N00174.AR.001955
NSWC INDIAN HEAD
5090.3a

VALIDATED DATA PACKAGE, 76674, NSWC INDIAN HEAD MD
7/14/2015
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 14, 2015

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

Attn: Ed Corack

Title: Report of Data: Case 76674

Project: CTO JU11 112G02622 NSF Indian Head, MD

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

Dear Mr. Corack:

Five soil and nine water samples were received June 17, 2015, in good condition. Written results for the requested analyses are provided on this July 14, 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: 171

Sample receipt information

ARF: 76674

Project: CTO JU11 112G02622 NSF Indian Head, MD

Sample Receipt Information:

The samples were received on June 17, 2015, at 3.0°C, 3.0°C, and 3.5°C. The samples were assigned Analytical Request Form (ARF) number 76674. The sample numbers and requested analyses were compared to the chains of custody and email communication. Several containers were not delivered; the client was notified of the missing cooler and its containers. As a result, the following requested analyses were removed from the samples: S67-SW026-061615 remove phthalates, S67-SW026-061615 remove PAHs, S67-SW028-061615 remove PAHs, phthalates, and explosives, S67-SW029-061615 remove PAHs, phthalates, explosives, total and dissolved metals. The client provided collection times and added MS/MSD to water sample S67-SW028-061615. No other exception was encountered.

Sample Table

CLIENT ID	APPL ID	Matrix	Date Sampled	Date Received
S67-SD026-0001	AZ17816	SOIL	06/16/15	06/17/15
S67-SW026-061615	AZ17817	WATER	06/16/15	06/17/15
S67-SW026-061615	AZ17818	WATER	06/16/15	06/17/15
S67-SD027-0001	AZ17819	SOIL	06/16/15	06/17/15
S67-SD027P-0001	AZ17820	SOIL	06/16/15	06/17/15
S67-SW027-061615	AZ17821	WATER	06/16/15	06/17/15
S67-SD028-0001	AZ17822	SOIL	06/16/15	06/17/15
S67-SW028-061615	AZ17823	WATER	06/16/15	06/17/15
S67-SD029-0001	AZ17824	SOIL	06/16/15	06/17/15
S67-SW029-061615	AZ17825	WATER	06/16/15	06/17/15
S67-MW018-061615	AZ17826	WATER	06/16/15	06/17/15
S67-MW019-061615	AZ17827	WATER	06/16/15	06/17/15
S67-MW023-061615	AZ17828	WATER	06/16/15	06/17/15
S67-MW022-061615	AZ17829	WATER	06/16/15	06/17/15

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. The water samples were extracted according to EPA method 3510C. Due to low surrogate recovery, sample S67-SD027-0001 was re-extracted 16 days after collection. All other holding times were met.

The samples were analyzed for phthalates 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-SD029-0001 was designated by the client for MS/MSD analysis. All spike recovery acceptance criteria was 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. Sample S67-SD027-0001 recovered the surrogate 2-Fluorobiphenyl below the 45% lower control limit at 34.0%. The sample was re extracted, 16 days after collection, and re-analyzed with acceptable recovery. Both sets of data are reported. Samples S67-SW026P-061615 and S67-SW027-061615 recovered the surrogate 2-Fluorobiphenyl below the 50% lower control limit at 47.8% and 49.0% respectively. There was no sample left to re extract. 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 8260. All method criteria were met.

Summary:

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

EPA Method 8270D-SIM
Polynuclear Aromatic Hydrocarbons

Sample Preparation and Analysis Information:

The soil samples were extracted according to EPA method 3550B. The water samples were extracted according to EPA method 3510C. Due to low surrogate recovery, five soil samples and the MS/MSD were re-extracted 16 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 the samples. As a result, each of these is reported from the sum of the two area counts and may be biased high.

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. Acenaphthylene and anthracene were manually integrated in 150619A LCS. The surrogate Nitrobenzene-d5 was manually integrated in the 150622B LCS, samples S67-SD027-0001, and S67-SD027P-0001. Chrysene D-12, benzo (a) anthracene and chrysene were manually integrated in the MS. The surrogate 2-Fluorobiphenyl was manually integrated in samples S67-SW026-061615 and S67-SW027-061615. Chromatograms of before and after manual integration are enclosed.

Quality Control/Assurance

Spike Recovery

Laboratory Control Spikes (LCS) were used for quality assurance. In the water LCS, 2-methylnaphthalene recovered below the 45% lower control limit at 38.2%. All other LCS acceptance criteria were met.

Sample S67-SD029-0001 was designated by the client for MS/MSD analysis. Spike recoveries are summarized on the Matrix Spike Recovery forms.

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. The surrogate 2-Fluorobiphenyl recovered below the 45% lower control limit for all soil samples and the MS/MSD. The samples and MS/MSD were re-extracted, 16 days after collection, and re-analyzed with acceptable recovery. Both sets are reported, except for sample S67-SD028-0001, which had low surrogate recovery again.

Calibration

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

Tuning:

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

Internal Standards

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

Summary:

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

Dissolved Gasses
RSK-175

Sample Preparation and Analysis

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

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

Quality Control/Assurance

Spike Recovery

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

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

Method blanks

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

Calibration

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

Summary:

No analytical exception is noted. All data are acceptable.

EPA Method 6850
Perchlorate by LC-Mass Spec

Sample Preparation and Analysis Information:

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

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

Spikes:

Laboratory Control Spikes (LCS) and Interference Check Samples (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.

Samples S67-SW028-061615 and S67-SD029-001 were designated by the client for MS/MSD analysis. Perchlorate recovered above the 120% upper control limit at 133% in the MS performed on sample S67-SW028-061615. All other 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 soil samples were dried and extracted according to EPA method 8330B, without using incremental sampling procedures. The water samples were extracted according to EPA method 3535. All holding times were met.

Analysis:

The samples were analyzed according to EPA Method 8330B using an Agilent 1290 HPLC with DA detector. Manual integrations were performed in accordance with APPL's SOP. The following analytes were manually integrated in the calibration standards: HMX, Nitroglycerin, PETN, 1,2-Dinitrobenzene, 1,3- Dinitrobenzene, Nitrobenzene, 2,4,6-Trinitrotoluene, Tetryl, 2,6-Dinitrotoluene, 2,4-Dinitrotoluene, 2-Nitrotoluene, 4-Nitrotoluene, 3-Nitrotoluene, 4-Amino-2,6-Dinitrotoluene, 2-Amino-4,6-Dinitrotoluene and 3,5-Dinitroaniline. 1,2-Dinitrobenzene was manually integrated in samples S67-SW026P-061615 and S67-SW027-061615. HMX was manually integrated in sample S67-MW023-061615. Chromatograms of before and after manual integration are enclosed.

Quality Control/Assurance:

Spike Recovery:

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

Sample S67-SD029-0001 was designated by the client for MS/MSD analysis. All spike recovery acceptance criteria was met.

Method blanks:

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

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

Quality Control/Assurance:

Calibrations:

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

Blanks:

Lithium was detected above one half the LOQ in the water method blanks. A Lithium detections less than ten times the blank concentration are flagged with a "B" in the samples. No other target metal was detected above one half the LOQ in the method blanks.

Spikes:

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

Samples S67-SW028-061615 and S67-SD029-001 were designated by the client for MS/MSD analysis. All acceptance criteria were met for the QC performed on the water sample.

For the QC performed on sample S67-SD029-001, two metals recovered below the 80% lower control limit in the MS/MSD. In the PDS, two metals recovered outside the 75-125% limits. The DT was acceptable.

Summary:

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

Inorganic Analyses

EPA Method 300.0, SW846 9060, 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

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

Samples S67-SW028-061615 and S67-SD029-001 were designated by the client for MS/MSD analysis. Nitrate recovered below the 90% lower control limit in the MS/MSD, they were reanalyzed with similar results. All other acceptance criteria were met.

Method blanks

For the EPA 300.0 CCBs on 6/19/15, there were detections for chloride, which were 10 times less than all sample detections. No other 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 other analytical exception was noted. The data generated are acceptable.

APPL - Receiving

From: Cynthia Clark [cclark@applinc.com]
Sent: Thursday, June 18, 2015 10:08 AM
To: 'Renee Patterson'; 'Chue Moua'; 'APPL - Receiving'
Subject: FW: Tetra Tech missing Inventory - ARF 76674

I have removed the analysis codes per Ed's instructions below.
Yang, will you please delete the missing samples from the container count? Even if they find the cooler, it is doubtful it will be in time or in temp

---

From: Corack, Ed [mailto:Ed.Corack@tetratech.com]
Sent: Thursday, June 18, 2015 9:55 AM
To: Cynthia Clark
Cc: Birkett, Jacob; Thomson, Amy
Subject: RE: Tetra Tech missing Inventory - ARF 76674

Cynthia, please see below for instructions. We are assuming the missing fourth cooler is lost / samples not usable even if they eventually arrive.

V/R,
Ed

Ed Corack
Tetra Tech

From: Cynthia Clark [mailto:cclark@applinc.com]
Sent: Thursday, June 18, 2015 12:55 PM
To: Corack, Ed
Cc: Birkett, Jacob
Subject: RE: Tetra Tech missing Inventory - ARF 76674

here are the decisions we need to make

S67-SW026-061615 (AZ17817) - we have only one amber liter from which to run SVOCs and PAHS - which analysis should we run?
Ed: Run PAHs.

S67-SW026P-061615 (AZ17818) - we have only one amber liter from which to run SVOCs and PAHS - which analysis should we run?
Ed: Run SVOCs for the phthalates.

S67-SW028-061615 ms/msd (AZ17823) - we cannot run SVOCs, PAHs or explosives. We can run anions, perchlorate, total and dissolved metals
Ed: Understood. Run perchlorate, total and diss metals, and anions.

S67-SW029-061615 (AZ17825) - - we cannot run SVOCs, PAHs, explosives or total and dissolved metals. We can run anions and perchlorate
Ed: Understood. Run perchlorate and anions.

APPL - Receiving

From: APPL - Receiving [receiving@applinc.com]
Sent: Wednesday, June 17, 2015 3:53 PM
To: Cynthia Clark
Cc: Chue Moua; Renée Patterson; Sharon Dehmlow
Subject: Tetra Tech missing Inventory - ARF 76674

Cynthia,

Sample ID:	# Missing Container	Container Type
S67-SW026-061615	1	Amber liter
S67-SW026P-061615	1	Amber liter
S67-SW028-061615 ms/msd	6	Amber liter
	2	500mL Amber-Unpreserved
S67-SW029-061615	2	Amber liter
	2	500mL Amber-Unpreserved
	2	500mL Plastic-HNO3

Thanks,

Yang Lor

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.

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http://www.applinc.com

Renee Patterson

From: Cynthia Clark [cclark@applinc.com]
Sent: Wednesday, June 17, 2015 1:22 PM
To: 'Renee Patterson'
Subject: FW: sample times - RE: missing cooler (TTEC 76674)

From: Corack, Ed [mailto:Ed.Corack@tetratech.com]
Sent: Wednesday, June 17, 2015 1:07 PM
To: Cynthia Clark
Cc: Birkett, Jacob
Subject: sample times - RE: missing cooler

Cynthia, here are the sample times for the sediment and surface water samples on page 2 of the COC. I'll scan and send you a corrected COC – tomorrow when I can print it out and scan it.
All on June 16, 2015:
SD26 – 12:10
SW26 – 12:05
SW26P – 12:05
SD27 – 11:50
SD27P – 11:50
SW27 – 11:45
SW28 – 09:30
SD28 – 09:35
SW29 – 10:15
SD29 – 10:20

V/R,
-Ed

Ed Corack
Tetra Tech

From: Corack, Ed
Sent: Wednesday, June 17, 2015 3:58 PM
To: 'Cynthia Clark'
Cc: Birkett, Jacob
Subject: RE: missing cooler

SD28 is sediment. Must be MS/MSD for that medium
SW28 is surface water to do MS/MSD.

I'll find out about the collection time issue. Each bottle/label should indicate the time of collection, too.

V/R,
-Ed

Ed Corack
Tetra Tech

SHEALY **Chain of Custody Record**

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number 07445

Client: Tetra Tech	Report to Contact: Ed Corack	Sampler (Printed Name): Jacob Birkett	Quote No.
Address: 5700 Lake Wright Dr Suit 309	Telephone No. / Fax No. / Email: 757-466-4908	Waybill No.	Page 1 of 2
City: Norfolk; State: VA; Zip Code: 23502	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. Na Thio. 7. NaOH		
Project Name: NSF Indian Head Site 67			
Project Number: C10-JUH 112G02622	P.O Number		

Number of Containers / Bottle (See Instructions on back) / Preservative / Lot No.

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix GW	DW	WW	SD	Other	Analysis	Pthates PAHs	Metals	Energetics	Perchlorate	TOC	Pthalates, PAHs	Total Metals/Hardness	Dissolved Metals	Energetics	Perchlorate	Anions	Pthalates, PAHs	Total Metals	Dissolved Metals	Energetics	Perchlorate	Anions	TOC	Methane	Remarks / Cooler ID
										Sed					SW						GW								
										2				1	2	1	1	2	1	1	2	1	1	2	1	1	1	1	
										N				M	I	F	F	G	C	C	M	F	F	G	C	C	E	A	
										1	1	1	1	1	1	3	4	1	1	1	1	4	4	1	1	1	3	5	
S67-SD026-0001	6-16-15	1210	G			JB 4	8		JB 4	8																			
S67-SW026-061615	6-16-15	1205	G					8							2	1	1	2	1	1									
S67-SW026P-061615	6-16-15	1205	G					8	JB						2	1	1	2	1	1									
S67-SD027-0001	6-16-15	1150	G			JB	8		JB 6	8				1															
S67-SD027P-0001	6-16-15	1150	G			JB	8		6	8				1															
S67-SW027-061615	6-16-15	1145	G					8							2	1	1	2	1	1									
S67-SD028-0001	6-16-15	0935 ~~1020~~	G				2			2																			JB
S67-SW028-061615	6-16-15	0930 ~~1015~~	G					2							6	3	3	6	3	1									Run MS/MSD
S67-SD029-0001	6-16-15	1020	G			JB 2	8			8				1															Run MSMSD
S67-SW029-061615	6-16-15	1015	G					8							2	1	1	2	1	1									

Turn Around Time Required (Prior lab approval required for expedited TAT): ☒ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab

QC Requirements (Specify): See Contract

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler: Jacob Birkett [signature]	6-16-15		1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory Received by		

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Yes ☐ No ☐ Ice Pack
Receipt Temp. _____ °C
Temp. Blank ☐ Y / ☐ N

SHEALY **Chain of Custody Record**

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Number 07445

Client: Tetra Tech	Report to Contact: Ed Corack	Sampler (Printed Name): Jacob Birkett	Quote No.
Address: 5700 Lake Wright Dr Suite 309	Telephone No. / Fax No. / Email: 757-466-4908	Waybill No.	Page 1 of 2
City: Norfolk; State: VA; Zip Code: 23502	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. Na Thio. 7. NaOH		
Project Name: NSF-Indian Head Site 67			
Project Number: CTO-JU11 112G02622	P.O Number		

Number of Containers / Bottle (See Instructions on back) / Preservative / Lot No.

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix GW	DW	WW	SD	Other SW	Analysis	Sed: Phthalates, PAHs	Metals	Energetics	Perchlorate	TOC	SW: Phthalates, PAHs	Total Metals/Hardness	Dissolved Metals	Energetics	Perchlorate	Anions	GW: Phthalates, PAHs	Total Metals	Dissolved Metals	Energetics	Perchlorate	Anions	TOC	Methane		Remarks / Cooler ID
S67-SD026-0001	6-16-15		G				4	8	4	8																				
S67-SW026-061615	6-16-15		G					8							2	1	1	2	1	1										
S67-SW026P-061615	6-16-15		G					8							2	1	1	2	1	1										
S67-SD027-0001	6-16-15		G				5	8	4 6	2				1																
S67-SD027P-0001	6-16-15		G				5	8	4 6	2				1																
S67-SW027-061615	6-16-15		G					8							2	1	1	2	1	1										
S67-SD028-0001	6-16-15		G				2			2																				
S67-SW028-061615	6-16-15		G					22							6	3	3	6	3	1										
S67-SD029-0001	6-16-15		G				9	8		8				1																Run MSMSD
S67-SW029-061615	6-16-15		G					8							2	1	1	2	1	1										

Turn Around Time Required (Prior lab approval required for expedited TAT): ☒ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab

QC Requirements (Specify): See Contract

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler: Jacob Birkett [signature]	6-16-15		1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory Received by: Yang Zo	6/17/15	09:50

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Yes ☐ No ☐ Ice Pack | Receipt Temp. _____ °C | Temp. Blank ☐ Y / ☐ N

SHEALY **Chain of Custody Record**

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West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
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76674 3.0 3.0 3.5

Number 07446

Client: Tetra Tech	Report to Contact: Ed Corack	Sampler (Printed Name): Jacob Birkett	Quote No.
Address: 5700 Lake Wright Dr. St309	Telephone No. / Fax No. / Email: 757-466-4908	Waybill No.	Page 2 of 2
City: Norfolk State: VA Zip Code: 23502	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. Na Thio. 7. NaOH		
Project Name: NSF-Indian Head Site 67			
Project Number: 112G02622	P.O Number		

	Analysis	Phthalates, PAHs	Total Metals	Diss. Metals	Energetics	Perchlorate	Anions	TOC	Methane					
Number of Containers		2	1	1	2	1	1	1	1					
Bottle (See Instructions on back)		I	D	D	G	C	C	E	A					
Preservative		1	4	4	1	1	1	3	5					
Lot No.														

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	GW	DW	WW	S	Other	Phthalates, PAHs	Total Metals	Diss. Metals	Energetics	Perchlorate	Anions	TOC	Methane	Remarks / Cooler ID
S67-MW018-061615	6-16-15	1427	G	X					X	X	X	X	X	X	X	X	
S67-MW019-061615	6-16-15	1420	G	X					X	X	X	X	X				
S67-MW023-061615	6-16-15	1557	G	X					X	X	X	X	X	X	X	X	
S67-MW022-061615	6-16-15	1605	G	X					X	X	X	X	X	X	X	X	

JB 6-16-15

Turn Around Time Required (Prior lab approval required for expedited TAT): ☒ Standard ☐ Rush (Please Specify)	Sample Disposal: ☐ Return to Client ☒ Disposal by Lab	QC Requirements (Specify): See Contract	Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

Relinquished by	Date	Time	Received by	Date	Time
1. Relinquished by / Sampler: Jacob Birkett [signature]	6-16-15		1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory Received by: Yang [signature]	6/17/15	09:50

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Yes ☐ No ☐ Ice Pack | Receipt Temp. _______ °C | Temp. Blank ☐ Y / ☐ N

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-SD026-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17816
QCG: #87DJU-150618A-198506

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 27.8 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.230 U	0.91	0.230	0.086	mg/kg	06/18/15	06/19/15
EPA 8270D	BUTYL BENZYL PHTHALATE	0.230 U	0.46	0.230	0.078	mg/kg	06/18/15	06/19/15
EPA 8270D	DI-N-BUTYL PHTHALATE	0.230 U	0.46	0.230	0.091	mg/kg	06/18/15	06/19/15
EPA 8270D	DI-N-OCTYL PHTHALATE	0.230 U	0.46	0.230	0.080	mg/kg	06/18/15	06/19/15
EPA 8270D	DIETHYL PHTHALATE	0.230 U	0.46	0.230	0.086	mg/kg	06/18/15	06/19/15
EPA 8270D	DIMETHYL PHTHALATE	0.230 U	0.46	0.230	0.087	mg/kg	06/18/15	06/19/15
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	74.0	35-125			%	06/18/15	06/19/15
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	66.7	45-105			%	06/18/15	06/19/15
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	63.1	35-105			%	06/18/15	06/19/15
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	65.2	35-100			%	06/18/15	06/19/15
EPA 8270D	SURROGATE: PHENOL (S)	65.1	40-100			%	06/18/15	06/19/15
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	85.0	30-125			%	06/18/15	06/19/15

Quant Method: Y0609TT.M
Run #: 0609Y093
Instrument: Yoda
Sequence: Y150609
Dilution Factor: 1
Initials: DA

Printed: 07/10/15 12:05:28 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D WATER

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76674

Sample ID: S67-SW026P-061615

APPL ID: AZ17818

Sample Collection Date: 06/16/15

QCG: #87DJU-150623A-198680

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	06/23/15	07/07/15
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	06/23/15	07/07/15
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	06/23/15	07/07/15
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	06/23/15	07/07/15
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	06/23/15	07/07/15
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	06/23/15	07/07/15
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	48.1	40-125			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	47.8 #	50-110			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	29.7	20-110			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	53.3	40-110			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: PHENOL (S)	21.4	10-115			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	63.9	50-135			%	06/23/15	07/07/15

= Recovery (or RPD) is outside QC limits.

Quant Method: Y0625TT.M
Run #: 0625Y127
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 07/10/15 12:05:28 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-SD027-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17819
QCG: #87DJU-150618A-198506

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 50.7 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.340 U	1.30	0.340	0.130	mg/kg	06/18/15	06/19/15
EPA 8270D	BUTYL BENZYL PHTHALATE	0.340 U	0.67	0.340	0.110	mg/kg	06/18/15	06/19/15
EPA 8270D	DI-N-BUTYL PHTHALATE	0.340 U	0.67	0.340	0.130	mg/kg	06/18/15	06/19/15
EPA 8270D	DI-N-OCTYL PHTHALATE	0.340 U	0.67	0.340	0.120	mg/kg	06/18/15	06/19/15
EPA 8270D	DIETHYL PHTHALATE	0.340 U	0.67	0.340	0.130	mg/kg	06/18/15	06/19/15
EPA 8270D	DIMETHYL PHTHALATE	0.340 U	0.67	0.340	0.130	mg/kg	06/18/15	06/19/15
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	44.9	35-125			%	06/18/15	06/19/15
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	34.0 #	45-105			%	06/18/15	06/19/15
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	39.4	35-105			%	06/18/15	06/19/15
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	39.2	35-100			%	06/18/15	06/19/15
EPA 8270D	SURROGATE: PHENOL (S)	40.2	40-100			%	06/18/15	06/19/15
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	46.7	30-125			%	06/18/15	06/19/15

= Recovery (or RPD) is outside QC limits.

Quant Method: Y0609TT.M
Run #: 0609Y094
Instrument: Yoda
Sequence: Y150609
Dilution Factor: 1
Initials: DA

Printed: 07/10/15 12:05:28 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-SD027-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17819
QCG: #87DJU-150702A1-198633

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 50.7 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.25 J	1.30	0.340	0.130	mg/kg	07/02/15	07/06/15
EPA 8270D	BUTYL BENZYL PHTHALATE	0.340 U	0.67	0.340	0.110	mg/kg	07/02/15	07/06/15
EPA 8270D	DI-N-BUTYL PHTHALATE	0.340 U	0.67	0.340	0.130	mg/kg	07/02/15	07/06/15
EPA 8270D	DI-N-OCTYL PHTHALATE	0.340 U	0.67	0.340	0.120	mg/kg	07/02/15	07/06/15
EPA 8270D	DIETHYL PHTHALATE	0.340 U	0.67	0.340	0.130	mg/kg	07/02/15	07/06/15
EPA 8270D	DIMETHYL PHTHALATE	0.340 U	0.67	0.340	0.130	mg/kg	07/02/15	07/06/15
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	77.8	35-125			%	07/02/15	07/06/15
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	65.0	45-105			%	07/02/15	07/06/15
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	69.1	35-105			%	07/02/15	07/06/15
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	70.7	35-100			%	07/02/15	07/06/15
EPA 8270D	SURROGATE: PHENOL (S)	84.2	40-100			%	07/02/15	07/06/15
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	78.0	30-125			%	07/02/15	07/06/15

J = Estimated value.

Quant Method: Y0625TT.M
Run #: 0625Y105
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 07/10/15 12:05:28 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-SD027P-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17820
QCG: #87DJU-150618A-198506

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 53.5 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.360 U	1.40	0.360	0.130	mg/kg	06/18/15	06/19/15
EPA 8270D	BUTYL BENZYL PHTHALATE	0.360 U	0.71	0.360	0.120	mg/kg	06/18/15	06/19/15
EPA 8270D	DI-N-BUTYL PHTHALATE	0.360 U	0.71	0.360	0.140	mg/kg	06/18/15	06/19/15
EPA 8270D	DI-N-OCTYL PHTHALATE	0.360 U	0.71	0.360	0.120	mg/kg	06/18/15	06/19/15
EPA 8270D	DIETHYL PHTHALATE	0.360 U	0.71	0.360	0.130	mg/kg	06/18/15	06/19/15
EPA 8270D	DIMETHYL PHTHALATE	0.360 U	0.71	0.360	0.140	mg/kg	06/18/15	06/19/15
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	67.6	35-125			%	06/18/15	06/19/15
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	50.6	45-105			%	06/18/15	06/19/15
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	48.1	35-105			%	06/18/15	06/19/15
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	52.6	35-100			%	06/18/15	06/19/15
EPA 8270D	SURROGATE: PHENOL (S)	53.6	40-100			%	06/18/15	06/19/15
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	72.8	30-125			%	06/18/15	06/19/15

Quant Method: Y0609TT.M
Run #: 0609Y095
Instrument: Yoda
Sequence: Y150609
Dilution Factor: 1
Initials: DA

Printed: 07/10/15 12:05:28 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D WATER

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76674

Sample ID: S67-SW027-061615

APPL ID: AZ17821

Sample Collection Date: 06/16/15

QCG: #87DJU-150623A-198680

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	06/23/15	07/07/15
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	06/23/15	07/07/15
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	06/23/15	07/07/15
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	06/23/15	07/07/15
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	06/23/15	07/07/15
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	06/23/15	07/07/15
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	54.4	40-125			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	49.0 #	50-110			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	30.3	20-110			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	54.7	40-110			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: PHENOL (S)	21.5	10-115			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	70.8	50-135			%	06/23/15	07/07/15

= Recovery (or RPD) is outside QC limits.

Quant Method: Y0625TT.M
Run #: 0625Y128
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 07/10/15 12:05:28 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-SD028-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17822
QCG: #87DJU-150618A-198506

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 73.1 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.620 U	2.50	0.620	0.230	mg/kg	06/18/15	06/19/15
EPA 8270D	BUTYL BENZYL PHTHALATE	0.620 U	1.20	0.620	0.210	mg/kg	06/18/15	06/19/15
EPA 8270D	DI-N-BUTYL PHTHALATE	0.620 U	1.20	0.620	0.250	mg/kg	06/18/15	06/19/15
EPA 8270D	DI-N-OCTYL PHTHALATE	0.620 U	1.20	0.620	0.220	mg/kg	06/18/15	06/19/15
EPA 8270D	DIETHYL PHTHALATE	0.620 U	1.20	0.620	0.230	mg/kg	06/18/15	06/19/15
EPA 8270D	DIMETHYL PHTHALATE	0.620 U	1.20	0.620	0.230	mg/kg	06/18/15	06/19/15
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	77.2	35-125			%	06/18/15	06/19/15
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	65.2	45-105			%	06/18/15	06/19/15
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	70.2	35-105			%	06/18/15	06/19/15
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	69.1	35-100			%	06/18/15	06/19/15
EPA 8270D	SURROGATE: PHENOL (S)	73.7	40-100			%	06/18/15	06/19/15
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	77.8	30-125			%	06/18/15	06/19/15

Quant Method: Y0609TT.M
Run #: 0609Y096
Instrument: Yoda
Sequence: Y150609
Dilution Factor: 1
Initials: DA

Printed: 07/10/15 12:05:28 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-SD029-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17824
QCG: #87DJU-150618A-198506

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 72.1 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.600 U	2.40	0.600	0.220	mg/kg	06/18/15	06/20/15
EPA 8270D	BUTYL BENZYL PHTHALATE	0.600 U	1.20	0.600	0.200	mg/kg	06/18/15	06/20/15
EPA 8270D	DI-N-BUTYL PHTHALATE	0.600 U	1.20	0.600	0.240	mg/kg	06/18/15	06/20/15
EPA 8270D	DI-N-OCTYL PHTHALATE	0.600 U	1.20	0.600	0.210	mg/kg	06/18/15	06/20/15
EPA 8270D	DIETHYL PHTHALATE	0.600 U	1.20	0.600	0.220	mg/kg	06/18/15	06/20/15
EPA 8270D	DIMETHYL PHTHALATE	0.600 U	1.20	0.600	0.230	mg/kg	06/18/15	06/20/15
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	70.4	35-125			%	06/18/15	06/20/15
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	53.5	45-105			%	06/18/15	06/20/15
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	63.3	35-105			%	06/18/15	06/20/15
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	62.7	35-100			%	06/18/15	06/20/15
EPA 8270D	SURROGATE: PHENOL (S)	66.4	40-100			%	06/18/15	06/20/15
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	72.2	30-125			%	06/18/15	06/20/15

Quant Method: Y0609TT.M
Run #: 0609Y099
Instrument: Yoda
Sequence: Y150609
Dilution Factor: 1
Initials: DA

Printed: 07/10/15 12:05:28 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D WATER

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW018-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17826
QCG: #87DJU-150623A-198680

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	3.3 J	20.0	5.00	2.90	ug/L	06/23/15	07/07/15
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	06/23/15	07/07/15
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	06/23/15	07/07/15
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	06/23/15	07/07/15
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	06/23/15	07/07/15
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	06/23/15	07/07/15
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	66.4	40-125			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	59.1	50-110			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	41.7	20-110			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	63.9	40-110			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: PHENOL (S)	28.3	10-115			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	76.2	50-135			%	06/23/15	07/07/15

J = Estimated value.

Quant Method: Y0625TT.M
Run #: 0625Y129
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 07/10/15 12:05:28 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D WATER

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW019-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17827
QCG: #87DJU-150623A-198680

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	06/23/15	07/07/15
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	06/23/15	07/07/15
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	06/23/15	07/07/15
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	06/23/15	07/07/15
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	06/23/15	07/07/15
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	06/23/15	07/07/15
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	58.9	40-125			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	54.4	50-110			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	34.5	20-110			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	57.5	40-110			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: PHENOL (S)	25.1	10-115			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	69.5	50-135			%	06/23/15	07/07/15

Quant Method: Y0625TT.M
Run #: 0625Y130
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 07/10/15 12:05:28 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D WATER

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW023-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17828
QCG: #87DJU-150623A-198680

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	06/23/15	07/07/15
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	06/23/15	07/07/15
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	06/23/15	07/07/15
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	06/23/15	07/07/15
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	06/23/15	07/07/15
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	06/23/15	07/07/15
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	76.6	40-125			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	68.5	50-110			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	54.8	20-110			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	75.4	40-110			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: PHENOL (S)	36.6	10-115			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	79.7	50-135			%	06/23/15	07/07/15

Quant Method: Y0625TT.M
Run #: 0625Y131
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 07/10/15 12:05:28 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D WATER

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW022-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17829
QCG: #87DJU-150623A-198680

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	06/23/15	07/07/15
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	06/23/15	07/07/15
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	06/23/15	07/07/15
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	06/23/15	07/07/15
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	06/23/15	07/07/15
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	06/23/15	07/07/15
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	64.4	40-125			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	60.6	50-110			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	45.3	20-110			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	66.4	40-110			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: PHENOL (S)	28.7	10-115			%	06/23/15	07/07/15
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	75.3	50-135			%	06/23/15	07/07/15

Quant Method: Y0625TT.M
Run #: 0625Y132
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 07/10/15 12:05:28 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Method Blank
EPA 8270D SOILS

Blank Name/QCG: **150618S-17824 - 198506**
Batch ID: #87DJU-150618A

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	06/18/15	06/19/15
BLANK	BUTYL BENZYL PHTHALATE	0.167 U	0.33	0.167	0.056	mg/kg	06/18/15	06/19/15
BLANK	DI-N-BUTYL PHTHALATE	0.167 U	0.33	0.167	0.066	mg/kg	06/18/15	06/19/15
BLANK	DI-N-OCTYL PHTHALATE	0.167 U	0.33	0.167	0.058	mg/kg	06/18/15	06/19/15
BLANK	DIETHYL PHTHALATE	0.167 U	0.33	0.167	0.062	mg/kg	06/18/15	06/19/15
BLANK	DIMETHYL PHTHALATE	0.167 U	0.33	0.167	0.063	mg/kg	06/18/15	06/19/15
BLANK	SURROGATE: 2,4,6-TRIBROMOP	72.0	35-125			%	06/18/15	06/19/15
BLANK	SURROGATE: 2-FLUORBIPHENY	59.8	45-105			%	06/18/15	06/19/15
BLANK	SURROGATE: 2-FLUOROPHENO	57.3	35-105			%	06/18/15	06/19/15
BLANK	SURROGATE: NITROBENZENE-	58.4	35-100			%	06/18/15	06/19/15
BLANK	SURROGATE: PHENOL (S)	56.8	40-100			%	06/18/15	06/19/15
BLANK	SURROGATE: TERPHENYL-D14 (	80.2	30-125			%	06/18/15	06/19/15

Quant Method: Y0609TT.M
Run #: 0609Y086
Instrument: Yoda
Sequence: Y150609
Initials: DA

GC SC-Blank-REG MDLs
Printed: 07/10/15 12:05:23 PM

Method Blank
EPA 8270D SOIL RE-ANALYSIS

Blank Name/QCG: **150702S-17819 - 198633**
Batch ID: #87DJU-150702A1

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	07/02/15	07/06/15
BLANK	BUTYL BENZYL PHTHALATE	0.167 U	0.33	0.167	0.056	mg/kg	07/02/15	07/06/15
BLANK	DI-N-BUTYL PHTHALATE	0.167 U	0.33	0.167	0.066	mg/kg	07/02/15	07/06/15
BLANK	DI-N-OCTYL PHTHALATE	0.167 U	0.33	0.167	0.058	mg/kg	07/02/15	07/06/15
BLANK	DIETHYL PHTHALATE	0.167 U	0.33	0.167	0.062	mg/kg	07/02/15	07/06/15
BLANK	DIMETHYL PHTHALATE	0.167 U	0.33	0.167	0.063	mg/kg	07/02/15	07/06/15
BLANK	SURROGATE: 2,4,6-TRIBROMOP	76.8	35-125			%	07/02/15	07/06/15
BLANK	SURROGATE: 2-FLUORBIPHENY	64.2	45-105			%	07/02/15	07/06/15
BLANK	SURROGATE: 2-FLUOROPHENO	58.7	35-105			%	07/02/15	07/06/15
BLANK	SURROGATE: NITROBENZENE-	62.9	35-100			%	07/02/15	07/06/15
BLANK	SURROGATE: PHENOL (S)	66.8	40-100			%	07/02/15	07/06/15
BLANK	SURROGATE: TERPHENYL-D14 (	78.9	30-125			%	07/02/15	07/06/15

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

GC SC-Blank-REG MDLs
Printed: 07/10/15 12:05:23 PM

Method Blank
EPA 8270D WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150623W-17818 - 198680**
Batch ID: #87DJU-150623A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	BIS (2-ETHYLHEXYL) PHTHALAT	5.00 U	20.0	5.00	2.90	ug/L	06/23/15	07/07/15
BLANK	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	06/23/15	07/07/15
BLANK	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	06/23/15	07/07/15
BLANK	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	06/23/15	07/07/15
BLANK	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	06/23/15	07/07/15
BLANK	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	06/23/15	07/07/15
BLANK	SURROGATE: 2,4,6-TRIBROMOP	71.5	40-125			%	06/23/15	07/07/15
BLANK	SURROGATE: 2-FLUORBIPHENY	62.8	50-110			%	06/23/15	07/07/15
BLANK	SURROGATE: 2-FLUOROPHENO	37.9	20-110			%	06/23/15	07/07/15
BLANK	SURROGATE: NITROBENZENE-	63.2	40-110			%	06/23/15	07/07/15
BLANK	SURROGATE: PHENOL (S)	25.7	10-115			%	06/23/15	07/07/15
BLANK	SURROGATE: TERPHENYL-D14 (	83.6	50-135			%	06/23/15	07/07/15

Quant Method: Y0625TT.M
Run #: 0625Y124
Instrument: Yoda
Sequence: Y150625
Initials: DA

GC SC-Blank-REG MDLs
Printed: 07/10/15 12:05:23 PM

Laboratory Control Spike Recovery
EPA 8270D SOILS

APPL ID: **150618S-17824 LCS - 198506**
Batch ID: #87DJU-150618A

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	1.38	82.6	50-125
DI-N-BUTYL PHTHALATE	1.67	1.41	84.4	55-110
DI-N-OCTYL PHTHALATE	1.67	1.44	86.2	40-130
DIETHYL PHTHALATE	1.67	1.30	77.8	50-115
DIMETHYL PHTHALATE	1.67	1.27	76.0	50-110
SURROGATE: 2,4,6-TRIBROMOPHENOL	6.67	5.69	85.3	35-125
SURROGATE: 2-FLUORBIPHENYL (S)	3.33	2.53	76.0	45-105
SURROGATE: 2-FLUOROPHENOL (S)	6.67	5.02	75.3	35-105
SURROGATE: NITROBENZENE-D5 (S)	3.33	2.49	74.8	35-100
SURROGATE: PHENOL (S)	6.67	5.11	76.6	40-100
SURROGATE: TERPHENYL-D14 (S)	3.33	2.90	87.1	30-125

Comments: _____

Primary	SPK
Quant Method :	Y0609TT.M
Extraction Date :	06/18/15
Analysis Date :	06/19/15
Instrument :	Yoda
Run :	0609Y087
Initials :	DA

Printed: 07/10/15 12:05:24 PM
APPL Standard LCS

Laboratory Control Spike Recovery
EPA 8270D SOIL RE-ANALYSIS

APPL ID: **150702S-17819 LCS - 198633**
Batch ID: #87DJU-150702A1

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 :	07/02/15
Analysis Date :	07/06/15
Instrument :	Yoda
Run :	0625Y102
Initials :	DA

Printed: 07/10/15 12:05:24 PM
APPL Standard LCS

Laboratory Control Spike Recoveries
EPA 8270D WATER

APPL ID: **150623W-17818 LCS - 198680**
Batch ID: #87DJU-150623A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
BIS (2-ETHYLHEXYL) PHTHALATE	50.0	29.9	30.8	59.8	61.6	40-125	3.0	30
BUTYL BENZYL PHTHALATE	50.0	33.4	34.6	66.8	69.2	45-115	3.5	30
DI-N-BUTYL PHTHALATE	50.0	31.9	32.0	63.8	64.0	55-115	0.31	30
DI-N-OCTYL PHTHALATE	50.0	29.5	30.3	59.0	60.6	35-135	2.7	30
DIETHYL PHTHALATE	50.0	28.8	29.2	57.6	58.4	40-120	1.4	30
DIMETHYL PHTHALATE	50.0	28.6	29.6	57.2	59.2	25-125	3.4	30
SURROGATE: 2,4,6-TRIBROMOPHENOL	200	118	122	59.0	61.0	40-125		
SURROGATE: 2-FLUORBIPHENYL (S)	100	55.4	55.4	55.4	55.4	50-110		
SURROGATE: 2-FLUOROPHENOL (S)	200	80.2	82.9	40.1	41.5	20-110		
SURROGATE: NITROBENZENE-D5 (S)	100	57.6	59.6	57.6	59.6	40-110		
SURROGATE: PHENOL (S)	200	55.3	55.2	27.6	27.6	10-115		
SURROGATE: TERPHENYL-D14 (S)	100	67.9	71.5	67.9	71.5	50-135		

Comments: _____

Primary	SPK	DUP
Quant Method :	Y0625TT.M	Y0625TT.M
Extraction Date :	06/23/15	06/23/15
Analysis Date :	07/07/15	07/07/15
Instrument :	Yoda	Yoda
Run :	0625Y125	0625Y126
Initials :	DA	

Printed: 07/10/15 12:05:25 PM
APPL Standard LCSD

Matrix Spike Recoveries

EPA 8270D SOILS

APPL ID: **150618S-17824 MS - 198506**
Batch ID: #87DJU-150618A
Sample ID: AZ17824
Client ID: S67-SD029-0001

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	0.011	1.32	1.27	78.4	75.4	45-125	3.9	30
BUTYL BENZYL PHTHALATE	1.67	ND	1.27	1.26	76.0	75.4	50-125	0.79	30
DI-N-BUTYL PHTHALATE	1.67	0.011	1.35	1.34	80.2	79.6	55-110	0.74	30
DI-N-OCTYL PHTHALATE	1.67	ND	1.35	1.37	80.8	82.0	40-130	1.5	30
DIETHYL PHTHALATE	1.67	0.0052	1.24	1.21	73.9	72.1	50-115	2.4	30
DIMETHYL PHTHALATE	1.67	0.011	1.22	1.18	72.4	70.0	50-110	3.3	30
SURROGATE: 2,4,6-TRIBROMOPHENOL	6.67	NA	4.63	4.49	69.4	67.3	35-125		
SURROGATE: 2-FLUORBIPHENYL (S)	3.33	NA	1.64	1.67	49.2	50.2	45-105		
SURROGATE: 2-FLUOROPHENOL (S)	6.67	NA	4.00	3.62	60.0	54.3	35-105		
SURROGATE: NITROBENZENE-D5 (S)	3.33	NA	2.08	1.99	62.5	59.8	35-100		
SURROGATE: PHENOL (S)	6.67	NA	4.39	3.99	65.8	59.8	40-100		
SURROGATE: TERPHENYL-D14 (S)	3.33	NA	2.13	2.11	64.0	63.4	30-125		

Comments: _____

Primary	SPK	DUP
Quant Method :	Y0609TT.M	Y0609TT.M
Extraction Date :	06/18/15	06/18/15
Analysis Date :	06/19/15	06/19/15
Instrument :	Yoda	Yoda
Run :	0609Y097	0609Y098
Initials :	DA	

Printed: 07/10/15 12:05:26 PM
APPL MSD SCII

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 06/19/15

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
150618A-BLK	Blank	35-125	72.0		45-105	59.8	
150618A-LCS	Lab Control Spike	35-125	85.3		45-105	76.0	
AZ17816	S67-SD026-0001	35-125	74.0		45-105	66.7	
AZ17819	S67-SD027-0001	35-125	44.9		45-105	34.0	#
AZ17820	S67-SD027P-0001	35-125	67.6		45-105	50.6	
AZ17822	S67-SD028-0001	35-125	77.2		45-105	65.2	
AZ17824-MS	Matrix Spike	35-125	69.4		45-105	49.2	
AZ17824-MSD	Matrix SpikeD	35-125	67.3		45-105	50.2	
AZ17824	S67-SD029-0001	35-125	70.4		45-105	53.5	

Comments: Batch: #87DJU-150618A

= Recovery outside of Control Limits on Sample.

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 06/19/15

Matrix: SOIL Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2-FLUOROPHENOL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150618A-BLK	Blank	35-105	57.3		35-100	58.4	
150618A-LCS	Lab Control Spike	35-105	75.3		35-100	74.8	
AZ17816	S67-SD026-0001	35-105	63.1		35-100	65.2	
AZ17819	S67-SD027-0001	35-105	39.4		35-100	39.2	
AZ17820	S67-SD027P-0001	35-105	48.1		35-100	52.6	
AZ17822	S67-SD028-0001	35-105	70.2		35-100	69.1	
AZ17824-MS	Matrix Spike	35-105	60.0		35-100	62.5	
AZ17824-MSD	Matrix SpikeD	35-105	54.3		35-100	59.8	
AZ17824	S67-SD029-0001	35-105	63.3		35-100	62.7	

Comments: Batch: #87DJU-150618A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 06/19/15

Matrix: SOIL Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: PHENOL (S)			SURROGATE: TERPHENYL-D14 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150618A-BLK	Blank	40-100	56.8		30-125	80.2	
150618A-LCS	Lab Control Spike	40-100	76.6		30-125	87.1	
AZ17816	S67-SD026-0001	40-100	65.1		30-125	85.0	
AZ17819	S67-SD027-0001	40-100	40.2		30-125	46.7	
AZ17820	S67-SD027P-0001	40-100	53.6		30-125	72.8	
AZ17822	S67-SD028-0001	40-100	73.7		30-125	77.8	
AZ17824-MS	Matrix Spike	40-100	65.8		30-125	64.0	
AZ17824-MSD	Matrix SpikeD	40-100	59.8		30-125	63.4	
AZ17824	S67-SD029-0001	40-100	66.4		30-125	72.2	

Comments: Batch: #87DJU-150618A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/07/15

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2,4,6-TRIBROMOPHENOL (S)			SURROGATE: 2-FLUORBIPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150623A-BLK	Blank	40-125	71.5		50-110	62.8	
150623A-LCS	Lab Control Spike	40-125	59.0		50-110	55.4	
150623A-LCSD	Lab Control SpikeD	40-125	61.0		50-110	55.4	
AZ17818	S67-SW026P-061615	40-125	48.1		50-110	47.8	#
AZ17821	S67-SW027-061615	40-125	54.4		50-110	49.0	#
AZ17826	S67-MW018-061615	40-125	66.4		50-110	59.1	
AZ17827	S67-MW019-061615	40-125	58.9		50-110	54.4	
AZ17828	S67-MW023-061615	40-125	76.6		50-110	68.5	
AZ17829	S67-MW022-061615	40-125	64.4		50-110	60.6	

Comments: Batch: #87DJU-150623A

= Recovery outside of Control Limits on Sample.

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/07/15

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2-FLUOROPHENOL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150623A-BLK	Blank	20-110	37.9		40-110	63.2	
150623A-LCS	Lab Control Spike	20-110	40.1		40-110	57.6	
150623A-LCSD	Lab Control SpikeD	20-110	41.5		40-110	59.6	
AZ17818	S67-SW026P-061615	20-110	29.7		40-110	53.3	
AZ17821	S67-SW027-061615	20-110	30.3		40-110	54.7	
AZ17826	S67-MW018-061615	20-110	41.7		40-110	63.9	
AZ17827	S67-MW019-061615	20-110	34.5		40-110	57.5	
AZ17828	S67-MW023-061615	20-110	54.8		40-110	75.4	
AZ17829	S67-MW022-061615	20-110	45.3		40-110	66.4	

Comments: Batch: #87DJU-150623A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/07/15

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: PHENOL (S)			SURROGATE: TERPHENYL-D14 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150623A-BLK	Blank	10-115	25.7		50-135	83.6	
150623A-LCS	Lab Control Spike	10-115	27.6		50-135	67.9	
150623A-LCSD	Lab Control SpikeD	10-115	27.6		50-135	71.5	
AZ17818	S67-SW026P-061615	10-115	21.4		50-135	63.9	
AZ17821	S67-SW027-061615	10-115	21.5		50-135	70.8	
AZ17826	S67-MW018-061615	10-115	28.3		50-135	76.2	
AZ17827	S67-MW019-061615	10-115	25.1		50-135	69.5	
AZ17828	S67-MW023-061615	10-115	36.6		50-135	79.7	
AZ17829	S67-MW022-061615	10-115	28.7		50-135	75.3	

Comments: Batch: #87DJU-150623A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 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
150702A1-BLK	Blank	35-125	76.8		45-105	64.2	
150702A1-LCS	Lab Control Spike	35-125	91.1		45-105	80.9	
AZ17819	S67-SD027-0001	35-125	77.8		45-105	65.0	

Comments: Batch: #87DJU-150702A1

Printed: 07/10/15 12:05:24 PM

Form 2 & 8, Surrogate Recovery Summary

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 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
150702A1-BLK	Blank	35-105	58.7		35-100	62.9	
150702A1-LCS	Lab Control Spike	35-105	70.6		35-100	80.6	
AZ17819	S67-SD027-0001	35-105	69.1		35-100	70.7	

Comments: Batch: #87DJU-150702A1

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 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
150702A1-BLK	Blank	40-100	66.8		30-125	78.9	
150702A1-LCS	Lab Control Spike	40-100	83.3		30-125	81.8	
AZ17819	S67-SD027-0001	40-100	84.2		30-125	78.0	

Comments: Batch: #87DJU-150702A1

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 06/19/15

Matrix: SOIL Instrument: Yoda

Blank ID: 150618A-BLK Time Analyzed: 1751

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150618A-BLK	Blank	0609Y086	06/19/15 1751
150618A-LCS	Lab Control Spike	0609Y087	06/19/15 1821
AZ17816	S67-SD026-0001	0609Y093	06/19/15 2118
AZ17819	S67-SD027-0001	0609Y094	06/19/15 2148
AZ17820	S67-SD027P-0001	0609Y095	06/19/15 2217
AZ17822	S67-SD028-0001	0609Y096	06/19/15 2246
150618A-MS	Matrix Spike	0609Y097	06/19/15 2316
150618A-MSD	Matrix SpikeD	0609Y098	06/19/15 2345
AZ17824	S67-SD029-0001	0609Y099	06/20/15 0015

Comments: Batch: #87DJU-150618A

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/07/15

Matrix: WATER Instrument: Yoda

Blank ID: 150623A-BLK Time Analyzed: 1621

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150623A-BLK	Blank	0625Y124	07/07/15 1621
150623A-LCS	Lab Control Spike	0625Y125	07/07/15 1650
150623A-LCSD	Lab Control SpikeD	0625Y126	07/07/15 1720
AZ17818	S67-SW026P-061615	0625Y127	07/07/15 1750
AZ17821	S67-SW027-061615	0625Y128	07/07/15 1820
AZ17826	S67-MW018-061615	0625Y129	07/07/15 1850
AZ17827	S67-MW019-061615	0625Y130	07/07/15 1921
AZ17828	S67-MW023-061615	0625Y131	07/07/15 1950
AZ17829	S67-MW022-061615	0625Y132	07/07/15 2020

Comments: Batch: #87DJU-150623A

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/06/15

Matrix: SOIL Instrument: Yoda

Blank ID: 150702A1-BLK Time Analyzed: 1721

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150702A1-BLK	Blank	0625Y101	07/06/15 1721
150702A1-LCS	Lab Control Spike	0625Y102	07/06/15 1751
AZ17819	S67-SD027-0001	0625Y105	07/06/15 1922

Comments: Batch: #87DJU-150702A1

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

ARF: 76674

Sample ID: S67-SD026-0001

APPL ID: AZ17816

Sample Collection Date: 06/16/15

QCG: #SIMDD-150622B-198629

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 27.8 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0016 J	0.007	0.0024	0.0012	mg/kg	06/22/15	07/01/15
8270D-LL	ACENAPHTHENE	0.0021 J	0.007	0.0024	0.0014	mg/kg	06/22/15	07/01/15
8270D-LL	ACENAPHTHYLENE	0.0024 U	0.007	0.0024	0.0012	mg/kg	06/22/15	07/01/15
8270D-LL	ANTHRACENE	0.011	0.007	0.0024	0.0011	mg/kg	06/22/15	07/01/15
8270D-LL	BENZ (A) ANTHRACENE	0.042	0.007	0.0024	0.0012	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (A) PYRENE	0.019	0.007	0.0024	0.0012	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (B) FLUORANTHENE	0.045	0.007	0.0024	0.0015	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.013	0.007	0.0024	0.0018	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (K) FLUORANTHENE	0.023	0.007	0.0024	0.0014	mg/kg	06/22/15	07/01/15
8270D-LL	CHRYSENE	0.0024 U	0.007	0.0024	0.0011	mg/kg	06/22/15	07/01/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.0024 U	0.007	0.0024	0.0012	mg/kg	06/22/15	07/01/15
8270D-LL	FLUORANTHENE	0.066	0.007	0.0024	0.0017	mg/kg	06/22/15	07/01/15
8270D-LL	FLUORENE	0.0032 J	0.007	0.0024	0.0014	mg/kg	06/22/15	07/01/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.016	0.007	0.0024	0.0012	mg/kg	06/22/15	07/01/15
8270D-LL	NAPHTHALENE	0.0026 J	0.007	0.0024	0.0012	mg/kg	06/22/15	07/01/15
8270D-LL	PHENANTHRENE	0.035	0.007	0.0024	0.0015	mg/kg	06/22/15	07/01/15
8270D-LL	PYRENE	0.045	0.007	0.0024	0.0017	mg/kg	06/22/15	07/01/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	30.6 #	45-105			%	06/22/15	07/01/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	37.8	35-100			%	06/22/15	07/01/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	72.6	30-125			%	06/22/15	07/01/15

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

Quant Method: P0629.M
Run #: 0629L118
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/14/15 1:33:11 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D LL SOILS RE-EXTRACT

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

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SD026-0001
Sample Collection Date: 06/16/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76674
APPL ID: AZ17816
QCG: #SIMDD-150702A-198630

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 27.8 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.037	0.007	0.0024	0.0012	mg/kg	07/02/15	07/06/15
8270D-LL	ACENAPHTHENE	0.028	0.007	0.0024	0.0014	mg/kg	07/02/15	07/06/15
8270D-LL	ACENAPHTHYLENE	0.018	0.007	0.0024	0.0012	mg/kg	07/02/15	07/06/15
8270D-LL	ANTHRACENE	0.15	0.007	0.0024	0.0011	mg/kg	07/02/15	07/06/15
8270D-LL	BENZ (A) ANTHRACENE	0.43	0.007	0.0024	0.0012	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (A) PYRENE	0.25	0.007	0.0024	0.0012	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (B) FLUORANTHENE	0.70	0.007	0.0024	0.0015	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.18	0.007	0.0024	0.0018	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (K) FLUORANTHENE	0.84	0.007	0.0024	0.0014	mg/kg	07/02/15	07/06/15
8270D-LL	CHRYSENE	0.52	0.007	0.0024	0.0011	mg/kg	07/02/15	07/06/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.064	0.007	0.0024	0.0012	mg/kg	07/02/15	07/06/15
8270D-LL	FLUORANTHENE	0.80	0.007	0.0024	0.0017	mg/kg	07/02/15	07/06/15
8270D-LL	FLUORENE	0.069	0.007	0.0024	0.0014	mg/kg	07/02/15	07/06/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.21	0.007	0.0024	0.0012	mg/kg	07/02/15	07/06/15
8270D-LL	NAPHTHALENE	0.029	0.007	0.0024	0.0012	mg/kg	07/02/15	07/06/15
8270D-LL	PHENANTHRENE	0.59	0.007	0.0024	0.0015	mg/kg	07/02/15	07/06/15
8270D-LL	PYRENE	0.62	0.007	0.0024	0.0017	mg/kg	07/02/15	07/06/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	61.9	45-105			%	07/02/15	07/06/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	61.2	35-100			%	07/02/15	07/06/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	74.0	30-125			%	07/02/15	07/06/15

Quant Method: P0629.M
Run #: 0629L168
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/14/15 1:33:11 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D LL WATER DODv3

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SW026-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17817
QCG: #SIMDD-150619A-198588

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	50.0	50-110			%	06/19/15	07/02/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	50.5	40-110			%	06/19/15	07/02/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	61.2	50-135			%	06/19/15	07/02/15

Quant Method: P0629.M
Run #: 0629L139
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/14/15 1:33:11 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-SD027-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17819
QCG: #SIMDD-150622B-198629

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 50.7 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0034 U	0.010	0.0034	0.0018	mg/kg	06/22/15	07/01/15
8270D-LL	ACENAPHTHENE	0.0034 U	0.010	0.0034	0.0020	mg/kg	06/22/15	07/01/15
8270D-LL	ACENAPHTHYLENE	0.0034 U	0.010	0.0034	0.0018	mg/kg	06/22/15	07/01/15
8270D-LL	ANTHRACENE	0.0034 U	0.010	0.0034	0.0016	mg/kg	06/22/15	07/01/15
8270D-LL	BENZ (A) ANTHRACENE	0.020	0.010	0.0034	0.0018	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (A) PYRENE	0.0065 J	0.010	0.0034	0.0018	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (B) FLUORANTHENE	0.0069 J	0.010	0.0034	0.0022	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.0052 J	0.010	0.0034	0.0026	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (K) FLUORANTHENE	0.0034 U	0.010	0.0034	0.0020	mg/kg	06/22/15	07/01/15
8270D-LL	CHRYSENE	0.0034 U	0.010	0.0034	0.0016	mg/kg	06/22/15	07/01/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.0034 U	0.010	0.0034	0.0018	mg/kg	06/22/15	07/01/15
8270D-LL	FLUORANTHENE	0.021	0.010	0.0034	0.0024	mg/kg	06/22/15	07/01/15
8270D-LL	FLUORENE	0.0034 U	0.010	0.0034	0.0020	mg/kg	06/22/15	07/01/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.0056 J	0.010	0.0034	0.0018	mg/kg	06/22/15	07/01/15
8270D-LL	NAPHTHALENE	0.0034 U	0.010	0.0034	0.0018	mg/kg	06/22/15	07/01/15
8270D-LL	PHENANTHRENE	0.0076 J	0.010	0.0034	0.0022	mg/kg	06/22/15	07/01/15
8270D-LL	PYRENE	0.016	0.010	0.0034	0.0024	mg/kg	06/22/15	07/01/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	23.7 #	45-105			%	06/22/15	07/01/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	38.6	35-100			%	06/22/15	07/01/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	66.7	30-125			%	06/22/15	07/01/15

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

Quant Method: P0629.M
Run #: 0629L119
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
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-SD027-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17819
QCG: #SIMDD-150702A-198630

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 50.7 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0086 J	0.010	0.0034	0.0018	mg/kg	07/02/15	07/06/15
8270D-LL	ACENAPHTHENE	0.0033 J	0.010	0.0034	0.0020	mg/kg	07/02/15	07/06/15
8270D-LL	ACENAPHTHYLENE	0.0088 J	0.010	0.0034	0.0018	mg/kg	07/02/15	07/06/15
8270D-LL	ANTHRACENE	0.0094 J	0.010	0.0034	0.0016	mg/kg	07/02/15	07/06/15
8270D-LL	BENZ (A) ANTHRACENE	0.067	0.010	0.0034	0.0018	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (A) PYRENE	0.049	0.010	0.0034	0.0018	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (B) FLUORANTHENE	0.11	0.010	0.0034	0.0022	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.036	0.010	0.0034	0.0026	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (K) FLUORANTHENE	0.098	0.010	0.0034	0.0020	mg/kg	07/02/15	07/06/15
8270D-LL	CHRYSENE	0.015	0.010	0.0034	0.0016	mg/kg	07/02/15	07/06/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.012	0.010	0.0034	0.0018	mg/kg	07/02/15	07/06/15
8270D-LL	FLUORANTHENE	0.12	0.010	0.0034	0.0024	mg/kg	07/02/15	07/06/15
8270D-LL	FLUORENE	0.011	0.010	0.0034	0.0020	mg/kg	07/02/15	07/06/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.0034 U	0.010	0.0034	0.0018	mg/kg	07/02/15	07/06/15
8270D-LL	NAPHTHALENE	0.0080 J	0.010	0.0034	0.0018	mg/kg	07/02/15	07/06/15
8270D-LL	PHENANTHRENE	0.045	0.010	0.0034	0.0022	mg/kg	07/02/15	07/06/15
8270D-LL	PYRENE	0.11	0.010	0.0034	0.0024	mg/kg	07/02/15	07/06/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	57.3	45-105			%	07/02/15	07/06/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	60.1	35-100			%	07/02/15	07/06/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	75.1	30-125			%	07/02/15	07/06/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L169
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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Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
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Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76674

Sample ID: S67-SD027P-0001

APPL ID: AZ17820

Sample Collection Date: 06/16/15

QCG: #SIMDD-150622B-198629

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 53.5 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0037 U	0.011	0.0037	0.0019	mg/kg	06/22/15	07/01/15
8270D-LL	ACENAPHTHENE	0.0037 U	0.011	0.0037	0.0022	mg/kg	06/22/15	07/01/15
8270D-LL	ACENAPHTHYLENE	0.0037 U	0.011	0.0037	0.0019	mg/kg	06/22/15	07/01/15
8270D-LL	ANTHRACENE	0.0037 U	0.011	0.0037	0.0017	mg/kg	06/22/15	07/01/15
8270D-LL	BENZ (A) ANTHRACENE	0.021	0.011	0.0037	0.0019	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (A) PYRENE	0.0082 J	0.011	0.0037	0.0019	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (B) FLUORANTHENE	0.0037 U	0.011	0.0037	0.0024	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.0071 J	0.011	0.0037	0.0028	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (K) FLUORANTHENE	0.0037 U	0.011	0.0037	0.0022	mg/kg	06/22/15	07/01/15
8270D-LL	CHRYSENE	0.0037 U	0.011	0.0037	0.0017	mg/kg	06/22/15	07/01/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.0037 U	0.011	0.0037	0.0019	mg/kg	06/22/15	07/01/15
8270D-LL	FLUORANTHENE	0.019	0.011	0.0037	0.0026	mg/kg	06/22/15	07/01/15
8270D-LL	FLUORENE	0.0037 U	0.011	0.0037	0.0022	mg/kg	06/22/15	07/01/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.0037 U	0.011	0.0037	0.0019	mg/kg	06/22/15	07/01/15
8270D-LL	NAPHTHALENE	0.0037 U	0.011	0.0037	0.0019	mg/kg	06/22/15	07/01/15
8270D-LL	PHENANTHRENE	0.0063 J	0.011	0.0037	0.0024	mg/kg	06/22/15	07/01/15
8270D-LL	PYRENE	0.016	0.011	0.0037	0.0026	mg/kg	06/22/15	07/01/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	21.0 #	45-105			%	06/22/15	07/01/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	40.5	35-100			%	06/22/15	07/01/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	46.3	30-125			%	06/22/15	07/01/15

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

Quant Method: P0629.M
Run #: 0629L120
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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APPL Inc.
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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SD027P-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17820
QCG: #SIMDD-150702A-198630

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 53.5 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0059 J	0.011	0.0037	0.0019	mg/kg	07/02/15	07/06/15
8270D-LL	ACENAPHTHENE	0.0028 J	0.011	0.0037	0.0022	mg/kg	07/02/15	07/06/15
8270D-LL	ACENAPHTHYLENE	0.0059 J	0.011	0.0037	0.0019	mg/kg	07/02/15	07/06/15
8270D-LL	ANTHRACENE	0.0085 J	0.011	0.0037	0.0017	mg/kg	07/02/15	07/06/15
8270D-LL	BENZ (A) ANTHRACENE	0.053	0.011	0.0037	0.0019	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (A) PYRENE	0.036	0.011	0.0037	0.0019	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (B) FLUORANTHENE	0.078	0.011	0.0037	0.0024	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.027	0.011	0.0037	0.0028	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (K) FLUORANTHENE	0.055	0.011	0.0037	0.0022	mg/kg	07/02/15	07/06/15
8270D-LL	CHRYSENE	0.0037 U	0.011	0.0037	0.0017	mg/kg	07/02/15	07/06/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.0037 U	0.011	0.0037	0.0019	mg/kg	07/02/15	07/06/15
8270D-LL	FLUORANTHENE	0.079	0.011	0.0037	0.0026	mg/kg	07/02/15	07/06/15
8270D-LL	FLUORENE	0.0062 J	0.011	0.0037	0.0022	mg/kg	07/02/15	07/06/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.0037 U	0.011	0.0037	0.0019	mg/kg	07/02/15	07/06/15
8270D-LL	NAPHTHALENE	0.0064 J	0.011	0.0037	0.0019	mg/kg	07/02/15	07/06/15
8270D-LL	PHENANTHRENE	0.033	0.011	0.0037	0.0024	mg/kg	07/02/15	07/06/15
8270D-LL	PYRENE	0.074	0.011	0.0037	0.0026	mg/kg	07/02/15	07/06/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	57.9	45-105			%	07/02/15	07/06/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	63.4	35-100			%	07/02/15	07/06/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	74.1	30-125			%	07/02/15	07/06/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L170
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

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

EPA 8270D LL WATER DODv3

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-SW027-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17821
QCG: #SIMDD-150619A-198588

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	52.0	50-110			%	06/19/15	07/02/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	59.8	40-110			%	06/19/15	07/02/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	61.5	50-135			%	06/19/15	07/02/15

Quant Method: P0629.M
Run #: 0629L140
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
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-SD028-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17822
QCG: #SIMDD-150622B-198629

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 73.1 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0063 U	0.019	0.0063	0.0033	mg/kg	06/22/15	07/01/15
8270D-LL	ACENAPHTHENE	0.0063 U	0.019	0.0063	0.0037	mg/kg	06/22/15	07/01/15
8270D-LL	ACENAPHTHYLENE	0.0063 U	0.019	0.0063	0.0033	mg/kg	06/22/15	07/01/15
8270D-LL	ANTHRACENE	0.0063 U	0.019	0.0063	0.0030	mg/kg	06/22/15	07/01/15
8270D-LL	BENZ (A) ANTHRACENE	0.042	0.019	0.0063	0.0033	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (A) PYRENE	0.017 J	0.019	0.0063	0.0033	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (B) FLUORANTHENE	0.023	0.019	0.0063	0.0041	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.011 J	0.019	0.0063	0.0048	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (K) FLUORANTHENE	0.0063 U	0.019	0.0063	0.0037	mg/kg	06/22/15	07/01/15
8270D-LL	CHRYSENE	0.0063 U	0.019	0.0063	0.0030	mg/kg	06/22/15	07/01/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.0063 U	0.019	0.0063	0.0033	mg/kg	06/22/15	07/01/15
8270D-LL	FLUORANTHENE	0.037	0.019	0.0063	0.0045	mg/kg	06/22/15	07/01/15
8270D-LL	FLUORENE	0.0063 U	0.019	0.0063	0.0037	mg/kg	06/22/15	07/01/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.013 J	0.019	0.0063	0.0033	mg/kg	06/22/15	07/01/15
8270D-LL	NAPHTHALENE	0.0063 U	0.019	0.0063	0.0033	mg/kg	06/22/15	07/01/15
8270D-LL	PHENANTHRENE	0.020	0.019	0.0063	0.0041	mg/kg	06/22/15	07/01/15
8270D-LL	PYRENE	0.035	0.019	0.0063	0.0045	mg/kg	06/22/15	07/01/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	24.7 #	45-105			%	06/22/15	07/01/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	39.6	35-100			%	06/22/15	07/01/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	69.9	30-125			%	06/22/15	07/01/15

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

Quant Method: P0629.M
Run #: 0629L121
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
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-SD029-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17824
QCG: #SIMDD-150622B-198629

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 72.1 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0061 U	0.018	0.0061	0.0032	mg/kg	06/22/15	07/02/15
8270D-LL	ACENAPHTHENE	0.0061 U	0.018	0.0061	0.0036	mg/kg	06/22/15	07/02/15
8270D-LL	ACENAPHTHYLENE	0.0061 U	0.018	0.0061	0.0032	mg/kg	06/22/15	07/02/15
8270D-LL	ANTHRACENE	0.0061 U	0.018	0.0061	0.0029	mg/kg	06/22/15	07/02/15
8270D-LL	BENZ (A) ANTHRACENE	0.031	0.018	0.0061	0.0032	mg/kg	06/22/15	07/02/15
8270D-LL	BENZO (A) PYRENE	0.011 J	0.018	0.0061	0.0032	mg/kg	06/22/15	07/02/15
8270D-LL	BENZO (B) FLUORANTHENE	0.0061 U	0.018	0.0061	0.0039	mg/kg	06/22/15	07/02/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.0086 J	0.018	0.0061	0.0047	mg/kg	06/22/15	07/02/15
8270D-LL	BENZO (K) FLUORANTHENE	0.0061 U	0.018	0.0061	0.0036	mg/kg	06/22/15	07/02/15
8270D-LL	CHRYSENE	0.0061 U	0.018	0.0061	0.0029	mg/kg	06/22/15	07/02/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.0061 U	0.018	0.0061	0.0032	mg/kg	06/22/15	07/02/15
8270D-LL	FLUORANTHENE	0.030	0.018	0.0061	0.0043	mg/kg	06/22/15	07/02/15
8270D-LL	FLUORENE	0.0036 J	0.018	0.0061	0.0036	mg/kg	06/22/15	07/02/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.011 J	0.018	0.0061	0.0032	mg/kg	06/22/15	07/02/15
8270D-LL	NAPHTHALENE	0.0042 J	0.018	0.0061	0.0032	mg/kg	06/22/15	07/02/15
8270D-LL	PHENANTHRENE	0.013 J	0.018	0.0061	0.0039	mg/kg	06/22/15	07/02/15
8270D-LL	PYRENE	0.026	0.018	0.0061	0.0043	mg/kg	06/22/15	07/02/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	27.8 #	45-105			%	06/22/15	07/02/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	47.4	35-100			%	06/22/15	07/02/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	74.5	30-125			%	06/22/15	07/02/15

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

Quant Method: P0629.M
Run #: 0629L132
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
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: 76674

Sample ID: S67-SD029-0001

APPL ID: AZ17824

Sample Collection Date: 06/16/15

QCG: #SIMDD-150702A-198630

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 72.1 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.024	0.018	0.0061	0.0032	mg/kg	07/02/15	07/06/15
8270D-LL	ACENAPHTHENE	0.015 J	0.018	0.0061	0.0036	mg/kg	07/02/15	07/06/15
8270D-LL	ACENAPHTHYLENE	0.094	0.018	0.0061	0.0032	mg/kg	07/02/15	07/06/15
8270D-LL	ANTHRACENE	0.16	0.018	0.0061	0.0029	mg/kg	07/02/15	07/06/15
8270D-LL	BENZ (A) ANTHRACENE	0.91	0.018	0.0061	0.0032	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (A) PYRENE	0.40	0.018	0.0061	0.0032	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (B) FLUORANTHENE	1.2	0.018	0.0061	0.0039	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.26	0.018	0.0061	0.0047	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (K) FLUORANTHENE	1.3	0.018	0.0061	0.0036	mg/kg	07/02/15	07/06/15
8270D-LL	CHRYSENE	0.41	0.018	0.0061	0.0029	mg/kg	07/02/15	07/06/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.081	0.018	0.0061	0.0032	mg/kg	07/02/15	07/06/15
8270D-LL	FLUORANTHENE	0.72	0.018	0.0061	0.0043	mg/kg	07/02/15	07/06/15
8270D-LL	FLUORENE	0.033	0.018	0.0061	0.0036	mg/kg	07/02/15	07/06/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.29	0.018	0.0061	0.0032	mg/kg	07/02/15	07/06/15
8270D-LL	NAPHTHALENE	0.022	0.018	0.0061	0.0032	mg/kg	07/02/15	07/06/15
8270D-LL	PHENANTHRENE	0.13	0.018	0.0061	0.0039	mg/kg	07/02/15	07/06/15
8270D-LL	PYRENE	0.63	0.018	0.0061	0.0043	mg/kg	07/02/15	07/06/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	53.5	45-105			%	07/02/15	07/06/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	54.5	35-100			%	07/02/15	07/06/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	68.4	30-125			%	07/02/15	07/06/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L174
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

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

EPA 8270D LL WATER DODv3

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76674

Sample ID: S67-MW018-061615

APPL ID: AZ17826

Sample Collection Date: 06/16/15

QCG: #SIMDD-150619A-198588

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	51.3	50-110			%	06/19/15	07/02/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	57.4	40-110			%	06/19/15	07/02/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	66.7	50-135			%	06/19/15	07/02/15

Quant Method: P0629.M
Run #: 0629L141
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

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

EPA 8270D LL WATER DODv3

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

APPL Inc.
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Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76674

Sample ID: S67-MW019-061615

APPL ID: AZ17827

Sample Collection Date: 06/16/15

QCG: #SIMDD-150619A-198588

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	NAPHTHALENE	0.78	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	53.2	50-110			%	06/19/15	07/02/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	54.8	40-110			%	06/19/15	07/02/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	70.8	50-135			%	06/19/15	07/02/15

Quant Method: P0629.M
Run #: 0629L142
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

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

EPA 8270D LL WATER DODv3

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW023-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17828
QCG: #SIMDD-150619A-198588

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	51.6	50-110			%	06/19/15	07/02/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	58.1	40-110			%	06/19/15	07/02/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	70.3	50-135			%	06/19/15	07/02/15

Quant Method: P0629.M
Run #: 0629L143
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/14/15 1:33:11 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

EPA 8270D LL WATER DODv3

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW022-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17829
QCG: #SIMDD-150619A-198588

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	55.9	50-110			%	06/19/15	07/02/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	66.3	40-110			%	06/19/15	07/02/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	70.6	50-135			%	06/19/15	07/02/15

Quant Method: P0629.M
Run #: 0629L144
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/14/15 1:33:11 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Method Blank

EPA 8270D LL WATER DODv3

Blank Name/QCG: **150619W-17817 - 198588**
Batch ID: #SIMDD-150619A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
BLANK	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
BLANK	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
BLANK	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
BLANK	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
BLANK	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
BLANK	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
BLANK	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
BLANK	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
BLANK	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
BLANK	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
BLANK	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
BLANK	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
BLANK	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
BLANK	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
BLANK	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
BLANK	SURROGATE: 2-FLUORBIPHENY	54.3	50-110			%	06/19/15	07/02/15
BLANK	SURROGATE: NITROBENZENE-	73.1	40-110			%	06/19/15	07/02/15
BLANK	SURROGATE: TERPHENYL-D14 (	75.3	50-135			%	06/19/15	07/02/15

Quant Method: P0629.M
Run #: 0629L137
Instrument: Linus
Sequence: L150629
Initials: MA

GC SC-Blank-REG MDLs
Printed: 07/14/15 1:33:15 PM

Method Blank
EPA 8270D LL SOILS

Blank Name/QCG: **150622S-17824 - 198629**
Batch ID: #SIMDD-150622B

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	07/01/15
BLANK	ACENAPHTHENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	06/22/15	07/01/15
BLANK	ACENAPHTHYLENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	07/01/15
BLANK	ANTHRACENE	0.0017 U	0.005	0.0017	0.0008	mg/kg	06/22/15	07/01/15
BLANK	BENZ (A) ANTHRACENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	07/01/15
BLANK	BENZO (A) PYRENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	07/01/15
BLANK	BENZO (B) FLUORANTHENE	0.0017 U	0.005	0.0017	0.0011	mg/kg	06/22/15	07/01/15
BLANK	BENZO (G,H,I) PERYLENE	0.0017 U	0.005	0.0017	0.0013	mg/kg	06/22/15	07/01/15
BLANK	BENZO (K) FLUORANTHENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	06/22/15	07/01/15
BLANK	CHRYSENE	0.0017 U	0.005	0.0017	0.0008	mg/kg	06/22/15	07/01/15
BLANK	DIBENZ (A,H) ANTHRACENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	07/01/15
BLANK	FLUORANTHENE	0.0017 U	0.005	0.0017	0.0012	mg/kg	06/22/15	07/01/15
BLANK	FLUORENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	06/22/15	07/01/15
BLANK	INDENO (1,2,3-CD) PYRENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	07/01/15
BLANK	NAPHTHALENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	07/01/15
BLANK	PHENANTHRENE	0.0017 U	0.005	0.0017	0.0011	mg/kg	06/22/15	07/01/15
BLANK	PYRENE	0.0017 U	0.005	0.0017	0.0012	mg/kg	06/22/15	07/01/15
BLANK	SURROGATE: 2-FLUORBIPHENY	68.0	45-105			%	06/22/15	07/01/15
BLANK	SURROGATE: NITROBENZENE-	51.8	35-100			%	06/22/15	07/01/15
BLANK	SURROGATE: TERPHENYL-D14 (	85.5	30-125			%	06/22/15	07/01/15

Quant Method: P0629.M
Run #: 0629L116
Instrument: Linus
Sequence: L150629
Initials: MA

GC SC-Blank-REG MDLs
Printed: 07/14/15 1:33:15 PM

Method Blank

EPA 8270D LL SOILS RE-EXTRACT

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150702S-17824 - 198630**
Batch ID: #SIMDD-150702A

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	07/02/15	07/06/15
BLANK	ACENAPHTHENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	07/02/15	07/06/15
BLANK	ACENAPHTHYLENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/02/15	07/06/15
BLANK	ANTHRACENE	0.0017 U	0.005	0.0017	0.0008	mg/kg	07/02/15	07/06/15
BLANK	BENZ (A) ANTHRACENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/02/15	07/06/15
BLANK	BENZO (A) PYRENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/02/15	07/06/15
BLANK	BENZO (B) FLUORANTHENE	0.0017 U	0.005	0.0017	0.0011	mg/kg	07/02/15	07/06/15
BLANK	BENZO (G,H,I) PERYLENE	0.0017 U	0.005	0.0017	0.0013	mg/kg	07/02/15	07/06/15
BLANK	BENZO (K) FLUORANTHENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	07/02/15	07/06/15
BLANK	CHRYSENE	0.0017 U	0.005	0.0017	0.0008	mg/kg	07/02/15	07/06/15
BLANK	DIBENZ (A,H) ANTHRACENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/02/15	07/06/15
BLANK	FLUORANTHENE	0.0017 U	0.005	0.0017	0.0012	mg/kg	07/02/15	07/06/15
BLANK	FLUORENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	07/02/15	07/06/15
BLANK	INDENO (1,2,3-CD) PYRENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/02/15	07/06/15
BLANK	NAPHTHALENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/02/15	07/06/15
BLANK	PHENANTHRENE	0.0017 U	0.005	0.0017	0.0011	mg/kg	07/02/15	07/06/15
BLANK	PYRENE	0.0017 U	0.005	0.0017	0.0012	mg/kg	07/02/15	07/06/15
BLANK	SURROGATE: 2-FLUORBIPHENY	66.5	45-105			%	07/02/15	07/06/15
BLANK	SURROGATE: NITROBENZENE-	73.3	35-100			%	07/02/15	07/06/15
BLANK	SURROGATE: TERPHENYL-D14 (	78.1	30-125			%	07/02/15	07/06/15

Quant Method: P0629.M
Run #: 0629L166
Instrument: Linus
Sequence: L150629
Initials: MA

GC SC-Blank-REG MDLs
Printed: 07/14/15 1:33:15 PM

Laboratory Control Spike Recovery

EPA 8270D LL WATER DODv3

APPL ID: **150619W-17817 LCS - 198588**
Batch ID: #SIMDD-150619A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
2-METHYLNAPHTHALENE	5.00	1.90	38.0 #	45-105
ACENAPHTHENE	5.00	2.27	45.4	45-110
ACENAPHTHYLENE	5.00	2.50	50.0	50-105
ANTHRACENE	5.00	2.86	57.2	55-110
BENZ (A) ANTHRACENE	5.00	3.26	65.2	55-110
BENZO (A) PYRENE	5.00	3.43	68.6	55-110
BENZO (B) FLUORANTHENE	5.00	3.07	61.4	45-120
BENZO (G,H,I) PERYLENE	5.00	2.90	58.0	40-125
BENZO (K) FLUORANTHENE	5.00	2.87	57.4	45-125
CHRYSENE	5.00	3.02	60.4	55-110
DIBENZ (A,H) ANTHRACENE	5.00	3.09	61.8	40-125
FLUORANTHENE	5.00	3.02	60.4	55-115
FLUORENE	5.00	2.61	52.2	50-110
INDENO (1,2,3-CD) PYRENE	5.00	3.36	67.2	45-125
NAPHTHALENE	5.00	2.09	41.8	40-100
PHENANTHRENE	5.00	2.97	59.4	50-115
PYRENE	5.00	3.04	60.8	50-130
SURROGATE: 2-FLUORBIPHENYL (S)	2.50	1.37	54.8	50-110
SURROGATE: NITROBENZENE-D5 (S)	2.50	1.61	64.4	40-110
SURROGATE: TERPHENYL-D14 (S)	2.50	1.84	73.6	50-135

= Recovery is outside QC limits.

Comments:

Primary	SPK
Quant Method :	P0629.M
Extraction Date :	06/19/15
Analysis Date :	07/02/15
Instrument :	Linus
Run :	0629L138
Initials :	MA

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APPL Standard LCS

Laboratory Control Spike Recovery

EPA 8270D LL SOILS

APPL ID: **150622S-17824 LCS - 198629**
Batch ID: #SIMDD-150622B

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	0.0867	51.9	45-105
ACENAPHTHENE	0.167	0.0891	53.4	45-110
ACENAPHTHYLENE	0.167	0.0914	54.7	45-105
ANTHRACENE	0.167	0.0925	55.4	55-105
BENZ (A) ANTHRACENE	0.167	0.103	61.7	50-110
BENZO (A) PYRENE	0.167	0.117	70.1	50-110
BENZO (B) FLUORANTHENE	0.167	0.0913	54.7	45-115
BENZO (G,H,I) PERYLENE	0.167	0.0982	58.8	40-125
BENZO (K) FLUORANTHENE	0.167	0.114	68.3	45-125
CHRYSENE	0.167	0.107	64.1	55-110
DIBENZ (A,H) ANTHRACENE	0.167	0.103	61.7	40-125
FLUORANTHENE	0.167	0.102	61.1	55-115
FLUORENE	0.167	0.0951	56.9	50-110
INDENO (1,2,3-CD) PYRENE	0.167	0.108	64.7	40-120
NAPHTHALENE	0.167	0.0701	42.0	40-105
PHENANTHRENE	0.167	0.0995	59.6	50-110
PYRENE	0.167	0.103	61.7	45-125
SURROGATE: 2-FLUORBIPHENYL (S)	0.083	0.0472	56.9	45-105
SURROGATE: NITROBENZENE-D5 (S)	0.083	0.0355	42.8	35-100
SURROGATE: TERPHENYL-D14 (S)	0.083	0.0599	72.2	30-125

Comments: _____

Primary	SPK
Quant Method :	P0629.M
Extraction Date :	06/22/15
Analysis Date :	07/01/15
Instrument :	Linus
Run :	0629L117
Initials :	MA

Printed: 07/14/15 1:33:18 PM
APPL Standard LCS

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

APPL ID: **150702S-17824 LCS - 198630**
Batch ID: #SIMDD-150702A

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	0.107	64.1	45-105
ACENAPHTHENE	0.167	0.102	61.1	45-110
ACENAPHTHYLENE	0.167	0.102	61.1	45-105
ANTHRACENE	0.167	0.0961	57.5	55-105
BENZ (A) ANTHRACENE	0.167	0.117	70.1	50-110
BENZO (A) PYRENE	0.167	0.128	76.6	50-110
BENZO (B) FLUORANTHENE	0.167	0.115	68.9	45-115
BENZO (G,H,I) PERYLENE	0.167	0.112	67.1	40-125
BENZO (K) FLUORANTHENE	0.167	0.104	62.3	45-125
CHRYSENE	0.167	0.114	68.3	55-110
DIBENZ (A,H) ANTHRACENE	0.167	0.117	70.1	40-125
FLUORANTHENE	0.167	0.113	67.7	55-115
FLUORENE	0.167	0.107	64.1	50-110
INDENO (1,2,3-CD) PYRENE	0.167	0.125	74.9	40-120
NAPHTHALENE	0.167	0.0997	59.7	40-105
PHENANTHRENE	0.167	0.113	67.7	50-110
PYRENE	0.167	0.112	67.1	45-125
SURROGATE: 2-FLUORBIPHENYL (S)	0.083	0.0557	67.1	45-105
SURROGATE: NITROBENZENE-D5 (S)	0.083	0.0548	66.0	35-100
SURROGATE: TERPHENYL-D14 (S)	0.083	0.0637	76.7	30-125

Comments: _____

Primary	SPK
Quant Method :	P0629.M
Extraction Date :	07/02/15
Analysis Date :	07/06/15
Instrument :	Linus
Run :	0629L167
Initials :	MA

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APPL Standard LCS

Matrix Spike Recoveries

EPA 8270D LL SOILS

APPL ID: **150622S-17824 MS - 198629**
Batch ID: #SIMDD-150622B
Sample ID: AZ17824
Client ID: S67-SD029-0001

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	0.0367	0.0473	27.6 #	35.6 #	45-105	25.2	30
ACENAPHTHENE	0.167	ND	0.0537	0.0541	32.2 #	32.4 #	45-110	0.74	30
ACENAPHTHYLENE	0.167	ND	0.0496	0.0504	29.7 #	30.2 #	45-105	1.6	30
ANTHRACENE	0.167	ND	0.0921	0.091	55.1	54.5 #	55-105	1.2	30
BENZ (A) ANTHRACENE	0.167	0.0087	0.107	0.106	58.9	58.3	50-110	0.94	30
BENZO (A) PYRENE	0.167	0.0032	0.114	0.114	66.3	66.3	50-110	0.0	30
BENZO (B) FLUORANTHENE	0.167	ND	0.107	0.107	64.1	64.1	45-115	0.0	30
BENZO (G,H,I) PERYLENE	0.167	0.0024	0.0938	0.0945	54.7	55.1	40-125	0.74	30
BENZO (K) FLUORANTHENE	0.167	ND	0.0978	0.0969	58.6	58.0	45-125	0.92	30
CHRYSENE	0.167	ND	0.102	0.101	61.1	60.5	55-110	0.99	30
DIBENZ (A,H) ANTHRACENE	0.167	ND	0.0956	0.0986	57.2	59.0	40-125	3.1	30
FLUORANTHENE	0.167	0.0085	0.104	0.100	57.2	54.8 #	55-115	3.9	30
FLUORENE	0.167	0.0010	0.078	0.0724	46.1 #	42.8 #	50-110	7.4	30
INDENO (1,2,3-CD) PYRENE	0.167	0.0030	0.108	0.112	62.9	65.3	40-120	3.6	30
NAPHTHALENE	0.167	0.0012	0.0349	0.0488	20.2 #	28.5 #	40-105	33.2 #	30
PHENANTHRENE	0.167	0.0036	0.0926	0.0859	53.3	49.3 #	50-110	7.5	30
PYRENE	0.167	0.0072	0.106	0.101	59.2	56.2	45-125	4.8	30
SURROGATE: 2-FLUORBIPHENYL (S)	0.083	NA	0.0202	0.0243	24.3 #	29.3 #	45-105		
SURROGATE: NITROBENZENE-D5 (S)	0.083	NA	0.0377	0.0435	45.4	52.4	35-100		
SURROGATE: TERPHENYL-D14 (S)	0.083	NA	0.0564	0.0479	68.0	57.7	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 :	07/01/15	07/01/15
Instrument :	Linus	Linus
Run :	0629L122	0629L123
Initials :	MA	

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APPL MSD SCII

Matrix Spike Recoveries

EPA 8270D LL SOILS RE-EXTRACT

APPL ID: **150702S-17824 MS - 198630**
Batch ID: #SIMDD-150702A
Sample ID: AZ17824
Client ID: S67-SD029-0001

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	0.167	0.0066	0.0931	0.122	51.8	69.1	45-105	26.9	30
ACENAPHTHENE	0.167	0.0041	0.0911	0.110	52.1	63.4	45-110	18.8	30
ACENAPHTHYLENE	0.167	0.026	0.0978	0.120	43.0 #	56.3	45-105	20.4	30
ANTHRACENE	0.167	0.044	0.106	0.114	37.1 #	41.9 #	55-105	7.3	30
BENZ (A) ANTHRACENE	0.167	0.25	0.171	0.158	-47.3 #	-55.1 #	50-110	7.9	30
BENZO (A) PYRENE	0.167	0.11	0.135	0.156	15.0 #	27.5 #	50-110	14.4	30
BENZO (B) FLUORANTHENE	0.167	0.33	0.138	0.172	-115 #	-94.6 #	45-115	21.9	30
BENZO (G,H,I) PERYLENE	0.167	0.071	0.101	0.115	18.0 #	26.3 #	40-125	13.0	30
BENZO (K) FLUORANTHENE	0.167	0.36	0.0972	0.117	-157 #	-146 #	45-125	18.5	30
CHRYSENE	0.167	0.11	0.0852	0.0815	-14.9 #	-17.1 #	55-110	4.4	30
DIBENZ (A,H) ANTHRACENE	0.167	0.023	0.0928	0.110	41.8	52.1	40-125	17.0	30
FLUORANTHENE	0.167	0.20	0.171	0.180	-17.4 #	-12.0 #	55-115	5.1	30
FLUORENE	0.167	0.0091	0.105	0.120	57.4	66.4	50-110	13.3	30
INDENO (1,2,3-CD) PYRENE	0.167	0.082	0.120	0.123	22.8 #	24.6 #	40-120	2.5	30
NAPHTHALENE	0.167	0.0061	0.0671	0.0968	36.5 #	54.3	40-105	36.2 #	30
PHENANTHRENE	0.167	0.036	0.111	0.126	44.9 #	53.9	50-110	12.7	30
PYRENE	0.167	0.17	0.183	0.177	7.8 #	4.2 #	45-125	3.3	30
SURROGATE: 2-FLUORBIPHENYL (S)	0.083	NA	0.0477	0.0501	57.5	60.4	45-105		
SURROGATE: NITROBENZENE-D5 (S)	0.083	NA	0.0427	0.0594	51.4	71.6	35-100		
SURROGATE: TERPHENYL-D14 (S)	0.083	NA	0.0667	0.0638	80.4	76.9	30-125		

= Recovery is outside QC limits.

Comments: _____

Primary	SPK	DUP
Quant Method :	P0629.M	P0629.M
Extraction Date :	07/02/15	07/02/15
Analysis Date :	07/06/15	07/06/15
Instrument :	Linus	Linus
Run :	0629L172	0629L173
Initials :	MA	

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APPL MSD SCII

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/02/15

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-FLUORBIPHENYL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150619A-BLK	Blank	50-110	54.3		40-110	73.1	
150619A-LCS	Lab Control Spike	50-110	54.8		40-110	64.4	
AZ17817	S67-SW026-061615	50-110	50.0		40-110	50.5	
AZ17821	S67-SW027-061615	50-110	52.0		40-110	59.8	
AZ17826	S67-MW018-061615	50-110	51.3		40-110	57.4	
AZ17827	S67-MW019-061615	50-110	53.2		40-110	54.8	
AZ17828	S67-MW023-061615	50-110	51.6		40-110	58.1	
AZ17829	S67-MW022-061615	50-110	55.9		40-110	66.3	

Comments: Batch: #SIMDD-150619A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/02/15

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: TERPHENYL-D14 (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
150619A-BLK	Blank	50-135	75.3				
150619A-LCS	Lab Control Spike	50-135	73.6				
AZ17817	S67-SW026-061615	50-135	61.2				
AZ17821	S67-SW027-061615	50-135	61.5				
AZ17826	S67-MW018-061615	50-135	66.7				
AZ17827	S67-MW019-061615	50-135	70.8				
AZ17828	S67-MW023-061615	50-135	70.3				
AZ17829	S67-MW022-061615	50-135	70.6				

Comments: Batch: #SIMDD-150619A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/01/15

Matrix: SOIL Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-FLUORBIPHENYL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150622B-BLK	Blank	45-105	68.0		35-100	51.8	
150622B-LCS	Lab Control Spike	45-105	56.9		35-100	42.8	
AZ17816	S67-SD026-0001	45-105	30.6	#	35-100	37.8	
AZ17819	S67-SD027-0001	45-105	23.7	#	35-100	38.6	
AZ17820	S67-SD027P-0001	45-105	21.0	#	35-100	40.5	
AZ17822	S67-SD028-0001	45-105	24.7	#	35-100	39.6	
AZ17824-MS	Matrix Spike	45-105	24.3	*	35-100	45.4	
AZ17824-MSD	Matrix SpikeD	45-105	29.3	*	35-100	52.4	
AZ17824	S67-SD029-0001	45-105	27.8	#	35-100	47.4	

Comments: Batch: #SIMDD-150622B

* = Recovery outside of Control Limits on QC Sample.

= Recovery outside of Control Limits on Sample.

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/01/15

Matrix: SOIL Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: TERPHENYL-D14 (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
150622B-BLK	Blank	30-125	85.5				
150622B-LCS	Lab Control Spike	30-125	72.2				
AZ17816	S67-SD026-0001	30-125	72.6				
AZ17819	S67-SD027-0001	30-125	66.7				
AZ17820	S67-SD027P-0001	30-125	46.3				
AZ17822	S67-SD028-0001	30-125	69.9				
AZ17824-MS	Matrix Spike	30-125	68.0				
AZ17824-MSD	Matrix SpikeD	30-125	57.7				
AZ17824	S67-SD029-0001	30-125	74.5				

Comments: Batch: #SIMDD-150622B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/06/15

Matrix: SOIL Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-FLUORBIPHENYL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150702A-BLK	Blank	45-105	66.5		35-100	73.3	
150702A-LCS	Lab Control Spike	45-105	67.1		35-100	66.0	
AZ17816	S67-SD026-0001	45-105	61.9		35-100	61.2	
AZ17819	S67-SD027-0001	45-105	57.3		35-100	60.1	
AZ17820	S67-SD027P-0001	45-105	57.9		35-100	63.4	
AZ17824-MS	Matrix Spike	45-105	57.5		35-100	51.4	
AZ17824-MSD	Matrix SpikeD	45-105	60.4		35-100	71.6	
AZ17824	S67-SD029-0001	45-105	53.5		35-100	54.5	

Comments: Batch: #SIMDD-150702A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/06/15

Matrix: SOIL Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: TERPHENYL-D14 (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
150702A-BLK	Blank	30-125	78.1				
150702A-LCS	Lab Control Spike	30-125	76.7				
AZ17816	S67-SD026-0001	30-125	74.0				
AZ17819	S67-SD027-0001	30-125	75.1				
AZ17820	S67-SD027P-0001	30-125	74.1				
AZ17824-MS	Matrix Spike	30-125	80.4				
AZ17824-MSD	Matrix SpikeD	30-125	76.9				
AZ17824	S67-SD029-0001	30-125	68.4				

Comments: Batch: #SIMDD-150702A

8270D-LL

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/02/15

Matrix: WATER Instrument: Linus

Blank ID: 150619A-BLK Time Analyzed: 1243

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150619A-BLK	Blank	0629L137	07/02/15 1243
150619A-LCS	Lab Control Spike	0629L138	07/02/15 1310
AZ17817	S67-SW026-061615	0629L139	07/02/15 1337
AZ17821	S67-SW027-061615	0629L140	07/02/15 1404
AZ17826	S67-MW018-061615	0629L141	07/02/15 1431
AZ17827	S67-MW019-061615	0629L142	07/02/15 1458
AZ17828	S67-MW023-061615	0629L143	07/02/15 1525
AZ17829	S67-MW022-061615	0629L144	07/02/15 1552

Comments: Batch: #SIMDD-150619A

8270D-LL

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/01/15

Matrix: SOIL Instrument: Linus

Blank ID: 150622B-BLK Time Analyzed: 1640

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150622B-BLK	Blank	0629L116	07/01/15 1640
150622B-LCS	Lab Control Spike	0629L117	07/01/15 1707
AZ17816	S67-SD026-0001	0629L118	07/01/15 1734
AZ17819	S67-SD027-0001	0629L119	07/01/15 1801
AZ17820	S67-SD027P-0001	0629L120	07/01/15 1828
AZ17822	S67-SD028-0001	0629L121	07/01/15 1855
150622B-MS	Matrix Spike	0629L122	07/01/15 1922
150622B-MSD	Matrix SpikeD	0629L123	07/01/15 1949
AZ17824	S67-SD029-0001	0629L132	07/02/15 1028

Comments: Batch: #SIMDD-150622B

8270D-LL

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/06/15

Matrix: SOIL Instrument: Linus

Blank ID: 150702A-BLK Time Analyzed: 1110

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150702A-BLK	Blank	0629L166	07/06/15 1110
150702A-LCS	Lab Control Spike	0629L167	07/06/15 1137
AZ17816	S67-SD026-0001	0629L168	07/06/15 1204
AZ17819	S67-SD027-0001	0629L169	07/06/15 1231
AZ17820	S67-SD027P-0001	0629L170	07/06/15 1258
150702A-MS	Matrix Spike	0629L172	07/06/15 1353
150702A-MSD	Matrix SpikeD	0629L173	07/06/15 1420
AZ17824	S67-SD029-0001	0629L174	07/06/15 1447

Comments: Batch: #SIMDD-150702A

RSK 175

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76674

Sample ID: S67-MW018-061615

APPL ID: AZ17826

Sample Collection Date: 06/16/15

QCG: #RSK-150624A-198396

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	06/24/15	06/24/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	06/24/15	06/24/15
RSK 175	METHANE	25	1.0	0.45	0.25	ug/L	06/24/15	06/24/15

Quant Method: 402RSK.M
Run #: 0624F032
Instrument: Frodo
Sequence: 150624
Dilution Factor: 1
Initials: SD

Printed: 06/25/15 4:38:55 PM
APPL-F1-SC-NoMC-REG MDLs

RSK 175

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

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-MW023-061615

Sample Collection Date: 06/16/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76674

APPL ID: AZ17828

QCG: #RSK-150624A-198396

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	06/24/15	06/24/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	06/24/15	06/24/15
RSK 175	METHANE	14	1.0	0.45	0.25	ug/L	06/24/15	06/24/15

Quant Method: 402RSK.M
Run #: 0624F033
Instrument: Frodo
Sequence: 150624
Dilution Factor: 1
Initials: SD

Printed: 06/25/15 4:38:55 PM
APPL-F1-SC-NoMC-REG MDLs

RSK 175

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

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-MW022-061615

Sample Collection Date: 06/16/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76674

APPL ID: AZ17829

QCG: #RSK-150624A-198396

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	06/24/15	06/24/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	06/24/15	06/24/15
RSK 175	METHANE	27	1.0	0.45	0.25	ug/L	06/24/15	06/24/15

Quant Method:	402RSK.M
Run #:	0624F034
Instrument:	Frodo
Sequence:	150624
Dilution Factor:	1
Initials:	SD

Printed: 06/25/15 4:38:55 PM
APPL-F1-SC-NoMC-REG MDLs

Method Blank
RSK 175

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150624W-17694 - 198396**
Batch ID: #RSK-150624A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	06/24/15	06/24/15
BLANK	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	06/24/15	06/24/15
BLANK	METHANE	0.45 U	1.0	0.45	0.25	ug/L	06/24/15	06/24/15

Quant Method: 402RSK.M
Run #: 0624F008
Instrument: Frodo
Sequence: 150624
Initials: SD

GC SC-Blank-REG MDLs
Printed: 06/25/15 4:38:59 PM

Laboratory Control Spike Recovery

RSK 175

APPL ID: **150624W-17694 LCS - 198396**
Batch ID: #RSK-150624A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
ETHANE	25.0	26.0	104	70-130
ETHENE	23.3	21.4	91.8	70-130
METHANE	13.3	14.6	110	70-130

Comments: _____

Primary	SPK
Quant Method :	402RSK.M
Extraction Date :	06/24/15
Analysis Date :	06/24/15
Instrument :	Frodo
Run :	0624F006
Initials :	SD

Printed: 06/25/15 4:38:50 PM
APPL Standard LCS

RSK 175

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 06/24/15

Matrix: WATER Instrument: Frodo

Blank ID: 150624A-BLK Time Analyzed: 0944

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150624A-LCS	Lab Control Spike	0624F006	06/24/15 0904
150624A-BLK	Blank	0624F008	06/24/15 0944
AZ17826	S67-MW018-061615	0624F032	06/24/15 1509
AZ17828	S67-MW023-061615	0624F033	06/24/15 1515
AZ17829	S67-MW022-061615	0624F034	06/24/15 1519

Comments: Batch: #RSK-150624A

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-SD026-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17816
QCG: #6850SM-150624A-198610

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 27.8 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/24/15	07/04/15

Quant Method:	QTLMFL2
Run #:	T704_020.d
Instrument:	AGIL_6460
Sequence:	TQ070415
Dilution Factor:	1
Initials:	RP

Printed: 07/10/15 2:14:00 PM
APPL-F1-SC-MCResOnly-REG MDLs

Perchlorate

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: 76674

Sample ID: S67-SW026-061615

APPL ID: AZ17817

Sample Collection Date: 06/16/15

QCG: #6850-150623A-198538

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	0.400 U	0.60	0.400	0.200	ug/L	06/23/15	06/27/15

Quant Method:	QTLMFL2
Run #:	T627_008.d
Instrument:	AGIL_6460
Sequence:	TQ062715
Dilution Factor:	1
Initials:	RP

Printed: 07/10/15 2:14:00 PM
APPL-F1-SC-MCResOnly-REG MDLs

Perchlorate

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SW026P-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17818
QCG: #6850-150623A-198538

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	0.400 U	0.60	0.400	0.200	ug/L	06/23/15	06/27/15

Quant Method:	QTLMFL2
Run #:	T627_009.d
Instrument:	AGIL_6460
Sequence:	TQ062715
Dilution Factor:	1
Initials:	RP

Printed: 07/10/15 2:14:00 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-SD027-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17819
QCG: #6850SM-150624A-198610

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 50.7 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/24/15	07/04/15

Quant Method:	QTLMFL2
Run #:	T704_021.d
Instrument:	AGIL_6460
Sequence:	TQ070415
Dilution Factor:	1
Initials:	RP

Printed: 07/10/15 2:14:00 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-SD027P-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17820
QCG: #6850SM-150624A-198610

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 53.5 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/24/15	07/04/15

Quant Method:	QTLMFL2
Run #:	T704_022.d
Instrument:	AGIL_6460
Sequence:	TQ070415
Dilution Factor:	1
Initials:	RP

Printed: 07/10/15 2:14:00 PM
APPL-F1-SC-MCResOnly-REG MDLs

Perchlorate

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: 76674

Sample ID: S67-SW027-061615

APPL ID: AZ17821

Sample Collection Date: 06/16/15

QCG: #6850-150623A-198538

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	0.400 U	0.60	0.400	0.200	ug/L	06/23/15	06/27/15

Quant Method:	QTLMFL2
Run #:	T627_010.d
Instrument:	AGIL_6460
Sequence:	TQ062715
Dilution Factor:	1
Initials:	RP

Printed: 07/10/15 2:14:00 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: 76674

Sample ID: S67-SD028-0001

APPL ID: AZ17822

Sample Collection Date: 06/16/15

QCG: #6850SM-150624A-198610

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 73.1 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/24/15	07/04/15

Quant Method:	QTLMFL2
Run #:	T704_023.d
Instrument:	AGIL_6460
Sequence:	TQ070415
Dilution Factor:	1
Initials:	RP

Printed: 07/10/15 2:14:00 PM

APPL-F1-SC-MCResOnly-REG MDLs

Perchlorate

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SW028-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17823
QCG: #6850-150623A-198538

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	0.400 U	0.60	0.400	0.200	ug/L	06/23/15	06/27/15

Quant Method:	QTLMFL2
Run #:	T627_011.d
Instrument:	AGIL_6460
Sequence:	TQ062715
Dilution Factor:	1
Initials:	RP

Printed: 07/10/15 2:14:00 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: 76674

Sample ID: S67-SD029-0001

APPL ID: AZ17824

Sample Collection Date: 06/16/15

QCG: #6850SM-150624A-198610

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 72.1 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/24/15	07/04/15

Quant Method:	QTLMFL2
Run #:	T704_024.d
Instrument:	AGIL_6460
Sequence:	TQ070415
Dilution Factor:	1
Initials:	RP

Printed: 07/10/15 2:14:01 PM

APPL-F1-SC-MCResOnly-REG MDLs

Perchlorate

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76674

Sample ID: S67-SW029-061615

APPL ID: AZ17825

Sample Collection Date: 06/16/15

QCG: #6850-150623A-198538

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	0.57 J	0.60	0.400	0.200	ug/L	06/23/15	07/04/15

J = Estimated value.

Quant Method:	QTLMFL2
Run #:	T704_005.d
Instrument:	AGIL_6460
Sequence:	TQ070415
Dilution Factor:	1
Initials:	RP

Printed: 07/10/15 2:14:01 PM
APPL-F1-SC-MCResOnly-REG MDLs

Perchlorate

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: 76674

Sample ID: S67-MW018-061615

APPL ID: AZ17826

Sample Collection Date: 06/16/15

QCG: #6850-150623A-198538

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	590	60.00	40.000	20.000	ug/L	06/23/15	07/05/15

Quant Method:	QTLMFL2
Run #:	T705_013.d
Instrument:	AGIL_6460
Sequence:	TQ070515
Dilution Factor:	100
Initials:	RP

Printed: 07/10/15 2:14:01 PM

APPL-F1-SC-MCResOnly-REG MDLs

Perchlorate

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

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW019-061615
Sample Collection Date: 06/16/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76674
APPL ID: AZ17827
QCG: #6850-150623A-198538

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	0.400 U	0.60	0.400	0.200	ug/L	06/23/15	07/04/15

Quant Method:	QTLMFL2
Run #:	T704_007.d
Instrument:	AGIL_6460
Sequence:	TQ070415
Dilution Factor:	1
Initials:	RP

Printed: 07/10/15 2:14:01 PM
APPL-F1-SC-MCResOnly-REG MDLs

Perchlorate

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW023-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17828
QCG: #6850-150623A-198538

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	690	600.00	400.000	200.000	ug/L	06/23/15	07/05/15

Quant Method:	QTLMFL2
Run #:	T705_020.d
Instrument:	AGIL_6460
Sequence:	TQ070515
Dilution Factor:	1000
Initials:	MP

Printed: 07/10/15 2:14:01 PM
APPL-F1-SC-MCResOnly-REG MDLs

Perchlorate

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW022-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17829
QCG: #6850-150623A-198538

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	0.400 U	0.60	0.400	0.200	ug/L	06/23/15	07/04/15

Quant Method:	QTLMFL2
Run #:	T704_009.d
Instrument:	AGIL_6460
Sequence:	TQ070415
Dilution Factor:	1
Initials:	RP

Printed: 07/10/15 2:14:01 PM
APPL-F1-SC-MCResOnly-REG MDLs

Method Blank
Perchlorate

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150623W-17823 - 198538**
Batch ID: #6850-150623A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	PERCHLORATE	0.400 U	0.60	0.400	0.200	ug/L	06/23/15	06/27/15

Quant Method: QTLMFL2
Run #: T627_007.d
Instrument: AGIL_6460
Sequence: TQ062715
Initials: RP

GC SC-Blank-REG MDLs
Printed: 07/10/15 2:13:56 PM

Method Blank
PERCHLORATE EPA 6850 - SOIL

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150624S-17824 - 198610**
Batch ID: #6850SM-150624A

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	06/24/15	07/04/15

Quant Method: QTLMFL2
Run #: T704_019.d
Instrument: AGIL_6460
Sequence: TQ070415
Initials: RP

GC SC-Blank-REG MDLs
Printed: 07/10/15 2:13:56 PM

Laboratory Control Spike Recovery
Perchlorate

APPL ID: **150623W-17823 LCS - 198538**
Batch ID: #6850-150623A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
PERCHLORATE	0.600	0.616	103	80-120

Comments:

Primary	SPK
Quant Method :	QTLMFL2
Extraction Date :	06/23/15
Analysis Date :	06/27/15
Instrument :	AGIL_6460
Run :	T627_005.d
Initials :	RP

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APPL Standard LCS

Laboratory Control Spike Recovery
PERCHLORATE EPA 6850 - SOIL

APPL ID: **150624S-17824 LCS - 198610**
Batch ID: #6850SM-150624A

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	0.00541	94.7	80-120

Comments: _____

Primary	SPK
Quant Method :	QTLMFL2
Extraction Date :	06/24/15
Analysis Date :	07/04/15
Instrument :	AGIL_6460
Run :	T704_017.d
Initials :	RP

Printed: 07/10/15 2:13:57 PM
APPL Standard LCS

Matrix Spike Recoveries

Perchlorate

APPL ID: **150623W-17823 MS - 198538**
Batch ID: #6850-150623A
Sample ID: AZ17823
Client ID: S67-SW028-061615

APPL Inc.
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Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
PERCHLORATE	0.600	ND	0.797	0.689	133 #	115	80-120	14.5	15

= Recovery is outside QC limits.

Comments: _____

Primary	SPK	DUP
Quant Method :	QTLMFL2	QTLMFL2
Extraction Date :	06/23/15	06/23/15
Analysis Date :	06/27/15	06/27/15
Instrument :	AGIL_6460	AGIL_6460
Run :	T627_012.d	T627_013.d
Initials :	RP	

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APPL MSD SCII

Matrix Spike Recoveries

PERCHLORATE EPA 6850 - SOIL

APPL ID: **150624S-17824 MS - 198610**
Batch ID: #6850SM-150624A
Sample ID: AZ17824
Client ID: S67-SD029-0001

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 72.1 Percent Moisture.)										
PERCHLORATE	0.00645	0.00663	ND	0.00534	0.00588	82.8	88.7	80-120	6.9	15

Comments: _____

Primary	SPK	DUP
Quant Method :	QTLMFL2	QTLMFL2
Extraction Date :	06/24/15	06/24/15
Analysis Date :	07/04/15	07/04/15
Instrument :	AGIL_6460	AGIL_6460
Run :	T704_025.d	T704_026.d
Initials :	RP	

Printed: 07/10/15 2:13:59 PM
APPL MSD SCII

EPA 6850

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 06/27/15

Matrix: WATER Instrument: AGIL_6460

Blank ID: 150623A-BLK Time Analyzed: 1923

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150623A-LCS	Lab Control Spike	T627_005.d	06/27/15 1846
150623A-BLK	Blank	T627_007.d	06/27/15 1923
AZ17817	S67-SW026-061615	T627_008.d	06/27/15 1942
AZ17818	S67-SW026P-061615	T627_009.d	06/27/15 2000
AZ17821	S67-SW027-061615	T627_010.d	06/27/15 2019
AZ17823	S67-SW028-061615	T627_011.d	06/27/15 2038
150623A-MS	Matrix Spike	T627_012.d	06/27/15 2056
150623A-MSD	Matrix SpikeD	T627_013.d	06/27/15 2115
AZ17825	S67-SW029-061615	T704_005.d	07/04/15 0937
AZ17827	S67-MW019-061615	T704_007.d	07/04/15 1014
AZ17829	S67-MW022-061615	T704_009.d	07/04/15 1051
AZ17826	S67-MW018-061615	T705_013.d	07/05/15 1651
AZ17828	S67-MW023-061615	T705_020.d	07/05/15 1901

Comments: Batch: #6850-150623A

EPA 6850

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/04/15

Matrix: SOIL Instrument: AGIL_6460

Blank ID: 150624A-BLK Time Analyzed: 1359

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150624A-LCS	Lab Control Spike	T704_017.d	07/04/15 1322
150624A-BLK	Blank	T704_019.d	07/04/15 1359
AZ17816	S67-SD026-0001	T704_020.d	07/04/15 1418
AZ17819	S67-SD027-0001	T704_021.d	07/04/15 1439
AZ17820	S67-SD027P-0001	T704_022.d	07/04/15 1502
AZ17822	S67-SD028-0001	T704_023.d	07/04/15 1520
AZ17824	S67-SD029-0001	T704_024.d	07/04/15 1539
150624A-MS	Matrix Spike	T704_025.d	07/04/15 1558
150624A-MSD	Matrix SpikeD	T704_026.d	07/04/15 1616

Comments: Batch: #6850SM-150624A

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-SD026-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17816
QCG: #83BJU-150625A-198531

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	06/25/15	06/30/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/25/15	06/30/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/25/15	06/30/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/25/15	06/30/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/25/15	06/30/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/25/15	06/30/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	89.7	70-130			%	06/25/15	06/30/15

Quant Method: W150627.M
Run #: 0629_000032
Instrument: Waldorf
Sequence: 150629
Dilution Factor: 1
Initials: MP

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EPA 8330B WATER

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908 North Temperance Avenue
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Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76674

Sample ID: S67-SW026-061615

APPL ID: AZ17817

Sample Collection Date: 06/16/15

QCG: #83BJU11W-150618-19849

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	06/18/15	06/29/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	06/18/15	06/29/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	06/18/15	06/29/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	06/18/15	06/29/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	90.3	70-130			%	06/18/15	06/29/15

Quant Method: W150627.M
Run #: 0629_000020
Instrument: Waldorf
Sequence: 150629
Dilution Factor: 1
Initials: MP

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EPA 8330B WATER

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Norfolk, VA 23502

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908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76674

Sample ID: S67-SW026P-061615

APPL ID: AZ17818

Sample Collection Date: 06/16/15

QCG: #83BJU11W-150618-19849

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	06/18/15	06/29/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	06/18/15	06/29/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	06/18/15	06/29/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	06/18/15	06/29/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	88.2	70-130			%	06/18/15	06/29/15

Quant Method:	W150627.M
Run #:	0629_000021
Instrument:	Waldorf
Sequence:	150629
Dilution Factor:	1
Initials:	MP

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EPA 8330B SOIL

Tetra Tech
5700 Lake Wright Dr, Ste 309
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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SD027-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17819
QCG: #83BJU-150625A-198531

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	06/25/15	06/30/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/25/15	06/30/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/25/15	06/30/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/25/15	06/30/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/25/15	06/30/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/25/15	06/30/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	87.3	70-130			%	06/25/15	06/30/15

Quant Method: W150627.M
Run #: 0629_000033
Instrument: Waldorf
Sequence: 150629
Dilution Factor: 1
Initials: MP

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EPA 8330B SOIL

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Norfolk, VA 23502

APPL Inc.
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Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SD027P-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17820
QCG: #83BJU-150625A-198531

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	06/25/15	06/30/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/25/15	06/30/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/25/15	06/30/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/25/15	06/30/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/25/15	06/30/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/25/15	06/30/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	86.4	70-130			%	06/25/15	06/30/15

Quant Method:	W150627.M
Run #:	0629_000034
Instrument:	Waldorf
Sequence:	150629
Dilution Factor:	1
Initials:	MP

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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SW027-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17821
QCG: #83BJU11W-150618-19849

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	06/18/15	06/29/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	06/18/15	06/29/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	06/18/15	06/29/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	06/18/15	06/29/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	87.4	70-130			%	06/18/15	06/29/15

Quant Method:	W150627.M
Run #:	0629_000023
Instrument:	Waldorf
Sequence:	150629
Dilution Factor:	1
Initials:	MP

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EPA 8330B SOIL

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Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76674

Sample ID: S67-SD028-0001

APPL ID: AZ17822

Sample Collection Date: 06/16/15

QCG: #83BJU-150625A-198531

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	06/25/15	06/30/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/25/15	06/30/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/25/15	06/30/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/25/15	06/30/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/25/15	06/30/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/25/15	06/30/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	89.0	70-130			%	06/25/15	06/30/15

Quant Method:	W150627.M
Run #:	0629_000035
Instrument:	Waldorf
Sequence:	150629
Dilution Factor:	1
Initials:	MP

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EPA 8330B SOIL

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Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76674

Sample ID: S67-SD029-0001

APPL ID: AZ17824

Sample Collection Date: 06/16/15

QCG: #83BJU-150625A-198531

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	1.00	0.200	0.083	mg/kg	06/25/15	06/30/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	1.00	0.200	0.083	mg/kg	06/25/15	06/30/15
EPA 8330B	HMX	0.200 U	1.00	0.200	0.080	mg/kg	06/25/15	06/30/15
EPA 8330B	NITROGLYCERIN	0.200 U	1.00	0.200	0.085	mg/kg	06/25/15	06/30/15
EPA 8330B	RDX	0.200 U	1.00	0.200	0.080	mg/kg	06/25/15	06/30/15
EPA 8330B	TETRYL	0.200 U	1.00	0.200	0.091	mg/kg	06/25/15	06/30/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	82.5	70-130			%	06/25/15	06/30/15

Quant Method:	W150627.M
Run #:	0629_000036
Instrument:	Waldorf
Sequence:	150629
Dilution Factor:	1
Initials:	MP

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APPL-F1-SC-NoMC-REG MDLs

EPA 8330B WATER

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW018-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17826
QCG: #83BJU11W-150618-19849

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	06/18/15	06/29/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	06/18/15	06/29/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	06/18/15	06/29/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	06/18/15	06/29/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	88.2	70-130			%	06/18/15	06/29/15

Quant Method:	W150627.M
Run #:	0629_000024
Instrument:	Waldorf
Sequence:	150629
Dilution Factor:	1
Initials:	MP

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EPA 8330B WATER

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Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW019-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17827
QCG: #83BJU11W-150618-19849

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	06/18/15	06/29/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	06/18/15	06/29/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	06/18/15	06/29/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	06/18/15	06/29/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	89.4	70-130			%	06/18/15	06/29/15

Quant Method: W150627.M
Run #: 0629_000025
Instrument: Waldorf
Sequence: 150629
Dilution Factor: 1
Initials: MP

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EPA 8330B WATER

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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-MW023-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17828
QCG: #83BJU11W-150618-19849

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
EPA 8330B	HMX	3.3	0.50	0.300	0.115	ug/L	06/18/15	06/29/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	06/18/15	06/29/15
EPA 8330B	RDX	0.14 J	0.50	0.300	0.123	ug/L	06/18/15	06/29/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	06/18/15	06/29/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	87.2	70-130			%	06/18/15	06/29/15

J = Estimated value.

Quant Method:	W150627.M
Run #:	0629_000026
Instrument:	Waldorf
Sequence:	150629
Dilution Factor:	1
Initials:	MP

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APPL-F1-SC-NoMC-REG MDLs

EPA 8330B WATER

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW022-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17829
QCG: #83BJU11W-150618-19849

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/30/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/30/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	06/18/15	06/30/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	06/18/15	06/30/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	06/18/15	06/30/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	06/18/15	06/30/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	87.3	70-130			%	06/18/15	06/30/15

Quant Method:	W150627.M
Run #:	0629_000027
Instrument:	Waldorf
Sequence:	150629
Dilution Factor:	1
Initials:	MP

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APPL-F1-SC-NoMC-REG MDLs

Method Blank
EPA 8330B WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150618W-17694 - 198490**
Batch ID: #83BJU11W-150618

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
BLANK	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
BLANK	HMX	0.300 U	0.50	0.300	0.115	ug/L	06/18/15	06/29/15
BLANK	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	06/18/15	06/29/15
BLANK	RDX	0.300 U	0.50	0.300	0.123	ug/L	06/18/15	06/29/15
BLANK	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	06/18/15	06/29/15
BLANK	SURROGATE: 1,2-DINITROBENZ	92.0	70-130			%	06/18/15	06/29/15

Quant Method: W150627.M
Run #: 0629_00001
Instrument: Waldorf
Sequence: 150629
Initials: MP

GC SC-Blank-REG MDLs
Printed: 07/06/15 4:40:33 PM

Method Blank
EPA 8330B SOIL

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150625S-17824 - 198531**
Batch ID: #83BJU-150625A

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	06/25/15	06/30/15
BLANK	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/25/15	06/30/15
BLANK	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/25/15	06/30/15
BLANK	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/25/15	06/30/15
BLANK	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/25/15	06/30/15
BLANK	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/25/15	06/30/15
BLANK	SURROGATE: 1,2-DINITROBENZ	89.1	70-130			%	06/25/15	06/30/15

Quant Method: W150627.M
Run #: 0629_00003
Instrument: Waldorf
Sequence: 150629
Initials: MP

GC SC-Blank-REG MDLs
Printed: 07/06/15 4:40:33 PM

Laboratory Control Spike Recovery
EPA 8330B WATER

APPL ID: **150618W-17694 LCS - 198490**
Batch ID: #83BJU11W-150618

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
2,4-DINITROTOLUENE	8.00	6.98	87.3	60-135
2,6-DINITROTOLUENE	8.00	6.95	86.9	60-135
HMX	8.00	7.74	96.8	80-115
NITROGLYCERIN	8.00	6.70	83.8	70-130
RDX	8.00	7.44	93.0	50-160
TETRYL	8.00	7.29	91.1	20-175
SURROGATE: 1,2-DINITROBENZENE (S	8.00	7.04	88.0	70-130

Comments: _____

Primary	SPK
Quant Method :	W150627.M
Extraction Date :	06/18/15
Analysis Date :	06/29/15
Instrument :	Waldorf
Run :	0629_000008
Initials :	MP

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APPL Standard LCS

Laboratory Control Spike Recovery
EPA 8330B SOIL

APPL ID: **150625S-17824 LCS - 198531**
Batch ID: #83BJU-150625A

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	1.81	91.4	80-125
2,6-DINITROTOLUENE	1.98	1.81	91.4	80-120
HMX	1.98	1.96	99.0	75-125
NITROGLYCERIN	1.98	1.75	88.4	68-131
RDX	1.98	1.84	92.9	70-135
TETRYL	1.98	1.92	97.0	10-150
SURROGATE: 1,2-DINITROBENZENE (S	1.98	1.77	89.4	70-130

Comments: _____

Primary	SPK
Quant Method :	W150627.M
Extraction Date :	06/25/15
Analysis Date :	06/30/15
Instrument :	Waldorf
Run :	0629_000028
Initials :	MP

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APPL Standard LCS

Matrix Spike Recoveries

EPA 8330B SOIL

APPL ID: **150625S-17824 MS - 198531**
Batch ID: #83BJU-150625A
Sample ID: AZ17824
Client ID: S67-SD029-0001

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	1.99	1.99	ND	1.78	1.76	89.4	88.4	80-125	1.1	20
2,6-DINITROTOLUENE	1.99	1.99	ND	1.78	1.76	89.4	88.4	80-120	1.1	20
HMX	1.99	1.99	ND	1.90	1.92	95.5	96.5	75-125	1	20
NITROGLYCERIN	1.99	1.99	ND	1.87	1.79	94.0	89.9	68-131	4.5	20
RDX	1.99	1.99	ND	1.79	1.78	89.9	89.4	70-135	0.56	20
TETRYL	1.99	1.99	ND	0.610	0.634	30.7	31.9	10-150	3.8	20
SURROGATE: 1,2-DINITROBENZEN	1.99	1.99	NA	1.70	1.68	85.4	84.4	70-130		

Comments: _____

Primary	SPK	DUP
Quant Method :	W150627.M	W150627.M
Extraction Date :	06/25/15	06/25/15
Analysis Date :	06/30/15	06/30/15
Instrument :	Waldorf	Waldorf
Run :	0629_000029	0629_000030
Initials :	MP	

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APPL MSD SCII

Matrix Spike Recoveries

EPA 8330B SOIL

APPL ID: **150625S-17824 MS - 198531**
Batch ID: #83BJU-150625A
Sample ID: AZ17824
Client ID: S67-SD029-0001

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
2,4-DINITROTOLUENE	1.99	ND	1.78	1.76	89.4	88.4	80-125	1.1	20
2,6-DINITROTOLUENE	1.99	ND	1.78	1.76	89.4	88.4	80-120	1.1	20
HMX	1.99	ND	1.90	1.92	95.5	96.5	75-125	1.0	20
NITROGLYCERIN	1.99	ND	1.87	1.79	94.0	89.9	68-131	4.4	20
RDX	1.99	ND	1.79	1.78	89.9	89.4	70-135	0.56	20
TETRYL	1.99	ND	0.610	0.634	30.7	31.9	10-150	3.9	20
SURROGATE: 1,2-DINITROBENZENE (S	1.99	NA	1.70	1.68	85.4	84.4	70-130		

Comments:

Primary	SPK	DUP
Quant Method :	W150627.M	W150627.M
Extraction Date :	06/25/15	06/25/15
Analysis Date :	06/30/15	06/30/15
Instrument :	Waldorf	Waldorf
Run :	0629_000029	0629_000030
Initials :	MP	

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APPL MSD SCII

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 06/30/15

Matrix: SOIL Instrument: Waldorf

APPL ID.	Client Sample No.	SURROGATE: 1,2-DINITROBENZENE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
150625A-LCS	Lab Control Spike	70-130	89.4				
AZ17824-MS	Matrix Spike	70-130	85.4				
AZ17824-MSD	Matrix SpikeD	70-130	84.4				
150625A-BLK	Blank	70-130	89.1				
AZ17816	S67-SD026-0001	70-130	89.7				
AZ17819	S67-SD027-0001	70-130	87.3				
AZ17820	S67-SD027P-0001	70-130	86.4				
AZ17822	S67-SD028-0001	70-130	89.0				
AZ17824	S67-SD029-0001	70-130	82.5				

Comments: Batch: #83BJU-150625A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 06/29/15

Matrix: WATER Instrument: Waldorf

APPL ID.	Client Sample No.	SURROGATE: 1,2-DINITROBENZENE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
150618-LCS	Lab Control Spike	70-130	88.0				
150618-BLK	Blank	70-130	92.0				
AZ17817	S67-SW026-061615	70-130	90.3				
AZ17818	S67-SW026P-061615	70-130	88.2				
AZ17821	S67-SW027-061615	70-130	87.4				
AZ17826	S67-MW018-061615	70-130	88.2				
AZ17827	S67-MW019-061615	70-130	89.4				
AZ17828	S67-MW023-061615	70-130	87.2				
AZ17829	S67-MW022-061615	70-130	87.3				

Comments: Batch: #83BJU11W-15061

EPA 8330B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 06/30/15

Matrix: SOIL Instrument: Waldorf

Blank ID: 150625A-BLK Time Analyzed: 0251

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150625A-LCS	Lab Control Spike	0629_000028	06/30/15 0058
150625A-MS	Matrix Spike	0629_000029	06/30/15 0136
150625A-MSD	Matrix SpikeD	0629_000030	06/30/15 0213
150625A-BLK	Blank	0629_000031	06/30/15 0251
AZ17816	S67-SD026-0001	0629_000032	06/30/15 0328
AZ17819	S67-SD027-0001	0629_000033	06/30/15 0406
AZ17820	S67-SD027P-0001	0629_000034	06/30/15 0443
AZ17822	S67-SD028-0001	0629_000035	06/30/15 0521
AZ17824	S67-SD029-0001	0629_000036	06/30/15 0558

Comments: Batch: #83BJU-150625A

EPA 8330B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 06/29/15

Matrix: WATER Instrument: Waldorf

Blank ID: 150618-BLK Time Analyzed: 1623

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150618-LCS	Lab Control Spike	0629_000008	06/29/15 1238
150618-BLK	Blank	0629_000014	06/29/15 1623
AZ17817	S67-SW026-061615	0629_000020	06/29/15 2008
AZ17818	S67-SW026P-061615	0629_000021	06/29/15 2046
AZ17821	S67-SW027-061615	0629_000023	06/29/15 2151
AZ17826	S67-MW018-061615	0629_000024	06/29/15 2228
AZ17827	S67-MW019-061615	0629_000025	06/29/15 2306
AZ17828	S67-MW023-061615	0629_000026	06/29/15 2343
AZ17829	S67-MW022-061615	0629_000027	06/30/15 0021

Comments: Batch: #83BJU11W-15061

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-SD026-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17816

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 27.8 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	3980	69.0	5.50	2.70	mg/Kg	1	07/08/15	07/09/15
6010C/3050B	BORON (B)	11.4	6.9	5.50	2.10	mg/Kg	1	07/08/15	07/09/15
6010C/3050B	LITHIUM (LI)	6.2	0.93	0.690	0.350	mg/Kg	1	07/08/15	07/09/15
6010C/3050B	ZINC (ZN)	23.0	11.0	5.50	1.60	mg/Kg	1	07/08/15	07/09/15

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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-SW026-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17817

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	245 J	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B)	45.7 J	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
SM2340B/Z	HARDNESS	66.8	1.0		1.0	mg/L	1	07/13/15	07/13/15
6010C/3010A	LITHIUM (LI)	2.3 B	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN)	20.00 U	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	80.00 U	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B) (DISSOLVED)	49.3 J	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	2.5 B	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	20.00 U	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15

J = Estimated value.

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APPL-F1-SC-NoMC-REG MDLs

Metals Analysis

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SW026P-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17818

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	187 J	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B)	50.3	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
SM2340B/Z	HARDNESS	68.6	1.0		1.0	mg/L	1	07/13/15	07/13/15
6010C/3010A	LITHIUM (LI)	2.3 B	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN)	20.00 U	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	80.00 U	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B) (DISSOLVED)	50.0	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	2.5 B	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	20.00 U	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15

J = Estimated value.

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APPL-F1-SC-NoMC-REG MDLs

Metals Analysis

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SD027-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17819

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 50.7 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	23500	2030.0	162.00	80.00	mg/Kg	20	07/08/15	07/09/15
6010C/3050B	BORON (B)	19.3	10.0	8.10	3.10	mg/Kg	1	07/08/15	07/09/15
6010C/3050B	LITHIUM (LI)	35.1	1.40	1.000	0.510	mg/Kg	1	07/08/15	07/09/15
6010C/3050B	ZINC (ZN)	531	325.0	162.00	47.00	mg/Kg	20	07/08/15	07/09/15

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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-SD027P-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17820

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 53.5 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	26700	2150.0	172.00	85.00	mg/Kg	20	07/08/15	07/09/15
6010C/3050B	BORON (B)	17.2	11.0	8.60	3.30	mg/Kg	1	07/08/15	07/09/15
6010C/3050B	LITHIUM (LI)	39.4	1.40	1.100	0.540	mg/Kg	1	07/08/15	07/09/15
6010C/3050B	ZINC (ZN)	217	17.0	8.60	2.50	mg/Kg	1	07/08/15	07/09/15

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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-SW027-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17821

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	163 J	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B)	56.5	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
SM2340B/Z	HARDNESS	63.4	1.0		1.0	mg/L	1	07/13/15	07/13/15
6010C/3010A	LITHIUM (LI)	2.4 B	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN)	20.00 U	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	80.00 U	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B) (DISSOLVED)	61.1	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	2.8 B	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	20.00 U	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15

J = Estimated value.

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APPL-F1-SC-NoMC-REG MDLs

Metals Analysis

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SD028-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17822

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 73.1 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	21000	3720.0	297.00	147.00	mg/Kg	20	07/08/15	07/09/15
6010C/3050B	BORON (B)	50.2	19.0	15.00	5.80	mg/Kg	1	07/08/15	07/09/15
6010C/3050B	LITHIUM (LI)	18.2	2.50	1.900	0.930	mg/Kg	1	07/08/15	07/09/15
6010C/3050B	ZINC (ZN)	1220	595.0	297.00	86.00	mg/Kg	20	07/08/15	07/09/15

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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-SW028-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17823

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	134 J	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B)	51.5	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
SM2340B/Z	HARDNESS	70.9	1.0		1.0	mg/L	1	07/13/15	07/13/15
6010C/3010A	LITHIUM (LI)	2.2 B	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN)	20.00 U	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	80.00 U	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B) (DISSOLVED)	47.9 J	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	2.4 B	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	20.00 U	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15

J = Estimated value.

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APPL-F1-SC-NoMC-REG MDLs

Metals Analysis

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SD029-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17824

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 72.1 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	22400	3580.0	287.00	142.00	mg/Kg	20	07/08/15	07/09/15
6010C/3050B	BORON (B)	19.7	18.0	14.00	5.60	mg/Kg	1	07/08/15	07/09/15
6010C/3050B	LITHIUM (LI)	39.8	2.40	1.800	0.900	mg/Kg	1	07/08/15	07/09/15
6010C/3050B	ZINC (ZN)	703	573.0	287.00	82.00	mg/Kg	20	07/08/15	07/09/15

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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-MW018-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17826

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	1170	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B)	147	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	LITHIUM (LI)	29.0	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN)	361	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	1090	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B) (DISSOLVED)	141	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	29.5	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	345	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15

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APPL-F1-SC-NoMC-REG MDLs

Metals Analysis

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW019-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17827

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	1830	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B)	177	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	LITHIUM (LI)	18.9	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN)	106 J	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	2100	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B) (DISSOLVED)	188	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	20.7	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	112 J	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15

J = Estimated value.

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APPL-F1-SC-NoMC-REG MDLs

Metals Analysis

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW023-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17828

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	4260	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B)	118	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	LITHIUM (LI)	19.4	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN)	5580	1500.0	200.00	137.00	ug/L	10	07/01/15	07/07/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	2920	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B) (DISSOLVED)	127	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	19.5	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	5620	1500.0	200.00	137.00	ug/L	10	07/01/15	07/07/15

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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-MW022-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17829

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	77.0 J	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B)	100	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	LITHIUM (LI)	1.1 B	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN)	228	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	80.00 U	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B) (DISSOLVED)	139	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	1.3 B	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	177	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15

J = Estimated value.

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APPL-F1-SC-NoMC-REG MDLs

METALS BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6010C	ALUMINUM (AL)	80.00 U	300.0	80.00	27.40	ug/L	07/01/15	07/06/15	#61CJU-150701A1-AZ17694
6010C	BORON (B)	40.00 U	50.0	40.00	29.40	ug/L	07/01/15	07/06/15	#61CJU-150701A1-AZ17694
6010C	LITHIUM (LI)	0.67 J	1.0	0.80	0.40	ug/L	07/01/15	07/06/15	#61CJU-150701A1-AZ17694
6010C	ZINC (ZN)	20.00 U	150.0	20.00	13.70	ug/L	07/01/15	07/06/15	#61CJU-150701A1-AZ17694
6010C	ALUMINUM (AL) (DI	80.00 U	300.0	80.00	27.40	ug/L	07/01/15	07/06/15	#61CJU-150701A-AZ17694
6010C	BORON (B) (DISSO	40.00 U	50.0	40.00	29.40	ug/L	07/01/15	07/06/15	#61CJU-150701A-AZ17694
6010C	LITHIUM (LI) (DISSO	0.83 J	1.0	0.80	0.40	ug/L	07/01/15	07/06/15	#61CJU-150701A-AZ17694
6010C	ZINC (ZN) (DISSOL	20.00 U	150.0	20.00	13.70	ug/L	07/01/15	07/06/15	#61CJU-150701A-AZ17694

J = Estimated value.

Metals SC-Blank-REG MDLs
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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)	4.00 U	50.0	4.00	1.98	mg/Kg	07/08/15	07/09/15	#61CJU-150708B-AZ17824
6010C	BORON (B)	4.00 U	5.0	4.00	1.55	mg/Kg	07/08/15	07/09/15	#61CJU-150708B-AZ17824
6010C	LITHIUM (LI)	0.500 U	0.67	0.500	0.250	mg/Kg	07/08/15	07/09/15	#61CJU-150708B-AZ17824
6010C	ZINC (ZN)	4.00 U	8.0	4.00	1.15	mg/Kg	07/08/15	07/09/15	#61CJU-150708B-AZ17824

Laboratory Control Spike Recovery

METALS

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 6010C	ALUMINUM (AL) (DISSOLVED)	2000	1940	97.0	80-120	07/01/15	07/06/15	#61CJU-150701A-AZ17694
EPA 6010C	BORON (B) (DISSOLVED)	250	238	95.2	80-120	07/01/15	07/06/15	#61CJU-150701A-AZ17694
EPA 6010C	LITHIUM (LI) (DISSOLVED)	100.0	92.9	92.9	80-120	07/01/15	07/06/15	#61CJU-150701A-AZ17694
EPA 6010C	ZINC (ZN) (DISSOLVED)	500	472	94.4	80-120	07/01/15	07/06/15	#61CJU-150701A-AZ17694
EPA 6010C	ALUMINUM (AL)	2000	2150	108	80-120	07/01/15	07/06/15	#61CJU-150701A1-AZ17694
EPA 6010C	BORON (B)	250	235	94.0	80-120	07/01/15	07/06/15	#61CJU-150701A1-AZ17694
EPA 6010C	LITHIUM (LI)	100.0	93.3	93.3	80-120	07/01/15	07/06/15	#61CJU-150701A1-AZ17694
EPA 6010C	ZINC (ZN)	500	470	94.0	80-120	07/01/15	07/06/15	#61CJU-150701A1-AZ17694

Comments: _____

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	189	94.5	80-120	07/08/15	07/09/15	#61CJU-150708B-AZ17824
EPA 6010C	BORON (B)	25.0	24.5	98.0	80-120	07/08/15	07/09/15	#61CJU-150708B-AZ17824
EPA 6010C	LITHIUM (LI)	10.00	10.7	107	80-120	07/08/15	07/09/15	#61CJU-150708B-AZ17824
EPA 6010C	ZINC (ZN)	50.0	49.5	99.0	80-120	07/08/15	07/09/15	#61CJU-150708B-AZ17824

Comments: _____

Matrix Spike Recoveries

METALS

APPL ID: **150701W-17823 MS - 198616**

Sample ID: AZ17823

Client ID: S67-SW028-061615

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl ug/L	Matrix Res ug/L	SPK Res ug/L	DUP Res ug/L	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) (DISS	2000	1.2	1930	2320	96.4	116	18.4	20	80-120	07/01/15	07/06/15	07/01/15	07/06/15	198616	AZ17823
EPA 6010C	BORON (B) (DISSOLV	250	47.9	298	299	100	100	0.3	20	80-120	07/01/15	07/06/15	07/01/15	07/06/15	198616	AZ17823
EPA 6010C	LITHIUM (LI) (DISSOLV	100.0	2.4	105	106	103	104	0.9	20	80-120	07/01/15	07/06/15	07/01/15	07/06/15	198616	AZ17823
EPA 6010C	ZINC (ZN) (DISSOLVE	500	1.9	487	490	97.0	97.6	0.6	20	80-120	07/01/15	07/06/15	07/01/15	07/06/15	198616	AZ17823
EPA 6010C	ALUMINUM (AL)	2000	134	2120	2070	99.3	96.8	2.4	20	80-120	07/01/15	07/06/15	07/01/15	07/06/15	198617	AZ17823
EPA 6010C	BORON (B)	250	51.5	301	289	99.8	95.0	4.1	20	80-120	07/01/15	07/06/15	07/01/15	07/06/15	198617	AZ17823
EPA 6010C	LITHIUM (LI)	100.0	2.2	99.8	96.3	97.6	94.1	3.6	20	80-120	07/01/15	07/06/15	07/01/15	07/06/15	198617	AZ17823
EPA 6010C	ZINC (ZN)	500	8.0	487	469	95.8	92.2	3.8	20	80-120	07/01/15	07/06/15	07/01/15	07/06/15	198617	AZ17823

Comments: _____

Matrix Spike Recoveries

METALS

APPL ID: **150708S-17824 MS - 198719**

Sample ID: AZ17824

Client ID: S67-SD029-0001

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)	408	6250	6560	6070	76.0 #	-44.1 #	7.8	20	80-120	07/08/15	07/09/15	07/08/15	07/09/15	198719	AZ17824
EPA 6010C	BORON (B)	51.0	5.5	43.5	36.4	74.5 #	60.6 #	17.8	20	80-120	07/08/15	07/09/15	07/08/15	07/09/15	198719	AZ17824
EPA 6010C	LITHIUM (LI)	20.4	11.1	35.1	31.6	118	100	10.5	20	80-120	07/08/15	07/09/15	07/08/15	07/09/15	198719	AZ17824
EPA 6010C	ZINC (ZN)	102	196	292	279	94.1	81.4	4.6	20	80-120	07/08/15	07/09/15	07/08/15	07/09/15	198719	AZ17824

= Recovery is outside QC limits.

Comments: _____

6010C/3010A^

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/06/15

Matrix: WATER Instrument: Jules

Blank ID: 150701A-BLK Time Analyzed: 1211

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150701A-MSD	Matrix SpikeD	150706A	07/06/15 1353
AZ17818	S67-SW026P-061615	150706A	07/06/15 1326
AZ17821	S67-SW027-061615	150706A	07/06/15 1333
AZ17823	S67-SW028-061615	150706A	07/06/15 1340
AZ17826	S67-MW018-061615	150706A	07/06/15 1359
AZ17827	S67-MW019-061615	150706A	07/06/15 1504
AZ17828	S67-MW023-061615	150706A	07/06/15 1510
AZ17829	S67-MW022-061615	150706A	07/06/15 1517
150701A-BLK	Blank	150706A	07/06/15 1211
150701A-LCS	Lab Control Spike	150706A	07/06/15 1216
AZ17817	S67-SW026-061615	150706A	07/06/15 1319
150701A-MS	Matrix Spike	150706A	07/06/15 1346
AZ17828	S67-MW023-061615	150707A	07/07/15 1352

Comments: Batch: #61CJU-150701A

6010C/3010A^

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/06/15

Matrix: WATER Instrument: Jules

Blank ID: 150701A1-BLK Time Analyzed: 1222

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150701A1-MSD	Matrix SpikeD	150706A	07/06/15 1738
AZ17818	S67-SW026P-061615	150706A	07/06/15 1711
AZ17821	S67-SW027-061615	150706A	07/06/15 1718
AZ17823	S67-SW028-061615	150706A	07/06/15 1725
AZ17826	S67-MW018-061615	150706A	07/06/15 1744
AZ17827	S67-MW019-061615	150706A	07/06/15 1801
AZ17828	S67-MW023-061615	150706A	07/06/15 1807
AZ17829	S67-MW022-061615	150706A	07/06/15 1813
150701A1-BLK	Blank	150706A	07/06/15 1222
150701A1-LCS	Lab Control Spike	150706A	07/06/15 1227
150701A1-MS	Matrix Spike	150706A	07/06/15 1731
AZ17817	S67-SW026-061615	150706A	07/06/15 1704
AZ17828	S67-MW023-061615	150707A	07/07/15 1358

Comments: Batch: #61CJU-150701A1

6010C/3050B^

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/09/15

Matrix: SOIL Instrument: Jules

Blank ID: 150708B-BLK Time Analyzed: 1245

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150708B-MSD	Matrix SpikeD	150709A	07/09/15 1521
150708B-MS	Matrix Spike	150709A	07/09/15 1515
150708B-LCS	Lab Control Spike	150709A	07/09/15 1251
AZ17824	S67-SD029-0001	150709A	07/09/15 1317
AZ17822	S67-SD028-0001	150709A	07/09/15 1312
AZ17820	S67-SD027P-0001	150709A	07/09/15 1307
AZ17819	S67-SD027-0001	150709A	07/09/15 1302
150708B-BLK	Blank	150709A	07/09/15 1245
AZ17824	S67-SD029-0001	150709A	07/09/15 1444
AZ17822	S67-SD028-0001	150709A	07/09/15 1438
AZ17820	S67-SD027P-0001	150709A	07/09/15 1432
AZ17819	S67-SD027-0001	150709A	07/09/15 1409
AZ17816	S67-SD026-0001	150709A	07/09/15 1403

Comments: Batch: #61CJU-150708B

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-SW026-061615

Sample Collection Date: 06/16/15

APPL ID: AZ17817

ARF: 76674

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	42.8	1.0	0.20	0.08	mg/L	1	06/18/15	06/18/15
EPA 300.0	NITRATE	1.1	0.5	0.18	0.04	mg/L	1	06/18/15	06/18/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	06/18/15	06/18/15
EPA 300.0	SULFATE	16.0	1.0	0.20	0.09	mg/L	1	06/18/15	06/18/15

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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-SW026P-061615

Sample Collection Date: 06/16/15

APPL ID: AZ17818

ARF: 76674

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	41.7	1.0	0.20	0.08	mg/L	1	06/18/15	06/18/15
EPA 300.0	NITRATE	0.78	0.5	0.18	0.04	mg/L	1	06/18/15	06/18/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	06/18/15	06/18/15
EPA 300.0	SULFATE	16.1	1.0	0.20	0.09	mg/L	1	06/18/15	06/18/15

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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-SD027-0001

Sample Collection Date: 06/16/15

APPL ID: AZ17819

ARF: 76674

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
WalkBlk	TOTAL ORGANIC CARBON	26100	200.0	150.00	100.00	mg/Kg	1	07/09/15	07/09/15

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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-SD027P-0001

Sample Collection Date: 06/16/15

APPL ID: AZ17820

ARF: 76674

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
WalkBlk	TOTAL ORGANIC CARBON	29100	200.0	150.00	100.00	mg/Kg	1	07/09/15	07/09/15

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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-SW027-061615

Sample Collection Date: 06/16/15

APPL ID: AZ17821

ARF: 76674

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	49.6	1.0	0.20	0.08	mg/L	1	06/18/15	06/18/15
EPA 300.0	NITRATE	0.78	0.5	0.18	0.04	mg/L	1	06/18/15	06/18/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	06/18/15	06/18/15
EPA 300.0	SULFATE	17.0	1.0	0.20	0.09	mg/L	1	06/18/15	06/18/15

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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-SW028-061615

Sample Collection Date: 06/16/15

APPL ID: AZ17823

ARF: 76674

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	42.0	1.0	0.20	0.08	mg/L	1	06/18/15	06/18/15
EPA 300.0	NITRATE	0.76	0.5	0.18	0.04	mg/L	1	06/18/15	06/18/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	06/18/15	06/18/15
EPA 300.0	SULFATE	15.5	1.0	0.20	0.09	mg/L	1	06/18/15	06/18/15

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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-SD029-0001

Sample Collection Date: 06/16/15

APPL ID: AZ17824

ARF: 76674

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
WalkBlk	TOTAL ORGANIC CARBON	34300	200.0	150.00	100.00	mg/Kg	1	07/09/15	07/09/15

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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-SW029-061615

Sample Collection Date: 06/16/15

APPL ID: AZ17825

ARF: 76674

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	36.4	1.0	0.20	0.08	mg/L	1	06/18/15	06/18/15
EPA 300.0	NITRATE	0.90	0.5	0.18	0.04	mg/L	1	06/18/15	06/18/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	06/18/15	06/18/15
EPA 300.0	SULFATE	17.1	1.0	0.20	0.09	mg/L	1	06/18/15	06/18/15

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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-MW018-061615

Sample Collection Date: 06/16/15

APPL ID: AZ17826

ARF: 76674

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	101	10.0	2.00	0.80	mg/L	10	06/19/15	06/19/15
EPA 300.0	SULFATE	163	10.0	2.00	0.90	mg/L	10	06/19/15	06/19/15
EPA 300.0	NITRATE	0.92	0.5	0.18	0.04	mg/L	1	06/18/15	06/18/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	06/18/15	06/18/15
SW846 9060	TOTAL ORGANIC CARBON	0.62	0.5	0.35	0.13	mg/L	1	07/01/15	07/01/15

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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-MW023-061615

Sample Collection Date: 06/16/15

APPL ID: AZ17828

ARF: 76674

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	84.2	10.0	2.00	0.80	mg/L	10	06/19/15	06/19/15
EPA 300.0	SULFATE	343	10.0	2.00	0.90	mg/L	10	06/19/15	06/19/15
EPA 300.0	NITRATE	0.92	0.5	0.18	0.04	mg/L	1	06/18/15	06/18/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	06/18/15	06/18/15
SW846 9060	TOTAL ORGANIC CARBON	1.7	0.5	0.35	0.13	mg/L	1	07/01/15	07/01/15

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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-MW022-061615

Sample Collection Date: 06/16/15

APPL ID: AZ17829

ARF: 76674

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	108	10.0	2.00	0.80	mg/L	10	06/19/15	06/19/15
EPA 300.0	SULFATE	89.8	10.0	2.00	0.90	mg/L	10	06/19/15	06/19/15
EPA 300.0	NITRATE	1.0	0.5	0.18	0.04	mg/L	1	06/18/15	06/18/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	06/18/15	06/18/15
SW846 9060	TOTAL ORGANIC CARBON	1.3	0.5	0.35	0.13	mg/L	1	07/01/15	07/01/15

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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
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	06/18/15	06/18/15	#300W-150618A-AZ17823
EPA 300.0	NITRATE	0.18 U	0.5	0.18	0.04	mg/L	06/18/15	06/18/15	#300W-150618A-AZ17823
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	06/18/15	06/18/15	#300W-150618A-AZ17823
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	06/18/15	06/18/15	#300W-150618A-AZ17823
WalkBlk	TOTAL ORGANIC C	150.00 U	200.0	150.00	100.00	mg/Kg	07/09/15	07/09/15	OC-WB-150709A1-AZ17824
EPA 300.0	CHLORIDE	1.4	1.0	0.20	0.08	mg/L	06/19/15	06/19/15	#300WD-150619A-AZ17826
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	06/19/15	06/19/15	#300WD-150619A-AZ17826
SW846 90	TOTAL ORGANIC C	0.35 U	0.5	0.35	0.13	mg/L	07/01/15	07/01/15	#906-150701A-AZ17694

Wetlab SC-Blank-REG MDLs
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Laboratory Control Spike Recovery

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level mg/L	SPK Result mg/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	20.0	18.1	90.5	90-110	06/18/15	06/18/15	#300W-150618A-AZ17823
EPA 300.0	NITRATE	22.1	21.1	95.5	90-110	06/18/15	06/18/15	#300W-150618A-AZ17823
EPA 300.0	NITRITE	9.98	9.08	91.0	90-110	06/18/15	06/18/15	#300W-150618A-AZ17823
EPA 300.0	SULFATE	20.0	18.6	93.0	90-110	06/18/15	06/18/15	#300W-150618A-AZ17823

Comments: _____

Laboratory Control Spike Recovery

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level mg/L	SPK Result mg/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	20.0	19.0	95.0	90-110	06/19/15	06/19/15	#300WD-150619A-AZ17826
EPA 300.0	SULFATE	20.0	20.2	101	90-110	06/19/15	06/19/15	#300WD-150619A-AZ17826
SW846 906	TOTAL ORGANIC CARBON	10.00	10.2	102	90-110	07/01/15	07/01/15	#906-150701A-AZ17694

Comments: _____

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	07/09/15	07/09/15	#TOC-WB-150709A1-AZ17824

Comments: _____

Matrix Spike Recoveries

WETLAB

APPL ID: **150618W-17823 MS - 198377**

Sample ID: AZ17823

Client ID: S67-SW028-061615

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	Matrix Res mg/L	SPK Res mg/L	DUP Res mg/L	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 300.0	CHLORIDE	20	42.0	62.4	61.6	102	98.0	1.3	20	90-110	06/18/15	06/18/15	06/18/15	06/18/15	198377	AZ17823
EPA 300.0	NITRATE	22.1	0.76	20.0	20.1	87.1 #	87.5 #	0.50	20	90-110	06/18/15	06/18/15	06/18/15	06/18/15	198377	AZ17823
EPA 300.0	NITRITE	9.98	ND	10.4	12.0	104	120 #	14.3	20	90-110	06/18/15	06/18/15	06/18/15	06/18/15	198377	AZ17823
EPA 300.0	SULFATE	20	15.5	34.3	34.4	94.0	94.5	0.29	20	90-110	06/18/15	06/18/15	06/18/15	06/18/15	198377	AZ17823

= Recovery is outside QC limits.

Comments: _____

Matrix Spike Recoveries

WETLAB

APPL ID: **150709S-17824 MS - 198783**

Sample ID: AZ17824

Client ID: S67-SD029-0001

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	34300	36000	36000	85.0	85.0	0.0	20	80-120	07/09/15	07/09/15	07/09/15	07/09/15	198783	AZ17824

Comments: _____

EPA 300.0

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 06/18/15

Matrix: WATER Instrument: Dionex

Blank ID: 150618A-BLK Time Analyzed: 0843

APPL ID.	Client Sample No.	File ID.	Date Analyzed
AZ17825	S67-SW029-061615	11	06/18/15 0925
AZ17821	S67-SW027-061615	12	06/18/15 0936
150618A-LCS	Lab Control Spike	13	06/18/15 0946
AZ17817	S67-SW026-061615	18	06/18/15 1040
AZ17818	S67-SW026P-061615	19	06/18/15 1050
AZ17826	S67-MW018-061615	26	06/18/15 1205
AZ17828	S67-MW023-061615	29	06/18/15 1237
AZ17829	S67-MW022-061615	30	06/18/15 1248
150618A-MS	Matrix Spike	36	06/18/15 1352
150618A-MSD	Matrix SpikeD	37	06/18/15 1403
150618A-BLK	Blank	7	06/18/15 0843
AZ17823	S67-SW028-061615	9	06/18/15 0904

Comments: Batch: #300W-150618A

EPA 300.0

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 06/19/15

Matrix: WATER Instrument: Dionex

Blank ID: 150619A-BLK Time Analyzed: 0953

APPL ID.	Client Sample No.	File ID.	Date Analyzed
AZ17826	S67-MW018-061615	18	06/19/15 1415
AZ17828	S67-MW023-061615	24	06/19/15 1519
AZ17829	S67-MW022-061615	29	06/19/15 1612
150619A-BLK	Blank	6	06/19/15 0953
150619A-LCS	Lab Control Spike	7	06/19/15 1218

Comments: Batch: #300WD-150619A

SW846 9060

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/01/15

Matrix: WATER Instrument: Tekmar

Blank ID: 150701A-BLK Time Analyzed: 1323

APPL ID.	Client Sample No.	File ID.	Date Analyzed
AZ17829	S67-MW022-061615	10	07/01/15 1706
150701A-BLK	Blank	2	07/01/15 1323
150701A-LCS	Lab Control Spike	3	07/01/15 1352
AZ17826	S67-MW018-061615	8	07/01/15 1608
AZ17828	S67-MW023-061615	9	07/01/15 1637

Comments: Batch: #906-150701A

WalkBlk

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/09/15

Matrix: SOIL Instrument: manual

Blank ID: WB-150709A1-BLK Time Analyzed: 1500

APPL ID.	Client Sample No.	File ID.	Date Analyzed
AZ17819	S67-SD027-0001		07/09/15 1518
WB-150709A1-BLK	Blank		07/09/15 1500
WB-150709A1-LCS	Lab Control Spike		07/09/15 1503
WB-150709A1-MS	Matrix Spike		07/09/15 1509
WB-150709A1-MSD	Matrix SpikeD		07/09/15 1512
AZ17824	S67-SD029-0001		07/09/15 1506
AZ17820	S67-SD027P-0001		07/09/15 1515

Comments: Batch: #TOC-WB-150709A

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 14, 2015

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

Attn: Ed Corack

Title: Report of Data: Case 76674

Project: CTO JU11 112G02622 NSF Indian Head, MD

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

Dear Mr. Corack:

Five soil and nine water samples were received June 17, 2015, in good condition. Written results for the requested analyses are provided on this July 14, 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: 1383

Data Validation Package
for
CTO JU11 112G02622 NSF Indian Head
ARF 76674
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Sample Data	750
Calibration Data	803
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Calibration Data	1303
Raw Data	1356

SAMPLE RECEIPT INFORMATION

Sample receipt information

ARF: 76674

Project: CTO JU11 112G02622 NSF Indian Head, MD

Sample Receipt Information:

The samples were received on June 17, 2015, at 3.0°C, 3.0°C, and 3.5°C. The samples were assigned Analytical Request Form (ARF) number 76674. The sample numbers and requested analyses were compared to the chains of custody and email communication. Several containers were not delivered; the client was notified of the missing cooler and its containers. As a result, the following requested analyses were removed from the samples: S67-SW026-061615 remove phthalates, S67-SW026-061615 remove PAHs, S67-SW028-061615 remove PAHs, phthalates, and explosives, S67-SW029-061615 remove PAHs, phthalates, explosives, total and dissolved metals. The client provided collection times and added MS/MSD to water sample S67-SW028-061615. No other exception was encountered.

Sample Table

CLIENT ID	APPL ID	Matrix	Date Sampled	Date Received
S67-SD026-0001	AZ17816	SOIL	06/16/15	06/17/15
S67-SW026-061615	AZ17817	WATER	06/16/15	06/17/15
S67-SW026-061615	AZ17818	WATER	06/16/15	06/17/15
S67-SD027-0001	AZ17819	SOIL	06/16/15	06/17/15
S67-SD027P-0001	AZ17820	SOIL	06/16/15	06/17/15
S67-SW027-061615	AZ17821	WATER	06/16/15	06/17/15
S67-SD028-0001	AZ17822	SOIL	06/16/15	06/17/15
S67-SW028-061615	AZ17823	WATER	06/16/15	06/17/15
S67-SD029-0001	AZ17824	SOIL	06/16/15	06/17/15
S67-SW029-061615	AZ17825	WATER	06/16/15	06/17/15
S67-MW018-061615	AZ17826	WATER	06/16/15	06/17/15
S67-MW019-061615	AZ17827	WATER	06/16/15	06/17/15
S67-MW023-061615	AZ17828	WATER	06/16/15	06/17/15
S67-MW022-061615	AZ17829	WATER	06/16/15	06/17/15

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. The water samples were extracted according to EPA method 3510C. Due to low surrogate recovery, sample S67-SD027-0001 was re-extracted 16 days after collection. All other holding times were met.

The samples were analyzed for phthalates 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-SD029-0001 was designated by the client for MS/MSD analysis. All spike recovery acceptance criteria was 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. Sample S67-SD027-0001 recovered the surrogate 2-Fluorobiphenyl below the 45% lower control limit at 34.0%. The sample was re extracted, 16 days after collection, and re-analyzed with acceptable recovery. Both sets of data are reported. Samples S67-SW026P-061615 and S67-SW027-061615 recovered the surrogate 2-Fluorobiphenyl below the 50% lower control limit at 47.8% and 49.0% respectively. There was no sample left to re extract. 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 8260. All method criteria were met.

Summary:

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

EPA Method 8270D-SIM
Polynuclear Aromatic Hydrocarbons

Sample Preparation and Analysis Information:

The soil samples were extracted according to EPA method 3550B. The water samples were extracted according to EPA method 3510C. Due to low surrogate recovery, five soil samples and the MS/MSD were re-extracted 16 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 the samples. As a result, each of these is reported from the sum of the two area counts and may be biased high.

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. Acenaphthylene and anthracene were manually integrated in 150619A LCS. The surrogate Nitrobenzene-d5 was manually integrated in the 150622B LCS, samples S67-SD027-0001, and S67-SD027P-0001. Chrysene D-12, benzo (a) anthracene and chrysene were manually integrated in the MS. The surrogate 2-Fluorobiphenyl was manually integrated in samples S67-SW026-061615 and S67-SW027-061615. Chromatograms of before and after manual integration are enclosed.

Quality Control/Assurance

Spike Recovery

Laboratory Control Spikes (LCS) were used for quality assurance. In the water LCS, 2-methylnaphthalene recovered below the 45% lower control limit at 38.2%. All other LCS acceptance criteria were met.

Sample S67-SD029-0001 was designated by the client for MS/MSD analysis. Spike recoveries are summarized on the Matrix Spike Recovery forms.

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. The surrogate 2-Fluorobiphenyl recovered below the 45% lower control limit for all soil samples and the MS/MSD. The samples and MS/MSD were re-extracted, 16 days after collection, and re-analyzed with acceptable recovery. Both sets are reported, except for sample S67-SD028-0001, which had low surrogate recovery again.

Calibration

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

Tuning:

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

Internal Standards

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

Summary:

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

Dissolved Gasses
RSK-175

Sample Preparation and Analysis

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

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

Quality Control/Assurance

Spike Recovery

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

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

Method blanks

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

Calibration

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

Summary:

No analytical exception is noted. All data are acceptable.

EPA Method 6850
Perchlorate by LC-Mass Spec

Sample Preparation and Analysis Information:

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

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

Spikes:

Laboratory Control Spikes (LCS) and Interference Check Samples (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.

Samples S67-SW028-061615 and S67-SD029-001 were designated by the client for MS/MSD analysis. Perchlorate recovered above the 120% upper control limit at 133% in the MS performed on sample S67-SW028-061615. All other 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 soil samples were dried and extracted according to EPA method 8330B, without using incremental sampling procedures. The water samples were extracted according to EPA method 3535. All holding times were met.

Analysis:

The samples were analyzed according to EPA Method 8330B using an Agilent 1290 HPLC with DA detector. Manual integrations were performed in accordance with APPL's SOP. The following analytes were manually integrated in the calibration standards: HMX, Nitroglycerin, PETN, 1,2-Dinitrobenzene, 1,3- Dinitrobenzene, Nitrobenzene, 2,4,6-Trinitrotoluene, Tetryl, 2,6-Dinitrotoluene, 2,4-Dinitrotoluene, 2-Nitrotoluene, 4-Nitrotoluene, 3-Nitrotoluene, 4-Amino-2,6-Dinitrotoluene, 2-Amino-4,6-Dinitrotoluene and 3,5-Dinitroaniline. 1,2-Dinitrobenzene was manually integrated in samples S67-SW026P-061615 and S67-SW027-061615. HMX was manually integrated in sample S67-MW023-061615. Chromatograms of before and after manual integration are enclosed.

Quality Control/Assurance:

Spike Recovery:

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

Sample S67-SD029-0001 was designated by the client for MS/MSD analysis. All spike recovery acceptance criteria was met.

Method blanks:

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

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

Quality Control/Assurance:

Calibrations:

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

Blanks:

Lithium was detected above one half the LOQ in the water method blanks. A Lithium detections less than ten times the blank concentration are flagged with a "B" in the samples. No other target metal was detected above one half the LOQ in the method blanks.

Spikes:

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

Samples S67-SW028-061615 and S67-SD029-001 were designated by the client for MS/MSD analysis. All acceptance criteria were met for the QC performed on the water sample.

For the QC performed on sample S67-SD029-001, two metals recovered below the 80% lower control limit in the MS/MSD. In the PDS, two metals recovered outside the 75-125% limits. The DT was acceptable.

Summary:

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

Inorganic Analyses

EPA Method 300.0, SW846 9060, 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

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

Samples S67-SW028-061615 and S67-SD029-001 were designated by the client for MS/MSD analysis. Nitrate recovered below the 90% lower control limit in the MS/MSD, they were reanalyzed with similar results. All other acceptance criteria were met.

Method blanks

For the EPA 300.0 CCBs on 6/19/15, there were detections for chloride, which were 10 times less than all sample detections. No other 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 other analytical exception was noted. The data generated are acceptable.

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 76674

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** # **07445-07446**
RAD Screen (Y/N): **Y** pH (Y/N): **Y**
Turn Around Type: **STD**

Received by: **RBP**
Date Received: **06/17/15** Time: **09:50**
Delivered by: **FEDEX**
Shuttle Custody Seals (Y/N): **Y** Time Zone: **-4**
Chest Temp(s): **3.0°C,3.0°C,3.5°C**
Color: **VOA,C-Blk,E-Bn,R-OrY**
Samples Chilled until Placed in Refrig/Freezer: **Y**
Project Manager: **Cynthia Clark**
QC Report Type: **DVP4/LEDD/MD**
Due Date: **07/08/15**

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
RSK: report Methane only; 1 cooler missing, some analyses canceled per 6/18 email

Sample Distribution:
GC: 5-$87DJU11S, 5-$SIMDDODSM, 6-$SIMDDODW, 6-$87DJU11W
Extractions: 5-_HPLC6850GROSS, 5-_MSE018, 5-_SON009, 5-_SON009S, 9-_HPL6850, 7-_MWE3535, 6-_SEP004S, 6-_SEP004
VOA: 3-$RSK
LCMS: 5-$6850SM, 5-$83BJU11S, 9-$6850, 7-$83BJU11W
Metals: 5-$61CJU11S2(Al,B,Li,Zn), 8-$61CJU11W2(Al,B,Li,Zn), 8-$61CJU11WD2(Al,B,Li,Zn), 4-HARD-M
Wetlab: 5-MOIST, 8-$300W(NO2,NO3,CL,SO4), 3-$TOC-WB, 3-$906
Other: 5-_M3050, 8-_M3010, 8-_M3010F

Charges:

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

	Client ID	APPL ID	Sampled	Analyses Requested
1.	S67-SD026-0001	AZ17816S	06/16/15 12:10	$61CJU11S2(Al,B,Li,Zn), $6850SM, $83BJU11S, $87DJU11S, $SIMDDODSM, MOIST -- Li Spike
2.	S67-SW026-061615	AZ17817W	06/16/15 12:05	$300W(NO2,NO3,CL,SO4), $61CJU11W2(Al,B,Li,Zn), $61CJU11WD2(Al,B,Li,Zn), $6850, $83BJU11W, $SIMDDODW, HARD-M -- Li Spike

Note: All times, excluding sample collection times, are Pacific Time Zone unless noted otherwise. Collection times are in: -4 UTC
Page 1 Client Code: TTECNUS-JU11 *Printed 06/18/15 6:29:23 PM* Computer: RENEECOMPUT **# 76674**

3.	S67-SW026P-061615		AZ17818W	06/16/15 12:05	$300W(NO2,NO3,CL,SO4), $61CJU11W2(Al,B,Li,Zn), $61CJU11WD2(Al,B,Li,Zn), $6850, $83BJU11W, $87DJU11W, HARD-M -- Li Spike
4.	S67-SD027-0001		AZ17819S	06/16/15 11:50	$61CJU11S2(Al,B,Li,Zn), $6850SM, $83BJU11S, $87DJU11S, $SIMDDODSM, $TOC-WB, MOIST -- Li Spike
5.	S67-SD027P-0001		AZ17820S	06/16/15 11:50	$61CJU11S2(Al,B,Li,Zn), $6850SM, $83BJU11S, $87DJU11S, $SIMDDODSM, $TOC-WB, MOIST -- Li Spike
6.	S67-SW027-061615		AZ17821W	06/16/15 11:45	$300W(NO2,NO3,CL,SO4), $61CJU11W2(Al,B,Li,Zn), $61CJU11WD2(Al,B,Li,Zn), $6850, $83BJU11W, $87DJU11W, $SIMDDODW, HARD-M -- Li Spike
7.	S67-SD028-0001		AZ17822S	06/16/15 09:35	$61CJU11S2(Al,B,Li,Zn), $6850SM, $83BJU11S, $87DJU11S, $SIMDDODSM, MOIST -- Li Spike
8.	S67-SW028-061615	MS/MSD	AZ17823W	06/16/15 09:30	$300W(NO2,NO3,CL,SO4), $61CJU11W2(Al,B,Li,Zn), $61CJU11WD2(Al,B,Li,Zn), $6850, HARD-M -- Li Spike
9.	S67-SD029-0001	MS/MSD	AZ17824S	06/16/15 10:20	$61CJU11S2(Al,B,Li,Zn), $6850SM, $83BJU11S, $87DJU11S, $SIMDDODSM, $TOC-WB, MOIST -- Li Spike
10.	S67-SW029-061615		AZ17825W	06/16/15 10:15	$300W(NO2,NO3,CL,SO4), $6850
11.	S67-MW018-061615		AZ17826W	06/16/15 14:27	$300W(NO2,NO3,CL,SO4), $61CJU11W2(Al,B,Li,Zn), $61CJU11WD2(Al,B,Li,Zn), $6850, $83BJU11W, $87DJU11W, $906, $RSK, $SIMDDODW -- Li Spike
12.	S67-MW019-061615		AZ17827W	06/16/15 14:20	$61CJU11W2(Al,B,Li,Zn), $61CJU11WD2(Al,B,Li,Zn), $6850, $83BJU11W, $87DJU11W, $SIMDDODW -- Li Spike
13.	S67-MW023-061615		AZ17828W	06/16/15 15:57	$300W(NO2,NO3,CL,SO4), $61CJU11W2(Al,B,Li,Zn), $61CJU11WD2(Al,B,Li,Zn), $6850, $83BJU11W, $87DJU11W, $906, $RSK, $SIMDDODW -- Li Spike

14. S67-MW022-061615	AZ17829W	06/16/15	16:05	$300W(NO2,NO3,CL,SO4), $61CJU11W2(Al,B,Li,Zn), $61CJU11WD2(Al,B,Li,Zn), $6850, $83BJU11W, $87DJU11W, $906, $RSK, $SIMDDODW -- Li Spike

APPL Sample Receipt Form

ARF# **76674**

Sample	Container Type	Count	pH
AZ17816	20 4oz Jar	4	na
AZ17817	4 PL 125mL	2	na
	6 PL 500mL - HNO3	2	1.7
	17 Amber Liter	1	na
	40 500mL Amber, unprsrvd	2	na
AZ17818	4 PL 125mL	2	na
	6 PL 500mL - HNO3	2	1.7
	17 Amber Liter	1	na
	40 500mL Amber, unprsrvd	2	na
AZ17819	20 4oz Jar	5	na
AZ17820	20 4oz Jar	5	na
AZ17821	4 PL 125mL	2	na
	6 PL 500mL - HNO3	2	1.7
	17 Amber Liter	2	na
	40 500mL Amber, unprsrvd	2	na
AZ17822	21 8oz Jar	2	na
AZ17823	4 PL 125mL	4	na
	6 PL 500mL - HNO3	6	1.7
	40 500mL Amber, unprsrvd	4	na
AZ17824	20 4oz Jar	3	na
	21 8oz Jar	3	na
AZ17825	4 PL 125mL	2	na
AZ17826	4 PL 125mL	2	na
	6 PL 500mL - HNO3	2	1.7
	13 VOAs - HCL	1	na
	17 Amber Liter	2	na
	30 Amber 250mL - H2SO4	1	1.7
	40 500mL Amber, unprsrvd	2	na
AZ17827	4 PL 125mL	1	na
	6 PL 500mL - HNO3	2	1.7
	17 Amber Liter	2	na
	40 500mL Amber, unprsrvd	2	na
AZ17828	4 PL 125mL	2	na
	6 PL 500mL - HNO3	2	1.7
	13 VOAs - HCL	1	na
	17 Amber Liter	2	na
	30 Amber 250mL - H2SO4	1	1.7
	40 500mL Amber, unprsrvd	2	na
AZ17829	4 PL 125mL	2	na
	6 PL 500mL - HNO3	2	1.7
	13 VOAs - HCL	1	na
	17 Amber Liter	2	na
	30 Amber 250mL - H2SO4	1	1.7
	40 500mL Amber, unprsrvd	2	na

Sample	Container Type	Count	pH

APPL - Receiving

From: Cynthia Clark [cclark@applinc.com]
Sent: Thursday, June 18, 2015 10:08 AM
To: 'Renee Patterson'; 'Chue Moua'; 'APPL - Receiving'
Subject: FW: Tetra Tech missing Inventory - ARF 76674

I have removed the analysis codes per Ed's instructions below.
Yang, will you please delete the missing samples from the container count? Even if they find the cooler, it is doubtful it will be in time or in temp

---

From: Corack, Ed [mailto:Ed.Corack@tetratech.com]
Sent: Thursday, June 18, 2015 9:55 AM
To: Cynthia Clark
Cc: Birkett, Jacob; Thomson, Amy
Subject: RE: Tetra Tech missing Inventory - ARF 76674

Cynthia, please see below for instructions. We are assuming the missing fourth cooler is lost / samples not usable even if they eventually arrive.

V/R,
Ed

Ed Corack
Tetra Tech

From: Cynthia Clark [mailto:cclark@applinc.com]
Sent: Thursday, June 18, 2015 12:55 PM
To: Corack, Ed
Cc: Birkett, Jacob
Subject: RE: Tetra Tech missing Inventory - ARF 76674

here are the decisions we need to make

S67-SW026-061615 (AZ17817) - we have only one amber liter from which to run SVOCs and PAHS - which analysis should we run?
Ed: Run PAHs.

S67-SW026P-061615 (AZ17818) - we have only one amber liter from which to run SVOCs and PAHS - which analysis should we run?
Ed: Run SVOCs for the phthalates.

S67-SW028-061615 ms/msd (AZ17823) - we cannot run SVOCs, PAHs or explosives. We can run anions, perchlorate, total and dissolved metals
Ed: Understood. Run perchlorate, total and diss metals, and anions.

S67-SW029-061615 (AZ17825) - - we cannot run SVOCs, PAHs, explosives or total and dissolved metals. We can run anions and perchlorate
Ed: Understood. Run perchlorate and anions.

APPL - Receiving

From: APPL - Receiving [receiving@applinc.com]
Sent: Wednesday, June 17, 2015 3:53 PM
To: Cynthia Clark
Cc: Chue Moua; Renée Patterson; Sharon Dehmlow
Subject: Tetra Tech missing Inventory - ARF 76674

Cynthia,

Sample ID:	# Missing Container	Container Type
S67-SW026-061615	1	Amber liter
S67-SW026P-061615	1	Amber liter
S67-SW028-061615 ms/msd	6	Amber liter
	2	500mL Amber-Unpreserved
S67-SW029-061615	2	Amber liter
	2	500mL Amber-Unpreserved
	2	500mL Plastic-HNO3

Thanks,

Yang Lor

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.

APPL, Inc.
http://www.applinc.com

Renee Patterson

From: Cynthia Clark [cclark@applinc.com]
Sent: Wednesday, June 17, 2015 1:22 PM
To: 'Renee Patterson'
Subject: FW: sample times - RE: missing cooler (TTEC 76674)

From: Corack, Ed [mailto:Ed.Corack@tetratech.com]
Sent: Wednesday, June 17, 2015 1:07 PM
To: Cynthia Clark
Cc: Birkett, Jacob
Subject: sample times - RE: missing cooler

Cynthia, here are the sample times for the sediment and surface water samples on page 2 of the COC. I'll scan and send you a corrected COC – tomorrow when I can print it out and scan it.
All on June 16, 2015:
SD26 – 12:10
SW26 – 12:05
SW26P – 12:05
SD27 – 11:50
SD27P – 11:50
SW27 – 11:45
SW28 – 09:30
SD28 – 09:35
SW29 – 10:15
SD29 – 10:20

V/R,
-Ed

Ed Corack
Tetra Tech

From: Corack, Ed
Sent: Wednesday, June 17, 2015 3:58 PM
To: 'Cynthia Clark'
Cc: Birkett, Jacob
Subject: RE: missing cooler

SD28 is sediment. Must be MS/MSD for that medium
SW28 is surface water to do MS/MSD.

I'll find out about the collection time issue. Each bottle/label should indicate the time of collection, too.

V/R,
-Ed

Ed Corack
Tetra Tech

SHEALY **Chain of Custody Record**

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number 07445

Client: Tetra Tech	Report to Contact: Ed Corack	Sampler (Printed Name): Jacob Birkett	Quote No.
Address: 5700 Lake Wright Dr. Suite 309	Telephone No. / Fax No. / Email: 757-466-4908	Waybill No.	Page 1 of 2
City: Norfolk State: VA Zip Code: 23502	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. Na Thio. 7. NaOH		
Project Name: NSF Indian Head Site 67			
Project Number: CTO JUH 112G02622	P.O Number		

Sed | SW | GW

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix GW	DW	WW	SD	Other	Analysis	Phthalates, PAHs	Metals	Energetics	Perchlorate	TOC	Phthalates, PAHs	Total Metals/Hardness	Dissolved Metals	Energetics	Perchlorate	Anions	Phthalates, PAHs	Total Metals	Dissolved Metals	Energetics	Perchlorate	Anions	TOC	Methane	Remarks / Cooler ID
										2				1	2	1	1	2	1	1	2	1	1	2	1	1	1	1	
										N				M	I	F	F	E	C	C	M	F	F	E	C	C	E	A	
										1	1	1	1	1	1	3	4	1	1	1	1	4	4	1	1	1	3	5	
S67-SD026-0001	6-16-15	1210	G			JB 4	JB		JB 4	2																			
S67-SW026-061615 JB	6-16-15	1205	G					8							2	1	1	2	1	1									
S67-SW026P-061615	6-16-15	1205	G					8	JB						2	1	1	2	1	1									
S67-SD027-0001 JB	6-16-15	1150	G			JB	JB		JB 6	2				1															
S67-SD027P-0001 JB	6-16-15	1150	G			JB	JB		6	2				1															
S67-SW027-061615	6-16-15	1145	G					8							2	1	1	2	1	1									
S67-SD028-0001	6-16-15	0935 JB	G				2			2																			
S67-SW028-061615	6-16-15	0930 JB	G					22							6	3	3	6	3	1									Run MS/MSD JB
S67-SD029-0001	6-16-15	1020	G			JB 2	JB			2				1															Run MSMSD
S67-SW029-061615	6-16-15	1015	G					8							2	1	1	2	1	1									

Turn Around Time Required (Prior lab approval required for expedited TAT): ☒ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab

QC Requirements (Specify): See Contract

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

1. Relinquished by / Sampler: Jacob Birkett [signature]	Date: 6-16-15	Time:	1. Received by	Date	Time
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory Received by	Date	Time

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Yes ☐ No ☐ Ice Pack | Receipt Temp. ____ °C | Temp. Blank ☐ Y / ☐ N

SHEALY **Chain of Custody Record**

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West Columbia, South Carolina 29172
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www.shealylab.com

Number 07445

Client: Tetra Tech	Report to Contact: Ed Corack	Sampler (Printed Name): Jacob Birkett	Quote No.
Address: 5700 Lake Wright Dr Suite 309	Telephone No. / Fax No. / Email: 757-466-4908	Waybill No.	Page 1 of 2
City: Norfolk; State: VA; Zip Code: 23502	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. Na Thio. 7. NaOH		
Project Name: NSF-Indian Head Site 67			
Project Number: CTO-JU11 112G02622	P.O Number		

Number of Containers / Bottle (See Instructions on back) / Preservative / Lot No.

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix GW	DW	WW	SD	Other SW	Analysis	Sed: Phthalates, PAHs	Metals	Energetics	Perchlorate	TOC	SW: Phthalates, PAHs	Total Metals/Hardness	Dissolved Metals	Energetics	Perchlorate	Anions	GW: Phthalates, PAHs	Total Metals	Dissolved Metals	Energetics	Perchlorate	Anions	TOC	Methane	Remarks / Cooler ID
S67-SD026-0001	6-16-15		G				4	8	4	8																			
S67-SW026-061615	6-16-15		G					8							2	1	1	2	1	1									
S67-SW026P-061615	6-16-15		G					8							2	1	1	2	1	1									
S67-SD027-0001	6-16-15		G				5	8	4 6	2				1															
S67-SD027P-0001	6-16-15		G				5	8	4 6	2				1															
S67-SW027-061615	6-16-15		G					8							2	1	1	2	1	1									
S67-SD028-0001	6-16-15		G				2			2																			
S67-SW028-061615	6-16-15		G					22							6	3	3	6	3	1									
S67-SD029-0001	6-16-15		G				9	8		8				1															Run MSMSD
S67-SW029-061615	6-16-15		G					8							2	1	1	2	1	1									

Turn Around Time Required (Prior lab approval required for expedited TAT): ☒ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab

QC Requirements (Specify): See Contract

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

	Date	Time		Date	Time
1. Relinquished by / Sampler: Jacob Birkett [signature]	6-16-15		1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory Received by: Yang Zou	6/17/15	09:50

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY: Received on Ice (Check) ☐ Yes ☐ No ☐ Ice Pack — Receipt Temp. _____ °C — Temp. Blank ☐ Y / ☐ N

SHEALY **Chain of Custody Record**

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106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

7674 3.0 3.0 3.5

Number 07446

Client: Tetra Tech	Report to Contact: Ed Corack	Sampler (Printed Name): Jacob Birkett	Quote No.
Address: 5700 Lake Wright Dr. St 309	Telephone No. / Fax No. / Email: 757-466-4908	Waybill No.	Page 2 of 2
City: Norfolk / State: VA / Zip Code: 23502	Preservative: 1. Unpres. 2. NaOH/ZnA 3. H2SO4 4. HNO3 5. HCL 6. Na Thio. 7. NaOH		
Project Name: NSF-Indian Head Site 67			
Project Number: 112G02622	P.O Number		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: GW	DW	WW	S	Other	Analysis: Phthalates, PAHs	Total Metals	Diss. Metals	Energetics	Perchlorate	Anions	TOC	Methane	Remarks / Cooler ID
									2	1	1	2	1	1	1	1	Number of Containers
									H	D	D	G	C	C	E	A	Bottle (See Instructions on back)
									1	4	4	1	1	1	3	5	Preservative
S67-MW018-061615	6-16-15	1427	G	X					X	X	X	X	X	X	X	X	Lot No.
S67-MW019-061615	6-16-15	1420	G	X					X	X	X	X	X				
S67-MW023-061615	6-16-15	1557	G	X					X	X	X	X	X	X	X	X	
S67-MW022-061615	6-16-15	1605	G	X					X	X	X	X	X	X	X	X	Remarks / Cooler ID

6-16-15

Turn Around Time Required (Prior lab approval required for expedited TAT): ☒ Standard ☐ Rush (Please Specify)

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab

QC Requirements (Specify): See Contract

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

1. Relinquished by / Sampler: Jacob Birkett	Date: 6-16-15	Time	1. Received by	Date	Time
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory Received by: Yang Zhang	Date: 6/17/15	Time: 09:50

Note: All samples are retained for six weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Yes ☐ No ☐ Ice Pack
Receipt Temp. _____ °C
Temp. Blank ☐ Y / ☐ N

COOLER RECEIPT FORM

ARF: 76674

1) Project: CTO JU11 112G02622 NSF Indian Head Date Received: 06/17/15

2) Coolers: Number of Coolers: 3

3) YES Were custody seals present and intact?
How many? 6 Name/Date on seal? See below

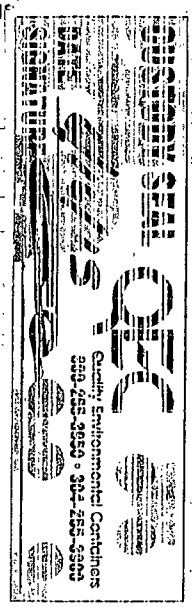
4) YES Was there a shipping slip? Carrier name: FEDEX

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

6) YES Were cooler temperatures acceptable?

7) Serial number of certified NIST thermometer use J5297

8) Cooler temp(s): In °C
1: 3.0 2: 3.0 3: 3.5 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) ~~NO~~ YES Did all container labels agree with custody papers? mp 6-15-15

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) ~~NO~~ YES Was a sufficient amount of sample sent for tests indicated? mp 6-18-15

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

Preservation Hold time:

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

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

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

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

22) NO Were unpreserved VOA Vials received?

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

Notes/Deficiencies:

According to Fed Ex shipping slip; 4 coolers but received only 3 coolers. Inventory of missing cooler, to the best of Receiving's knowledge is on attach email.

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

APPL, INC.

Method Blank
EPA 8270D SOILS

Blank Name/QCG: **150618S-17824 - 198506**
Batch ID: #87DJU-150618A

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	6/18/2015	6/19/2015
BLANK	BUTYL BENZYL PHTHALATE	0.167 U	0.33	0.167	0.056	mg/kg	6/18/2015	6/19/2015
BLANK	DI-N-BUTYL PHTHALATE	0.167 U	0.33	0.167	0.066	mg/kg	6/18/2015	6/19/2015
BLANK	DI-N-OCTYL PHTHALATE	0.167 U	0.33	0.167	0.058	mg/kg	6/18/2015	6/19/2015
BLANK	DIETHYL PHTHALATE	0.167 U	0.33	0.167	0.062	mg/kg	6/18/2015	6/19/2015
BLANK	DIMETHYL PHTHALATE	0.167 U	0.33	0.167	0.063	mg/kg	6/18/2015	6/19/2015
BLANK	SURROGATE: 2,4,6-TRIBROMOP	72.0	35-125			%	6/18/2015	6/19/2015
BLANK	SURROGATE: 2-FLUORBIPHENY	59.8	45-105			%	6/18/2015	6/19/2015
BLANK	SURROGATE: 2-FLUOROPHENO	57.3	35-105			%	6/18/2015	6/19/2015
BLANK	SURROGATE: NITROBENZENE-	58.4	35-100			%	6/18/2015	6/19/2015
BLANK	SURROGATE: PHENOL (S)	56.8	40-100			%	6/18/2015	6/19/2015
BLANK	SURROGATE: TERPHENYL-D14	80.2	30-125			%	6/18/2015	6/19/2015

Quant Method: Y0609TT.M
Run #: 0609Y086
Instrument: Yoda
Sequence: Y150609
Initials: DA

GC SC-Blank-REG MDLs
Printed: 7/1/2015 11:43:46 AM

Method Blank

EPA 8270D SOIL RE-ANALYSIS

Blank Name/QCG: **150702S-17819 - 198633**
Batch ID: #87DJU-150702A1

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 2:37:50 PM

Method Blank
EPA 8270D WATER

Blank Name/QCG: **150623W-17818 - 198680**
Batch ID: #87DJU-150623A

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	5.00 U	20.0	5.00	2.90	ug/L	6/23/2015	7/7/2015
BLANK	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	6/23/2015	7/7/2015
BLANK	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	6/23/2015	7/7/2015
BLANK	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	6/23/2015	7/7/2015
BLANK	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	6/23/2015	7/7/2015
BLANK	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	6/23/2015	7/7/2015
BLANK	SURROGATE: 2,4,6-TRIBROMOP	71.5	40-125			%	6/23/2015	7/7/2015
BLANK	SURROGATE: 2-FLUORBIPHENY	62.8	50-110			%	6/23/2015	7/7/2015
BLANK	SURROGATE: 2-FLUOROPHENO	37.9	20-110			%	6/23/2015	7/7/2015
BLANK	SURROGATE: NITROBENZENE-	63.2	40-110			%	6/23/2015	7/7/2015
BLANK	SURROGATE: PHENOL (S)	25.7	10-115			%	6/23/2015	7/7/2015
BLANK	SURROGATE: TERPHENYL-D14	83.6	50-135			%	6/23/2015	7/7/2015

Quant Method: Y0625TT.M
Run #: 0625Y124
Instrument: Yoda
Sequence: Y150625
Initials: DA

GC SC-Blank-REG MDLs
Printed: 7/9/2015 9:34:14 AM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 6/19/2015

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
150618A-BLK	Blank	35-125	72.0		45-105	59.8	
150618A-LCS	Lab Control Spike	35-125	85.3		45-105	76.0	
AZ17816	S67-SD026-0001	35-125	74.0		45-105	66.7	
AZ17819	S67-SD027-0001	35-125	44.9		45-105	34.0	#
AZ17820	S67-SD027P-0001	35-125	67.6		45-105	50.6	
AZ17822	S67-SD028-0001	35-125	77.2		45-105	65.2	
AZ17824-MS	Matrix Spike	35-125	69.4		45-105	49.2	
AZ17824-MSD	Matrix SpikeD	35-125	67.3		45-105	50.2	
AZ17824	S67-SD029-0001	35-125	70.4		45-105	53.5	

Comments: Batch: #87DJU-150618A

= Recovery outside of Control Limits on Sample.

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 6/19/2015

Matrix: SOIL Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2-FLUOROPHENOL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150618A-BLK	Blank	35-105	57.3		35-100	58.4	
150618A-LCS	Lab Control Spike	35-105	75.3		35-100	74.8	
AZ17816	S67-SD026-0001	35-105	63.1		35-100	65.2	
AZ17819	S67-SD027-0001	35-105	39.4		35-100	39.2	
AZ17820	S67-SD027P-0001	35-105	48.1		35-100	52.6	
AZ17822	S67-SD028-0001	35-105	70.2		35-100	69.1	
AZ17824-MS	Matrix Spike	35-105	60.0		35-100	62.5	
AZ17824-MSD	Matrix SpikeD	35-105	54.3		35-100	59.8	
AZ17824	S67-SD029-0001	35-105	63.3		35-100	62.7	

Comments: Batch: #87DJU-150618A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 6/19/2015

Matrix: SOIL Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: PHENOL (S)			SURROGATE: TERPHENYL-D14 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150618A-BLK	Blank	40-100	56.8		30-125	80.2	
150618A-LCS	Lab Control Spike	40-100	76.6		30-125	87.1	
AZ17816	S67-SD026-0001	40-100	65.1		30-125	85.0	
AZ17819	S67-SD027-0001	40-100	40.2		30-125	46.7	
AZ17820	S67-SD027P-0001	40-100	53.6		30-125	72.8	
AZ17822	S67-SD028-0001	40-100	73.7		30-125	77.8	
AZ17824-MS	Matrix Spike	40-100	65.8		30-125	64.0	
AZ17824-MSD	Matrix SpikeD	40-100	59.8		30-125	63.4	
AZ17824	S67-SD029-0001	40-100	66.4		30-125	72.2	

Comments: Batch: #87DJU-150618A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 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
150702A1-BLK	Blank	35-125	76.8		45-105	64.2	
150702A1-LCS	Lab Control Spike	35-125	91.1		45-105	80.9	
AZ17819	S67-SD027-0001	35-125	77.8		45-105	65.0	

Comments: Batch: #87DJU-150702A1

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 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
150702A1-BLK	Blank	35-105	58.7		35-100	62.9	
150702A1-LCS	Lab Control Spike	35-105	70.6		35-100	80.6	
AZ17819	S67-SD027-0001	35-105	69.1		35-100	70.7	

Comments: Batch: #87DJU-150702A1

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 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
150702A1-BLK	Blank	40-100	66.8		30-125	78.9	
150702A1-LCS	Lab Control Spike	40-100	83.3		30-125	81.8	
AZ17819	S67-SD027-0001	40-100	84.2		30-125	78.0	

Comments: Batch: #87DJU-150702A1

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 7/7/2015

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2,4,6-TRIBROMOPHENOL (S)			SURROGATE: 2-FLUORBIPHENYL (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150623A-BLK	Blank	40-125	71.5		50-110	62.8	
150623A-LCS	Lab Control Spike	40-125	59.0		50-110	55.4	
150623A-LCSD	Lab Control SpikeD	40-125	61.0		50-110	55.4	
AZ17818	S67-SW026P-061615	40-125	48.1		50-110	47.8	#
AZ17821	S67-SW027-061615	40-125	54.4		50-110	49.0	#
AZ17826	S67-MW018-061615	40-125	66.4		50-110	59.1	
AZ17827	S67-MW019-061615	40-125	58.9		50-110	54.4	
AZ17828	S67-MW023-061615	40-125	76.6		50-110	68.5	
AZ17829	S67-MW022-061615	40-125	64.4		50-110	60.6	

Comments: Batch: #87DJU-150623A

= Recovery outside of Control Limits on Sample.

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 7/7/2015

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: 2-FLUOROPHENOL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150623A-BLK	Blank	20-110	37.9		40-110	63.2	
150623A-LCS	Lab Control Spike	20-110	40.1		40-110	57.6	
150623A-LCSD	Lab Control SpikeD	20-110	41.5		40-110	59.6	
AZ17818	S67-SW026P-061615	20-110	29.7		40-110	53.3	
AZ17821	S67-SW027-061615	20-110	30.3		40-110	54.7	
AZ17826	S67-MW018-061615	20-110	41.7		40-110	63.9	
AZ17827	S67-MW019-061615	20-110	34.5		40-110	57.5	
AZ17828	S67-MW023-061615	20-110	54.8		40-110	75.4	
AZ17829	S67-MW022-061615	20-110	45.3		40-110	66.4	

Comments: Batch: #87DJU-150623A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 7/7/2015

Matrix: WATER Instrument: Yoda

APPL ID.	Client Sample No.	SURROGATE: PHENOL (S)			SURROGATE: TERPHENYL-D14 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150623A-BLK	Blank	10-115	25.7		50-135	83.6	
150623A-LCS	Lab Control Spike	10-115	27.6		50-135	67.9	
150623A-LCSD	Lab Control SpikeD	10-115	27.6		50-135	71.5	
AZ17818	S67-SW026P-061615	10-115	21.4		50-135	63.9	
AZ17821	S67-SW027-061615	10-115	21.5		50-135	70.8	
AZ17826	S67-MW018-061615	10-115	28.3		50-135	76.2	
AZ17827	S67-MW019-061615	10-115	25.1		50-135	69.5	
AZ17828	S67-MW023-061615	10-115	36.6		50-135	79.7	
AZ17829	S67-MW022-061615	10-115	28.7		50-135	75.3	

Comments: Batch: #87DJU-150623A

Laboratory Control Spike Recovery
EPA 8270D SOILS

APPL ID: **150618S-17824 LCS - 198506**
Batch ID: #87DJU-150618A

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	1.38	82.6	50-125
DI-N-BUTYL PHTHALATE	1.67	1.41	84.4	55-110
DI-N-OCTYL PHTHALATE	1.67	1.44	86.2	40-130
DIETHYL PHTHALATE	1.67	1.30	77.8	50-115
DIMETHYL PHTHALATE	1.67	1.27	76.0	50-110
SURROGATE: 2,4,6-TRIBROMOPHENOL	6.67	5.69	85.3	35-125
SURROGATE: 2-FLUORBIPHENYL (S)	3.33	2.53	76.0	45-105
SURROGATE: 2-FLUOROPHENOL (S)	6.67	5.02	75.3	35-105
SURROGATE: NITROBENZENE-D5 (S)	3.33	2.49	74.8	35-100
SURROGATE: PHENOL (S)	6.67	5.11	76.6	40-100
SURROGATE: TERPHENYL-D14 (S)	3.33	2.90	87.1	30-125

Comments: _____

Primary	SPK
Quant Method :	Y0609TT.M
Extraction Date :	6/18/2015
Analysis Date :	6/19/2015
Instrument :	Yoda
Run :	0609Y087
Initials :	DA

Printed: 7/1/2015 11:43:47 AM
APPL Standard LCS

Laboratory Control Spike Recovery
EPA 8270D SOIL RE-ANALYSIS

APPL ID: **150702S-17819 LCS - 198633**
Batch ID: #87DJU-150702A1

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 2:37:42 PM
APPL Standard LCS

Laboratory Control Spike Recoveries
EPA 8270D WATER

APPL ID: **150623W-17818 LCS - 198680**
Batch ID: #87DJU-150623A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
BIS (2-ETHYLHEXYL) PHTHALATE	50.0	29.9	30.8	59.8	61.6	40-125	3.0	30
BUTYL BENZYL PHTHALATE	50.0	33.4	34.6	66.8	69.2	45-115	3.5	30
DI-N-BUTYL PHTHALATE	50.0	31.9	32.0	63.8	64.0	55-115	0.31	30
DI-N-OCTYL PHTHALATE	50.0	29.5	30.3	59.0	60.6	35-135	2.7	30
DIETHYL PHTHALATE	50.0	28.8	29.2	57.6	58.4	40-120	1.4	30
DIMETHYL PHTHALATE	50.0	28.6	29.6	57.2	59.2	25-125	3.4	30
SURROGATE: 2,4,6-TRIBROMOPHENOL	200	118	122	59.0	61.0	40-125		
SURROGATE: 2-FLUORBIPHENYL (S)	100	55.4	55.4	55.4	55.4	50-110		
SURROGATE: 2-FLUOROPHENOL (S)	200	80.2	82.9	40.1	41.5	20-110		
SURROGATE: NITROBENZENE-D5 (S)	100	57.6	59.6	57.6	59.6	40-110		
SURROGATE: PHENOL (S)	200	55.3	55.2	27.6	27.6	10-115		
SURROGATE: TERPHENYL-D14 (S)	100	67.9	71.5	67.9	71.5	50-135		

Comments: _____

Primary	SPK	DUP
Quant Method :	Y0625TT.M	Y0625TT.M
Extraction Date :	6/23/2015	6/23/2015
Analysis Date :	7/7/2015	7/7/2015
Instrument :	Yoda	Yoda
Run :	0625Y125	0625Y126
Initials :	DA	

Printed: 7/9/2015 9:33:59 AM
APPL Standard LCSD

Matrix Spike Recoveries

EPA 8270D SOILS

APPL ID: **150618S-17824 MS - 198506**
Batch ID: #87DJU-150618A
Sample ID: AZ17824
Client ID: S67-SD029-0001

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	0.011	1.32	1.27	78.4	75.4	45-125	3.9	30
BUTYL BENZYL PHTHALATE	1.67	ND	1.27	1.26	76.0	75.4	50-125	0.79	30
DI-N-BUTYL PHTHALATE	1.67	0.011	1.35	1.34	80.2	79.6	55-110	0.74	30
DI-N-OCTYL PHTHALATE	1.67	ND	1.35	1.37	80.8	82.0	40-130	1.5	30
DIETHYL PHTHALATE	1.67	0.0052	1.24	1.21	73.9	72.1	50-115	2.4	30
DIMETHYL PHTHALATE	1.67	0.011	1.22	1.18	72.4	70.0	50-110	3.3	30
SURROGATE: 2,4,6-TRIBROMOPHENOL	6.67	NA	4.63	4.49	69.4	67.3	35-125		
SURROGATE: 2-FLUORBIPHENYL (S)	3.33	NA	1.64	1.67	49.2	50.2	45-105		
SURROGATE: 2-FLUOROPHENOL (S)	6.67	NA	4.00	3.62	60.0	54.3	35-105		
SURROGATE: NITROBENZENE-D5 (S)	3.33	NA	2.08	1.99	62.5	59.8	35-100		
SURROGATE: PHENOL (S)	6.67	NA	4.39	3.99	65.8	59.8	40-100		
SURROGATE: TERPHENYL-D14 (S)	3.33	NA	2.13	2.11	64.0	63.4	30-125		

Comments: _____

Primary	SPK	DUP
Quant Method :	Y0609TT.M	Y0609TT.M
Extraction Date :	6/18/2015	6/18/2015
Analysis Date :	6/19/2015	6/19/2015
Instrument :	Yoda	Yoda
Run :	0609Y097	0609Y098
Initials :	DA	

Printed: 7/1/2015 4:41:22 PM
APPL MSD SCII

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 6/19/2015

Matrix: SOIL Instrument: Yoda

Blank ID: 150618A-BLK Time Analyzed: 1751

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150618A-BLK	Blank	0609Y086	6/19/2015 1751
150618A-LCS	Lab Control Spike	0609Y087	6/19/2015 1821
AZ17816	S67-SD026-0001	0609Y093	6/19/2015 2118
AZ17819	S67-SD027-0001	0609Y094	6/19/2015 2148
AZ17820	S67-SD027P-0001	0609Y095	6/19/2015 2217
AZ17822	S67-SD028-0001	0609Y096	6/19/2015 2246
150618A-MS	Matrix Spike	0609Y097	6/19/2015 2316
150618A-MSD	Matrix SpikeD	0609Y098	6/19/2015 2345
AZ17824	S67-SD029-0001	0609Y099	6/20/2015 0015

Comments: Batch: #87DJU-150618A

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 7/6/2015

Matrix: SOIL Instrument: Yoda

Blank ID: 150702A1-BLK Time Analyzed: 1721

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150702A1-BLK	Blank	0625Y101	7/6/2015 1721
150702A1-LCS	Lab Control Spike	0625Y102	7/6/2015 1751
AZ17819	S67-SD027-0001	0625Y105	7/6/2015 1922

Comments: Batch: #87DJU-150702A1

EPA 8270D

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 7/7/2015

Matrix: WATER Instrument: Yoda

Blank ID: 150623A-BLK Time Analyzed: 1621

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150623A-BLK	Blank	0625Y124	7/7/2015 1621
150623A-LCS	Lab Control Spike	0625Y125	7/7/2015 1650
150623A-LCSD	Lab Control SpikeD	0625Y126	7/7/2015 1720
AZ17818	S67-SW026P-061615	0625Y127	7/7/2015 1750
AZ17821	S67-SW027-061615	0625Y128	7/7/2015 1820
AZ17826	S67-MW018-061615	0625Y129	7/7/2015 1850
AZ17827	S67-MW019-061615	0625Y130	7/7/2015 1921
AZ17828	S67-MW023-061615	0625Y131	7/7/2015 1950
AZ17829	S67-MW022-061615	0625Y132	7/7/2015 2020

Comments: Batch: #87DJU-150623A

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: ~~0609Y002.D~~ 76674
Matrix: Soil np 7-1375
ID: SV Tune 5/14/15

SDG No: np 7-1375 ~~Yoda~~ 76674
Date Analyzed: 6/9/2015
Instrument: Yoda
Time Analyzed: 13:56

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		5ug/ml SVOC 06/09/15	0609Y003.D	6/9/2015 14:14
2		10ug/ml SVOC 06/09/1	0609Y004.D	6/9/2015 14:44
3		20ug/ml SVOC 06/09/1	0609Y005.D	6/9/2015 15:13
4		40ug/ml SVOC 06/09/1	0609Y006.D	6/9/2015 15:43
5		50ug/ml SVOC 06/09/1	0609Y007.D	6/9/2015 16:12
6		60ug/ml SVOC 06/09/1	0609Y008.D	6/9/2015 16:42
7		80ug/ml SVOC 06/09/1	0609Y009.D	6/9/2015 17:12
8		100ug/ml SVOC 06/09/	0609Y010.D	6/9/2015 17:42
9		50ug/ml SVOC SS 06/0	0609Y011.D	6/9/2015 18:12
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60.04% of mass 198	30.7
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.7
127	40 - 60% of mass 198	50.4
197	0 - 1.4% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	27.9
365	1 - 100% of mass 198	3.4
441	0.01 - 100% of mass 443	74.5
442	40 - 150% of mass 198	106.5
443	17 - 23% of mass 442	19.6

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 76674
Matrix: Soil
ID: SV TUNE 5/14/15

SDG No: 76674
Date Analyzed: 6/19/2015
Instrument: Yoda
Time Analyzed: 14:55

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		50ug/ml SVOC 06/19/1	0609Y081.D	6/19/2015 15:13
2	Blank	150618A BLK 1/30.15G	0609Y086.D	6/19/2015 17:51
3	Lab Control Spike	150618A LCS-1 1/30.0	0609Y087.D	6/19/2015 18:21
4	S67-SD026-0001	AZ17816S01 1/30.65G	0609Y093.D	6/19/2015 21:18
5	S67-SD027-0001	AZ17819S01 1/30.91G	0609Y094.D	6/19/2015 21:48
6	S67-SD027P-0001	AZ17820S02 1/30.31G	0609Y095.D	6/19/2015 22:17
7	S67-SD028-0001	AZ17822S02 1/30.10G	0609Y096.D	6/19/2015 22:46
8		AZ17824S06 MS-1 1/30	0609Y097.D	6/19/2015 23:16
9		AZ17824S06 MSD-1 1/3	0609Y098.D	6/19/2015 23:45
10	S67-SD029-0001	AZ17824S06 1/30.74G	0609Y099.D	6/20/2015 0:15
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60.04% of mass 198	31.8
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.5
127	40 - 60% of mass 198	50.6
197	0 - 1.4% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.8
275	10 - 30% of mass 198	27.3
365	1 - 100% of mass 198	3.4
441	0.01 - 100% of mass 443	74.5
442	40 - 150% of mass 198	106.4
443	17 - 23% of mass 442	19.2

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: ~~0625Y001.D~~ 76674
Matrix: Soil np 7-14-15
ID: SV Tune 5/14/15

SDG No: np 7-14-15 ~~Yoda~~ 76674
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: 76674
Matrix: Soil
ID: SV TUNE 5/14/15

SDG No: 76674
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-SD027-0001	AZ17819S02 1/30.24G	0625Y105.D	7/6/2015 19:22
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60.04% of mass 198	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	50 - 150% of mass 198	107.7
443	17 - 23% of mass 442	18.7

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: ~~0625Y114.D~~ 76674
Matrix: Water mp 7-14-15
ID: SV TUNE 5/14/15

SDG No: mp 7-14-15 ~~Yoda~~ 76674
Date Analyzed: 7/7/2015
Instrument: Yoda
Time Analyzed: 9:27

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		CCV 50ug/ml SVOC 07/	0625Y122.D	7/7/2015 14:20
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60.04% of mass 198	33.3
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.2
127	40 - 60% of mass 198	47.6
197	0 - 1.4% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.6
275	10 - 30% of mass 198	27.2
365	1 - 100% of mass 198	3.3
441	0.01 - 100% of mass 443	75.7
442	40 - 150% of mass 198	93.3
443	17 - 23% of mass 442	19.0

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 76674
Matrix: Water
ID: SV TUNE 5/14/15

SDG No: 76674
Date Analyzed: 7/7/2015
Instrument: Yoda
Time Analyzed: 15:59

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1	Blank	150623A BLK 1/1000	0625Y124.D	7/7/2015 16:21
2	Lab Control Spike	150623A LCS-1 1/1000	0625Y125.D	7/7/2015 16:50
3	S67-SW026P-061615	AZ17818W05 1/1040	0625Y127.D	7/7/2015 17:50
4	S67-SW027-061615	AZ17821W06 1/1040	0625Y128.D	7/7/2015 18:20
5	S67-MW018-061615	AZ17826W07 1/950	0625Y129.D	7/7/2015 18:50
6	S67-MW019-061615	AZ17827W05 1/950	0625Y130.D	7/7/2015 19:21
7	S67-MW023-061615	AZ17828W07 1/900	0625Y131.D	7/7/2015 19:50
8	S67-MW022-061615	AZ17829W08 1/900	0625Y132.D	7/7/2015 20:20
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60.04% of mass 198	38.3
68	0 - 2% of mass 69	0.0
70	0 - 2% of mass 69	0.4
127	40 - 60% of mass 198	51.0
197	0 - 1.4% of mass 198	0.0
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.7
275	10 - 30% of mass 198	26.8
365	1 - 100% of mass 198	3.3
441	0.01 - 100% of mass 443	74.4
442	40 - 150% of mass 198	101.1
443	17 - 23% of mass 442	18.9

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 76674

Lab File ID (Standard): 0609Y007.D Date Analyzed: 9 Jun 15 16:12

Instrument ID: Yoda Time Analyzed: 9 Jun 15 16:12

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	659031		4.80		2842140		6.23		1600410		8.21	
	UPPER LIMIT	1318062		5.30		5684280		6.73		3200820		8.71	
	LOWER LIMIT	329516		4.30		1421070		5.73		800205		7.71	
	SAMPLE NO.												
01	50ug/ml SVOC SS 06/09	800527		4.79		3423700		6.23		1876170		8.21	
02	50ug/ml SVOC 06/19/15	615275		4.79		2511860		6.23		1338810		8.20	
03	150618A BLK 1/30.15G	704302		4.79		2919800		6.23		1552070		8.20	
04	150618A LCS-1 1/30.06	668889		4.79		2832230		6.23		1548000		8.20	
05	AZ17816S01 1/30.65G	690097		4.79		2913930		6.23		1577690		8.21	
06	AZ17819S01 1/30.91G	668960		4.80		2820820		6.22		1524400		8.21	
07	AZ17820S02 1/30.31G	670375		4.79		2811480		6.23		1520570		8.20	
08	AZ17822S02 1/30.10G	668083		4.79		2945110		6.22		1653480		8.20	
09	AZ17824S06 MS-1 1/30	653224		4.79		2884790		6.22		1595380		8.21	
10	AZ17824S06 MSD-1 1/3	699238		4.79		2966170		6.22		1656490		8.20	
11	AZ17824S06 1/30.74G	606062		4.79		2608820		6.23		1402470		8.21	
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

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

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

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 76674

Lab File ID (Standard): 0609Y007.D Date Analyzed: 9 Jun 15 16:12

Instrument ID: Yoda Time Analyzed: 9 Jun 15 16:12

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	2772740	9.94	2451720	13.00	1683710	14.63
	UPPER LIMIT	5545480	10.44	4903440	13.50	3367420	15.13
	LOWER LIMIT	1386370	9.44	1225860	12.50	841855	14.13
	SAMPLE NO.						
01	50ug/ml SVOC SS 06/09	3283760	9.93	2681600	12.99	1834460	14.64
02	50ug/ml SVOC 06/19/15	2393840	9.93	2089250	12.99	1304200	14.63
03	150618A BLK 1/30.15G	2707280	9.93	2423060	13.00	1575590	14.65
04	150618A LCS-1 1/30.06	2696260	9.93	2421020	12.99	1543770	14.63
05	AZ17816S01 1/30.65G	2773910	9.93	2454910	13.00	1598680	14.64
06	AZ17819S01 1/30.91G	2740250	9.93	2439300	12.99	1593370	14.63
07	AZ17820S02 1/30.31G	2740950	9.93	2462780	12.99	1620200	14.63
08	AZ17822S02 1/30.10G	3028020	9.93	2766780	13.00	1818400	14.63
09	AZ17824S06 MS-1 1/30	2847710	9.93	2634140	12.99	1736010	14.64
10	AZ17824S06 MSD-1 1/3	2936960	9.93	2676110	12.99	1764410	14.64
11	AZ17824S06 1/30.74G	2515010	9.93	2245370	12.99	1489660	14.64
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

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

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8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 76674

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 06/25	527215	5.33	2396380	6.76	1479580	8.78
02	CCV 50ug/ml SVOC 07/	749960	5.32	3598120	6.76	2184560	8.78
03	150702A BLK 1/30.86G	675859	5.32	3012190	6.75	1845340	8.77
04	150702A LCS-1 1/30.57	599875	5.32	2694220	6.75	1653190	8.77
05	AZ17819S02 1/30.24G	629976	5.32	3009150	6.75	1889130	8.78
06	CCV 50ug/ml SVOC 07/	662751	5.32	2995880	6.76	1688380	8.78
07	150623A BLK 1/1000	674308	5.32	2834290	6.75	1489740	8.77
08	150623A LCS-1 1/1000	682453	5.32	3038250	6.75	1714730	8.77
09	150623A LCSD-1 1/100(	687519	5.32	3035270	6.76	1707250	8.77
10	AZ17818W05 1/1040	772446	5.32	3222770	6.75	1862300	8.77
11	AZ17821W06 1/1040	662724	5.32	2744970	6.75	1518160	8.77
12	AZ17826W07 1/950	700362	5.32	3066040	6.75	1731190	8.77
13	AZ17827W05 1/950	793165	5.32	3086970	6.75	1707670	8.77
14	AZ17828W07 1/900	646037	5.32	2794850	6.75	1732030	8.77
15	AZ17829W08 1/900	715593	5.32	2985980	6.75	1650830	8.77
16							
17							
18							
19							
20							
21							
22							

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

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8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: SDG No.: 76674

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 06/25	2611830	10.52	2318530	13.61	1410320	15.43
02	CCV 50ug/ml SVOC 07/	3928660	10.52	3675140	13.61	2277240	15.43
03	150702A BLK 1/30.86G	3472140	10.52	3107840	13.61	1936970	15.43
04	150702A LCS-1 1/30.57	3054310	10.51	2957460	13.61	1808400	15.43
05	AZ17819S02 1/30.24G	3513570	10.51	3096970	13.61	1806000	15.44
06	CCV 50ug/ml SVOC 07/	2737130	10.51	2072800	13.61	1238560	15.43
07	150623A BLK 1/1000	2536970	10.51	1871500	13.60	1118510	15.42
08	150623A LCS-1 1/1000	2785460	10.51	2100930	13.60	1287560	15.42
09	150623A LCSD-1 1/100	2760610	10.51	2107980	13.61	1292720	15.42
10	AZ17818W05 1/1040	3013510	10.51	2199810	13.60	1450850	15.42
11	AZ17821W06 1/1040	2635080	10.51	1993050	13.60	1548870	15.42
12	AZ17826W07 1/950	2901710	10.51	2218340	13.60	1580250	15.42
13	AZ17827W05 1/950	2879330	10.51	2126970	13.60	1405890	15.42
14	AZ17828W07 1/900	3020650	10.51	2081460	13.60	1514250	15.42
15	AZ17829W08 1/900	2829540	10.51	2287880	13.60	1287770	15.42
16							
17							
18							
19							
20							
21							
22							

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

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

EPA METHOD 8270D
Semivolatile Organic Compounds
Sample Data

APPL, INC.

EPA 8270D 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

ARF: 76674

Sample ID: S67-SD026-0001

APPL ID: AZ17816

Sample Collection Date: 6/16/2015

QCG: #87DJU-150618A-198506

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 27.8 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.230 U	0.91	0.230	0.086	mg/kg	6/18/2015	6/19/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.230 U	0.46	0.230	0.078	mg/kg	6/18/2015	6/19/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.230 U	0.46	0.230	0.091	mg/kg	6/18/2015	6/19/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.230 U	0.46	0.230	0.080	mg/kg	6/18/2015	6/19/2015
EPA 8270D	DIETHYL PHTHALATE	0.230 U	0.46	0.230	0.086	mg/kg	6/18/2015	6/19/2015
EPA 8270D	DIMETHYL PHTHALATE	0.230 U	0.46	0.230	0.087	mg/kg	6/18/2015	6/19/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	74.0	35-125			%	6/18/2015	6/19/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	66.7	45-105			%	6/18/2015	6/19/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	63.1	35-105			%	6/18/2015	6/19/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	65.2	35-100			%	6/18/2015	6/19/2015
EPA 8270D	SURROGATE: PHENOL (S)	65.1	40-100			%	6/18/2015	6/19/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	85.0	30-125			%	6/18/2015	6/19/2015

Quant Method: Y0609TT.M
Run #: 0609Y093
Instrument: Yoda
Sequence: Y150609
Dilution Factor: 1
Initials: DA

Printed: 7/1/2015 11:43:46 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150609\0609Y093.D Vial: 93
Acq On : 19 Jun 15 21:18 Operator: csc
Sample : AZ17816S01 1/30.65G Inst : Yoda
Misc : soil Multiplr: 32.63

Quant Time: Jul 1 11:19 2015 Quant Results File: Y0609TT.RES

Quant Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:45:21 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	4.79	152	690097	40.00	ppb	0.00
7) Napthalene-D8(IS)	6.23	136	2913929	40.00	ppb	0.00
13) Acenaphthene-D10(IS)	8.21	164	1577694	40.00	ppb	0.00
23) Phenanthrene-D10(IS)	9.93	188	2773913	40.00	ppb	0.00
27) Chrysene-D12(IS)	13.00	240	2454908	40.00	ppb	0.00
32) Perylene-D12(IS)	14.64	264	1598675	40.00	ppb	0.01
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.84	112	2746945	4114.61	ppb	-0.08
Spiked Amount 6525.285			Recovery =	63.056%		
3) Phenol-D6 (S)	4.96	99	3795086	4246.52	ppb	-0.05
Spiked Amount 6525.285			Recovery =	65.078%		
8) Nitrobenzene-D5(S)	5.49	82	1742002	2128.84	ppb	0.00
Spiked Amount 3262.643			Recovery =	65.249%		
16) 2-Fluorobiphenyl(S)	7.44	172	3447091	2175.95	ppb	0.00
Spiked Amount 3262.643			Recovery =	66.693%		
22) 2,4,6-Tribromophenol(S)	9.20	330	643256	4825.89	ppb	0.00
Spiked Amount 6525.285			Recovery =	73.957%		
28) Terphenyl-D14(S)	11.73	244	4521247	2772.85	ppb	0.00
Spiked Amount 3262.643			Recovery =	84.988%		
Target Compounds						Qvalue
21) Diethyl phthalate	8.73	149	6519	3.87	ppb	98
26) Di-n-butylphthalate	10.53	149	15604	5.74	ppb	97
30) Bis (2-ethylhexyl) phthala	12.80	149	10022	5.73	ppb	88

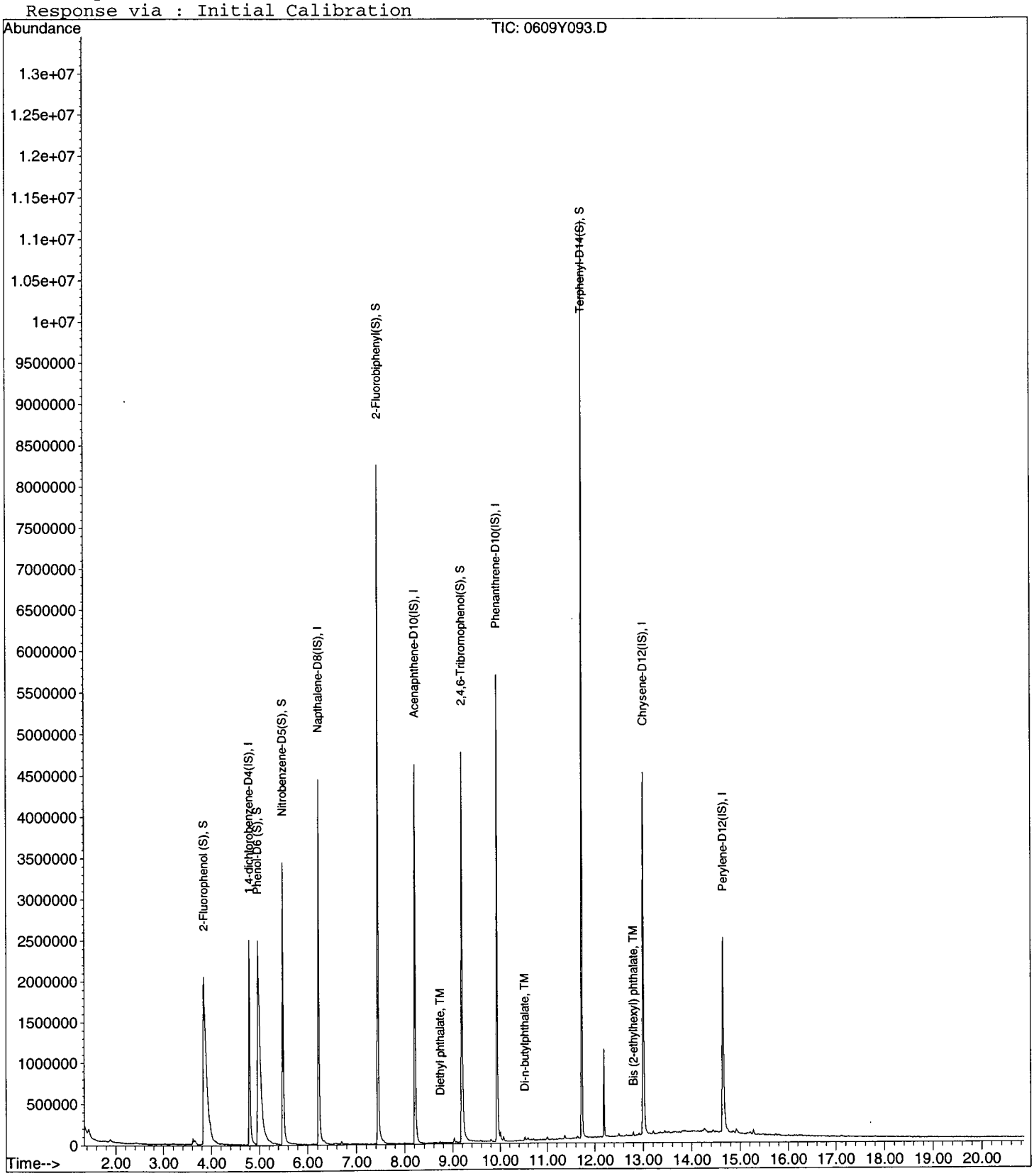
(#) = qualifier out of range (m) = manual integration

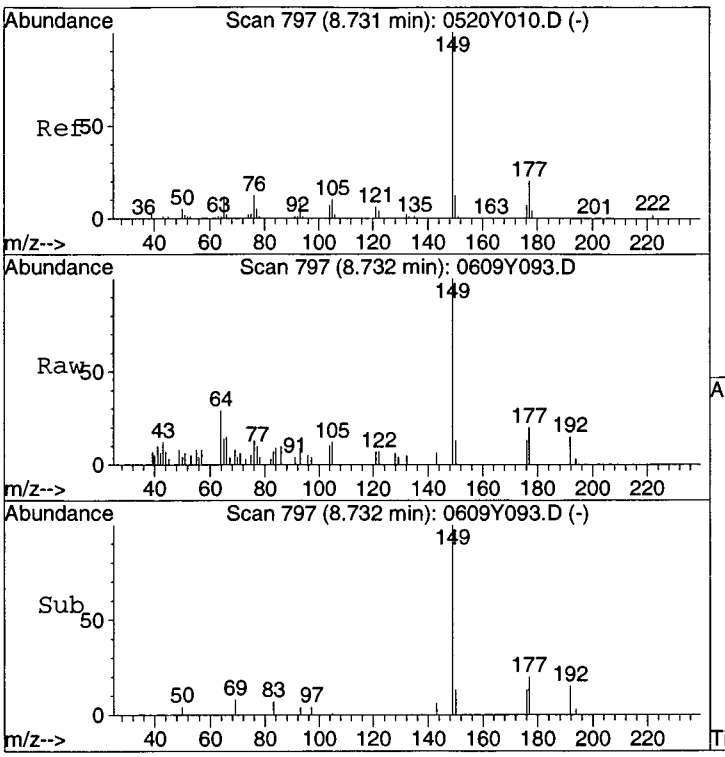
Quantitation Report

Data File : M:\YODA\DATA\Y150609\0609Y093.D Vial: 93
Acq On : 19 Jun 15 21:18 Operator: csc
Sample : AZ17816S01 1/30.65G Inst : Yoda
Misc : soil Multiplr: 32.63

Quant Time: Jul 1 11:19 2015 Quant Results File: Y0609TT.RES

Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:45:21 2015
Response via : Initial Calibration

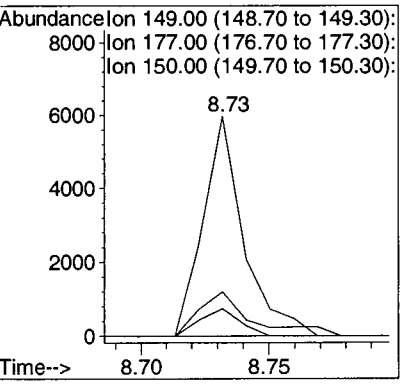


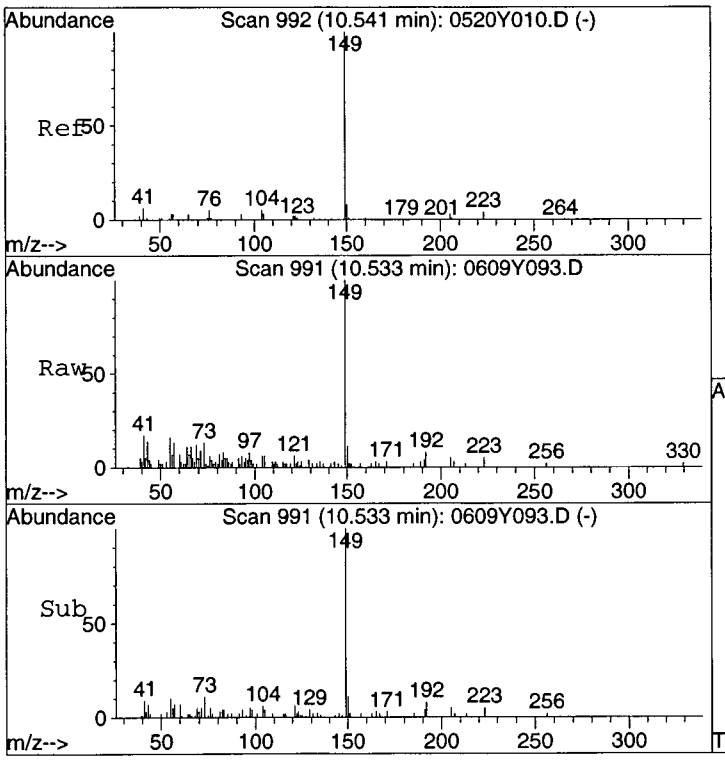


#21
Diethyl phthalate
Concen: 3.87 ppb
RT: 8.73 min Scan# 797
Delta R.T. 0.01 min
Lab File: 0609Y093.D
Acq: 19 Jun 15 21:18

Tgt Ion:149 Resp: 6519

Ion	Ratio	Lower	Upper
149	100		
177	20.2	15.1	28.0
150	12.5	8.3	15.5

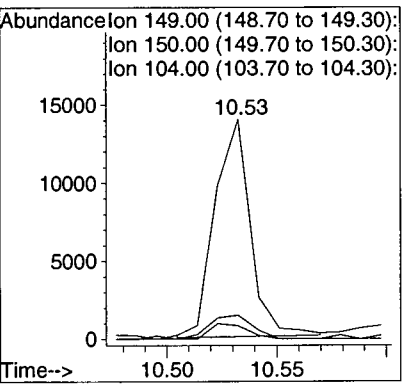


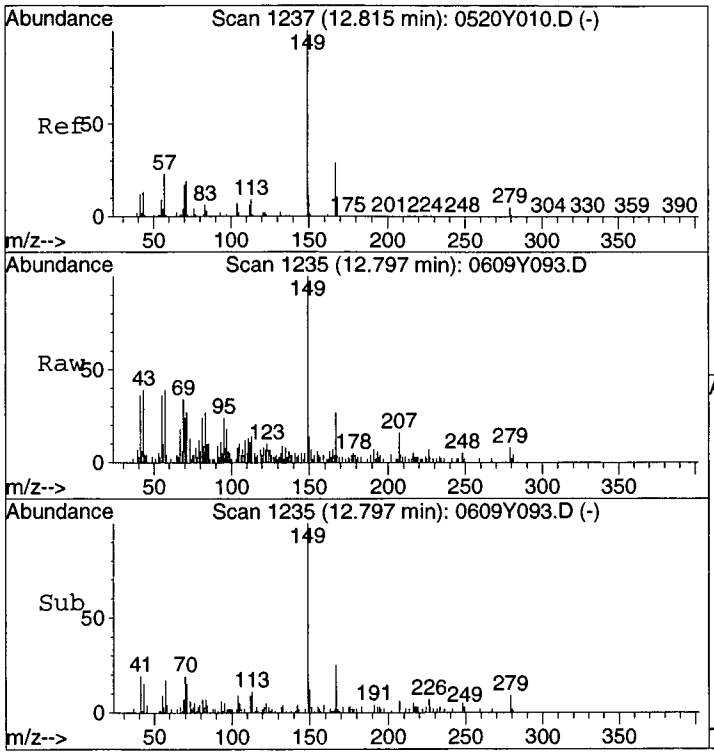


#26
Di-n-butylphthalate
Concen: 5.74 ppb
RT: 10.53 min Scan# 991
Delta R.T. 0.00 min
Lab File: 0609Y093.D
Acq: 19 Jun 15 21:18

Tgt Ion:149 Resp: 15604

Ion	Ratio	Lower	Upper
149	100		
150	11.2	6.4	11.8
104	6.2	4.3	7.9

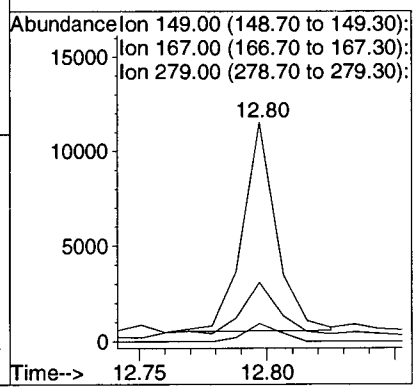




#30
Bis (2-ethylhexyl) phthalate
Concen: 5.73 ppb
RT: 12.80 min Scan# 1235
Delta R.T. -0.01 min
Lab File: 0609Y093.D
Acq: 19 Jun 15 21:18

Tgt Ion:149 Resp: 10022

Ion	Ratio	Lower	Upper
149	100		
167	24.9	23.1	42.9
279	8.7	7.1	13.3



EPA 8270D WATER

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76674

Sample ID: S67-SW026P-061615

APPL ID: AZ17818

Sample Collection Date: 6/16/2015

QCG: #87DJU-150623A-198680

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	6/23/2015	7/7/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	6/23/2015	7/7/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	6/23/2015	7/7/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	6/23/2015	7/7/2015
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	6/23/2015	7/7/2015
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	48.1	40-125			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	47.8 #	50-110			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	29.7	20-110			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	53.3	40-110			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: PHENOL (S)	21.4	10-115			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	63.9	50-135			%	6/23/2015	7/7/2015

= Recovery (or RPD) is outside QC limits.

Quant Method:	Y0625TT.M
Run #:	0625Y127
Instrument:	Yoda
Sequence:	Y150625
Dilution Factor:	1
Initials:	DA

Printed: 7/9/2015 9:33:22 AM

APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y127.D Vial: 27
Acq On : 7 Jul 15 17:50 Operator: MA
Sample : AZ17818W05 1/1040 Inst : Yoda
Misc : water Multiplr: 1.00

Quant Time: Jul 8 13:36 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	772446	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.75	136	3222765	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.77	164	1862298	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	10.51	188	3013511	40.00	ppb		0.00
27) Chrysene-D12(IS)	13.60	240	2199814	40.00	ppb		0.00
32) Perylene-D12(IS)	15.42	264	1450850	40.00	ppb		-0.02
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.79	112	1643561	59.49	ppb		-0.02
Spiked Amount 200.000			Recovery =	29.746%			
3) Phenol-D6 (S)	4.90	99	1462463	42.86	ppb		0.00
Spiked Amount 200.000			Recovery =	21.430%			
8) Nitrobenzene-D5(S)	5.94	82	1684366	53.31	ppb		0.00
Spiked Amount 100.000			Recovery =	53.313%			
16) 2-Fluorobiphenyl(S)	7.99	172	3020818	47.77	ppb		0.00
Spiked Amount 100.000			Recovery =	47.767%			
22) 2,4,6-Tribromophenol(S)	9.69	330	589991	96.19	ppb		0.00
Spiked Amount 200.000			Recovery =	48.094%			
28) Terphenyl-D14(S)	12.38	244	3537970	63.85	ppb		0.00
Spiked Amount 100.000			Recovery =	63.849%			
Target Compounds							Qvalue
17) Dimethyl phthalate	8.46	163	10729	0.15	ppb		99
25) Pentachlorophenol	10.27	266	1863	-1.98	ppb	#	1

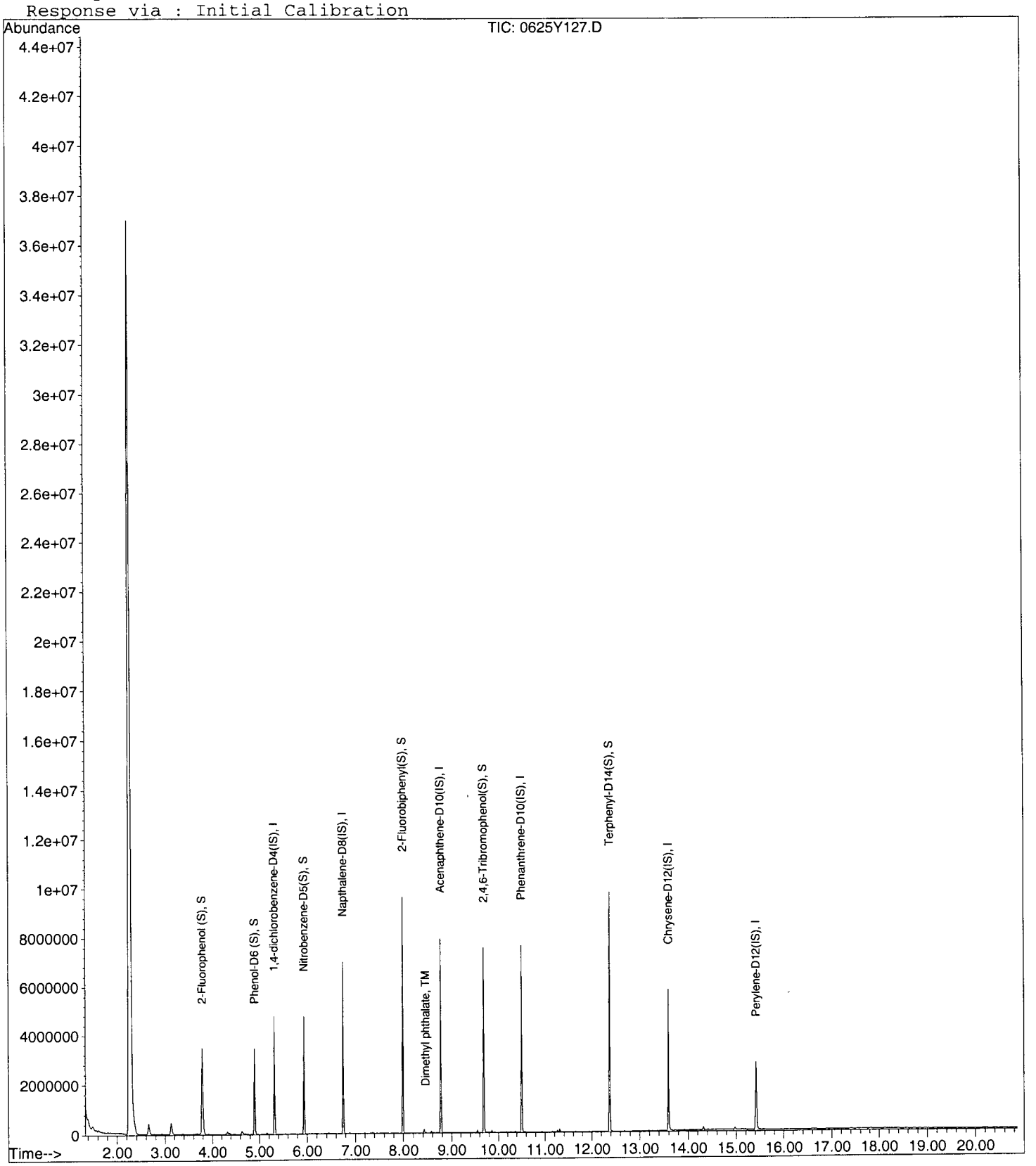
(#) = qualifier out of range (m) = manual integration

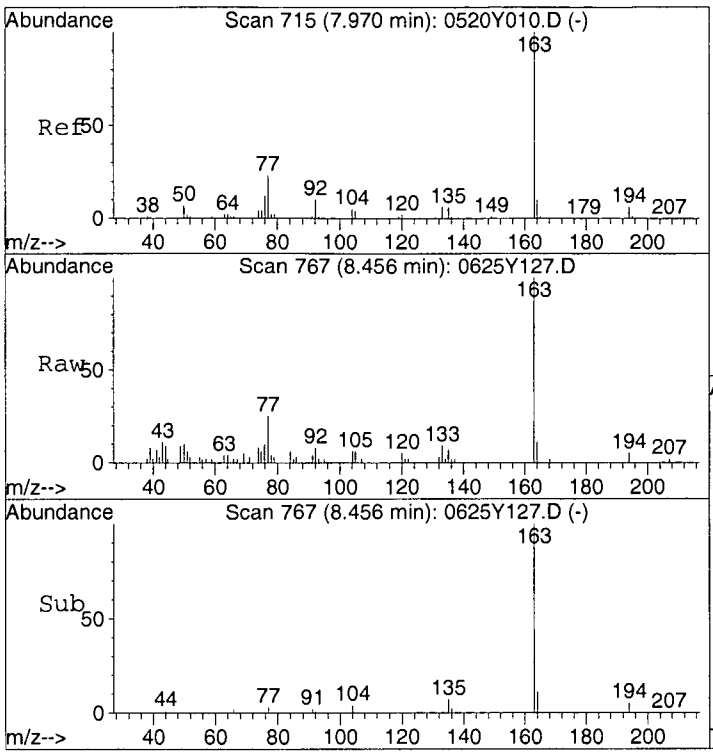
Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y127.D Vial: 27
Acq On : 7 Jul 15 17:50 Operator: MA
Sample : AZ17818W05 1/1040 Inst : Yoda
Misc : water Multiplr: 1.00

Quant Time: Jul 8 13:36 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

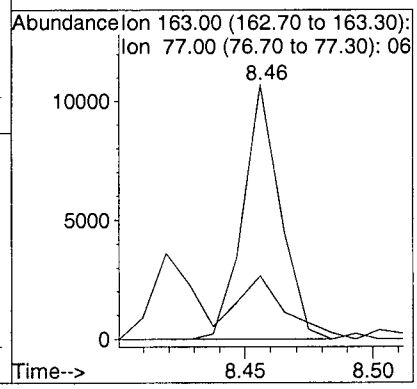




#17
Dimethyl phthalate
Concen: 0.15 ppb
RT: 8.46 min Scan# 767
Delta R.T. -0.02 min
Lab File: 0625Y127.D
Acq: 7 Jul 15 17:50

Tgt Ion:163 Resp: 10729

Ion	Ratio	Lower	Upper
163	100		
77	22.4	16.0	29.6



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

ARF: 76674

Sample ID: S67-SD027-0001

APPL ID: AZ17819

Sample Collection Date: 6/16/2015

QCG: #87DJU-150618A-198506

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 50.7 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.340 U	1.30	0.340	0.130	mg/kg	6/18/2015	6/19/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.340 U	0.67	0.340	0.110	mg/kg	6/18/2015	6/19/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.340 U	0.67	0.340	0.130	mg/kg	6/18/2015	6/19/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.340 U	0.67	0.340	0.120	mg/kg	6/18/2015	6/19/2015
EPA 8270D	DIETHYL PHTHALATE	0.340 U	0.67	0.340	0.130	mg/kg	6/18/2015	6/19/2015
EPA 8270D	DIMETHYL PHTHALATE	0.340 U	0.67	0.340	0.130	mg/kg	6/18/2015	6/19/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	44.9	35-125			%	6/18/2015	6/19/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	34.0 #	45-105			%	6/18/2015	6/19/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	39.4	35-105			%	6/18/2015	6/19/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	39.2	35-100			%	6/18/2015	6/19/2015
EPA 8270D	SURROGATE: PHENOL (S)	40.2	40-100			%	6/18/2015	6/19/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	46.7	30-125			%	6/18/2015	6/19/2015

= Recovery (or RPD) is outside QC limits.

Quant Method: Y0609TT.M
Run #: 0609Y094
Instrument: Yoda
Sequence: Y150609
Dilution Factor: 1
Initials: DA

Printed: 7/1/2015 11:43:46 AM

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

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150609\0609Y094.D Vial: 94
Acq On : 19 Jun 15 21:48 Operator: csc
Sample : AZ17819S01 1/30.91G Inst : Yoda
Misc : soil Multiplr: 32.35

Quant Time: Jul 1 11:28 2015 Quant Results File: Y0609TT.RES

Quant Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:45:21 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	4.80	152	668960	40.00	ppb	0.00
7) Napthalene-D8(IS)	6.22	136	2820824	40.00	ppb	0.00
13) Acenaphthene-D10(IS)	8.21	164	1524402	40.00	ppb	0.00
23) Phenanthrene-D10(IS)	9.93	188	2740253	40.00	ppb	-0.01
27) Chrysene-D12(IS)	12.99	240	2439304	40.00	ppb	-0.01
32) Perylene-D12(IS)	14.63	264	1593370	40.00	ppb	0.00
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.87	112	1664276	2550.04	ppb	-0.06
Spiked Amount 6470.398			Recovery =	39.411%		
3) Phenol-D6 (S)	4.99	99	2270754	2599.10	ppb	-0.02
Spiked Amount 6470.398			Recovery =	40.169%		
8) Nitrobenzene-D5(S)	5.50	82	1011959	1266.76	ppb	0.00
Spiked Amount 3235.199			Recovery =	39.155%		
16) 2-Fluorobiphenyl(S)	7.44	172	1699596	1101.02	ppb	0.00
Spiked Amount 3235.199			Recovery =	34.033%		
22) 2,4,6-Tribromophenol(S)	9.19	330	370679	2905.68	ppb	-0.01
Spiked Amount 6470.398			Recovery =	44.907%		
28) Terphenyl-D14(S)	11.73	244	2470667	1512.11	ppb	0.00
Spiked Amount 3235.199			Recovery =	46.739%		
Target Compounds						Qvalue
21) Diethyl phthalate	8.73	149	4620	2.81	ppb	98

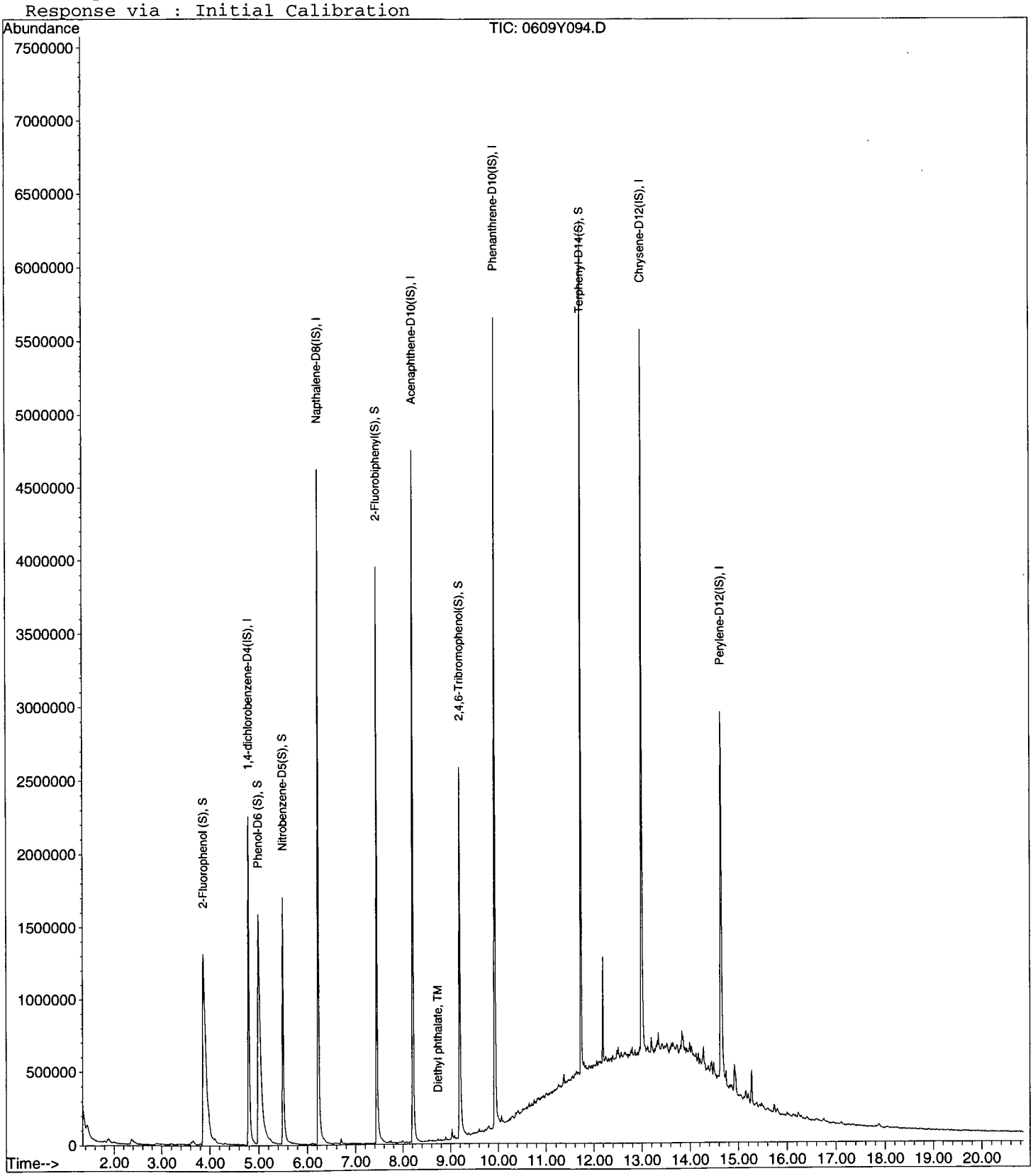
(#) = qualifier out of range (m) = manual integration

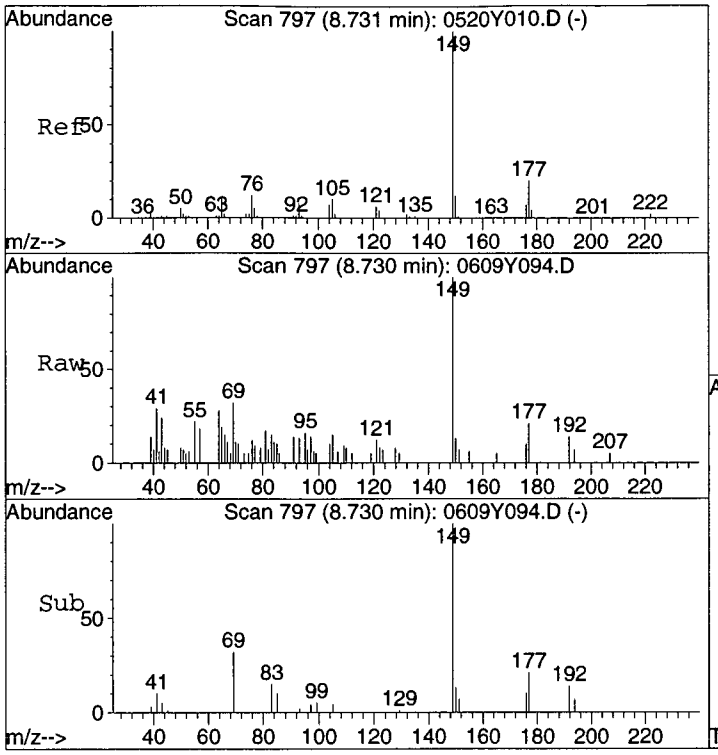
Quantitation Report

Data File : M:\YODA\DATA\Y150609\0609Y094.D Vial: 94
Acq On : 19 Jun 15 21:48 Operator: csc
Sample : AZ17819S01 1/30.91G Inst : Yoda
Misc : soil Multiplr: 32.35

Quant Time: Jul 1 11:28 2015 Quant Results File: Y0609TT.RES

Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:45:21 2015
Response via : Initial Calibration

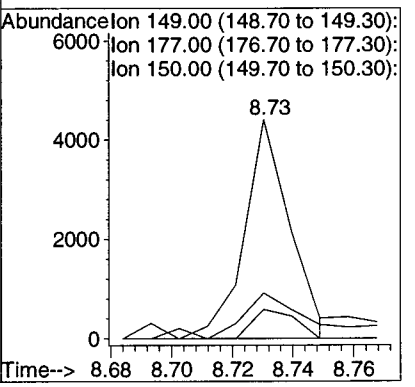




#21
Diethyl phthalate
Concen: 2.81 ppb
RT: 8.73 min Scan# 797
Delta R.T. 0.01 min
Lab File: 0609Y094.D
Acq: 19 Jun 15 21:48

Tgt Ion:149 Resp: 4620

Ion	Ratio	Lower	Upper
149	100		
177	20.9	15.1	28.0
150	13.4	8.3	15.5



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

ARF: 76674

Sample ID: S67-SD027-0001

APPL ID: AZ17819

Sample Collection Date: 6/16/2015

QCG: #87DJU-150702A1-198633

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 50.7 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.25 J	1.30	0.340	0.130	mg/kg	7/2/2015	7/6/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.340 U	0.67	0.340	0.110	mg/kg	7/2/2015	7/6/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.340 U	0.67	0.340	0.130	mg/kg	7/2/2015	7/6/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.340 U	0.67	0.340	0.120	mg/kg	7/2/2015	7/6/2015
EPA 8270D	DIETHYL PHTHALATE	0.340 U	0.67	0.340	0.130	mg/kg	7/2/2015	7/6/2015
EPA 8270D	DIMETHYL PHTHALATE	0.340 U	0.67	0.340	0.130	mg/kg	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	77.8	35-125			%	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	65.0	45-105			%	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	69.1	35-105			%	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	70.7	35-100			%	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: PHENOL (S)	84.2	40-100			%	7/2/2015	7/6/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	78.0	30-125			%	7/2/2015	7/6/2015

J = Estimated value.

Quant Method:	Y0625TT.M
Run #:	0625Y105
Instrument:	Yoda
Sequence:	Y150625
Dilution Factor:	1
Initials:	DA

Printed: 7/7/2015 2:37:35 PM

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

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y105.D Vial: 5
Acq On : 6 Jul 15 19:22 Operator: MA
Sample : AZ17819S02 1/30.24G Inst : Yoda
Misc : soil Multiplr: 33.07

Quant Time: Jul 7 8:39 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	629976	40.00 ppb	-0.01
7) Napthalene-D8(IS)	6.75	136	3009152	40.00 ppb	0.00
13) Acenaphthene-D10(IS)	8.78	164	1889128	40.00 ppb	0.00
23) Phenanthrene-D10(IS)	10.51	188	3513572	40.00 ppb	0.00
27) Chrysene-D12(IS)	13.61	240	3096969	40.00 ppb	0.00
32) Perylene-D12(IS)	15.44	264	1806001	40.00 ppb	0.00
System Monitoring Compounds					
2) 2-Fluorophenol (S)	3.77	112	3111610	4566.81 ppb	-0.03
Spiked Amount 6613.757			Recovery =	69.050%	
3) Phenol-D6 (S)	4.91	99	4685511	5567.81 ppb	0.00
Spiked Amount 6613.757			Recovery =	84.185%	
8) Nitrobenzene-D5(S)	5.94	82	2084944	2337.21 ppb	-0.01
Spiked Amount 3306.878			Recovery =	70.677%	
16) 2-Fluorobiphenyl(S)	7.99	172	4169276	2149.15 ppb	-0.01
Spiked Amount 3306.878			Recovery =	64.990%	
22) 2,4,6-Tribromophenol(S)	9.70	330	968025	5144.76 ppb	0.00
Spiked Amount 6613.757			Recovery =	77.789%	
28) Terphenyl-D14(S)	12.39	244	6088351	2580.89 ppb	0.00
Spiked Amount 3306.878			Recovery =	78.046%	
Target Compounds					Qvalue
25) Pentachlorophenol	10.28	266	631	-70.44 ppb #	38
26) Di-n-butylphthalate	11.20	149	74388	21.73 ppb	99
30) Bis (2-ethylhexyl) phthala	13.62	149	62202	123.31 ppb	93

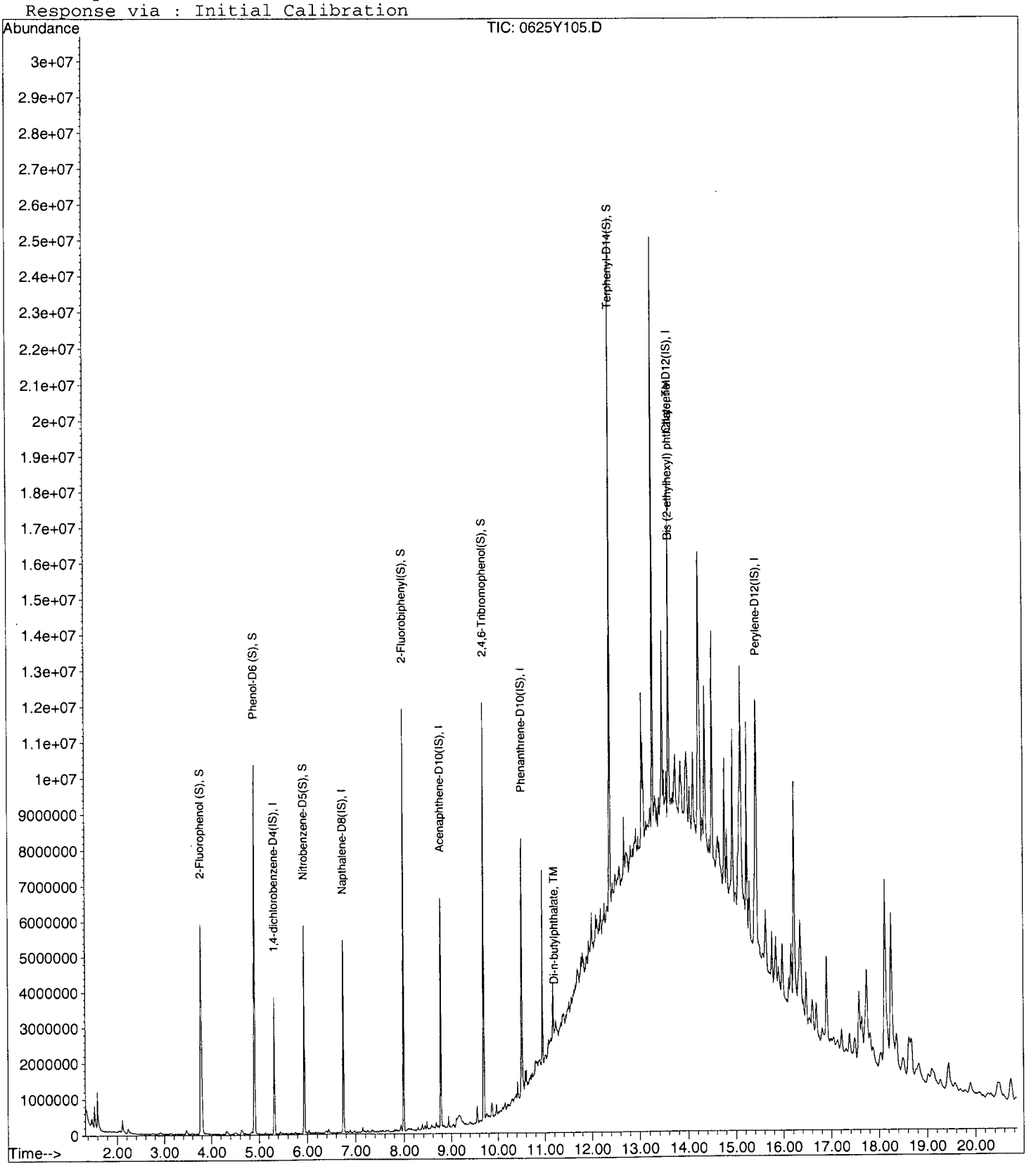
(#) = qualifier out of range (m) = manual integration

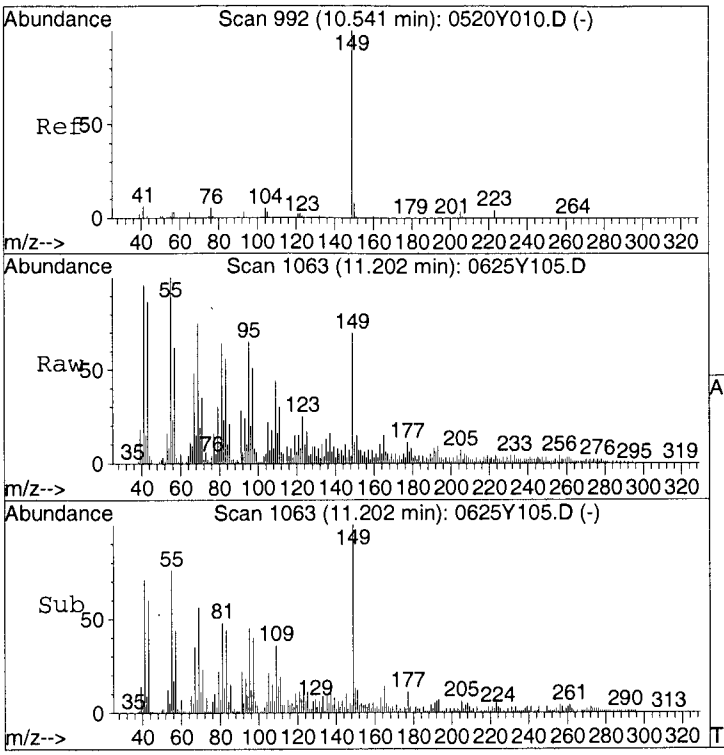
Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y105.D Vial: 5
Acq On : 6 Jul 15 19:22 Operator: MA
Sample : AZ17819S02 1/30.24G Inst : Yoda
Misc : soil Multiplr: 33.07

Quant Time: Jul 7 8:39 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

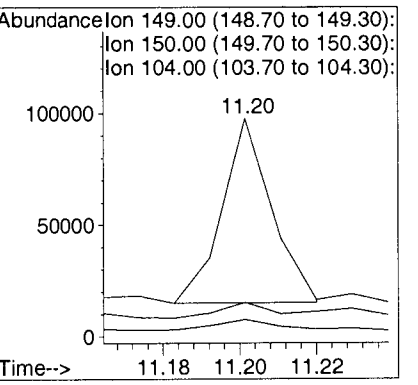


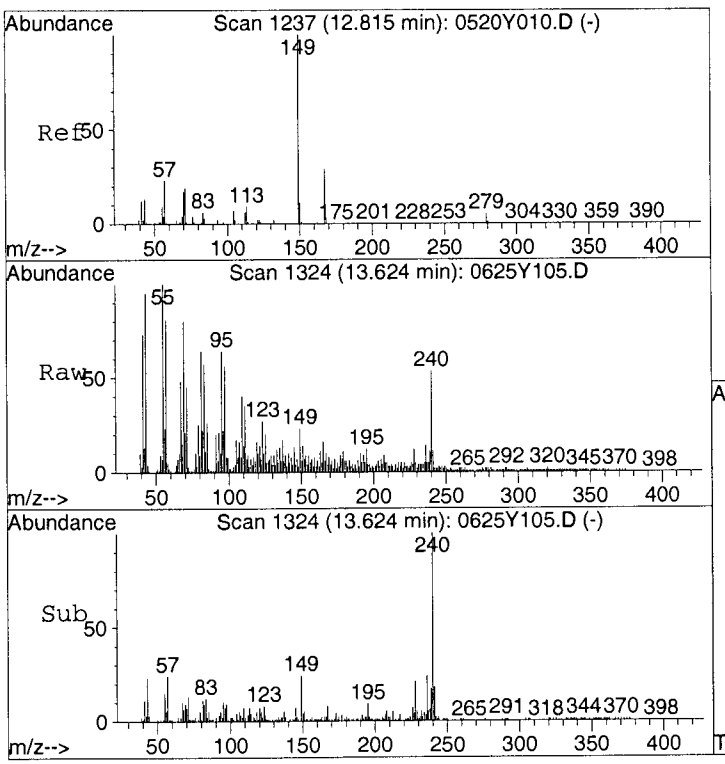


#26
Di-n-butylphthalate
Concen: 21.73 ppb
RT: 11.20 min Scan# 1063
Delta R.T. -0.01 min
Lab File: 0625Y105.D
Acq: 6 Jul 15 19:22

Tgt Ion:149 Resp: 74388

Ion	Ratio	Lower	Upper
149	100		
150	8.4	5.9	10.9
104	5.4	3.3	6.1

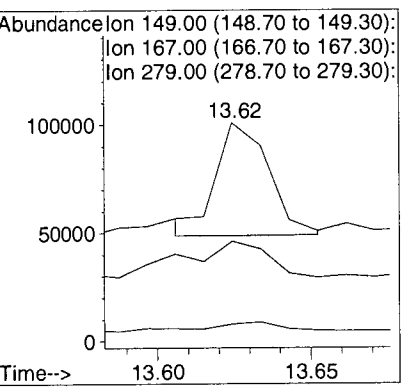




#30
Bis (2-ethylhexyl) phthalate
Concen: 123.31 ppb
RT: 13.62 min Scan# 1324
Delta R.T. -0.01 min
Lab File: 0625Y105.D
Acq: 6 Jul 15 19:22

Tgt Ion:149 Resp: 62202

Ion	Ratio	Lower	Upper
149	100		
167	33.6	20.3	37.7
279	5.8	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-SD027P-0001
Sample Collection Date: 6/16/2015

ARF: 76674
APPL ID: AZ17820
QCG: #87DJU-150618A-198506

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 53.5 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.360 U	1.40	0.360	0.130	mg/kg	6/18/2015	6/19/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.360 U	0.71	0.360	0.120	mg/kg	6/18/2015	6/19/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.360 U	0.71	0.360	0.140	mg/kg	6/18/2015	6/19/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.360 U	0.71	0.360	0.120	mg/kg	6/18/2015	6/19/2015
EPA 8270D	DIETHYL PHTHALATE	0.360 U	0.71	0.360	0.130	mg/kg	6/18/2015	6/19/2015
EPA 8270D	DIMETHYL PHTHALATE	0.360 U	0.71	0.360	0.140	mg/kg	6/18/2015	6/19/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	67.6	35-125			%	6/18/2015	6/19/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	50.6	45-105			%	6/18/2015	6/19/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	48.1	35-105			%	6/18/2015	6/19/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	52.6	35-100			%	6/18/2015	6/19/2015
EPA 8270D	SURROGATE: PHENOL (S)	53.6	40-100			%	6/18/2015	6/19/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	72.8	30-125			%	6/18/2015	6/19/2015

Quant Method: Y0609TT.M
Run #: 0609Y095
Instrument: Yoda
Sequence: Y150609
Dilution Factor: 1
Initials: DA

Printed: 7/1/2015 11:43:46 AM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150609\0609Y095.D Vial: 95
Acq On : 19 Jun 15 22:17 Operator: csc
Sample : AZ17820S02 1/30.31G Inst : Yoda
Misc : soil Multiplr: 32.99

Quant Time: Jul 1 11:30 2015 Quant Results File: Y0609TT.RES

Quant Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:45:21 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	4.79	152	670375	40.00	ppb	0.00
7) Napthalene-D8(IS)	6.23	136	2811483	40.00	ppb	0.00
13) Acenaphthene-D10(IS)	8.20	164	1520571	40.00	ppb	0.00
23) Phenanthrene-D10(IS)	9.93	188	2740949	40.00	ppb	0.00
27) Chrysene-D12(IS)	12.99	240	2462780	40.00	ppb	0.00
32) Perylene-D12(IS)	14.63	264	1620195	40.00	ppb	0.00
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.85	112	2037082	3176.32	ppb	-0.07
Spiked Amount 6598.482			Recovery =	48.137%		
3) Phenol-D6 (S)	4.97	99	3037267	3537.79	ppb	-0.04
Spiked Amount 6598.482			Recovery =	53.615%		
8) Nitrobenzene-D5(S)	5.49	82	1353890	1734.07	ppb	0.00
Spiked Amount 3299.241			Recovery =	52.560%		
16) 2-Fluorobiphenyl(S)	7.44	172	2518456	1667.98	ppb	0.00
Spiked Amount 3299.241			Recovery =	50.557%		
22) 2,4,6-Tribromophenol(S)	9.20	330	565177	4460.31	ppb	0.00
Spiked Amount 6598.482			Recovery =	67.596%		
28) Terphenyl-D14(S)	11.73	244	3887770	2403.38	ppb	0.00
Spiked Amount 3299.241			Recovery =	72.846%		
Target Compounds						Qvalue
17) Dimethyl phthalate	7.98	163	9237	5.71	ppb	100
26) Di-n-butylphthalate	10.52	149	17037	6.41	ppb	98
30) Bis (2-ethylhexyl) phthala	12.80	149	15211	8.77	ppb	95

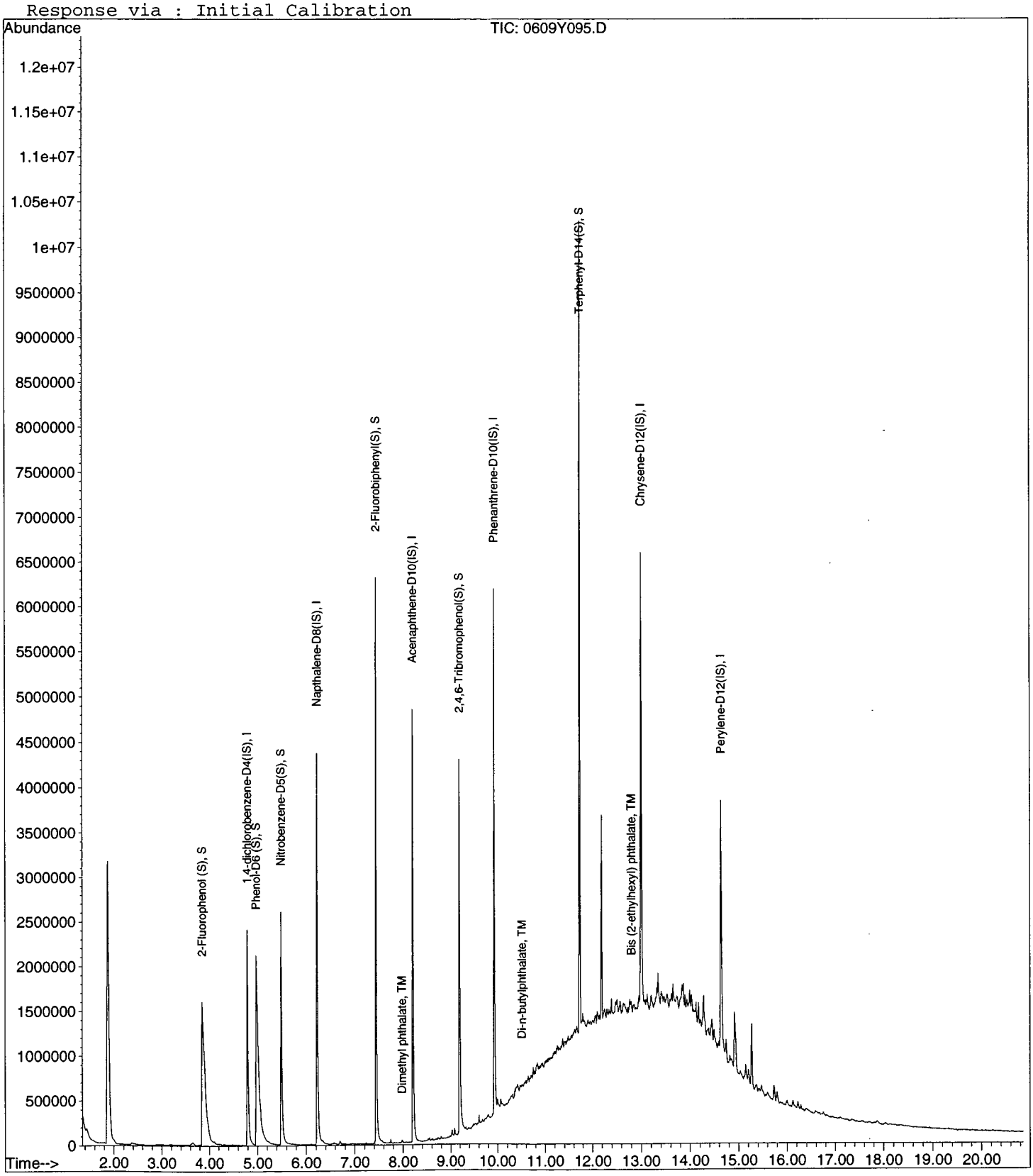
(#) = qualifier out of range (m) = manual integration

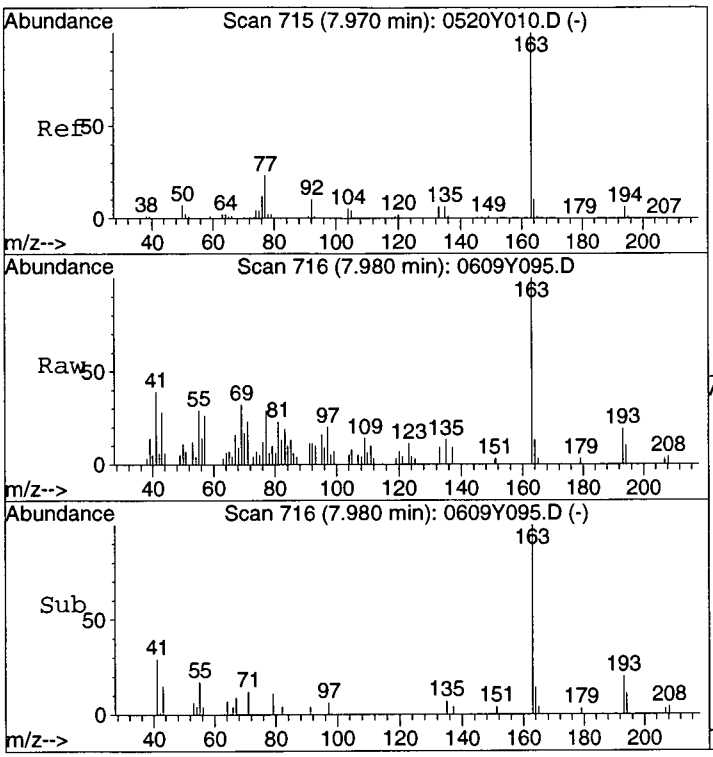
Quantitation Report

Data File : M:\YODA\DATA\Y150609\0609Y095.D Vial: 95
Acq On : 19 Jun 15 22:17 Operator: csc
Sample : AZ17820S02 1/30.31G Inst : Yoda
Misc : soil Multiplr: 32.99

Quant Time: Jul 1 11:30 2015 Quant Results File: Y0609TT.RES

Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:45:21 2015
Response via : Initial Calibration

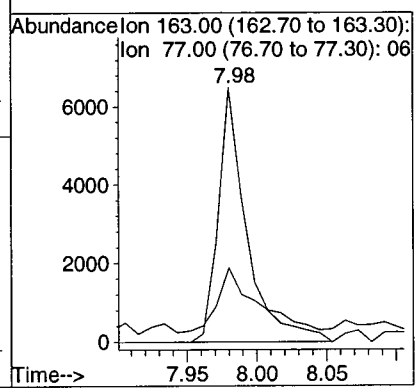


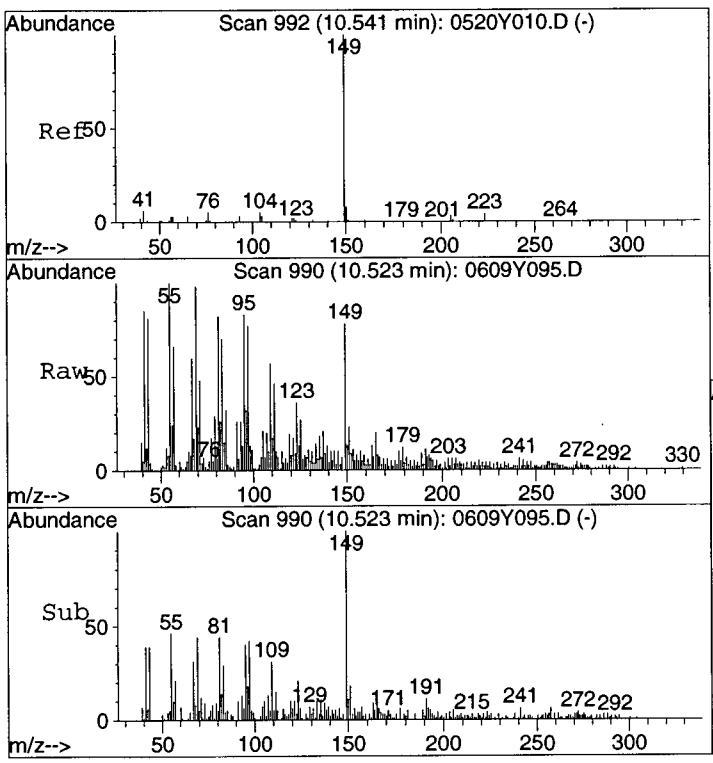


#17
Dimethyl phthalate
Concen: 5.71 ppb
RT: 7.98 min Scan# 716
Delta R.T. 0.02 min
Lab File: 0609Y095.D
Acq: 19 Jun 15 22:17

Tgt Ion:163 Resp: 9237

Ion	Ratio	Lower	Upper
163	100		
77	24.7	17.3	32.1

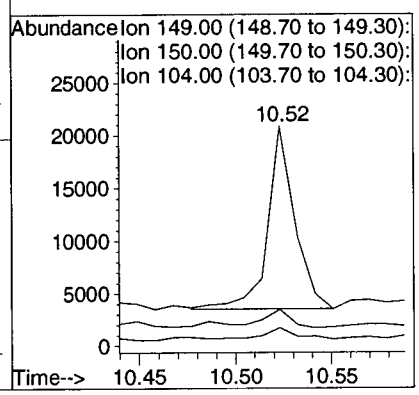


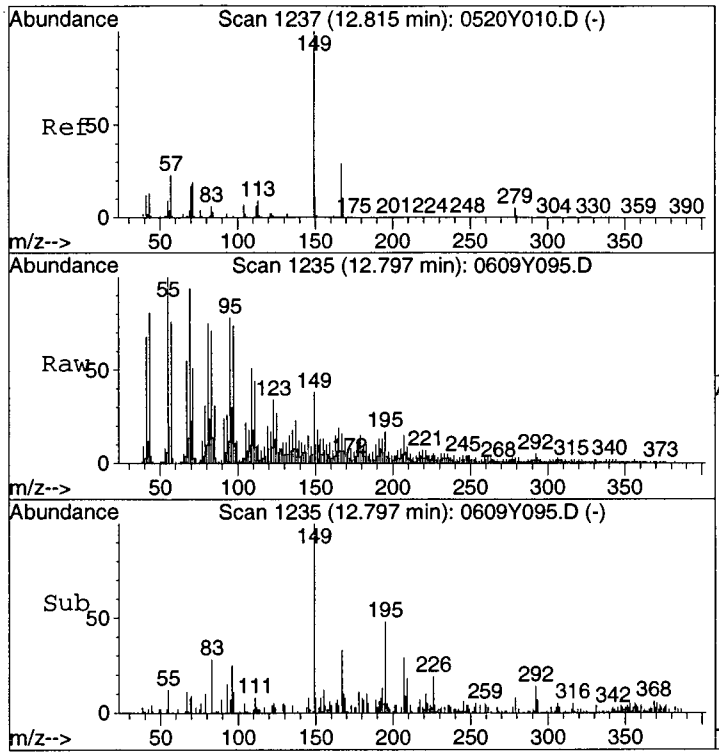


#26
Di-n-butylphthalate
Concen: 6.41 ppb
RT: 10.52 min Scan# 990
Delta R.T. -0.01 min
Lab File: 0609Y095.D
Acq: 19 Jun 15 22:17

Tgt Ion:149 Resp: 17037

Ion	Ratio	Lower	Upper
149	100		
150	9.8	6.4	11.8
104	6.5	4.3	7.9

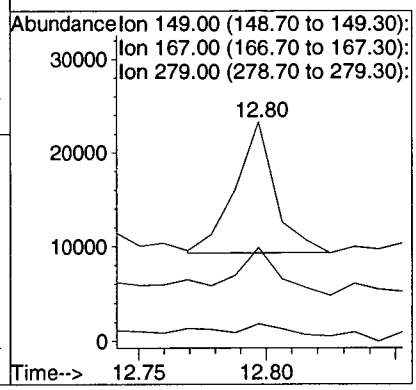




#30
Bis (2-ethylhexyl) phthalate
Concen: 8.77 ppb
RT: 12.80 min Scan# 1235
Delta R.T. -0.01 min
Lab File: 0609Y095.D
Acq: 19 Jun 15 22:17

Tgt Ion:149 Resp: 15211

Ion	Ratio	Lower	Upper
149	100		
167	36.4	23.1	42.9
279	9.3	7.1	13.3



EPA 8270D WATER

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76674

Sample ID: S67-SW027-061615

APPL ID: AZ17821

Sample Collection Date: 6/16/2015

QCG: #87DJU-150623A-198680

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	6/23/2015	7/7/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	6/23/2015	7/7/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	6/23/2015	7/7/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	6/23/2015	7/7/2015
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	6/23/2015	7/7/2015
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	54.4	40-125			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	49.0 #	50-110			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	30.3	20-110			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	54.7	40-110			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: PHENOL (S)	21.5	10-115			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	70.8	50-135			%	6/23/2015	7/7/2015

= Recovery (or RPD) is outside QC limits.

Quant Method:	Y0625TT.M
Run #:	0625Y128
Instrument:	Yoda
Sequence:	Y150625
Dilution Factor:	1
Initials:	DA

Printed: 7/9/2015 9:33:22 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y128.D Vial: 28
Acq On : 7 Jul 15 18:20 Operator: MA
Sample : AZ17821W06 1/1040 Inst : Yoda
Misc : water Multiplr: 1.00

Quant Time: Jul 8 13:37 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	662724	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.75	136	2744967	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.77	164	1518164	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	10.51	188	2635076	40.00	ppb		0.00
27) Chrysene-D12(IS)	13.60	240	1993047	40.00	ppb		0.00
32) Perylene-D12(IS)	15.42	264	1548870	40.00	ppb		-0.02
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.79	112	1434953	60.54	ppb		-0.02
Spiked Amount 200.000			Recovery =	30.270%			
3) Phenol-D6 (S)	4.90	99	1255943	42.90	ppb		0.00
Spiked Amount 200.000			Recovery =	21.451%			
8) Nitrobenzene-D5(S)	5.94	82	1472410	54.72	ppb		0.00
Spiked Amount 100.000			Recovery =	54.717%			
16) 2-Fluorobiphenyl(S)	7.99	172	2526705	49.01	ppb		0.00
Spiked Amount 100.000			Recovery =	49.010%			
22) 2,4,6-Tribromophenol(S)	9.69	330	543532	108.70	ppb		0.00
Spiked Amount 200.000			Recovery =	54.350%			
28) Terphenyl-D14(S)	12.38	244	3551911	70.75	ppb		0.00
Spiked Amount 100.000			Recovery =	70.751%			
Target Compounds							Qvalue
25) Pentachlorophenol	10.27	266	1343	-2.01	ppb	#	1

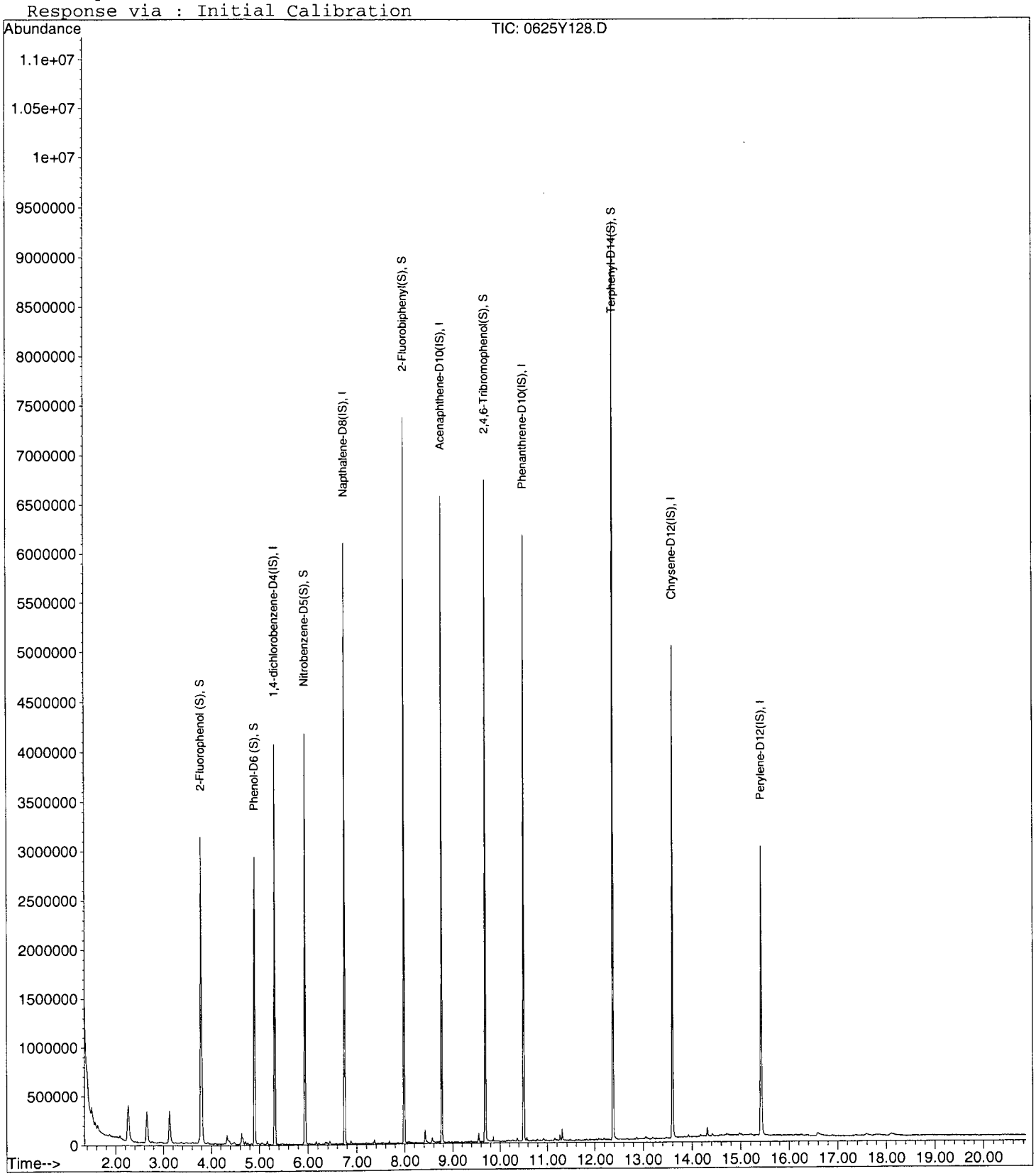
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y128.D Vial: 28
Acq On : 7 Jul 15 18:20 Operator: MA
Sample : AZ17821W06 1/1040 Inst : Yoda
Misc : water Multiplr: 1.00

Quant Time: Jul 8 13:37 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



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-SD028-0001
Sample Collection Date: 6/16/2015

ARF: 76674
APPL ID: AZ17822
QCG: #87DJU-150618A-198506

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 73.1 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.620 U	2.50	0.620	0.230	mg/kg	6/18/2015	6/19/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.620 U	1.20	0.620	0.210	mg/kg	6/18/2015	6/19/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.620 U	1.20	0.620	0.250	mg/kg	6/18/2015	6/19/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.620 U	1.20	0.620	0.220	mg/kg	6/18/2015	6/19/2015
EPA 8270D	DIETHYL PHTHALATE	0.620 U	1.20	0.620	0.230	mg/kg	6/18/2015	6/19/2015
EPA 8270D	DIMETHYL PHTHALATE	0.620 U	1.20	0.620	0.230	mg/kg	6/18/2015	6/19/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	77.2	35-125			%	6/18/2015	6/19/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	65.2	45-105			%	6/18/2015	6/19/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	70.2	35-105			%	6/18/2015	6/19/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	69.1	35-100			%	6/18/2015	6/19/2015
EPA 8270D	SURROGATE: PHENOL (S)	73.7	40-100			%	6/18/2015	6/19/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	77.8	30-125			%	6/18/2015	6/19/2015

Quant Method: Y0609TT.M
Run #: 0609Y096
Instrument: Yoda
Sequence: Y150609
Dilution Factor: 1
Initials: DA

Printed: 7/1/2015 11:43:46 AM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150609\0609Y096.D Vial: 96
Acq On : 19 Jun 15 22:46 Operator: csc
Sample : AZ17822S02 1/30.10G Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Jul 1 11:31 2015 Quant Results File: Y0609TT.RES

Quant Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:45:21 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	4.79	152	668083	40.00	ppb	0.00
7) Napthalene-D8(IS)	6.22	136	2945107	40.00	ppb	0.00
13) Acenaphthene-D10(IS)	8.20	164	1653484	40.00	ppb	0.00
23) Phenanthrene-D10(IS)	9.93	188	3028015	40.00	ppb	0.00
27) Chrysene-D12(IS)	13.00	240	2766781	40.00	ppb	0.00
32) Perylene-D12(IS)	14.63	264	1818399	40.00	ppb	0.00
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.83	112	2960264	140.38	ppb	-0.09
Spiked Amount 200.000			Recovery =	70.193%		
3) Phenol-D6 (S)	4.96	99	4158219	147.31	ppb	-0.05
Spiked Amount 200.000			Recovery =	73.655%		
8) Nitrobenzene-D5(S)	5.49	82	1865853	69.15	ppb	0.00
Spiked Amount 100.000			Recovery =	69.148%		
16) 2-Fluorobiphenyl(S)	7.44	172	3531385	65.19	ppb	0.00
Spiked Amount 100.000			Recovery =	65.192%		
22) 2,4,6-Tribromophenol(S)	9.19	330	704201	154.33	ppb	-0.02
Spiked Amount 200.000			Recovery =	77.165%		
28) Terphenyl-D14(S)	11.73	244	4662404	77.76	ppb	0.00
Spiked Amount 100.000			Recovery =	77.762%		
Target Compounds						Qvalue
26) Di-n-butylphthalate	10.52	149	23305	0.24	ppb	98

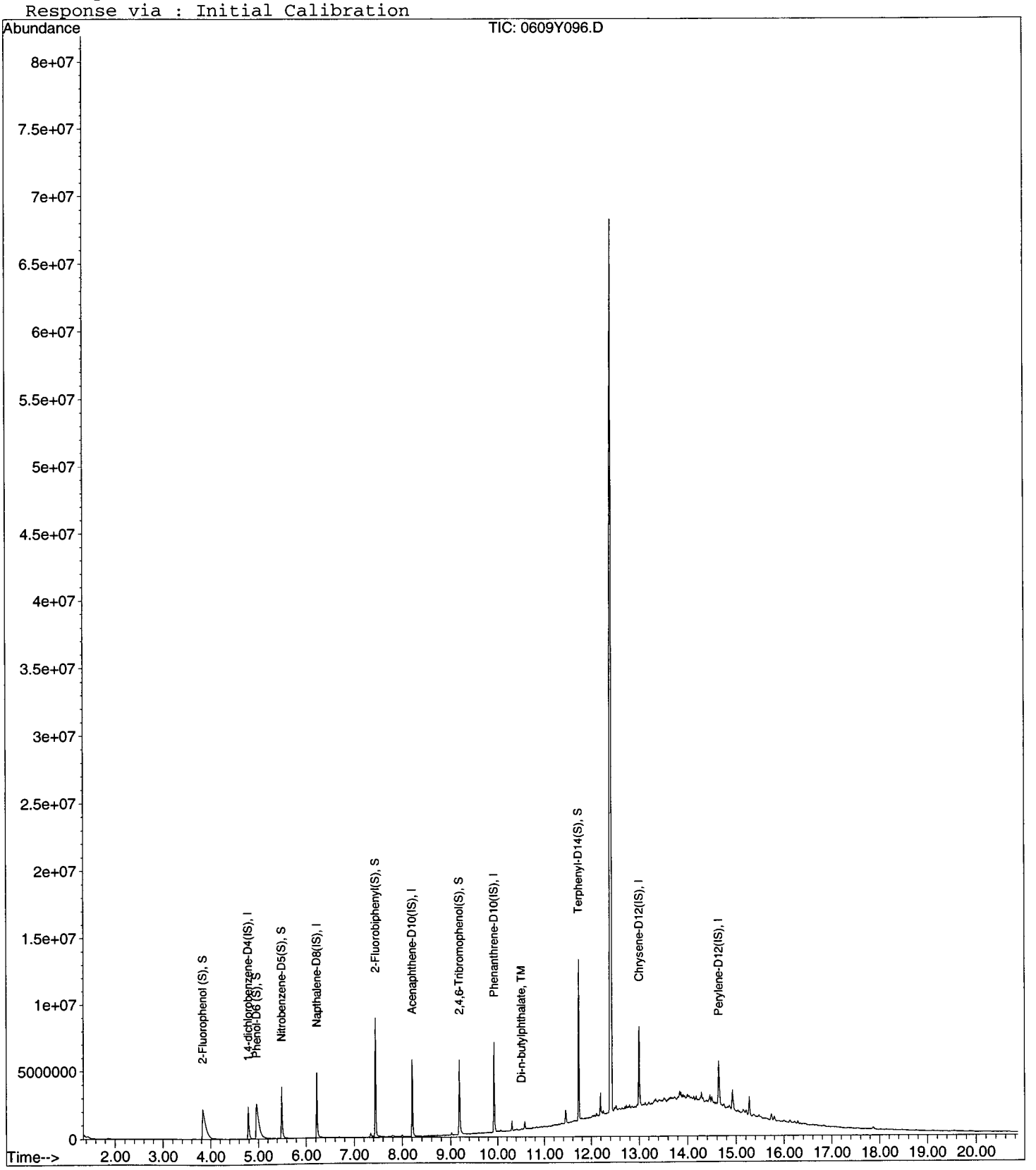
(#) = qualifier out of range (m) = manual integration

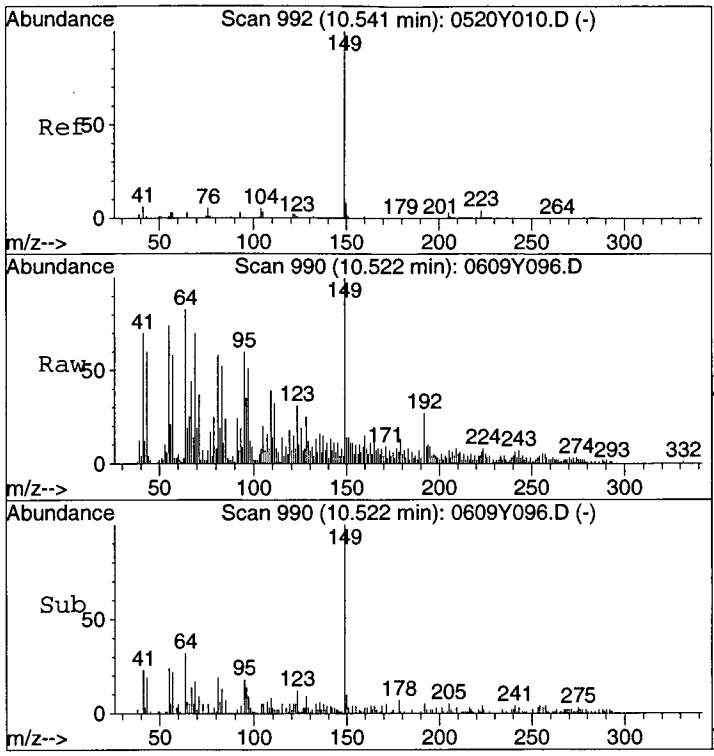
Quantitation Report

Data File : M:\YODA\DATA\Y150609\0609Y096.D Vial: 96
Acq On : 19 Jun 15 22:46 Operator: csc
Sample : AZ17822S02 1/30.10G Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Jul 1 11:31 2015 Quant Results File: Y0609TT.RES

Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:45:21 2015
Response via : Initial Calibration

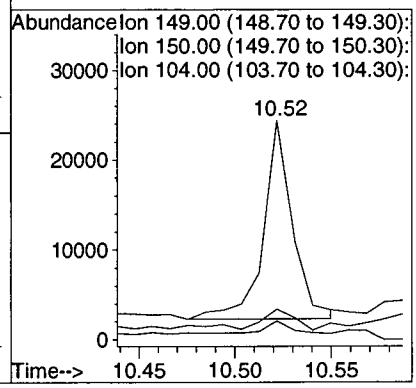




#26
Di-n-butylphthalate
Concen: 0.24 ppb
RT: 10.52 min Scan# 990
Delta R.T. -0.01 min
Lab File: 0609Y096.D
Acq: 19 Jun 15 22:46

Tgt Ion:149 Resp: 23305

Ion	Ratio	Lower	Upper
149	100		
150	8.2	6.4	11.8
104	6.3	4.3	7.9



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-SD029-0001
Sample Collection Date: 6/16/2015

ARF: 76674
APPL ID: AZ17824
QCG: #87DJU-150618A-198506

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 72.1 Percent Moisture.)								
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	0.600 U	2.40	0.600	0.220	mg/kg	6/18/2015	6/20/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	0.600 U	1.20	0.600	0.200	mg/kg	6/18/2015	6/20/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	0.600 U	1.20	0.600	0.240	mg/kg	6/18/2015	6/20/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	0.600 U	1.20	0.600	0.210	mg/kg	6/18/2015	6/20/2015
EPA 8270D	DIETHYL PHTHALATE	0.600 U	1.20	0.600	0.220	mg/kg	6/18/2015	6/20/2015
EPA 8270D	DIMETHYL PHTHALATE	0.600 U	1.20	0.600	0.230	mg/kg	6/18/2015	6/20/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	70.4	35-125			%	6/18/2015	6/20/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	53.5	45-105			%	6/18/2015	6/20/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	63.3	35-105			%	6/18/2015	6/20/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	62.7	35-100			%	6/18/2015	6/20/2015
EPA 8270D	SURROGATE: PHENOL (S)	66.4	40-100			%	6/18/2015	6/20/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	72.2	30-125			%	6/18/2015	6/20/2015

Quant Method: Y0609TT.M
Run #: 0609Y099
Instrument: Yoda
Sequence: Y150609
Dilution Factor: 1
Initials: DA

Printed: 7/1/2015 11:43:46 AM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150609\0609Y099.D Vial: 99
Acq On : 20 Jun 15 00:15 Operator: csc
Sample : AZ17824S06 1/30.74G Inst : Yoda
Misc : soil Multiplr: 32.53

Quant Time: Jul 1 11:33 2015 Quant Results File: Y0609TT.RES

Quant Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:45:21 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	4.79	152	606062	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.23	136	2608815	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.21	164	1402466	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	9.93	188	2515013	40.00	ppb		0.00
27) Chrysene-D12(IS)	12.99	240	2245366	40.00	ppb		0.00
32) Perylene-D12(IS)	14.64	264	1489662	40.00	ppb		0.00
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.84	112	2420037	4115.49	ppb		-0.08
Spiked Amount 6506.181			Recovery =	63.255%			
3) Phenol-D6 (S)	4.98	99	3401883	4321.66	ppb		-0.03
Spiked Amount 6506.181			Recovery =	66.424%			
8) Nitrobenzene-D5(S)	5.49	82	1499195	2040.40	ppb		0.00
Spiked Amount 3253.090			Recovery =	62.722%			
16) 2-Fluorobiphenyl(S)	7.44	172	2457047	1739.67	ppb		0.00
Spiked Amount 3253.090			Recovery =	53.477%			
22) 2,4,6-Tribromophenol(S)	9.19	330	543874	4582.97	ppb		-0.02
Spiked Amount 6506.181			Recovery =	70.440%			
28) Terphenyl-D14(S)	11.72	244	3513410	2348.94	ppb		0.00
Spiked Amount 3253.090			Recovery =	72.206%			
Target Compounds							Qvalue
10) 2,4-Dichlorophenol	6.52	162	848	-121.81	ppb	#	27
15) 2,4,6-Trichlorophenol	7.87	196	723	2.03	ppb	#	53
17) Dimethyl phthalate	7.97	163	16012	10.59	ppb		98
21) Diethyl phthalate	8.72	149	7771	5.17	ppb		97
26) Di-n-butylphthalate	10.53	149	27459	11.10	ppb		98
30) Bis (2-ethylhexyl) phthala	12.80	149	17586	10.97	ppb		97

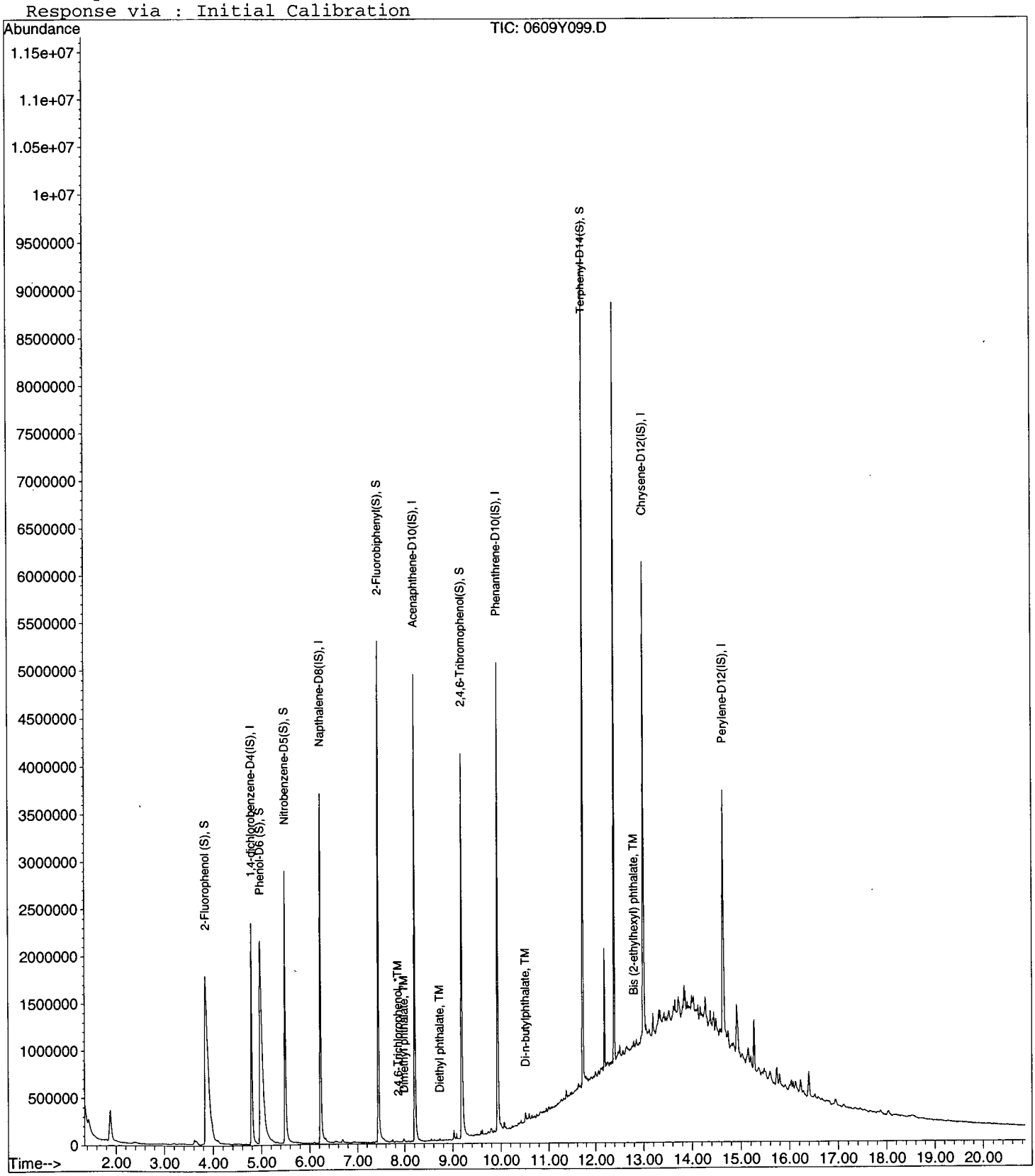
(#) = qualifier out of range (m) = manual integration

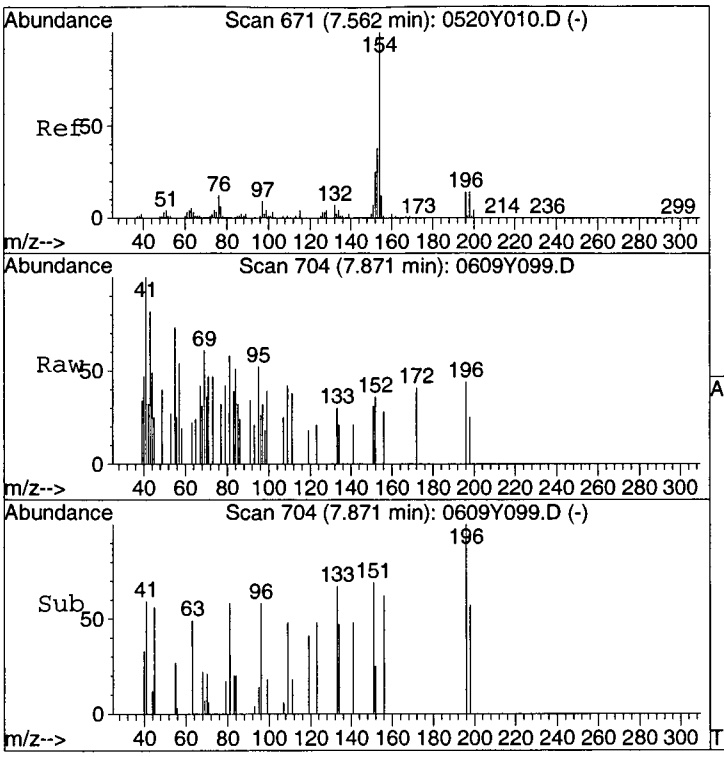
Quantitation Report

Data File : M:\YODA\DATA\Y150609\0609Y099.D Vial: 99
Acq On : 20 Jun 15 00:15 Operator: csc
Sample : AZ17824S06 1/30.74G Inst : Yoda
Misc : soil Multiplr: 32.53

Quant Time: Jul 1 11:33 2015 Quant Results File: Y0609TT.RES

Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:45:21 2015
Response via : Initial Calibration

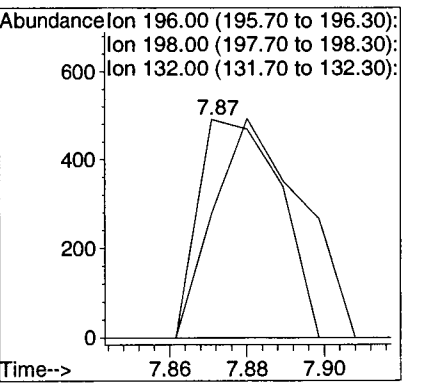


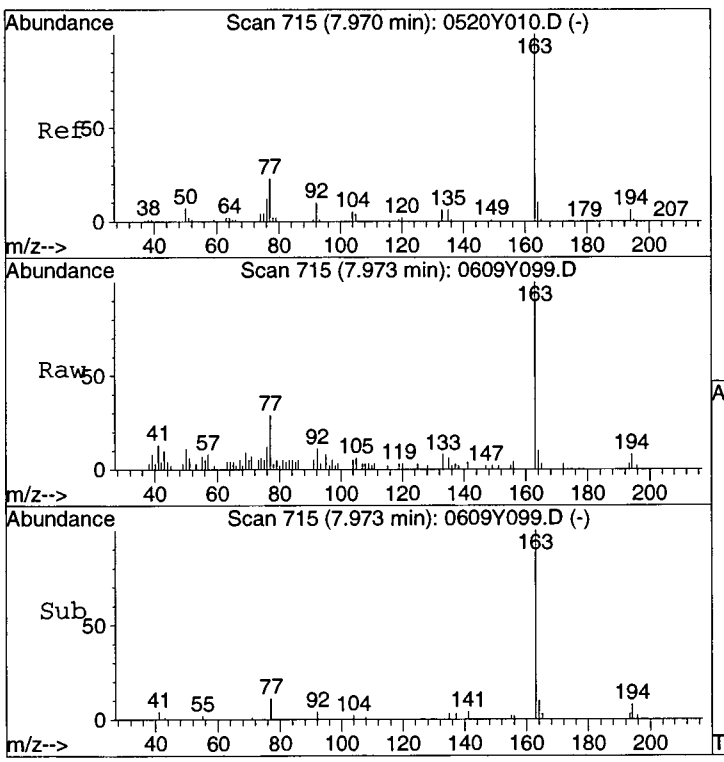


#15
2,4,6-Trichlorophenol
Concen: 2.03 ppb
RT: 7.87 min Scan# 704
Delta R.T. 0.03 min
Lab File: 0609Y099.D
Acq: 20 Jun 15 00:15

Tgt Ion:196 Resp: 723

Ion	Ratio	Lower	Upper
196	100		
198	56.8	67.1	124.7#
132	0.0	27.9	51.9#

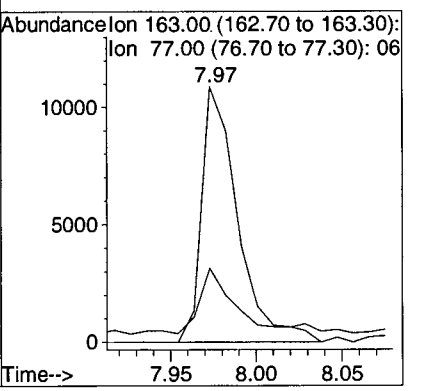


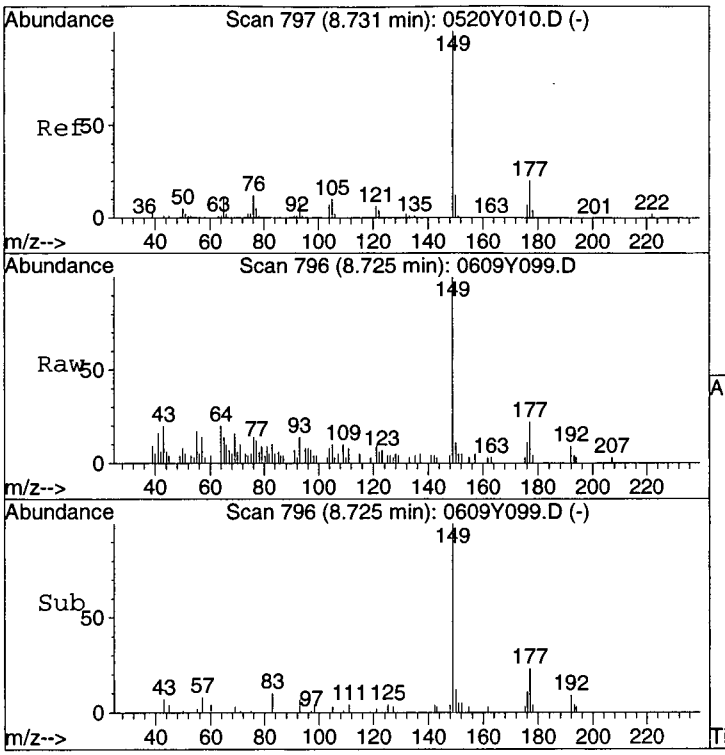


#17
Dimethyl phthalate
Concen: 10.59 ppb
RT: 7.97 min Scan# 715
Delta R.T. 0.01 min
Lab File: 0609Y099.D
Acq: 20 Jun 15 00:15

Tgt Ion:163 Resp: 16012

Ion	Ratio	Lower	Upper
163	100		
77	25.5	17.3	32.1

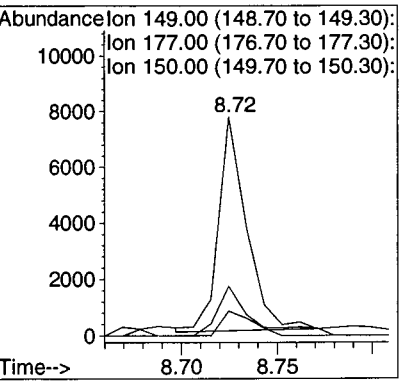


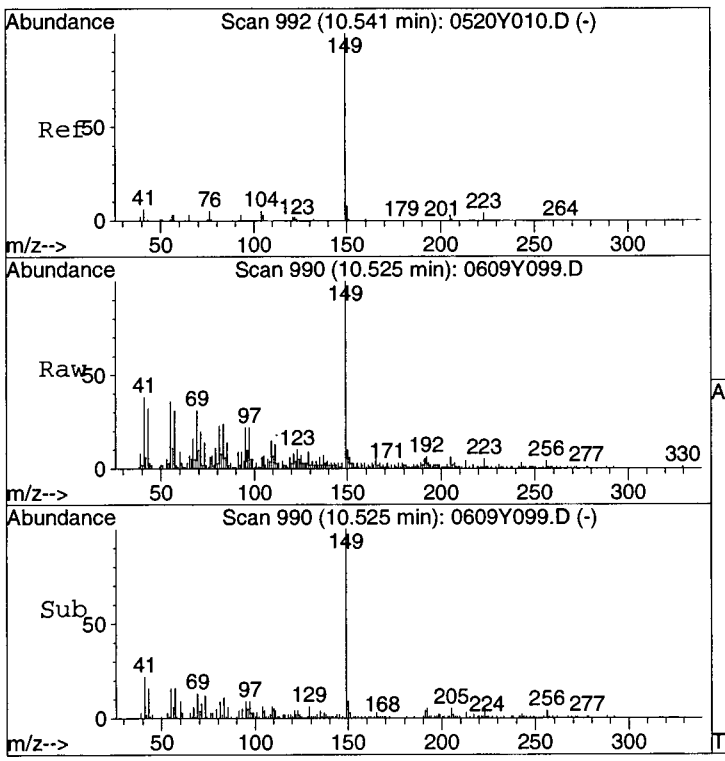


#21
Diethyl phthalate
Concen: 5.17 ppb
RT: 8.72 min Scan# 796
Delta R.T. 0.00 min
Lab File: 0609Y099.D
Acq: 20 Jun 15 00:15

Tgt Ion:149 Resp: 7771

Ion	Ratio	Lower	Upper
149	100		
177	23.2	15.1	28.0
150	11.5	8.3	15.5

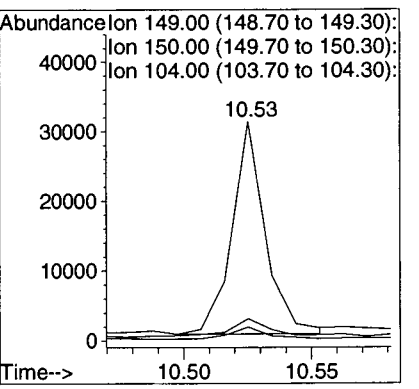


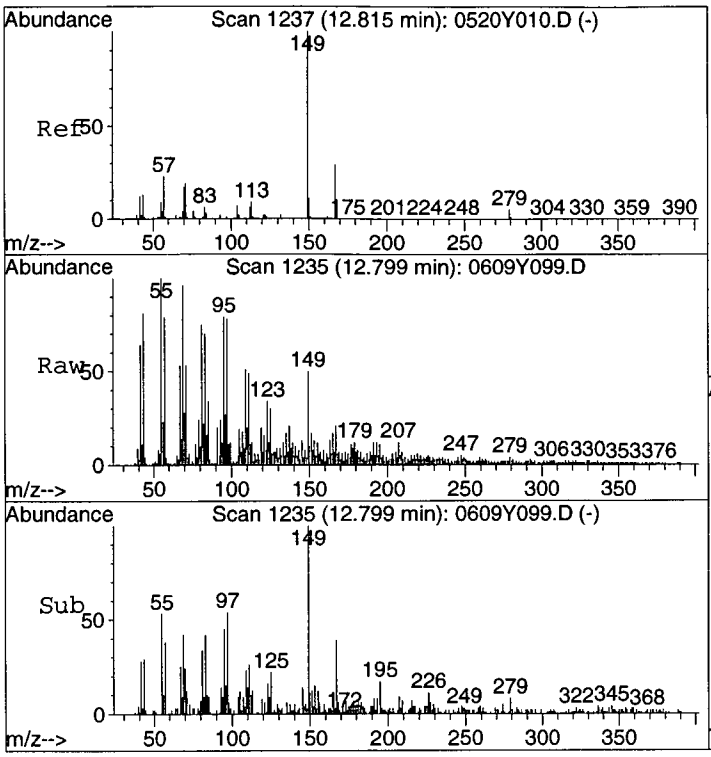


#26
Di-n-butylphthalate
Concen: 11.10 ppb
RT: 10.53 min Scan# 990
Delta R.T. -0.01 min
Lab File: 0609Y099.D
Acq: 20 Jun 15 00:15

Tgt Ion:149 Resp: 27459

Ion	Ratio	Lower	Upper
149	100		
150	8.1	6.4	11.8
104	5.7	4.3	7.9

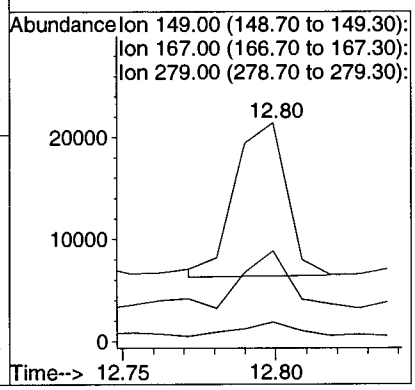




#30
Bis (2-ethylhexyl) phthalate
Concen: 10.97 ppb
RT: 12.80 min Scan# 1235
Delta R.T. -0.01 min
Lab File: 0609Y099.D
Acq: 20 Jun 15 00:15

Tgt Ion:149 Resp: 17586

Ion	Ratio	Lower	Upper
149	100		
167	35.0	23.1	42.9
279	9.3	7.1	13.3



EPA 8270D WATER

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76674

Sample ID: S67-MW018-061615

APPL ID: AZ17826

Sample Collection Date: 6/16/2015

QCG: #87DJU-150623A-198680

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	3.3 J	20.0	5.00	2.90	ug/L	6/23/2015	7/7/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	6/23/2015	7/7/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	6/23/2015	7/7/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	6/23/2015	7/7/2015
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	6/23/2015	7/7/2015
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	66.4	40-125			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	59.1	50-110			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	41.7	20-110			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	63.9	40-110			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: PHENOL (S)	28.3	10-115			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	76.2	50-135			%	6/23/2015	7/7/2015

J = Estimated value.

Quant Method:	Y0625TT.M
Run #:	0625Y129
Instrument:	Yoda
Sequence:	Y150625
Dilution Factor:	1
Initials:	DA

Printed: 7/9/2015 9:33:22 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y129.D Vial: 29
Acq On : 7 Jul 15 18:50 Operator: MA
Sample : AZ17826W07 1/950 Inst : Yoda
Misc : water Multiplr: 1.05

Quant Time: Jul 8 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)	5.32	152	700362	40.00 ppb	-0.01
7) Napthalene-D8(IS)	6.75	136	3066044	40.00 ppb	-0.01
13) Acenaphthene-D10(IS)	8.77	164	1731193	40.00 ppb	-0.01
23) Phenanthrene-D10(IS)	10.51	188	2901711	40.00 ppb	-0.01
27) Chrysene-D12(IS)	13.60	240	2218343	40.00 ppb	-0.01
32) Perylene-D12(IS)	15.42	264	1580252	40.00 ppb	-0.02
System Monitoring Compounds					
2) 2-Fluorophenol (S)	3.78	112	2089470	87.81 ppb	-0.02
Spiked Amount 210.526			Recovery =	41.708%	
3) Phenol-D6 (S)	4.90	99	1747967	59.47 ppb	-0.01
Spiked Amount 210.526			Recovery =	28.250%	
8) Nitrobenzene-D5(S)	5.94	82	1920075	67.24 ppb	-0.01
Spiked Amount 105.263			Recovery =	63.881%	
16) 2-Fluorobiphenyl(S)	7.99	172	3472965	62.18 ppb	-0.01
Spiked Amount 105.263			Recovery =	59.075%	
22) 2,4,6-Tribromophenol(S)	9.70	330	756960	139.74 ppb	0.00
Spiked Amount 210.526			Recovery =	66.377%	
28) Terphenyl-D14(S)	12.38	244	4259122	80.23 ppb	0.00
Spiked Amount 105.263			Recovery =	76.221%	
Target Compounds					Qvalue
17) Dimethyl phthalate	8.45	163	54794	0.89 ppb	97
21) Diethyl phthalate	9.28	149	4385	0.07 ppb	94
30) Bis (2-ethylhexyl) phthala	13.62	149	6915	3.30 ppb	94

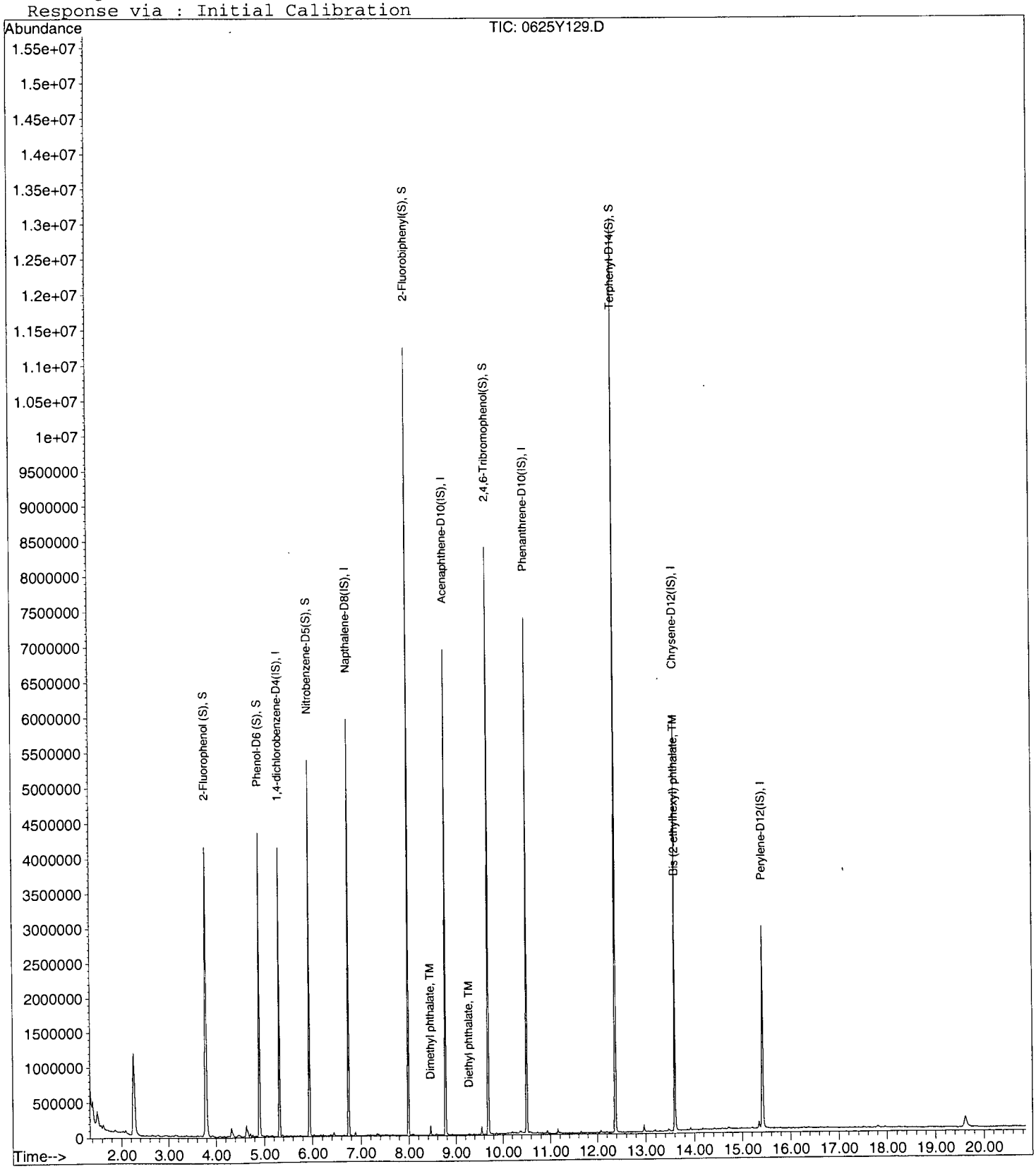
(#) = qualifier out of range (m) = manual integration

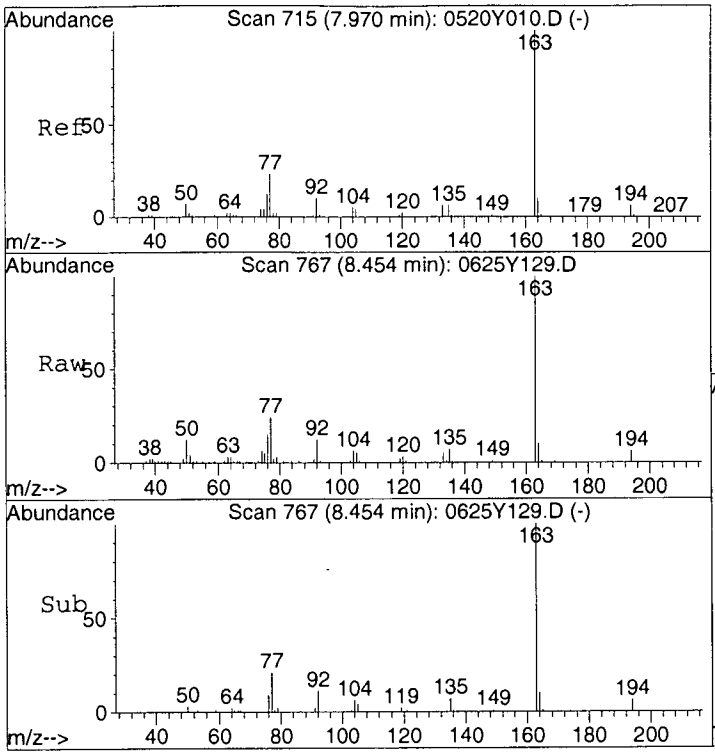
Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y129.D Vial: 29
Acq On : 7 Jul 15 18:50 Operator: MA
Sample : AZ17826W07 1/950 Inst : Yoda
Misc : water Multiplr: 1.05

Quant Time: Jul 8 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

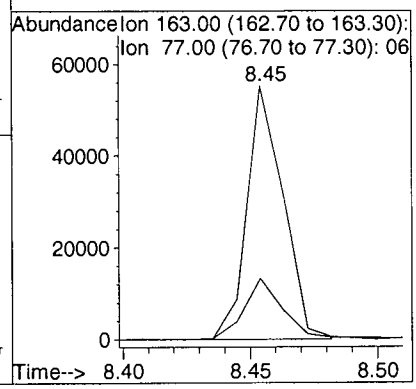


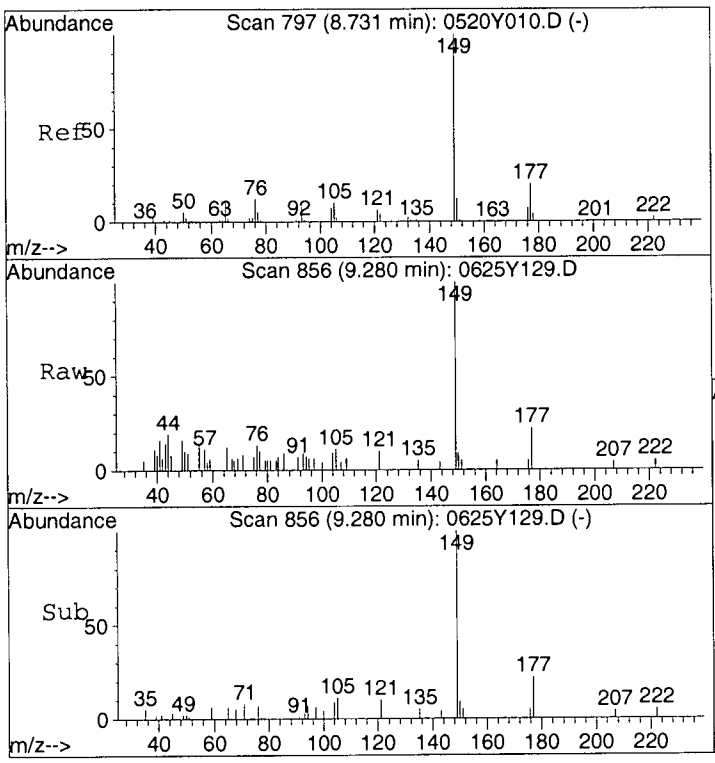


#17
Dimethyl phthalate
Concen: 0.89 ppb
RT: 8.45 min Scan# 767
Delta R.T. -0.02 min
Lab File: 0625Y129.D
Acq: 7 Jul 15 18:50

Tgt Ion:163 Resp: 54794

Ion	Ratio	Lower	Upper
163	100		
77	24.1	16.0	29.6

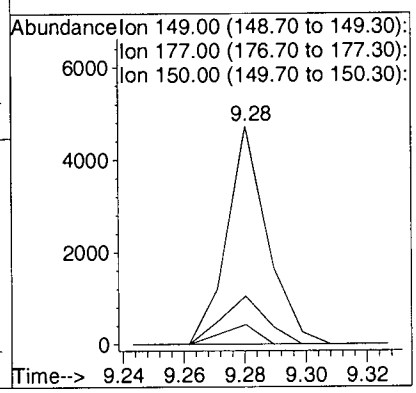


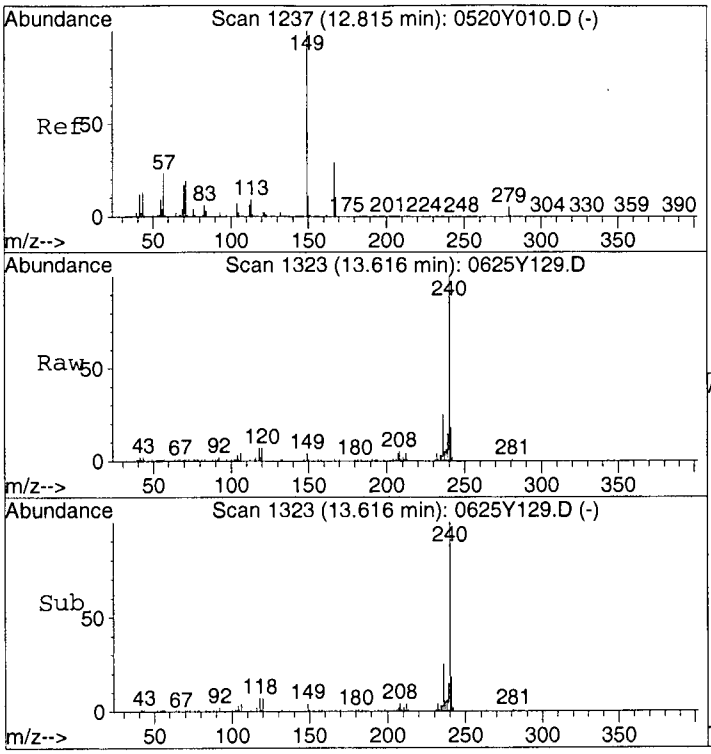


#21
Diethyl phthalate
Concen: 0.07 ppb
RT: 9.28 min Scan# 856
Delta R.T. -0.02 min
Lab File: 0625Y129.D
Acq: 7 Jul 15 18:50

Tgt Ion:149 Resp: 4385

Ion	Ratio	Lower	Upper
149	100		
177	22.2	14.1	26.1
150	9.2	8.5	15.7

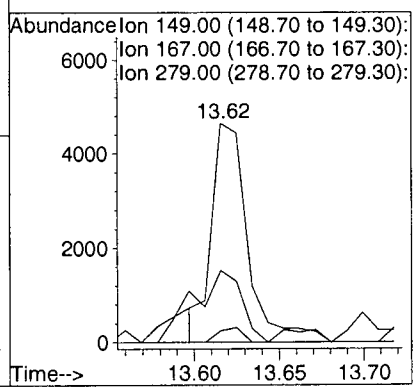




#30
Bis (2-ethylhexyl) phthalate
Concen: 3.30 ppb
RT: 13.62 min Scan# 1323
Delta R.T. -0.02 min
Lab File: 0625Y129.D
Acq: 7 Jul 15 18:50

Tgt Ion:149 Resp: 6915

Ion	Ratio	Lower	Upper
149	100		
167	33.0	20.3	37.7
279	5.3	3.7	6.9



EPA 8270D WATER

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW019-061615
Sample Collection Date: 6/16/2015

ARF: 76674
APPL ID: AZ17827
QCG: #87DJU-150623A-198680

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	6/23/2015	7/7/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	6/23/2015	7/7/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	6/23/2015	7/7/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	6/23/2015	7/7/2015
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	6/23/2015	7/7/2015
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	58.9	40-125			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	54.4	50-110			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	34.5	20-110			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	57.5	40-110			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: PHENOL (S)	25.1	10-115			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	69.5	50-135			%	6/23/2015	7/7/2015

Quant Method: Y0625TT.M
Run #: 0625Y130
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/9/2015 9:33:22 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y130.D Vial: 30
Acq On : 7 Jul 15 19:21 Operator: MA
Sample : AZ17827W05 1/950 Inst : Yoda
Misc : water Multiplr: 1.05

Quant Time: Jul 8 13:40 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	793165	40.00	ppb	0.00
7) Napthalene-D8(IS)	6.75	136	3086974	40.00	ppb	0.00
13) Acenaphthene-D10(IS)	8.77	164	1707669	40.00	ppb	0.00
23) Phenanthrene-D10(IS)	10.51	188	2879330	40.00	ppb	0.00
27) Chrysene-D12(IS)	13.60	240	2126971	40.00	ppb	0.00
32) Perylene-D12(IS)	15.42	264	1405893	40.00	ppb	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.79	112	1954713	72.53	ppb	-0.02
Spiked Amount 210.526			Recovery =	34.453%		
3) Phenol-D6 (S)	4.90	99	1758315	52.83	ppb	0.00
Spiked Amount 210.526			Recovery =	25.092%		
8) Nitrobenzene-D5(S)	5.94	82	1739949	60.52	ppb	0.00
Spiked Amount 105.263			Recovery =	57.495%		
16) 2-Fluorobiphenyl(S)	7.99	172	3154819	57.27	ppb	0.00
Spiked Amount 105.263			Recovery =	54.403%		
22) 2,4,6-Tribromophenol(S)	9.70	330	662325	123.96	ppb	0.00
Spiked Amount 210.526			Recovery =	58.879%		
28) Terphenyl-D14(S)	12.38	244	3725905	73.20	ppb	0.00
Spiked Amount 105.263			Recovery =	69.544%		
Target Compounds						Qvalue
17) Dimethyl phthalate	8.46	163	12610	0.21	ppb	98
21) Diethyl phthalate	9.28	149	2279	0.04	ppb	92

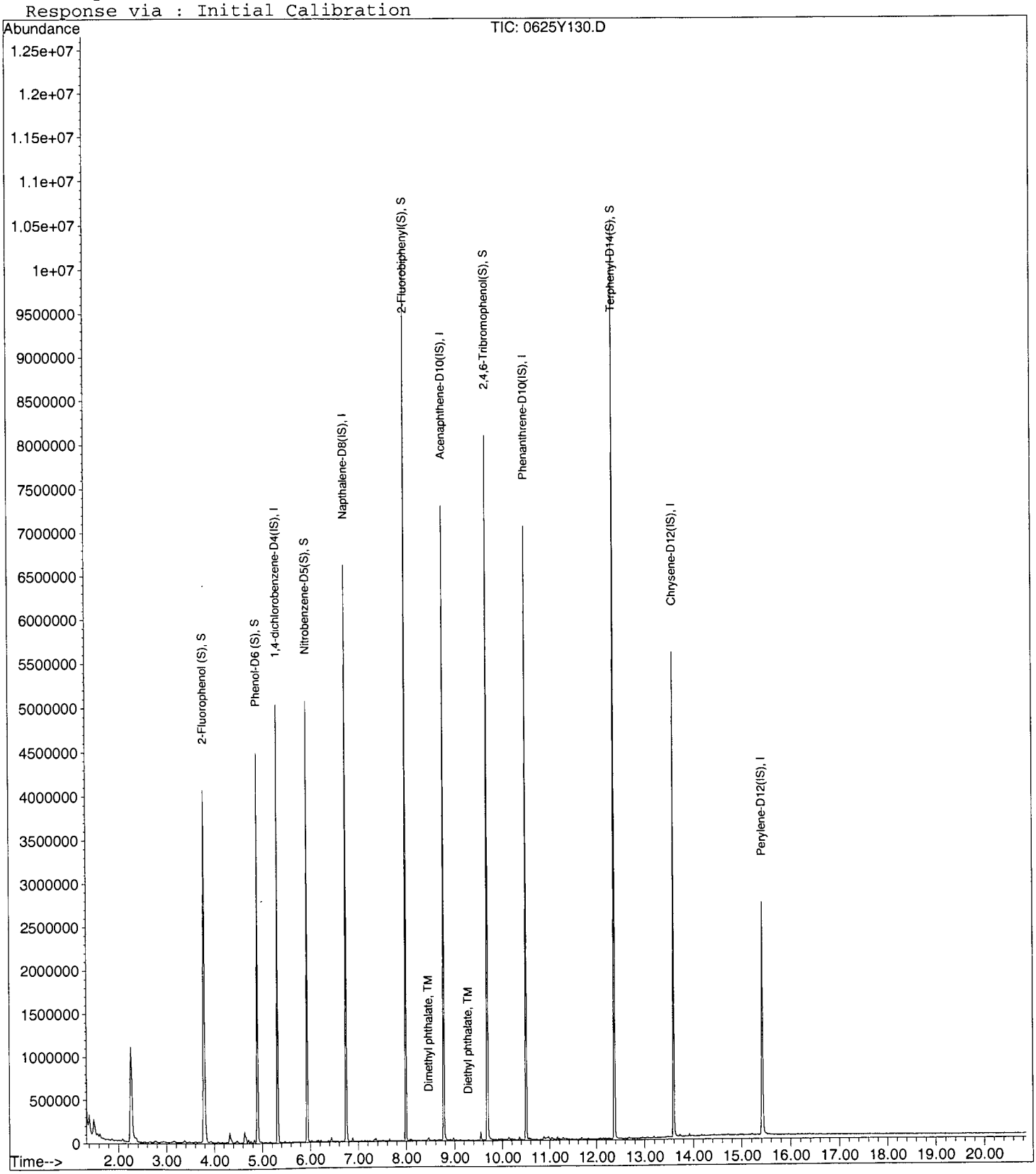
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y130.D Vial: 30
Acq On : 7 Jul 15 19:21 Operator: MA
Sample : AZ17827W05 1/950 Inst : Yoda
Misc : water Multiplr: 1.05

Quant Time: Jul 8 13:40 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 8270D WATER

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76674

Sample ID: S67-MW023-061615

APPL ID: AZ17828

Sample Collection Date: 6/16/2015

QCG: #87DJU-150623A-198680

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	6/23/2015	7/7/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	6/23/2015	7/7/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	6/23/2015	7/7/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	6/23/2015	7/7/2015
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	6/23/2015	7/7/2015
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	76.6	40-125			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	68.5	50-110			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	54.8	20-110			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	75.4	40-110			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: PHENOL (S)	36.6	10-115			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	79.7	50-135			%	6/23/2015	7/7/2015

Quant Method: Y0625TT.M
Run #: 0625Y131
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/9/2015 9:33:22 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y131.D Vial: 31
Acq On : 7 Jul 15 19:50 Operator: MA
Sample : AZ17828W07 1/900 Inst : Yoda
Misc : water Multiplr: 1.11

Quant Time: Jul 9 8:01 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	646037	40.00	ppb	-0.01
7) Napthalene-D8(IS)	6.75	136	2794853	40.00	ppb	-0.01
13) Acenaphthene-D10(IS)	8.77	164	1732028	40.00	ppb	-0.01
23) Phenanthrene-D10(IS)	10.51	188	3020654	40.00	ppb	-0.01
27) Chrysene-D12(IS)	13.60	240	2081459	40.00	ppb	-0.01
32) Perylene-D12(IS)	15.42	264	1514254	40.00	ppb	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.79	112	2533798	121.84	ppb	-0.01
Spiked Amount 222.222			Recovery =	54.830%		
3) Phenol-D6 (S)	4.90	99	2088985	81.33	ppb	-0.01
Spiked Amount 222.222			Recovery =	36.600%		
8) Nitrobenzene-D5(S)	5.94	82	2066448	83.80	ppb	-0.01
Spiked Amount 111.111			Recovery =	75.421%		
16) 2-Fluorobiphenyl(S)	7.99	172	4028280	76.10	ppb	-0.01
Spiked Amount 111.111			Recovery =	68.487%		
22) 2,4,6-Tribromophenol(S)	9.70	330	873597	170.15	ppb	0.00
Spiked Amount 222.222			Recovery =	76.568%		
28) Terphenyl-D14(S)	12.38	244	4179557	88.57	ppb	0.00
Spiked Amount 111.111			Recovery =	79.717%		
Target Compounds						Qvalue
17) Dimethyl phthalate	8.45	163	38933	0.66	ppb	88
21) Diethyl phthalate	9.28	149	2299	0.04	ppb	99

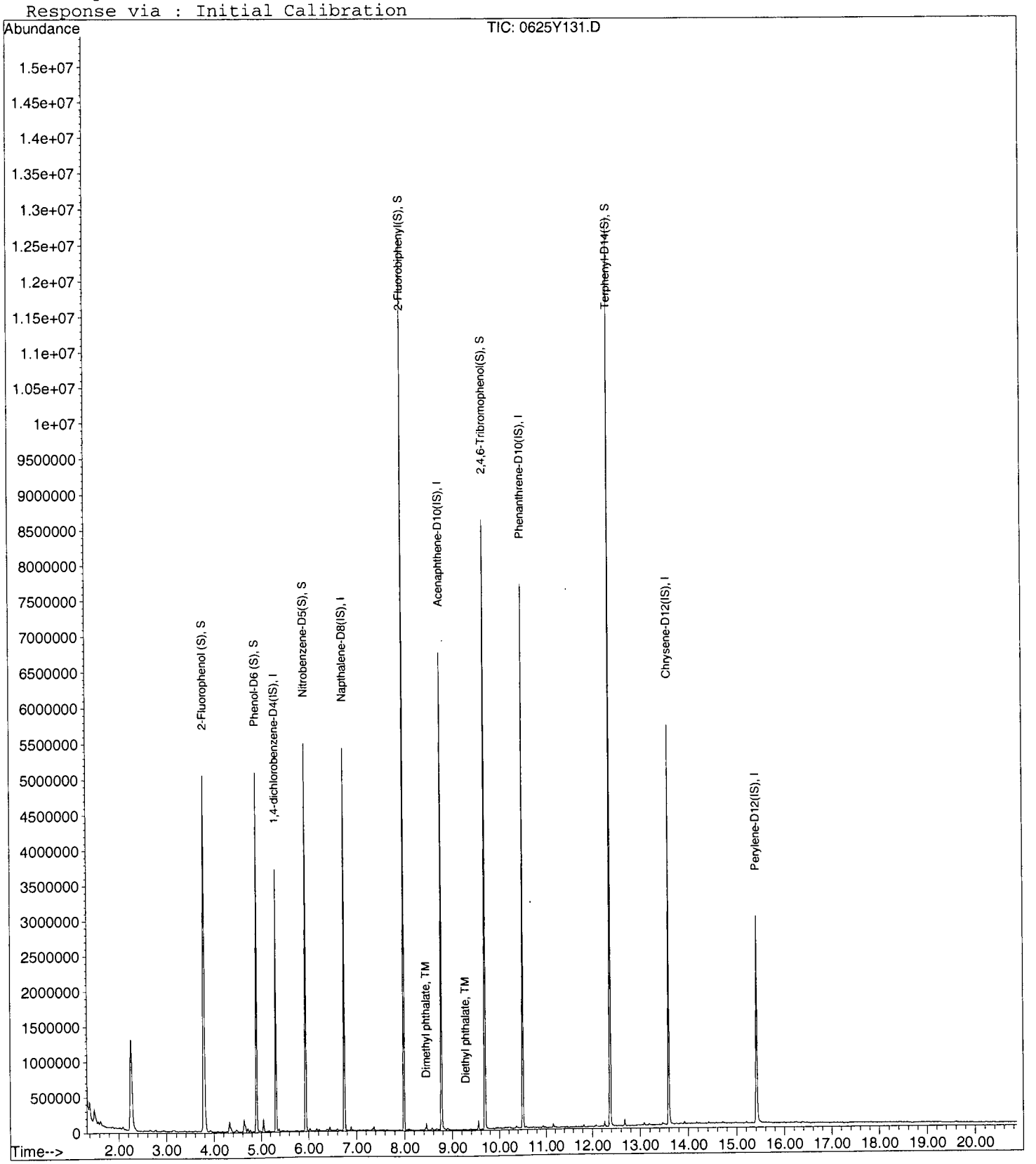
(#) = qualifier out of range (m) = manual integration

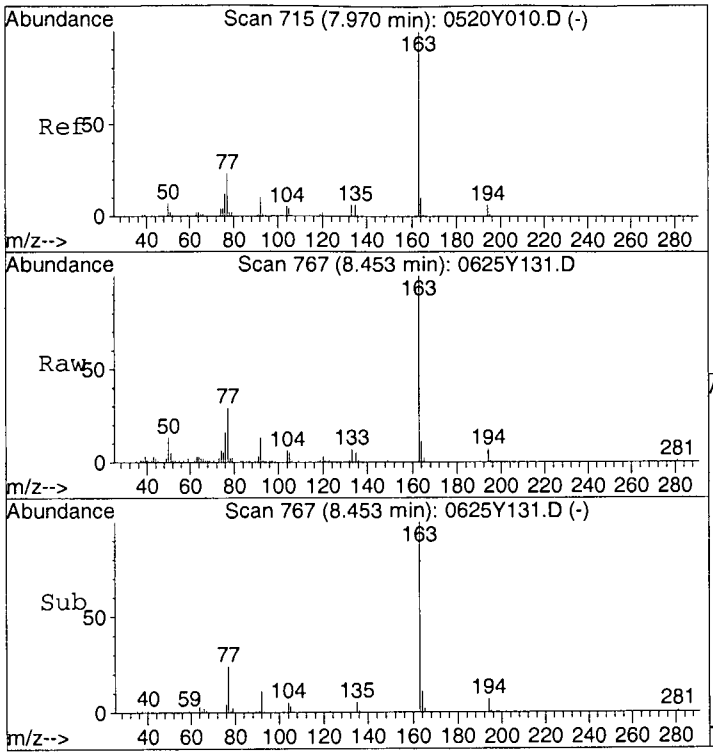
Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y131.D Vial: 31
Acq On : 7 Jul 15 19:50 Operator: MA
Sample : AZ17828W07 1/900 Inst : Yoda
Misc : water Multiplr: 1.11

Quant Time: Jul 9 8:01 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

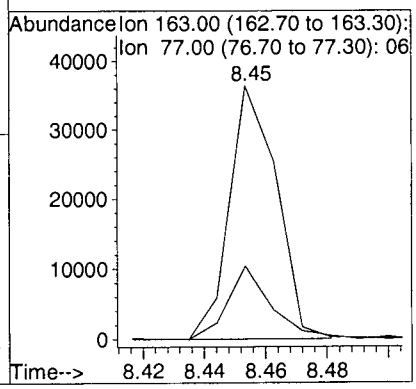


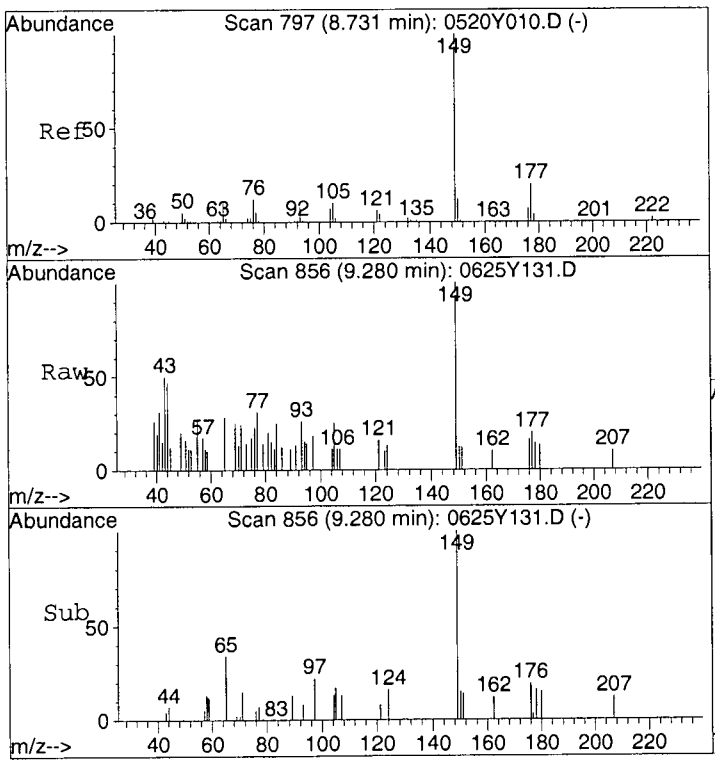


#17
Dimethyl phthalate
Concen: 0.66 ppb
RT: 8.45 min Scan# 767
Delta R.T. -0.02 min
Lab File: 0625Y131.D
Acq: 7 Jul 15 19:50

Tgt Ion:163 Resp: 38933

Ion	Ratio	Lower	Upper
163	100		
77	28.6	16.0	29.6

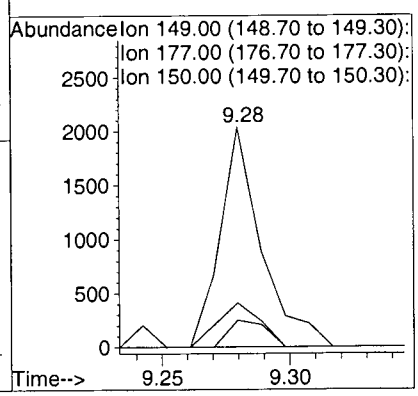




#21
Diethyl phthalate
Concen: 0.04 ppb
RT: 9.28 min Scan# 856
Delta R.T. -0.02 min
Lab File: 0625Y131.D
Acq: 7 Jul 15 19:50

Tgt Ion:149 Resp: 2299

Ion	Ratio	Lower	Upper
149	100		
177	20.3	14.1	26.1
150	12.5	8.5	15.7



EPA 8270D WATER

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76674

Sample ID: S67-MW022-061615

APPL ID: AZ17829

Sample Collection Date: 6/16/2015

QCG: #87DJU-150623A-198680

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8270D	BIS (2-ETHYLHEXYL) PHTHALATE	5.00 U	20.0	5.00	2.90	ug/L	6/23/2015	7/7/2015
EPA 8270D	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	6/23/2015	7/7/2015
EPA 8270D	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	6/23/2015	7/7/2015
EPA 8270D	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	6/23/2015	7/7/2015
EPA 8270D	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	6/23/2015	7/7/2015
EPA 8270D	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: 2,4,6-TRIBROMOPHEN	64.4	40-125			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: 2-FLUORBIPHENYL (S)	60.6	50-110			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: 2-FLUOROPHENOL (S)	45.3	20-110			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: NITROBENZENE-D5 (S)	66.4	40-110			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: PHENOL (S)	28.7	10-115			%	6/23/2015	7/7/2015
EPA 8270D	SURROGATE: TERPHENYL-D14 (S)	75.3	50-135			%	6/23/2015	7/7/2015

Quant Method: Y0625TT.M
Run #: 0625Y132
Instrument: Yoda
Sequence: Y150625
Dilution Factor: 1
Initials: DA

Printed: 7/9/2015 9:33:22 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y132.D Vial: 32
Acq On : 7 Jul 15 20:20 Operator: MA
Sample : AZ17829W08 1/900 Inst : Yoda
Misc : water Multiplr: 1.11

Quant Time: Jul 9 8:51 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	715593	40.00	ppb	-0.01
7) Napthalene-D8(IS)	6.75	136	2985981	40.00	ppb	-0.01
13) Acenaphthene-D10(IS)	8.77	164	1650828	40.00	ppb	-0.01
23) Phenanthrene-D10(IS)	10.51	188	2829537	40.00	ppb	-0.01
27) Chrysene-D12(IS)	13.60	240	2287875	40.00	ppb	-0.01
32) Perylene-D12(IS)	15.42	264	1287771	40.00	ppb	-0.02
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.79	112	2317258	100.60	ppb	-0.01
Spiked Amount 222.222			Recovery =	45.270%		
3) Phenol-D6 (S)	4.90	99	1812323	63.70	ppb	-0.01
Spiked Amount 222.222			Recovery =	28.666%		
8) Nitrobenzene-D5(S)	5.94	82	1944943	73.83	ppb	-0.01
Spiked Amount 111.111			Recovery =	66.443%		
16) 2-Fluorobiphenyl(S)	7.99	172	3396883	67.33	ppb	-0.01
Spiked Amount 111.111			Recovery =	60.593%		
22) 2,4,6-Tribromophenol(S)	9.70	330	700210	143.09	ppb	0.00
Spiked Amount 222.222			Recovery =	64.390%		
28) Terphenyl-D14(S)	12.38	244	4341475	83.70	ppb	0.00
Spiked Amount 111.111			Recovery =	75.334%		
Target Compounds						Qvalue
17) Dimethyl phthalate	8.45	163	20049	0.36	ppb	100

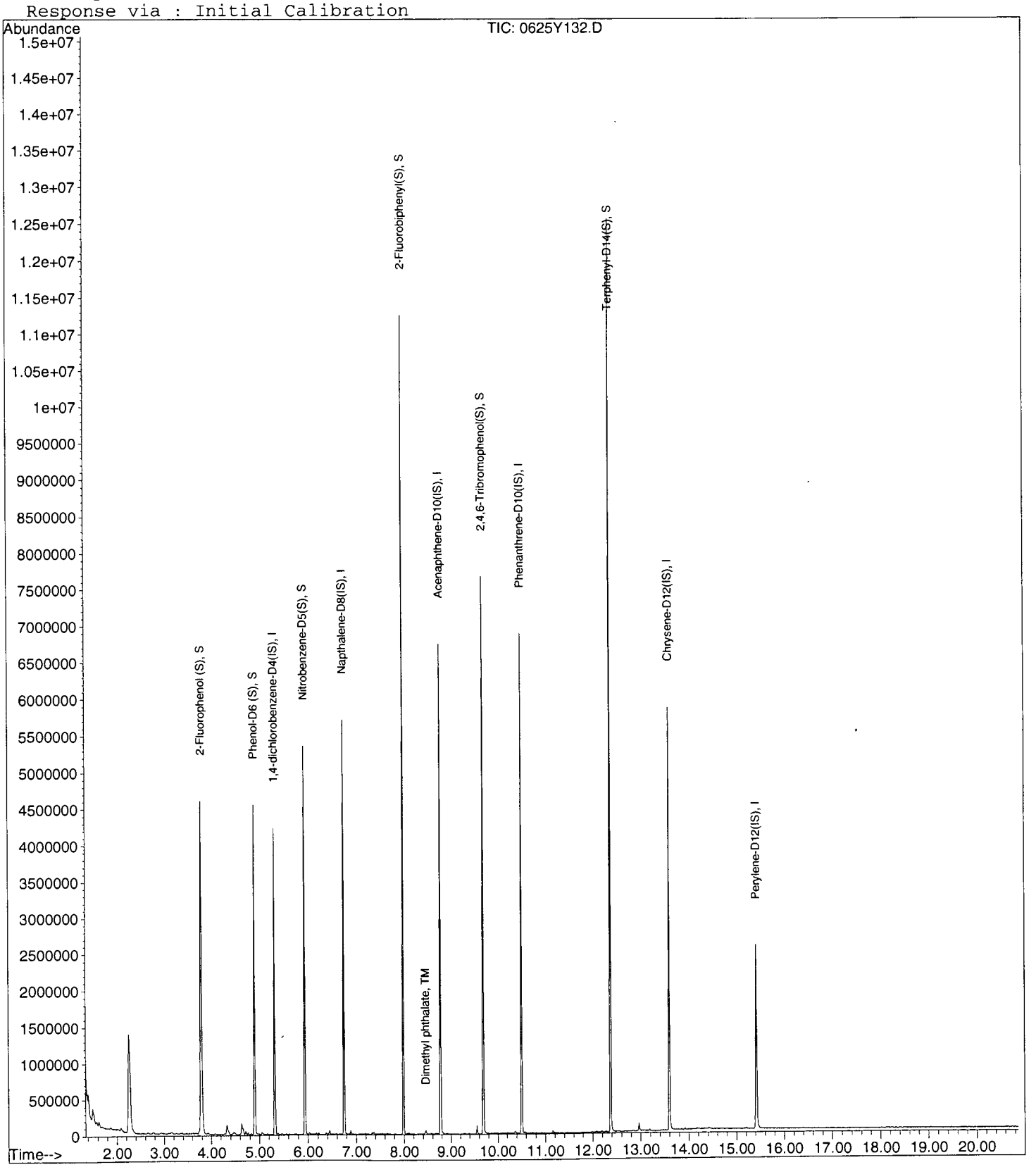
(#) = qualifier out of range (m) = manual integration

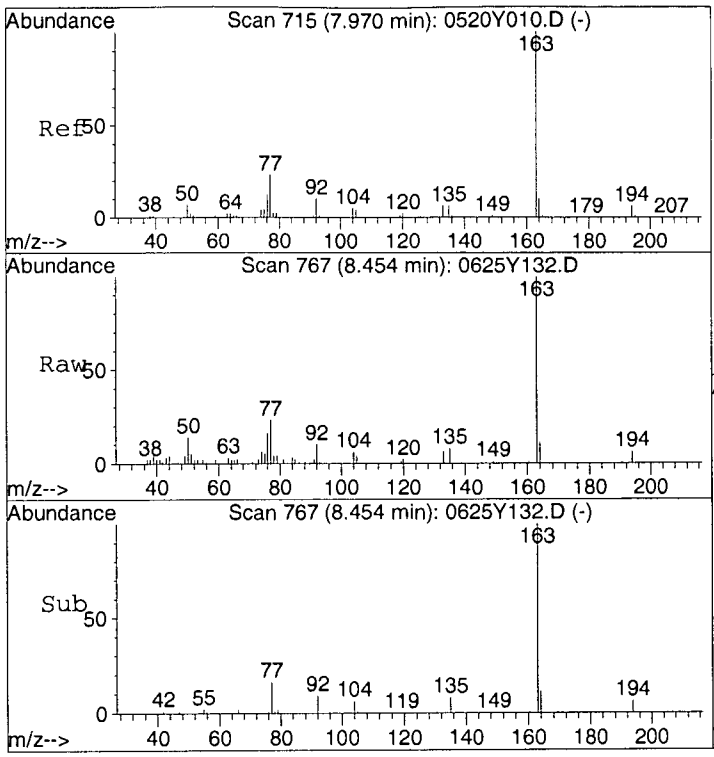
Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y132.D Vial: 32
Acq On : 7 Jul 15 20:20 Operator: MA
Sample : AZ17829W08 1/900 Inst : Yoda
Misc : water Multiplr: 1.11

Quant Time: Jul 9 8:51 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

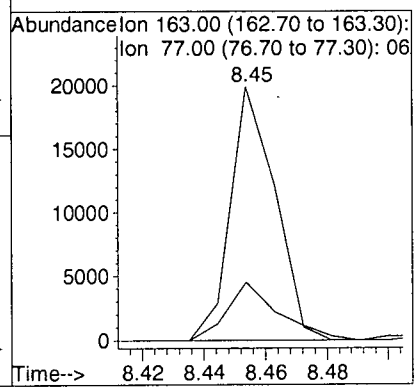




#17
Dimethyl phthalate
Concen: 0.36 ppb
RT: 8.45 min Scan# 767
Delta R.T. -0.02 min
Lab File: 0625Y132.D
Acq: 7 Jul 15 20:20

Tgt Ion:163 Resp: 20049

Ion	Ratio	Lower	Upper
163	100		
77	22.6	16.0	29.6



EPA METHOD 8270D
Semivolatile Organic Compounds
Calibration Data

APPL, INC.

