9	7542	ug/L	5.99	7542	ug/L	5.99	0.08%
QC value within limits for Fe 273.955 Recovery = 100.56%								
K 766.490†	57927.1	7287	ug/L	45.08	7287	ug/L	45.08	0.62%
QC value within limits for K 766.490 Recovery = 97.16%								
Mg 285.213†	323051.8	19280	ug/L	100.26	19280	ug/L	100.26	0.52%
QC value within limits for Mg 285.213 Recovery = 102.81%								
Mn 257.610†	33341.3	378.2	ug/L	2.34	378.2	ug/L	2.34	0.62%
QC value within limits for Mn 257.610 Recovery = 100.84%								
Mo 202.031†	13416.9	371.4	ug/L	0.75	371.4	ug/L	0.75	0.20%
QC value within limits for Mo 202.031 Recovery = 99.03%								
Na 589.592†	87922.1	9345	ug/L	49.53	9345	ug/L	49.53	0.53%
QC value within limits for Na 589.592 Recovery = 99.68%								
Ni 231.604†	19244.9	377.6	ug/L	0.40	377.6	ug/L	0.40	0.10%
QC value within limits for Ni 231.604 Recovery = 100.70%								
P 213.617†	6363.7	1839	ug/L	2.35	1839	ug/L	2.35	0.13%
QC value within limits for P 213.617 Recovery = 98.10%								
Pb 220.353†	2329.7	365.4	ug/L	1.33	365.4	ug/L	1.33	0.36%
QC value within limits for Pb 220.353 Recovery = 97.45%								
Sb 206.836†	2667.2	360.2	ug/L	2.92	360.2	ug/L	2.92	0.81%
QC value within limits for Sb 206.836 Recovery = 96.05%								
Se 196.026†	1231.7	373.8	ug/L	0.91	373.8	ug/L	0.91	0.24%
QC value within limits for Se 196.026 Recovery = 99.68%								
Sn 189.927†	2159.9	358.2	ug/L	0.86	358.2	ug/L	0.86	0.24%
QC value within limits for Sn 189.927 Recovery = 95.52%								
Sr 421.552†	216960.0	370.9	ug/L	2.70	370.9	ug/L	2.70	0.73%
QC value within limits for Sr 421.552 Recovery = 98.90%								
Ti 337.279†	13970.2	371.0	ug/L	1.41	371.0	ug/L	1.41	0.38%
QC value within limits for Ti 337.279 Recovery = 98.93%								
Tl 190.801†	1916.5	349.2	ug/L	3.82	349.2	ug/L	3.82	1.09%
QC value within limits for Tl 190.801 Recovery = 93.13%								
V 292.402†	38900.4	362.5	ug/L	0.65	362.5	ug/L	0.65	0.18%
QC value within limits for V 292.402 Recovery = 96.66%								
Zn 206.200†	37773.6	388.5	ug/L	0.24	388.5	ug/L	0.24	0.06%
QC value within limits for Zn 206.200 Recovery = 103.60%								

Li 670.784	3960540.5	183.3 ug/L	0.61	183.3 ug/L	0.61	0.33%

QC value within limits for Li 670.784 Recovery = 97.75%
All analyte(s) passed QC.

Sequence No.: 47
Sample ID: CCB 150701RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 07/01/15 6:23:05 PM
Data Type: Reprocessed on 07/02/15 8:56:41 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150701RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	242800.2	102.4	%	0.32				0.31%
Y Radial	16118.0	102.3	%	1.02				0.99%
Ag 338.289†	10.1	0.055	ug/L	0.2279	0.055	ug/L	0.2279	414.38%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	-21.6	-15.98	ug/L	1.477	-15.98	ug/L	1.477	9.24%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	7.0	1.296	ug/L	0.1366	1.296	ug/L	0.1366	10.54%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	359.8	10.15	ug/L	0.227	10.15	ug/L	0.227	2.24%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	52.6	0.119	ug/L	0.0129	0.119	ug/L	0.0129	10.86%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-188.3	-0.051	ug/L	0.0015	-0.051	ug/L	0.0015	2.97%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	84.0	5.309	ug/L	0.3205	5.309	ug/L	0.3205	6.04%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	-17.4	-0.057	ug/L	0.0309	-0.057	ug/L	0.0309	54.01%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	16.1	0.162	ug/L	0.0971	0.162	ug/L	0.0971	60.08%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-4.5	-0.052	ug/L	0.0071	-0.052	ug/L	0.0071	13.61%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	-128.7	-0.641	ug/L	0.1187	-0.641	ug/L	0.1187	18.51%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	411.4	5.232	ug/L	0.4714	5.232	ug/L	0.4714	9.01%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	63.3	8.022	ug/L	6.9775	8.022	ug/L	6.9775	86.98%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	9.2	0.550	ug/L	0.4042	0.550	ug/L	0.4042	73.45%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	3.6	0.041	ug/L	0.0589	0.041	ug/L	0.0589	144.70%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	38.6	1.068	ug/L	0.0515	1.068	ug/L	0.0515	4.83%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-408.3	-43.46	ug/L	1.302	-43.46	ug/L	1.302	3.00%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	2.7	0.054	ug/L	0.1651	0.054	ug/L	0.1651	304.48%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	0.8	0.218	ug/L	0.9056	0.218	ug/L	0.9056	416.19%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-3.9	-0.606	ug/L	0.6604	-0.606	ug/L	0.6604	108.98%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	13.3	1.795	ug/L	2.0444	1.795	ug/L	2.0444	113.88%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-2.8	-0.836	ug/L	1.1843	-0.836	ug/L	1.1843	141.61%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	-2.5	-0.420	ug/L	0.1953	-0.420	ug/L	0.1953	46.48%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	2.4	0.004	ug/L	0.0176	0.004	ug/L	0.0176	445.37%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	10.0	0.266	ug/L	0.2126	0.266	ug/L	0.2126	80.00%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-0.8	-0.147	ug/L	1.4793	-0.147	ug/L	1.4793	>999.9%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	6.9	0.064	ug/L	0.0512	0.064	ug/L	0.0512	79.88%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-169.1	-1.717	ug/L	0.1479	-1.717	ug/L	0.1479	8.62%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	1004.6	0.046 ug/L	0.0018	0.046 ug/L	0.0018	3.82%

QC value within limits for Li 670.784 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 57
Sample ID: CCV1 150701RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 07/01/15 7:33:15 PM
Data Type: Reprocessed on 07/02/15 8:56:52 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV1 150701RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	234431.9	98.85	%	1.250				1.26%
Y Radial	16659.3	105.7	%	4.84				4.57%
Ag 338.289†	46162.1	252.6	ug/L	2.06	252.6	ug/L	2.06	0.82%
QC value within limits for Ag 338.289 Recovery = 101.02%								
Al 308.215†	12904.8	9573	ug/L	448.72	9573	ug/L	448.72	4.69%
QC value within limits for Al 308.215 Recovery = 95.73%								
As 188.979†	2712.7	497.0	ug/L	6.24	497.0	ug/L	6.24	1.26%
QC value within limits for As 188.979 Recovery = 99.39%								
B 249.677†	17608.3	523.9	ug/L	7.81	523.9	ug/L	7.81	1.49%
QC value within limits for B 249.677 Recovery = 104.78%								
Ba 233.527†	225303.7	510.7	ug/L	4.74	510.7	ug/L	4.74	0.93%
QC value within limits for Ba 233.527 Recovery = 102.15%								
Be 313.107†	1863287.3	503.8	ug/L	5.15	503.8	ug/L	5.15	1.02%
QC value within limits for Be 313.107 Recovery = 100.76%								
Ca 315.887†	388177.2	24510	ug/L	1170.57	24510	ug/L	1170.57	4.78%
QC value within limits for Ca 315.887 Recovery = 98.03%								
Cd 214.440†	157441.0	516.1	ug/L	5.44	516.1	ug/L	5.44	1.05%
QC value within limits for Cd 214.440 Recovery = 103.23%								
Co 228.616†	52268.9	513.7	ug/L	4.51	513.7	ug/L	4.51	0.88%
QC value within limits for Co 228.616 Recovery = 102.75%								
Cr 267.716†	44377.9	509.1	ug/L	4.89	509.1	ug/L	4.89	0.96%
QC value within limits for Cr 267.716 Recovery = 101.82%								
Cu 327.393†	100967.7	505.0	ug/L	4.93	505.0	ug/L	4.93	0.98%
QC value within limits for Cu 327.393 Recovery = 101.00%								
Fe 273.955†	809225.0	10260	ug/L	97.33	10260	ug/L	97.33	0.95%
QC value within limits for Fe 273.955 Recovery = 102.60%								
K 766.490†	74887.3	9420	ug/L	438.37	9420	ug/L	438.37	4.65%
QC value within limits for K 766.490 Recovery = 94.20%								
Mg 285.213†	419738.9	25050	ug/L	1166.01	25050	ug/L	1166.01	4.66%
QC value within limits for Mg 285.213 Recovery = 100.18%								
Mn 257.610†	42892.9	486.5	ug/L	22.39	486.5	ug/L	22.39	4.60%
QC value within limits for Mn 257.610 Recovery = 97.30%								
Mo 202.031†	18290.3	506.2	ug/L	7.34	506.2	ug/L	7.34	1.45%
QC value within limits for Mo 202.031 Recovery = 101.25%								
Na 589.592†	111969.0	11900	ug/L	558.45	11900	ug/L	558.45	4.69%
QC value within limits for Na 589.592 Recovery = 95.20%								
Ni 231.604†	26159.6	513.3	ug/L	6.57	513.3	ug/L	6.57	1.28%
QC value within limits for Ni 231.604 Recovery = 102.66%								
P 213.617†	8700.6	2515	ug/L	27.81	2515	ug/L	27.81	1.11%
QC value within limits for P 213.617 Recovery = 100.59%								
Pb 220.353†	3218.5	504.7	ug/L	6.46	504.7	ug/L	6.46	1.28%
QC value within limits for Pb 220.353 Recovery = 100.93%								
Sb 206.836†	3746.8	506.0	ug/L	8.56	506.0	ug/L	8.56	1.69%
QC value within limits for Sb 206.836 Recovery = 101.20%								
Se 196.026†	1678.4	509.4	ug/L	7.72	509.4	ug/L	7.72	1.52%
QC value within limits for Se 196.026 Recovery = 101.87%								
Sn 189.927†	3026.4	501.9	ug/L	6.20	501.9	ug/L	6.20	1.24%
QC value within limits for Sn 189.927 Recovery = 100.38%								
Sr 421.552†	273935.3	468.3	ug/L	22.80	468.3	ug/L	22.80	4.87%
QC value within limits for Sr 421.552 Recovery = 93.65%								
Ti 337.279†	18100.0	480.6	ug/L	21.88	480.6	ug/L	21.88	4.55%
QC value within limits for Ti 337.279 Recovery = 96.13%								
Tl 190.801†	2691.5	490.5	ug/L	4.56	490.5	ug/L	4.56	0.93%
QC value within limits for Tl 190.801 Recovery = 98.09%								
V 292.402†	53574.6	499.2	ug/L	5.21	499.2	ug/L	5.21	1.04%
QC value within limits for V 292.402 Recovery = 99.84%								
Zn 206.200†	50660.6	520.7	ug/L	5.58	520.7	ug/L	5.58	1.07%
QC value within limits for Zn 206.200 Recovery = 104.15%								

Li 670.784	5414060.4	250.6 ug/L	1.30	250.6 ug/L	1.30	0.52%

QC value within limits for Li 670.784 Recovery = 100.22%
All analyte(s) passed QC.

Sequence No.: 58
Sample ID: CCB 150701RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 07/01/15 7:39:05 PM
Data Type: Reprocessed on 07/02/15 8:56:53 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150701RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	247541.5	104.4	%	2.38				2.28%
Y Radial	16863.8	107.0	%	0.50				0.46%
Ag 338.289†	-86.8	-0.475	ug/L	0.1852	-0.475	ug/L	0.1852	39.02%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	-23.5	-17.45	ug/L	5.656	-17.45	ug/L	5.656	32.41%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	10.0	1.840	ug/L	0.8896	1.840	ug/L	0.8896	48.35%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	182.3	5.148	ug/L	0.2946	5.148	ug/L	0.2946	5.72%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	26.2	0.059	ug/L	0.0114	0.059	ug/L	0.0114	19.51%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-128.1	-0.035	ug/L	0.0160	-0.035	ug/L	0.0160	46.20%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	40.9	2.586	ug/L	0.8911	2.586	ug/L	0.8911	34.45%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	55.1	0.181	ug/L	0.0974	0.181	ug/L	0.0974	53.97%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	11.5	0.117	ug/L	0.0680	0.117	ug/L	0.0680	57.98%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-9.6	-0.111	ug/L	0.0446	-0.111	ug/L	0.0446	40.28%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	-180.6	-0.901	ug/L	0.2105	-0.901	ug/L	0.2105	23.37%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	295.6	3.760	ug/L	0.3653	3.760	ug/L	0.3653	9.72%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	12.5	1.617	ug/L	9.5186	1.617	ug/L	9.5186	588.59%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	4.7	0.282	ug/L	0.2904	0.282	ug/L	0.2904	103.04%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	6.6	0.075	ug/L	0.0986	0.075	ug/L	0.0986	131.88%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	47.0	1.299	ug/L	0.3468	1.299	ug/L	0.3468	26.69%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-344.5	-36.66	ug/L	2.659	-36.66	ug/L	2.659	7.25%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	6.4	0.126	ug/L	0.0999	0.126	ug/L	0.0999	79.38%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	4.1	1.174	ug/L	0.4866	1.174	ug/L	0.4866	41.44%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-8.0	-1.245	ug/L	0.1000	-1.245	ug/L	0.1000	8.04%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	17.0	2.301	ug/L	0.4135	2.301	ug/L	0.4135	17.97%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-0.9	-0.283	ug/L	1.1078	-0.283	ug/L	1.1078	392.04%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	1.2	0.207	ug/L	0.5645	0.207	ug/L	0.5645	272.83%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	-2.1	-0.004	ug/L	0.0241	-0.004	ug/L	0.0241	647.51%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-1.3	-0.036	ug/L	0.3221	-0.036	ug/L	0.3221	906.57%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	1.1	0.194	ug/L	0.4356	0.194	ug/L	0.4356	224.30%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	3.9	0.037	ug/L	0.0555	0.037	ug/L	0.0555	150.92%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-145.4	-1.477	ug/L	0.1102	-1.477	ug/L	0.1102	7.46%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	1500.0	0.069 ug/L	0.0070	0.069 ug/L	0.0070	10.08%

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)	2.2 J	50.0	4.00	1.98	mg/Kg	06/30/15	07/01/15	#61CJU-150630A-AZ17444
6010C	BORON (B)	4.00 U	5.0	4.00	1.55	mg/Kg	06/30/15	07/01/15	#61CJU-150630A-AZ17444
6010C	LITHIUM (LI)	0.500 U	0.67	0.500	0.250	mg/Kg	06/30/15	07/01/15	#61CJU-150630A-AZ17444
6010C	ZINC (ZN)	4.00 U	8.0	4.00	1.15	mg/Kg	06/30/15	07/01/15	#61CJU-150630A-AZ17444

J = Estimated value.

Metals SC-Blank-REG MDLs
Printed: 07/06/15 2:21:34 PM

Sequence No.: 11
Sample ID: 150630A-3050 BLK
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 1 g
Dilution:
Wash Time:

Autosampler Location: 38
Date Collected: 07/01/15 2:34:24 PM
Data Type: Reprocessed on 07/02/15 8:56:00 AM

Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: 150630A-3050 BLK

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	235259.9	99.20	%	0.297				0.30%
Y Radial	15633.6	99.24	%	0.178				0.18%
Ag 338.289†	13.9	0.076	ug/L	0.2595	0.008	mg/kg	0.0259	341.12%
Al 308.215†	29.3	21.63	ug/L	0.517	2.163	mg/kg	0.0517	2.39%
As 188.979†	7.4	1.372	ug/L	2.3182	0.137	mg/kg	0.2318	169.02%
B 249.677†	253.0	7.477	ug/L	0.6004	0.748	mg/kg	0.0600	8.03%
Ba 233.527†	77.8	0.169	ug/L	0.0140	0.017	mg/kg	0.0014	8.24%
Be 313.107†	-88.4	-0.024	ug/L	0.0098	-0.002	mg/kg	0.0010	41.12%
Ca 315.887†	1605.7	101.4	ug/L	2.25	10.14	mg/kg	0.225	2.22%
Cd 214.440†	-47.7	-0.163	ug/L	0.0244	-0.016	mg/kg	0.0024	14.99%
Co 228.616†	59.8	0.587	ug/L	0.0032	0.059	mg/kg	0.0003	0.55%
Cr 267.716†	1.4	0.016	ug/L	0.1501	0.002	mg/kg	0.0150	911.00%
Cu 327.393†	3227.8	16.12	ug/L	1.301	1.612	mg/kg	0.1301	8.07%
Fe 273.955†	9568.1	121.8	ug/L	4.03	12.18	mg/kg	0.403	3.31%
K 766.490†	400.0	50.36	ug/L	2.380	5.036	mg/kg	0.2380	4.73%
Mg 285.213†	42.4	2.626	ug/L	0.6347	0.263	mg/kg	0.0635	24.17%
Mn 257.610†	72.9	0.829	ug/L	0.0374	0.083	mg/kg	0.0037	4.51%
Mo 202.031†	23.9	0.662	ug/L	0.1246	0.066	mg/kg	0.0125	18.83%
Na 589.592†	-64.6	-6.932	ug/L	3.2534	-0.693	mg/kg	0.3253	46.93%
Ni 231.604†	41.7	0.822	ug/L	0.0873	0.082	mg/kg	0.0087	10.63%
P 213.617†	0.5	0.143	ug/L	1.1521	0.014	mg/kg	0.1152	803.46%
Pb 220.353†	6.6	1.017	ug/L	0.9704	0.102	mg/kg	0.0970	95.45%
Sb 206.836†	36.1	4.873	ug/L	0.6497	0.487	mg/kg	0.0650	13.33%
Se 196.026†	-5.5	-1.615	ug/L	0.5393	-0.162	mg/kg	0.0539	33.39%
Sn 189.927†	40.0	6.639	ug/L	0.0649	0.664	mg/kg	0.0065	0.98%
Sr 421.552†	438.6	0.747	ug/L	0.0231	0.075	mg/kg	0.0023	3.09%
Ti 337.279†	-4.6	-0.122	ug/L	0.2074	-0.012	mg/kg	0.0207	169.62%
Tl 190.801†	-3.5	-0.634	ug/L	1.0822	-0.063	mg/kg	0.1082	170.72%
V 292.402†	-5.4	-0.050	ug/L	0.0036	-0.005	mg/kg	0.0004	7.18%
Zn 206.200†	130.5	1.321	ug/L	0.2563	0.132	mg/kg	0.0256	19.39%
Li 670.784	50363.3	2.331	ug/L	0.0341	0.233	mg/kg	0.0034	1.46%

Laboratory Control Spike Recovery

METALS

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level mg/Kg	SPK Result mg/Kg	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 6010C	ALUMINUM (AL)	200	190	95.0	80-120	06/30/15	07/01/15	#61CJU-150630A-AZ17444
EPA 6010C	BORON (B)	25.0	25.0	100	80-120	06/30/15	07/01/15	#61CJU-150630A-AZ17444
EPA 6010C	LITHIUM (LI)	10.00	10.7	107	80-120	06/30/15	07/01/15	#61CJU-150630A-AZ17444
EPA 6010C	ZINC (ZN)	50.0	47.9	95.8	80-120	06/30/15	07/01/15	#61CJU-150630A-AZ17444

Comments: _____

Sequence No.: 12
Sample ID: 150630A3050 LCS
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 1 g
Dilution:
Wash Time:

Autosampler Location: 39
Date Collected: 07/01/15 2:40:40 PM
Data Type: Reprocessed on 07/02/15 8:56:02 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: 150630A3050 LCS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	228827.3	96.49	%	0.808				0.84%
Y Radial	15353.0	97.45	%	0.485				0.50%
Ag 338.289†	18188.7	99.51	ug/L	0.702	9.951	mg/kg	0.0702	0.71%
Al 308.215†	2556.7	1903	ug/L	11.36	190.3	mg/kg	1.14	0.60%
As 188.979†	1247.1	226.8	ug/L	0.58	22.68	mg/kg	0.058	0.25%
B 249.677†	8816.4	250.2	ug/L	1.35	25.02	mg/kg	0.135	0.54%
Ba 233.527†	103493.0	234.8	ug/L	0.76	23.48	mg/kg	0.076	0.32%
Be 313.107†	183627.6	49.65	ug/L	0.008	4.965	mg/kg	0.0008	0.02%
Ca 315.887†	387090.2	24440	ug/L	212.71	2444	mg/kg	21.27	0.87%
Cd 214.440†	14532.3	48.16	ug/L	0.361	4.816	mg/kg	0.0361	0.75%
Co 228.616†	24140.6	237.2	ug/L	1.86	23.72	mg/kg	0.186	0.78%
Cr 267.716†	21256.6	243.8	ug/L	1.83	24.38	mg/kg	0.183	0.75%
Cu 327.393†	50754.8	253.7	ug/L	0.61	25.37	mg/kg	0.061	0.24%
Fe 273.955†	81577.9	1018	ug/L	3.28	101.8	mg/kg	0.33	0.32%
K 766.490†	38007.1	4766	ug/L	46.20	476.6	mg/kg	4.62	0.97%
Mg 285.213†	406554.9	24250	ug/L	199.70	2425	mg/kg	19.97	0.82%
Mn 257.610†	21239.8	240.4	ug/L	0.48	24.04	mg/kg	0.048	0.20%
Mo 202.031†	8300.3	229.7	ug/L	1.80	22.97	mg/kg	0.180	0.78%
Na 589.592†	246297.8	26200	ug/L	257.65	2620	mg/kg	25.77	0.98%
Ni 231.604†	11717.0	229.9	ug/L	1.80	22.99	mg/kg	0.180	0.78%
P 213.617†	6586.6	1904	ug/L	11.84	190.4	mg/kg	1.18	0.62%
Pb 220.353†	1378.4	216.6	ug/L	0.94	21.66	mg/kg	0.094	0.43%
Sb 206.836†	1785.4	241.1	ug/L	2.50	24.11	mg/kg	0.250	1.04%
Se 196.026†	782.1	235.2	ug/L	3.56	23.52	mg/kg	0.356	1.51%
Sn 189.927†	1302.3	216.0	ug/L	0.03	21.60	mg/kg	0.003	0.01%
Sr 421.552†	152780.9	260.7	ug/L	2.52	26.07	mg/kg	0.252	0.96%
Ti 337.279†	9016.9	239.3	ug/L	1.61	23.93	mg/kg	0.161	0.67%
Tl 190.801†	1099.9	200.4	ug/L	0.94	20.04	mg/kg	0.094	0.47%
V 292.402†	26344.5	245.5	ug/L	1.53	24.55	mg/kg	0.153	0.63%
Zn 206.200†	46729.7	478.5	ug/L	1.85	47.85	mg/kg	0.185	0.39%
Li 670.784	2306067.3	106.7	ug/L	0.65	10.67	mg/kg	0.065	0.61%