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: 76674
Case No: Initial Cal. Date: 6/9/2015
Matrix: Instrument: Yoda Initials:

		Compound	5	10	20	40	50	60	80	100			Avg	%RSD		
			0609Y003.D	0609Y004.D	0609Y005.D	0609Y006.D	0609Y007.D	0609Y008 D	0609Y009.D	0609Y010.D						
1	I	1,4-dichlorobenzene-D4(IS)														
2	S	2-Fluorophenol (S)	1.153	1.148	1.308	1.264	1.303	1.332	1.324	1.269			1.3	5.8	S	
3	S	Phenol-D6 (S)		1.600	1.688	1.639	1.690	1.753	1.756	1.703			1.7	3.3	S	
4	*TM	Phenol	1.922	1.755	1.979	1.923	1.987	2.064	2.037	1.969			2.0	4.8	*TM	
5	*TM	1,4-DCB	1.713	1.582	1.769	1.733	1.788	1.800	1.827	1.761			1.7	4.3	*TM	
6	**TM	n-Nitrosodi-n-propylamine		0.7002	0.8477	0.8764	1.042	1.088	1.062	1.047			0.95	15	**TM	
7	I	Napthalene-D8(IS)														
8	S	Nitrobenzene-D5(S)	0.3260	0.3330	0.3668	0.3761	0.3812	0.3831	0.3908	0.3749			0.37	6.5	S	
9	*TM	2-Nitrophenol	0.1663	0.1659	0.1896	0.1960	0.2058	0.2107	0.2099	0.2014			0.19	9.4	*TM	
10	*TML	2,4-Dichlorophenol	0.5356	0.3678	0.3561	0.3500	0.3284	0.3434	0.3283	0.3101			0.36	20	*TML	0.996
11	*TM	Hexachlorobutadiene	0.1548	0.1446	0.1593	0.1583	0.1657	0.1668	0.1643	0.1618			0.16	4.5	*TM	
12	*TM	4-Chloro-3-methylphenol	0.0220	0.0200	0.0225	0.0234	0.0229	0.0231	0.0221	0.0216			0.02	4.8	*TM	
13	I	Acenaphthene-D10(IS)														
14	**TMQ	Hexachlorocyclopentadiene	0.0020	0.0136	0.0473	0.0985	0.1318	0.1517	0.1787	0.1915			0.10	72	**TMQ	0.996
15	*TM	2,4,6-Trichlorophenol	0.3057	0.2876	0.3259	0.3346	0.3396	0.3463	0.3540	0.3497			0.33	7.0	*TM	
16	S	2-Fluorobiphenyl(S)	1.245	1.259	1.296	1.348	1.320	1.329	1.371	1.316			1.3	3.3	S	
17	TM	Dimethyl phthalate	1.389	1.263	1.371	1.422	1.413	1.438	1.464	1.464			1.4	4.7	TM	
18	*TM	Acenaphthene	1.237	1.084	1.159	1.196	1.234	1.245	1.264	1.249			1.2	5.0	*TM	
19	**TMQ	2,4-Dinitrophenol	0.0114	0.0118	0.0775	0.1138	0.1307	0.1427	0.1595	0.1633			0.10	61	**TMQ	0.997
20	**TM	4-Nitrophenol	0.3201	0.3141	0.3471	0.3616	0.3650	0.3695	0.3691	0.3623			0.35	6.3	**TM	
21	TM	Diethyl phthalate	1.388	1.227	1.360	1.416	1.424	1.424	1.468	1.444			1.4	5.4	TM	
22	SL	2,4,6-Tribromophenol(S)	0.1557	0.0892	0.0981	0.1024	0.1051	0.1075	0.1121	0.1126			0.11	18	SL	0.998
23	I	Phenanthrene-D10(IS)														
24	*TM	n-Nitrosodiphenylamine	1.074	0.9883	1.076	1.115	1.135	1.160	1.193	1.169			1.1	6.0	*TM	
25	*TMQ	Pentachlorophenol	0.0271	0.0286	0.0304	0.0486	0.0501	0.0528	0.0579	0.0587			0.04	30	*TMQ	0.998
26	TM	Di-n-butylphthalate	1.203	1.119	1.289	1.352	1.414	1.450	1.277	1.131			1.3	9.6	TM	
27	I	Chrysene-D12(IS)														
28	S	Terphenyl-D14(S)	0.8025	0.8528	0.8637	0.8799	0.8641	0.8812	0.8987	0.8916			0.87	3.5	S	
29	TM	Butyl benzylphthalate	0.5887	0.5663	0.6499	0.6927	0.6866	0.6924	0.7007	0.6964			0.66	8.1	TM	
30	TM	Bis (2-ethylhexyl) phthalate	0.8125	0.7709	0.8810	0.9648	0.9845	1.013	1.009	0.9995			0.93	10	TM	
31	*TM	Di-n-octylphthalate	1.382	1.355	1.531	1.691	1.744	1.770	1.617	1.391			1.6	11	*TM	
32	I	Perylene-D12(IS)														
33																
34																
35																

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150609\0609Y003.D Vial: 3
Acq On : 9 Jun 15 14:14 Operator: csc
Sample : 5ug/ml SVOC 06/09/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jun 26 14:34 2015 Quant Results File: Y0609TT.RES

Quant Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:30:07 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	4.80	152	675317	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.23	136	2954807	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.21	164	1568963	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	9.93	188	2787722	40.00	ppb		0.00
27) Chrysene-D12(IS)	13.00	240	2425199	40.00	ppb		0.00
32) Perylene-D12(IS)	14.65	264	1639132	40.00	ppb		0.01
System Monitoring Compounds							
2) 2-Fluorophenol (S)	4.00	112	194622	10.02	ppb		0.08
Spiked Amount 200.000			Recovery =	5.011%			
3) Phenol-D6 (S)	5.09	99	259935	5.00	ppb		0.08
Spiked Amount 200.000			Recovery =	2.500%			
8) Nitrobenzene-D5(S)	5.51	82	120415	4.45	ppb		0.01
Spiked Amount 100.000			Recovery =	4.448%			
16) 2-Fluorobiphenyl(S)	7.45	172	244084	4.75	ppb		0.01
Spiked Amount 100.000			Recovery =	4.749%			
22) 2,4,6-Tribromophenol(S)	9.22	330	30536	10.83	ppb		0.01
Spiked Amount 200.000			Recovery =	5.417%			
28) Terphenyl-D14(S)	11.74	244	243291	4.63	ppb		0.01
Spiked Amount 100.000			Recovery =	4.629%			
Target Compounds							Qvalue
4) Phenol	5.10	94	162255	4.92	ppb		96
5) 1,4-DCB	4.82	146	144583	4.90	ppb		97
6) n-Nitrosodi-n-propylamine	5.28	43	62738	4.01	ppb		97
9) 2-Nitrophenol	5.88	139	61427	4.30	ppb		91
10) 2,4-Dichlorophenol	6.49	162	197835	7.34	ppb		96
11) Hexachlorobutadiene	6.35	225	57163	4.85	ppb		96
12) 4-Chloro-3-methylphenol	7.20	107	8129	4.95	ppb	#	20
14) Hexachlorocyclopentadiene	7.17	237	383	9.08	ppb	#	27
15) 2,4,6-Trichlorophenol	7.89	196	59961	4.57	ppb	#	92
17) Dimethyl phthalate	7.96	163	272494	4.95	ppb		92
18) Acenaphthene	8.25	154	242612	5.12	ppb		93
19) 2,4-Dinitrophenol	8.61	184	2227	8.03	ppb		100
20) 4-Nitrophenol	9.19	65	62785	4.56	ppb		98
21) Diethyl phthalate	8.72	149	272228	5.92	ppb		97
24) n-Nitrosodiphenylamine	10.35	167	374148	4.82	ppb		97
25) Pentachlorophenol	9.94	266	9443	7.24	ppb		92
26) Di-n-butylphthalate	10.53	149	419319	4.70	ppb		98
29) Butyl benzylphthalate	12.26	149	178453	4.46	ppb		97
30) Bis (2-ethylhexyl) phthala	12.81	149	246308	4.37	ppb		98
31) Di-n-octylphthalate	13.49	149	418923	4.43	ppb		98

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

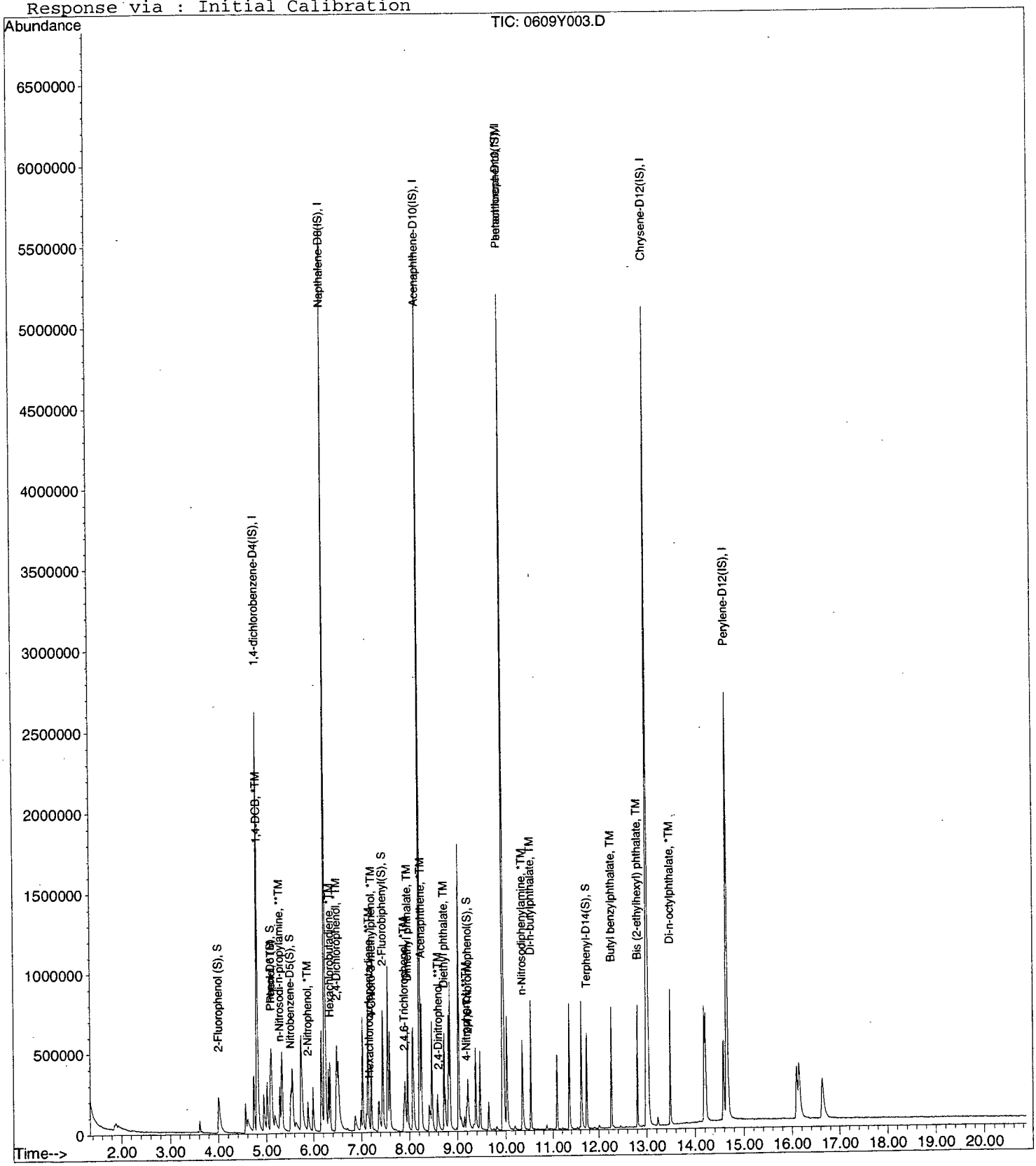
Quantitation Report

Data File : M:\YODA\DATA\Y150609\0609Y003.D
Acq On : 9 Jun 15 14:14
Sample : 5ug/ml SVOC 06/09/15
Misc :

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

Quant Time: Jun 26 14:34 2015 Quant Results File: Y0609TT.RES

Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:39:44 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150609\0609Y004.D Vial: 4
Acq On : 9 Jun 15 14:44 Operator: csc
Sample : 10ug/ml SVOC 06/09/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jun 26 14:34 2015 Quant Results File: Y0609TT.RES

Quant Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:30:07 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	4.80	152	678070	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.23	136	3007463	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.21	164	1628229	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	9.93	188	2879960	40.00	ppb		0.00
27) Chrysene-D12(IS)	12.99	240	2494781	40.00	ppb		0.00
32) Perylene-D12(IS)	14.65	264	1737848	40.00	ppb		0.01
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.98	112	389122	19.96	ppb		0.06
Spiked Amount 200.000			Recovery =	9.978%			
3) Phenol-D6 (S)	5.07	99	542573	20.00	ppb		0.06
Spiked Amount 200.000			Recovery =	10.000%			
8) Nitrobenzene-D5(S)	5.50	82	250345	9.09	ppb		0.00
Spiked Amount 100.000			Recovery =	9.085%			
16) 2-Fluorobiphenyl(S)	7.44	172	512290	9.60	ppb		0.00
Spiked Amount 100.000			Recovery =	9.604%			
22) 2,4,6-Tribromophenol(S)	9.22	330	72584	19.70	ppb		0.01
Spiked Amount 200.000			Recovery =	9.851%			
28) Terphenyl-D14(S)	11.73	244	531895	9.84	ppb		0.00
Spiked Amount 100.000			Recovery =	9.838%			
Target Compounds							Qvalue
4) Phenol	5.09	94	297491	8.98	ppb		99
5) 1,4-DCB	4.82	146	268175	9.06	ppb		97
6) n-Nitrosodi-n-propylamine	5.28	43	118704	7.56	ppb	#	84
9) 2-Nitrophenol	5.88	139	124715	8.59	ppb		92
10) 2,4-Dichlorophenol	6.48	162	276509	10.08	ppb		98
11) Hexachlorobutadiene	6.34	225	108687	9.07	ppb		99
12) 4-Chloro-3-methylphenol	7.20	107	15054	9.01	ppb	#	18
14) Hexachlorocyclopentadiene	7.17	237	5547	10.17	ppb		94
15) 2,4,6-Trichlorophenol	7.87	196	117078	8.59	ppb		95
17) Dimethyl phthalate	7.96	163	514061	9.00	ppb	#	84
18) Acenaphthene	8.24	154	441263	8.97	ppb		97
19) 2,4-Dinitrophenol	8.55	184	4801	8.48	ppb	#	100
20) 4-Nitrophenol	9.17	65	127863	8.95	ppb		97
21) Diethyl phthalate	8.72	149	499353	9.55	ppb		99
24) n-Nitrosodiphenylamine	10.34	167	711586	8.87	ppb		100
25) Pentachlorophenol	9.93	266	20616	10.23	ppb		94
26) Di-n-butylphthalate	10.53	149	805915	8.75	ppb		99
29) Butyl benzylphthalate	12.26	149	353212	8.59	ppb		94
30) Bis (2-ethylhexyl) phthala	12.80	149	480812	8.29	ppb	#	92
31) Di-n-octylphthalate	13.49	149	845130	8.69	ppb		99

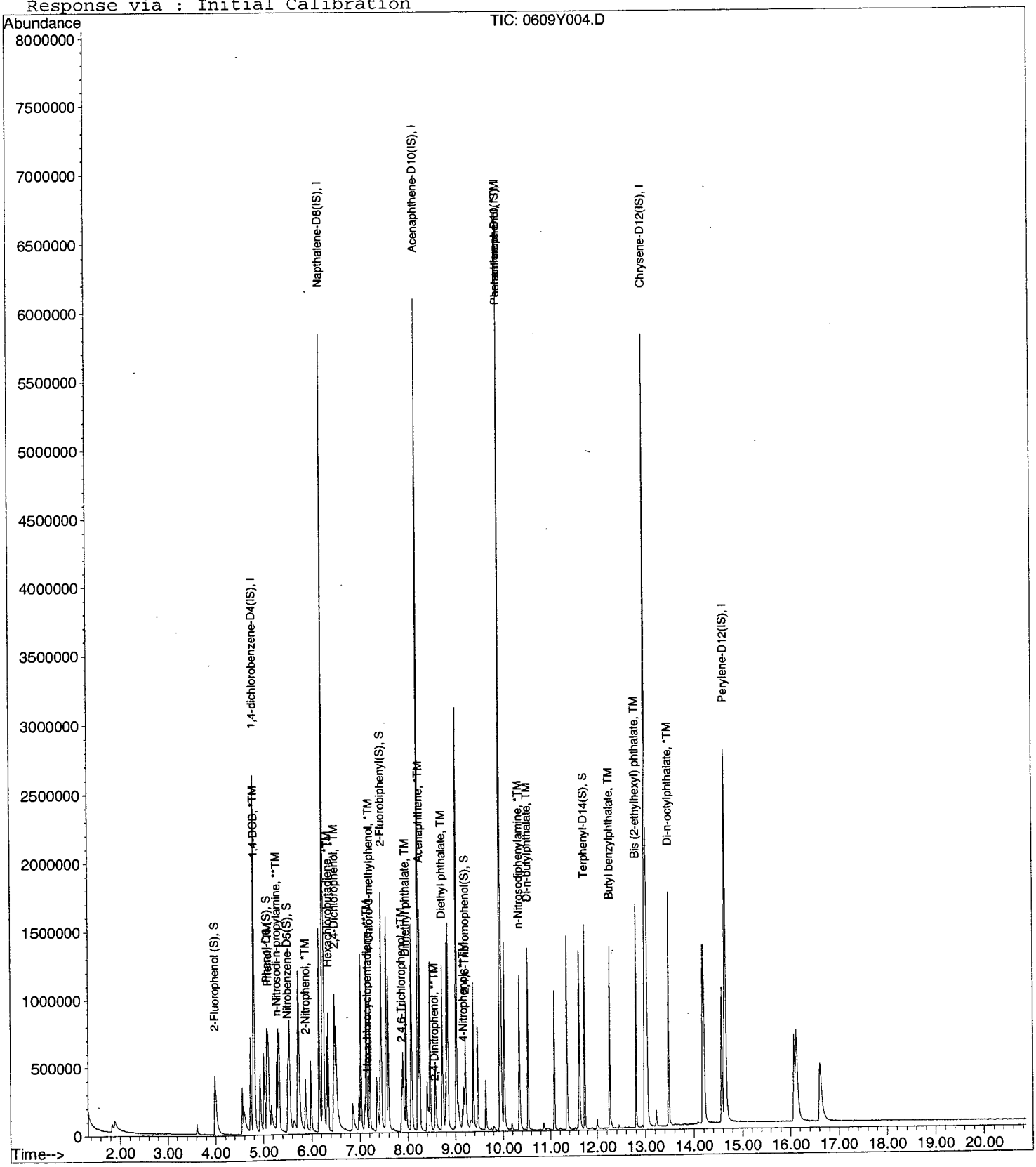
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150609\0609Y004.D Vial: 4
Acq On : 9 Jun 15 14:44 Operator: csc
Sample : 10ug/ml SVOC 06/09/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jun 26 14:34 2015 Quant Results File: Y0609TT.RES

Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:39:44 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150609\0609Y005.D Vial: 5
Acq On : 9 Jun 15 15:13 Operator: csc
Sample : 20ug/ml SVOC 06/09/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jun 26 14:34 2015 Quant Results File: Y0609TT.RES

Quant Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:30:07 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	4.80	152	600705	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.22	136	2655616	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.21	164	1471385	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	9.93	188	2583247	40.00	ppb		0.00
27) Chrysene-D12(IS)	13.00	240	2265707	40.00	ppb		0.00
32) Perylene-D12(IS)	14.64	264	1548140	40.00	ppb		0.00
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.96	112	785458	45.47	ppb		0.04
Spiked Amount 200.000			Recovery = 22.735%				
3) Phenol-D6 (S)	5.05	99	1014280	52.09	ppb		0.04
Spiked Amount 200.000			Recovery = 26.044%				
8) Nitrobenzene-D5(S)	5.50	82	487028	20.02	ppb		0.00
Spiked Amount 100.000			Recovery = 20.017%				
16) 2-Fluorobiphenyl(S)	7.44	172	953213	19.77	ppb		0.00
Spiked Amount 100.000			Recovery = 19.775%				
22) 2,4,6-Tribromophenol(S)	9.20	330	144353	38.60	ppb		0.00
Spiked Amount 200.000			Recovery = 19.300%				
28) Terphenyl-D14(S)	11.73	244	978459	19.93	ppb		0.00
Spiked Amount 100.000			Recovery = 19.928%				
Target Compounds							Qvalue
4) Phenol	5.06	94	594522	20.25	ppb		98
5) 1,4-DCB	4.81	146	531441	20.26	ppb		99
6) n-Nitrosodi-n-propylamine	5.28	43	254616	18.32	ppb	#	85
9) 2-Nitrophenol	5.86	139	251716	19.62	ppb		98
10) 2,4-Dichlorophenol	6.48	162	472769	19.51	ppb		99
11) Hexachlorobutadiene	6.35	225	211492	19.98	ppb		98
12) 4-Chloro-3-methylphenol	7.20	107	29907	20.28	ppb	#	19
14) Hexachlorocyclopentadiene	7.16	237	34765	16.71	ppb		90
15) 2,4,6-Trichlorophenol	7.86	196	239746	19.47	ppb		92
17) Dimethyl phthalate	7.96	163	1008845	19.55	ppb	#	85
18) Acenaphthene	8.25	154	852903	19.18	ppb		98
19) 2,4-Dinitrophenol	8.53	184	57042	18.71	ppb	#	100
20) 4-Nitrophenol	9.16	65	255323	19.77	ppb		99
21) Diethyl phthalate	8.72	149	1000680	19.73	ppb		96
24) n-Nitrosodiphenylamine	10.34	167	1389262	19.31	ppb		99
25) Pentachlorophenol	9.92	266	39319	16.46	ppb		91
26) Di-n-butylphthalate	10.53	149	1664387	20.14	ppb		97
29) Butyl benzylphthalate	12.26	149	736263	19.72	ppb		99
30) Bis (2-ethylhexyl) phthala	12.81	149	998008	18.96	ppb		99
31) Di-n-octylphthalate	13.48	149	1733851	19.62	ppb		99

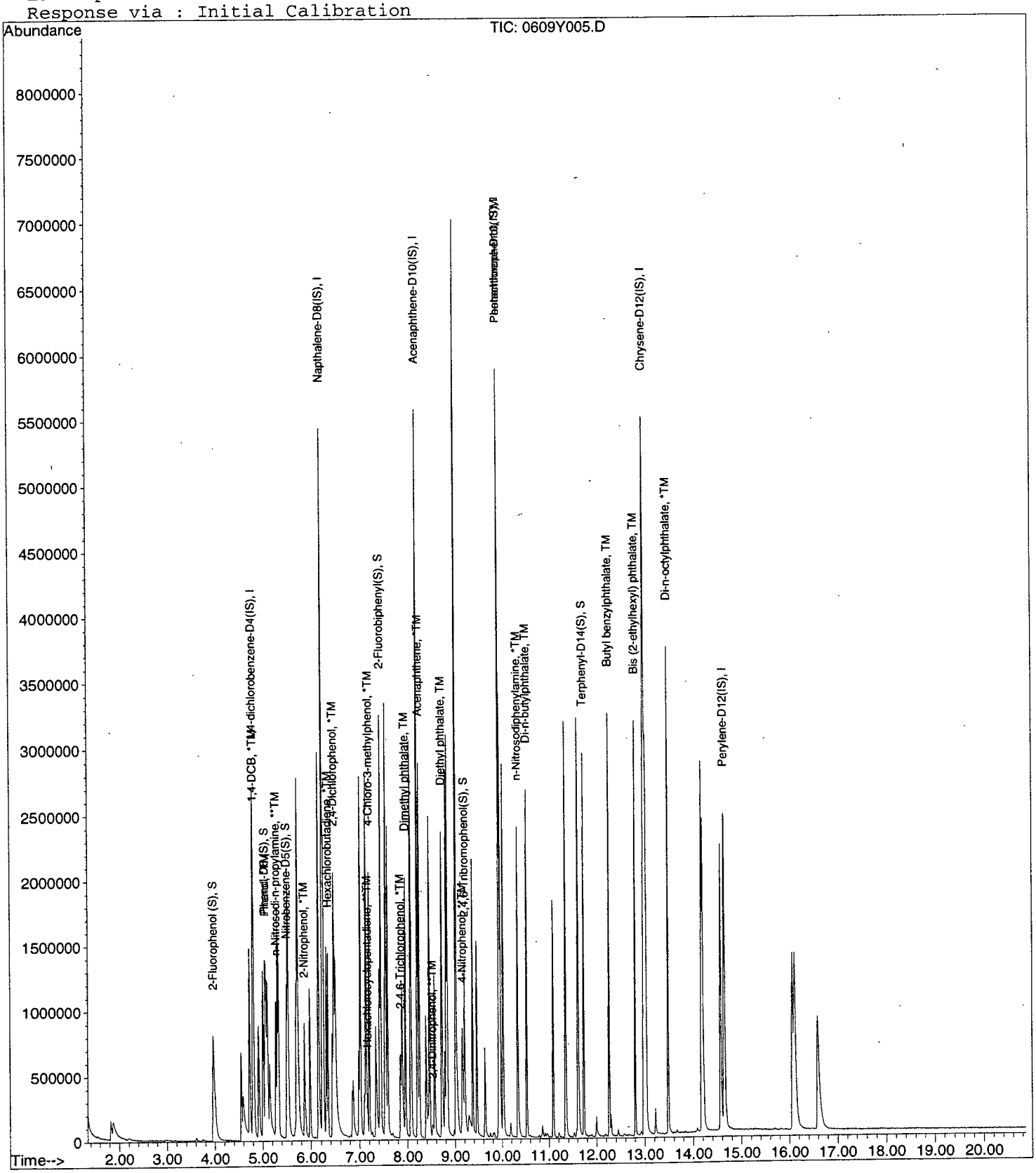
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150609\0609Y005.D Vial: 5
Acq On : 9 Jun 15 15:13 Operator: csc
Sample : 20ug/ml SVOC 06/09/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jun 26 14:34 2015 Quant Results File: Y0609TT.RES

Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:39:44 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150609\0609Y006.D Vial: 6
Acq On : 9 Jun 15 15:43 Operator: csc
Sample : 40ug/ml SVOC 06/09/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jun 26 14:34 2015 Quant Results File: Y0609TT.RES

Quant Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:30:07 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	4.80	152	606196	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.23	136	2608545	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.21	164	1423860	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	9.93	188	2503110	40.00	ppb		0.00
27) Chrysene-D12(IS)	12.99	240	2179997	40.00	ppb		0.00
32) Perylene-D12(IS)	14.63	264	1488142	40.00	ppb		0.00
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.93	112	1532042	87.89	ppb		0.00
Spiked Amount 200.000			Recovery =	43.944%			
3) Phenol-D6 (S)	5.02	99	1987110	109.50	ppb		0.00
Spiked Amount 200.000			Recovery =	54.752%			
8) Nitrobenzene-D5(S)	5.50	82	980963	41.04	ppb		0.00
Spiked Amount 100.000			Recovery =	41.045%			
16) 2-Fluorobiphenyl(S)	7.44	172	1919806	41.16	ppb		0.00
Spiked Amount 100.000			Recovery =	41.157%			
22) 2,4,6-Tribromophenol(S)	9.21	330	291530	76.25	ppb		0.00
Spiked Amount 200.000			Recovery =	38.126%			
28) Terphenyl-D14(S)	11.73	244	1918215	40.60	ppb		0.00
Spiked Amount 100.000			Recovery =	40.605%			
Target Compounds							Qvalue
4) Phenol	5.04	94	1165495	39.34	ppb		99
5) 1,4-DCB	4.82	146	1050776	39.70	ppb		99
6) n-Nitrosodi-n-propylamine	5.28	43	531291	37.87	ppb	#	90
9) 2-Nitrophenol	5.86	139	511321	40.58	ppb		93
10) 2,4-Dichlorophenol	6.47	162	913044	38.36	ppb		98
11) Hexachlorobutadiene	6.35	225	412952	39.72	ppb		97
12) 4-Chloro-3-methylphenol	7.20	107	61133	42.21	ppb	#	15
14) Hexachlorocyclopentadiene	7.16	237	140258	36.32	ppb		98
15) 2,4,6-Trichlorophenol	7.84	196	476486	39.99	ppb		95
17) Dimethyl phthalate	7.96	163	2024521	40.53	ppb		85
18) Acenaphthene	8.25	154	1703240	39.59	ppb		97
19) 2,4-Dinitrophenol	8.50	184	162081	38.11	ppb	#	100
20) 4-Nitrophenol	9.15	65	514849	41.19	ppb		99
21) Diethyl phthalate	8.72	149	2016368	39.80	ppb		98
24) n-Nitrosodiphenylamine	10.33	167	2790964	40.04	ppb		99
25) Pentachlorophenol	9.90	266	121680	40.38	ppb		96
26) Di-n-butylphthalate	10.53	149	3385309	42.28	ppb	#	97
29) Butyl benzylphthalate	12.26	149	1510060	42.03	ppb		98
30) Bis (2-ethylhexyl) phthala	12.81	149	2103315	41.52	ppb		97
31) Di-n-octylphthalate	13.48	149	3685466	43.35	ppb		100

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

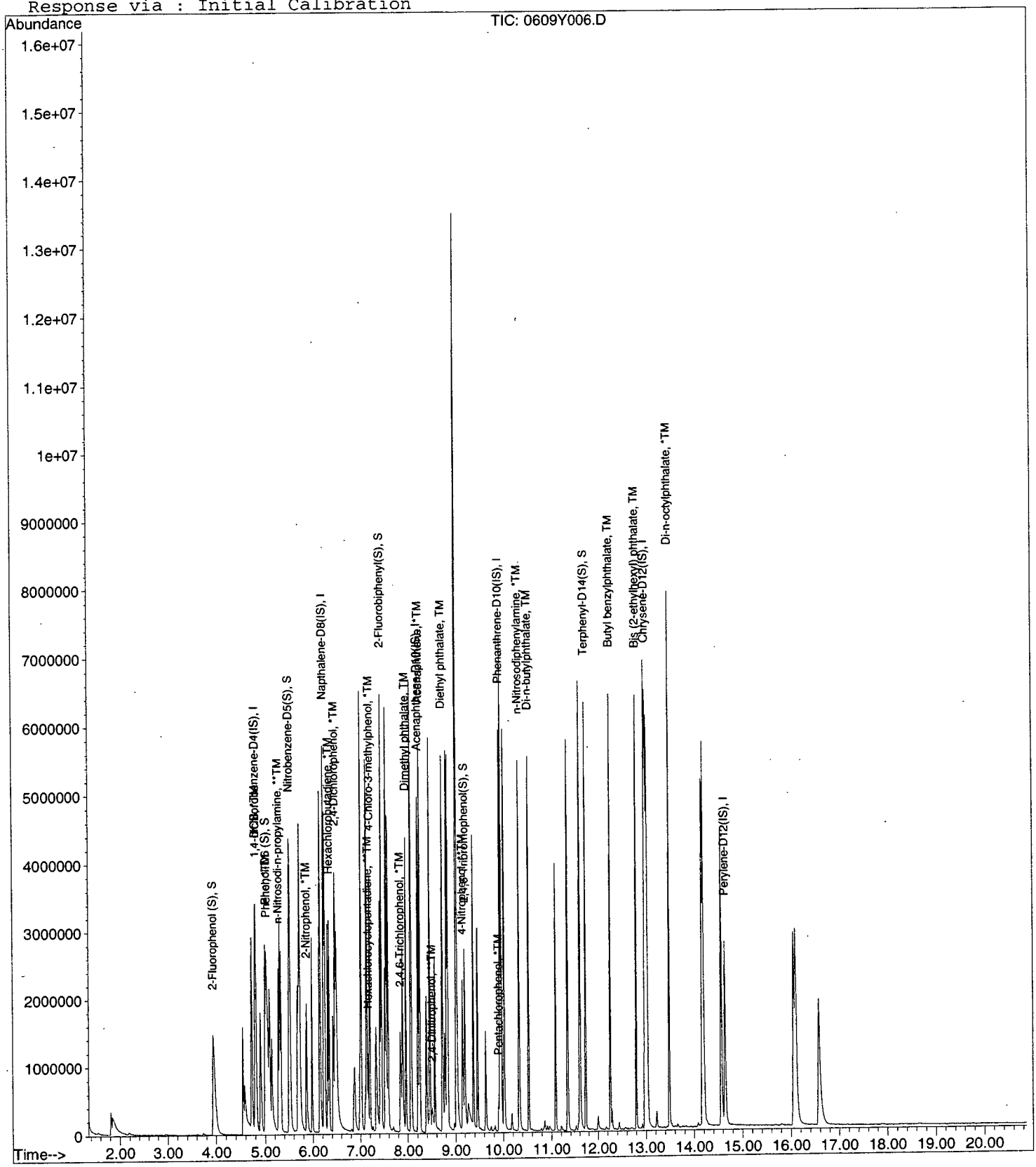
Quantitation Report

Data File : M:\YODA\DATA\Y150609\0609Y006.D
Acq On : 9 Jun 15 15:43
Sample : 40ug/ml SVOC 06/09/15
Misc :

Vial: 6
Operator: csc
Inst : Yoda
Multiplr: 1.00

Quant Time: Jun 26 14:34 2015 Quant Results File: Y0609TT.RES

Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:39:44 2015
Response via : Initial Calibration



419

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150609\0609Y007.D Vial: 7
Acq On : 9 Jun 15 16:12 Operator: csc
Sample : 50ug/ml SVOC 06/09/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jun 26 14:34 2015 Quant Results File: Y0609TT.RES

Quant Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:30:07 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	4.80	152	659031	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.23	136	2842143	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.21	164	1600409	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	9.94	188	2772743	40.00	ppb		0.00
27) Chrysene-D12(IS)	13.00	240	2451721	40.00	ppb		0.00
32) Perylene-D12(IS)	14.63	264	1683714	40.00	ppb		0.00
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.92	112	2147294	113.31	ppb		0.00
Spiked Amount 200.000			Recovery =	56.653%			
3) Phenol-D6 (S)	5.01	99	2784825	143.73	ppb		0.00
Spiked Amount 200.000			Recovery =	71.867%			
8) Nitrobenzene-D5(S)	5.50	82	1354319	52.01	ppb		0.00
Spiked Amount 100.000			Recovery =	52.009%			
16) 2-Fluorobiphenyl(S)	7.44	172	2640900	50.37	ppb		0.00
Spiked Amount 100.000			Recovery =	50.370%			
22) 2,4,6-Tribromophenol(S)	9.20	330	420679	96.77	ppb		0.00
Spiked Amount 200.000			Recovery =	48.384%			
28) Terphenyl-D14(S)	11.73	244	2648048	49.84	ppb		0.00
Spiked Amount 100.000			Recovery =	49.841%			
Target Compounds							Qvalue
4) Phenol	5.03	94	1637076	50.83	ppb		99
5) 1,4-DCB	4.81	146	1473192	51.19	ppb		99
6) n-Nitrosodi-n-propylamine	5.28	43	858132	56.27	ppb		97
9) 2-Nitrophenol	5.86	139	731073	53.26	ppb		93
10) 2,4-Dichlorophenol	6.46	162	1166794	45.00	ppb		95
11) Hexachlorobutadiene	6.35	225	588636	51.96	ppb		99
12) 4-Chloro-3-methylphenol	7.20	107	81281	51.50	ppb	#	14
14) Hexachlorocyclopentadiene	7.16	237	263626	50.25	ppb		99
15) 2,4,6-Trichlorophenol	7.84	196	679416	50.73	ppb		94
17) Dimethyl phthalate	7.96	163	2827021	50.36	ppb		91
18) Acenaphthene	8.25	154	2468067	51.04	ppb		98
19) 2,4-Dinitrophenol	8.49	184	261532	49.77	ppb	#	100
20) 4-Nitrophenol	9.15	65	730207	51.98	ppb		99
21) Diethyl phthalate	8.72	149	2848313	49.71	ppb		99
24) n-Nitrosodiphenylamine	10.33	167	3933740	50.95	ppb		98
25) Pentachlorophenol	9.89	266	173686	49.67	ppb		98
26) Di-n-butylphthalate	10.53	149	4900469	55.25	ppb		97
29) Butyl benzylphthalate	12.26	149	2104122	52.08	ppb		94
30) Bis (2-ethylhexyl) phthala	12.81	149	3017126	52.96	ppb	#	94
31) Di-n-octylphthalate	13.48	149	5345557	55.90	ppb		100

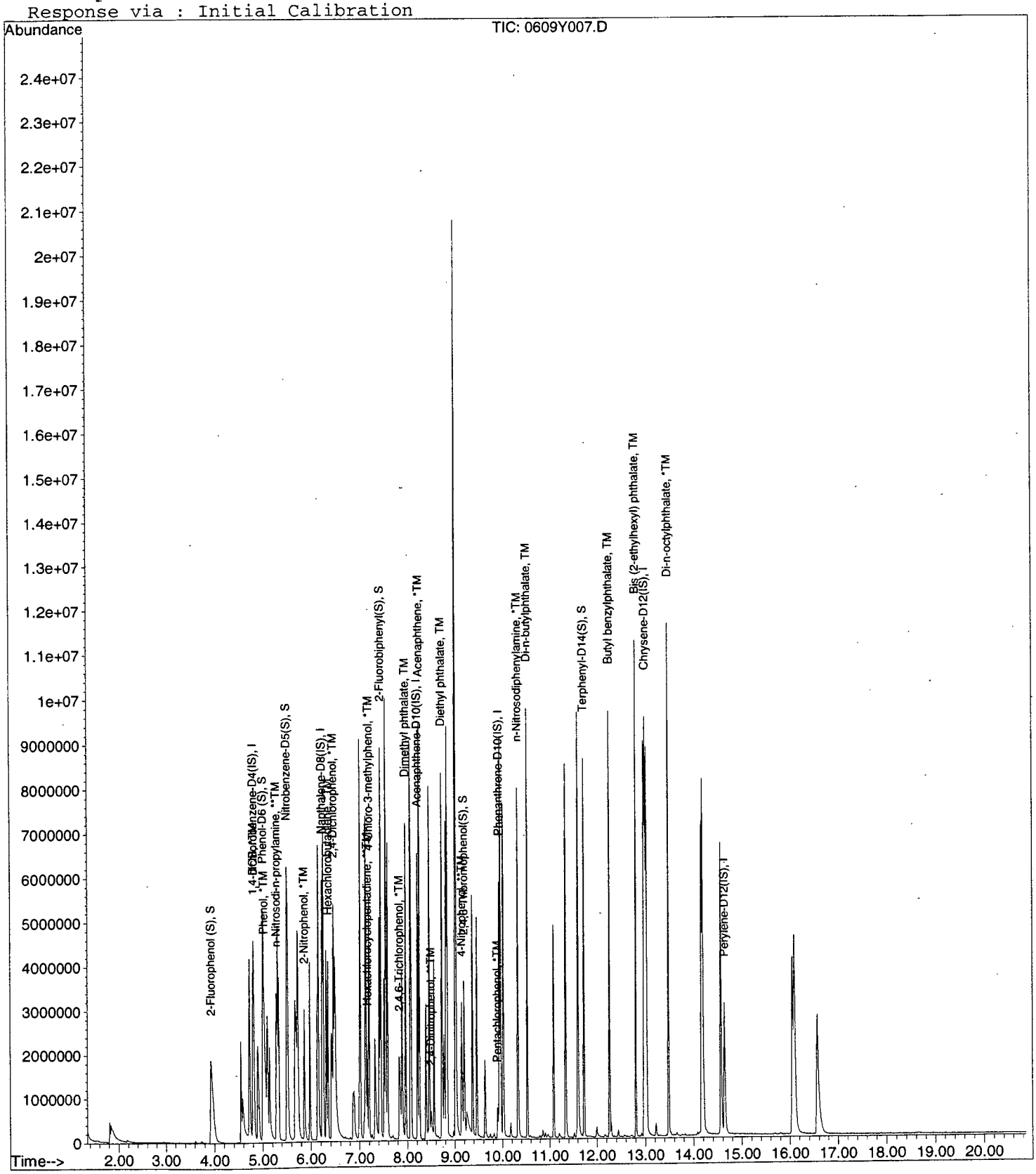
(#) = qualifier out of range (m) = manual integration
0609Y007.D Y0609TT.M Fri Jun 26 14:42:11 2015

Quantitation Report

Data File : M:\YODA\DATA\Y150609\0609Y007.D Vial: 7
Acq On : 9 Jun 15 16:12 Operator: csc
Sample : 50ug/ml SVOC 06/09/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jun 26 14:34 2015 Quant Results File: Y0609TT.RES

Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:39:44 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150609\0609Y008.D Vial: 8
Acq On : 9 Jun 15 16:42 Operator: csc
Sample : 60ug/ml SVOC 06/09/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jun 26 14:34 2015 Quant Results File: Y0609TT.RES

Quant Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:30:07 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	4.80	152	660567	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.23	136	2908425	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.21	164	1649463	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	9.93	188	2844701	40.00	ppb		0.00
27) Chrysene-D12(IS)	12.99	240	2551004	40.00	ppb		0.00
32) Perylene-D12(IS)	14.63	264	1722817	40.00	ppb		0.00
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.91	112	2640202	138.99	ppb		0.00
Spiked Amount 200.000			Recovery =	69.496%			
3) Phenol-D6 (S)	5.00	99	3473964	181.06	ppb		0.00
Spiked Amount 200.000			Recovery =	90.531%			
8) Nitrobenzene-D5(S)	5.50	82	1671532	62.73	ppb		0.00
Spiked Amount 100.000			Recovery =	62.728%			
16) 2-Fluorobiphenyl(S)	7.44	172	3288595	60.86	ppb		0.00
Spiked Amount 100.000			Recovery =	60.858%			
22) 2,4,6-Tribromophenol(S)	9.21	330	531861	117.81	ppb		0.00
Spiked Amount 200.000			Recovery =	58.903%			
28) Terphenyl-D14(S)	11.73	244	3372028	61.00	ppb		0.00
Spiked Amount 100.000			Recovery =	60.998%			
Target Compounds							Qvalue
4) Phenol	5.02	94	2045240	63.36	ppb		100
5) 1,4-DCB	4.82	146	1783089	61.82	ppb		99
6) n-Nitrosodi-n-propylamine	5.29	43	1077592	70.49	ppb	#	88
9) 2-Nitrophenol	5.86	139	919206	65.44	ppb		92
10) 2,4-Dichlorophenol	6.46	162	1497992	56.45	ppb		97
11) Hexachlorobutadiene	6.35	225	727669	62.77	ppb		98
12) 4-Chloro-3-methylphenol	7.20	107	100711	62.36	ppb	#	14
14) Hexachlorocyclopentadiene	7.16	237	375225	61.75	ppb		98
15) 2,4,6-Trichlorophenol	7.83	196	856894	62.08	ppb		95
17) Dimethyl phthalate	7.96	163	3558066	61.49	ppb		93
18) Acenaphthene	8.25	154	3079929	61.80	ppb		97
19) 2,4-Dinitrophenol	8.49	184	353065	60.93	ppb	#	100
20) 4-Nitrophenol	9.15	65	914138	63.14	ppb		98
21) Diethyl phthalate	8.72	149	3522462	59.41	ppb		99
24) n-Nitrosodiphenylamine	10.33	167	4949122	62.48	ppb		98
25) Pentachlorophenol	9.89	266	225230	60.15	ppb		96
26) Di-n-butylphthalate	10.53	149	6188258	68.01	ppb		97
29) Butyl benzylphthalate	12.26	149	2649444	63.02	ppb		92
30) Bis (2-ethylhexyl) phthala	12.81	149	3877647	65.42	ppb	#	94
31) Di-n-octylphthalate	13.48	149	6774310	68.09	ppb		100

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

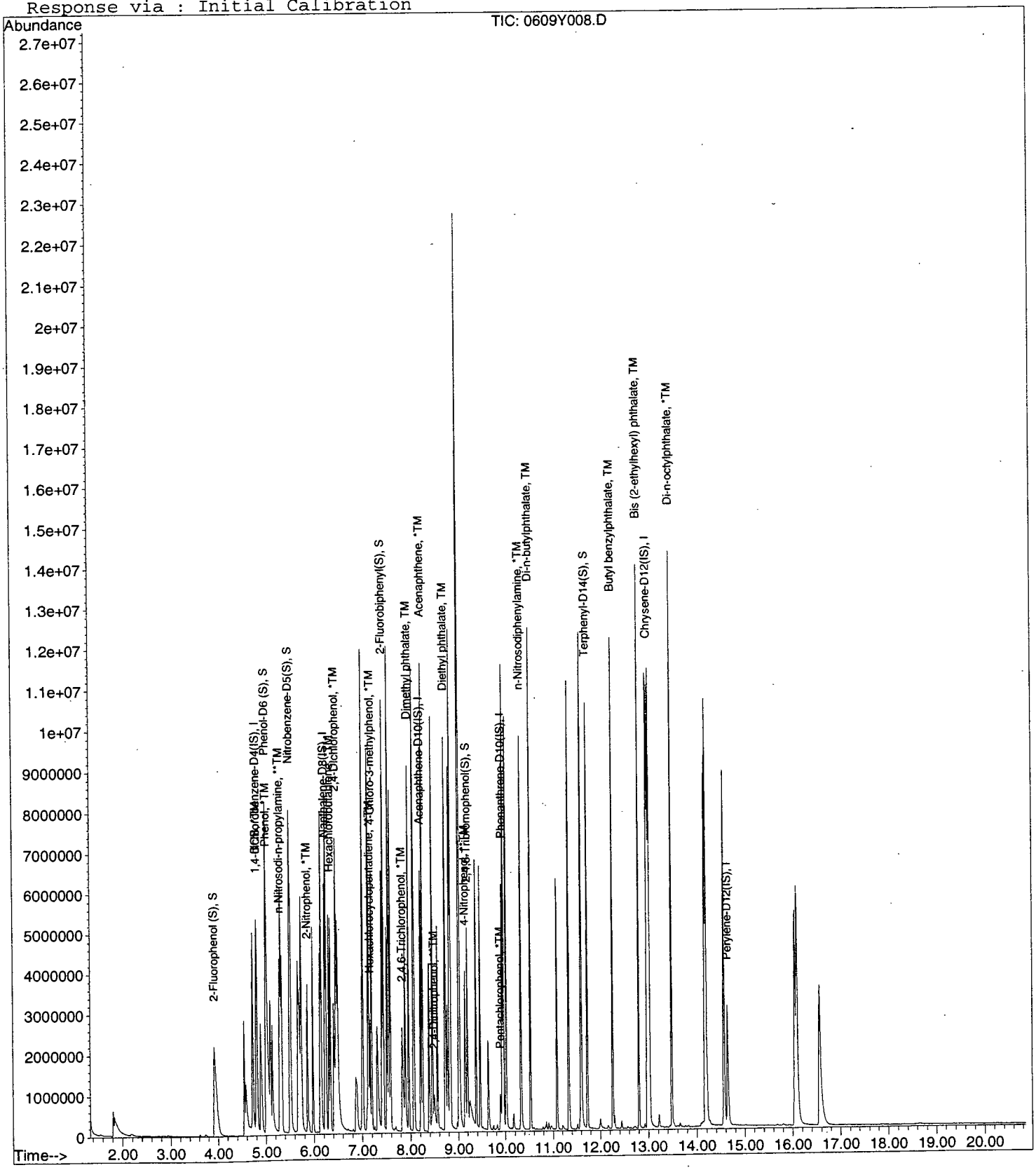
Quantitation Report

Data File : M:\YODA\DATA\Y150609\0609Y008.D
Acq On : 9 Jun 15 16:42
Sample : 60ug/ml SVOC 06/09/15
Misc :

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

Quant Time: Jun 26 14:34 2015 Quant Results File: Y0609TT.RES

Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:39:44 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150609\0609Y009.D Vial: 9
Acq On : 9 Jun 15 17:12 Operator: csc
Sample : 80ug/ml SVOC 06/09/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jun 26 14:34 2015 Quant Results File: Y0609TT.RES

Quant Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:30:07 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	4.79	152	688070	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.23	136	3002120	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.21	164	1668296	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	9.94	188	2871091	40.00	ppb		0.00
27) Chrysene-D12(IS)	13.00	240	2592690	40.00	ppb		0.00
32) Perylene-D12(IS)	14.63	264	1775181	40.00	ppb		0.00
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.91	112	3644543	184.19	ppb		-0.02
Spiked Amount 200.000			Recovery =	92.098%			
3) Phenol-D6 (S)	4.98	99	4833313	244.83	ppb		-0.03
Spiked Amount 200.000			Recovery =	122.416%			
8) Nitrobenzene-D5(S)	5.50	82	2346594	85.31	ppb		0.00
Spiked Amount 100.000			Recovery =	85.313%			
16) 2-Fluorobiphenyl(S)	7.44	172	4575593	83.72	ppb		0.00
Spiked Amount 100.000			Recovery =	83.719%			
22) 2,4,6-Tribromophenol(S)	9.21	330	747816	162.22	ppb		0.00
Spiked Amount 200.000			Recovery =	81.112%			
28) Terphenyl-D14(S)	11.73	244	4660031	82.94	ppb		0.00
Spiked Amount 100.000			Recovery =	82.942%			
Target Compounds							Qvalue
4) Phenol	5.00	94	2803669	83.38	ppb		99
5) 1,4-DCB	4.82	146	2513864	83.67	ppb		99
6) n-Nitrosodi-n-propylamine	5.30	43	1461340	91.77	ppb	#	91
9) 2-Nitrophenol	5.86	139	1260244	86.91	ppb		93
10) 2,4-Dichlorophenol	6.46	162	1971284	71.97	ppb		99
11) Hexachlorobutadiene	6.35	225	986358	82.43	ppb		99
12) 4-Chloro-3-methylphenol	7.20	107	132823	79.68	ppb	#	14
14) Hexachlorocyclopentadiene	7.16	237	596191	82.20	ppb		99
15) 2,4,6-Trichlorophenol	7.83	196	1181183	84.61	ppb		95
17) Dimethyl phthalate	7.96	163	4886230	83.50	ppb		99
18) Acenaphthene	8.25	154	4218683	83.69	ppb		97
19) 2,4-Dinitrophenol	8.49	184	532304	82.21	ppb	#	100
20) 4-Nitrophenol	9.15	65	1231532	84.10	ppb		99
21) Diethyl phthalate	8.73	149	4899455	81.26	ppb		98
24) n-Nitrosodiphenylamine	10.33	167	6852068	85.71	ppb		98
25) Pentachlorophenol	9.89	266	332503	81.88	ppb		97
26) Di-n-butylphthalate	10.53	149	7332306	79.84	ppb		98
29) Butyl benzylphthalate	12.26	149	3633396	85.03	ppb		90
30) Bis (2-ethylhexyl) phthala	12.81	149	5231493	86.84	ppb	#	92
31) Di-n-octylphthalate	13.48	149	8386710	82.94	ppb		96

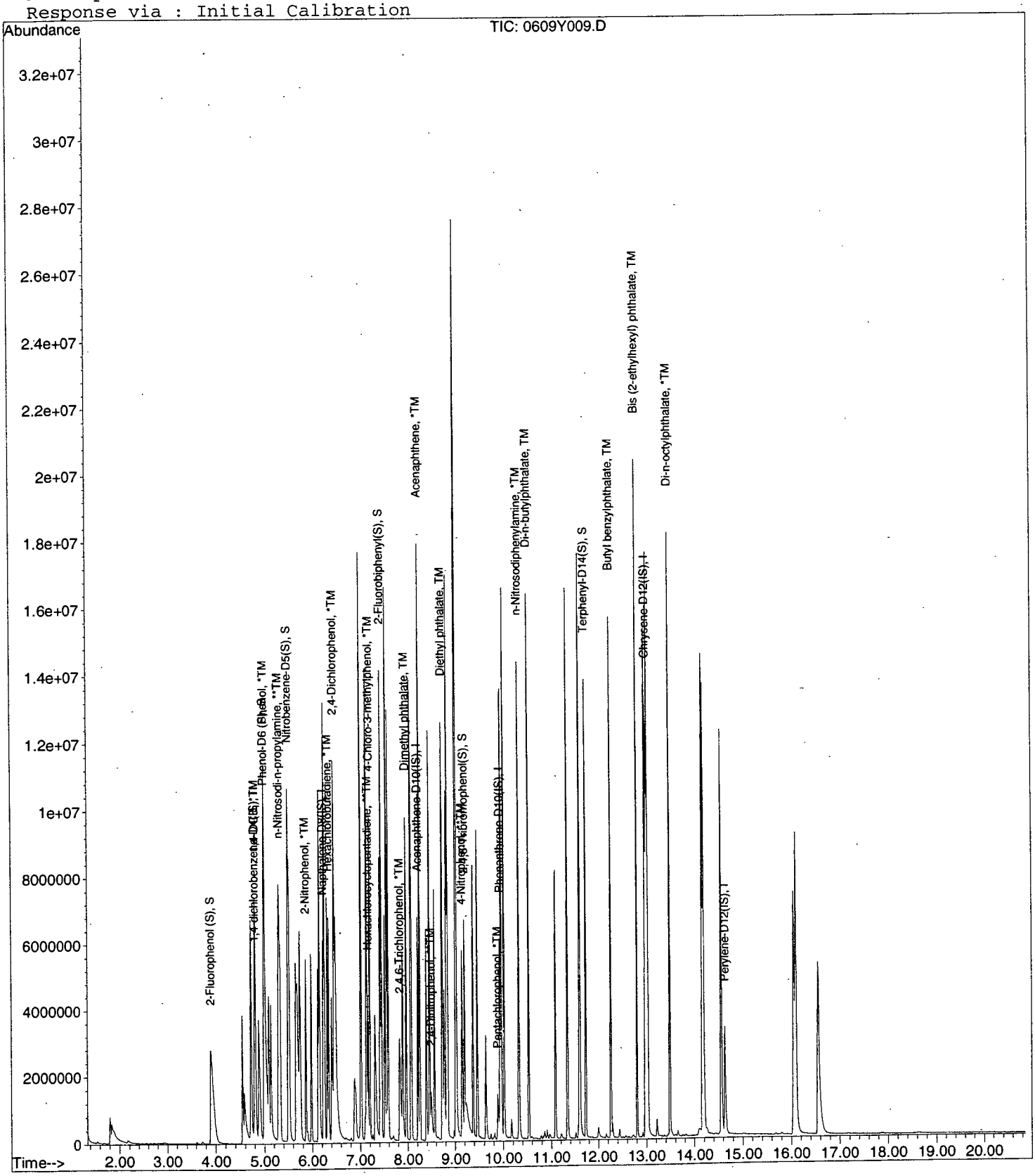
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150609\0609Y009.D Vial: 9
Acq On : 9 Jun 15 17:12 Operator: csc
Sample : 80ug/ml SVOC 06/09/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jun 26 14:34 2015 Quant Results File: Y0609TT.RES

Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:39:44 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150609\0609Y010.D Vial: 10
Acq On : 9 Jun 15 17:42 Operator: csc
Sample : 100ug/ml SVOC 06/09/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jun 26 14:34 2015 Quant Results File: Y0609TT.RES

Quant Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:30:07 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	4.79	152	666642	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.23	136	2926054	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.21	164	1621641	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	9.94	188	2809723	40.00	ppb		0.00
27) Chrysene-D12(IS)	13.00	240	2504941	40.00	ppb		0.00
32) Perylene-D12(IS)	14.64	264	1710688	40.00	ppb		0.00
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.90	112	4228823	220.59	ppb		-0.02
Spiked Amount 200.000			Recovery =	110.297%			
3) Phenol-D6 (S)	4.98	99	5677637	298.74	ppb		-0.03
Spiked Amount 200.000			Recovery =	149.368%			
8) Nitrobenzene-D5(S)	5.50	82	2742147	102.29	ppb		0.00
Spiked Amount 100.000			Recovery =	102.285%			
16) 2-Fluorobiphenyl(S)	7.44	172	5333921	100.40	ppb		0.00
Spiked Amount 100.000			Recovery =	100.402%			
22) 2,4,6-Tribromophenol(S)	9.20	330	913344	202.82	ppb		0.00
Spiked Amount 200.000			Recovery =	101.409%			
28) Terphenyl-D14(S)	11.73	244	5583232	102.85	ppb		0.00
Spiked Amount 100.000			Recovery =	102.854%			
Target Compounds							Qvalue
4) Phenol	5.00	94	3282282	100.76	ppb		97
5) 1,4-DCB	4.81	146	2934226	100.80	ppb		97
6) n-Nitrosodi-n-propylamine	5.30	43	1744284	113.06	ppb		96
9) 2-Nitrophenol	5.87	139	1473360	104.25	ppb		90
10) 2,4-Dichlorophenol	6.46	162	2268158	84.96	ppb		99
11) Hexachlorobutadiene	6.34	225	1183826	101.50	ppb		97
12) 4-Chloro-3-methylphenol	7.19	107	158076	97.29	ppb	#	13
14) Hexachlorocyclopentadiene	7.17	237	776342	98.66	ppb		100
15) 2,4,6-Trichlorophenol	7.82	196	1417616	104.47	ppb		95
17) Dimethyl phthalate	7.96	163	5934631	104.33	ppb		99
18) Acenaphthene	8.25	154	5064478	103.36	ppb		97
19) 2,4-Dinitrophenol	8.49	184	662066	98.73	ppb	#	100
20) 4-Nitrophenol	9.15	65	1468934	103.20	ppb		97
21) Diethyl phthalate	8.73	149	5854672	99.62	ppb		99
24) n-Nitrosodiphenylamine	10.33	167	8213462	104.99	ppb		98
25) Pentachlorophenol	9.89	266	412644	98.95	ppb		98
26) Di-n-butylphthalate	10.53	149	7943234	88.38	ppb	#	95
29) Butyl benzylphthalate	12.26	149	4361396	105.65	ppb		93
30) Bis (2-ethylhexyl) phthala	12.81	149	6259146	107.54	ppb	#	92
31) Di-n-octylphthalate	13.49	149	8709499	89.15	ppb	#	88

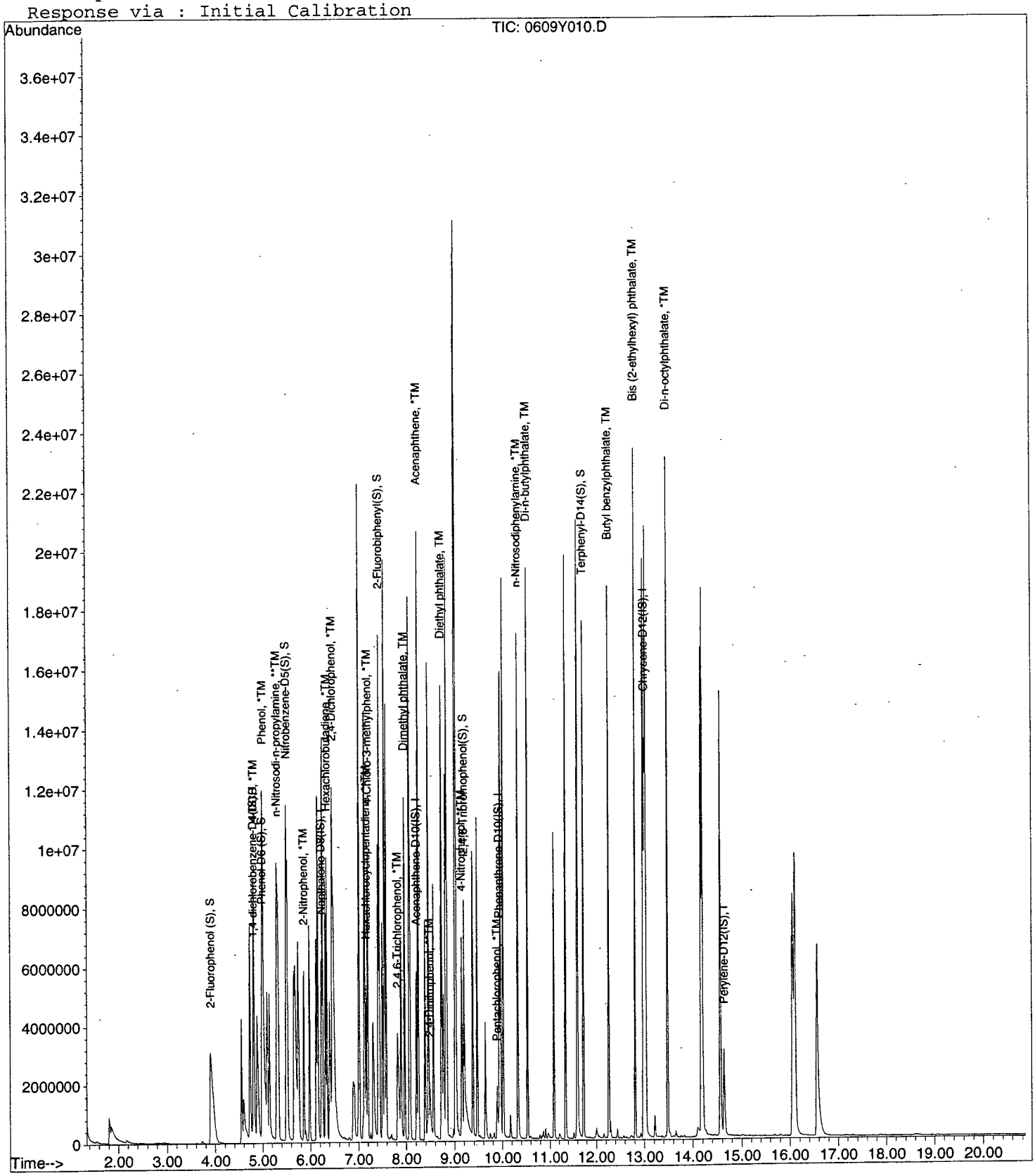
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150609\0609Y010.D Vial: 10
Acq On : 9 Jun 15 17:42 Operator: csc
Sample : 100ug/ml SVOC 06/09/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jun 26 14:34 2015 Quant Results File: Y0609TT.RES

Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:39:44 2015
Response via : Initial Calibration



Form 7

Second Source Calibration

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

SDG No: 7667f
Date Analyzed: 9 Jun 15 18:12
Instrument: Yoda
Initial Cal. Date: 6/9/2015
Data File: 0609Y011.D

		Compound	MEAN	CCRF	%D		%Drift	
1	*TM	Phenol	1.955	1.836	6.1	*TM		
2	*TM	1,4-DCB	1.747	1.874	7.3	*TM		
3	**TM	n-Nitrosodi-n-propylamine	0.9517	0.9467	0.53	**TM		
4	*TM	2-Nitrophenol	0.1932	0.1908	1.2	*TM		
5	*TML	2,4-Dichlorophenol	0.3650	0.3218	12	*TML	3.1	
6	*TM	Hexachlorobutadiene	0.1594	0.1784	12	*TM		
7	*TM	4-Chloro-3-methylphenol	0.0222	0.0205	7.8	*TM		
8	**TMQ	Hexachlorocyclopentadiene	0.1019	0.1424	40	**TMQ	5.6	
9	*TM	2,4,6-Trichlorophenol	0.3304	0.3005	9.1	*TM		
10	TM	Dimethyl phthalate	1.403	1.360	3.1	TM		
11	*TM	Acenaphthene	1.209	1.162	3.9	*TM		
12	**TMQ	2,4-Dinitrophenol	0.1013	0.1148	13	**TMQ	9.6	
13	**TM	4-Nitrophenol	0.3511	0.2648	25	**TM		*
14	TM	Diethyl phthalate	1.394	1.328	4.7	TM		
15	*TM	n-Nitrosodiphenylamine	1.114	1.046	6.0	*TM		
16	*TMQ	Pentachlorophenol	0.0443	0.0403	9.0	*TMQ	17	
17	TM	Di-n-butylphthalate	1.279	1.247	2.5	TM		
18	TM	Butyl benzylphthalate	0.6592	0.6835	3.7	TM		
19	TM	Bis (2-ethylhexyl) phthalate	0.9294	0.9338	0.47	TM		
20	*TM	Di-n-octylphthalate	1.560	1.652	5.9	*TM		
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								
31								
32								
33								
34								
35								
36								
37								
38								
39								
40								
		Average			8.7			

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150609\0609Y011.D Vial: 11
Acq On : 9 Jun 15 18:12 Operator: csc
Sample : 50ug/ml SVOC SS 06/09/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jun 26 14:46 2015 Quant Results File: Y0609TT.RES

Quant Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:45:21 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	4.79	152	800527	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.23	136	3423695	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.21	164	1876168	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	9.93	188	3283763	40.00	ppb		0.00
27) Chrysene-D12(IS)	12.99	240	2681604	40.00	ppb		0.00
32) Perylene-D12(IS)	14.64	264	1834461	40.00	ppb		0.00
System Monitoring Compounds							
2) 2-Fluorophenol (S)	0.00	112	0	0.00	ppb		
Spiked Amount 200.000			Recovery =	0.000%			
3) Phenol-D6 (S)	4.99	99	7565	0.22	ppb		-0.02
Spiked Amount 200.000			Recovery =	0.112%			
8) Nitrobenzene-D5(S)	0.00	82	0	0.00	ppb		
Spiked Amount 100.000			Recovery =	0.000%			
16) 2-Fluorobiphenyl(S)	0.00	172	0	0.00	ppb		
Spiked Amount 100.000			Recovery =	0.000%			
22) 2,4,6-Tribromophenol(S)	0.00	330	0	0.00	ppb		
Spiked Amount 200.000			Recovery =	0.000%			
28) Terphenyl-D14(S)	11.73	244	819	0.01	ppb		0.00
Spiked Amount 100.000			Recovery =	0.014%			
Target Compounds							Qvalue
4) Phenol	5.05	94	1836846	46.96	ppb		89
5) 1,4-DCB	4.81	146	1875348	53.65	ppb		98
6) n-Nitrosodi-n-propylamine	5.27	43	947300m	49.73	ppb		100
9) 2-Nitrophenol	5.87	139	816727	49.39	ppb		87
10) 2,4-Dichlorophenol	6.46	162	1377381	48.45	ppb		98
11) Hexachlorobutadiene	6.34	225	763620	55.96	ppb		99
12) 4-Chloro-3-methylphenol	7.19	107	87605	46.08	ppb	#	13
14) Hexachlorocyclopentadiene	7.17	237	333926	52.80	ppb		99
15) 2,4,6-Trichlorophenol	7.83	196	704800	45.47	ppb		94
17) Dimethyl phthalate	7.96	163	3189308	48.46	ppb	#	85
18) Acenaphthene	8.24	154	2724253	48.06	ppb		97
19) 2,4-Dinitrophenol	8.49	184	269221	45.18	ppb	#	100
20) 4-Nitrophenol	9.14	65	621040	37.71	ppb		97
21) Diethyl phthalate	8.72	149	3113942	47.63	ppb		100
24) n-Nitrosodiphenylamine	10.33	167	4295379	46.98	ppb		98
25) Pentachlorophenol	9.89	266	165436	41.57	ppb		99
26) Di-n-butylphthalate	10.53	149	5119199	48.74	ppb	#	96
29) Butyl benzylphthalate	12.26	149	2291172	51.84	ppb		98
30) Bis (2-ethylhexyl) phthala	12.81	149	3130065	50.23	ppb		97
31) Di-n-octylphthalate	13.49	149	5539125	52.96	ppb		100

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

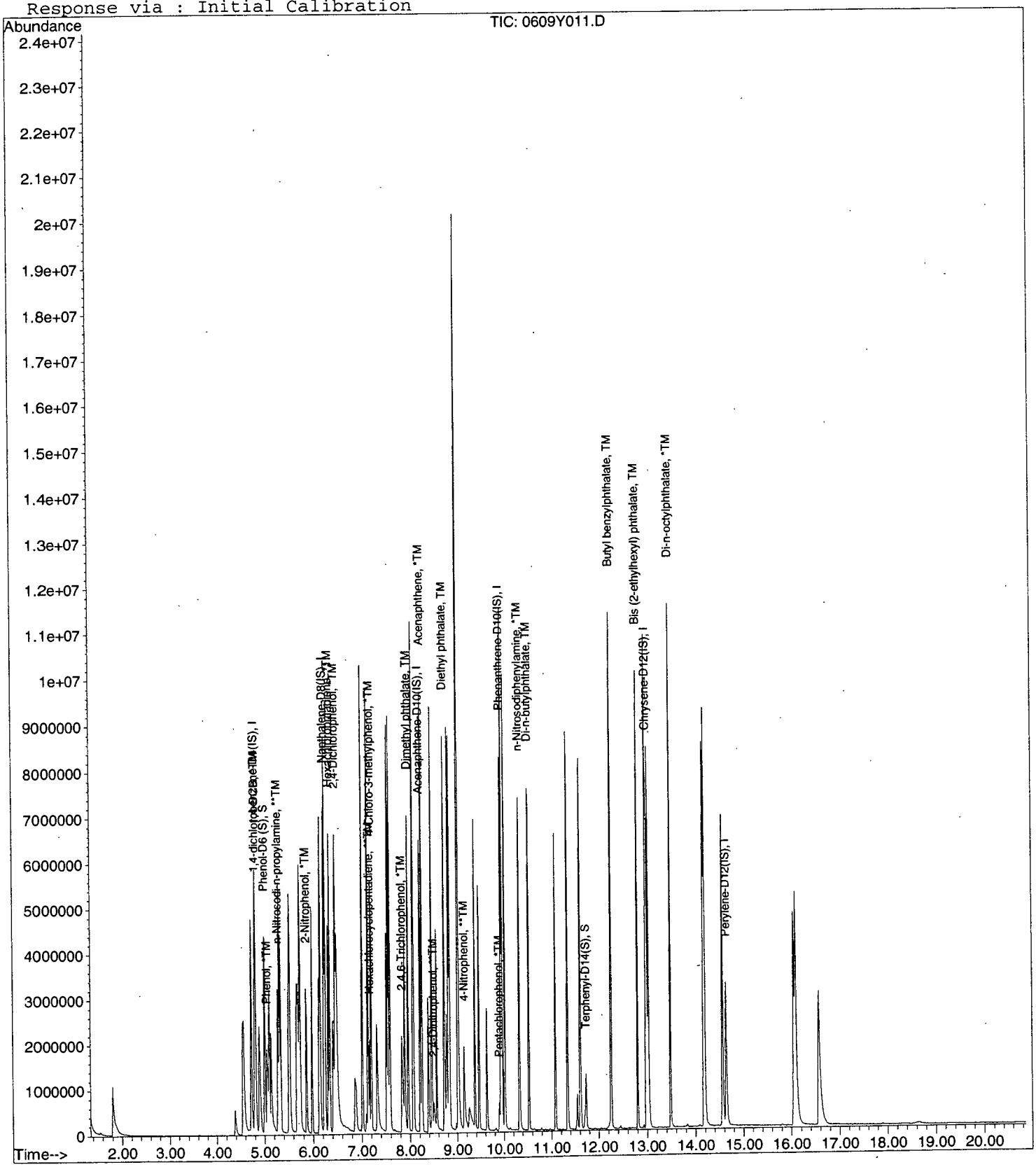
Quantitation Report

Data File : M:\YODA\DATA\Y150609\0609Y011.D
Acq On : 9 Jun 15 18:12
Sample : 50ug/ml SVOC SS 06/09/15
Misc :

Vial: 11
Operator: csc
Inst : Yoda
Multiplr: 1.00

Quant Time: Jun 26 14:46 2015 Quant Results File: Y0609TT.RES

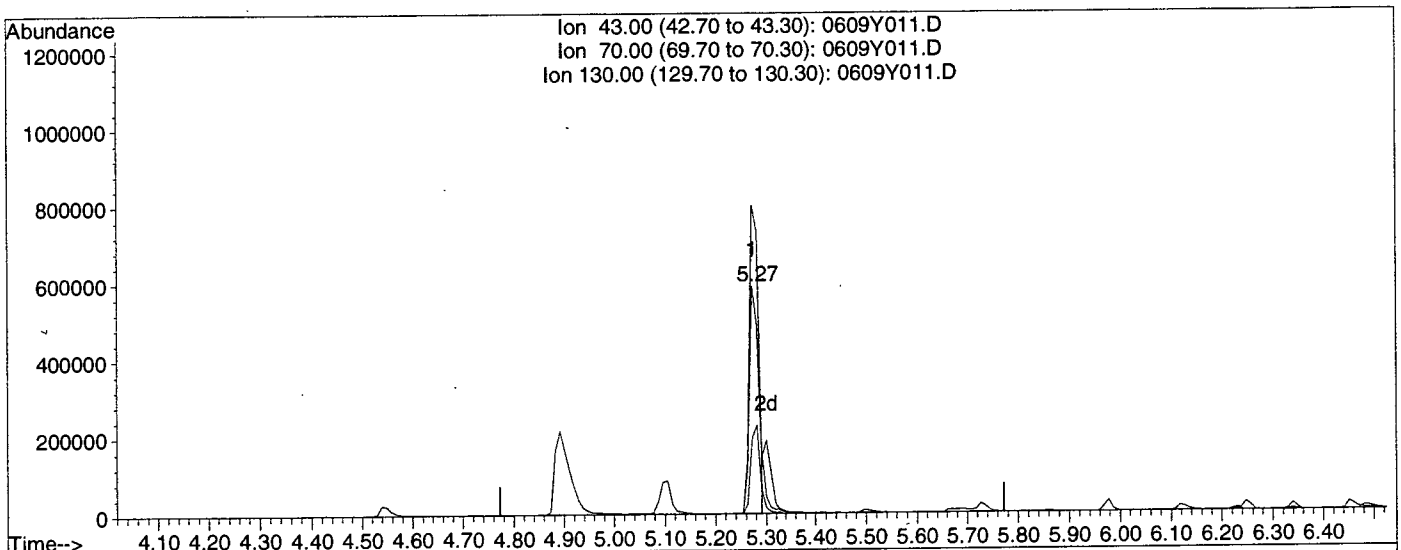
Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:45:21 2015
Response via : Initial Calibration

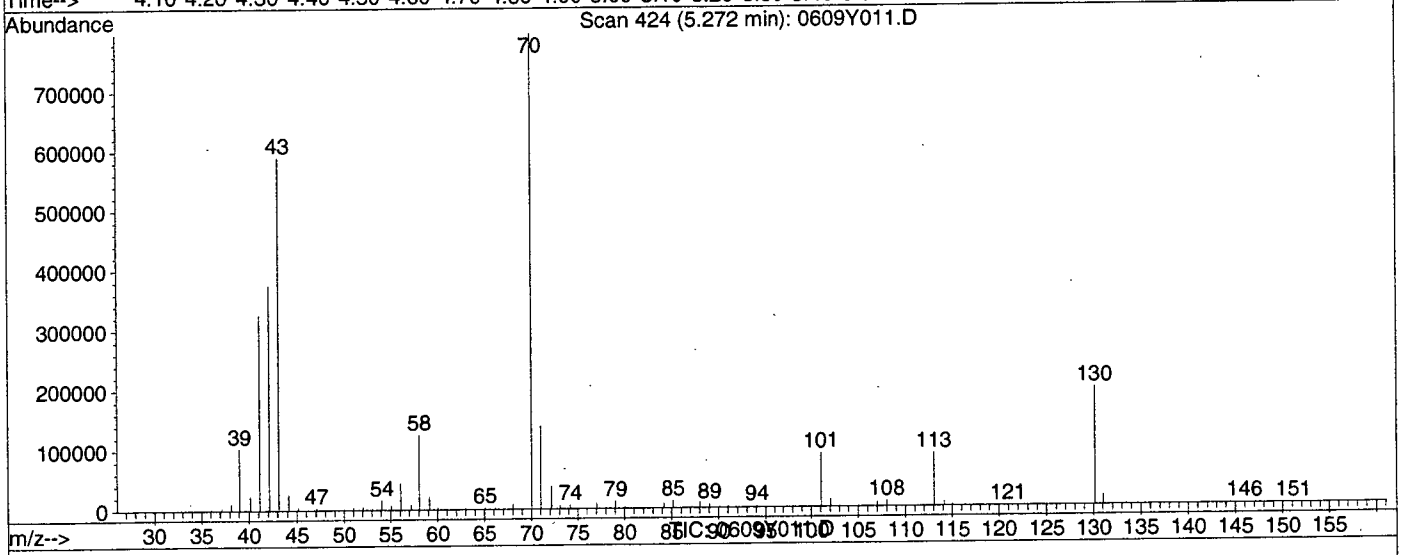


Quantitation Report

Data File : M:\YODA\DATA\Y150609\0609Y011.D Vial: 11
Acq On : 9 Jun 15 18:12 Operator: csc
Sample : 50ug/ml SVOC SS 06/09/15 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Jun 26 14:45 2015 Quant Results File: temp.res

Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:45:21 2015
Response via : Multiple Level Calibration





(6) n-Nitrosodi-n-propylamine (**TM)

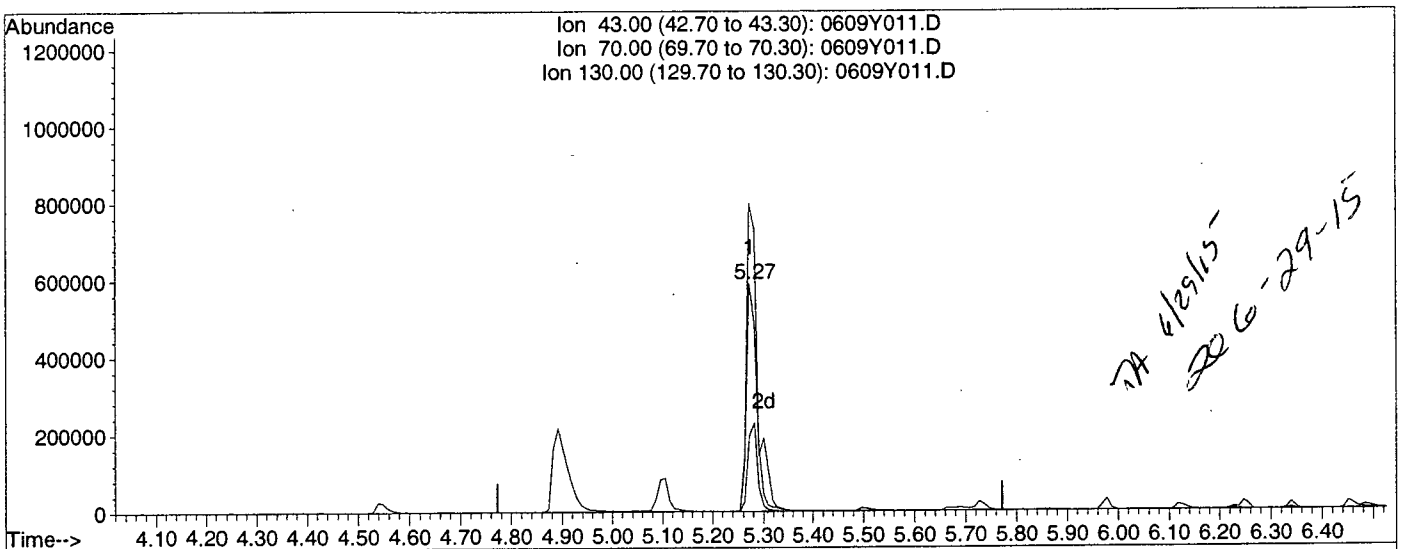
5.27min 39.1473ppb

response 745649

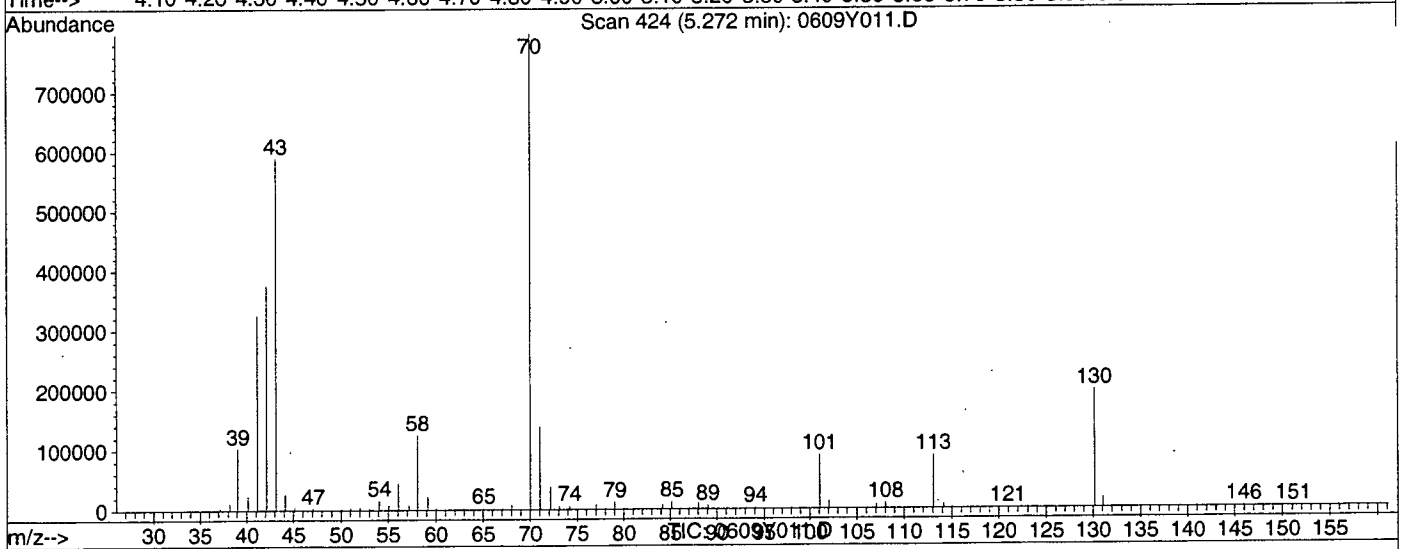
Ion	Exp%	Act%
43.00	100	100
70.00	135.40	135.48
130.00	33.40	33.34
0.00	0.00	0.00

Data File : M:\YODA\DATA\Y150609\0609Y011.D Vial: 11
Acq On : 9 Jun 15 18:12 Operator: csc
Sample : 50ug/ml SVOC SS 06/09/15 Inst : Yoda
Misc : Multiplr: 1.00
Quant Time: Jun 26 14:46 2015 Quant Results File: temp.res

Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:45:21 2015
Response via : Multiple Level Calibration



TA 6/29/15
SR 6-29-15



(6) n-Nitrosodi-n-propylamine (**TM)

5.27min 49.7341ppb m

response 947300

Ion	Exp%	Act%
43.00	100	100
70.00	135.40	135.42
130.00	33.40	33.40
0.00	0.00	0.00

Form 7

Continuing Calibration

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

SDG No: 76674
Date Analyzed: 6/19/2015
Instrument: Yoda
Initial Cal. Date: 6/9/2015
Data File: 0609Y081.D

		Compound	MEAN	CCRF	%D		%Drift	
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I		
2	S	2-Fluorophenol (S)	1.263	1.290	2.2	S		
3	S	Phenol-D6 (S)	1.690	1.634	3.3	S		
4	*TM	Phenol	1.955	1.876	4.0	*TM		
5	*TM	1,4-DCB	1.747	1.695	3.0	*TM		
6	**TM	n-Nitrosodi-n-propylamine	0.9517	0.9965	4.7	**TM		
7	I	Napthalene-D8(IS)	ISTD			I		
8	S	Nitrobenzene-D5(S)	0.3665	0.3893	6.2	S		
9	*TM	2-Nitrophenol	0.1932	0.1976	2.3	*TM		
10	*TML	2,4-Dichlorophenol	0.3650	0.3186	13	*TML	4.2	
11	*TM	Hexachlorobutadiene	0.1594	0.1614	1.2	*TM		
12	*TM	4-Chloro-3-methylphenol	0.0222	0.0222	0.17	*TM		
13	I	Acenaphthene-D10(IS)	ISTD			I		
14	**TMQ	Hexachlorocyclopentadiene	0.1019	0.0832	18	**TMQ	25	*nt
15	*TM	2,4,6-Trichlorophenol	0.3304	0.3411	3.2	*TM		
16	S	2-Fluorobiphenyl(S)	1.310	1.320	0.70	S		
17	TM	Dimethyl phthalate	1.403	1.368	2.5	TM		
18	*TM	Acenaphthene	1.209	1.188	1.7	*TM		
19	**TMQ	2,4-Dinitrophenol	0.1013	0.1284	27	**TMQ	1.8	
20	**TM	4-Nitrophenol	0.3511	0.3480	0.89	**TM		
21	TM	Diethyl phthalate	1.394	1.386	0.56	TM		
22	SL	2,4,6-Tribromophenol(S)	0.1103	0.1081	2.0	SL	0.58	
23	I	Phenanthrene-D10(IS)	ISTD			I		
24	*TM	n-Nitrosodiphenylamine	1.114	1.062	4.6	*TM		
25	*TMQ	Pentachlorophenol	0.0443	0.0571	29	*TMQ	11	
26	TM	Di-n-butylphthalate	1.279	1.320	3.2	TM		
27	I	Chrysene-D12(IS)	ISTD			I		
28	S	Terphenyl-D14(S)	0.8668	0.9552	10	S		
29	TM	Butyl benzylphthalate	0.6592	0.6930	5.1	TM		
30	TM	Bis (2-ethylhexyl) phthalate	0.9294	0.9412	1.3	TM		
31	*TM	Di-n-octylphthalate	1.560	1.698	8.8	*TM		
32	I	Perylene-D12(IS)	ISTD			I		
33								
34								
35								
36								
37								
38								
39								
40								
		Average			6.1			

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150609\0609Y081.D Vial: 81
Acq On : 19 Jun 15 15:13 Operator: csc
Sample : 50ug/ml SVOC 06/19/15 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Jun 26 14:48 2015 Quant Results File: Y0609TT.RES

Quant Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:45:21 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	4.79	152	615275	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.23	136	2511863	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.20	164	1338807	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	9.93	188	2393837	40.00	ppb		0.00
27) Chrysene-D12(IS)	12.99	240	2089247	40.00	ppb		0.00
32) Perylene-D12(IS)	14.63	264	1304203	40.00	ppb		0.00
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.87	112	1984800	102.20	ppb		-0.06
Spiked Amount 200.000			Recovery =	51.102%			
3) Phenol-D6 (S)	4.96	99	2513331	96.68	ppb		-0.05
Spiked Amount 200.000			Recovery =	48.340%			
8) Nitrobenzene-D5(S)	5.49	82	1222490	53.12	ppb		0.00
Spiked Amount 100.000			Recovery =	53.120%			
16) 2-Fluorobiphenyl(S)	7.44	172	2208429	50.35	ppb		0.00
Spiked Amount 100.000			Recovery =	50.352%			
22) 2,4,6-Tribromophenol(S)	9.20	330	361964	99.42	ppb		0.00
Spiked Amount 200.000			Recovery =	49.709%			
28) Terphenyl-D14(S)	11.73	244	2494439	55.10	ppb		0.00
Spiked Amount 100.000			Recovery =	55.096%			
Target Compounds							Qvalue
4) Phenol	4.98	94	1442747	47.99	ppb		93
5) 1,4-DCB	4.81	146	1303435	48.52	ppb		98
6) n-Nitrosodi-n-propylamine	5.28	43	766366	52.35	ppb		99
9) 2-Nitrophenol	5.85	139	620283	51.13	ppb		96
10) 2,4-Dichlorophenol	6.45	162	1000204	47.92	ppb		98
11) Hexachlorobutadiene	6.34	225	506795	50.62	ppb		99
12) 4-Chloro-3-methylphenol	7.19	107	69622	49.92	ppb	#	14
14) Hexachlorocyclopentadiene	7.16	237	139263	37.57	ppb		98
15) 2,4,6-Trichlorophenol	7.80	196	570831	51.61	ppb		95
17) Dimethyl phthalate	7.96	163	2290142	48.77	ppb	#	83
18) Acenaphthene	8.24	154	1988214	49.15	ppb		98
19) 2,4-Dinitrophenol	8.49	184	214889	49.10	ppb	#	100
20) 4-Nitrophenol	9.14	65	582313	49.55	ppb		98
21) Diethyl phthalate	8.72	149	2319657	49.72	ppb		97
24) n-Nitrosodiphenylamine	10.32	167	3178501	47.69	ppb		100
25) Pentachlorophenol	9.88	266	170898	55.28	ppb		97
26) Di-n-butylphthalate	10.52	149	3949497	51.58	ppb		99
29) Butyl benzylphthalate	12.26	149	1809721	52.56	ppb		90
30) Bis (2-ethylhexyl) phthala	12.80	149	2457916	50.63	ppb	#	91
31) Di-n-octylphthalate	13.48	149	4434597	54.42	ppb		100

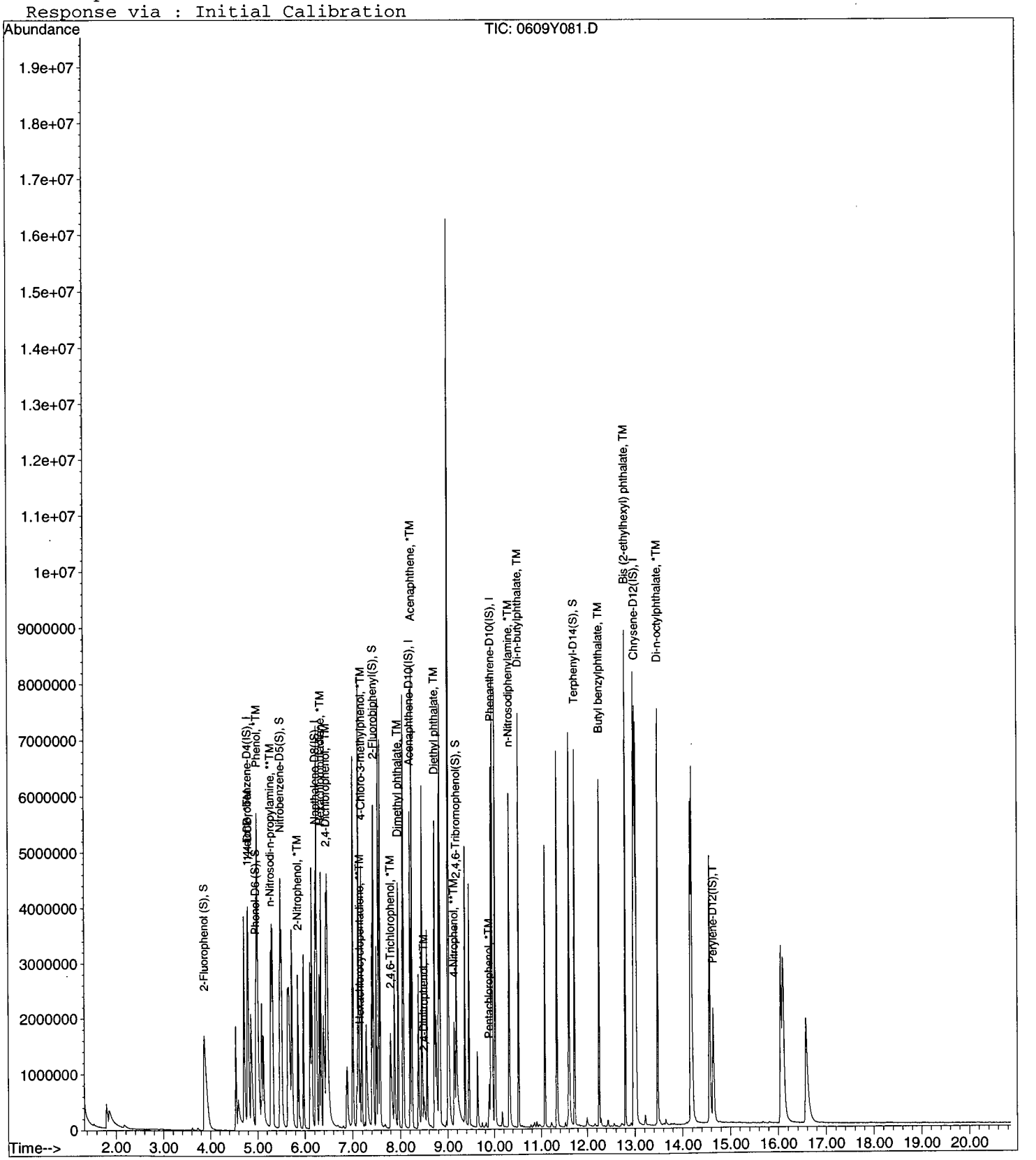
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150609\0609Y081.D Vial: 81
Acq On : 19 Jun 15 15:13 Operator: csc
Sample : 50ug/ml SVOC 06/19/15 Inst : Yoda
Misc : soil Multiplr: 1.00

Quant Time: Jun 26 14:48 2015 Quant Results File: Y0609TT.RES

Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:45:21 2015
Response via : Initial Calibration



Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No: 76676

Case No: Initial Cal. Date: 6/25/2015

Matrix: Instrument: Yoda

Initials: DA

		Compound	5	10	20	40	50	60	80	100			Avg	%RSD		
			0625Y002.D	0625Y003.D	0625Y004.D	0625Y005.D	0625Y006.D	0625Y007.D	0625Y008.D	0625Y009.D						
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

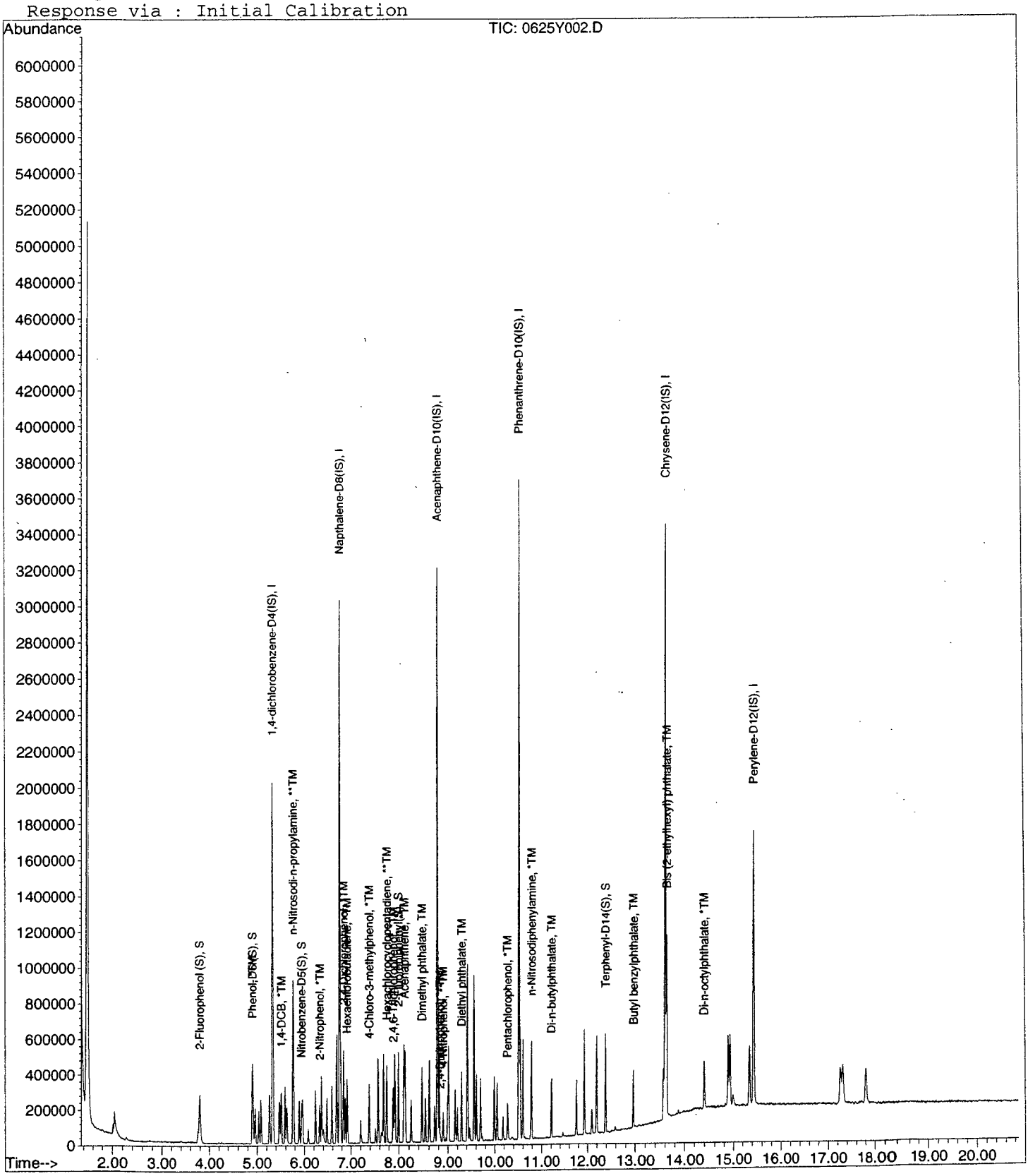
(#) = qualifier out of range (m) = manual integration

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

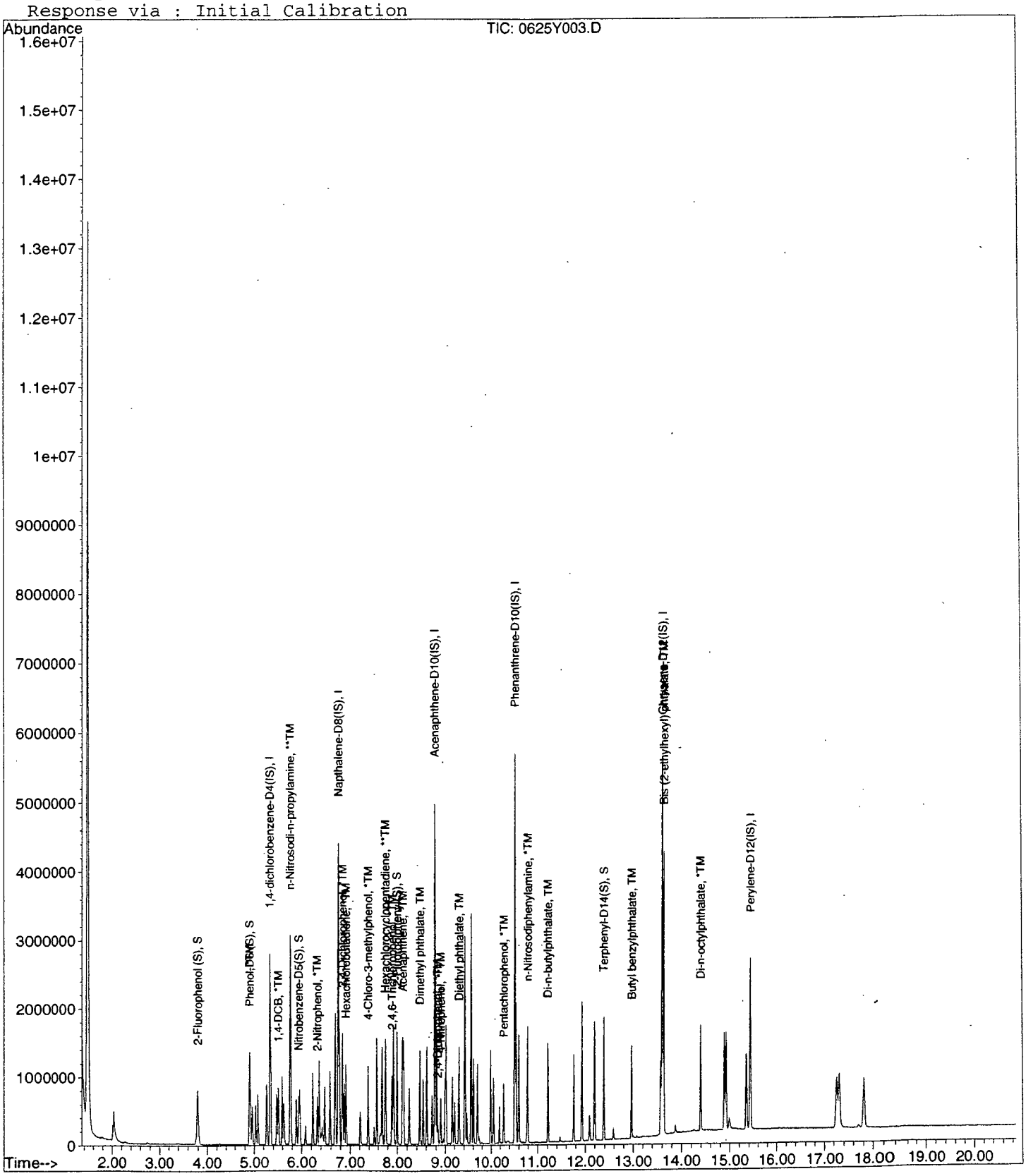
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y003.D 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

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

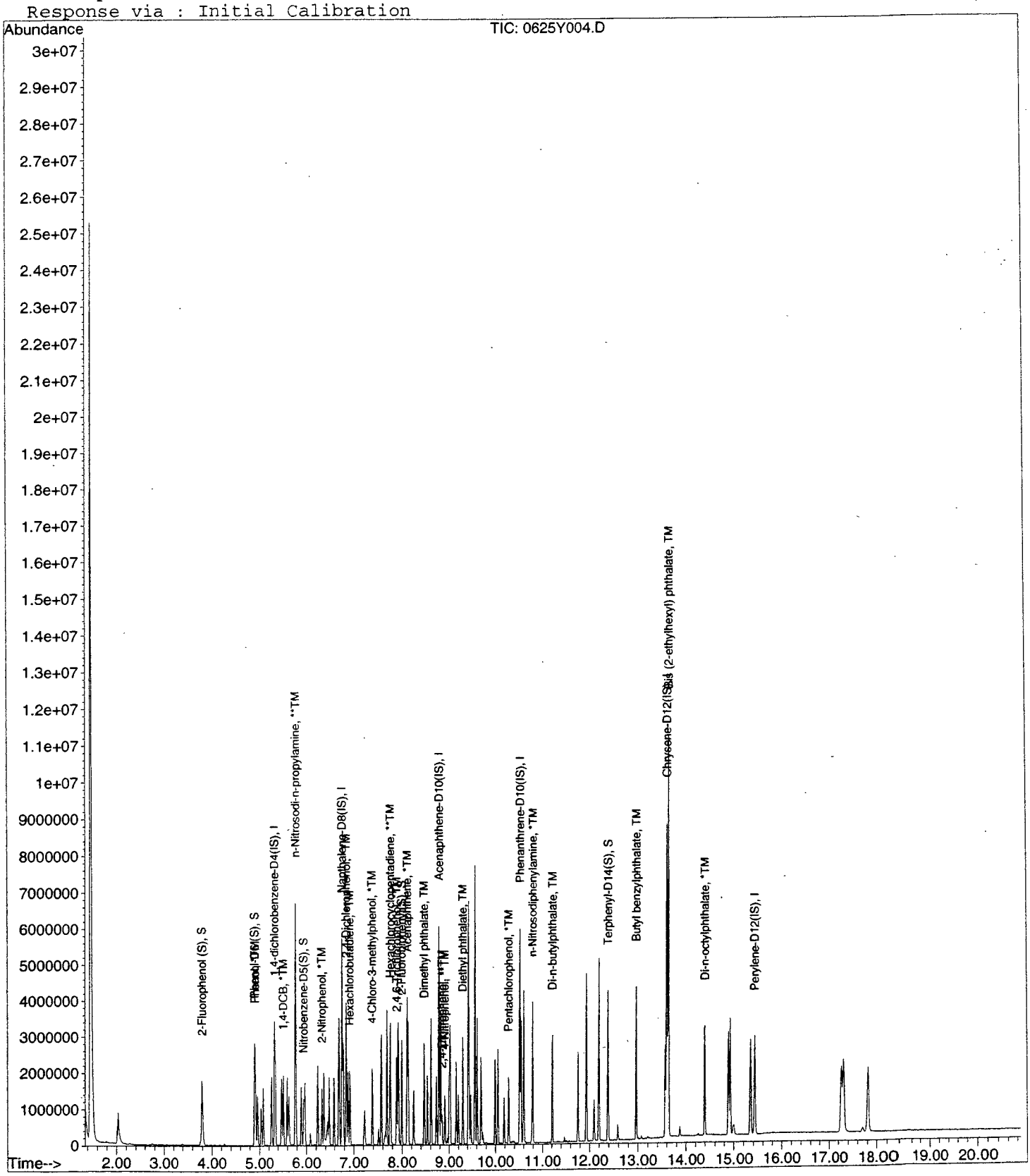
(#) = qualifier out of range (m) = manual integration

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



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

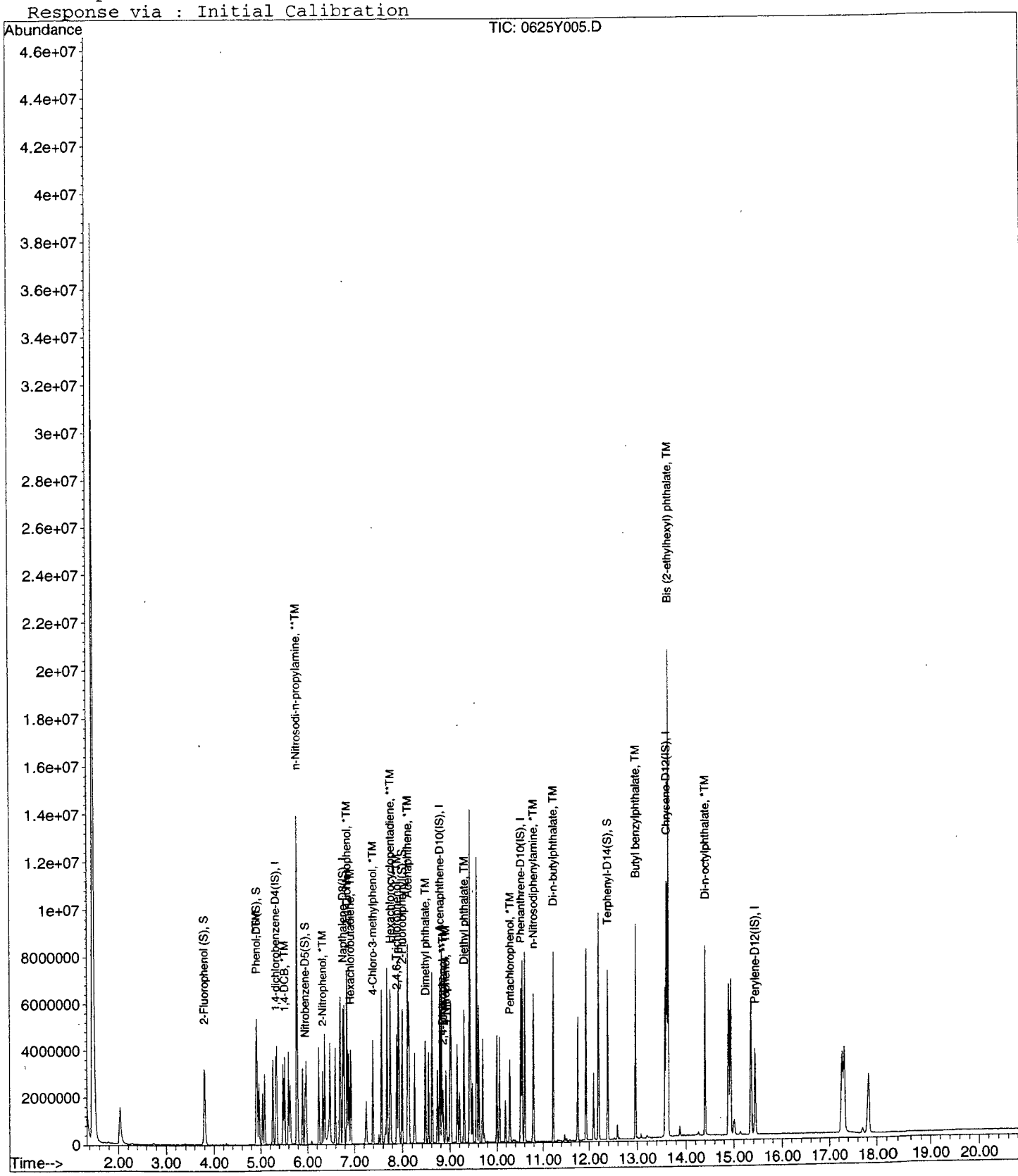
Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y005.D
Acq On : 25 Jun 15 11:48
Sample : 40ug/ml SVOC 06/25/15
Misc :

Vial: 5
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\0625Y006.D
Acq On : 25 Jun 15 12:17
Sample : 50ug/ml SVOC 06/25/15
Misc :

Vial: 6
Operator: MA
Inst : Yoda
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

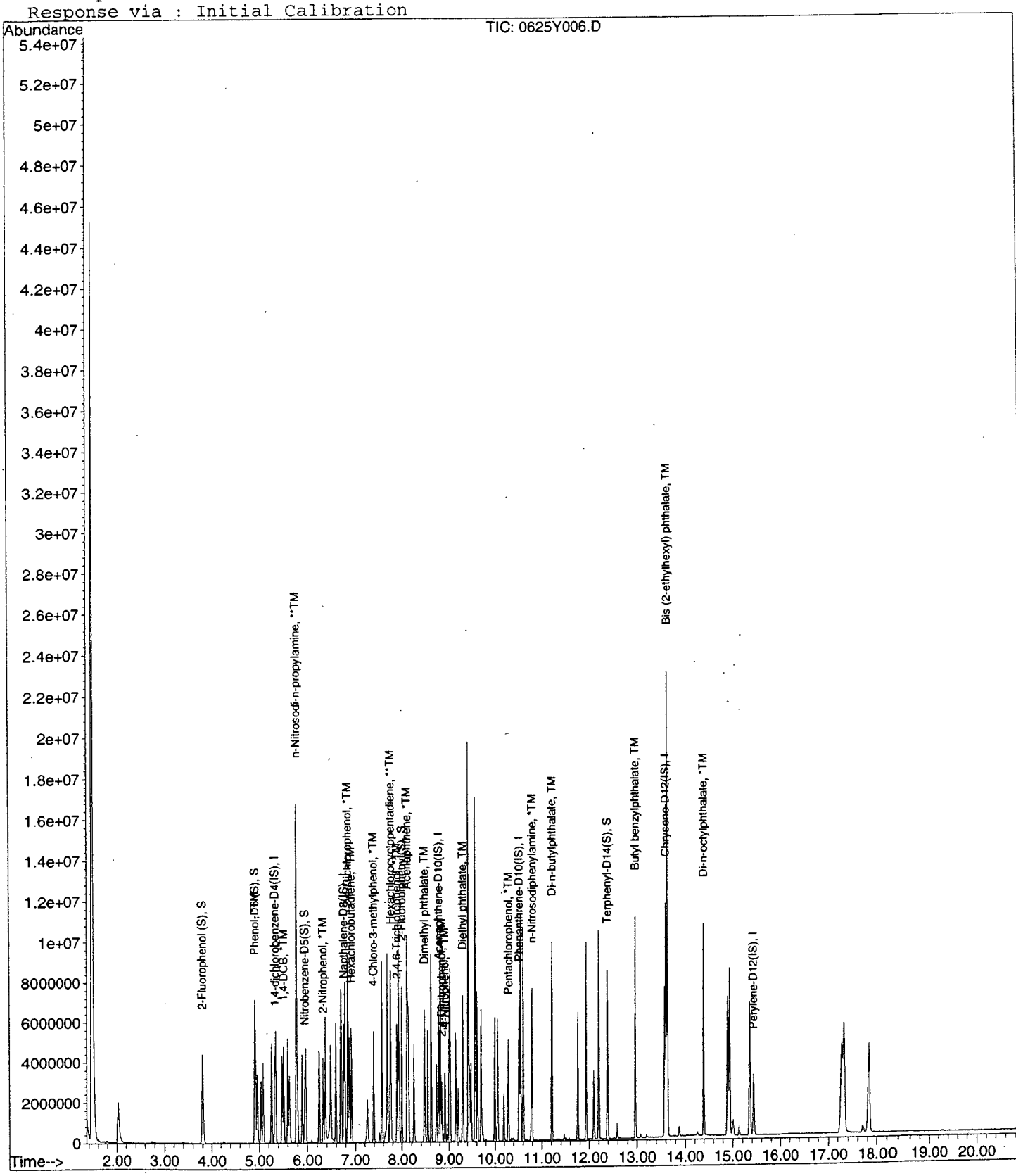
Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y006.D
Acq On : 25 Jun 15 12:17
Sample : 50ug/ml SVOC 06/25/15
Misc :

Vial: 6
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\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

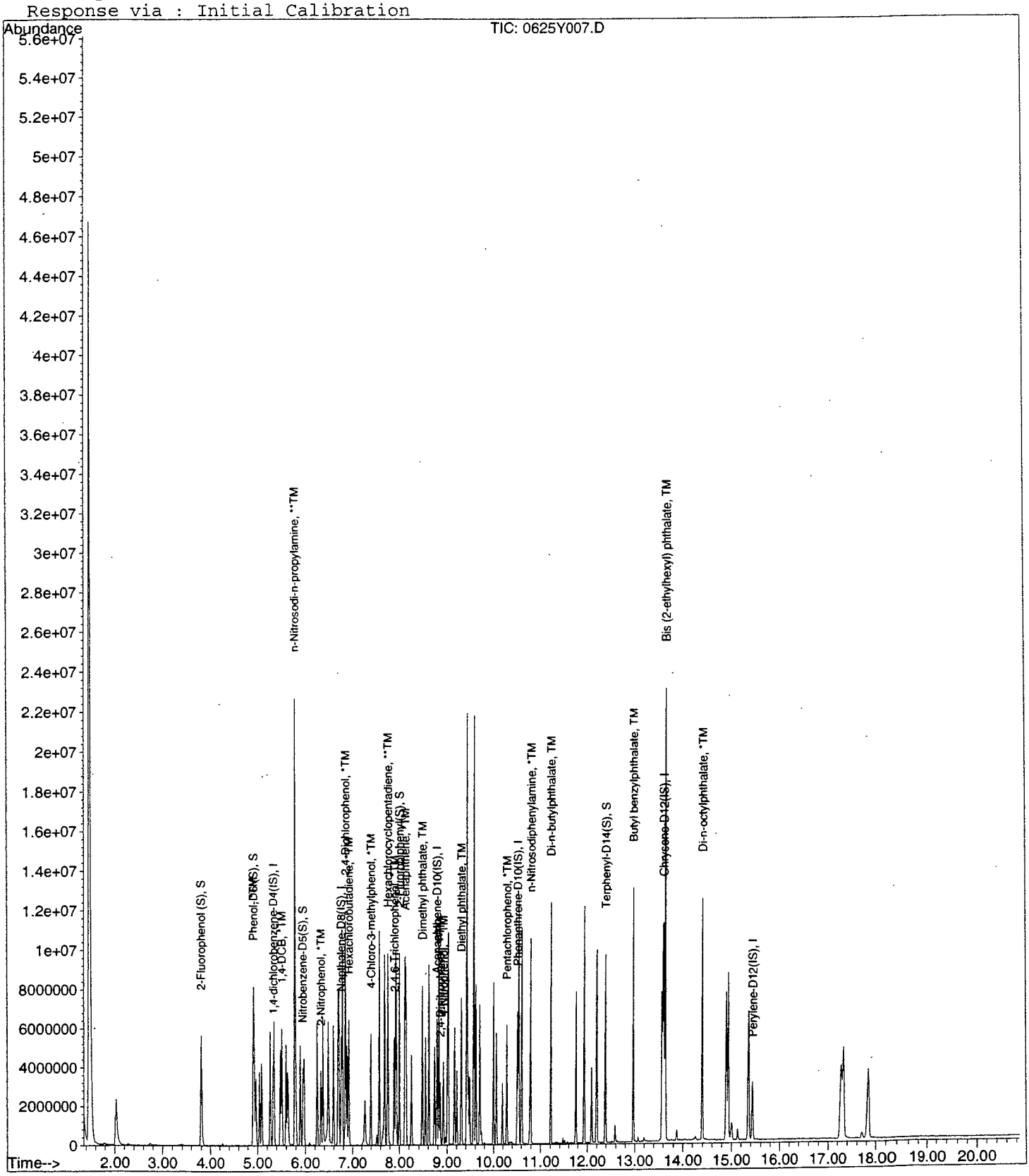
(#) = qualifier out of range (m) = manual integration

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
Acq On : 25 Jun 15 13:17
Sample : 80ug/ml SVOC 06/25/15
Misc :

Vial: 8
Operator: MA
Inst : Yoda
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

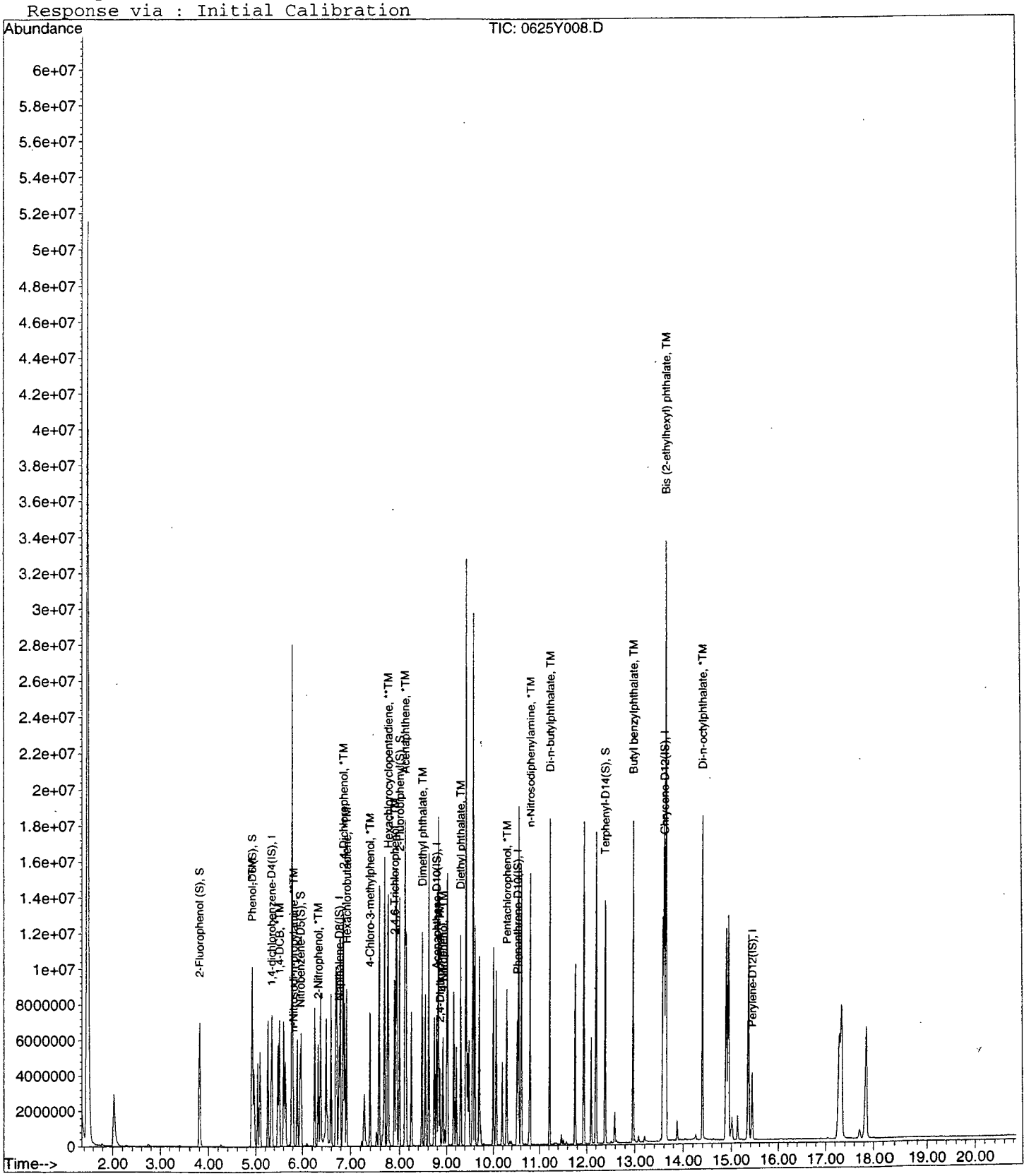
(#) = qualifier out of range (m) = manual integration

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

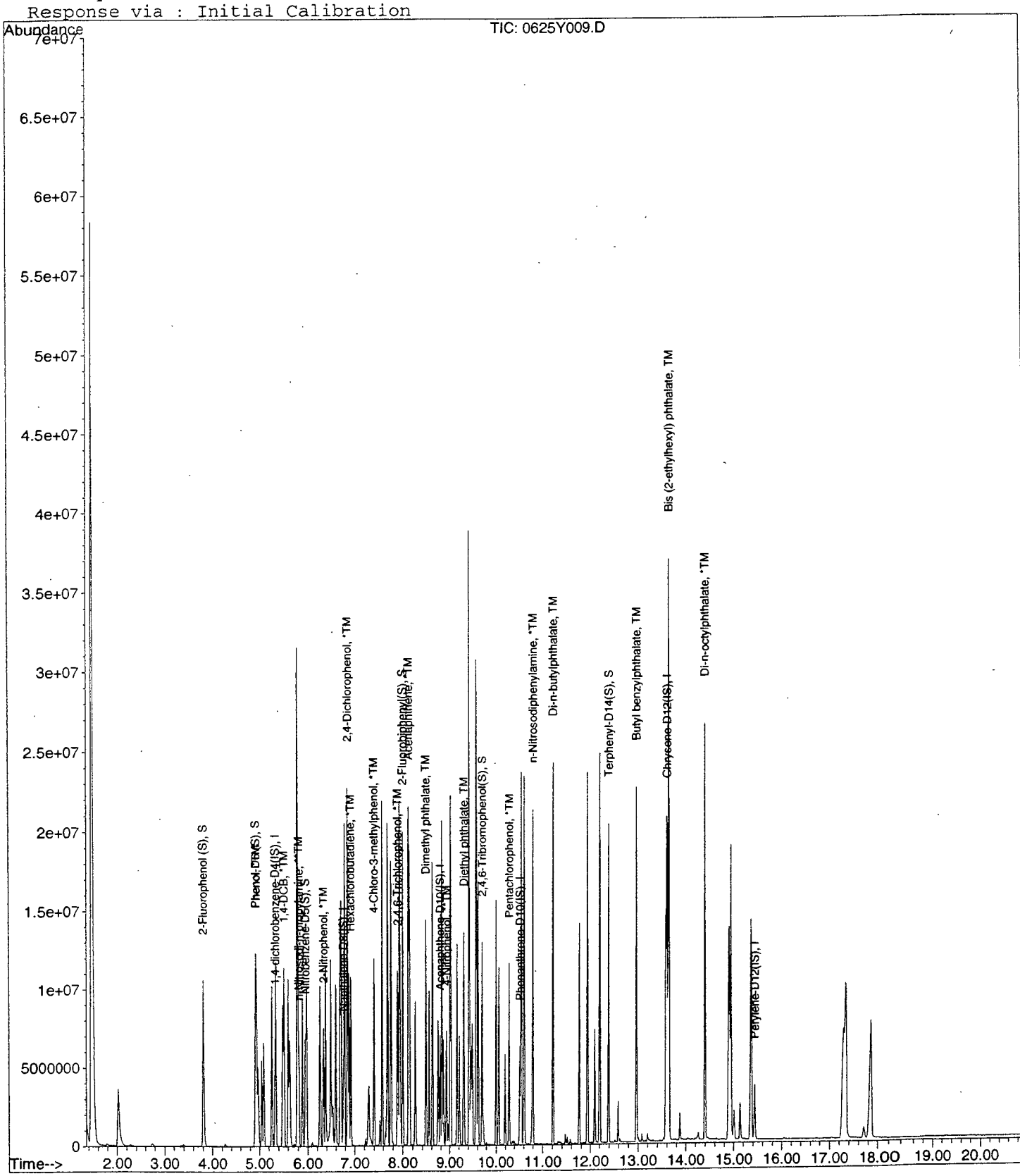
(#) = qualifier out of range (m) = manual integration

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: 7674
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
Acq On : 25 Jun 15 14:15
Sample : 50ug/ml SVOC SS 06/25/15
Misc :

Vial: 10
Operator: MA
Inst : Yoda
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

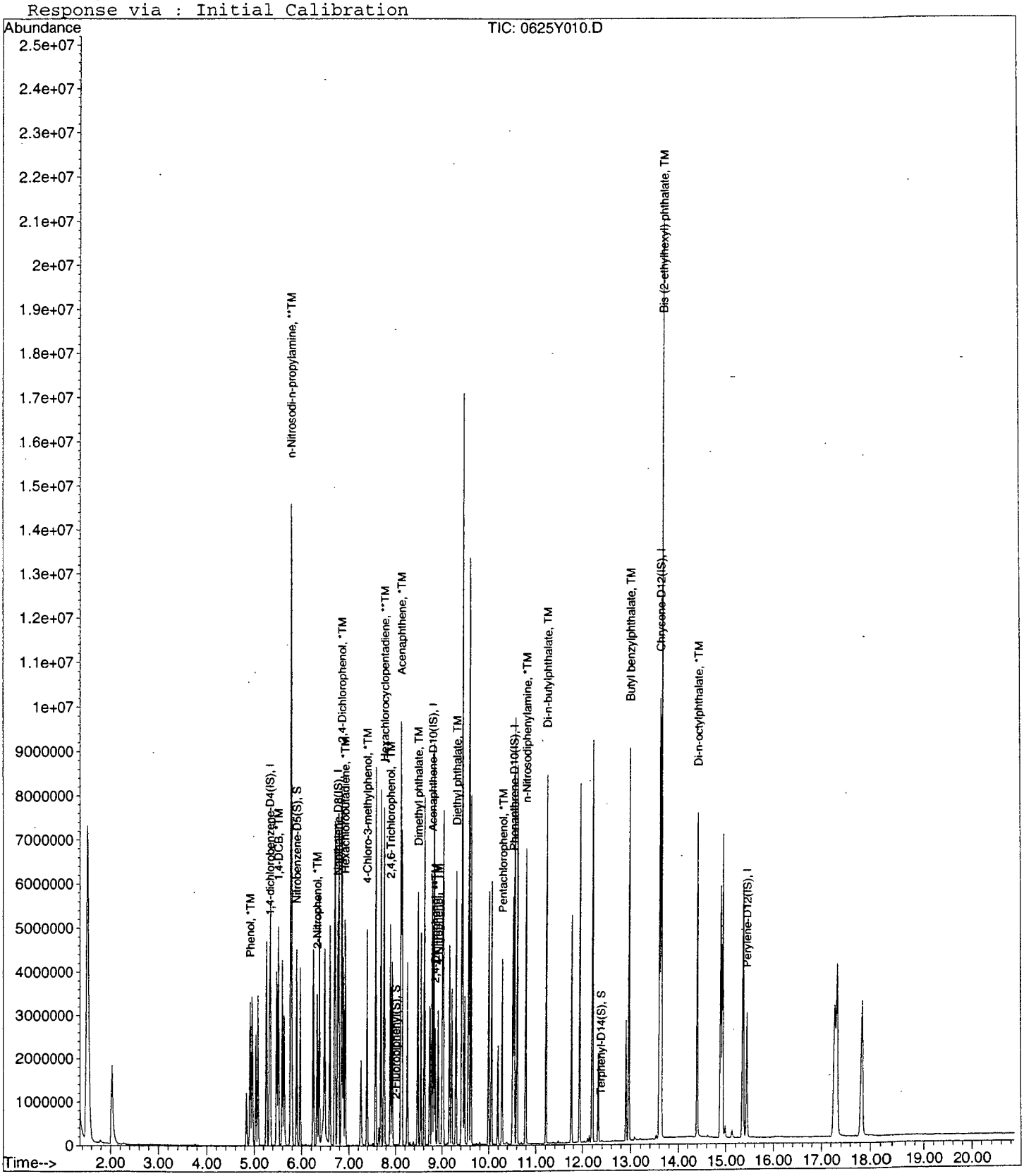
(#) = qualifier out of range (m) = manual integration

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.
Case No:
Matrix:

SDG No: 71674
Date Analyzed: 6 Jul 15 15:29
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

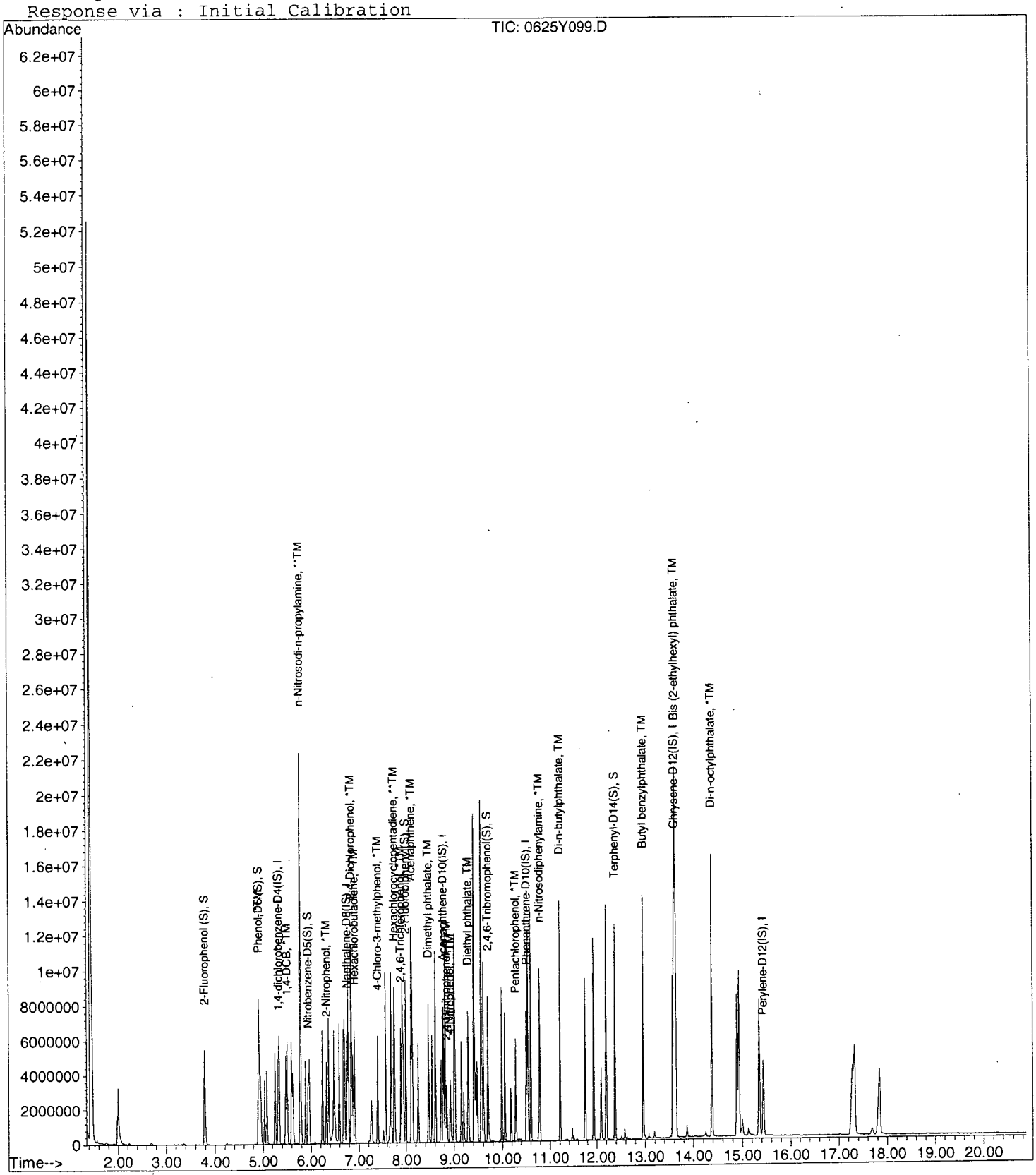
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	5.32	152	749960	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.76	136	3598118	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.78	164	2184557	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	10.52	188	3928660	40.00	ppb		0.00
27) Chrysene-D12(IS)	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

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



Form 7

Continuing Calibration

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

SDG No: 76674
Date Analyzed: 7 Jul 15 14:20
Instrument: Yoda
Initial Cal. Date: 6/25/2015
Data File: 0625Y122.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	1,4-dichlorobenzene-D4(IS)	ISTD			I	
2	S	2-Fluorophenol (S)	1.431	1.424	0.46	S	
3	S	Phenol-D6 (S)	1.767	1.781	0.78	S	
4	*TM	Phenol	2.189	2.240	2.3	*TM	
5	*TM	1,4-DCB	1.808	1.740	3.8	*TM	
6	**TM	n-Nitrosodi-n-propylamine	1.590	1.700	7.0	**TM	
7	I	Napthalene-D8(IS)	ISTD			I	
8	S	Nitrobenzene-D5(S)	0.3921	0.4035	2.9	S	
9	*TM	2-Nitrophenol	0.2062	0.2043	0.89	*TM	
10	*TM	2,4-Dichlorophenol	0.3254	0.3118	4.2	*TM	
11	*TM	Hexachlorobutadiene	0.1961	0.1835	6.4	*TM	
12	*TM	4-Chloro-3-methylphenol	0.3427	0.3062	11	*TM	
13	I	Acenaphthene-D10(IS)	ISTD			I	
14	**TMQ	Hexachlorocyclopentadiene	0.3586	0.3939	9.9	**TMQ	8.5
15	*TM	2,4,6-Trichlorophenol	0.4204	0.3870	7.9	*TM	
16	S	2-Fluorobiphenyl(S)	1.358	1.268	6.6	S	
17	TM	Dimethyl phthalate	1.505	1.365	9.3	TM	
18	*TM	Acenaphthene	1.658	1.577	4.9	*TM	
19	**TMQ	2,4-Dinitrophenol	0.1705	0.1807	6.0	**TMQ	3.3
20	**TM	4-Nitrophenol	0.3047	0.2765	9.2	**TM	
21	TM	Diethyl phthalate	1.453	1.324	8.9	TM	
22	S	2,4,6-Tribromophenol(S)	0.1317	0.1129	14	S	
23	I	Phenanthrene-D10(IS)	ISTD			I	
24	*TM	n-Nitrosodiphenylamine	1.163	1.073	7.7	*TM	
25	*TMQ	Pentachlorophenol	0.1395	0.1270	9.0	*TMQ	6.9
26	TM	Di-n-butylphthalate	1.289	1.336	3.7	TM	
27	I	Chrysene-D12(IS)	ISTD			I	
28	S	Terphenyl-D14(S)	1.008	1.003	0.45	S	
29	TM	Butyl benzylphthalate	0.6377	0.6880	7.9	TM	
30	TML	Bis (2-ethylhexyl) phthalate	0.9887	0.9852	0.36	TML	7.6
31	*TML	Di-n-octylphthalate	1.455	1.467	0.78	*TML	6.0
32	I	Perylene-D12(IS)	ISTD			I	
33							
34							
35							
36							
37							
38							
39							
40							
		Average			5.6		

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y122.D Vial: 22
Acq On : 7 Jul 15 14:20 Operator: MA
Sample : CCV 50ug/ml SVOC 07/07/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jul 8 13:14 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	662751	40.00	ppb		-0.01
7) Napthalene-D8(IS)	6.76	136	2995875	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.78	164	1688384	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	10.51	188	2737131	40.00	ppb		-0.01
27) Chrysene-D12(IS)	13.61	240	2072797	40.00	ppb		0.00
32) Perylene-D12(IS)	15.43	264	1238556	40.00	ppb		-0.01
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.79	112	2359438	99.54	ppb		-0.01
Spiked Amount 200.000			Recovery =	49.770%			
3) Phenol-D6 (S)	4.91	99	2950601	100.78	ppb		0.00
Spiked Amount 200.000			Recovery =	50.392%			
8) Nitrobenzene-D5(S)	5.95	82	1510959	51.45	ppb		0.00
Spiked Amount 100.000			Recovery =	51.447%			
16) 2-Fluorobiphenyl(S)	7.99	172	2677130	46.69	ppb		-0.01
Spiked Amount 100.000			Recovery =	46.692%			
22) 2,4,6-Tribromophenol(S)	9.70	330	476716	85.73	ppb		0.00
Spiked Amount 200.000			Recovery =	42.863%			
28) Terphenyl-D14(S)	12.38	244	2598909	49.78	ppb		0.00
Spiked Amount 100.000			Recovery =	49.776%			
Target Compounds							Qvalue
4) Phenol	4.93	94	1855758	51.16	ppb		97
5) 1,4-DCB	5.50	146	1441180	48.10	ppb		94
6) n-Nitrosodi-n-propylamine	5.78	43	1408610	53.49	ppb	#	57
9) 2-Nitrophenol	6.32	139	765213	49.56	ppb		92
10) 2,4-Dichlorophenol	6.85	162	1167460	47.91	ppb		98
11) Hexachlorobutadiene	6.91	225	687029	46.78	ppb		98
12) 4-Chloro-3-methylphenol	7.40	107	1146842	44.69	ppb	#	1
14) Hexachlorocyclopentadiene	7.75	237	831308	54.27	ppb		100
15) 2,4,6-Trichlorophenol	7.89	196	816661	46.03	ppb		95
17) Dimethyl phthalate	8.46	163	2881409	45.36	ppb		97
18) Acenaphthene	8.11	154	3328503	47.57	ppb	#	45
19) 2,4-Dinitrophenol	8.84	184	381434	48.37	ppb		99
20) 4-Nitrophenol	8.92	65	583502	45.38	ppb	#	1
21) Diethyl phthalate	9.29	149	2794989	45.56	ppb		98
24) n-Nitrosodiphenylamine	10.79	167	3670033	46.13	ppb		99
25) Pentachlorophenol	10.28	266	434592	46.53	ppb		97
26) Di-n-butylphthalate	11.20	149	4570765	51.84	ppb		99
29) Butyl benzylphthalate	12.96	149	1782534	53.94	ppb		94
30) Bis (2-ethylhexyl) phthala	13.63	149	2552579	46.20	ppb	#	94
31) Di-n-octylphthalate	14.38	149	3800037	46.98	ppb		100

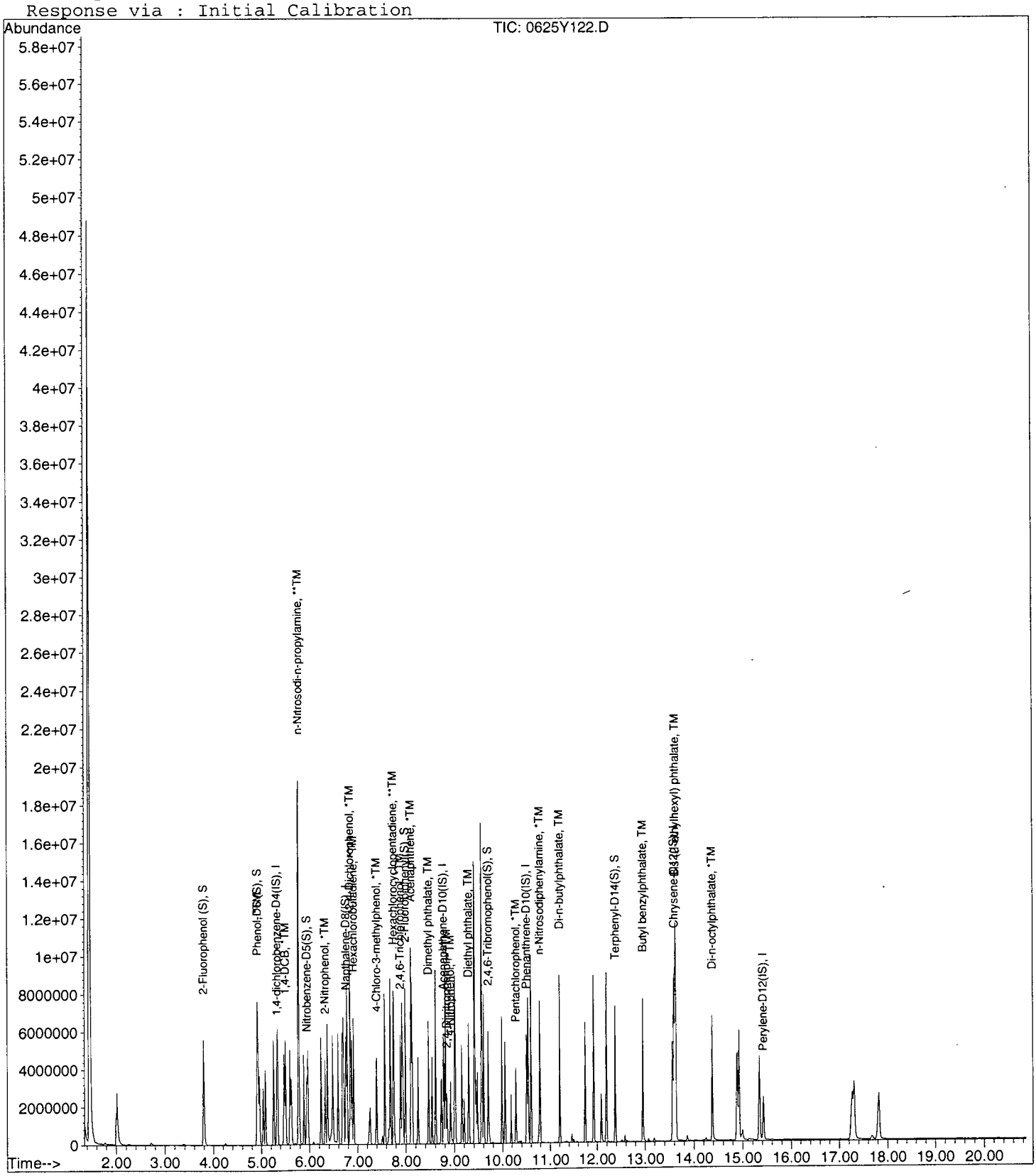
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y122.D Vial: 22
Acq On : 7 Jul 15 14:20 Operator: MA
Sample : CCV 50ug/ml SVOC 07/07/15 Inst : Yoda
Misc : Multiplr: 1.00

Quant Time: Jul 8 13:14 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

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150618S-17824 - 198506**
Batch ID: #87DJU-150618A

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	6/18/2015	6/19/2015
BLANK	BUTYL BENZYL PHTHALATE	0.167 U	0.33	0.167	0.056	mg/kg	6/18/2015	6/19/2015
BLANK	DI-N-BUTYL PHTHALATE	0.167 U	0.33	0.167	0.066	mg/kg	6/18/2015	6/19/2015
BLANK	DI-N-OCTYL PHTHALATE	0.167 U	0.33	0.167	0.058	mg/kg	6/18/2015	6/19/2015
BLANK	DIETHYL PHTHALATE	0.167 U	0.33	0.167	0.062	mg/kg	6/18/2015	6/19/2015
BLANK	DIMETHYL PHTHALATE	0.167 U	0.33	0.167	0.063	mg/kg	6/18/2015	6/19/2015
BLANK	SURROGATE: 2,4,6-TRIBROMOP	72.0	35-125			%	6/18/2015	6/19/2015
BLANK	SURROGATE: 2-FLUORBIPHENY	59.8	45-105			%	6/18/2015	6/19/2015
BLANK	SURROGATE: 2-FLUOROPHENO	57.3	35-105			%	6/18/2015	6/19/2015
BLANK	SURROGATE: NITROBENZENE-	58.4	35-100			%	6/18/2015	6/19/2015
BLANK	SURROGATE: PHENOL (S)	56.8	40-100			%	6/18/2015	6/19/2015
BLANK	SURROGATE: TERPHENYL-D14	80.2	30-125			%	6/18/2015	6/19/2015

Quant Method: Y0609TT.M
Run #: 0609Y086
Instrument: Yoda
Sequence: Y150609
Initials: DA

GC SC-Blank-REG MDLs
Printed: 7/1/2015 11:43:44 AM

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150609\0609Y086.D Vial: 86
Acq On : 19 Jun 15 17:51 Operator: csc
Sample : 150618A BLK 1/30.15G Inst : Yoda
Misc : soil Multiplr: 33.17

Quant Time: Jul 1 11:26 2015 Quant Results File: Y0609TT.RES

Quant Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:45:21 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	4.79	152	704302	40.00	ppb	0.00
7) Napthalene-D8(IS)	6.23	136	2919797	40.00	ppb	0.00
13) Acenaphthene-D10(IS)	8.20	164	1552069	40.00	ppb	0.00
23) Phenanthrene-D10(IS)	9.93	188	2707276	40.00	ppb	0.00
27) Chrysene-D12(IS)	13.00	240	2423064	40.00	ppb	0.00
32) Perylene-D12(IS)	14.65	264	1575586	40.00	ppb	0.01
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.84	112	2548757	3802.79	ppb	-0.08
Spiked Amount 6633.499			Recovery =	57.327%		
3) Phenol-D6 (S)	4.97	99	3380334	3767.61	ppb	-0.03
Spiked Amount 6633.499			Recovery =	56.797%		
8) Nitrobenzene-D5(S)	5.49	82	1563195	1938.11	ppb	0.00
Spiked Amount 3316.750			Recovery =	58.434%		
16) 2-Fluorobiphenyl(S)	7.44	172	3042730	1984.79	ppb	0.00
Spiked Amount 3316.750			Recovery =	59.841%		
22) 2,4,6-Tribromophenol(S)	9.20	330	615491	4775.27	ppb	0.00
Spiked Amount 6633.499			Recovery =	71.987%		
28) Terphenyl-D14(S)	11.73	244	4210560	2659.63	ppb	0.00
Spiked Amount 3316.750			Recovery =	80.188%		
Target Compounds						Qvalue
26) Di-n-butylphthalate	10.53	149	10715	4.10	ppb	99
30) Bis (2-ethylhexyl) phthala	12.80	149	8854	5.22	ppb	93

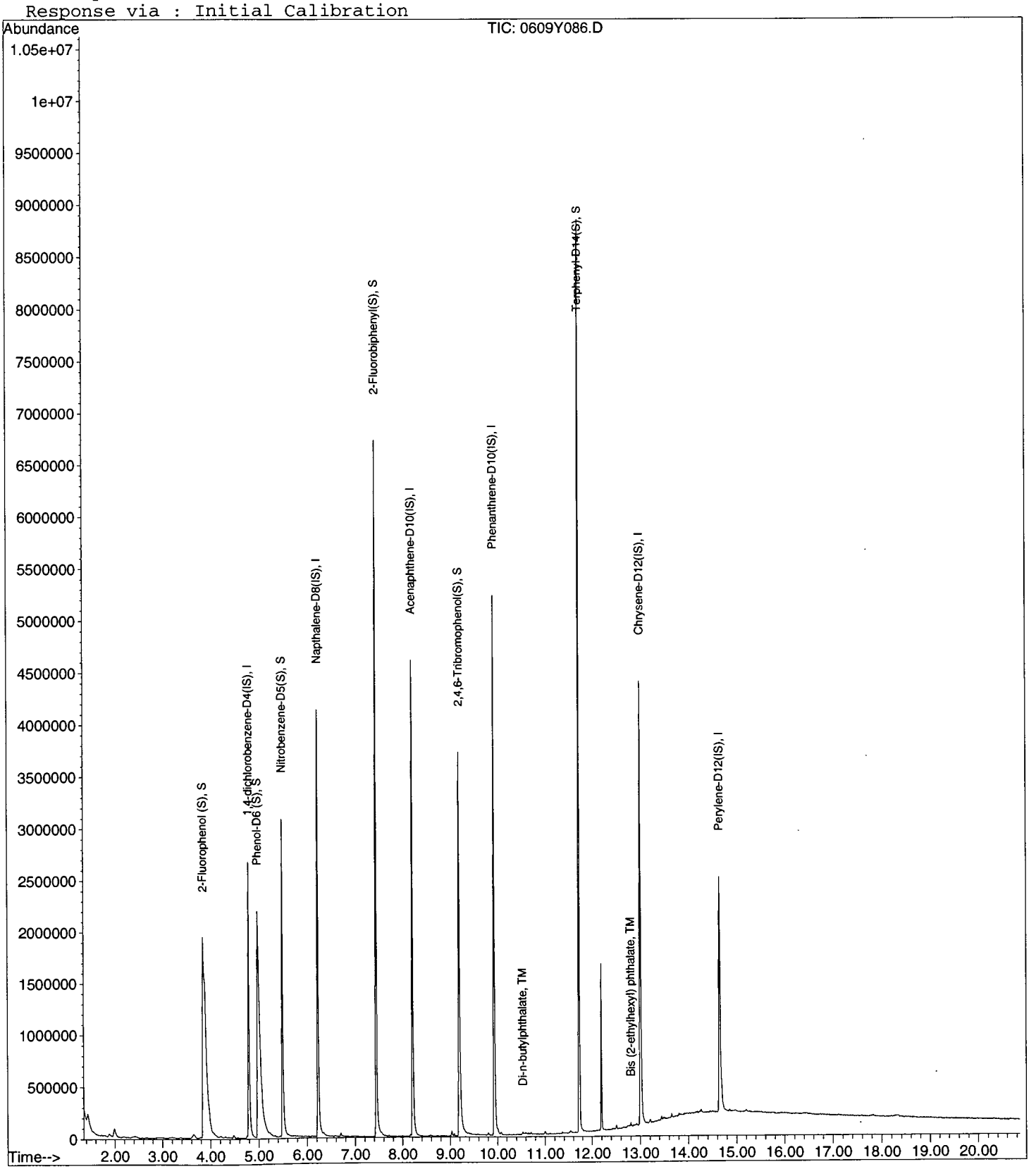
(#) = qualifier out of range (m) = manual integration

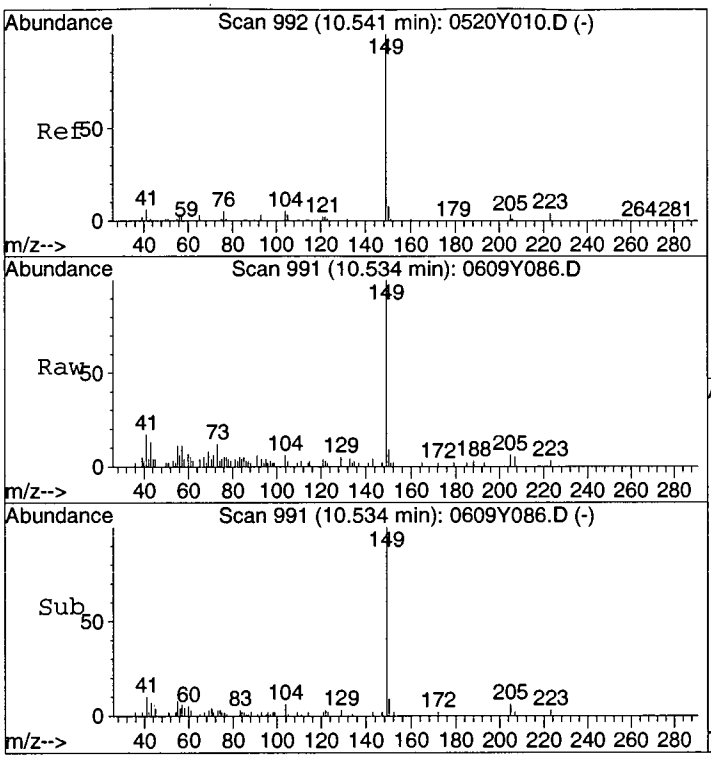
Quantitation Report

Data File : M:\YODA\DATA\Y150609\0609Y086.D Vial: 86
Acq On : 19 Jun 15 17:51 Operator: csc
Sample : 150618A BLK 1/30.15G Inst : Yoda
Misc : soil Multiplr: 33.17

Quant Time: Jul 1 11:26 2015 Quant Results File: Y0609TT.RES

Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:45:21 2015
Response via : Initial Calibration

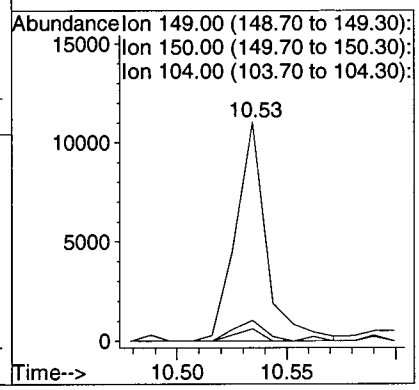


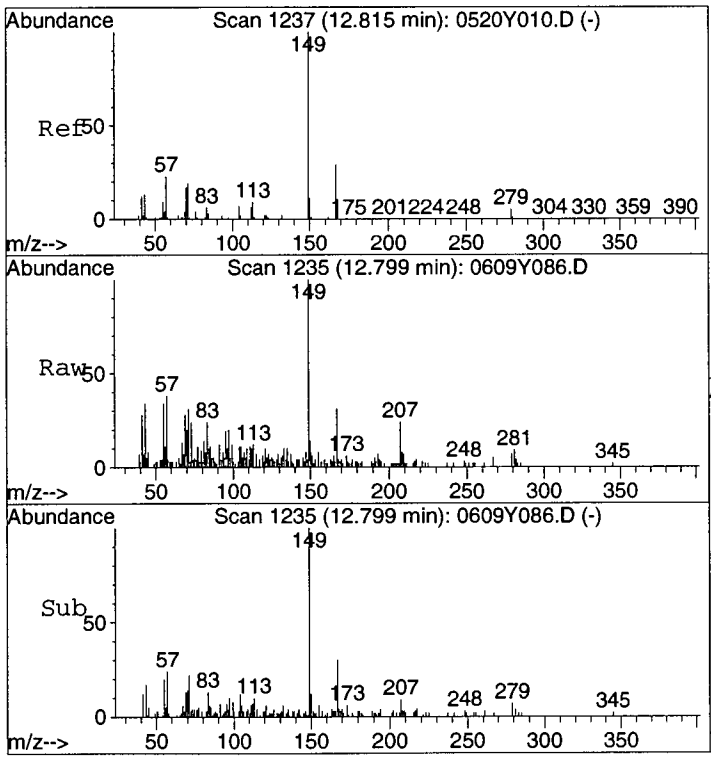


#26
Di-n-butylphthalate
Concen: 4.10 ppb
RT: 10.53 min Scan# 991
Delta R.T. 0.00 min
Lab File: 0609Y086.D
Acq: 19 Jun 15 17:51

Tgt Ion:149 Resp: 10715

Ion	Ratio	Lower	Upper
149	100		
150	9.4	6.4	11.8
104	5.6	4.3	7.9

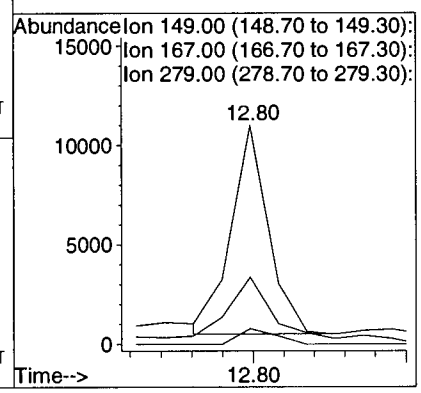




#30
Bis (2-ethylhexyl) phthalate
Concen: 5.22 ppb
RT: 12.80 min Scan# 1235
Delta R.T. -0.01 min
Lab File: 0609Y086.D
Acq: 19 Jun 15 17:51

Tgt Ion:149 Resp: 8854

Ion	Ratio	Lower	Upper
149	100		
167	29.4	23.1	42.9
279	7.6	7.1	13.3



Method Blank
EPA 8270D SOIL RE-ANALYSIS

Blank Name/QCG: **150702S-17819 - 198633**
Batch ID: #87DJU-150702A1

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 2:37:51 PM

Quantitation Report (QT Reviewed)

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

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

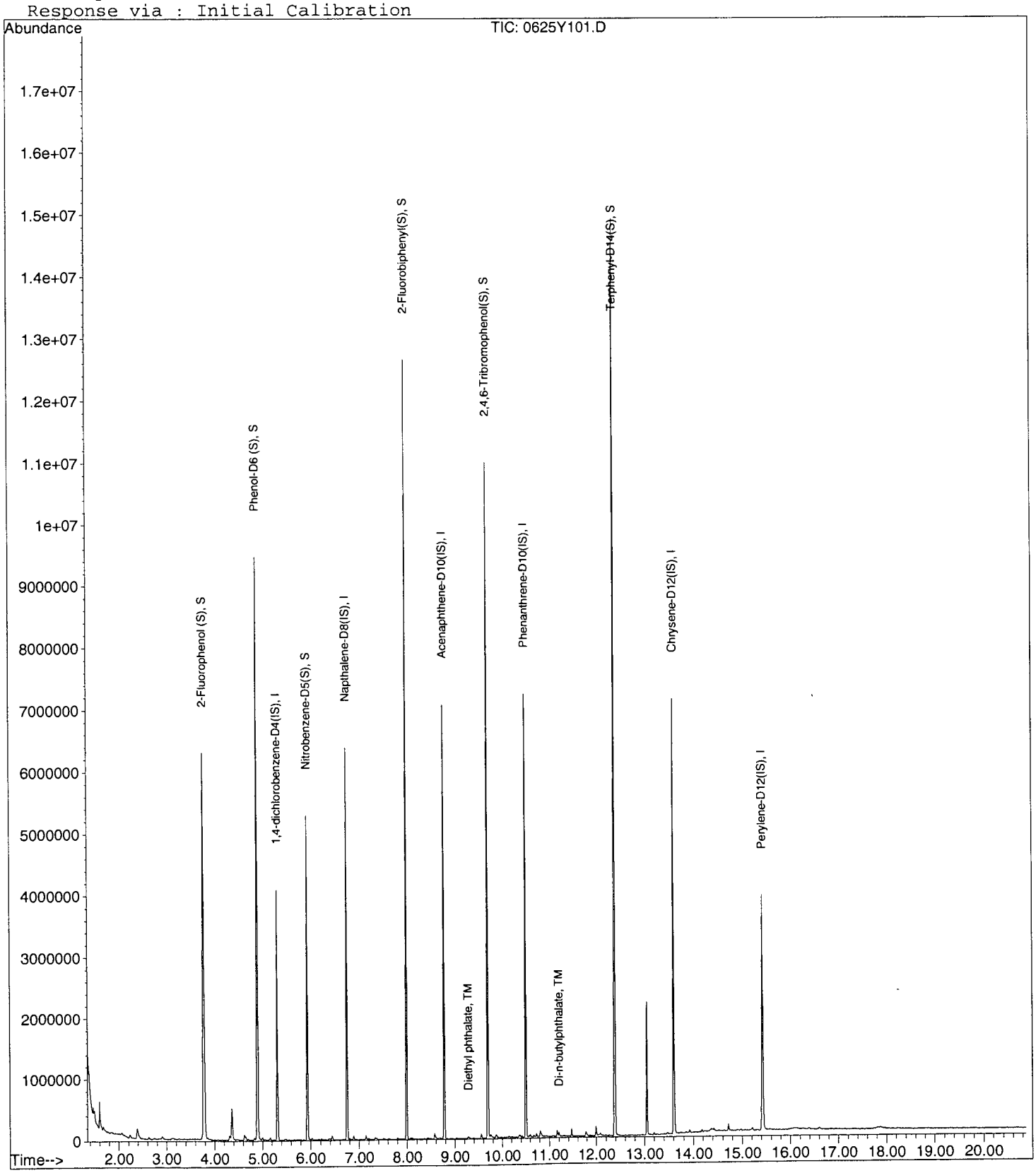
(#) = qualifier out of range (m) = manual integration

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



Method Blank
EPA 8270D WATER

Blank Name/QCG: **150623W-17818 - 198680**
Batch ID: #87DJU-150623A

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	5.00 U	20.0	5.00	2.90	ug/L	6/23/2015	7/7/2015
BLANK	BUTYL BENZYL PHTHALATE	5.00 U	10.0	5.00	2.80	ug/L	6/23/2015	7/7/2015
BLANK	DI-N-BUTYL PHTHALATE	5.00 U	10.0	5.00	3.20	ug/L	6/23/2015	7/7/2015
BLANK	DI-N-OCTYL PHTHALATE	5.00 U	10.0	5.00	2.60	ug/L	6/23/2015	7/7/2015
BLANK	DIETHYL PHTHALATE	5.00 U	10.0	5.00	3.00	ug/L	6/23/2015	7/7/2015
BLANK	DIMETHYL PHTHALATE	5.00 U	10.0	5.00	2.90	ug/L	6/23/2015	7/7/2015
BLANK	SURROGATE: 2,4,6-TRIBROMOP	71.5	40-125			%	6/23/2015	7/7/2015
BLANK	SURROGATE: 2-FLUORBIPHENY	62.8	50-110			%	6/23/2015	7/7/2015
BLANK	SURROGATE: 2-FLUOROPHENO	37.9	20-110			%	6/23/2015	7/7/2015
BLANK	SURROGATE: NITROBENZENE-	63.2	40-110			%	6/23/2015	7/7/2015
BLANK	SURROGATE: PHENOL (S)	25.7	10-115			%	6/23/2015	7/7/2015
BLANK	SURROGATE: TERPHENYL-D14	83.6	50-135			%	6/23/2015	7/7/2015

Quant Method: Y0625TT.M
Run #: 0625Y124
Instrument: Yoda
Sequence: Y150625
Initials: DA

GC SC-Blank-REG MDLs
Printed: 7/9/2015 9:34:16 AM

Quantitation Report (QT Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y124.D Vial: 24
Acq On : 7 Jul 15 16:21 Operator: MA
Sample : 150623A BLK 1/1000 Inst : Yoda
Misc : water Multiplr: 1.00

Quant Time: Jul 8 13:16 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	674308	40.00	ppb		-0.01
7) Napthalene-D8(IS)	6.75	136	2834287	40.00	ppb		-0.01
13) Acenaphthene-D10(IS)	8.77	164	1489735	40.00	ppb		-0.01
23) Phenanthrene-D10(IS)	10.51	188	2536966	40.00	ppb		-0.01
27) Chrysene-D12(IS)	13.60	240	1871497	40.00	ppb		-0.01
32) Perylene-D12(IS)	15.42	264	1118510	40.00	ppb		-0.02
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.78	112	1826118	75.72	ppb		-0.02
Spiked Amount 200.000			Recovery =	37.860%			
3) Phenol-D6 (S)	4.90	99	1530929	51.40	ppb		-0.01
Spiked Amount 200.000			Recovery =	25.698%			
8) Nitrobenzene-D5(S)	5.94	82	1756857	63.23	ppb		-0.01
Spiked Amount 100.000			Recovery =	63.230%			
16) 2-Fluorobiphenyl(S)	7.99	172	3176280	62.79	ppb		-0.01
Spiked Amount 100.000			Recovery =	62.785%			
22) 2,4,6-Tribromophenol(S)	9.70	330	701917	143.05	ppb		0.00
Spiked Amount 200.000			Recovery =	71.527%			
28) Terphenyl-D14(S)	12.38	244	3941288	83.61	ppb		0.00
Spiked Amount 100.000			Recovery =	83.606%			
Target Compounds							Qvalue
17) Dimethyl phthalate	8.45	163	14911	0.27	ppb		99
21) Diethyl phthalate	9.28	149	2929	0.05	ppb		94
25) Pentachlorophenol	10.28	266	544	-2.12	ppb	#	55

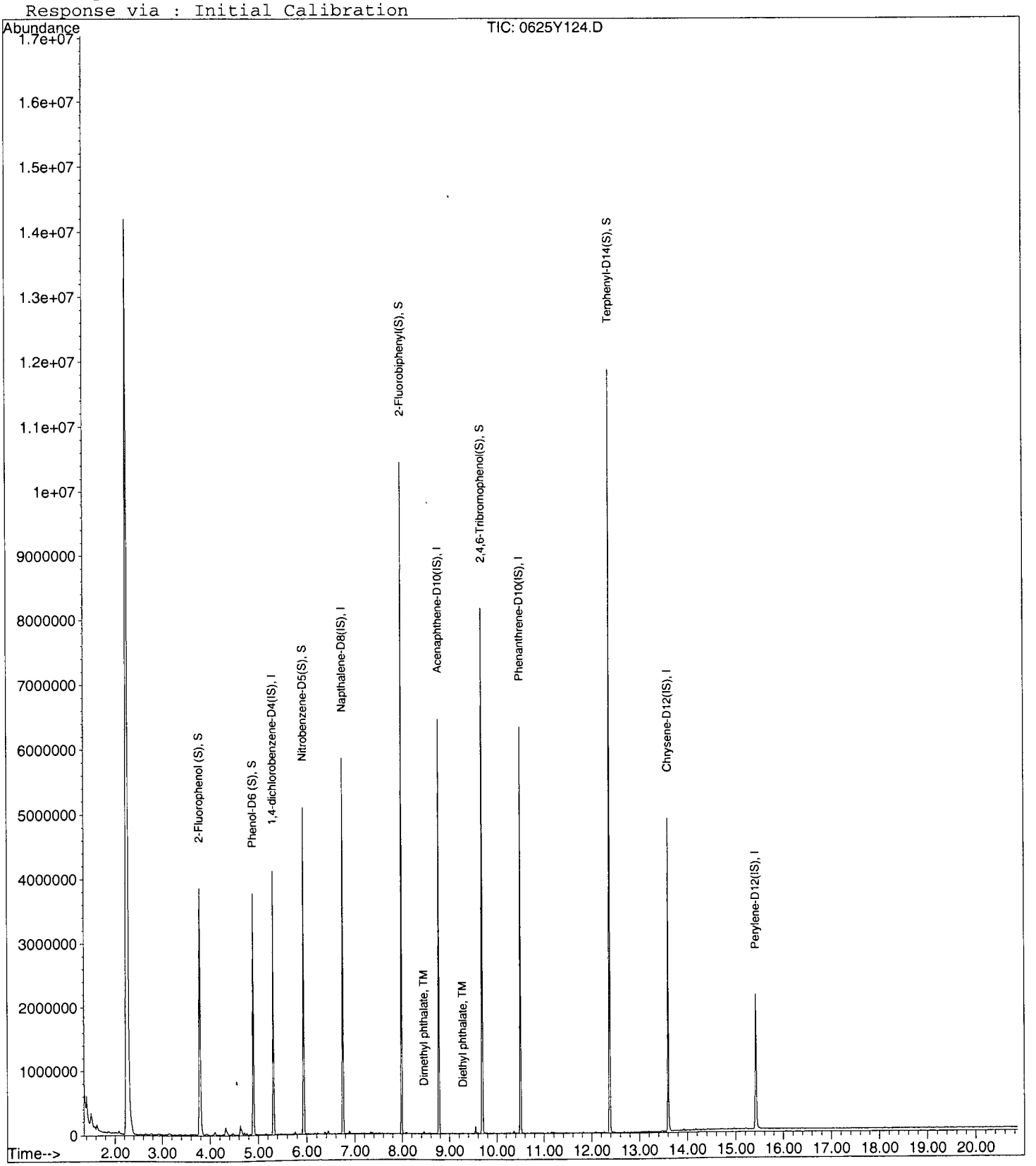
(#) = qualifier out of range (m) = manual integration

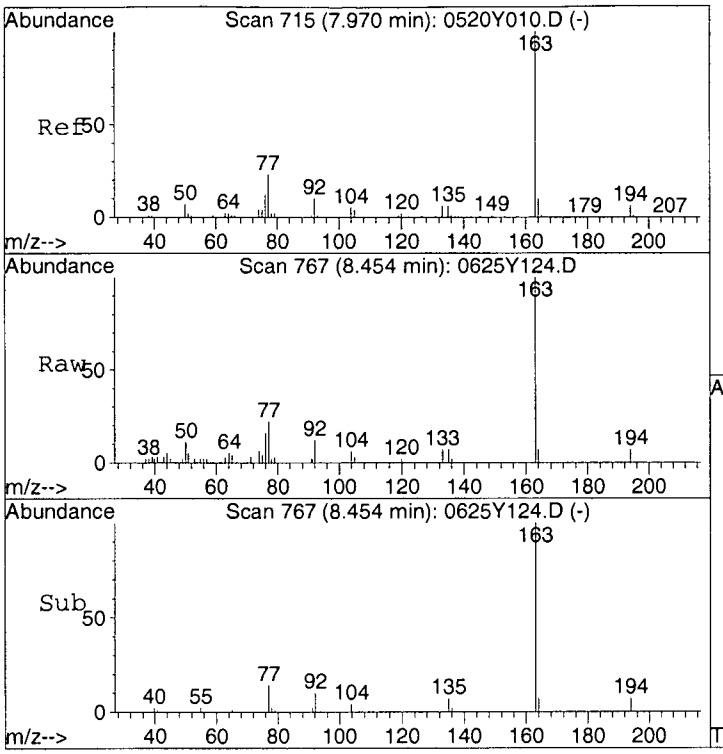
Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y124.D Vial: 24
Acq On : 7 Jul 15 16:21 Operator: MA
Sample : 150623A BLK 1/1000 Inst : Yoda
Misc : water Multiplr: 1.00

Quant Time: Jul 8 13:16 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

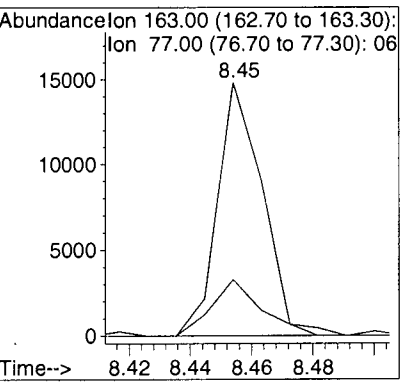


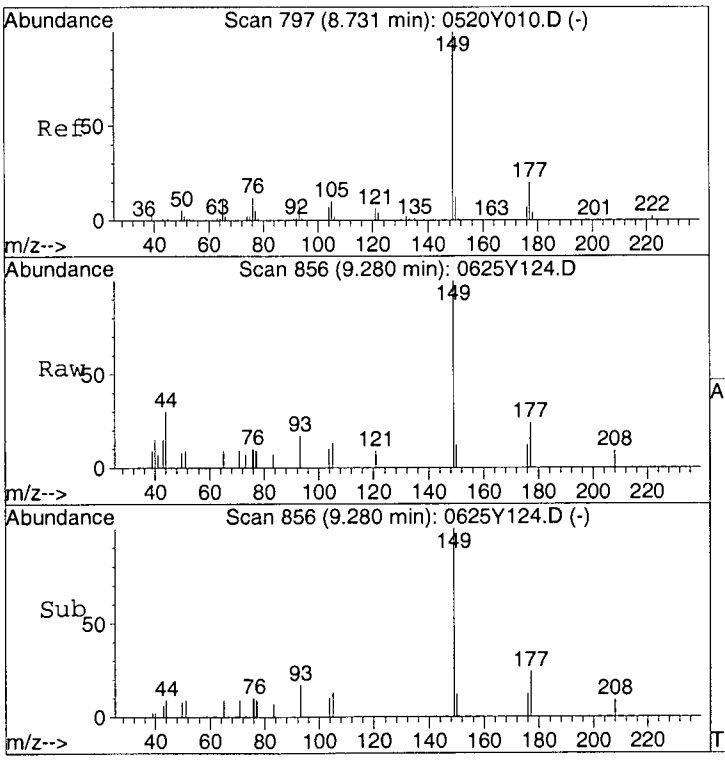


#17
Dimethyl phthalate
Concen: 0.27 ppb
RT: 8.45 min Scan# 767
Delta R.T. -0.02 min
Lab File: 0625Y124.D
Acq: 7 Jul 15 16:21

Tgt Ion:163 Resp: 14911

Ion	Ratio	Lower	Upper
163	100		
77	22.1	16.0	29.6

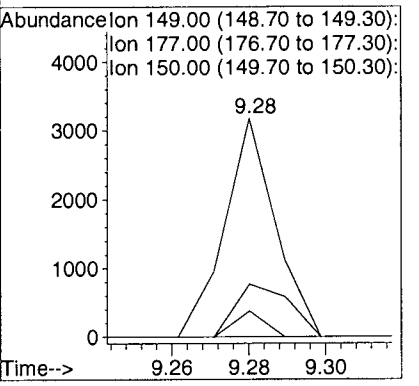




#21
Diethyl phthalate
Concen: 0.05 ppb
RT: 9.28 min Scan# 856
Delta R.T. -0.02 min
Lab File: 0625Y124.D
Acq: 7 Jul 15 16:21

Tgt Ion:149 Resp: 2929

Ion	Ratio	Lower	Upper
149	100		
177	24.2	14.1	26.1
150	11.9	8.5	15.7



Laboratory Control Spike Recovery
EPA 8270D SOILS

APPL ID: **150618S-17824 LCS - 198506**
Batch ID: #87DJU-150618A

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	1.38	82.6	50-125
DI-N-BUTYL PHTHALATE	1.67	1.41	84.4	55-110
DI-N-OCTYL PHTHALATE	1.67	1.44	86.2	40-130
DIETHYL PHTHALATE	1.67	1.30	77.8	50-115
DIMETHYL PHTHALATE	1.67	1.27	76.0	50-110
SURROGATE: 2,4,6-TRIBROMOPHENOL	6.67	5.69	85.3	35-125
SURROGATE: 2-FLUORBIPHENYL (S)	3.33	2.53	76.0	45-105
SURROGATE: 2-FLUOROPHENOL (S)	6.67	5.02	75.3	35-105
SURROGATE: NITROBENZENE-D5 (S)	3.33	2.49	74.8	35-100
SURROGATE: PHENOL (S)	6.67	5.11	76.6	40-100
SURROGATE: TERPHENYL-D14 (S)	3.33	2.90	87.1	30-125

Comments: _____

Primary	SPK
Quant Method :	Y0609TT.M
Extraction Date :	6/18/2015
Analysis Date :	6/19/2015
Instrument :	Yoda
Run :	0609Y087
Initials :	DA

Printed: 7/1/2015 11:43:44 AM
APPL Standard LCS

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150609\0609Y087.D Vial: 87
Acq On : 19 Jun 15 18:21 Operator: csc
Sample : 150618A LCS-1 1/30.06G Inst : Yoda
Misc : soil Multiplr: 33.27

Quant Time: Jul 1 11:16 2015 Quant Results File: Y0609TT.RES

Quant Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:45:21 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	4.79	152	668889	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.23	136	2832229	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.20	164	1548004	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	9.93	188	2696259	40.00	ppb		0.00
27) Chrysene-D12(IS)	12.99	240	2421024	40.00	ppb		0.00
32) Perylene-D12(IS)	14.63	264	1543765	40.00	ppb		0.00
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.83	112	3183050	5015.57	ppb		-0.09
Spiked Amount 6653.360			Recovery =	75.384%			
3) Phenol-D6 (S)	4.94	99	4342176	5111.13	ppb		-0.06
Spiked Amount 6653.360			Recovery =	76.820%			
8) Nitrobenzene-D5(S)	5.49	82	1941168	2488.58	ppb		0.00
Spiked Amount 3326.680			Recovery =	74.807%			
16) 2-Fluorobiphenyl(S)	7.44	172	3853155	2527.58	ppb		0.00
Spiked Amount 3326.680			Recovery =	75.979%			
22) 2,4,6-Tribromophenol(S)	9.19	330	732940	5692.94	ppb		-0.02
Spiked Amount 6653.360			Recovery =	85.565%			
28) Terphenyl-D14(S)	11.73	244	4577742	2902.67	ppb		0.00
Spiked Amount 3326.680			Recovery =	87.254%			

$\frac{1216402 \times 40}{668889 \times 1.955} \times 33.27 = 1237.91$ TA 7/10/15

Target Compounds							Qvalue
4) Phenol	4.96	94	1216402	1238.01	ppb		87
5) 1,4-DCB	4.80	146	1043608	1188.67	ppb		97
6) n-Nitrosodi-n-propylamine	5.28	43	631887	1320.81	ppb		95
9) 2-Nitrophenol	5.85	139	535411	1302.07	ppb		98
10) 2,4-Dichlorophenol	6.45	162	827330	1135.83	ppb		98
11) Hexachlorobutadiene	6.34	225	428579	1262.94	ppb		99
12) 4-Chloro-3-methylphenol	7.19	107	59322	1254.87	ppb	#	14
14) Hexachlorocyclopentadiene	7.16	237	78531	814.35	ppb		99
15) 2,4,6-Trichlorophenol	7.79	196	518313	1348.34	ppb		93
17) Dimethyl phthalate	7.95	163	2072261	1269.55	ppb		100
18) Acenaphthene	8.24	154	1760584	1252.20	ppb		97
19) 2,4-Dinitrophenol	8.50	184	177296	1273.36	ppb	#	100
20) 4-Nitrophenol	9.14	65	522763	1279.89	ppb		99
21) Diethyl phthalate	8.71	149	2112915	1303.02	ppb		98
24) n-Nitrosodiphenylamine	10.32	167	2926882	1296.96	ppb		99
25) Pentachlorophenol	9.88	266	126860	1307.94	ppb		94
26) Di-n-butylphthalate	10.52	149	3646941	1406.74	ppb		98
29) Butyl benzylphthalate	12.25	149	1657544	1382.01	ppb		83
30) Bis (2-ethylhexyl) phthala	12.80	149	2290562	1354.56	ppb	#	92
31) Di-n-octylphthalate	13.47	149	4101433	1444.96	ppb		99

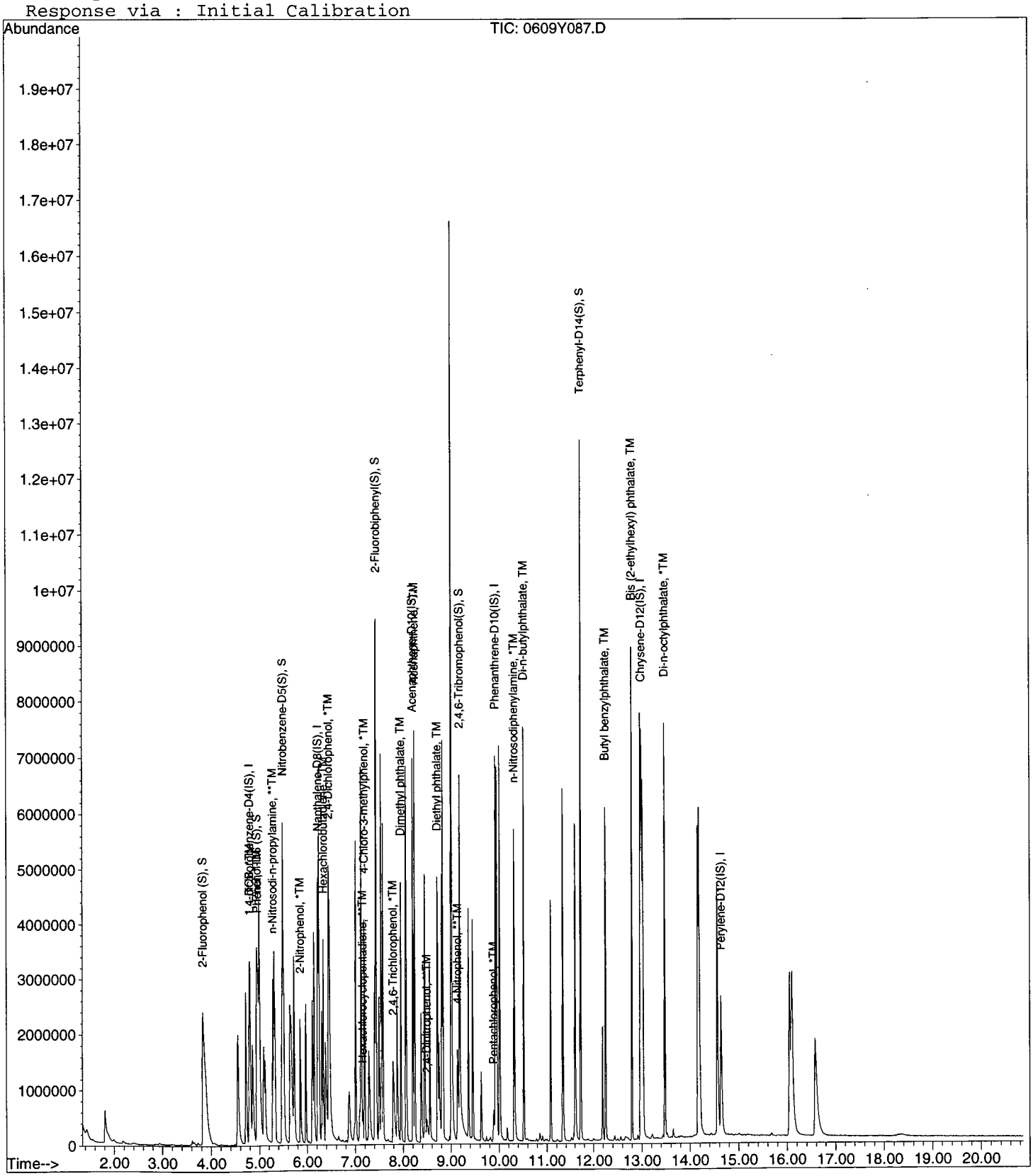
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150609\0609Y087.D Vial: 87
Acq On : 19 Jun 15 18:21 Operator: csc
Sample : 150618A LCS-1 1/30.06G Inst : Yoda
Misc : soil Multiplr: 33.27

Quant Time: Jul 1 11:16 2015 Quant Results File: Y0609TT.RES

Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:45:21 2015
Response via : Initial Calibration



Laboratory Control Spike Recovery
EPA 8270D SOIL RE-ANALYSIS

APPL ID: **150702S-17819 LCS - 198633**
Batch ID: #87DJU-150702A1

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 2:37:42 PM
APPL Standard LCS

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%			

$\frac{1349480 \times 40}{599875 \times 2.189} \times 32.71 = 1344.6227$ TA 7/10/15

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

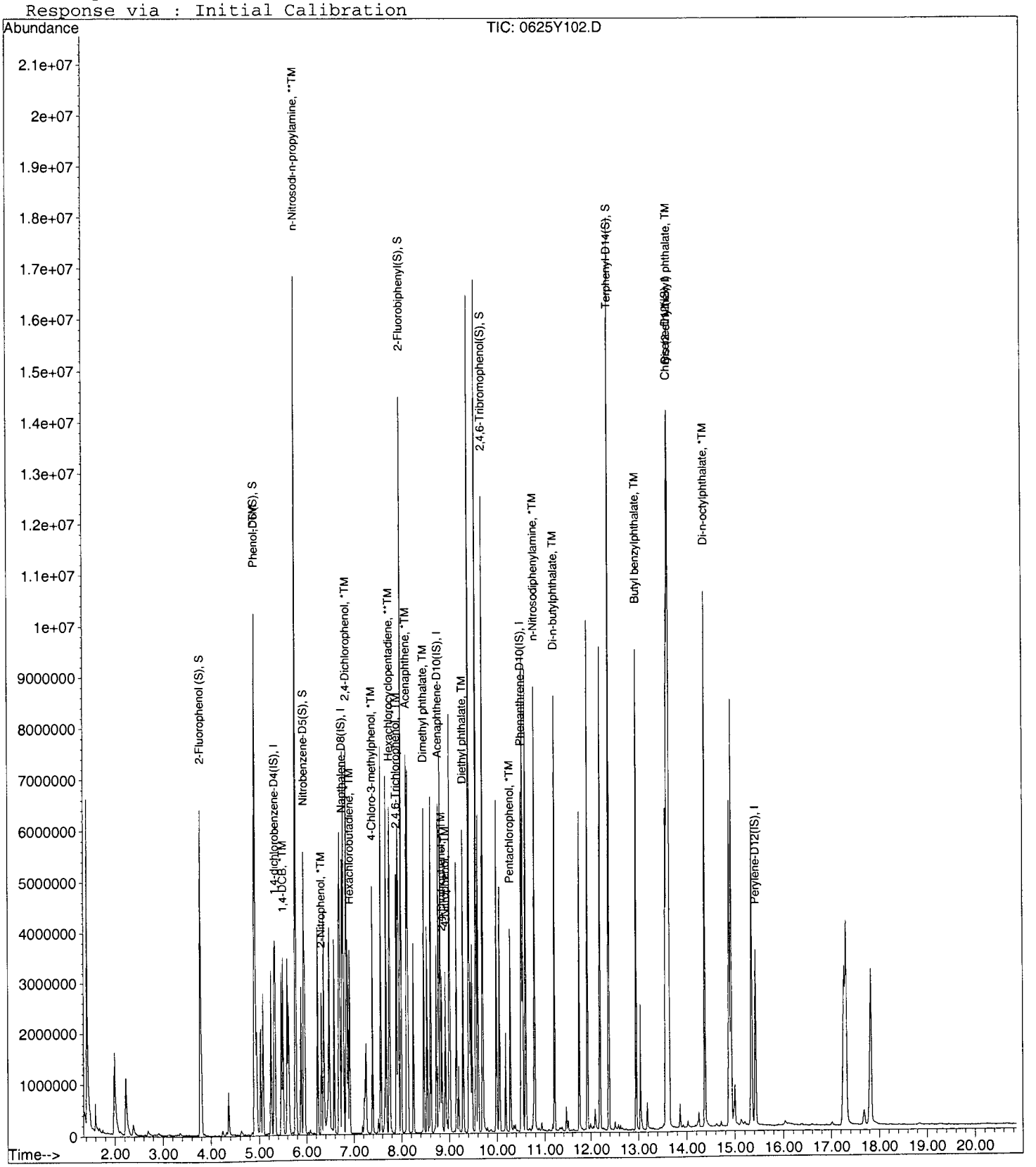
(#) = qualifier out of range (m) = manual integration

Quantitation Report

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



Laboratory Control Spike Recoveries

EPA 8270D WATER

APPL ID: **150623W-17818 LCS - 198680**
Batch ID: #87DJU-150623A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
BIS (2-ETHYLHEXYL) PHTHALATE	50.0	29.9	30.8	59.8	61.6	40-125	3.0	30
BUTYL BENZYL PHTHALATE	50.0	33.4	34.6	66.8	69.2	45-115	3.5	30
DI-N-BUTYL PHTHALATE	50.0	31.9	32.0	63.8	64.0	55-115	0.31	30
DI-N-OCTYL PHTHALATE	50.0	29.5	30.3	59.0	60.6	35-135	2.7	30
DIETHYL PHTHALATE	50.0	28.8	29.2	57.6	58.4	40-120	1.4	30
DIMETHYL PHTHALATE	50.0	28.6	29.6	57.2	59.2	25-125	3.4	30
SURROGATE: 2,4,6-TRIBROMOPHENOL	200	118	122	59.0	61.0	40-125		
SURROGATE: 2-FLUORBIPHENYL (S)	100	55.4	55.4	55.4	55.4	50-110		
SURROGATE: 2-FLUOROPHENOL (S)	200	80.2	82.9	40.1	41.5	20-110		
SURROGATE: NITROBENZENE-D5 (S)	100	57.6	59.6	57.6	59.6	40-110		
SURROGATE: PHENOL (S)	200	55.3	55.2	27.6	27.6	10-115		
SURROGATE: TERPHENYL-D14 (S)	100	67.9	71.5	67.9	71.5	50-135		

Comments: _____

Primary	SPK	DUP
Quant Method :	Y0625TT.M	Y0625TT.M
Extraction Date :	06/23/15	06/23/15
Analysis Date :	07/07/15	07/07/15
Instrument :	Yoda	Yoda
Run :	0625Y125	0625Y126
Initials :	DA	

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y125.D Vial: 25
Acq On : 7 Jul 15 16:50 Operator: MA
Sample : 150623A LCS-1 1/1000 Inst : Yoda
Misc : water Multiplr: 1.00

Quant Time: Jul 8 13:35 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	682453	40.00000	ppb		0.00
7) Napthalene-D8(IS)	6.75	136	3038247	40.00000	ppb		0.00
13) Acenaphthene-D10(IS)	8.77	164	1714729	40.00000	ppb		0.00
23) Phenanthrene-D10(IS)	10.51	188	2785461	40.00000	ppb		0.00
27) Chrysene-D12(IS)	13.60	240	2100927	40.00000	ppb		0.00
32) Perylene-D12(IS)	15.42	264	1287560	40.00000	ppb		-0.02
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.79	112	1958425	80.23575	ppb		-0.02
Spiked Amount 200.000			Recovery =	40.118%			
3) Phenol-D6 (S)	4.90	99	1667208	55.30314	ppb		0.00
Spiked Amount 200.000			Recovery =	27.652%			
8) Nitrobenzene-D5(S)	5.94	82	1714473	57.56208	ppb		0.00
Spiked Amount 100.000			Recovery =	57.562%			
16) 2-Fluorobiphenyl(S)	7.99	172	3228037	55.43596	ppb		0.00
Spiked Amount 100.000			Recovery =	55.436%			
22) 2,4,6-Tribromophenol(S)	9.70	330	667598	118.20648	ppb		0.00
Spiked Amount 200.000			Recovery =	59.103%			
28) Terphenyl-D14(S)	12.38	244	3590738	67.85176	ppb		0.00
Spiked Amount 100.000			Recovery =	67.852%			
Target Compounds							Qvalue
4) Phenol	4.92	94	509372	13.63816	ppb		96
5) 1,4-DCB	5.51	146	388440	12.58940	ppb		96
6) n-Nitrosodi-n-propylamine	5.77	43	816331	30.10164	ppb	#	60
9) 2-Nitrophenol	6.31	139	430509	27.49193	ppb		84
10) 2,4-Dichlorophenol	6.84	162	676294	27.36604	ppb		99
11) Hexachlorobutadiene	6.92	225	132764	8.91454	ppb		100
12) 4-Chloro-3-methylphenol	7.38	107	728773	27.99994	ppb	#	1
14) Hexachlorocyclopentadiene	7.74	237	202195	14.47305	ppb		98
15) 2,4,6-Trichlorophenol	7.89	196	483584	26.83633	ppb		99
17) Dimethyl phthalate	8.47	163	1844786	28.59584	ppb		91
18) Acenaphthene	8.10	154	1631919	22.96549	ppb	#	46
19) 2,4-Dinitrophenol	8.85	184	230991	32.39785	ppb		92
20) 4-Nitrophenol	8.91	65	171213	13.10960	ppb	#	1
21) Diethyl phthalate	9.29	149	1793119	28.78282	ppb		95
24) n-Nitrosodiphenylamine	10.79	167	2352179	29.05487	ppb		99
25) Pentachlorophenol	10.28	266	269541	28.87754	ppb		95
26) Di-n-butylphthalate	11.20	149	2858518	31.85615	ppb	#	97
29) Butyl benzylphthalate	12.95	149	1118576	33.39395	ppb		94
30) Bis (2-ethylhexyl) phthala	13.62	149	1611656	29.92266	ppb		98
31) Di-n-octylphthalate	14.37	149	2386670	29.54880	ppb		99

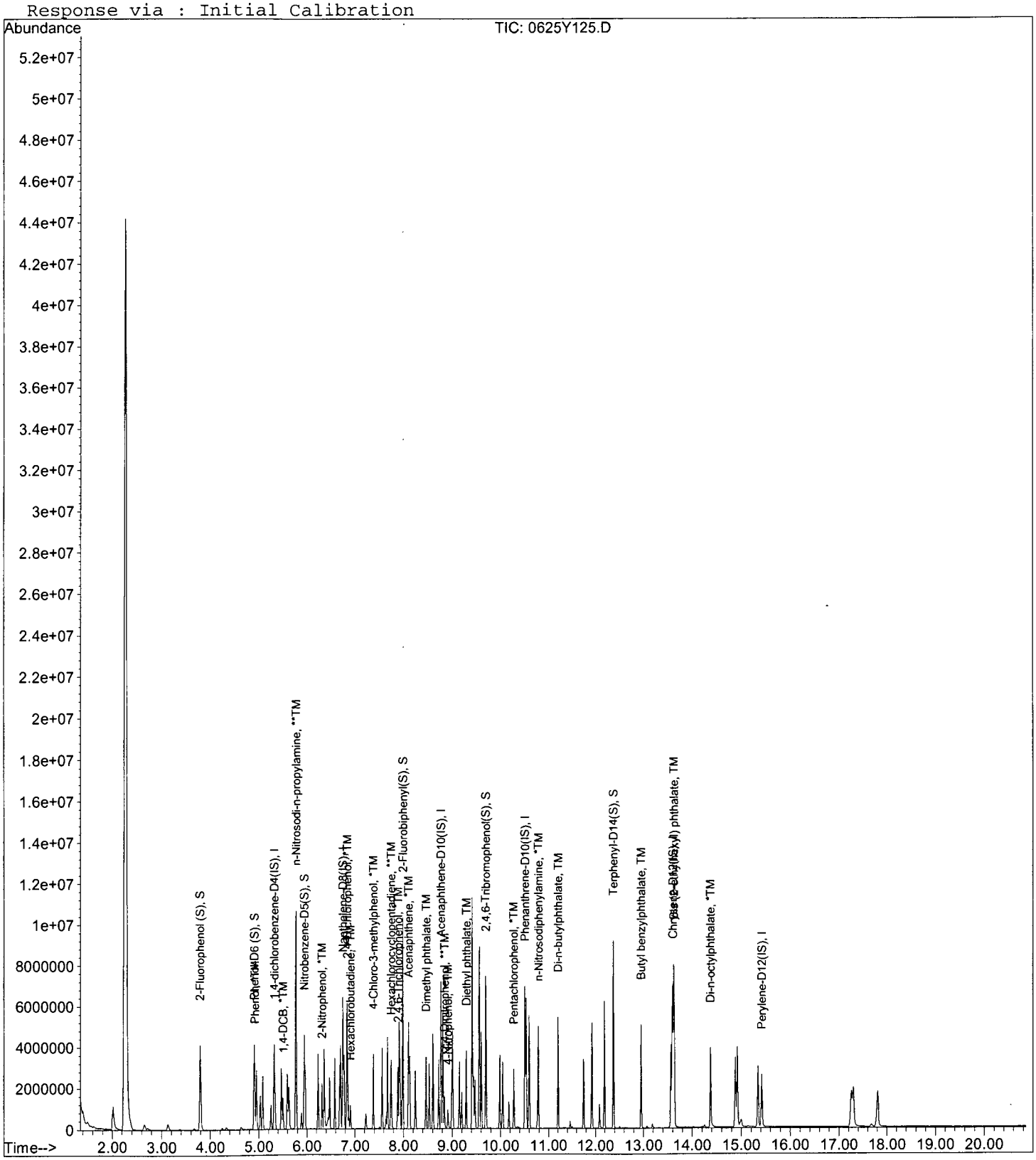
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y125.D Vial: 25
Acq On : 7 Jul 15 16:50 Operator: MA
Sample : 150623A LCS-1 1/1000 Inst : Yoda
Misc : water Multiplr: 1.00

Quant Time: Jul 8 13:35 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 (Not Reviewed)

Data File : M:\YODA\DATA\Y150625\0625Y126.D Vial: 26
Acq On : 7 Jul 15 17:20 Operator: MA
Sample : 150623A LCSD-1 1/1000 Inst : Yoda
Misc : water Multiplr: 1.00

Quant Time: Jul 8 13:35 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	687519	40.00000 ppb		-0.01
7) Napthalene-D8(IS)	6.76	136	3035266	40.00000 ppb		0.00
13) Acenaphthene-D10(IS)	8.77	164	1707252	40.00000 ppb		-0.01
23) Phenanthrene-D10(IS)	10.51	188	2760609	40.00000 ppb		-0.01
27) Chrysene-D12(IS)	13.61	240	2107978	40.00000 ppb		0.00
32) Perylene-D12(IS)	15.42	264	1292715	40.00000 ppb		-0.02
System Monitoring Compounds						
2) 2-Fluorophenol (S)	3.79	112	2038126	82.88579 ppb		-0.01
Spiked Amount 200.000			Recovery =	41.443%		
3) Phenol-D6 (S)	4.90	99	1675582	55.17136 ppb		0.00
Spiked Amount 200.000			Recovery =	27.586%		
8) Nitrobenzene-D5(S)	5.94	82	1774853	59.64781 ppb		-0.01
Spiked Amount 100.000			Recovery =	59.648%		
16) 2-Fluorobiphenyl(S)	7.99	172	3210396	55.37446 ppb		-0.01
Spiked Amount 100.000			Recovery =	55.374%		
22) 2,4,6-Tribromophenol(S)	9.70	330	685704	121.94410 ppb		0.00
Spiked Amount 200.000			Recovery =	60.972%		
28) Terphenyl-D14(S)	12.38	244	3794105	71.45484 ppb		0.00
Spiked Amount 100.000			Recovery =	71.455%		
Target Compounds						Qvalue
4) Phenol	4.92	94	508344	13.51034 ppb		96
5) 1,4-DCB	5.50	146	419478	13.49516 ppb		94
6) n-Nitrosodi-n-propylamine	5.77	43	839202	30.71697 ppb	#	53
9) 2-Nitrophenol	6.32	139	448847	28.69113 ppb		97
10) 2,4-Dichlorophenol	6.84	162	691977	28.02815 ppb		97
11) Hexachlorobutadiene	6.91	225	129844	8.72703 ppb		100
12) 4-Chloro-3-methylphenol	7.39	107	739503	28.44010 ppb	#	1
14) Hexachlorocyclopentadiene	7.74	237	183037	13.04309 ppb		97
15) 2,4,6-Trichlorophenol	7.89	196	501010	27.92515 ppb		98
17) Dimethyl phthalate	8.46	163	1902115	29.61362 ppb		96
18) Acenaphthene	8.10	154	1636924	23.13681 ppb	#	46
19) 2,4-Dinitrophenol	8.84	184	250999	34.70679 ppb		98
20) 4-Nitrophenol	8.91	65	176259	13.55507 ppb	#	1
21) Diethyl phthalate	9.29	149	1812484	29.22108 ppb		95
24) n-Nitrosodiphenylamine	10.79	167	2402683	29.94589 ppb		99
25) Pentachlorophenol	10.28	266	282455	30.51844 ppb		97
26) Di-n-butylphthalate	11.20	149	2848608	32.03150 ppb		98
29) Butyl benzylphthalate	12.96	149	1163032	34.60500 ppb	#	89
30) Bis (2-ethylhexyl) phthala	13.63	149	1667600	30.76325 ppb	#	95
31) Di-n-octylphthalate	14.38	149	2461664	30.34296 ppb		99

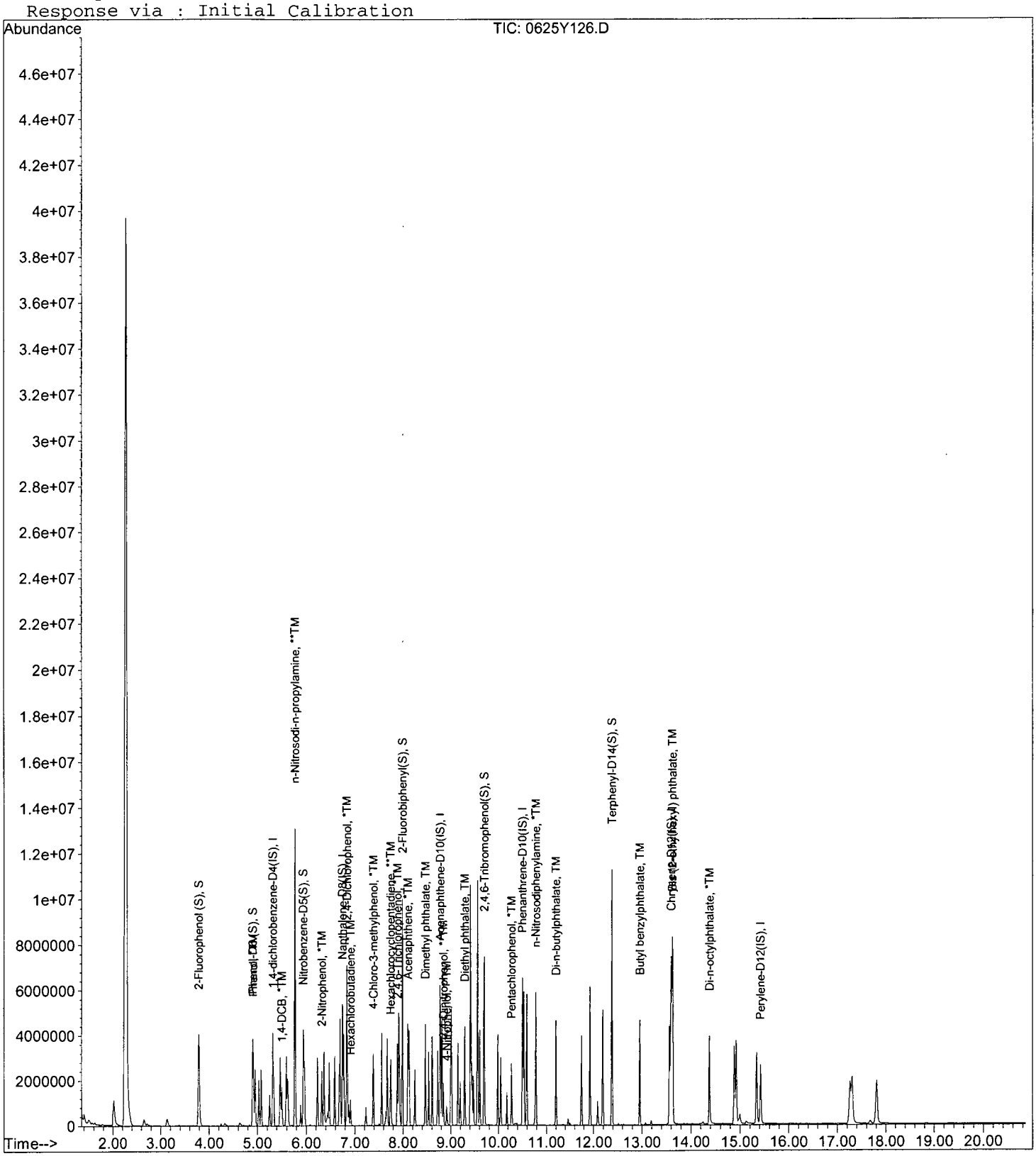
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150625\0625Y126.D Vial: 26
Acq On : 7 Jul 15 17:20 Operator: MA
Sample : 150623A LCSD-1 1/1000 Inst : Yoda
Misc : water Multiplr: 1.00

Quant Time: Jul 8 13:35 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



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Matrix Spike Recoveries

EPA 8270D SOILS

APPL ID: **150618S-17824 MS - 198506**
Batch ID: #87DJU-150618A
Sample ID: AZ17824
Client ID: S67-SD029-0001

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	0.011	1.32	1.27	78.4	75.4	45-125	3.9	30
BUTYL BENZYL PHTHALATE	1.67	ND	1.27	1.26	76.0	75.4	50-125	0.79	30
DI-N-BUTYL PHTHALATE	1.67	0.011	1.35	1.34	80.2	79.6	55-110	0.74	30
DI-N-OCTYL PHTHALATE	1.67	ND	1.35	1.37	80.8	82.0	40-130	1.5	30
DIETHYL PHTHALATE	1.67	0.0052	1.24	1.21	73.9	72.1	50-115	2.4	30
DIMETHYL PHTHALATE	1.67	0.011	1.22	1.18	72.4	70.0	50-110	3.3	30
SURROGATE: 2,4,6-TRIBROMOPHENOL	6.67	NA	4.63	4.49	69.4	67.3	35-125		
SURROGATE: 2-FLUORBIPHENYL (S)	3.33	NA	1.64	1.67	49.2	50.2	45-105		
SURROGATE: 2-FLUOROPHENOL (S)	6.67	NA	4.00	3.62	60.0	54.3	35-105		
SURROGATE: NITROBENZENE-D5 (S)	3.33	NA	2.08	1.99	62.5	59.8	35-100		
SURROGATE: PHENOL (S)	6.67	NA	4.39	3.99	65.8	59.8	40-100		
SURROGATE: TERPHENYL-D14 (S)	3.33	NA	2.13	2.11	64.0	63.4	30-125		

Comments: _____

Primary	SPK	DUP
Quant Method :	Y0609TT.M	Y0609TT.M
Extraction Date :	6/18/2015	6/18/2015
Analysis Date :	6/19/2015	6/19/2015
Instrument :	Yoda	Yoda
Run :	0609Y097	0609Y098
Initials :	DA	

Printed: 7/1/2015 4:41:22 PM
APPL MSD SCII

Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150609\0609Y097.D Vial: 97
Acq On : 19 Jun 15 23:16 Operator: csc
Sample : AZ17824S06 MS-1 1/30.06G Inst : Yoda
Misc : soil Multiplr: 33.27

Quant Time: Jul 1 11:31 2015 Quant Results File: Y0609TT.RES

Quant Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:45:21 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	4.79	152	653224	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.22	136	2884788	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.21	164	1595376	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	9.93	188	2847714	40.00	ppb		0.00
27) Chrysene-D12(IS)	12.99	240	2634137	40.00	ppb		0.00
32) Perylene-D12(IS)	14.64	264	1736005	40.00	ppb		0.00
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.83	112	2480739	4002.67	ppb		-0.09
Spiked Amount 6653.360			Recovery =	60.160%			
3) Phenol-D6 (S)	4.95	99	3639537	4386.80	ppb		-0.06
Spiked Amount 6653.360			Recovery =	65.934%			
8) Nitrobenzene-D5(S)	5.50	82	1648695	2075.12	ppb		0.00
Spiked Amount 3326.680			Recovery =	62.378%			
16) 2-Fluorobiphenyl(S)	7.43	172	2573544	1638.06	ppb		0.00
Spiked Amount 3326.680			Recovery =	49.240%			
22) 2,4,6-Tribromophenol(S)	9.19	330	611501	4633.76	ppb		-0.02
Spiked Amount 6653.360			Recovery =	69.645%			
28) Terphenyl-D14(S)	11.72	244	3659906	2132.93	ppb		0.00
Spiked Amount 3326.680			Recovery =	64.116%			
Target Compounds							Qvalue
4) Phenol	4.97	94	1049498	1093.75	ppb		89
5) 1,4-DCB	4.81	146	839105	978.66	ppb		98
6) n-Nitrosodi-n-propylamine	5.27	43	472950	1012.30	ppb		98
9) 2-Nitrophenol	5.86	139	479809	1145.59	ppb		96
10) 2,4-Dichlorophenol	6.45	162	761854	1014.80	ppb		100
11) Hexachlorobutadiene	6.34	225	377901	1093.31	ppb		100
12) 4-Chloro-3-methylphenol	7.19	107	55471	1152.03	ppb	#	15
14) Hexachlorocyclopentadiene	7.16	237	33204	527.19	ppb		96
15) 2,4,6-Trichlorophenol	7.80	196	503973	1272.11	ppb		94
17) Dimethyl phthalate	7.95	163	2055392	1221.82	ppb		91
18) Acenaphthene	8.24	154	1706163	1177.47	ppb		97
19) 2,4-Dinitrophenol	8.49	184	133270	1016.71	ppb	#	100
20) 4-Nitrophenol	9.14	65	478629	1137.04	ppb		98
21) Diethyl phthalate	8.72	149	2066908	1236.80	ppb		99
24) n-Nitrosodiphenylamine	10.32	167	2832597	1188.42	ppb		99
25) Pentachlorophenol	9.88	266	141058	1363.89	ppb		95
26) Di-n-butylphthalate	10.53	149	3699832	1351.24	ppb		97
29) Butyl benzylphthalate	12.25	149	1658466	1270.90	ppb		97
30) Bis (2-ethylhexyl) phthala	12.80	149	2436781	1324.44	ppb	#	96
31) Di-n-octylphthalate	13.48	149	4182834	1354.41	ppb		100

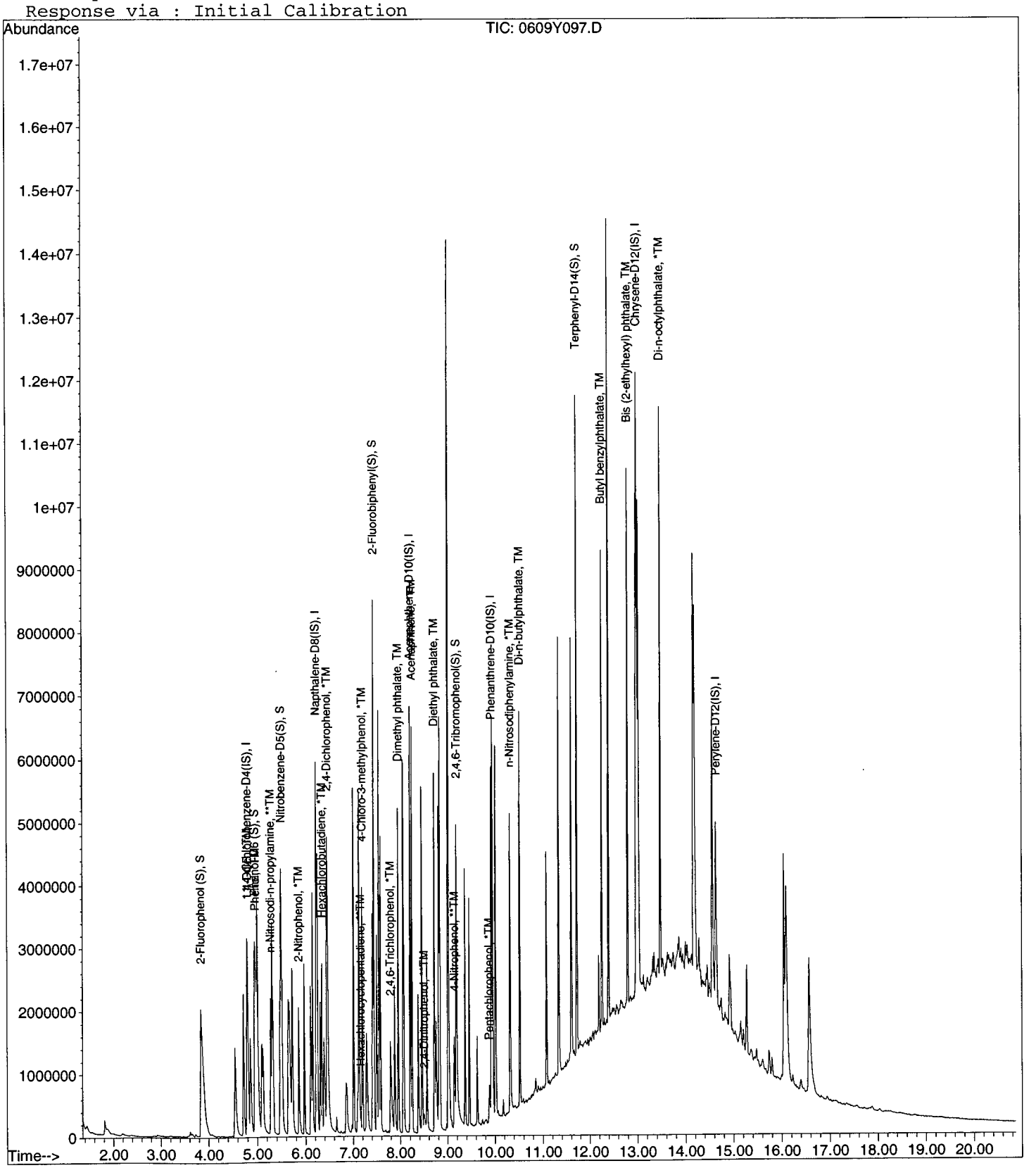
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150609\0609Y097.D Vial: 97
Acq On : 19 Jun 15 23:16 Operator: csc
Sample : AZ17824S06 MS-1 1/30.06G Inst : Yoda
Misc : soil Multiplr: 33.27

Quant Time: Jul 1 11:31 2015 Quant Results File: Y0609TT.RES

Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:45:21 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : M:\YODA\DATA\Y150609\0609Y098.D Vial: 98
Acq On : 19 Jun 15 23:45 Operator: csc
Sample : AZ17824S06 MSD-1 1/30.74G Inst : Yoda
Misc : soil Multiplr: 32.53

Quant Time: Jul 1 11:31 2015 Quant Results File: Y0609TT.RES

Quant Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:45:21 2015
Response via : Initial Calibration
DataAcq Meth : SVOC416

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) 1,4-dichlorobenzene-D4(IS)	4.79	152	699238	40.00	ppb		0.00
7) Napthalene-D8(IS)	6.22	136	2966174	40.00	ppb		0.00
13) Acenaphthene-D10(IS)	8.20	164	1656490	40.00	ppb		0.00
23) Phenanthrene-D10(IS)	9.93	188	2936957	40.00	ppb		0.00
27) Chrysene-D12(IS)	12.99	240	2676110	40.00	ppb		0.00
32) Perylene-D12(IS)	14.64	264	1764406	40.00	ppb		0.00
System Monitoring Compounds							
2) 2-Fluorophenol (S)	3.84	112	2457804	3622.75	ppb		-0.08
Spiked Amount 6506.181			Recovery =	55.682%			
3) Phenol-D6 (S)	4.95	99	3619188	3985.06	ppb		-0.06
Spiked Amount 6506.181			Recovery =	61.250%			
8) Nitrobenzene-D5(S)	5.49	82	1660168	1987.27	ppb		0.00
Spiked Amount 3253.090			Recovery =	61.089%			
16) 2-Fluorobiphenyl(S)	7.43	172	2793701	1674.70	ppb		0.00
Spiked Amount 3253.090			Recovery =	51.480%			
22) 2,4,6-Tribromophenol(S)	9.19	330	628730	4488.29	ppb		-0.02
Spiked Amount 6506.181			Recovery =	68.985%			
28) Terphenyl-D14(S)	11.73	244	3757155	2107.58	ppb		0.00
Spiked Amount 3253.090			Recovery =	64.787%			
Target Compounds							Qvalue
4) Phenol	4.96	94	1045197	995.08	ppb		88
5) 1,4-DCB	4.81	146	838972	893.89	ppb		99
6) n-Nitrosodi-n-propylamine	5.28	43	478467	935.55	ppb	#	88
9) 2-Nitrophenol	5.86	139	489447	1111.40	ppb		97
10) 2,4-Dichlorophenol	6.45	162	764723	965.83	ppb		99
11) Hexachlorobutadiene	6.34	225	372309	1024.41	ppb		98
12) 4-Chloro-3-methylphenol	7.19	107	56044	1106.95	ppb	#	14
14) Hexachlorocyclopentadiene	7.15	237	36354	526.93	ppb		95
15) 2,4,6-Trichlorophenol	7.79	196	525586	1249.45	ppb		95
17) Dimethyl phthalate	7.95	163	2102071	1176.85	ppb		95
18) Acenaphthene	8.24	154	1766384	1148.08	ppb		98
19) 2,4-Dinitrophenol	8.49	184	149741	1050.81	ppb	#	100
20) 4-Nitrophenol	9.14	65	496619	1111.12	ppb		99
21) Diethyl phthalate	8.71	149	2146411	1209.63	ppb		99
24) n-Nitrosodiphenylamine	10.32	167	2977894	1184.62	ppb		99
25) Pentachlorophenol	9.88	266	161706	1453.97	ppb		96
26) Di-n-butylphthalate	10.52	149	3874917	1341.83	ppb		98
29) Butyl benzylphthalate	12.25	149	1705933	1258.31	ppb		90
30) Bis (2-ethylhexyl) phthala	12.80	149	2432049	1272.35	ppb	#	94
31) Di-n-octylphthalate	13.48	149	4401352	1371.78	ppb		100

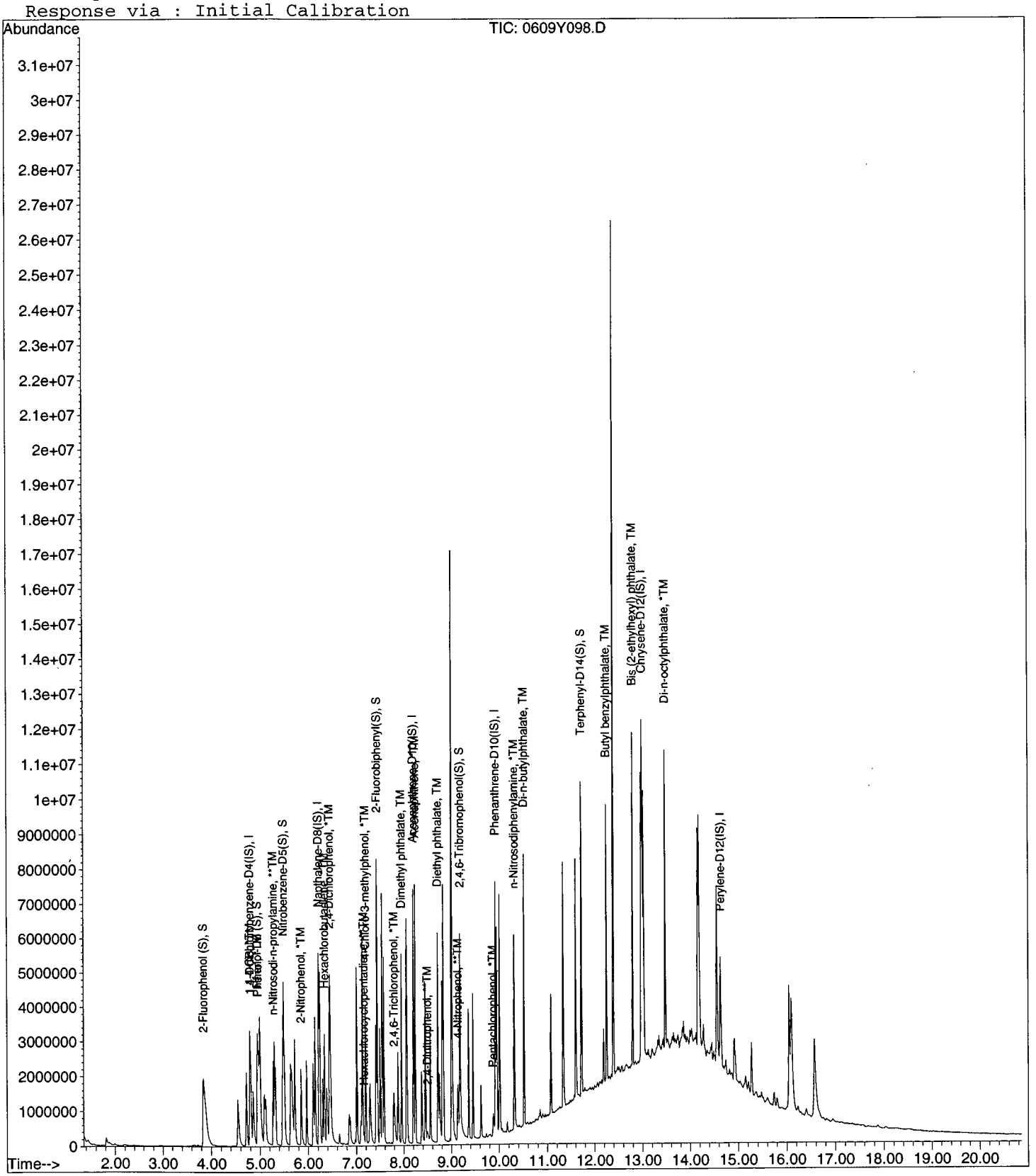
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\YODA\DATA\Y150609\0609Y098.D Vial: 98
Acq On : 19 Jun 15 23:45 Operator: csc
Sample : AZ17824S06 MSD-1 1/30.74G Inst : Yoda
Misc : soil Multiplr: 32.53

Quant Time: Jul 1 11:31 2015 Quant Results File: Y0609TT.RES

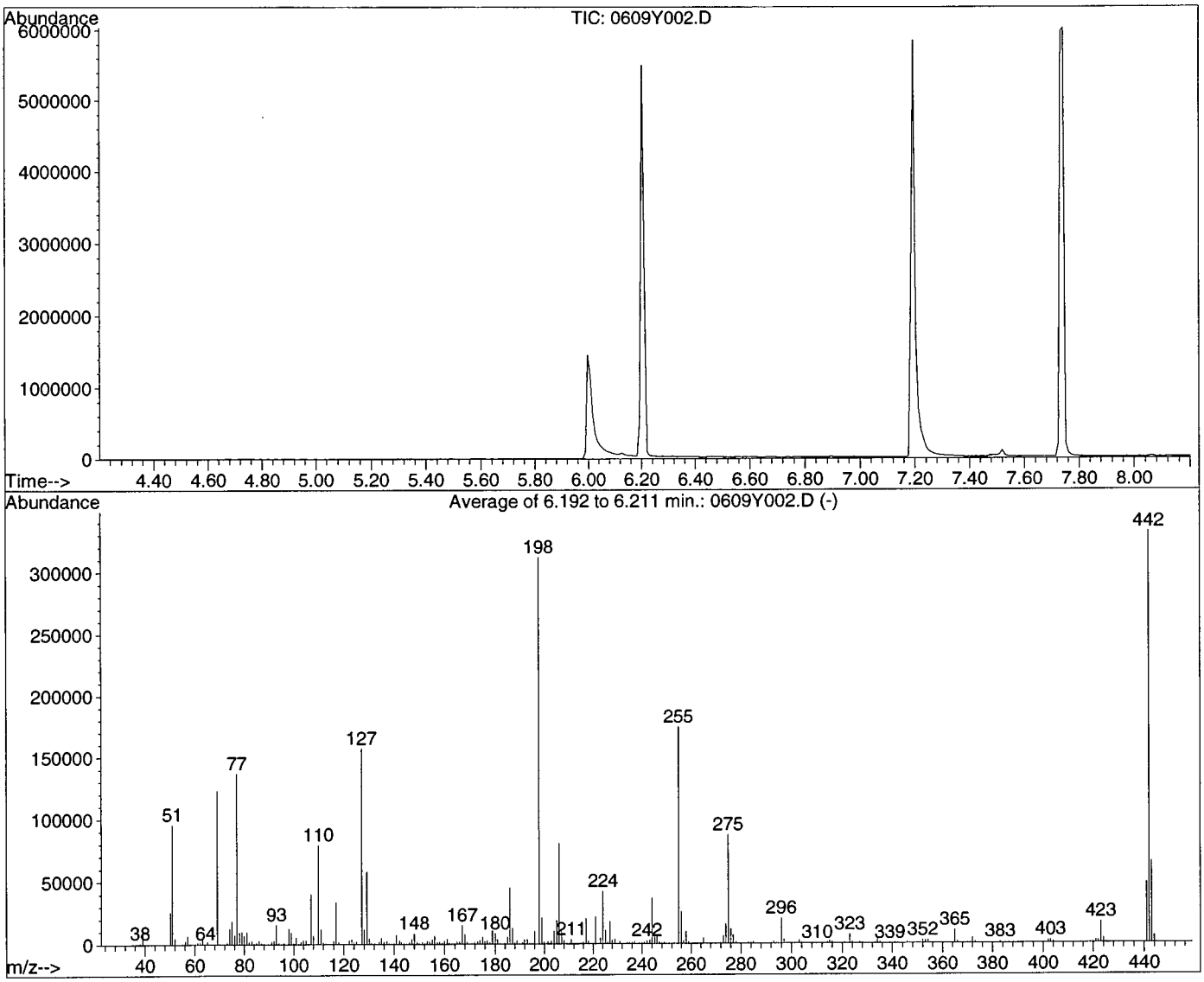
Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C
Last Update : Fri Jun 26 14:45:21 2015
Response via : Initial Calibration



DFTPP

Data File : M:\YODA\DATA\Y150609\0609Y002.D Vial: 2
Acq On : 9 Jun 15 13:56 Operator: csc
Sample : SV Tune 5/14/15 Inst : Yoda
Misc : Multiplr: 1.00

Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 281, 282, 283; Background Corrected with Scan 279

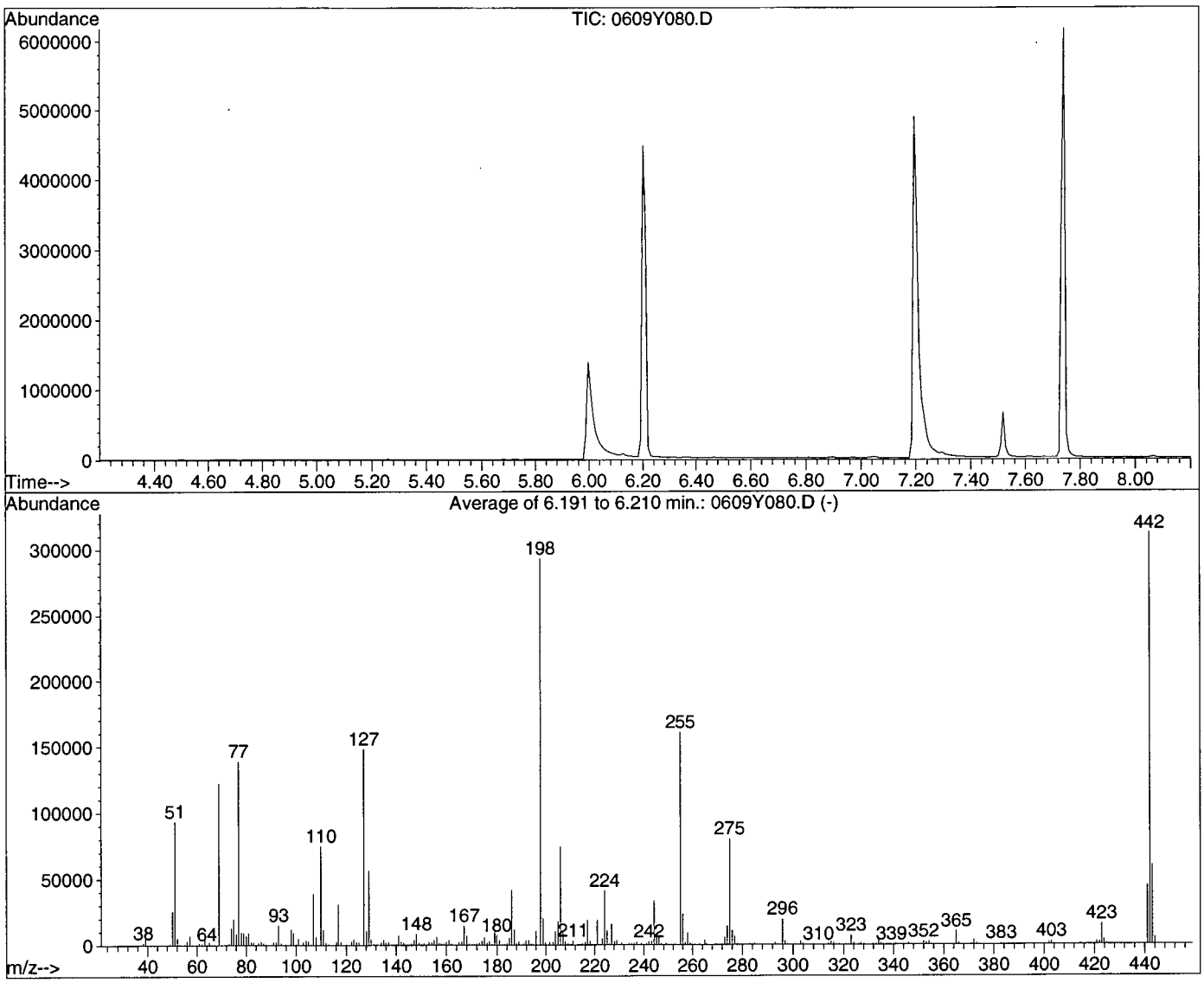
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	30.7	95893	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.7	807	PASS
127	198	40	60	50.4	157232	PASS
197	198	0.00	1	0.0	114	PASS
198	198	100	100	100.0	312125	PASS
199	198	5	9	6.7	21015	PASS
275	198	10	30	27.9	87218	PASS
365	198	1	100	3.4	10540	PASS
441	443	0.01	100	74.5	48480	PASS
442	198	40	150	106.5	332529	PASS
443	442	17	23	19.6	65043	PASS

0609Y002.D Y0609TT.M Wed Jul 01 09:53:53 2015

DFTPP

Data File : M:\YODA\DATA\Y150609\0609Y080.D Vial: 80
Acq On : 19 Jun 15 14:55 Operator: csc
Sample : SV TUNE 5/14/15 Inst : Yoda
Misc : soil Multiplr: 1.00

Method : M:\YODA\DATA\Y150609\Y0609TT.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 281, 282, 283; Background Corrected with Scan 279

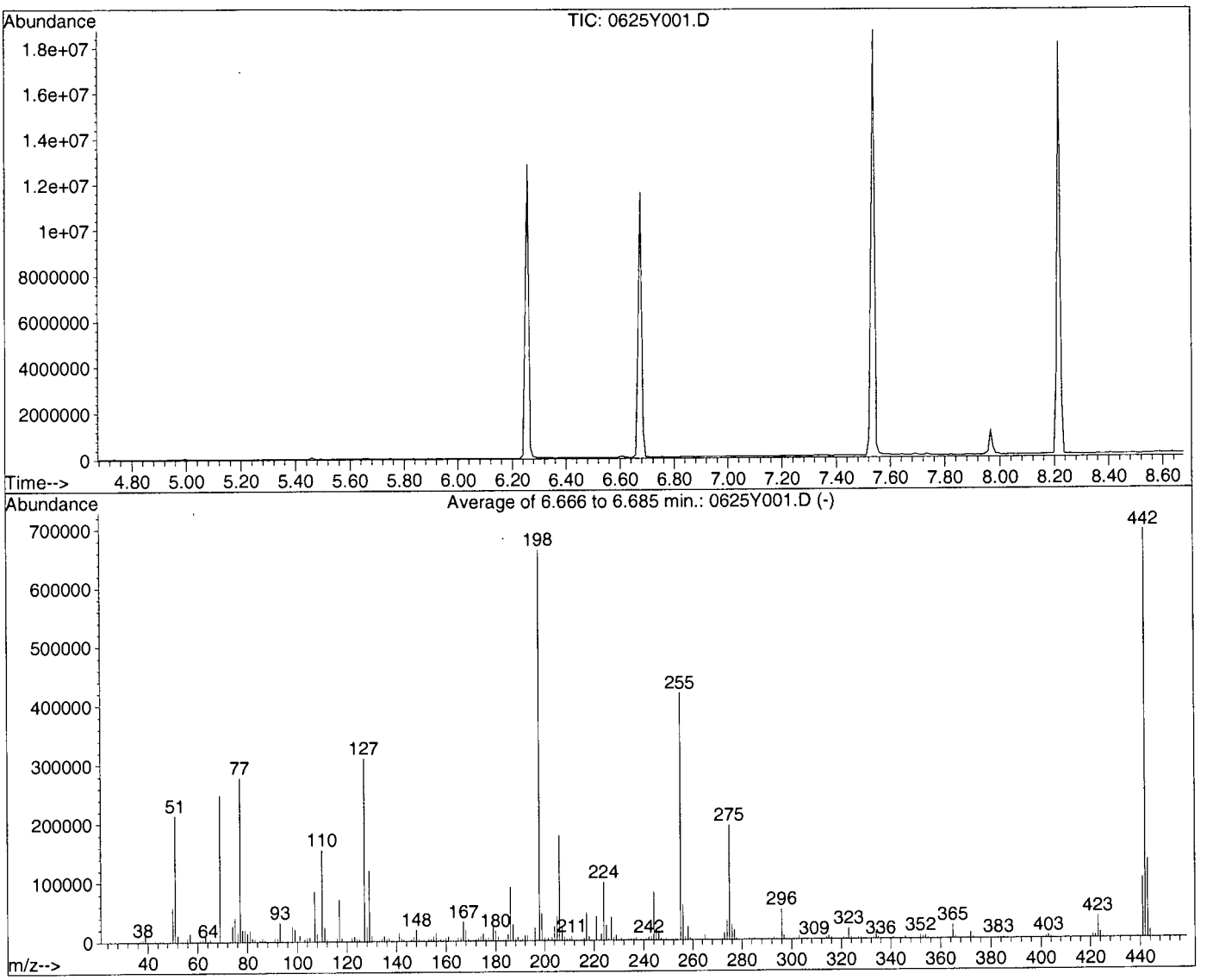
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	31.8	93420	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.5	654	PASS
127	198	40	60	50.6	148381	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	293454	PASS
199	198	5	9	6.8	20039	PASS
275	198	10	30	27.3	80088	PASS
365	198	1	100	3.4	9941	PASS
441	443	0.01	100	74.5	44595	PASS
442	198	40	150	106.4	312313	PASS
443	442	17	23	19.2	59829	PASS

0609Y080.D Y0609TT.M Wed Jul 01 10:05:08 2015

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

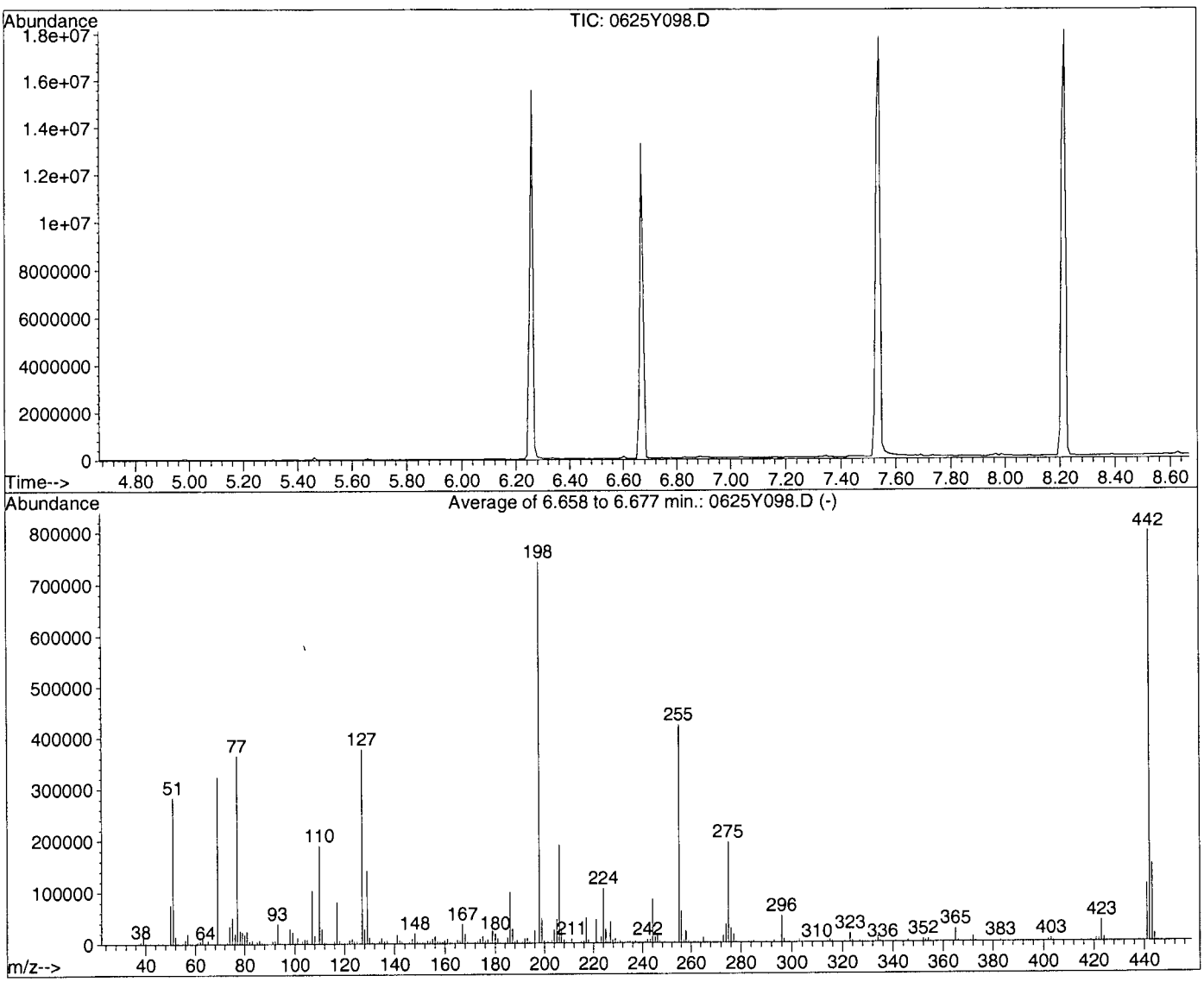
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	32.3	214274	PASS
68	69	0.00	2	0.0	108	PASS
70	69	0.00	2	0.3	868	PASS
127	198	40	60	46.7	310460	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	664293	PASS
199	198	5	9	6.9	45726	PASS
275	198	10	30	29.2	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

0625Y001.D Y0625TT.M Tue Jul 07 14:24:31 2015

DFTPP

Data File : M:\YODA\DATA\Y150625\0625Y098.D Vial: 98
Acq On : 6 Jul 15 15:11 Operator: MA
Sample : SV TUNE 5/14/15 Inst : Yoda
Misc : soil Multiplr: 1.00

Method : M:\YODA\DATA\Y150625\Y0625A.M (RTE Integrator)
Title : EPA 8270C



AutoFind: Scans 331, 332, 333; Background Corrected with Scan 329

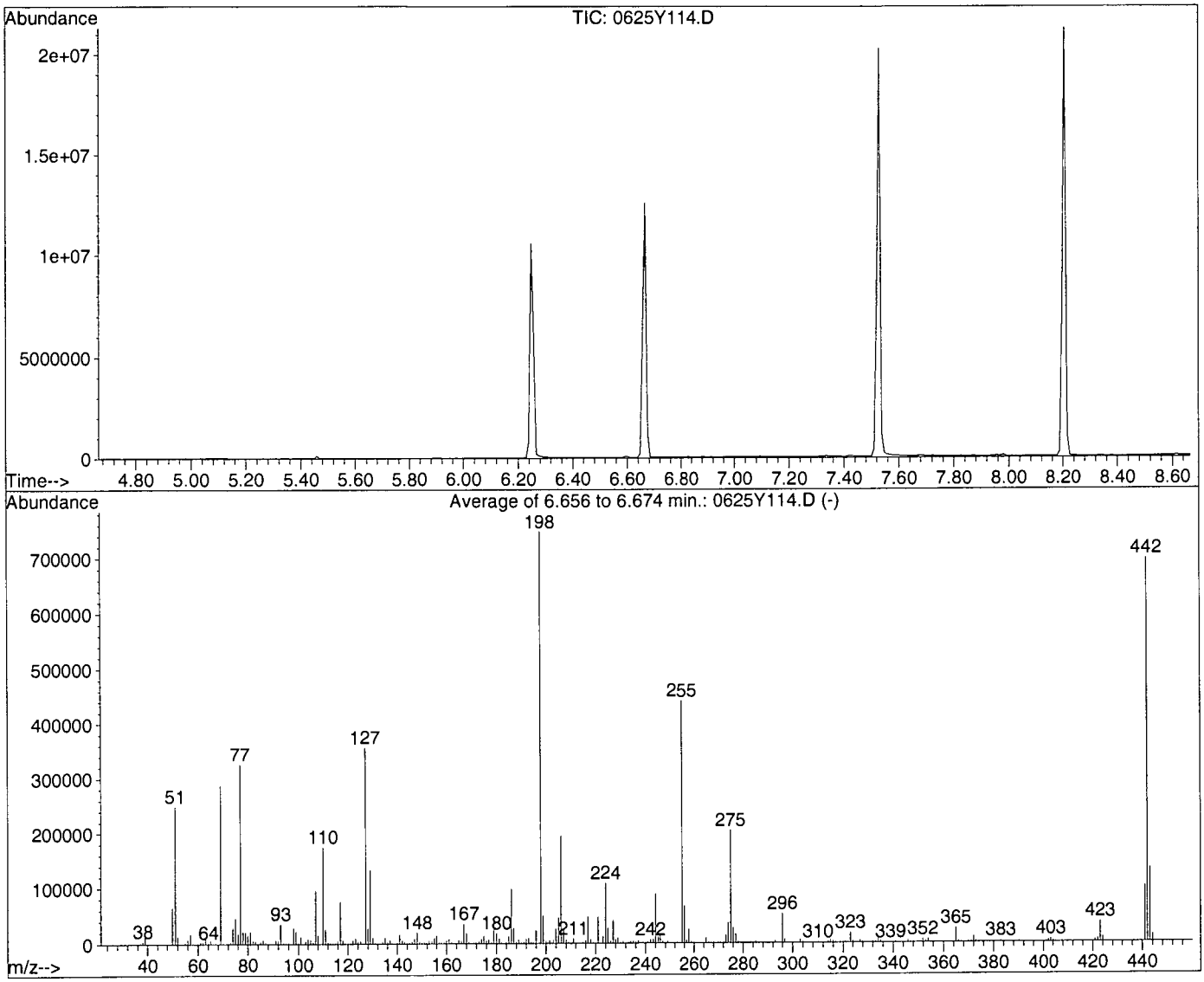
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	38.1	283459	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.6	2003	PASS
127	198	40	60	50.8	377448	PASS
197	198	0.00	1	0.1	477	PASS
198	198	100	100	100.0	743040	PASS
199	198	5	9	6.4	47873	PASS
275	198	10	30	26.2	194696	PASS
365	198	1	100	3.4	25290	PASS
441	443	0.01	100	73.9	110743	PASS
442	198	50	150	107.7	799948	PASS
443	442	17	23	18.7	149900	PASS

0625Y098.D Y0625A.M Tue Jul 07 10:58:55 2015

Data File : M:\YODA\DATA\Y150625\0625Y114.D
Acq On : 7 Jul 15 9:27
Sample : SV TUNE 5/14/15
Misc :

Vial: 14
Operator: MA
Inst : Yoda
Multiplr: 1.00

Method : M:\YODA\DATA\Y150625\Y0625TT.M (RTE Integrator)
Title : EPA 8270C



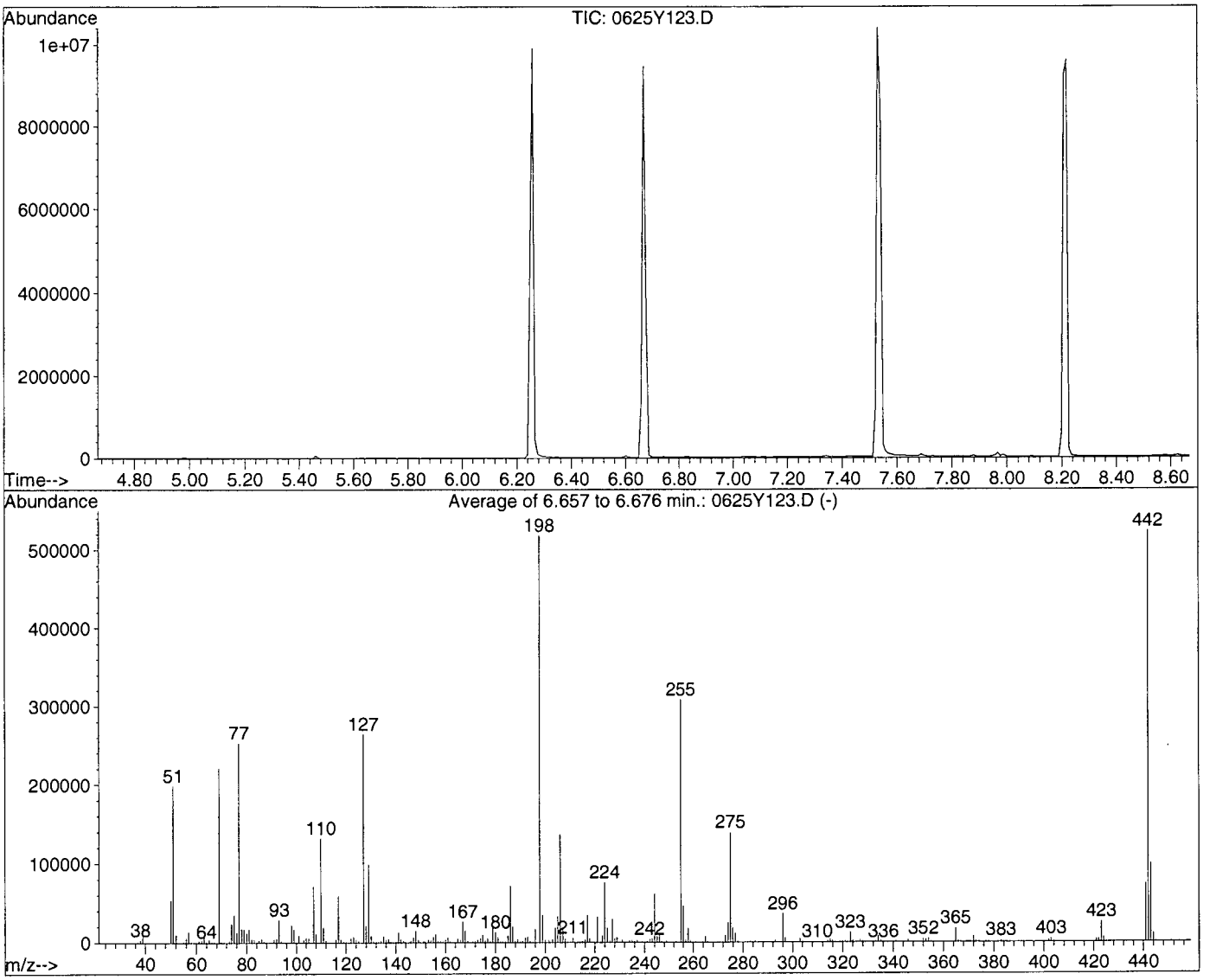
Spectrum Information: Average of 6.656 to 6.674 min.

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	33.3	249119	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.2	679	PASS
127	198	40	60	47.6	356325	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	748512	PASS
199	198	5	9	6.6	49479	PASS
275	198	10	30	27.2	203867	PASS
365	198	1	100	3.3	24855	PASS
441	443	0.01	100	75.7	100696	PASS
442	198	40	150	93.3	698184	PASS
443	442	17	23	19.0	132965	PASS

DFTPP

Data File : M:\YODA\DATA\Y150625\0625Y123.D Vial: 23
Acq On : 7 Jul 15 15:59 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 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	38.3	198470	PASS
68	69	0.00	2	0.0	0	PASS
70	69	0.00	2	0.4	971	PASS
127	198	40	60	51.0	264109	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	517816	PASS
199	198	5	9	6.7	34780	PASS
275	198	10	30	26.8	138723	PASS
365	198	1	100	3.3	17203	PASS
441	443	0.01	100	74.4	73569	PASS
442	198	40	150	101.1	523409	PASS
443	442	17	23	18.9	98838	PASS

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

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

GC/MS STANDARD PREPARATION BOOK # L PAGE #

104

04/27/15
uc

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

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 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

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

8270 Full Scan Standard Curve

PREP DATE:	06/09/15-L.H.												
8270 Standard Curve													
Exp:	06/15/15					**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	05/21/15	5/21/16	5	5	10	20	25	30	40	50
EM Science	Methylene Chloride		54200	11/06/14		190	90	80	60	50	40	20	0
Supelco	SV Internal	2000	A10079V-3449	05/21/15	5/21/16	4	2	2	2	2	2	2	2
				Final Vol.		204	102	102	102	102	102	102	102

8270 Full Scan Second Source (SS)

PREP DATE:	06/09/15-L.H.	EX. 06/15/15				
		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

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

8270 Full Scan CCV						
PREP DATE:	06/19/15-L.H.					
8270 Continuing Calibration Verification 50ug/ml						
Exp:	06/26/15					**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	06/18/15	6/18/16	25
EM Science	Methylene Chloride		55006	11/06/14		50
Supelco	SV Internal	2000	A10079V-3449	05/21/15	5/21/16	2

Organic Extraction Worksheet

Method	8270 Sonication Ext. Methylene c 3550	Extraction Set	150618A	Extraction Method	SON009	Units	mL

Spiked ID 1	8270T Spike 4-27-15 exp 10-27-15		Surrogate ID 1	8270 Surrogate 248398-35028	
Spiked ID 2			Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:	06/18/15 13:35	
Spiked ID 8			Ext. End Time:	06/19/15 9:10	
			GC Requires Extract By:	**06/22/15 0:00**	

pH1			Water Bath Temp Criteria	78,80 °C
pH2				
pH3				

Spiked By: IC **Date** 06/18/15 **Witnessed By:** DC **Date** 06/18/15

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	150618A Blk				1	1 equip	30.15g E-S5 E-WB7	1	NA	06/18/15 13:35	
2	150618A LCS-1		0.250	1	1	1 equip	30.06g E-S4 E-WB7	1	NA	06/18/15 13:35	
3	AZ17751	AZ17751S01			1	1 equip	30.41g E-S3.1 E-WB7	1	NA	06/18/15 13:35	76667 RUSH 72HRS
4	AZ17752	AZ17752S01			1	1 equip	30.71g E-S2 E-WB7	1	NA	06/18/15 13:35	76667 RUSH 72HRS
5	AZ17753 MS-1	AZ17753S01	0.250	1	1	1 equip	30.49g E-S1.2 E-WB7	1	NA	06/18/15 13:35	76667 RUSH 72HRS
6	AZ17753 MSD-1	AZ17753S01	0.250	1	1	1 equip	30.30g E-S1.1 E-WB7	1	NA	06/18/15 13:35	76667 RUSH 72HRS
7	AZ17753	AZ17753S01			1	1 equip	30.51g E-S6 E-WB7	1	NA	06/18/15 13:35	76667 RUSH 72HRS
8	AZ17816	AZ17816S01			1	1 equip	30.65g E-S7 E-WB7	1	NA	06/18/15 13:35	76674
9	AZ17819	AZ17819S01			1	1 equip	30.91g E-S5 E-WB6	1	NA	06/18/15 13:35	76674
10	AZ17820	AZ17820S02			1	1 equip	30.31g E-S4 E-WB6	1	NA	06/18/15 13:35	76674
11	AZ17822	AZ17822S02			1	1 equip	30.10g E-S3.1 E-WB6	1	NA	06/18/15 13:35	76674
12	AZ17824 MS-1	AZ17824S06	0.250	1	1	1 equip	30.06g E-S2 E-WB6	1	NA	06/18/15 13:35	76674
13	AZ17824 MSD-1	AZ17824S06	0.250	1	1	1 equip	30.74g E-S1.2 E-WB6	1	NA	06/18/15 13:35	76674
14	AZ17824	AZ17824S06			1	1 equip	30.74g E-S1.1 E-WB6	1	NA	06/18/15 13:35	76674
15	AZ17858	AZ17858S01			1	1 equip	30.40g E-S6 E-WB6	1	NA	06/18/15 13:35	76682 RUSH 72HRS
16	AZ17859	AZ17859S01			1	1 equip	30.47g E-S7 E-WB6	1	NA	06/18/15 13:35	76682 RUSH 72HRS

olvent and Lot#	
.Na2SO4	xe21e
1C	55006
ilter Paper	9624720
cidified Na2SO4	5-20-15

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	LH
Date	6/19/15
Time	9:59
Refrigerator	GC-C

	Technician's Initials
Scanned By	IC
Sample Preparation	IC
Extraction	IC
Concentration	IC

Modified	06/19/15 9:43:31 AM

Reviewed By: KW **Date** 6/19/15

Organic Extraction Worksheet

Method	8270 Sonication Ext. Methylene c 3550	Extraction Set	150618A	Extraction Method	SON009	Units	mL

Spiked ID 1	8270T Spike 4-27-15 exp 10-27-15		Surrogate ID 1	8270 Surrogate 248398-35028	
Spiked ID 2			Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:	06/18/15 13:35	
Spiked ID 8			Ext. End Time:	06/19/15 9:10	
			GC Requires Extract By:	**06/22/15 0:00**	

pH1			Water Bath Temp Criteria	78,80 °C
pH2				
pH3				

Spiked By: IC **Date** 06/18/15 **Witnessed By:** DC **Date** 06/18/15

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ17860	AZ17860S01			1	1	30.59g	1	NA	06/18/15 13:35	76682 RUSH 72HRS
						equip	E-S5 E-WB7				
18	AZ17861	AZ17861S01			1	1	30.30g	1	NA	06/18/15 13:35	76682 RUSH 72HRS
						equip	E-S4 E-WB7				

KY 6/19/15

lvent and Lot#	
Na2SO4	xe21e
	55006
ter Paper	9624720
idified Na2SO4	5-20-15

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	LH
Date	6/19/15
Time	9:59
Refrigerator	GC-C

	Technician's Initials
Scanned By	IC
Sample Preparation	IC
Extraction	IC
Concentration	IC

Modified	06/19/15 9:43:31 AM

Reviewed By: KY **Date** 6/19/15

_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	30.86g	1	NA	07/02/15 10:00	
						equip	E-S1.1 E-WB7				
2	150702A LCS-1		0.250	1	1	1	30.57g	1	NA	07/02/15 10:00	
						equip	E-S6 E-WB7				
3	AZ17434	AZ17434S02			1	1	30.28g	1	NA	07/02/15 14:37	76624
						equip	E-S5 E-WB7				
4	AZ17443	AZ17443S01			1	1	30.05g	1	NA	07/02/15 14:37	76624
						equip	E-S4 E-WB7				
5	AZ17819	AZ17819S02			1	1	30.24g	1	NA	07/02/15 10:00	76674
						equip	E-S7 E-WB7				

KY 7/2/15

olvent and Lot#	
.Na2SO4	XE21E
1C	55006
ilter Paper	9624720
.cidified 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

_SEP004

Organic Extraction Worksheet

Method	625/8270 Separatory Funnel Extra 3510C	Extraction Set	150623A	Extraction Method	SEP004	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:	NO	
Spiked ID 7			Ext. Start Time:	06/23/15 11:30	
Spiked ID 8			Ext. End Time:	06/23/15 15:25	
			GC Requires Extract By:	**07/08/15 0:00**	

pH1	2	6/23/15 11:35:00 AM	Water Bath Temp Criteria 78,80 °C
pH2	14	06/23/15 12:50:00 PM	
pH3			

Spiked By: KY **Date** 06/23/15 **Witnessed By:** DC **Date** 06/23/15

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	150623A Blk				1	1 equip	1000 E-WB6	1	2/1	06/23/15 11:30	
2	150623A LCS-1		0.250	1	1	1 equip	1000 E-WB6	1	2/1	06/23/15 11:30	
3	150623A LCSD-1		0.250	1	1	1 equip	1000 E-WB6	1	2/1	06/23/15 11:30	
4	AZ17818	AZ17818W05			1	1 equip	1040 E-WB6	1	2/1	06/23/15 11:30	76674
5	AZ17821	AZ17821W06			1	1 equip	1040 E-WB6	1	2/1	06/23/15 11:30	76674
6	AZ17826	AZ17826W07			1	1 equip	950 E-WB7	1	2/1	06/23/15 11:30	76674
7	AZ17827	AZ17827W05			1	1 equip	950 E-WB7	1	2/1	06/23/15 11:30	76674
8	AZ17828	AZ17828W07			1	1 equip	900 E-WB7	1	2/1	06/23/15 11:30	76674
9	AZ17829	AZ17829W08			1	1 equip	900 E-WB7	1	2/1	06/23/15 11:30	76674
10	AZ17907	AZ17907W07			1	1 equip	860 E-WB7	1	2/1	06/23/15 11:30	76687
11	AZ17908	AZ17908W04			1	1 equip	1040 E-WB7	1	2/1	06/23/15 11:30	76687
12	AZ17909	AZ17909W07			1	1 equip	900 E-WB7	1	2/1	06/23/15 11:30	76687
13	AZ17910	AZ17910W01			1	1 equip	1040 E-WB7	1	2/1	06/23/15 11:30	76687
14	AZ18059	AZ18059W07			1	1 equip	1070 E-WB7	1	2/1	06/23/15 11:30	76713 RUSH 48HRS

KY 6/23/15

Solvent and Lot#	
MC	55006
.+1 Sulfuric Acid	6-2-15
Acidified Na2SO4	5-20-15
3.Na2SO4	XE21E
0N NaOH	4-18-15
)h strips	HC431579
Filter Paper	400098

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	LH
Date	6/23/15
Time	4:00
Refrigerator	5C-C

	Technician's Initials
Scanned By	KY
Sample Preparation	KY,DC
Extraction	KY,DC
Concentration	IC

Modified	06/23/15 3:27:01 PM

Reviewed By: KY **Date** 6/23/15

Injection Log

Directory: M:\YODA\DATA\Y150609

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	2	0609Y002.D	1	SV Tune 5/14/15		06/09/2015 13:56
2	3	0609Y003.D	1	5ug/ml SVOC 06/09/15		06/09/2015 14:14
3	4	0609Y004.D	1	10ug/ml SVOC 06/09/15		06/09/2015 14:44
4	5	0609Y005.D	1	20ug/ml SVOC 06/09/15		06/09/2015 15:13
5	6	0609Y006.D	1	40ug/ml SVOC 06/09/15		06/09/2015 15:43
6	7	0609Y007.D	1	50ug/ml SVOC 06/09/15		06/09/2015 16:12
7	8	0609Y008.D	1	60ug/ml SVOC 06/09/15		06/09/2015 16:42
8	9	0609Y009.D	1	80ug/ml SVOC 06/09/15		06/09/2015 17:12
9	10	0609Y010.D	1	100ug/ml SVOC 06/09/15		06/09/2015 17:42
10	11	0609Y011.D	1	50ug/ml SVOC SS 06/09/15		06/09/2015 18:12
11	80	0609Y080.D	1	SV TUNE 5/14/15	soil	06/19/2015 14:55
12	81	0609Y081.D	1	50ug/ml SVOC 06/19/15	soil	06/19/2015 15:13
13	86	0609Y086.D	33.1675	150618A BLK 1/30.15G	soil	06/19/2015 17:51
14	87	0609Y087.D	33.2668	150618A LCS-1 1/30.06G	soil	06/19/2015 18:21
15	93	0609Y093.D	1	AZ17816S01 1/30.65G	soil	06/19/2015 21:18
16	94	0609Y094.D	1	AZ17819S01 1/30.91G	soil	06/19/2015 21:48
17	95	0609Y095.D	1	AZ17820S02 1/30.31G	soil	06/19/2015 22:17
18	96	0609Y096.D	1	AZ17822S02 1/30.10G	soil	06/19/2015 22:46
19	97	0609Y097.D	1	AZ17824S06 MS-1 1/30.06G	soil	06/19/2015 23:16
20	98	0609Y098.D	1	AZ17824S06 MSD-1 1/30.74G	soil	06/19/2015 23:45
21	99	0609Y099.D	1	AZ17824S06 1/30.74G	soil	06/20/2015 00:15

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		25 Jun 15 10:01
2	2	0625Y002.D	1	5ug/ml SVOC 06/25/15		25 Jun 15 10:20
3	3	0625Y003.D	1	10ug/ml SVOC 06/25/15		25 Jun 15 10:49
4	4	0625Y004.D	1	20ug/ml SVOC 06/25/15		25 Jun 15 11:18
5	5	0625Y005.D	1	40ug/ml SVOC 06/25/15		25 Jun 15 11:48
6	6	0625Y006.D	1	50ug/ml SVOC 06/25/15		25 Jun 15 12:17
7	7	0625Y007.D	1	60ug/ml SVOC 06/25/15		25 Jun 15 12:47
8	8	0625Y008.D	1	80ug/ml SVOC 06/25/15		25 Jun 15 13:17
9	9	0625Y009.D	1	100ug/ml SVOC 06/25/15		25 Jun 15 13:46
10	10	0625Y010.D	1	50ug/ml SVOC SS 06/25/15		25 Jun 15 14:15
11	98	0625Y098.D	1	SV TUNE 5/14/15	soil	6 Jul 15 15:11
12	99	0625Y099.D	1	CCV 50ug/ml SVOC 07/06/15	soil	6 Jul 15 15:29
13	1	0625Y101.D	32.4044	150702A BLK 1/30.86G	soil	6 Jul 15 17:21
14	2	0625Y102.D	32.7118	150702A LCS-1 1/30.57G	soil	6 Jul 15 17:51
15	5	0625Y105.D	33.0688	AZ17819S02 1/30.24G	soil	6 Jul 15 19:22
16	14	0625Y114.D	1	SV TUNE 5/14/15		7 Jul 15 9:27
17	22	0625Y122.D	1	CCV 50ug/ml SVOC 07/07/15		7 Jul 15 14:20
18	23	0625Y123.D	1	SV TUNE 5/14/15		7 Jul 15 15:59
19	24	0625Y124.D	1	150623A BLK 1/1000	water	7 Jul 15 16:21
20	25	0625Y125.D	1	150623A LCS-1 1/1000	water	7 Jul 15 16:50
21	26	0625Y126.D	1	150623A LCSD-1 1/1000	water	7 Jul 15 17:20
22	27	0625Y127.D	0.961538	AZ17818W05 1/1040	water	7 Jul 15 17:50
23	28	0625Y128.D	0.961538	AZ17821W06 1/1040	water	7 Jul 15 18:20
24	29	0625Y129.D	1.05263	AZ17826W07 1/950	water	7 Jul 15 18:50
25	30	0625Y130.D	1.05263	AZ17827W05 1/950	water	7 Jul 15 19:21
26	31	0625Y131.D	1.11111	AZ17828W07 1/900	water	7 Jul 15 19:50
27	32	0625Y132.D	1.11111	AZ17829W08 1/900	water	7 Jul 15 20:20

EPA METHOD 8270D
Polynuclear Aromatic Hydrocarbons

APPL, INC.

EPA METHOD 8270D
Polynuclear Aromatic Hydrocarbons
QC Summary

APPL, INC.

Method Blank

EPA 8270D LL WATER DODv3

Blank Name/QCG: **150619W-17817 - 198588**

Batch ID: #SIMDD-150619A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
BLANK	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
BLANK	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
BLANK	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
BLANK	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
BLANK	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
BLANK	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
BLANK	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
BLANK	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
BLANK	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
BLANK	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
BLANK	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
BLANK	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
BLANK	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
BLANK	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
BLANK	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
BLANK	SURROGATE: 2-FLUORBIPHENY	54.3	50-110			%	06/19/15	07/02/15
BLANK	SURROGATE: NITROBENZENE-	73.1	40-110			%	06/19/15	07/02/15
BLANK	SURROGATE: TERPHENYL-D14 (	75.3	50-135			%	06/19/15	07/02/15

Quant Method: P0629.M
Run #: 0629L137
Instrument: Linus
Sequence: L150629
Initials: MA

GC SC-Blank-REG MDLs
Printed: 07/06/15 11:17:33 AM

Method Blank
EPA 8270D LL SOILS

Blank Name/QCG: **150622S-17824 - 198629**
Batch ID: #SIMDD-150622B

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	07/01/15
BLANK	ACENAPHTHENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	06/22/15	07/01/15
BLANK	ACENAPHTHYLENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	07/01/15
BLANK	ANTHRACENE	0.0017 U	0.005	0.0017	0.0008	mg/kg	06/22/15	07/01/15
BLANK	BENZ (A) ANTHRACENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	07/01/15
BLANK	BENZO (A) PYRENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	07/01/15
BLANK	BENZO (B) FLUORANTHENE	0.0017 U	0.005	0.0017	0.0011	mg/kg	06/22/15	07/01/15
BLANK	BENZO (G,H,I) PERYLENE	0.0017 U	0.005	0.0017	0.0013	mg/kg	06/22/15	07/01/15
BLANK	BENZO (K) FLUORANTHENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	06/22/15	07/01/15
BLANK	CHRYSENE	0.0017 U	0.005	0.0017	0.0008	mg/kg	06/22/15	07/01/15
BLANK	DIBENZ (A,H) ANTHRACENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	07/01/15
BLANK	FLUORANTHENE	0.0017 U	0.005	0.0017	0.0012	mg/kg	06/22/15	07/01/15
BLANK	FLUORENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	06/22/15	07/01/15
BLANK	INDENO (1,2,3-CD) PYRENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	07/01/15
BLANK	NAPHTHALENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	07/01/15
BLANK	PHENANTHRENE	0.0017 U	0.005	0.0017	0.0011	mg/kg	06/22/15	07/01/15
BLANK	PYRENE	0.0017 U	0.005	0.0017	0.0012	mg/kg	06/22/15	07/01/15
BLANK	SURROGATE: 2-FLUORBIPHENY	68.0	45-105			%	06/22/15	07/01/15
BLANK	SURROGATE: NITROBENZENE-	51.8	35-100			%	06/22/15	07/01/15
BLANK	SURROGATE: TERPHENYL-D14 (	85.5	30-125			%	06/22/15	07/01/15

Quant Method:P0629.M
Run #:0629L116
Instrument:Linus
Sequence:L150629
Initials:MA

GC SC-Blank-REG MDLs
Printed: 07/07/15 1:56:30 PM

Method Blank

EPA 8270D LL SOILS RE-EXTRACT

Blank Name/QCG: **150702S-17824 - 198630**
Batch ID: #SIMDD-150702A

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	07/02/15	07/06/15
BLANK	ACENAPHTHENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	07/02/15	07/06/15
BLANK	ACENAPHTHYLENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/02/15	07/06/15
BLANK	ANTHRACENE	0.0017 U	0.005	0.0017	0.0008	mg/kg	07/02/15	07/06/15
BLANK	BENZ (A) ANTHRACENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/02/15	07/06/15
BLANK	BENZO (A) PYRENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/02/15	07/06/15
BLANK	BENZO (B) FLUORANTHENE	0.0017 U	0.005	0.0017	0.0011	mg/kg	07/02/15	07/06/15
BLANK	BENZO (G,H,I) PERYLENE	0.0017 U	0.005	0.0017	0.0013	mg/kg	07/02/15	07/06/15
BLANK	BENZO (K) FLUORANTHENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	07/02/15	07/06/15
BLANK	CHRYSENE	0.0017 U	0.005	0.0017	0.0008	mg/kg	07/02/15	07/06/15
BLANK	DIBENZ (A,H) ANTHRACENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/02/15	07/06/15
BLANK	FLUORANTHENE	0.0017 U	0.005	0.0017	0.0012	mg/kg	07/02/15	07/06/15
BLANK	FLUORENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	07/02/15	07/06/15
BLANK	INDENO (1,2,3-CD) PYRENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/02/15	07/06/15
BLANK	NAPHTHALENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/02/15	07/06/15
BLANK	PHENANTHRENE	0.0017 U	0.005	0.0017	0.0011	mg/kg	07/02/15	07/06/15
BLANK	PYRENE	0.0017 U	0.005	0.0017	0.0012	mg/kg	07/02/15	07/06/15
BLANK	SURROGATE: 2-FLUORBIPHENY	66.5	45-105			%	07/02/15	07/06/15
BLANK	SURROGATE: NITROBENZENE-	73.3	35-100			%	07/02/15	07/06/15
BLANK	SURROGATE: TERPHENYL-D14 (	78.1	30-125			%	07/02/15	07/06/15

Quant Method:P0629.M
Run #:0629L166
Instrument:Linus
Sequence:L150629
Initials:MA

GC SC-Blank-REG MDLs
Printed: 07/07/15 1:56:30 PM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/02/15

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-FLUORBIPHENYL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150619A-BLK	Blank	50-110	54.3		40-110	73.1	
150619A-LCS	Lab Control Spike	50-110	54.8		40-110	64.4	
AZ17817	S67-SW026-061615	50-110	50.0		40-110	50.5	
AZ17821	S67-SW027-061615	50-110	52.0		40-110	59.8	
AZ17826	S67-MW018-061615	50-110	51.3		40-110	57.4	
AZ17827	S67-MW019-061615	50-110	53.2		40-110	54.8	
AZ17828	S67-MW023-061615	50-110	51.6		40-110	58.1	
AZ17829	S67-MW022-061615	50-110	55.9		40-110	66.3	

Comments: Batch: #SIMDD-150619A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/02/15

Matrix: WATER Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: TERPHENYL-D14 (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
150619A-BLK	Blank	50-135	75.3				
150619A-LCS	Lab Control Spike	50-135	73.6				
AZ17817	S67-SW026-061615	50-135	61.2				
AZ17821	S67-SW027-061615	50-135	61.5				
AZ17826	S67-MW018-061615	50-135	66.7				
AZ17827	S67-MW019-061615	50-135	70.8				
AZ17828	S67-MW023-061615	50-135	70.3				
AZ17829	S67-MW022-061615	50-135	70.6				

Comments: Batch: #SIMDD-150619A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/01/15

Matrix: SOIL Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-FLUORBIPHENYL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150622B-BLK	Blank	45-105	68.0		35-100	51.8	
150622B-LCS	Lab Control Spike	45-105	56.9		35-100	42.8	
AZ17816	S67-SD026-0001	45-105	30.6	#	35-100	37.8	
AZ17819	S67-SD027-0001	45-105	23.7	#	35-100	38.6	
AZ17820	S67-SD027P-0001	45-105	21.0	#	35-100	40.5	
AZ17822	S67-SD028-0001	45-105	24.7	#	35-100	39.6	
AZ17824-MS	Matrix Spike	45-105	24.3	*	35-100	45.4	
AZ17824-MSD	Matrix SpikeD	45-105	29.3	*	35-100	52.4	
AZ17824	S67-SD029-0001	45-105	27.8	#	35-100	47.4	

Comments: Batch: #SIMDD-150622B

* = Recovery outside of Control Limits on QC Sample.

= Recovery outside of Control Limits on Sample.

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/01/15

Matrix: SOIL Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: TERPHENYL-D14 (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
150622B-BLK	Blank	30-125	85.5				
150622B-LCS	Lab Control Spike	30-125	72.2				
AZ17816	S67-SD026-0001	30-125	72.6				
AZ17819	S67-SD027-0001	30-125	66.7				
AZ17820	S67-SD027P-0001	30-125	46.3				
AZ17822	S67-SD028-0001	30-125	69.9				
AZ17824-MS	Matrix Spike	30-125	68.0				
AZ17824-MSD	Matrix SpikeD	30-125	57.7				
AZ17824	S67-SD029-0001	30-125	74.5				

Comments: Batch: #SIMDD-150622B

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/06/15

Matrix: SOIL Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: 2-FLUORBIPHENYL (S)			SURROGATE: NITROBENZENE-D5 (S)		
		Limits	Result	Qualifier	Limits	Result	Qualifier
150702A-BLK	Blank	45-105	66.5		35-100	73.3	
150702A-LCS	Lab Control Spike	45-105	67.1		35-100	66.0	
AZ17816	S67-SD026-0001	45-105	61.9		35-100	61.2	
AZ17819	S67-SD027-0001	45-105	57.3		35-100	60.1	
AZ17820	S67-SD027P-0001	45-105	57.9		35-100	63.4	
AZ17824-MS	Matrix Spike	45-105	57.5		35-100	51.4	
AZ17824-MSD	Matrix SpikeD	45-105	60.4		35-100	71.6	
AZ17824	S67-SD029-0001	45-105	53.5		35-100	54.5	

Comments: Batch: #SIMDD-150702A

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/06/15

Matrix: SOIL Instrument: Linus

APPL ID.	Client Sample No.	SURROGATE: TERPHENYL-D14 (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
150702A-BLK	Blank	30-125	78.1				
150702A-LCS	Lab Control Spike	30-125	76.7				
AZ17816	S67-SD026-0001	30-125	74.0				
AZ17819	S67-SD027-0001	30-125	75.1				
AZ17820	S67-SD027P-0001	30-125	74.1				
AZ17824-MS	Matrix Spike	30-125	80.4				
AZ17824-MSD	Matrix SpikeD	30-125	76.9				
AZ17824	S67-SD029-0001	30-125	68.4				

Comments: Batch: #SIMDD-150702A

Laboratory Control Spike Recovery

EPA 8270D LL WATER DODv3

APPL ID: **150619W-17817 LCS - 198588**
Batch ID: #SIMDD-150619A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
2-METHYLNAPHTHALENE	5.00	1.90	38.0 #	45-105
ACENAPHTHENE	5.00	2.27	45.4	45-110
ACENAPHTHYLENE	5.00	2.50	50.0	50-105
ANTHRACENE	5.00	2.86	57.2	55-110
BENZ (A) ANTHRACENE	5.00	3.26	65.2	55-110
BENZO (A) PYRENE	5.00	3.43	68.6	55-110
BENZO (B) FLUORANTHENE	5.00	3.07	61.4	45-120
BENZO (G,H,I) PERYLENE	5.00	2.90	58.0	40-125
BENZO (K) FLUORANTHENE	5.00	2.87	57.4	45-125
CHRYSENE	5.00	3.02	60.4	55-110
DIBENZ (A,H) ANTHRACENE	5.00	3.09	61.8	40-125
FLUORANTHENE	5.00	3.02	60.4	55-115
FLUORENE	5.00	2.61	52.2	50-110
INDENO (1,2,3-CD) PYRENE	5.00	3.36	67.2	45-125
NAPHTHALENE	5.00	2.09	41.8	40-100
PHENANTHRENE	5.00	2.97	59.4	50-115
PYRENE	5.00	3.04	60.8	50-130
SURROGATE: 2-FLUORBIPHENYL (S)	2.50	1.37	54.8	50-110
SURROGATE: NITROBENZENE-D5 (S)	2.50	1.61	64.4	40-110
SURROGATE: TERPHENYL-D14 (S)	2.50	1.84	73.6	50-135

= Recovery is outside QC limits.

Comments: _____

Primary	SPK
Quant Method :	P0629.M
Extraction Date :	06/19/15
Analysis Date :	07/02/15
Instrument :	Linus
Run :	0629L138
Initials :	MA

Printed: 07/06/15 11:42:16 AM
APPL Standard LCS

Laboratory Control Spike Recovery
EPA 8270D LL SOILS

APPL ID: **150622S-17824 LCS - 198629**
Batch ID: #SIMDD-150622B

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	0.0867	51.9	45-105
ACENAPHTHENE	0.167	0.0891	53.4	45-110
ACENAPHTHYLENE	0.167	0.0914	54.7	45-105
ANTHRACENE	0.167	0.0925	55.4	55-105
BENZ (A) ANTHRACENE	0.167	0.103	61.7	50-110
BENZO (A) PYRENE	0.167	0.117	70.1	50-110
BENZO (B) FLUORANTHENE	0.167	0.0913	54.7	45-115
BENZO (G,H,I) PERYLENE	0.167	0.0982	58.8	40-125
BENZO (K) FLUORANTHENE	0.167	0.114	68.3	45-125
CHRYSENE	0.167	0.107	64.1	55-110
DIBENZ (A,H) ANTHRACENE	0.167	0.103	61.7	40-125
FLUORANTHENE	0.167	0.102	61.1	55-115
FLUORENE	0.167	0.0951	56.9	50-110
INDENO (1,2,3-CD) PYRENE	0.167	0.108	64.7	40-120
NAPHTHALENE	0.167	0.0701	42.0	40-105
PHENANTHRENE	0.167	0.0995	59.6	50-110
PYRENE	0.167	0.103	61.7	45-125
SURROGATE: 2-FLUORBIPHENYL (S)	0.083	0.0472	56.9	45-105
SURROGATE: NITROBENZENE-D5 (S)	0.083	0.0355	42.8	35-100
SURROGATE: TERPHENYL-D14 (S)	0.083	0.0599	72.2	30-125

Comments: _____

Primary	SPK
Quant Method :	P0629.M
Extraction Date :	06/22/15
Analysis Date :	07/01/15
Instrument :	Linus
Run :	0629L117
Initials :	MA

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APPL Standard LCS

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

APPL ID: **150702S-17824 LCS - 198630**
Batch ID: #SIMDD-150702A

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	0.107	64.1	45-105
ACENAPHTHENE	0.167	0.102	61.1	45-110
ACENAPHTHYLENE	0.167	0.102	61.1	45-105
ANTHRACENE	0.167	0.0961	57.5	55-105
BENZ (A) ANTHRACENE	0.167	0.117	70.1	50-110
BENZO (A) PYRENE	0.167	0.128	76.6	50-110
BENZO (B) FLUORANTHENE	0.167	0.115	68.9	45-115
BENZO (G,H,I) PERYLENE	0.167	0.112	67.1	40-125
BENZO (K) FLUORANTHENE	0.167	0.104	62.3	45-125
CHRYSENE	0.167	0.114	68.3	55-110
DIBENZ (A,H) ANTHRACENE	0.167	0.117	70.1	40-125
FLUORANTHENE	0.167	0.113	67.7	55-115
FLUORENE	0.167	0.107	64.1	50-110
INDENO (1,2,3-CD) PYRENE	0.167	0.125	74.9	40-120
NAPHTHALENE	0.167	0.0997	59.7	40-105
PHENANTHRENE	0.167	0.113	67.7	50-110
PYRENE	0.167	0.112	67.1	45-125
SURROGATE: 2-FLUORBIPHENYL (S)	0.083	0.0557	67.1	45-105
SURROGATE: NITROBENZENE-D5 (S)	0.083	0.0548	66.0	35-100
SURROGATE: TERPHENYL-D14 (S)	0.083	0.0637	76.7	30-125

Comments: _____

Primary	SPK
Quant Method :	P0629.M
Extraction Date :	07/02/15
Analysis Date :	07/06/15
Instrument :	Linus
Run :	0629L167
Initials :	MA

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APPL Standard LCS

Matrix Spike Recovery
EPA 8270D LL SOIL

APPL ID: **150622S-17824 MS - 198629**
Batch ID: #SIMDD-150622B
Sample ID: AZ17824
Client ID: S67-SD029-0001

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level mg/kg	Matrix Result mg/kg	SPK Result mg/kg	SPK % Recovery	Recovery Limits
2-METHYLNAPHTHALENE	0.133	ND	0.0367	27.6 #	45-105
ACENAPHTHENE	0.167	ND	0.0537	32.2 #	45-110
ACENAPHTHYLENE	0.167	ND	0.0496	29.7 #	45-105
ANTHRACENE	0.167	ND	0.0921	55.1	55-105
BENZ (A) ANTHRACENE	0.167	0.0087	0.107	58.9	50-110
BENZO (A) PYRENE	0.167	0.0032	0.114	66.3	50-110
BENZO (B) FLUORANTHENE	0.167	ND	0.107	64.1	45-115
BENZO (G,H,I) PERYLENE	0.167	0.0024	0.0938	54.7	40-125
BENZO (K) FLUORANTHENE	0.167	ND	0.0978	58.6	45-125
CHRYSENE	0.167	ND	0.102	61.1	55-110
DIBENZ (A,H) ANTHRACENE	0.167	ND	0.0956	57.2	40-125
FLUORANTHENE	0.167	0.0085	0.104	57.2	55-115
FLUORENE	0.167	0.0010	0.078	46.1 #	50-110
INDENO (1,2,3-CD) PYRENE	0.167	0.0030	0.108	62.9	40-120
NAPHTHALENE	0.167	0.0012	0.0349	20.2 #	40-105
PHENANTHRENE	0.167	0.0036	0.0926	53.3	50-110
PYRENE	0.167	0.0072	0.106	59.2	45-125
SURROGATE: 2-FLUORBIPHENYL (S)	0.083	NA	0.0202	24.3 #	45-105
SURROGATE: NITROBENZENE-D5 (S)	0.083	NA	0.0377	45.4	35-100
SURROGATE: TERPHENYL-D14 (S)	0.083	NA	0.0564	68.0	30-125

= Recovery is outside QC limits.

Comments: _____

Primary	SPK
Quant Method :	P0629.M
Extraction Date :	06/22/15
Analysis Date :	07/01/15
Instrument :	Linus
Run :	0629L122
Initials :	MA

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APPL MS SCII

Matrix Spike Recoveries

EPA 8270D LL SOILS RE-EXTRACT

APPL ID: **150702S-17824 MS - 198630**
Batch ID: #SIMDD-150702A
Sample ID: AZ17824
Client ID: S67-SD029-0001

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	0.167	0.0066	0.0931	0.122	51.8	69.1	45-105	26.9	30
ACENAPHTHENE	0.167	0.0041	0.0911	0.110	52.1	63.4	45-110	18.8	30
ACENAPHTHYLENE	0.167	0.026	0.0978	0.120	43.0 #	56.3	45-105	20.4	30
ANTHRACENE	0.167	0.044	0.106	0.114	37.1 #	41.9 #	55-105	7.3	30
BENZ (A) ANTHRACENE	0.167	0.25	0.171	0.158	-47.3 #	-55.1 #	50-110	7.9	30
BENZO (A) PYRENE	0.167	0.11	0.135	0.156	15.0 #	27.5 #	50-110	14.4	30
BENZO (B) FLUORANTHENE	0.167	0.33	0.138	0.172	-115 #	-94.6 #	45-115	21.9	30
BENZO (G,H,I) PERYLENE	0.167	0.071	0.101	0.115	18.0 #	26.3 #	40-125	13.0	30
BENZO (K) FLUORANTHENE	0.167	0.36	0.0972	0.117	-157 #	-146 #	45-125	18.5	30
CHRYSENE	0.167	0.11	0.0852	0.0815	-14.9 #	-17.1 #	55-110	4.4	30
DIBENZ (A,H) ANTHRACENE	0.167	0.023	0.0928	0.110	41.8	52.1	40-125	17.0	30
FLUORANTHENE	0.167	0.20	0.171	0.180	-17.4 #	-12.0 #	55-115	5.1	30
FLUORENE	0.167	0.0091	0.105	0.120	57.4	66.4	50-110	13.3	30
INDENO (1,2,3-CD) PYRENE	0.167	0.082	0.120	0.123	22.8 #	24.6 #	40-120	2.5	30
NAPHTHALENE	0.167	0.0061	0.0671	0.0968	36.5 #	54.3	40-105	36.2 #	30
PHENANTHRENE	0.167	0.036	0.111	0.126	44.9 #	53.9	50-110	12.7	30
PYRENE	0.167	0.17	0.183	0.177	7.8 #	4.2 #	45-125	3.3	30
SURROGATE: 2-FLUORBIPHENYL (S)	0.083	NA	0.0477	0.0501	57.5	60.4	45-105		
SURROGATE: NITROBENZENE-D5 (S)	0.083	NA	0.0427	0.0594	51.4	71.6	35-100		
SURROGATE: TERPHENYL-D14 (S)	0.083	NA	0.0667	0.0638	80.4	76.9	30-125		

= Recovery is outside QC limits.

Comments: _____

Primary	SPK	DUP
Quant Method :	P0629.M	P0629.M
Extraction Date :	07/02/15	07/02/15
Analysis Date :	07/06/15	07/06/15
Instrument :	Linus	Linus
Run :	0629L172	0629L173
Initials :	MA	

Printed: 07/07/15 1:56:42 PM
APPL MSD SCII

8270D-LL

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/02/15

Matrix: WATER Instrument: Linus

Blank ID: 150619A-BLK Time Analyzed: 1243

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150619A-BLK	Blank	0629L137	07/02/15 1243
150619A-LCS	Lab Control Spike	0629L138	07/02/15 1310
AZ17817	S67-SW026-061615	0629L139	07/02/15 1337
AZ17821	S67-SW027-061615	0629L140	07/02/15 1404
AZ17826	S67-MW018-061615	0629L141	07/02/15 1431
AZ17827	S67-MW019-061615	0629L142	07/02/15 1458
AZ17828	S67-MW023-061615	0629L143	07/02/15 1525
AZ17829	S67-MW022-061615	0629L144	07/02/15 1552

Comments: Batch: #SIMDD-150619A

8270D-LL

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/01/15

Matrix: SOIL Instrument: Linus

Blank ID: 150622B-BLK Time Analyzed: 1640

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150622B-BLK	Blank	0629L116	07/01/15 1640
150622B-LCS	Lab Control Spike	0629L117	07/01/15 1707
AZ17816	S67-SD026-0001	0629L118	07/01/15 1734
AZ17819	S67-SD027-0001	0629L119	07/01/15 1801
AZ17820	S67-SD027P-0001	0629L120	07/01/15 1828
AZ17822	S67-SD028-0001	0629L121	07/01/15 1855
150622B-MS	Matrix Spike	0629L122	07/01/15 1922
150622B-MSD	Matrix SpikeD	0629L123	07/01/15 1949
AZ17824	S67-SD029-0001	0629L132	07/02/15 1028

Comments: Batch: #SIMDD-150622B

8270D-LL

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/06/15

Matrix: SOIL Instrument: Linus

Blank ID: 150702A-BLK Time Analyzed: 1110

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150702A-BLK	Blank	0629L166	07/06/15 1110
150702A-LCS	Lab Control Spike	0629L167	07/06/15 1137
AZ17816	S67-SD026-0001	0629L168	07/06/15 1204
AZ17819	S67-SD027-0001	0629L169	07/06/15 1231
AZ17820	S67-SD027P-0001	0629L170	07/06/15 1258
150702A-MS	Matrix Spike	0629L172	07/06/15 1353
150702A-MSD	Matrix SpikeD	0629L173	07/06/15 1420
AZ17824	S67-SD029-0001	0629L174	07/06/15 1447

Comments: Batch: #SIMDD-150702A

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 76674
Matrix: Water
ID: SV Tune 05/14/15

SDG No: 76674
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: 76674
Matrix: Soil
ID: SV TUNE 5/14/15

SDG No: 76674
Date Analyzed: 07/01/15
Instrument: Linus
Time Analyzed: 10:00

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		CCV 5.0ug/ml PAH 06/	0629L103.D	07/01/15 10:48
2	Blank	150622B BLK 1/30.00G	0629L116.D	07/01/15 16:40
3	Lab Control Spike	150622B LCS-1 1/30.0	0629L117.D	07/01/15 17:07
4	S67-SD026-0001	AZ17816S01 1/30.02G	0629L118.D	07/01/15 17:34
5	S67-SD027-0001	AZ17819S01 1/30.13G	0629L119.D	07/01/15 18:01
6	S67-SD027P-0001	AZ17820S02 1/30.04G	0629L120.D	07/01/15 18:28
7	S67-SD028-0001	AZ17822S02 1/30.23G	0629L121.D	07/01/15 18:55
8		AZ17824S06 MS-1 1/30	0629L122.D	07/01/15 19:22
9		AZ17824S06 MSD-1 1/3	0629L123.D	07/01/15 19:49
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60% of mass 198	32.8
68	0 - 2.05% of mass 69	1.5
70	0 - 2% of mass 69	0.5
127	39.5 - 60% of mass 198	44.8
197	0 - 1% 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	23.6
365	1 - 100% of mass 198	2.2
441	0.01 - 100% of mass 443	76.9
442	50 - 150% of mass 198	76.4
443	17 - 23% of mass 442	19.9

Form 5
Tune Summary

Lab Name: APPL Inc.
Case No: 76674
Matrix: Water
ID: SV TUNE 5/14/15

SDG No: 76674
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	S67-SD029-0001	AZ17824S06 1/30.21G	0629L132.D	07/02/15 10:28
3	Blank	150619A BLK 1/1000	0629L137.D	07/02/15 12:43
4	Lab Control Spike	150619A LCS-1 1/1000	0629L138.D	07/02/15 13:10
5	S67-SW026-061615	AZ17817W05 1/1000	0629L139.D	07/02/15 13:37
6	S67-SW027-061615	AZ17821W05 1/1000	0629L140.D	07/02/15 14:04
7	S67-MW018-061615	AZ17826W08 1/1040	0629L141.D	07/02/15 14:31
8	S67-MW019-061615	AZ17827W04 1/900	0629L142.D	07/02/15 14:58
9	S67-MW023-061615	AZ17828W08 1/960	0629L143.D	07/02/15 15:25
10	S67-MW022-061615	AZ17829W07 1/900	0629L144.D	07/02/15 15:52
11				
12				
13				
14				
15				
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: 76674
Matrix: Soil
ID: SV TUNE 5/14/15

SDG No: 76674
Date Analyzed: 07/06/15
Instrument: Linus
Time Analyzed: 10:07

	Client Sample No.	APPL ID.	File ID.	Date Analyzed
1		CCV 5.0ug/ml PAH 07/	0629L165.D	07/06/15 10:24
2	Blank	150702A BLK 1/30.47G	0629L166.D	07/06/15 11:10
3	Lab Control Spike	150702A LCS-1 1/30.6	0629L167.D	07/06/15 11:37
4	S67-SD026-0001	AZ17816S02 1/30.02G	0629L168.D	07/06/15 12:04
5	S67-SD027-0001	AZ17819S02 1/30.12G	0629L169.D	07/06/15 12:31
6	S67-SD027P-0001	AZ17820S03 1/30.22G	0629L170.D	07/06/15 12:58
7	S67-SD028-0001	AZ17822S01 1/30.44G	0629L171.D	07/06/15 13:25
8		AZ17824S04 MS-1 1/30	0629L172.D	07/06/15 13:53
9		AZ17824S04 MSD-1 1/3	0629L173.D	07/06/15 14:20
10	S67-SD029-0001	AZ17824S04 1/30.15G	0629L174.D	07/06/15 14:47
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				

m/e		
51	29.95 - 60% of mass 198	34.5
68	0 - 2.05% of mass 69	1.6
70	0 - 2% of mass 69	0.6
127	39.5 - 60% of mass 198	45.5
197	0 - 1% of mass 198	0.1
198	100 - 100% of mass 198	100.0
199	5 - 9% of mass 198	6.9
275	10 - 30% of mass 198	24.5
365	1 - 100% of mass 198	2.6
441	0.01 - 100% of mass 443	77.0
442	50 - 150% of mass 198	90.1
443	17 - 23% of mass 442	19.2

8A
INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 76674

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) _____

		Napthalene-D8(IS)		Acenaphthene-D10(IS)		Phenanthrene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	6750	6.05	3406	8.10	5719	9.86
	UPPER LIMIT	13500	6.55	6812	8.60	11438	10.36
	LOWER LIMIT	3375	5.55	1703	7.60	2860	9.36
	SAMPLE NO.						
01	CCV 5.0ug/ml PAH 06/3	5631	6.05	2954	8.10	5044	9.86
02	150622B BLK 1/30.00G	6347	6.05	2866	8.11	4651	9.87
03	150622B LCS-1 1/30.02	7184	6.05	3836	8.10	6347	9.86
04	AZ17816S01 1/30.02G	4855	6.05	2624	8.10	4593	9.85
05	AZ17819S01 1/30.13G	6574	6.05	3187	8.10	5767	9.85
06	AZ17820S02 1/30.04G	6328	6.05	3088	8.10	5771	9.85
07	AZ17822S02 1/30.23G	6719	6.05	3280	8.10	5980	9.85
08	AZ17824S06 MS-1 1/30	6870	6.05	3811	8.10	6333	9.85
09	AZ17824S06 MSD-1 1/3	6764	6.05	3662	8.10	6206	9.85
10	CCV 5.0ug/ml PAH 06/3	5843	6.05	3117	8.10	5423	9.85
11	AZ17824S06 1/30.21G	8013	6.05	3917	8.10	7068	9.85
12	150619A BLK 1/1000	6216	6.05	3057	8.10	5222	9.86
13	150619A LCS-1 1/1000	6493	6.05	3500	8.10	5984	9.86
14	AZ17817W05 1/1000	6631	6.05	3138	8.10	5347	9.86
15	AZ17821W05 1/1000	5808	6.05	2986	8.10	5361	9.86
16	AZ17826W08 1/1040	6941	6.05	3278	8.10	5533	9.86
17	AZ17827W04 1/900	6877	6.05	3234	8.10	5489	9.86
18	AZ17828W08 1/960	6345	6.05	2976	8.10	5070	9.86
19	AZ17829W07 1/900	5513	6.05	2830	8.11	5064	9.87
20	CCV 5.0ug/ml PAH 07/0	5076	6.05	2679	8.10	4584	9.85
21	150702A BLK 1/30.47G	6108	6.05	2953	8.10	5039	9.86
22	150702A LCS-1 1/30.68	5569	6.05	2996	8.10	5095	9.85

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.: 76674

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	CCV 5.0ug/ml PAH 06/3	5445	13.04	3499	15.67		
02	150622B BLK 1/30.00G	5305	13.06	3208	15.69		
03	150622B LCS-1 1/30.02	6962	13.03	4400	15.67		
04	AZ17816S01 1/30.02G	5680	13.03	3655	15.66		
05	AZ17819S01 1/30.13G	6541	13.03	4245	15.66		
06	AZ17820S02 1/30.04G	6431	13.03	4099	15.66		
07	AZ17822S02 1/30.23G	6495	13.03	4165	15.66		
08	AZ17824S06 MS-1 1/30	6824	13.02	4427	15.65		
09	AZ17824S06 MSD-1 1/3	6744	13.02	4357	15.65		
10	CCV 5.0ug/ml PAH 06/3	6042	13.03	3739	15.66		
11	AZ17824S06 1/30.21G	7786	13.02	5053	15.65		
12	150619A BLK 1/1000	6552	13.04	4200	15.68		
13	150619A LCS-1 1/1000	6639	13.03	4237	15.66		
14	AZ17817W05 1/1000	6167	13.04	3910	15.67		
15	AZ17821W05 1/1000	6298	13.04	4072	15.67		
16	AZ17826W08 1/1040	6265	13.04	3829	15.68		
17	AZ17827W04 1/900	6237	13.04	3876	15.68		
18	AZ17828W08 1/960	5937	13.04	3626	15.68		
19	AZ17829W07 1/900	5849	13.04	3698	15.68		
20	CCV 5.0ug/ml PAH 07/0	5150	13.03	3238	15.66		
21	150702A BLK 1/30.47G	5542	13.04	3380	15.69		
22	150702A LCS-1 1/30.68	5712	13.03	3591	15.66		

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

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INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 76674

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) _____

		Napthalene-D8(IS)		Acenaphthene-D10(IS)		Phenanthrene-D10(IS)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
	12 HOUR STD	6750	6.0471	3406	8.0979	5719	9.8592
	UPPER LIMIT	13500	6.5471	6812	8.5979	11438	10.359
	LOWER LIMIT	3375	5.5471	1703	7.5979	2859.5	9.3592
	SAMPLE NO.						
23	AZ17816S02 1/30.02G	6580	6.05	3573	8.10	5892	9.85
24	AZ17819S02 1/30.12G	5931	6.05	3032	8.10	5412	9.85
25	AZ17820S03 1/30.22G	5896	6.05	3099	8.10	5345	9.85
26	AZ17822S01 1/30.44G	8480	6.05	4437	8.10	7504	9.85
27	AZ17824S04 MS-1 1/30	5920	6.05	3117	8.10	5227	9.85
28	AZ17824S04 MSD-1 1/3	5712	6.05	2993	8.10	5039	9.85
29	AZ17824S04 1/30.15G	6231	6.05	3214	8.10	5574	9.85
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
41							
42							
43							
44							

AREA UPPER LIMIT = +100% of internal standard area.
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INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. Contract: Review

Lab Code: _____ SDG No.: 76674

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	AZ17816S02 1/30.02G	6023		13.03		4027		15.66					
24	AZ17819S02 1/30.12G	5645		13.03		3679		15.66					
25	AZ17820S03 1/30.22G	5573		13.03		3740		15.65					
26	AZ17822S01 1/30.44G	7632		13.06		4847		15.67					
27	AZ17824S04 MS-1 1/30	5034		13.20		3533		15.72					
28	AZ17824S04 MSD-1 1/3	5347		13.13		3285		15.70					
29	AZ17824S04 1/30.15G	5681		13.10		3607		15.70					
30													
31													
32													
33													
34													
35													
36													
37													
38													
39													
40													
41													
42													
43													
44													

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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

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* 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-SD026-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17816
QCG: #SIMDD-150622B-198629

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 27.8 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0016 J	0.007	0.0024	0.0012	mg/kg	06/22/15	07/01/15
8270D-LL	ACENAPHTHENE	0.0021 J	0.007	0.0024	0.0014	mg/kg	06/22/15	07/01/15
8270D-LL	ACENAPHTHYLENE	0.0024 U	0.007	0.0024	0.0012	mg/kg	06/22/15	07/01/15
8270D-LL	ANTHRACENE	0.011	0.007	0.0024	0.0011	mg/kg	06/22/15	07/01/15
8270D-LL	BENZ (A) ANTHRACENE	0.042	0.007	0.0024	0.0012	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (A) PYRENE	0.019	0.007	0.0024	0.0012	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (B) FLUORANTHENE	0.045	0.007	0.0024	0.0015	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.013	0.007	0.0024	0.0018	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (K) FLUORANTHENE	0.023	0.007	0.0024	0.0014	mg/kg	06/22/15	07/01/15
8270D-LL	CHRYSENE	0.0024 U	0.007	0.0024	0.0011	mg/kg	06/22/15	07/01/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.0024 U	0.007	0.0024	0.0012	mg/kg	06/22/15	07/01/15
8270D-LL	FLUORANTHENE	0.066	0.007	0.0024	0.0017	mg/kg	06/22/15	07/01/15
8270D-LL	FLUORENE	0.0032 J	0.007	0.0024	0.0014	mg/kg	06/22/15	07/01/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.016	0.007	0.0024	0.0012	mg/kg	06/22/15	07/01/15
8270D-LL	NAPHTHALENE	0.0026 J	0.007	0.0024	0.0012	mg/kg	06/22/15	07/01/15
8270D-LL	PHENANTHRENE	0.035	0.007	0.0024	0.0015	mg/kg	06/22/15	07/01/15
8270D-LL	PYRENE	0.045	0.007	0.0024	0.0017	mg/kg	06/22/15	07/01/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	30.6 #	45-105			%	06/22/15	07/01/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	37.8	35-100			%	06/22/15	07/01/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	72.6	30-125			%	06/22/15	07/01/15

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

Quant Method: P0629.M
Run #: 0629L118
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/07/15 1:56:47 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L118.D Vial: 18
Acq On : 1 Jul 15 17:34 Operator: MA
Sample : AZ17816S01 1/30.02G Inst : Linus
Misc : soil Multiplr: 33.31

Quant Time: Jul 7 12:46 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	4855	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	8.10	164	2624	2.50000	ppb		0.00
11) Phenanthrene-D10(IS)	9.85	188	4593	2.50000	ppb		-0.01
15) Chrysene-D12(IS)	13.03	240	5680	2.50000	ppb		0.00
21) Perylene-D12(IS)	15.66	264	3655	2.50000	ppb		0.00
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.19	82	456	31.49624	ppb		0.01
Spiked Amount 83.278			Recovery = 37.820%				
7) Surrogate Recovery (FBP)	7.31	172	1217	25.48354	ppb		0.00
Spiked Amount 83.278			Recovery = 30.601%				
17) Surrogate Recovery (TPH)	11.71	244	3772	60.43437	ppb		-0.01
Spiked Amount 83.278			Recovery = 72.569%				
Target Compounds							Qvalue
3) Naphthalene	6.07	128	150	1.88762	ppb		93
4) 2-Methylnaphthalene	6.89	142	56	1.16199	ppb		97
9) Acenaphthene	8.13	154	82	1.51646	ppb		98
10) Fluorene	8.75	166	131	2.29255	ppb		92
12) Phenanthrene	9.87	178	2130	25.60811	ppb		99
13) Anthracene	9.94	178	664	7.72131	ppb		97
14) Fluoranthene	11.27	202	5108	47.62616	ppb		95
16) Pyrene	11.54	202	4020	32.17528	ppb		96
18) Benz (a) anthracene	13.01	228	2628	30.14169	ppb		95
20) Indeno (1,2,3-cd) pyrene	17.89	276	1224	11.49263	ppb	#	92
22) Benzo (b) fluoranthene	14.84	252	3691	32.66859	ppb		96
23) Benzo (k) fluoranthene	14.84	252	2624	16.58375	ppb		96
24) Benzo (a) pyrene	15.41	252	1241	13.40521	ppb	#	91
26) Benzo (g,h,i) perylene	18.42	276	1006	9.57014	ppb		99

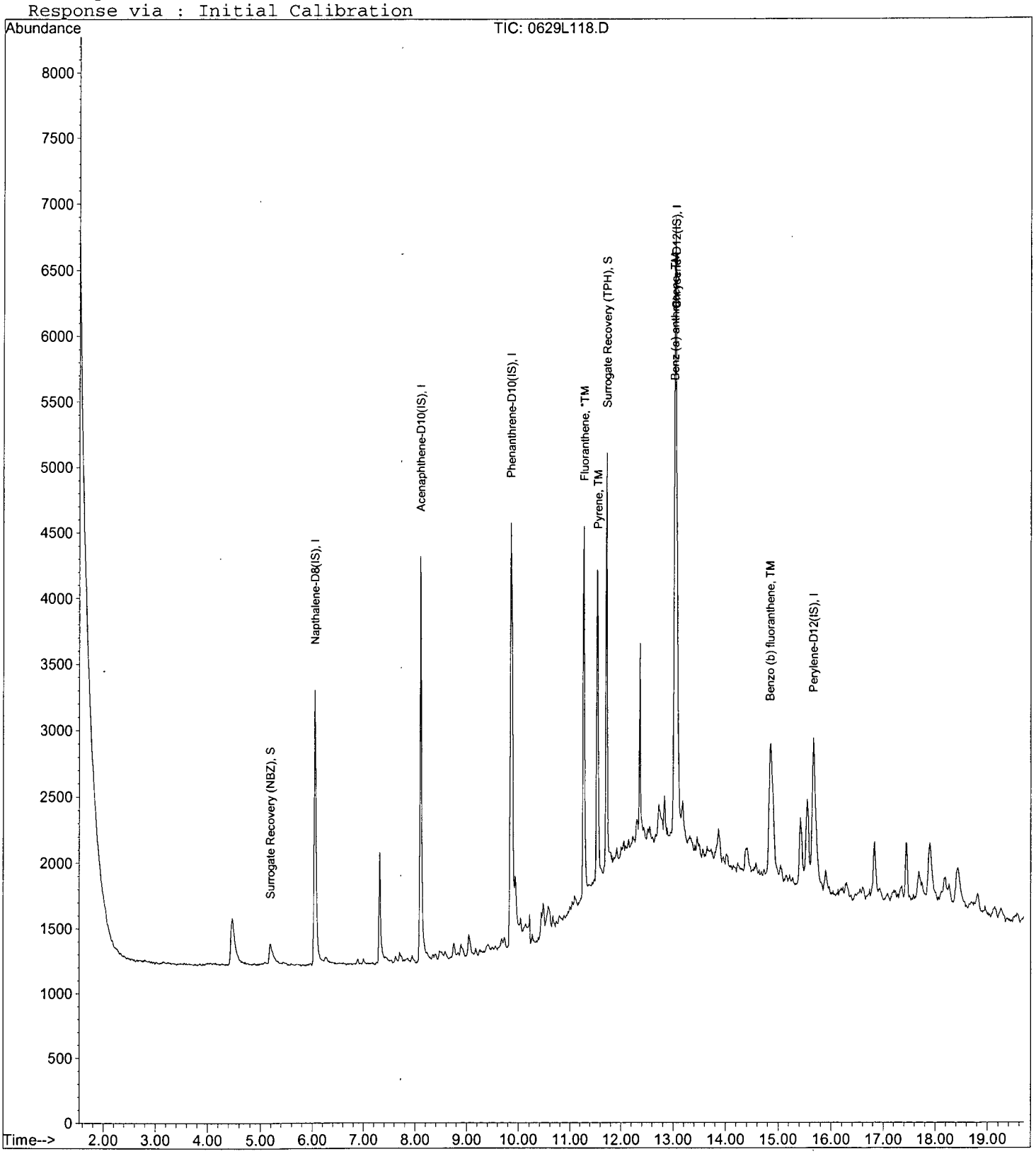
(#) = qualifier out of range (m) = manual integration

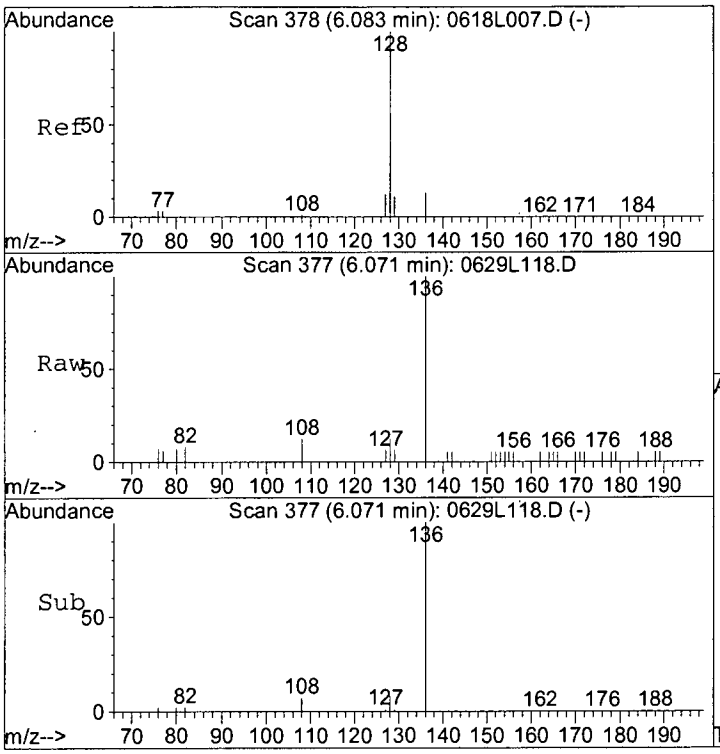
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L118.D Vial: 18
Acq On : 1 Jul 15 17:34 Operator: MA
Sample : AZ17816S01 1/30.02G Inst : Linus
Misc : soil Multiplr: 33.31

Quant Time: Jul 7 12:46 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

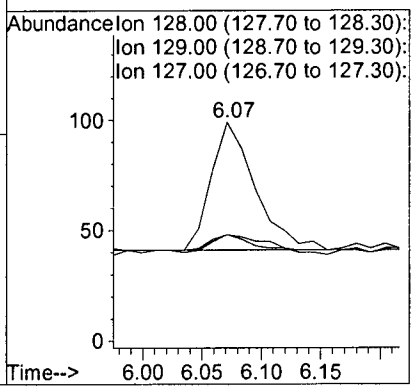


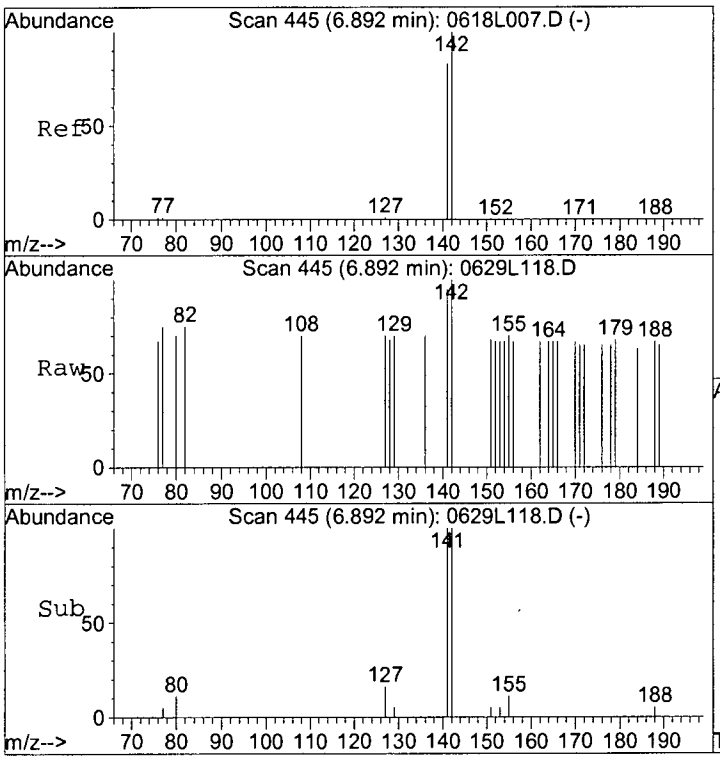


#3
Naphthalene
Concen: 1.88762 ppb
RT: 6.07 min Scan# 377
Delta R.T. 0.00 min
Lab File: 0629L118.D
Acq: 1 Jul 15 17:34

Tgt Ion:128 Resp: 150

Ion	Ratio	Lower	Upper
128	100		
129	12.1	7.4	13.8
127	15.5	8.4	15.6

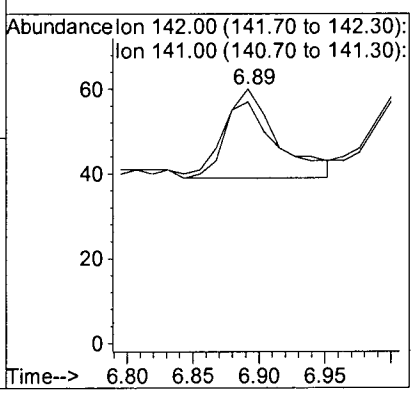


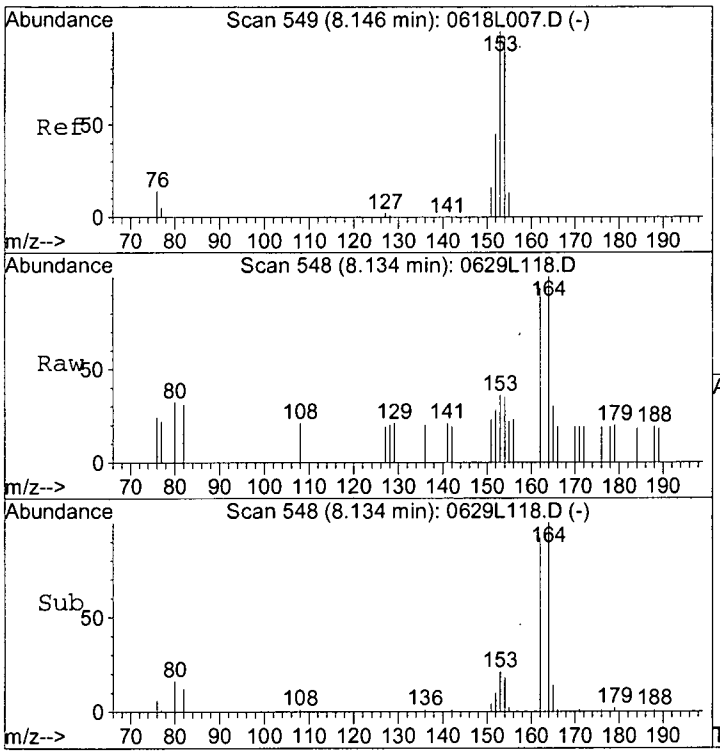


#4
2-Methylnaphthalene
Concen: 1.16199 ppb
RT: 6.89 min Scan# 445
Delta R.T. 0.01 min
Lab File: 0629L118.D
Acq: 1 Jul 15 17:34

Tgt Ion:142 Resp: 56

Ion	Ratio	Lower	Upper
142	100		
141	81.0	58.3	108.3

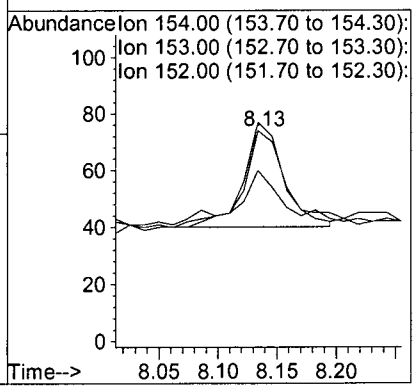


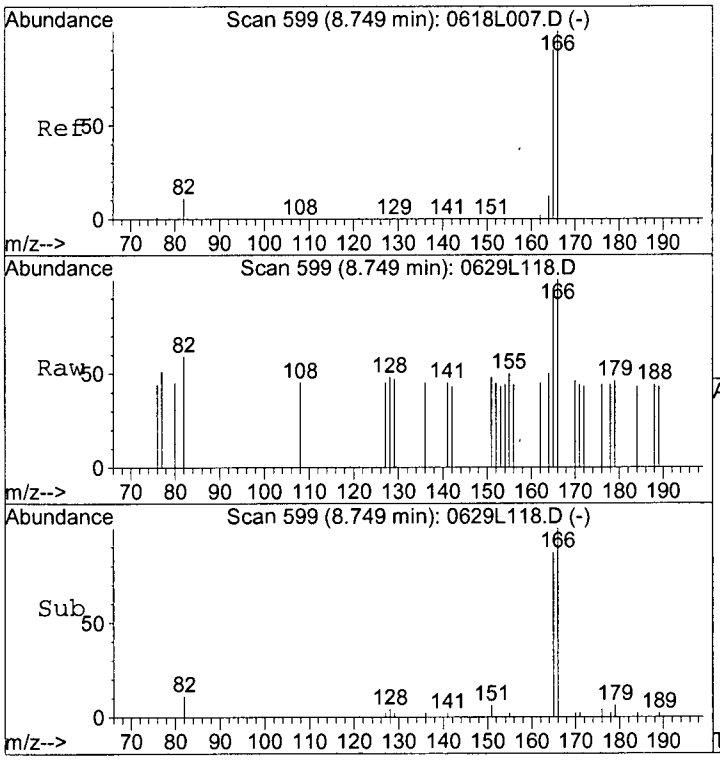


#9
Acenaphthene
Concen: 1.51646 ppb
RT: 8.13 min Scan# 548
Delta R.T. 0.00 min
Lab File: 0629L118.D
Acq: 1 Jul 15 17:34

Tgt Ion:154 Resp: 82

Ion	Ratio	Lower	Upper
154	100		
153	102.9	71.8	133.4
152	50.0	32.7	60.7

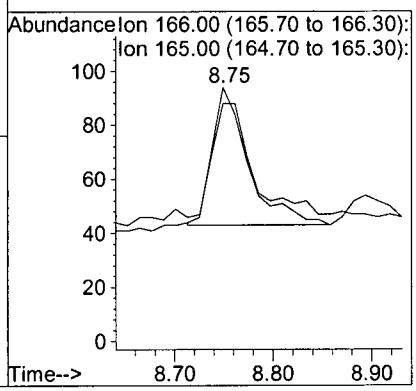


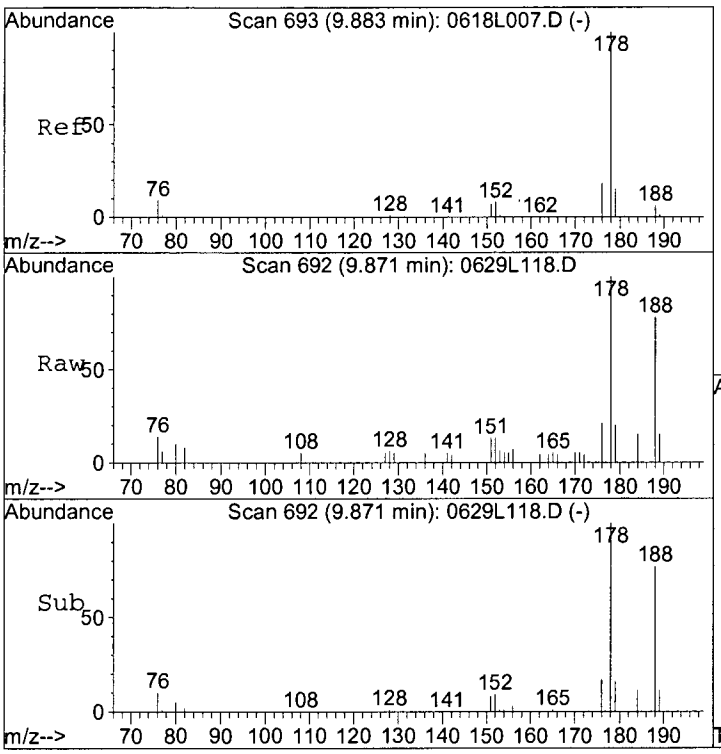


#10
Fluorene
Concen: 2.29255 ppb
RT: 8.75 min Scan# 599
Delta R.T. 0.00 min
Lab File: 0629L118.D
Acq: 1 Jul 15 17:34

Tgt Ion:166 Resp: 131

Ion	Ratio	Lower	Upper
166	100		
165	82.4	63.1	117.1

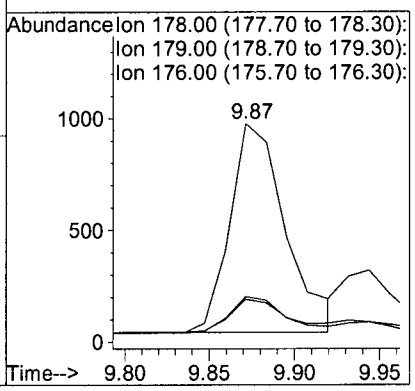


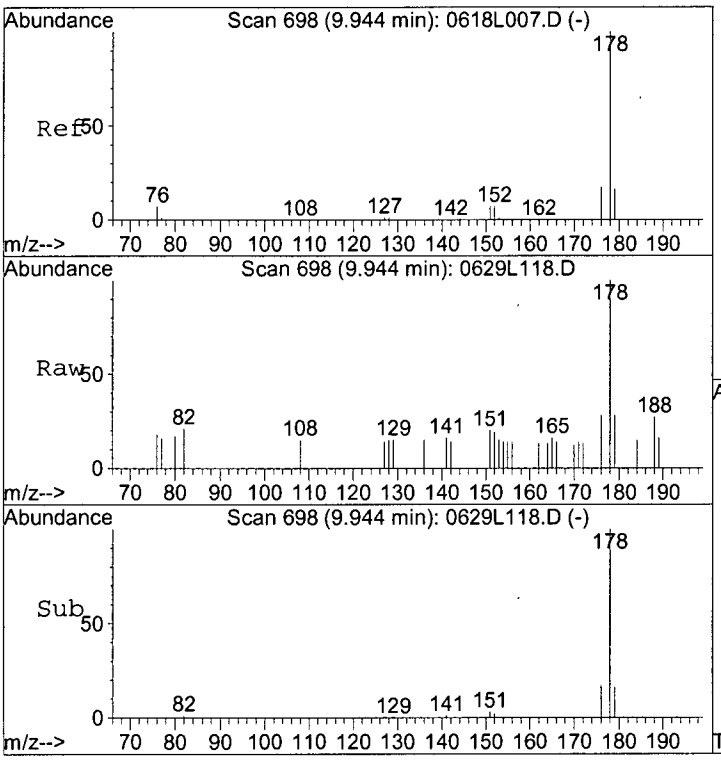


#12
Phenanthrene
Concen: 25.60811 ppb
RT: 9.87 min Scan# 692
Delta R.T. -0.01 min
Lab File: 0629L118.D
Acq: 1 Jul 15 17:34

Tgt Ion:178 Resp: 2130

Ion	Ratio	Lower	Upper
178	100		
179	15.6	10.5	19.5
176	17.4	12.3	22.8

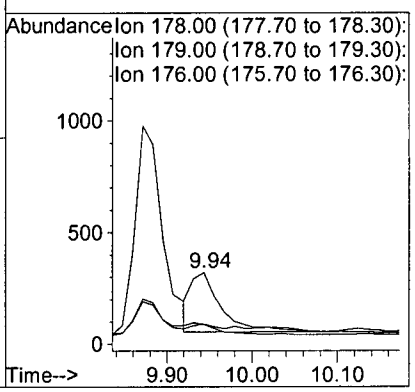


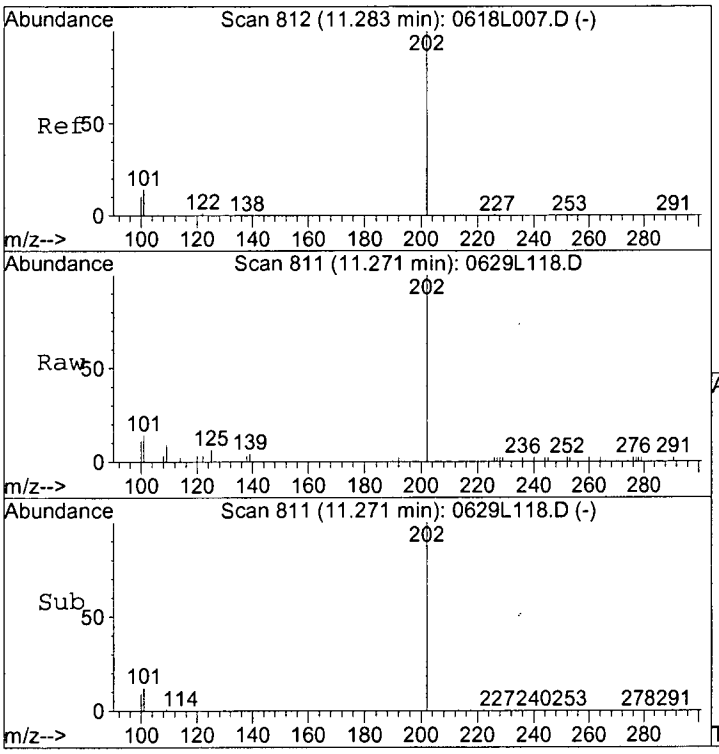


#13
Anthracene
Concen: 7.72131 ppb
RT: 9.94 min Scan# 698
Delta R.T. 0.00 min
Lab File: 0629L118.D
Acq: 1 Jul 15 17:34

Tgt Ion:178 Resp: 664

Ion	Ratio	Lower	Upper
178	100		
179	12.7	10.9	20.3
176	17.6	12.2	22.6

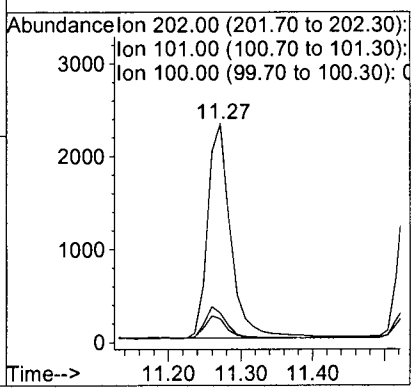


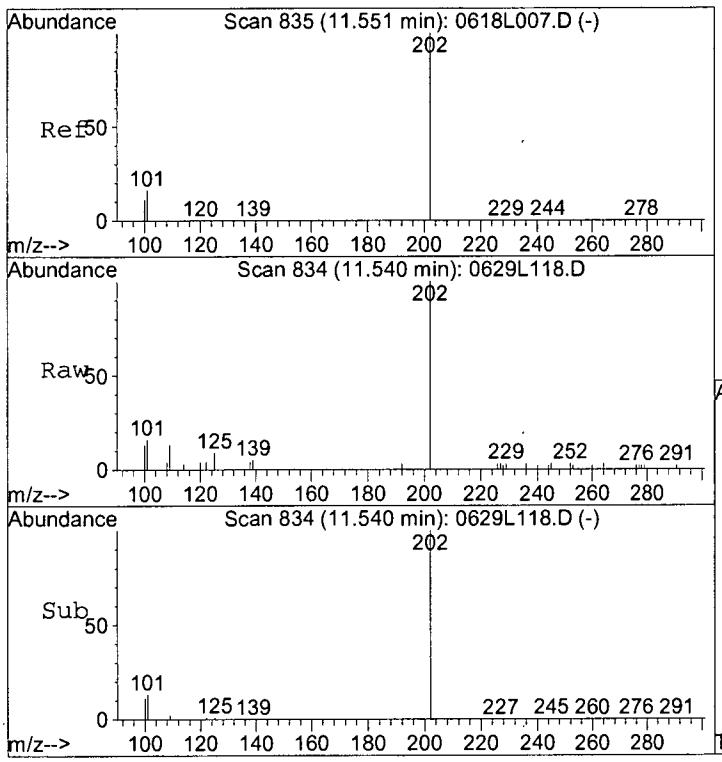


#14
Fluoranthene
Concen: 47.62616 ppb
RT: 11.27 min Scan# 811
Delta R.T. -0.01 min
Lab File: 0629L118.D
Acq: 1 Jul 15 17:34

Tgt Ion:202 Resp: 5108

Ion	Ratio	Lower	Upper
202	100		
101	11.8	9.7	18.1
100	9.0	7.4	13.7

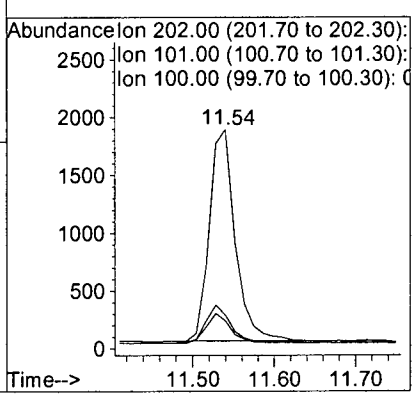


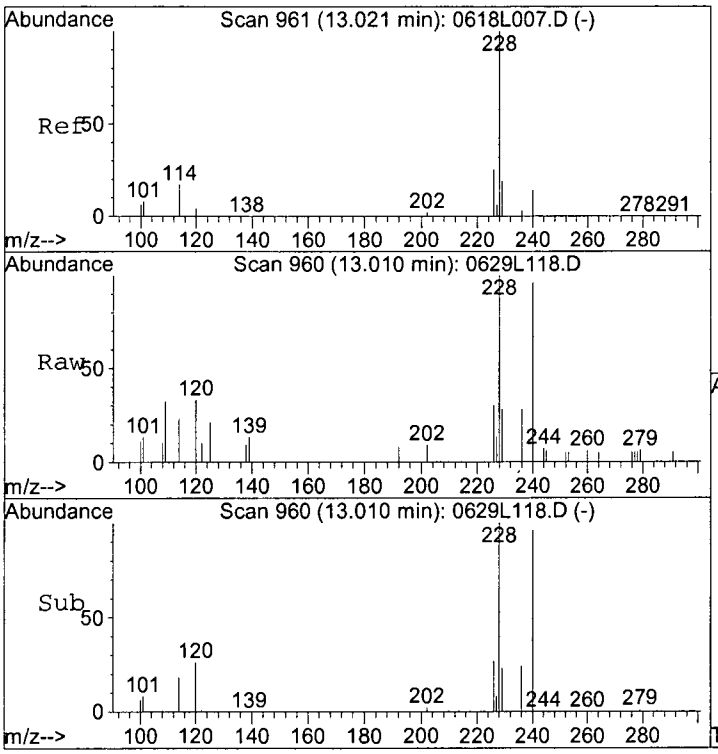


#16
Pyrene
Concen: 32.17528 ppb
RT: 11.54 min Scan# 834
Delta R.T. 0.00 min
Lab File: 0629L118.D
Acq: 1 Jul 15 17:34

Tgt Ion:202 Resp: 4020

Ion	Ratio	Lower	Upper
202	100		
101	13.2	11.0	20.4
100	10.5	7.9	14.7

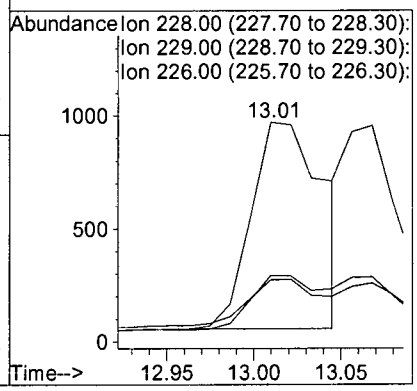


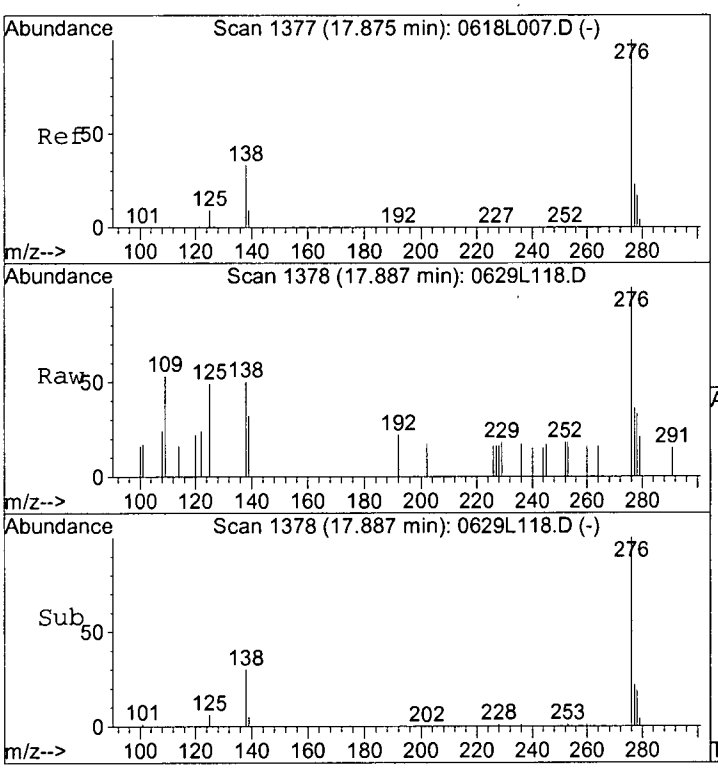


#18
Benz (a) anthracene
Concen: 30.14169 ppb
RT: 13.01 min Scan# 960
Delta R.T. -0.01 min
Lab File: 0629L118.D
Acq: 1 Jul 15 17:34

Tgt Ion:228 Resp: 2628

Ion	Ratio	Lower	Upper
228	100		
229	22.2	13.4	25.0
226	26.6	17.2	32.0

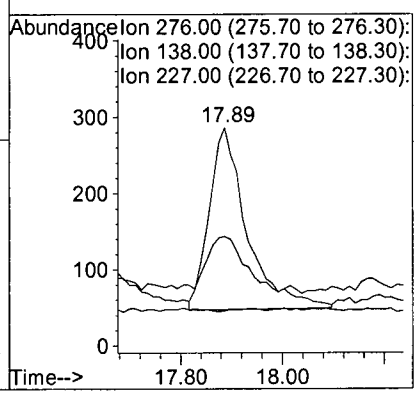


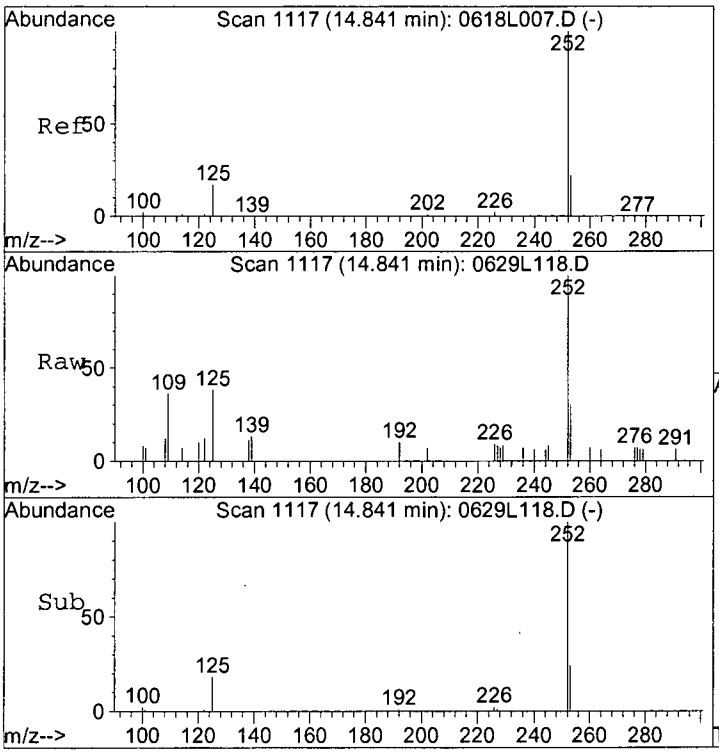


#20
Indeno (1,2,3-cd) pyrene
Concen: 11.49263 ppb
RT: 17.89 min Scan# 1378
Delta R.T. 0.01 min
Lab File: 0629L118.D
Acq: 1 Jul 15 17:34

Tgt Ion:276 Resp: 1224

Ion	Ratio	Lower	Upper
276	100		
138	28.3	23.0	42.8
227	0.0	0.1	0.1#

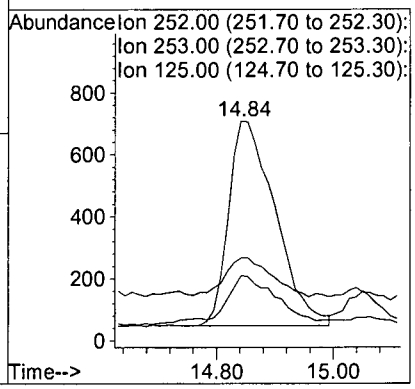


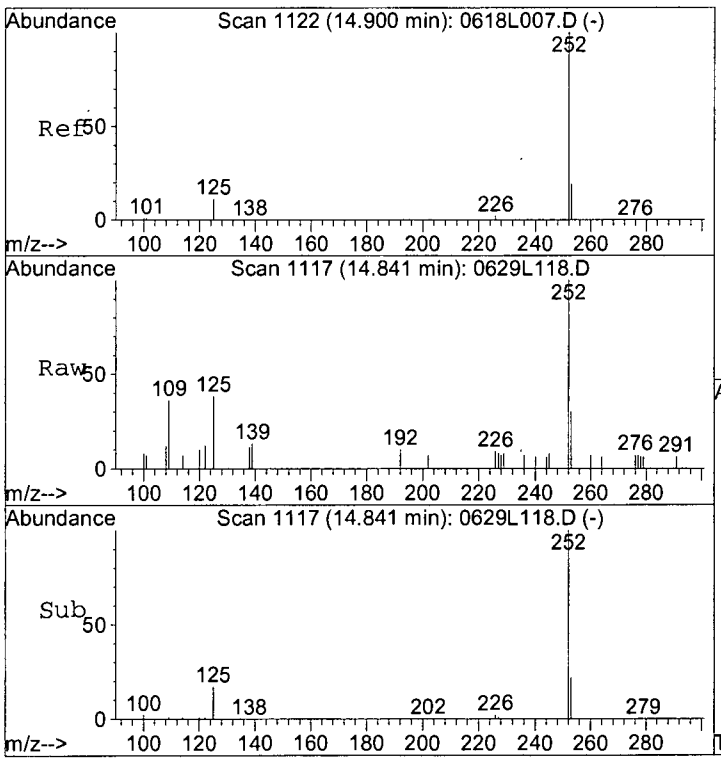


#22
Benzo (b) fluoranthene
Concen: 32.66859 ppb
RT: 14.84 min Scan# 1117
Delta R.T. 0.00 min
Lab File: 0629L118.D
Acq: 1 Jul 15 17:34

Tgt Ion:252 Resp: 3691

Ion	Ratio	Lower	Upper
252	100		
253	21.6	15.7	29.1
125	18.9	11.3	20.9

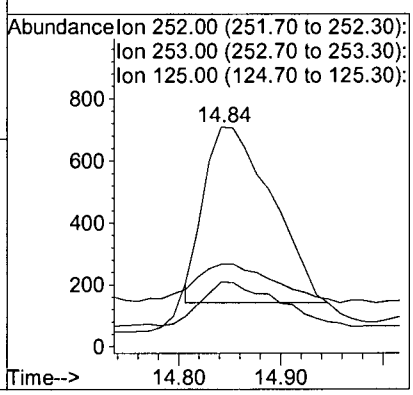


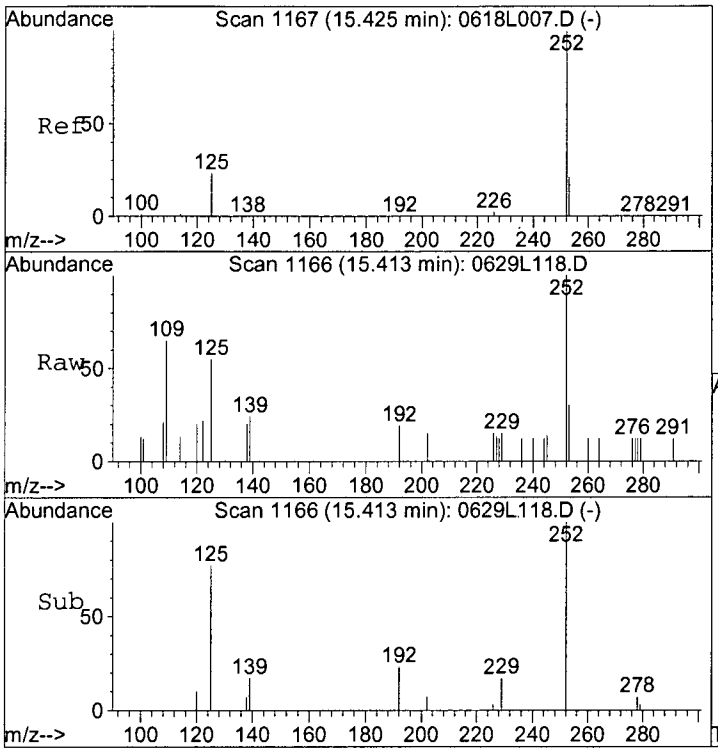


#23
Benzo (k) fluoranthene
Concen: 16.58375 ppb
RT: 14.84 min Scan# 1117
Delta R.T. -0.05 min
Lab File: 0629L118.D
Acq: 1 Jul 15 17:34

Tgt Ion:252 Resp: 2624

Ion	Ratio	Lower	Upper
252	100		
253	22.8	15.8	29.3
125	19.8	11.6	21.5

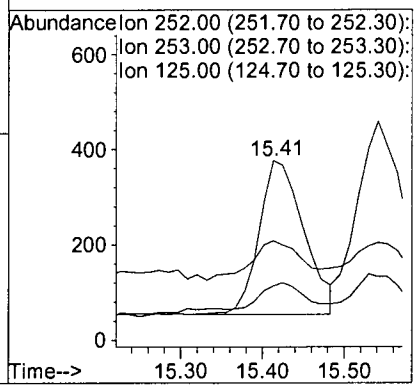


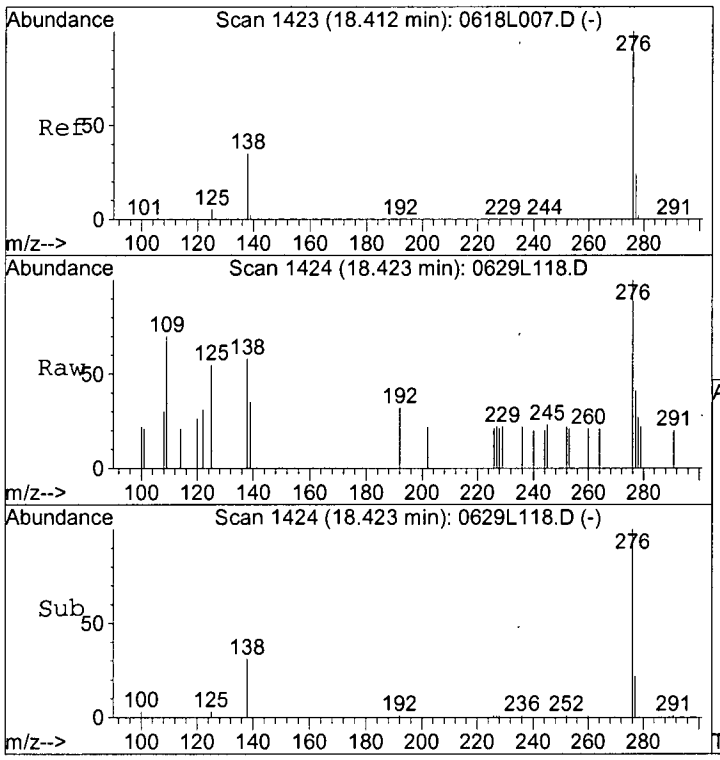


#24
Benzo (a) pyrene
Concen: 13.40521 ppb
RT: 15.41 min Scan# 1166
Delta R.T. 0.00 min
Lab File: 0629L118.D
Acq: 1 Jul 15 17:34

Tgt Ion:252 Resp: 1241

Ion	Ratio	Lower	Upper
252	100		
253	14.6	15.2	28.2#
125	24.8	16.1	29.9

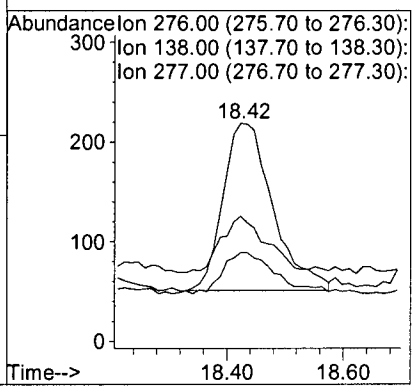




#26
Benzo (g,h,i) perylene
Concen: 9.57014 ppb
RT: 18.42 min Scan# 1424
Delta R.T. 0.01 min
Lab File: 0629L118.D
Acq: 1 Jul 15 17:34

Tgt Ion:276 Resp: 1006

Ion	Ratio	Lower	Upper
276	100		
138	33.9	23.7	44.1
277	23.2	17.3	32.1



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-SD026-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17816
QCG: #SIMDD-150702A-198630

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 27.8 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.037	0.007	0.0024	0.0012	mg/kg	07/02/15	07/06/15
8270D-LL	ACENAPHTHENE	0.028	0.007	0.0024	0.0014	mg/kg	07/02/15	07/06/15
8270D-LL	ACENAPHTHYLENE	0.018	0.007	0.0024	0.0012	mg/kg	07/02/15	07/06/15
8270D-LL	ANTHRACENE	0.15	0.007	0.0024	0.0011	mg/kg	07/02/15	07/06/15
8270D-LL	BENZ (A) ANTHRACENE	0.43	0.007	0.0024	0.0012	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (A) PYRENE	0.25	0.007	0.0024	0.0012	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (B) FLUORANTHENE	0.70	0.007	0.0024	0.0015	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.18	0.007	0.0024	0.0018	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (K) FLUORANTHENE	0.84	0.007	0.0024	0.0014	mg/kg	07/02/15	07/06/15
8270D-LL	CHRYSENE	0.52	0.007	0.0024	0.0011	mg/kg	07/02/15	07/06/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.064	0.007	0.0024	0.0012	mg/kg	07/02/15	07/06/15
8270D-LL	FLUORANTHENE	0.80	0.007	0.0024	0.0017	mg/kg	07/02/15	07/06/15
8270D-LL	FLUORENE	0.069	0.007	0.0024	0.0014	mg/kg	07/02/15	07/06/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.21	0.007	0.0024	0.0012	mg/kg	07/02/15	07/06/15
8270D-LL	NAPHTHALENE	0.029	0.007	0.0024	0.0012	mg/kg	07/02/15	07/06/15
8270D-LL	PHENANTHRENE	0.59	0.007	0.0024	0.0015	mg/kg	07/02/15	07/06/15
8270D-LL	PYRENE	0.62	0.007	0.0024	0.0017	mg/kg	07/02/15	07/06/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	61.9	45-105			%	07/02/15	07/06/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	61.2	35-100			%	07/02/15	07/06/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	74.0	30-125			%	07/02/15	07/06/15

Quant Method: P0629.M
Run #: 0629L168
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/07/15 1:56:48 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L168.D Vial: 68
Acq On : 6 Jul 15 12:04 Operator: MA
Sample : AZ17816S02 1/30.02G Inst : Linus
Misc : soil Multiplr: 33.31

Quant Time: Jul 7 11:31 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)	6.05	136	6580	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	8.10	164	3573	2.50000	ppb		0.00
11) Phenanthrene-D10(IS)	9.85	188	5892	2.50000	ppb		-0.01
15) Chrysene-D12(IS)	13.03	240	6023	2.50000	ppb		0.00
21) Perylene-D12(IS)	15.66	264	4027	2.50000	ppb		0.00
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.18	82	1000	50.96327	ppb		0.00
Spiked Amount 83.278			Recovery = 61.196%				
7) Surrogate Recovery (FBP)	7.31	172	3353	51.56246	ppb		0.00
Spiked Amount 83.278			Recovery = 61.916%				
17) Surrogate Recovery (TPH)	11.70	244	4077	61.60111	ppb		-0.02
Spiked Amount 83.278			Recovery = 73.970%				
Target Compounds							Qvalue
3) Naphthalene	6.07	128	2271	21.08651	ppb		100
4) 2-Methylnaphthalene	6.88	142	1728	26.45592	ppb		99
5) 1-Methylnaphthalene	7.00	142	1383	18.85902	ppb		99
8) Acenaphthylene	7.94	152	1577	13.08918	ppb		98
9) Acenaphthene	8.13	154	1503	20.41305	ppb		95
10) Fluorene	8.74	166	3870	49.73821	ppb		100
12) Phenanthrene	9.87	178	45632	427.66250	ppb		99
13) Anthracene	9.93	178	12134	109.99185	ppb	#	93
14) Fluoranthene	11.27	202	79440	577.38781	ppb		96
16) Pyrene	11.54	202	59067	445.83752	ppb		91
18) Benz (a) anthracene	13.01	228	34485	312.39470	ppb		99
19) Chrysene	13.07	228	35835	374.41626	ppb		97
20) Indeno (1,2,3-cd) pyrene	17.86	276	16822	148.95362	ppb	#	89
22) Benzo (b) fluoranthene	14.84	252	54181	507.66649	ppb		97
23) Benzo (k) fluoranthene	14.84	252	46546	609.49488	ppb		97
24) Benzo (a) pyrene	15.42	252	18586	182.21898	ppb		91
25) Dibenz (a,h) anthracene	17.89	278	5203	46.25454	ppb		95
26) Benzo (g,h,i) perylene	18.40	276	15037	129.83360	ppb		93

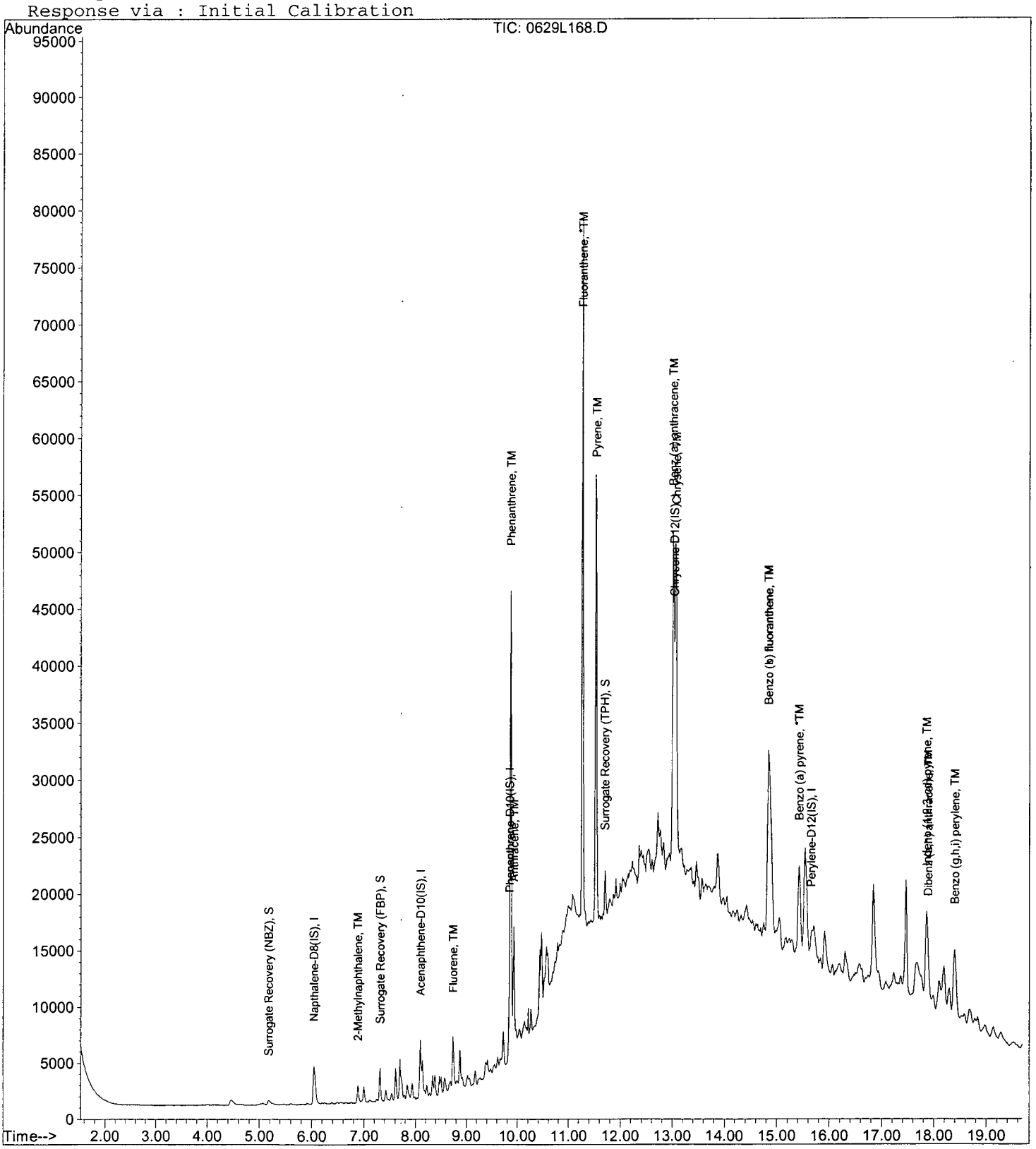
(#) = qualifier out of range (m) = manual integration

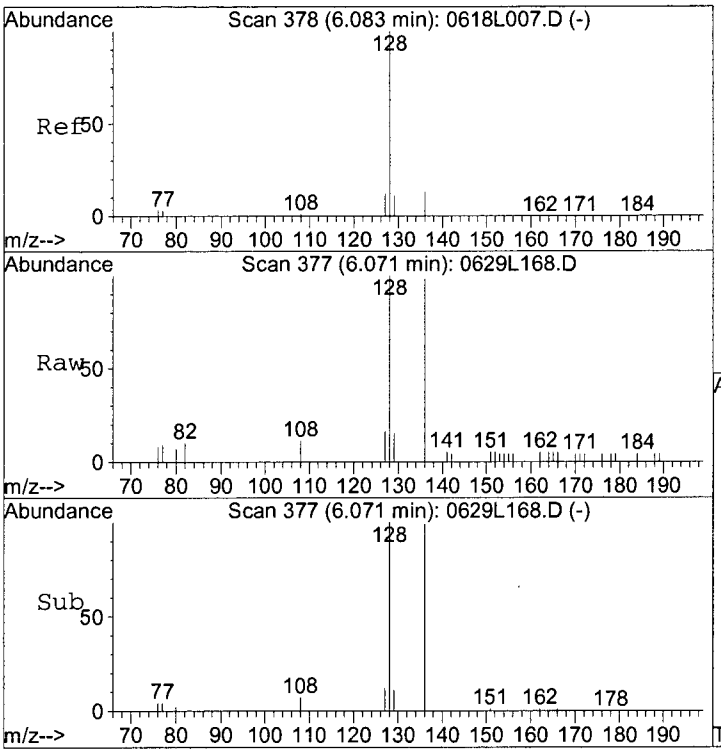
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L168.D Vial: 68
Acq On : 6 Jul 15 12:04 Operator: MA
Sample : AZ17816S02 1/30.02G Inst : Linus
Misc : soil Multiplr: 33.31

Quant Time: Jul 7 11:31 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

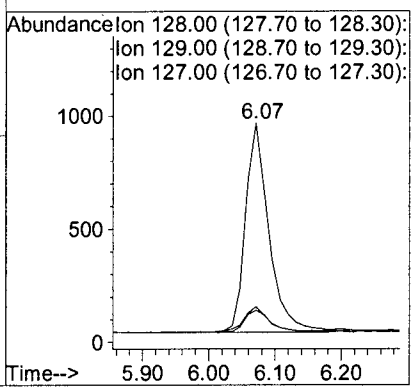


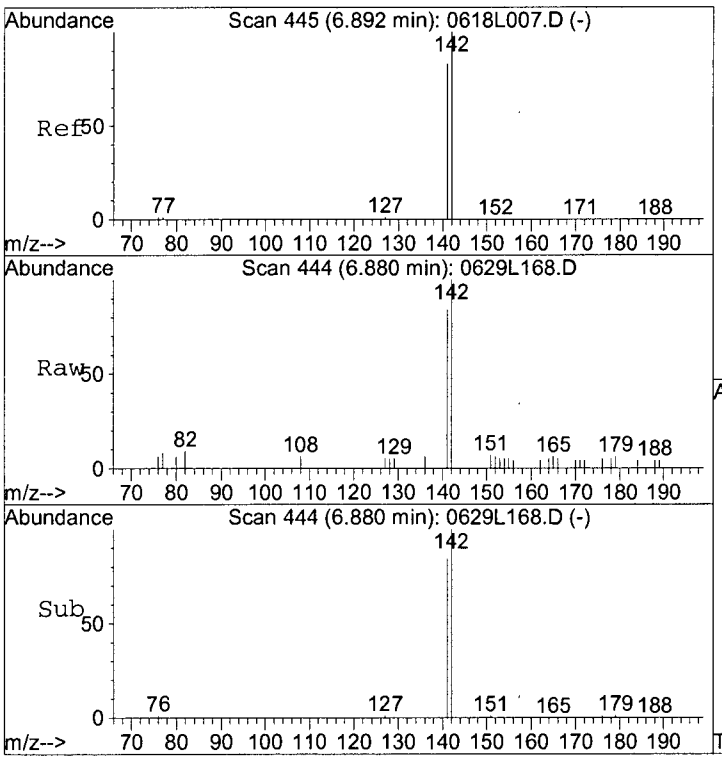


#3
Naphthalene
Concen: 21.08651 ppb
RT: 6.07 min Scan# 377
Delta R.T. 0.00 min
Lab File: 0629L168.D
Acq: 6 Jul 15 12:04

Tgt Ion:128 Resp: 2271

Ion	Ratio	Lower	Upper
128	100		
129	10.6	7.4	13.8
127	12.2	8.4	15.6

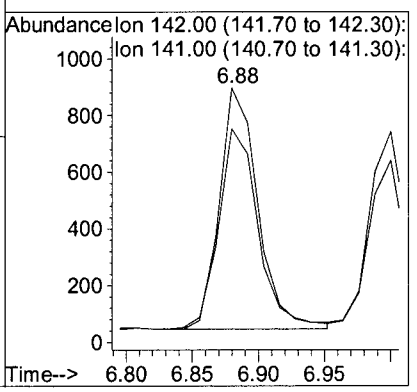


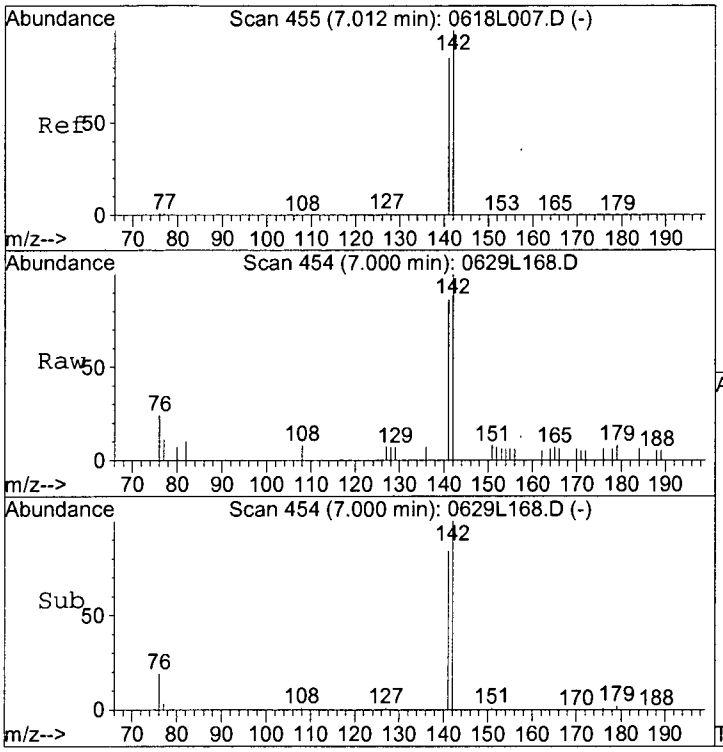


#4
2-Methylnaphthalene
Concen: 26.45592 ppb
RT: 6.88 min Scan# 444
Delta R.T. 0.00 min
Lab File: 0629L168.D
Acq: 6 Jul 15 12:04

Tgt Ion:142 Resp: 1728

Ion	Ratio	Lower	Upper
142	100		
141	82.3	58.3	108.3

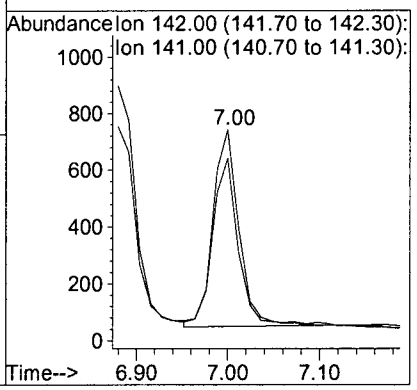


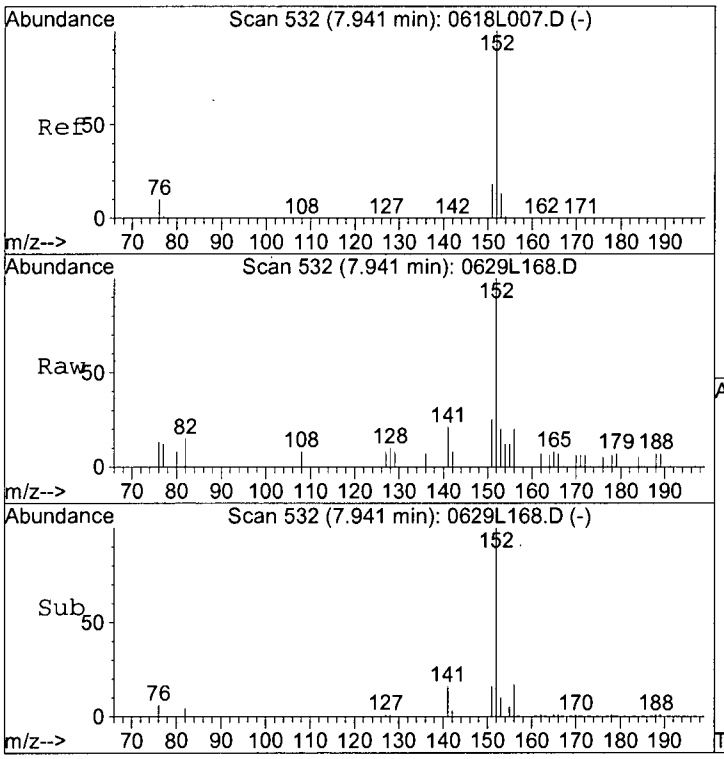


#5
1-Methylnaphthalene
Concen: 18.85902 ppb
RT: 7.00 min Scan# 454
Delta R.T. 0.00 min
Lab File: 0629L168.D
Acq: 6 Jul 15 12:04

Tgt Ion:142 Resp: 1383

Ion	Ratio	Lower	Upper
142	100		
141	84.3	59.5	110.5

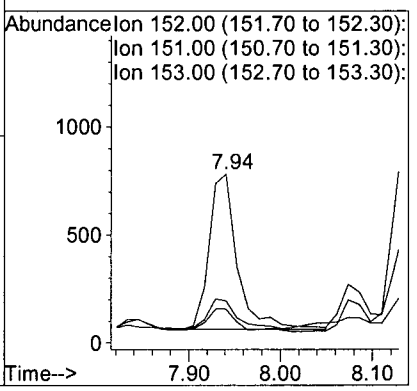


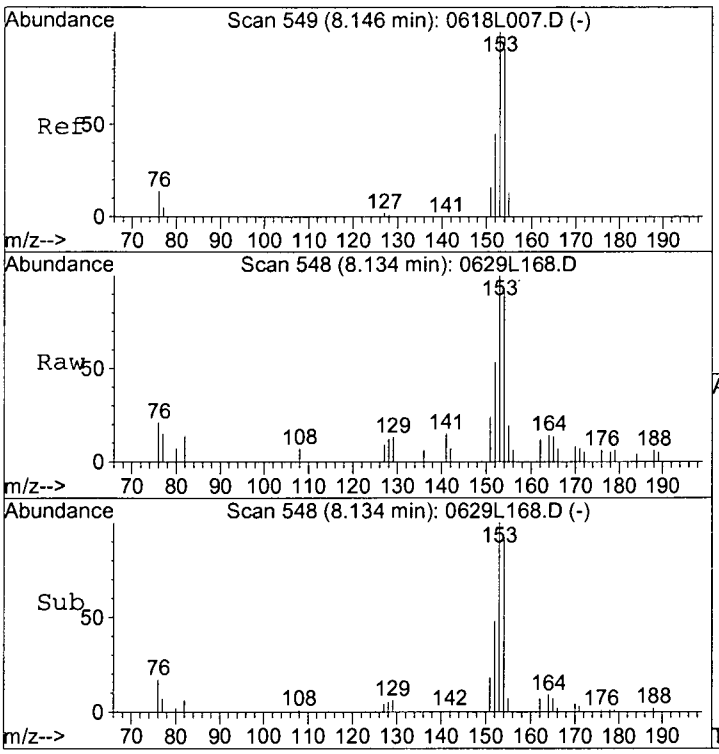


#8
Acenaphthylene
Concen: 13.08918 ppb
RT: 7.94 min Scan# 532
Delta R.T. 0.00 min
Lab File: 0629L168.D
Acq: 6 Jul 15 12:04

Tgt Ion:152 Resp: 1577

Ion	Ratio	Lower	Upper
152	100		
151	17.9	12.7	23.7
153	14.2	9.0	16.8

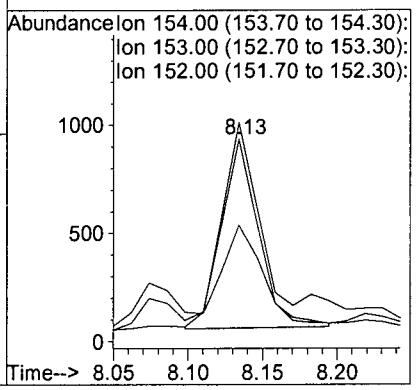


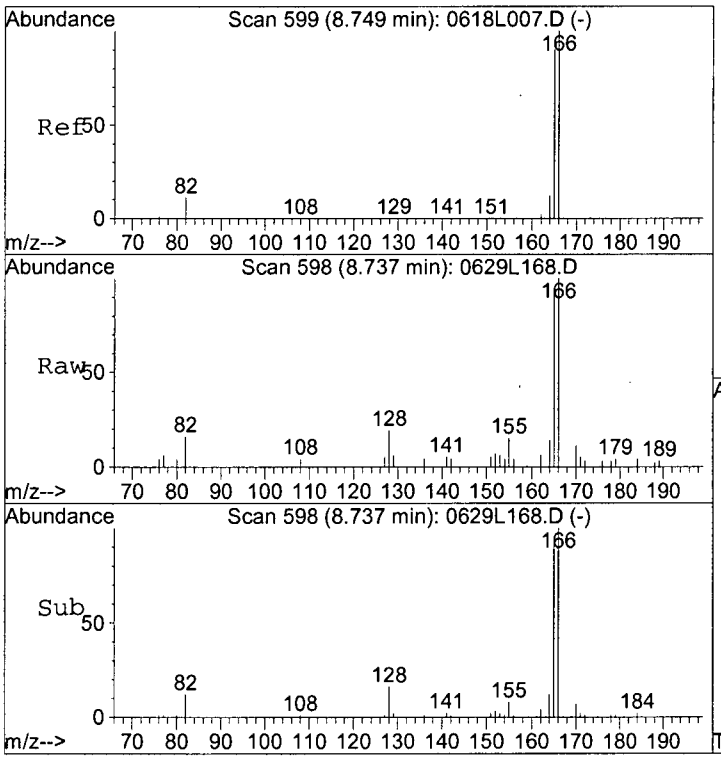


#9
Acenaphthene
Concen: 20.41305 ppb
RT: 8.13 min Scan# 548
Delta R.T. 0.00 min
Lab File: 0629L168.D
Acq: 6 Jul 15 12:04

Tgt Ion:154 Resp: 1503

Ion	Ratio	Lower	Upper
154	100		
153	105.7	71.8	133.4
152	52.4	32.7	60.7

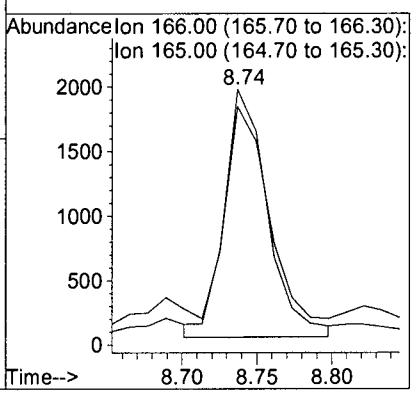


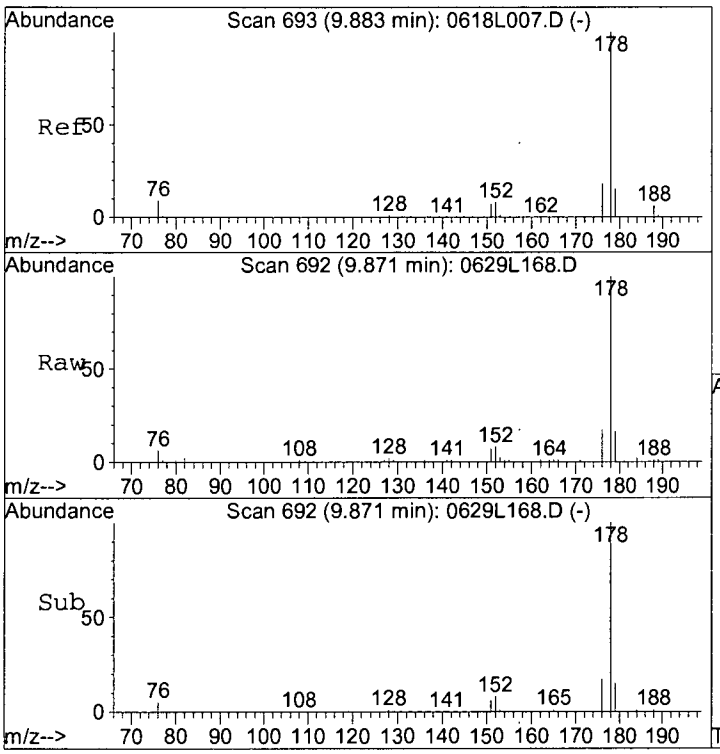


#10
Fluorene
Concen: 49.73821 ppb
RT: 8.74 min Scan# 598
Delta R.T. -0.01 min
Lab File: 0629L168.D
Acq: 6 Jul 15 12:04

Tgt Ion:166 Resp: 3870

Ion	Ratio	Lower	Upper
166	100		
165	89.7	63.1	117.1

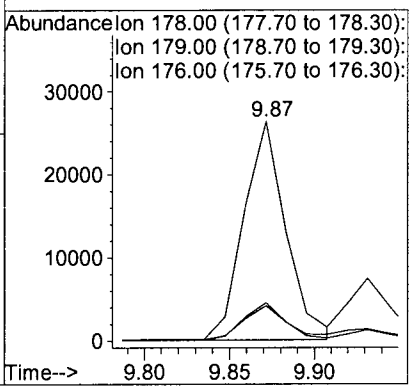


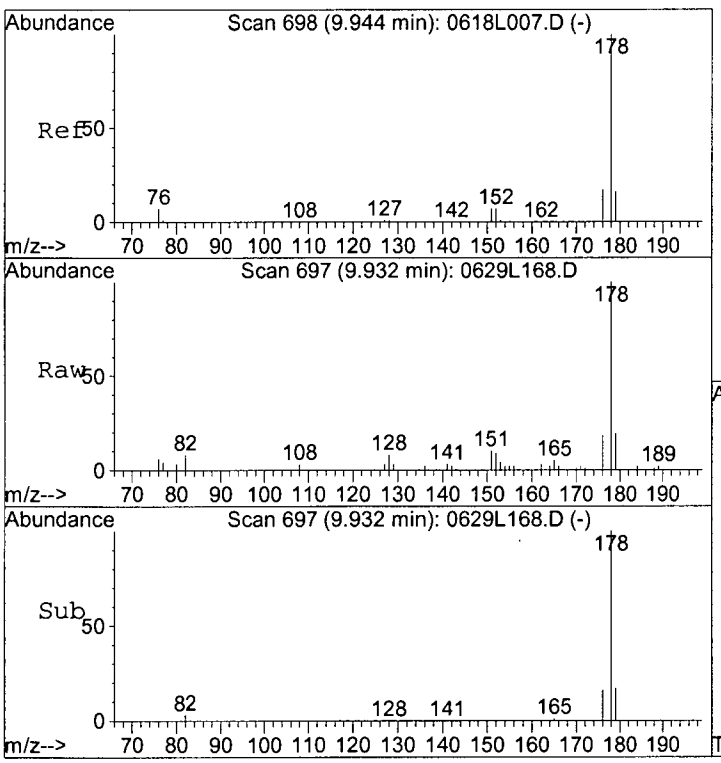


#12
Phenanthrene
Concen: 427.66250 ppb
RT: 9.87 min Scan# 692
Delta R.T. -0.01 min
Lab File: 0629L168.D
Acq: 6 Jul 15 12:04

Tgt Ion:178 Resp: 45632

Ion	Ratio	Lower	Upper
178	100		
179	15.4	10.5	19.5
176	17.1	12.3	22.8

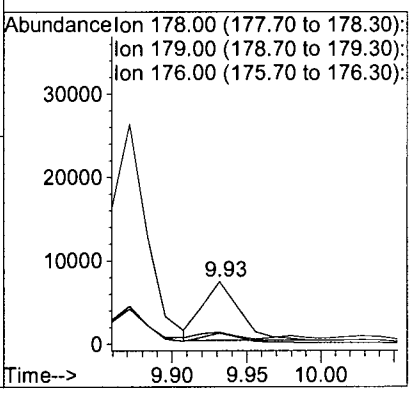


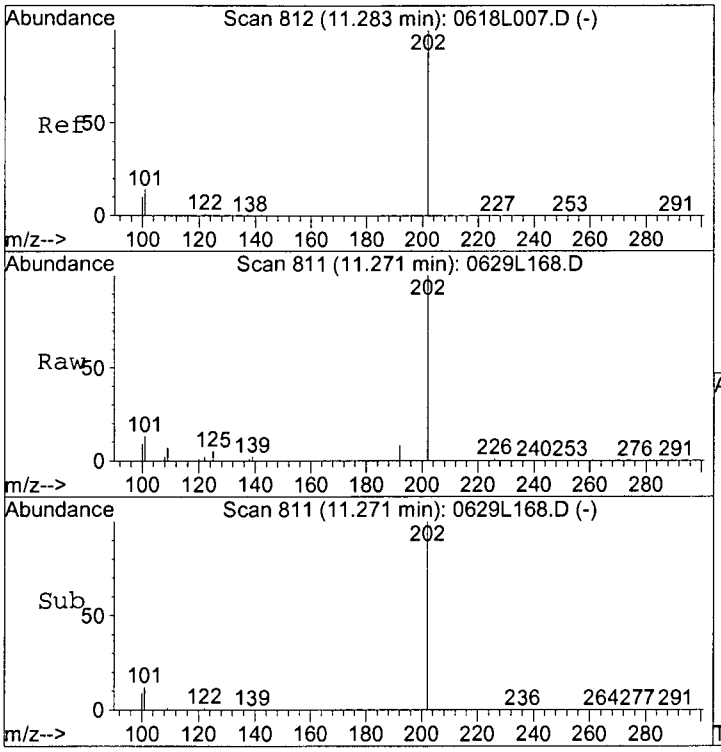


#13
Anthracene
Concen: 109.99185 ppb
RT: 9.93 min Scan# 697
Delta R.T. -0.01 min
Lab File: 0629L168.D
Acq: 6 Jul 15 12:04

Tgt Ion:178 Resp: 12134

Ion	Ratio	Lower	Upper
178	100		
179	10.3	10.9	20.3#
176	16.9	12.2	22.6

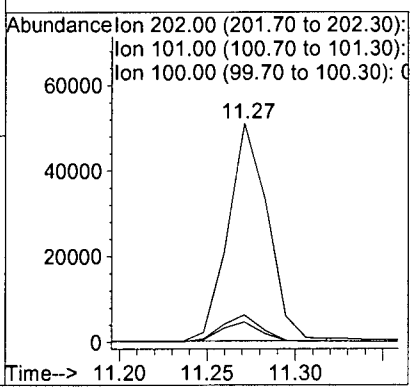


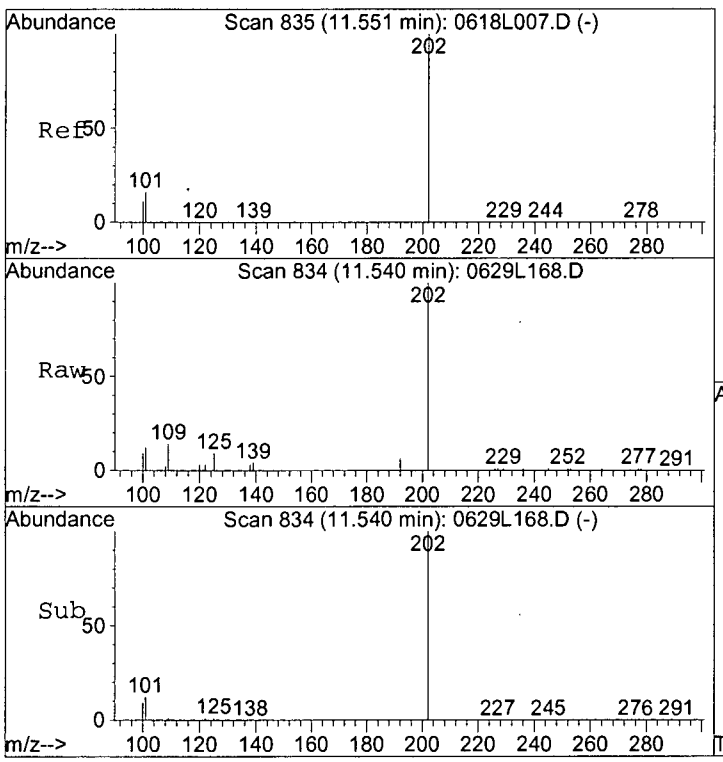


#14
Fluoranthene
Concen: 577.38781 ppb
RT: 11.27 min Scan# 811
Delta R.T. -0.01 min
Lab File: 0629L168.D
Acq: 6 Jul 15 12:04

Tgt Ion:202 Resp: 79440

Ion	Ratio	Lower	Upper
202	100		
101	12.3	9.7	18.1
100	9.0	7.4	13.7

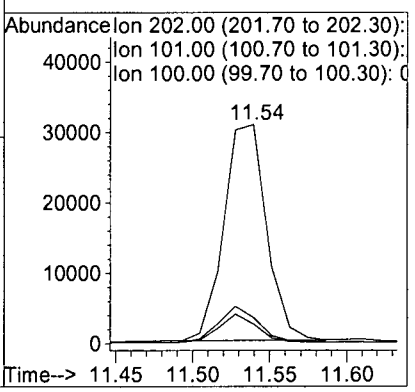


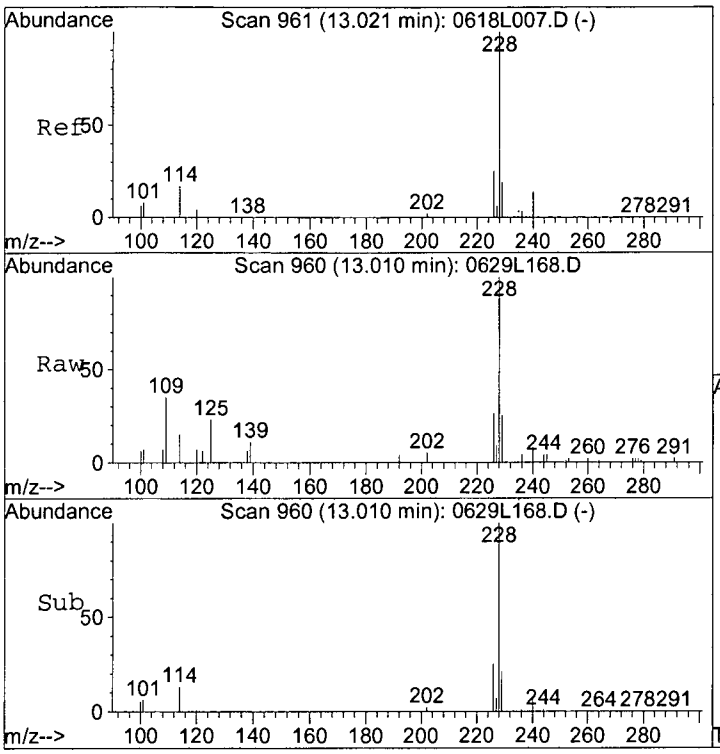


#16
Pyrene
Concen: 445.83752 ppb
RT: 11.54 min Scan# 834
Delta R.T. 0.00 min
Lab File: 0629L168.D
Acq: 6 Jul 15 12:04

Tgt Ion:202 Resp: 59067

Ion	Ratio	Lower	Upper
202	100		
101	11.4	11.0	20.4
100	8.4	7.9	14.7

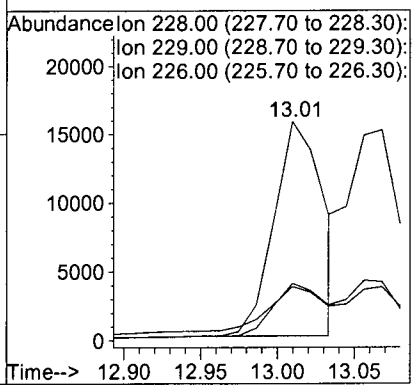


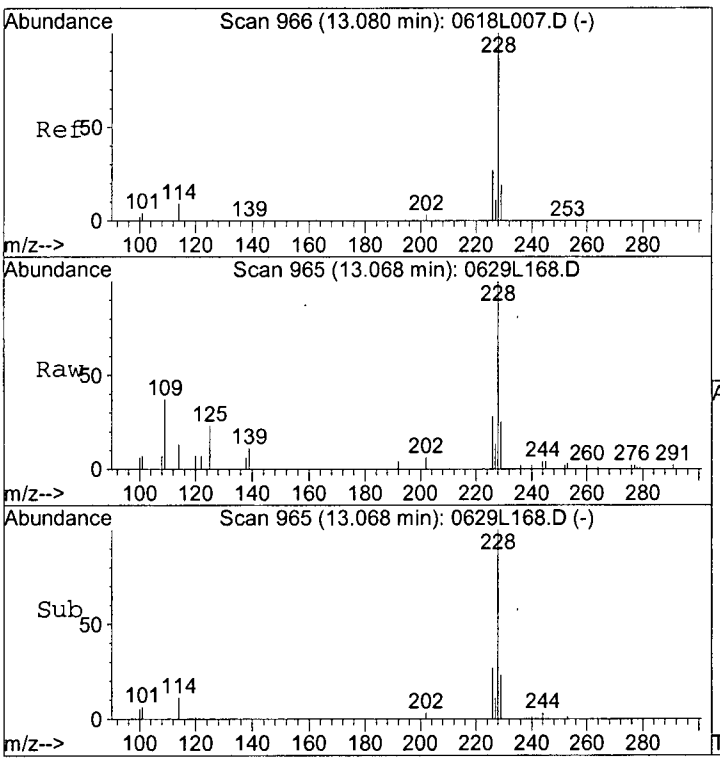


#18
Benz (a) anthracene
Concen: 312.39470 ppb
RT: 13.01 min Scan# 960
Delta R.T. -0.01 min
Lab File: 0629L168.D
Acq: 6 Jul 15 12:04

Tgt Ion:228 Resp: 34485

Ion	Ratio	Lower	Upper
228	100		
229	20.6	13.4	25.0
226	24.7	17.2	32.0

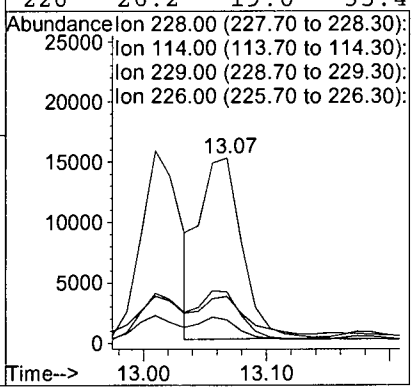


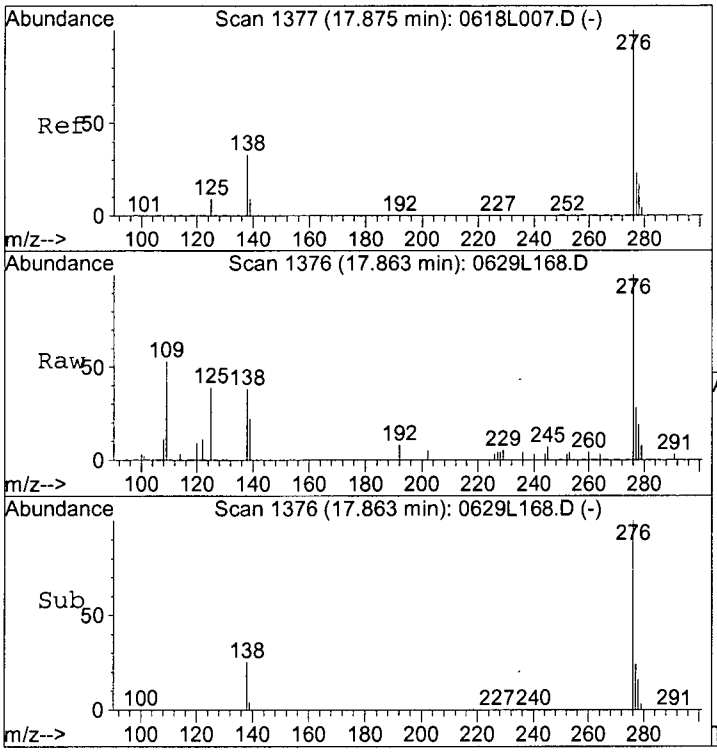


#19
Chrysene
Concen: 374.41626 ppb
RT: 13.07 min Scan# 965
Delta R.T. 0.00 min
Lab File: 0629L168.D
Acq: 6 Jul 15 12:04

Tgt Ion:228 Resp: 35835

Ion	Ratio	Lower	Upper
228	100		
114	10.8	9.5	17.6
229	20.6	13.6	25.2
226	26.2	19.0	35.4

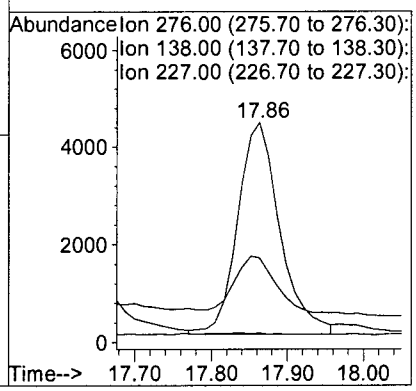


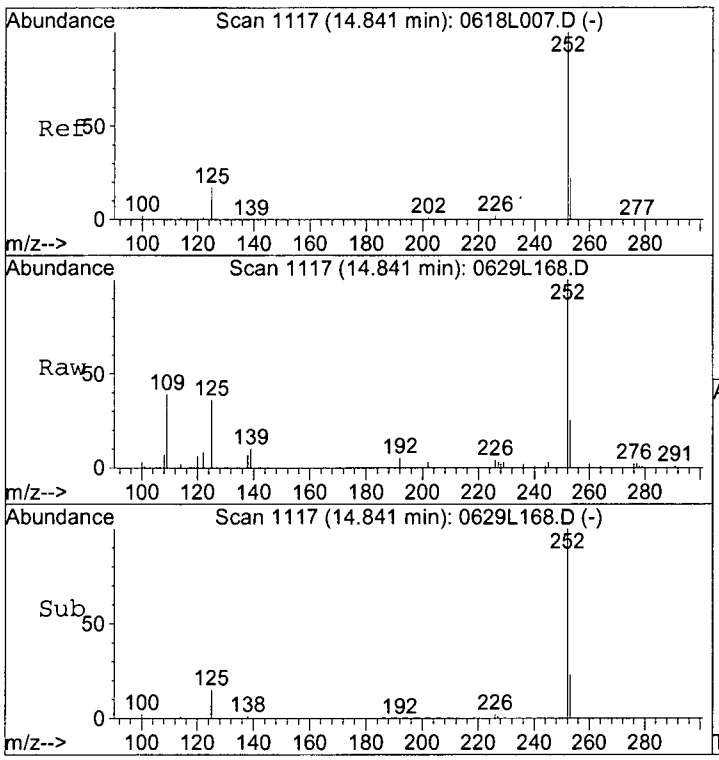


#20
Indeno (1,2,3-cd) pyrene
Concen: 148.95362 ppb
RT: 17.86 min Scan# 1376
Delta R.T. -0.01 min
Lab File: 0629L168.D
Acq: 6 Jul 15 12:04

Tgt Ion:276 Resp: 16822

Ion	Ratio	Lower	Upper
276	100		
138	26.5	23.0	42.8
227	0.9	0.1	0.1#

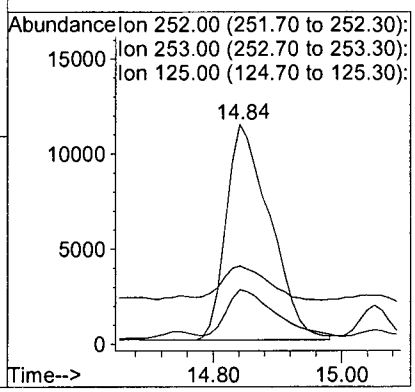


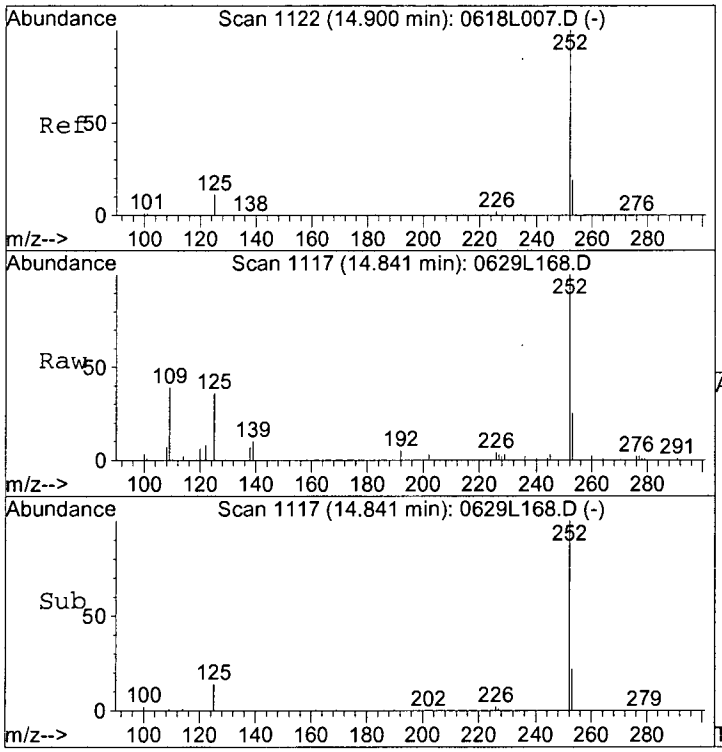


#22
Benzo (b) fluoranthene
Concen: 507.66649 ppb
RT: 14.84 min Scan# 1117
Delta R.T. 0.00 min
Lab File: 0629L168.D
Acq: 6 Jul 15 12:04

Tgt Ion:252 Resp: 54181

Ion	Ratio	Lower	Upper
252	100		
253	20.7	15.7	29.1
125	15.5	11.3	20.9

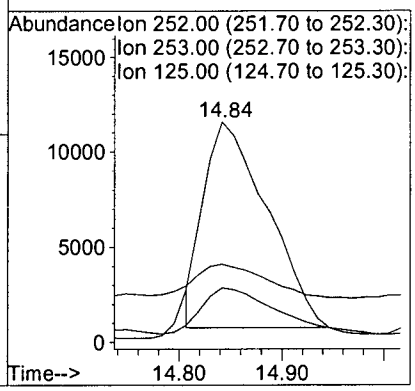


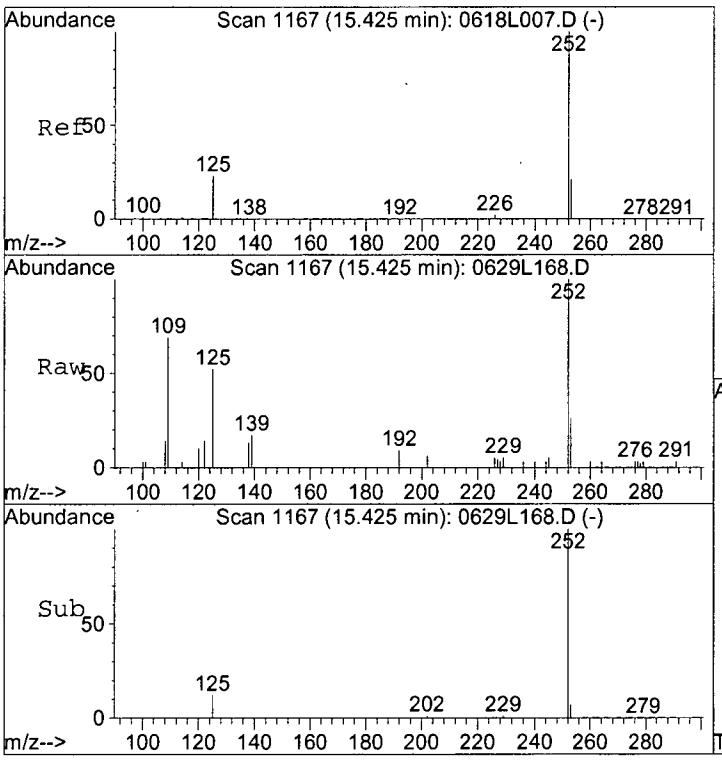


#23
Benzo (k) fluoranthene
Concen: 609.49488 ppb
RT: 14.84 min Scan# 1117
Delta R.T. -0.05 min
Lab File: 0629L168.D
Acq: 6 Jul 15 12:04

Tgt Ion:252 Resp: 46546

Ion	Ratio	Lower	Upper
252	100		
253	19.6	15.8	29.3
125	16.5	11.6	21.5

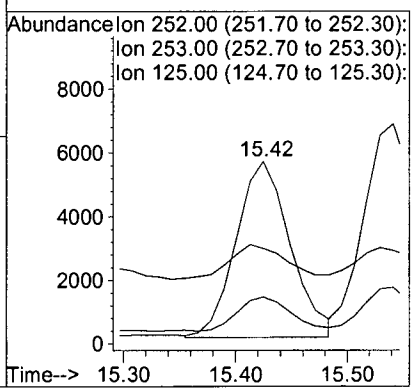


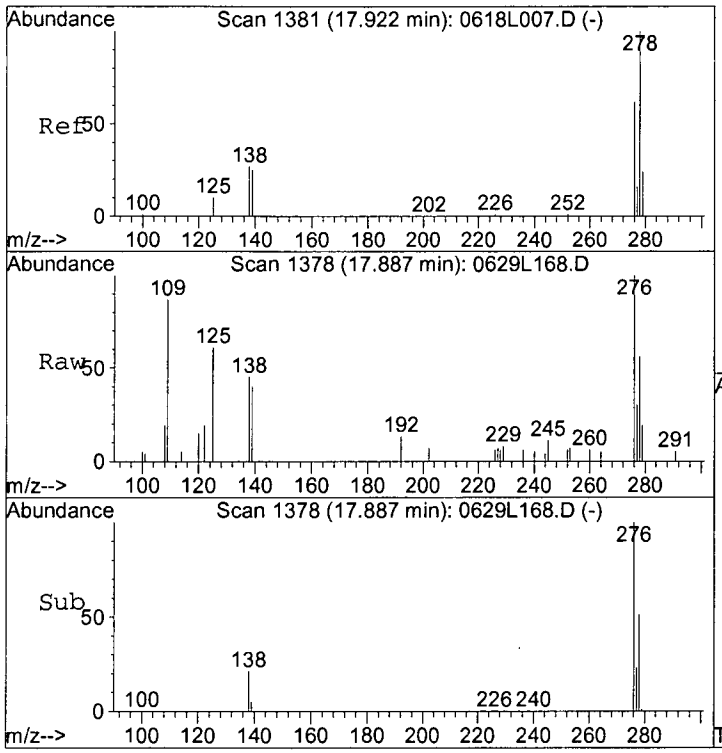


#24
Benzo (a) pyrene
Concen: 182.21898 ppb
RT: 15.42 min Scan# 1167
Delta R.T. 0.01 min
Lab File: 0629L168.D
Acq: 6 Jul 15 12:04

Tgt Ion:252 Resp: 18586

Ion	Ratio	Lower	Upper
252	100		
253	19.1	15.2	28.2
125	17.1	16.1	29.9

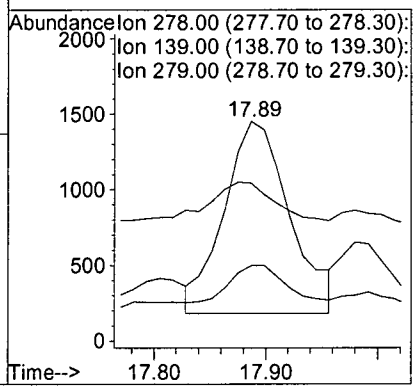


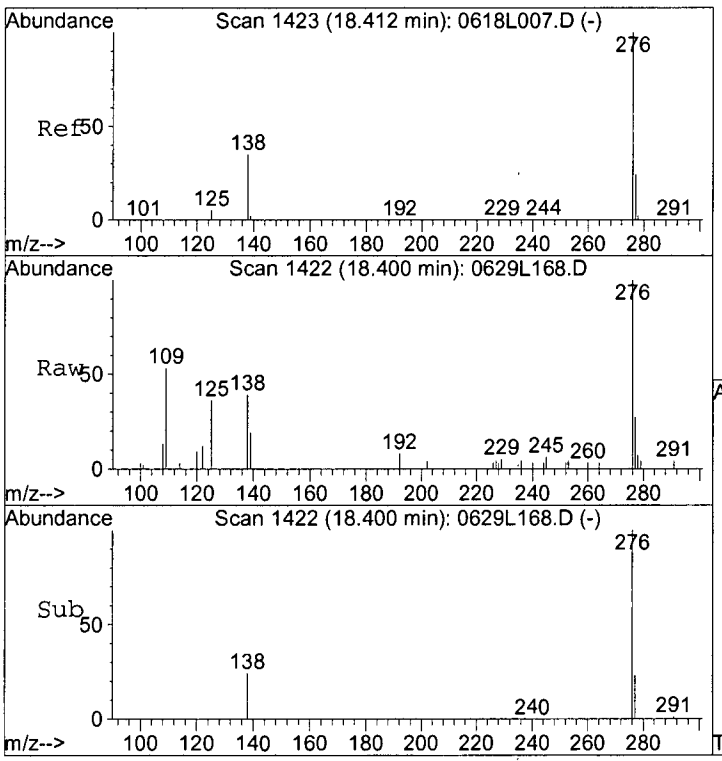


#25
Dibenz (a,h) anthracene
Concen: 46.25454 ppb
RT: 17.89 min Scan# 1378
Delta R.T. -0.02 min
Lab File: 0629L168.D
Acq: 6 Jul 15 12:04

Tgt Ion:278 Resp: 5203

Ion	Ratio	Lower	Upper
278	100		
139	22.6	18.5	34.3
279	22.5	16.7	30.9

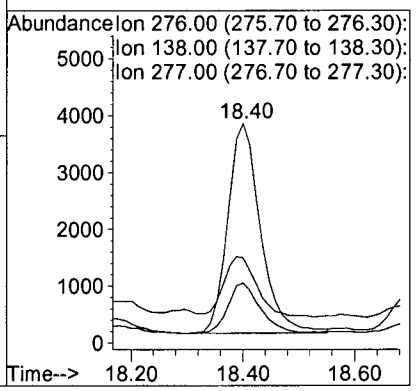




#26
Benzo (g,h,i) perylene
Concen: 129.83360 ppb
RT: 18.40 min Scan# 1422
Delta R.T. -0.01 min
Lab File: 0629L168.D
Acq: 6 Jul 15 12:04

Tgt Ion:276 Resp: 15037

Ion	Ratio	Lower	Upper
276	100		
138	27.8	23.7	44.1
277	24.2	17.3	32.1



EPA 8270D LL WATER DODv3

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76674

Sample ID: S67-SW026-061615

APPL ID: AZ17817

Sample Collection Date: 06/16/15

QCG: #SIMDD-150619A-198588

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	50.0	50-110			%	06/19/15	07/02/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	50.5	40-110			%	06/19/15	07/02/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	61.2	50-135			%	06/19/15	07/02/15

Quant Method: P0629.M
Run #: 0629L139
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/06/15 11:17:37 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L139.D Vial: 39
Acq On : 2 Jul 15 13:37 Operator: MA
Sample : AZ17817W05 1/1000 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Jul 6 10:25 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	6631	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.10	164	3138	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.86	188	5347	2.50000 ppb	0.00
15) Chrysene-D12(IS)	13.04	240	6167	2.50000 ppb	0.01
21) Perylene-D12(IS)	15.67	264	3910	2.50000 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.19	82	832	1.26310 ppb	0.01
Spiked Amount 2.500			Recovery = 50.520%		
7) Surrogate Recovery (FBP)	7.31	172	2376m	1.24893 ppb	0.00
Spiked Amount 2.500			Recovery = 49.960%		
17) Surrogate Recovery (TPH)	11.71	244	3455	1.53054 ppb	-0.01
Spiked Amount 2.500			Recovery = 61.240%		
Target Compounds					Qvalue

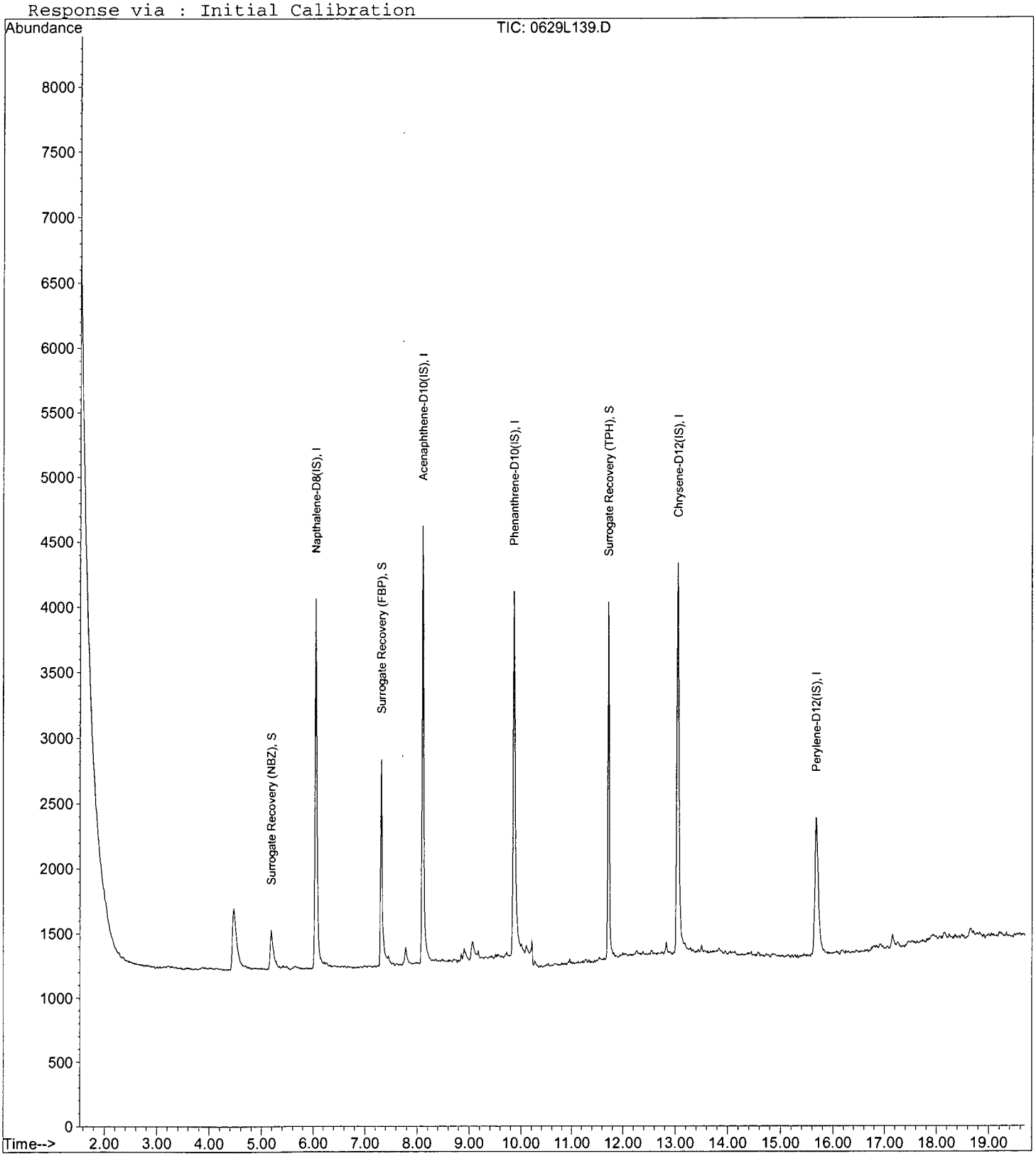
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L139.D Vial: 39
Acq On : 2 Jul 15 13:37 Operator: MA
Sample : AZ17817W05 1/1000 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Jul 6 10:25 2015 Quant Results File: P0629.RES

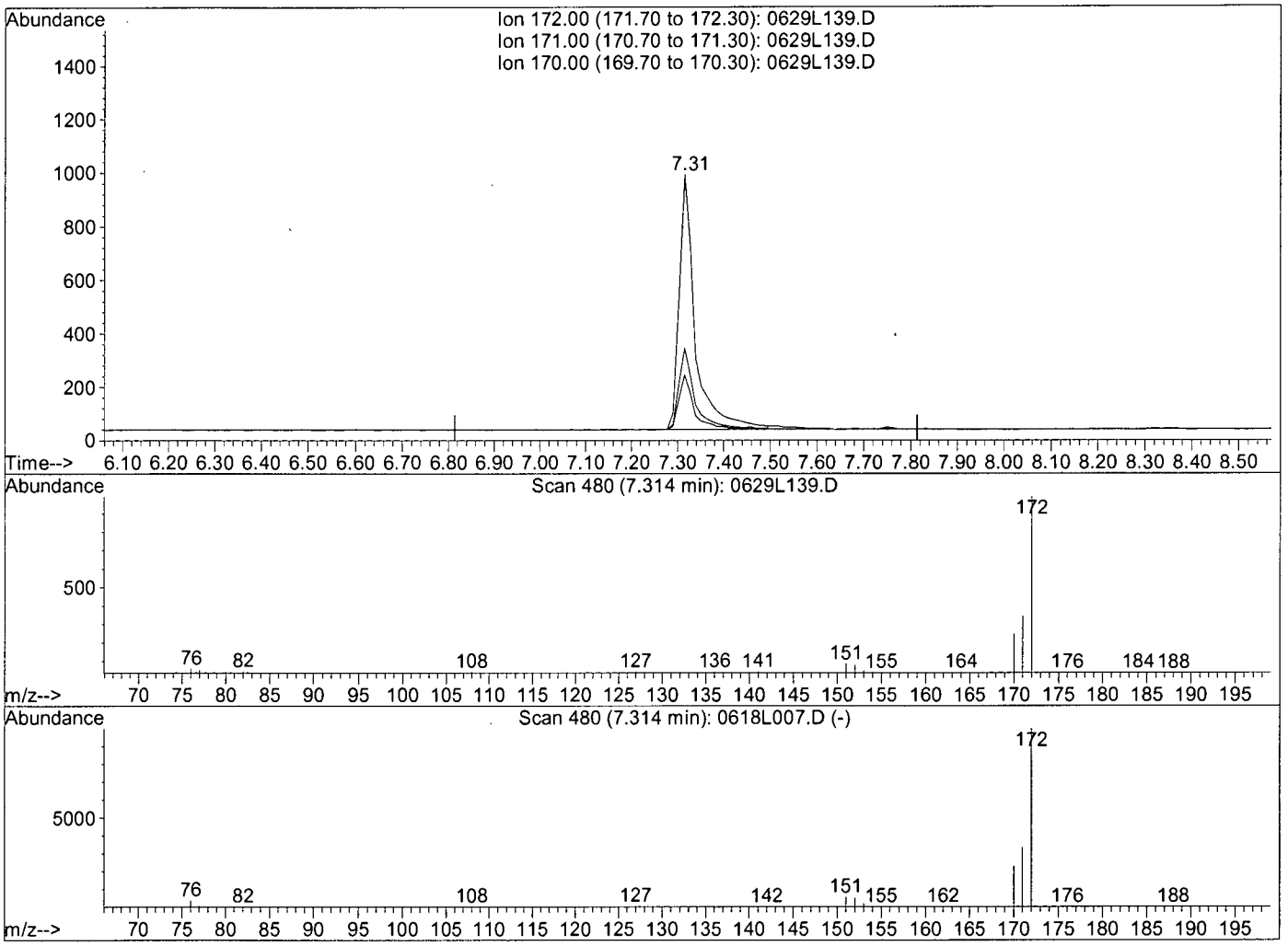
Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration



Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L139.D Vial: 39
Acq On : 2 Jul 15 13:37 Operator: MA
Sample : AZ17817W05 1/1000 Inst : Linus
Misc : water Multiplr: 1.00
Quant Time: Jul 6 9:15 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: 0629L139.D

(7) Surrogate Recovery (FBP) (S)

7.31min 1.2058ppb

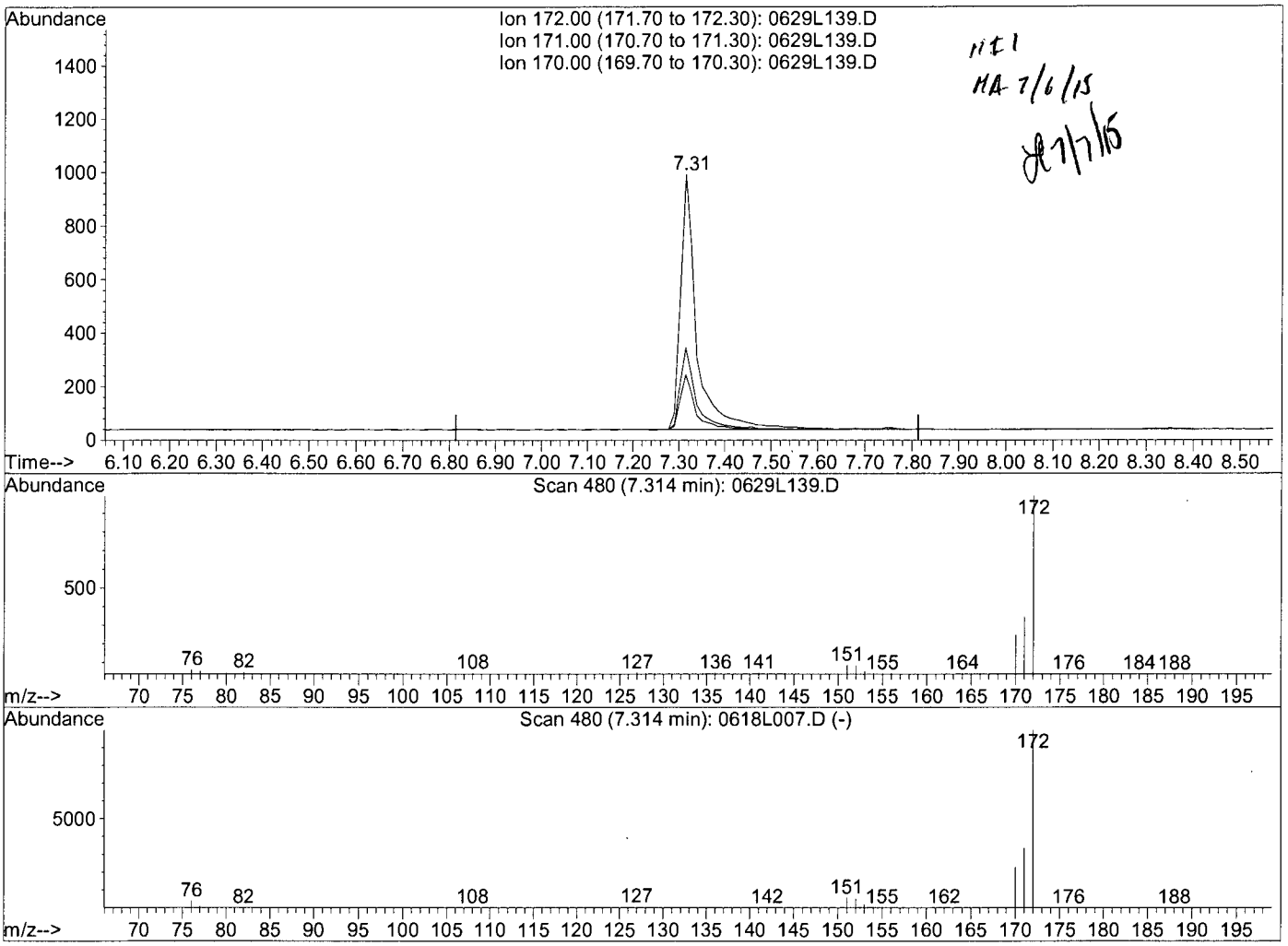
response 2294

Ion	Exp%	Act%
172.00	100	100
171.00	33.10	32.14
170.00	22.70	21.64
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L139.D Vial: 39
Acq On : 2 Jul 15 13:37 Operator: MA
Sample : AZ17817W05 1/1000 Inst : Linus
Misc : water Multiplr: 1.00
Quant Time: Jul 6 9:38 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: 0629L139.D

(7) Surrogate Recovery (FBP) (S)

7.31min 1.2489ppb m

response 2376

Ion	Exp%	Act%
172.00	100	100
171.00	33.10	34.78
170.00	22.70	24.80
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-SD027-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17819
QCG: #SIMDD-150622B-198629

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 50.7 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0034 U	0.010	0.0034	0.0018	mg/kg	06/22/15	07/01/15
8270D-LL	ACENAPHTHENE	0.0034 U	0.010	0.0034	0.0020	mg/kg	06/22/15	07/01/15
8270D-LL	ACENAPHTHYLENE	0.0034 U	0.010	0.0034	0.0018	mg/kg	06/22/15	07/01/15
8270D-LL	ANTHRACENE	0.0034 U	0.010	0.0034	0.0016	mg/kg	06/22/15	07/01/15
8270D-LL	BENZ (A) ANTHRACENE	0.020	0.010	0.0034	0.0018	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (A) PYRENE	0.0065 J	0.010	0.0034	0.0018	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (B) FLUORANTHENE	0.0069 J	0.010	0.0034	0.0022	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.0052 J	0.010	0.0034	0.0026	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (K) FLUORANTHENE	0.0034 U	0.010	0.0034	0.0020	mg/kg	06/22/15	07/01/15
8270D-LL	CHRYSENE	0.0034 U	0.010	0.0034	0.0016	mg/kg	06/22/15	07/01/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.0034 U	0.010	0.0034	0.0018	mg/kg	06/22/15	07/01/15
8270D-LL	FLUORANTHENE	0.021	0.010	0.0034	0.0024	mg/kg	06/22/15	07/01/15
8270D-LL	FLUORENE	0.0034 U	0.010	0.0034	0.0020	mg/kg	06/22/15	07/01/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.0056 J	0.010	0.0034	0.0018	mg/kg	06/22/15	07/01/15
8270D-LL	NAPHTHALENE	0.0034 U	0.010	0.0034	0.0018	mg/kg	06/22/15	07/01/15
8270D-LL	PHENANTHRENE	0.0076 J	0.010	0.0034	0.0022	mg/kg	06/22/15	07/01/15
8270D-LL	PYRENE	0.016	0.010	0.0034	0.0024	mg/kg	06/22/15	07/01/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	23.7 #	45-105			%	06/22/15	07/01/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	38.6	35-100			%	06/22/15	07/01/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	66.7	30-125			%	06/22/15	07/01/15

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

Quant Method: P0629.M
Run #: 0629L119
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/07/15 1:56:48 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L119.D Vial: 19
Acq On : 1 Jul 15 18:01 Operator: MA
Sample : AZ17819S01 1/30.13G Inst : Linus
Misc : soil Multiplr: 33.19

Quant Time: Jul 7 12:47 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	6574	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	8.10	164	3187	2.50000	ppb		0.00
11) Phenanthrene-D10(IS)	9.85	188	5767	2.50000	ppb		-0.01
15) Chrysene-D12(IS)	13.03	240	6541	2.50000	ppb		0.00
21) Perylene-D12(IS)	15.66	264	4245	2.50000	ppb		0.00
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.19	82	630m	32.01883	ppb		0.01
Spiked Amount 82.974			Recovery = 38.589%				
7) Surrogate Recovery (FBP)	7.31	172	1144	19.65117	ppb		0.00
Spiked Amount 82.974			Recovery = 23.683%				
17) Surrogate Recovery (TPH)	11.71	244	3994	55.36510	ppb		-0.01
Spiked Amount 82.974			Recovery = 66.726%				
Target Compounds							Qvalue
12) Phenanthrene	9.87	178	392	3.73975	ppb	#	91
14) Fluoranthene	11.27	202	1379	10.20274	ppb		96
16) Pyrene	11.54	202	1111	7.69354	ppb		96
18) Benz (a) anthracene	13.01	228	529	9.63002	ppb		95
20) Indeno (1,2,3-cd) pyrene	17.89	276	341	2.77018	ppb	#	85
22) Benzo (b) fluoranthene	14.85	252	1033	3.39938	ppb	#	87
24) Benzo (a) pyrene	15.41	252	346	3.20626	ppb	#	64
26) Benzo (g,h,i) perylene	18.42	276	313	2.55438	ppb	#	82

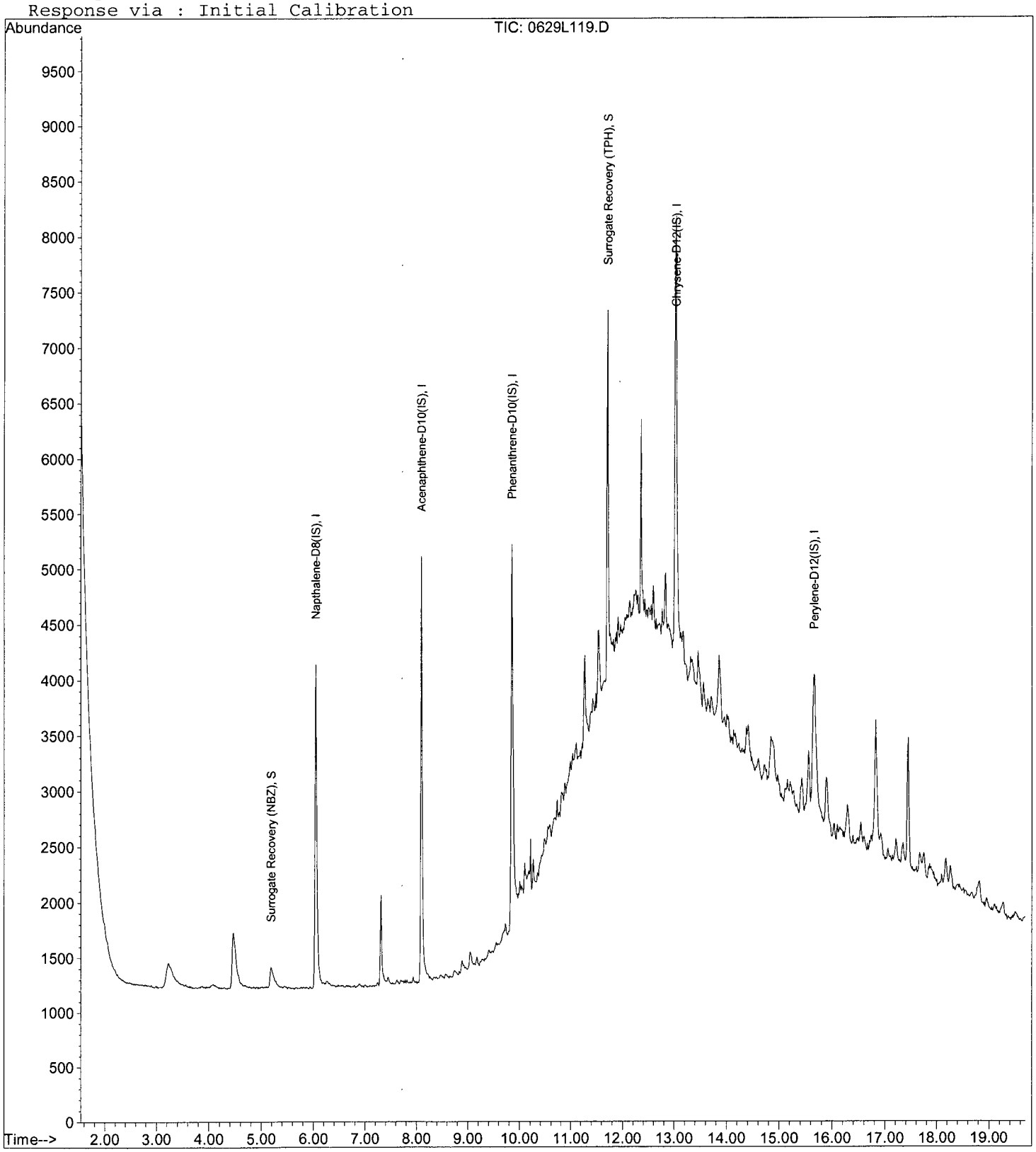
(#) = qualifier out of range (m) = manual integration

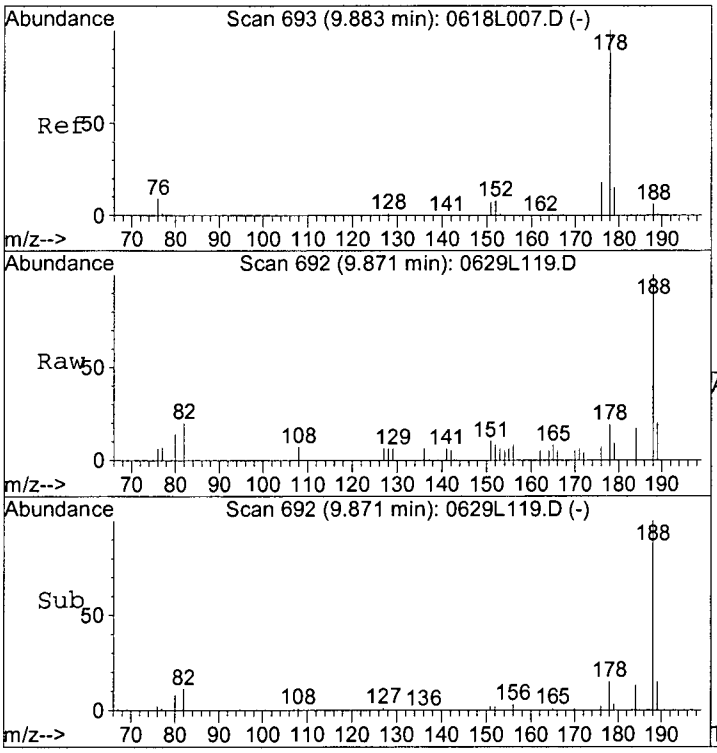
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L119.D Vial: 19
Acq On : 1 Jul 15 18:01 Operator: MA
Sample : AZ17819S01 1/30.13G Inst : Linus
Misc : soil Multiplr: 33.19

Quant Time: Jul 7 12:47 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

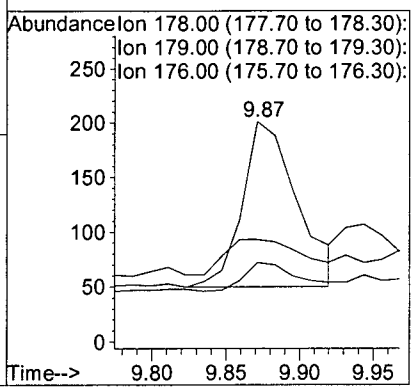


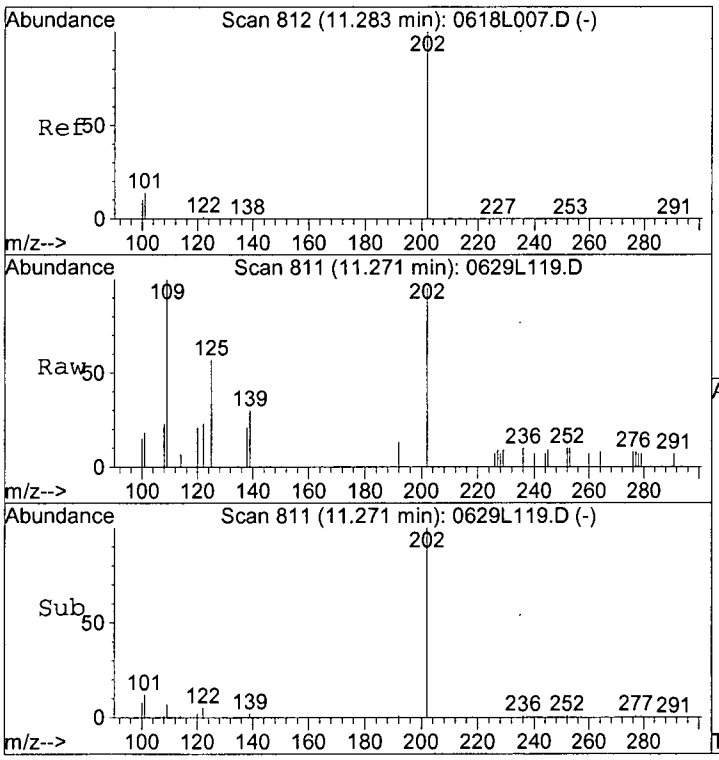


#12
Phenanthrene
Concen: 3.73975 ppb
RT: 9.87 min Scan# 692
Delta R.T. -0.01 min
Lab File: 0629L119.D
Acq: 1 Jul 15 18:01

Tgt Ion:178 Resp: 392

Ion	Ratio	Lower	Upper
178	100		
179	21.2	10.5	19.5#
176	15.9	12.3	22.8

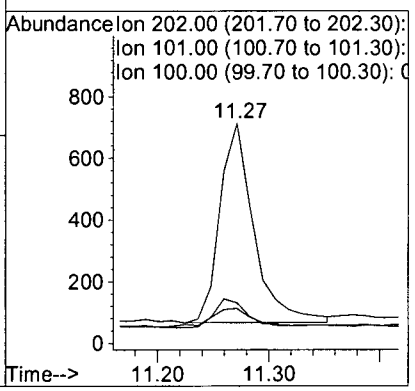


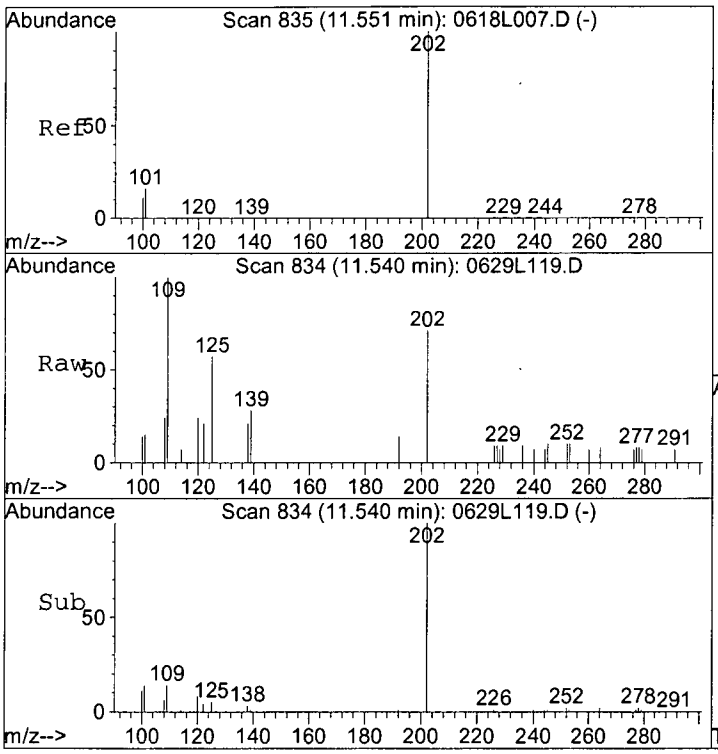


#14
Fluoranthene
Concen: 10.20274 ppb
RT: 11.27 min Scan# 811
Delta R.T. -0.01 min
Lab File: 0629L119.D
Acq: 1 Jul 15 18:01

Tgt Ion:202 Resp: 1379

Ion	Ratio	Lower	Upper
202	100		
101	12.5	9.7	18.1
100	8.3	7.4	13.7

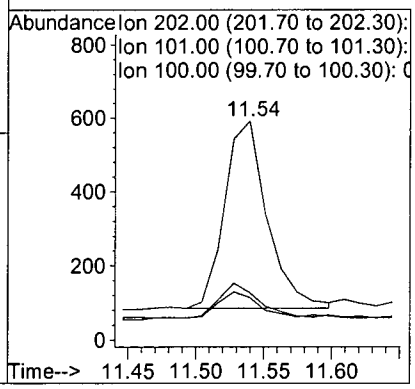


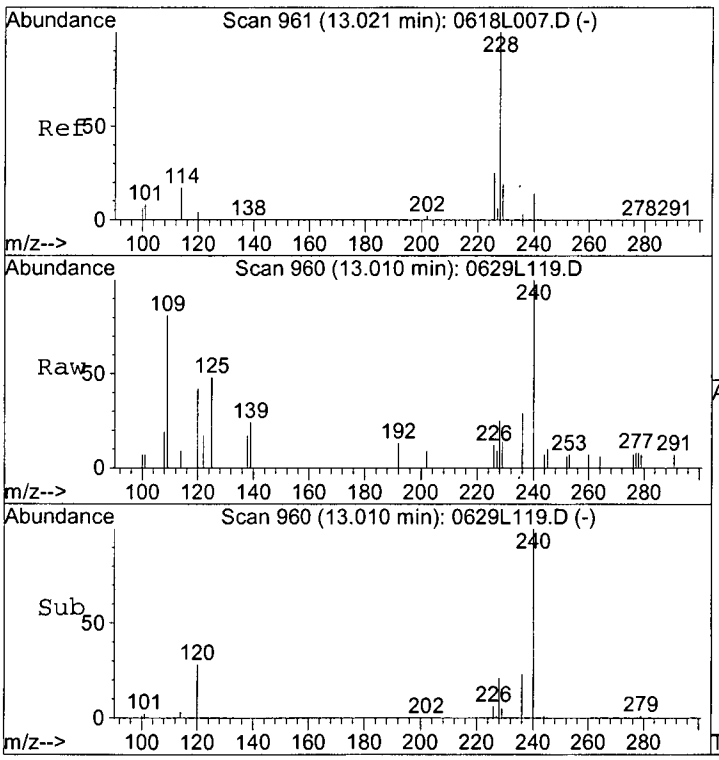


#16
Pyrene
Concen: 7.69354 ppb
RT: 11.54 min Scan# 834
Delta R.T. 0.00 min
Lab File: 0629L119.D
Acq: 1 Jul 15 18:01

Tgt Ion:202 Resp: 1111

Ion	Ratio	Lower	Upper
202	100		
101	13.6	11.0	20.4
100	10.7	7.9	14.7

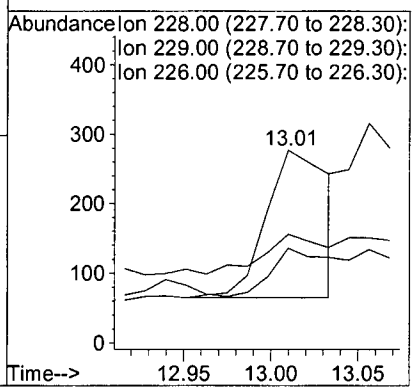


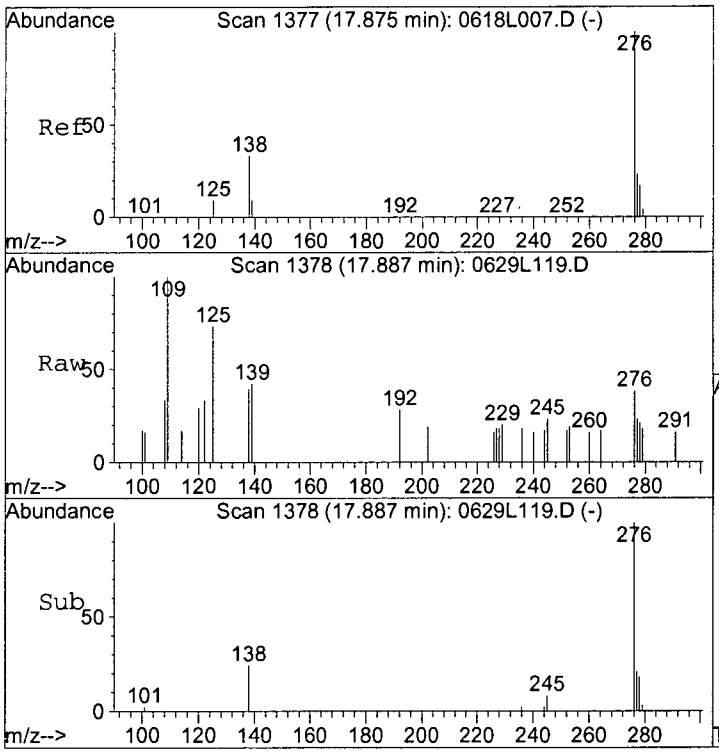


#18
Benz (a) anthracene
Concen: 9.63002 ppb
RT: 13.01 min Scan# 960
Delta R.T. -0.01 min
Lab File: 0629L119.D
Acq: 1 Jul 15 18:01

Tgt Ion:228 Resp: 529

Ion	Ratio	Lower	Upper
228	100		
229	23.6	13.4	25.0
226	25.0	17.2	32.0

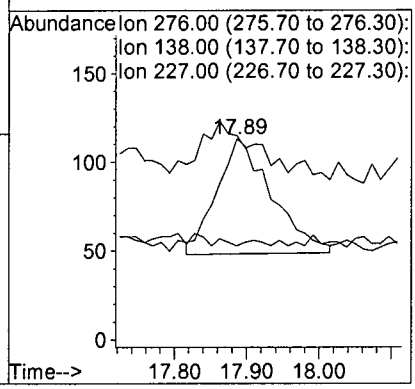


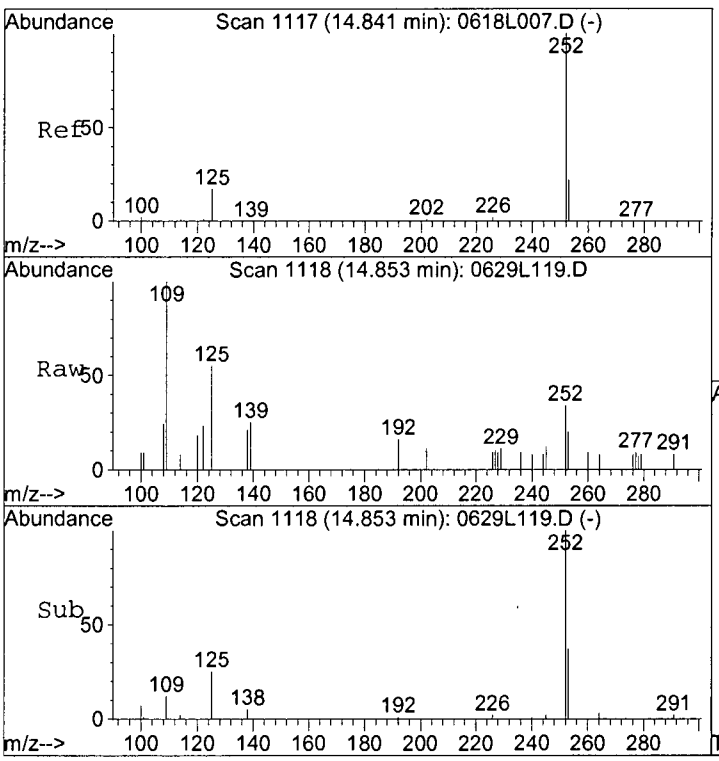


#20
Indeno (1,2,3-cd) pyrene
Concen: 2.77018 ppb
RT: 17.89 min Scan# 1378
Delta R.T. 0.01 min
Lab File: 0629L119.D
Acq: 1 Jul 15 18:01

Tgt Ion:276 Resp: 341

Ion	Ratio	Lower	Upper
276	100		
138	41.7	23.0	42.8
227	0.0	0.1	0.1#

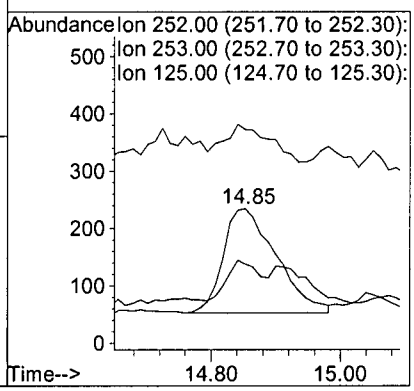


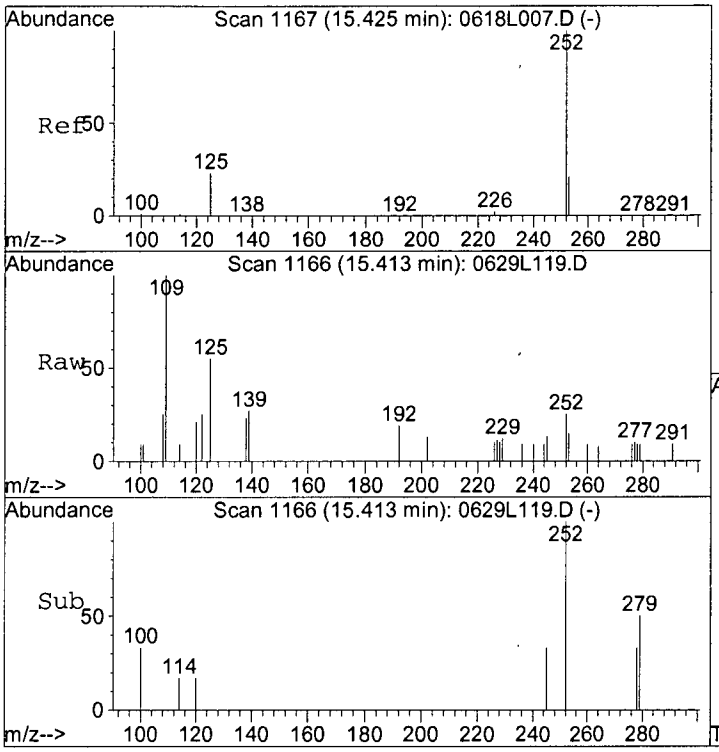


#22
Benzo (b) fluoranthene
Concen: 3.39938 ppb
RT: 14.85 min Scan# 1118
Delta R.T. 0.01 min
Lab File: 0629L119.D
Acq: 1 Jul 15 18:01

Tgt Ion:252 Resp: 1033

Ion	Ratio	Lower	Upper
252	100		
253	32.4	15.7	29.1#
125	16.5	11.3	20.9

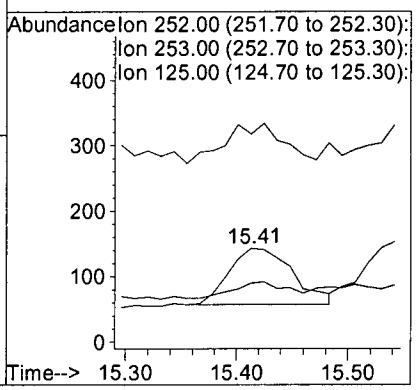


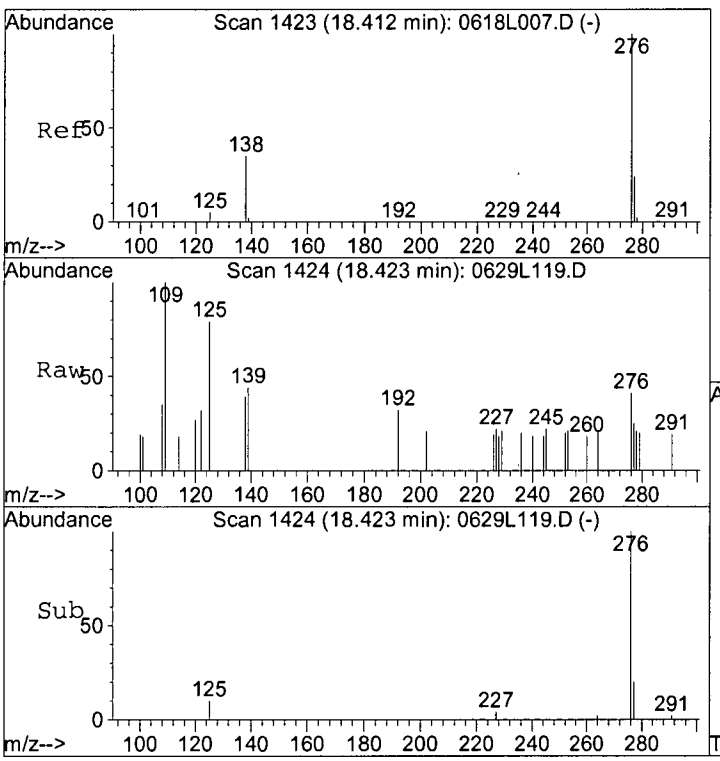


#24
Benzo (a) pyrene
Concen: 3.20626 ppb
RT: 15.41 min Scan# 1166
Delta R.T. 0.00 min
Lab File: 0629L119.D
Acq: 1 Jul 15 18:01

Tgt Ion:252 Resp: 346

Ion	Ratio	Lower	Upper
252	100		
253	26.7	15.2	28.2
125	52.3	16.1	29.9#

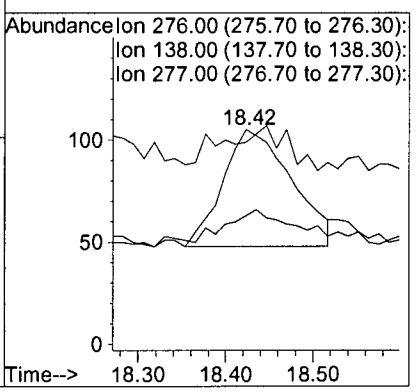




#26
Benzo (g,h,i) perylene
Concen: 2.55438 ppb
RT: 18.42 min Scan# 1424
Delta R.T. 0.01 min
Lab File: 0629L119.D
Acq: 1 Jul 15 18:01

Tgt Ion:276 Resp: 313

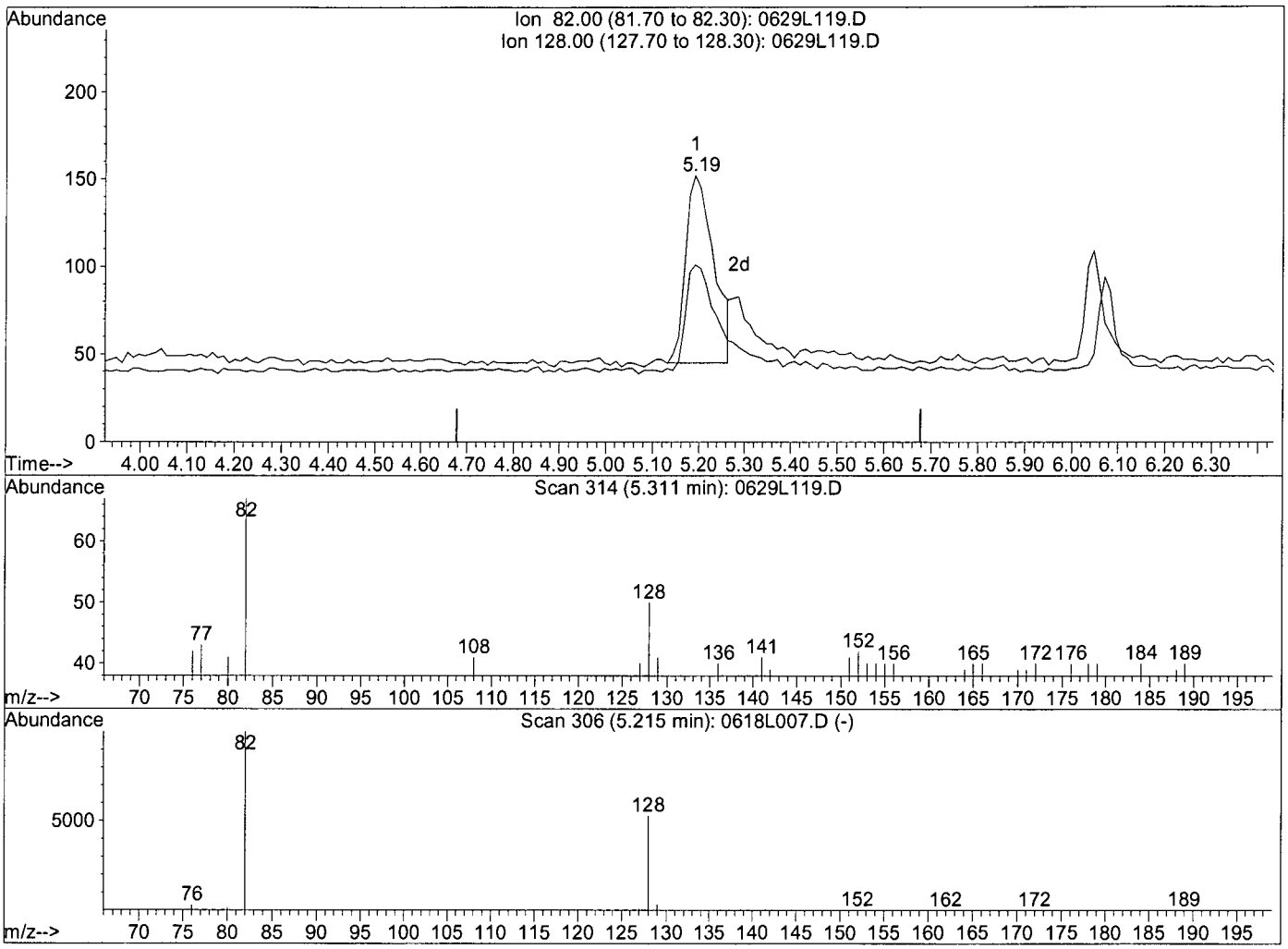
Ion	Ratio	Lower	Upper
276	100		
138	19.3	23.7	44.1#
277	21.1	17.3	32.1



Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L119.D Vial: 19
Acq On : 1 Jul 15 18:01 Operator: MA
Sample : AZ17819S01 1/30.13G Inst : Linus
Misc : soil Multiplr: 33.19
Quant Time: Jul 2 9:56 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: 0629L119.D

(2) Surrogate Recovery (NBZ) (S)

5.19min 23.7854ppb

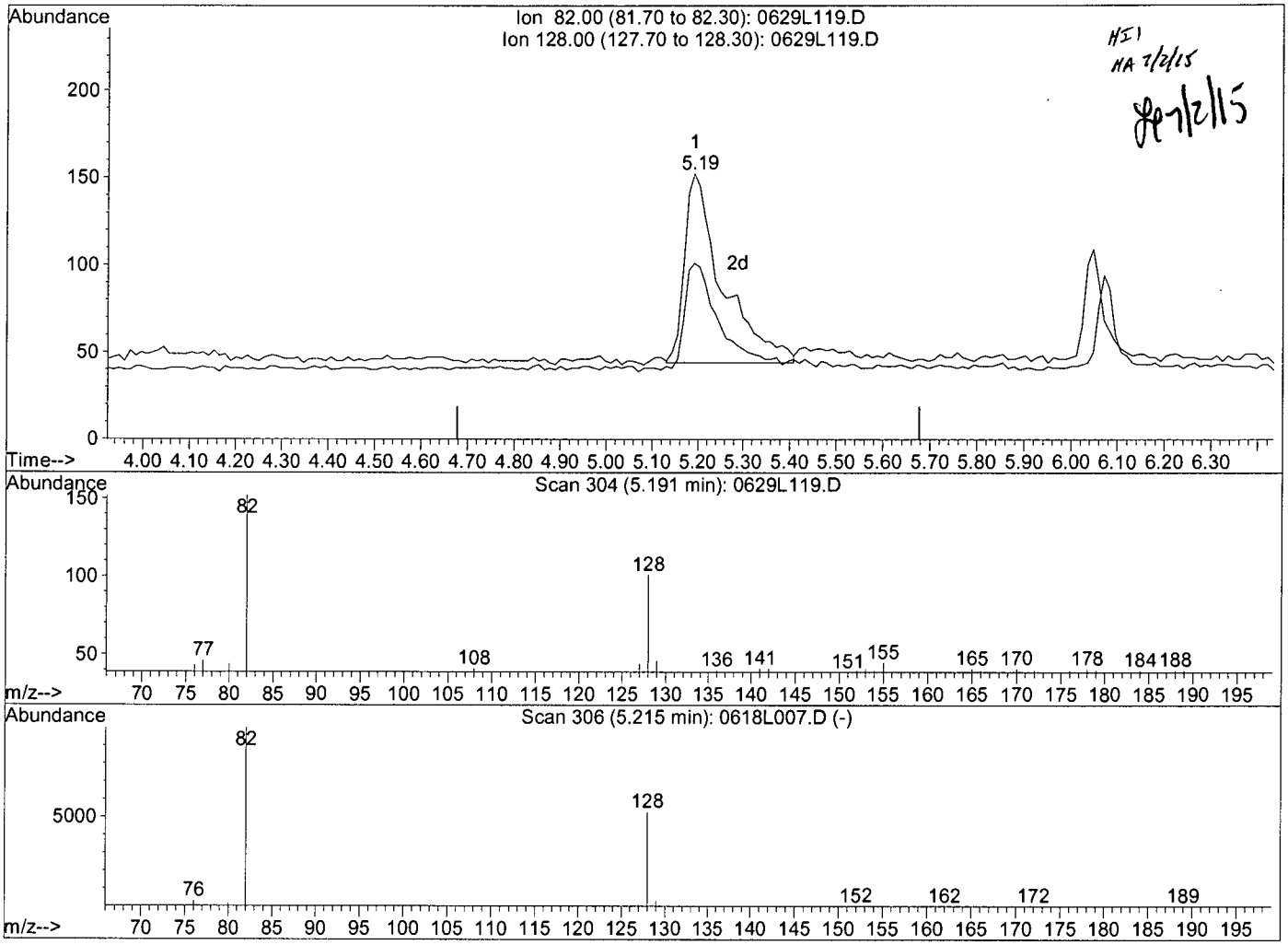
response 468

Ion	Exp%	Act%
82.00	100	100
128.00	52.70	55.14
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L119.D Vial: 19
Acq On : 1 Jul 15 18:01 Operator: MA
Sample : AZ17819S01 1/30.13G Inst : Linus
Misc : soil Multiplr: 33.19
Quant Time: Jul 2 10:29 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: 0629L119.D

(2) Surrogate Recovery (NBZ) (S)

5.19min 32.0188ppb m

response 630

Ion	Exp%	Act%
82.00	100	100
128.00	52.70	66.45
0.00	0.00	0.00
0.00	0.00	0.00

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-SD027-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17819
QCG: #SIMDD-150702A-198630

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 50.7 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0086 J	0.010	0.0034	0.0018	mg/kg	07/02/15	07/06/15
8270D-LL	ACENAPHTHENE	0.0033 J	0.010	0.0034	0.0020	mg/kg	07/02/15	07/06/15
8270D-LL	ACENAPHTHYLENE	0.0088 J	0.010	0.0034	0.0018	mg/kg	07/02/15	07/06/15
8270D-LL	ANTHRACENE	0.0094 J	0.010	0.0034	0.0016	mg/kg	07/02/15	07/06/15
8270D-LL	BENZ (A) ANTHRACENE	0.067	0.010	0.0034	0.0018	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (A) PYRENE	0.049	0.010	0.0034	0.0018	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (B) FLUORANTHENE	0.11	0.010	0.0034	0.0022	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.036	0.010	0.0034	0.0026	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (K) FLUORANTHENE	0.098	0.010	0.0034	0.0020	mg/kg	07/02/15	07/06/15
8270D-LL	CHRYSENE	0.015	0.010	0.0034	0.0016	mg/kg	07/02/15	07/06/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.012	0.010	0.0034	0.0018	mg/kg	07/02/15	07/06/15
8270D-LL	FLUORANTHENE	0.12	0.010	0.0034	0.0024	mg/kg	07/02/15	07/06/15
8270D-LL	FLUORENE	0.011	0.010	0.0034	0.0020	mg/kg	07/02/15	07/06/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.0034 U	0.010	0.0034	0.0018	mg/kg	07/02/15	07/06/15
8270D-LL	NAPHTHALENE	0.0080 J	0.010	0.0034	0.0018	mg/kg	07/02/15	07/06/15
8270D-LL	PHENANTHRENE	0.045	0.010	0.0034	0.0022	mg/kg	07/02/15	07/06/15
8270D-LL	PYRENE	0.11	0.010	0.0034	0.0024	mg/kg	07/02/15	07/06/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	57.3	45-105			%	07/02/15	07/06/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	60.1	35-100			%	07/02/15	07/06/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	75.1	30-125			%	07/02/15	07/06/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L169
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/07/15 1:56:48 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L169.D Vial: 69
Acq On : 6 Jul 15 12:31 Operator: MA
Sample : AZ17819S02 1/30.12G Inst : Linus
Misc : soil Multiplr: 33.20

Quant Time: Jul 7 13:00 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	5931	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	8.10	164	3032	2.50000	ppb		0.00
11) Phenanthrene-D10(IS)	9.85	188	5412	2.50000	ppb		-0.01
15) Chrysene-D12(IS)	13.03	240	5645	2.50000	ppb		0.00
21) Perylene-D12(IS)	15.66	264	3679	2.50000	ppb		0.00
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.19	82	885	49.87165	ppb		0.01
Spiked Amount 83.001			Recovery = 60.086%				
7) Surrogate Recovery (FBP)	7.31	172	2632	47.53845	ppb		0.00
Spiked Amount 83.001			Recovery = 57.274%				
17) Surrogate Recovery (TPH)	11.71	244	3877	62.29422	ppb		-0.01
Spiked Amount 83.001			Recovery = 75.052%				
Target Compounds							Qvalue
3) Naphthalene	6.07	128	384	3.94250	ppb		95
4) 2-Methylnaphthalene	6.88	142	250	4.23226	ppb		91
5) 1-Methylnaphthalene	7.00	142	166	2.50298	ppb		96
8) Acenaphthylene	7.94	152	446	4.34785	ppb		94
9) Acenaphthene	8.13	154	103	1.64303	ppb		89
10) Fluorene	8.75	166	360	5.43426	ppb		95
12) Phenanthrene	9.87	178	2187	22.24030	ppb		96
13) Anthracene	9.93	178	473	4.65241	ppb		93
14) Fluoranthene	11.27	202	7260	57.25655	ppb		92
16) Pyrene	11.54	202	6483	52.03696	ppb		94
18) Benz (a) anthracene	13.01	228	2905	32.81785	ppb		95
19) Chrysene	13.06	228	3393	7.55168	ppb		95
22) Benzo (b) fluoranthene	14.84	252	5636	52.42153	ppb		95
23) Benzo (k) fluoranthene	14.84	252	4798	48.48576	ppb		95
24) Benzo (a) pyrene	15.42	252	2245	24.01215	ppb	#	1
25) Dibenz (a,h) anthracene	17.89	278	587	5.69306	ppb	#	79
26) Benzo (g,h,i) perylene	18.41	276	1880	17.70887	ppb		89

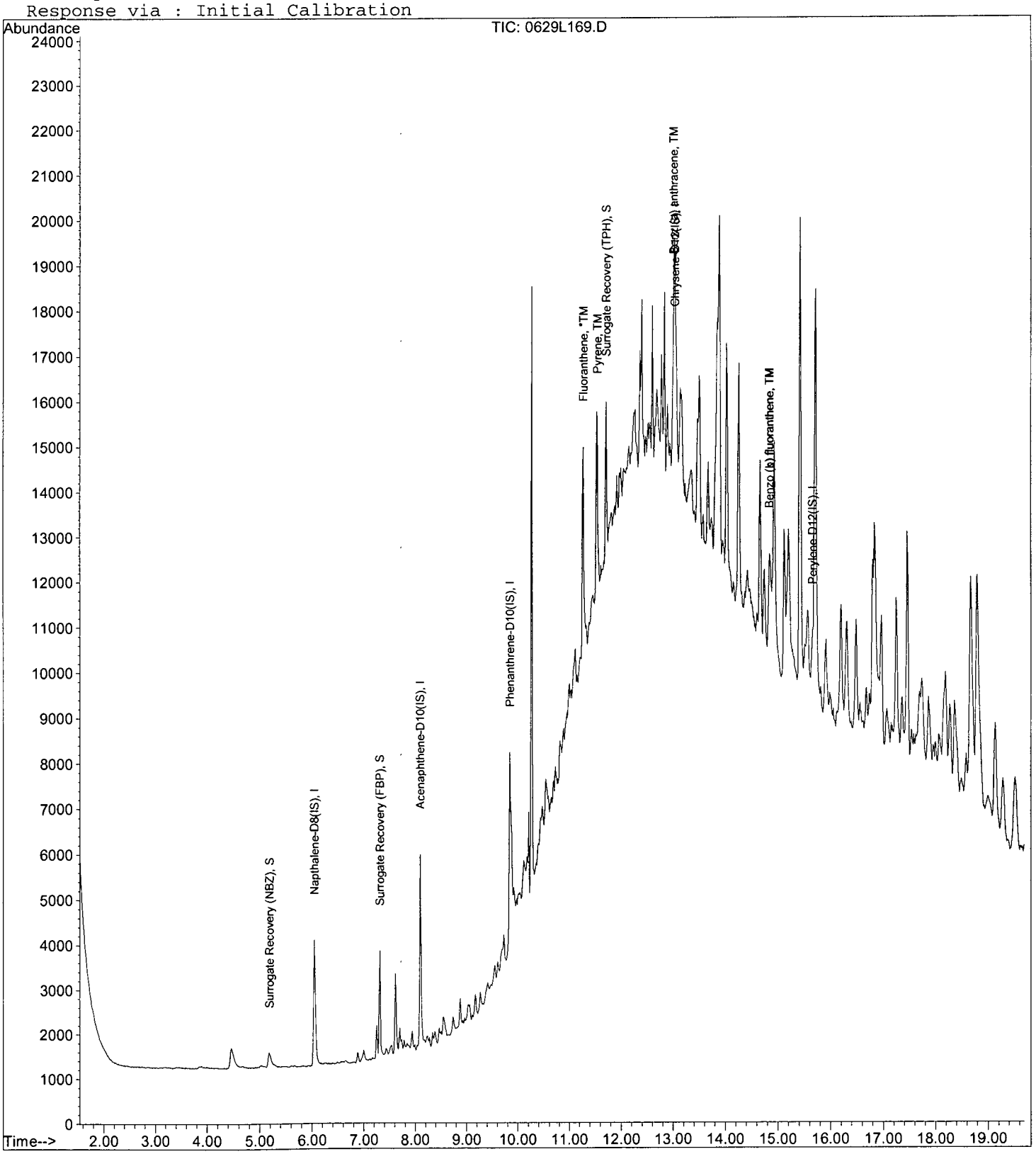
(#) = qualifier out of range (m) = manual integration

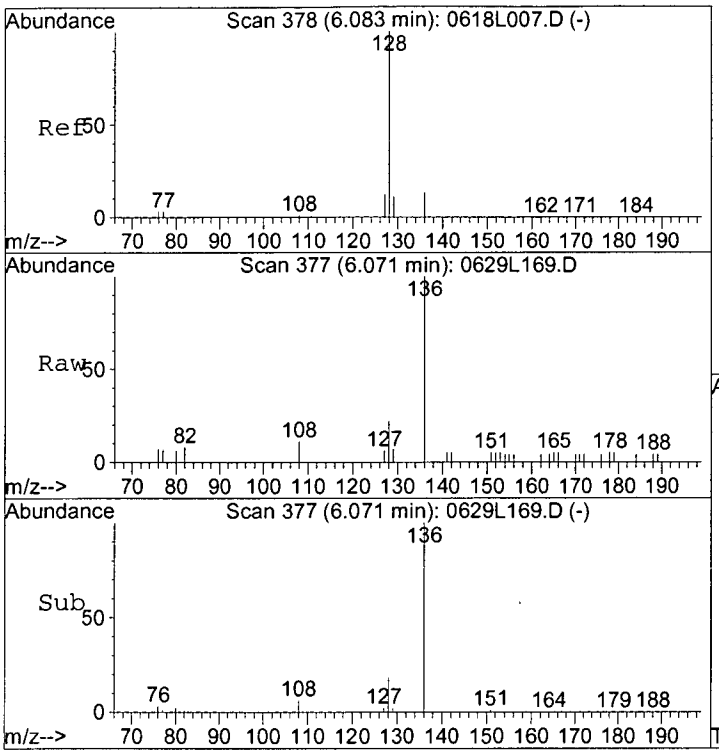
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L169.D Vial: 69
Acq On : 6 Jul 15 12:31 Operator: MA
Sample : AZ17819S02 1/30.12G Inst : Linus
Misc : soil Multiplr: 33.20

Quant Time: Jul 7 13:00 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

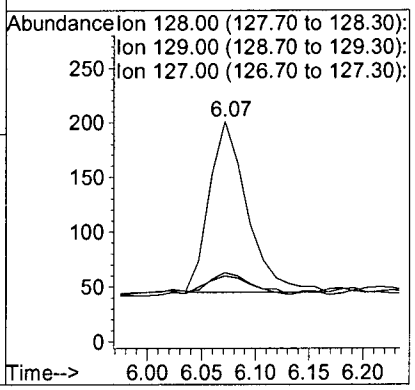


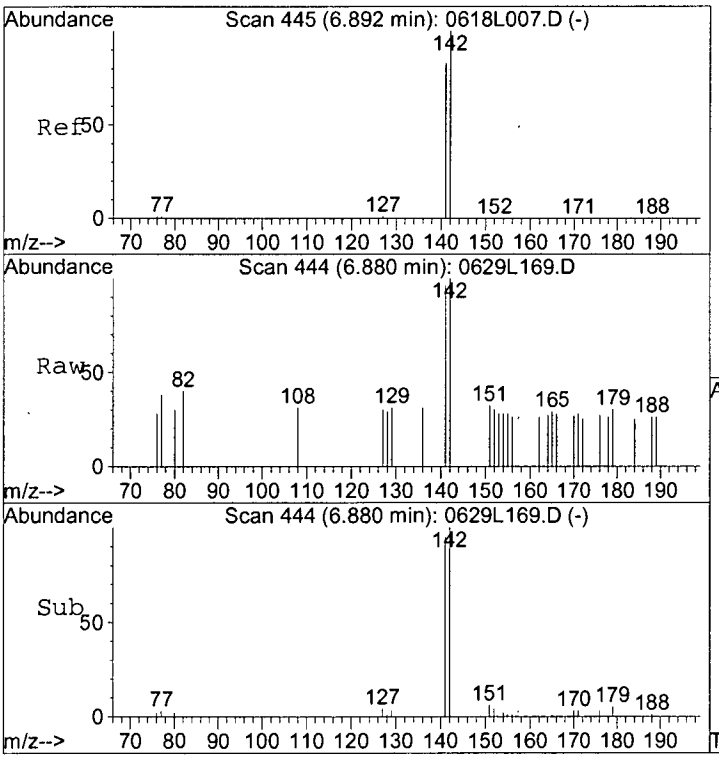


#3
Naphthalene
Concen: 3.94250 ppb
RT: 6.07 min Scan# 377
Delta R.T. 0.00 min
Lab File: 0629L169.D
Acq: 6 Jul 15 12:31

Tgt Ion:128 Resp: 384

Ion	Ratio	Lower	Upper
128	100		
129	12.8	7.4	13.8
127	10.3	8.4	15.6

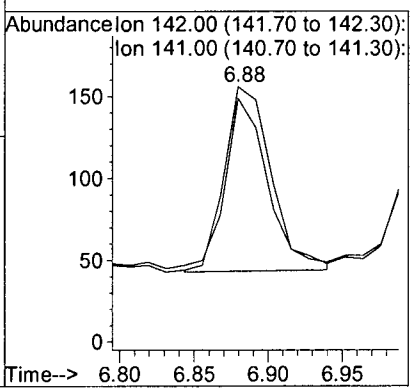


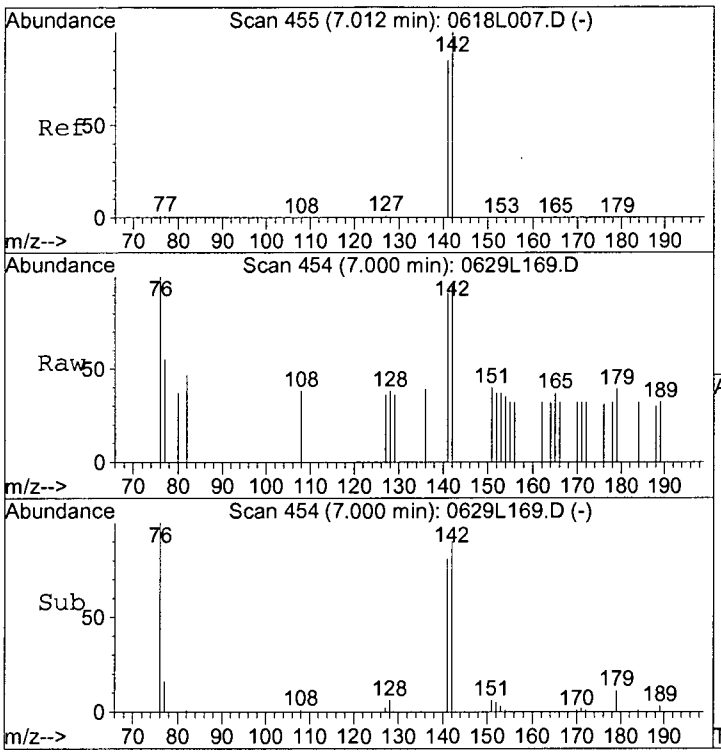


#4
2-Methylnaphthalene
Concen: 4.23226 ppb
RT: 6.88 min Scan# 444
Delta R.T. 0.00 min
Lab File: 0629L169.D
Acq: 6 Jul 15 12:31

Tgt Ion:142 Resp: 250

Ion	Ratio	Lower	Upper
142	100		
141	91.1	58.3	108.3

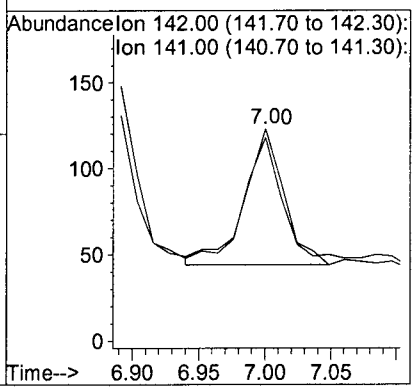


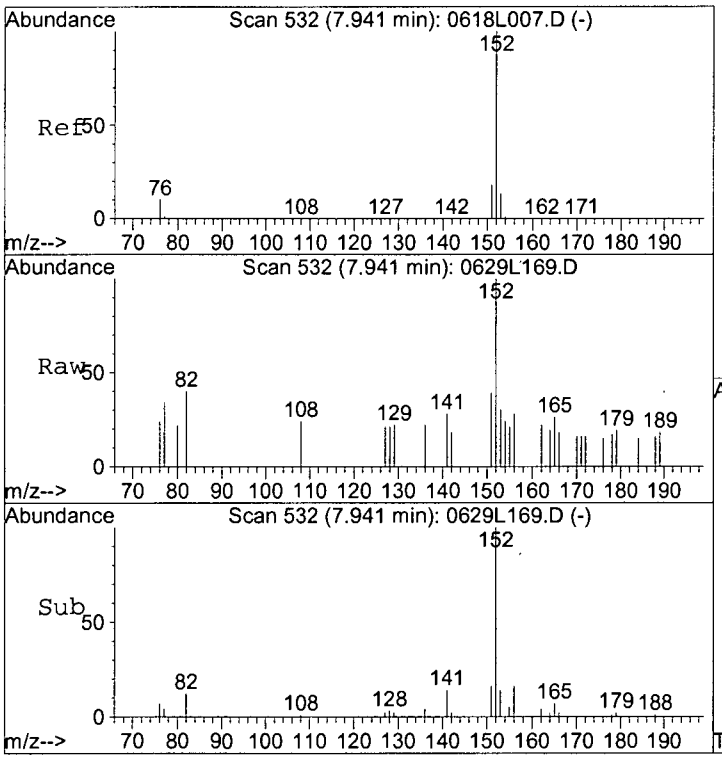


#5
1-Methylnaphthalene
Concen: 2.50298 ppb
RT: 7.00 min Scan# 454
Delta R.T. 0.00 min
Lab File: 0629L169.D
Acq: 6 Jul 15 12:31

Tgt Ion:142 Resp: 166

Ion	Ratio	Lower	Upper
142	100		
141	88.6	59.5	110.5

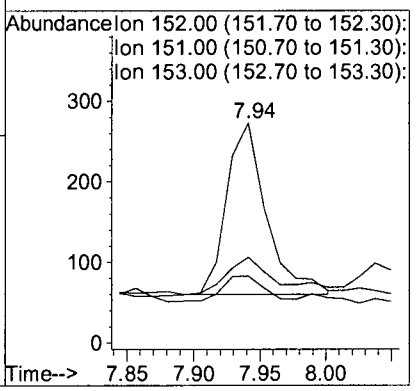


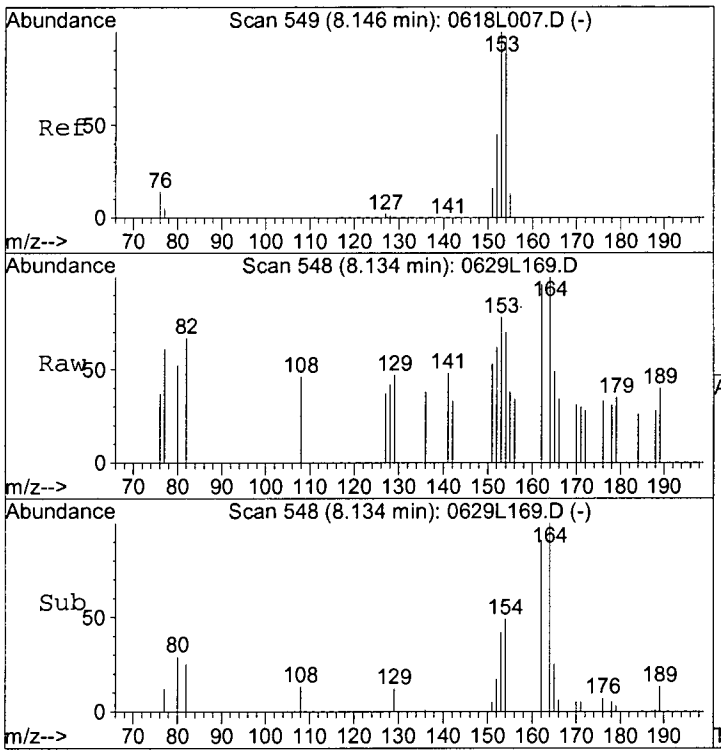


#8
Acenaphthylene
Concen: 4.34785 ppb
RT: 7.94 min Scan# 532
Delta R.T. 0.00 min
Lab File: 0629L169.D
Acq: 6 Jul 15 12:31

Tgt Ion:152 Resp: 446

Ion	Ratio	Lower	Upper
152	100		
151	21.6	12.7	23.7
153	14.6	9.0	16.8

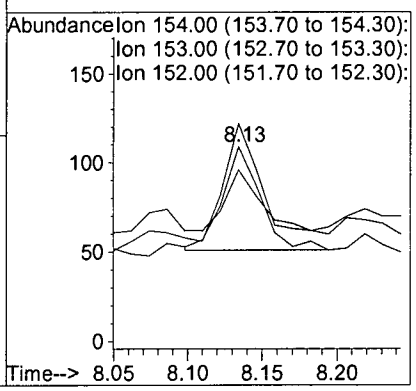


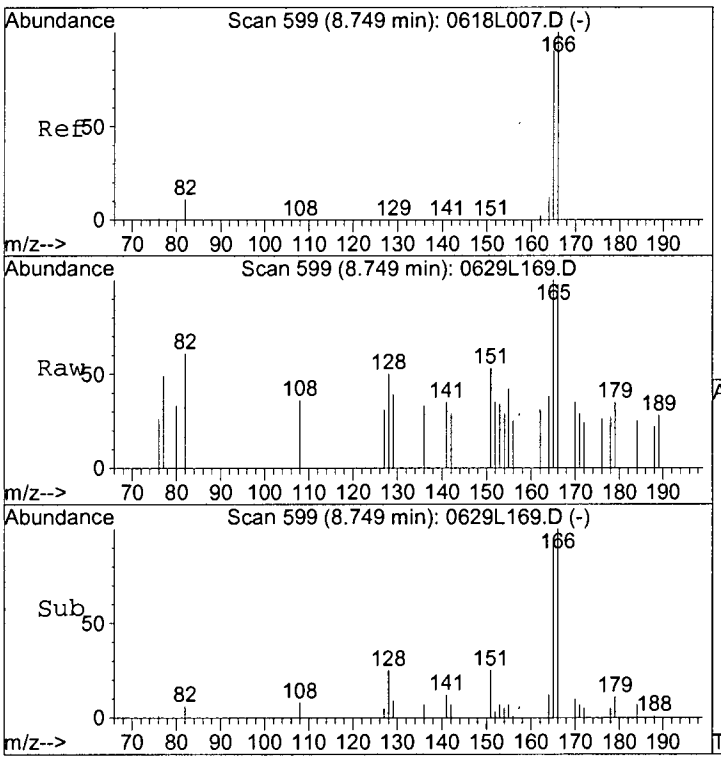


#9
Acenaphthene
Concen: 1.64303 ppb
RT: 8.13 min Scan# 548
Delta R.T. 0.00 min
Lab File: 0629L169.D
Acq: 6 Jul 15 12:31

Tgt Ion:154 Resp: 103

Ion	Ratio	Lower	Upper
154	100		
153	110.3	71.8	133.4
152	58.6	32.7	60.7

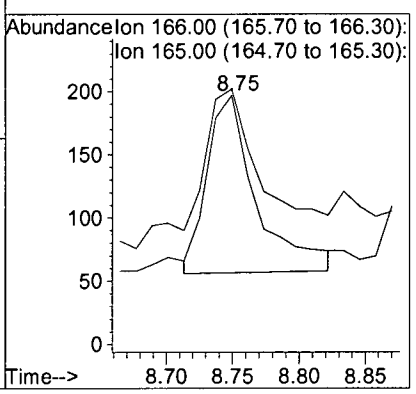


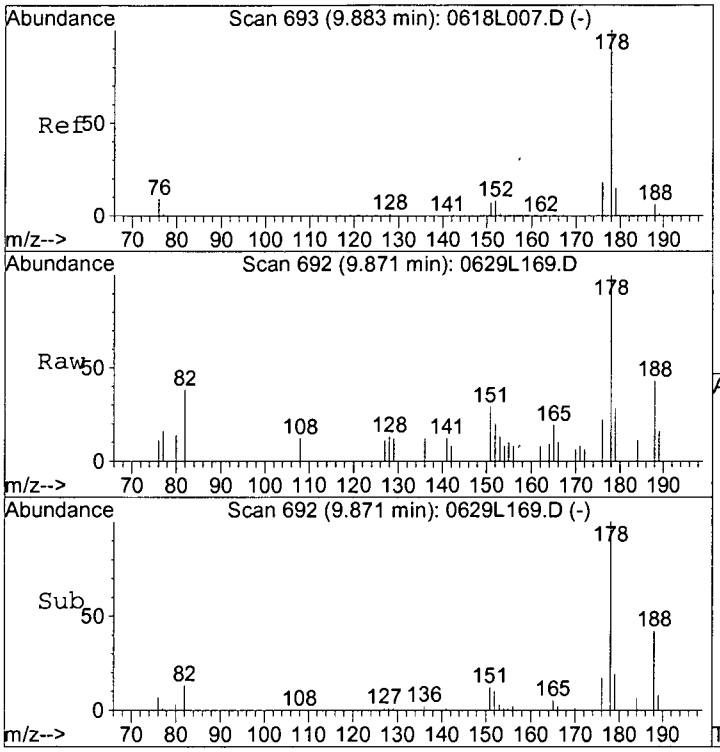


#10
Fluorene
Concen: 5.43426 ppb
RT: 8.75 min Scan# 599
Delta R.T. 0.00 min
Lab File: 0629L169.D
Acq: 6 Jul 15 12:31

Tgt Ion:166 Resp: 360

Ion	Ratio	Lower	Upper
166	100		
165	85.5	63.1	117.1

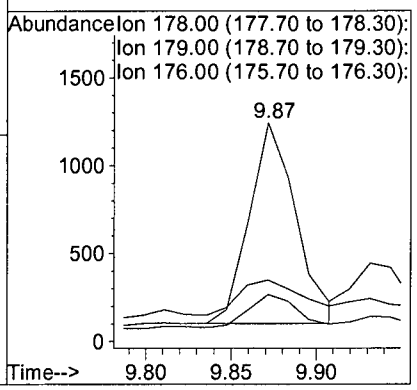


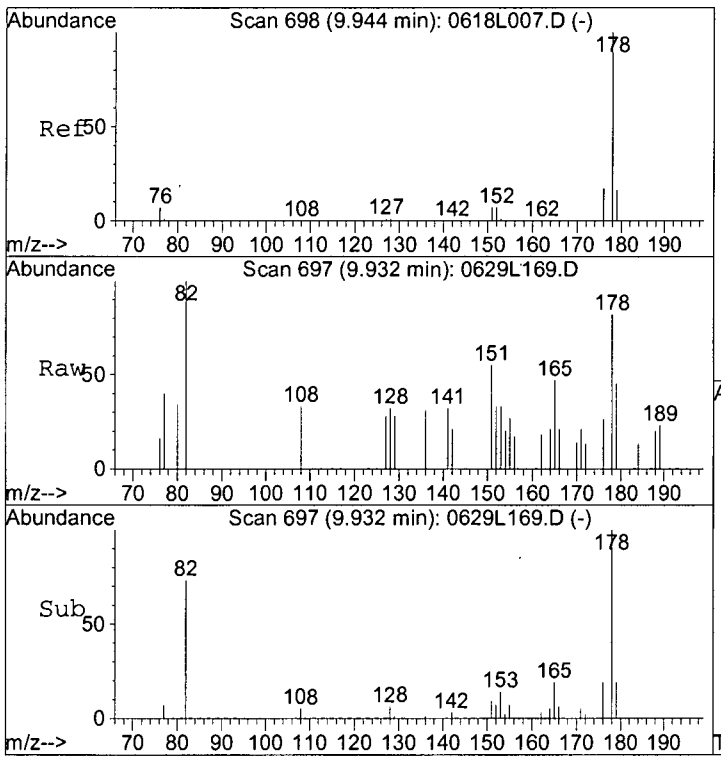


#12
Phenanthrene
Concen: 22.24030 ppb
RT: 9.87 min Scan# 692
Delta R.T. -0.01 min
Lab File: 0629L169.D
Acq: 6 Jul 15 12:31

Tgt Ion:178 Resp: 2187

Ion	Ratio	Lower	Upper
178	100		
179	17.1	10.5	19.5
176	16.1	12.3	22.8

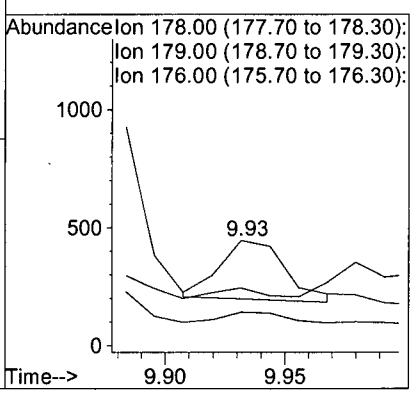


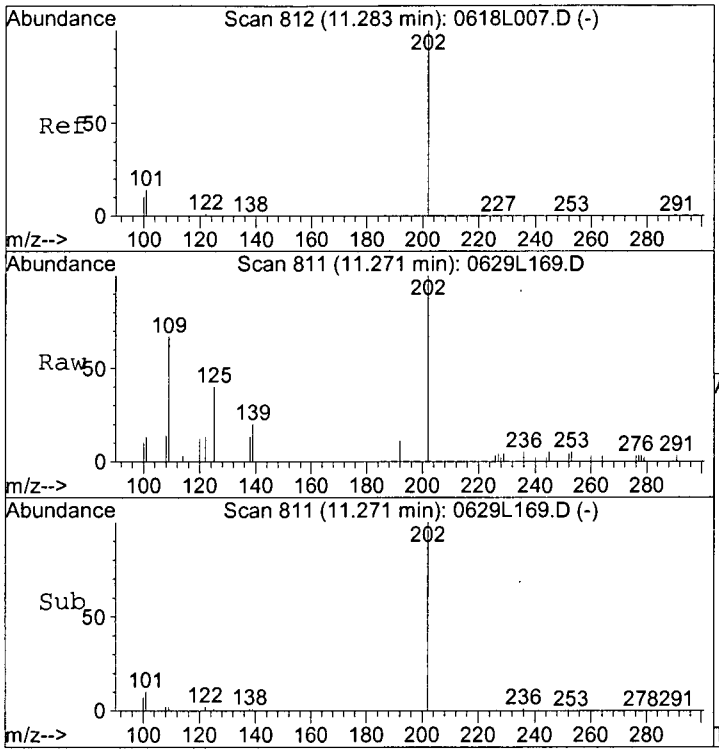


#13
Anthracene
Concen: 4.65241 ppb
RT: 9.93 min Scan# 697
Delta R.T. -0.01 min
Lab File: 0629L169.D
Acq: 6 Jul 15 12:31

Tgt Ion:178 Resp: 473

Ion	Ratio	Lower	Upper
178	100		
179	19.0	10.9	20.3
176	19.9	12.2	22.6

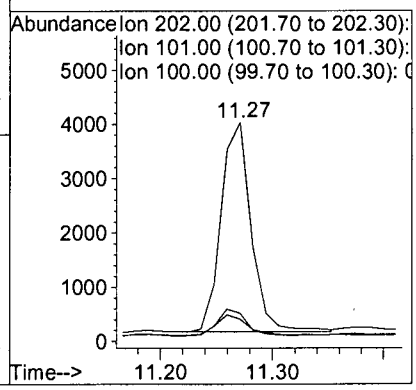


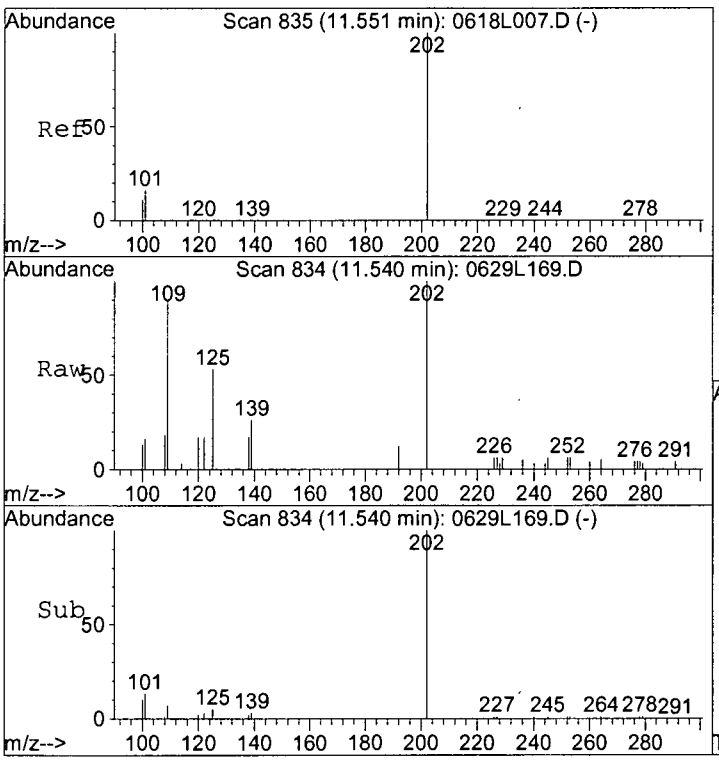


#14
Fluoranthene
Concen: 57.25655 ppb
RT: 11.27 min Scan# 811
Delta R.T. -0.01 min
Lab File: 0629L169.D
Acq: 6 Jul 15 12:31

Tgt Ion:202 Resp: 7260

Ion	Ratio	Lower	Upper
202	100		
101	10.8	9.7	18.1
100	7.6	7.4	13.7

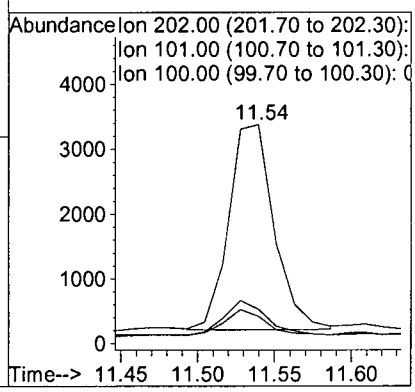


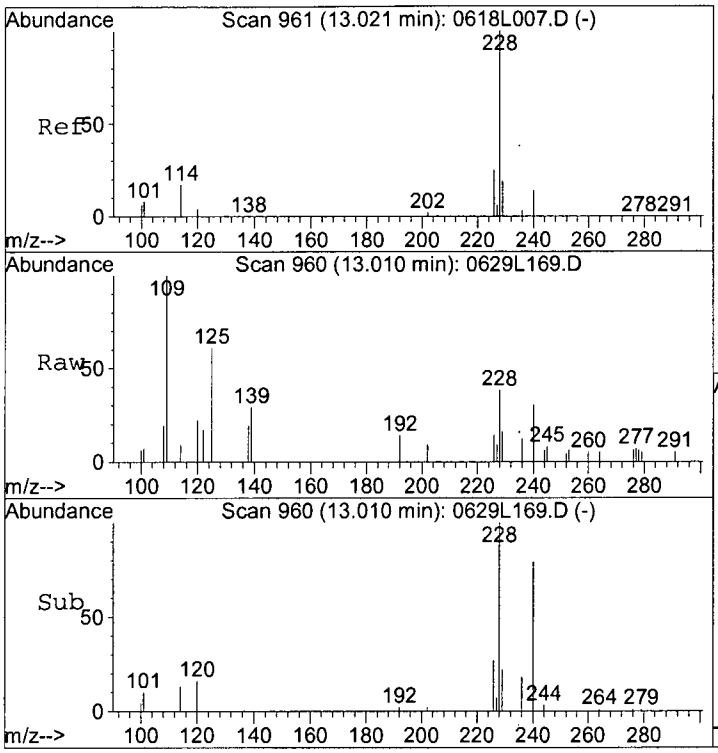


#16
Pyrene
Concen: 52.03696 ppb
RT: 11.54 min Scan# 834
Delta R.T. 0.00 min
Lab File: 0629L169.D
Acq: 6 Jul 15 12:31

Tgt Ion:202 Resp: 6483

Ion	Ratio	Lower	Upper
202	100		
101	12.8	11.0	20.4
100	9.3	7.9	14.7

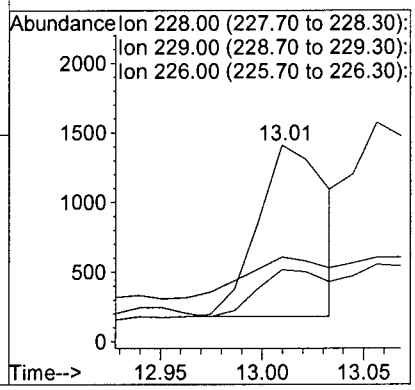


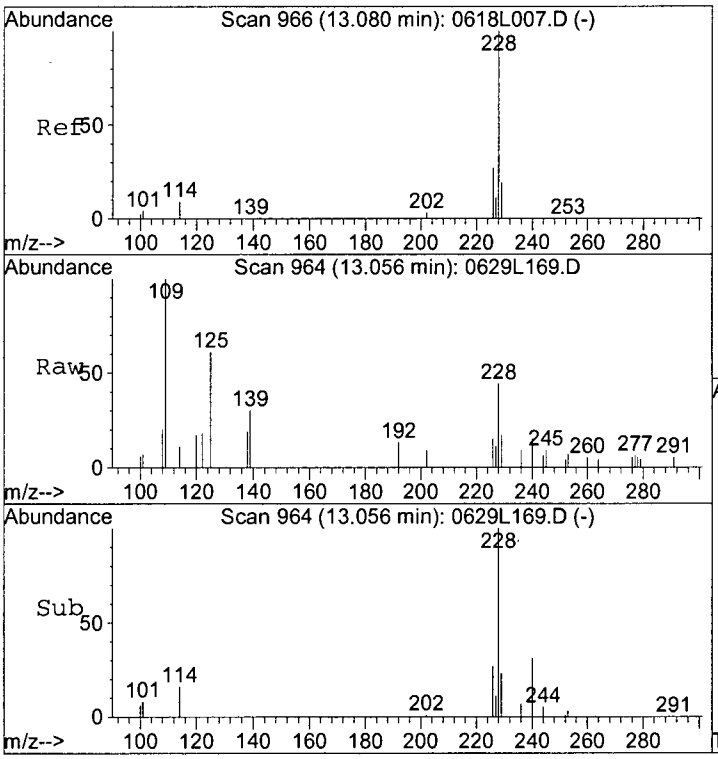


#18
Benz (a) anthracene
Concen: 32.81785 ppb
RT: 13.01 min Scan# 960
Delta R.T. -0.01 min
Lab File: 0629L169.D
Acq: 6 Jul 15 12:31

Tgt Ion:228 Resp: 2905

Ion	Ratio	Lower	Upper
228	100		
229	23.5	13.4	25.0
226	25.5	17.2	32.0

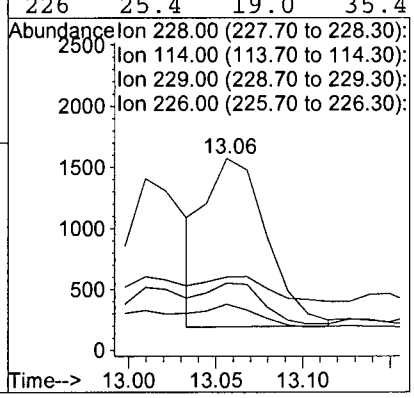


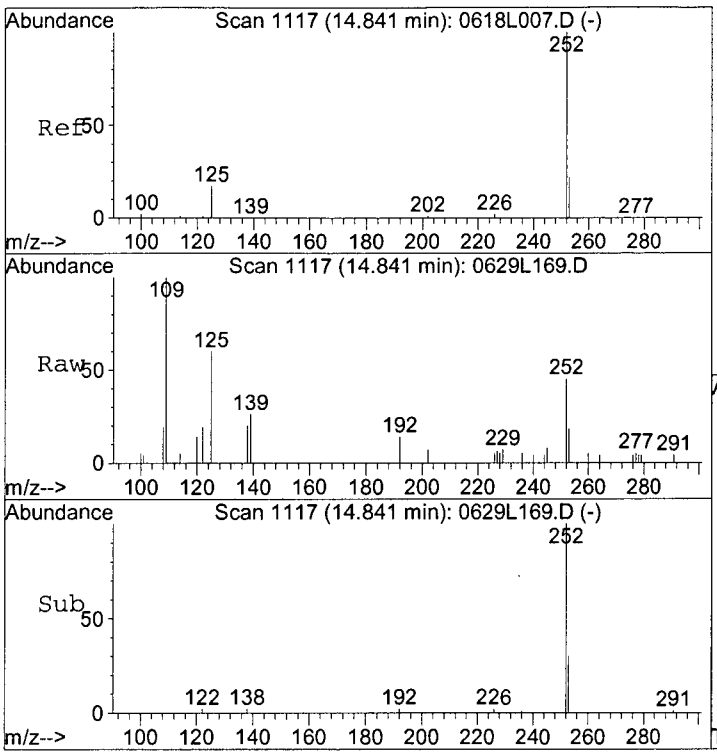


#19
Chrysene
Concen: 7.55168 ppb
RT: 13.06 min Scan# 964
Delta R.T. -0.01 min
Lab File: 0629L169.D
Acq: 6 Jul 15 12:31

Tgt Ion:228 Resp: 3393

Ion	Ratio	Lower	Upper
228	100		
114	13.9	9.5	17.6
229	15.2	13.6	25.2
226	25.4	19.0	35.4

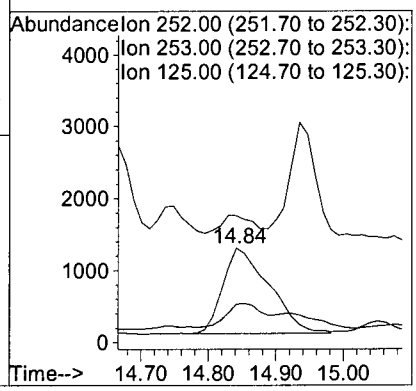


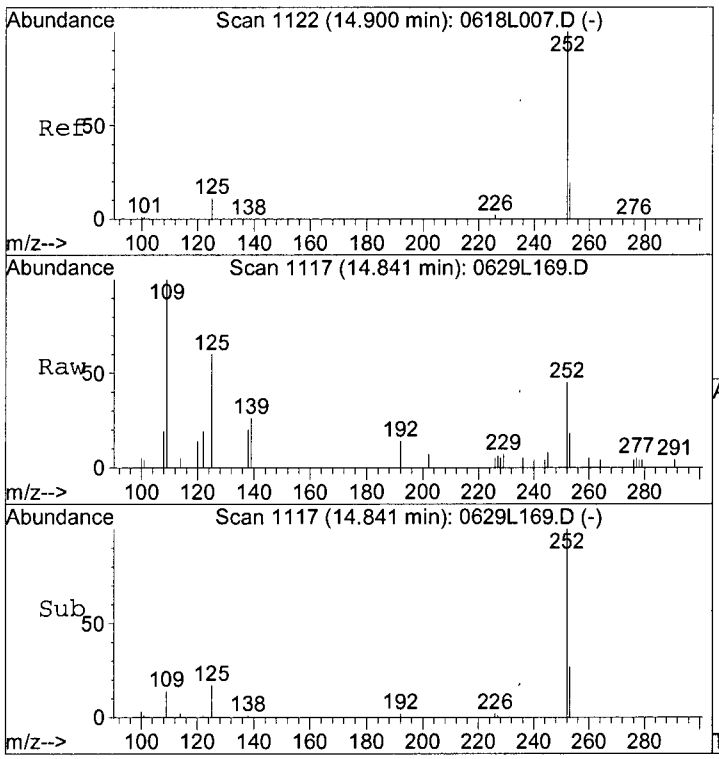


#22
Benzo (b) fluoranthene
Concen: 52.42153 ppb
RT: 14.84 min Scan# 1117
Delta R.T. 0.00 min
Lab File: 0629L169.D
Acq: 6 Jul 15 12:31

Tgt Ion:252 Resp: 5636

Ion	Ratio	Lower	Upper
252	100		
253	26.0	15.7	29.1
125	16.6	11.3	20.9

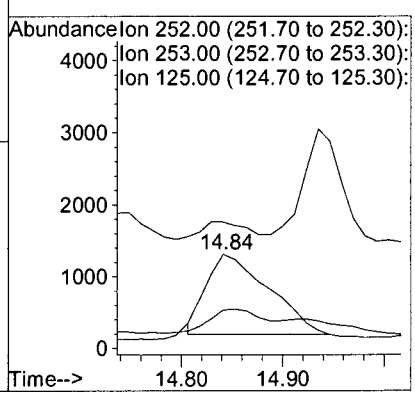


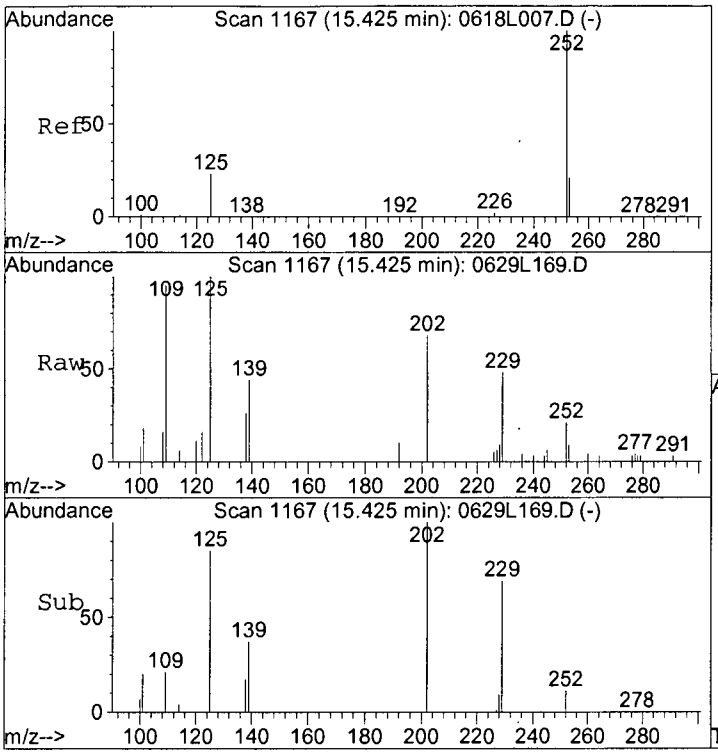


#23
Benzo (k) fluoranthene
Concen: 48.48576 ppb
RT: 14.84 min Scan# 1117
Delta R.T. -0.05 min
Lab File: 0629L169.D
Acq: 6 Jul 15 12:31

Tgt Ion:252 Resp: 4798

Ion	Ratio	Lower	Upper
252	100		
253	25.9	15.8	29.3
125	17.7	11.6	21.5

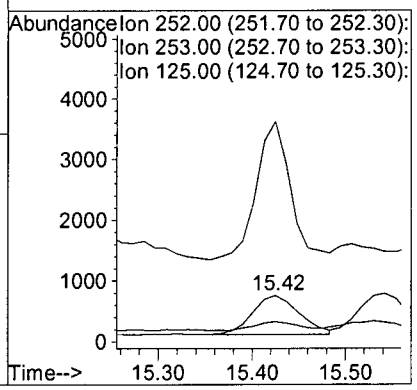


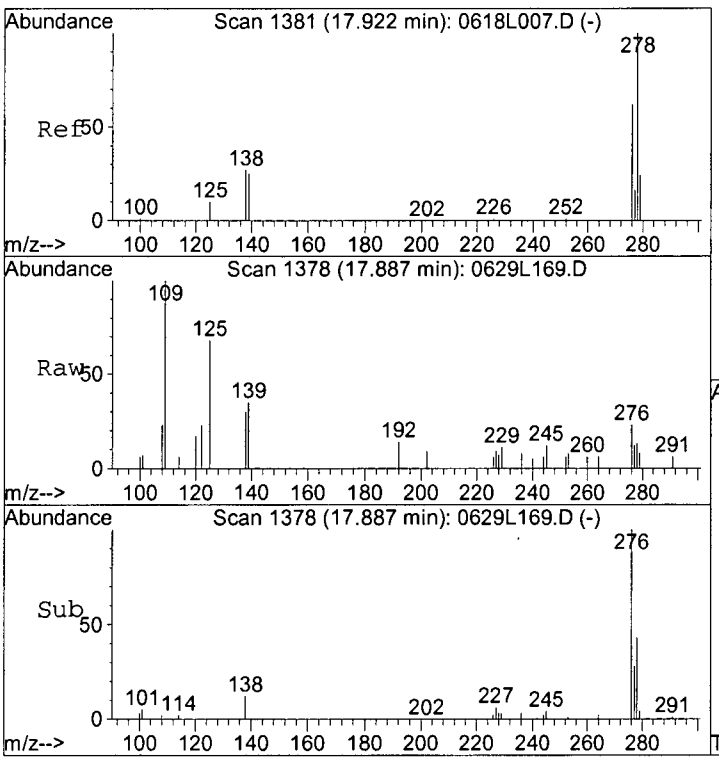


#24
Benzo (a) pyrene
Concen: 24.01215 ppb
RT: 15.42 min Scan# 1167
Delta R.T. 0.01 min
Lab File: 0629L169.D
Acq: 6 Jul 15 12:31

Tgt Ion:252 Resp: 2245

Ion	Ratio	Lower	Upper
252	100		
253	20.4	15.2	28.2
125	345.6	16.1	29.9#

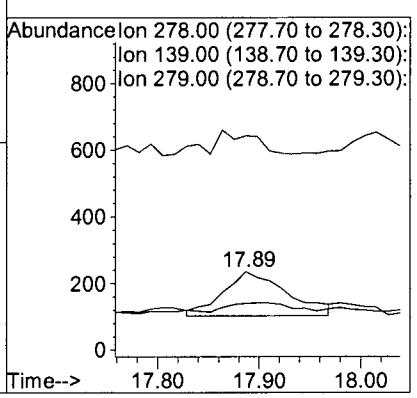


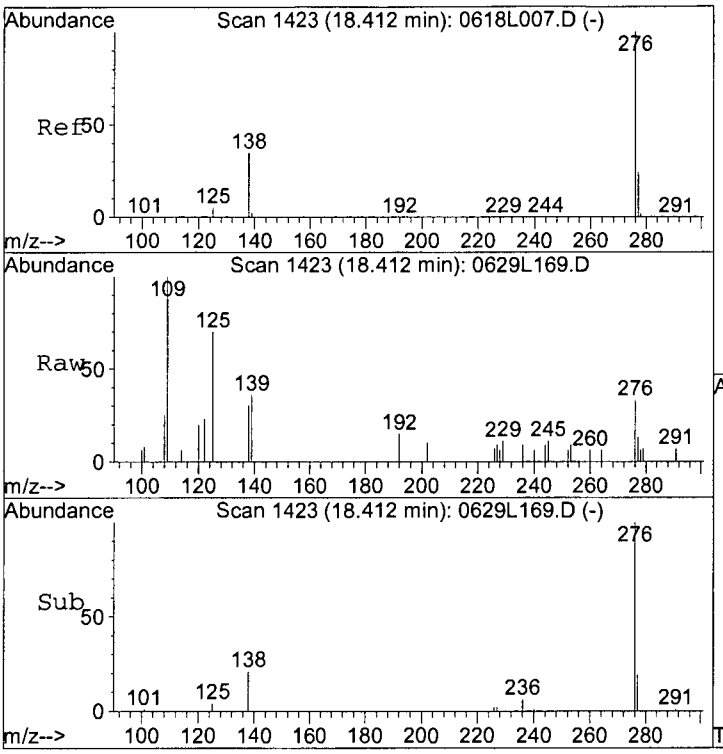


#25
Dibenz (a,h) anthracene
Concen: 5.69306 ppb
RT: 17.89 min Scan# 1378
Delta R.T. -0.02 min
Lab File: 0629L169.D
Acq: 6 Jul 15 12:31

Tgt Ion:278 Resp: 587

Ion	Ratio	Lower	Upper
278	100		
139	40.5	18.5	34.3#
279	17.2	16.7	30.9

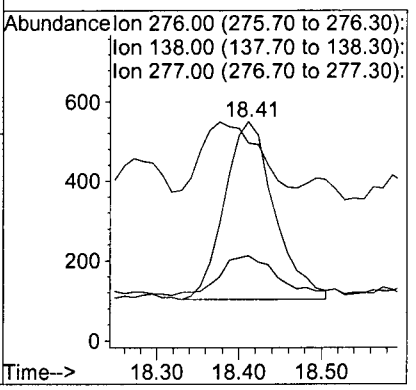




#26
Benzo (g,h,i) perylene
Concen: 17.70887 ppb
RT: 18.41 min Scan# 1423
Delta R.T. 0.00 min
Lab File: 0629L169.D
Acq: 6 Jul 15 12:31

Tgt Ion:276 Resp: 1880

Ion	Ratio	Lower	Upper
276	100		
138	26.6	23.7	44.1
277	20.6	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-SD027P-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17820
QCG: #SIMDD-150622B-198629

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 53.5 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0037 U	0.011	0.0037	0.0019	mg/kg	06/22/15	07/01/15
8270D-LL	ACENAPHTHENE	0.0037 U	0.011	0.0037	0.0022	mg/kg	06/22/15	07/01/15
8270D-LL	ACENAPHTHYLENE	0.0037 U	0.011	0.0037	0.0019	mg/kg	06/22/15	07/01/15
8270D-LL	ANTHRACENE	0.0037 U	0.011	0.0037	0.0017	mg/kg	06/22/15	07/01/15
8270D-LL	BENZ (A) ANTHRACENE	0.021	0.011	0.0037	0.0019	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (A) PYRENE	0.0082 J	0.011	0.0037	0.0019	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (B) FLUORANTHENE	0.0037 U	0.011	0.0037	0.0024	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.0071 J	0.011	0.0037	0.0028	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (K) FLUORANTHENE	0.0037 U	0.011	0.0037	0.0022	mg/kg	06/22/15	07/01/15
8270D-LL	CHRYSENE	0.0037 U	0.011	0.0037	0.0017	mg/kg	06/22/15	07/01/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.0037 U	0.011	0.0037	0.0019	mg/kg	06/22/15	07/01/15
8270D-LL	FLUORANTHENE	0.019	0.011	0.0037	0.0026	mg/kg	06/22/15	07/01/15
8270D-LL	FLUORENE	0.0037 U	0.011	0.0037	0.0022	mg/kg	06/22/15	07/01/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.0037 U	0.011	0.0037	0.0019	mg/kg	06/22/15	07/01/15
8270D-LL	NAPHTHALENE	0.0037 U	0.011	0.0037	0.0019	mg/kg	06/22/15	07/01/15
8270D-LL	PHENANTHRENE	0.0063 J	0.011	0.0037	0.0024	mg/kg	06/22/15	07/01/15
8270D-LL	PYRENE	0.016	0.011	0.0037	0.0026	mg/kg	06/22/15	07/01/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	21.0 #	45-105			%	06/22/15	07/01/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	40.5	35-100			%	06/22/15	07/01/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	46.3	30-125			%	06/22/15	07/01/15

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

Quant Method: P0629.M
Run #: 0629L120
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/07/15 1:56:48 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L120.D Vial: 20
Acq On : 1 Jul 15 18:28 Operator: MA
Sample : AZ17820S02 1/30.04G Inst : Linus
Misc : soil Multiplr: 33.29

Quant Time: Jul 7 12:49 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	6328	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.10	164	3088	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.85	188	5771	2.50000 ppb	-0.01
15) Chrysene-D12(IS)	13.03	240	6431	2.50000 ppb	0.00
21) Perylene-D12(IS)	15.66	264	4099	2.50000 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.19	82	636m	33.68097 ppb	0.01
Spiked Amount 83.222			Recovery = 40.471%		
7) Surrogate Recovery (FBP)	7.31	172	984	17.49692 ppb	0.00
Spiked Amount 83.222			Recovery = 21.024%		
17) Surrogate Recovery (TPH)	11.71	244	2724	38.52122 ppb	-0.01
Spiked Amount 83.222			Recovery = 46.287%		
Target Compounds					Qvalue
12) Phenanthrene	9.88	178	305	2.91645 ppb #	88
14) Fluoranthene	11.27	202	1164	8.63185 ppb	95
16) Pyrene	11.54	202	1055	7.45297 ppb	98
18) Benz (a) anthracene	13.02	228	515	9.61634 ppb #	86
24) Benzo (a) pyrene	15.41	252	394	3.79244 ppb #	78
26) Benzo (g,h,i) perylene	18.41	276	389	3.29754 ppb #	74

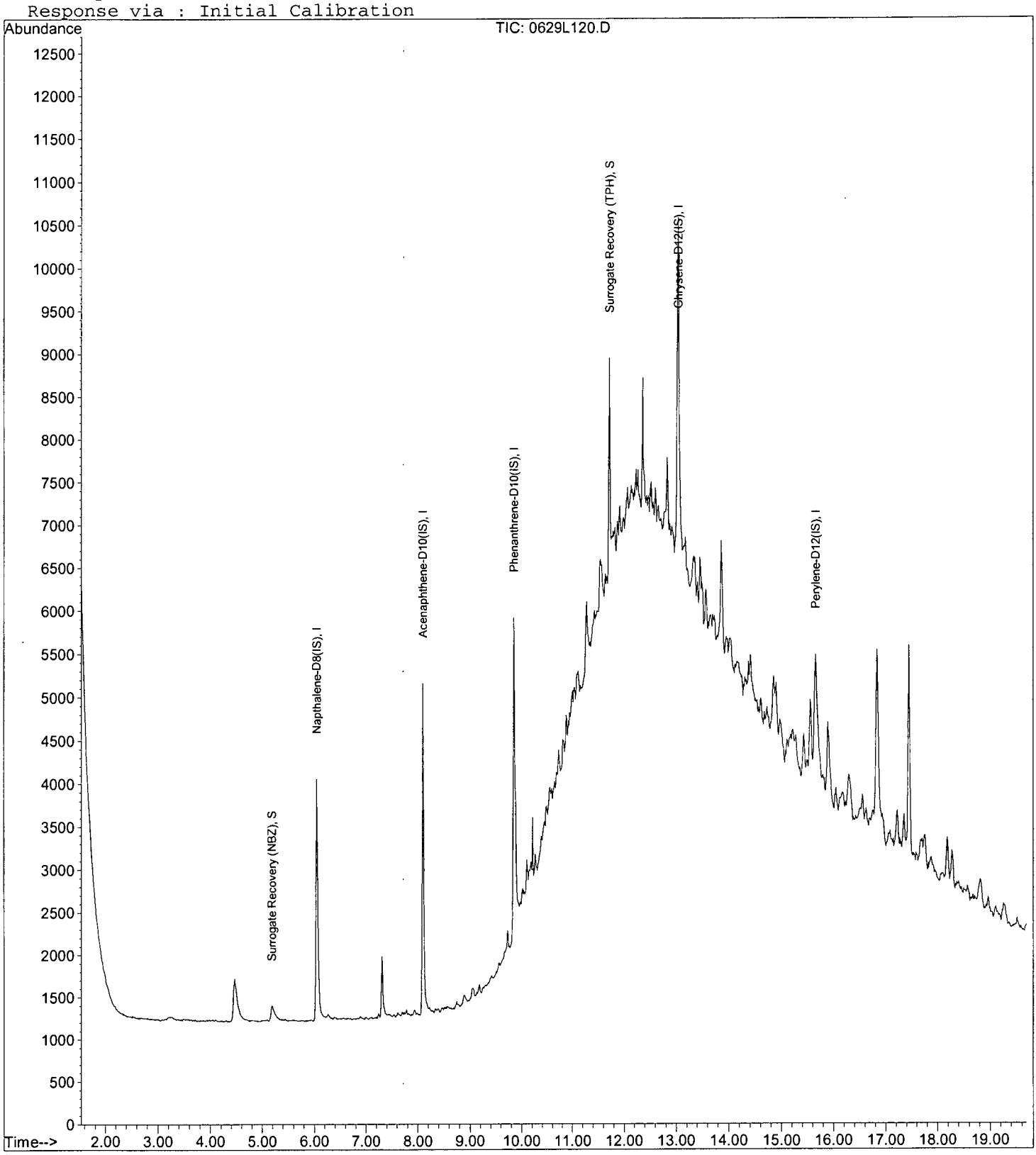
(#) = qualifier out of range (m) = manual integration

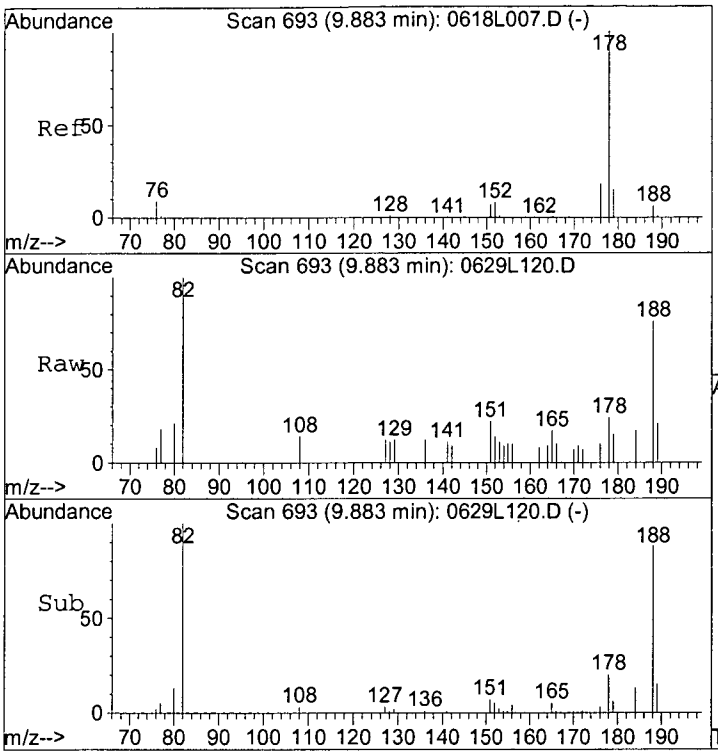
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L120.D Vial: 20
Acq On : 1 Jul 15 18:28 Operator: MA
Sample : AZ17820S02 1/30.04G Inst : Linus
Misc : soil Multiplr: 33.29

Quant Time: Jul 7 12:49 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

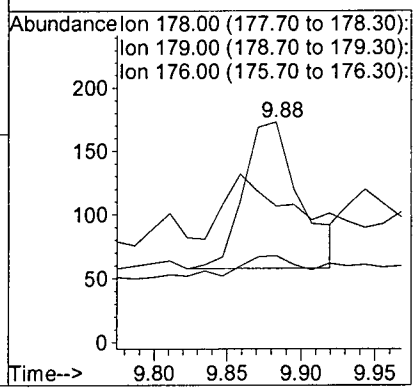


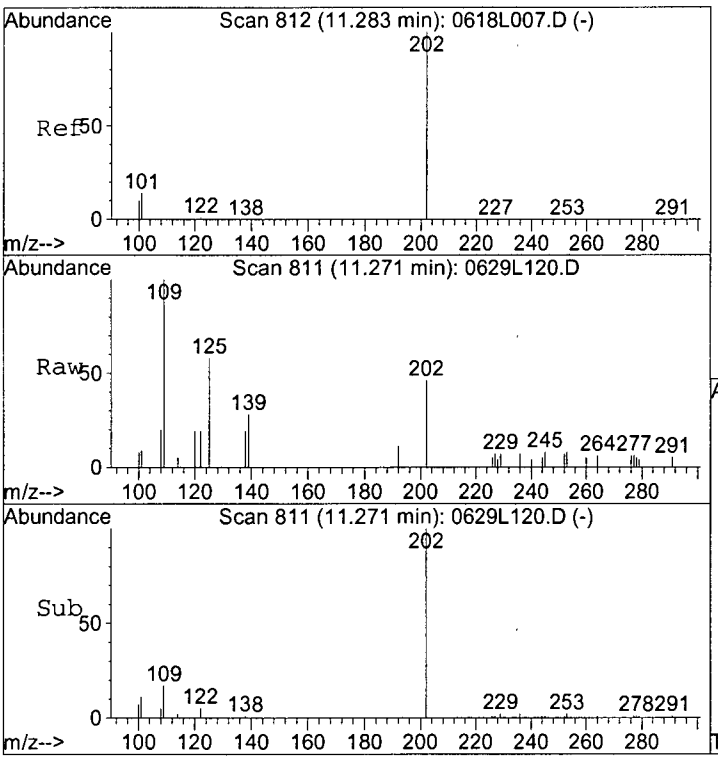


#12
Phenanthrene
Concen: 2.91645 ppb
RT: 9.88 min Scan# 693
Delta R.T. -0.00 min
Lab File: 0629L120.D
Acq: 1 Jul 15 18:28

Tgt Ion:178 Resp: 305

Ion	Ratio	Lower	Upper
178	100		
179	21.7	10.5	19.5#
176	13.9	12.3	22.8

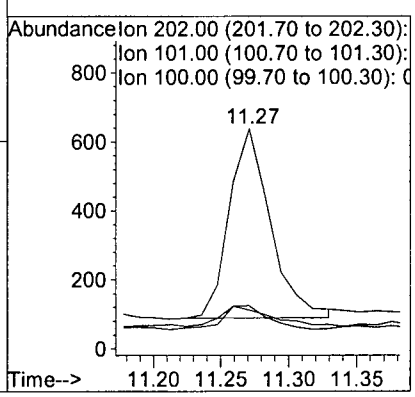


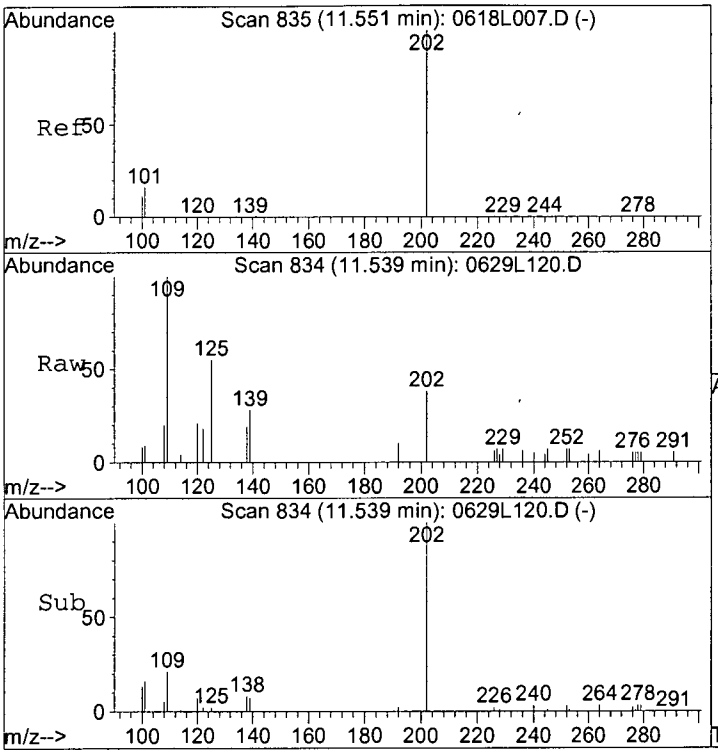


#14
Fluoranthene
Concen: 8.63185 ppb
RT: 11.27 min Scan# 811
Delta R.T. -0.01 min
Lab File: 0629L120.D
Acq: 1 Jul 15 18:28

Tgt Ion:202 Resp: 1164

Ion	Ratio	Lower	Upper
202	100		
101	12.2	9.7	18.1
100	8.6	7.4	13.7

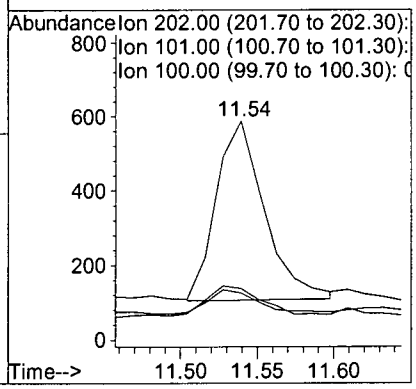


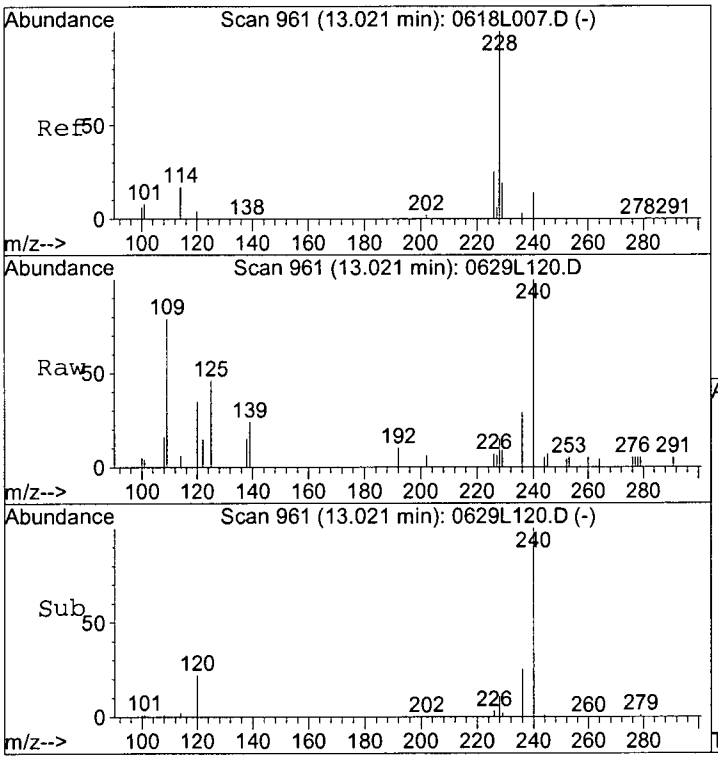


#16
Pyrene
Concen: 7.45297 ppb
RT: 11.54 min Scan# 834
Delta R.T. -0.00 min
Lab File: 0629L120.D
Acq: 1 Jul 15 18:28

Tgt Ion:202 Resp: 1055

Ion	Ratio	Lower	Upper
202	100		
101	14.6	11.0	20.4
100	10.7	7.9	14.7

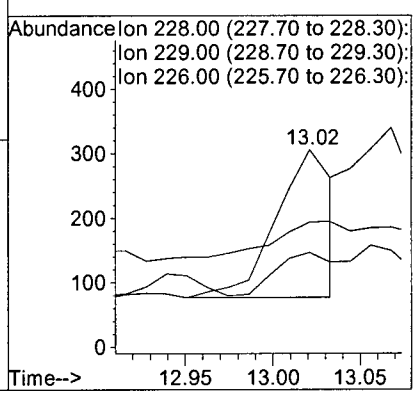


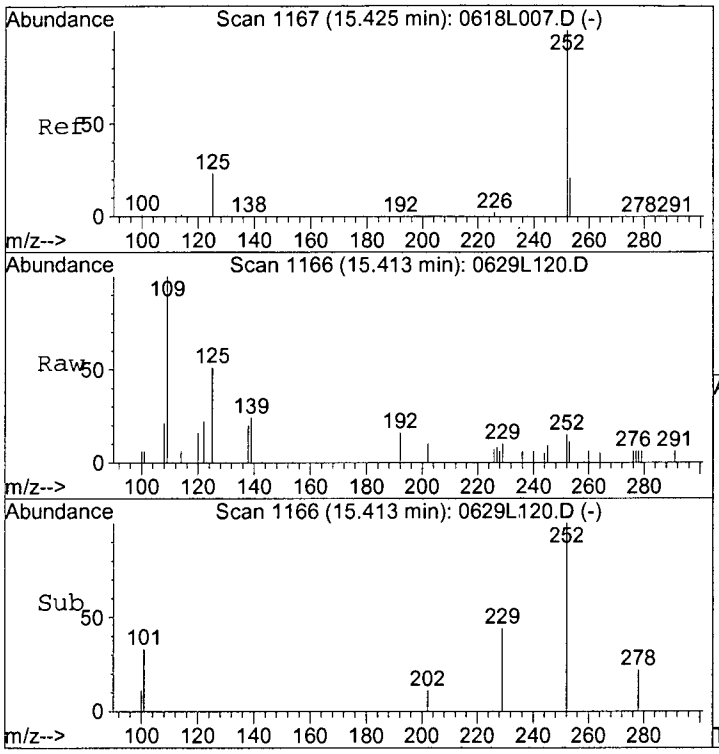


#18
Benz (a) anthracene
Concen: 9.61634 ppb
RT: 13.02 min Scan# 961
Delta R.T. 0.00 min
Lab File: 0629L120.D
Acq: 1 Jul 15 18:28

Tgt Ion:228 Resp: 515

Ion	Ratio	Lower	Upper
228	100		
229	23.6	13.4	25.0
226	15.7	17.2	32.0#

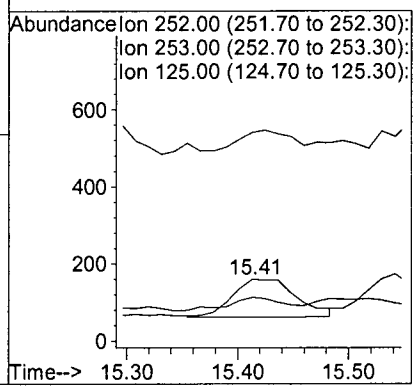


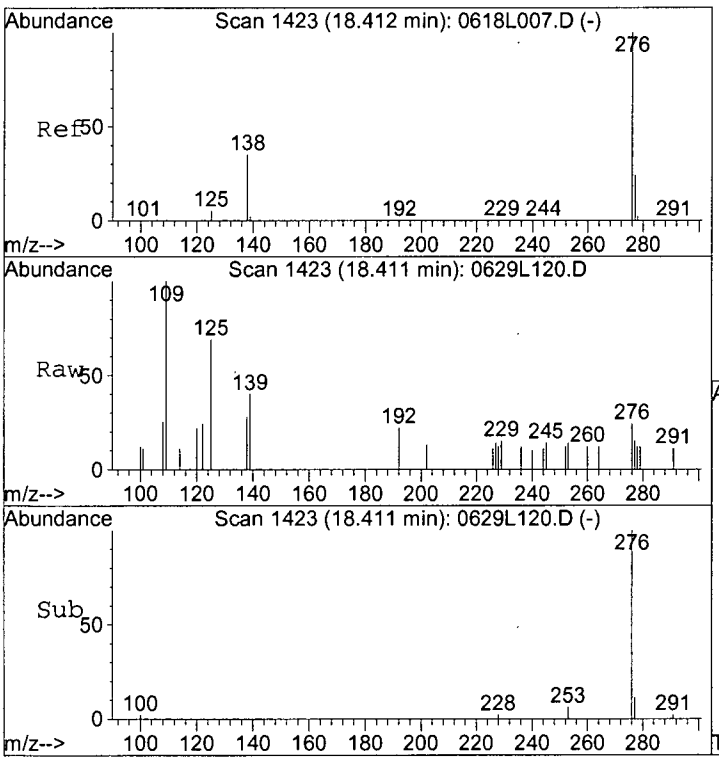


#24
Benzo (a) pyrene
Concen: 3.79244 ppb
RT: 15.41 min Scan# 1166
Delta R.T. -0.00 min
Lab File: 0629L120.D
Acq: 1 Jul 15 18:28

Tgt Ion:252 Resp: 394

Ion	Ratio	Lower	Upper
252	100		
253	36.2	15.2	28.2#
125	29.8	16.1	29.9

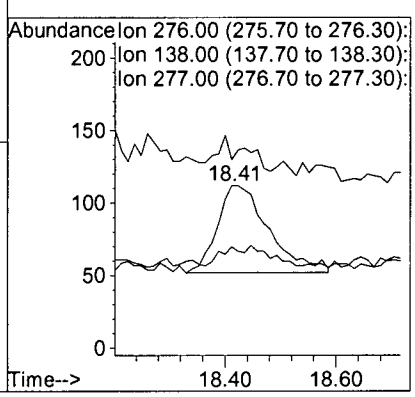




#26
Benzo (g,h,i) perylene
Concen: 3.29754 ppb
RT: 18.41 min Scan# 1423
Delta R.T. -0.00 min
Lab File: 0629L120.D
Acq: 1 Jul 15 18:28

Tgt Ion:276 Resp: 389

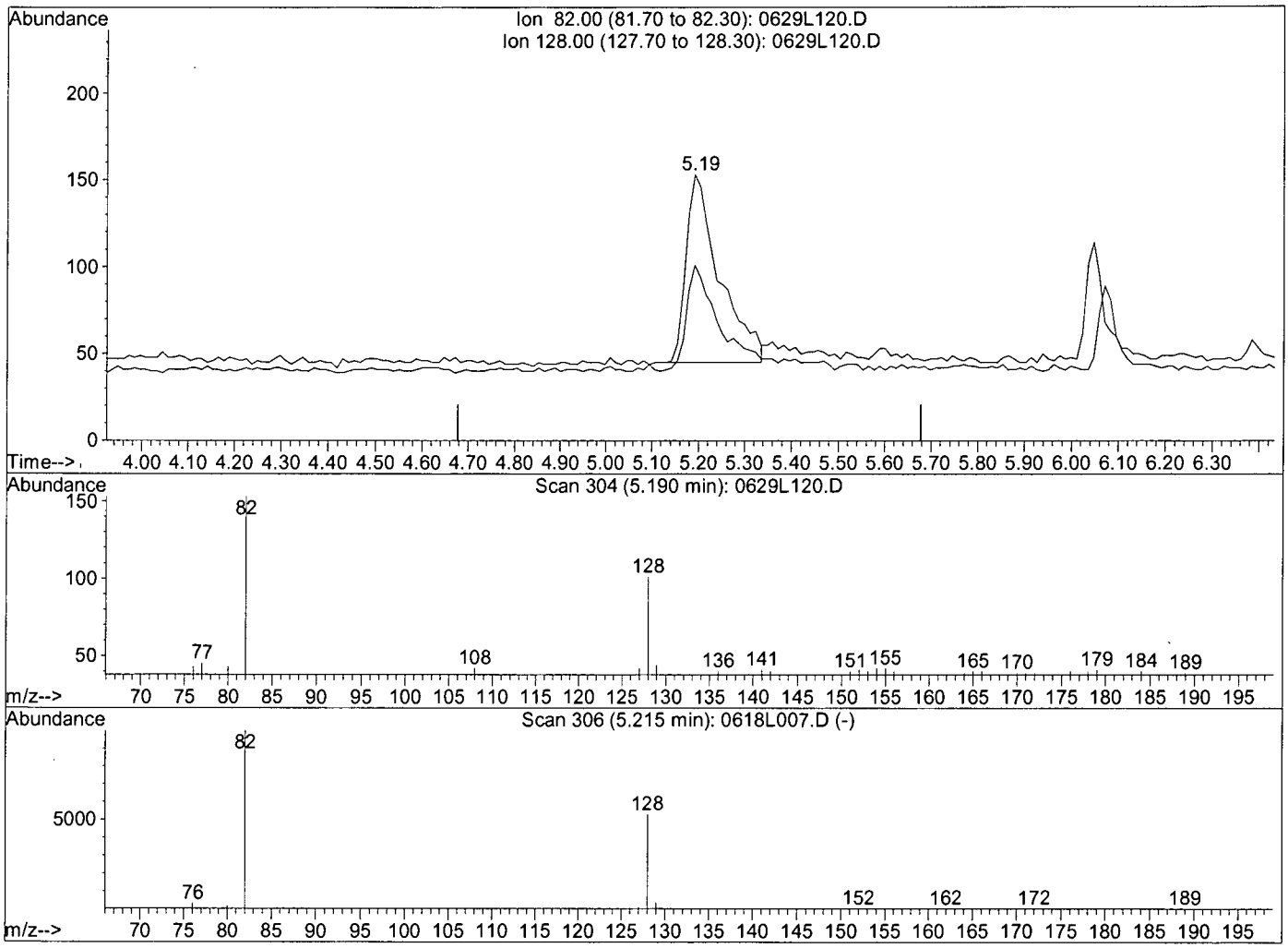
Ion	Ratio	Lower	Upper
276	100		
138	8.3	23.7	44.1#
277	25.0	17.3	32.1



Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L120.D Vial: 20
Acq On : 1 Jul 15 18:28 Operator: MA
Sample : AZ17820S02 1/30.04G Inst : Linus
Misc : soil Multiplr: 33.29
Quant Time: Jul 2 9:56 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: 0629L120.D

(2) Surrogate Recovery (NBZ) (S)

5.19min 28.8089ppb

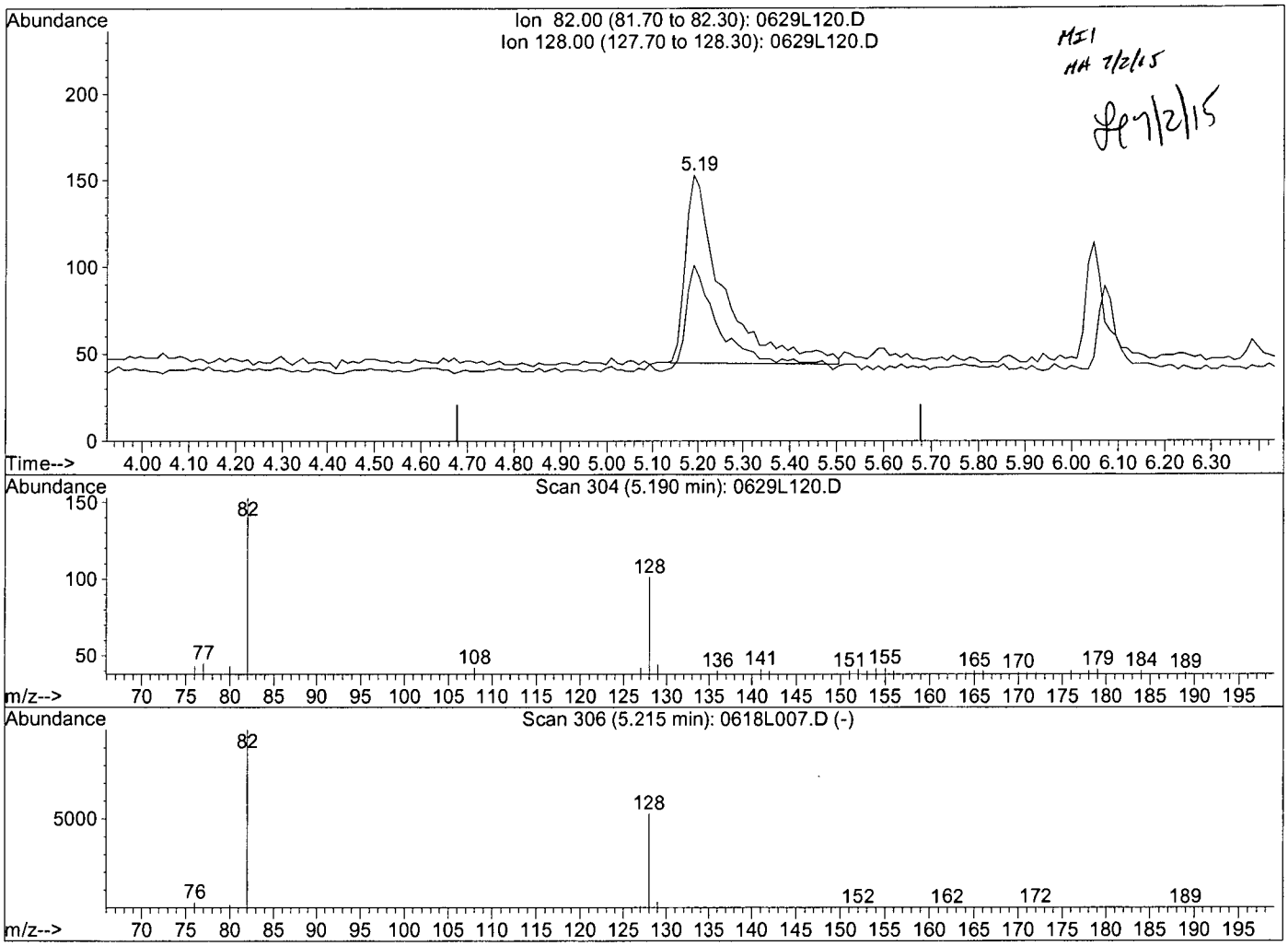
response 544

Ion	Exp%	Act%
82.00	100	100
128.00	52.70	55.56
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L120.D Vial: 20
Acq On : 1 Jul 15 18:28 Operator: MA
Sample : AZ17820S02 1/30.04G Inst : Linus
Misc : soil Multiplr: 33.29
Quant Time: Jul 2 10:30 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: 0629L120.D

(2) Surrogate Recovery (NBZ) (S)

5.19min 33.6810ppb m

response 636

Ion	Exp%	Act%
82.00	100	100
128.00	52.70	66.01
0.00	0.00	0.00
0.00	0.00	0.00

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-SD027P-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17820
QCG: #SIMDD-150702A-198630

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 53.5 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0059 J	0.011	0.0037	0.0019	mg/kg	07/02/15	07/06/15
8270D-LL	ACENAPHTHENE	0.0028 J	0.011	0.0037	0.0022	mg/kg	07/02/15	07/06/15
8270D-LL	ACENAPHTHYLENE	0.0059 J	0.011	0.0037	0.0019	mg/kg	07/02/15	07/06/15
8270D-LL	ANTHRACENE	0.0085 J	0.011	0.0037	0.0017	mg/kg	07/02/15	07/06/15
8270D-LL	BENZ (A) ANTHRACENE	0.053	0.011	0.0037	0.0019	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (A) PYRENE	0.036	0.011	0.0037	0.0019	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (B) FLUORANTHENE	0.078	0.011	0.0037	0.0024	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.027	0.011	0.0037	0.0028	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (K) FLUORANTHENE	0.055	0.011	0.0037	0.0022	mg/kg	07/02/15	07/06/15
8270D-LL	CHRYSENE	0.0037 U	0.011	0.0037	0.0017	mg/kg	07/02/15	07/06/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.0037 U	0.011	0.0037	0.0019	mg/kg	07/02/15	07/06/15
8270D-LL	FLUORANTHENE	0.079	0.011	0.0037	0.0026	mg/kg	07/02/15	07/06/15
8270D-LL	FLUORENE	0.0062 J	0.011	0.0037	0.0022	mg/kg	07/02/15	07/06/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.0037 U	0.011	0.0037	0.0019	mg/kg	07/02/15	07/06/15
8270D-LL	NAPHTHALENE	0.0064 J	0.011	0.0037	0.0019	mg/kg	07/02/15	07/06/15
8270D-LL	PHENANTHRENE	0.033	0.011	0.0037	0.0024	mg/kg	07/02/15	07/06/15
8270D-LL	PYRENE	0.074	0.011	0.0037	0.0026	mg/kg	07/02/15	07/06/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	57.9	45-105			%	07/02/15	07/06/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	63.4	35-100			%	07/02/15	07/06/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	74.1	30-125			%	07/02/15	07/06/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L170
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/07/15 1:56:48 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L170.D Vial: 70
Acq On : 6 Jul 15 12:58 Operator: MA
Sample : AZ17820S03 1/30.22G Inst : Linus
Misc : soil Multiplr: 33.09

Quant Time: Jul 7 13:03 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)	6.05	136	5896	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.10	164	3099	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.85	188	5345	2.50000 ppb		-0.01
15) Chrysene-D12(IS)	13.03	240	5573	2.50000 ppb		0.00
21) Perylene-D12(IS)	15.65	264	3740	2.50000 ppb		-0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.18	82	929	52.48771 ppb		0.00
Spiked Amount 82.727			Recovery = 63.447%			
7) Surrogate Recovery (FBP)	7.31	172	2721	47.92435 ppb		0.00
Spiked Amount 82.727			Recovery = 57.931%			
17) Surrogate Recovery (TPH)	11.71	244	3780	61.31682 ppb		-0.01
Spiked Amount 82.727			Recovery = 74.120%			
Target Compounds						Qvalue
3) Naphthalene	6.07	128	288	2.96459 ppb		97
4) 2-Methylnaphthalene	6.89	142	163	2.76663 ppb		89
5) 1-Methylnaphthalene	7.00	142	109	1.64781 ppb		97
8) Acenaphthylene	7.94	152	287	2.72829 ppb	#	95
9) Acenaphthene	8.13	154	85	1.32220 ppb		77
10) Fluorene	8.75	166	196	2.88511 ppb		95
12) Phenanthrene	9.87	178	1489	15.28120 ppb		96
13) Anthracene	9.93	178	399	3.96060 ppb	#	82
14) Fluoranthene	11.27	202	4642	36.94577 ppb	#	90
16) Pyrene	11.54	202	4272	34.61808 ppb		93
18) Benz (a) anthracene	13.01	228	2012	24.52672 ppb		92
22) Benzo (b) fluoranthene	14.84	252	4146	36.19498 ppb		96
23) Benzo (k) fluoranthene	14.84	252	3311	25.56769 ppb		91
24) Benzo (a) pyrene	15.41	252	1594	16.71561 ppb	#	1
26) Benzo (g,h,i) perylene	18.40	276	1336	12.33839 ppb		92

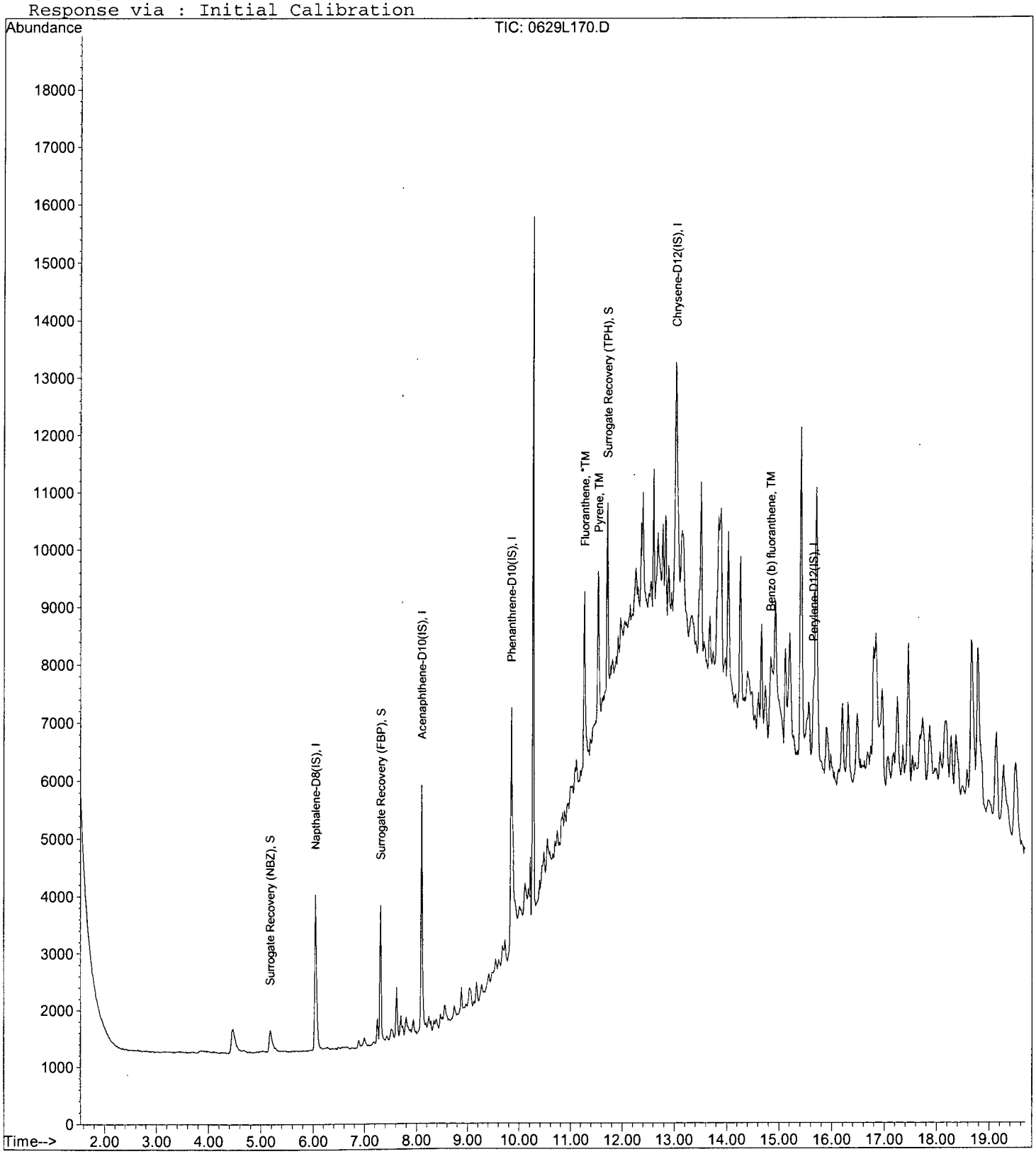
(#) = qualifier out of range (m) = manual integration

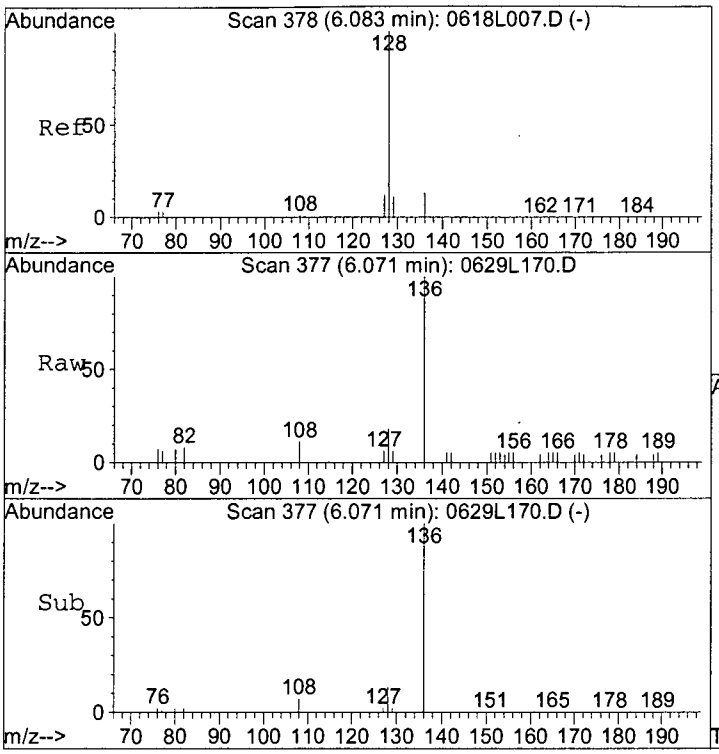
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L170.D Vial: 70
Acq On : 6 Jul 15 12:58 Operator: MA
Sample : AZ17820S03 1/30.22G Inst : Linus
Misc : soil Multiplr: 33.09

Quant Time: Jul 7 13:03 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

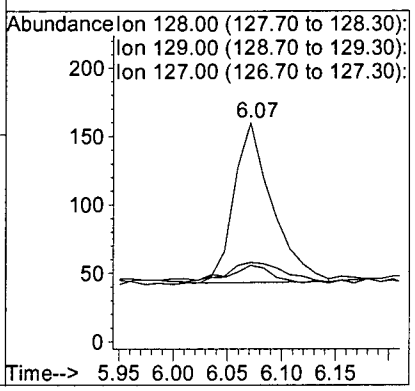


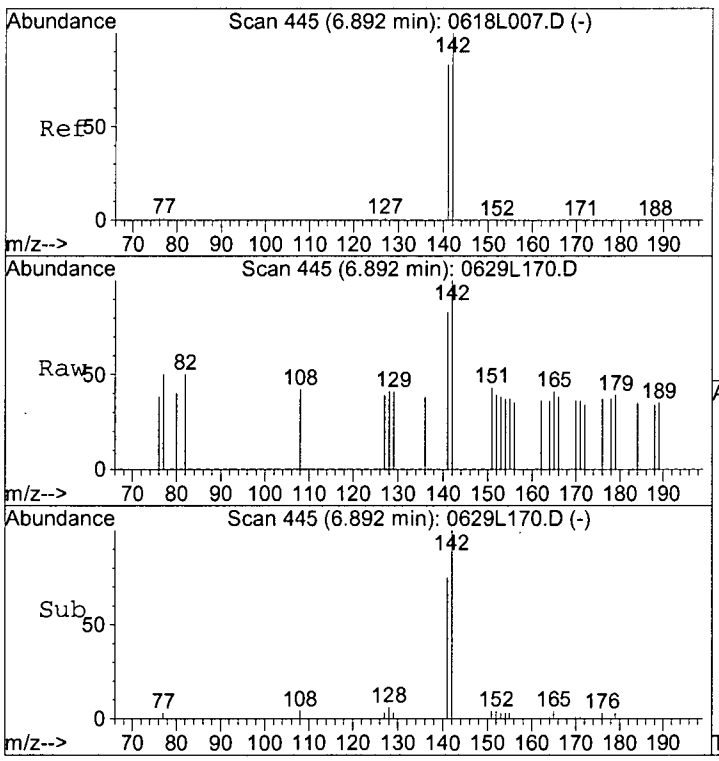


#3
Naphthalene
Concen: 2.96459 ppb
RT: 6.07 min Scan# 377
Delta R.T. 0.00 min
Lab File: 0629L170.D
Acq: 6 Jul 15 12:58

Tgt Ion:128 Resp: 288

Ion	Ratio	Lower	Upper
128	100		
129	12.1	7.4	13.8
127	11.2	8.4	15.6

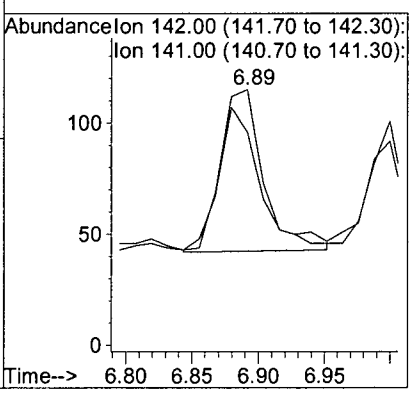


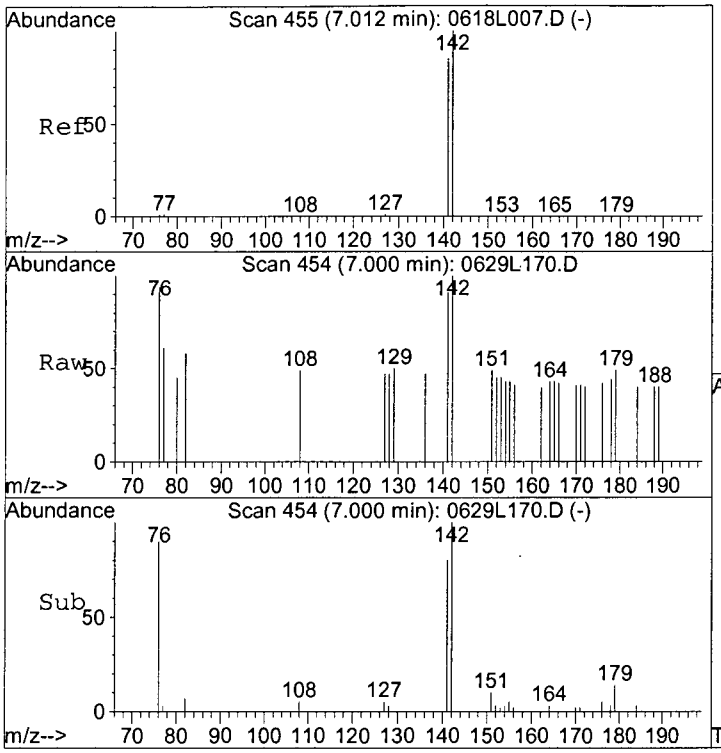


#4
2-Methylnaphthalene
Concen: 2.76663 ppb
RT: 6.89 min Scan# 445
Delta R.T. 0.01 min
Lab File: 0629L170.D
Acq: 6 Jul 15 12:58

Tgt Ion:142 Resp: 163

Ion	Ratio	Lower	Upper
142	100		
141	73.6	58.3	108.3

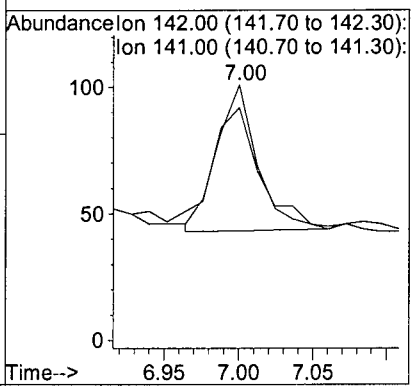


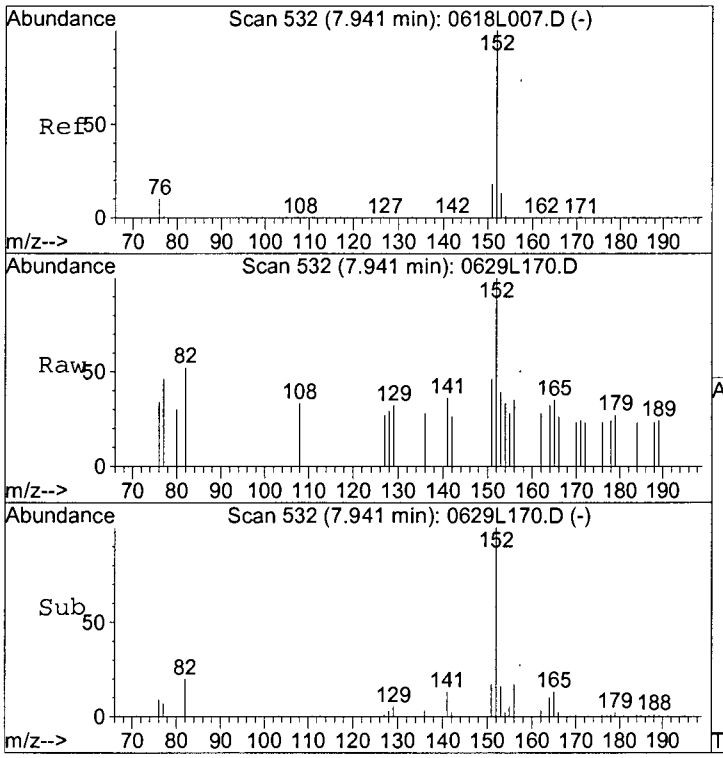


#5
1-Methylnaphthalene
Concen: 1.64781 ppb
RT: 7.00 min Scan# 454
Delta R.T. 0.00 min
Lab File: 0629L170.D
Acq: 6 Jul 15 12:58

Tgt Ion:142 Resp: 109

Ion	Ratio	Lower	Upper
142	100		
141	82.5	59.5	110.5

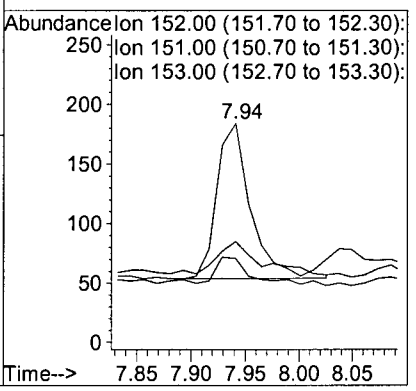


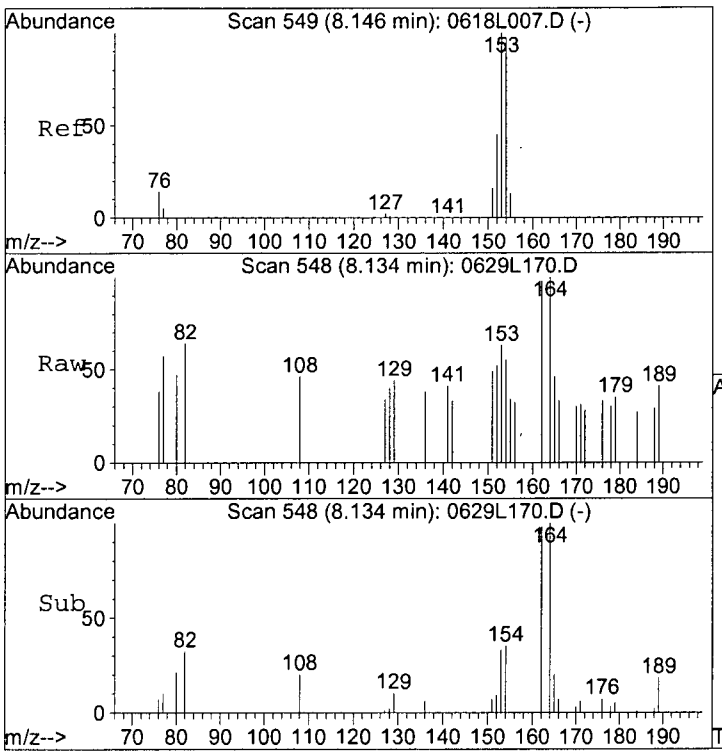


#8
Acenaphthylene
Concen: 2.72829 ppb
RT: 7.94 min Scan# 532
Delta R.T. 0.00 min
Lab File: 0629L170.D
Acq: 6 Jul 15 12:58

Tgt Ion:152 Resp: 287

Ion	Ratio	Lower	Upper
152	100		
151	18.5	12.7	23.7
153	17.7	9.0	16.8#

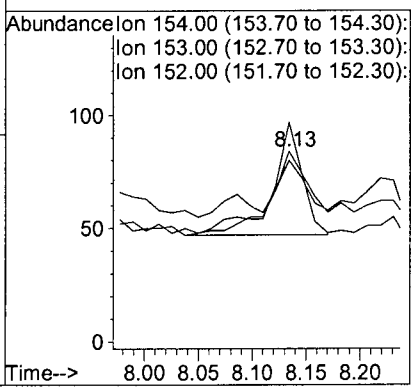


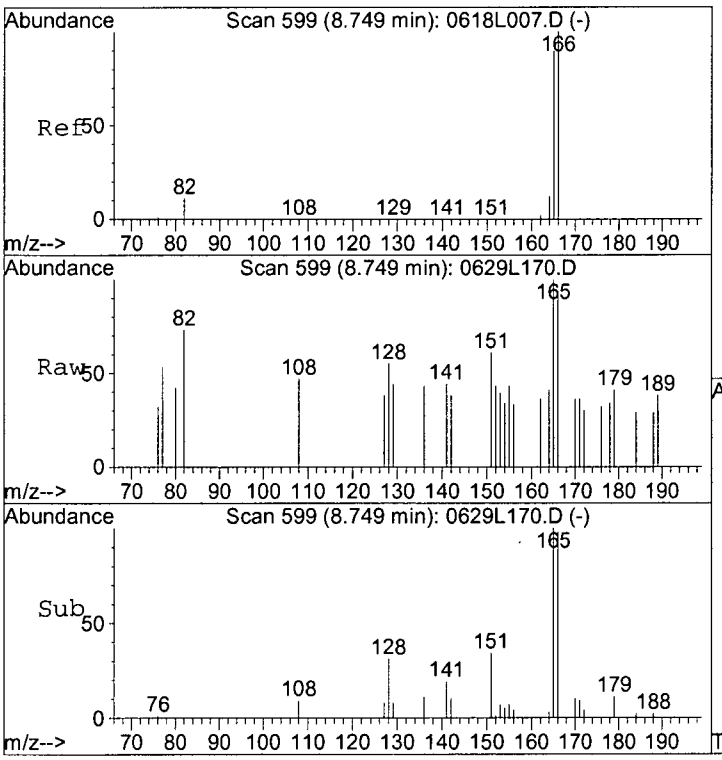


#9
Acenaphthene
Concen: 1.32220 ppb
RT: 8.13 min Scan# 548
Delta R.T. 0.00 min
Lab File: 0629L170.D
Acq: 6 Jul 15 12:58

Tgt Ion:154 Resp: 85

Ion	Ratio	Lower	Upper
154	100		
153	127.0	71.8	133.4
152	59.5	32.7	60.7

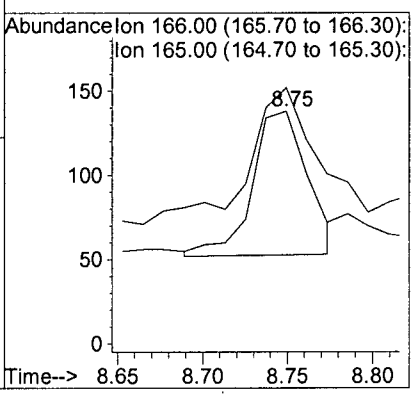


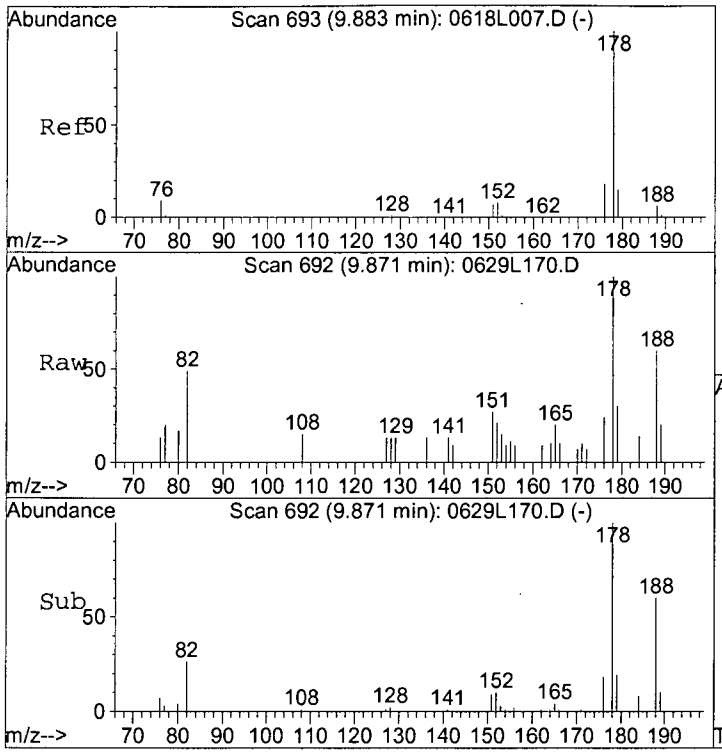


#10
Fluorene
Concen: 2.88511 ppb
RT: 8.75 min Scan# 599
Delta R.T. 0.00 min
Lab File: 0629L170.D
Acq: 6 Jul 15 12:58

Tgt Ion:166 Resp: 196

Ion	Ratio	Lower	Upper
166	100		
165	85.5	63.1	117.1

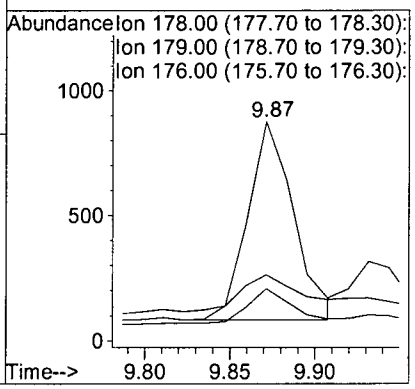


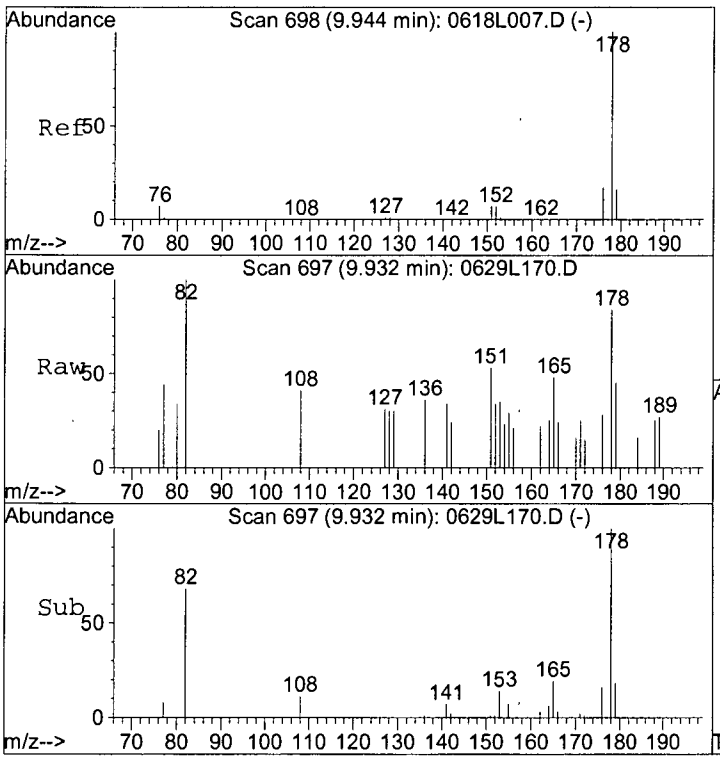


#12
Phenanthrene
Concen: 15.28120 ppb
RT: 9.87 min Scan# 692
Delta R.T. -0.01 min
Lab File: 0629L170.D
Acq: 6 Jul 15 12:58

Tgt Ion:178 Resp: 1489

Ion	Ratio	Lower	Upper
178	100		
179	18.4	10.5	19.5
176	17.3	12.3	22.8

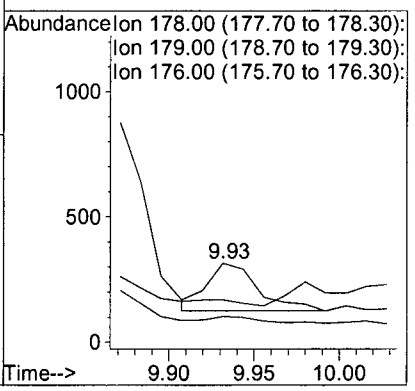


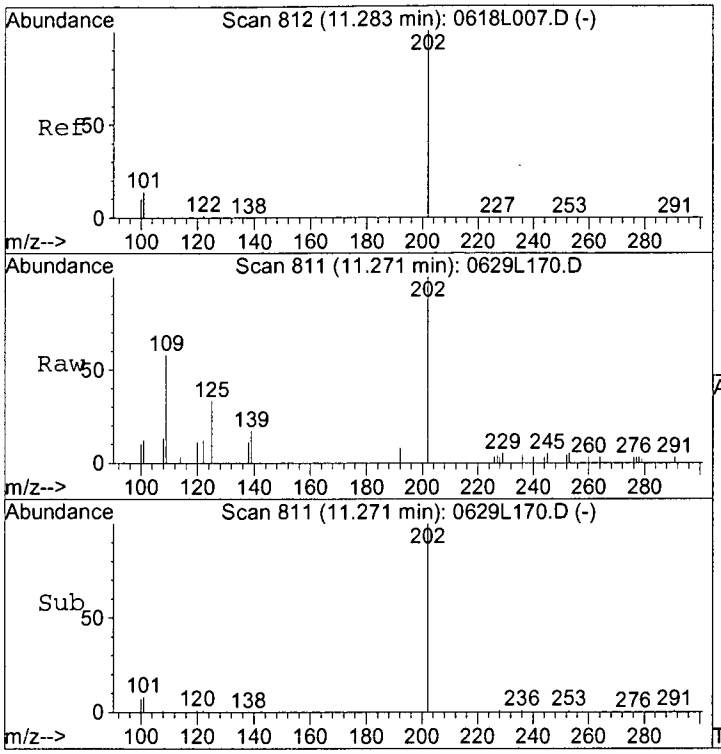


#13
Anthracene
Concen: 3.96060 ppb
RT: 9.93 min Scan# 697
Delta R.T. -0.01 min
Lab File: 0629L170.D
Acq: 6 Jul 15 12:58

Tgt Ion:178 Resp: 399

Ion	Ratio	Lower	Upper
178	100		
179	3.2	10.9	20.3#
176	14.2	12.2	22.6

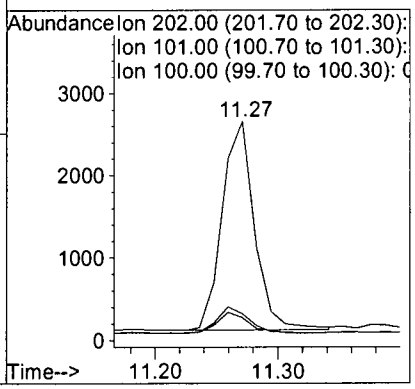


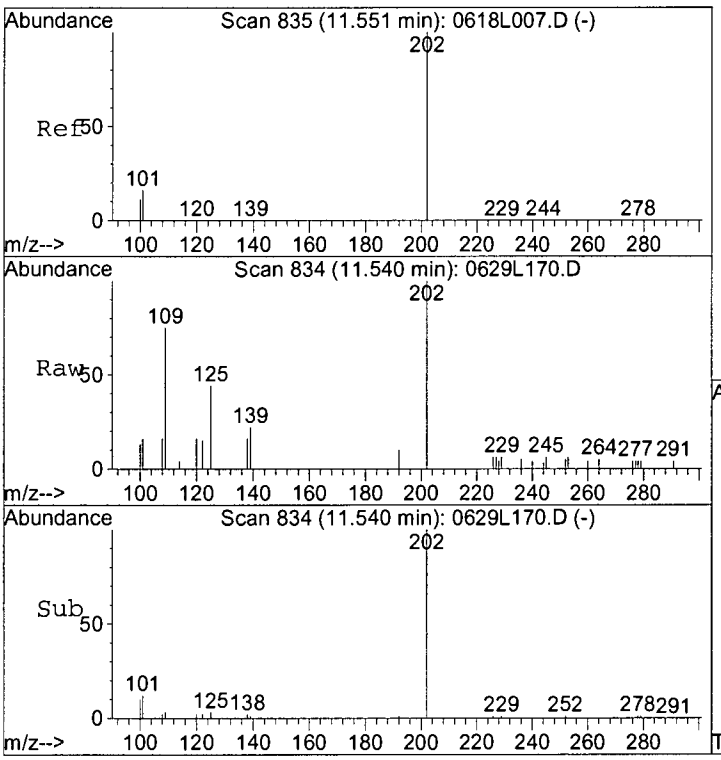


#14
Fluoranthene
Concen: 36.94577 ppb
RT: 11.27 min Scan# 811
Delta R.T. -0.01 min
Lab File: 0629L170.D
Acq: 6 Jul 15 12:58

Tgt Ion:202 Resp: 4642

Ion	Ratio	Lower	Upper
202	100		
101	9.4	9.7	18.1#
100	7.3	7.4	13.7#

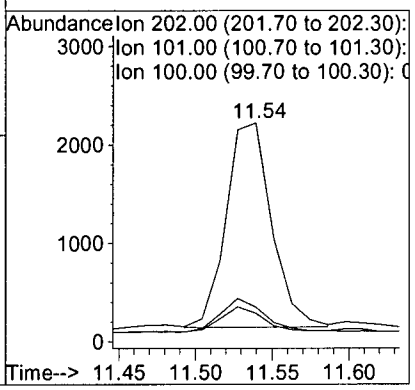


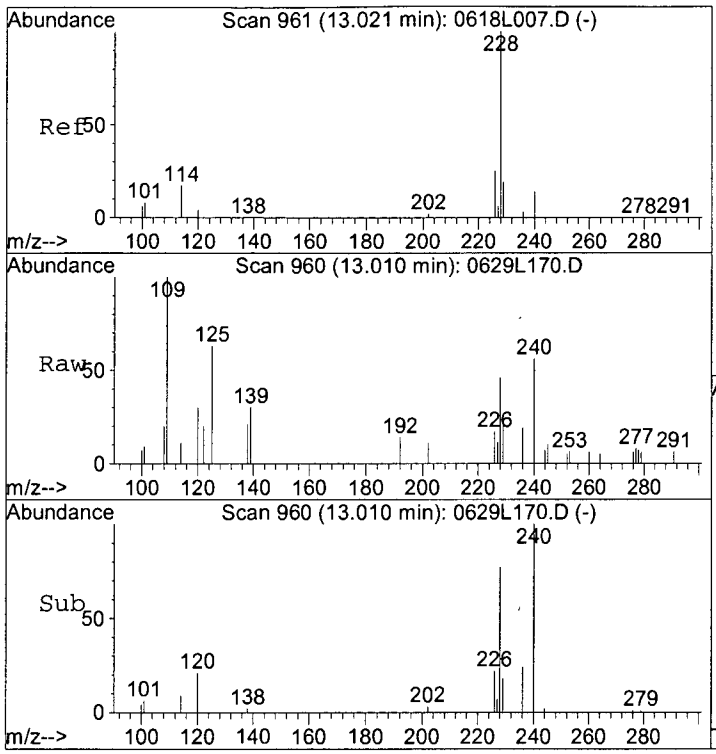


#16
Pyrene
Concen: 34.61808 ppb
RT: 11.54 min Scan# 834
Delta R.T. 0.00 min
Lab File: 0629L170.D
Acq: 6 Jul 15 12:58

Tgt Ion:202 Resp: 4272

Ion	Ratio	Lower	Upper
202	100		
101	12.2	11.0	20.4
100	9.2	7.9	14.7

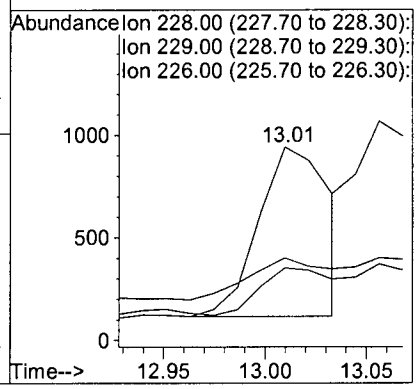


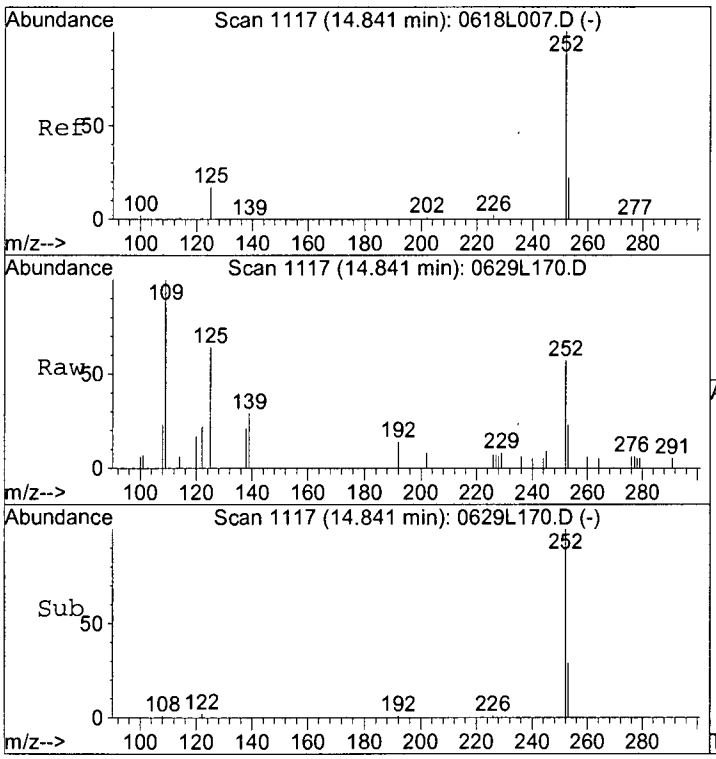


#18
Benz (a) anthracene
Concen: 24.52672 ppb
RT: 13.01 min Scan# 960
Delta R.T. -0.01 min
Lab File: 0629L170.D
Acq: 6 Jul 15 12:58

Tgt Ion:228 Resp: 2012

Ion	Ratio	Lower	Upper
228	100		
229	24.8	13.4	25.0
226	26.8	17.2	32.0

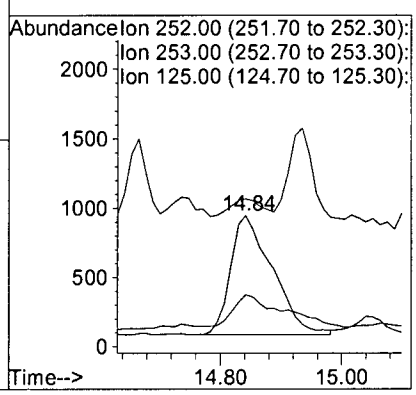


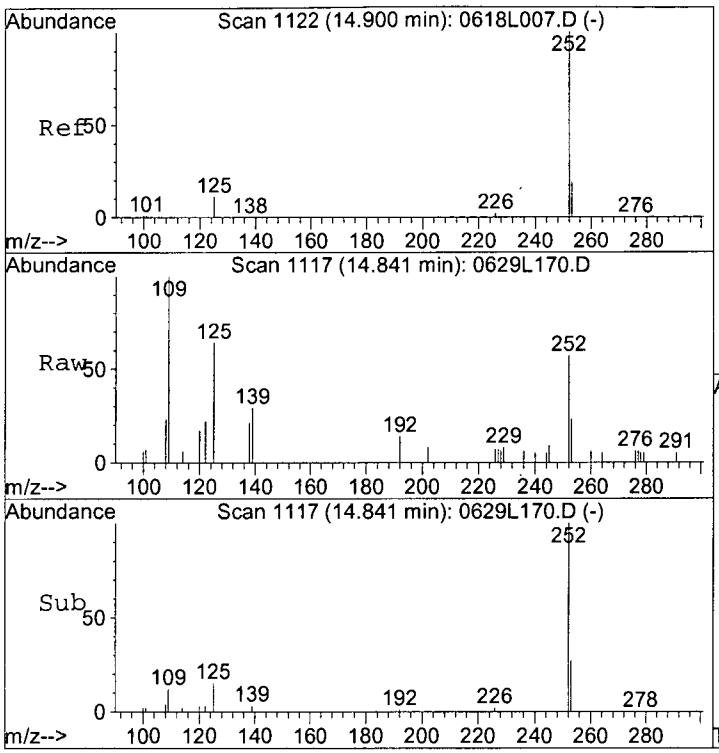


#22
Benzo (b) fluoranthene
Concen: 36.19498 ppb
RT: 14.84 min Scan# 1117
Delta R.T. 0.00 min
Lab File: 0629L170.D
Acq: 6 Jul 15 12:58

Tgt Ion:252 Resp: 4146

Ion	Ratio	Lower	Upper
252	100		
253	25.5	15.7	29.1
125	15.4	11.3	20.9

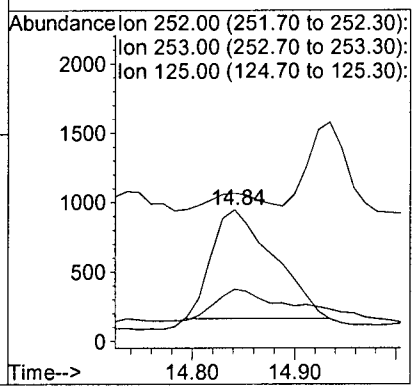


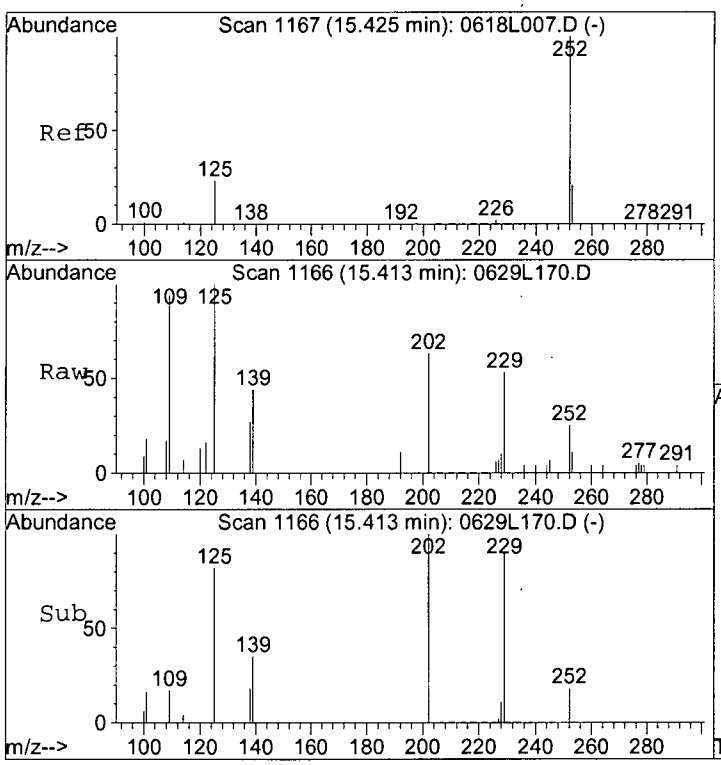


#23
Benzo (k) fluoranthene
Concen: 25.56769 ppb
RT: 14.84 min Scan# 1117
Delta R.T. -0.05 min
Lab File: 0629L170.D
Acq: 6 Jul 15 12:58

Tgt Ion:252 Resp: 3311

Ion	Ratio	Lower	Upper
252	100		
253	28.4	15.8	29.3
125	14.8	11.6	21.5

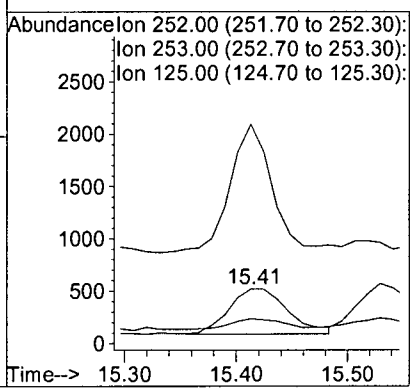


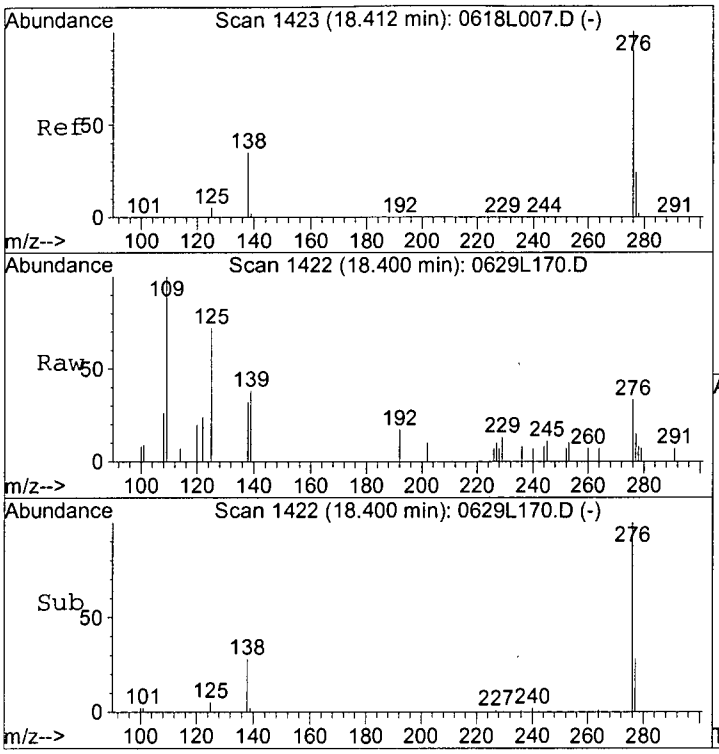


#24
Benzo (a) pyrene
Concen: 16.71561 ppb
RT: 15.41 min Scan# 1166
Delta R.T. 0.00 min
Lab File: 0629L170.D
Acq: 6 Jul 15 12:58

Tgt Ion:252 Resp: 1594

Ion	Ratio	Lower	Upper
252	100		
253	23.6	15.2	28.2
125	278.3	16.1	29.9#

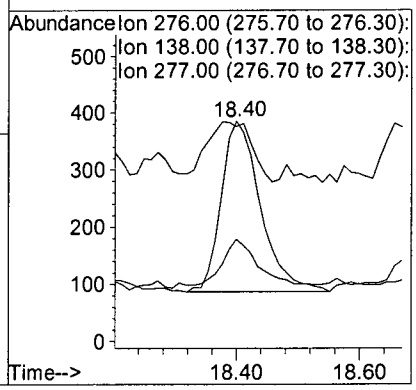




#26
Benzo (g,h,i) perylene
Concen: 12.33839 ppb
RT: 18.40 min Scan# 1422
Delta R.T. -0.01 min
Lab File: 0629L170.D
Acq: 6 Jul 15 12:58

Tgt Ion:276 Resp: 1336

Ion	Ratio	Lower	Upper
276	100		
138	28.2	23.7	44.1
277	27.2	17.3	32.1



EPA 8270D LL WATER DODv3

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SW027-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17821
QCG: #SIMDD-150619A-198588

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	52.0	50-110			%	06/19/15	07/02/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	59.8	40-110			%	06/19/15	07/02/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	61.5	50-135			%	06/19/15	07/02/15

Quant Method: P0629.M
Run #: 0629L140
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/06/15 11:17:37 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L140.D Vial: 40
Acq On : 2 Jul 15 14:04 Operator: MA
Sample : AZ17821W05 1/1000 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Jul 6 10:26 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)	6.05	136	5808	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.10	164	2986	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.86	188	5361	2.50000 ppb	0.00
15) Chrysene-D12(IS)	13.04	240	6298	2.50000 ppb	0.01
21) Perylene-D12(IS)	15.67	264	4072	2.50000 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.19	82	862	1.49408 ppb	0.01
Spiked Amount 2.500			Recovery = 59.760%		
7) Surrogate Recovery (FBP)	7.31	172	2352m	1.29925 ppb	0.00
Spiked Amount 2.500			Recovery = 51.960%		
17) Surrogate Recovery (TPH)	11.71	244	3546	1.53818 ppb	-0.01
Spiked Amount 2.500			Recovery = 61.520%		

Target Compounds Qvalue

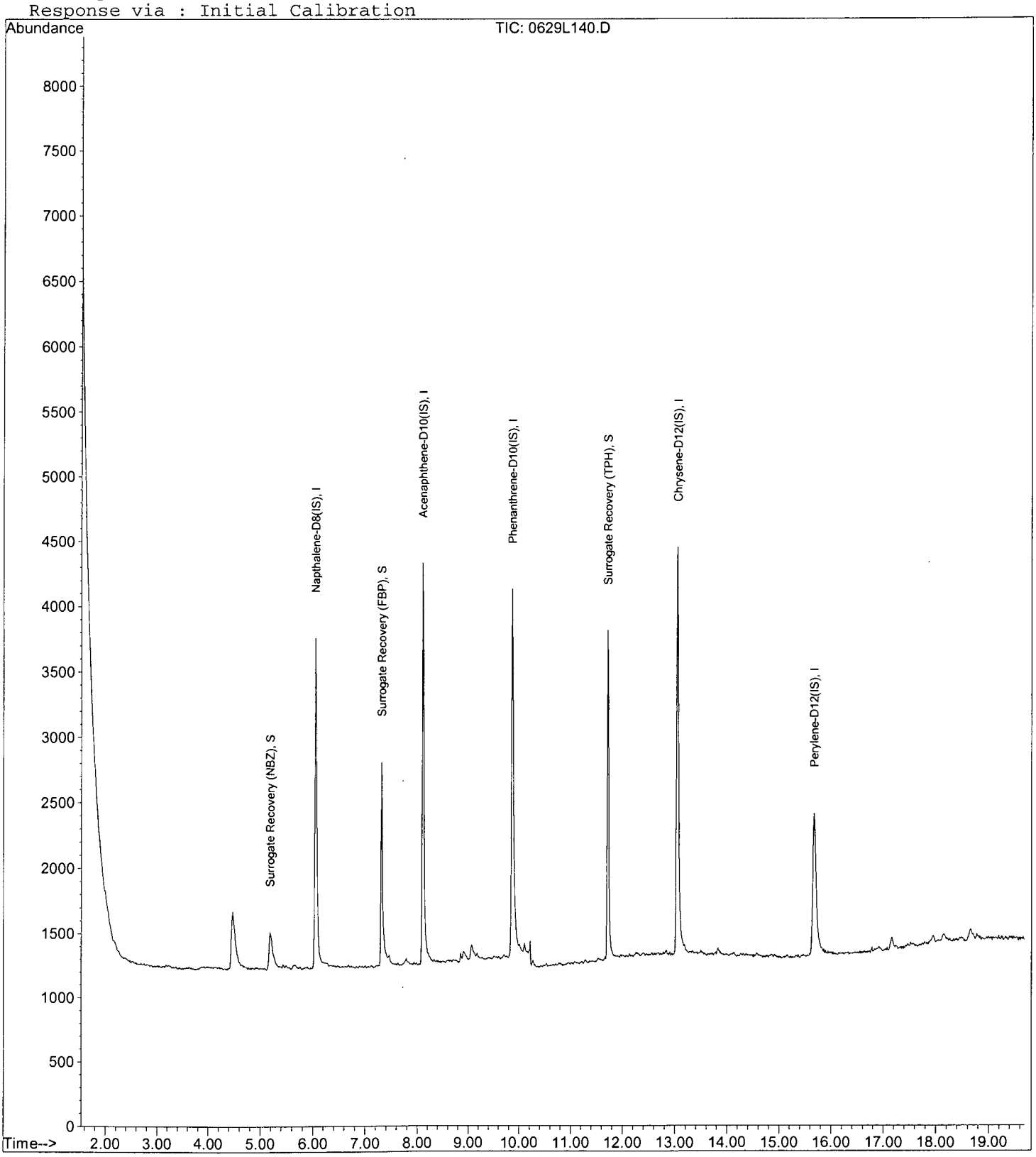
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L140.D Vial: 40
Acq On : 2 Jul 15 14:04 Operator: MA
Sample : AZ17821W05 1/1000 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Jul 6 10:26 2015 Quant Results File: P0629.RES

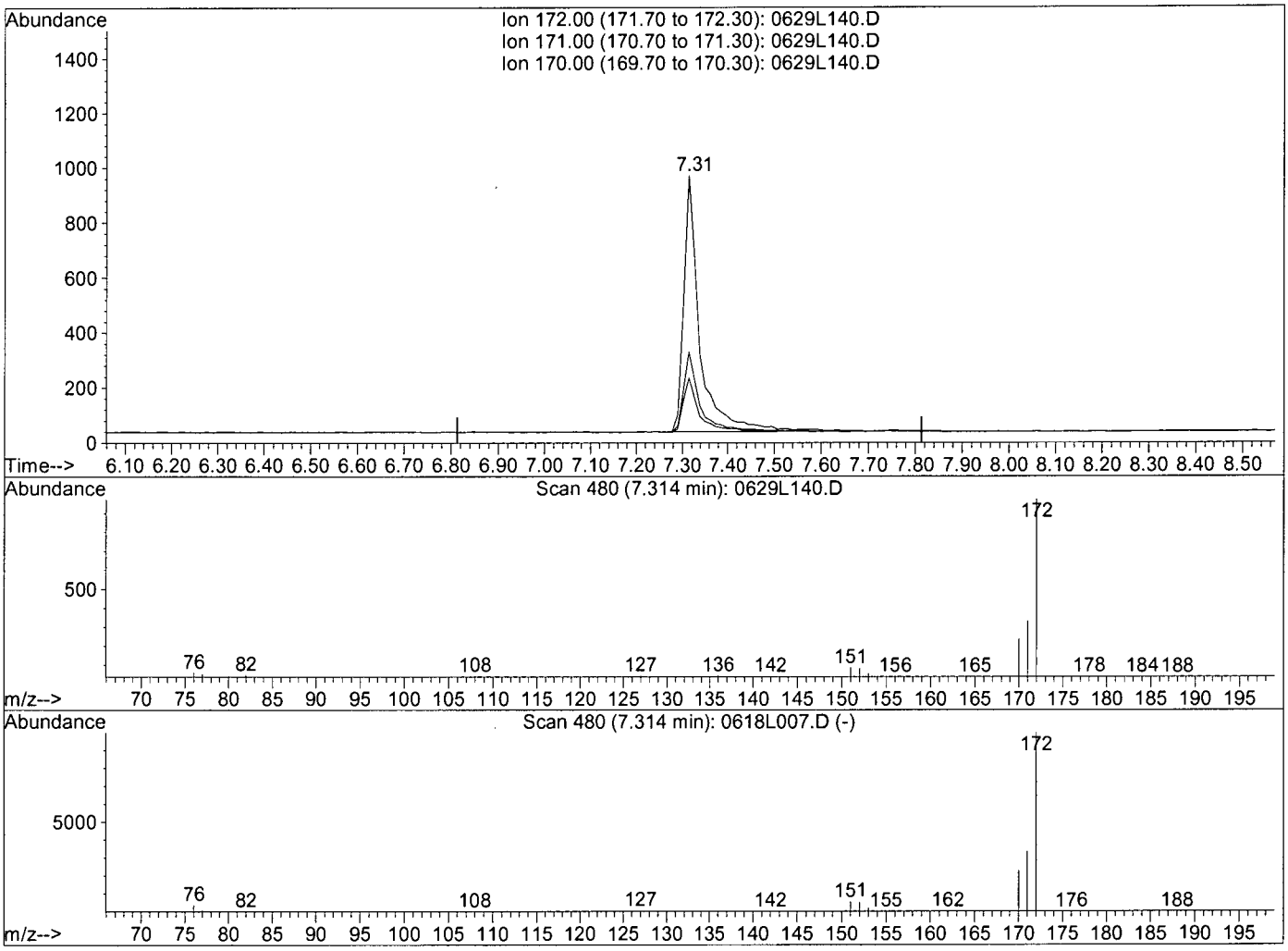
Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration



Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L140.D Vial: 40
Acq On : 2 Jul 15 14:04 Operator: MA
Sample : AZ17821W05 1/1000 Inst : Linus
Misc : water Multiplr: 1.00
Quant Time: Jul 6 9:15 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: 0629L140.D

(7) Surrogate Recovery (FBP) (S)

7.31min 1.2479ppb

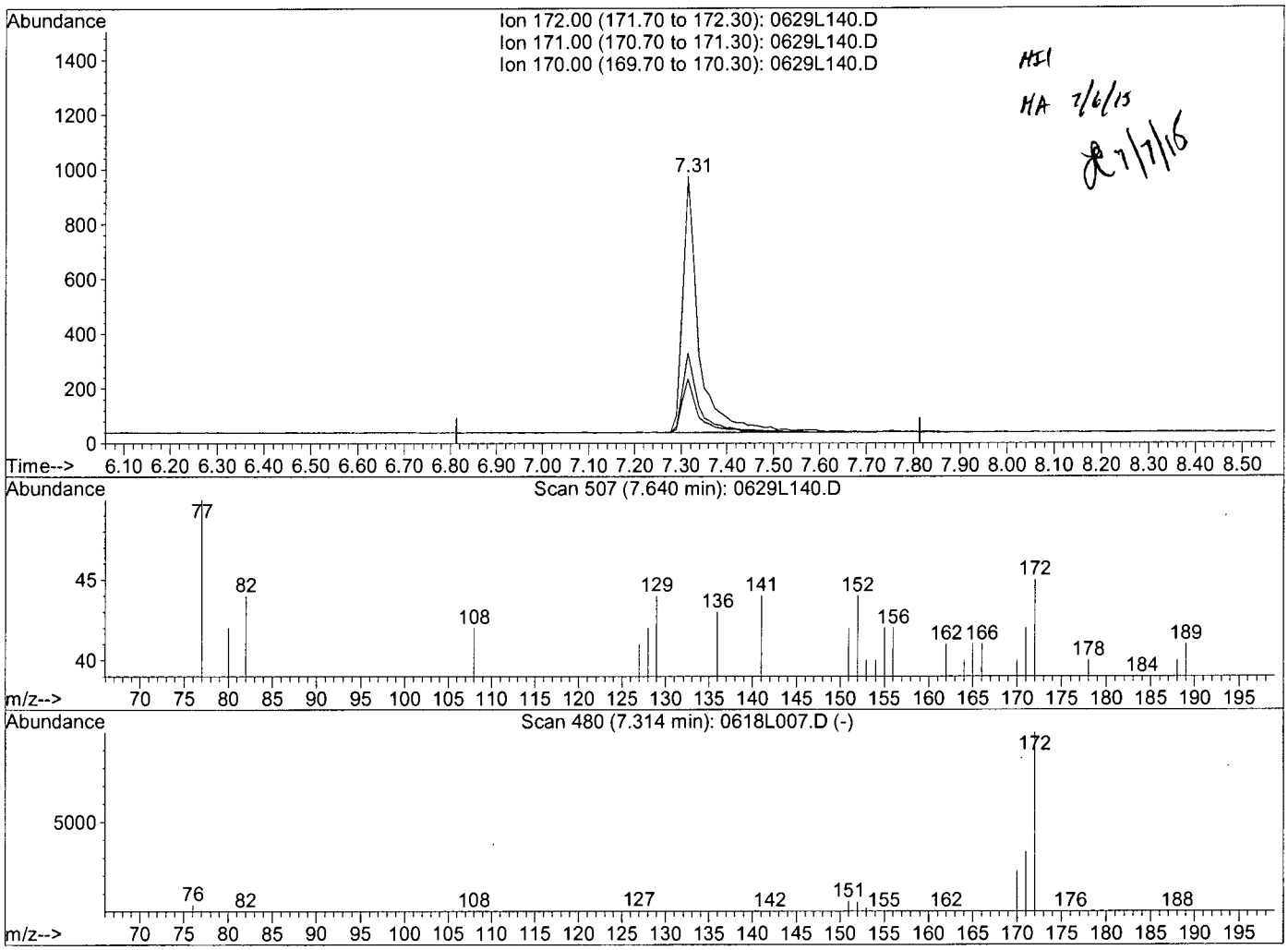
response 2259

Ion	Exp%	Act%
172.00	100	100
171.00	33.10	31.22
170.00	22.70	21.03
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L140.D Vial: 40
Acq On : 2 Jul 15 14:04 Operator: MA
Sample : AZ17821W05 1/1000 Inst : Linus
Misc : water Multiplr: 1.00
Quant Time: Jul 6 9:39 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: 0629L140.D

(7) Surrogate Recovery (FBP) (S)

7.31min 1.2992ppb m

response 2352

Ion	Exp%	Act%
172.00	100	100
171.00	33.10	34.05
170.00	22.70	24.28
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-SD028-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17822
QCG: #SIMDD-150622B-198629

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 73.1 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0063 U	0.019	0.0063	0.0033	mg/kg	06/22/15	07/01/15
8270D-LL	ACENAPHTHENE	0.0063 U	0.019	0.0063	0.0037	mg/kg	06/22/15	07/01/15
8270D-LL	ACENAPHTHYLENE	0.0063 U	0.019	0.0063	0.0033	mg/kg	06/22/15	07/01/15
8270D-LL	ANTHRACENE	0.0063 U	0.019	0.0063	0.0030	mg/kg	06/22/15	07/01/15
8270D-LL	BENZ (A) ANTHRACENE	0.042	0.019	0.0063	0.0033	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (A) PYRENE	0.017 J	0.019	0.0063	0.0033	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (B) FLUORANTHENE	0.023	0.019	0.0063	0.0041	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.011 J	0.019	0.0063	0.0048	mg/kg	06/22/15	07/01/15
8270D-LL	BENZO (K) FLUORANTHENE	0.0063 U	0.019	0.0063	0.0037	mg/kg	06/22/15	07/01/15
8270D-LL	CHRYSENE	0.0063 U	0.019	0.0063	0.0030	mg/kg	06/22/15	07/01/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.0063 U	0.019	0.0063	0.0033	mg/kg	06/22/15	07/01/15
8270D-LL	FLUORANTHENE	0.037	0.019	0.0063	0.0045	mg/kg	06/22/15	07/01/15
8270D-LL	FLUORENE	0.0063 U	0.019	0.0063	0.0037	mg/kg	06/22/15	07/01/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.013 J	0.019	0.0063	0.0033	mg/kg	06/22/15	07/01/15
8270D-LL	NAPHTHALENE	0.0063 U	0.019	0.0063	0.0033	mg/kg	06/22/15	07/01/15
8270D-LL	PHENANTHRENE	0.020	0.019	0.0063	0.0041	mg/kg	06/22/15	07/01/15
8270D-LL	PYRENE	0.035	0.019	0.0063	0.0045	mg/kg	06/22/15	07/01/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	24.7 #	45-105			%	06/22/15	07/01/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	39.6	35-100			%	06/22/15	07/01/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	69.9	30-125			%	06/22/15	07/01/15

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

Quant Method: P0629.M
Run #: 0629L121
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/07/15 1:56:48 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L121.D Vial: 21
Acq On : 1 Jul 15 18:55 Operator: MA
Sample : AZ17822S02 1/30.23G Inst : Linus
Misc : soil Multiplr: 33.08

Quant Time: Jul 7 12:50 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	6719	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	8.10	164	3280	2.50000	ppb		0.00
11) Phenanthrene-D10(IS)	9.85	188	5980	2.50000	ppb		-0.01
15) Chrysene-D12(IS)	13.03	240	6495	2.50000	ppb		0.00
21) Perylene-D12(IS)	15.66	264	4165	2.50000	ppb		0.00
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.20	82	660	32.71108	ppb		0.02
Spiked Amount 82.699			Recovery = 39.554%				
7) Surrogate Recovery (FBP)	7.31	172	1226	20.39493	ppb		0.00
Spiked Amount 82.699			Recovery = 24.662%				
17) Surrogate Recovery (TPH)	11.71	244	4153	57.78510	ppb		-0.01
Spiked Amount 82.699			Recovery = 69.874%				
Target Compounds							Qvalue
12) Phenanthrene	9.87	178	589	5.40108	ppb		100
14) Fluoranthene	11.27	202	1407	10.00591	ppb		94
16) Pyrene	11.54	202	1346	9.35584	ppb		96
18) Benz (a) anthracene	13.02	228	729	11.26865	ppb	#	84
20) Indeno (1,2,3-cd) pyrene	17.89	276	440	3.58783	ppb	#	89
22) Benzo (b) fluoranthene	14.84	252	1319	6.16807	ppb	#	70
24) Benzo (a) pyrene	15.42	252	472	4.44313	ppb	#	46
26) Benzo (g,h,i) perylene	18.41	276	372	3.08395	ppb		90

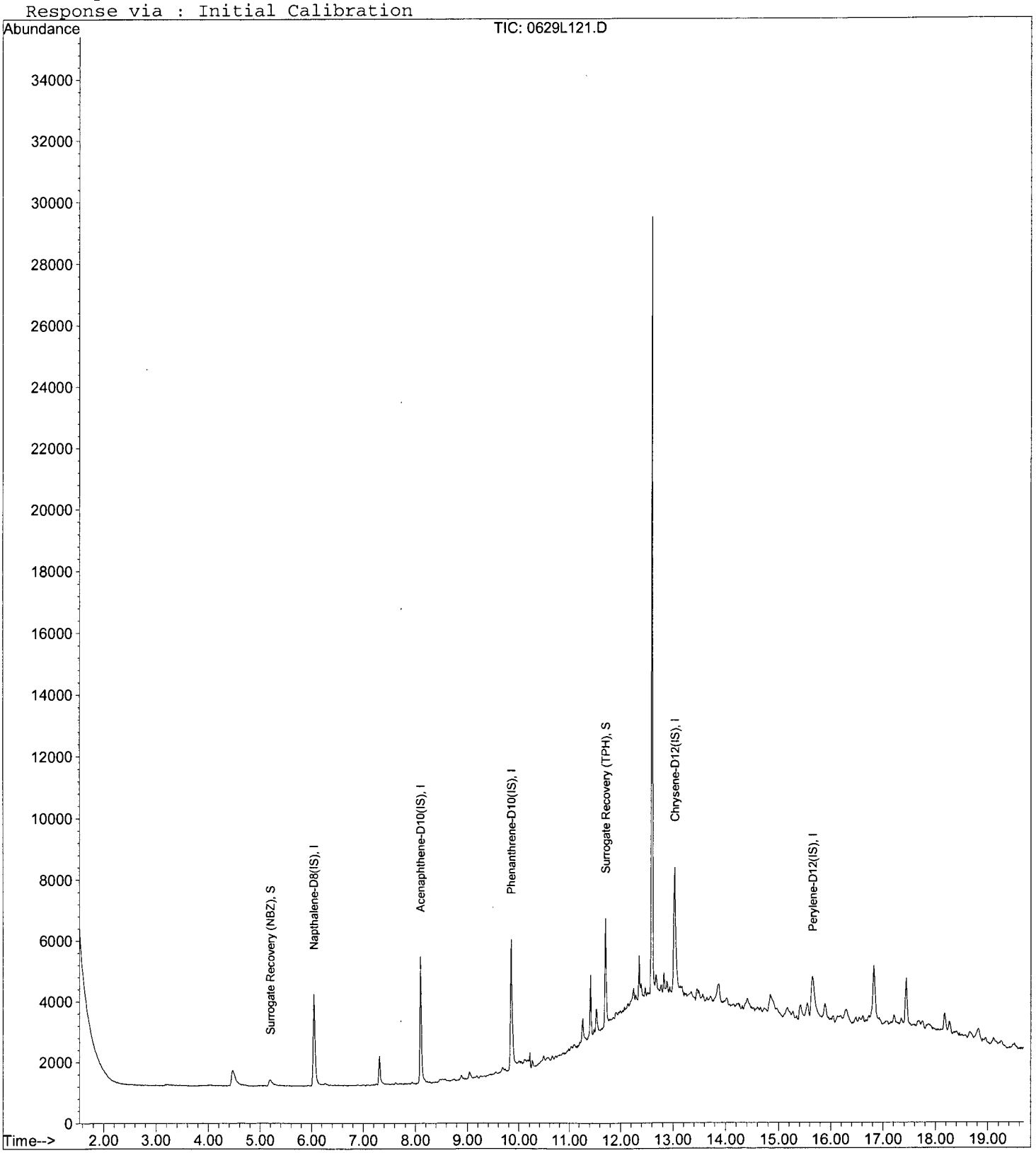
(#) = qualifier out of range (m) = manual integration

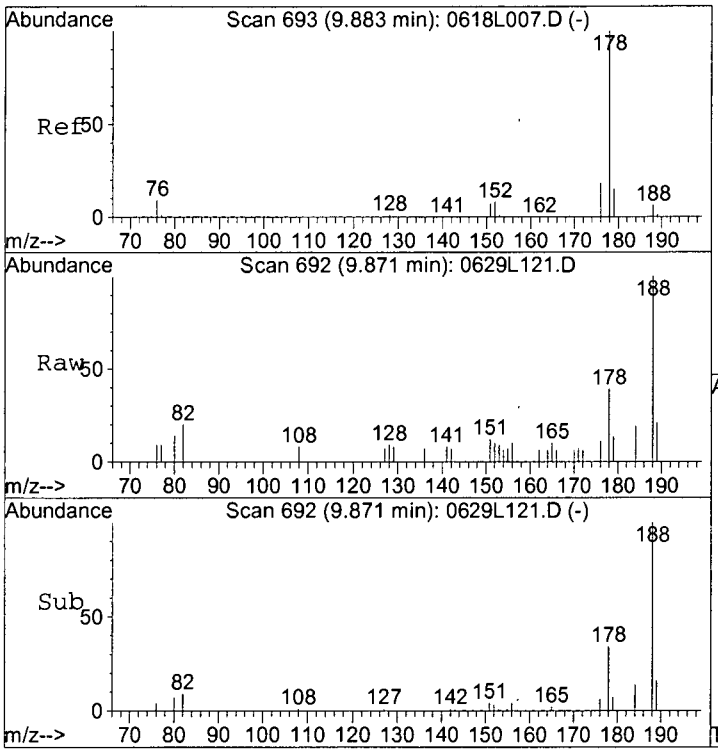
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L121.D Vial: 21
Acq On : 1 Jul 15 18:55 Operator: MA
Sample : AZ17822S02 1/30.23G Inst : Linus
Misc : soil Multiplr: 33.08

Quant Time: Jul 7 12:50 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

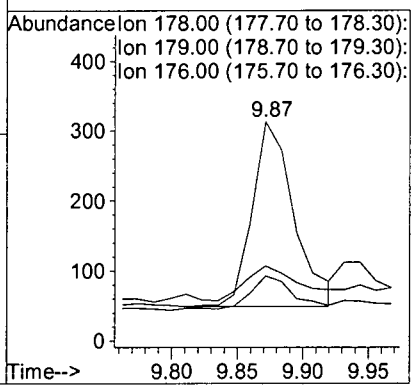


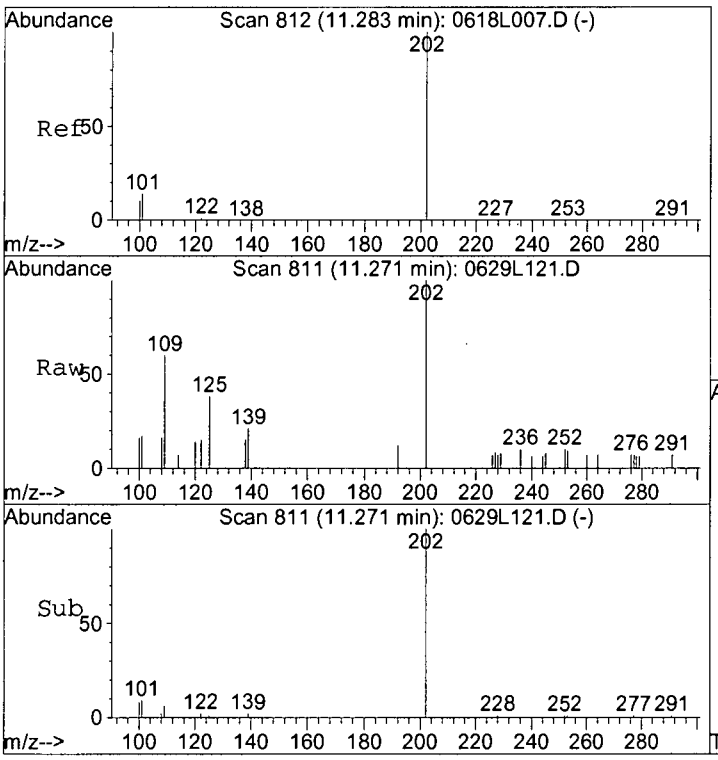


#12
Phenanthrene
Concen: 5.40108 ppb
RT: 9.87 min Scan# 692
Delta R.T. -0.01 min
Lab File: 0629L121.D
Acq: 1 Jul 15 18:55

Tgt Ion:178 Resp: 589

Ion	Ratio	Lower	Upper
178	100		
179	15.2	10.5	19.5
176	17.4	12.3	22.8

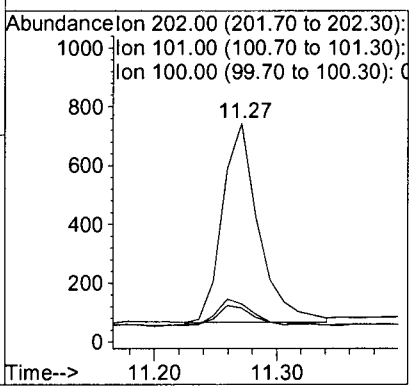


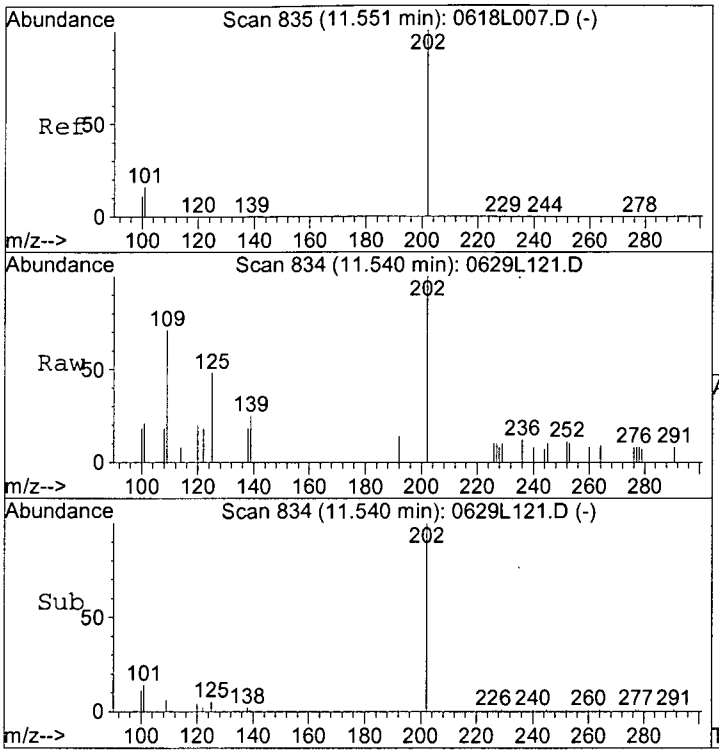


#14
Fluoranthene
Concen: 10.00591 ppb
RT: 11.27 min Scan# 811
Delta R.T. -0.01 min
Lab File: 0629L121.D
Acq: 1 Jul 15 18:55

Tgt Ion:202 Resp: 1407

Ion	Ratio	Lower	Upper
202	100		
101	10.9	9.7	18.1
100	8.7	7.4	13.7

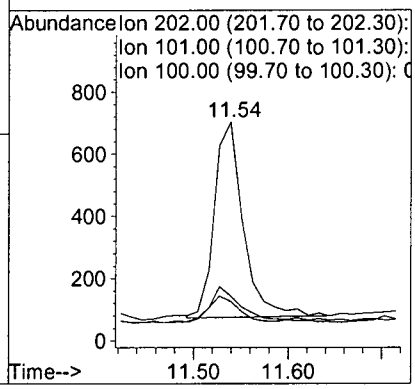


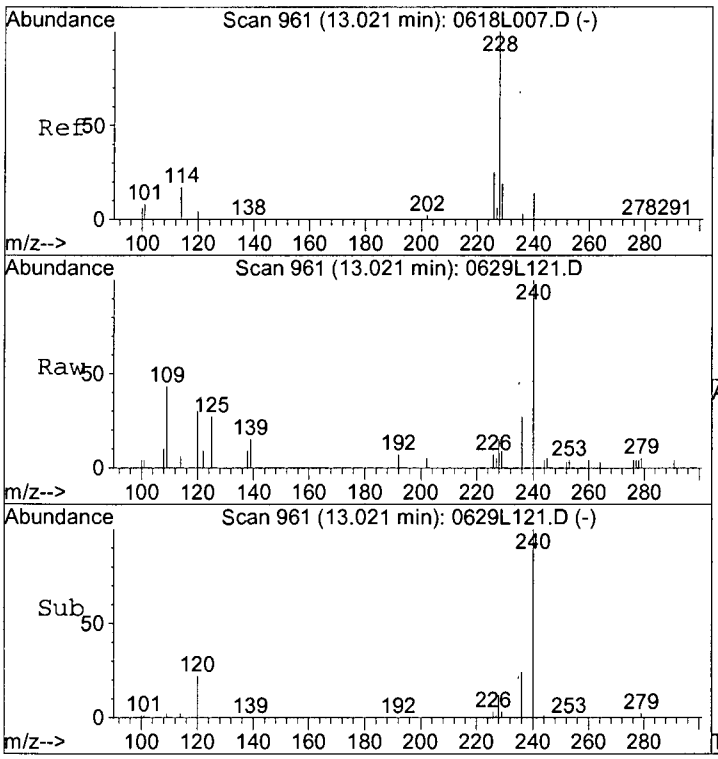


#16
Pyrene
Concen: 9.35584 ppb
RT: 11.54 min Scan# 834
Delta R.T. 0.00 min
Lab File: 0629L121.D
Acq: 1 Jul 15 18:55

Tgt Ion:202 Resp: 1346

Ion	Ratio	Lower	Upper
202	100		
101	13.3	11.0	20.4
100	10.9	7.9	14.7

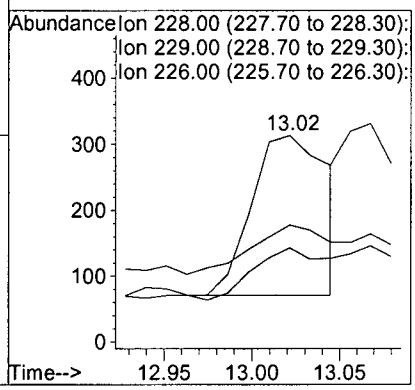


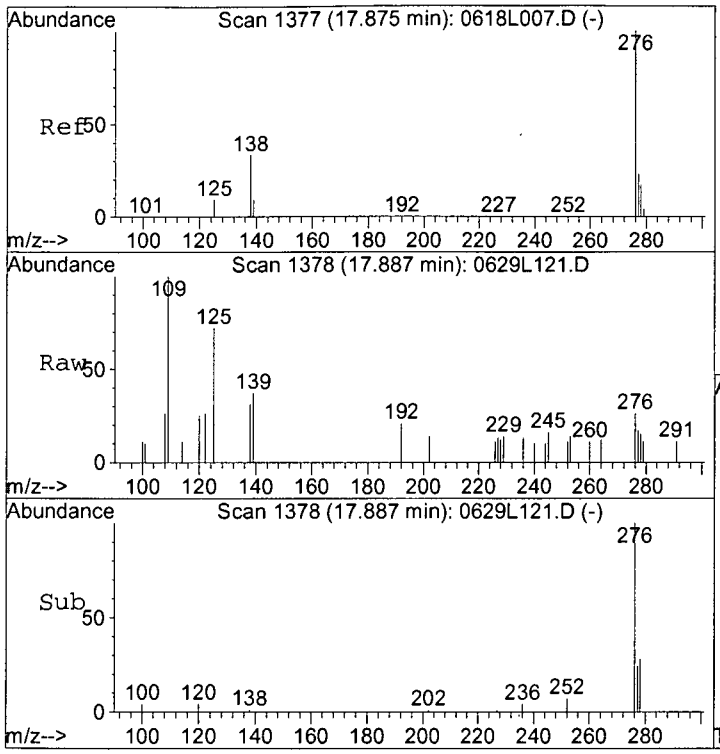


#18
Benz (a) anthracene
Concen: 11.26865 ppb
RT: 13.02 min Scan# 961
Delta R.T. 0.00 min
Lab File: 0629L121.D
Acq: 1 Jul 15 18:55

Tgt Ion:228 Resp: 729

Ion	Ratio	Lower	Upper
228	100		
229	30.9	13.4	25.0#
226	29.2	17.2	32.0

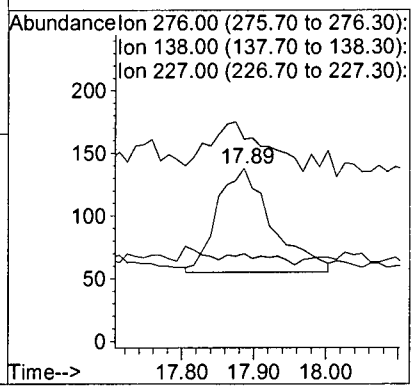


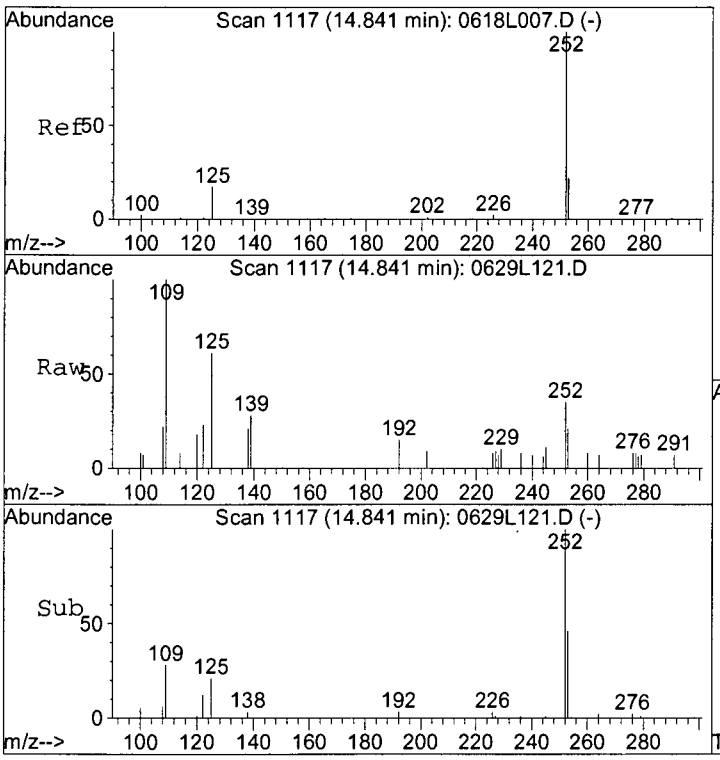


#20
Indeno (1,2,3-cd) pyrene
Concen: 3.58783 ppb
RT: 17.89 min Scan# 1378
Delta R.T. 0.01 min
Lab File: 0629L121.D
Acq: 1 Jul 15 18:55

Tgt Ion:276 Resp: 440

Ion	Ratio	Lower	Upper
276	100		
138	26.6	23.0	42.8
227	3.8	0.1	0.1#

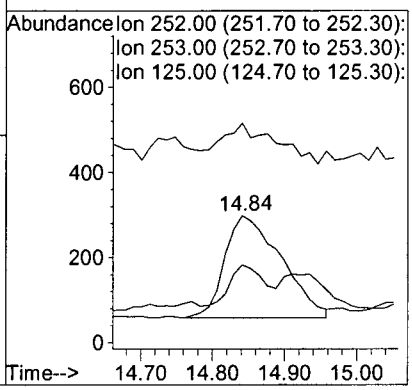


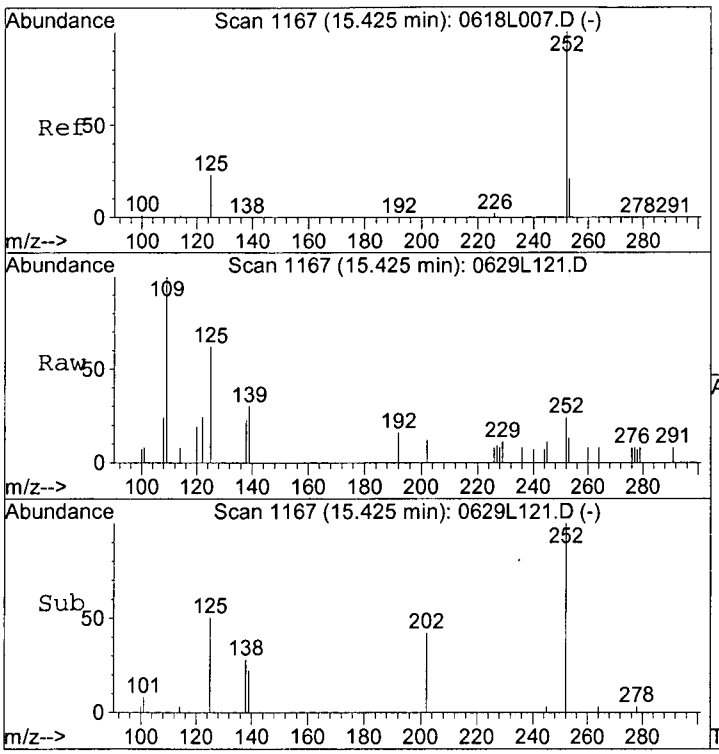


#22
Benzo (b) fluoranthene
Concen: 6.16807 ppb
RT: 14.84 min Scan# 1117
Delta R.T. 0.00 min
Lab File: 0629L121.D
Acq: 1 Jul 15 18:55

Tgt Ion:252 Resp: 1319

Ion	Ratio	Lower	Upper
252	100		
253	37.8	15.7	29.1#
125	27.4	11.3	20.9#

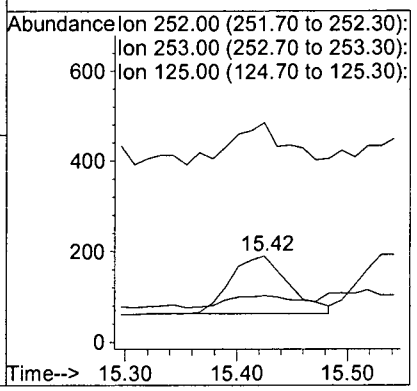


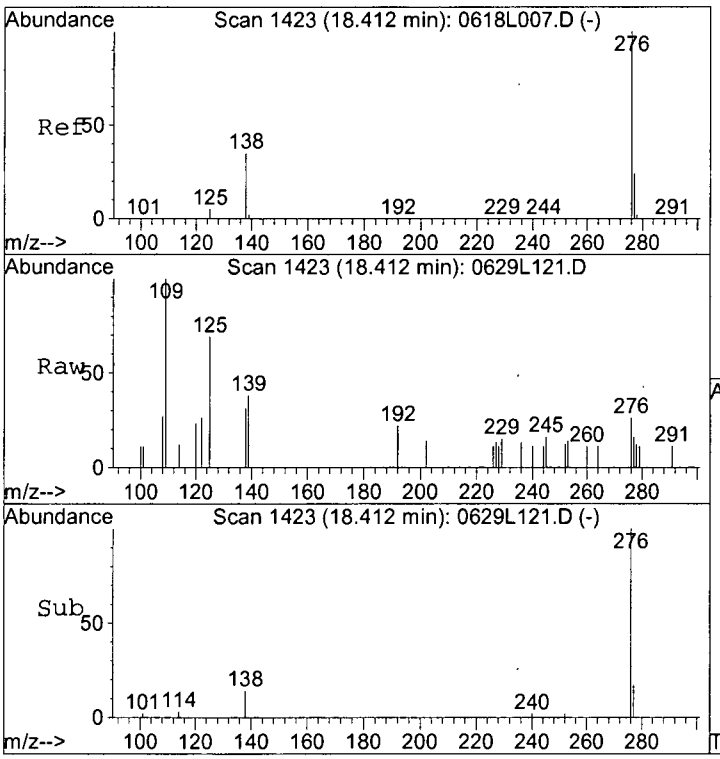


#24
Benzo (a) pyrene
Concen: 4.44313 ppb
RT: 15.42 min Scan# 1167
Delta R.T. 0.01 min
Lab File: 0629L121.D
Acq: 1 Jul 15 18:55

Tgt Ion:252 Resp: 472

Ion	Ratio	Lower	Upper
252	100		
253	20.3	15.2	28.2
125	72.7	16.1	29.9#

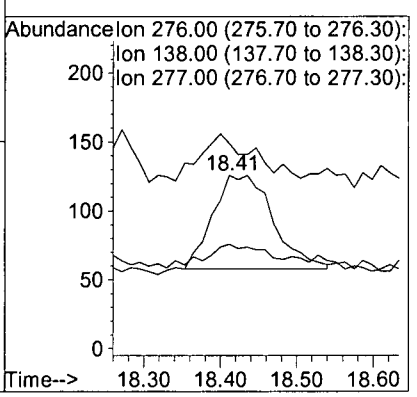




#26
Benzo (g,h,i) perylene
Concen: 3.08395 ppb
RT: 18.41 min Scan# 1423
Delta R.T. 0.00 min
Lab File: 0629L121.D
Acq: 1 Jul 15 18:55

Tgt Ion:276 Resp: 372

Ion	Ratio	Lower	Upper
276	100		
138	26.5	23.7	44.1
277	22.1	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-SD029-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17824
QCG: #SIMDD-150622B-198629

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 72.1 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.0061 U	0.018	0.0061	0.0032	mg/kg	06/22/15	07/02/15
8270D-LL	ACENAPHTHENE	0.0061 U	0.018	0.0061	0.0036	mg/kg	06/22/15	07/02/15
8270D-LL	ACENAPHTHYLENE	0.0061 U	0.018	0.0061	0.0032	mg/kg	06/22/15	07/02/15
8270D-LL	ANTHRACENE	0.0061 U	0.018	0.0061	0.0029	mg/kg	06/22/15	07/02/15
8270D-LL	BENZ (A) ANTHRACENE	0.031	0.018	0.0061	0.0032	mg/kg	06/22/15	07/02/15
8270D-LL	BENZO (A) PYRENE	0.011 J	0.018	0.0061	0.0032	mg/kg	06/22/15	07/02/15
8270D-LL	BENZO (B) FLUORANTHENE	0.0061 U	0.018	0.0061	0.0039	mg/kg	06/22/15	07/02/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.0086 J	0.018	0.0061	0.0047	mg/kg	06/22/15	07/02/15
8270D-LL	BENZO (K) FLUORANTHENE	0.0061 U	0.018	0.0061	0.0036	mg/kg	06/22/15	07/02/15
8270D-LL	CHRYSENE	0.0061 U	0.018	0.0061	0.0029	mg/kg	06/22/15	07/02/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.0061 U	0.018	0.0061	0.0032	mg/kg	06/22/15	07/02/15
8270D-LL	FLUORANTHENE	0.030	0.018	0.0061	0.0043	mg/kg	06/22/15	07/02/15
8270D-LL	FLUORENE	0.0036 J	0.018	0.0061	0.0036	mg/kg	06/22/15	07/02/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.011 J	0.018	0.0061	0.0032	mg/kg	06/22/15	07/02/15
8270D-LL	NAPHTHALENE	0.0042 J	0.018	0.0061	0.0032	mg/kg	06/22/15	07/02/15
8270D-LL	PHENANTHRENE	0.013 J	0.018	0.0061	0.0039	mg/kg	06/22/15	07/02/15
8270D-LL	PYRENE	0.026	0.018	0.0061	0.0043	mg/kg	06/22/15	07/02/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	27.8 #	45-105			%	06/22/15	07/02/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	47.4	35-100			%	06/22/15	07/02/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	74.5	30-125			%	06/22/15	07/02/15

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

Quant Method: P0629.M
Run #: 0629L132
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/07/15 2:16:26 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L132.D Vial: 32
Acq On : 2 Jul 15 10:28 Operator: MA
Sample : AZ17824S06 1/30.21G Inst : Linus
Misc : soil Multiplr: 33.10

Quant Time: Jul 7 12:55 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	8013	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	8.10	164	3917	2.50000	ppb		0.00
11) Phenanthrene-D10(IS)	9.85	188	7068	2.50000	ppb		-0.01
15) Chrysene-D12(IS)	13.02	240	7786	2.50000	ppb		-0.01
21) Perylene-D12(IS)	15.65	264	5053	2.50000	ppb		-0.01
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.19	82	943	39.21564	ppb		0.01
Spiked Amount 82.754			Recovery = 47.389%				
7) Surrogate Recovery (FBP)	7.31	172	1648	22.97187	ppb		0.00
Spiked Amount 82.754			Recovery = 27.759%				
17) Surrogate Recovery (TPH)	11.70	244	5309	61.66214	ppb		-0.02
Spiked Amount 82.754			Recovery = 74.512%				
Target Compounds							Qvalue
3) Naphthalene	6.07	128	154	1.16681	ppb		96
10) Fluorene	8.75	166	86	1.00188	ppb		86
12) Phenanthrene	9.87	178	468	3.63332	ppb		98
14) Fluoranthene	11.27	202	1413	8.50739	ppb		96
16) Pyrene	11.53	202	1237	7.17727	ppb		92
18) Benz (a) anthracene	13.01	228	504	8.74420	ppb		92
20) Indeno (1,2,3-cd) pyrene	17.86	276	448	3.04937	ppb	#	95
24) Benzo (a) pyrene	15.40	252	409	3.17558	ppb		93
26) Benzo (g,h,i) perylene	18.41	276	352	2.40691	ppb		95

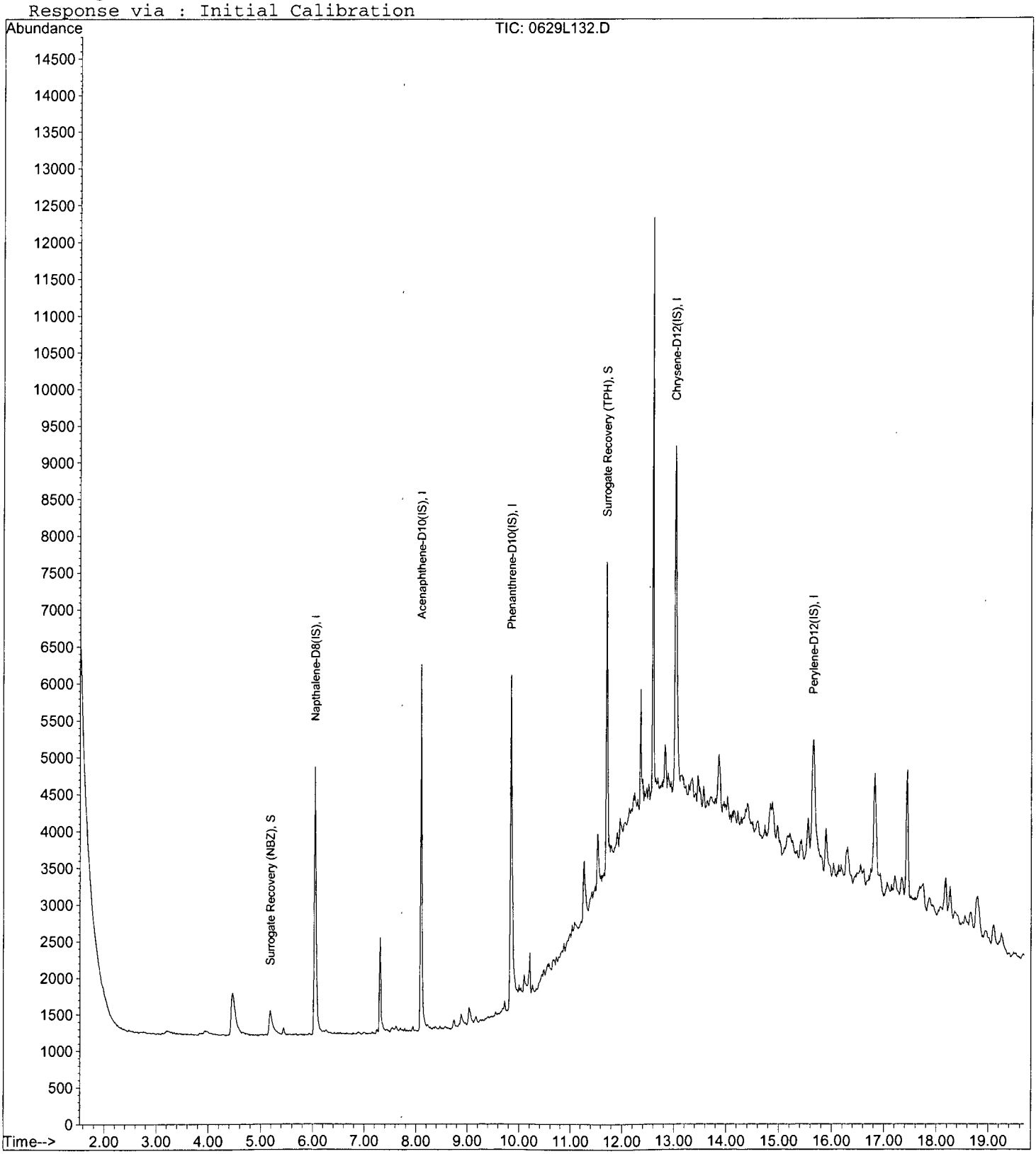
(#) = qualifier out of range (m) = manual integration

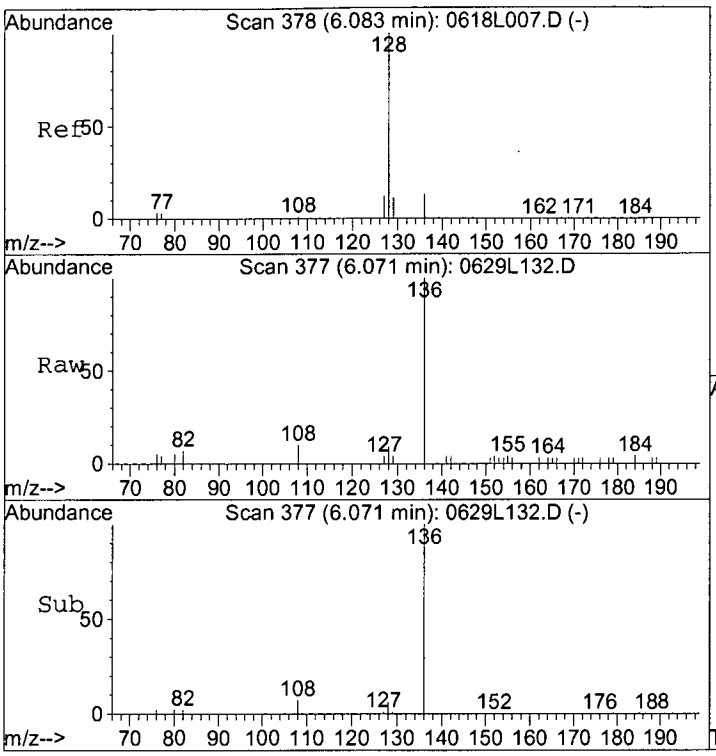
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L132.D Vial: 32
Acq On : 2 Jul 15 10:28 Operator: MA
Sample : AZ17824S06 1/30.21G Inst : Linus
Misc : soil Multiplr: 33.10

Quant Time: Jul 7 12:55 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

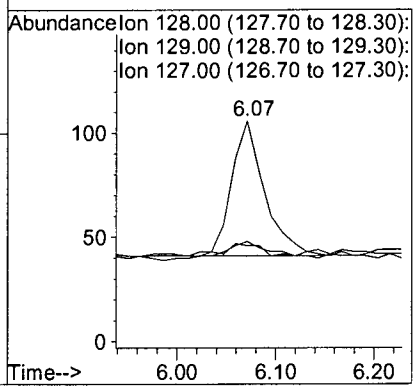


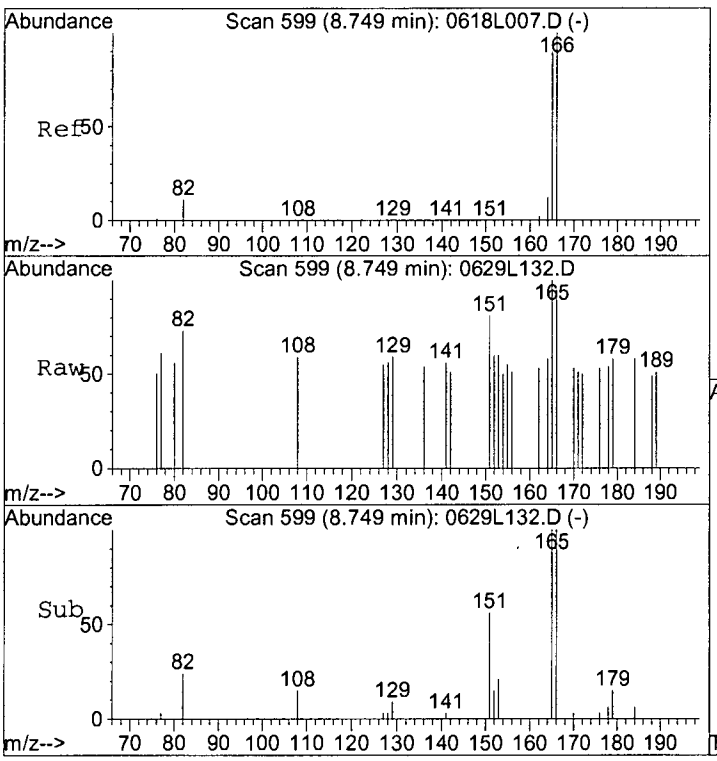


#3
Naphthalene
Concen: 1.16681 ppb
RT: 6.07 min Scan# 377
Delta R.T. -0.00 min
Lab File: 0629L132.D
Acq: 2 Jul 15 10:28

Tgt Ion:128 Resp: 154

Ion	Ratio	Lower	Upper
128	100		
129	10.8	7.4	13.8
127	9.2	8.4	15.6

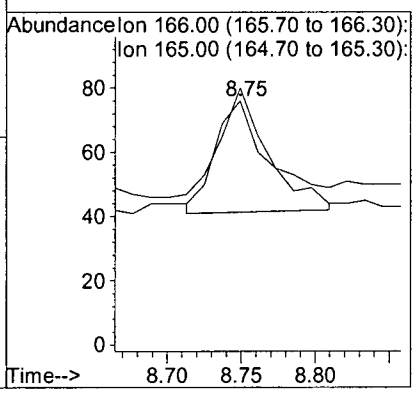


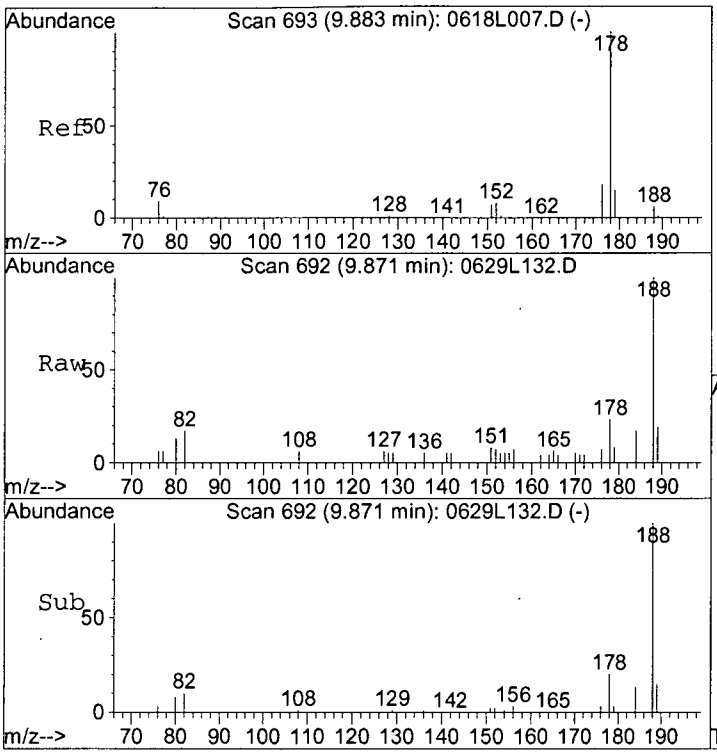


#10
Fluorene
Concen: 1.00188 ppb
RT: 8.75 min Scan# 599
Delta R.T. -0.00 min
Lab File: 0629L132.D
Acq: 2 Jul 15 10:28

Tgt Ion:166 Resp: 86

Ion	Ratio	Lower	Upper
166	100		
165	103.1	63.1	117.1

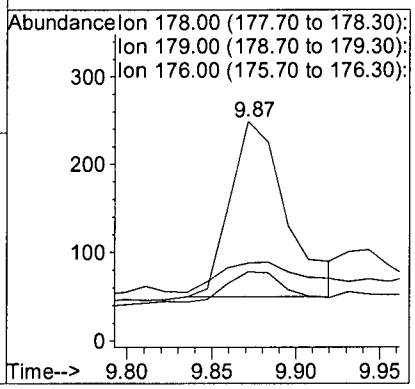


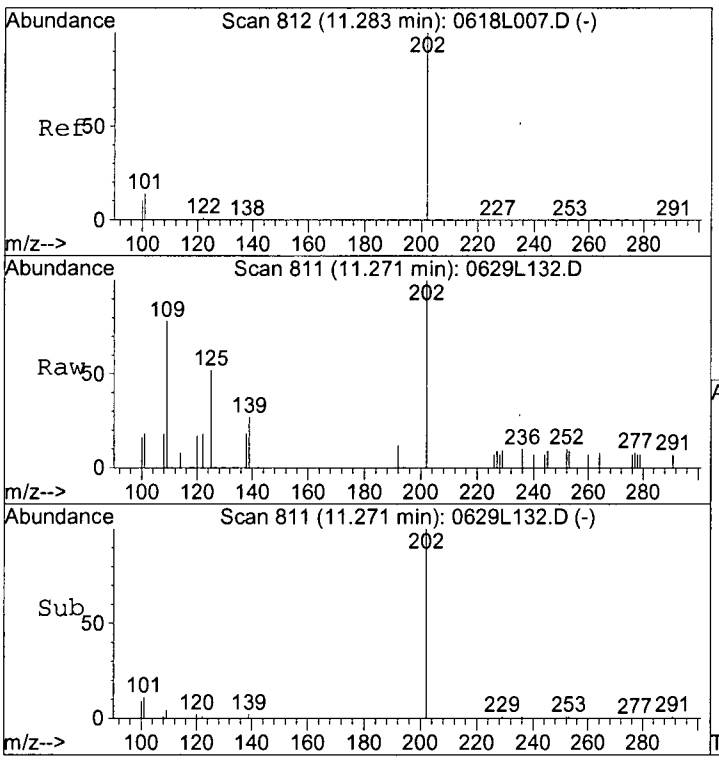


#12
Phenanthrene
Concen: 3.63332 ppb
RT: 9.87 min Scan# 692
Delta R.T. -0.01 min
Lab File: 0629L132.D
Acq: 2 Jul 15 10:28

Tgt Ion:178 Resp: 468

Ion	Ratio	Lower	Upper
178	100		
179	16.6	10.5	19.5
176	17.1	12.3	22.8

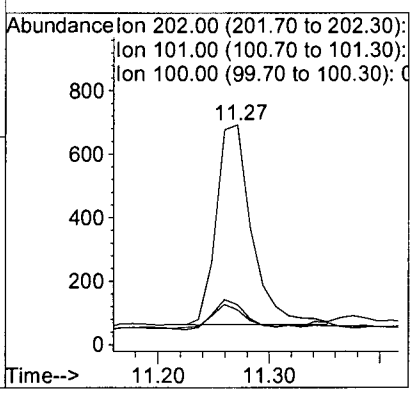


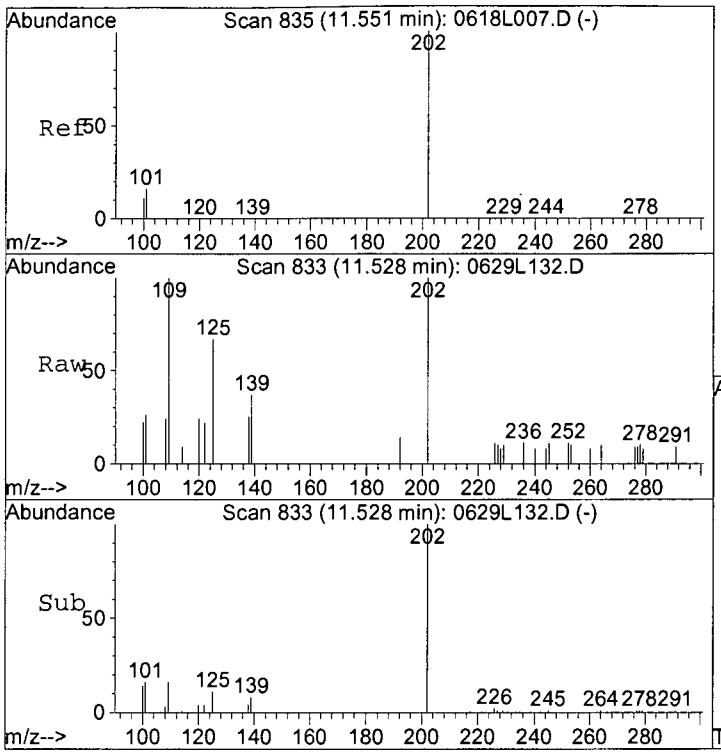


#14
Fluoranthene
Concen: 8.50739 ppb
RT: 11.27 min Scan# 811
Delta R.T. -0.01 min
Lab File: 0629L132.D
Acq: 2 Jul 15 10:28

Tgt Ion:202 Resp: 1413

Ion	Ratio	Lower	Upper
202	100		
101	12.4	9.7	18.1
100	8.7	7.4	13.7

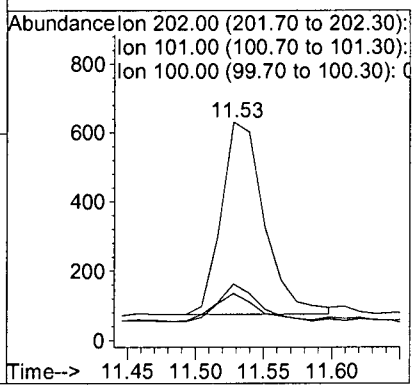


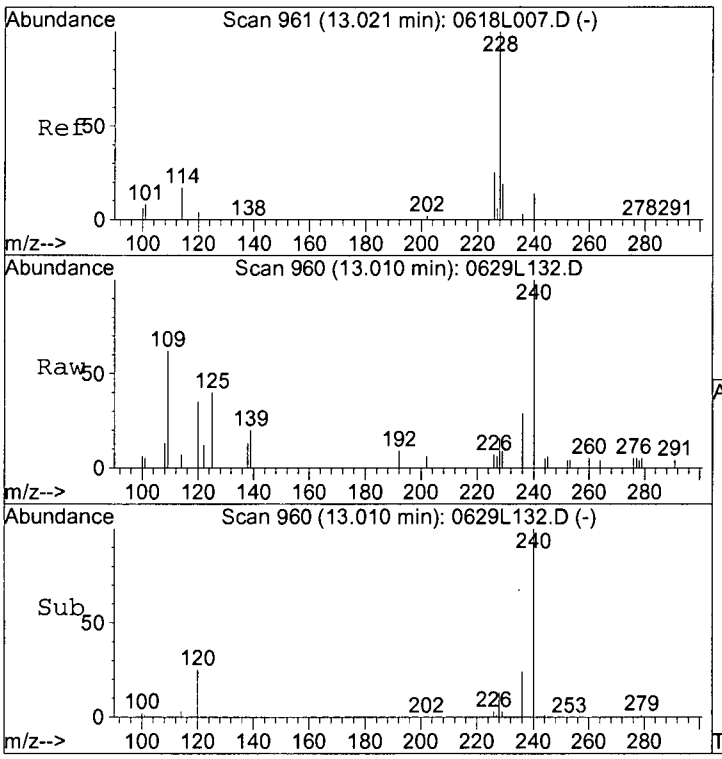


#16
Pyrene
Concen: 7.17727 ppb
RT: 11.53 min Scan# 833
Delta R.T. -0.01 min
Lab File: 0629L132.D
Acq: 2 Jul 15 10:28

Tgt Ion:202 Resp: 1237

Ion	Ratio	Lower	Upper
202	100		
101	19.0	11.0	20.4
100	14.5	7.9	14.7

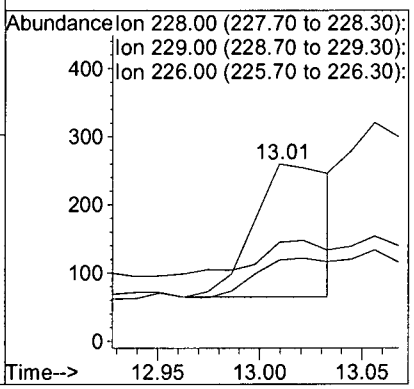


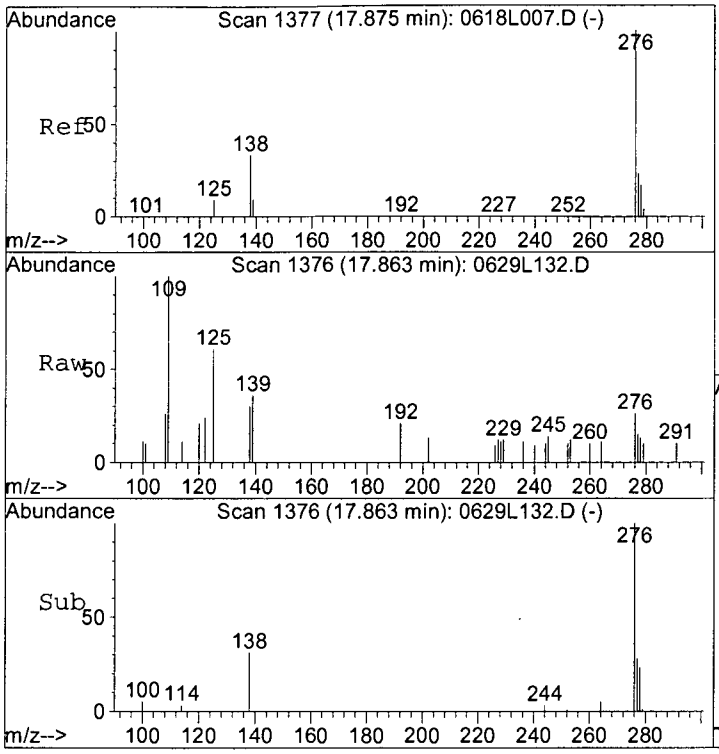


#18
Benz (a) anthracene
Concen: 8.74420 ppb
RT: 13.01 min Scan# 960
Delta R.T. -0.01 min
Lab File: 0629L132.D
Acq: 2 Jul 15 10:28

Tgt Ion:228 Resp: 504

Ion	Ratio	Lower	Upper
228	100		
229	23.6	13.4	25.0
226	27.7	17.2	32.0

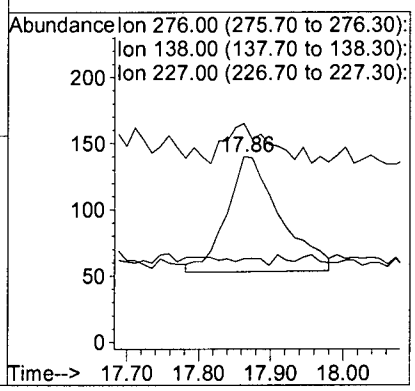


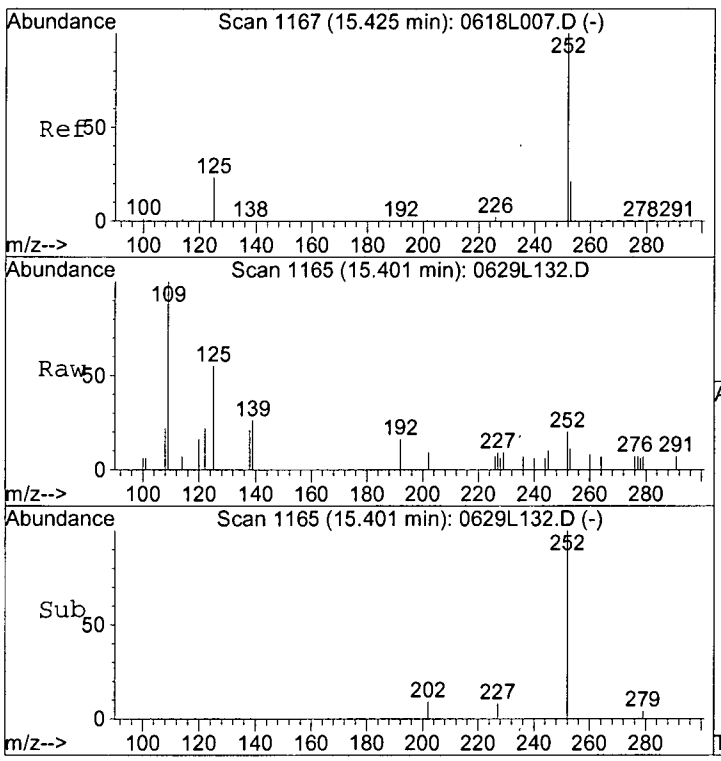


#20
Indeno (1,2,3-cd) pyrene
Concen: 3.04937 ppb
RT: 17.86 min Scan# 1376
Delta R.T. -0.01 min
Lab File: 0629L132.D
Acq: 2 Jul 15 10:28

Tgt Ion:276 Resp: 448

Ion	Ratio	Lower	Upper
276	100		
138	35.8	23.0	42.8
227	3.7	0.1	0.1#

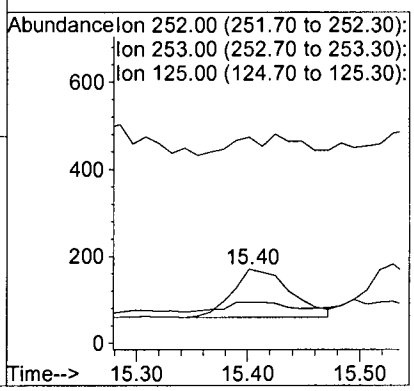


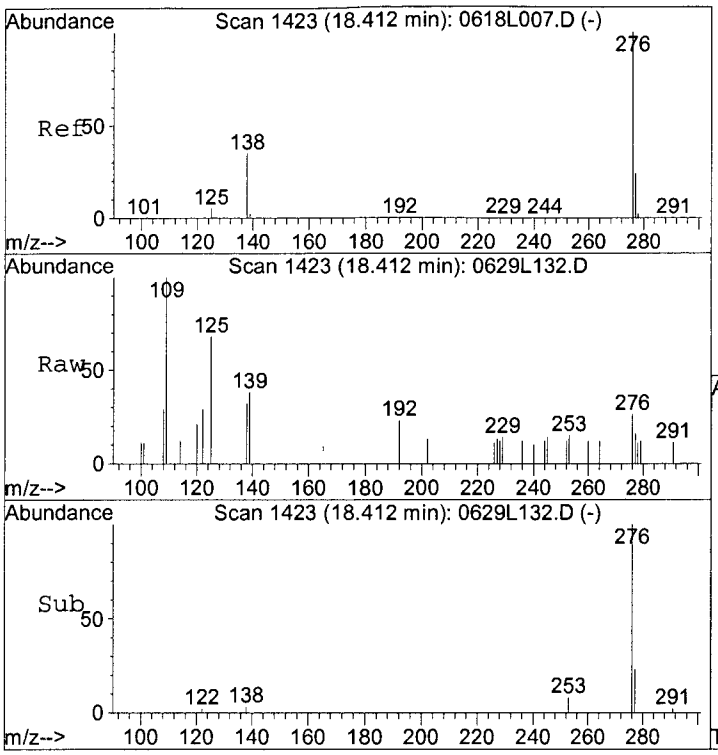


#24
Benzo (a) pyrene
Concen: 3.17558 ppb
RT: 15.40 min Scan# 1165
Delta R.T. -0.01 min
Lab File: 0629L132.D
Acq: 2 Jul 15 10:28

Tgt Ion:252 Resp: 409

Ion	Ratio	Lower	Upper
252	100		
253	19.6	15.2	28.2
125	27.7	16.1	29.9

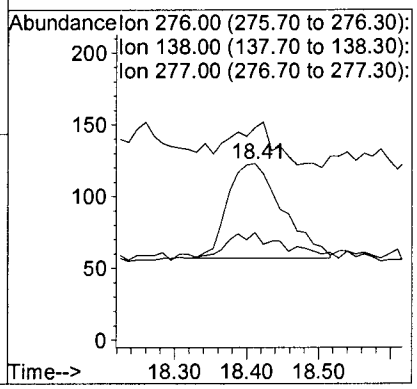




#26
Benzo (g,h,i) perylene
Concen: 2.40691 ppb
RT: 18.41 min Scan# 1423
Delta R.T. -0.00 min
Lab File: 0629L132.D
Acq: 2 Jul 15 10:28

Tgt Ion:276 Resp: 352

Ion	Ratio	Lower	Upper
276	100		
138	30.3	23.7	44.1
277	22.7	17.3	32.1



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-SD029-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17824
QCG: #SIMDD-150702A-198630

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 72.1 Percent Moisture.)								
8270D-LL	2-METHYLNAPHTHALENE	0.024	0.018	0.0061	0.0032	mg/kg	07/02/15	07/06/15
8270D-LL	ACENAPHTHENE	0.015 J	0.018	0.0061	0.0036	mg/kg	07/02/15	07/06/15
8270D-LL	ACENAPHTHYLENE	0.094	0.018	0.0061	0.0032	mg/kg	07/02/15	07/06/15
8270D-LL	ANTHRACENE	0.16	0.018	0.0061	0.0029	mg/kg	07/02/15	07/06/15
8270D-LL	BENZ (A) ANTHRACENE	0.91	0.018	0.0061	0.0032	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (A) PYRENE	0.40	0.018	0.0061	0.0032	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (B) FLUORANTHENE	1.2	0.018	0.0061	0.0039	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.26	0.018	0.0061	0.0047	mg/kg	07/02/15	07/06/15
8270D-LL	BENZO (K) FLUORANTHENE	1.3	0.018	0.0061	0.0036	mg/kg	07/02/15	07/06/15
8270D-LL	CHRYSENE	0.41	0.018	0.0061	0.0029	mg/kg	07/02/15	07/06/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.081	0.018	0.0061	0.0032	mg/kg	07/02/15	07/06/15
8270D-LL	FLUORANTHENE	0.72	0.018	0.0061	0.0043	mg/kg	07/02/15	07/06/15
8270D-LL	FLUORENE	0.033	0.018	0.0061	0.0036	mg/kg	07/02/15	07/06/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.29	0.018	0.0061	0.0032	mg/kg	07/02/15	07/06/15
8270D-LL	NAPHTHALENE	0.022	0.018	0.0061	0.0032	mg/kg	07/02/15	07/06/15
8270D-LL	PHENANTHRENE	0.13	0.018	0.0061	0.0039	mg/kg	07/02/15	07/06/15
8270D-LL	PYRENE	0.63	0.018	0.0061	0.0043	mg/kg	07/02/15	07/06/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	53.5	45-105			%	07/02/15	07/06/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	54.5	35-100			%	07/02/15	07/06/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	68.4	30-125			%	07/02/15	07/06/15

J = Estimated value.

Quant Method: P0629.M
Run #: 0629L174
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/07/15 1:56:48 PM
APPL-F1-SC-MCRes/MCPQL-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L174.D Vial: 74
Acq On : 6 Jul 15 14:47 Operator: MA
Sample : AZ17824S04 1/30.15G Inst : Linus
Misc : soil Multiplr: 33.17

Quant Time: Jul 7 11:31 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)	6.05	136	6231	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.10	164	3214	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.85	188	5574	2.50000 ppb		-0.01
15) Chrysene-D12(IS)	13.10	240	5681	2.50000 ppb		0.07
21) Perylene-D12(IS)	15.70	264	3607	2.50000 ppb		0.05
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.19	82	843	45.17273 ppb		0.01
Spiked Amount 82.919			Recovery = 54.479%			
7) Surrogate Recovery (FBP)	7.31	172	2608	44.39337 ppb		0.00
Spiked Amount 82.919			Recovery = 53.538%			
17) Surrogate Recovery (TPH)	11.73	244	3556	56.71801 ppb		0.00
Spiked Amount 82.919			Recovery = 68.402%			
Target Compounds						Qvalue
3) Naphthalene	6.07	128	625	6.10182 ppb		99
4) 2-Methylnaphthalene	6.89	142	410	6.60016 ppb		100
5) 1-Methylnaphthalene	7.00	142	341	4.88926 ppb		97
8) Acenaphthylene	7.94	152	2851	26.19320 ppb		96
9) Acenaphthene	8.13	154	270	4.05904 ppb		96
10) Fluorene	8.75	166	638	9.07633 ppb		97
12) Phenanthrene	9.88	178	3692	36.41770 ppb		95
13) Anthracene	9.94	178	4653	44.39241 ppb		96
14) Fluoranthene	11.27	202	26399	201.94588 ppb		99
16) Pyrene	11.55	202	21907	174.55249 ppb		93
18) Benz (a) anthracene	13.09	228	26361	253.09047 ppb		96
19) Chrysene	13.14	228	12333	114.74969 ppb		95
20) Indeno (1,2,3-cd) pyrene	17.91	276	8731	81.61103 ppb	#	92
22) Benzo (b) fluoranthene	14.89	252	32329	334.77732 ppb		93
23) Benzo (k) fluoranthene	14.89	252	25423	361.24842 ppb		96
24) Benzo (a) pyrene	15.47	252	10347	112.76673 ppb		99
25) Dibenz (a,h) anthracene	17.93	278	2298	22.70960 ppb		94
26) Benzo (g,h,i) perylene	18.45	276	7414	71.16023 ppb		93

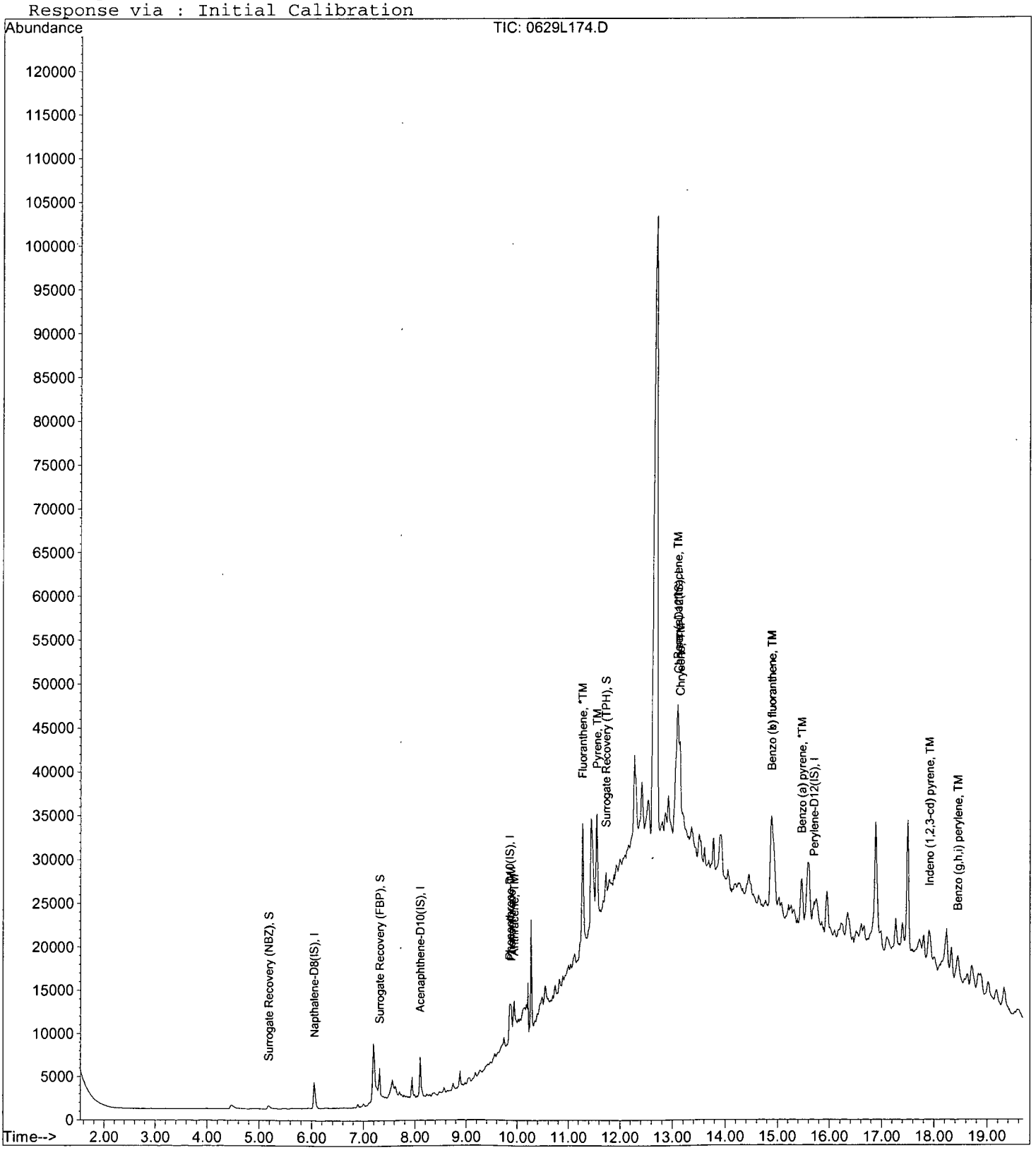
(#) = qualifier out of range (m) = manual integration

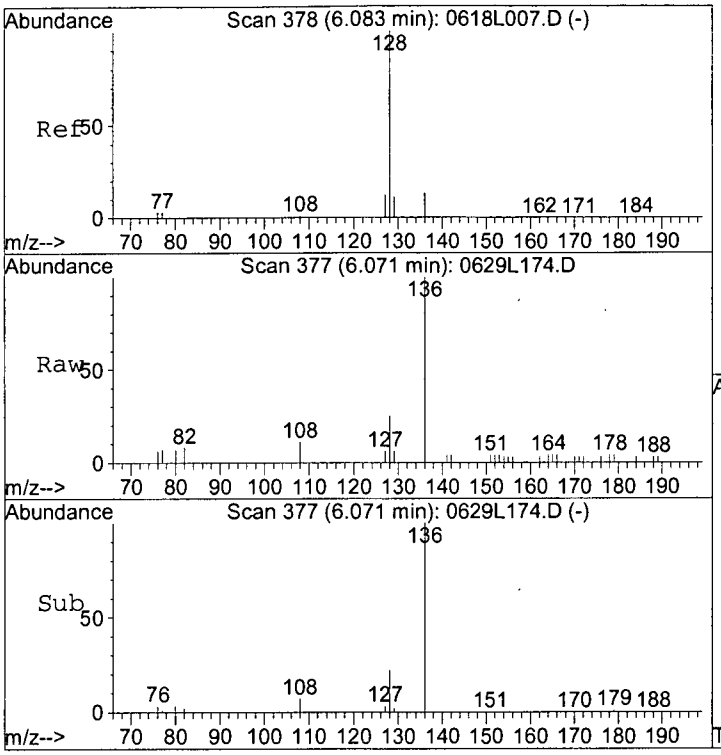
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L174.D Vial: 74
Acq On : 6 Jul 15 14:47 Operator: MA
Sample : AZ17824S04 1/30.15G Inst : Linus
Misc : soil Multiplr: 33.17

Quant Time: Jul 7 11:31 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

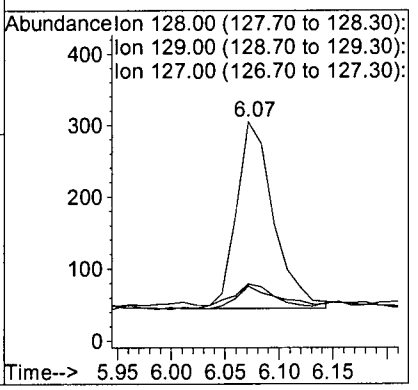


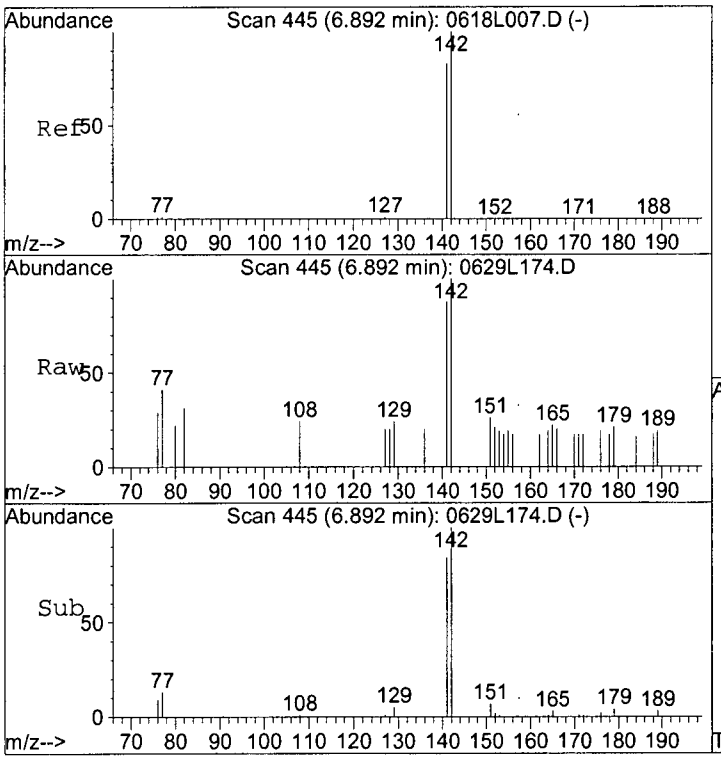


#3
Naphthalene
Concen: 6.10182 ppb
RT: 6.07 min Scan# 377
Delta R.T. 0.00 min
Lab File: 0629L174.D
Acq: 6 Jul 15 14:47

Tgt Ion:128 Resp: 625

Ion	Ratio	Lower	Upper
128	100		
129	10.4	7.4	13.8
127	11.2	8.4	15.6

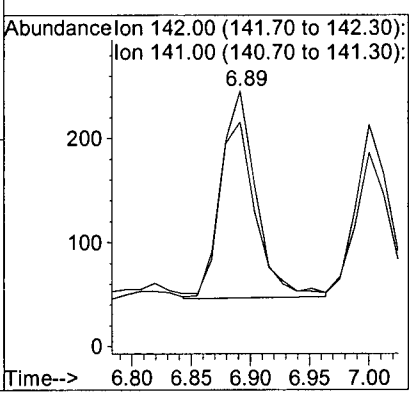


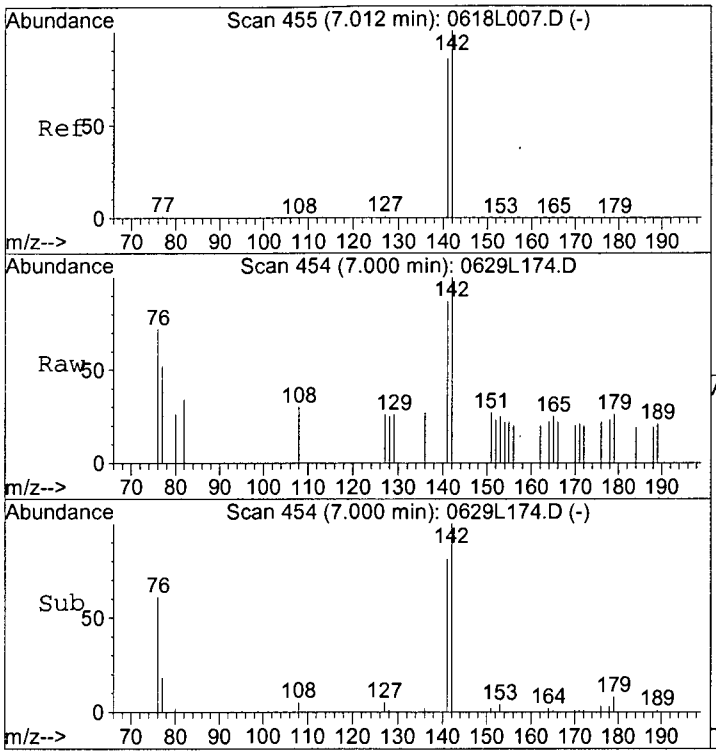


#4
2-Methylnaphthalene
Concen: 6.60016 ppb
RT: 6.89 min Scan# 445
Delta R.T. 0.01 min
Lab File: 0629L174.D
Acq: 6 Jul 15 14:47

Tgt Ion:142 Resp: 410

Ion	Ratio	Lower	Upper
142	100		
141	83.3	58.3	108.3

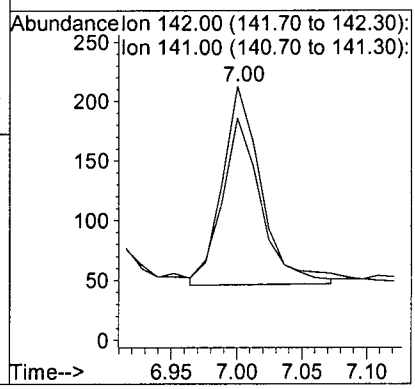


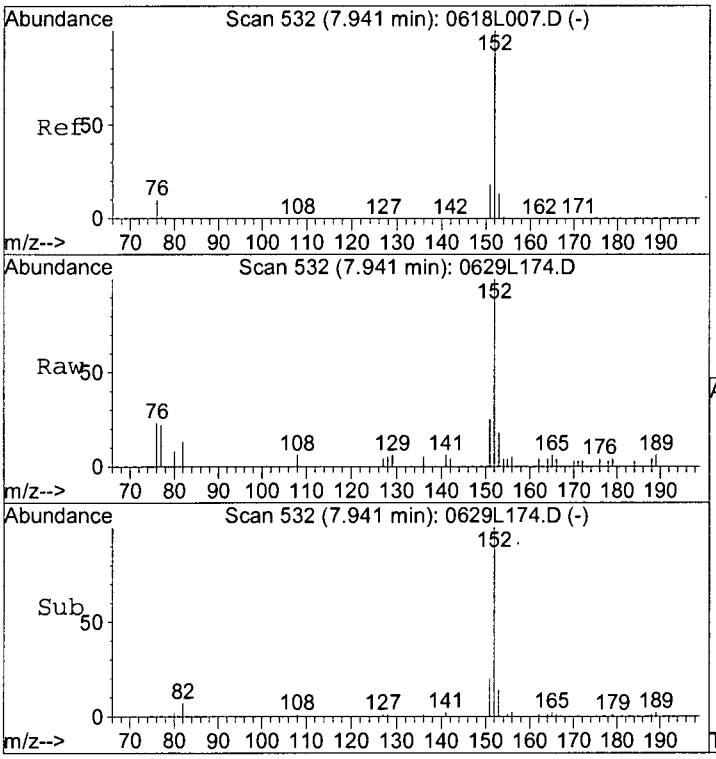


#5
1-Methylnaphthalene
Concen: 4.88926 ppb
RT: 7.00 min Scan# 454
Delta R.T. 0.00 min
Lab File: 0629L174.D
Acq: 6 Jul 15 14:47

Tgt Ion:142 Resp: 341

Ion	Ratio	Lower	Upper
142	100		
141	82.7	59.5	110.5

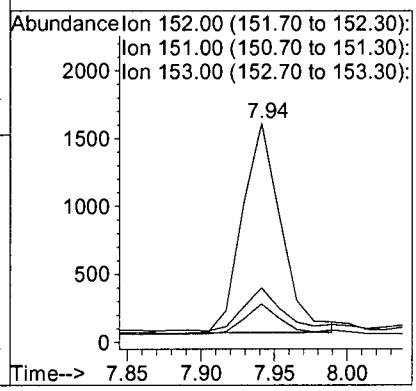


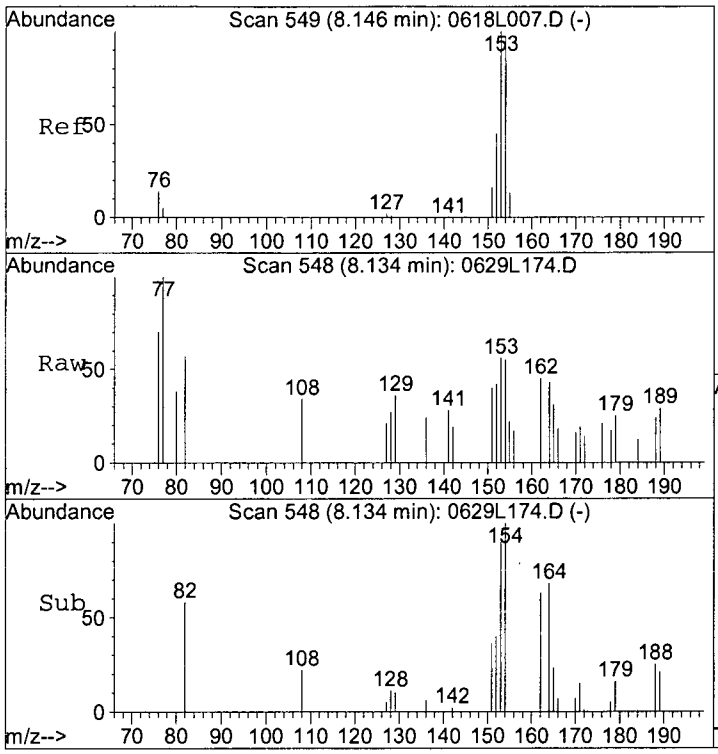


#8
Acenaphthylene
Concen: 26.19320 ppb
RT: 7.94 min Scan# 532
Delta R.T. 0.00 min
Lab File: 0629L174.D
Acq: 6 Jul 15 14:47

Tgt Ion:152 Resp: 2851

Ion	Ratio	Lower	Upper
152	100		
151	20.2	12.7	23.7
153	14.3	9.0	16.8

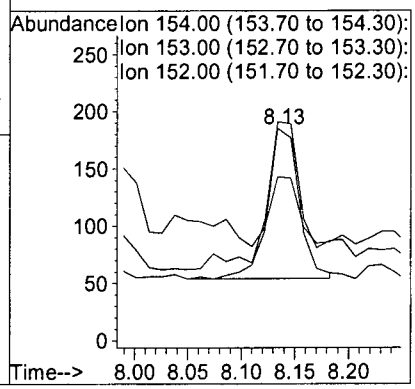


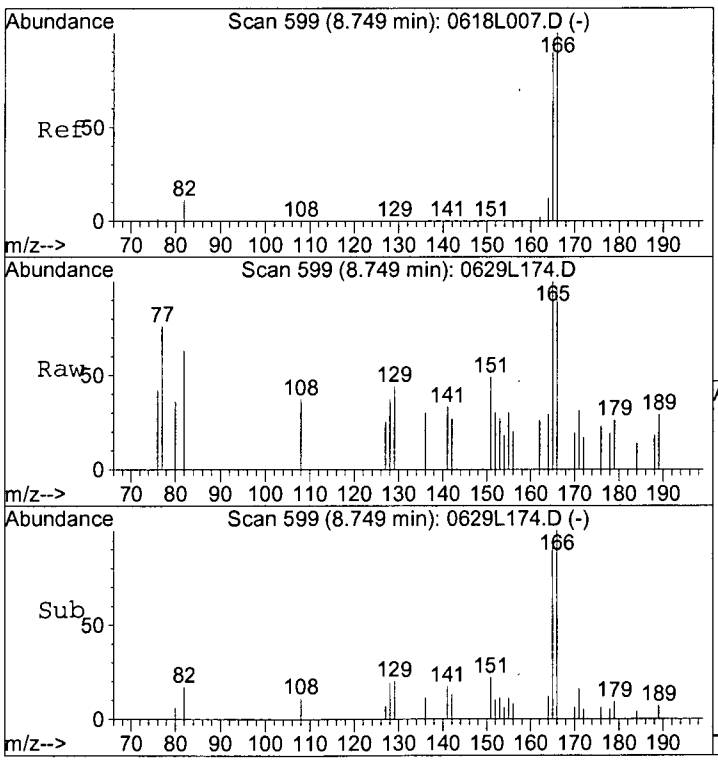


#9
Acenaphthene
Concen: 4.05904 ppb
RT: 8.13 min Scan# 548
Delta R.T. 0.00 min
Lab File: 0629L174.D
Acq: 6 Jul 15 14:47

Tgt Ion:154 Resp: 270

Ion	Ratio	Lower	Upper
154	100		
153	98.5	71.8	133.4
152	43.5	32.7	60.7

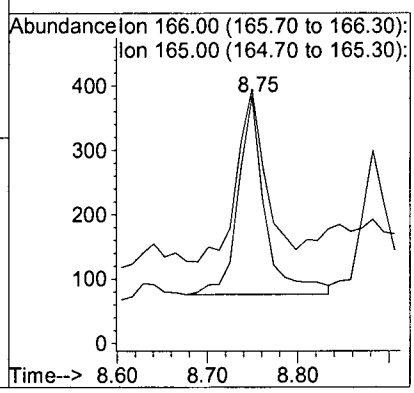


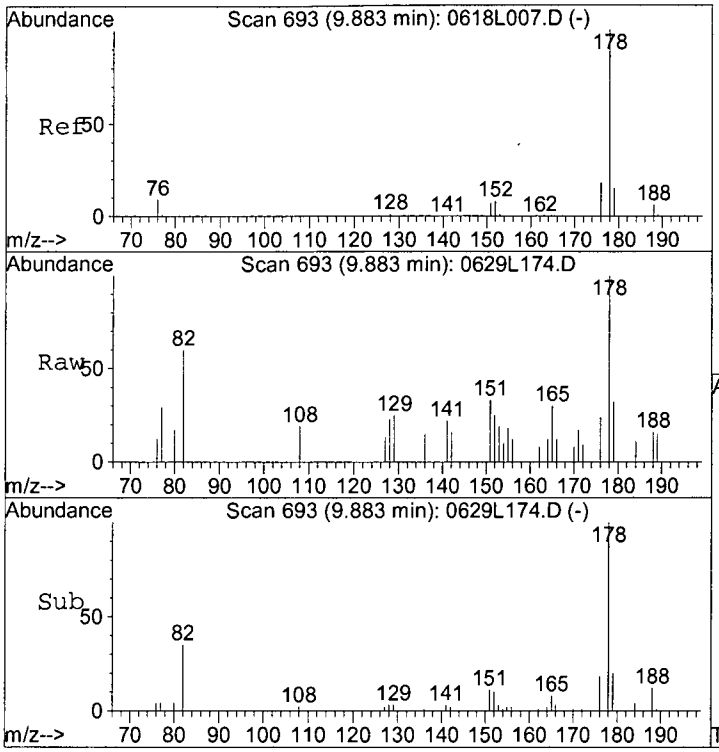


#10
Fluorene
Concen: 9.07633 ppb
RT: 8.75 min Scan# 599
Delta R.T. 0.00 min
Lab File: 0629L174.D
Acq: 6 Jul 15 14:47

Tgt Ion:166 Resp: 638

Ion	Ratio	Lower	Upper
166	100		
165	87.0	63.1	117.1

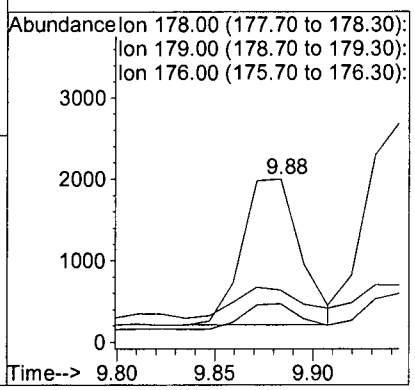


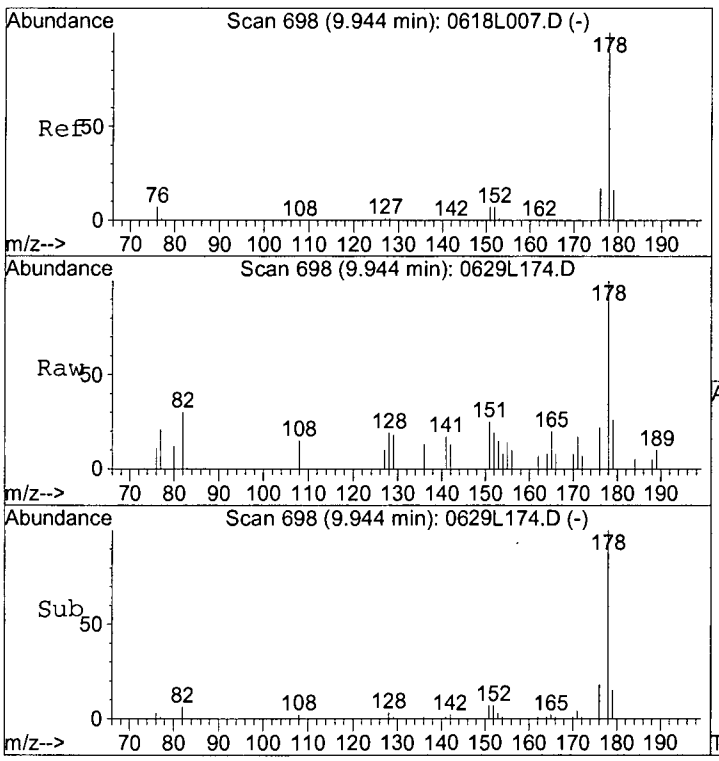


#12
Phenanthrene
Concen: 36.41770 ppb
RT: 9.88 min Scan# 693
Delta R.T. 0.00 min
Lab File: 0629L174.D
Acq: 6 Jul 15 14:47

Tgt Ion:178 Resp: 3692

Ion	Ratio	Lower	Upper
178	100		
179	19.3	10.5	19.5
176	17.7	12.3	22.8

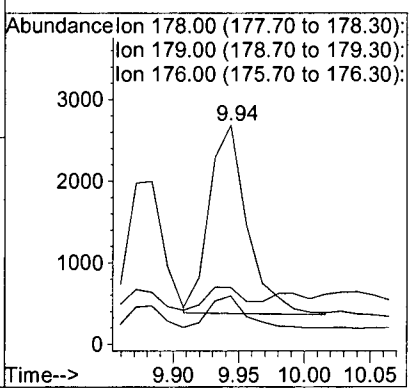


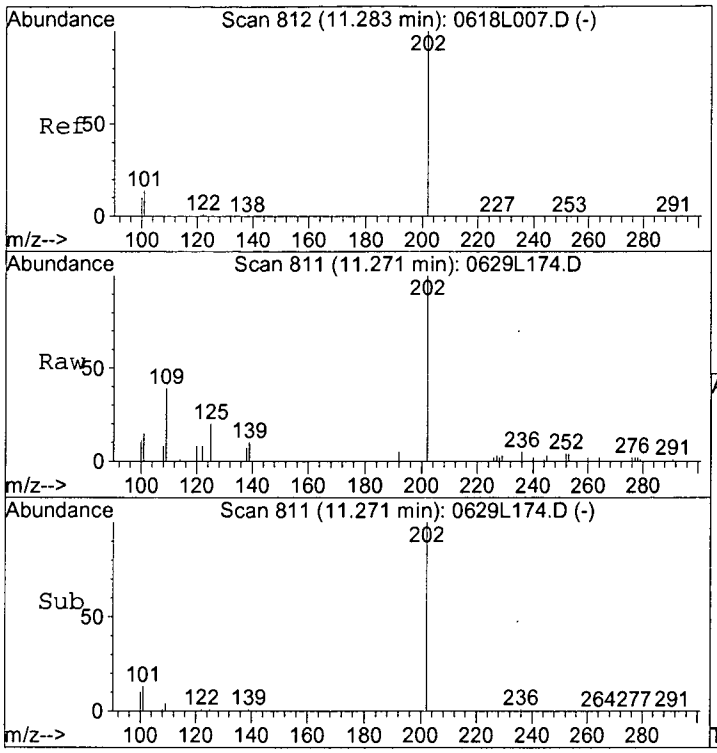


#13
Anthracene
Concen: 44.39241 ppb
RT: 9.94 min Scan# 698
Delta R.T. 0.00 min
Lab File: 0629L174.D
Acq: 6 Jul 15 14:47

Tgt Ion:178 Resp: 4653

Ion	Ratio	Lower	Upper
178	100		
179	12.2	10.9	20.3
176	17.3	12.2	22.6

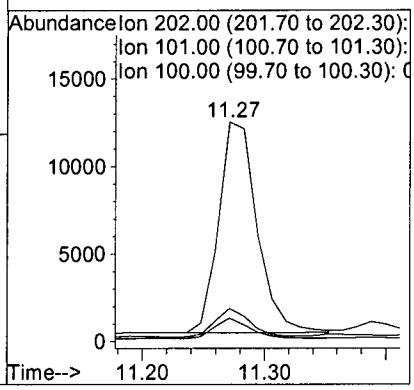


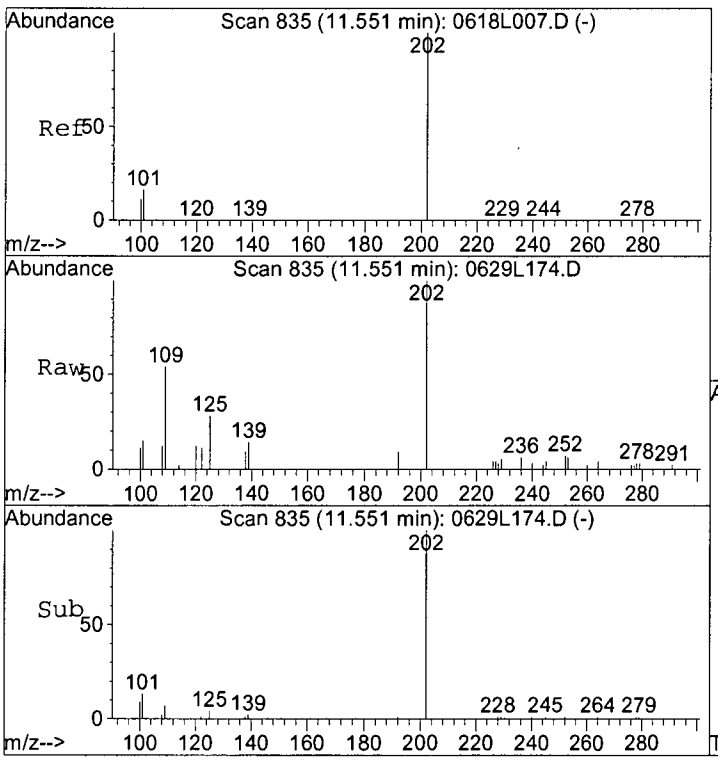


#14
Fluoranthene
Concen: 201.94588 ppb
RT: 11.27 min Scan# 811
Delta R.T. -0.01 min
Lab File: 0629L174.D
Acq: 6 Jul 15 14:47

Tgt Ion:202 Resp: 26399

Ion	Ratio	Lower	Upper
202	100		
101	13.6	9.7	18.1
100	9.8	7.4	13.7

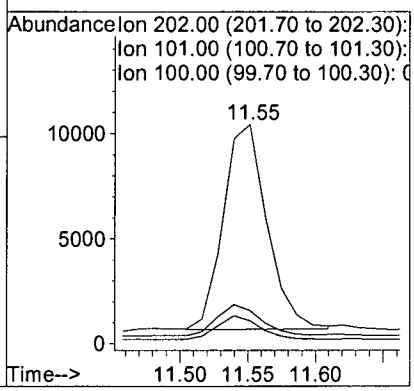


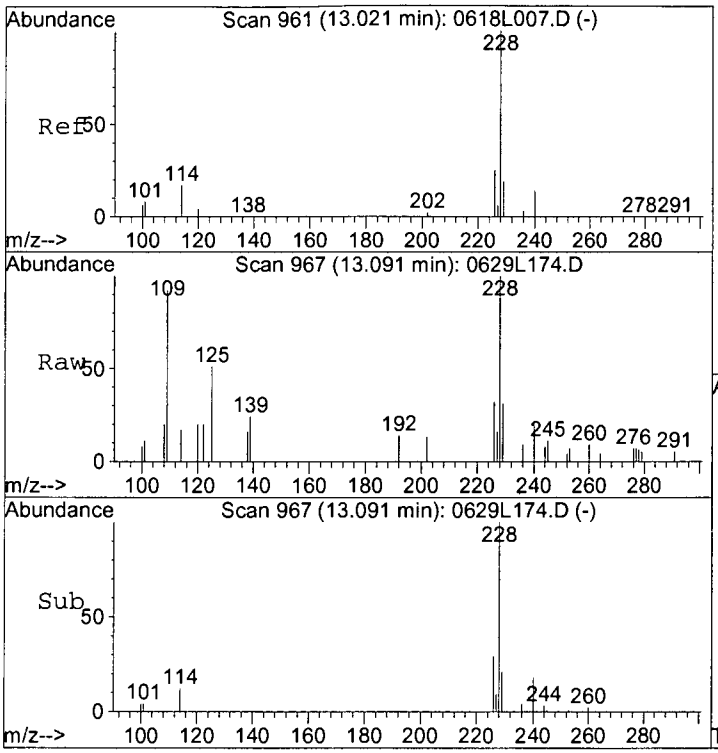


#16
Pyrene
Concen: 174.55249 ppb
RT: 11.55 min Scan# 835
Delta R.T. 0.01 min
Lab File: 0629L174.D
Acq: 6 Jul 15 14:47

Tgt Ion:202 Resp: 21907

Ion	Ratio	Lower	Upper
202	100		
101	12.4	11.0	20.4
100	9.2	7.9	14.7

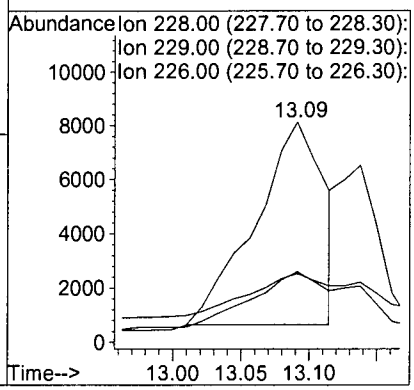


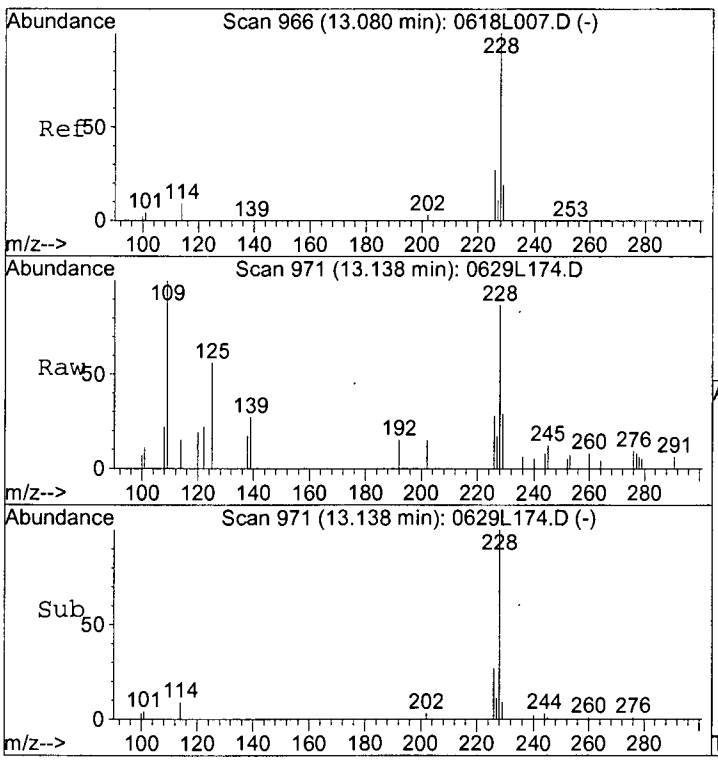


#18
Benz (a) anthracene
Concen: 253.09047 ppb
RT: 13.09 min Scan# 967
Delta R.T. 0.07 min
Lab File: 0629L174.D
Acq: 6 Jul 15 14:47

Tgt Ion:228 Resp: 26361

Ion	Ratio	Lower	Upper
228	100		
229	20.6	13.4	25.0
226	27.2	17.2	32.0

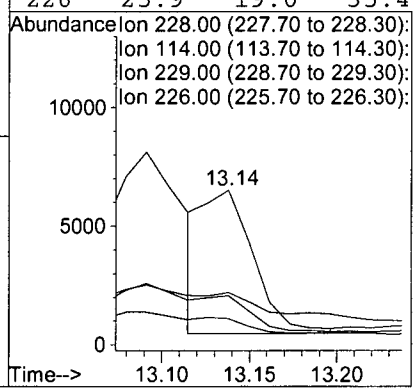


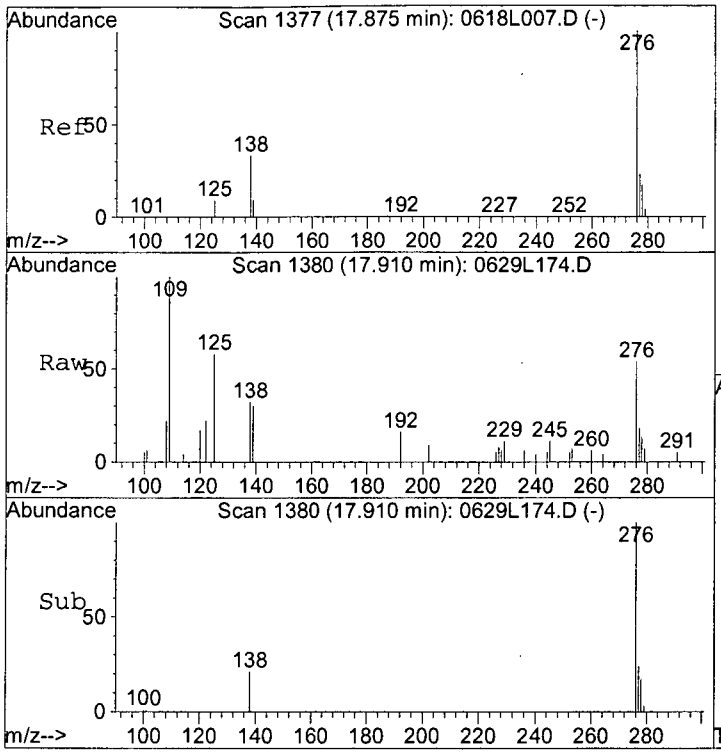


#19
Chrysene
Concen: 114.74969 ppb
RT: 13.14 min Scan# 971
Delta R.T. 0.07 min
Lab File: 0629L174.D
Acq: 6 Jul 15 14:47

Tgt Ion:228 Resp: 12333

Ion	Ratio	Lower	Upper
228	100		
114	10.4	9.5	17.6
229	15.7	13.6	25.2
226	25.9	19.0	35.4

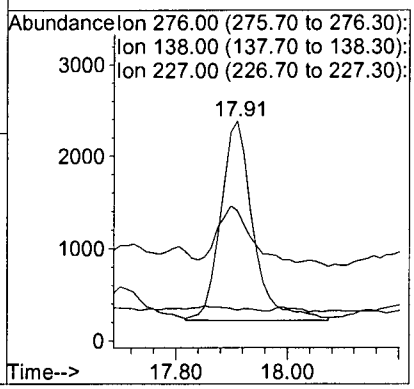


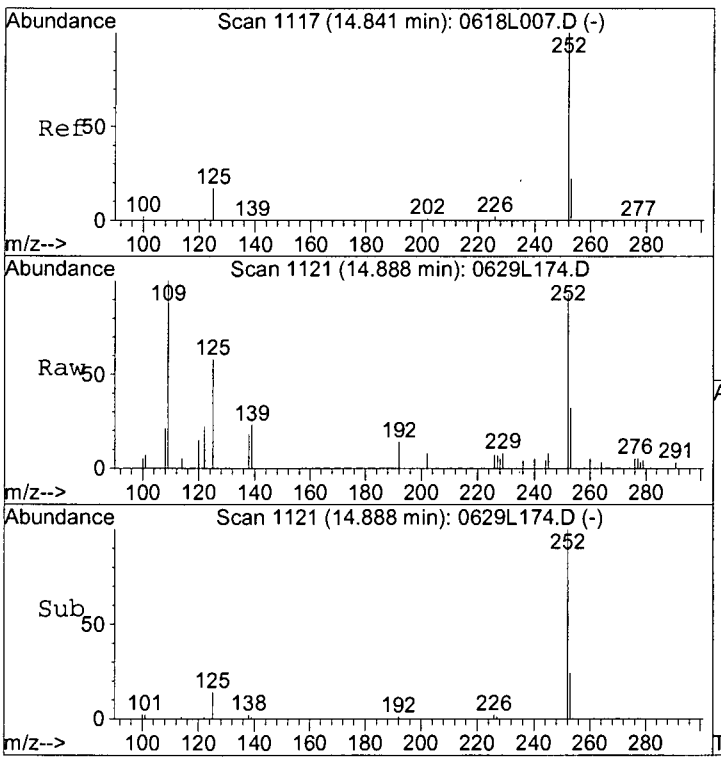


#20
Indeno (1,2,3-cd) pyrene
Concen: 81.61103 ppb
RT: 17.91 min Scan# 1380
Delta R.T. 0.04 min
Lab File: 0629L174.D
Acq: 6 Jul 15 14:47

Tgt Ion:276 Resp: 8731

Ion	Ratio	Lower	Upper
276	100		
138	28.2	23.0	42.8
227	0.3	0.1	0.1#

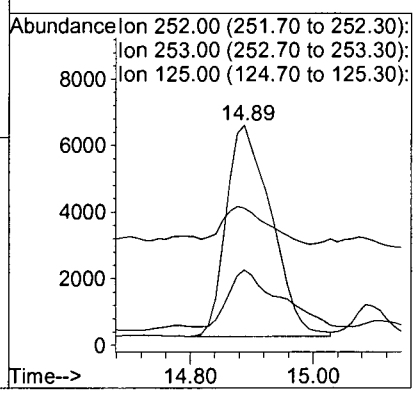


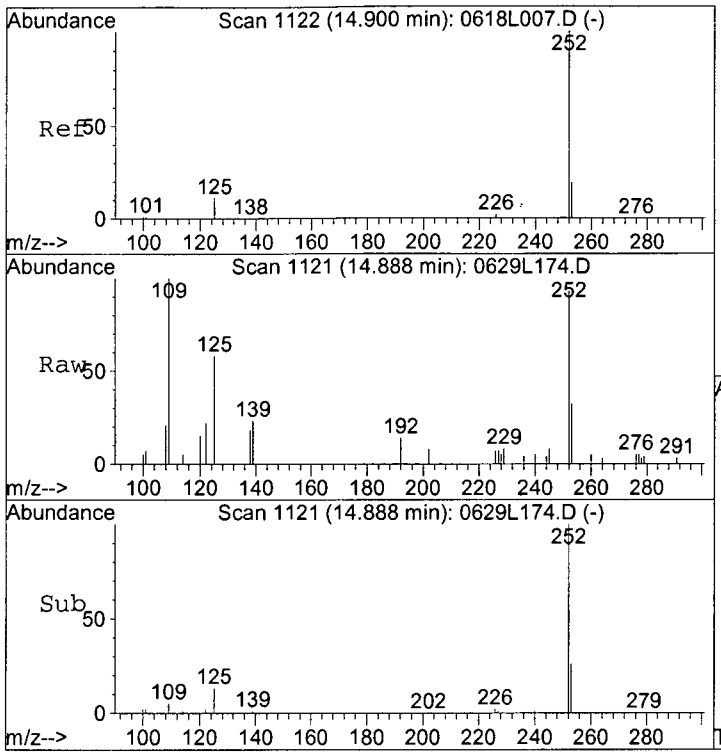


#22
Benzo (b) fluoranthene
Concen: 334.77732 ppb
RT: 14.89 min Scan# 1121
Delta R.T. 0.05 min
Lab File: 0629L174.D
Acq: 6 Jul 15 14:47

Tgt Ion:252 Resp: 32329

Ion	Ratio	Lower	Upper
252	100		
253	26.7	15.7	29.1
125	14.6	11.3	20.9

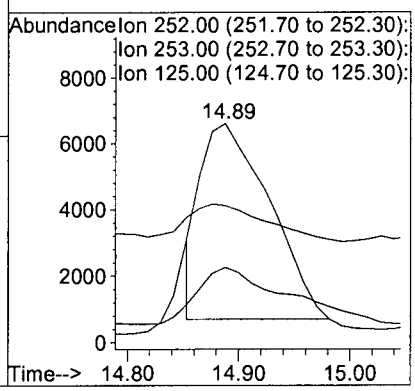


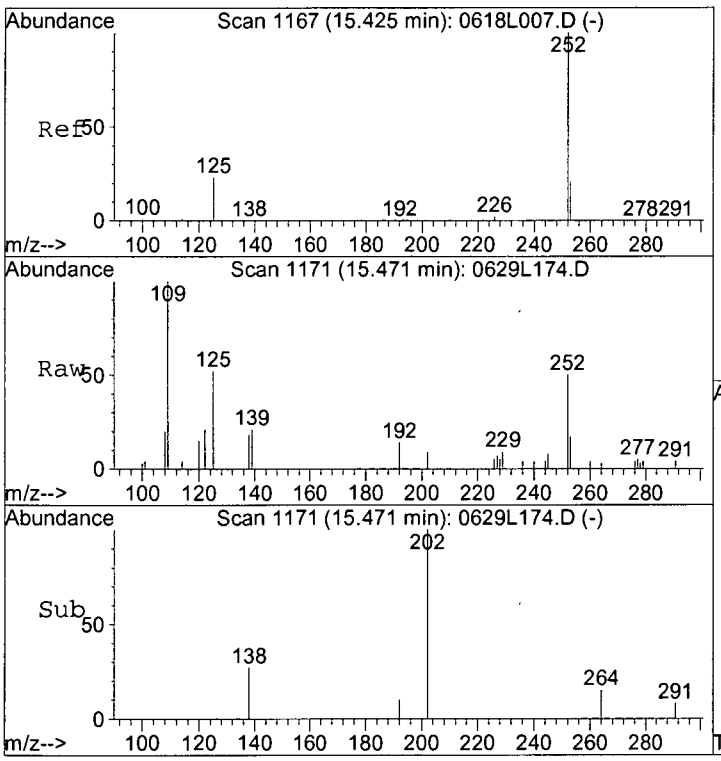


#23
Benzo (k) fluoranthene
Concen: 361.24842 ppb
RT: 14.89 min Scan# 1121
Delta R.T. 0.00 min
Lab File: 0629L174.D
Acq: 6 Jul 15 14:47

Tgt Ion:252 Resp: 25423

Ion	Ratio	Lower	Upper
252	100		
253	20.2	15.8	29.3
125	17.3	11.6	21.5

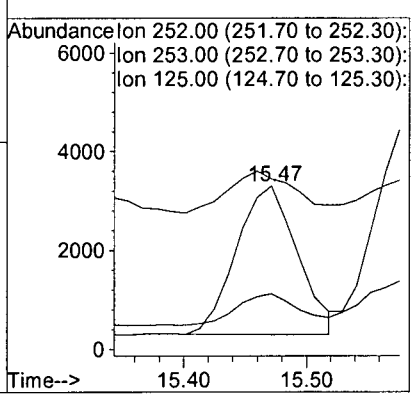


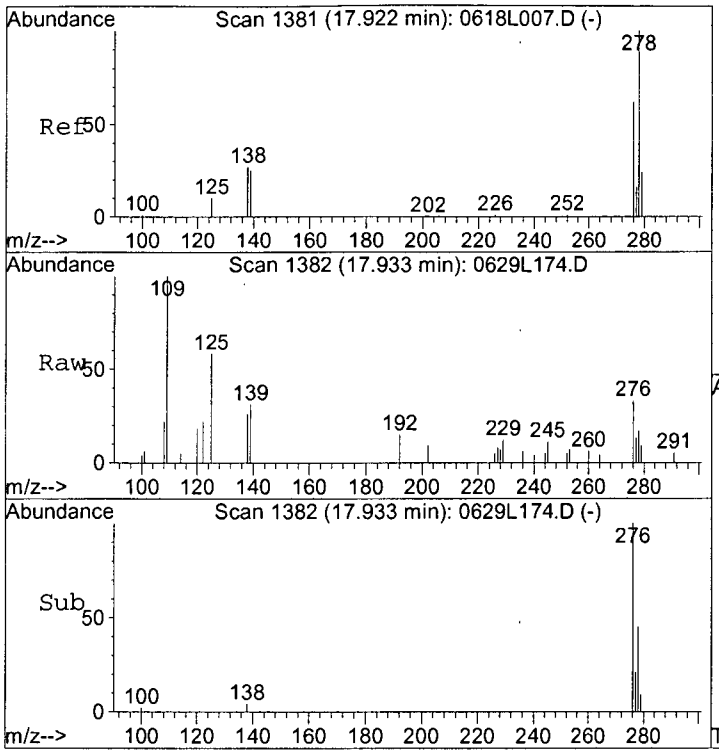


#24
Benzo (a) pyrene
Concen: 112.76673 ppb
RT: 15.47 min Scan# 1171
Delta R.T. 0.06 min
Lab File: 0629L174.D
Acq: 6 Jul 15 14:47

Tgt Ion:252 Resp: 10347

Ion	Ratio	Lower	Upper
252	100		
253	21.2	15.2	28.2
125	22.8	16.1	29.9

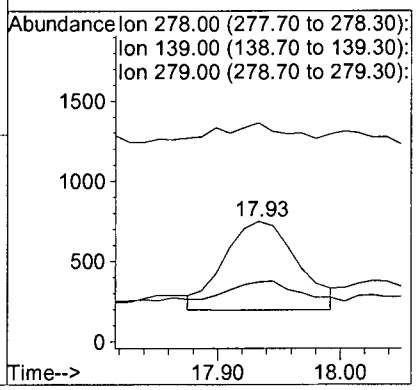


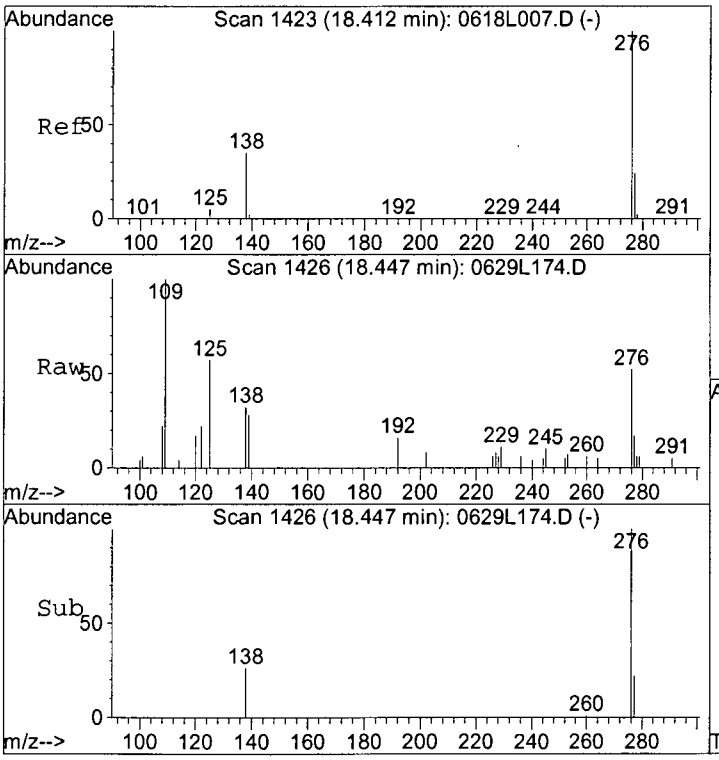


#25
Dibenz (a,h) anthracene
Concen: 22.70960 ppb
RT: 17.93 min Scan# 1382
Delta R.T. 0.02 min
Lab File: 0629L174.D
Acq: 6 Jul 15 14:47

Tgt Ion:278 Resp: 2298

Ion	Ratio	Lower	Upper
278	100		
139	20.8	18.5	34.3
279	23.2	16.7	30.9

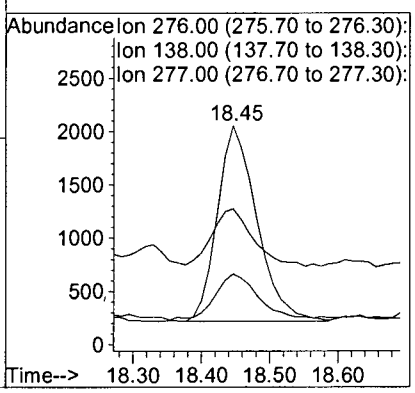




#26
Benzo (g,h,i) perylene
Concen: 71.16023 ppb
RT: 18.45 min Scan# 1426
Delta R.T. 0.04 min
Lab File: 0629L174.D
Acq: 6 Jul 15 14:47

Tgt Ion:276 Resp: 7414

Ion	Ratio	Lower	Upper
276	100		
138	28.7	23.7	44.1
277	22.7	17.3	32.1



EPA 8270D LL WATER DODv3

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76674

Sample ID: S67-MW018-061615

APPL ID: AZ17826

Sample Collection Date: 06/16/15

QCG: #SIMDD-150619A-198588

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	51.3	50-110			%	06/19/15	07/02/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	57.4	40-110			%	06/19/15	07/02/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	66.7	50-135			%	06/19/15	07/02/15

Quant Method: P0629.M
Run #: 0629L141
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/06/15 11:17:37 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L141.D Vial: 41
Acq On : 2 Jul 15 14:31 Operator: MA
Sample : AZ17826W08 1/1040 Inst : Linus
Misc : water Multiplr: 0.96

Quant Time: Jul 6 10:26 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)	6.05	136	6941	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.10	164	3278	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.86	188	5533	2.50000 ppb	0.00
15) Chrysene-D12(IS)	13.04	240	6265	2.50000 ppb	0.01
21) Perylene-D12(IS)	15.68	264	3829	2.50000 ppb	0.02
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.19	82	989	1.37923 ppb	0.01
Spiked Amount 2.404			Recovery =	57.366%	
7) Surrogate Recovery (FBP)	7.31	172	2551	1.23428 ppb	0.00
Spiked Amount 2.404			Recovery =	51.334%	
17) Surrogate Recovery (TPH)	11.73	244	3822	1.60254 ppb	0.00
Spiked Amount 2.404			Recovery =	66.685%	

Target Compounds Qvalue

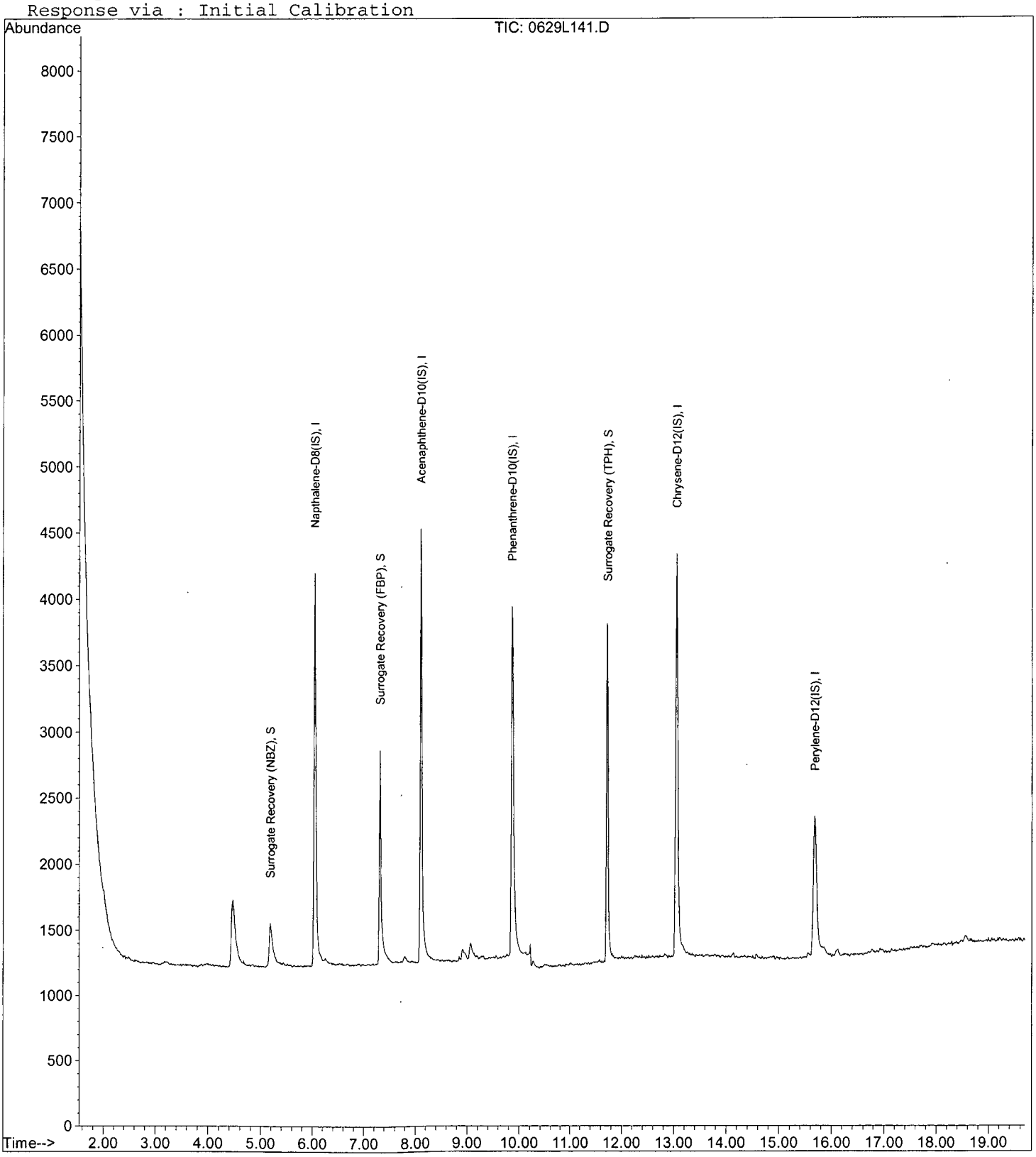
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L141.D Vial: 41
Acq On : 2 Jul 15 14:31 Operator: MA
Sample : AZ17826W08 1/1040 Inst : Linus
Misc : water Multiplr: 0.96

Quant Time: Jul 6 10:26 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



EPA 8270D LL WATER DODv3

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW019-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17827
QCG: #SIMDD-150619A-198588

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	NAPHTHALENE	0.78	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	53.2	50-110			%	06/19/15	07/02/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	54.8	40-110			%	06/19/15	07/02/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	70.8	50-135			%	06/19/15	07/02/15

Quant Method: P0629.M
Run #: 0629L142
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/06/15 11:17:37 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L142.D Vial: 42
Acq On : 2 Jul 15 14:58 Operator: MA
Sample : AZ17827W04 1/900 Inst : Linus
Misc : water Multiplr: 1.11

Quant Time: Jul 6 10:27 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	6877	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.10	164	3234	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.86	188	5489	2.50000 ppb	0.00
15) Chrysene-D12(IS)	13.04	240	6237	2.50000 ppb	0.01
21) Perylene-D12(IS)	15.68	264	3876	2.50000 ppb	0.02
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.19	82	935	1.52077 ppb	0.01
Spiked Amount 2.778			Recovery = 54.756%		
7) Surrogate Recovery (FBP)	7.31	172	2607	1.47741 ppb	0.00
Spiked Amount 2.778			Recovery = 53.172%		
17) Surrogate Recovery (TPH)	11.73	244	4040	1.96623 ppb	0.00
Spiked Amount 2.778			Recovery = 70.776%		
Target Compounds					Qvalue
3) Naphthalene	6.07	128	2619	0.77610 ppb	99

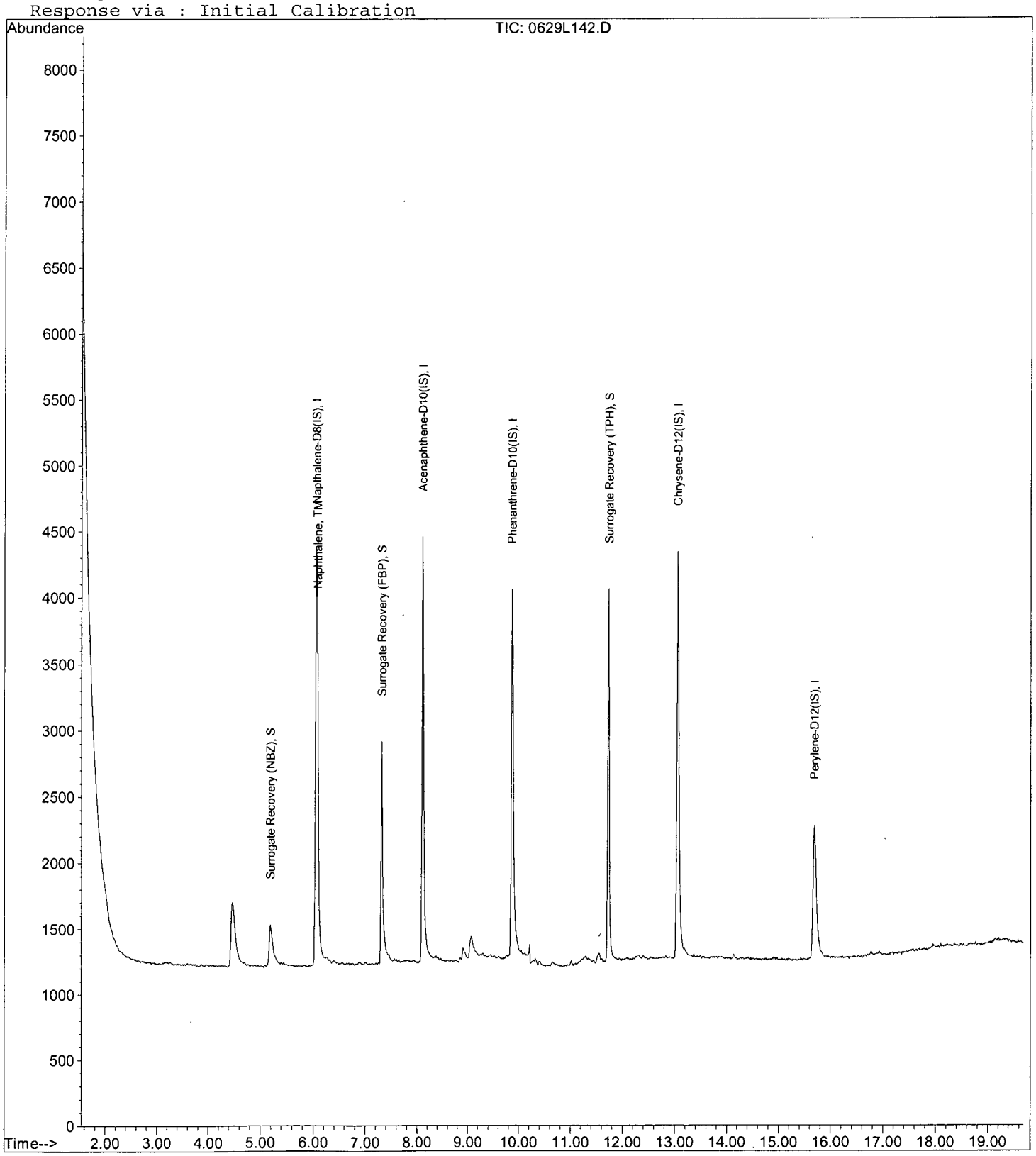
(#) = qualifier out of range (m) = manual integration

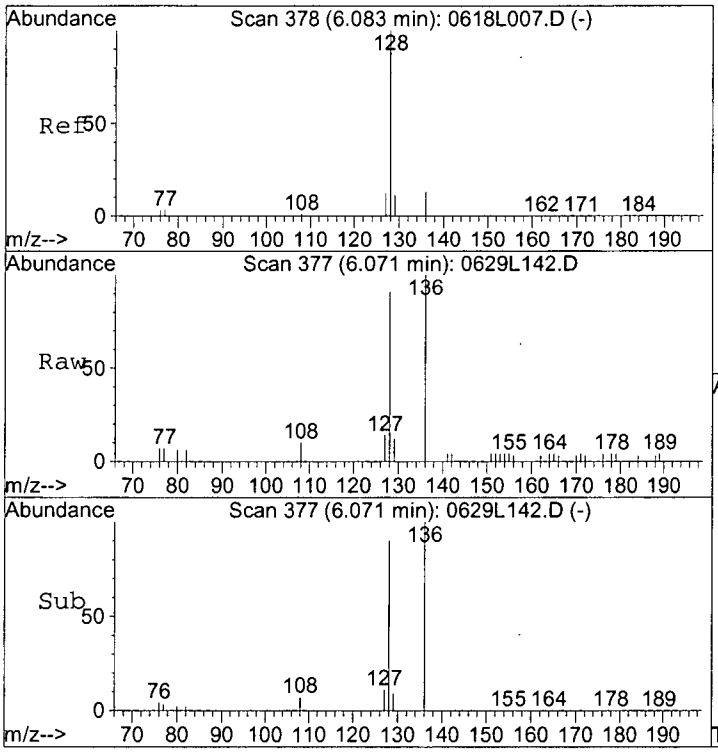
Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L142.D Vial: 42
Acq On : 2 Jul 15 14:58 Operator: MA
Sample : AZ17827W04 1/900 Inst : Linus
Misc : water Multiplr: 1.11

Quant Time: Jul 6 10:27 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

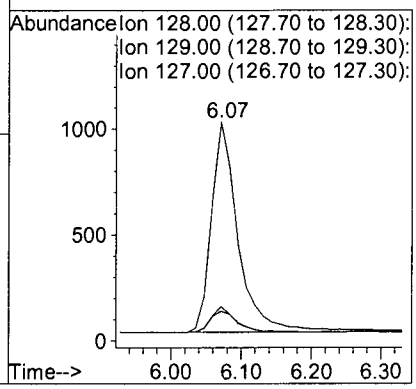




#3
Naphthalene
Concen: 0.77610 ppb
RT: 6.07 min Scan# 377
Delta R.T. -0.00 min
Lab File: 0629L142.D
Acq: 2 Jul 15 14:58

Tgt Ion:128 Resp: 2619

Ion	Ratio	Lower	Upper
128	100		
129	10.2	7.4	13.8
127	12.2	8.4	15.6



EPA 8270D LL WATER DODv3

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW023-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17828
QCG: #SIMDD-150619A-198588

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	51.6	50-110			%	06/19/15	07/02/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	58.1	40-110			%	06/19/15	07/02/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	70.3	50-135			%	06/19/15	07/02/15

Quant Method: P0629.M
Run #: 0629L143
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/06/15 11:17:37 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L143.D Vial: 43
Acq On : 2 Jul 15 15:25 Operator: MA
Sample : AZ17828W08 1/960 Inst : Linus
Misc : water Multiplr: 1.04

Quant Time: Jul 6 10:28 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	6345	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.10	164	2976	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.86	188	5070	2.50000 ppb	0.00
15) Chrysene-D12(IS)	13.04	240	5937	2.50000 ppb	0.01
21) Perylene-D12(IS)	15.68	264	3626	2.50000 ppb	0.02
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.19	82	916	1.51387 ppb	0.01
Spiked Amount 2.604			Recovery = 58.138%		
7) Surrogate Recovery (FBP)	7.31	172	2328	1.34408 ppb	0.00
Spiked Amount 2.604			Recovery = 51.610%		
17) Surrogate Recovery (TPH)	11.71	244	3823	1.83248 ppb	-0.01
Spiked Amount 2.604			Recovery = 70.349%		

Target Compounds Qvalue

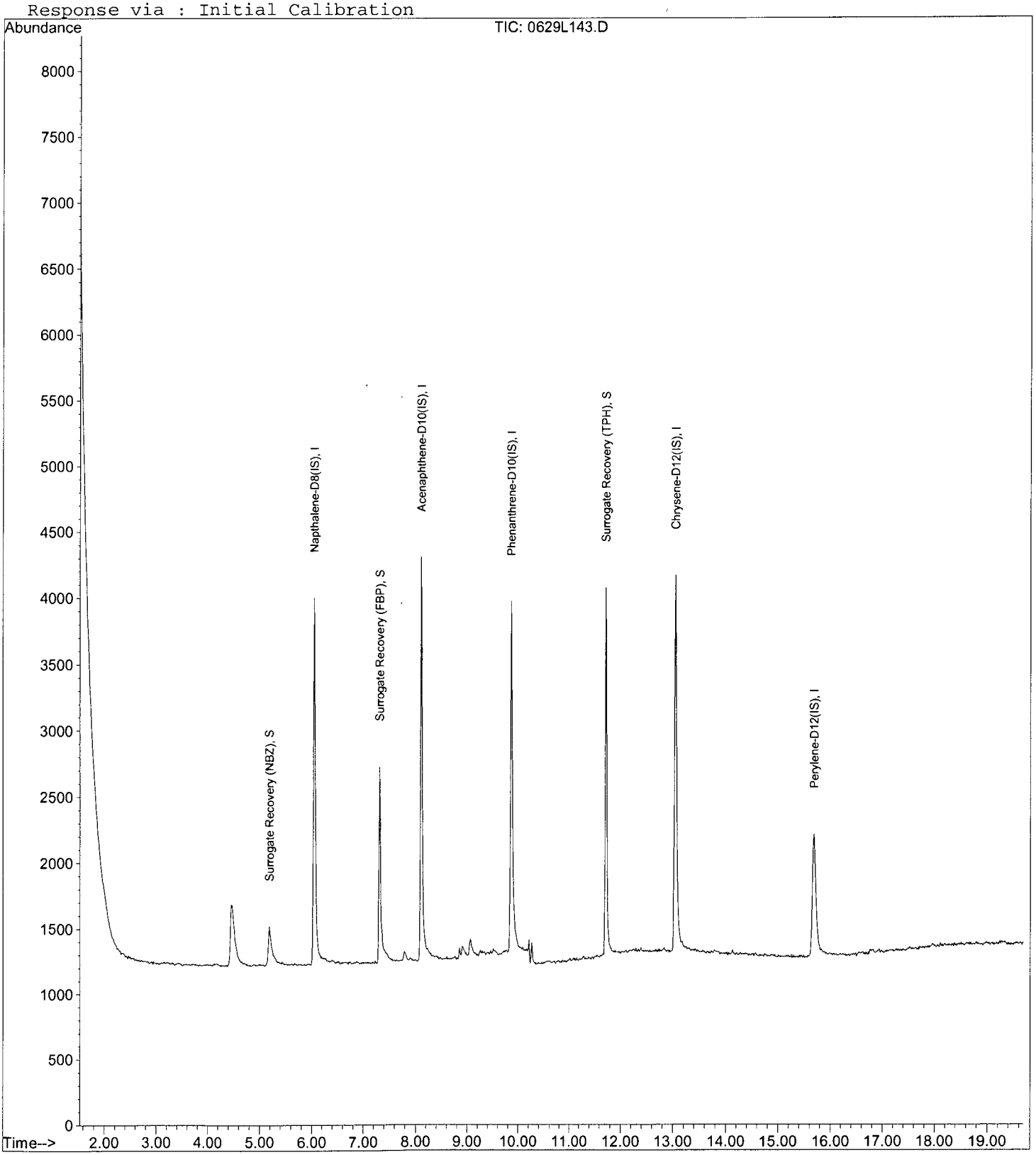
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L143.D Vial: 43
Acq On : 2 Jul 15 15:25 Operator: MA
Sample : AZ17828W08 1/960 Inst : Linus
Misc : water Multiplr: 1.04

Quant Time: Jul 6 10:28 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 WATER DODv3

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76674

Sample ID: S67-MW022-061615

APPL ID: AZ17829

Sample Collection Date: 06/16/15

QCG: #SIMDD-150619A-198588

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
8270D-LL	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
8270D-LL	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
8270D-LL	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
8270D-LL	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
8270D-LL	SURROGATE: 2-FLUORBIPHENYL (S)	55.9	50-110			%	06/19/15	07/02/15
8270D-LL	SURROGATE: NITROBENZENE-D5 (S)	66.3	40-110			%	06/19/15	07/02/15
8270D-LL	SURROGATE: TERPHENYL-D14 (S)	70.6	50-135			%	06/19/15	07/02/15

Quant Method: P0629.M
Run #: 0629L144
Instrument: Linus
Sequence: L150629
Dilution Factor: 1
Initials: MA

Printed: 07/06/15 11:17:37 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L144.D Vial: 44
Acq On : 2 Jul 15 15:52 Operator: MA
Sample : AZ17829W07 1/900 Inst : Linus
Misc : water Multiplr: 1.11

Quant Time: Jul 6 10:28 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	5513	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.11	164	2830	2.50000 ppb	0.01
11) Phenanthrene-D10(IS)	9.87	188	5064	2.50000 ppb	0.01
15) Chrysene-D12(IS)	13.04	240	5849	2.50000 ppb	0.01
21) Perylene-D12(IS)	15.68	264	3698	2.50000 ppb	0.02
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.19	82	908	1.84225 ppb	0.01
Spiked Amount 2.778			Recovery = 66.312%		
7) Surrogate Recovery (FBP)	7.31	172	2397	1.55232 ppb	0.00
Spiked Amount 2.778			Recovery = 55.872%		
17) Surrogate Recovery (TPH)	11.73	244	3777	1.96017 ppb	0.00
Spiked Amount 2.778			Recovery = 70.560%		

Target Compounds Qvalue

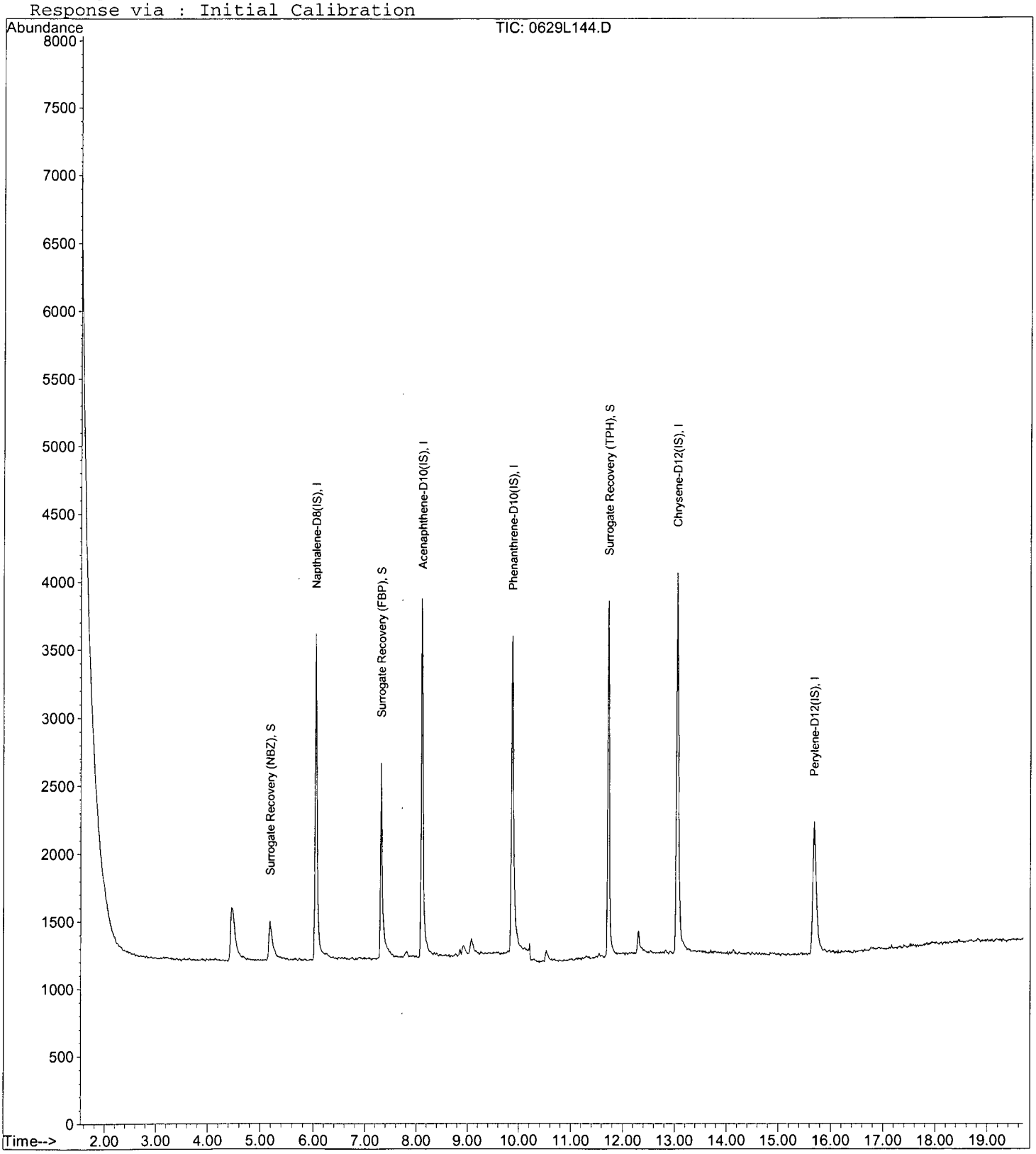
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L144.D Vial: 44
Acq On : 2 Jul 15 15:52 Operator: MA
Sample : AZ17829W07 1/900 Inst : Linus
Misc : water Multiplr: 1.11

Quant Time: Jul 6 10:28 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 METHOD 8270D
Polynuclear Aromatic Hydrocarbons
Calibration Data

APPL, INC.

Form 6
Initial Calibration

Lab Name: APPL, Inc.
Case No:
Matrix:
SDG No: 76674
Initial Cal. Date: 06/29/15
Instrument: Linus
Initials: MA

		Compound	0.1	0.2	0.5	1	5	10	50	100			Avg	%RSD		
			0629L003.D	0629L004.D	0629L005.D	0629L006.D	0629L007.D	0629L008.D	0629L009.D	0629L010.D						
1	I	Napthalene-D8(IS)														
2	S	Surrogate Recovery (NBZ)			0.2153	0.2159	0.2325	0.2358	0.3061	0.2843						
3	TM	Naphthalene	1.642	1.427	1.303	1.411	1.378	1.319	1.275	1.150			0.25	15	S	
4	TM	2-Methylnaphthalene	0.9150	0.7773	0.7567	0.8291	0.8720	0.8486	0.8436	0.7709			1.4	11	TM	
5	TM	1-Methylnaphthalene	1.007	1.020	0.9012	0.9581	0.9899	0.9279	0.8553	0.7656			0.83	6.6	TM	
6	I	Acenaphthene-D10(IS)											0.93	9.3	TM	
7	S	Surrogate Recovery (FBP)	1.726	1.466	1.478	1.471	1.470	1.487	1.594	1.433						
8	TM	Acenaphthylene	3.252	2.996	2.657	2.791	2.779	2.694	2.786	2.510			1.5	6.4	S	
9	*TM	Acenaphthene	1.973	1.944	1.648	1.763	1.688	1.619	1.631	1.463			2.8	8.1	TM	
10	TM	Fluorene	2.037	1.911	1.795	1.837	1.778	1.726	1.800	1.624			1.7	10.0	*TM	
11	I	Phenanthrene-D10(IS)											1.8	6.8	TM	
12	TM	Phenanthrene	1.875	1.432	1.426	1.488	1.501	1.486	1.477	1.379						
13	TM	Anthracene	1.892	1.795	1.622	1.558	1.409	1.485	1.465	1.248			1.5	10	TM	
14	*TM	Fluoranthene	2.415	2.103	1.915	1.895	1.803	1.858	1.871	1.697			1.6	13	TM	
15	I	Chrysene-D12(IS)											1.9	11	*TM	
16	TM	Pyrene	2.328	1.994	1.841	1.839	1.760	1.769	1.643	1.481						
17	S	Surrogate Recovery (TPH)	1.167	0.9472	0.8823	0.8857	0.8519	0.8893	0.8951	0.8026			1.8	14	TM	
18	TML	Benz (a) anthracene	1.918	1.231	1.196	1.253	1.350	1.553	1.548				0.92	12	S	
19	TML	Chrysene	2.060	2.072	1.982	1.952	1.618	1.480	1.298	1.210			1.4	18	TML	1.000
20	TM	Indeno (1,2,3-cd) pyrene	1.072	1.743	1.593	1.627	1.634	1.686	1.634	1.503			1.7	21	TML	0.999
21	I	Perylene-D12(IS)											1.6	13	TM	
22	TML	Benzo (b) fluoranthene	1.891	2.434	1.412	1.578	2.196	2.222	2.300	2.158						
23	TML	Benzo (k) fluoranthene	1.263	0.7444	1.510	1.606	1.537	1.501	1.794	1.472			2.0	18	TML	0.999
24	*TM	Benzo (a) pyrene	2.518	2.129	2.081	2.031	2.076	2.143	2.064	1.833			1.4	22	TML	0.991
25	TM	Dibenz (a,h) anthracene	2.982	2.252	2.210	2.264	2.290	2.337	2.257	2.017			2.1	9.1	*TM	
26	TM	Benzo (g,h,i) perylene	3.085	2.472	2.331	2.381	2.309	2.355	2.227	2.001			2.3	12	TM	
27													2.4	13	TM	
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

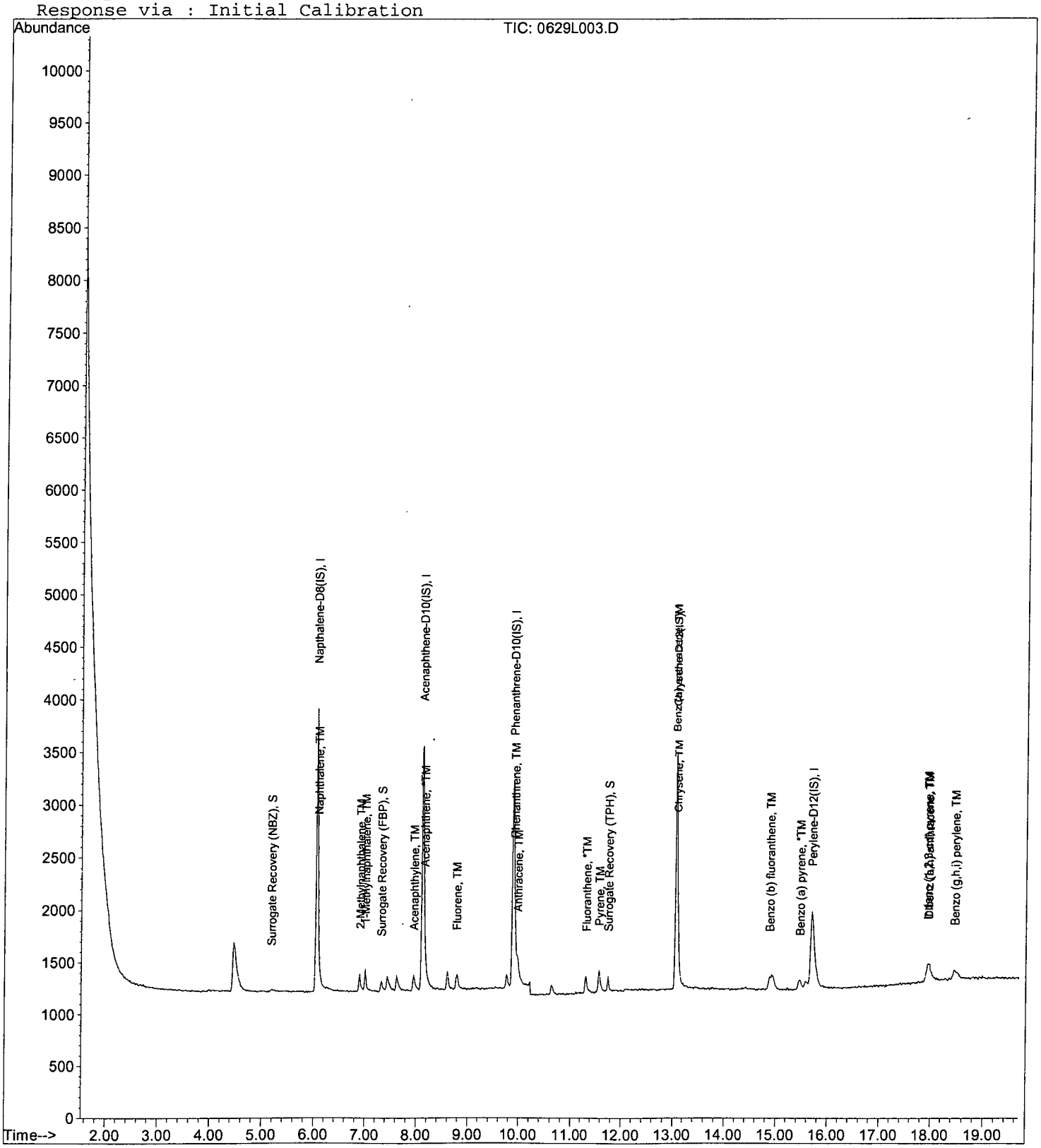
(#) = qualifier out of range (m) = manual integration

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

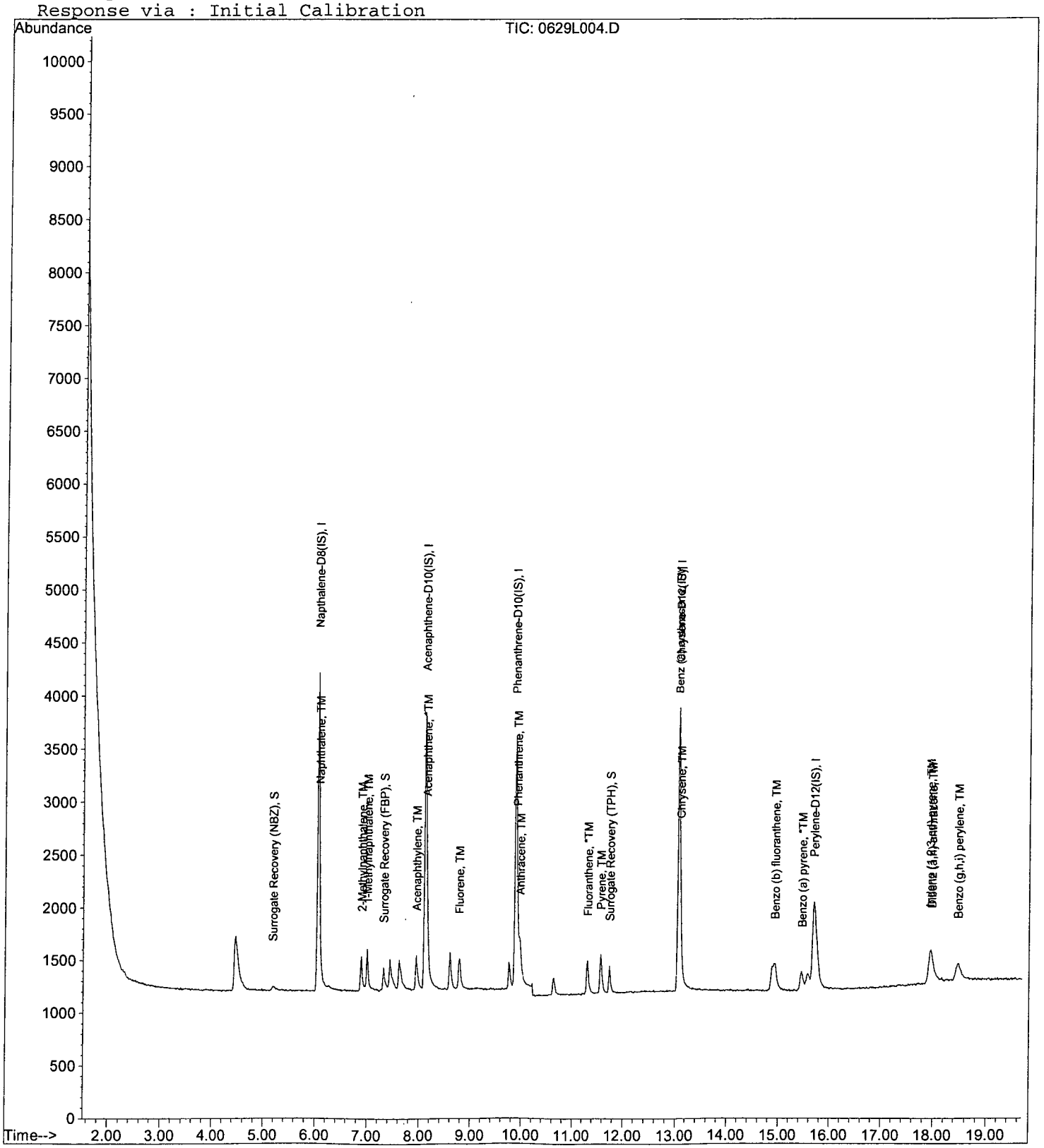
(#) = qualifier out of range (m) = manual integration

Quantitation Report

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

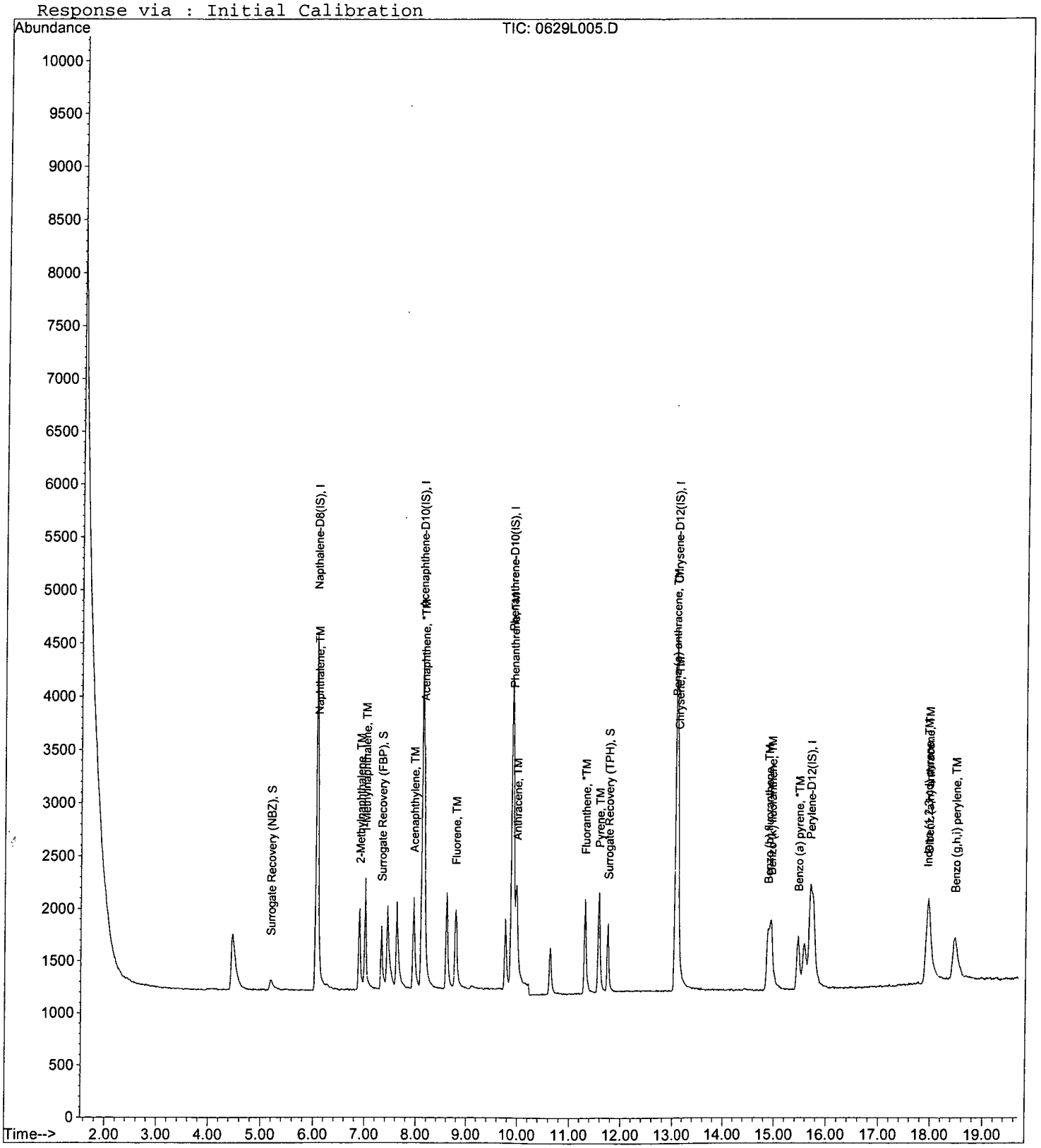
(#) = qualifier out of range (m) = manual integration

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

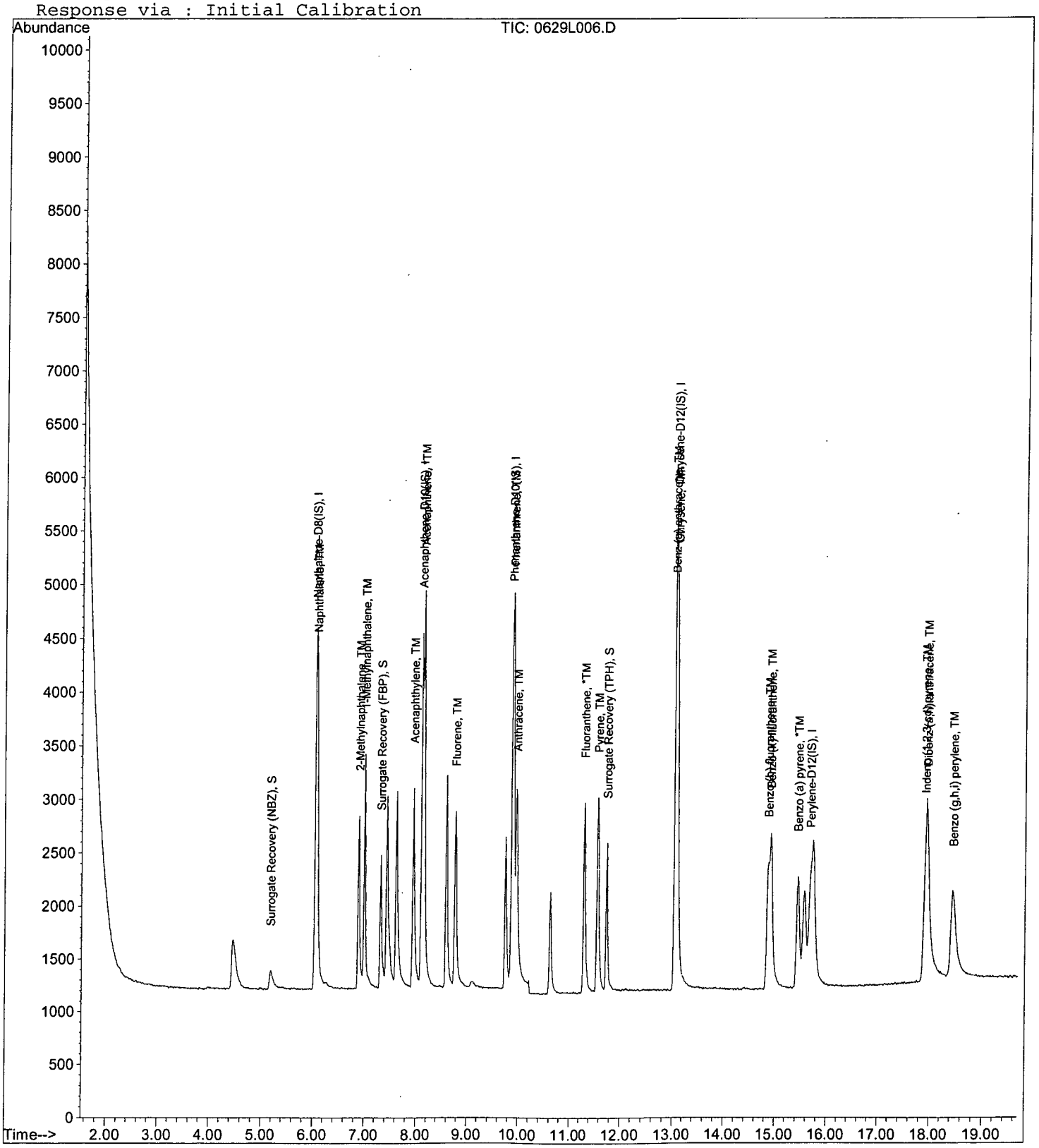
(#) = qualifier out of range (m) = manual integration

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



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

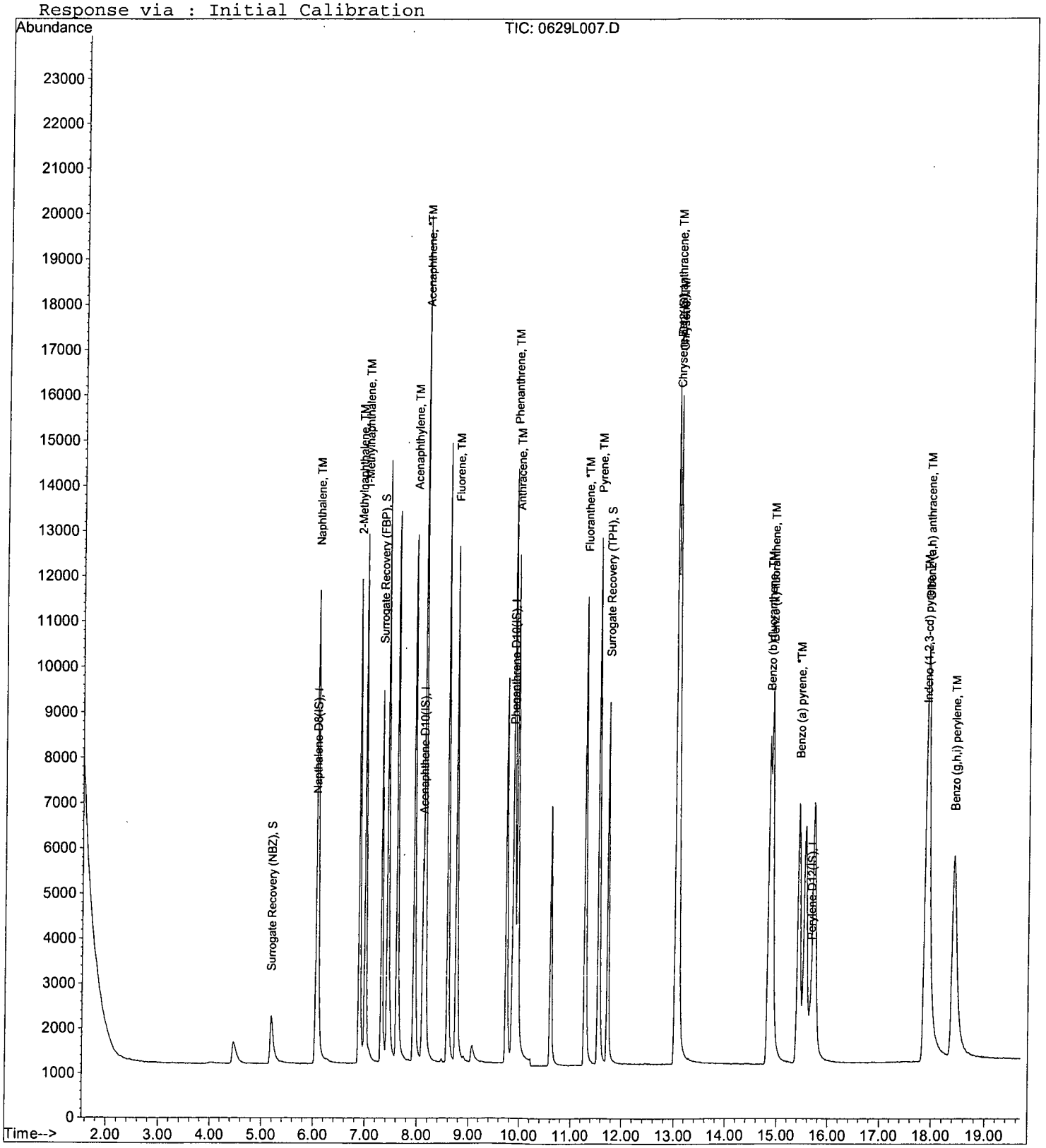
(#) = qualifier out of range (m) = manual integration

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

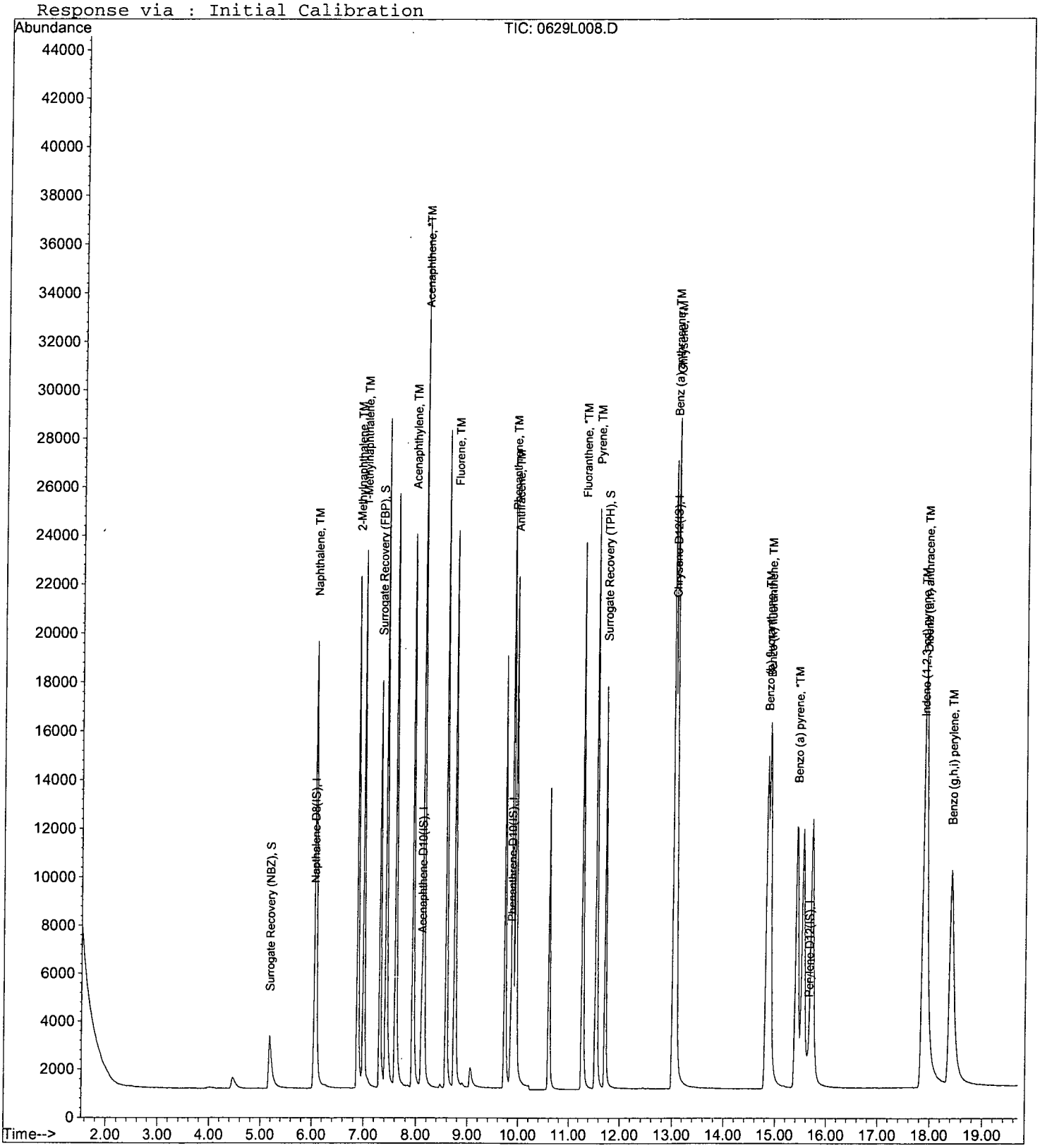
(#) = qualifier out of range (m) = manual integration

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

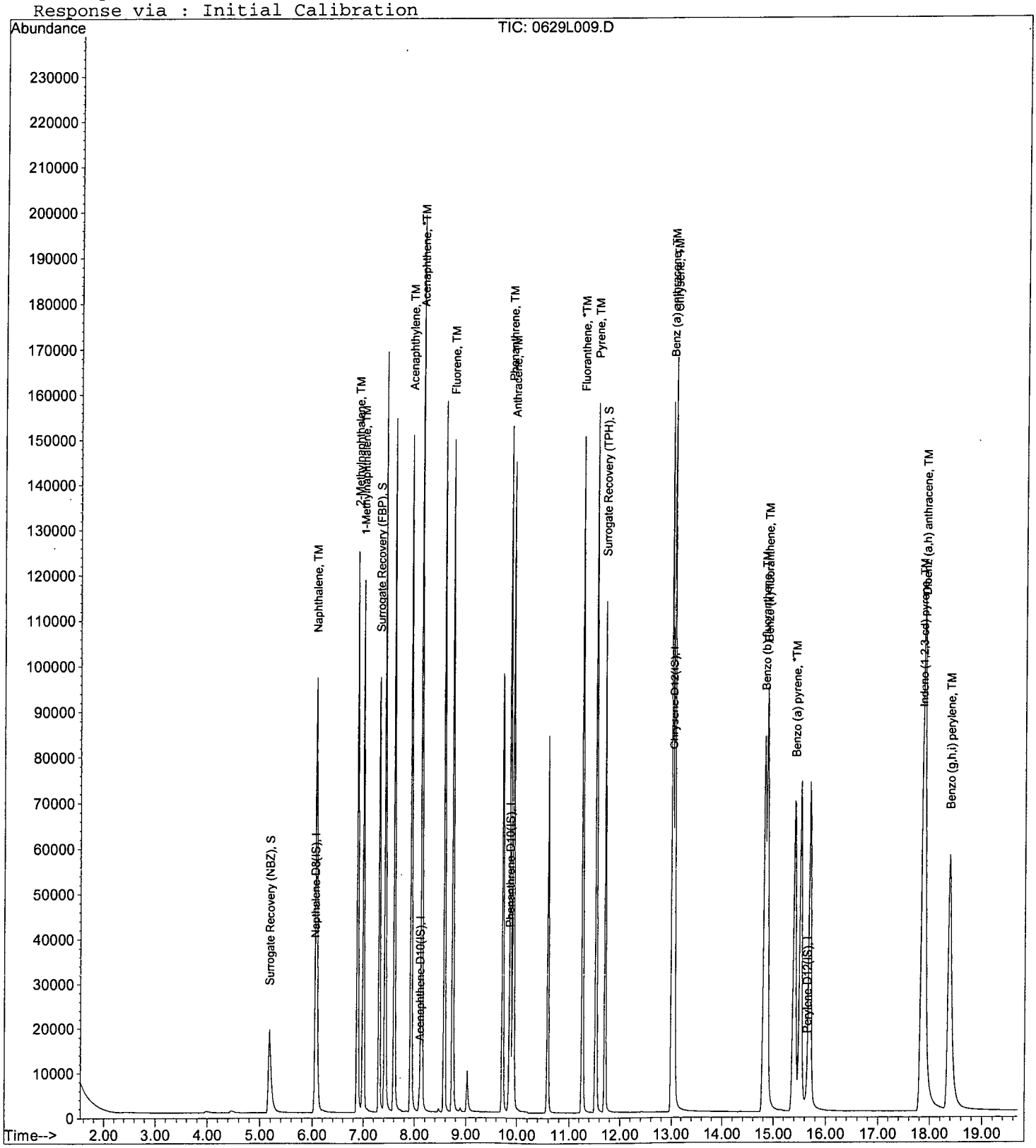
(#) = qualifier out of range (m) = manual integration

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

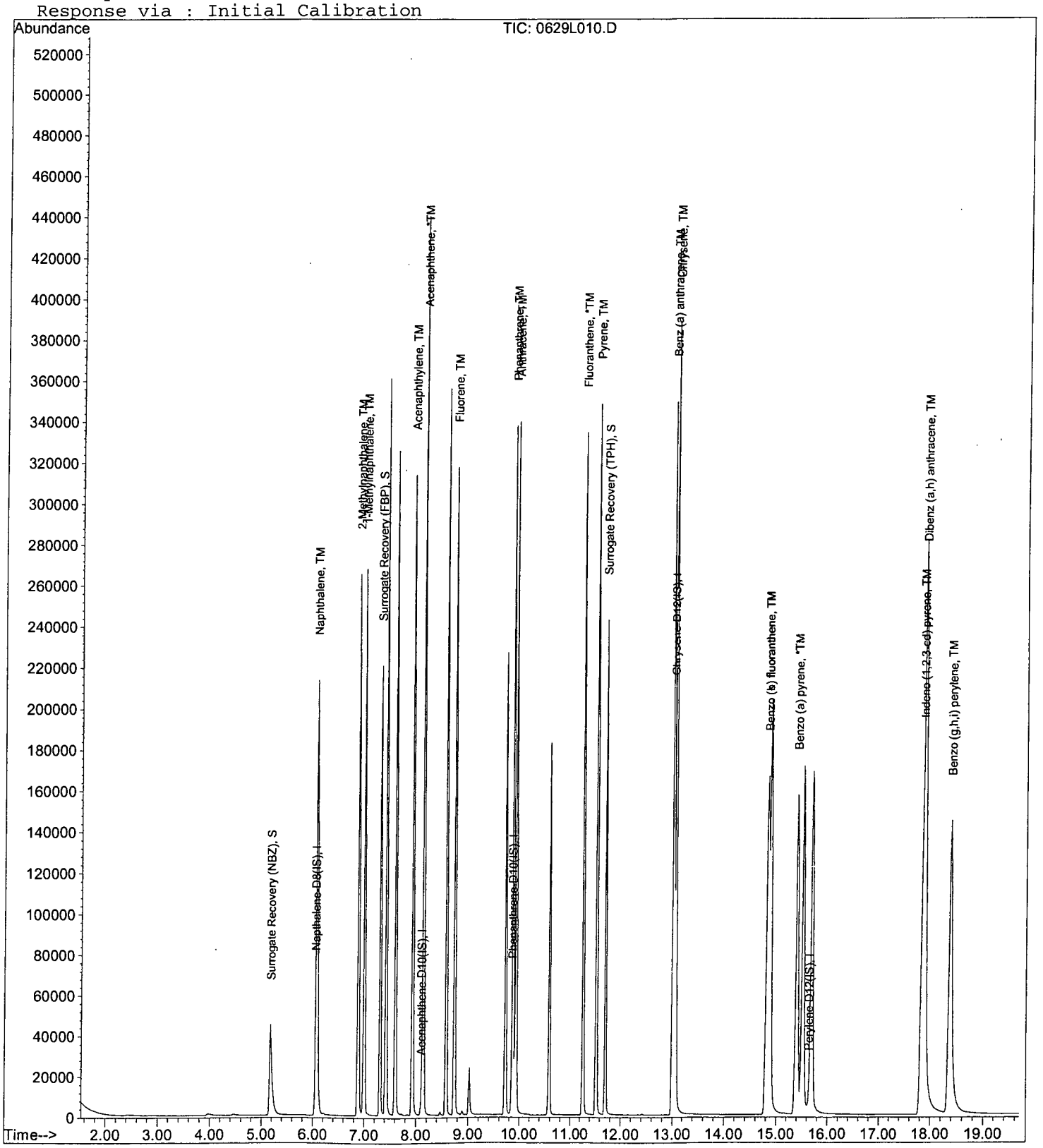
(#) = qualifier out of range (m) = manual integration

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: 76674
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

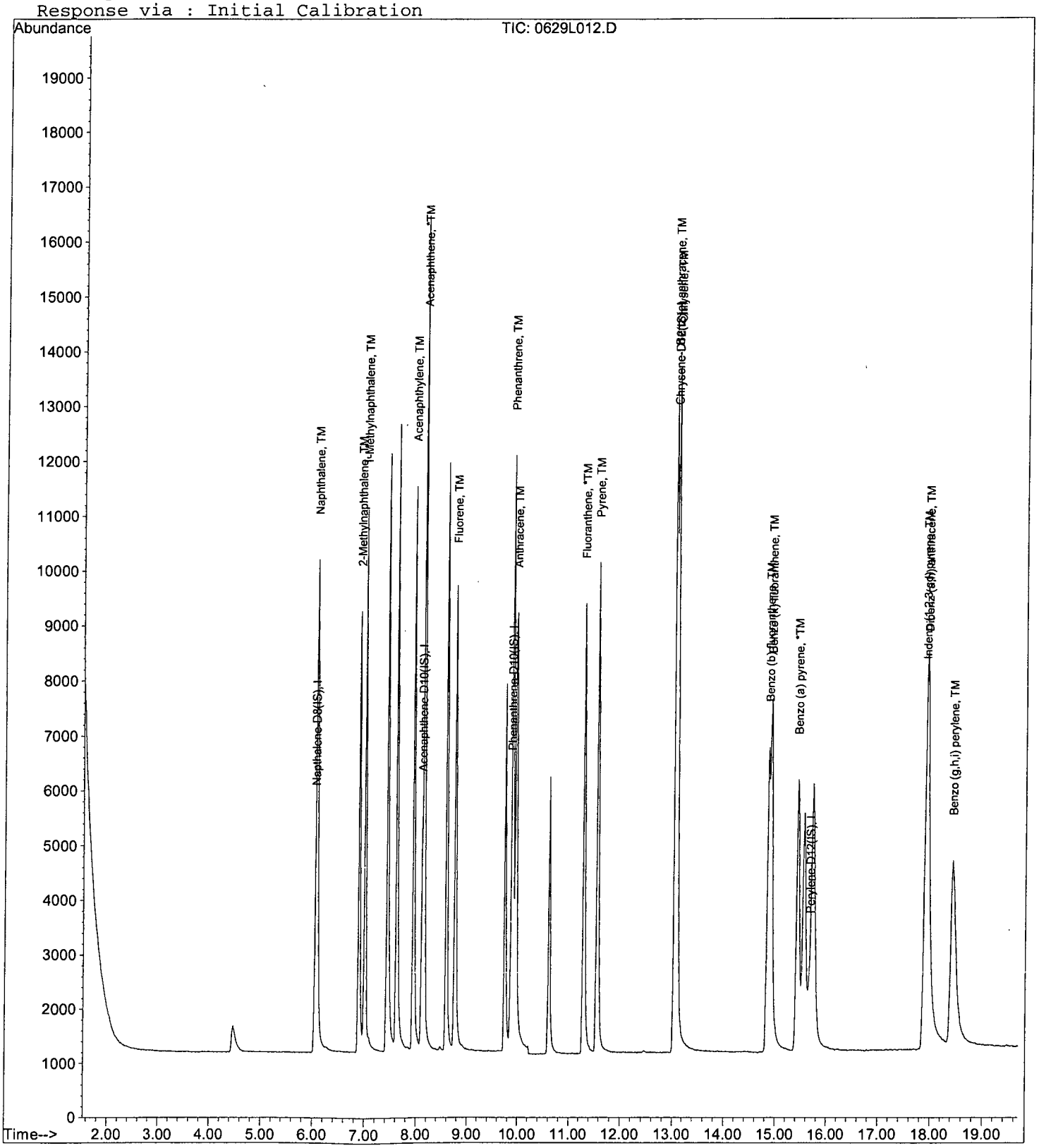
(#) = qualifier out of range (m) = manual integration

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

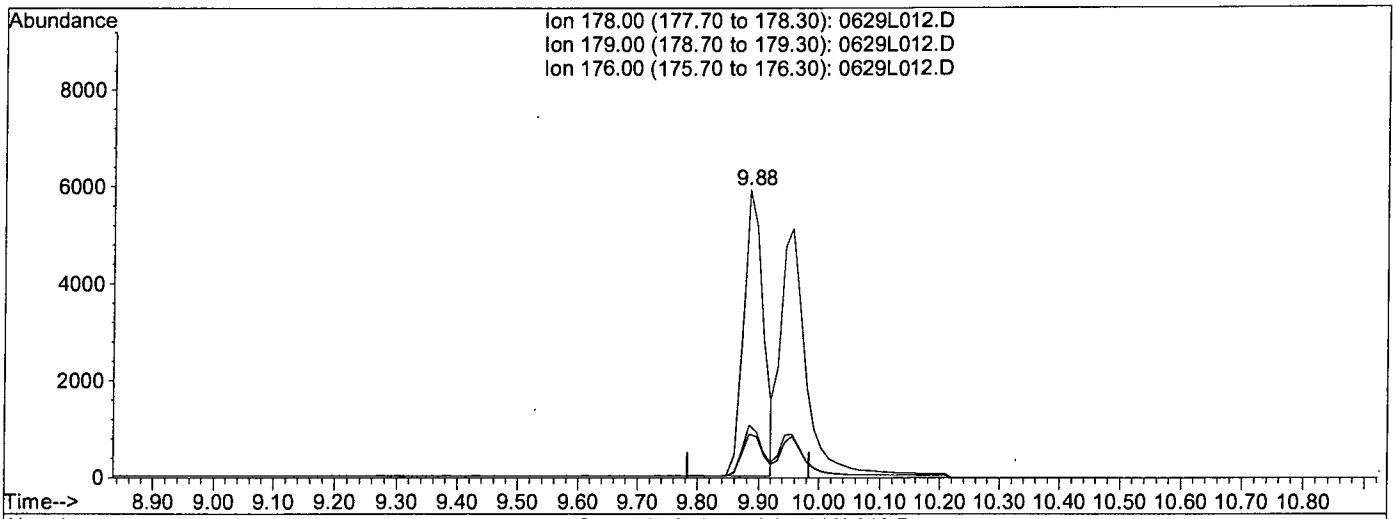
Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration

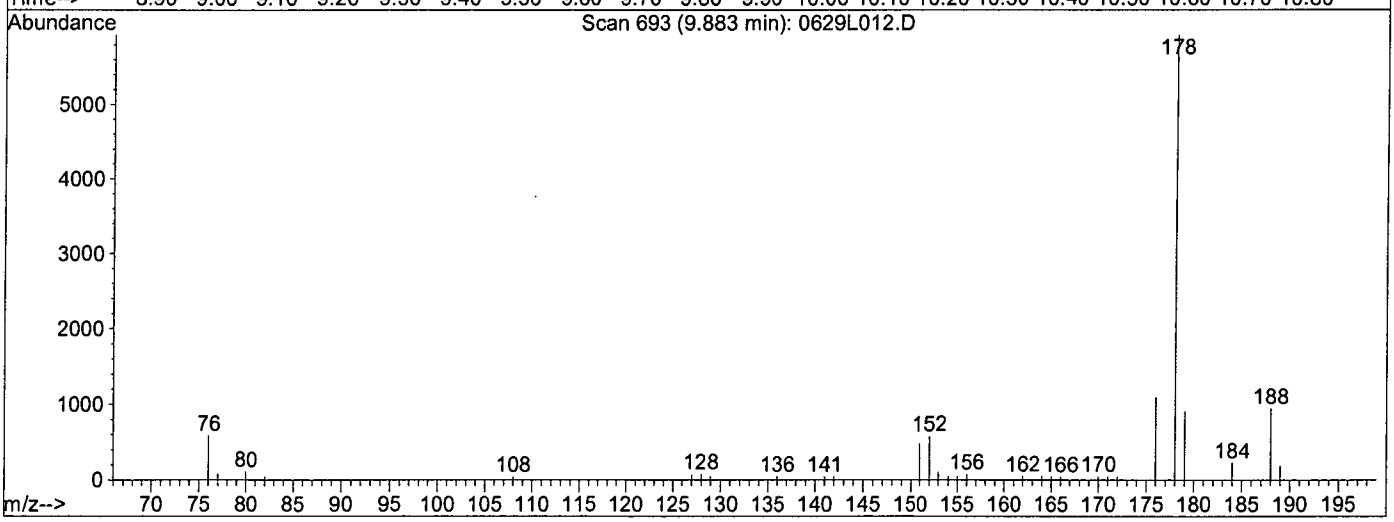


Quantitation Report

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

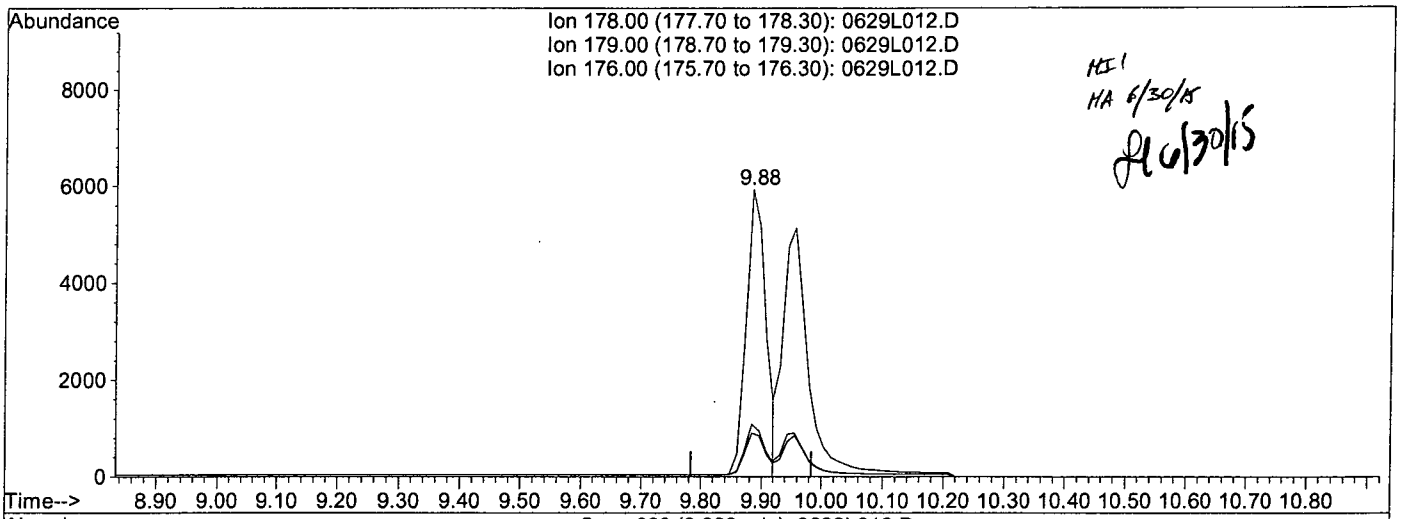
response 13459

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

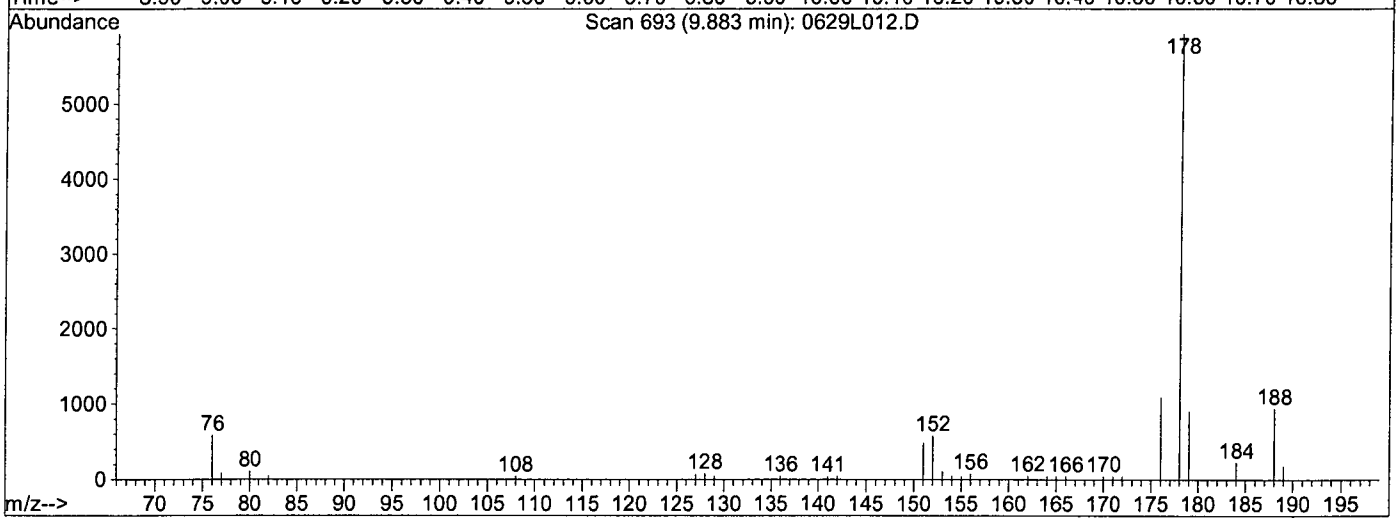
Quantitation Report

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



HI
HA 6/30/15
6/30/15



TIC: 0629L012.D

(12) Phenanthrene (TM)

9.88min 4.0379ppb m

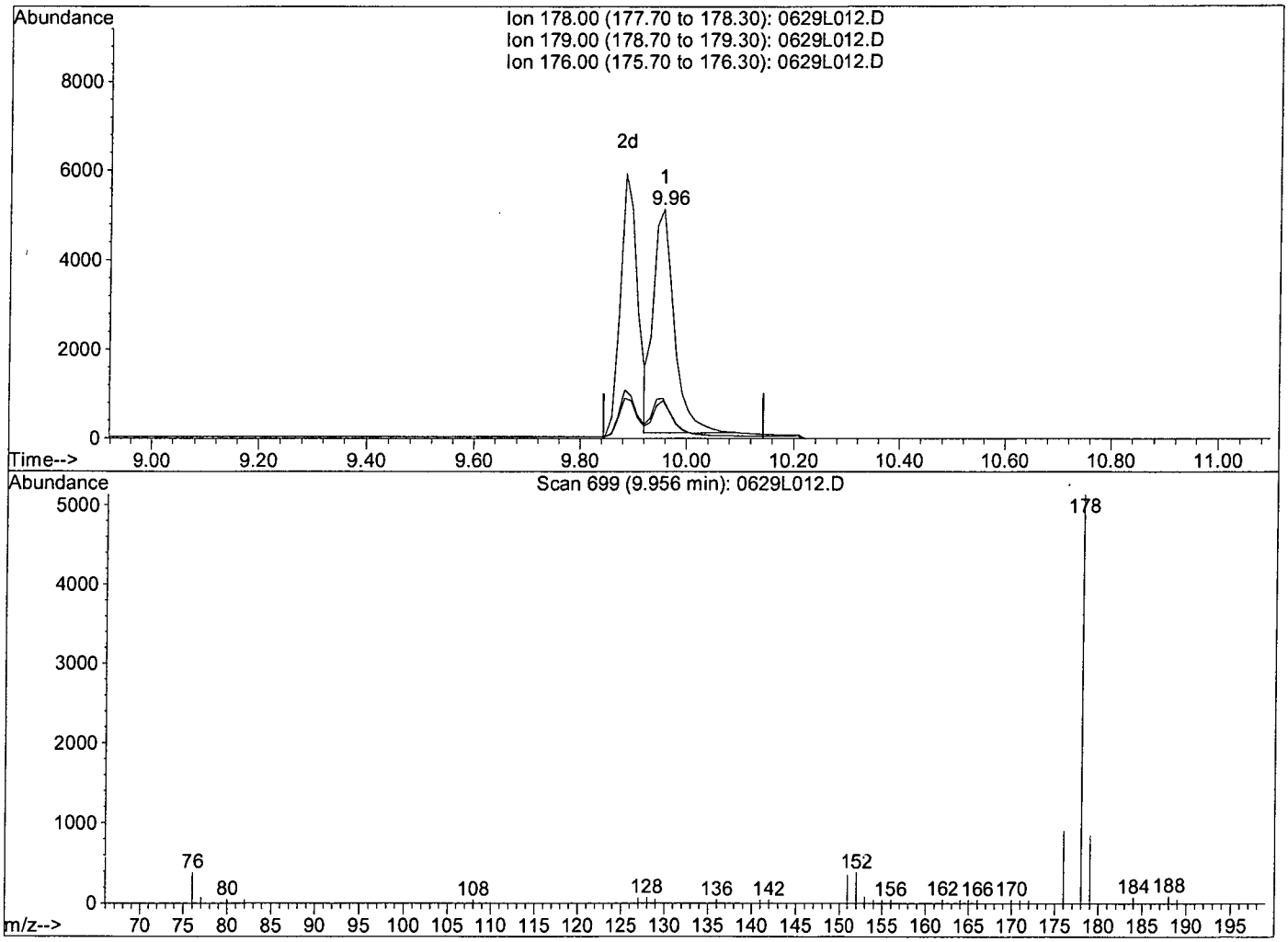
response 13743

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

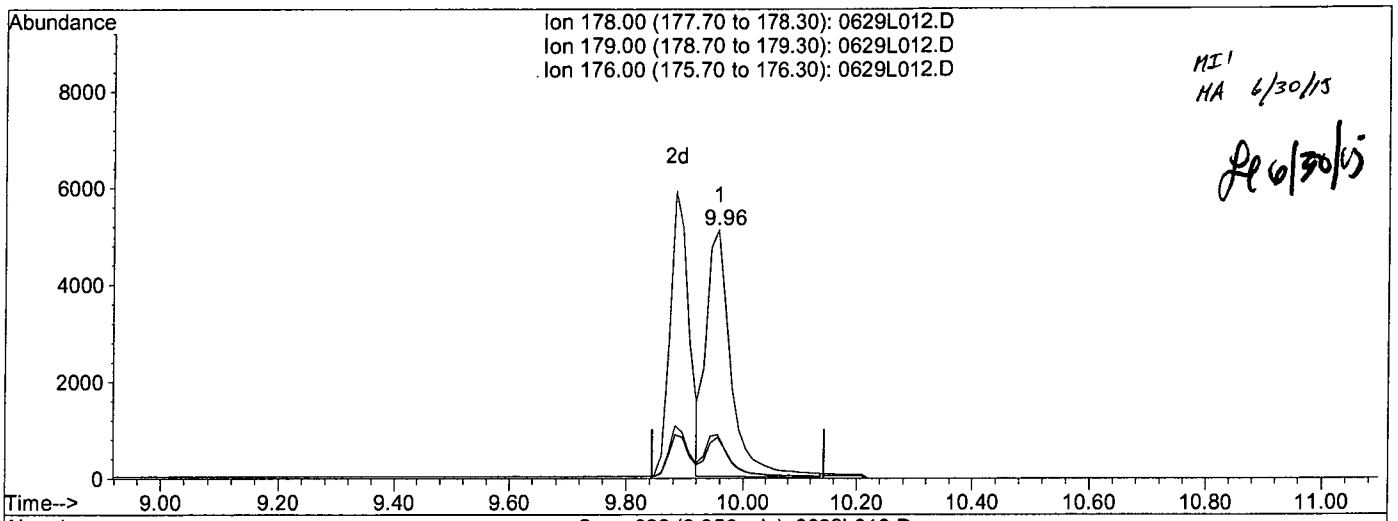
response 13840

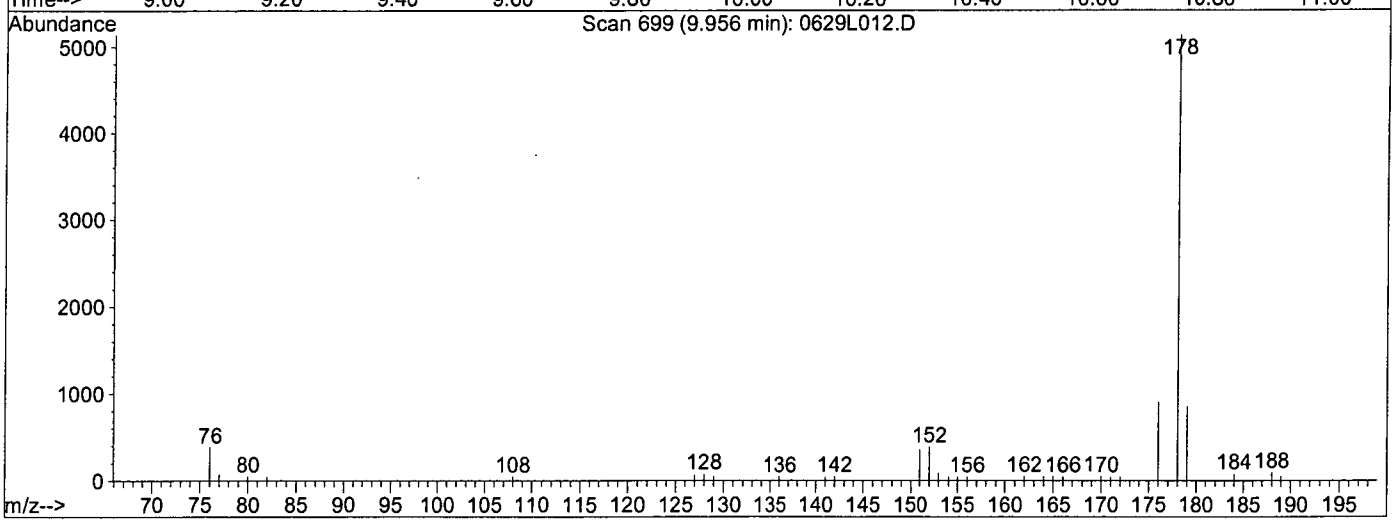
Ion	Exp%	Act%
178.00	100	100
179.00	15.60	15.92
176.00	17.40	16.98
0.00	0.00	0.00

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

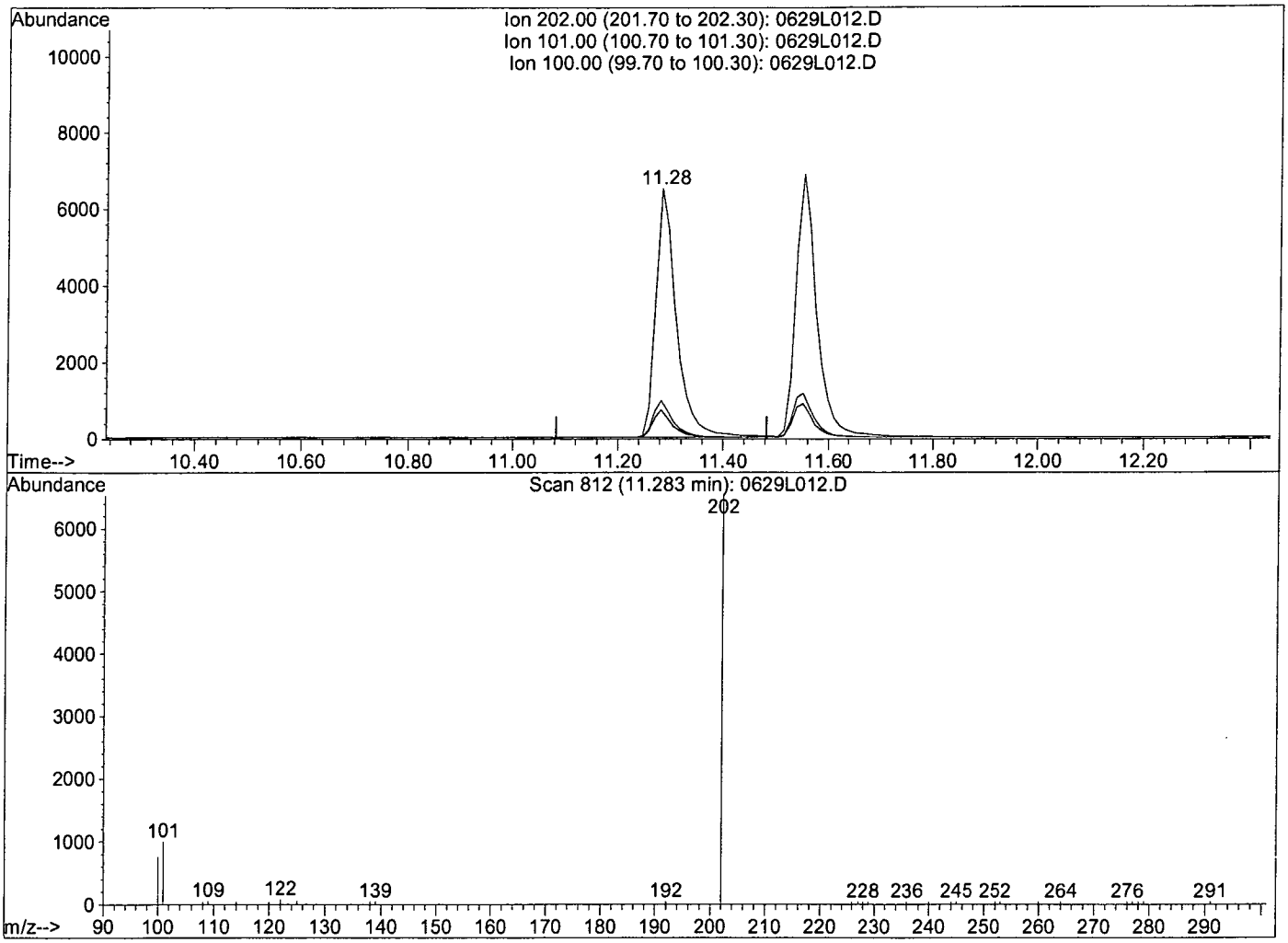
response 14986

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

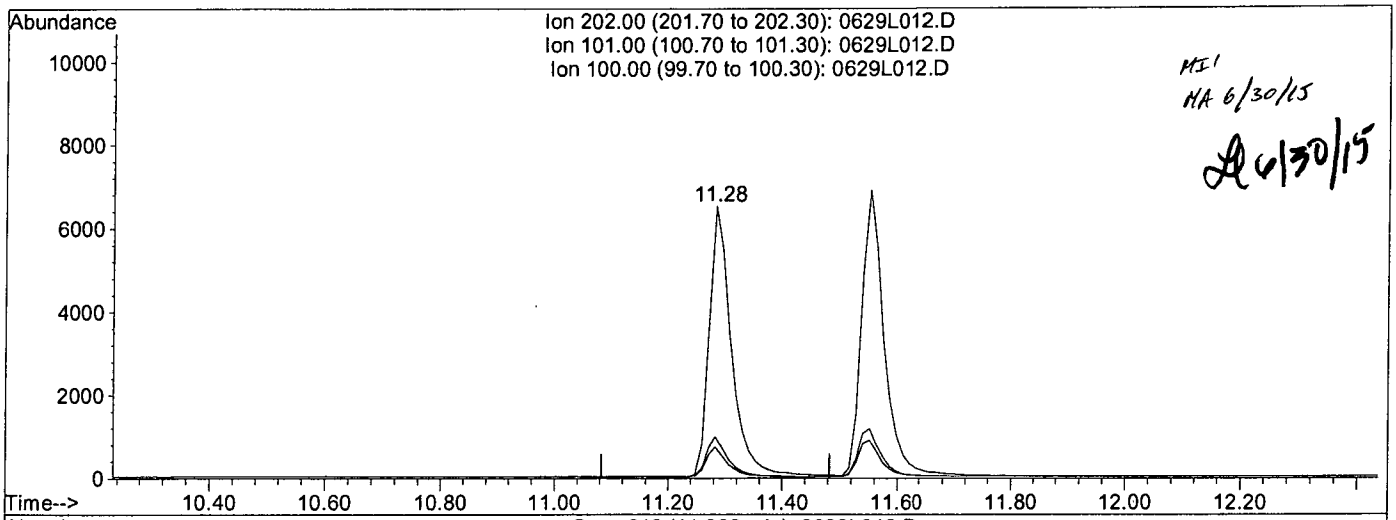
response 17366

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

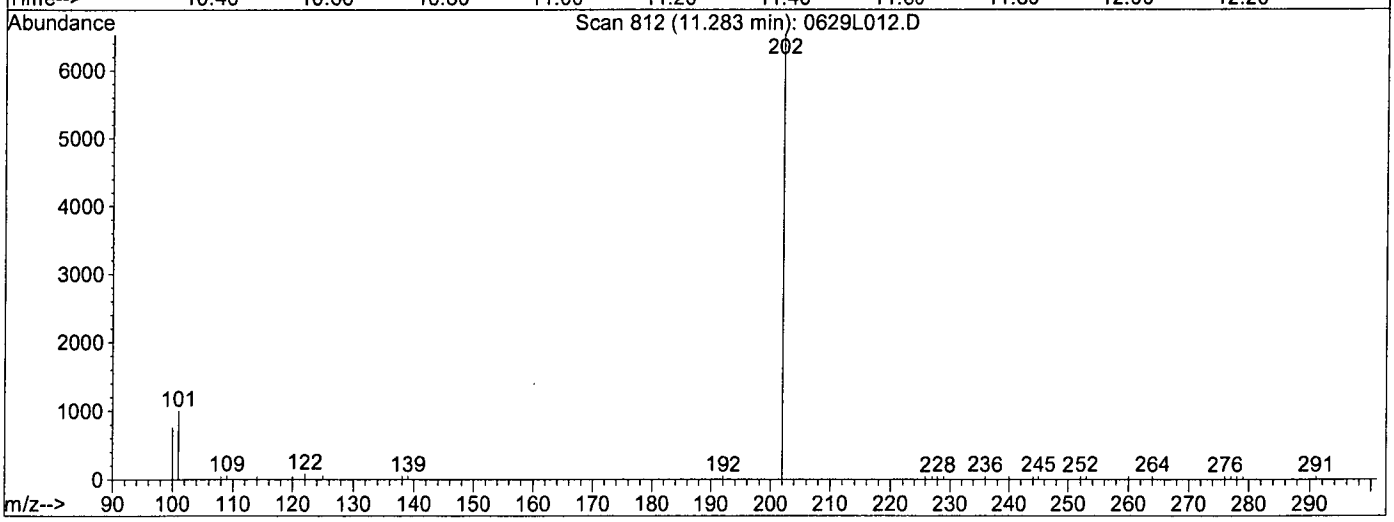
Quantitation Report

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' MA 6/30/15 6/30/15



TIC: 0629L012.D

(14) Fluoranthene (*TM)

11.28min 4.0623ppb m

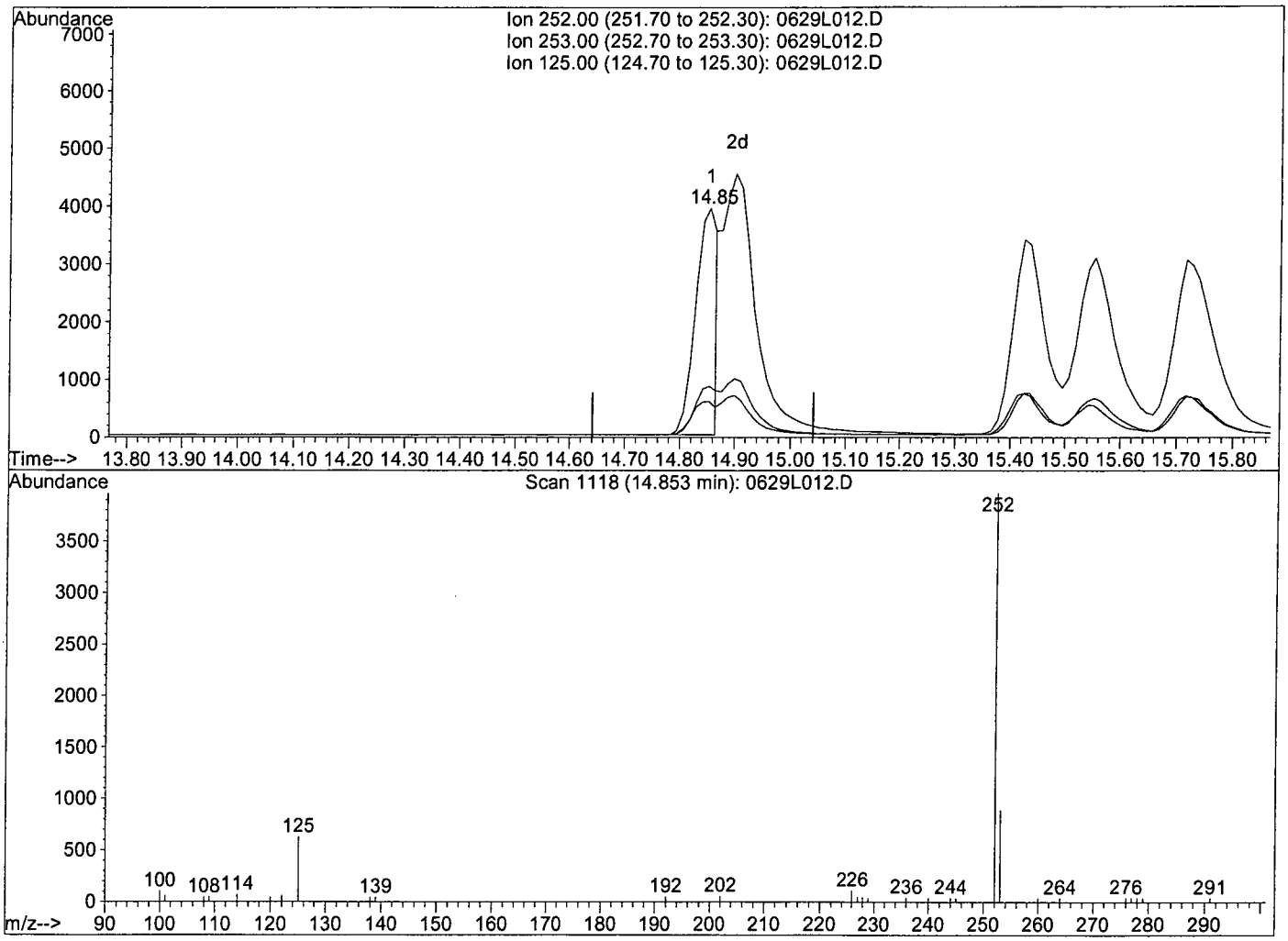
response 17828

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

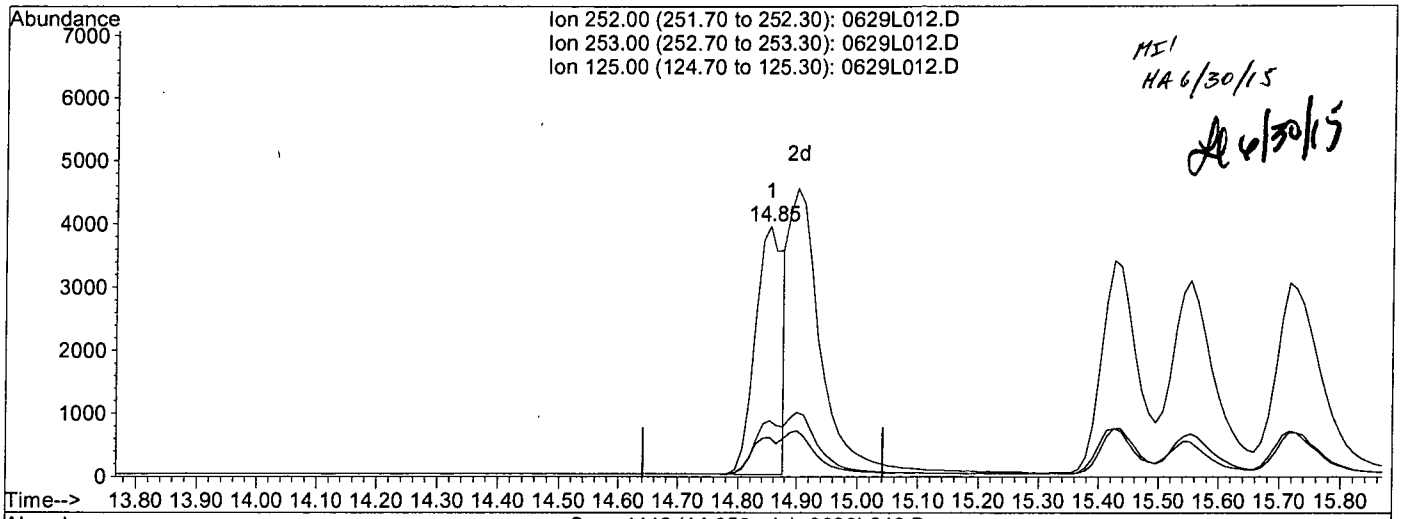
response 10844

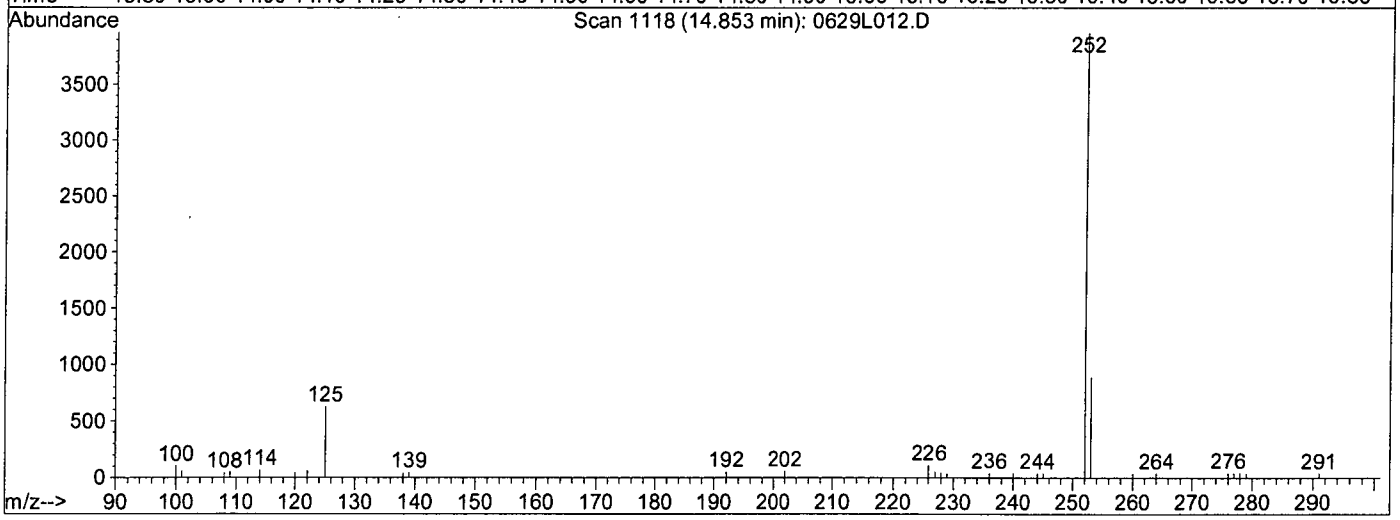
Ion	Exp%	Act%
252.00	100	100
253.00	22.40	21.58
125.00	16.10	14.80
0.00	0.00	0.00

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: 76674
Date Analyzed: 1 Jul 15 10:48
Instrument: Linus
Initial Cal. Date: 06/29/15
Data File: 0629L103.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	S	Surrogate Recovery (NBZ)	0.2483	0.2318	6.7	S	
3	TM	Naphthalene	1.363	1.348	1.1	TM	
4	TM	2-Methylnaphthalene	0.8267	0.8624	4.3	TM	
5	TM	1-Methylnaphthalene	0.9281	0.9847	6.1	TM	
6	I	Acenaphthene-D10(IS)	ISTD			I	
7	S	Surrogate Recovery (FBP)	1.516	1.447	4.5	S	
8	TM	Acenaphthylene	2.808	2.745	2.3	TM	
9	*TM	Acenaphthene	1.716	1.646	4.1	*TM	
10	TM	Fluorene	1.813	1.753	3.4	TM	
11	I	Phenanthrene-D10(IS)	ISTD			I	
12	TM	Phenanthrene	1.508	1.429	5.3	TM	
13	TM	Anthracene	1.559	1.402	10	TM	
14	*TM	Fluoranthene	1.945	1.772	8.9	*TM	
15	I	Chrysene-D12(IS)	ISTD			I	
16	TM	Pyrene	1.832	1.712	6.5	TM	
17	S	Surrogate Recovery (TPH)	0.9151	0.8916	2.6	S	
18	TML	Benz (a) anthracene	1.436	1.554	8.2	TML	3.3
19	TML	Chrysene	1.709	1.417	17	TML	3.5
20	TM	Indeno (1,2,3-cd) pyrene	1.562	1.696	8.6	TM	
21	I	Perylene-D12(IS)	ISTD			I	
22	TML	Benzo (b) fluoranthene	2.024	2.200	8.7	TML	2.7
23	TML	Benzo (k) fluoranthene	1.429	1.592	11	TML	9.0
24	*TM	Benzo (a) pyrene	2.109	1.997	5.3	*TM	
25	TM	Dibenz (a,h) anthracene	2.326	2.196	5.6	TM	
26	TM	Benzo (g,h,i) perylene	2.395	2.172	9.3	TM	
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			6.6		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L103.D Vial: 3
Acq On : 1 Jul 15 10:48 Operator: MA
Sample : CCV 5.0ug/ml PAH 06/30/15 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jul 1 11:08 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	5631	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.10	164	2954	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.86	188	5044	2.50000 ppb	0.00
15) Chrysene-D12(IS)	13.04	240	5445	2.50000 ppb	0.01
21) Perylene-D12(IS)	15.67	264	3499	2.50000 ppb	0.01
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.19	82	2610	4.66604 ppb	0.01
Spiked Amount 2.500			Recovery	= 186.640%	
7) Surrogate Recovery (FBP)	7.31	172	8547	4.77251 ppb	0.00
Spiked Amount 2.500			Recovery	= 190.920%	
17) Surrogate Recovery (TPH)	11.73	244	9709	4.87133 ppb	0.00
Spiked Amount 2.500			Recovery	= 194.840%	
Target Compounds					Qvalue
3) Naphthalene	6.07	128	15181	4.94469 ppb	100
4) 2-Methylnaphthalene	6.89	142	9712	5.21601 ppb	98
5) 1-Methylnaphthalene	7.00	142	11090	5.30493 ppb	99
8) Acenaphthylene	7.94	152	16215	4.88687 ppb	100
9) Acenaphthene	8.13	154	9723	4.79493 ppb	98
10) Fluorene	8.75	166	10354	4.83193 ppb	99
12) Phenanthrene	9.88	178	14412	4.73646 ppb	100
13) Anthracene	9.94	178	14139	4.49442 ppb	99
14) Fluoranthene	11.28	202	17874	4.55563 ppb	96
16) Pyrene	11.55	202	18647	4.67376 ppb	100
18) Benz (a) anthracene	13.02	228	16920	5.16292 ppb	100
19) Chrysene	13.08	228	15436	4.82679 ppb	99
20) Indeno (1,2,3-cd) pyrene	17.89	276	18468	5.43024 ppb	98
22) Benzo (b) fluoranthene	14.85	252	15394	4.86474 ppb	98
23) Benzo (k) fluoranthene	14.90	252	11143	4.54794 ppb	98
24) Benzo (a) pyrene	15.42	252	13978	4.73479 ppb	97
25) Dibenz (a,h) anthracene	17.92	278	15370	4.72088 ppb	98
26) Benzo (g,h,i) perylene	18.42	276	15200	4.53438 ppb	97

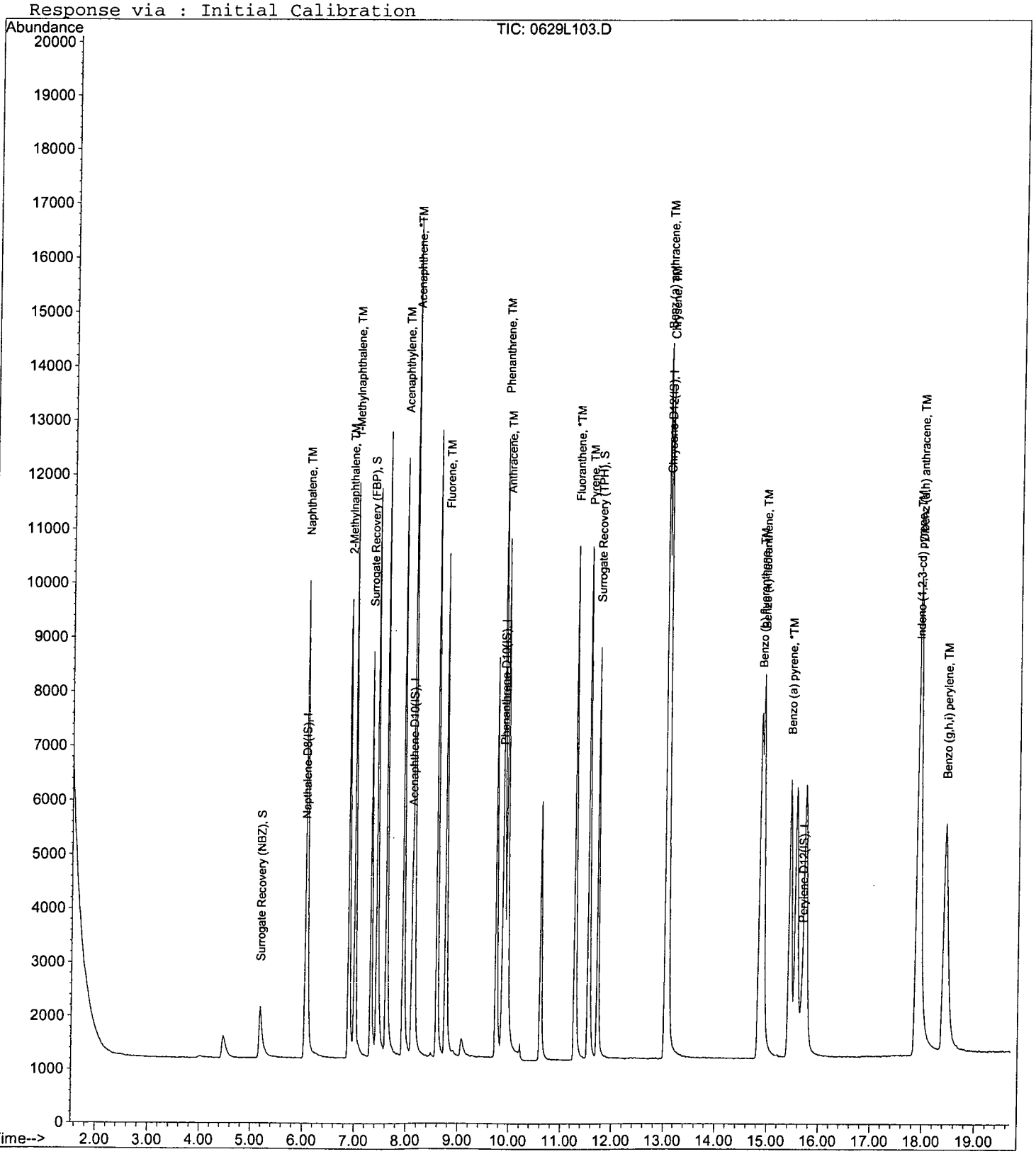
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L103.D Vial: 3
Acq On : 1 Jul 15 10:48 Operator: MA
Sample : CCV 5.0ug/ml PAH 06/30/15 Inst : Linus
Misc : Multip1r: 1.00

Quant Time: Jul 1 11:08 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: 76674
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

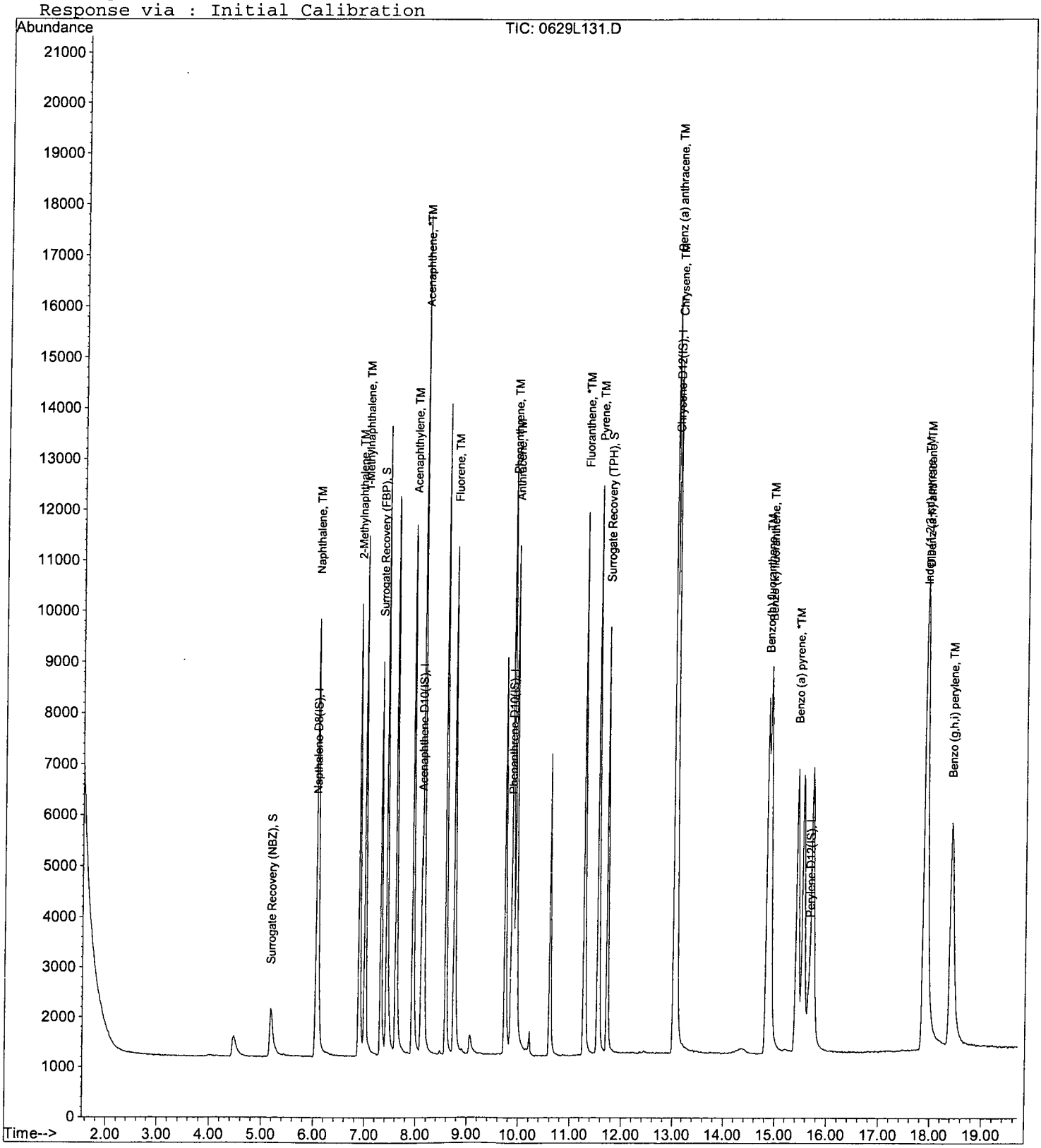
(#) = qualifier out of range (m) = manual integration

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

Continuing Calibration

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

SDG No: 76674
Date Analyzed: 6 Jul 15 10:24
Instrument: Linus
Initial Cal. Date: 06/29/15
Data File: 0629L165.D

		Compound	MEAN	CCRF	%D		%Drift
1	I	Napthalene-D8(IS)	ISTD			I	
2	S	Surrogate Recovery (NBZ)	0.2483	0.2454	1.2	S	
3	TM	Naphthalene	1.363	1.266	7.1	TM	
4	TM	2-Methylnaphthalene	0.8267	0.8252	0.18	TM	
5	TM	1-Methylnaphthalene	0.9281	0.9182	1.1	TM	
6	I	Acenaphthene-D10(IS)	ISTD			I	
7	S	Surrogate Recovery (FBP)	1.516	1.464	3.4	S	
8	TM	Acenaphthylene	2.808	2.571	8.4	TM	
9	*TM	Acenaphthene	1.716	1.549	9.8	*TM	
10	TM	Fluorene	1.813	1.655	8.7	TM	
11	I	Phenanthrene-D10(IS)	ISTD			I	
12	TM	Phenanthrene	1.508	1.299	14	TM	
13	TM	Anthracene	1.559	1.381	11	TM	
14	*TM	Fluoranthene	1.945	1.702	12	*TM	
15	I	Chrysene-D12(IS)	ISTD			I	
16	TM	Pyrene	1.832	1.590	13	TM	
17	S	Surrogate Recovery (TPH)	0.9151	0.8646	5.5	S	
18	TML	Benz (a) anthracene	1.436	1.392	3.1	TML	7.2
19	TML	Chrysene	1.709	1.359	20	TML	8.3
20	TM	Indeno (1,2,3-cd) pyrene	1.562	1.577	1.00	TM	
21	I	Perylene-D12(IS)	ISTD			I	
22	TML	Benzo (b) fluoranthene	2.024	2.102	3.9	TML	7.2
23	TML	Benzo (k) fluoranthene	1.429	1.578	10	TML	10.0
24	*TM	Benzo (a) pyrene	2.109	1.882	11	*TM	
25	TM	Dibenz (a,h) anthracene	2.326	2.101	9.7	TM	
26	TM	Benzo (g,h,i) perylene	2.395	2.110	12	TM	
27							
28							
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							
40							
		Average			7.9		

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L165.D Vial: 65
Acq On : 6 Jul 15 10:24 Operator: MA
Sample : CCV 5.0ug/ml PAH 07/06/15 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jul 6 11:03 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)	6.05	136	5076	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.10	164	2679	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.85	188	4584	2.50000 ppb	-0.01
15) Chrysene-D12(IS)	13.03	240	5150	2.50000 ppb	0.00
21) Perylene-D12(IS)	15.66	264	3238	2.50000 ppb	0.00
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.18	82	2491	4.94022 ppb	0.00
Spiked Amount 2.500			Recovery	= 197.600%	
7) Surrogate Recovery (FBP)	7.31	172	7845	4.83019 ppb	0.00
Spiked Amount 2.500			Recovery	= 193.200%	
17) Surrogate Recovery (TPH)	11.71	244	8905	4.72387 ppb	-0.01
Spiked Amount 2.500			Recovery	= 188.960%	
Target Compounds					Qvalue
3) Naphthalene	6.07	128	12854	4.64452 ppb	100
4) 2-Methylnaphthalene	6.88	142	8377	4.99094 ppb	99
5) 1-Methylnaphthalene	7.00	142	9322	4.94676 ppb	100
8) Acenaphthylene	7.94	152	13776	4.57799 ppb	99
9) Acenaphthene	8.13	154	8297	4.51171 ppb	99
10) Fluorene	8.75	166	8868	4.56327 ppb	98
12) Phenanthrene	9.88	178	11911	4.30734 ppb	99
13) Anthracene	9.94	178	12659	4.42777 ppb	99
14) Fluoranthene	11.27	202	15607	4.37700 ppb	97
16) Pyrene	11.54	202	16372	4.33860 ppb	97
18) Benz (a) anthracene	13.02	228	14336	4.64169 ppb	100
19) Chrysene	13.07	228	13996	4.58543 ppb	99
20) Indeno (1,2,3-cd) pyrene	17.87	276	16244	5.04990 ppb #	99
22) Benzo (b) fluoranthene	14.84	252	13615	4.64155 ppb	97
23) Benzo (k) fluoranthene	14.89	252	10220	4.50139 ppb	97
24) Benzo (a) pyrene	15.41	252	12186	4.46051 ppb	98
25) Dibenz (a,h) anthracene	17.91	278	13607	4.51625 ppb	93
26) Benzo (g,h,i) perylene	18.41	276	13666	4.40537 ppb	92

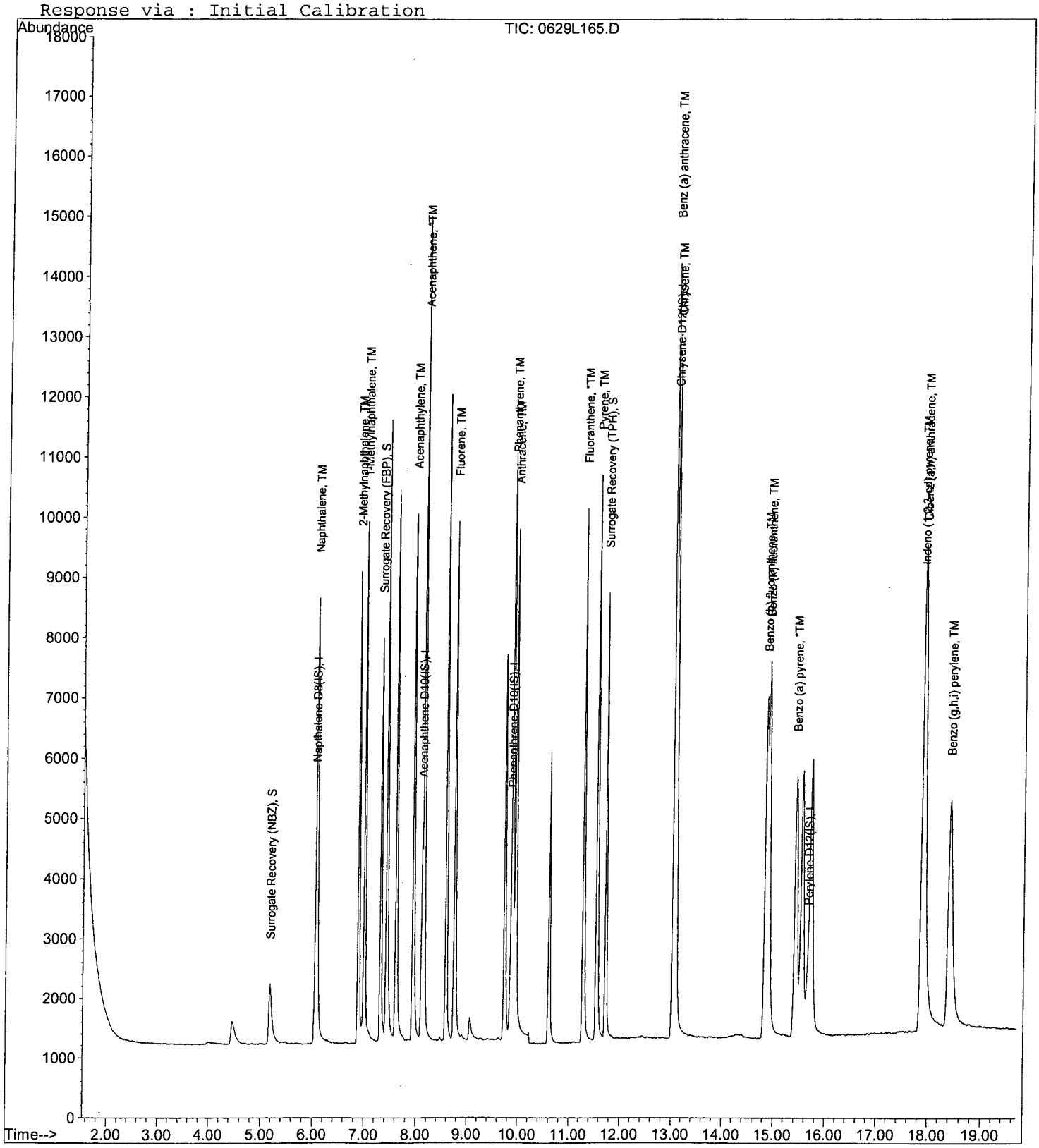
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L165.D Vial: 65
Acq On : 6 Jul 15 10:24 Operator: MA
Sample : CCV 5.0ug/ml PAH 07/06/15 Inst : Linus
Misc : Multiplr: 1.00

Quant Time: Jul 6 11:03 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



EPA METHOD 8270D
Polynuclear Aromatic Hydrocarbons
Raw Data

APPL, INC.