Matrix Spike Recoveries

METALS

APPL ID: **150630S-17444 MS - 198532**

Sample ID: AZ17444

Client ID: S67-SS035-0001

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/Kg	Matrix Res mg/Kg	SPK Res mg/Kg	DUP Res mg/Kg	SPK % Recovery	DUP % Recovery	RPD	RPD Max	Recovery Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group	QC Sample
EPA 6010C	ALUMINUM (AL)	421	5170	8170	7970	713 #	665 #	2.5	20	80-120	06/30/15	07/01/15	06/30/15	07/01/15	198532	AZ17444
EPA 6010C	BORON (B)	52.6	15.7	65.4	57.9	94.5	80.2	12.2	20	80-120	06/30/15	07/01/15	06/30/15	07/01/15	198532	AZ17444
EPA 6010C	LITHIUM (LI)	21.1	4.4	31.2	29.2	127 #	118	6.6	20	80-120	06/30/15	07/01/15	06/30/15	07/01/15	198532	AZ17444
EPA 6010C	ZINC (ZN)	105	34.4	135	127	95.8	88.2	6.1	20	80-120	06/30/15	07/01/15	06/30/15	07/01/15	198532	AZ17444

AMENDED PAGE

= Recovery is outside QC limits.

Comments: _____

Sequence No.: 50
Sample ID: AZ17444S05 MS
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.95 g
Dilution:
Wash Time:

Autosampler Location: 71
Date Collected: 07/01/15 6:43:42 PM
Data Type: Reprocessed on 07/02/15 8:56:44 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17444S05 MS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	265313.9	111.9	%	0.45				0.41%
Y Radial	17845.4	113.3	%	0.95				0.84%
Ag 338.289†	30068.2	164.5	ug/L	0.12	17.32	mg/kg	0.013	0.07%
Al 308.215†	94831.8	70210	ug/L	84.67	7390	mg/kg	8.91	0.12%
As 188.979†	2518.8	472.9	ug/L	5.26	49.78	mg/kg	0.554	1.11%
B 249.677†	9841.1	621.5	ug/L	1.27	65.42	mg/kg	0.134	0.20%
Ba 233.527†	325624.0	732.3	ug/L	0.65	77.08	mg/kg	0.068	0.09%
Be 313.107†	331585.5	89.66	ug/L	0.148	9.438	mg/kg	0.0156	0.17%
Ca 315.887†	819129.3	51720	ug/L	266.35	5444	mg/kg	28.04	0.52%
Cd 214.440†	27075.7	83.13	ug/L	0.442	8.751	mg/kg	0.0466	0.53%
Co 228.616†	44573.4	433.1	ug/L	3.07	45.59	mg/kg	0.323	0.71%
Cr 267.716†	56446.9	646.7	ug/L	3.02	68.07	mg/kg	0.318	0.47%
Cu 327.393†	106014.9	534.4	ug/L	0.70	56.25	mg/kg	0.073	0.13%
Fe 273.955†	9436747.4	120100	ug/L	157.86	12640	mg/kg	16.62	0.13%
K 766.490†	195890.0	24570	ug/L	84.01	2586	mg/kg	8.84	0.34%
Mg 285.213†	936405.9	55960	ug/L	238.88	5890	mg/kg	25.15	0.43%
Mn 257.610†	85838.8	974.1	ug/L	1.73	102.5	mg/kg	0.18	0.18%
Mo 202.031†	14041.4	390.8	ug/L	2.62	41.13	mg/kg	0.276	0.67%
Na 589.592†	405879.0	43150	ug/L	162.66	4542	mg/kg	17.12	0.38%
Ni 231.604†	23280.1	458.9	ug/L	2.84	48.31	mg/kg	0.299	0.62%
P 213.617†	16334.4	4721	ug/L	26.64	497.0	mg/kg	2.80	0.56%
Pb 220.353†	6527.8	1020	ug/L	6.32	107.4	mg/kg	0.66	0.62%
Sb 206.836†	3141.0	424.2	ug/L	4.56	44.65	mg/kg	0.480	1.08%
Se 196.026†	1179.3	411.6	ug/L	0.94	43.33	mg/kg	0.099	0.23%
Sn 189.927†	2290.9	379.9	ug/L	1.22	39.99	mg/kg	0.128	0.32%
Sr 421.552†	274806.6	468.6	ug/L	1.29	49.33	mg/kg	0.136	0.28%
Ti 337.279†	46274.6	1229	ug/L	3.79	129.3	mg/kg	0.40	0.31%
Tl 190.801†	1930.5	351.8	ug/L	6.89	37.03	mg/kg	0.726	1.96%
V 292.402†	64099.3	597.3	ug/L	1.06	62.87	mg/kg	0.112	0.18%
Zn 206.200†	126273.5	1286	ug/L	0.84	135.3	mg/kg	0.09	0.07%
Li 670.784	6404906.6	296.4	ug/L	0.90	31.20	mg/kg	0.094	0.30%

Sequence No.: 51
Sample ID: AZ17444S05 MSD
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.95 g
Dilution:
Wash Time:

Autosampler Location: 72
Date Collected: 07/01/15 6:50:30 PM
Data Type: Reprocessed on 07/02/15 8:56:45 AM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17444S05 MSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	275650.4	116.2	%	0.36				0.31%
Y Radial	18633.2	118.3	%	0.26				0.22%
Ag 338.289†	26955.4	147.5	ug/L	0.08	15.52	mg/kg	0.008	0.05%
Al 308.215†	89931.1	66580	ug/L	143.66	7008	mg/kg	15.12	0.22%
As 188.979†	2316.8	433.4	ug/L	2.32	45.62	mg/kg	0.244	0.53%
B 249.677†	9394.7	549.9	ug/L	1.95	57.89	mg/kg	0.206	0.36%
Ba 233.527†	315157.5	709.7	ug/L	0.97	74.70	mg/kg	0.102	0.14%
Be 313.107†	295150.8	79.81	ug/L	0.015	8.401	mg/kg	0.0016	0.02%
Ca 315.887†	761819.7	48100	ug/L	112.59	5063	mg/kg	11.85	0.23%
Cd 214.440†	24197.2	74.87	ug/L	0.543	7.881	mg/kg	0.0572	0.73%
Co 228.616†	39810.6	386.8	ug/L	3.56	40.72	mg/kg	0.375	0.92%
Cr 267.716†	49949.9	572.2	ug/L	4.45	60.23	mg/kg	0.469	0.78%
Cu 327.393†	91460.7	461.1	ug/L	0.22	48.54	mg/kg	0.023	0.05%
Fe 273.955†	7831378.4	99640	ug/L	102.40	10490	mg/kg	10.78	0.10%
K 766.490†	173366.4	21750	ug/L	20.63	2289	mg/kg	2.17	0.09%
Mg 285.213†	846817.8	50600	ug/L	59.22	5326	mg/kg	6.23	0.12%
Mn 257.610†	82499.1	936.2	ug/L	2.24	98.55	mg/kg	0.236	0.24%
Mo 202.031†	12485.4	347.3	ug/L	2.61	36.56	mg/kg	0.275	0.75%
Na 589.592†	363964.9	38690	ug/L	77.62	4073	mg/kg	8.17	0.20%
Ni 231.604†	21309.1	419.9	ug/L	3.29	44.20	mg/kg	0.346	0.78%
P 213.617†	14391.4	4160	ug/L	34.64	437.9	mg/kg	3.65	0.83%
Pb 220.353†	6033.0	944.7	ug/L	6.84	99.44	mg/kg	0.720	0.72%
Sb 206.836†	2818.2	380.6	ug/L	4.52	40.06	mg/kg	0.476	1.19%
Se 196.026†	1047.4	362.4	ug/L	2.05	38.15	mg/kg	0.216	0.57%
Sn 189.927†	2034.1	337.4	ug/L	4.24	35.51	mg/kg	0.446	1.26%
Sr 421.552†	251622.7	429.1	ug/L	1.18	45.16	mg/kg	0.124	0.27%
Ti 337.279†	45036.7	1196	ug/L	2.25	125.9	mg/kg	0.24	0.19%
Tl 190.801†	1744.8	317.9	ug/L	3.39	33.47	mg/kg	0.357	1.07%
V 292.402†	57513.4	535.9	ug/L	0.30	56.41	mg/kg	0.031	0.06%
Zn 206.200†	118699.5	1209	ug/L	1.42	127.2	mg/kg	0.15	0.12%
Li 670.784	5986524.0	277.0	ug/L	1.68	29.16	mg/kg	0.177	0.61%

Sequence No.: 27
Sample ID: AZ17444S05-1/20 MS
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.95 g
Dilution: 20X
Wash Time:

Autosampler Location: 52
Date Collected: 07/01/15 4:11:50 PM
Data Type: Reprocessed on 07/02/15 8:56:18 AM

Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17444S05-1/20 MS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	236600.8	99.77	%	0.304				0.30%
Y Radial	15907.8	101.0	%	0.38				0.38%
Ag 338.289†	1826.7	9.994	ug/L	0.6723	21.04	mg/kg	1.415	6.73%
Al 308.215†	5242.0	3881	ug/L	23.43	8170	mg/kg	49.32	0.60%
As 188.979†	153.7	28.94	ug/L	0.445	60.92	mg/kg	0.937	1.54%
B 249.677†	695.7	42.01	ug/L	0.407	88.45	mg/kg	0.856	0.97%
Ba 233.527†	19135.4	42.99	ug/L	0.075	90.51	mg/kg	0.157	0.17%
Be 313.107†	17977.5	4.861	ug/L	0.0047	10.23	mg/kg	0.010	0.10%
Ca 315.887†	48839.6	3084	ug/L	25.95	6492	mg/kg	54.63	0.84%
Cd 214.440†	1595.2	4.847	ug/L	0.0519	10.20	mg/kg	0.109	1.07%
Co 228.616†	2795.0	27.16	ug/L	0.233	57.19	mg/kg	0.491	0.86%
Cr 267.716†	3373.6	38.64	ug/L	0.219	81.36	mg/kg	0.461	0.57%
Cu 327.393†	6192.5	31.24	ug/L	0.346	65.77	mg/kg	0.729	1.11%
Fe 273.955†	613738.1	7809	ug/L	3.06	16440	mg/kg	6.45	0.04%
K 766.490†	12196.3	1530	ug/L	8.78	3220	mg/kg	18.48	0.57%
Mg 285.213†	56421.6	3372	ug/L	26.42	7099	mg/kg	55.62	0.78%
Mn 257.610†	5172.3	58.69	ug/L	0.579	123.6	mg/kg	1.22	0.99%
Mo 202.031†	873.1	24.30	ug/L	0.317	51.16	mg/kg	0.667	1.30%
Na 589.592†	25955.7	2760	ug/L	18.43	5810	mg/kg	38.80	0.67%
Ni 231.604†	1513.6	29.84	ug/L	0.118	62.83	mg/kg	0.249	0.40%
P 213.617†	962.1	278.1	ug/L	4.02	585.5	mg/kg	8.47	1.45%
Pb 220.353†	360.5	56.19	ug/L	0.566	118.3	mg/kg	1.19	1.01%
Sb 206.836†	180.8	24.42	ug/L	0.202	51.41	mg/kg	0.425	0.83%
Se 196.026†	68.8	24.39	ug/L	1.266	51.35	mg/kg	2.666	5.19%
Sn 189.927†	149.3	24.77	ug/L	0.210	52.14	mg/kg	0.442	0.85%
Sr 421.552†	18261.1	31.15	ug/L	0.185	65.58	mg/kg	0.390	0.59%
Ti 337.279†	2734.6	72.60	ug/L	1.519	152.8	mg/kg	3.20	2.09%
Tl 190.801†	101.8	18.54	ug/L	0.018	39.03	mg/kg	0.038	0.10%
V 292.402†	3782.4	35.25	ug/L	0.244	74.20	mg/kg	0.515	0.69%
Zn 206.200†	8129.0	82.72	ug/L	0.650	174.1	mg/kg	1.37	0.79%
Li 670.784	261778.5	12.11	ug/L	0.070	25.50	mg/kg	0.148	0.58%

Sequence No.: 28
Sample ID: AZ17444S05-1/20 MSD
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.95 g
Dilution: 20X
Wash Time:

Autosampler Location: 53
Date Collected: 07/01/15 4:17:21 PM
Data Type: Reprocessed on 07/02/15 8:56:19 AM

Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17444S05-1/20 MSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	236559.0	99.75	%	0.554				0.56%
Y Radial	15879.3	100.8	%	0.37				0.37%
Ag 338.289†	1676.7	9.173	ug/L	0.1341	19.31	mg/kg	0.282	1.46%
Al 308.215†	5112.0	3785	ug/L	34.00	7968	mg/kg	71.59	0.90%
As 188.979†	143.3	26.87	ug/L	1.003	56.57	mg/kg	2.112	3.73%
B 249.677†	671.1	37.95	ug/L	0.402	79.89	mg/kg	0.847	1.06%
Ba 233.527†	19155.0	43.10	ug/L	0.191	90.74	mg/kg	0.402	0.44%
Be 313.107†	16511.4	4.465	ug/L	0.0247	9.399	mg/kg	0.0520	0.55%
Ca 315.887†	46447.6	2933	ug/L	21.63	6174	mg/kg	45.54	0.74%
Cd 214.440†	1465.6	4.493	ug/L	0.0765	9.458	mg/kg	0.1611	1.70%
Co 228.616†	2599.6	25.27	ug/L	0.037	53.20	mg/kg	0.079	0.15%
Cr 267.716†	3090.0	35.40	ug/L	0.230	74.52	mg/kg	0.484	0.65%
Cu 327.393†	5520.0	27.85	ug/L	0.108	58.63	mg/kg	0.227	0.39%
Fe 273.955†	522116.2	6643	ug/L	22.61	13990	mg/kg	47.61	0.34%
K 766.490†	10988.2	1378	ug/L	4.48	2901	mg/kg	9.44	0.33%
Mg 285.213†	52050.9	3110	ug/L	22.59	6548	mg/kg	47.55	0.73%
Mn 257.610†	5134.7	58.27	ug/L	0.256	122.7	mg/kg	0.54	0.44%
Mo 202.031†	821.7	22.86	ug/L	0.217	48.13	mg/kg	0.457	0.95%
Na 589.592†	23620.3	2511	ug/L	12.08	5287	mg/kg	25.43	0.48%
Ni 231.604†	1424.2	28.07	ug/L	0.119	59.09	mg/kg	0.251	0.42%
P 213.617†	884.9	255.8	ug/L	1.67	538.5	mg/kg	3.53	0.65%
Pb 220.353†	341.0	53.28	ug/L	0.673	112.2	mg/kg	1.42	1.26%
Sb 206.836†	161.9	21.86	ug/L	0.577	46.03	mg/kg	1.216	2.64%
Se 196.026†	59.6	21.08	ug/L	1.962	44.37	mg/kg	4.131	9.31%
Sn 189.927†	136.2	22.59	ug/L	0.885	47.55	mg/kg	1.863	3.92%
Sr 421.552†	16958.1	28.93	ug/L	0.160	60.90	mg/kg	0.338	0.55%
Ti 337.279†	2728.1	72.43	ug/L	0.879	152.5	mg/kg	1.85	1.21%
Tl 190.801†	95.7	17.43	ug/L	1.617	36.70	mg/kg	3.405	9.28%
V 292.402†	3510.3	32.71	ug/L	0.177	68.86	mg/kg	0.373	0.54%
Zn 206.200†	7901.8	80.42	ug/L	0.740	169.3	mg/kg	1.56	0.92%
Li 670.784	243851.2	11.29	ug/L	0.081	23.76	mg/kg	0.171	0.72%

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	07/06/15	1mL	Al	CPI	14D237-33868	01/15/16
20 mL	HNO3	JT BAKER	0000067379	07/06/15	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				

Metals Digestion Worksheet

Method Name 3050B Digestion **Prep Method** M3050alt **Set** 150630A **Units** mL

Spikes			
Spiked ID 1	LCSW LOT# 1075288-35199		
Spiked ID 2	LCSW LOT# 1075395-35200		
Spiked ID 3	Li 10mg/L Prep: 6-30-15		
Spiked ID 4			
Spiked By	NM	Date:	06/30/15 9:06:00 AM
Witnessed By	MM	Date:	06/30/15 9:06:00 AM

Starting Temp:	93 c
Ending Temp:	93 c
Temperature Type:	Mod Block
Sufficient Vol for Matrix QC:	Yes
End Date/Time	06/30/15 11:15

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
1	150630A Blk				1.00g	100mL	06/30/15 9:06	equip: Modblock4
2	150630A LCS		1mL	1+2+3	1.00g	100mL	06/30/15 9:06	equip: Modblock4
3	AZ17433	AZ17433S03			0.99g	100mL	06/30/15 9:06	equip: Modblock4
4	AZ17434	AZ17434S02			1.04g	100mL	06/30/15 9:06	equip: Modblock4
5	AZ17435	AZ17435S03			0.97g	100mL	06/30/15 9:06	equip: Modblock4
6	AZ17436	AZ17436S02			1.00g	100mL	06/30/15 9:06	equip: Modblock4
7	AZ17437	AZ17437S03			1.03g	100mL	06/30/15 9:06	equip: Modblock4
8	AZ17438	AZ17438S01			1.05g	100mL	06/30/15 9:06	equip: Modblock4
9	AZ17439	AZ17439S03			1.02g	100mL	06/30/15 9:06	equip: Modblock4
10	AZ17440	AZ17440S01			1.02g	100mL	06/30/15 9:06	equip: Modblock4
11	AZ17441	AZ17441S02			1.05g	100mL	06/30/15 9:06	equip: Modblock4
12	AZ17442	AZ17442S02			1.03g	100mL	06/30/15 9:06	equip: Modblock4
13	AZ17443	AZ17443S01			0.95g	100mL	06/30/15 9:06	equip: Modblock4
14	AZ17444	AZ17444S05			0.95g	100mL	06/30/15 9:06	equip: Modblock4
15	AZ17444 MS	AZ17444S05	2mL	1+2+3	0.95g	100mL	06/30/15 9:06	equip: Modblock4
16	AZ17444 MSD	AZ17444S05	2mL	1+2+3	0.95g	100mL	06/30/15 9:06	equip: Modblock4
17	AZ17445	AZ17445S02			1.03g	100mL	06/30/15 9:06	equip: Modblock4
18	AZ17446	AZ17446S03			0.98g	100mL	06/30/15 9:06	equip: Modblock4
19	AZ17447	AZ17447S02			1.03g	100mL	06/30/15 9:06	equip: Modblock4

Solvent and Lot#
1:1 HNO3 NA
HNO3 J.T.B. 113071 4435
H2O2 EMD na
HCL BDH 4115022 4414

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	RJS
Date	7/2/15
Time	8:24
Moved to	Metals

Technician's Initials	
Scanned By	nm
Sample Preparation	nm
Digestion	nm
Bring up to volume	nm
Modified	06/30/15 12:57:41 PM