Method Blank

EPA 8270D LL WATER DODv3

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150619W-17817 - 198588**
Batch ID: #SIMDD-150619A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2-METHYLNAPHTHALENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
BLANK	ACENAPHTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
BLANK	ACENAPHTHYLENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
BLANK	ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
BLANK	BENZ (A) ANTHRACENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
BLANK	BENZO (A) PYRENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
BLANK	BENZO (B) FLUORANTHENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
BLANK	BENZO (G,H,I) PERYLENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
BLANK	BENZO (K) FLUORANTHENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
BLANK	CHRYSENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
BLANK	DIBENZ (A,H) ANTHRACENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
BLANK	FLUORANTHENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
BLANK	FLUORENE	0.10 U	0.2	0.10	0.06	ug/L	06/19/15	07/02/15
BLANK	INDENO (1,2,3-CD) PYRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
BLANK	NAPHTHALENE	0.10 U	0.2	0.10	0.05	ug/L	06/19/15	07/02/15
BLANK	PHENANTHRENE	0.10 U	0.2	0.10	0.07	ug/L	06/19/15	07/02/15
BLANK	PYRENE	0.10 U	0.2	0.10	0.08	ug/L	06/19/15	07/02/15
BLANK	SURROGATE: 2-FLUORBIPHENY	54.3	50-110			%	06/19/15	07/02/15
BLANK	SURROGATE: NITROBENZENE-	73.1	40-110			%	06/19/15	07/02/15
BLANK	SURROGATE: TERPHENYL-D14 (	75.3	50-135			%	06/19/15	07/02/15

Quant Method: P0629.M
Run #: 0629L137
Instrument: Linus
Sequence: L150629
Initials: MA

GC SC-Blank-REG MDLs
Printed: 07/06/15 11:17:38 AM

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L137.D Vial: 37
Acq On : 2 Jul 15 12:43 Operator: MA
Sample : 150619A BLK 1/1000 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Jul 6 10:25 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	6216	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.10	164	3057	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.86	188	5222	2.50000 ppb	0.00
15) Chrysene-D12(IS)	13.04	240	6552	2.50000 ppb	0.01
21) Perylene-D12(IS)	15.68	264	4200	2.50000 ppb	0.02
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.19	82	1128	1.82680 ppb	0.01
Spiked Amount 2.500			Recovery =	73.080%	
7) Surrogate Recovery (FBP)	7.31	172	2517	1.35810 ppb	0.00
Spiked Amount 2.500			Recovery =	54.320%	
17) Surrogate Recovery (TPH)	11.73	244	4514	1.88217 ppb	0.00
Spiked Amount 2.500			Recovery =	75.280%	

Target Compounds Qvalue

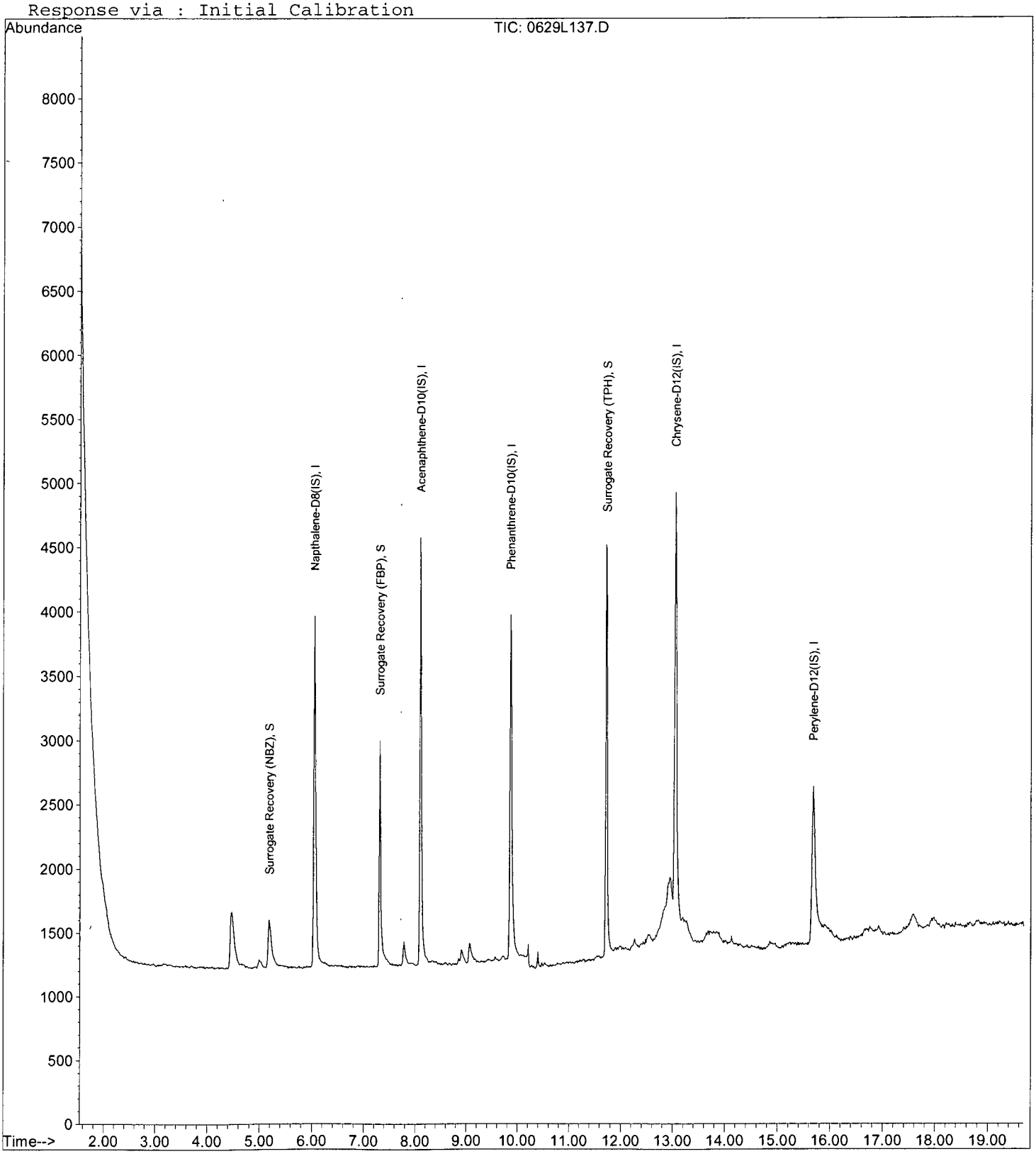
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L137.D Vial: 37
Acq On : 2 Jul 15 12:43 Operator: MA
Sample : 150619A BLK 1/1000 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Jul 6 10:25 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



Method Blank
EPA 8270D LL SOILS

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150622S-17824 - 198629**
Batch ID: #SIMDD-150622B

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	07/01/15
BLANK	ACENAPHTHENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	06/22/15	07/01/15
BLANK	ACENAPHTHYLENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	07/01/15
BLANK	ANTHRACENE	0.0017 U	0.005	0.0017	0.0008	mg/kg	06/22/15	07/01/15
BLANK	BENZ (A) ANTHRACENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	07/01/15
BLANK	BENZO (A) PYRENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	07/01/15
BLANK	BENZO (B) FLUORANTHENE	0.0017 U	0.005	0.0017	0.0011	mg/kg	06/22/15	07/01/15
BLANK	BENZO (G,H,I) PERYLENE	0.0017 U	0.005	0.0017	0.0013	mg/kg	06/22/15	07/01/15
BLANK	BENZO (K) FLUORANTHENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	06/22/15	07/01/15
BLANK	CHRYSENE	0.0017 U	0.005	0.0017	0.0008	mg/kg	06/22/15	07/01/15
BLANK	DIBENZ (A,H) ANTHRACENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	07/01/15
BLANK	FLUORANTHENE	0.0017 U	0.005	0.0017	0.0012	mg/kg	06/22/15	07/01/15
BLANK	FLUORENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	06/22/15	07/01/15
BLANK	INDENO (1,2,3-CD) PYRENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	07/01/15
BLANK	NAPHTHALENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	06/22/15	07/01/15
BLANK	PHENANTHRENE	0.0017 U	0.005	0.0017	0.0011	mg/kg	06/22/15	07/01/15
BLANK	PYRENE	0.0017 U	0.005	0.0017	0.0012	mg/kg	06/22/15	07/01/15
BLANK	SURROGATE: 2-FLUORBIPHENY	68.0	45-105			%	06/22/15	07/01/15
BLANK	SURROGATE: NITROBENZENE-	51.8	35-100			%	06/22/15	07/01/15
BLANK	SURROGATE: TERPHENYL-D14 (	85.5	30-125			%	06/22/15	07/01/15

Quant Method:P0629.M
Run #:0629L116
Instrument:Linus
Sequence:L150629
Initials:MA

GC SC-Blank-REG MDLs
Printed: 07/07/15 1:56:54 PM

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L116.D Vial: 16
Acq On : 1 Jul 15 16:40 Operator: MA
Sample : 150622B BLK 1/30.00G Inst : Linus
Misc : soil Multiplr: 33.33

Quant Time: Jul 7 12:43 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	6347	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.11	164	2866	2.50000 ppb	0.01
11) Phenanthrene-D10(IS)	9.87	188	4651	2.50000 ppb	0.01
15) Chrysene-D12(IS)	13.06	240	5305	2.50000 ppb	0.02
21) Perylene-D12(IS)	15.69	264	3208	2.50000 ppb	0.03
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.19	82	817	43.19426 ppb	0.01
Spiked Amount 83.333			Recovery = 51.833%		
7) Surrogate Recovery (FBP)	7.31	172	2955	56.68964 ppb	0.00
Spiked Amount 83.333			Recovery = 68.028%		
17) Surrogate Recovery (TPH)	11.73	244	4151	71.25533 ppb	0.00
Spiked Amount 83.333			Recovery = 85.506%		
Target Compounds					Qvalue

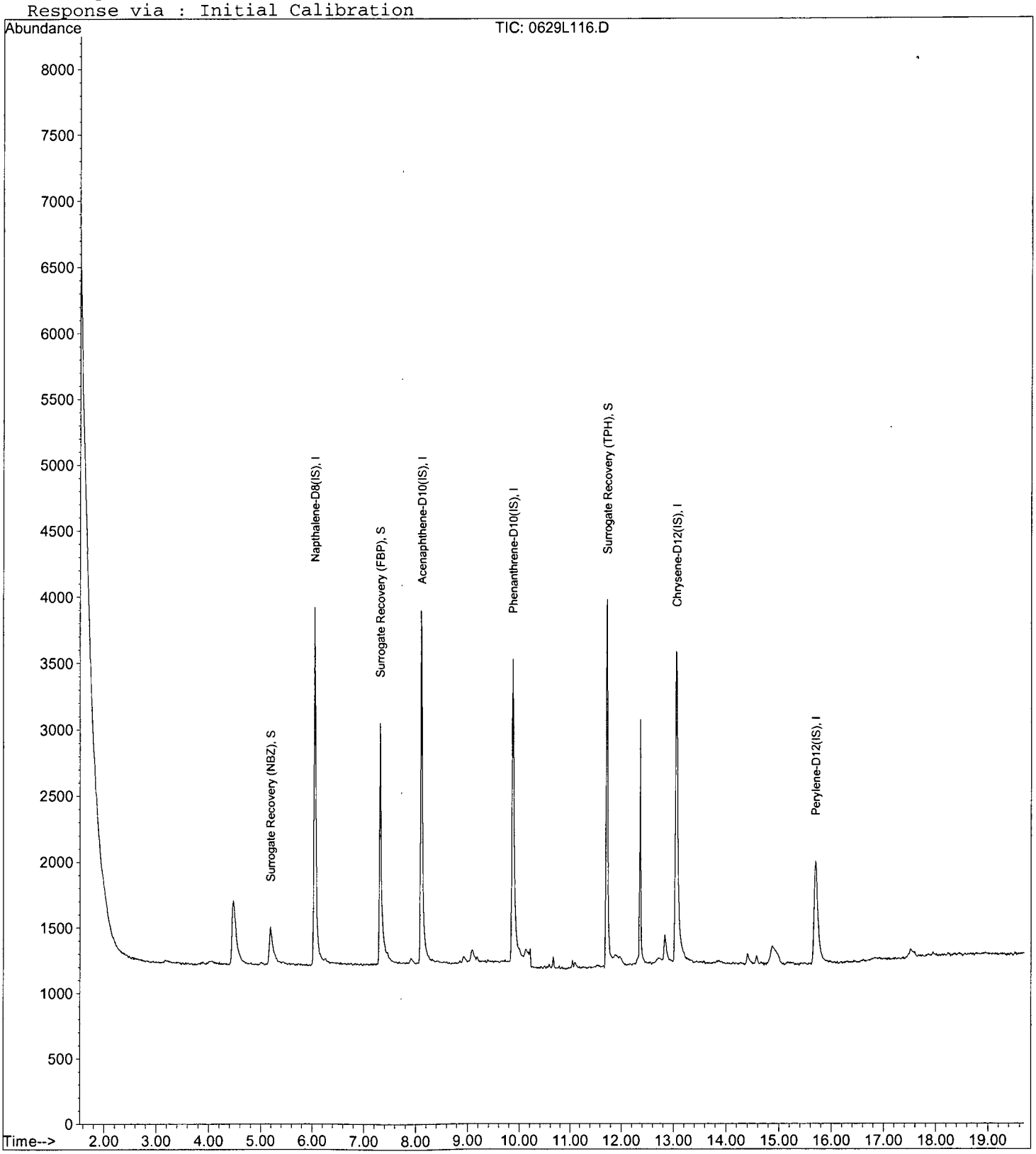
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L116.D Vial: 16
Acq On : 1 Jul 15 16:40 Operator: MA
Sample : 150622B BLK 1/30.00G Inst : Linus
Misc : soil Multiplr: 33.33

Quant Time: Jul 7 12:43 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: **150702S-17824 - 198630**
Batch ID: #SIMDD-150702A

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	07/02/15	07/06/15
BLANK	ACENAPHTHENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	07/02/15	07/06/15
BLANK	ACENAPHTHYLENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/02/15	07/06/15
BLANK	ANTHRACENE	0.0017 U	0.005	0.0017	0.0008	mg/kg	07/02/15	07/06/15
BLANK	BENZ (A) ANTHRACENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/02/15	07/06/15
BLANK	BENZO (A) PYRENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/02/15	07/06/15
BLANK	BENZO (B) FLUORANTHENE	0.0017 U	0.005	0.0017	0.0011	mg/kg	07/02/15	07/06/15
BLANK	BENZO (G,H,I) PERYLENE	0.0017 U	0.005	0.0017	0.0013	mg/kg	07/02/15	07/06/15
BLANK	BENZO (K) FLUORANTHENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	07/02/15	07/06/15
BLANK	CHRYSENE	0.0017 U	0.005	0.0017	0.0008	mg/kg	07/02/15	07/06/15
BLANK	DIBENZ (A,H) ANTHRACENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/02/15	07/06/15
BLANK	FLUORANTHENE	0.0017 U	0.005	0.0017	0.0012	mg/kg	07/02/15	07/06/15
BLANK	FLUORENE	0.0017 U	0.005	0.0017	0.0010	mg/kg	07/02/15	07/06/15
BLANK	INDENO (1,2,3-CD) PYRENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/02/15	07/06/15
BLANK	NAPHTHALENE	0.0017 U	0.005	0.0017	0.0009	mg/kg	07/02/15	07/06/15
BLANK	PHENANTHRENE	0.0017 U	0.005	0.0017	0.0011	mg/kg	07/02/15	07/06/15
BLANK	PYRENE	0.0017 U	0.005	0.0017	0.0012	mg/kg	07/02/15	07/06/15
BLANK	SURROGATE: 2-FLUORBIPHENY	66.5	45-105			%	07/02/15	07/06/15
BLANK	SURROGATE: NITROBENZENE-	73.3	35-100			%	07/02/15	07/06/15
BLANK	SURROGATE: TERPHENYL-D14 (	78.1	30-125			%	07/02/15	07/06/15

Quant Method:P0629.M
Run #:0629L166
Instrument:Linus
Sequence:L150629
Initials:MA

GC SC-Blank-REG MDLs
Printed: 07/07/15 1:56:54 PM

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L166.D Vial: 66
Acq On : 6 Jul 15 11:10 Operator: MA
Sample : 150702A BLK 1/30.47G Inst : Linus
Misc : soil Multiplr: 32.82

Quant Time: Jul 7 12:57 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	6108	2.50000 ppb	0.00
6) Acenaphthene-D10(IS)	8.10	164	2953	2.50000 ppb	0.00
11) Phenanthrene-D10(IS)	9.86	188	5039	2.50000 ppb	0.00
15) Chrysene-D12(IS)	13.04	240	5542	2.50000 ppb	0.01
21) Perylene-D12(IS)	15.69	264	3380	2.50000 ppb	0.04
System Monitoring Compounds					
2) Surrogate Recovery (NBZ)	5.19	82	1112	60.14883 ppb	0.01
Spiked Amount 82.048			Recovery = 73.310%		
7) Surrogate Recovery (FBP)	7.31	172	2978	54.59244 ppb	0.00
Spiked Amount 82.048			Recovery = 66.537%		
17) Surrogate Recovery (TPH)	11.71	244	3961	64.08217 ppb	-0.01
Spiked Amount 82.048			Recovery = 78.103%		
Target Compounds					Qvalue

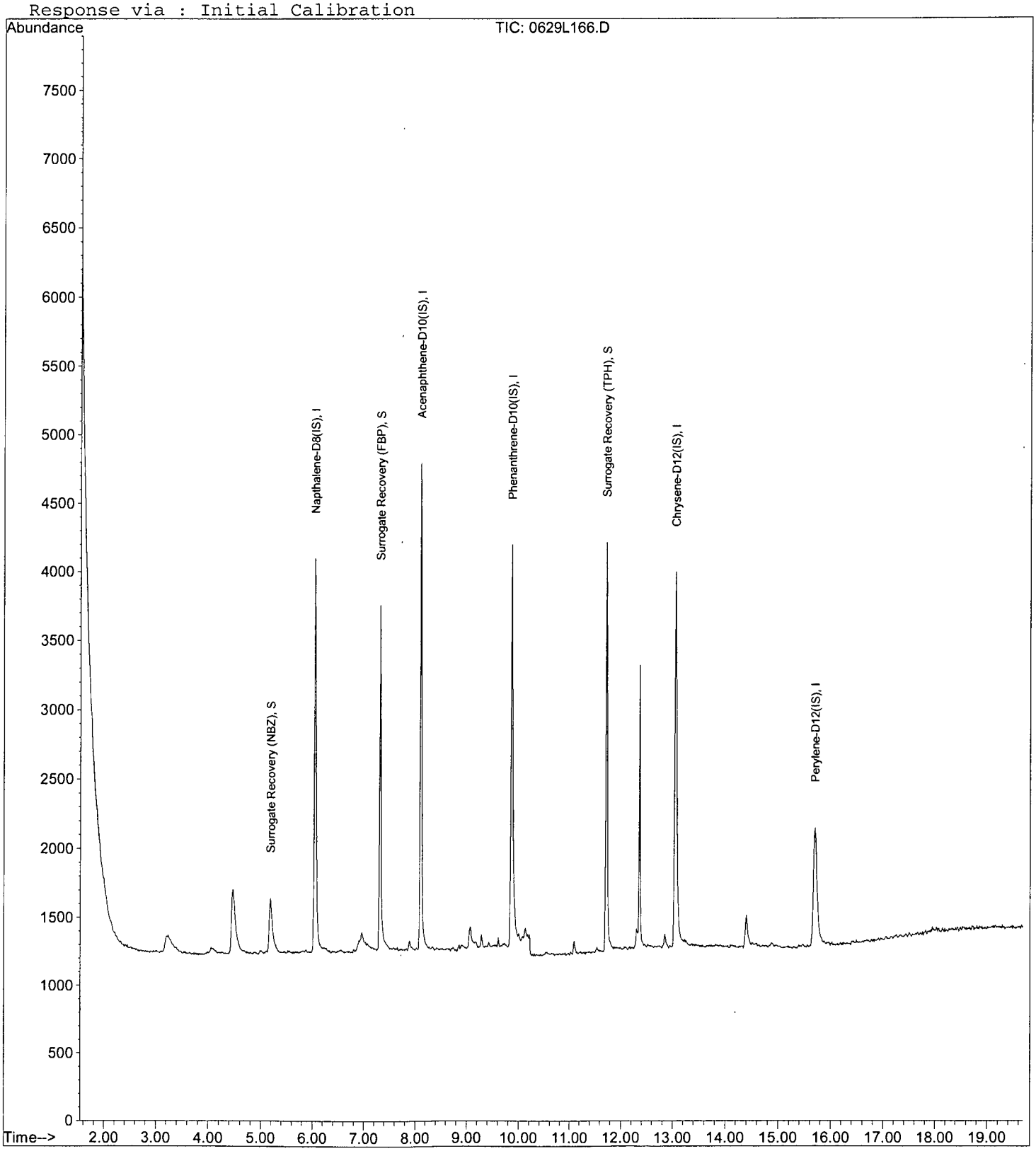
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L166.D Vial: 66
Acq On : 6 Jul 15 11:10 Operator: MA
Sample : 150702A BLK 1/30.47G Inst : Linus
Misc : soil Multiplr: 32.82

Quant Time: Jul 7 12:57 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 WATER DODv3

APPL ID: **150619W-17817 LCS - 198588**
Batch ID: #SIMDD-150619A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
2-METHYLNAPHTHALENE	5.00	1.90	38.0 #	45-105
ACENAPHTHENE	5.00	2.27	45.4	45-110
ACENAPHTHYLENE	5.00	2.50	50.0	50-105
ANTHRACENE	5.00	2.86	57.2	55-110
BENZ (A) ANTHRACENE	5.00	3.26	65.2	55-110
BENZO (A) PYRENE	5.00	3.43	68.6	55-110
BENZO (B) FLUORANTHENE	5.00	3.07	61.4	45-120
BENZO (G,H,I) PERYLENE	5.00	2.90	58.0	40-125
BENZO (K) FLUORANTHENE	5.00	2.87	57.4	45-125
CHRYSENE	5.00	3.02	60.4	55-110
DIBENZ (A,H) ANTHRACENE	5.00	3.09	61.8	40-125
FLUORANTHENE	5.00	3.02	60.4	55-115
FLUORENE	5.00	2.61	52.2	50-110
INDENO (1,2,3-CD) PYRENE	5.00	3.36	67.2	45-125
NAPHTHALENE	5.00	2.09	41.8	40-100
PHENANTHRENE	5.00	2.97	59.4	50-115
PYRENE	5.00	3.04	60.8	50-130
SURROGATE: 2-FLUORBIPHENYL (S)	2.50	1.37	54.8	50-110
SURROGATE: NITROBENZENE-D5 (S)	2.50	1.61	64.4	40-110
SURROGATE: TERPHENYL-D14 (S)	2.50	1.84	73.6	50-135

= Recovery is outside QC limits.

Comments: _____

Primary	SPK
Quant Method :	P0629.M
Extraction Date :	06/19/15
Analysis Date :	07/02/15
Instrument :	Linus
Run :	0629L138
Initials :	MA

Printed: 07/06/15 11:42:16 AM
APPL Standard LCS

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L138.D Vial: 38
Acq On : 2 Jul 15 13:10 Operator: MA
Sample : 150619A LCS-1 1/1000 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Jul 6 11:36 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	6493	2.50000 ppb		0.00
6) Acenaphthene-D10(IS)	8.10	164	3500	2.50000 ppb		0.00
11) Phenanthrene-D10(IS)	9.86	188	5984	2.50000 ppb		0.00
15) Chrysene-D12(IS)	13.03	240	6639	2.50000 ppb		0.00
21) Perylene-D12(IS)	15.66	264	4237	2.50000 ppb		0.00
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.19	82	1037	1.60778 ppb		0.01
Spiked Amount 2.500			Recovery	= 64.320%		
7) Surrogate Recovery (FBP)	7.31	172	2899	1.36623 ppb		0.00
Spiked Amount 2.500			Recovery	= 54.640%		
17) Surrogate Recovery (TPH)	11.71	244	4478	1.84269 ppb		-0.01
Spiked Amount 2.500			Recovery	= 73.720%		
Target Compounds						Qvalue
3) Naphthalene	6.07	128	7400	2.09031 ppb		98
4) 2-Methylnaphthalene	6.89	142	4070	1.89568 ppb		98
5) 1-Methylnaphthalene	7.00	142	4900	2.03275 ppb		97
8) Acenaphthylene	7.94	152	9833m	2.50117 ppb		99
9) Acenaphthene	8.13	154	5449	2.26799 ppb		97
10) Fluorene	8.75	166	6623	2.60861 ppb		100
12) Phenanthrene	9.88	178	10708	2.96635 ppb		99
13) Anthracene	9.94	178	10678m	2.86107 ppb		99
14) Fluoranthene	11.27	202	14070	3.02276 ppb		100
16) Pyrene	11.54	202	14772	3.03663 ppb		98
18) Benz (a) anthracene	13.02	228	12791	3.26185 ppb		99
19) Chrysene	13.07	228	13011	3.02498 ppb		99
20) Indeno (1,2,3-cd) pyrene	17.88	276	13915	3.35566 ppb	#	98
22) Benzo (b) fluoranthene	14.84	252	12008	3.07098 ppb		97
23) Benzo (k) fluoranthene	14.89	252	9159	2.86835 ppb		97
24) Benzo (a) pyrene	15.42	252	12262	3.43007 ppb		95
25) Dibenz (a,h) anthracene	17.91	278	12168	3.08641 ppb		98
26) Benzo (g,h,i) perylene	18.41	276	11767	2.89885 ppb		95

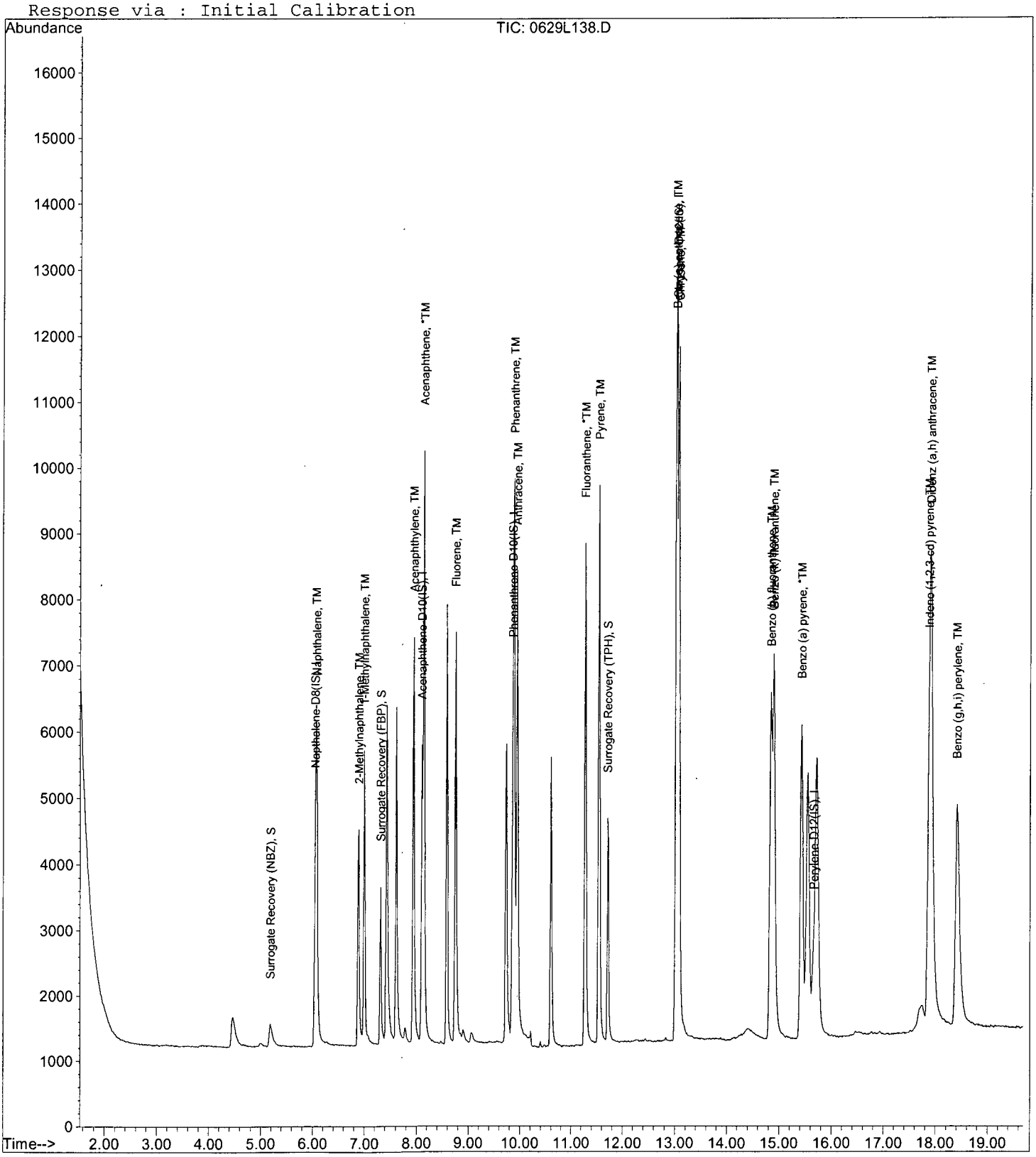
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L138.D Vial: 38
Acq On : 2 Jul 15 13:10 Operator: MA
Sample : 150619A LCS-1 1/1000 Inst : Linus
Misc : water Multiplr: 1.00

Quant Time: Jul 6 11:36 2015 Quant Results File: P0629.RES

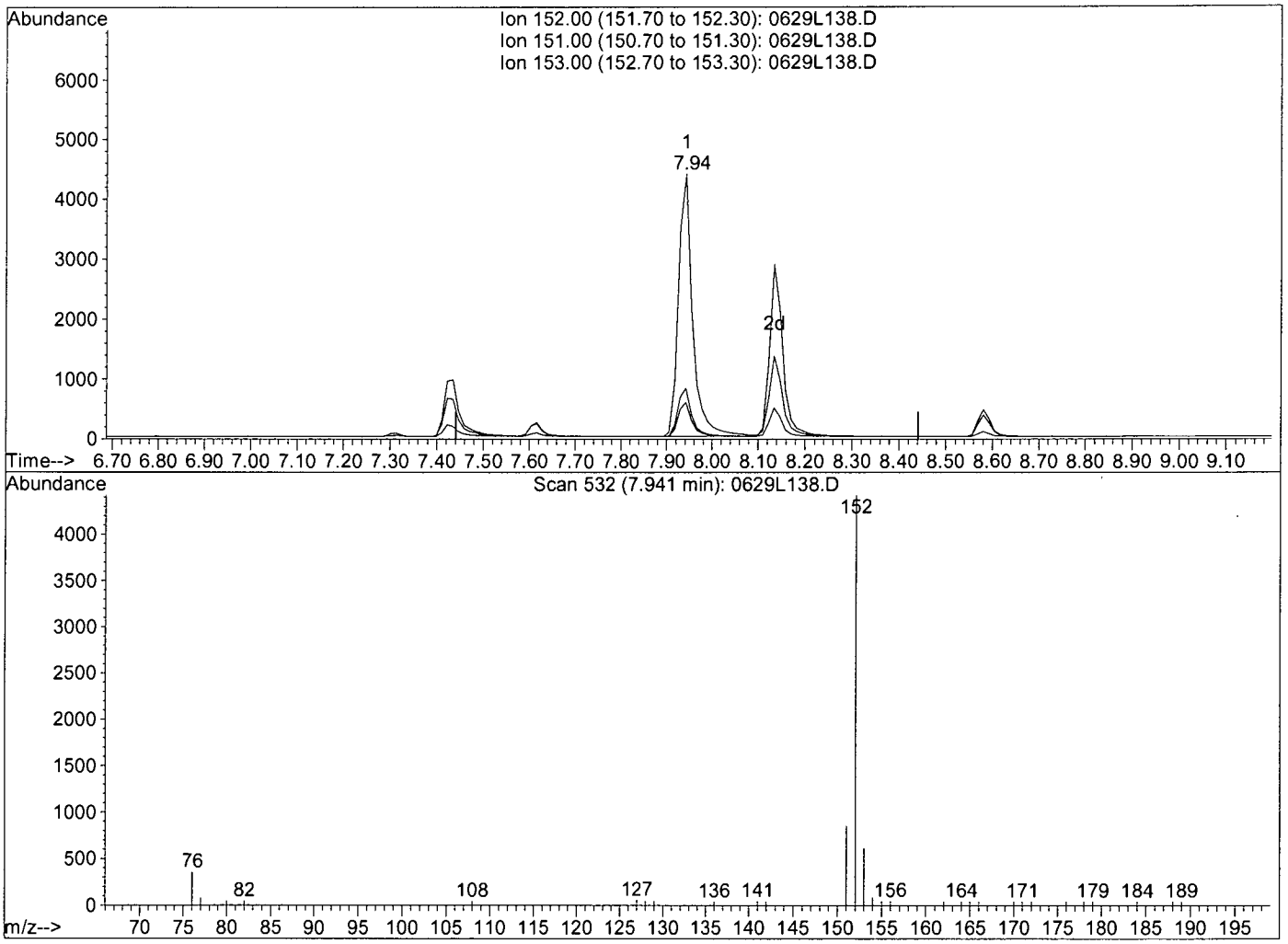
Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration



Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L138.D Vial: 38
Acq On : 2 Jul 15 13:10 Operator: MA
Sample : 150619A LCS-1 1/1000 Inst : Linus
Misc : water Multiplr: 1.00
Quant Time: Jul 6 11:12 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: 0629L138.D

(8) Acenaphthylene (TM)

7.94min 2.4182ppb

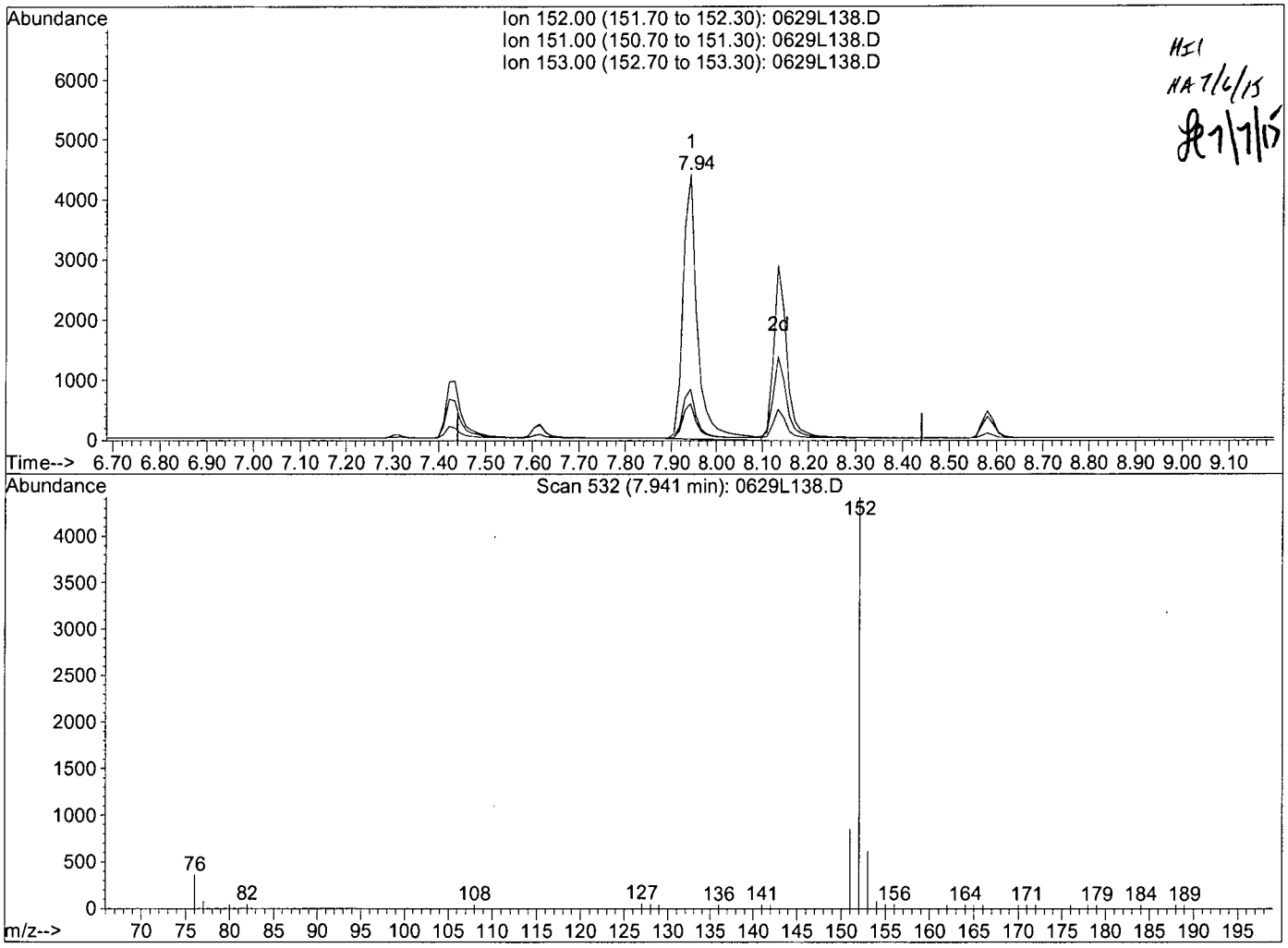
response 9507

Ion	Exp%	Act%
152.00	100	100
151.00	18.20	18.52
153.00	12.90	13.06
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L138.D Vial: 38
Acq On : 2 Jul 15 13:10 Operator: MA
Sample : 150619A LCS-1 1/1000 Inst : Linus
Misc : water Multiplr: 1.00
Quant Time: Jul 6 11:36 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: 0629L138.D

(8) Acenaphthylene (TM)

7.94min 2.5012ppb m

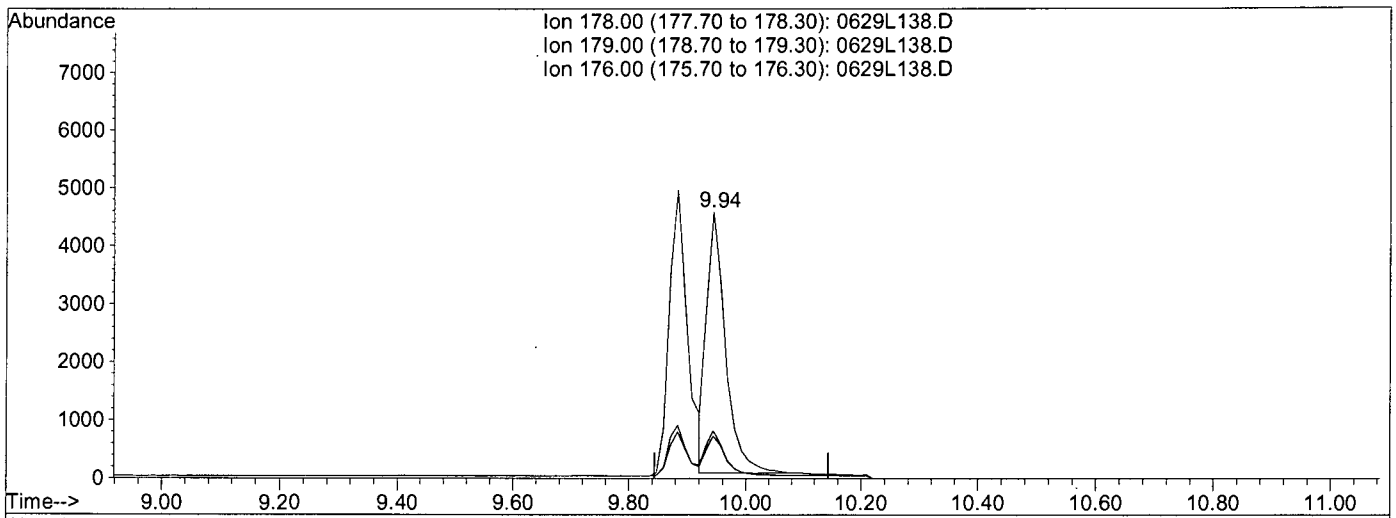
response 9833

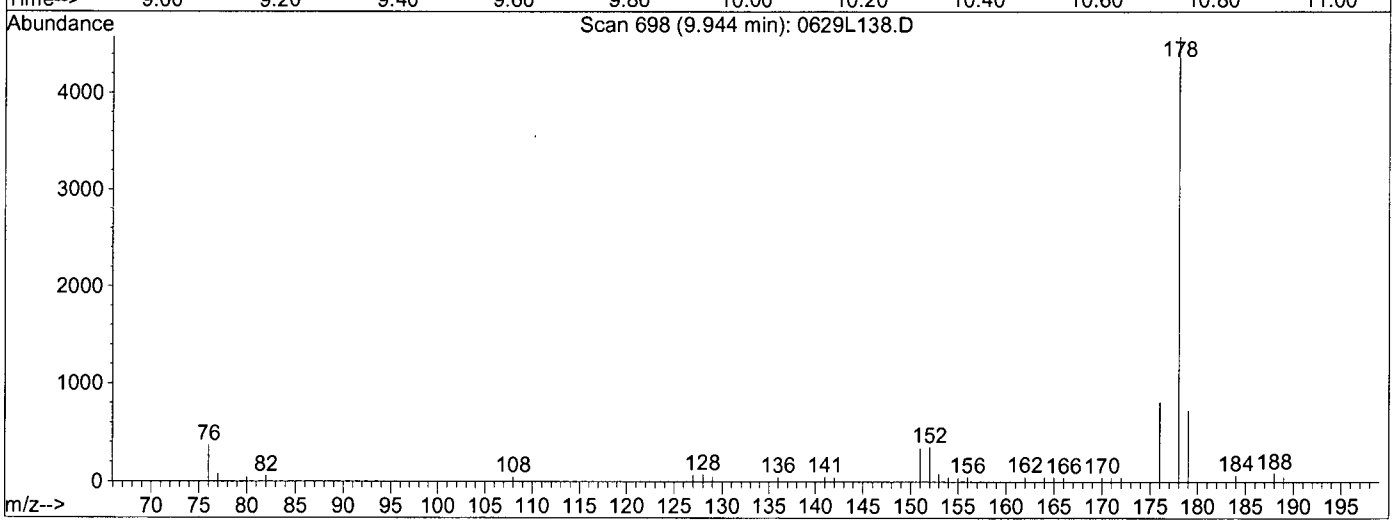
Ion	Exp%	Act%
152.00	100	100
151.00	18.20	19.28
153.00	12.90	13.90
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L138.D Vial: 38
Acq On : 2 Jul 15 13:10 Operator: MA
Sample : 150619A LCS-1 1/1000 Inst : Linus
Misc : water Multiplr: 1.00
Quant Time: Jul 6 11:27 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: 0629L138.D

(13) Anthracene (TM)

9.94min 2.6947ppb

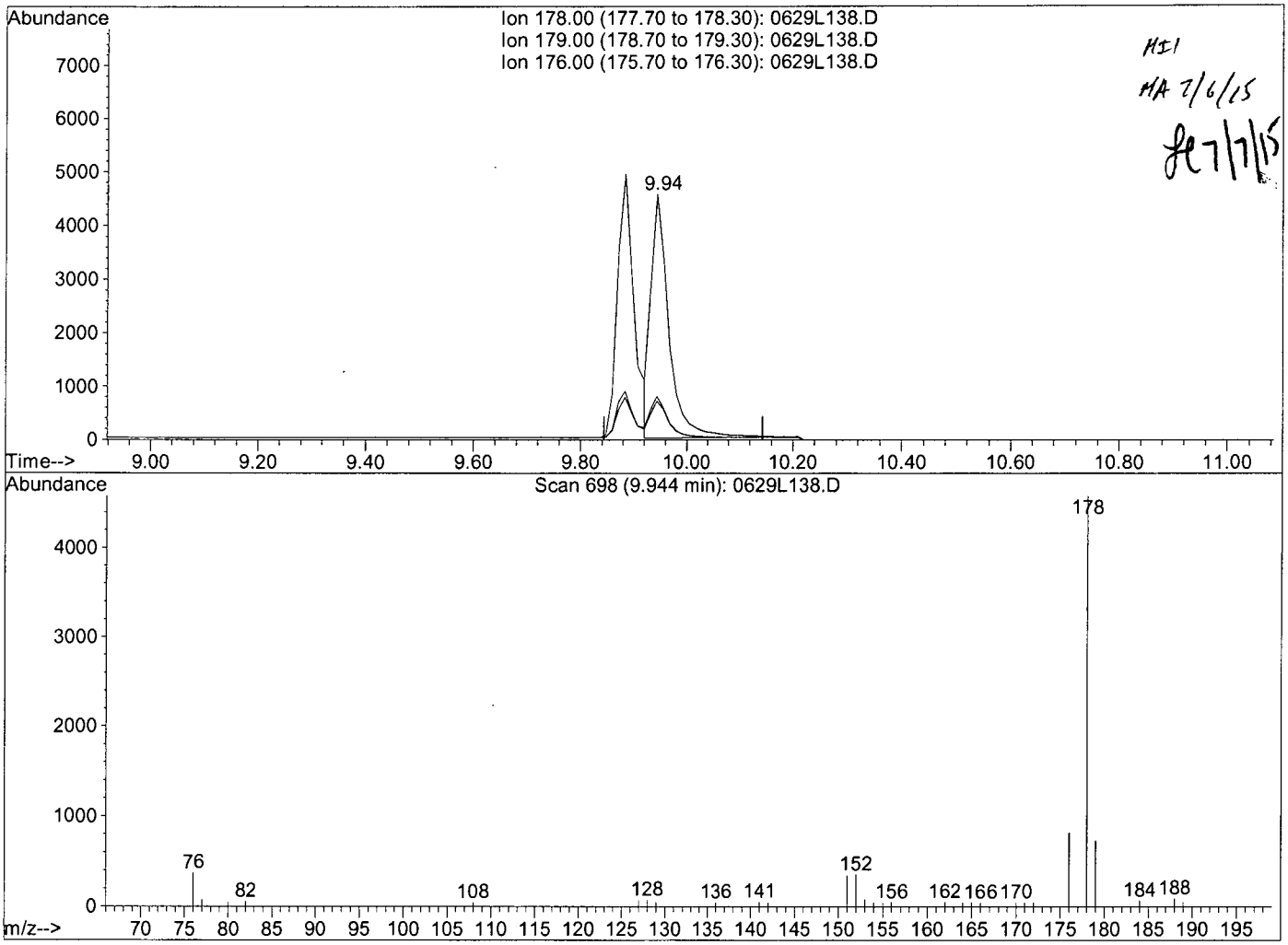
response 10057

Ion	Exp%	Act%
178.00	100	100
179.00	15.60	15.07
176.00	17.40	17.10
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L138.D Vial: 38
Acq On : 2 Jul 15 13:10 Operator: MA
Sample : 150619A LCS-1 1/1000 Inst : Linus
Misc : water Multiplr: 1.00
Quant Time: Jul 6 11:28 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
MA 7/6/15
JE 7/7/15

TIC: 0629L138.D

(13) Anthracene (TM)

9.94min 2.8611ppb m

response 10678

Ion	Exp%	Act%
178.00	100	100
179.00	15.60	15.97
176.00	17.40	17.85
0.00	0.00	0.00

Laboratory Control Spike Recovery
EPA 8270D LL SOILS

APPL ID: **150622S-17824 LCS - 198629**
Batch ID: #SIMDD-150622B

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	0.0867	51.9	45-105
ACENAPHTHENE	0.167	0.0891	53.4	45-110
ACENAPHTHYLENE	0.167	0.0914	54.7	45-105
ANTHRACENE	0.167	0.0925	55.4	55-105
BENZ (A) ANTHRACENE	0.167	0.103	61.7	50-110
BENZO (A) PYRENE	0.167	0.117	70.1	50-110
BENZO (B) FLUORANTHENE	0.167	0.0913	54.7	45-115
BENZO (G,H,I) PERYLENE	0.167	0.0982	58.8	40-125
BENZO (K) FLUORANTHENE	0.167	0.114	68.3	45-125
CHRYSENE	0.167	0.107	64.1	55-110
DIBENZ (A,H) ANTHRACENE	0.167	0.103	61.7	40-125
FLUORANTHENE	0.167	0.102	61.1	55-115
FLUORENE	0.167	0.0951	56.9	50-110
INDENO (1,2,3-CD) PYRENE	0.167	0.108	64.7	40-120
NAPHTHALENE	0.167	0.0701	42.0	40-105
PHENANTHRENE	0.167	0.0995	59.6	50-110
PYRENE	0.167	0.103	61.7	45-125
SURROGATE: 2-FLUORBIPHENYL (S)	0.083	0.0472	56.9	45-105
SURROGATE: NITROBENZENE-D5 (S)	0.083	0.0355	42.8	35-100
SURROGATE: TERPHENYL-D14 (S)	0.083	0.0599	72.2	30-125

Comments: _____

Primary	SPK
Quant Method :	P0629.M
Extraction Date :	06/22/15
Analysis Date :	07/01/15
Instrument :	Linus
Run :	0629L117
Initials :	MA

Printed: 07/07/15 1:56:54 PM
APPL Standard LCS

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L117.D Vial: 17
Acq On : 1 Jul 15 17:07 Operator: MA
Sample : 150622B LCS-1 1/30.02G Inst : Linus
Misc : soil Multiplr: 33.31

Quant Time: Jul 2 10:27 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	7184	2.50000	ppb	0.00
6) Acenaphthene-D10(IS)	8.10	164	3836	2.50000	ppb	0.00
11) Phenanthrene-D10(IS)	9.86	188	6347	2.50000	ppb	0.00
15) Chrysene-D12(IS)	13.03	240	6962	2.50000	ppb	0.00
21) Perylene-D12(IS)	15.67	264	4400	2.50000	ppb	0.01
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.19	82	760m	35.47566	ppb	0.01
Spiked Amount 83.278			Recovery = 42.600%			
7) Surrogate Recovery (FBP)	7.31	172	3298	47.23948	ppb	0.00
Spiked Amount 83.278			Recovery = 56.725%			
17) Surrogate Recovery (TPH)	11.71	244	4585	59.93300	ppb	-0.01
Spiked Amount 83.278			Recovery = 71.968%			
Target Compounds						Qvalue
3) Naphthalene	6.07	128	8245	70.11934	ppb	100
4) 2-Methylnaphthalene	6.89	142	6183	86.70376	ppb	98
5) 1-Methylnaphthalene	7.00	142	7409	92.53713	ppb	99
8) Acenaphthylene	7.94	152	11828	91.44217	ppb	100
9) Acenaphthene	8.13	154	7041	89.07129	ppb	97
10) Fluorene	8.75	166	7943	95.08635	ppb	99
12) Phenanthrene	9.88	178	11440	99.52953	ppb	99
13) Anthracene	9.94	178	10993	92.50538	ppb	98
14) Fluoranthene	11.27	202	15072	101.69357	ppb	99
16) Pyrene	11.54	202	15784	103.06889	ppb	97
18) Benz (a) anthracene	13.02	228	12688	103.06844	ppb	99
19) Chrysene	13.07	228	14308	107.30685	ppb	99
20) Indeno (1,2,3-cd) pyrene	17.89	276	14134	108.27230	ppb	93
22) Benzo (b) fluoranthene	14.84	252	11201	91.28984	ppb	98
23) Benzo (k) fluoranthene	14.90	252	10996	114.00267	ppb	97
24) Benzo (a) pyrene	15.42	252	13048	117.07943	ppb	97
25) Dibenz (a,h) anthracene	17.92	278	12653	102.94920	ppb	98
26) Benzo (g,h,i) perylene	18.43	276	12431	98.23379	ppb	96

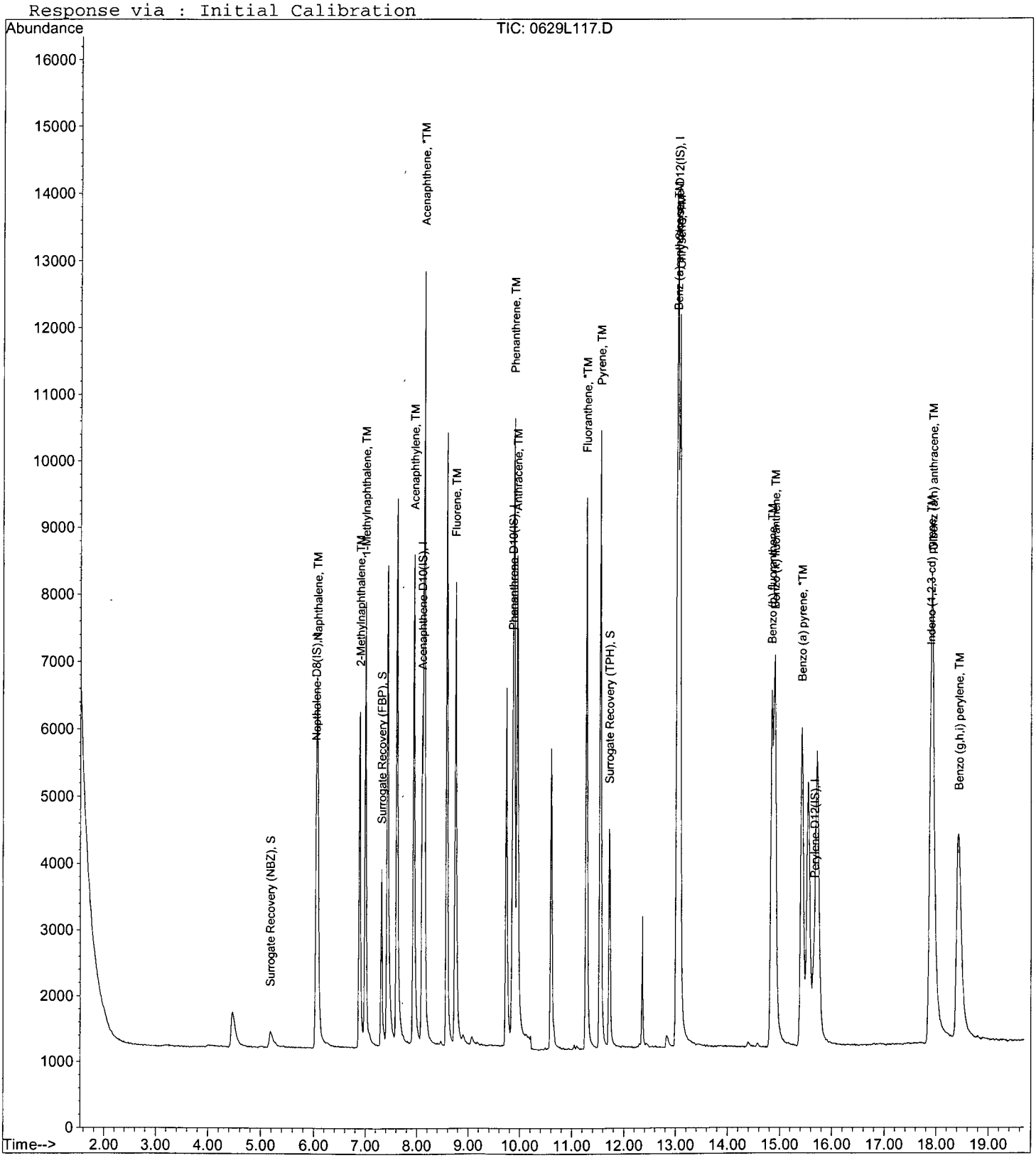
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L117.D Vial: 17
Acq On : 1 Jul 15 17:07 Operator: MA
Sample : 150622B LCS-1 1/30.02G Inst : Linus
Misc : soil Multiplr: 33.31

Quant Time: Jul 2 10:27 2015 Quant Results File: P0629.RES

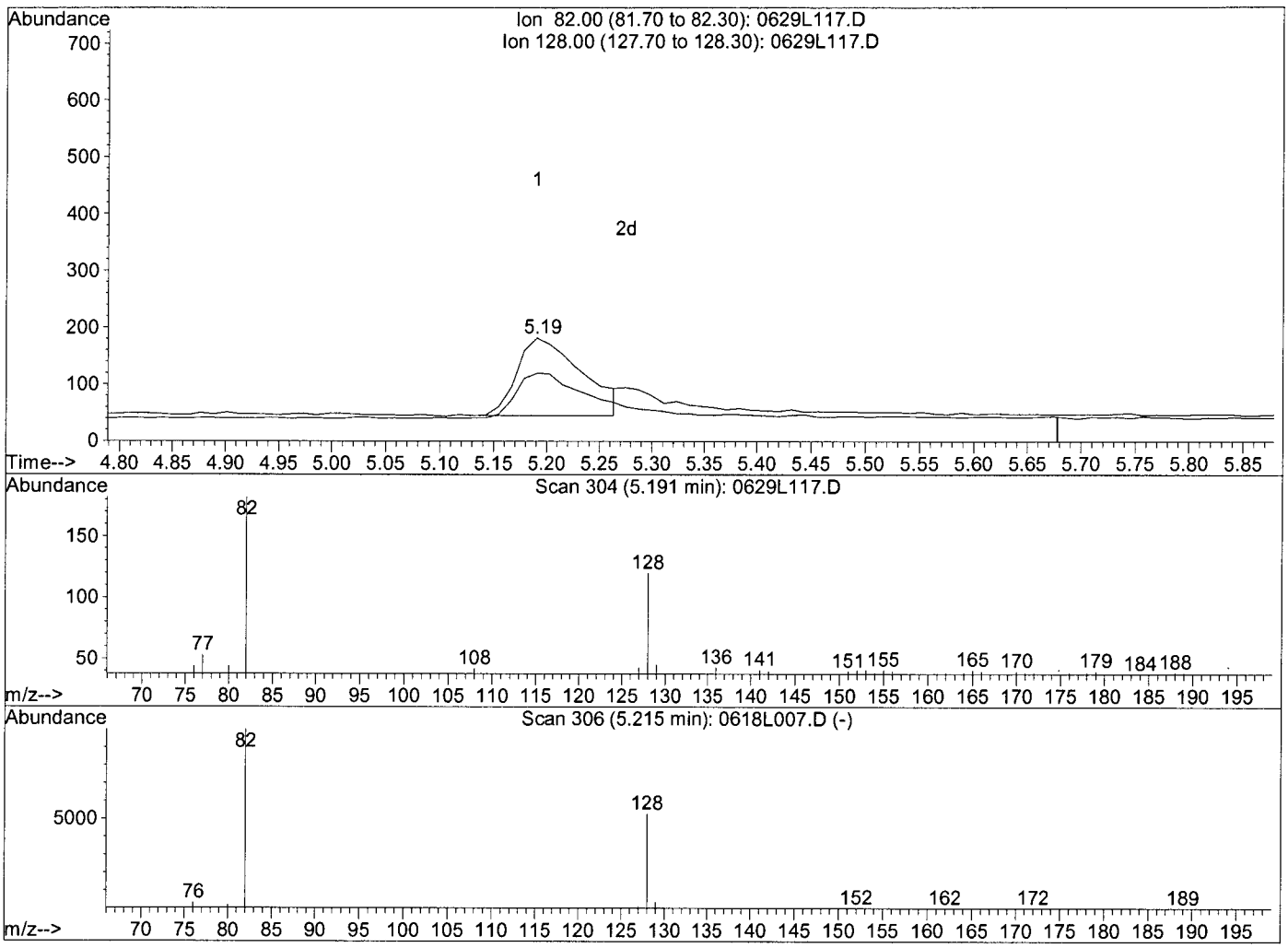
Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration



Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L117.D Vial: 17
Acq On : 1 Jul 15 17:07 Operator: MA
Sample : 150622B LCS-1 1/30.02G Inst : Linus
Misc : soil Multiplr: 33.31
Quant Time: Jul 2 9:56 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: 0629L117.D

(2) Surrogate Recovery (NBZ) (S)

5.19min 27.3536ppb

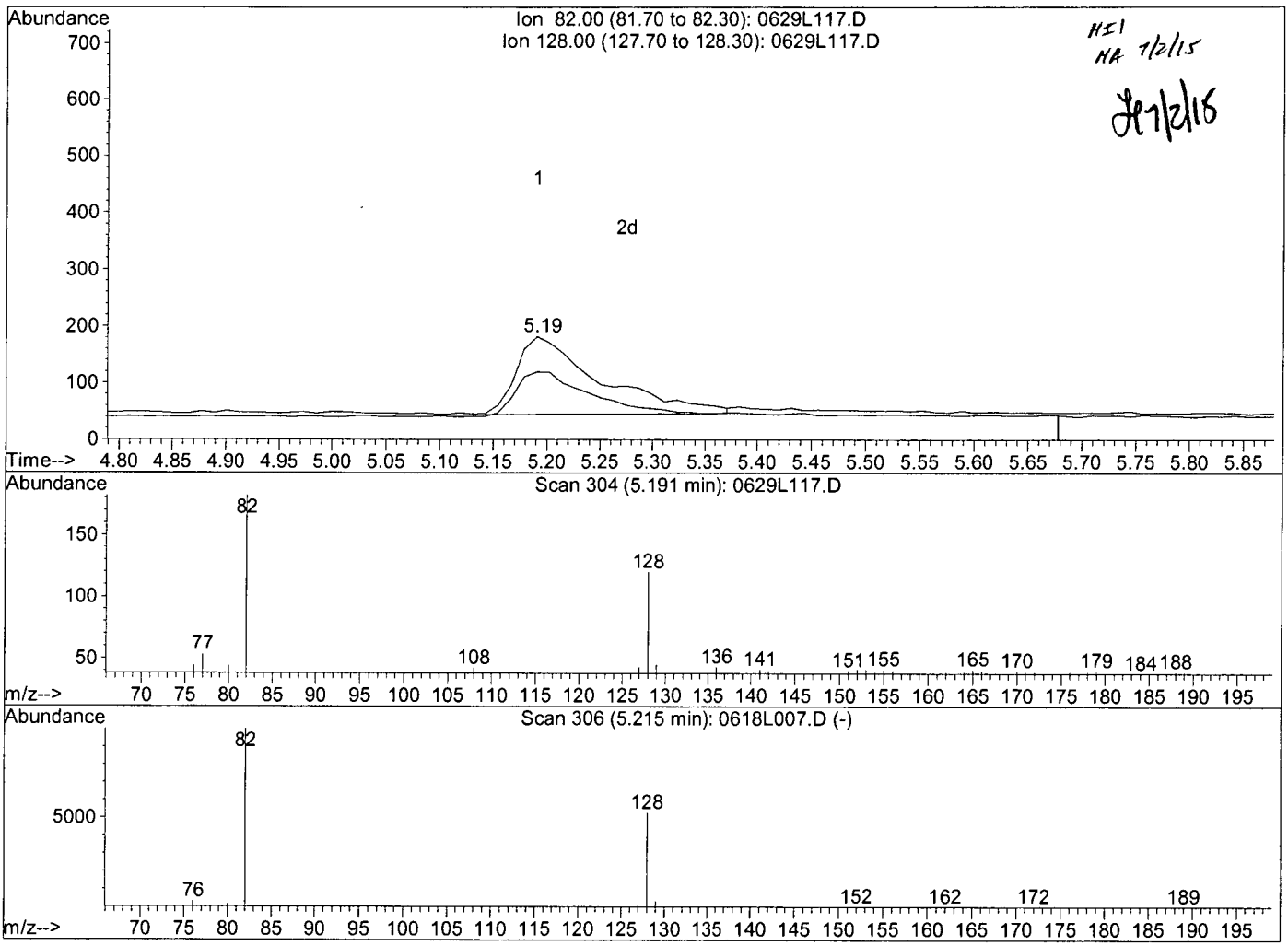
response 586

Ion	Exp%	Act%
82.00	100	100
128.00	52.70	57.66
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L117.D Vial: 17
Acq On : 1 Jul 15 17:07 Operator: MA
Sample : 150622B LCS-1 1/30.02G Inst : Linus
Misc : soil Multiplr: 33.31
Quant Time: Jul 2 10:27 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: 0629L117.D

(2) Surrogate Recovery (NBZ) (S)

5.19min 35.4757ppb m

response 760

Ion	Exp%	Act%
82.00	100	100
128.00	52.70	65.93
0.00	0.00	0.00
0.00	0.00	0.00

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

APPL ID: **150702S-17824 LCS - 198630**
Batch ID: #SIMDD-150702A

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	0.107	64.1	45-105
ACENAPHTHENE	0.167	0.102	61.1	45-110
ACENAPHTHYLENE	0.167	0.102	61.1	45-105
ANTHRACENE	0.167	0.0961	57.5	55-105
BENZ (A) ANTHRACENE	0.167	0.117	70.1	50-110
BENZO (A) PYRENE	0.167	0.128	76.6	50-110
BENZO (B) FLUORANTHENE	0.167	0.115	68.9	45-115
BENZO (G,H,I) PERYLENE	0.167	0.112	67.1	40-125
BENZO (K) FLUORANTHENE	0.167	0.104	62.3	45-125
CHRYSENE	0.167	0.114	68.3	55-110
DIBENZ (A,H) ANTHRACENE	0.167	0.117	70.1	40-125
FLUORANTHENE	0.167	0.113	67.7	55-115
FLUORENE	0.167	0.107	64.1	50-110
INDENO (1,2,3-CD) PYRENE	0.167	0.125	74.9	40-120
NAPHTHALENE	0.167	0.0997	59.7	40-105
PHENANTHRENE	0.167	0.113	67.7	50-110
PYRENE	0.167	0.112	67.1	45-125
SURROGATE: 2-FLUORBIPHENYL (S)	0.083	0.0557	67.1	45-105
SURROGATE: NITROBENZENE-D5 (S)	0.083	0.0548	66.0	35-100
SURROGATE: TERPHENYL-D14 (S)	0.083	0.0637	76.7	30-125

Comments: _____

Primary	SPK
Quant Method :	P0629.M
Extraction Date :	07/02/15
Analysis Date :	07/06/15
Instrument :	Linus
Run :	0629L167
Initials :	MA

Printed: 07/07/15 1:56:55 PM
APPL Standard LCS

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L167.D Vial: 67
Acq On : 6 Jul 15 11:37 Operator: MA
Sample : 150702A LCS-1 1/30.68G Inst : Linus
Misc : soil Multiplr: 32.59

Quant Time: Jul 7 11:31 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)	6.05	136	5569	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	8.10	164	2996	2.50000	ppb		0.00
11) Phenanthrene-D10(IS)	9.85	188	5095	2.50000	ppb		-0.01
15) Chrysene-D12(IS)	13.03	240	5712	2.50000	ppb		0.00
21) Perylene-D12(IS)	15.66	264	3591	2.50000	ppb		0.00
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.18	82	930	54.79540	ppb		0.00
Spiked Amount 81.486			Recovery = 67.244%				
7) Surrogate Recovery (FBP)	7.31	172	3104	55.70167	ppb		0.00
Spiked Amount 81.486			Recovery = 68.357%				
17) Surrogate Recovery (TPH)	11.71	244	4084	63.66686	ppb		-0.01
Spiked Amount 81.486			Recovery = 78.132%				
Target Compounds							Qvalue
3) Naphthalene	6.07	128	9287	99.69352	ppb		99
4) 2-Methylnaphthalene	6.88	142	6027	106.68029	ppb		99
5) 1-Methylnaphthalene	7.00	142	6931	109.26892	ppb		99
8) Acenaphthylene	7.94	152	10558	102.26073	ppb		99
9) Acenaphthene	8.13	154	6423	101.79662	ppb		100
10) Fluorene	8.75	166	7167	107.48875	ppb		97
12) Phenanthrene	9.88	178	10662	113.06915	ppb		98
13) Anthracene	9.94	178	9372	96.13080	ppb		99
14) Fluoranthene	11.27	202	13735	112.96159	ppb		97
16) Pyrene	11.54	202	14435	112.41606	ppb		97
18) Benz (a) anthracene	13.02	228	12142	116.76412	ppb		99
19) Chrysene	13.07	228	12523	114.20896	ppb		99
20) Indeno (1,2,3-cd) pyrene	17.87	276	13646	124.66906	ppb	#	99
22) Benzo (b) fluoranthene	14.84	252	11652	115.43578	ppb		98
23) Benzo (k) fluoranthene	14.89	252	8492	104.36335	ppb		97
24) Benzo (a) pyrene	15.42	252	11861	127.59993	ppb		94
25) Dibenz (a,h) anthracene	17.91	278	11994	117.00004	ppb		97
26) Benzo (g,h,i) perylene	18.41	276	11870	112.46000	ppb		95

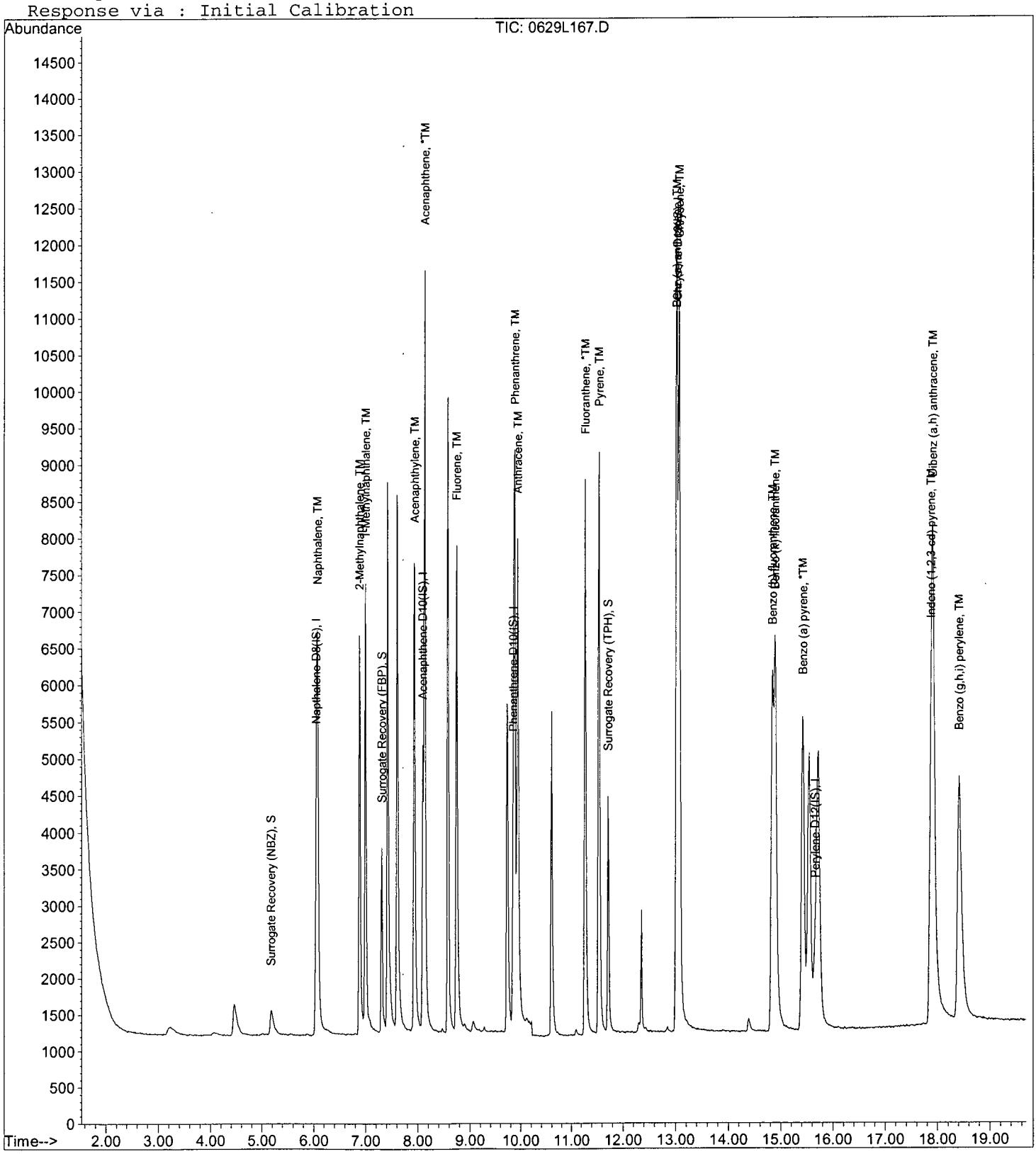
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L167.D Vial: 67
Acq On : 6 Jul 15 11:37 Operator: MA
Sample : 150702A LCS-1 1/30.68G Inst : Linus
Misc : soil Multiplr: 32.59

Quant Time: Jul 7 11:31 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



Matrix Spike Recovery
EPA 8270D LL SOIL

APPL ID: **150622S-17824 MS - 198629**
Batch ID: #SIMDD-150622B
Sample ID: AZ17824
Client ID: S67-SD029-0001

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level mg/kg	Matrix Result mg/kg	SPK Result mg/kg	SPK % Recovery	Recovery Limits
2-METHYLNAPHTHALENE	0.133	ND	0.0367	27.6 #	45-105
ACENAPHTHENE	0.167	ND	0.0537	32.2 #	45-110
ACENAPHTHYLENE	0.167	ND	0.0496	29.7 #	45-105
ANTHRACENE	0.167	ND	0.0921	55.1	55-105
BENZ (A) ANTHRACENE	0.167	0.0087	0.107	58.9	50-110
BENZO (A) PYRENE	0.167	0.0032	0.114	66.3	50-110
BENZO (B) FLUORANTHENE	0.167	ND	0.107	64.1	45-115
BENZO (G,H,I) PERYLENE	0.167	0.0024	0.0938	54.7	40-125
BENZO (K) FLUORANTHENE	0.167	ND	0.0978	58.6	45-125
CHRYSENE	0.167	ND	0.102	61.1	55-110
DIBENZ (A,H) ANTHRACENE	0.167	ND	0.0956	57.2	40-125
FLUORANTHENE	0.167	0.0085	0.104	57.2	55-115
FLUORENE	0.167	0.0010	0.078	46.1 #	50-110
INDENO (1,2,3-CD) PYRENE	0.167	0.0030	0.108	62.9	40-120
NAPHTHALENE	0.167	0.0012	0.0349	20.2 #	40-105
PHENANTHRENE	0.167	0.0036	0.0926	53.3	50-110
PYRENE	0.167	0.0072	0.106	59.2	45-125
SURROGATE: 2-FLUORBIPHENYL (S)	0.083	NA	0.0202	24.3 #	45-105
SURROGATE: NITROBENZENE-D5 (S)	0.083	NA	0.0377	45.4	35-100
SURROGATE: TERPHENYL-D14 (S)	0.083	NA	0.0564	68.0	30-125

= Recovery is outside QC limits.

Comments: _____

Primary	SPK
Quant Method :	P0629.M
Extraction Date :	06/22/15
Analysis Date :	07/01/15
Instrument :	Linus
Run :	0629L122
Initials :	MA

Printed: 07/07/15 2:18:26 PM
APPL MS SCII

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L122.D Vial: 22
Acq On : 1 Jul 15 19:22 Operator: MA
Sample : AZ17824S06 MS-1 1/30.00G Inst : Linus
Misc : soil Multiplr: 33.33

Quant Time: Jul 2 9:56 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	6870	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	8.10	164	3811	2.50000	ppb		0.00
11) Phenanthrene-D10(IS)	9.85	188	6333	2.50000	ppb		-0.01
15) Chrysene-D12(IS)	13.02	240	6824	2.50000	ppb		-0.01
21) Perylene-D12(IS)	15.65	264	4427	2.50000	ppb		-0.01
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.19	82	772	37.70796	ppb		0.01
Spiked Amount 83.333			Recovery = 45.250%				
7) Surrogate Recovery (FBP)	7.31	172	1401	20.21257	ppb		0.00
Spiked Amount 83.333			Recovery = 24.256%				
17) Surrogate Recovery (TPH)	11.71	244	4229	56.43502	ppb		-0.01
Spiked Amount 83.333			Recovery = 67.722%				
Target Compounds							Qvalue
3) Naphthalene	6.07	128	3926	34.93787	ppb		99
4) 2-Methylnaphthalene	6.88	142	2504	36.74277	ppb		98
5) 1-Methylnaphthalene	7.00	142	2827	36.94717	ppb		100
8) Acenaphthylene	7.94	152	6364	49.55578	ppb		100
9) Acenaphthene	8.13	154	4216	53.71963	ppb		98
10) Fluorene	8.75	166	6470	78.01298	ppb		98
12) Phenanthrene	9.87	178	10616	92.62648	ppb		99
13) Anthracene	9.94	178	10916	92.12184	ppb		98
14) Fluoranthene	11.27	202	15441	104.48318	ppb		95
16) Pyrene	11.53	202	15871	105.80329	ppb		94
18) Benz (a) anthracene	13.01	228	12948	107.15978	ppb		99
19) Chrysene	13.06	228	13479	101.89320	ppb		99
20) Indeno (1,2,3-cd) pyrene	17.85	276	13759	107.60278	ppb	#	99
22) Benzo (b) fluoranthene	14.83	252	13120	107.31409	ppb		97
23) Benzo (k) fluoranthene	14.88	252	9745	97.77857	ppb		97
24) Benzo (a) pyrene	15.40	252	12736	113.65857	ppb		98
25) Dibenz (a,h) anthracene	17.89	278	11820	95.64878	ppb		98
26) Benzo (g,h,i) perylene	18.40	276	11939	93.83293	ppb		98

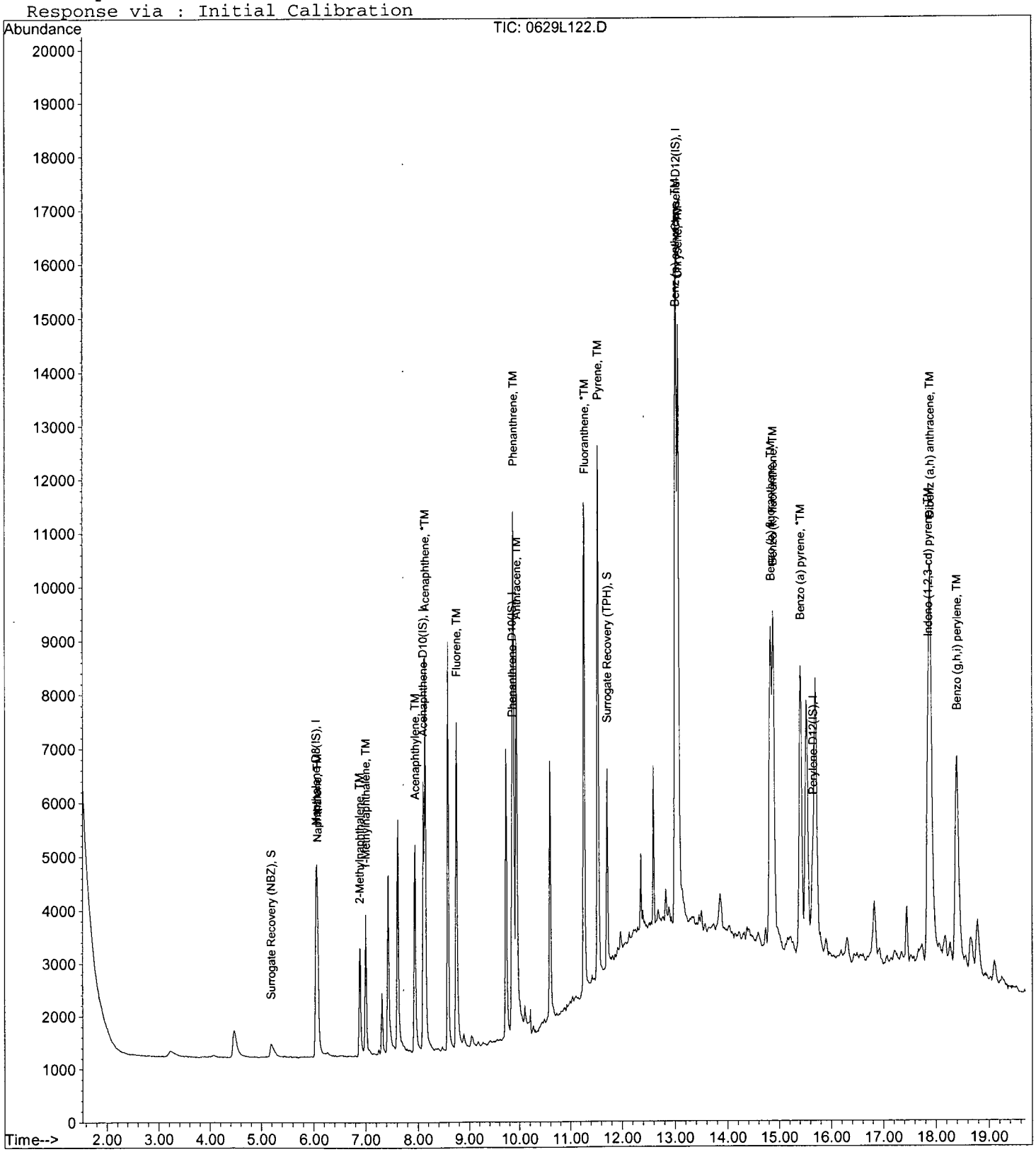
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L122.D Vial: 22
Acq On : 1 Jul 15 19:22 Operator: MA
Sample : AZ17824S06 MS-1 1/30.00G Inst : Linus
Misc : soil Multiplr: 33.33

Quant Time: Jul 2 9:56 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



Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L123.D Vial: 23
Acq On : 1 Jul 15 19:49 Operator: MA
Sample : AZ17824S06 MSD-1 1/30.28G Inst : Linus
Misc : soil Multiplr: 33.03

Quant Time: Jul 2 9:56 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	6764	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	8.10	164	3662	2.50000	ppb		0.00
11) Phenanthrene-D10(IS)	9.85	188	6206	2.50000	ppb		-0.01
15) Chrysene-D12(IS)	13.02	240	6744	2.50000	ppb		-0.01
21) Perylene-D12(IS)	15.65	264	4357	2.50000	ppb		-0.01
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.19	82	885	43.49883	ppb		0.01
Spiked Amount 82.563			Recovery = 52.686%				
7) Surrogate Recovery (FBP)	7.31	172	1635	24.32133	ppb		0.00
Spiked Amount 82.563			Recovery = 29.458%				
17) Surrogate Recovery (TPH)	11.71	244	3577	47.85384	ppb		-0.01
Spiked Amount 82.563			Recovery = 57.961%				
Target Compounds							Qvalue
3) Naphthalene	6.07	128	5454	48.84046	ppb		99
4) 2-Methylnaphthalene	6.88	142	3205	47.32430	ppb		100
5) 1-Methylnaphthalene	7.00	142	3628	47.71349	ppb		99
8) Acenaphthylene	7.94	152	6282	50.43687	ppb		99
9) Acenaphthene	8.13	154	4119	54.11407	ppb		99
10) Fluorene	8.75	166	5821	72.36794	ppb		96
12) Phenanthrene	9.87	178	9734	85.86749	ppb		100
13) Anthracene	9.94	178	10662	90.97057	ppb		99
14) Fluoranthene	11.27	202	14655	100.25821	ppb		95
16) Pyrene	11.53	202	15179	101.44367	ppb		95
18) Benz (a) anthracene	13.01	228	12818	106.34071	ppb		100
19) Chrysene	13.06	228	13356	101.30408	ppb		100
20) Indeno (1,2,3-cd) pyrene	17.86	276	14237	111.61999	ppb	#	97
22) Benzo (b) fluoranthene	14.83	252	12961	106.74260	ppb		96
23) Benzo (k) fluoranthene	14.88	252	9592	96.88797	ppb		98
24) Benzo (a) pyrene	15.40	252	12644	113.59024	ppb		99
25) Dibenz (a,h) anthracene	17.90	278	12098	98.55143	ppb		99
26) Benzo (g,h,i) perylene	18.41	276	11941	94.47468	ppb		94

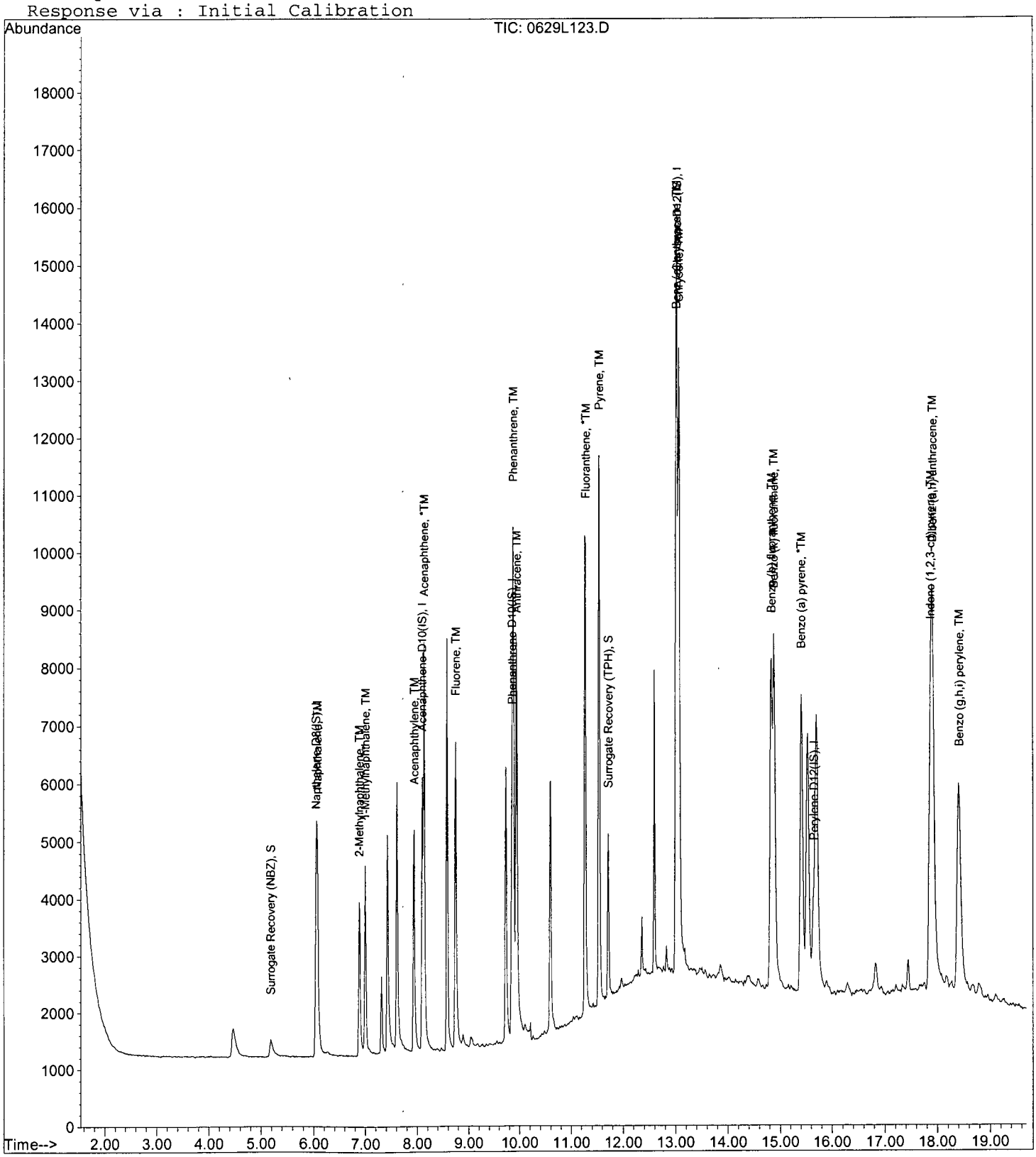
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L123.D Vial: 23
Acq On : 1 Jul 15 19:49 Operator: MA
Sample : AZ17824S06 MSD-1 1/30.28G Inst : Linus
Misc : soil Multiplr: 33.03

Quant Time: Jul 2 9:56 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



Matrix Spike Recoveries

EPA 8270D LL SOILS RE-EXTRACT

APPL ID: **150702S-17824 MS - 198630**
Batch ID: #SIMDD-150702A
Sample ID: AZ17824
Client ID: S67-SD029-0001

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	0.167	0.0066	0.0931	0.122	51.8	69.1	45-105	26.9	30
ACENAPHTHENE	0.167	0.0041	0.0911	0.110	52.1	63.4	45-110	18.8	30
ACENAPHTHYLENE	0.167	0.026	0.0978	0.120	43.0 #	56.3	45-105	20.4	30
ANTHRACENE	0.167	0.044	0.106	0.114	37.1 #	41.9 #	55-105	7.3	30
BENZ (A) ANTHRACENE	0.167	0.25	0.171	0.158	-47.3 #	-55.1 #	50-110	7.9	30
BENZO (A) PYRENE	0.167	0.11	0.135	0.156	15.0 #	27.5 #	50-110	14.4	30
BENZO (B) FLUORANTHENE	0.167	0.33	0.138	0.172	-115 #	-94.6 #	45-115	21.9	30
BENZO (G,H,I) PERYLENE	0.167	0.071	0.101	0.115	18.0 #	26.3 #	40-125	13.0	30
BENZO (K) FLUORANTHENE	0.167	0.36	0.0972	0.117	-157 #	-146 #	45-125	18.5	30
CHRYSENE	0.167	0.11	0.0852	0.0815	-14.9 #	-17.1 #	55-110	4.4	30
DIBENZ (A,H) ANTHRACENE	0.167	0.023	0.0928	0.110	41.8	52.1	40-125	17.0	30
FLUORANTHENE	0.167	0.20	0.171	0.180	-17.4 #	-12.0 #	55-115	5.1	30
FLUORENE	0.167	0.0091	0.105	0.120	57.4	66.4	50-110	13.3	30
INDENO (1,2,3-CD) PYRENE	0.167	0.082	0.120	0.123	22.8 #	24.6 #	40-120	2.5	30
NAPHTHALENE	0.167	0.0061	0.0671	0.0968	36.5 #	54.3	40-105	36.2 #	30
PHENANTHRENE	0.167	0.036	0.111	0.126	44.9 #	53.9	50-110	12.7	30
PYRENE	0.167	0.17	0.183	0.177	7.8 #	4.2 #	45-125	3.3	30
SURROGATE: 2-FLUORBIPHENYL (S)	0.083	NA	0.0477	0.0501	57.5	60.4	45-105		
SURROGATE: NITROBENZENE-D5 (S)	0.083	NA	0.0427	0.0594	51.4	71.6	35-100		
SURROGATE: TERPHENYL-D14 (S)	0.083	NA	0.0667	0.0638	80.4	76.9	30-125		

= Recovery is outside QC limits.

Comments: _____

Primary	SPK	DUP
Quant Method :	P0629.M	P0629.M
Extraction Date :	07/02/15	07/02/15
Analysis Date :	07/06/15	07/06/15
Instrument :	Linus	Linus
Run :	0629L172	0629L173
Initials :	MA	

Printed: 07/07/15 1:57:04 PM
APPL MSD SCII

Quantitation Report (QT Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L172.D Vial: 72
Acq On : 6 Jul 15 13:53 Operator: MA
Sample : AZ17824S04 MS-1 1/30.17G Inst : Linus
Misc : soil Multiplr: 33.15

Quant Time: Jul 7 13:04 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	5920	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	5227	2.50000 ppb		-0.01
15) Chrysene-D12(IS)	13.20	240	5034m	2.50000 ppb		0.16
21) Perylene-D12(IS)	15.72	264	3533	2.50000 ppb		0.06
System Monitoring Compounds						
2) Surrogate Recovery (NBZ)	5.19	82	757	42.66704 ppb		0.01
Spiked Amount 82.864			Recovery = 51.491%			
7) Surrogate Recovery (FBP)	7.31	172	2718	47.67393 ppb		0.00
Spiked Amount 82.864			Recovery = 57.533%			
17) Surrogate Recovery (TPH)	11.73	244	3709	66.71746 ppb		0.00
Spiked Amount 82.864			Recovery = 80.514%			
Target Compounds						Qvalue
3) Naphthalene	6.07	128	6534	67.09746 ppb		100
4) 2-Methylnaphthalene	6.89	142	5499	93.11126 ppb		96
5) 1-Methylnaphthalene	7.00	142	5678	85.63112 ppb		99
8) Acenaphthylene	7.94	152	10332	97.81301 ppb		99
9) Acenaphthene	8.13	154	5884	91.14925 ppb		99
10) Fluorene	8.75	166	7187	105.35575 ppb		96
12) Phenanthrene	9.87	178	10535	110.74182 ppb		97
13) Anthracene	9.93	178	10439	106.13555 ppb		97
14) Fluoranthene	11.28	202	21006	171.24472 ppb		91
16) Pyrene	11.55	202	20340	182.77530 ppb		97
18) Benz (a) anthracene	13.18	228	15616m	170.84308 ppb		0
19) Chrysene	13.22	228	8752m	85.16848 ppb		94
20) Indeno (1,2,3-cd) pyrene	17.91	276	11360	119.75306 ppb	#	94
22) Benzo (b) fluoranthene	14.90	252	13395	138.14722 ppb	#	88
23) Benzo (k) fluoranthene	14.95	252	7773	97.16492 ppb	#	85
24) Benzo (a) pyrene	15.48	252	12177	135.40079 ppb		99
25) Dibenz (a,h) anthracene	17.94	278	9204	92.80050 ppb	#	91
26) Benzo (g,h,i) perylene	18.46	276	10288	100.74652 ppb		91

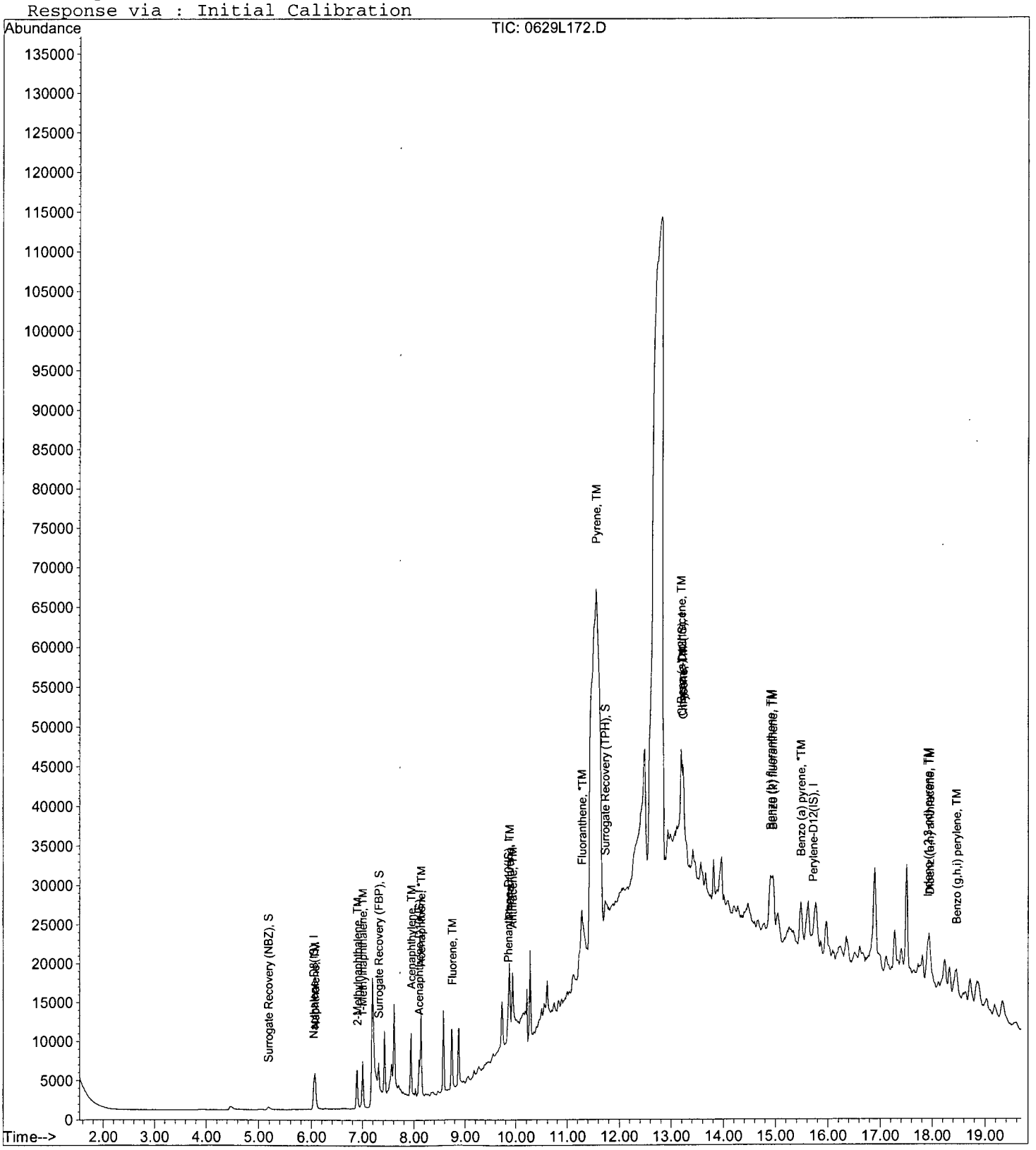
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L172.D Vial: 72
Acq On : 6 Jul 15 13:53 Operator: MA
Sample : AZ17824S04 MS-1 1/30.17G Inst : Linus
Misc : soil Multiplr: 33.15

Quant Time: Jul 7 13:04 2015 Quant Results File: P0629.RES

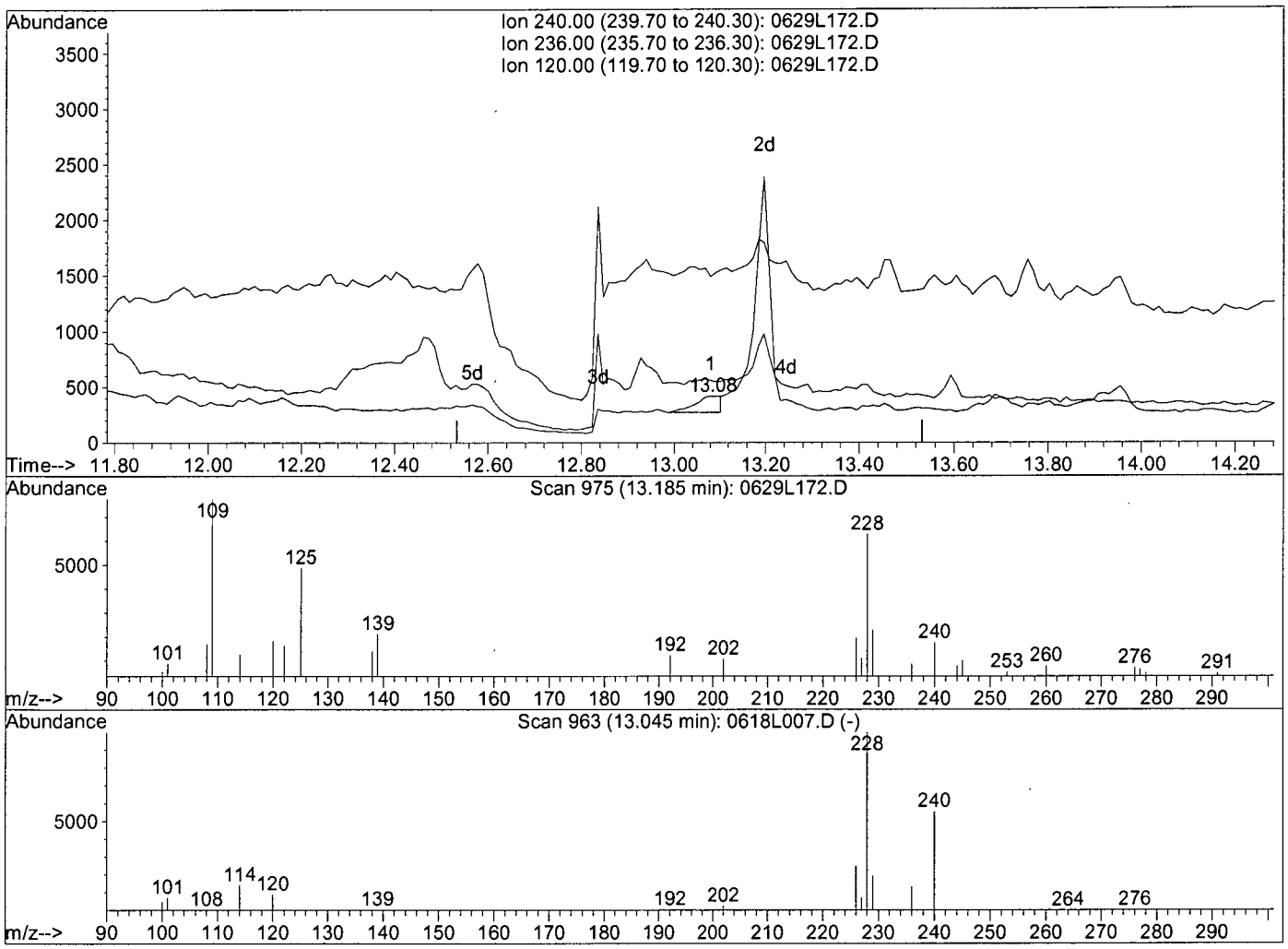
Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration



Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L172.D Vial: 72
Acq On : 6 Jul 15 13:53 Operator: MA
Sample : AZ17824S04 MS-1 1/30.17G Inst : Linus
Misc : soil Multiplr: 33.15
Quant Time: Jul 7 11:31 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: 0629L172.D

(15) Chrysene-D12(IS) (I)

13.08min 2.5000ppb

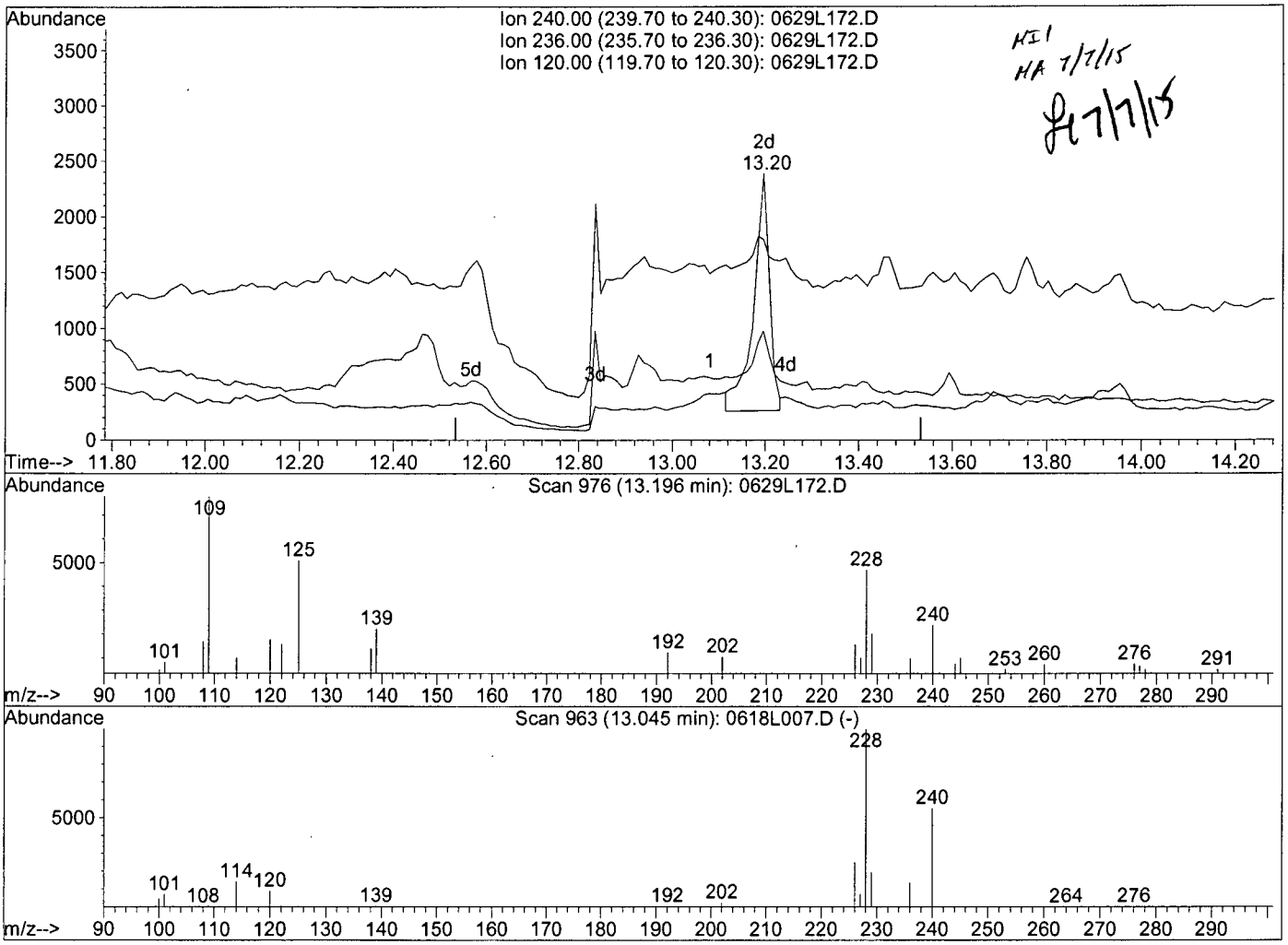
response 606

Ion	Exp%	Act%
240.00	100	100
236.00	23.90	15.75#
120.00	15.90	0.00#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L172.D Vial: 72
Acq On : 6 Jul 15 13:53 Operator: MA
Sample : AZ17824S04 MS-1 1/30.17G Inst : Linus
Misc : soil Multiplr: 33.15
Quant Time: Jul 7 11:36 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: 0629L172.D

(15) Chrysene-D12(IS) (I)

13.20min 2.5000ppb m

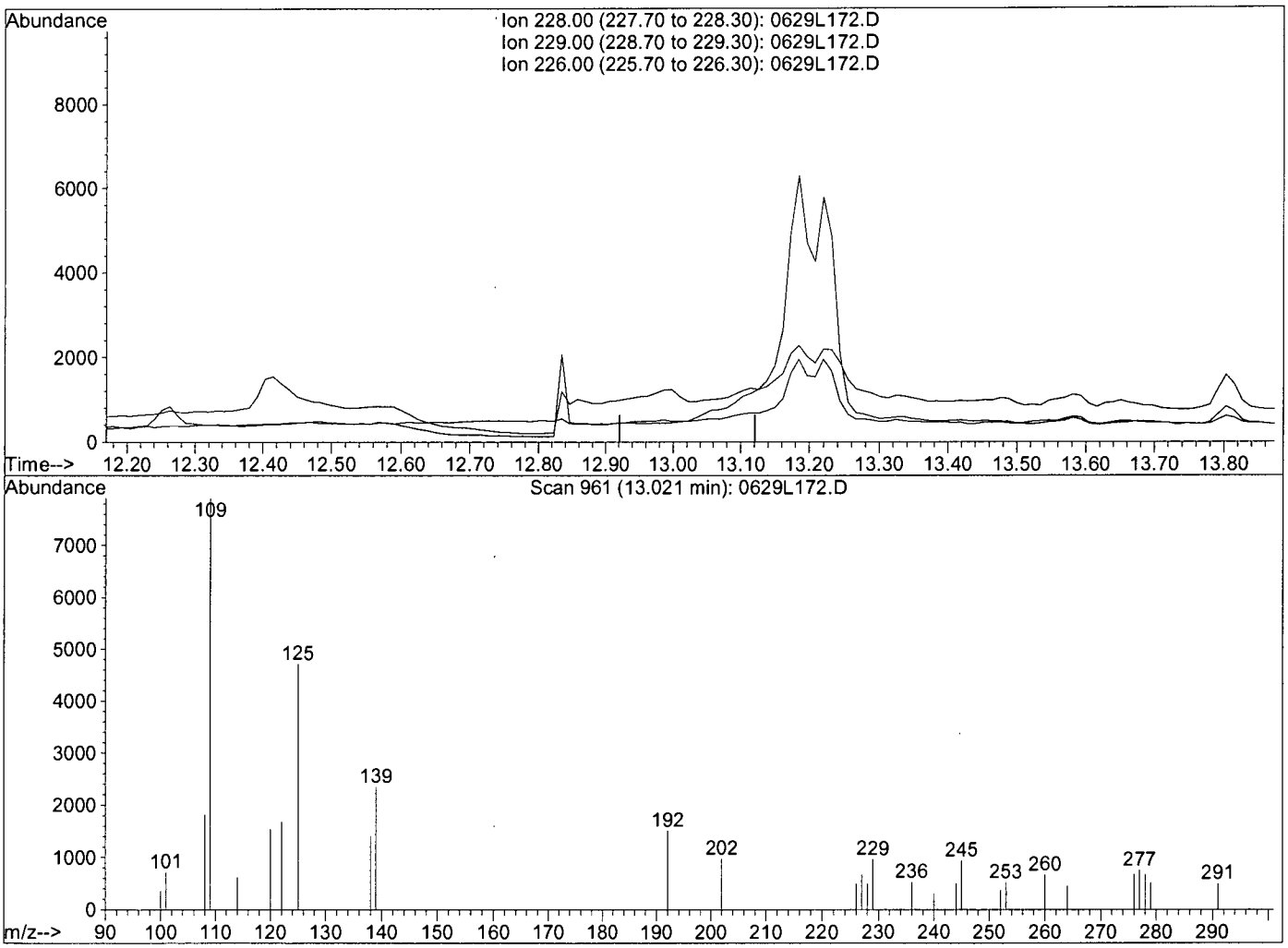
response 5034

Ion	Exp%	Act%
240.00	100	100
236.00	23.90	41.08#
120.00	15.90	75.24#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L172.D Vial: 72
Acq On : 6 Jul 15 13:53 Operator: MA
Sample : AZ17824S04 MS-1 1/30.17G Inst : Linus
Misc : soil Multiplr: 33.15
Quant Time: Jul 7 11:36 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: 0629L172.D

(18) Benz (a) anthracene (TM)

13.02min 0.0000ppb

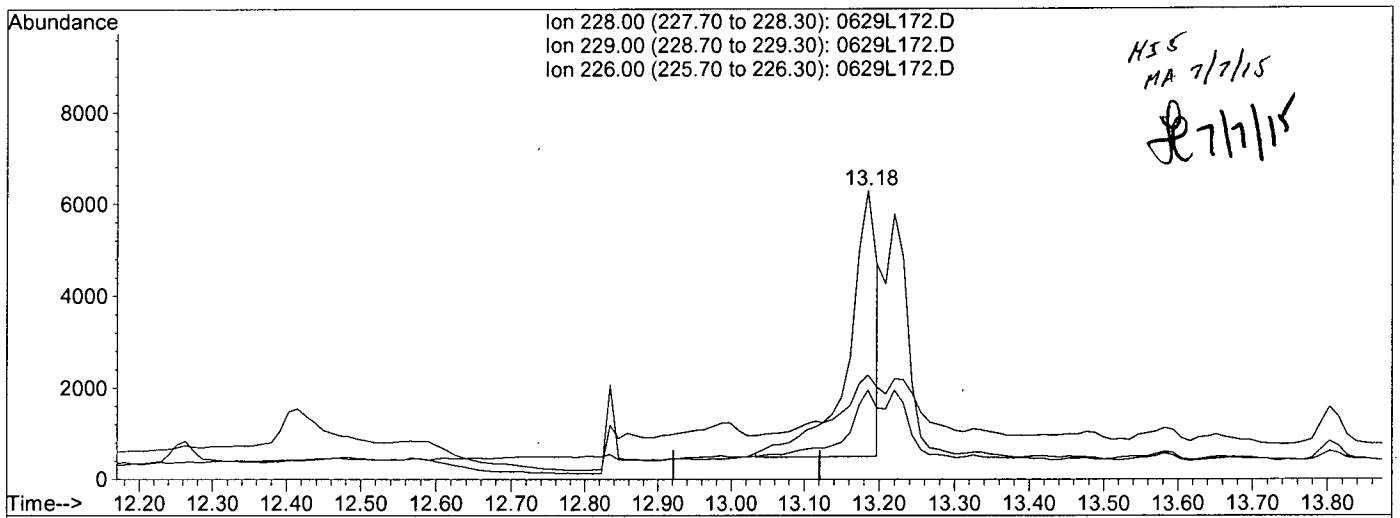
response 0

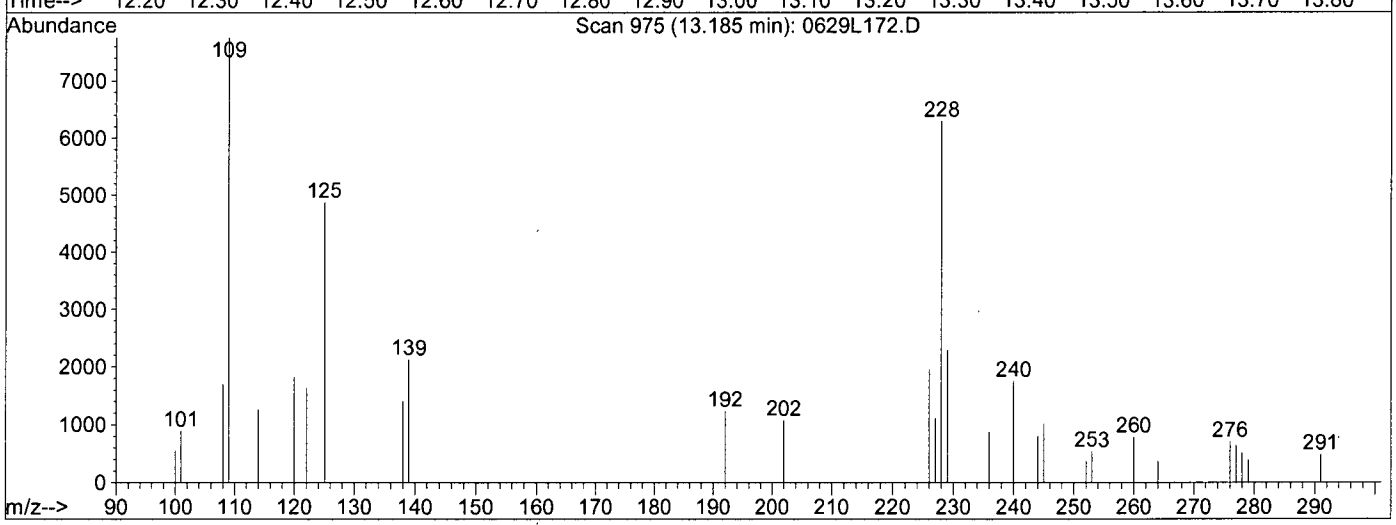
Ion	Exp%	Act%
228.00	100	0.00
229.00	19.20	0.00#
226.00	24.60	0.00#
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L172.D Vial: 72
Acq On : 6 Jul 15 13:53 Operator: MA
Sample : AZ17824S04 MS-1 1/30.17G Inst : Linus
Misc : soil Multiplr: 33.15
Quant Time: Jul 7 13:04 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: 0629L172.D

(18) Benz (a) anthracene (TM)

13.18min 170.8431ppb m

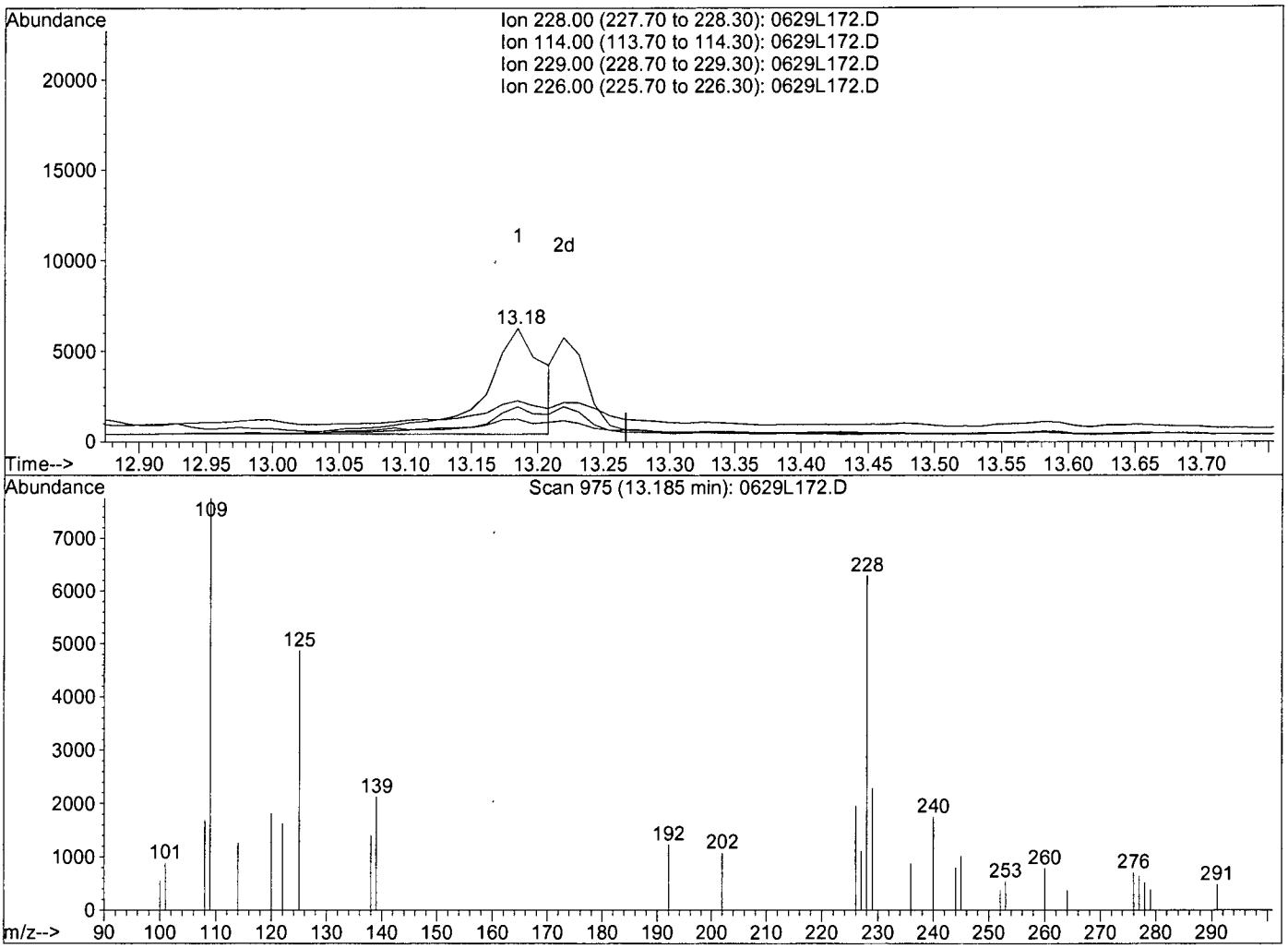
response 15616

Ion	Exp%	Act%
228.00	100	100
229.00	19.20	36.30#
226.00	24.60	31.06
0.00	0.00	0.00

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L172.D Vial: 72
Acq On : 6 Jul 15 13:53 Operator: MA
Sample : AZ17824S04 MS-1 1/30.17G Inst : Linus
Misc : soil Multiplr: 33.15
Quant Time: Jul 7 13:04 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: 0629L172.D

(19) Chrysene (TM)

13.18min 223.0270ppb

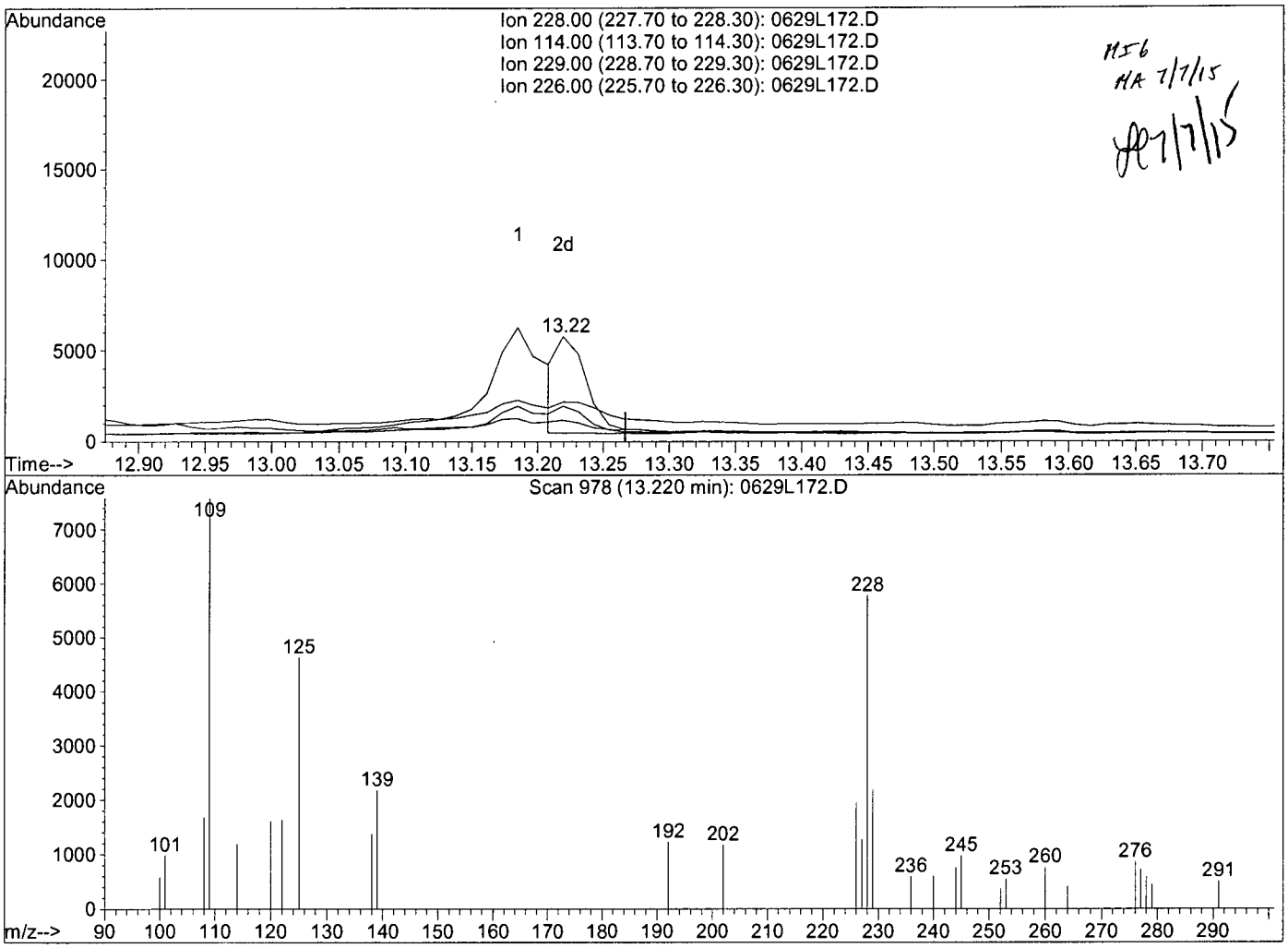
response 18921

Ion	Exp%	Act%
228.00	100	100
114.00	13.50	8.72#
229.00	19.40	18.07
226.00	27.20	24.41

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L172.D Vial: 72
Acq On : 6 Jul 15 13:53 Operator: MA
Sample : AZ17824S04 MS-1 1/30.17G Inst : Linus
Misc : soil Multiplr: 33.15
Quant Time: Jul 7 13:04 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: 0629L172.D

(19) Chrysene (TM)

13.22min 85.1685ppb m

response 8752

Ion	Exp%	Act%
228.00	100	100
114.00	13.50	20.48#
229.00	19.40	37.88#
226.00	27.20	33.76

Quantitation Report (Not Reviewed)

Data File : M:\LINUS\DATA\L150629\0629L173.D Vial: 73
Acq On : 6 Jul 15 14:20 Operator: MA
Sample : AZ17824S04 MSD-1 1/30.14G Inst : Linus
Misc : soil Multiplr: 33.18

Quant Time: Jul 7 11:31 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)	6.05	136	5712	2.50000	ppb		0.00
6) Acenaphthene-D10(IS)	8.10	164	2993	2.50000	ppb		0.00
11) Phenanthrene-D10(IS)	9.85	188	5039	2.50000	ppb		-0.01
15) Chrysene-D12(IS)	13.13	240	5347	2.50000	ppb		0.09
21) Perylene-D12(IS)	15.70	264	3285	2.50000	ppb		0.05
System Monitoring Compounds							
2) Surrogate Recovery (NBZ)	5.19	82	1015	59.35105	ppb		0.01
Spiked Amount 82.946			Recovery = 71.554%				
7) Surrogate Recovery (FBP)	7.31	172	2742	50.13733	ppb		0.00
Spiked Amount 82.946			Recovery = 60.445%				
17) Surrogate Recovery (TPH)	11.73	244	3765	63.82383	ppb		0.00
Spiked Amount 82.946			Recovery = 76.946%				
Target Compounds							Qvalue
3) Naphthalene	6.07	128	9082	96.75516	ppb		99
4) 2-Methylnaphthalene	6.89	142	6934	121.80581	ppb		97
5) 1-Methylnaphthalene	7.00	142	6964	108.95839	ppb		98
8) Acenaphthylene	7.94	152	12117	119.58304	ppb		99
9) Acenaphthene	8.13	154	6807	109.92549	ppb		97
10) Fluorene	8.75	166	7880	120.42012	ppb		97
12) Phenanthrene	9.87	178	11559	126.16465	ppb		96
13) Anthracene	9.94	178	10810	114.12163	ppb		97
14) Fluoranthene	11.27	202	21226	179.67278	ppb		98
16) Pyrene	11.55	202	20877	176.79495	ppb		94
18) Benz (a) anthracene	13.11	228	15271	157.86653	ppb		98
19) Chrysene	13.15	228	8999	81.45660	ppb		99
20) Indeno (1,2,3-cd) pyrene	17.91	276	12332	122.51154	ppb	#	92
22) Benzo (b) fluoranthene	14.89	252	15374	172.06922	ppb		91
23) Benzo (k) fluoranthene	14.93	252	8415	116.95640	ppb	#	82
24) Benzo (a) pyrene	15.47	252	13068	156.43375	ppb		94
25) Dibenz (a,h) anthracene	17.94	278	10109	109.72924	ppb		96
26) Benzo (g,h,i) perylene	18.46	276	10950	115.43929	ppb		92

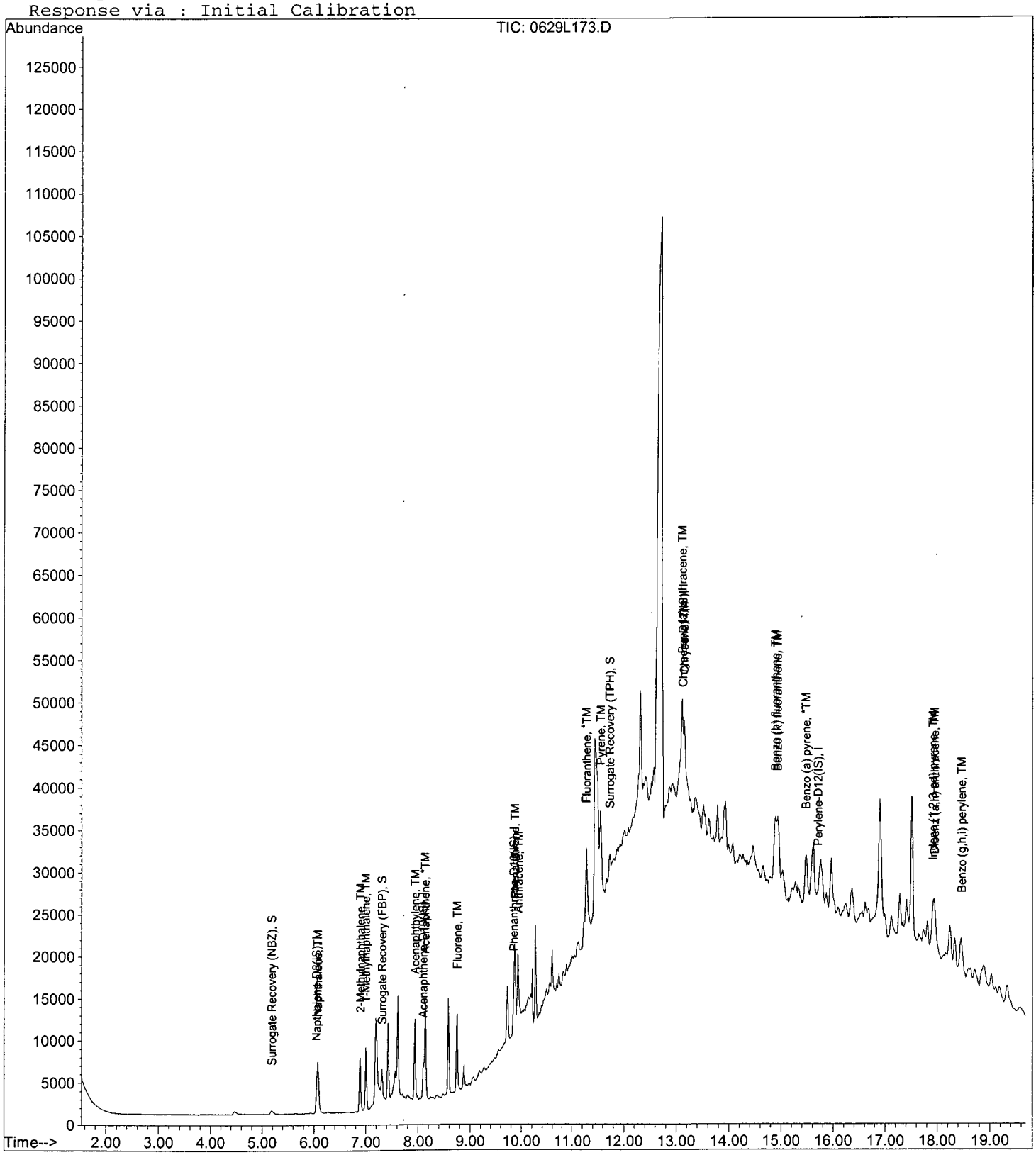
(#) = qualifier out of range (m) = manual integration

Quantitation Report

Data File : M:\LINUS\DATA\L150629\0629L173.D Vial: 73
Acq On : 6 Jul 15 14:20 Operator: MA
Sample : AZ17824S04 MSD-1 1/30.14G Inst : Linus
Misc : soil Multiplr: 33.18

Quant Time: Jul 7 11:31 2015 Quant Results File: P0629.RES

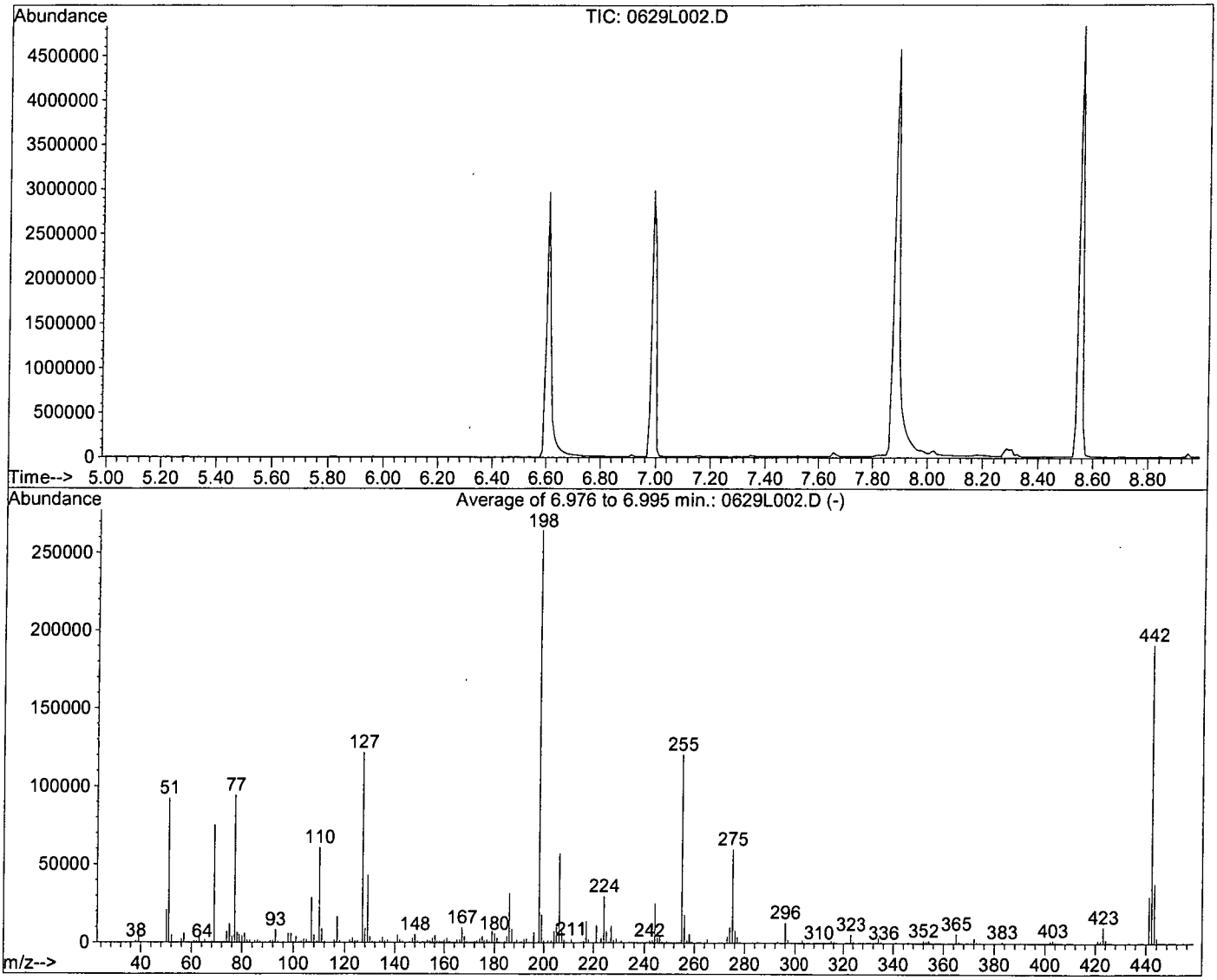
Method : M:\LINUS\DATA\L150629\P0629.M (RTE Integrator)
Title : EPA 8270
Last Update : Tue Jun 30 08:52:42 2015
Response via : Initial Calibration



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

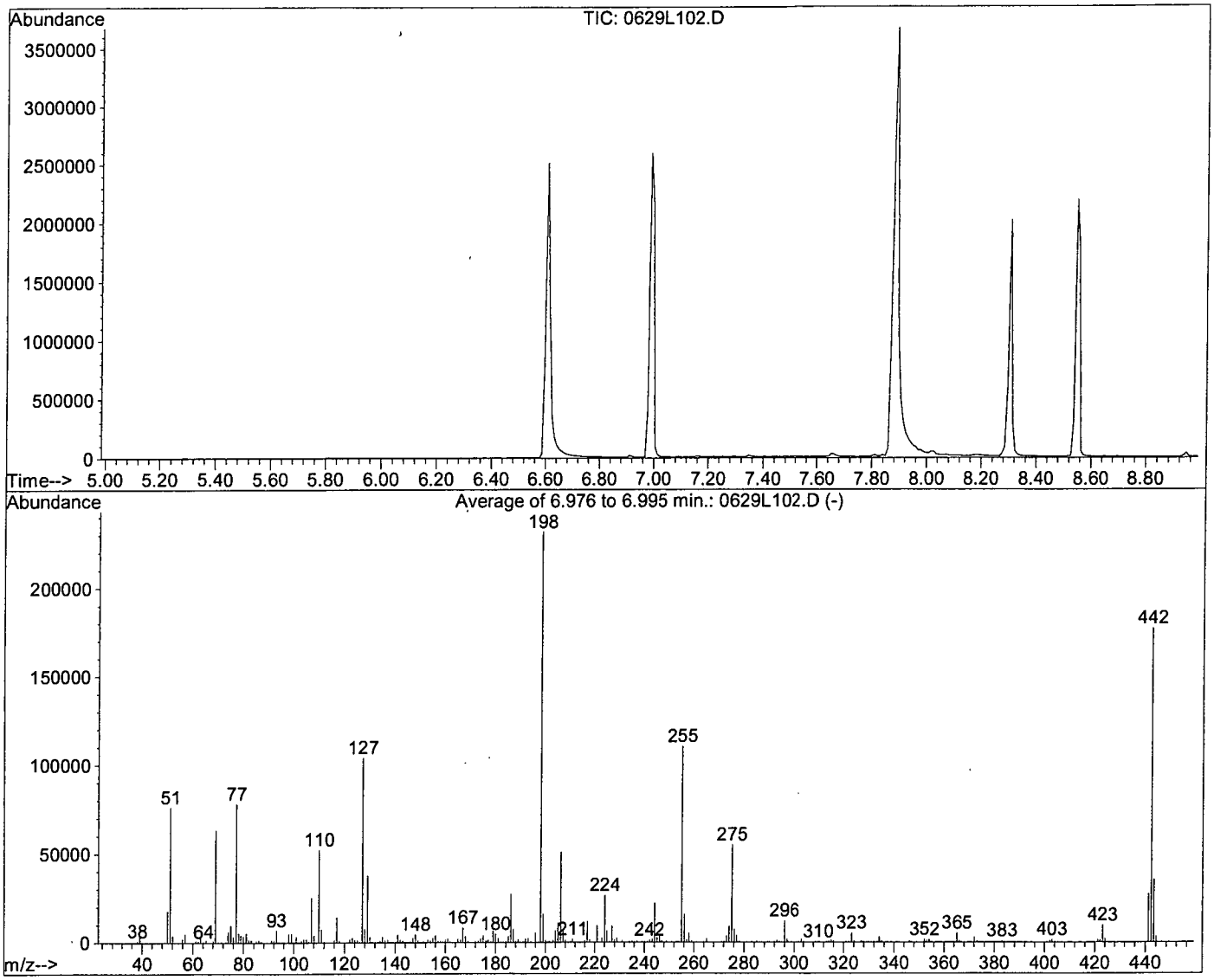
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	34.9	92376	PASS
68	69	0.00	2	1.2	906	PASS
70	69	0.00	2	0.5	373	PASS
127	198	40	60	46.1	121773	PASS
197	198	0.00	1	0.0	0	PASS
198	198	100	100	100.0	264419	PASS
199	198	5	9	6.8	17949	PASS
275	198	10	30	22.6	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

DFTPP

Data File : M:\LINUS\DATA\L150629\0629L102.D Vial: 2
Acq On : 1 Jul 15 10:00 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



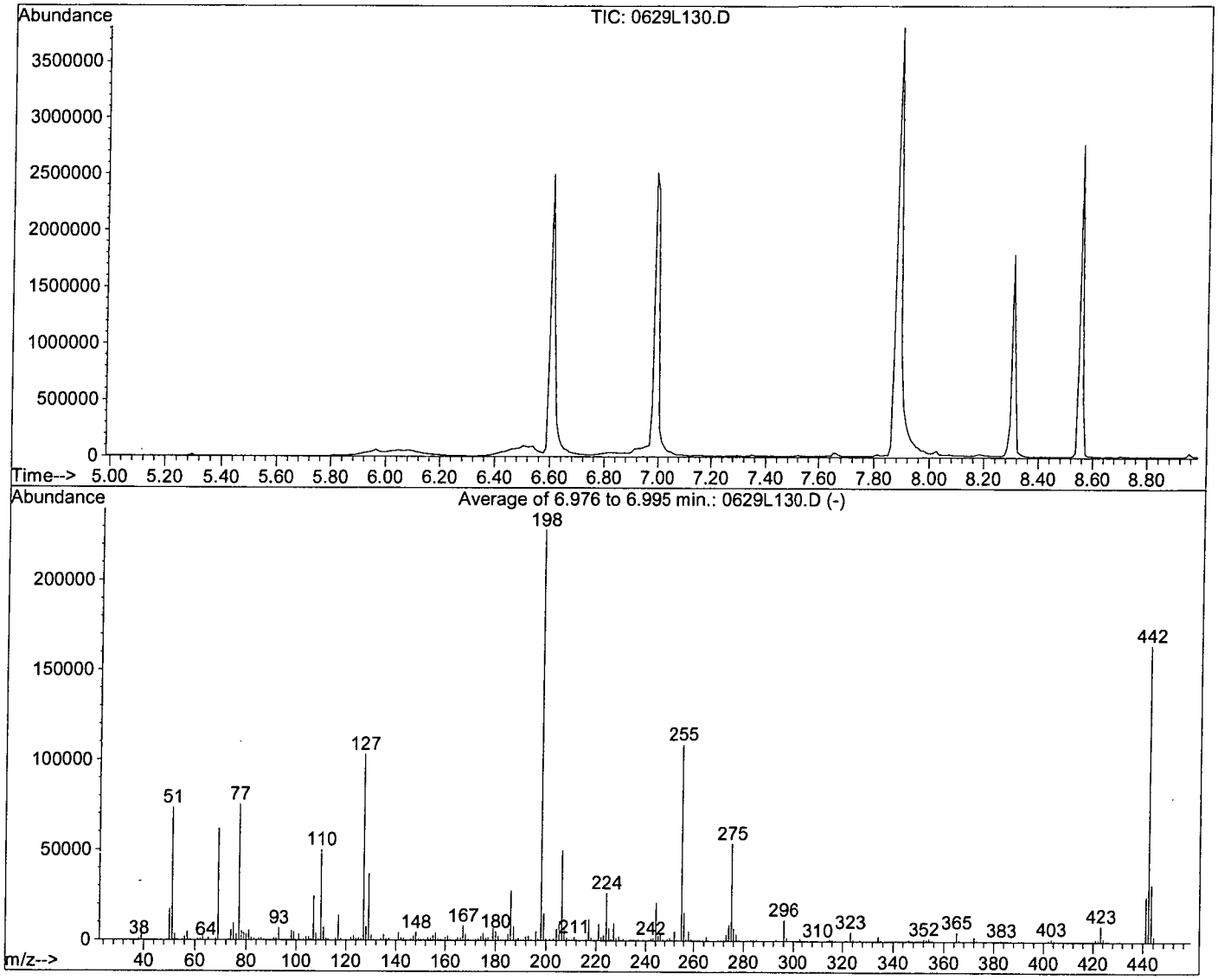
AutoFind: Scans 474, 475, 476;. Background Corrected with Scan 472

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
51	198	30	60	32.8	76124	PASS
68	69	0.00	2	1.5	958	PASS
70	69	0.00	2	0.5	293	PASS
127	198	40	60	44.8	103952	PASS
197	198	0.00	1	0.0	78	PASS
198	198	100	100	100.0	231891	PASS
199	198	5	9	6.9	15941	PASS
275	198	10	30	23.6	54734	PASS
365	198	1	100	2.2	5168	PASS
441	443	0.01	100	76.9	27197	PASS
442	198	50	150	76.4	177261	PASS
443	442	17	23	19.9	35349	PASS

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



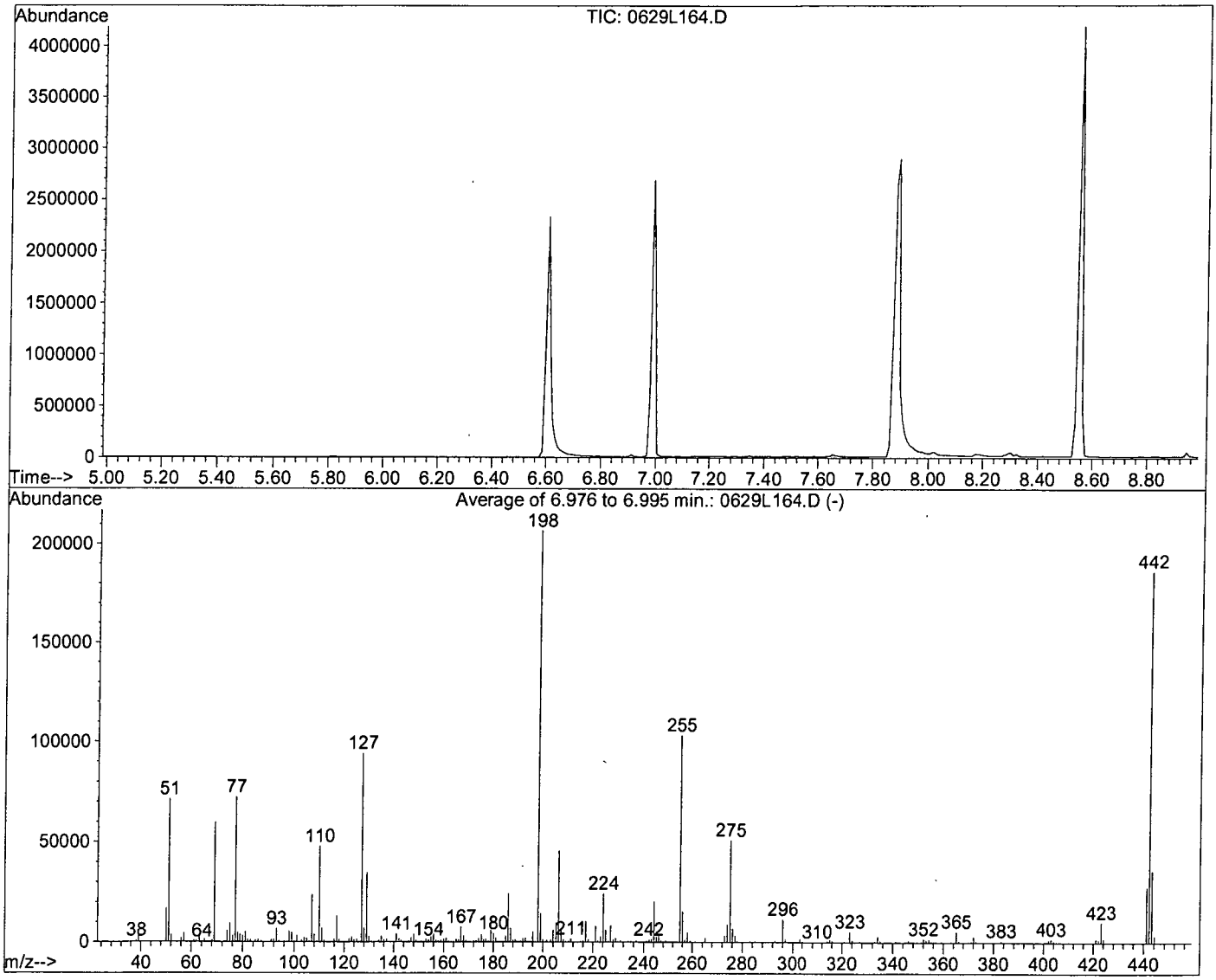
AutoFind: Scans 474, 475, 476; Background Corrected with Scan 472

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\0629L164.D Vial: 64
Acq On : 6 Jul 15 10:07 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	34.5	71293	PASS
68	69	0.00	2	1.6	946	PASS
70	69	0.00	2	0.6	352	PASS
127	198	40	60	45.5	94131	PASS
197	198	0.00	1	0.1	218	PASS
198	198	100	100	100.0	206853	PASS
199	198	5	9	6.9	14194	PASS
275	198	10	30	24.5	50717	PASS
365	198	1	100	2.6	5320	PASS
441	443	0.01	100	77.0	27587	PASS
442	198	50	150	90.1	186435	PASS
443	442	17	23	19.2	35840	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 SIM	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 SIM	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.Dat	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	1B	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													

GC/MS STANDARD PREPARATION BOOK # ___ PAGE # 073

02/27/15 CC

8270D PAH SIM Solution, Second Source, 200 mg/L, 1 mL

110780-01-SS

Lot #	Storage	Expiry
243252	≤ -10 °C	15/Jan/2017

Solv: Methylene Chloride

8270D PAH SIM (SS)
Lot #: 243252 - 34609
Rec: 1/23/15 MFR exp. 1/15/17

Received: 01/23/15
Opened: 02/27/15
Expired: 01/15/17

02/27/15 CC

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 CC

PREP DATE:	02/27/15						CC
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 CC

PREP DATE:	02/27/15						CC
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 CC

PREP DATE:	02/27/15						CC
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 CC

PREP DATE:	02/26/15		EXP:	03/03/15										CC
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 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

_SEP004S

Organic Extraction Worksheet

Method	SIM Separatory Funnel Extra 3510C	Extraction Set	150619A	Extraction Method	SEP004S	Units	mL

Spiked ID 1	SIM Spike 230271-33746		Surrogate ID 1	SIM Surrogate 248398-35028	
Spiked ID 2			Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:	06/19/15 11:30	
Spiked ID 8			Ext. End Time:	06/19/15 15:50	
			GC Requires Extract By:	**07/08/15 0:00**	

pH1	2	6/19/15 11:35:00 AM	Water Bath Temp Criteria	79,78 °C
pH2	14	06/19/15 1:10:00 PM		
pH3				

Spiked By: IC **Date** 06/19/15 **Witnessed By:** DC **Date** 06/19/15

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	150619A Blk				0.0250	1	1000	1	2/1	06/19/15 11:30	
						equip	E-WB7				
2	150619A LCS-1		0.0250	1	0.0250	1	1000	1	2/1	06/19/15 11:30	
						equip	E-WB7				
3	AZ17817	AZ17817W05			0.0250	1	1000	1	2/1	06/19/15 11:30	76674
						equip	E-WB7				
4	AZ17821	AZ17821W05			0.0250	1	1000	1	2/1	06/19/15 11:30	76674
						equip	E-WB7				
5	AZ17826	AZ17826W08			0.0250	1	1040	1	2/1	06/19/15 11:30	76674
						equip	E-WB7				
6	AZ17827	AZ17827W04			0.0250	1	900	1	2/1	06/19/15 11:30	76674
						equip	E-WB7				
7	AZ17828	AZ17828W08			0.0250	1	960	1	2/1	06/19/15 11:30	76674
						equip	E-WB7				
8	AZ17829	AZ17829W07			0.0250	1	900	1	2/1	06/19/15 11:30	76674
						equip	E-WB6				
9	AZ17907	AZ17907W08			0.0250	1	900	1	2/1	06/19/15 11:30	76687
						equip	E-WB6				
10	AZ17908	AZ17908W05			0.0250	1	940	1	2/1	06/19/15 11:30	76687
						equip	E-WB6				
11	AZ17909	AZ17909W08			0.0250	1	900	1	2/1	06/19/15 11:30	76687
						equip	E-WB6				

Ky 6/19/15

olvent and Lot#	
+1 Acid	6-2-15
H STRIP	HC431579
1C	55006
. Na2SO4	5-20-15
0N NaOH	4-18-15
. Na2SO4	XE21E
ILTER PAPER	400098

Extraction COC Transfer	
Extraction lab employee Initials	KY
GC analyst's initials	LH
Date	6/19/15
Time	4:40
Refrigerator	GCC

	Technician's Initials
Scanned By	DC
Sample Preparation	DC
Extraction	DC,KY
Concentration	IC

Modified	06/19/15 4:08:38 PM

Reviewed By: Ky **Date** 6/19/15

_SON009S

Organic Extraction Worksheet

Method	SIM Sonicat Ext. Methylene c 3550	Extraction Set	150622B	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:	06/22/15 13:45	
			GC Requires Extract By:	**07/08/15 0:00**	

pH1			Water Bath Temp Criteria	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	150622B Blk				0.0250	1	30.00g	1	NA	06/22/15 9:25	
						equip	E-S5 E-WB6				
2	150622B LCS-1		0.0250	1	0.0250	1	30.02g	1	NA	06/22/15 9:25	
						equip	E-S4 E-WB6				
3	AZ17816	AZ17816S01			0.0250	1	30.02g	1	NA	06/22/15 9:25	76674
						equip	E-S3.1 E-WB6				
4	AZ17819	AZ17819S01			0.0250	1	30.13g	1	NA	06/22/15 9:25	76674
						equip	E-S2 E-WB6				
5	AZ17820	AZ17820S02			0.0250	1	30.04g	1	NA	06/22/15 9:25	76674
						equip	E-S1.2 E-WB6				
6	AZ17822	AZ17822S02			0.0250	1	30.23g	1	NA	06/22/15 9:25	76674
						equip	E-S1.1 E-WB6				
7	AZ17824 MS-1	AZ17824S06	0.0250	1	0.0250	1	30.00g	1	NA	06/22/15 9:25	76674
						equip	E-S6 E-WB6				
8	AZ17824 MSD-1	AZ17824S06	0.0250	1	0.0250	1	30.28g	1	NA	06/22/15 9:25	76674
						equip	E-S7 E-WB6				
9	AZ17824	AZ17824S06			0.0250	1	30.21g	1	NA	06/22/15 9:25	76674
						equip	E-S5 E-WB6				

KY 6/22/15

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	6/22/15
Time	3:32
Refrigerator	GC-C

	Technician's Initials
Scanned By	KY
Sample Preparation	KY
Extraction	IC
Concentration	IC

Modified	06/22/15 2:34:04 PM

Reviewed By: KY **Date** 6/22/15

)6/22/15 2:34:11 PM Ext_ID 445 48162

_SON009S

Organic Extraction Worksheet

Method	SIM Sonicat Ext. Methylene c 3550	Extraction Set	150702A	Extraction Method	SON009S	Units	mL

Spiked ID 1	SIM Spike 230271-33746		Surrogate ID 1	SIM 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:	YES	
Spiked ID 7			Ext. Start Time:	07/02/15 11:30	
Spiked ID 8			Ext. End Time:	07/02/15 15:45	
			GC Requires Extract By:	**07/08/15 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				0.0250	1	30.47g	1	NA	07/02/15 11:30	
						equip	E-S1.1 E-WB6				
2	150702A LCS-1		0.0250	1	0.0250	1	30.68g	1	NA	07/02/15 11:30	
						equip	E-S1.2 E-WB6				
3	AZ17816	AZ17816S02			0.0250	1	30.02g	1	NA	07/02/15 11:30	76674
						equip	E-S2 E-WB6				
4	AZ17819	AZ17819S02			0.0250	1	30.12g	1	NA	07/02/15 11:30	76674
						equip	E-S3.1 E-WB6				
5	AZ17820	AZ17820S03			0.0250	1	30.22g	1	NA	07/02/15 11:30	76674
						equip	E-S4 E-WB6				
6	AZ17822	AZ17822S01			0.0250	1	30.44g	1	NA	07/02/15 11:30	76674
						equip	E-S5 E-WB6				
7	AZ17824 MS-1	AZ17824S04	0.0250	1	0.0250	1	30.17g	1	NA	07/02/15 11:30	76674
						equip	E-S6 E-WB6				
8	AZ17824 MSD-1	AZ17824S04	0.0250	1	0.0250	1	30.14g	1	NA	07/02/15 11:30	76674
						equip	E-S1.1 E-WB6				
9	AZ17824	AZ17824S04			0.0250	1	30.15g	1	NA	07/02/15 11:30	76674
						equip	E-S1.2 E-WB6				

KY 7/2/15

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	7/2/15
Time	4:50
Refrigerator	GC-C

	Technician's Initials
Scanned By	DL
Sample Preparation	DL
Extraction	IC
Concentration	IC

Modified	07/02/15 3:51:16 PM

Reviewed By: KY **Date** 7/2/15

07/02/15 3:51:25 PM Ext_ID 448296

Injection Log

Directory: M:\LINUS\DATA\L150629\

Vial	FileName	Multiplier	SampleName	Misc Info	Injected
2	0629L002.D	1	SV Tune 05/14/15		29 Jun 15 12:12
3	0629L003.D	1	0.1ug/ml PAH 06/29/15		29 Jun 15 12:29
4	0629L004.D	1	0.2ug/ml PAH		29 Jun 15 12:56
5	0629L005.D	1	0.5ug/ml PAH		29 Jun 15 13:23
6	0629L006.D	1	1.0ug/ml PAH		29 Jun 15 13:50
7	0629L007.D	1	5.0ug/ml PAH		29 Jun 15 14:17
8	0629L008.D	1	10ug/ml PAH		29 Jun 15 14:44
9	0629L009.D	1	50ug/ml PAH		29 Jun 15 15:12
10	0629L010.D	1	100ug/ml PAH		29 Jun 15 15:39
12	0629L012.D	1	5.0ug/ml PAH SS 06/29/15		29 Jun 15 17:28
2	0629L102.D	1	SV TUNE 5/14/15		1 Jul 15 10:00
3	0629L103.D	1	CCV 5.0ug/ml PAH 06/30/15		1 Jul 15 10:48
16	0629L116.D	33.3333	150622B BLK 1/30.00G	soil	1 Jul 15 16:40
17	0629L117.D	33.3111	150622B LCS-1 1/30.02G	soil	1 Jul 15 17:07
18	0629L118.D	33.3111	AZ17816S01 1/30.02G	soil	1 Jul 15 17:34
19	0629L119.D	33.1895	AZ17819S01 1/30.13G	soil	1 Jul 15 18:01
20	0629L120.D	33.289	AZ17820S02 1/30.04G	soil	1 Jul 15 18:28
21	0629L121.D	33.0797	AZ17822S02 1/30.23G	soil	1 Jul 15 18:55
22	0629L122.D	33.3333	AZ17824S06 MS-1 1/30.00G	soil	1 Jul 15 19:22
23	0629L123.D	33.0251	AZ17824S06 MSD-1 1/30.28G	soil	1 Jul 15 19:49
30	0629L130.D	1	SV TUNE 5/14/15	water	2 Jul 15 9:44
31	0629L131.D	1	CCV 5.0ug/ml PAH 06/30/15	water	2 Jul 15 10:01
32	0629L132.D	33.1016	AZ17824S06 1/30.21G	soil	2 Jul 15 10:28
37	0629L137.D	1	150619A BLK 1/1000	water	2 Jul 15 12:43
38	0629L138.D	1	150619A LCS-1 1/1000	water	2 Jul 15 13:10
39	0629L139.D	1	AZ17817W05 1/1000	water	2 Jul 15 13:37
40	0629L140.D	1	AZ17821W05 1/1000	water	2 Jul 15 14:04
41	0629L141.D	0.96154	AZ17826W08 1/1040	water	2 Jul 15 14:31
42	0629L142.D	1.11111	AZ17827W04 1/900	water	2 Jul 15 14:58
43	0629L143.D	1.04167	AZ17828W08 1/960	water	2 Jul 15 15:25
44	0629L144.D	1.11111	AZ17829W07 1/900	water	2 Jul 15 15:52
64	0629L164.D	1	SV TUNE 5/14/15		6 Jul 15 10:07
65	0629L165.D	1	CCV 5.0ug/ml PAH 07/06/15		6 Jul 15 10:24
66	0629L166.D	32.8192	150702A BLK 1/30.47G	soil	6 Jul 15 11:10
67	0629L167.D	32.5945	150702A LCS-1 1/30.68G	soil	6 Jul 15 11:37
68	0629L168.D	33.3111	AZ17816S02 1/30.02G	soil	6 Jul 15 12:04
69	0629L169.D	33.2005	AZ17819S02 1/30.12G	soil	6 Jul 15 12:31
70	0629L170.D	33.0907	AZ17820S03 1/30.22G	soil	6 Jul 15 12:58
71	0629L171.D	32.8515	AZ17822S01 1/30.44G	soil	6 Jul 15 13:25
72	0629L172.D	33.1455	AZ17824S04 MS-1 1/30.17G	soil	6 Jul 15 13:53
73	0629L173.D	33.1785	AZ17824S04 MSD-1 1/30.14G	soil	6 Jul 15 14:20
74	0629L174.D	33.1675	AZ17824S04 1/30.15G	soil	6 Jul 15 14:47

RSK-175

APPL, INC.

RSK-175
QC Summary

APPL, INC.

Method Blank
RSK 175

Blank Name/QCG: **150624W-17694 - 198396**
Batch ID: #RSK-150624A

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	06/24/15	06/24/15
BLANK	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	06/24/15	06/24/15
BLANK	METHANE	0.45 U	1.0	0.45	0.25	ug/L	06/24/15	06/24/15

Quant Method: 402RSK.M
Run #: 0624F008
Instrument: Frodo
Sequence: 150624
Initials: SD

GC SC-Blank-REG MDLs
Printed: 06/25/15 4:38:59 PM

Laboratory Control Spike Recovery
RSK 175

APPL ID: **150624W-17694 LCS - 198396**
Batch ID: #RSK-150624A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
ETHANE	25.0	26.0	104	70-130
ETHENE	23.3	21.4	91.8	70-130
METHANE	13.3	14.6	110	70-130

Comments:

Primary	SPK
Quant Method :	402RSK.M
Extraction Date :	06/24/15
Analysis Date :	06/24/15
Instrument :	Frodo
Run :	0624F006
Initials :	SD

Printed: 06/25/15 4:38:50 PM
APPL Standard LCS

RSK 175

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 06/24/15

Matrix: WATER Instrument: Frodo

Blank ID: 150624A-BLK Time Analyzed: 0944

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150624A-LCS	Lab Control Spike	0624F006	06/24/15 0904
150624A-BLK	Blank	0624F008	06/24/15 0944
AZ17826	S67-MW018-061615	0624F032	06/24/15 1509
AZ17828	S67-MW023-061615	0624F033	06/24/15 1515
AZ17829	S67-MW022-061615	0624F034	06/24/15 1519

Comments: Batch: #RSK-150624A

RSK-175
Sample Data

APPL, INC.

RSK 175

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: 76674

Sample ID: S67-MW018-061615

APPL ID: AZ17826

Sample Collection Date: 06/16/15

QCG: #RSK-150624A-198396

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	06/24/15	06/24/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	06/24/15	06/24/15
RSK 175	METHANE	25	1.0	0.45	0.25	ug/L	06/24/15	06/24/15

Quant Method:	402RSK.M
Run #:	0624F032
Instrument:	Frodo
Sequence:	150624
Dilution Factor:	1
Initials:	SD

Printed: 06/25/15 4:38:53 PM

APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150624\0624F032.D Vial: 32
Acq On : 24 Jun 2015 15:09 Operator: SD
Sample : AZ17826W01 Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 24 15:13 2015 Quant Results File: 402RSK.RES

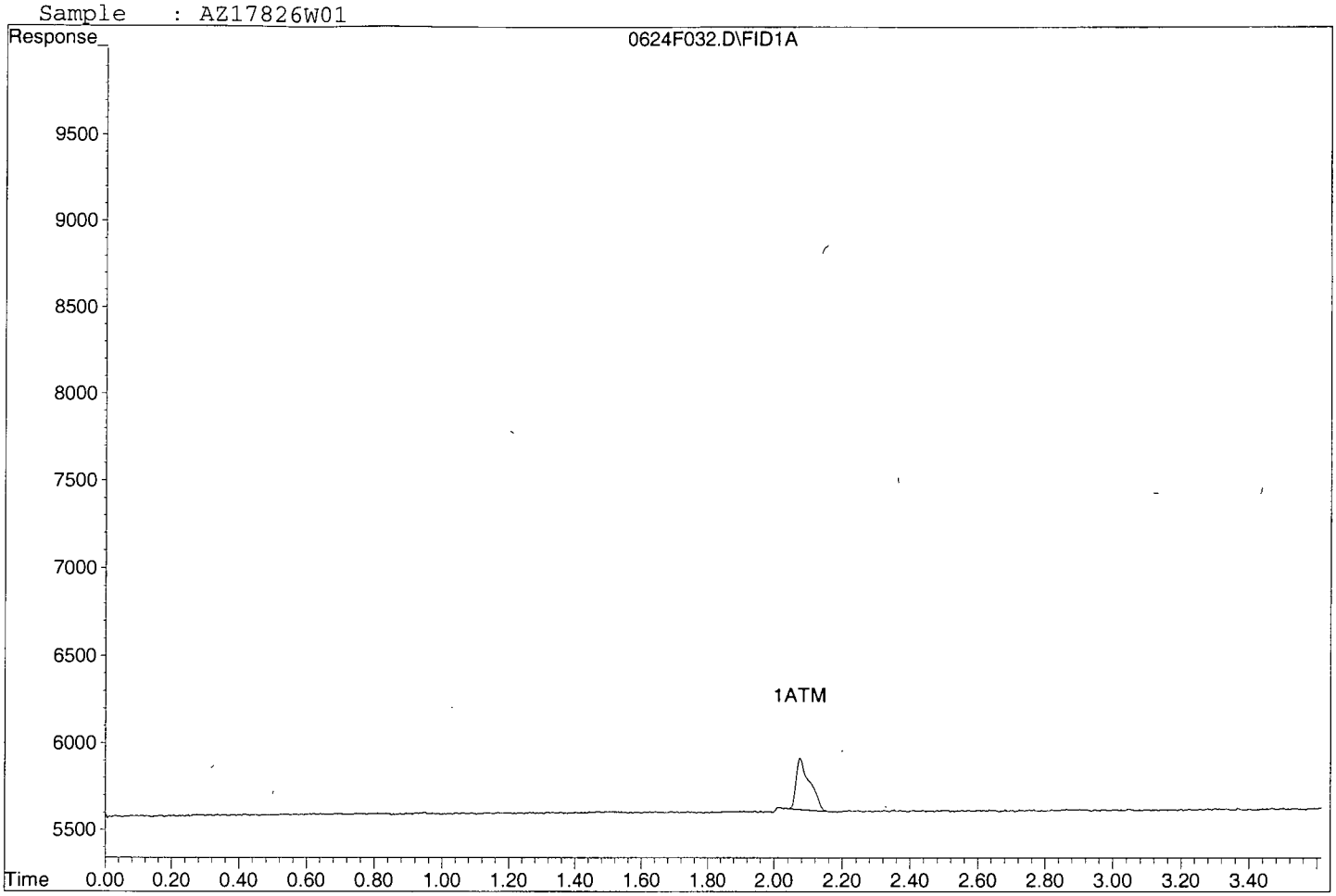
Method : V:\FRODO\DATA\150624\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Jun 25 14:58:59 2015
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.08	8257	24.947 ppb

Quantitation Report

Data File: V:\FRODO\DATA\150624\0624F032.D
Sample : AZ17826W01



RSK 175

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

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-MW023-061615

Sample Collection Date: 06/16/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76674

APPL ID: AZ17828

QCG: #RSK-150624A-198396

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	06/24/15	06/24/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	06/24/15	06/24/15
RSK 175	METHANE	14	1.0	0.45	0.25	ug/L	06/24/15	06/24/15

Quant Method:	402RSK.M
Run #:	0624F033
Instrument:	Frodo
Sequence:	150624
Dilution Factor:	1
Initials:	SD

Printed: 06/25/15 4:38:53 PM

APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (Not Reviewed)

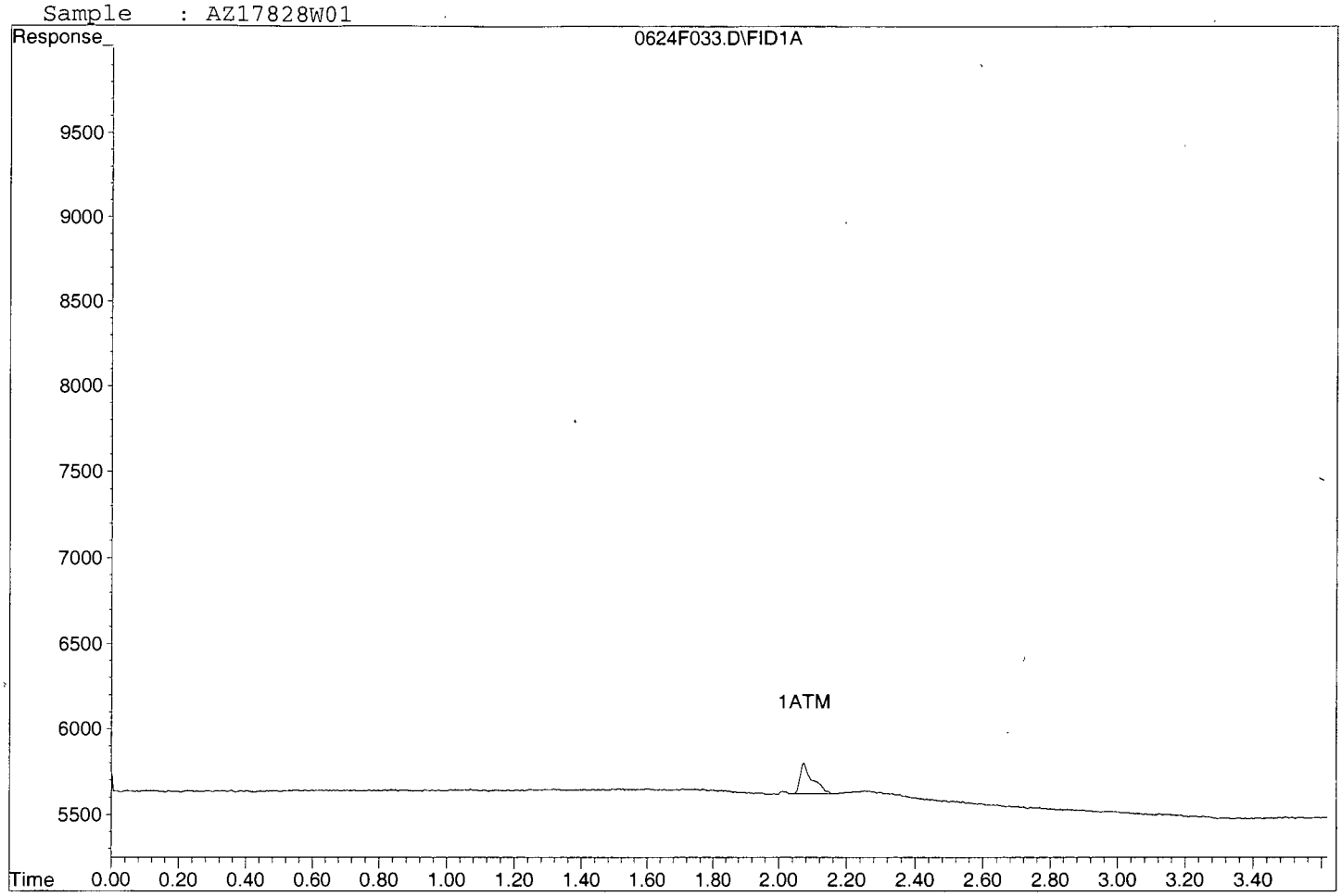
Data File : V:\FRODO\DATA\150624\0624F033.D Vial: 33
Acq On : 24 Jun 2015 15:15 Operator: SD
Sample : AZ17828W01 Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 24 15:23 2015 Quant Results File: 402RSK.RES

Method : V:\FRODO\DATA\150624\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Jun 25 14:58:59 2015
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.07	4587	13.857 ppb

Data File: V:\FRODO\DATA\150624\0624F033.D
Sample : AZ17828W01



RSK 175

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

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-MW022-061615

Sample Collection Date: 06/16/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76674

APPL ID: AZ17829

QCG: #RSK-150624A-198396

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
RSK 175	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	06/24/15	06/24/15
RSK 175	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	06/24/15	06/24/15
RSK 175	METHANE	27	1.0	0.45	0.25	ug/L	06/24/15	06/24/15

Quant Method:	402RSK.M
Run #:	0624F034
Instrument:	Frodo
Sequence:	150624
Dilution Factor:	1
Initials:	SD

Printed: 06/25/15 4:38:53 PM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (Not Reviewed)

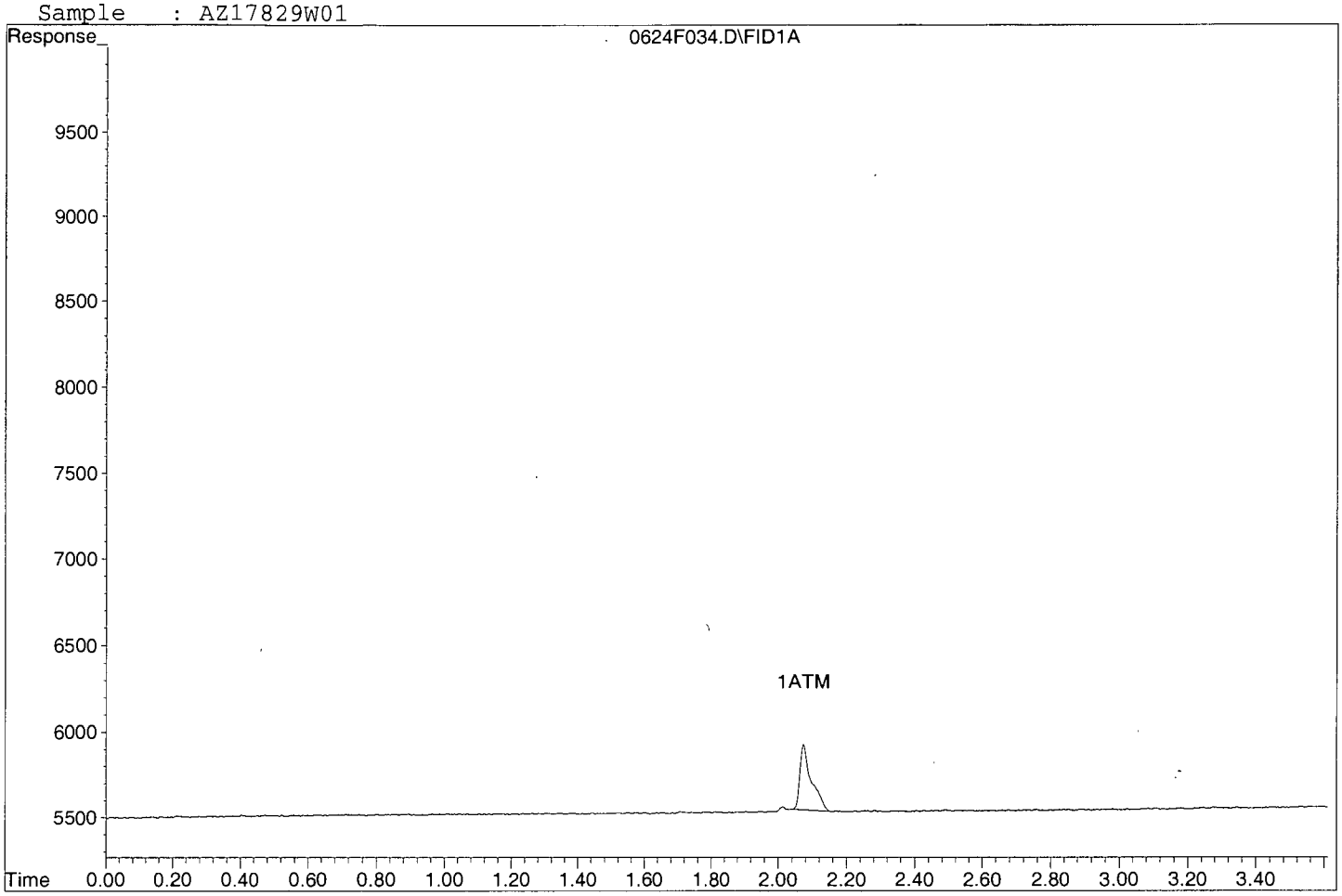
Data File : V:\FRODO\DATA\150624\0624F034.D Vial: 34
Acq On : 24 Jun 2015 15:19 Operator: SD
Sample : AZ17829W01 Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 24 15:23 2015 Quant Results File: 402RSK.RES

Method : V:\FRODO\DATA\150624\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Jun 25 14:58:59 2015
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.07	9069	27.400 ppb

Data File: V:\FRODO\DATA\150624\0624F034.D
Sample : AZ17829W01



RSK-175
Calibration Data

APPL, INC.

Form 6
Initial Calibration

Lab Name: APPL, Inc. SDG No:

Case No: Initial Cal. Date: 3/29/15 and 4/2/15

Matrix: Water Instrument: Frodo Initials: sd

			0329F010.D	0329F001.D	0329F005.D	0329F012 D	0329F013 D	0329F015.D	0329F016.D	0402F001.D	0329F009 D					
		Compound	1	2	3	4	5	6	7	8	1A		Avg	%RSD		
1	ATM	Methane	364	332	325	371	276	318	258	300	433		331	16	ATM	
2	ATM	Ethane	285	219	313	327	277	316	267	321	232		284	14	ATM	
3	ATM	Ethene	352	253	348	326	293	340	281	333	205		303	16	ATM	
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1.3236504

AIR LIQUIDE Air Liquide America Specialty Gases LLC Scott™

Gas Mix 1%
Lot #: 164PLU4SPC05L - 34437
Rec: 12/1/14 MFR exp. 7/8/17

Shipped From: 6141 EASTON ROAD, BLDG 1 PO BOX 310
PLUMSTEADVILLE PA 18949-0310
Phone: 800-331-4953 Fax: 215-766-7226

CERTIFICATE OF ANALYSIS

SIGMA-ALDRICH
PO#P442671
595 NORTH HARRISON ROAD
BELLEFONTE PA 16823
US

DOCUMENT#:56058812 -005
PO#: P442671
ITEM #: T216-48
CUST ITEM #: 23462
DATE: 08Jul2014

ANALYTICAL ACCURACY: +/-02%
PRODUCT EXPIRATION: 08Jul2017

LOT # : 164PLU4SPC05L

COMPONENT	REQUESTED GAS CONC MOLES		ANALYSIS (MOLES)	
ACETYLENE	1.	%	1.0	%
CARBON DIOXIDE	1.	%	1.0	%
CARBON MONOXIDE	1.	%	1.01	%
ETHANE	1.	%	1.01	%
ETHYLENE	1.	%	1.01	%
METHANE	1.	%	1.01	%
NITROGEN		BALANCE		BALANCE

MANUFACTURED DATE: 08Jul2014 SCOTTY SIZE: 48

APPROVED BY: _____
DAN TRAVISANO

Quantitation Report (QT Reviewed)

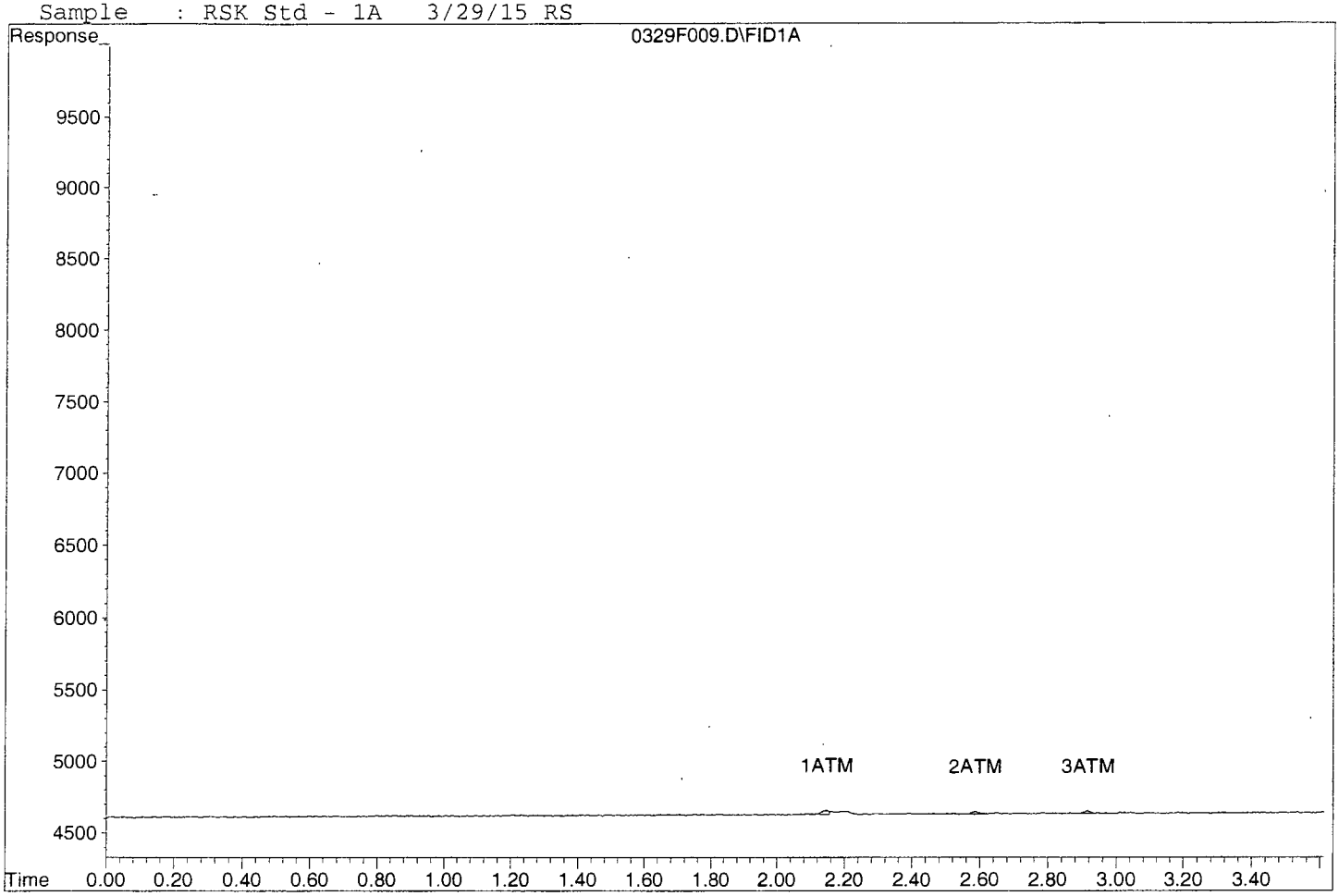
Data File : V:\FRODO\DATA\150329\0329F009.D Vial: 9
Acq On : 29 Mar 2015 09:45 Operator: SD
Sample : RSK Std - 1A 3/29/15 RS Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 29 11:37 2015 Quant Results File: RSK175Q.RES

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

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

Compound	R.T.	Response	Conc	Units	
Target Compounds					
1) ATM Methane	2.15	390	1.029	ppb	m
2) ATM Ethane	2.59	395	1.285	ppb	
3) ATM Ethene	2.92	328	0.962	ppb	

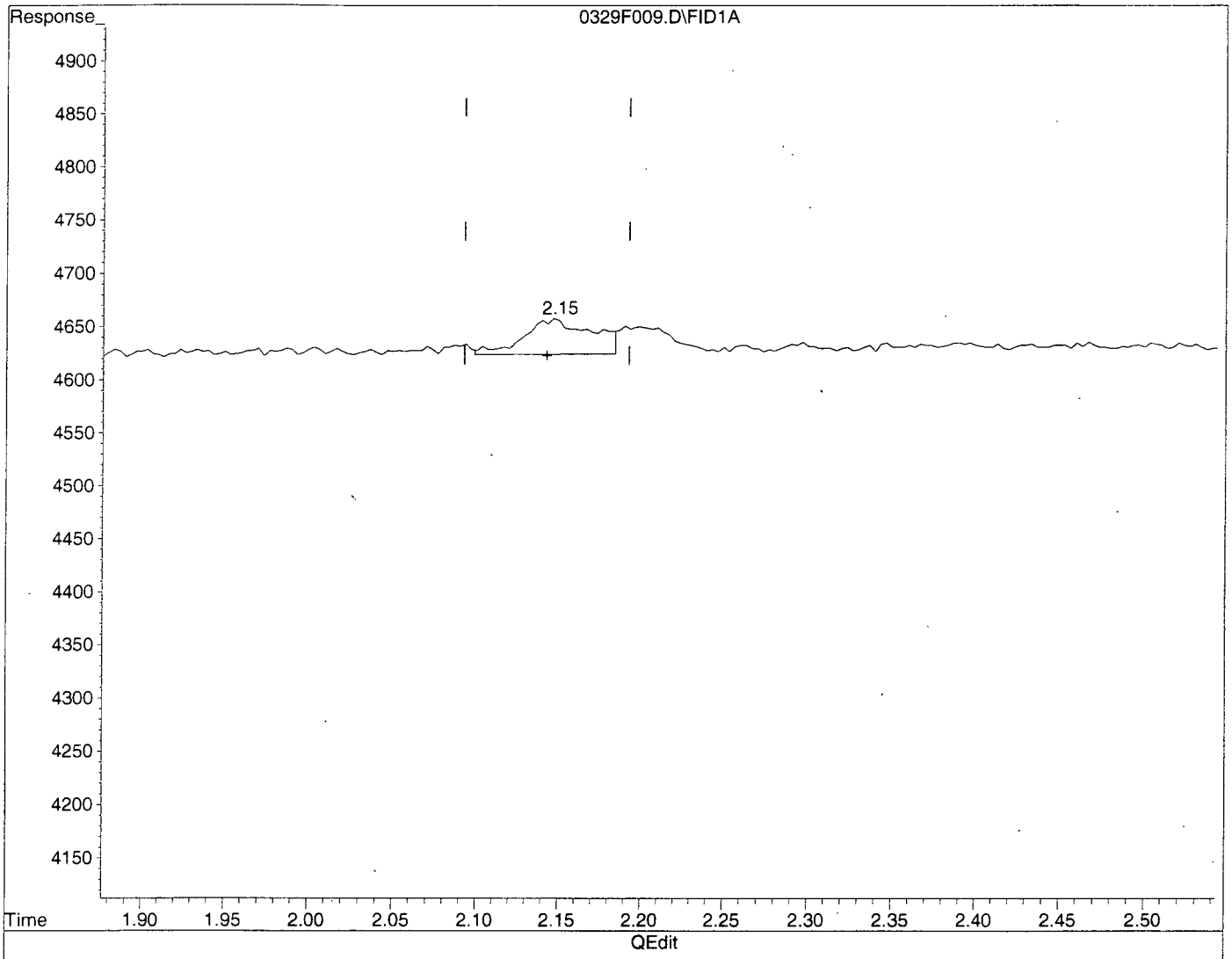
Data File: V:\FRODO\DATA\150329\0329F009.D
Sample : RSK Std - 1A 3/29/15 RS



Quantitation Report

Data File : V:\FRODO\DATA\150329\0329F009.D Vial: 9
Acq On : 29 Mar 2015 09:45 Operator: SD
Sample : RSK Std - 1A 3/29/15 RS Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 29 10:54 2015 Quant Results File: RSK175Q.RES

Method : V:\FRODO\DATA\150329\RSK175Q.M (Chemstation Integrator)
Title : RSK 175
Last Update : Sun Mar 29 10:50:10 2015
Response via : Multiple Level Calibration



(1) Methane (ATM)

2.15min 2.405ppb

response 911

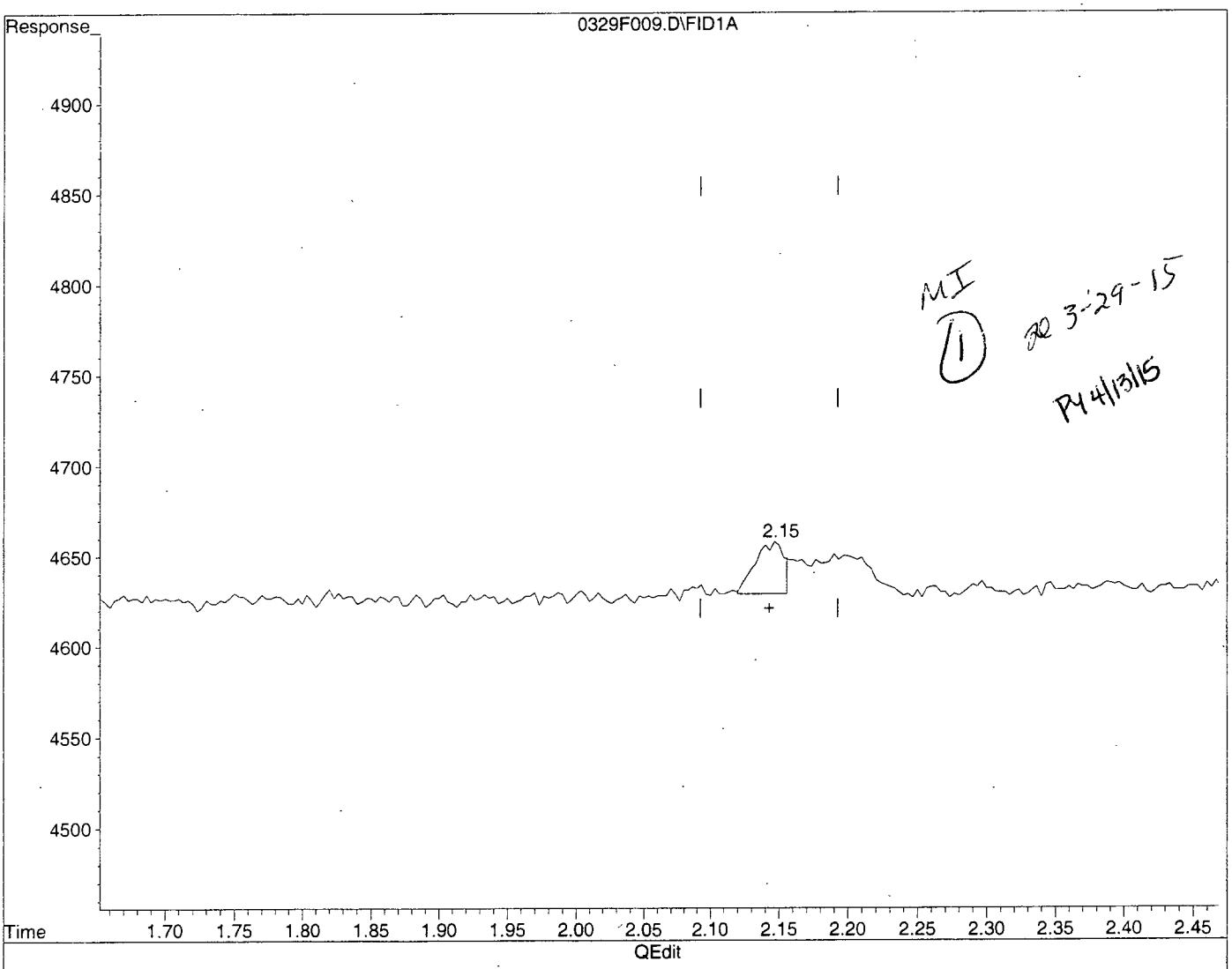
(+) = Expected Retention Time

0329F009.D RSK175Q.M Sun Mar 29 10:54:38 2015

Quantitation Report

Data File : V:\FRODO\DATA\150329\0329F009.D Vial: 9
Acq On : 29 Mar 2015 09:45 Operator: SD
Sample : RSK Std - 1A 3/29/15 RS Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 29 10:55 2015 Quant Results File: RSK175Q.RES

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



(1) Methane (ATM)

2.15min 1.029ppb m

response 390

(+) = Expected Retention Time

0329F009.D RSK175Q.M Sun Mar 29 11:38:16 2015

Quantitation Report (QT Reviewed)

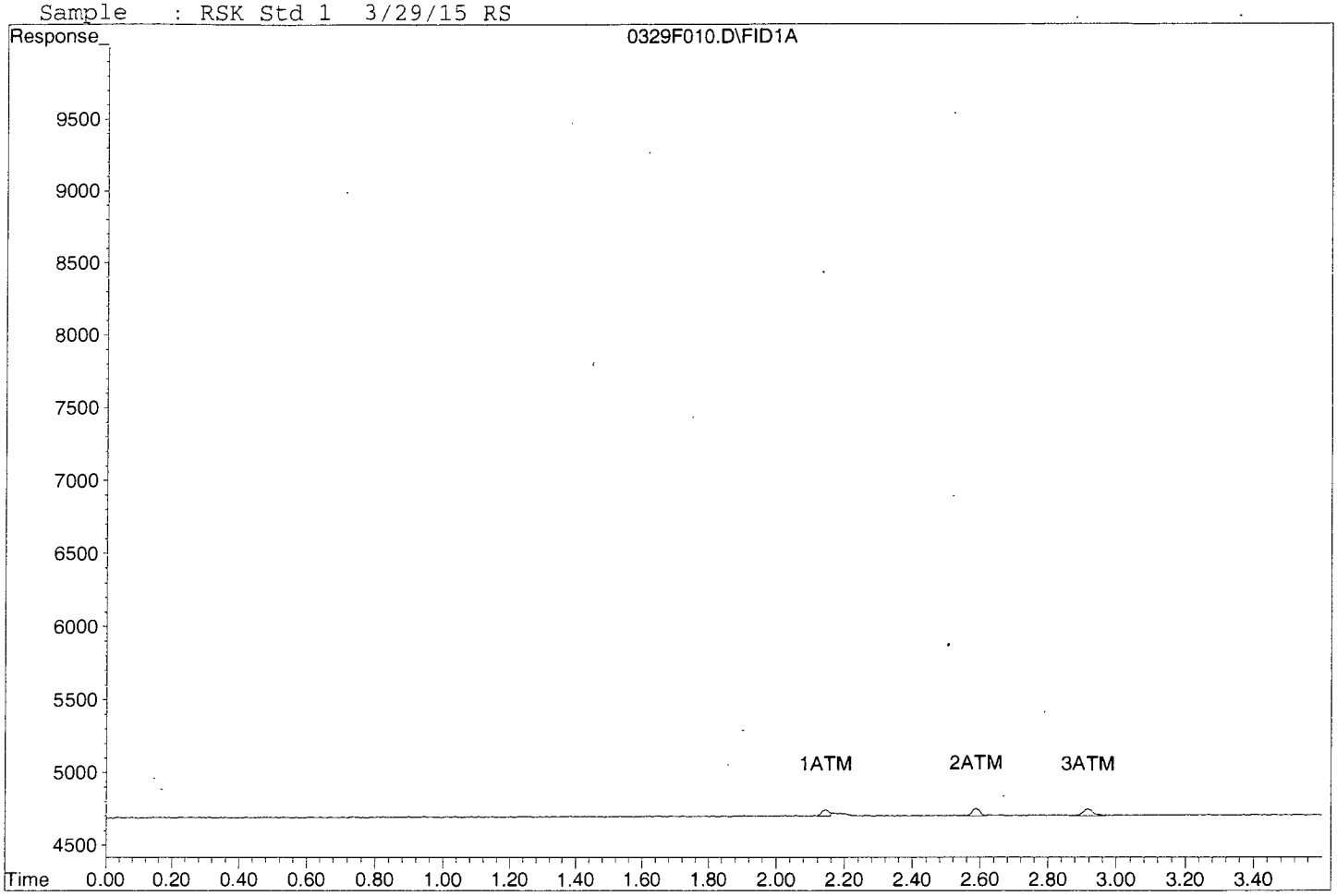
Data File : V:\FRODO\DATA\150329\0329F010.D Vial: 10
Acq On : 29 Mar 2015 10:04 Operator: SD
Sample : RSK Std 1 3/29/15 RS Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 29 11:43 2015 Quant Results File: RSK175Q.RES

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

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

Compound	R.T.	Response	Conc	Units	
Target Compounds					
1) ATM Methane	2.14	656	1.735	ppb	m
2) ATM Ethane	2.59	968	3.187	ppb	
3) ATM Ethene	2.92	1125	3.540	ppb	

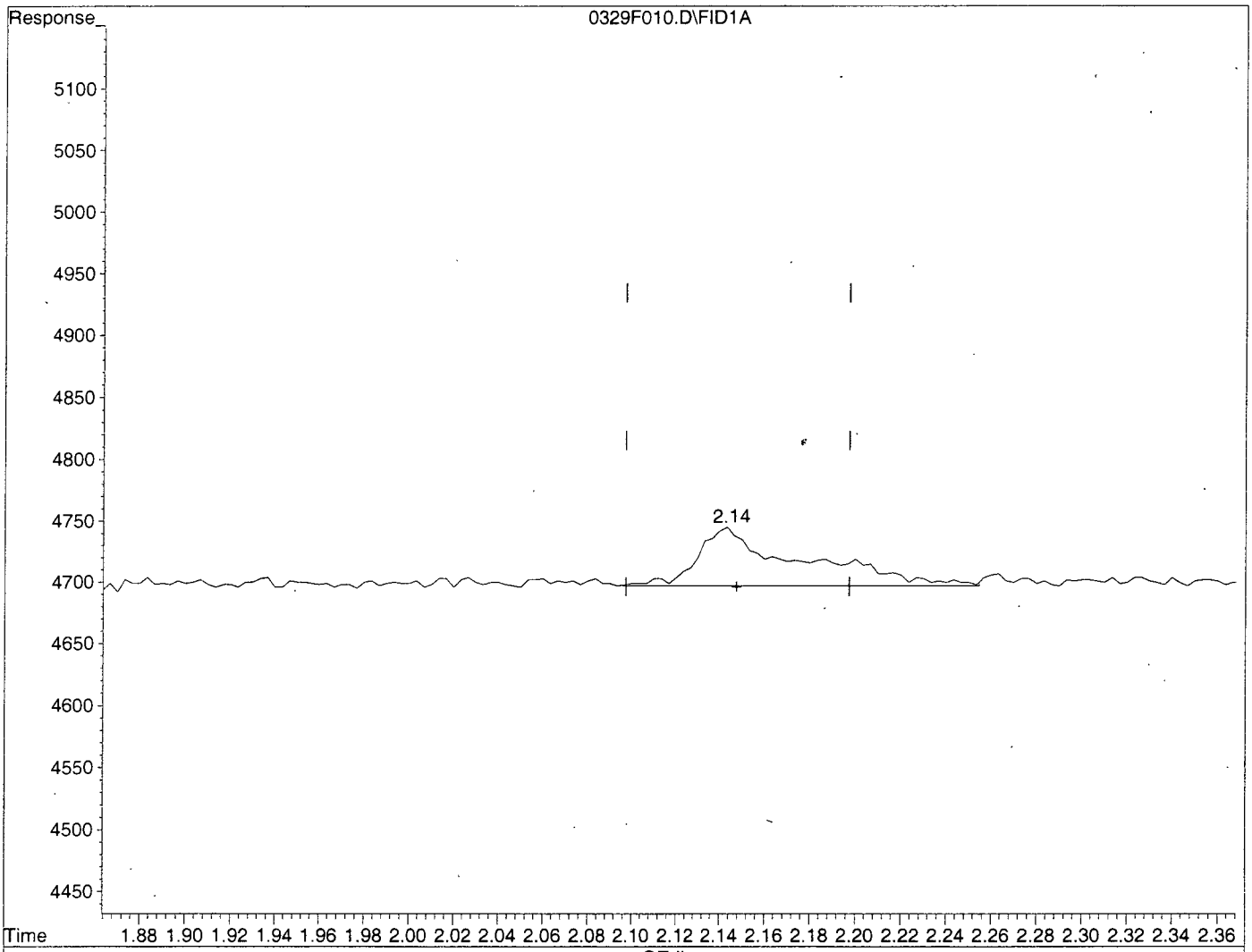
Data File: V:\FRODO\DATA\150329\0329F010.D
Sample : RSK Std 1 3/29/15 RS



Quantitation Report

Data File : V:\FRODO\DATA\150329\0329F010.D Vial: 10
Acq On : 29 Mar 2015 10:04 Operator: SD
Sample : RSK Std 1 3/29/15 RS Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 29 10:08 2015 Quant Results File: RSK175Q.RES

Method : V:\FRODO\DATA\150329\RSK175Q.M (Chemstation Integrator)
Title : RSK 175
Last Update : Sun Mar 29 10:50:10 2015
Response via : Multiple Level Calibration



QEdit

(1) Methane (ATM)

2.14min 1.589ppb

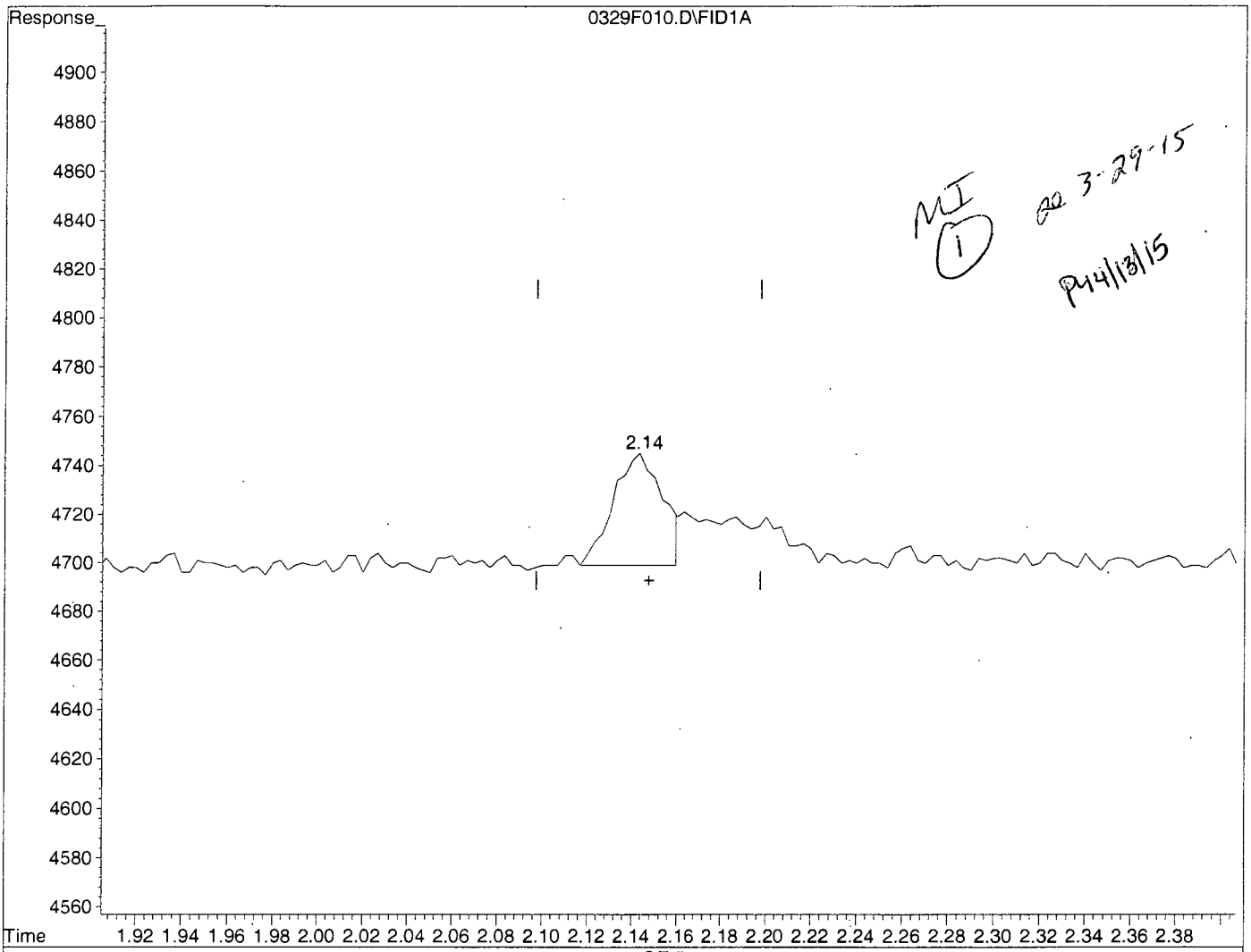
response 1509

(+) = Expected Retention Time

Quantitation Report

Data File : V:\FRODO\DATA\150329\0329F010.D Vial: 10
Acq On : 29 Mar 2015 10:04 Operator: SD
Sample : RSK Std 1 3/29/15 RS Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 29 10:57 2015 Quant Results File: RSK175Q.RES

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



MJ 3-29-15
PM 4/13/15

QEdit

(1) Methane (ATM)

2.14min 1.735ppb m

response 656

(+) = Expected Retention Time

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

Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150329\0329F001.D Vial: 1
Acq On : 29 Mar 2015 08:09 Operator: SD
Sample : RSK Std -2 3/29/15 RS Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 29 11:36 2015 Quant Results File: RSK175Q.RES

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

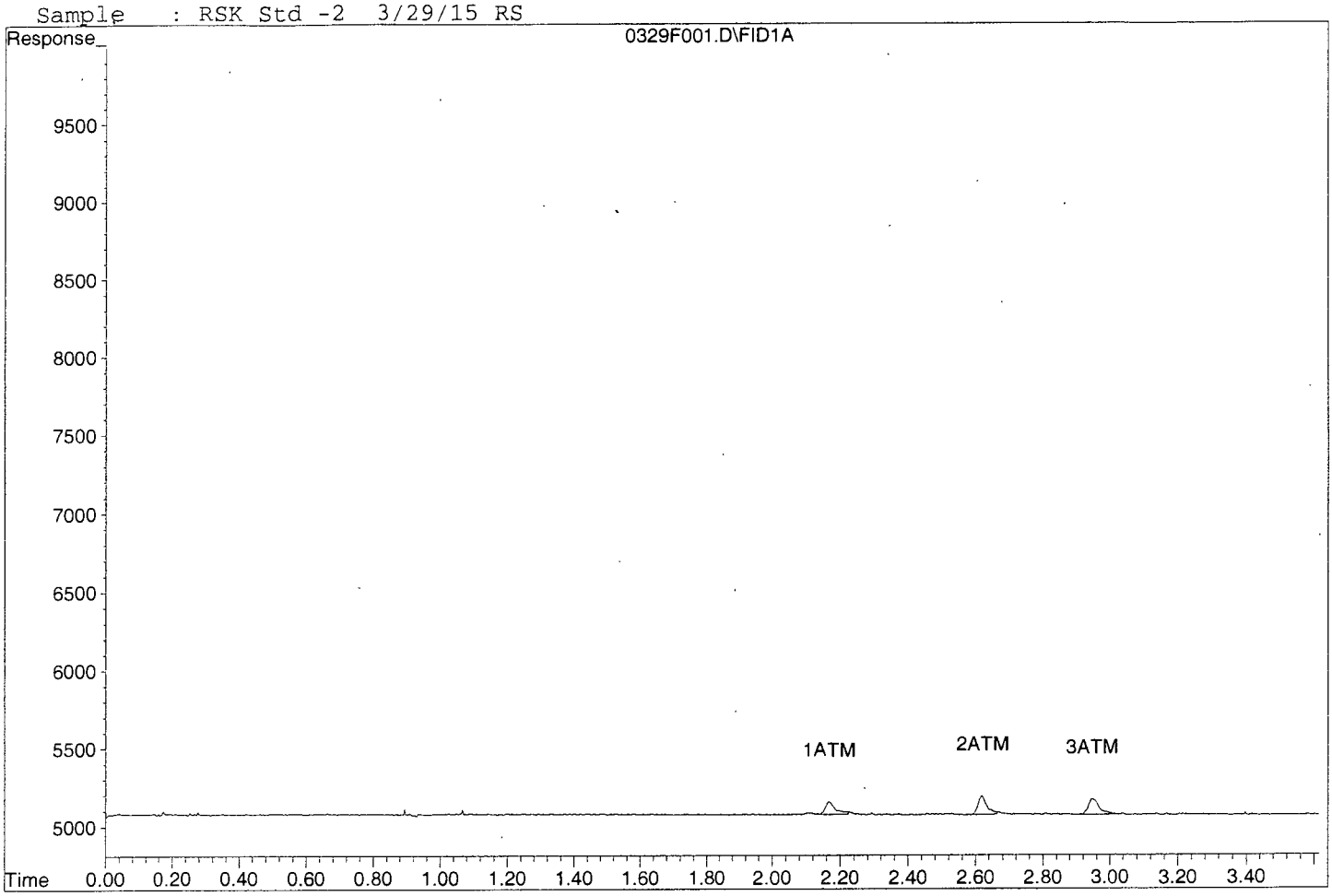
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.17	1692	4.997 ppb
2) ATM Ethane	2.62	2079	7.159 ppb
3) ATM Ethene	2.95	2255	7.357 ppb

(f)=RT Delta > 1/2 Window (m)=manual int.
0329F001.D RSK175Q.M Sun Mar 29 11:36:56 2015 Page 1

Quantitation Report

Data File: V:\FRODO\DATA\150329\0329F001.D
Sample : RSK Std -2 3/29/15 RS



Quantitation Report (Not Reviewed)

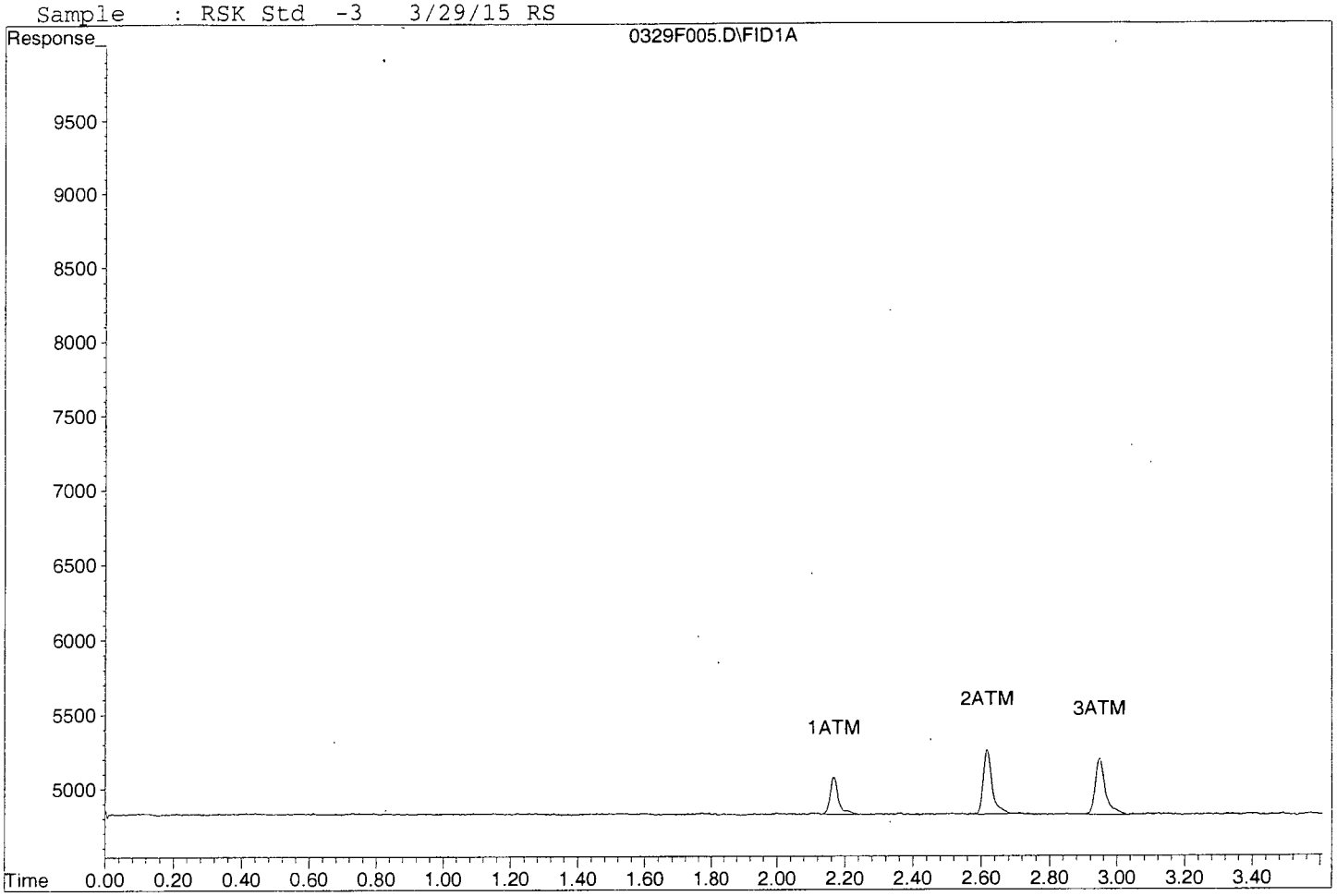
Data File : V:\FRODO\DATA\150329\0329F005.D Vial: 5
Acq On : 29 Mar 2015 09:04 Operator: SD
Sample : RSK Std -3 3/29/15 RS Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 29 11:31 2015 Quant Results File: RSK175Q.RES

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

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

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.17	4339	12.304 ppb
2) ATM Ethane	2.62	7833	26.979 ppb
3) ATM Ethene	2.95	8101	26.692 ppb

Data File: V:\FRODO\DATA\150329\0329F005.D
Sample : RSK Std -3 3/29/15 RS



Quantitation Report (Not Reviewed)

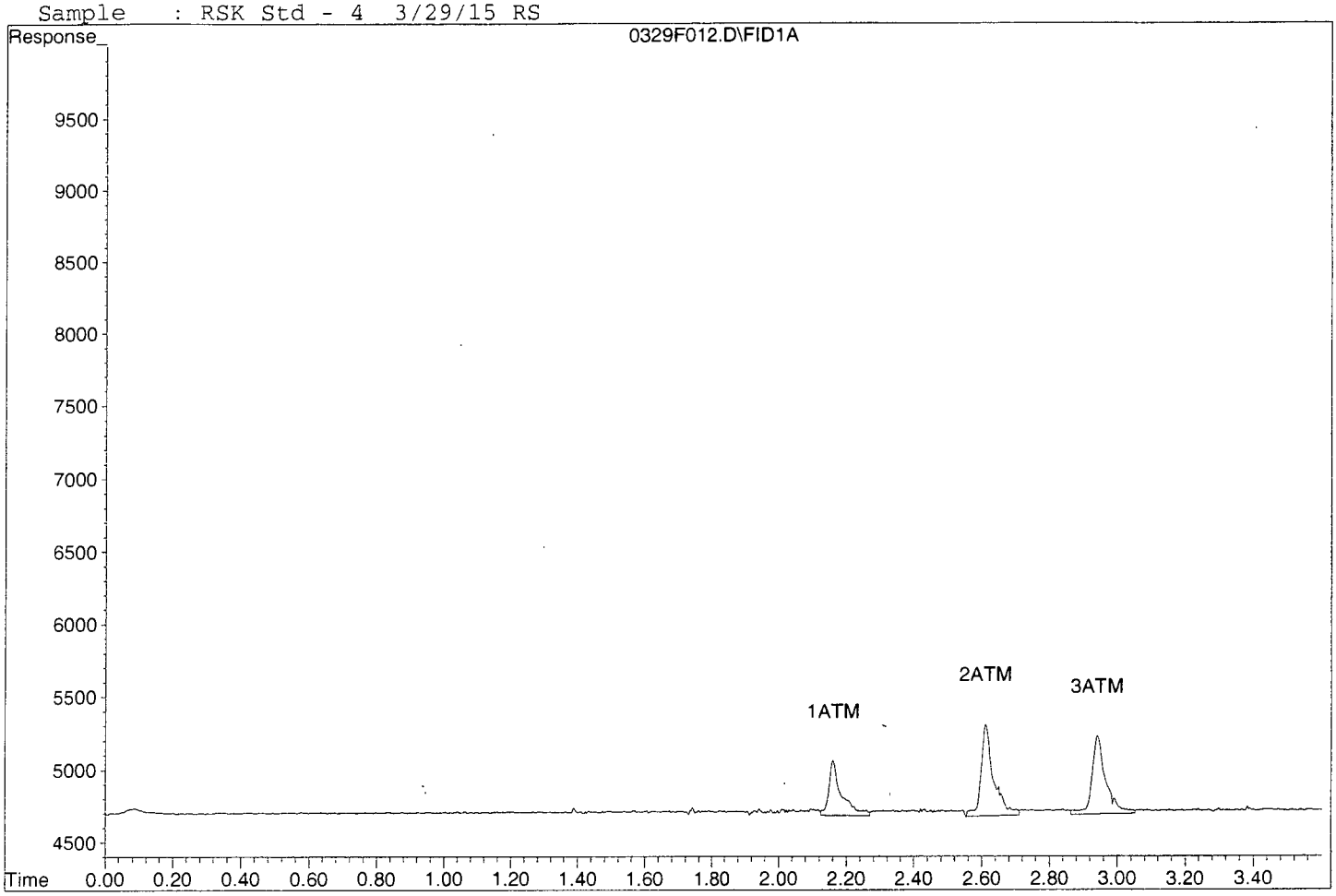
Data File : V:\FRODO\DATA\150329\0329F012.D Vial: 12
Acq On : 29 Mar 2015 10:16 Operator: SD
Sample : RSK Std - 4 3/29/15 RS Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 29 11:31 2015 Quant Results File: RSK175Q.RES

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

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

Compound	R.T.	Response	Conc	Units
Target Compounds				
1) ATM Methane	2.16	9905	28.474	ppb
2) ATM Ethane	2.61	16348	56.938	ppb
3) ATM Ethene	2.94	15197	50.416	ppb

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



Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150329\0329F013.D Vial: 13
Acq On : 29 Mar 2015 10:20 Operator: SD
Sample : RSK Std - 5 3/29/15 RS Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 29 11:33 2015 Quant Results File: RSK175Q.RES

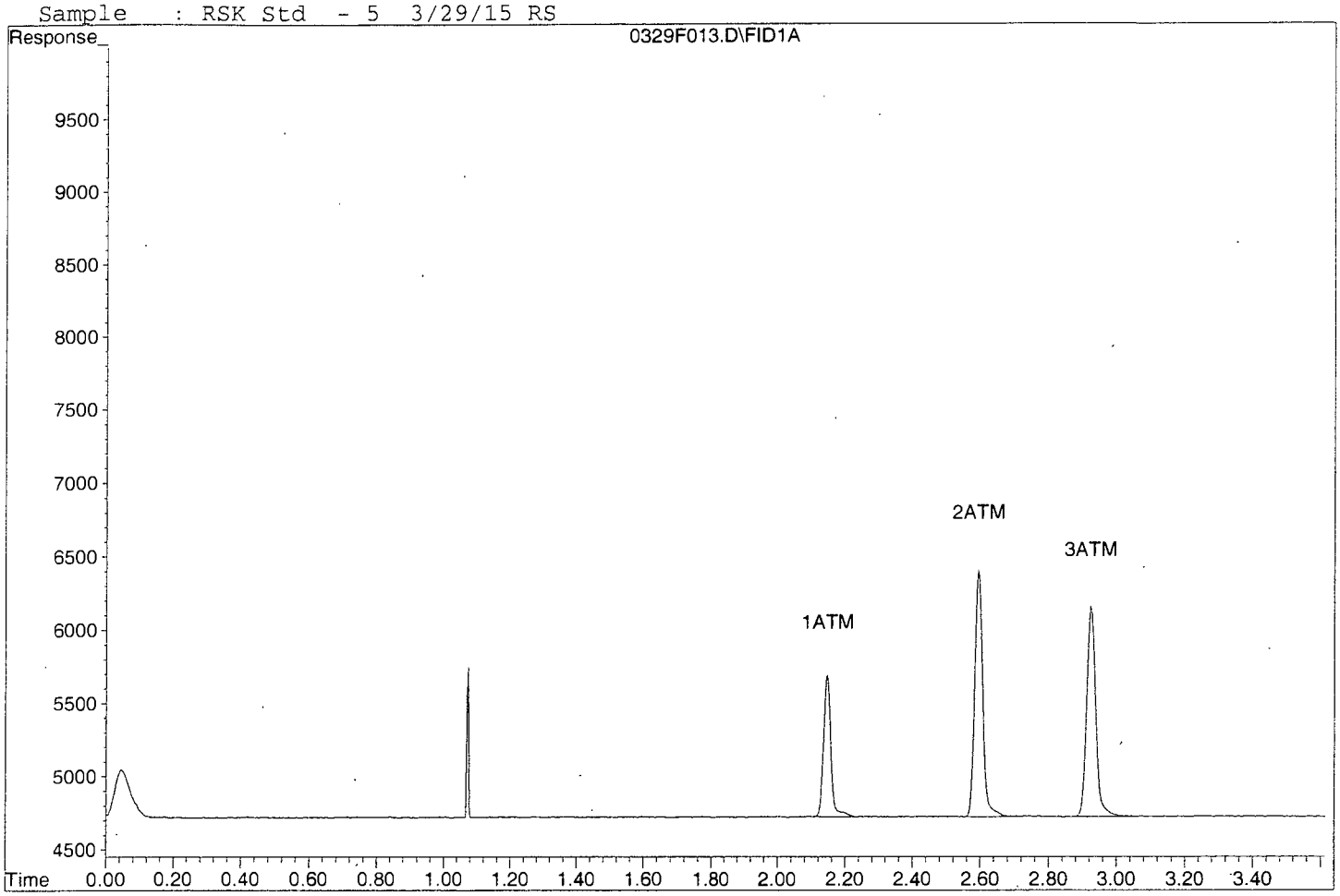
Method : V:\FRODO\DATA\150329\RSK175Q.M (Chemstation Integrator)
Title : RSK 175
Last Update : Sun Mar 29 11:20:33 2015
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.15	14757	37.309 ppb
2) ATM Ethane	2.60	27687	82.950 ppb
3) ATM Ethene	2.93	27304	77.476 ppb

Quantitation Report

Data File: V:\FRODO\DATA\150329\0329F013.D
Sample : RSK Std - 5 3/29/15 RS



Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150329\0329F015.D Vial: 15
Acq On : 29 Mar 2015 10:34 Operator: SD
Sample : RSK Std 6 3/29/15 RS Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 29 11:32 2015 Quant Results File: RSK175Q.RES

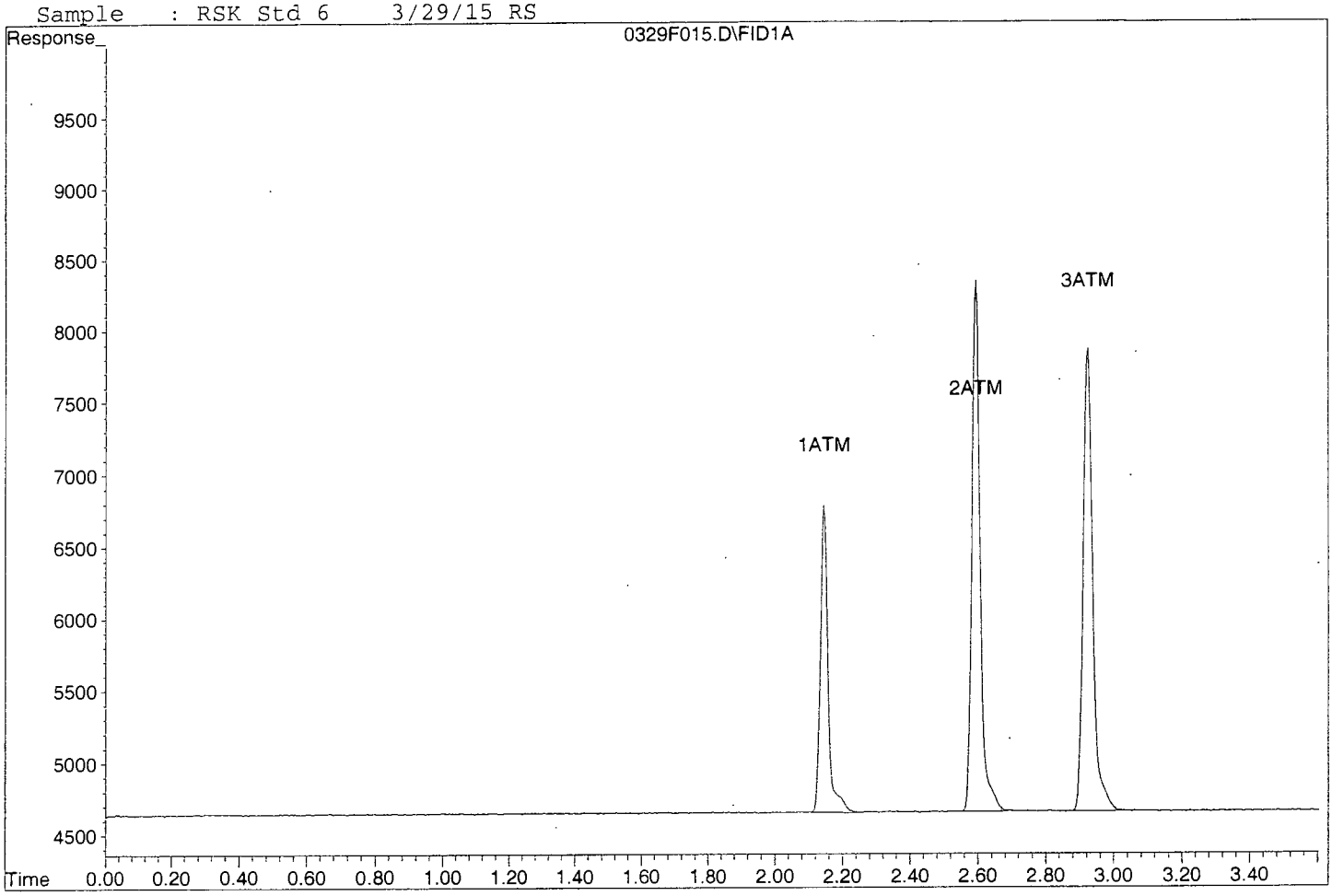
Method : V:\FRODO\DATA\150329\RSK175Q.M (Chemstation Integrator)
Title : RSK 175
Last Update : Sun Mar 29 11:20:33 2015
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.15	33981	96.772 ppb
2) ATM Ethane	2.59	63177	217.921 ppb
3) ATM Ethene	2.92	63376	208.092 ppb

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

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



Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150329\0329F016.D Vial: 16
Acq On : 29 Mar 2015 11:11 Operator: SD
Sample : RSK Std - 7 3/29/15 RS Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 29 11:33 2015 Quant Results File: RSK175Q.RES

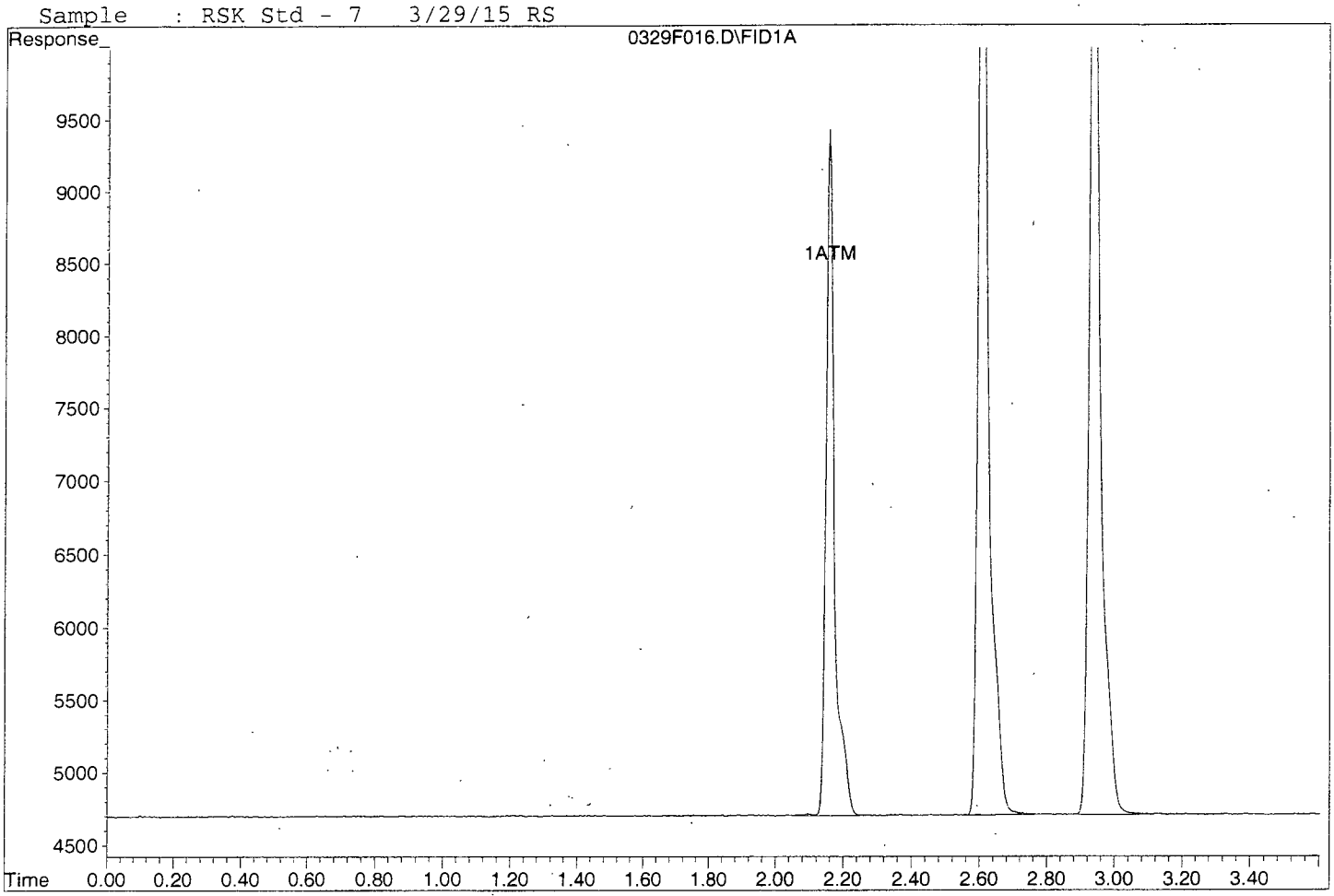
Method : V:\FRODO\DATA\150329\RSK175Q.M (Chemstation Integrator)
Title : RSK 175
Last Update : Sun Mar 29 11:20:33 2015
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.16	82685	235.885 ppb
2) ATM Ethane	2.61	160017	552.898 ppb
3) ATM Ethene	2.94	156995	516.370 ppb

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

Data File: V:\FRODO\DATA\150329\0329F016.D
Sample : RSK Std - 7 3/29/15 RS



Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150402\0402F001.D Vial: 1
Acq On : 2 Apr 2015 07:55 Operator: SD
Sample : RSK STD - 8 04-02-15 RS Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 2 10:14 2015 Quant Results File: RSK175Q.RES

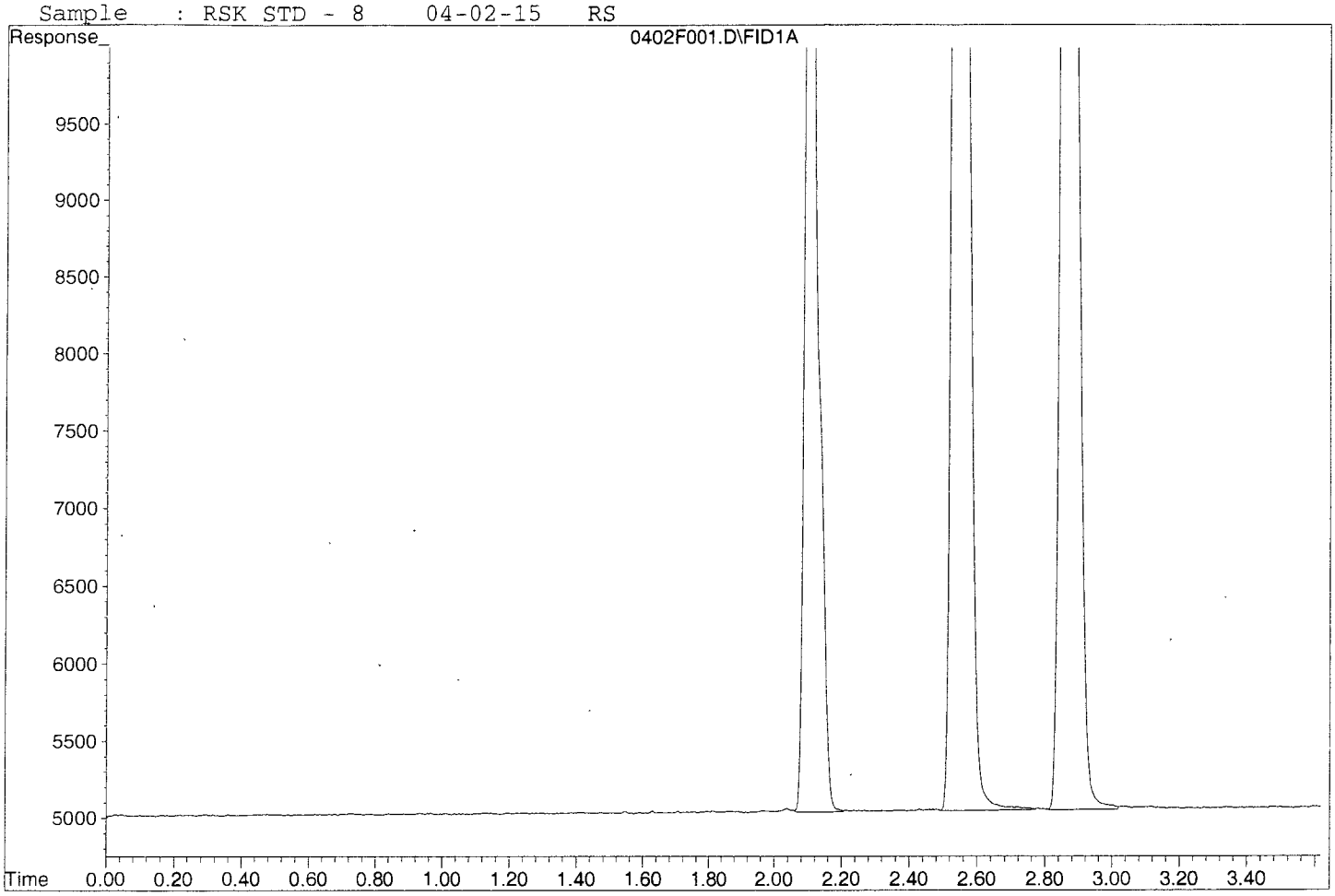
Method : V:\FRODO\DATA\150402\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Apr 02 11:00:03 2015
Response via : Multiple Level Calibration

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

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

Quantitation Report

Data File: V:\FRODO\DATA\150402\0402F001.D
Sample : RSK STD - 8 04-02-15 RS



Form 7

Second Source

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

SDG No:
Date Analyzed: 2 Apr 2015 08:15
Instrument: Frodo
Initial Cal. Date: 04/02/15
Data File: 0402F002.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATM	Methane	331	331	0.04	ATM	
2	ATM	Ethane	284	303	6.5	ATM	
3	ATM	Ethene	303	312	2.8	ATM	
4							
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38							
39							
40							
		Average			3.1		

Quantitation Report (Not Reviewed)

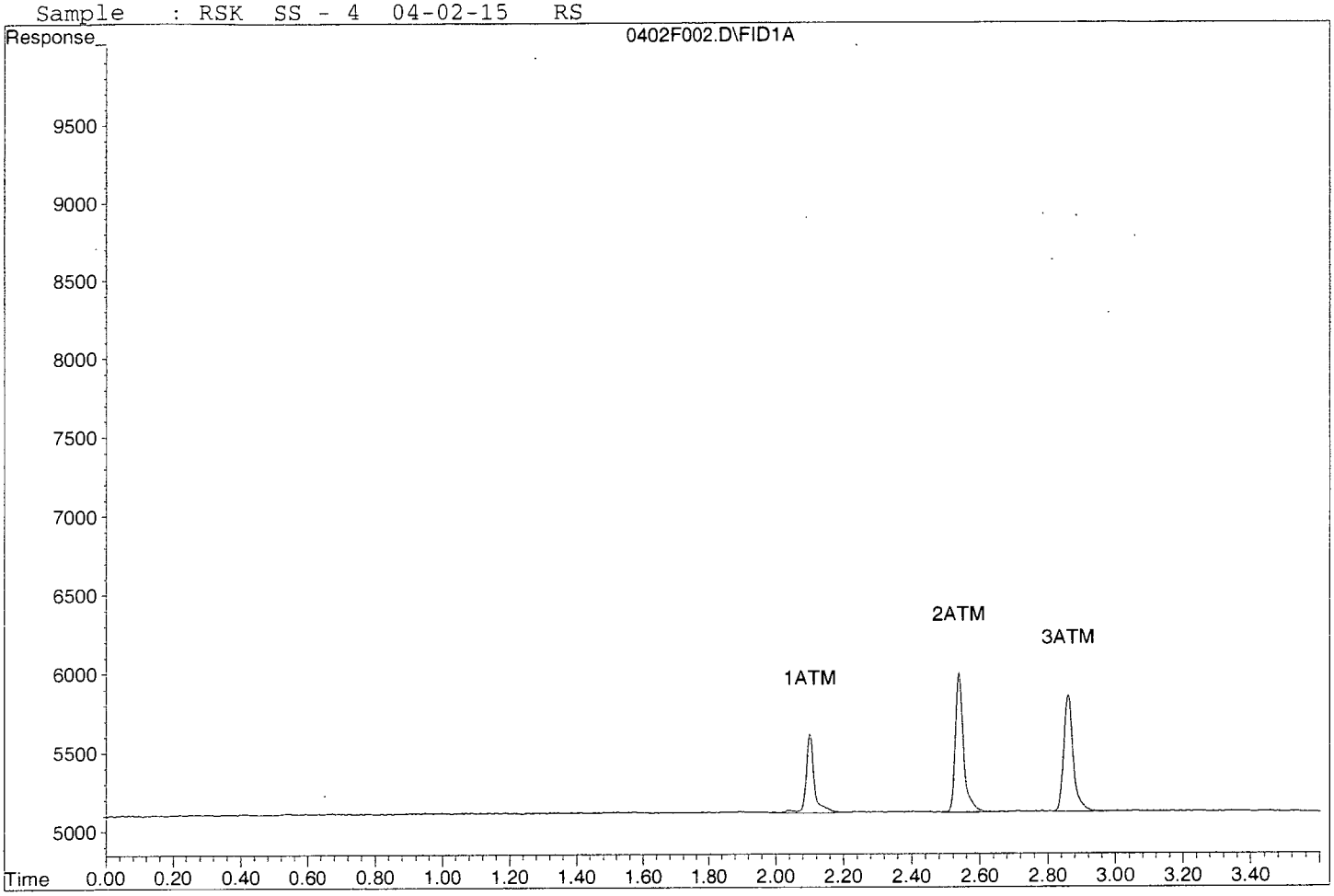
Data File : V:\FRODO\DATA\150402\0402F002.D Vial: 2
Acq On : 2 Apr 2015 08:15 Operator: SD
Sample : RSK SS - 4 04-02-15 RS Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 10 17:44 2015 Quant Results File: 402RSK.RES

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

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

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.10	8834	26.690 ppb
2) ATM Ethane	2.54	15133	53.264 ppb
3) ATM Ethene	2.86	14529	47.882 ppb

Data File: V:\FRODO\DATA\150402\0402F002.D
Sample : RSK SS - 4 04-02-15 RS



Form 7

Continuing Calibration

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

SDG No:
Date Analyzed: 06/24/15
Instrument: Frodo
Initial Cal. Date: 06/24/15
Data File: 0624F004.D

		Compound	MEAN	CCRF	%D	%Drift	
1	ATM	Methane	331	337	1.9	ATM	
2	ATM	Ethane	284	278	2.0	ATM	
3	ATM	Ethene	303	247	19	ATM	
4							
5							
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39							
40							
		Average			7.6		

Quantitation Report (Not Reviewed)

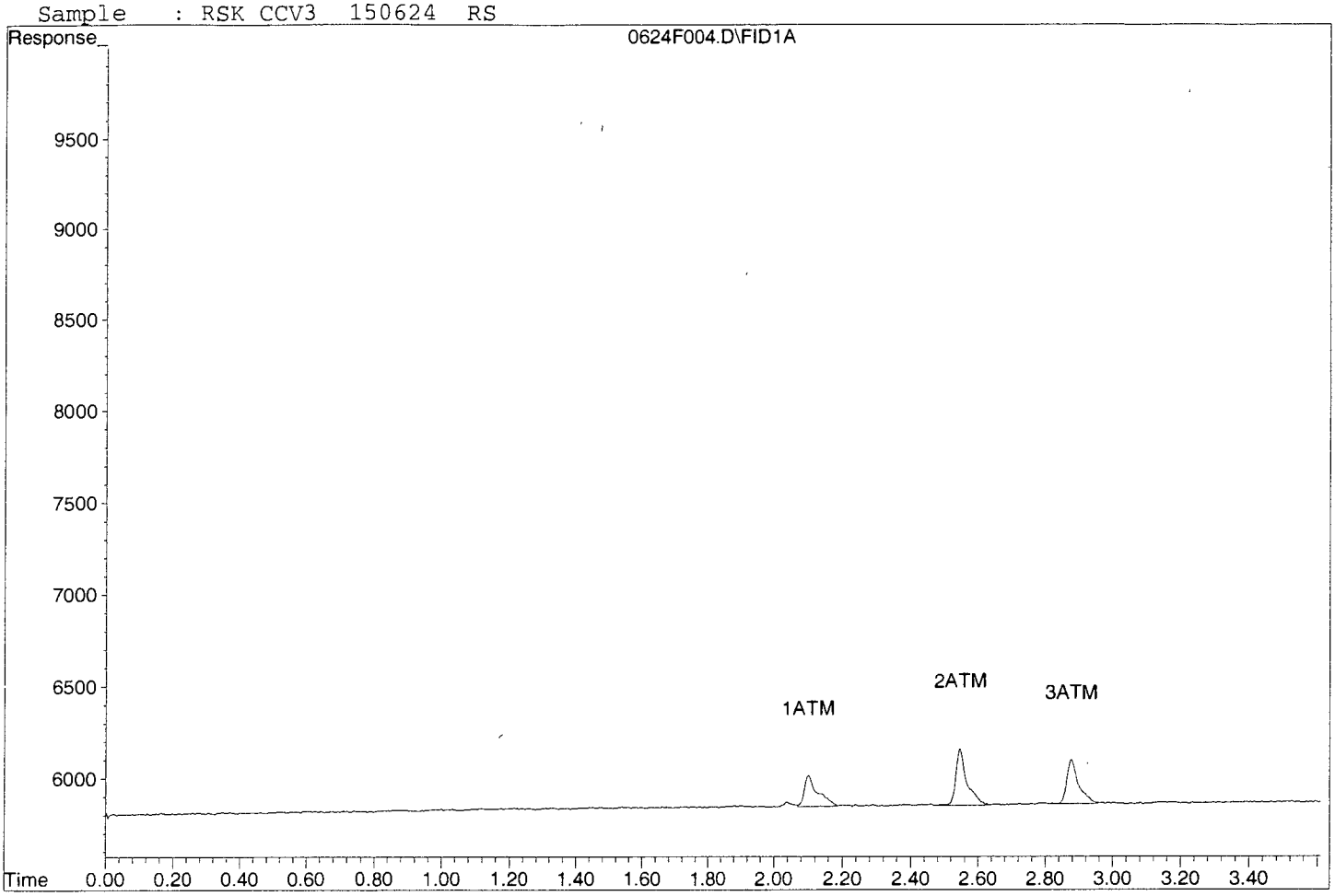
Data File : V:\FRODO\DATA\150624\0624F004.D Vial: 4
Acq On : 24 Jun 2015 08:20 Operator: SD
Sample : RSK CCV3 150624 RS Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 24 8:40 2015 Quant Results File: 402RSK.RES

Method : V:\FRODO\DATA\150625\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Jun 24 11:41:55 2015
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.10	4500	13.595 ppb
2) ATM Ethane	2.55	6961	24.500 ppb
3) ATM Ethene	2.88	5761	18.985 ppb

Data File: V:\FRODO\DATA\150624\0624F004.D
Sample : RSK CCV3 150624 RS



Form 7

Continuing Calibration

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

SDG No:
Date Analyzed: 06/24/15
Instrument: Frodo
Initial Cal. Date: 06/24/15
Data File: 0624F023.D

		Compound	MEAN	CCRF	%D		%Drift
1	ATM	Methane	331	309	6.5	ATM	
2	ATM	Ethane	284	320	13	ATM	
3	ATM	Ethene	303	322	6.1	ATM	
4							
5							
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39							
40							
		Average			8.5		

Quantitation Report (Not Reviewed)

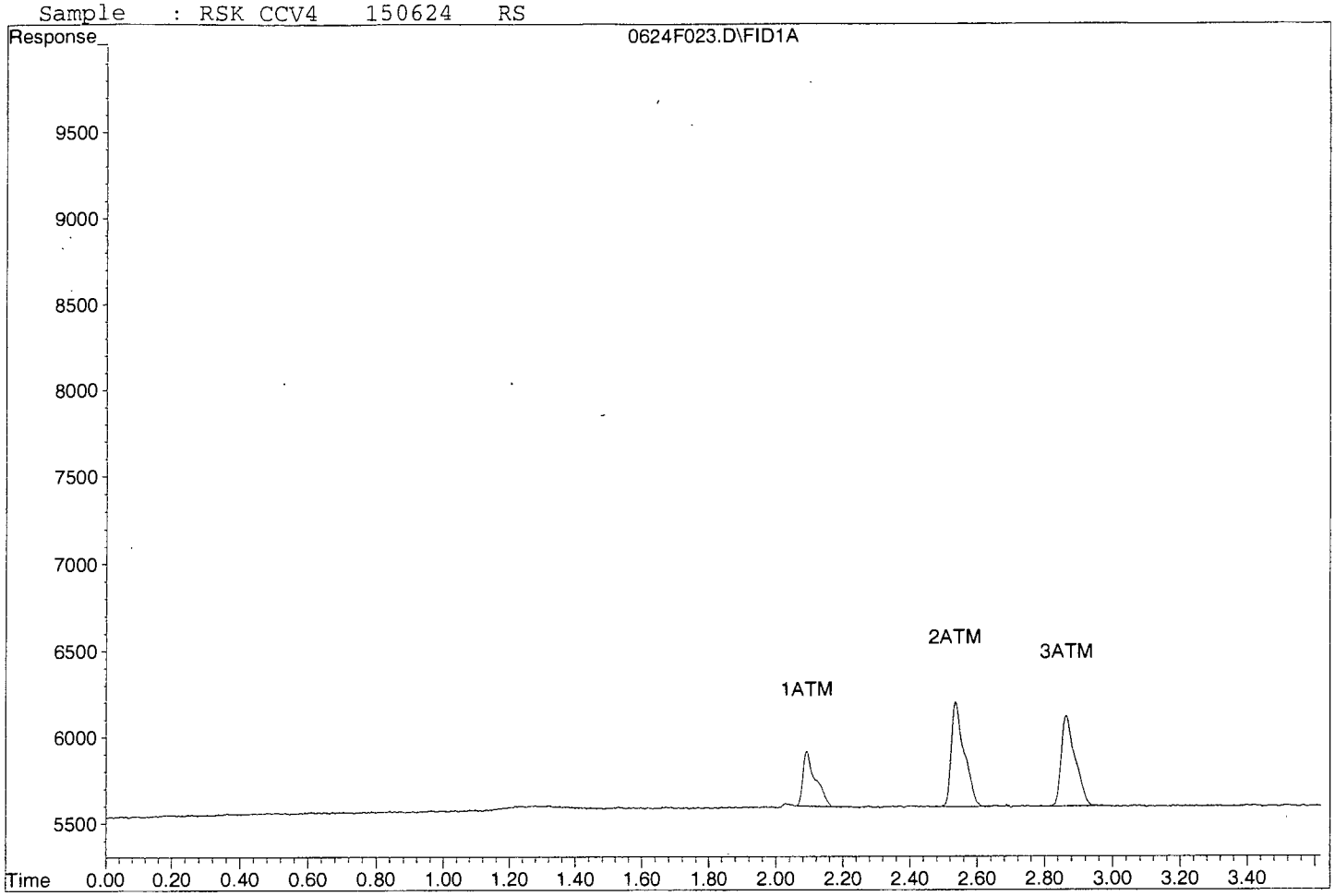
Data File : V:\FRODO\DATA\150624\0624F023.D Vial: 23
Acq On : 24 Jun 2015 11:53 Operator: SD
Sample : RSK CCV4 150624 RS Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 24 11:56 2015 Quant Results File: 402RSK.RES

Method : V:\FRODO\DATA\150624\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Jun 25 14:58:59 2015
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.09	8261	24.960 ppb
2) ATM Ethane	2.54	15997	56.303 ppb
3) ATM Ethene	2.86	15005	49.452 ppb

Data File: V:\FRODO\DATA\150624\0624F023.D
Sample : RSK CCV4 150624 RS



Form 7

Continuing Calibration

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

SDG No:
Date Analyzed: 06/24/15
Instrument: Frodo
Initial Cal. Date: 06/24/15
Data File: 0624F037.D

		Compound	MEAN	CCRF	%D	%Drift	
1	ATM	Methane	331	293	12	ATM	
2	ATM	Ethane	284	309	8.9	ATM	
3	ATM	Ethene	303	303	0.07	ATM	
4							
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39							
40							
		Average			7.0		

Quantitation Report (Not Reviewed)

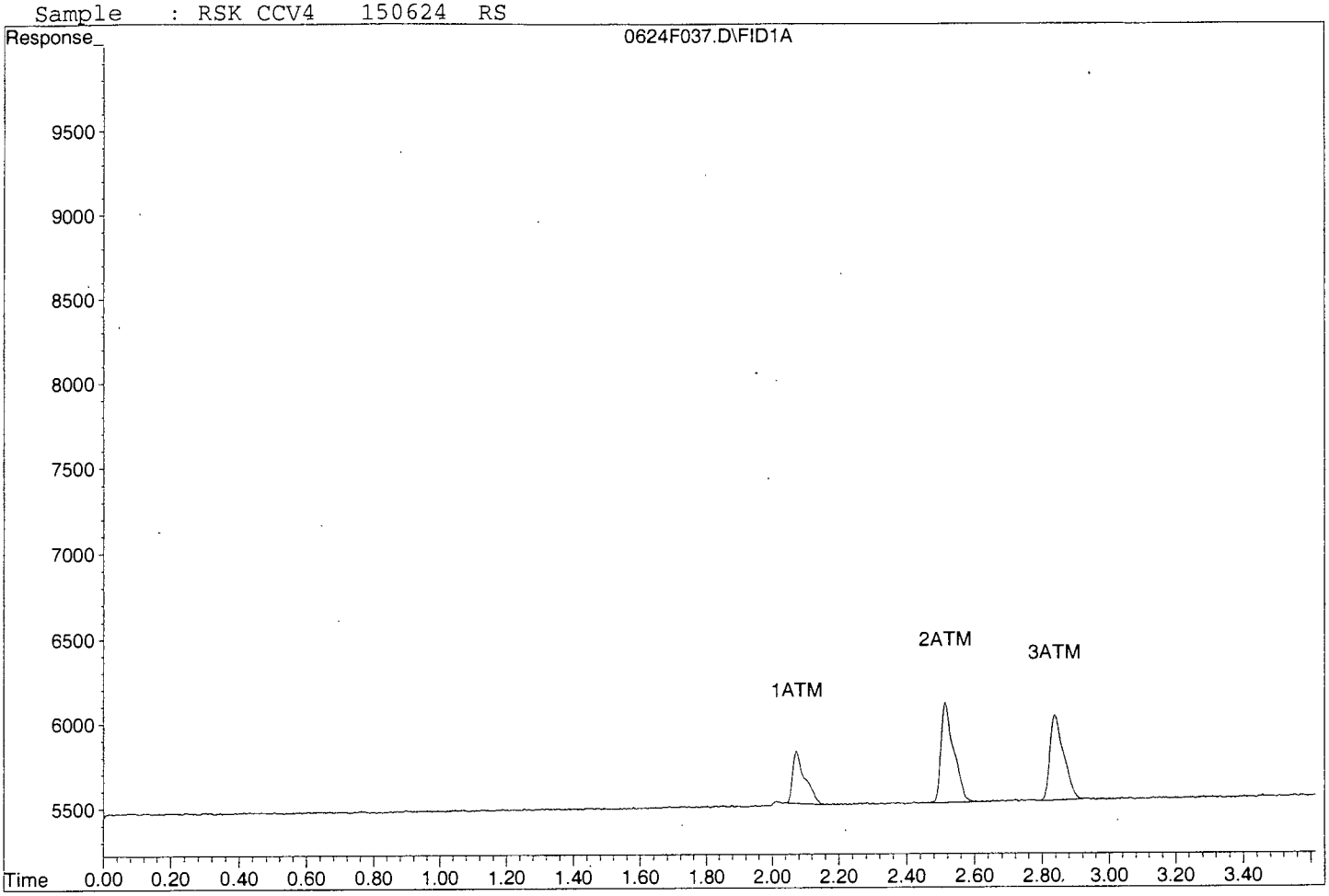
Data File : V:\FRODO\DATA\150624\0624F037.D Vial: 37
Acq On : 24 Jun 2015 15:34 Operator: SD
Sample : RSK CCV4 150624 RS Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 24 15:38 2015 Quant Results File: 402RSK.RES

Method : V:\FRODO\DATA\150624\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Thu Jun 25 14:58:59 2015
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.07	7812	23.602 ppb
2) ATM Ethane	2.51f	15465	54.432 ppb
3) ATM Ethene	2.84f	14130	46.570 ppb

Data File: V:\FRODO\DATA\150624\0624F037.D
Sample : RSK CCV4 150624 RS



RSK-175
Raw Data

APPL, INC.

Method Blank
RSK 175

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150624W-17694 - 198396**
Batch ID: #RSK-150624A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	ETHANE	0.85 U	1.7	0.85	0.51	ug/L	06/24/15	06/24/15
BLANK	ETHENE	0.80 U	1.8	0.80	0.47	ug/L	06/24/15	06/24/15
BLANK	METHANE	0.45 U	1.0	0.45	0.25	ug/L	06/24/15	06/24/15

Quant Method: 402RSK.M
Run #: 0624F008
Instrument: Frodo
Sequence: 150624
Initials: SD

GC SC-Blank-REG MDLs
Printed: 06/25/15 4:38:59 PM

Quantitation Report (QT Reviewed)

Data File : V:\FRODO\DATA\150624\0624F008.D Vial: 8
Acq On : 24 Jun 2015 09:44 Operator: SD
Sample : 150624A BLK-1 Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 24 12:28 2015 Quant Results File: 402RSK.RES

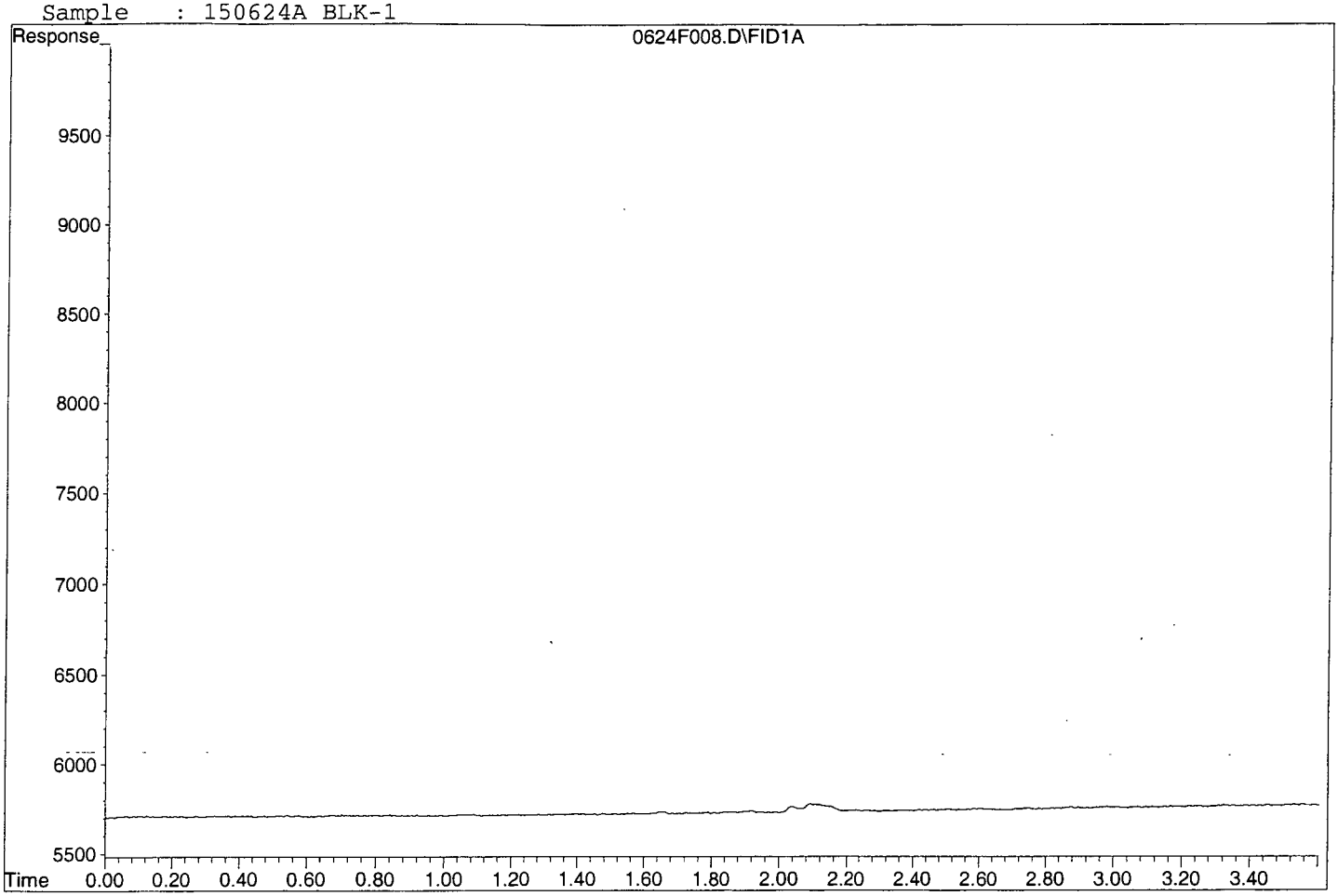
Method : V:\FRODO\DATA\150624\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Jun 24 11:41:55 2015
Response via : Multiple Level Calibration

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

Compound	R.T.	Response	Conc	Units

Target Compounds

Data File: V:\FRODO\DATA\150624\0624F008.D
Sample : 150624A BLK-1



Laboratory Control Spike Recovery

RSK 175

APPL ID: **150624W-17694 LCS - 198396**
Batch ID: #RSK-150624A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
ETHANE	25.0	26.0	104	70-130
ETHENE	23.3	21.4	91.8	70-130
METHANE	13.3	14.6	110	70-130

Comments:

Primary	SPK
Quant Method :	402RSK.M
Extraction Date :	06/24/15
Analysis Date :	06/24/15
Instrument :	Frodo
Run :	0624F006
Initials :	SD

Printed: 06/25/15 4:38:50 PM
APPL Standard LCS

Quantitation Report (Not Reviewed)

Data File : V:\FRODO\DATA\150624\0624F006.D Vial: 6
Acq On : 24 Jun 2015 09:04 Operator: SD
Sample : 150624A LCS-3 Inst : Frodo
Misc : Water Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Jun 24 9:14 2015 Quant Results File: 402RSK.RES

Method : V:\FRODO\DATA\150624\402RSK.M (Chemstation Integrator)
Title : RSK 175
Last Update : Wed Jun 24 11:41:55 2015
Response via : Multiple Level Calibration

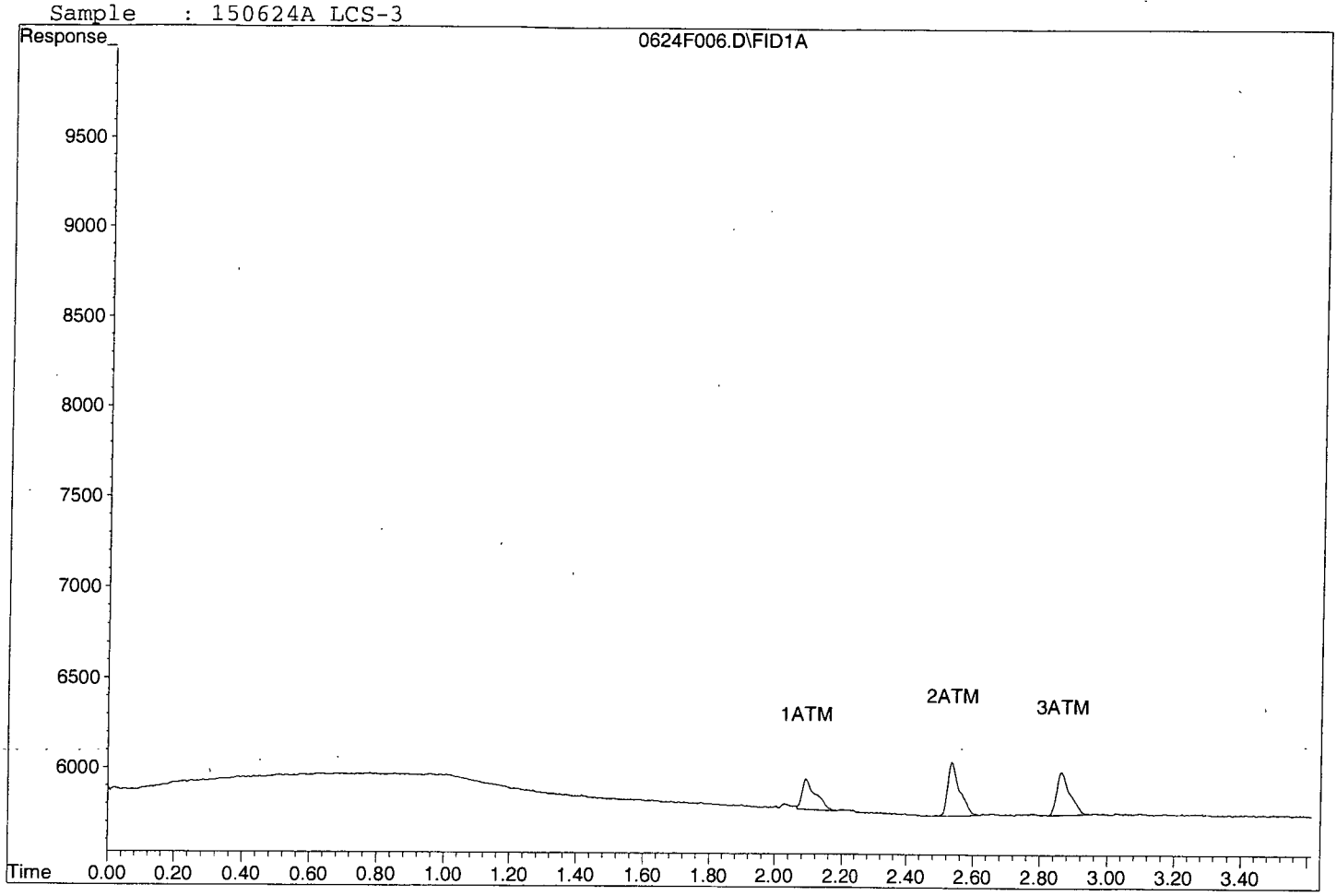
Volume Inj. : 1ML
Signal Phase : CARBOPACK
Signal Info :

Compound	R.T.	Response	Conc Units
Target Compounds			
1) ATM Methane	2.09	4841	14.627 ppb ✓
2) ATM Ethane	2.54	7376	25.961 ppb
3) ATM Ethene	2.86	6494	21.403 ppb

Algorithm $\frac{4841\ (1.00)}{331} = 14.63$ ✓

JE 6-25-15

Data File: V:\FRODO\DATA\150624\0624F006.D
Sample : 150624A LCS-3



Primary Source Stock Standard 10,000ppmV **Expires 7-8-2017**

RSK Gas Mix (Scott Specialty Gas) Cat.# T216-48, Lot # 164PLU4SPC95L-34437, Manufacturer Exp Date 7-8-2017 **RS 3/29/15**

1% Gas Concentration Moles = 10,000ppmV Methane, Ethane, Ethene

Intermediate Calibration Stock Standard 100ppmV 3/29/15 **Expires 4/29/15** **RS 3/29/15**

Prepared in a 1 L Tedlar bag. Add 990mL Nitrogen and 10mL of 164PLU4SPC05L-34437 standard.

RSK Calibration Curve **Vial expiration date 4/29/14** **RS 3/29/15**

Analye	Conc Std 1A (ug/L)	Conc Std 1 (ug/L)	Conc Std 2 (ug/L)	Conc Std 3 (ug/L)	Conc Std 4 (ug/L)	Conc Std 5 (ug/L)	Conc Std 6 (ug/L)	Conc Std 7 (ug/L)
Methane (MW 16.04)	0.90	1.80	5.10	13.33	26.70	53.40	106.80	320.40
Ethane (MW 30.07)	1.70	3.40	9.50	25.00	50.00	100.00	200.00	600.00
Ethene (MW 28.05)	1.60	3.20	8.90	23.30	46.60	93.20	186.40	559.20
Stock Source	Intermediate Calib Std 3/29/15	Intermediate Calib Std 3/29/16	Intermediate Calib Std 3/29/17	Intermediate Calib Std 3/29/18	Intermediate Calib Std 3/29/19	Intermediate Calib Std 3/29/20	Primary Source Std #164PLU4SPC05L-34439	Primary Source Std #164PLU4SPC05L-34440
Stock Conc (ppmv)	100 ppmV	100 ppmV	100 ppmV	100 ppmV	100 ppmV	0 100 ppmV	10,000 ppmV	10,000 ppmV
Stock Aliquot (mL)	0.135 mL	0.270 mL	0.760 mL	2.0 mL	4.0 mL	8.0 mL	0.160 mL	0.480 mL
Final Volume P&T Water	10 mL	10 mL	10 mL	10 mL	10 mL	10 mL	10 mL	10 mL

Second Source Stock Standard 10,000ppmV APPL extended Exp Date: 9/29/15 (comparrison to primary source on 3/29/15)

RSK Gas Mix (Scott Specialty Gas) Cat.# 0104E40028`4, Lot # 248PLU2SPC03L-31312, Manufacturer Exp Date 9-6-12 **RS 3/29/15**

1% Gas Concentration Moles = 10,000ppmV Methane, Ethane, Ethene

Intermediate Second Source Standard 100ppmV 3/29/15 **Expires 7/29/15** **RS 3/29/15**

Prepared in a 1 L Tedlar bag. Add 990mL Nitrogen and 10mL of 248PLU2SPC03L-31312 standard.

Second Source - Level 3, 3/29/15 **Expires 04/29/15** **RS 3/29/15**

2mL of Intermediate cal stock 3/29/15 into 10mL P&T water

final conc:13.3ppb Methane, 25.0ppb Ethane, and 23.3ppb Ethene

Analye	Conc Std 8 (ug/L)
Methane (MW 16.04)	801.00
Ethane (MW 30.07)	1500.00
Ethene (MW 28.05)	1398.00
Stock Source	Primary Source Std #164PLU4SPC05L-34440
Stock Conc (ppmv)	10,000 ppmV
Stock Aliquot (mL)	1.20 mL
Final Volume P&T Water	10 mL

Added higher ICAL point to curve. **RS 04/02/15**

Second Source - Level 4 3/29/15 **Expires 05/02/15** **RS 04/02/15**

4mL of Intermediate cal stock 3/29/15A into 10mL P&T water

final conc:26.7ppb Methane, 50.0ppb Ethane, and 46.6ppb Ethene

Intermediate Calibration Stock Standard 100ppmV 06/15/15 **Expires 7/15/15** RS 06/15/15
Prepared in a 1 L Tedlar bag. Add 990mL Nitrogen and 10mL of 164PLU4SPC05L-34437 standard.

CCV4 06/15/15 Expires 07/15/15 RS 06/15/15
4mL of Intermediate cal stock 6/15/15 into 10mL P&T water
final conc:26.7ppb Methane, 50.0ppb Ethane, and 46.6ppb Ethene

CCV3 06/15/15 Expires 07/15/15 RS 06/15/15
2mL of Intermediate cal stock 6/15/15 into 10mL P&T water
final conc:13.3ppb Methane, 25.0ppb Ethane, and 23.3ppb Ethene

LCS-4 150615A RS 06/15/15
4mL of Intermediate cal stock 6/15/15 into 10mL P&T water
final conc:26.7ppb Methane, 50.0ppb Ethane, and 46.6ppb Ethene

AZ17333W11 MS/MSD (level 4) RS 06/15/15
4mL of Intermediate cal stock 6/15/15 into 10mL P&T water
final conc:26.7ppb Methane, 50.0ppb Ethane, and 46.6ppb Ethene

CCV3 06/24/15 Expires 07/15/15 RS 06/24/15
2mL of Intermediate cal stock 6/15/15 into 10mL P&T water
final conc:13.3ppb Methane, 25.0ppb Ethane, and 23.3ppb Ethene

CCV4 06/24/15 Expires 07/15/15 RS 06/24/15
4mL of Intermediate cal stock 6/15/15 into 10mL P&T water
final conc:26.7ppb Methane, 50.0ppb Ethane, and 46.6ppb Ethene

LCS-3 150624A RS 06/24/15
2mL of Intermediate cal stock 6/15/15 into 10mL P&T water
final conc:13.3ppb Methane, 25.0ppb Ethane, and 23.3ppb Ethene

AZ17690W08 MS/MSD (level 3) RS 06/24/15
2mL of Intermediate cal stock 6/15/15 into 10mL P&T water
final conc:13.3ppb Methane, 25.0ppb Ethane, and 23.3ppb Ethene

CCV3 06/25/15 Expires 07/15/15 RS 06/25/15
2mL of Intermediate cal stock 6/15/15 into 10mL P&T water
final conc:13.3ppb Methane, 25.0ppb Ethane, and 23.3ppb Ethene

LCS-3 150625A RS 06/25/15
2mL of Intermediate cal stock 6/15/15 into 10mL P&T water
final conc:13.3ppb Methane, 25.0ppb Ethane, and 23.3ppb Ethene

AZ17815W05 MS/MSD (level 3) RS 06/25/15
2mL of Intermediate cal stock 6/15/15 into 10mL P&T water
final conc:13.3ppb Methane, 25.0ppb Ethane, and 23.3ppb Ethene

766 74

Directory: V:\FRODO\DATA\150329\

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	1	0329F001.D	1	**RSK Std -2 3/29/15 RS**	Water	29 Mar 2015 08:09
5	5	0329F005.D	1	**RSK Std -3 3/29/15 RS**	Water	29 Mar 2015 09:04
9	9	0329F009.D	1	**RSK Std - 1A 3/29/15 RS**	Water	29 Mar 2015 09:45
10	10	0329F010.D	1	**RSK Std 1 3/29/15 RS**	Water	29 Mar 2015 10:04
12	12	0329F012.D	1	**RSK Std - 4 3/29/15 RS**	Water	29 Mar 2015 10:16
13	13	0329F013.D	1	**RSK Std - 5 3/29/15 RS**	Water	29 Mar 2015 10:20
15	15	0329F015.D	1	**RSK Std 6 3/29/15 RS**	Water	29 Mar 2015 10:34
16	16	0329F016.D	1	**RSK Std - 7 3/29/15 RS**	Water	29 Mar 2015 11:11
41	1	0402F001.D	1	**RSK STD - 8 04-02-15 RS**	Water	2 Apr 2015 07:55
42	2	0402F002.D	1	**RSK SS - 4 04-02-15 RS**	Water	2 Apr 2015 08:15
4	4	0624F004.D	1	**RSK CCV3 150624 RS**	Water	24 Jun 2015 08:20
6	6	0624F006.D	1	150624A LCS-3	Water	24 Jun 2015 09:04
8	8	0624F008.D	1	150624A BLK-1	Water	24 Jun 2015 09:44
23	23	0624F023.D	1	**RSK CCV4 150624 RS**	Water	24 Jun 2015 11:53
32	32	0624F032.D	1	AZ17826W01	Water	24 Jun 2015 15:09
33	33	0624F033.D	1	AZ17828W01	Water	24 Jun 2015 15:15
34	34	0624F034.D	1	AZ17829W01	Water	24 Jun 2015 15:19
37	37	0624F037.D	1	**RSK CCV4 150624 RS**	Water	24 Jun 2015 15:34

EPA METHOD 6850
Perchlorate
LC/MS

APPL, INC.

EPA METHOD 6850
Perchlorate
LC/MS

QC Summary

APPL, INC.

Method Blank
Perchlorate

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150623W-17823 - 198538**
Batch ID: #6850-150623A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	PERCHLORATE	0.400 U	0.60	0.400	0.200	ug/L	06/23/15	06/27/15

Quant Method: QTLMFL2
Run #: T627_007.d
Instrument: AGIL_6460
Sequence: TQ062715
Initials: RP

GC SC-Blank-REG MDLs
Printed: 07/06/15 8:32:19 AM

Method Blank
PERCHLORATE EPA 6850 - SOIL

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150624S-17824 - 198610**
Batch ID: #6850SM-150624A

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	06/24/15	07/04/15

Quant Method: QTLMFL2
Run #: T704_019.d
Instrument: AGIL_6460
Sequence: TQ070415
Initials: RP

GC SC-Blank-REG MDLs
Printed: 07/07/15 8:30:30 AM

Laboratory Control Spike Recovery
Perchlorate

APPL ID: **150623W-17823 LCS - 198538**
Batch ID: #6850-150623A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
PERCHLORATE	0.600	0.616	103	80-120

Comments: _____

Primary	SPK
Quant Method :	QTLMFL2
Extraction Date :	06/23/15
Analysis Date :	06/27/15
Instrument :	AGIL_6460
Run :	T627_005.d
Initials :	RP

Printed: 07/06/15 8:32:14 AM
APPL Standard LCS

Laboratory Control Spike Recovery
PERCHLORATE EPA 6850 - SOIL

APPL ID: **150624S-17824 LCS - 198610**
Batch ID: #6850SM-150624A

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	0.00541	94.7	80-120

Comments: _____

Primary	SPK
Quant Method :	QTLMFL2
Extraction Date :	06/24/15
Analysis Date :	07/04/15
Instrument :	AGIL_6460
Run :	T704_017.d
Initials :	RP

Printed: 07/07/15 8:30:26 AM
APPL Standard LCS

Matrix Spike Recoveries

Perchlorate

APPL ID: **150623W-17823 MS - 198538**
Batch ID: #6850-150623A
Sample ID: AZ17823
Client ID: S67-SW028-061615

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
PERCHLORATE	0.600	ND	0.797	0.689	133 #	115	80-120	14.5	15

= Recovery is outside QC limits.

Comments: _____

Primary	SPK	DUP
Quant Method :	QTLMFL2	QTLMFL2
Extraction Date :	06/23/15	06/23/15
Analysis Date :	06/27/15	06/27/15
Instrument :	AGIL_6460	AGIL_6460
Run :	T627_012.d	T627_013.d
Initials :	RP	

Printed: 07/06/15 8:32:09 AM
APPL MSD SCII

Matrix Spike Recoveries

PERCHLORATE EPA 6850 - SOIL

APPL ID: **150624S-17824 MS - 198610**
Batch ID: #6850SM-150624A
Sample ID: AZ17824
Client ID: S67-SD029-0001

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	SPK Lvl	DUP Lvl	Matrix Result	SPK Result	DUP Result	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg					
(Solid Concentrations have been adjusted to reflect 72.1 Percent Moisture.)										
PERCHLORATE	0.00645	0.00663	ND	0.00534	0.00588	82.8	88.7	80-120	6.9	15

Comments:

Primary	SPK	DUP
Quant Method :	QTLMFL2	QTLMFL2
Extraction Date :	06/24/15	06/24/15
Analysis Date :	07/04/15	07/04/15
Instrument :	AGIL_6460	AGIL_6460
Run :	T704_025.d	T704_026.d
Initials :	RP	

Printed: 07/07/15 8:30:21 AM
APPL MSD SCII

EPA 6850

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 06/27/15

Matrix: WATER Instrument: AGIL_6460

Blank ID: 150623A-BLK Time Analyzed: 1923

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150623A-LCS	Lab Control Spike	T627_005.d	06/27/15 1846
150623A-BLK	Blank	T627_007.d	06/27/15 1923
AZ17817	S67-SW026-061615	T627_008.d	06/27/15 1942
AZ17818	S67-SW026P-061615	T627_009.d	06/27/15 2000
AZ17821	S67-SW027-061615	T627_010.d	06/27/15 2019
AZ17823	S67-SW028-061615	T627_011.d	06/27/15 2038
150623A-MS	Matrix Spike	T627_012.d	06/27/15 2056
150623A-MSD	Matrix SpikeD	T627_013.d	06/27/15 2115
AZ17825	S67-SW029-061615	T704_005.d	07/04/15 0937
AZ17827	S67-MW019-061615	T704_007.d	07/04/15 1014
AZ17829	S67-MW022-061615	T704_009.d	07/04/15 1051
AZ17826	S67-MW018-061615	T705_013.d	07/05/15 1651
AZ17828	S67-MW023-061615	T705_020.d	07/05/15 1901

Comments: Batch: #6850-150623A

EPA 6850

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/04/15

Matrix: SOIL Instrument: AGIL_6460

Blank ID: 150624A-BLK Time Analyzed: 1359

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150624A-LCS	Lab Control Spike	T704_017.d	07/04/15 1322
150624A-BLK	Blank	T704_019.d	07/04/15 1359
AZ17816	S67-SD026-0001	T704_020.d	07/04/15 1418
AZ17819	S67-SD027-0001	T704_021.d	07/04/15 1439
AZ17820	S67-SD027P-0001	T704_022.d	07/04/15 1502
AZ17822	S67-SD028-0001	T704_023.d	07/04/15 1520
AZ17824	S67-SD029-0001	T704_024.d	07/04/15 1539
150624A-MS	Matrix Spike	T704_025.d	07/04/15 1558
150624A-MSD	Matrix SpikeD	T704_026.d	07/04/15 1616

Comments: Batch: #6850SM-150624A

Interferrence Check Sample

Perchlorate EPA 6850 Soil

APPL ID: 150624S-17824 ICS - 198610
Batch ID: #6850SM-150624

APPL Inc.
908 N. Temperance Ave.
Clovis, CA 93711

Compound Name	Spike Level mg/Kg	Spk Result mg/Kg	SPK% Recovery	Recovery Limits
Perchlorate	0.00588	0.00624	106.1%	70-130

Comments:

Quant Method:	QTLMFL2
Extraction Date:	06/24/15
Analysis Date:	07/04/15
Instrument:	AGIL_6560
Run:	T704_018.D
Initials:	RP

Interferrence Check Sample

Perchlorate EPA 6850 Water

APPL ID: 150623W-17823 ICS-198538
Batch ID: #6850-150623A

APPL Inc.
908 N. Temperance Ave.
Clovis, CA 93711

Compound Name	Spike Level ug/L	Spk Result ug/L	SPK% Recovery	Recovery Limits
Perchlorate	0.600	0.675	112.5%	70-130

Comments:

Quant Method:	QTLMFL2
Extraction Date:	06/23/15
Analysis Date:	06/27/15
Instrument:	AGIL_6560
Run:	T627_006.D
Initials:	RP

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. **SDG No.**

Lab File ID (Standard): T312_003-_008.d

Instrument ID: Agilent 6460 Triple Quad LC/MS

	PER_IS			
	12_HOUR_STD AVERAGE	11032021		
	UPPER LIMIT RESPONSE	16548032		
	LOWER LIMIT RESPONSE	5516011		
Data File ID:	Sample ID:	Analysis Date and Time	IS AREA COUNT #	IS R.T. #
T312_003.d	PERCHLORATE 0.0002 ug/ml 11/11/14	3/12/15 17:52	8337058	13.732
T312_004.d	PERCHLORATE 0.0004 ug/ml 11/11/14	3/12/15 18:11	10671196	13.783
T312_005.d	PERCHLORATE 0.001 ug/ml 11/11/14	3/12/15 18:29	10651968	13.803
T312_006.d	PERCHLORATE 0.002 ug/ml 11/11/14	3/12/15 18:48	13529952	13.803
T312_007.d	PERCHLORATE 0.005 ug/ml 11/11/14	3/12/15 19:07	11028880	13.874
T312_008.d	PERCHLORATE 0.010 ug/ml 08/27/14	3/12/15 19:25	11973072	13.874
T312_010.d	PER_SS 0.0004 ug/ml 11/11/14	3/12/15 20:02	12977621	13.946
T312_011.d	PER_SS 0.002 ug/ml 11/11/14	3/12/15 20:21	13747369	13.976
T312_013.d	PER_CCV_1 0.0004 ug/ml 11/11/14	3/12/15 20:58	12323795	14.109
T312_014.d	PER_CCV_1 0.002 ug/ml 11/11/14	3/12/15 21:17	13576634	14.139

AREA UPPER LIMIT = +50% of internal standard average
AREA LOWER LIMIT = -50% of internal standard average
Column used to flag values outside QC limits
* Values outside of QC limits

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: APPL Inc. **SDG No.** **76674**

Lab File ID (Standard): T627_003.d

Instrument ID: Agilent 6460 Triple Quad LC/MS

	PER_IS			
	12_HOUR_STD AVERAGE	12081323		
	UPPER LIMIT RESPONSE	18121985		
	LOWER LIMIT RESPONSE	6040662		
Data File ID:	Sample ID:	Analysis Date and Time	IS AREA COUNT #	IS R.T. #
T627_002.d	PER_CCV 0.0004 ug/ml 06/27/15	6/27/15 17:50	10246572	14.007
T627_003.d	PER_CCV 0.002 ug/ml 06/27/15	6/27/15 18:09	12081323	14.017
T627_005.d	150623WA_LCS-1 1052.6 DF 06/23/15	6/27/15 18:46	8637265	14.068
T627_006.d	150623W_ICSA 1052.6 DF 06/23/15	6/27/15 19:04	6625849	13.171
T627_007.d	150623WBLKA 1052.6 DF 06/23/15	6/27/15 19:23	9544060	14.048
T627_008.d	AZ17817_W02 1052.6 DF 06/23/15	6/27/15 19:42	8139461	13.467
T627_009.d	AZ17818_W02 1052.6 DF 06/23/15	6/27/15 20:00	7748163	13.467
T627_010.d	AZ17821_W02 1052.6 DF 06/23/15	6/27/15 20:19	8356453	13.457
T627_011.d	AZ17823_W02 1052.6 DF 06/23/15	6/27/15 20:38	8973327	13.457
T627_012.d	AZ17823_W02_MS-1 1052.6 DF 06/23/15	6/27/15 20:56	8362037	13.457
T627_013.d	AZ17823_W02_MSD-1 1052.6 DF 06/23/15	6/27/15 21:15	8443644	13.528
T627_015.d	PER_CCV 0.0004 ug/ml 06/27/15	6/27/15 21:52	9773292	14.109
T627_016.d	PER_CCV 0.002 ug/ml 06/27/15	6/27/15 22:11	10360182	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.** **76674**

Lab File ID (Standard): T704_003.d

Instrument ID: Agilent 6460 Triple Quad LC/MS

	PER_IS			
	12_HOUR_STD AVERAGE	8689681		
	UPPER LIMIT RESPONSE	13034522		
	LOWER LIMIT RESPONSE	4344841		
Data File ID:	Sample ID:	Analysis Date and Time	IS AREA COUNT #	IS R.T. #
T704_002.d	PER_CCV 0.0004 ug/ml 06/27/15	07/04/15 8:41	8051603	13.08
T704_003.d	PER_CCV 0.002 ug/ml 06/27/15	07/04/15 8:59	8689681	13.395
T704_005.d	AZ17825_W02 1052.6 DF 06/23/15	07/04/15 9:37	5118943	12.876
T704_007.d	AZ17827_W01 1052.6 DF 06/23/15	07/04/15 10:14	6825505	12.346
T704_009.d	AZ17829_W03 1052.6 DF 06/23/15	07/04/15 10:51	7308079	12.407
T704_014.d	PER_CCV 0.0004 ug/ml 06/27/15	07/04/15 12:24	7752751	13.171
T704_015.d	PER_CCV 0.002 ug/ml 06/27/15	07/04/15 12:43	8636273	13.457
T704_017.d	150624SA_LCS-1 10025.1 DF 06/24/15	07/04/15 13:22	8279921	13.355
T704_018.d	150624S_ICSA 10319.9 DF 06/24/15	07/04/15 13:40	7831392	12.57
T704_019.d	150624SBLKA 9930.5 DF 06/24/15	07/04/15 13:59	7533559	13.355
T704_020.d	AZ17816_S02 7518.8 DF 06/24/15	07/04/15 14:18	6887632	13.283
T704_021.d	AZ17819_S02 4828.6 DF 06/24/15	07/04/15 14:39	7460045	13.304
T704_022.d	AZ17820_S03 4741.6 DF 06/24/15	07/04/15 15:02	8475293	13.243
T704_023.d	AZ17822_S01 2814.5 DF 06/24/15	07/04/15 15:20	9892788	12.499
T704_024.d	AZ17824_S02 3258.9 DF 06/24/15	07/04/15 15:39	8544180	13.008
T704_025.d	AZ17824_S02_MS-1 3161.1 DF 06/24/15	07/04/15 15:58	8693744	13.008
T704_026.d	AZ17824_S02_MSD-1 3248.9 DF 06/24/15	07/04/15 16:16	7657361	13.018
T704_028.d	PER_CCV 0.0004 ug/ml 06/27/15	07/04/15 16:54	8693534	12.866
T704_029.d	PER_CCV 0.002 ug/ml 06/27/15	07/04/15 17:12	9490869	13.283

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 13:25 thru 07/05/15 21:49**

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_002.d	PER_CCV 0.0004 ug/ml 06/27/15	07/05/15 13:25	7610688	12.927
T705_003.d	PER_CCV 0.002 ug/ml 06/27/15	07/05/15 13:44	8885934	13.406
T705_013.d	AZ17826_W03 105263.2 DF 06/23/15_6/27	07/05/15 16:51	7974463	13.263
T705_015.d	PER_CCV 0.0004 ug/ml 06/27/15	07/05/15 17:28	5539776	12.764
T705_016.d	PER_CCV 0.002 ug/ml 06/27/15	07/05/15 17:46	7213194	13.304
T705_020.d	AZ17828_W03 1052631.6 DF 06/23/15_6/27	07/05/15 19:01	7696984	13.273
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

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	445712	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
Sample Name: PER_SS 0.0004 ug/ml 11/11/14
Vial Number: NA
Data File ID: T312_010.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.942	1472839	3.3
2)	Perchlorate_85	13.959	440675	

Date Aquired: 03/12/15 20:21
Sample Name: PER_SS 0.002 ug/ml 11/11/14
Vial Number: NA
Data File ID: T312_011.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.014	7468678	3.4
2)	Perchlorate_85	14	2222387	

Date Aquired: 03/12/15 20:40
Sample Name: PER_IS_50:50 0.005 ug/ml 11/11/14
Vial Number: NA
Data File ID: T312_012.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.657	10916	2.0
2)	Perchlorate_85	13.776	5521	

Date Aquired: 03/12/15 20:58
Sample Name: PER_CCV_1 0.0004 ug/ml 11/11/14
Vial Number: NA
Data File ID: T312_013.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.105	1267031	3.1
2)	Perchlorate_85	14.143	410558	

Date Aquired: 03/12/15 21:17
Sample Name: PER_CCV_1 0.002 ug/ml 11/11/14
Vial Number: NA
Data File ID: T312_014.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.146	6907110	3.3
2)	Perchlorate_85	14.122	2093567	

Date Aquired: 03/12/15 21:36
Sample Name: PER_IS_50:50 0.005 ug/ml 11/11/14
Vial Number: NA
Data File ID: T312_015.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.36	64783	9.6
2)	Perchlorate_85	13.715	6730	

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\150627
Instrument Name : TQ (Agilent 6460 Triple Quad LC/MS)
Method File : 6460_ESI_PER_N_NEWER_K'_COLUMN.m
Operator : BA

Date Aquired: 06/27/15 17:31 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/27/15 Data File ID: T627_001.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.166	27911	1.0
2)	Perchlorate_85	14.071	28584	

Date Aquired: 06/27/15 17:50 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 06/27/15 Data File ID: T627_002.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.014	980644	3.1
2)	Perchlorate_85	14.041	317383	

Date Aquired: 06/27/15 18:09 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 06/27/15 Data File ID: T627_003.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.024	5410548	3.3
2)	Perchlorate_85	14.041	1623949	

Date Aquired: 06/27/15 18:27 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/27/15 Data File ID: T627_004.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.034	25088	2.7
2)	Perchlorate_85	13.796	9373	

Date Aquired: 06/27/15 18:46 Vial Number: NA
Sample Name: 150623WA_LCS-1 1052.6 DF 06/23/15 Data File ID: T627_005.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.075	1284148	3.0
2)	Perchlorate_85	14.081	430461	

Date Aquired: 06/27/15 19:04 Vial Number: NA
Sample Name: 150623W_ICSA 1052.6 DF 06/23/15 Data File ID: T627_006.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.178	1080239	3.0
2)	Perchlorate_85	13.195	359948	

Date Aquired: 06/27/15 19:23 Vial Number: NA
Sample Name: 150623WBLKA 1052.6 DF 06/23/15 Data File ID: T627_007.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.963	5562	0.6
2)	Perchlorate_85	13.959	9067	

Date Aquired: 06/27/15 19:42 Vial Number: NA
Sample Name: AZ17817_W02 1052.6 DF 06/23/15 Data File ID: T627_008.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.453	164233	2.1
2)	Perchlorate_85	13.47	78165	

Date Aquired: 06/27/15 20:00 Vial Number: NA
Sample Name: AZ17818_W02 1052.6 DF 06/23/15 Data File ID: T627_009.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.402	154087	1.7
2)	Perchlorate_85	13.46	89904	

Date Aquired: 06/27/15 20:19 Vial Number: NA
Sample Name: AZ17821_W02 1052.6 DF 06/23/15 Data File ID: T627_010.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.423	222363	2.5
2)	Perchlorate_85	13.46	88220	

Date Aquired: 06/27/15 20:38 Vial Number: NA
Sample Name: AZ17823_W02 1052.6 DF 06/23/15 Data File ID: T627_011.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.443	237709	2.3
2)	Perchlorate_85	13.491	102872	

Date Aquired: 06/27/15 20:56 Vial Number: NA
Sample Name: AZ17823_W02_MS-1 1052.6 DF 06/23/15 Data File ID: T627_012.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.463	1607804	3.1
2)	Perchlorate_85	13.45	515231	

Date Aquired: 06/27/15 21:15 Vial Number: NA
Sample Name: AZ17823_W02_MSD-1 1052.6 DF 06/23/15 Data File ID: T627_013.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.535	1402224	3.2
2)	Perchlorate_85	13.521	442929	

Date Aquired: 06/27/15 21:33 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/27/15 Data File ID: T627_014.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.105	25736	1.5
2)	Perchlorate_85	13.99	16774	

Date Aquired: 06/27/15 21:52 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 06/27/15 Data File ID: T627_015.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.115	918920	3.0
2)	Perchlorate_85	14.102	303248	

Date Aquired: 06/27/15 22:11 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 06/27/15 Data File ID: T627_016.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.136	4639228	3.3
2)	Perchlorate_85	14.163	1386880	

Date Aquired: 06/27/15 22:29 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/27/15 Data File ID: T627_017.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	14.187	22019	5.9
2)	Perchlorate_85	13.929	3751	

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\150704
Instrument Name : TQ (Agilent 6460 Triple Quad LC/MS)
Method File : 6460_ESI_PER_N_NEWER_K'_COLUMN.m
Operator : BA

Date Aquired: 07/04/15 8:22 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/27/15 Data File ID: T704_001.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.423	21626	1.3
2)	Perchlorate_85	13.317	16924	

Date Aquired: 07/04/15 8:41 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 06/27/15 Data File ID: T704_002.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.056	830632	3.0
2)	Perchlorate_85	13.093	276446	

Date Aquired: 07/04/15 8:59 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 06/27/15 Data File ID: T704_003.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.402	4151427	3.3
2)	Perchlorate_85	13.409	1263923	

Date Aquired: 07/04/15 9:18 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/27/15 Data File ID: T704_004.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.412	19498	2.3
2)	Perchlorate_85	13.429	8619	

Date Aquired: 07/04/15 9:37 Vial Number: NA
Sample Name: AZ17825_W02 1052.6 DF 06/23/15 Data File ID: T704_005.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.862	701589	2.8
2)	Perchlorate_85	12.828	253725	

Date Aquired: 07/04/15 9:55 Vial Number: NA
Sample Name: AZ17826_W03 1052.6 DF 06/23/15 Data File ID: T704_006.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.271	704767428	2.7
2)	Perchlorate_85	12.268	265531415	

Date Aquired: 07/04/15 10:14 Vial Number: NA
Sample Name: AZ17827_W01 1052.6 DF 06/23/15 Data File ID: T704_007.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.393	265404	1.8
2)	Perchlorate_85	12.421	146419	

Date Aquired: 07/04/15 10:33 Vial Number: NA
Sample Name: AZ17828_W03 1052.6 DF 06/23/15 Data File ID: T704_008.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.047	790399743	2.6
2)	Perchlorate_85	12.044	299617745	

Date Aquired: 07/04/15 10:51 Vial Number: NA
Sample Name: AZ17829_W03 1052.6 DF 06/23/15 Data File ID: T704_009.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.353	124019	1.6
2)	Perchlorate_85	12.482	75535	

Date Aquired: 07/04/15 11:10 Vial Number: NA
Sample Name: AZ17907_W03 1052.6 DF 06/23/15 Data File ID: T704_010.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.005	556548	3.1
2)	Perchlorate_85	12.95	181376	

Date Aquired: 07/04/15 11:29 Vial Number: NA
Sample Name: AZ17908_W01 1052.6 DF 06/23/15 Data File ID: T704_011.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	11.925	55586600	3.3
2)	Perchlorate_85	11.911	16819053	

Date Aquired: 07/04/15 11:47 Vial Number: NA
Sample Name: AZ17909_W03 1052.6 DF 06/23/15 Data File ID: T704_012.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.383	471660553	2.8
2)	Perchlorate_85	12.36	165677191	

Date Aquired: 07/04/15 12:06 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/27/15 Data File ID: T704_013.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.443	67117	4.3
2)	Perchlorate_85	13.46	15763	

Date Aquired: 07/04/15 12:24 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 06/27/15 Data File ID: T704_014.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.198	788695	2.8
2)	Perchlorate_85	13.185	282984	

Date Aquired: 07/04/15 12:43 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 06/27/15 Data File ID: T704_015.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.463	4078016	3.4
2)	Perchlorate_85	13.47	1210802	

Date Aquired: 07/04/15 13:02 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/27/15 Data File ID: T704_016.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.586	29020	5.8
2)	Perchlorate_85	13.46	4972	

Date Aquired: 07/04/15 13:22 Vial Number: NA
Sample Name: 150624SA_LCS-1 10025.1 DF 06/24/15 Data File ID: T704_017.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.351	1134587	3.1
2)	Perchlorate_85	13.389	370287	

Date Aquired: 07/04/15 13:40 Vial Number: NA
Sample Name: 150624S_ICSA 10319.9 DF 06/24/15 Data File ID: T704_018.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.607	1203118	3.0
2)	Perchlorate_85	12.573	401207	

Date Aquired: 07/04/15 13:59 Vial Number: NA
Sample Name: 150624SBLKA 9930.5 DF 06/24/15 Data File ID: T704_019.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.392	21564	2.4
2)	Perchlorate_85	13.429	8904	

Date Aquired: 07/04/15 14:18 Vial Number: NA
Sample Name: AZ17816_S02 7518.8 DF 06/24/15 Data File ID: T704_020.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.3	196331	2.5
2)	Perchlorate_85	13.236	77046	

Date Aquired: 07/04/15 14:39 Vial Number: NA
Sample Name: AZ17819_S02 4828.6 DF 06/24/15 Data File ID: T704_021.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.28	38889	2.2
2)	Perchlorate_85	13.256	17348	

Date Aquired: 07/04/15 15:02 Vial Number: NA
Sample Name: AZ17820_S03 4741.6 DF 06/24/15 Data File ID: T704_022.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.209	20463	4.0
2)	Perchlorate_85	13.277	5090	

Date Aquired: 07/04/15 15:20 Vial Number: NA
Sample Name: AZ17822_S01 2814.5 DF 06/24/15 Data File ID: T704_023.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.495	251743	0.3
2)	Perchlorate_85	12.512	768540	

Date Aquired: 07/04/15 15:39 Vial Number: NA
Sample Name: AZ17824_S02 3258.9 DF 06/24/15 Data File ID: T704_024.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.035	121680	2.7
2)	Perchlorate_85	12.971	45428	

Date Aquired: 07/04/15 15:58 Vial Number: NA
Sample Name: AZ17824_S02_MS-1 3161.1 DF 06/24/15 Data File ID: T704_025.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.005	1042316	3.3
2)	Perchlorate_85	13.001	313548	

Date Aquired: 07/04/15 16:16 Vial Number: NA
Sample Name: AZ17824_S02_MSD-1 3248.9 DF 06/24/15 Data File ID: T704_026.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.035	986509	3.2
2)	Perchlorate_85	13.032	305896	

Date Aquired: 07/04/15 16:35 Vial Number: NA
Sample Name: PER_IS 0.005 ug/ml 06/27/15 Data File ID: T704_027.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.198	32613	1.7
2)	Perchlorate_85	13.256	18924	

Date Aquired: 07/04/15 16:54 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 06/27/15 Data File ID: T704_028.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.872	885997	3.1
2)	Perchlorate_85	12.838	290477	

Date Aquired: 07/04/15 17:12 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 06/27/15 Data File ID: T704_029.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.29	4502602	3.3
2)	Perchlorate_85	13.297	1349231	

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 13:25 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 06/27/15 Data File ID: T705_002.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.934	793726	3.0
2)	Perchlorate_85	12.859	260259	

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 16:51 Vial Number: NA
Sample Name: AZ17826_W03 105263.2 DF 06/23/15_6/27 Data File ID: T705_013.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.27	11267757	3.4
2)	Perchlorate_85	13.256	3310477	

Date Aquired: 07/05/15 17:28 Vial Number: NA
Sample Name: PER_CCV 0.0004 ug/ml 06/27/15 Data File ID: T705_015.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	12.77	604230	3.0
2)	Perchlorate_85	12.737	199384	

Date Aquired: 07/05/15 17:46 Vial Number: NA
Sample Name: PER_CCV 0.002 ug/ml 06/27/15 Data File ID: T705_016.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.3	3458048	3.4
2)	Perchlorate_85	13.317	1025582	

Date Aquired: 07/05/15 19:01 Vial Number: NA
Sample Name: AZ17828_W03 1052631.6 DF 06/23/15_6/27 Data File ID: T705_020.d

#	NAME	Ret Time	Target Response	Ratio
1)	Perchlorate_83	13.27	1274351	3.1
2)	Perchlorate_85	13.287	405590	

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	

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

ARF: 76674

Sample ID: S67-SD026-0001

APPL ID: AZ17816

Sample Collection Date: 06/16/15

QCG: #6850SM-150624A-198610

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 27.8 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/24/15	07/04/15

Quant Method:	QTLMFL2
Run #:	T704_020.d
Instrument:	AGIL_6460
Sequence:	TQ070415
Dilution Factor:	1
Initials:	RP

Printed: 07/07/15 8:30:33 AM

APPL-F1-SC-MCResOnly-REG MDLs

Data File ID: T704_020.d

Date Injected : 07/04/15

Time Injected : 14:18

Sample ID : AZ17816_S02 7518.8 DF 06/24/15

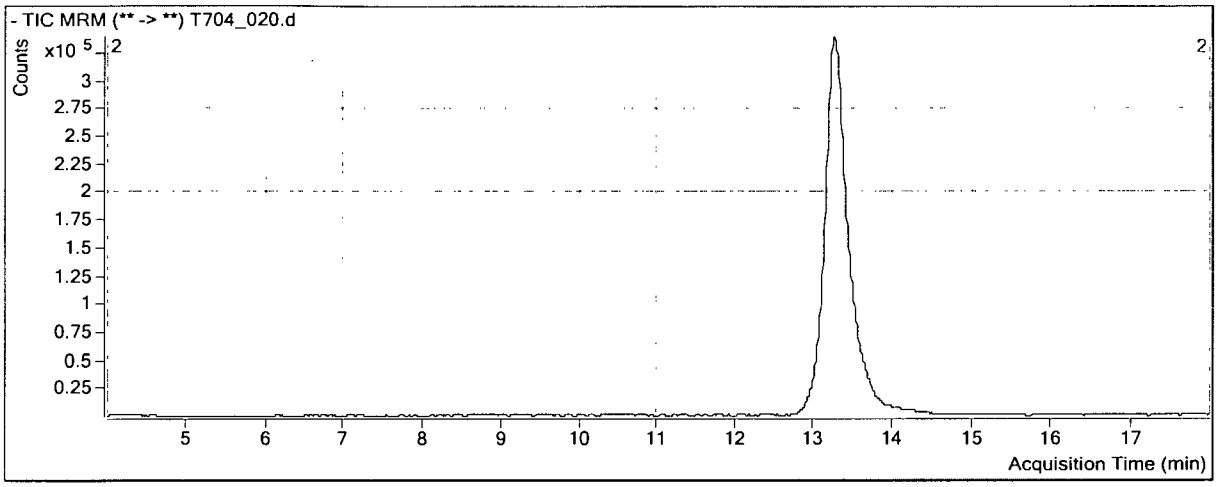
Client ID : S67-SD026-0001

Retention Time		Area Count Response	Compound_ID Product Ion			
13.283		6887632	PER_IS_89			
13.000	*	196331	Perchlorate_83	(196331 * 0.0050) / (1.27 * 6887632.00) * 7518.80 =		0.843619 ppb
13.236		77046	Perchlorate_85	(77046 * 0.0050) / (0.39 * 6887632.00) * 7518.80 =		1.073867 ppb

* MANUAL INTEGRAION

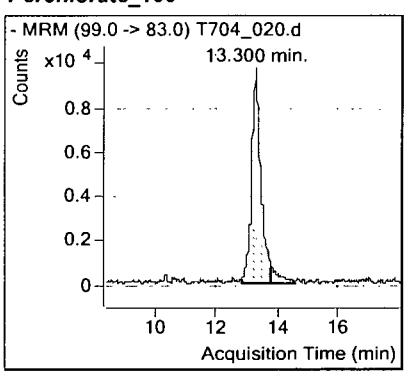
Quantitative Analysis Sample Report

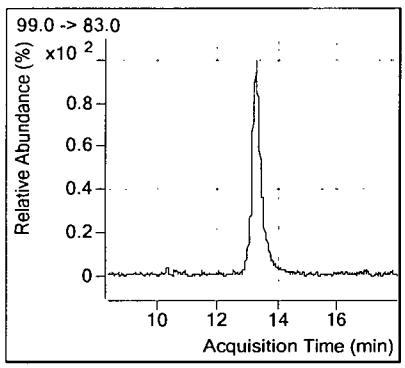
Batch Data Path	D:\MassHunter\Data\150704\QuantResults\150704_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T704_020.d	**Sample Name**	AZ17816_S02 7518.8 DF 06/24/15
Sample Type	Sample	**Acq_Date**	07/04/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	14:18
ClientID	S67-SD026-0001	**Inj Vol**	20

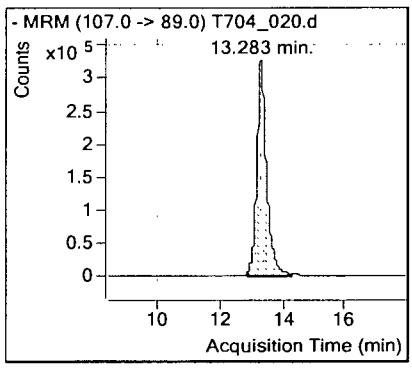


Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108	*	13.300	196331	6887632	* MANUAL INT
Perchlorate_102	PER_IS_108		13.236	77046	6887632	

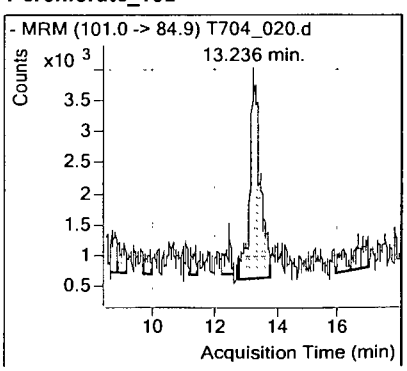
Perchlorate_100

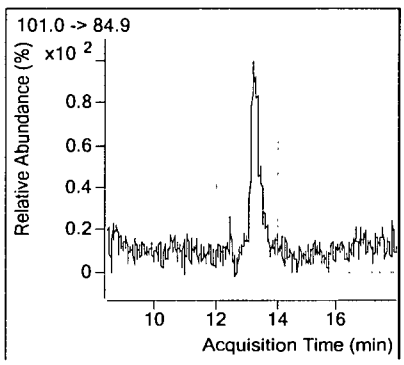


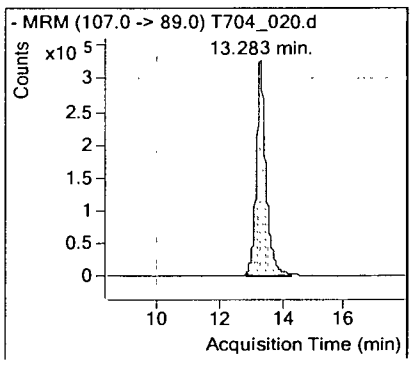


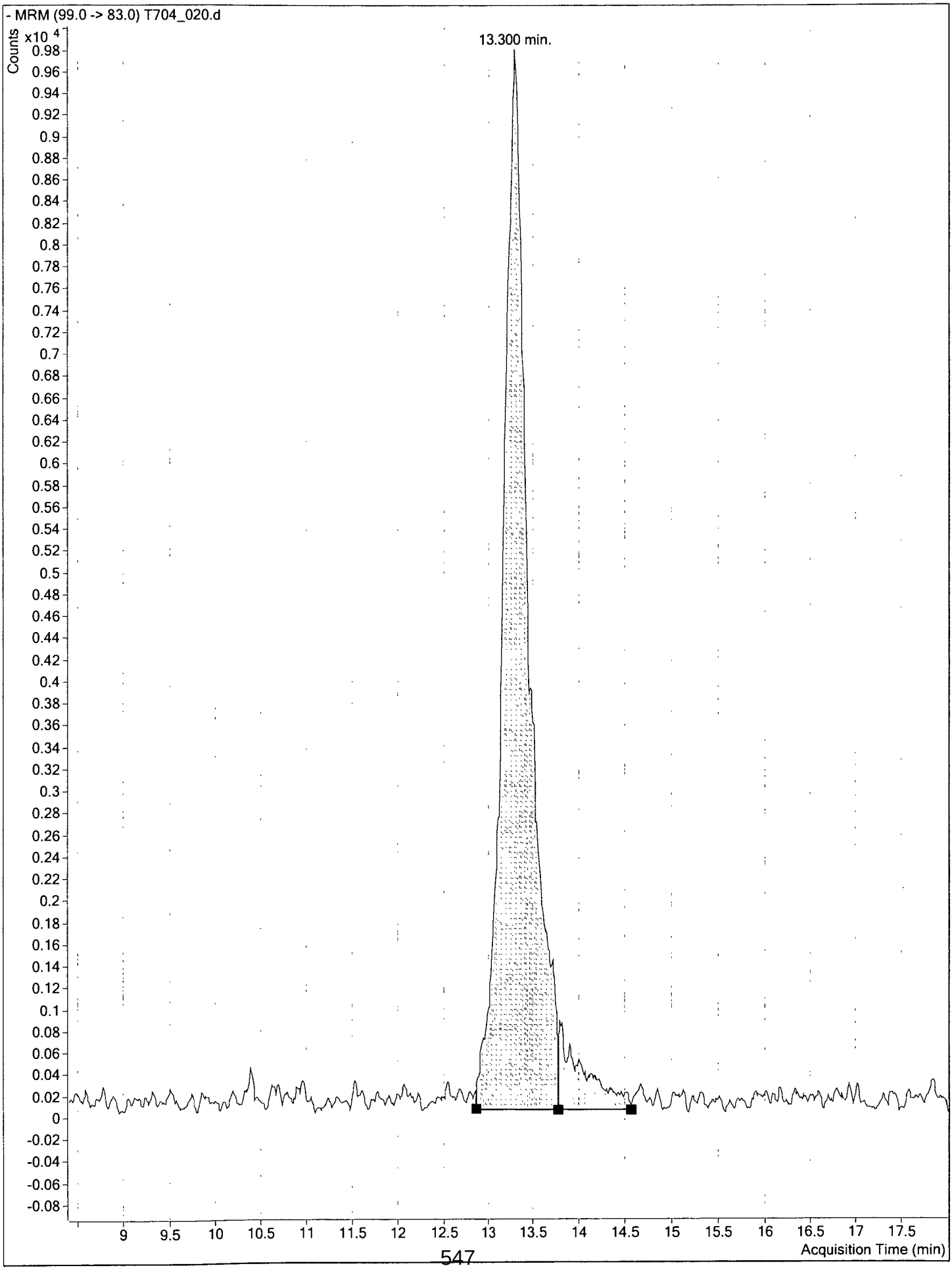


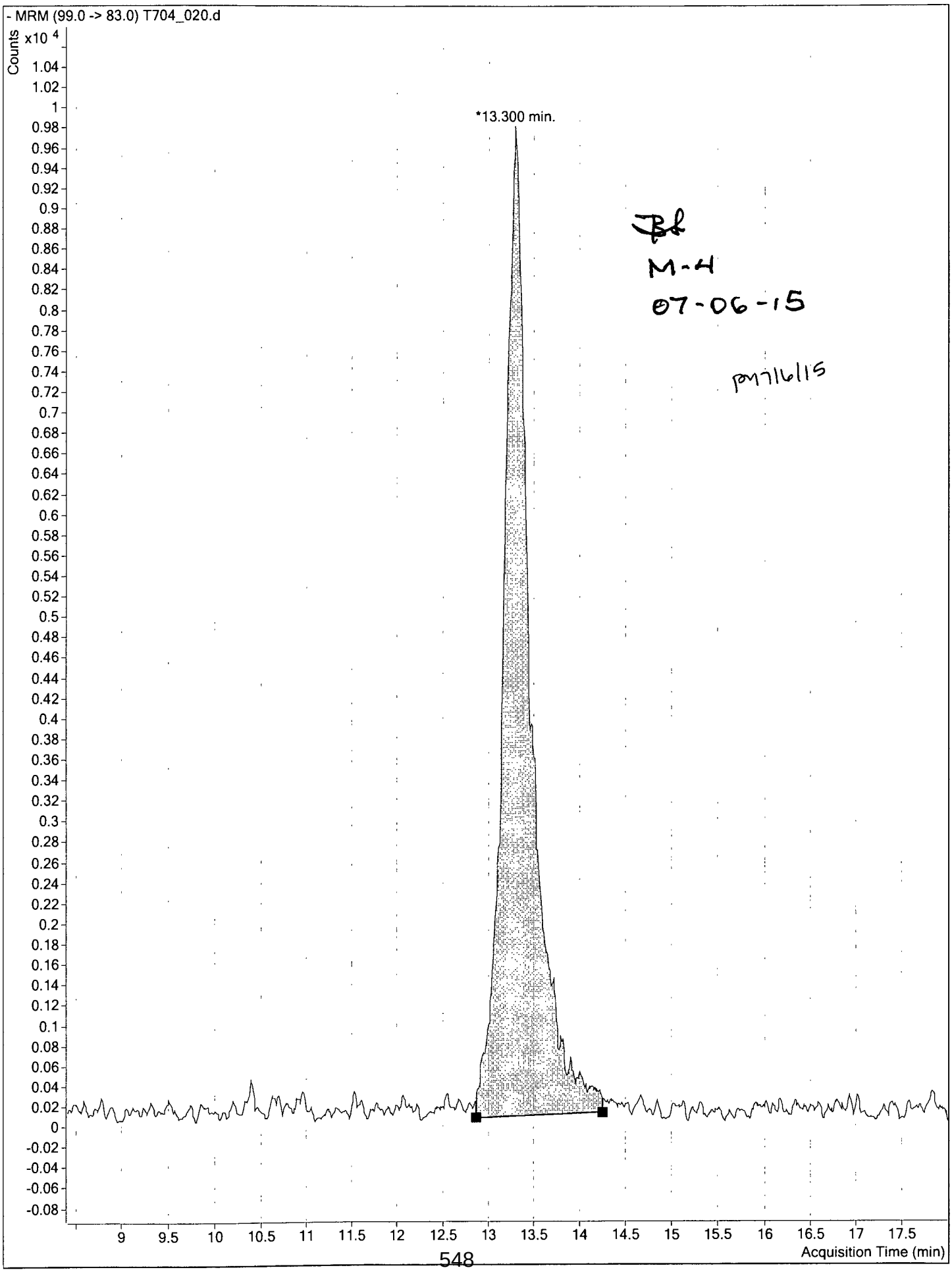
Perchlorate_102








- MRM (99.0 -> 83.0) T704_020.d
Counts
x10 4
13.300 min.
0.98
0.96
0.94
0.92
0.9
0.88
0.86
0.84
0.82
0.8
0.78
0.76
0.74
0.72
0.7
0.68
0.66
0.64
0.62
0.6
0.58
0.56
0.54
0.52
0.5
0.48
0.46
0.44
0.42
0.4
0.38
0.36
0.34
0.32
0.3
0.28
0.26
0.24
0.22
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
-0.02
-0.04
-0.06
-0.08
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) T704_020.d
Counts
x10 4
*13.300 min.
Acquisition Time (min)
M-4
07-06-15
pm 7/6/15

Perchlorate

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: 76674

Sample ID: S67-SW026-061615

APPL ID: AZ17817

Sample Collection Date: 06/16/15

QCG: #6850-150623A-198538

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	0.400 U	0.60	0.400	0.200	ug/L	06/23/15	06/27/15

Quant Method:	QTLMFL2
Run #:	T627_008.d
Instrument:	AGIL_6460
Sequence:	TQ062715
Dilution Factor:	1
Initials:	RP

Printed: 07/06/15 8:32:23 AM

APPL-F1-SC-NoMC-REG MDLs

Data File ID: T627_008.d

Date Injected : 06/27/15

Time Injected : 19:42

Sample ID : AZ17817_W02 1052.6 DF 06/23/15

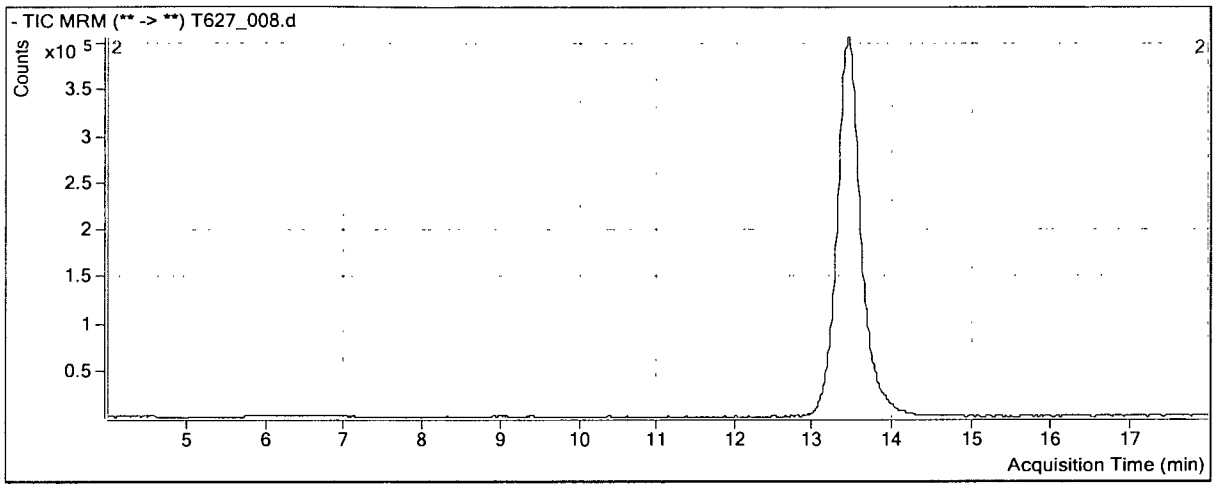
Client ID : S67-SW026-061615

Retention Time		Area Count Response	Compound_ID Product Ion				
13.467		8139461	PER_IS_89				
13.453	*	164233	Perchlorate_83	(164233 * 0.0050) / (1.27 * 8139461.00) *	1052.60 =	0.083600	ppb
13.400	*	78165	Perchlorate_85	(78165 * 0.0050) / (0.39 * 8139461.00) *	1052.60 =	0.129063	ppb

* MANUAL INTEGRAION

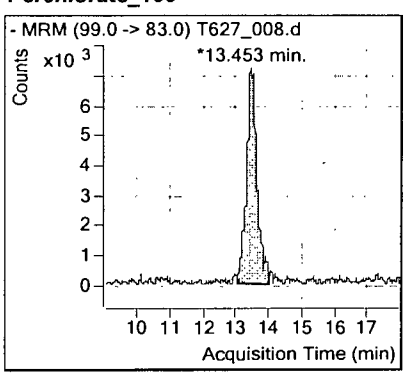
Quantitative Analysis Sample Report

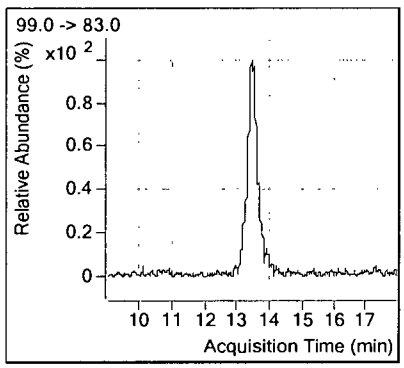
Batch Data Path	D:\MassHunter\Data\150627\QuantResults\150627_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T627_008.d	**Sample Name**	AZ17817_W02 1052.6 DF 06/23/15
Sample Type	Sample	**Acq_Date**	06/27/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	19:42
ClientID	S67-SW026-061615	**Inj Vol**	20

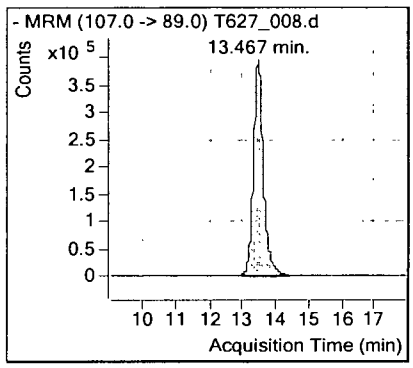


Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108	*	13.453	164233	8139461	* MANUAL INT
Perchlorate_102	PER_IS_108	*	13.470	78165	8139461	* MANUAL INT

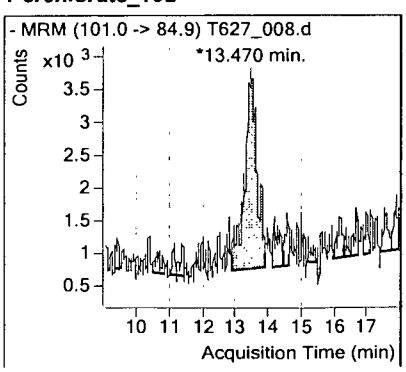
Perchlorate_100

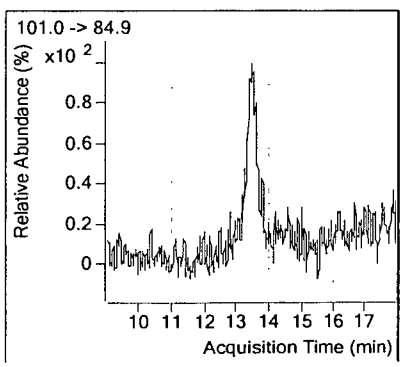


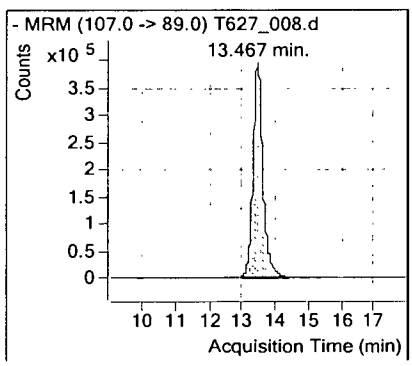


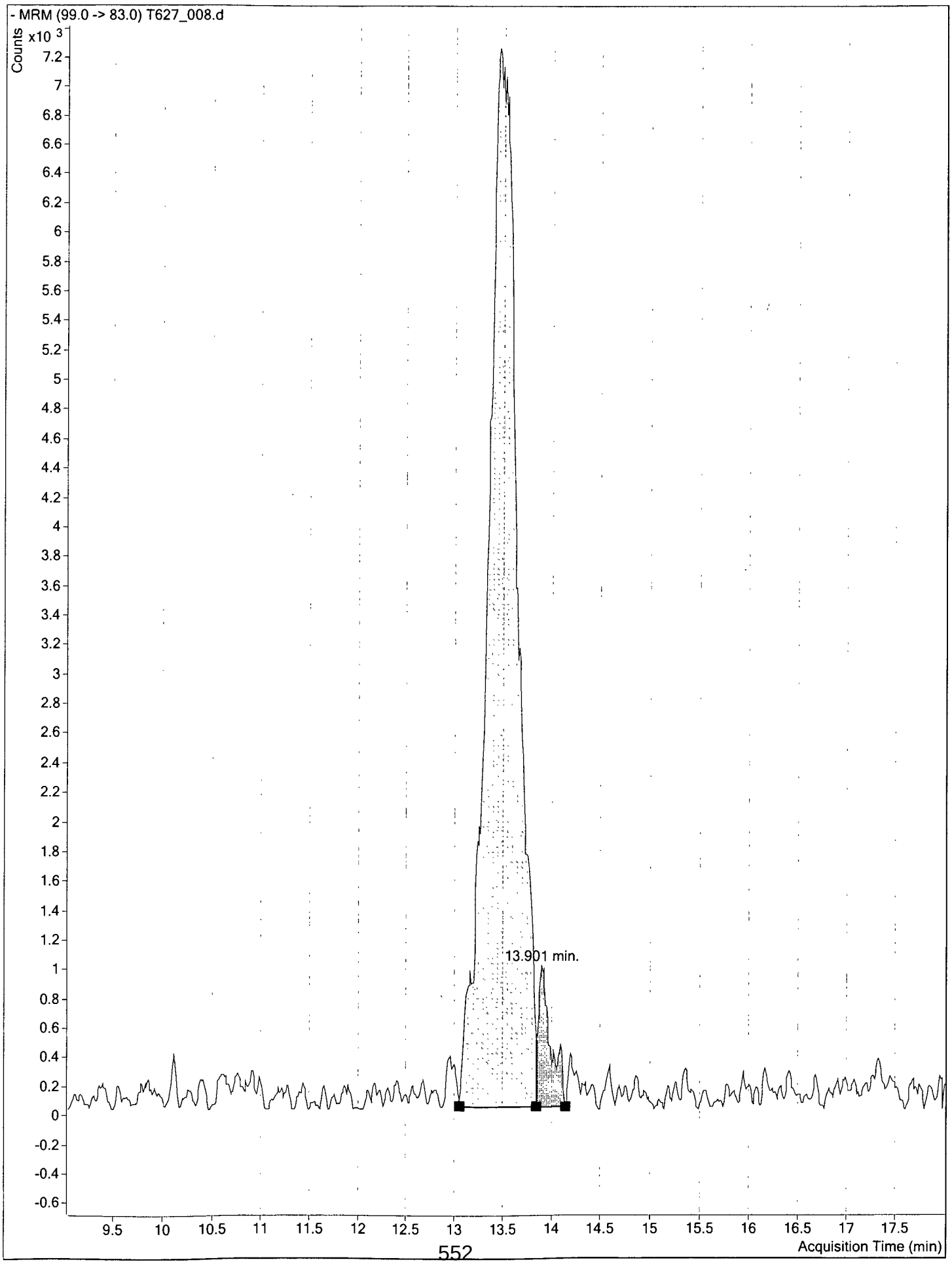


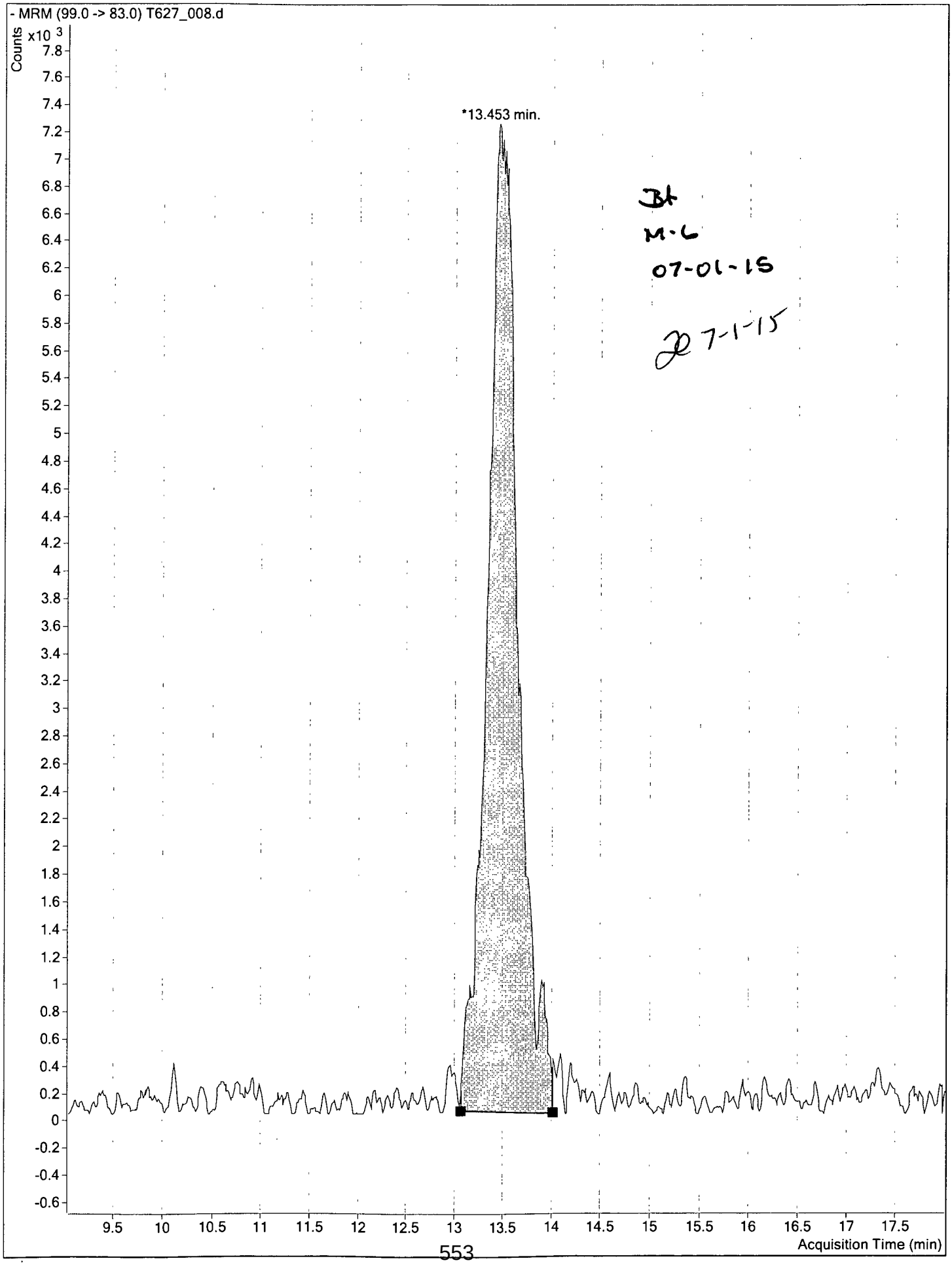
Perchlorate_102





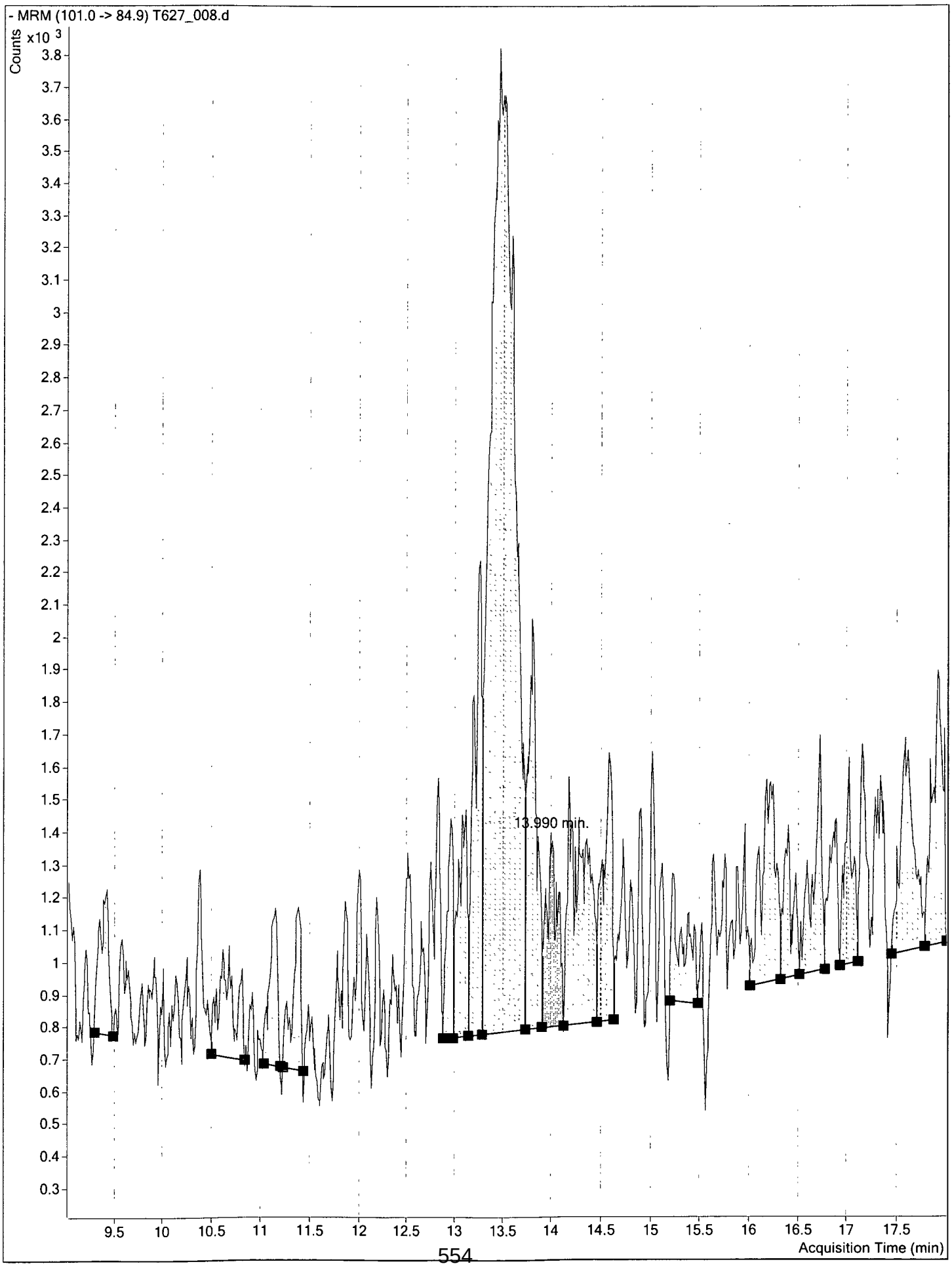


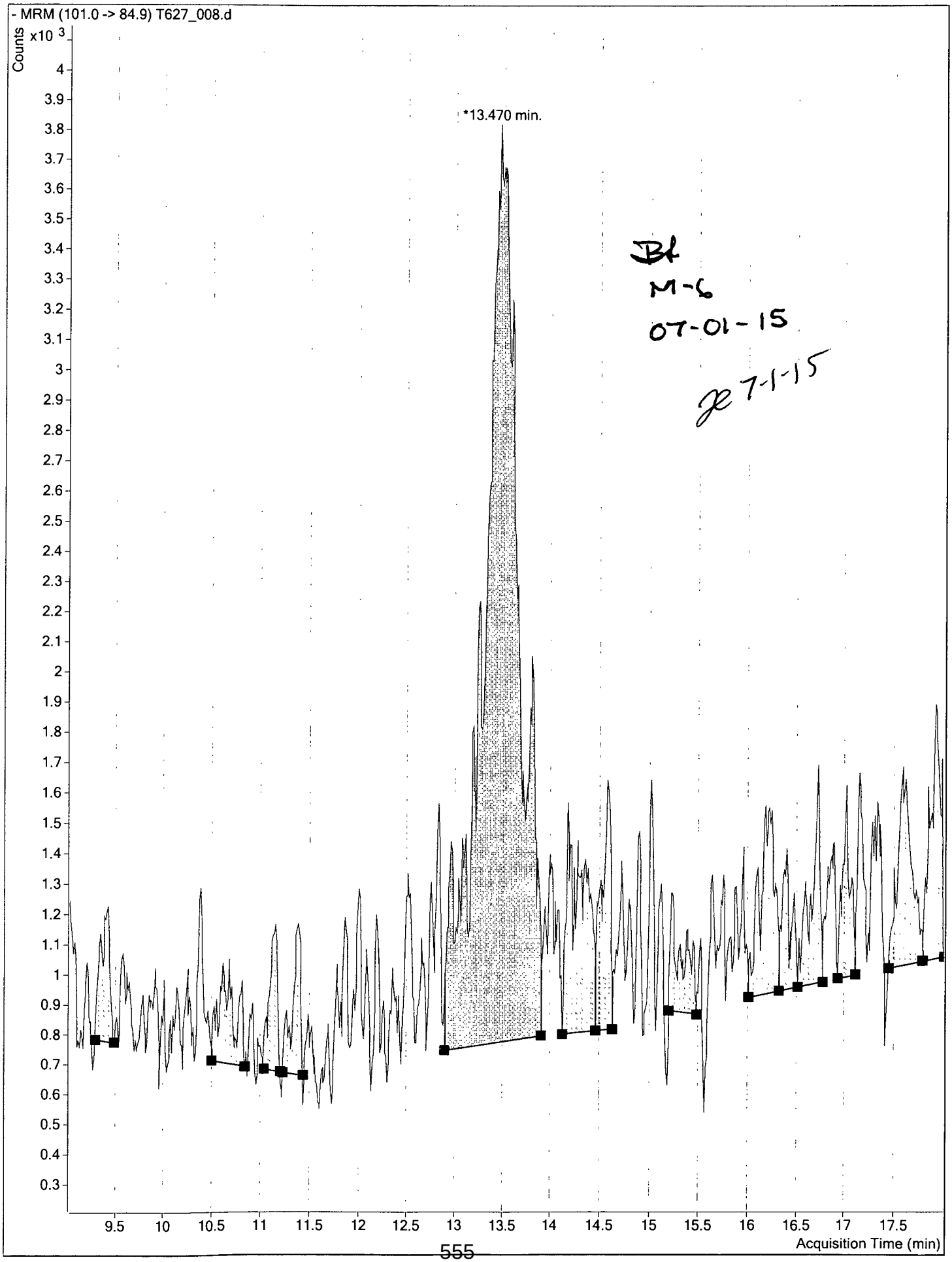

- MRM (99.0 -> 83.0) T627_008.d
Counts
x10 3
7.2
7
6.8
6.6
6.4
6.2
6
5.8
5.6
5.4
5.2
5
4.8
4.6
4.4
4.2
4
3.8
3.6
3.4
3.2
3
2.8
2.6
2.4
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
13.901 min.
9.5
10
10.5
11
11.5
12
12.5
13
13.5
14
14.5
15
15.5
16
16.5
17
17.5
Acquisition Time (min)



JH
M.L
07-01-15

7-1-15


- MRM (101.0 -> 84.9) T627_008.d
Counts
x10 3
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
13.990 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) T627_008.d
Counts
x10 3
*13.470 min.
Acquisition Time (min)
BL
M-6
07-01-15
JR 7-1-15

Perchlorate

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

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SW026P-061615
Sample Collection Date: 06/16/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76674
APPL ID: AZ17818
QCG: #6850-150623A-198538

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	0.400 U	0.60	0.400	0.200	ug/L	06/23/15	06/27/15

Quant Method:	QTLMFL2
Run #:	T627_009.d
Instrument:	AGIL_6460
Sequence:	TQ062715
Dilution Factor:	1
Initials:	RP

Printed: 07/06/15 8:32:23 AM
APPL-F1-SC-NoMC-REG MDLs

Data File ID: T627_009.d

Date Injected : 06/27/15

Time Injected : 20:00

Sample ID : AZ17818_W02 1052.6 DF 06/23/15

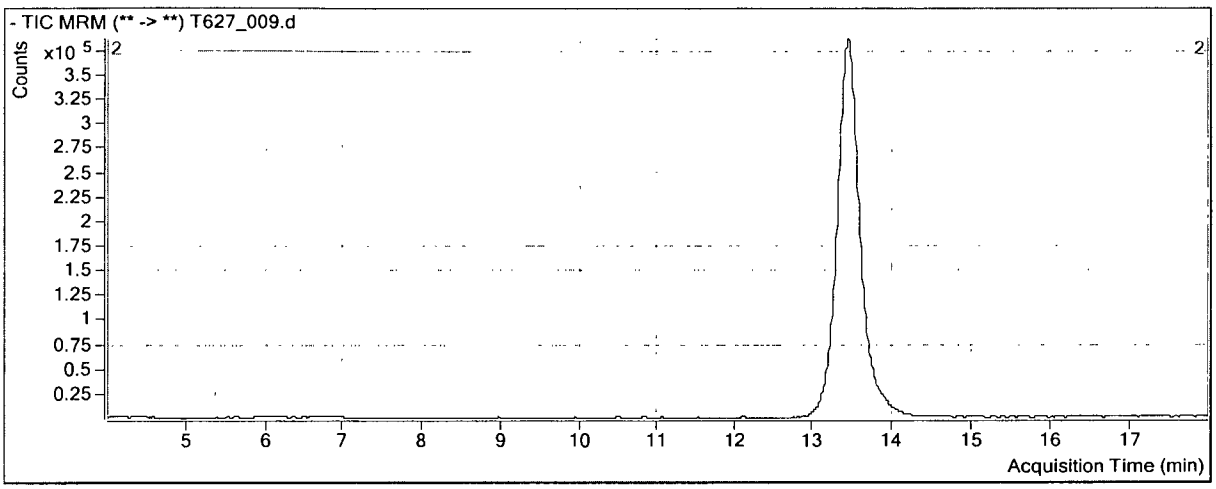
Client ID : S67-SW026P-061615

Retention Time		Area Count Response	Compound_ID Product Ion			
13.467		7748163	PER_IS_89			
13.402		154087	Perchlorate_83	(154087 * 0.0050) / (1.27 * 7748163.00) *	1052.60 =	0.082397 ppb
13.400	*	89904	Perchlorate_85	(89904 * 0.0050) / (0.39 * 7748163.00) *	1052.60 =	0.155943 ppb

* MANUAL INTEGRAION

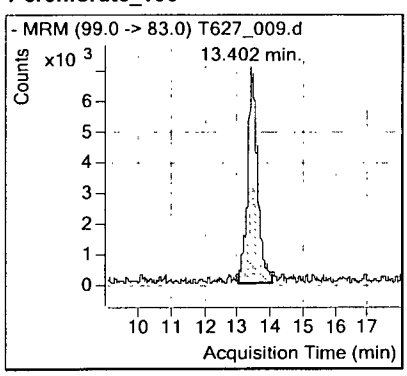
Quantitative Analysis Sample Report

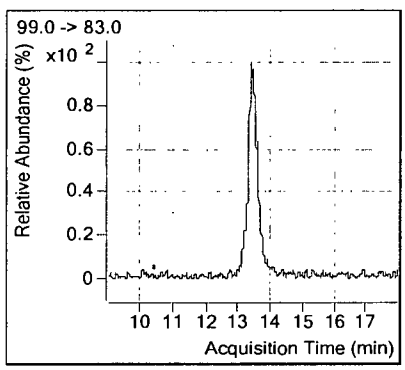
Batch Data Path	D:\MassHunter\Data\150627\QuantResults\150627_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T627_009.d	**Sample Name**	AZ17818_W02 1052.6 DF 06/23/15
Sample Type	Sample	**Acq_Date**	06/27/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	20:00
ClientID	S67-SW026P-061615	**Inj Vol**	20

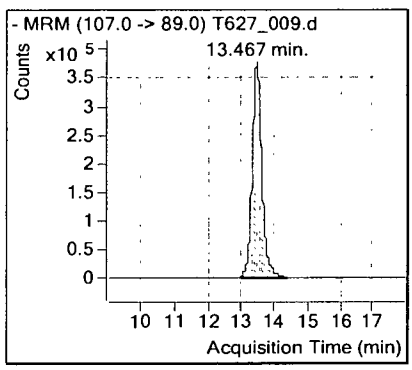


Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108		13.402	154087	7748163	
Perchlorate_102	PER_IS_108	*	13.460	89904	7748163	* MANUAL INT

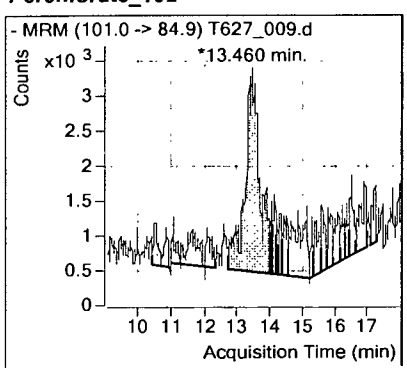
Perchlorate_100

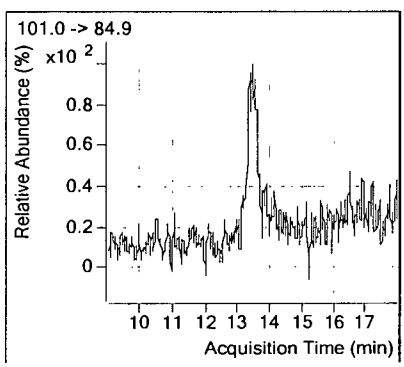


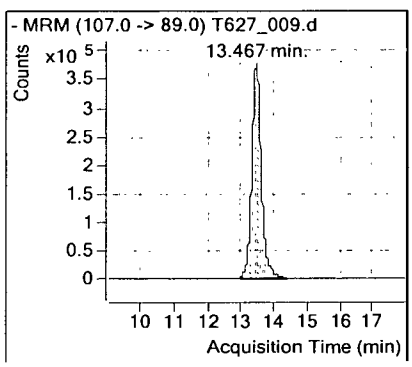


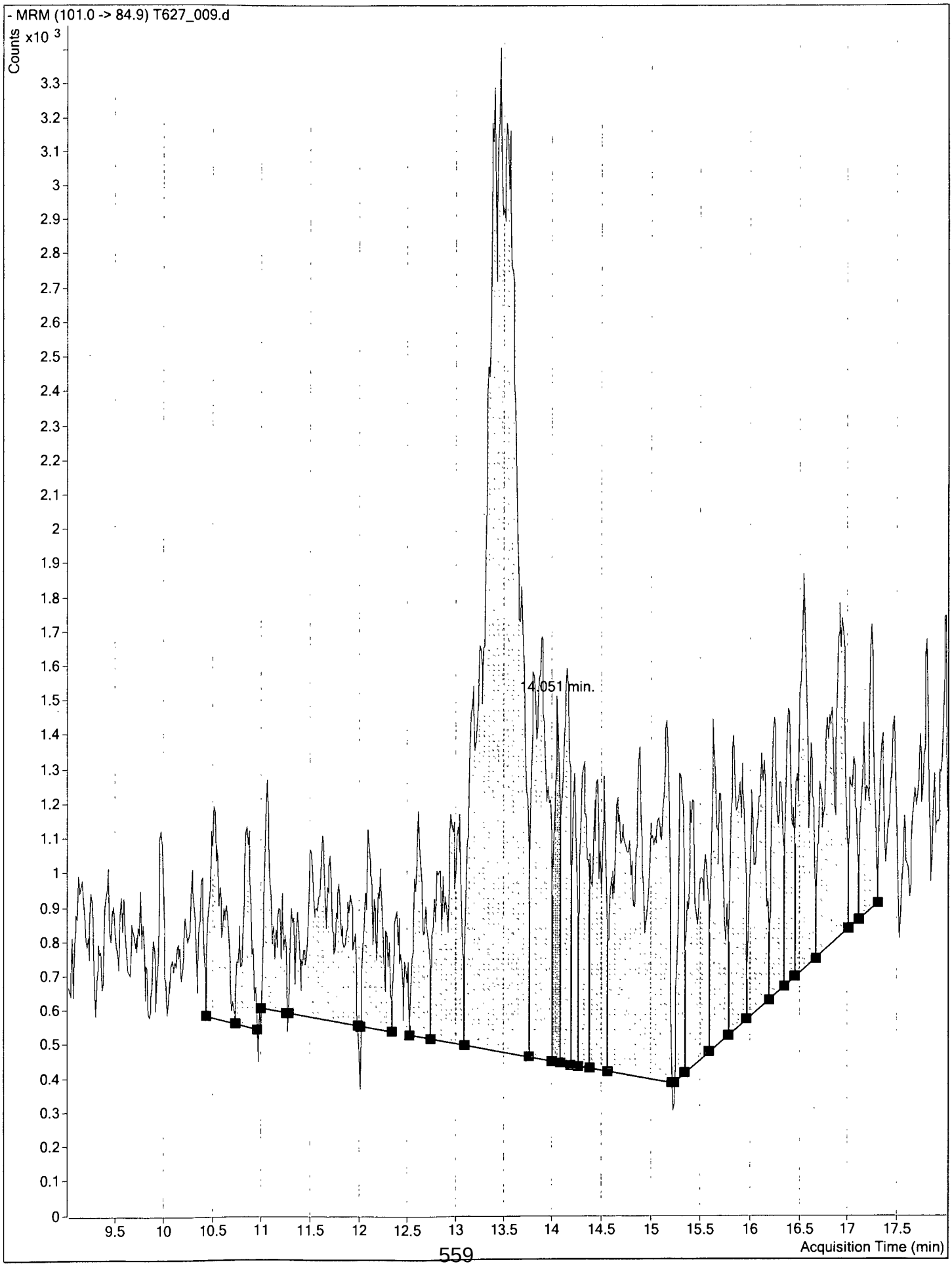


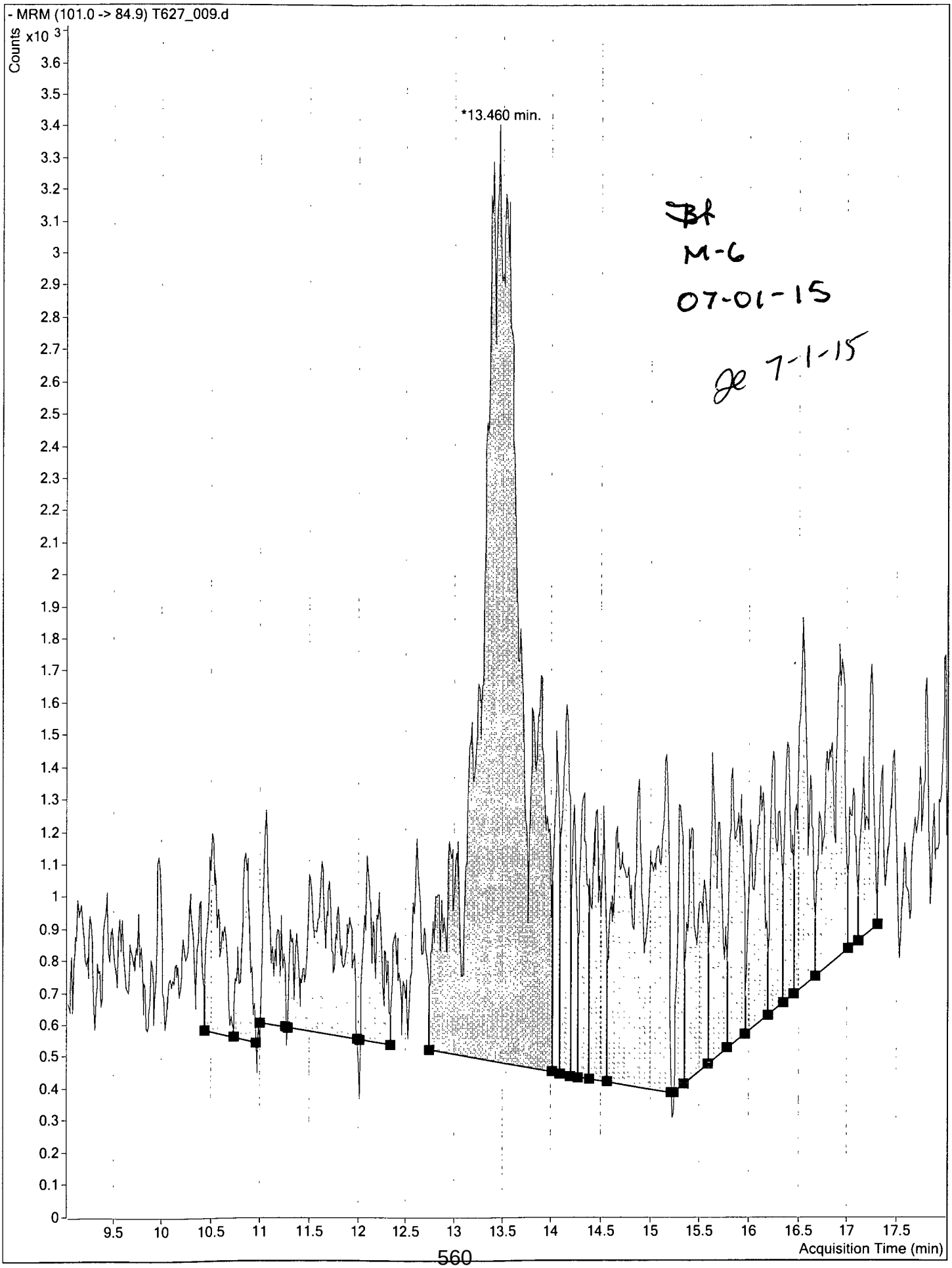
Perchlorate_102








- MRM (101.0 -> 84.9) T627_009.d
Counts
x10 3
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
0
14.051 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)



JBf
M-6
07-01-15
JBf 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: 76674

Sample ID: S67-SD027-0001

APPL ID: AZ17819

Sample Collection Date: 06/16/15

QCG: #6850SM-150624A-198610

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 50.7 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/24/15	07/04/15

Quant Method:	QTLMFL2
Run #:	T704_021.d
Instrument:	AGIL_6460
Sequence:	TQ070415
Dilution Factor:	1
Initials:	RP

Printed: 07/07/15 8:30:33 AM

APPL-F1-SC-MCResOnly-REG MDLs

Data File ID: T704_021.d

Date Injected : 07/04/15

Time Injected : 14:39

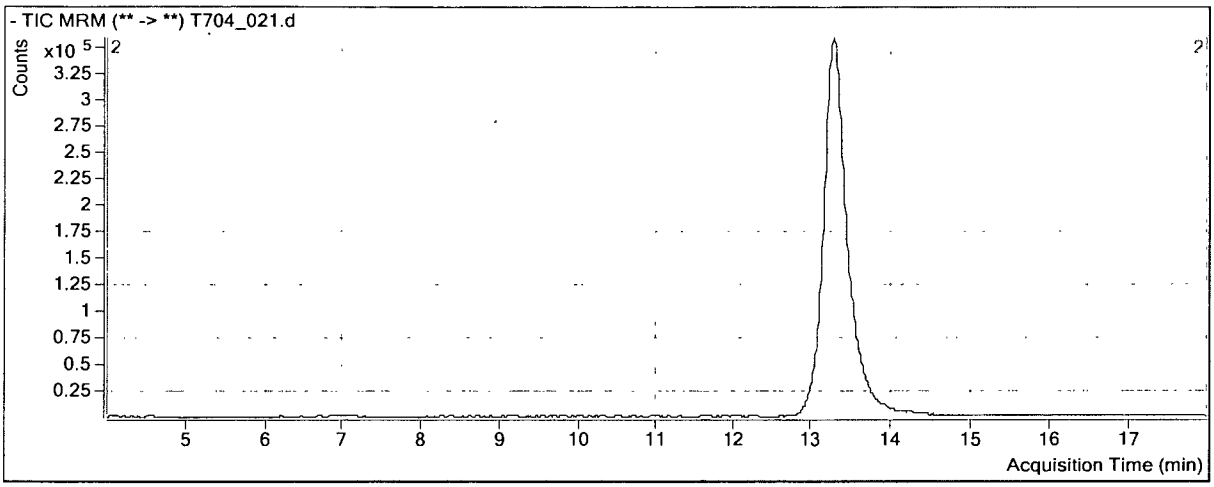
Sample ID : AZ17819_S02 4828.6 DF 06/24/15

Client ID : S67-SD027-0001

Retention Time	Area Count Response	Compound_ID Product Ion		
13.304	7460045	PER_IS_89		
13.200	38889	Perchlorate_83	(38889 * 0.0050) / (1.27 * 7460045.00) * 4828.60 =	0.099080 ppb
13.256	17348	Perchlorate_85	(17348 * 0.0050) / (0.39 * 7460045.00) * 4828.60 =	0.143368 ppb

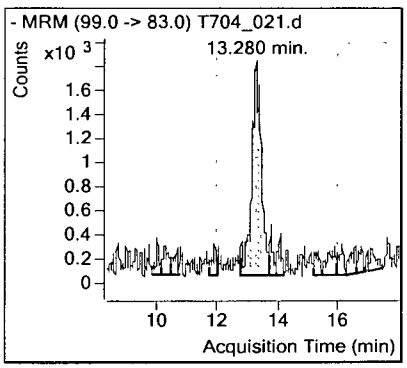
Quantitative Analysis Sample Report

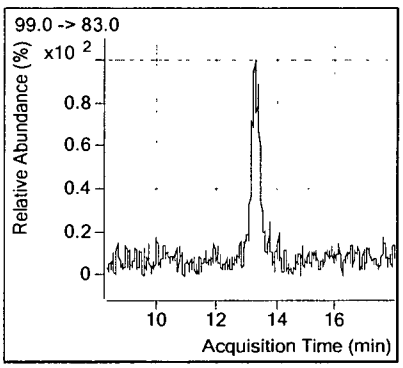
Batch Data Path	D:\MassHunter\Data\150704\QuantResults\150704_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T704_021.d	**Sample Name**	AZ17819_S02 4828.6 DF 06/24/15
Sample Type	Sample	**Acq_Date**	07/04/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	14:39
ClientID	S67-SD027-0001	**Inj Vol**	20

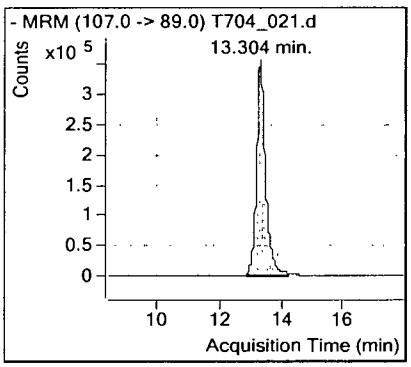


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.280	38889	7460045
Perchlorate_102	PER_IS_108	13.256	17348	7460045

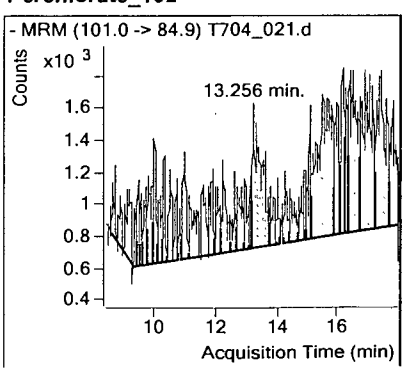
Perchlorate_100

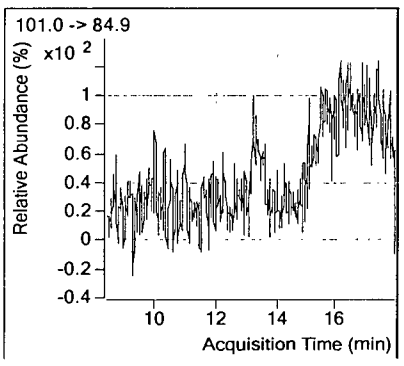


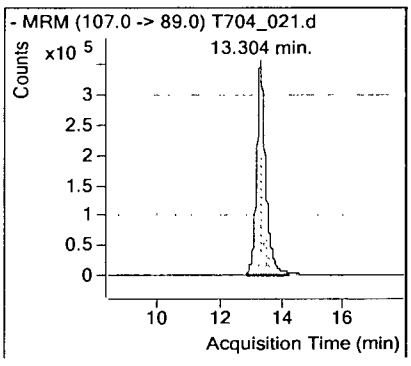




Perchlorate_102







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: 76674

Sample ID: S67-SD027P-0001

APPL ID: AZ17820

Sample Collection Date: 06/16/15

QCG: #6850SM-150624A-198610

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 53.5 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/24/15	07/04/15

Quant Method:	QTLMFL2
Run #:	T704_022.d
Instrument:	AGIL_6460
Sequence:	TQ070415
Dilution Factor:	1
Initials:	RP

Printed: 07/07/15 8:30:33 AM

APPL-F1-SC-MCResOnly-REG MDLs

Data File ID: T704_022.d

Date Injected : 07/04/15

Time Injected : 15:02

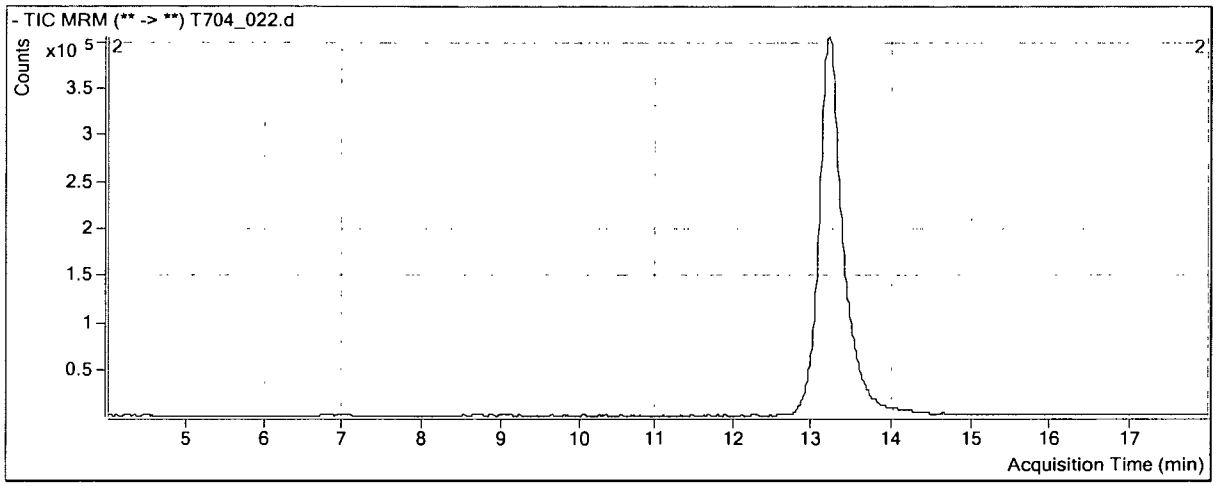
Sample ID : AZ17820_S03 4741.6 DF 06/24/15

Client ID : S67-SD027P-0001

Retention Time	Area Count Response	Compound_ID Product Ion		
13.243	8475293	PER_IS_89		
13.209	20463	Perchlorate_83	(20463 * 0.0050) / (1.27 * 8475293.00) * 4741.60 =	0.045063 ppb
13.277	5090	Perchlorate_85	(5090 * 0.0050) / (0.39 * 8475293.00) * 4741.60 =	0.036359 ppb

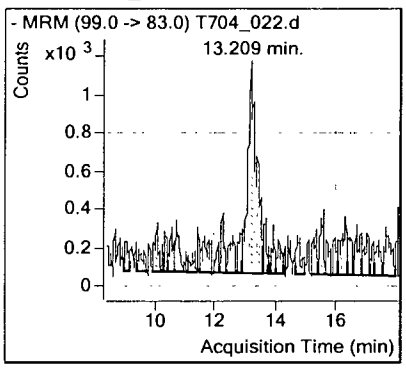
Quantitative Analysis Sample Report

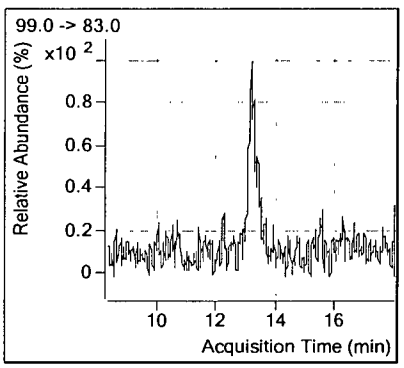
Batch Data Path	D:\MassHunter\Data\150704\QuantResults\150704_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T704_022.d	**Sample Name**	AZ17820_S03 4741.6 DF 06/24/15
Sample Type	Sample	**Acq_Date**	07/04/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	15:02
ClientID	S67-SD027P-0001	**Inj Vol**	20

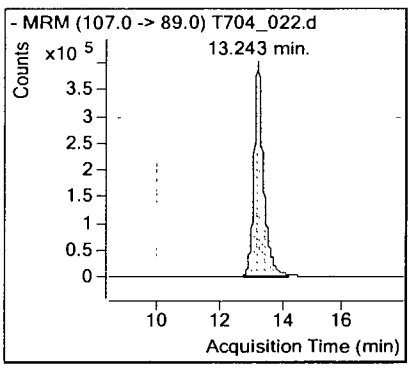


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.209	20463	8475293
Perchlorate_102	PER_IS_108	13.277	5090	8475293

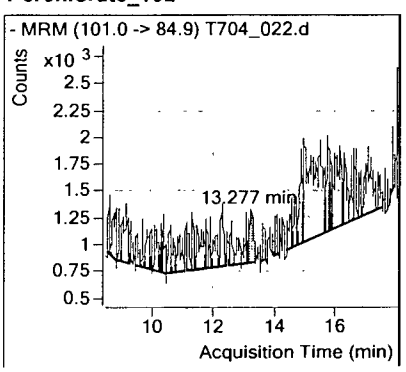
Perchlorate_100

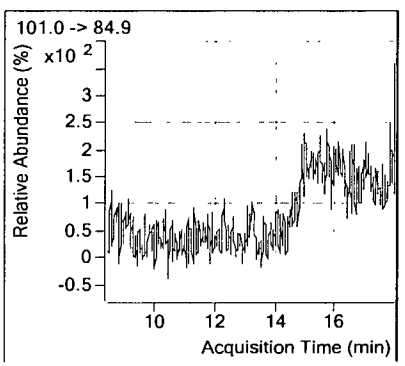


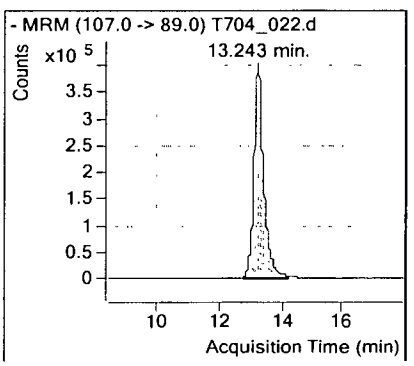




Perchlorate_102







Perchlorate

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: 76674

Sample ID: S67-SW027-061615

APPL ID: AZ17821

Sample Collection Date: 06/16/15

QCG: #6850-150623A-198538

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	0.400 U	0.60	0.400	0.200	ug/L	06/23/15	06/27/15

Quant Method:	QTLMFL2
Run #:	T627_010.d
Instrument:	AGIL_6460
Sequence:	TQ062715
Dilution Factor:	1
Initials:	RP

Printed: 07/06/15 8:32:23 AM
APPL-F1-SC-NoMC-REG MDLs

Data File ID: T627_010.d

Date Injected : 06/27/15

Time Injected : 20:19

Sample ID : AZ17821_W02 1052.6 DF 06/23/15

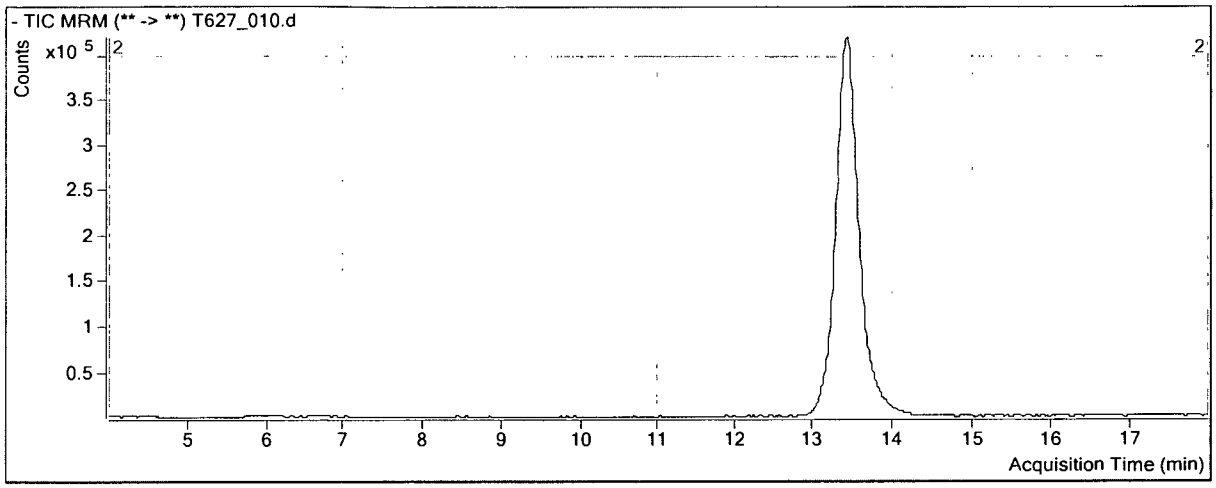
Client ID : S67-SW027-061615

Retention Time		Area Count Response	Compound_ID Product Ion			
13.457		8356453	PER_IS_89			
13.423		222363	Perchlorate_83	(222363 * 0.0050) / (1.27 * 8356453.00) *	1052.60 =	0.110251 ppb
13.400	*	88220	Perchlorate_85	(88220 * 0.0050) / (0.39 * 8356453.00) *	1052.60 =	0.141883 ppb

* MANUAL INTEGRAION

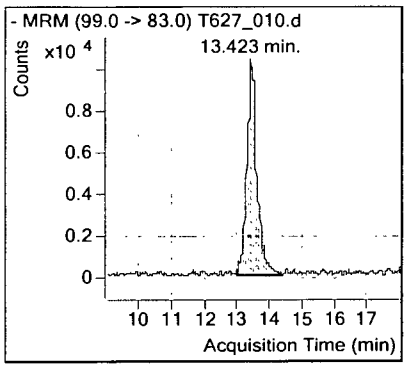
Quantitative Analysis Sample Report

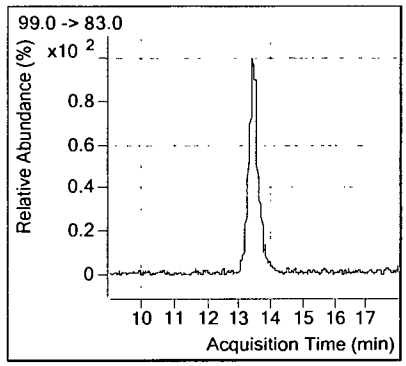
Batch Data Path	D:\MassHunter\Data\150627\QuantResults\150627_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T627_010.d	**Sample Name**	AZ17821_W02 1052.6 DF 06/23/15
Sample Type	Sample	**Acq_Date**	06/27/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	20:19
ClientID	S67-SW027-061615	**Inj Vol**	20

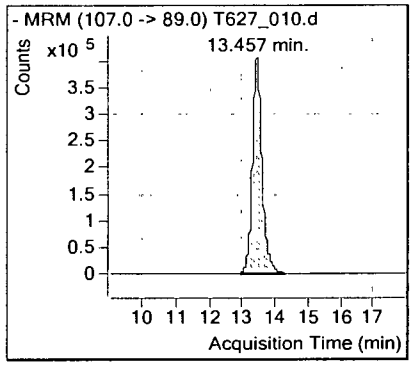


Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108		13.423	222363	8356453	
Perchlorate_102	PER_IS_108	*	13.460	88220	8356453	* MANUAL INT

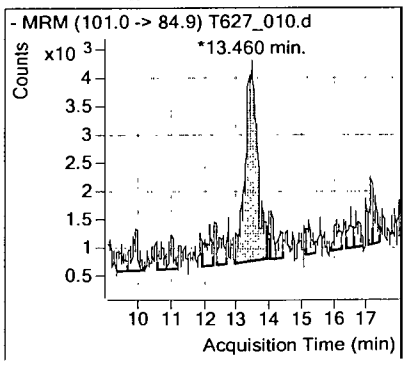
Perchlorate_100

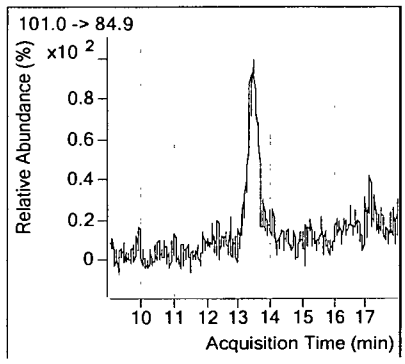


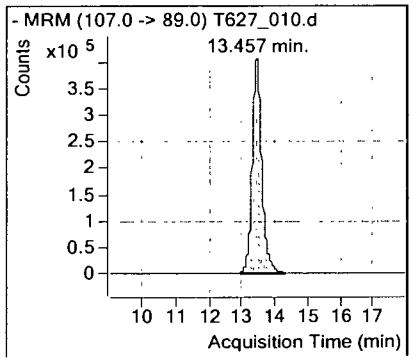


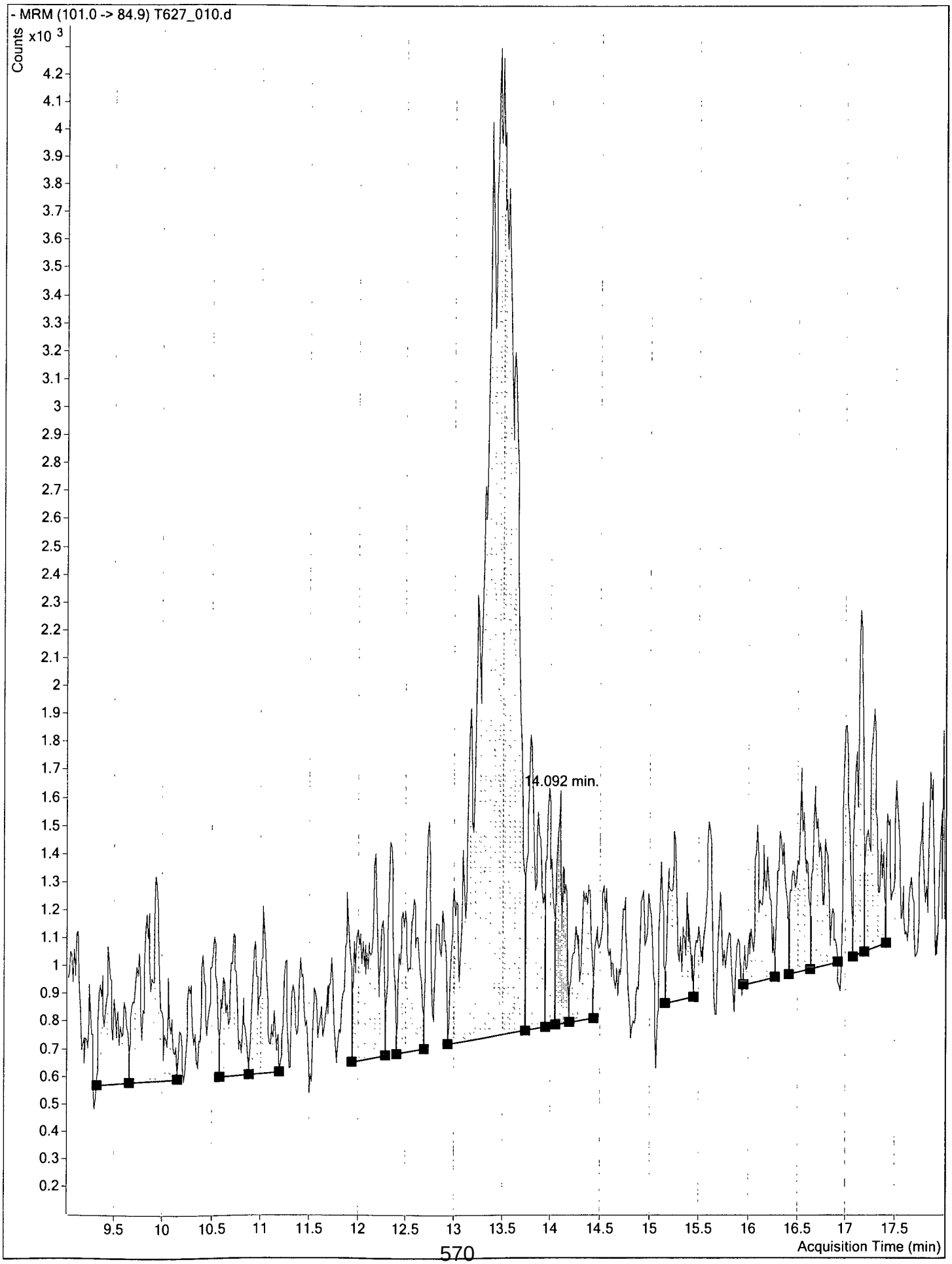


Perchlorate_102








- MRM (101.0 -> 84.9) T627_010.d
Counts
x10 3
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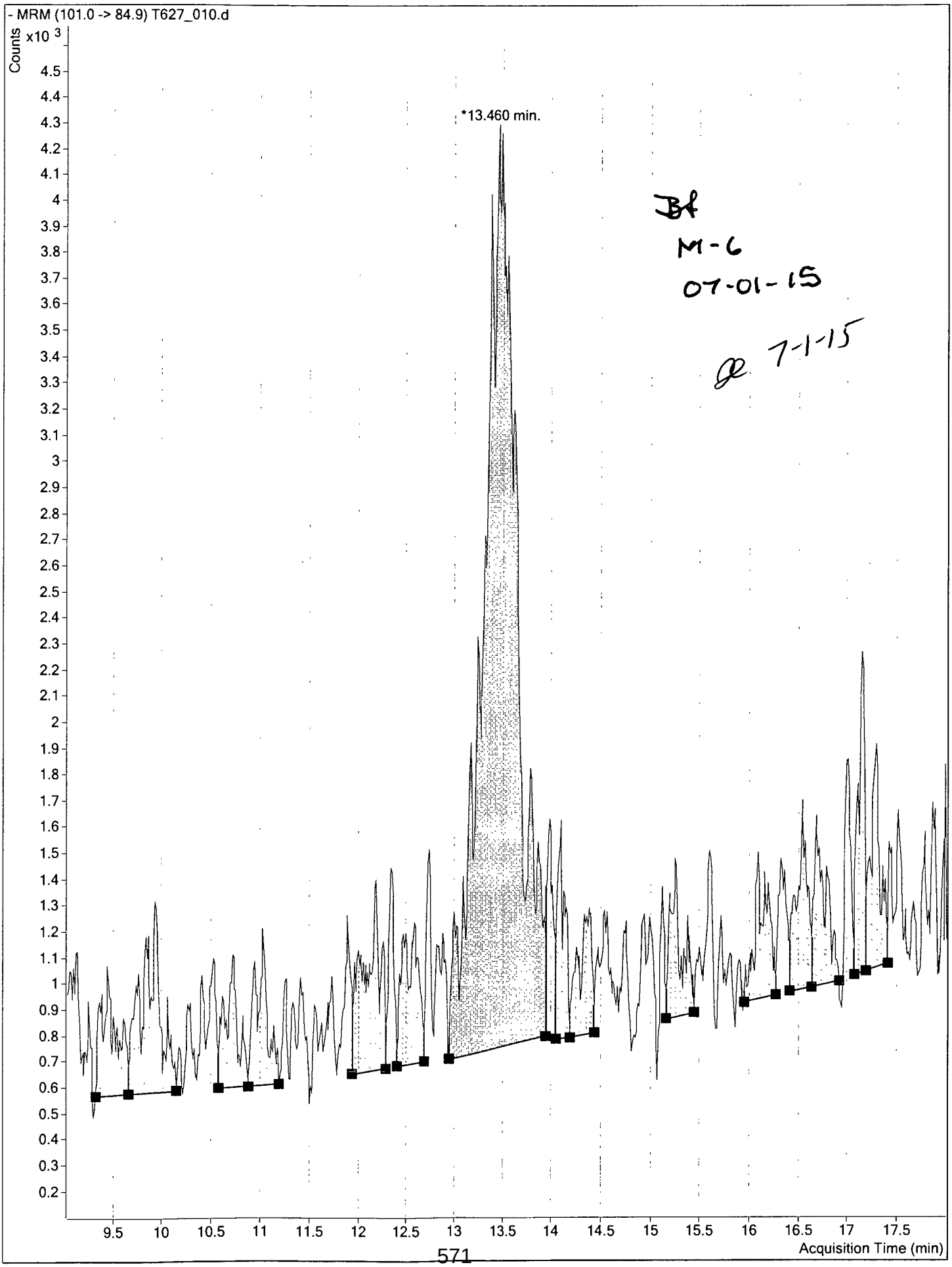
3.9
3.8
3.7
3.6
3.5
3.4
3.3
3.2
3.1
3
2.9
2.8
2.7
2.6
2.5
2.4
2.3
2.2
2.1
2
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
14.092 min.
9.5
10
10.5
11
11.5
12
12.5
13
13.5
14
14.5
15
15.5
16
16.5
17
17.5
Acquisition Time (min)



BF
M-6
07-01-15
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-SD028-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17822
QCG: #6850SM-150624A-198610

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 73.1 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/24/15	07/04/15

Quant Method:	QTLMFL2
Run #:	T704_023.d
Instrument:	AGIL_6460
Sequence:	TQ070415
Dilution Factor:	1
Initials:	RP

Printed: 07/07/15 8:30:33 AM
APPL-F1-SC-MCResOnly-REG MDLs

Data File ID: T704_023.d

Date Injected : 07/04/15

Time Injected : 15:20

Sample ID : AZ17822_S01 2814.5 DF 06/24/15

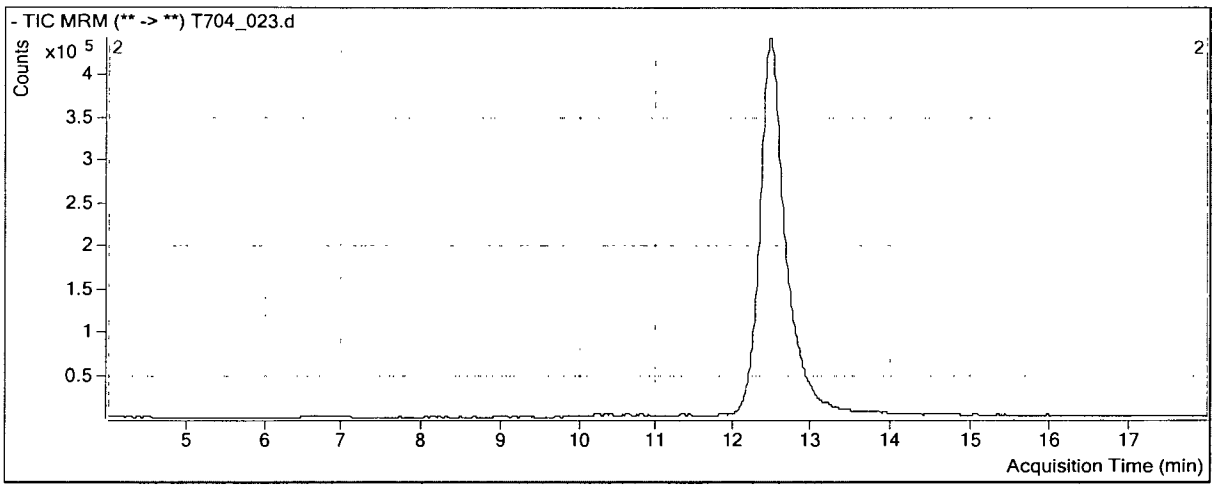
Client ID : S67-SD028-0001

Retention Time		Area Count Response	Compound_ID Product Ion			
12.499		9892788	PER_IS_89			
12.495	*	251743	Perchlorate_83	(251743 * 0.0050) / (1.27 * 9892788.00) *	2814.50 =	0.281915 ppb
12.512		768540	Perchlorate_85	(768540 * 0.0050) / (0.39 * 9892788.00) *	2814.50 =	2.791713 ppb

* MANUAL INTEGRAION

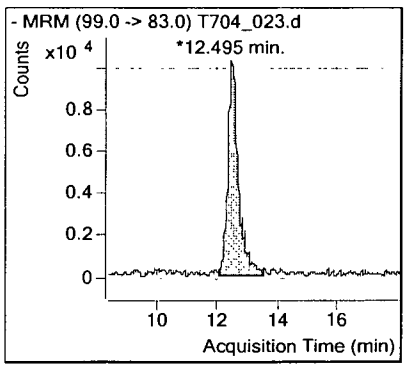
Quantitative Analysis Sample Report

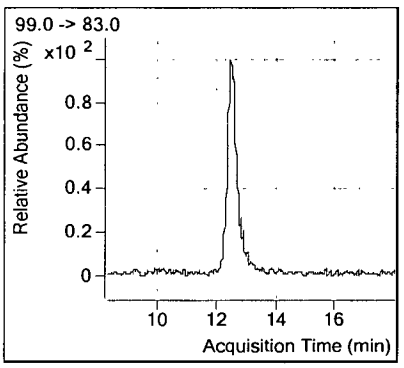
Batch Data Path	D:\MassHunter\Data\150704\QuantResults\150704_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T704_023.d	**Sample Name**	AZ17822_S01 2814.5 DF 06/24/15
Sample Type	Sample	**Acq_Date**	07/04/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	15:20
ClientID	S67-SD028-0001	**Inj Vol**	20

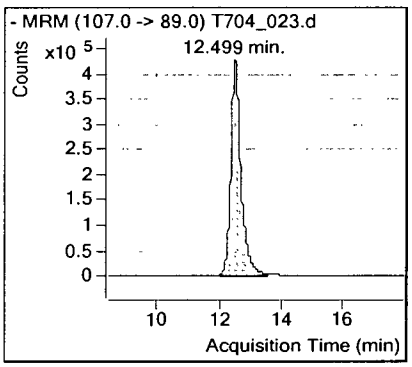


Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108	*	12.495	251743	9892788	* MANUAL INT
Perchlorate_102	PER_IS_108		12.512	768540	9892788	

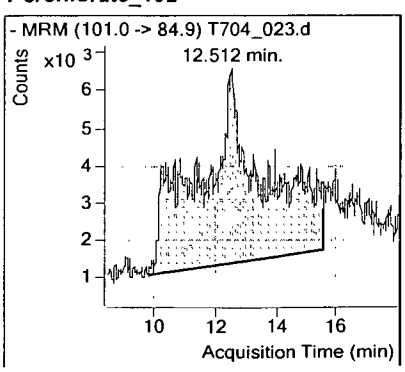
Perchlorate_100

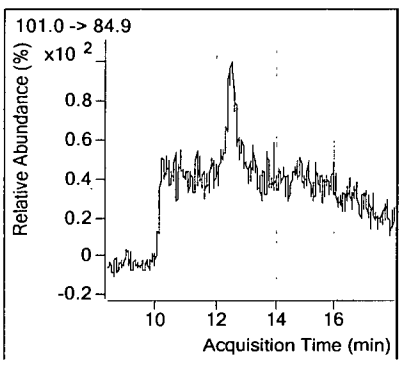


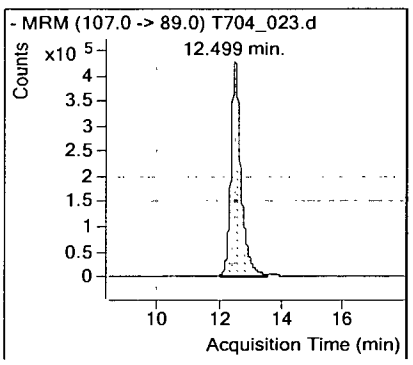


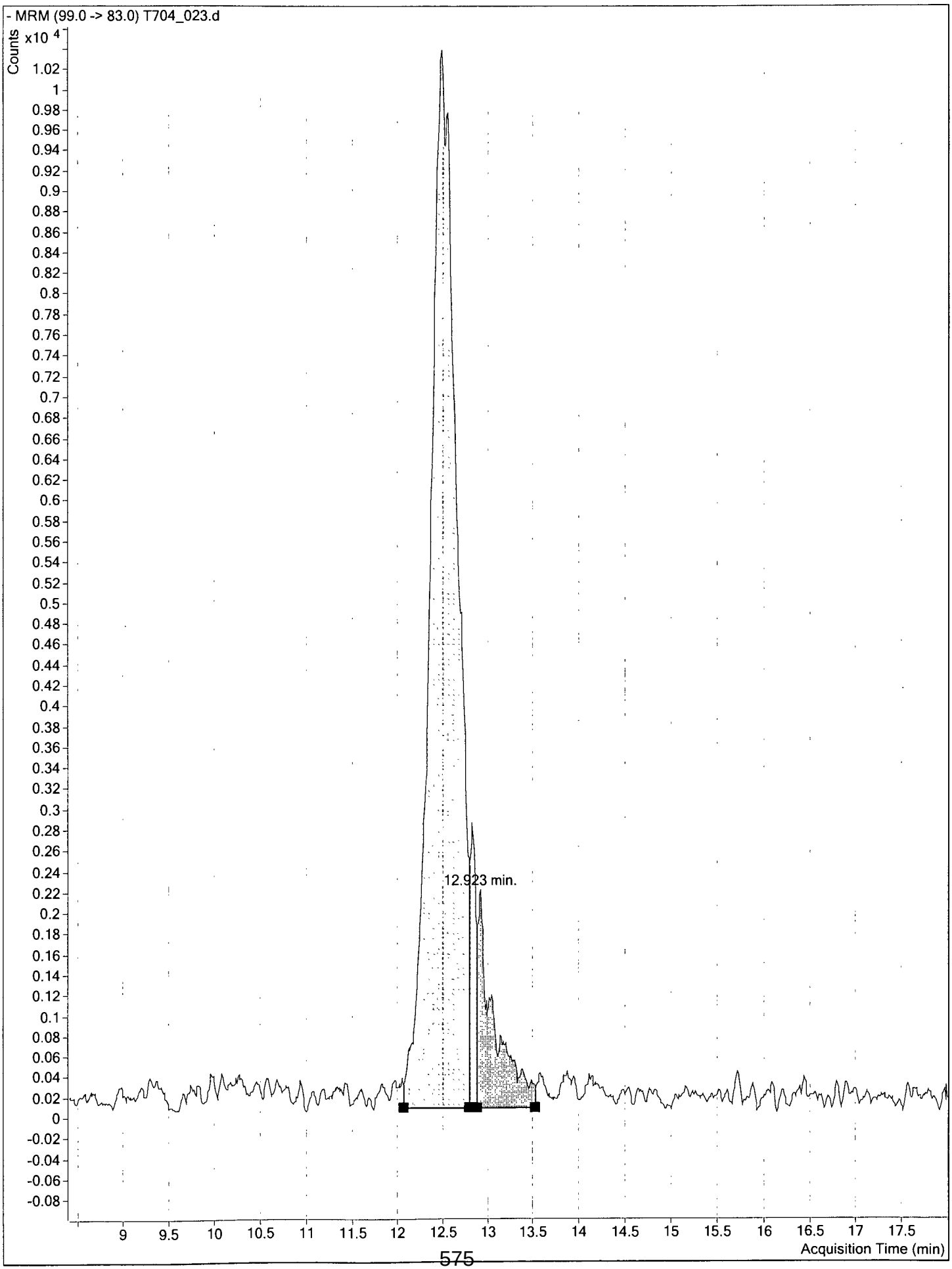


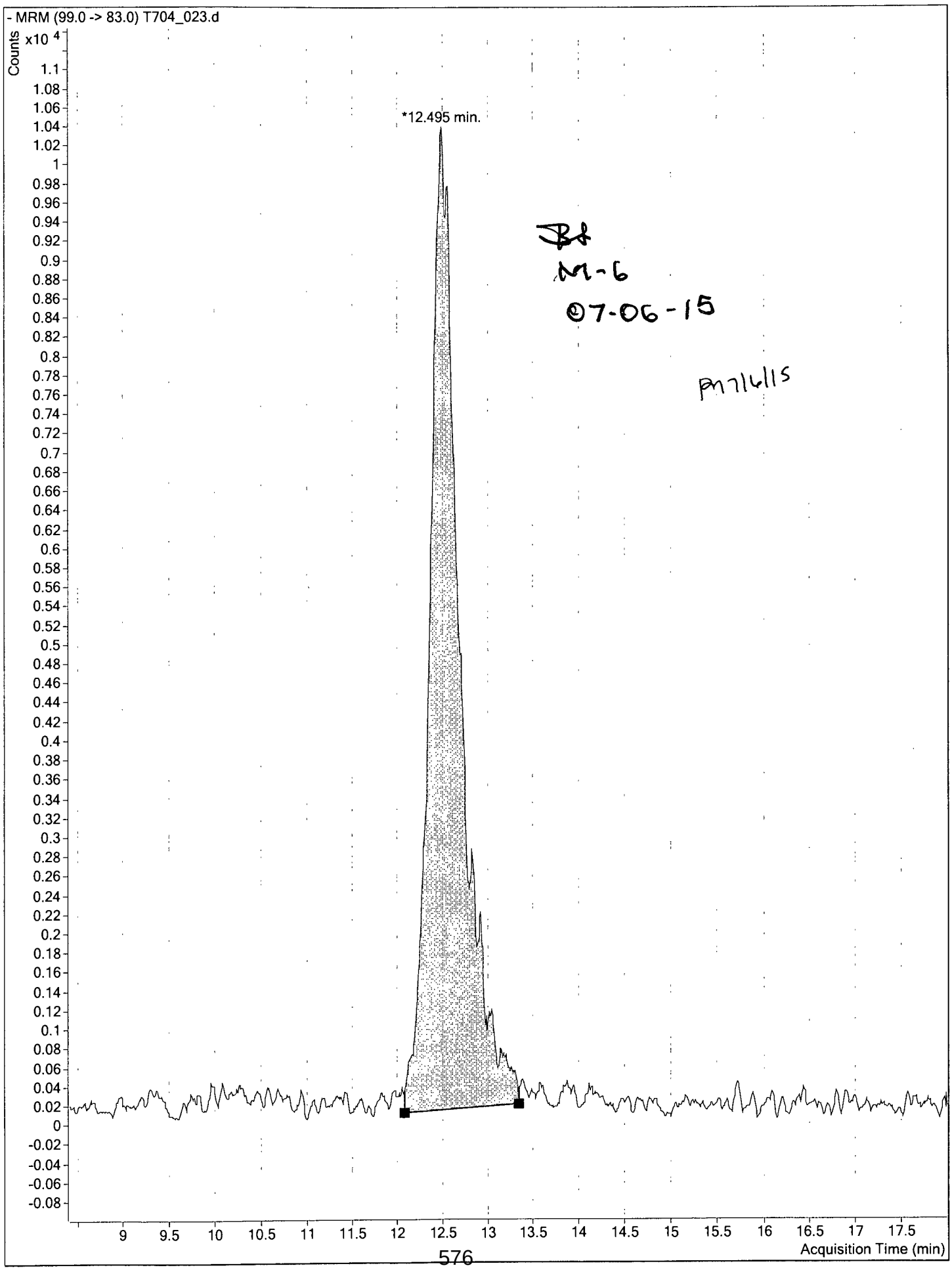
Perchlorate_102








- MRM (99.0 -> 83.0) T704_023.d
Counts
x10 4
1.02
1
0.98
0.96
0.94
0.92
0.9
0.88
0.86
0.84
0.82
0.8
0.78
0.76
0.74
0.72
0.7
0.68
0.66
0.64
0.62
0.6
0.58
0.56
0.54
0.52
0.5
0.48
0.46
0.44
0.42
0.4
0.38
0.36
0.34
0.32
0.3
0.28
0.26
0.24
0.22
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
-0.02
-0.04
-0.06
-0.08
12.923 min.
9
9.5
10
10.5
11
11.5
12
12.5
13
13.5
14
14.5
15
15.5
16
16.5
17
17.5
Acquisition Time (min)



SB
M-6
07-06-15

PM7L6L15

Perchlorate

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

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SW028-061615
Sample Collection Date: 06/16/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76674
APPL ID: AZ17823
QCG: #6850-150623A-198538

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	0.400 U	0.60	0.400	0.200	ug/L	06/23/15	06/27/15

Quant Method:	QTLMFL2
Run #:	T627_011.d
Instrument:	AGIL_6460
Sequence:	TQ062715
Dilution Factor:	1
Initials:	RP

Printed: 07/06/15 8:32:23 AM
APPL-F1-SC-NoMC-REG MDLs

Data File ID: T627_011.d

Date Injected : 06/27/15

Time Injected : 20:38

Sample ID : AZ17823_W02 1052.6 DF 06/23/15

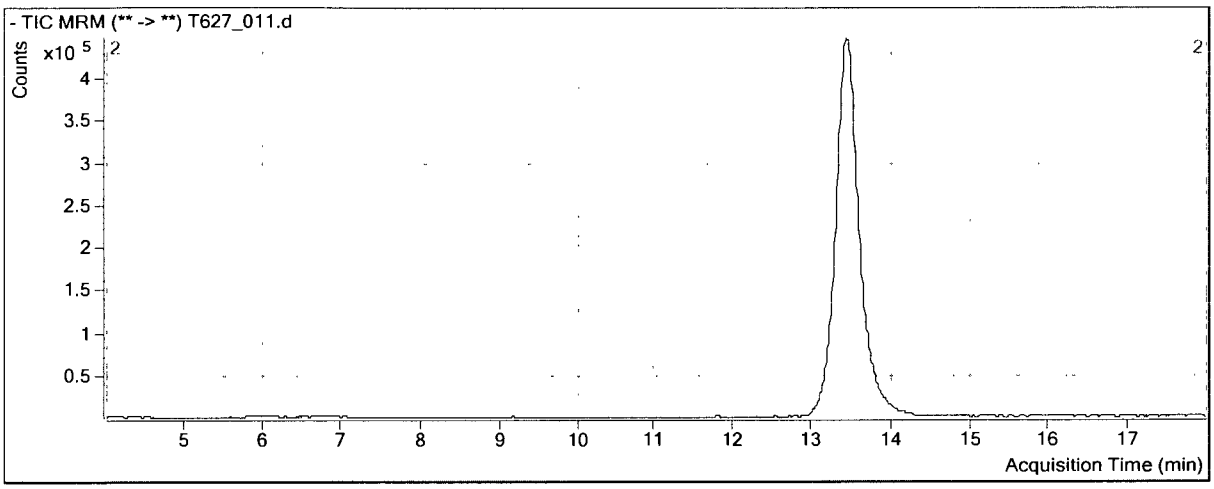
Client ID : S67-SW028-061615

Retention Time		Area Count Response	Compound_ID Product Ion			
13.457		8973327	PER_IS_89			
13.443		237709	Perchlorate_83	(237709 * 0.0050) / (1.27 * 8973327.00) *	1052.60 =	0.109758 ppb
13.491	*	102872	Perchlorate_85	(102872 * 0.0050) / (0.39 * 8973327.00) *	1052.60 =	0.154074 ppb

* MANUAL INTEGRAION

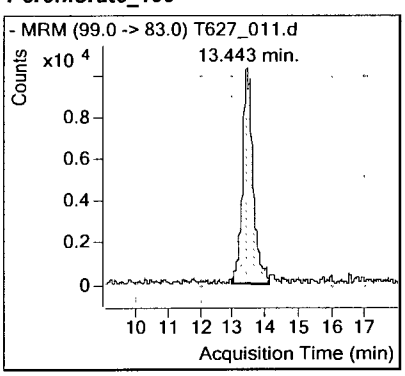
Quantitative Analysis Sample Report

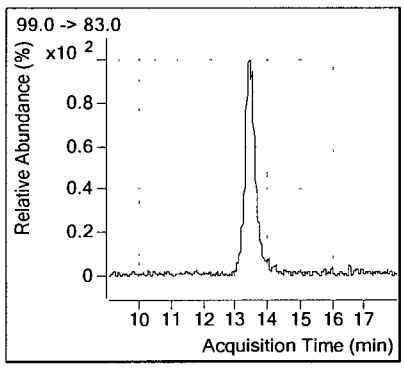
Batch Data Path	D:\MassHunter\Data\150627\QuantResults\150627_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T627_011.d	**Sample Name**	AZ17823_W02 1052.6 DF 06/23/15
Sample Type	Sample	**Acq_Date**	06/27/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	20:38
ClientID	S67-SW028-061615	**Inj Vol**	20

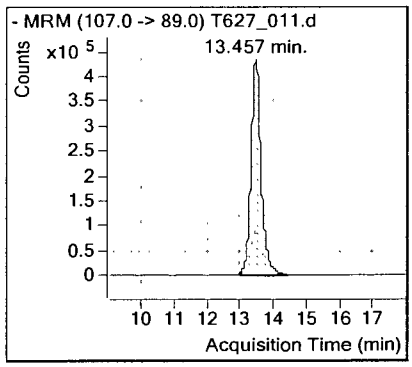


Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108		13.443	237709	8973327	
Perchlorate_102	PER_IS_108	*	13.491	102872	8973327	* MANUAL INT

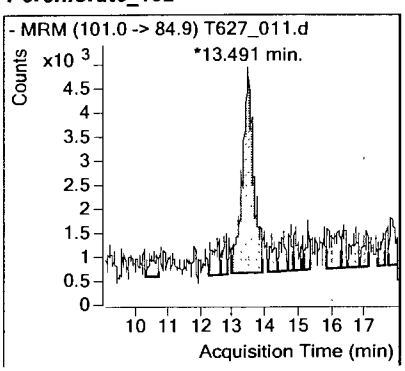
Perchlorate_100

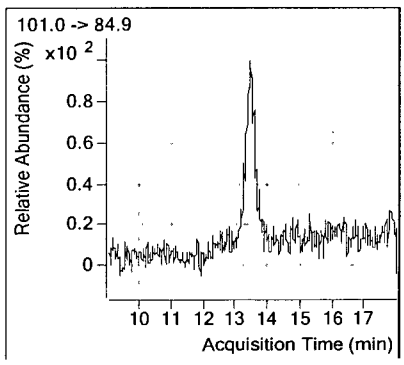


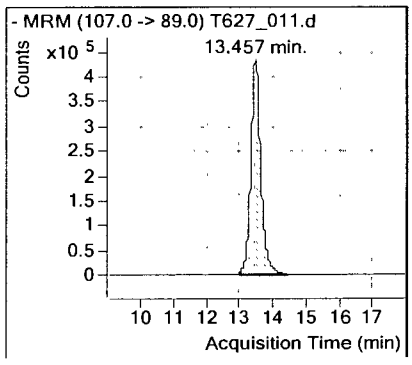


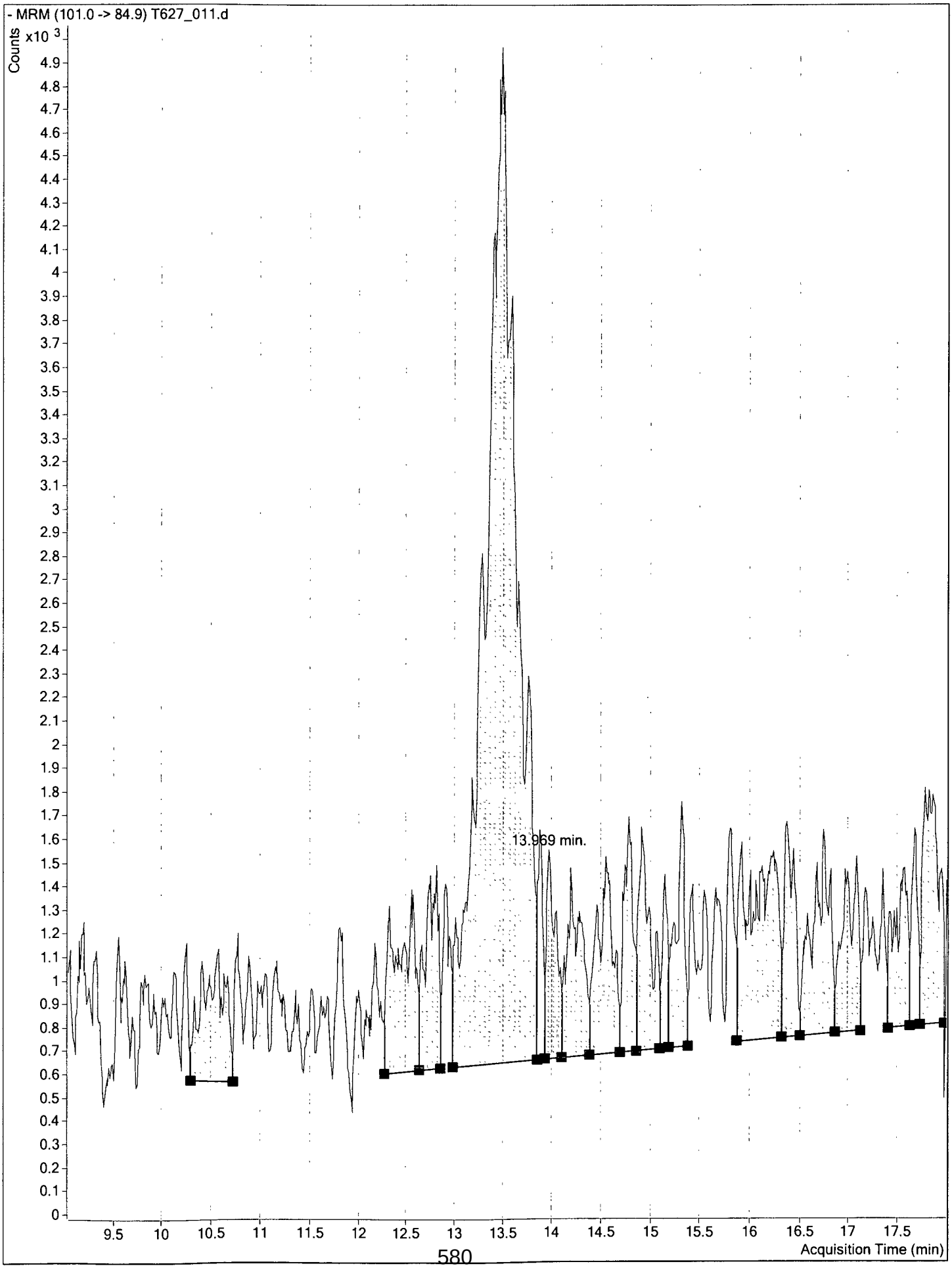


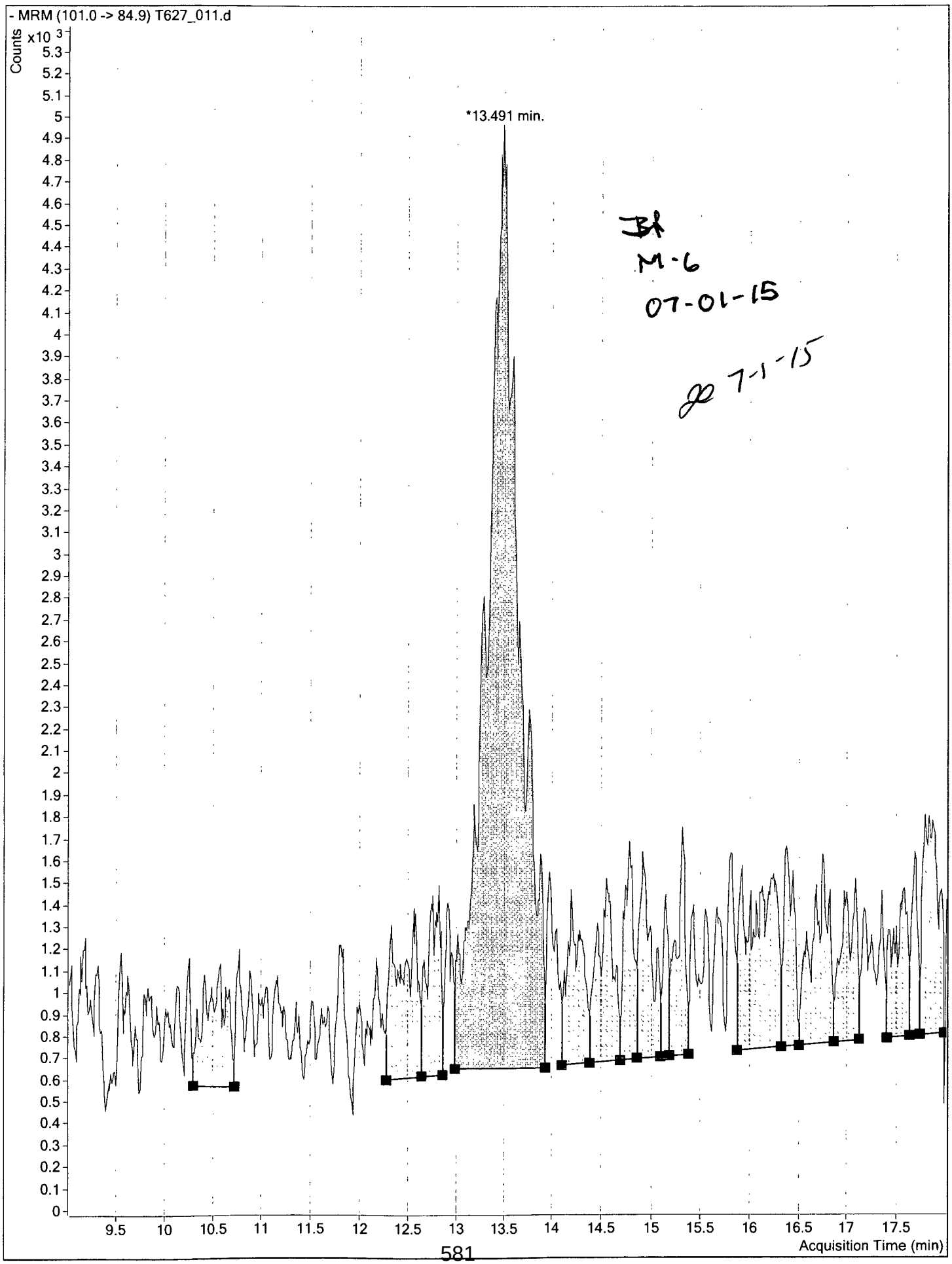
Perchlorate_102








- MRM (101.0 -> 84.9) T627_011.d
Counts
x10 3
4.9
4.8
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
0
13.969 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)



BH
M-6
07-01-15

JP 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-SD029-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17824
QCG: #6850SM-150624A-198610

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
(Solid Concentrations have been adjusted to reflect 72.1 Percent Moisture.)								
EPA 6850	PERCHLORATE	0.0040 U	0.006	0.0040	0.0020	mg/Kg	06/24/15	07/04/15

Quant Method:	QTLMFL2
Run #:	T704_024.d
Instrument:	AGIL_6460
Sequence:	TQ070415
Dilution Factor:	1
Initials:	RP

Printed: 07/07/15 8:30:33 AM
APPL-F1-SC-MCResOnly-REG MDLs

Data File ID: T704_024.d

Date Injected : 07/04/15

Time Injected : 15:39

Sample ID : AZ17824_S02 3258.9 DF 06/24/15

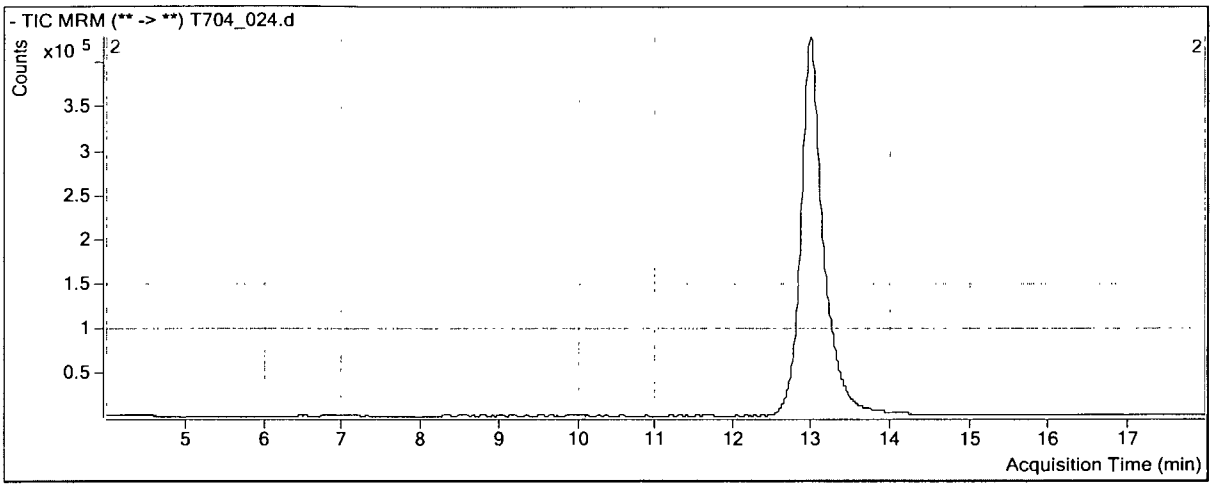
Client ID : S67-SD029-0001

Retention Time		Area Count Response	Compound_ID Product Ion		
13.008		8544180	PER_IS_89		
13.035		121680	Perchlorate_83	(121680 * 0.0050) / (1.27 * 8544180.00) * 3258.90 =	0.182683 ppb
12.971	*	45428	Perchlorate_85	(45428 * 0.0050) / (0.39 * 8544180.00) * 3258.90 =	0.221231 ppb

* MANUAL INTEGRAION

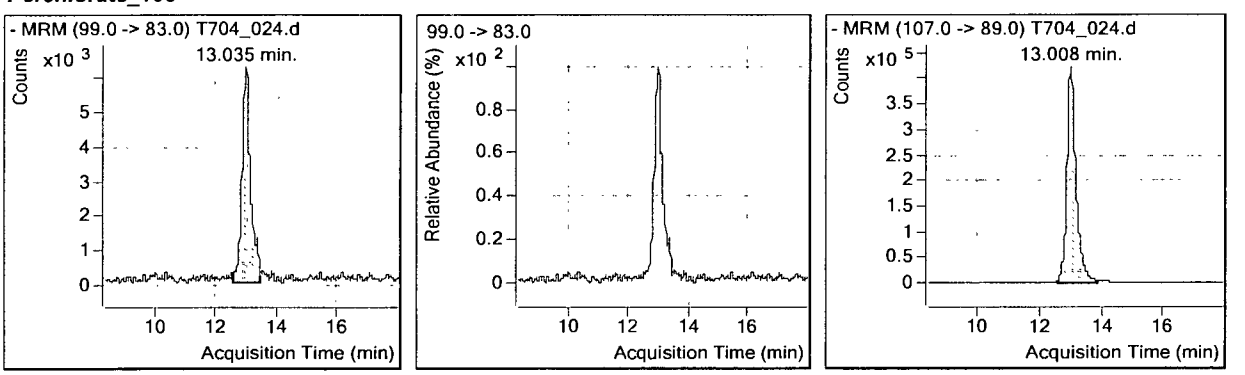
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150704\QuantResults\150704_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T704_024.d	**Sample Name**	AZ17824_S02 3258.9 DF 06/24/15
Sample Type	Sample	**Acq_Date**	07/04/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	15:39
ClientID	S67-SD029-0001	**Inj Vol**	20

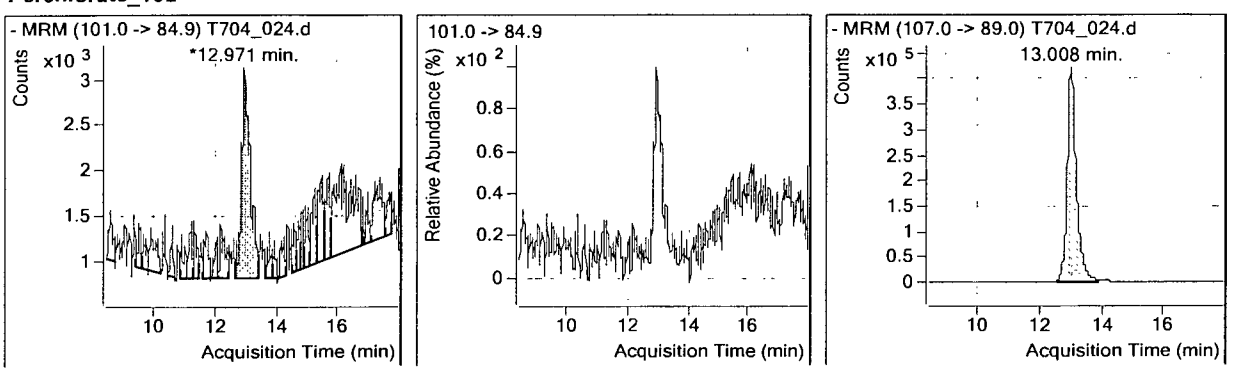


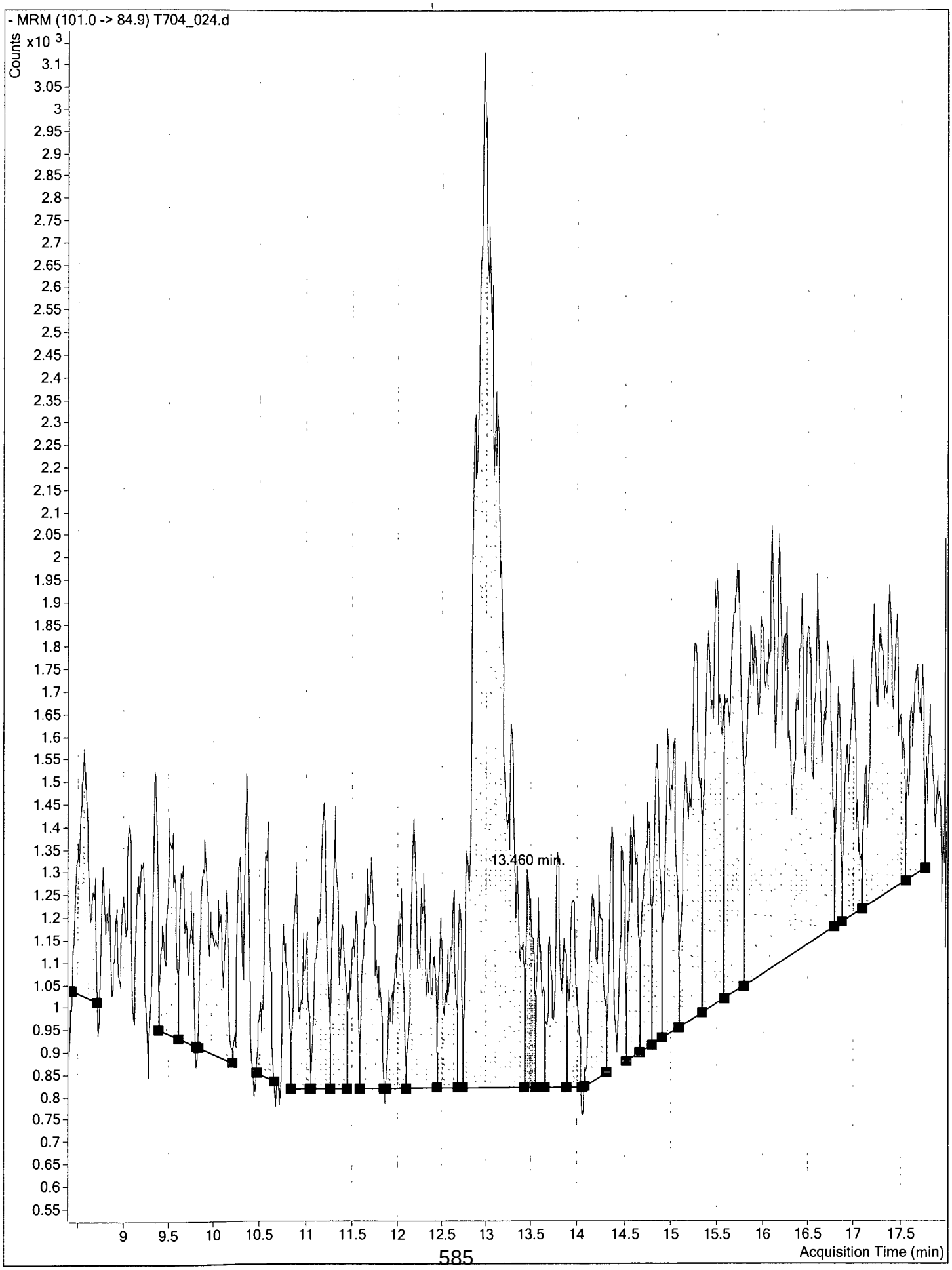
Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108		13.035	121680	8544180	
Perchlorate_102	PER_IS_108	*	12.971	45428	8544180	* MANUAL INT

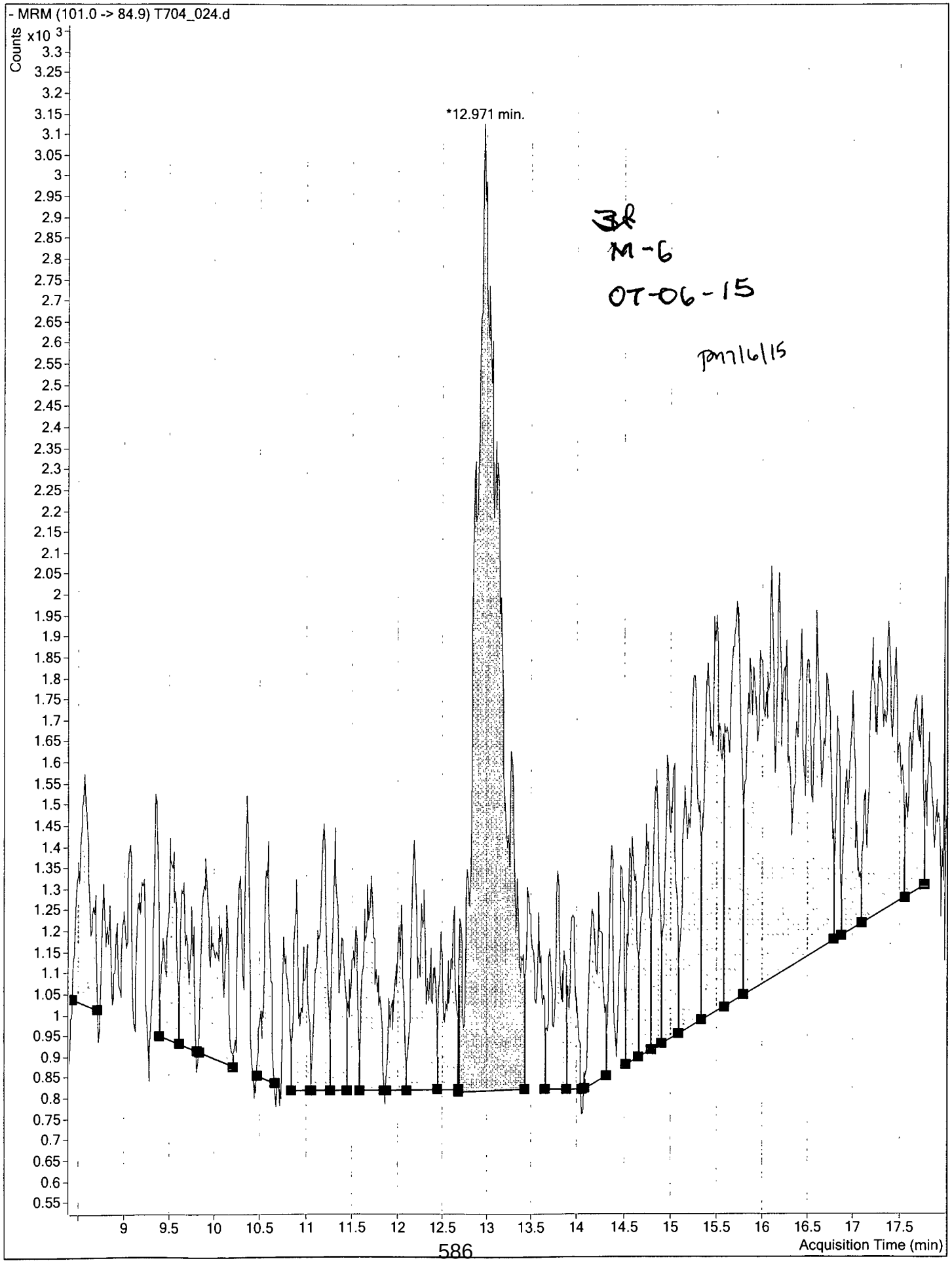
Perchlorate_100



Perchlorate_102




- MRM (101.0 -> 84.9) T704_024.d
Counts
x10 3
3.1
3.05
3
2.95
2.9
2.85
2.8
2.75
2.7
2.65
2.6
2.55
2.5
2.45
2.4
2.35
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
13.460 min.
9
9.5
10
10.5
11
11.5
12
12.5
13
13.5
14
14.5
15
15.5
16
16.5
17
17.5
Acquisition Time (min)


- MRM (101.0 -> 84.9) T704_024.d
Counts
x10 3
*12.971 min.
3R
M-6
OT-06-15
JM 7/6/15
Acquisition Time (min)

Perchlorate

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: 76674

Sample ID: S67-SW029-061615

APPL ID: AZ17825

Sample Collection Date: 06/16/15

QCG: #6850-150623A-198538

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	0.57 J	0.60	0.400	0.200	ug/L	06/23/15	07/04/15

J = Estimated value.

Quant Method:	QTLMFL2
Run #:	T704_005.d
Instrument:	AGIL_6460
Sequence:	TQ070415
Dilution Factor:	1
Initials:	RP

Printed: 07/07/15 8:31:19 AM
APPL-F1-SC-NoMC-REG MDLs

Data File ID: T704_005.d

Date Injected : 07/04/15

Time Injected : 9:37

Sample ID : AZ17825_W02 1052.6 DF 06/23/15

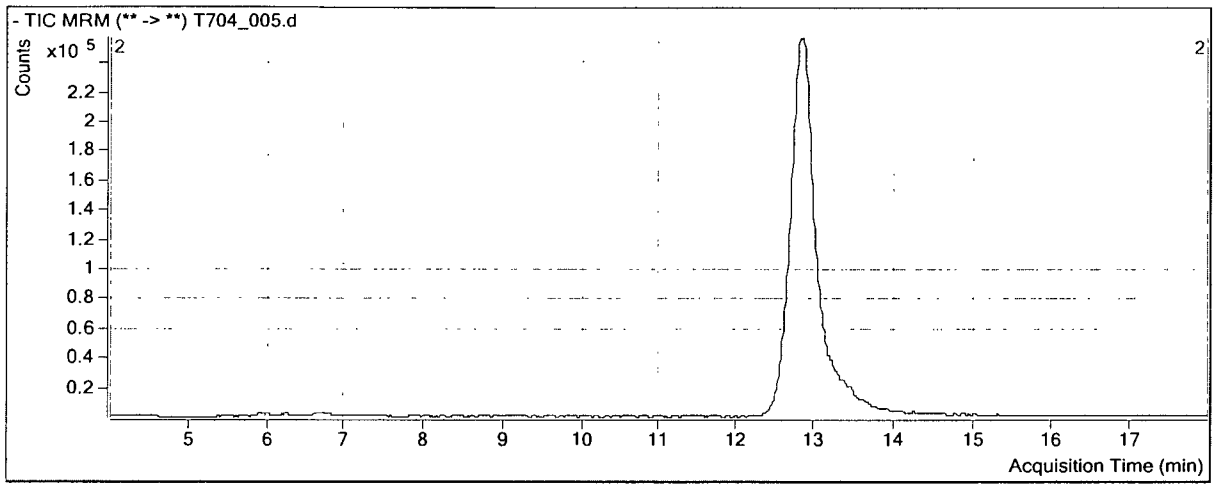
Client ID : S67-SW029-061615

Retention Time		Area Count Response	Compound_ID Product Ion			
12.876		5118943	PER_IS_89			
12.862		701589	Perchlorate_83	(701589 * 0.0050) / (1.27 * 5118943.00) * 1052.60 =		0.567865 ppb
12.828	*	253725	Perchlorate_85	(253725 * 0.0050) / (0.39 * 5118943.00) * 1052.60 =		0.666144 ppb

* MANUAL INTEGRAION

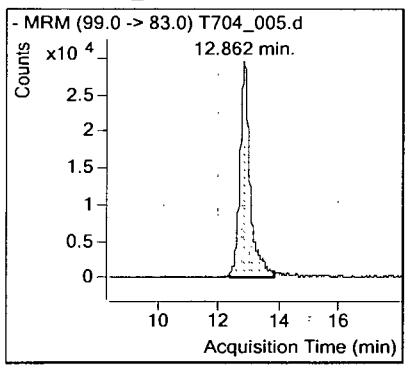
Quantitative Analysis Sample Report

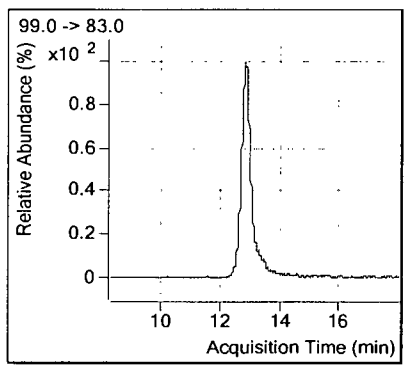
Batch Data Path	D:\MassHunter\Data\150704\QuantResults\150704_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T704_005.d	**Sample Name**	AZ17825_W02 1052.6 DF 06/23/15
Sample Type	Sample	**Acq_Date**	07/04/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	9:37
ClientID	S67-SW029-061615	**Inj Vol**	20

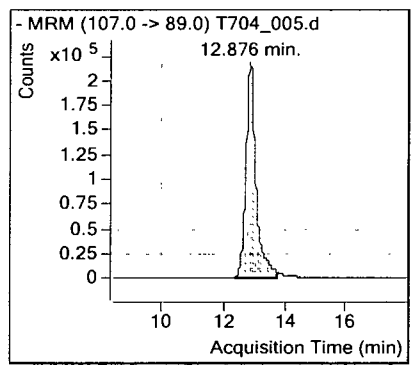


Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108		12.862	701589	5118943	
Perchlorate_102	PER_IS_108	*	12.828	253725	5118943	* MANUAL INT

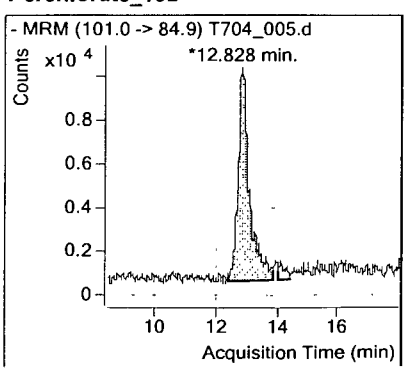
Perchlorate_100

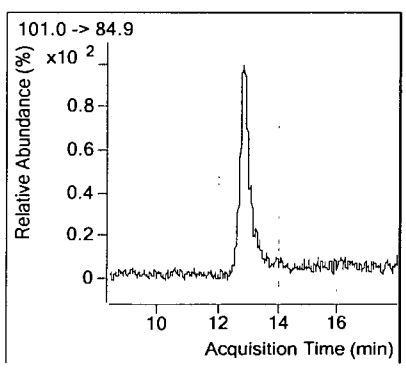


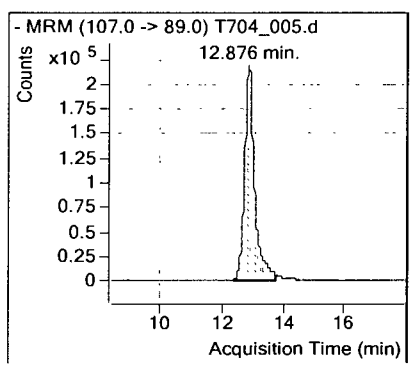


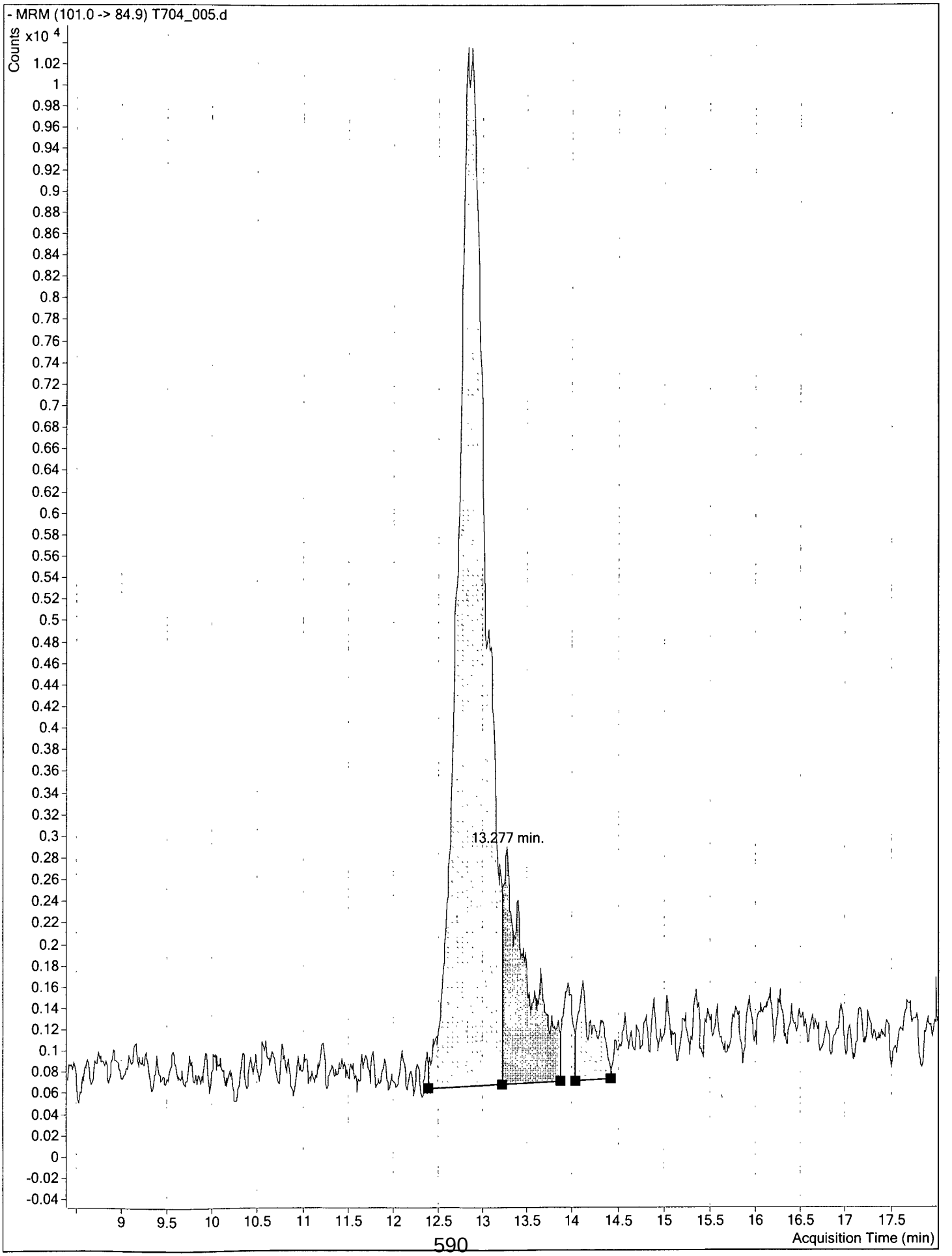


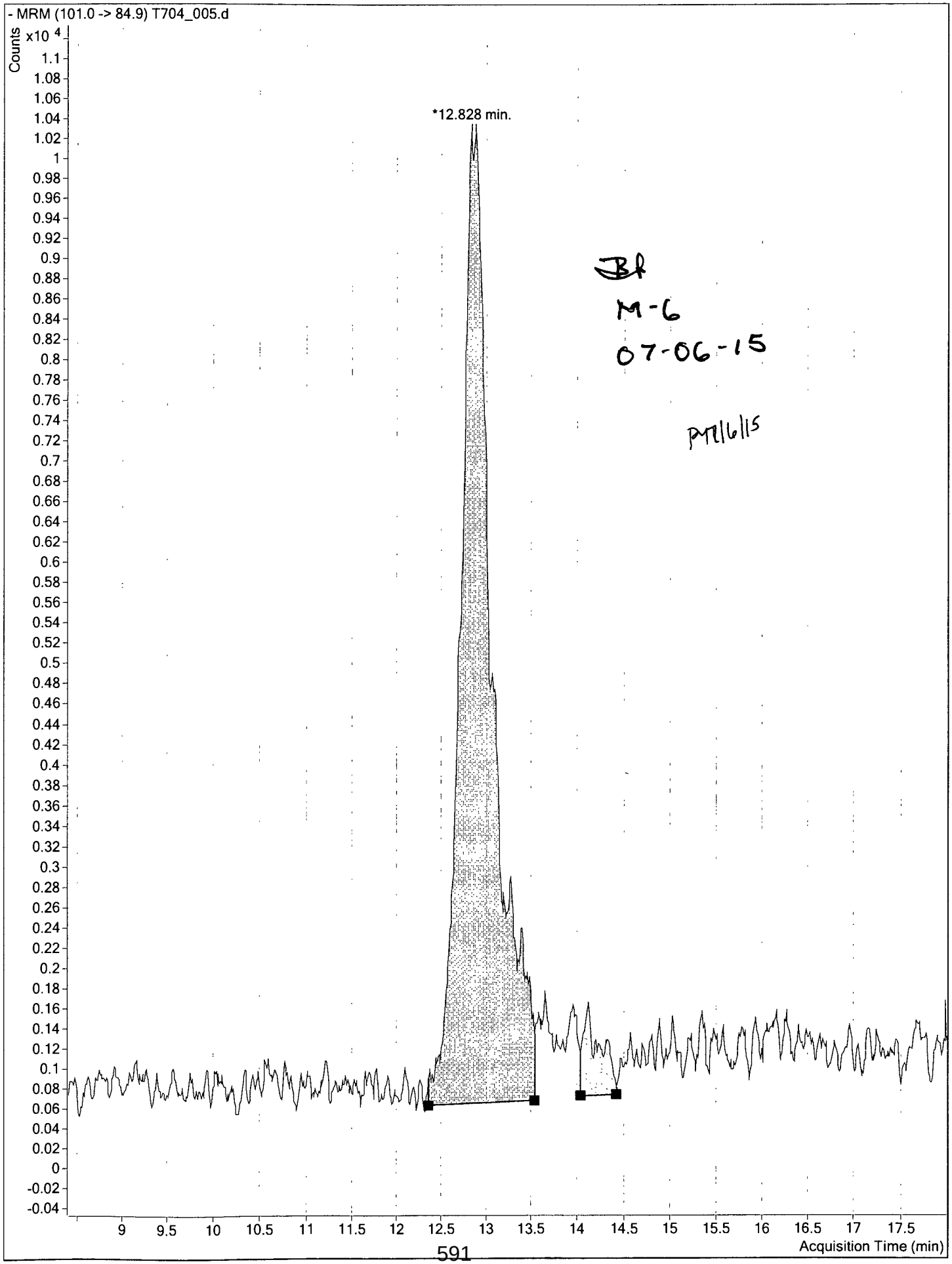
Perchlorate_102








- MRM (101.0 -> 84.9) T704_005.d
Counts
x10 4
1.02
1
0.98
0.96
0.94
0.92
0.9
0.88
0.86
0.84
0.82
0.8
0.78
0.76
0.74
0.72
0.7
0.68
0.66
0.64
0.62
0.6
0.58
0.56
0.54
0.52
0.5
0.48
0.46
0.44
0.42
0.4
0.38
0.36
0.34
0.32
0.3
0.28
0.26
0.24
0.22
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
-0.02
-0.04
13.277 min.
9
9.5
10
10.5
11
11.5
12
12.5
13
13.5
14
14.5
15
15.5
16
16.5
17
17.5
Acquisition Time (min)


- MRM (101.0 -> 84.9) T704_005.d
Counts
x10 4
*12.828 min.
JBR
M-6
07-06-15
PM 6/15
Acquisition Time (min)

Perchlorate

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

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW018-061615
Sample Collection Date: 06/16/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76674
APPL ID: AZ17826
QCG: #6850-150623A-198538

Method	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	590	60.00	20.000	ug/L	06/23/15	07/05/15

Quant Method:	QTLMFL2
Run #:	T705_013.d
Instrument:	AGIL_6460
Sequence:	TQ070515
Dilution Factor:	100
Initials:	RP

Printed: 07/07/15 4:13:26 PM
APPL-F1-SC-NoMC-REG MDLs

Data File ID: T705_013.d

Date Injected : 07/05/15

Time Injected : 16:51

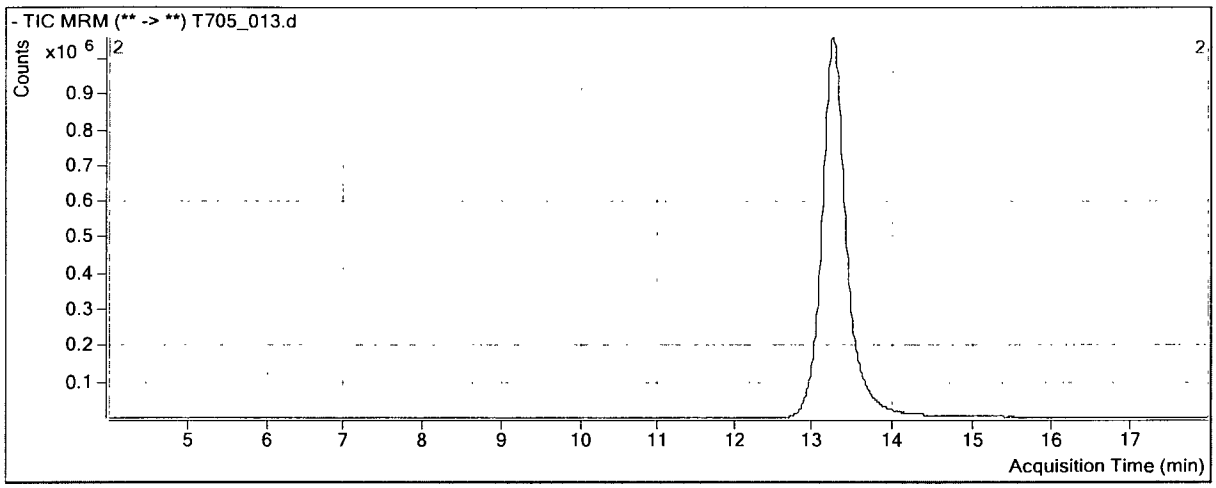
Sample ID : AZ17826_W03 105263.2 DF 06/23/15_6/27

Client ID : S67-MW018-061615

Retention Time	Area Count Response	Compound_ID Product Ion	
13.263	7974463	PER_IS_89	
13.200	11267757	Perchlorate_83	(11267757 * 0.0050) / (1.27 * 7974463.00) * 105263.20 = 585.452398 ppb
13.256	3310477	Perchlorate_85	(3310477 * 0.0050) / (0.39 * 7974463.00) * 105263.20 = 557.939967 ppb

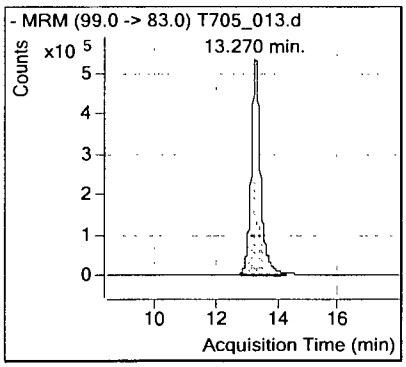
Quantitative Analysis Sample Report

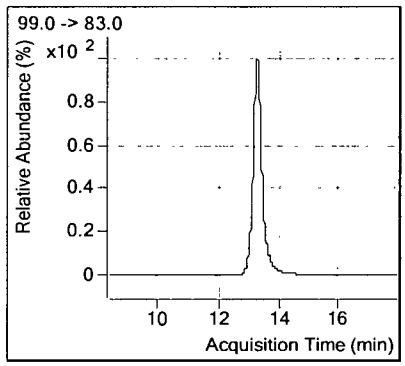
Batch Data Path	D:\MassHunter\Data\150705\QuantResults\150705_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T705_013.d	**Sample Name**	AZ17826_W03 105263.2 DF 06/23/15_6/27
Sample Type	Sample	**Acq_Date**	07/05/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	16:51
ClientID	S67-MW018-061615	**Inj Vol**	20

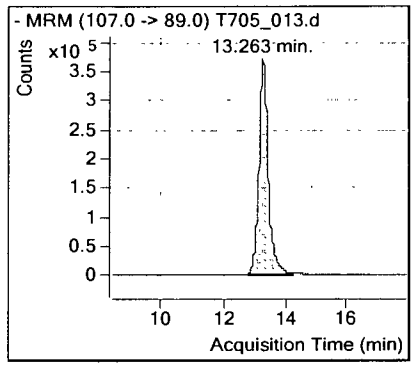


Compound	ISTD	RT	Resp	ISTD RESP
Perchlorate_100	PER_IS_108	13.270	11267757	7974463
Perchlorate_102	PER_IS_108	13.256	3310477	7974463

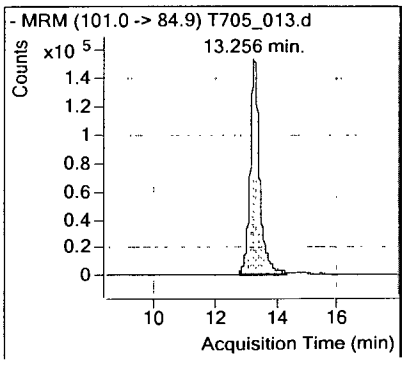
Perchlorate_100

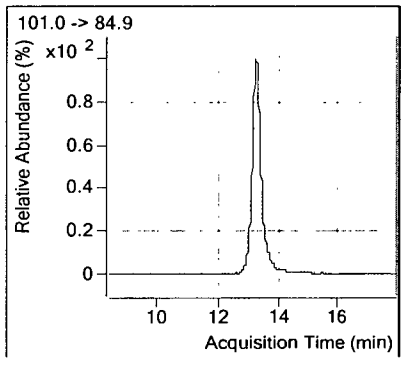


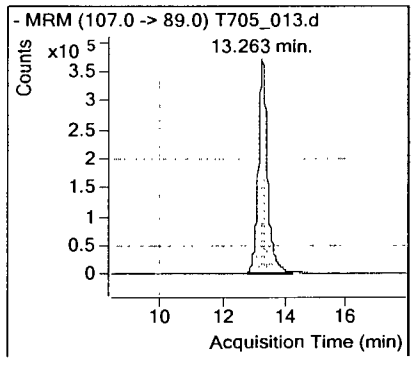




Perchlorate_102







Perchlorate

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: 76674

Sample ID: S67-MW019-061615

APPL ID: AZ17827

Sample Collection Date: 06/16/15

QCG: #6850-150623A-198538

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	0.400 U	0.60	0.400	0.200	ug/L	06/23/15	07/04/15

Quant Method:	QTLMFL2
Run #:	T704_007.d
Instrument:	AGIL_6460
Sequence:	TQ070415
Dilution Factor:	1
Initials:	RP

Printed: 07/07/15 8:31:19 AM
APPL-F1-SC-NoMC-REG MDLs

Data File ID: T704_007.d

Date Injected : 07/04/15

Time Injected : 10:14

Sample ID : AZ17827_W01 1052.6 DF 06/23/15

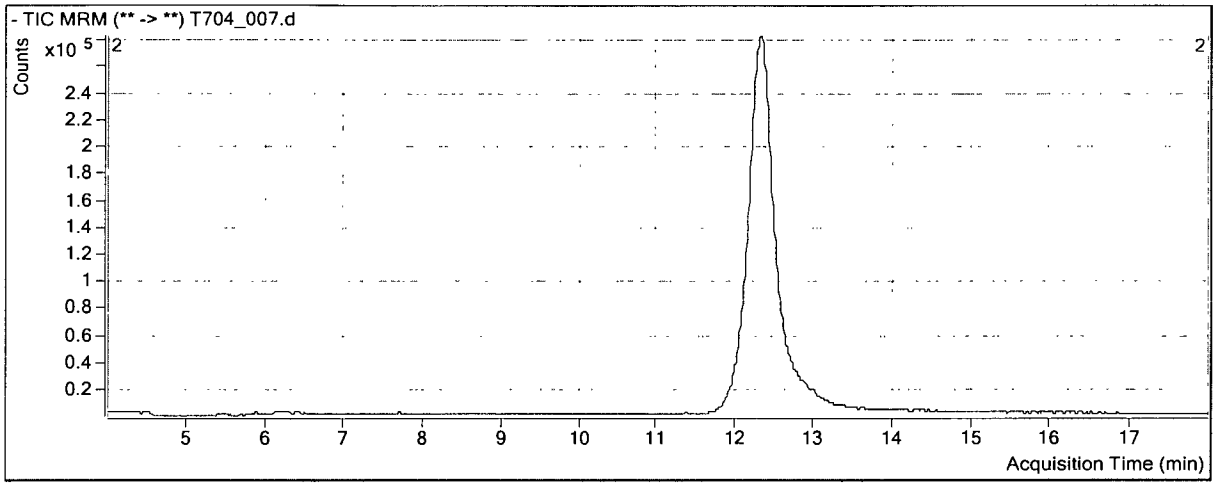
Client ID : S67-MW019-061615

Retention Time		Area Count Response	Compound_ID Product Ion			
12.346		6825505	PER_IS_89			
12.393	*	265404	Perchlorate_83	(265404 * 0.0050) / (1.27 * 6825505.00) *	1052.60 =	0.161107 ppb
12.421	*	146419	Perchlorate_85	(146419 * 0.0050) / (0.39 * 6825505.00) *	1052.60 =	0.288302 ppb

* MANUAL INTEGRAION

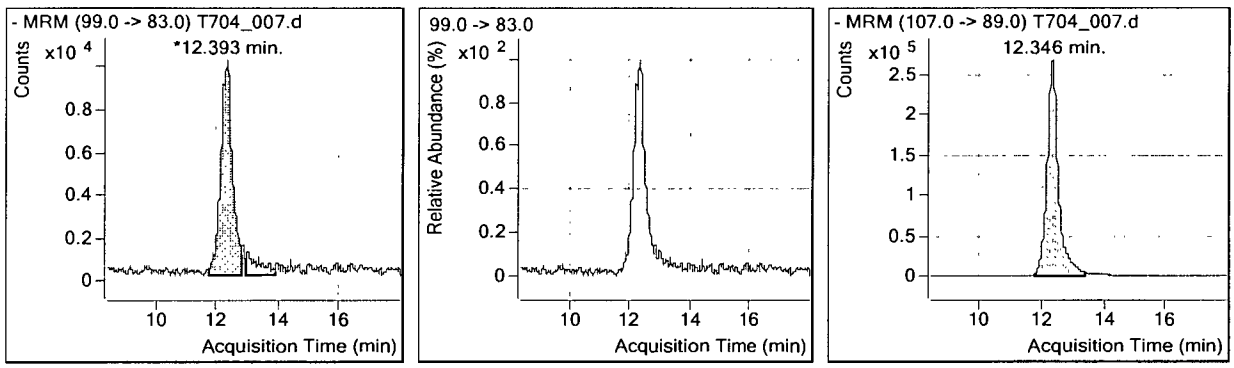
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150704\QuantResults\150704_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T704_007.d	**Sample Name**	AZ17827_W01 1052.6 DF 06/23/15
Sample Type	Sample	**Acq_Date**	07/04/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	10:14
ClientID	S67-MW019-061615	**Inj Vol**	20

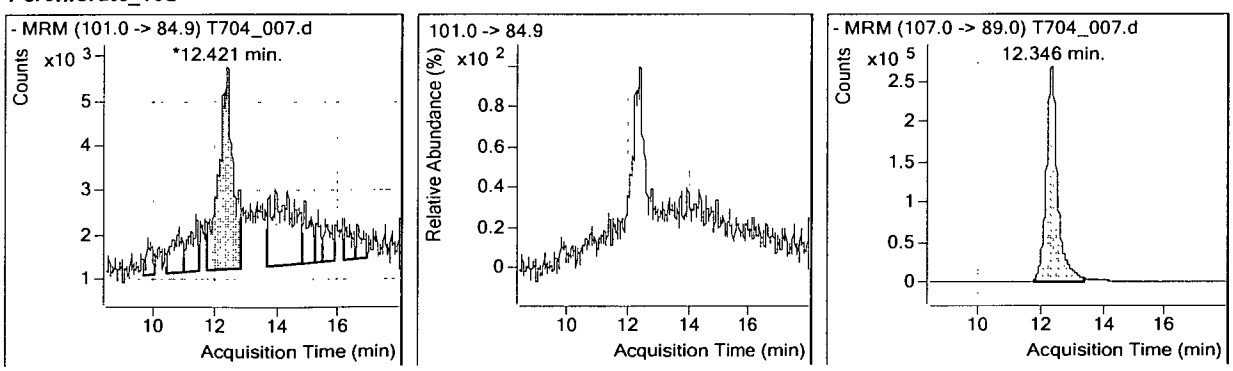


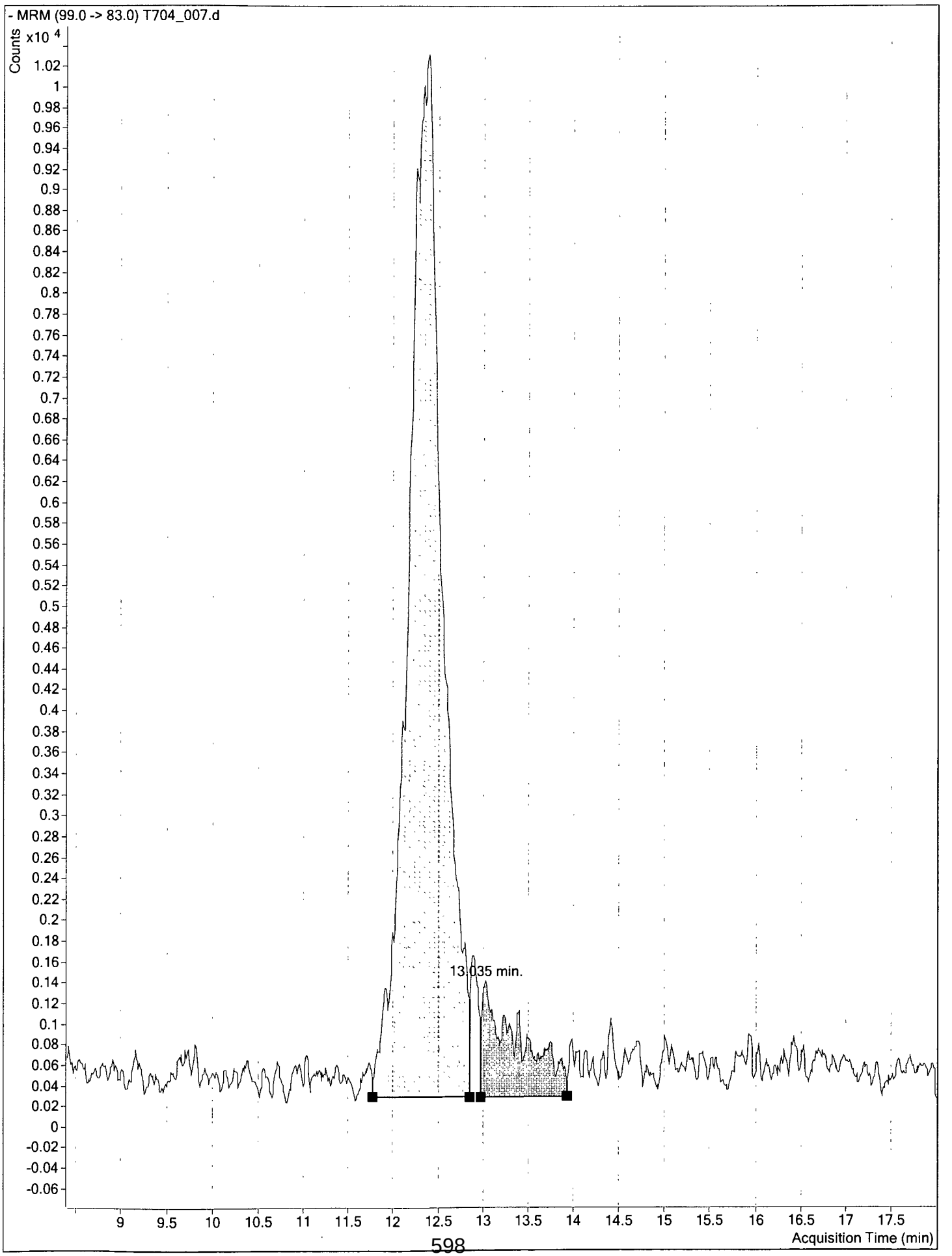
Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108	*	12.393	265404	6825505	* MANUAL INT
Perchlorate_102	PER_IS_108	*	12.421	146419	6825505	* MANUAL INT

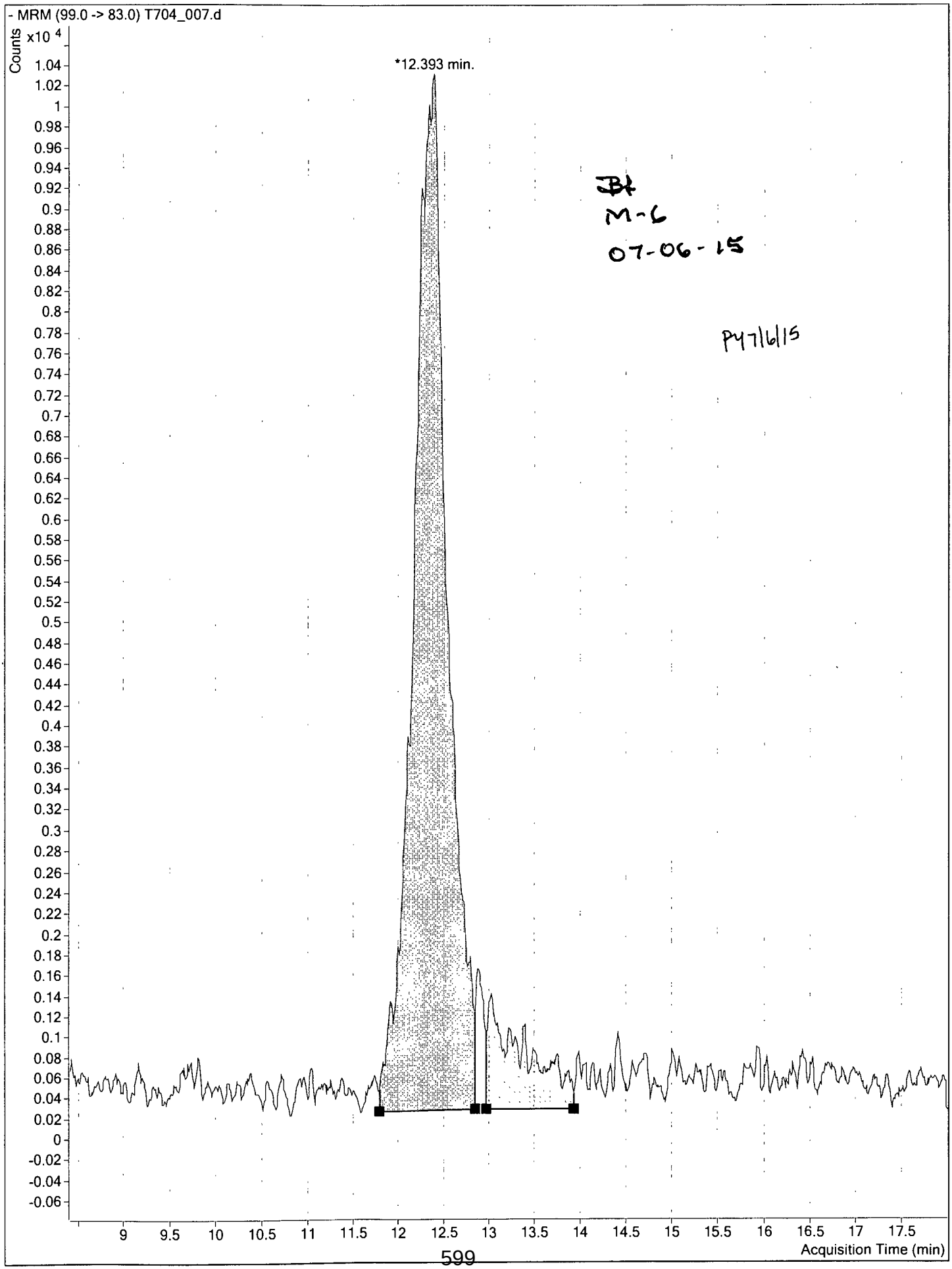
Perchlorate_100



Perchlorate_102

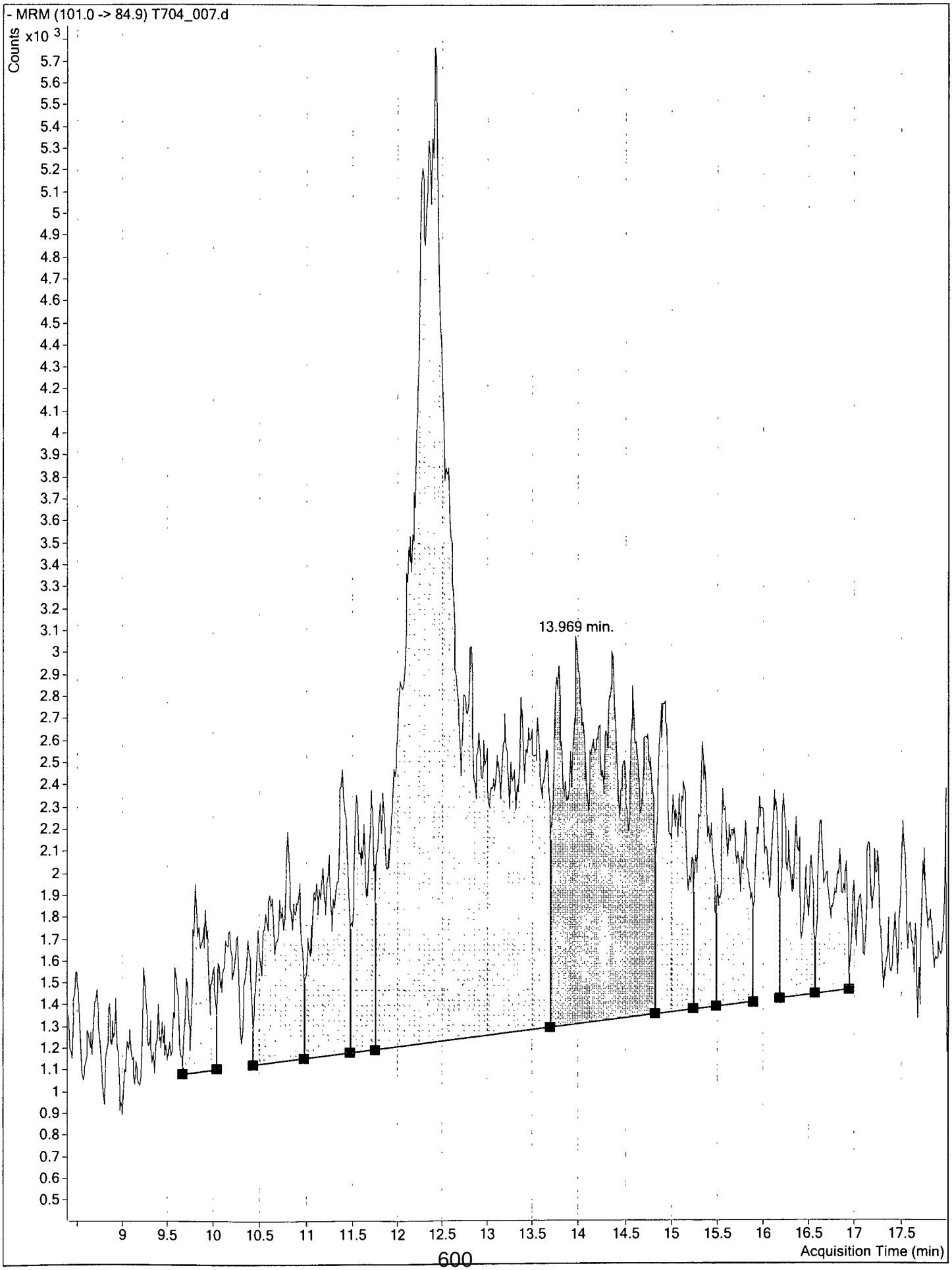


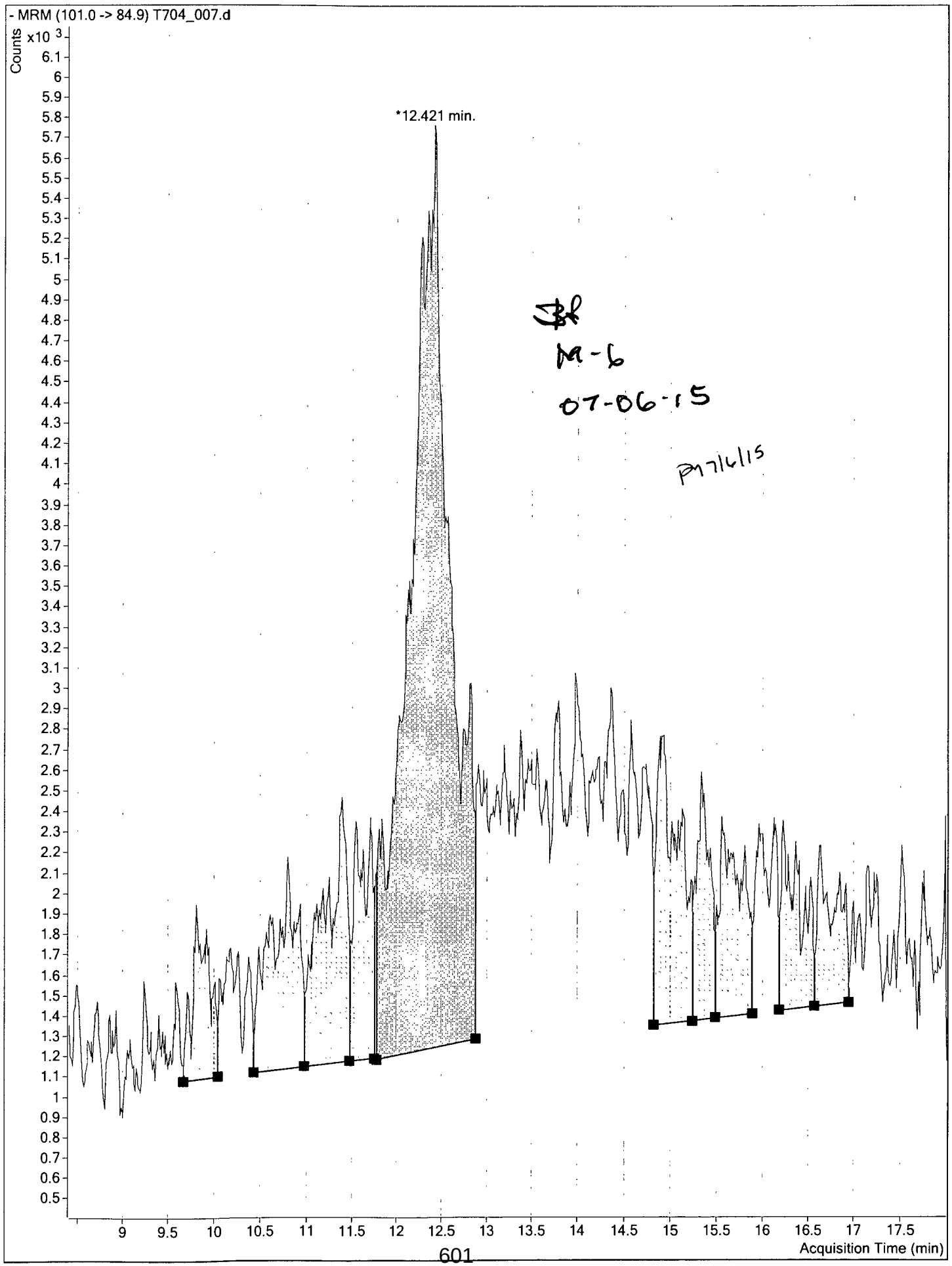

- MRM (99.0 -> 83.0) T704_007.d
Counts
x10 4
1.02
1
0.98
0.96
0.94
0.92
0.9
0.88
0.86
0.84
0.82
0.8
0.78
0.76
0.74
0.72
0.7
0.68
0.66
0.64
0.62
0.6
0.58
0.56
0.54
0.52
0.5
0.48
0.46
0.44
0.42
0.4
0.38
0.36
0.34
0.32
0.3
0.28
0.26
0.24
0.22
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
-0.02
-0.04
-0.06
13.035 min.
9
9.5
10
10.5
11
11.5
12
12.5
13
13.5
14
14.5
15
15.5
16
16.5
17
17.5
Acquisition Time (min)



JH
M-6
07-06-15

PY7/6/15


- MRM (101.0 -> 84.9) T704_007.d
Counts
x10 3
5.7
5.6
5.5
5.4
5.3
5.2
5.1
5
4.9
4.8
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
13.969 min.
9
9.5
10
10.5
11
11.5
12
12.5
13
13.5
14
14.5
15
15.5
16
16.5
17
17.5
Acquisition Time (min)


- MRM (101.0 -> 84.9) T704_007.d
Counts
x10 3
*12.421 min.
Acquisition Time (min)
MA-6
07-06-15
PM 7/6/15

Perchlorate

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

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW023-061615
Sample Collection Date: 06/16/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76674
APPL ID: AZ17828
QCG: #6850-150623A-198538

Method	Analyte	Result	PQL	MDL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	690	600.00	200.000	ug/L	06/23/15	07/05/15

Quant Method:	QTLMFL2
Run #:	T705_020.d
Instrument:	AGIL_6460
Sequence:	TQ070515
Dilution Factor:	1000
Initials:	MP

Printed: 07/07/15 4:13:26 PM
APPL-F1-SC-NoMC-REG MDLs

Data File ID: T705_020.d

Date Injected : 07/05/15

Time Injected : 19:01

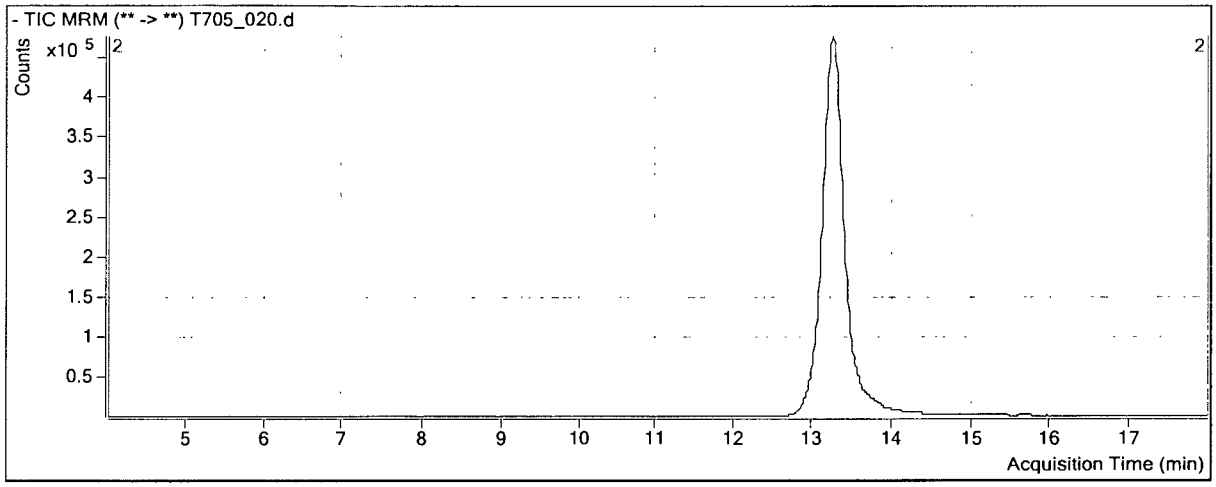
Sample ID : AZ17828_W03 1052631.6 DF 06/23/15_6/27

Client ID : S67-MW023-061615

Retention Time	Area Count Response	Compound_ID Product Ion	
13.273	7696984	PER_IS_89	
13.200	1274351	Perchlorate_83	(1274351 * 0.0050) / (1.27 * 7696984.00) * 1052631.60 = 685.999627 ppb
13.287	405590	Perchlorate_85	(405590 * 0.0050) / (0.39 * 7696984.00) * 1052631.60 = 708.214533 ppb

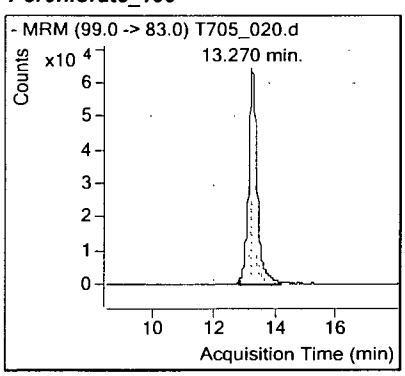
Quantitative Analysis Sample Report

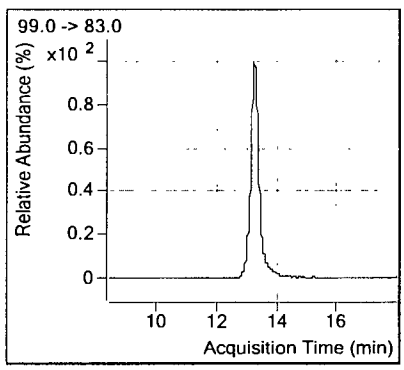
Batch Data Path	D:\MassHunter\Data\150705\QuantResults\150705_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T705_020.d	**Sample Name**	AZ17828_W03 1052631.6 DF 06/23/15_6/27
Sample Type	Sample	**Acq_Date**	07/05/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	19:01
ClientID	S67-MW023-061615	**Inj Vol**	20

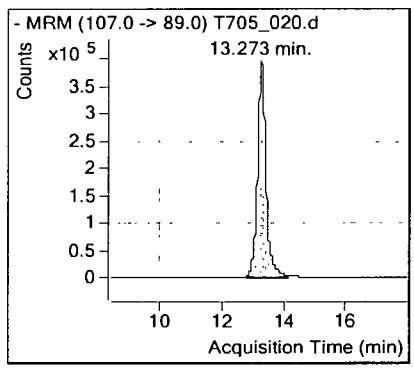


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.270	1274351	7696984
Perchlorate_102	PER_IS_108	13.287	405590	7696984

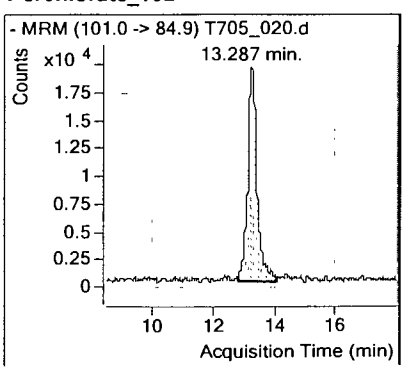
Perchlorate_100

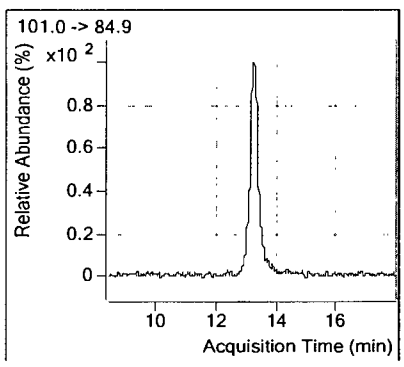


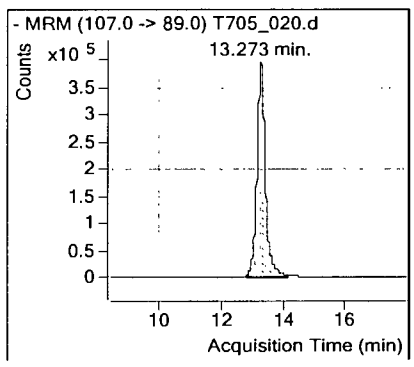




Perchlorate_102







Perchlorate

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

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW022-061615
Sample Collection Date: 06/16/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76674
APPL ID: AZ17829
QCG: #6850-150623A-198538

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 6850	PERCHLORATE	0.400 U	0.60	0.400	0.200	ug/L	06/23/15	07/04/15

Quant Method:	QTLMFL2
Run #:	T704_009.d
Instrument:	AGIL_6460
Sequence:	TQ070415
Dilution Factor:	1
Initials:	RP

Printed: 07/07/15 8:31:19 AM
APPL-F1-SC-NoMC-REG MDLs

Data File ID: T704_009.d

Date Injected : 07/04/15

Time Injected : 10:51

Sample ID : AZ17829_W03 1052.6 DF 06/23/15

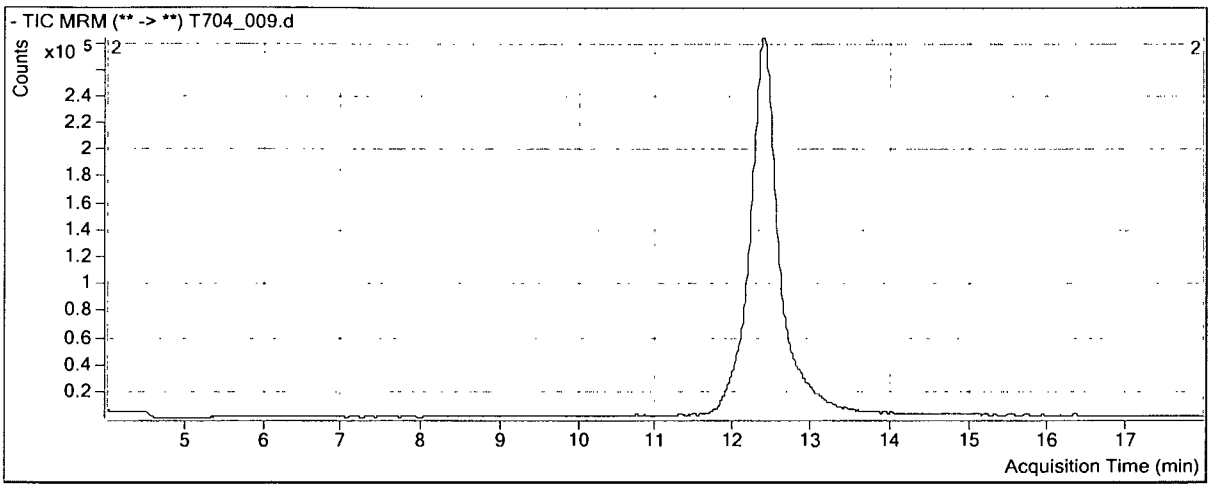
Client ID : S67-MW022-061615

Retention Time		Area Count Response	Compound_ID Product Ion			
12.407		7308079	PER_IS_89			
12.353	*	124019	Perchlorate_83	(124019 * 0.0050) / (1.27 * 7308079.00) * 1052.60 =		0.070312 ppb
12.482		75535	Perchlorate_85	(75535 * 0.0050) / (0.39 * 7308079.00) * 1052.60 =		0.138909 ppb

* MANUAL INTEGRAION

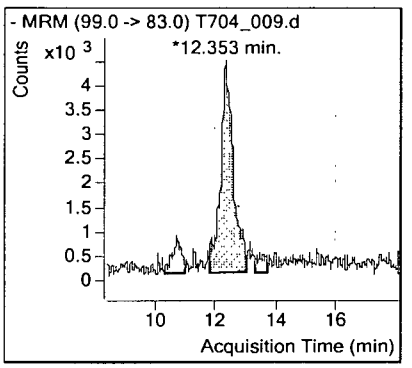
Quantitative Analysis Sample Report

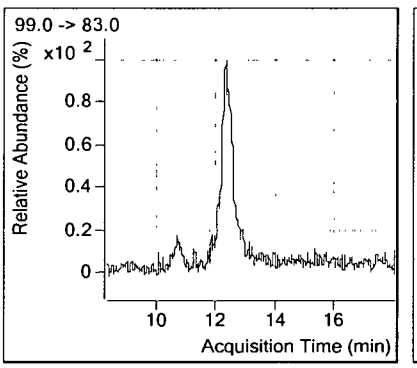
Batch Data Path	D:\MassHunter\Data\150704\QuantResults\150704_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T704_009.d	**Sample Name**	AZ17829_W03 1052.6 DF 06/23/15
Sample Type	Sample	**Acq_Date**	07/04/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	10:51
ClientID	S67-MW022-061615	**Inj Vol**	20

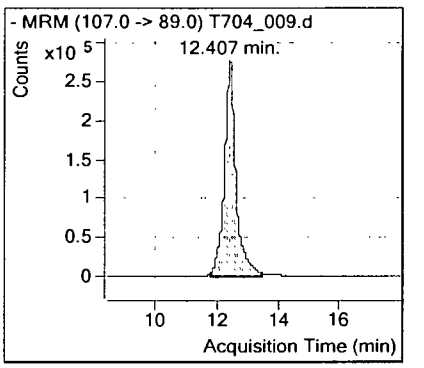


Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108	*	12.353	124019	7308079	* MANUAL INT
Perchlorate_102	PER_IS_108		12.482	75535	7308079	

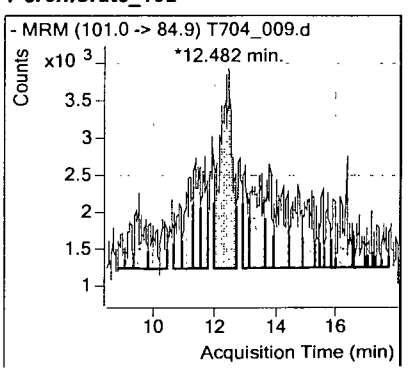
Perchlorate_100

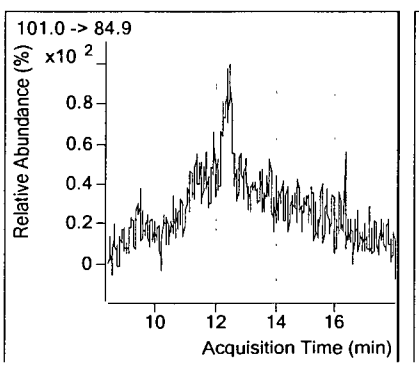


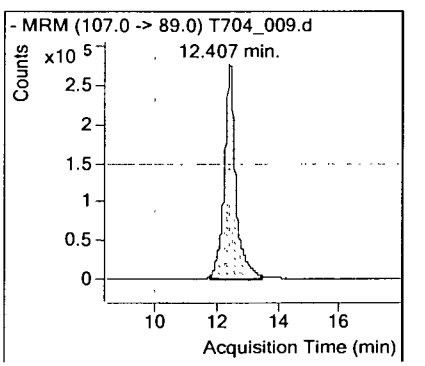


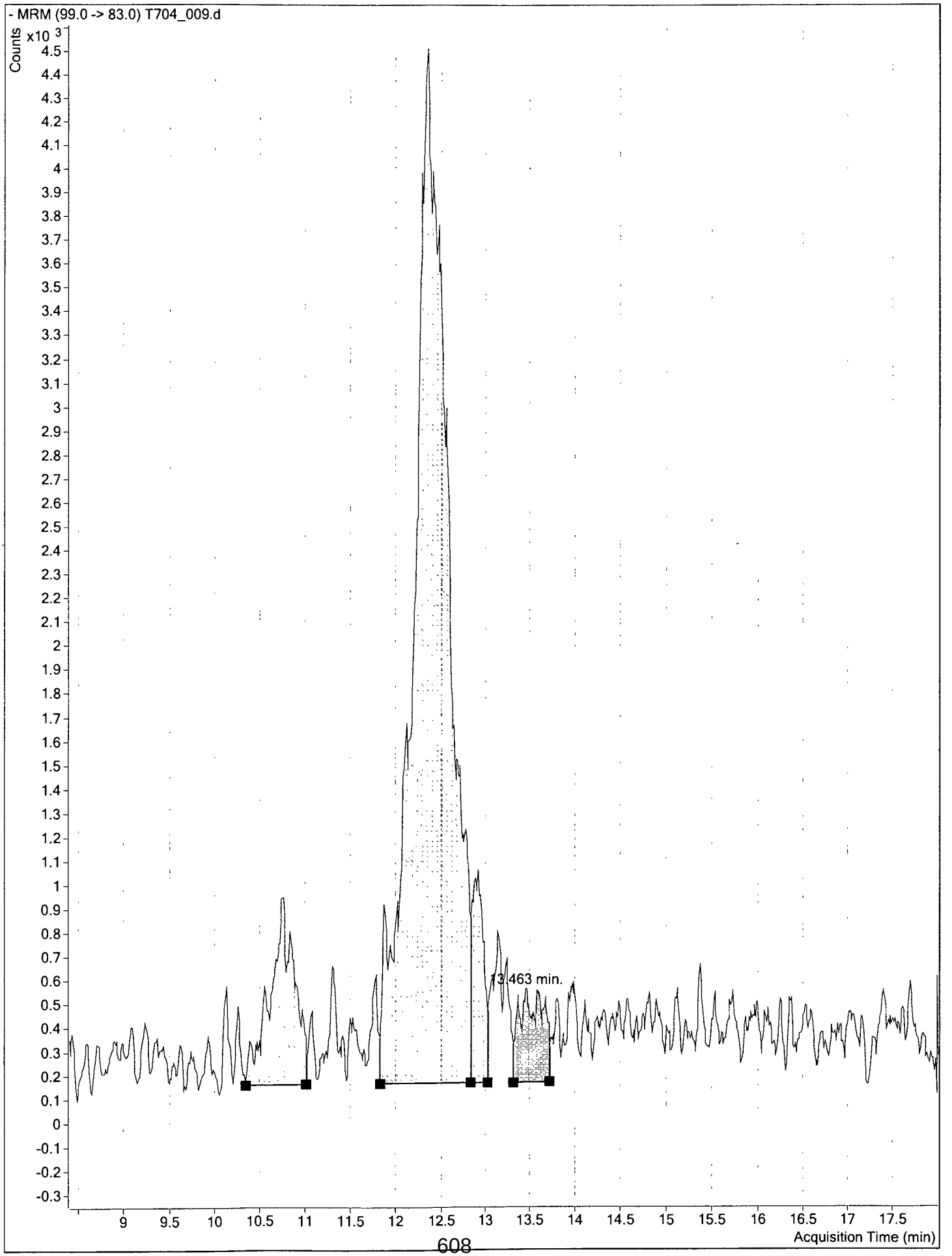


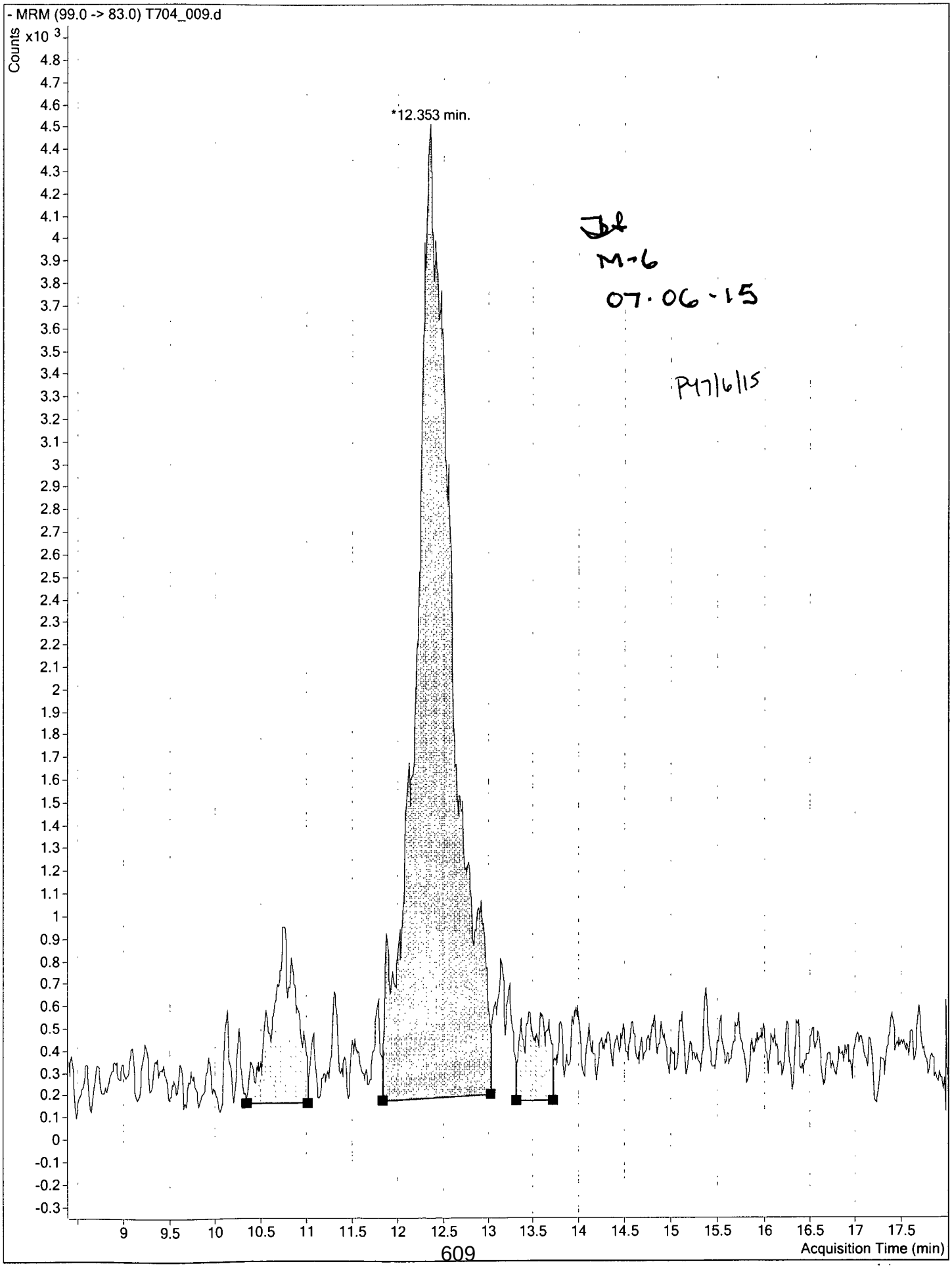
Perchlorate_102








- MRM (99.0 -> 83.0) T704_009.d
Counts
x10 3
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
0
-0.1
-0.2
-0.3
13.463 min.
9
9.5
10
10.5
11
11.5
12
12.5
13
13.5
14
14.5
15
15.5
16
16.5
17
17.5
Acquisition Time (min)


- MRM (99.0 -> 83.0) T704_009.d
Counts
x10 3
*12.353 min.
Acquisition Time (min)
JL
M-6
07.06.15
P7/6/15

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

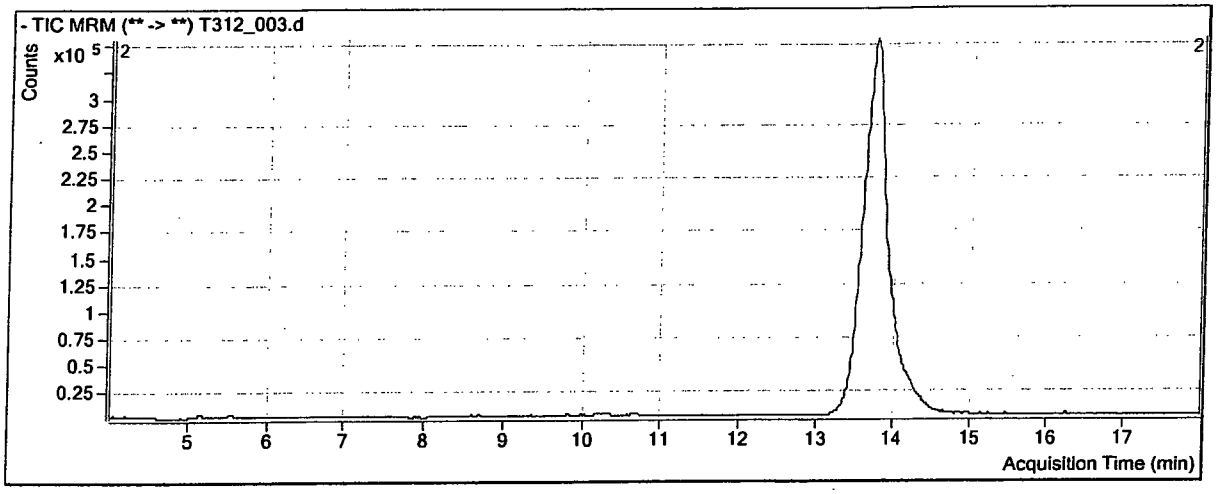
Client ID : NA

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

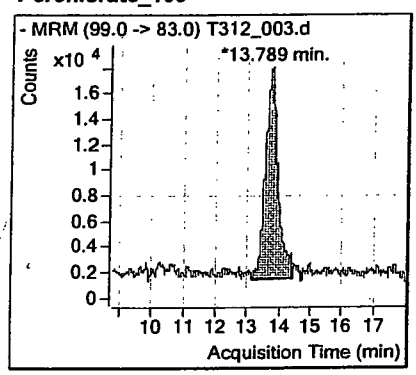
Quantitative Analysis Sample Report

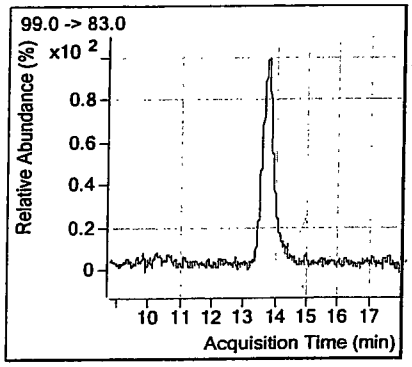
Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_003.d	**Sample Name**	PERCHLORATE 0.0002 ug/ml 11/11/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	17:52
ClientID	NA	**Inj Vol**	20

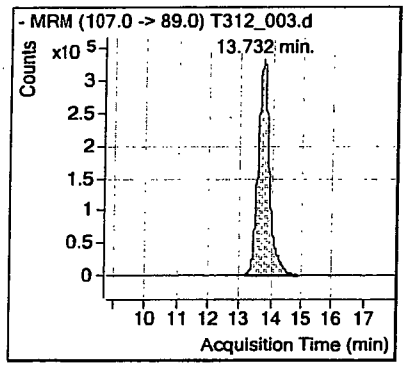


Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108	*	13.789	446712	8337058	* MANUAL INT
Perchlorate_102	PER_IS_108		13.704	144754	8337058	

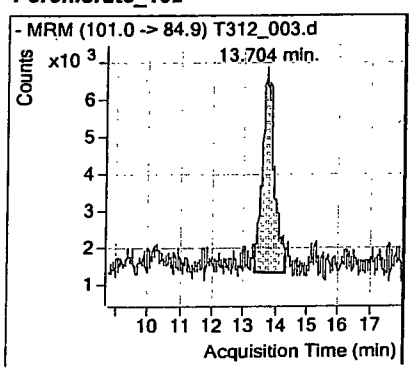
Perchlorate_100

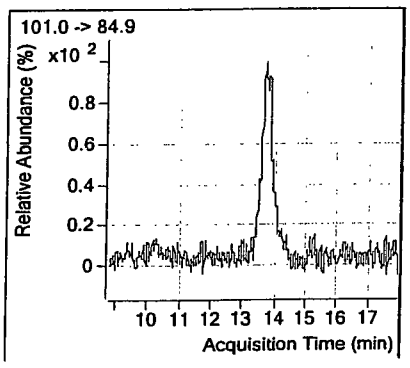


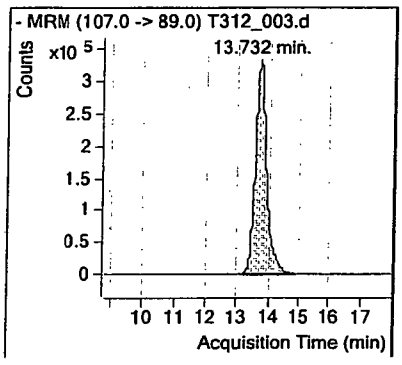


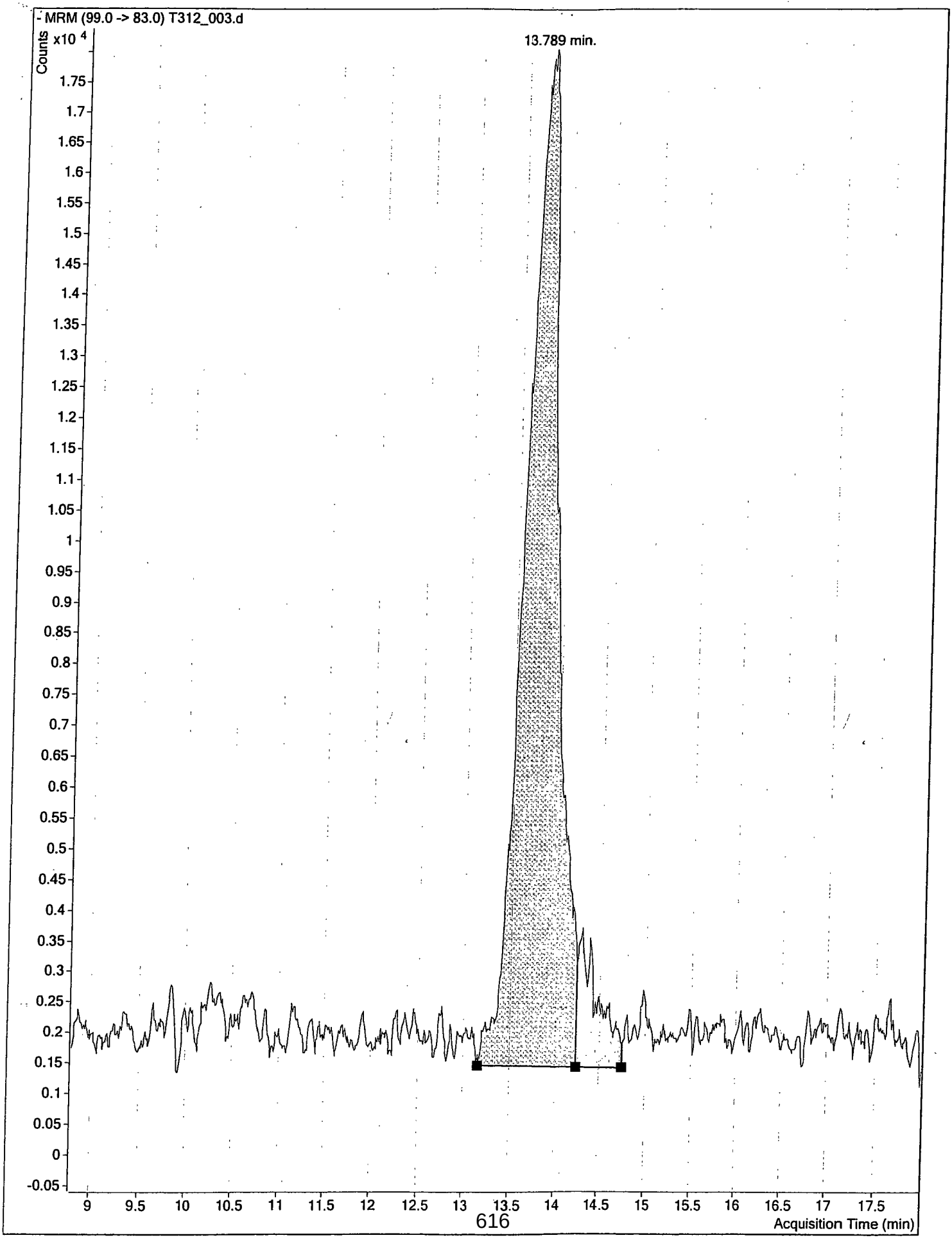


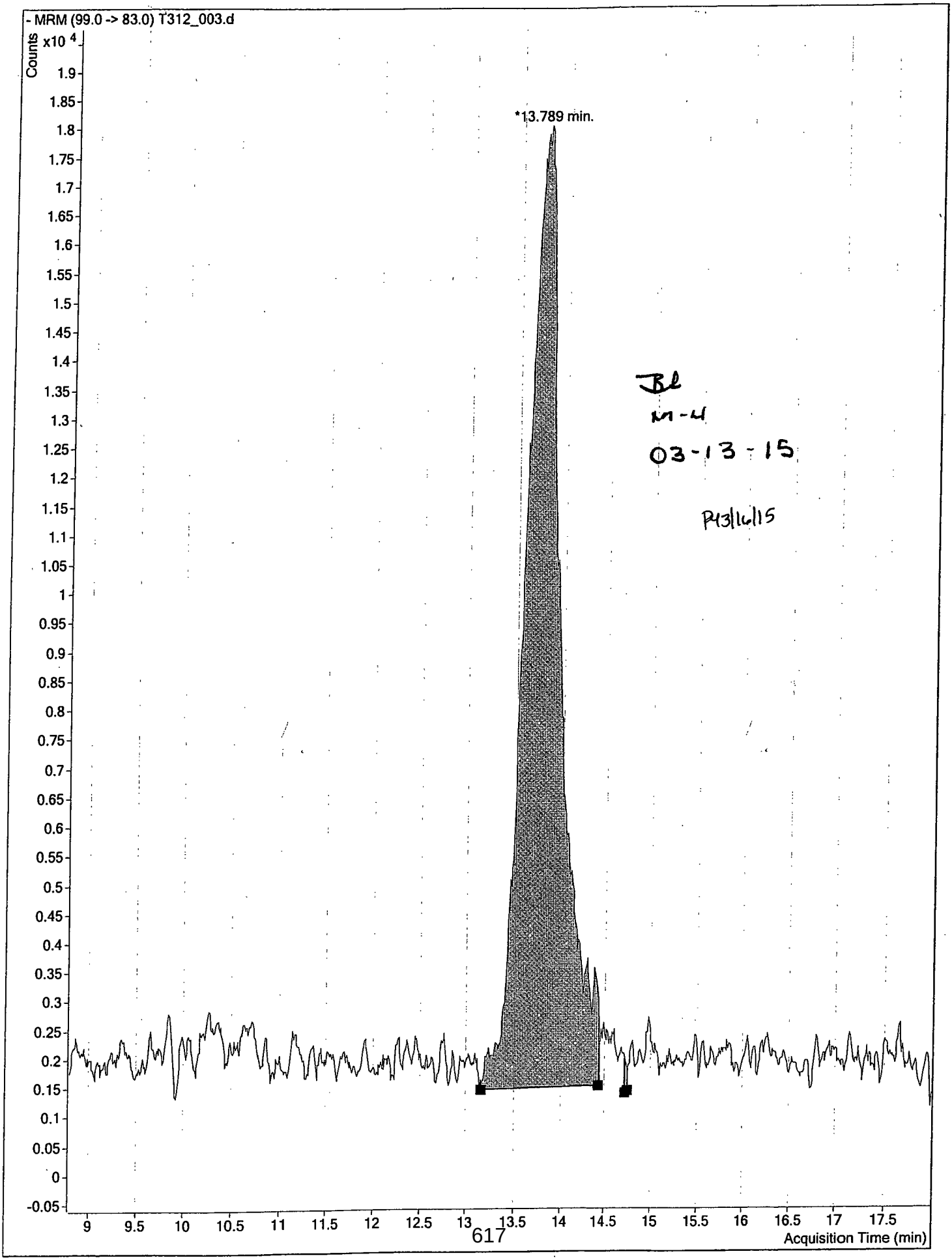
Perchlorate_102








- 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)


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

Data File ID: T312_004.d

Date Injected : 03/12/15

Time Injected : 18:11

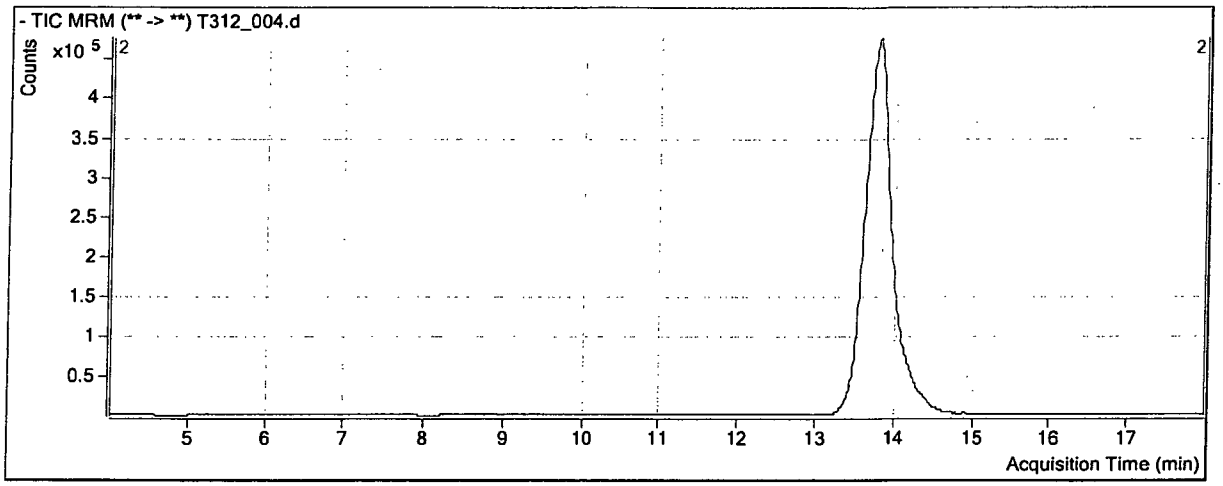
Sample ID : PERCHLORATE 0.0004 ug/ml 11/11/14

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

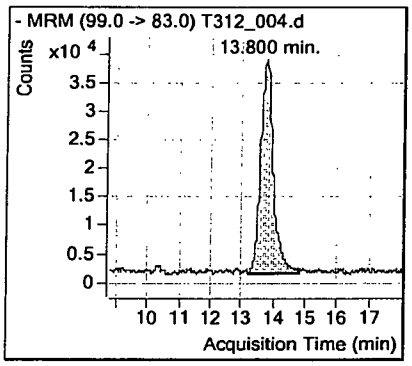
Quantitative Analysis Sample Report

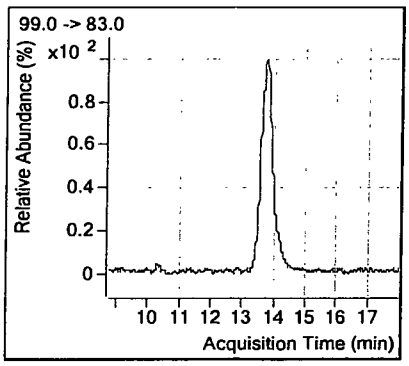
Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_004.d	**Sample Name**	PERCHLORATE 0.0004 ug/ml 11/11/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	18:11
ClientID	NA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

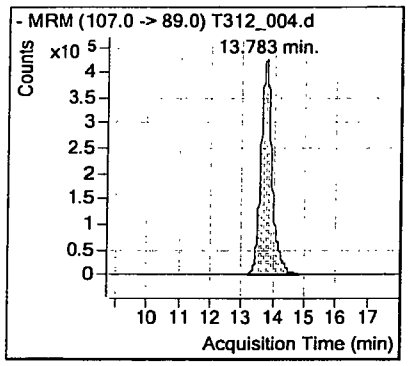


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.800	1023403	10671196
Perchlorate_102	PER_IS_108	13.827	337305	10671196

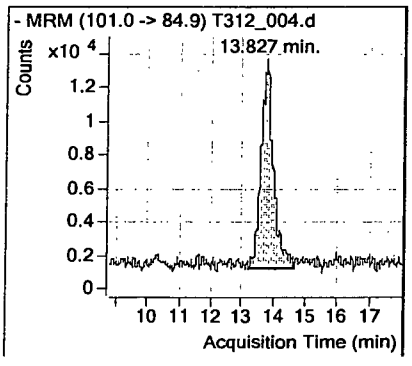
Perchlorate_100

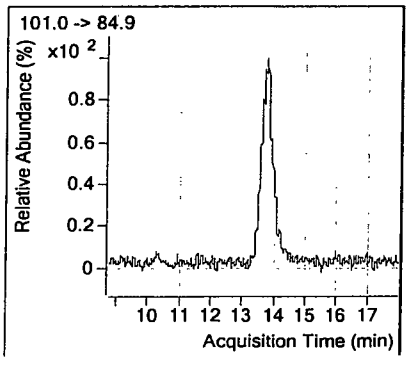


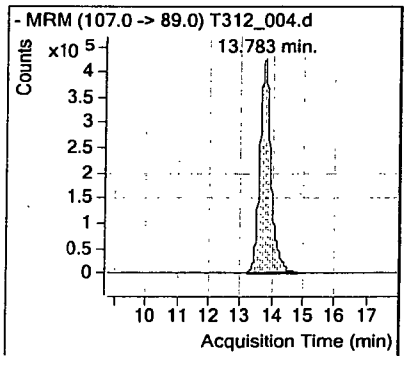




Perchlorate_102







Data File ID: T312_005.d

Date Injected : 03/12/15

Time Injected : 18:29

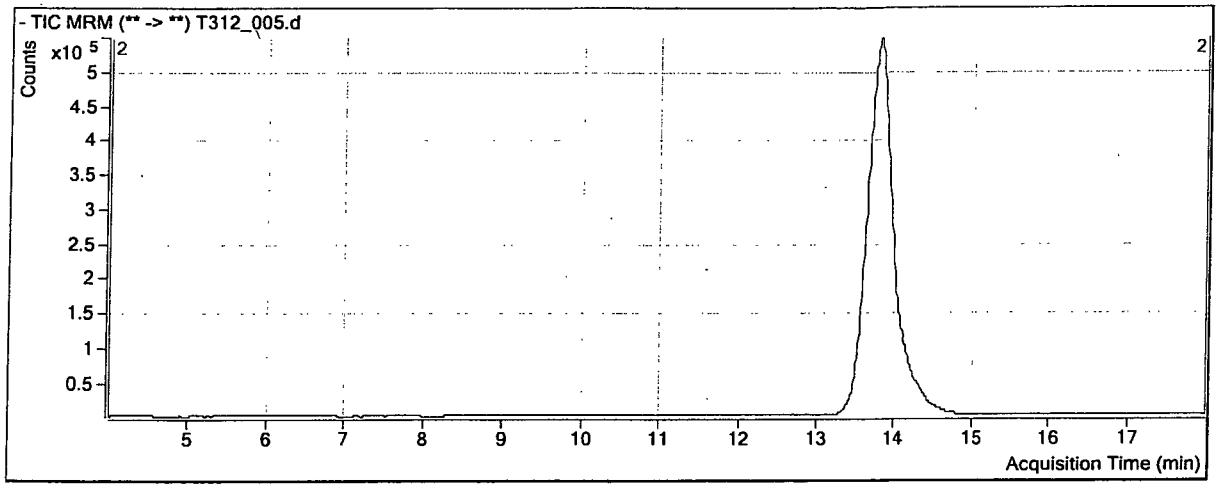
Sample ID : PERCHLORATE 0.001 ug/ml 11/11/14

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

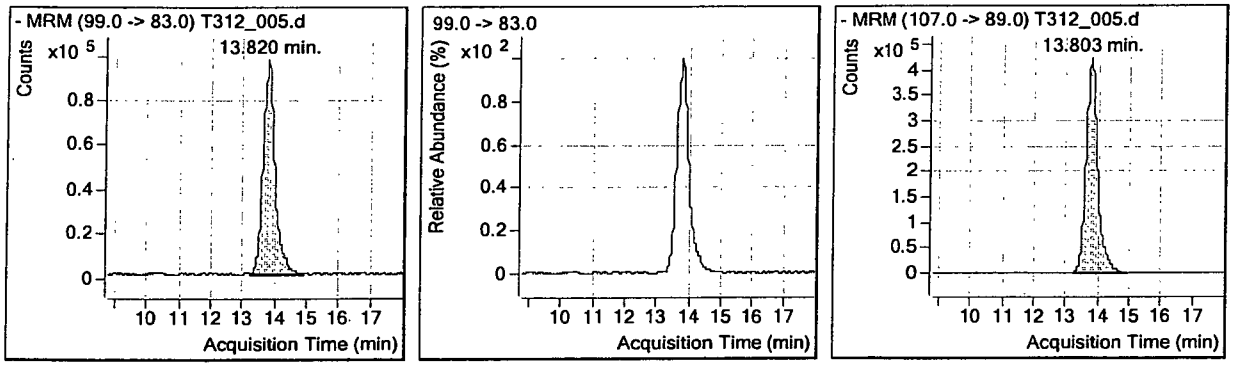
Quantitative Analysis Sample Report

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

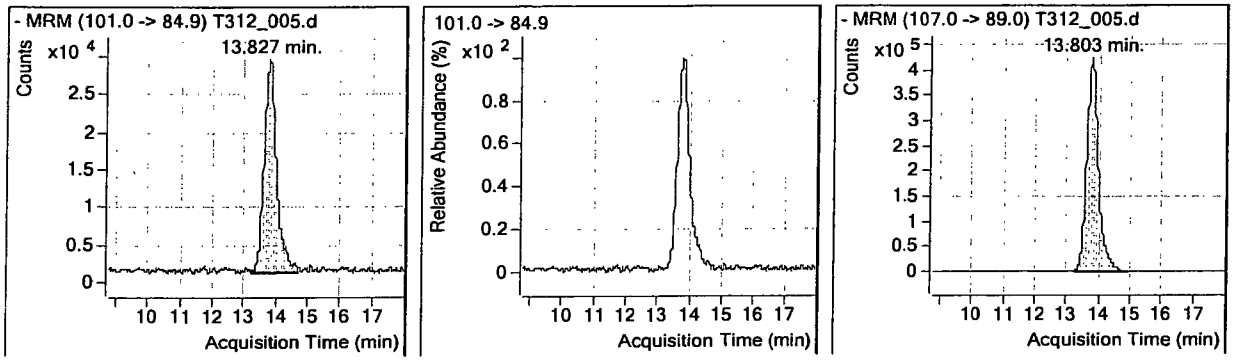


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.820	2483393	10651968
Perchlorate_102	PER_IS_108	13.827	781617	10651968

Perchlorate_100



Perchlorate_102



Data File ID: T312_006.d

Date Injected : 03/12/15

Time Injected : 18:48

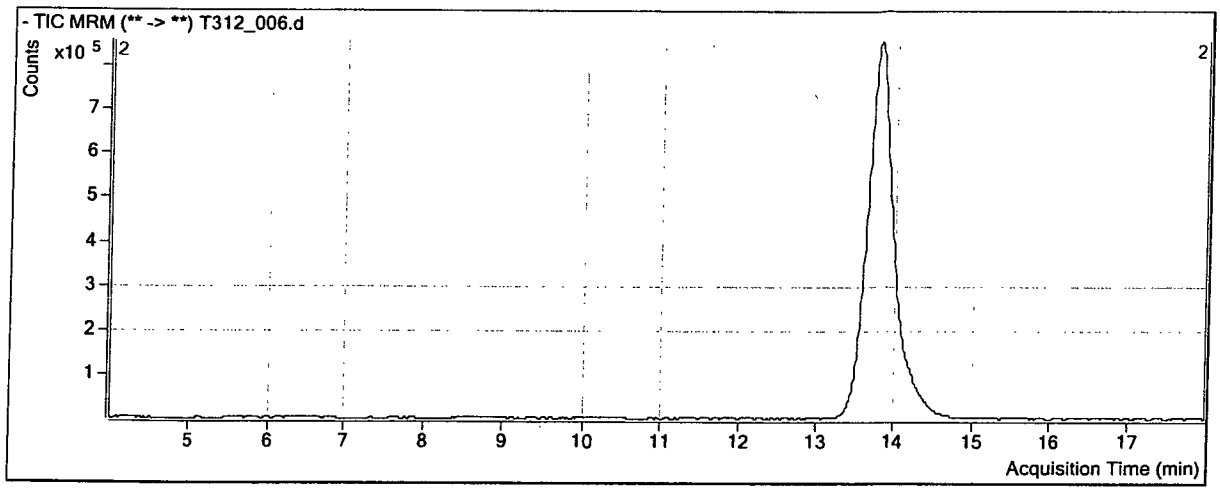
Sample ID : PERCHLORATE 0.002 ug/ml 11/11/14

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

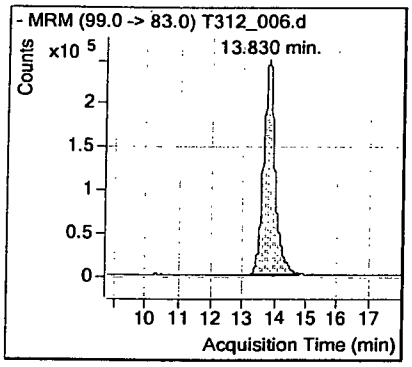
Quantitative Analysis Sample Report

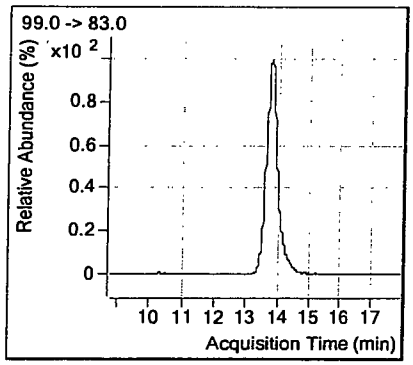
Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_006.d	**Sample Name**	PERCHLORATE 0.002 ug/ml 11/11/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	18:48
ClientID	NA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

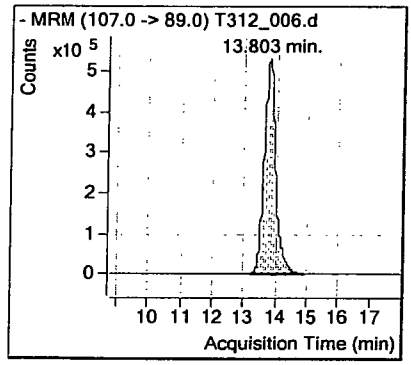


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.830	6351752	13529952
Perchlorate_102	PER_IS_108	13.817	1920912	13529952

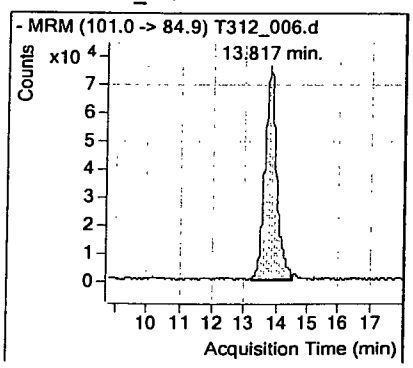
Perchlorate_100

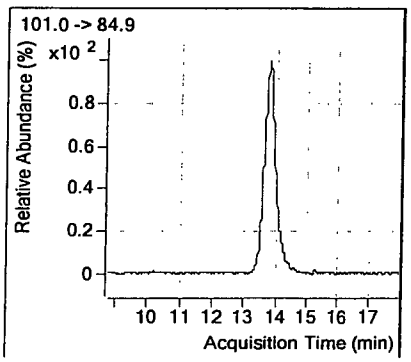


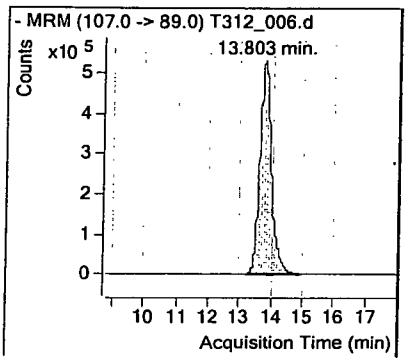




Perchlorate_102







Data File ID: T312_007.d

Date Injected : 03/12/15

Time Injected : 19:07

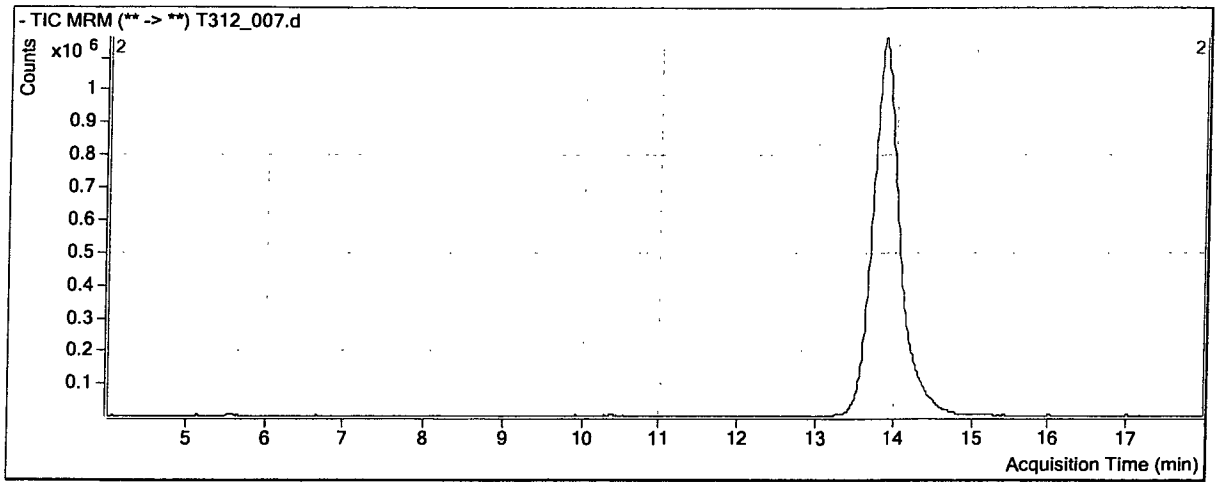
Sample ID : PERCHLORATE 0.005 ug/ml 11/11/14

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

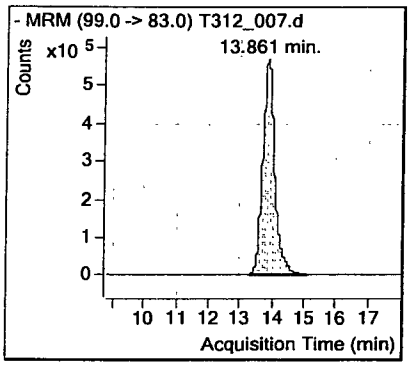
Quantitative Analysis Sample Report

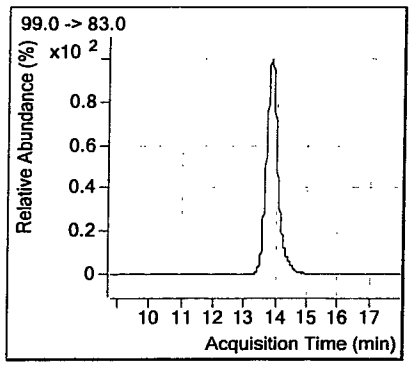
Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_007.d	**Sample Name**	PERCHLORATE 0.005 ug/ml 11/11/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	19:07
ClientID	NA	**Inj Vol**	20

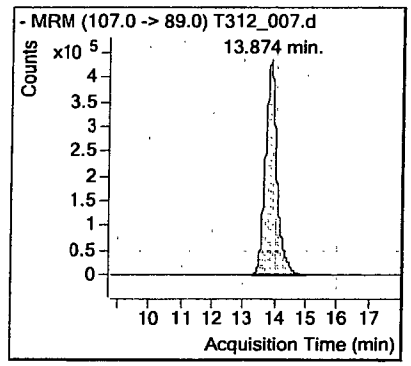


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.861	14499255	11028880
Perchlorate_102	PER_IS_108	13.878	4209044	11028880

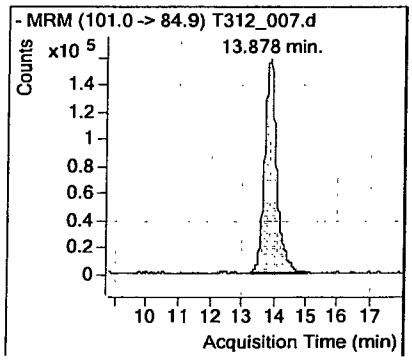
Perchlorate_100

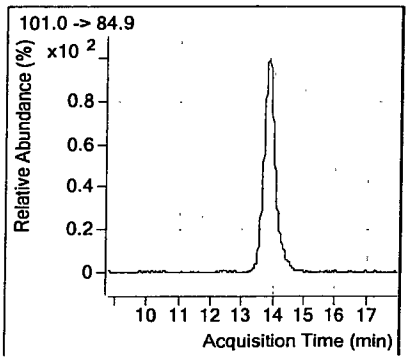


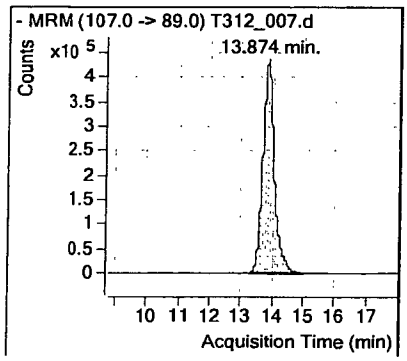




Perchlorate_102







Data File ID: T312_008.d

Date Injected : 03/12/15

Time Injected : 19:25

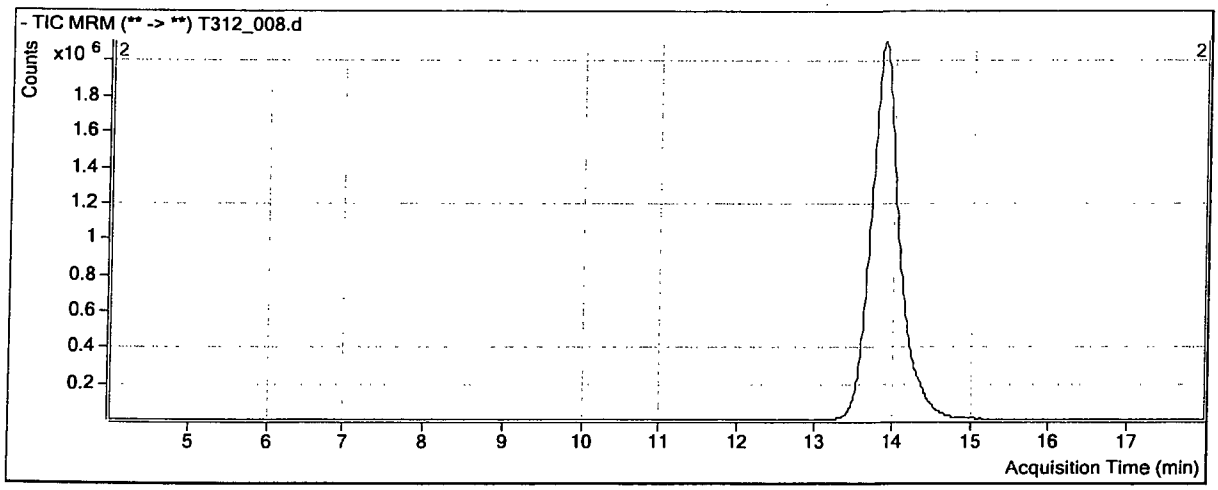
Sample ID : PERCHLORATE 0.010 ug/ml 08/27/14

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

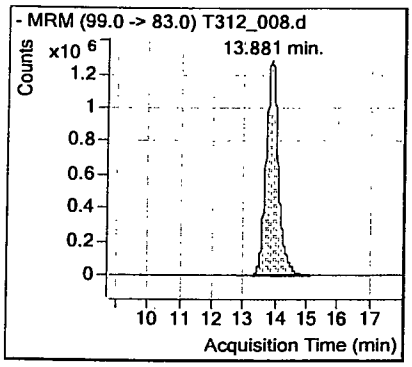
Quantitative Analysis Sample Report

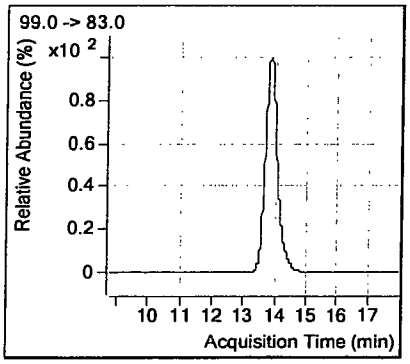
Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_008.d	**Sample Name**	PERCHLORATE 0.010 ug/ml 08/27/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	19:25
ClientID	NA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

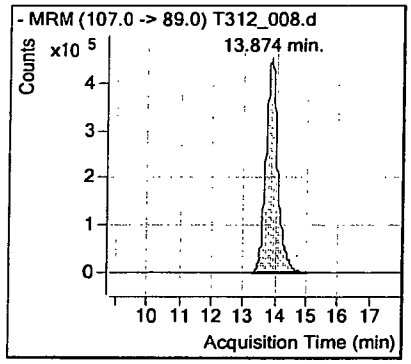


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.881	34223790	11973072
Perchlorate_102	PER_IS_108	13.878	9985270	11973072

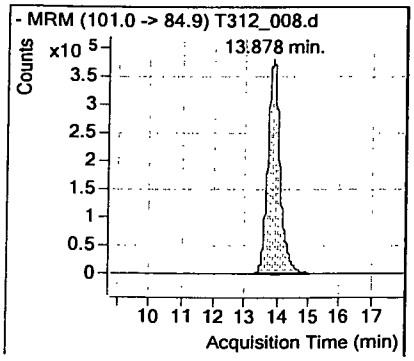
Perchlorate_100

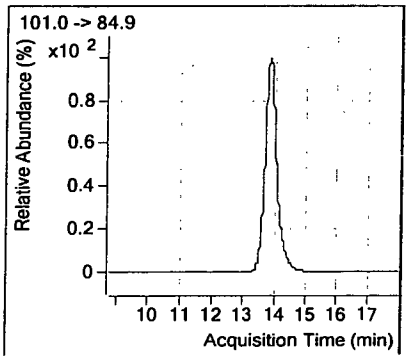


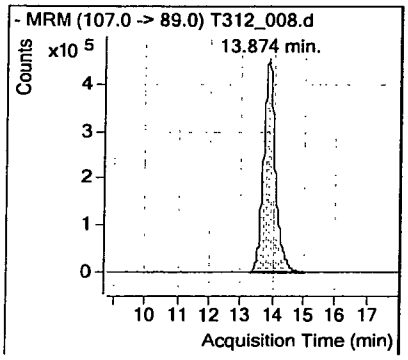




Perchlorate_102







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

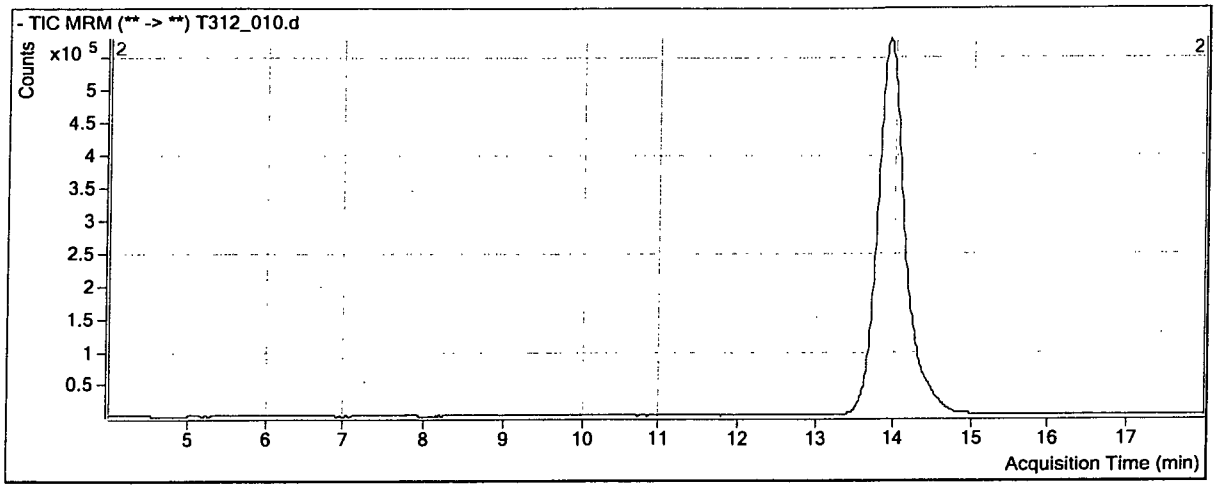
Sample ID : PER_SS 0.0004 ug/ml 11/11/14

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

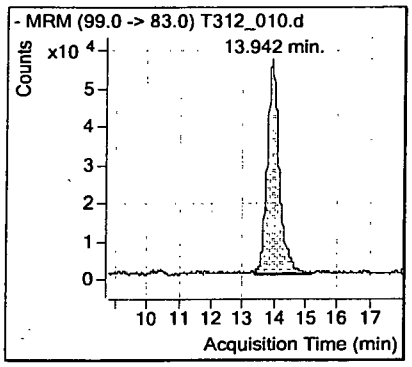
Quantitative Analysis Sample Report

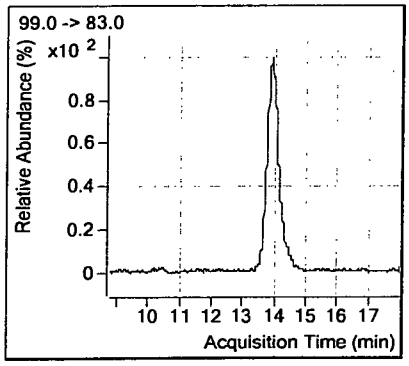
Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_010.d	**Sample Name**	PER_SS 0.0004 ug/ml 11/11/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	20:02
ClientID	NA	**Inj Vol**	20

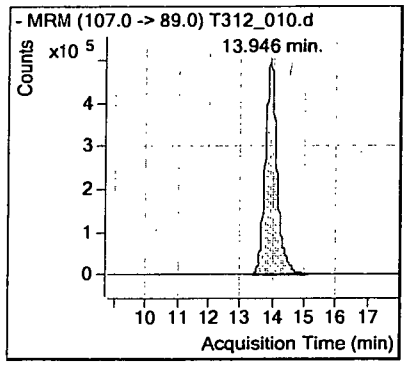


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.942	1472839	12977621
Perchlorate_102	PER_IS_108	13.959	440675	12977621

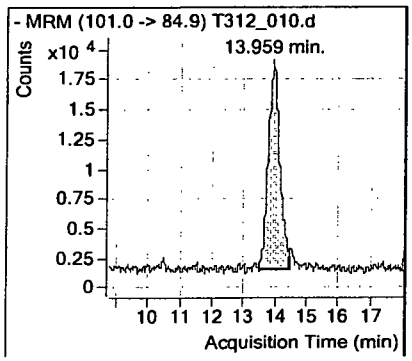
Perchlorate_100

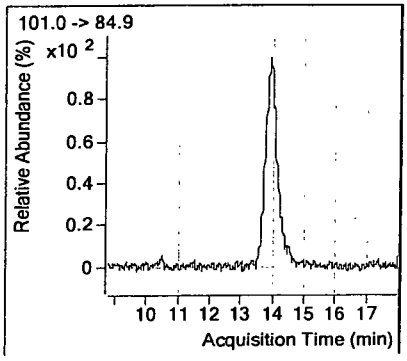


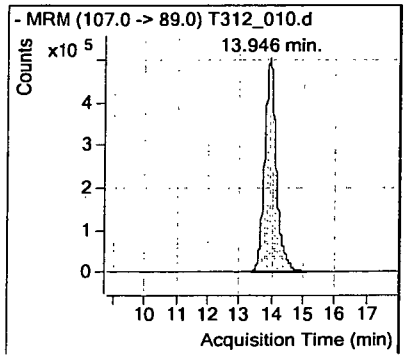




Perchlorate_102







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

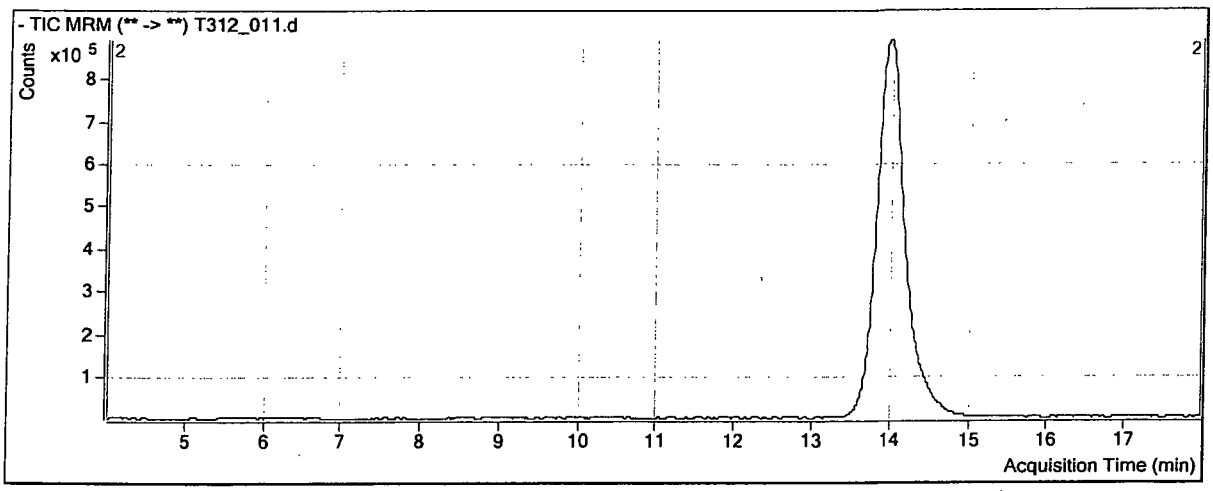
Sample ID : PER_SS 0.002 ug/ml 11/11/14

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

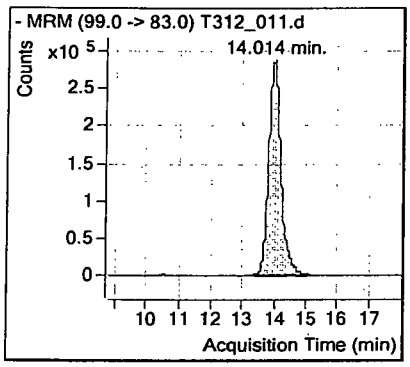
Quantitative Analysis Sample Report

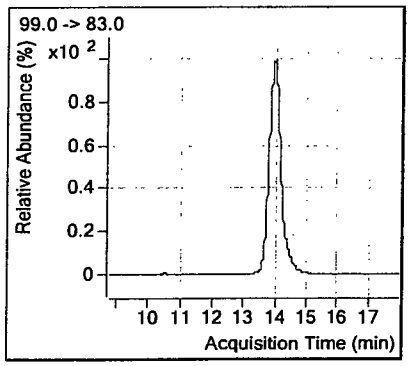
Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_011.d	**Sample Name**	PER_SS 0.002 ug/ml 11/11/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	20:21
ClientID	NA	**Inj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

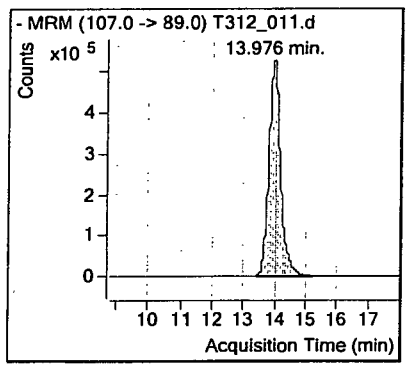


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.014	7468678	13747369
Perchlorate_102	PER_IS_108	14.000	2222387	13747369

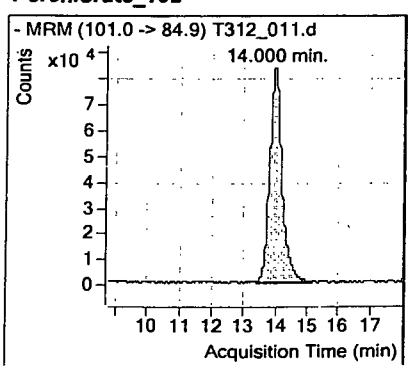
Perchlorate_100

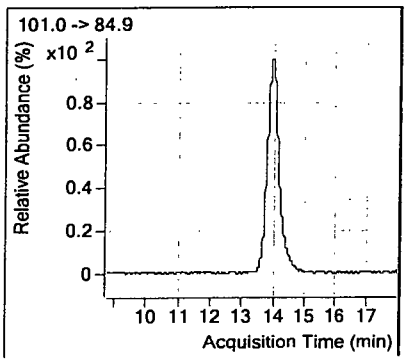


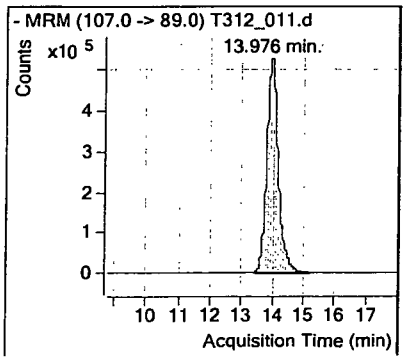




Perchlorate_102







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

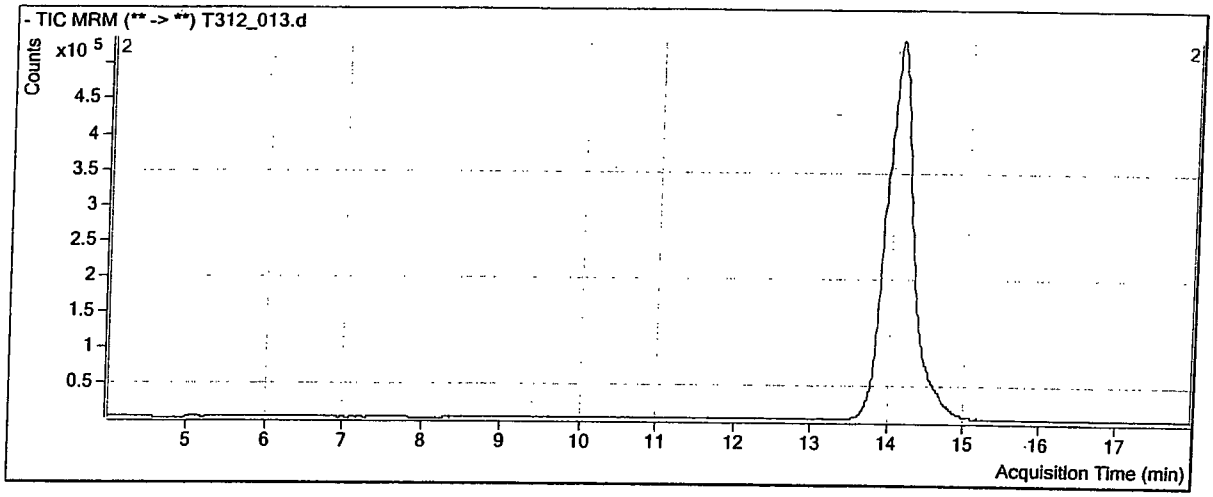
Sample ID : PER_CCV_1 0.0004 ug/ml 11/11/14

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

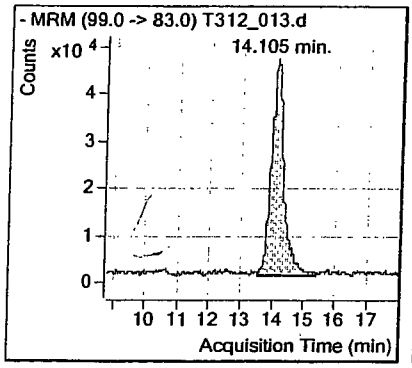
Quantitative Analysis Sample Report

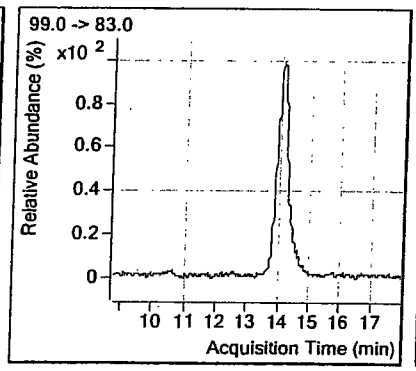
Batch Data Path	D:\MassHunter\Data\150312\QuantResults\150312_A1_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T312_013.d	**Sample Name**	PER_CCV_1 0.0004 ug/ml 11/11/14
Sample Type	Sample	**Acq_Date**	03/12/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	20:58
ClientID	NA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

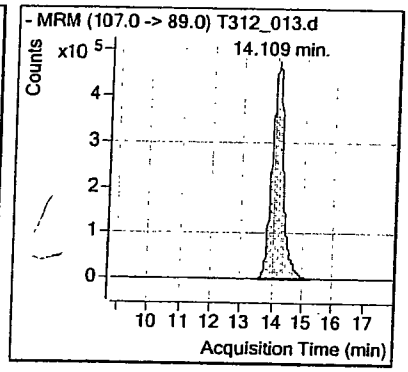


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.105	1267031	12323795
Perchlorate_102	PER_IS_108	14.143	410558	12323795

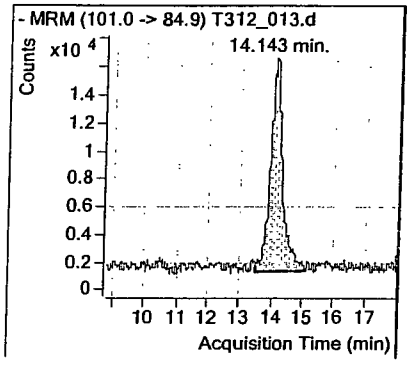
Perchlorate_100

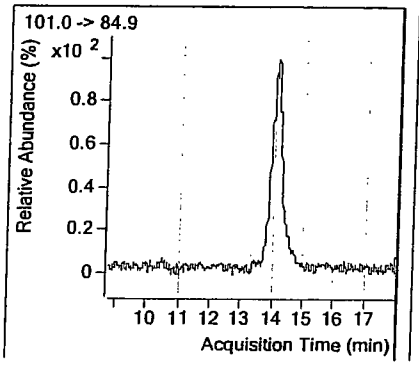


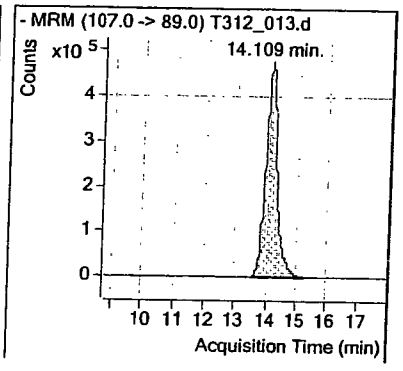




Perchlorate_102







CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

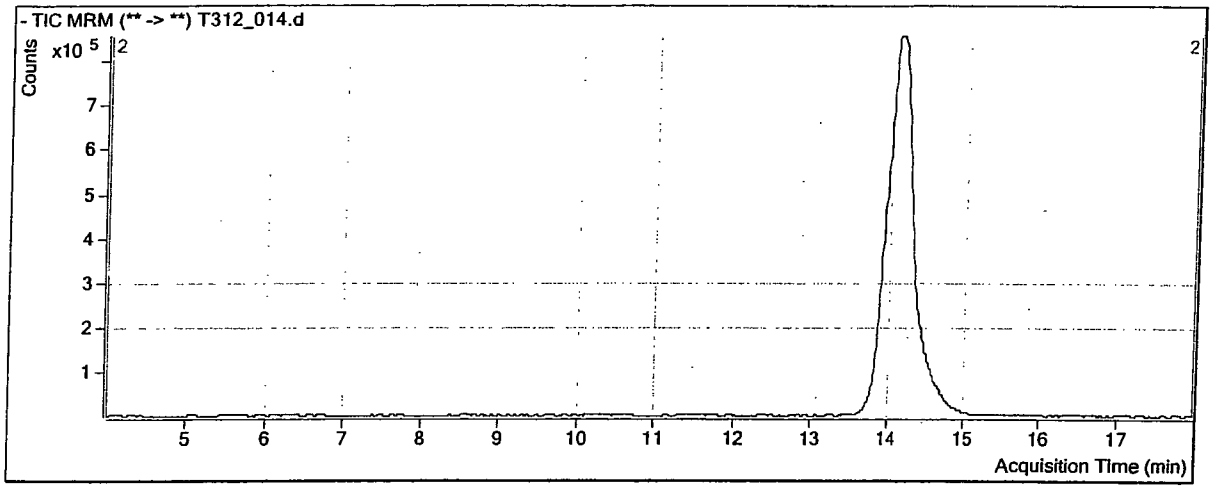
Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T312_014.d

	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

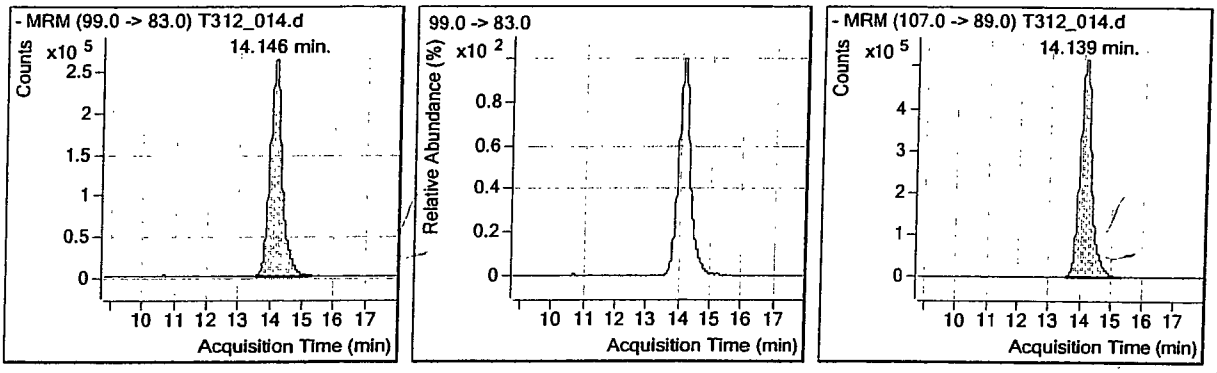
Quantitative Analysis Sample Report

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

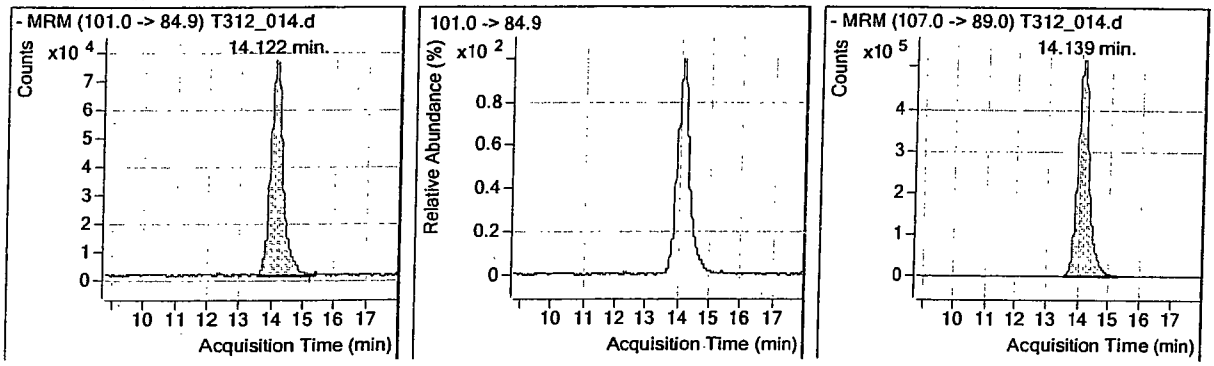


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.146	6907110	13576634
Perchlorate_102	PER_IS_108	14.122	2093567	13576634

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T627_002.d

	Date (s) of Analysis From:03/12/15 To:06/27/15 Time (s) of Analysis From:17:52 To:17:31				Date of Analysis: 06/27/15 Time of Analysis: 17:50 Standard Id: PER_CCV (Standard) 0.0004ug/ml			
COMPOUND	RT	RT WINDOW FROM	TO	AVERAGE RELATIVE RESPONSE FACTOR	RT	CALCULATED RELATIVE RESPONSE FACTOR	QNT Y/N	%D
Perchlorate_83	13.79	13.69	13.89	1.270255	14.01	1.196307	N	5.8
Perchlorate_85	13.70	13.60	13.80	0.391605	14.04	0.387182	N	1.1

FILE ID : TQCK2702.RFB

Data File ID: T627_002.d

Date Injected : 06/27/15

Time Injected : 17:50

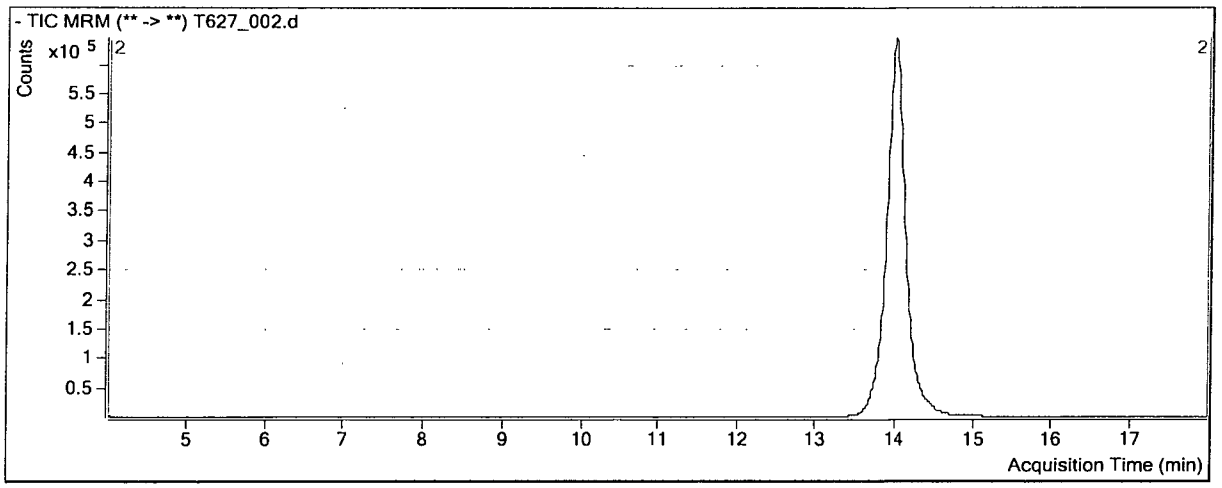
Sample ID : PER_CCV 0.0004 ug/ml 06/27/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
14.007	10246572	PER_IS_89
14.014	980644	Perchlorate_83
14.041	317383	Perchlorate_85

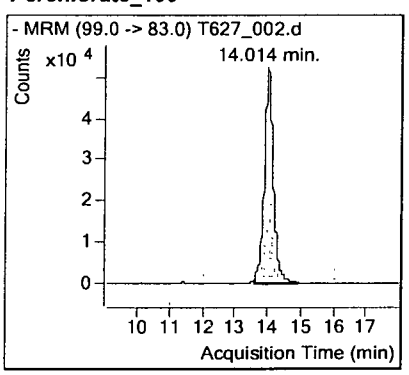
Quantitative Analysis Sample Report

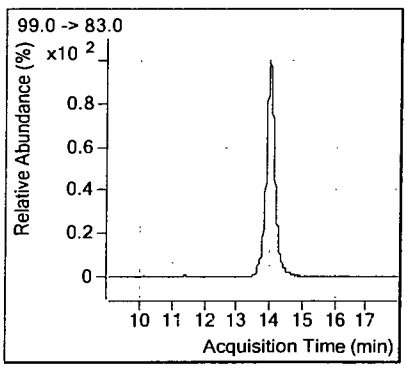
Batch Data Path	D:\MassHunter\Data\150627\QuantResults\150627_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T627_002.d	**Sample Name**	PER_CCV 0.0004 ug/ml 06/27/15
Sample Type	Sample	**Acq_Date**	06/27/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	17:50
ClientID	NA	**Inj Vol**	20

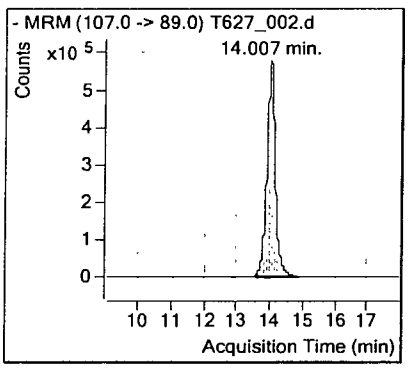


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.014	980644	10246572
Perchlorate_102	PER_IS_108	14.041	317383	10246572

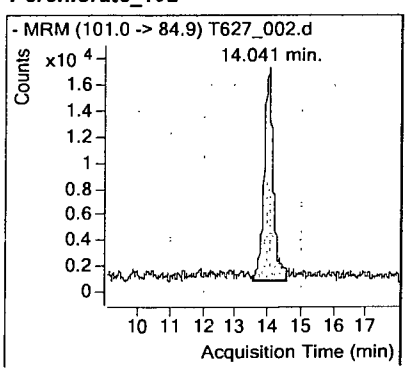
Perchlorate_100

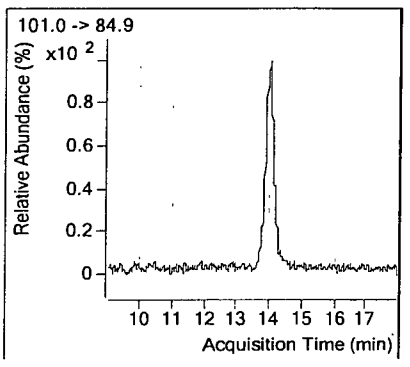


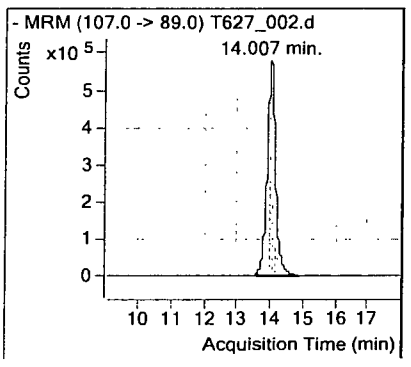




Perchlorate_102







CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T627_003.d

	Date (s) of Analysis From:03/12/15 To:06/27/15 Time (s) of Analysis From:17:52 To:17:31				Date of Analysis: 06/27/15 Time of Analysis: 18:09 Standard Id: PER_CCV (Standard) 0.002 ug/ml			
COMPOUND	RT	RT WINDOW FROM	TO	AVERAGE RELATIVE RESPONSE FACTOR	RT	CALCULATED RELATIVE RESPONSE FACTOR	QNT Y/N	%D
Perchlorate_83	13.79	13.69	13.89	1.270255	14.02	1.119610	N	11.9
Perchlorate_85	13.70	13.60	13.80	0.391605	14.04	0.336045	N	14.2

FILE ID : TQCK2703.RFB

Data File ID: T627_003.d

Date Injected : 06/27/15

Time Injected : 18:09

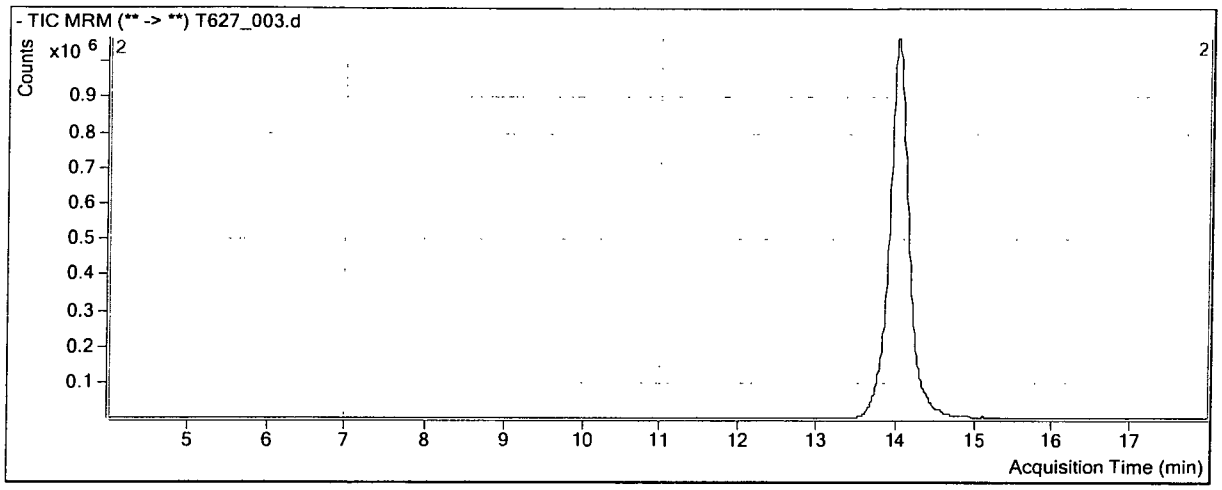
Sample ID : PER_CCV 0.002 ug/ml 06/27/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
14.017	12081323	PER_IS_89
14.024	5410548	Perchlorate_83
14.041	1623949	Perchlorate_85

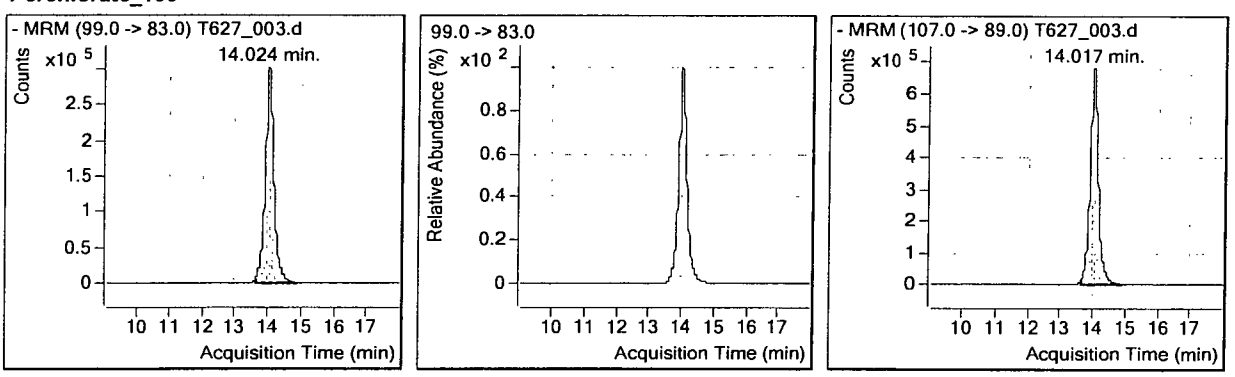
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150627\QuantResults\150627_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T627_003.d	**Sample Name**	PER_CCV 0.002 ug/ml 06/27/15
Sample Type	Sample	**Acq_Date**	06/27/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	18:09
ClientID	NA	**Inj Vol**	20

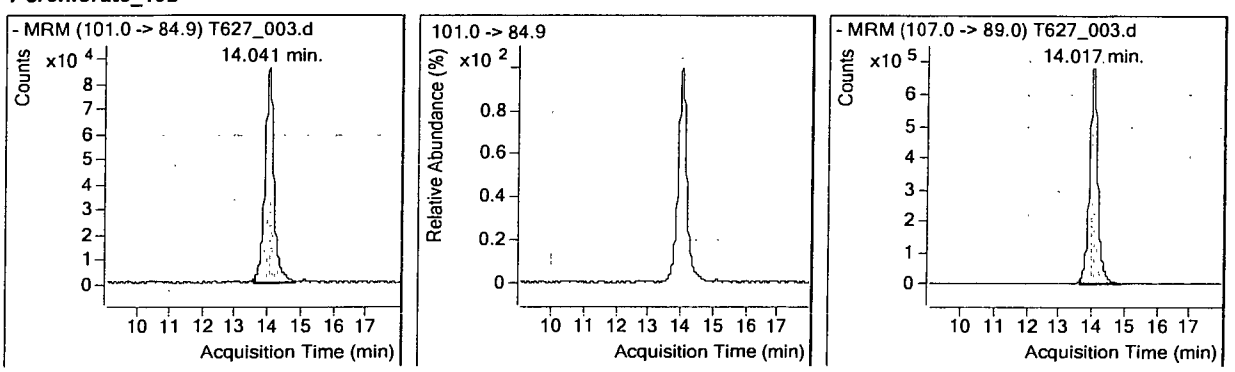


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.024	5410548	12081323
Perchlorate_102	PER_IS_108	14.041	1623949	12081323

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T627_015.d

	Date (s) of Analysis From:03/12/15 To:06/27/15 Time (s) of Analysis From:17:52 To:21:15				Date of Analysis: 06/27/15 Time of Analysis: 21:52 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	14.12	1.175295	N	7.5
Perchlorate_85	13.70	13.60	13.80	0.391605	14.10	0.387853	N	1.0

FILE ID : TQCK2715.RFB

Data File ID: T627_015.d

Date Injected : 06/27/15

Time Injected : 21:52

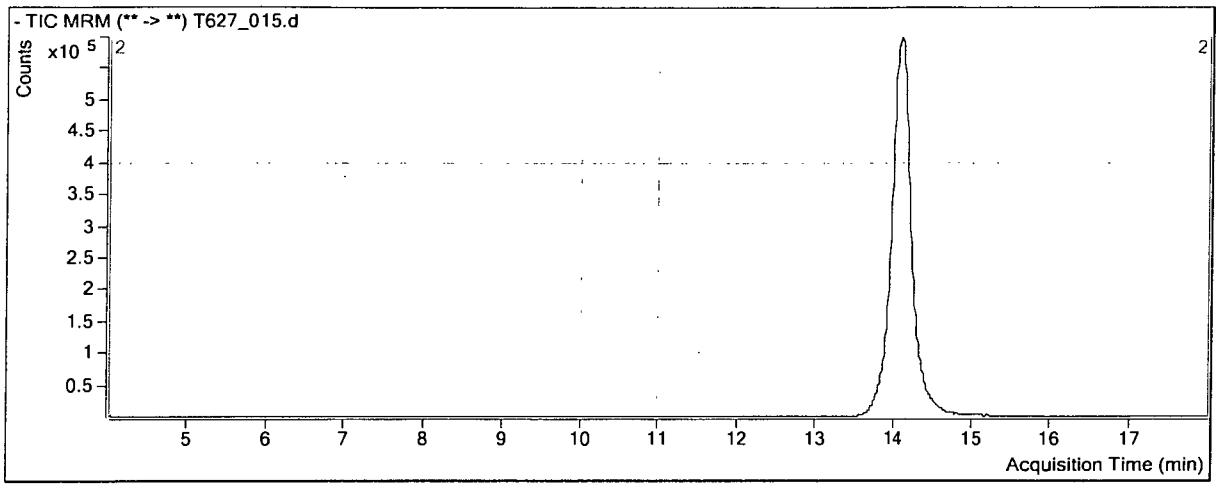
Sample ID : PER_CCV 0.0004 ug/ml 06/27/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
14.109	9773292	PER_IS_89
14.115	918920	Perchlorate_83
14.102	303248	Perchlorate_85

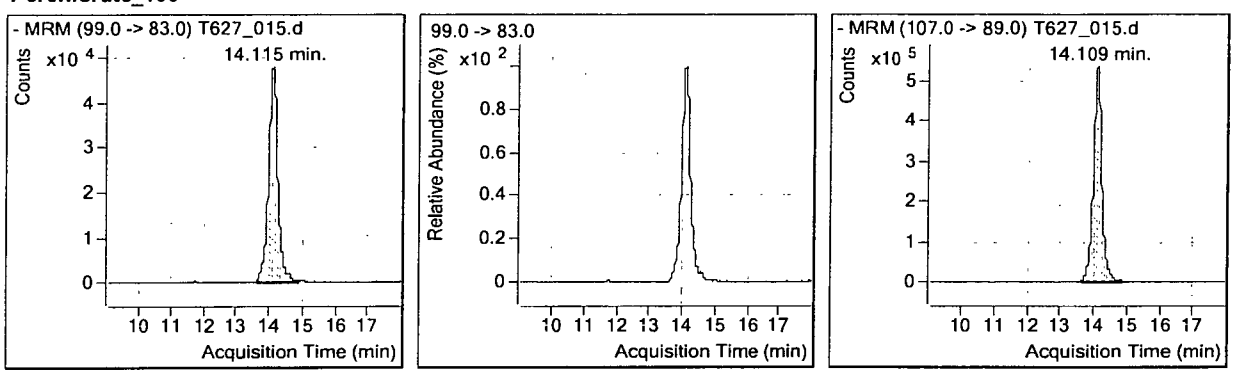
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150627\QuantResults\150627_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T627_015.d	**Sample Name**	PER_CCV 0.0004 ug/ml 06/27/15
Sample Type	Sample	**Acq_Date**	06/27/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	21:52
ClientID	NA	**Inj Vol**	20

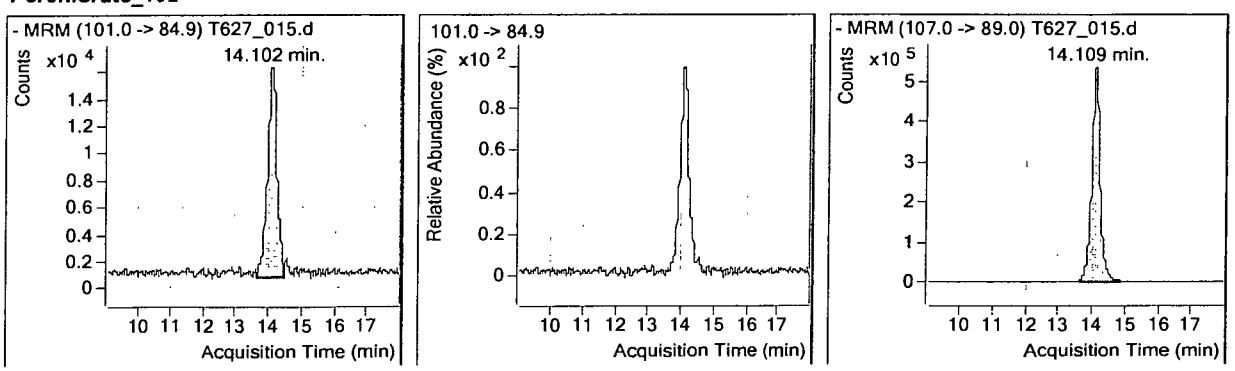


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.115	918920	9773292
Perchlorate_102	PER_IS_108	14.102	303248	9773292

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T627_016.d

	Date (s) of Analysis From:03/12/15 To:06/27/15 Time (s) of Analysis From:17:52 To:21:15				Date of Analysis: 06/27/15 Time of Analysis: 22:11 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	14.14	1.119485	N	11.9
Perchlorate_85	13.70	13.60	13.80	0.391605	14.16	0.334666	N	14.5

FILE ID : TQCK2716.RFB

Data File ID: T627_016.d

Date Injected : 06/27/15

Time Injected : 22:11

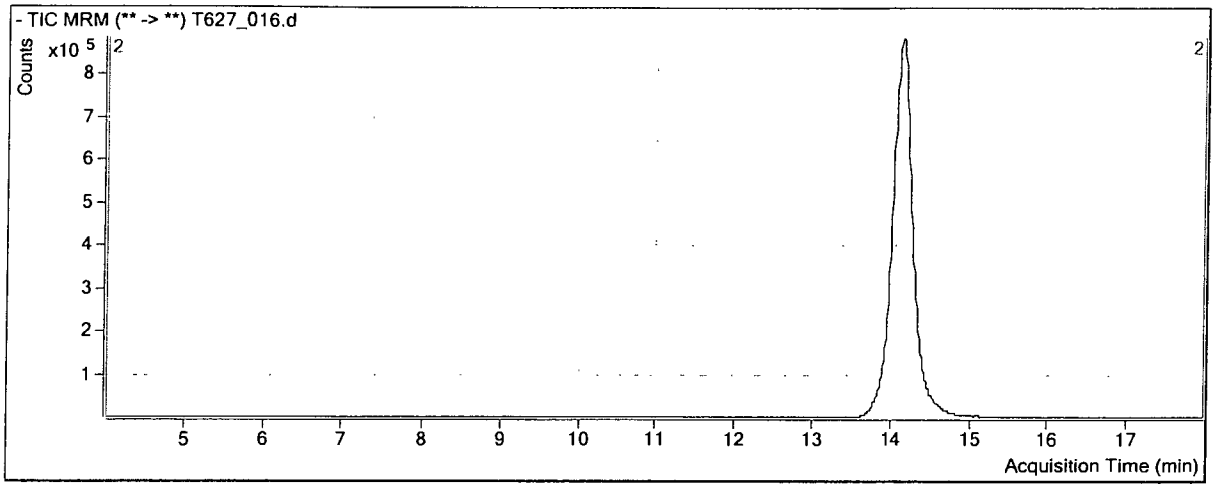
Sample ID : PER_CCV 0.002 ug/ml 06/27/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
14.139	10360182	PER_IS_89
14.136	4639228	Perchlorate_83
14.163	1386880	Perchlorate_85

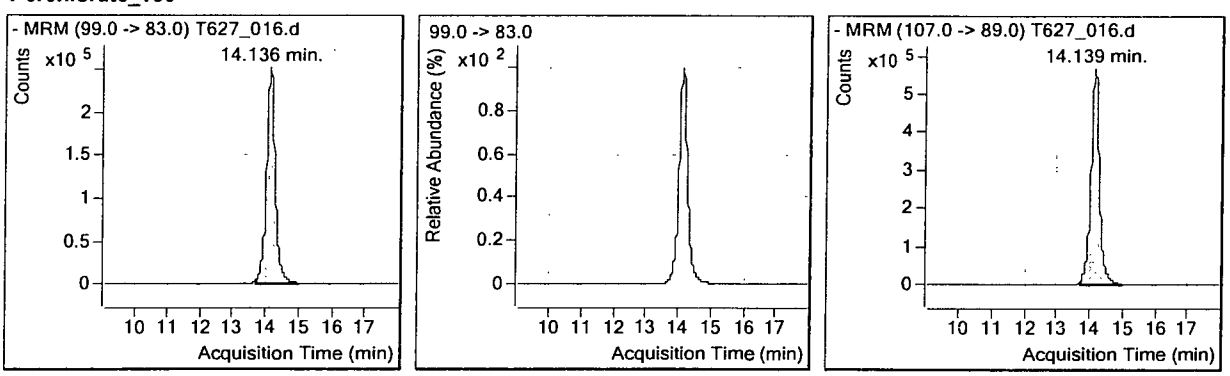
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150627\QuantResults\150627_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T627_016.d	**Sample Name**	PER_CCV 0.002 ug/ml 06/27/15
Sample Type	Sample	**Acq_Date**	06/27/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	22:11
ClientID	NA	**Inj Vol**	20

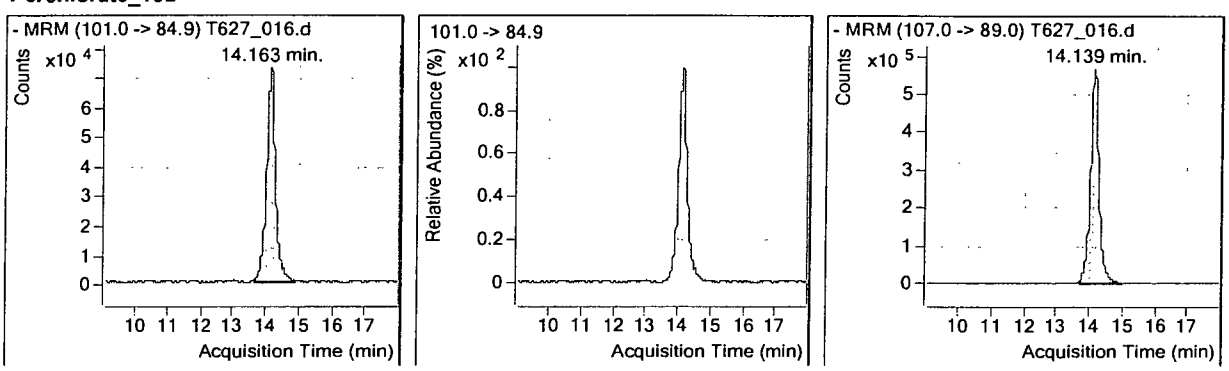


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.136	4639228	10360182
Perchlorate_102	PER_IS_108	14.163	1386880	10360182

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T704_002.d

	Date (s) of Analysis From:03/12/15 To:07/04/15 Time (s) of Analysis From:17:52 To:8:22				Date of Analysis: 07/04/15 Time of Analysis: 8:41 Standard Id: PER_CCV (Standard) 0.0004ug/ml			
COMPOUND	RT	RT WINDOW FROM	TO	AVERAGE RELATIVE RESPONSE FACTOR	RT	CALCULATED RELATIVE RESPONSE FACTOR	QNT Y/N	%D
Perchlorate_83	13.79	13.69	13.89	1.270255	13.06	1.289544	N	1.5
Perchlorate_85	13.70	13.60	13.80	0.391605	13.09	0.429179	N	9.6

FILE ID : TQCK0402.RFB

Data File ID: T704_002.d

Date Injected : 07/04/15

Time Injected : 8:41

Sample ID : PER_CCV 0.0004 ug/ml 06/27/15

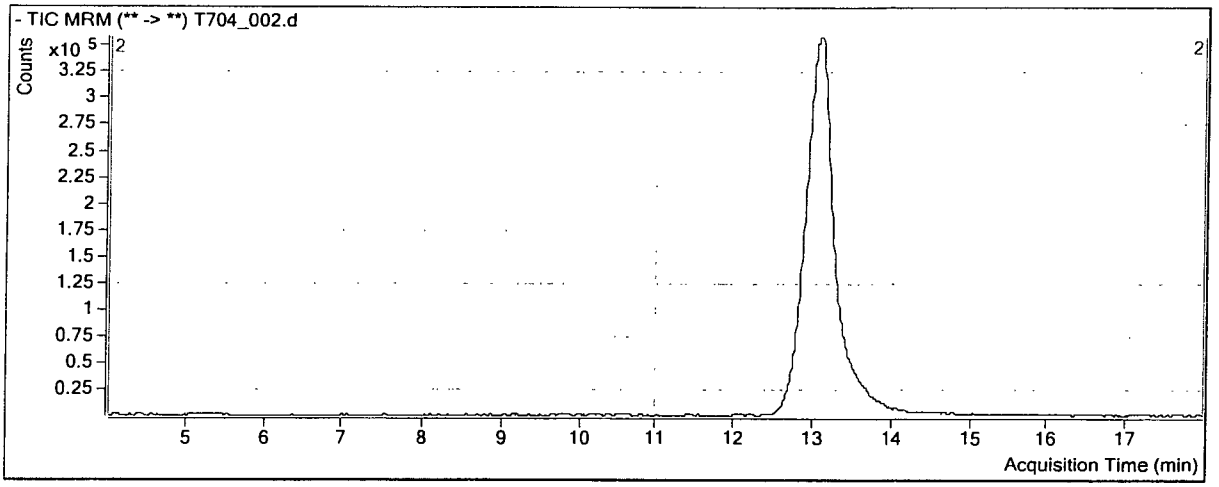
Client ID : NA

Retention Time		Area Count Response	Compound_ID Product Ion
13.000		8051603	PER_IS_89
13.056		830632	Perchlorate_83
13.093	*	276446	Perchlorate_85

* MANUAL INTEGRAION

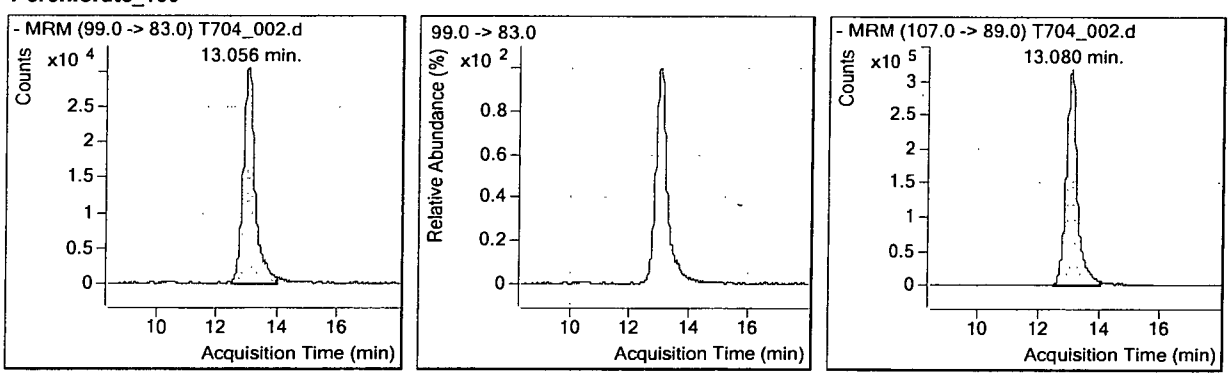
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150704\QuantResults\150704_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T704_002.d	**Sample Name**	PER_CCV 0.0004 ug/ml 06/27/15
Sample Type	Sample	**Acq_Date**	07/04/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	8:41
ClientID	NA	**Inj Vol**	20

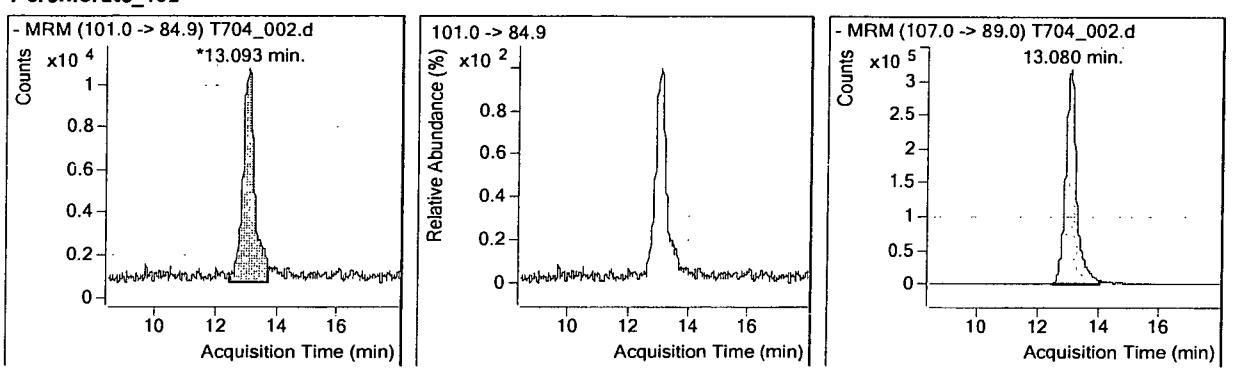


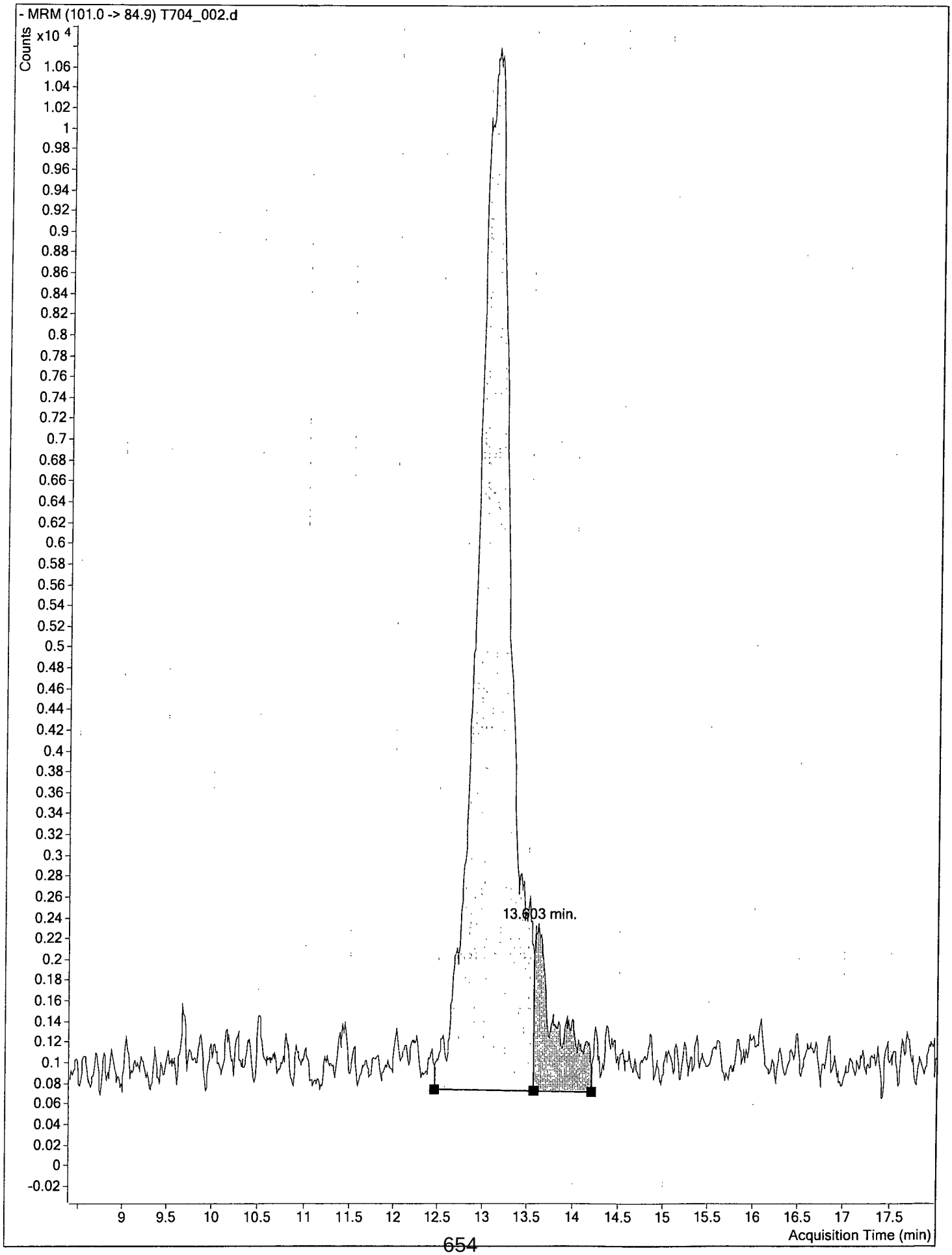
Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108		13.056	830632	8051603	
Perchlorate_102	PER_IS_108	*	13.093	276446	8051603	* MANUAL INT

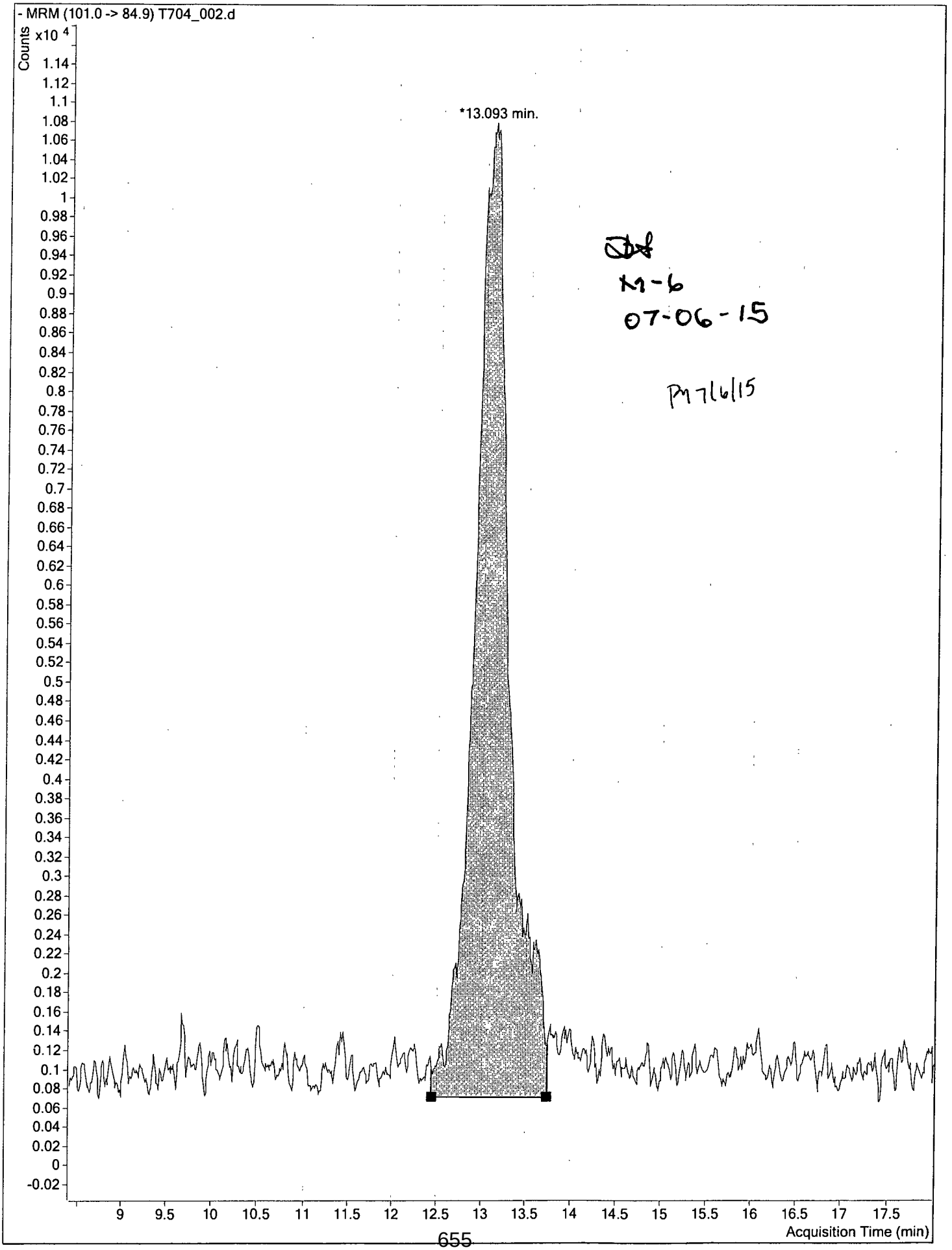
Perchlorate_100



Perchlorate_102




- MRM (101.0 -> 84.9) T704_002.d
Counts
x10 4
1.06
1.04
1.02
1
0.98
0.96
0.94
0.92
0.9
0.88
0.86
0.84
0.82
0.8
0.78
0.76
0.74
0.72
0.7
0.68
0.66
0.64
0.62
0.6
0.58
0.56
0.54
0.52
0.5
0.48
0.46
0.44
0.42
0.4
0.38
0.36
0.34
0.32
0.3
0.28
0.26
0.24
0.22
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
-0.02
13.603 min.
9
9.5
10
10.5
11
11.5
12
12.5
13
13.5
14
14.5
15
15.5
16
16.5
17
17.5
Acquisition Time (min)



Def
M-6
07-06-15

PM 7/6/15

CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T704_003.d

	Date (s) of Analysis From:03/12/15 To:07/04/15 Time (s) of Analysis From:17:52 To:8:22				Date of Analysis: 07/04/15 Time of Analysis: 8:59 Standard Id: PER_CCV (Standard) 0.002 ug/ml			
COMPOUND	RT	RT WINDOW FROM	TO	AVERAGE RELATIVE RESPONSE FACTOR	RT	CALCULATED RELATIVE RESPONSE FACTOR	QNT Y/N	%D
Perchlorate_83	13.79	13.69	13.89	1.270255	13.40	1.194355	N	6.0
Perchlorate_85	13.70	13.60	13.80	0.391605	13.41	0.363628	N	7.1

FILE ID : TQCK0403.RFB

Data File ID: T704_003.d

Date Injected : 07/04/15

Time Injected : 8:59

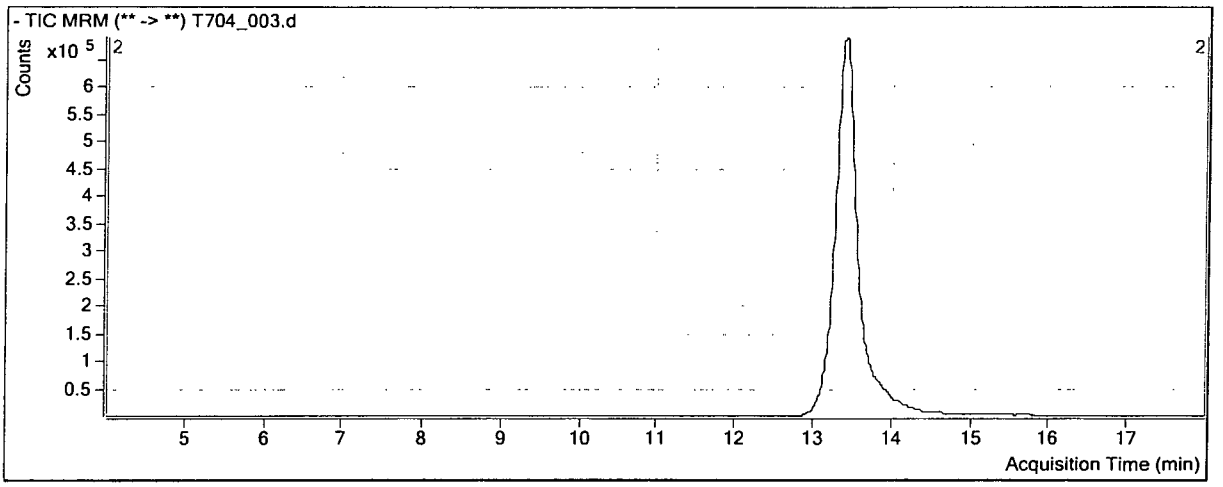
Sample ID : PER_CCV 0.002 ug/ml 06/27/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.395	8689681	PER_IS_89
13.402	4151427	Perchlorate_83
13.409	1263923	Perchlorate_85

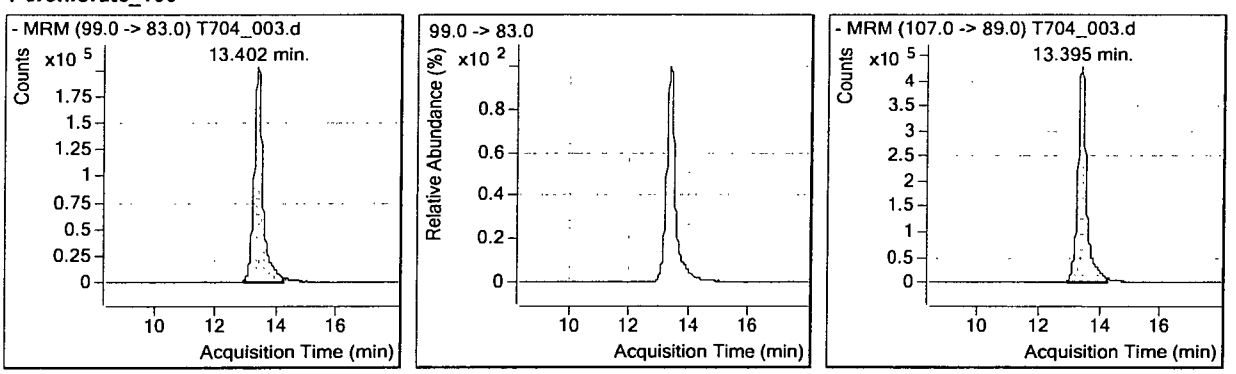
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150704\QuantResults\150704_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T704_003.d	**Sample Name**	PER_CCV 0.002 ug/ml 06/27/15
Sample Type	Sample	**Acq_Date**	07/04/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	8:59
ClientID	NA	**Inj Vol**	20

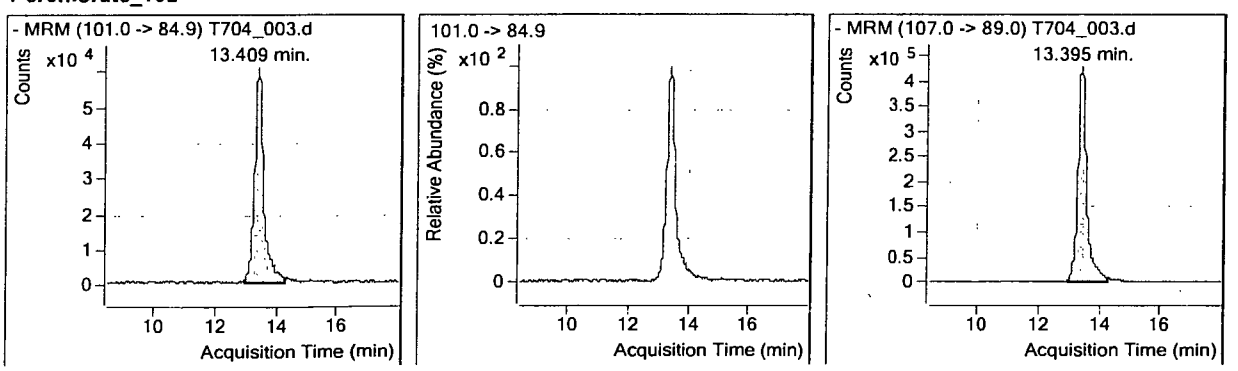


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.402	4151427	8689681
Perchlorate_102	PER_IS_108	13.409	1263923	8689681

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T704_014.d

	Date (s) of Analysis From:03/12/15 To:07/04/15 Time (s) of Analysis From:17:52 To:11:47				Date of Analysis: 07/04/15 Time of Analysis: 12:24 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	13.20	1.271637	N	0.1
Perchlorate_85	13.70	13.60	13.80	0.391605	13.18	0.456264	N	16.5

FILE ID : TQCK0414.RFB

Data File ID: T704_014.d

Date Injected : 07/04/15

Time Injected : 12:24

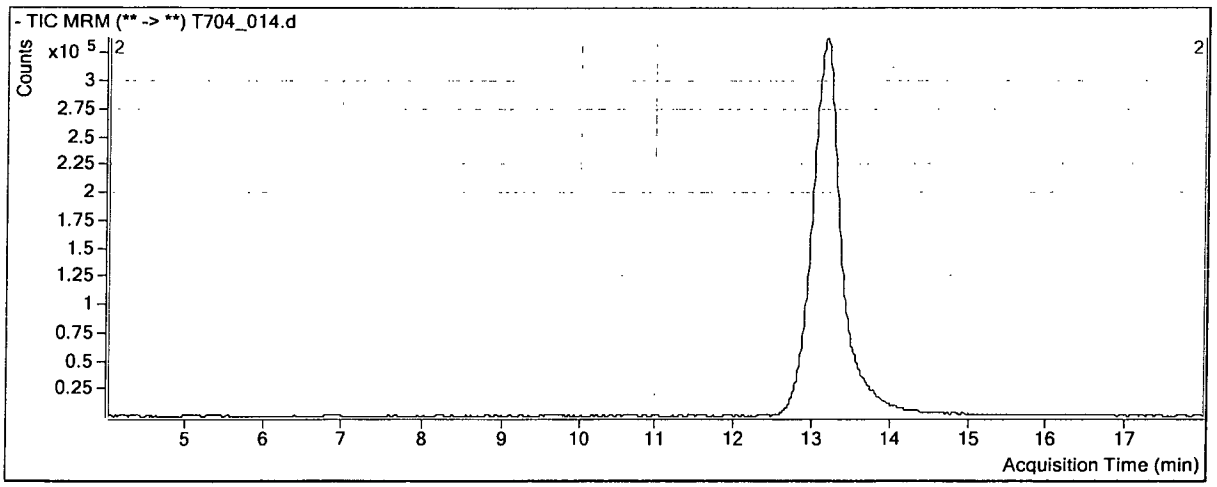
Sample ID : PER_CCV 0.0004 ug/ml 06/27/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.171	7752751	PER_IS_89
13.198	788695	Perchlorate_83
13.185	282984	Perchlorate_85

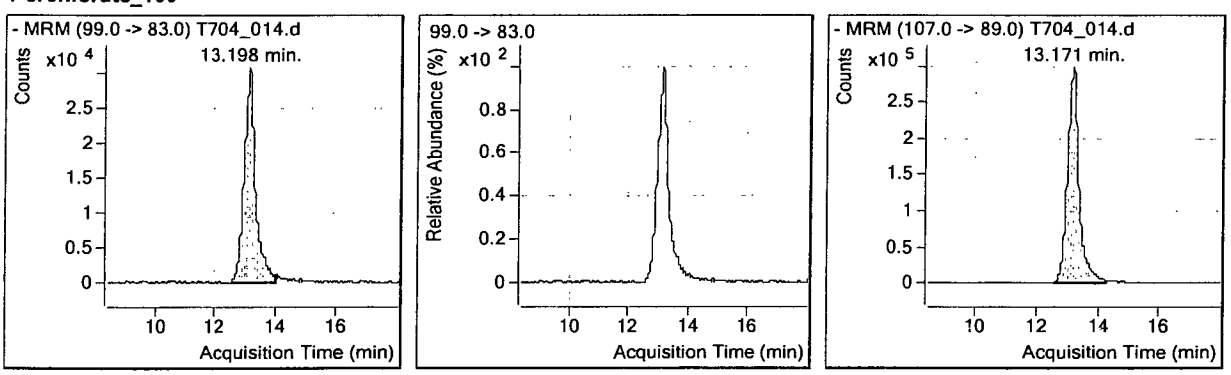
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150704\QuantResults\150704_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T704_014.d	**Sample Name**	PER_CCV 0.0004 ug/ml 06/27/15
Sample Type	Sample	**Acq_Date**	07/04/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	12:24
ClientID	NA	**Inj Vol**	20

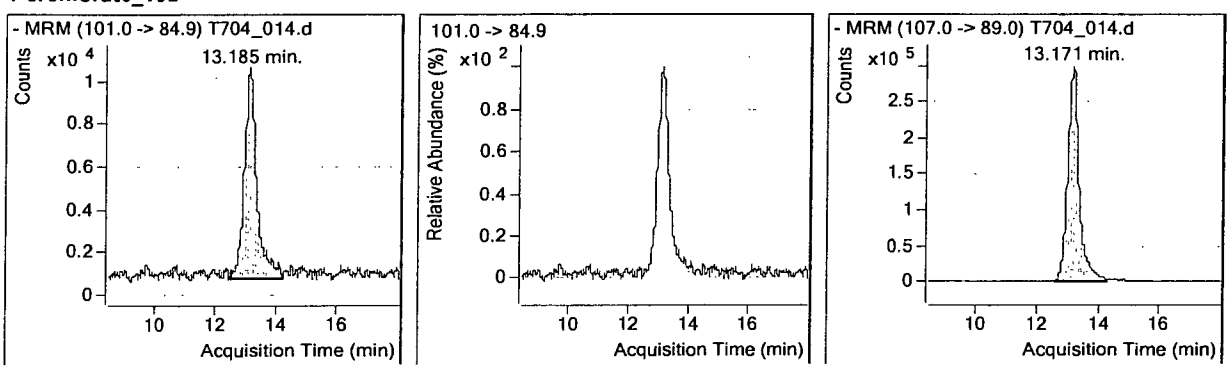


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.198	788695	7752751
Perchlorate_102	PER_IS_108	13.185	282984	7752751

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T704_015.d

	Date (s) of Analysis From:03/12/15 To:07/04/15 Time (s) of Analysis From:17:52 To:11:47				Date of Analysis: 07/04/15 Time of Analysis: 12:43 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	13.46	1.180491	N	7.1
Perchlorate_85	13.70	13.60	13.80	0.391605	13.47	0.350499	N	10.5

FILE ID : TQCK0415.RFB

Data File ID: T704_015.d

Date Injected : 07/04/15

Time Injected : 12:43

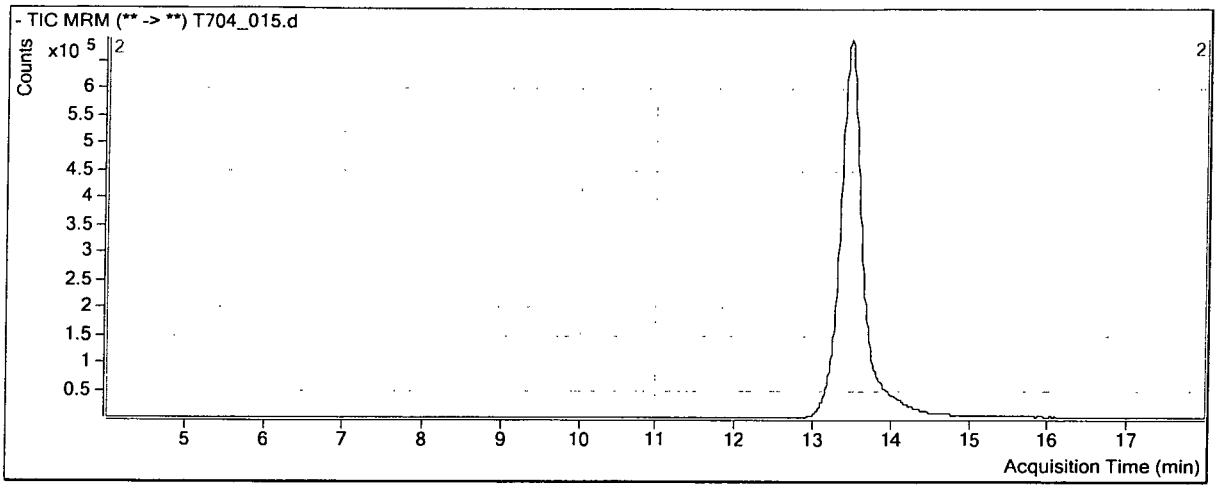
Sample ID : PER_CCV 0.002 ug/ml 06/27/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.457	8636273	PER_IS_89
13.463	4078016	Perchlorate_83
13.400	1210802	Perchlorate_85

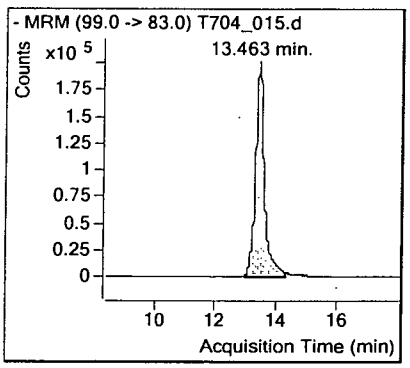
Quantitative Analysis Sample Report

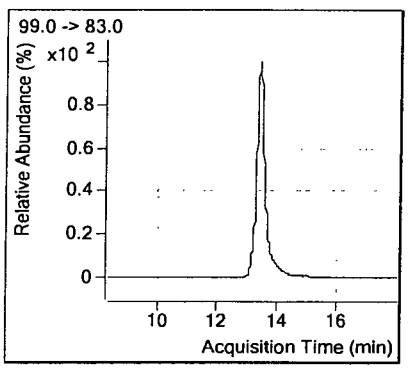
Batch Data Path	D:\MassHunter\Data\150704\QuantResults\150704_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T704_015.d	**Sample Name**	PER_CCV 0.002 ug/ml 06/27/15
Sample Type	Sample	**Acq_Date**	07/04/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	12:43
ClientID	NA	**Inj Vol**	20

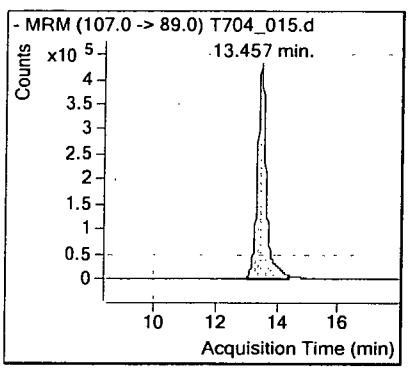


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.463	4078016	8636273
Perchlorate_102	PER_IS_108	13.470	1210802	8636273

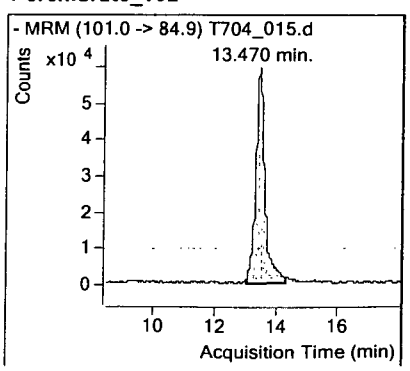
Perchlorate_100

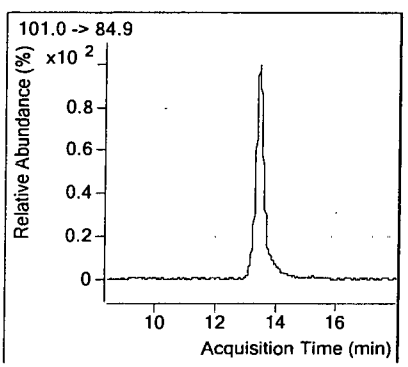


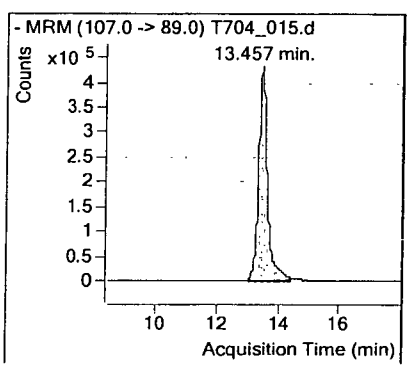




Perchlorate_102







CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T704_028.d

	Date (s) of Analysis From:03/12/15 To:07/04/15 Time (s) of Analysis From:17:52 To:16:16				Date of Analysis: 07/04/15 Time of Analysis: 16:54 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	12.87	1.273931	N	0.3
Perchlorate_85	13.70	13.60	13.80	0.391605	12.84	0.417662	N	6.7

FILE ID : TQCK0428.RFB

Data File ID: T704_028.d

Date Injected : 07/04/15

Time Injected : 16:54

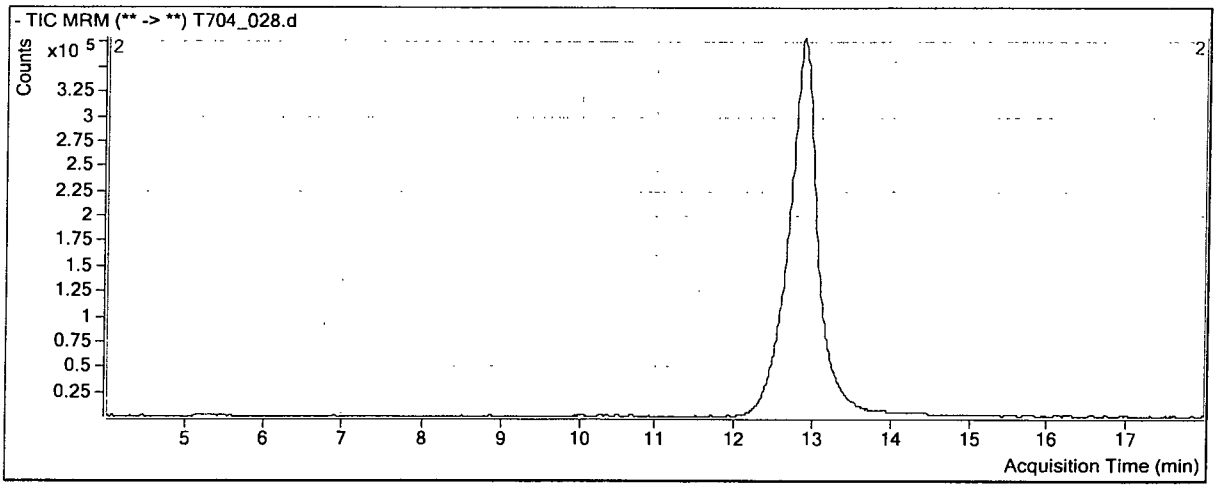
Sample ID : PER_CCV 0.0004 ug/ml 06/27/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
12.866	8693534	PER_IS_89
12.872	885997	Perchlorate_83
12.838	290477	Perchlorate_85

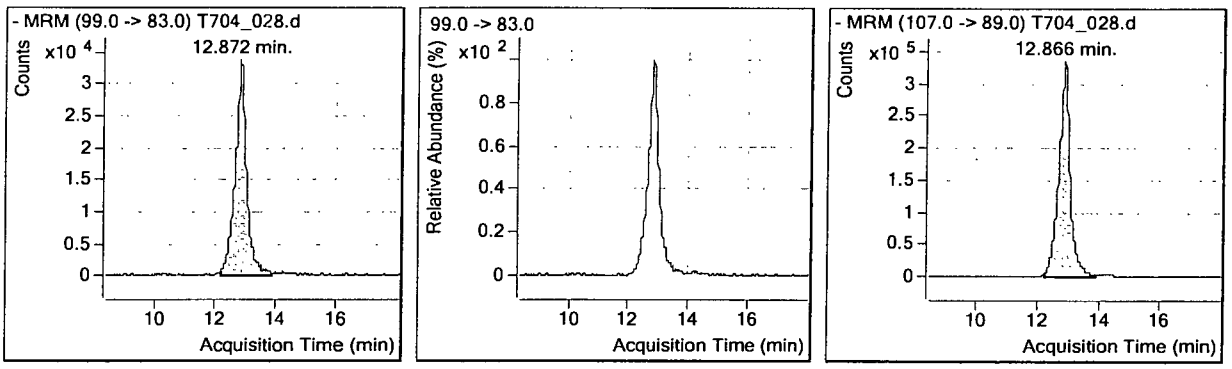
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150704\QuantResults\150704_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T704_028.d	**Sample Name**	PER_CCV 0.0004 ug/ml 06/27/15
Sample Type	Sample	**Acq_Date**	07/04/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	16:54
ClientID	NA	**Inj Vol**	20

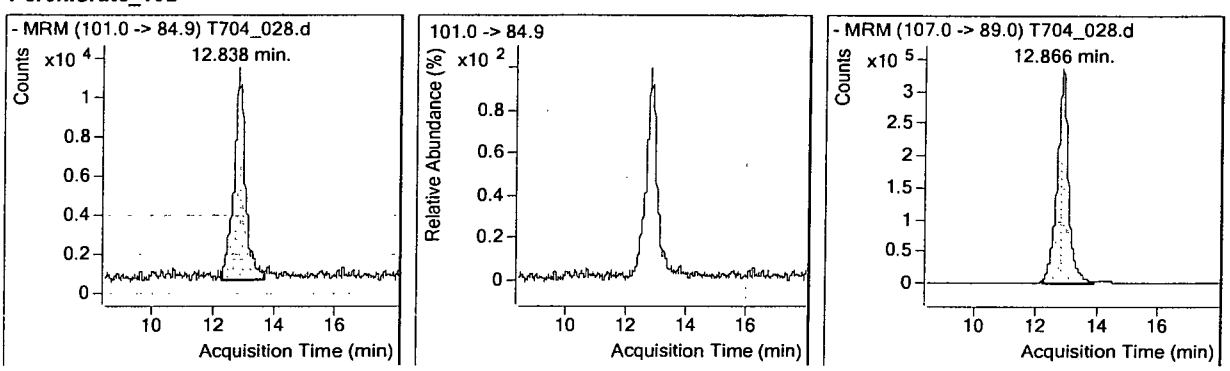


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	12.872	885997	8693534
Perchlorate_102	PER_IS_108	12.838	290477	8693534

Perchlorate_100



Perchlorate_102



CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T704_029.d

	Date (s) of Analysis From:03/12/15 To:07/04/15 Time (s) of Analysis From:17:52 To:16:16				Date of Analysis: 07/04/15 Time of Analysis: 17:12 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	13.29	1.186035	N	6.6
Perchlorate_85	13.70	13.60	13.80	0.391605	13.30	0.355402	N	9.2

FILE ID : TQCK0429.RFB

Data File ID: T704_029.d

Date Injected : 07/04/15

Time Injected : 17:12

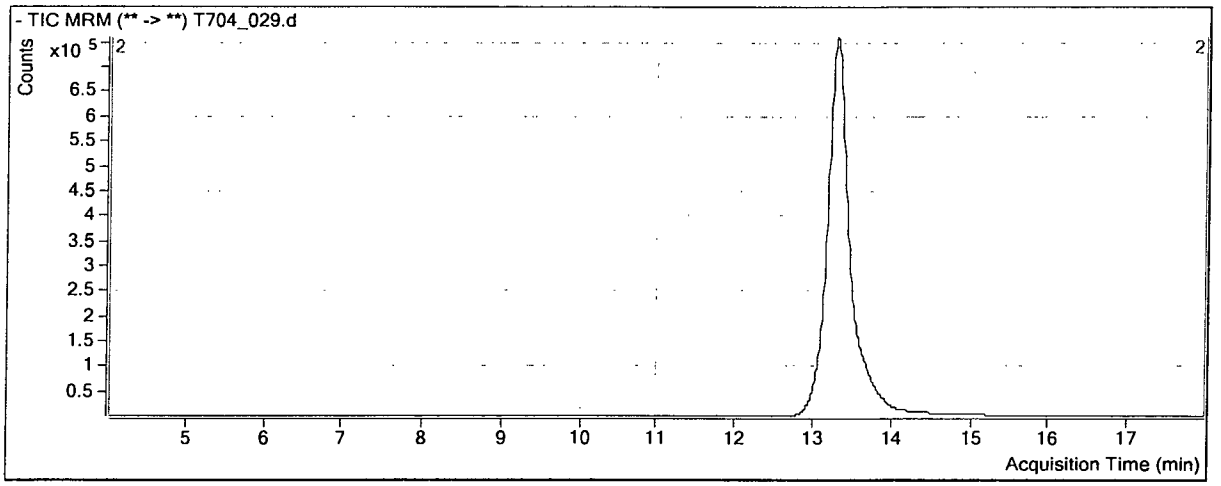
Sample ID : PER_CCV 0.002 ug/ml 06/27/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.283	9490869	PER_IS_89
13.200	4502602	Perchlorate_83
13.297	1349231	Perchlorate_85

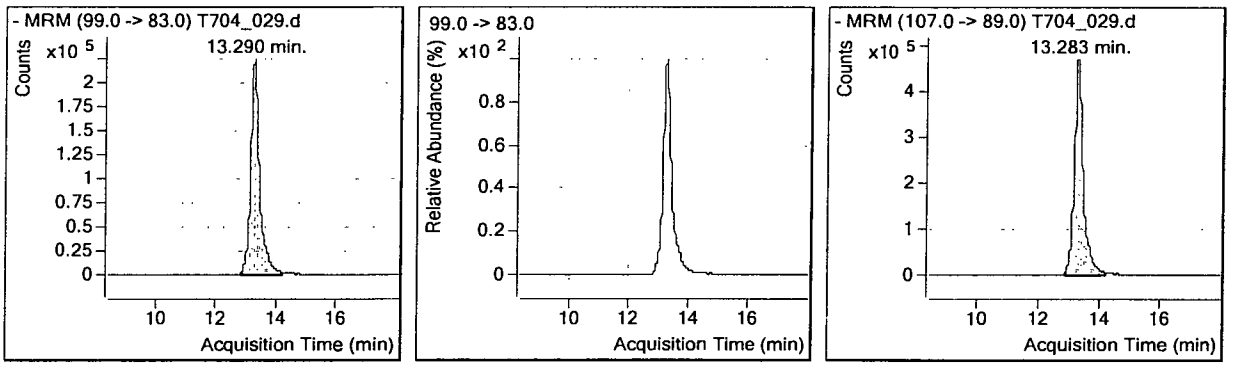
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150704\QuantResults\150704_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T704_029.d	**Sample Name**	PER_CCV 0.002 ug/ml 06/27/15
Sample Type	Sample	**Acq_Date**	07/04/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	17:12
ClientID	NA	**Inj Vol**	20

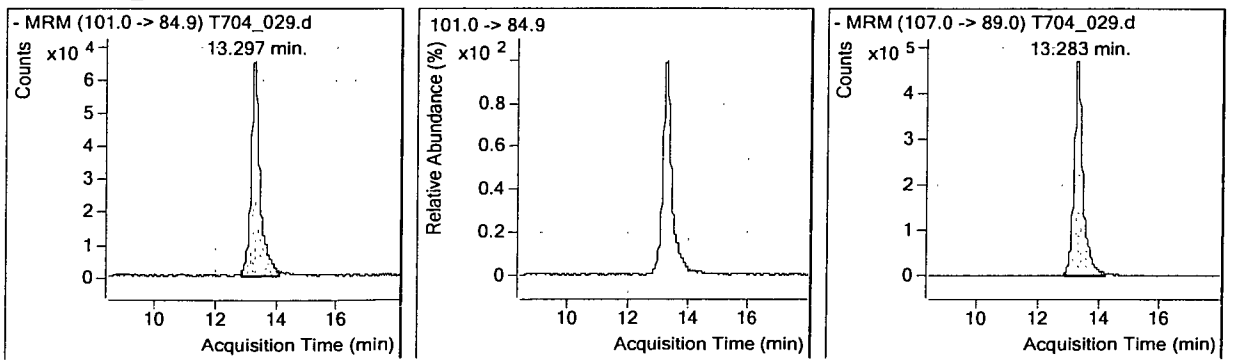


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.290	4502602	9490869
Perchlorate_102	PER_IS_108	13.297	1349231	9490869

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_002.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: 13:25 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	12.93	1.303637	N	2.6
Perchlorate_85	13.70	13.60	13.80	0.391605	12.86	0.427456	N	9.2

FILE ID : TQCK0502.RFB

Data File ID: T705_002.d

Date Injected : 07/05/15

Time Injected : 13:25

Sample ID : PER_CCV 0.0004 ug/ml 06/27/15

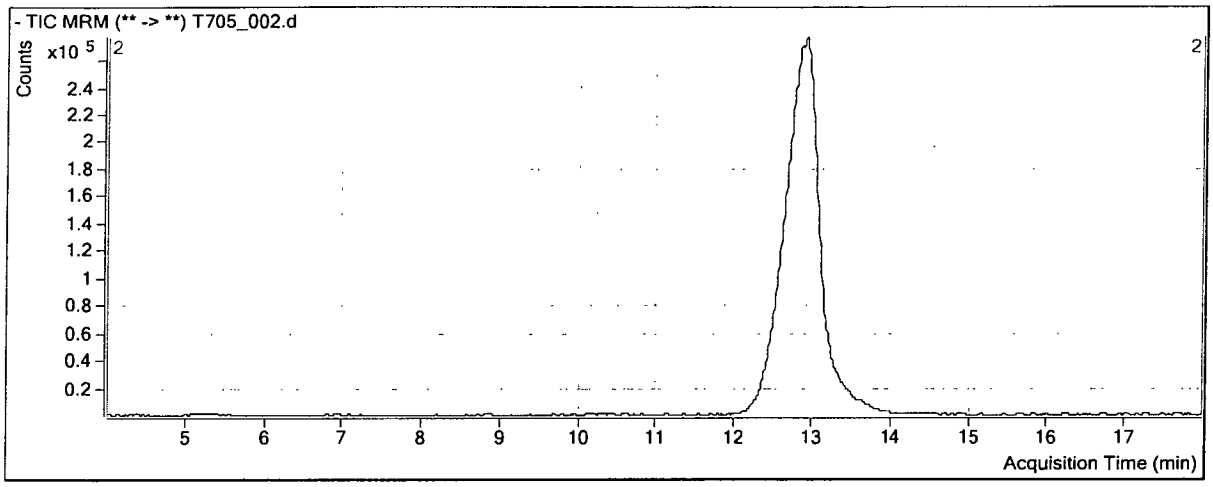
Client ID : NA

Retention Time		Area Count Response	Compound_ID Product Ion
12.927		7610688	PER_IS_89
12.934		793726	Perchlorate_83
12.859	*	260259	Perchlorate_85

* MANUAL INTEGRAION

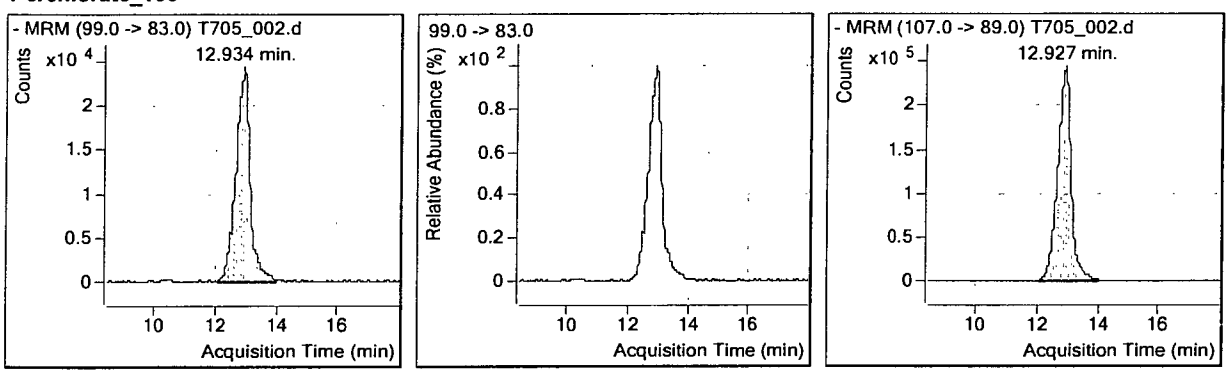
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150705\QuantResults\150705_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T705_002.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**	13:25
ClientID	NA	**Inj Vol**	20

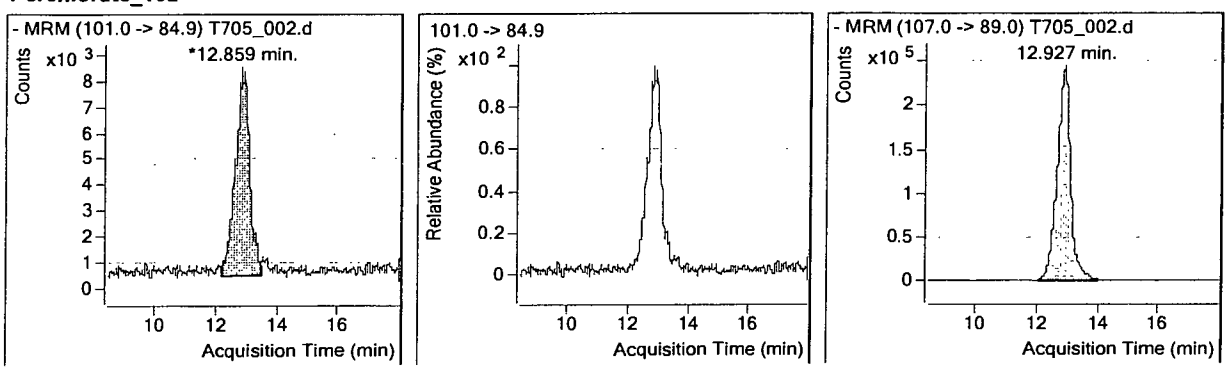


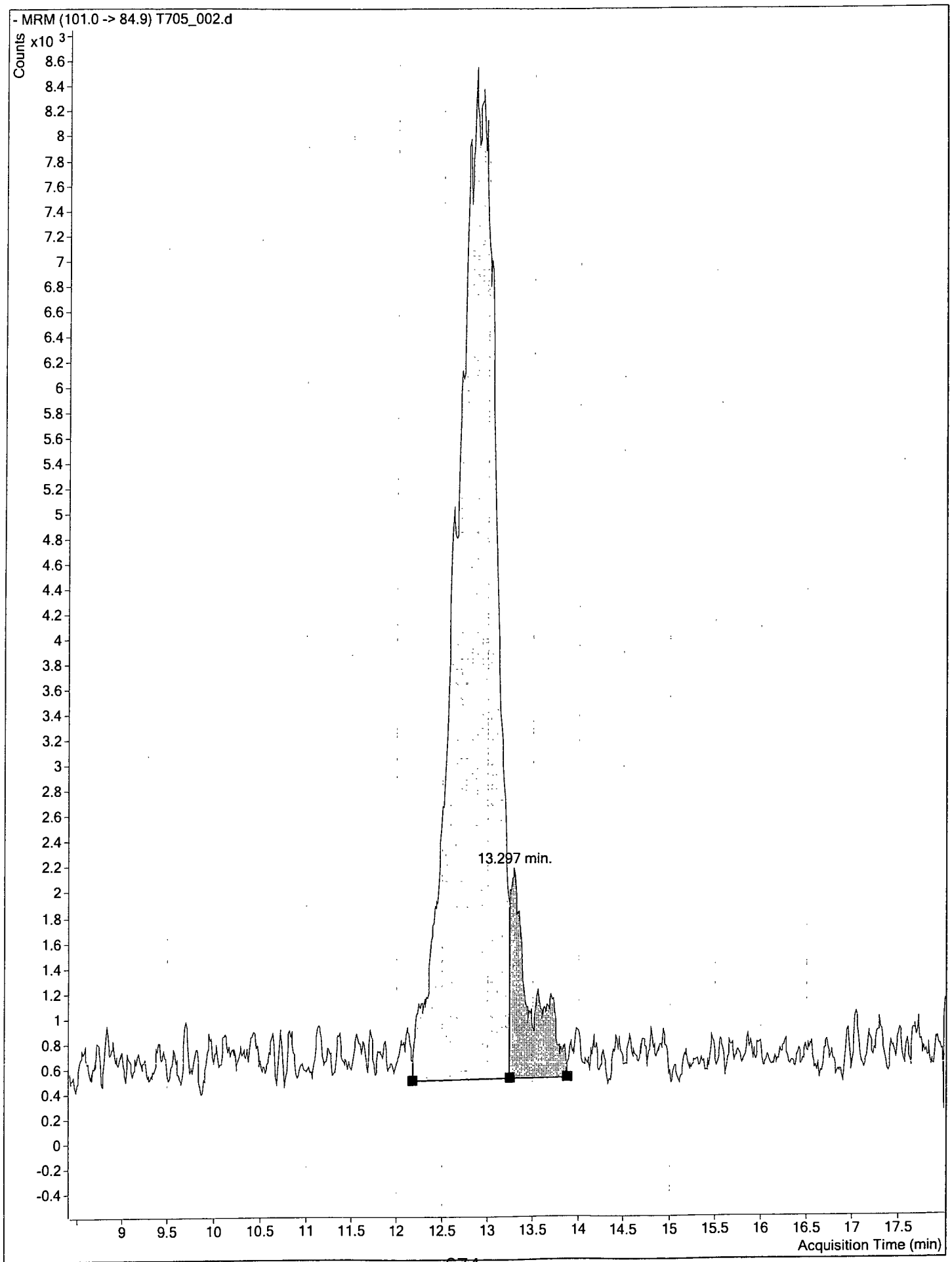
Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108		12.934	793726	7610688	
Perchlorate_102	PER_IS_108	*	12.859	260259	7610688	* MANUAL INT

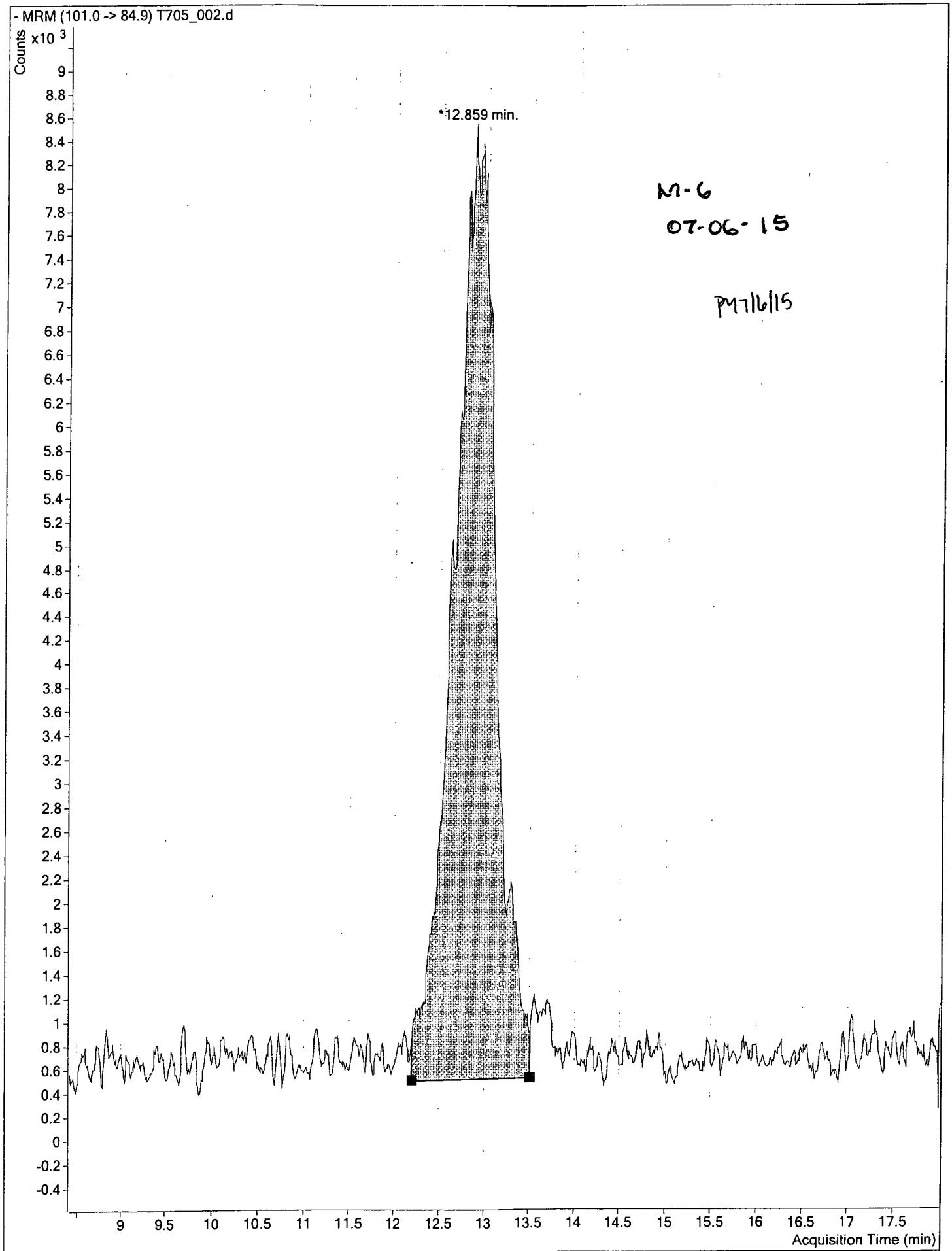
Perchlorate_100



Perchlorate_102




- MRM (101.0 -> 84.9) T705_002.d
Counts
x10 3
8.6
8.4
8.2
8
7.8
7.6
7.4
7.2
7
6.8
6.6
6.4
6.2
6
5.8
5.6
5.4
5.2
5
4.8
4.6
4.4
4.2
4
3.8
3.6
3.4
3.2
3
2.8
2.6
2.4
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
-0.4
13.297 min.
9
9.5
10
10.5
11
11.5
12
12.5
13
13.5
14
14.5
15
15.5
16
16.5
17
17.5
Acquisition Time (min)


- MRM (101.0 -> 84.9) T705_002.d
Counts x10 3
*12.859 min.
M-6
07-06-15
PM7/16/15
Acquisition Time (min)

CONTINUING CALIBRATION CHECK SUMMARY FORM

Lab Name: APPL Inc.

Detector ID: Agilent 6460 Triple Quad LC/MS DATA FILE ID: T705_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

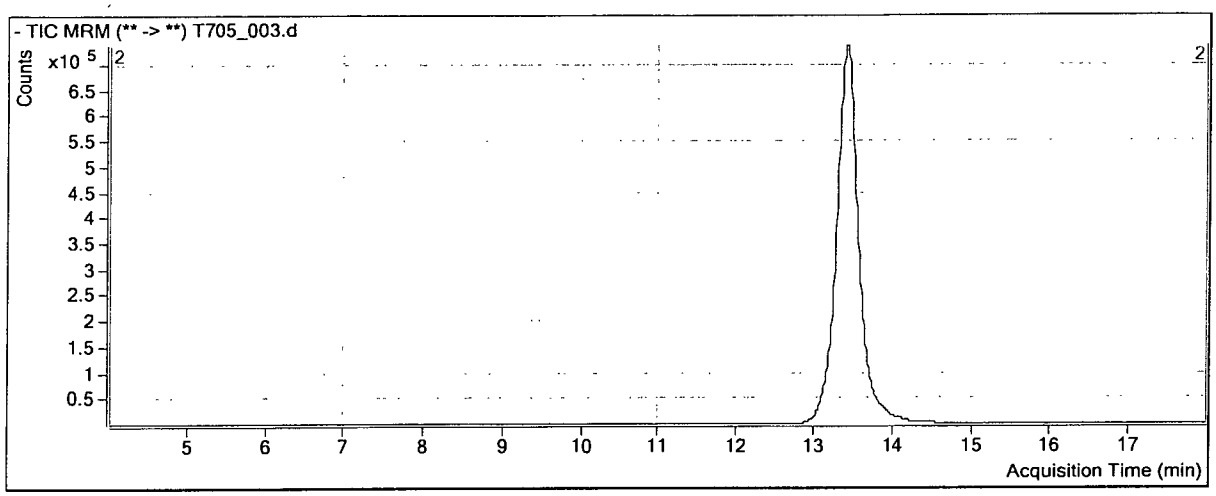
Sample ID : PER_CCV 0.002 ug/ml 06/27/15

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

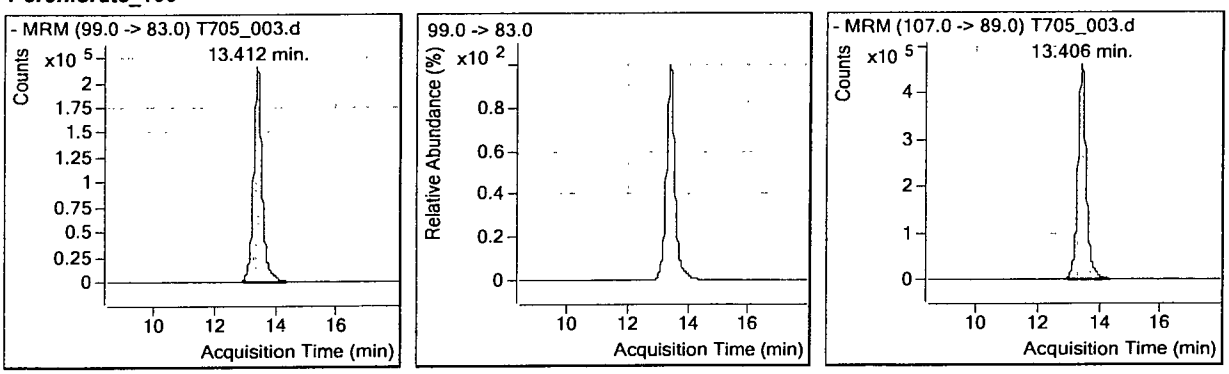
Quantitative Analysis Sample Report

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

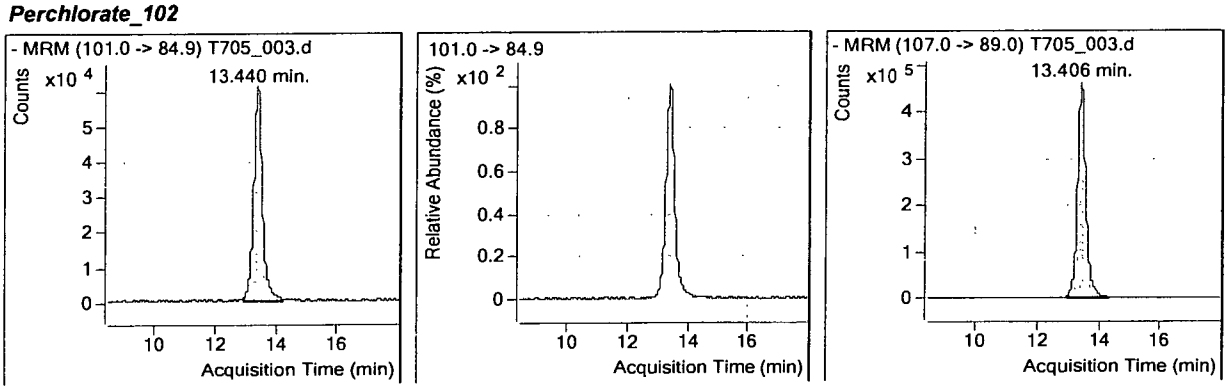


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.412	4169858	8885934
Perchlorate_102	PER_IS_108	13.440	1250542	8885934

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_015.d

	Date (s) of Analysis From:03/12/15 To:07/05/15 Time (s) of Analysis From:17:52 To:16:51				Date of Analysis: 07/05/15 Time of Analysis: 17:28 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	12.77	1.363390	N	7.3
Perchlorate_85	13.70	13.60	13.80	0.391605	12.74	0.449892	N	14.9

FILE ID : TQCK0515.RFB

Data File ID: T705_015.d

Date Injected : 07/05/15

Time Injected : 17:28

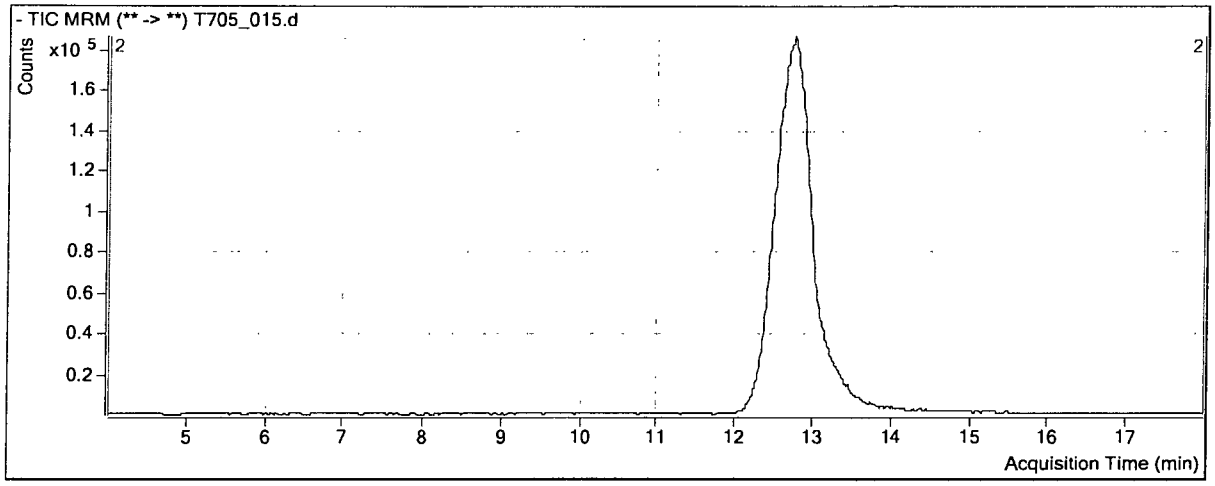
Sample ID : PER_CCV 0.0004 ug/ml 06/27/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
12.764	5539776	PER_IS_89
12.700	604230	Perchlorate_83
12.737	199384	Perchlorate_85

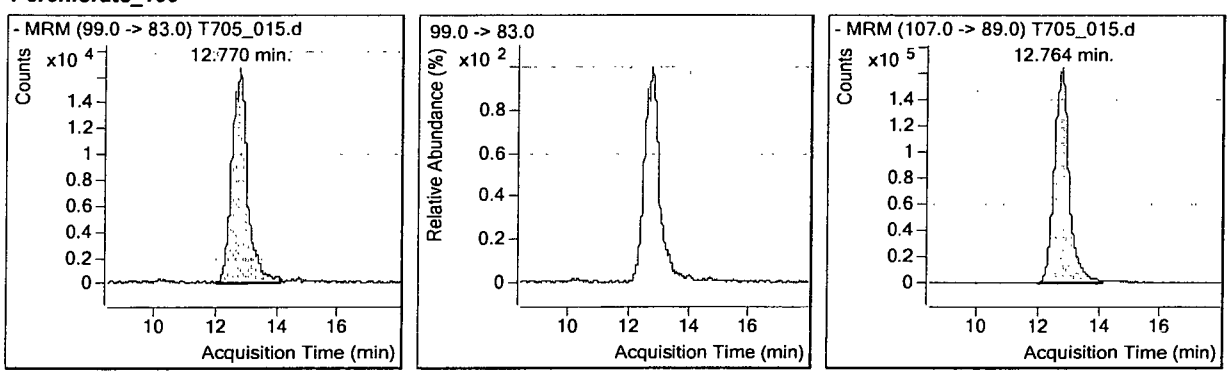
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150705\QuantResults\150705_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T705_015.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**	17:28
ClientID	NA	**Inj Vol**	20

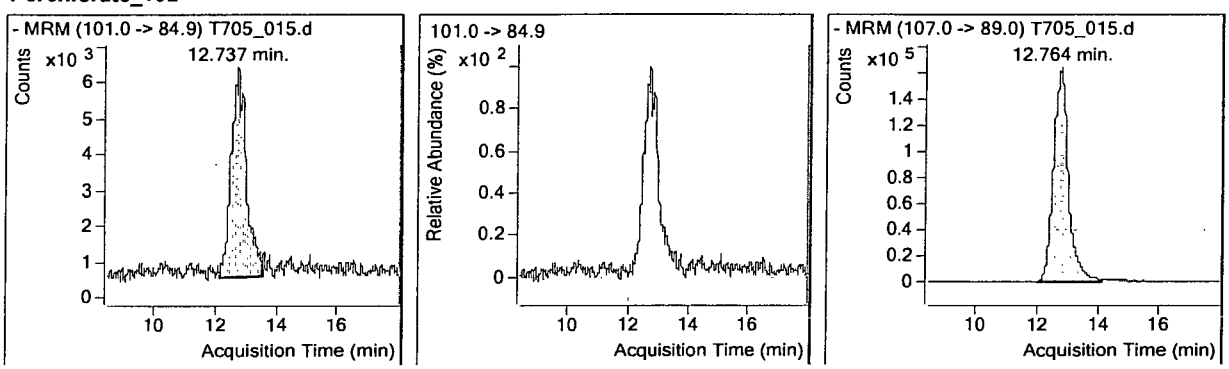


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	12.770	604230	5539776
Perchlorate_102	PER_IS_108	12.737	199384	5539776

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_016.d

	Date (s) of Analysis From:03/12/15 To:07/05/15 Time (s) of Analysis From:17:52 To:16:51				Date of Analysis: 07/05/15 Time of Analysis: 17:46 Standard Id: PER_CCV (Standard) 0.002 ug/ml			
COMPOUND	RT	RT WINDOW FROM	TO	AVERAGE RELATIVE RESPONSE FACTOR	RT	CALCULATED RELATIVE RESPONSE FACTOR	QNT Y/N	%D
Perchlorate_83	13.79	13.69	13.89	1.270255	13.30	1.198515	N	5.6
Perchlorate_85	13.70	13.60	13.80	0.391605	13.32	0.355453	N	9.2

FILE ID : TQCK0516.RFB

Data File ID: T705_016.d

Date Injected : 07/05/15

Time Injected : 17:46

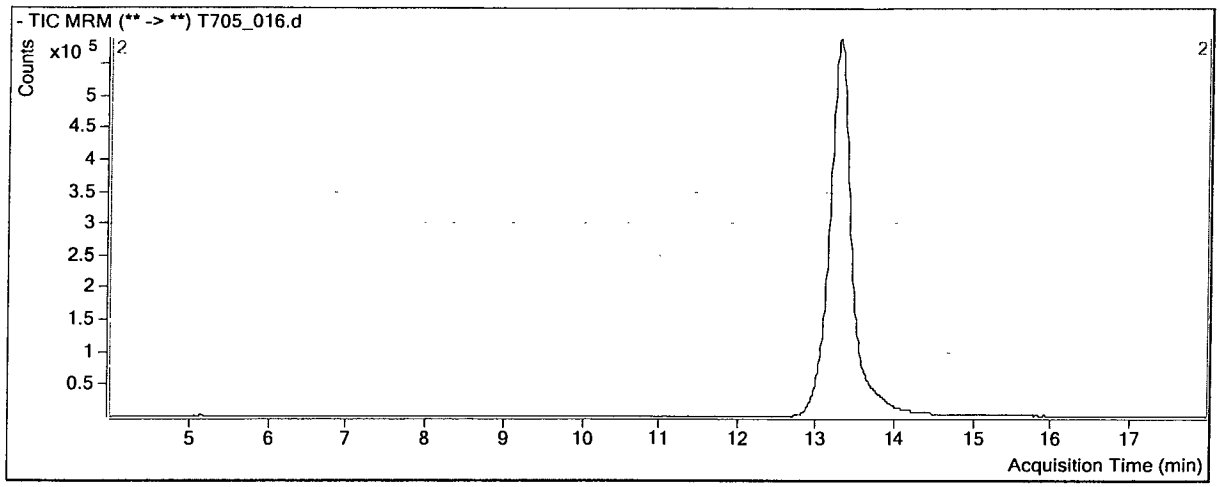
Sample ID : PER_CCV 0.002 ug/ml 06/27/15

Client ID : NA

Retention Time	Area Count Response	Compound_ID Product Ion
13.304	7213194	PER_IS_89
13.000	3458048	Perchlorate_83
13.317	1025582	Perchlorate_85

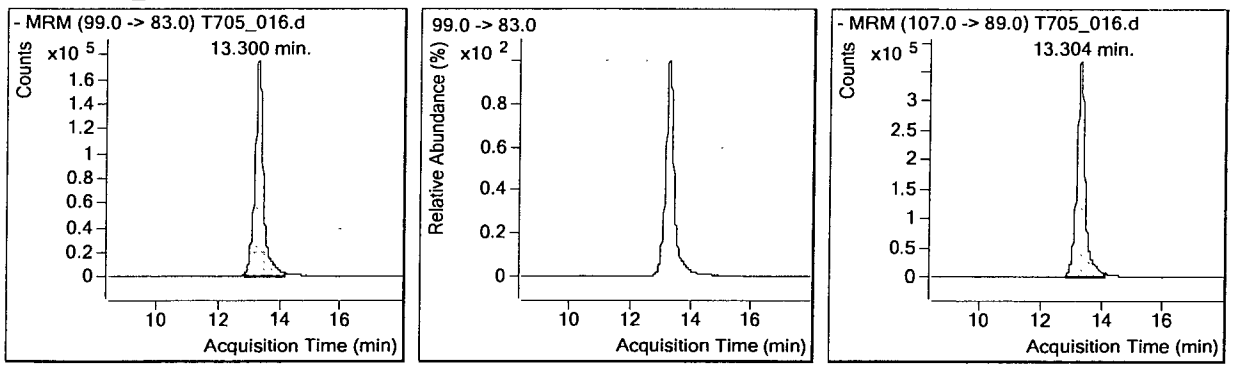
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150705\QuantResults\150705_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T705_016.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**	17:46
ClientID	NA	**Inj Vol**	20

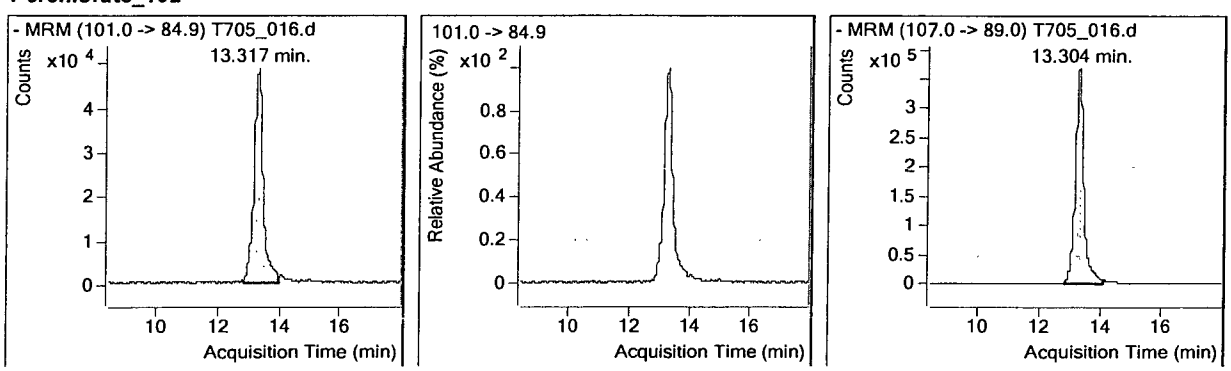


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.300	3458048	7213194
Perchlorate_102	PER_IS_108	13.317	1025582	7213194

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

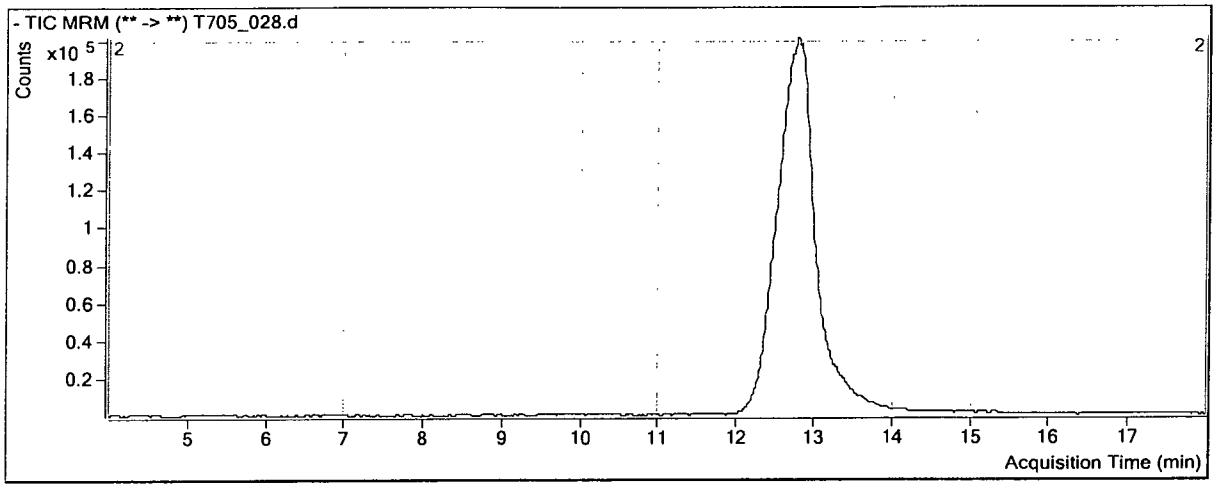
Client ID : NA

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

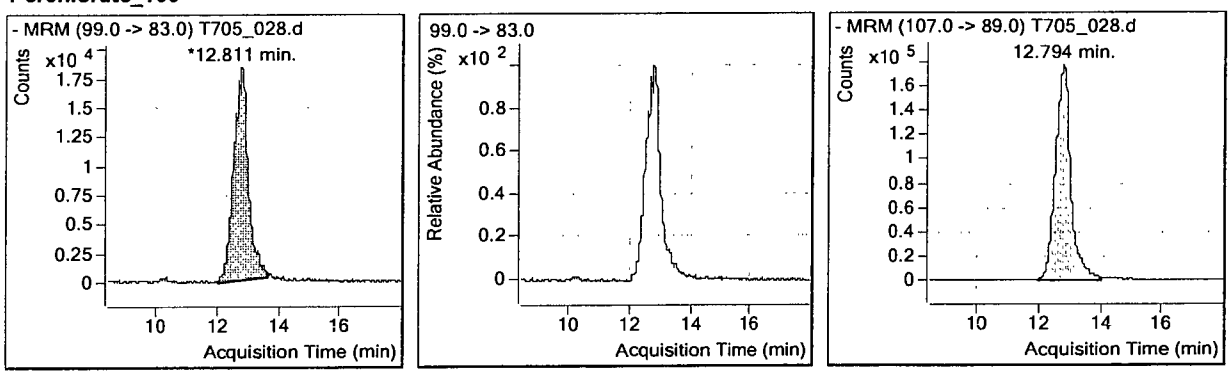
Quantitative Analysis Sample Report

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

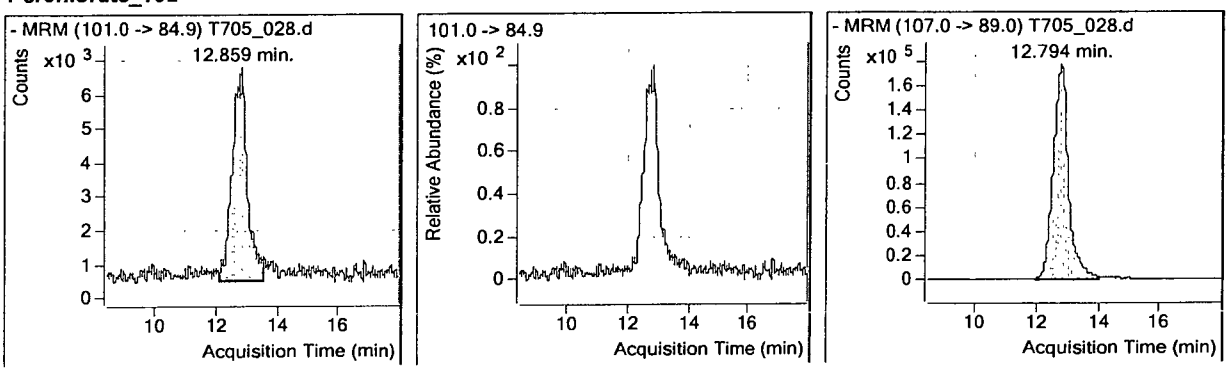


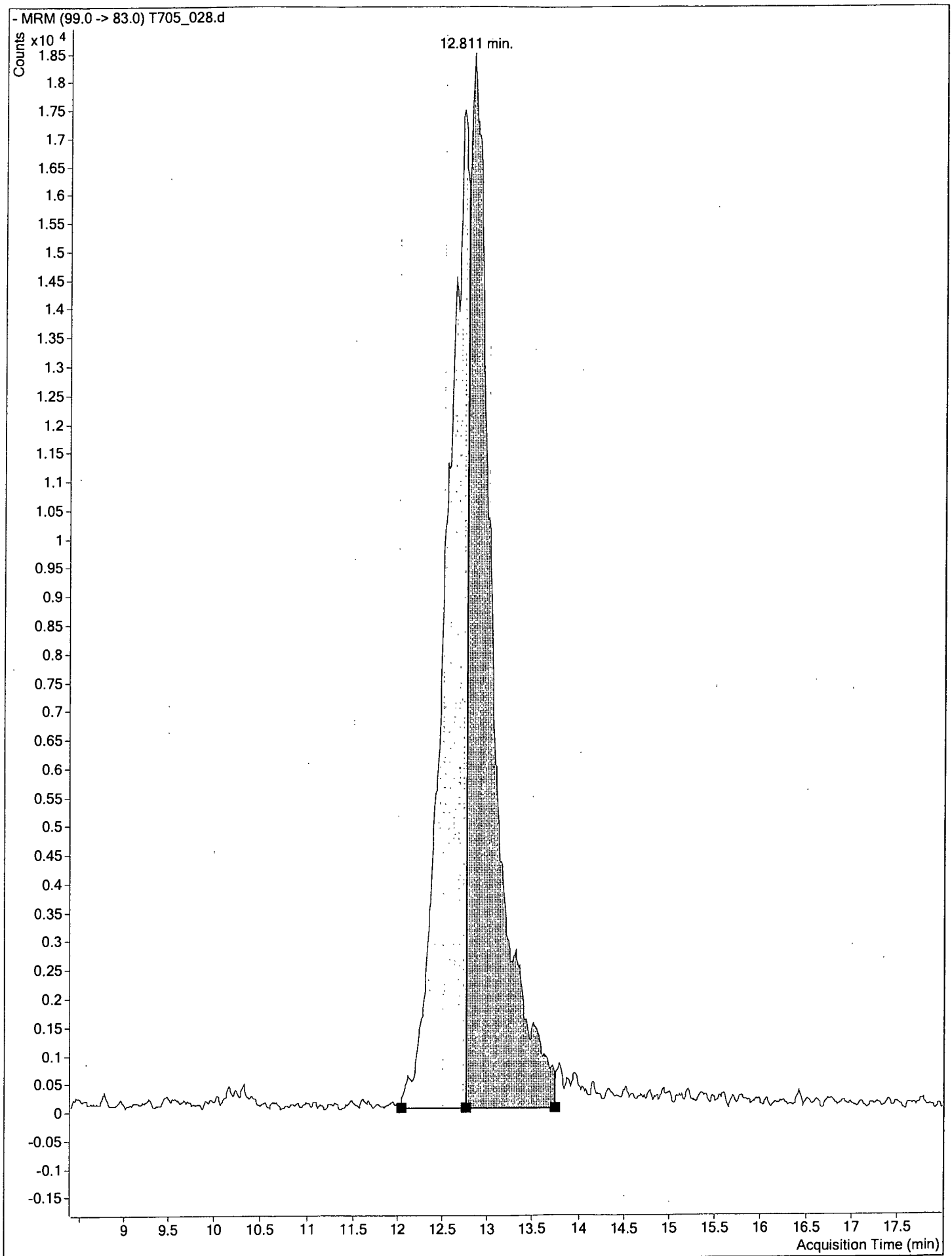
Compound	ISTD		RT	Resp	ISTD Resp	
Perchlorate_100	PER_IS_108	*	12.811	610878	6048909	* MANUAL INT
Perchlorate_102	PER_IS_108		12.859	215112	6048909	

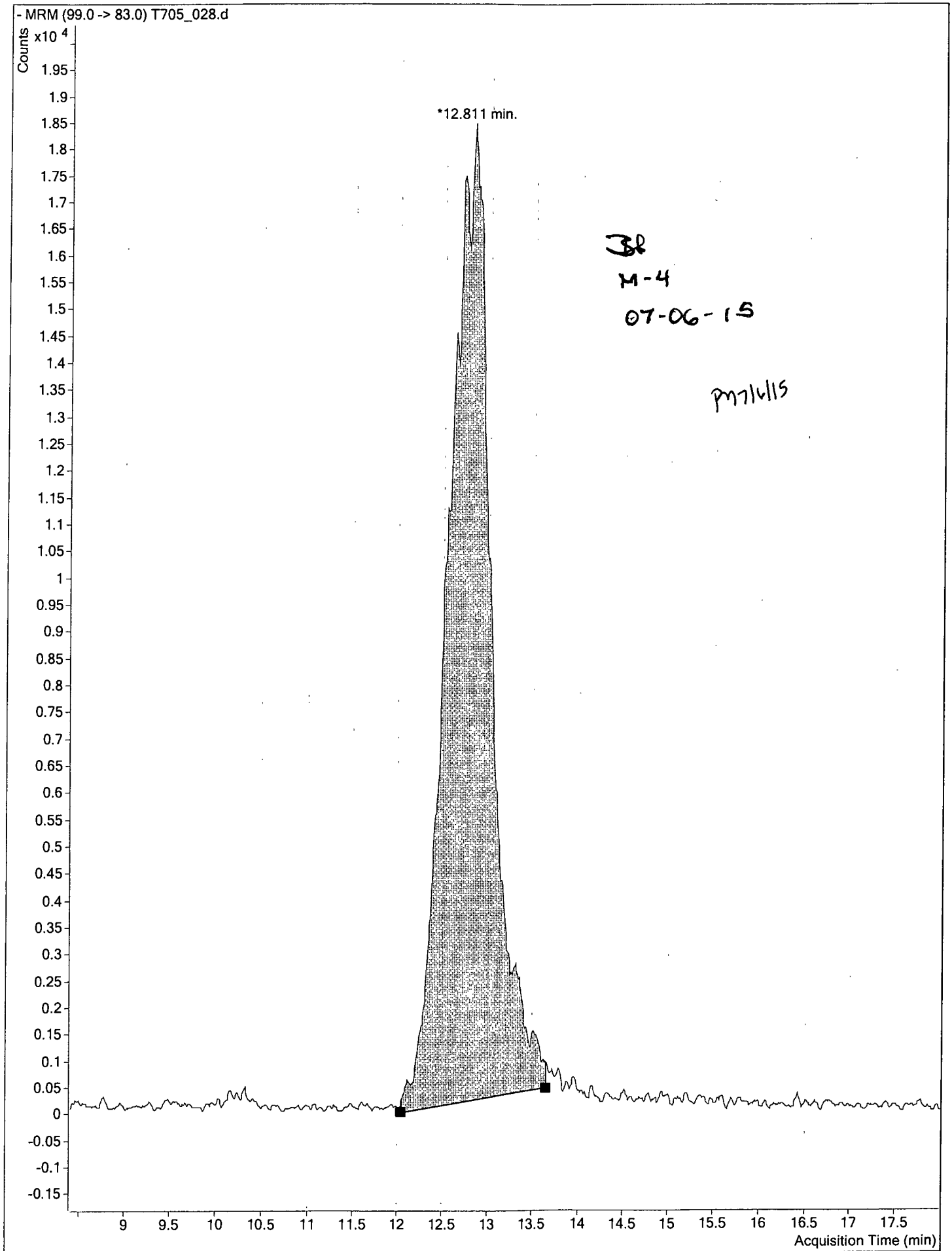
Perchlorate_100



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.
Acquisition Time (min)
3R
M-4
07-06-15
pm7/6/15

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

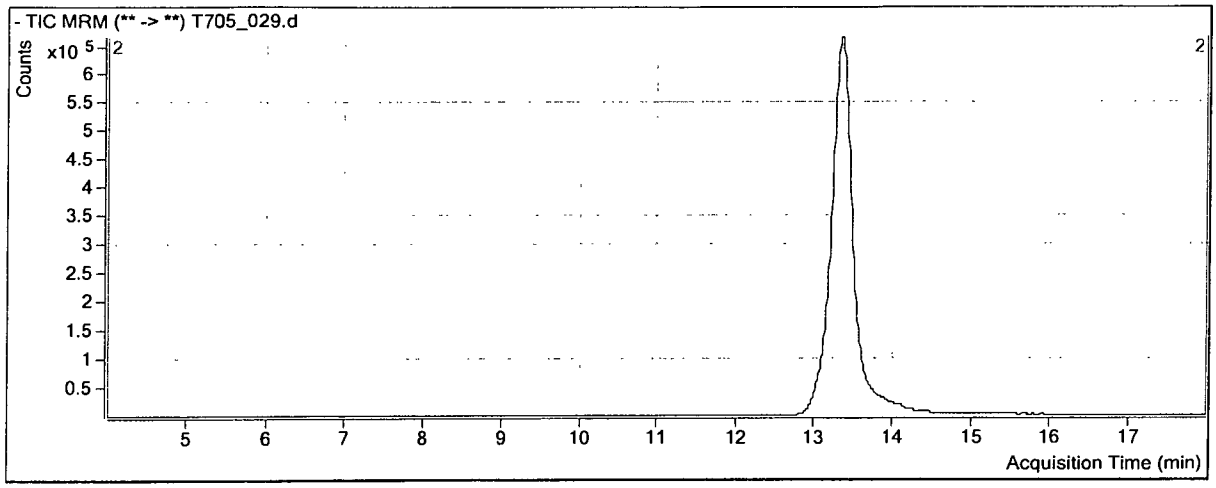
Sample ID : PER_CCV 0.002 ug/ml 06/27/15

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

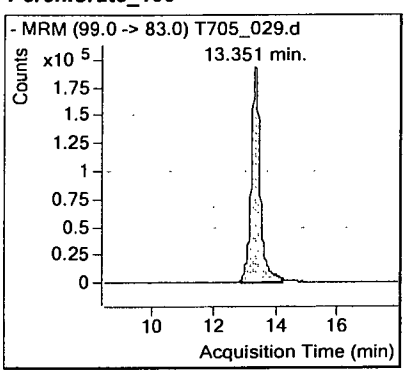
Quantitative Analysis Sample Report

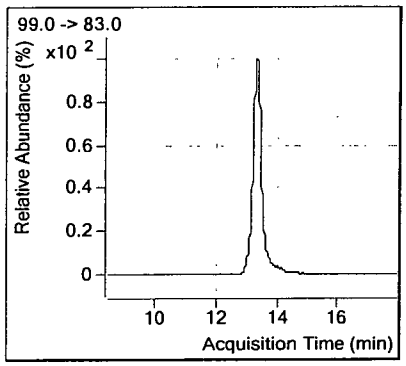
Batch Data Path	D:\MassHunter\Data\150705\QuantResults\150705_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T705_029.d	**Sample Name**	PER_CCV 0.002 ug/ml 06/27/15
Sample Type	Sample	**Acq_Date**	07/05/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	21:49
ClientID	NA	**Inj Vol**	20

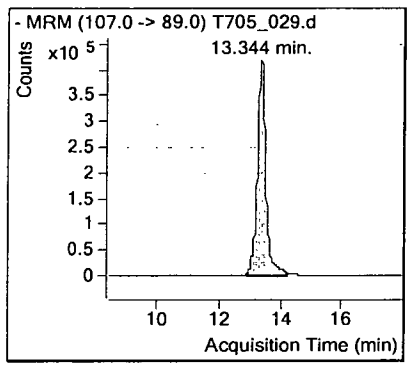


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.351	3859193	8149373
Perchlorate_102	PER_IS_108	13.378	1146076	8149373

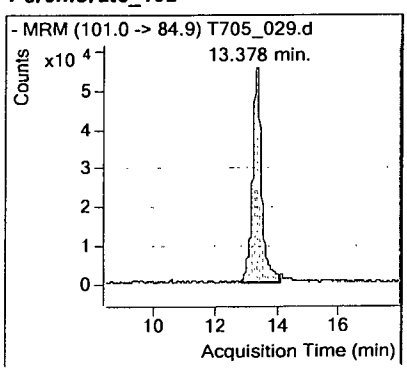
Perchlorate_100

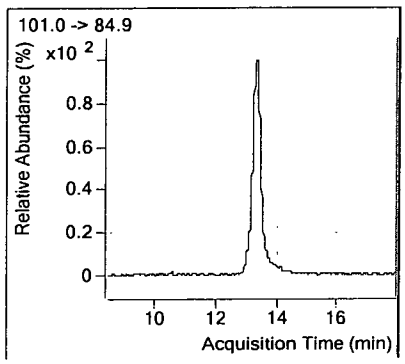


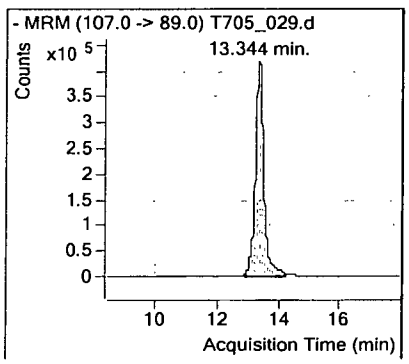




Perchlorate_102







EPA METHOD 6850
Perchlorate
LC/MS

Raw Data

APPL, INC.

Method Blank
Perchlorate

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150623W-17823 - 198538**
Batch ID: #6850-150623A

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	PERCHLORATE	0.400 U	0.60	0.400	0.200	ug/L	06/23/15	06/27/15

Quant Method: QTLMFL2
Run #: T627_007.d
Instrument: AGIL_6460
Sequence: TQ062715
Initials: RP

GC SC-Blank-REG MDLs
Printed: 07/06/15 8:32:20 AM

Data File ID: T627_007.d

Date Injected : 06/27/15

Time Injected : 19:23

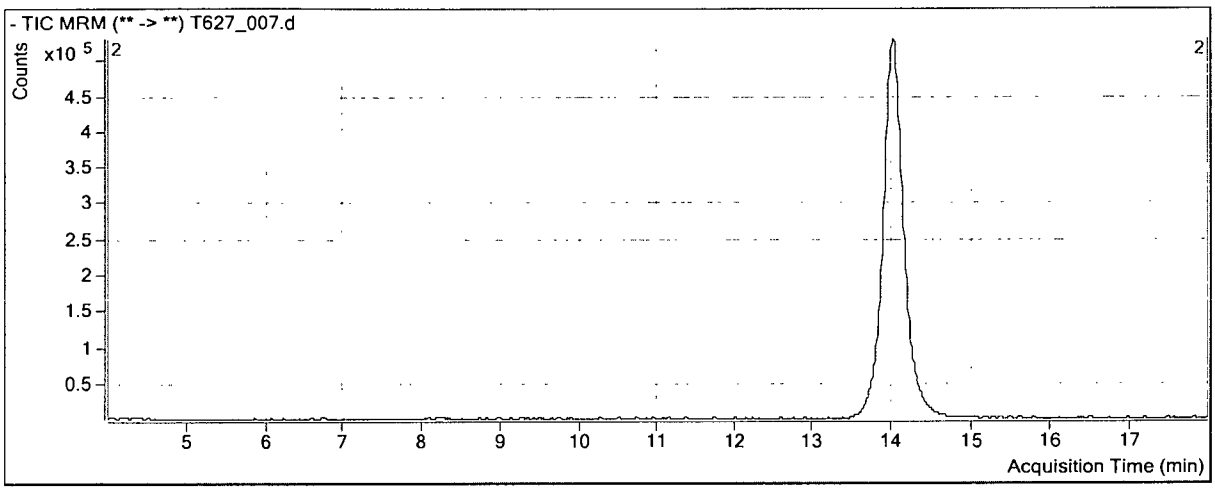
Sample ID : 150623WBLKA 1052.6 DF 06/23/15

Client ID : LAB_CNTL_W_BLKA

Retention Time	Area Count Response	Compound_ID Product Ion				
14.048	9544060	PER_IS_89				
13.963	5562	Perchlorate_83	(5562 * 0.0050) / (1.27 * 9544060.00) *	1052.60 =	0.002415	ppb
13.959	9067	Perchlorate_85	(9067 * 0.0050) / (0.39 * 9544060.00) *	1052.60 =	0.012768	ppb

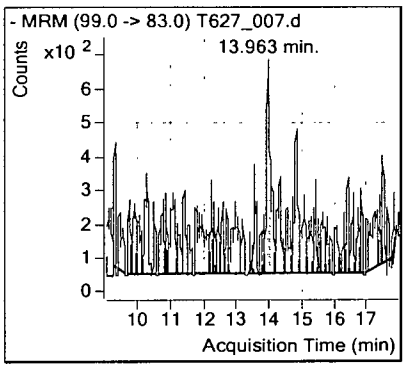
Quantitative Analysis Sample Report

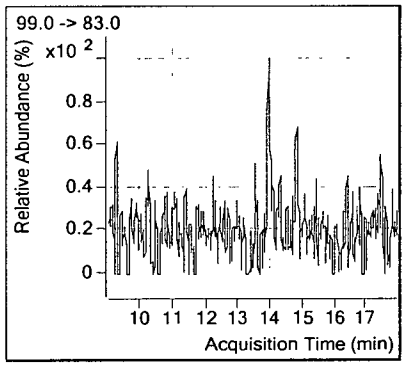
Batch Data Path	D:\MassHunter\Data\150627\QuantResults\150627_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T627_007.d	**Sample Name**	150623WBLKA 1052.6 DF 06/23/15
Sample Type	Sample	**Acq_Date**	06/27/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	19:23
ClientID	LAB_CNTL_W_BLKA	**Inj Vol**	20

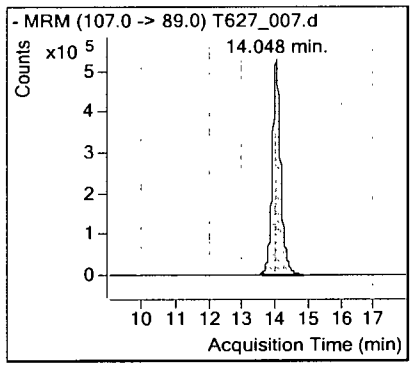


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.963	5562	9544060
Perchlorate_102	PER_IS_108	13.959	9067	9544060

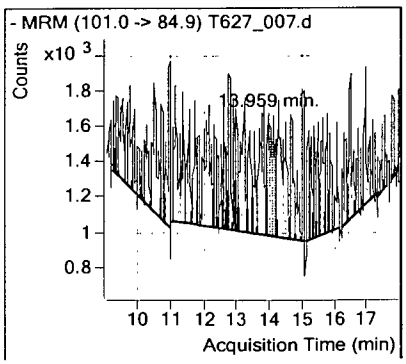
Perchlorate_100

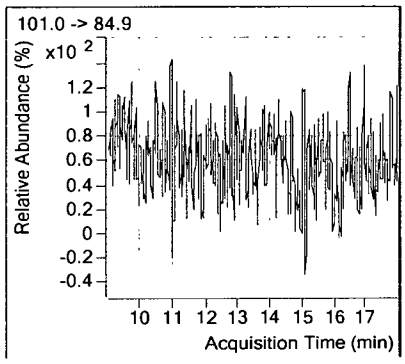


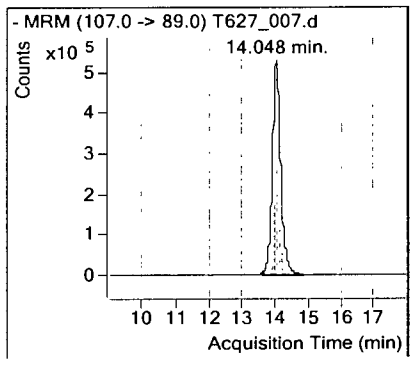




Perchlorate_102







Method Blank
PERCHLORATE EPA 6850 - SOIL

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150624S-17824 - 198610**
Batch ID: #6850SM-150624A

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	06/24/15	07/04/15

Quant Method: QTLMFL2
Run #: T704_019.d
Instrument: AGIL_6460
Sequence: TQ070415
Initials: RP

GC SC-Blank-REG MDLs
Printed: 07/07/15 8:30:30 AM

Data File ID: T704_019.d

Date Injected : 07/04/15

Time Injected : 13:59

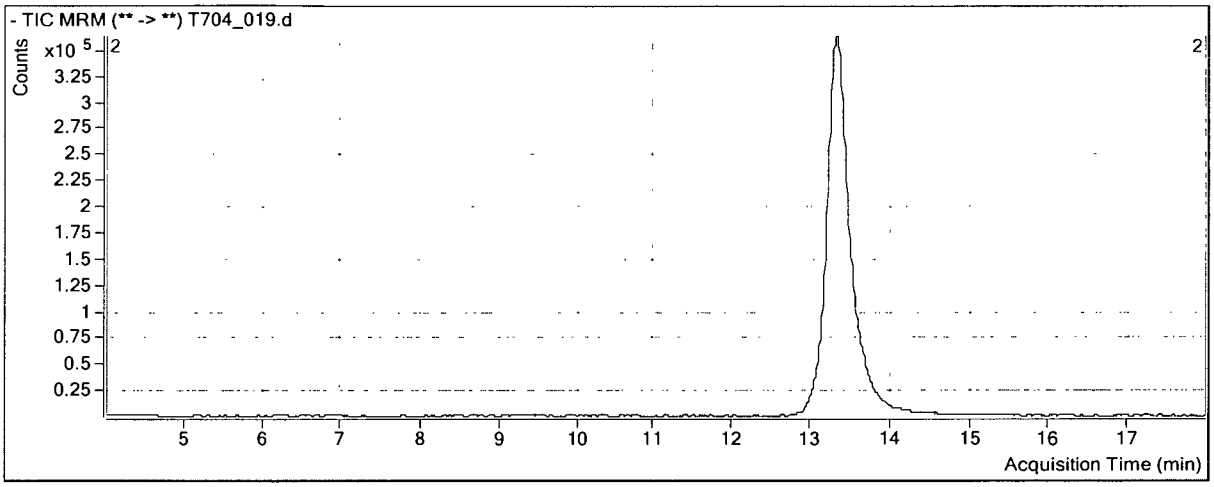
Sample ID : 150624SBLKA 9930.5 DF 06/24/15

Client ID : LAB_CNTL_S_BLKA

Retention Time	Area Count Response	Compound_ID Product Ion		
13.355	7533559	PER_IS_89		
13.392	21564	Perchlorate_83	(21564 * 0.0050) / (1.27 * 7533559.00) * 9930.50 =	0.111887 ppb
13.429	8904	Perchlorate_85	(8904 * 0.0050) / (0.39 * 7533559.00) * 9930.50 =	0.149857 ppb

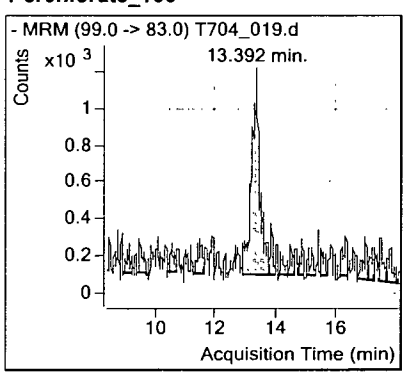
Quantitative Analysis Sample Report

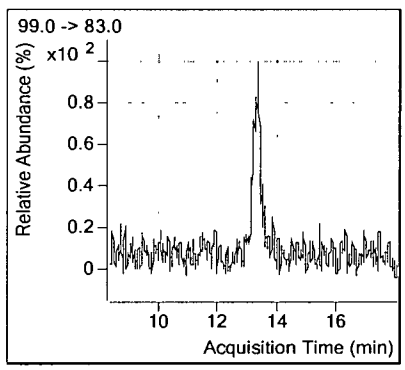
Batch Data Path	D:\MassHunter\Data\150704\QuantResults\150704_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T704_019.d	**Sample Name**	150624SBLKA 9930.5 DF 06/24/15
Sample Type	Sample	**Acq_Date**	07/04/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	13:59
ClientID	LAB_CNTL_S_BLKA	**Inj Vol**	20

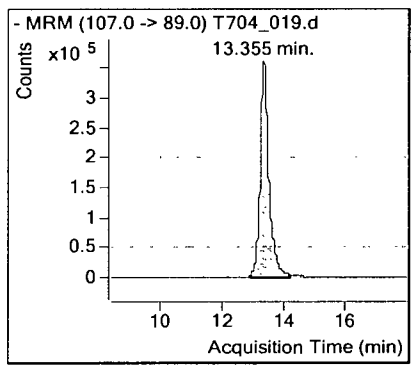


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.392	21564	7533559
Perchlorate_102	PER_IS_108	13.429	8904	7533559

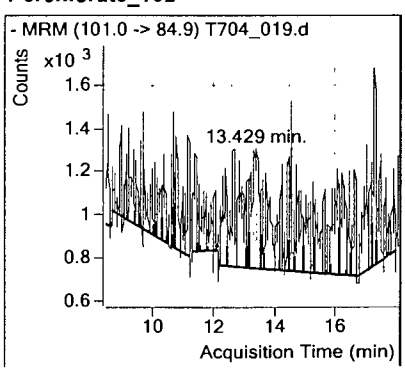
Perchlorate_100

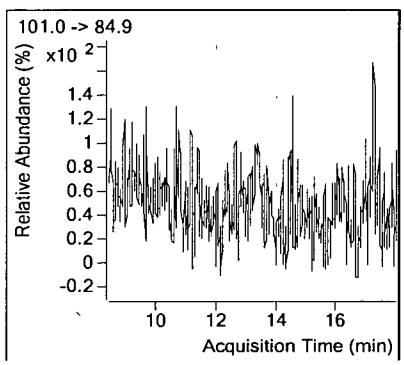


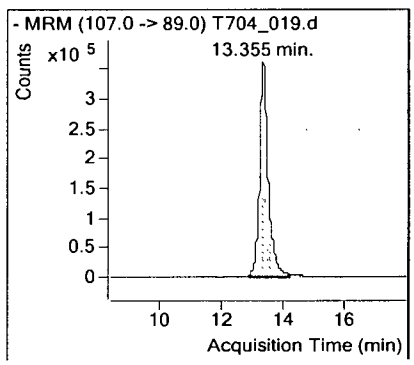




Perchlorate_102







Laboratory Control Spike Recovery
Perchlorate

APPL ID: **150623W-17823 LCS - 198538**
Batch ID: #6850-150623A

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
PERCHLORATE	0.600	0.616	103	80-120

Comments: _____

Primary	SPK
Quant Method :	QTLMFL2
Extraction Date :	06/23/15
Analysis Date :	06/27/15
Instrument :	AGIL_6460
Run :	T627_005.d
Initials :	RP

Printed: 07/06/15 8:32:15 AM
APPL Standard LCS

Data File ID: T627_005.d

Date Injected : 06/27/15

Time Injected : 18:46

Sample ID : 150623WA_LCS-1 1052.6 DF 06/23/15

Client ID : LAB_CNTL_W_SPKA

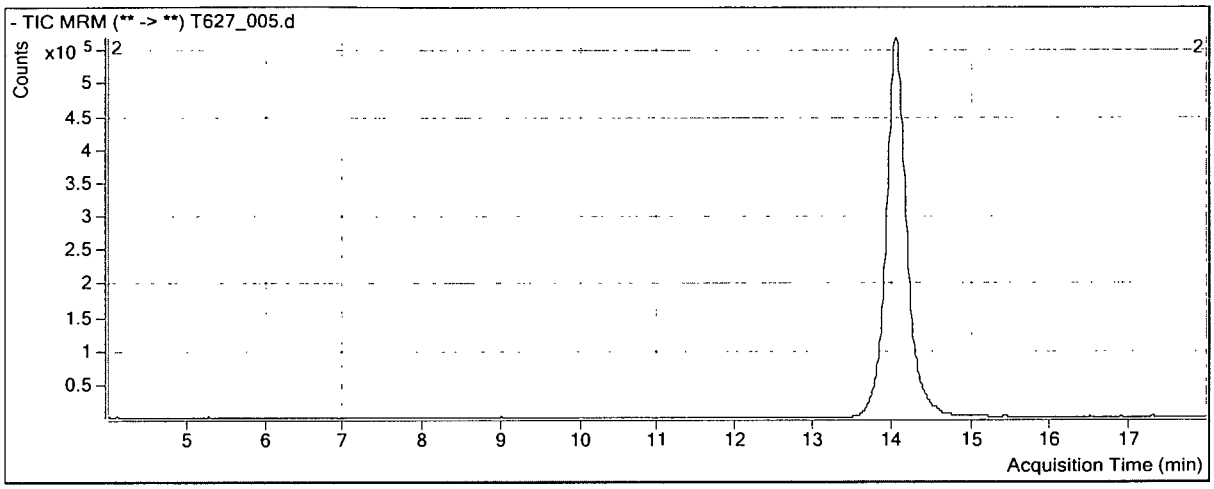
Retention Time	Area Count Response	Compound_ID Product Ion			
14.068	8637265	PER_IS_89			
14.075	1284148	Perchlorate_83	(1284148 * 0.0050) / (1.27 * 8637265.00) *	1052.60 =	0.616001 ppb
14.081	430461	Perchlorate_85	(430461 * 0.0050) / (0.39 * 8637265.00) *	1052.60 =	0.669796 ppb

$$\frac{(1052.6)(1284148)(0.005)}{(1.270255)(8637265)} = 0.616001$$

7/2/15
PP

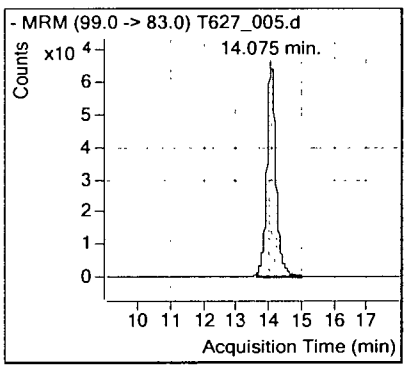
Quantitative Analysis Sample Report

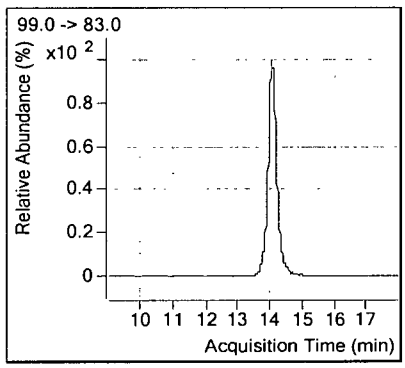
Batch Data Path	D:\MassHunter\Data\150627\QuantResults\150627_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T627_005.d	**Sample Name**	150623WA_LCS-1 1052.6 DF 06/23/15
Sample Type	Sample	**Acq_Date**	06/27/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	18:46
ClientID	LAB_CNTL_W_SPKA	**Inj Vol**	20

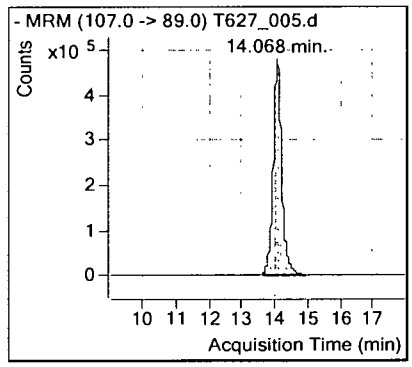


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	14.075	1284148	8637265
Perchlorate_102	PER_IS_108	14.081	430461	8637265

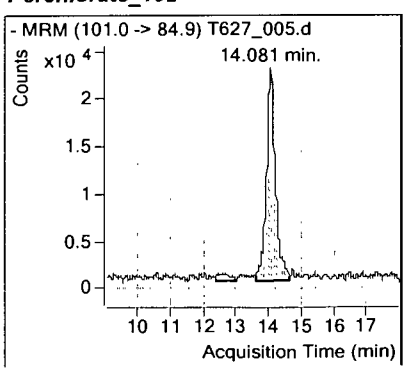
Perchlorate_100

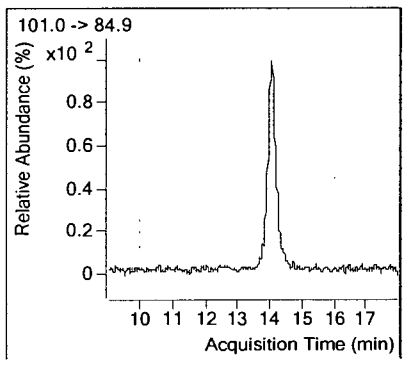


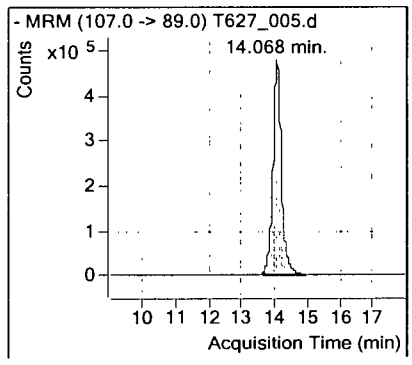




Perchlorate_102







Laboratory Control Spike Recovery
PERCHLORATE EPA 6850 - SOIL

APPL ID: **150624S-17824 LCS - 198610**
Batch ID: #6850SM-150624A

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	0.00541	94.7	80-120

Comments: _____

Primary	SPK
Quant Method :	QTLMFL2
Extraction Date :	06/24/15
Analysis Date :	07/04/15
Instrument :	AGIL_6460
Run :	T704_017.d
Initials :	RP

Printed: 07/07/15 8:30:25 AM
APPL Standard LCS

Data File ID: T704_017.d

Date Injected : 07/04/15

Time Injected : 13:22

Sample ID : 150624SA_LCS-1 10025.1 DF 06/24/15

Client ID : LAB_CNTL_S_SPKA

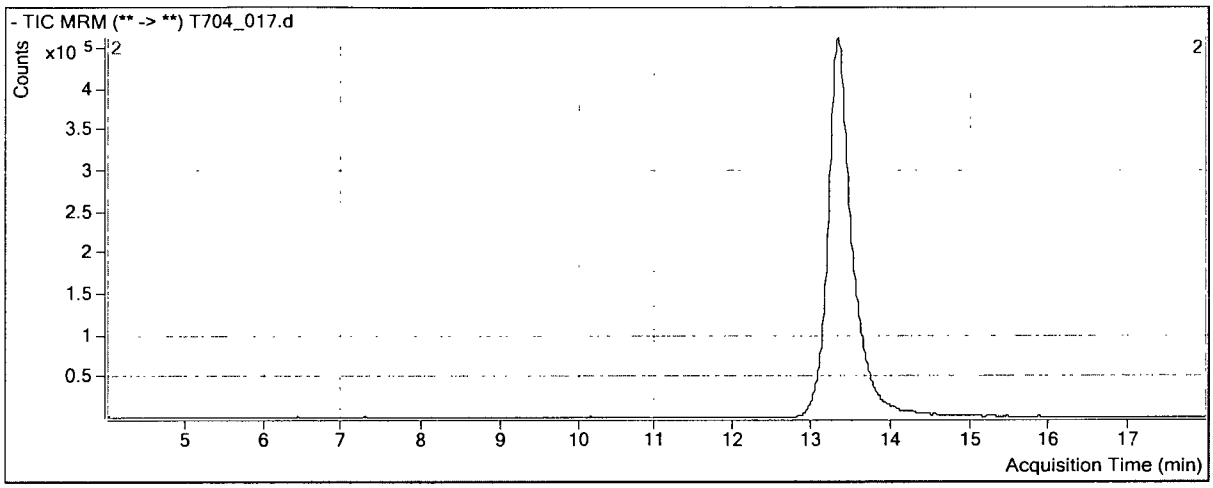
Retention Time	Area Count Response	Compound_ID Product Ion		
13.355	8279921	PER_IS_89		
13.351	1134587	Perchlorate_83	(1134587 * 0.0050) / (1.27 * 8279921.00) * 10025.10 =	5.407286 ppb
13.389	370287	Perchlorate_85	(370287 * 0.0050) / (0.39 * 8279921.00) * 10025.10 =	5.724305 ppb

$$\frac{(10025.1)(1134587)(0.005)}{(1.270255)(8279921)} = 5.407287$$

7/7/15
PM

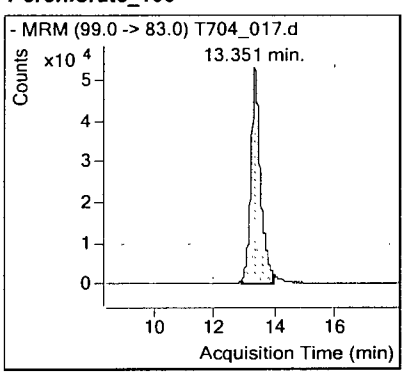
Quantitative Analysis Sample Report

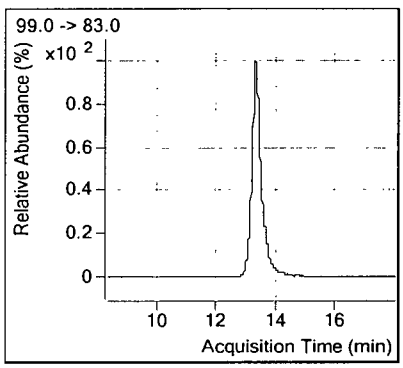
Batch Data Path	D:\MassHunter\Data\150704\QuantResults\150704_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T704_017.d	**Sample Name**	150624SA_LCS-1 10025.1 DF 06/24/15
Sample Type	Sample	**Acq_Date**	07/04/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	13:22
ClientID	LAB_CNTL_S_SPKA	**Inj Vol**	20

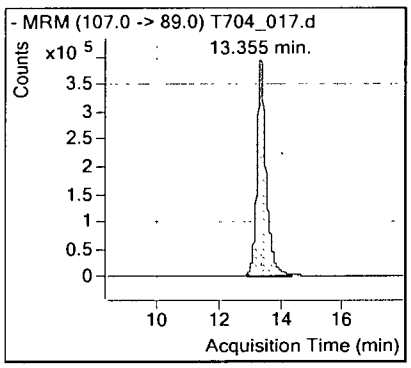


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.351	1134587	8279921
Perchlorate_102	PER_IS_108	13.389	370287	8279921

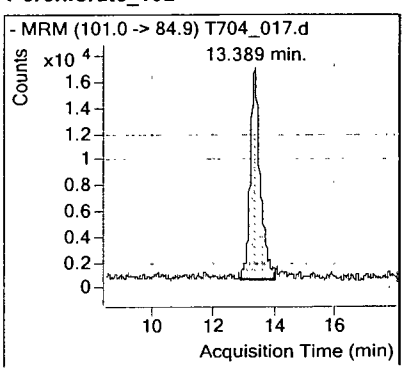
Perchlorate_100

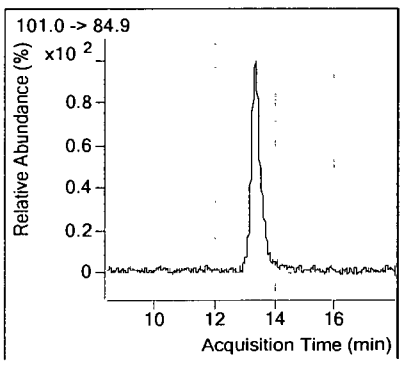


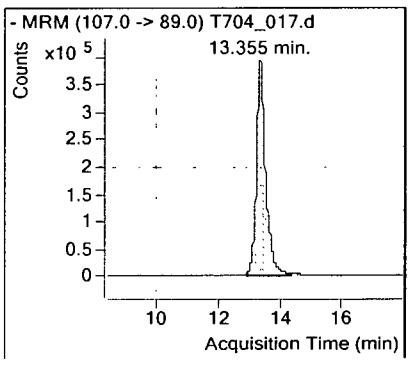




Perchlorate_102







Matrix Spike Recoveries

Perchlorate

APPL ID: **150623W-17823 MS - 198538**
Batch ID: #6850-150623A
Sample ID: AZ17823
Client ID: S67-SW028-061615

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Lvl ug/L	Matrix Result ug/L	SPK Result ug/L	DUP Result ug/L	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
PERCHLORATE	0.600	ND	0.797	0.689	133 #	115	80-120	14.5	15

= Recovery is outside QC limits.

Comments: _____

Primary	SPK	DUP
Quant Method :	QTLMFL2	QTLMFL2
Extraction Date :	06/23/15	06/23/15
Analysis Date :	06/27/15	06/27/15
Instrument :	AGIL_6460	AGIL_6460
Run :	T627_012.d	T627_013.d
Initials :	RP	

Printed: 07/06/15 8:32:10 AM
APPL MSD SCII

Data File ID: T627_012.d

Date Injected : 06/27/15

Time Injected : 20:56

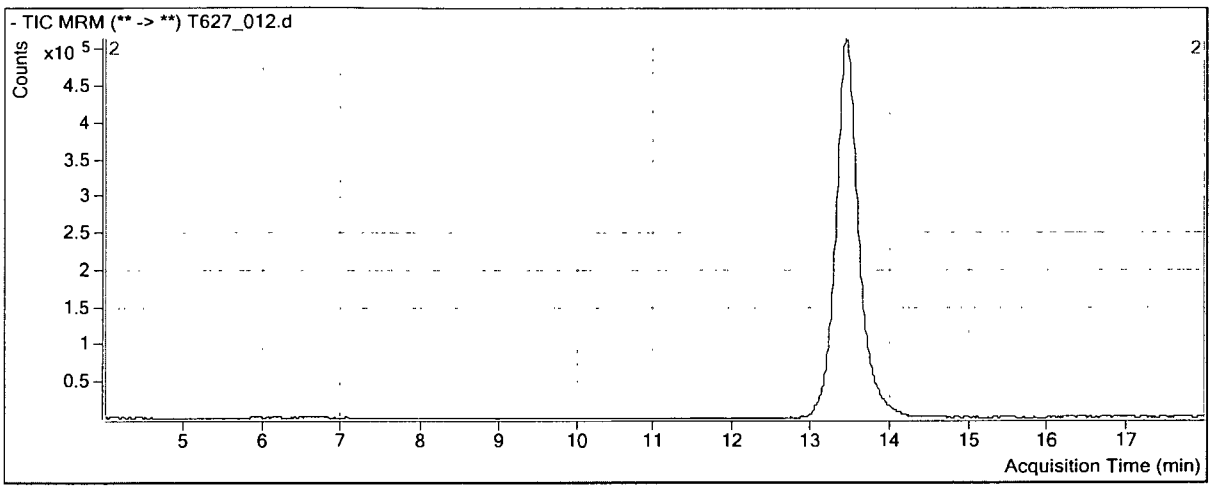
Sample ID : AZ17823_W02_MS-1 1052.6 DF 06/23/15

Client ID : S67-SW028-061615_MS-1

Retention Time	Area Count Response	Compound_ID Product Ion				
13.457	8362037	PER_IS_89				
13.463	1607804	Perchlorate_83	(1607804 * 0.0050) / (1.27 * 8362037.00) *	1052.60 =	0.796642	ppb
13.400	515231	Perchlorate_85	(515231 * 0.0050) / (0.39 * 8362037.00) *	1052.60 =	0.828085	ppb

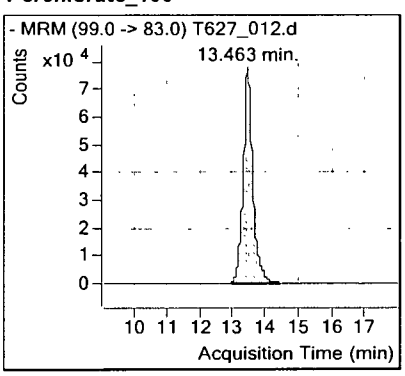
Quantitative Analysis Sample Report

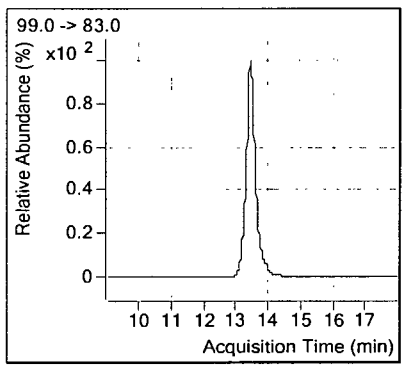
Batch Data Path	D:\MassHunter\Data\150627\QuantResults\150627_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T627_012.d	**Sample Name**	AZ17823_W02_MS-1 1052.6 DF 06/23/15
Sample Type	Sample	**Acq_Date**	06/27/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	20:56
ClientID	S67-SW028-061615_MS-1	**Inj Vol**	20

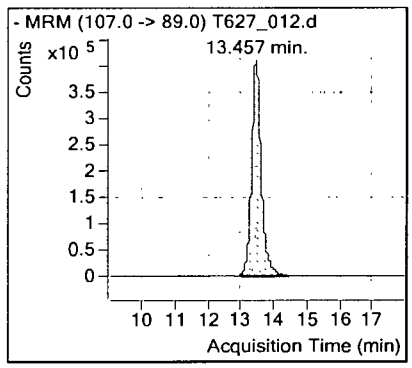


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.463	1607804	8362037
Perchlorate_102	PER_IS_108	13.450	515231	8362037

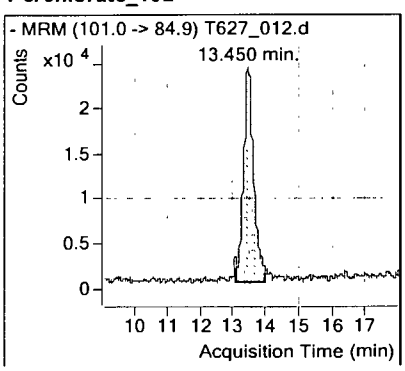
Perchlorate_100

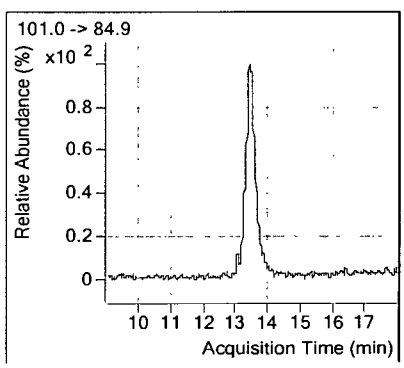


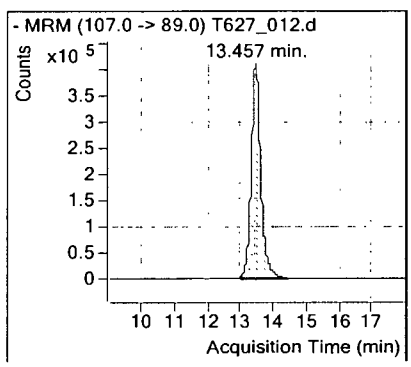




Perchlorate_102







Data File ID: T627_013.d

Date Injected : 06/27/15

Time Injected : 21:15

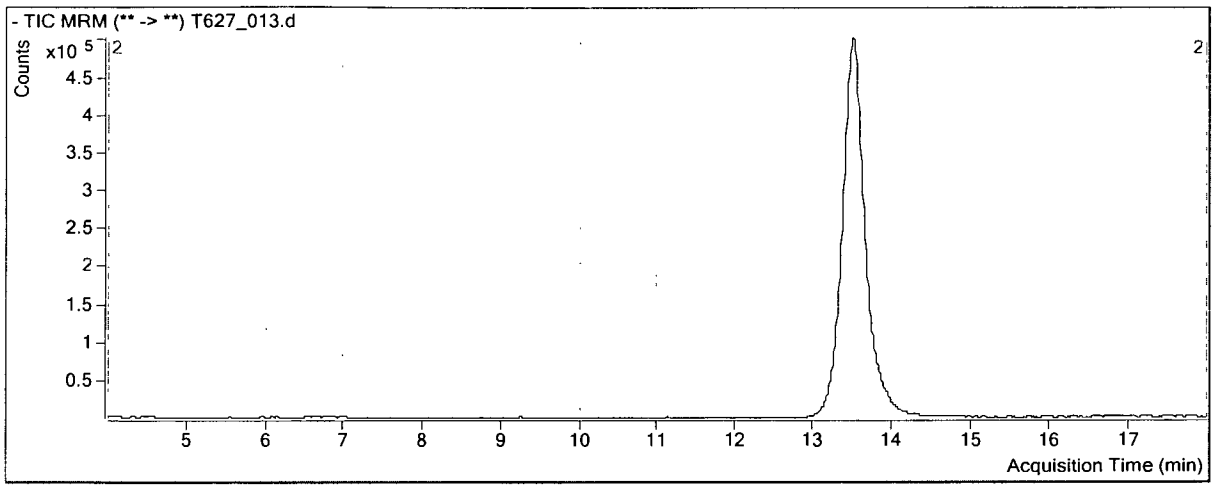
Sample ID : AZ17823_W02_MSD-1 1052.6 DF 06/23/15

Client ID : S67-SW028-061615_MSD-1

Retention Time	Area Count Response	Compound_ID Product Ion			
13.528	8443644	PER_IS_89			
13.535	1402224	Perchlorate_83	(1402224 * 0.0050) / (1.27 * 8443644.00) *	1052.60 =	0.688066 ppb
13.521	442929	Perchlorate_85	(442929 * 0.0050) / (0.39 * 8443644.00) *	1052.60 =	0.705000 ppb

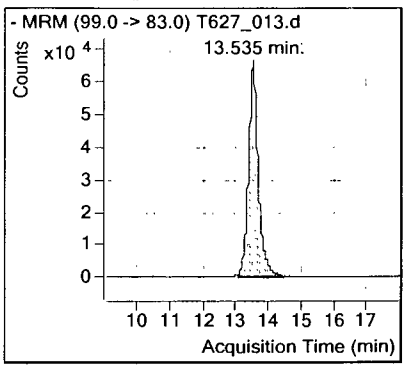
Quantitative Analysis Sample Report

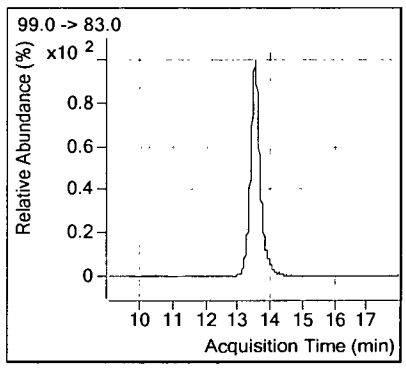
Batch Data Path	D:\MassHunter\Data\150627\QuantResults\150627_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T627_013.d	**Sample Name**	AZ17823_W02_MSD-1 1052.6 DF 06/23/15
Sample Type	Sample	**Acq_Date**	06/27/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	21:15
ClientID	S67-SW028-061615_MSD-1	**Inj Vol**	20

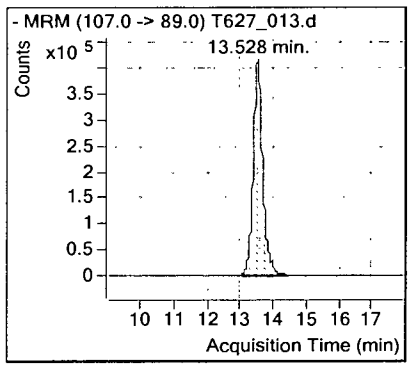


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.535	1402224	8443644
Perchlorate_102	PER_IS_108	13.521	442929	8443644

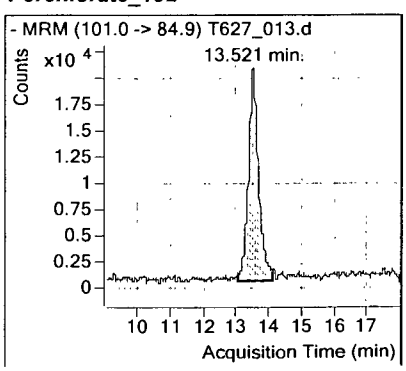
Perchlorate_100

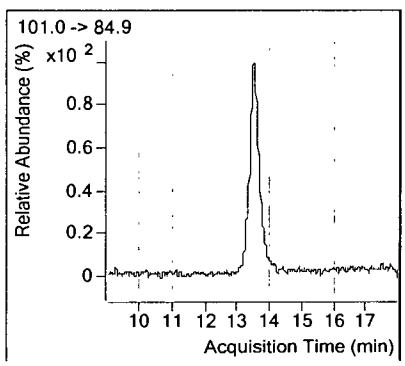


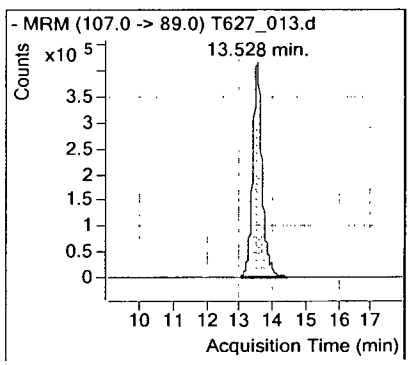




Perchlorate_102







Matrix Spike Recoveries

PERCHLORATE EPA 6850 - SOIL

APPL ID: **150624S-17824 MS - 198610**
Batch ID: #6850SM-150624A
Sample ID: AZ17824
Client ID: S67-SD029-0001

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	SPK Lvl	DUP Lvl	Matrix Result	SPK Result	DUP Result	SPK % Recovery	DUP % Recovery	Recovery Limits	RPD %	RPD Limits
	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg					
(Solid Concentrations have been adjusted to reflect 72.1 Percent Moisture.)										
PERCHLORATE	0.00645	0.00663	ND	0.00534	0.00588	82.8	88.7	80-120	6.9	15

Comments: _____

Primary	SPK	DUP
Quant Method :	QTLMFL2	QTLMFL2
Extraction Date :	06/24/15	06/24/15
Analysis Date :	07/04/15	07/04/15
Instrument :	AGIL_6460	AGIL_6460
Run :	T704_025.d	T704_026.d
Initials :	RP	

Printed: 07/07/15 8:30:21 AM
APPL MSD SCII

Data File ID: T704_025.d

Date Injected : 07/04/15

Time Injected : 15:58

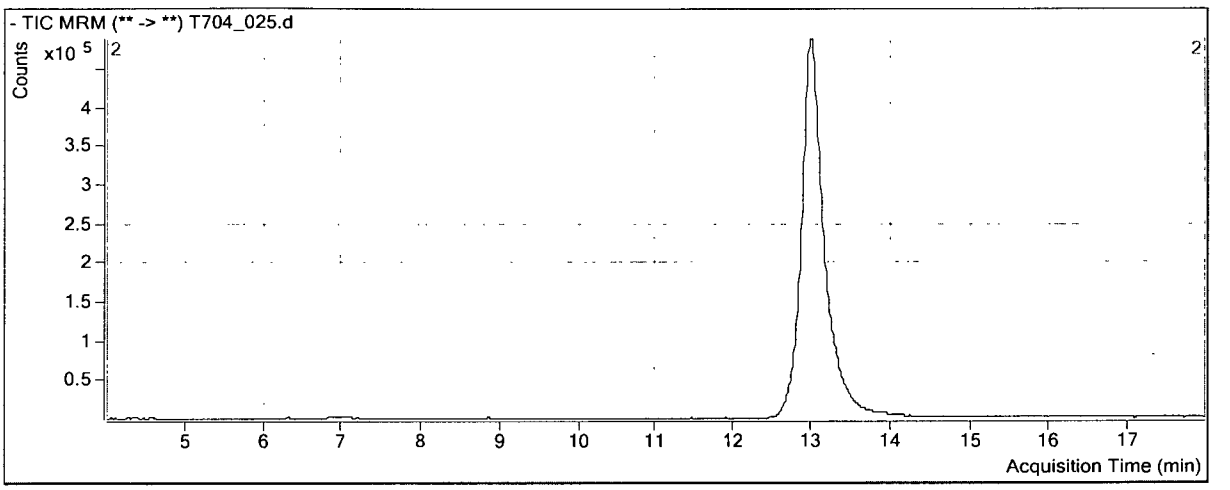
Sample ID : AZ17824_S02_MS-1 3161.1 DF 06/24/15

Client ID : S67-SD029-0001_MS-1

Retention Time	Area Count Response	Compound_ID Product Ion		
13.008	8693744	PER_IS_89		
13.005	1042316	Perchlorate_83	(1042316 * 0.0050) / (1.27 * 8693744.00) * 3161.10 =	1.491797 ppb
13.001	313548	Perchlorate_85	(313548 * 0.0050) / (0.39 * 8693744.00) * 3161.10 =	1.455651 ppb

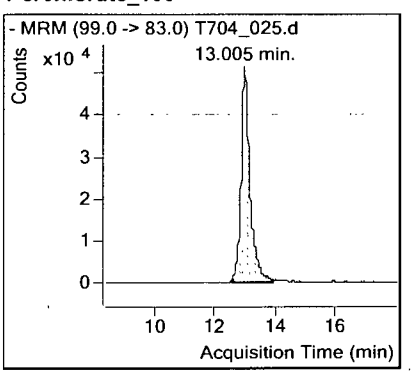
Quantitative Analysis Sample Report

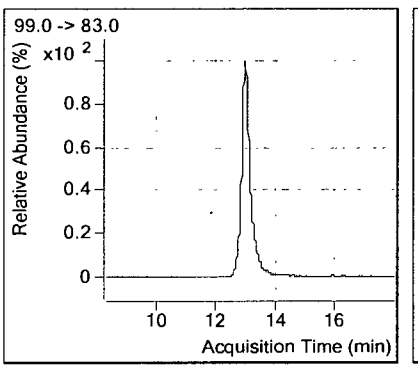
Batch Data Path	D:\MassHunter\Data\150704\QuantResults\150704_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T704_025.d	**Sample Name**	AZ17824_S02_MS-1 3161.1 DF 06/24/15
Sample Type	Sample	**Acq_Date**	07/04/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	15:58
ClientID	S67-SD029-0001_MS-1	**Inj Vol**	20

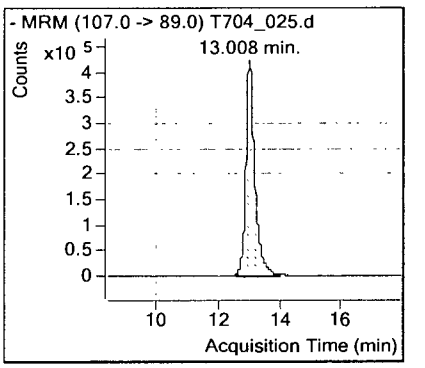


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.005	1042316	8693744
Perchlorate_102	PER_IS_108	13.001	313548	8693744

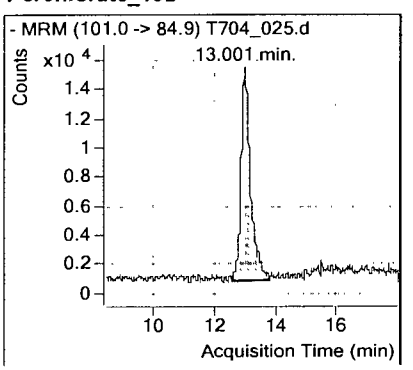
Perchlorate_100

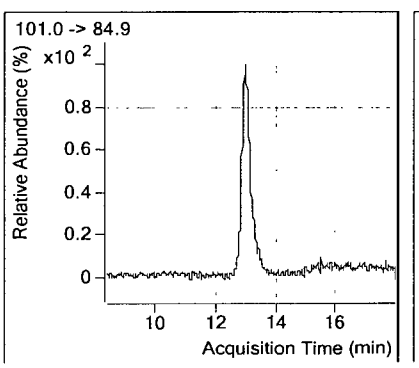


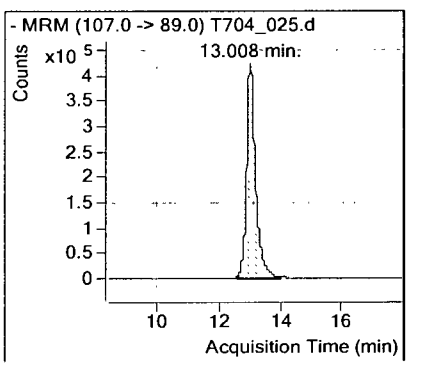




Perchlorate_102







Data File ID: T704_026.d

Date Injected : 07/04/15

Time Injected : 16:16

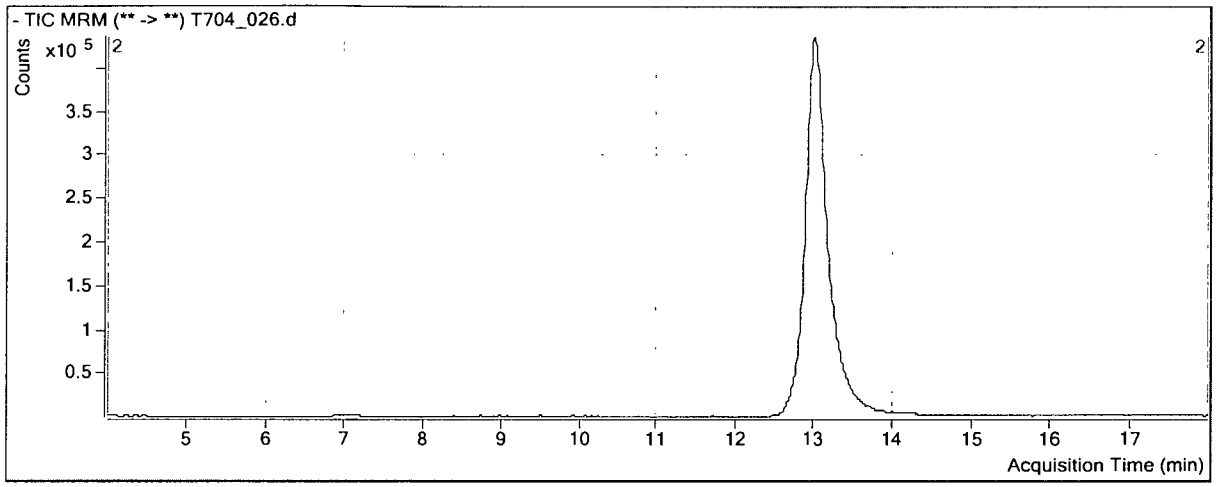
Sample ID : AZ17824_S02_MSD-1 3248.9 DF 06/24/15

Client ID : S67-SD029-0001_MSD-1

Retention Time	Area Count Response	Compound_ID Product Ion		
13.018	7657361	PER_IS_89		
13.035	986509	Perchlorate_83	(986509 * 0.0050) / (1.27 * 7657361.00) * 3248.90 =	1.647545 ppb
13.032	305896	Perchlorate_85	(305896 * 0.0050) / (0.39 * 7657361.00) * 3248.90 =	1.657116 ppb

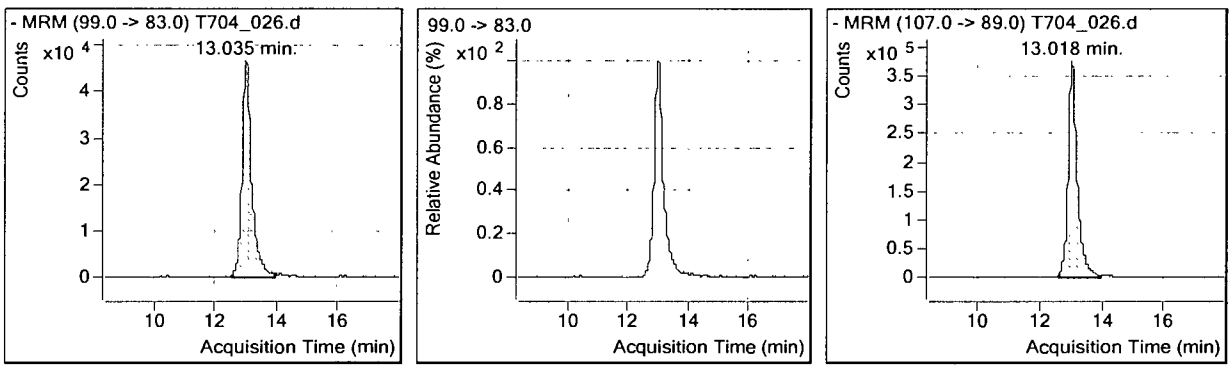
Quantitative Analysis Sample Report

Batch Data Path	D:\MassHunter\Data\150704\QuantResults\150704_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T704_026.d	**Sample Name**	AZ17824_S02_MSD-1 3248.9 DF 06/24/15
Sample Type	Sample	**Acq_Date**	07/04/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	16:16
ClientID	S67-SD029-0001_MSD-1	**Inj Vol**	20

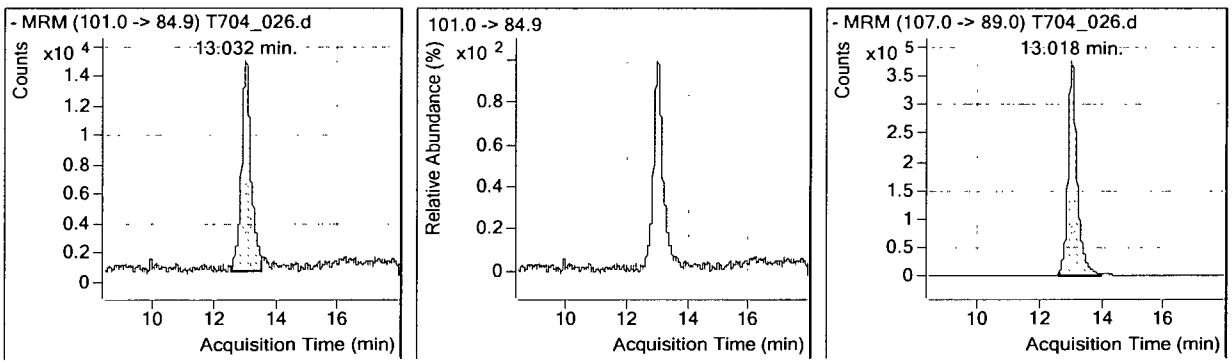


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.035	986509	7657361
Perchlorate_102	PER_IS_108	13.032	305896	7657361

Perchlorate_100



Perchlorate_102



Interferrence Check Sample

Perchlorate EPA 6850 Water

APPL ID: 150623W-17823 ICS-198538
Batch ID: #6850-150623A

APPL Inc.
908 N. Temperance Ave.
Clovis, CA 93711

Compound Name	Spike Level ug/L	Spk Result ug/L	SPK% Recovery	Recovery Limits
Perchlorate	0.600	0.675	112.5%	70-130

Comments:

Quant Method:	QTLMFL2
Extraction Date:	06/23/15
Analysis Date:	06/27/15
Instrument:	AGIL_6560
Run:	T627_006.D
Initials:	RP

Data File ID: T627_006.d

Date Injected : 06/27/15

Time Injected : 19:04

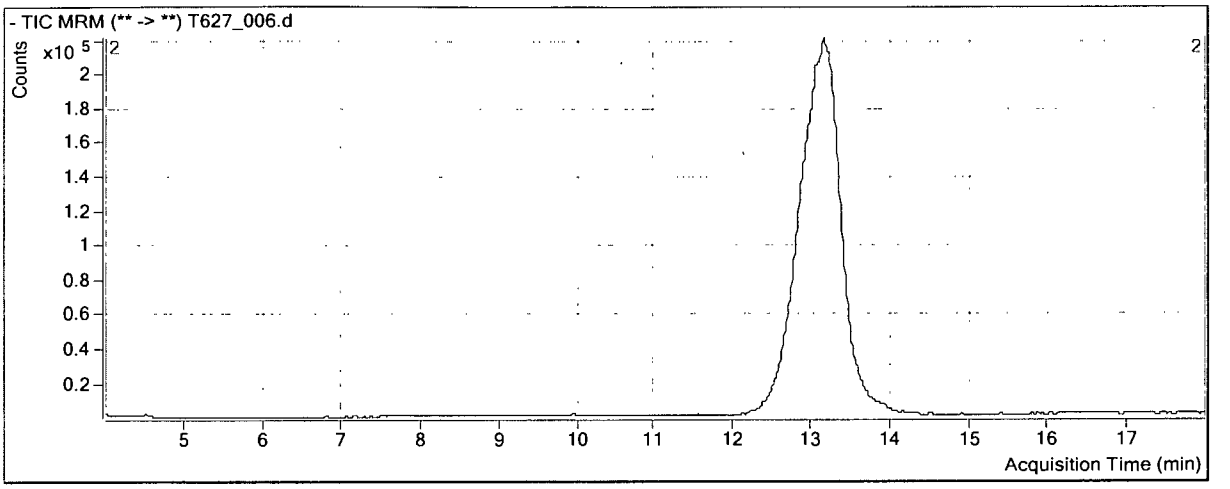
Sample ID : 150623W_ICSA 1052.6 DF 06/23/15

Client ID : LAB_CNTL_W_ICSA

Retention Time	Area Count Response	Compound_ID Product Ion				
13.171	6625849	PER_IS_89				
13.178	1080239	Perchlorate_83	(1080239 * 0.0050) / (1.27 * 6625849.00) *	1052.60 =	0.675493	ppb
13.195	359948	Perchlorate_85	(359948 * 0.0050) / (0.39 * 6625849.00) *	1052.60 =	0.730102	ppb

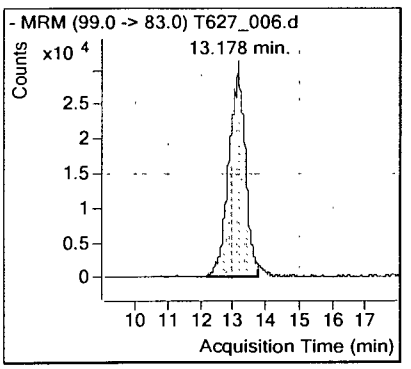
Quantitative Analysis Sample Report

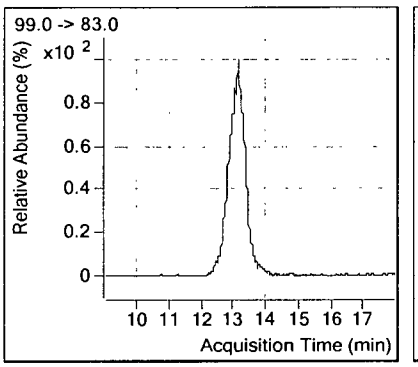
Batch Data Path	D:\MassHunter\Data\150627\QuantResults\150627_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T627_006.d	**Sample Name**	150623W_ICSA 1052.6 DF 06/23/15
Sample Type	Sample	**Acq_Date**	06/27/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	19:04
ClientID	LAB_CNTL_W_ICSA	**Inj Vol**	20

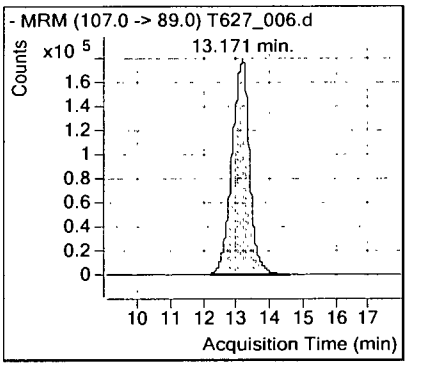


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	13.178	1080239	6625849
Perchlorate_102	PER_IS_108	13.195	359948	6625849

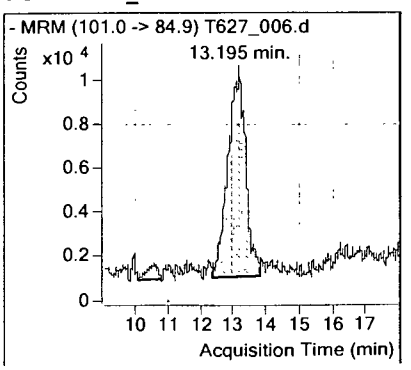
Perchlorate_100

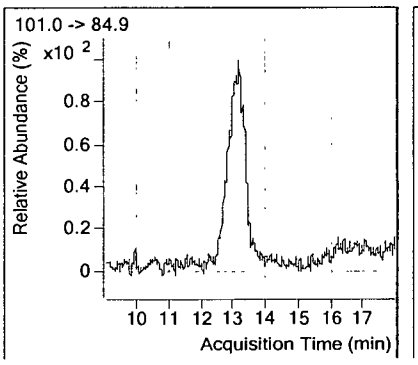


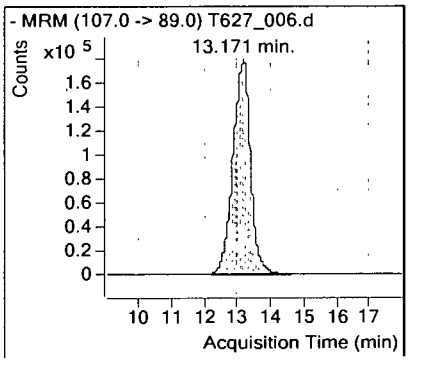




Perchlorate_102







Interferrence Check Sample

Perchlorate EPA 6850 Soil

APPL ID: 150624S-17824 ICS - 198610
Batch ID: #6850SM-150624

APPL Inc.
908 N. Temperance Ave.
Clovis, CA 93711

Compound Name	Spike Level mg/Kg	Spk Result mg/Kg	SPK% Recovery	Recovery Limits
Perchlorate	0.00588	0.00624	106.1%	70-130

Comments:

Quant Method:	QTLMFL2
Extraction Date:	06/24/15
Analysis Date:	07/04/15
Instrument:	AGIL_6560
Run:	T704_018.D
Initials:	RP

Data File ID: T704_018.d

Date Injected : 07/04/15

Time Injected : 13:40

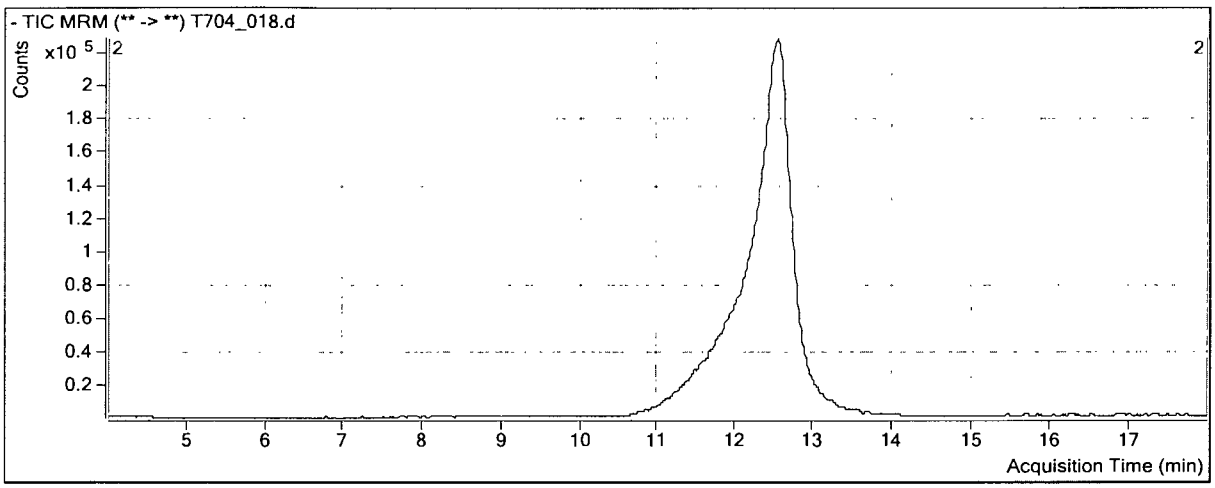
Sample ID : 150624S_ICSA 10319.9 DF 06/24/15

Client ID : LAB_CNTL_S_ICSA

Retention Time	Area Count Response	Compound_ID Product Ion		
12.500	7831392	PER_IS_89		
12.607	1203118	Perchlorate_83	(1203118 * 0.0050) / (1.27 * 7831392.00) * 10319.90 =	6.240563 ppb
12.573	401207	Perchlorate_85	(401207 * 0.0050) / (0.39 * 7831392.00) * 10319.90 =	6.750358 ppb

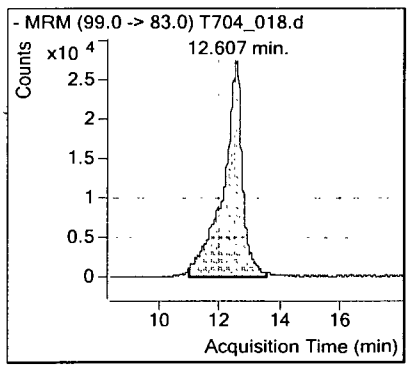
Quantitative Analysis Sample Report

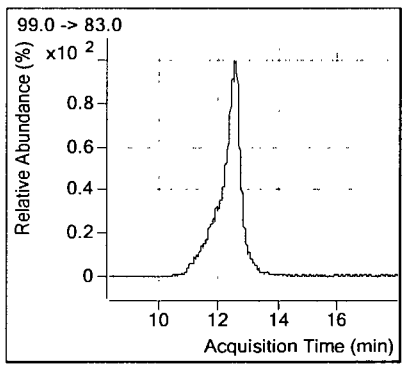
Batch Data Path	D:\MassHunter\Data\150704\QuantResults\150704_A_MI.batch.bin		
Instrument	LCMS QQQ	**Operator**	ba
Data File	T704_018.d	**Sample Name**	150624S_ICSA 10319.9 DF 06/24/15
Sample Type	Sample	**Acq_Date**	07/04/15
Acq Method	6460_ESI_PER_N_NEWER_K'_COLUMN.m	**Acq Time**	13:40
ClientID	LAB_CNTL_S_ICSA	**Inj Vol**	20

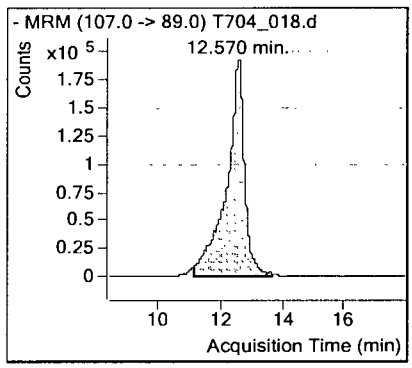


Compound	ISTD	RT	Resp	ISTD Resp
Perchlorate_100	PER_IS_108	12.607	1203118	7831392
Perchlorate_102	PER_IS_108	12.573	401207	7831392

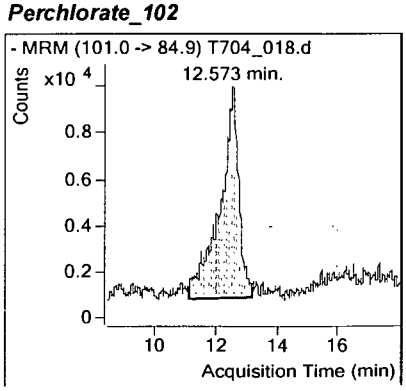
Perchlorate_100

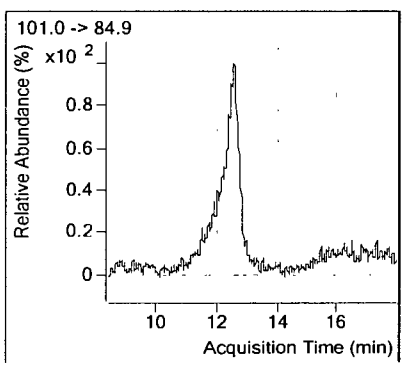


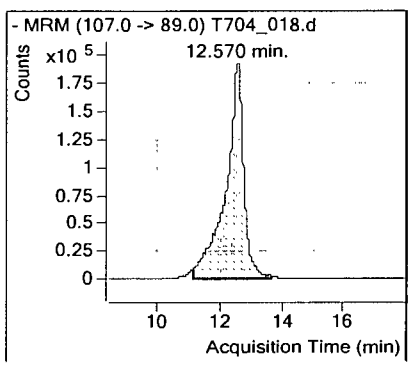




Perchlorate_102







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 34

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE / INITIALS
Scav_spk 250ng/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 $^{18}O_4$ Perchlorate
100 µg/L lot 1059192-33479

PER_CCV 0.002 µg/mL 04-20-15:
PER_SS 0.010 µg/mL 08-28-14
took 0.200 mL and added to
0.750 mL Laboratory Source DI-H2O
that had previously received
0.050 mL 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	SOL. ENV. LOT #	INITIALS

PER IS 0.005µg/mL 04-20-15: JB

02SI $^{18}O_4$ Perchlorate 100µg/L 04-21-15
Lot 1059192-33479 took 0.050mL
and added to 0.950 mL Laboratory
Source DI H2O.
NOTE: Repeated the above process
four times in order to prepare
2-2mL vials that were
full. The above was performed
as dated JB

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	VOL. ENT. LOT #	DATE INITIALS

NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED: JH 05-19-15

PER. CCV 0.0004 µg/ml 05-07-15: JH 05-07-15
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 O2SI $^{18}O_4$ Perchlorate 100 µg/L lot 1074176-35163

PER. CCV 0.002 µg/ml 05-07-15:
PER. SS 0.010 µg/ml 08-28-14 took 0.200 ml and added to 0.750 ML Laboratory Source DI-H2O that had previously received 0.050 ml O2SI $^{18}O_4$ Perchlorate 100 µg/L lot 1074176-35163

PER. IS 0.005 µg/ml 05-07-15:
O2SI $^{18}O_4$ Perchlorate 100 µg/L Lot 1074176-35163 took 0.050 ml and added to 0.950 ml Laboratory Source DI-H2O
NOTE: Repeated the above process four times in order to prepare 2-2 ml vials that were full.

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	NOL. ENT. LOT #	DATE INITIALS

NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED: JH 06-19-15 — JH 06-19-15

PER_CCV ~~0.004~~ 0.0004 JH µg/ml 05-29-15: — JH 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 O2SI $^{18}O_4$ Perchlorate 100 µg/L lot 1074176-35163

PER_CCV 0.002 µg/ml 05-29-15:

PER_SS 0.010 µg/ml 08-28-14 took 0.200 ml and added to 0.750 ml Laboratory Source DI_H2O that had previously received 0.050 ml O2SI $^{18}O_4$ Perchlorate 100 µg/L lot 1074176-35163

PER_IS 0.005 µg/ml 05-29-15:

O2SI $^{18}O_4$ Perchlorate 100 µg/L Lot 1074176-35163 took 0.050 ml and added to 0.950 ml Laboratory Source DI_H2O.

NOTE: Repeated the above process four times in order to prepare 2-2 ml vials that were full.

LCMS STANDARD PREP LOG# 105 PAGE# 109

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N. LOT#	DATE INITIALS

NOTE: THE FOLLOWING DOCUMENTATION JL
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 10T4176-35163 took 0.050
mL and added to 0.950 mL
Laboratory Source DI_H2O
NOTE: Repeated the above process
four times in order to prepare
2-2mL vials that were full.

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

LC/MS STANDARD PREP LOG# 105 PAGE# 108

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N LOT #	DATE / INITIALS
NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED: JB 06-28-15							JB 06-28-15
AZ17047-W01 21052.6 DF 06-04-15_6/5: AZ17047-W01 1052.6 DF 06-04-15 TOOK 0.050 mL AND ADDED TO 0.950 mL PER-IS-50:50 0.005 µg/mL 06-03-15							JB 06-05-15
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: PER-SS 0.010 µg/mL 08-28-14 took 0.040 mL and added to 0.910 mL Laboratory Source DI-H2O that had received 0.050 mL 025I $^{18}O_4$ Perchlorate 100 µg/L lot 107N176-35163							JB 06-11-15
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 025I $^{18}O_4$ Perchlorate 100 µg/L lot 107N176-35163							

LC/MS STANDARD PREP LOG# 105 PAGES 110

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
AZ17695_W01 10526.3 DF 06-17-15_6/22							JR
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~~ JR 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 107H176-351G3. Repeated the above process and then combined the aliquots into a single vial.							JR 06-22-15

LCMS STANDARD PREP LOG# 105 PAGE# 111

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CNC	AC. EN. LOT #	DATE INITIALS

NOTE: THE FOLLOWING DOCUMENTATION 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. H2O that had received 0.050 mL 02SI $^{18}O_4$ Perchlorate 100 µg/L lot 10.7N176-35163. Repeated the above process and then combined the aliquots into a single vial.

AZ17826_W03 10526.3 DF 06.23.15_6/28 JR

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

AZ17826_W03 10526.3 DF 06.23.15_6/28

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

AZ17826_W03 10526.3 DF 06.23.15_6/28

TOOK 0.050 mL AND ADDED TO 0.450 mL PER_IS_50:50 0.005 µg/mL 06.03.15

LC/MS STANDARD PREP LOG# 105 PAGES 112

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	ACC. EN. LOT #	DATE / INITIALS

NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED: ~~JL~~ 07-02-15 JL 07-02-15

PER_IS_50:50 0.005 µg/ml 06-28-15: JL 06-28-15
Combined 10.000 ml Laboratory Source DI H2O with 10.000 Burdick & Jackson Acetonitrile lot DL308. Withdrew 1.000 ml and then delivered 1.000 ml O2SI $^{18}O_4$ Perchlorate 100µg/L lot 1074176-35163

AZ17828_W03 ~~1056~~ 10526.3 DF 06-23-15_6/28:
AZ17828_W03 1052.6 DF 06-23-15
TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005µg/ml 06-28-15

AZ17828-W03 105263.2 DF 06-23-15_6/28
AZ17828_W03 10526.3 DF 06-23-15_6/28
TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005µg/ml 06-28-15

AZ17828_W03 1052631.6 DF 06-23-15_6/28:
AZ17828_W03 105263.2 DF 06-23-15_6/28
TOOK 0.050 ml AND ADDED TO 0.450 ml PER_IS_50:50 0.005 µg/ml 06-28-15

_HPL6850

Organic Extraction Worksheet

Method	EPA 6850 HPLC Perchlorate Extraction	Extraction Set	150623A	Extraction Method	HPL6850	Units	mL

Spiked ID 1	Perchlorate Spike Mix 0.1ppm 8-28-14 EXP 7-31-15		Surrogate ID 1		
Spiked ID 2	Mix Anions 25,000ppm 2-10-15 EXP 2-10-16		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:	06/23/15 14:18	
Spiked ID 8			Ext. End Time:	06/23/15 14:26	
			GC Requires Extract By:		

pH1			Water Bath Temp Criteria	
pH2				
pH3				

Spiked By: CFM **Date** 06/23/15 2:15:00 PM **Witnessed By:** DL **Date** 06/23/15 2:15:00 PM

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	150623A Blk				NA	NA equip	5ML	5ML	NA	06/23/15 14:18	
2	150623A LCS-1		0.030	1	NA	NA equip	5ML	5ML	NA	06/23/15 14:18	
3	150623A ICS		0.030/0.060	1/2	NA	NA equip	5ML	5ML	NA	06/23/15 14:18	
4	AZ17817	AZ17817W02			NA	NA equip	5ML	5ML	NA	06/23/15 14:18	76674
5	AZ17818	AZ17818W02			NA	NA equip	5ML	5ML	NA	06/23/15 14:18	76674
6	AZ17821	AZ17821W02			NA	NA equip	5ML	5ML	NA	06/23/15 14:18	76674
7	AZ17823 MS-1	AZ17823W02	0.030	1	NA	NA equip	5ML	5ML	NA	06/23/15 14:18	76674
8	AZ17823 MSD-1	AZ17823W02	0.030	1	NA	NA equip	5ML	5ML	NA	06/23/15 14:18	76674
9	AZ17823	AZ17823W02			NA	NA equip	5ML	5ML	NA	06/23/15 14:18	76674
10	AZ17825	AZ17825W02			NA	NA equip	5ML	5ML	NA	06/23/15 14:18	76674
11	AZ17826	AZ17826W03			NA	NA equip	5ML	5ML	NA	06/23/15 14:18	76674
12	AZ17827	AZ17827W01			NA	NA equip	5ML	5ML	NA	06/23/15 14:18	76674
13	AZ17828	AZ17828W03			NA	NA equip	5ML	5ML	NA	06/23/15 14:18	76674
14	AZ17829	AZ17829W03			NA	NA equip	5ML	5ML	NA	06/23/15 14:18	76674
15	AZ17907	AZ17907W03			NA	NA equip	5ML	5ML	NA	06/23/15 14:18	76687
16	AZ17908	AZ17908W01			NA	NA equip	5ML	5ML	NA	06/23/15 14:18	76687

Solvent and Lot#	
DI WATER	6-23-15

Extraction COC Transfer	
Extraction lab employee Initials	CFM
GC analyst's initials	PY
Date	6/23/15
Time	15:30
Refrigerator	NA

	Technician's Initials
Scanned By	CFM
Sample Preparation	CFM
Extraction	CFM
Concentration	----------

Modified	06/23/15 2:28:21 PM

Reviewed By: PY **Date** 6/23/15

Organic Extraction Worksheet

Method	EPA 6850 HPLC Perchlorate Extraction	Extraction Set	150623A	Extraction Method	HPL6850	Units	mL

Spiked ID 1	Perchlorate Spike Mix 0.1ppm 8-28-14 EXP 7-31-15		Surrogate ID 1		
Spiked ID 2	Mix Anions 25,000ppm 2-10-15 EXP 2-10-16		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:	06/23/15 14:18	
Spiked ID 8			Ext. End Time:	06/23/15 14:26	
			GC Requires Extract By:		

pH1			Water Bath Temp Criteria	
pH2				
pH3				

Spiked By: CFM **Date** 06/23/15 2:15:00 PM **Witnessed By:** DL **Date** 06/23/15 2:15:00 PM

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
17	AZ17909	AZ17909W03			NA	NA	5ML	5ML	NA	06/23/15 14:18	76687
						equip					

PM 6/23/15

Solvent and Lot#	
DI WATER	6-23-15

Extraction COC Transfer	
Extraction lab employee Initials	CFM
GC analyst's initials	PM
Date	6/23/15
Time	15:30
Refrigerator	NA

	Technician's Initials
Scanned By	CFM
Sample Preparation	CFM
Extraction	CFM
Concentration	----------

Modified	06/23/15 2:28:21 PM

Reviewed By: PM **Date** 6/23/15

_HPLC6850G

Organic Extraction Worksheet

Method	EPA 6850 HPLC Perchlorate Extraction	Extraction Set	150624A	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:	06/24/15 11:21	
Spiked ID 8			Ext. End Time:	06/24/15 14:10	
			GC Requires Extract By:		

pH1			Water Bath Temp Criteria	
pH2				
pH3				

Spiked By: CFM **Date** 06/24/15 11:15:00 AM **Witnessed By:** DL **Date** 06/24/15 11:15:00 AM

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	150624A Blk				NA	NA equip	1.06g	10ML	NA	06/24/15 11:21	
2	150624A LCS-1		0.060	1	NA	NA equip	1.05g	10ML	NA	06/24/15 11:21	
3	150624A ICS		0.060/0.120	1/2	NA	NA equip	1.02g	10ML	NA	06/24/15 11:21	
4	AZ17816	AZ17816S02			NA	NA equip	1.40g	10ML	NA	06/24/15 11:21	76674
5	AZ17819	AZ17819S02			NA	NA equip	2.18g	10ML	NA	06/24/15 11:21	76674
6	AZ17820	AZ17820S03			NA	NA equip	2.22g	10ML	NA	06/24/15 11:21	76674
7	AZ17822	AZ17822S01			NA	NA equip	3.74g	10ML	NA	06/24/15 11:21	76674
8	AZ17824 MS-1	AZ17824S02	0.060	1	NA	NA equip	3.33g	10ML	NA	06/24/15 11:21	76674
9	AZ17824 MSD-1	AZ17824S02	0.060	1	NA	NA equip	3.24g	10ML	NA	06/24/15 11:21	76674
10	AZ17824	AZ17824S02			NA	NA equip	3.23g	10ML	NA	06/24/15 11:21	76674

PY 6/24/15

Solvent and Lot#	
DI WATER	6-24-15
SAND	3223C517

Extraction COC Transfer	
Extraction lab employee Initials	CFM
GC analyst's initials	PY
Date	6/24/15
Time	12:30
Refrigerator	NA

	Technician's Initials
Scanned By	CFM
Sample Preparation	CFM
Extraction	CFM
Concentration	----------

Modified	06/24/15 11:28:00 AM

Reviewed By: PY **Date** 6/24/15

METHOD 6850 INJECTION LOG: 03/12/15, 06/27/15, 07/04/15

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 06/27/15	T627_002.d	06/27/15 17:50
PER_CCV 0.002 ug/ml 06/27/15	T627_003.d	06/27/15 18:09
150623WA_LCS-1 1052.6 DF 06/23/15	T627_005.d	06/27/15 18:46
150623W_ICSA 1052.6 DF 06/23/15	T627_006.d	06/27/15 19:04
150623WBLKA 1052.6 DF 06/23/15	T627_007.d	06/27/15 19:23
AZ17817_W02 1052.6 DF 06/23/15	T627_008.d	06/27/15 19:42
AZ17818_W02 1052.6 DF 06/23/15	T627_009.d	06/27/15 20:00
AZ17821_W02 1052.6 DF 06/23/15	T627_010.d	06/27/15 20:19
AZ17823_W02 1052.6 DF 06/23/15	T627_011.d	06/27/15 20:38
AZ17823_W02_MS-1 1052.6 DF 06/23/15	T627_012.d	06/27/15 20:56
AZ17823_W02_MSD-1 1052.6 DF 06/23/15	T627_013.d	06/27/15 21:15
PER_CCV 0.0004 ug/ml 06/27/15	T627_015.d	06/27/15 21:52
PER_CCV 0.002 ug/ml 06/27/15	T627_016.d	06/27/15 22:11
PER_CCV 0.0004 ug/ml 06/27/15	T704_002.d	07/04/15 8:41
PER_CCV 0.002 ug/ml 06/27/15	T704_003.d	07/04/15 8:59
AZ17825_W02 1052.6 DF 06/23/15	T704_005.d	07/04/15 9:37
AZ17827_W01 1052.6 DF 06/23/15	T704_007.d	07/04/15 10:14
AZ17829_W03 1052.6 DF 06/23/15	T704_009.d	07/04/15 10:51
PER_CCV 0.0004 ug/ml 06/27/15	T704_014.d	07/04/15 12:24
PER_CCV 0.002 ug/ml 06/27/15	T704_015.d	07/04/15 12:43
150624SA_LCS-1 10025.1 DF 06/24/15	T704_017.d	07/04/15 13:22
150624S_ICSA 10319.9 DF 06/24/15	T704_018.d	07/04/15 13:40
150624SBLKA 9930.5 DF 06/24/15	T704_019.d	07/04/15 13:59
AZ17816_S02 7518.8 DF 06/24/15	T704_020.d	07/04/15 14:18
AZ17819_S02 4828.6 DF 06/24/15	T704_021.d	07/04/15 14:39
AZ17820_S03 4741.6 DF 06/24/15	T704_022.d	07/04/15 15:02
AZ17822_S01 2814.5 DF 06/24/15	T704_023.d	07/04/15 15:20
AZ17824_S02 3258.9 DF 06/24/15	T704_024.d	07/04/15 15:39
AZ17824_S02_MS-1 3161.1 DF 06/24/15	T704_025.d	07/04/15 15:58
AZ17824_S02_MSD-1 3248.9 DF 06/24/15	T704_026.d	07/04/15 16:16
PER_CCV 0.0004 ug/ml 06/27/15	T704_028.d	07/04/15 16:54
PER_CCV 0.002 ug/ml 06/27/15	T704_029.d	07/04/15 17:12

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	0.0004 ug/ml	06/27/15	T705_002.d	07/05/15 13:25
PER_CCV	0.002 ug/ml	06/27/15	T705_003.d	07/05/15 13:44
AZ17826_W03	105263.2 DF	06/23/15	T705_013.d	07/05/15 16:51
PER_CCV	0.0004 ug/ml	06/27/15	T705_015.d	07/05/15 17:28
PER_CCV	0.002 ug/ml	06/27/15	T705_016.d	07/05/15 17:46
AZ17028_W03	1052631.6 DF	06/23/15	T705_020.d	07/05/15 19:01
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

FILE ID : R76674.SEQ

EXPLOSIVES
EPA METHOD 8330

APPL, INC.

EPA 8330
EXPLOSIVES

QC Summary

APPL, INC.

Method Blank
EPA 8330B WATER

Blank Name/QCG: **150618W-17694 - 198490**
Batch ID: #83BJU11W-150618

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	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
BLANK	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
BLANK	HMX	0.300 U	0.50	0.300	0.115	ug/L	06/18/15	06/29/15
BLANK	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	06/18/15	06/29/15
BLANK	RDX	0.300 U	0.50	0.300	0.123	ug/L	06/18/15	06/29/15
BLANK	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	06/18/15	06/29/15
BLANK	SURROGATE: 1,2-DINITROBENZ	92.0	70-130			%	06/18/15	06/29/15

Quant Method: W150627.M
Run #: 0629_000014
Instrument: Waldorf
Sequence: 150629
Initials: MP

GC SC-Blank-REG MDLs
Printed: 07/02/15 10:17:24 AM

Method Blank
EPA 8330B SOIL

Blank Name/QCG: **150625S-17824 - 198531**
Batch ID: #83BJU-150625A

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	06/25/15	06/30/15
BLANK	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/25/15	06/30/15
BLANK	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/25/15	06/30/15
BLANK	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/25/15	06/30/15
BLANK	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/25/15	06/30/15
BLANK	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/25/15	06/30/15
BLANK	SURROGATE: 1,2-DINITROBENZ	89.1	70-130			%	06/25/15	06/30/15

Quant Method: W150627.M
Run #: 0629_000031
Instrument: Waldorf
Sequence: 150629
Initials: MP

GC SC-Blank-REG MDLs
Printed: 07/02/15 9:51:29 AM

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 06/29/15

Matrix: WATER Instrument: Waldorf

APPL ID.	Client Sample No.	SURROGATE: 1,2-DINITROBENZENE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
150618-LCS	Lab Control Spike	70-130	88.0				
150618-BLK	Blank	70-130	92.0				
AZ17817	S67-SW026-061615	70-130	90.3				
AZ17818	S67-SW026P-061615	70-130	88.2				
AZ17821	S67-SW027-061615	70-130	87.4				
AZ17826	S67-MW018-061615	70-130	88.2				
AZ17827	S67-MW019-061615	70-130	89.4				
AZ17828	S67-MW023-061615	70-130	87.2				
AZ17829	S67-MW022-061615	70-130	87.3				

Comments: Batch: #83BJU11W-15061

Form 2 & 8

Surrogate Recovery

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 06/30/15

Matrix: SOIL Instrument: Waldorf

APPL ID.	Client Sample No.	SURROGATE: 1,2-DINITROBENZENE (S)					
		Limits	Result	Qualifier	Limits	Result	Qualifier
150625A-LCS	Lab Control Spike	70-130	89.4				
AZ17824-MS	Matrix Spike	70-130	85.4				
AZ17824-MSD	Matrix SpikeD	70-130	84.4				
150625A-BLK	Blank	70-130	89.1				
AZ17816	S67-SD026-0001	70-130	89.7				
AZ17819	S67-SD027-0001	70-130	87.3				
AZ17820	S67-SD027P-0001	70-130	86.4				
AZ17822	S67-SD028-0001	70-130	89.0				
AZ17824	S67-SD029-0001	70-130	82.5				

Comments: Batch: #83BJU-150625A

Laboratory Control Spike Recovery
EPA 8330B WATER

APPL ID: **150618W-17694 LCS - 198490**
Batch ID: #83BJU11W-150618

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
2,4-DINITROTOLUENE	8.00	6.98	87.3	60-135
2,6-DINITROTOLUENE	8.00	6.95	86.9	60-135
HMX	8.00	7.74	96.8	80-115
NITROGLYCERIN	8.00	6.70	83.8	70-130
RDX	8.00	7.44	93.0	50-160
TETRYL	8.00	7.29	91.1	20-175
SURROGATE: 1,2-DINITROBENZENE (S	8.00	7.04	88.0	70-130

Comments: _____

Primary	SPK
Quant Method :	W150627.M
Extraction Date :	06/18/15
Analysis Date :	06/29/15
Instrument :	Waldorf
Run :	0629_000008
Initials :	MP

Printed: 07/02/15 10:17:18 AM
APPL Standard LCS

Laboratory Control Spike Recovery
EPA 8330B SOIL

APPL ID: **150625S-17824 LCS - 198531**
Batch ID: #83BJU-150625A

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	1.81	91.4	80-125
2,6-DINITROTOLUENE	1.98	1.81	91.4	80-120
HMX	1.98	1.96	99.0	75-125
NITROGLYCERIN	1.98	1.75	88.4	68-131
RDX	1.98	1.84	92.9	70-135
TETRYL	1.98	1.92	97.0	10-150
SURROGATE: 1,2-DINITROBENZENE (S	1.98	1.77	89.4	70-130

Comments:

Primary	SPK
Quant Method :	W150627.M
Extraction Date :	06/25/15
Analysis Date :	06/30/15
Instrument :	Waldorf
Run :	0629_000028
Initials :	MP

Printed: 07/02/15 9:51:25 AM
APPL Standard LCS

Matrix Spike Recoveries

EPA 8330B SOIL

APPL ID: **150625S-17824 MS - 198531**
Batch ID: #83BJU-150625A
Sample ID: AZ17824
Client ID: S67-SD029-0001

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	1.99	1.99	ND	1.78	1.76	89.4	88.4	80-125	1.1	20
2,6-DINITROTOLUENE	1.99	1.99	ND	1.78	1.76	89.4	88.4	80-120	1.1	20
HMX	1.99	1.99	ND	1.90	1.92	95.5	96.5	75-125	1	20
NITROGLYCERIN	1.99	1.99	ND	1.87	1.79	94.0	89.9	68-131	4.5	20
RDX	1.99	1.99	ND	1.79	1.78	89.9	89.4	70-135	0.56	20
TETRYL	1.99	1.99	ND	0.610	0.634	30.7	31.9	10-150	3.8	20
SURROGATE: 1,2-DINITROBENZEN	1.99	1.99	NA	1.70	1.68	85.4	84.4	70-130		

Comments: _____

Primary	SPK	DUP
Quant Method :	W150627.M	W150627.M
Extraction Date :	06/25/15	06/25/15
Analysis Date :	06/30/15	06/30/15
Instrument :	Waldorf	Waldorf
Run :	0629_000029	0629_000030
Initials :	MP	

Printed: 07/02/15 10:00:38 AM
APPL MSD SCII

EPA 8330B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 06/29/15

Matrix: WATER Instrument: Waldorf

Blank ID: 150618-BLK Time Analyzed: 1623

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150618-LCS	Lab Control Spike	0629_000008	06/29/15 1238
150618-BLK	Blank	0629_000014	06/29/15 1623
AZ17817	S67-SW026-061615	0629_000020	06/29/15 2008
AZ17818	S67-SW026P-061615	0629_000021	06/29/15 2046
AZ17821	S67-SW027-061615	0629_000023	06/29/15 2151
AZ17826	S67-MW018-061615	0629_000024	06/29/15 2228
AZ17827	S67-MW019-061615	0629_000025	06/29/15 2306
AZ17828	S67-MW023-061615	0629_000026	06/29/15 2343
AZ17829	S67-MW022-061615	0629_000027	06/30/15 0021

Comments: Batch: #83BJU11W-15061

EPA 8330B

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 06/30/15

Matrix: SOIL Instrument: Waldorf

Blank ID: 150625A-BLK Time Analyzed: 0251

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150625A-LCS	Lab Control Spike	0629_000028	06/30/15 0058
150625A-MS	Matrix Spike	0629_000029	06/30/15 0136
150625A-MSD	Matrix SpikeD	0629_000030	06/30/15 0213
150625A-BLK	Blank	0629_000031	06/30/15 0251
AZ17816	S67-SD026-0001	0629_000032	06/30/15 0328
AZ17819	S67-SD027-0001	0629_000033	06/30/15 0406
AZ17820	S67-SD027P-0001	0629_000034	06/30/15 0443
AZ17822	S67-SD028-0001	0629_000035	06/30/15 0521
AZ17824	S67-SD029-0001	0629_000036	06/30/15 0558

Comments: Batch: #83BJU-150625A

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

ARF: 76674

Sample ID: S67-SD026-0001

APPL ID: AZ17816

Sample Collection Date: 06/16/15

QCG: #83BJU-150625A-198531

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	06/25/15	06/30/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/25/15	06/30/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/25/15	06/30/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/25/15	06/30/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/25/15	06/30/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/25/15	06/30/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	89.7	70-130			%	06/25/15	06/30/15

Quant Method:	W150627.M
Run #:	0629_000032
Instrument:	Waldorf
Sequence:	150629
Dilution Factor:	1
Initials:	MP

Printed: 07/02/15 9:51:32 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000032.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 30-Jun-2015, 03:28:50
Operator : MP
Sample : AZ17816S02 7.984 DF 06/25/15
Misc : Soil
ALS Vial : 4228 Sample Multiplier: 7.98403

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 08:22:54 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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	3.773	0	962094	N.D.		537.165	#
	Spiked Amount 598.802			Recovery	=	0.00%		89.71%	
	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.		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	6.815	0.000	8853	0	NoCal		N.D.	
10)	TM 2,4,6-TRI...	7.280	0.000	25200	0	NoCal		N.D.	
11)	TM 2-AMINO-4...	7.639	0.000	9161	0	NoCal		N.D.	
12)	TM 4-AMINO-2...	7.924	0.000	156551	0	NoCal	NT	N.D.	d
13)	TM 2,4-DINIT...	9.025	0.000	12386	0	NoCal		N.D.	
14)	TM 2,6-DINIT...	9.505	0.000	14857	0	NoCal		N.D.	
15)	TM 2-NITROTO...	0.000	0.000	0	0	N.D.		N.D.	
16)	TM 4-NITROTO...	0.000	0.000	0	0	N.D.	NT	N.D.	d
17)	TM 3-NITROTO...	0.000	0.000	0	0	N.D.		N.D.	
18)	TM PETN	0.000	0.000	0	0	N.D.	d NT	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

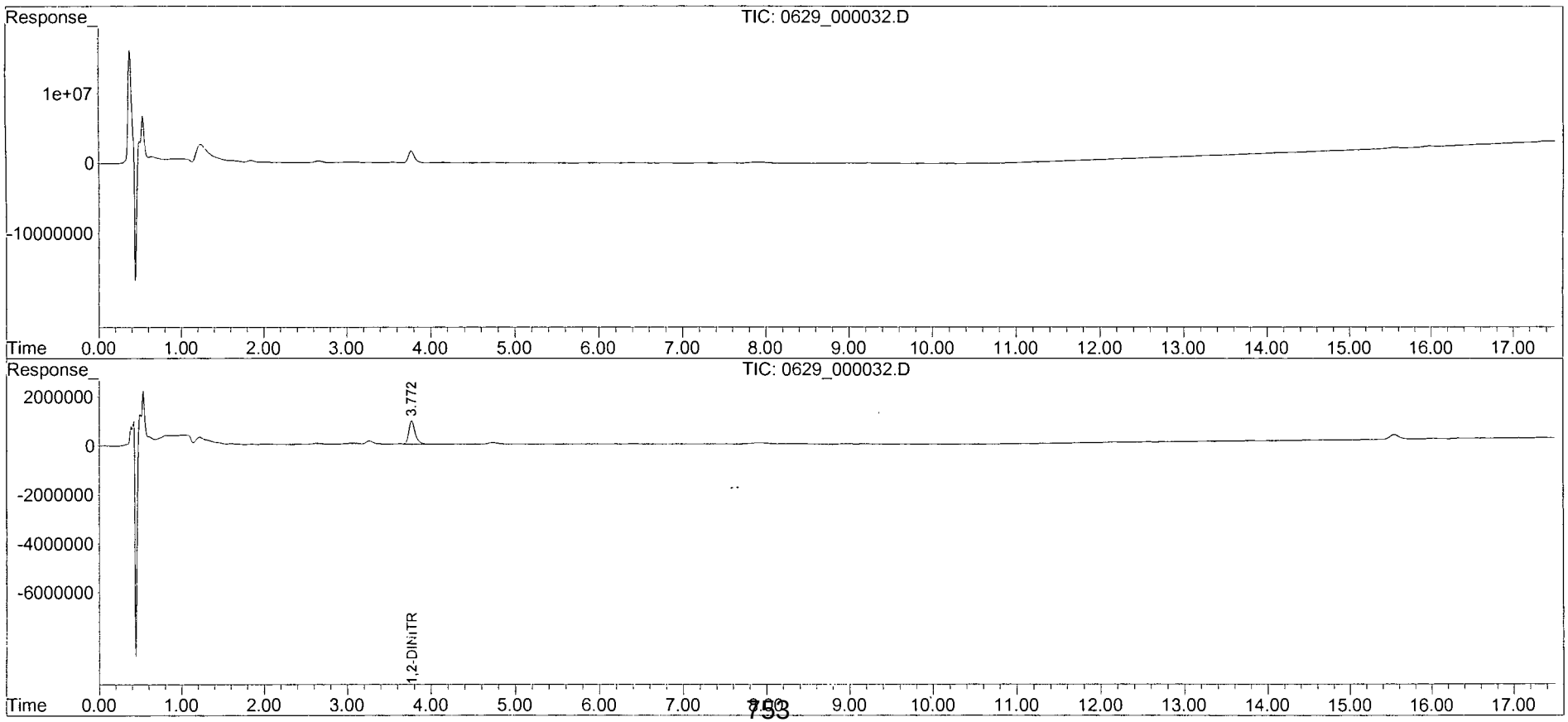
MP
06-30-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000032.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 30-Jun-2015, 03:28:50
Operator : MP
Sample : AZ17816S02 7.984 DF 06/25/15
Misc : Soil
ALS Vial : 4228 Sample Multiplier: 7.98403

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 08:22:54 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



EPA 8330B WATER

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76674

Sample ID: S67-SW026-061615

APPL ID: AZ17817

Sample Collection Date: 06/16/15

QCG: #83BJU11W-150618-19849

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	06/18/15	06/29/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	06/18/15	06/29/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	06/18/15	06/29/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	06/18/15	06/29/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	90.3	70-130			%	06/18/15	06/29/15

Quant Method: W150627.M
Run #: 0629_000020
Instrument: Waldorf
Sequence: 150629
Dilution Factor: 1
Initials: MP

Printed: 07/02/15 10:17:32 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000020.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 29-Jun-2015, 20:08:41
Operator : MP
Sample : AZ17817W03 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4160 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 13:51:20 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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	3.774	0	806781	N.D.	0.903 #
Spiked Amount 1.000			Recovery	=	0.00%	90.30%
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 ΔRT	N.D.
9) TM TETRYL	6.815	0.000	18815	0	NoCal	N.D.
10) TM 2,4,6-TRI...	7.216	0.000	4264	0	NoCal	N.D.
11) TM 2-AMINO-4...	7.537	0.000	12303	0	NoCal	N.D.
12) TM 4-AMINO-2...	8.047	0.000	1430	0	NoCal	N.D.
13) TM 2,4-DINIT...	8.970	0.000	83887	0	NoCal	N.D.
14) TM 2,6-DINIT...	9.496	0.000	12924	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. d NT	N.D.

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

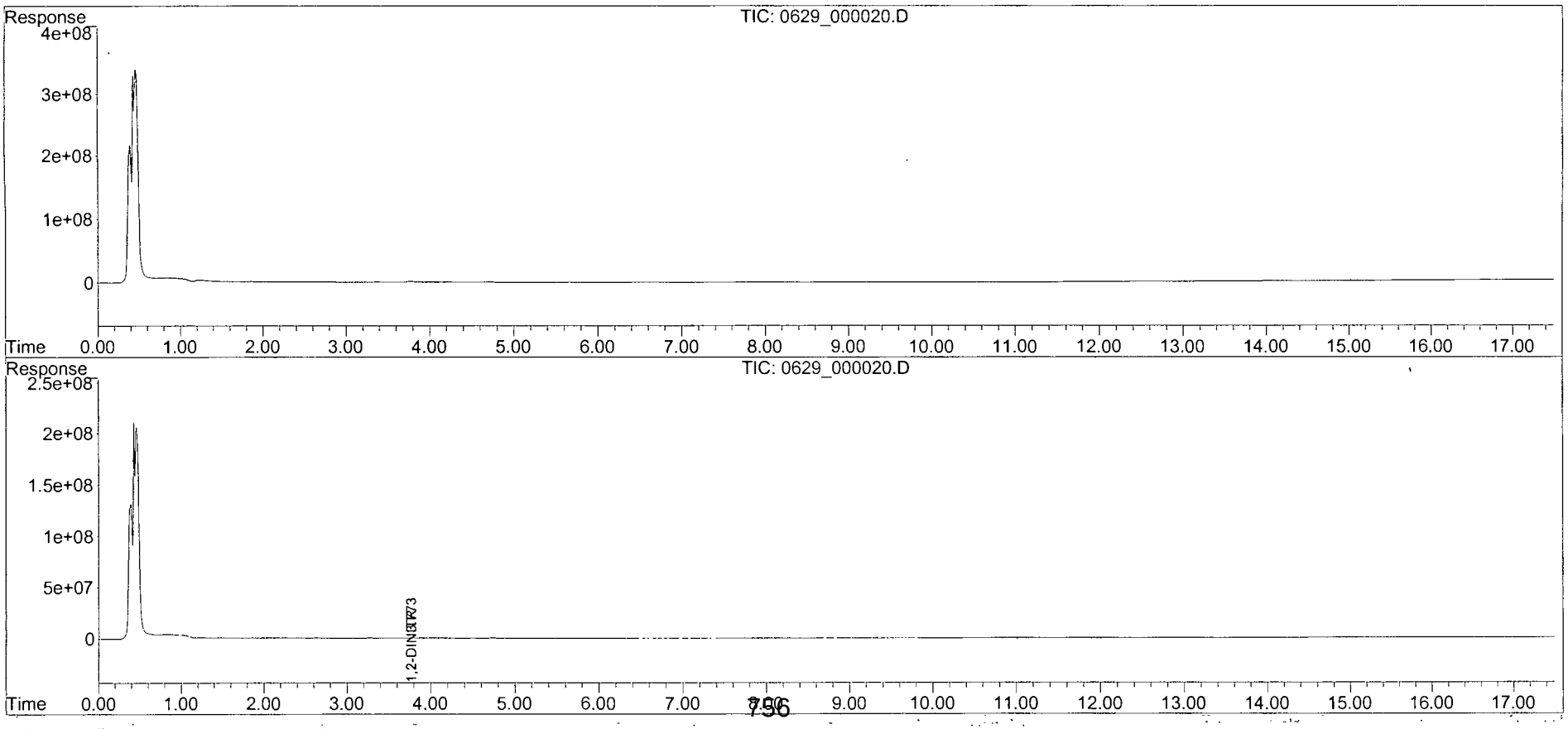
MP
06-30-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000020.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 29-Jun-2015, 20:08:41
Operator : MP
Sample : AZ17817W03 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4160 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 13:51:20 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



EPA 8330B WATER

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SW026P-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17818
QCG: #83BJU11W-150618-19849

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	06/18/15	06/29/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	06/18/15	06/29/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	06/18/15	06/29/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	06/18/15	06/29/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	88.2	70-130			%	06/18/15	06/29/15

Quant Method: W150627.M
Run #: 0629_000021
Instrument: Waldorf
Sequence: 150629
Dilution Factor: 1
Initials: MP

Printed: 07/02/15 10:17:32 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000021.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 29-Jun-2015, 20:46:11
Operator : MP
Sample : AZ17818W03 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4161 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 08:00:28 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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	3.770	0	788604	N.D.	0.882m#
	Spiked Amount 1.000			Recovery =		0.00%	88.20%
	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	N.D.
9)	TM TETRYL	0.000	0.000	0	0	N.D.	N.D.
10)	TM 2,4,6-TRI...	7.356	0.000	1083	0	NoCal	N.D.
11)	TM 2-AMINO-4...	7.463	0.000	8364	0	NoCal	N.D.
12)	TM 4-AMINO-2...	7.941	0.000	5838	0	NoCal	N.D.
13)	TM 2,4-DINIT...	9.189	0.000	5768	0	NoCal	N.D.
14)	TM 2,6-DINIT...	9.453	0.000	7019	0	NoCal	N.D.
15)	TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D. d
16)	TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
17)	TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
18)	TM PETN	0.000	0.000	0	0	N.D. d	N.D.