Reviewed By: RE **Date:** 7/2/15

6010 Injection Log

Directory: K:\ICAP JULES\Backup Excel\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	01 Jul 2015	12:42	CalBlk 150701RJS I:JL O:R		150701A6010	1.
2	01 Jul 2015	12:49	STD 1 150701RJS I:JL O:RJ		150701A6010	1.
3	01 Jul 2015	12:55	STD 2 150701RJS I:JL O:RJ		150701A6010	1.
4	01 Jul 2015	13:01	STD 3 150701RJS I:JL O:RJ		150701A6010	1.
5	01 Jul 2015	13:24	ICV 150701RJS I:JL O:RJS		150701A6010	1.
6	01 Jul 2015	13:29	ICB 150701RJS I:JL O:RJS		150701A6010	1.
7	01 Jul 2015	13:40	ICSA 150701RJS I:JL O:RJS		150701A6010	1.
8	01 Jul 2015	13:48	ICSAB 150701RJS I:JL O:RJ		150701A6010	1.
9	01 Jul 2015	13:54	CCV1 150701RJS I:JL O:RJS		150701A6010	1.
10	01 Jul 2015	14:06	CCB 150701RJS I:JL O:RJS		150701A6010	1.
11	01 Jul 2015	14:34	150630A-3050 BLK		150701A6010	1.
12	01 Jul 2015	14:40	150630A3050 LCS		150701A6010	1.
13	01 Jul 2015	14:47	AZ17433S03-1/20		150701A6010	20.
15	01 Jul 2015	14:58	AZ17435S03-1/20		150701A6010	20.
16	01 Jul 2015	15:04	AZ17436S02-1/20		150701A6010	20.
17	01 Jul 2015	15:10	AZ17437S03-1/20		150701A6010	20.
20	01 Jul 2015	15:27	AZ17440S01-1/20		150701A6010	20.
21	01 Jul 2015	15:33	AZ17441S02-1/20		150701A6010	20.
22	01 Jul 2015	15:38	AZ17442S02-1/20		150701A6010	20.
23	01 Jul 2015	15:44	CCV2 150701RJS I:JL O:RJS		150701A6010	1.
24	01 Jul 2015	15:53	CCB 150701RJS I:JL O:RJS		150701A6010	1.
26	01 Jul 2015	16:06	AZ17444S05-1/20		150701A6010	20.
27	01 Jul 2015	16:11	AZ17444S05-1/20 MS		150701A6010	20.
28	01 Jul 2015	16:17	AZ17444S05-1/20 MSD		150701A6010	20.
29	01 Jul 2015	16:22	AZ17445S02-1/20		150701A6010	20.
30	01 Jul 2015	16:28	AZ17446S03-1/20		150701A6010	20.
31	01 Jul 2015	16:33	AZ17447S02-1/20		150701A6010	20.
32	01 Jul 2015	16:39	AZ17444S05-1/20 A		150701A6010	20.
33	01 Jul 2015	16:46	AZ17444S05-1/100		150701A6010	100.
34	01 Jul 2015	16:52	CCV1 150701RJS I:JL O:RJS		150701A6010	1.
35	01 Jul 2015	16:58	CCB 150701RJS I:JL O:RJS		150701A6010	1.
36	01 Jul 2015	17:04	AZ17433S03		150701A6010	1.
37	01 Jul 2015	17:11	AZ17434S02		150701A6010	1.
38	01 Jul 2015	17:18	AZ17435S03		150701A6010	1.
39	01 Jul 2015	17:26	AZ17436S02		150701A6010	1.
40	01 Jul 2015	17:33	AZ17437S03		150701A6010	1.
41	01 Jul 2015	17:40	AZ17438S01		150701A6010	1.
42	01 Jul 2015	17:48	AZ17439S03		150701A6010	1.
43	01 Jul 2015	17:55	AZ17440S01		150701A6010	1.
44	01 Jul 2015	18:02	AZ17441S02		150701A6010	1.
45	01 Jul 2015	18:09	AZ17442S02		150701A6010	1.
46	01 Jul 2015	18:17	CCV2 150701RJS I:JL O:RJS		150701A6010	1.
47	01 Jul 2015	18:23	CCB 150701RJS I:JL O:RJS		150701A6010	1.

48	01 Jul 2015	18:29	AZ17443S01	150701A6010	1.
49	01 Jul 2015	18:36	AZ17444S05	150701A6010	1.
50	01 Jul 2015	18:43	AZ17444S05 MS	150701A6010	1.
51	01 Jul 2015	18:50	AZ17444S05 MSD	150701A6010	1.
52	01 Jul 2015	18:57	AZ17445S02	150701A6010	1.
53	01 Jul 2015	19:04	AZ17446S03	150701A6010	1.
54	01 Jul 2015	19:11	AZ17447S02	150701A6010	1.
55	01 Jul 2015	19:19	AZ17444S05-A	150701A6010	1.
56	01 Jul 2015	19:26	AZ17444S05-1/5	150701A6010	5.
57	01 Jul 2015	19:33	CCV1 150701RJS I:JL O:RJS	150701A6010	1.
58	01 Jul 2015	19:39	CCB 150701RJS I:JL O:RJS	150701A6010	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
WalkBlk	TOTAL ORGANIC C	150.00 U	200.0	150.00	100.00	mg/Kg	07/02/15	07/02/15	TOC-WB-150702A-AZ17444

Wetlab SC-Blank-REG MDLs
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Laboratory Control Spike Recovery

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level mg/Kg	SPK Result mg/Kg	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
WalkBlk	TOTAL ORGANIC CARBON	2000	1900	95.0	80-120	07/02/15	07/02/15	#TOC-WB-150702A-AZ17444

Comments: _____

Matrix Spike Recoveries

WETLAB

APPL ID: **150702S-17444 MS - 198548**

Sample ID: AZ17444

Client ID: S67-SS035-0001

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/Kg	Matrix Res mg/Kg	SPK Res mg/Kg	DUP Res mg/Kg	SPK % Recovery	DUP % Recovery	RPD	RPD Max	Recovery Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group	QC Sample
WalkBlk	TOTAL ORGANIC CAR	2000	10800	12700	12800	95.0	100	0.78	20	80-120	07/02/15	07/02/15	07/02/15	07/02/15	198548	AZ17444

Comments: _____

WETLAB

Sample/Sample Duplicate Results

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

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: AZ17433
Client ID: S67-SS031-0001

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

ARF: 76624

Method	Analyte	Sample ID	Sample Result	Sample Dup Result	RPD	RPD Max	MDL	PQL	Units	Sample Extract Date	Sample Analysis Date	Sample Dup Extract Date	Sample Dup Analysis Date
CLP MOIST	MOISTURE	AZ17433	18.1	21.4	17	20		2.0	%	06/16/15	06/17/15	06/16/15	06/17/15

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Dup-SCII (NoMC)

WETLAB

Sample/Sample Duplicate Results

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

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: AZ17444
Client ID: S67-SS035-0001

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

ARF: 76624

Method	Analyte	Sample ID	Sample Result	Sample Dup Result	RPD	RPD Max	MDL	PQL	Units	Sample Extract Date	Sample Analysis Date	Sample Dup Extract Date	Sample Dup Analysis Date
CLP MOIST	MOISTURE	AZ17444	14.8	16.6	11	20		2.0	%	06/16/15	06/17/15	06/16/15	06/17/15

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Dup-SCII (NoMC)

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-SS031-0001

Sample Collection Date: 06/08/15

APPL ID: AZ17433

ARF: 76624

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 9045D	PH	5.86@23.8C	NA			pH Units	1	06/11/15	06/11/15
WalkBlk	TOTAL ORGANIC CARBON	13200	200.0	150.00	100.00	mg/Kg	1	07/02/15	07/02/15

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APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-SS039-0001

APPL ID: AZ17435

Sample Collection Date: 06/08/15

ARF: 76624

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 9045D	PH	6.88@24C	NA			pH Units	1	06/11/15	06/11/15
WalkBlk	TOTAL ORGANIC CARBON	38100	200.0	150.00	100.00	mg/Kg	1	07/02/15	07/02/15

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APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-SS038-0001

Sample Collection Date: 06/09/15

APPL ID: AZ17437

ARF: 76624

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 9045D	PH	6.06@23.8C	NA			pH Units	1	06/11/15	06/11/15
WalkBlk	TOTAL ORGANIC CARBON	30200	200.0	150.00	100.00	mg/Kg	1	07/02/15	07/02/15

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APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-SS033-0001

Sample Collection Date: 06/09/15

APPL ID: AZ17439

ARF: 76624

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 9045D	PH	6.06@23.8C	NA			pH Units	1	06/11/15	06/11/15
WalkBlk	TOTAL ORGANIC CARBON	33300	200.0	150.00	100.00	mg/Kg	1	07/02/15	07/02/15

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APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-SS040-0001

Sample Collection Date: 06/10/15

APPL ID: AZ17441

ARF: 76624

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 9045D	PH	5.95@23.5C	NA			pH Units	1	06/11/15	06/11/15
WalkBlk	TOTAL ORGANIC CARBON	27800	200.0	150.00	100.00	mg/Kg	1	07/02/15	07/02/15

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APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-SS040P-0001

Sample Collection Date: 06/10/15

APPL ID: AZ17442

ARF: 76624

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 9045D	PH	5.98@23.6C	NA			pH Units	1	06/11/15	06/11/15
WalkBlk	TOTAL ORGANIC CARBON	27700	200.0	150.00	100.00	mg/Kg	1	07/02/15	07/02/15

Printed: 07/09/15 12:49:01 PM

APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-SS035-0001

Sample Collection Date: 06/10/15

APPL ID: AZ17444

ARF: 76624

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 9045D	PH	6.29@23.5C	NA			pH Units	1	06/11/15	06/11/15
WalkBlk	TOTAL ORGANIC CARBON	10800	200.0	150.00	100.00	mg/Kg	1	07/02/15	07/02/15

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APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-SS034-0001

Sample Collection Date: 06/10/15

APPL ID: AZ17446

ARF: 76624

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 9045D	PH	4.78@24C	NA			pH Units	1	06/12/15	06/12/15
WalkBlk	TOTAL ORGANIC CARBON	11700	200.0	150.00	100.00	mg/Kg	1	07/02/15	07/02/15

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APPL-F1-SC-NoMC-REG MDLs

Wetlab Results

ARF: 76624

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

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

Attn: Ed Corack

Method	Analyte	Result	RL	MDL	Units	Prep Date	Analysis Date
APPL ID: AZ17433	-Client Sample ID: S67-SS031-0001		-Sample Collection Date: 06/08/15		Project: CTO JU11 112G02622 N		
CLP MOIST	MOISTURE	18.1	2.0		%	06/16/15	06/17/15
APPL ID: AZ17434	-Client Sample ID: S67-SB031-0203		-Sample Collection Date: 06/08/15		Project: CTO JU11 112G02622 N		
CLP MOIST	MOISTURE	17.9	2.0		%	06/16/15	06/17/15
APPL ID: AZ17435	-Client Sample ID: S67-SS039-0001		-Sample Collection Date: 06/08/15		Project: CTO JU11 112G02622 N		
CLP MOIST	MOISTURE	22.4	2.0		%	06/16/15	06/17/15
APPL ID: AZ17436	-Client Sample ID: S67-SB039-0607		-Sample Collection Date: 06/08/15		Project: CTO JU11 112G02622 N		
CLP MOIST	MOISTURE	17.9	2.0		%	06/16/15	06/17/15
APPL ID: AZ17437	-Client Sample ID: S67-SS038-0001		-Sample Collection Date: 06/09/15		Project: CTO JU11 112G02622 N		
CLP MOIST	MOISTURE	17.5	2.0		%	06/16/15	06/17/15
APPL ID: AZ17438	-Client Sample ID: S67-SB038-0203		-Sample Collection Date: 06/09/15		Project: CTO JU11 112G02622 N		
CLP MOIST	MOISTURE	14.7	2.0		%	06/16/15	06/17/15
APPL ID: AZ17439	-Client Sample ID: S67-SS033-0001		-Sample Collection Date: 06/09/15		Project: CTO JU11 112G02622 N		
CLP MOIST	MOISTURE	26.6	2.0		%	06/16/15	06/17/15
APPL ID: AZ17440	-Client Sample ID: S67-SB033-0203		-Sample Collection Date: 06/09/15		Project: CTO JU11 112G02622 N		
CLP MOIST	MOISTURE	15.1	2.0		%	06/16/15	06/17/15
APPL ID: AZ17441	-Client Sample ID: S67-SS040-0001		-Sample Collection Date: 06/10/15		Project: CTO JU11 112G02622 N		
CLP MOIST	MOISTURE	20.0	2.0		%	06/16/15	06/17/15
APPL ID: AZ17442	-Client Sample ID: S67-SS040P-0001		-Sample Collection Date: 06/10/15		Project: CTO JU11 112G02622 N		
CLP MOIST	MOISTURE	19.4	2.0		%	06/16/15	06/17/15