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

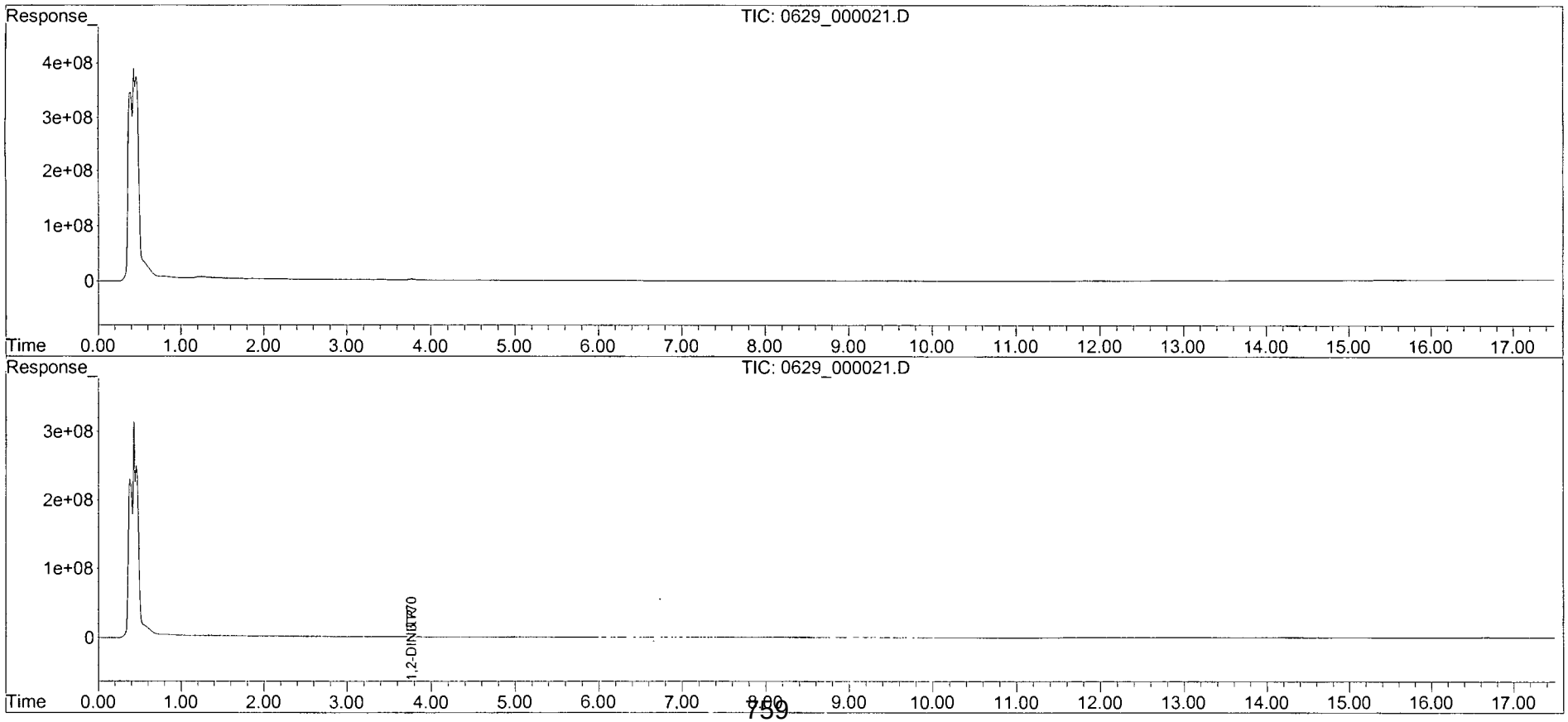
MP
06-30-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000021.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 29-Jun-2015, 20:46:11
Operator : MP
Sample : AZ17818W03 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4161 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 08:00:28 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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



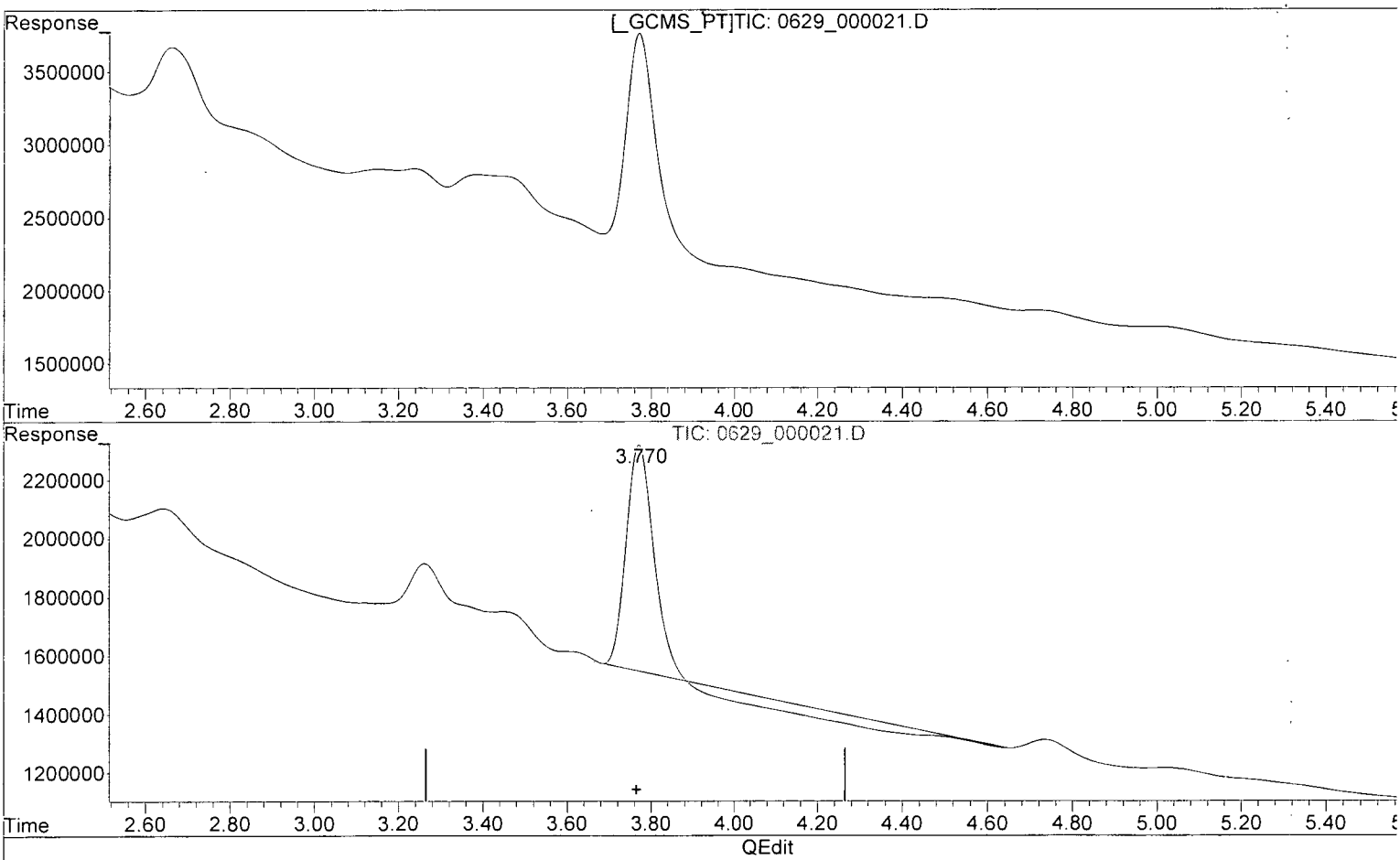
W150627.M Tue Jun 30 08:00:42 2015 WALDORF Page: 2

Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000021.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 29-Jun-2015, 20:46:11
Operator : MP
Sample : AZ17818W03 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4161 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 07:36:03 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0



(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

3.771min 0.865 ppb

response 773128

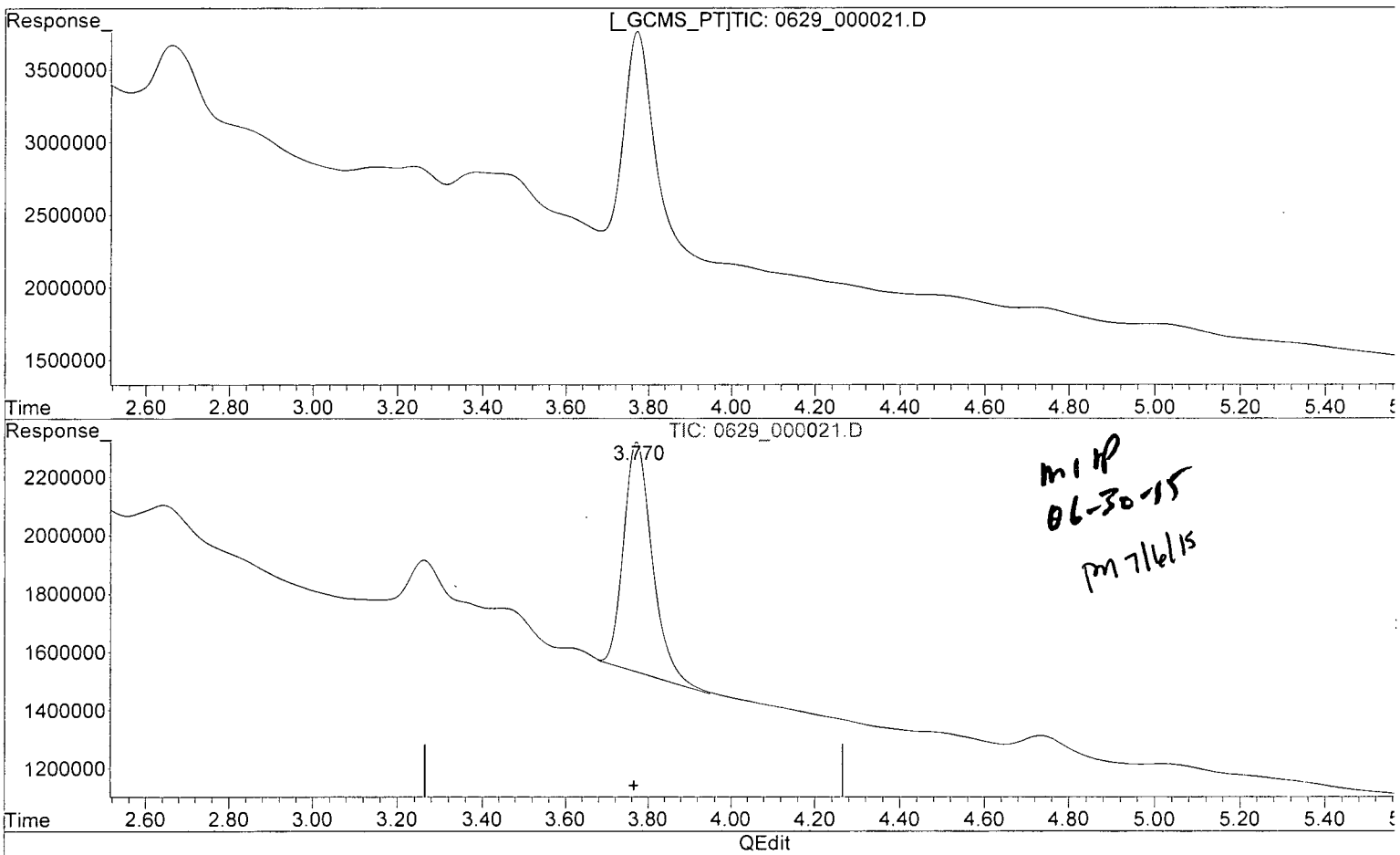
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000021.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 29-Jun-2015, 20:46:11
Operator : MP
Sample : AZ17818W03 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4161 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 07:36:03 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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



m1 MP 06-30-15 pm 7/6/15

(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

3.770min 0.882 ppb m

response 788604

(+) = Expected Retention Time

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-SD027-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17819
QCG: #83BJU-150625A-198531

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	06/25/15	06/30/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/25/15	06/30/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/25/15	06/30/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/25/15	06/30/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/25/15	06/30/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/25/15	06/30/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	87.3	70-130			%	06/25/15	06/30/15

Quant Method: W150627.M
Run #: 0629_000033
Instrument: Waldorf
Sequence: 150629
Dilution Factor: 1
Initials: MP

Printed: 07/02/15 9:51:32 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000033.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 30-Jun-2015, 04:06:20
Operator : MP
Sample : AZ17819S02 7.874 DF 06/25/15
Misc : Soil
ALS Vial : 4229 Sample Multiplier: 7.87402

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 08:25:31 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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	3.764	0	936449	N.D.		515.642 #
	Spiked Amount 590.551			Recovery	=	0.00%		87.32%
	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 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...	6.344	6.367	78813	18078	103.046		NoCal #
9)	TM TETRYL	6.788	0.000	12104	0	NoCal		N.D.
10)	TM 2,4,6-TRI...	7.241	0.000	132091	0	NoCal	NT	N.D. d
11)	TM 2-AMINO-4...	7.521	0.000	11227	0	NoCal		N.D.
12)	TM 4-AMINO-2...	7.879	0.000	84277	0	NoCal	NT	N.D. d
13)	TM 2,4-DINIT...	9.211	0.000	99935	0	NoCal	ART	N.D. d
14)	TM 2,6-DINIT...	9.519	0.000	12378	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.

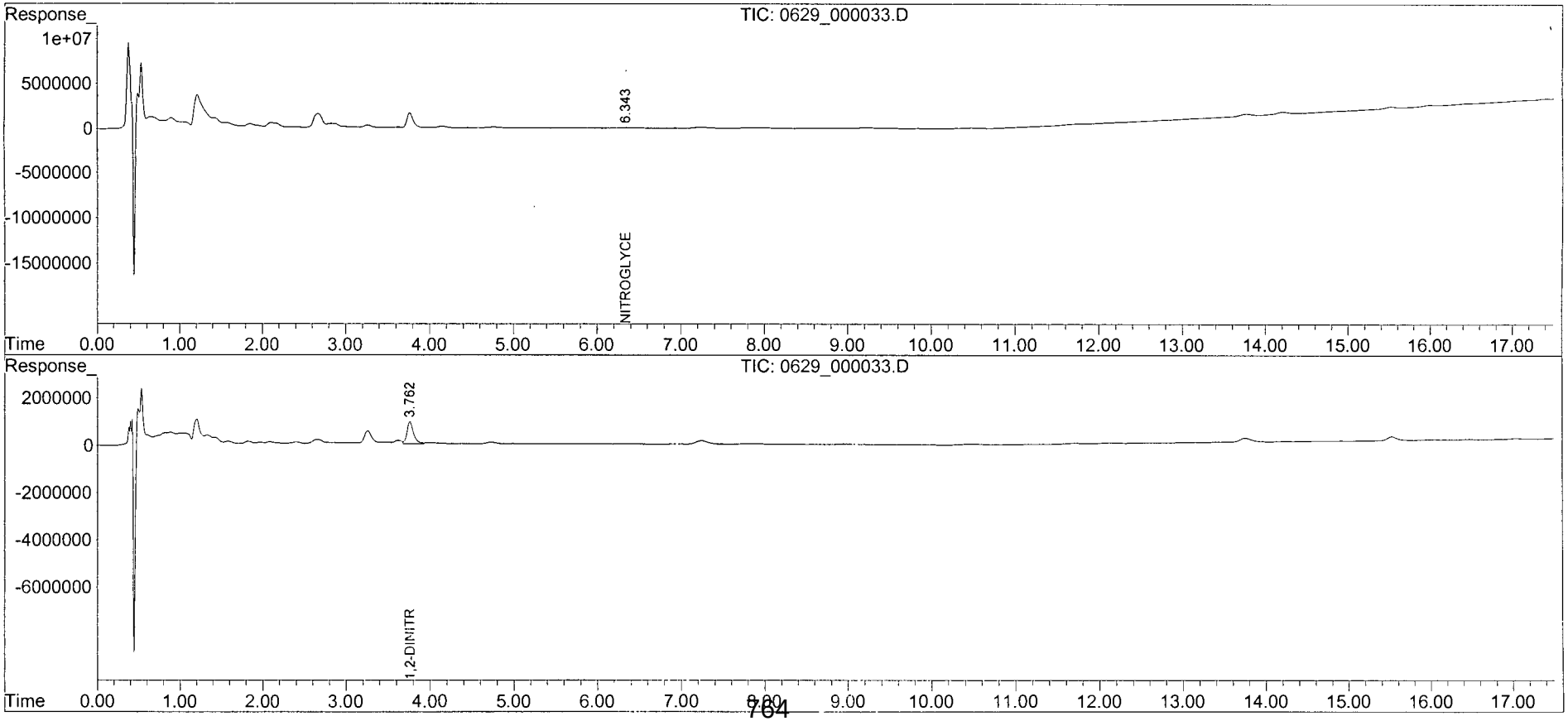
NP
06-30-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000033.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 30-Jun-2015, 04:06:20
Operator : MP
Sample : AZ17819S02 7.874 DF 06/25/15
Misc : Soil
ALS Vial : 4229 Sample Multiplier: 7.87402

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 08:25:31 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150701\
Data File : 0701_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 01-Jul-2015, 13:53:30
Operator : MP
Sample : AZ17819S02 7.874 DF 06/25/15
Misc : Soil
ALS Vial : 4096 Sample Multiplier: 7.87402

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jul 01 15:15:04 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150701\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
4)	S 1,2-DINIT...	0.000	8.086	0	143449	N.D.	637.632	#
	Spiked Amount 590.551			Recovery	=	0.00%	107.97%	
	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.	NT N.D.	d
6)	TM NITROBENZENE	0.000	0.000	0	0	N.D.	N.D.	
7)	TM 2,4,6-TRI...	11.692	0.000	2053	0	NoCal	NT N.D.	d
8)	TM NITROGLYC...	0.000	12.055	0	339	N.D.	d NT NoCal	
9)	TM TETRYL	11.692	0.000	2053	0	NoCal	<DL N.D.	d
10)	TM 2,6-DINIT...	13.200f	0.000	2682	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	23.041f	0	35937	N.D.	d NT NoCal	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

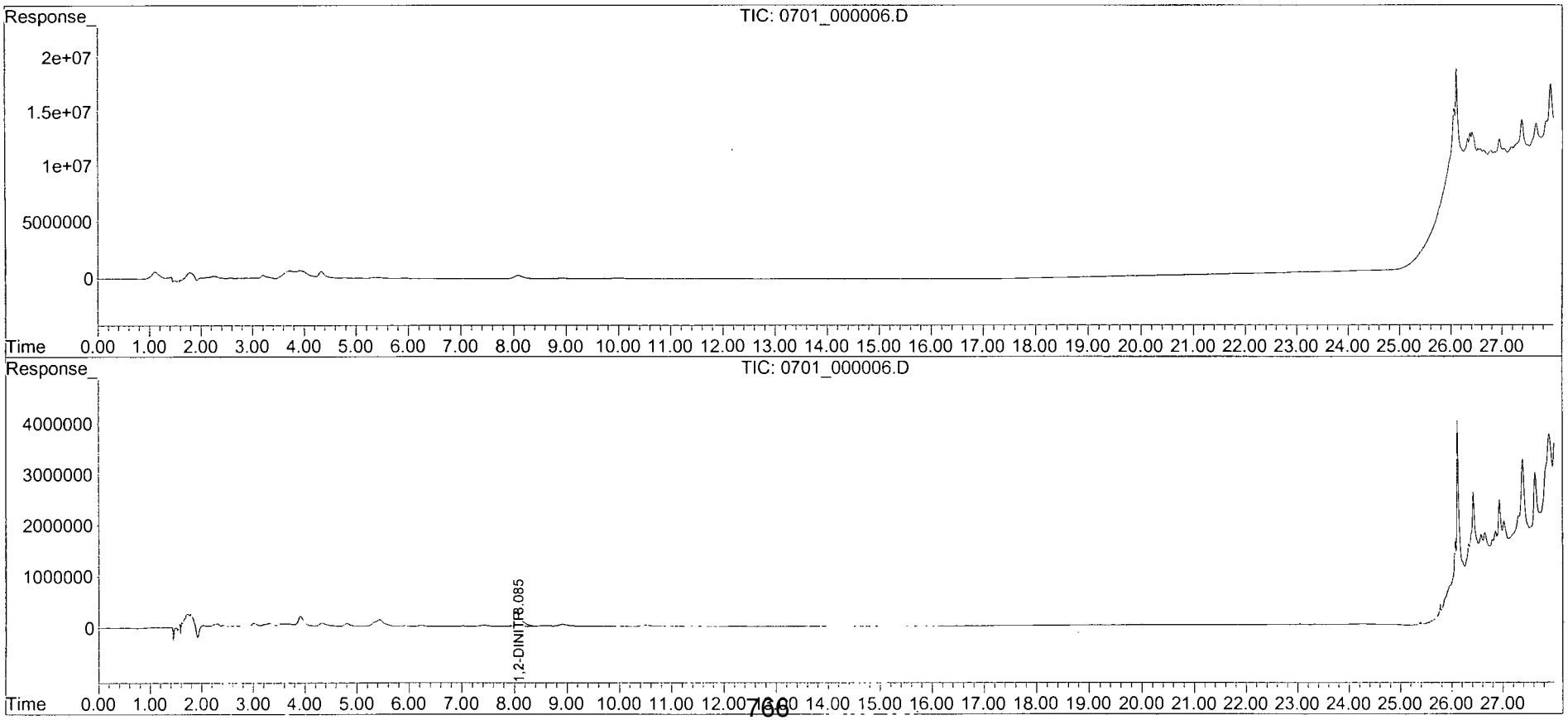
MP
7-2-15

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150701\
Data File : 0701_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 01-Jul-2015, 13:53:30
Operator : MP
Sample : AZ17819S02 7.874 DF 06/25/15
Misc : Soil
ALS Vial : 4096 Sample Multiplier: 7.87402

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jul 01 15:15:04 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150701\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

ARF: 76674

Sample ID: S67-SD027P-0001

APPL ID: AZ17820

Sample Collection Date: 06/16/15

QCG: #83BJU-150625A-198531

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	06/25/15	06/30/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/25/15	06/30/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/25/15	06/30/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/25/15	06/30/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/25/15	06/30/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/25/15	06/30/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	86.4	70-130			%	06/25/15	06/30/15

Quant Method: W150627.M
Run #: 0629_000034
Instrument: Waldorf
Sequence: 150629
Dilution Factor: 1
Initials: MP

Printed: 07/02/15 9:51:32 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000034.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 30-Jun-2015, 04:43:52
Operator : MP
Sample : AZ17820S03 7.905 DF 06/25/15
Misc : Soil
ALS Vial : 4230 Sample Multiplier: 7.90514

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 08:28:02 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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	3.762	0	926247	N.D.		512.041	#
Spiked Amount	592.885			Recovery	=	0.00%		86.36%	
	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.		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...	6.370	6.373	83571	21172	109.699		NoCal	#
9) TM	TETRYL	6.835	0.000	21911	0	NoCal	CDL	N.D.	d
10) TM	2,4,6-TRI...	7.241	0.000	205140	0	NoCal	NT	N.D.	d
11) TM	2-AMINO-4...	0.000	0.000	0	0	N.D.	NT	N.D.	d
12) TM	4-AMINO-2...	7.890	0.000	92780	0	NoCal		N.D.	
13) TM	2,4-DINIT...	9.217	0.000	137304	0	NoCal	CDL	N.D.	d
14) TM	2,6-DINIT...	0.000	0.000	0	0	N.D.		N.D.	
15) TM	2-NITROTO...	0.000	0.000	0	0	N.D.	NT	N.D.	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.

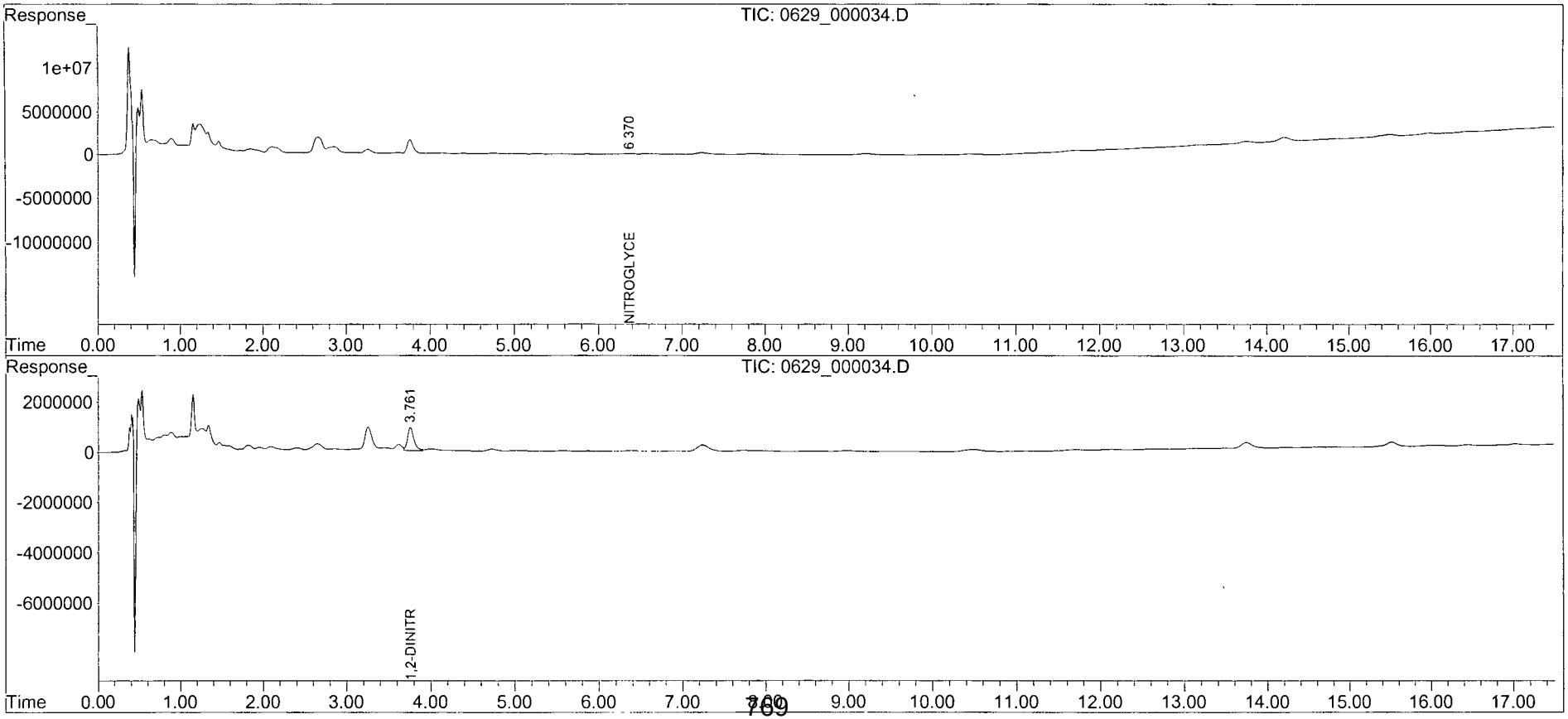
MP
6-30-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000034.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 30-Jun-2015, 04:43:52
Operator : MP
Sample : AZ17820S03 7.905 DF 06/25/15
Misc : Soil
ALS Vial : 4230 Sample Multiplier: 7.90514

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 08:28:02 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150701\
Data File : 0701_000007.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 01-Jul-2015, 14:33:00
Operator : MP
Sample : AZ17820S03 7.905 DF 06/25/15
Misc : Soil
ALS Vial : 4097 Sample Multiplier: 7.90514

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jul 01 15:16:28 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150701\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	8.078	0	145746	N.D.	650.403	#
	Spiked Amount 592.885			Recovery =		0.00%	109.70%	
	Target Compounds							
1)	TM HMX	0.000	0.000	0	0	N.D.	N.D.	
2)	TM RDX	0.000	0.000	0	0	N.D.	<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.	NT N.D.	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	12.046	0	213	N.D.	d <DL NoCal	
9)	TM TETRYL	11.790	0.000	981	0	NoCal	<DL N.D.	d
10)	TM 2,6-DINIT...	13.189f	0.000	6971	0	NoCal	N.D.	
11)	TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.	
12)	TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.	
13)	TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.	
14)	TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.	
15)	TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.	
16)	TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.	
17)	TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.	
18)	TM PETN	0.000	22.472f	0	8491	N.D.	d NT NoCal	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

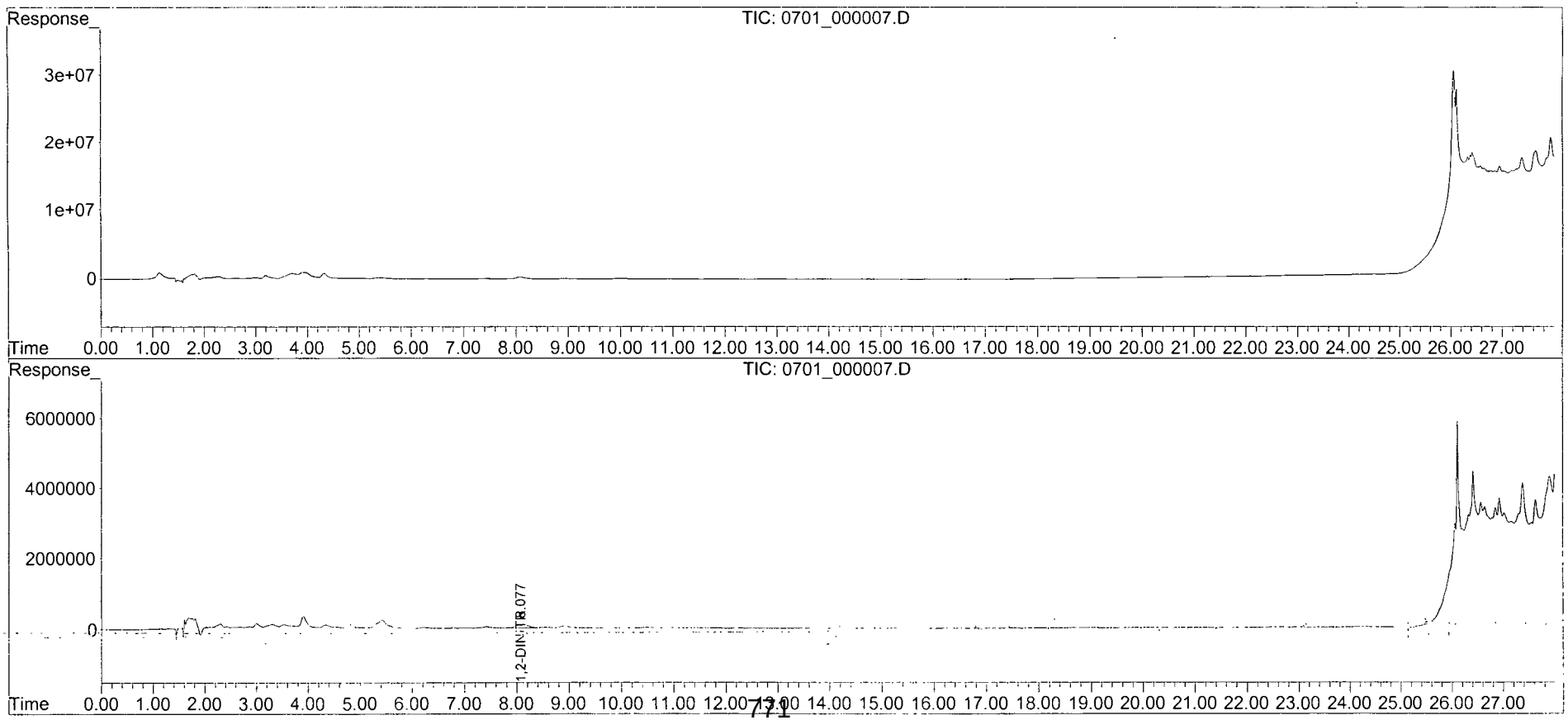
MP
7-2-15

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150701\
Data File : 0701_000007.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 01-Jul-2015, 14:33:00
Operator : MP
Sample : AZ17820S03 7.905 DF 06/25/15
Misc : Soil
ALS Vial : 4097 Sample Multiplier: 7.90514

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jul 01 15:16:28 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150701\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



EPA 8330B WATER

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76674

Sample ID: S67-SW027-061615

APPL ID: AZ17821

Sample Collection Date: 06/16/15

QCG: #83BJU11W-150618-19849

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	06/18/15	06/29/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	06/18/15	06/29/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	06/18/15	06/29/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	06/18/15	06/29/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	87.4	70-130			%	06/18/15	06/29/15

Quant Method: W150627.M
Run #: 0629_000023
Instrument: Waldorf
Sequence: 150629
Dilution Factor: 1
Initials: MP

Printed: 07/02/15 10:17:32 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000023.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 29-Jun-2015, 21:51:17
Operator : MP
Sample : AZ17821W03 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4162 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 08:03:40 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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	3.772	0	781353	N.D.	0.874m#
	Spiked Amount 1.000			Recovery =		0.00%	87.40%
	Target Compounds						
1)	TM HMX	0.000	0.000	0	0	N.D.	N.D.
2)	TM RDX	0.000	0.000	0	0	N.D.	N.D.
3)	TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.	N.D.
5)	TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.
6)	TM 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 DRT	N.D.
9)	TM TETRYL	6.854	0.000	1488	0	NoCal	N.D.
10)	TM 2,4,6-TRI...	7.268	0.000	12849	0	NoCal	N.D.
11)	TM 2-AMINO-4...	7.652	0.000	11103	0	NoCal	N.D.
12)	TM 4-AMINO-2...	7.994	0.000	6206	0	NoCal	N.D.
13)	TM 2,4-DINIT...	8.970	0.000	66939	0	NoCal	N.D.
14)	TM 2,6-DINIT...	9.483	0.000	17824	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. d MT	N.D.

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

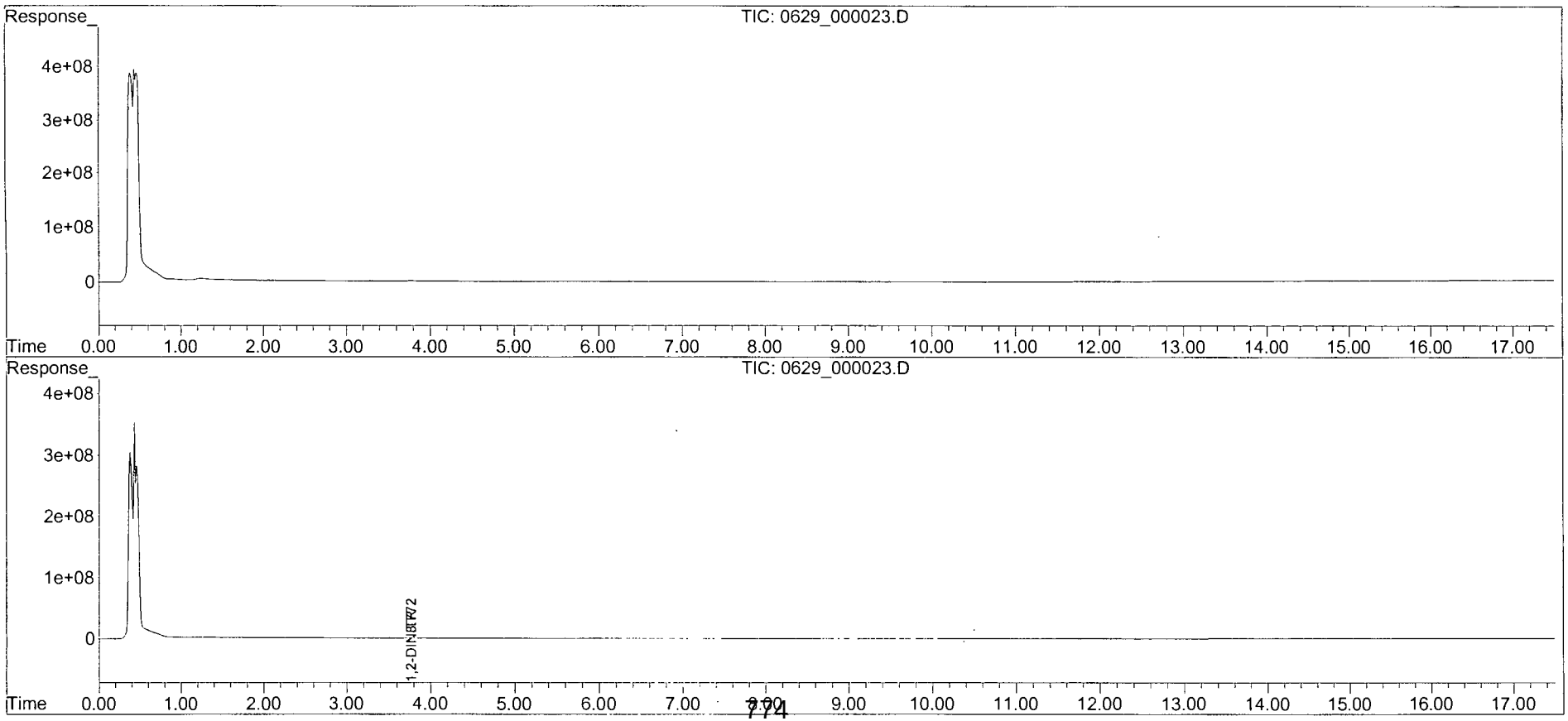
MP
06-30-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000023.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 29-Jun-2015, 21:51:17
Operator : MP
Sample : AZ17821W03 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4162 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 08:03:40 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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

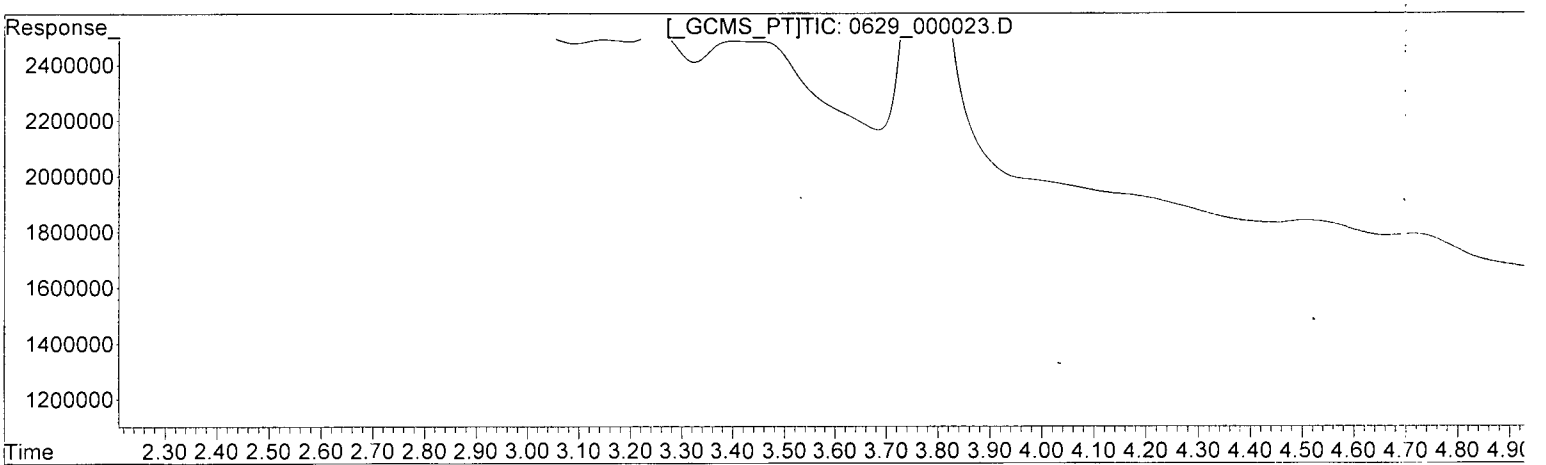


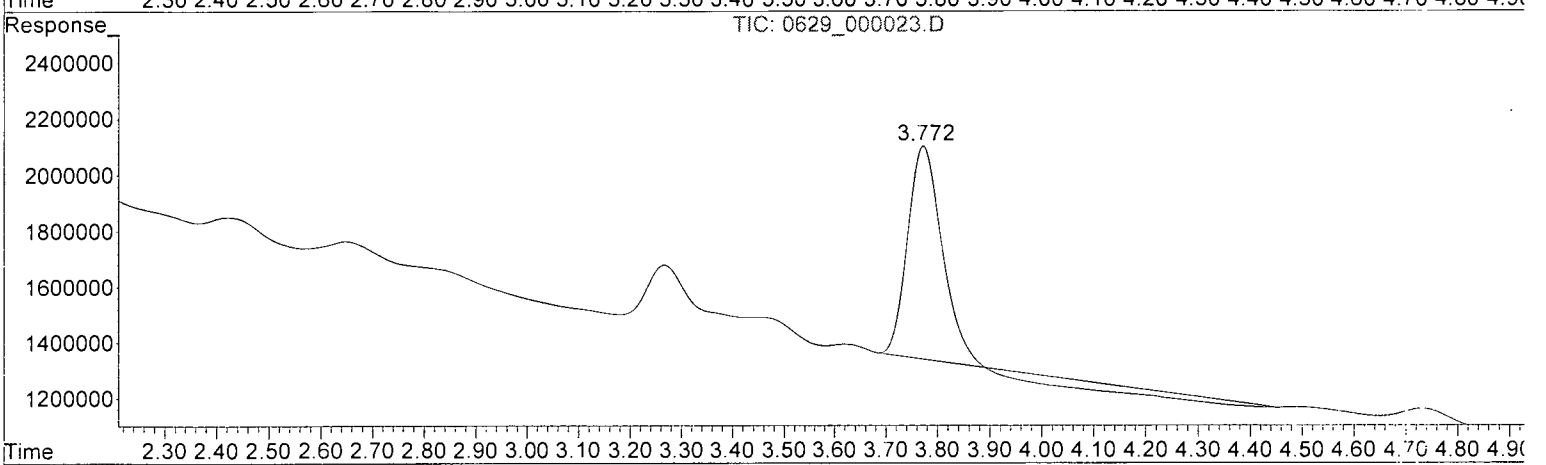
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000023.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 29-Jun-2015, 21:51:17
Operator : MP
Sample : AZ17821W03 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4162 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 07:36:08 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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

(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

3.772min 0.853 ppb

response 762456

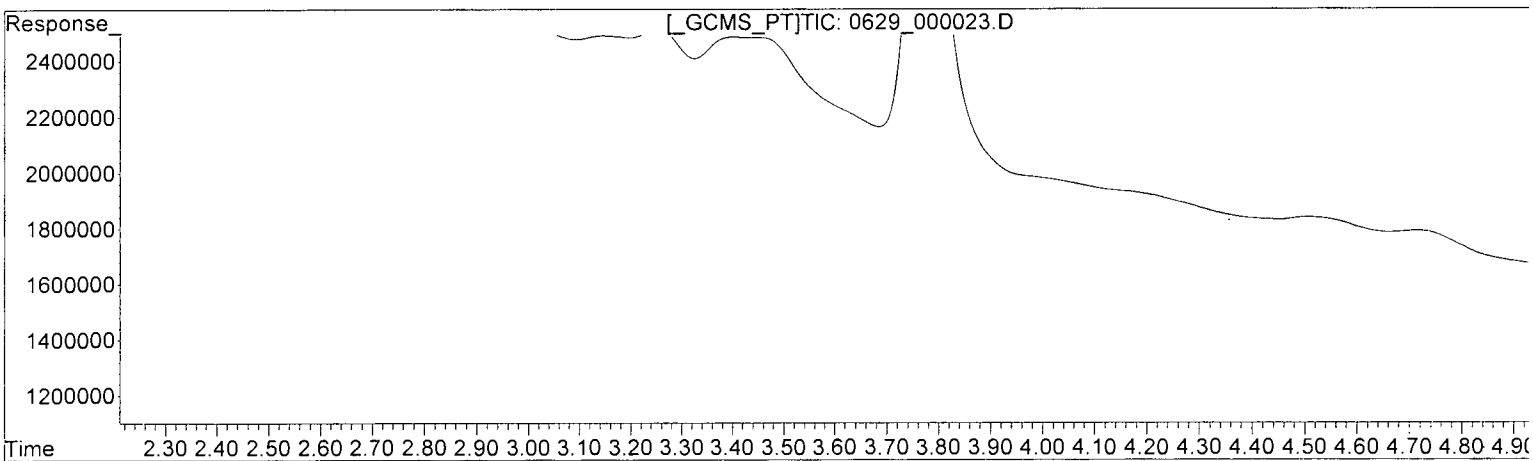
(+) = Expected Retention Time

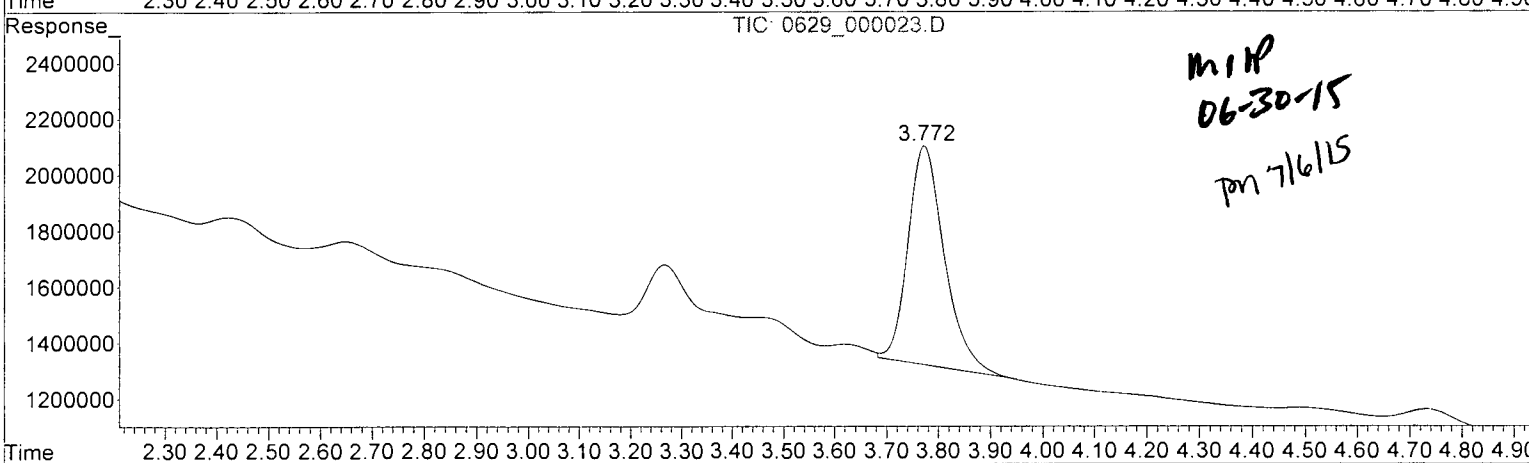
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000023.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 29-Jun-2015, 21:51:17
Operator : MP
Sample : AZ17821W03 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4162 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 07:36:08 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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 06-30-15
pm 7/6/15

QEdit

(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

3.772min 0.874 ppb m

response 781353

(+) = Expected Retention Time

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: 76674

Sample ID: S67-SD028-0001

APPL ID: AZ17822

Sample Collection Date: 06/16/15

QCG: #83BJU-150625A-198531

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	06/25/15	06/30/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/25/15	06/30/15
EPA 8330B	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/25/15	06/30/15
EPA 8330B	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/25/15	06/30/15
EPA 8330B	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/25/15	06/30/15
EPA 8330B	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/25/15	06/30/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	89.0	70-130			%	06/25/15	06/30/15

Quant Method: W150627.M
Run #: 0629_000035
Instrument: Waldorf
Sequence: 150629
Dilution Factor: 1
Initials: MP

Printed: 07/02/15 9:51:32 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000035.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 30-Jun-2015, 05:21:23
Operator : MP
Sample : AZ17822S01 7.976 DF 06/25/15
Misc : Soil
ALS Vial : 4231 Sample Multiplier: 7.97607

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 08:29:42 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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	3.772	0	954653	N.D.	532.479	#
	Spiked Amount 598.205			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.	<DL N.D.	d
3)	TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.	N.D.	
5)	TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.	
6)	TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.	
7)	TM NITROBENZENE	0.000	0.000	0	0	N.D.	N.D.	
8)	TM NITROGLYC...	6.386	6.371	70826	29342	93.803	NoCal	#
9)	TM TETRYL	6.857	0.000	15731	0	NoCal	<DL N.D.	d
10)	TM 2,4,6-TRI...	7.271	0.000	82371	0	NoCal	NT N.D.	d
11)	TM 2-AMINO-4...	7.632	0.000	2772	0	NoCal	N.D.	
12)	TM 4-AMINO-2...	7.880	0.000	116654	0	NoCal	NT N.D.	d
13)	TM 2,4-DINIT...	9.233	0.000	237819	0	NoCal	ΔNT N.D.	d
14)	TM 2,6-DINIT...	9.567	0.000	19656	0	NoCal	N.D.	
15)	TM 2-NITROTO...	0.000	0.000	0	0	N.D.	NT N.D.	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.

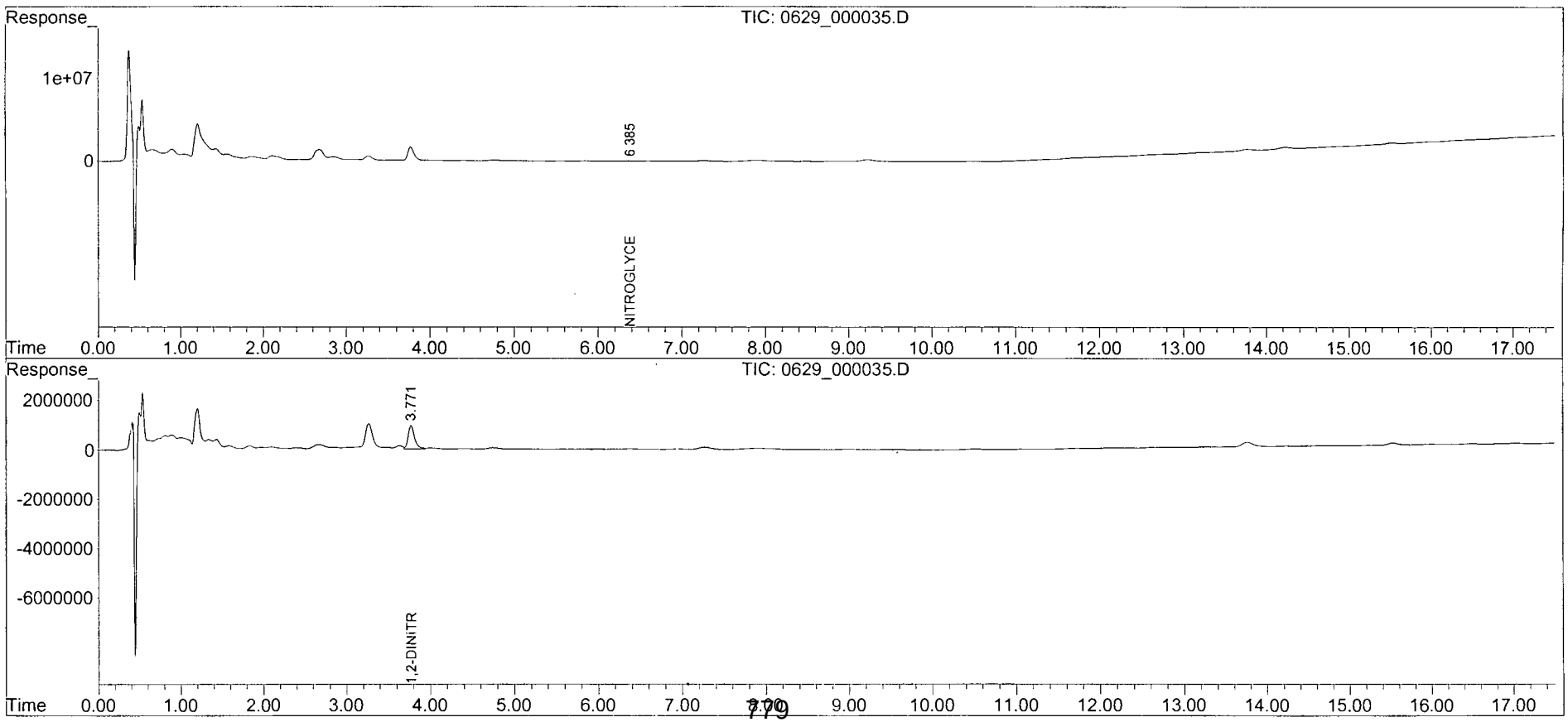
MP
06-30-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000035.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 30-Jun-2015, 05:21:23
Operator : MP
Sample : AZ17822S01 7.976 DF 06/25/15
Misc : Soil
ALS Vial : 4231 Sample Multiplier: 7.97607

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 08:29:42 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150701\
Data File : 0701_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 01-Jul-2015, 15:12:32
Operator : MP
Sample : AZ17822S01 7.976 DF 06/25/15
Misc : Soil
ALS Vial : 4098 Sample Multiplier: 7.97607

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jul 02 08:26:18 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150701\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
4) S	1,2-DINIT...	0.000	8.082	0	148618	N.D.	669.172	#
Spiked Amount	598.205			Recovery	=	0.00%	111.86%	
	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.	NT 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.	NT N.D.	d
8) TM	NITROGLYC...	0.000	12.266	0	3837	N.D.	d <DL NoCal	
9) TM	TETRYL	0.000	0.000	0	0	N.D.	<DL N.D.	d
10) TM	2,6-DINIT...	13.179f	0.000	3105	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.	NT N.D.	d
18) TM	PETN	0.000	23.204f	0	26583	N.D.	d NT NoCal	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

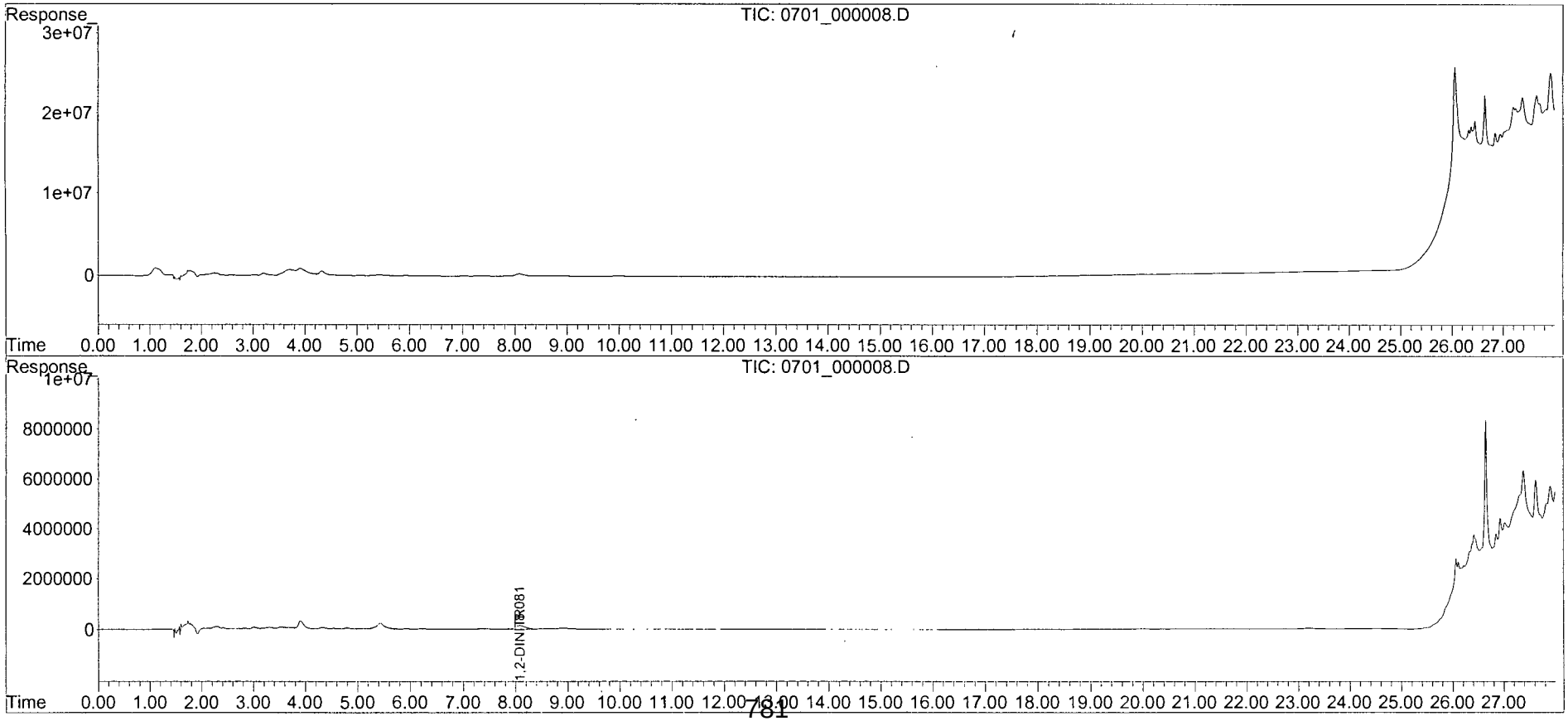
7-2-15

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150701\
Data File : 0701_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 01-Jul-2015, 15:12:32
Operator : MP
Sample : AZ17822S01 7.976 DF 06/25/15
Misc : Soil
ALS Vial : 4098 Sample Multiplier: 7.97607

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jul 02 08:26:18 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150701\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-SD029-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17824
QCG: #83BJU-150625A-198531

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.200 U	1.00	0.200	0.083	mg/kg	06/25/15	06/30/15
EPA 8330B	2,6-DINITROTOLUENE	0.200 U	1.00	0.200	0.083	mg/kg	06/25/15	06/30/15
EPA 8330B	HMX	0.200 U	1.00	0.200	0.080	mg/kg	06/25/15	06/30/15
EPA 8330B	NITROGLYCERIN	0.200 U	1.00	0.200	0.085	mg/kg	06/25/15	06/30/15
EPA 8330B	RDX	0.200 U	1.00	0.200	0.080	mg/kg	06/25/15	06/30/15
EPA 8330B	TETRYL	0.200 U	1.00	0.200	0.091	mg/kg	06/25/15	06/30/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	82.5	70-130			%	06/25/15	06/30/15

Quant Method: W150627.M
Run #: 0629_000036
Instrument: Waldorf
Sequence: 150629
Dilution Factor: 1
Initials: MP

Printed: 07/02/15 9:51:32 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000036.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 30-Jun-2015, 05:58:53
Operator : MP
Sample : AZ17824S04 7.968 DF 06/25/15
Misc : Soil
ALS Vial : 4232 Sample Multiplier: 15.9363

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 08:30:55 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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	3.762	0	442325	N.D.		492.943	#
Spiked Amount	597.610			Recovery	=	0.00%		82.49%	
	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.		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	6.337	0	23849	N.D.	d LDL	NoCal	
9) TM	TETRYL	6.854	0.000	2059	0	NoCal		N.D.	
10) TM	2,4,6-TRI...	7.237	0.000	62952	0	NoCal	NT	N.D.	d
11) TM	2-AMINO-4...	7.647	0.000	17528	0	NoCal		N.D.	
12) TM	4-AMINO-2...	8.060	0.000	28556	0	NoCal	NT	N.D.	d
13) TM	2,4-DINIT...	9.209	0.000	78753	0	NoCal		N.D.	
14) TM	2,6-DINIT...	9.519	0.000	10366	0	NoCal		N.D.	
15) TM	2-NITROTO...	0.000	0.000	0	0	N.D.		N.D.	
16) TM	4-NITROTO...	0.000	0.000	0	0	N.D.	NT	N.D.	d
17) TM	3-NITROTO...	0.000	0.000	0	0	N.D.		N.D.	
18) TM	PETN	0.000	0.000	0	0	N.D.		N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

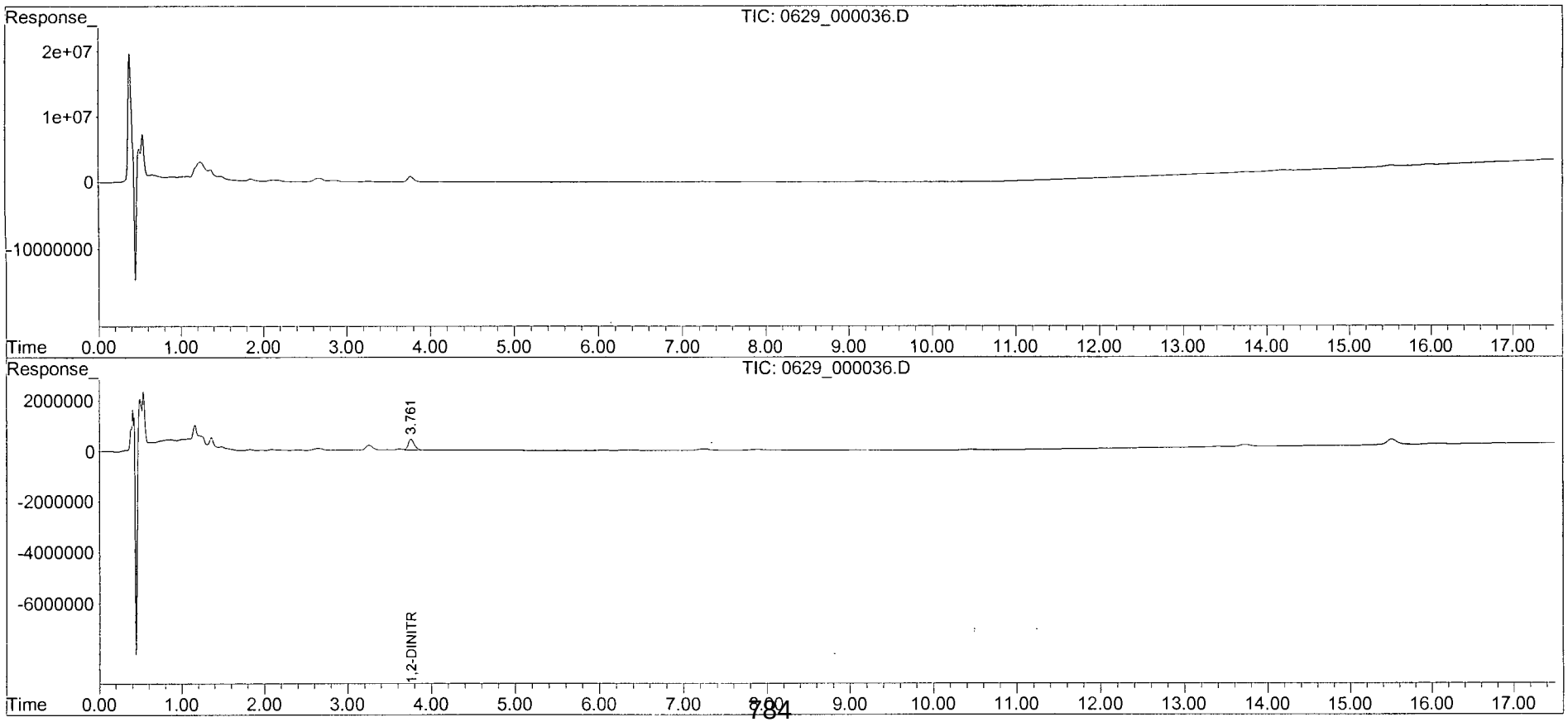
MP
06-30-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000036.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 30-Jun-2015, 05:58:53
Operator : MP
Sample : AZ17824S04 7.968 DF 06/25/15
Misc : Soil
ALS Vial : 4232 Sample Multiplier: 15.9363

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 08:30:55 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



EPA 8330B WATER

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-MW018-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17826
QCG: #83BJU11W-150618-19849

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	06/18/15	06/29/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	06/18/15	06/29/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	06/18/15	06/29/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	06/18/15	06/29/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	88.2	70-130			%	06/18/15	06/29/15

Quant Method:	W150627.M
Run #:	0629_000024
Instrument:	Waldorf
Sequence:	150629
Dilution Factor:	1
Initials:	MP

Printed: 07/02/15 10:17:32 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000024.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 29-Jun-2015, 22:28:48
Operator : MP
Sample : AZ17826W05 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4163 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 08:04:59 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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	3.772	0	788509	N.D.	0.882	#
	Spiked Amount 1.000			Recovery =		0.00%	88.20%	
	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	6.394	0	20778	N.D. d	NoCal	
9)	TM TETRYL	6.919	0.000	65216	0	NoCal	N.D.	
10)	TM 2,4,6-TRI...	7.175	0.000	77786	0	NoCal	N.D.	
11)	TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.	
12)	TM 4-AMINO-2...	7.899	0.000	432286	0	NoCal	N.D.	d
13)	TM 2,4-DINIT...	8.946	0.000	126286	0	NoCal	N.D.	
14)	TM 2,6-DINIT...	9.485	0.000	116431	0	NoCal	N.D.	d
15)	TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.	
16)	TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.	d
17)	TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.	d
18)	TM PETN	0.000	0.000	0	0	N.D. d	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

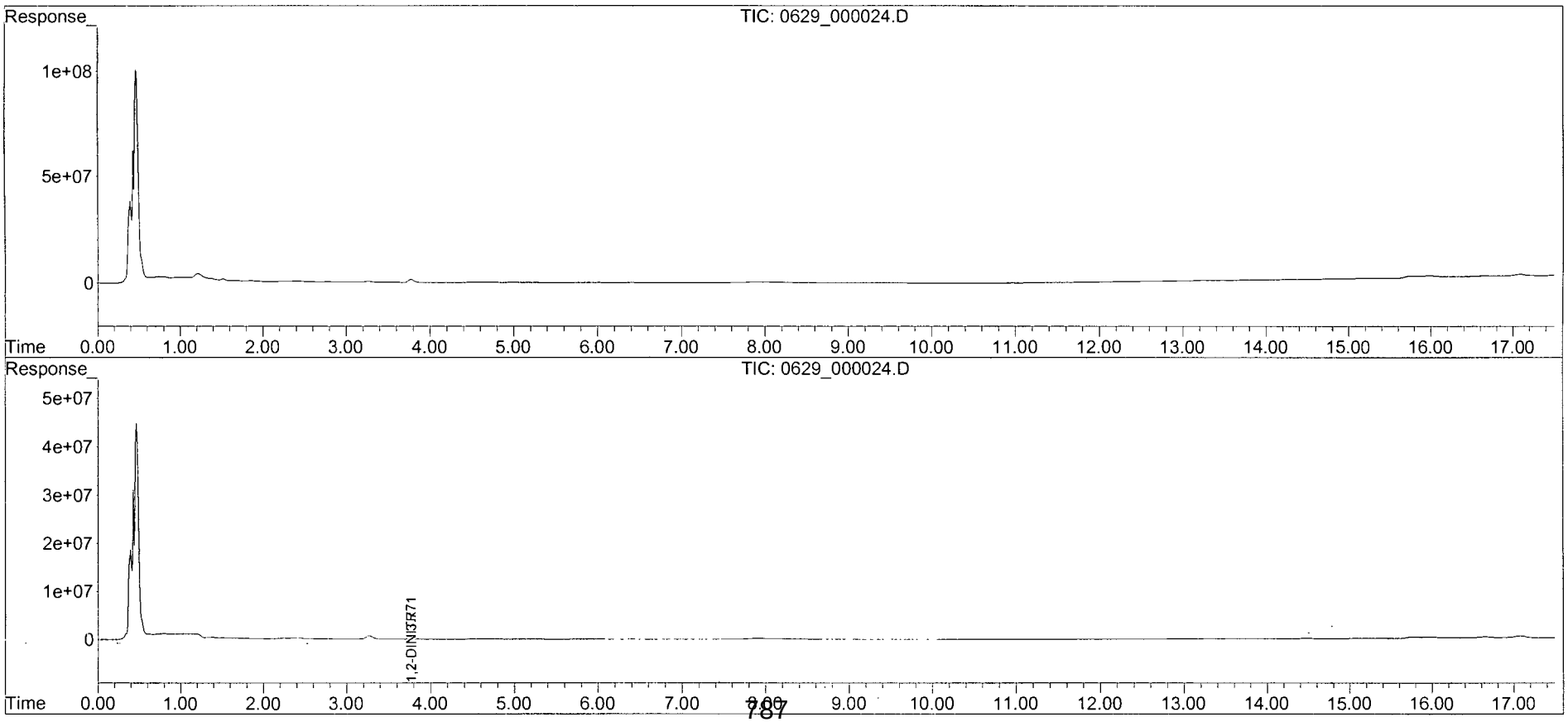
06-30-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000024.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 29-Jun-2015, 22:28:48
Operator : MP
Sample : AZ17826W05 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4163 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 08:04:59 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



EPA 8330B WATER

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76674

Sample ID: S67-MW019-061615

APPL ID: AZ17827

Sample Collection Date: 06/16/15

QCG: #83BJU11W-150618-19849

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	06/18/15	06/29/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	06/18/15	06/29/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	06/18/15	06/29/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	06/18/15	06/29/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	89.4	70-130			%	06/18/15	06/29/15

Quant Method: W150627.M
Run #: 0629_000025
Instrument: Waldorf
Sequence: 150629
Dilution Factor: 1
Initials: MP

Printed: 07/02/15 10:17:32 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000025.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 29-Jun-2015, 23:06:19
Operator : MP
Sample : AZ17827W02 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4164 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 08:07:18 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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	3.780	0	799331	N.D.		0.894	#
Spiked Amount	1.000			Recovery	=	0.00%		89.40%	
	Target Compounds								
1) TM	HMX	0.000	0.000	0	0	N.D.		N.D.	
2) TM	RDX	0.000	0.000	0	0	N.D.		N.D.	
3) TM	1,3,5-TRI...	0.000	0.000	0	0	N.D.	NT	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	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	6.402	0	43083	N.D.	dART	NoCal	
9) TM	TETRYL	0.000	0.000	0	0	N.D.		N.D.	
10) TM	2,4,6-TRI...	7.204	0.000	1079860	0	NoCal	NT	N.D.	d
11) TM	2-AMINO-4...	0.000	0.000	0	0	N.D.		N.D.	
12) TM	4-AMINO-2...	7.954	0.000	7214	0	NoCal		N.D.	
13) TM	2,4-DINIT...	8.958	0.000	1656789	0	NoCal	ART	N.D.	d
14) TM	2,6-DINIT...	9.501	9.518	496429	68244	NoCal		0.148	#
15) TM	2-NITROTO...	0.000	0.000	0	0	N.D.	NT	N.D.	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.

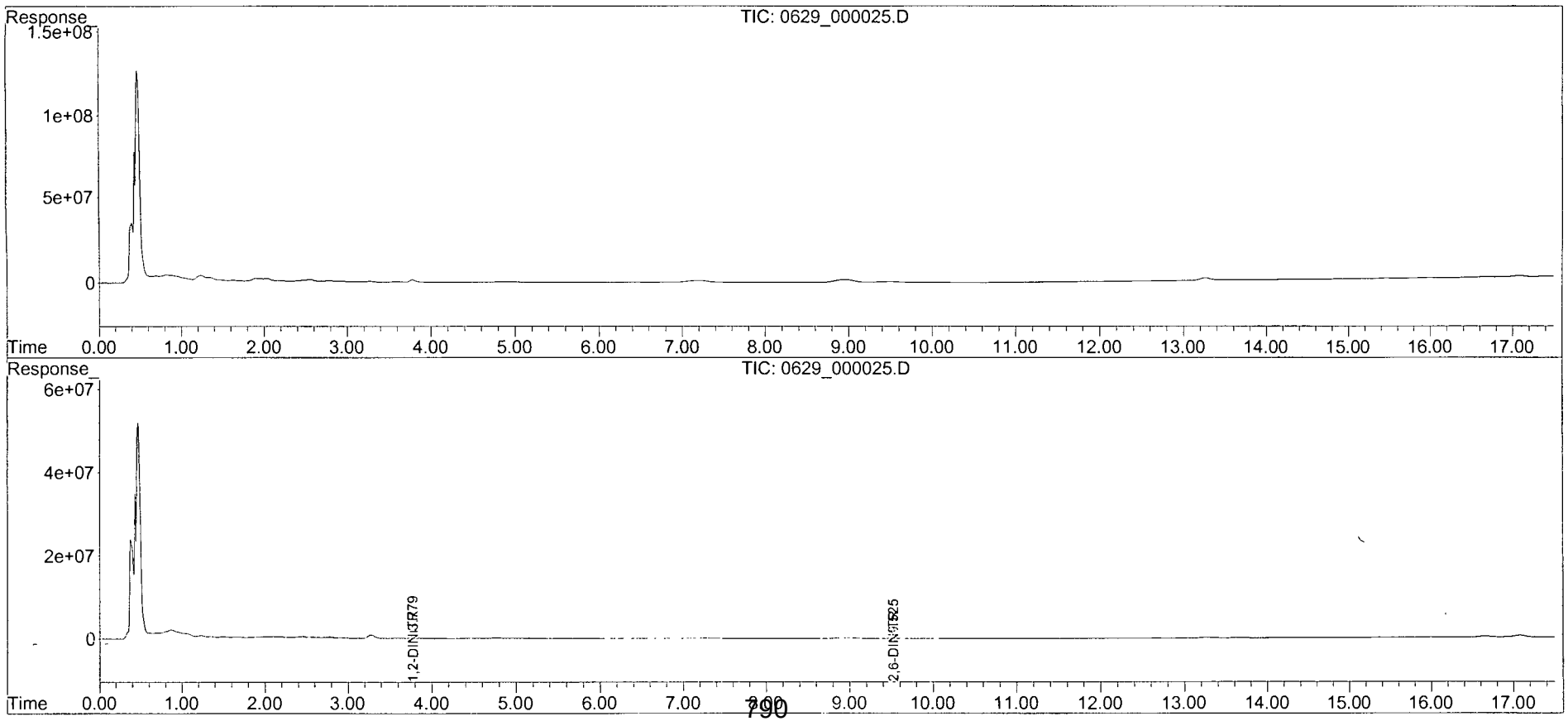
MP
06-30-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000025.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 29-Jun-2015, 23:06:19
Operator : MP
Sample : AZ17827W02 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4164 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 08:07:18 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150701\
Data File : 0701_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 01-Jul-2015, 15:52:02
Operator : MP
Sample : AZ17827W02 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4099 Sample Multiplier: 0.016

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jul 02 08:28:46 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150701\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	8.085	0	117849	N.D.	1.064	#
	Spiked Amount 1.000			Recovery =		0.00%	106.40%	
	Target Compounds							
1)	TM HMX	0.000	4.095	0	69689	N.D.	0.602	#
2)	TM RDX	0.000	0.000	0	0	N.D.	N.D.	
3)	TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.	NT N.D.	d
5)	TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	NT N.D.	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	11.996	0	467	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.	NT N.D.	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.	NT N.D.	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.	NT N.D.	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.

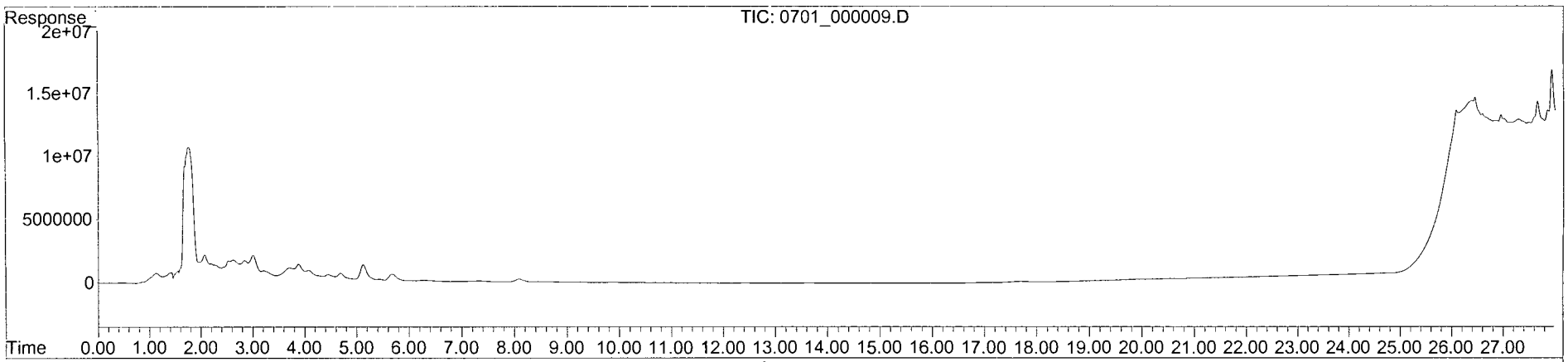
MP
07-02-15

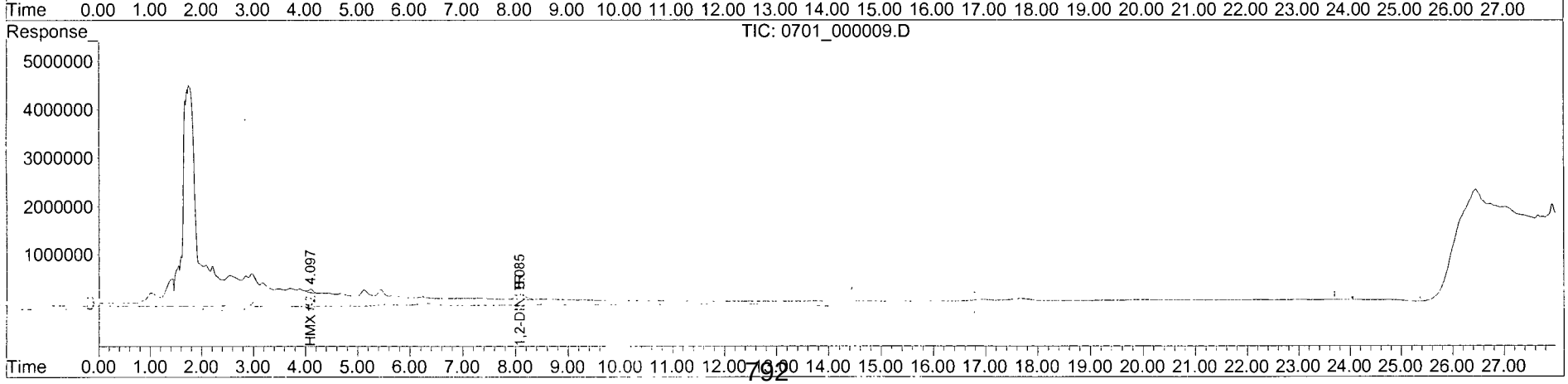
Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150701\
Data File : 0701_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 01-Jul-2015, 15:52:02
Operator : MP
Sample : AZ17827W02 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4099 Sample Multiplier: 0.016

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jul 02 08:28:46 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150701\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron





EPA 8330B WATER

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76674

Sample ID: S67-MW023-061615

APPL ID: AZ17828

Sample Collection Date: 06/16/15

QCG: #83BJU11W-150618-19849

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
EPA 8330B	HMX	3.3	0.50	0.300	0.115	ug/L	06/18/15	06/29/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	06/18/15	06/29/15
EPA 8330B	RDX	0.14 J	0.50	0.300	0.123	ug/L	06/18/15	06/29/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	06/18/15	06/29/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	87.2	70-130			%	06/18/15	06/29/15

J = Estimated value.

Quant Method:	W150627.M
Run #:	0629_000026
Instrument:	Waldorf
Sequence:	150629
Dilution Factor:	1
Initials:	MP

Printed: 07/02/15 10:17:32 AM

APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000026.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 29-Jun-2015, 23:43:49
Operator : MP
Sample : AZ17828W06 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4165 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 08:09:43 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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	3.777	0	779409	N.D.	0.872	#
	Spiked Amount 1.000			Recovery	=	0.00%	87.20%	
	Target Compounds							
1)	TM HMX	0.000	0.954	0	5810024	N.D.	3.333	m#
2)	TM RDX	0.000	1.816	0	153442	N.D.	0.135	#
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	6.391	0	60305	N.D. d	DRT NoCal	
9)	TM TETRYL	6.856	0.000	33951	0	NoCal	N.D.	
10)	TM 2,4,6-TRI...	7.199	0.000	56612	0	NoCal	N.D.	
11)	TM 2-AMINO-4...	7.641	0.000	8368	0	NoCal	N.D.	
12)	TM 4-AMINO-2...	7.911	0.000	26163	0	NoCal	N.D.	
13)	TM 2,4-DINIT...	9.172	0.000	15017	0	NoCal	N.D.	
14)	TM 2,6-DINIT...	9.507	0.000	70715	0	NoCal	<DL N.D.	d
15)	TM 2-NITROTO...	0.000	0.000	0	0	N.D.	NT N.D.	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.

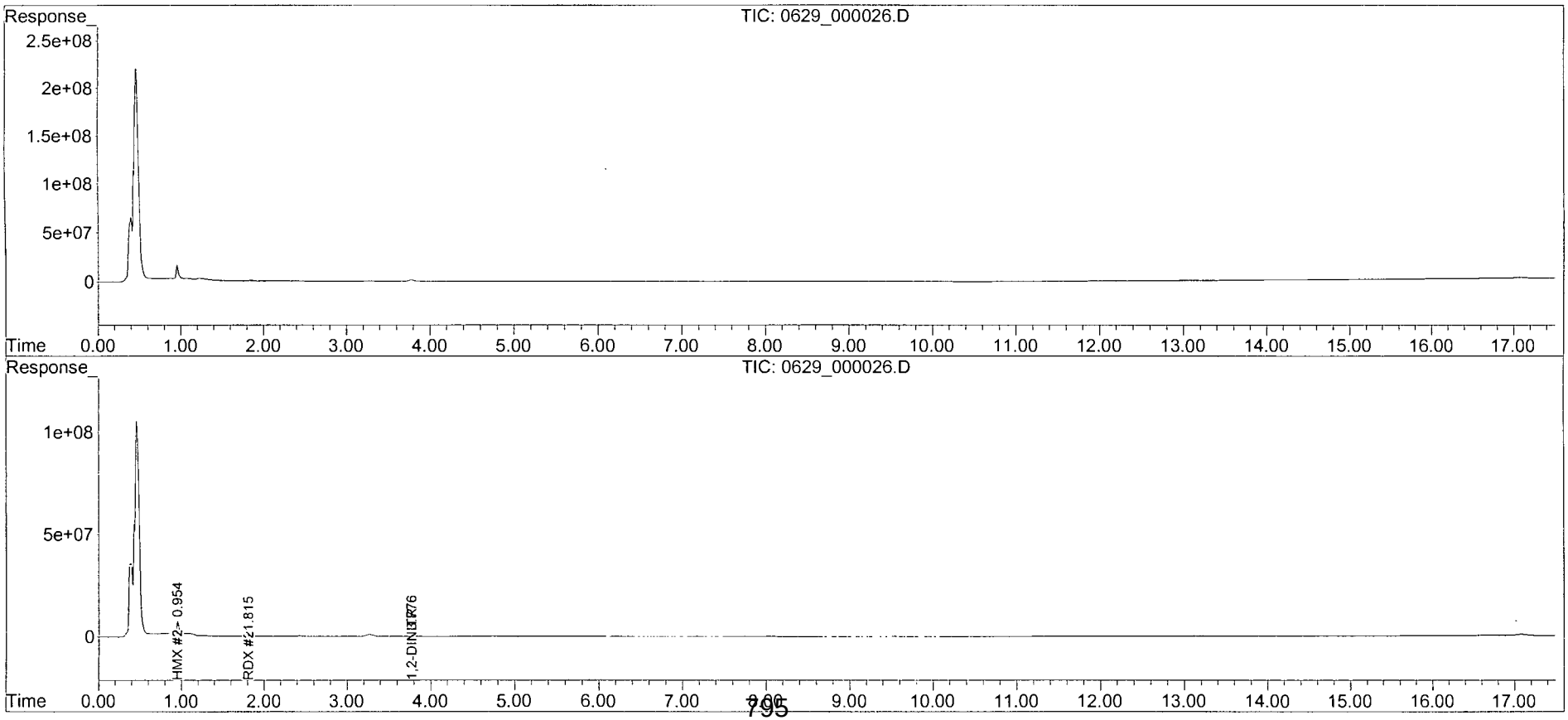
N
06-30-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000026.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 29-Jun-2015, 23:43:49
Operator : MP
Sample : AZ17828W06 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4165 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 08:09:43 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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

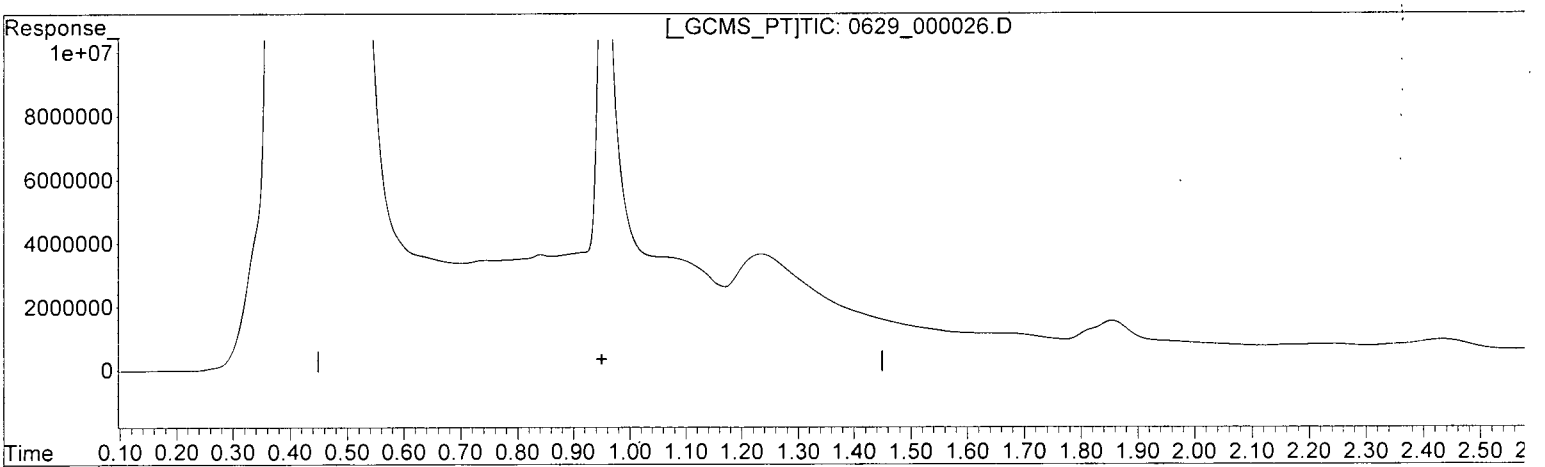


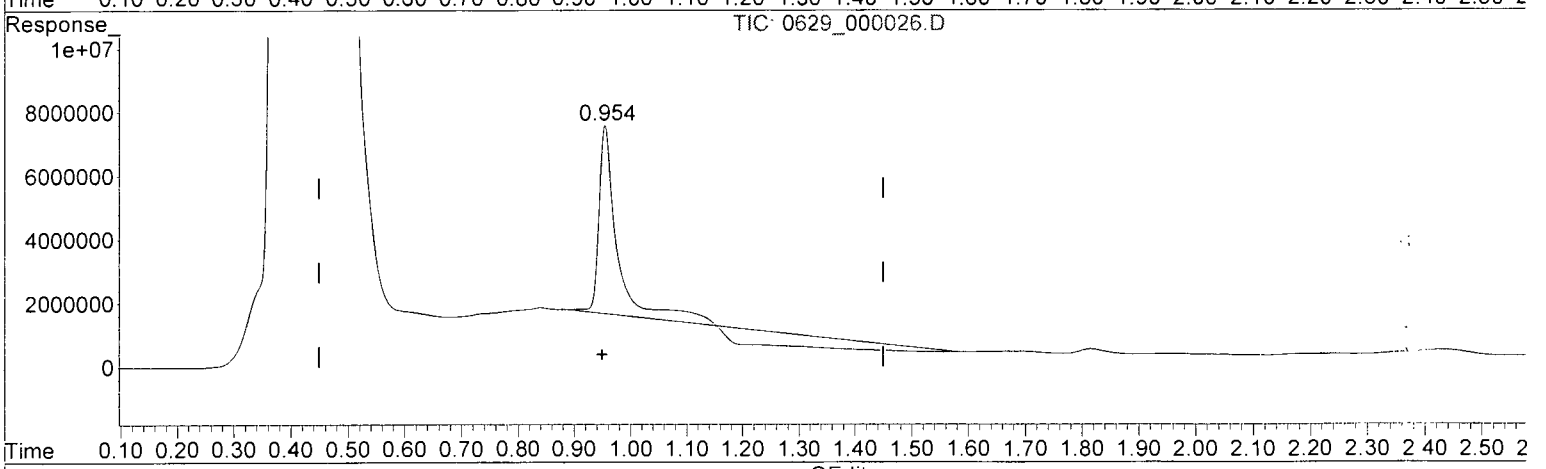
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000026.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 29-Jun-2015, 23:43:49
Operator : MP
Sample : AZ17828W06 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4165 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 07:36:17 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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)

0.955min 3.370 ppb

response 5875415

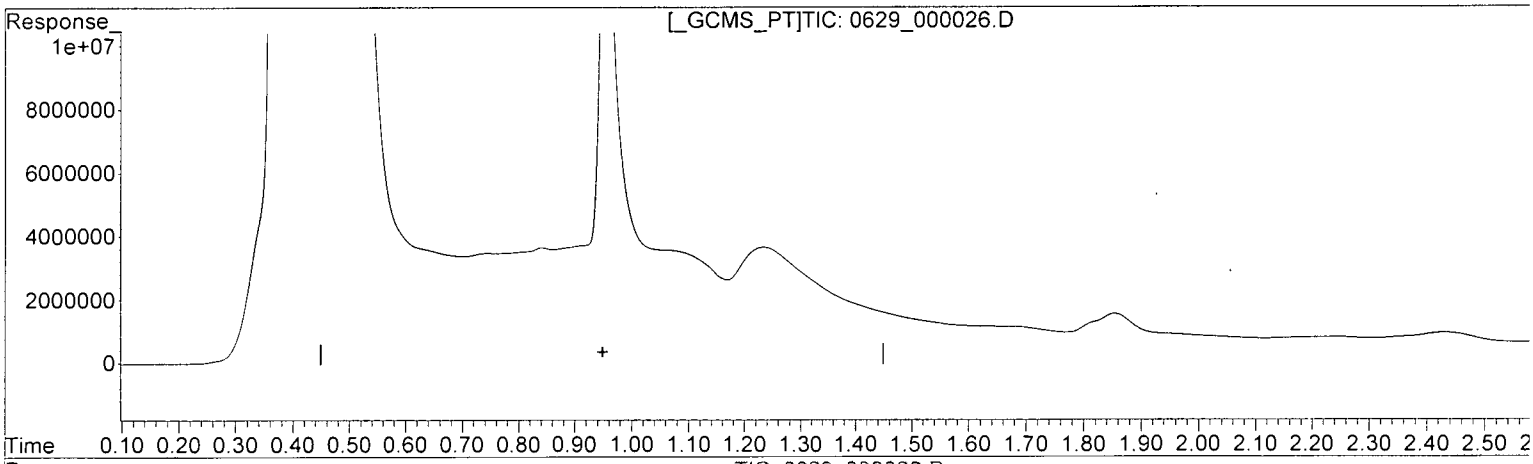
(+) = Expected Retention Time

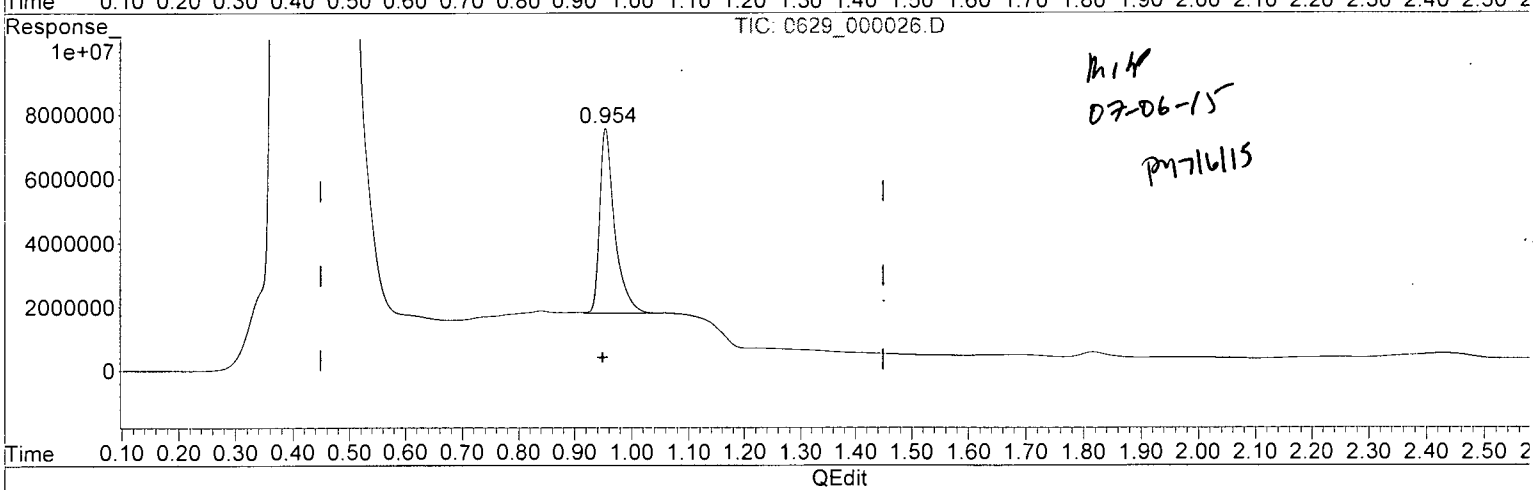
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000026.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 29-Jun-2015, 23:43:49
Operator : MP
Sample : AZ17828W06 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4165 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 07:36:17 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





MH 07-06-15 pm7/16/15

QEdit

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.954min 3.333 ppb m

response 5810024

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150701\
Data File : 0701_000010.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 01-Jul-2015, 16:31:33
Operator : MP
Sample : AZ17828W06 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4100 Sample Multiplier: 0.016

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jul 02 09:37:38 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150701\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4) S	1,2-DINIT...	0.000	8.074	0	113829	N.D.	1.028 #
Spiked Amount	1.000			Recovery	=	0.00%	102.80%
	Target Compounds						
1) TM	HMX	0.000	4.058	0	420787	N.D.	3.637 #
2) TM	RDX	0.000	6.342	0	18901	N.D.	0.190 #
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	0.000	0	0	N.D.	N.D.
9) TM	TETRYL	0.000	0.000	0	0	N.D.	N.D.
10) TM	2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11) TM	2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12) TM	2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13) TM	4-NITROTO...	0.000	0.000	0	0	N.D.	NT N.D. 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.	NT N.D. d
16) TM	4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM	2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18) TM	PETN	0.000	0.000	0	0	N.D. d	N.D.

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

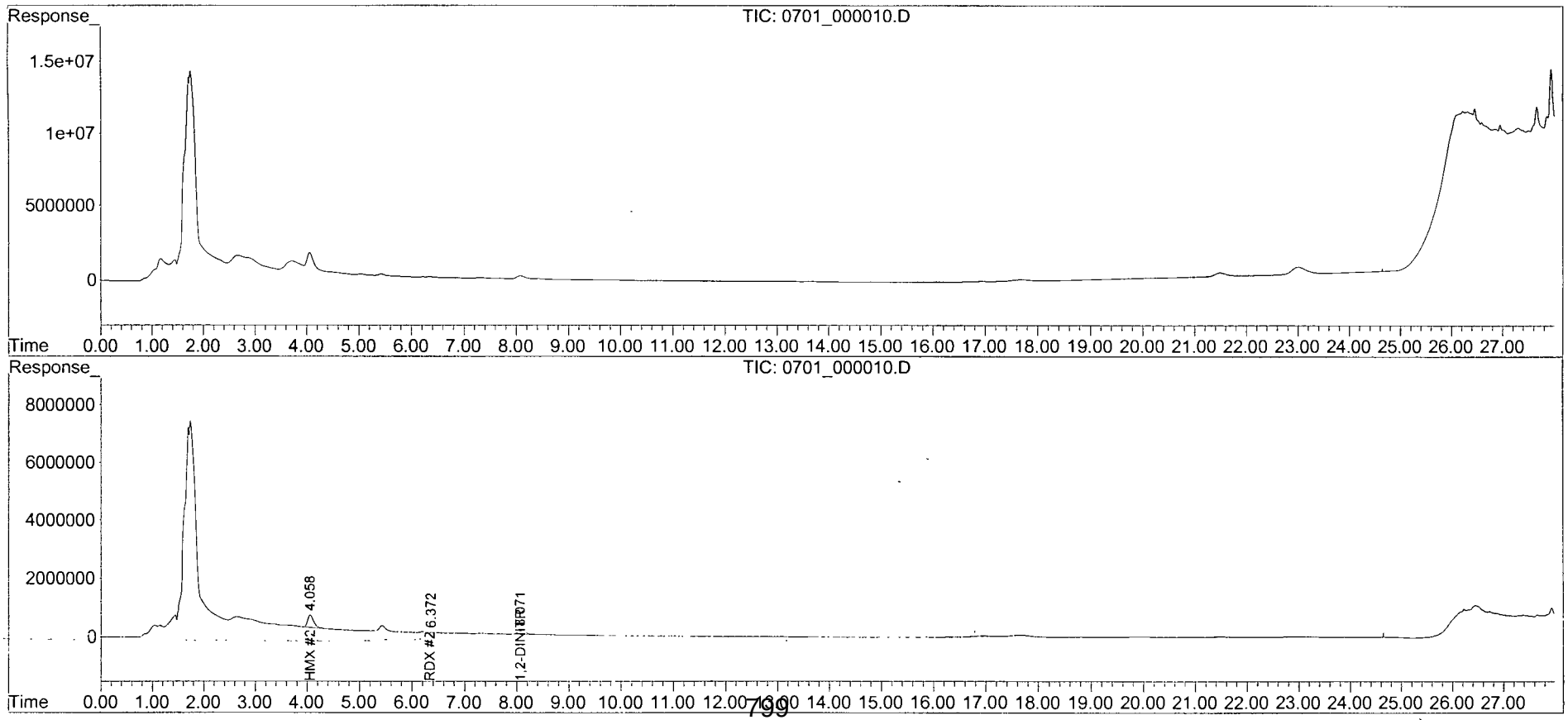
MP 7-2-15

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150701\
Data File : 0701_000010.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 01-Jul-2015, 16:31:33
Operator : MP
Sample : AZ17828W06 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4100 Sample Multiplier: 0.016

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jul 02 09:37:38 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150701\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



EPA 8330B WATER

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

ARF: 76674

Sample ID: S67-MW022-061615

APPL ID: AZ17829

Sample Collection Date: 06/16/15

QCG: #83BJU11W-150618-19849

Method	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
EPA 8330B	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/30/15
EPA 8330B	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/30/15
EPA 8330B	HMX	0.300 U	0.50	0.300	0.115	ug/L	06/18/15	06/30/15
EPA 8330B	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	06/18/15	06/30/15
EPA 8330B	RDX	0.300 U	0.50	0.300	0.123	ug/L	06/18/15	06/30/15
EPA 8330B	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	06/18/15	06/30/15
EPA 8330B	SURROGATE: 1,2-DINITROBENZENE (	87.3	70-130			%	06/18/15	06/30/15

Quant Method: W150627.M
Run #: 0629_000027
Instrument: Waldorf
Sequence: 150629
Dilution Factor: 1
Initials: MP

Printed: 07/02/15 10:17:32 AM
APPL-F1-SC-NoMC-REG MDLs

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000027.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 30-Jun-2015, 00:21:20
Operator : MP
Sample : AZ17829W05 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4166 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 08:11:20 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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	3.770	0	779878	N.D.	0.873	#
	Spiked Amount 1.000			Recovery	=	0.00%	87.30%	
	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 ART	N.D.	
9)	TM TETRYL	6.843	0.000	5499	0	NoCal	N.D.	
10)	TM 2,4,6-TRI...	7.231	0.000	14916	0	NoCal	N.D.	
11)	TM 2-AMINO-4...	7.647	0.000	13720	0	NoCal	N.D.	
12)	TM 4-AMINO-2...	8.034	0.000	5674	0	NoCal	N.D.	
13)	TM 2,4-DINIT...	9.151	0.000	13838	0	NoCal	N.D.	
14)	TM 2,6-DINIT...	9.498	0.000	58288	0	NoCal <DL	N.D.	d
15)	TM 2-NITROTO...	0.000	0.000	0	0	N.D. NT	N.D.	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.

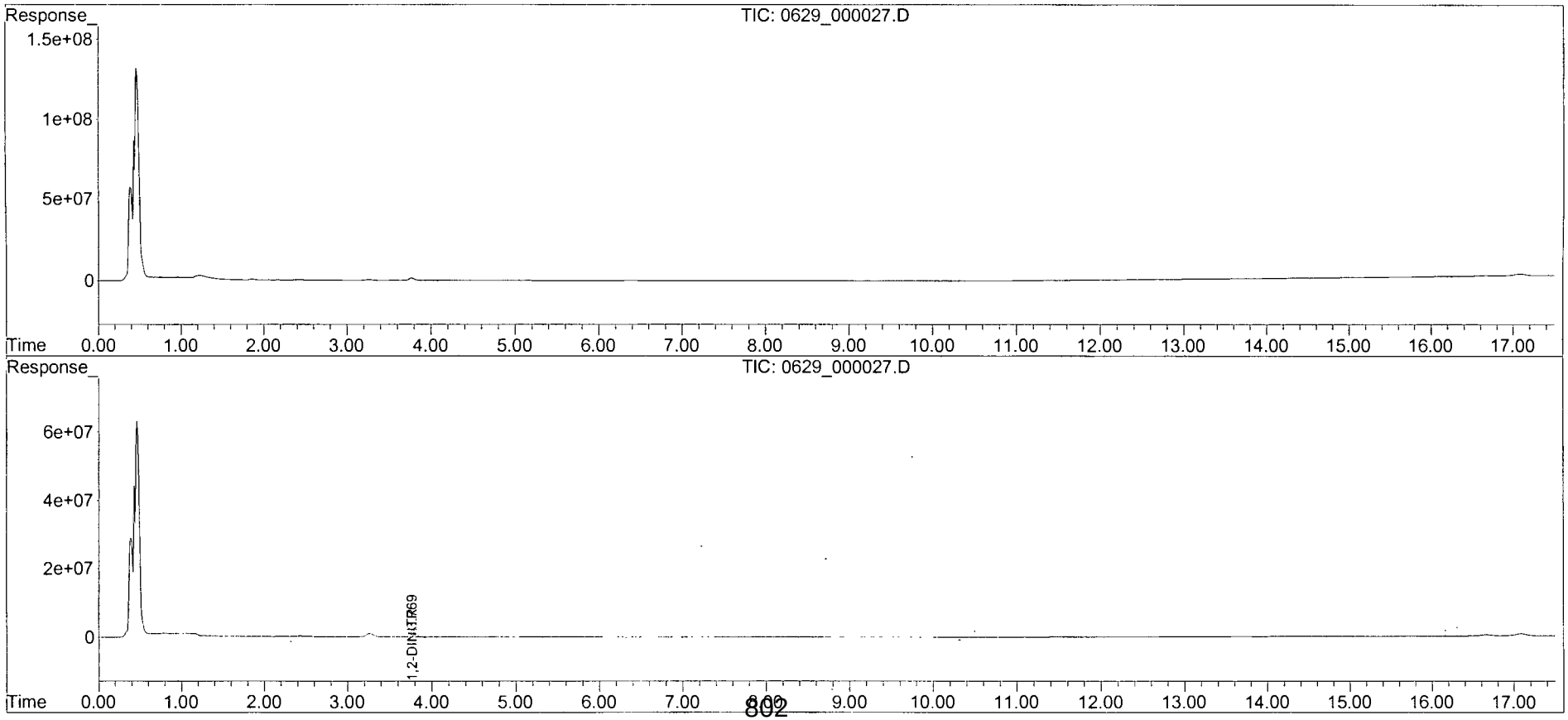
MY
06-30-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000027.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 30-Jun-2015, 00:21:20
Operator : MP
Sample : AZ17829W05 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4166 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 08:11:20 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



EPA 8330
EXPLOSIVES

Calibration Data

APPL, INC.

Initial Calibration

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

SDG No: 76674
Initial Cal. Date: 06/27/15
Instrument: Waldorf

Initials: MP

			0627_000004.D	0627_000005.D	0627_000006.D	0627_000007.D	0627_000008.D	0627_000009.D	0627_000010.D	0627_000011.D	0627_000027.D				
		Compound	1	2	3	4	5	6	7	8	9		Avg	%RSD	
####	TM	NITROGLYCERIN	149	173	160	151	151	150	130	146	145		150.6	7.6	TM
####	TM	PETN			128	133	128	129	113	128	128		126.7	5.0	TM
####		Signal #2													
####	TM	HMX #2	689	712	727	712	714	719	618	692	692		697.3	4.7	TM
####	TM	RDX #2	435	474	455	460	465	466	411	458	460		453.9	4.2	TM
####	TM	1,3,5-TRINITROBENZENE #2	838	834	844	834	832	842	731	815	824		821.5	4.3	TM
####	S	1,2-DINITROBENZENE #2	361	357	363	361	362	364	318	360	370		357.5	4.2	S
####	TM	1,3-DINITROBENZENE #2	758	762	773	768	768	778	680	769	787		760.5	4.1	TM
####	TM	3,5-DINITROANILINE #2	651	660	673	667	668	674	592	665	660		656.6	3.9	TM
####	TM	NITROBENZENE #2	351	352	353	351	351	355	309	350	358		347.7	4.3	TM
####	TM	TETRYL #2	281	295	293	280	298	271	237	264	282		277.7	6.8	TM
####	TM	2,4,6-TRINITROTOLUENE #2	357	357	362	355	353	359	309	350	356		350.9	4.6	TM
####	TM	2-AMINO-4,6-DINITROTOLUENE	332	340	346	342	342	345	298	339	346		336.6	4.5	TM
####	TM	4-AMINO-2,6-DINITROTOLUENE	254	252	257	253	253	255	220	248	252		249.4	4.6	TM
####	TM	2,4-DINITROTOLUENE #2	328	327	333	330	328	333	288	329	338		326.1	4.6	TM
####	TM	2,6-DINITROTOLUENE #2	186	186	188	187	186	188	162	185	190		184.3	4.6	TM
####	TM	2-NITROTOLUENE #2	133	136	138	133	134	135	116	134	137		132.9	4.9	TM
####	TM	4-NITROTOLUENE #2	135	133	135	130	131	132	114	131	135		130.6	5.0	TM
####	TM	3-NITROTOLUENE #2	155	155	159	157	157	159	137	157	162		155.3	4.6	TM
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Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 15:48:31
Operator : MP
Sample : 8330_CB 0.005 PPM 06/26/15
Misc :
ALS Vial : 8448 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:32:24 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4)	S 1,2-DINIT...	0.000	3.723	0	72206	N.D.	5.536 #
	Spiked Amount 62.500			Recovery	=	0.00%	8.86%
	Target Compounds						
1)	TM HMX	0.000	0.942	0	137888	N.D.	5.155m#
2)	TM RDX	0.000	1.790	0	87021	N.D.	5.111m#
3)	TM 1,3,5-TRI...	0.000	2.916	0	167563	N.D.	5.562 #
5)	TM 1,3-DINIT...	0.000	3.878	0	151682	N.D.	5.489 #
6)	TM 3,5-DINIT...	0.000	4.137	0	130156	N.D.	5.476 #
7)	TM NITROBENZENE	0.000	5.287	0	70198	N.D.	5.599 #
8)	TM NITROGLYC...	6.195	0.000	29718	0	5.087m	N.D. #
9)	TM TETRYL	6.689	6.690	95673	56138	NoCal	5.146 #
10)	TM 2,4,6-TRI...	7.150	7.152	99736	71368	NoCal	5.652 #
11)	TM 2-AMINO-4...	7.516	7.518	111371	66371	NoCal	5.570 #
12)	TM 4-AMINO-2...	7.876	7.874	99976	50898	NoCal	5.725 #
13)	TM 2,4-DINIT...	8.999	8.992	60635	65628	NoCal	5.681 #
14)	TM 2,6-DINIT...	9.356	9.355	65824	37239	NoCal	5.589 #
15)	TM 2-NITROTO...	0.000	12.773	0	26615	N.D.	5.269m#
16)	TM 4-NITROTO...	0.000	13.358	0	26945	N.D.	5.258m#
17)	TM 3-NITROTO...	0.000	14.228	0	30957	N.D.	5.092 #
18)	TM PETN	0.000	0.000	0	0	N.D. d	N.D.

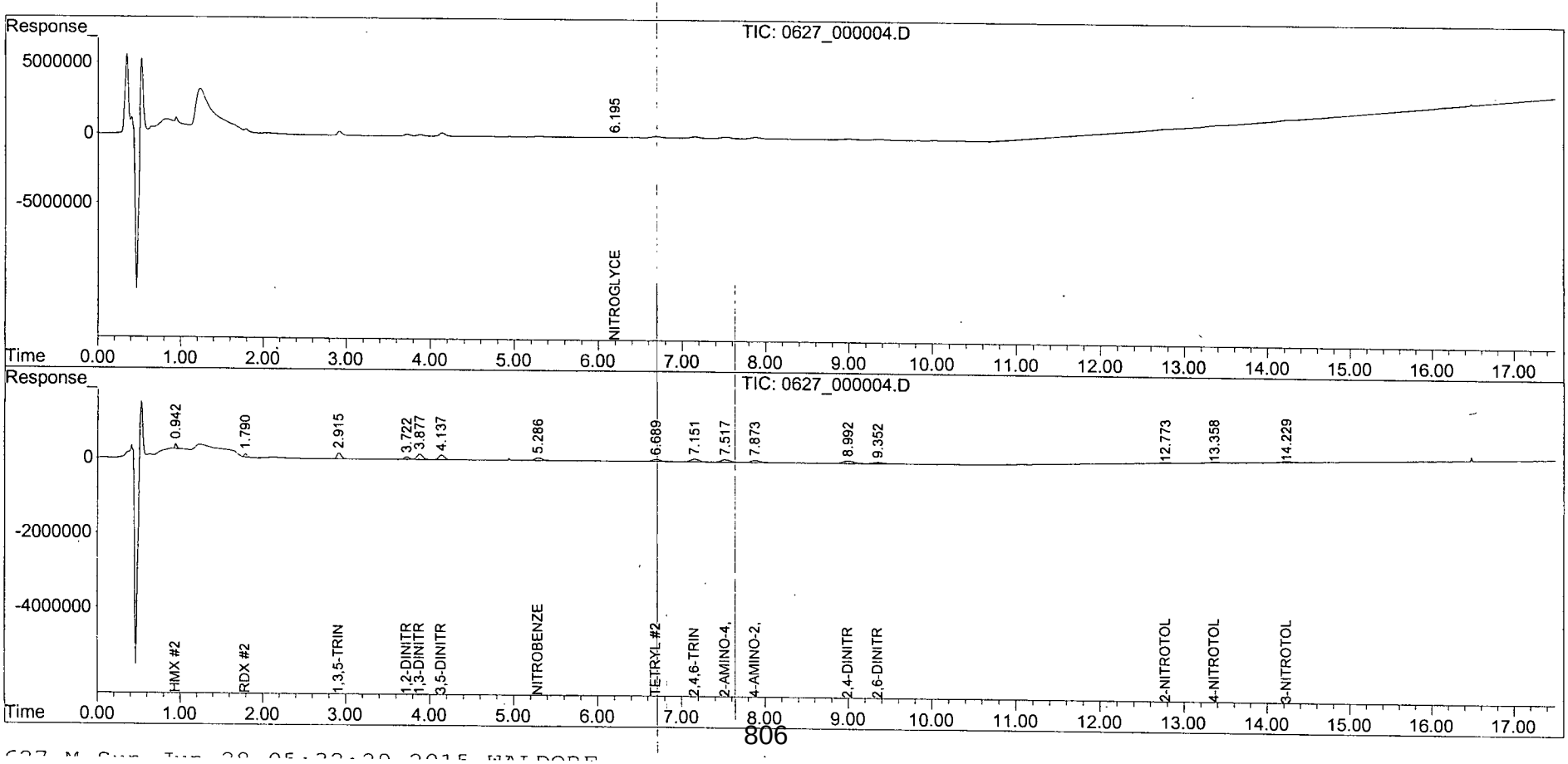
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 15:48:31
Operator : MP
Sample : 8330_CB 0.005 PPM 06/26/15
Misc :
ALS Vial : 8448 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:32:24 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



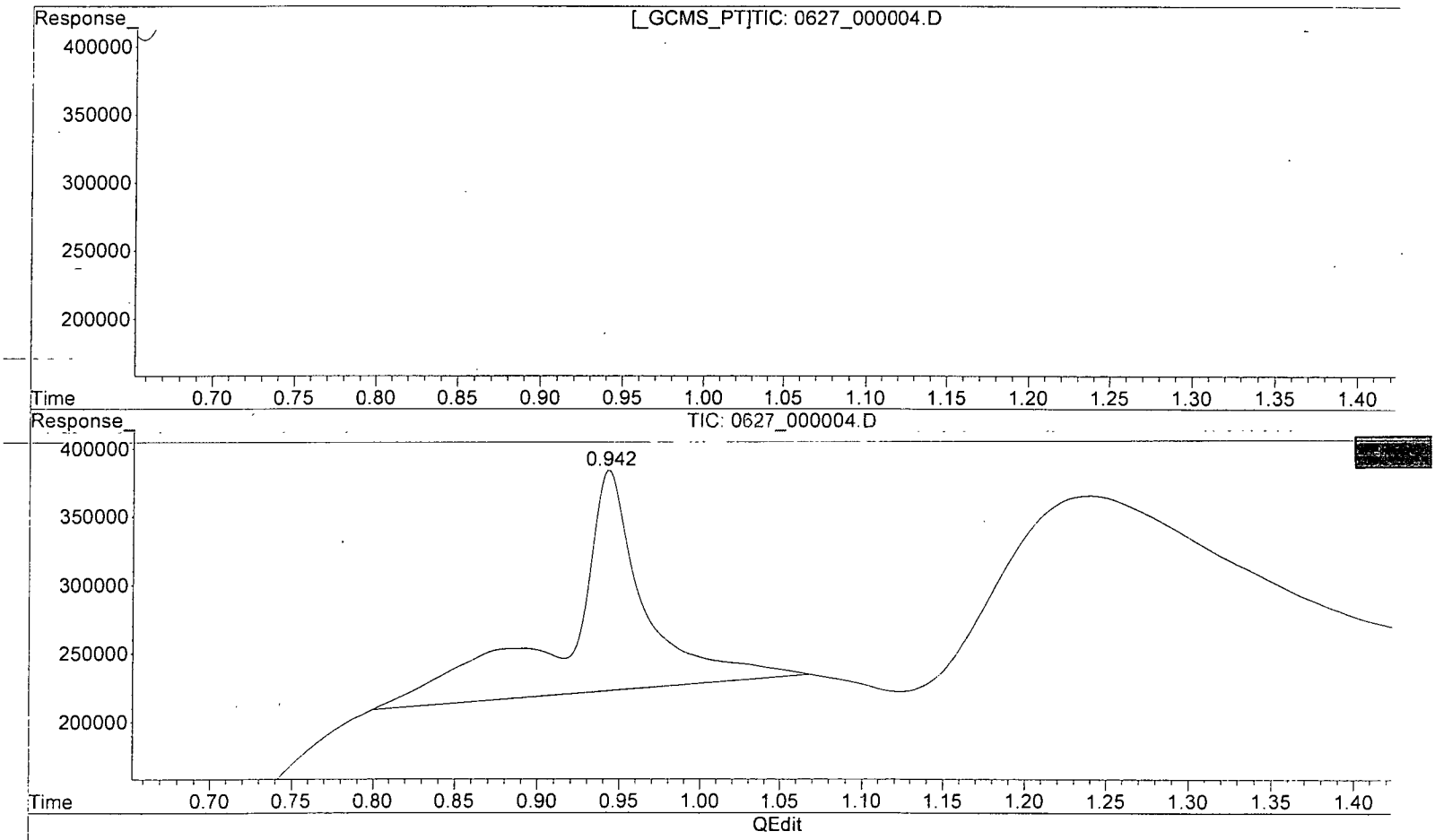
W150627.M Sun Jun 28 05:32:29 2015 WALDORF Page: 2

Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 15:48:31
Operator : MP
Sample : 8330_CB 0.005 PPM 06/26/15
Misc :
ALS Vial : 8448 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:19:40 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0



(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.944min 5.990 ppb

response 160217

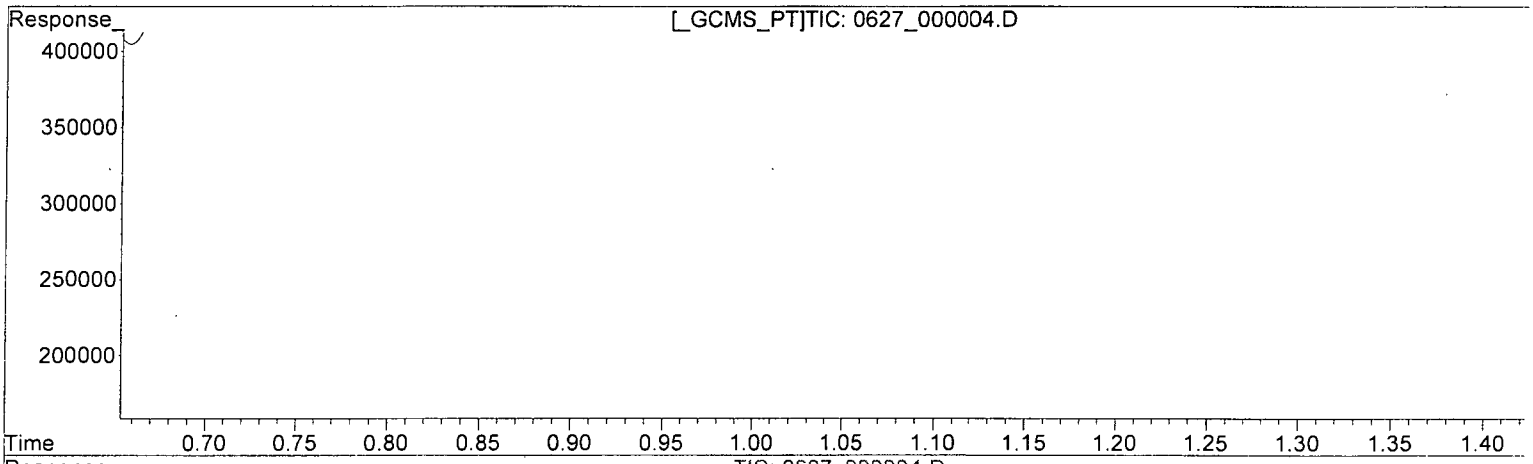
(+) = Expected Retention Time

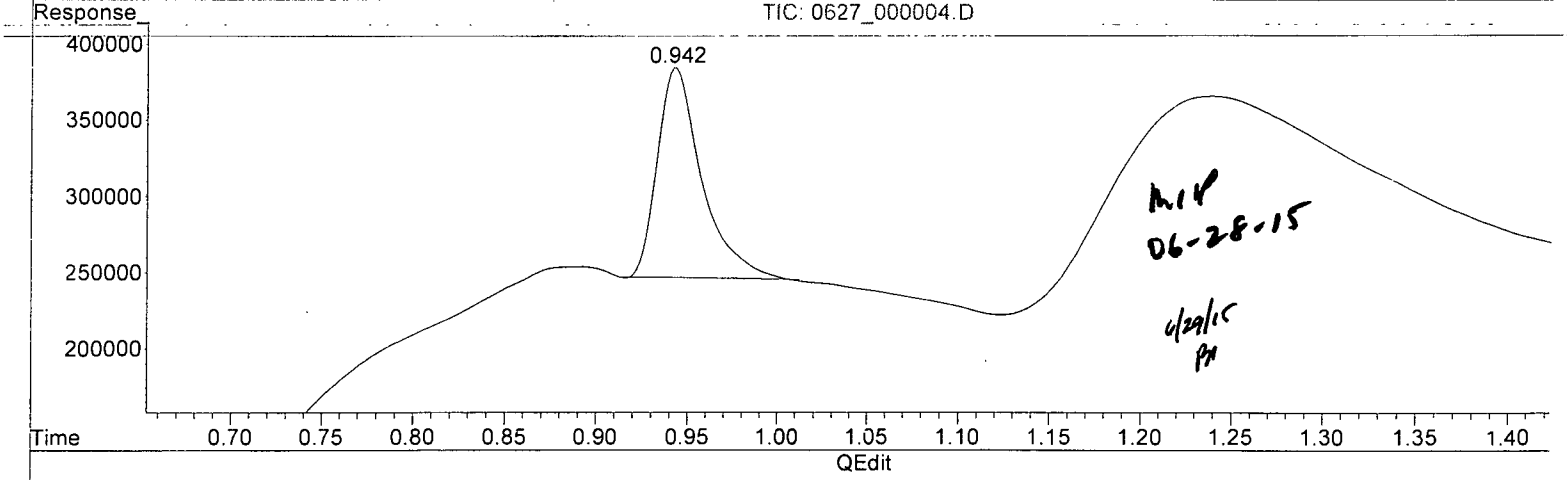
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 15:48:31
Operator : MP
Sample : 8330_CB 0.005 PPM 06/26/15
Misc :
ALS Vial : 8448 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:19:40 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0r





(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.942min 5.155 ppb m

response 137888

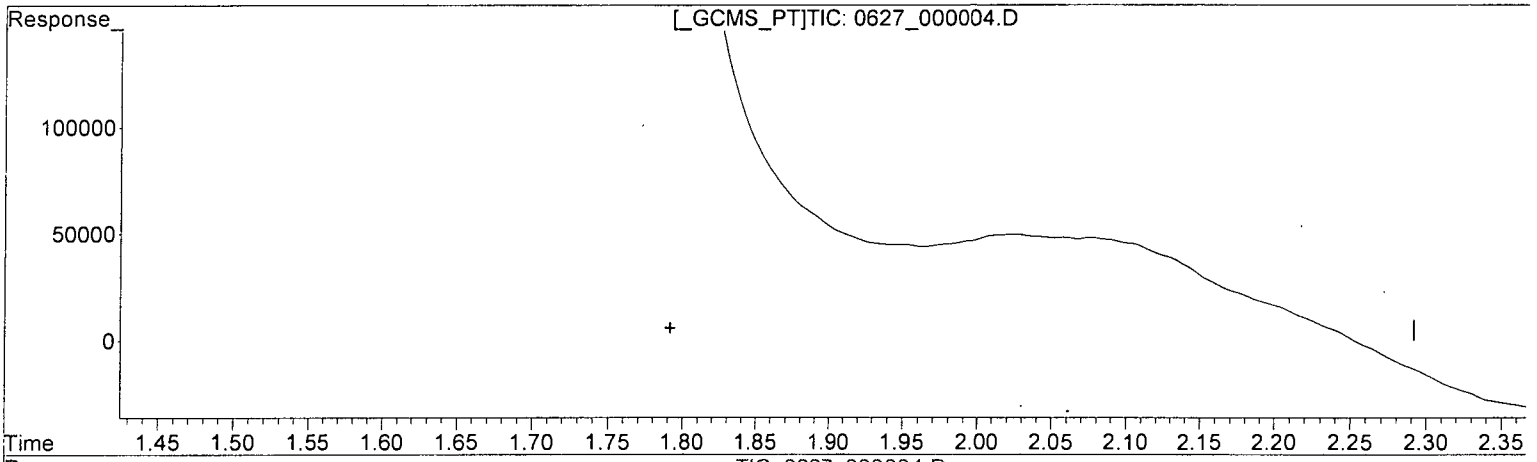
(+) = Expected Retention Time

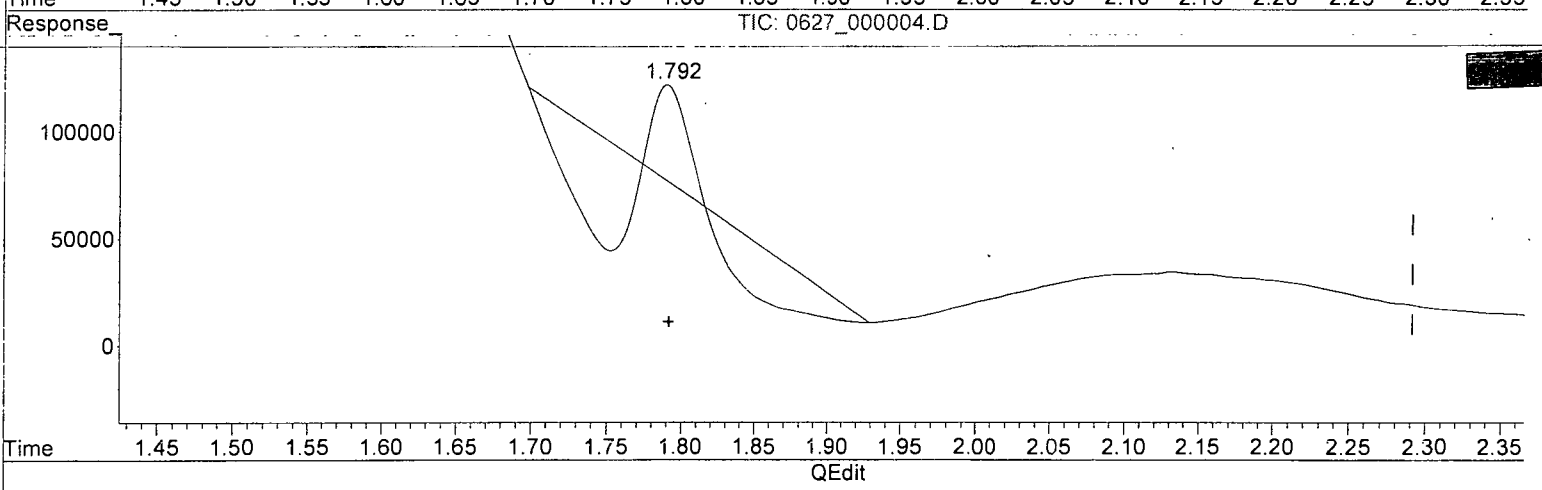
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 15:48:31
Operator : MP
Sample : 8330_CB 0.005 PPM 06/26/15
Misc :
ALS Vial : 8448 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:19:40 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2)' RDX #2 (TM)

1.790min 2.642 ppb

response 44976

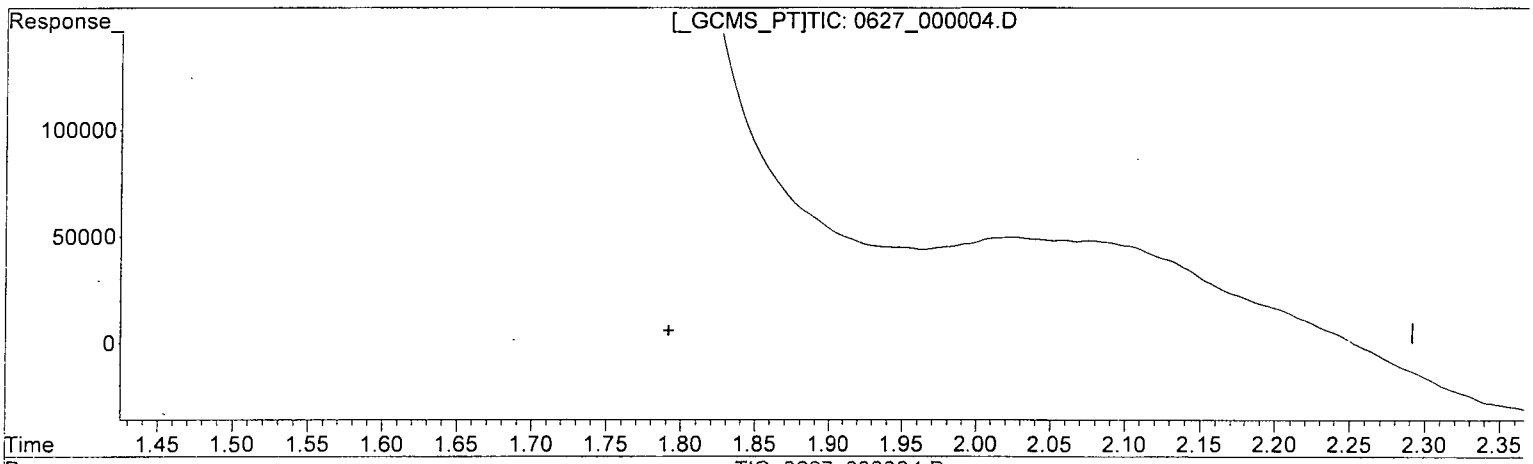
(+) = Expected Retention Time

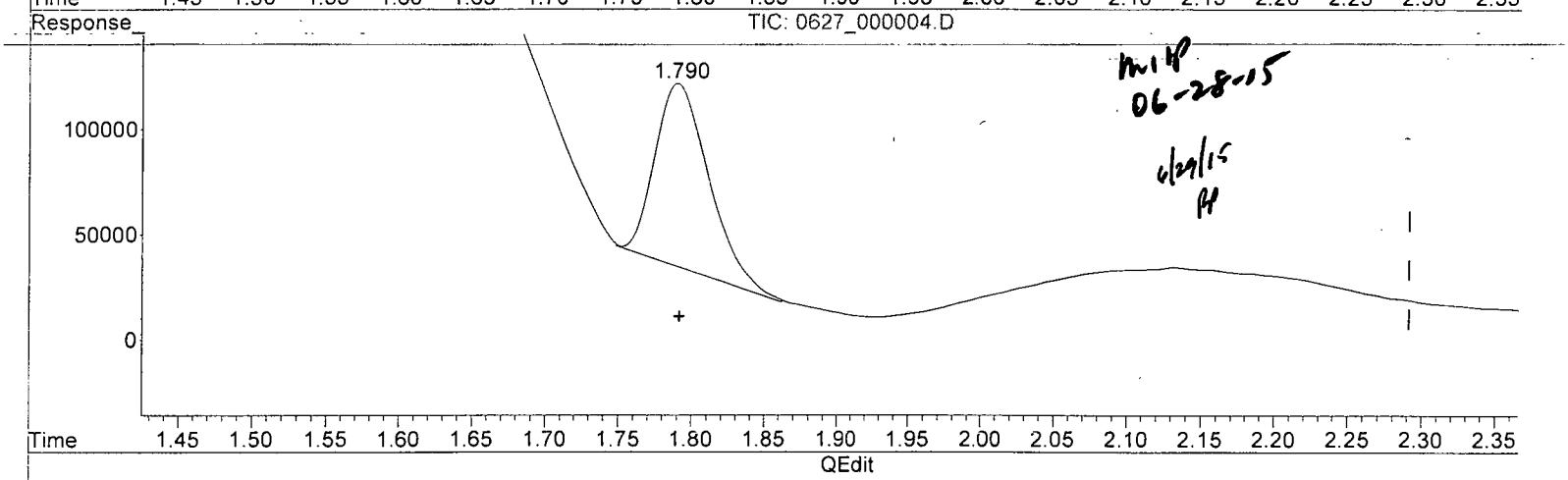
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 15:48:31
Operator : MP
Sample : 8330_CB 0.005 PPM 06/26/15
Misc :
ALS Vial : 8448 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:19:40 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0r





MHP 06-28-15

6/29/15 MP

(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

1.790min 5.111 ppb m

response 87021

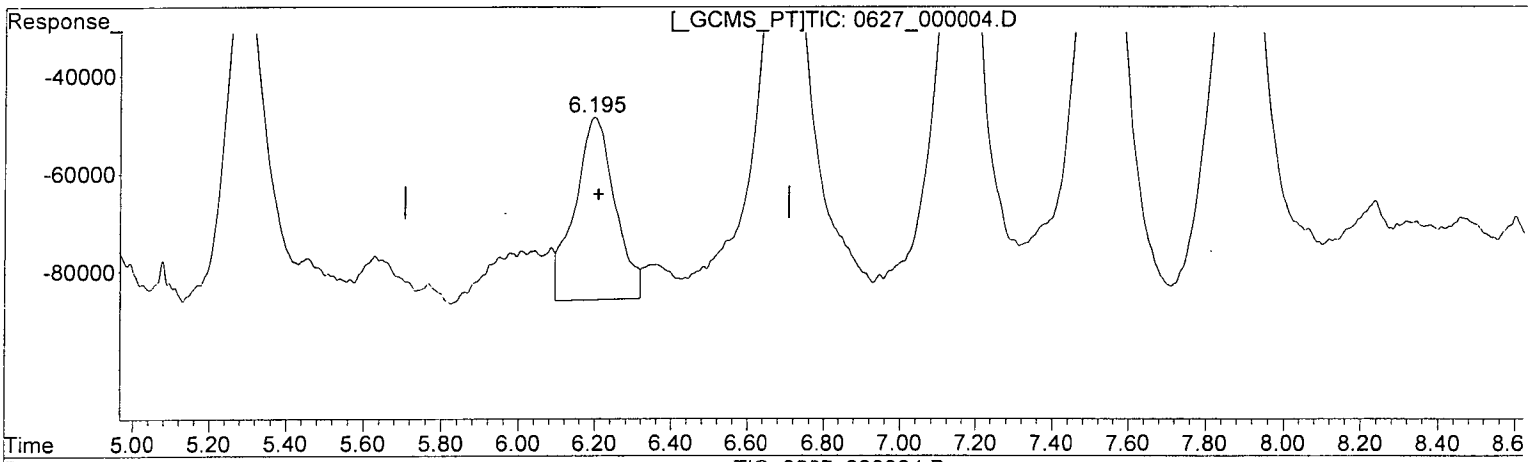
(+) = Expected Retention Time

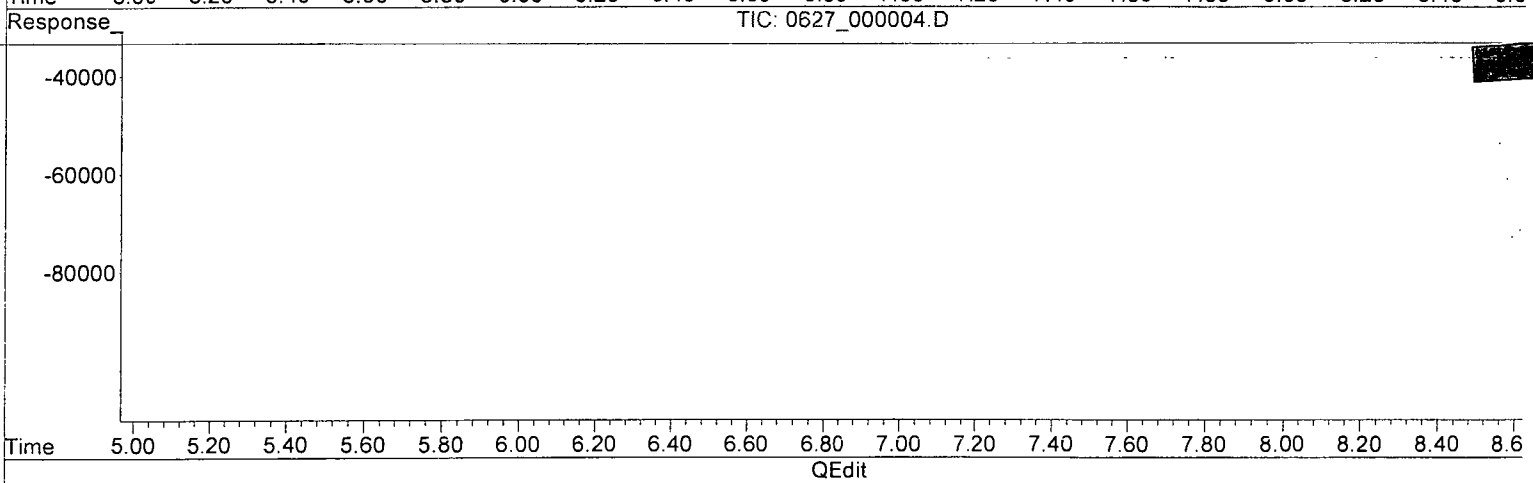
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 15:48:31
Operator : MP
Sample : 8330_CB 0.005 PPM 06/26/15
Misc :
ALS Vial : 8448 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:19:40 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0r





(8) NITROGLYCERIN (TM)

6.196min 6.392 ppb

response 37343

(8) NITROGLYCERIN #2 (TM)

0.000min 0.000 ppb

response 0

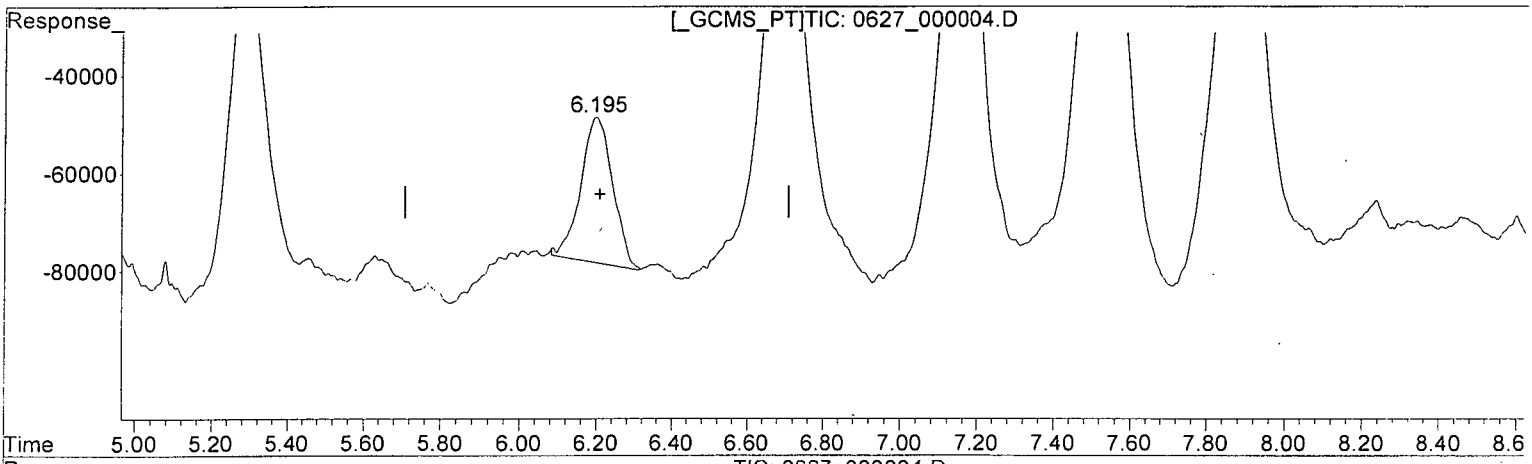
(+) = Expected Retention Time

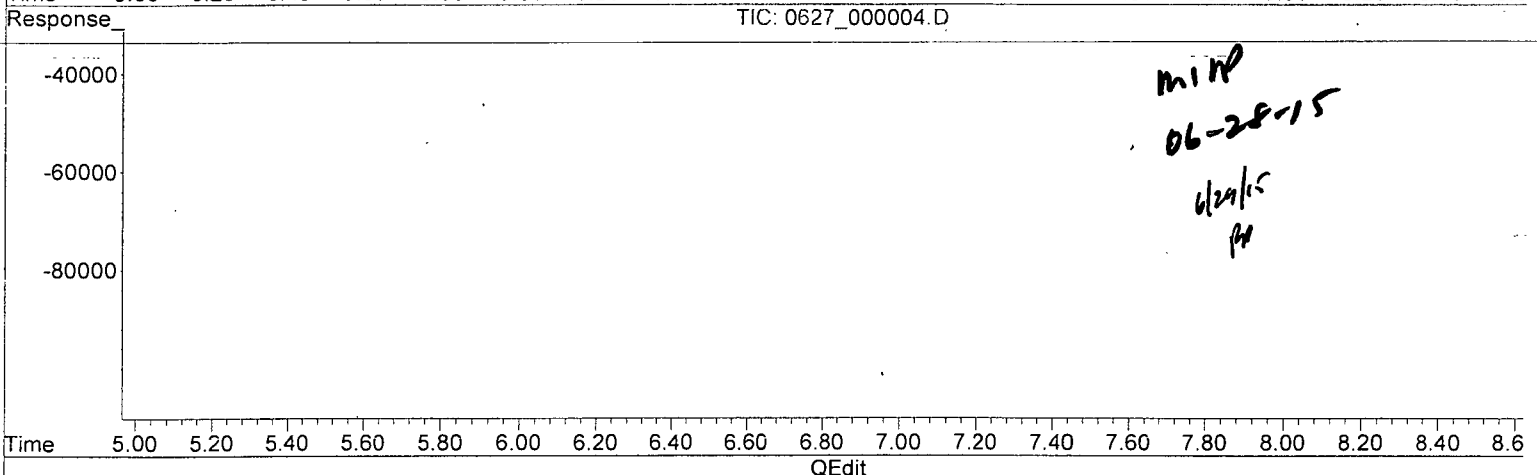
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 15:48:31
Operator : MP
Sample : 8330_CB 0.005 PPM 06/26/15
Misc :
ALS Vial : 8448 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:19:40 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





MP 06-28-15 6/29/15 MP

(8) NITROGLYCERIN (TM)

6.195min 5.087 ppb m

response 29718

(8) NITROGLYCERIN #2 (TM)

0.000min 0.000 ppb

response 0

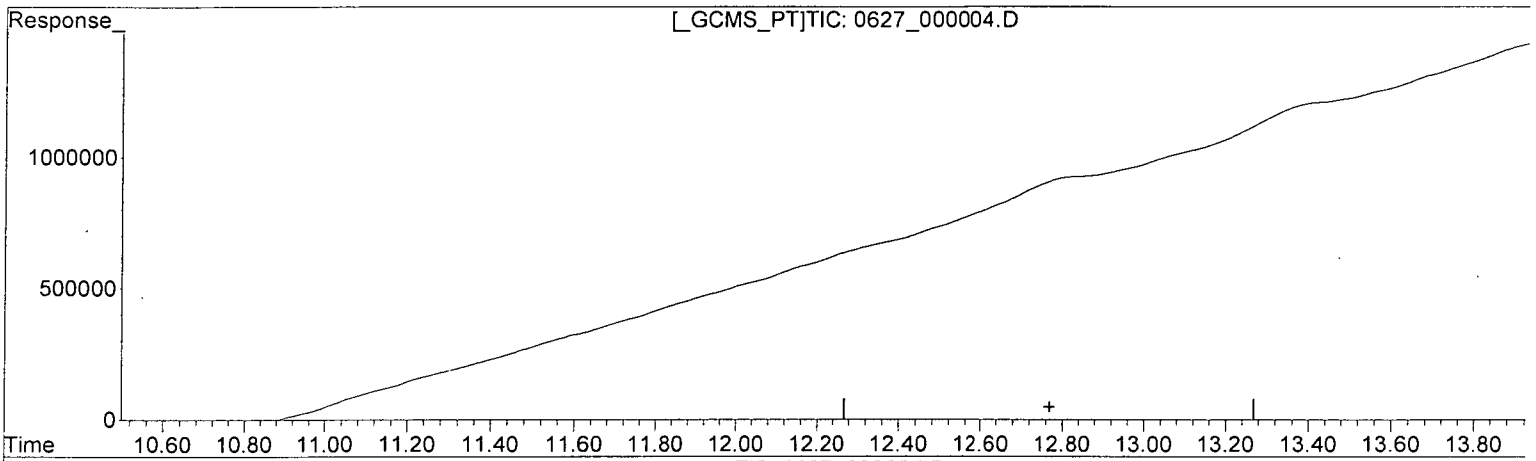
(+) = Expected Retention Time

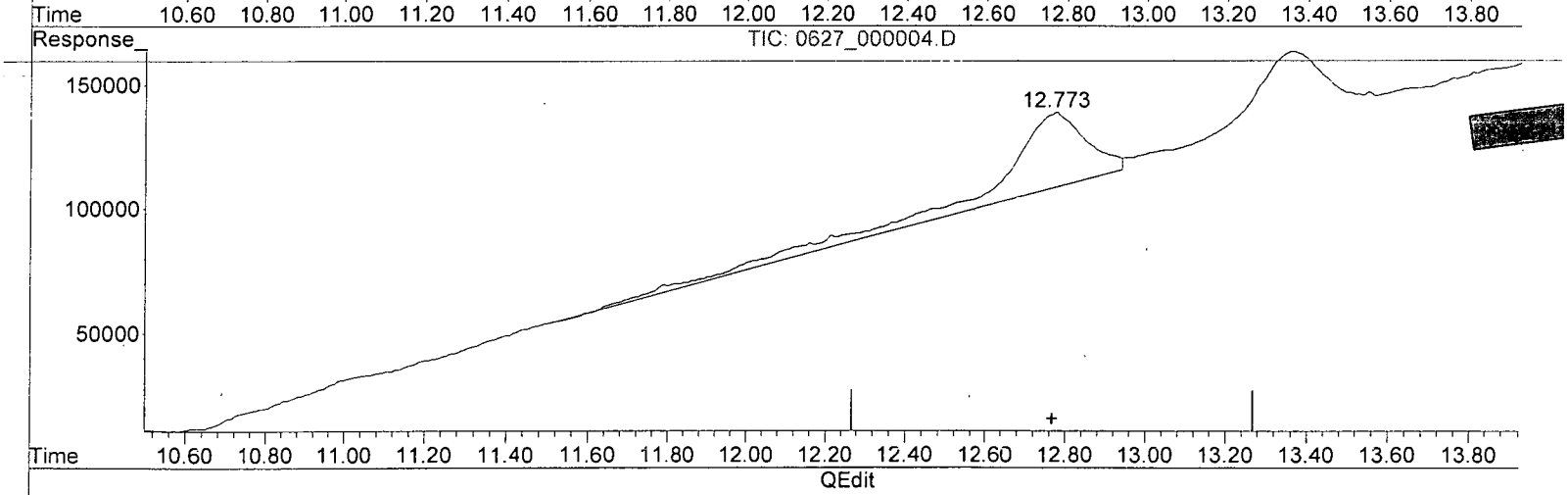
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 15:48:31
Operator : MP
Sample : 8330_CB 0.005 PPM 06/26/15
Misc :
ALS Vial : 8448 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:19:40 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





(15) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 2-NITROTOLUENE #2 (TM)

12.772min 6.021 ppb

response 30411

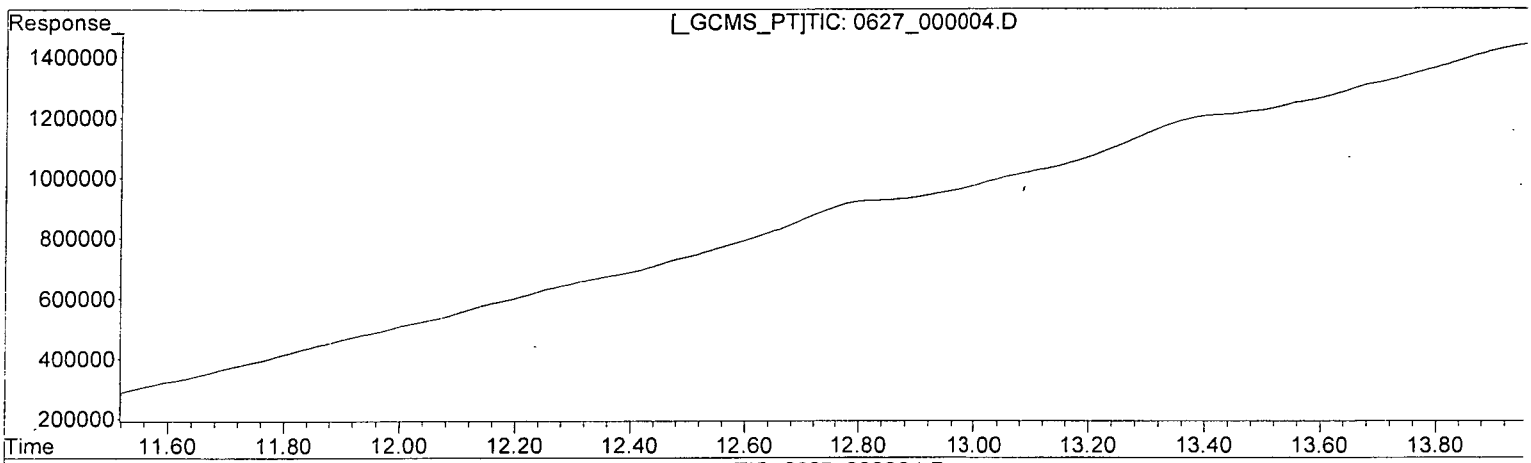
(+) = Expected Retention Time

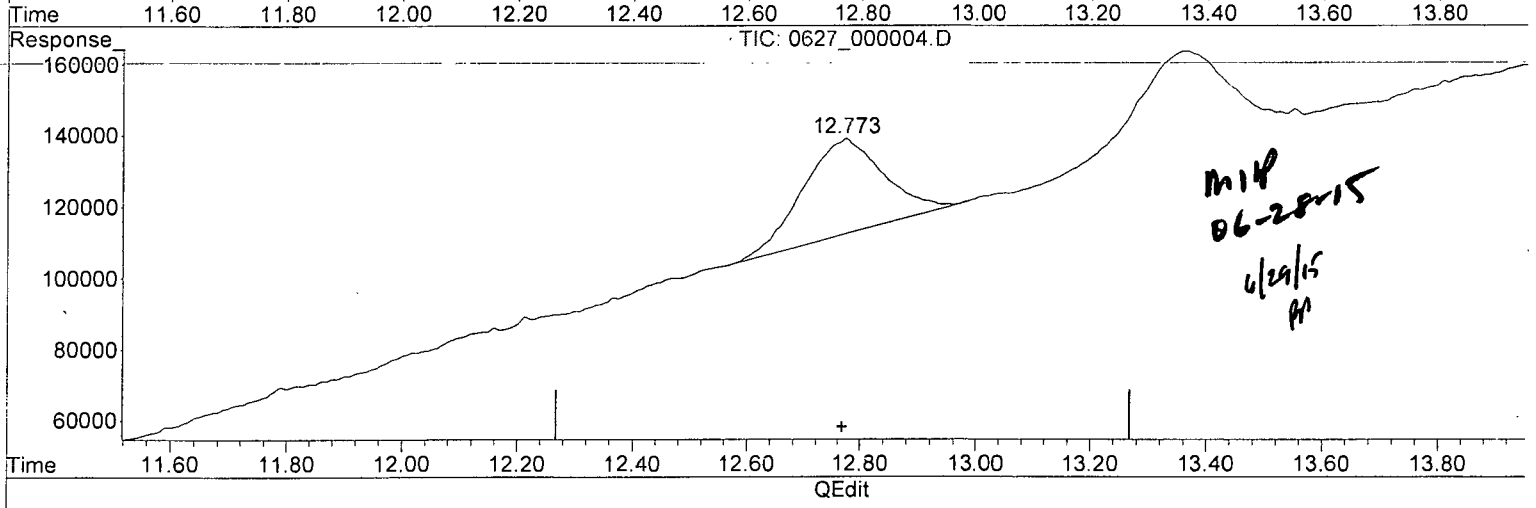
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 15:48:31
Operator : MP
Sample : 8330_CB 0.005 PPM 06/26/15
Misc :
ALS Vial : 8448 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:19:40 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





MH 06-28-15
6/29/15 AH

QEdit

(15) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 2-NITROTOLUENE #2 (TM)

12.773min 5.269 ppb m

response 26615

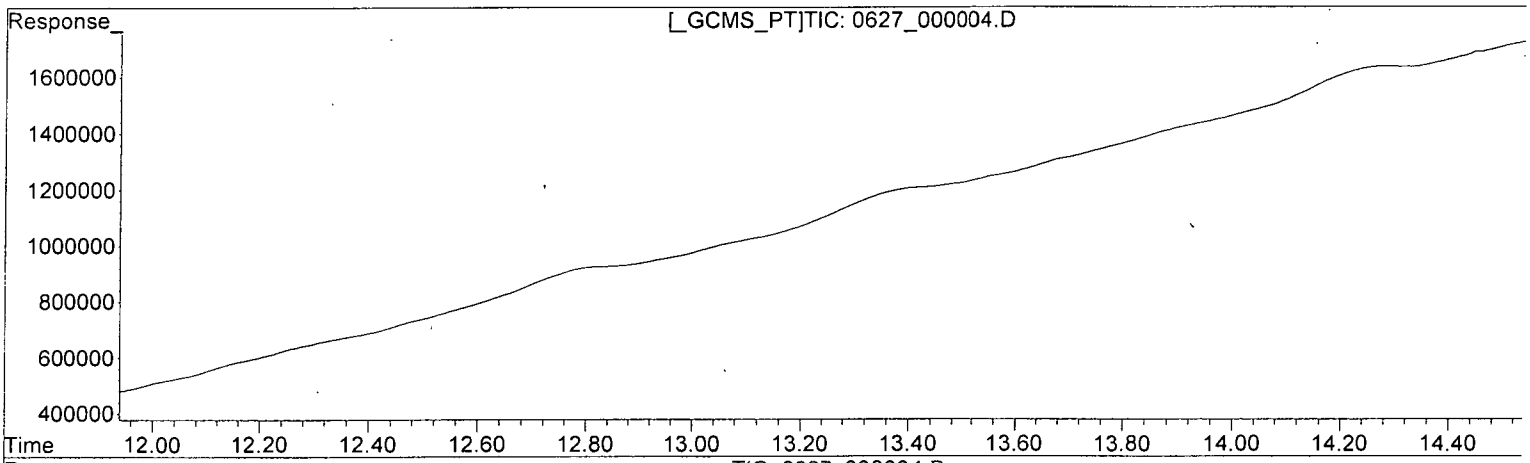
(+) = Expected Retention Time

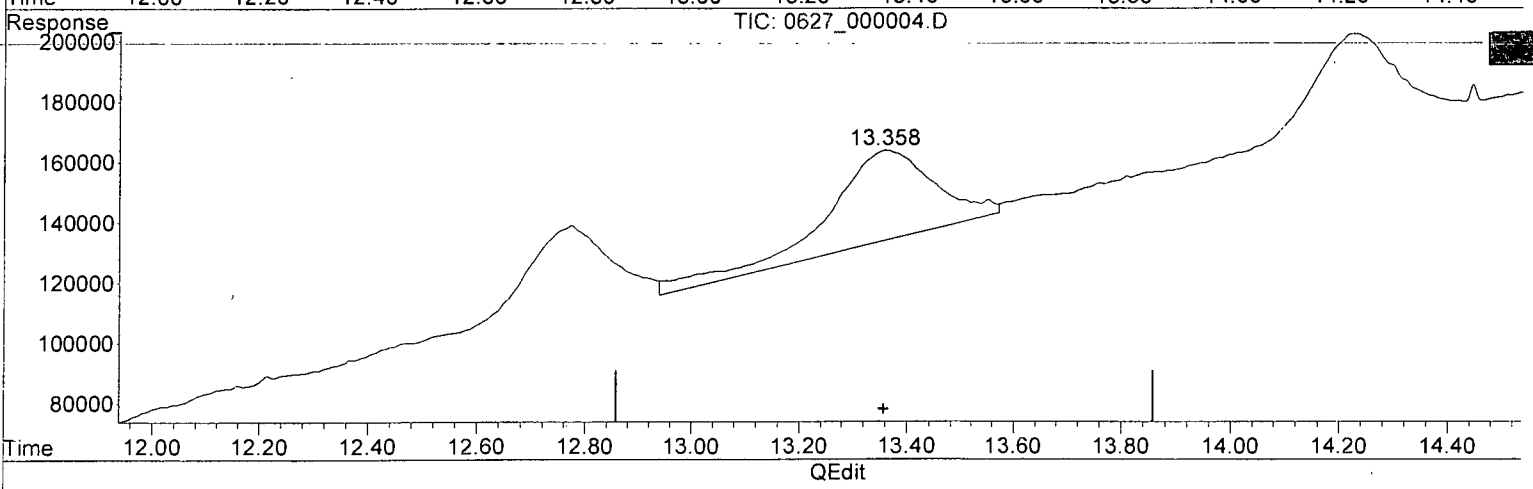
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 15:48:31
Operator : MP
Sample : 8330_CB 0.005 PPM 06/26/15
Misc :
ALS Vial : 8448 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:19:40 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0r





QEdit

(16) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-NITROTOLUENE #2 (TM)

13.362min 5.782 ppb

response 29632

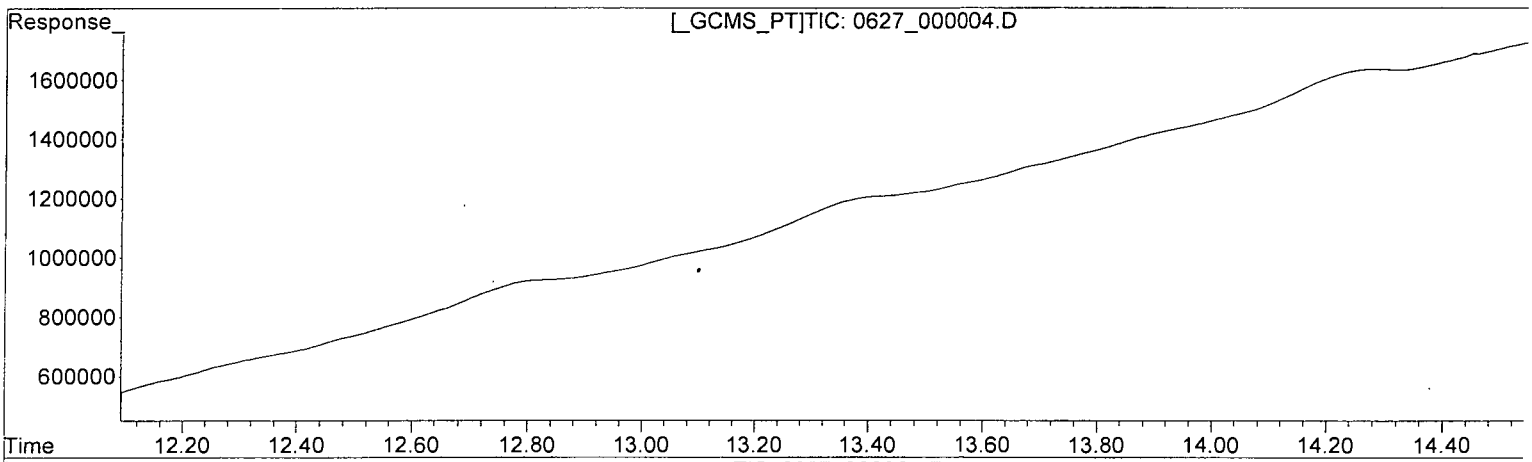
(+) = Expected Retention Time

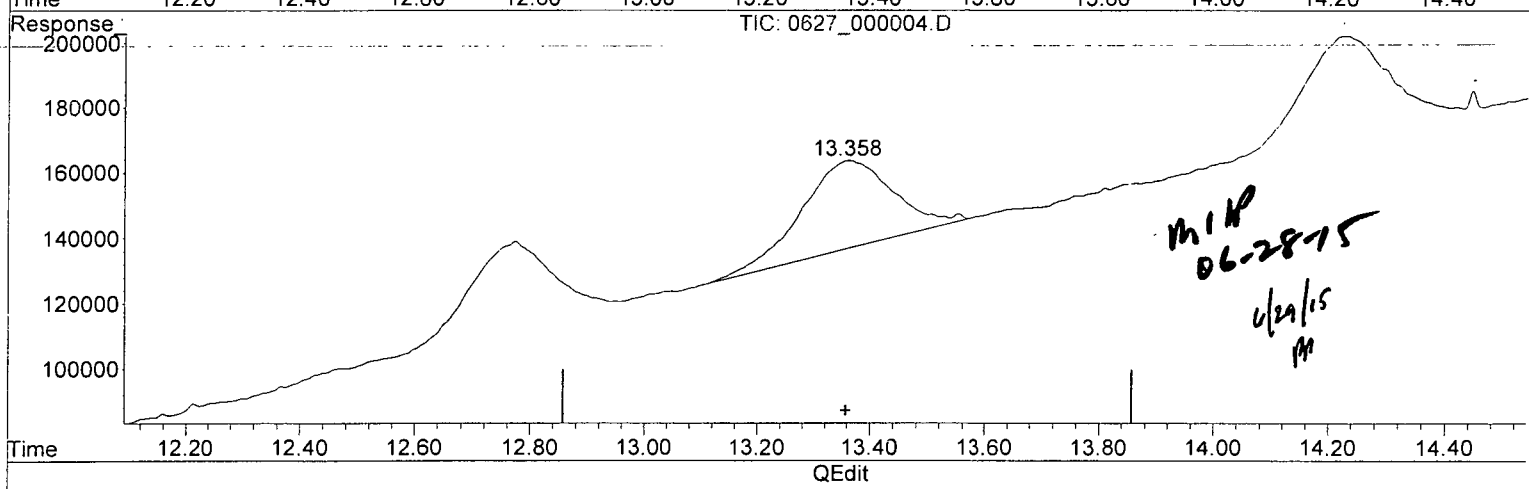
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 15:48:31
Operator : MP
Sample : 8330_CB 0.005 PPM 06/26/15
Misc :
ALS Vial : 8448 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:19:40 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0





MIP 06-28-15
6/29/15
M

(16) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-NITROTOLUENE #2 (TM)

13.358min 5.258 ppb m

response 26945

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000005.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 16:26:01
Operator : MP
Sample : 8330_CB 0.010 PPM 06/26/15
Misc :
ALS Vial : 8449 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:30:13 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	3.725	0	142908	N.D.	10.957 #
Spiked Amount 62.500			Recovery =		0.00%	17.53%
Target Compounds						
1) TM HMX	0.000	0.942	0	284788	N.D.	10.647m#
2) TM RDX	0.000	1.792	0	189534	N.D.	11.132 #
3) TM 1,3,5-TRI...	0.000	2.917	0	333485	N.D.	11.070 #
5) TM 1,3-DINIT...	0.000	3.880	0	304951	N.D.	11.035 #
6) TM 3,5-DINIT...	0.000	4.141	0	264091	N.D.	11.112 #
7) TM NITROBENZENE	0.000	5.287	0	140899	N.D.	11.238 #
8) TM NITROGLYC...	6.200	0.000	69073	0	11.823	N.D. #
9) TM TETRYL	6.688	6.690	198326	117831	NoCal	10.800 #
10) TM 2,4,6-TRI...	7.154	7.153	179150	142932	NoCal	11.320 #
11) TM 2-AMINO-4...	7.520	7.521	203145	135960	NoCal	11.411 #
12) TM 4-AMINO-2...	7.875	7.878	185184	100816	NoCal	11.340 #
13) TM 2,4-DINIT...	8.994	8.994	100923	130824	NoCal	11.324 #
14) TM 2,6-DINIT...	9.357	9.359	109009	74444	NoCal	11.172 #
15) TM 2-NITROTO...	0.000	12.770	0	54338	N.D.	10.759 #
16) TM 4-NITROTO...	0.000	13.360	0	53369	N.D.	10.414 #
17) TM 3-NITROTO...	0.000	14.229	0	61832	N.D.	10.170 #
18) TM PETN	0.000	0.000	0	0	N.D. d	N.D. d

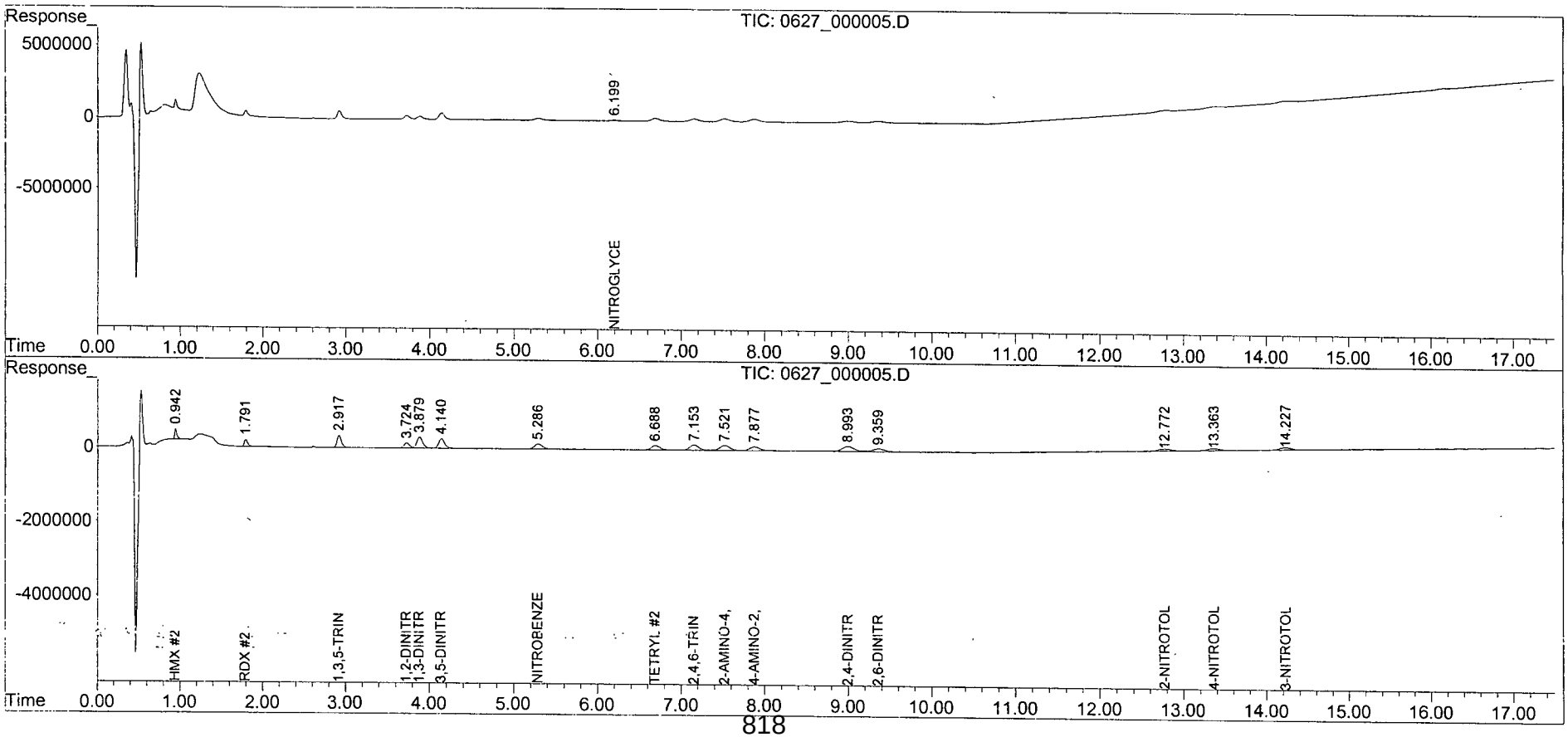
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000005.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 16:26:01
Operator : MP
Sample : 8330_CB 0.010 PPM 06/26/15
Misc :
ALS Vial : 8449 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:30:13 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



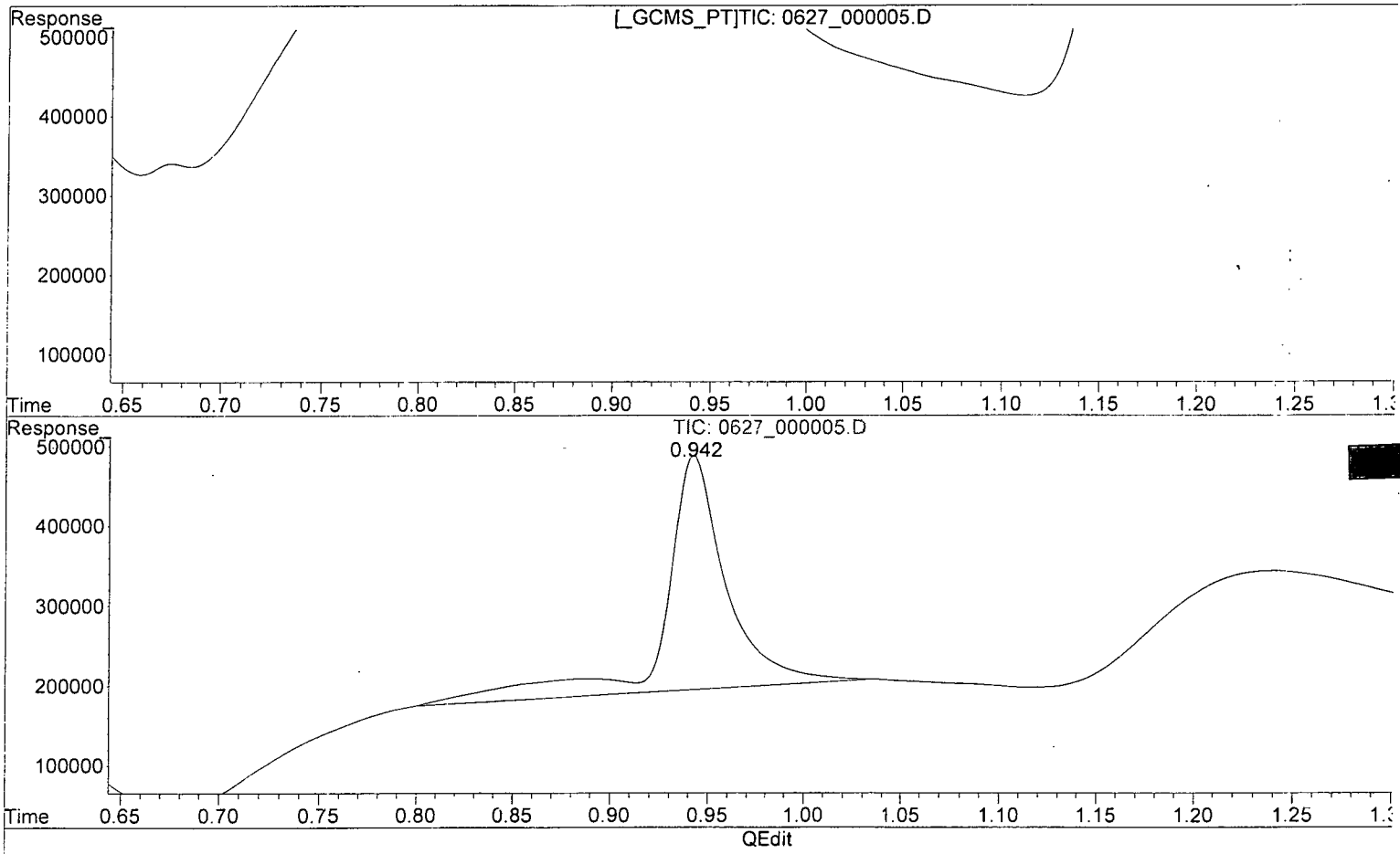
W150627.M Sun Jun 28 05:28:18 2015 WALDORF Page: 2

Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000005.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 16:26:01
Operator : MP
Sample : 8330_CB 0.010 PPM 06/26/15
Misc :
ALS Vial : 8449 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:19:43 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0r



(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.943min 10.867 ppb

response 290656

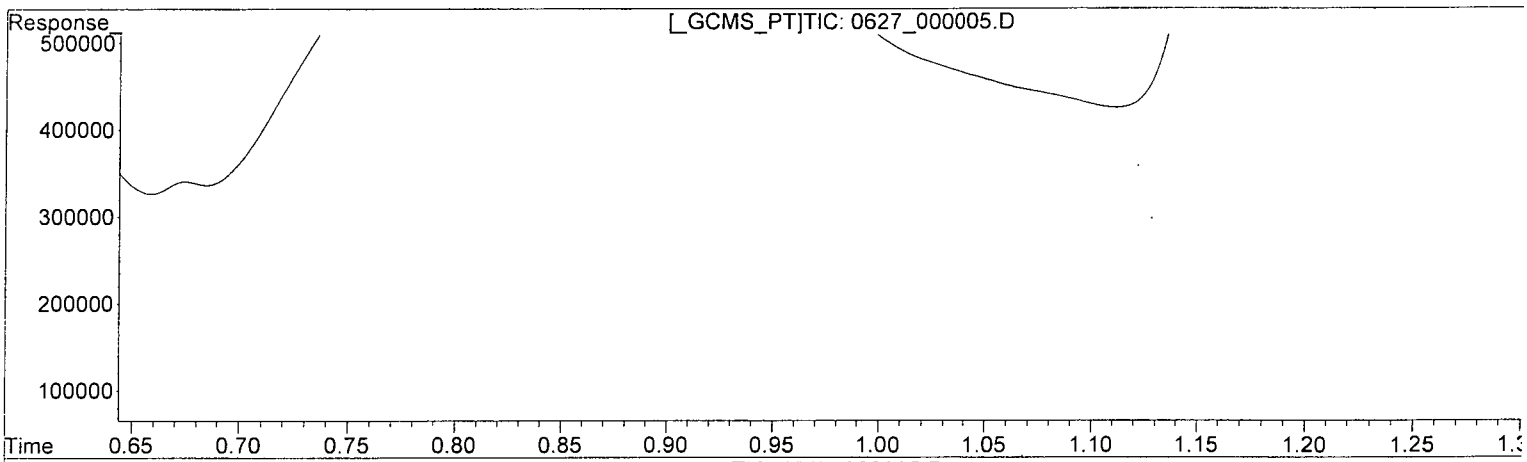
(+) = Expected Retention Time

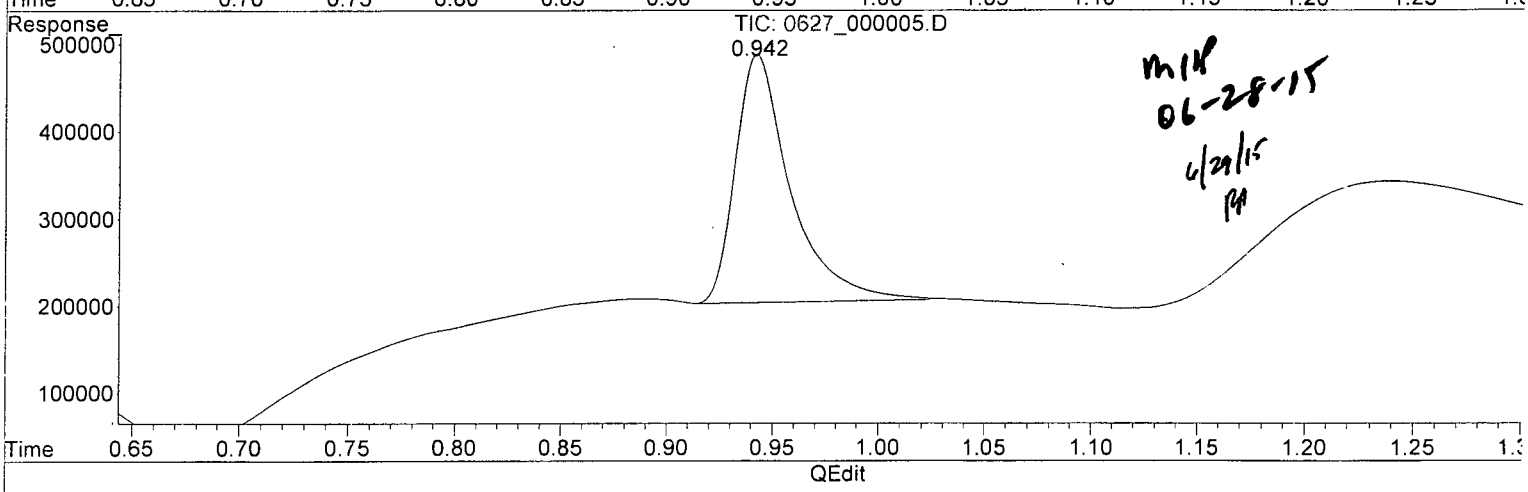
Quantitation Report (Qedit)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000005.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 16:26:01
Operator : MP
Sample : 8330_CB 0.010 PPM 06/26/15
Misc :
ALS Vial : 8449 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:19:43 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0r





MHP 06-28-15 6/29/15 PM

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

0.942min 10.647 ppb m

response 284788

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 17:03:31
Operator : MP
Sample : 8330_CB 0.020 PPM 06/26/15
Misc :
ALS Vial : 8450 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:19:46 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
4)	S 1,2-DINIT...	0.000	3.726	0	290713	N.D.	22.290	#
	Spiked Amount 62.500			Recovery	=	0.00%	35.66%	
	Target Compounds							
1)	TM HMX	0.000	0.945	0	581745	N.D.	21.750	#
2)	TM RDX	0.000	1.794	0	364158	N.D.	21.389	#
3)	TM 1,3,5-TRI...	0.000	2.919	0	675161	N.D.	22.411	#
5)	TM 1,3-DINIT...	0.000	3.881	0	618590	N.D.	22.384	#
6)	TM 3,5-DINIT...	0.000	4.142	0	538274	N.D.	22.648	#
7)	TM NITROBENZENE	0.000	5.291	0	282037	N.D.	22.496	#
8)	TM NITROGLYC...	6.206	0.000	128084	0	21.924	N.D.	#
9)	TM TETRYL	6.696	6.696	380828	234184	NoCal	21.465	#
10)	TM 2,4,6-TRI...	7.160	7.159	370224	289666	NoCal	22.942	#
11)	TM 2-AMINO-4...	7.524	7.524	423877	276675	NoCal	23.221	#
12)	TM 4-AMINO-2...	7.880	7.879	383203	205405	NoCal	23.104	#
13)	TM 2,4-DINIT...	9.002	8.999	203988	266410	NoCal	23.060	#
14)	TM 2,6-DINIT...	9.365	9.364	220585	150387	NoCal	22.569	#
15)	TM 2-NITROTO...	0.000	12.765	0	110627	N.D.	21.903	#
16)	TM 4-NITROTO...	0.000	13.355	0	107885	N.D.	21.051	#
17)	TM 3-NITROTO...	0.000	14.220	0	127467	N.D.	20.965	#
18)	TM PETN	16.140	0.000	102346	0	21.124	N.D.	#

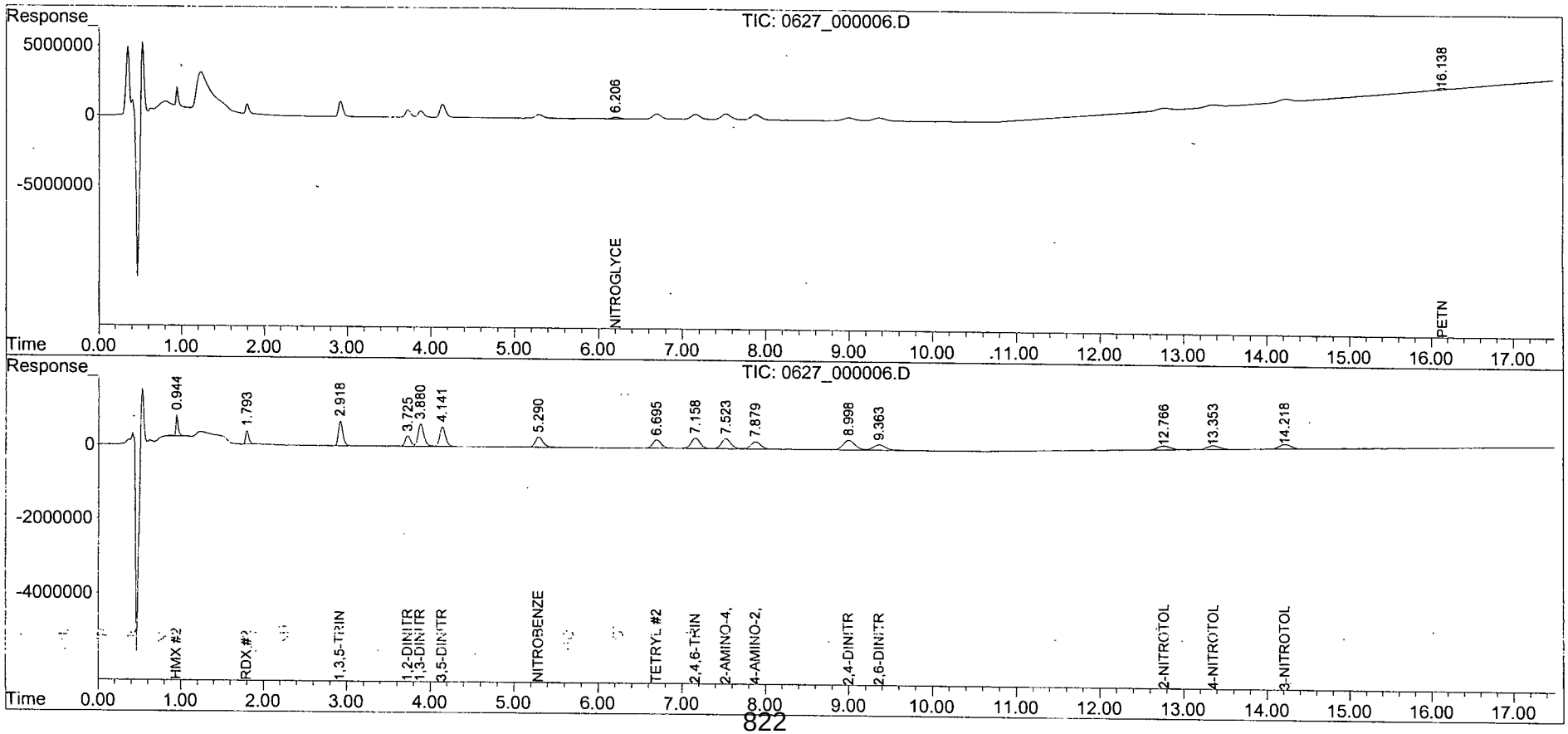
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000006.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 17:03:31
Operator : MP
Sample : 8330_CB 0.020 PPM 06/26/15
Misc :
ALS Vial : 8450 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:19:46 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000007.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 17:41:02
Operator : MP
Sample : 8330_CB 0.050 PPM 06/26/15
Misc :
ALS Vial : 8451 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:19:49 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
4)	S 1,2-DINIT...	0.000	3.723	0	721478	N.D.	55.319	#
	Spiked Amount 62.500			Recovery =		0.00%	88.51%	
	Target Compounds							
1)	TM HMX	0.000	0.944	0	1424906	N.D.	53.272	#
2)	TM RDX	0.000	1.793	0	920147	N.D.	54.046	#
3)	TM 1,3,5-TRI...	0.000	2.918	0	1668548	N.D.	55.386	#
5)	TM 1,3-DINIT...	0.000	3.878	0	1535624	N.D.	55.568	#
6)	TM 3,5-DINIT...	0.000	4.139	0	1333598	N.D.	56.111	#
7)	TM NITROBENZENE	0.000	5.284	0	701293	N.D.	55.936	#
8)	TM NITROGLYC...	6.199	0.000	302264	0	51.738	N.D.	#
9)	TM TETRYL	6.689	6.689	905812	560091	NoCal	51.338	#
10)	TM 2,4,6-TRI...	7.152	7.152	916594	709057	NoCal	56.158	#
11)	TM 2-AMINO-4...	7.518	7.518	1036448	683325	NoCal	57.350	#
12)	TM 4-AMINO-2...	7.873	7.873	940347	506786	NoCal	57.003	#
13)	TM 2,4-DINIT...	8.992	8.991	495598	659672	NoCal	57.101	#
14)	TM 2,6-DINIT...	9.356	9.355	534190	373054	NoCal	55.986	#
15)	TM 2-NITROTO...	0.000	12.761	0	266805	N.D.	52.825	#
16)	TM 4-NITROTO...	0.000	13.353	0	259954	N.D.	50.723	#
17)	TM 3-NITROTO...	0.000	14.219	0	313046	N.D.	51.488	#
18)	TM PETN	16.145	0.000	265740	0	54.847	N.D.	#

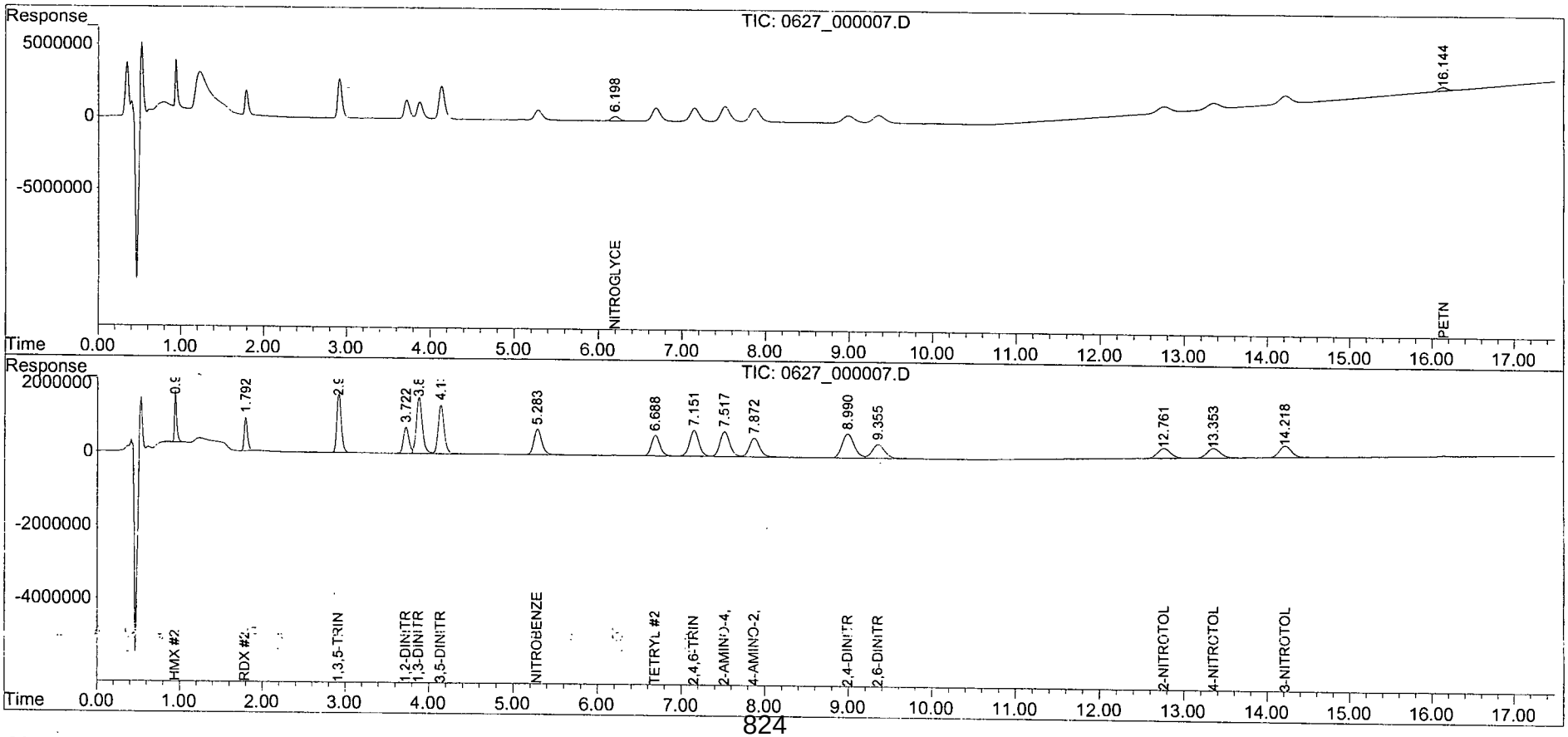
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000007.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 17:41:02
Operator : MP
Sample : 8330_CB 0.050 PPM 06/26/15
Misc :
ALS Vial : 8451 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:19:49 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 18:18:32
Operator : MP
Sample : 8330_CB 0.10 PPM 06/26/15
Misc :
ALS Vial : 8452 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:19:52 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0m
m 1.8-micron

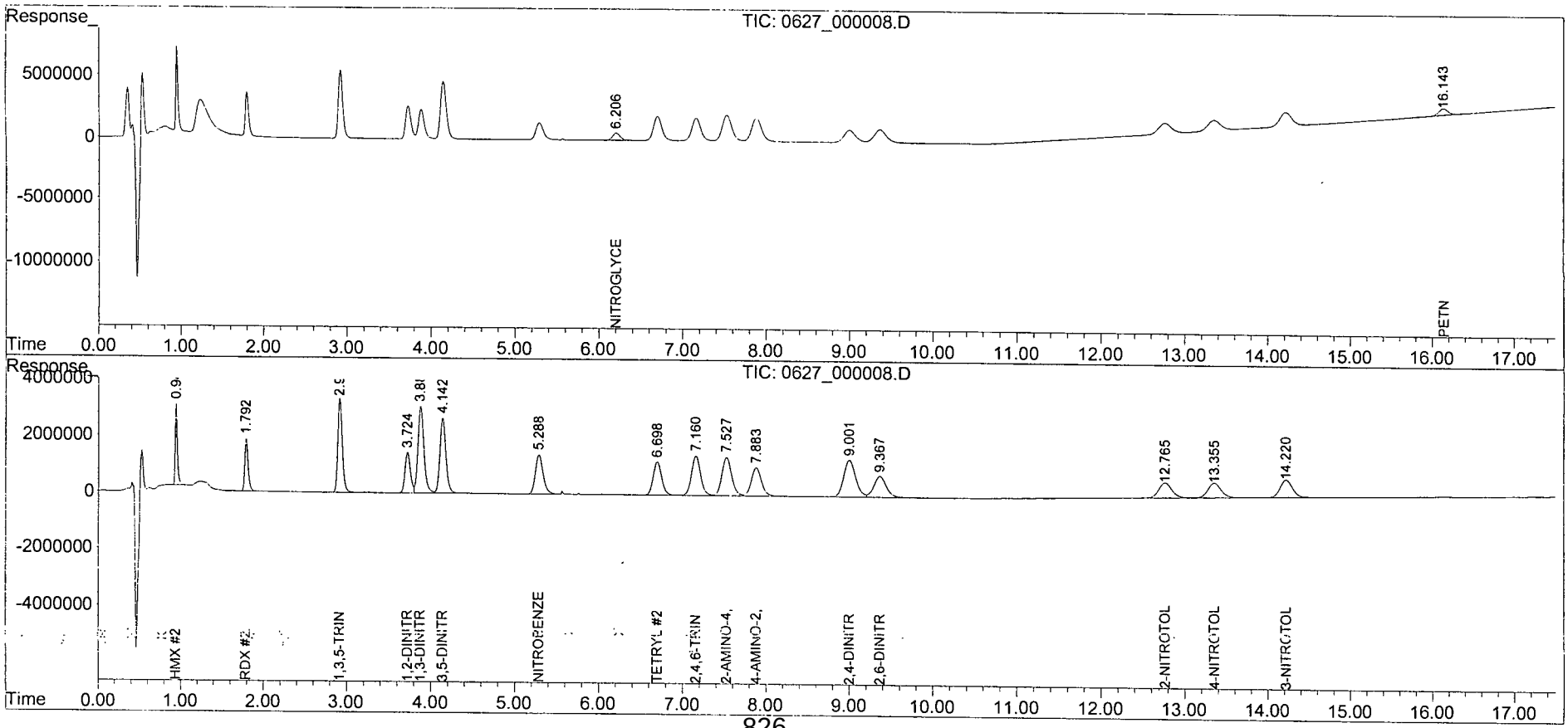
	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
4)	S 1,2-DINIT...	0.000	3.725	0	1446035	N.D.	110.875	#
	Spiked Amount 62.500			Recovery	=	0.00%	177.40%	
	Target Compounds							
1)	TM HMX	0.000	0.943	0	2854765	N.D.	106.730	#
2)	TM RDX	0.000	1.793	0	1858543	N.D.	109.163	#
3)	TM 1,3,5-TRI...	0.000	2.918	0	3329272	N.D.	110.512	#
5)	TM 1,3-DINIT...	0.000	3.880	0	3072148	N.D.	111.168	#
6)	TM 3,5-DINIT...	0.000	4.142	0	2671055	N.D.	112.385	#
7)	TM NITROBENZENE	0.000	5.289	0	1402485	N.D.	111.865	#
8)	TM NITROGLYC...	6.207	0.000	604575	0	103.483	N.D.	#
9)	TM TETRYL	6.698	6.698	1941999	1190299	NoCal	109.103	#
10)	TM 2,4,6-TRI...	7.161	7.161	1830603	1413014	NoCal	111.913	#
11)	TM 2-AMINO-4...	7.527	7.527	2076066	1368769	NoCal	114.879	#
12)	TM 4-AMINO-2...	7.883	7.883	1892953	1012033	NoCal	113.834	#
13)	TM 2,4-DINIT...	9.002	9.001	978615	1313056	NoCal	113.657	#
14)	TM 2,6-DINIT...	9.368	9.368	1043659	745620	NoCal	111.899	#
15)	TM 2-NITROTO...	0.000	12.765	0	536923	N.D.	106.306	#
16)	TM 4-NITROTO...	0.000	13.356	0	525099	N.D.	102.459	#
17)	TM 3-NITROTO...	0.000	14.222	0	628578	N.D.	103.386	#
18)	TM PETN	16.144	0.000	510206	0	105.304	N.D.	#

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 18:18:32
Operator : MP
Sample : 8330_CB 0.10 PPM 06/26/15
Misc :
ALS Vial : 8452 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:19:52 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 18:56:03
Operator : MP
Sample : 8330_CB 0.20 PPM 06/26/15
Misc :
ALS Vial : 8453 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:19:55 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
4)	S 1,2-DINIT...	0.000	3.727	0	2915268	N.D.	223.528	#
	Spiked Amount 62.500			Recovery	=	0.00%	357.64%	
	Target Compounds							
1)	TM HMX	0.000	0.944	0	5753948	N.D.	215.121	#
2)	TM RDX	0.000	1.794	0	3730360	N.D.	219.106	#
3)	TM 1,3,5-TRI...	0.000	2.921	0	6736112	N.D.	223.599	#
5)	TM 1,3-DINIT...	0.000	3.882	0	6223842	N.D.	225.214	#
6)	TM 3,5-DINIT...	0.000	4.144	0	5394418	N.D.	226.970	#
7)	TM NITROBENZENE	0.000	5.289	0	2836918	N.D.	226.278	#
8)	TM NITROGLYC...	6.209	6.208	1200796	24962	205.537	NoCal	#
9)	TM TETRYL	6.701	6.701	3501474	2164738	NoCal	198.421	#
10)	TM 2,4,6-TRI...	7.164	7.164	3707835	2871520	NoCal	227.429	#
11)	TM 2-AMINO-4...	7.530	7.530	4177134	2761384	NoCal	231.759	#
12)	TM 4-AMINO-2...	7.886	7.887	3803943	2041737	NoCal	229.655	#
13)	TM 2,4-DINIT...	9.002	9.002	1979518	2666316	NoCal	230.794	#
14)	TM 2,6-DINIT...	9.368	9.368	2101428	1506457	NoCal	226.082	#
15)	TM 2-NITROTO...	0.000	12.767	0	1076072	N.D.	213.053	#
16)	TM 4-NITROTO...	0.000	13.359	0	1056362	N.D.	206.122	#
17)	TM 3-NITROTO...	0.000	14.227	0	1272204	N.D.	209.246	#
18)	TM PETN	16.152	0.000	1033598	0	213.329	N.D.	#

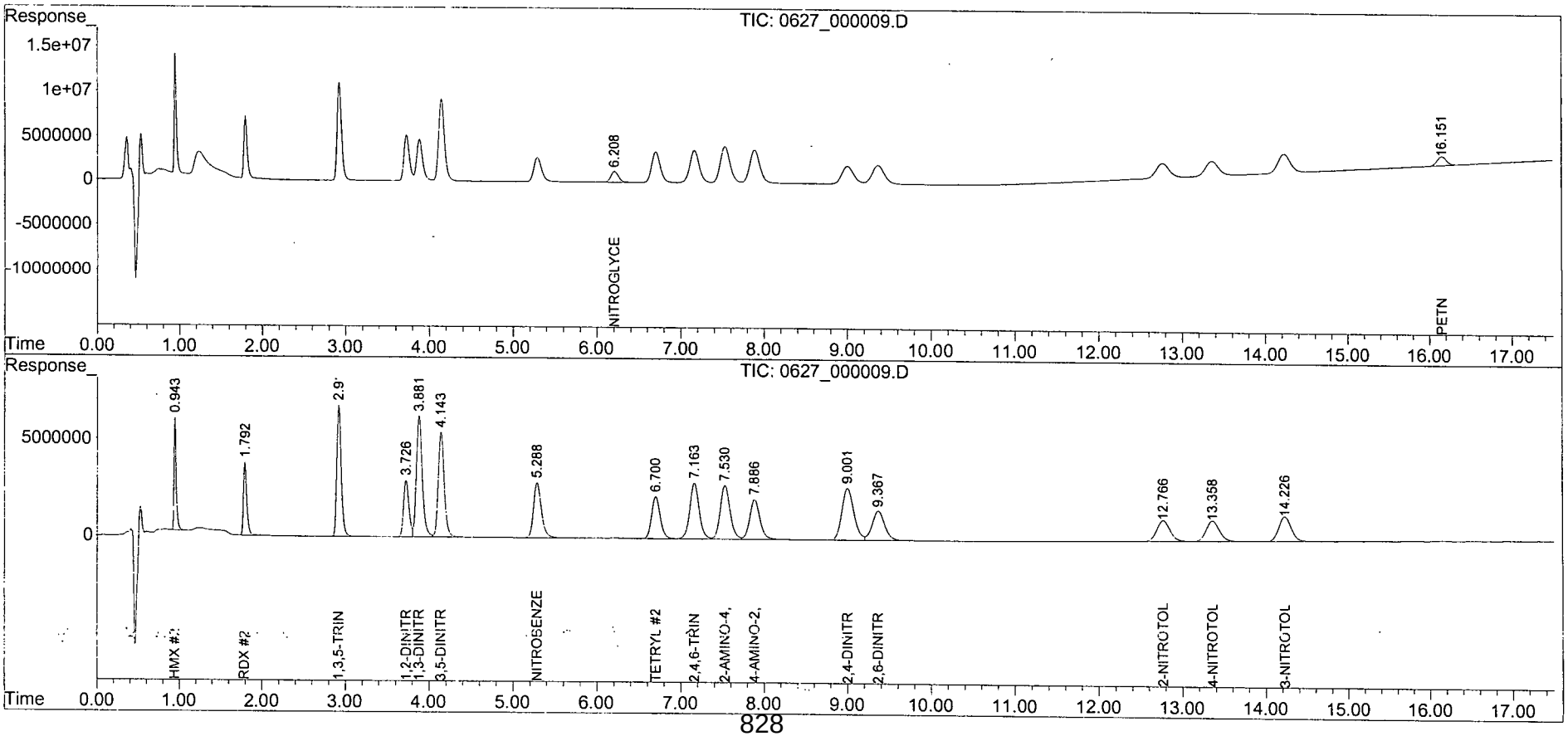
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 18:56:03
Operator : MP
Sample : 8330_CB 0.20 PPM 06/26/15
Misc :
ALS Vial : 8453 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:19:55 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



W150627.M Sun Jun 28 05:24:43 2015 WALDORF

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000010.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 19:33:33
Operator : MP
Sample : 8330_CB 0.50 PPM 06/26/15
Misc :
ALS Vial : 8454 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:19:58 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
4)	S 1,2-DINIT...	0.000	3.725	0	6369600	N.D.	488.390	#
	Spiked Amount 62.500			Recovery =		0.00%	781.42%	
	Target Compounds							
1)	TM HMX	0.000	0.940	0	12357854	N.D.	462.019	#
2)	TM RDX	0.000	1.793	0	8227356	N.D.	483.241	#
3)	TM 1,3,5-TRI...	0.000	2.919	0	14612676	N.D.	485.054	#
5)	TM 1,3-DINIT...	0.000	3.880	0	13599729	N.D.	492.116	#
6)	TM 3,5-DINIT...	0.000	4.143	0	11833339	N.D.	497.887	#
7)	TM NITROBENZENE	0.000	5.288	0	6175775	N.D.	492.591	#
8)	TM NITROGLYC...	6.208	6.206	2599912	50166	445.019	NoCal	#
9)	TM TETRYL	6.700	6.700	7674328	4741052	NoCal	434.567	#
10)	TM 2,4,6-TRI...	7.162	7.162	7964428	6170180	NoCal	488.688	#
11)	TM 2-AMINO-4...	7.529	7.529	9016460	5965392	NoCal	500.667	#
12)	TM 4-AMINO-2...	7.886	7.886	8188175	4395456	NoCal	494.401	#
13)	TM 2,4-DINIT...	9.004	9.003	4250597	5752419	NoCal	497.925	#
14)	TM 2,6-DINIT...	9.371	9.371	4500729	3240882	NoCal	486.376	#
15)	TM 2-NITROTO...	0.000	12.769	0	2325082	N.D.	460.346	#
16)	TM 4-NITROTO...	0.000	13.359	0	2279977	N.D.	444.878	#
17)	TM 3-NITROTO...	0.000	14.226	0	2744442	N.D.	451.393	#
18)	TM PETN	16.152	0.000	2257431	0	465.921	N.D.	#

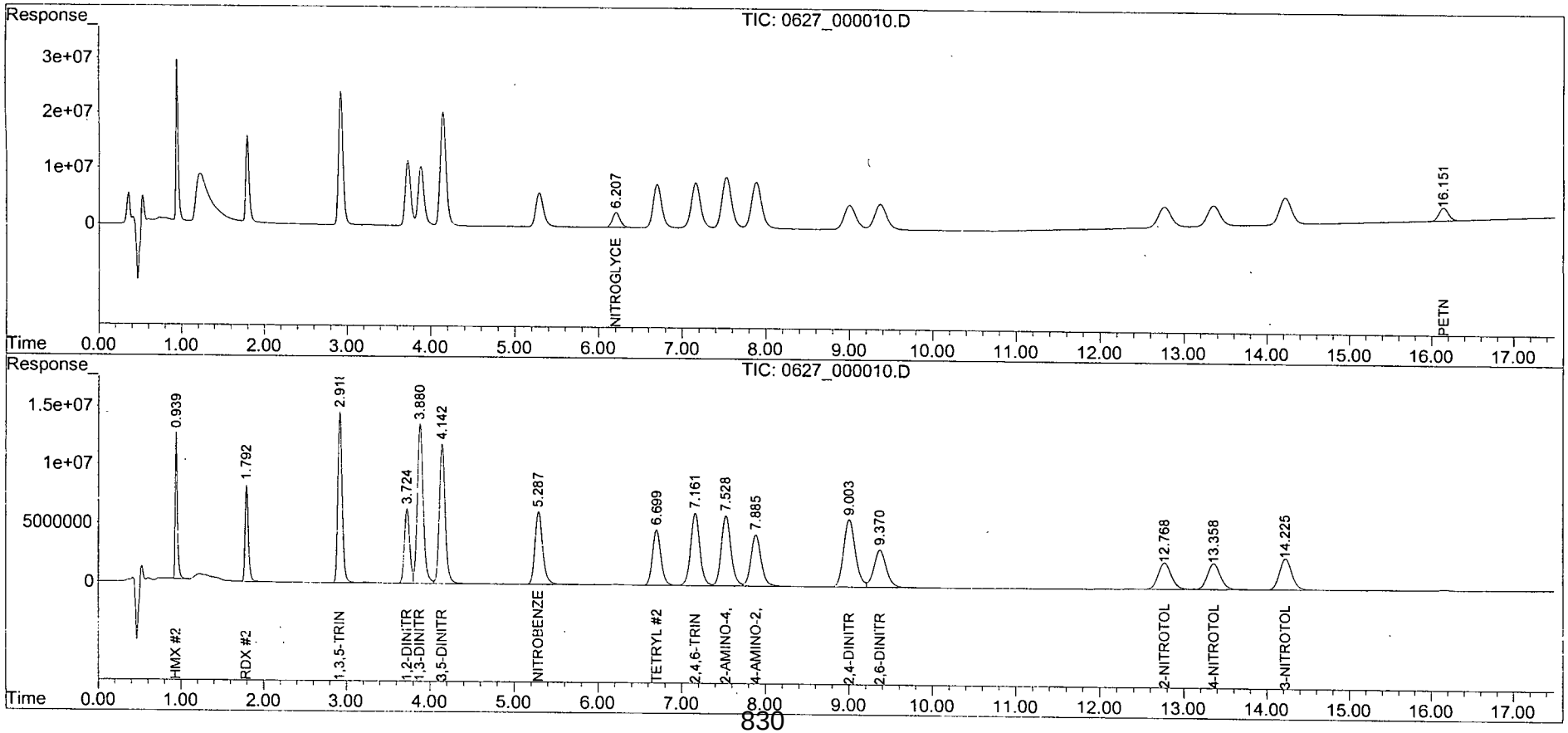
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000010.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 19:33:33
Operator : MP
Sample : 8330_CB 0.50 PPM 06/26/15
Misc :
ALS Vial : 8454 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:19:58 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 20:11:04
Operator : MP
Sample : 8330_CB 1.0 PPM 06/26/15
Misc :
ALS Vial : 8455 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:20:01 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb	
	System Monitoring Compounds							
4)	S 1,2-DINIT...	0.000	3.727	0	14408041	N.D.	1104.738	#
	Spiked Amount 62.500			Recovery	=	0.00%	1767.58%	
	Target Compounds							
1)	TM HMX	0.000	0.944	0	27672901	N.D.	1034.597	#
2)	TM RDX	0.000	1.794	0	18337745	N.D.	1077.084	#
3)	TM 1,3,5-TRI...	0.000	2.920	0	32583519	N.D.	1081.580	#
5)	TM 1,3-DINIT...	0.000	3.882	0	30760183	N.D.	1113.079	#
6)	TM 3,5-DINIT...	0.000	4.146	0	26601827	N.D.	1119.271	#
7)	TM NITROBENZENE	0.000	5.289	0	14004410	N.D.	1117.017	#
8)	TM NITROGLYC...	6.212	6.212	5857732	119686	1002.651	NoCal	#
9)	TM TETRYL	6.705	6.704	17101363	10556664	NoCal	967.630	#
10)	TM 2,4,6-TRI...	7.166	7.166	18056598	13993896	NoCal	1108.340	#
11)	TM 2-AMINO-4...	7.530	7.530	20442190	13541709	NoCal	1136.536	#
12)	TM 4-AMINO-2...	7.887	7.887	18507412	9930111	NoCal	1116.939	#
13)	TM 2,4-DINIT...	9.002	9.002	9705223	13160714	NoCal	1139.180	#
14)	TM 2,6-DINIT...	9.370	9.370	10266419	7407407	NoCal	1111.667	#
15)	TM 2-NITROTO...	0.000	12.765	0	5341772	N.D.	1057.625	#
16)	TM 4-NITROTO...	0.000	13.353	0	5226814	N.D.	1019.876	#
17)	TM 3-NITROTO...	0.000	14.223	0	6281650	N.D.	1033.177	#
18)	TM PETN	16.152	0.000	5132874	0	1059.396	N.D.	#

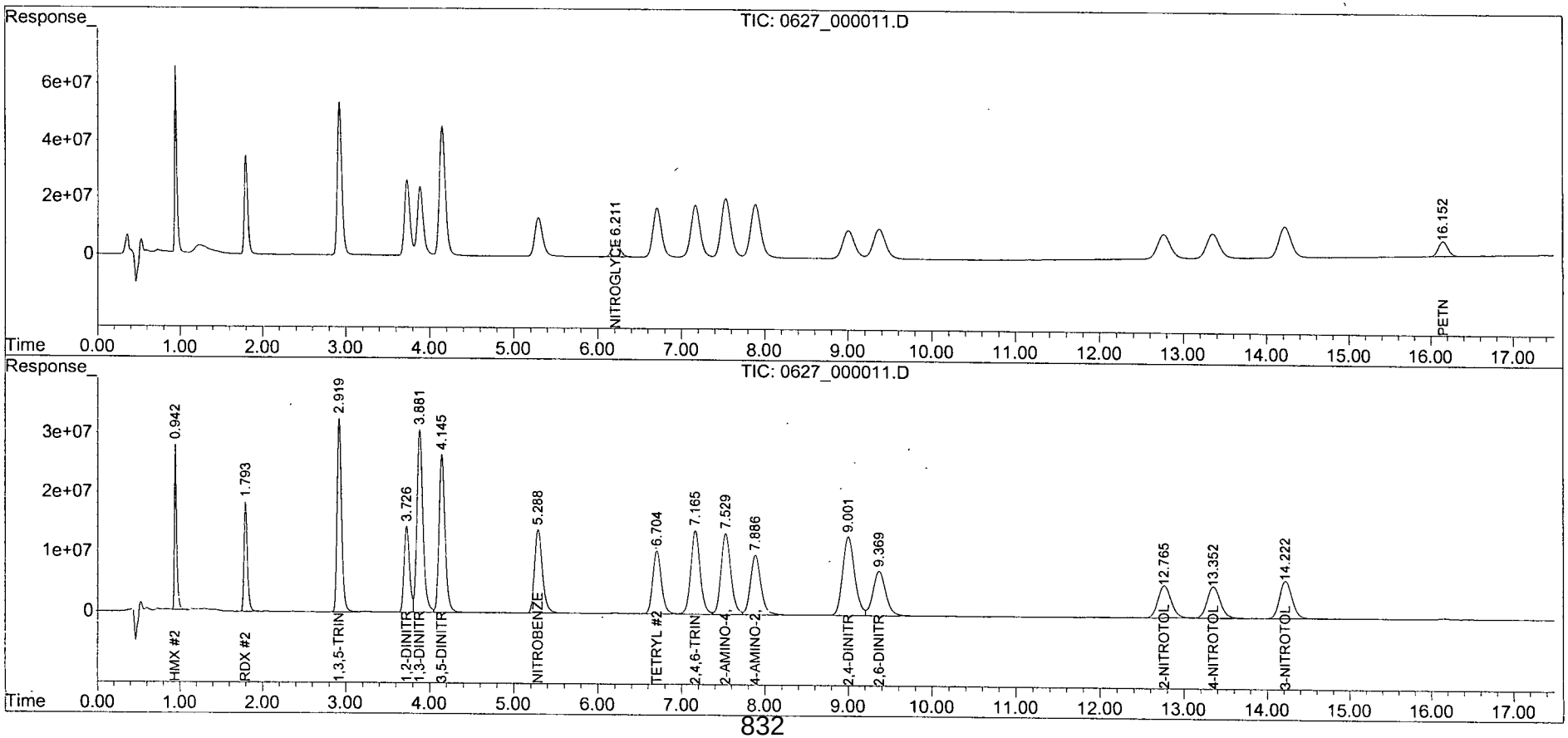
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 20:11:04
Operator : MP
Sample : 8330_CB 1.0 PPM 06/26/15
Misc :
ALS Vial : 8455 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:20:01 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 20:48:35
Operator : MP
Sample : 8330MXA_CB 2.0 PPM 06/26/15
Misc :
ALS Vial : 8456 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:12:43 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4)	S 1,2-DINIT...	0.000	3.727	0	29635199	N.D.	2272.282 #
	Spiked Amount 62.500			Recovery	=	0.00%	3635.65%
	Target Compounds						
1)	TM HMX	0.000	0.944	0	55377291	N.D.	2070.371 #
2)	TM RDX	0.000	1.796	0	36821454	N.D.	2162.742 #
3)	TM 1,3,5-TRI...	0.000	2.922	0	65943947	N.D.	2188.949 #
5)	TM 1,3-DINIT...	0.000	3.882	0	62994173	N.D.	2279.489 #
6)	TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
7)	TM NITROBENZENE	0.000	5.286	0	28674612	N.D.	2287.139 #
8)	TM NITROGLYC...	0.000	0.000	0	0	N.D.	N.D.
9)	TM TETRYL	6.709	6.709	36600167	22557025	NoCal	2067.590 #
10)	TM 2,4,6-TRI...	7.172	7.172	36716209	28519881	NoCal	2258.822 #
11)	TM 2-AMINO-4...	7.534	7.534	41658254	27658149	NoCal	2321.308 #
12)	TM 4-AMINO-2...	7.893	7.894	37632759	20164305	NoCal	2268.082 #
13)	TM 2,4-DINIT...	9.007	9.007	19900745	27065436	NoCal	2342.761 #
14)	TM 2,6-DINIT...	9.377	9.377	21041278	15208027	NoCal	2282.346 #
15)	TM 2-NITROTO...	0.000	12.768	0	10990622	N.D.	2176.050 #
16)	TM 4-NITROTO...	0.000	13.352	0	10773051	N.D.	2102.080 #
17)	TM 3-NITROTO...	0.000	14.221	0	12949844	N.D.	2129.930 #
18)	TM PETN	0.000	0.000	0	0	N.D.	N.D.

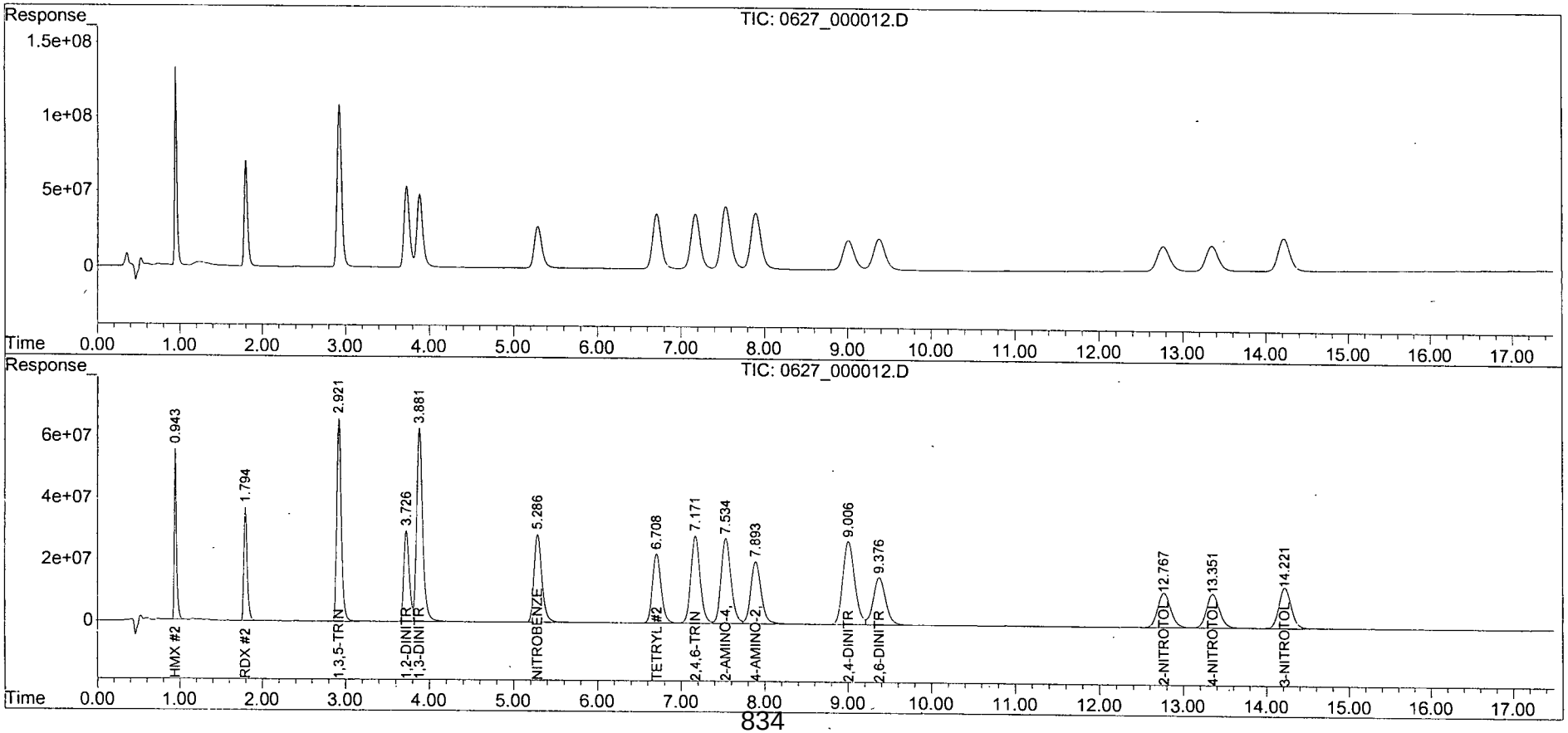
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 27-Jun-2015, 20:48:35
Operator : MP
Sample : 8330MXA_CB 2.0 PPM 06/26/15
Misc :
ALS Vial : 8456 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 05:12:43 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Tue Jun 23 08:54:37 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



W150627.M Sun Jun 28 05:17:20 2015 WALDORF Page: 2

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000027.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 28-Jun-2015, 05:22:26
Operator : MP
Sample : 8330MXB_CB 2.0 PPM 06/26/15
Misc :
ALS Vial : 8384 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 06:17:06 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 05:38:07 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4)	S 1,2-DINIT...	0.000	0.000	0	0	N.D.	N.D.
	Spiked Amount 62.500			Recovery =		0.00%	0.00%
	Target Compounds						
1)	TM HMX	0.000	0.000	0	0	N.D.	N.D.
2)	TM RDX	0.000	0.000	0	0	N.D.	N.D.
3)	TM 1,3,5-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
5)	TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.
6)	TM 3,5-DINIT...	0.000	4.164	0	52810036	N.D.	2012.031 #
7)	TM NITROBENZENE	0.000	0.000	0	0	N.D. d	N.D. d
8)	TM NITROGLYC...	6.235	6.235	11586372	226948	1914.801	NoCal #
9)	TM TETRYL	6.711	0.000	7414	0	NoCal	N.D.
10)	TM 2,4,6-TRI...	7.191	0.000	45521	0	NoCal	N.D.
11)	TM 2-AMINO-4...	7.587	0.000	7307	0	NoCal	N.D.
12)	TM 4-AMINO-2...	7.878	0.000	11689	0	NoCal	N.D.
13)	TM 2,4-DINIT...	9.004	0.000	12147	0	NoCal	N.D.
14)	TM 2,6-DINIT...	9.389	0.000	15660	0	NoCal	N.D.
15)	TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16)	TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
17)	TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
18)	TM PETN	16.195	0.000	10275320	0	2031.372	N.D. #

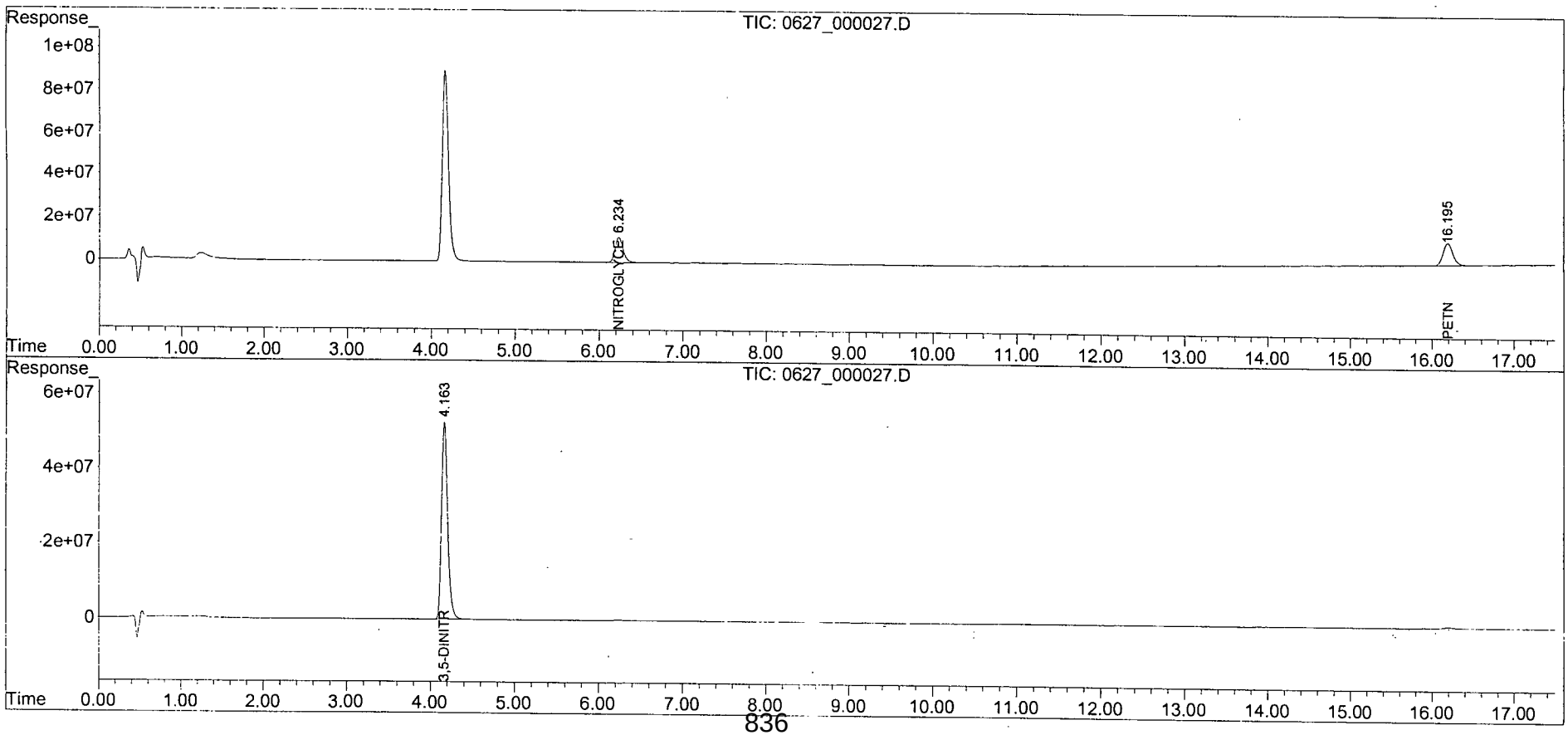
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000027.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 28-Jun-2015, 05:22:26
Operator : MP
Sample : 8330MXB_CB 2.0 PPM 06/26/15
Misc :
ALS Vial : 8384 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 06:17:06 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 05:38:07 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: 76674
Date Analyzed: 28-Jun-2015, 05:49:56
Instrument: Waldorf
Initial Cal. Date: 06/27/15
Data File: 0627_000028-029.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	NITROGLYCERIN	151	144	4.2	TM	
2	TM	PETN	127	122	4.0	TM	
3		Signal #2					
4	TM	HMX	697	691	0.92	TM	
5	TM	RDX	454	463	2.0	TM	
6	TM	1,3,5-TRINITROBENZENE	822	698	15	TM	
7	S	1,2-DINITROBENZENE	357	366	2.4	S	
8	TM	1,3-DINITROBENZENE	760	773	1.7	TM	
9	TM	3,5-DINITROANILINE	657	678	3.3	TM	
10	TM	NITROBENZENE	348	346	0.37	TM	
11	TM	2,4,6-TRINITROTOLUENE	351	342	2.7	TM	
12	TM	2-AMINO-4,6-DINITROTOLUEN	337	313	7.1	TM	
13	TM	4-AMINO-2,6-DINITROTOLUEN	249	267	7.2	TM	
14	TM	2,4-DINITROTOLUENE	326	343	5.3	TM	
15	TM	2,6-DINITROTOLUENE	184	189	2.8	TM	
16	TM	2-NITROTOLUENE	133	137	3.0	TM	
17	TM	4-NITROTOLUENE	131	132	1.0	TM	
18	TM	3-NITROTOLUENE	155	162	4.6	TM	
19	TM	TETRYL	278	270	2.9	TM	
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Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000028.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 28-Jun-2015, 05:49:56
Operator : MP
Sample : 8330_SS 1.0 PPM 06/26/15
Misc :
ALS Vial : 8385 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 06:24:09 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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	3.741	0	14646807	N.D.	1024.261	#
	Spiked Amount 62.500			Recovery	=	0.00%	1638.82%	
	Target Compounds							
1)	TM HMX	0.000	0.947	0	27636970	N.D.	990.824	#
2)	TM RDX	0.000	1.801	0	18516186	N.D.	1019.808	#
3)	TM 1,3,5-TRI...	0.000	2.932	0	27916907	N.D.	849.559	#
5)	TM 1,3-DINIT...	0.000	3.895	0	30931104	N.D.	1016.835	#
6)	TM 3,5-DINIT...	0.000	4.165	0	27128264	N.D.	1032.880	#
7)	TM NITROBENZENE	0.000	5.302	0	13854640	N.D.	996.260	#
8)	TM NITROGLYC...	6.235	6.235	5769672	121248	958.049	NoCal	#
9)	TM TETRYL	6.740	6.740	9838070	6107379	NoCal	549.853	#
10)	TM 2,4,6-TRI...	7.199	7.199	17586413	13662315	NoCal	973.460	#
11)	TM 2-AMINO-4...	7.575	7.575	18822233	12510213	NoCal	929.232	#
12)	TM 4-AMINO-2...	7.934	7.934	19876833	10696896	NoCal	1072.080	#
13)	TM 2,4-DINIT...	9.045	9.045	10052135	13736229	NoCal	1053.191	#
14)	TM 2,6-DINIT...	9.417	9.416	10466586	7579890	NoCal	1028.101	#
15)	TM 2-NITROTO...	0.000	12.810	0	5478510	N.D.	1030.203	#
16)	TM 4-NITROTO...	0.000	13.396	0	5277488	N.D.	1010.039	#
17)	TM 3-NITROTO...	0.000	14.264	0	6494475	N.D.	1045.600	#
18)	TM PETN	0.000	0.000	0	0	N.D.	N.D.	

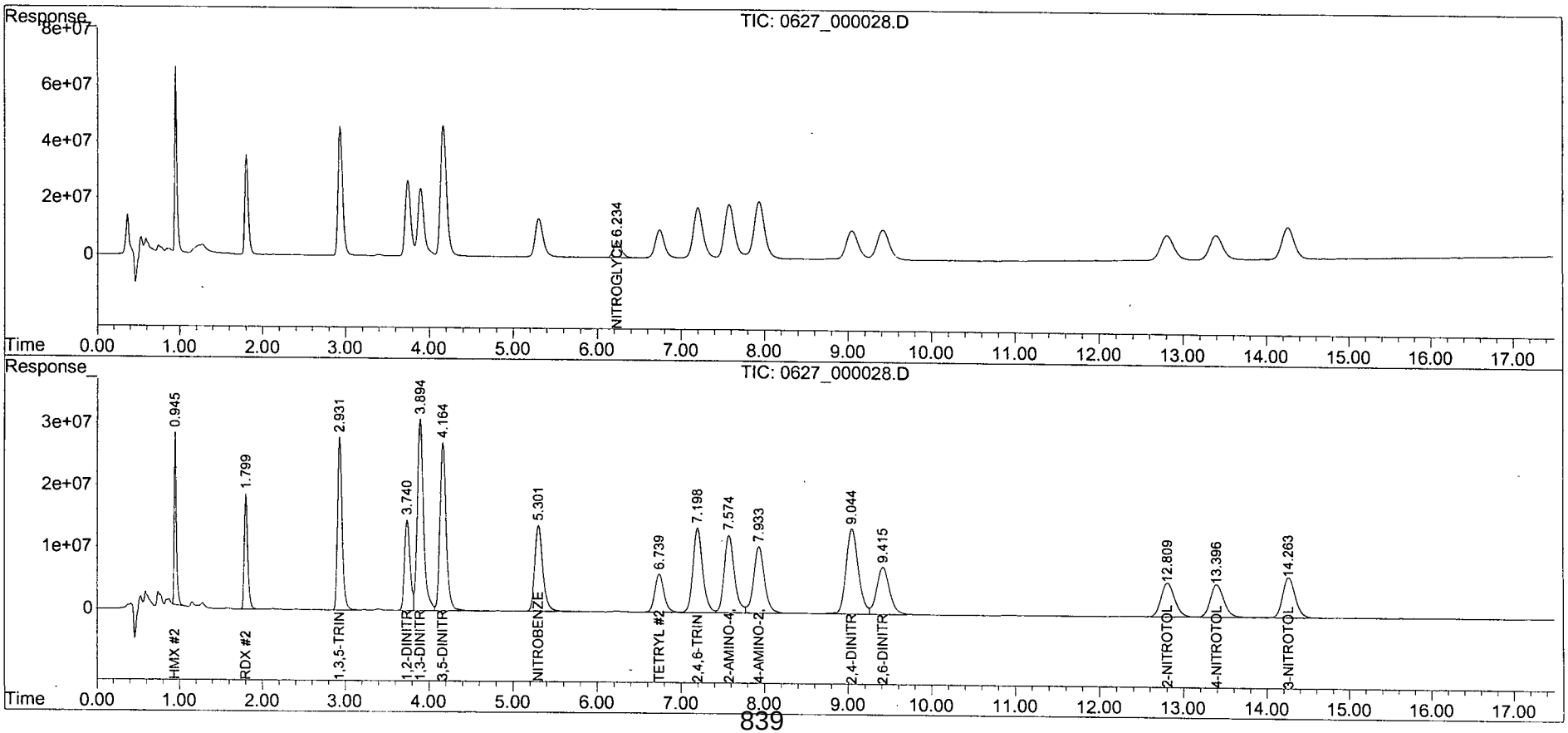
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000028.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 28-Jun-2015, 05:49:56
Operator : MP
Sample : 8330_SS 1.0 PPM 06/26/15
Misc :
ALS Vial : 8385 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 06:24:09 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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\150627\150627\
Data File : 0627_000029.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 28-Jun-2015, 06:17:27
Operator : MP
Sample : PETN_TETRYL_SS 1.0 PPM 06/26/15
Misc :
ALS Vial : 8386 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 06:45:31 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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	6.730	6.730	17557664	10783808	NoCal	970.876 #
10)	TM 2,4,6-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
11)	TM 2-AMINO-4...	7.543	0.000	11208	0	NoCal	N.D.
12)	TM 4-AMINO-2...	7.842	0.000	10171	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...	9.515	0.000	11066	0	NoCal	N.D.
15)	TM 2-NITROTO...	0.000	0.000	0	0	N.D. d	N.D. d
16)	TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
17)	TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
18)	TM PETN	16.191	0.000	4865297	0	959.691	N.D. #

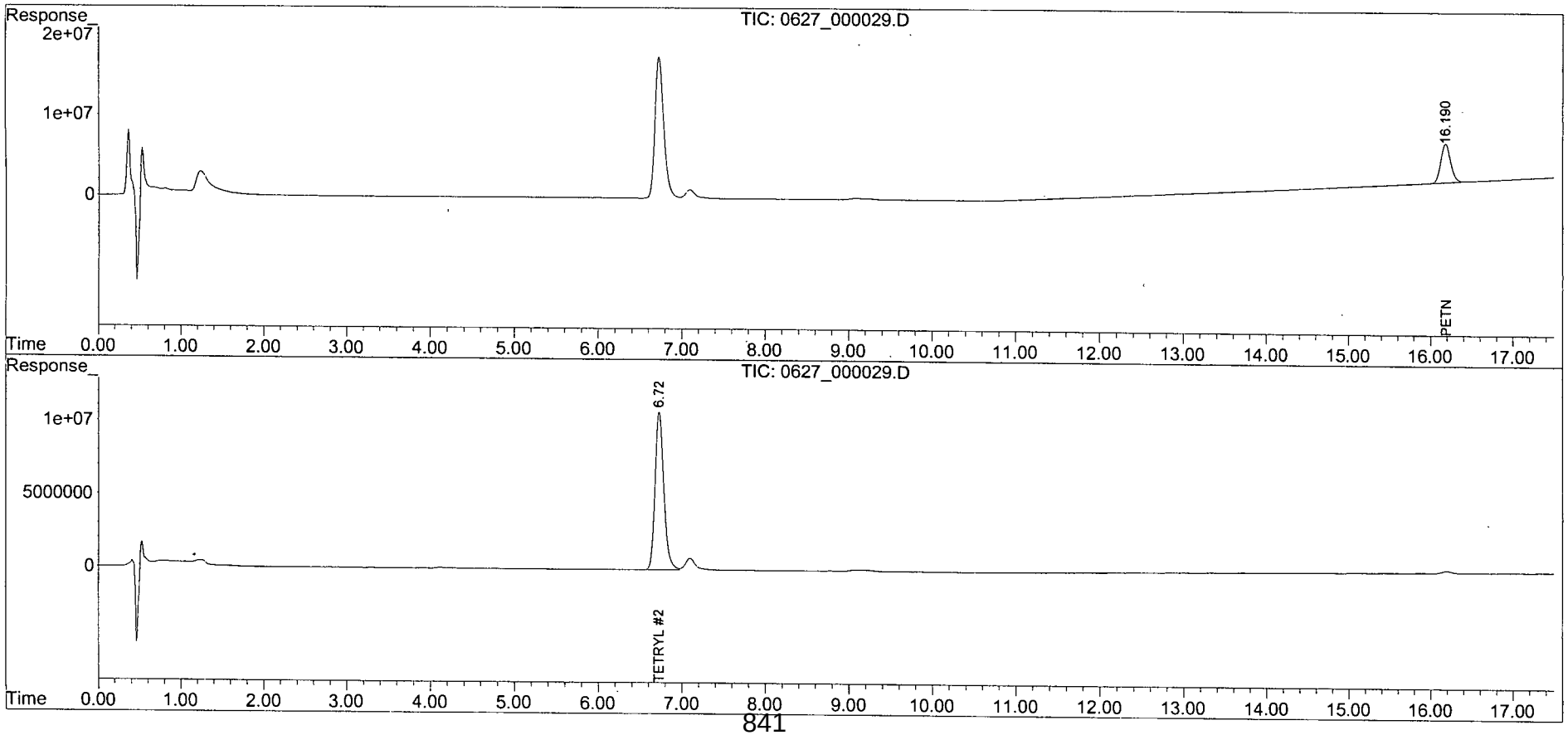
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150627\
Data File : 0627_000029.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 28-Jun-2015, 06:17:27
Operator : MP
Sample : PETN_TETRYL_SS 1.0 PPM 06/26/15
Misc :
ALS Vial : 8386 Sample Multiplier: 1

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 28 06:45:31 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150627\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



Form 7

Continuing Calibration

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

SDG No: 76674
Date Analyzed: 29-Jun-2015, 12:08:54
Instrument: Waldorf
Initial Cal. Date: 06/27/15
Data File: 0629_000004.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	NITROGLYCERIN	151	141	6.4	TM	
2	TM	PETN	127	126	0.83	TM	
3		Signal #2					
4	TM	HMX	697	687	1.4	TM	
5	TM	RDX	454	447	1.5	TM	
6	TM	1,3,5-TRINITROBENZENE	822	800	2.6	TM	
7	S	1,2-DINITROBENZENE	357	350	2.2	S	
8	TM	1,3-DINITROBENZENE	760	747	1.8	TM	
9	TM	3,5-DINITROANILINE	657	645	1.8	TM	
10	TM	NITROBENZENE	348	339	2.4	TM	
11	TM	TETRYL	278	291	4.8	TM	
12	TM	2,4,6-TRINITROTOLUENE	351	336	4.1	TM	
13	TM	2-AMINO-4,6-DINITROTOLUEN	337	324	3.7	TM	
14	TM	4-AMINO-2,6-DINITROTOLUEN	249	238	4.6	TM	
15	TM	2,4-DINITROTOLUENE	326	314	3.7	TM	
16	TM	2,6-DINITROTOLUENE	184	177	3.9	TM	
17	TM	2-NITROTOLUENE	133	129	2.8	TM	
18	TM	4-NITROTOLUENE	131	128	1.7	TM	
19	TM	3-NITROTOLUENE	155	154	0.86	TM	
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Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 29-Jun-2015, 12:08:54
Operator : MP
Sample : 8330_CCV 1.0 PPM 06/29/15
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 29 12:58:54 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon Jun 29 12:58:42 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	3.766	0	13990997	N.D.	978.400	#
	Spiked Amount 62.500			Recovery	=	0.00%	1565.44%	
	Target Compounds							
1)	TM HMX	0.000	0.951	0	27494016	N.D.	985.698	#
2)	TM RDX	0.000	1.813	0	17889081	N.D.	985.270	#
3)	TM 1,3,5-TRI...	0.000	2.957	0	32017998	N.D.	974.362	#
5)	TM 1,3-DINIT...	0.000	3.923	0	29868576	N.D.	981.906	#
6)	TM 3,5-DINIT...	0.000	4.190	0	25790583	N.D.	981.949	#
7)	TM NITROBENZENE	0.000	5.334	0	13567743	N.D.	975.630	#
8)	TM NITROGLYC...	6.322	6.322	5635010	117382	935.689	NoCal	#
9)	TM TETRYL	6.820	6.820	19038721	11637325	NoCal	1047.719	#
10)	TM 2,4,6-TRI...	7.281	7.281	17286411	13452732	NoCal	958.527	#
11)	TM 2-AMINO-4...	7.633	7.633	19543891	12971546	NoCal	963.498	#
12)	TM 4-AMINO-2...	7.996	7.996	17703150	9515698	NoCal	953.696	#
13)	TM 2,4-DINIT...	9.130	9.130	9234975	12565020	NoCal	963.391	#
14)	TM 2,6-DINIT...	9.508	9.508	9820578	7082544	NoCal	960.643	#
15)	TM 2-NITROTO...	0.000	12.889	0	5169900	N.D.	972.170	#
16)	TM 4-NITROTO...	0.000	13.478	0	5133650	N.D.	982.510	#
17)	TM 3-NITROTO...	0.000	14.345	0	6157960	N.D.	991.422	#
18)	TM PETN	16.392	0.000	5027440	0	991.674	N.D.	#

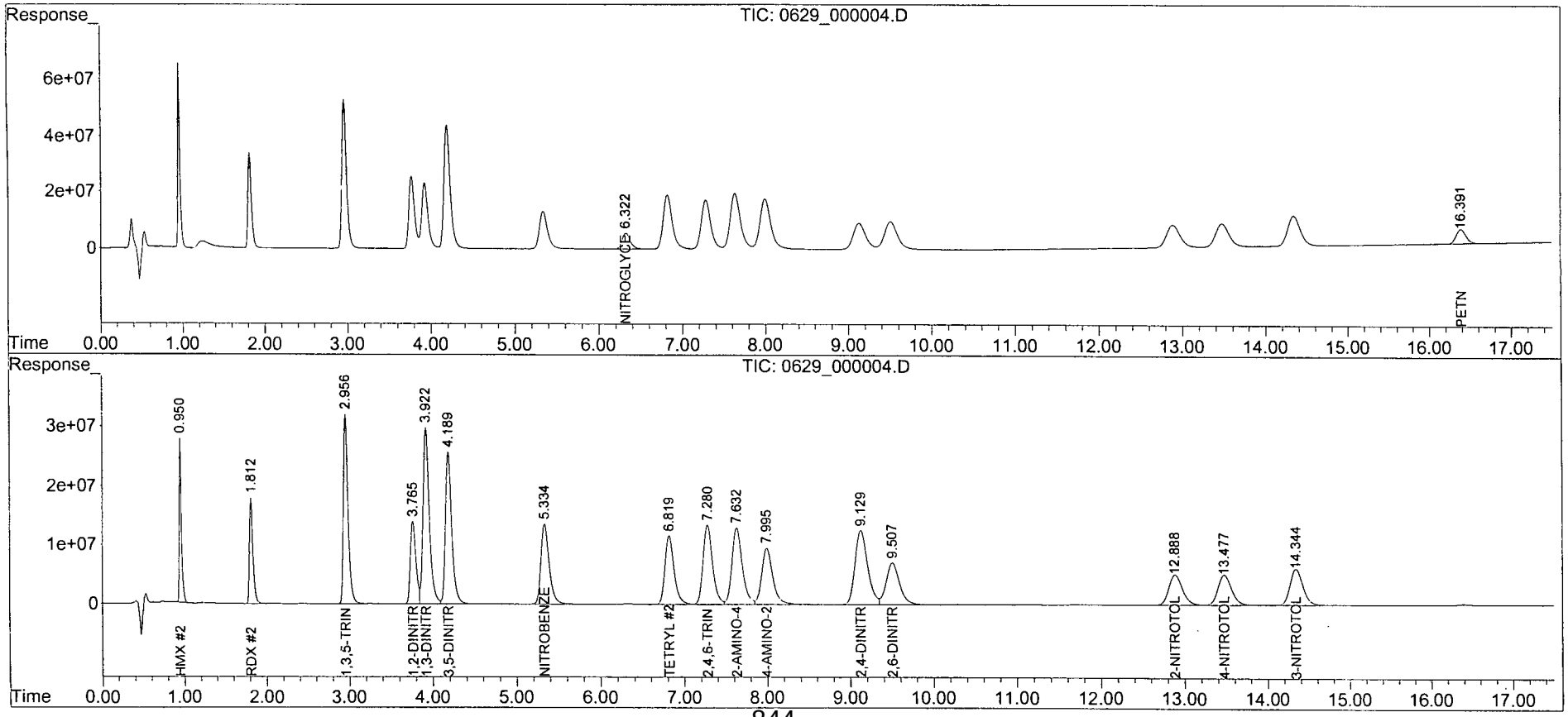
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 29-Jun-2015, 12:08:54
Operator : MP
Sample : 8330_CCV 1.0 PPM 06/29/15
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 29 12:58:54 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Mon Jun 29 12:58:42 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



Form 7

Continuing Calibration

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

SDG No: 76674
Date Analyzed: 29-Jun-2015, 21:23:44
Instrument: Waldorf
Initial Cal. Date: 06/27/15
Data File: 0629_000022.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	NITROGLYCERIN	151	140	7.2	TM	
2	TM	PETN	127	125	1.4	TM	
3		Signal #2					
4	TM	HMX	697	687	1.4	TM	
5	TM	RDX	454	445	2.0	TM	
6	TM	1,3,5-TRINITROBENZENE	822	797	3.0	TM	
7	S	1,2-DINITROBENZENE	357	348	2.5	S	
8	TM	1,3-DINITROBENZENE	760	744	2.2	TM	
9	TM	3,5-DINITROANILINE	657	641	2.4	TM	
10	TM	NITROBENZENE	348	332	4.4	TM	
11	TM	TETRYL	278	283	1.9	TM	
12	TM	2,4,6-TRINITROTOLUENE	351	335	4.7	TM	
13	TM	2-AMINO-4,6-DINITROTOLUEN	337	323	4.1	TM	
14	TM	4-AMINO-2,6-DINITROTOLUEN	249	237	5.1	TM	
15	TM	2,4-DINITROTOLUENE	326	312	4.2	TM	
16	TM	2,6-DINITROTOLUENE	184	176	4.4	TM	
17	TM	2-NITROTOLUENE	133	126	5.4	TM	
18	TM	4-NITROTOLUENE	131	126	3.6	TM	
19	TM	3-NITROTOLUENE	155	150	3.4	TM	
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Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000022.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 29-Jun-2015, 21:23:44
Operator : MP
Sample : 8330_CCV 1.0 PPM 06/29/15
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 30 07:36:05 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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	3.766	0	13939933	N.D.	974.829	#
	Spiked Amount 62.500			Recovery	=	0.00%	1559.73%	
	Target Compounds							
1)	TM HMX	0.000	0.951	0	27491772	N.D.	985.618	#
2)	TM RDX	0.000	1.812	0	17786022	N.D.	979.593	#
3)	TM 1,3,5-TRI...	0.000	2.957	0	31875437	N.D.	970.024	#
5)	TM 1,3-DINIT...	0.000	3.923	0	29760805	N.D.	978.363	#
6)	TM 3,5-DINIT...	0.000	4.190	0	25632871	N.D.	975.945	#
7)	TM NITROBENZENE	0.000	5.334	0	13294406	N.D.	955.975	#
8)	TM NITROGLYC...	6.323	6.323	5588035	113670	927.889	NoCal	#
9)	TM TETRYL	6.821	6.821	18508311	11315989	NoCal	1018.789	#
10)	TM 2,4,6-TRI...	7.282	7.282	17186925	13381903	NoCal	953.481	#
11)	TM 2-AMINO-4...	7.633	7.633	19408521	12914784	NoCal	959.282	#
12)	TM 4-AMINO-2...	7.996	7.996	17573703	9471104	NoCal	949.227	#
13)	TM 2,4-DINIT...	9.132	9.132	9129460	12494249	NoCal	957.965	#
14)	TM 2,6-DINIT...	9.510	9.509	9711054	7044800	NoCal	955.524	#
15)	TM 2-NITROTO...	0.000	12.884	0	5028460	N.D.	945.573	#
16)	TM 4-NITROTO...	0.000	13.472	0	5034801	N.D.	963.592	#
17)	TM 3-NITROTO...	0.000	14.336	0	6002437	N.D.	966.383	#
18)	TM PETN	16.381	0.000	4998907	0	986.046	N.D.	#

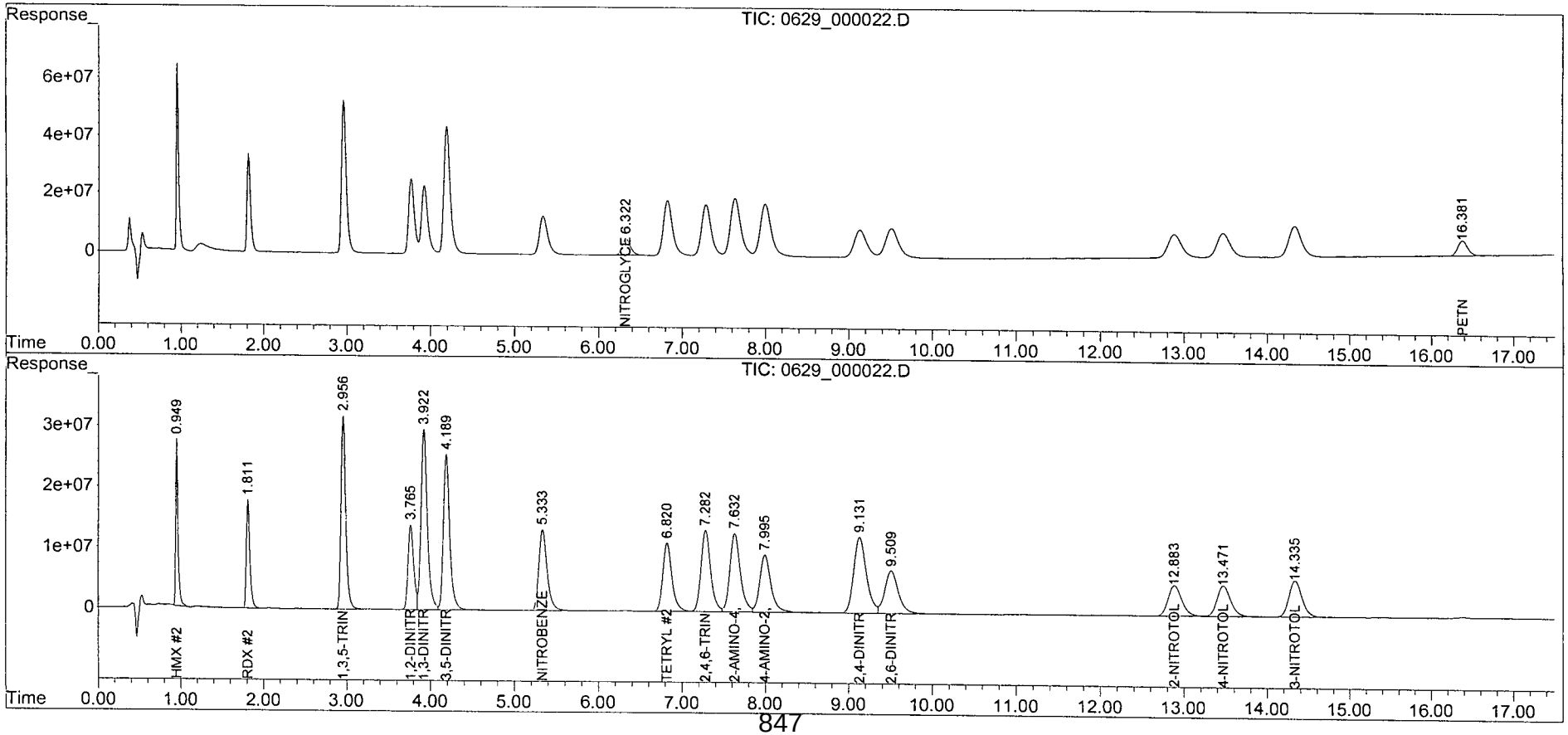
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000022.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 29-Jun-2015, 21:23:44
Operator : MP
Sample : 8330_CCV 1.0 PPM 06/29/15
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 30 07:36:05 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : ZORBAX Extend-C18 Signal #2 Info : ZORBAX Extend-C18 100x3.0mm 1.8-micron



Form 7

Continuing Calibration

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

SDG No: 76674
Date Analyzed: 30-Jun-2015, 06:36:26
Instrument: Waldorf
Initial Cal. Date: 06/27/15
Data File: 0629_000037.D

		Compound	MEAN	CCRF	%D	%Drift	
1	TM	NITROGLYCERIN	151	138	8.3	TM	
2	TM	PETN	127	123	2.6	TM	
3		Signal #2					
4	TM	HMX	697	676	3.0	TM	
5	TM	RDX	454	440	3.1	TM	
6	TM	1,3,5-TRINITROBENZENE	822	788	4.1	TM	
7	S	1,2-DINITROBENZENE	357	345	3.5	S	
8	TM	1,3-DINITROBENZENE	760	738	2.9	TM	
9	TM	3,5-DINITROANILINE	657	635	3.2	TM	
10	TM	NITROBENZENE	348	322	7.4	TM	
11	TM	TETRYL	278	275	0.96	TM	
12	TM	2,4,6-TRINITROTOLUENE	351	331	5.7	TM	
13	TM	2-AMINO-4,6-DINITROTOLUEN	337	320	5.0	TM	
14	TM	4-AMINO-2,6-DINITROTOLUEN	249	234	6.1	TM	
15	TM	2,4-DINITROTOLUENE	326	310	5.0	TM	
16	TM	2,6-DINITROTOLUENE	184	174	5.4	TM	
17	TM	2-NITROTOLUENE	133	122	8.4	TM	
18	TM	4-NITROTOLUENE	131	123	6.0	TM	
19	TM	3-NITROTOLUENE	155	146	6.0	TM	
20							
21							
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40							

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000037.D
Signal(s) : Signal #1: DAD1B.ch , Signal #2: DAD1A.ch
Acq On : 30-Jun-2015, 06:36:26
Operator : MP
Sample : 8330_CCV 1.0 PPM 06/29/15
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 30 07:36:44 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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	3.782	0	13806522	N.D.	965.500	#
	Spiked Amount 62.500			Recovery	=	0.00%	1544.80%	
	Target Compounds							
1)	TM HMX	0.000	0.954	0	27058717	N.D.	970.092	#
2)	TM RDX	0.000	1.820	0	17593038	N.D.	968.965	#
3)	TM 1,3,5-TRI...	0.000	2.970	0	31507154	N.D.	958.816	#
5)	TM 1,3-DINIT...	0.000	3.938	0	29531598	N.D.	970.828	#
6)	TM 3,5-DINIT...	0.000	4.209	0	25414243	N.D.	967.621	#
7)	TM NITROBENZENE	0.000	5.348	0	12882335	N.D.	926.343	#
8)	TM NITROGLYC...	6.333	6.332	5521814	101433	916.893	NoCal	#
9)	TM TETRYL	6.842	6.842	18085825	11001163	NoCal	990.445	#
10)	TM 2,4,6-TRI...	7.299	7.299	16957840	13236231	NoCal	943.101	#
11)	TM 2-AMINO-4...	7.659	7.659	19180283	12787304	NoCal	949.813	#
12)	TM 4-AMINO-2...	8.022	8.022	17337394	9373374	NoCal	939.432	#
13)	TM 2,4-DINIT...	9.151	9.151	9046266	12394443	NoCal	950.313	#
14)	TM 2,6-DINIT...	9.528	9.527	9613934	6976734	NoCal	946.292	#
15)	TM 2-NITROTO...	0.000	12.898	0	4868948	N.D.	915.578	#
16)	TM 4-NITROTO...	0.000	13.485	0	4911093	N.D.	939.916	#
17)	TM 3-NITROTO...	0.000	14.347	0	5838693	N.D.	940.020	#
18)	TM PETN	16.373	0.000	4936581	0	973.752	N.D.	#

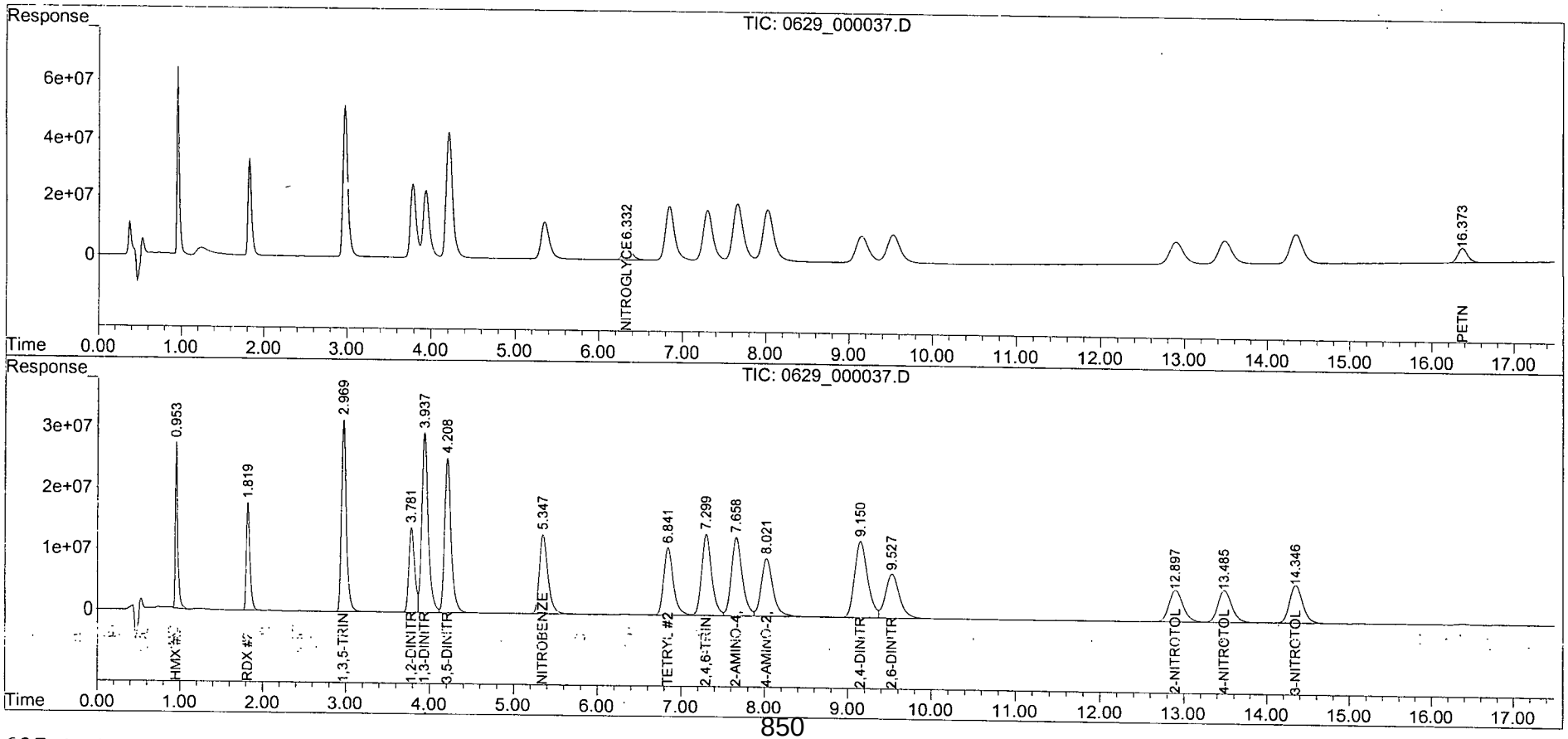
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000037.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 30-Jun-2015, 06:36:26
Operator : MP
Sample : 8330_CCV 1.0 PPM 06/29/15
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 30 07:36:44 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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



W150627.M Tue Jun 30 07:39:39 2015 WALDORF

Initial Calibration

Lab Name: APPL, Inc. SDG No: 76674

Case No: Initial Cal. Date: 05/22/15

Matrix: 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.

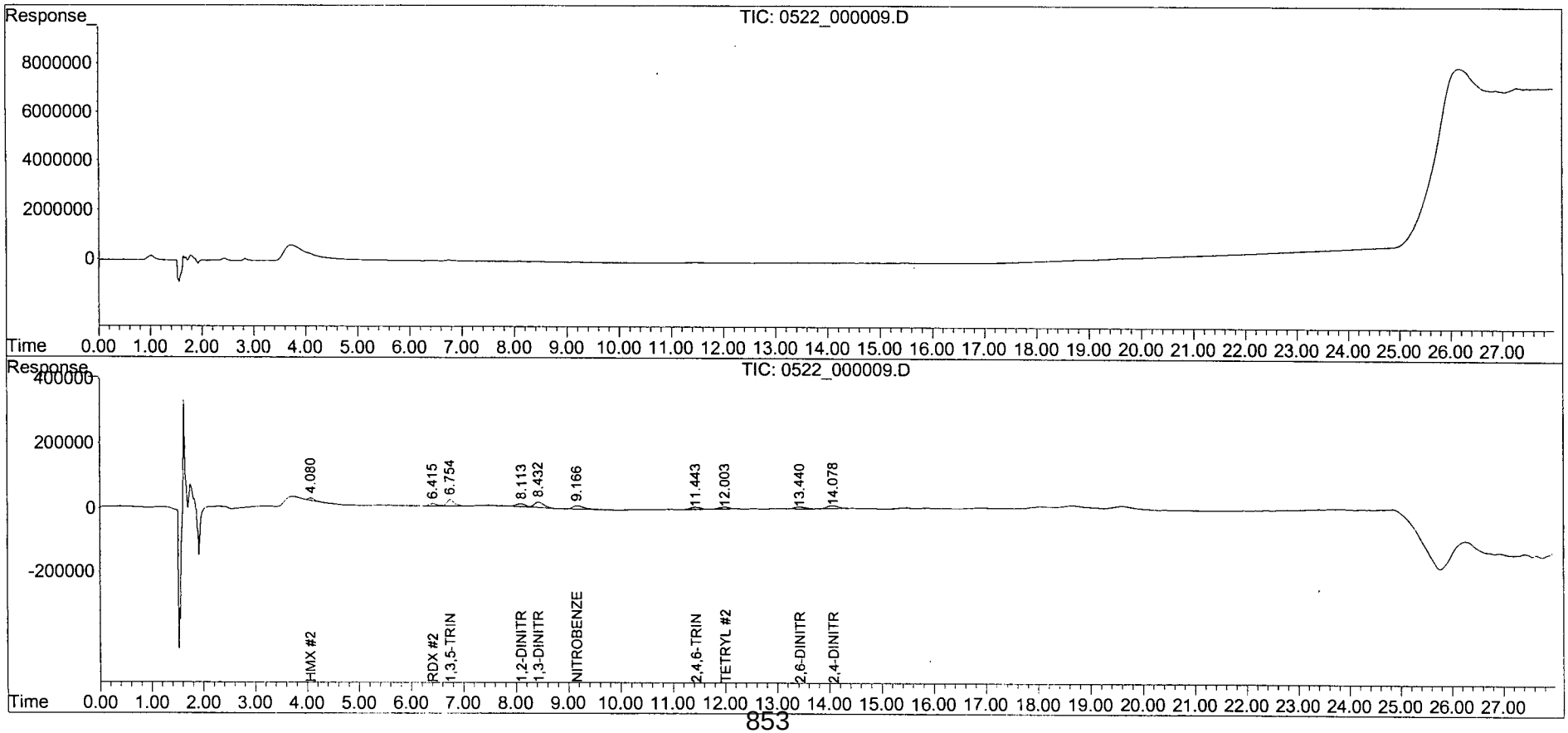
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

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

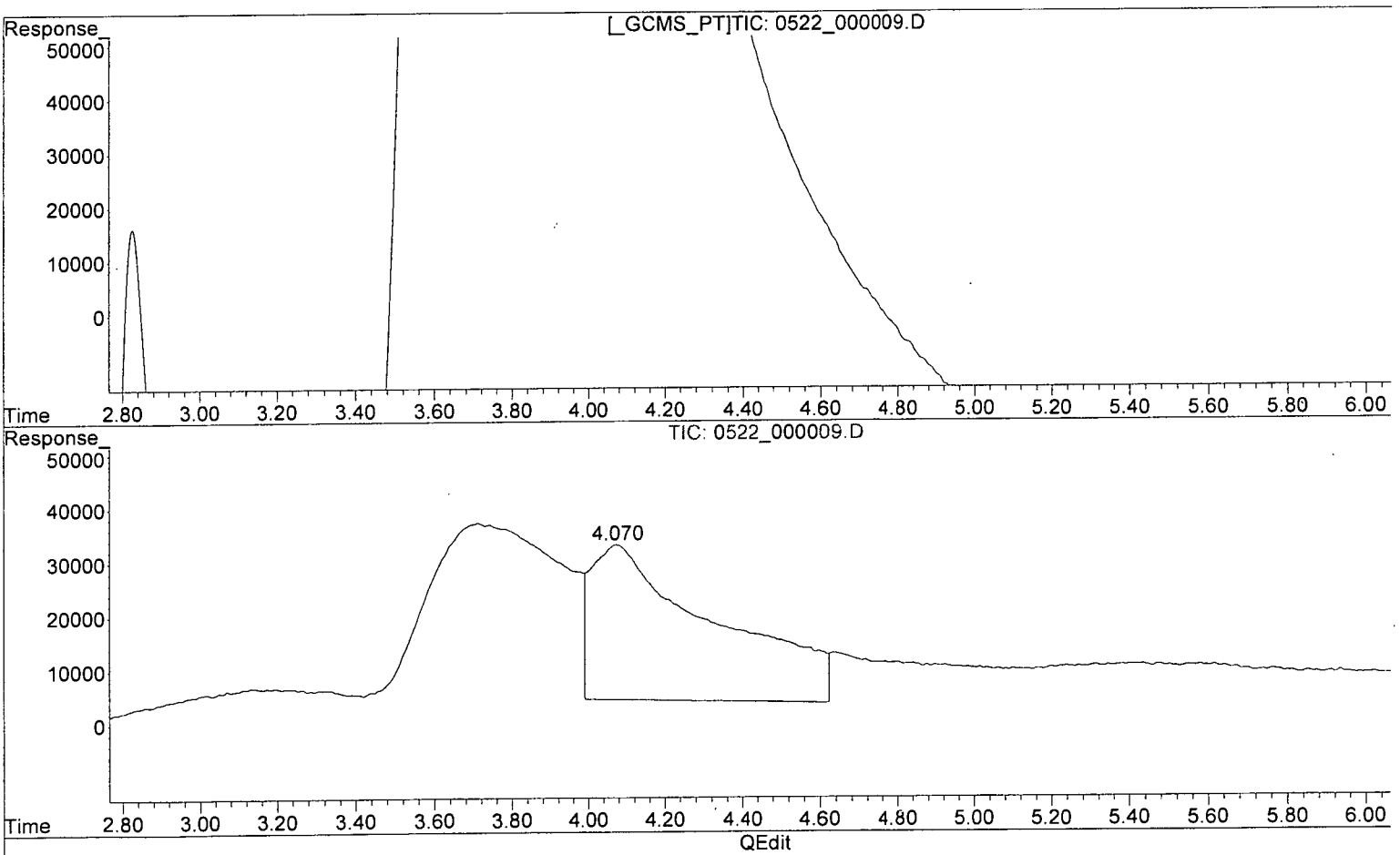


Quantitation Report (Qedit)

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



(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.074min 13.606 ppb

response 28611

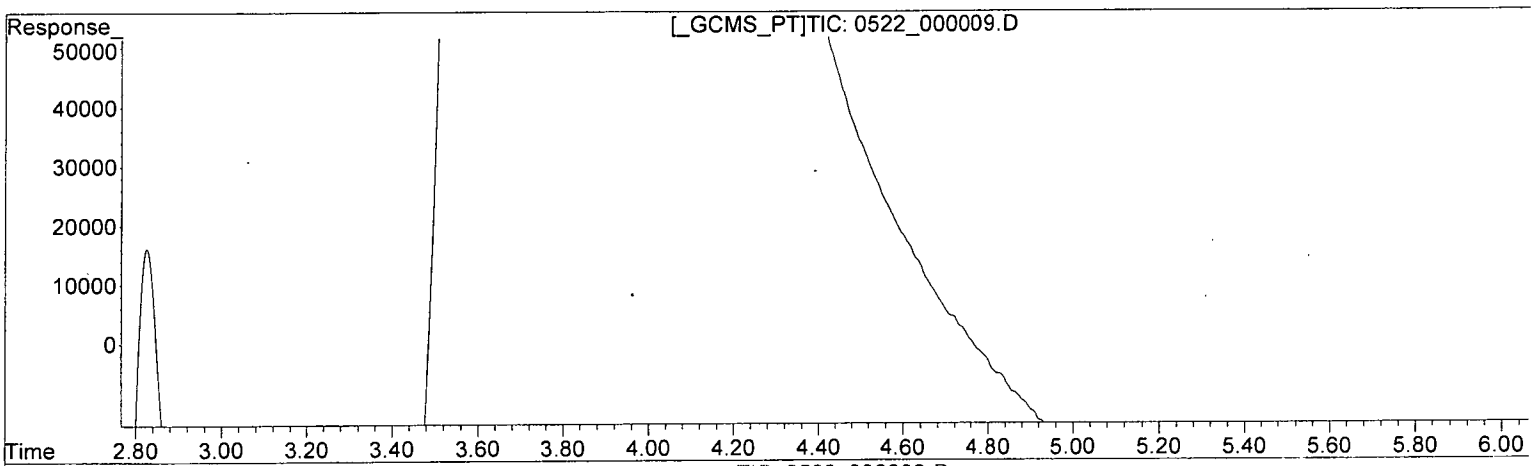
(+) = Expected Retention Time

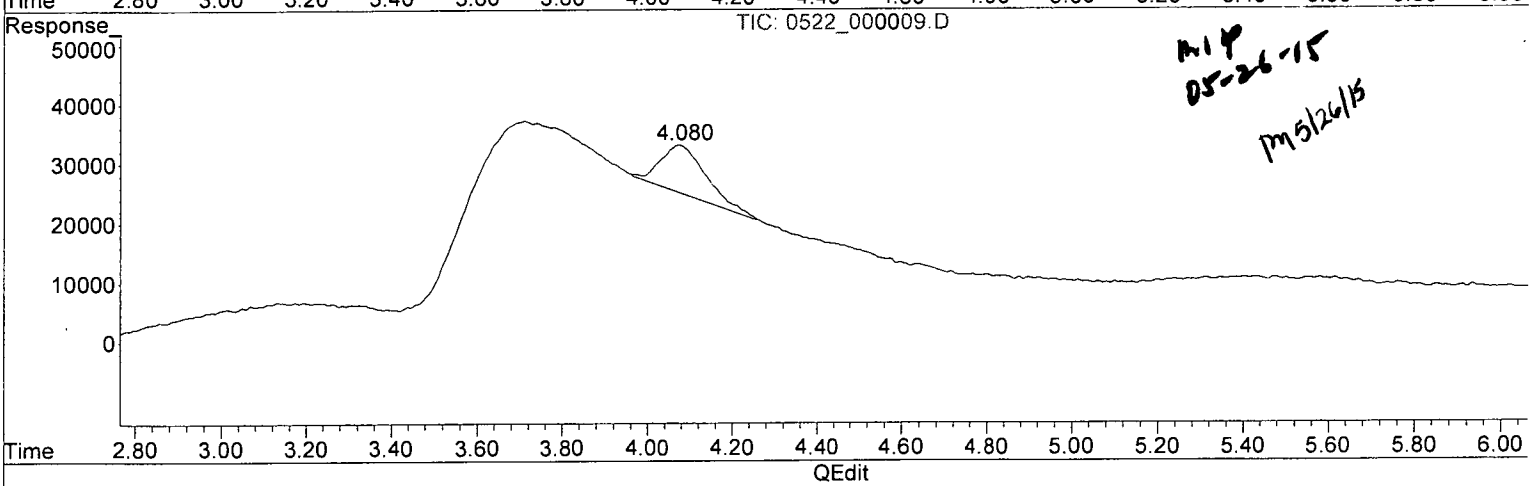
Quantitation Report (Qedit)

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

pm 5/26/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.080min 3.829 ppb m

response 8051

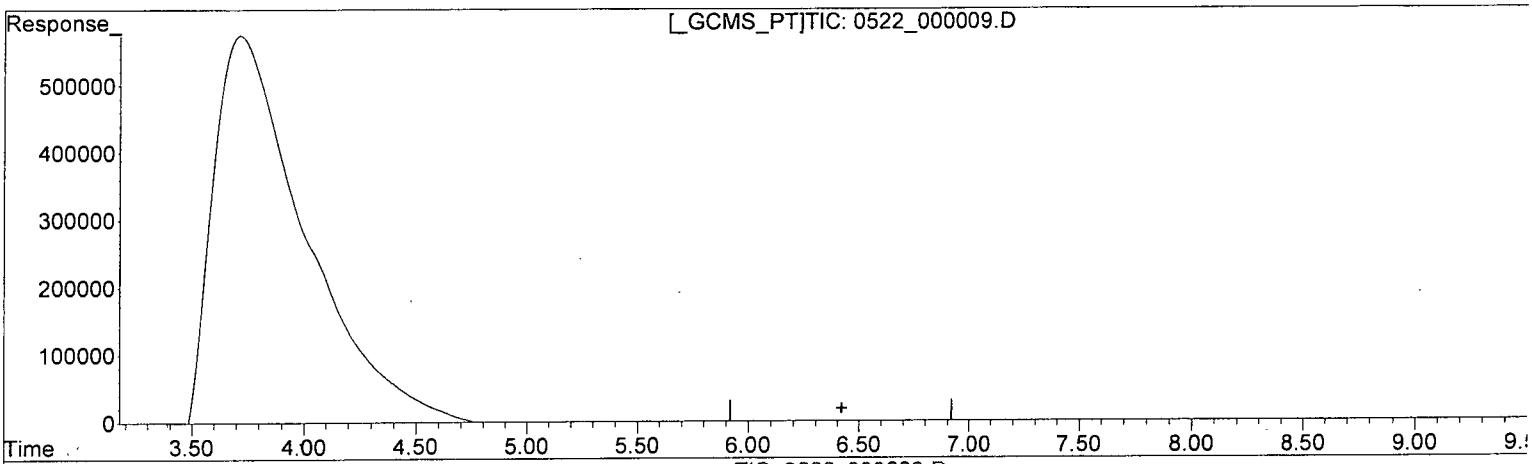
(+) = Expected Retention Time

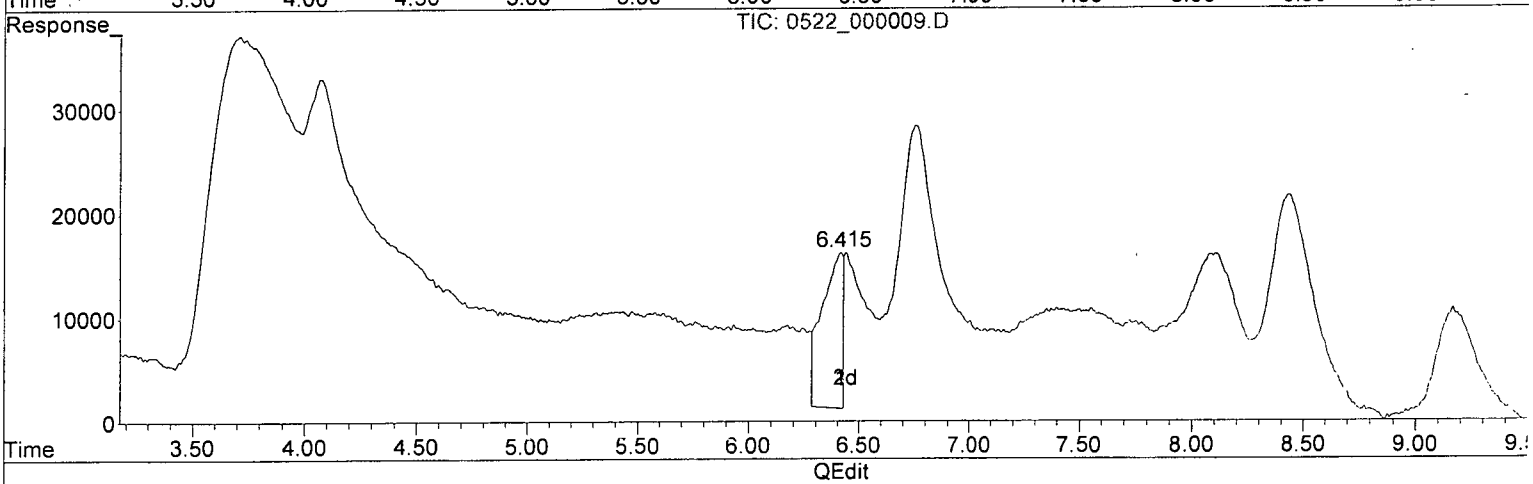
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000009.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:13:08
Operator : MP
Sample : 8330MXA_CB 0.005 PPM 05/22/15
Misc :
ALS Vial : 4224 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:29:59 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r





(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.415min 8.101 ppb

response 15004

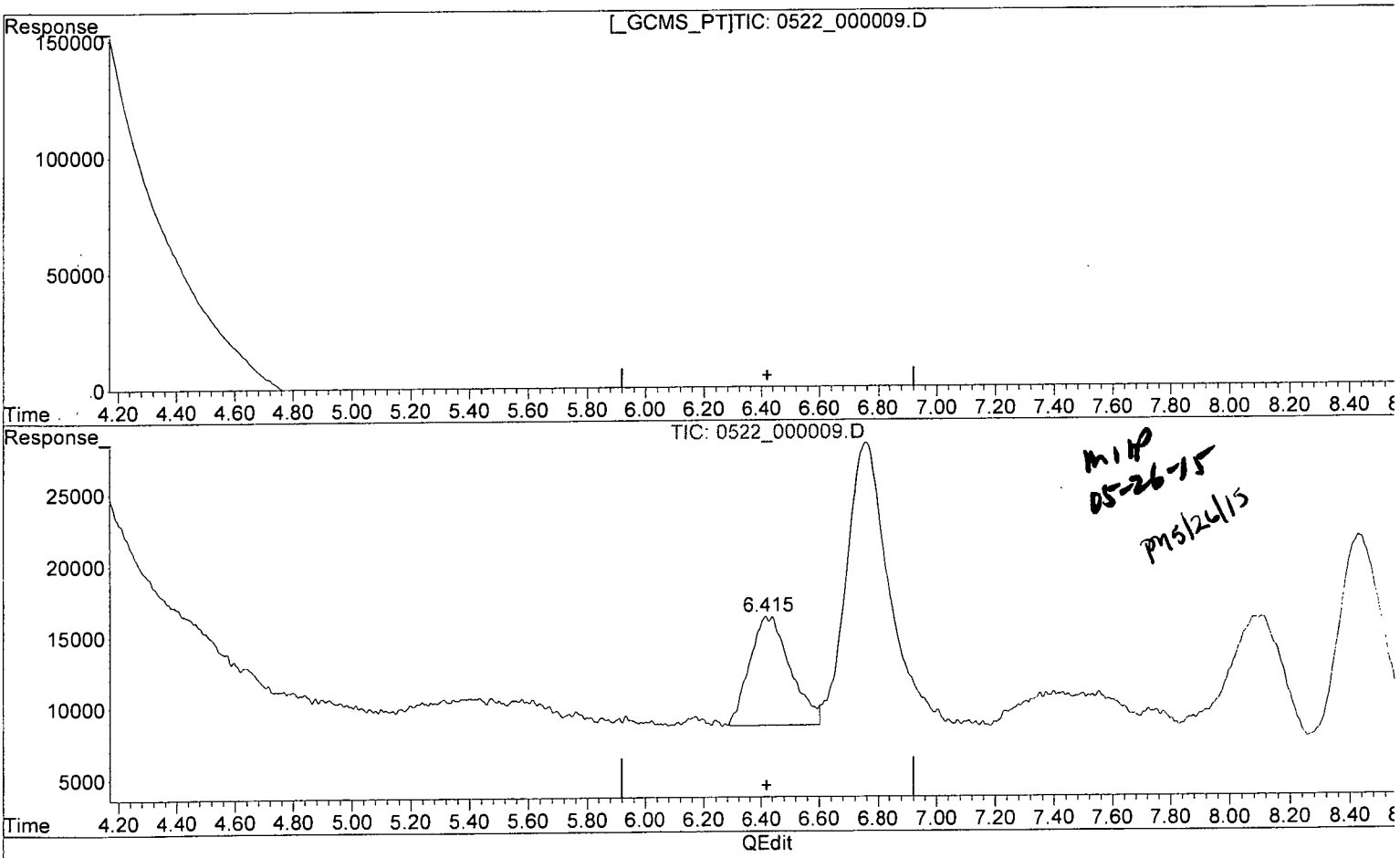
(+) = Expected Retention Time

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 pm5/26/15

(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.415min 4.144 ppb m

response 7675

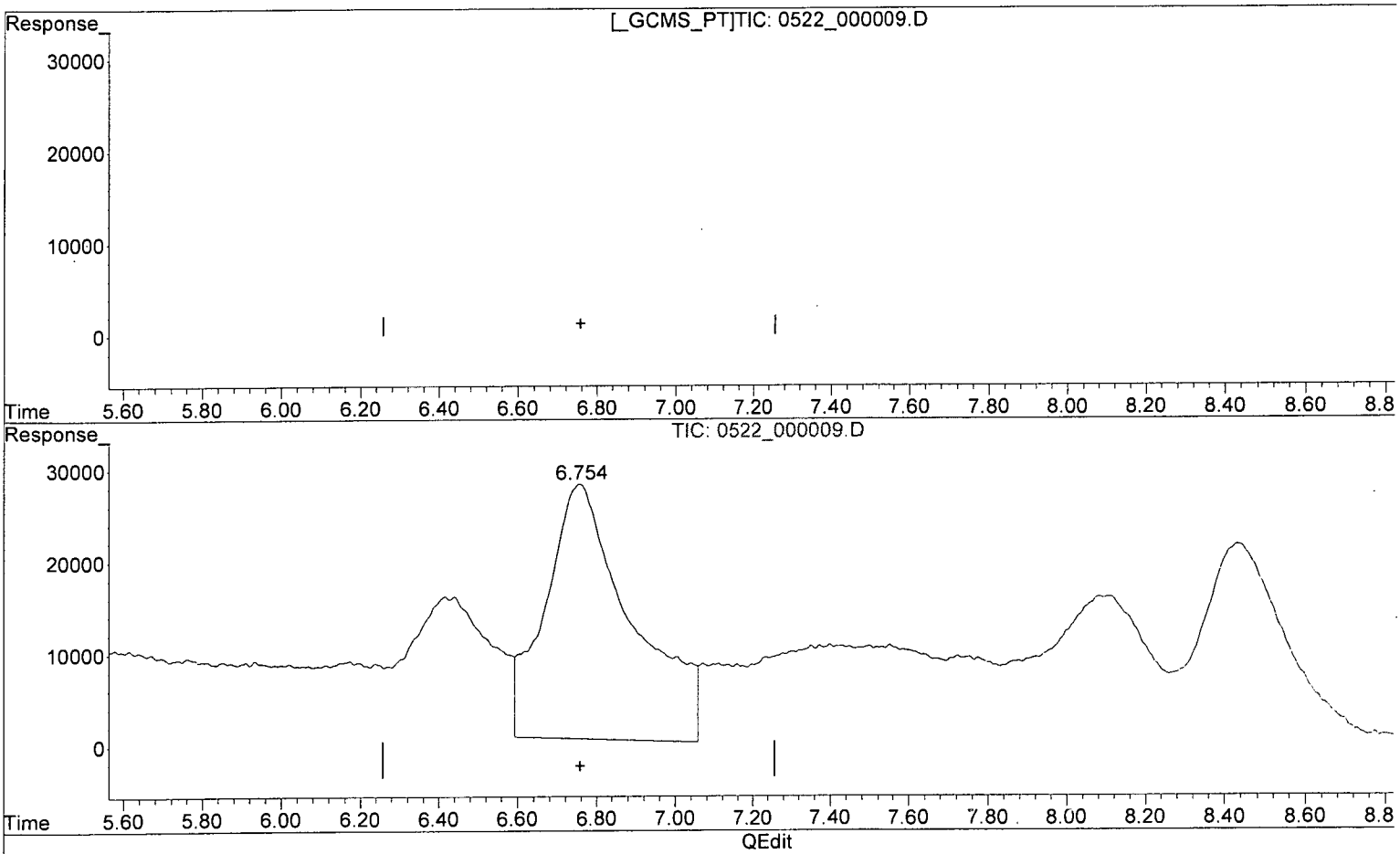
(+) = Expected Retention Time

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

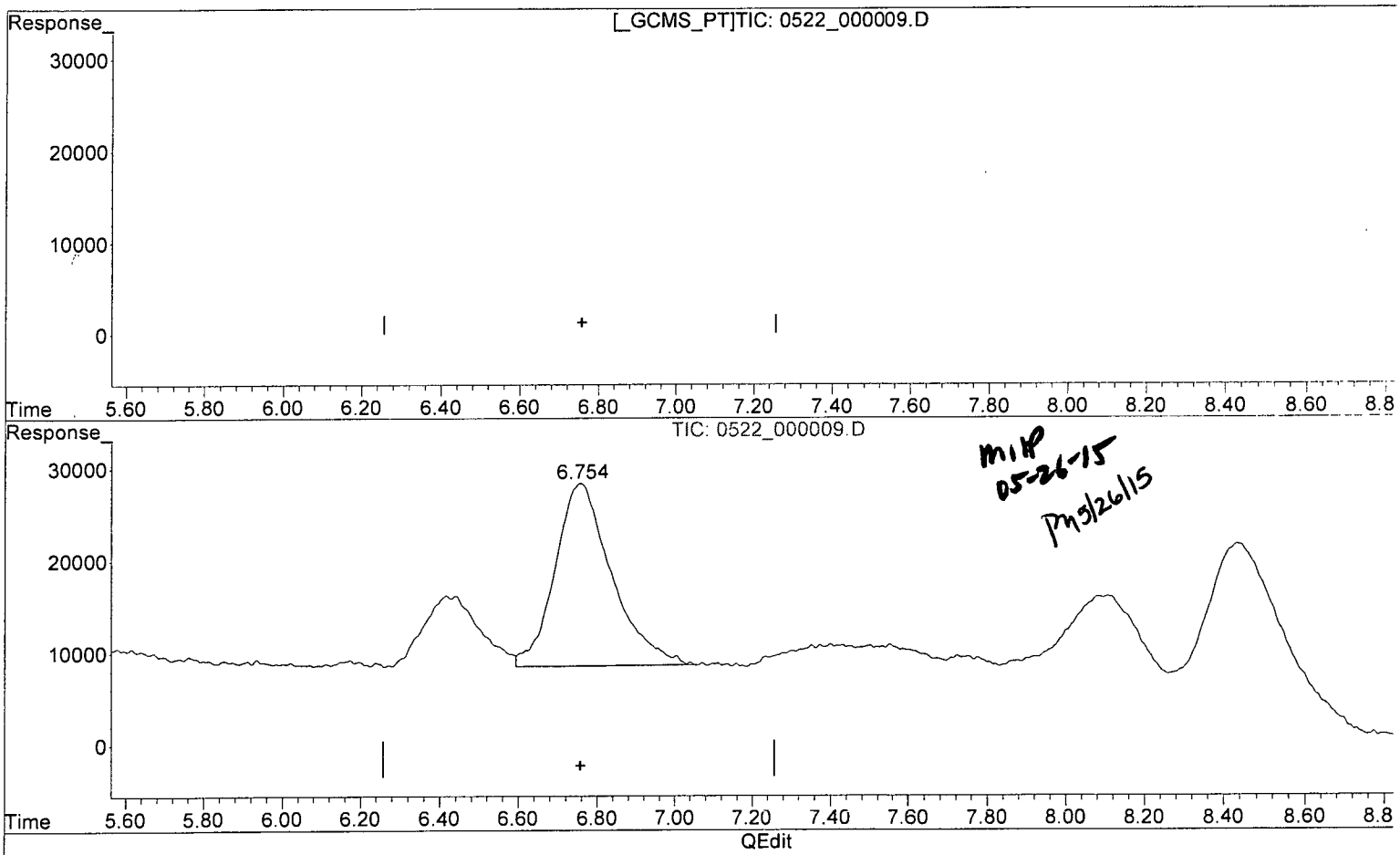
(+) = Expected Retention Time

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

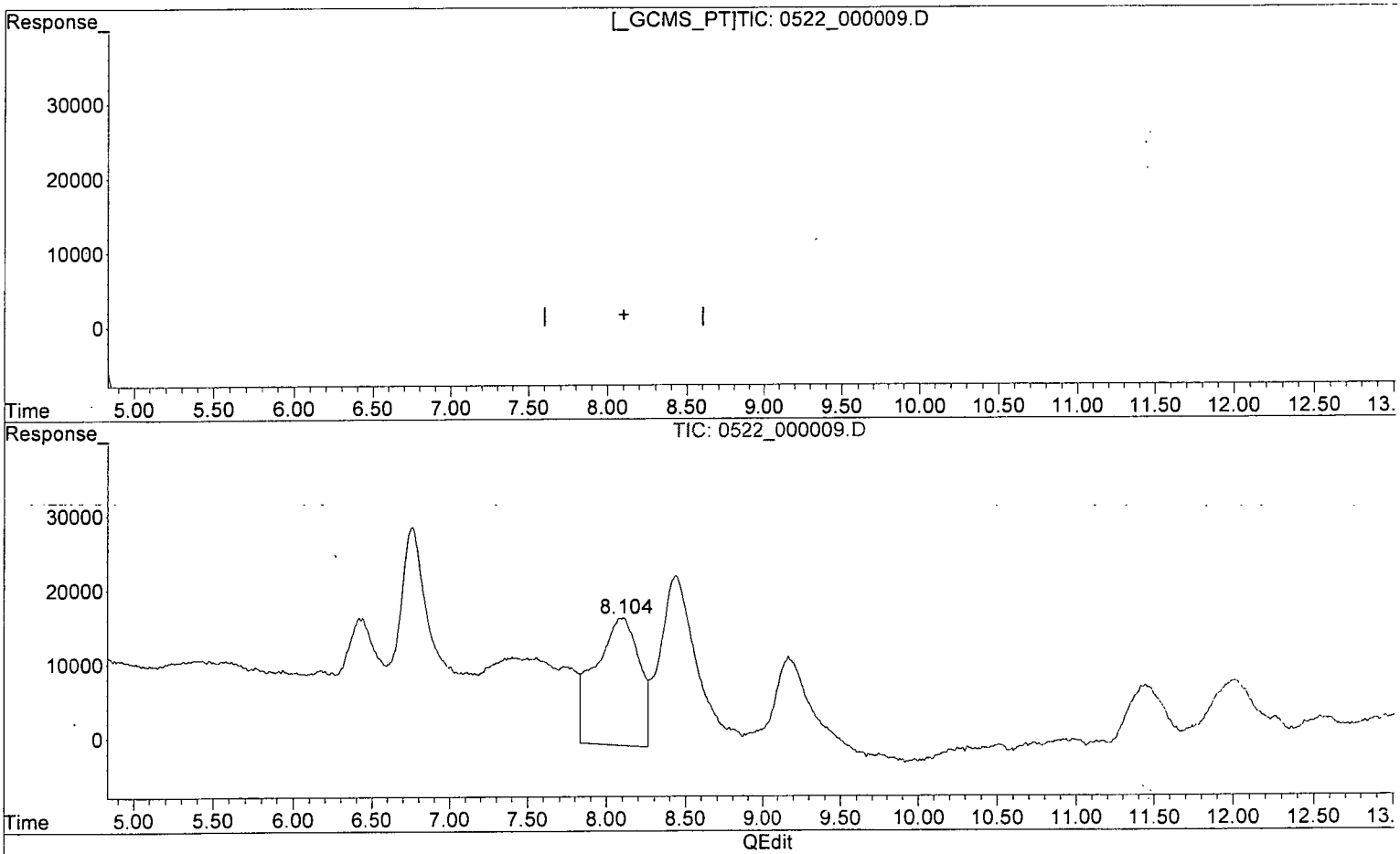
(+) = Expected Retention Time

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-r



(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

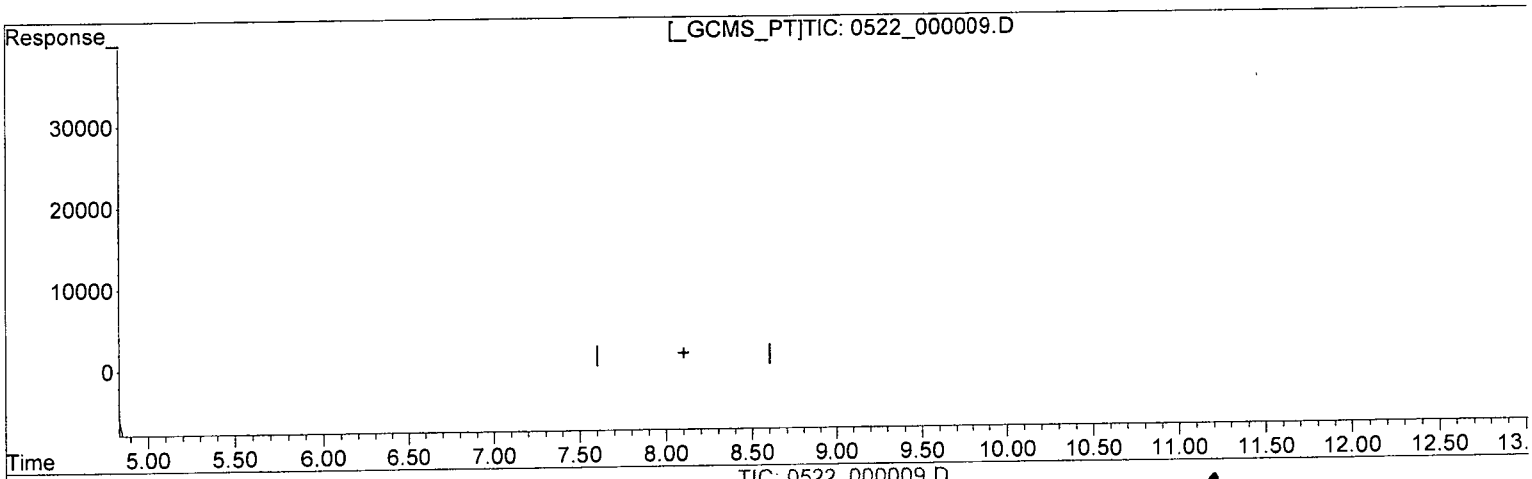
(+) = Expected Retention Time

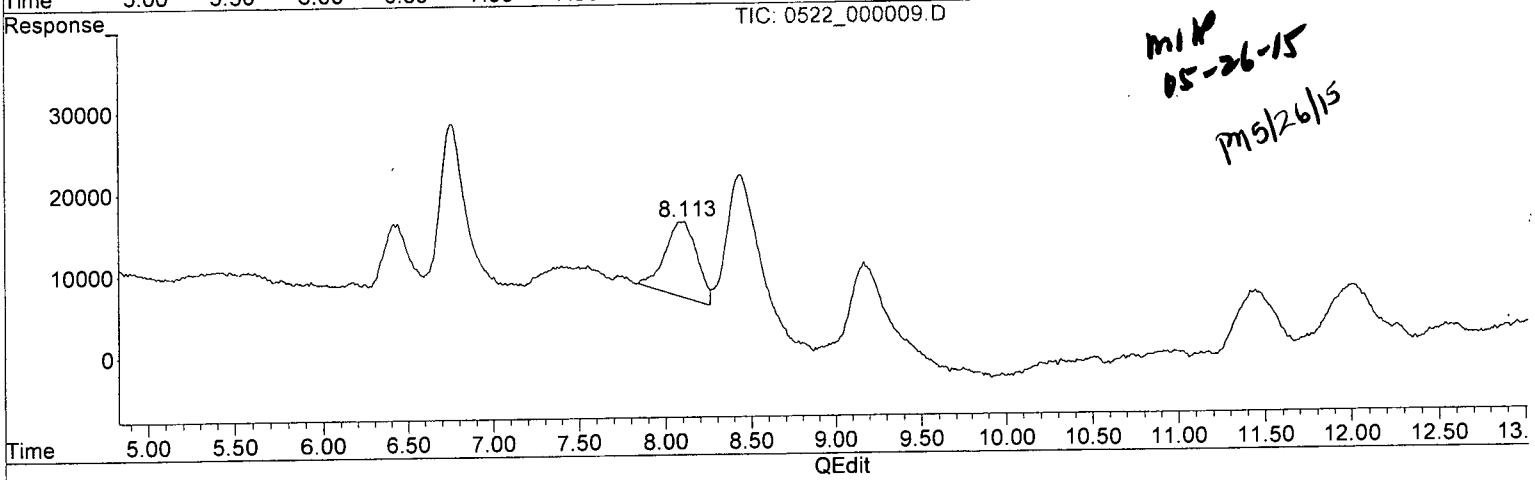
Quantitation Report (Qedit)

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-µ





MK 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)

8.113min 4.396 ppb m

response 9274

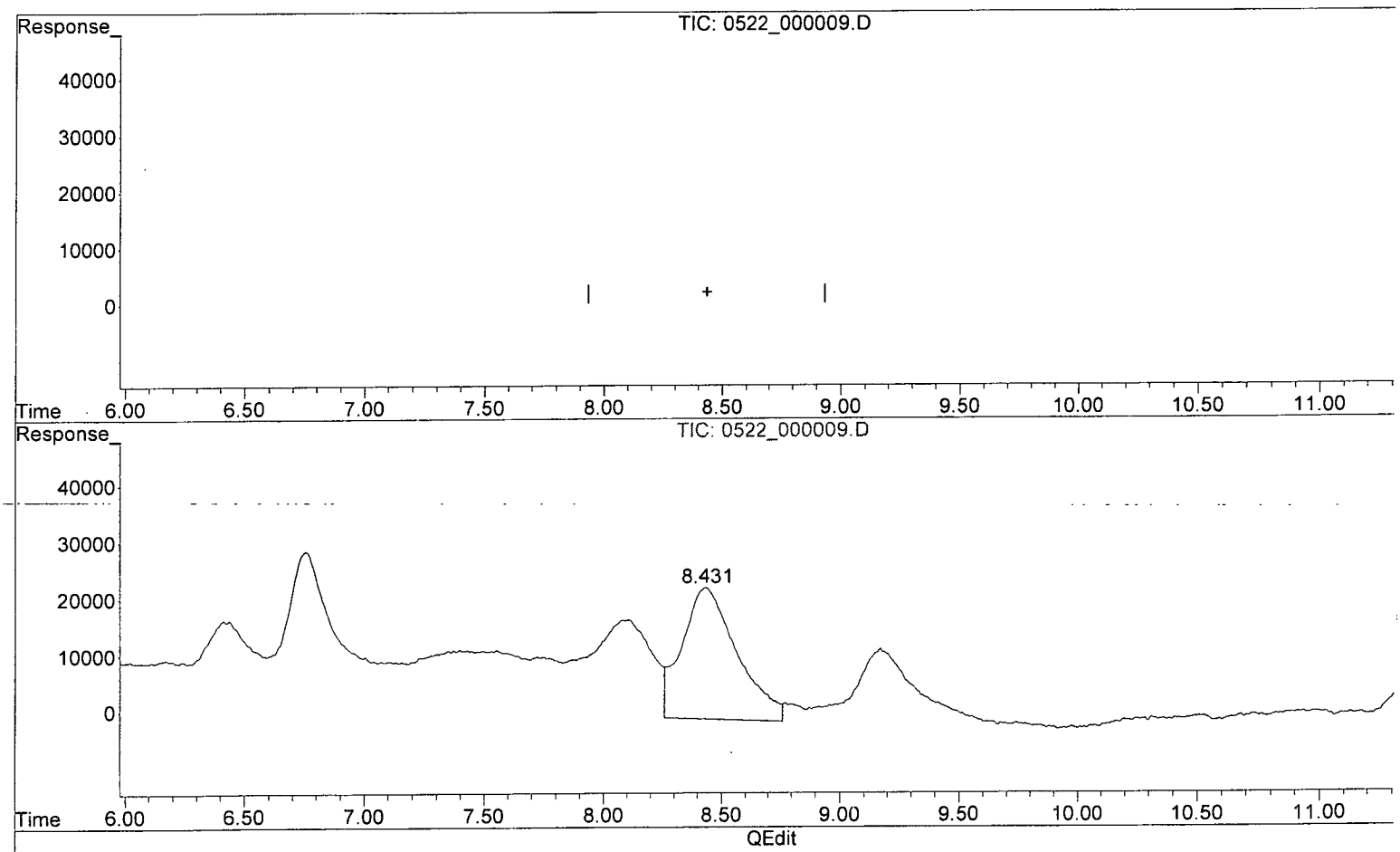
(+) = Expected Retention Time

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



(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

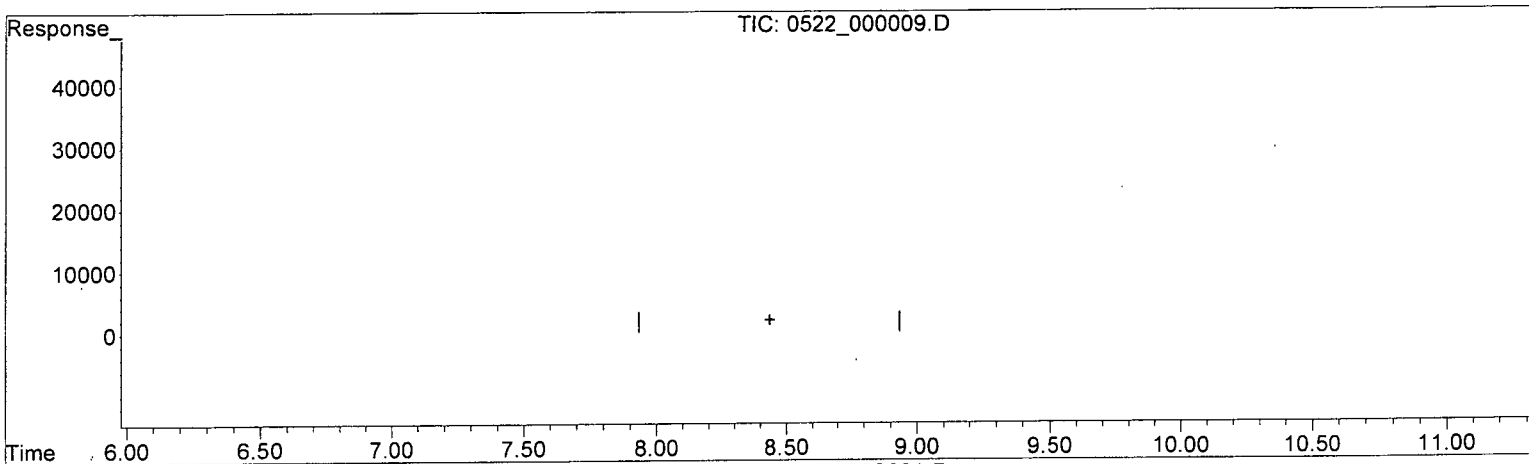
(+) = Expected Retention Time

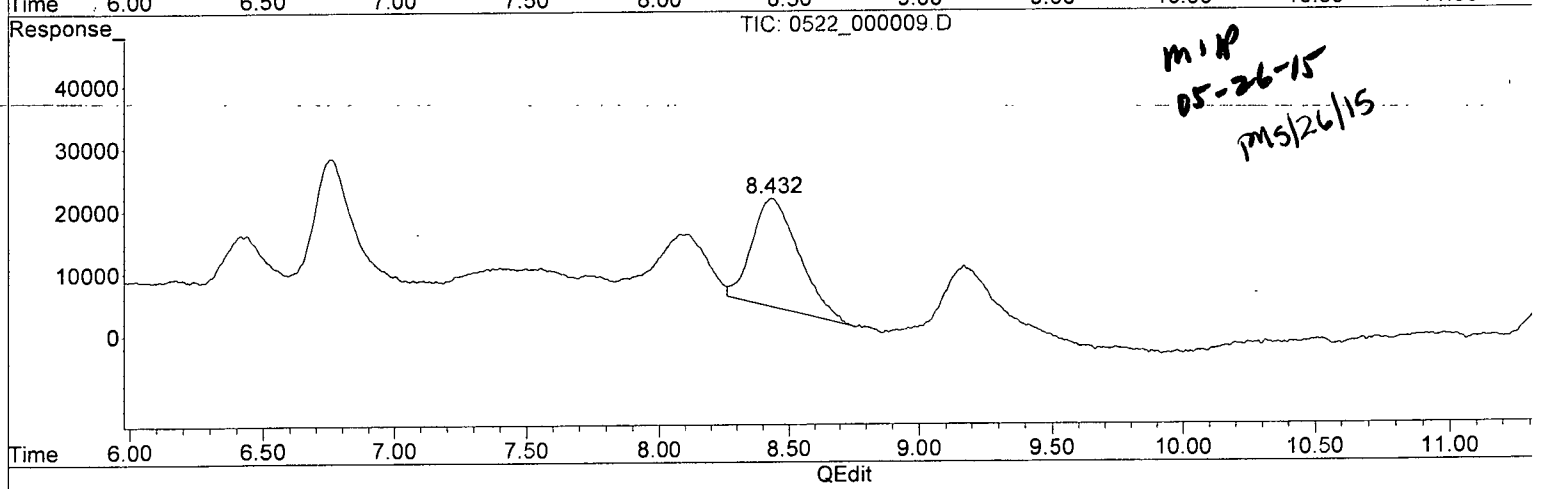
Quantitation Report (Qedit)

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-µ





MP 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 3.846 ppb m

response 17298

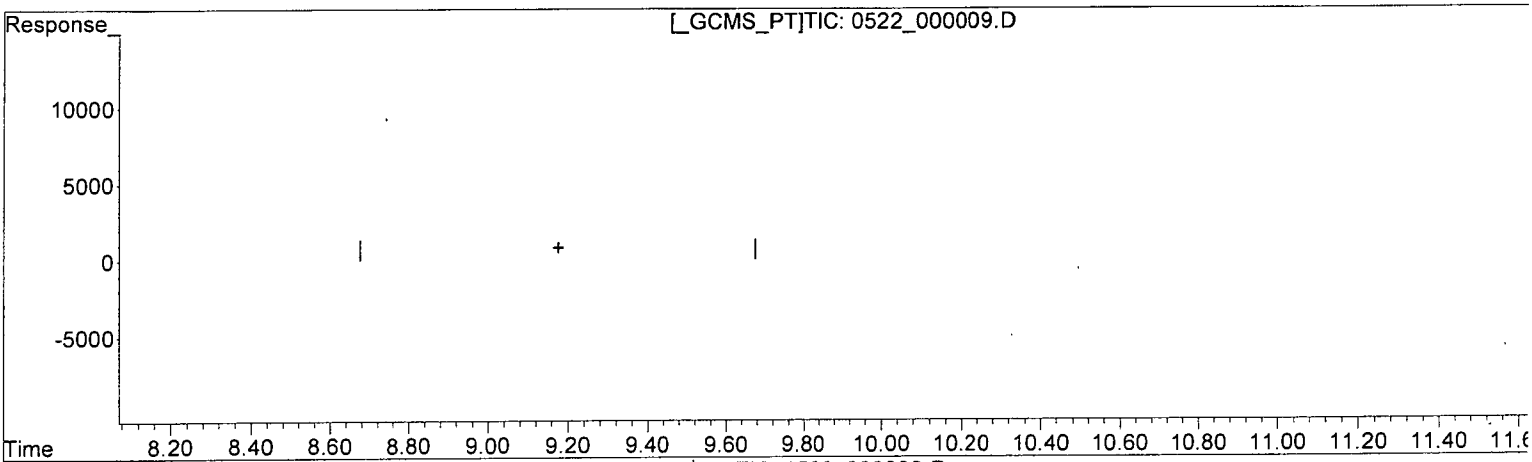
(+) = Expected Retention Time

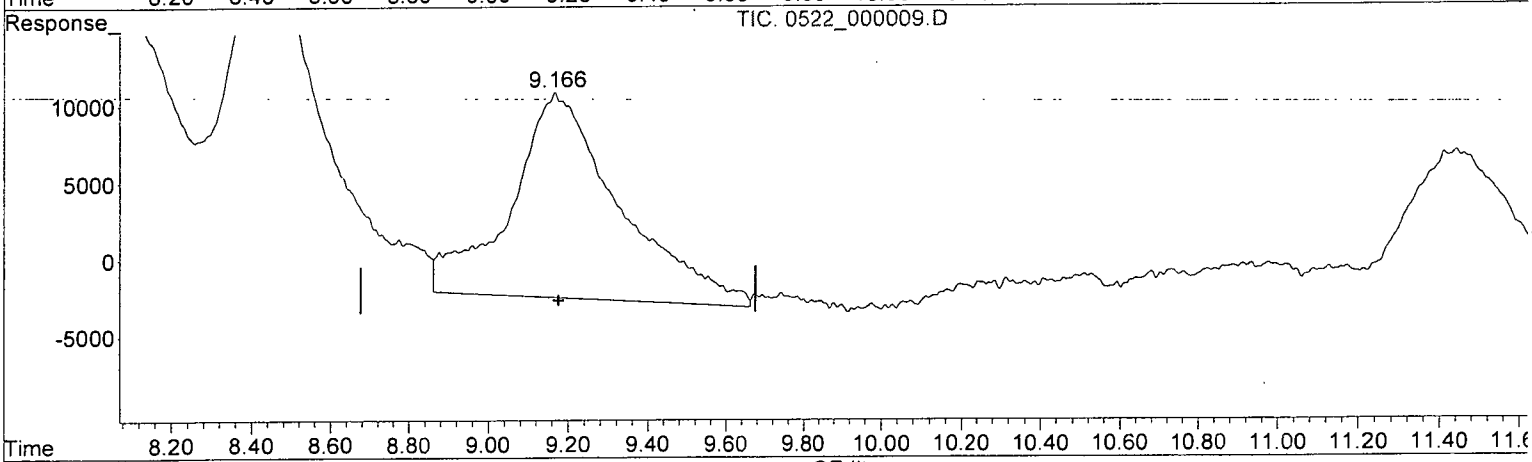
Quantitation Report (Qedit)

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-r





(6) NITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(6) NITROBENZENE #2 (TM)

9.167min 5.196 ppb

response 13311

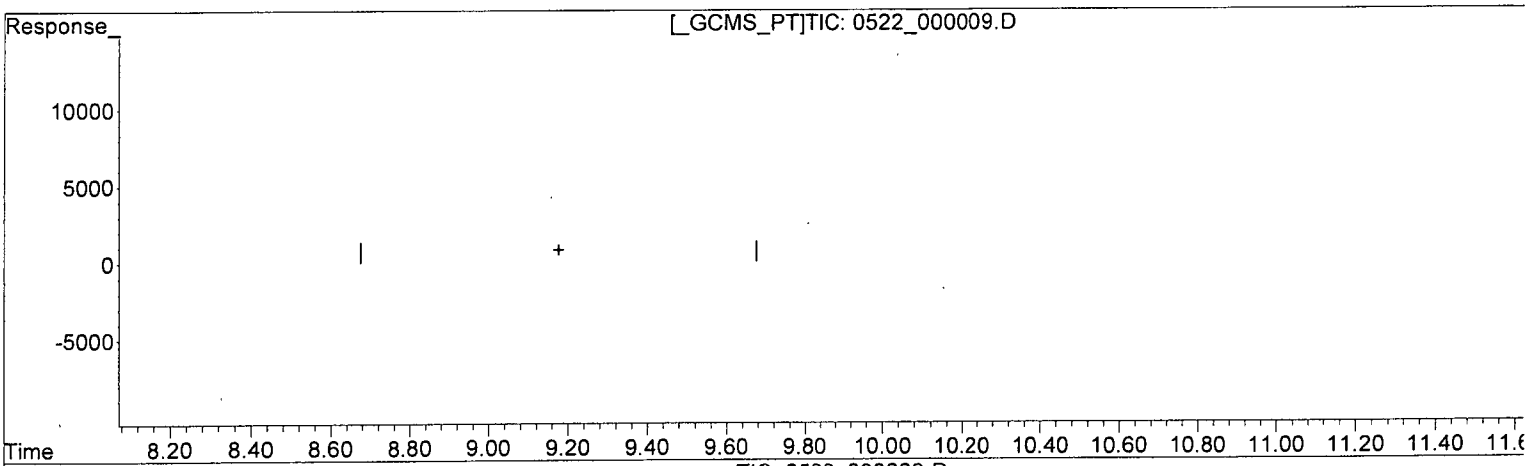
(+) = Expected Retention Time

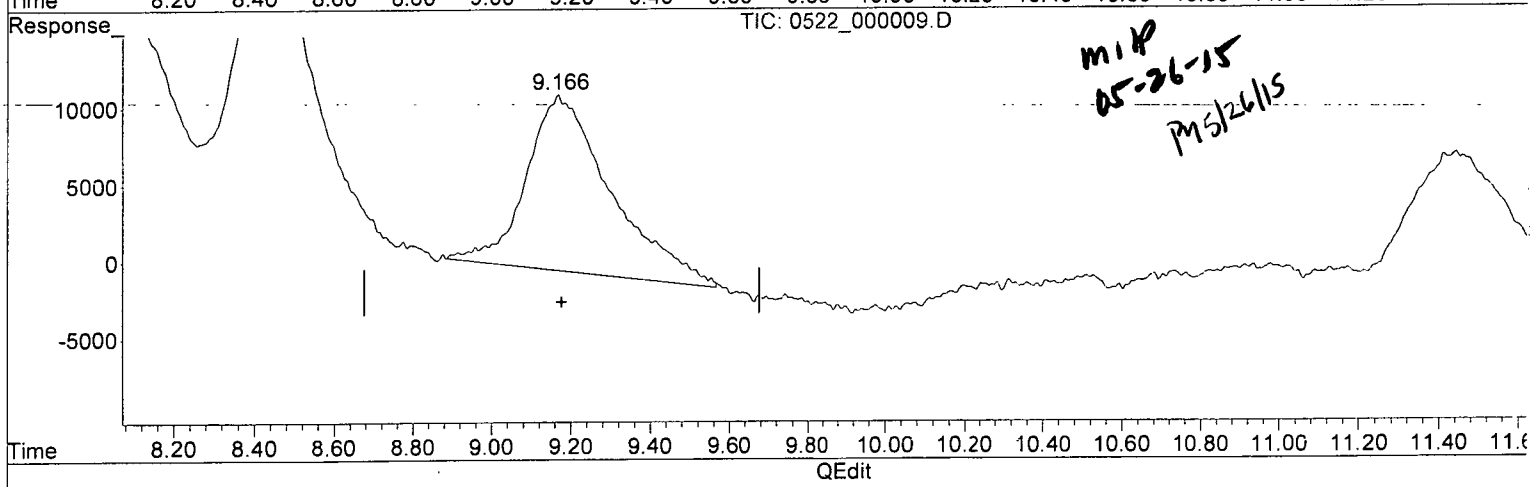
Quantitation Report (Qedit)

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-r





MJP 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

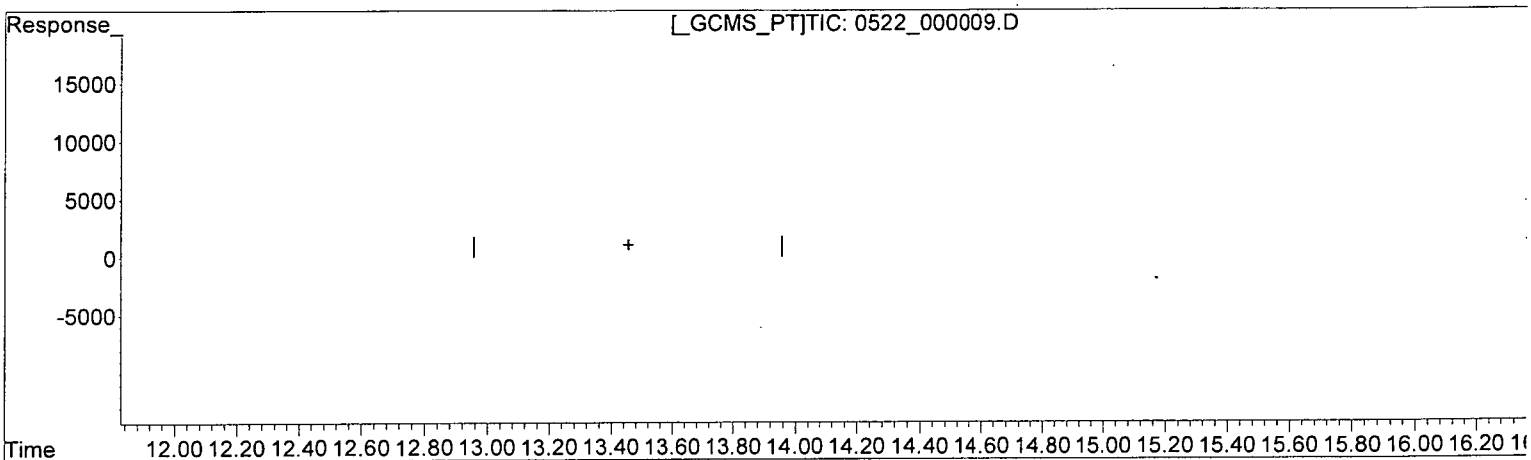
(+) = Expected Retention Time

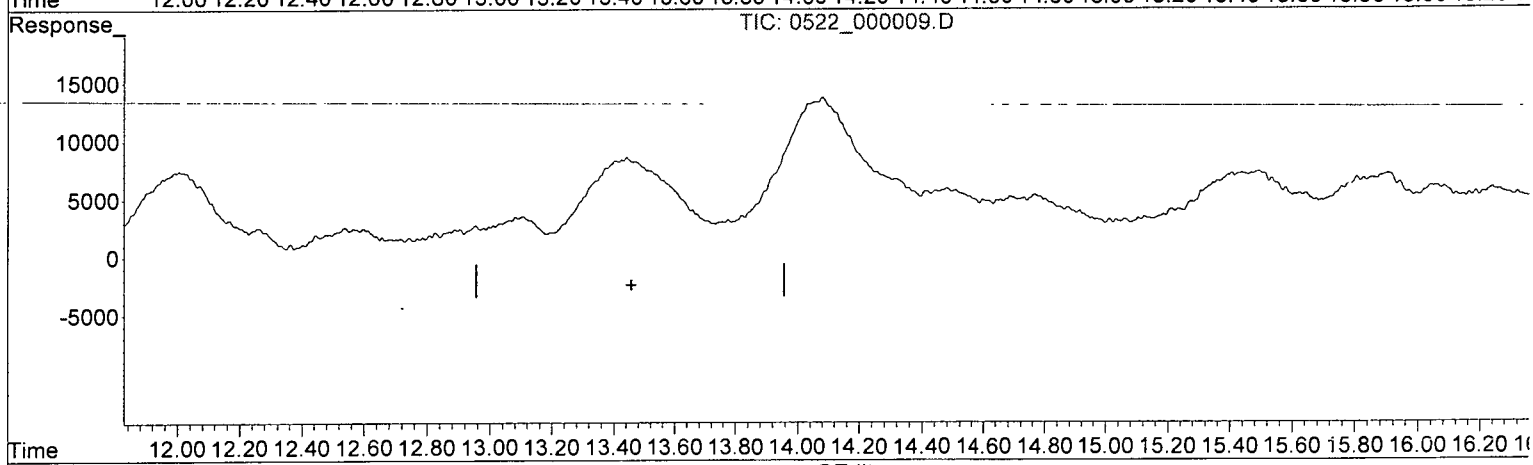
Quantitation Report (Qedit)

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-





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

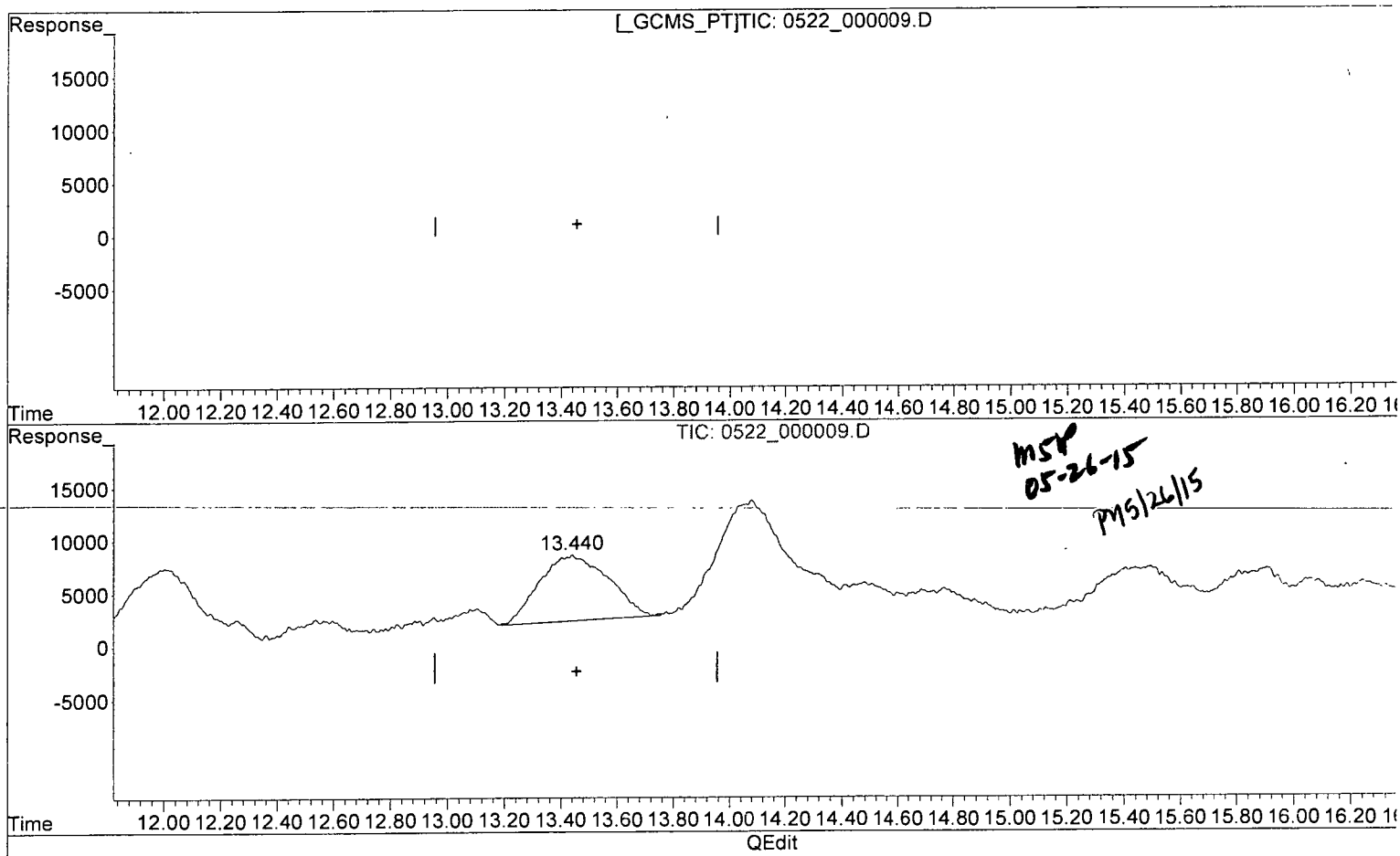
(+) = Expected Retention Time

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-



(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

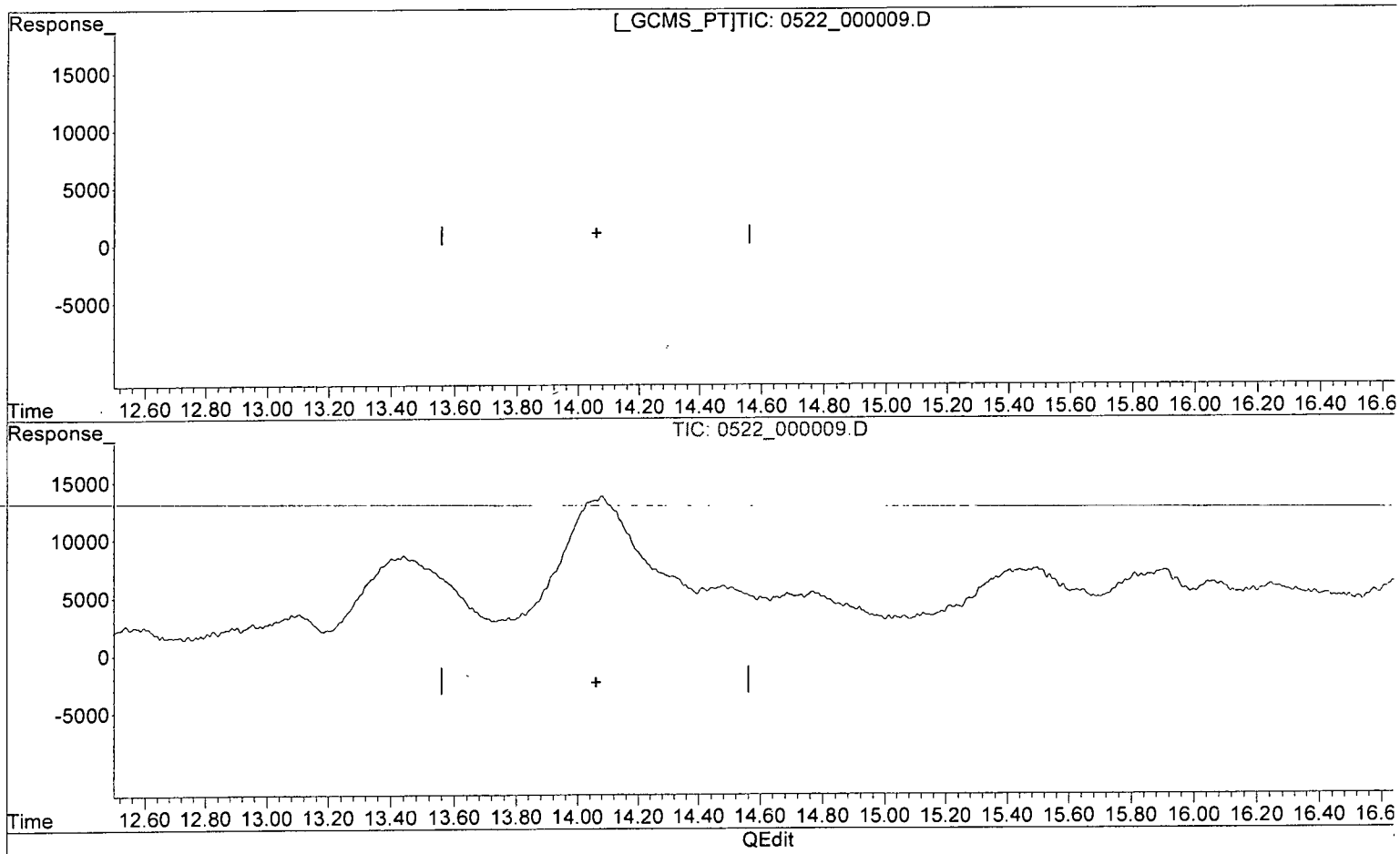
(+) = Expected Retention Time

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



(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

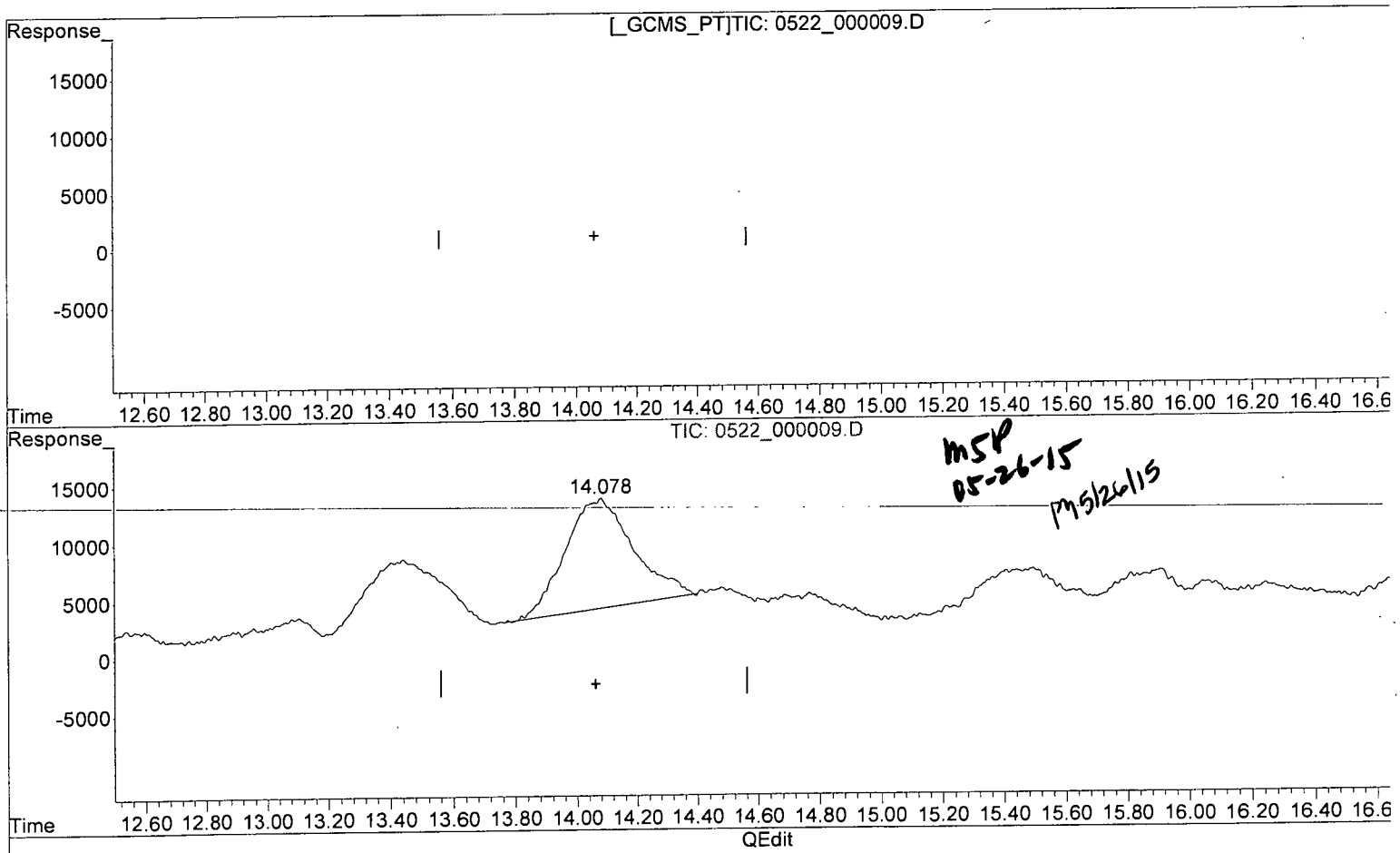
(+) = Expected Retention Time

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-



(11) 2,4-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(11) 2,4-DINITROTOLUENE #2 (TM)

14.078min 3.797 ppb m

response 9567

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000010.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:52:39
Operator : MP
Sample : 8330MXB_CV 0.005 PPM 05/22/15
Misc :
ALS Vial : 4225 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:07:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-m
icron

	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4)	S 1,2-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 62.500			Recovery	=	0.00%	0.00%
	Target Compounds						
1)	TM HMX	0.000	0.000	0	0	N.D.	N.D.
2)	TM RDX	0.000	0.000	0	0	N.D. d	N.D. d
3)	TM 1,3,5-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
5)	TM 1,3-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
6)	TM NITROBENZENE	0.000	0.000	0	0	N.D. d	N.D. d
7)	TM 2,4,6-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
8)	TM NITROGLYC...	0.000	12.058	0	885	N.D. d	NoCal
9)	TM TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10)	TM 2,6-DINIT...	13.254	0.000	538	0	NoCal	N.D.
11)	TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12)	TM 2=NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13)	TM 4-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
14)	TM 3,5-DINIT...	0.000	16.553	0	7523	N.D.	3.769m#
15)	TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16)	TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17)	TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18)	TM PETN	0.000	0.000	0	0	N.D.	N.D.

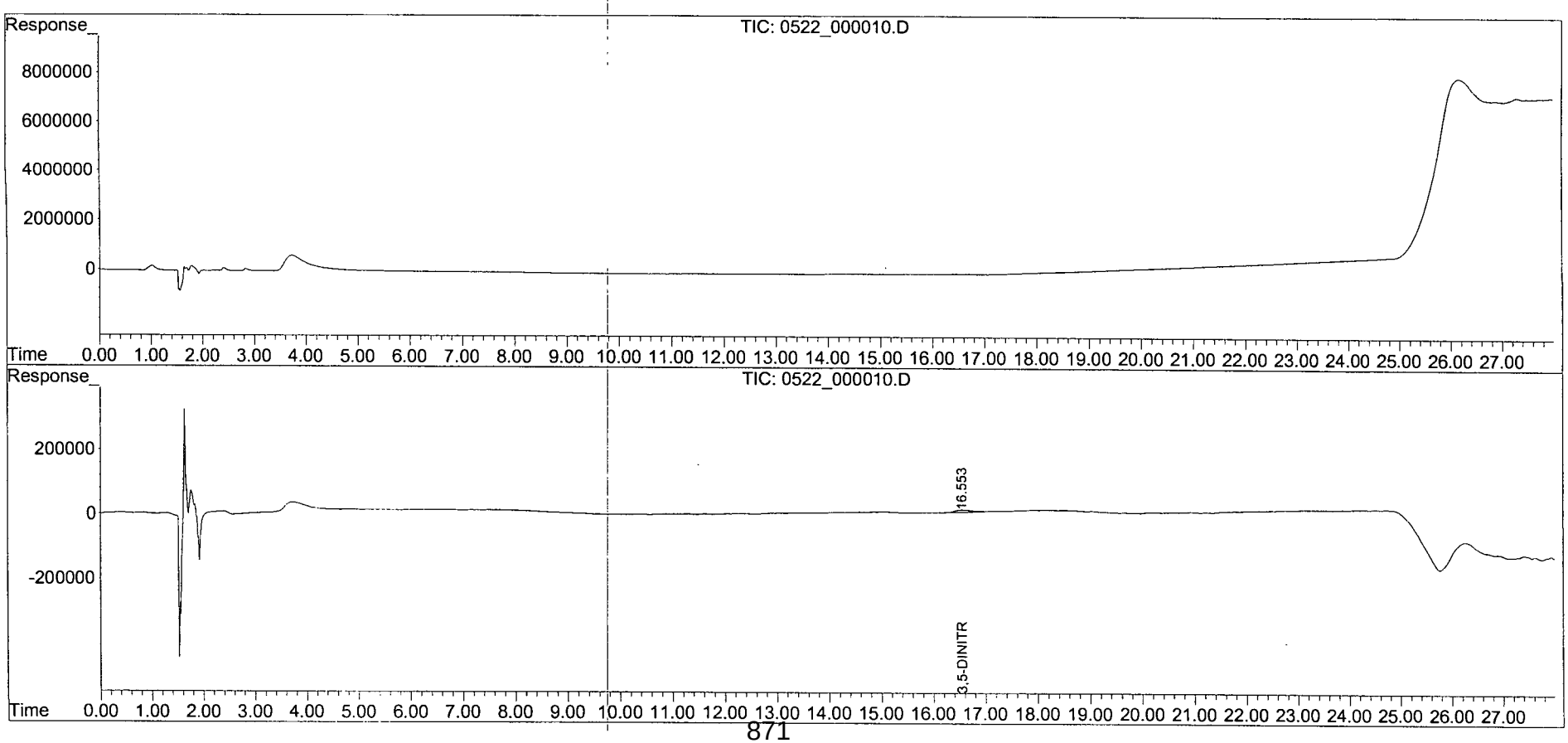
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000010.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:52:39
Operator : MP
Sample : 8330MXB_CV 0.005 PPM 05/22/15
Misc :
ALS Vial : 4225 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:07:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

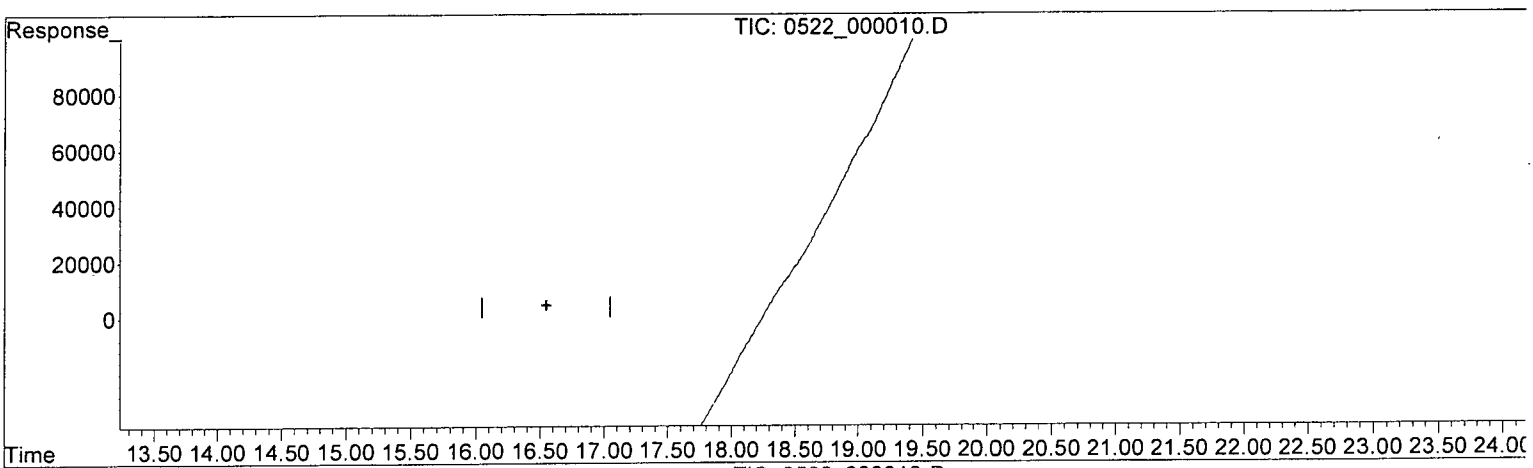


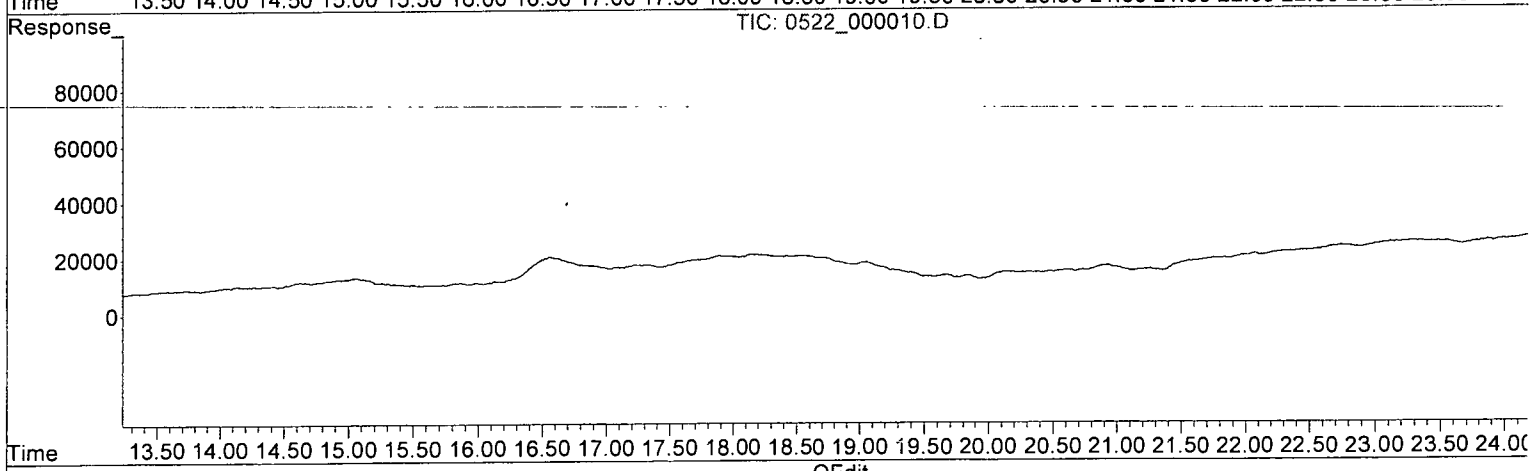
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000010.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 14:52:39
Operator : MP
Sample : 8330MXB_CV 0.005 PPM 05/22/15
Misc :
ALS Vial : 4225 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:02 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-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

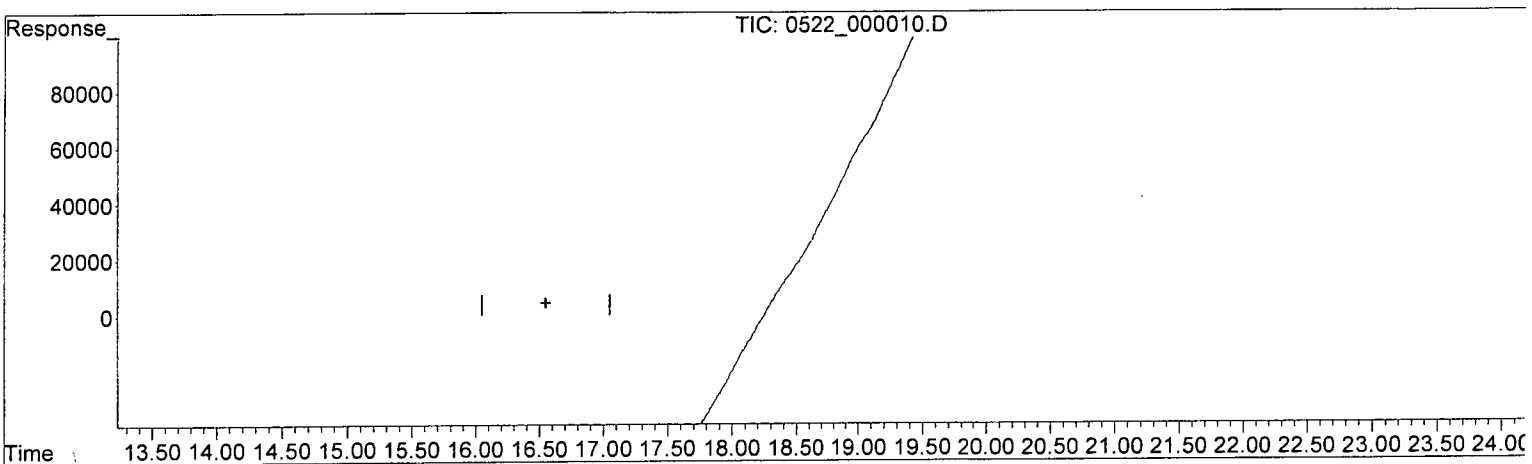
(+) = Expected Retention Time

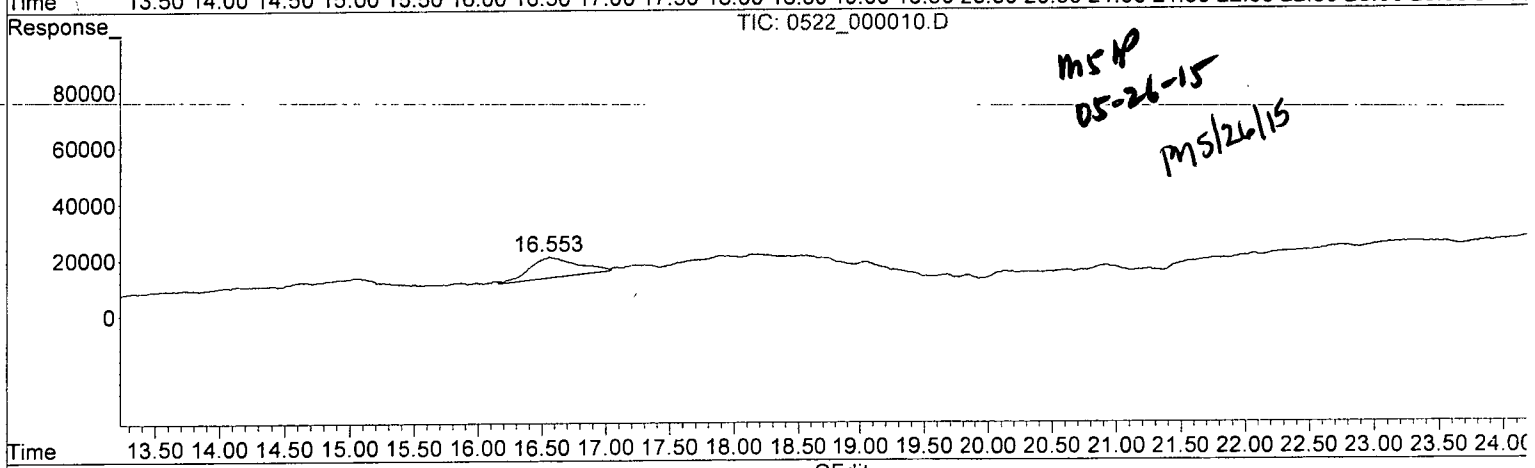
Quantitation Report (Qedit)

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 MS/26/15

(14) 3,5-DINITROANILINE (TM)

0.000min 0.000 ppb

response 0

(14) 3,5-DINITROANILINE #2 (TM)

16.553min 3.769 ppb m

response 7523

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:06:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	8.102	0	17296	N.D.	8.198m#
Spiked Amount 62.500			Recovery	=	0.00%	13.12%
Target Compounds						
1) TM HMX	0.000	4.082	0	16807	N.D.	7.993m#
2) TM RDX	0.000	6.417	0	16148	N.D.	8.719m#
3) TM 1,3,5-TRI...	0.000	6.753	0	38559	N.D.	8.627m#
5) TM 1,3-DINIT...	0.000	8.433	0	38569	N.D.	8.576m#
6) TM NITROBENZENE	0.000	9.177	0	20086	N.D.	7.841m#
7) TM 2,4,6-TRI...	0.000	11.450	0	19541	N.D.	7.697 #
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	11.986	11.978	13853	14357	NoCal	8.715 #
10) TM 2,6-DINIT...	13.457	13.467	21588	10727	NoCal	7.263m#
11) TM 2,4-DINIT...	0.000	14.062	0	20758	N.D.	8.239m#
12) TM 2-NITROTO...	0.000	15.468	0	8585	N.D.	8.142m#
13) TM 4-NITROTO...	0.000	16.858	0	4467	N.D.	5.100m#
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
15) TM 3-NITROTO...	0.000	18.086	0	9136	N.D.	8.544m#
16) TM 4-AMINO-2...	0.000	18.658	0	13310	N.D.	9.500m#
17) TM 2-AMINO-4...	0.000	19.621	0	15539	N.D.	7.623 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

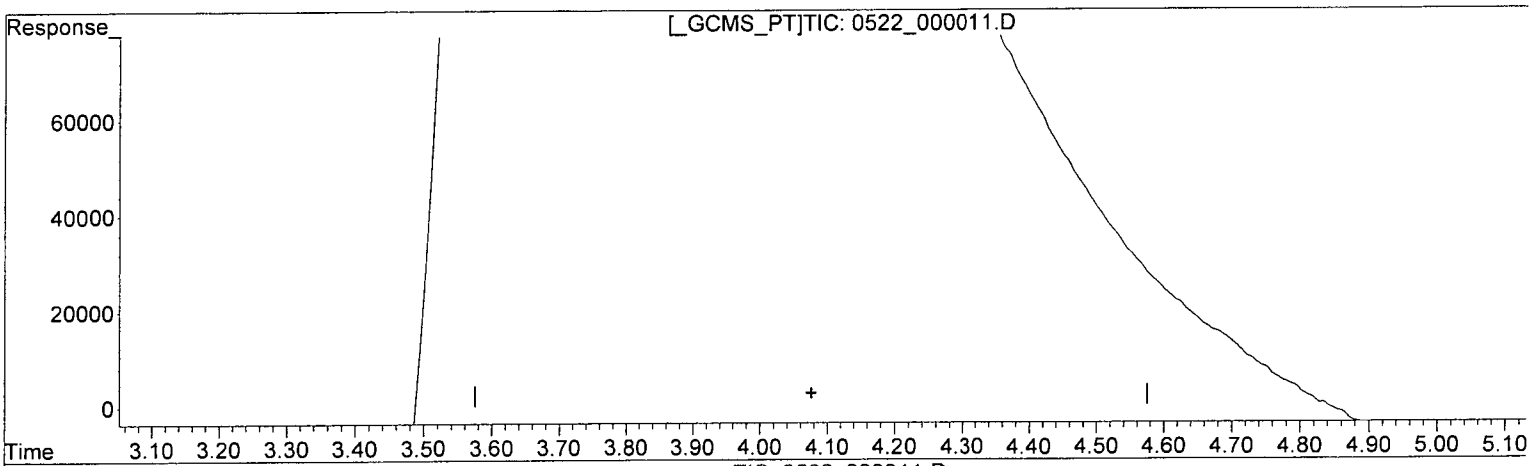
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

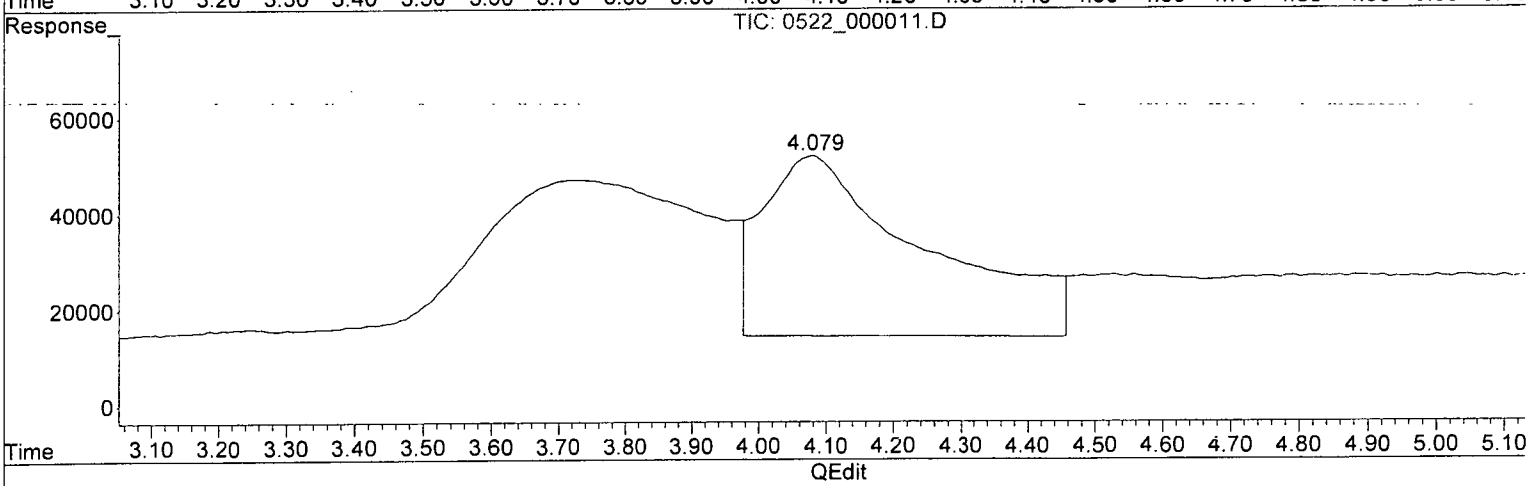
Quantitation Report (Qedit)

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-





(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.078min 17.847 ppb

response 37530

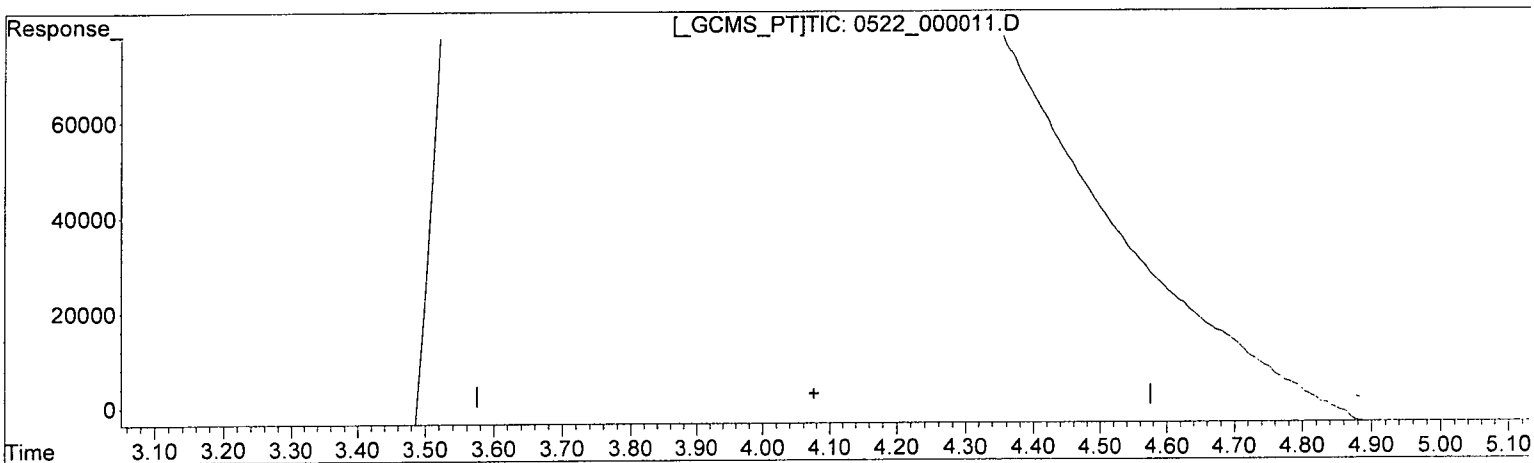
(+) = Expected Retention Time

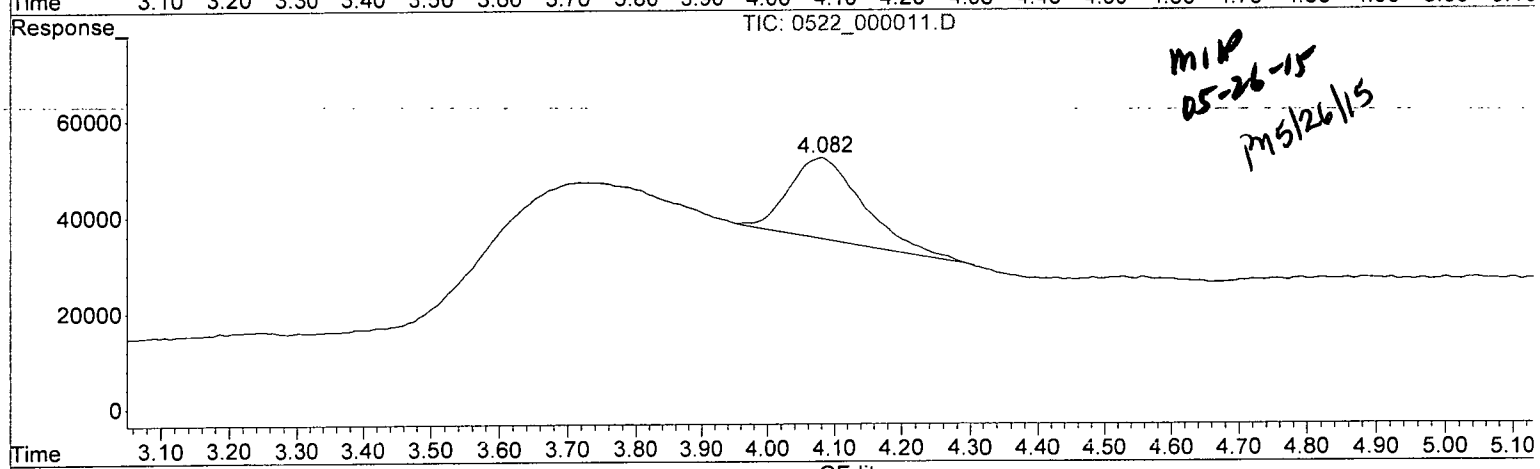
Quantitation Report (Qedit)

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-





MHP 05-26-15 PM 5/26/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.082min 7.993 ppb m

response 16807

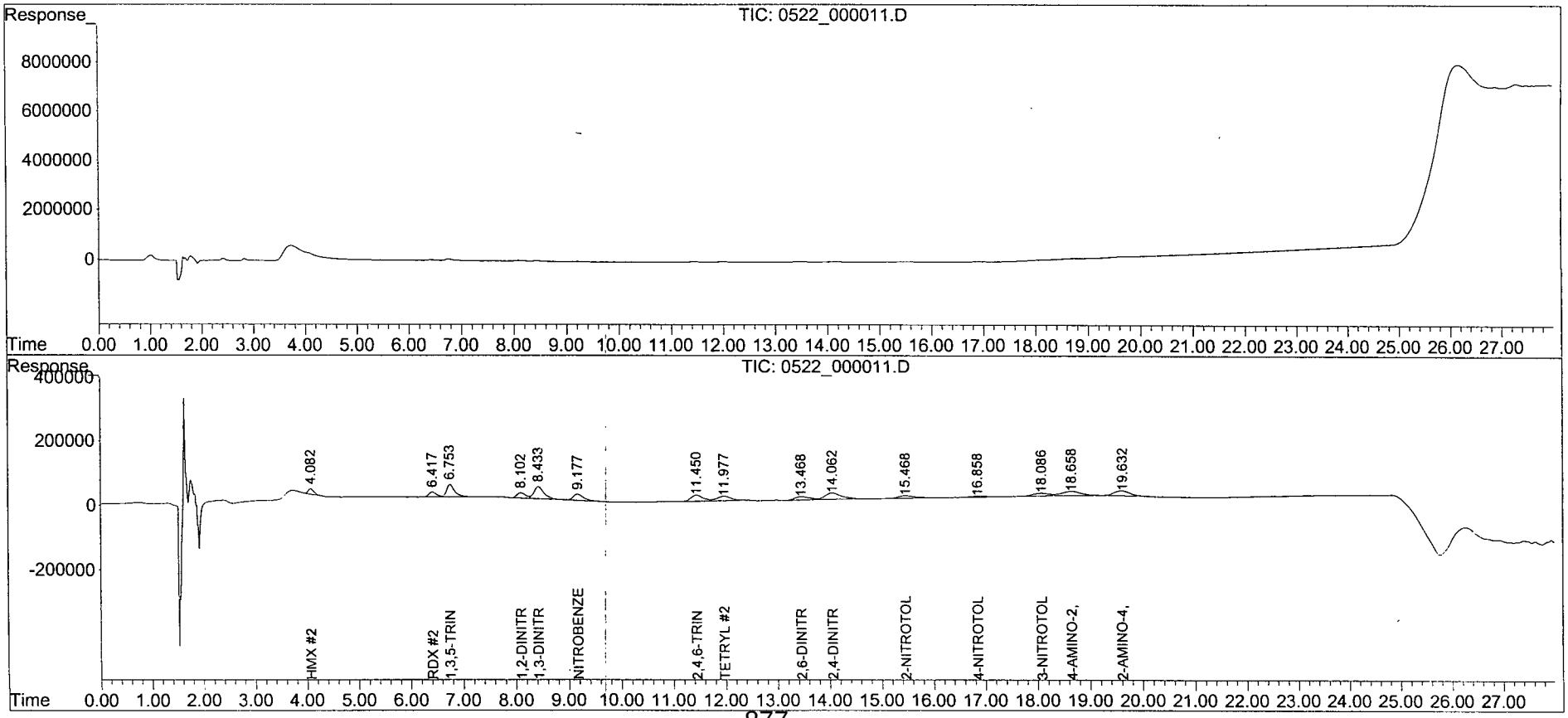
(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:06:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

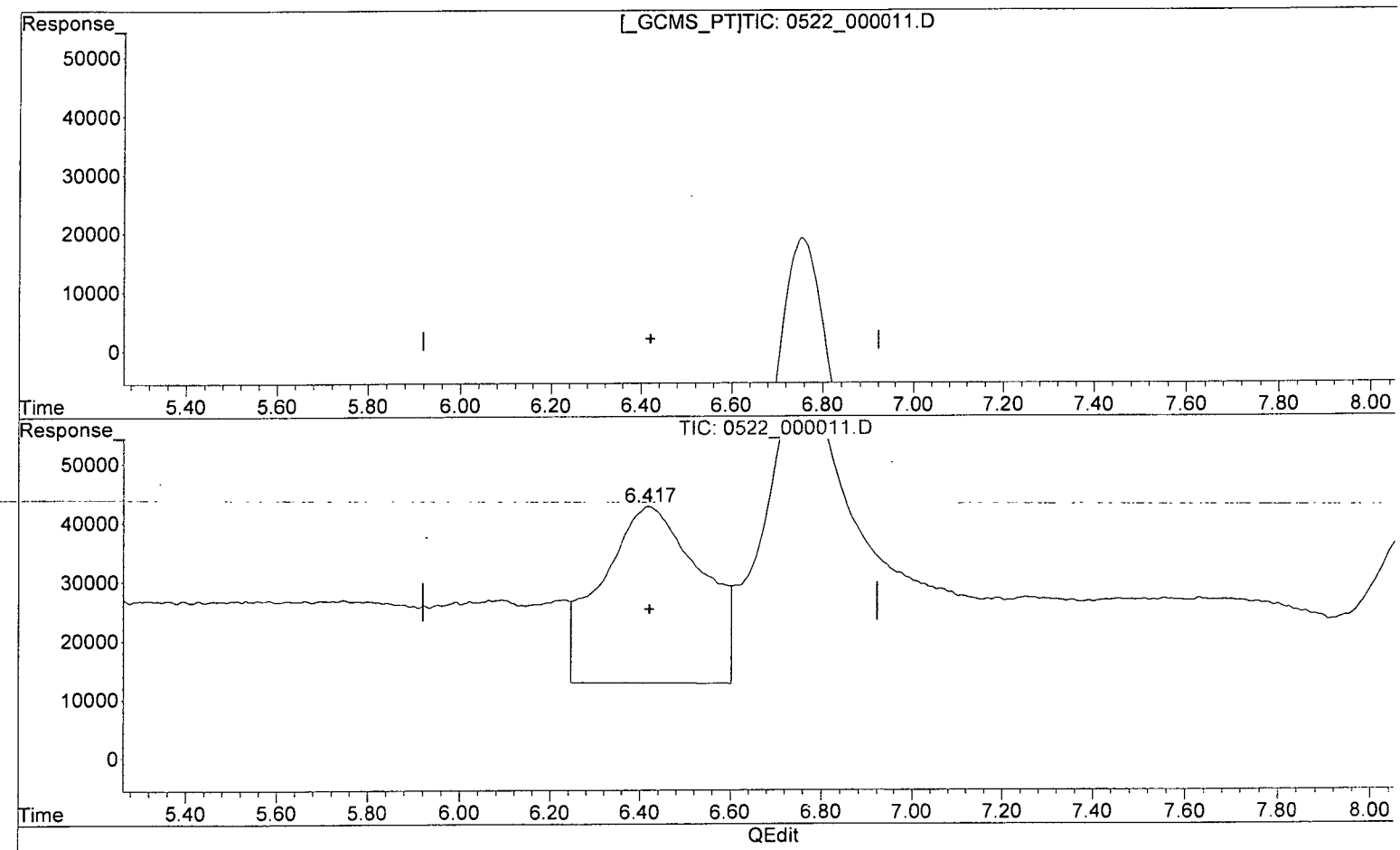


Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ



(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.418min 16.136 ppb

response 29887

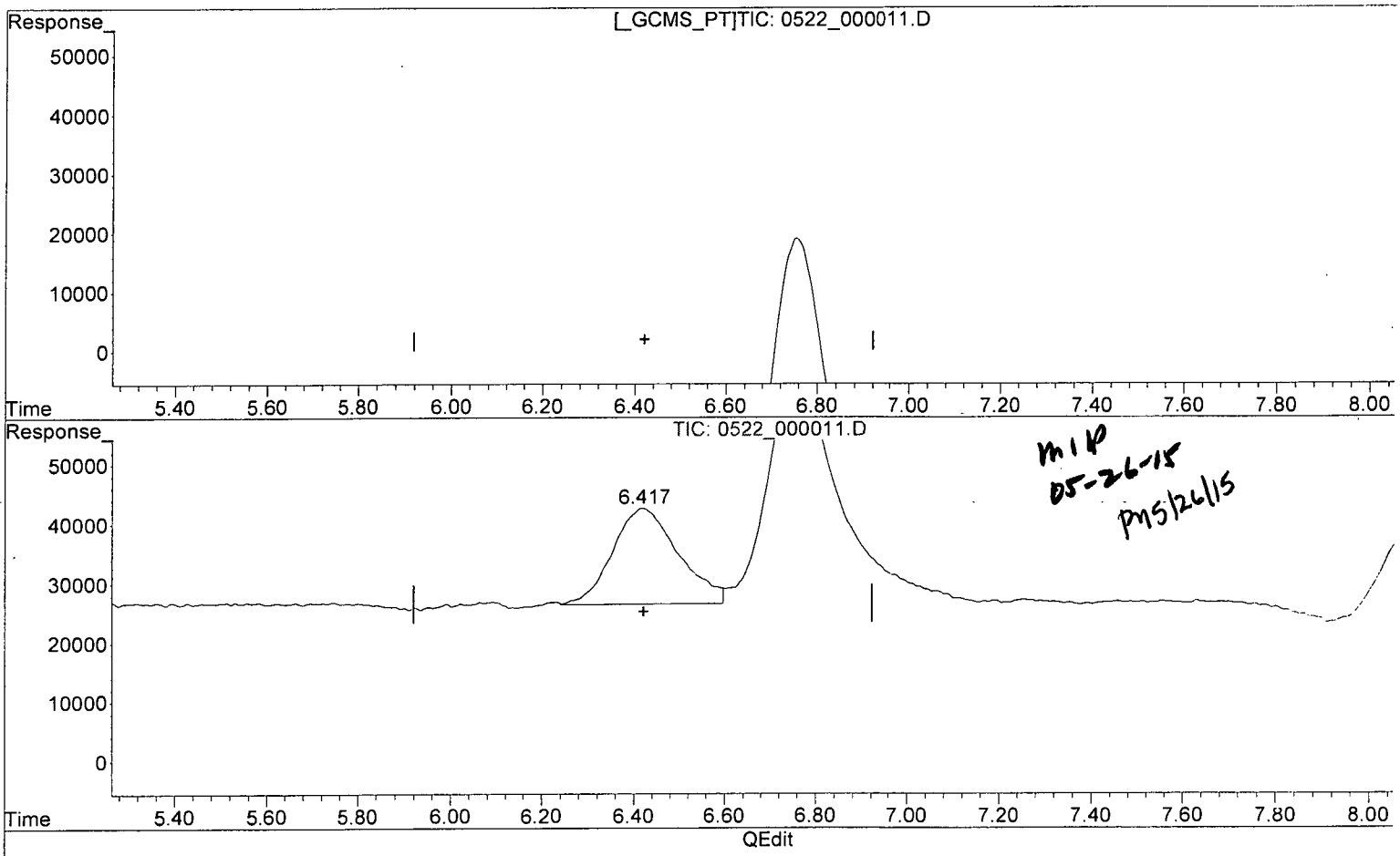
(+) = Expected Retention Time

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-



(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.417min 8.719 ppb m

response 16148

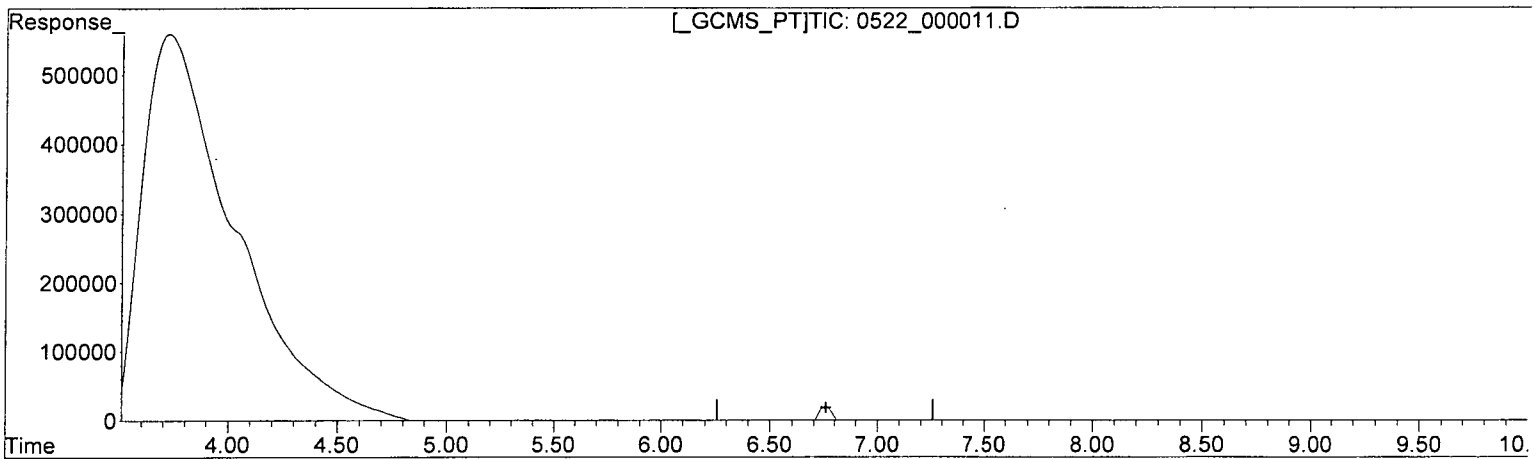
(+) = Expected Retention Time

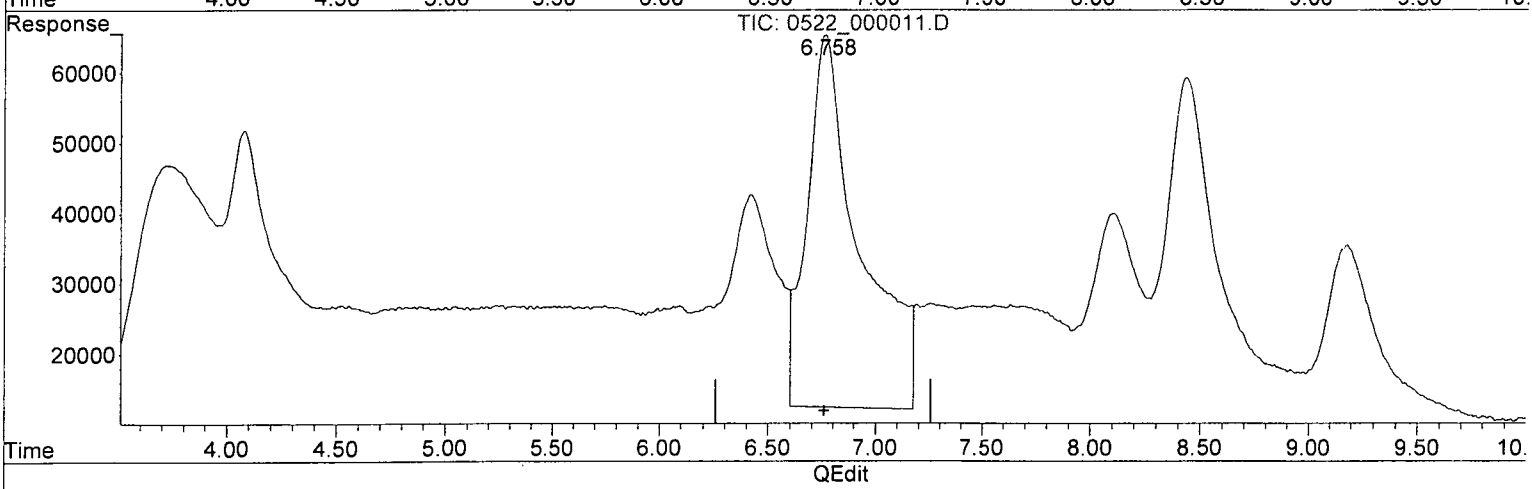
Quantitation Report (Qedit)

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-





QEdit

(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

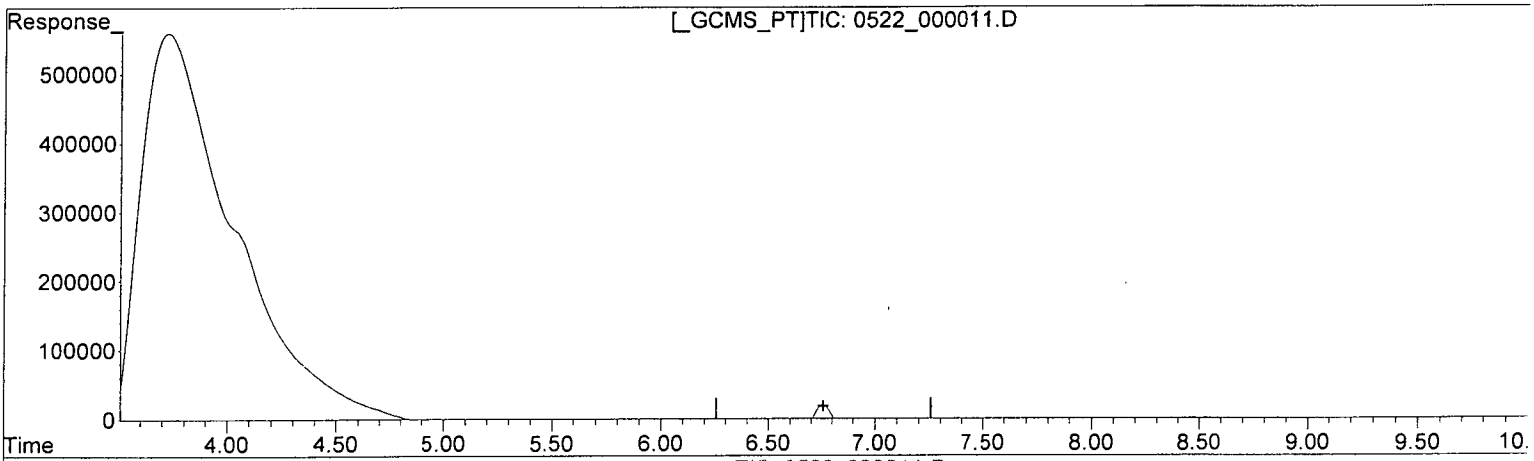
(+) = Expected Retention Time

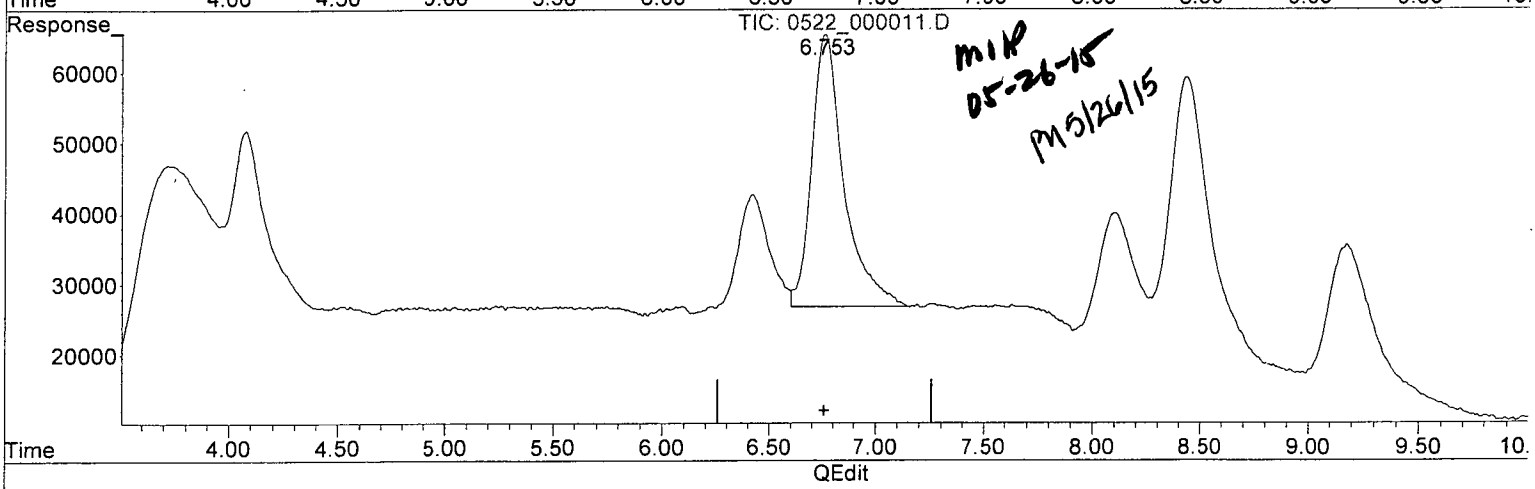
Quantitation Report (Qedit)

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





(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

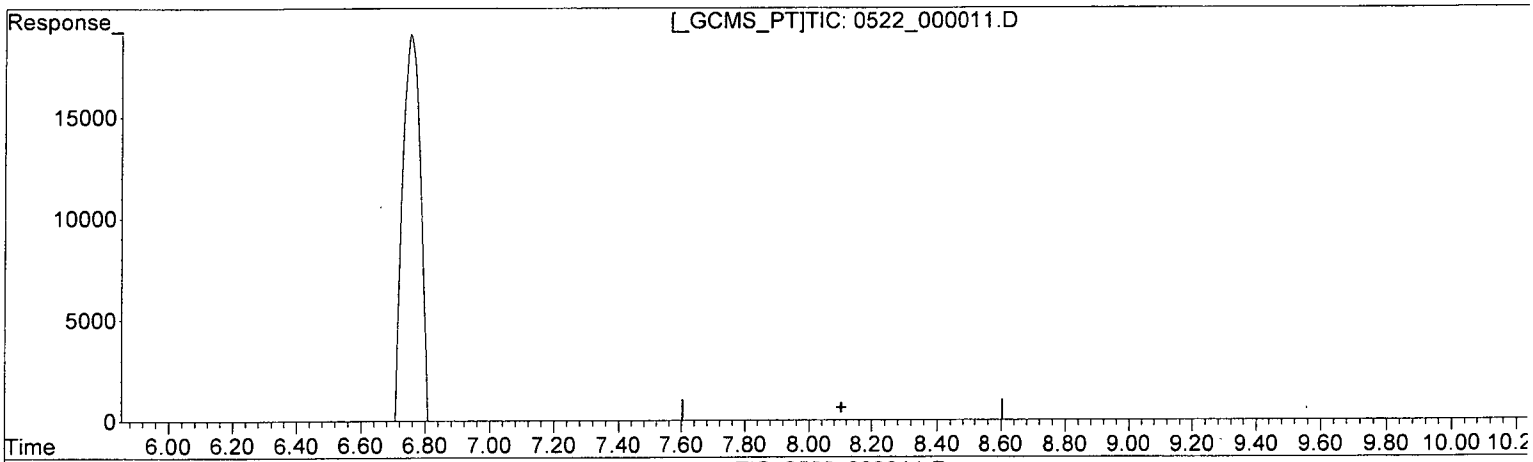
(+) = Expected Retention Time

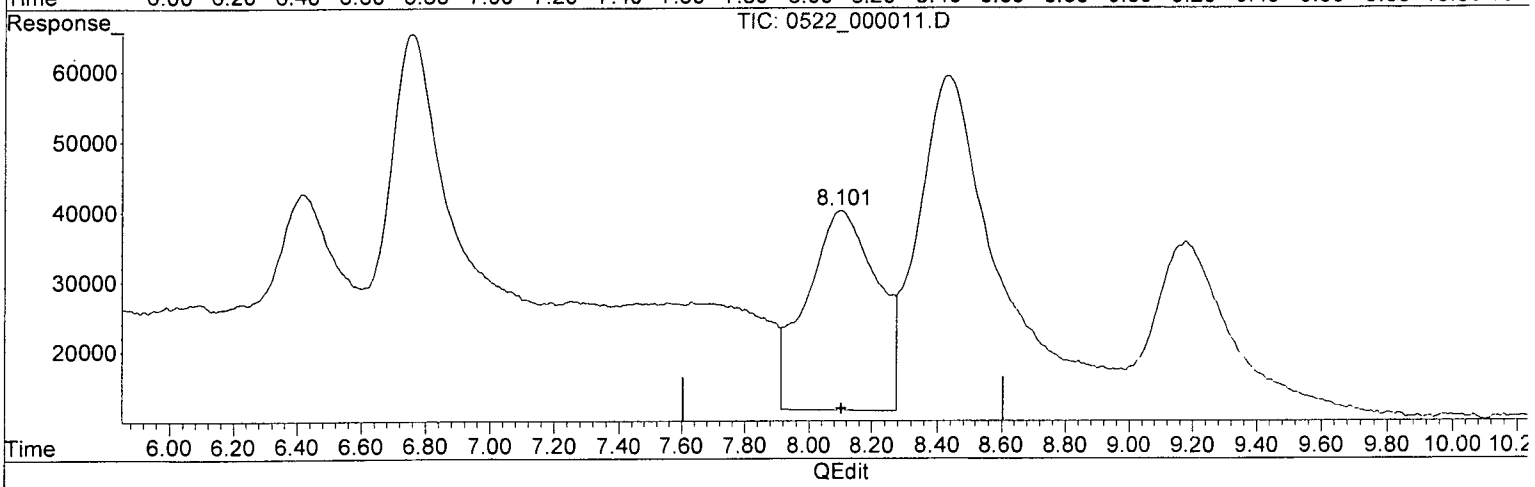
Quantitation Report (Qedit)

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





(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

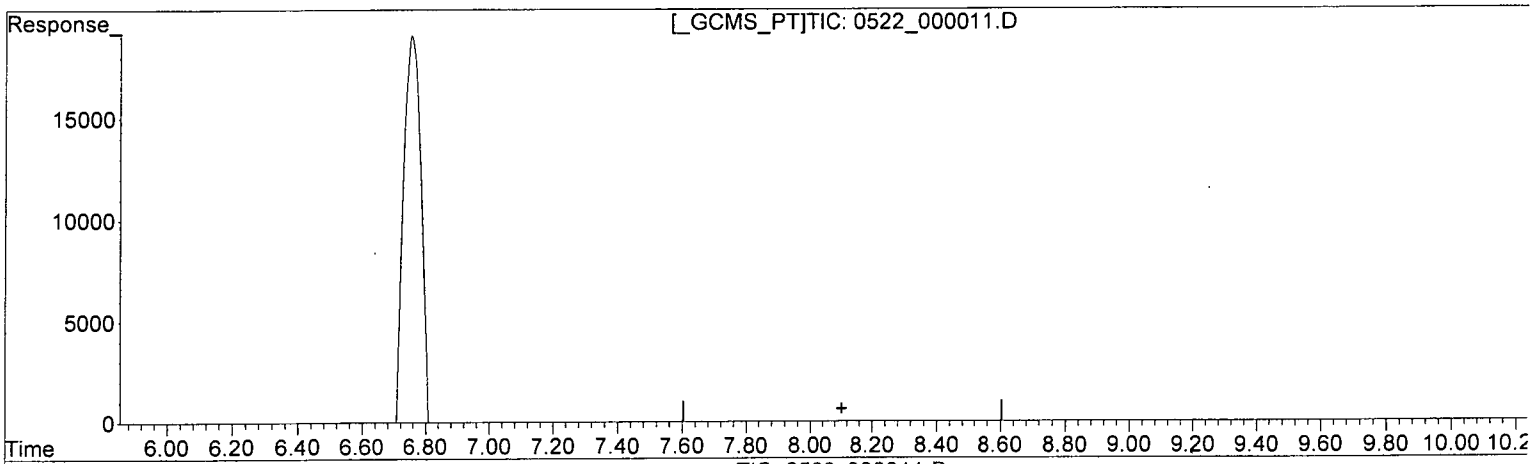
(+) = Expected Retention Time

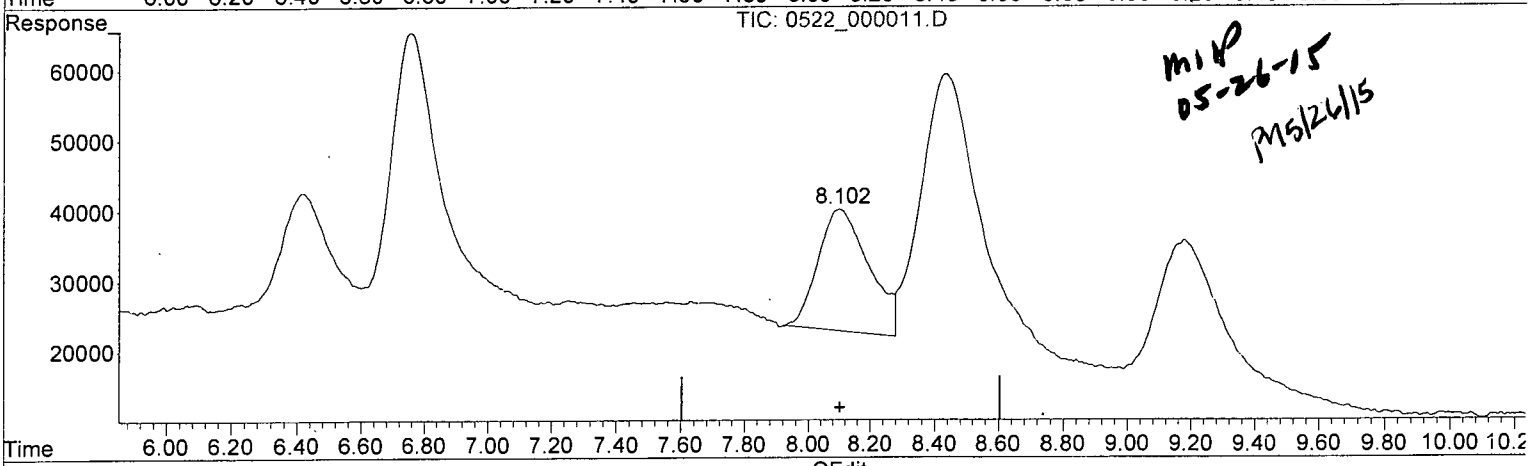
Quantitation Report (Qedit)

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-





MHP 05-26-15 5/26/15

(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

8.102min 8.198 ppb m

response 17296

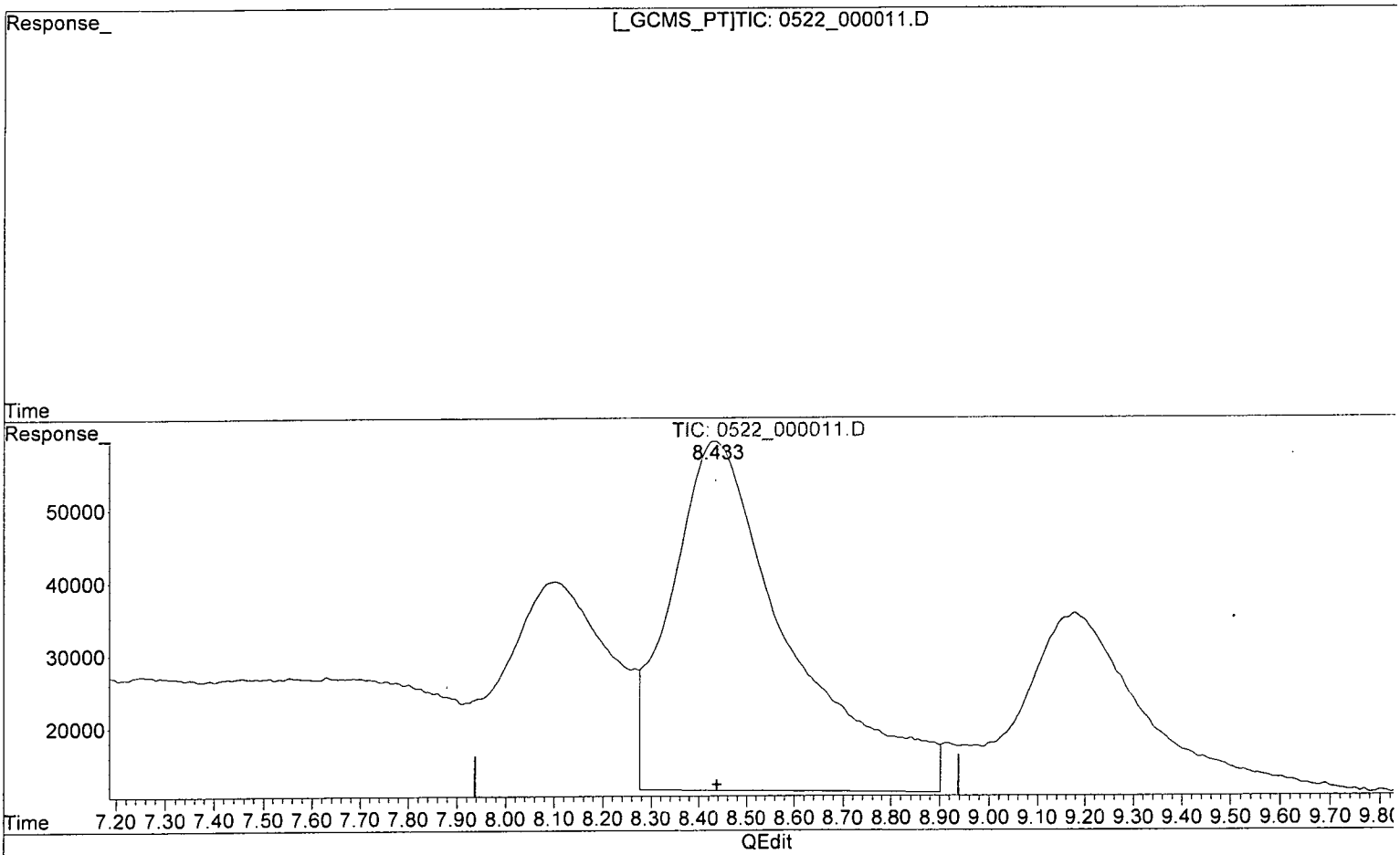
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r



(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

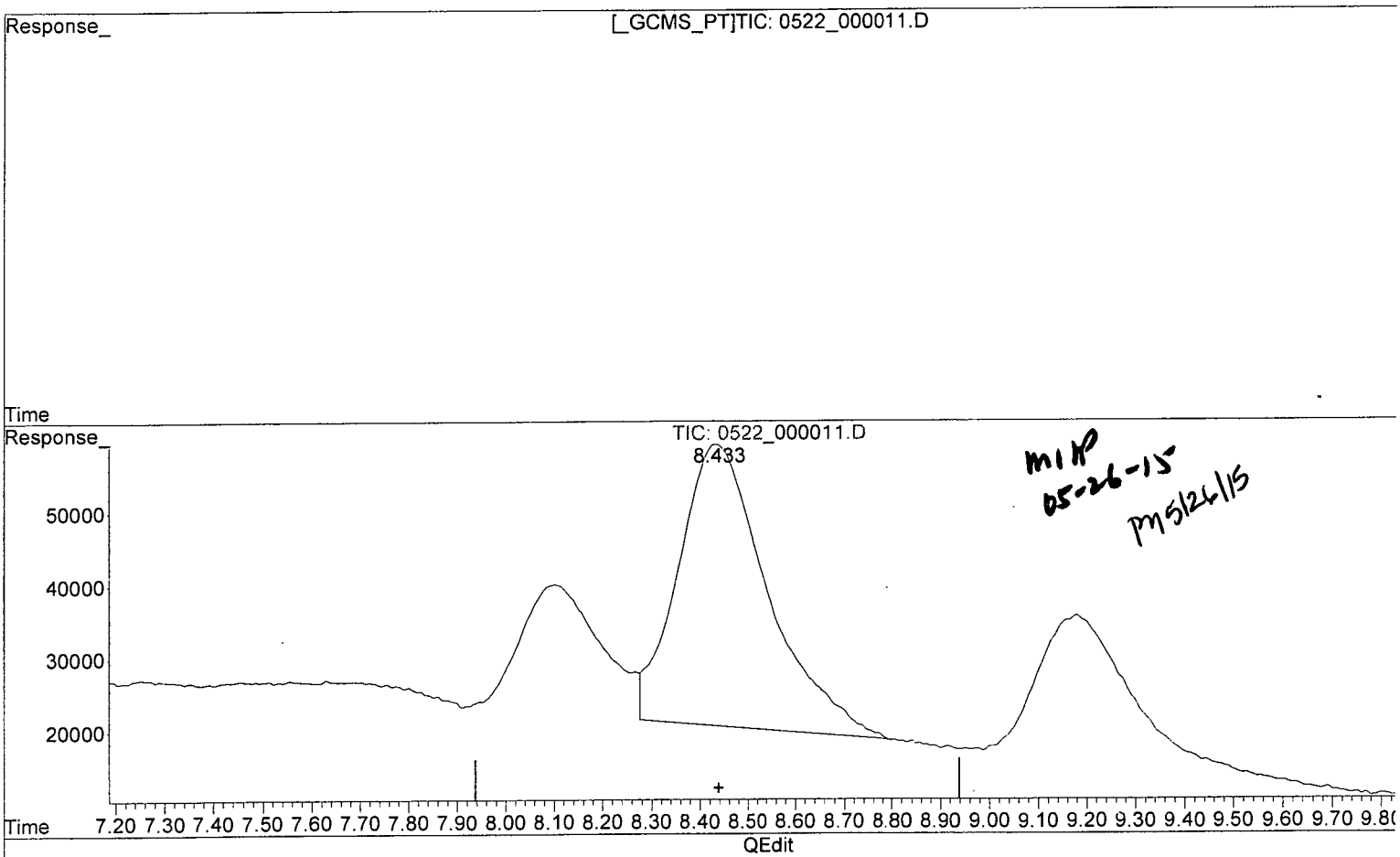
(+) = Expected Retention Time

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-r



(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

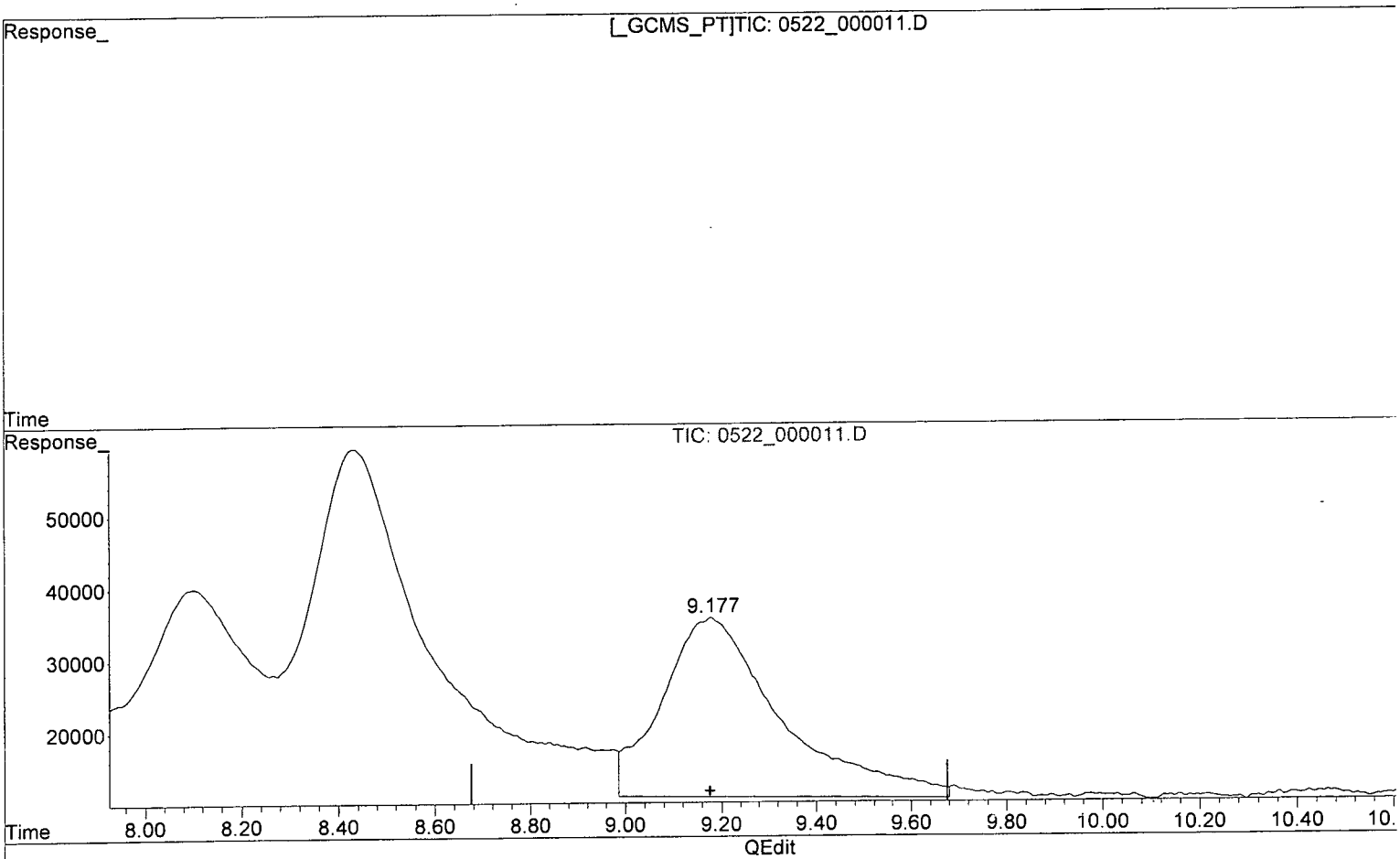
(+) = Expected Retention Time

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-r



(6) NITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(6) NITROBENZENE #2 (TM)

9.178min 9.671 ppb

response 24773

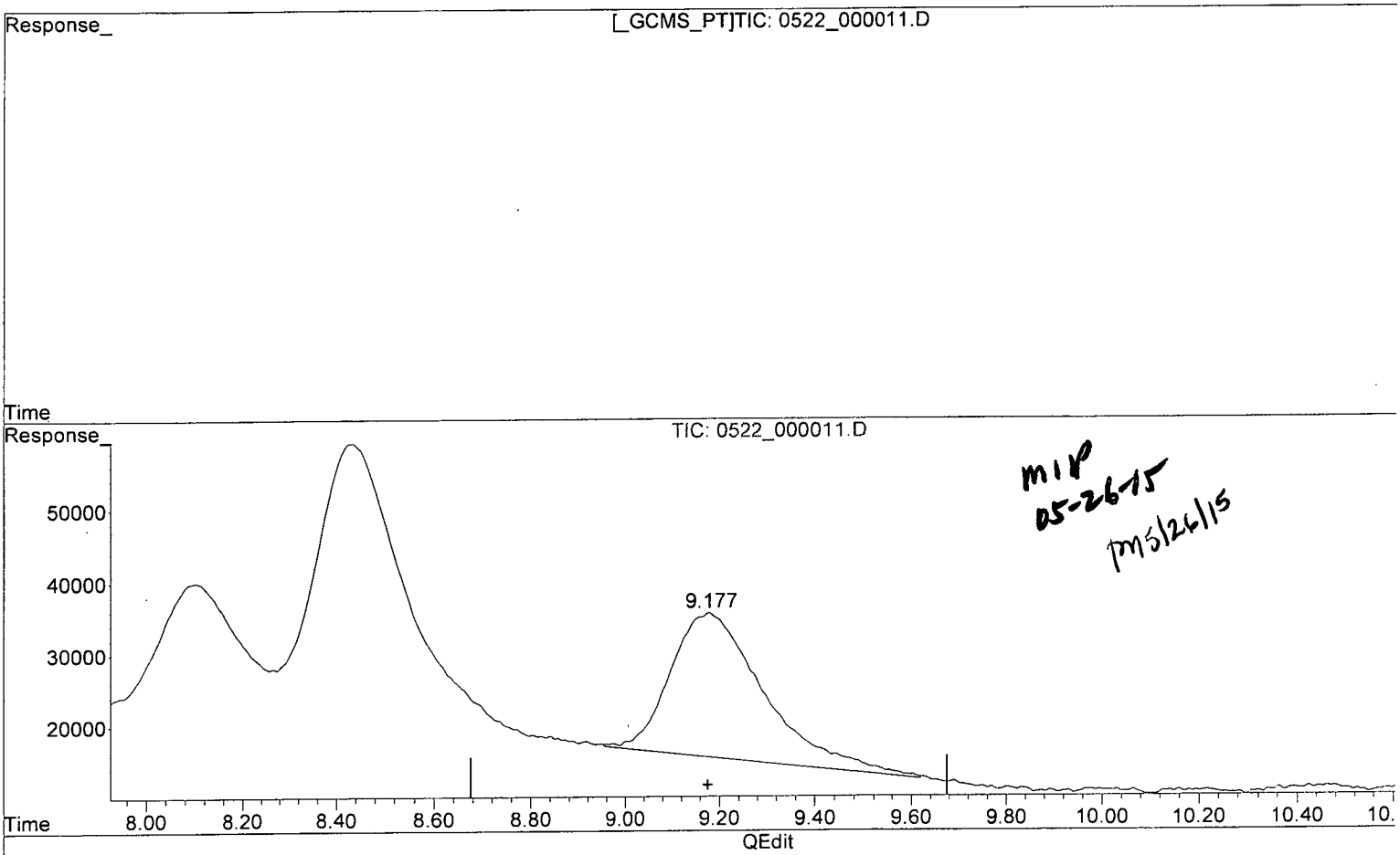
(+) = Expected Retention Time

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-r



(6) NITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(6) NITROBENZENE #2 (TM)

9.177min 7.841 ppb m

response 20086

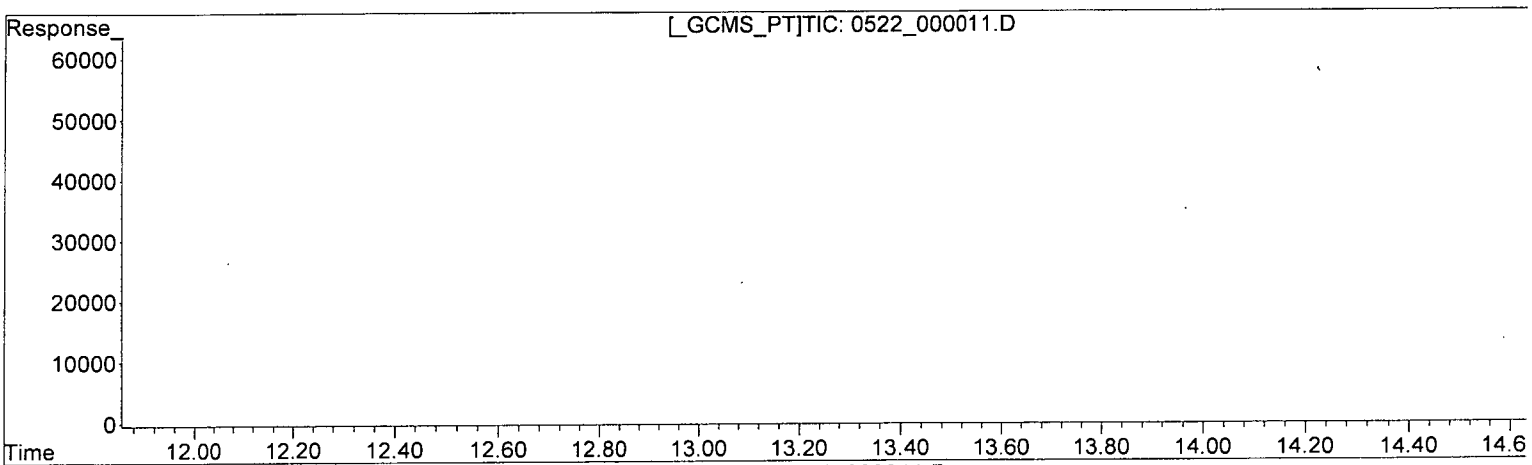
(+) = Expected Retention Time

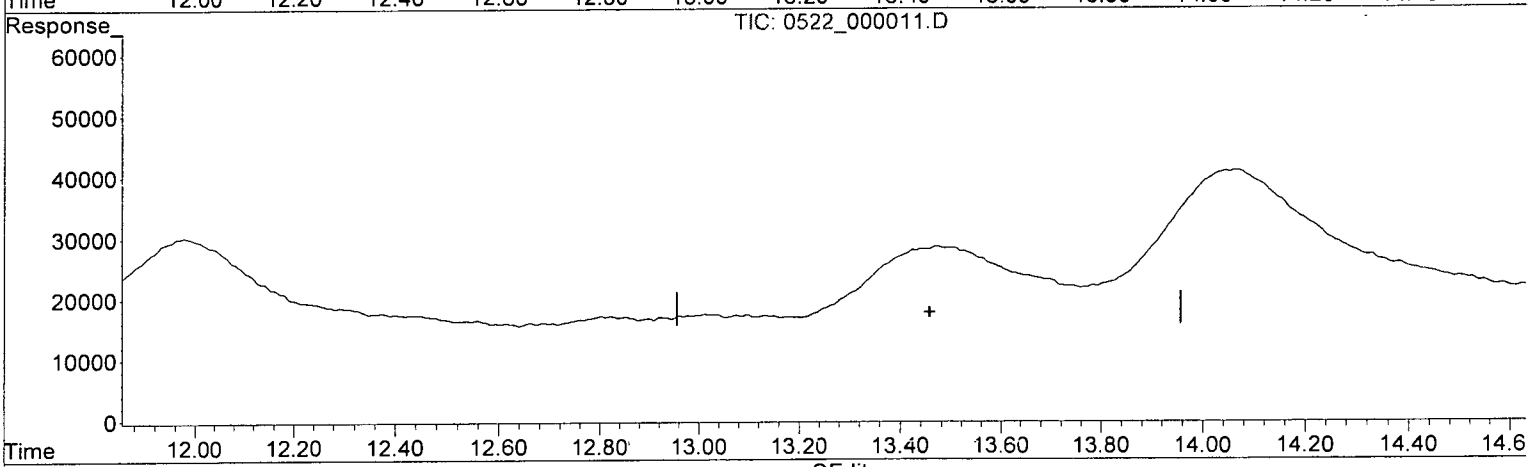
Quantitation Report (Qedit)

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

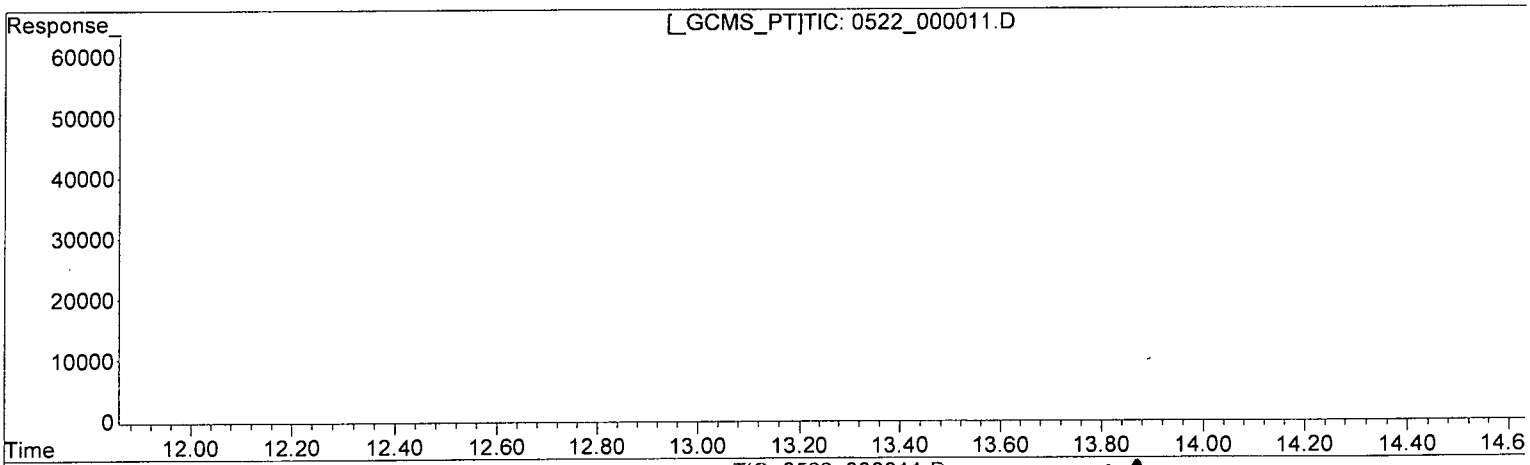
(+) = Expected Retention Time

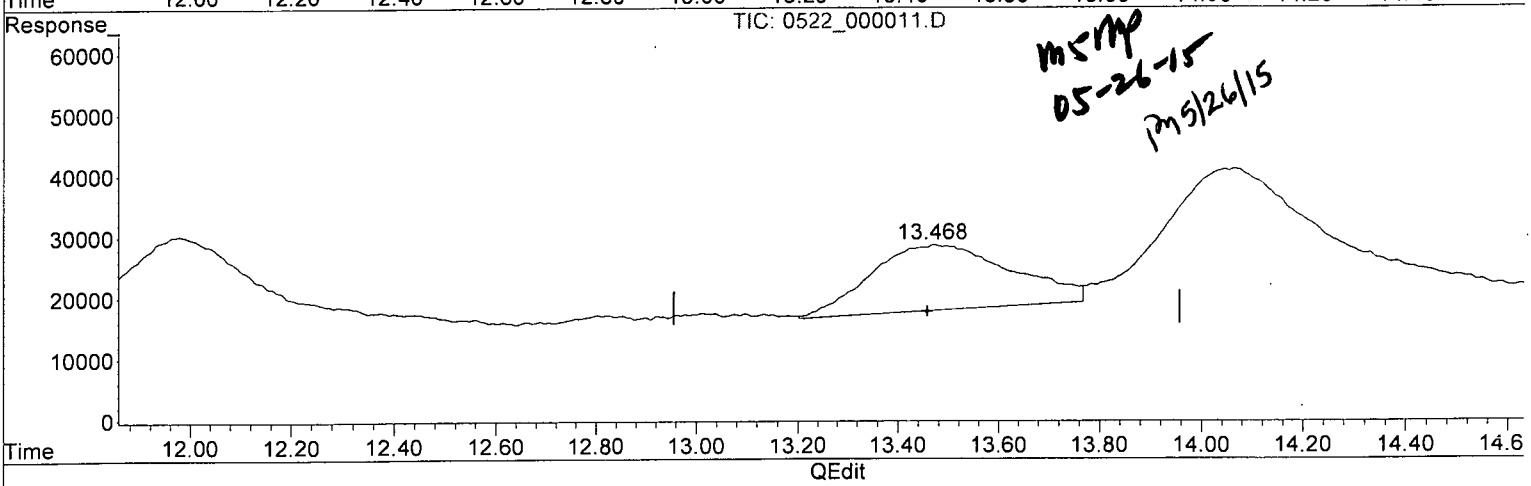
Quantitation Report (Qedit)

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-r





MSMP 05-26-15 [5/26/15

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

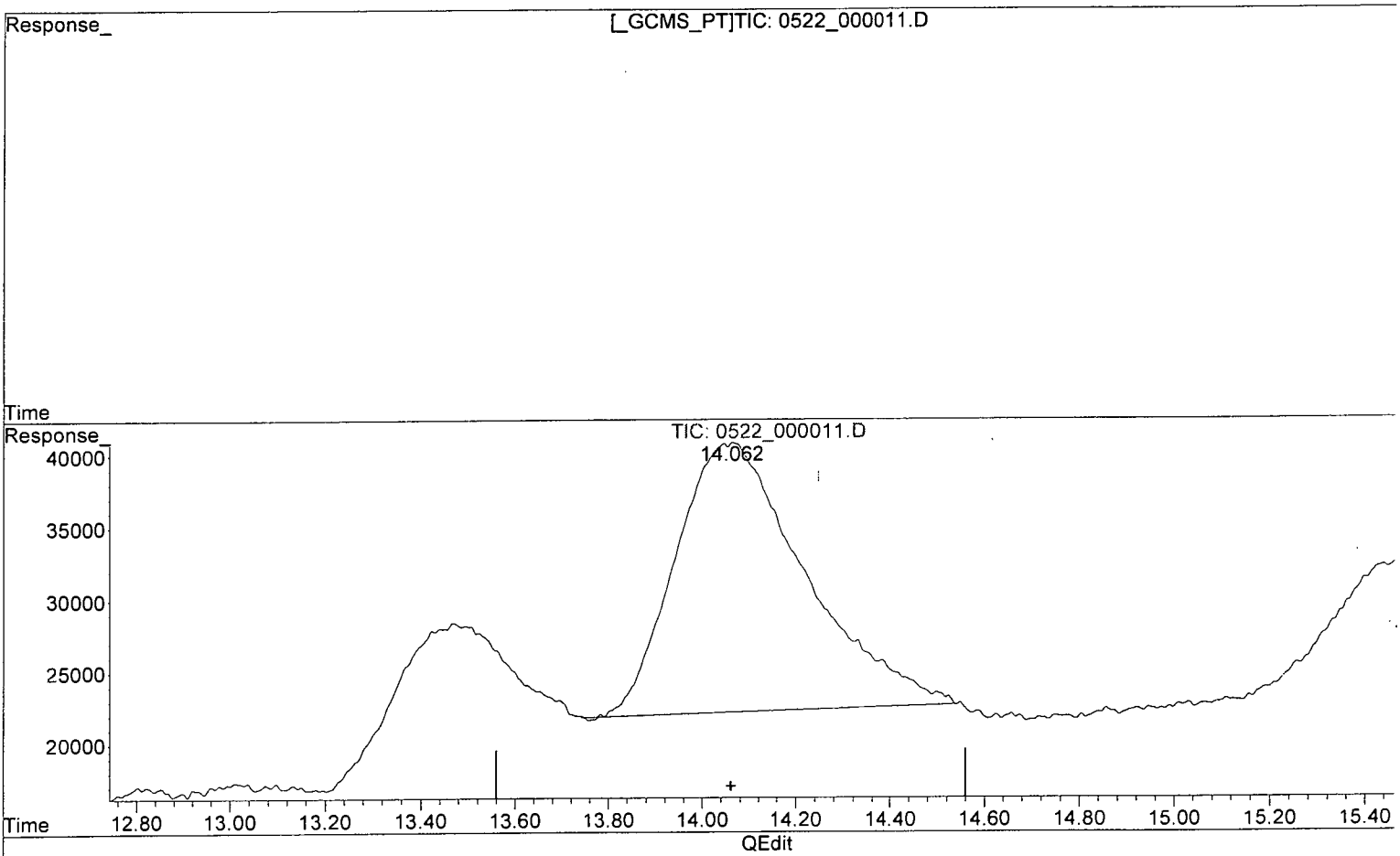
(+) = Expected Retention Time

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-r



(11) 2,4-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(11) 2,4-DINITROTOLUENE #2 (TM)

14.065min 7.394 ppb

response 18629

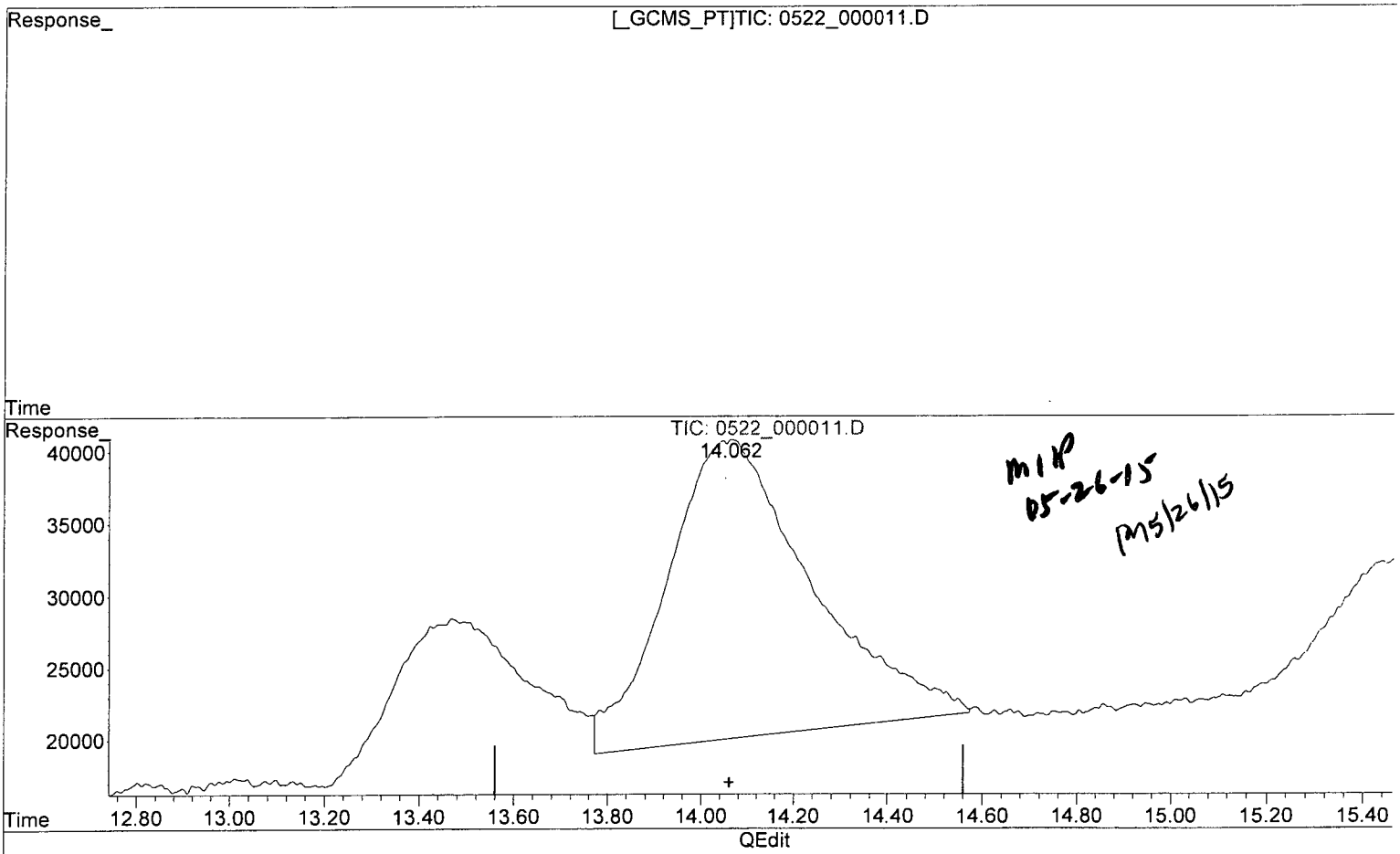
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(11) 2,4-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(11) 2,4-DINITROTOLUENE #2 (TM)

14.062min 8.239 ppb m

response 20758

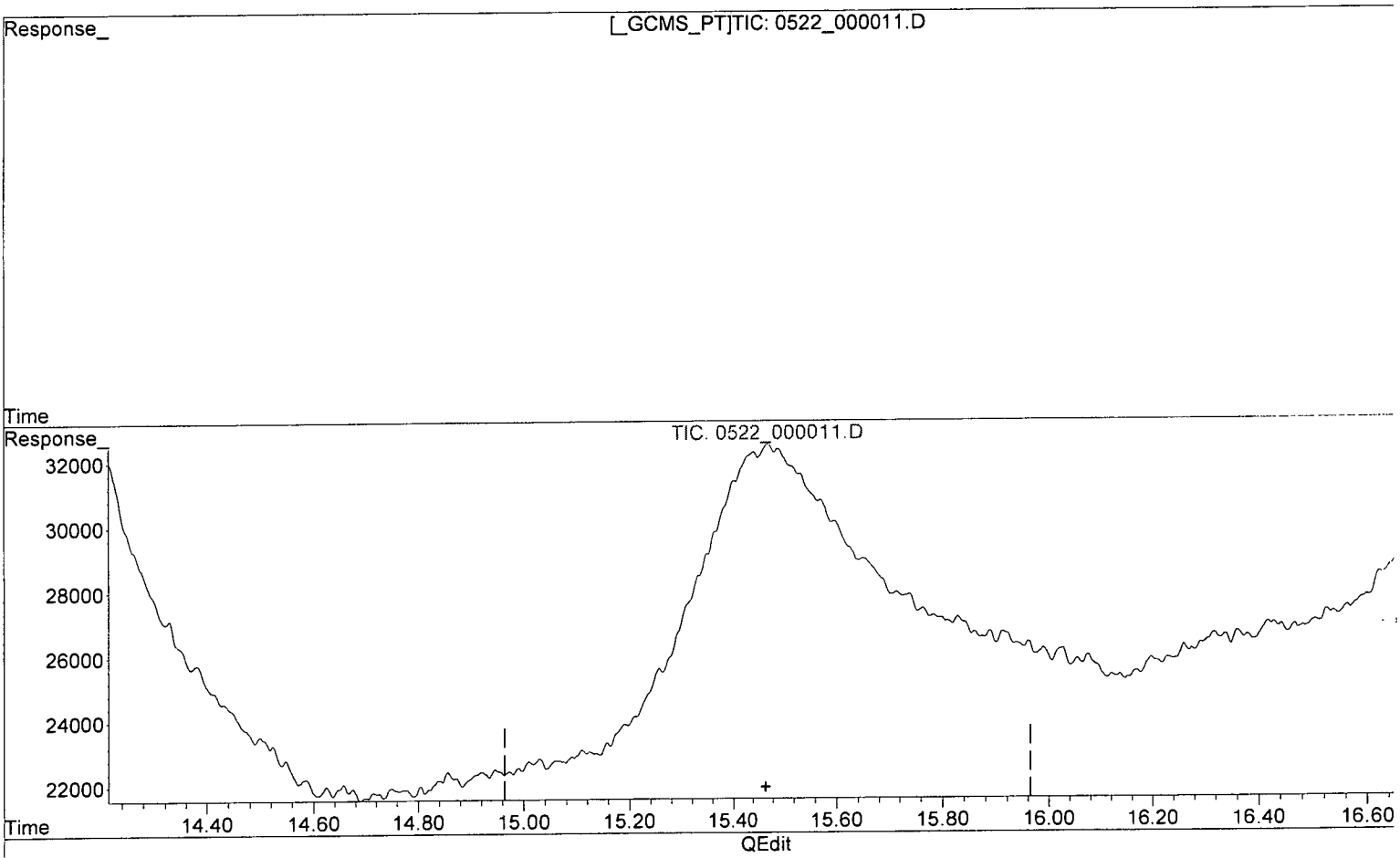
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r



(12) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(12) 2-NITROTOLUENE #2 (TM)

0.000min 0.000 ppb

response 0

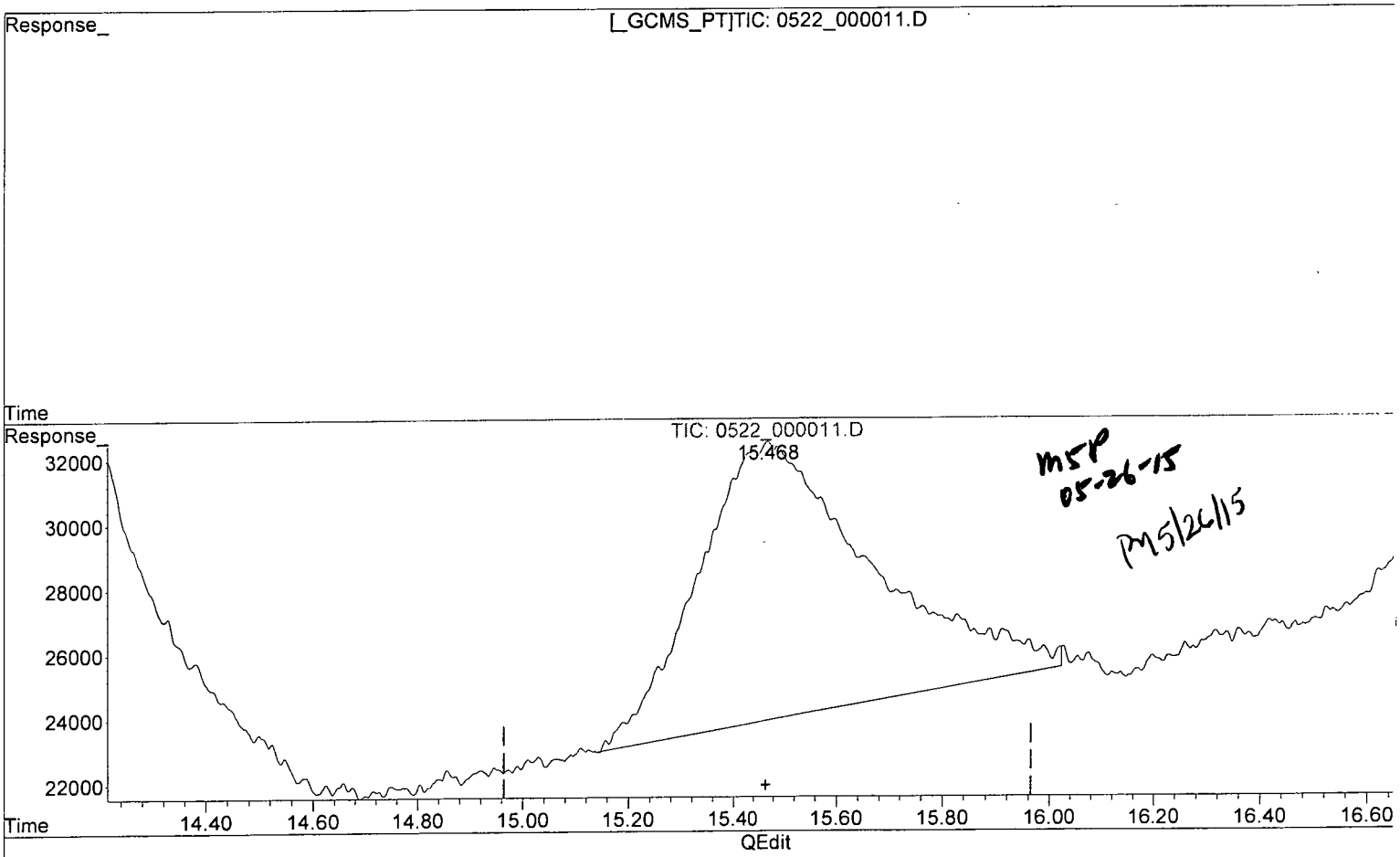
(+) = Expected Retention Time

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-µ



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

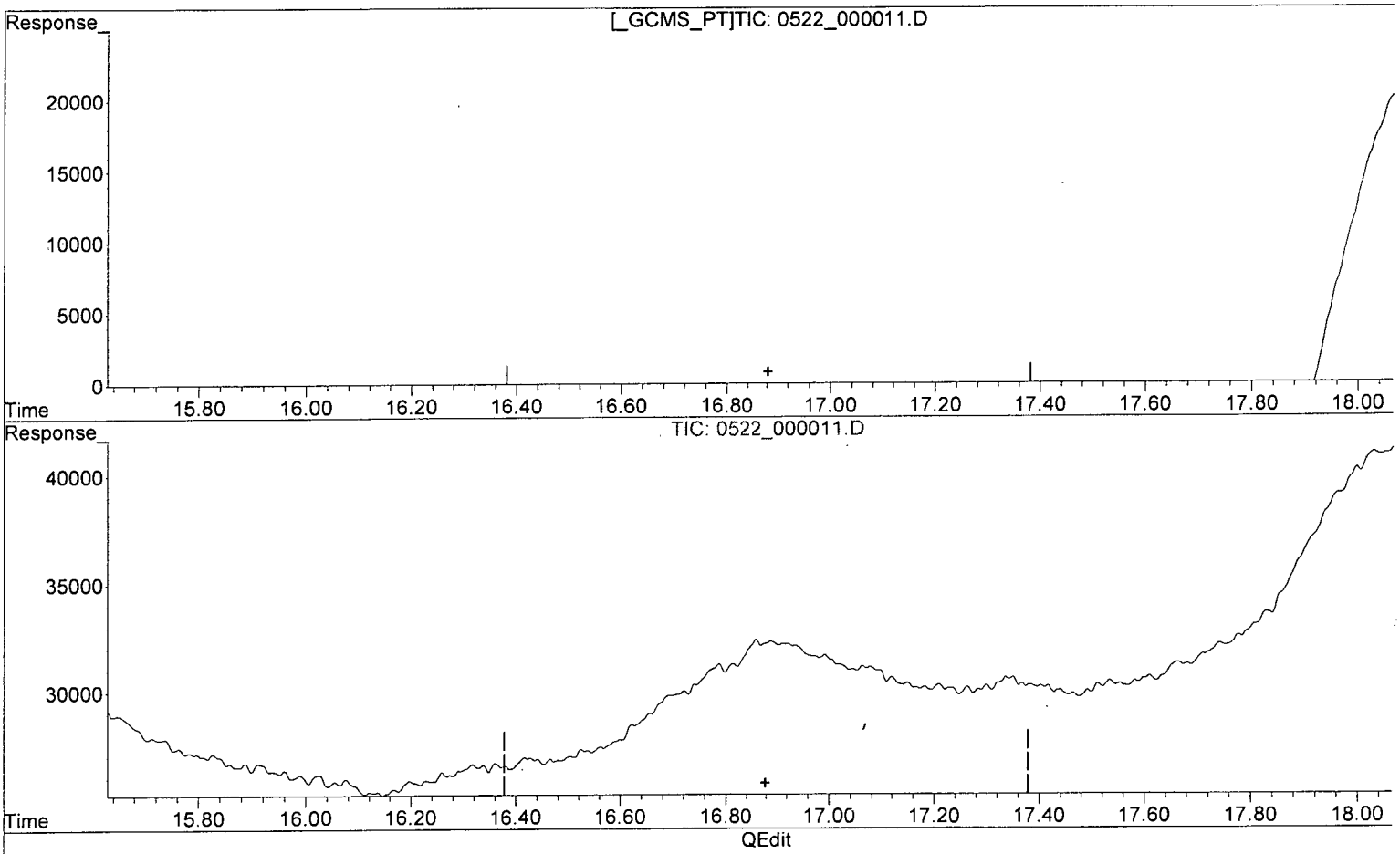
(+) = Expected Retention Time

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-r



(13) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(13) 4-NITROTOLUENE #2 (TM)

0.000min 0.000 ppb

response 0

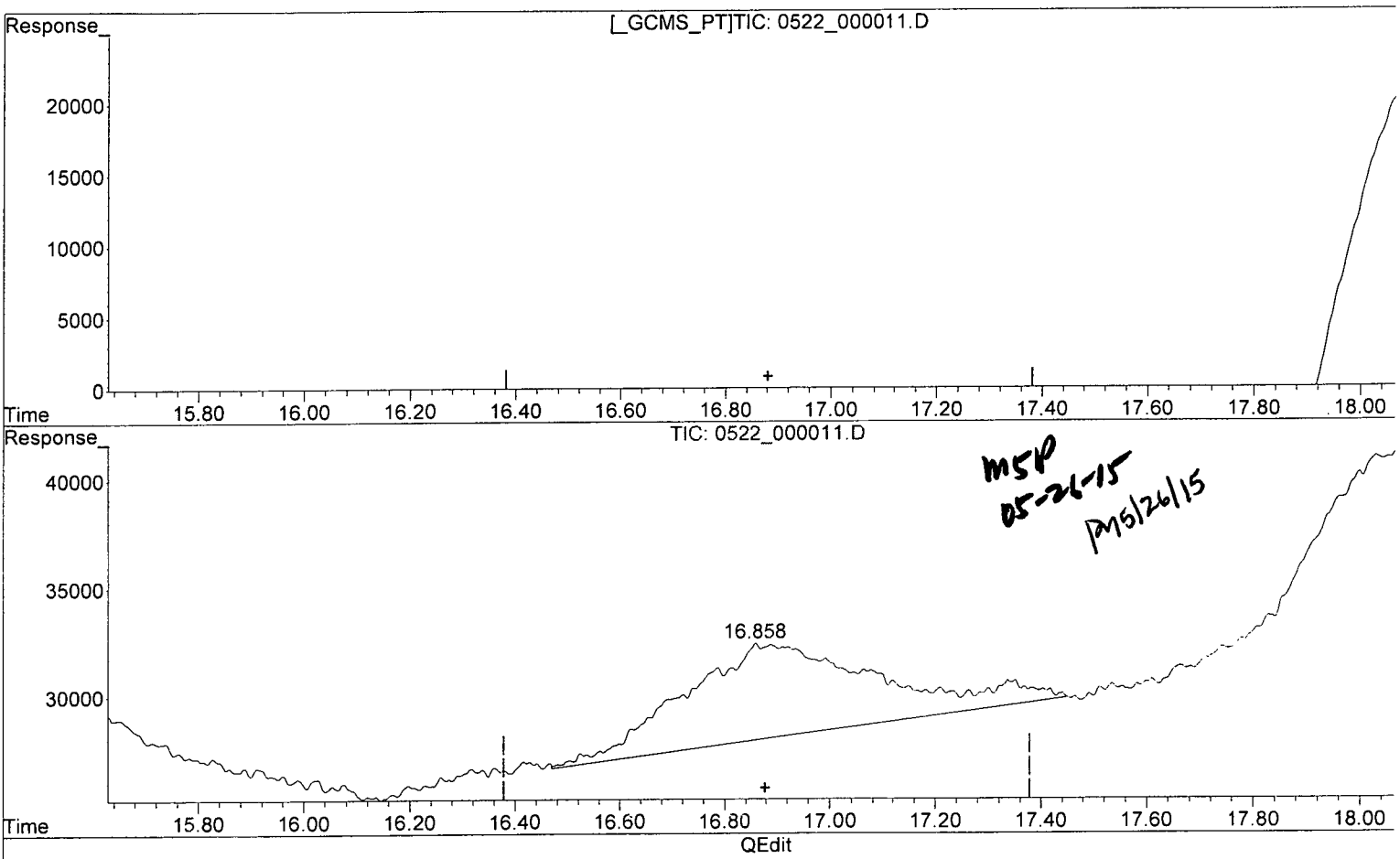
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



MSP 05-26-15 PM5/26/15

(13) 4-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(13) 4-NITROTOLUENE #2 (TM)

16.858min 5.100 ppb m

response 4467

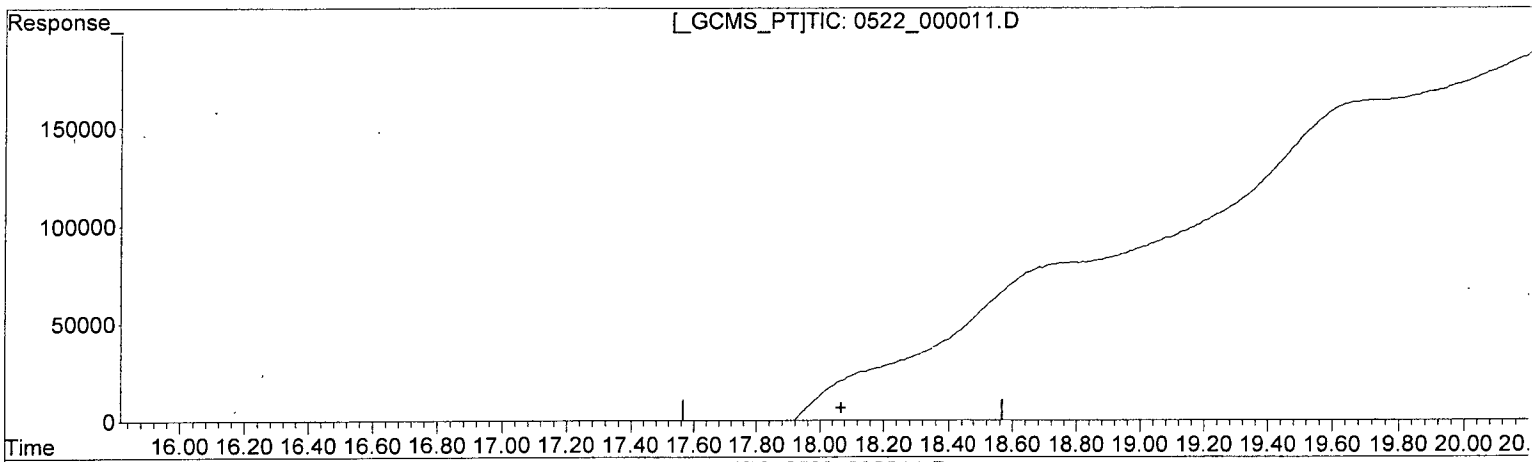
(+) = Expected Retention Time

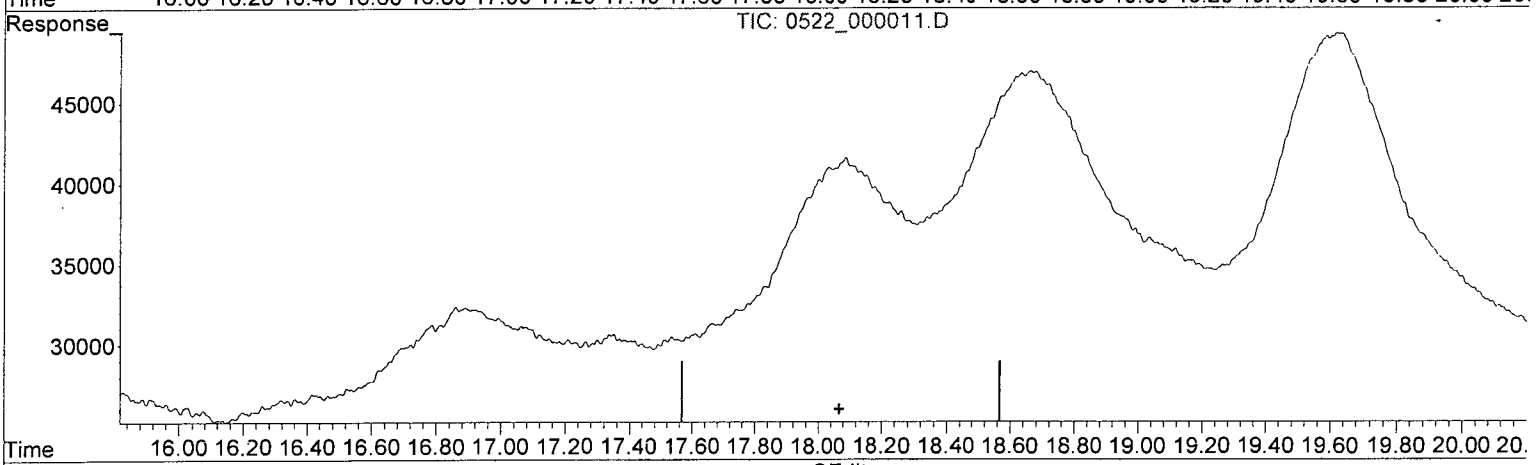
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-





QEdit

(15) 3-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(15) 3-NITROTOLUENE #2 (TM)

0.000min 0.000 ppb

response 0

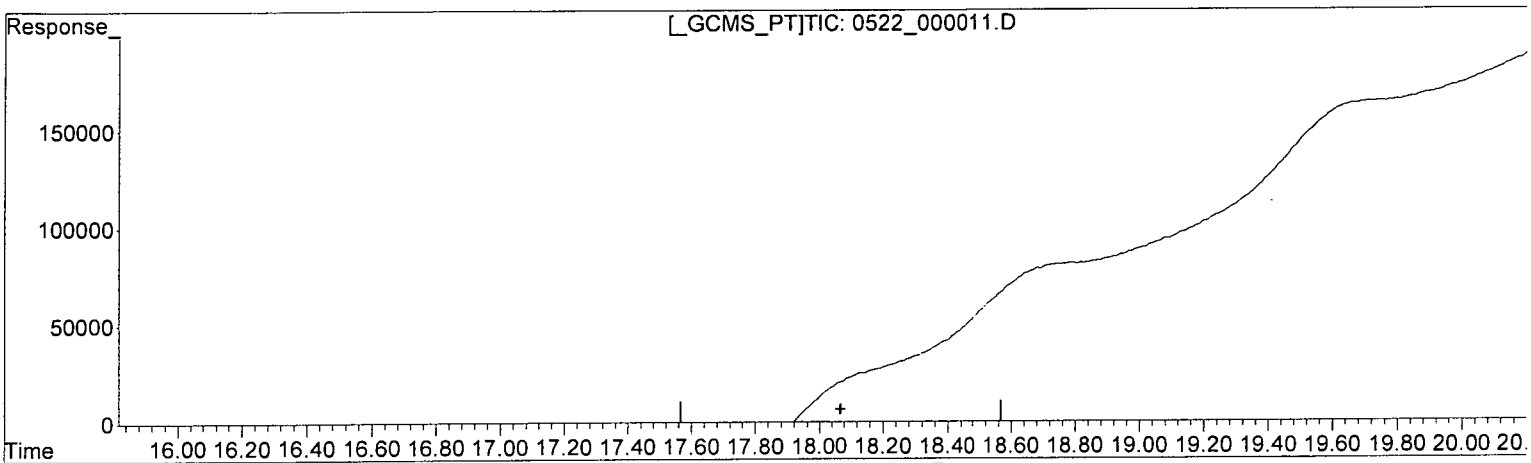
(+) = Expected Retention Time

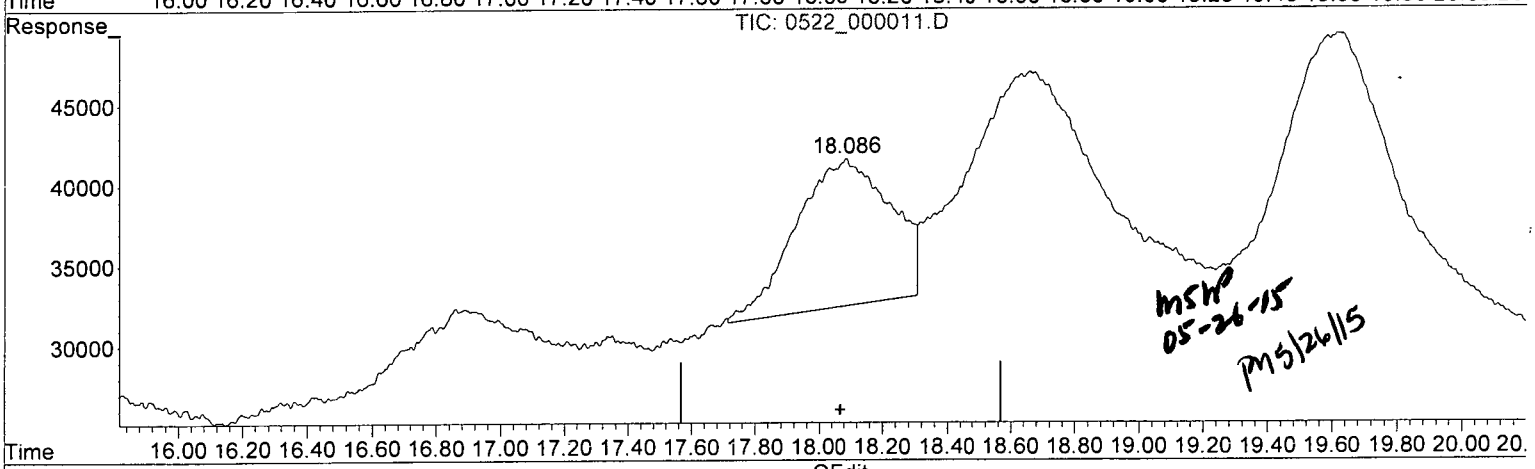
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000011.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 15:32:10
Operator : MP
Sample : 8330MXA_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4226 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r





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

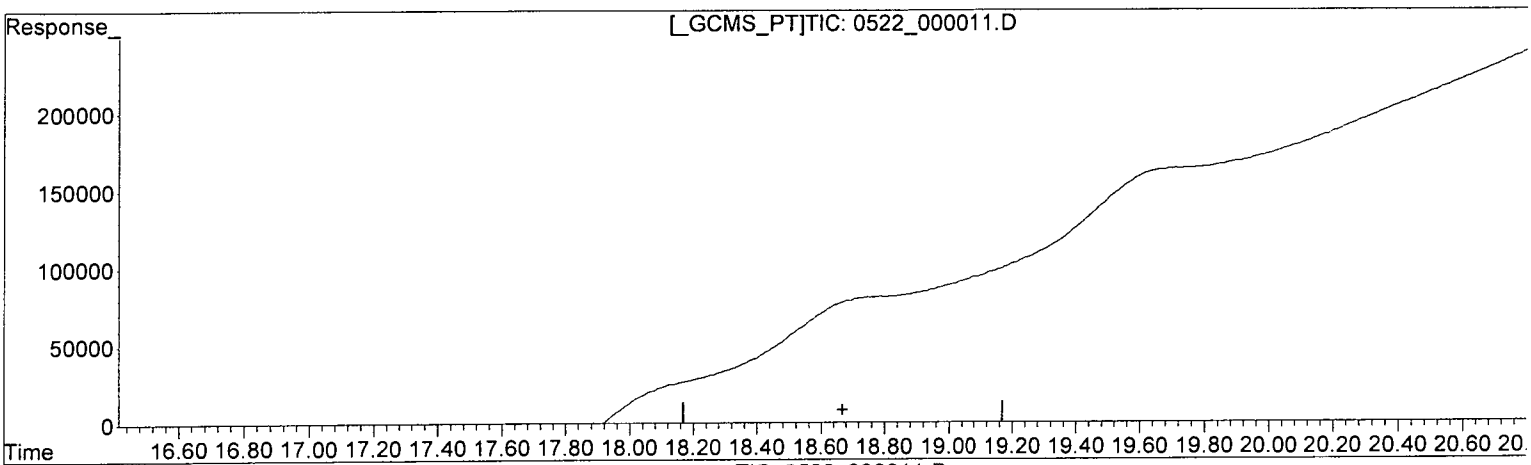
(+) = Expected Retention Time

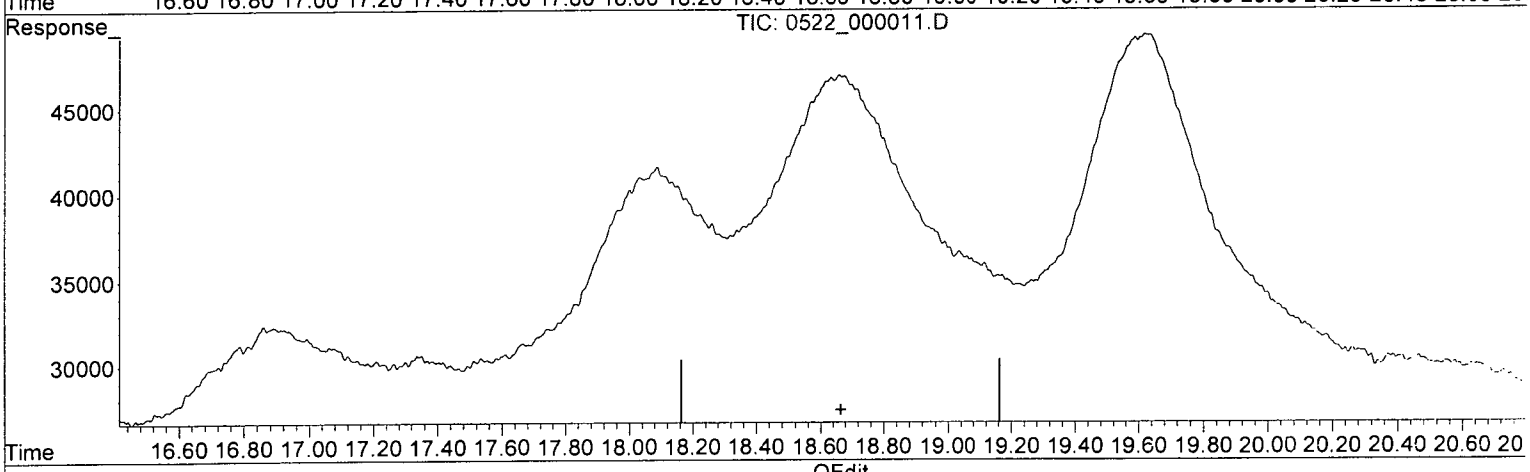
Quantitation Report (Qedit)

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-r





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

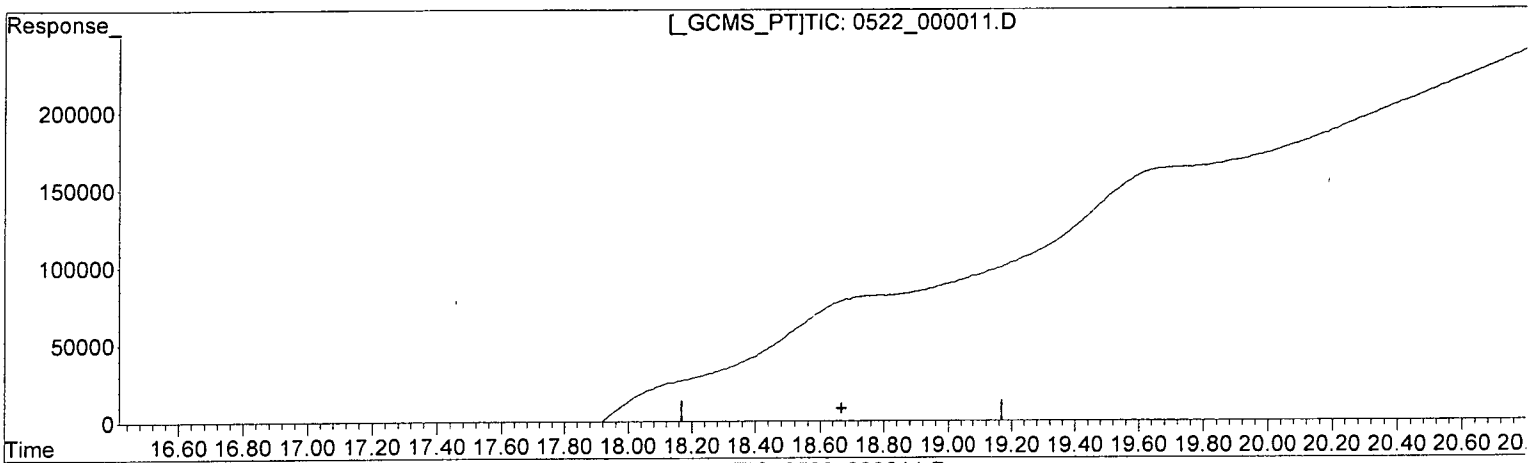
(+) = Expected Retention Time

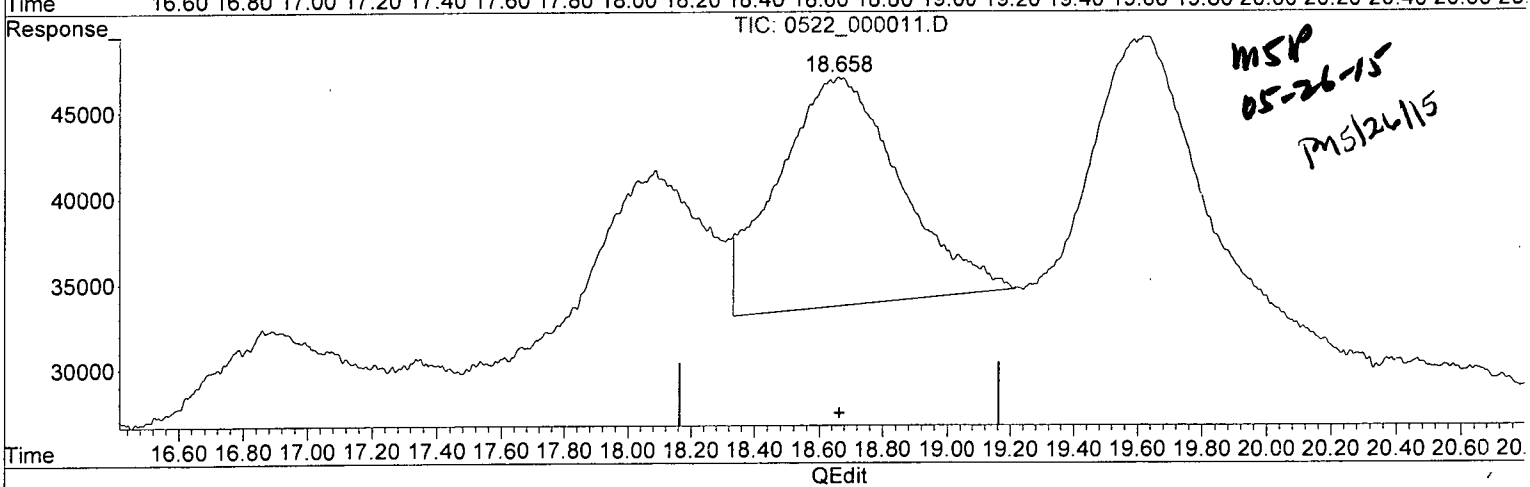
Quantitation Report (Qedit)

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-µ





MSP 05-26-15 PM 5/26/15

(16) 4-AMINO-2,6-DINITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(16) 4-AMINO-2,6-DINITROTOLUENE #2 (TM)

18.658min 9.500 ppb m

response 13310

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:11:42
Operator : MP
Sample : 8330MXB_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4227 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:03:03 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
Spiked Amount 62.500			Recovery	=	0.00%	0.00%
Target Compounds						
1) TM HMX	0.000	0.000	0	0	N.D.	N.D.
2) TM RDX	0.000	0.000	0	0	N.D. d	N.D. d
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
6) TM NITROBENZENE	0.000	0.000	0	0	N.D. d	N.D. d
7) TM 2,4,6-TRI...	0.000	0.000	0	0	N.D. d	N.D. d
8) TM NITROGLYC...	12.069	12.012	8300	427	9.114	NoCal #
9) TM TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10) TM 2,6-DINIT...	0.000	0.000	0	0	N.D.	N.D.
11) TM 2,4-DINIT...	0.000	0.000	0	0	N.D.	N.D.
12) TM 2-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
13) TM 4-NITROTO...	0.000	0.000	0	0	N.D. d	N.D. d
14) TM 3,5-DINIT...	0.000	16.538	0	17290	N.D.	8.662m#
15) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

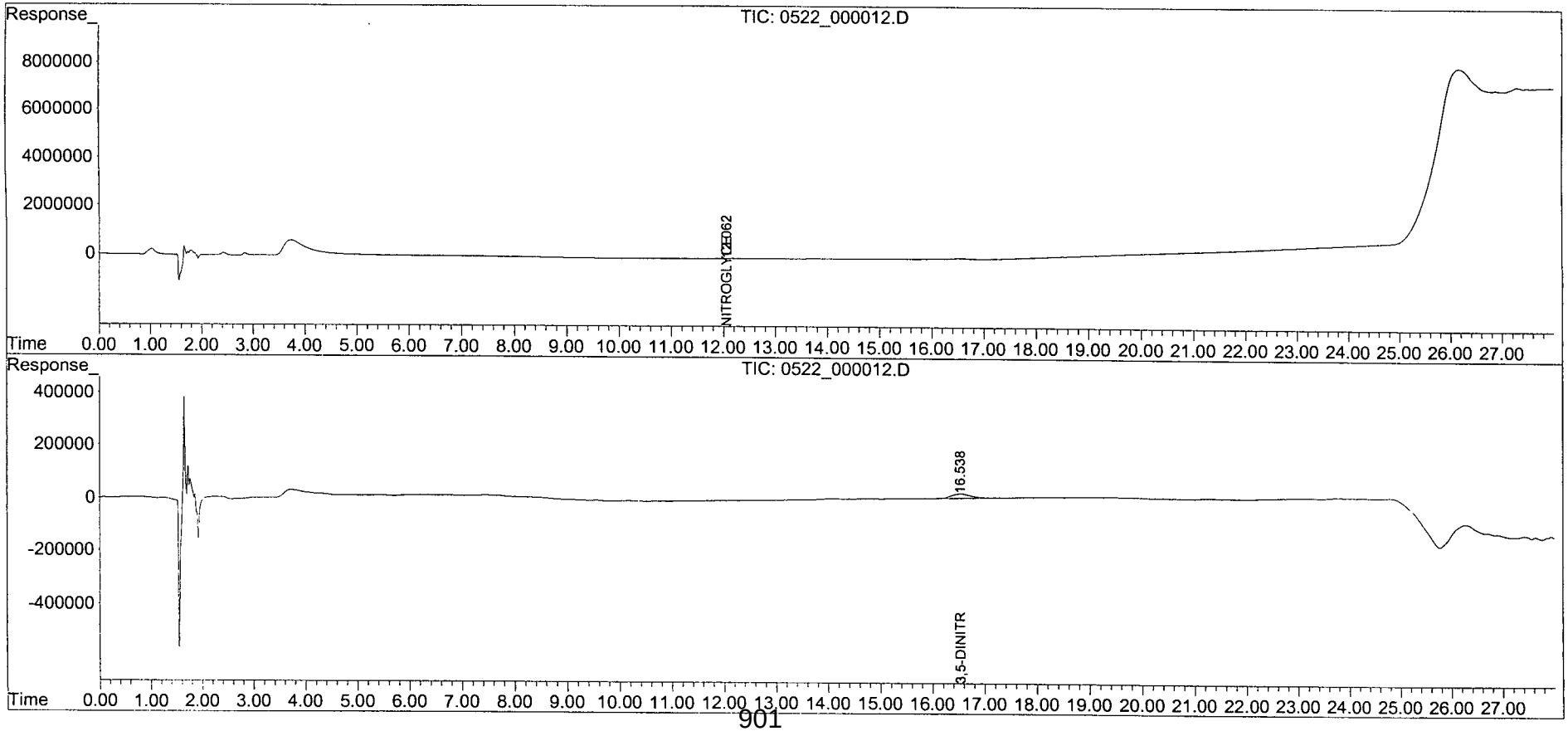
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:11:42
Operator : MP
Sample : 8330MXB_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4227 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:03:03 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

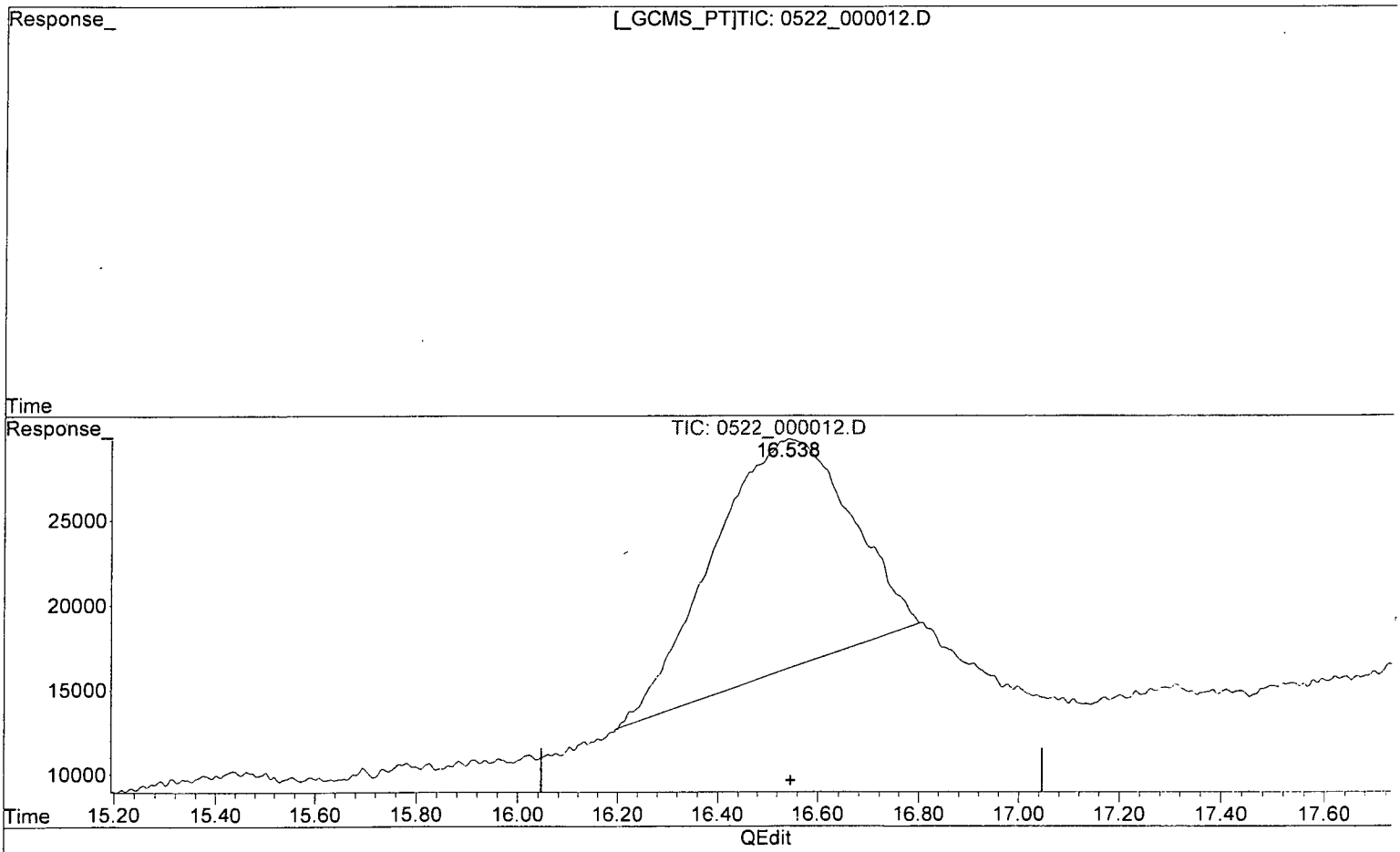


Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:11:42
Operator : MP
Sample : 8330MXB_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4227 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:08 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(14) 3,5-DINITROANILINE (TM)

0.000min 0.000 ppb

response 0

(14) 3,5-DINITROANILINE #2 (TM)

16.542min 6.767 ppb

response 13506

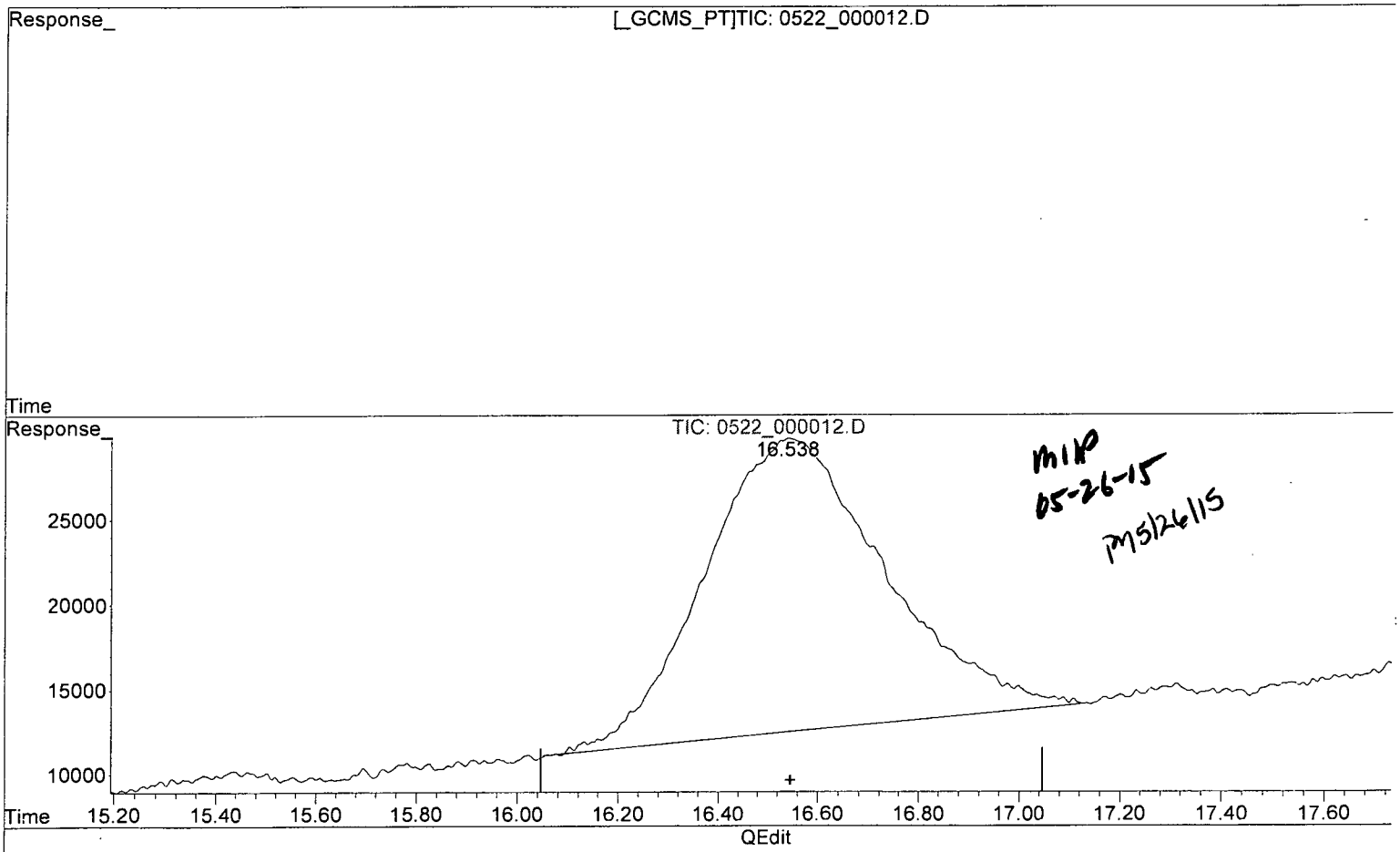
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000012.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:11:42
Operator : MP
Sample : 8330MXB_CB 0.010 PPM 05/22/15
Misc :
ALS Vial : 4227 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:08 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-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.

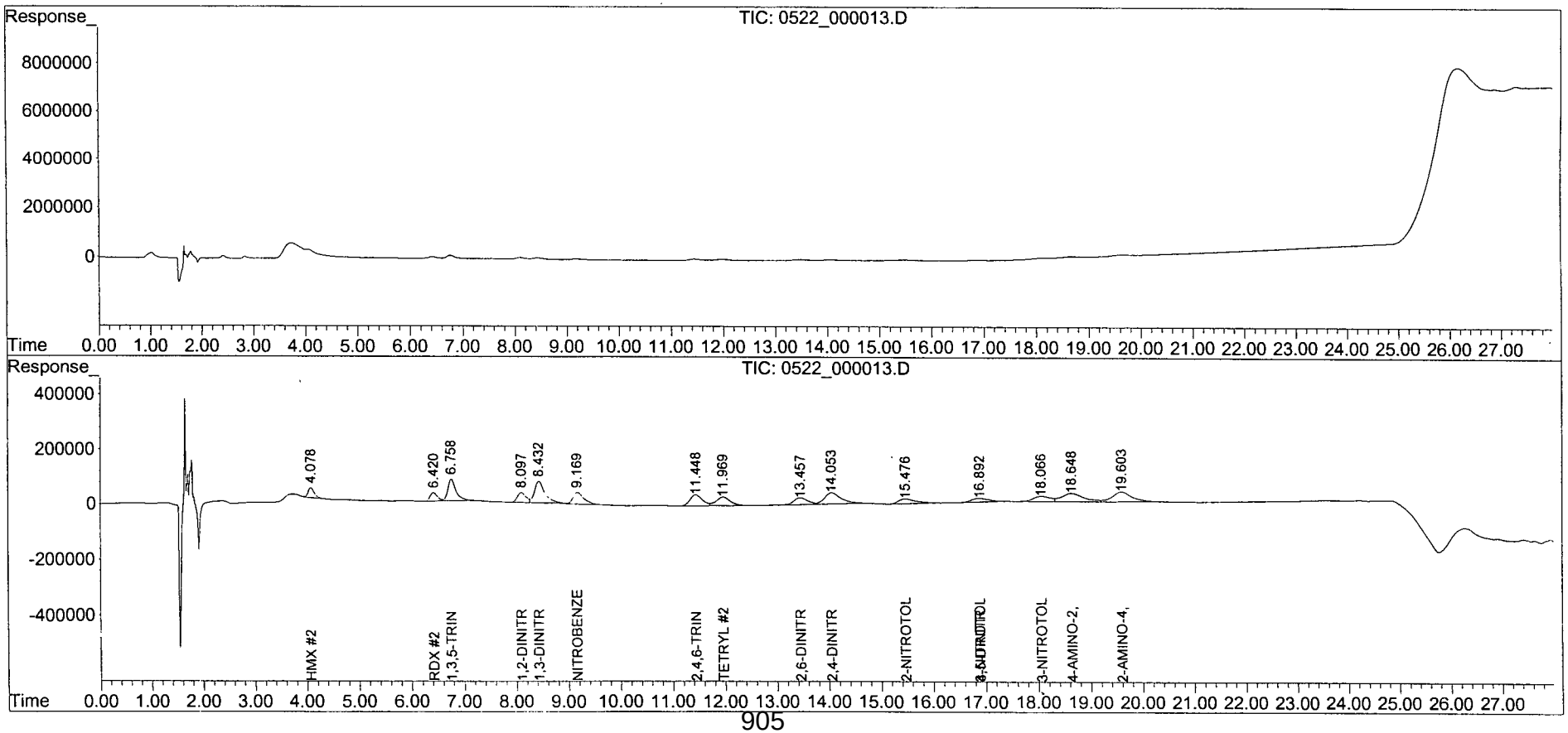
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:50:55 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

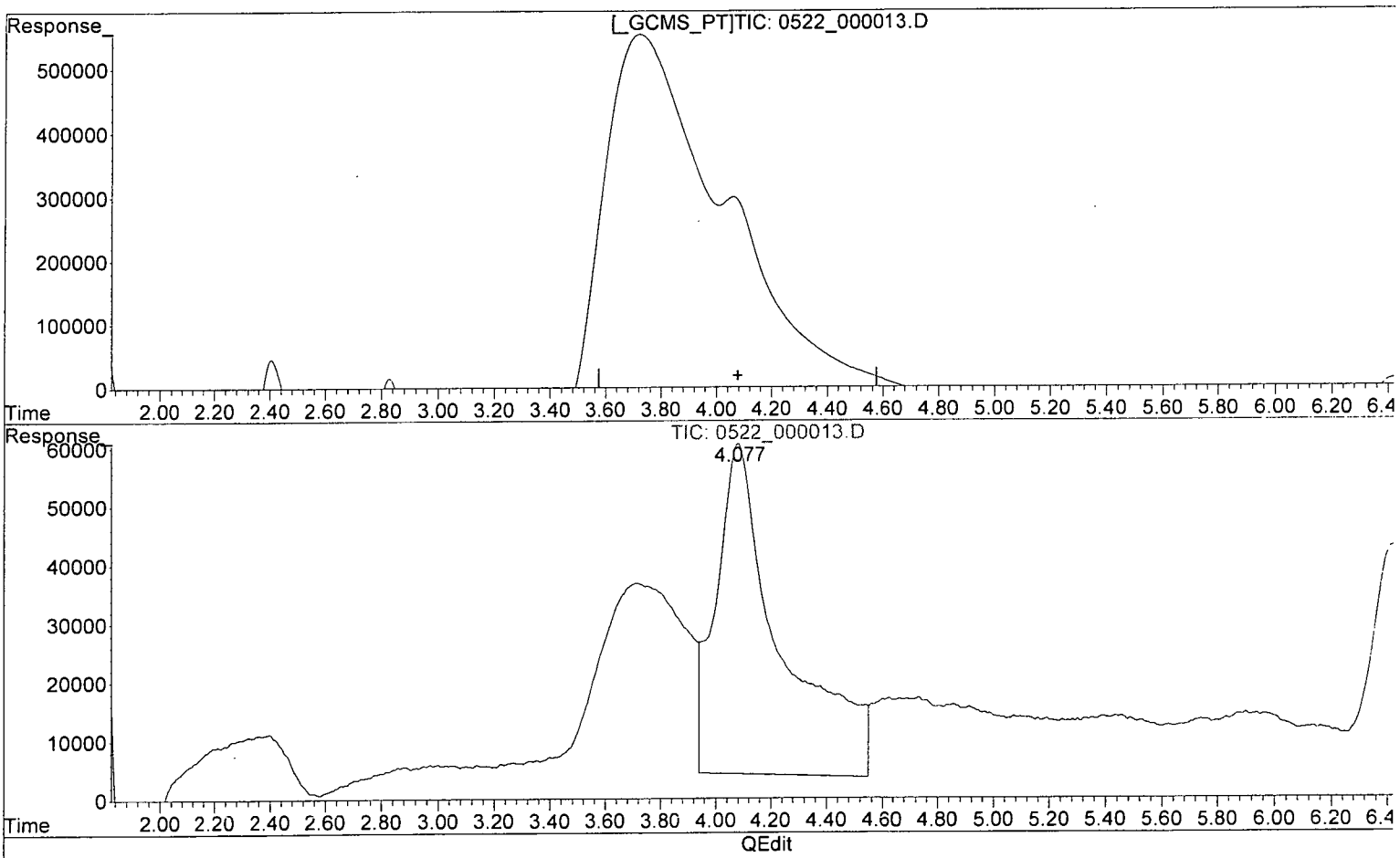


Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.077min 26.787 ppb

response 56329

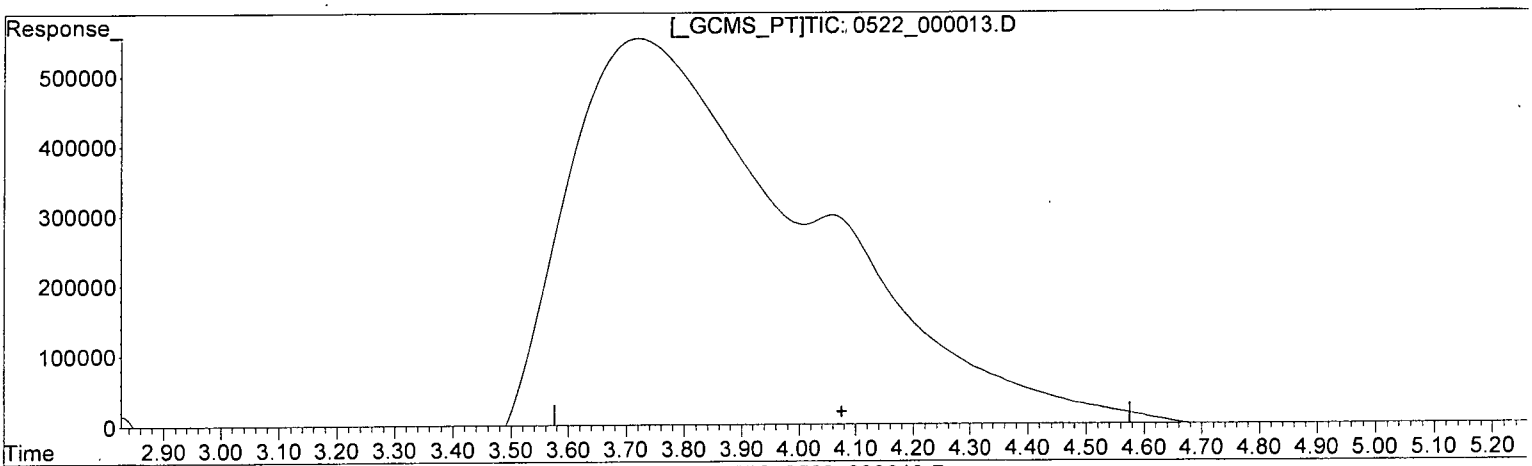
(+) = Expected Retention Time

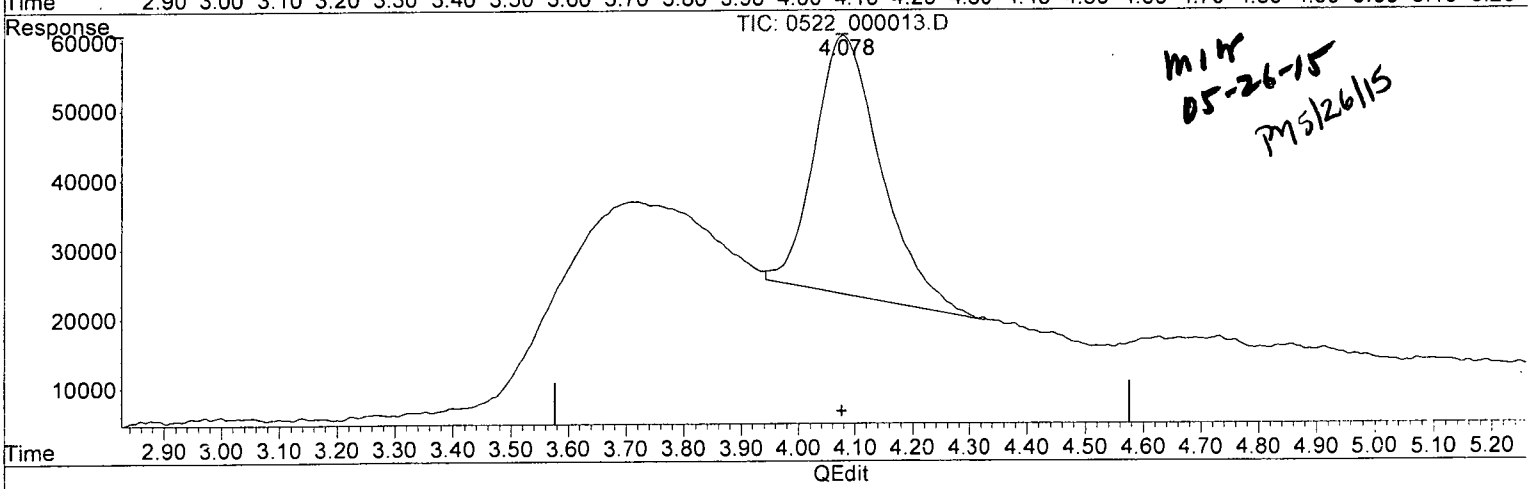
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ





MH 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

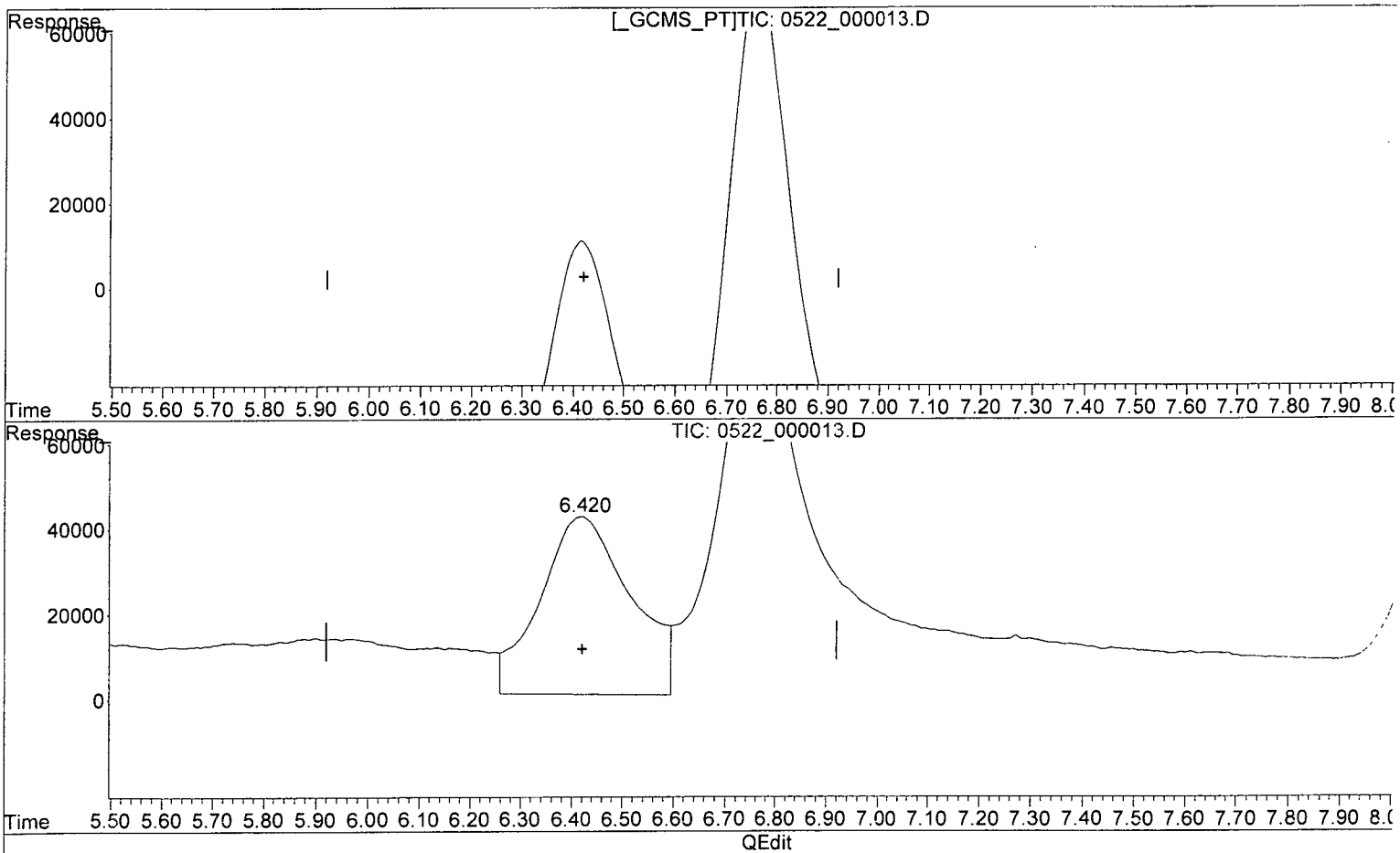
(+) = Expected Retention Time

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-



(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.418min 22.479 ppb

response 41634

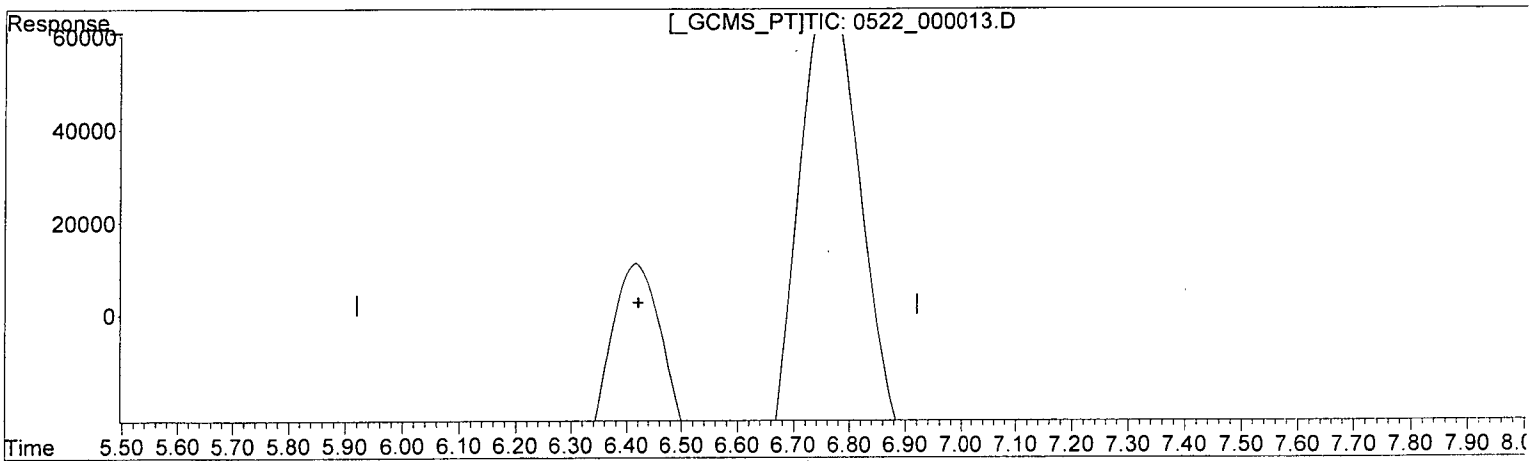
(+) = Expected Retention Time

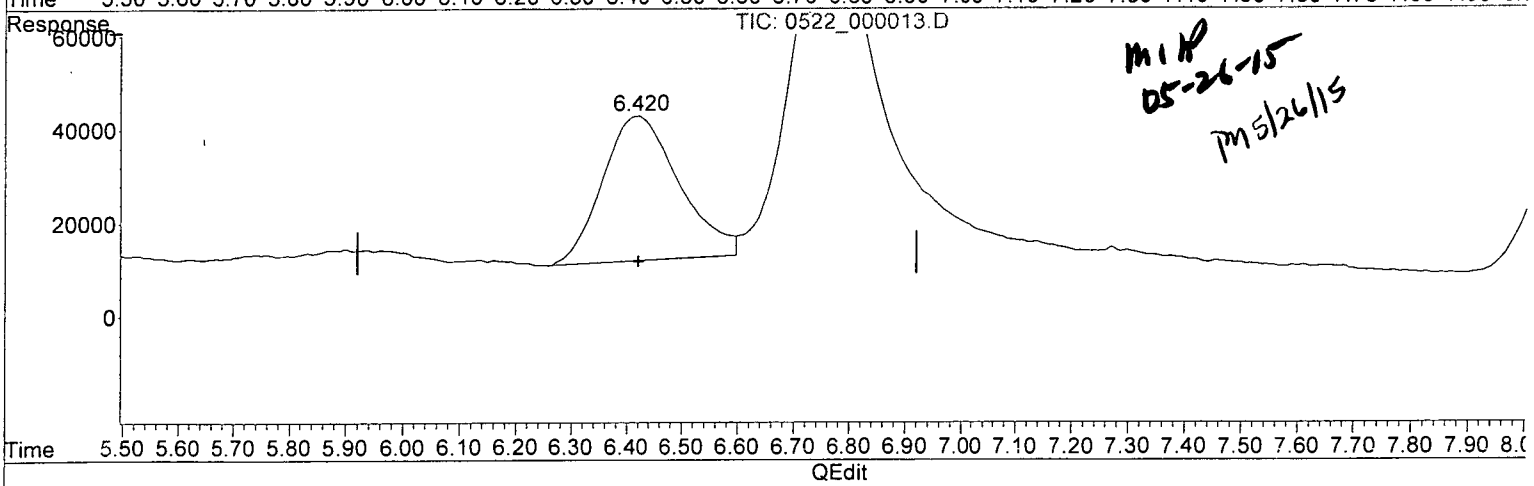
Quantitation Report (Qedit)

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-r





(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.420min 16.678 ppb m

response 30890

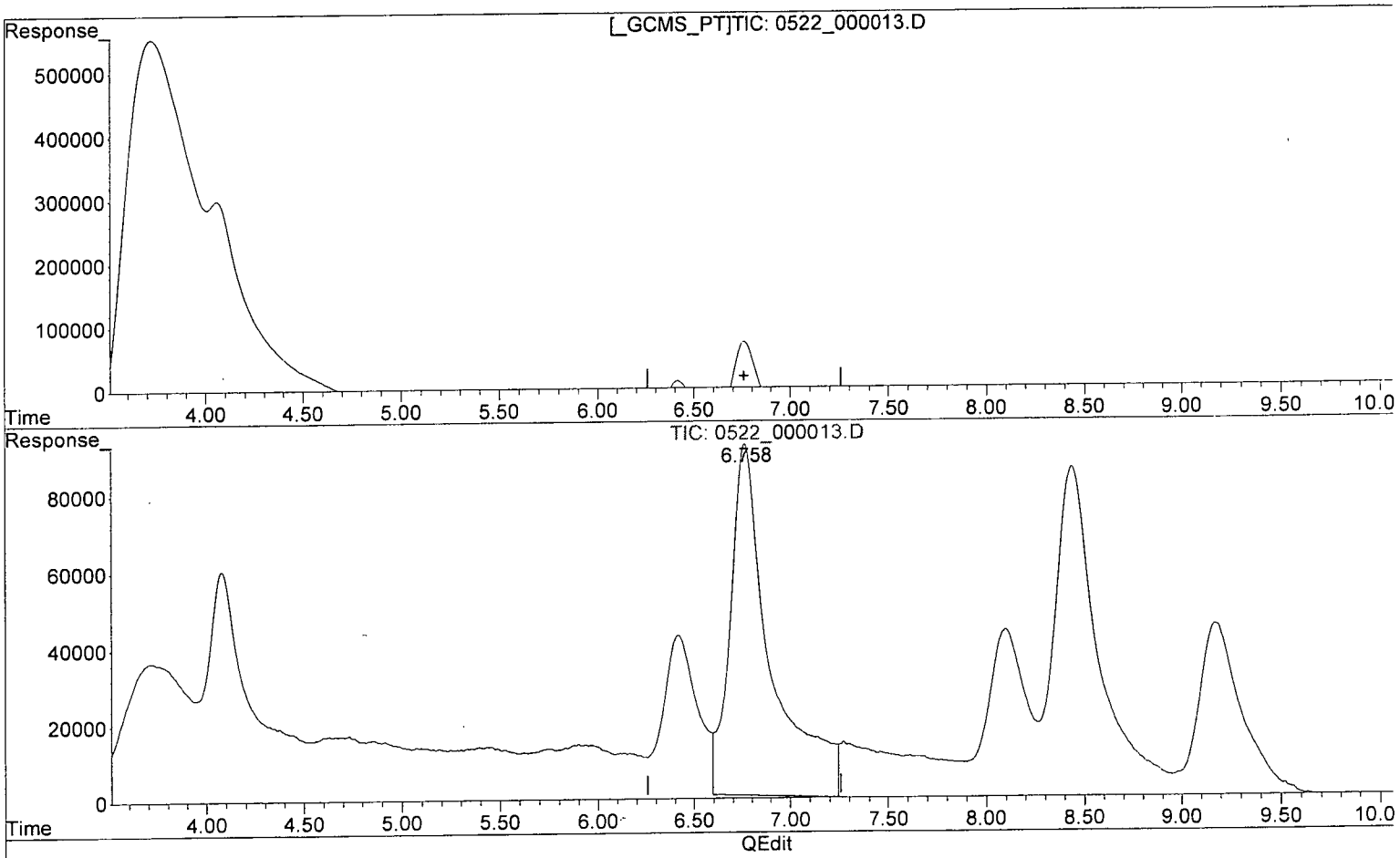
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.759min 20.535 ppb

response 91787

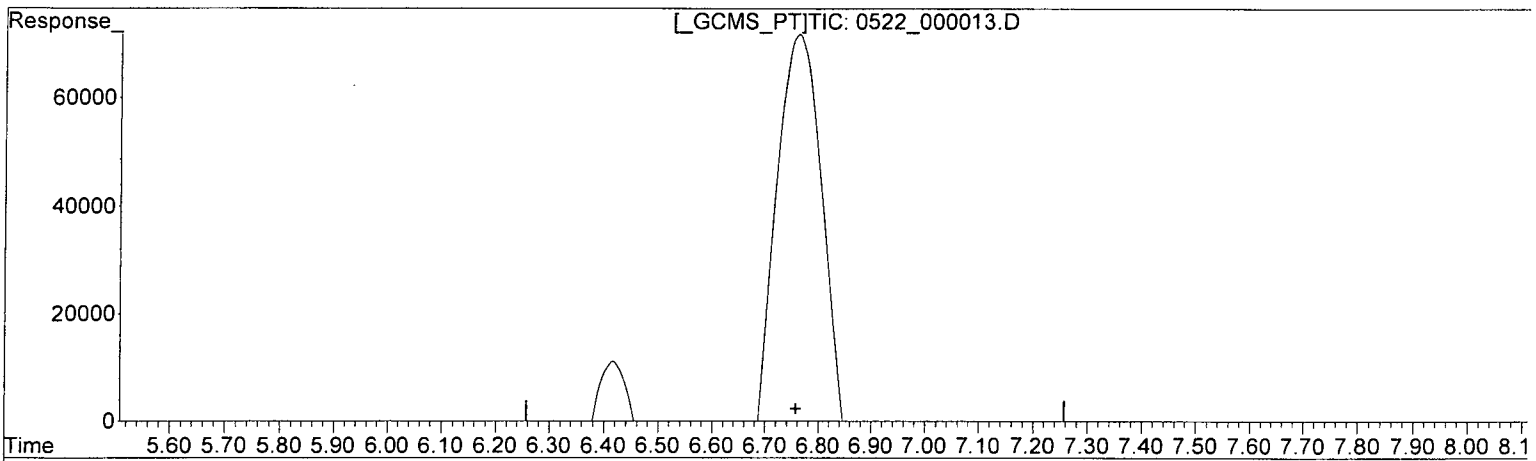
(+) = Expected Retention Time

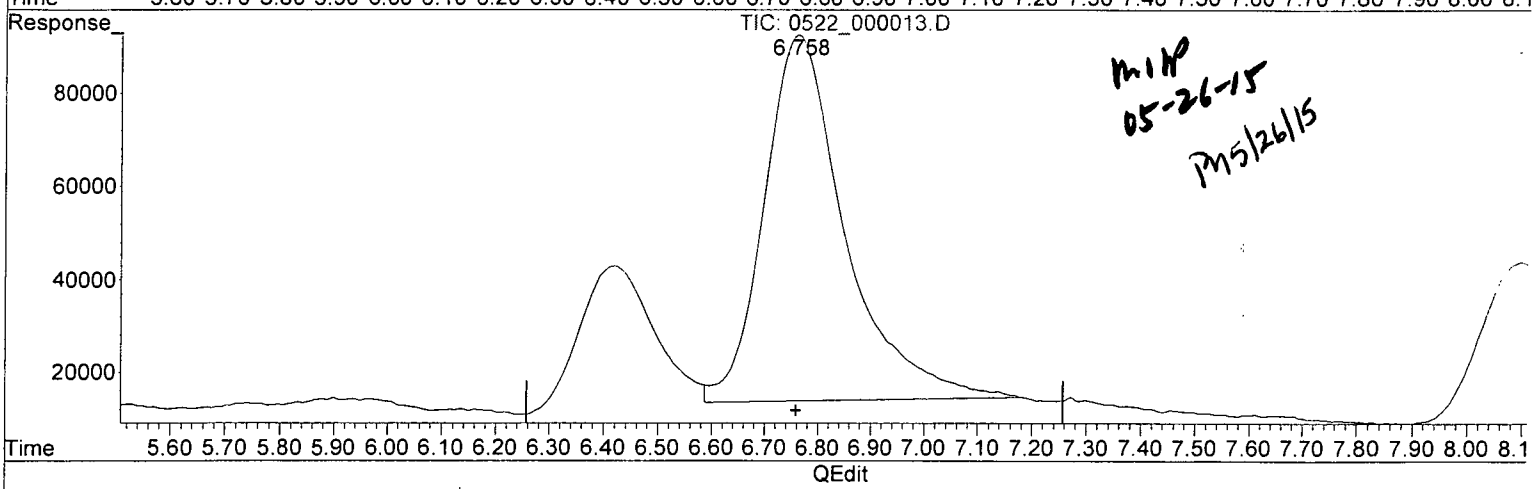
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ





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

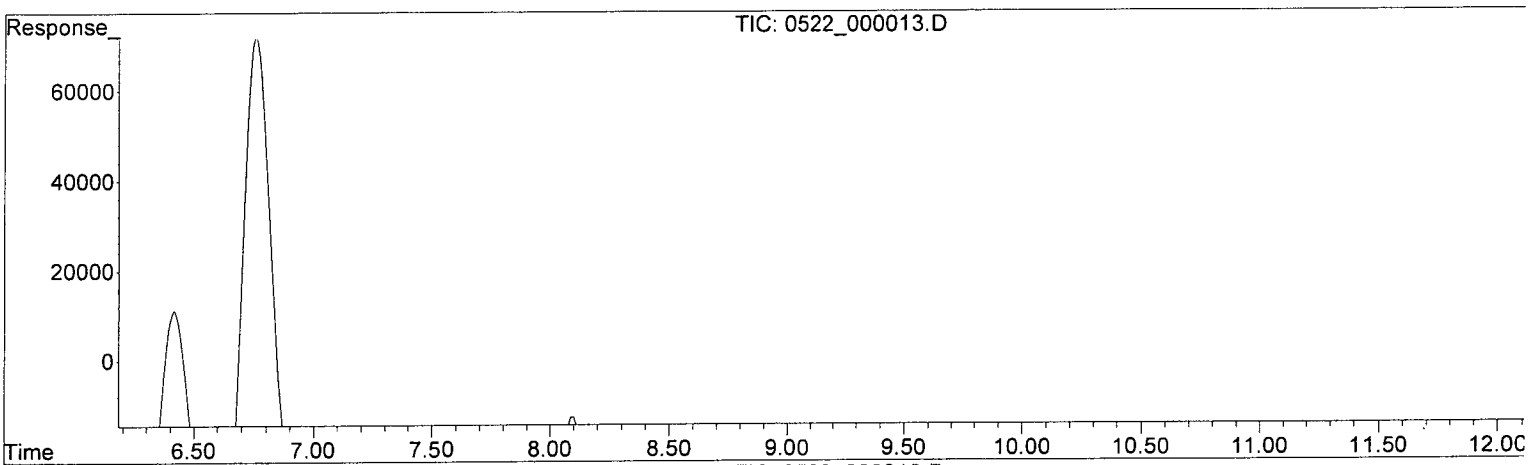
(+) = Expected Retention Time

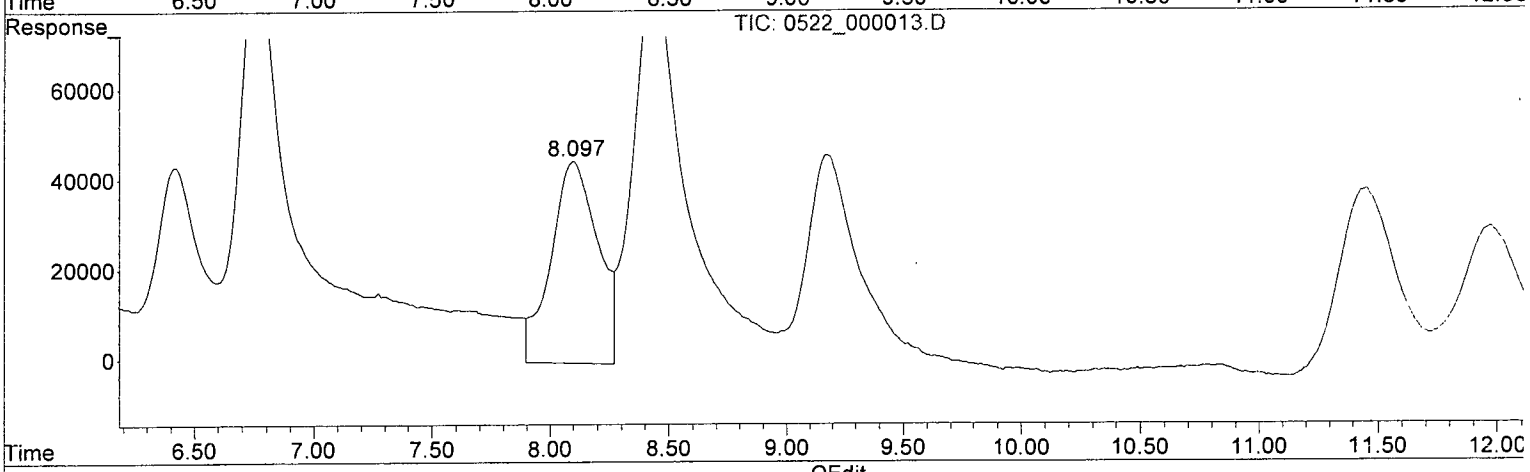
Quantitation Report (Qedit)

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-r





QEdit

(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

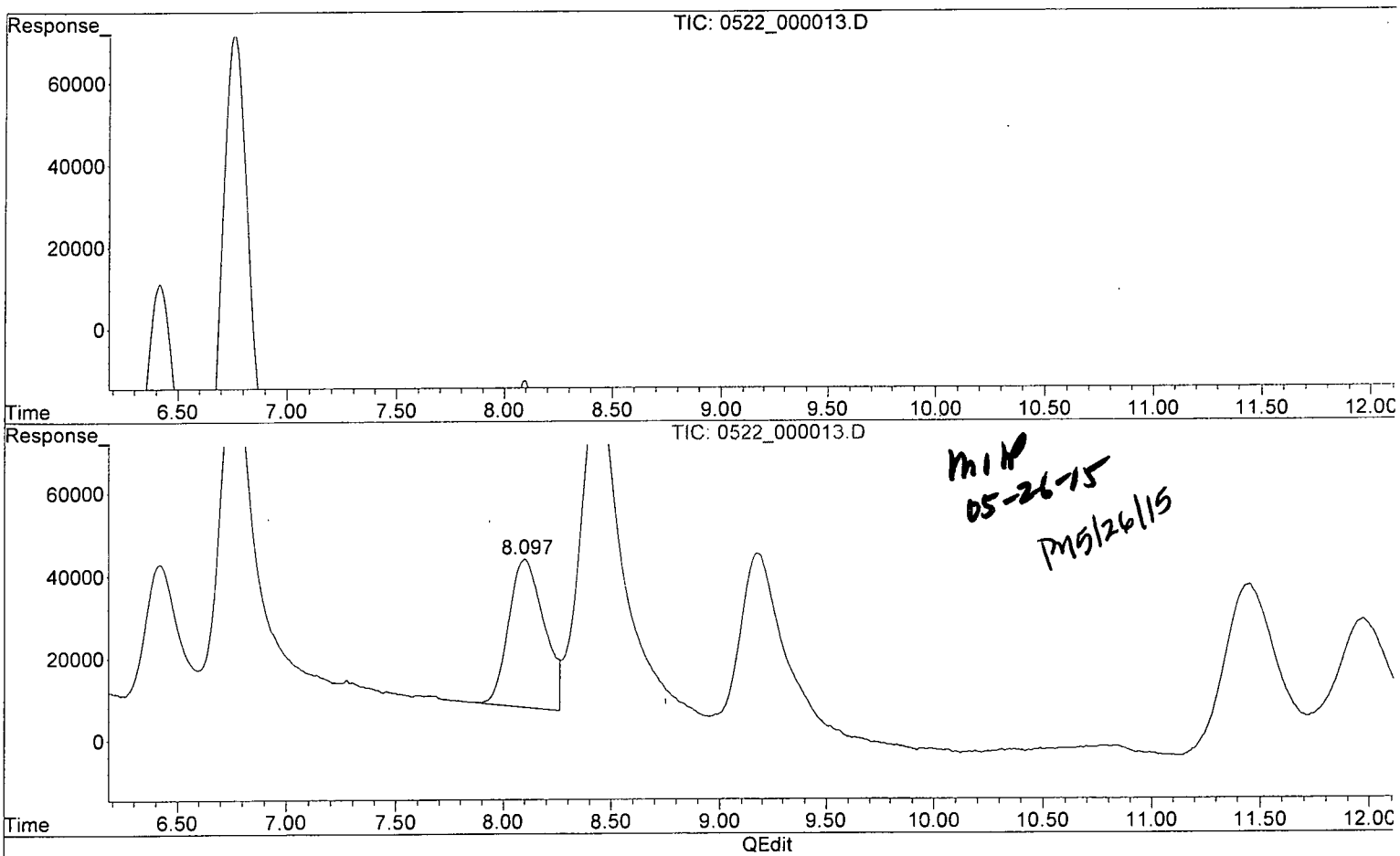
(+) = Expected Retention Time

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



(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

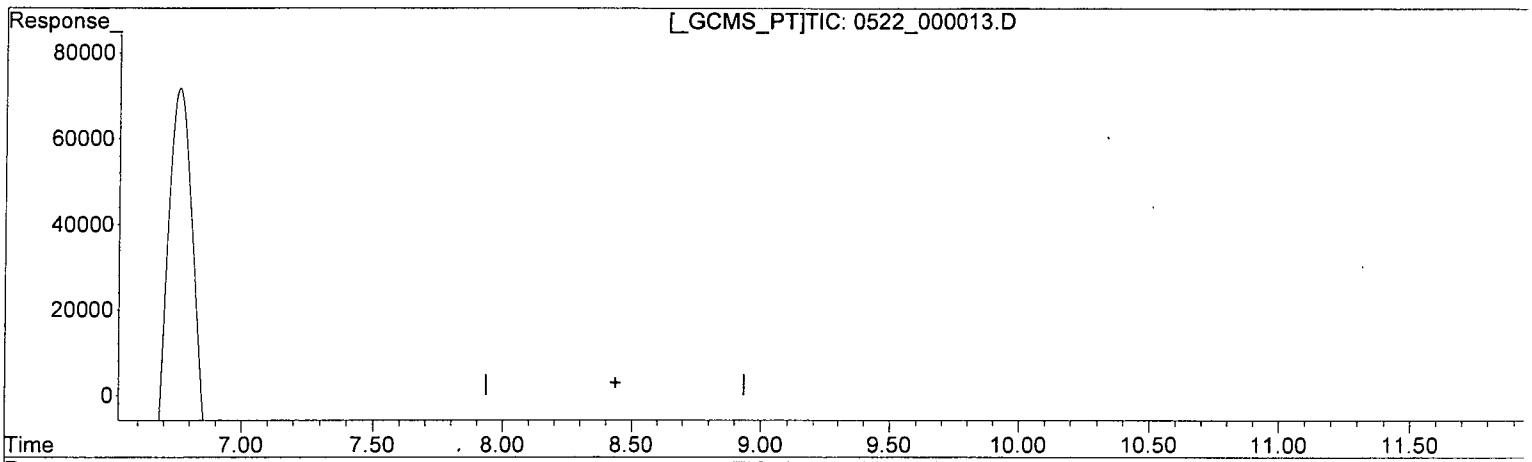
(+) = Expected Retention Time

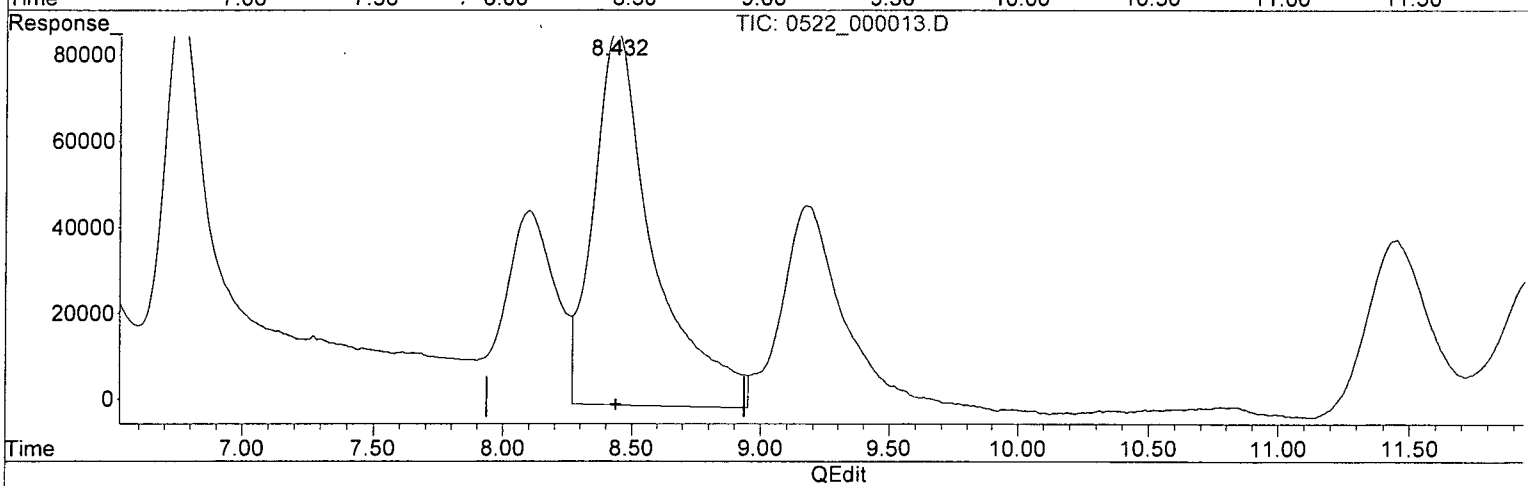
Quantitation Report (Qedit)

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-r





QEdit

(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

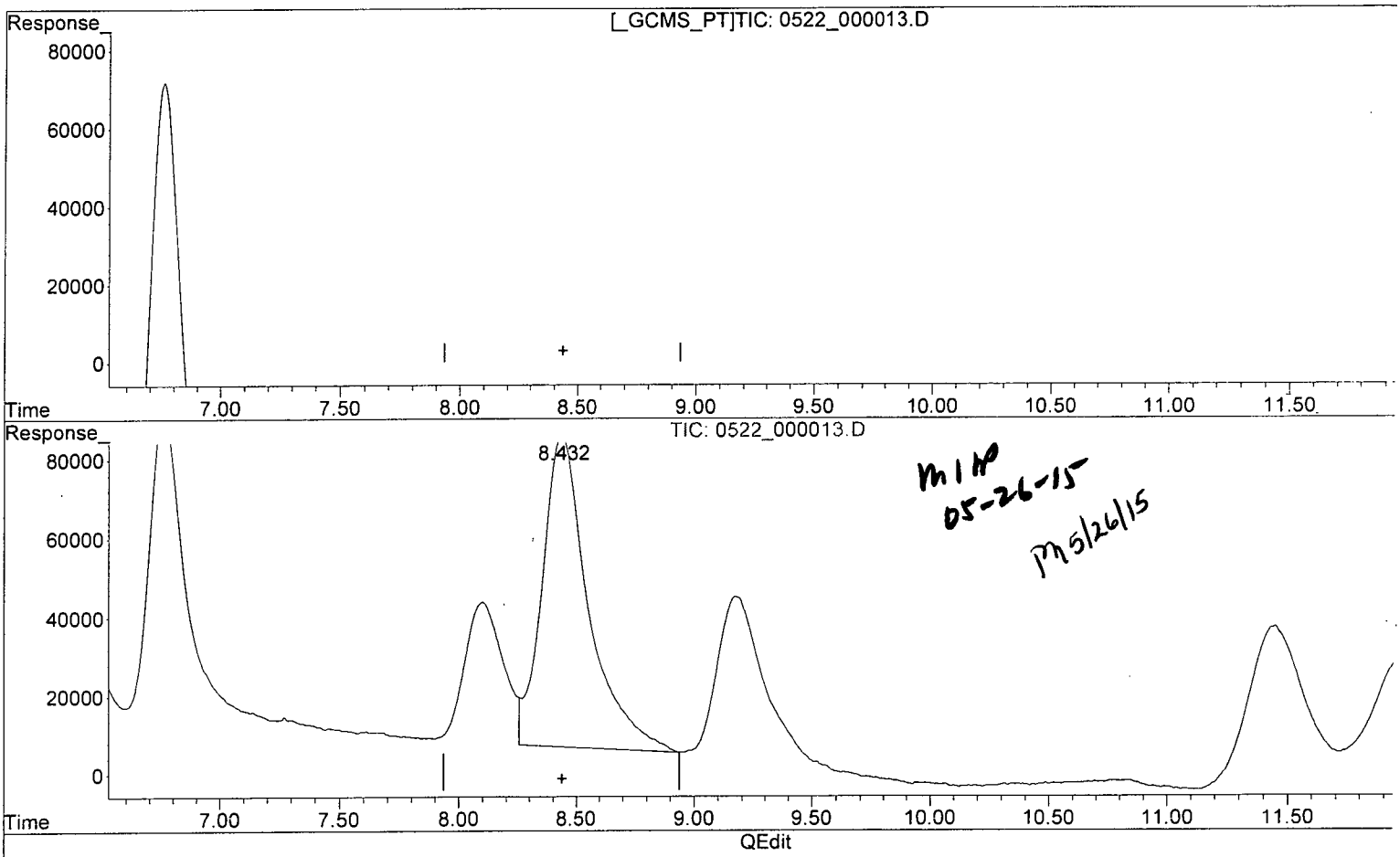
(+) = Expected Retention Time

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-µ



(5) 1,3-DINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(5) 1,3-DINITROBENZENE #2 (TM)

8.432min 17.588 ppb m

response 79097

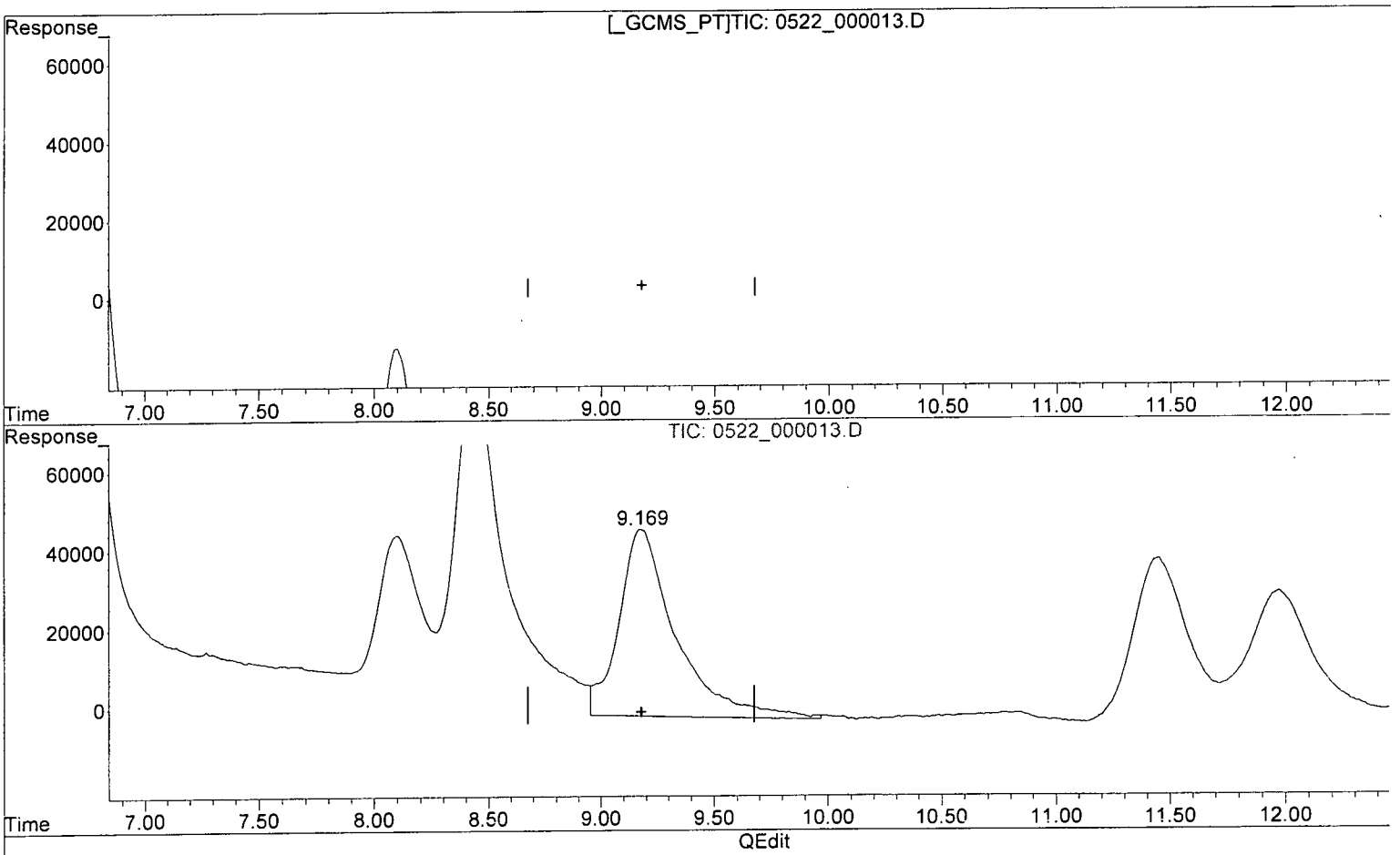
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(6) NITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(6) NITROBENZENE #2 (TM)

9.171min 18.468 ppb

response 47307

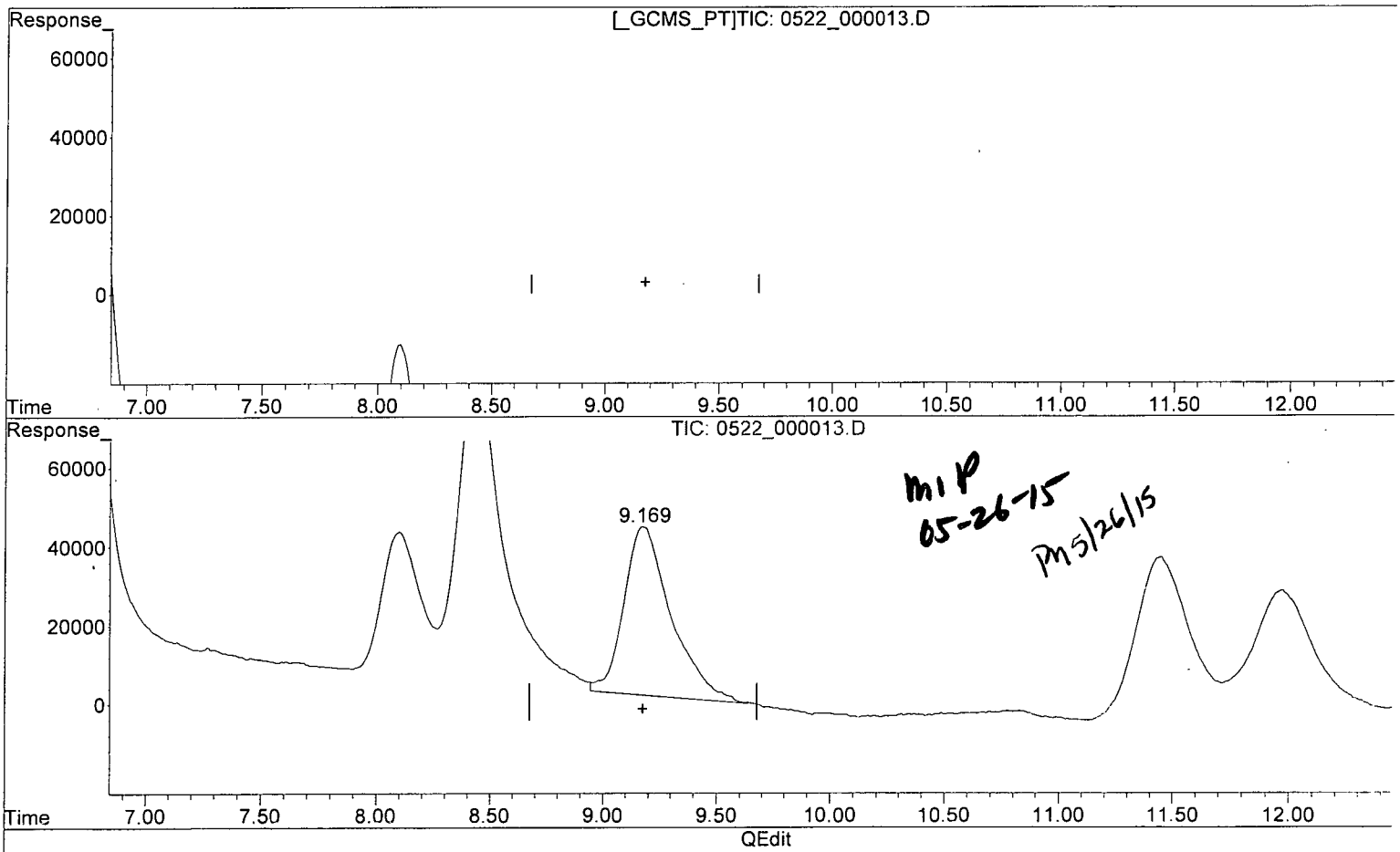
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000013.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 16:51:12
Operator : MP
Sample : 8330MXA_CB 0.020 PPM 05/22/15
Misc :
ALS Vial : 4228 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:11 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(6) NITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(6) NITROBENZENE #2 (TM)

9.169min 16.674 ppb m

response 42712

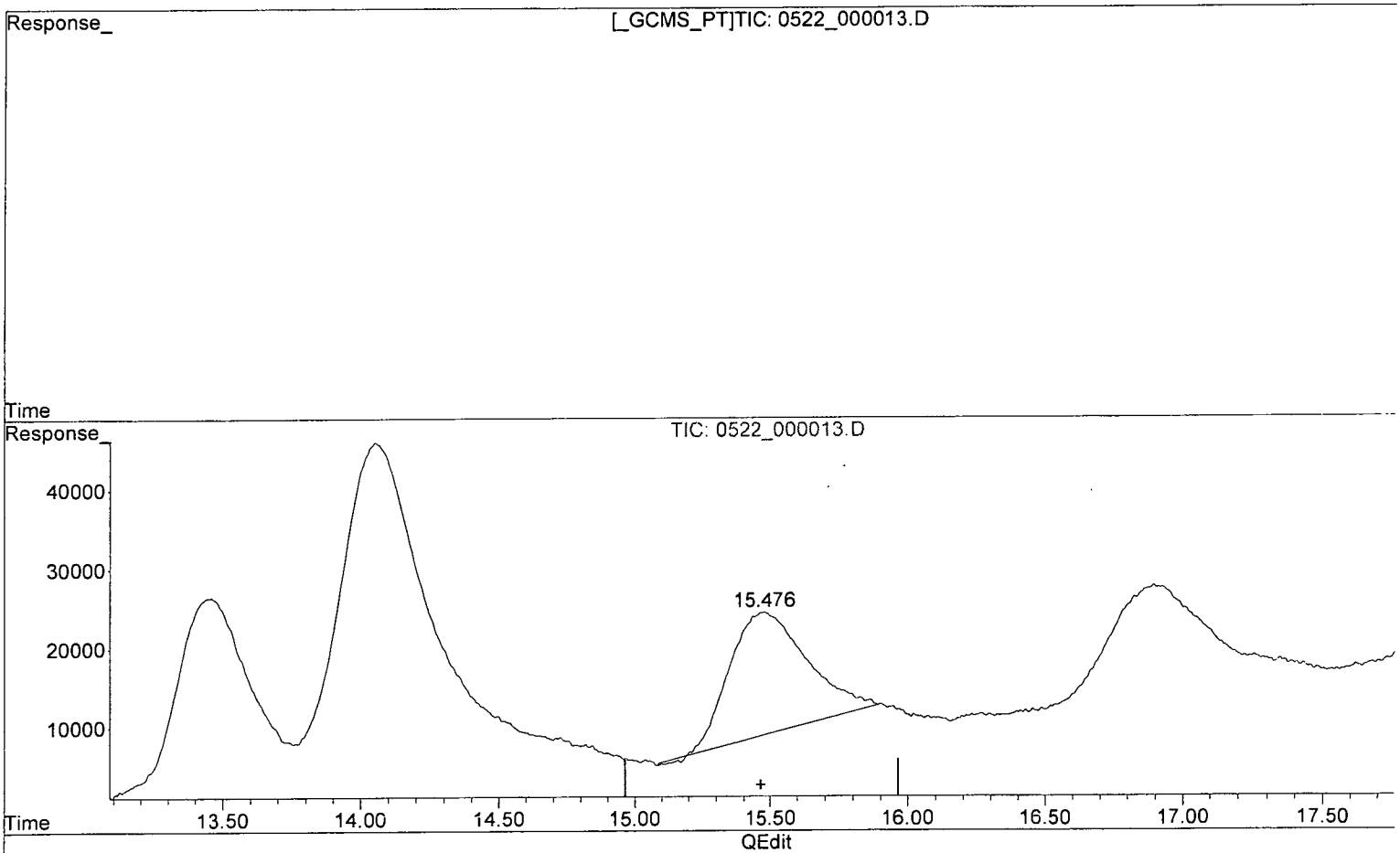
(+) = Expected Retention Time

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-r



(12) 2-NITROTOLUENE (TM)

0.000min 0.000 ppb

response 0

(12) 2-NITROTOLUENE #2 (TM)

15.474min 14.676 ppb

response 15473

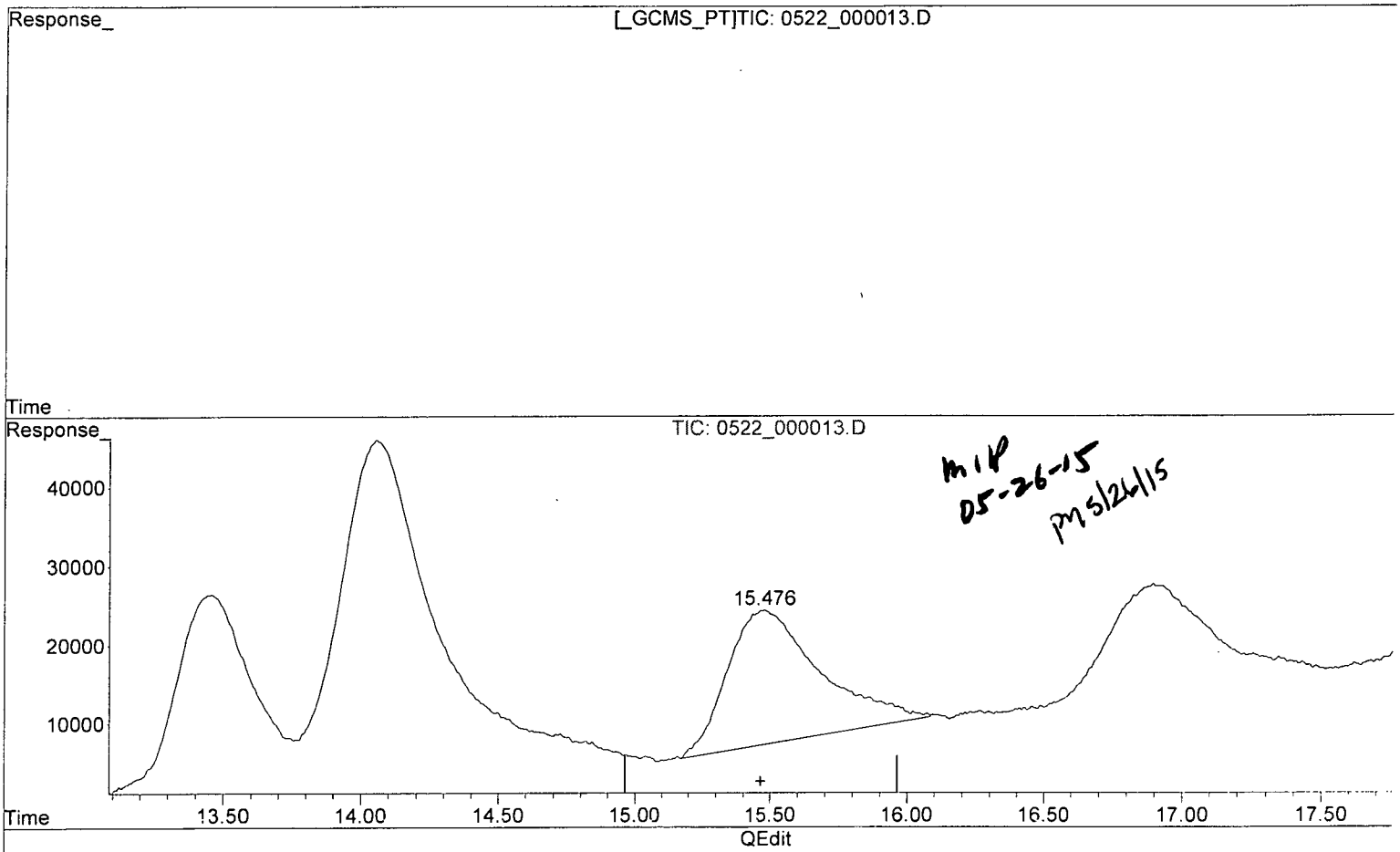
(+) = Expected Retention Time

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-µ



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

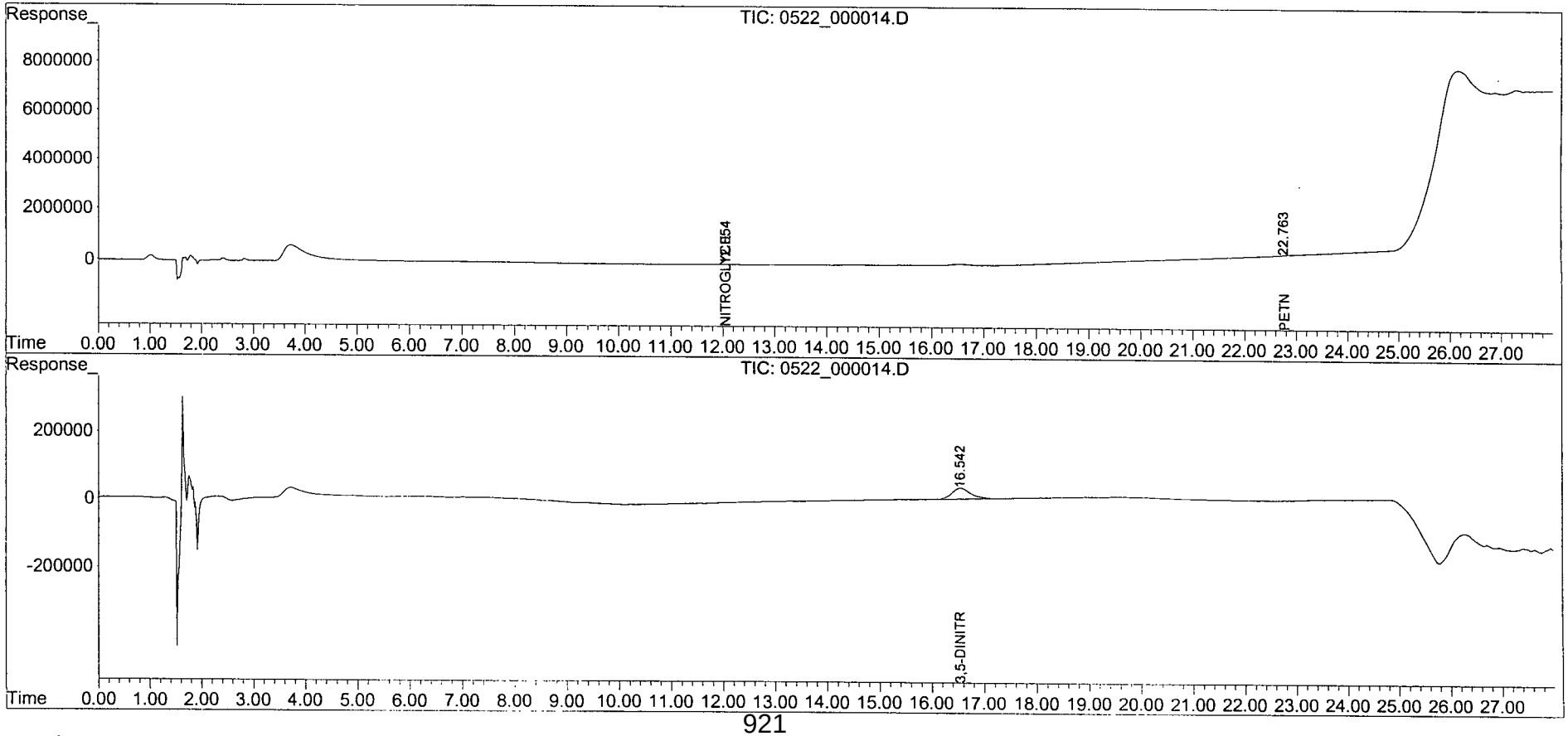
Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
Spiked Amount 62.500			Recovery	=	0.00%	0.00%
Target Compounds						
1) TM HMX	0.000	0.000	0	0	N.D.	N.D.
2) TM RDX	0.000	0.000	0	0	N.D. d	N.D. d
3) TM 1,3,5-TRI...	0.000	0.000	0	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

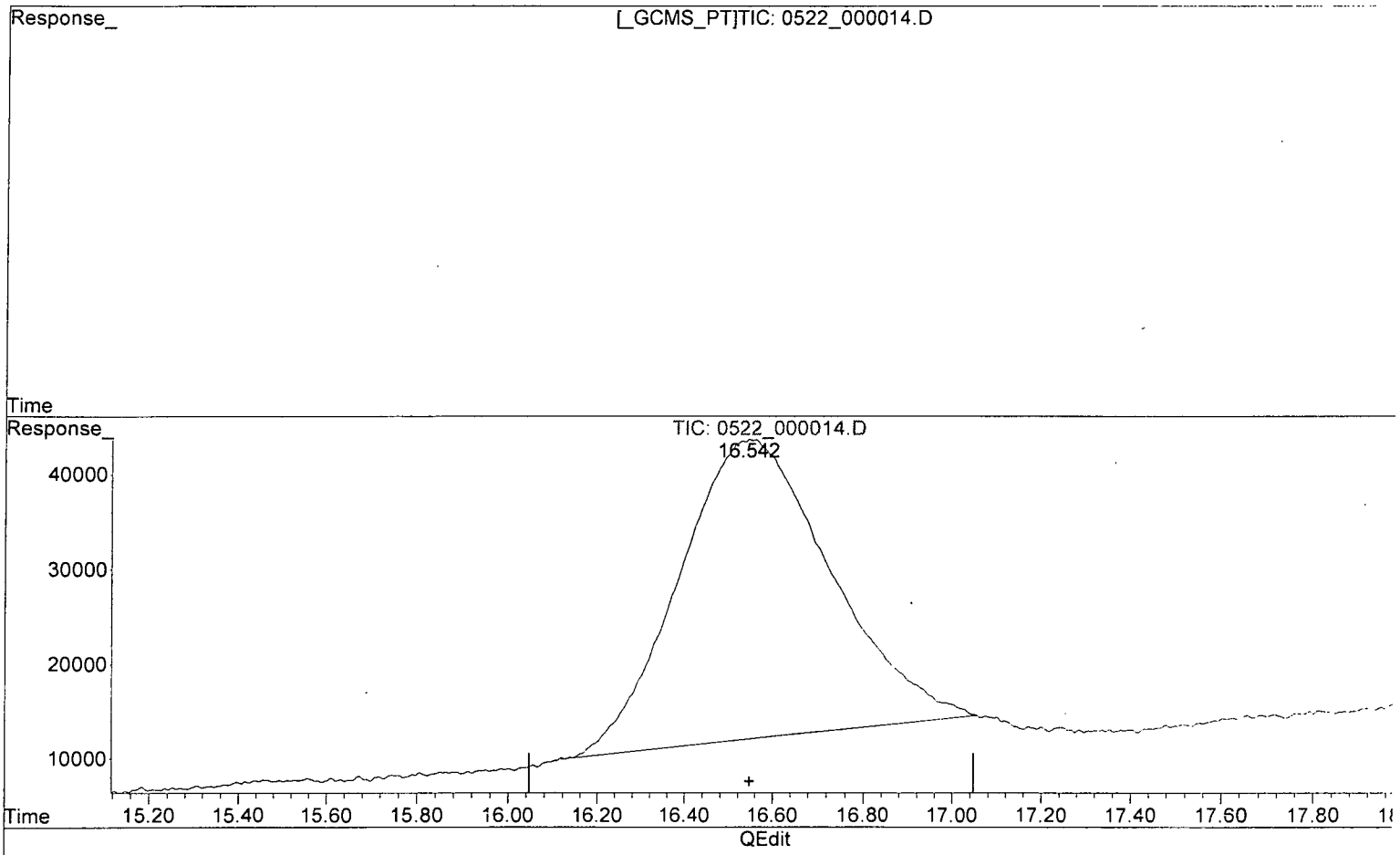


Quantitation Report (Qedit)

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

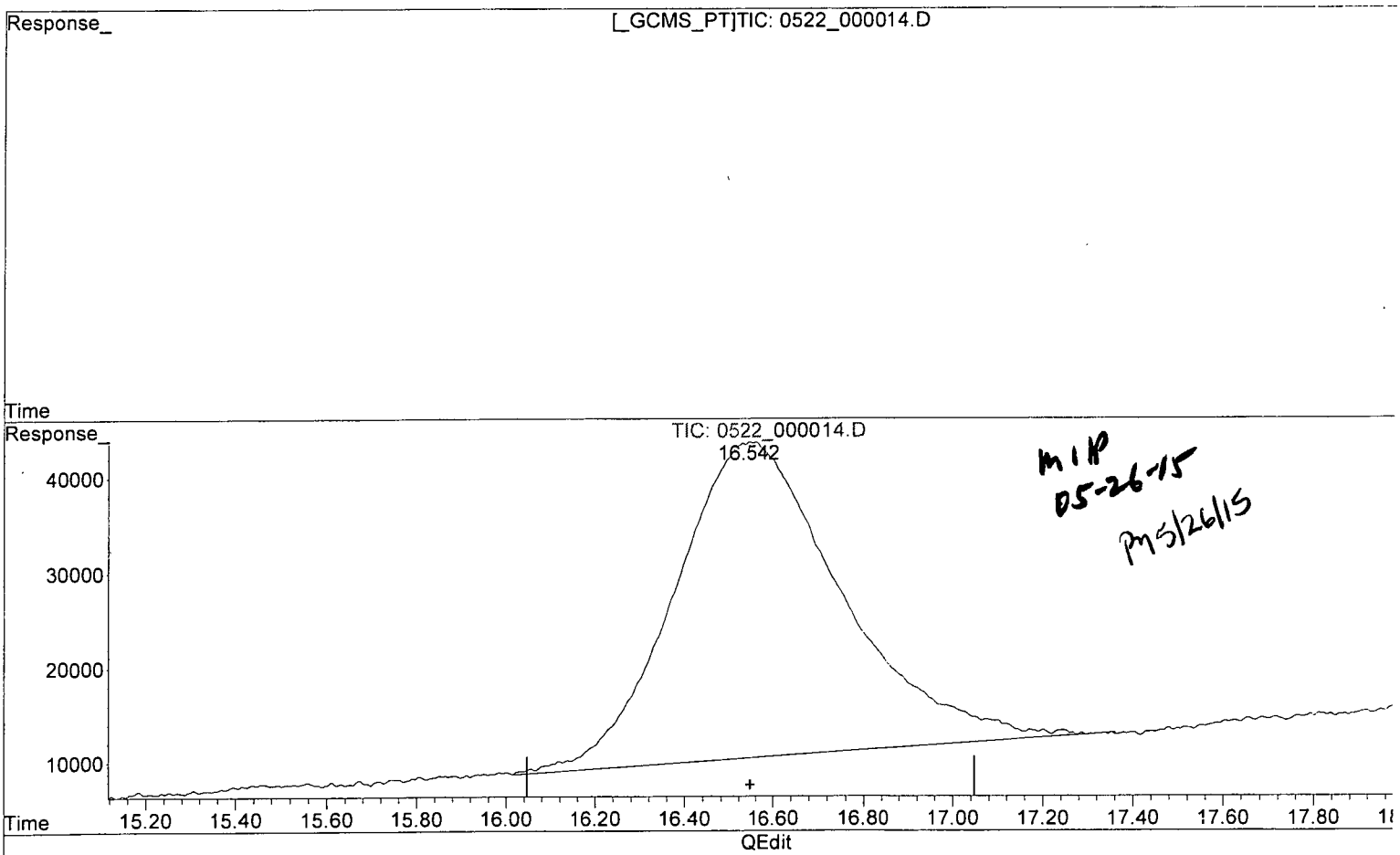
(+) = Expected Retention Time

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-



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

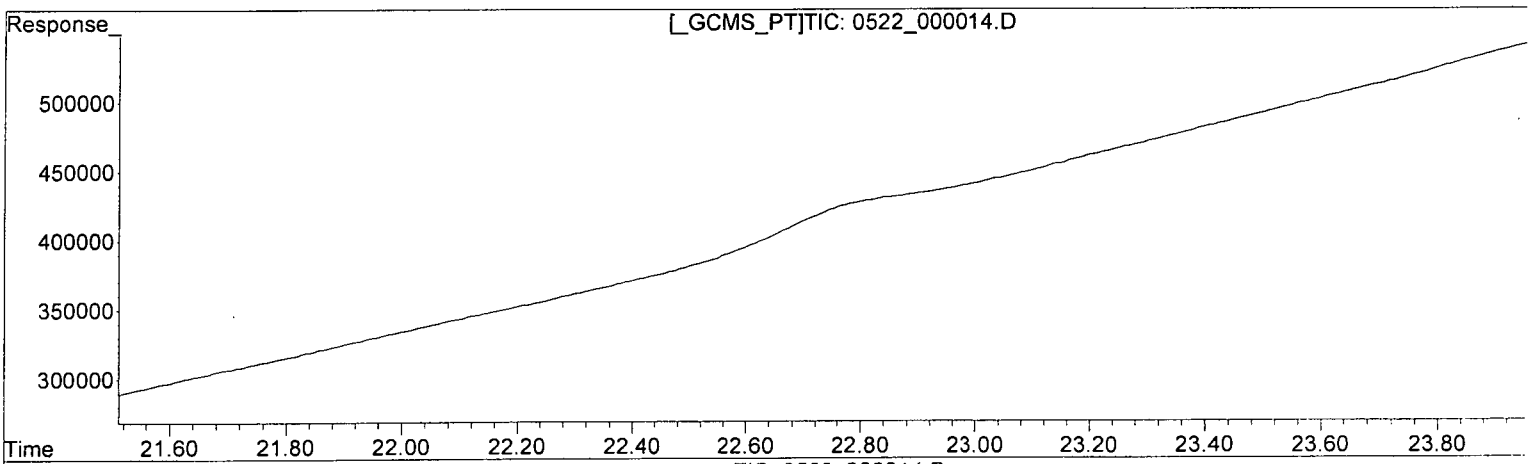
(+) = Expected Retention Time

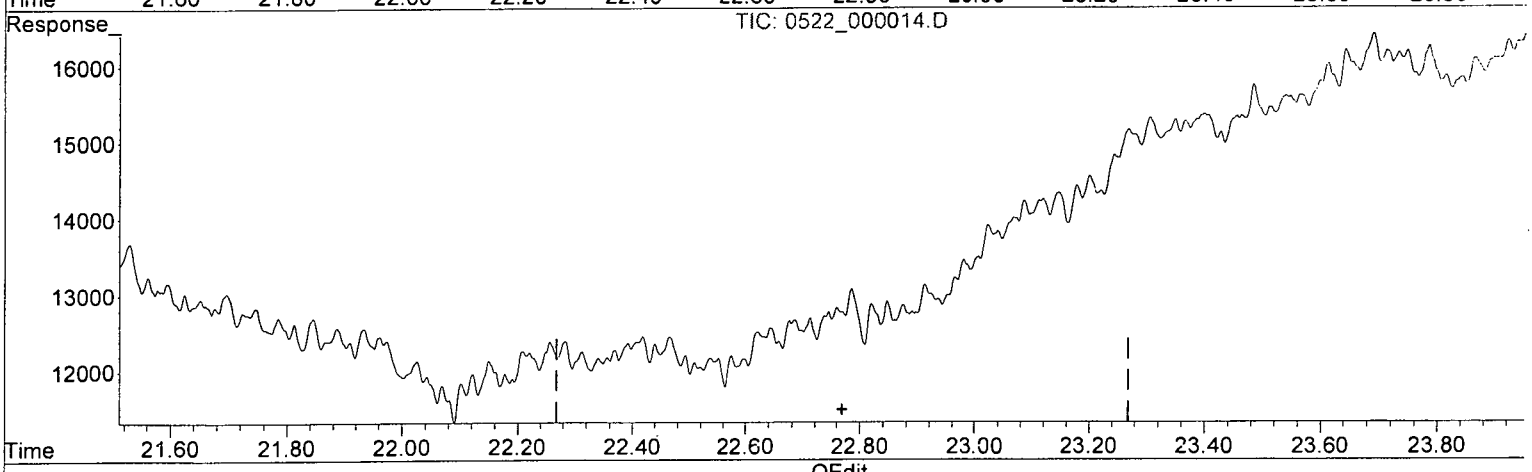
Quantitation Report (Qedit)

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-µ





QEdit

(18) PETN (TM)

0.000min 0.000 ppb

response 0

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

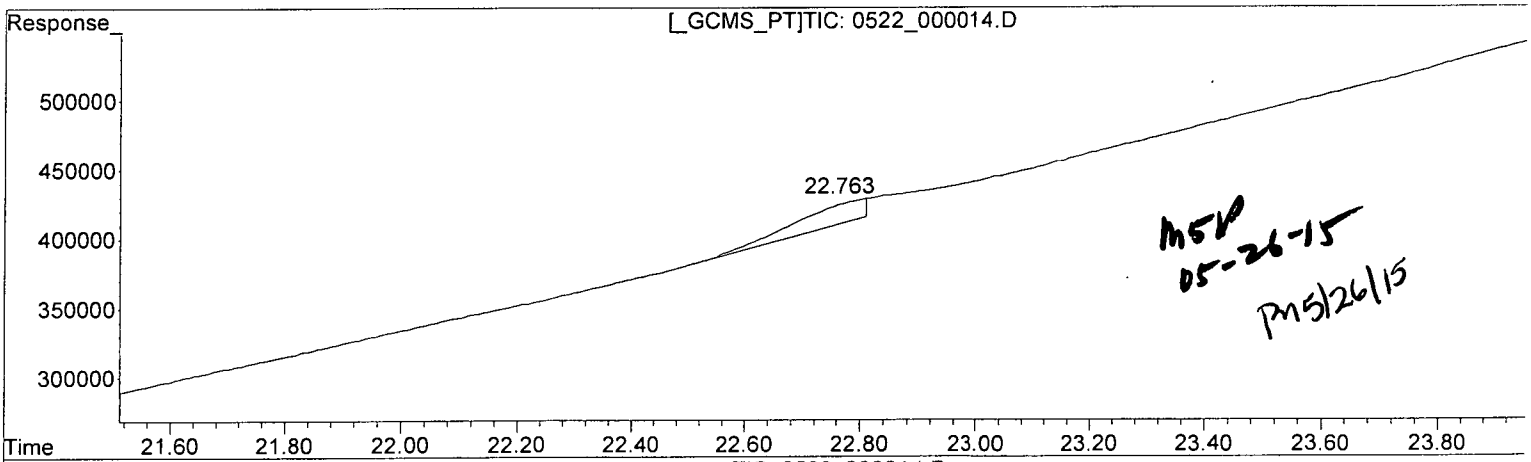
(+) = Expected Retention Time

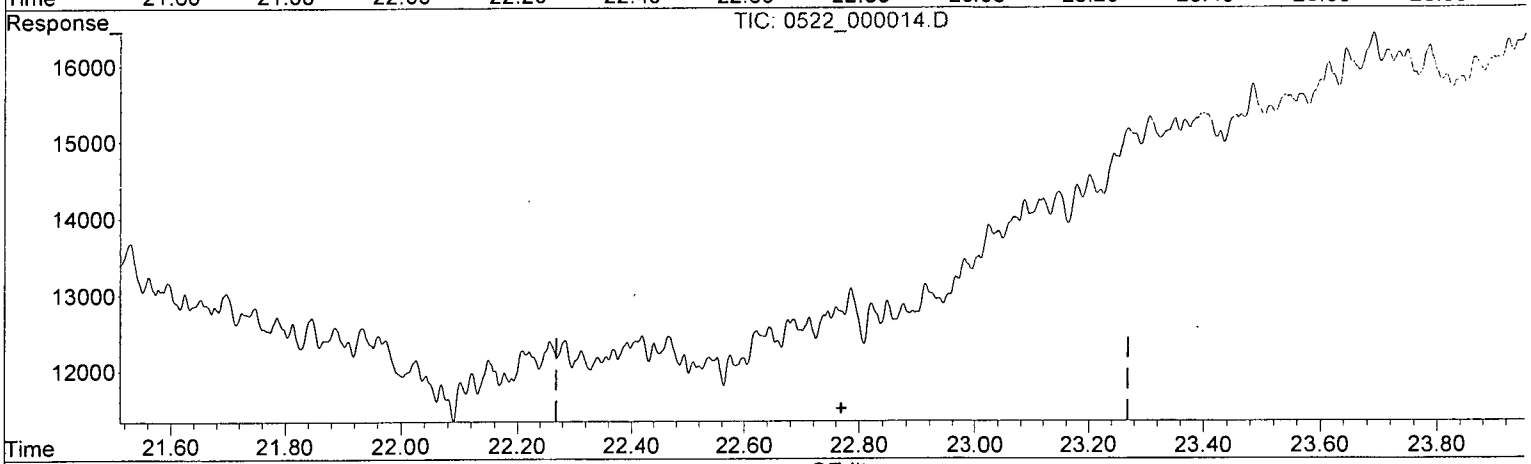
Quantitation Report (Qedit)

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-µ





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.

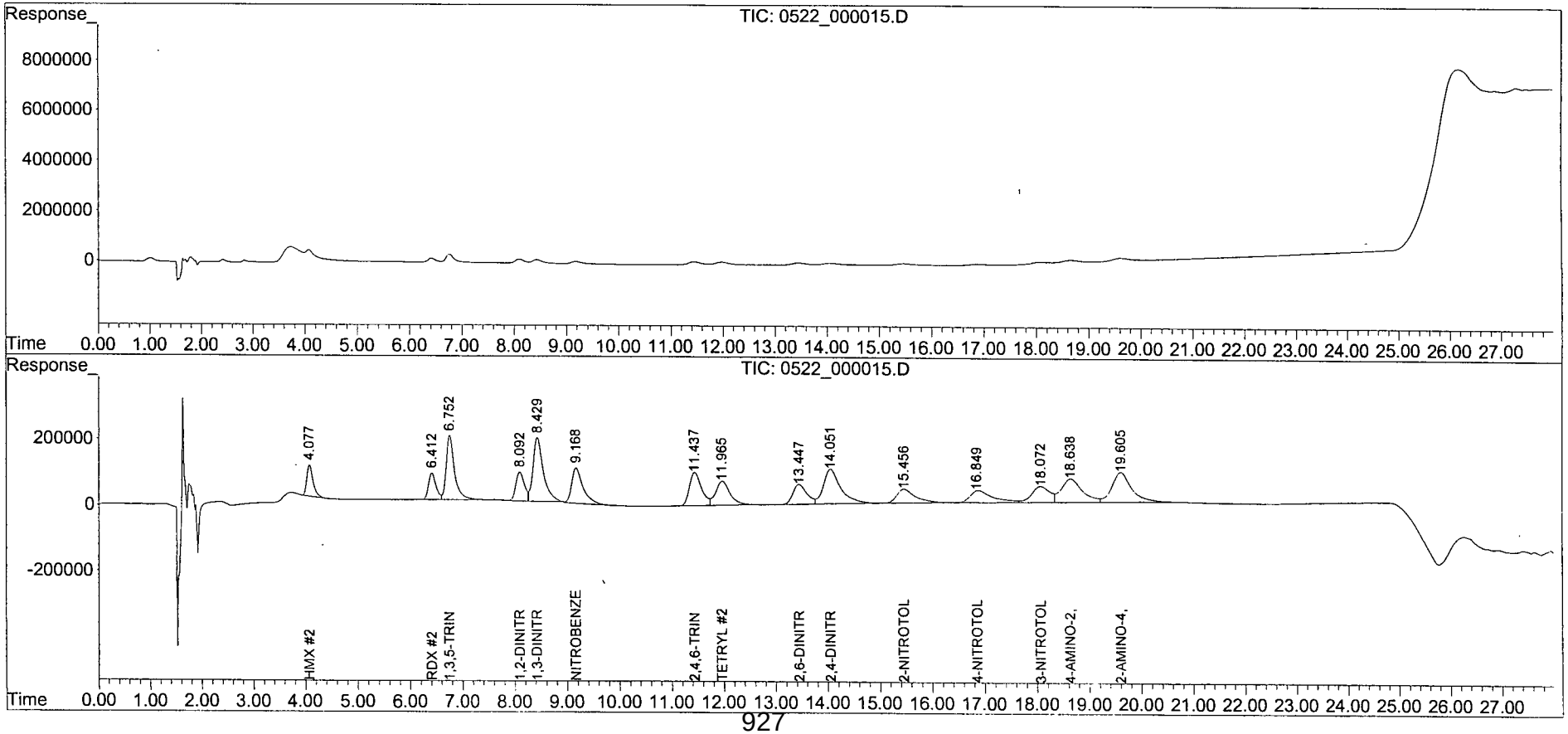
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

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

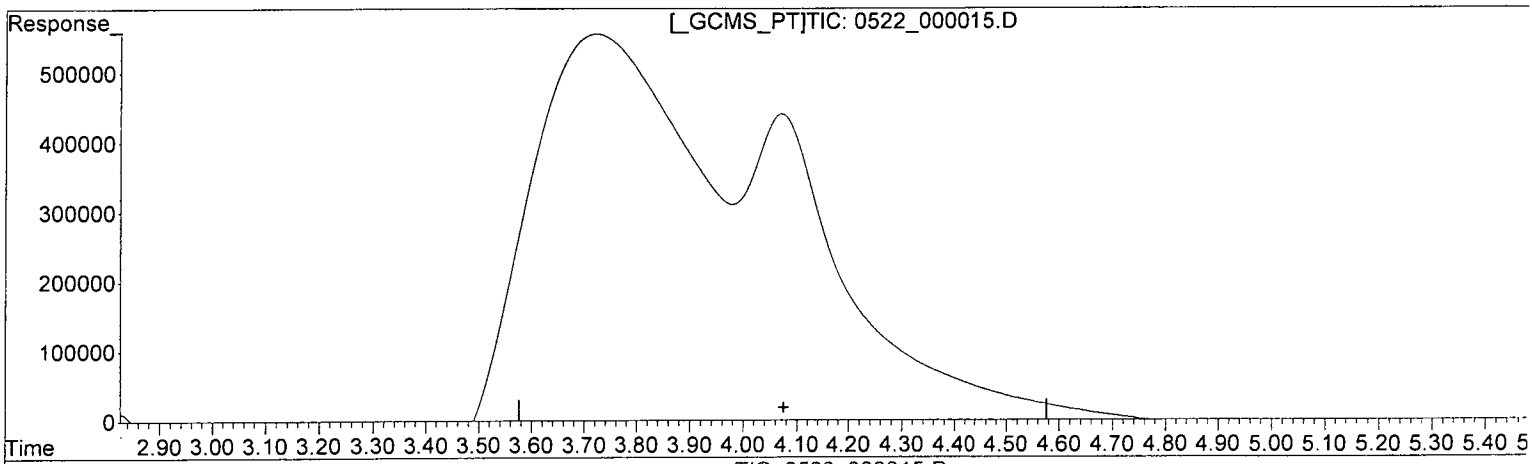


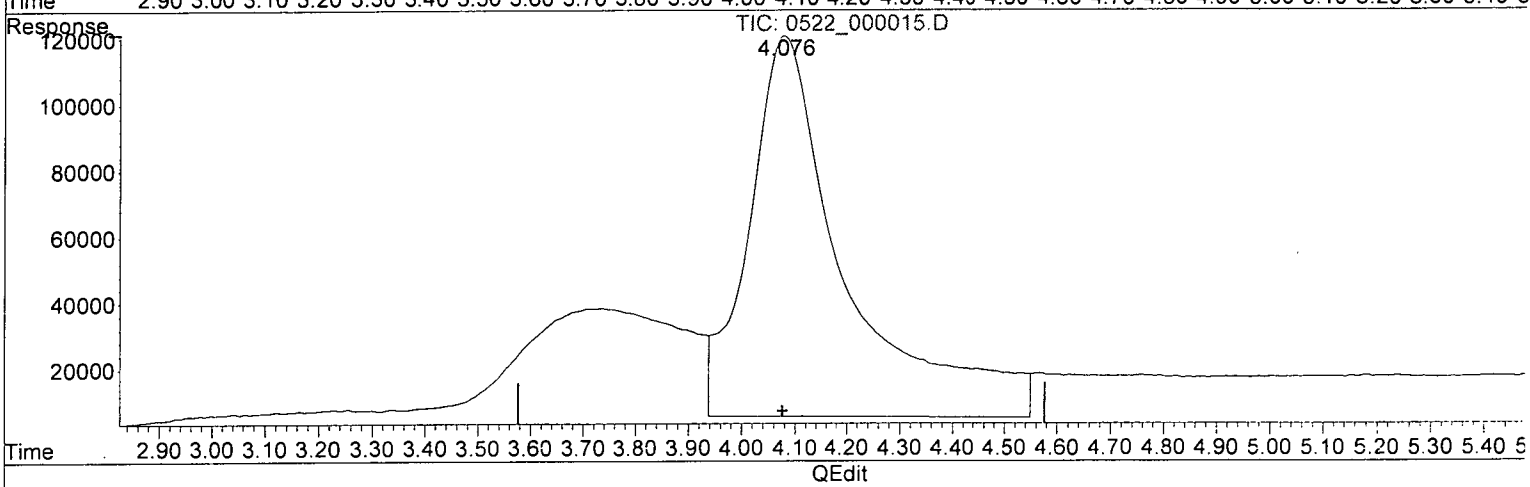
Quantitation Report (Qedit)

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-r





(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.077min 54.675 ppb

response 114973

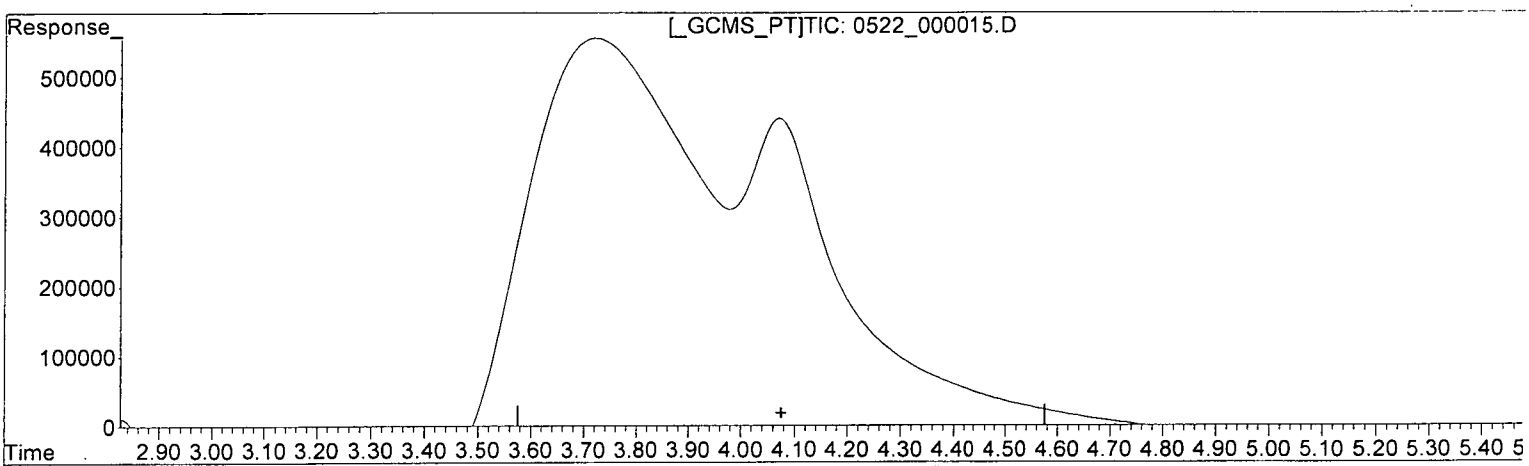
(+) = Expected Retention Time

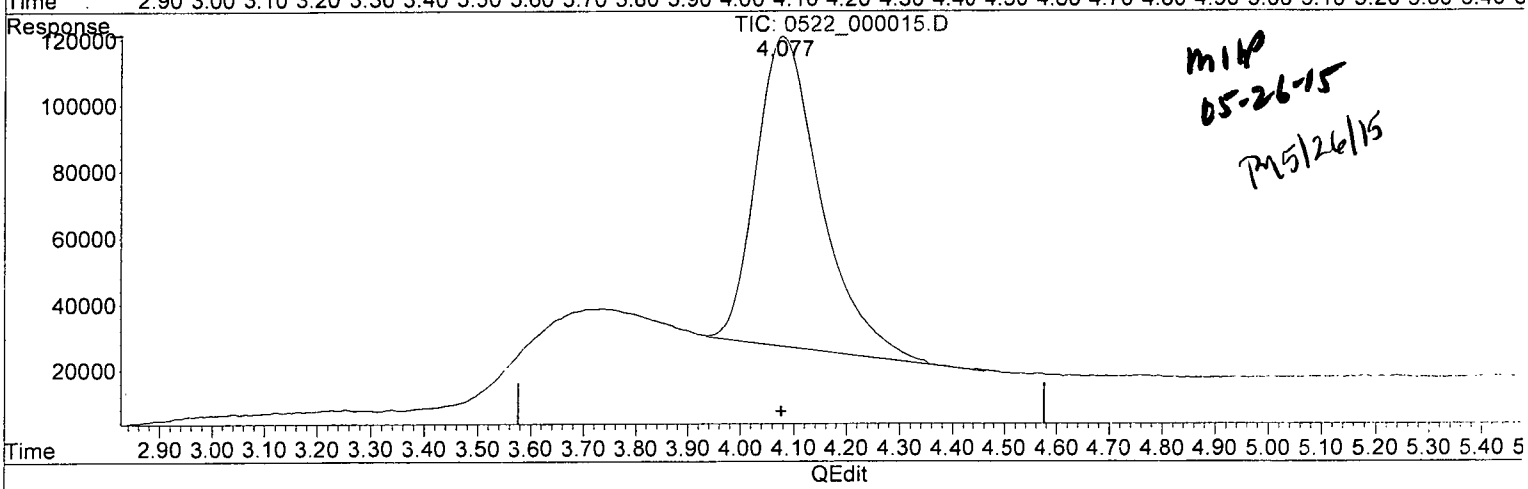
Quantitation Report (Qedit)

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-





MHP 05-26-15

PM 5/26/15

QEdit

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.077min 44.514 ppb m

response 93606

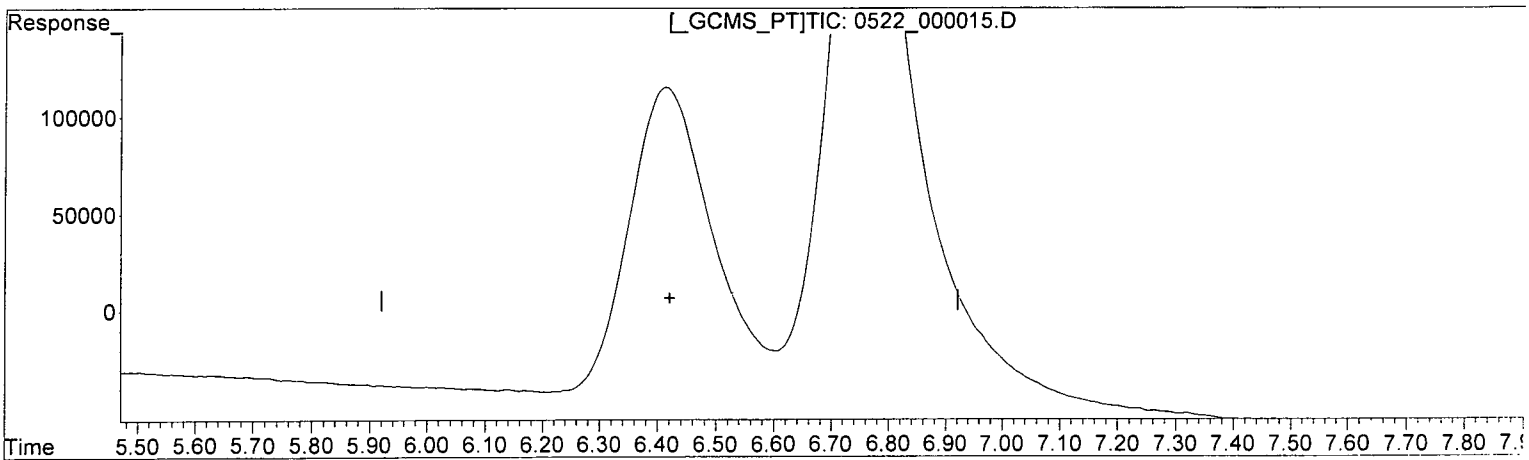
(+) = Expected Retention Time

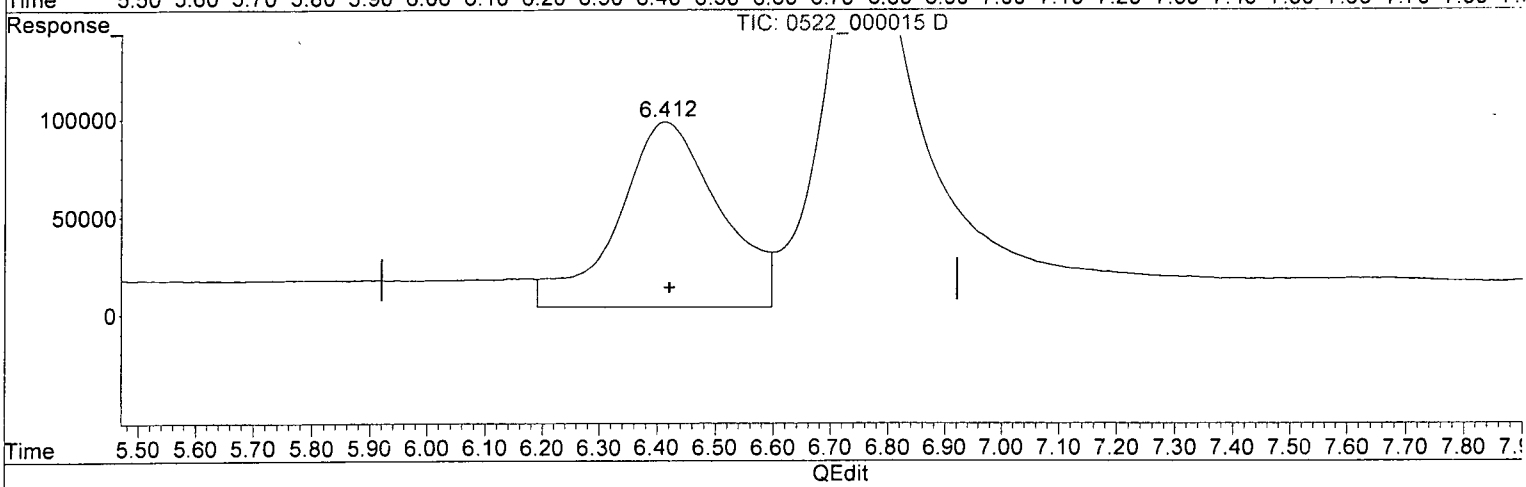
Quantitation Report (Qedit)

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

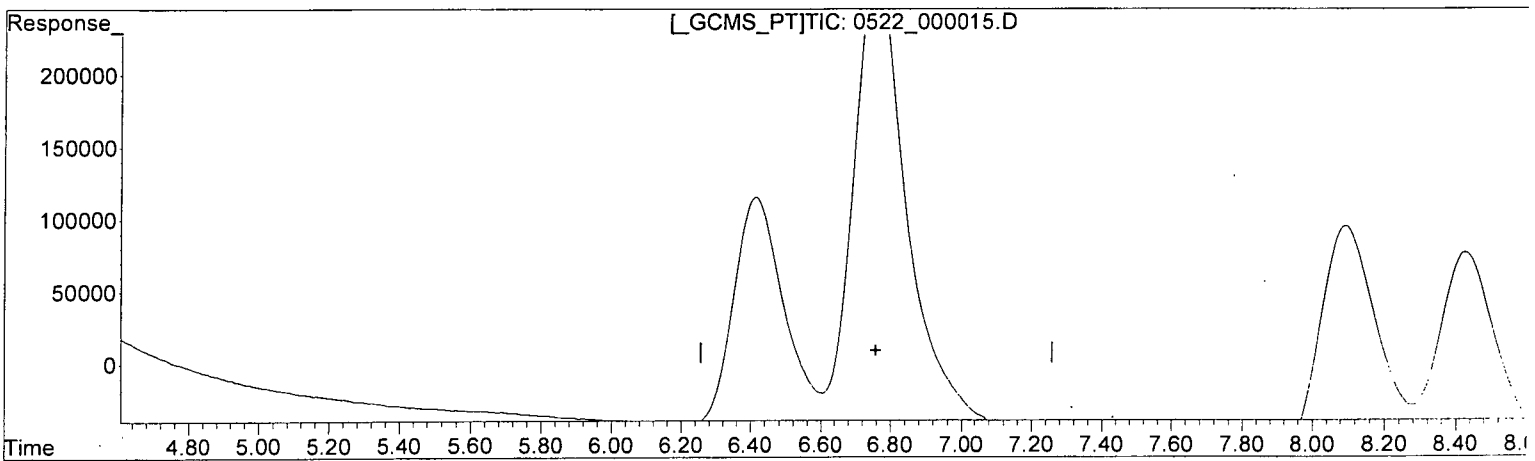
(+) = Expected Retention Time

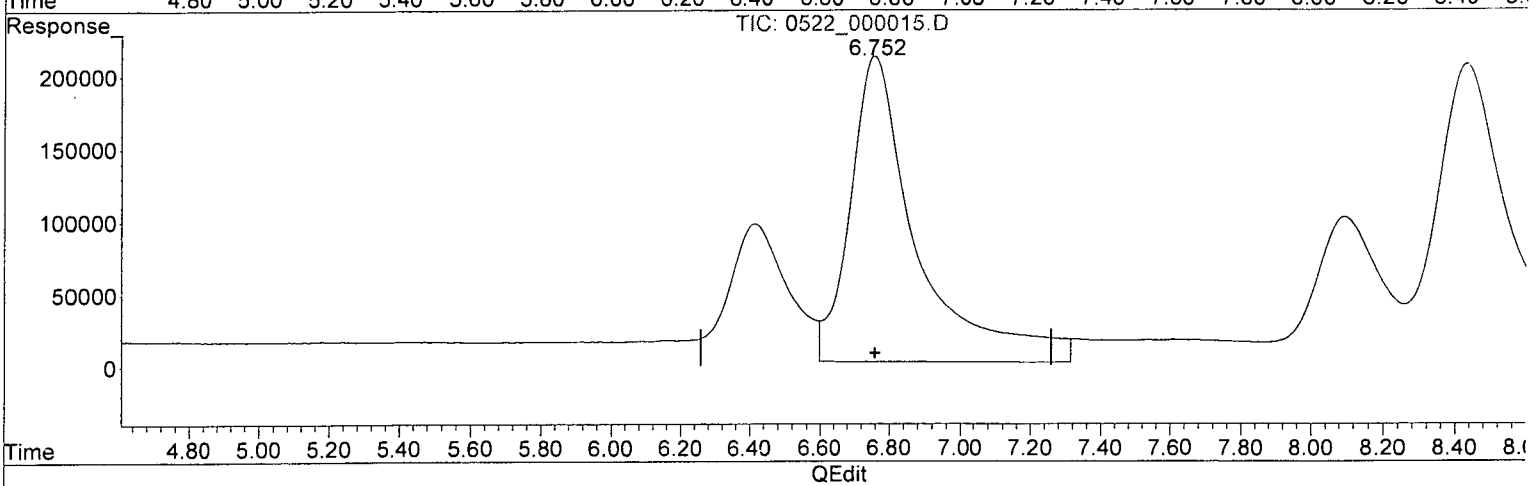
Quantitation Report (Qedit)

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-





(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

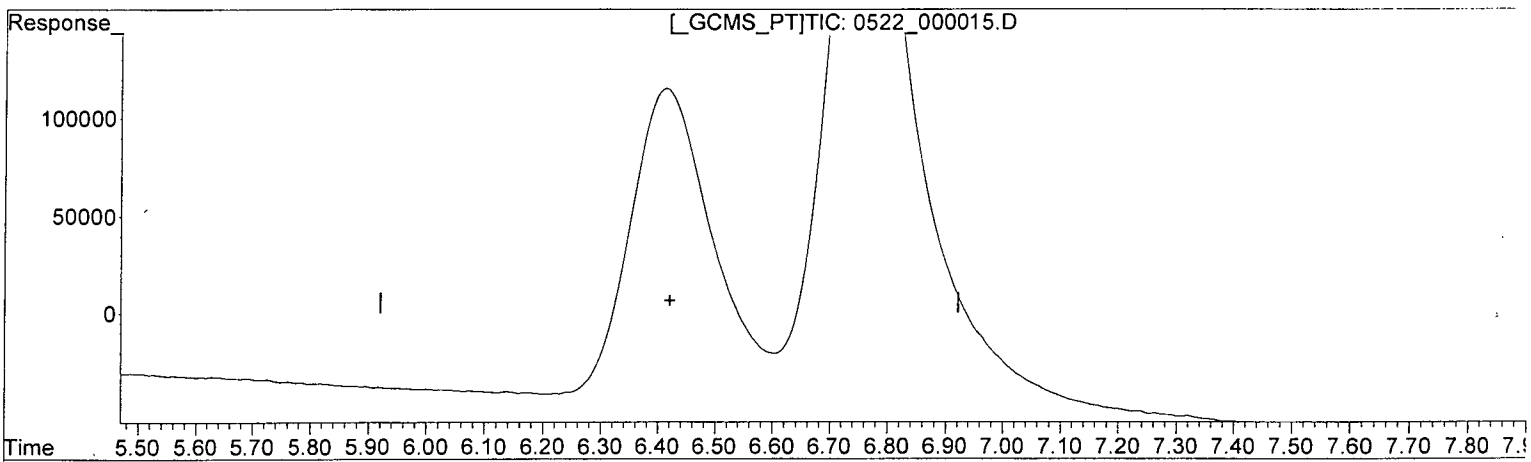
(+) = Expected Retention Time

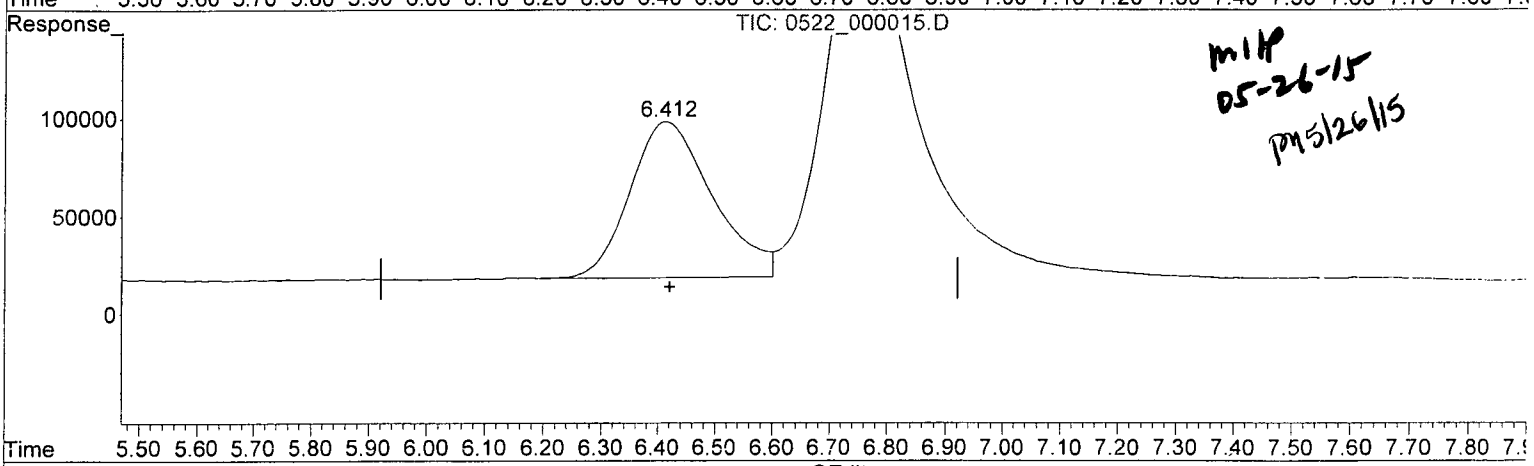
Quantitation Report (Qedit)

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-





MHP 05-26-15 pm 5/26/15

(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.412min 43.213 ppb m

response 80036

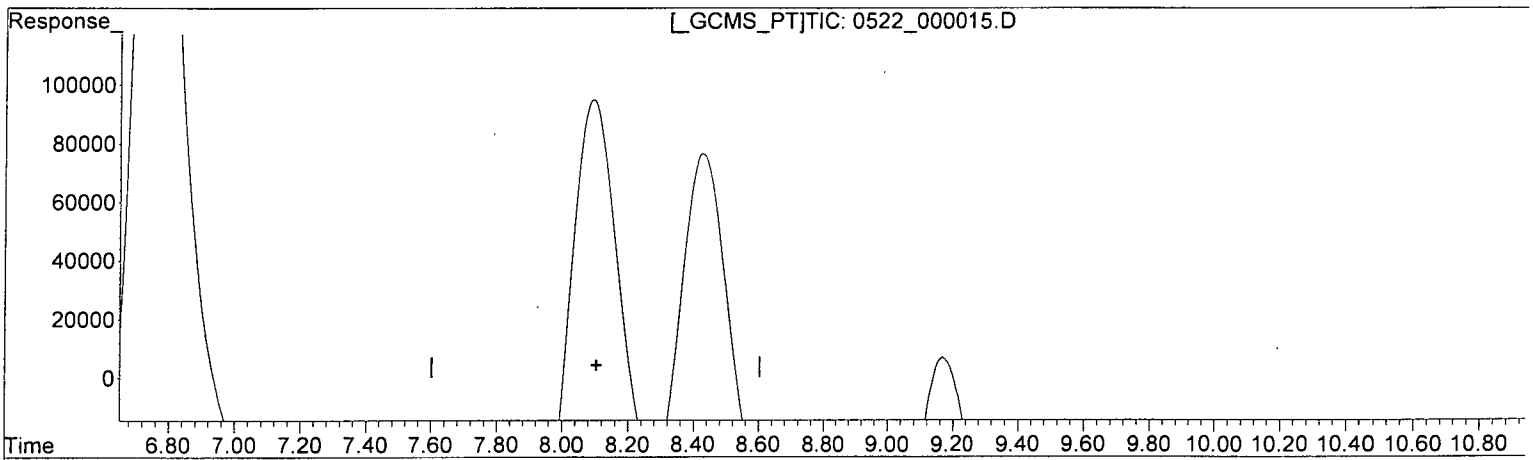
(+) = Expected Retention Time

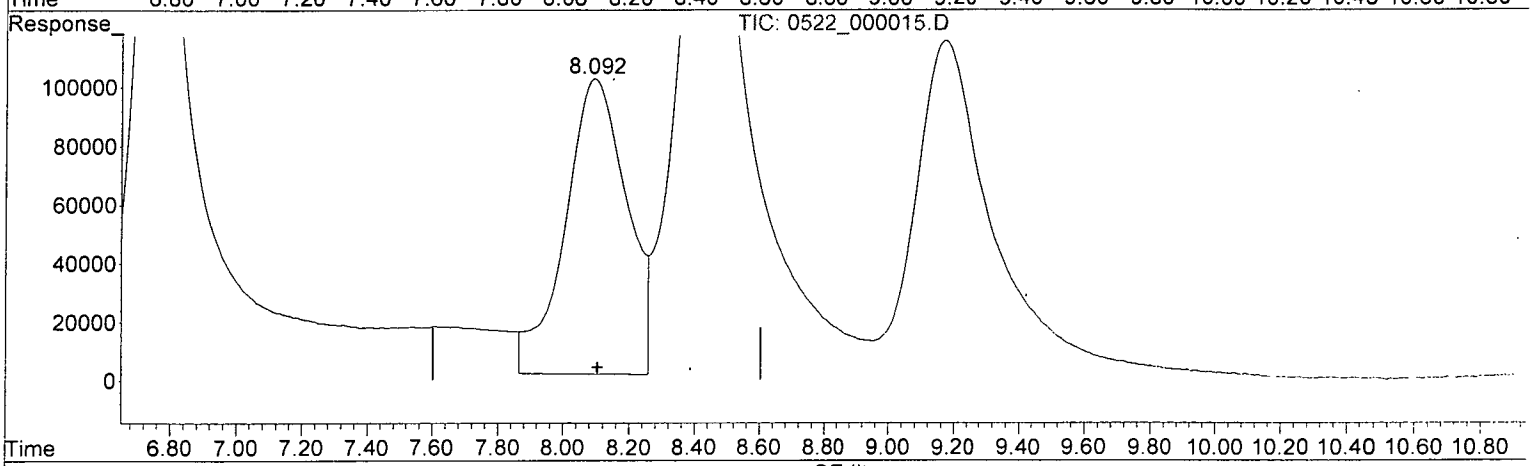
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-ı





(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

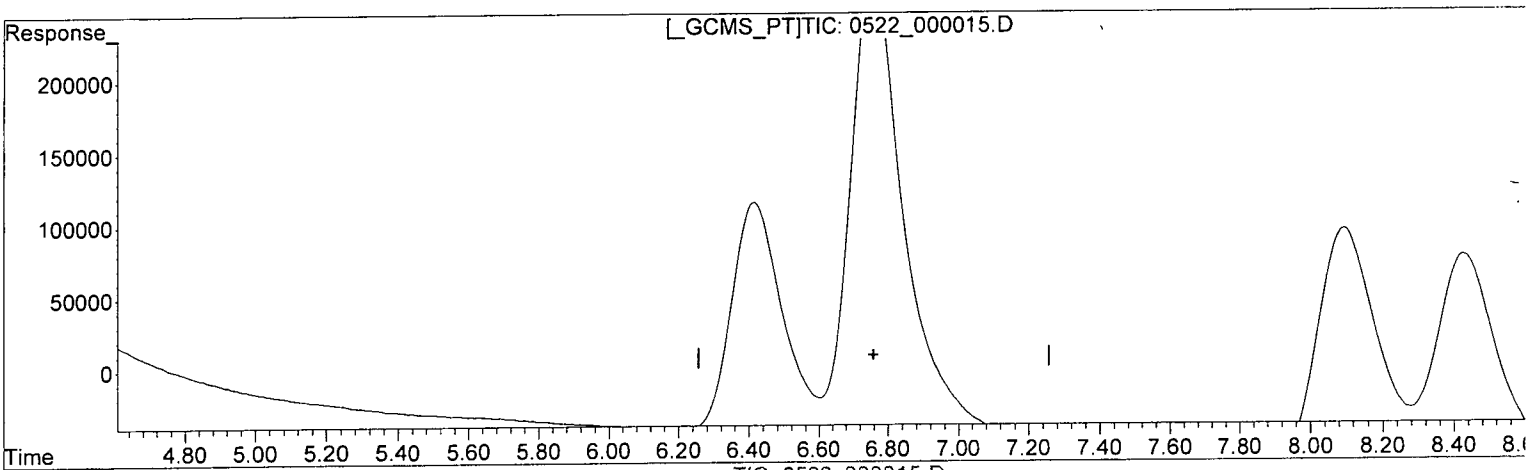
(+) = Expected Retention Time

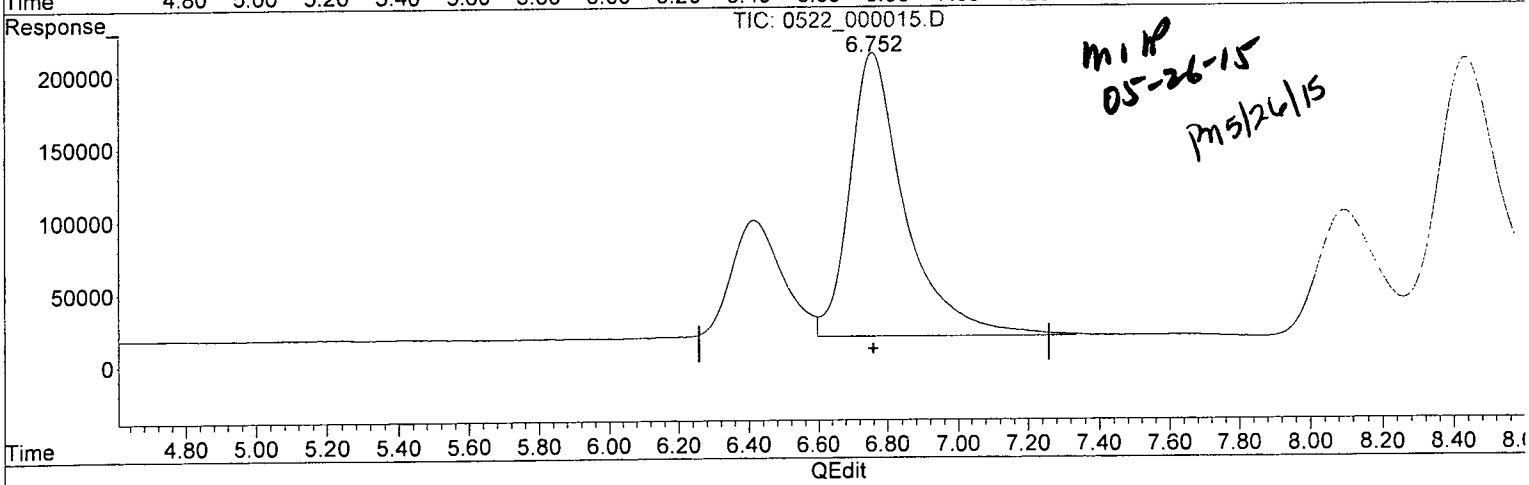
Quantitation Report (Qedit)

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-





MP 05-26-15 m5/26/15

(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.752min 43.759 ppb m

response 195589

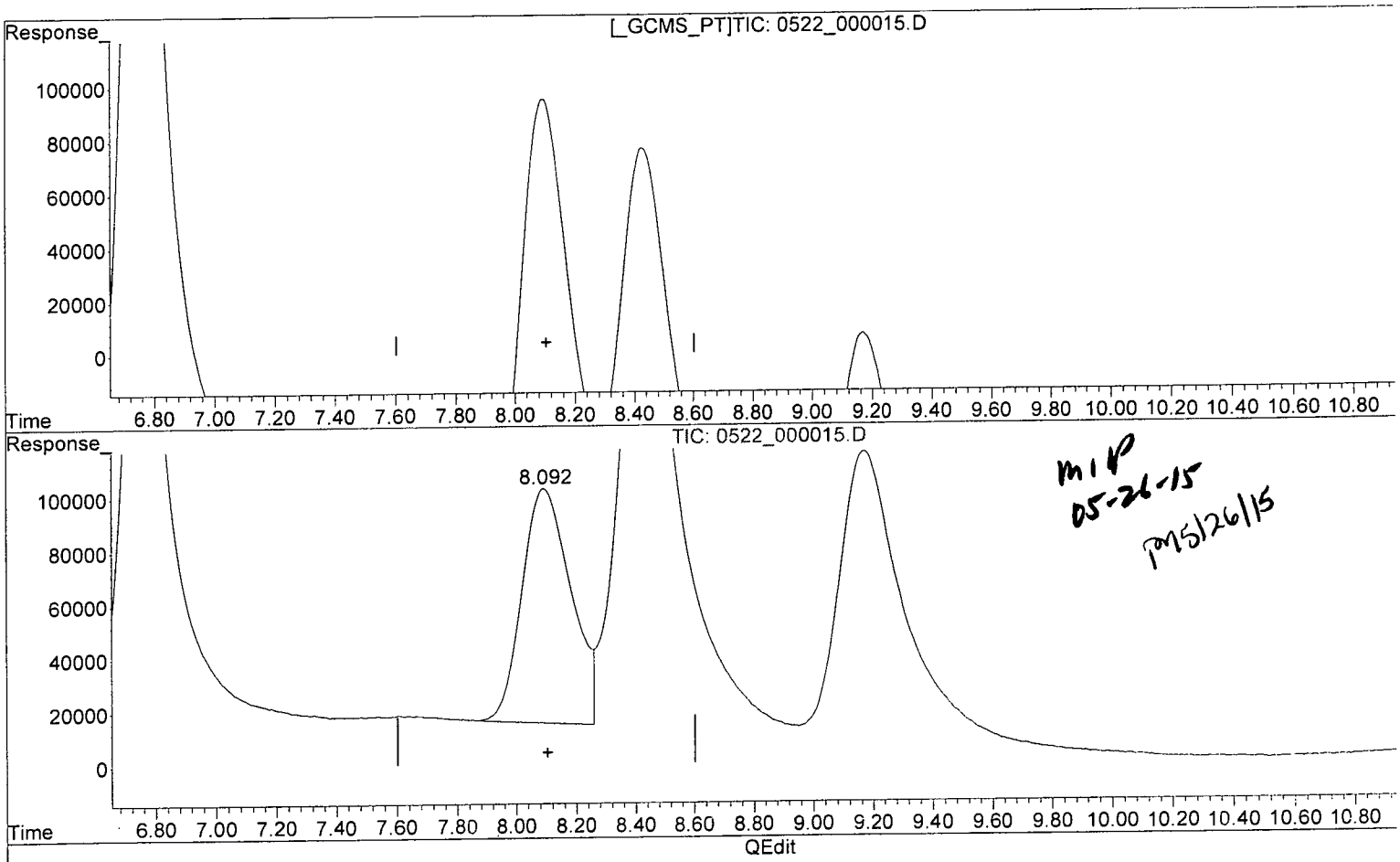
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-r



MP 05-26-15 pm 5/26/15

(4) 1,2-DINITROBENZENE (S)

0.000min 0.000 ppb

response 0

(4) 1,2-DINITROBENZENE #2 (S)

8.092min 41.395 ppb m

response 87334

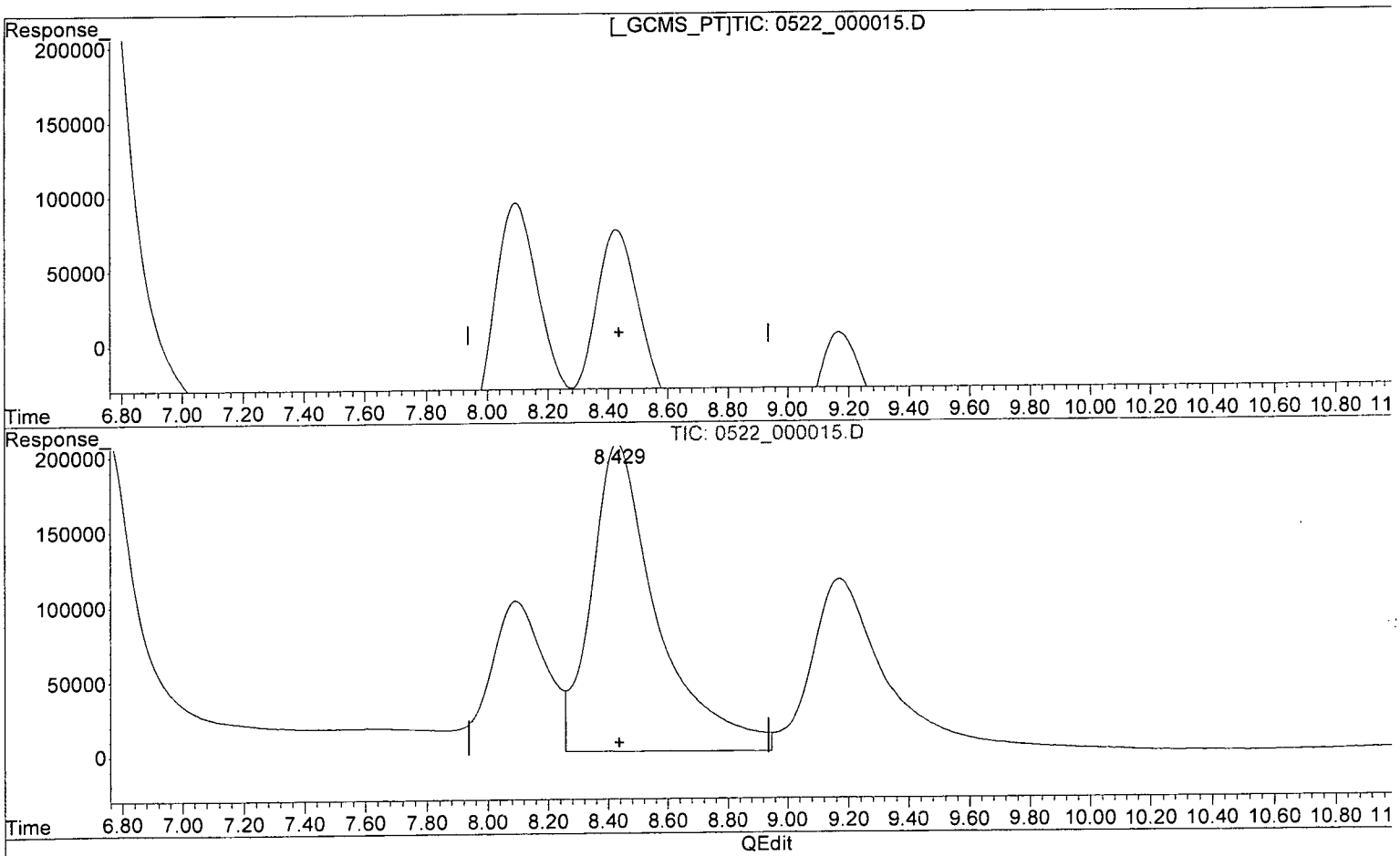
(+) = Expected Retention Time

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-µ



(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

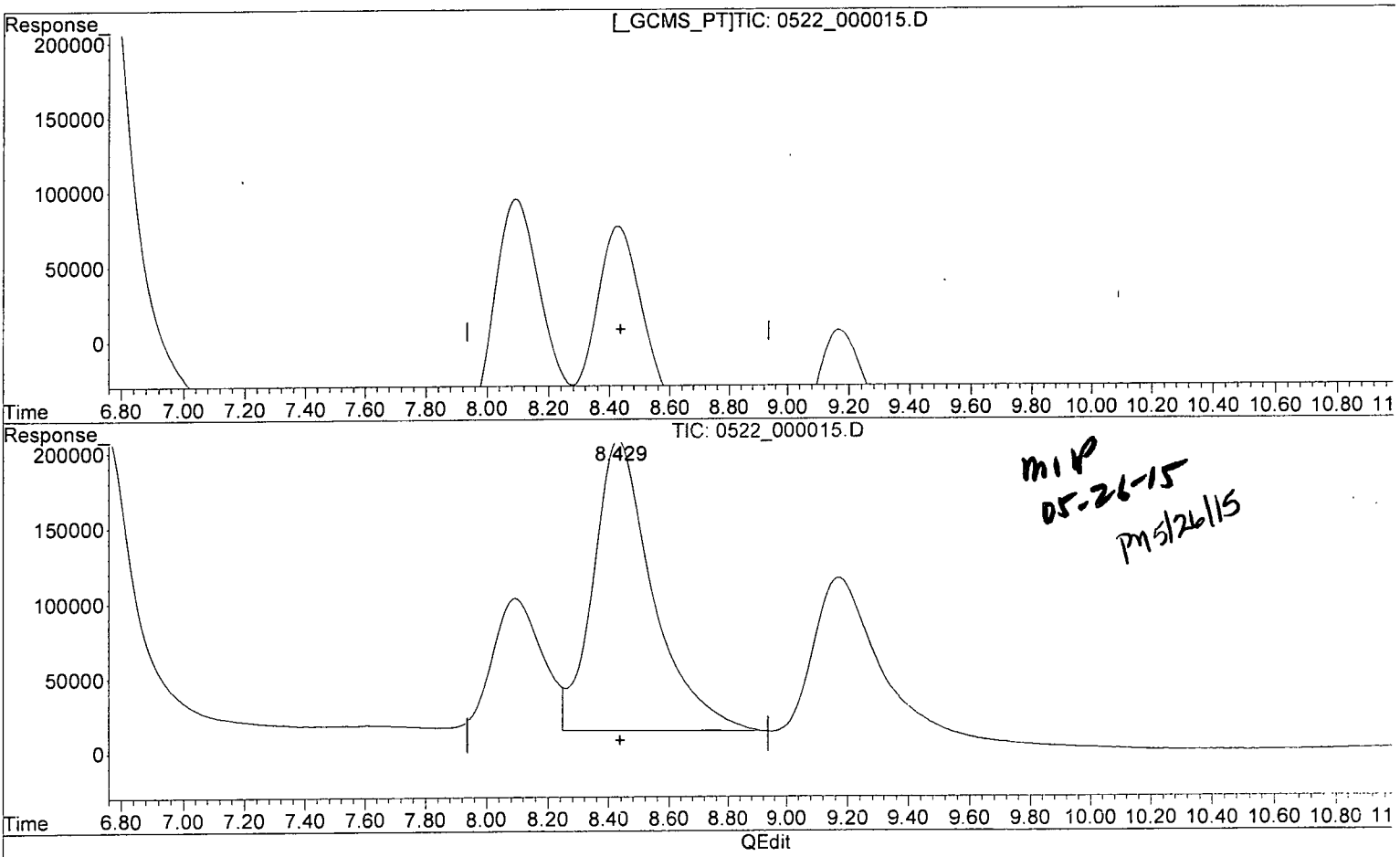
(+) = Expected Retention Time

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-



MLP 05-26-15 pm 5/26/15

(5) 1,3-DINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(5) 1,3-DINITROBENZENE #2 (TM)

8.429min 42.975 ppb m

response 193271

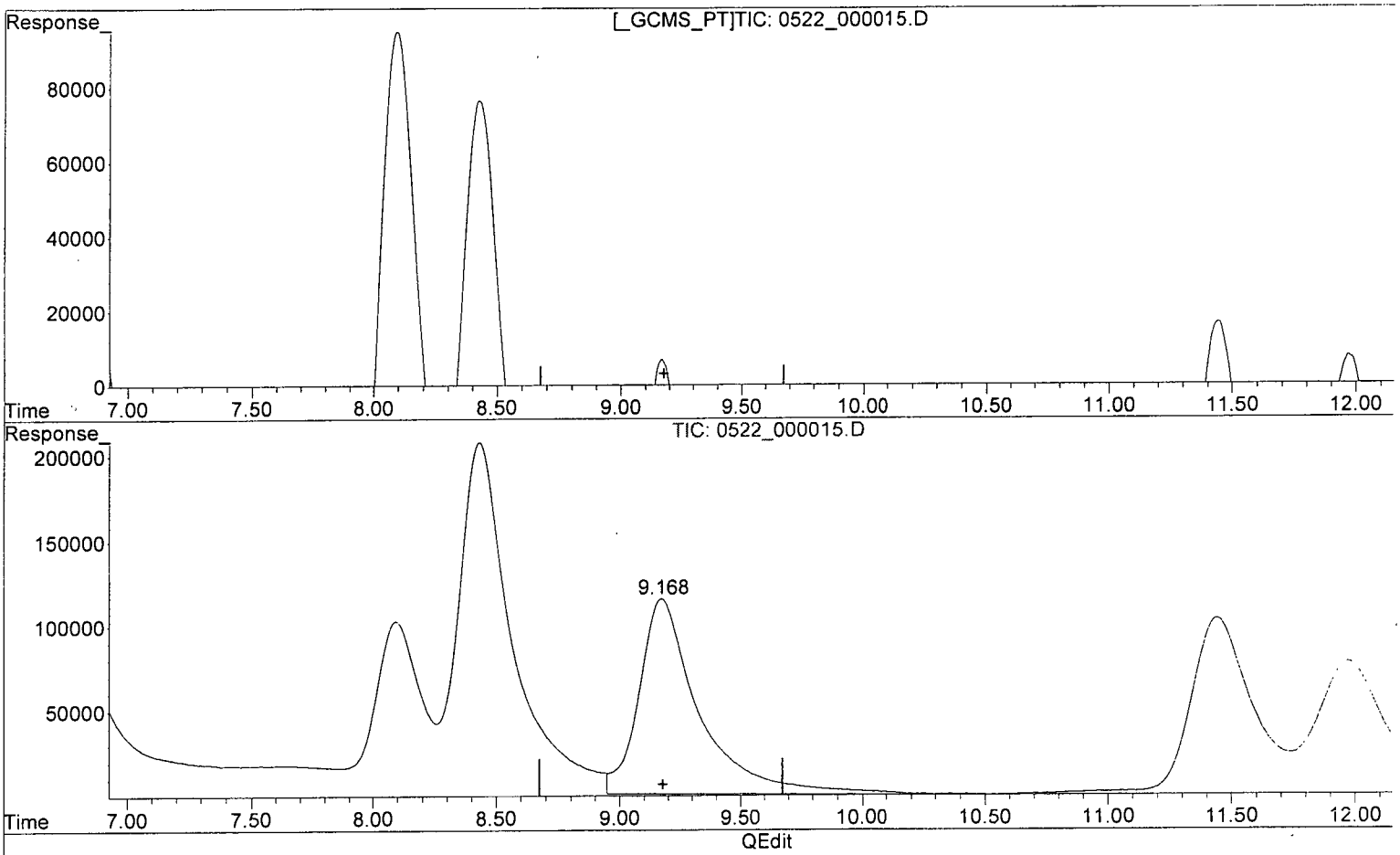
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000015.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:10:14
Operator : MP
Sample : 8330MXA_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4230 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:17 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-µ



(6) NITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(6) NITROBENZENE #2 (TM)

9.169min 44.660 ppb

response 114402

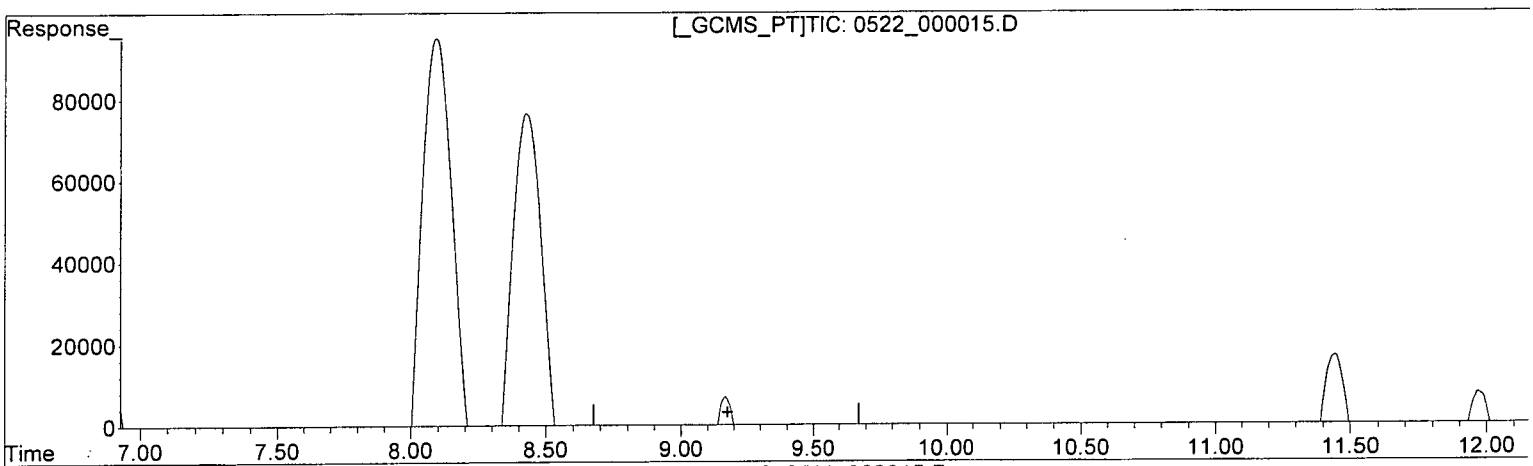
(+) = Expected Retention Time

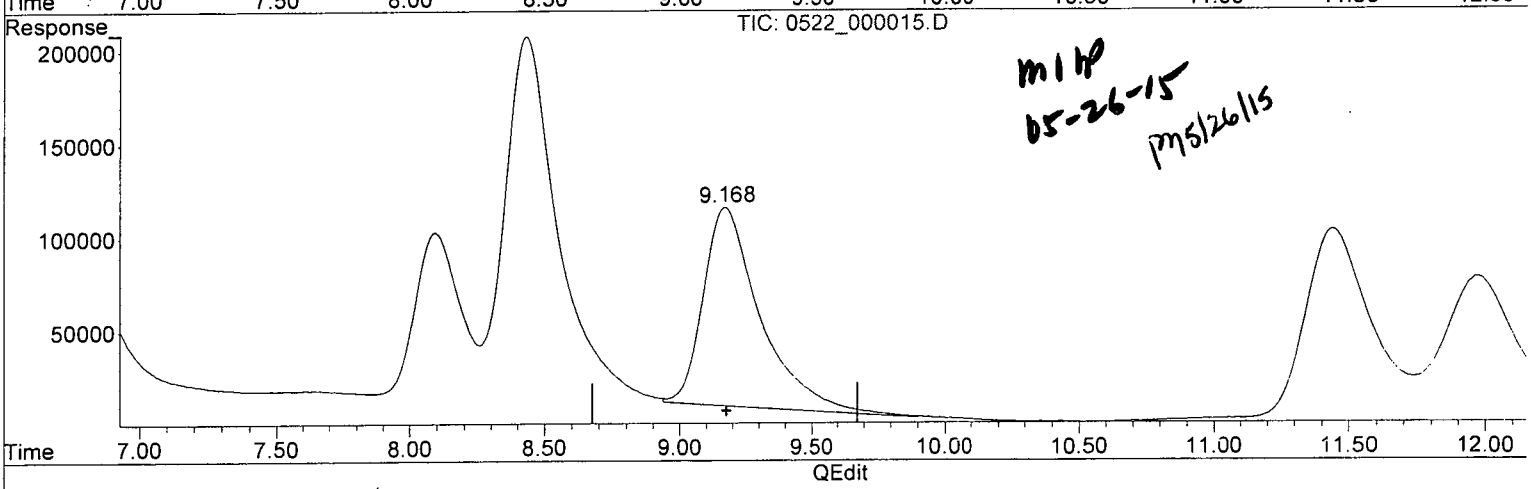
Quantitation Report (Qedit)

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-r





MLP
05-26-15
pm5/26/15

(6) NITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(6) NITROBENZENE #2 (TM)

9.168min 41.438 ppb m

response 106151

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 18:49:46
Operator : MP
Sample : 8330MXB_CB 0.050 PPM 05/22/15
Misc :
ALS Vial : 4231 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:43:41 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-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. #

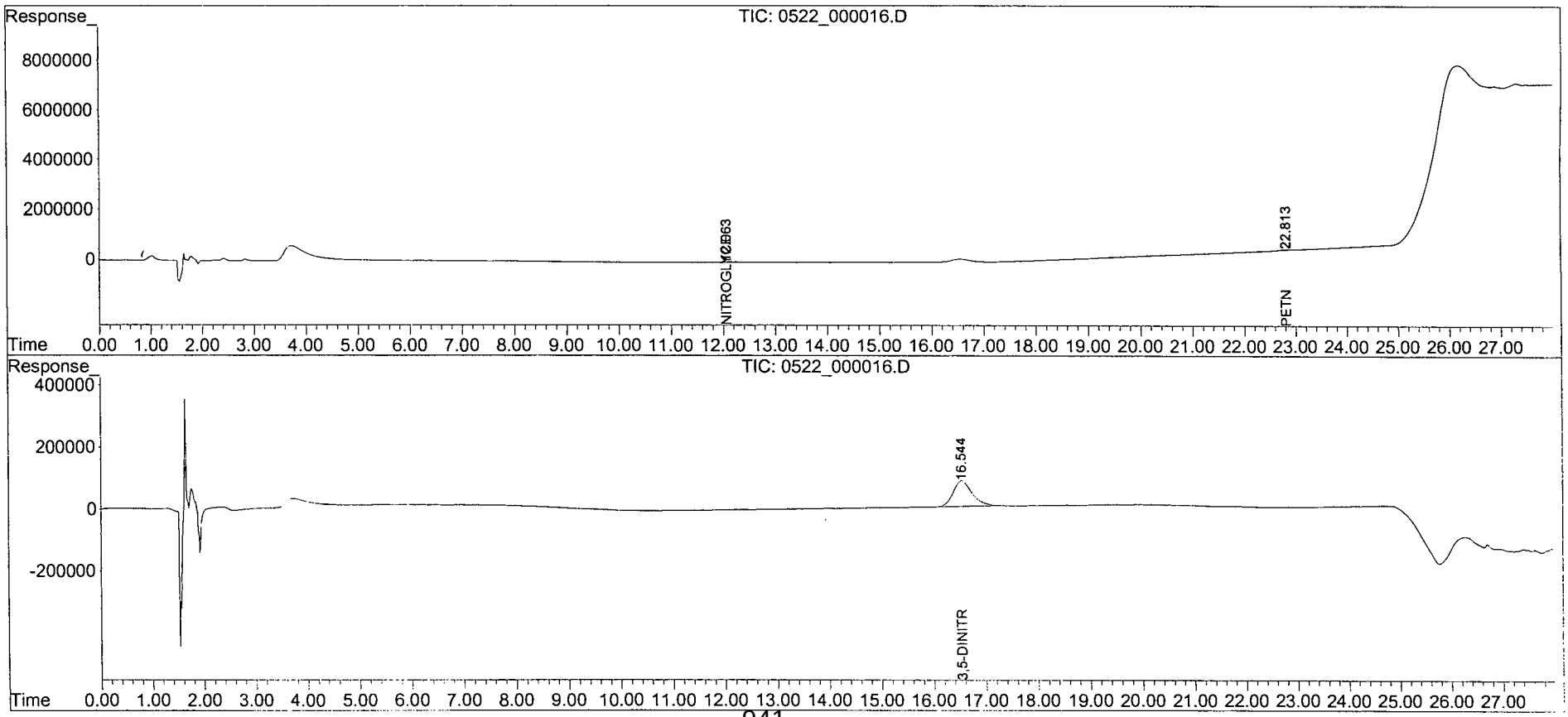
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

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

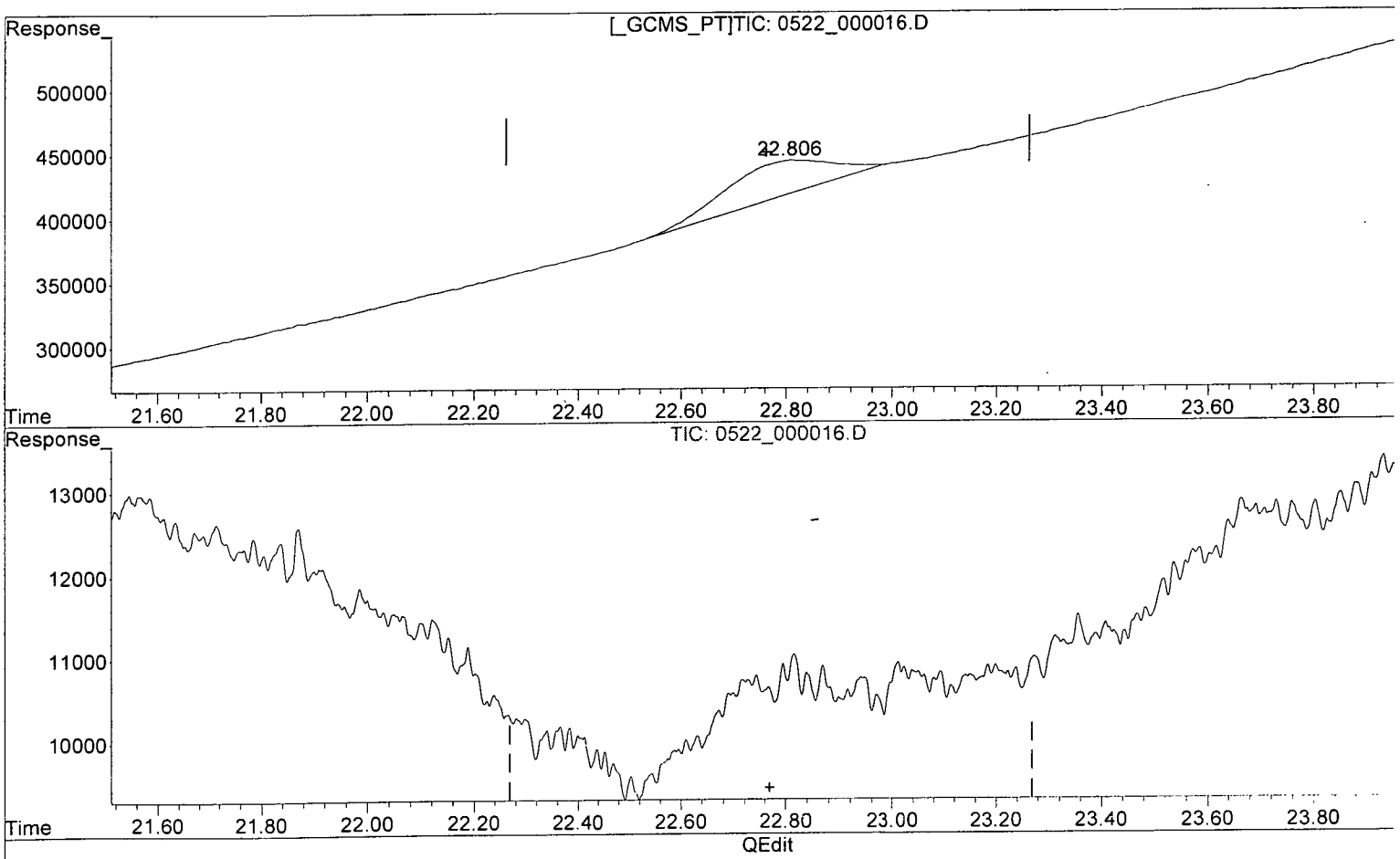


Quantitation Report (Qedit)

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



(18) PETN (TM)

22.821min 26.079 ppb

response 23796

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

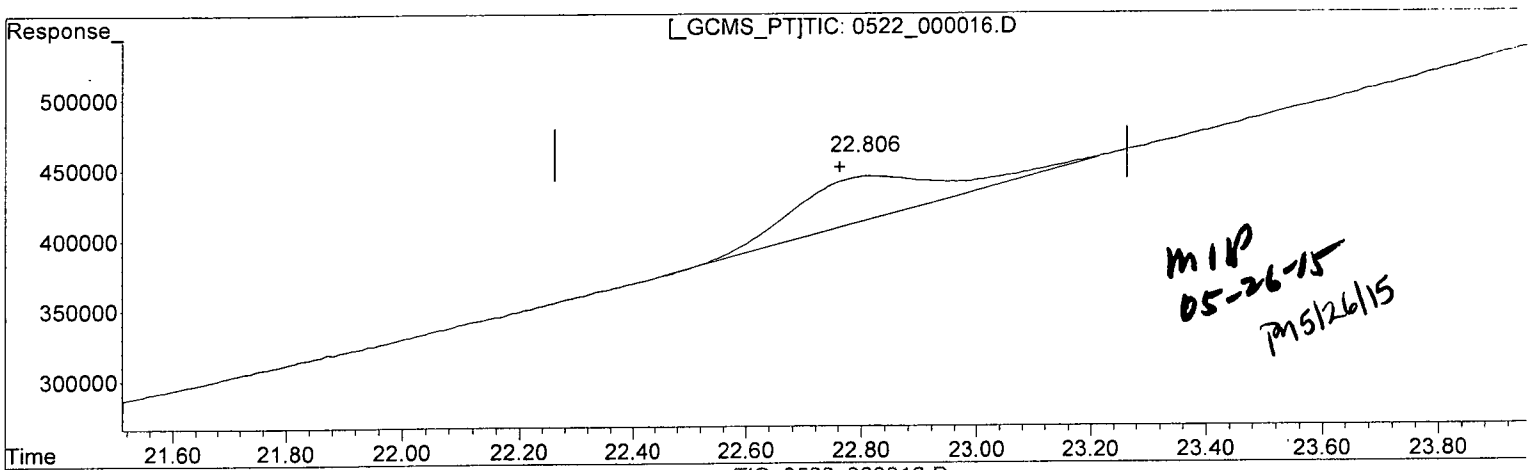
(+) = Expected Retention Time

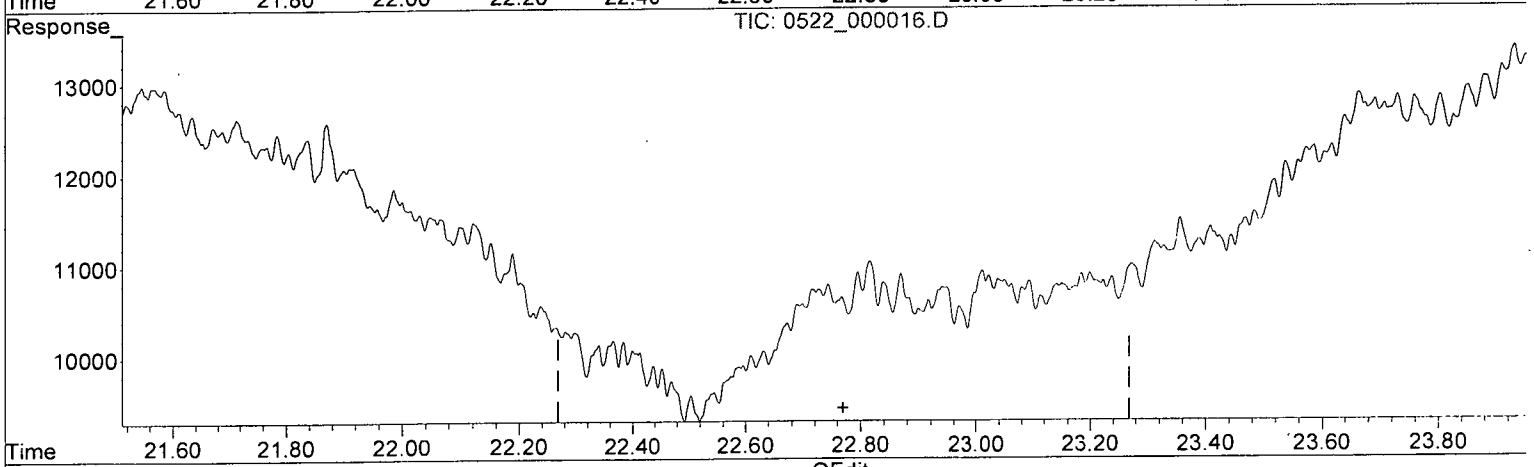
Quantitation Report (Qedit)

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

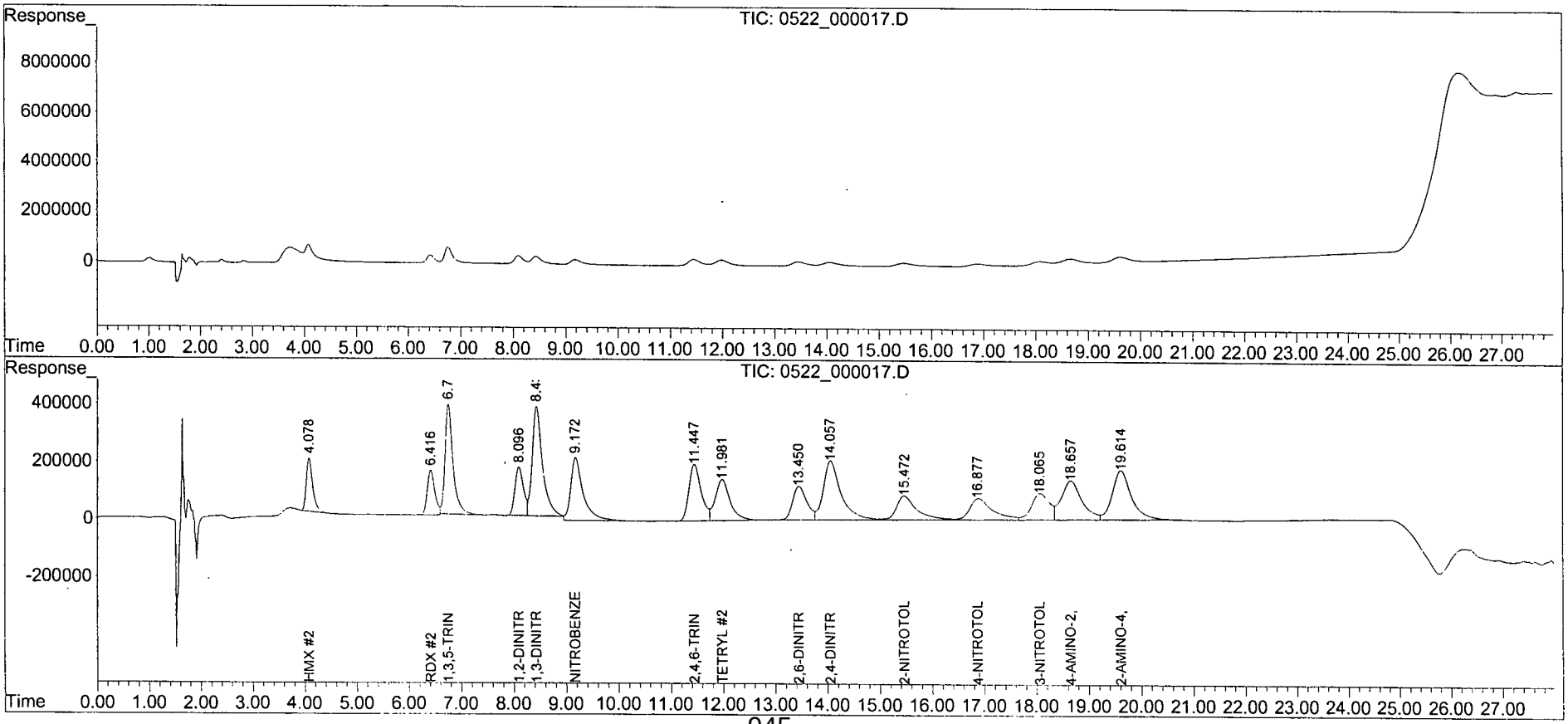
	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4)	S 1,2-DINIT...	0.000	8.096	0	170391	N.D.	80.762m#
	Spiked Amount 62.500			Recovery =		0.00%	129.22%
	Target Compounds						
1)	TM HMX	0.000	4.078	0	187333	N.D.	89.085m#
2)	TM RDX	0.000	6.416	0	158283	N.D.	85.460m#
3)	TM 1,3,5-TRI...	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.

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

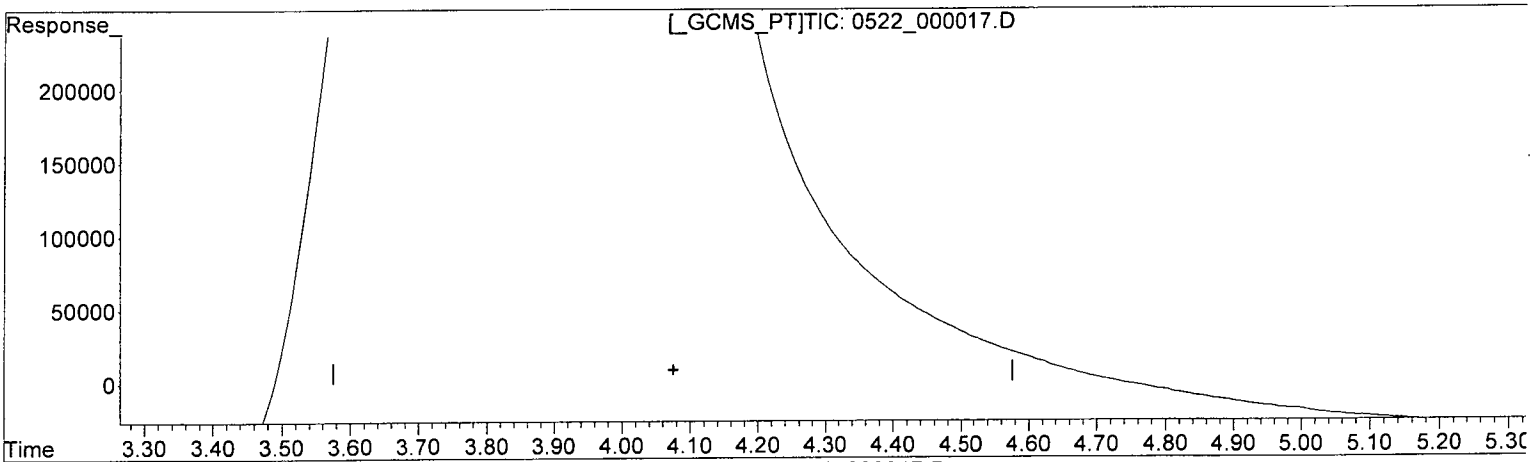


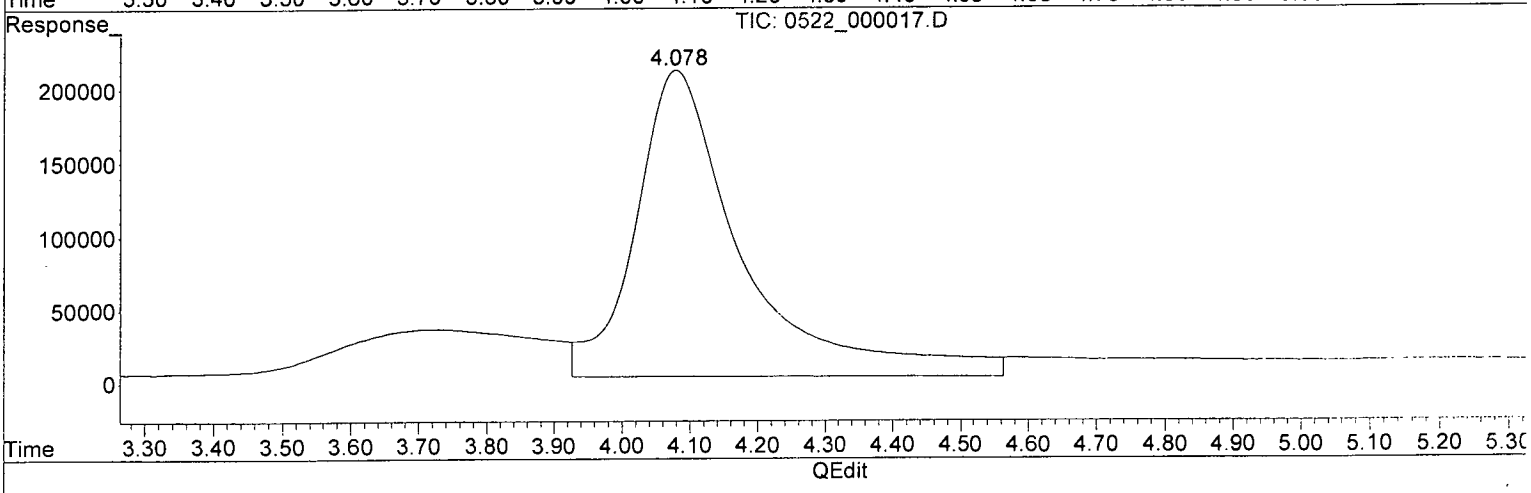
Quantitation Report (Qedit)

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-µ





(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.079min 98.980 ppb

response 208141

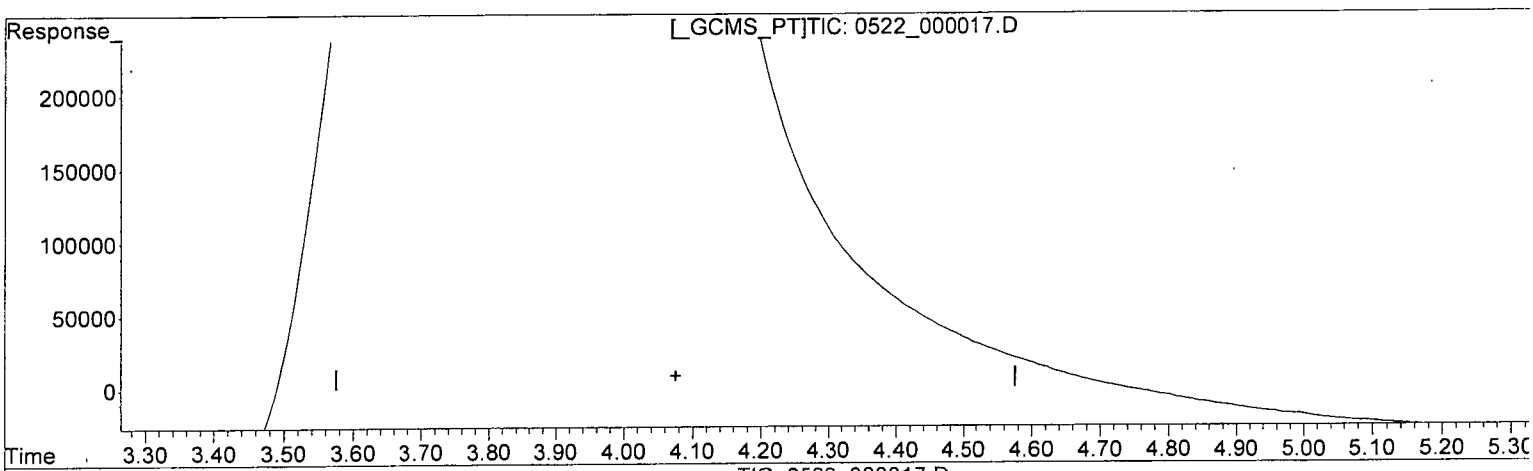
(+) = Expected Retention Time

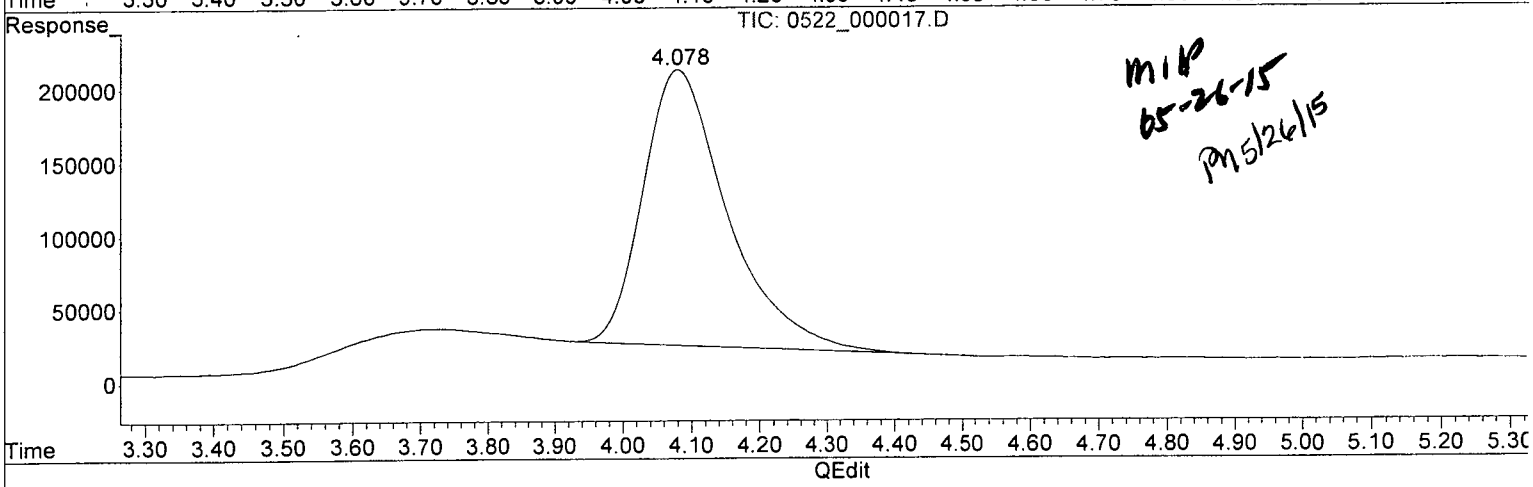
Quantitation Report (Qedit)

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-µ





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

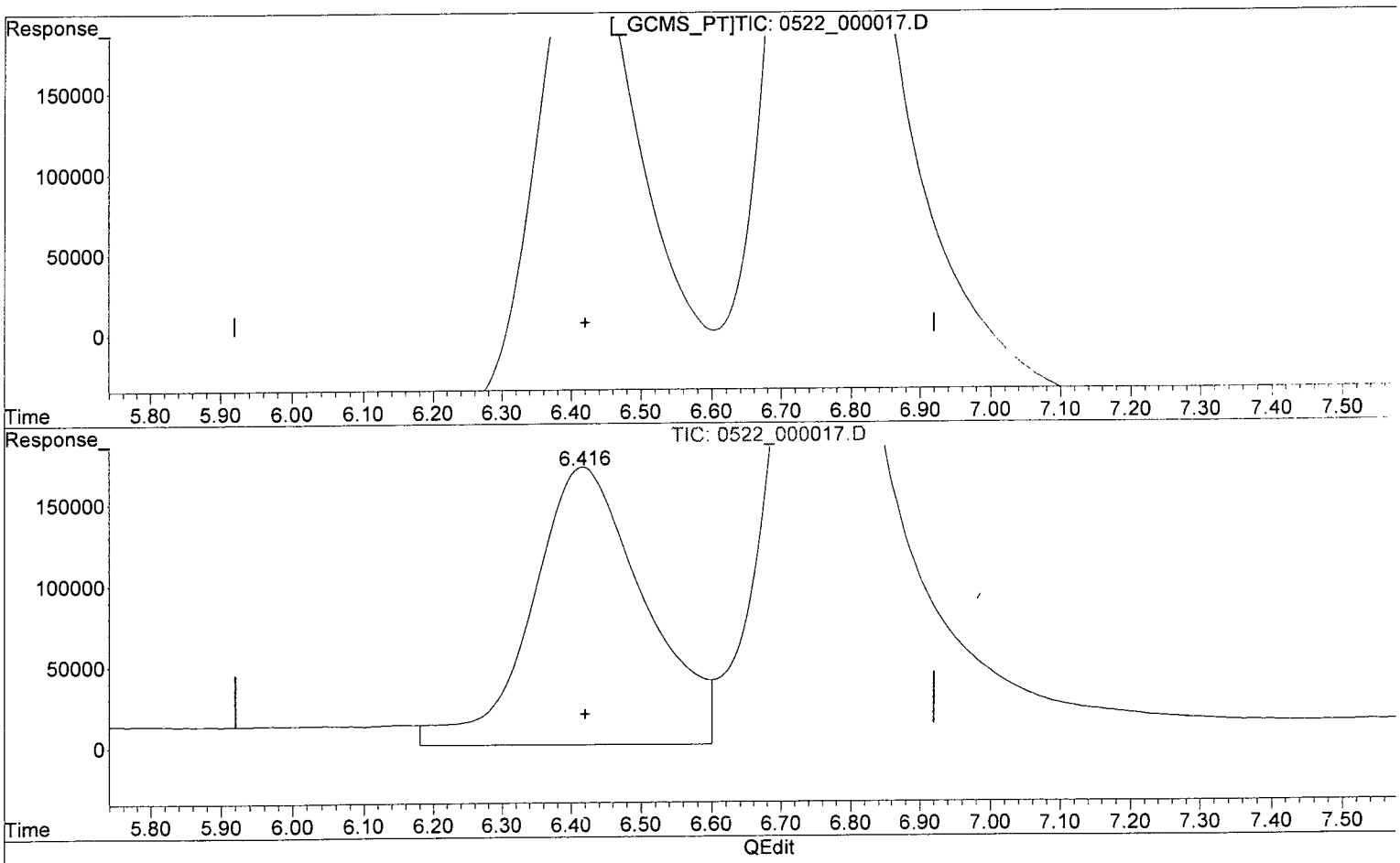
(+) = Expected Retention Time

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-r



(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.417min 92.221 ppb

response 170806

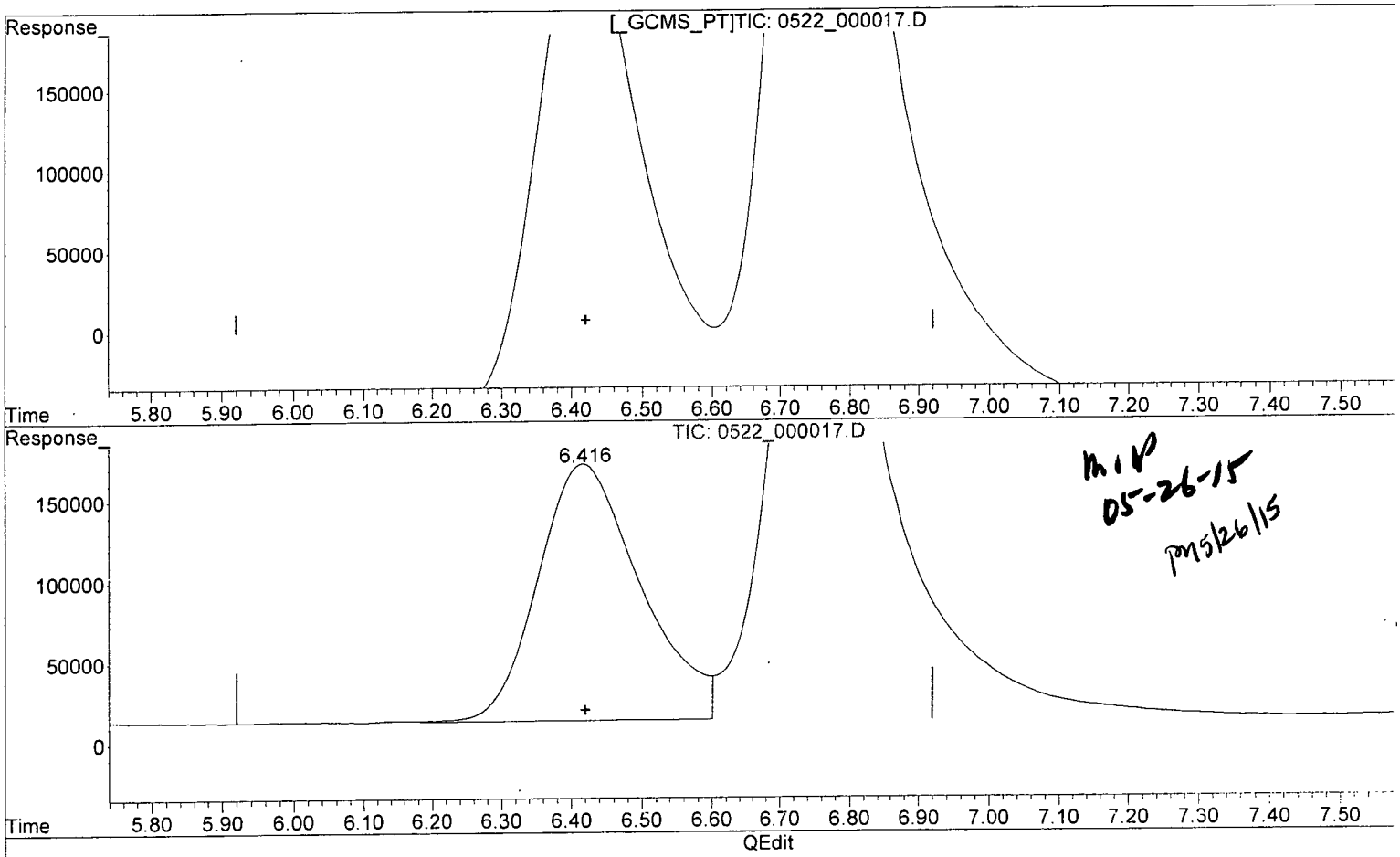
(+) = Expected Retention Time

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-µ



MP 05-26-15 pm 5/26/15

(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.416min 85.460 ppb m

response 158283

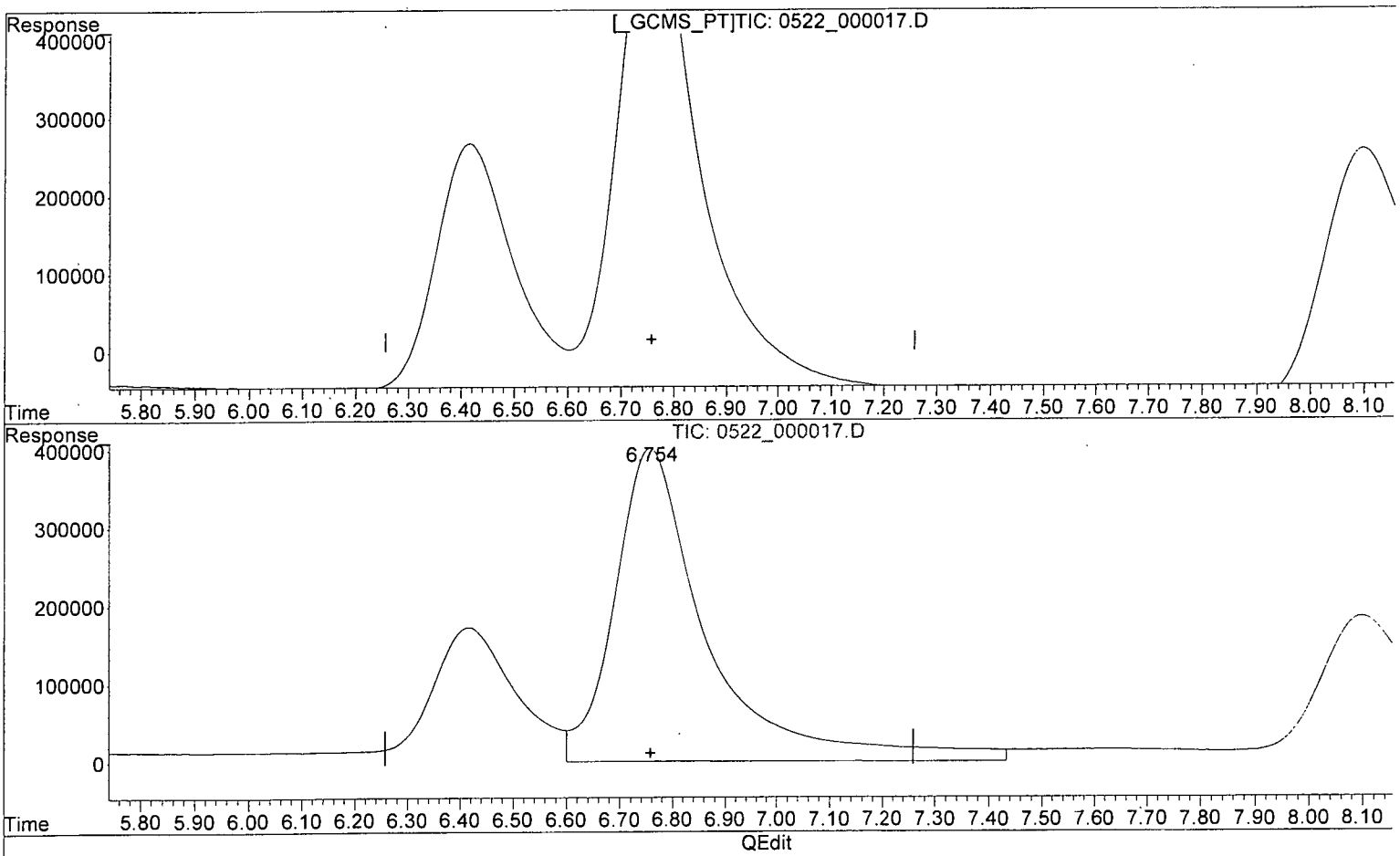
(+) = Expected Retention Time

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-



(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

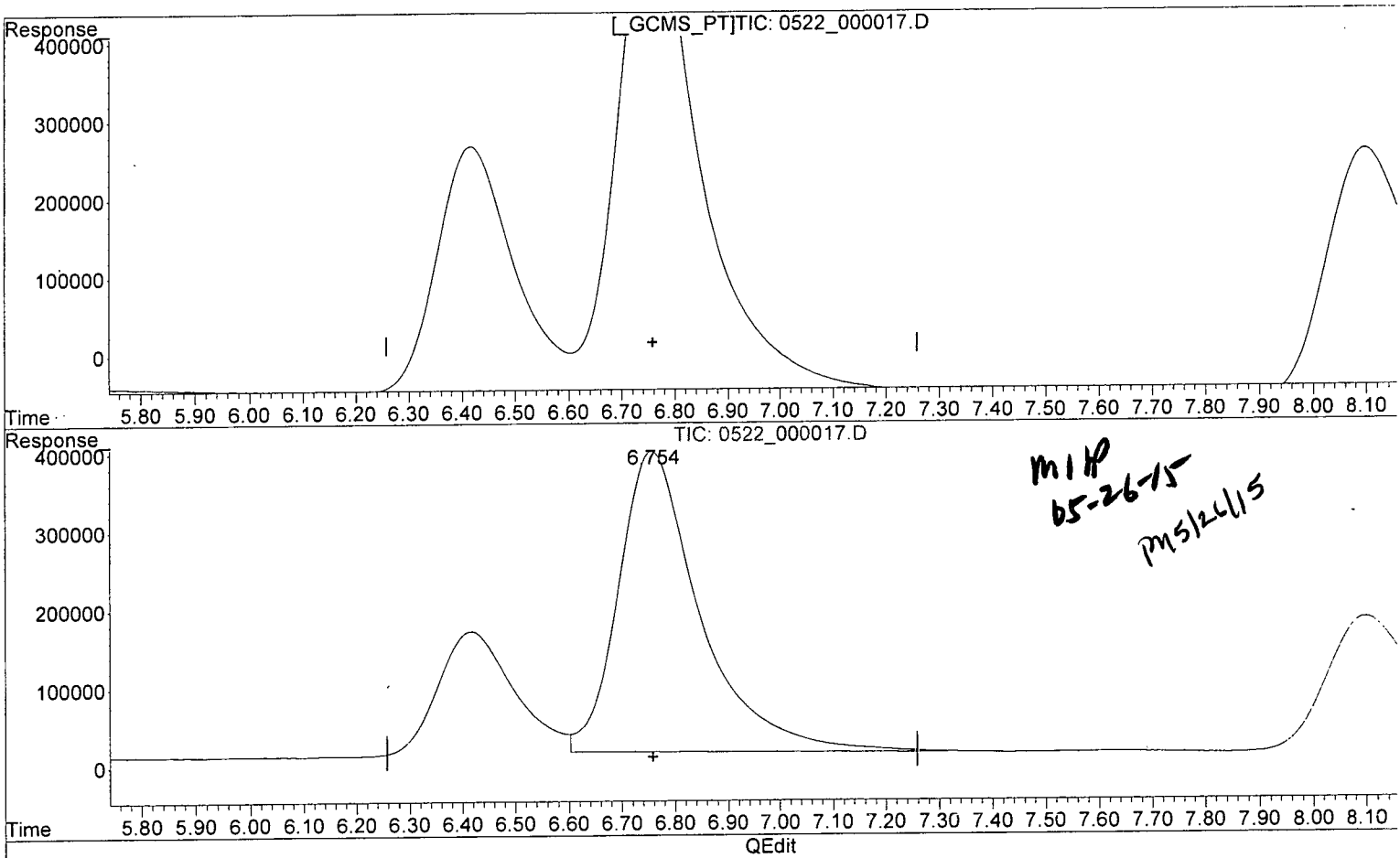
(+) = Expected Retention Time

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-



MP 05-26-15 ms/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

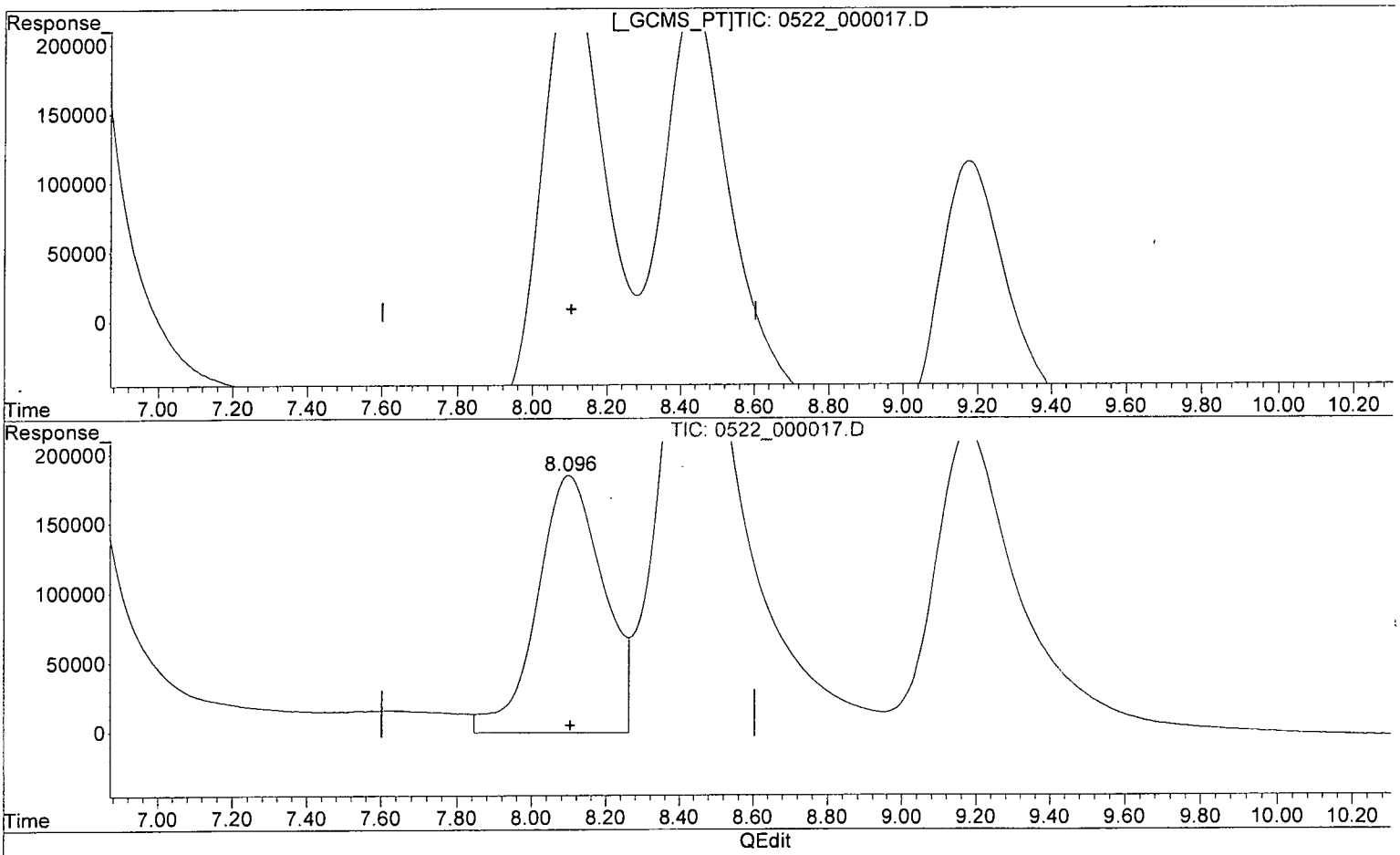
(+) = Expected Retention Time

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-µ



(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

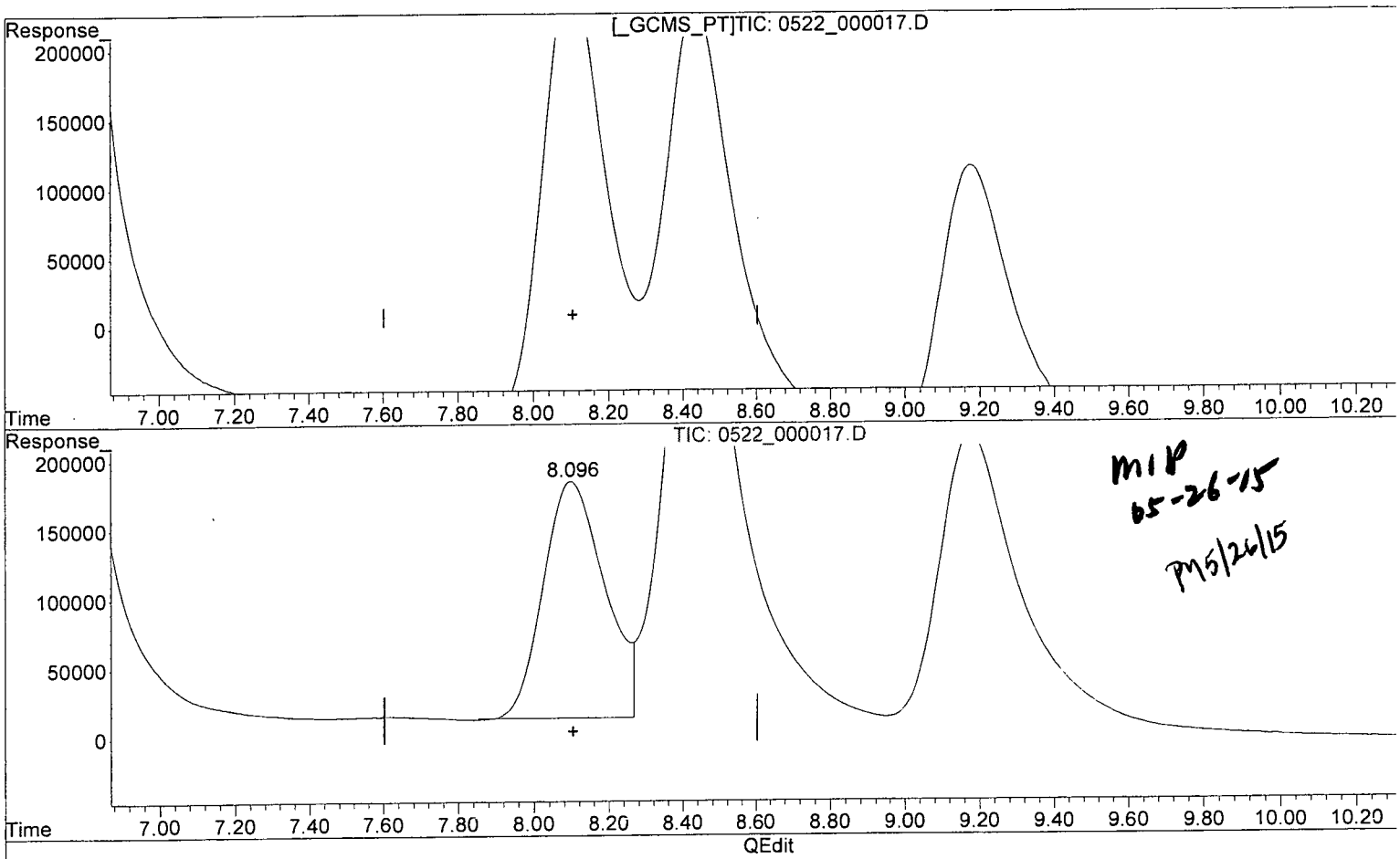
(+) = Expected Retention Time

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-r



(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

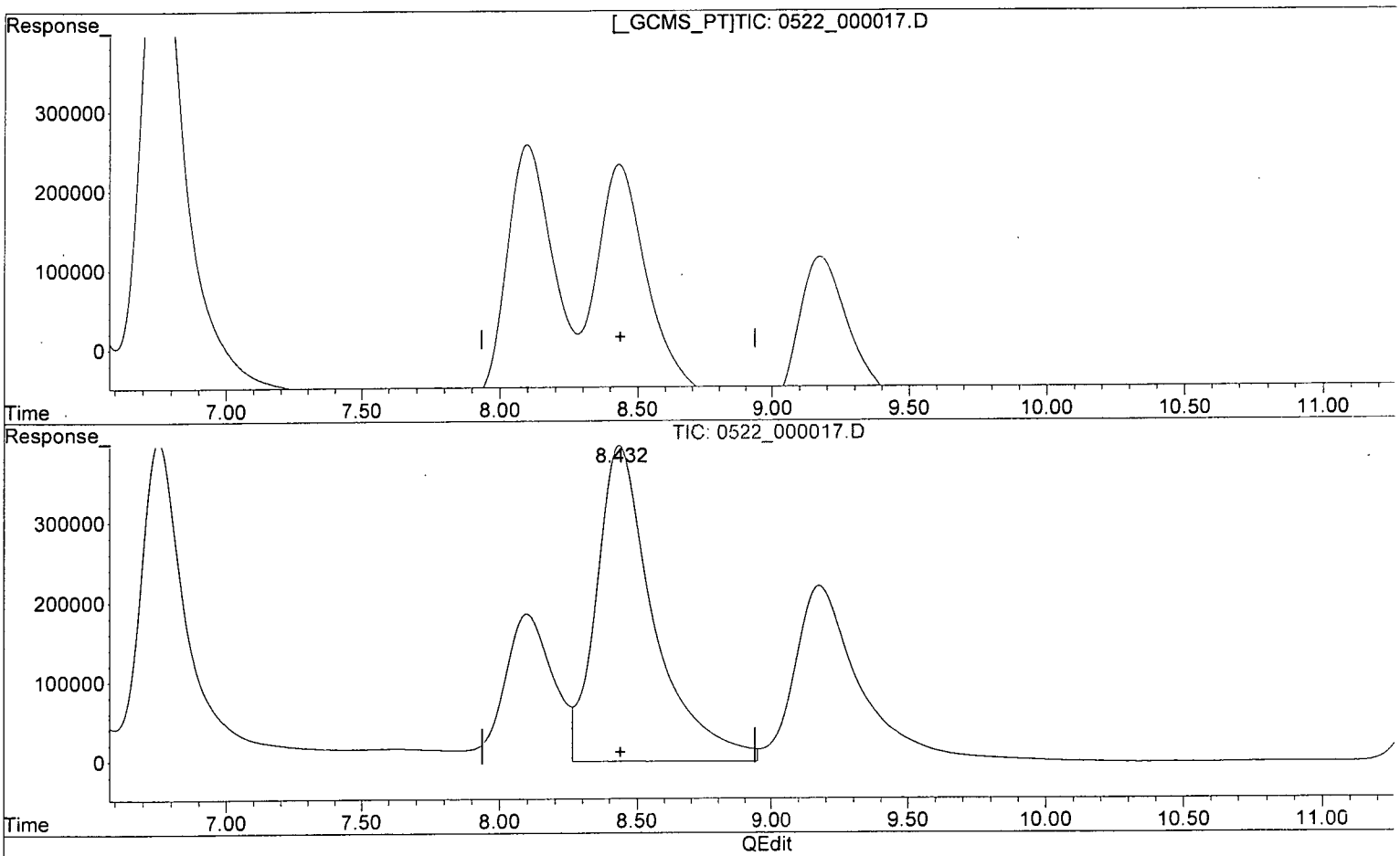
(+) = Expected Retention Time

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

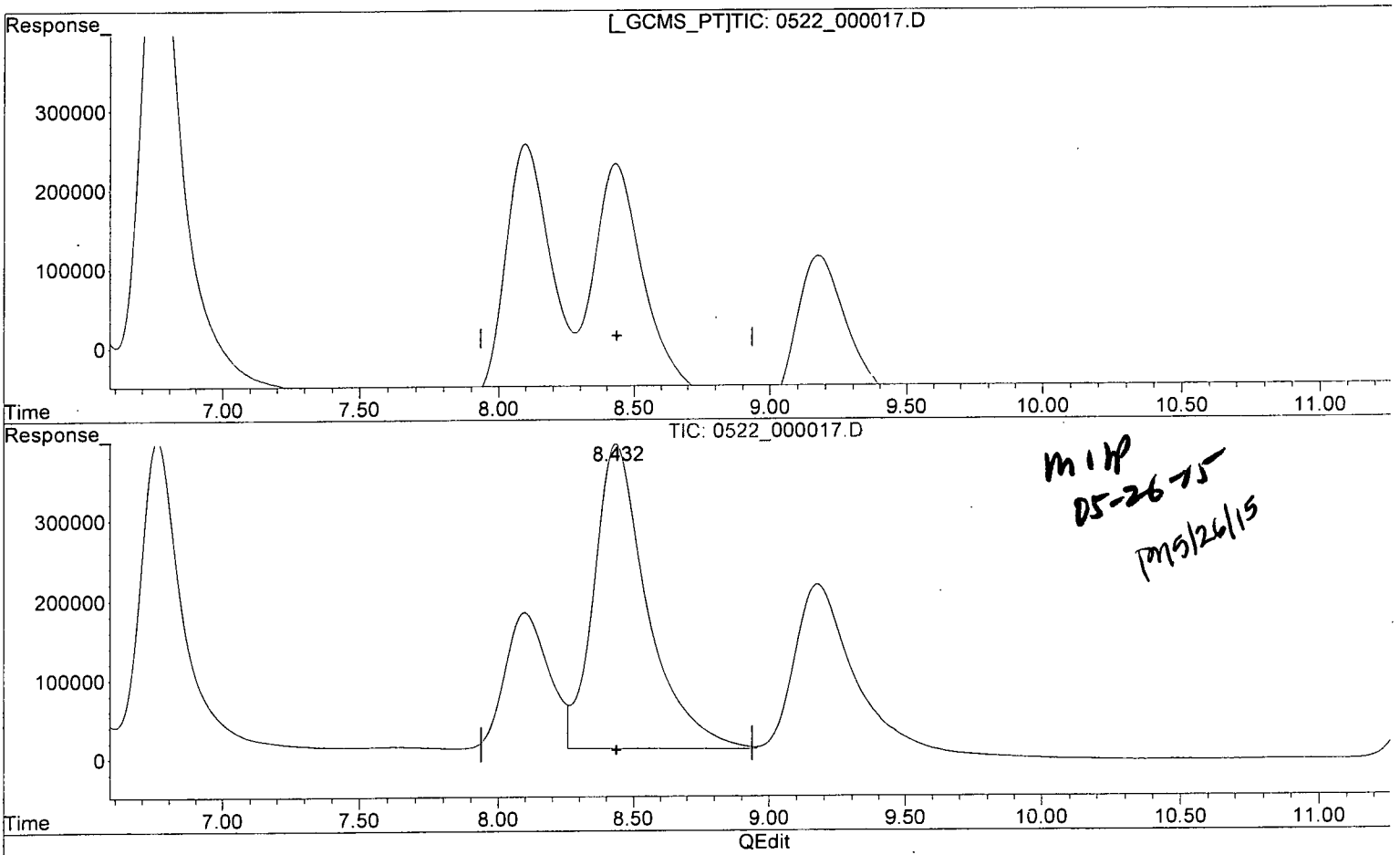
(+) = Expected Retention Time

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. #

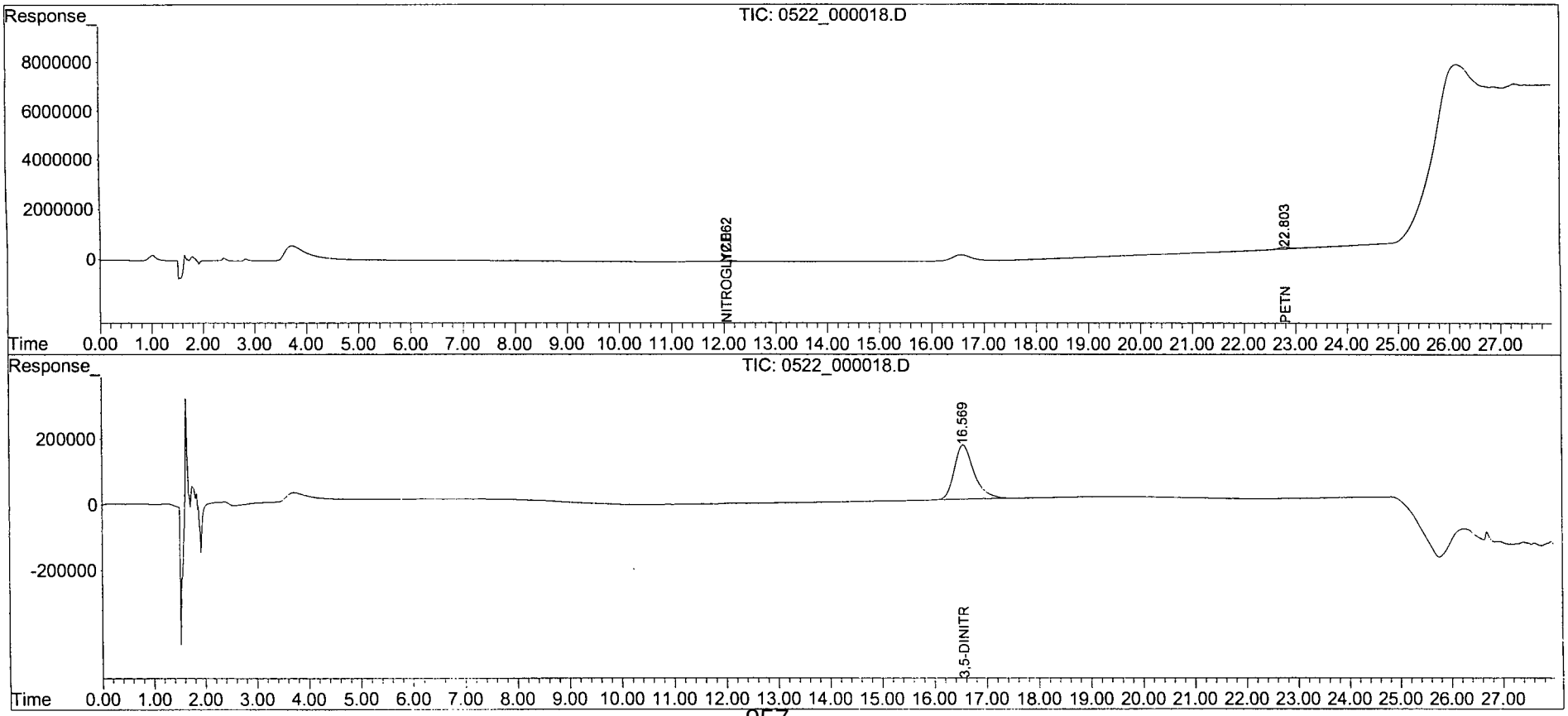
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

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

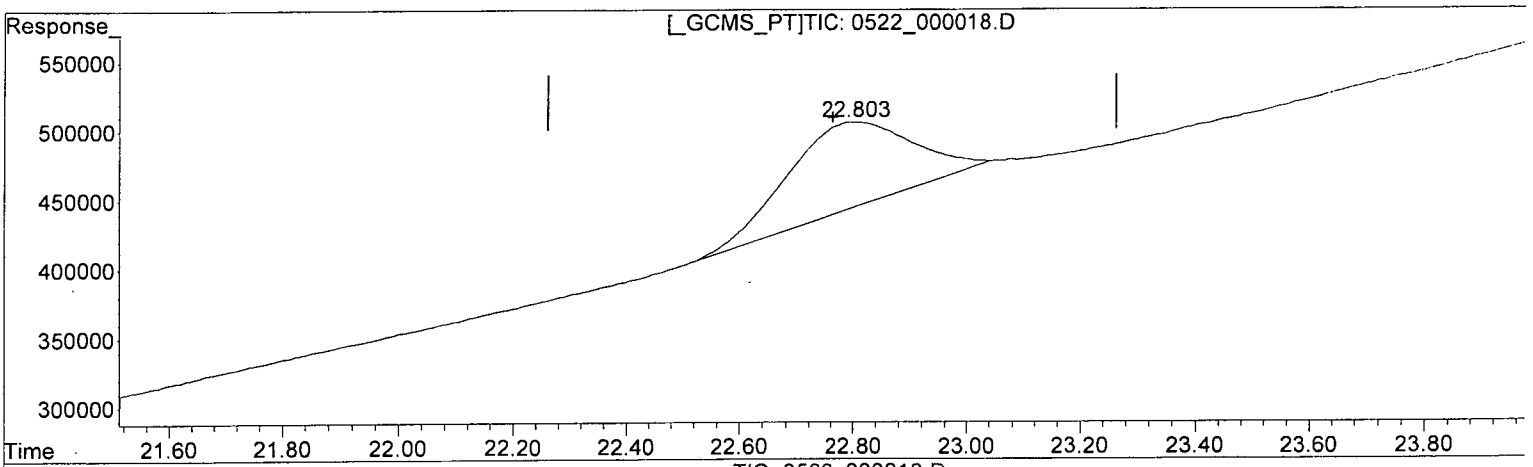


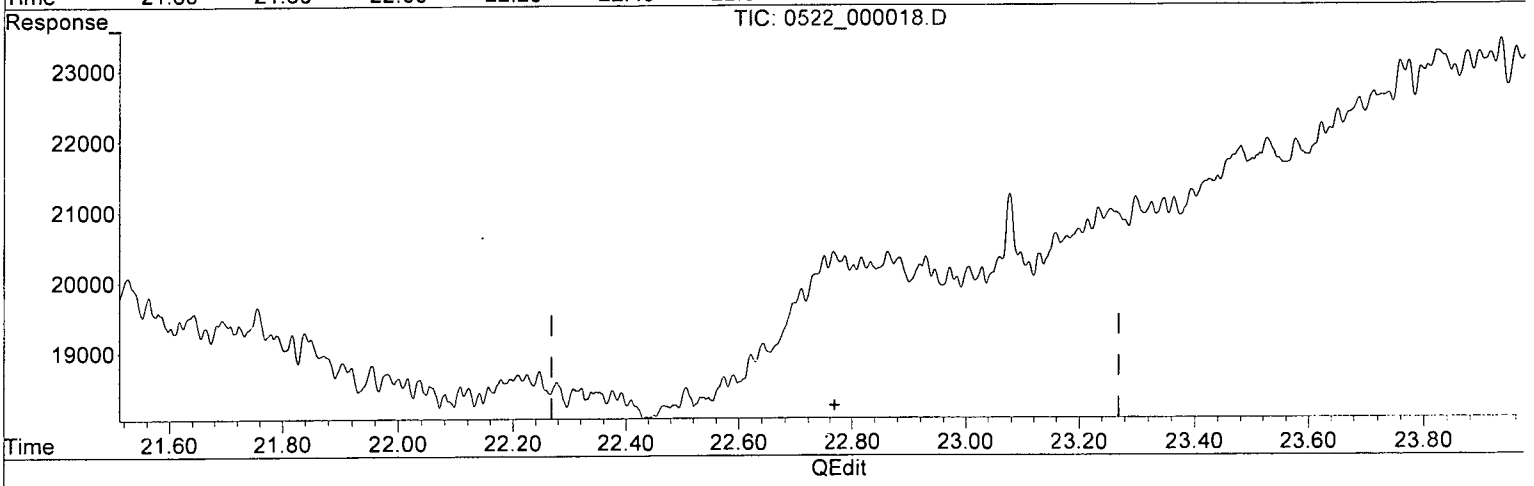
Quantitation Report (Qedit)

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-r





(18) PETN (TM)

22.803min 67.152 ppb

response 61273

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

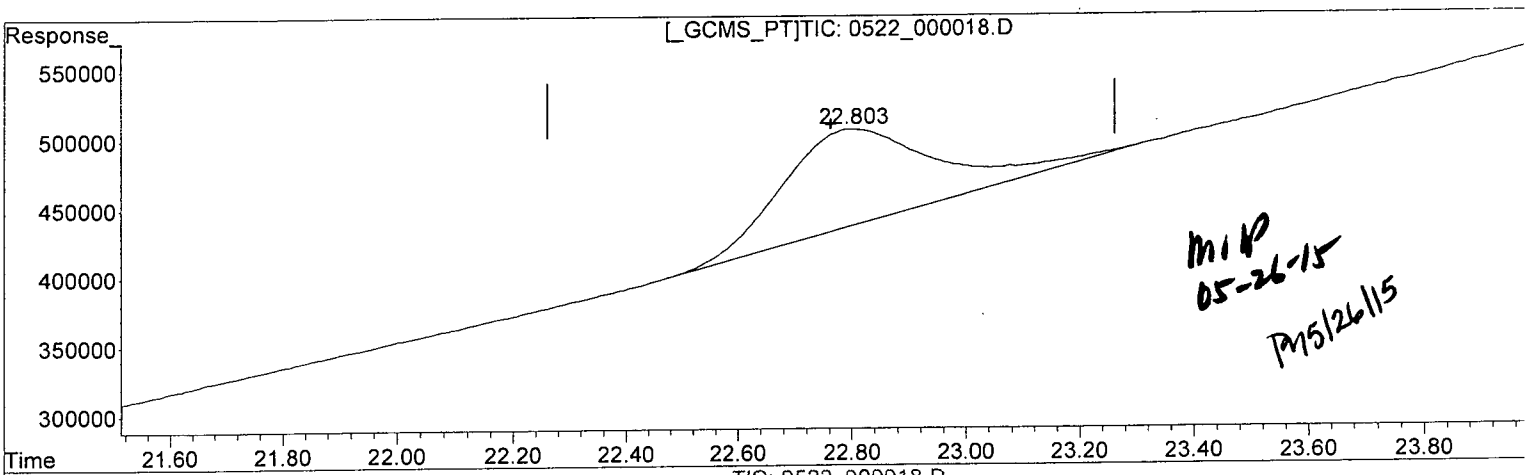
(+) = Expected Retention Time

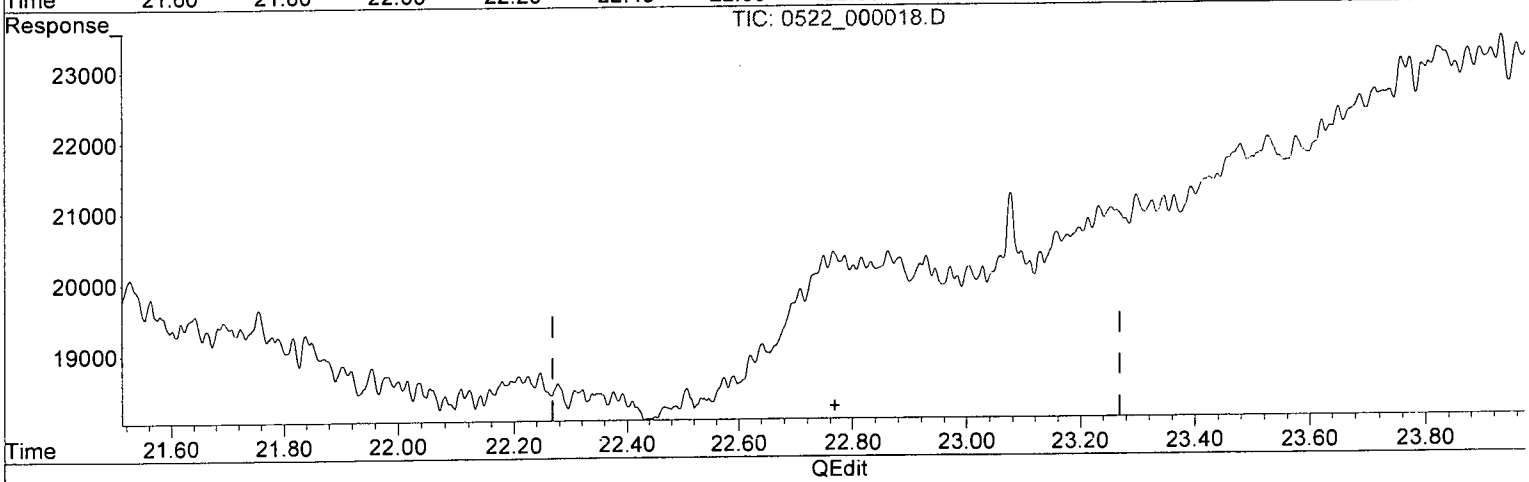
Quantitation Report (Qedit)

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-µ





(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.

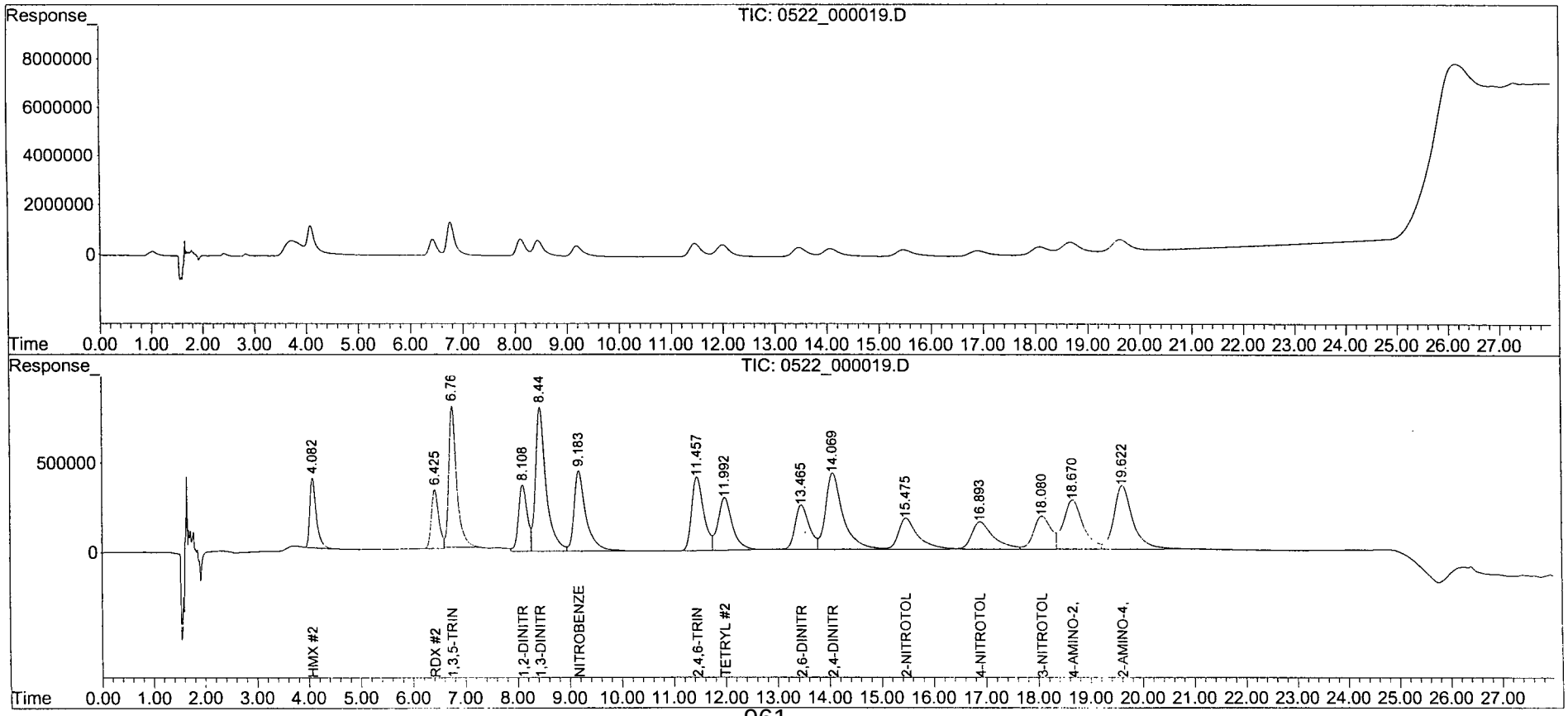
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

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

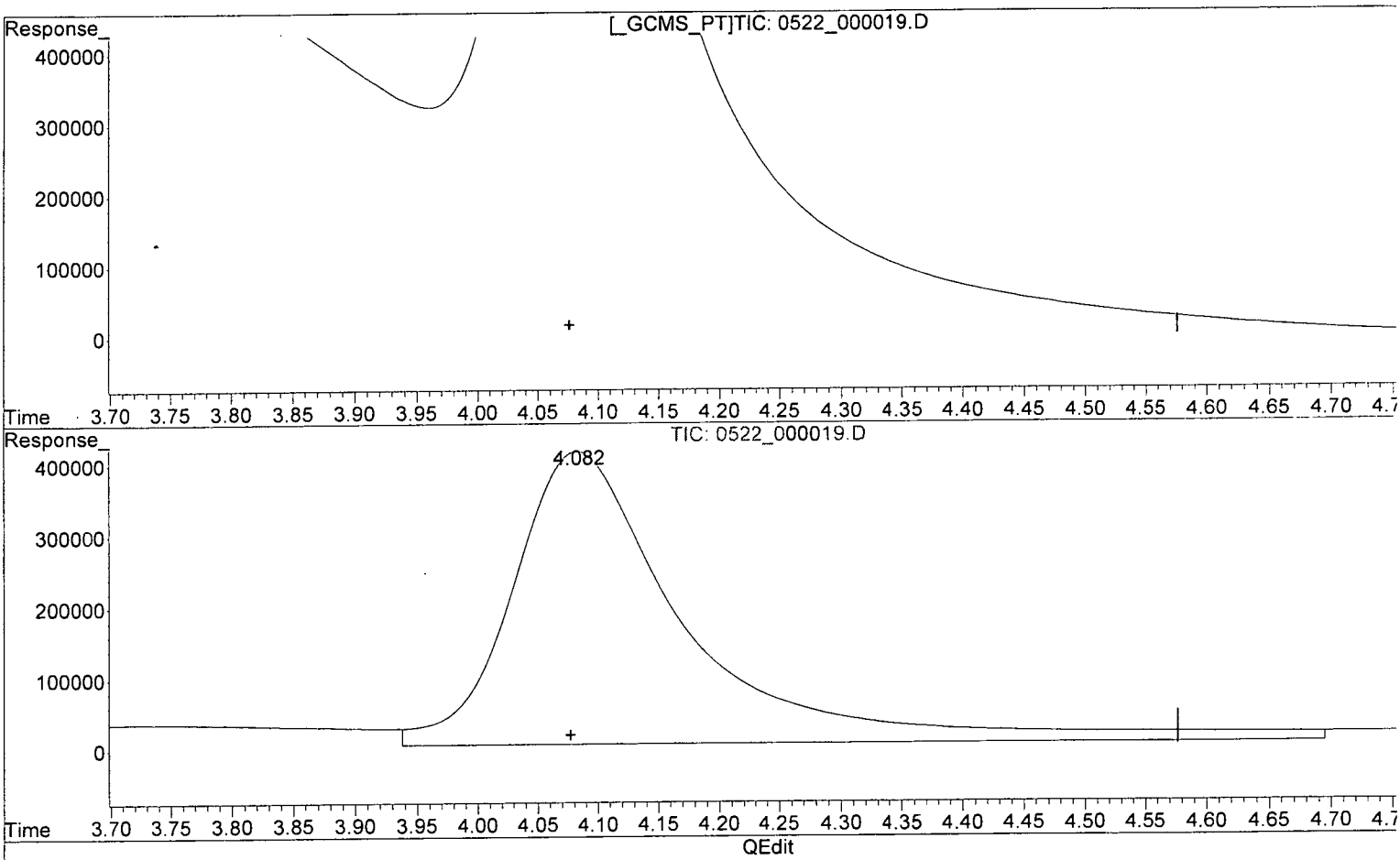


Quantitation Report (Qedit)

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-µ



(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.083min 195.469 ppb

response 411042

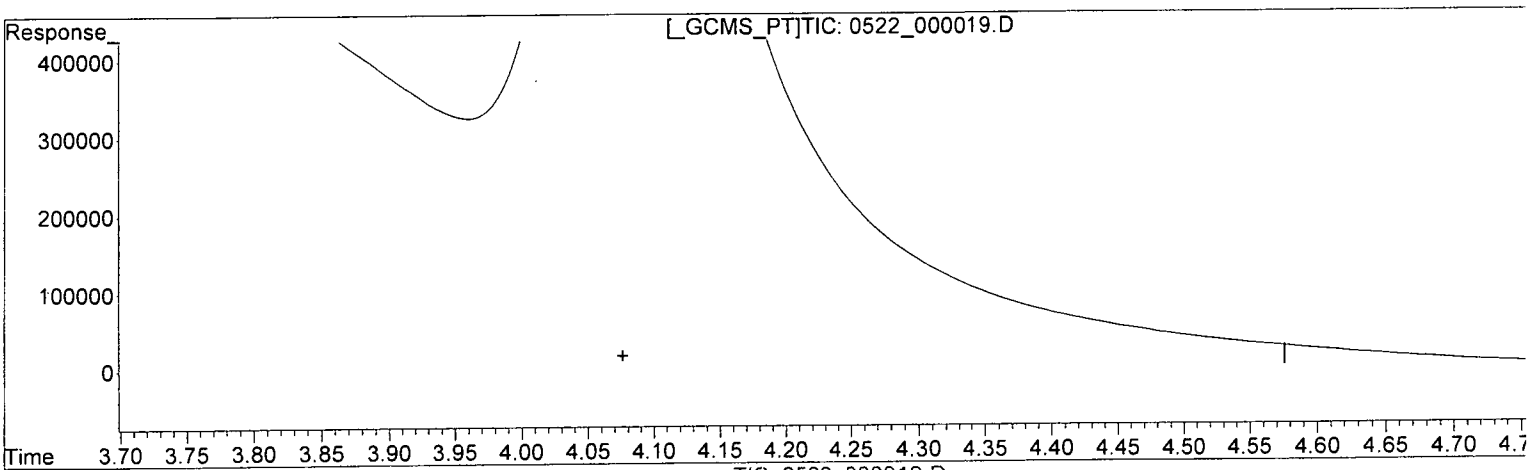
(+) = Expected Retention Time

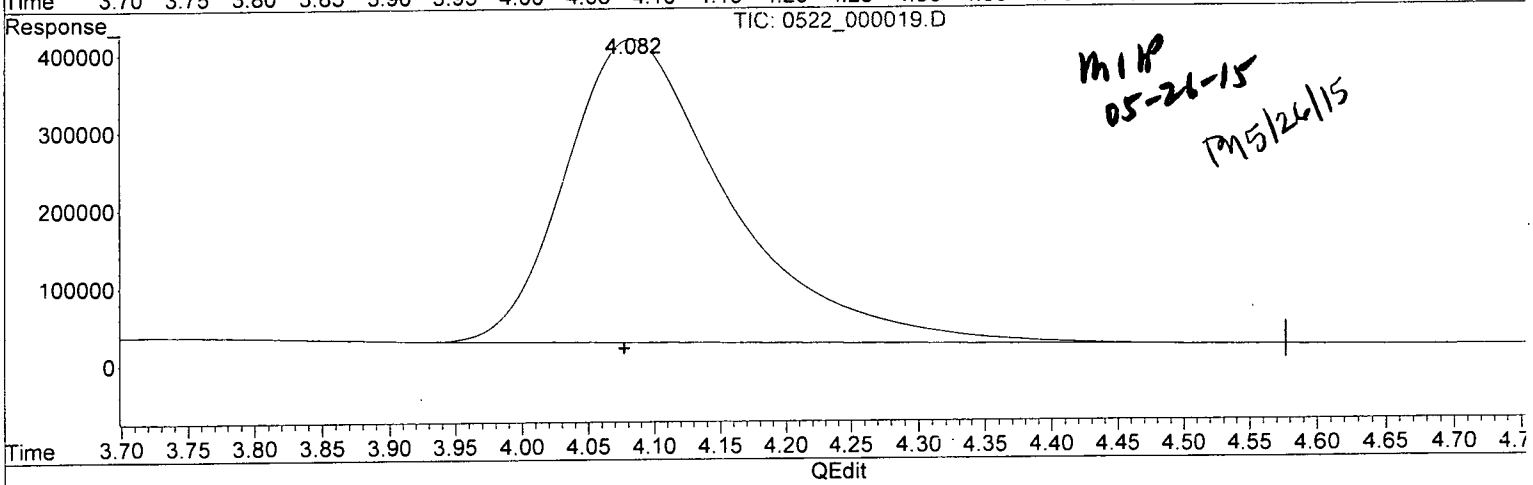
Quantitation Report (Qedit)

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-





MLP 05-26-15

M 5/26/15

(1) HMX (TM)

0.000min 0.000 ppb

response 0

(1) HMX #2 (TM)

4.082min 185.700 ppb m

response 390500

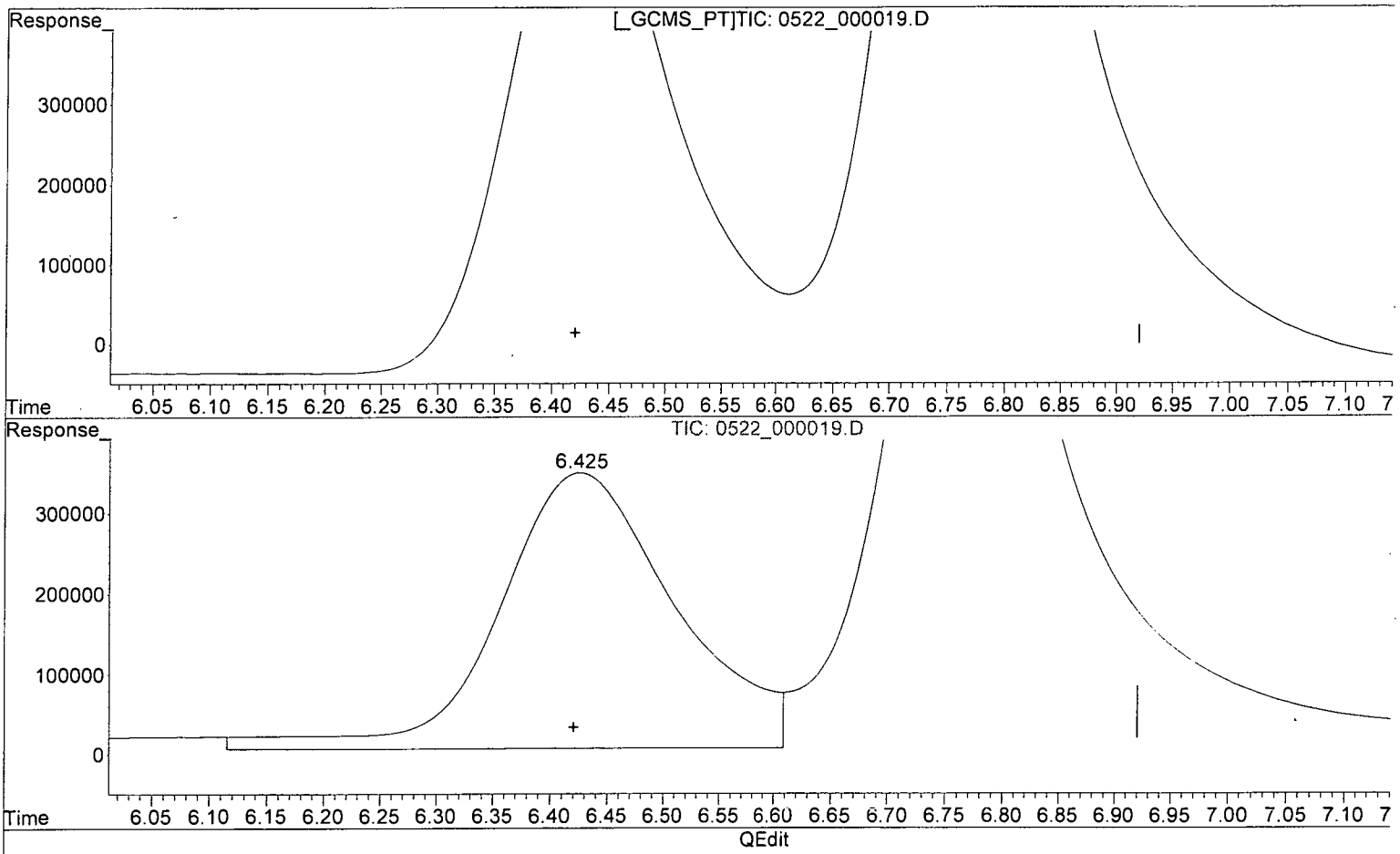
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:48:19
Operator : MP
Sample : 8330MXA_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4289 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:29 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0=I



(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.426min 185.202 ppb

response 343017

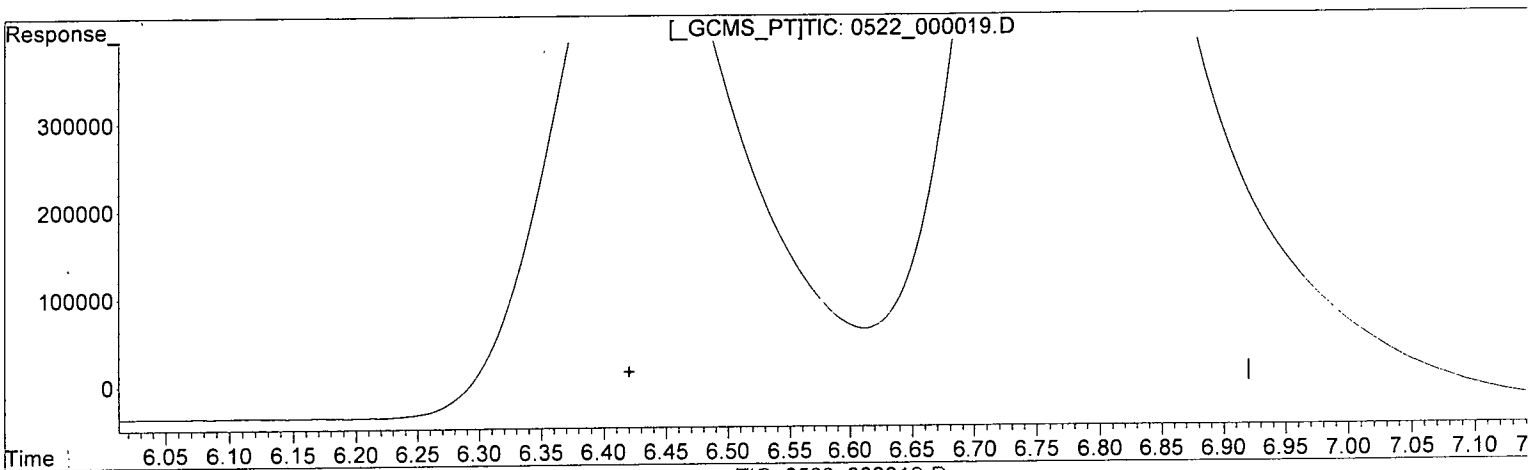
(+) = Expected Retention Time

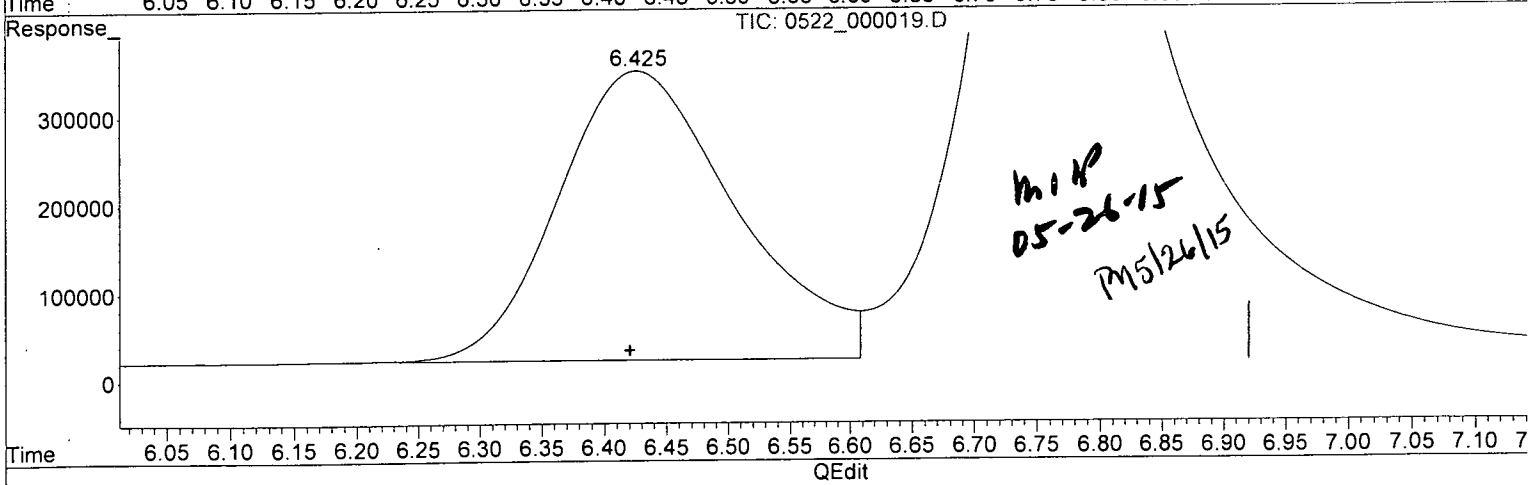
Quantitation Report (Qedit)

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





MP 05-26-15 M5/26/15

(2) RDX (TM)

0.000min 0.000 ppb

response 0

(2) RDX #2 (TM)

6.425min 176.857 ppb m

response 327561

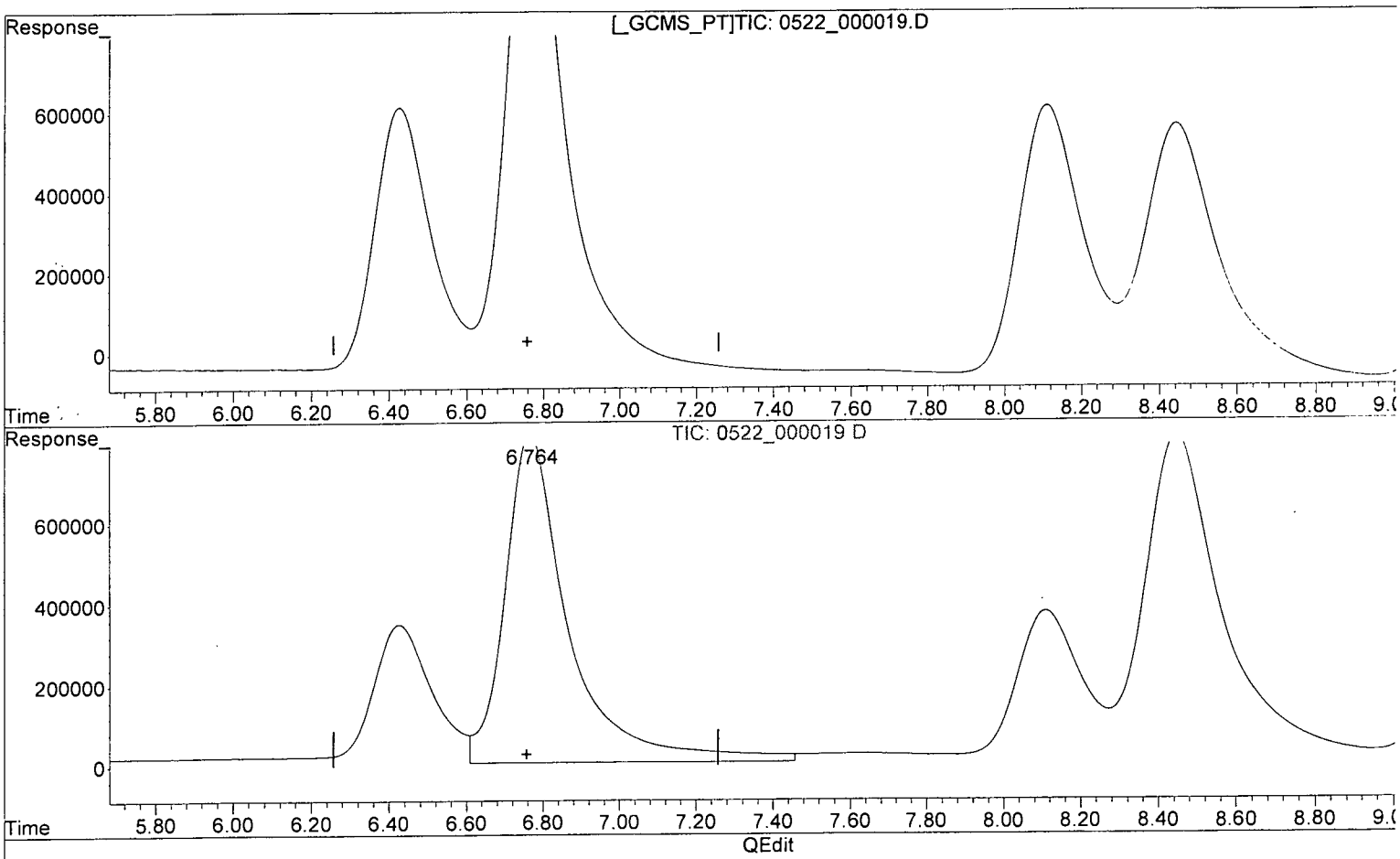
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:48:19
Operator : MP
Sample : 8330MXA_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4289 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:29 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-



(3) 1,3,5-TRINITROBENZENE (TM)

0.000min 0.000 ppb

response 0

(3) 1,3,5-TRINITROBENZENE #2 (TM)

6.765min 182.230 ppb

response 814511

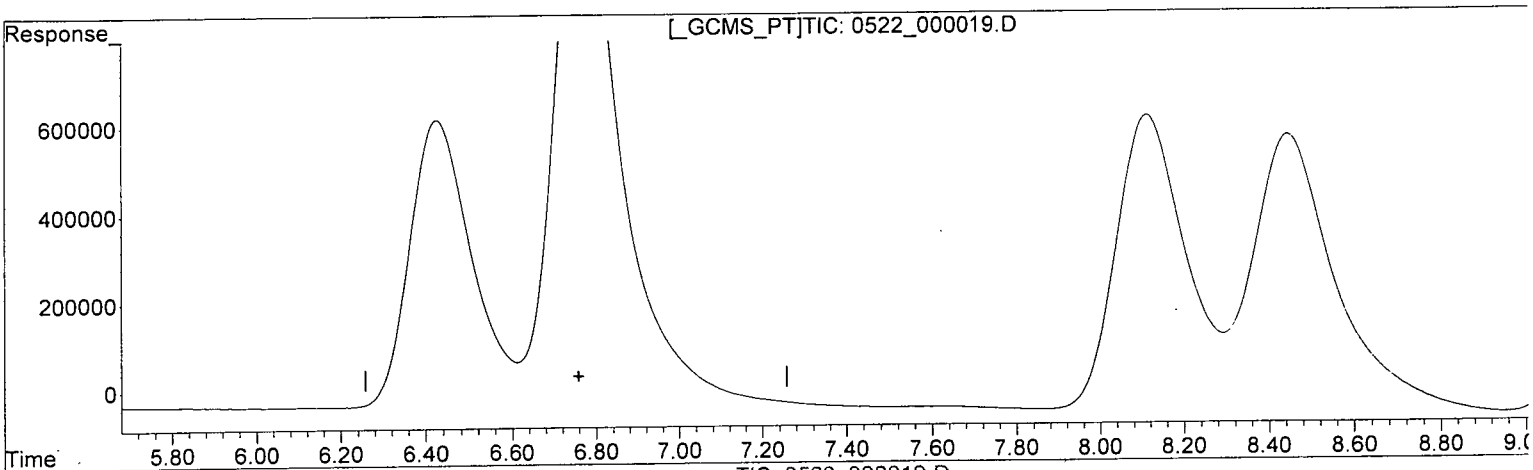
(+) = Expected Retention Time

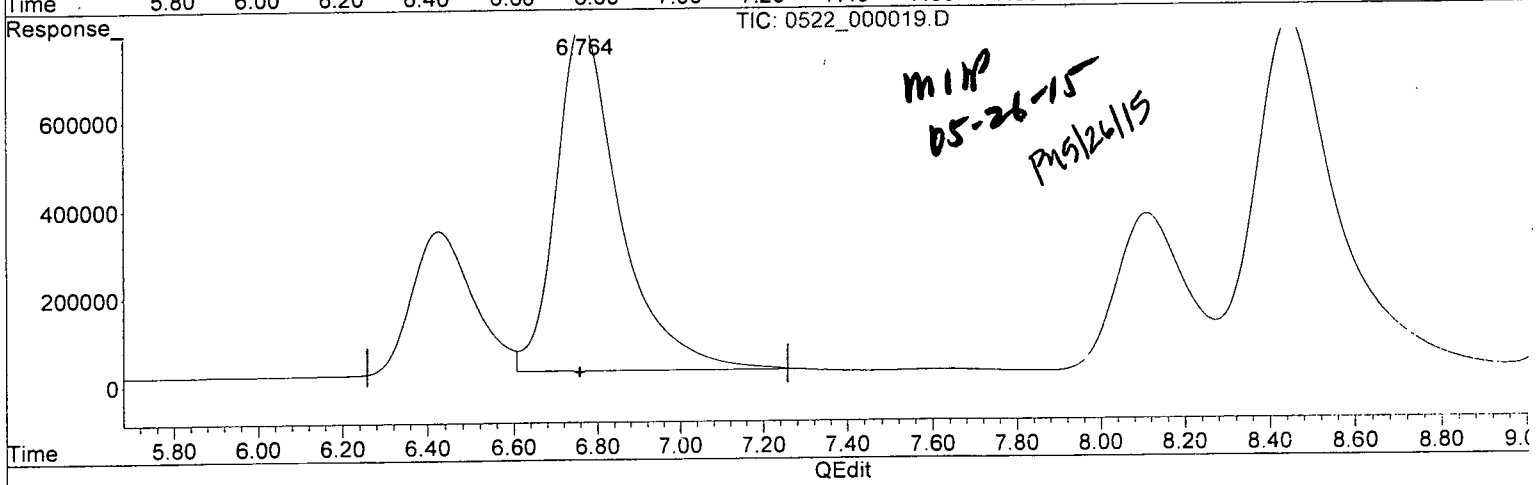
Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000019.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 20:48:19
Operator : MP
Sample : 8330MXA_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4289 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:30:29 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-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

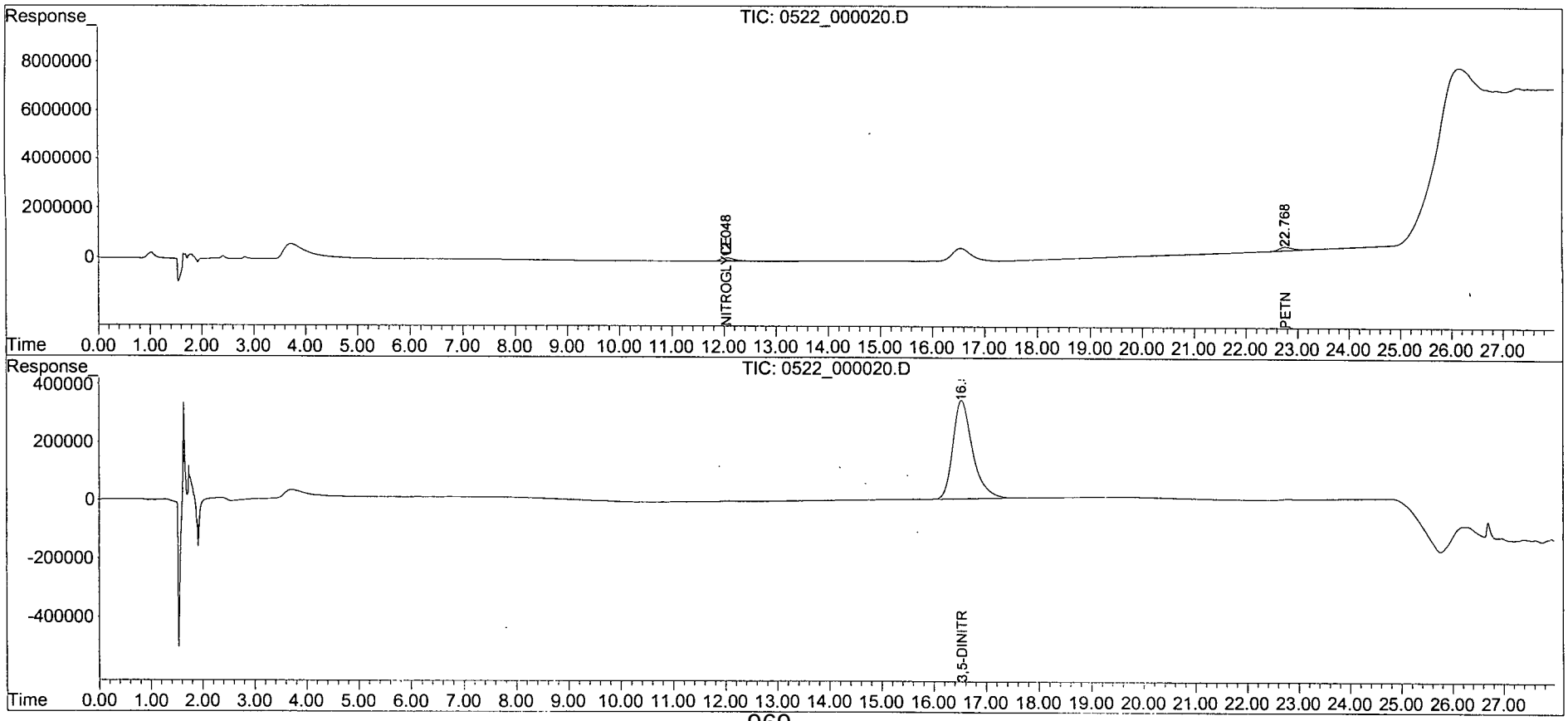
	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4) S	1,2-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 62.500			Recovery	=	0.00%	0.00%
	Target Compounds						
1) TM	HMX	0.000	0.000	0	0	N.D.	N.D.
2) TM	RDX	0.000	0.000	0	0	N.D. d	N.D. d
3) TM	1,3,5-TRI...	0.000	0.000	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.

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

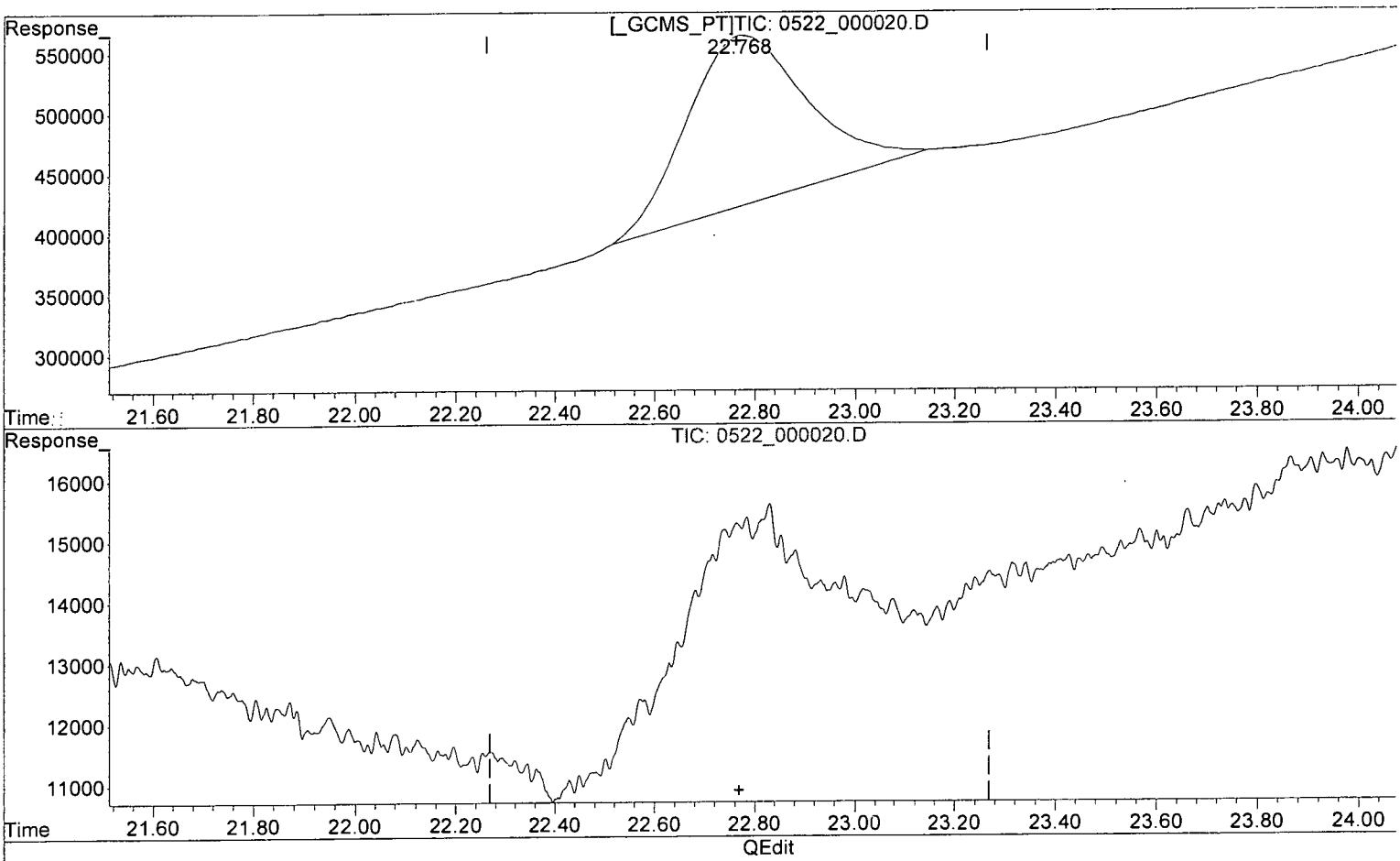


Quantitation Report (Qedit)

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-µ



(18) PETN (TM)

22.776min 154.013 ppb

response 140531

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

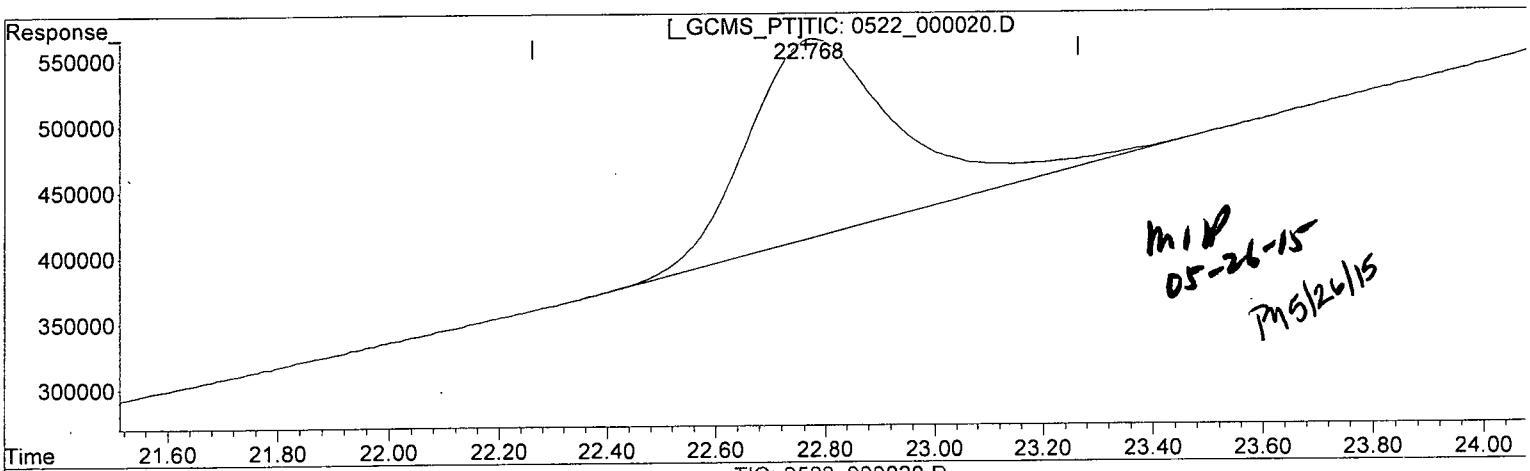
(+) = Expected Retention Time

Quantitation Report (Qedit)

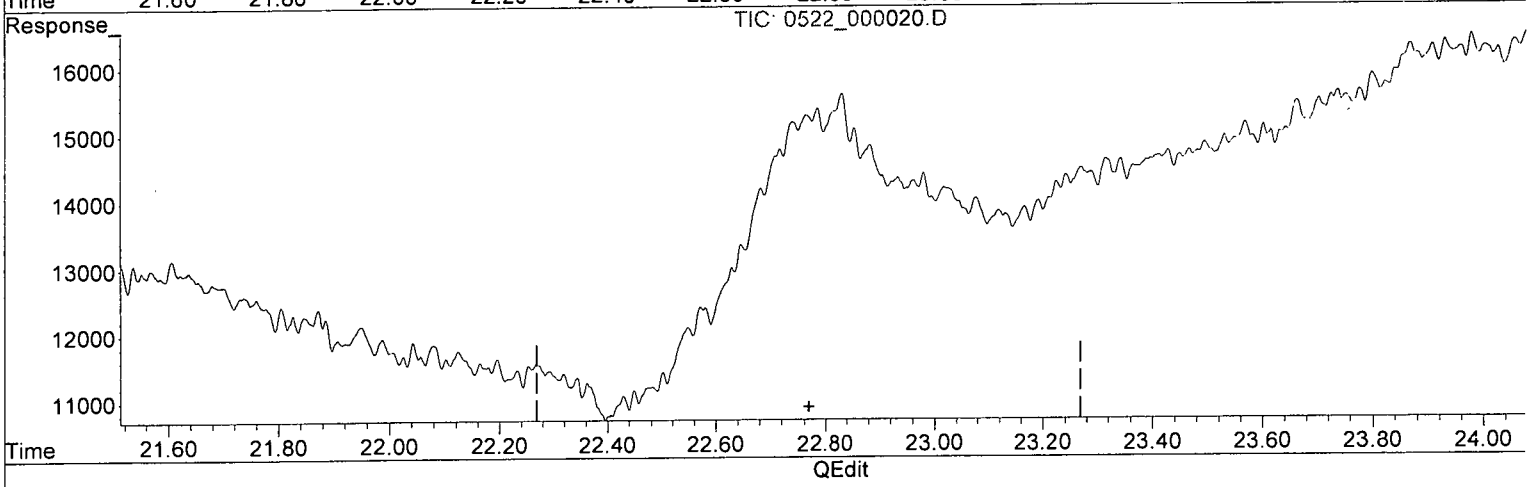
Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000020.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 22-May-2015, 21:27:50
Operator : MP
Sample : 8330MXB_CB 0.20 PPM 05/22/15
Misc :
ALS Vial : 4290 Sample Multiplier: 1

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-r



MIP 05-26-15 PM 5/26/15



(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.

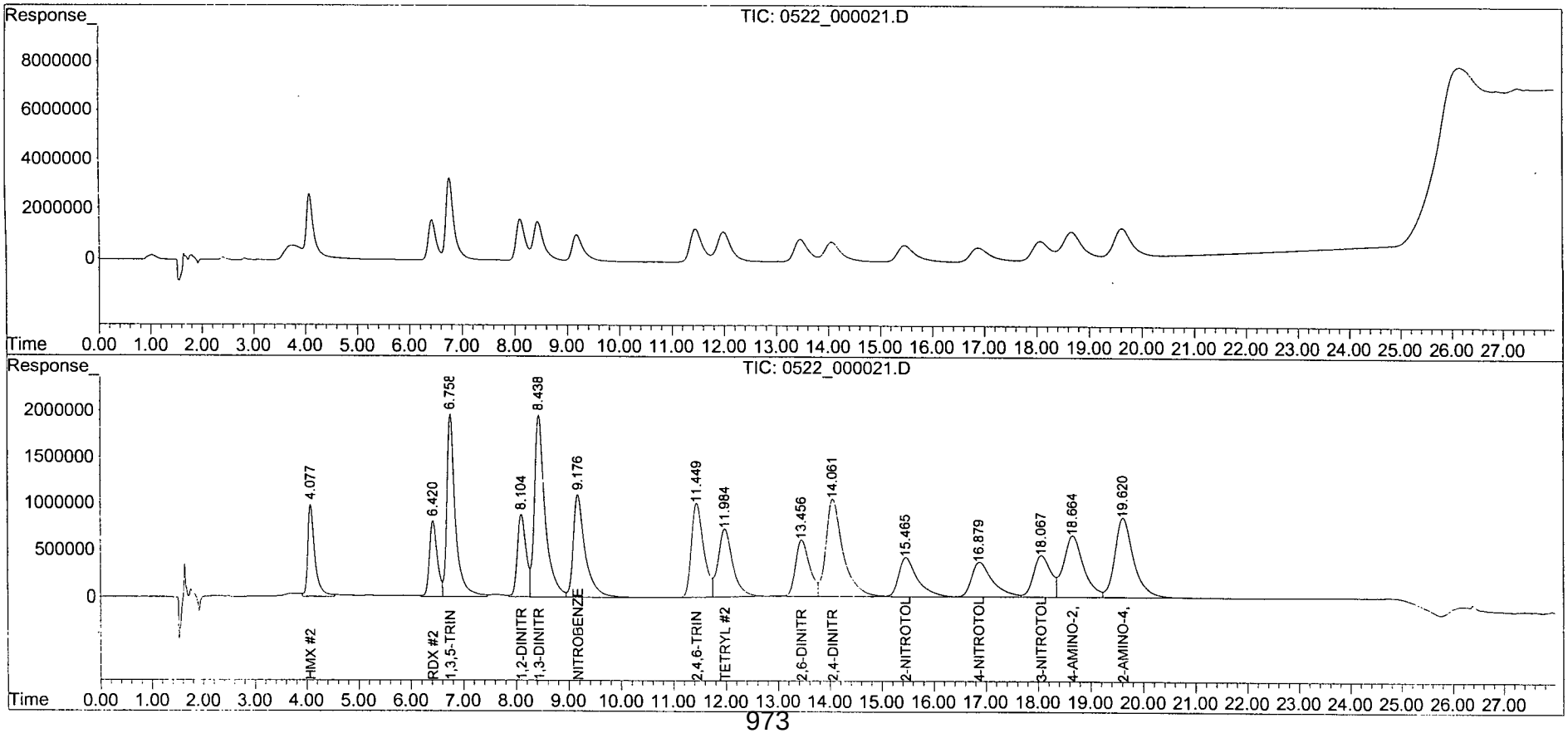
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

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



STE2_150522.M Sat May 23 09:37:20 2015 WALDORF Page: 2

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

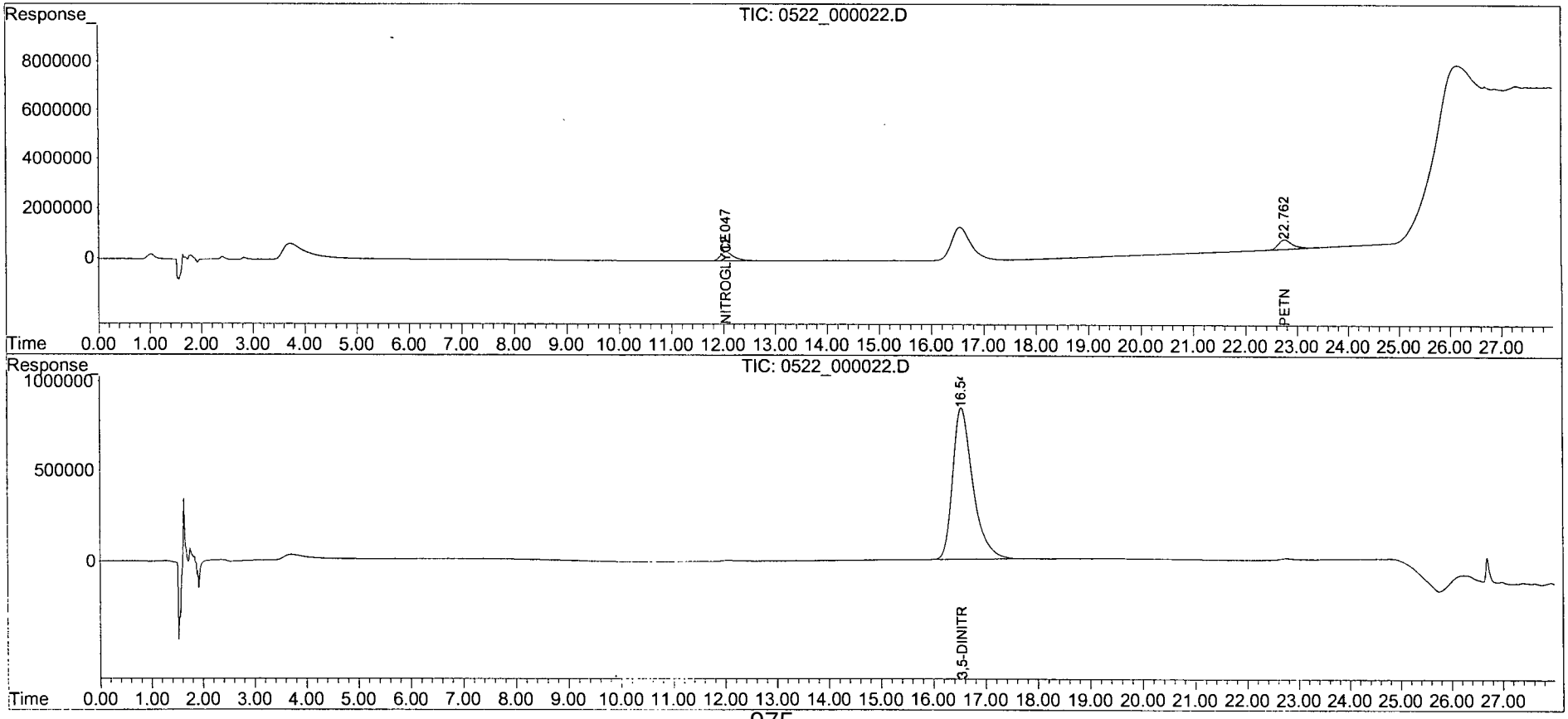
	Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
	System Monitoring Compounds						
4)	S 1,2-DINIT...	0.000	0.000	0	0	N.D. d	N.D. d
	Spiked Amount 62.500			Recovery	=	0.00%	0.00%
	Target Compounds						
1)	TM HMX	0.000	0.000	0	0	N.D.	N.D.
2)	TM RDX	0.000	0.000	0	0	N.D. d	N.D. d
3)	TM 1,3,5-TRI...	0.000	0.000	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.

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

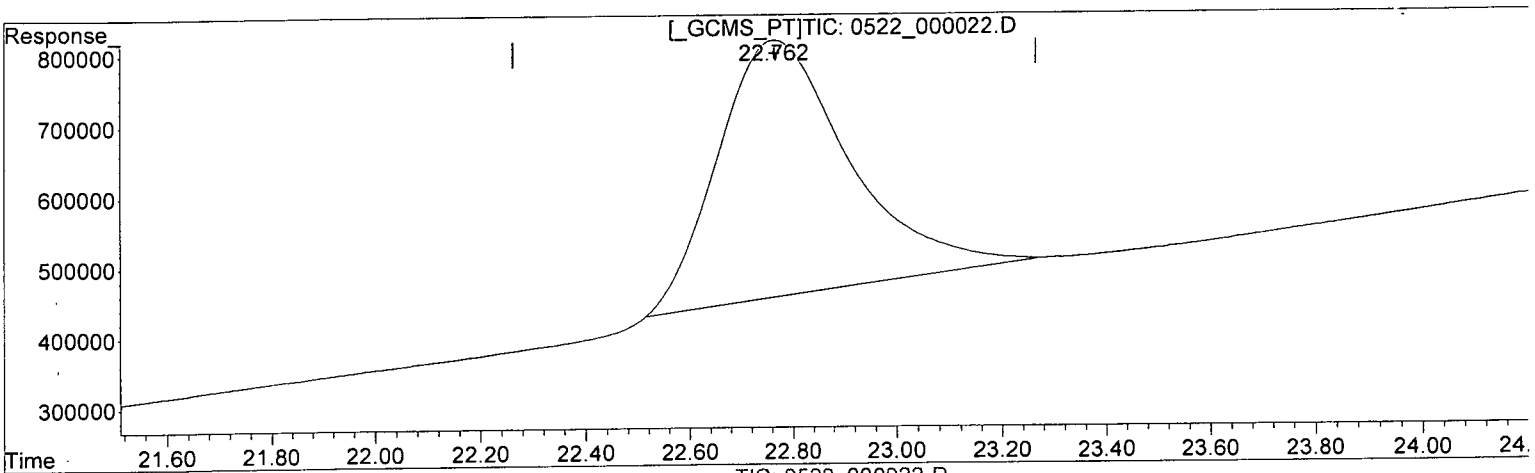


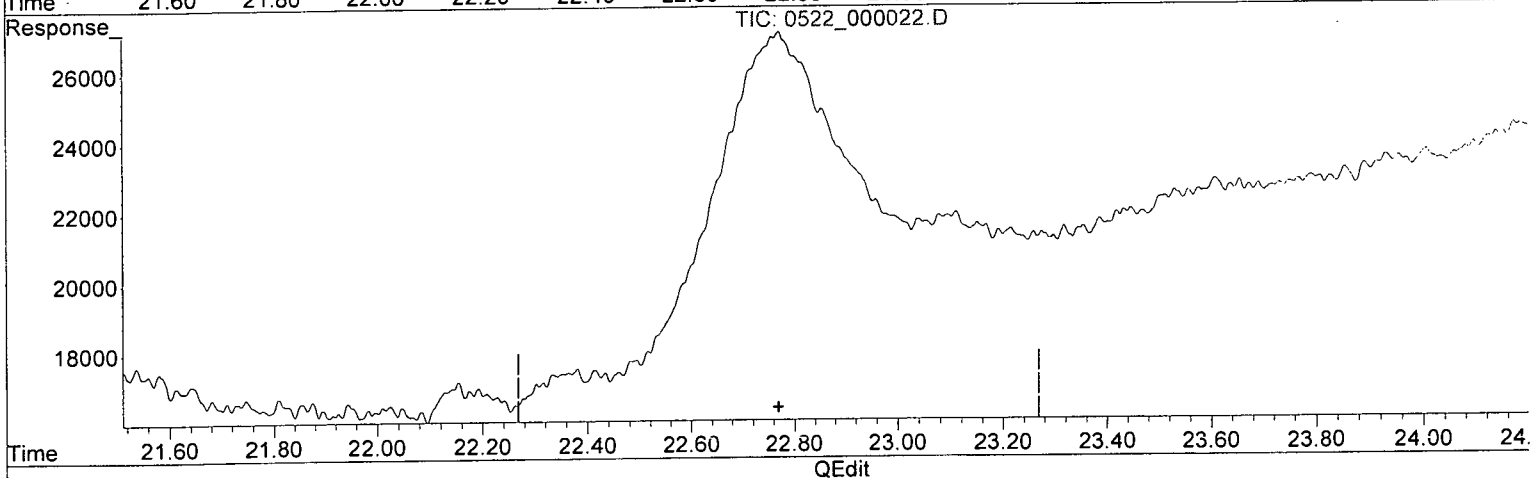
Quantitation Report (Qedit)

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





QEdit

(18) PETN (TM)

22.763min 398.817 ppb

response 363907

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

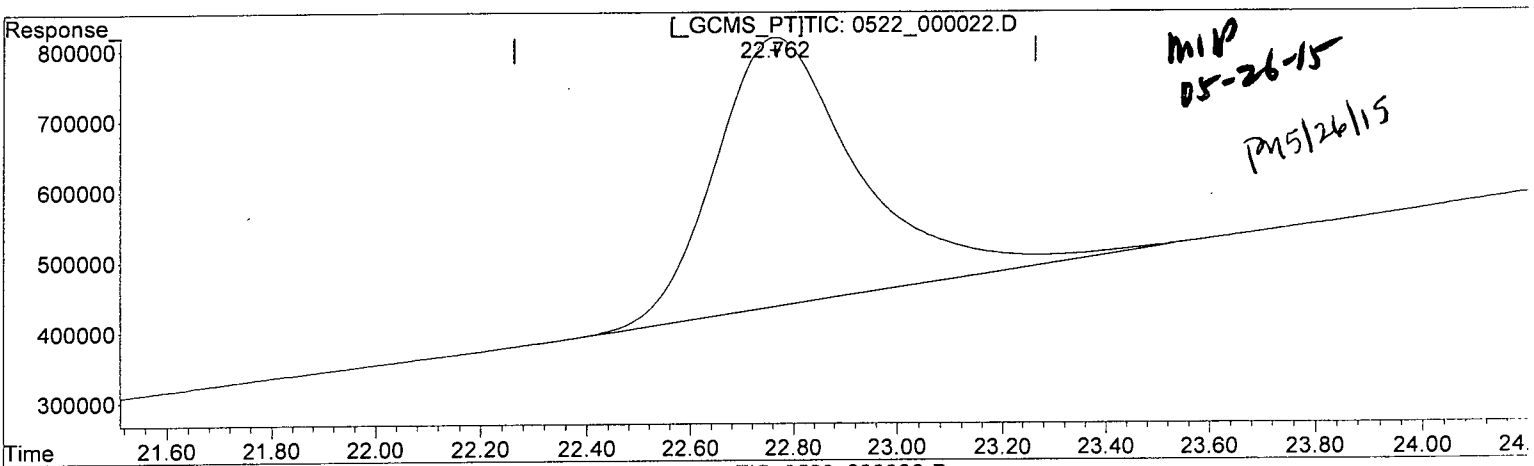
(+) = Expected Retention Time

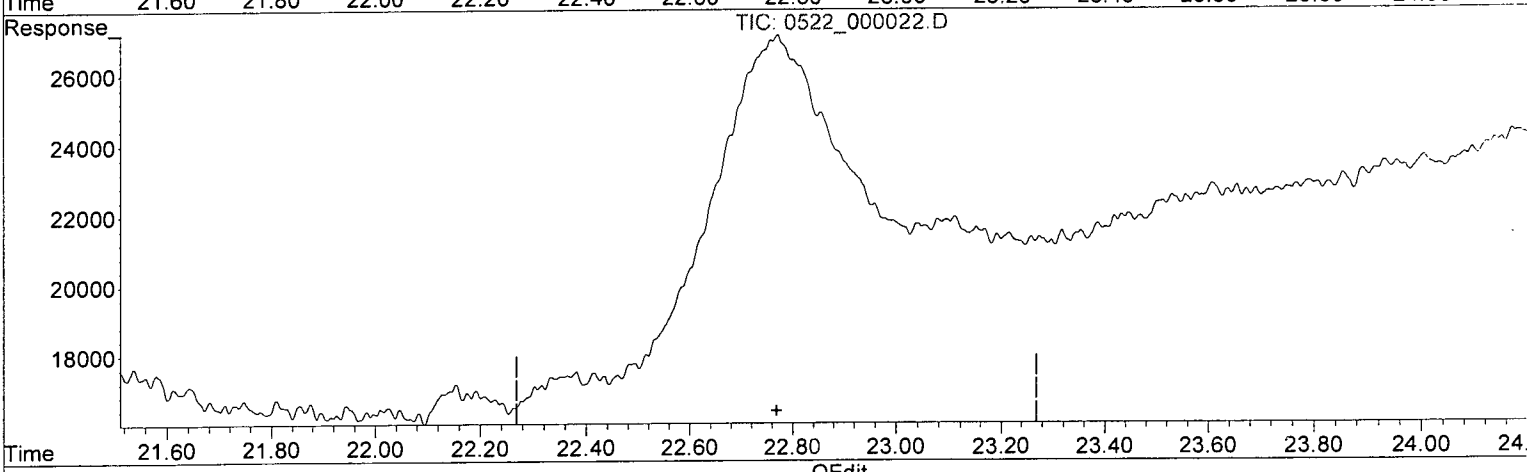
Quantitation Report (Qedit)

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.

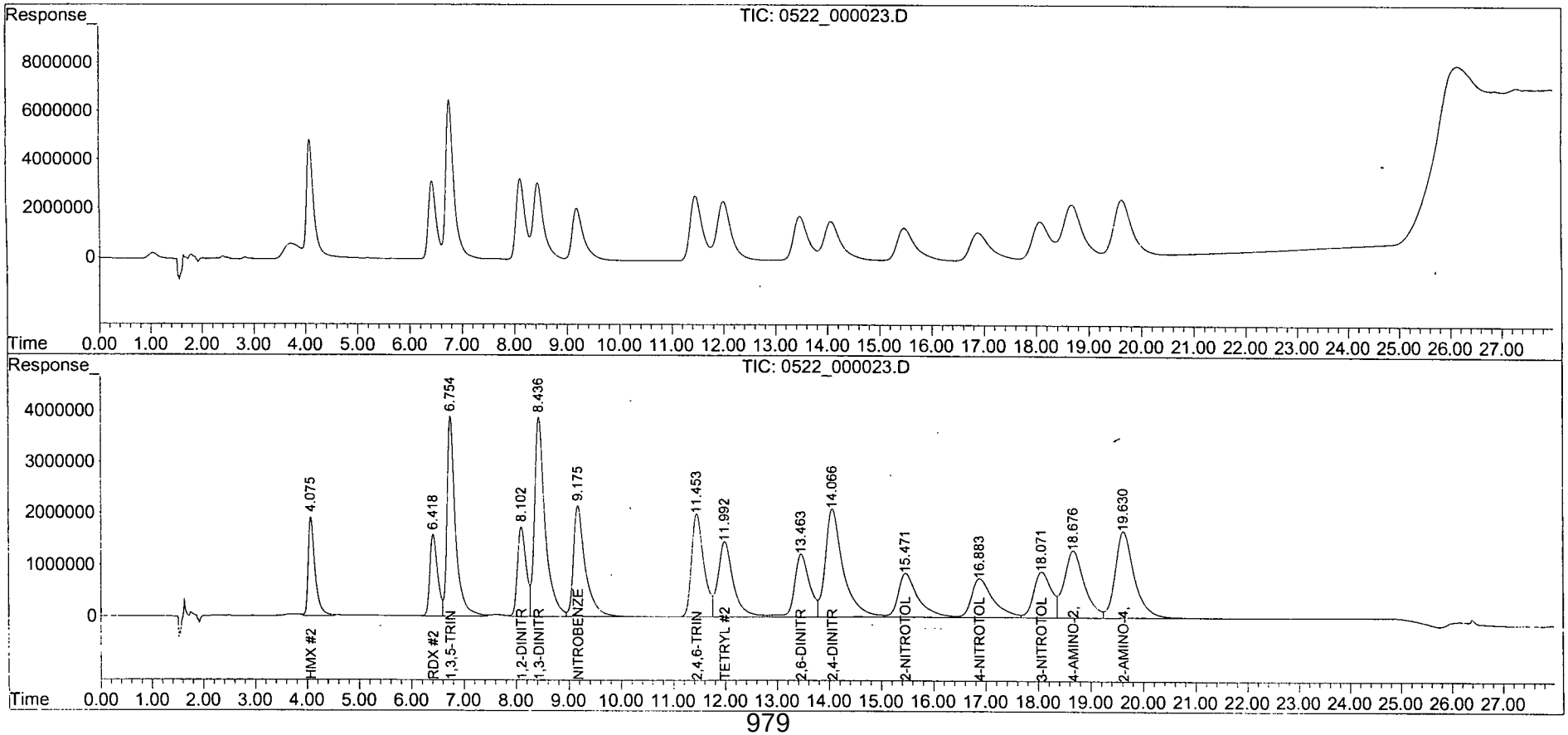
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

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



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 #

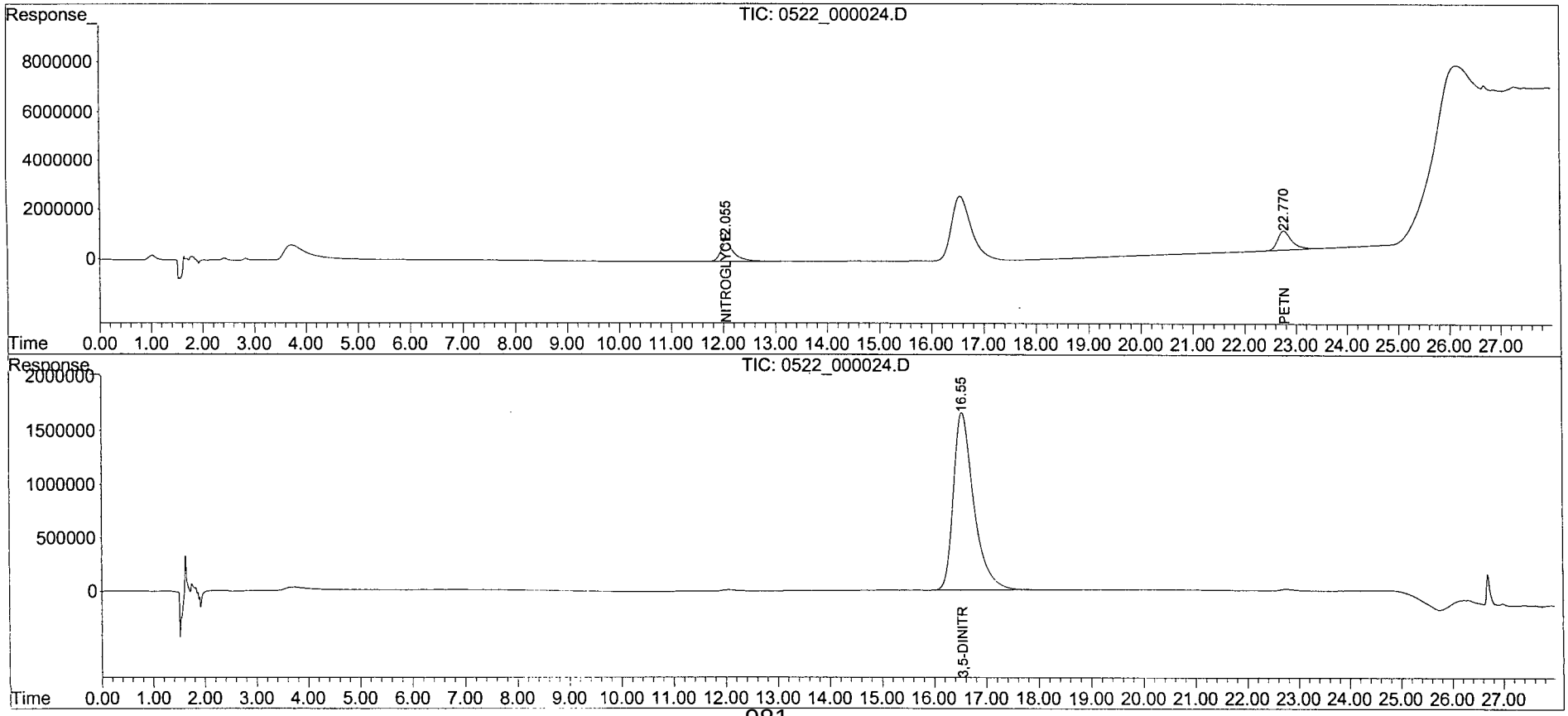
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

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

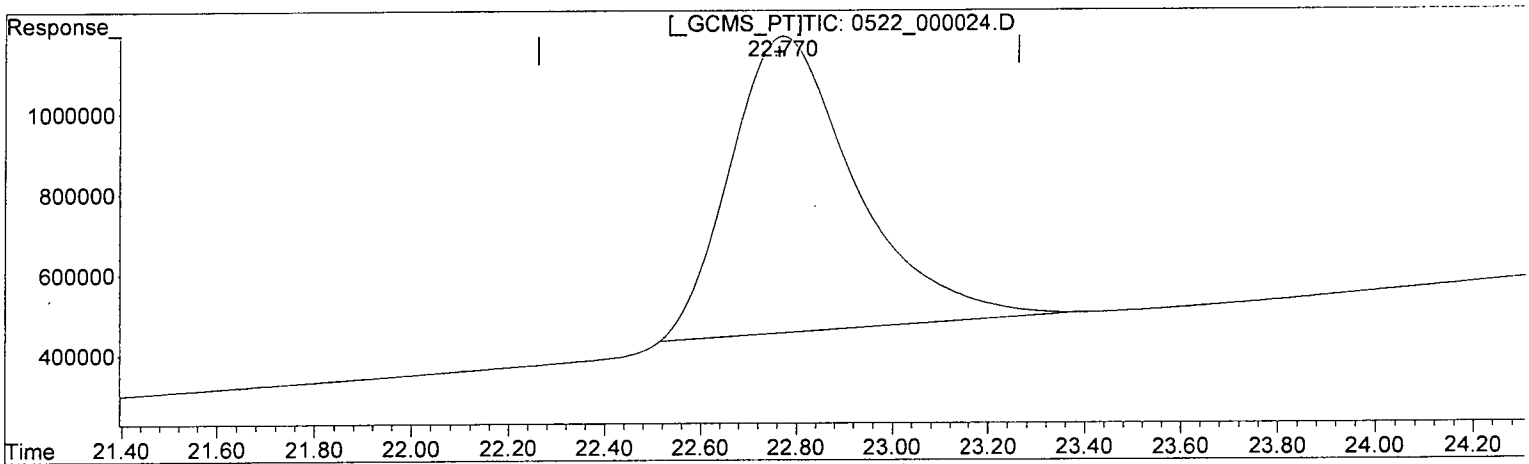


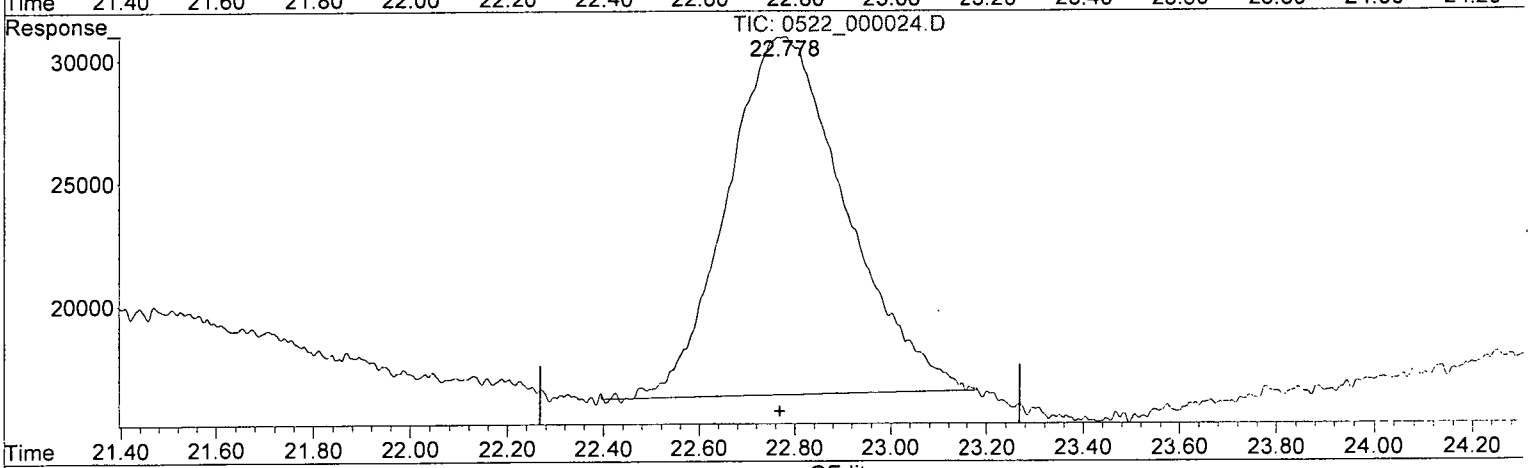
Quantitation Report (Qedit)

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-





QEdit

(18) PETN (TM)

22.770min 806.856 ppb

response 736228

(18) PETN #2 (TM)

22.770min 0.000 ppb

response 14524

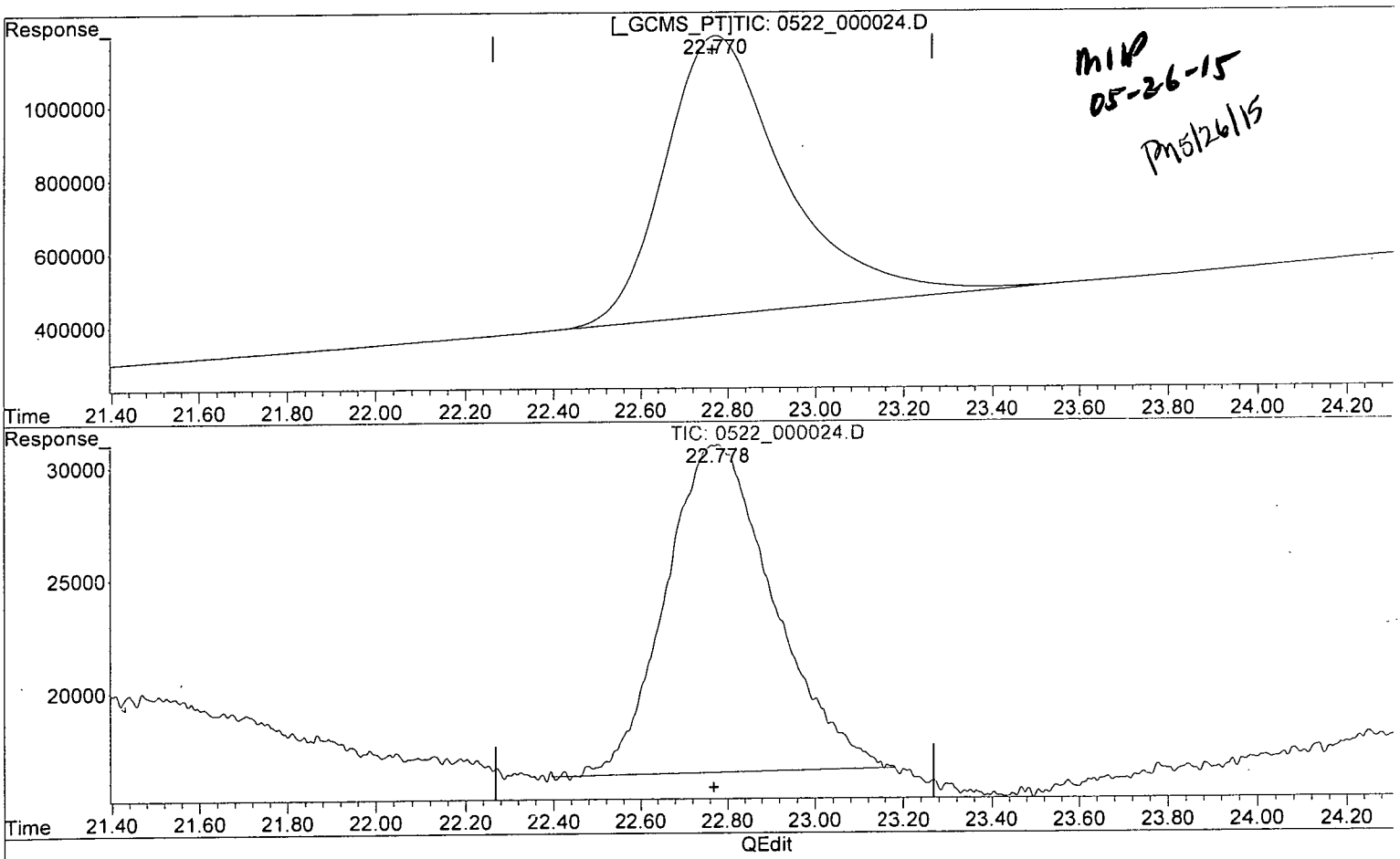
(+) = Expected Retention Time

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-



MLP 05-26-15
PM5/26/15

(18) PETN (TM)

22.770min 834.745 ppb m

response 761676

(18) PETN #2 (TM)

22.770min 0.000 ppb

response 14524

(+) = Expected Retention Time

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000025.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 00:45:24
Operator : MP
Sample : 8330MXA_CB 2.0 PPM 05/22/15
Misc :
ALS Vial : 4295 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 09:32:47 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Fri May 15 08:45:00 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-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_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 #

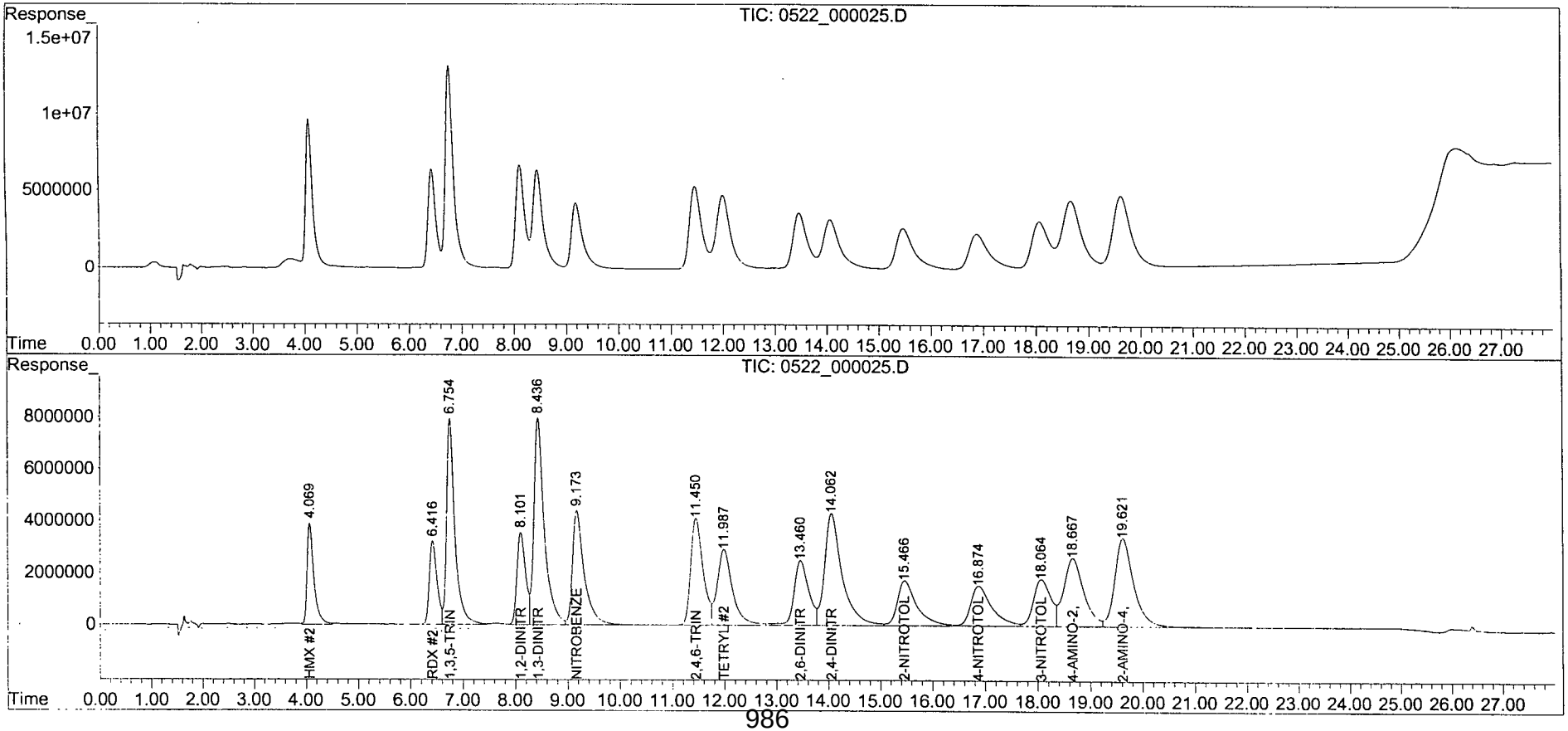
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_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

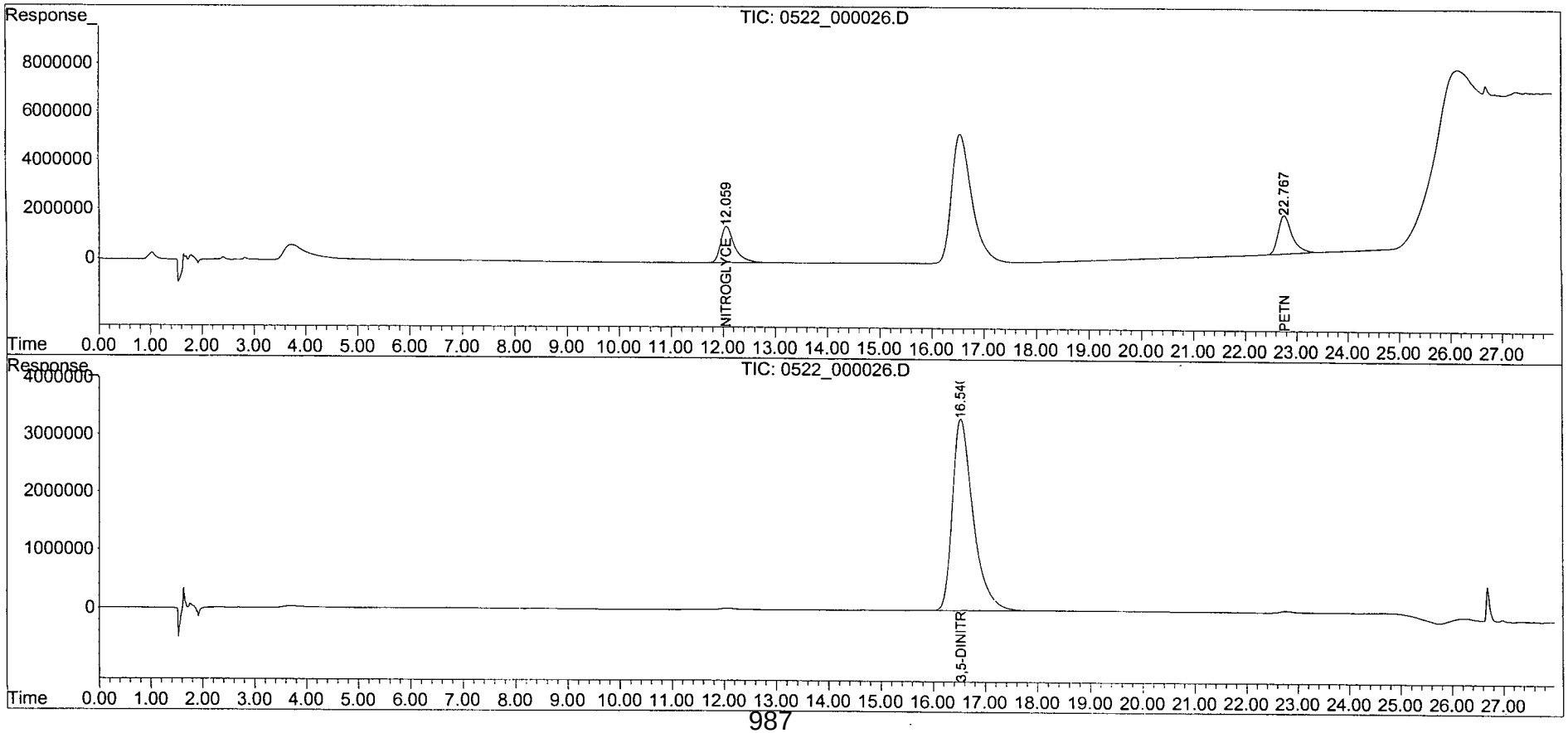
Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



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

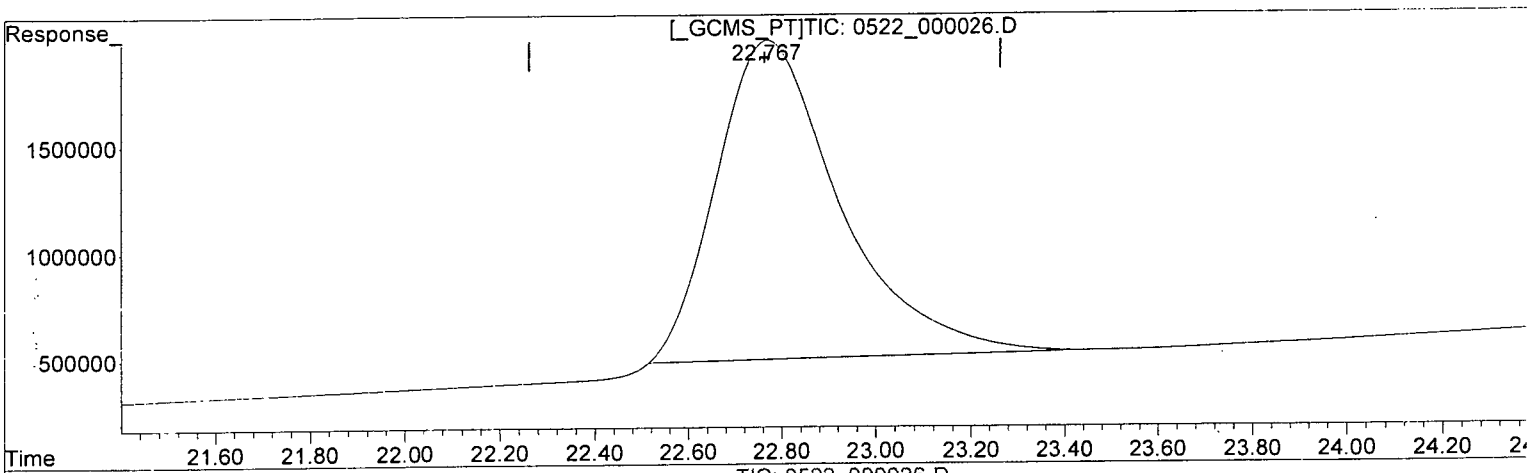


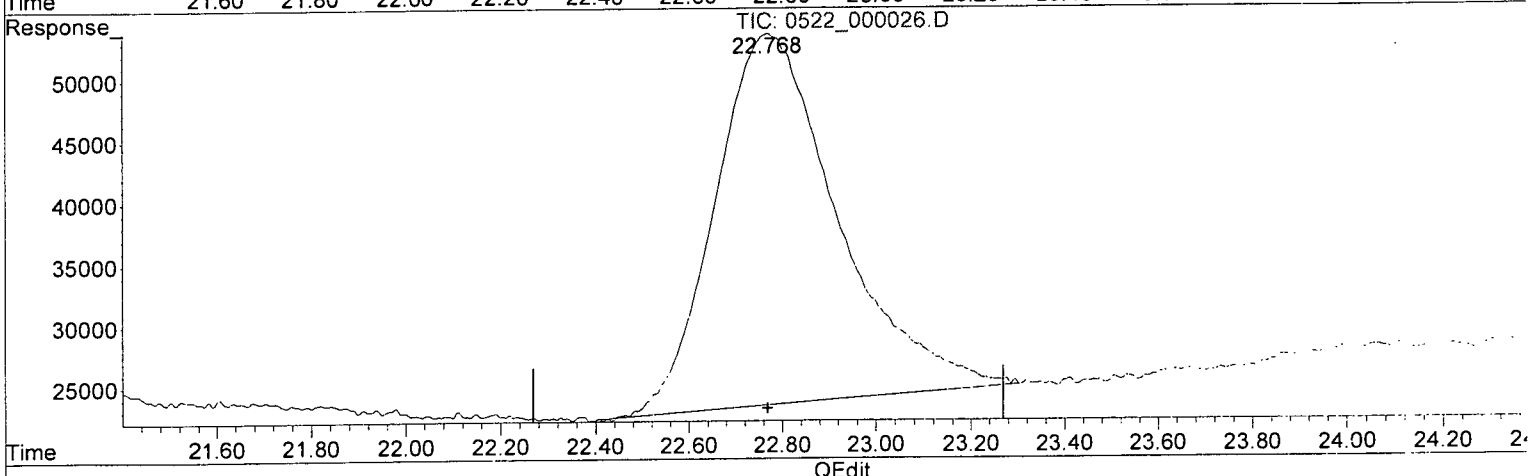
Quantitation Report (Qedit)

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-µ





QEdit

(18) PETN (TM)

22.769min 1638.003 ppb

response 1494619

(18) PETN #2 (TM)

22.769min 0.000 ppb

response 30238

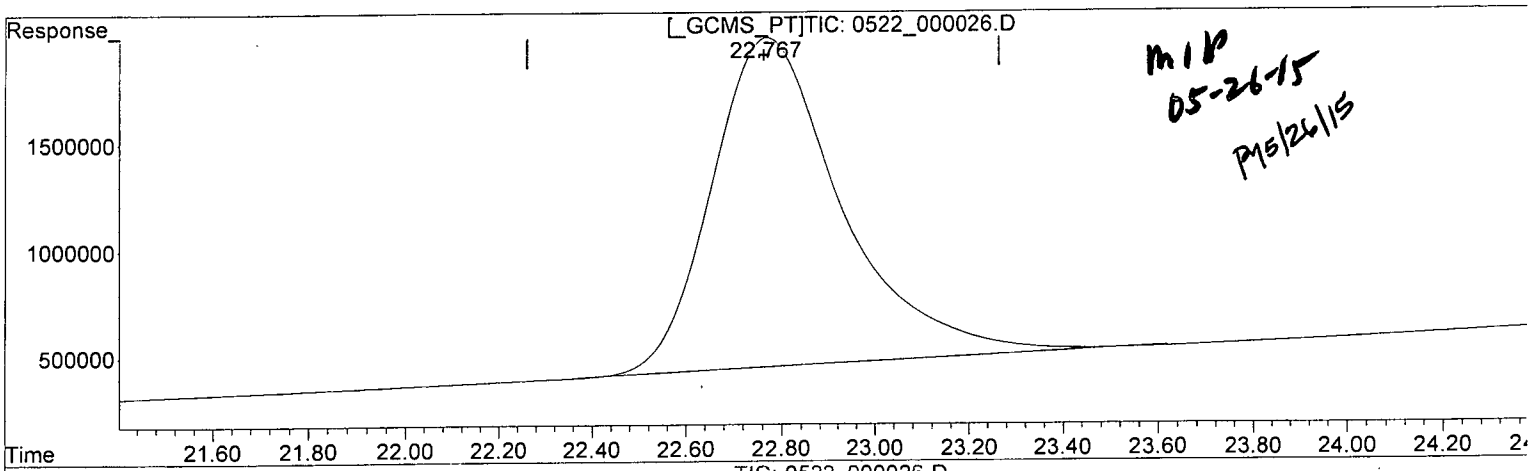
(+) = Expected Retention Time

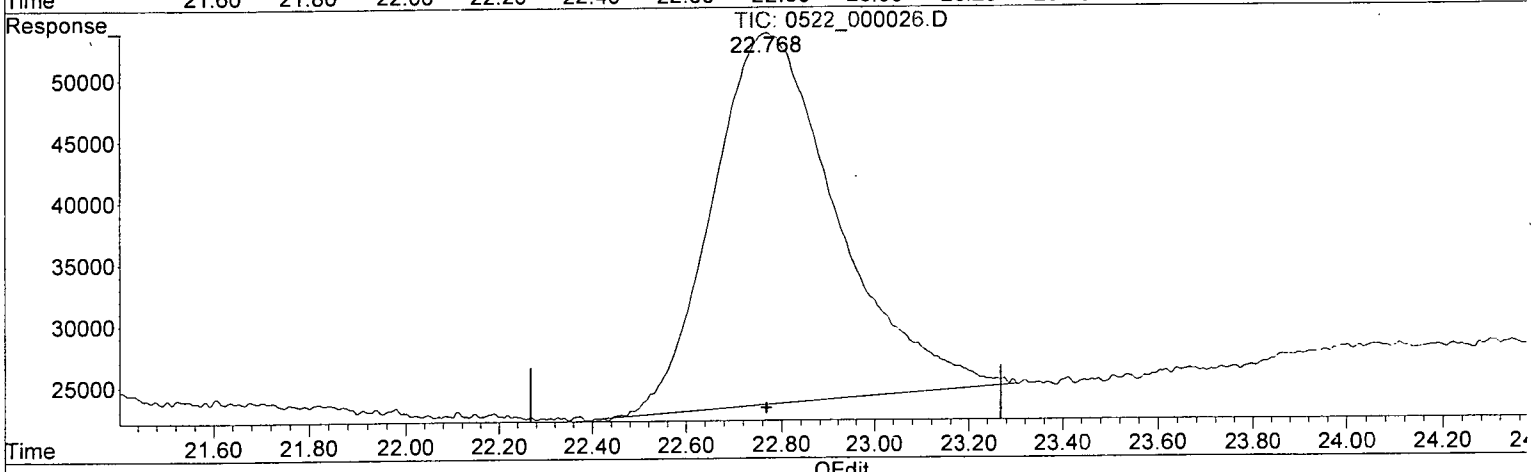
Quantitation Report (Qedit)

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-µ





(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: 76674
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							
24							
25							
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37							
38							
39							
40							

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000031.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 04:42:30
Operator : MP
Sample : 8330MXA_SS 1.0 PPM 05/22/15
Misc :
ALS Vial : 4352 Sample Multiplier: 1

Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: May 23 10:23:15 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150522\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:19:47 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron

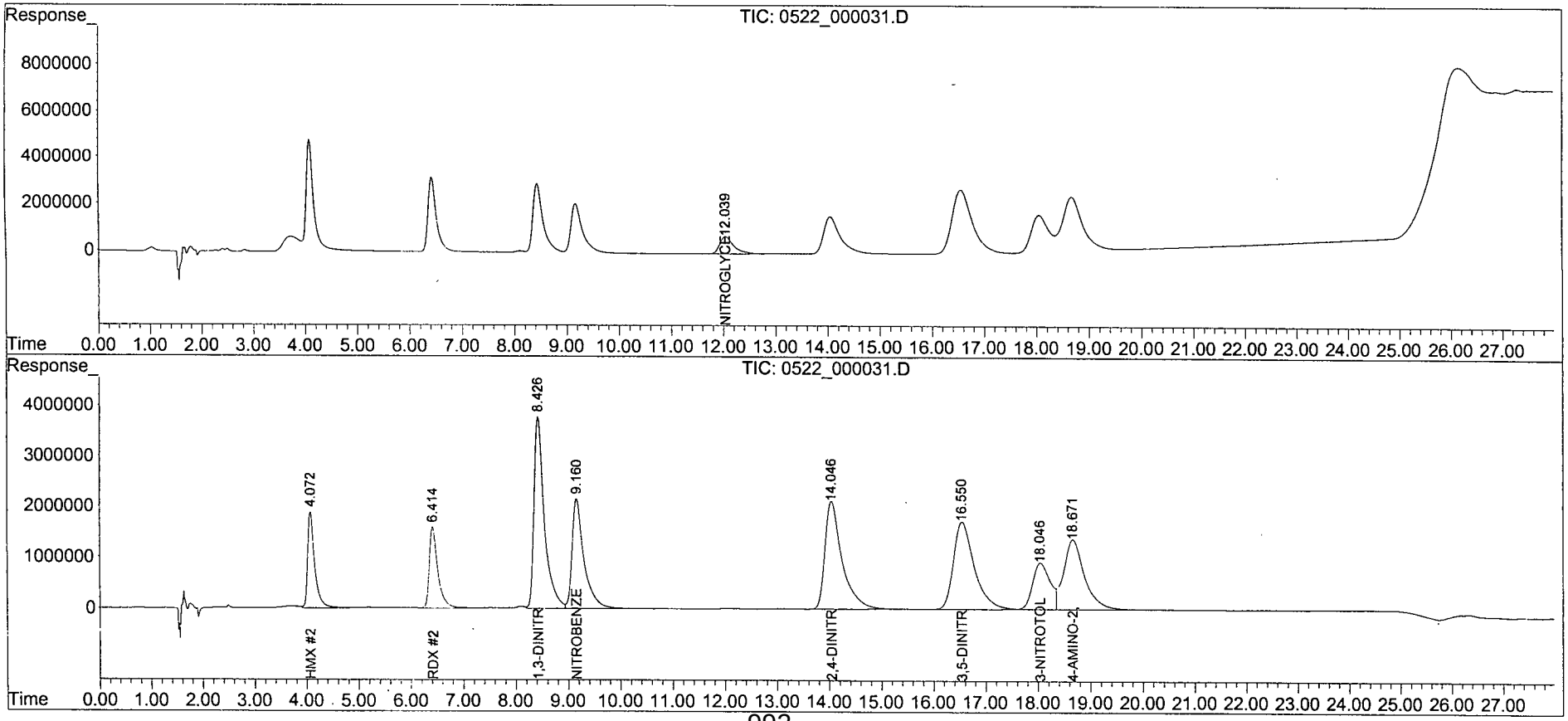
Compound	RT#1	RT#2	Resp#1	Resp#2	ppb	ppb
System Monitoring Compounds						
4) S 1,2-DINIT...	0.000	0.000	0	0	N.D.	N.D. d
Spiked Amount 62.500			Recovery =		0.00%	0.00%
Target Compounds						
1) TM HMX	0.000	4.073	0	1883754	N.D.	1017.745 #
2) TM RDX	0.000	6.415	0	1590397	N.D.	999.716 #
3) TM 1,3,5-TRI...	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.

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.