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Wetlab Results

ARF: 76624

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

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

Attn: Ed Corack

Method	Analyte	Result	RL	MDL	Units	Prep Date	Analysis Date
APPL ID: AZ17443	-Client Sample ID: S67-SB040-1516		-Sample Collection Date: 06/10/15			Project: CTO JU11 112G02622 N	
CLP MOIST	MOISTURE	11.9	2.0		%	06/16/15	06/17/15
APPL ID: AZ17444	-Client Sample ID: S67-SS035-0001		-Sample Collection Date: 06/10/15			Project: CTO JU11 112G02622 N	
CLP MOIST	MOISTURE	14.8	2.0		%	06/16/15	06/17/15
APPL ID: AZ17445	-Client Sample ID: S67-SB035-0203		-Sample Collection Date: 06/10/15			Project: CTO JU11 112G02622 N	
CLP MOIST	MOISTURE	15.6	2.0		%	06/16/15	06/17/15
APPL ID: AZ17446	-Client Sample ID: S67-SS034-0001		-Sample Collection Date: 06/10/15			Project: CTO JU11 112G02622 N	
CLP MOIST	MOISTURE	12.3	2.0		%	06/16/15	06/17/15
APPL ID: AZ17447	-Client Sample ID: S67-SB034-0405		-Sample Collection Date: 06/10/15			Project: CTO JU11 112G02622 N	
CLP MOIST	MOISTURE	17.0	2.0		%	06/16/15	06/17/15

Printed: 07/09/15 12:52:12 PM

INORGANIC ANALYSIS
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: 76624 SDG: 76624

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

Analysis Date: 06/11/15

Analyte	Calibration Verification									M
	True CCV1	Found 15:40	%R(1)	True ICV	Found 15:43	%R(1)	True CCV1	Found 16:28	%R(1)	
pH	7	7.02	100	1.68	1.69	101	7	7.02	100	

(1) Control Limits: 99-101

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: 76624 SDG: 76624

Initial Calibration Source: CPI

Continuing Calibration Source: CPI

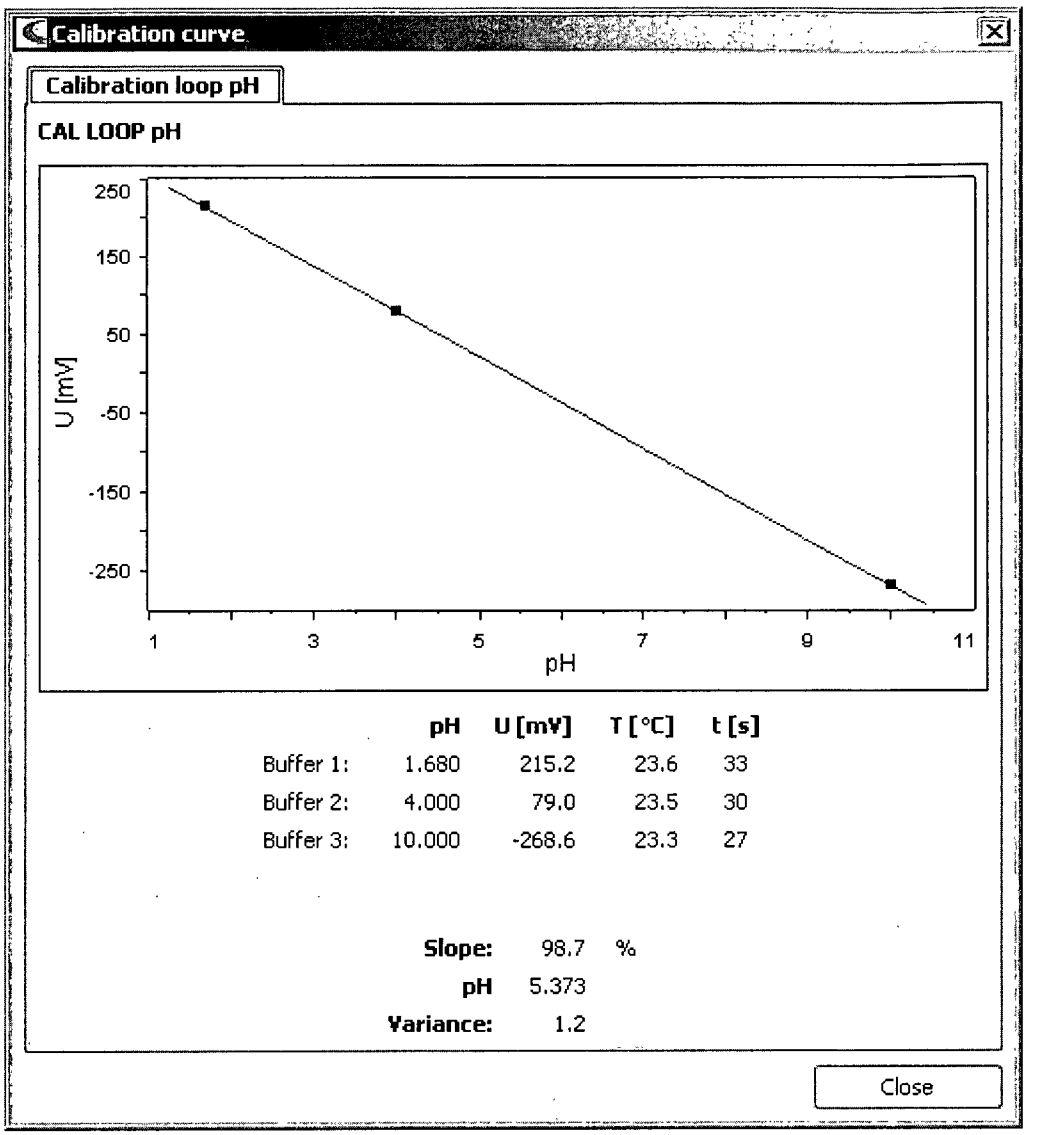
Analysis Date: 06/12/15

Analyte	Calibration Verification									M
	True CCV1	Found 12:03	%R(1)	True ICV	Found 12:07	%R(1)	True CCV1	Found 12:51	%R(1)	
pH	7	7.02	100	1.68	1.69	101	7	7.02	100	

(1) Control Limits: 99-101

ILM02.0

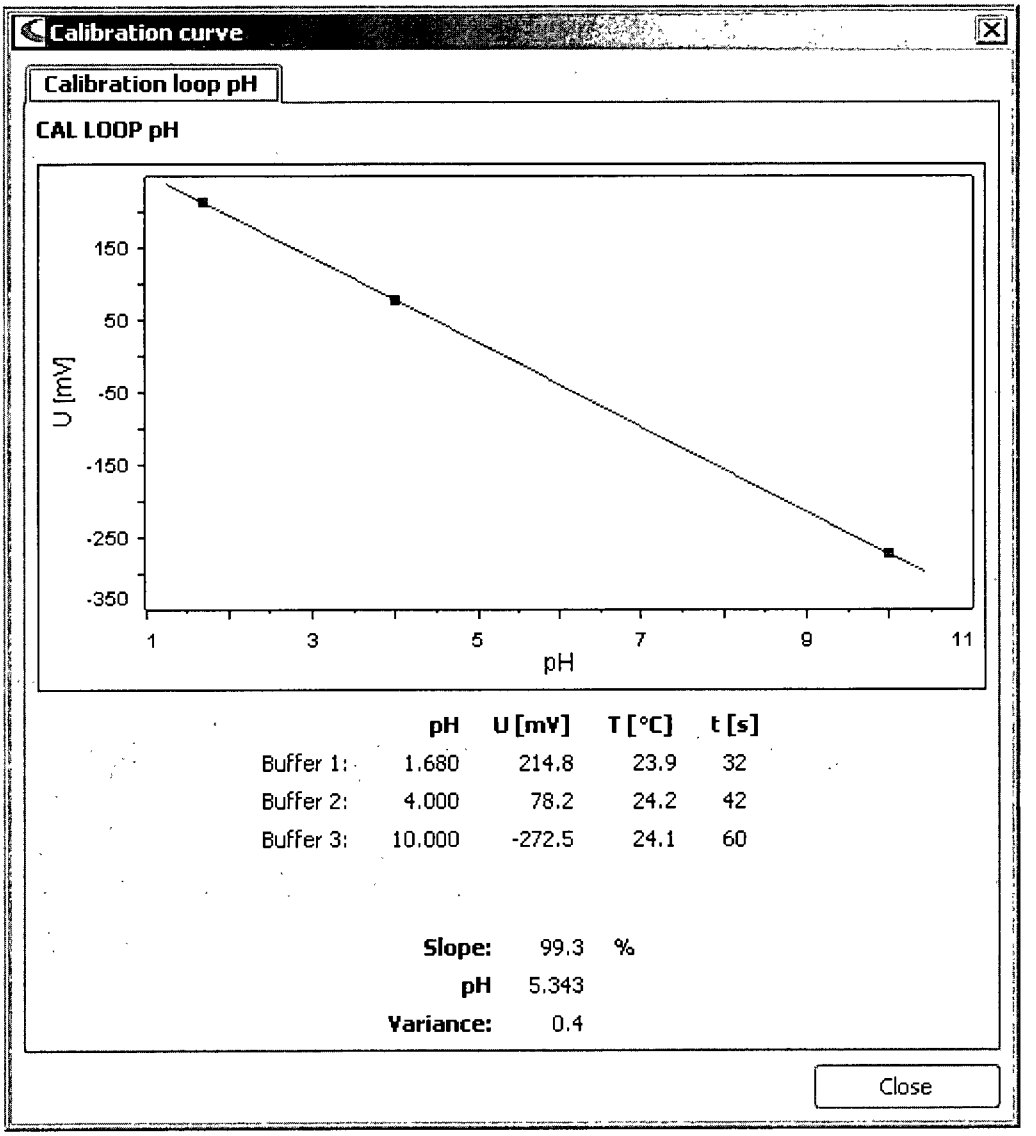
06/11/15 Tiamo Calibration Curve



	pH	U [mV]	T [°C]	t [s]
Buffer 1:	1.680	215.2	23.6	33
Buffer 2:	4.000	79.0	23.5	30
Buffer 3:	10.000	-268.6	23.3	27

Slope:	98.7	%
pH	5.373	
Variance:	1.2	

Close



	pH	U [mV]	T [°C]	t [s]
Buffer 1:	1.680	214.8	23.9	32
Buffer 2:	4.000	78.2	24.2	42
Buffer 3:	10.000	-272.5	24.1	60

Slope: 99.3 %
pH 5.343
Variance: 0.4

Close

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
WalkBlk	TOTAL ORGANIC C	150.00 U	200.0	150.00	100.00	mg/Kg	07/02/15	07/02/15	TOC-WB-150702A-AZ17444

Wetlab SC-Blank-REG MDLs
Printed: 07/09/15 12:49:06 PM

Laboratory Control Spike Recovery

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level mg/Kg	SPK Result mg/Kg	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
WalkBlk	TOTAL ORGANIC CARBON	2000	1900	95.0	80-120	07/02/15	07/02/15	#TOC-WB-150702A-AZ17444

Comments: _____

Matrix Spike Recoveries

WETLAB

APPL ID: **150702S-17444 MS - 198548**

Sample ID: AZ17444

Client ID: S67-SS035-0001

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/Kg	Matrix Res mg/Kg	SPK Res mg/Kg	DUP Res mg/Kg	SPK % Recovery	DUP % Recovery	RPD	RPD Max	Recovery Limits	Extract Date-Spk	Analysis Date-Spk	Extract Date-Dup	Analysis Date-Dup	QC Group	QC Sample
WalkBlk	TOTAL ORGANIC CAR	2000	10800	12700	12800	95.0	100	0.78	20	80-120	07/02/15	07/02/15	07/02/15	07/02/15	198548	AZ17444

Comments: _____

Walkley Black titration

Date: 07/02/15
Initials: bb
QCG: 150702a

Fe^{2+} Molarity

	Date of Prep	Manufacturer / LOT
FAS	03/13/15	EMD Lot2013050298

g FAS	mL water	g/mol FAS
160.00	1000	392.13

KMnO4 JT BAKER LOT# 00000-72980

mL FAS standardized	KMnO4 titrated (mL)	KMnO4 Conc. (mol/L)	Molarity Fe^{2+} (mol/mL)
10.00	39.50	0.10	0.0003950

Reagents
H2SO4 JT Baker
00000-13768
H3PO4 BDH

TOC std

Manufacturer	Lot number	Conc (mg/L)
O2SI	1052126-33043	1000

2011081075
Ottawa Sand Lot number 3223c517

KCrO7 Prep 03/13/15

LA/ MA	TOC STD (mL)	g Ottawa Sand		% C	C (mg/Kg)
LA	1.000	0.5	=	0.200%	2000
MA	1.000	0.5		0.200%	2000

*Equipment: Hotplates 7&3, Stirplate 6, Buret 2
*samples were digested by heating to 140 degrees celcius for 30 min

TOC in %

Sample number	sample (g)	titrant (mL)		%C		Time
150702A BLK	0.50	26.75	=			12:15
150702A LCS	0.50	25.95	=	0.1899%	94.9%	12:18
AZ17444S05	0.50	22.20		1.0770%		12:21
AZ17444S05 ms	0.50	21.40		1.2673%	95.18%	12:24
AZ17444S05 msd	0.50	21.35		1.2777%	100.34%	12:27
AZ17433S03	0.50	21.20	=	1.3166%		12:30
AZ17435S03	0.50	10.70	=	3.8058%		12:33
AZ17437S03	0.50	14.00	=	3.0197%		12:36
AZ17439S03	0.50	12.75	=	3.3277%		12:39
AZ17441S02	0.50	15.00	=	2.7779%		12:42
AZ17442S02	0.50	15.05	=	2.7743%		12:45
AZ17446S03	0.50	21.80	=	1.1707%		12:48
AZ17402S01	0.50	11.30	=	3.6679%		12:51

TOC in mg/Kg

Sample number	sample (g)	titrant (mL)		c in mg/kg		Time
150702A BLK	0.501	26.750	=	0.0		12:15
150702A LCS	0.500	25.950	=	1898.9	94.9%	12:18
AZ17444S05	0.501	22.200	=	10769.7		12:21
AZ17444S05 ms	0.501	21.400	=	12673.4		12:24
AZ17444S05 msd	0.501	21.350	=	12776.5		12:27
AZ17433S03	0.500	21.200	=	13165.6		12:30
AZ17435S03	0.500	10.700	=	38058.1		12:33
AZ17437S03	0.501	14.000	=	30196.9		12:36
AZ17439S03	0.499	12.750		33277.0		12:39
AZ17441S02	0.502	15.000		27778.6		12:42
AZ17442S02	0.500	15.050		27743.3		12:45
AZ17446S03	0.502	21.800		11707.1		12:48
AZ17402S01	0.500	11.300		36679.4		12:51

Metrohm 814/809 Titrando Data

Sample ID	Analysis Date/Time	Method	Result	Temp	Unit	Batch	Initials
CCV	2015-06-12 12:51:58 UTC-7	pH meas 2011	7.02 7.02	24.1	pH Units		
AZ17446S01	2015-06-12 12:12:55 UTC-7	pH meas 2011	4.78 4.76	24.0	pH Units	150612b	bb
ICV	2015-06-12 12:07:26 UTC-7	pH meas 2011	1.69 1.68	24.2	pH Units		bb
CCV	2015-06-12 12:03:34 UTC-7	pH meas 2011	7.02 7.02	24.5	pH Units		
ccv	2015-06-11 16:28:02 UTC-7	pH meas 2011	7.02 7.02	23.3	pH Units	150611b	bb
AZ17444S01 dup	2015-06-11 16:24:12 UTC-7	pH meas 2011	6.21 6.23	23.4	pH Units	150611b	bb
AZ17444S01	2015-06-11 16:20:17 UTC-7	pH meas 2011	6.29 6.34	23.5	pH Units	150611b	bb
AZ17442S01	2015-06-11 16:16:59 UTC-7	pH meas 2011	5.98 6.02	23.6	pH Units	150611b	bb
AZ17441S01	2015-06-11 16:13:47 UTC-7	pH meas 2011	5.95 5.99	23.5	pH Units	150611b	bb
AZ17439S01	2015-06-11 16:10:01 UTC-7	pH meas 2011	6.06 6.12	23.8	pH Units	150611b	bb
AZ17437S01	2015-06-11 16:05:35 UTC-7	pH meas 2011	6.06 6.00	23.8	pH Units	150611b	bb
AZ17435S01	2015-06-11 15:58:34 UTC-7	pH meas 2011	6.88 6.94	24.0	pH Units	150611b	bb
AZ17433S01	2015-06-11 15:52:32 UTC-7	pH meas 2011	5.86 5.93	23.8	pH Units	150611b	bb
ICV	2015-06-11 15:43:31 UTC-7	pH meas 2011	1.69 1.68	24.0	pH Units		bb

Metrohm 814/809 Titrando Data

Sample ID	Analysis Date/Time	Method	Result	Temp	Unit	Batch	Initials
CCV	2015-06-11 15:40:14 UTC-7	pH meas 2011	7.02 7.01	23.9	pH Units		

% Moisture

Batch: QCG 150616-M005704

Method: CLP 4.0

Date: 06/16/15 13:50

Sample	Container	Pan (g)	Pan+Wet (g)	Pan+Dry 1 (g)	Pan+Dry 2 (g)	Moisture (%)	Comments
AZ17482		0.8122	8.8263	8.1291	8.1294	8.696	
		06/16/15 13:50	06/16/15 13:52		06/17/15 07:50		
AZ17481		0.8259	8.9374	8.0684	8.0684	10.713	AZ17481S01
		06/16/15 13:47	06/16/15 13:49	06/17/15 07:49	06/17/15 07:49		
AZ17447		0.8119	8.6982	7.3542	7.3541	17.043	AZ17447S01
		06/16/15 13:44	06/16/15 13:46	06/17/15 07:49	06/17/15 07:49		
AZ17446		0.8120	9.8884	8.7739	8.7744	12.274	AZ17446S02
		06/16/15 13:42	06/16/15 13:44		06/17/15 07:49		
AZ17445		0.8298	9.6539	8.2748	8.2748	15.629	AZ17445S02
		06/16/15 13:39	06/16/15 13:41	06/17/15 07:48	06/17/15 07:48		
AZ17444D		0.8278	9.1054	7.7343	7.7343	16.564	AZ17444S08
		06/16/15 13:37	06/16/15 13:39	06/17/15 07:48	06/17/15 07:48		
AZ17444		0.8258	9.6768	8.3663	8.3664	14.805	AZ17444S08
		06/16/15 13:36	06/16/15 13:37	06/17/15 07:48			
AZ17443		0.8222	9.1473	8.1581	8.1580	11.883	AZ17443S02
		06/16/15 13:34	06/16/15 13:35	06/17/15 07:47			
AZ17442		0.8415	9.0932	7.4952	7.4952	19.366	AZ17442S02
		06/16/15 13:31	06/16/15 13:33	06/17/15 07:47	06/17/15 07:47		
AZ17441		0.8311	7.8181	6.4241	6.4241	19.951	AZ17441S03
		06/16/15 13:29	06/16/15 13:30	06/17/15 07:47	06/17/15 07:47		
AZ17440		0.8340	8.4648	7.3096	7.3097	15.137	AZ17440S01
		06/16/15 13:28	06/16/15 13:29	06/17/15 07:46	06/17/15 07:46		

Date/Time InOven@104°C	Date/Time OutOven@104°C	Date/Time InOven@104°C	Date/Time OutOven@104°C
06/16/15 3:26:00 PM			06/17/15 7:39:00 AM

% Moisture

Batch: QCG 150616-M005703

Method: CLP 4.0

Date: 06/16/15 12:32

Sample	Container	Pan (g)	Pan+Wet (g)	Pan+Dry 1 (g)	Pan+Dry 2 (g)	Moisture (%)	Comments
AZ17439		0.8124	9.1480	6.9268	6.9269	26.646	AZ17439S02
		06/16/15 12:32	06/16/15 12:34		06/17/15 07:53		
AZ17438		0.8137	9.4656	8.1976	8.1976	14.656	AZ17438S01
		06/16/15 12:30	06/16/15 12:32	06/17/15 07:53	06/17/15 07:53		
AZ17437		0.8245	8.2826	6.9754	6.9754	17.527	AZ17437S02
		06/16/15 12:28	06/16/15 12:30	06/17/15 07:52			
AZ17436		0.8119	9.5741	8.0045	8.0045	17.913	AZ17436S01
		06/16/15 12:25	06/16/15 12:26	06/17/15 07:52			
AZ17435		0.8180	8.6193	6.8719	6.8719	22.399	AZ17435S02
		06/16/15 12:22	06/16/15 12:24		06/17/15 07:52		
AZ17434		0.8335	8.7362	7.3197	7.3198	17.923	AZ17434S01
		06/16/15 12:20	06/16/15 12:21	06/17/15 07:51	06/17/15 07:51		
AZ17433D		0.8332	9.0855	7.3195	7.3195	21.400	AZ17433S02
		06/16/15 12:18	06/16/15 12:19	06/17/15 07:51	06/17/15 07:51		
AZ17433		0.8335	8.3632	7.0009	7.0009	18.092	AZ17433S02
		06/16/15 12:16	06/16/15 12:17	06/17/15 07:51			
AZ17355		0.8245	8.4417	7.6665	7.6664	10.178	AZ17355S04
		06/16/15 12:13	06/16/15 12:14	06/17/15 07:51			
AZ17354		0.8185	8.9967	8.2303	8.2303	9.371	AZ17354S04
		06/16/15 12:12	06/16/15 12:13	06/17/15 07:50	06/17/15 07:50		
AZ17353		0.8297	8.5447	7.8334	7.8334	9.220	AZ17353S04
		06/16/15 12:08	06/16/15 12:11	06/17/15 07:50	06/17/15 07:50		

Date/Time InOven@104°C	Date/Time OutOven@104°C	Date/Time InOven@104°C	Date/Time OutOven@104°C
06/16/15 3:26:00 PM			06/17/15 7:39:00 AM

Date	Initials	Balance	Weight	Reading	Lower Limit	Upper Limit	Comments / Is the Bubble Centered?
6/11/15	EM	Mettler AT200	0.5g	0.5000 g	0.4995	0.5005	Yes
		Mettler AT200	1g	1.001 g	0.9990	1.0010	
		Mettler AT200	20g	19.9998 g	19.9800	20.0200	
		Mettler AT200	50g	49.9994 g	49.9500	50.0500	
		Mettler AT200	100g	99.9985 g	99.9000	100.1000	
		Mettler AT200	150g	149.9980 g	149.8500	150.1500	
		OHAUS ARC120	0.1g	0.10 g	0.08	0.12	
		OHAUS ARC120	0.5g	0.50 g	0.48	0.52	
		OHAUS ARC120	1g	1.00 g	0.98	1.02	
		OHAUS ARC120	100g	100.00 g	98.00	102.00	
		OHAUS ARC120	1kg	1000.01 g	980.00	1020.00	
		OHAUS ARC120	2kg	1999.97 g	1960.00	2040.00	
6/12/15	EM	Mettler AT200	0.5g	0.5000 g	0.4995	0.5005	Yes
		Mettler AT200	1g	1.0000 g	0.9990	1.0010	
		Mettler AT200	20g	19.9997 g	19.9800	20.0200	
		Mettler AT200	50g	49.9991 g	49.9500	50.0500	
		Mettler AT200	100g	99.9981 g	99.9000	100.1000	
		Mettler AT200	150g	149.9973 g	149.8500	150.1500	
		OHAUS ARC120	0.1g	0.10 g	0.08	0.12	
		OHAUS ARC120	0.5g	0.50 g	0.48	0.52	
		OHAUS ARC120	1g	1.00 g	0.98	1.02	
		OHAUS ARC120	100g	100.00 g	98.00	102.00	
		OHAUS ARC120	1kg	1000.01 g	980.00	1020.00	
		OHAUS ARC120	2kg	2000.00 g	1960.00	2040.00	
6/15/15	EM	Mettler AT200	0.5g	0.4999 g	0.4995	0.5005	Yes
		Mettler AT200	1g	1.0000 g	0.9990	1.0010	
		Mettler AT200	20g	19.9998 g	19.9800	20.0200	
		Mettler AT200	50g	49.9995 g	49.9500	50.0500	
		Mettler AT200	100g	99.9989 g	99.9000	100.1000	
		Mettler AT200	150g	149.9982 g	149.8500	150.1500	
		OHAUS ARC120	0.1g	0.09 g	0.08	0.12	
		OHAUS ARC120	0.5g	0.50 g	0.48	0.52	
		OHAUS ARC120	1g	1.00 g	0.98	1.02	
		OHAUS ARC120	100g	100.00 g	98.00	102.00	
		OHAUS ARC120	1kg	1000.02 g	980.00	1020.00	
		OHAUS ARC120	2kg	2000.02 g	1960.00	2040.00	
6/16/15	EM	Mettler AT200	0.5g	0.5001 g	0.4995	0.5005	Yes
		Mettler AT200	1g	1.0001 g	0.9990	1.0010	
		Mettler AT200	20g	19.9999 g	19.9800	20.0200	
		Mettler AT200	50g	49.9997 g	49.9500	50.0500	
		Mettler AT200	100g	99.9992 g	99.9000	100.1000	
		Mettler AT200	150g	149.9988 g	149.8500	150.1500	
		OHAUS ARC120	0.1g	0.10 g	0.08	0.12	
		OHAUS ARC120	0.5g	0.50 g	0.48	0.52	
		OHAUS ARC120	1g	1.00 g	0.98	1.02	
		OHAUS ARC120	100g	100.00 g	98.00	102.00	
		OHAUS ARC120	1kg	1000.02 g	980.00	1020.00	
		OHAUS ARC120	2kg	2000.06 g	1960.00	2040.00	

Date	Initials	Balance	Weight	Reading	Lower Limit	Upper Limit	Comments / Is the Bubble Centered?
6/17/15	EM	Mettler AT200	0.5g	0.5000 g	0.4995	0.5005	
		Mettler AT200	1g	1.0000 g	0.9990	1.0010	
		Mettler AT200	20g	19.9999 g	19.9800	20.0200	
		Mettler AT200	50g	49.9996 g	49.9500	50.0500	
		Mettler AT200	100g	99.9992 g	99.9000	100.1000	
		Mettler AT200	150g	149.9986 g	149.8500	150.1500	
		OHAUS ARC120	0.1g	0.10 g	0.08	0.12	
		OHAUS ARC120	0.5g	0.50 g	0.48	0.52	
		OHAUS ARC120	1g	1.00 g	0.98	1.02	
		OHAUS ARC120	100g	100.00 g	98.00	102.00	
		OHAUS ARC120	1kg	1000.01 g	980.00	1020.00	
		OHAUS ARC120	2kg	2000.06 g	1960.00	2040.00	
6/18/15	RS	Mettler AT200	0.5g	0.5000 g	0.4995	0.5005	yes
		Mettler AT200	1g	0.9999 g	0.9990	1.0010	
		Mettler AT200	20g	20.0001 g	19.9800	20.0200	
		Mettler AT200	50g	49.9994 g	49.9500	50.0500	
		Mettler AT200	100g	99.9993 g	99.9000	100.1000	
		Mettler AT200	150g	149.9984 g	149.8500	150.1500	
		OHAUS ARC120	0.1g	0.01 g	0.08	0.12	
		OHAUS ARC120	0.5g	0.50 g	0.48	0.52	
		OHAUS ARC120	1g	1.00 g	0.98	1.02	
		OHAUS ARC120	100g	99.99 g	98.00	102.00	
		OHAUS ARC120	1kg	999.99 g	980.00	1020.00	
		OHAUS ARC120	2kg	200000 g	1960.00	2040.00	
6/19/15	E.M	Mettler AT200	0.5g	0.4999 g	0.4995	0.5005	Yes
		Mettler AT200	1g	1.0000 g	0.9990	1.0010	
		Mettler AT200	20g	19.9999 g	19.9800	20.0200	
		Mettler AT200	50g	49.9997 g	49.9500	50.0500	
		Mettler AT200	100g	99.9993 g	99.9000	100.1000	
		Mettler AT200	150g	149.9989 g	149.8500	150.1500	
		OHAUS ARC120	0.1g	0.10 g	0.08	0.12	
		OHAUS ARC120	0.5g	0.49 g	0.48	0.52	
		OHAUS ARC120	1g	1.00 g	0.98	1.02	
		OHAUS ARC120	100g	100.00g	98.00	102.00	
		OHAUS ARC120	1kg	1000.01 g	980.00	1020.00	
		OHAUS ARC120	2kg	2000.05 g	1960.00	2040.00	
6/22/15	EM	Mettler AT200	0.5g	0.5001 g	0.4995	0.5005	Yes
		Mettler AT200	1g	1.0001 g	0.9990	1.0010	
		Mettler AT200	20g	19.9999 g	19.9800	20.0200	
		Mettler AT200	50g	49.9996 g	49.9500	50.0500	
		Mettler AT200	100g	99.9991 g	99.9000	100.1000	
		Mettler AT200	150g	149.9987 g	149.8500	150.1500	
		OHAUS ARC120	0.1g	0.10 g	0.08	0.12	
		OHAUS ARC120	0.5g	0.50 g	0.48	0.52	
		OHAUS ARC120	1g	1.00 g	0.98	1.02	
		OHAUS ARC120	100g	100.01 g	98.00	102.00	
		OHAUS ARC120	1kg	1000.03 g	980.00	1020.00	
		OHAUS ARC120	2kg	2000.06 g	1960.00	2040.00	

3/13/15 AP
Exp 3/20/15

AP 3/13/15

NO3-N STDS	STANDARD / STOCK	PREP DATE / LOT	OPEN / EXP DATE	CONC STOCK OR STD [mg/L]	STOCK OR STD (mL)	FINAL VOL. W/DI H2O (mL)	FINAL CONC. NO3-N (mg/L)
100mg/L	O2SI	2/28/14	8/30/15	1000	5	50	100
		Lot 1057207					
0.1 mg/L	100mg/L NO3-N STOCK	3/13/15	3/20/15	100	0.1	100	0.1
0.2 mg/L					0.2	100	0.2
1.0 mg/L					1.0	100	1.0
5.0 mg/L					5.0	100	5.0
10.0 mg/L					10.0	100	10.0
20.0 mg/L					20.0	100	20.0
NO3-N ICV	CPI	6/12/14	12/11/15	1000	0.25	50	5.00
		LOT 14F013					

NO2-N Stds	STANDARD / STOCK	PREP DATE	EXP DATE	CONC STOCK OR STD [mg/L]	STOCK OR STD (mL)	FINAL VOL. W/DI H2O (mL)	FINAL CONC. NO2-N (mg/L)
100mg/L	O2SI	1062905	1/10/16	1000	5	50	100
		7/18/14					
0.1 mg/L	100mg/L NO2-N STOCK	3/13/15	3/20/15	100	0.1	100	0.1.
0.2 mg/L					0.2	100	0.2
0.5 mg/L					0.5	100	0.5
2.5 mg/L					2.5	100	2.5
5.0 mg/L					5.0	100	5.0
NO2-N ICV	CPI LOT#13J007	2/24/14	8/20/15	304.5	1	100	3.045

	STOCK	LOT#	EXP DATE	CONC STOCK [mg/L]	STOCK (mL)	FINAL VOL.	FINAL CONC.
LCS/LCSD	O2SI	1057207	3/20/15	1000	0.2	50 mL w/ DI H20	4
	O2SI	1062905	3/20/15	1000	0.1		2
MS / MSD	O2SI	1057207	3/20/15	1000	0.2	50 mL w/ SAMPLE	4
	O2SI	1062905	3/20/15	1000	0.1		2

For TOXN LCS/LCSD, used 0.250 ml 1000 mg/L NO3-N/50 ml DI = 5 mg/L.
For TOXN MS/MSD, used 0.250 ml 1000 mg/L NO3-N/50 ml sample = 5 mg/L..

3/13/15 AP ICV-for 180.1 Turbidity
Exp 3/15/15 0.200 ml 4000 NTU (Thermo Scientific Lot SX1-33618)/100 ml DI → 8 NTU

3/13/15 AP Color 2120 B
Exp 3/15/15 5 ml 500 unit (Ricca Lot 1404774)/50 ml DI → 50 unit stock
5 ml 50 unit (3/13/15)/50ml DI → 5 unit
4 ml 500 unit (Ricca Lot 1404774)/50 ml DI → 40 unit

3/13/15 BB FAS titrant for Walkley Black
exp 3/13/16 160.0016g FAS EMD lot 2013050298
40 mL H_2SO_4 JT Baker 000007133
Final vol 1L w/DI water