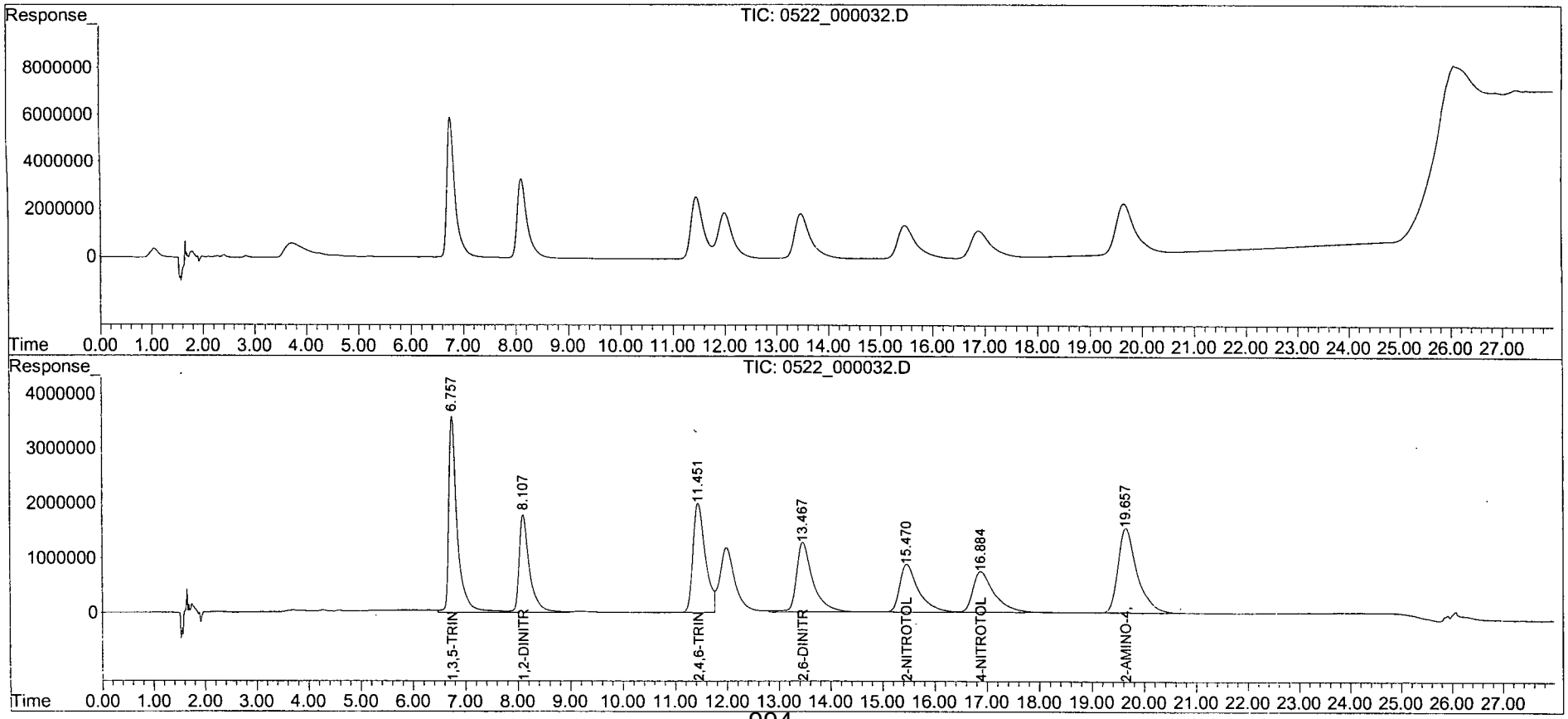
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

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. #

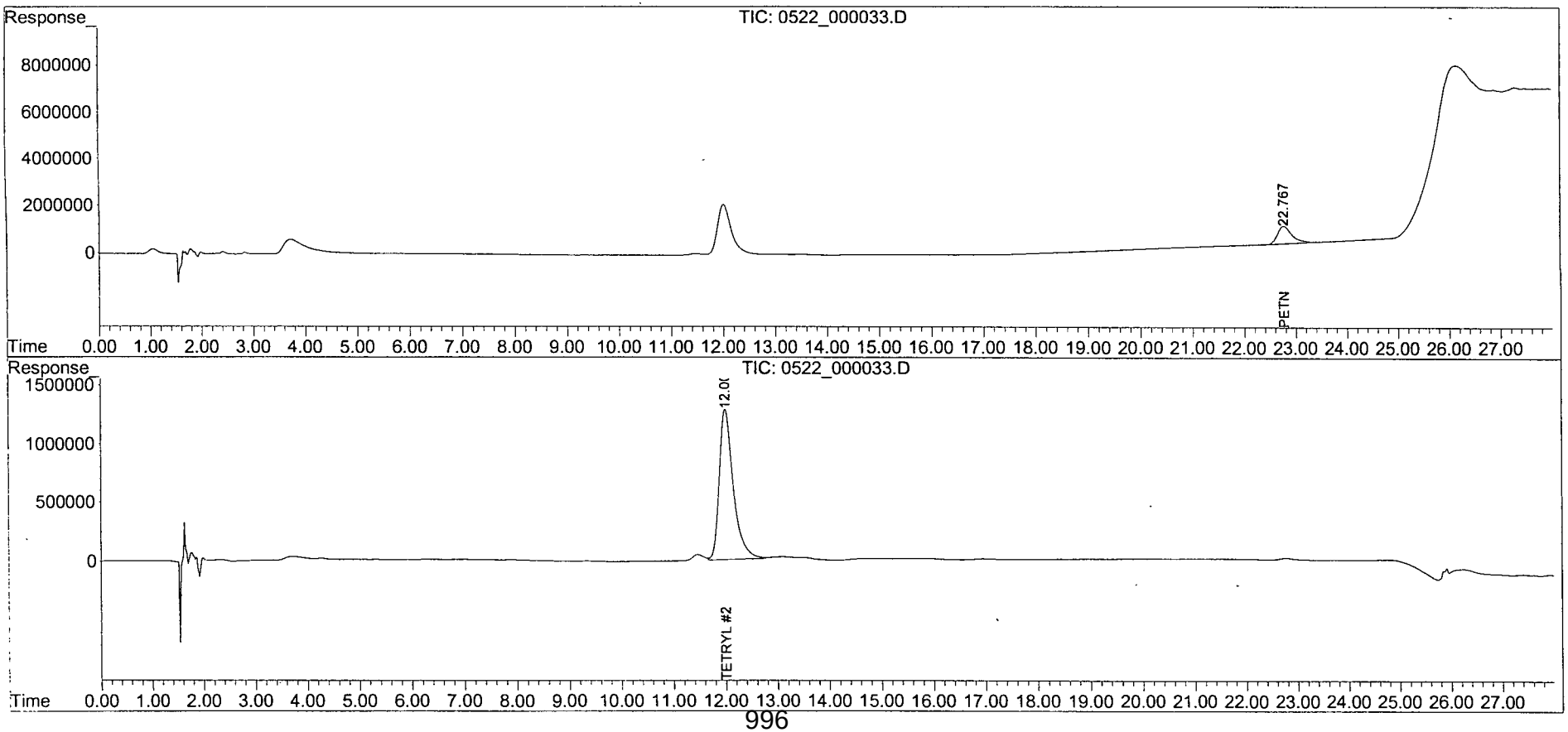
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

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

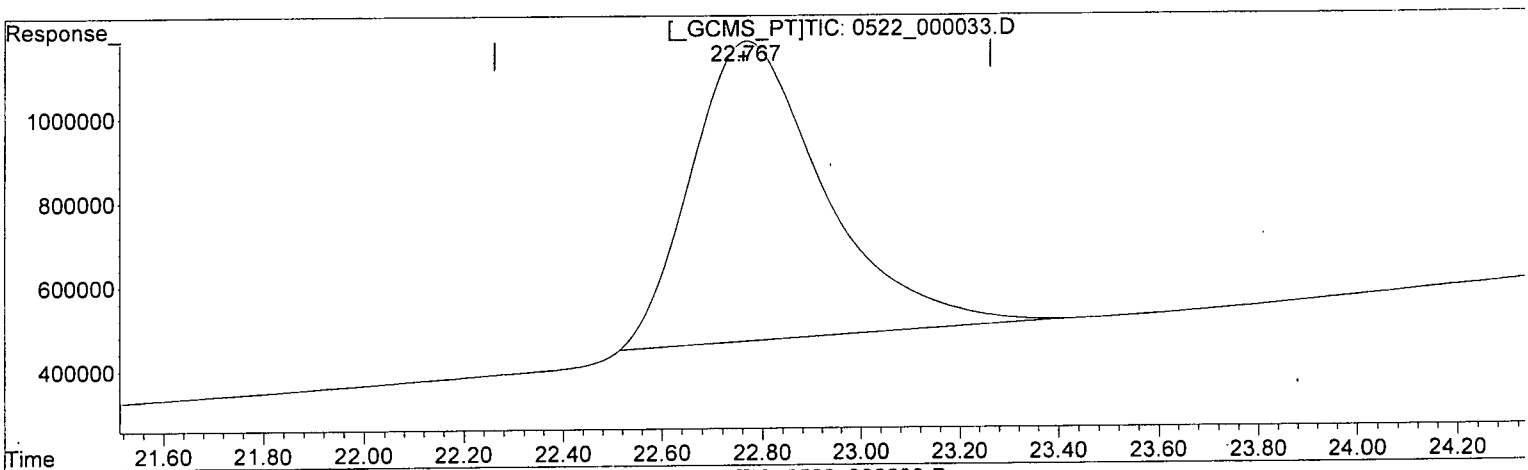


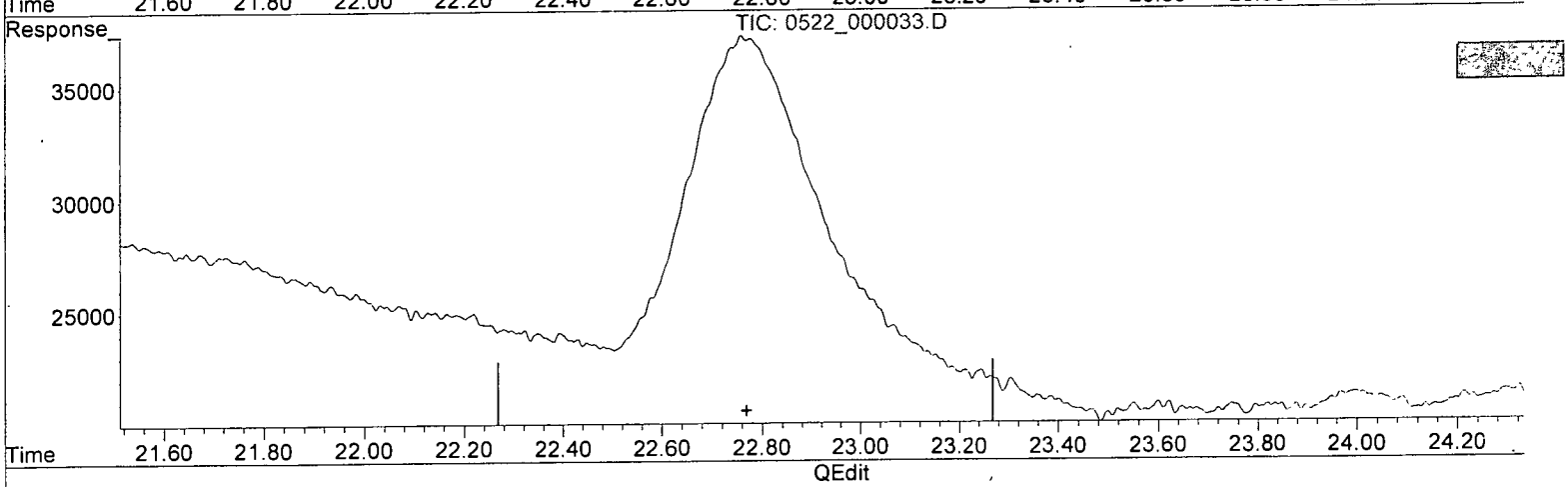
Quantitation Report (Qedit)

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-





(18) PETN (TM)

22.769min 982.640 ppb

response 713587

(18) PETN #2 (TM)

0.000min 0.000 ppb

response 0

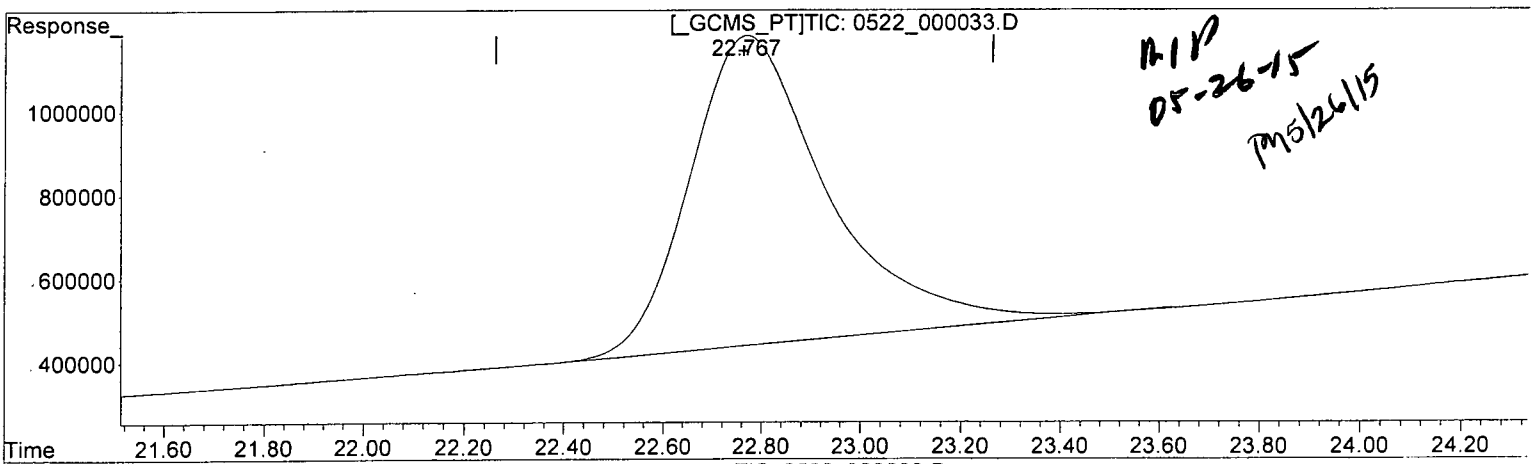
(+) = Expected Retention Time

Quantitation Report (Qedit)

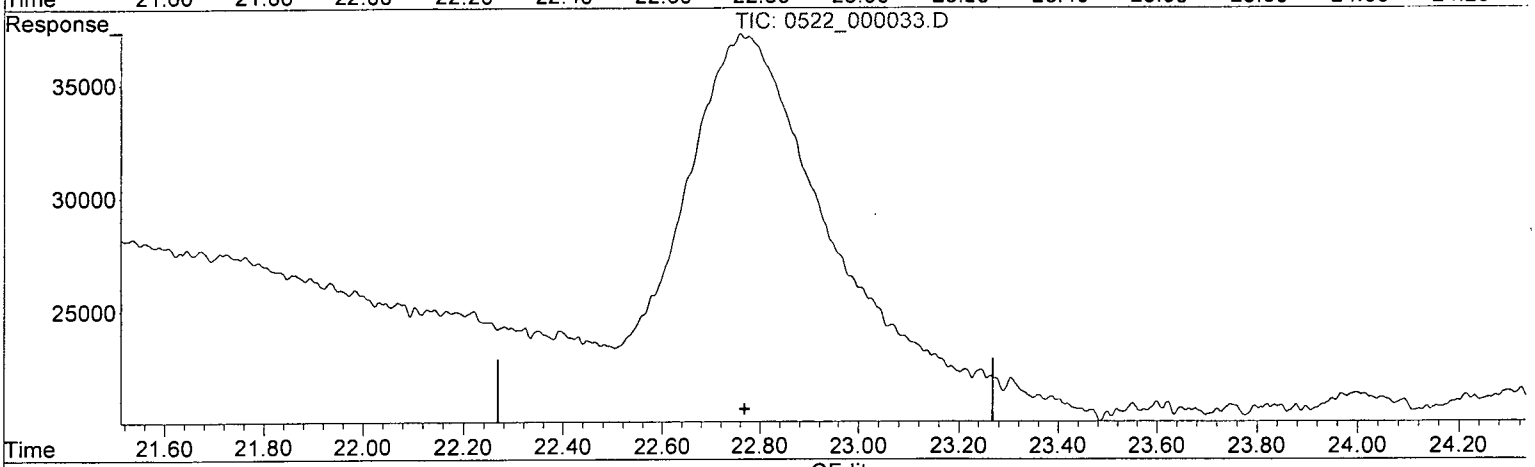
Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150522\
Data File : 0522_000033.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 23-May-2015, 06:01:31
Operator : MP
Sample : PETN_TETRYL_SS 1.0 PPM 05/22/15
Misc :
ALS Vial : 4354 Sample Multiplier: 1

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



(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: 76674
Date Analyzed: 01-Jul-2015, 13:12:31
Instrument: Statler
Initial Cal. Date: 05/22/15
Data File: 0701_000004-05.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	NITROGLYCERIN	18.6	20.2	9.1	TM	
2	TM	PETN	18.2	20.4	13	TM	
3		Signal #2					
4	TM	3,5-DINITROANILINE	41.3	45.7	11	TM	
5	TM	HMX	46.3	51.1	10	TM	
6	TM	RDX	39.8	42.9	7.9	TM	
7	TM	1,3,5-TRINITROBENZENE	97.9	107	9.7	TM	
8	S	1,2-DINITROBENZENE	44.3	49.3	11	S	
9	TM	1,3-DINITROBENZENE	96.6	106	9.9	TM	
10	TM	NITROBENZENE	54.2	60.6	12	TM	
11	TM	2,4,6-TRINITROTOLUENE	50.2	56.0	11	TM	
12	TM	TETRYL	36.6	41.0	12	TM	
13	TM	2,6-DINITROTOLUENE	30.0	34.1	14	TM	
14	TM	2,4-DINITROTOLUENE	51.7	57.7	12	TM	
15	TM	2-NITROTOLUENE	21.2	23.6	11	TM	
16	TM	4-NITROTOLUENE	18.3	20.9	15	TM	
17	TM	3-NITROTOLUENE	22.9	25.0	9.1	TM	
18	TM	4-AMINO-2,6-DINITROTOLUEN	34.2	34.4	0.61	TM	
19	TM	2-AMINO-4,6-DINITROTOLUEN	43.0	45.3	5.4	TM	
20							
21							
22							
23							
24							
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39							
40							

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150701\
Data File : 0701_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 01-Jul-2015, 12:33:01
Operator : MP
Sample : 8330MXA_CCV 1.0 PPM 07/01/15
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: Jul 01 13:27:19 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150701\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Wed Jul 01 13:26:49 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 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	8.091	0	1971421	N.D.	1112.899 #
Spiked Amount 62.500			Recovery	=	0.00%	1780.64%
Target Compounds						
1) TM HMX	0.000	4.056	0	2045202	N.D.	1104.972 #
2) TM RDX	0.000	6.395	0	1716820	N.D.	1079.185 #
3) TM 1,3,5-TRI...	0.000	6.764	0	4295167	N.D.	1096.751 #
5) TM 1,3-DINIT...	0.000	8.444	0	4244884	N.D.	1098.998 #
6) TM NITROBENZENE	0.000	9.193	0	2422398	N.D.	1116.909 #
7) TM 2,4,6-TRI...	0.000	11.458	0	2239146	N.D.	1114.851 #
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	11.942	11.942	1245806	1639830	NoCal	1121.429 #
10) TM 2,6-DINIT...	0.000	13.470	0	1363505	N.D.	1136.258 #
11) TM 2,4-DINIT...	0.000	14.069	0	2309774	N.D.	1116.503 #
12) TM 2-NITROTO...	0.000	15.499	0	942356	N.D.	1113.411 #
13) TM 4-NITROTO...	0.000	16.907	0	837655	N.D.	1146.892 #
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
15) TM 3-NITROTO...	0.000	18.097	0	1000627	N.D.	1091.206 #
16) TM 4-AMINO-2...	0.000	18.565	0	1374746	N.D.	1006.148 #
17) TM 2-AMINO-4...	0.000	19.517	0	1812051	N.D.	1053.814 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

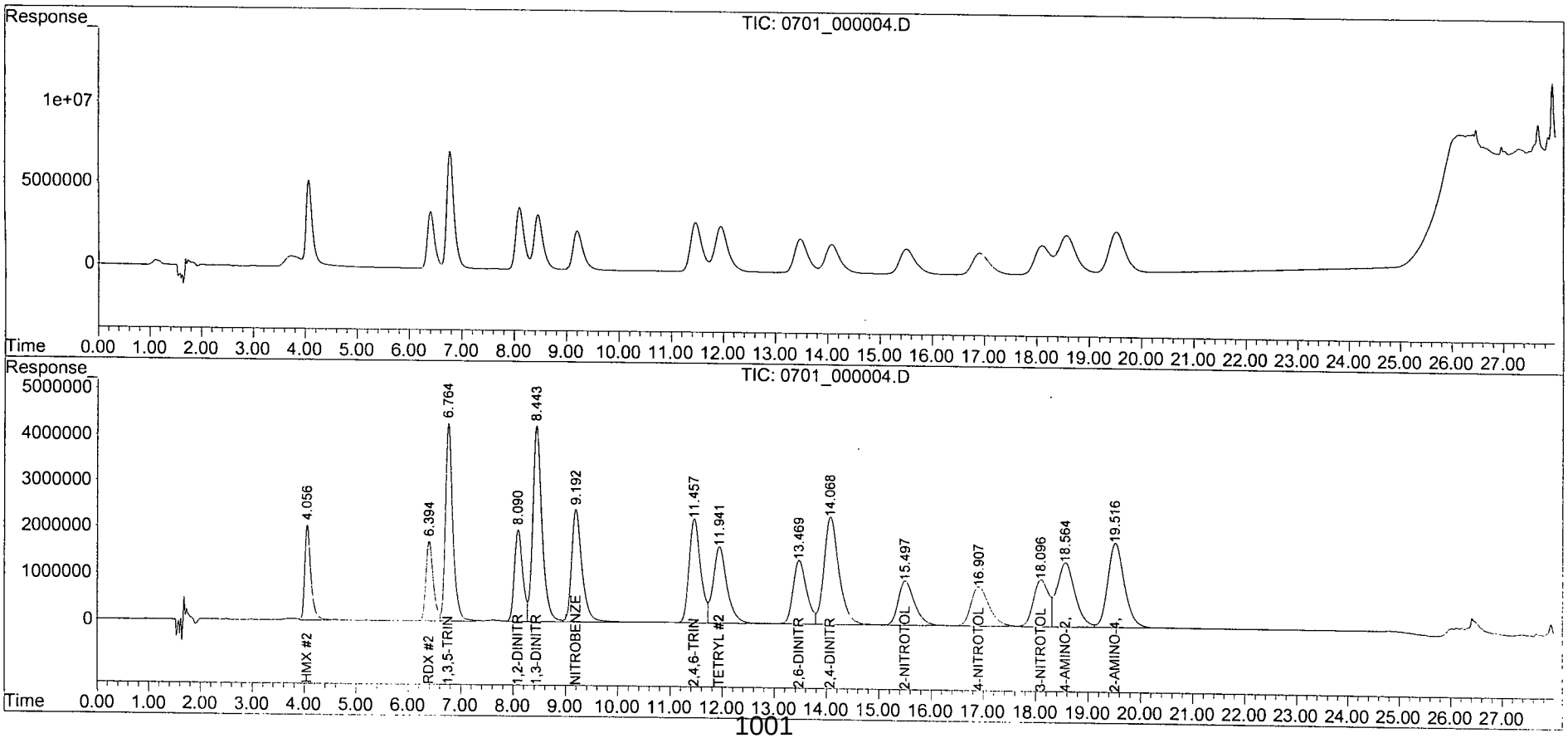
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150701\
Data File : 0701_000004.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 01-Jul-2015, 12:33:01
Operator : MP
Sample : 8330MXA_CCV 1.0 PPM 07/01/15
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: Jul 01 13:27:19 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150701\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Wed Jul 01 13:26:49 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 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 Wed Jul 01 13:27:37 2015 WALDORF

Page: 2

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150701\
Data File : 0701_000005.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 01-Jul-2015, 13:12:31
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 07/01/15
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: Jul 01 13:53:13 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150701\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Wed Jul 01 13:51:08 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 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. d	N.D. 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...	12.035	12.047	809679	14327	1091.176	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. d	N.D. 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	16.392	0	1828701	N.D.	1105.931 #
15) TM 3-NITROTO...	0.000	0.000	0	0	N.D.	N.D.
16) TM 4-AMINO-2...	0.000	0.000	0	0	N.D.	N.D.
17) TM 2-AMINO-4...	0.000	0.000	0	0	N.D.	N.D.
18) TM PETN	22.732	22.734	817138	16945	1125.233m	NoCal #

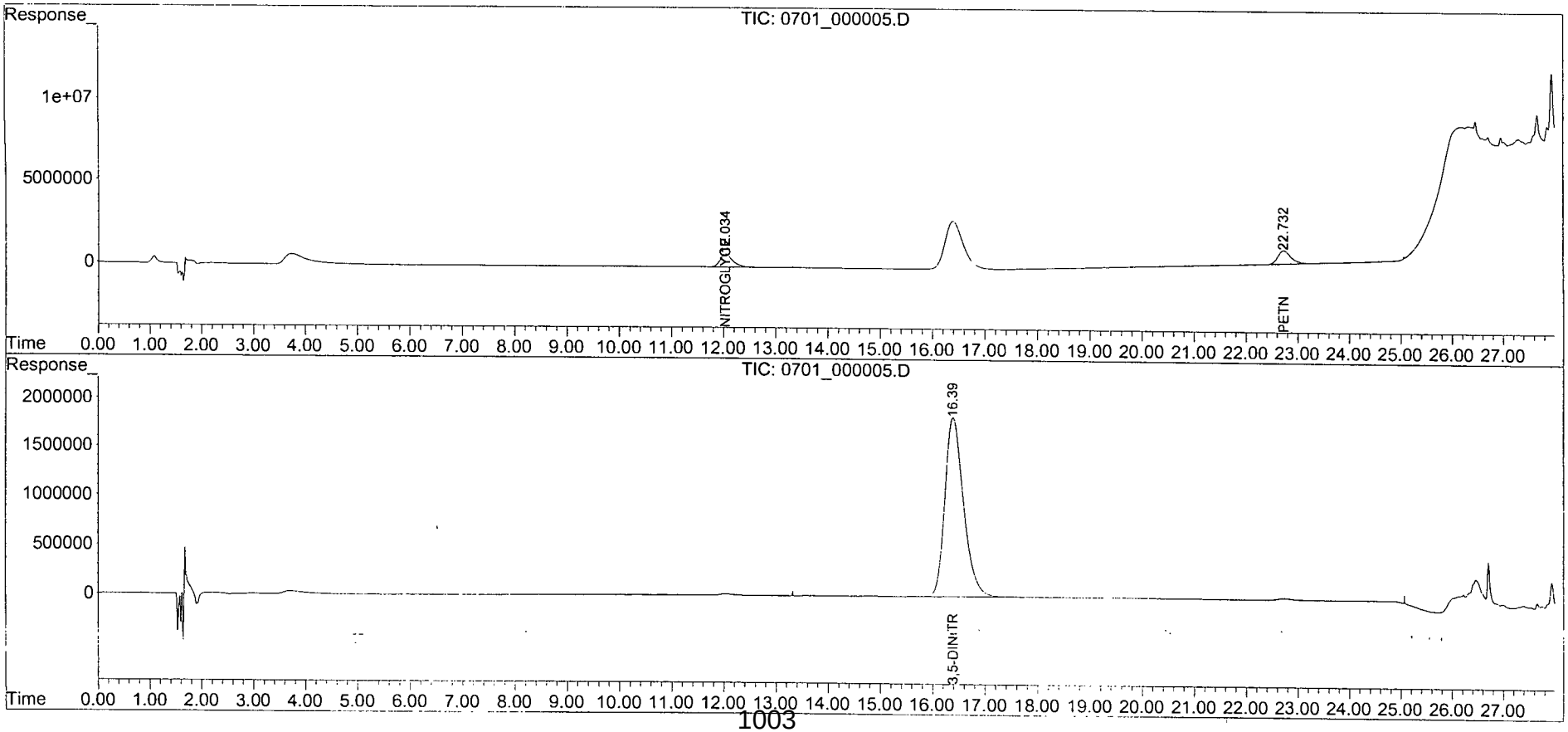
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150701\
Data File : 0701_000005.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 01-Jul-2015, 13:12:31
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 07/01/15
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: Jul 01 13:53:13 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150701\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Wed Jul 01 13:51:08 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 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

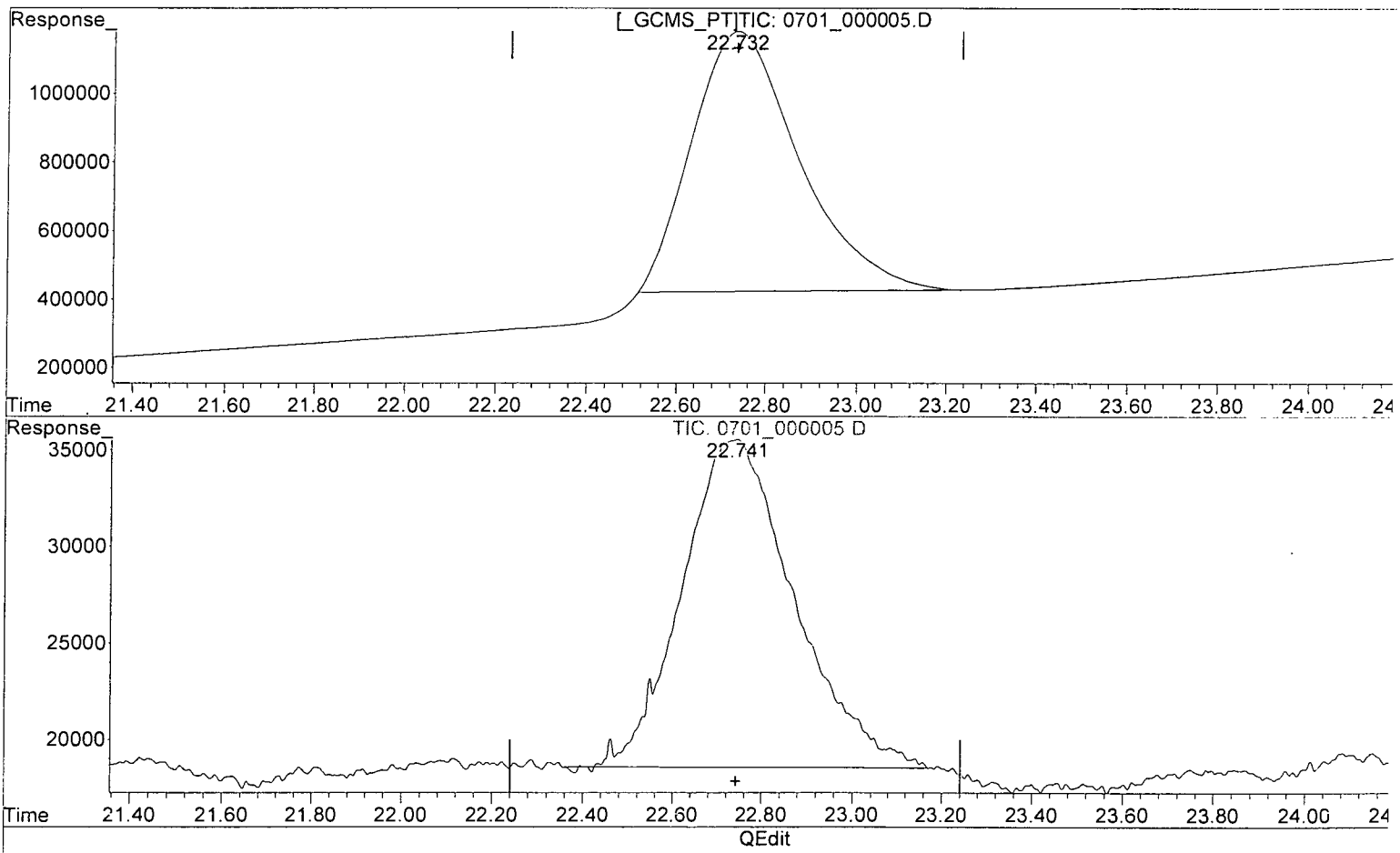


Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150701\
Data File : 0701_000005.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 01-Jul-2015, 13:12:31
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 07/01/15
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: Jul 01 13:51:16 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150701\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Wed Jul 01 13:51:08 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 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)

22.733min 1044.708 ppb

response 758661

(18) PETN #2 (TM)

22.734min 0.000 ppb

response 16945

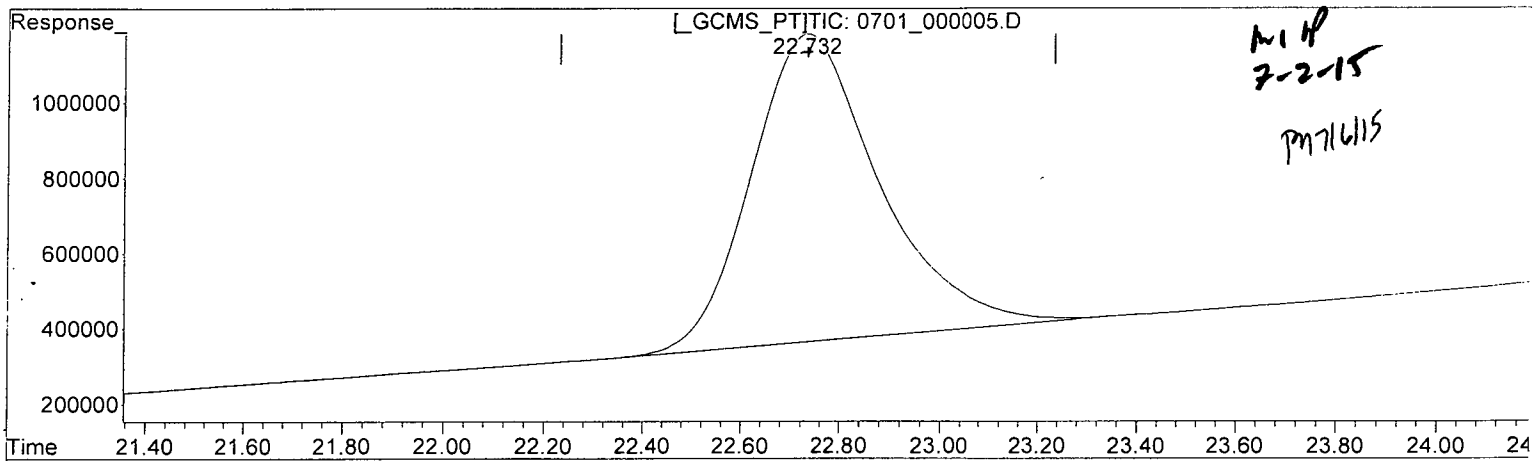
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150701\
Data File : 0701_000005.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 01-Jul-2015, 13:12:31
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 07/01/15
Misc :
ALS Vial : 4424 Sample Multiplier: 1

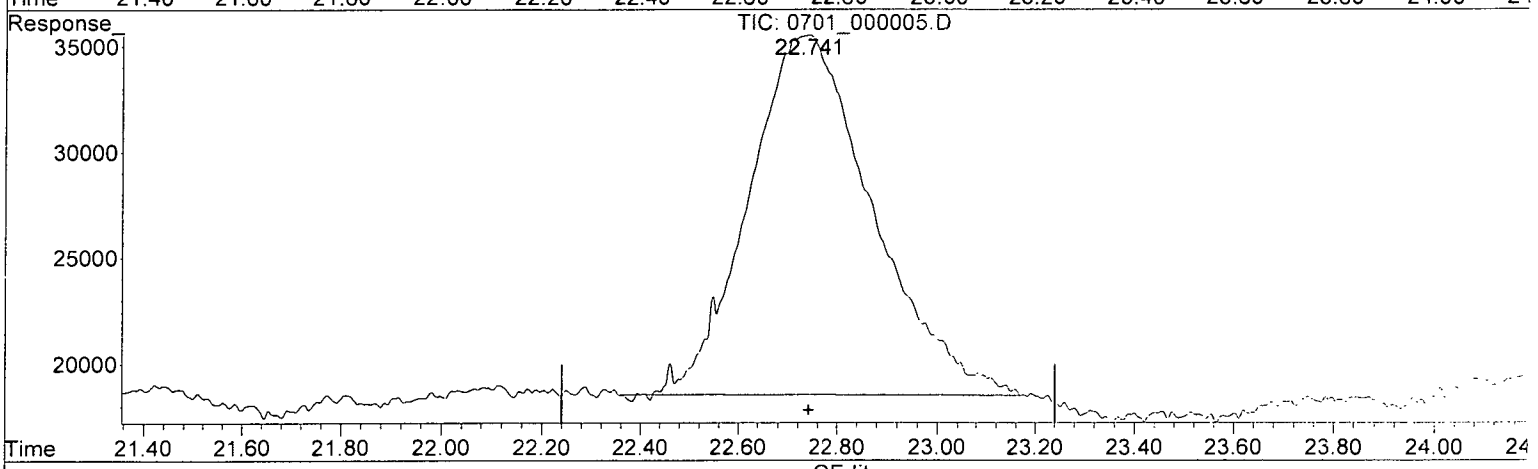
Integration File signal 1: STE2_Signal_1.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jul 01 13:51:16 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150701\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Wed Jul 01 13:51:08 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 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 7-2-15

PM7/6/15



QEdit

(18) PETN (TM)

22.732min 1125.233 ppb m

response 817138

(18) PETN #2 (TM)

22.734min 0.000 ppb

response 16945

(+) = Expected Retention Time

Form 7

Continuing Calibration

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

SDG No: 76674
Date Analyzed: 01-Jul-2015, 21:08:05
Instrument: Statler
Initial Cal. Date: 05/22/15
Data File: 0701_000016-17.D

		Compound	MEAN	CCRF	%D		%Drift
1	TM	NITROGLYCERIN	18.6	20.0	7.7	TM	
2	TM	PETN	18.2	20.1	11	TM	
3		Signal #2					
4	TM	3,5-DINITROANILINE	41.3	45.6	10	TM	
5	TM	HMX	46.3	50.5	9.2	TM	
6	TM	RDX	39.8	42.5	6.8	TM	
7	TM	1,3,5-TRINITROBENZENE	97.9	106	8.3	TM	
8	S	1,2-DINITROBENZENE	44.3	49.0	11	S	
9	TM	1,3-DINITROBENZENE	96.6	105	9.1	TM	
10	TM	NITROBENZENE	54.2	59.3	9.3	TM	
11	TM	2,4,6-TRINITROTOLUENE	50.2	56.3	12	TM	
12	TM	TETRYL	36.6	37.6	2.7	TM	
13	TM	2,6-DINITROTOLUENE	30.0	33.9	13	TM	
14	TM	2,4-DINITROTOLUENE	51.7	57.1	10	TM	
15	TM	2-NITROTOLUENE	21.2	22.7	7.2	TM	
16	TM	4-NITROTOLUENE	18.3	20.4	12	TM	
17	TM	3-NITROTOLUENE	22.9	24.1	5.3	TM	
18	TM	4-AMINO-2,6-DINITROTOLUEN	34.2	34.1	0.09	TM	
19	TM	2-AMINO-4,6-DINITROTOLUEN	43.0	44.5	3.6	TM	
20							
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Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150701\
Data File : 0701_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 01-Jul-2015, 20:28:35
Operator : MP
Sample : 8330MXA_CCV 1.0 PPM 07/01/15
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: Jul 02 07:28:32 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150701\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	8.058	0	1960614	N.D.	1106.798 #
Spiked Amount 62.500			Recovery =		0.00%	1770.88%
Target Compounds						
1) TM HMX	0.000	4.039	0	2021194	N.D.	1092.001 #
2) TM RDX	0.000	6.370	0	1699531	N.D.	1068.318 #
3) TM 1,3,5-TRI...	0.000	6.742	0	4241138	N.D.	1082.955 #
5) TM 1,3-DINIT...	0.000	8.413	0	4213513	N.D.	1090.877 #
6) TM NITROBENZENE	0.000	9.158	0	2371122	N.D.	1093.266 #
7) TM 2,4,6-TRI...	0.000	11.410	0	2252112	N.D.	1121.307 #
8) TM NITROGLYC...	0.000	0.000	0	0	N.D. d	N.D. d
9) TM TETRYL	11.883	11.882	1341398	1502293	NoCal	1027.371 #
10) TM 2,6-DINIT...	13.411	13.410	2042398	1356546	NoCal	1130.459 #
11) TM 2,4-DINIT...	0.000	14.007	0	2284431	N.D.	1104.253 #
12) TM 2-NITROTO...	0.000	15.432	0	907396	N.D.	1072.106 #
13) TM 4-NITROTO...	0.000	16.838	0	817528	N.D.	1119.335 #
14) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
15) TM 3-NITROTO...	0.000	18.034	0	965197	N.D.	1052.569 #
16) TM 4-AMINO-2...	0.000	18.490	0	1365168	N.D.	999.139 #
17) TM 2-AMINO-4...	0.000	19.449	0	1781095	N.D.	1035.811 #
18) TM PETN	0.000	0.000	0	0	N.D.	N.D.

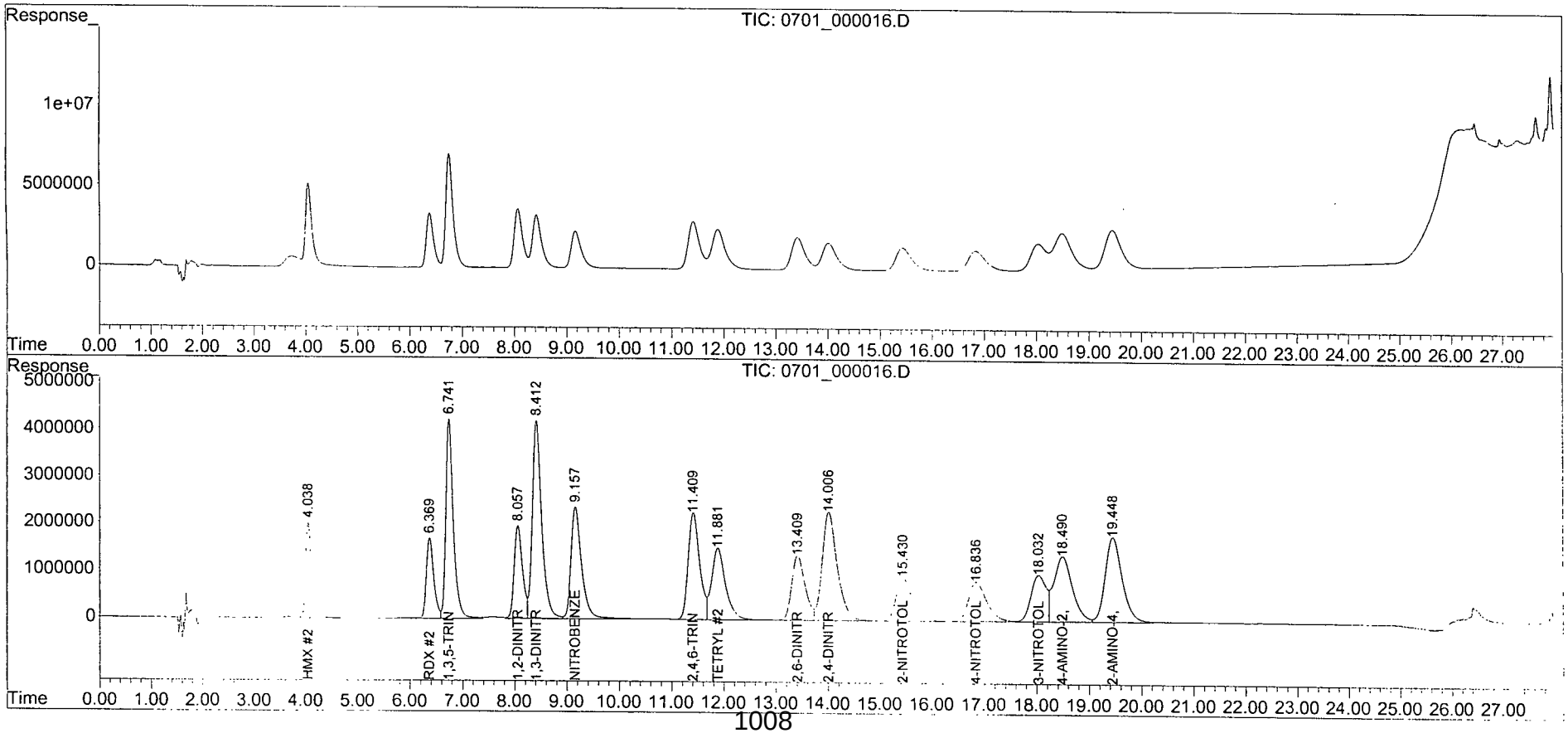
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150701\
Data File : 0701_000016.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 01-Jul-2015, 20:28:35
Operator : MP
Sample : 8330MXA_CCV 1.0 PPM 07/01/15
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: Jul 02 07:28:32 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150701\STE2_150522.M
Quant Title : 8330 A + B - Statler
QLast Update : Sat May 23 10:29:51 2015
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 40uL
Signal #1 Phase : 214nm Signal #2 Phase: 254nm
Signal #1 Info : Acclaim E2 150x3. Signal #2 Info : Acclaim E2 150x3.0mm 3.0-micron



STE2_150522.M Thu Jul 02 07:28:40 2015 WALDORF Page: 2

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150701\
Data File : 0701_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 01-Jul-2015, 21:08:05
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 07/01/15
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: Jul 02 07:27:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150701\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...	12.007	11.987	799246	14753	1077.116	NoCal #
9) TM TETRYL	0.000	0.000	0	0	N.D. d	N.D. d
10) TM 2,6-DINIT...	13.260	0.000	2034	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	16.343	0	1822251	N.D.	1102.030 #
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	22.699	22.692	803246	16143	1106.104	NoCal #

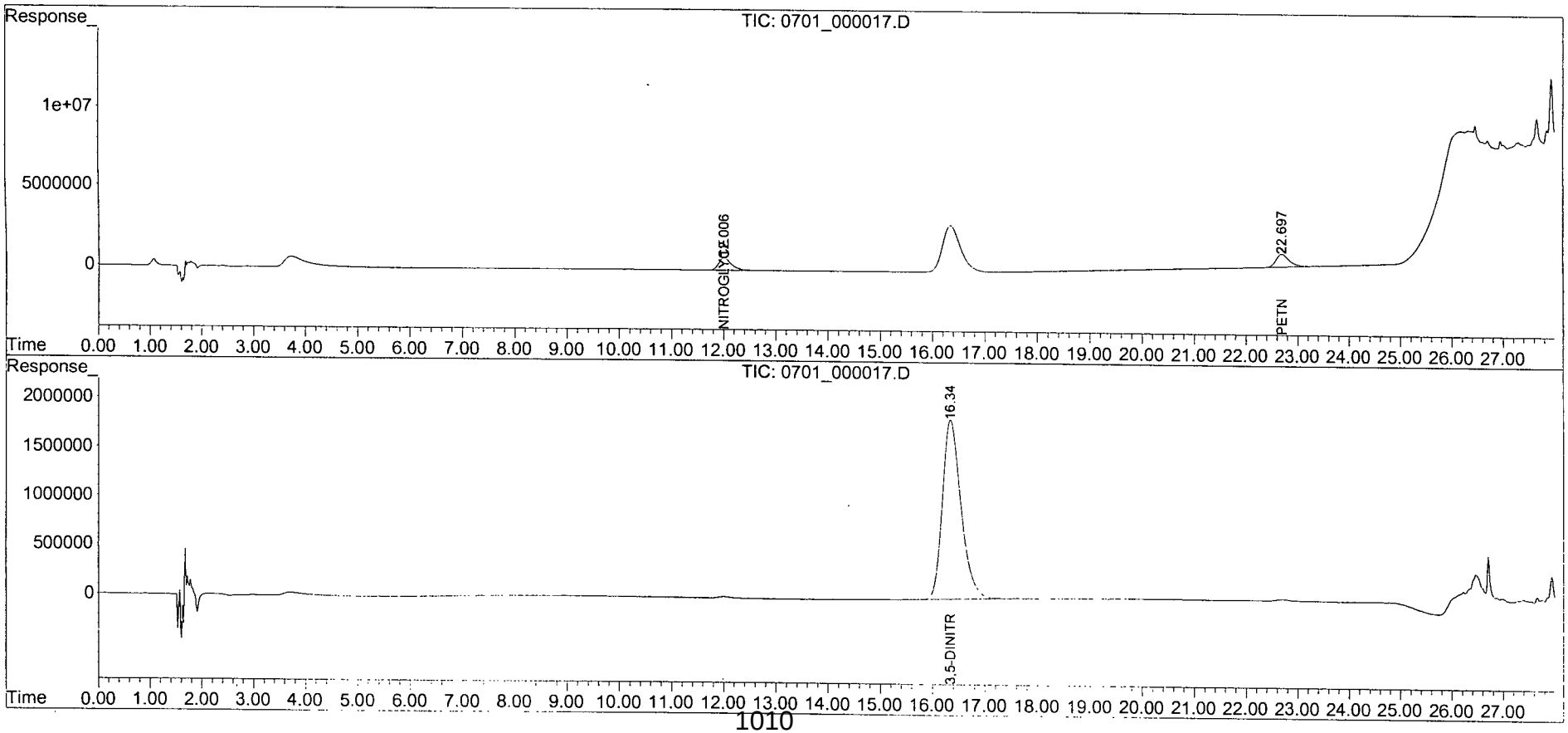
(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

Quantitation Report (QT Reviewed)

Data Path : Z:\STATLER\CHEM32\1\DATA\150522\150701\
Data File : 0701_000017.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 01-Jul-2015, 21:08:05
Operator : MP
Sample : 8330MXB_CCV 1.0 PPM 07/01/15
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: Jul 02 07:27:05 2015
Quant Method : Z:\STATLER\CHEM32\1\DATA\150522\150701\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

Raw Data

APPL, INC.

Method Blank
EPA 8330B WATER

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

Blank Name/QCG: **150618W-17694 - 198490**
Batch ID: #83BJU11W-150618

Sample Type	Analyte	Result	LOQ	LOD	DL	Units	Extraction Date	Analysis Date
BLANK	2,4-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
BLANK	2,6-DINITROTOLUENE	0.300 U	0.50	0.300	0.125	ug/L	06/18/15	06/29/15
BLANK	HMX	0.300 U	0.50	0.300	0.115	ug/L	06/18/15	06/29/15
BLANK	NITROGLYCERIN	0.300 U	0.50	0.300	0.130	ug/L	06/18/15	06/29/15
BLANK	RDX	0.300 U	0.50	0.300	0.123	ug/L	06/18/15	06/29/15
BLANK	TETRYL	0.300 U	0.50	0.300	0.133	ug/L	06/18/15	06/29/15
BLANK	SURROGATE: 1,2-DINITROBENZ	92.0	70-130			%	06/18/15	06/29/15

Quant Method: W150627.M
Run #: 0629_000014
Instrument: Waldorf
Sequence: 150629
Initials: MP

GC SC-Blank-REG MDLs
Printed: 07/02/15 10:17:23 AM

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 29-Jun-2015, 16:23:39
Operator : MP
Sample : 150618ABLK 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4099 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 07:51:34 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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	3.779	0	822446	N.D.	0.920 #
Spiked Amount 1.000			Recovery =		0.00%	92.00%
Target Compounds						
1) TM HMX	0.000	0.000	0	0	N.D.	N.D.
2) TM RDX	0.000	0.000	0	0	N.D.	N.D.
3) TM 1,3,5-TRI...	0.000	0.000	0	0	N.D.	N.D.
5) TM 1,3-DINIT...	0.000	0.000	0	0	N.D.	N.D.
6) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
7) TM NITROBENZENE	0.000	0.000	0	0	N.D.	N.D.
8) TM NITROGLYC...	0.000	6.325	0	27244	N.D. d	NoCal
9) TM TETRYL	6.740	0.000	16547	0	NoCal	N.D.
10) TM 2,4,6-TRI...	7.263	0.000	15553	0	NoCal	N.D.
11) TM 2-AMINO-4...	7.657	0.000	14005	0	NoCal	N.D.
12) TM 4-AMINO-2...	7.979	0.000	2374	0	NoCal	N.D.
13) TM 2,4-DINIT...	9.121	0.000	4772	0	NoCal	N.D.
14) TM 2,6-DINIT...	9.486	0.000	21075	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. 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.

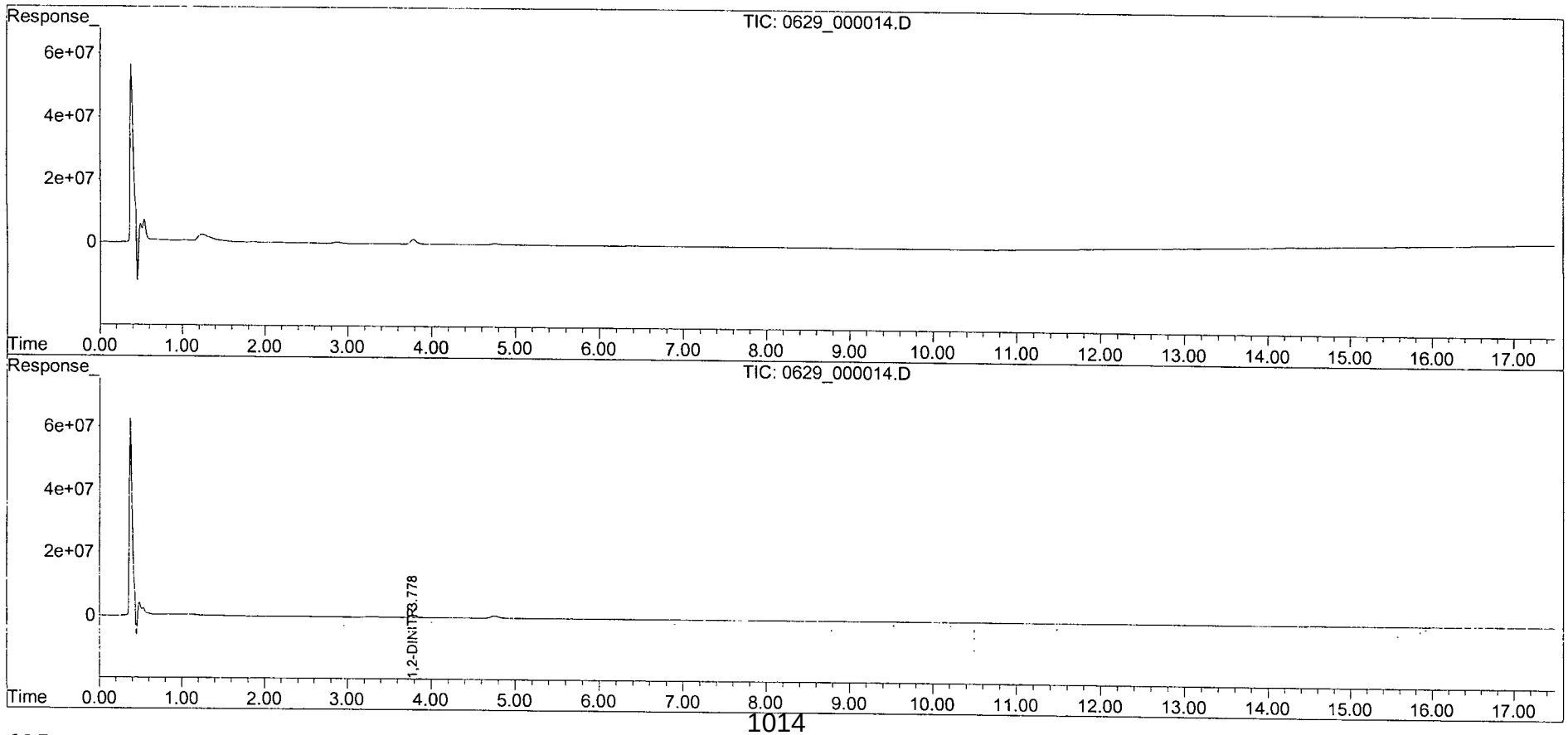
MP
06-30-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000014.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 29-Jun-2015, 16:23:39
Operator : MP
Sample : 150618ABLK 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4099 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 07:51:34 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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



Method Blank
EPA 8330B SOIL

Blank Name/QCG: **150625S-17824 - 198531**
Batch ID: #83BJU-150625A

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	06/25/15	06/30/15
BLANK	2,6-DINITROTOLUENE	0.200 U	0.50	0.200	0.083	mg/kg	06/25/15	06/30/15
BLANK	HMX	0.200 U	0.50	0.200	0.080	mg/kg	06/25/15	06/30/15
BLANK	NITROGLYCERIN	0.200 U	0.50	0.200	0.085	mg/kg	06/25/15	06/30/15
BLANK	RDX	0.200 U	0.50	0.200	0.080	mg/kg	06/25/15	06/30/15
BLANK	TETRYL	0.200 U	0.50	0.200	0.091	mg/kg	06/25/15	06/30/15
BLANK	SURROGATE: 1,2-DINITROBENZ	89.1	70-130			%	06/25/15	06/30/15

Quant Method: W150627.M
Run #: 0629_000031
Instrument: Waldorf
Sequence: 150629
Initials: MP

GC SC-Blank-REG MDLs
Printed: 07/02/15 9:51:29 AM

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000031.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 30-Jun-2015, 02:51:20
Operator : MP
Sample : 150625ABLKS 7.866 DF 06/25/15
Misc : Soil
ALS Vial : 4227 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 30 08:19:56 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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	3.779	0	955733	N.D.		525.743 #
Spiked Amount	589.971			Recovery	=	0.00%		89.11%
	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	6.807	0.000	4538	0	NoCal		N.D.
10) TM	2,4,6-TRI...	7.275	0.000	5355	0	NoCal		N.D.
11) TM	2-AMINO-4...	7.659	0.000	6091	0	NoCal		N.D.
12) TM	4-AMINO-2...	7.949	0.000	18687	0	NoCal		N.D.
13) TM	2,4-DINIT...	9.090	0.000	9516	0	NoCal		N.D.
14) TM	2,6-DINIT...	9.501	0.000	9526	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.

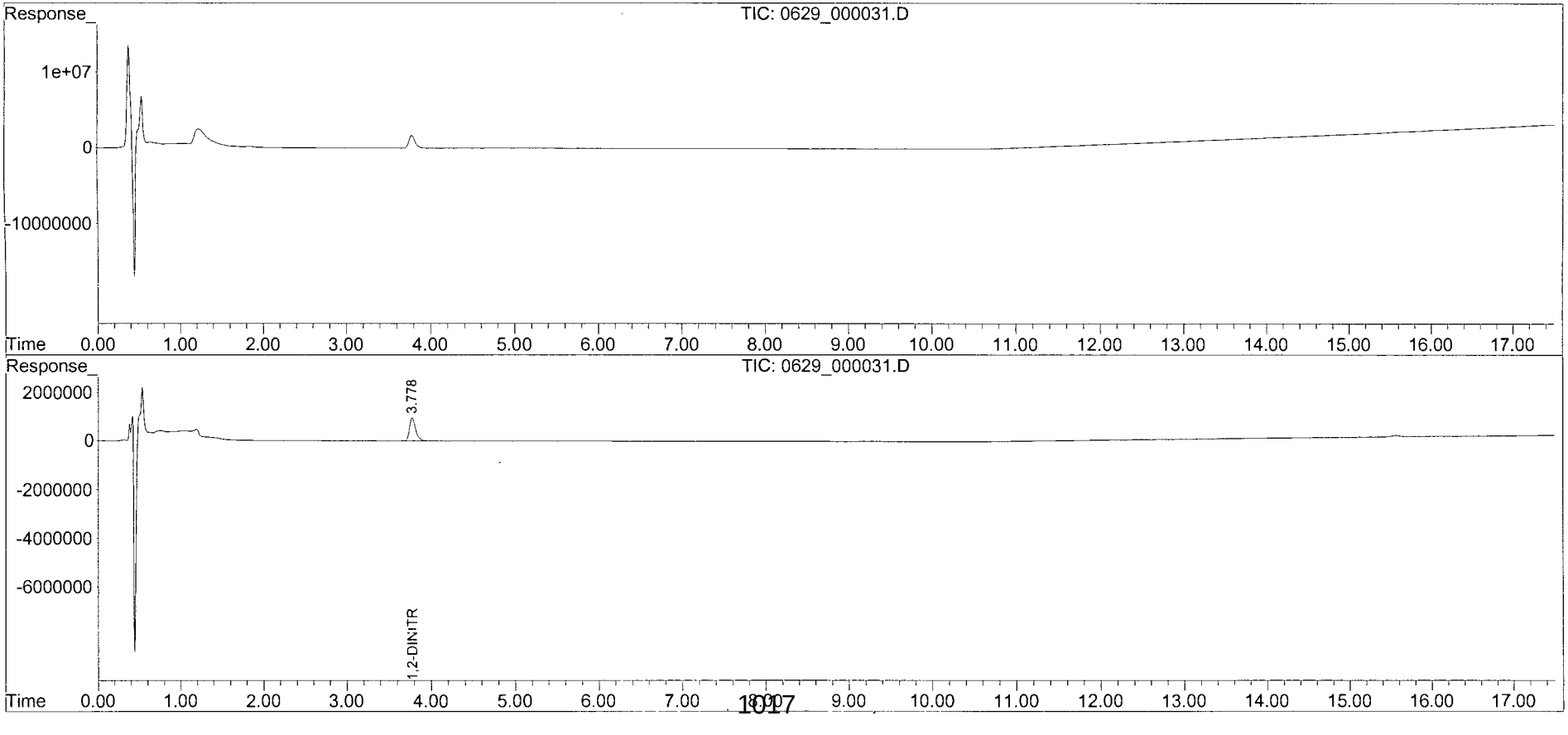
MP
06-30-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000031.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 30-Jun-2015, 02:51:20
Operator : MP
Sample : 150625ABLKS 7.866 DF 06/25/15
Misc : Soil
ALS Vial : 4227 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 30 08:19:56 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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 WATER

APPL ID: **150618W-17694 LCS - 198490**
Batch ID: #83BJU11W-150618

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits
2,4-DINITROTOLUENE	8.00	6.98	87.3	60-135
2,6-DINITROTOLUENE	8.00	6.95	86.9	60-135
HMX	8.00	7.74	96.8	80-115
NITROGLYCERIN	8.00	6.70	83.8	70-130
RDX	8.00	7.44	93.0	50-160
TETRYL	8.00	7.29	91.1	20-175
SURROGATE: 1,2-DINITROBENZENE (S	8.00	7.04	88.0	70-130

Comments: _____

Primary	SPK
Quant Method :	W150627.M
Extraction Date :	06/18/15
Analysis Date :	06/29/15
Instrument :	Waldorf
Run :	0629_000008
Initials :	MP

Printed: 07/02/15 10:17:19 AM
APPL Standard LCS

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 29-Jun-2015, 12:38:38
Operator : MP
Sample : 150618ALCS-1 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4096 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 29 13:30:49 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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	3.769	0	6291391	N.D.	7.039	#
	Spiked Amount 1.000			Recovery	=	0.00%	703.90%	
	Target Compounds							
1)	TM HMX	0.000	0.956	0	13490957	N.D.	7.739	#
2)	TM RDX	0.000	1.816	0	8441980	N.D.	7.439	#
3)	TM 1,3,5-TRI...	0.000	2.959	0	14563688	N.D.	7.091	#
5)	TM 1,3-DINIT...	0.000	3.925	0	13383484	N.D.	7.040	#
6)	TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.	
7)	TM NITROBENZENE	0.000	5.334	0	4602784	N.D.	5.296	#
8)	TM NITROGLYC...	6.320	6.322	2521388	78650	6.699	NoCal	#
9)	TM TETRYL	6.813	6.813	8275766	5060409	NoCal	7.289	#
10)	TM 2,4,6-TRI...	7.273	7.273	7784861	6052274	NoCal	6.900	#
11)	TM 2-AMINO-4...	7.622	7.622	8810709	5837453	NoCal	6.937	#
12)	TM 4-AMINO-2...	7.984	7.984	7498961	4031703	NoCal	6.465	#
13)	TM 2,4-DINIT...	9.117	9.118	4191761	5692059	NoCal	6.983	#
14)	TM 2,6-DINIT...	9.494	9.493	4444902	3203651	NoCal	6.952	#
15)	TM 2-NITROTO...	0.000	12.876	0	1630566	N.D.	4.906	#
16)	TM 4-NITROTO...	0.000	13.467	0	1827809	N.D.	5.597	#
17)	TM 3-NITROTO...	0.000	14.331	0	2042278	N.D.	5.261	#
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 06-30-15

Algorithm Check

2,6-DNT

$\frac{3203651}{184.3\ (40)} \times 0.016 = 6.953$

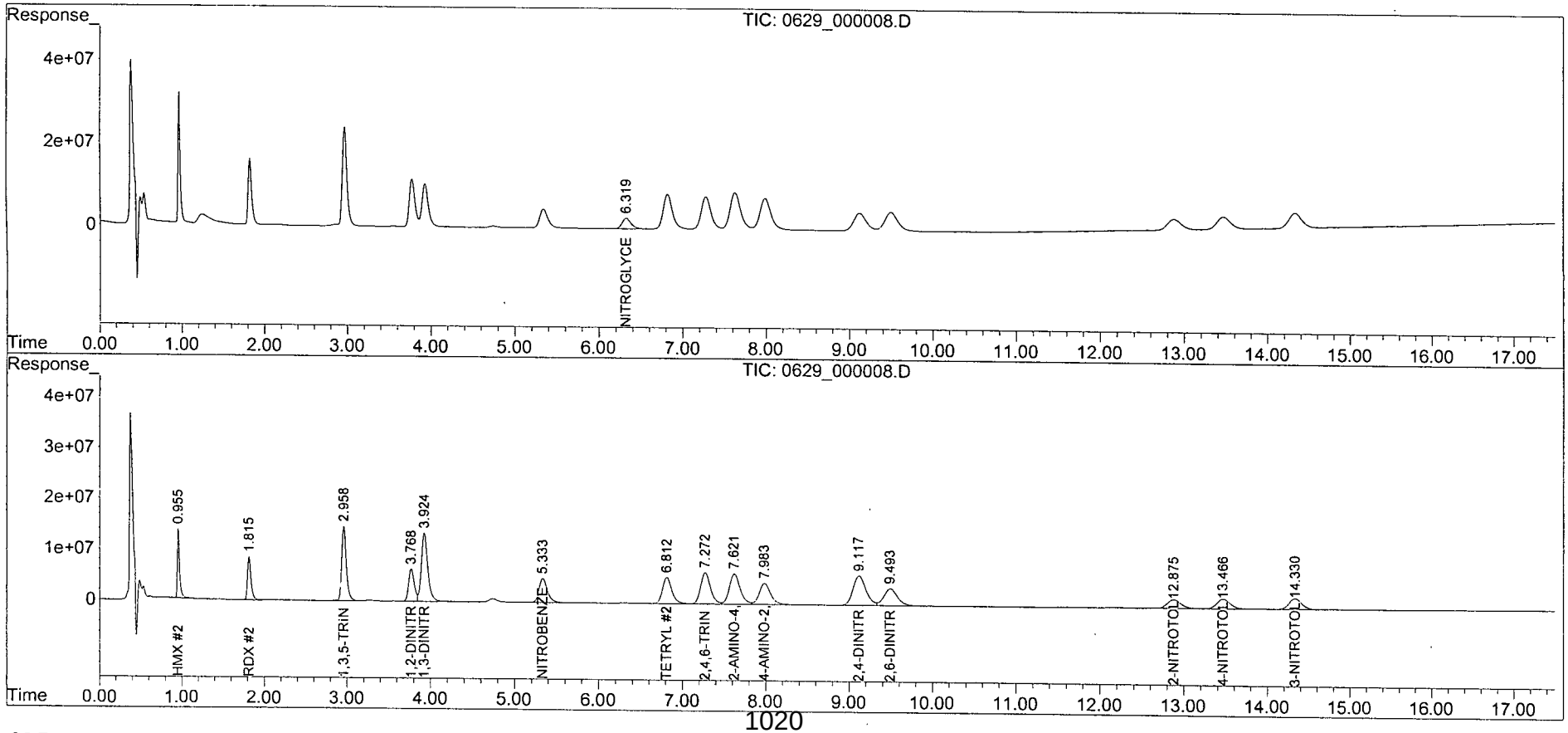
✓ MP 06-30-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000008.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 29-Jun-2015, 12:38:38
Operator : MP
Sample : 150618ALCS-1 0.016 DF 06/18/15
Misc : Water
ALS Vial : 4096 Sample Multiplier: 0.016

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 29 13:30:49 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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: **150625S-17824 LCS - 198531**
Batch ID: #83BJU-150625A

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	1.81	91.4	80-125
2,6-DINITROTOLUENE	1.98	1.81	91.4	80-120
HMX	1.98	1.96	99.0	75-125
NITROGLYCERIN	1.98	1.75	88.4	68-131
RDX	1.98	1.84	92.9	70-135
TETRYL	1.98	1.92	97.0	10-150
SURROGATE: 1,2-DINITROBENZENE (S	1.98	1.77	89.4	70-130

Comments: _____

Primary	SPK
Quant Method :	W150627.M
Extraction Date :	06/25/15
Analysis Date :	06/30/15
Instrument :	Waldorf
Run :	0629_000028
Initials :	MP

Printed: 07/02/15 9:51:25 AM
APPL Standard LCS

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000028.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 30-Jun-2015, 00:58:50
Operator : MP
Sample : 150625ALCS-1 7.976 DF 06/25/15
Misc : Soil
ALS Vial : 4224 Sample Multiplier: 7.97607

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 07:36:21 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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	3.768	0	3180297	N.D.	1773.881	#
	Spiked Amount 598.205			Recovery	=	0.00%	296.53%	
	Target Compounds							
1)	TM HMX	0.000	0.954	0	6842616	N.D.	1956.668	#
2)	TM RDX	0.000	1.814	0	4191074	N.D.	1841.117	#
3)	TM 1,3,5-TRI...	0.000	2.959	0	7422864	N.D.	1801.718	#
5)	TM 1,3-DINIT...	0.000	3.924	0	6767052	N.D.	1774.368	#
6)	TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.	
7)	TM NITROBENZENE	0.000	5.333	0	3155489	N.D.	1809.810	#
8)	TM NITROGLYC...	6.326	6.326	1322717	25275	1751.833	NoCal	#
9)	TM TETRYL	6.823	6.822	4374851	2675405	NoCal	1921.188	#
10)	TM 2,4,6-TRI...	7.281	7.281	4114061	3191632	NoCal	1813.827	#
11)	TM 2-AMINO-4...	7.630	7.630	4627357	3061929	NoCal	1814.025	#
12)	TM 4-AMINO-2...	7.992	7.992	3996170	2144353	NoCal	1714.172	#
13)	TM 2,4-DINIT...	9.129	9.129	2164347	2952118	NoCal	1805.354	#
14)	TM 2,6-DINIT...	9.504	9.504	2311681	1668546	NoCal	1805.094	#
15)	TM 2-NITROTO...	0.000	12.877	0	1225778	N.D.	1838.489	#
16)	TM 4-NITROTO...	0.000	13.468	0	1208364	N.D.	1844.580	#
17)	TM 3-NITROTO...	0.000	14.331	0	1458367	N.D.	1872.740	#
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 06-30-15

Algorithm Used

Tetryl

$\frac{2675405}{277.7\ (40)} \times 7.97607 = 1921.07$

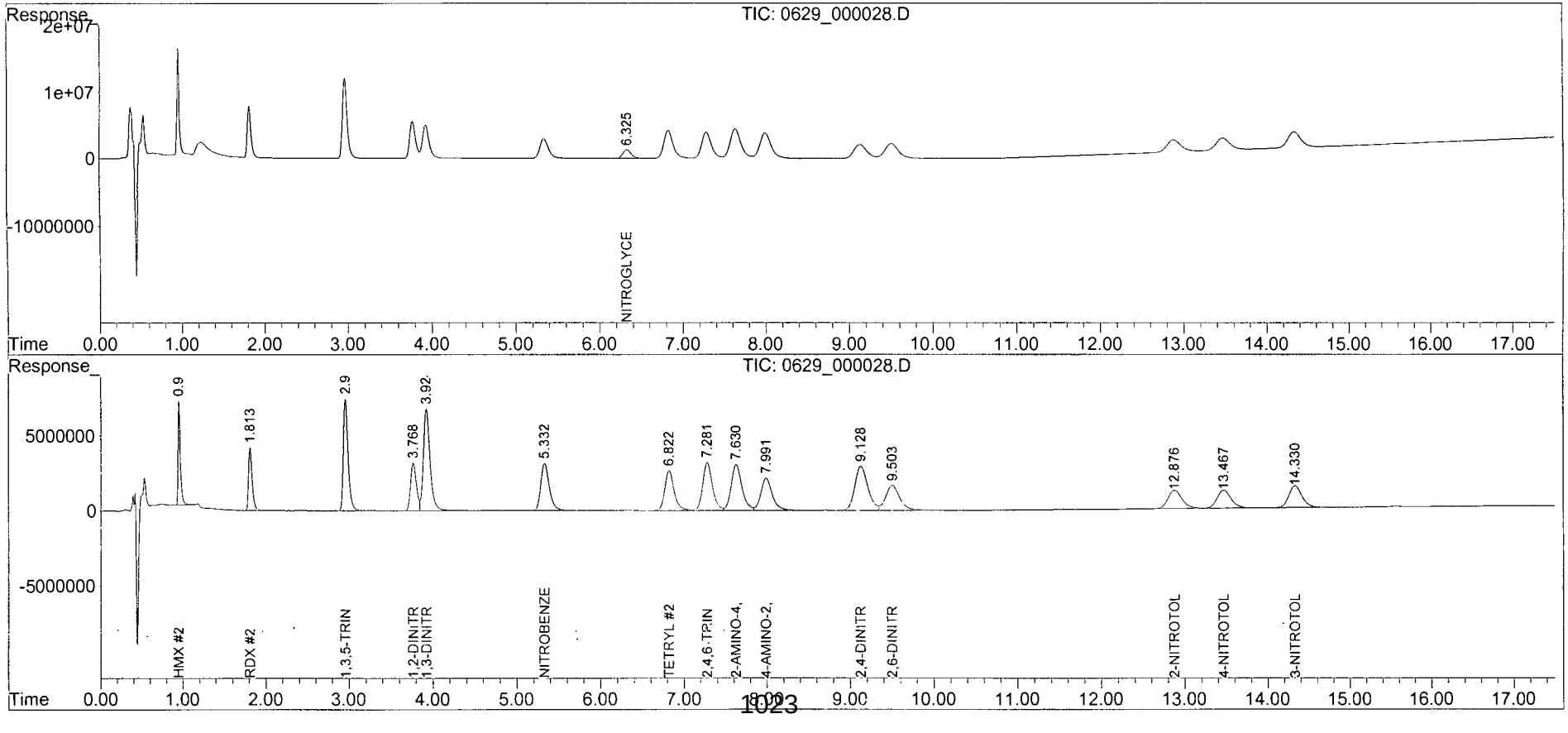
✓ MP 06-30-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000028.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 30-Jun-2015, 00:58:50
Operator : MP
Sample : 150625ALCS-1 7.976 DF 06/25/15
Misc : Soil
ALS Vial : 4224 Sample Multiplier: 7.97607

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 07:36:21 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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: **150625S-17824 MS - 198531**
Batch ID: #83BJU-150625A
Sample ID: AZ17824
Client ID: S67-SD029-0001

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	1.99	1.99	ND	1.78	1.76	89.4	88.4	80-125	1.1	20
2,6-DINITROTOLUENE	1.99	1.99	ND	1.78	1.76	89.4	88.4	80-120	1.1	20
HMX	1.99	1.99	ND	1.90	1.92	95.5	96.5	75-125	1	20
NITROGLYCERIN	1.99	1.99	ND	1.87	1.79	94.0	89.9	68-131	4.5	20
RDX	1.99	1.99	ND	1.79	1.78	89.9	89.4	70-135	0.56	20
TETRYL	1.99	1.99	ND	0.610	0.634	30.7	31.9	10-150	3.8	20
SURROGATE: 1,2-DINITROBENZEN	1.99	1.99	NA	1.70	1.68	85.4	84.4	70-130		

Comments: _____

Primary	SPK	DUP
Quant Method :	W150627.M	W150627.M
Extraction Date :	06/25/15	06/25/15
Analysis Date :	06/30/15	06/30/15
Instrument :	Waldorf	Waldorf
Run :	0629_000029	0629_000030
Initials :	MP	

Printed: 07/02/15 10:00:39 AM
APPL MSD SCII

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000029.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 30-Jun-2015, 01:36:21
Operator : MP
Sample : AZ17824S04_MS-1 7.952 DF 06/25/15
Misc : Soil
ALS Vial : 4225 Sample Multiplier: 15.9046

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 08:17:51 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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	3.772	0	1525214	N.D.	1696.373 #
Spiked Amount 596.421			Recovery =		0.00%	284.43%
Target Compounds						
1) TM HMX	0.000	0.958	0	3333345	N.D.	1900.680 #
2) TM RDX	0.000	1.819	0	2047428	N.D.	1793.488 #
3) TM 1,3,5-TRI...	0.000	2.965	0	3537314	N.D.	1712.075 #
5) TM 1,3-DINIT...	0.000	3.928	0	3332289	N.D.	1742.291 #
6) TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.
7) TM NITROBENZENE	0.000	5.332	0	1570994	N.D.	1796.696 #
8) TM NITROGLYC...	6.327	6.355	707214	145329	1867.714	NoCal #
9) TM TETRYL	6.813	6.814	707934	425824	NoCal	609.739 #
10) TM 2,4,6-TRI...	7.274	7.274	2051240	1609426	NoCal	1823.845 #
11) TM 2-AMINO-4...	7.612	7.612	2193301	1455109	NoCal	1719.007 #
12) TM 4-AMINO-2...	7.971	7.968	1861905	1104251	NoCal	1760.191 #
13) TM 2,4-DINIT...	9.111	9.111	1069151	1457277	NoCal	1777.069 #
14) TM 2,6-DINIT...	9.483	9.482	1144066	826038	NoCal	1781.950 #
15) TM 2-NITROTO...	0.000	12.851	0	609377	N.D.	1822.505 #
16) TM 4-NITROTO...	0.000	13.445	0	615913	N.D.	1874.792 #
17) TM 3-NITROTO...	0.000	14.304	0	723107	N.D.	1851.598 #
18) TM PETN	0.000	0.000	0	0	N.D. d	N.D.

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

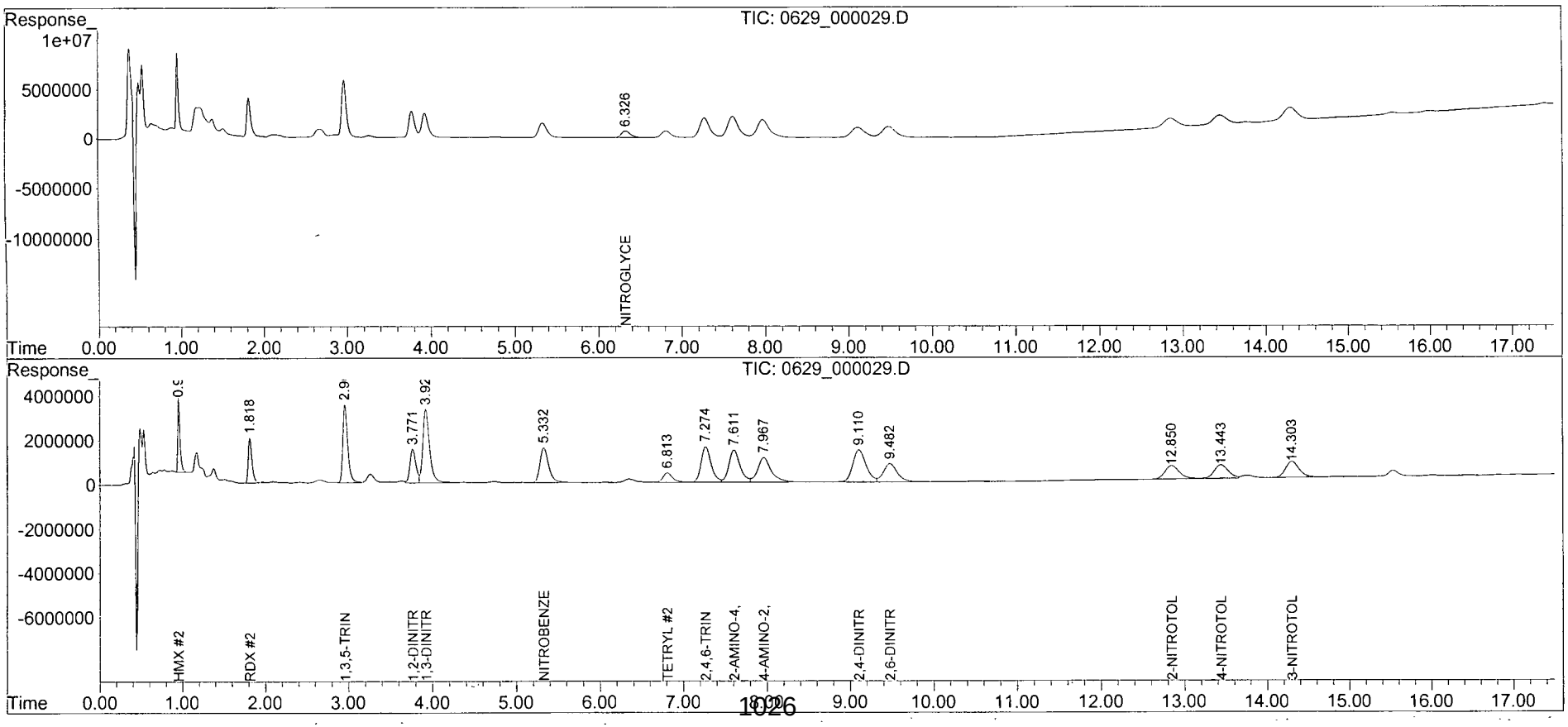
MP
06-30-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000029.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 30-Jun-2015, 01:36:21
Operator : MP
Sample : AZ17824S04_MS-1 7.952 DF 06/25/15
Misc : Soil
ALS Vial : 4225 Sample Multiplier: 15.9046

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 08:17:51 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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\150627\150629\
Data File : 0629_000030.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 30-Jun-2015, 02:13:51
Operator : MP
Sample : AZ17824S04_MSD-1 7.960 DF 06/25/15
Misc : Soil
ALS Vial : 4226 Sample Multiplier: 15.9363

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 08:18:40 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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	3.765	0	1504091	N.D.	1676.214	#
	Spiked Amount 597.610			Recovery	=	0.00%	280.49%	
	Target Compounds							
1)	TM HMX	0.000	0.958	0	3354919	N.D.	1916.794	#
2)	TM RDX	0.000	1.817	0	2027625	N.D.	1779.681	#
3)	TM 1,3,5-TRI...	0.000	2.962	0	3507719	N.D.	1701.134	#
5)	TM 1,3-DINIT...	0.000	3.921	0	3292597	N.D.	1724.969	#
6)	TM 3,5-DINIT...	0.000	0.000	0	0	N.D.	N.D.	
7)	TM NITROBENZENE	0.000	5.321	0	1554131	N.D.	1780.953	#
8)	TM NITROGLYC...	6.312	6.338	675347	76201	1787.109	NoCal	#
9)	TM TETRYL	6.793	6.793	731826	441669	NoCal	633.689	#
10)	TM 2,4,6-TRI...	7.257	7.257	2010501	1581117	NoCal	1795.335	#
11)	TM 2-AMINO-4...	7.587	7.588	2153006	1438599	NoCal	1702.890	#
12)	TM 4-AMINO-2...	7.945	7.944	1832839	1032077	NoCal	1648.424	#
13)	TM 2,4-DINIT...	9.086	9.085	1060196	1439364	NoCal	1758.724	#
14)	TM 2,6-DINIT...	9.454	9.454	1130862	816234	NoCal	1764.310	#
15)	TM 2-NITROTO...	0.000	12.826	0	599402	N.D.	1796.245	#
16)	TM 4-NITROTO...	0.000	13.421	0	612321	N.D.	1867.573	#
17)	TM 3-NITROTO...	0.000	14.284	0	713587	N.D.	1830.865	#
18)	TM PETN	0.000	0.000	0	0	N.D. d	N.D.	

(f)=RT Delta > 1/2 Window (#)=Amounts differ by > 25% (m)=manual int.

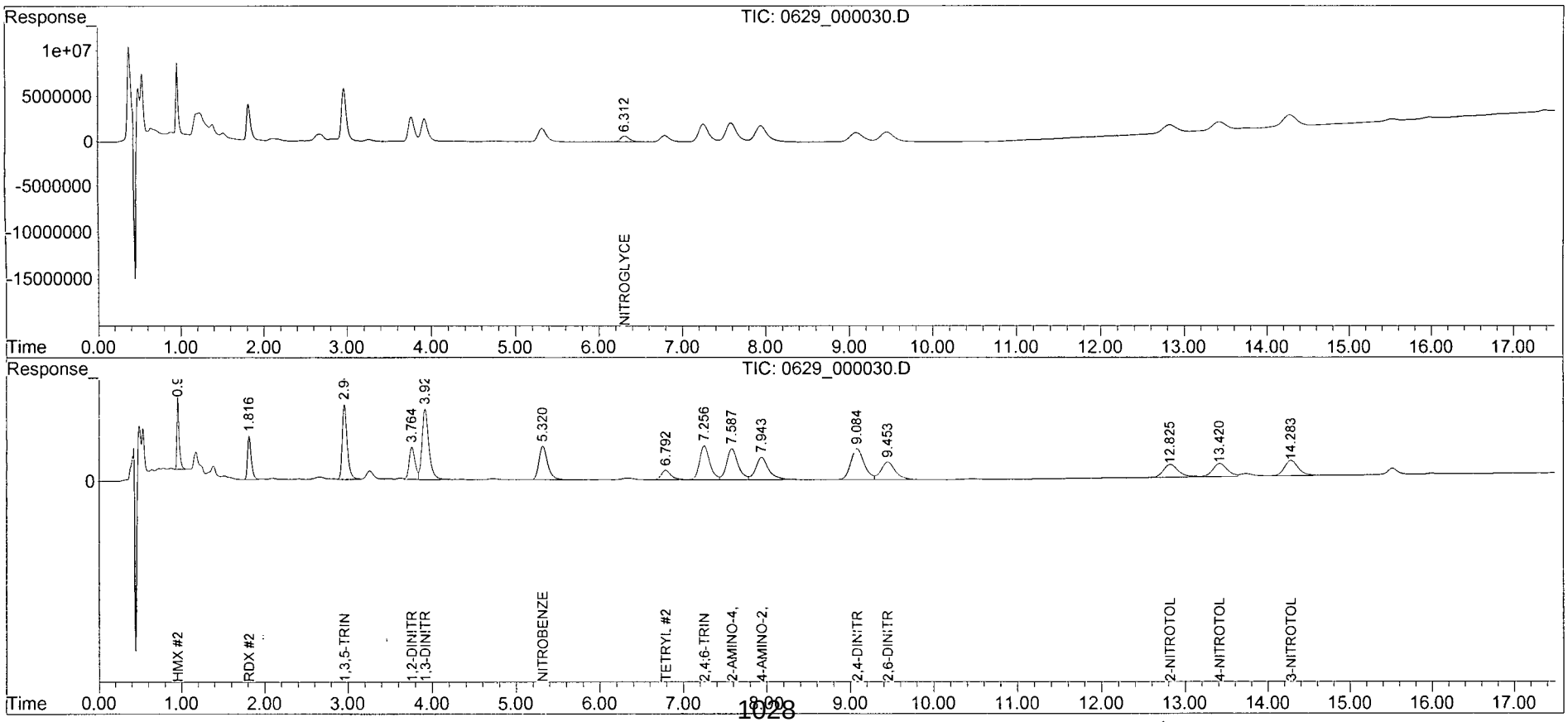
MP 06-30-15

Quantitation Report (QT Reviewed)

Data Path : Z:\WALDORF\CHEM32\2\DATA\150627\150629\
Data File : 0629_000030.D
Signal(s) : Signal #1: DAD1B.ch Signal #2: DAD1A.ch
Acq On : 30-Jun-2015, 02:13:51
Operator : MP
Sample : AZ17824S04_MSD-1 7.960 DF 06/25/15
Misc : Soil
ALS Vial : 4226 Sample Multiplier: 15.9363

Integration File signal 1: Waldorf_Signal_1_110721.e
Integration File signal 2: Waldorf_Signal_2_110803.e
Quant Time: Jun 30 08:18:40 2015
Quant Method : Z:\WALDORF\CHEM32\2\DATA\150627\150629\W150627.M
Quant Title : 8330B - Soil - Waldorf
QLast Update : Sun Jun 28 06:23:43 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# 12310-32716								
I broke open the vial and transferred to								
an 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
8330_MX-B	10.0 ppm	07/01/13						MP
8330_CB 1:1 0.1 PPM								
8330_CB 1:1 1.0 PPM	1.0 ppm	08/31/13	0.10 ml	1.0 mL	0.10 ppm	1:1ACN_DG445/MEOH_52292	08/31/13	MP
8330CB 0.005 PPM								
8330_CB 1:1	0.1 PPM	08/31/13	0.05 ML	1.0 mL	0.005 PPM	1 : 1 : 6 ACN : MeOH : MILLIPORE DG445/52292	08/31/13	MP
8330CB 0.010 PPM								
8330_CB 1:1	0.1 PPM	08/31/13	0.10 ML	1.0 mL	0.010 PPM	1 : 1 : 6 ACN : MeOH : MILLIPORE DG445/52292	08/31/13	MP
8330CB 0.020 PPM								
8330_CB 1:1	0.1 PPM	08/31/13	0.20 ML	1.0 mL	0.020 PPM	1 : 1 : 6 ACN : MeOH : MILLIPORE DG445/52292	08/31/13	MP
8330CB 0.05 PPM								
8330_CB 1:1	1.0 PPM	08/31/13	0.05 ML	1.0 mL	0.05 PPM	1 : 1 : 6 ACN : MeOH : MILLIPORE DG445/52292	08/31/13	MP
8330CB 0.10 PPM								
8330_CB 1:1	1.0 PPM	08/31/13	0.10 ML	1.0 mL	0.10 PPM	1 : 1 : 6 ACN : MeOH : MILLIPORE DG445/52292	08/31/13	MP
8330CB 0.20 PPM								
8330_CB 1:1	1.0 PPM	08/31/13	0.20 ML	1.0 mL	0.20 PPM	1 : 1 : 6 ACN : MeOH : MILLIPORE DG445/52292	08/31/13	MP
8330CB 0.50 PPM								
8330MXA	10.0 PPM	07/01/13	0.05 ML	1.0 mL	0.50 PPM	1 : 1 : 6 ACN : MeOH : MILLIPORE DG445/52292	08/31/13	MP
8330MXB	10.0 PPM	07/01/13						

LC/MS STANDARD PREP LOG# 103 PAGE# 65

065

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE INITIALS

NOTE: THE FOLLOWING DOCUMENTATION WAS PERFORMED AS DATED: JF 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 JF 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 6Lvl 5.0 ug/L				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/L						
4-Nitrophenol	10.0	8-15-13	0.20	20	0.10	ACN/DI509	12-26-13 JF
	Ash Std 20 ug/L						
8321MX29-8	400	11-20-13	0.250	5.0	20	Methanol	12-26-13 JF
8321MX10-4	1000	8-29-13	0.100				
8321MX6-7	1000	9-27-13	0.100				
Isoxaben	1058	10-8-13	0.0945				
8141 Lvl	1000	9-5-13	0.100				
	8330MXA-SS 100 ug/L						12-27-13 JF
	8330MX-A 100 ug/L 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/L 12-27-13						

066

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE/ INITIALS
8330MX-B-SS 100 ug/ml						4 N 12-27-13	12-27-13 HP
8330MX-B 100 ug/ml Absolute Part #9509D, Lot # ~~12131~~ 051412-30759, I broke open the vial and transferred to an amber 1.8ml injection vial → 8330MXB-SS 100 ug/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 HP
HPLCIS	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 HP
HPLCIS	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 HP
HPLCIS	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 HP
HPLCIS	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 HP
HPLCIS	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 HP
HPLCIS	100	7-12-13	0.020	1	1.0	1	1

LCMS STANDARD PREP LOG# 104 PAGE 8

008 STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE / INITIALS
1,2-DNB	1000 ug/mL						04-23-14 M

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-Dinitrobenzene
Solution, 1,000 mg/L, 1 mL
616986-01
Lot # 216681 | Storage <10 Degrees C | Expiry 10/25/16
Solv: Acetonitrile
Made in the USA

1,2-Dinitrobenzene
Lot #: 216681 - 33241
Rec: 1/8/14 MFR exp. 10/25/16

	1,2-DNB	100 ug/mL						M
1,2-DNB	1000	04-23-14	1.0	10.0	100	1:1 ACN/MeOH	02-19-14	04-23-14
	MX-8330R	1000 ug/mL						04-23-14 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 - 33138
Rec: 11/18/13 MFR exp. 6/6/15

R LABORATORY USE ONLY
tNING: 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 alone and transferred to an amber 1.8 mL injection vial → MX-8330R 1000 ug/mL 04-23-14

	MX-8330	100 ug/mL						M
MX-8330R	1000	04-23-14	1.0	10.0	100	1:1 ACN/MeOH	02-19-14	04-23-14
	1,2-DNB	5.0 ug/mL						M
1,2-DNB	100	04-23-14	0.50	10.0	5.0	1:1 ACN/MeOH	02-19-14	04-23-14

LC/MS STANDARD PREP LOG# 104 PAGE# 23

023

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE INITIALS
	8321 TS 0.005 DF						
8321 TS	0.10 DF 06-12-14	0.10	2.0	0.005	MeOH/53235		06-12-14 P
HPLCFS	100 03-17-14	0.020	1	1.0	1		1
	8321 TS 0.0025 DF						
8321 TS	0.10 DF 06-12-14	0.050	2.0	0.0025	MeOH/53235		06-12-14 P
HPLCFS	100 03-17-14	0.020	1	1.0	1		1
	1,2-DNB 100 ug/mL						06-12-14 HP

1,2-Dinitrobenzene
Solution, 1,000 mg/L, 1 mL
616986-01
Lot # 216681 Storage <10 Degrees C Expiry 10/25/16
Solv: Acetonitrile
R&D only, not for 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
616986-01
Lot # 216681 Storage <10 Degrees C Expiry 10/25/16
Solv: Acetonitrile
R&D only, not for 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 MeOH 02-19-14. I labeled this solution 1,2-DNB 100ug/mL 06-12-14

I combined the remaining balance of HP 06-12-14 the 2 vials above and transferred to one amber 1.8ml injection vial. I labeled this solution 1,2-DNB 1000ug/mL 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

S-12837A4-5ML Exp 2/28/2015
CHEM SERVICE
PO BOX 599, WEST CHESTER, PA 19381 800-452-9994
Pentaerythritol tetranitrate Solution
Lot: 2416400
Pentaerythritol tetranitrate
Lot #: 2416400 - 33320
Rec: 2/20/14 MFR exp. 2/28/15
1000ug/ml In Acetonitrile
FLAMMABLE-POISON-LACHRYMATOR

I broke open the vial labeled to the left and transferred to an 8ml Amber Vial
→ PETN 1000ug/L 06-12-14

PETN 100 ug/L
PETN 1000 06-12-14 1.0 10.0 100 1:1 ACN/MeOH 06-12-14 JP

8321MX6-7 500 ug/L 06-12-14 JP

o2si smart solutions
Custom Pesticide Solution, 6-7, 500 mg/L, 5 x 2 ml
130287-01-05
Made in USA
Lot No: 160093
Exp: 6/1/2013
Date Opened: _____
Storage: </= -10 Degrees C
Custom Pesticide Solution 6-7
Lot #: 160093 - 26674
Rec: 6/7/10 MFR exp. 06/01/13

I broke open the vial labeled above and transferred to an amber 1.8ml injection vial → 8321MX6-7 500 ug/L (to be QC'd) JP

8321MX6-7 20 ug/L 06-12-14 JP
8321MX6-7 500 06-12-14 0.080 2.0 20 Methanol/53235

8321MX6-7 0.02 DF (OLD) MP
8321MX6-7 20 06-12-14 0.040 2.0 0.02 MeOH/53235 06-12-14
HPLCMS 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	SOLVENT LOT#	INITIAL
Spinosad 100 ug/mL							
Spinosad	1333	04-14-14	0.075	1.0	100	Methanol/53235	kp 07-14-14
Spinosad 50 ug/mL							
Sp.nosad	500	07-14-14	0.10	1.0	50	Methanol/53235	kp 07-14-14
Spinosad 20 ug/mL							kp
Sp.nosad	200	07-14-14	0.10	1.0	20	Methanol/53235	07-14-14
Spinosad 10 ug/mL							
Sp.nosad	100	07-14-14	0.10	1.0	10	Methanol/53235	07-14-14 kp
Picric Acid spk 2.0 ug/mL							
Picric Acid	100	04-16-14	0.160	8.0	2.0	ACN/DI509	07-15-14 kp
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 kp
HPLCFS 1.0 ug/mL							
HPLCFS	1000	04-22-14	0.20	200	1.0	MeOH/53235	07-15-14 kp
HPLCFS 1000 ug/mL							07-15-14 kp

I broke open the vial labeled to the left and transferred to an amber 1.8 ml injection Vial → HPLCFS 100 ug/mL 07-15-14

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

HPLCFS 100 ug/mL							
HPLCFS	1000	07-15-14	1.0	10.0	100	MeOH/53235	07-15-14 kp
Tebufenozide 100 ug/mL							kp
Tebufenozide	1000	08-29-13	0.10	1.0	100	1:1 ACN/MeOH	07-01-14

02-15-14

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045

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT #	DATE INITIALS
8321V	0.2 ug/mL						
8321V	2.0	08-05-14	0.20	2.0	0.2	MeOH/53235	8-05-14 M
8321VFS	100	7-31-14	0.020	1	1.0	1	1
8321V	0.1 ug/mL						
8321V	2.0	8-5-14	0.10	2.0	0.10	MeOH/53235	8-05-14 M
8321VFS	100	7-31-14	0.020	1	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 Califon
cancer and birth defects or ot
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
010086-01
Lot # 216681 | Storage <10 Degrees C | Expiry 10/25/16
Solv: Acetonitrile
LC/MS 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 1000 ug/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
LC/MS 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 1000 ug/mL 08-06-14

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046

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL. EN. 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

8330MXA 10 ug/ml N

MX-8330R	1000	08-06-14	0.20	20	10.0	1:1 ACN/MeOH	08-06-14
1,2-DNB	1000	08-06-14	0.20	⊥	⊥	07-02-14	⊥

8330MX-B 10 ug/ml 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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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL EN. LOT#	DATE INITIALS
PETN_SS 100 ug/ml							
PETN	1000	06-12-14	0.10	1.0	100	1:1 ACN/MeOH 07-02-14	08-06-14
8321 surr 20 ug/ml							
Isoxaben	1024	03-10-14	0.195	10.0	20	MeOH/53235	08-07-14
8141 surr	1000	07-31-14	0.20	⊥	⊥	⊥	⊥
8321 TS_spk 1 DF							
8321 MX 6-7	1000	06-12-14	0.10	5.0	20	MeOH/53235	08-07-14

08-06-14

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC.	SOVENT/LOT	DATE/IN.
8330MXA_CB(1:1) 1.0 PPM 8330MXA	10.0	08/06/14	0.100	1.0	1.0	1:1 ACN/MEOH 07/02/14	08/06/14
8330MXA_CB(1:1) 0.10 PPM 8330MXA_CB(1:1)	1.0	08/06/14	0.100	1.0	0.1	1:1 ACN/MEOH 07/02/14	08/06/14
8330MXB_CB(1:1) 1.0 PPM 8330MXB	10.0	08/06/14	0.100	1.0	1.0	1:1 ACN/MEOH 07/02/14	08/06/14
8330MXB_CB(1:1) 0.10 PPM 8330MXB_CB(1:1)	1.0	08/06/14	0.100	1.0	0.1	1:1 ACN/MEOH 07/02/14	08/06/14
8330MXA_CB 0.005 PPM 8330MXA_CB(1:1)	0.1	08/06/14	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	08/06/14
8330MXA_CB 0.010 PPM 8330MXA_CB(1:1)	0.1	08/06/14	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	08/06/14
8330MXA_CB 0.020 PPM 8330MXA_CB(1:1)	0.1	08/06/14	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	08/06/14
8330MXA_CB 0.050 PPM 8330MXA_CB(1:1)	1.0	08/06/14	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	08/06/14
8330MXA_CB 0.10 PPM 8330MXA_CB(1:1)	1.0	08/06/14	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	08/06/14
8330MXA_CB 0.20 PPM 8330MXA_CB(1:1)	1.0	08/06/14	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	08/06/14

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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	08/06/14
8330MXB	10.0	08/06/14				02/19/14	
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	08/06/14
						02/19/14	
8330_CB 0.005 PPM							
8330_CB(1:1)	0.1	08/06/14	0.050	1	0.005	1:1:6_ACN	08/06/14
						MEOH: MILLIPORE	
8330_CB 0.010 PPM							
8330_CB(1:1)	0.1	08/06/14	0.100	1.00	0.010	1:1:6_ACN	08/06/14
						MEOH: MILLIPORE	
8330_CB 0.020 PPM							
8330_CB(1:1)	0.1	08/06/14	0.200	1.00	0.020	1:1:6_ACN	08/06/14
						MEOH: MILLIPORE	
8330_CB 0.050 PPM							
8330_CB(1:1)	1.0	08/06/14	0.050	1.00	0.050	1:1:6_ACN	08/06/14
						MEOH: MILLIPORE	
8330_CB 0.10 PPM							
8330_CB(1:1)	1.0	08/06/14	0.100	1.00	0.10	1:1:6_ACN	08/06/14
						MEOH: MILLIPORE	
8330_CB 0.20 PPM							
8330_CB(1:1)	1.0	08/06/14	0.20	1.00	0.20	1:1:6_ACN	08/06/14
						MEOH: MILLIPORE	
8330_CB 0.50 PPM							
8330MXA	10.0	08/06/14	0.050	1.00	0.050	1:1:6_ACN	08/06/14
8330MXB	10.0	08/06/14	0.050			MEOH: MILLIPORE	
8330_CB 1.0 PPM							
8330MXA	10.0	08/06/14	0.100	1.00	1.000	1:1:6_ACN	08/06/14
8330MXB	10.0	08/06/14	0.100			MEOH: MILLIPORE	
8330MXA_CB 2.0 PPM							
8330MXA_CB	10.0	08/06/14	0.200	1.00	2.000	1:1:6_ACN	08/06/14
						MEOH: MILLIPORE	
8330MXB_CB 2.0 PPM							
8330MXB_CB	10.0	08/06/14	0.200	1.00	2.000	1:1:6_ACN	08/06/14
						MEOH: MILLIPORE	
8330_SS 1.0 PPM							
8330MXA_SS	100	12/27/13	0.010	1.00	1.0	1:1:6_ACN	08/06/14
8330MXB_SS	100	12/27/13	0.010			MEOH: MILLIPORE	
PETN_TET_SS 1.0 PPM							
PETN_SS	100	08/06/14	0.01	1.00	1.0	1:1:6_ACN	08/06/14
TETRYL_SS	100	07/01/14	0.01			MEOH: MILLIPORE	

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048
STANDARD

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	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				

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N. 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	SOL. EN. LOT #	DATE INITIALS
CC_Carb spk 2.0 ug/ml							
8321_SS	100	11-03-14	0.200	10.0	2.0	MeOH/54115	12-12-14 HP
HPLC IS 1.0 ug/ml							
HPLCIS	100	10-02-14	2.0	200	1.0	MeOH/54115	12-15-14 HP
HPLCISAQ 1.0 ug/ml						12-16-14	
HPLCIS	100	10-02-14	1.0	100	1.0	Millipore water	12-16-14 HP
Carb spk 10 ug/ml							
8321 Rx 29-8	400	09-22-14	0.050	2.0	10	MeOH/54115	12-17-14 HP
8321 surr 10 ug/ml							
Isoxaber	1024	03-10-14	0.029	3.0	10.0	MeOH/54115	12-17-14 HP
8141 Surr	1000	10-30-14	0.030	1	1	1	1
8321 surr 20 ug/ml							
Isoxaber	1024	03-10-14	0.195	10.0	20	MeOH/54115	12-17-14 HP
8141 Surr	1000	~~10-30-14~~ 12-03-14 HP 12-17-14	0.200	1	1	1	1
PETN 100 ug/ml						07-02-14	
PETN	1000	08-06-14	0.50	5.0	100	1:1 ACN/MeOH	12-19-14 HP
Nitroglycerin 100 ug/ml							
Nitroglycerin	1000	02-25-14	0.50	5.0	100	1:1 ACN/MeOH	12-19-14 HP
83TS_Stock							
8321 Rx 6-7	1000	09-25-14	0.050	10.0	5.0	MeOH/54115	12-22-14 HP
Isoxaber	1024	03-10-14	0.098	1	10	1	1
8141 Surr	1000	12-03-14	0.100	1	1	1	1

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N. LOT #	DATE INITIALS
83TS/Sph/Surr 100 DF					100 ug/L		
8324TS Sp	20	09-25-14	0.10	1.0	10 DF	ACN	12-22-14
8324 Surr	20	12-18-14	0.10	1	1		
83TS Sph/Surr 10DF		12-22-14	0.10	1.0	100DF	100 ug/L	12-22-14

Tetryl-ss 1000 ug/mL 12-23-14

Tetryl 1000 ug/mL Absolute Lot 112310-33875, I broke open the vial and transferred to an amber 1.8 mL injection Vial → Tetryl-ss 1000 ug/L 12-23-14

1:1 ACN/MeOH 12-23-14

I took 0.250 mL Methanol Lot 54115 and added 0.250 mL Acetonitrile Lot DK902.

1,2-DND 1000 ug/mL 12-23-14

I broke open the vial labeled to the left and transferred to an amber 1.8 mL injection vial → 1,2,DNB 1000 ug/L 12-23-14

1,2-Dinitrobenzene Solution, 1,000 mg/L, 1 mL
010086-01
Lot # 227342 Storage <10 Degrees C Expiry 3/May/2017
Solv: Acetonitrile
R&D only, not human consump. Made in the USA

1,2-Dinitrobenzene
Lot #: 227342 - 34120
Rec: 10/6/14 MFR exp. 5/3/17

3,5-DNA 1000 ug/mL 12-23-14

I broke open the vial labeled to the left and transferred to an amber 1.8 mL injection vial → 3,5-DNA 1000 ug/L 12-23-14

3,5-Dinitroaniline (3,5-DNA) Solution, 1000 mg/L, 1 ml
010612-04
Lot # 199709 Storage ≤-10 Degrees C Expiry 11/21/15
Solv: Acetonitrile
R&D only, not human consump. Made in the USA

3,5-Dinitroaniline
Lot #: 199709 - 33124
Rec: 11/15/13 MFR exp. 11/21/15

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT/LOT	DATE/INIT
	8330 MX-A 10.0 ug/mL						N
MX-8330A	1000	08-06-14	0.10	10.0	10.0	1:1 ACN/MeOH	12-23-14
1,2-DNB	1000	12-23-14	"	"	"	12-23-14	
	8330 MX-B 10.0 ug/mL						N
Nitroglycerin	1000	08-06-14	0.10	10.0	10.0	1:1 ACN/MeOH	12-23-14
3,5-DNA	1000	12-23-14	"	"	"	12-23-14	"
PETN	1000	06-12-14	"	"	"		
	Tetryl-ss 100 ug/mL						N
Tetryl-ss	1000	12-23-14	0.10	1.0	100	1:1 ACN/MeOH	12-23-14
						12-27-14	

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC.	SOVENT/LOT	DATE/IN.
8330MXA_CB(1:1) 1.0 PPM 8330MXA	10.0	12/23/14	0.100	1.0	1.0	1:1 ACN/MEOH 07/02/14	12/23/14
8330MXA_CB(1:1) 0.10 PPM 8330MXA_CB(1:1)	1.0	12/23/14	0.100	1.0	0.1	1:1 ACN/MEOH 07/02/14	12/23/14
8330MXB_CB(1:1) 1.0 PPM 8330MXB	10.0	12/23/14	0.100	1.0	1.0	1:1 ACN/MEOH 07/02/14	12/23/14
8330MXB_CB(1:1) 0.10 PPM 8330MXB_CB(1:1)	1.0	12/23/14	0.100	1.0	0.1	1:1 ACN/MEOH 07/02/14	12/23/14
8330MXA_CB 0.005 PPM 8330MXA_CB(1:1)	0.1	12/23/14	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	12/23/14
8330MXA_CB 0.010 PPM 8330MXA_CB(1:1)	0.1	12/23/14	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	12/23/14
8330MXA_CB 0.020 PPM 8330MXA_CB(1:1)	0.1	12/23/14	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	12/23/14
8330MXA_CB 0.050 PPM 8330MXA_CB(1:1)	1.0	12/23/14	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	12/23/14
8330MXA_CB 0.10 PPM 8330MXA_CB(1:1)	1.0	12/23/14	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	12/23/14
8330MXA_CB 0.20 PPM 8330MXA_CB(1:1)	1.0	12/23/14	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	12/23/14
8330MXA_CB 0.50 PPM 8330MXA	10.0	12/23/14	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	12/23/14

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'N LOT #	DATE / INITIALS
PETN	1000 ug/ml						NP 12-29-14

S-12837A4-5ML Exp 4/30/2015

CH — INVICTA — PO BOX 599

Pentaerythritol tetranitrate
Lot #: 2377700 - 34516
Pentaeryth Rec: 12/16/14 MFR exp. 4/30/15

Lot: 2677700

1000ug/ml In Acetonitrile
FLAMMABLE-POISON-LACHRYMATOR

I broke open the vial labeled to the left and transferred to a amber 8ml vial → PETN 1000ug/ml 12-29-14

	PETN 100 ug/ml							NP
PETN	1000	12-29-14	0.5	5.0	100	1:1 ACN/MeOH 07-2-14		12-29-14
K1-6-14	PGDN spike 10 ug/ml							NP
PGDNA	100	10-27-14	0.10	1.0	10.0	1:1 ACN/MeOH 7-2-14		01-06-15
	PGDN spike 1.0 ug/ml							NP
PGDN spk	10	01-06-15	0.10	1.0	1.0	1:1 ACN/MeOH 7-2-14		01-06-15
	Nitroglycerin 100 ug/ml							NP
Nitroglycerin	1000	08-06-14	0.50	5.0	100	1:1 ACN/MeOH 12-23-14		01-06-15
	8330 MXA spk 10 ug/ml							NP
MX-8330 spk	100	09-17-14	0.150	1.5	10.0	1:1 ACN/MeOH 12-23-14		01-06-15
	8330 MXA spk 1.0 ug/ml							NP
8330 MXA spk	10.0	01-06-15	0.150	1.5	1.0	1:1 ACN/MeOH 12-23-14		01-06-15

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT/LOT	DATE/IN.
8321PA_SS 0.10 DF							
Picric Acid_SS	1.0	11-17-14	0.20	2.0	0.10	ACN/DK902	01-13-15
4-Nitrophenol	10	01-13-15	0.020	1	0.10	1	1
MX8330 Sph 100ug/mL							
MX-8330R	1000	08-06-14	0.80	8.0	10.0	1:1 ACN/MeOH	01-15-15
1,2-DND	1000	12-23-14	0.80	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	SOLVENT LOT #	DATE INITIALS
8330MXA_CB 1.0 PPM 8330MXA	10.0	12/23/14	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXA_CB 2.0 PPM 8330MXA_CB 2.0 PPM	10.0	12/23/14	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 0.005 PPM 8330MXB_CB(1:1)	0.1	01/15/15	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 0.010 PPM 8330MXB_CB(1:1)	0.1	01/15/15	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 0.020 PPM 8330MXB_CB(1:1)	0.1	01/15/15	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 0.050 PPM 8330MXB_CB(1:1)	1.0	01/15/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 0.10 PPM 8330MXB_CB(1:1)	1.0	01/15/15	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 0.20 PPM 8330MXB_CB(1:1)	1.0	01/15/15	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 0.50 PPM 8330MXB_CB	10.0	12/23/14	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 1.0 PPM 8330MXB_CB	10.0	12/23/14	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_CB 2.0 PPM 8330MXB_CB	10.0	12/23/14	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXA_SS 1.0 PPM 8330MXA_SS	100	10/01/14	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	01/15/15
8330MXB_SS 1.0 PPM 8330MXB_SS	100	10/01/14	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	01/15/15
PETN_TET_SS 1.0 PPM PETN_SS TETRYL_SS	100 100	08/06/14 01/15/15	0.01 0.01	1.00	1.0	1:1:6_ACN MEOH: MILLIPORE	01/15/15

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'VENT / LOT #01	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	100	08/06/14	0.01	1.00	1.0	1:1:6_ACN	03/12/15
TETRYL_SS	100	01/15/15	0.01			MEOH: MILLIPORE	

HP HP

PETN_SS 100 08-06-14 The Solution was QC'd on 03-13-15 on Stetler, Data File 0312_D00047.D HP 03-16-15

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOL'VENT / LOT# 021	DATE / INITIALS
Scav_spk 30 ug/ml (5ml)							
Hexah,dro-1$3^5$-tris(hydroxyeth,l) hi:e:i:n							
1180	03-18-15	0.127	5.0	30	MeOH/54115	03-19-15	
2.2'-thiodiethanol							
1080	03-19-15	0.146					
2-(1,3-Dithiolan-5-yl) ethanol							
525	03-11-15	0.286					
Scav spk 3.0 ug/ml 5ml							
Scav spk 30	03-19-15	0.50	5.0	3.0	MeOH/54115	03-19-15	

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC.	SOVENT/LOT	DATE/IN.
8330MXA_CB(1:1) 1.0 PPM 8330MXA	10.0	03/05/15	0.100	1.0	1.0	1:1 ACN/MEOH 07/02/14	03/17/15
8330MXA_CB(1:1) 0.10 PPM 8330MXA_CB(1:1)	1.0	03/17/15	0.100	1.0	0.1	1:1 ACN/MEOH 07/02/14	03/17/15
8330MXB_CB(1:1) 1.0 PPM 8330MXB	10.0	03/05/15	0.100	1.0	1.0	1:1 ACN/MEOH 07/02/14	03/17/15
8330MXB_CB(1:1) 0.10 PPM 8330MXB_CB(1:1)	1.0	03/17/15	0.100	1.0	0.1	1:1 ACN/MEOH 07/02/14	03/17/15
8330MXA_CB 0.005 PPM 8330MXA_CB(1:1)	0.1	03/17/15	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXA_CB 0.010 PPM 8330MXA_CB(1:1)	0.1	03/17/15	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXA_CB 0.020 PPM 8330MXA_CB(1:1)	0.1	03/17/15	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXA_CB 0.050 PPM 8330MXA_CB(1:1)	1.0	03/17/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXA_CB 0.10 PPM 8330MXA_CB(1:1)	1.0	03/17/15	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXA_CB 0.20 PPM 8330MXA_CB(1:1)	1.0	03/17/15	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	03/17/15
8330MXA_CB 0.50 PPM 8330MXA	10.0	03/05/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	03/17/15

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT 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

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE INITIALS

PER_IS 0.005µg/ml 04-20-15: JH
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. JH

8330 MX-A_SS 100ug/ml 04-21-15 JP
8330 MixA, 100ug/ml, Absolute
Lot #103014-34464, I broke the vial
open and transferred to an amber
1.8ml injection vial
→ 8330MX-A_SS 100ug/ml 04-21-15

8330MXB_SS 100ug/ml 04-21-15 JP
8330 MixB, 100ug/ml, Absolute
Lot #103014-34467, I broke the vial
open and transferred to an amber
1.8ml injection vial →
8330MX-B_SS 100ug/ml 04-21-15

Tetryl_SS 100ug/ml 03-05-15 JP
Tetryl(SS) 1000 12-23-14 0.10 1.0 100 1:1 ACN/MeOH 04-22-15

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STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE/ INITIALS
1,2-DNB 1000 ug/mL							04-22-15 MP

I broke open the vial labeled to the left and transferred to an amber 1.8ml injection vial → 1,2-DNB 1000ug/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	14-22-15 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

MP

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC	SOLVENT LOT#	DATE INITIALS

Standard prep performed as dated, Documented here 04-22-15 MP

8330MXA_CB 0.20 PPM 8330MXA_CB(1:1)	1.0	04/21/15	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	04/21/15	MP
8330MXA_CB 0.50 PPM 8330MXA	10.0	03/05/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	04/21/15	
8330MXA_CB 1.0 PPM 8330MXA	10.0	03/05/15	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	04/21/15	
8330MXA_CB 2.0 PPM 8330MXA_CB 2.0 PPM	10.0	03/05/15	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	04/21/15	
8330MXB_CB 0.005 PPM 8330MXB_CB(1:1)	0.1	04/21/15	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	04/21/15	
8330MXB_CB 0.010 PPM 8330MXB_CB(1:1)	0.1	04/21/15	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	04/21/15	
8330MXB_CB 0.020 PPM 8330MXB_CB(1:1)	0.1	04/21/15	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	04/21/15	
8330MXB_CB 0.050 PPM 8330MXB_CB(1:1)	1.0	04/21/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	04/21/15	
8330MXB_CB 0.10 PPM 8330MXB_CB(1:1)	1.0	04/21/15	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	04/21/15	MP
8330MXB_CB 0.20 PPM 8330MXB_CB(1:1)	1.0	04/21/15	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	04/21/15	
8330MXB_CB 0.50 PPM 8330MXB_CB	10.0	03/05/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	04/21/15	
8330MXB_CB 1.0 PPM 8330MXB_CB	10.0	03/05/15	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	04/21/15	
8330MXB_CB 2.0 PPM 8330MXB_CB	10.0	03/05/15	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	04/21/15	
8330MXA_SS 1.0 PPM 8330MXA_SS	100	10/01/14	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	04/21/15	
8330MXB_SS 1.0 PPM 8330MXB_SS	100	10/01/14	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	04/21/15	
PETN_TET_SS 1.0 PPM PETN_SS TETRYL_SS	100 100	08/06/14 04/22/15	0.01 0.01	1.00	1.0	1:1:6_ACN MEOH: MILLIPORE	04/22/15	

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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								MP
	1010	04-10-15	0.594	20	30	ACN/DMSO	4	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								MP
	1077	04-17-15	0.557	20	30	ACN/DMSO	4	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 MP
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 MP
8330mXA-SS 100 ug/mL								04-28-15 MP
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 MP
8330mixB 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								

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

Scalass Weight Comparison 04-28-15 hp
Balance ID: Mettler AT-200 #J-28448

Time-

S-weight	Balance reading
20 g	20.0000
1 g	1.0002
100 mg	0.1000
20 mg	~~0.1020~~ 0.0020 hp 4-28-15

1,2-DNB 1000 PPM 06/15/15
MP

1,2-DNB 1000 PPM,O2SI LOT 227342-34118, I BROKE OPEN THE VIAL AND TRANSFERRED THE CONTENTS TO AN AMBER 1.8 ML INJECTION VIAL ---1,2-DNB 1000 PPM 06/15/15

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC.	SOVENT/LOT	DATE/IN.
1,2-DNB 100 PPM							
1,2-DNB	1000	06/15/15	1.000	10.0	100.0	1:1 ACN/MEOH 05/22/15	06/15/15 MP

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC.	SOLVENT/LOT	DATE/IN.
8330MXA_CB(1:1) 1.0 PPM 8330MXA	10.0	05/15/15	0.100	1.0	1.0	1:1 ACN/MEOH 03/05/15	05/22/15
8330MXA_CB(1:1) 0.10 PPM 8330MXA_CB(1:1)	1.0	05/22/15	0.100	1.0	0.1	1:1 ACN/MEOH 03/05/15	05/22/15
8330MXB_CB(1:1) 1.0 PPM 8330MXB	10.0	05/15/15	0.100	1.0	1.0	1:1 ACN/MEOH 03/05/15	05/22/15 05/22/15
8330MXB_CB(1:1) 0.10 PPM 8330MXB_CB(1:1)	1.0	05/22/15	0.100	1.0	0.1	1:1 ACN/MEOH 03/05/15	05/22/15
8330MXA_CB 0.005 PPM 8330MXA_CB(1:1)	0.1	05/22/15	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	05/22/15
8330MXA_CB 0.010 PPM 8330MXA_CB(1:1)	0.1	05/22/15	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	05/22/15
8330MXA_CB 0.020 PPM 8330MXA_CB(1:1)	0.1	05/22/15	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	05/22/15
8330MXA_CB 0.050 PPM 8330MXA_CB(1:1)	1.0	05/22/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	05/22/15
8330MXA_CB 0.10 PPM 8330MXA_CB(1:1)	1.0	05/22/15	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	05/22/15
8330MXA_CB 0.20 PPM 8330MXA_CB(1:1)	1.0	05/22/15	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	05/22/15
8330MXA_CB 0.50 PPM 8330MXA	10.0	05/15/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	05/22/15
8330MXA_CB 1.0 PPM 8330MXA	10.0	05/15/15	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	05/22/15
8330MXA_CB 2.0 PPM 8330MXA_CB	10.0	05/15/15	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	05/22/15
8330MXB_CB 0.005 PPM 8330MXB_CB(1:1)	0.1	05/22/15	0.050	1	0.005	1:1:6_ACN/MEOH MILLIPORE	05/22/15
8330MXB_CB 0.010 PPM 8330MXB_CB(1:1)	0.1	05/22/15	0.100	1.00	0.010	1:1:6_ACN/MEOH MILLIPORE	05/22/15

8330MXB_CB 0.020 PPM 8330MXB_CB(1:1)	0.1	05/22/15	0.200	1.00	0.020	1:1:6_ACN/MEOH MILLIPORE	05/22/15
8330MXB_CB 0.050 PPM 8330MXB_CB(1:1)	1.0	05/22/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	05/22/15
8330MXB_CB 0.10 PPM 8330MXB_CB(1:1)	1.0	05/22/15	0.100	1.00	0.100	1:1:6_ACN/MEOH MILLIPORE	05/22/15
8330MXB_CB 0.20 PPM 8330MXB_CB(1:1)	1.0	05/22/15	0.200	1.00	0.200	1:1:6_ACN/MEOH MILLIPORE	05/22/15
8330MXB_CB 0.50 PPM 8330MXB_CB	10.0	05/15/15	0.050	1.00	0.050	1:1:6_ACN/MEOH MILLIPORE	05/22/15
8330MXB_CB 1.0 PPM 8330MXB_CB	10.0	05/15/15	0.100	1.00	1.000	1:1:6_ACN/MEOH MILLIPORE	05/22/15
8330MXB_CB 2.0 PPM 8330MXB_CB	10.0	05/15/15	0.200	1.00	2.000	1:1:6_ACN/MEOH MILLIPORE	05/22/15
8330MXA_SS 1.0 PPM 8330MXA_SS	100	05/15/15	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	05/22/15
8330MXB_SS 1.0 PPM 8330MXB_SS	100	05/15/15	0.010	1.00	1.0	1:1:6_ACN/MEOH MILLIPORE	05/22/15
PETN_TET_SS 1.0 PPM PETN_SS TETRYL_SS	100 100	05/15/15 05/15/15	0.01 0.01	1.00	1.0	1:1:6_ACN MEOH: MILLIPORE	05/22/15

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC.	SOVENT/LOT	DATE/IN.
8330MX-A 10.0 PPM							
MX-8330R	500	05/15/15	0.400	20.0	10.0	1:1 ACN/MEOH	06/21/15
1,2-DNB	1000	05/15/15	0.200			05/22/15	MP
8330MX-B 10.0 PPM							
NITROGLYCERIN	1000	05/15/15	0.200	20.0	10.0	1:1 ACN/MEOH	06/21/15
3,5-DNA	1000	05/15/15	0.200			05/22/15	MP
PETN	1000	05/15/15	0.200				

STANDARD	INITIAL CONC	SOURCE DATE	ALIQUOT	FINAL VOLUME	FINAL CONC.	SOLVENT/LOT	DATE/IN.
8330_CB(1:1) 1.0 PPM							
8330MXA	10.0	06/21/15	0.100	1.0	1.0	1:1 ACN/MEOH	06/26/15
8330MXB	10.0	06/21/15				05/22/15	MP
8330_CB(1:1) 0.1 PPM							
8330_CB(1:1)	1.0	06/26/15	0.100	1	0.1	1:1 ACN/MEOH	06/26/15
						05/22/15	MP
8330_CB 0.005 PPM							
8330_CB(1:1)	0.1	06/26/15	0.050	1	0.005	1:1:6_ACN	06/26/15
						MEOH: MILLIPOR	MP
8330_CB 0.010 PPM							
8330_CB(1:1)	0.1	06/26/15	0.100	1.00	0.010	1:1:6_ACN	06/26/15
						MEOH: MILLIPOR	MP
8330_CB 0.020 PPM							
8330_CB(1:1)	0.1	06/26/15	0.200	1.00	0.020	1:1:6_ACN	06/26/15
						MEOH: MILLIPOR	MP
8330_CB 0.050 PPM							
8330_CB(1:1)	1.0	06/26/15	0.050	1.00	0.050	1:1:6_ACN	06/26/15
						MEOH: MILLIPOR	MP
8330_CB 0.10 PPM							
8330_CB(1:1)	1.0	06/26/15	0.100	1.00	0.10	1:1:6_ACN	06/26/15
						MEOH: MILLIPOR	MP
8330_CB 0.20 PPM							
8330_CB(1:1)	1.0	06/26/15	0.20	1.00	0.20	1:1:6_ACN	06/26/15
						MEOH: MILLIPOR	MP
8330_CB 0.50 PPM							
8330MXA	10.0	06/21/15	0.050	1.00	0.050	1:1:6_ACN	06/26/15
8330MXB	10.0	06/21/15	0.050			MEOH: MILLIPOR	MP
8330_CB 1.0 PPM							
8330MXA	10.0	06/21/15	0.100	1.00	1.000	1:1:6_ACN	06/26/15
8330MXB	10.0	06/21/15	0.100			MEOH: MILLIPOR	MP
8330MXA_CB 2.0 PPM							
8330MXA_CB	10.0	06/21/15	0.200	1.00	2.000	1:1:6_ACN	06/26/15
						MEOH: MILLIPOR	MP
8330MXB_CB 2.0 PPM							
8330MXB_CB	10.0	06/21/15	0.200	1.00	2.000	1:1:6_ACN	06/26/15
						MEOH: MILLIPOR	MP
8330_SS 1.0 PPM							
8330MXA_SS	100	05/15/15	0.010	1.00	1.0	1:1:6_ACN	06/26/15
8330MXB_SS	100	05/15/15	0.010			MEOH: MILLIPOR	MP
PETN_TET_SS 1.0 PPM							
PETN_SS	100	05/15/15	0.01	1.00	1.0	1:1:6_ACN	06/26/15
TETRYL_SS	100	05/15/15	0.01			MEOH: MILLIPOR	MP

_MWE3535

Organic Extraction Worksheet

Method	EPA Method 3535A	Extraction Set	150618A	Extraction Method	MWE3535	Units	mL

Spiked ID 1	8330 100ppm STK 5-5-15 exp 11-5-15		Surrogate ID 1	1,2 DNB SURROGATE 5PPM 4-2-15 exp 8-2-15	
Spiked ID 2	Nitroglyerin 100ppm 3-31-15 exp 9-30-15		Surrogate ID 2		
Spiked ID 3			Surrogate ID 3		
Spiked ID 4			Surrogate ID 4		
Spiked ID 5			Surrogate ID 5		
Spiked ID 6			Sufficient Vol for Matrix QC:	YES	
Spiked ID 7			Ext. Start Time:	06/18/15 10:40	
Spiked ID 8			Ext. End Time:	06/18/15 15:39	
			GC Requires Extract By:		

pH1	2	06/18/15 9:30:00 AM	Water Bath Temp Criteria	
pH2				
pH3				

Spiked By: CFM **Date** 06/18/15 10:30:00 AM **Witnessed By:** RP **Date** 06/18/15 10:30:00 AM

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	150618A Blk				0.100	1 equip	500	2ML	2	06/18/15 10:40	
2	150618A LCS-1		0.040	1-2	NA	NA equip	500	2ML	2	06/18/15 10:40	
3	AZ17692	AZ17692W02			0.100	1 equip	500	2ML	2	06/18/15 10:40	76657
4	AZ17693	AZ17693W02			0.100	1 equip	500	2ML	2	06/18/15 10:40	76657
5	AZ17694 MS-1	AZ17694W08	0.040	1-2	NA	NA equip	500	2ML	2	06/18/15 10:40	76657
6	AZ17694 MSD-1	AZ17694W09	0.040	1-2	NA	NA equip	500	2ML	2	06/18/15 10:40	76657
7	AZ17694	AZ17694W07			0.100	1 equip	500	2ML	2	06/18/15 10:40	76657
8	AZ17695	AZ17695W03			0.100	1 equip	500	2ML	2	06/18/15 10:40	76657
9	AZ17696	AZ17696W05			0.100	1 equip	500	2ML	2	06/18/15 10:40	76657
10	AZ17817	AZ17817W03			0.100	1 equip	500	2ML	2	06/18/15 10:40	76674
11	AZ17818	AZ17818W03			0.100	1 equip	500	2ML	2	06/18/15 10:40	76674
12	AZ17821	AZ17821W03			0.100	1 equip	500	2ML	2	06/18/15 10:40	76674
13	AZ17826	AZ17826W05			0.100	1 equip	500	2ML	2	06/18/15 10:40	76674
14	AZ17827	AZ17827W02			0.100	1 equip	500	2ML	2	06/18/15 10:40	76674
15	AZ17828	AZ17828W06			0.100	1 equip	500	2ML	2	06/18/15 10:40	76674
16	AZ17829	AZ17829W05			0.100	1 equip	500	2ML	2	06/18/15 10:40	76674

Solvent and Lot#	
Acetonitrile	DM 394
Cartridge Sorbent Lot	S311-032
Serial No	512616
Sodium Bisulfate	234615
PH Strip	HC 431579

Extraction COC Transfer	
Extraction lab employee Initials	CFM
GC analyst's initials	
Date	
Time	
Refrigerator	

	Technician's Initials
Scanned By	CFM
Sample Preparation	CFM
Extraction	CFM
Concentration	----------

Modified	06/18/15 3:41:31 PM

Reviewed By: **Date**

_MSE018

Organic Extraction Worksheet

Method	Explosives Soil Extraction 8330B	Extraction Set	150625A	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 5-5-15 exp 11-5-15		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:	06/25/15 13:55	
Spiked ID 8			Ext. End Time:	06/26/15 7:55	
			GC Requires Extract By:		

pH1			Water Bath Temp Criteria	
pH2				
pH3				

Spiked By: CFM **Date** 06/25/15 1:40:00 PM **Witnessed By:** RP **Date** 06/25/15 1:40:00 PM

	Sample	Sample Container	Spike Amount	Spike ID	Surrogate Amount	Surrogate ID	Extract Amount	Final Volume	pH	Extract Date/Time	Comments
1	150625A Blk				0.060	1 equip	10.17g	20mLs	NA	06/25/15 13:55	
2	150625A LCS-1		0.200	1-2	NA	NA equip	10.03g	20mLs	NA	06/25/15 13:55	
3	AZ17816	AZ17816S02			0.060	1 equip	10.02g	20mLs	NA	06/25/15 13:55	76674
4	AZ17819	AZ17819S02			0.060	1 equip	10.16g	20mLs	NA	06/25/15 13:55	76674
5	AZ17820	AZ17820S03			0.060	1 equip	10.12g	20mLs	NA	06/25/15 13:55	76674
6	AZ17822	AZ17822S01			0.060	1 equip	10.03g	20mLs	NA	06/25/15 13:55	76674
7	AZ17824 MS-1	AZ17824S04	0.200	1-2	NA	NA equip	10.06g	40mLs	NA	06/25/15 13:55	76674
8	AZ17824 MSD-1	AZ17824S04	0.200	1-2	NA	NA equip	10.05g	40mLs	NA	06/25/15 13:55	76674
9	AZ17824	AZ17824S04			0.060	1 equip	10.04g	40mLs	NA	06/25/15 13:55	76674

hp 06-26-15

Solvent and Lot#	
Acetonitrile	DM 394
Silica Sand	041913

Extraction COC Transfer	
Extraction lab employee Initials	CFM
GC analyst's initials	hp
Date	06-26-15
Time	1000
Refrigerator	BIOWA

	Technician's Initials
Scanned By	CFM
Sample Preparation	CFM
Extraction	CFM
Concentration	----------

Modified	06/25/15 2:12:53 PM

Reviewed By: hp **Date** 06-26-15

Injection Log

Directory: Z:\WALDORF\CHEM32\2\DATA\150627\150627

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	0	0627_000004.D		8330_CB 0.005 PPM 06/26/15		6/27/15 15:48
2	0	0627_000005.D		8330_CB 0.010 PPM 06/26/15		6/27/15 16:26
3	0	0627_000006.D		8330_CB 0.020 PPM 06/26/15		6/27/15 17:03
4	0	0627_000007.D		8330_CB 0.050 PPM 06/26/15		6/27/15 17:41
5	0	0627_000008.D		8330_CB 0.10 PPM 06/26/15		6/27/15 18:18
6	0	0627_000009.D		8330_CB 0.20 PPM 06/26/15		6/27/15 18:56
7	0	0627_000010.D		8330_CB 0.50 PPM 06/26/15		6/27/15 19:33
8	0	0627_000011.D		8330_CB 1.0 PPM 06/26/15		6/27/15 20:11
9	0	0627_000012.D		8330MXA_CB 2.0 PPM 06/26/15		6/27/15 20:48
10	0	0627_000027.D		8330MXB_CB 2.0 PPM 06/26/15		6/28/15 5:22
11	0	0627_000028.D		8330_SS 1.0 PPM 06/26/15		6/28/15 5:49
12	0	0627_000029.D		PETN_TETRYL_SS 1.0 PPM 06/26/15		6/28/15 6:17

Injection Log

Directory: Z:\WALDORF\CHEM32\2\DATA\150627\150629

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	0	0629_000004.D		8330_CCV 1.0 PPM 06/29/15		6/29/15 12:08
2	0	0629_000008.D	0.016	150618ALCS-1 0.016 DF 06/18/15	Water	6/29/15 12:38
3	0	0629_000014.D	0.016	150618ABLK 0.016 DF 06/18/15	Water	6/29/15 16:23
4	0	0629_000020.D	0.016	AZ17817W03 0.016 DF 06/18/15	Water	6/29/15 20:08
5	0	0629_000021.D	0.016	AZ17818W03 0.016 DF 06/18/15	Water	6/29/15 20:46
6	0	0629_000022.D		8330_CCV 1.0 PPM 06/29/15		6/29/15 21:23
7	0	0629_000023.D	0.016	AZ17821W03 0.016 DF 06/18/15	Water	6/29/15 21:51
8	0	0629_000024.D	0.016	AZ17826W05 0.016 DF 06/18/15	Water	6/29/15 22:28
9	0	0629_000025.D	0.016	AZ17827W02 0.016 DF 06/18/15	Water	6/29/15 23:06
10	0	0629_000026.D	0.016	AZ17828W06 0.016 DF 06/18/15	Water	6/29/15 23:43
11	0	0629_000027.D	0.016	AZ17829W05 0.016 DF 06/18/15	Water	6/30/15 0:21
12	0	0629_000037.D		8330_CCV 1.0 PPM 06/29/15		6/30/15 6:36

Injection Log

Directory: Z:\WALDORF\CHEM32\2\DATA\150627\150629

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	0	0629_000022.D		8330_CCV 1.0 PPM 06/29/15		6/29/15 21:23
2	0	0629_000028.D	7.97607	150625ALCS-1 7.976 DF 06/25/15	Soil	6/30/15 0:58
3	0	0629_000029.D	7.95229	AZ17824S04_MS-1 7.952 DF 06/25/15	Soil	6/30/15 1:36
4	0	0629_000030.D	7.96813	AZ17824S04_MSD-1 7.960 DF 06/25/15	Soil	6/30/15 2:13
5	0	0629_000031.D	7.86627	150625ABLKS 7.866 DF 06/25/15	Soil	6/30/15 2:51
6	0	0629_000032.D	7.98403	AZ17816S02 7.984 DF 06/25/15	Soil	6/30/15 3:28
7	0	0629_000033.D	7.87402	AZ17819S02 7.874 DF 06/25/15	Soil	6/30/15 4:06
8	0	0629_000034.D	7.90514	AZ17820S03 7.905 DF 06/25/15	Soil	6/30/15 4:43
9	0	0629_000035.D	7.97607	AZ17822S01 7.976 DF 06/25/15	Soil	6/30/15 5:21
10	0	0629_000036.D	7.96813	AZ17824S04 7.968 DF 06/25/15	Soil	6/30/15 5:58
11	0	0629_000037.D		8330_CCV 1.0 PPM 06/29/15		6/30/15 6:36

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\150701

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	0	0701_000004.D		8330MXA_CCV 1.0 PPM 07/01/15		7/1/15 12:33
2	0	0701_000005.D		8330MXB_CCV 1.0 PPM 07/01/15		7/1/15 13:12
3	0	0701_000006.D	7.87402	AZ17819S02 7.874 DF 06/25/15	Soil	7/1/15 13:53
4	0	0701_000007.D	7.90514	AZ17820S03 7.905 DF 06/25/15	Soil	7/1/15 14:33
5	0	0701_000008.D	7.97607	AZ17822S01 7.976 DF 06/25/15	Soil	7/1/15 15:12
6	0	0701_000016.D		8330MXA_CCV 1.0 PPM 07/01/15		7/1/15 20:28
7	0	0701_000017.D		8330MXB_CCV 1.0 PPM 07/01/15		7/1/15 21:08

Injection Log

Directory: Z:\STATLER\CHEM32\1\DATA\150522\150701

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	0	0701_000004.D		8330MXA_CCV 1.0 PPM 07/01/15		7/1/15 12:33
2	0	0701_000005.D		8330MXB_CCV 1.0 PPM 07/01/15		7/1/15 13:12
3	0	0701_000009.D	0.016	AZ17827W02 0.016 DF 06/18/15	Water	7/1/15 15:52
4	0	0701_000010.D	0.016	AZ17828W06 0.016 DF 06/18/15	Water	7/1/15 16:31
5	0	0701_000016.D		8330MXA_CCV 1.0 PPM 07/01/15		7/1/15 20:28
6	0	0701_000017.D		8330MXB_CCV 1.0 PPM 07/01/15		7/1/15 21:08

METALS

APPL, INC.

METALS

QC Summary

APPL, INC.

METALS BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6010C	ALUMINUM (AL)	80.00 U	300.0	80.00	27.40	ug/L	07/01/15	07/06/15	#61CJU-150701A1-AZ17694
6010C	BORON (B)	40.00 U	50.0	40.00	29.40	ug/L	07/01/15	07/06/15	#61CJU-150701A1-AZ17694
6010C	LITHIUM (LI)	0.67 J	1.0	0.80	0.40	ug/L	07/01/15	07/06/15	#61CJU-150701A1-AZ17694
6010C	ZINC (ZN)	20.00 U	150.0	20.00	13.70	ug/L	07/01/15	07/06/15	#61CJU-150701A1-AZ17694
6010C	ALUMINUM (AL) (DI	80.00 U	300.0	80.00	27.40	ug/L	07/01/15	07/06/15	#61CJU-150701A-AZ17694
6010C	BORON (B) (DISSO	40.00 U	50.0	40.00	29.40	ug/L	07/01/15	07/06/15	#61CJU-150701A-AZ17694
6010C	LITHIUM (LI) (DISSO	0.83 J	1.0	0.80	0.40	ug/L	07/01/15	07/06/15	#61CJU-150701A-AZ17694
6010C	ZINC (ZN) (DISSOL	20.00 U	150.0	20.00	13.70	ug/L	07/01/15	07/06/15	#61CJU-150701A-AZ17694

J = Estimated value.

Metals SC-Blank-REG MDLs
Printed: 07/08/15 3:39:30 PM

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)	4.00 U	50.0	4.00	1.98	mg/Kg	07/08/15	07/09/15	#61CJU-150708B-AZ17824
6010C	BORON (B)	4.00 U	5.0	4.00	1.55	mg/Kg	07/08/15	07/09/15	#61CJU-150708B-AZ17824
6010C	LITHIUM (LI)	0.500 U	0.67	0.500	0.250	mg/Kg	07/08/15	07/09/15	#61CJU-150708B-AZ17824
6010C	ZINC (ZN)	4.00 U	8.0	4.00	1.15	mg/Kg	07/08/15	07/09/15	#61CJU-150708B-AZ17824

Metals SC-Blank-REG MDLs
Printed: 07/13/15 10:50:06 AM

Laboratory Control Spike Recovery

METALS

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 6010C	ALUMINUM (AL) (DISSOLVED)	2000	1940	97.0	80-120	07/01/15	07/06/15	#61CJU-150701A-AZ17694
EPA 6010C	BORON (B) (DISSOLVED)	250	238	95.2	80-120	07/01/15	07/06/15	#61CJU-150701A-AZ17694
EPA 6010C	LITHIUM (LI) (DISSOLVED)	100.0	92.9	92.9	80-120	07/01/15	07/06/15	#61CJU-150701A-AZ17694
EPA 6010C	ZINC (ZN) (DISSOLVED)	500	472	94.4	80-120	07/01/15	07/06/15	#61CJU-150701A-AZ17694
EPA 6010C	ALUMINUM (AL)	2000	2150	108	80-120	07/01/15	07/06/15	#61CJU-150701A1-AZ17694
EPA 6010C	BORON (B)	250	235	94.0	80-120	07/01/15	07/06/15	#61CJU-150701A1-AZ17694
EPA 6010C	LITHIUM (LI)	100.0	93.3	93.3	80-120	07/01/15	07/06/15	#61CJU-150701A1-AZ17694
EPA 6010C	ZINC (ZN)	500	470	94.0	80-120	07/01/15	07/06/15	#61CJU-150701A1-AZ17694

Comments: _____

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	189	94.5	80-120	07/08/15	07/09/15	#61CJU-150708B-AZ17824
EPA 6010C	BORON (B)	25.0	24.5	98.0	80-120	07/08/15	07/09/15	#61CJU-150708B-AZ17824
EPA 6010C	LITHIUM (LI)	10.00	10.7	107	80-120	07/08/15	07/09/15	#61CJU-150708B-AZ17824
EPA 6010C	ZINC (ZN)	50.0	49.5	99.0	80-120	07/08/15	07/09/15	#61CJU-150708B-AZ17824

Comments: _____

Matrix Spike Recoveries

METALS

APPL ID: **150701W-17823 MS - 198616**

Sample ID: AZ17823

Client ID: S67-SW028-061615

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl ug/L	Matrix Res ug/L	SPK Res ug/L	DUP Res ug/L	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) (DISS	2000	1.2	1930	2320	96.4	116	18.4	20	80-120	07/01/15	07/06/15	07/01/15	07/06/15	198616	AZ17823
EPA 6010C	BORON (B) (DISSOLV	250	47.9	298	299	100	100	0.3	20	80-120	07/01/15	07/06/15	07/01/15	07/06/15	198616	AZ17823
EPA 6010C	LITHIUM (LI) (DISSOLV	100.0	2.4	105	106	103	104	0.9	20	80-120	07/01/15	07/06/15	07/01/15	07/06/15	198616	AZ17823
EPA 6010C	ZINC (ZN) (DISSOLVE	500	1.9	487	490	97.0	97.6	0.6	20	80-120	07/01/15	07/06/15	07/01/15	07/06/15	198616	AZ17823
EPA 6010C	ALUMINUM (AL)	2000	134	2120	2070	99.3	96.8	2.4	20	80-120	07/01/15	07/06/15	07/01/15	07/06/15	198617	AZ17823
EPA 6010C	BORON (B)	250	51.5	301	289	99.8	95.0	4.1	20	80-120	07/01/15	07/06/15	07/01/15	07/06/15	198617	AZ17823
EPA 6010C	LITHIUM (LI)	100.0	2.2	99.8	96.3	97.6	94.1	3.6	20	80-120	07/01/15	07/06/15	07/01/15	07/06/15	198617	AZ17823
EPA 6010C	ZINC (ZN)	500	8.0	487	469	95.8	92.2	3.8	20	80-120	07/01/15	07/06/15	07/01/15	07/06/15	198617	AZ17823

Comments: _____

Matrix Spike Recoveries

METALS

APPL ID: **150708S-17824 MS - 198719**

Sample ID: AZ17824

Client ID: S67-SD029-0001

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)	408	6250	6560	6070	76.0 #	-44.1 #	7.8	20	80-120	07/08/15	07/09/15	07/08/15	07/09/15	198719	AZ17824
EPA 6010C	BORON (B)	51.0	5.5	43.5	36.4	74.5 #	60.6 #	17.8	20	80-120	07/08/15	07/09/15	07/08/15	07/09/15	198719	AZ17824
EPA 6010C	LITHIUM (LI)	20.4	11.1	35.1	31.6	118	100	10.5	20	80-120	07/08/15	07/09/15	07/08/15	07/09/15	198719	AZ17824
EPA 6010C	ZINC (ZN)	102	196	292	279	94.1	81.4	4.6	20	80-120	07/08/15	07/09/15	07/08/15	07/09/15	198719	AZ17824

= Recovery is outside QC limits.

Comments: _____

6010C/3010A^

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/06/15

Matrix: WATER Instrument: Jules

Blank ID: 150701A-BLK Time Analyzed: 1211

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150701A-MSD	Matrix SpikeD	150706A	07/06/15 1353
AZ17818	S67-SW026P-061615	150706A	07/06/15 1326
AZ17821	S67-SW027-061615	150706A	07/06/15 1333
AZ17823	S67-SW028-061615	150706A	07/06/15 1340
AZ17826	S67-MW018-061615	150706A	07/06/15 1359
AZ17827	S67-MW019-061615	150706A	07/06/15 1504
AZ17828	S67-MW023-061615	150706A	07/06/15 1510
AZ17829	S67-MW022-061615	150706A	07/06/15 1517
150701A-BLK	Blank	150706A	07/06/15 1211
150701A-LCS	Lab Control Spike	150706A	07/06/15 1216
AZ17817	S67-SW026-061615	150706A	07/06/15 1319
150701A-MS	Matrix Spike	150706A	07/06/15 1346
AZ17828	S67-MW023-061615	150707A	07/07/15 1352

Comments: Batch: #61CJU-150701A

Printed: 07/08/15 3:39:45 PM
Form 4, Blank Summary

6010C/3010A^

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/06/15

Matrix: WATER Instrument: Jules

Blank ID: 150701A1-BLK Time Analyzed: 1222

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150701A1-MSD	Matrix SpikeD	150706A	07/06/15 1738
AZ17818	S67-SW026P-061615	150706A	07/06/15 1711
AZ17821	S67-SW027-061615	150706A	07/06/15 1718
AZ17823	S67-SW028-061615	150706A	07/06/15 1725
AZ17826	S67-MW018-061615	150706A	07/06/15 1744
AZ17827	S67-MW019-061615	150706A	07/06/15 1801
AZ17828	S67-MW023-061615	150706A	07/06/15 1807
AZ17829	S67-MW022-061615	150706A	07/06/15 1813
150701A1-BLK	Blank	150706A	07/06/15 1222
150701A1-LCS	Lab Control Spike	150706A	07/06/15 1227
150701A1-MS	Matrix Spike	150706A	07/06/15 1731
AZ17817	S67-SW026-061615	150706A	07/06/15 1704
AZ17828	S67-MW023-061615	150707A	07/07/15 1358

Comments: Batch: #61CJU-150701A1

6010C/3050B^

Form 4

Blank Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/09/15

Matrix: SOIL Instrument: Jules

Blank ID: 150708B-BLK Time Analyzed: 1245

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150708B-MSD	Matrix SpikeD	150709A	07/09/15 1521
150708B-MS	Matrix Spike	150709A	07/09/15 1515
150708B-LCS	Lab Control Spike	150709A	07/09/15 1251
AZ17824	S67-SD029-0001	150709A	07/09/15 1317
AZ17822	S67-SD028-0001	150709A	07/09/15 1312
AZ17820	S67-SD027P-0001	150709A	07/09/15 1307
AZ17819	S67-SD027-0001	150709A	07/09/15 1302
150708B-BLK	Blank	150709A	07/09/15 1245
AZ17824	S67-SD029-0001	150709A	07/09/15 1444
AZ17822	S67-SD028-0001	150709A	07/09/15 1438
AZ17820	S67-SD027P-0001	150709A	07/09/15 1432
AZ17819	S67-SD027-0001	150709A	07/09/15 1409
AZ17816	S67-SD026-0001	150709A	07/09/15 1403

Comments: Batch: #61CJU-150708B

6010C/3010A^

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/06/15

Matrix: WATER Instrument: Jules

LCS ID: 150701A-LCS Time Analyzed: 1216

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150701A-MSD	Matrix SpikeD	150706A	07/06/15 1353
AZ17818	S67-SW026P-061615	150706A	07/06/15 1326
AZ17821	S67-SW027-061615	150706A	07/06/15 1333
AZ17823	S67-SW028-061615	150706A	07/06/15 1340
AZ17826	S67-MW018-061615	150706A	07/06/15 1359
AZ17827	S67-MW019-061615	150706A	07/06/15 1504
AZ17828	S67-MW023-061615	150706A	07/06/15 1510
AZ17829	S67-MW022-061615	150706A	07/06/15 1517
150701A-BLK	Blank	150706A	07/06/15 1211
150701A-LCS	Lab Control Spike	150706A	07/06/15 1216
AZ17817	S67-SW026-061615	150706A	07/06/15 1319
150701A-MS	Matrix Spike	150706A	07/06/15 1346
AZ17828	S67-MW023-061615	150707A	07/07/15 1352

Comments: Batch: #61CJU-150701A

6010C/3010A^

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/06/15

Matrix: WATER Instrument: Jules

LCS ID: 150701A1-LCS Time Analyzed: 1227

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150701A1-MSD	Matrix SpikeD	150706A	07/06/15 1738
AZ17818	S67-SW026P-061615	150706A	07/06/15 1711
AZ17821	S67-SW027-061615	150706A	07/06/15 1718
AZ17823	S67-SW028-061615	150706A	07/06/15 1725
AZ17826	S67-MW018-061615	150706A	07/06/15 1744
AZ17827	S67-MW019-061615	150706A	07/06/15 1801
AZ17828	S67-MW023-061615	150706A	07/06/15 1807
AZ17829	S67-MW022-061615	150706A	07/06/15 1813
150701A1-BLK	Blank	150706A	07/06/15 1222
150701A1-LCS	Lab Control Spike	150706A	07/06/15 1227
150701A1-MS	Matrix Spike	150706A	07/06/15 1731
AZ17817	S67-SW026-061615	150706A	07/06/15 1704
AZ17828	S67-MW023-061615	150707A	07/07/15 1358

Comments: Batch: #61CJU-150701A1

6010C/3050B^

Form 4

LCS Summary

Lab Name: APPL, Inc. SDG No: 76674

Case No: 76674 Date Analyzed: 07/09/15

Matrix: SOIL Instrument: Jules

LCS ID: 150708B-LCS Time Analyzed: 1251

APPL ID.	Client Sample No.	File ID.	Date Analyzed
150708B-MSD	Matrix SpikeD	150709A	07/09/15 1521
150708B-MS	Matrix Spike	150709A	07/09/15 1515
150708B-LCS	Lab Control Spike	150709A	07/09/15 1251
AZ17824	S67-SD029-0001	150709A	07/09/15 1317
AZ17822	S67-SD028-0001	150709A	07/09/15 1312
AZ17820	S67-SD027P-0001	150709A	07/09/15 1307
AZ17819	S67-SD027-0001	150709A	07/09/15 1302
150708B-BLK	Blank	150709A	07/09/15 1245
AZ17824	S67-SD029-0001	150709A	07/09/15 1444
AZ17822	S67-SD028-0001	150709A	07/09/15 1438
AZ17820	S67-SD027P-0001	150709A	07/09/15 1432
AZ17819	S67-SD027-0001	150709A	07/09/15 1409
AZ17816	S67-SD026-0001	150709A	07/09/15 1403

Comments: Batch: #61CJU-150708B

METALS

Sample Data

APPL, INC.

Metals Analysis

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SD026-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17816

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 27.8 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	3980	69.0	5.50	2.70	mg/Kg	1	07/08/15	07/09/15
6010C/3050B	BORON (B)	11.4	6.9	5.50	2.10	mg/Kg	1	07/08/15	07/09/15
6010C/3050B	LITHIUM (LI)	6.2	0.93	0.690	0.350	mg/Kg	1	07/08/15	07/09/15
6010C/3050B	ZINC (ZN)	23.0	11.0	5.50	1.60	mg/Kg	1	07/08/15	07/09/15

Printed: 07/13/15 10:49:28 AM

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

Sequence No.: 24
Sample ID: AZ17816S01
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.98 g
Dilution:
Wash Time:

Autosampler Location: 49
Date Collected: 07/09/15 2:03:42 PM
Data Type: Reprocessed on 07/09/15 4:14:37 PM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17816S01

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	254652.4	110.1	%	0.56				0.51%
Y Radial	18342.6	119.1	%	4.89				4.10%
Ag 338.289†	5752.8	31.79	ug/L	0.333	3.244	mg/kg	0.0340	1.05%
Al 308.215†	36014.7	28150	ug/L	1412.40	2873	mg/kg	144.12	5.02%
As 188.979†	2335.0	475.5	ug/L	3.56	48.52	mg/kg	0.363	0.75%
B 249.677†	-852.4	80.05	ug/L	0.344	8.168	mg/kg	0.0351	0.43%
Ba 233.527†	180577.6	441.6	ug/L	0.90	45.06	mg/kg	0.092	0.20%
Be 313.107†	3211.6	0.906	ug/L	0.0064	0.092	mg/kg	0.0007	0.71%
Ca 315.887†	75908.7	5154	ug/L	261.71	525.9	mg/kg	26.71	5.08%
Cd 214.440†	538.6	-0.237	ug/L	0.0403	-0.024	mg/kg	0.0041	16.99%
Co 228.616†	1401.6	10.79	ug/L	0.166	1.101	mg/kg	0.0169	1.54%
Cr 267.716†	4042.8	49.65	ug/L	0.319	5.066	mg/kg	0.0326	0.64%
Cu 327.393†	14015.8	74.38	ug/L	0.727	7.590	mg/kg	0.0741	0.98%
Fe 273.955†	3096491.4	41520	ug/L	102.08	4236	mg/kg	10.42	0.25%
K 766.490†	30075.3	3771	ug/L	189.19	384.8	mg/kg	19.30	5.02%
Mg 285.213†	61707.1	3796	ug/L	196.18	387.4	mg/kg	20.02	5.17%
Mn 257.610†	45540.6	542.8	ug/L	27.69	55.39	mg/kg	2.826	5.10%
Mo 202.031†	215.4	7.224	ug/L	0.3675	0.737	mg/kg	0.0375	5.09%
Na 589.592†	15150.2	1475	ug/L	80.56	150.5	mg/kg	8.22	5.46%
Ni 231.604†	1287.9	28.30	ug/L	0.160	2.888	mg/kg	0.0163	0.56%
P 213.617†	2087.2	661.1	ug/L	4.09	67.46	mg/kg	0.417	0.62%
Pb 220.353†	5028.9	905.6	ug/L	6.06	92.41	mg/kg	0.618	0.67%
Sb 206.836†	1455.7	215.8	ug/L	1.46	22.02	mg/kg	0.149	0.68%
Se 196.026†	-32.6	9.597	ug/L	1.5044	0.979	mg/kg	0.1535	15.68%
Sn 189.927†	176.8	34.51	ug/L	2.099	3.521	mg/kg	0.2142	6.08%
Sr 421.552†	42057.9	64.06	ug/L	3.259	6.537	mg/kg	0.3325	5.09%
Ti 337.279†	54446.4	1488	ug/L	76.95	151.9	mg/kg	7.85	5.17%
Tl 190.801†	-36.1	-7.601	ug/L	0.1441	-0.776	mg/kg	0.0147	1.90%
V 292.402†	7294.3	73.80	ug/L	0.353	7.531	mg/kg	0.0360	0.48%
Zn 206.200†	14709.8	162.8	ug/L	0.92	16.62	mg/kg	0.094	0.56%
Li 670.784	979517.6	44.15	ug/L	0.006	4.505	mg/kg	0.0007	0.01%

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-SW026-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17817

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	245 J	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B)	45.7 J	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
SM2340B/Z	HARDNESS	66.8	1.0		1.0	mg/L	1	07/13/15	07/13/15
6010C/3010A	LITHIUM (LI)	2.3 B	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN)	20.00 U	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	80.00 U	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B) (DISSOLVED)	49.3 J	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	2.5 B	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	20.00 U	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15

J = Estimated value.

Printed: 07/13/15 11:43:16 AM
APPL-F1-SC-NoMC-REG MDLs

Sequence No.: 22
Sample ID: AZ17817W07 F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 49
Date Collected: 07/06/15 1:19:49 PM
Data Type: Reprocessed on 07/07/15 8:53:53 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ17817W07 F

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	233691.5	98.01	%	0.443				0.45%
Y Radial	15542.3	95.67	%	8.567				8.95%
Ag 338.289†	-7.4	-0.038	ug/L	0.4665	-0.038	ug/L	0.4665	>999.9%
Al 308.215†	23.3	14.95	ug/L	1.435	14.95	ug/L	1.435	9.60%
As 188.979†	19.1	1.826	ug/L	0.3275	1.826	ug/L	0.3275	17.93%
B 249.677†	1737.2	49.34	ug/L	0.232	49.34	ug/L	0.232	0.47%
Ba 233.527†	12815.5	29.45	ug/L	0.109	29.45	ug/L	0.109	0.37%
Be 313.107†	185.6	0.052	ug/L	0.0066	0.052	ug/L	0.0066	12.67%
Ca 315.887†	308724.3	19170	ug/L	1841.10	19170	ug/L	1841.10	9.61%
Cd 214.440†	-100.9	-0.160	ug/L	0.0181	-0.160	ug/L	0.0181	11.33%
Co 228.616†	17.3	0.087	ug/L	0.1060	0.087	ug/L	0.1060	121.75%
Cr 267.716†	32.6	0.515	ug/L	0.0770	0.515	ug/L	0.0770	14.94%
Cu 327.393†	824.4	3.881	ug/L	0.2579	3.881	ug/L	0.2579	6.65%
Fe 273.955†	5992.4	74.45	ug/L	0.116	74.45	ug/L	0.116	0.16%
K 766.490†	17491.6	1988	ug/L	182.24	1988	ug/L	182.24	9.17%
Mg 285.213†	95838.2	5395	ug/L	528.47	5395	ug/L	528.47	9.80%
Mn 257.610†	3420.6	36.68	ug/L	3.518	36.68	ug/L	3.518	9.59%
Mo 202.031†	60.6	1.680	ug/L	0.2230	1.680	ug/L	0.2230	13.27%
Na 589.592†	379446.1	33870	ug/L	3366.35	33870	ug/L	3366.35	9.94%
Ni 231.604†	38.5	0.939	ug/L	0.1189	0.939	ug/L	0.1189	12.67%
P 213.617†	130.3	39.99	ug/L	0.813	39.99	ug/L	0.813	2.03%
Pb 220.353†	-26.6	-4.305	ug/L	0.8760	-4.305	ug/L	0.8760	20.35%
Sb 206.836†	-14.0	-1.854	ug/L	0.9958	-1.854	ug/L	0.9958	53.72%
Se 196.026†	-10.9	-3.758	ug/L	2.4505	-3.758	ug/L	2.4505	65.20%
Sn 189.927†	0.7	0.123	ug/L	0.4403	0.123	ug/L	0.4403	357.25%
Sr 421.552†	75042.8	103.0	ug/L	10.28	103.0	ug/L	10.28	9.98%
Ti 337.279†	11.3	0.184	ug/L	0.2989	0.184	ug/L	0.2989	162.03%
Tl 190.801†	2.0	0.532	ug/L	0.6648	0.532	ug/L	0.6648	124.97%
V 292.402†	137.4	1.376	ug/L	0.1265	1.376	ug/L	0.1265	9.19%
Zn 206.200†	-8.3	1.138	ug/L	0.1069	1.138	ug/L	0.1069	9.39%
Li 670.784	60901.4	2.512	ug/L	0.0089	2.512	ug/L	0.0089	0.35%

Sequence No.: 50
Sample ID: AZ17817W08
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 73
Date Collected: 07/06/15 5:04:48 PM
Data Type: Reprocessed on 07/07/15 8:54:25 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ17817W08

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	242761.7	101.8	%	0.87				0.86%
Y Radial	16694.6	102.8	%	1.29				1.26%
Ag 338.289†	-8.9	-0.046	ug/L	0.2339	-0.046	ug/L	0.2339	507.04%
Al 308.215†	337.5	244.7	ug/L	7.92	244.7	ug/L	7.92	3.24%
As 188.979†	31.0	4.284	ug/L	1.6138	4.284	ug/L	1.6138	37.67%
B 249.677†	1555.0	45.74	ug/L	0.098	45.74	ug/L	0.098	0.21%
Ba 233.527†	13547.9	31.09	ug/L	0.189	31.09	ug/L	0.189	0.61%
Be 313.107†	23.2	0.007	ug/L	0.0031	0.007	ug/L	0.0031	47.97%
Ca 315.887†	294237.7	18270	ug/L	455.03	18270	ug/L	455.03	2.49%
Cd 214.440†	-25.2	0.039	ug/L	0.0398	0.039	ug/L	0.0398	103.36%
Co 228.616†	44.0	0.339	ug/L	0.0453	0.339	ug/L	0.0453	13.35%
Cr 267.716†	66.9	0.883	ug/L	0.0378	0.883	ug/L	0.0378	4.28%
Cu 327.393†	519.7	2.458	ug/L	0.1429	2.458	ug/L	0.1429	5.81%
Fe 273.955†	59350.1	743.6	ug/L	3.35	743.6	ug/L	3.35	0.45%
K 766.490†	16329.0	1859	ug/L	48.13	1859	ug/L	48.13	2.59%
Mg 285.213†	91395.6	5146	ug/L	129.58	5146	ug/L	129.58	2.52%
Mn 257.610†	7104.1	76.35	ug/L	1.084	76.35	ug/L	1.084	1.42%
Mo 202.031†	50.5	1.413	ug/L	0.2628	1.413	ug/L	0.2628	18.60%
Na 589.592†	305957.3	27310	ug/L	687.10	27310	ug/L	687.10	2.52%
Ni 231.604†	58.3	1.340	ug/L	0.1353	1.340	ug/L	0.1353	10.10%
P 213.617†	364.7	111.9	ug/L	1.02	111.9	ug/L	1.02	0.91%
Pb 220.353†	-5.1	-0.327	ug/L	1.1253	-0.327	ug/L	1.1253	344.19%
Sb 206.836†	-5.2	-0.688	ug/L	0.4230	-0.688	ug/L	0.4230	61.51%
Se 196.026†	-8.7	-2.770	ug/L	1.3633	-2.770	ug/L	1.3633	49.22%
Sn 189.927†	1.4	0.247	ug/L	0.4926	0.247	ug/L	0.4926	199.29%
Sr 421.552†	65414.1	89.72	ug/L	2.222	89.72	ug/L	2.222	2.48%
Ti 337.279†	170.1	4.160	ug/L	0.3399	4.160	ug/L	0.3399	8.17%
Tl 190.801†	-2.3	-0.605	ug/L	1.1553	-0.605	ug/L	1.1553	190.91%
V 292.402†	258.4	2.587	ug/L	0.1023	2.587	ug/L	0.1023	3.96%
Zn 206.200†	605.1	7.322	ug/L	0.1244	7.322	ug/L	0.1244	1.70%
Li 670.784	56405.5	2.326	ug/L	0.0279	2.326	ug/L	0.0279	1.20%

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-SW026P-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17818

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	187 J	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B)	50.3	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
SM2340B/Z	HARDNESS	68.6	1.0		1.0	mg/L	1	07/13/15	07/13/15
6010C/3010A	LITHIUM (LI)	2.3 B	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN)	20.00 U	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	80.00 U	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B) (DISSOLVED)	50.0	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	2.5 B	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	20.00 U	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15

J = Estimated value.

Printed: 07/13/15 11:43:17 AM
APPL-F1-SC-NoMC-REG MDLs

Sequence No.: 23
Sample ID: AZ17818W07 F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 50
Date Collected: 07/06/15 1:26:38 PM
Data Type: Reprocessed on 07/07/15 8:53:54 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ17818W07 F

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	235614.7	98.81	%	0.378				0.38%
Y Radial	16545.7	101.9	%	1.27				1.25%
Ag 338.289†	-2.3	-0.012	ug/L	0.1302	-0.012	ug/L	0.1302	>999.9%
Al 308.215†	11.4	6.326	ug/L	5.3503	6.326	ug/L	5.3503	84.57%
As 188.979†	23.1	2.665	ug/L	0.5401	2.665	ug/L	0.5401	20.26%
B 249.677†	1758.1	49.96	ug/L	0.277	49.96	ug/L	0.277	0.55%
Ba 233.527†	12973.5	29.81	ug/L	0.104	29.81	ug/L	0.104	0.35%
Be 313.107†	200.5	0.057	ug/L	0.0031	0.057	ug/L	0.0031	5.48%
Ca 315.887†	296839.7	18430	ug/L	237.52	18430	ug/L	237.52	1.29%
Cd 214.440†	-90.8	-0.133	ug/L	0.0167	-0.133	ug/L	0.0167	12.52%
Co 228.616†	19.3	0.111	ug/L	0.1050	0.111	ug/L	0.1050	94.39%
Cr 267.716†	31.9	0.502	ug/L	0.0598	0.502	ug/L	0.0598	11.92%
Cu 327.393†	862.8	4.067	ug/L	0.0670	4.067	ug/L	0.0670	1.65%
Fe 273.955†	6540.7	81.35	ug/L	0.212	81.35	ug/L	0.212	0.26%
K 766.490†	17032.9	1936	ug/L	26.04	1936	ug/L	26.04	1.35%
Mg 285.213†	92332.5	5198	ug/L	64.47	5198	ug/L	64.47	1.24%
Mn 257.610†	3275.0	35.11	ug/L	0.690	35.11	ug/L	0.690	1.97%
Mo 202.031†	65.9	1.827	ug/L	0.3186	1.827	ug/L	0.3186	17.43%
Na 589.592†	365057.2	32590	ug/L	472.59	32590	ug/L	472.59	1.45%
Ni 231.604†	55.3	1.272	ug/L	0.2674	1.272	ug/L	0.2674	21.02%
P 213.617†	142.7	43.79	ug/L	0.775	43.79	ug/L	0.775	1.77%
Pb 220.353†	-21.3	-3.329	ug/L	0.5681	-3.329	ug/L	0.5681	17.07%
Sb 206.836†	-9.0	-1.193	ug/L	0.7511	-1.193	ug/L	0.7511	62.95%
Se 196.026†	-8.9	-3.119	ug/L	0.4538	-3.119	ug/L	0.4538	14.55%
Sn 189.927†	2.7	0.485	ug/L	0.4369	0.485	ug/L	0.4369	90.03%
Sr 421.552†	72104.6	98.96	ug/L	1.286	98.96	ug/L	1.286	1.30%
Ti 337.279†	11.0	0.180	ug/L	0.2523	0.180	ug/L	0.2523	139.82%
Tl 190.801†	-3.3	-0.861	ug/L	0.8733	-0.861	ug/L	0.8733	101.47%
V 292.402†	138.2	1.384	ug/L	0.0222	1.384	ug/L	0.0222	1.60%
Zn 206.200†	-12.9	1.044	ug/L	0.0654	1.044	ug/L	0.0654	6.27%
Li 670.784	60822.4	2.509	ug/L	0.0249	2.509	ug/L	0.0249	0.99%

Sequence No.: 51
Sample ID: AZ17818W08
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 74
Date Collected: 07/06/15 5:11:36 PM
Data Type: Reprocessed on 07/07/15 8:54:26 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ17818W08

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	237239.2	99.49	%	0.476				0.48%
Y Radial	16401.4	101.0	%	0.51				0.50%
Ag 338.289†	-10.1	-0.053	ug/L	0.3785	-0.053	ug/L	0.3785	719.90%
Al 308.215†	258.5	186.9	ug/L	4.72	186.9	ug/L	4.72	2.53%
As 188.979†	25.3	3.129	ug/L	2.1058	3.129	ug/L	2.1058	67.29%
B 249.677†	1721.5	50.27	ug/L	0.544	50.27	ug/L	0.544	1.08%
Ba 233.527†	13771.5	31.61	ug/L	0.072	31.61	ug/L	0.072	0.23%
Be 313.107†	43.0	0.012	ug/L	0.0095	0.012	ug/L	0.0095	78.66%
Ca 315.887†	302607.0	18790	ug/L	106.21	18790	ug/L	106.21	0.57%
Cd 214.440†	-29.2	0.038	ug/L	0.0745	0.038	ug/L	0.0745	196.24%
Co 228.616†	37.4	0.273	ug/L	0.0842	0.273	ug/L	0.0842	30.79%
Cr 267.716†	44.5	0.627	ug/L	0.0827	0.627	ug/L	0.0827	13.18%
Cu 327.393†	466.3	2.193	ug/L	0.2389	2.193	ug/L	0.2389	10.90%
Fe 273.955†	52338.2	655.7	ug/L	2.68	655.7	ug/L	2.68	0.41%
K 766.490†	16563.0	1884	ug/L	11.38	1884	ug/L	11.38	0.60%
Mg 285.213†	93514.9	5265	ug/L	24.90	5265	ug/L	24.90	0.47%
Mn 257.610†	7308.2	78.55	ug/L	0.640	78.55	ug/L	0.640	0.81%
Mo 202.031†	54.7	1.529	ug/L	0.1115	1.529	ug/L	0.1115	7.29%
Na 589.592†	333415.3	29760	ug/L	150.65	29760	ug/L	150.65	0.51%
Ni 231.604†	62.6	1.427	ug/L	0.0387	1.427	ug/L	0.0387	2.71%
P 213.617†	365.5	112.1	ug/L	0.71	112.1	ug/L	0.71	0.63%
Pb 220.353†	-3.8	-0.051	ug/L	1.4222	-0.051	ug/L	1.4222	>999.9%
Sb 206.836†	-5.7	-0.755	ug/L	1.6499	-0.755	ug/L	1.6499	218.45%
Se 196.026†	-10.7	-3.423	ug/L	2.6957	-3.423	ug/L	2.6957	78.75%
Sn 189.927†	-1.8	-0.320	ug/L	0.2410	-0.320	ug/L	0.2410	75.38%
Sr 421.552†	67131.1	92.07	ug/L	0.468	92.07	ug/L	0.468	0.51%
Ti 337.279†	124.9	3.028	ug/L	0.2879	3.028	ug/L	0.2879	9.51%
Tl 190.801†	2.8	0.731	ug/L	0.2518	0.731	ug/L	0.2518	34.46%
V 292.402†	251.2	2.516	ug/L	0.1422	2.516	ug/L	0.1422	5.65%
Zn 206.200†	356.4	4.794	ug/L	0.0451	4.794	ug/L	0.0451	0.94%
Li 670.784	56374.1	2.325	ug/L	0.0283	2.325	ug/L	0.0283	1.22%

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-SD027-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17819

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 50.7 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	23500	2030.0	162.00	80.00	mg/Kg	20	07/08/15	07/09/15
6010C/3050B	BORON (B)	19.3	10.0	8.10	3.10	mg/Kg	1	07/08/15	07/09/15
6010C/3050B	LITHIUM (LI)	35.1	1.40	1.000	0.510	mg/Kg	1	07/08/15	07/09/15
6010C/3050B	ZINC (ZN)	531	325.0	162.00	47.00	mg/Kg	20	07/08/15	07/09/15

Printed: 07/13/15 10:49:28 AM

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

Sequence No.: 14
Sample ID: AZ17819S01-1/20
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 1.01 g
Dilution: 20X
Wash Time:

Autosampler Location: 41
Date Collected: 07/09/15 1:02:20 PM
Data Type: Reprocessed on 07/09/15 4:14:25 PM

Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17819S01-1/20

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	237108.3	102.5	%	0.87				0.85%
Y Radial	16662.5	108.2	%	0.27				0.25%
Ag 338.289†	356.2	1.969	ug/L	0.2871	3.898	mg/kg	0.5684	14.58%
Al 308.215†	7467.0	5837	ug/L	16.21	11560	mg/kg	32.09	0.28%
As 188.979†	40.9	8.956	ug/L	0.4987	17.73	mg/kg	0.988	5.57%
B 249.677†	-315.7	7.862	ug/L	0.0961	15.57	mg/kg	0.190	1.22%
Ba 233.527†	17302.1	42.16	ug/L	0.290	83.49	mg/kg	0.575	0.69%
Be 313.107†	818.9	0.231	ug/L	0.0084	0.457	mg/kg	0.0166	3.64%
Ca 315.887†	8100.8	550.0	ug/L	2.21	1089	mg/kg	4.37	0.40%
Cd 214.440†	83.8	-0.032	ug/L	0.0717	-0.062	mg/kg	0.1421	227.76%
Co 228.616†	363.2	3.447	ug/L	0.0943	6.826	mg/kg	0.1867	2.74%
Cr 267.716†	771.1	9.510	ug/L	0.0716	18.83	mg/kg	0.142	0.75%
Cu 327.393†	11543.4	58.08	ug/L	0.232	115.0	mg/kg	0.46	0.40%
Fe 273.955†	504228.6	6760	ug/L	34.00	13390	mg/kg	67.33	0.50%
K 766.490†	4258.9	533.0	ug/L	7.93	1055	mg/kg	15.70	1.49%
Mg 285.213†	13557.2	832.1	ug/L	3.41	1648	mg/kg	6.76	0.41%
Mn 257.610†	3706.9	44.20	ug/L	0.244	87.52	mg/kg	0.483	0.55%
Mo 202.031†	67.2	2.151	ug/L	0.2288	4.260	mg/kg	0.4530	10.63%
Na 589.592†	1417.7	137.5	ug/L	5.38	272.3	mg/kg	10.65	3.91%
Ni 231.604†	305.6	6.671	ug/L	0.1650	13.21	mg/kg	0.327	2.47%
P 213.617†	514.3	162.9	ug/L	1.42	322.5	mg/kg	2.81	0.87%
Pb 220.353†	400.5	72.58	ug/L	1.358	143.7	mg/kg	2.69	1.87%
Sb 206.836†	-5.3	-0.782	ug/L	0.9650	-1.548	mg/kg	1.9109	123.42%
Se 196.026†	-9.3	0.351	ug/L	0.7128	0.695	mg/kg	1.4115	203.23%
Sn 189.927†	19.6	3.829	ug/L	0.3742	7.581	mg/kg	0.7409	9.77%
Sr 421.552†	4757.2	7.246	ug/L	0.0195	14.35	mg/kg	0.039	0.27%
Ti 337.279†	4744.5	129.7	ug/L	0.22	256.8	mg/kg	0.43	0.17%
Tl 190.801†	-1.4	-0.299	ug/L	0.2150	-0.591	mg/kg	0.4257	71.99%
V 292.402†	1131.2	11.44	ug/L	0.058	22.66	mg/kg	0.115	0.51%
Zn 206.200†	11878.2	132.4	ug/L	0.70	262.3	mg/kg	1.38	0.53%
Li 670.784	129574.0	5.840	ug/L	0.0088	11.56	mg/kg	0.017	0.15%

Sequence No.: 25
Sample ID: AZ17819S01
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 1.01 g
Dilution:
Wash Time:

Autosampler Location: 50
Date Collected: 07/09/15 2:09:38 PM
Data Type: Reprocessed on 07/09/15 4:14:38 PM

Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17819S01

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	334753.9	144.7	%	0.40				0.28%
Y Radial	22966.9	149.1	%	2.55				1.71%
Ag 338.289†	6978.8	38.57	ug/L	0.307	3.819	mg/kg	0.0304	0.80%
Al 308.215†	107233.5	83820	ug/L	1411.25	8299	mg/kg	139.73	1.68%
As 188.979†	525.7	115.1	ug/L	0.29	11.40	mg/kg	0.029	0.25%
B 249.677†	-4240.5	95.89	ug/L	0.735	9.494	mg/kg	0.0727	0.77%
Ba 233.527†	244690.9	596.7	ug/L	0.80	59.08	mg/kg	0.079	0.13%
Be 313.107†	8964.0	2.528	ug/L	0.0093	0.250	mg/kg	0.0009	0.37%
Ca 315.887†	114204.8	7753	ug/L	148.10	767.7	mg/kg	14.66	1.91%
Cd 214.440†	2904.9	6.448	ug/L	0.0519	0.638	mg/kg	0.0051	0.81%
Co 228.616†	4181.5	38.63	ug/L	0.053	3.825	mg/kg	0.0052	0.14%
Cr 267.716†	10931.7	134.8	ug/L	0.46	13.35	mg/kg	0.046	0.34%
Cu 327.393†	168722.0	848.4	ug/L	1.30	84.00	mg/kg	0.129	0.15%
Fe 273.955†	6494872.2	87080	ug/L	106.32	8622	mg/kg	10.53	0.12%
K 766.490†	56859.6	7115	ug/L	117.53	704.5	mg/kg	11.64	1.65%
Mg 285.213†	195998.7	12020	ug/L	208.46	1190	mg/kg	20.64	1.73%
Mn 257.610†	52931.7	631.0	ug/L	10.63	62.48	mg/kg	1.053	1.68%
Mo 202.031†	216.9	8.237	ug/L	0.1487	0.816	mg/kg	0.0147	1.80%
Na 589.592†	22830.7	2217	ug/L	39.10	219.6	mg/kg	3.87	1.76%
Ni 231.604†	3932.2	85.80	ug/L	0.223	8.495	mg/kg	0.0221	0.26%
P 213.617†	6905.5	2187	ug/L	6.45	216.5	mg/kg	0.64	0.30%
Pb 220.353†	4973.3	903.5	ug/L	3.89	89.45	mg/kg	0.385	0.43%
Sb 206.836†	76.5	11.34	ug/L	1.186	1.122	mg/kg	0.1175	10.47%
Se 196.026†	-82.4	16.80	ug/L	0.428	1.663	mg/kg	0.0424	2.55%
Sn 189.927†	209.3	40.85	ug/L	0.672	4.044	mg/kg	0.0665	1.65%
Sr 421.552†	68470.2	104.3	ug/L	1.77	10.33	mg/kg	0.175	1.69%
Ti 337.279†	67111.4	1834	ug/L	29.34	181.6	mg/kg	2.90	1.60%
Tl 190.801†	-48.8	-10.29	ug/L	1.541	-1.019	mg/kg	0.1525	14.97%
V 292.402†	14549.1	147.2	ug/L	0.26	14.57	mg/kg	0.026	0.18%
Zn 206.200†	155181.6	1731	ug/L	3.48	171.3	mg/kg	0.34	0.20%
Li 670.784	3864956.7	174.2	ug/L	0.89	17.25	mg/kg	0.088	0.51%

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-SD027P-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17820

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 53.5 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	26700	2150.0	172.00	85.00	mg/Kg	20	07/08/15	07/09/15
6010C/3050B	BORON (B)	17.2	11.0	8.60	3.30	mg/Kg	1	07/08/15	07/09/15
6010C/3050B	LITHIUM (LI)	39.4	1.40	1.100	0.540	mg/Kg	1	07/08/15	07/09/15
6010C/3050B	ZINC (ZN)	217	17.0	8.60	2.50	mg/Kg	1	07/08/15	07/09/15

Printed: 07/13/15 10:49:28 AM

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

Sequence No.: 15
Sample ID: AZ17820S02-1/20
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.97 g
Dilution: 20X
Wash Time:

Autosampler Location: 42
Date Collected: 07/09/15 1:07:20 PM
Data Type: Reprocessed on 07/09/15 4:14:26 PM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17820S02-1/20

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	240503.8	104.0	%	0.11				0.11%
Y Radial	16509.0	107.2	%	0.37				0.34%
Ag 338.289†	422.8	2.337	ug/L	0.1239	4.818	mg/kg	0.2554	5.30%
Al 308.215†	7713.0	6029	ug/L	63.70	12430	mg/kg	131.34	1.06%
As 188.979†	49.9	10.78	ug/L	1.182	22.23	mg/kg	2.436	10.96%
B 249.677†	-348.3	7.008	ug/L	0.1007	14.45	mg/kg	0.208	1.44%
Ba 233.527†	16896.9	41.16	ug/L	0.224	84.87	mg/kg	0.463	0.55%
Be 313.107†	850.4	0.240	ug/L	0.0043	0.494	mg/kg	0.0088	1.78%
Ca 315.887†	6674.3	453.1	ug/L	2.79	934.2	mg/kg	5.76	0.62%
Cd 214.440†	11.6	-0.298	ug/L	0.0485	-0.615	mg/kg	0.1000	16.26%
Co 228.616†	416.9	4.016	ug/L	0.1466	8.281	mg/kg	0.3023	3.65%
Cr 267.716†	808.4	9.971	ug/L	0.0730	20.56	mg/kg	0.150	0.73%
Cu 327.393†	5017.7	25.49	ug/L	0.276	52.57	mg/kg	0.569	1.08%
Fe 273.955†	507351.4	6802	ug/L	33.97	14020	mg/kg	70.03	0.50%
K 766.490†	4049.4	506.5	ug/L	2.32	1044	mg/kg	4.79	0.46%
Mg 285.213†	14291.5	876.9	ug/L	8.18	1808	mg/kg	16.86	0.93%
Mn 257.610†	3718.9	44.34	ug/L	0.545	91.42	mg/kg	1.124	1.23%
Mo 202.031†	59.2	1.906	ug/L	0.1844	3.929	mg/kg	0.3801	9.67%
Na 589.592†	948.0	91.59	ug/L	2.649	188.8	mg/kg	5.46	2.89%
Ni 231.604†	365.4	7.957	ug/L	0.2779	16.41	mg/kg	0.573	3.49%
P 213.617†	818.0	259.1	ug/L	0.95	534.2	mg/kg	1.96	0.37%
Pb 220.353†	1613.4	290.8	ug/L	0.14	599.6	mg/kg	0.28	0.05%
Sb 206.836†	-2.8	-0.421	ug/L	0.4514	-0.868	mg/kg	0.9307	107.23%
Se 196.026†	-3.2	2.350	ug/L	0.5834	4.845	mg/kg	1.2030	24.83%
Sn 189.927†	13.2	2.569	ug/L	0.1153	5.297	mg/kg	0.2377	4.49%
Sr 421.552†	4378.6	6.671	ug/L	0.0948	13.75	mg/kg	0.196	1.42%
Ti 337.279†	4834.5	132.1	ug/L	0.99	272.5	mg/kg	2.04	0.75%
Tl 190.801†	1.4	0.291	ug/L	0.4838	0.600	mg/kg	0.9974	166.25%
V 292.402†	1181.0	11.95	ug/L	0.071	24.64	mg/kg	0.146	0.59%
Zn 206.200†	6864.8	76.46	ug/L	0.144	157.6	mg/kg	0.30	0.19%
Li 670.784	132501.6	5.972	ug/L	0.0644	12.31	mg/kg	0.133	1.08%

Sequence No.: 26
Sample ID: AZ17820S02
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.97 g
Dilution:
Wash Time:

Autosampler Location: 51
Date Collected: 07/09/15 2:32:14 PM
Data Type: Reprocessed on 07/09/15 4:14:39 PM

Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17820S02

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	349006.1	150.9	%	0.90				0.60%
Y Radial	24126.6	156.7	%	5.76				3.68%
Ag 338.289†	6643.9	36.72	ug/L	1.051	3.785	mg/kg	0.1084	2.86%
Al 308.215†	105979.2	82840	ug/L	2742.66	8540	mg/kg	282.75	3.31%
As 188.979†	636.3	137.3	ug/L	0.32	14.16	mg/kg	0.033	0.23%
B 249.677†	-4690.4	77.20	ug/L	0.949	7.959	mg/kg	0.0979	1.23%
Ba 233.527†	233604.5	569.6	ug/L	0.73	58.72	mg/kg	0.075	0.13%
Be 313.107†	10657.5	3.006	ug/L	0.0058	0.310	mg/kg	0.0006	0.19%
Ca 315.887†	87094.7	5912	ug/L	210.20	609.5	mg/kg	21.67	3.56%
Cd 214.440†	1893.1	2.829	ug/L	0.0806	0.292	mg/kg	0.0083	2.85%
Co 228.616†	4806.7	45.49	ug/L	0.162	4.690	mg/kg	0.0167	0.36%
Cr 267.716†	11071.8	136.6	ug/L	0.39	14.08	mg/kg	0.040	0.29%
Cu 327.393†	69998.9	355.3	ug/L	0.03	36.62	mg/kg	0.003	0.01%
Fe 273.955†	6333611.9	84920	ug/L	263.25	8754	mg/kg	27.14	0.31%
K 766.490†	50528.4	6317	ug/L	213.99	651.3	mg/kg	22.06	3.39%
Mg 285.213†	196203.7	12030	ug/L	405.35	1240	mg/kg	41.79	3.37%
Mn 257.610†	49758.3	593.2	ug/L	20.91	61.15	mg/kg	2.155	3.52%
Mo 202.031†	156.8	6.313	ug/L	0.2116	0.651	mg/kg	0.0218	3.35%
Na 589.592†	14814.6	1434	ug/L	49.34	147.9	mg/kg	5.09	3.44%
Ni 231.604†	4573.8	99.57	ug/L	0.400	10.26	mg/kg	0.041	0.40%
P 213.617†	11077.4	3508	ug/L	10.21	361.7	mg/kg	1.05	0.29%
Pb 220.353†	19182.0	3460	ug/L	20.09	356.7	mg/kg	2.07	0.58%
Sb 206.836†	143.4	21.26	ug/L	0.565	2.192	mg/kg	0.0583	2.66%
Se 196.026†	-88.8	13.70	ug/L	1.834	1.412	mg/kg	0.1891	13.39%
Sn 189.927†	119.1	23.24	ug/L	0.485	2.396	mg/kg	0.0500	2.08%
Sr 421.552†	58783.3	89.57	ug/L	2.917	9.234	mg/kg	0.3007	3.26%
Ti 337.279†	65514.0	1791	ug/L	61.64	184.6	mg/kg	6.35	3.44%
Tl 190.801†	-39.3	-8.271	ug/L	0.3475	-0.853	mg/kg	0.0358	4.20%
V 292.402†	15051.5	152.3	ug/L	0.66	15.70	mg/kg	0.068	0.43%
Zn 206.200†	88243.9	983.1	ug/L	0.92	101.3	mg/kg	0.10	0.09%
Li 670.784	3933121.7	177.3	ug/L	2.27	18.28	mg/kg	0.234	1.28%

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-SW027-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17821

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	163 J	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B)	56.5	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
SM2340B/Z	HARDNESS	63.4	1.0		1.0	mg/L	1	07/13/15	07/13/15
6010C/3010A	LITHIUM (LI)	2.4 B	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN)	20.00 U	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	80.00 U	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B) (DISSOLVED)	61.1	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	2.8 B	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	20.00 U	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15

J = Estimated value.

Printed: 07/13/15 11:43:17 AM
APPL-F1-SC-NoMC-REG MDLs

Sequence No.: 24
Sample ID: AZ17821W07 F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 51
Date Collected: 07/06/15 1:33:24 PM
Data Type: Reprocessed on 07/07/15 8:53:55 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ17821W07 F

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	236593.3	99.22	%	0.690				0.70%
Y Radial	16551.9	101.9	%	0.59				0.57%
Ag 338.289†	-45.6	-0.236	ug/L	0.0609	-0.236	ug/L	0.0609	25.75%
Al 308.215†	5.3	1.545	ug/L	5.3049	1.545	ug/L	5.3049	343.35%
As 188.979†	35.4	5.217	ug/L	1.9489	5.217	ug/L	1.9489	37.36%
B 249.677†	2149.2	61.10	ug/L	0.881	61.10	ug/L	0.881	1.44%
Ba 233.527†	13391.8	30.77	ug/L	0.114	30.77	ug/L	0.114	0.37%
Be 313.107†	225.6	0.064	ug/L	0.0079	0.064	ug/L	0.0079	12.37%
Ca 315.887†	278209.2	17270	ug/L	159.08	17270	ug/L	159.08	0.92%
Cd 214.440†	-83.7	-0.100	ug/L	0.0364	-0.100	ug/L	0.0364	36.30%
Co 228.616†	35.6	0.274	ug/L	0.0710	0.274	ug/L	0.0710	25.90%
Cr 267.716†	31.1	0.459	ug/L	0.0860	0.459	ug/L	0.0860	18.73%
Cu 327.393†	795.3	3.723	ug/L	0.2609	3.723	ug/L	0.2609	7.01%
Fe 273.955†	5740.0	71.38	ug/L	0.489	71.38	ug/L	0.489	0.69%
K 766.490†	18147.9	2059	ug/L	22.46	2059	ug/L	22.46	1.09%
Mg 285.213†	85556.3	4816	ug/L	40.11	4816	ug/L	40.11	0.83%
Mn 257.610†	7463.3	80.25	ug/L	0.853	80.25	ug/L	0.853	1.06%
Mo 202.031†	66.8	1.866	ug/L	0.4388	1.866	ug/L	0.4388	23.51%
Na 589.592†	438133.2	39110	ug/L	374.91	39110	ug/L	374.91	0.96%
Ni 231.604†	69.1	1.521	ug/L	0.1698	1.521	ug/L	0.1698	11.16%
P 213.617†	131.4	40.31	ug/L	0.893	40.31	ug/L	0.893	2.21%
Pb 220.353†	-17.0	-2.516	ug/L	0.2898	-2.516	ug/L	0.2898	11.52%
Sb 206.836†	-8.5	-1.120	ug/L	0.4412	-1.120	ug/L	0.4412	39.39%
Se 196.026†	-13.5	-4.515	ug/L	0.8538	-4.515	ug/L	0.8538	18.91%
Sn 189.927†	0.7	0.124	ug/L	0.2861	0.124	ug/L	0.2861	231.17%
Sr 421.552†	67151.4	92.15	ug/L	0.865	92.15	ug/L	0.865	0.94%
Ti 337.279†	16.5	0.325	ug/L	0.4582	0.325	ug/L	0.4582	141.18%
Tl 190.801†	-0.7	-0.193	ug/L	1.2997	-0.193	ug/L	1.2997	671.90%
V 292.402†	99.9	1.001	ug/L	0.0368	1.001	ug/L	0.0368	3.68%
Zn 206.200†	236.4	3.715	ug/L	0.0348	3.715	ug/L	0.0348	0.94%
Li 670.784	66807.4	2.755	ug/L	0.0113	2.755	ug/L	0.0113	0.41%

Sequence No.: 52
Sample ID: AZ17821W08
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 75
Date Collected: 07/06/15 5:18:22 PM
Data Type: Reprocessed on 07/07/15 8:54:27 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ17821W08

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	239874.1	100.6	%	0.18				0.18%
Y Radial	16929.2	104.2	%	1.08				1.03%
Ag 338.289†	-26.5	-0.137	ug/L	0.3132	-0.137	ug/L	0.3132	228.03%
Al 308.215†	225.8	162.9	ug/L	8.48	162.9	ug/L	8.48	5.20%
As 188.979†	33.6	4.941	ug/L	0.8323	4.941	ug/L	0.8323	16.85%
B 249.677†	1913.4	56.46	ug/L	0.275	56.46	ug/L	0.275	0.49%
Ba 233.527†	14623.1	33.55	ug/L	0.041	33.55	ug/L	0.041	0.12%
Be 313.107†	20.8	0.006	ug/L	0.0009	0.006	ug/L	0.0009	14.72%
Ca 315.887†	280148.1	17390	ug/L	218.63	17390	ug/L	218.63	1.26%
Cd 214.440†	1.3	0.123	ug/L	0.0759	0.123	ug/L	0.0759	61.54%
Co 228.616†	31.7	0.210	ug/L	0.1000	0.210	ug/L	0.1000	47.61%
Cr 267.716†	55.4	0.739	ug/L	0.0606	0.739	ug/L	0.0606	8.21%
Cu 327.393†	444.5	2.086	ug/L	0.3668	2.086	ug/L	0.3668	17.58%
Fe 273.955†	75736.6	949.2	ug/L	0.76	949.2	ug/L	0.76	0.08%
K 766.490†	16918.2	1921	ug/L	25.61	1921	ug/L	25.61	1.33%
Mg 285.213†	85993.2	4842	ug/L	54.48	4842	ug/L	54.48	1.13%
Mn 257.610†	7866.2	84.58	ug/L	1.430	84.58	ug/L	1.430	1.69%
Mo 202.031†	50.9	1.438	ug/L	0.1614	1.438	ug/L	0.1614	11.23%
Na 589.592†	377661.6	33710	ug/L	386.29	33710	ug/L	386.29	1.15%
Ni 231.604†	68.8	1.539	ug/L	0.1744	1.539	ug/L	0.1744	11.34%
P 213.617†	409.0	125.5	ug/L	0.72	125.5	ug/L	0.72	0.58%
Pb 220.353†	92.5	18.13	ug/L	1.878	18.13	ug/L	1.878	10.36%
Sb 206.836†	-6.3	-0.833	ug/L	0.8646	-0.833	ug/L	0.8646	103.81%
Se 196.026†	-3.1	-0.962	ug/L	1.0581	-0.962	ug/L	1.0581	109.99%
Sn 189.927†	0.6	0.115	ug/L	0.6729	0.115	ug/L	0.6729	585.74%
Sr 421.552†	62235.8	85.36	ug/L	0.862	85.36	ug/L	0.862	1.01%
Ti 337.279†	108.7	2.629	ug/L	0.2056	2.629	ug/L	0.2056	7.82%
Tl 190.801†	-2.1	-0.551	ug/L	1.4400	-0.551	ug/L	1.4400	261.18%
V 292.402†	226.5	2.268	ug/L	0.0248	2.268	ug/L	0.0248	1.09%
Zn 206.200†	897.0	10.45	ug/L	0.040	10.45	ug/L	0.040	0.39%
Li 670.784	58764.4	2.424	ug/L	0.0279	2.424	ug/L	0.0279	1.15%

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-SD028-0001

Sample Collection Date: 06/16/15

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

ARF: 76674

APPL ID: AZ17822

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 73.1 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	21000	3720.0	297.00	147.00	mg/Kg	20	07/08/15	07/09/15
6010C/3050B	BORON (B)	50.2	19.0	15.00	5.80	mg/Kg	1	07/08/15	07/09/15
6010C/3050B	LITHIUM (LI)	18.2	2.50	1.900	0.930	mg/Kg	1	07/08/15	07/09/15
6010C/3050B	ZINC (ZN)	1220	595.0	297.00	86.00	mg/Kg	20	07/08/15	07/09/15

Printed: 07/13/15 10:49:28 AM

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

Sequence No.: 16
Sample ID: AZ17822S02-1/20
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 1 g
Dilution: 20X
Wash Time:

Autosampler Location: 43
Date Collected: 07/09/15 1:12:20 PM
Data Type: Reprocessed on 07/09/15 4:14:28 PM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17822S02-1/20

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	237582.1	102.7	%	0.17				0.17%
Y Radial	16669.5	108.2	%	0.97				0.89%
Ag 338.289†	183.9	1.016	ug/L	0.2654	2.033	mg/kg	0.5308	26.11%
Al 308.215†	3614.1	2825	ug/L	2.93	5651	mg/kg	5.85	0.10%
As 188.979†	36.1	9.503	ug/L	0.1391	19.01	mg/kg	0.278	1.46%
B 249.677†	-999.6	13.76	ug/L	0.246	27.53	mg/kg	0.492	1.79%
Ba 233.527†	18558.2	44.68	ug/L	0.081	89.37	mg/kg	0.163	0.18%
Be 313.107†	878.4	0.248	ug/L	0.0092	0.495	mg/kg	0.0184	3.71%
Ca 315.887†	3278.0	222.2	ug/L	1.40	444.4	mg/kg	2.80	0.63%
Cd 214.440†	272.1	-0.044	ug/L	0.0538	-0.088	mg/kg	0.1076	122.65%
Co 228.616†	420.9	3.977	ug/L	0.0317	7.954	mg/kg	0.0635	0.80%
Cr 267.716†	3984.2	49.39	ug/L	0.204	98.78	mg/kg	0.408	0.41%
Cu 327.393†	10716.2	54.11	ug/L	0.205	108.2	mg/kg	0.41	0.38%
Fe 273.955†	1257426.7	16860	ug/L	14.58	33720	mg/kg	29.16	0.09%
K 766.490†	1726.1	207.4	ug/L	7.23	414.9	mg/kg	14.46	3.48%
Mg 285.213†	5063.4	322.6	ug/L	0.25	645.2	mg/kg	0.50	0.08%
Mn 257.610†	1257.2	15.07	ug/L	0.235	30.14	mg/kg	0.469	1.56%
Mo 202.031†	45.9	1.686	ug/L	0.2563	3.373	mg/kg	0.5125	15.19%
Na 589.592†	528.4	51.11	ug/L	3.903	102.2	mg/kg	7.81	7.64%
Ni 231.604†	735.4	16.13	ug/L	0.155	32.27	mg/kg	0.309	0.96%
P 213.617†	741.4	234.8	ug/L	0.85	469.7	mg/kg	1.70	0.36%
Pb 220.353†	965.8	172.4	ug/L	0.98	344.9	mg/kg	1.97	0.57%
Sb 206.836†	6.2	0.917	ug/L	0.5575	1.835	mg/kg	1.1150	60.77%
Se 196.026†	-17.1	2.442	ug/L	1.4708	4.884	mg/kg	2.9416	60.22%
Sn 189.927†	5.4	1.063	ug/L	0.3517	2.125	mg/kg	0.7034	33.10%
Sr 421.552†	2271.2	3.449	ug/L	0.0254	6.897	mg/kg	0.0508	0.74%
Ti 337.279†	1743.8	47.63	ug/L	0.479	95.27	mg/kg	0.958	1.01%
Tl 190.801†	-2.2	-0.453	ug/L	0.3939	-0.906	mg/kg	0.7877	86.98%
V 292.402†	839.8	8.496	ug/L	0.0505	16.99	mg/kg	0.101	0.59%
Zn 206.200†	14667.7	163.5	ug/L	0.25	327.0	mg/kg	0.50	0.15%
Li 670.784	34835.0	1.570	ug/L	0.0128	3.140	mg/kg	0.0255	0.81%

Sequence No.: 27
Sample ID: AZ17822S02
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 1 g
Dilution:
Wash Time:

Autosampler Location: 52
Date Collected: 07/09/15 2:38:30 PM
Data Type: Reprocessed on 07/09/15 4:14:41 PM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17822S02

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	356993.2	154.4	%	0.27				0.17%
Y Radial	24238.1	157.4	%	0.90				0.57%
Ag 338.289†	2360.8	13.05	ug/L	0.043	1.305	mg/kg	0.0043	0.33%
Al 308.215†	51169.8	40000	ug/L	35.83	4000	mg/kg	3.58	0.09%
As 188.979†	470.2	120.6	ug/L	1.48	12.06	mg/kg	0.148	1.23%
B 249.677†	-12519.5	134.8	ug/L	2.87	13.48	mg/kg	0.287	2.13%
Ba 233.527†	254600.7	615.0	ug/L	1.29	61.50	mg/kg	0.129	0.21%
Be 313.107†	10557.9	2.978	ug/L	0.0138	0.298	mg/kg	0.0014	0.46%
Ca 315.887†	42411.7	2875	ug/L	7.83	287.5	mg/kg	0.78	0.27%
Cd 214.440†	5394.3	7.796	ug/L	0.0151	0.780	mg/kg	0.0015	0.19%
Co 228.616†	4716.4	44.02	ug/L	0.226	4.402	mg/kg	0.0226	0.51%
Cr 267.716†	50672.9	628.2	ug/L	1.59	62.82	mg/kg	0.159	0.25%
Cu 327.393†	150889.5	760.6	ug/L	0.99	76.06	mg/kg	0.099	0.13%
Fe 273.955†	14659153.6	196500	ug/L	1237.66	19650	mg/kg	123.77	0.63%
K 766.490†	20059.1	2408	ug/L	6.81	240.8	mg/kg	0.68	0.28%
Mg 285.213†	70476.8	4459	ug/L	9.99	445.9	mg/kg	1.00	0.22%
Mn 257.610†	17519.5	209.8	ug/L	0.47	20.98	mg/kg	0.047	0.22%
Mo 202.031†	36.8	4.730	ug/L	0.3166	0.473	mg/kg	0.0317	6.69%
Na 589.592†	10161.6	986.6	ug/L	3.30	98.66	mg/kg	0.330	0.33%
Ni 231.604†	9260.8	202.8	ug/L	0.78	20.28	mg/kg	0.078	0.38%
P 213.617†	9793.8	3102	ug/L	12.20	310.2	mg/kg	1.22	0.39%
Pb 220.353†	11557.6	2065	ug/L	10.43	206.5	mg/kg	1.04	0.50%
Sb 206.836†	252.6	37.45	ug/L	0.746	3.745	mg/kg	0.0746	1.99%
Se 196.026†	-198.0	29.21	ug/L	1.609	2.921	mg/kg	0.1609	5.51%
Sn 189.927†	34.7	6.777	ug/L	0.3138	0.678	mg/kg	0.0314	4.63%
Sr 421.552†	31488.1	47.85	ug/L	0.037	4.785	mg/kg	0.0037	0.08%
Ti 337.279†	23937.8	654.0	ug/L	2.69	65.40	mg/kg	0.269	0.41%
Tl 190.801†	10.3	2.159	ug/L	0.9764	0.216	mg/kg	0.0976	45.22%
V 292.402†	11306.4	114.4	ug/L	0.52	11.44	mg/kg	0.052	0.46%
Zn 206.200†	181193.7	2021	ug/L	5.64	202.1	mg/kg	0.56	0.28%
Li 670.784	1089506.7	49.11	ug/L	0.332	4.911	mg/kg	0.0332	0.68%

Metals Analysis

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

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack
Project: CTO JU11 112G02622 NSF Indian Head
Sample ID: S67-SW028-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17823

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	134 J	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B)	51.5	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
SM2340B/Z	HARDNESS	70.9	1.0		1.0	mg/L	1	07/13/15	07/13/15
6010C/3010A	LITHIUM (LI)	2.2 B	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN)	20.00 U	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	80.00 U	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B) (DISSOLVED)	47.9 J	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	2.4 B	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	20.00 U	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15

J = Estimated value.

Printed: 07/13/15 11:43:17 AM

APPL-F1-SC-NoMC-REG MDLs

Sequence No.: 25
Sample ID: AZ17823W19 F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 52
Date Collected: 07/06/15 1:40:11 PM
Data Type: Reprocessed on 07/07/15 8:53:56 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ17823W19 F

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	238144.3	99.87	%	1.989				1.99%
Y Radial	16634.3	102.4	%	0.49				0.48%
Ag 338.289†	8.6	0.044	ug/L	0.2781	0.044	ug/L	0.2781	626.35%
Al 308.215†	4.3	1.155	ug/L	3.4084	1.155	ug/L	3.4084	295.20%
As 188.979†	22.6	2.636	ug/L	1.2239	2.636	ug/L	1.2239	46.42%
B 249.677†	1684.5	47.86	ug/L	1.189	47.86	ug/L	1.189	2.48%
Ba 233.527†	12880.4	29.59	ug/L	0.682	29.59	ug/L	0.682	2.30%
Be 313.107†	226.4	0.064	ug/L	0.0084	0.064	ug/L	0.0084	13.21%
Ca 315.887†	288879.4	17940	ug/L	102.33	17940	ug/L	102.33	0.57%
Cd 214.440†	-74.6	-0.082	ug/L	0.0311	-0.082	ug/L	0.0311	38.12%
Co 228.616†	22.4	0.145	ug/L	0.0576	0.145	ug/L	0.0576	39.81%
Cr 267.716†	32.3	0.495	ug/L	0.0829	0.495	ug/L	0.0829	16.74%
Cu 327.393†	694.3	3.259	ug/L	0.2209	3.259	ug/L	0.2209	6.78%
Fe 273.955†	6119.9	76.10	ug/L	1.496	76.10	ug/L	1.496	1.97%
K 766.490†	17298.0	1967	ug/L	24.07	1967	ug/L	24.07	1.22%
Mg 285.213†	90862.4	5115	ug/L	41.84	5115	ug/L	41.84	0.82%
Mn 257.610†	4493.4	48.24	ug/L	0.205	48.24	ug/L	0.205	0.42%
Mo 202.031†	63.0	1.751	ug/L	0.2276	1.751	ug/L	0.2276	13.00%
Na 589.592†	356859.7	31860	ug/L	259.96	31860	ug/L	259.96	0.82%
Ni 231.604†	51.5	1.187	ug/L	0.0592	1.187	ug/L	0.0592	4.98%
P 213.617†	147.8	45.33	ug/L	2.310	45.33	ug/L	2.310	5.10%
Pb 220.353†	-26.7	-4.369	ug/L	1.4923	-4.369	ug/L	1.4923	34.16%
Sb 206.836†	-10.4	-1.371	ug/L	0.1519	-1.371	ug/L	0.1519	11.08%
Se 196.026†	-10.5	-3.617	ug/L	1.0299	-3.617	ug/L	1.0299	28.48%
Sn 189.927†	-2.5	-0.450	ug/L	0.2350	-0.450	ug/L	0.2350	52.27%
Sr 421.552†	69544.7	95.44	ug/L	0.680	95.44	ug/L	0.680	0.71%
Ti 337.279†	6.6	0.073	ug/L	0.2863	0.073	ug/L	0.2863	393.28%
Tl 190.801†	-3.3	-0.867	ug/L	2.0985	-0.867	ug/L	2.0985	241.94%
V 292.402†	116.3	1.165	ug/L	0.0226	1.165	ug/L	0.0226	1.94%
Zn 206.200†	75.0	1.927	ug/L	0.0255	1.927	ug/L	0.0255	1.32%
Li 670.784	58379.7	2.408	ug/L	0.0145	2.408	ug/L	0.0145	0.60%

Sequence No.: 53
Sample ID: AZ17823W22
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 76
Date Collected: 07/06/15 5:25:10 PM
Data Type: Reprocessed on 07/07/15 8:54:28 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ17823W22

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	236319.1	99.11	%	0.319				0.32%
Y Radial	15545.6	95.69	%	12.762				13.34%
Ag 338.289†	4.7	0.024	ug/L	0.2568	0.024	ug/L	0.2568	>999.9%
Al 308.215†	186.5	134.1	ug/L	22.14	134.1	ug/L	22.14	16.50%
As 188.979†	26.0	3.221	ug/L	0.8096	3.221	ug/L	0.8096	25.14%
B 249.677†	1765.8	51.55	ug/L	0.160	51.55	ug/L	0.160	0.31%
Ba 233.527†	13839.4	31.77	ug/L	0.092	31.77	ug/L	0.092	0.29%
Be 313.107†	51.2	0.014	ug/L	0.0049	0.014	ug/L	0.0049	33.82%
Ca 315.887†	312399.4	19400	ug/L	2634.45	19400	ug/L	2634.45	13.58%
Cd 214.440†	-28.4	0.052	ug/L	0.0804	0.052	ug/L	0.0804	153.82%
Co 228.616†	25.1	0.143	ug/L	0.0889	0.143	ug/L	0.0889	61.99%
Cr 267.716†	47.6	0.664	ug/L	0.1163	0.664	ug/L	0.1163	17.50%
Cu 327.393†	395.2	1.841	ug/L	0.1640	1.841	ug/L	0.1640	8.91%
Fe 273.955†	53075.3	664.9	ug/L	2.26	664.9	ug/L	2.26	0.34%
K 766.490†	18602.5	2116	ug/L	277.51	2116	ug/L	277.51	13.12%
Mg 285.213†	96794.9	5449	ug/L	740.12	5449	ug/L	740.12	13.58%
Mn 257.610†	8008.7	86.09	ug/L	13.226	86.09	ug/L	13.226	15.36%
Mo 202.031†	38.1	1.069	ug/L	0.1656	1.069	ug/L	0.1656	15.49%
Na 589.592†	379112.3	33840	ug/L	4656.37	33840	ug/L	4656.37	13.76%
Ni 231.604†	55.8	1.293	ug/L	0.1889	1.293	ug/L	0.1889	14.61%
P 213.617†	340.9	104.6	ug/L	0.75	104.6	ug/L	0.75	0.71%
Pb 220.353†	-3.3	0.066	ug/L	1.1789	0.066	ug/L	1.1789	>999.9%
Sb 206.836†	-13.1	-1.729	ug/L	0.3603	-1.729	ug/L	0.3603	20.83%
Se 196.026†	-8.7	-2.850	ug/L	2.1120	-2.850	ug/L	2.1120	74.12%
Sn 189.927†	-1.1	-0.192	ug/L	0.3232	-0.192	ug/L	0.3232	168.76%
Sr 421.552†	69231.2	94.95	ug/L	13.098	94.95	ug/L	13.098	13.80%
Ti 337.279†	89.0	2.126	ug/L	0.4361	2.126	ug/L	0.4361	20.52%
Tl 190.801†	-2.6	-0.686	ug/L	1.2961	-0.686	ug/L	1.2961	188.98%
V 292.402†	221.4	2.217	ug/L	0.0386	2.217	ug/L	0.0386	1.74%
Zn 206.200†	653.5	7.987	ug/L	0.2073	7.987	ug/L	0.2073	2.60%
Li 670.784	53796.7	2.219	ug/L	0.0267	2.219	ug/L	0.0267	1.20%

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-SD029-0001
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17824

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
(Solid Concentrations and Limits have been adjusted to reflect 72.1 Percent Moisture.)									
6010C/3050B	ALUMINUM (AL)	22400	3580.0	287.00	142.00	mg/Kg	20	07/08/15	07/09/15
6010C/3050B	BORON (B)	19.7	18.0	14.00	5.60	mg/Kg	1	07/08/15	07/09/15
6010C/3050B	LITHIUM (LI)	39.8	2.40	1.800	0.900	mg/Kg	1	07/08/15	07/09/15
6010C/3050B	ZINC (ZN)	703	573.0	287.00	82.00	mg/Kg	20	07/08/15	07/09/15

Printed: 07/13/15 10:49:28 AM

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

Sequence No.: 17
Sample ID: AZ17824S06-1/20
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.98 g
Dilution: 20X
Wash Time:

Autosampler Location: 44
Date Collected: 07/09/15 1:17:21 PM
Data Type: Reprocessed on 07/09/15 4:14:29 PM

Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17824S06-1/20

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	243820.5	105.4	%	0.61				0.58%
Y Radial	17171.6	111.5	%	3.24				2.90%
Ag 338.289†	1802.7	9.963	ug/L	0.6658	20.33	mg/kg	1.359	6.68%
Al 308.215†	3916.1	3061	ug/L	85.21	6248	mg/kg	173.89	2.78%
As 188.979†	31.9	6.848	ug/L	1.2181	13.98	mg/kg	2.486	17.79%
B 249.677†	-169.2	4.974	ug/L	0.3705	10.15	mg/kg	0.756	7.45%
Ba 233.527†	7742.0	18.82	ug/L	0.068	38.41	mg/kg	0.138	0.36%
Be 313.107†	833.4	0.235	ug/L	0.0041	0.480	mg/kg	0.0084	1.75%
Ca 315.887†	5433.2	368.9	ug/L	11.06	752.8	mg/kg	22.56	3.00%
Cd 214.440†	-1.0	-0.206	ug/L	0.0697	-0.421	mg/kg	0.1423	33.82%
Co 228.616†	336.4	3.348	ug/L	0.1674	6.832	mg/kg	0.3416	5.00%
Cr 267.716†	521.5	6.446	ug/L	0.0844	13.15	mg/kg	0.172	1.31%
Cu 327.393†	3446.5	17.47	ug/L	0.147	35.65	mg/kg	0.300	0.84%
Fe 273.955†	292542.6	3922	ug/L	7.81	8004	mg/kg	15.93	0.20%
K 766.490†	2391.1	299.3	ug/L	6.40	610.7	mg/kg	13.06	2.14%
Mg 285.213†	5578.7	343.4	ug/L	9.71	700.7	mg/kg	19.82	2.83%
Mn 257.610†	2017.5	24.06	ug/L	0.785	49.10	mg/kg	1.603	3.26%
Mo 202.031†	76.1	2.365	ug/L	0.0541	4.827	mg/kg	0.1105	2.29%
Na 589.592†	172.8	16.27	ug/L	8.090	33.21	mg/kg	16.510	49.72%
Ni 231.604†	242.0	5.262	ug/L	0.0288	10.74	mg/kg	0.059	0.55%
P 213.617†	434.0	137.5	ug/L	1.46	280.5	mg/kg	2.97	1.06%
Pb 220.353†	226.0	40.91	ug/L	0.371	83.48	mg/kg	0.758	0.91%
Sb 206.836†	2.5	0.371	ug/L	0.9772	0.757	mg/kg	1.9942	263.56%
Se 196.026†	-6.3	-0.112	ug/L	0.3719	-0.229	mg/kg	0.7589	331.04%
Sn 189.927†	4.7	0.916	ug/L	0.1655	1.869	mg/kg	0.3377	18.07%
Sr 421.552†	2834.6	4.316	ug/L	0.1459	8.808	mg/kg	0.2977	3.38%
Ti 337.279†	2825.2	77.22	ug/L	2.327	157.6	mg/kg	4.75	3.01%
Tl 190.801†	-2.6	-0.550	ug/L	0.9976	-1.122	mg/kg	2.0360	181.40%
V 292.402†	1035.9	10.48	ug/L	0.097	21.39	mg/kg	0.199	0.93%
Zn 206.200†	8626.6	96.23	ug/L	0.519	196.4	mg/kg	1.06	0.54%
Li 670.784	78903.3	3.556	ug/L	0.0147	7.258	mg/kg	0.0299	0.41%

Sequence No.: 28
Sample ID: AZ17824S06
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.98 g
Dilution:
Wash Time:

Autosampler Location: 53
Date Collected: 07/09/15 2:44:45 PM
Data Type: Reprocessed on 07/09/15 4:14:42 PM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17824S06

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	336221.1	145.4	%	0.67				0.46%
Y Radial	23211.2	150.7	%	1.18				0.78%
Ag 338.289†	25836.3	142.8	ug/L	0.08	14.57	mg/kg	0.008	0.06%
Al 308.215†	60506.0	47300	ug/L	250.61	4827	mg/kg	25.57	0.53%
As 188.979†	386.2	83.66	ug/L	1.268	8.536	mg/kg	0.1294	1.52%
B 249.677†	-2897.8	53.57	ug/L	1.500	5.467	mg/kg	0.1531	2.80%
Ba 233.527†	107235.6	260.7	ug/L	0.48	26.60	mg/kg	0.049	0.18%
Be 313.107†	11070.1	3.122	ug/L	0.0076	0.319	mg/kg	0.0008	0.24%
Ca 315.887†	76914.9	5222	ug/L	32.79	532.9	mg/kg	3.35	0.63%
Cd 214.440†	1956.8	4.433	ug/L	0.0528	0.452	mg/kg	0.0054	1.19%
Co 228.616†	3915.3	38.07	ug/L	0.340	3.884	mg/kg	0.0347	0.89%
Cr 267.716†	8044.2	99.45	ug/L	0.731	10.15	mg/kg	0.075	0.74%
Cu 327.393†	51269.6	259.8	ug/L	0.41	26.51	mg/kg	0.042	0.16%
Fe 273.955†	4084102.0	54750	ug/L	225.79	5587	mg/kg	23.04	0.41%
K 766.490†	30484.8	3810	ug/L	11.23	388.7	mg/kg	1.15	0.29%
Mg 285.213†	84351.2	5188	ug/L	19.77	529.4	mg/kg	2.02	0.38%
Mn 257.610†	30507.6	363.8	ug/L	1.91	37.12	mg/kg	0.195	0.53%
Mo 202.031†	221.9	7.798	ug/L	0.1703	0.796	mg/kg	0.0174	2.18%
Na 589.592†	6739.6	650.4	ug/L	1.80	66.37	mg/kg	0.184	0.28%
Ni 231.604†	3216.9	69.97	ug/L	0.495	7.140	mg/kg	0.0506	0.71%
P 213.617†	6344.7	2010	ug/L	13.55	205.1	mg/kg	1.38	0.67%
Pb 220.353†	3607.6	653.3	ug/L	3.14	66.66	mg/kg	0.320	0.48%
Sb 206.836†	101.5	15.05	ug/L	1.126	1.536	mg/kg	0.1149	7.48%
Se 196.026†	-52.7	10.00	ug/L	2.251	1.021	mg/kg	0.2297	22.50%
Sn 189.927†	47.9	9.360	ug/L	0.1234	0.955	mg/kg	0.0126	1.32%
Sr 421.552†	41246.2	62.81	ug/L	0.143	6.409	mg/kg	0.0146	0.23%
Ti 337.279†	42646.7	1166	ug/L	4.20	118.9	mg/kg	0.43	0.36%
Tl 190.801†	-27.9	-5.886	ug/L	0.3428	-0.601	mg/kg	0.0350	5.82%
V 292.402†	14929.2	151.0	ug/L	0.32	15.41	mg/kg	0.033	0.21%
Zn 206.200†	120090.8	1340	ug/L	1.99	136.7	mg/kg	0.20	0.15%
Li 670.784	2410225.3	108.6	ug/L	0.54	11.09	mg/kg	0.055	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-MW018-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17826

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	1170	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B)	147	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	LITHIUM (LI)	29.0	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN)	361	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	1090	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B) (DISSOLVED)	141	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	29.5	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	345	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15

Printed: 07/08/15 3:39:17 PM

APPL-F1-SC-NoMC-REG MDLs

Sequence No.: 28
Sample ID: AZ17826W09 F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 55
Date Collected: 07/06/15 1:59:28 PM
Data Type: Reprocessed on 07/07/15 8:54:00 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ17826W09 F

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	230667.2	96.74	%	0.471				0.49%
Y Radial	16368.7	100.8	%	0.71				0.70%
Ag 338.289†	18.4	0.095	ug/L	0.1764	0.095	ug/L	0.1764	185.30%
Al 308.215†	1498.3	1090	ug/L	2.89	1090	ug/L	2.89	0.27%
As 188.979†	78.6	15.55	ug/L	1.805	15.55	ug/L	1.805	11.61%
B 249.677†	3999.4	141.0	ug/L	0.75	141.0	ug/L	0.75	0.53%
Ba 233.527†	6123.6	13.44	ug/L	0.072	13.44	ug/L	0.072	0.54%
Be 313.107†	3645.6	1.028	ug/L	0.0073	1.028	ug/L	0.0073	0.71%
Ca 315.887†	247977.0	15390	ug/L	87.69	15390	ug/L	87.69	0.57%
Cd 214.440†	453.3	1.072	ug/L	0.0976	1.072	ug/L	0.0976	9.10%
Co 228.616†	802.8	7.726	ug/L	0.1513	7.726	ug/L	0.1513	1.96%
Cr 267.716†	96.9	1.043	ug/L	0.0325	1.043	ug/L	0.0325	3.12%
Cu 327.393†	3698.5	17.79	ug/L	0.430	17.79	ug/L	0.430	2.41%
Fe 273.955†	918456.4	11520	ug/L	19.03	11520	ug/L	19.03	0.17%
K 766.490†	46523.2	5300	ug/L	34.17	5300	ug/L	34.17	0.64%
Mg 285.213†	87386.7	4929	ug/L	32.55	4929	ug/L	32.55	0.66%
Mn 257.610†	26111.7	281.2	ug/L	0.86	281.2	ug/L	0.86	0.31%
Mo 202.031†	15.4	0.728	ug/L	0.2686	0.728	ug/L	0.2686	36.90%
Na 589.592†	815033.8	72760	ug/L	406.18	72760	ug/L	406.18	0.56%
Ni 231.604†	808.9	16.49	ug/L	0.141	16.49	ug/L	0.141	0.86%
P 213.617†	138.5	42.49	ug/L	1.115	42.49	ug/L	1.115	2.63%
Pb 220.353†	-24.4	-5.134	ug/L	0.6551	-5.134	ug/L	0.6551	12.76%
Sb 206.836†	-11.1	-1.463	ug/L	1.3361	-1.463	ug/L	1.3361	91.35%
Se 196.026†	-16.4	0.011	ug/L	0.6607	0.011	ug/L	0.6607	>999.9%
Sn 189.927†	-11.9	-2.118	ug/L	0.3453	-2.118	ug/L	0.3453	16.30%
Sr 421.552†	66346.1	91.09	ug/L	0.548	91.09	ug/L	0.548	0.60%
Ti 337.279†	16.2	0.279	ug/L	0.2729	0.279	ug/L	0.2729	97.79%
Tl 190.801†	-0.5	-0.122	ug/L	0.7647	-0.122	ug/L	0.7647	629.28%
V 292.402†	254.8	2.551	ug/L	0.0234	2.551	ug/L	0.0234	0.92%
Zn 206.200†	32986.3	344.9	ug/L	0.72	344.9	ug/L	0.72	0.21%
Li 670.784	716285.8	29.54	ug/L	0.048	29.54	ug/L	0.048	0.16%

Sequence No.: 56
Sample ID: AZ17826W10
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 79
Date Collected: 07/06/15 5:44:22 PM
Data Type: Reprocessed on 07/07/15 8:54:31 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ17826W10

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	234826.4	98.48	%	1.032				1.05%
Y Radial	16823.0	103.6	%	2.39				2.31%
Ag 338.289†	28.4	0.147	ug/L	0.2643	0.147	ug/L	0.2643	179.72%
Al 308.215†	1610.1	1172	ug/L	23.44	1172	ug/L	23.44	2.00%
As 188.979†	88.5	17.49	ug/L	0.179	17.49	ug/L	0.179	1.02%
B 249.677†	4143.1	146.7	ug/L	2.76	146.7	ug/L	2.76	1.88%
Ba 233.527†	6585.6	14.47	ug/L	0.178	14.47	ug/L	0.178	1.23%
Be 313.107†	3764.7	1.062	ug/L	0.0278	1.062	ug/L	0.0278	2.61%
Ca 315.887†	256633.2	15930	ug/L	503.73	15930	ug/L	503.73	3.16%
Cd 214.440†	515.7	1.241	ug/L	0.0623	1.241	ug/L	0.0623	5.02%
Co 228.616†	840.7	8.088	ug/L	0.1693	8.088	ug/L	0.1693	2.09%
Cr 267.716†	110.4	1.195	ug/L	0.0560	1.195	ug/L	0.0560	4.68%
Cu 327.393†	4301.3	20.70	ug/L	0.566	20.70	ug/L	0.566	2.73%
Fe 273.955†	970996.2	12180	ug/L	209.46	12180	ug/L	209.46	1.72%
K 766.490†	47114.8	5370	ug/L	164.40	5370	ug/L	164.40	3.06%
Mg 285.213†	90920.4	5128	ug/L	160.02	5128	ug/L	160.02	3.12%
Mn 257.610†	27180.7	292.7	ug/L	7.12	292.7	ug/L	7.12	2.43%
Mo 202.031†	3.9	0.421	ug/L	0.0532	0.421	ug/L	0.0532	12.64%
Na 589.592†	786521.8	70210	ug/L	2152.69	70210	ug/L	2152.69	3.07%
Ni 231.604†	832.6	16.99	ug/L	0.265	16.99	ug/L	0.265	1.56%
P 213.617†	158.6	48.67	ug/L	2.169	48.67	ug/L	2.169	4.46%
Pb 220.353†	-13.4	-3.108	ug/L	0.2396	-3.108	ug/L	0.2396	7.71%
Sb 206.836†	-7.9	-1.046	ug/L	1.0473	-1.046	ug/L	1.0473	100.10%
Se 196.026†	-15.4	0.620	ug/L	0.6182	0.620	ug/L	0.6182	99.67%
Sn 189.927†	-13.8	-2.455	ug/L	0.8419	-2.455	ug/L	0.8419	34.29%
Sr 421.552†	63430.7	87.04	ug/L	2.667	87.04	ug/L	2.667	3.06%
Ti 337.279†	76.0	1.770	ug/L	0.3902	1.770	ug/L	0.3902	22.04%
Tl 190.801†	-6.0	-1.576	ug/L	0.9031	-1.576	ug/L	0.9031	57.31%
V 292.402†	311.2	3.116	ug/L	0.0807	3.116	ug/L	0.0807	2.59%
Zn 206.200†	34563.3	361.3	ug/L	6.51	361.3	ug/L	6.51	1.80%
Li 670.784	703741.6	29.03	ug/L	0.129	29.03	ug/L	0.129	0.44%

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-MW019-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17827

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	1830	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B)	177	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	LITHIUM (LI)	18.9	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN)	106 J	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	2100	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B) (DISSOLVED)	188	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	20.7	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	112 J	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15

J = Estimated value.

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APPL-F1-SC-NoMC-REG MDLs

Sequence No.: 31
Sample ID: AZ17827W06 F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 56
Date Collected: 07/06/15 3:04:36 PM
Data Type: Reprocessed on 07/07/15 8:54:03 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ17827W06 F

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	233761.7	98.04	%	0.390				0.40%
Y Radial	14859.5	91.47	%	9.093				9.94%
Ag 338.289†	2.1	0.011	ug/L	0.2489	0.011	ug/L	0.2489	>999.9%
Al 308.215†	2880.6	2099	ug/L	225.15	2099	ug/L	225.15	10.72%
As 188.979†	-5.8	0.654	ug/L	0.9528	0.654	ug/L	0.9528	145.67%
B 249.677†	4900.7	188.1	ug/L	0.79	188.1	ug/L	0.79	0.42%
Ba 233.527†	12905.5	28.52	ug/L	0.087	28.52	ug/L	0.087	0.30%
Be 313.107†	4441.4	1.253	ug/L	0.0069	1.253	ug/L	0.0069	0.55%
Ca 315.887†	200540.6	12450	ug/L	1153.54	12450	ug/L	1153.54	9.27%
Cd 214.440†	404.5	0.283	ug/L	0.0191	0.283	ug/L	0.0191	6.74%
Co 228.616†	1838.9	18.01	ug/L	0.088	18.01	ug/L	0.088	0.49%
Cr 267.716†	85.2	0.632	ug/L	0.0749	0.632	ug/L	0.0749	11.86%
Cu 327.393†	1575.0	7.899	ug/L	0.2854	7.899	ug/L	0.2854	3.61%
Fe 273.955†	1637599.8	20540	ug/L	47.51	20540	ug/L	47.51	0.23%
K 766.490†	87344.4	10020	ug/L	933.74	10020	ug/L	933.74	9.32%
Mg 285.213†	87770.4	4957	ug/L	531.53	4957	ug/L	531.53	10.72%
Mn 257.610†	60179.6	648.1	ug/L	69.31	648.1	ug/L	69.31	10.69%
Mo 202.031†	0.3	0.481	ug/L	0.1352	0.481	ug/L	0.1352	28.12%
Na 589.592†	636898.4	56850	ug/L	5287.66	56850	ug/L	5287.66	9.30%
Ni 231.604†	768.6	15.77	ug/L	0.051	15.77	ug/L	0.051	0.33%
P 213.617†	-50.7	-15.56	ug/L	0.966	-15.56	ug/L	0.966	6.21%
Pb 220.353†	-0.4	-1.736	ug/L	1.2594	-1.736	ug/L	1.2594	72.53%
Sb 206.836†	-8.5	-1.118	ug/L	1.7157	-1.118	ug/L	1.7157	153.42%
Se 196.026†	-30.5	-0.081	ug/L	1.0526	-0.081	ug/L	1.0526	>999.9%
Sn 189.927†	-7.0	-1.244	ug/L	0.3182	-1.244	ug/L	0.3182	25.58%
Sr 421.552†	38312.4	52.45	ug/L	4.849	52.45	ug/L	4.849	9.24%
Ti 337.279†	15.4	0.217	ug/L	0.6364	0.217	ug/L	0.6364	292.76%
Tl 190.801†	-6.3	-1.648	ug/L	2.2958	-1.648	ug/L	2.2958	139.29%
V 292.402†	8.1	0.081	ug/L	0.0778	0.081	ug/L	0.0778	96.28%
Zn 206.200†	10686.4	111.7	ug/L	0.44	111.7	ug/L	0.44	0.39%
Li 670.784	502966.5	20.74	ug/L	0.106	20.74	ug/L	0.106	0.51%

Sequence No.: 59
Sample ID: AZ17827W07
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 80
Date Collected: 07/06/15 6:01:31 PM
Data Type: Reprocessed on 07/07/15 8:54:35 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ17827W07

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	243291.2	102.0	%	1.03				1.01%
Y Radial	17292.3	106.4	%	2.44				2.29%
Ag 338.289†	49.5	0.256	ug/L	0.1574	0.256	ug/L	0.1574	61.38%
Al 308.215†	2506.2	1827	ug/L	37.13	1827	ug/L	37.13	2.03%
As 188.979†	-1.7	1.436	ug/L	0.4036	1.436	ug/L	0.4036	28.11%
B 249.677†	4606.5	177.4	ug/L	1.32	177.4	ug/L	1.32	0.74%
Ba 233.527†	12826.9	28.39	ug/L	0.195	28.39	ug/L	0.195	0.69%
Be 313.107†	4007.1	1.130	ug/L	0.0198	1.130	ug/L	0.0198	1.75%
Ca 315.887†	173468.7	10770	ug/L	248.69	10770	ug/L	248.69	2.31%
Cd 214.440†	412.0	0.331	ug/L	0.0496	0.331	ug/L	0.0496	15.01%
Co 228.616†	1753.4	17.18	ug/L	0.189	17.18	ug/L	0.189	1.10%
Cr 267.716†	99.9	0.852	ug/L	0.1079	0.852	ug/L	0.1079	12.66%
Cu 327.393†	1058.1	5.442	ug/L	0.2261	5.442	ug/L	0.2261	4.16%
Fe 273.955†	1559230.8	19560	ug/L	136.74	19560	ug/L	136.74	0.70%
K 766.490†	72858.9	8361	ug/L	167.90	8361	ug/L	167.90	2.01%
Mg 285.213†	74126.0	4188	ug/L	85.62	4188	ug/L	85.62	2.04%
Mn 257.610†	51016.2	549.5	ug/L	11.85	549.5	ug/L	11.85	2.16%
Mo 202.031†	-11.9	0.106	ug/L	0.1487	0.106	ug/L	0.1487	139.85%
Na 589.592†	519919.5	46410	ug/L	932.43	46410	ug/L	932.43	2.01%
Ni 231.604†	723.2	14.85	ug/L	0.236	14.85	ug/L	0.236	1.59%
P 213.617†	-37.9	-11.64	ug/L	1.015	-11.64	ug/L	1.015	8.72%
Pb 220.353†	1.8	-1.350	ug/L	0.4430	-1.350	ug/L	0.4430	32.81%
Sb 206.836†	-2.5	-0.324	ug/L	0.2836	-0.324	ug/L	0.2836	87.46%
Se 196.026†	-21.8	2.163	ug/L	0.0344	2.163	ug/L	0.0344	1.59%
Sn 189.927†	-7.0	-1.242	ug/L	0.6277	-1.242	ug/L	0.6277	50.53%
Sr 421.552†	31496.0	43.10	ug/L	0.878	43.10	ug/L	0.878	2.04%
Ti 337.279†	44.0	0.955	ug/L	1.0498	0.955	ug/L	1.0498	109.95%
Tl 190.801†	-0.9	-0.230	ug/L	1.3115	-0.230	ug/L	1.3115	570.64%
V 292.402†	62.4	0.625	ug/L	0.1033	0.625	ug/L	0.1033	16.53%
Zn 206.200†	10110.4	105.5	ug/L	0.80	105.5	ug/L	0.80	0.76%
Li 670.784	459334.1	18.95	ug/L	0.090	18.95	ug/L	0.090	0.47%

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-MW023-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17828

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	4260	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B)	118	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	LITHIUM (LI)	19.4	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN)	5580	1500.0	200.00	137.00	ug/L	10	07/01/15	07/07/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	2920	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B) (DISSOLVED)	127	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	19.5	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	5620	1500.0	200.00	137.00	ug/L	10	07/01/15	07/07/15

Printed: 07/08/15 3:39:17 PM

APPL-F1-SC-NoMC-REG MDLs

Sequence No.: 32
Sample ID: AZ17828W09 F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 57
Date Collected: 07/06/15 3:10:55 PM
Data Type: Reprocessed on 07/07/15 8:54:04 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ17828W09 F

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	235263.3	98.67	%	5.882				5.96%
Y Radial	17594.6	108.3	%	2.72				2.51%
Ag 338.289†	85.8	0.445	ug/L	0.1145	0.445	ug/L	0.1145	25.76%
Al 308.215†	4006.0	2920	ug/L	57.62	2920	ug/L	57.62	1.97%
As 188.979†	18.9	2.222	ug/L	0.4355	2.222	ug/L	0.4355	19.60%
B 249.677†	2857.5	126.9	ug/L	8.30	126.9	ug/L	8.30	6.54%
Ba 233.527†	11953.5	26.38	ug/L	1.549	26.38	ug/L	1.549	5.87%
Be 313.107†	4753.8	1.341	ug/L	0.1083	1.341	ug/L	0.1083	8.08%
Ca 315.887†	649667.7	40340	ug/L	1206.92	40340	ug/L	1206.92	2.99%
Cd 214.440†	4031.7	12.95	ug/L	0.625	12.95	ug/L	0.625	4.82%
Co 228.616†	3000.7	29.68	ug/L	1.593	29.68	ug/L	1.593	5.37%
Cr 267.716†	86.8	1.070	ug/L	0.1648	1.070	ug/L	0.1648	15.41%
Cu 327.393†	134789.7	644.6	ug/L	46.91	644.6	ug/L	46.91	7.28%
Fe 273.955†	1554301.2	19490	ug/L	1379.22	19490	ug/L	1379.22	7.08%
K 766.490†	57271.8	6552	ug/L	190.32	6552	ug/L	190.32	2.90%
Mg 285.213†	130362.0	7355	ug/L	221.69	7355	ug/L	221.69	3.01%
Mn 257.610†	43566.9	469.1	ug/L	10.16	469.1	ug/L	10.16	2.17%
Mo 202.031†	-4.0	0.802	ug/L	0.1205	0.802	ug/L	0.1205	15.03%
Na 589.592†	571378.0	51000	ug/L	1573.22	51000	ug/L	1573.22	3.08%
Ni 231.604†	1187.3	24.32	ug/L	1.050	24.32	ug/L	1.050	4.32%
P 213.617†	-444.1	-136.2	ug/L	10.17	-136.2	ug/L	10.17	7.47%
Pb 220.353†	-20.0	-4.621	ug/L	0.7573	-4.621	ug/L	0.7573	16.39%
Sb 206.836†	-17.7	-2.345	ug/L	0.9207	-2.345	ug/L	0.9207	39.27%
Se 196.026†	-27.7	-0.210	ug/L	1.1767	-0.210	ug/L	1.1767	560.19%
Sn 189.927†	-14.1	-2.497	ug/L	0.3622	-2.497	ug/L	0.3622	14.51%
Sr 421.552†	176849.0	242.9	ug/L	7.54	242.9	ug/L	7.54	3.10%
Ti 337.279†	44.7	0.901	ug/L	0.8483	0.901	ug/L	0.8483	94.18%
Tl 190.801†	-8.9	-2.317	ug/L	1.0304	-2.317	ug/L	1.0304	44.48%
V 292.402†	41.0	0.410	ug/L	0.0716	0.410	ug/L	0.0716	17.46%
Zn 206.200†	478781.6	4989	ug/L	351.46	4989	ug/L	351.46	7.05%
Li 670.784	472024.6	19.47	ug/L	0.048	19.47	ug/L	0.048	0.24%

Sequence No.: 60
Sample ID: AZ17828W10
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 81
Date Collected: 07/06/15 6:07:52 PM
Data Type: Reprocessed on 07/07/15 8:54:36 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ17828W10

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	266652.7	111.8	%	8.37				7.49%
Y Radial	15623.0	96.17	%	31.492				32.75%
Ag 338.289†	86.0	0.446	ug/L	0.0604	0.446	ug/L	0.0604	13.55%
Al 308.215†	5835.0	4255	ug/L	1816.46	4255	ug/L	1816.46	42.69%
As 188.979†	28.9	2.615	ug/L	1.8624	2.615	ug/L	1.8624	71.22%
B 249.677†	2615.8	117.6	ug/L	8.51	117.6	ug/L	8.51	7.24%
Ba 233.527†	11441.9	25.26	ug/L	1.759	25.26	ug/L	1.759	6.96%
Be 313.107†	4056.7	1.144	ug/L	0.1149	1.144	ug/L	0.1149	10.04%
Ca 315.887†	867617.7	53870	ug/L	21667.83	53870	ug/L	21667.83	40.22%
Cd 214.440†	3862.3	12.55	ug/L	0.824	12.55	ug/L	0.824	6.56%
Co 228.616†	2825.8	27.86	ug/L	1.821	27.86	ug/L	1.821	6.54%
Cr 267.716†	121.0	1.527	ug/L	0.0936	1.527	ug/L	0.0936	6.13%
Cu 327.393†	117603.5	562.4	ug/L	40.77	562.4	ug/L	40.77	7.25%
Fe 273.955†	1480896.6	18570	ug/L	1371.63	18570	ug/L	1371.63	7.39%
K 766.490†	75458.1	8638	ug/L	3442.86	8638	ug/L	3442.86	39.86%
Mg 285.213†	169458.6	9555	ug/L	3845.22	9555	ug/L	3845.22	40.24%
Mn 257.610†	58492.3	629.8	ug/L	267.69	629.8	ug/L	267.69	42.50%
Mo 202.031†	-14.3	0.466	ug/L	0.2862	0.466	ug/L	0.2862	61.38%
Na 589.592†	731006.0	65250	ug/L	26237.94	65250	ug/L	26237.94	40.21%
Ni 231.604†	1123.8	23.15	ug/L	1.451	23.15	ug/L	1.451	6.27%
P 213.617†	-342.7	-105.1	ug/L	7.01	-105.1	ug/L	7.01	6.67%
Pb 220.353†	-19.2	-3.510	ug/L	1.0297	-3.510	ug/L	1.0297	29.33%
Sb 206.836†	-12.8	-1.695	ug/L	0.3368	-1.695	ug/L	0.3368	19.87%
Se 196.026†	-26.8	-0.737	ug/L	0.7421	-0.737	ug/L	0.7421	100.71%
Sn 189.927†	-22.0	-3.896	ug/L	0.2333	-3.896	ug/L	0.2333	5.99%
Sr 421.552†	225284.9	309.3	ug/L	124.36	309.3	ug/L	124.36	40.20%
Ti 337.279†	194.2	4.593	ug/L	1.6598	4.593	ug/L	1.6598	36.14%
Tl 190.801†	-5.9	-1.541	ug/L	1.2451	-1.541	ug/L	1.2451	80.79%
V 292.402†	136.8	1.370	ug/L	0.0376	1.370	ug/L	0.0376	2.74%
Zn 206.200†	447328.3	4662	ug/L	347.23	4662	ug/L	347.23	7.45%
Li 670.784	471338.4	19.44	ug/L	0.112	19.44	ug/L	0.112	0.58%

Sequence No.: 10
Sample ID: AZ17828W09-1/10 F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution: 10X
Wash Time:

Autosampler Location: 38
Date Collected: 07/07/15 1:52:52 PM
Data Type: Reprocessed on 07/08/15 8:46:35 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ17828W09-1/10 F

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	242991.6	102.9	%	0.36				0.35%
Y Radial	17120.0	104.3	%	2.82				2.70%
Ag 338.289†	45.3	0.241	ug/L	0.2181	2.407	ug/L	2.1807	90.59%
Al 308.215†	474.7	344.4	ug/L	12.48	3444	ug/L	124.81	3.62%
As 188.979†	11.0	2.084	ug/L	0.3707	20.84	ug/L	3.707	17.79%
B 249.677†	505.0	14.62	ug/L	0.534	146.2	ug/L	5.34	3.65%
Ba 233.527†	1198.9	2.695	ug/L	0.0340	26.95	ug/L	0.340	1.26%
Be 313.107†	385.0	0.120	ug/L	0.0023	1.205	ug/L	0.0227	1.89%
Ca 315.887†	74649.4	4671	ug/L	138.21	46710	ug/L	1382.07	2.96%
Cd 214.440†	490.5	1.634	ug/L	0.0497	16.34	ug/L	0.497	3.04%
Co 228.616†	367.8	3.398	ug/L	0.0789	33.98	ug/L	0.789	2.32%
Cr 267.716†	12.0	0.154	ug/L	0.0442	1.542	ug/L	0.4419	28.65%
Cu 327.393†	13844.8	67.57	ug/L	0.652	675.7	ug/L	6.52	0.96%
Fe 273.955†	166456.8	2143	ug/L	15.58	21430	ug/L	155.81	0.73%
K 766.490†	5786.4	747.2	ug/L	23.64	7472	ug/L	236.38	3.16%
Mg 285.213†	15317.2	861.5	ug/L	26.41	8615	ug/L	264.09	3.07%
Mn 257.610†	4961.0	54.24	ug/L	1.617	542.4	ug/L	16.17	2.98%
Mo 202.031†	9.9	0.385	ug/L	0.2100	3.846	ug/L	2.0998	54.60%
Na 589.592†	65401.9	5934	ug/L	179.72	59340	ug/L	1797.16	3.03%
Ni 231.604†	151.0	3.022	ug/L	0.0608	30.22	ug/L	0.608	2.01%
P 213.617†	-49.1	-16.12	ug/L	1.460	-161.2	ug/L	14.60	9.06%
Pb 220.353†	1.0	0.302	ug/L	0.5175	3.018	ug/L	5.1745	171.45%
Sb 206.836†	20.9	3.302	ug/L	0.4846	33.02	ug/L	4.846	14.67%
Se 196.026†	-2.0	0.264	ug/L	0.7742	2.641	ug/L	7.7424	293.14%
Sn 189.927†	-2.9	-0.541	ug/L	0.5023	-5.414	ug/L	5.0232	92.79%
Sr 421.552†	21219.4	28.50	ug/L	0.849	285.0	ug/L	8.49	2.98%
Ti 337.279†	12.6	0.299	ug/L	0.2315	2.987	ug/L	2.3149	77.49%
Tl 190.801†	-1.1	-0.441	ug/L	0.6773	-4.412	ug/L	6.7733	153.51%
V 292.402†	-3.1	-0.035	ug/L	0.0486	-0.353	ug/L	0.4864	137.62%
Zn 206.200†	52614.6	562.3	ug/L	4.50	5623	ug/L	45.02	0.80%

Sequence No.: 11
Sample ID: AZ17828W10-1/10
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution: 10X
Wash Time:

Autosampler Location: 39
Date Collected: 07/07/15 1:58:23 PM
Data Type: Reprocessed on 07/08/15 8:46:36 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ17828W10-1/10

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	247562.2	104.8	%	0.47				0.45%
Y Radial	16954.7	103.3	%	0.14				0.13%
Ag 338.289†	-10.5	-0.056	ug/L	0.3512	-0.556	ug/L	3.5120	631.93%
Al 308.215†	505.0	366.4	ug/L	8.47	3664	ug/L	84.75	2.31%
As 188.979†	10.6	2.015	ug/L	0.9177	20.15	ug/L	9.177	45.54%
B 249.677†	503.4	14.57	ug/L	0.313	145.7	ug/L	3.13	2.15%
Ba 233.527†	1232.7	2.772	ug/L	0.0268	27.72	ug/L	0.268	0.97%
Be 313.107†	351.9	0.110	ug/L	0.0059	1.101	ug/L	0.0594	5.39%
Ca 315.887†	74308.7	4649	ug/L	23.45	46490	ug/L	234.45	0.50%
Cd 214.440†	466.9	1.548	ug/L	0.0208	15.48	ug/L	0.208	1.34%
Co 228.616†	365.8	3.376	ug/L	0.2122	33.76	ug/L	2.122	6.29%
Cr 267.716†	24.1	0.303	ug/L	0.0161	3.027	ug/L	0.1613	5.33%
Cu 327.393†	13620.4	66.48	ug/L	0.222	664.8	ug/L	2.22	0.33%
Fe 273.955†	170228.6	2192	ug/L	3.62	21920	ug/L	36.16	0.16%
K 766.490†	5787.3	747.3	ug/L	4.48	7473	ug/L	44.82	0.60%
Mg 285.213†	15193.9	854.7	ug/L	2.42	8547	ug/L	24.24	0.28%
Mn 257.610†	4945.4	54.08	ug/L	0.186	540.8	ug/L	1.86	0.34%
Mo 202.031†	3.6	0.207	ug/L	0.1297	2.067	ug/L	1.2972	62.76%
Na 589.592†	65429.1	5936	ug/L	9.28	59360	ug/L	92.79	0.16%
Ni 231.604†	169.2	3.381	ug/L	0.1530	33.81	ug/L	1.530	4.53%
P 213.617†	-51.6	-16.95	ug/L	0.589	-169.5	ug/L	5.89	3.48%
Pb 220.353†	-1.0	-0.158	ug/L	1.1759	-1.582	ug/L	11.7590	743.38%
Sb 206.836†	21.7	3.432	ug/L	0.4869	34.32	ug/L	4.869	14.19%
Se 196.026†	-7.9	-1.562	ug/L	0.9361	-15.62	ug/L	9.361	59.93%
Sn 189.927†	-3.2	-0.601	ug/L	0.5261	-6.012	ug/L	5.2610	87.50%
Sr 421.552†	21292.7	28.60	ug/L	0.080	286.0	ug/L	0.80	0.28%
Ti 337.279†	35.6	0.886	ug/L	0.1495	8.863	ug/L	1.4953	16.87%
Tl 190.801†	-1.4	-0.545	ug/L	2.7030	-5.446	ug/L	27.0302	496.37%
V 292.402†	9.7	0.110	ug/L	0.0012	1.104	ug/L	0.0117	1.06%
Zn 206.200†	52208.4	558.0	ug/L	1.28	5580	ug/L	12.84	0.23%

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-MW022-061615
Sample Collection Date: 06/16/15

ARF: 76674
APPL ID: AZ17829

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
6010C/3010A	ALUMINUM (AL)	77.0 J	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B)	100	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	LITHIUM (LI)	1.1 B	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN)	228	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15
6010C/3010A	ALUMINUM (AL) (DISSOLVE	80.00 U	300.0	80.00	27.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	BORON (B) (DISSOLVED)	139	50.0	40.00	29.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	LITHIUM (LI) (DISSOLVED)	1.3 B	1.0	0.80	0.40	ug/L	1	07/01/15	07/06/15
6010C/3010A	ZINC (ZN) (DISSOLVED)	177	150.0	20.00	13.70	ug/L	1	07/01/15	07/06/15

J = Estimated value.

Printed: 07/13/15 11:43:17 AM
APPL-F1-SC-NoMC-REG MDLs

Sequence No.: 33
Sample ID: AZ17829W09 F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 58
Date Collected: 07/06/15 3:17:01 PM
Data Type: Reprocessed on 07/07/15 8:54:06 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ17829W09 F

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	221713.9	92.98	%	0.509				0.55%
Y Radial	16265.9	100.1	%	1.36				1.36%
Ag 338.289†	-14.5	-0.075	ug/L	0.3291	-0.075	ug/L	0.3291	438.24%
Al 308.215†	32.9	18.98	ug/L	8.224	18.98	ug/L	8.224	43.32%
As 188.979†	-11.8	0.172	ug/L	0.0320	0.172	ug/L	0.0320	18.60%
B 249.677†	2662.6	139.4	ug/L	0.88	139.4	ug/L	0.88	0.63%
Ba 233.527†	15809.4	34.85	ug/L	0.185	34.85	ug/L	0.185	0.53%
Be 313.107†	636.7	0.180	ug/L	0.0031	0.180	ug/L	0.0031	1.74%
Ca 315.887†	251359.6	15600	ug/L	277.84	15600	ug/L	277.84	1.78%
Cd 214.440†	342.5	-0.308	ug/L	0.0611	-0.308	ug/L	0.0611	19.83%
Co 228.616†	573.4	5.020	ug/L	0.0229	5.020	ug/L	0.0229	0.46%
Cr 267.716†	45.8	0.172	ug/L	0.1009	0.172	ug/L	0.1009	58.73%
Cu 327.393†	5922.5	28.88	ug/L	0.512	28.88	ug/L	0.512	1.77%
Fe 273.955†	2139079.3	26830	ug/L	137.62	26830	ug/L	137.62	0.51%
K 766.490†	35492.5	4007	ug/L	45.91	4007	ug/L	45.91	1.15%
Mg 285.213†	109623.3	6193	ug/L	88.58	6193	ug/L	88.58	1.43%
Mn 257.610†	59178.0	637.4	ug/L	9.95	637.4	ug/L	9.95	1.56%
Mo 202.031†	-17.4	0.110	ug/L	0.3369	0.110	ug/L	0.3369	307.14%
Na 589.592†	941589.2	84060	ug/L	1068.23	84060	ug/L	1068.23	1.27%
Ni 231.604†	140.4	3.317	ug/L	0.2099	3.317	ug/L	0.2099	6.33%
P 213.617†	-55.6	-17.07	ug/L	2.197	-17.07	ug/L	2.197	12.87%
Pb 220.353†	331.7	60.02	ug/L	1.581	60.02	ug/L	1.581	2.63%
Sb 206.836†	-16.9	-2.240	ug/L	1.3635	-2.240	ug/L	1.3635	60.86%
Se 196.026†	-32.8	2.001	ug/L	0.5234	2.001	ug/L	0.5234	26.16%
Sn 189.927†	0.0	0.005	ug/L	0.2359	0.005	ug/L	0.2359	>999.9%
Sr 421.552†	66035.1	90.64	ug/L	1.199	90.64	ug/L	1.199	1.32%
Ti 337.279†	13.3	0.167	ug/L	0.3858	0.167	ug/L	0.3858	231.44%
Tl 190.801†	-6.9	-1.813	ug/L	0.0732	-1.813	ug/L	0.0732	4.04%
V 292.402†	-17.4	-0.174	ug/L	0.0966	-0.174	ug/L	0.0966	55.49%
Zn 206.200†	16946.0	177.0	ug/L	1.15	177.0	ug/L	1.15	0.65%
Li 670.784	31755.3	1.310	ug/L	0.0231	1.310	ug/L	0.0231	1.77%

Sequence No.: 61
Sample ID: AZ17829W10
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 82
Date Collected: 07/06/15 6:13:58 PM
Data Type: Reprocessed on 07/07/15 8:54:37 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ17829W10

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	241627.0	101.3	%	0.09				0.09%
Y Radial	17202.1	105.9	%	0.62				0.58%
Ag 338.289†	-5.6	-0.029	ug/L	0.1597	-0.029	ug/L	0.1597	554.69%
Al 308.215†	111.5	77.00	ug/L	3.314	77.00	ug/L	3.314	4.30%
As 188.979†	-5.5	2.126	ug/L	1.0237	2.126	ug/L	1.0237	48.14%
B 249.677†	829.9	100.3	ug/L	0.38	100.3	ug/L	0.38	0.38%
Ba 233.527†	18960.1	41.77	ug/L	0.177	41.77	ug/L	0.177	0.42%
Be 313.107†	562.9	0.159	ug/L	0.0034	0.159	ug/L	0.0034	2.15%
Ca 315.887†	240428.0	14920	ug/L	181.15	14920	ug/L	181.15	1.21%
Cd 214.440†	470.2	-0.289	ug/L	0.0975	-0.289	ug/L	0.0975	33.74%
Co 228.616†	696.2	6.145	ug/L	0.0546	6.145	ug/L	0.0546	0.89%
Cr 267.716†	42.8	0.033	ug/L	0.1036	0.033	ug/L	0.1036	309.81%
Cu 327.393†	11490.6	55.72	ug/L	0.154	55.72	ug/L	0.154	0.28%
Fe 273.955†	2578215.0	32340	ug/L	74.28	32340	ug/L	74.28	0.23%
K 766.490†	36348.4	4126	ug/L	52.49	4126	ug/L	52.49	1.27%
Mg 285.213†	121914.4	6889	ug/L	79.87	6889	ug/L	79.87	1.16%
Mn 257.610†	69477.7	748.3	ug/L	9.38	748.3	ug/L	9.38	1.25%
Mo 202.031†	-34.7	-0.276	ug/L	0.2544	-0.276	ug/L	0.2544	92.13%
Na 589.592†	653920.6	58370	ug/L	680.33	58370	ug/L	680.33	1.17%
Ni 231.604†	163.6	3.883	ug/L	0.2667	3.883	ug/L	0.2667	6.87%
P 213.617†	-72.6	-22.27	ug/L	0.988	-22.27	ug/L	0.988	4.44%
Pb 220.353†	600.7	110.1	ug/L	1.59	110.1	ug/L	1.59	1.45%
Sb 206.836†	-14.8	-1.958	ug/L	0.6865	-1.958	ug/L	0.6865	35.06%
Se 196.026†	-34.9	3.891	ug/L	2.3662	3.891	ug/L	2.3662	60.81%
Sn 189.927†	-9.2	-1.635	ug/L	0.4089	-1.635	ug/L	0.4089	25.01%
Sr 421.552†	66270.5	90.99	ug/L	1.051	90.99	ug/L	1.051	1.16%
Ti 337.279†	42.3	0.867	ug/L	0.1305	0.867	ug/L	0.1305	15.05%
Tl 190.801†	-11.7	-3.048	ug/L	1.1572	-3.048	ug/L	1.1572	37.96%
V 292.402†	12.0	0.120	ug/L	0.0702	0.120	ug/L	0.0702	58.30%
Zn 206.200†	21897.7	227.8	ug/L	1.13	227.8	ug/L	1.13	0.50%
Li 670.784	26735.7	1.103	ug/L	0.0089	1.103	ug/L	0.0089	0.81%

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: 76674 SDG: 76674

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 07/06/15 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 11:29	%R(1)	True CCV1	Found 11:53	%R(1)	True CCV2	Found 14:53	%R(1)	
Aluminum (Al)	12500	12270	98.2	10000	10600	106	7500	7245	96.6	P
Boron (B)	500	515.4	103	500	547.9	110	375	384.5	103	P
Lithium (Li)	250	247	98.8	250	259.8	104	187.5	180	96.0	P
Zinc (Zn)	500	518.4	104	500	540.8	108	375	381.6	102	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: 76674 SDG: 76674
Initial Calibration Source: CPI
Continuing Calibration Source: Environmental Express
Analysis Date: 07/06/15 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 11:29	%R(1)	True CCV1	Found 16:08	%R(1)	True CCV2	Found 17:50	%R(1)	
Aluminum (Al)	12500	12270	98.2	10000	9787	97.9	7500	7297	97.3	P
Boron (B)	500	515.4	103	500	504.4	101	375	386.9	103	P
Lithium (Li)	250	247	98.8	250	224.7	89.9	187.5	171.2	91.3	P
Zinc (Zn)	500	518.4	104	500	500.5	100	375	389.3	104	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: 76674 SDG: 76674
Initial Calibration Source: CPI
Continuing Calibration Source: Environmental Express
Analysis Date: 07/06/15 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 11:29	%R(1)	True CCV1	Found 19:04	%R(1)	True	Found	%R(1)	
Aluminum (Al)	12500	12270	98.2	10000	9623	96.2				P
Boron (B)	500	515.4	103	500	490	98.0				P
Lithium (Li)	250	247	98.8	250	249.6	99.8				P
Zinc (Zn)	500	518.4	104	500	483.9	96.8				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: 76674 SDG: 76674

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 07/07/15 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 13:11	%R(1)	True CCV1	Found 13:34	%R(1)	True CCV2	Found 14:03	%R(1)	
Zinc (Zn)	500	515.7	103	500	515.2	103	375	401.2	107	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: 76674 SDG: 76674

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 07/09/15 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 12:02	%R(1)	True CCV1	Found 12:26	%R(1)	True CCV2	Found 13:45	%R(1)	
Aluminum (Al)	12500	11990	95.9	10000	9850	98.5	7500	6980	93.1	P
Boron (B)	500	511.6	102	500	513.3	103	375	387.4	103	P
Lithium (Li)	250	233.8	93.5	250	251.8	101	187.5	196.2	105	P
Zinc (Zn)	500	506.3	101	500	521.6	104	375	411.1	110	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: 76674 SDG: 76674

Initial Calibration Source: CPI

Continuing Calibration Source: Environmental Express

Analysis Date: 07/09/15 Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration						M
	True	Found 12:02	%R(1)	True CCV1	Found 15:04	%R(1)	True CCV2	Found 15:50	%R(1)	
Aluminum (Al)	12500	11990	95.9	10000	9210	92.1	7500	6971	92.9	P
Boron (B)	500	511.6	102	500	494.8	99.0	375	388.4	104	P
Lithium (Li)	250	233.8	93.5	250	275.6	110	187.5	204.3	109	P
Zinc (Zn)	500	506.3	101	500	505.2	101	375	396.4	106	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.: 76674 SDG: 76674

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 07/06/15

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
	11:35		12:03		14:58		16:13		12:22		
Aluminum (Al)	300.00	U	300.00	U	300.00	U	300.00	U	300.00	U	P
Boron (B)	50.00	U	50.00	U	50.00	U	50.00	U	50.00	U	P
Lithium (Li)	1.00	U	1.00	U	1.00	U	1.00	U	.67	J	P
Zinc (Zn)	150.00	U	150.00	U	150.00	U	150.00	U	150.00	U	P

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No.: 76674 SDG: 76674

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 07/06/15

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
	11:35		17:55		19:09				12:22		
Aluminum (Al)	300.00	U	300.00	U	300.00	U			300.00	U	P
Boron (B)	50.00	U	50.00	U	50.00	U			50.00	U	P
Lithium (Li)	1.00	U	1.00	U	1.00	U			.67	J	P
Zinc (Zn)	150.00	U	150.00	U	150.00	U			150.00	U	P

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No.: 76674 SDG: 76674

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 07/06/15

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)								Preparation Blank		M
		C	1	C	2	C	3	C		C			
	11:35		12:03		14:58		16:13				12:11		
Aluminum (Al)	300.00	U	300.00	U	300.00	U	300.00	U			300.00	U	P
Boron (B)	50.00	U	50.00	U	50.00	U	50.00	U			50.00	U	P
Lithium (Li)	1.00	U	1.00	U	1.00	U	1.00	U			.83	J	P
Zinc (Zn)	150.00	U	150.00	U	150.00	U	150.00	U			150.00	U	P

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No.: 76674 SDG: 76674

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 07/06/15

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
	11:35		17:55		19:09				12:11		
Aluminum (Al)	300.00	U	300.00	U	300.00	U			300.00	U	P
Boron (B)	50.00	U	50.00	U	50.00	U			50.00	U	P
Lithium (Li)	1.00	U	1.00	U	1.00	U			.83	J	P
Zinc (Zn)	150.00	U	150.00	U	150.00	U			150.00	U	P

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No.: 76674 SDG: 76674

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): ug/L

Analysis Date: 07/07/15

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)								Preparation Blank		M
		C	1	C	2	C	3	C			C		
	13:16		13:42		14:11								
Zinc (Zn)	150.00	U	150.00	U	150.00	U							P

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No.: 76674 SDG: 76674

Preparation Blank Matrix (soil/water): soil

Preparation Blank Concentration Units (ug/L or mg/kg): mg/Kg

Analysis Date: 07/09/15

Analyte	Initial Calibration Blank (ug/L)		Continuing Calibration Blank (ug/L)								Preparation Blank		M
		C	1	C	2	C	3	C		C			
	12:07		12:33		13:53		15:10				12:45		
Aluminum (Al)	500.00	U	500.00	U	500.00	U	500.00	U			50.00	U	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.: 76674 SDG: 76674

Preparation Blank Matrix (soil/water): soil

Preparation Blank Concentration Units (ug/L or mg/kg): mg/Kg

Analysis Date: 07/09/15

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Preparation Blank	C	M
	12:07		15:55						12:45		
Aluminum (Al)	500.00	U	500.00	U					50.00	U	P
Boron (B)	50.00	U	50.00	U					5.00	U	P
Lithium (Li)	6.70	U	6.70	U					.67	U	P
Zinc (Zn)	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.: 76674 SDG: 76674
ICP ID Number: Jules ICS Source: Environmental Express

Analysis Date: 07/06/15 Concentration Units: ug/L

Analyte	True		Initial Found		
	Sol A	Sol AB	Sol A 11:41	Sol AB 11:47	%R(1)
Aluminum (Al)	100000	100000	98920	98980	99.0
Boron (B)			3.21	4.4	
Calcium (Ca)	100000	100000	101700	101500	102
Iron (Fe)	100000	100000	92570	94710	94.7
Lithium (Li)		0	0.396	0.389	
Magnesium (Mg)	100000	100000	97180	97200	97.2
Zinc (Zn)		500	3.862	476.1	95.2

(1) Control Limits: Metals 80-120

A.P.P.L. INC.
4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: A.P.P.L. INC. Contract: Tetra Tech
ARF No.: 76674 SDG: 76674
ICP ID Number: Jules ICS Source: Environmental Express

Analysis Date: 07/07/15 Concentration Units: ug/L

Analyte	True		Initial Found		
	Sol A	Sol AB	Sol A 13:25	Sol AB 13:30	%R(1)
Aluminum (Al)	100000	100000	103700	105600	106
Calcium (Ca)	100000	100000	106000	107900	108
Iron (Fe)	100000	100000	96840	102000	102
Magnesium (Mg)	100000	100000	101300	103100	103
Zinc (Zn)		500	4.996	541.5	108

(1) Control Limits: Metals 80-120

A.P.P.L. INC.
4
ICP INTERFERENCE CHECK SAMPLE

Lab Name: A.P.P.L. INC. Contract: Tetra Tech
ARF No.: 76674 SDG: 76674
ICP ID Number: Jules ICS Source: Environmental Express

Analysis Date: 07/09/15 Concentration Units: ug/L

Analyte	True		Initial Found		
	Sol A	Sol AB	Sol A 12:13	Sol AB 12:19	%R(1)
Aluminum (Al)	100000	100000	103700	102500	103
Boron (B)			20.45	27.75	
Calcium (Ca)	100000	100000	108100	109200	109
Iron (Fe)	100000	100000	97970	100700	101
Lithium (Li)		0	0.065	0.161	
Magnesium (Mg)	100000	100000	102900	104100	104
Zinc (Zn)		500	4.381	510.5	102

(1) Control Limits: Metals 80-120

A.P.P.L. INC.
9
ICP SERIAL DILUTION

CLIENT SAMPLE NO.
S67-SW028-061615

Lab Name: A.P.P.L. INC. Contract: Tetra Tech
ARF No.: 76674 SDG: 76674
Matrix: water

Analysis Date: 07/06/15 Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	%D	Q	M
Aluminum (Al)	1.155		-0.396		NA		
Boron (B)	47.86		71.74		NA		
Lithium (Li)	2.408		3.362		NA		
Zinc (Zn)	1.927		-2.026		NA		

Comments:

07/06/15 13:40 AZ17823W19 F

07/06/15 16:02 AZ17823W19-1/5 F

Sequence No.: 40
Sample ID: AZ17823W19-1/5 F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution: 5X
Wash Time:

Autosampler Location: 65
Date Collected: 07/06/15 4:02:27 PM
Data Type: Reprocessed on 07/07/15 8:54:13 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ17823W19-1/5 F

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	227149.0	95.26	%	1.037				1.09%
Y Radial	15622.9	96.17	%	0.300				0.31%
Ag 338.289†	-14.3	-0.074	ug/L	0.2671	-0.369	ug/L	1.3355	361.62%
Al 308.215†	0.5	-0.079	ug/L	1.0433	-0.396	ug/L	5.2166	>999.9%
As 188.979†	4.9	0.583	ug/L	0.7550	2.917	ug/L	3.7752	129.42%
B 249.677†	504.4	14.35	ug/L	0.283	71.74	ug/L	1.415	1.97%
Ba 233.527†	2783.6	6.396	ug/L	0.0849	31.98	ug/L	0.425	1.33%
Be 313.107†	58.2	0.016	ug/L	0.0026	0.082	ug/L	0.0130	15.87%
Ca 315.887†	60479.6	3755	ug/L	30.67	18780	ug/L	153.33	0.82%
Cd 214.440†	-49.4	-0.134	ug/L	0.0787	-0.668	ug/L	0.3933	58.90%
Co 228.616†	-10.1	-0.118	ug/L	0.0536	-0.589	ug/L	0.2680	45.50%
Cr 267.716†	-2.4	-0.003	ug/L	0.1369	-0.014	ug/L	0.6846	>999.9%
Cu 327.393†	183.7	0.866	ug/L	0.1346	4.330	ug/L	0.6728	15.54%
Fe 273.955†	1509.1	18.79	ug/L	0.438	93.93	ug/L	2.188	2.33%
K 766.490†	3532.6	401.9	ug/L	6.90	2010	ug/L	34.51	1.72%
Mg 285.213†	19290.9	1086	ug/L	1.61	5430	ug/L	8.03	0.15%
Mn 257.610†	921.7	9.892	ug/L	0.0567	49.46	ug/L	0.284	0.57%
Mo 202.031†	18.3	0.508	ug/L	0.1594	2.541	ug/L	0.7971	31.37%
Na 589.592†	71182.4	6354	ug/L	57.74	31770	ug/L	288.69	0.91%
Ni 231.604†	3.3	0.099	ug/L	0.1658	0.493	ug/L	0.8288	168.01%
P 213.617†	38.2	11.72	ug/L	0.877	58.60	ug/L	4.385	7.48%
Pb 220.353†	-6.0	-1.002	ug/L	0.1755	-5.012	ug/L	0.8773	17.50%
Sb 206.836†	6.0	0.792	ug/L	0.4920	3.962	ug/L	2.4601	62.09%
Se 196.026†	-0.8	-0.340	ug/L	0.4371	-1.702	ug/L	2.1855	128.44%
Sn 189.927†	-0.1	-0.025	ug/L	0.3446	-0.125	ug/L	1.7230	>999.9%
Sr 421.552†	13687.7	18.78	ug/L	0.140	93.88	ug/L	0.699	0.74%
Ti 337.279†	-14.1	-0.372	ug/L	0.0778	-1.858	ug/L	0.3890	20.93%
Tl 190.801†	-2.3	-0.597	ug/L	1.4672	-2.987	ug/L	7.3358	245.56%
V 292.402†	27.9	0.279	ug/L	0.0549	1.394	ug/L	0.2743	19.67%
Zn 206.200†	-61.2	-0.405	ug/L	0.0979	-2.026	ug/L	0.4895	24.16%
Li 670.784	16303.2	0.672	ug/L	0.0094	3.362	ug/L	0.0472	1.41%

A.P.P.L. INC.
5B
POST DIGEST SPIKE SAMPLE RECOVERY

CLIENT SAMPLE NO.
S67-SW028-061615

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No.: 76674 SDG: 76674

Analysis Date: 07/06/15 Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum (Al)	75-125	1914		1.155		2000.000	95.6		
Boron (B)	75-125	287.5		47.86		250.000	95.9		
Lithium (Li)	75-125	93.17		2.408		100.000	90.8		
Zinc (Zn)	75-125	473.7		1.927		500.000	94.3		

Comments:

07/06/15 13:40 AZ17823W19 F

07/06/15 15:56 AZ17823W19-A F

Sequence No.: 39
Sample ID: AZ17823W19-A F
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 64
Date Collected: 07/06/15 3:56:12 PM
Data Type: Reprocessed on 07/07/15 8:54:12 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ17823W19-A F

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	224300.2	94.07	%	0.446				0.47%
Y Radial	15700.7	96.65	%	2.565				2.65%
Ag 338.289†	18277.5	94.73	ug/L	0.474	94.73	ug/L	0.474	0.50%
Al 308.215†	2607.8	1914	ug/L	53.78	1914	ug/L	53.78	2.81%
As 188.979†	1225.2	232.2	ug/L	1.26	232.2	ug/L	1.26	0.54%
B 249.677†	10059.6	287.5	ug/L	1.08	287.5	ug/L	1.08	0.37%
Ba 233.527†	117167.6	269.3	ug/L	0.14	269.3	ug/L	0.14	0.05%
Be 313.107†	168735.5	47.59	ug/L	0.100	47.59	ug/L	0.100	0.21%
Ca 315.887†	675062.3	41910	ug/L	1170.03	41910	ug/L	1170.03	2.79%
Cd 214.440†	13747.9	47.81	ug/L	0.175	47.81	ug/L	0.175	0.37%
Co 228.616†	24051.5	243.4	ug/L	1.26	243.4	ug/L	1.26	0.52%
Cr 267.716†	21448.6	249.4	ug/L	1.16	249.4	ug/L	1.16	0.46%
Cu 327.393†	51455.4	246.4	ug/L	0.58	246.4	ug/L	0.58	0.23%
Fe 273.955†	82272.5	1011	ug/L	1.16	1011	ug/L	1.16	0.11%
K 766.490†	56193.2	6436	ug/L	171.12	6436	ug/L	171.12	2.66%
Mg 285.213†	506450.8	28510	ug/L	770.67	28510	ug/L	770.67	2.70%
Mn 257.610†	26720.6	286.7	ug/L	7.15	286.7	ug/L	7.15	2.49%
Mo 202.031†	8365.9	233.4	ug/L	0.91	233.4	ug/L	0.91	0.39%
Na 589.592†	598728.1	53440	ug/L	1391.19	53440	ug/L	1391.19	2.60%
Ni 231.604†	11464.8	230.0	ug/L	0.87	230.0	ug/L	0.87	0.38%
P 213.617†	6370.6	1954	ug/L	9.26	1954	ug/L	9.26	0.47%
Pb 220.353†	1183.5	226.9	ug/L	0.67	226.9	ug/L	0.67	0.30%
Sb 206.836†	1605.6	212.4	ug/L	1.29	212.4	ug/L	1.29	0.61%
Se 196.026†	744.7	225.0	ug/L	0.44	225.0	ug/L	0.44	0.19%
Sn 189.927†	1288.0	228.4	ug/L	0.60	228.4	ug/L	0.60	0.26%
Sr 421.552†	232252.0	319.4	ug/L	8.19	319.4	ug/L	8.19	2.56%
Ti 337.279†	9453.4	236.1	ug/L	7.10	236.1	ug/L	7.10	3.01%
Tl 190.801†	853.1	223.0	ug/L	3.19	223.0	ug/L	3.19	1.43%
V 292.402†	24648.2	246.8	ug/L	0.44	246.8	ug/L	0.44	0.18%
Zn 206.200†	44939.9	473.7	ug/L	1.11	473.7	ug/L	1.11	0.23%
Li 670.784	2258872.2	93.17	ug/L	0.832	93.17	ug/L	0.832	0.89%

A.P.P.L. INC.

9

ICP SERIAL DILUTION

CLIENT SAMPLE NO.

S67-SW028-061615

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No.: 76674 SDG: 76674

Matrix: water

Analysis Date: 07/06/15 Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	%D	Q	M
Aluminum (Al)	134.1		111.7		NA		
Boron (B)	51.55		60.46		NA		
Lithium (Li)	2.219		3.212		NA		
Zinc (Zn)	7.987		1.224		NA		

Comments:

07/06/15 17:25 AZ17823W22

07/06/15 18:58 AZ17823W22-1/5

Sequence No.: 68
Sample ID: AZ17823W22-11/5
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution: 5X
Wash Time:

Autosampler Location: 89
Date Collected: 07/06/15 6:58:23 PM
Data Type: Reprocessed on 07/07/15 8:54:45 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ17823W22-11/5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	254482.2	106.7	%	0.93				0.87%
Y Radial	17663.8	108.7	%	0.96				0.89%
Ag 338.289†	7.7	0.040	ug/L	0.4196	0.199	ug/L	2.0980	>999.9%
Al 308.215†	31.2	22.34	ug/L	0.075	111.7	ug/L	0.37	0.33%
As 188.979†	5.4	0.710	ug/L	0.5307	3.548	ug/L	2.6536	74.80%
B 249.677†	415.5	12.09	ug/L	0.434	60.46	ug/L	2.168	3.59%
Ba 233.527†	2894.3	6.644	ug/L	0.0710	33.22	ug/L	0.355	1.07%
Be 313.107†	-80.7	-0.023	ug/L	0.0056	-0.114	ug/L	0.0280	24.61%
Ca 315.887†	58911.0	3658	ug/L	32.42	18290	ug/L	162.12	0.89%
Cd 214.440†	42.7	0.175	ug/L	0.0367	0.874	ug/L	0.1833	20.98%
Co 228.616†	8.8	0.068	ug/L	0.0649	0.340	ug/L	0.3243	95.33%
Cr 267.716†	5.5	0.084	ug/L	0.0587	0.420	ug/L	0.2935	69.89%
Cu 327.393†	117.4	0.552	ug/L	0.1558	2.759	ug/L	0.7791	28.24%
Fe 273.955†	10725.5	134.4	ug/L	0.86	671.8	ug/L	4.32	0.64%
K 766.490†	3793.5	431.7	ug/L	7.94	2159	ug/L	39.68	1.84%
Mg 285.213†	19062.2	1073	ug/L	10.43	5366	ug/L	52.16	0.97%
Mn 257.610†	1508.0	16.21	ug/L	0.120	81.05	ug/L	0.600	0.74%
Mo 202.031†	16.1	0.449	ug/L	0.1093	2.247	ug/L	0.5466	24.32%
Na 589.592†	74122.7	6617	ug/L	60.58	33080	ug/L	302.92	0.92%
Ni 231.604†	24.2	0.518	ug/L	0.1002	2.588	ug/L	0.5012	19.37%
P 213.617†	96.5	29.61	ug/L	1.490	148.1	ug/L	7.45	5.03%
Pb 220.353†	-0.2	0.095	ug/L	0.6646	0.474	ug/L	3.3231	701.23%
Sb 206.836†	-1.0	-0.130	ug/L	0.3355	-0.648	ug/L	1.6776	258.73%
Se 196.026†	-5.6	-1.719	ug/L	0.4900	-8.594	ug/L	2.4501	28.51%
Sn 189.927†	-1.4	-0.243	ug/L	0.4701	-1.214	ug/L	2.3507	193.59%
Sr 421.552†	13580.1	18.63	ug/L	0.107	93.15	ug/L	0.537	0.58%
Ti 337.279†	21.6	0.520	ug/L	0.1953	2.602	ug/L	0.9763	37.52%
Tl 190.801†	5.0	1.313	ug/L	0.6407	6.567	ug/L	3.2033	48.78%
V 292.402†	48.4	0.485	ug/L	0.0517	2.425	ug/L	0.2583	10.65%
Zn 206.200†	1.6	0.245	ug/L	0.0562	1.224	ug/L	0.2811	22.97%
Li 670.784	15573.6	0.642	ug/L	0.0143	3.212	ug/L	0.0713	2.22%

A.P.P.L. INC.

5B

POST DIGEST SPIKE SAMPLE RECOVERY

CLIENT SAMPLE NO.

S67-SW028-061615

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No.: 76674 SDG: 76674

Analysis Date: 07/06/15 Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum (Al)	75-125	1967		134.1		2000.000	91.6		
Boron (B)	75-125	282.5		51.55		250.000	92.4		
Lithium (Li)	75-125	99.41		2.219		100.000	97.2		
Zinc (Zn)	75-125	463.6		7.987		500.000	91.1		

Comments:

07/06/15 17:25 AZ17823W22

07/06/15 18:52 AZ17823W22-A

Sequence No.: 67
Sample ID: AZ17823W22-A
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 88
Date Collected: 07/06/15 6:52:07 PM
Data Type: Reprocessed on 07/07/15 8:54:44 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ17823W22-A

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	247408.5	103.8	%	0.33				0.32%
Y Radial	17835.2	109.8	%	2.08				1.90%
Ag 338.289†	17894.0	92.75	ug/L	0.387	92.75	ug/L	0.387	0.42%
Al 308.215†	2681.2	1967	ug/L	30.78	1967	ug/L	30.78	1.56%
As 188.979†	1235.1	234.5	ug/L	1.38	234.5	ug/L	1.38	0.59%
B 249.677†	9838.9	282.5	ug/L	1.26	282.5	ug/L	1.26	0.44%
Ba 233.527†	115283.0	265.0	ug/L	0.21	265.0	ug/L	0.21	0.08%
Be 313.107†	165519.9	46.68	ug/L	0.115	46.68	ug/L	0.115	0.25%
Ca 315.887†	642305.1	39880	ug/L	1033.16	39880	ug/L	1033.16	2.59%
Cd 214.440†	13434.3	46.68	ug/L	0.245	46.68	ug/L	0.245	0.52%
Co 228.616†	23628.2	239.1	ug/L	1.04	239.1	ug/L	1.04	0.43%
Cr 267.716†	20918.8	243.2	ug/L	1.26	243.2	ug/L	1.26	0.52%
Cu 327.393†	49745.9	238.2	ug/L	0.39	238.2	ug/L	0.39	0.16%
Fe 273.955†	125438.5	1553	ug/L	1.31	1553	ug/L	1.31	0.08%
K 766.490†	54668.2	6261	ug/L	159.52	6261	ug/L	159.52	2.55%
Mg 285.213†	484270.6	27260	ug/L	690.45	27260	ug/L	690.45	2.53%
Mn 257.610†	28434.3	305.2	ug/L	6.84	305.2	ug/L	6.84	2.24%
Mo 202.031†	8284.9	231.2	ug/L	1.22	231.2	ug/L	1.22	0.53%
Na 589.592†	586794.8	52380	ug/L	1365.09	52380	ug/L	1365.09	2.61%
Ni 231.604†	11189.0	224.4	ug/L	1.33	224.4	ug/L	1.33	0.59%
P 213.617†	6528.8	2003	ug/L	11.35	2003	ug/L	11.35	0.57%
Pb 220.353†	1210.9	232.0	ug/L	0.20	232.0	ug/L	0.20	0.09%
Sb 206.836†	1671.7	221.2	ug/L	0.51	221.2	ug/L	0.51	0.23%
Se 196.026†	733.6	222.0	ug/L	1.01	222.0	ug/L	1.01	0.46%
Sn 189.927†	1284.7	227.8	ug/L	0.68	227.8	ug/L	0.68	0.30%
Sr 421.552†	220915.4	303.8	ug/L	7.77	303.8	ug/L	7.77	2.56%
Ti 337.279†	9387.1	234.5	ug/L	5.59	234.5	ug/L	5.59	2.38%
Tl 190.801†	909.7	237.8	ug/L	0.72	237.8	ug/L	0.72	0.30%
V 292.402†	24565.5	246.0	ug/L	0.56	246.0	ug/L	0.56	0.23%
Zn 206.200†	43990.8	463.6	ug/L	0.89	463.6	ug/L	0.89	0.19%
Li 670.784	2410206.9	99.41	ug/L	0.097	99.41	ug/L	0.097	0.10%

A.P.P.L. INC.

9

ICP SERIAL DILUTION

CLIENT SAMPLE NO.

S67-SD029-0001

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No.: 76674 SDG: 76674

Matrix: soil

Analysis Date: 07/09/15 Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	%D	Q	M
Aluminum (Al)	6248		5943		4.88		
Zinc (Zn)	196.4		195.6		0.407		

Comments:

07/09/15 13:17 AZ17824S06-1/20

07/09/15 13:39 AZ17824S06-1/100

Sequence No.: 21
Sample ID: AZ17824S06-1/100
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.98 g
Dilution: 100X
Wash Time:

Autosampler Location: 48
Date Collected: 07/09/15 1:39:25 PM
Data Type: Reprocessed on 07/09/15 4:14:33 PM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17824S06-1/100

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	237643.0	102.8	%	0.61				0.59%
Y Radial	16413.4	106.6	%	0.61				0.57%
Ag 338.289†	437.4	2.417	ug/L	0.3229	24.66	mg/kg	3.295	13.36%
Al 308.215†	745.1	582.4	ug/L	6.62	5943	mg/kg	67.51	1.14%
As 188.979†	23.6	4.836	ug/L	0.6293	49.35	mg/kg	6.421	13.01%
B 249.677†	38.6	3.101	ug/L	0.2545	31.64	mg/kg	2.597	8.21%
Ba 233.527†	1638.3	3.984	ug/L	0.0272	40.65	mg/kg	0.277	0.68%
Be 313.107†	368.5	0.104	ug/L	0.0059	1.061	mg/kg	0.0604	5.70%
Ca 315.887†	1399.7	95.03	ug/L	1.421	969.7	mg/kg	14.49	1.49%
Cd 214.440†	-124.1	-0.495	ug/L	0.0361	-5.055	mg/kg	0.3685	7.29%
Co 228.616†	134.6	1.398	ug/L	0.0597	14.26	mg/kg	0.609	4.27%
Cr 267.716†	79.4	0.979	ug/L	0.0738	9.994	mg/kg	0.7533	7.54%
Cu 327.393†	1073.0	5.410	ug/L	0.2412	55.21	mg/kg	2.461	4.46%
Fe 273.955†	57937.8	776.8	ug/L	1.42	7926	mg/kg	14.49	0.18%
K 766.490†	709.7	89.14	ug/L	4.966	909.6	mg/kg	50.67	5.57%
Mg 285.213†	1177.7	72.44	ug/L	0.146	739.2	mg/kg	1.49	0.20%
Mn 257.610†	405.6	4.837	ug/L	0.0950	49.36	mg/kg	0.969	1.96%
Mo 202.031†	78.1	2.362	ug/L	0.1841	24.10	mg/kg	1.879	7.79%
Na 589.592†	58.3	5.538	ug/L	4.2820	56.51	mg/kg	43.694	77.32%
Ni 231.604†	63.2	1.370	ug/L	0.1941	13.98	mg/kg	1.980	14.17%
P 213.617†	105.8	33.51	ug/L	0.560	342.0	mg/kg	5.72	1.67%
Pb 220.353†	21.5	3.910	ug/L	1.4462	39.90	mg/kg	14.757	36.98%
Sb 206.836†	4.9	0.725	ug/L	1.1554	7.397	mg/kg	11.7899	159.39%
Se 196.026†	-2.4	-0.380	ug/L	0.8977	-3.874	mg/kg	9.1597	236.46%
Sn 189.927†	13.9	2.716	ug/L	0.3944	27.71	mg/kg	4.025	14.52%
Sr 421.552†	596.2	0.907	ug/L	0.0351	9.257	mg/kg	0.3585	3.87%
Ti 337.279†	576.2	15.75	ug/L	0.183	160.7	mg/kg	1.87	1.16%
Tl 190.801†	2.3	0.484	ug/L	0.1780	4.940	mg/kg	1.8166	36.77%
V 292.402†	162.2	1.641	ug/L	0.0574	16.75	mg/kg	0.586	3.50%
Zn 206.200†	1718.4	19.17	ug/L	0.330	195.6	mg/kg	3.37	1.72%
Li 670.784	13499.5	0.608	ug/L	0.0014	6.209	mg/kg	0.0139	0.22%

A.P.P.L. INC.

5B

POST DIGEST SPIKE SAMPLE RECOVERY

CLIENT SAMPLE NO.

S67-SD029-0001

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No.: 76674 SDG: 76674

Analysis Date: 07/09/15 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	39.21		5.467		51.020	66.1		M
Lithium (Li)	75-125	37.5		11.09		20.408	129		M

Comments:

07/09/15 14:44 AZ17824S06

07/09/15 15:27 AZ17824S06-A

Sequence No.: 33
Sample ID: AZ17824S06-A
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.98 g
Dilution:
Wash Time:

Autosampler Location: 56
Date Collected: 07/09/15 3:27:10 PM
Data Type: Reprocessed on 07/09/15 4:14:48 PM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17824S06-A

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	313370.7	135.5	%	0.28				0.21%
Y Radial	22954.5	149.1	%	1.14				0.77%
Ag 338.289†	49305.7	272.5	ug/L	0.40	27.80	mg/kg	0.041	0.15%
Al 308.215†	62676.0	49010	ug/L	470.18	5001	mg/kg	47.98	0.96%
As 188.979†	1976.0	398.8	ug/L	2.85	40.69	mg/kg	0.291	0.71%
B 249.677†	8549.2	384.2	ug/L	0.57	39.21	mg/kg	0.058	0.15%
Ba 233.527†	235228.7	575.5	ug/L	0.57	58.73	mg/kg	0.059	0.10%
Be 313.107†	228357.5	64.40	ug/L	0.128	6.572	mg/kg	0.0131	0.20%
Ca 315.887†	554712.8	37670	ug/L	496.37	3844	mg/kg	50.65	1.32%
Cd 214.440†	19480.3	69.72	ug/L	0.240	7.115	mg/kg	0.0245	0.34%
Co 228.616†	34692.9	368.4	ug/L	1.16	37.59	mg/kg	0.118	0.32%
Cr 267.716†	35174.5	436.2	ug/L	1.15	44.51	mg/kg	0.117	0.26%
Cu 327.393†	118878.2	597.7	ug/L	0.81	60.99	mg/kg	0.082	0.14%
Fe 273.955†	3983888.4	53380	ug/L	37.93	5447	mg/kg	3.87	0.07%
K 766.490†	84013.2	10550	ug/L	92.39	1076	mg/kg	9.43	0.88%
Mg 285.213†	623987.5	38080	ug/L	550.37	3886	mg/kg	56.16	1.45%
Mn 257.610†	55922.4	665.4	ug/L	6.56	67.89	mg/kg	0.669	0.99%
Mo 202.031†	10968.5	330.7	ug/L	1.63	33.74	mg/kg	0.166	0.49%
Na 589.592†	381588.7	37310	ug/L	565.15	3807	mg/kg	57.67	1.51%
Ni 231.604†	17970.8	386.7	ug/L	1.68	39.46	mg/kg	0.171	0.43%
P 213.617†	14596.2	4623	ug/L	14.77	471.7	mg/kg	1.51	0.32%
Pb 220.353†	4938.7	895.6	ug/L	4.51	91.39	mg/kg	0.460	0.50%
Sb 206.836†	2287.8	339.2	ug/L	4.01	34.61	mg/kg	0.409	1.18%
Se 196.026†	1003.3	347.8	ug/L	4.21	35.49	mg/kg	0.430	1.21%
Sn 189.927†	1702.8	332.4	ug/L	2.00	33.92	mg/kg	0.204	0.60%
Sr 421.552†	278676.7	424.5	ug/L	6.19	43.32	mg/kg	0.631	1.46%
Ti 337.279†	53212.5	1454	ug/L	12.88	148.4	mg/kg	1.31	0.89%
Tl 190.801†	880.2	185.4	ug/L	2.41	18.92	mg/kg	0.246	1.30%
V 292.402†	44615.5	451.4	ug/L	1.19	46.06	mg/kg	0.122	0.26%
Zn 206.200†	168726.2	1889	ug/L	3.86	192.8	mg/kg	0.39	0.20%
Li 670.784	8152401.4	367.5	ug/L	3.22	37.50	mg/kg	0.329	0.88%

Reprocessing Begun
Logged In Analyst: chemist_metals Technique: ICP Continuous

Results Data Set (original): 150706A6010
Results Library (original): C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb
Results Data Set (reprocessed): 150706A6010X
Results Library (reprocessed): C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: CalBlk 150706RJS I:JL O:R
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 07/06/15 11:08:23 AM
Data Type: Reprocessed on 07/07/15 8:53:26 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CalBlk 150706RJS I:JL O:R

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	238446.1	465.53	0.20%	100.0	%
Y Radial	16244.9	70.38	0.43%	100.0	%
Ag 338.289†	-150.3	21.32	14.19%	[0.00]	ug/L
Al 308.215†	34.5	3.58	10.35%	[0.00]	ug/L
As 188.979†	-73.3	2.12	2.89%	[0.00]	ug/L
B 249.677†	94.9	6.20	6.53%	[0.00]	ug/L
Ba 233.527†	79.1	10.08	12.75%	[0.00]	ug/L
Be 313.107†	1888.2	35.44	1.88%	[0.00]	ug/L
Ca 315.887†	-67.8	12.62	18.63%	[0.00]	ug/L
Cd 214.440†	-490.8	11.12	2.27%	[0.00]	ug/L
Co 228.616†	-167.8	13.48	8.03%	[0.00]	ug/L
Cr 267.716†	21.5	4.72	21.98%	[0.00]	ug/L
Cu 327.393†	-1206.2	33.07	2.74%	[0.00]	ug/L
Fe 273.955†	386.3	7.32	1.89%	[0.00]	ug/L
K 766.490†	-654.2	54.98	8.40%	[0.00]	ug/L
Mg 285.213†	71.1	6.19	8.71%	[0.00]	ug/L
Mn 257.610†	-31.9	10.50	32.93%	[0.00]	ug/L
Mo 202.031†	-24.3	1.55	6.40%	[0.00]	ug/L
Na 589.592†	1094.2	95.51	8.73%	[0.00]	ug/L
Ni 231.604†	-133.3	9.80	7.36%	[0.00]	ug/L
P 213.617†	-60.5	3.91	6.46%	[0.00]	ug/L
Pb 220.353†	9.2	5.54	60.32%	[0.00]	ug/L
Sb 206.836†	-15.2	4.26	27.97%	[0.00]	ug/L
Se 196.026†	16.7	4.81	28.78%	[0.00]	ug/L
Sn 189.927†	5.8	2.16	37.26%	[0.00]	ug/L
Sr 421.552†	-10.1	3.13	31.18%	[0.00]	ug/L
Ti 337.279†	-32.8	4.72	14.39%	[0.00]	ug/L
Tl 190.801†	-12.5	5.75	45.91%	[0.00]	ug/L
V 292.402†	-128.1	14.01	10.93%	[0.00]	ug/L
Zn 206.200†	355.9	13.03	3.66%	[0.00]	ug/L
Li 670.784	7114.1	120.40	1.69%	[0.00]	ug/L

Sequence No.: 2
Sample ID: STD 1 150706RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 2
Date Collected: 07/06/15 11:14:08 AM
Data Type: Reprocessed on 07/07/15 8:53:29 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 1 150706RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	240628.2	878.39	0.37%	100.9	%
Y Radial	16417.4	102.50	0.62%	101.1	%
Ag 338.289†	980.5	77.68	7.92%	[0.5]	ug/L
Al 308.215†	312.1	9.67	3.10%	[50]	ug/L
As 188.979†	55.3	2.29	4.14%	[2]	ug/L
B 249.677†	1155.4	6.48	0.56%	[25]	ug/L
Ba 233.527†	5035.2	39.66	0.79%	[1.5]	ug/L
Be 313.107†	35741.0	120.37	0.34%	[1]	ug/L
Ca 315.887†	8806.2	21.23	0.24%	[50]	ug/L
Cd 214.440†	2989.2	9.68	0.32%	[0.25]	ug/L
Co 228.616†	1263.8	2.81	0.22%	[2.5]	ug/L
Cr 267.716†	895.6	5.08	0.57%	[0.5]	ug/L
Cu 327.393†	2433.5	17.40	0.72%	[2.5]	ug/L
Fe 273.955†	17251.1	15.52	0.09%	[25]	ug/L
K 766.490†	5700.0	37.05	0.65%	[500]	ug/L
Mg 285.213†	9088.7	31.67	0.35%	[25]	ug/L
Mn 257.610†	977.1	5.12	0.52%	[1]	ug/L
Mo 202.031†	360.0	7.67	2.13%	[1]	ug/L
Na 589.592†	7785.7	90.12	1.16%	[500]	ug/L
Ni 231.604†	538.4	1.91	0.35%	[1]	ug/L
P 213.617†	186.8	1.69	0.91%	[12.5]	ug/L
Pb 220.353†	62.4	2.99	4.79%	[1.5]	ug/L
Sb 206.836†	80.9	1.53	1.89%	[2]	ug/L
Se 196.026†	34.8	5.91	17.01%	[2]	ug/L
Sn 189.927†	68.4	3.10	4.53%	[3]	ug/L
Sr 421.552†	7493.7	66.05	0.88%	[1]	ug/L
Ti 337.279†	461.4	4.59	0.99%	[2.5]	ug/L
Tl 190.801†	41.7	5.09	12.19%	[2]	ug/L
V 292.402†	1037.1	14.70	1.42%	[0.5]	ug/L
Zn 206.200†	3221.8	18.73	0.58%	[25]	ug/L
Li 670.784	80843.1	134.53	0.17%	[5]	ug/L

Sequence No.: 3
Sample ID: STD 2 150706RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 07/06/15 11:19:52 AM
Data Type: Reprocessed on 07/07/15 8:53:30 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 2 150706RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	227024.7	998.35	0.44%	95.21	%
Y Radial	15671.2	100.74	0.64%	96.47	%
Ag 338.289†	50708.1	159.51	0.31%	[250]	ug/L
Al 308.215†	14484.1	22.51	0.16%	[10000]	ug/L
As 188.979†	2704.8	18.39	0.68%	[500]	ug/L
B 249.677†	18368.7	86.33	0.47%	[500]	ug/L
Ba 233.527†	231424.6	646.98	0.28%	[500]	ug/L
Be 313.107†	1886837.5	4539.53	0.24%	[500]	ug/L
Ca 315.887†	430118.8	4629.90	1.08%	[25000]	ug/L
Cd 214.440†	155998.0	536.27	0.34%	[500]	ug/L
Co 228.616†	52844.5	130.28	0.25%	[500]	ug/L
Cr 267.716†	45729.1	116.74	0.26%	[500]	ug/L
Cu 327.393†	110182.1	229.75	0.21%	[500]	ug/L
Fe 273.955†	851630.8	2901.45	0.34%	[10000]	ug/L
K 766.490†	90661.0	260.97	0.29%	[10000]	ug/L
Mg 285.213†	473518.4	4611.50	0.97%	[25000]	ug/L
Mn 257.610†	49591.5	253.26	0.51%	[500]	ug/L
Mo 202.031†	19024.0	89.97	0.47%	[500]	ug/L
Na 589.592†	148205.6	1362.86	0.92%	[12500]	ug/L
Ni 231.604†	26757.8	160.63	0.60%	[500]	ug/L
P 213.617†	8551.5	41.12	0.48%	[2500]	ug/L
Pb 220.353†	2829.6	12.69	0.45%	[500]	ug/L
Sb 206.836†	3961.8	18.22	0.46%	[500]	ug/L
Se 196.026†	1725.8	15.71	0.91%	[500]	ug/L
Sn 189.927†	2986.2	18.06	0.60%	[500]	ug/L
Sr 421.552†	384998.4	3429.16	0.89%	[500]	ug/L
Ti 337.279†	21210.0	93.23	0.44%	[500]	ug/L
Tl 190.801†	2051.2	11.46	0.56%	[500]	ug/L
V 292.402†	52883.3	154.12	0.29%	[500]	ug/L
Zn 206.200†	51329.6	169.12	0.33%	[500]	ug/L
Li 670.784	6105583.8	26779.39	0.44%	[250]	ug/L

Sequence No.: 4
Sample ID: STD 3 150706RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 4
Date Collected: 07/06/15 11:25:12 AM
Data Type: Reprocessed on 07/07/15 8:53:31 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 3 150706RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	222417.8	1239.82	0.56%	93.28	%
Y Radial	15761.6	49.59	0.31%	97.02	%
Ag 338.289†	95231.1	217.10	0.23%	[500]	ug/L
Al 308.215†	26988.9	86.74	0.32%	[20000]	ug/L
As 188.979†	5087.2	38.69	0.76%	[1000]	ug/L
B 249.677†	34705.9	62.70	0.18%	[1000]	ug/L
Ba 233.527†	428276.3	1181.51	0.28%	[1000]	ug/L
Be 313.107†	3488520.3	8600.55	0.25%	[1000]	ug/L
Ca 315.887†	791417.7	7162.10	0.90%	[50000]	ug/L
Cd 214.440†	286888.0	917.78	0.32%	[1000]	ug/L
Co 228.616†	97059.1	269.04	0.28%	[1000]	ug/L
Cr 267.716†	84663.3	261.70	0.31%	[1000]	ug/L
Cu 327.393†	206158.7	286.57	0.14%	[1000]	ug/L
Fe 273.955†	1567374.1	4191.20	0.27%	[20000]	ug/L
K 766.490†	171077.7	484.93	0.28%	[20000]	ug/L
Mg 285.213†	873512.3	8790.78	1.01%	[50000]	ug/L
Mn 257.610†	91268.1	178.00	0.20%	[1000]	ug/L
Mo 202.031†	35320.9	264.35	0.75%	[1000]	ug/L
Na 589.592†	275898.2	3250.64	1.18%	[25000]	ug/L
Ni 231.604†	48852.1	348.31	0.71%	[1000]	ug/L
P 213.617†	16098.0	111.60	0.69%	[5000]	ug/L
Pb 220.353†	5180.9	51.50	0.99%	[1000]	ug/L
Sb 206.836†	7467.0	46.32	0.62%	[1000]	ug/L
Se 196.026†	3254.3	15.07	0.46%	[1000]	ug/L
Sn 189.927†	5556.2	37.96	0.68%	[1000]	ug/L
Sr 421.552†	711739.2	7863.06	1.10%	[1000]	ug/L
Ti 337.279†	39348.9	27.01	0.07%	[1000]	ug/L
Tl 190.801†	3755.9	32.79	0.87%	[1000]	ug/L
V 292.402†	98392.9	237.89	0.24%	[1000]	ug/L
Zn 206.200†	94302.4	304.68	0.32%	[1000]	ug/L
Li 670.784	12100910.9	840.99	0.01%	[500]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 338.289	3	Lin Thru 0	0.0	192.9	0.00000	0.999638	
Al 308.215	3	Lin Thru 0	0.0	1.369	0.00000	0.999551	
As 188.979	3	Lin Thru 0	0.0	5.152	0.00000	0.999656	
B 249.677	3	Lin Thru 0	0.0	35.12	0.00000	0.999708	
Ba 233.527	3	Lin Thru 0	0.0	435.2	0.00000	0.999455	
Be 313.107	3	Lin Thru 0	0.0	3546	0.00000	0.999450	
Ca 315.887	3	Lin Thru 0	0.0	16.10	0.00000	0.999377	
Cd 214.440	3	Lin Thru 0	0.0	291.9	0.00000	0.999369	
Co 228.616	3	Lin Thru 0	0.0	98.79	0.00000	0.999348	
Cr 267.716	3	Lin Thru 0	0.0	86.02	0.00000	0.999462	
Cu 327.393	3	Lin Thru 0	0.0	209.0	0.00000	0.999597	
Fe 273.955	3	Lin Thru 0	0.0	79.73	0.00000	0.999383	
K 766.490	3	Lin Thru 0	0.0	8.658	0.00000	0.999695	
Mg 285.213	3	Lin Thru 0	0.0	17.76	0.00000	0.999414	
Mn 257.610	3	Lin Thru 0	0.0	92.85	0.00000	0.999383	
Mo 202.031	3	Lin Thru 0	0.0	35.87	0.00000	0.999505	
Na 589.592	3	Lin Thru 0	0.0	11.20	0.00000	0.999547	
Ni 231.604	3	Lin Thru 0	0.0	49.79	0.00000	0.999260	
P 213.617	3	Lin Thru 0	0.0	3.260	0.00000	0.999664	
Pb 220.353	3	Lin Thru 0	0.0	5.277	0.00000	0.999301	
Sb 206.836	3	Lin Thru 0	0.0	7.558	0.00000	0.999678	
Se 196.026	3	Lin Thru 0	0.0	3.294	0.00000	0.999684	

Sn 189.927	3	Lin Thru 0	0.0	5.640	0.00000	0.999531
Sr 421.552	3	Lin Thru 0	0.0	723.4	0.00000	0.999447
Ti 337.279	3	Lin Thru 0	0.0	39.96	0.00000	0.999495
Tl 190.801	3	Lin Thru 0	0.0	3.825	0.00000	0.999313
V 292.402	3	Lin Thru 0	0.0	99.87	0.00000	0.999525
Zn 206.200	3	Lin Thru 0	0.0	95.99	0.00000	0.999365
Li 670.784	3	Lin Thru 0	0.0	24250	0.00000	0.999989

Sequence No.: 5
Sample ID: ICV 150706RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 07/06/15 11:29:55 AM
Data Type: Reprocessed on 07/07/15 8:53:32 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICV 150706RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	229534.5	96.26	%	0.606				0.63%
Y Radial	15907.8	97.92	%	0.264				0.27%
Ag 338.289†	47918.3	248.4	ug/L	0.64	248.4	ug/L	0.64	0.26%
QC value within limits for Ag 338.289 Recovery = 99.34%								
Al 308.215†	16774.4	12270	ug/L	74.15	12270	ug/L	74.15	0.60%
QC value within limits for Al 308.215 Recovery = 98.20%								
As 188.979†	2508.4	483.7	ug/L	1.59	483.7	ug/L	1.59	0.33%
QC value within limits for As 188.979 Recovery = 96.74%								
B 249.677†	17119.2	515.4	ug/L	0.77	515.4	ug/L	0.77	0.15%
QC value within limits for B 249.677 Recovery = 103.08%								
Ba 233.527†	216050.6	496.0	ug/L	0.90	496.0	ug/L	0.90	0.18%
QC value within limits for Ba 233.527 Recovery = 99.21%								
Be 313.107†	1753106.3	494.4	ug/L	0.56	494.4	ug/L	0.56	0.11%
QC value within limits for Be 313.107 Recovery = 98.89%								
Ca 315.887†	212791.5	13210	ug/L	25.09	13210	ug/L	25.09	0.19%
QC value within limits for Ca 315.887 Recovery = 105.67%								
Cd 214.440†	146237.6	501.0	ug/L	1.27	501.0	ug/L	1.27	0.25%
QC value within limits for Cd 214.440 Recovery = 100.21%								
Co 228.616†	49481.1	500.8	ug/L	1.15	500.8	ug/L	1.15	0.23%
QC value within limits for Co 228.616 Recovery = 100.16%								
Cr 267.716†	42971.5	499.5	ug/L	0.93	499.5	ug/L	0.93	0.19%
QC value within limits for Cr 267.716 Recovery = 99.90%								
Cu 327.393†	106153.7	509.0	ug/L	0.60	509.0	ug/L	0.60	0.12%
QC value within limits for Cu 327.393 Recovery = 101.80%								
Fe 273.955†	992032.8	12400	ug/L	25.19	12400	ug/L	25.19	0.20%
QC value within limits for Fe 273.955 Recovery = 99.23%								
K 766.490†	104987.9	12100	ug/L	28.30	12100	ug/L	28.30	0.23%
QC value within limits for K 766.490 Recovery = 96.80%								
Mg 285.213†	226888.3	12780	ug/L	29.43	12780	ug/L	29.43	0.23%
QC value within limits for Mg 285.213 Recovery = 102.26%								
Mn 257.610†	46065.5	495.8	ug/L	1.06	495.8	ug/L	1.06	0.21%
QC value within limits for Mn 257.610 Recovery = 99.16%								
Mo 202.031†	17604.1	491.4	ug/L	1.99	491.4	ug/L	1.99	0.41%
QC value within limits for Mo 202.031 Recovery = 98.27%								
Na 589.592†	138709.7	12370	ug/L	80.45	12370	ug/L	80.45	0.65%
QC value within limits for Na 589.592 Recovery = 98.94%								
Ni 231.604†	25541.3	512.1	ug/L	3.48	512.1	ug/L	3.48	0.68%
QC value within limits for Ni 231.604 Recovery = 102.41%								
P 213.617†	8118.7	2490	ug/L	14.01	2490	ug/L	14.01	0.56%
QC value within limits for P 213.617 Recovery = 99.62%								
Pb 220.353†	2734.8	521.6	ug/L	1.68	521.6	ug/L	1.68	0.32%
QC value within limits for Pb 220.353 Recovery = 104.32%								
Sb 206.836†	3721.5	492.4	ug/L	1.82	492.4	ug/L	1.82	0.37%
QC value within limits for Sb 206.836 Recovery = 98.47%								
Se 196.026†	1658.3	508.3	ug/L	3.73	508.3	ug/L	3.73	0.73%
QC value within limits for Se 196.026 Recovery = 101.65%								
Sn 189.927†	1448.7	256.9	ug/L	1.49	256.9	ug/L	1.49	0.58%
QC value within limits for Sn 189.927 Recovery = 102.75%								
Sr 421.552†	367446.4	507.4	ug/L	3.54	507.4	ug/L	3.54	0.70%
QC value within limits for Sr 421.552 Recovery = 101.49%								
Ti 337.279†	19820.7	495.8	ug/L	1.32	495.8	ug/L	1.32	0.27%
QC value within limits for Ti 337.279 Recovery = 99.16%								
Tl 190.801†	2015.7	526.9	ug/L	2.92	526.9	ug/L	2.92	0.55%
QC value within limits for Tl 190.801 Recovery = 105.39%								
V 292.402†	49466.4	495.3	ug/L	0.51	495.3	ug/L	0.51	0.10%
QC value within limits for V 292.402 Recovery = 99.06%								
Zn 206.200†	49172.2	518.4	ug/L	1.14	518.4	ug/L	1.14	0.22%
QC value within limits for Zn 206.200 Recovery = 103.68%								

Li 670.784	5989083.1	247.0 ug/L	1.46	247.0 ug/L	1.46	0.59%

QC value within limits for Li 670.784 Recovery = 98.81%
All analyte(s) passed QC.

Sequence No.: 6
Sample ID: ICB 150706RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 07/06/15 11:35:17 AM
Data Type: Reprocessed on 07/07/15 8:53:34 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICB 150706RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	241576.7	101.3	%	0.46				0.46%
Y Radial	16540.9	101.8	%	1.16				1.14%
Ag 338.289†	-8.5	-0.044	ug/L	0.2017	-0.044	ug/L	0.2017	458.96%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	1.0	0.709	ug/L	7.7923	0.709	ug/L	7.7923	>999.9%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	0.9	0.179	ug/L	1.4663	0.179	ug/L	1.4663	818.30%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	105.2	3.004	ug/L	0.5073	3.004	ug/L	0.5073	16.88%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-15.2	-0.035	ug/L	0.0189	-0.035	ug/L	0.0189	53.39%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	72.4	0.020	ug/L	0.0079	0.020	ug/L	0.0079	38.45%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	21.2	1.314	ug/L	0.3496	1.314	ug/L	0.3496	26.61%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	40.1	0.138	ug/L	0.0471	0.138	ug/L	0.0471	34.20%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	-2.0	-0.018	ug/L	0.1174	-0.018	ug/L	0.1174	652.22%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	1.9	0.022	ug/L	0.0834	0.022	ug/L	0.0834	373.83%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	596.4	2.853	ug/L	0.0148	2.853	ug/L	0.0148	0.52%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	211.7	2.654	ug/L	0.4211	2.654	ug/L	0.4211	15.87%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	133.2	15.38	ug/L	2.369	15.38	ug/L	2.369	15.41%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	14.6	0.822	ug/L	0.3984	0.822	ug/L	0.3984	48.47%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	-4.9	-0.053	ug/L	0.0742	-0.053	ug/L	0.0742	140.33%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	26.1	0.728	ug/L	0.3292	0.728	ug/L	0.3292	45.21%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	83.8	7.463	ug/L	4.7410	7.463	ug/L	4.7410	63.52%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-2.3	-0.048	ug/L	0.1946	-0.048	ug/L	0.1946	402.52%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-8.0	-2.458	ug/L	0.5801	-2.458	ug/L	0.5801	23.60%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	8.8	1.663	ug/L	0.8269	1.663	ug/L	0.8269	49.73%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-1.7	-0.224	ug/L	0.2768	-0.224	ug/L	0.2768	123.81%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	2.7	0.831	ug/L	0.5743	0.831	ug/L	0.5743	69.12%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	6.5	1.156	ug/L	0.1598	1.156	ug/L	0.1598	13.82%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	8.2	0.011	ug/L	0.0218	0.011	ug/L	0.0218	192.93%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-4.8	-0.121	ug/L	0.0827	-0.121	ug/L	0.0827	68.14%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	12.8	3.351	ug/L	1.7841	3.351	ug/L	1.7841	53.24%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	0.5	0.005	ug/L	0.0285	0.005	ug/L	0.0285	558.26%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	67.4	0.703	ug/L	0.1906	0.703	ug/L	0.1906	27.11%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	6687.8	0.276 ug/L	0.0075	0.276 ug/L	0.0075	2.71%

QC value within limits for Li 670.784 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 7
Sample ID: ICSA 150706RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 6
Date Collected: 07/06/15 11:41:00 AM
Data Type: Reprocessed on 07/07/15 8:53:36 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSA 150706RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	226020.9	94.79	%	0.122				0.13%
Y Radial	15871.3	97.70	%	0.725				0.74%
Ag 338.289†	111.5	0.578	ug/L	0.0366	0.578	ug/L	0.0366	6.33%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	135450.6	98920	ug/L	1192.52	98920	ug/L	1192.52	1.21%
QC value within limits for Al 308.215 Recovery = 98.92%								
As 188.979†	-3.3	-0.964	ug/L	2.7779	-0.964	ug/L	2.7779	288.29%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-7466.6	3.210	ug/L	1.3859	3.210	ug/L	1.3859	43.17%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1575.0	-1.609	ug/L	0.0816	-1.609	ug/L	0.0816	5.07%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	229.2	0.065	ug/L	0.0041	0.065	ug/L	0.0041	6.36%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	1638435.9	101700	ug/L	1304.14	101700	ug/L	1304.14	1.28%
QC value within limits for Ca 315.887 Recovery = 101.74%								
Cd 214.440†	1105.0	0.257	ug/L	0.0486	0.257	ug/L	0.0486	18.89%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	127.3	-1.449	ug/L	0.0399	-1.449	ug/L	0.0399	2.75%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	86.7	0.153	ug/L	0.1294	0.153	ug/L	0.1294	84.67%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	-144.7	0.553	ug/L	0.0804	0.553	ug/L	0.0804	14.54%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	7380713.2	92570	ug/L	767.44	92570	ug/L	767.44	0.83%
QC value within limits for Fe 273.955 Recovery = 92.57%								
K 766.490†	199.4	-69.66	ug/L	7.278	-69.66	ug/L	7.278	10.45%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	1724950.7	97180	ug/L	1198.22	97180	ug/L	1198.22	1.23%
QC value within limits for Mg 285.213 Recovery = 97.18%								
Mn 257.610†	277.8	-0.250	ug/L	0.2110	-0.250	ug/L	0.2110	84.49%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-96.2	-1.356	ug/L	0.3316	-1.356	ug/L	0.3316	24.45%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	314.2	15.99	ug/L	7.195	15.99	ug/L	7.195	44.99%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-104.9	0.201	ug/L	0.3549	0.201	ug/L	0.3549	176.55%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-119.0	-36.49	ug/L	0.250	-36.49	ug/L	0.250	0.68%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-81.1	-0.202	ug/L	0.7803	-0.202	ug/L	0.7803	386.36%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-21.1	-2.792	ug/L	1.8085	-2.792	ug/L	1.8085	64.77%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-125.4	6.088	ug/L	1.0019	6.088	ug/L	1.0019	16.46%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	8.5	1.507	ug/L	0.4959	1.507	ug/L	0.4959	32.90%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	423.6	-3.391	ug/L	0.0453	-3.391	ug/L	0.0453	1.34%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	49.5	-0.435	ug/L	0.8280	-0.435	ug/L	0.8280	190.50%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-15.9	-4.155	ug/L	2.4236	-4.155	ug/L	2.4236	58.34%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-2.9	-0.029	ug/L	0.0399	-0.029	ug/L	0.0399	138.30%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	416.5	3.862	ug/L	0.0861	3.862	ug/L	0.0861	2.23%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	9432.8	0.389 ug/L	0.0106	0.389 ug/L	0.0106	2.73%

All analyte(s) passed QC.

Sequence No.: 8
Sample ID: ICSAB 150706RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 7
Date Collected: 07/06/15 11:47:18 AM
Data Type: Reprocessed on 07/07/15 8:53:37 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSAB 150706RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	225836.7	94.71	%	0.434				0.46%
Y Radial	16026.0	98.65	%	0.089				0.09%
Ag 338.289†	97744.4	506.6	ug/L	0.84	506.6	ug/L	0.84	0.17%
QC value within limits for Ag 338.289 Recovery = 101.32%								
Al 308.215†	135510.7	98980	ug/L	809.50	98980	ug/L	809.50	0.82%
QC value within limits for Al 308.215 Recovery = 98.98%								
As 188.979†	1239.3	238.9	ug/L	1.96	238.9	ug/L	1.96	0.82%
QC value within limits for As 188.979 Recovery = 95.56%								
B 249.677†	-7587.5	4.400	ug/L	1.0157	4.400	ug/L	1.0157	23.09%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	108597.9	244.3	ug/L	0.44	244.3	ug/L	0.44	0.18%
QC value within limits for Ba 233.527 Recovery = 97.74%								
Be 313.107†	853322.1	240.7	ug/L	0.82	240.7	ug/L	0.82	0.34%
QC value within limits for Be 313.107 Recovery = 96.27%								
Ca 315.887†	1634272.9	101500	ug/L	668.04	101500	ug/L	668.04	0.66%
QC value within limits for Ca 315.887 Recovery = 101.48%								
Cd 214.440†	141131.1	480.0	ug/L	1.79	480.0	ug/L	1.79	0.37%
QC value within limits for Cd 214.440 Recovery = 96.01%								
Co 228.616†	24681.6	247.7	ug/L	1.38	247.7	ug/L	1.38	0.56%
QC value within limits for Co 228.616 Recovery = 99.08%								
Cr 267.716†	21875.7	253.5	ug/L	1.08	253.5	ug/L	1.08	0.43%
QC value within limits for Cr 267.716 Recovery = 101.40%								
Cu 327.393†	52860.8	254.0	ug/L	0.41	254.0	ug/L	0.41	0.16%
QC value within limits for Cu 327.393 Recovery = 101.61%								
Fe 273.955†	7552942.3	94710	ug/L	370.53	94710	ug/L	370.53	0.39%
QC value within limits for Fe 273.955 Recovery = 94.71%								
K 766.490†	225.5	-69.36	ug/L	6.193	-69.36	ug/L	6.193	8.93%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	1725324.9	97200	ug/L	813.79	97200	ug/L	813.79	0.84%
QC value within limits for Mg 285.213 Recovery = 97.20%								
Mn 257.610†	23104.3	245.6	ug/L	0.32	245.6	ug/L	0.32	0.13%
QC value within limits for Mn 257.610 Recovery = 98.25%								
Mo 202.031†	8412.8	236.1	ug/L	0.65	236.1	ug/L	0.65	0.27%
QC value within limits for Mo 202.031 Recovery = 94.45%								
Na 589.592†	211.8	5.886	ug/L	2.3585	5.886	ug/L	2.3585	40.07%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	23718.6	478.2	ug/L	2.50	478.2	ug/L	2.50	0.52%
QC value within limits for Ni 231.604 Recovery = 95.63%								
P 213.617†	-276.2	-84.73	ug/L	2.452	-84.73	ug/L	2.452	2.89%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	2537.1	496.5	ug/L	2.13	496.5	ug/L	2.13	0.43%
QC value within limits for Pb 220.353 Recovery = 99.31%								
Sb 206.836†	1816.4	240.3	ug/L	1.37	240.3	ug/L	1.37	0.57%
QC value within limits for Sb 206.836 Recovery = 96.13%								
Se 196.026†	677.3	250.2	ug/L	2.78	250.2	ug/L	2.78	1.11%
QC value within limits for Se 196.026 Recovery = 100.08%								
Sn 189.927†	10.4	1.850	ug/L	0.8661	1.850	ug/L	0.8661	46.82%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	465.0	-3.326	ug/L	0.0580	-3.326	ug/L	0.0580	1.74%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	54.3	-0.272	ug/L	0.3532	-0.272	ug/L	0.3532	129.74%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	928.4	242.7	ug/L	2.89	242.7	ug/L	2.89	1.19%
QC value within limits for Tl 190.801 Recovery = 97.08%								
V 292.402†	24884.3	249.2	ug/L	0.04	249.2	ug/L	0.04	0.02%
QC value within limits for V 292.402 Recovery = 99.67%								
Zn 206.200†	45485.7	476.1	ug/L	1.98	476.1	ug/L	1.98	0.42%
QC value within limits for Zn 206.200 Recovery = 95.23%								

Li 670.784	9610.2	0.396 ug/L	0.0107	0.396 ug/L	0.0107	2.71%

All analyte(s) passed QC.

Sequence No.: 9
Sample ID: CCV1 150706RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 07/06/15 11:53:37 AM
Data Type: Reprocessed on 07/07/15 8:53:38 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV1 150706RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	229088.0	96.08	%	0.218				0.23%
Y Radial	16113.8	99.19	%	0.323				0.33%
Ag 338.289†	51006.4	264.4	ug/L	0.39	264.4	ug/L	0.39	0.15%
QC value within limits for Ag 338.289 Recovery = 105.75%								
Al 308.215†	14473.7	10600	ug/L	51.56	10600	ug/L	51.56	0.49%
QC value within limits for Al 308.215 Recovery = 105.96%								
As 188.979†	2742.5	527.3	ug/L	3.13	527.3	ug/L	3.13	0.59%
QC value within limits for As 188.979 Recovery = 105.46%								
B 249.677†	18417.2	547.9	ug/L	2.82	547.9	ug/L	2.82	0.51%
QC value within limits for B 249.677 Recovery = 109.58%								
Ba 233.527†	232425.1	533.8	ug/L	0.51	533.8	ug/L	0.51	0.09%
QC value within limits for Ba 233.527 Recovery = 106.75%								
Be 313.107†	1900909.0	536.1	ug/L	0.47	536.1	ug/L	0.47	0.09%
QC value within limits for Be 313.107 Recovery = 107.23%								
Ca 315.887†	425466.7	26420	ug/L	180.80	26420	ug/L	180.80	0.68%
QC value within limits for Ca 315.887 Recovery = 105.66%								
Cd 214.440†	155450.2	532.9	ug/L	1.21	532.9	ug/L	1.21	0.23%
QC value within limits for Cd 214.440 Recovery = 106.58%								
Co 228.616†	53015.4	536.6	ug/L	0.93	536.6	ug/L	0.93	0.17%
QC value within limits for Co 228.616 Recovery = 107.33%								
Cr 267.716†	45738.9	531.6	ug/L	0.59	531.6	ug/L	0.59	0.11%
QC value within limits for Cr 267.716 Recovery = 106.32%								
Cu 327.393†	111306.9	533.6	ug/L	0.96	533.6	ug/L	0.96	0.18%
QC value within limits for Cu 327.393 Recovery = 106.72%								
Fe 273.955†	854302.8	10670	ug/L	13.47	10670	ug/L	13.47	0.13%
QC value within limits for Fe 273.955 Recovery = 106.72%								
K 766.490†	91747.2	10570	ug/L	34.08	10570	ug/L	34.08	0.32%
QC value within limits for K 766.490 Recovery = 105.71%								
Mg 285.213†	475832.9	26790	ug/L	228.70	26790	ug/L	228.70	0.85%
QC value within limits for Mg 285.213 Recovery = 107.18%								
Mn 257.610†	49230.2	529.3	ug/L	1.67	529.3	ug/L	1.67	0.32%
QC value within limits for Mn 257.610 Recovery = 105.85%								
Mo 202.031†	19154.3	534.6	ug/L	3.44	534.6	ug/L	3.44	0.64%
QC value within limits for Mo 202.031 Recovery = 106.91%								
Na 589.592†	149146.1	13300	ug/L	123.30	13300	ug/L	123.30	0.93%
QC value within limits for Na 589.592 Recovery = 106.40%								
Ni 231.604†	26915.5	539.6	ug/L	3.00	539.6	ug/L	3.00	0.56%
QC value within limits for Ni 231.604 Recovery = 107.93%								
P 213.617†	8663.4	2658	ug/L	18.74	2658	ug/L	18.74	0.71%
QC value within limits for P 213.617 Recovery = 106.30%								
Pb 220.353†	2891.7	551.8	ug/L	4.24	551.8	ug/L	4.24	0.77%
QC value within limits for Pb 220.353 Recovery = 110.35%								
Sb 206.836†	4026.1	532.7	ug/L	1.99	532.7	ug/L	1.99	0.37%
QC value within limits for Sb 206.836 Recovery = 106.53%								
Se 196.026†	1747.8	534.1	ug/L	4.72	534.1	ug/L	4.72	0.88%
QC value within limits for Se 196.026 Recovery = 106.83%								
Sn 189.927†	3005.1	532.9	ug/L	3.30	532.9	ug/L	3.30	0.62%
QC value within limits for Sn 189.927 Recovery = 106.57%								
Sr 421.552†	387486.7	534.6	ug/L	4.84	534.6	ug/L	4.84	0.91%
QC value within limits for Sr 421.552 Recovery = 106.93%								
Ti 337.279†	21203.1	530.2	ug/L	0.90	530.2	ug/L	0.90	0.17%
QC value within limits for Ti 337.279 Recovery = 106.04%								
Tl 190.801†	2127.5	556.2	ug/L	2.87	556.2	ug/L	2.87	0.52%
QC value greater than the upper limit for Tl 190.801 Recovery = 111.23%								
V 292.402†	53438.6	535.1	ug/L	1.01	535.1	ug/L	1.01	0.19%
QC value within limits for V 292.402 Recovery = 107.02%								
Zn 206.200†	51220.0	540.8	ug/L	1.19	540.8	ug/L	1.19	0.22%
QC value within limits for Zn 206.200 Recovery = 108.15%								

Li 670.784	6298526.5	259.8 ug/L	0.48	259.8 ug/L	0.48	0.19%

QC value within limits for Li 670.784 Recovery = 103.91%
QC Failed. Continue with analysis.

Sequence No.: 10
Sample ID: CCB 150706RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 07/06/15 12:03:05 PM
Data Type: Reprocessed on 07/07/15 8:53:40 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150706RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	241232.3	101.2	%	0.79				0.78%
Y Radial	16660.1	102.6	%	0.73				0.71%
Ag 338.289†	-37.2	-0.193	ug/L	0.3388	-0.193	ug/L	0.3388	175.78%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	1.6	1.109	ug/L	3.7525	1.109	ug/L	3.7525	338.30%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	-1.2	-0.231	ug/L	0.7746	-0.231	ug/L	0.7746	335.37%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	143.5	4.098	ug/L	0.5886	4.098	ug/L	0.5886	14.36%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-3.9	-0.010	ug/L	0.0021	-0.010	ug/L	0.0021	20.86%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	115.7	0.033	ug/L	0.0006	0.033	ug/L	0.0006	1.98%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	64.2	3.984	ug/L	0.0438	3.984	ug/L	0.0438	1.10%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	39.7	0.137	ug/L	0.0419	0.137	ug/L	0.0419	30.73%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	2.2	0.026	ug/L	0.0675	0.026	ug/L	0.0675	260.84%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-0.6	-0.007	ug/L	0.0339	-0.007	ug/L	0.0339	475.03%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	734.0	3.511	ug/L	0.0289	3.511	ug/L	0.0289	0.82%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	333.9	4.195	ug/L	0.1736	4.195	ug/L	0.1736	4.14%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	99.3	11.48	ug/L	9.930	11.48	ug/L	9.930	86.53%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	26.8	1.511	ug/L	0.2519	1.511	ug/L	0.2519	16.67%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	-6.8	-0.073	ug/L	0.0373	-0.073	ug/L	0.0373	50.84%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	39.4	1.099	ug/L	0.1308	1.099	ug/L	0.1308	11.90%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-132.9	-11.88	ug/L	2.050	-11.88	ug/L	2.050	17.26%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-2.9	-0.059	ug/L	0.1431	-0.059	ug/L	0.1431	242.47%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-14.0	-4.295	ug/L	1.1172	-4.295	ug/L	1.1172	26.01%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	6.4	1.209	ug/L	0.2351	1.209	ug/L	0.2351	19.44%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-2.2	-0.293	ug/L	0.5511	-0.293	ug/L	0.5511	187.84%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	0.4	0.117	ug/L	0.3770	0.117	ug/L	0.3770	322.15%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	6.7	1.193	ug/L	0.3391	1.193	ug/L	0.3391	28.41%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	11.3	0.015	ug/L	0.0175	0.015	ug/L	0.0175	112.91%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-1.6	-0.039	ug/L	0.1449	-0.039	ug/L	0.1449	370.63%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	11.3	2.967	ug/L	1.2938	2.967	ug/L	1.2938	43.61%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-8.4	-0.084	ug/L	0.0527	-0.084	ug/L	0.0527	62.47%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	99.7	1.039	ug/L	0.3286	1.039	ug/L	0.3286	31.62%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	7286.0	0.301 ug/L	0.0065	0.301 ug/L	0.0065	2.15%

QC value within limits for Li 670.784 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 29
Sample ID: CCV2 150706RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 8
Date Collected: 07/06/15 2:53:31 PM
Data Type: Reprocessed on 07/07/15 8:54:01 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV2 150706RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	232613.4	97.55	%	1.269				1.30%
Y Radial	16144.6	99.38	%	0.935				0.94%
Ag 338.289†	35071.9	181.8	ug/L	3.17	181.8	ug/L	3.17	1.74%
QC value within limits for Ag 338.289 Recovery = 96.95%								
Al 308.215†	9898.3	7245	ug/L	27.16	7245	ug/L	27.16	0.37%
QC value within limits for Al 308.215 Recovery = 96.60%								
As 188.979†	1854.4	356.5	ug/L	7.18	356.5	ug/L	7.18	2.01%
QC value within limits for As 188.979 Recovery = 95.06%								
B 249.677†	12946.7	384.5	ug/L	6.30	384.5	ug/L	6.30	1.64%
QC value within limits for B 249.677 Recovery = 102.54%								
Ba 233.527†	156544.9	359.5	ug/L	5.84	359.5	ug/L	5.84	1.62%
QC value within limits for Ba 233.527 Recovery = 95.87%								
Be 313.107†	1246062.4	351.4	ug/L	5.26	351.4	ug/L	5.26	1.50%
QC value within limits for Be 313.107 Recovery = 93.72%								
Ca 315.887†	299158.9	18570	ug/L	100.80	18570	ug/L	100.80	0.54%
QC value within limits for Ca 315.887 Recovery = 99.06%								
Cd 214.440†	105296.4	361.0	ug/L	6.34	361.0	ug/L	6.34	1.76%
QC value within limits for Cd 214.440 Recovery = 96.26%								
Co 228.616†	35813.5	362.5	ug/L	5.88	362.5	ug/L	5.88	1.62%
QC value within limits for Co 228.616 Recovery = 96.66%								
Cr 267.716†	32794.0	381.1	ug/L	6.75	381.1	ug/L	6.75	1.77%
QC value within limits for Cr 267.716 Recovery = 101.63%								
Cu 327.393†	76873.2	368.5	ug/L	5.75	368.5	ug/L	5.75	1.56%
QC value within limits for Cu 327.393 Recovery = 98.27%								
Fe 273.955†	578444.9	7227	ug/L	122.65	7227	ug/L	122.65	1.70%
QC value within limits for Fe 273.955 Recovery = 96.36%								
K 766.490†	62769.4	7232	ug/L	44.97	7232	ug/L	44.97	0.62%
QC value within limits for K 766.490 Recovery = 96.42%								
Mg 285.213†	336593.7	18950	ug/L	94.68	18950	ug/L	94.68	0.50%
QC value within limits for Mg 285.213 Recovery = 101.09%								
Mn 257.610†	34080.1	366.4	ug/L	2.08	366.4	ug/L	2.08	0.57%
QC value within limits for Mn 257.610 Recovery = 97.70%								
Mo 202.031†	12963.5	361.8	ug/L	5.97	361.8	ug/L	5.97	1.65%
QC value within limits for Mo 202.031 Recovery = 96.48%								
Na 589.592†	106165.1	9468	ug/L	44.42	9468	ug/L	44.42	0.47%
QC value within limits for Na 589.592 Recovery = 100.99%								
Ni 231.604†	18241.6	365.8	ug/L	6.24	365.8	ug/L	6.24	1.70%
QC value within limits for Ni 231.604 Recovery = 97.53%								
P 213.617†	5787.5	1775	ug/L	32.77	1775	ug/L	32.77	1.85%
QC value within limits for P 213.617 Recovery = 94.69%								
Pb 220.353†	1858.3	354.8	ug/L	7.92	354.8	ug/L	7.92	2.23%
QC value within limits for Pb 220.353 Recovery = 94.60%								
Sb 206.836†	2685.9	355.4	ug/L	6.43	355.4	ug/L	6.43	1.81%
QC value within limits for Sb 206.836 Recovery = 94.76%								
Se 196.026†	1198.9	366.4	ug/L	8.22	366.4	ug/L	8.22	2.24%
QC value within limits for Se 196.026 Recovery = 97.70%								
Sn 189.927†	2039.8	361.7	ug/L	4.64	361.7	ug/L	4.64	1.28%
QC value within limits for Sn 189.927 Recovery = 96.45%								
Sr 421.552†	267552.6	369.1	ug/L	5.14	369.1	ug/L	5.14	1.39%
QC value within limits for Sr 421.552 Recovery = 98.44%								
Ti 337.279†	14700.0	367.6	ug/L	1.20	367.6	ug/L	1.20	0.33%
QC value within limits for Ti 337.279 Recovery = 98.02%								
Tl 190.801†	1308.6	342.1	ug/L	4.91	342.1	ug/L	4.91	1.44%
QC value within limits for Tl 190.801 Recovery = 91.22%								
V 292.402†	35091.8	351.4	ug/L	5.05	351.4	ug/L	5.05	1.44%
QC value within limits for V 292.402 Recovery = 93.70%								
Zn 206.200†	36139.3	381.6	ug/L	6.15	381.6	ug/L	6.15	1.61%
QC value within limits for Zn 206.200 Recovery = 101.77%								

Li 670.784	4363482.0	180.0 ug/L	0.34	180.0 ug/L	0.34	0.19%

QC value within limits for Li 670.784 Recovery = 95.99%
All analyte(s) passed QC.

Sequence No.: 30
Sample ID: CCB 150706RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 07/06/15 2:58:49 PM
Data Type: Reprocessed on 07/07/15 8:54:02 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150706RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	247396.5	103.8	%	3.28				3.16%
Y Radial	16030.3	98.68	%	0.613				0.62%
Ag 338.289†	-28.1	-0.146	ug/L	0.1582	-0.146	ug/L	0.1582	108.49%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	-2.6	-1.931	ug/L	3.6653	-1.931	ug/L	3.6653	189.83%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	-4.2	-0.818	ug/L	1.2073	-0.818	ug/L	1.2073	147.51%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	53.2	1.520	ug/L	0.0921	1.520	ug/L	0.0921	6.06%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-1.8	-0.005	ug/L	0.0057	-0.005	ug/L	0.0057	120.72%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	164.6	0.046	ug/L	0.0206	0.046	ug/L	0.0206	44.44%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	77.5	4.815	ug/L	0.5344	4.815	ug/L	0.5344	11.10%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	2.5	0.009	ug/L	0.0312	0.009	ug/L	0.0312	353.26%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	11.0	0.115	ug/L	0.0999	0.115	ug/L	0.0999	87.02%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-2.6	-0.030	ug/L	0.0559	-0.030	ug/L	0.0559	186.61%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	191.9	0.918	ug/L	0.1509	0.918	ug/L	0.1509	16.44%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	141.7	1.789	ug/L	0.8214	1.789	ug/L	0.8214	45.91%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	71.5	8.275	ug/L	0.9334	8.275	ug/L	0.9334	11.28%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	25.9	1.458	ug/L	0.2306	1.458	ug/L	0.2306	15.81%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	-3.8	-0.041	ug/L	0.0744	-0.041	ug/L	0.0744	181.46%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	29.0	0.807	ug/L	0.1124	0.807	ug/L	0.1124	13.93%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-300.7	-26.86	ug/L	2.447	-26.86	ug/L	2.447	9.11%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	1.9	0.037	ug/L	0.1989	0.037	ug/L	0.1989	533.05%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-15.7	-4.811	ug/L	1.5757	-4.811	ug/L	1.5757	32.75%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-0.3	-0.056	ug/L	1.9457	-0.056	ug/L	1.9457	>999.9%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-3.7	-0.485	ug/L	0.0618	-0.485	ug/L	0.0618	12.74%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	2.8	0.837	ug/L	1.8302	0.837	ug/L	1.8302	218.66%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	2.5	0.443	ug/L	0.3848	0.443	ug/L	0.3848	86.90%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	9.7	0.013	ug/L	0.0346	0.013	ug/L	0.0346	261.67%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-4.3	-0.106	ug/L	0.3766	-0.106	ug/L	0.3766	353.61%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	3.7	0.961	ug/L	1.0996	0.961	ug/L	1.0996	114.47%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-16.6	-0.166	ug/L	0.1031	-0.166	ug/L	0.1031	62.01%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-173.8	-1.811	ug/L	0.1977	-1.811	ug/L	0.1977	10.92%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	1655.4	0.068 ug/L	0.0033	0.068 ug/L	0.0033	4.80%

QC value within limits for Li 670.784 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 41
Sample ID: CCV1 150706RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 07/06/15 4:08:12 PM
Data Type: Reprocessed on 07/07/15 8:54:14 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV1 150706RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
Y 371.029	220056.6	92.29	%	0.714				0.77%
Y Radial	15115.9	93.05	%	0.496				0.53%
Ag 338.289†	47178.4	244.5	ug/L	1.83	244.5	ug/L	1.83	0.75%
QC value within limits for Ag 338.289 Recovery = 97.81%								
Al 308.215†	13370.2	9787	ug/L	62.93	9787	ug/L	62.93	0.64%
QC value within limits for Al 308.215 Recovery = 97.87%								
As 188.979†	2513.8	483.2	ug/L	4.35	483.2	ug/L	4.35	0.90%
QC value within limits for As 188.979 Recovery = 96.63%								
B 249.677†	16952.4	504.4	ug/L	0.17	504.4	ug/L	0.17	0.03%
QC value within limits for B 249.677 Recovery = 100.88%								
Ba 233.527†	214112.0	491.7	ug/L	2.15	491.7	ug/L	2.15	0.44%
QC value within limits for Ba 233.527 Recovery = 98.34%								
Be 313.107†	1734986.2	489.3	ug/L	3.55	489.3	ug/L	3.55	0.73%
QC value within limits for Be 313.107 Recovery = 97.87%								
Ca 315.887†	411323.4	25540	ug/L	130.03	25540	ug/L	130.03	0.51%
QC value within limits for Ca 315.887 Recovery = 102.15%								
Cd 214.440†	144110.3	494.0	ug/L	2.31	494.0	ug/L	2.31	0.47%
QC value within limits for Cd 214.440 Recovery = 98.80%								
Co 228.616†	48829.2	494.3	ug/L	1.97	494.3	ug/L	1.97	0.40%
QC value within limits for Co 228.616 Recovery = 98.85%								
Cr 267.716†	42367.7	492.4	ug/L	3.17	492.4	ug/L	3.17	0.64%
QC value within limits for Cr 267.716 Recovery = 98.48%								
Cu 327.393†	102605.9	491.9	ug/L	2.41	491.9	ug/L	2.41	0.49%
QC value within limits for Cu 327.393 Recovery = 98.38%								
Fe 273.955†	790132.8	9872	ug/L	48.85	9872	ug/L	48.85	0.49%
QC value within limits for Fe 273.955 Recovery = 98.72%								
K 766.490†	84118.2	9691	ug/L	43.61	9691	ug/L	43.61	0.45%
QC value within limits for K 766.490 Recovery = 96.91%								
Mg 285.213†	455801.6	25670	ug/L	137.85	25670	ug/L	137.85	0.54%
QC value within limits for Mg 285.213 Recovery = 102.67%								
Mn 257.610†	46122.1	495.8	ug/L	2.51	495.8	ug/L	2.51	0.51%
QC value within limits for Mn 257.610 Recovery = 99.16%								
Mo 202.031†	17735.4	495.0	ug/L	3.42	495.0	ug/L	3.42	0.69%
QC value within limits for Mo 202.031 Recovery = 98.99%								
Na 589.592†	135692.1	12100	ug/L	69.68	12100	ug/L	69.68	0.58%
QC value within limits for Na 589.592 Recovery = 96.80%								
Ni 231.604†	24901.1	499.3	ug/L	5.24	499.3	ug/L	5.24	1.05%
QC value within limits for Ni 231.604 Recovery = 99.86%								
P 213.617†	7903.9	2425	ug/L	21.58	2425	ug/L	21.58	0.89%
QC value within limits for P 213.617 Recovery = 96.98%								
Pb 220.353†	2587.9	493.9	ug/L	5.51	493.9	ug/L	5.51	1.12%
QC value within limits for Pb 220.353 Recovery = 98.79%								
Sb 206.836†	3669.7	485.5	ug/L	2.57	485.5	ug/L	2.57	0.53%
QC value within limits for Sb 206.836 Recovery = 97.10%								
Se 196.026†	1590.3	486.0	ug/L	3.07	486.0	ug/L	3.07	0.63%
QC value within limits for Se 196.026 Recovery = 97.21%								
Sn 189.927†	2785.4	493.9	ug/L	4.48	493.9	ug/L	4.48	0.91%
QC value within limits for Sn 189.927 Recovery = 98.78%								
Sr 421.552†	351386.6	484.8	ug/L	2.80	484.8	ug/L	2.80	0.58%
QC value within limits for Sr 421.552 Recovery = 96.95%								
Ti 337.279†	19783.3	494.7	ug/L	3.74	494.7	ug/L	3.74	0.76%
QC value within limits for Ti 337.279 Recovery = 98.93%								
Tl 190.801†	1841.2	481.3	ug/L	5.43	481.3	ug/L	5.43	1.13%
QC value within limits for Tl 190.801 Recovery = 96.27%								
V 292.402†	48420.1	484.8	ug/L	4.37	484.8	ug/L	4.37	0.90%
QC value within limits for V 292.402 Recovery = 96.97%								
Zn 206.200†	47405.4	500.5	ug/L	2.05	500.5	ug/L	2.05	0.41%
QC value within limits for Zn 206.200 Recovery = 100.10%								

Li 670.784	5447558.7	224.7 ug/L	1.39	224.7 ug/L	1.39	0.62%

QC value within limits for Li 670.784 Recovery = 89.87%

All analyte(s) passed QC.

Sequence No.: 42
Sample ID: CCB 150706RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 07/06/15 4:13:32 PM
Data Type: Reprocessed on 07/07/15 8:54:16 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150706RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	234004.7	98.14	%	1.108				1.13%
Y Radial	15933.5	98.08	%	2.801				2.86%
Ag 338.289†	-36.7	-0.190	ug/L	0.1762	-0.190	ug/L	0.1762	92.62%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	-2.6	-1.944	ug/L	7.8371	-1.944	ug/L	7.8371	403.24%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	-8.3	-1.625	ug/L	1.0784	-1.625	ug/L	1.0784	66.38%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	150.9	4.304	ug/L	0.4366	4.304	ug/L	0.4366	10.14%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	8.8	0.020	ug/L	0.0369	0.020	ug/L	0.0369	187.83%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	52.4	0.015	ug/L	0.0027	0.015	ug/L	0.0027	18.28%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	80.7	5.012	ug/L	0.5348	5.012	ug/L	0.5348	10.67%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	-16.2	-0.055	ug/L	0.0589	-0.055	ug/L	0.0589	106.99%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	-7.0	-0.068	ug/L	0.0402	-0.068	ug/L	0.0402	59.03%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-3.9	-0.045	ug/L	0.0742	-0.045	ug/L	0.0742	164.93%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	268.4	1.284	ug/L	0.0728	1.284	ug/L	0.0728	5.67%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	149.1	1.871	ug/L	0.1343	1.871	ug/L	0.1343	7.18%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	21.5	2.487	ug/L	2.3846	2.487	ug/L	2.3846	95.87%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	22.8	1.283	ug/L	0.1857	1.283	ug/L	0.1857	14.47%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	-9.3	-0.100	ug/L	0.0806	-0.100	ug/L	0.0806	80.72%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	27.9	0.777	ug/L	0.2042	0.777	ug/L	0.2042	26.27%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-42.4	-3.791	ug/L	1.4656	-3.791	ug/L	1.4656	38.66%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-1.4	-0.030	ug/L	0.1787	-0.030	ug/L	0.1787	597.40%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-11.4	-3.505	ug/L	0.8235	-3.505	ug/L	0.8235	23.50%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-1.2	-0.228	ug/L	1.1534	-0.228	ug/L	1.1534	506.95%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	3.1	0.406	ug/L	0.5113	0.406	ug/L	0.5113	126.06%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	0.6	0.181	ug/L	1.3275	0.181	ug/L	1.3275	732.25%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	3.7	0.655	ug/L	0.1380	0.655	ug/L	0.1380	21.07%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	-0.6	-0.001	ug/L	0.0191	-0.001	ug/L	0.0191	>999.9%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-12.5	-0.314	ug/L	0.0308	-0.314	ug/L	0.0308	9.83%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	8.9	2.328	ug/L	0.6091	2.328	ug/L	0.6091	26.17%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-0.6	-0.006	ug/L	0.0638	-0.006	ug/L	0.0638	>999.9%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-176.1	-1.835	ug/L	0.1475	-1.835	ug/L	0.1475	8.04%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	1376.0	0.057 ug/L	0.0062	0.057 ug/L	0.0062	10.90%

QC value within limits for Li 670.784 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 57
Sample ID: CCV2 150706RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 8
Date Collected: 07/06/15 5:50:27 PM
Data Type: Reprocessed on 07/07/15 8:54:32 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV2 150706RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	237300.4	99.52	%	0.309				0.31%
Y Radial	16605.8	102.2	%	0.85				0.84%
Ag 338.289†	34947.4	181.1	ug/L	0.52	181.1	ug/L	0.52	0.29%
QC value within limits for Ag 338.289 Recovery = 96.60%								
Al 308.215†	9967.1	7297	ug/L	41.07	7297	ug/L	41.07	0.56%
QC value within limits for Al 308.215 Recovery = 97.29%								
As 188.979†	1894.9	364.3	ug/L	1.83	364.3	ug/L	1.83	0.50%
QC value within limits for As 188.979 Recovery = 97.15%								
B 249.677†	13022.3	386.9	ug/L	2.19	386.9	ug/L	2.19	0.57%
QC value within limits for B 249.677 Recovery = 103.18%								
Ba 233.527†	159972.2	367.4	ug/L	0.27	367.4	ug/L	0.27	0.07%
QC value within limits for Ba 233.527 Recovery = 97.97%								
Be 313.107†	1298552.0	366.2	ug/L	0.83	366.2	ug/L	0.83	0.23%
QC value within limits for Be 313.107 Recovery = 97.67%								
Ca 315.887†	300947.7	18680	ug/L	125.91	18680	ug/L	125.91	0.67%
QC value within limits for Ca 315.887 Recovery = 99.65%								
Cd 214.440†	107615.5	368.9	ug/L	0.58	368.9	ug/L	0.58	0.16%
QC value within limits for Cd 214.440 Recovery = 98.38%								
Co 228.616†	36724.5	371.7	ug/L	0.43	371.7	ug/L	0.43	0.12%
QC value within limits for Co 228.616 Recovery = 99.13%								
Cr 267.716†	33295.8	387.0	ug/L	2.25	387.0	ug/L	2.25	0.58%
QC value within limits for Cr 267.716 Recovery = 103.19%								
Cu 327.393†	75969.4	364.2	ug/L	0.84	364.2	ug/L	0.84	0.23%
QC value within limits for Cu 327.393 Recovery = 97.12%								
Fe 273.955†	587829.3	7343	ug/L	8.49	7343	ug/L	8.49	0.12%
QC value within limits for Fe 273.955 Recovery = 97.91%								
K 766.490†	61669.4	7105	ug/L	44.31	7105	ug/L	44.31	0.62%
QC value within limits for K 766.490 Recovery = 94.73%								
Mg 285.213†	334850.2	18860	ug/L	113.88	18860	ug/L	113.88	0.60%
QC value within limits for Mg 285.213 Recovery = 100.56%								
Mn 257.610†	33934.1	364.8	ug/L	2.43	364.8	ug/L	2.43	0.67%
QC value within limits for Mn 257.610 Recovery = 97.28%								
Mo 202.031†	13090.4	365.3	ug/L	1.86	365.3	ug/L	1.86	0.51%
QC value within limits for Mo 202.031 Recovery = 97.42%								
Na 589.592†	101070.2	9013	ug/L	62.15	9013	ug/L	62.15	0.69%
QC value within limits for Na 589.592 Recovery = 96.14%								
Ni 231.604†	18475.7	370.4	ug/L	2.08	370.4	ug/L	2.08	0.56%
QC value within limits for Ni 231.604 Recovery = 98.78%								
P 213.617†	5921.7	1817	ug/L	8.97	1817	ug/L	8.97	0.49%
QC value within limits for P 213.617 Recovery = 96.88%								
Pb 220.353†	2023.2	386.0	ug/L	4.07	386.0	ug/L	4.07	1.05%
QC value within limits for Pb 220.353 Recovery = 102.94%								
Sb 206.836†	2775.3	367.2	ug/L	2.11	367.2	ug/L	2.11	0.57%
QC value within limits for Sb 206.836 Recovery = 97.91%								
Se 196.026†	1203.6	367.8	ug/L	4.29	367.8	ug/L	4.29	1.17%
QC value within limits for Se 196.026 Recovery = 98.08%								
Sn 189.927†	2088.8	370.4	ug/L	2.29	370.4	ug/L	2.29	0.62%
QC value within limits for Sn 189.927 Recovery = 98.77%								
Sr 421.552†	252165.2	347.9	ug/L	2.92	347.9	ug/L	2.92	0.84%
QC value within limits for Sr 421.552 Recovery = 92.76%								
Ti 337.279†	14604.8	365.2	ug/L	2.29	365.2	ug/L	2.29	0.63%
QC value within limits for Ti 337.279 Recovery = 97.38%								
Tl 190.801†	1538.9	402.3	ug/L	5.86	402.3	ug/L	5.86	1.46%
QC value within limits for Tl 190.801 Recovery = 107.28%								
V 292.402†	36880.1	369.3	ug/L	1.06	369.3	ug/L	1.06	0.29%
QC value within limits for V 292.402 Recovery = 98.48%								
Zn 206.200†	36869.6	389.3	ug/L	2.15	389.3	ug/L	2.15	0.55%
QC value within limits for Zn 206.200 Recovery = 103.81%								

Li 670.784	4150762.5	171.2 ug/L	0.63	171.2 ug/L	0.63	0.37%

QC value within limits for Li 670.784 Recovery = 91.31%
All analyte(s) passed QC.

Sequence No.: 58
Sample ID: CCB 150706RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 07/06/15 5:55:45 PM
Data Type: Reprocessed on 07/07/15 8:54:33 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150706RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	246066.6	103.2	%	0.39				0.37%
Y Radial	16719.4	102.9	%	0.32				0.31%
Ag 338.289†	-55.3	-0.287	ug/L	0.6769	-0.287	ug/L	0.6769	236.02%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	8.7	6.366	ug/L	7.8934	6.366	ug/L	7.8934	124.00%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	-3.7	-0.728	ug/L	0.5377	-0.728	ug/L	0.5377	73.83%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	114.2	3.252	ug/L	0.6263	3.252	ug/L	0.6263	19.26%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-25.4	-0.058	ug/L	0.0563	-0.058	ug/L	0.0563	96.21%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-12.3	-0.003	ug/L	0.0079	-0.003	ug/L	0.0079	228.51%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	21.1	1.309	ug/L	1.4308	1.309	ug/L	1.4308	109.28%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	20.7	0.071	ug/L	0.0429	0.071	ug/L	0.0429	60.26%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	-10.6	-0.105	ug/L	0.0969	-0.105	ug/L	0.0969	91.86%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-2.6	-0.030	ug/L	0.0314	-0.030	ug/L	0.0314	103.07%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	62.1	0.297	ug/L	0.1733	0.297	ug/L	0.1733	58.29%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	-48.0	-0.607	ug/L	0.2449	-0.607	ug/L	0.2449	40.33%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	61.3	7.080	ug/L	5.1357	7.080	ug/L	5.1357	72.54%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	23.5	1.321	ug/L	0.1951	1.321	ug/L	0.1951	14.77%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	-4.9	-0.052	ug/L	0.0584	-0.052	ug/L	0.0584	111.68%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	15.7	0.438	ug/L	0.1247	0.438	ug/L	0.1247	28.50%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-38.6	-3.452	ug/L	2.6925	-3.452	ug/L	2.6925	77.99%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-0.2	-0.004	ug/L	0.0784	-0.004	ug/L	0.0784	>999.9%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-12.6	-3.878	ug/L	0.5403	-3.878	ug/L	0.5403	13.93%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	1.7	0.334	ug/L	1.0825	0.334	ug/L	1.0825	323.61%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-0.2	-0.023	ug/L	0.6079	-0.023	ug/L	0.6079	>999.9%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-4.0	-1.202	ug/L	0.7013	-1.202	ug/L	0.7013	58.33%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	-2.6	-0.454	ug/L	0.2599	-0.454	ug/L	0.2599	57.19%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	10.9	0.015	ug/L	0.0170	0.015	ug/L	0.0170	113.51%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-0.5	-0.013	ug/L	0.1168	-0.013	ug/L	0.1168	873.45%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	9.2	2.393	ug/L	0.9399	2.393	ug/L	0.9399	39.27%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	6.7	0.067	ug/L	0.0623	0.067	ug/L	0.0623	93.41%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-242.4	-2.525	ug/L	0.0296	-2.525	ug/L	0.0296	1.17%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784 -116.6 -0.005 ug/L 0.0030 -0.005 ug/L 0.0030 62.72%
QC value within limits for Li 670.784 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 69
Sample ID: CCV1 150706RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 07/06/15 7:04:11 PM
Data Type: Reprocessed on 07/07/15 8:54:46 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV1 150706RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	244895.2	102.7	%	0.08				0.08%
Y Radial	17370.5	106.9	%	0.98				0.92%
Ag 338.289†	45977.8	238.3	ug/L	1.45	238.3	ug/L	1.45	0.61%
QC value within limits for Ag 338.289 Recovery = 95.32%								
Al 308.215†	13145.6	9623	ug/L	24.63	9623	ug/L	24.63	0.26%
QC value within limits for Al 308.215 Recovery = 96.23%								
As 188.979†	2488.4	478.5	ug/L	2.41	478.5	ug/L	2.41	0.50%
QC value within limits for As 188.979 Recovery = 95.69%								
B 249.677†	16466.3	490.0	ug/L	3.14	490.0	ug/L	3.14	0.64%
QC value within limits for B 249.677 Recovery = 98.00%								
Ba 233.527†	209436.0	481.0	ug/L	1.75	481.0	ug/L	1.75	0.36%
QC value within limits for Ba 233.527 Recovery = 96.19%								
Be 313.107†	1699834.4	479.4	ug/L	2.30	479.4	ug/L	2.30	0.48%
QC value within limits for Be 313.107 Recovery = 95.88%								
Ca 315.887†	384952.3	23900	ug/L	157.54	23900	ug/L	157.54	0.66%
QC value within limits for Ca 315.887 Recovery = 95.60%								
Cd 214.440†	140115.6	480.3	ug/L	1.56	480.3	ug/L	1.56	0.32%
QC value within limits for Cd 214.440 Recovery = 96.06%								
Co 228.616†	47857.9	484.4	ug/L	1.41	484.4	ug/L	1.41	0.29%
QC value within limits for Co 228.616 Recovery = 96.89%								
Cr 267.716†	41294.0	479.9	ug/L	2.07	479.9	ug/L	2.07	0.43%
QC value within limits for Cr 267.716 Recovery = 95.99%								
Cu 327.393†	100489.4	481.8	ug/L	2.35	481.8	ug/L	2.35	0.49%
QC value within limits for Cu 327.393 Recovery = 96.35%								
Fe 273.955†	769864.8	9618	ug/L	36.52	9618	ug/L	36.52	0.38%
QC value within limits for Fe 273.955 Recovery = 96.18%								
K 766.490†	82839.1	9544	ug/L	32.64	9544	ug/L	32.64	0.34%
QC value within limits for K 766.490 Recovery = 95.44%								
Mg 285.213†	429547.9	24190	ug/L	133.18	24190	ug/L	133.18	0.55%
QC value within limits for Mg 285.213 Recovery = 96.75%								
Mn 257.610†	44568.9	479.1	ug/L	1.86	479.1	ug/L	1.86	0.39%
QC value within limits for Mn 257.610 Recovery = 95.83%								
Mo 202.031†	17281.3	482.3	ug/L	1.65	482.3	ug/L	1.65	0.34%
QC value within limits for Mo 202.031 Recovery = 96.46%								
Na 589.592†	138719.7	12370	ug/L	54.76	12370	ug/L	54.76	0.44%
QC value within limits for Na 589.592 Recovery = 98.97%								
Ni 231.604†	24274.9	486.7	ug/L	1.41	486.7	ug/L	1.41	0.29%
QC value within limits for Ni 231.604 Recovery = 97.34%								
P 213.617†	7843.6	2406	ug/L	8.88	2406	ug/L	8.88	0.37%
QC value within limits for P 213.617 Recovery = 96.24%								
Pb 220.353†	2584.6	493.2	ug/L	1.96	493.2	ug/L	1.96	0.40%
QC value within limits for Pb 220.353 Recovery = 98.64%								
Sb 206.836†	3656.2	483.7	ug/L	2.36	483.7	ug/L	2.36	0.49%
QC value within limits for Sb 206.836 Recovery = 96.74%								
Se 196.026†	1592.7	486.7	ug/L	3.13	486.7	ug/L	3.13	0.64%
QC value within limits for Se 196.026 Recovery = 97.34%								
Sn 189.927†	2732.8	484.6	ug/L	1.31	484.6	ug/L	1.31	0.27%
QC value within limits for Sn 189.927 Recovery = 96.92%								
Sr 421.552†	350478.5	483.6	ug/L	3.14	483.6	ug/L	3.14	0.65%
QC value within limits for Sr 421.552 Recovery = 96.71%								
Ti 337.279†	19357.2	484.0	ug/L	1.84	484.0	ug/L	1.84	0.38%
QC value within limits for Ti 337.279 Recovery = 96.81%								
Tl 190.801†	1911.1	499.6	ug/L	3.46	499.6	ug/L	3.46	0.69%
QC value within limits for Tl 190.801 Recovery = 99.92%								
V 292.402†	47986.3	480.5	ug/L	2.44	480.5	ug/L	2.44	0.51%
QC value within limits for V 292.402 Recovery = 96.10%								
Zn 206.200†	45825.2	483.9	ug/L	1.76	483.9	ug/L	1.76	0.36%
QC value within limits for Zn 206.200 Recovery = 96.77%								

Li 670.784	6051774.0	249.6 ug/L	1.46	249.6 ug/L	1.46	0.58%

QC value within limits for Li 670.784 Recovery = 99.84%
All analyte(s) passed QC.

Sequence No.: 70
Sample ID: CCB 150706RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 07/06/15 7:09:31 PM
Data Type: Reprocessed on 07/07/15 8:54:47 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150706RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	260163.1	109.1	%	0.77				0.70%
Y Radial	17326.4	106.7	%	2.43				2.28%
Ag 338.289†	-30.7	-0.159	ug/L	0.3695	-0.159	ug/L	0.3695	232.22%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	-7.7	-5.669	ug/L	3.9502	-5.669	ug/L	3.9502	69.69%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	1.2	0.226	ug/L	1.2291	0.226	ug/L	1.2291	542.84%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	88.6	2.520	ug/L	0.4361	2.520	ug/L	0.4361	17.31%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-19.1	-0.044	ug/L	0.0142	-0.044	ug/L	0.0142	32.16%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-136.7	-0.039	ug/L	0.0076	-0.039	ug/L	0.0076	19.69%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	35.2	2.182	ug/L	0.4645	2.182	ug/L	0.4645	21.29%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	50.0	0.172	ug/L	0.0393	0.172	ug/L	0.0393	22.86%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	21.1	0.216	ug/L	0.0420	0.216	ug/L	0.0420	19.40%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-12.2	-0.142	ug/L	0.0449	-0.142	ug/L	0.0449	31.63%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	232.7	1.114	ug/L	0.1393	1.114	ug/L	0.1393	12.51%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	-142.5	-1.794	ug/L	0.1565	-1.794	ug/L	0.1565	8.73%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	208.9	24.14	ug/L	3.166	24.14	ug/L	3.166	13.12%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	26.2	1.473	ug/L	0.3644	1.473	ug/L	0.3644	24.74%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	2.5	0.026	ug/L	0.1070	0.026	ug/L	0.1070	405.63%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	29.3	0.817	ug/L	0.2904	0.817	ug/L	0.2904	35.56%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-92.3	-8.268	ug/L	1.9234	-8.268	ug/L	1.9234	23.26%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	9.0	0.181	ug/L	0.0919	0.181	ug/L	0.0919	50.76%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-4.4	-1.341	ug/L	1.2959	-1.341	ug/L	1.2959	96.61%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	0.9	0.178	ug/L	0.5983	0.178	ug/L	0.5983	337.00%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-2.3	-0.298	ug/L	0.4823	-0.298	ug/L	0.4823	161.89%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-3.6	-1.099	ug/L	0.5583	-1.099	ug/L	0.5583	50.80%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	0.4	0.066	ug/L	0.4714	0.066	ug/L	0.4714	714.81%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	-1.5	-0.002	ug/L	0.0153	-0.002	ug/L	0.0153	710.93%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	2.7	0.066	ug/L	0.2514	0.066	ug/L	0.2514	378.48%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	2.6	0.693	ug/L	0.8821	0.693	ug/L	0.8821	127.36%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	7.1	0.071	ug/L	0.0170	0.071	ug/L	0.0170	23.75%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-244.0	-2.543	ug/L	0.0389	-2.543	ug/L	0.0389	1.53%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	59.1	0.002 ug/L	0.0035	0.002 ug/L	0.0035	144.80%

QC value within limits for Li 670.784 Recovery = Not calculated
All analyte(s) passed QC.

Reprocessing Begun
Logged In Analyst: chemist_metals Technique: ICP Continuous

Results Data Set (original): 150707A6010
Results Library (original): C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb
Results Data Set (reprocessed): 150707A6010X
Results Library (reprocessed): C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1 Autosampler Location: 1
Sample ID: CalBlk 150707RJS I:JL O:R Date Collected: 07/07/15 12:55:13 PM
Analyst: Data Type: Reprocessed on 07/08/15 8:46:22 AM
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time:

Mean Data: CalBlk 150707RJS I:JL O:R

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	236212.8	555.99	0.24%	100.0	%
Y Radial	16408.7	423.73	2.58%	100.0	%
Ag 338.289†	-190.1	14.71	7.74%	[0.00]	ug/L
Al 308.215†	5.8	6.67	114.03%	[0.00]	ug/L
As 188.979†	-80.1	5.02	6.27%	[0.00]	ug/L
B 249.677†	128.2	10.71	8.35%	[0.00]	ug/L
Ba 233.527†	144.9	8.36	5.77%	[0.00]	ug/L
Be 313.107†	2258.3	8.56	0.38%	[0.00]	ug/L
Ca 315.887†	207.9	130.40	62.72%	[0.00]	ug/L
Cd 214.440†	-195.3	10.56	5.41%	[0.00]	ug/L
Co 228.616†	-268.9	15.57	5.79%	[0.00]	ug/L
Cr 267.716†	10.4	8.56	82.68%	[0.00]	ug/L
Cu 327.393†	188.3	44.78	23.79%	[0.00]	ug/L
Fe 273.955†	175.0	13.02	7.44%	[0.00]	ug/L
K 766.490†	1106.4	55.45	5.01%	[0.00]	ug/L
Mg 285.213†	64.9	16.81	25.91%	[0.00]	ug/L
Mn 257.610†	-40.0	1.73	4.33%	[0.00]	ug/L
Mo 202.031†	21.0	11.09	52.70%	[0.00]	ug/L
Na 589.592†	778.9	24.61	3.16%	[0.00]	ug/L
Ni 231.604†	-384.5	2.18	0.57%	[0.00]	ug/L
P 213.617†	-59.0	1.47	2.49%	[0.00]	ug/L
Pb 220.353†	-2.4	2.96	124.52%	[0.00]	ug/L
Sb 206.836†	-25.4	1.07	4.22%	[0.00]	ug/L
Se 196.026†	10.4	3.13	30.12%	[0.00]	ug/L
Sn 189.927†	8.4	2.50	29.83%	[0.00]	ug/L
Sr 421.552†	22.2	8.29	37.31%	[0.00]	ug/L
Ti 337.279†	-59.2	3.98	6.73%	[0.00]	ug/L
Tl 190.801†	-12.6	6.72	53.50%	[0.00]	ug/L
V 292.402†	-158.0	6.70	4.24%	[0.00]	ug/L
Zn 206.200†	154.1	9.53	6.18%	[0.00]	ug/L

Sequence No.: 2
Sample ID: STD 1 150707RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 2
Date Collected: 07/07/15 12:59:10 PM
Data Type: Reprocessed on 07/08/15 8:46:24 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 1 150707RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	238249.1	1975.54	0.83%	100.9	%
Y Radial	16432.3	10.23	0.06%	100.1	%
Ag 338.289†	9.1	38.23	419.88%	[0.5]	ug/L
Al 308.215†	64.6	4.71	7.29%	[50]	ug/L
As 188.979†	9.6	1.67	17.40%	[2]	ug/L
B 249.677†	805.3	12.36	1.53%	[25]	ug/L
Ba 233.527†	566.1	9.01	1.59%	[1.5]	ug/L
Be 313.107†	3004.5	42.09	1.40%	[1]	ug/L
Ca 315.887†	685.2	13.37	1.95%	[50]	ug/L
Cd 214.440†	76.4	2.01	2.63%	[0.25]	ug/L
Co 228.616†	279.4	3.25	1.16%	[2.5]	ug/L
Cr 267.716†	45.1	4.89	10.85%	[0.5]	ug/L
Cu 327.393†	550.6	24.13	4.38%	[2.5]	ug/L
Fe 273.955†	2017.9	17.55	0.87%	[25]	ug/L
K 766.490†	3659.7	24.02	0.66%	[500]	ug/L
Mg 285.213†	435.0	3.68	0.85%	[25]	ug/L
Mn 257.610†	96.3	8.44	8.77%	[1]	ug/L
Mo 202.031†	42.0	3.11	7.39%	[1]	ug/L
Na 589.592†	5212.0	114.95	2.21%	[500]	ug/L
Ni 231.604†	57.3	6.40	11.17%	[1]	ug/L
P 213.617†	39.7	4.16	10.48%	[12.5]	ug/L
Pb 220.353†	6.8	3.01	44.21%	[1.5]	ug/L
Sb 206.836†	12.2	3.86	31.57%	[2]	ug/L
Se 196.026†	14.3	4.21	29.42%	[2]	ug/L
Sn 189.927†	13.9	2.82	20.27%	[3]	ug/L
Sr 421.552†	702.9	5.27	0.75%	[1]	ug/L
Ti 337.279†	99.6	8.28	8.31%	[2.5]	ug/L
Tl 190.801†	6.5	5.26	80.81%	[2]	ug/L
V 292.402†	35.3	4.00	11.32%	[0.5]	ug/L
Zn 206.200†	2417.7	27.17	1.12%	[25]	ug/L

Sequence No.: 3
Sample ID: STD 2 150707RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 07/07/15 1:03:09 PM
Data Type: Reprocessed on 07/08/15 8:46:26 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 2 150707RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	227239.7	859.47	0.38%	96.20	%
Y Radial	16242.6	501.65	3.09%	98.99	%
Ag 338.289†	47000.1	369.78	0.79%	[250]	ug/L
Al 308.215†	13271.0	466.07	3.51%	[10000]	ug/L
As 188.979†	2413.9	13.39	0.55%	[500]	ug/L
B 249.677†	16941.0	201.36	1.19%	[500]	ug/L
Ba 233.527†	213573.5	1492.70	0.70%	[500]	ug/L
Be 313.107†	1603710.6	8192.94	0.51%	[500]	ug/L
Ca 315.887†	399402.9	13178.42	3.30%	[25000]	ug/L
Cd 214.440†	143128.8	911.90	0.64%	[500]	ug/L
Co 228.616†	53444.4	349.70	0.65%	[500]	ug/L
Cr 267.716†	40947.3	273.52	0.67%	[500]	ug/L
Cu 327.393†	102280.1	723.92	0.71%	[500]	ug/L
Fe 273.955†	783387.7	5322.23	0.68%	[10000]	ug/L
K 766.490†	73455.5	2369.45	3.23%	[10000]	ug/L
Mg 285.213†	436412.3	15312.71	3.51%	[25000]	ug/L
Mn 257.610†	44490.1	1539.37	3.46%	[500]	ug/L
Mo 202.031†	17464.0	87.82	0.50%	[500]	ug/L
Na 589.592†	133487.7	4921.21	3.69%	[12500]	ug/L
Ni 231.604†	25839.9	119.36	0.46%	[500]	ug/L
P 213.617†	7596.4	41.91	0.55%	[2500]	ug/L
Pb 220.353†	2252.7	15.44	0.69%	[500]	ug/L
Sb 206.836†	3111.2	42.73	1.37%	[500]	ug/L
Se 196.026†	1587.2	13.62	0.86%	[500]	ug/L
Sn 189.927†	2700.1	15.70	0.58%	[500]	ug/L
Sr 421.552†	360160.6	13241.37	3.68%	[500]	ug/L
Ti 337.279†	18966.1	642.75	3.39%	[500]	ug/L
Tl 190.801†	1292.1	5.57	0.43%	[500]	ug/L
V 292.402†	43640.0	194.53	0.45%	[500]	ug/L
Zn 206.200†	47059.5	313.51	0.67%	[500]	ug/L

Sequence No.: 4
Sample ID: STD 3 150707RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 4
Date Collected: 07/07/15 1:06:30 PM
Data Type: Reprocessed on 07/08/15 8:46:27 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 3 150707RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	224855.4	362.20	0.16%	95.19	%
Y Radial	15867.7	107.20	0.68%	96.70	%
Ag 338.289†	94142.4	189.86	0.20%	[500]	ug/L
Al 308.215†	27761.0	214.96	0.77%	[20000]	ug/L
As 188.979†	4837.8	14.30	0.30%	[1000]	ug/L
B 249.677†	34149.5	135.11	0.40%	[1000]	ug/L
Ba 233.527†	425708.1	1295.81	0.30%	[1000]	ug/L
Be 313.107†	3192773.6	7839.10	0.25%	[1000]	ug/L
Ca 315.887†	799100.7	11743.80	1.47%	[50000]	ug/L
Cd 214.440†	283659.6	852.74	0.30%	[1000]	ug/L
Co 228.616†	105571.2	349.18	0.33%	[1000]	ug/L
Cr 267.716†	81640.4	290.62	0.36%	[1000]	ug/L
Cu 327.393†	204840.8	650.18	0.32%	[1000]	ug/L
Fe 273.955†	1549799.9	5037.22	0.33%	[20000]	ug/L
K 766.490†	155002.6	1173.04	0.76%	[20000]	ug/L
Mg 285.213†	895277.2	13206.30	1.48%	[50000]	ug/L
Mn 257.610†	92054.7	756.26	0.82%	[1000]	ug/L
Mo 202.031†	34877.6	204.20	0.59%	[1000]	ug/L
Na 589.592†	277647.8	4388.01	1.58%	[25000]	ug/L
Ni 231.604†	50665.5	266.29	0.53%	[1000]	ug/L
P 213.617†	15241.9	70.99	0.47%	[5000]	ug/L
Pb 220.353†	4456.5	20.85	0.47%	[1000]	ug/L
Sb 206.836†	6361.4	74.18	1.17%	[1000]	ug/L
Se 196.026†	3175.8	5.50	0.17%	[1000]	ug/L
Sn 189.927†	5381.5	32.64	0.61%	[1000]	ug/L
Sr 421.552†	744589.6	11990.59	1.61%	[1000]	ug/L
Ti 337.279†	39313.3	320.95	0.82%	[1000]	ug/L
Tl 190.801†	2509.7	13.32	0.53%	[1000]	ug/L
V 292.402†	87466.7	243.51	0.28%	[1000]	ug/L
Zn 206.200†	93445.9	332.43	0.36%	[1000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 338.289	3	Lin Thru 0	0.0	188.2	0.00000	0.999999	
Al 308.215	3	Lin Thru 0	0.0	1.376	0.00000	0.999843	
As 188.979	3	Lin Thru 0	0.0	4.836	0.00000	1.000000	
B 249.677	3	Lin Thru 0	0.0	34.10	0.00000	0.999994	
Ba 233.527	3	Lin Thru 0	0.0	426.0	0.00000	0.999999	
Be 313.107	3	Lin Thru 0	0.0	3196	0.00000	0.999998	
Ca 315.887	3	Lin Thru 0	0.0	15.98	0.00000	1.000000	
Cd 214.440	3	Lin Thru 0	0.0	284.2	0.00000	0.999993	
Co 228.616	3	Lin Thru 0	0.0	105.8	0.00000	0.999988	
Cr 267.716	3	Lin Thru 0	0.0	81.69	0.00000	0.999999	
Cu 327.393	3	Lin Thru 0	0.0	204.8	0.00000	1.000000	
Fe 273.955	3	Lin Thru 0	0.0	77.66	0.00000	0.999990	
K 766.490	3	Lin Thru 0	0.0	7.669	0.00000	0.999777	
Mg 285.213	3	Lin Thru 0	0.0	17.82	0.00000	0.999949	
Mn 257.610	3	Lin Thru 0	0.0	91.44	0.00000	0.999910	
Mo 202.031	3	Lin Thru 0	0.0	34.89	0.00000	1.000000	
Na 589.592	3	Lin Thru 0	0.0	11.02	0.00000	0.999880	
Ni 231.604	3	Lin Thru 0	0.0	50.87	0.00000	0.999968	
P 213.617	3	Lin Thru 0	0.0	3.046	0.00000	0.999999	
Pb 220.353	3	Lin Thru 0	0.0	4.466	0.00000	0.999990	
Sb 206.836	3	Lin Thru 0	0.0	6.334	0.00000	0.999961	
Se 196.026	3	Lin Thru 0	0.0	3.176	0.00000	0.999997	
Sn 189.927	3	Lin Thru 0	0.0	5.385	0.00000	0.999999	

Sr 421.552	3	Lin Thru 0	0.0	739.7	0.00000	0.999914
Ti 337.279	3	Lin Thru 0	0.0	39.04	0.00000	0.999900
Tl 190.801	3	Lin Thru 0	0.0	2.525	0.00000	0.999930
V 292.402	3	Lin Thru 0	0.0	87.43	0.00000	1.000000
Zn 206.200	3	Lin Thru 0	0.0	93.58	0.00000	0.999996

Sequence No.: 5
Sample ID: ICV 150707RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 07/07/15 1:11:57 PM
Data Type: Reprocessed on 07/08/15 8:46:28 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICV 150707RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	230677.2	97.66	%	0.583				0.60%
Y Radial	16750.6	102.1	%	5.43				5.32%
Ag 338.289†	46320.6	246.1	ug/L	1.43	246.1	ug/L	1.43	0.58%
QC value within limits for Ag 338.289 Recovery = 98.44%								
Al 308.215†	16035.4	11680	ug/L	654.31	11680	ug/L	654.31	5.60%
QC value within limits for Al 308.215 Recovery = 93.43%								
As 188.979†	2195.6	451.0	ug/L	3.98	451.0	ug/L	3.98	0.88%
QC value within limits for As 188.979 Recovery = 90.19%								
B 249.677†	17042.1	497.7	ug/L	3.09	497.7	ug/L	3.09	0.62%
QC value within limits for B 249.677 Recovery = 99.53%								
Ba 233.527†	212453.6	498.3	ug/L	2.77	498.3	ug/L	2.77	0.56%
QC value within limits for Ba 233.527 Recovery = 99.66%								
Be 313.107†	1579318.3	494.2	ug/L	3.08	494.2	ug/L	3.08	0.62%
QC value within limits for Be 313.107 Recovery = 98.84%								
Ca 315.887†	195796.5	12250	ug/L	693.47	12250	ug/L	693.47	5.66%
QC value within limits for Ca 315.887 Recovery = 97.98%								
Cd 214.440†	143034.0	503.4	ug/L	2.99	503.4	ug/L	2.99	0.59%
QC value within limits for Cd 214.440 Recovery = 100.68%								
Co 228.616†	53322.7	503.8	ug/L	2.89	503.8	ug/L	2.89	0.57%
QC value within limits for Co 228.616 Recovery = 100.76%								
Cr 267.716†	40947.8	501.2	ug/L	2.90	501.2	ug/L	2.90	0.58%
QC value within limits for Cr 267.716 Recovery = 100.24%								
Cu 327.393†	103917.7	508.5	ug/L	2.87	508.5	ug/L	2.87	0.56%
QC value within limits for Cu 327.393 Recovery = 101.70%								
Fe 273.955†	964435.8	12380	ug/L	69.14	12380	ug/L	69.14	0.56%
QC value within limits for Fe 273.955 Recovery = 99.04%								
K 766.490†	90114.6	11730	ug/L	665.15	11730	ug/L	665.15	5.67%
QC value within limits for K 766.490 Recovery = 93.80%								
Mg 285.213†	217413.2	12210	ug/L	687.24	12210	ug/L	687.24	5.63%
QC value within limits for Mg 285.213 Recovery = 97.71%								
Mn 257.610†	43435.3	474.7	ug/L	26.62	474.7	ug/L	26.62	5.61%
QC value within limits for Mn 257.610 Recovery = 94.94%								
Mo 202.031†	16993.7	487.6	ug/L	2.69	487.6	ug/L	2.69	0.55%
QC value within limits for Mo 202.031 Recovery = 97.53%								
Na 589.592†	130804.3	11850	ug/L	609.09	11850	ug/L	609.09	5.14%
QC value within limits for Na 589.592 Recovery = 94.83%								
Ni 231.604†	26097.7	512.1	ug/L	3.09	512.1	ug/L	3.09	0.60%
QC value within limits for Ni 231.604 Recovery = 102.42%								
P 213.617†	7564.8	2483	ug/L	10.80	2483	ug/L	10.80	0.43%
QC value within limits for P 213.617 Recovery = 99.33%								
Pb 220.353†	2285.8	515.8	ug/L	1.65	515.8	ug/L	1.65	0.32%
QC value within limits for Pb 220.353 Recovery = 103.16%								
Sb 206.836†	3198.9	505.1	ug/L	1.98	505.1	ug/L	1.98	0.39%
QC value within limits for Sb 206.836 Recovery = 101.01%								
Se 196.026†	1601.5	509.1	ug/L	4.49	509.1	ug/L	4.49	0.88%
QC value within limits for Se 196.026 Recovery = 101.83%								
Sn 189.927†	1354.4	251.5	ug/L	1.73	251.5	ug/L	1.73	0.69%
QC value within limits for Sn 189.927 Recovery = 100.60%								
Sr 421.552†	356321.8	481.2	ug/L	24.00	481.2	ug/L	24.00	4.99%
QC value within limits for Sr 421.552 Recovery = 96.24%								
Ti 337.279†	18406.9	471.3	ug/L	26.28	471.3	ug/L	26.28	5.57%
QC value within limits for Ti 337.279 Recovery = 94.27%								
Tl 190.801†	1294.6	512.8	ug/L	2.93	512.8	ug/L	2.93	0.57%
QC value within limits for Tl 190.801 Recovery = 102.56%								
V 292.402†	43203.7	494.2	ug/L	3.95	494.2	ug/L	3.95	0.80%
QC value within limits for V 292.402 Recovery = 98.83%								
Zn 206.200†	47688.3	515.7	ug/L	2.55	515.7	ug/L	2.55	0.49%
QC value within limits for Zn 206.200 Recovery = 103.14%								

All analyte(s) passed QC.

Sequence No.: 6
Sample ID: ICB 150707RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 07/07/15 1:16:44 PM
Data Type: Reprocessed on 07/08/15 8:46:30 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICB 150707RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	239226.3	101.3	%	0.88				0.87%
Y Radial	16241.1	98.98	%	0.204				0.21%
Ag 338.289†	1.1	0.006	ug/L	0.2592	0.006	ug/L	0.2592	>999.9%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	-2.6	-1.955	ug/L	6.0244	-1.955	ug/L	6.0244	308.10%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	12.5	2.582	ug/L	0.2549	2.582	ug/L	0.2549	9.87%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	86.8	2.549	ug/L	0.3138	2.549	ug/L	0.3138	12.31%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	7.9	0.018	ug/L	0.0317	0.018	ug/L	0.0317	179.67%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	65.9	0.021	ug/L	0.0093	0.021	ug/L	0.0093	44.94%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	4.4	0.272	ug/L	0.4121	0.272	ug/L	0.4121	151.54%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	12.6	0.045	ug/L	0.0354	0.045	ug/L	0.0354	78.65%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	9.6	0.095	ug/L	0.1609	0.095	ug/L	0.1609	169.03%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	4.8	0.059	ug/L	0.0306	0.059	ug/L	0.0306	52.18%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	554.9	2.710	ug/L	0.3563	2.710	ug/L	0.3563	13.15%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	105.5	1.369	ug/L	0.1329	1.369	ug/L	0.1329	9.71%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	36.1	4.691	ug/L	2.2466	4.691	ug/L	2.2466	47.90%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	11.2	0.627	ug/L	0.6475	0.627	ug/L	0.6475	103.27%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	12.9	0.141	ug/L	0.0579	0.141	ug/L	0.0579	41.14%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	52.6	1.508	ug/L	0.2201	1.508	ug/L	0.2201	14.60%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	90.7	8.218	ug/L	3.6283	8.218	ug/L	3.6283	44.15%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	2.2	0.044	ug/L	0.1099	0.044	ug/L	0.1099	249.82%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-0.6	-0.205	ug/L	1.6828	-0.205	ug/L	1.6828	819.27%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	5.8	1.302	ug/L	1.0353	1.302	ug/L	1.0353	79.50%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	61.2	9.658	ug/L	1.5055	9.658	ug/L	1.5055	15.59%
QC value greater than the upper limit for Sb 206.836 Recovery = Not calculated								
Se 196.026†	2.0	0.634	ug/L	2.0190	0.634	ug/L	2.0190	318.69%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	3.2	0.587	ug/L	0.5042	0.587	ug/L	0.5042	85.88%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	5.8	0.008	ug/L	0.0119	0.008	ug/L	0.0119	150.38%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	5.6	0.143	ug/L	0.1932	0.143	ug/L	0.1932	135.43%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-3.6	-1.435	ug/L	1.6359	-1.435	ug/L	1.6359	113.96%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-11.6	-0.132	ug/L	0.0526	-0.132	ug/L	0.0526	39.77%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	35.1	0.376	ug/L	0.0883	0.376	ug/L	0.0883	23.49%
QC value within limits for Zn 206.200 Recovery = Not calculated								

QC Failed. Continue with analysis.

Sequence No.: 5
Sample ID: ICSA 150707RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 6
Date Collected: 07/07/15 1:25:30 PM
Data Type: Reprocessed on 07/08/15 8:59:12 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSA 150707RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	228506.3	96.74	%	0.077				0.08%
Y Radial	16117.1	98.22	%	0.440				0.45%
Ag 338.289†	172.5	0.917	ug/L	0.1021	0.917	ug/L	0.1021	11.14%
QC value greater than the upper limit for Ag 338.289 Recovery = Not calculated								
Al 308.215†	142646.4	103700	ug/L	571.01	103700	ug/L	571.01	0.55%
QC value within limits for Al 308.215 Recovery = 103.67%								
As 188.979†	-10.2	-2.418	ug/L	0.1923	-2.418	ug/L	0.1923	7.95%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-270.4	-16.61	ug/L	0.526	-16.61	ug/L	0.526	3.16%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	2362.3	0.076	ug/L	0.0157	0.076	ug/L	0.0157	20.68%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	146.2	0.046	ug/L	0.0165	0.046	ug/L	0.0165	36.15%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	1694660.8	106000	ug/L	600.01	106000	ug/L	600.01	0.57%
QC value within limits for Ca 315.887 Recovery = 106.04%								
Cd 214.440†	1263.3	0.753	ug/L	0.0916	0.753	ug/L	0.0916	12.16%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	76.1	-2.147	ug/L	0.2271	-2.147	ug/L	0.2271	10.58%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	121.0	0.588	ug/L	0.1450	0.588	ug/L	0.1450	24.67%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	-85.6	0.886	ug/L	0.1158	0.886	ug/L	0.1158	13.08%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	7521009.1	96840	ug/L	258.50	96840	ug/L	258.50	0.27%
QC value within limits for Fe 273.955 Recovery = 96.84%								
K 766.490†	-198.9	-122.9	ug/L	12.56	-122.9	ug/L	12.56	10.22%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	1803993.1	101300	ug/L	480.21	101300	ug/L	480.21	0.47%
QC value within limits for Mg 285.213 Recovery = 101.34%								
Mn 257.610†	189.1	-1.308	ug/L	0.2037	-1.308	ug/L	0.2037	15.57%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-116.5	-1.951	ug/L	0.4912	-1.951	ug/L	0.4912	25.17%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	382.9	22.18	ug/L	1.540	22.18	ug/L	1.540	6.94%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-159.1	-0.711	ug/L	0.2690	-0.711	ug/L	0.2690	37.83%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-111.3	-36.53	ug/L	1.022	-36.53	ug/L	1.022	2.80%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-95.5	0.998	ug/L	0.8302	0.998	ug/L	0.8302	83.16%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-0.2	-0.037	ug/L	2.6906	-0.037	ug/L	2.6906	>999.9%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-132.0	4.632	ug/L	1.1702	4.632	ug/L	1.1702	25.26%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	8.8	1.632	ug/L	1.0357	1.632	ug/L	1.0357	63.47%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	462.1	-3.520	ug/L	0.0327	-3.520	ug/L	0.0327	0.93%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	63.3	-0.123	ug/L	0.0731	-0.123	ug/L	0.0731	59.39%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-25.8	-10.22	ug/L	0.329	-10.22	ug/L	0.329	3.21%
QC value less than the lower limit for Tl 190.801 Recovery = Not calculated								
V 292.402†	-37.0	-0.423	ug/L	0.0362	-0.423	ug/L	0.0362	8.55%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	515.3	4.996	ug/L	0.0928	4.996	ug/L	0.0928	1.86%
QC value within limits for Zn 206.200 Recovery = Not calculated								

QC Failed. Continue with analysis.

Sequence No.: 7
Sample ID: ICSAB 150707RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 7
Date Collected: 07/07/15 1:30:34 PM
Data Type: Reprocessed on 07/08/15 8:46:31 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSAB 150707RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	220863.3	93.50	%	0.169				0.18%
Y Radial	15920.3	97.02	%	0.593				0.61%
Ag 338.289†	100535.0	534.1	ug/L	1.53	534.1	ug/L	1.53	0.29%
QC value within limits for Ag 338.289 Recovery = 106.82%								
Al 308.215†	145310.9	105600	ug/L	923.38	105600	ug/L	923.38	0.87%
QC value within limits for Al 308.215 Recovery = 105.63%								
As 188.979†	1265.0	260.0	ug/L	0.63	260.0	ug/L	0.63	0.24%
QC value within limits for As 188.979 Recovery = 104.00%								
B 249.677†	-255.0	-17.01	ug/L	0.775	-17.01	ug/L	0.775	4.56%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	115463.7	265.5	ug/L	0.53	265.5	ug/L	0.53	0.20%
QC value within limits for Ba 233.527 Recovery = 106.19%								
Be 313.107†	843675.6	264.0	ug/L	0.91	264.0	ug/L	0.91	0.34%
QC value within limits for Be 313.107 Recovery = 105.60%								
Ca 315.887†	1723824.3	107900	ug/L	930.50	107900	ug/L	930.50	0.86%
QC value within limits for Ca 315.887 Recovery = 107.86%								
Cd 214.440†	149295.4	521.6	ug/L	1.16	521.6	ug/L	1.16	0.22%
QC value within limits for Cd 214.440 Recovery = 104.32%								
Co 228.616†	28238.5	264.5	ug/L	0.46	264.5	ug/L	0.46	0.18%
QC value within limits for Co 228.616 Recovery = 105.80%								
Cr 267.716†	22320.1	272.4	ug/L	0.90	272.4	ug/L	0.90	0.33%
QC value within limits for Cr 267.716 Recovery = 108.95%								
Cu 327.393†	58682.7	287.8	ug/L	1.33	287.8	ug/L	1.33	0.46%
QC value within limits for Cu 327.393 Recovery = 115.11%								
Fe 273.955†	7919611.2	102000	ug/L	227.65	102000	ug/L	227.65	0.22%
QC value within limits for Fe 273.955 Recovery = 101.95%								
K 766.490†	-271.1	-137.7	ug/L	11.02	-137.7	ug/L	11.02	8.01%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	1835690.0	103100	ug/L	947.88	103100	ug/L	947.88	0.92%
QC value within limits for Mg 285.213 Recovery = 103.12%								
Mn 257.610†	24201.3	261.3	ug/L	1.67	261.3	ug/L	1.67	0.64%
QC value within limits for Mn 257.610 Recovery = 104.51%								
Mo 202.031†	8701.8	251.1	ug/L	1.06	251.1	ug/L	1.06	0.42%
QC value within limits for Mo 202.031 Recovery = 100.45%								
Na 589.592†	286.3	12.16	ug/L	2.123	12.16	ug/L	2.123	17.46%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	25776.5	508.6	ug/L	2.36	508.6	ug/L	2.36	0.46%
QC value within limits for Ni 231.604 Recovery = 101.72%								
P 213.617†	-314.7	-103.3	ug/L	0.58	-103.3	ug/L	0.58	0.56%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	2320.3	543.0	ug/L	5.28	543.0	ug/L	5.28	0.97%
QC value within limits for Pb 220.353 Recovery = 108.60%								
Sb 206.836†	1803.7	284.8	ug/L	2.17	284.8	ug/L	2.17	0.76%
QC value within limits for Sb 206.836 Recovery = 113.92%								
Se 196.026†	714.1	272.9	ug/L	6.62	272.9	ug/L	6.62	2.43%
QC value within limits for Se 196.026 Recovery = 109.14%								
Sn 189.927†	4.2	0.773	ug/L	2.4326	0.773	ug/L	2.4326	314.57%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	502.1	-3.541	ug/L	0.0373	-3.541	ug/L	0.0373	1.05%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	32.9	-0.891	ug/L	0.6486	-0.891	ug/L	0.6486	72.84%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	665.9	263.8	ug/L	11.25	263.8	ug/L	11.25	4.26%
QC value within limits for Tl 190.801 Recovery = 105.50%								
V 292.402†	24581.9	281.2	ug/L	1.30	281.2	ug/L	1.30	0.46%
QC value within limits for V 292.402 Recovery = 112.47%								
Zn 206.200†	50451.4	541.5	ug/L	1.33	541.5	ug/L	1.33	0.25%
QC value within limits for Zn 206.200 Recovery = 108.30%								

All analyte(s) passed QC.

Sequence No.: 8
Sample ID: CCV1 150707RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 07/07/15 1:34:44 PM
Data Type: Reprocessed on 07/08/15 8:46:32 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV1 150707RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	228139.4	96.58	%	0.980				1.01%
Y Radial	15870.4	96.72	%	0.538				0.56%
Ag 338.289†	46928.8	249.3	ug/L	0.96	249.3	ug/L	0.96	0.39%
QC value within limits for Ag 338.289 Recovery = 99.73%								
Al 308.215†	13914.1	10140	ug/L	79.70	10140	ug/L	79.70	0.79%
QC value within limits for Al 308.215 Recovery = 101.37%								
As 188.979†	2452.2	502.2	ug/L	6.41	502.2	ug/L	6.41	1.28%
QC value within limits for As 188.979 Recovery = 100.45%								
B 249.677†	17015.1	496.6	ug/L	3.76	496.6	ug/L	3.76	0.76%
QC value within limits for B 249.677 Recovery = 99.33%								
Ba 233.527†	215739.2	506.2	ug/L	1.63	506.2	ug/L	1.63	0.32%
QC value within limits for Ba 233.527 Recovery = 101.23%								
Be 313.107†	1628403.5	509.6	ug/L	1.62	509.6	ug/L	1.62	0.32%
QC value within limits for Be 313.107 Recovery = 101.91%								
Ca 315.887†	417550.4	26120	ug/L	111.99	26120	ug/L	111.99	0.43%
QC value within limits for Ca 315.887 Recovery = 104.50%								
Cd 214.440†	144767.8	509.8	ug/L	3.67	509.8	ug/L	3.67	0.72%
QC value within limits for Cd 214.440 Recovery = 101.95%								
Co 228.616†	53937.8	509.6	ug/L	2.05	509.6	ug/L	2.05	0.40%
QC value within limits for Co 228.616 Recovery = 101.92%								
Cr 267.716†	41286.2	505.3	ug/L	1.07	505.3	ug/L	1.07	0.21%
QC value within limits for Cr 267.716 Recovery = 101.06%								
Cu 327.393†	102621.6	502.1	ug/L	1.89	502.1	ug/L	1.89	0.38%
QC value within limits for Cu 327.393 Recovery = 100.42%								
Fe 273.955†	789672.1	10130	ug/L	37.95	10130	ug/L	37.95	0.37%
QC value within limits for Fe 273.955 Recovery = 101.28%								
K 766.490†	77272.4	10050	ug/L	67.51	10050	ug/L	67.51	0.67%
QC value within limits for K 766.490 Recovery = 100.50%								
Mg 285.213†	456958.6	25660	ug/L	294.20	25660	ug/L	294.20	1.15%
QC value within limits for Mg 285.213 Recovery = 102.63%								
Mn 257.610†	46366.0	506.2	ug/L	2.93	506.2	ug/L	2.93	0.58%
QC value within limits for Mn 257.610 Recovery = 101.23%								
Mo 202.031†	17403.2	499.3	ug/L	2.43	499.3	ug/L	2.43	0.49%
QC value within limits for Mo 202.031 Recovery = 99.87%								
Na 589.592†	141545.8	12830	ug/L	157.41	12830	ug/L	157.41	1.23%
QC value within limits for Na 589.592 Recovery = 102.64%								
Ni 231.604†	25776.4	505.8	ug/L	1.97	505.8	ug/L	1.97	0.39%
QC value within limits for Ni 231.604 Recovery = 101.15%								
P 213.617†	7718.8	2534	ug/L	36.31	2534	ug/L	36.31	1.43%
QC value within limits for P 213.617 Recovery = 101.35%								
Pb 220.353†	2332.7	526.5	ug/L	4.73	526.5	ug/L	4.73	0.90%
QC value within limits for Pb 220.353 Recovery = 105.31%								
Sb 206.836†	3201.3	505.4	ug/L	10.70	505.4	ug/L	10.70	2.12%
QC value within limits for Sb 206.836 Recovery = 101.09%								
Se 196.026†	1604.8	508.7	ug/L	10.72	508.7	ug/L	10.72	2.11%
QC value within limits for Se 196.026 Recovery = 101.73%								
Sn 189.927†	2728.2	506.6	ug/L	5.68	506.6	ug/L	5.68	1.12%
QC value within limits for Sn 189.927 Recovery = 101.32%								
Sr 421.552†	382568.3	516.2	ug/L	6.58	516.2	ug/L	6.58	1.28%
QC value within limits for Sr 421.552 Recovery = 103.23%								
Ti 337.279†	19767.8	506.0	ug/L	2.81	506.0	ug/L	2.81	0.55%
QC value within limits for Ti 337.279 Recovery = 101.20%								
Tl 190.801†	1403.4	555.9	ug/L	2.94	555.9	ug/L	2.94	0.53%
QC value greater than the upper limit for Tl 190.801 Recovery = 111.18%								
V 292.402†	44534.5	509.4	ug/L	1.98	509.4	ug/L	1.98	0.39%
QC value within limits for V 292.402 Recovery = 101.88%								
Zn 206.200†	47573.9	515.2	ug/L	3.67	515.2	ug/L	3.67	0.71%
QC value within limits for Zn 206.200 Recovery = 103.04%								

QC Failed. Continue with analysis.

Sequence No.: 9
Sample ID: CCB 150707RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 07/07/15 1:42:16 PM
Data Type: Reprocessed on 07/08/15 8:46:34 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150707RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	238214.6	100.8	%	0.47				0.47%
Y Radial	16427.7	100.1	%	0.32				0.32%
Ag 338.289†	-36.1	-0.192	ug/L	0.1727	-0.192	ug/L	0.1727	90.02%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	8.7	6.290	ug/L	1.5480	6.290	ug/L	1.5480	24.61%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	6.5	1.340	ug/L	0.5793	1.340	ug/L	0.5793	43.23%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	228.3	6.698	ug/L	0.0810	6.698	ug/L	0.0810	1.21%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-13.9	-0.033	ug/L	0.0273	-0.033	ug/L	0.0273	82.04%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	8.7	0.003	ug/L	0.0088	0.003	ug/L	0.0088	322.95%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	6.4	0.400	ug/L	0.6946	0.400	ug/L	0.6946	173.85%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	38.7	0.137	ug/L	0.0343	0.137	ug/L	0.0343	25.08%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	1.0	0.013	ug/L	0.0433	0.013	ug/L	0.0433	344.99%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	4.0	0.049	ug/L	0.1638	0.049	ug/L	0.1638	335.76%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	584.6	2.855	ug/L	0.2449	2.855	ug/L	0.2449	8.58%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	190.0	2.454	ug/L	0.2516	2.454	ug/L	0.2516	10.26%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	-6.0	-0.775	ug/L	9.2790	-0.775	ug/L	9.2790	>999.9%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	25.2	1.419	ug/L	0.4827	1.419	ug/L	0.4827	34.01%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	14.0	0.153	ug/L	0.1567	0.153	ug/L	0.1567	102.19%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	38.9	1.115	ug/L	0.4033	1.115	ug/L	0.4033	36.16%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-134.6	-12.21	ug/L	1.030	-12.21	ug/L	1.030	8.43%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	27.8	0.547	ug/L	0.2708	0.547	ug/L	0.2708	49.49%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	4.5	1.466	ug/L	1.0868	1.466	ug/L	1.0868	74.12%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	10.6	2.373	ug/L	0.4601	2.373	ug/L	0.4601	19.39%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	54.2	8.556	ug/L	1.5467	8.556	ug/L	1.5467	18.08%
QC value greater than the upper limit for Sb 206.836 Recovery = Not calculated								
Se 196.026†	0.2	0.054	ug/L	1.0041	0.054	ug/L	1.0041	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	2.4	0.450	ug/L	0.4209	0.450	ug/L	0.4209	93.50%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	1.1	0.001	ug/L	0.0059	0.001	ug/L	0.0059	403.51%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	8.7	0.222	ug/L	0.2350	0.222	ug/L	0.2350	105.73%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-2.3	-0.919	ug/L	2.1339	-0.919	ug/L	2.1339	232.16%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-6.6	-0.076	ug/L	0.0890	-0.076	ug/L	0.0890	117.44%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	87.2	0.932	ug/L	0.1801	0.932	ug/L	0.1801	19.32%
QC value within limits for Zn 206.200 Recovery = Not calculated								

QC Failed. Continue with analysis.

Sequence No.: 12
Sample ID: CCV2 150707RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 8
Date Collected: 07/07/15 2:03:55 PM
Data Type: Reprocessed on 07/08/15 8:46:37 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV2 150707RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	234336.3	99.21	%	0.475				0.48%
Y Radial	16271.2	99.16	%	0.267				0.27%
Ag 338.289†	34902.5	185.4	ug/L	1.49	185.4	ug/L	1.49	0.80%
QC value within limits for Ag 338.289 Recovery = 98.89%								
Al 308.215†	10407.2	7582	ug/L	3.35	7582	ug/L	3.35	0.04%
QC value within limits for Al 308.215 Recovery = 101.10%								
As 188.979†	1826.3	374.1	ug/L	2.16	374.1	ug/L	2.16	0.58%
QC value within limits for As 188.979 Recovery = 99.75%								
B 249.677†	13173.7	384.6	ug/L	2.96	384.6	ug/L	2.96	0.77%
QC value within limits for B 249.677 Recovery = 102.56%								
Ba 233.527†	160516.2	376.6	ug/L	2.72	376.6	ug/L	2.72	0.72%
QC value within limits for Ba 233.527 Recovery = 100.43%								
Be 313.107†	1208163.1	378.1	ug/L	1.79	378.1	ug/L	1.79	0.47%
QC value within limits for Be 313.107 Recovery = 100.82%								
Ca 315.887†	308031.0	19270	ug/L	41.49	19270	ug/L	41.49	0.22%
QC value within limits for Ca 315.887 Recovery = 102.78%								
Cd 214.440†	107416.8	378.3	ug/L	2.76	378.3	ug/L	2.76	0.73%
QC value within limits for Cd 214.440 Recovery = 100.87%								
Co 228.616†	40152.9	379.4	ug/L	2.44	379.4	ug/L	2.44	0.64%
QC value within limits for Co 228.616 Recovery = 101.16%								
Cr 267.716†	30774.3	376.6	ug/L	2.37	376.6	ug/L	2.37	0.63%
QC value within limits for Cr 267.716 Recovery = 100.44%								
Cu 327.393†	76444.3	374.0	ug/L	3.16	374.0	ug/L	3.16	0.85%
QC value within limits for Cu 327.393 Recovery = 99.74%								
Fe 273.955†	586447.8	7521	ug/L	49.17	7521	ug/L	49.17	0.65%
QC value within limits for Fe 273.955 Recovery = 100.28%								
K 766.490†	57701.0	7505	ug/L	5.02	7505	ug/L	5.02	0.07%
QC value within limits for K 766.490 Recovery = 100.06%								
Mg 285.213†	347332.6	19500	ug/L	27.99	19500	ug/L	27.99	0.14%
QC value within limits for Mg 285.213 Recovery = 104.01%								
Mn 257.610†	34427.1	375.8	ug/L	0.17	375.8	ug/L	0.17	0.05%
QC value within limits for Mn 257.610 Recovery = 100.22%								
Mo 202.031†	12997.3	372.9	ug/L	3.34	372.9	ug/L	3.34	0.90%
QC value within limits for Mo 202.031 Recovery = 99.44%								
Na 589.592†	107556.2	9749	ug/L	17.42	9749	ug/L	17.42	0.18%
QC value within limits for Na 589.592 Recovery = 103.99%								
Ni 231.604†	19248.2	377.7	ug/L	1.65	377.7	ug/L	1.65	0.44%
QC value within limits for Ni 231.604 Recovery = 100.71%								
P 213.617†	5693.9	1869	ug/L	10.75	1869	ug/L	10.75	0.57%
QC value within limits for P 213.617 Recovery = 99.68%								
Pb 220.353†	1760.2	397.3	ug/L	1.91	397.3	ug/L	1.91	0.48%
QC value within limits for Pb 220.353 Recovery = 105.94%								
Sb 206.836†	2394.5	378.1	ug/L	5.91	378.1	ug/L	5.91	1.56%
QC value within limits for Sb 206.836 Recovery = 100.82%								
Se 196.026†	1184.1	375.3	ug/L	0.57	375.3	ug/L	0.57	0.15%
QC value within limits for Se 196.026 Recovery = 100.09%								
Sn 189.927†	2032.6	377.4	ug/L	3.10	377.4	ug/L	3.10	0.82%
QC value within limits for Sn 189.927 Recovery = 100.65%								
Sr 421.552†	283283.9	382.2	ug/L	1.94	382.2	ug/L	1.94	0.51%
QC value within limits for Sr 421.552 Recovery = 101.92%								
Ti 337.279†	14738.5	377.3	ug/L	0.40	377.3	ug/L	0.40	0.11%
QC value within limits for Ti 337.279 Recovery = 100.61%								
Tl 190.801†	1095.0	433.7	ug/L	2.28	433.7	ug/L	2.28	0.52%
QC value greater than the upper limit for Tl 190.801 Recovery = 115.66%								
V 292.402†	33357.8	381.5	ug/L	1.80	381.5	ug/L	1.80	0.47%
QC value within limits for V 292.402 Recovery = 101.74%								
Zn 206.200†	37064.4	401.2	ug/L	1.94	401.2	ug/L	1.94	0.48%
QC value within limits for Zn 206.200 Recovery = 106.98%								

QC Failed. Continue with analysis.

Sequence No.: 13
Sample ID: CCB 150707RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 07/07/15 2:11:22 PM
Data Type: Reprocessed on 07/08/15 8:46:39 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150707RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	241806.2	102.4	%	0.95				0.93%
Y Radial	16689.3	101.7	%	0.85				0.84%
Ag 338.289†	4.1	0.022	ug/L	0.2653	0.022	ug/L	0.2653	>999.9%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	3.7	2.637	ug/L	4.2235	2.637	ug/L	4.2235	160.14%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	4.9	1.004	ug/L	0.6198	1.004	ug/L	0.6198	61.73%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	91.7	2.692	ug/L	0.2859	2.692	ug/L	0.2859	10.62%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	-101.5	-0.239	ug/L	0.0250	-0.239	ug/L	0.0250	10.49%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-41.1	-0.013	ug/L	0.0095	-0.013	ug/L	0.0095	73.62%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	-247.4	-15.48	ug/L	0.668	-15.48	ug/L	0.668	4.32%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	32.2	0.113	ug/L	0.0385	0.113	ug/L	0.0385	33.97%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	-0.6	-0.004	ug/L	0.0640	-0.004	ug/L	0.0640	>999.9%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-3.5	-0.043	ug/L	0.0904	-0.043	ug/L	0.0904	210.45%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	362.8	1.773	ug/L	0.4050	1.773	ug/L	0.4050	22.85%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	119.6	1.551	ug/L	0.1389	1.551	ug/L	0.1389	8.96%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	-112.9	-14.70	ug/L	13.780	-14.70	ug/L	13.780	93.71%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	11.7	0.659	ug/L	0.6013	0.659	ug/L	0.6013	91.28%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	4.9	0.054	ug/L	0.0868	0.054	ug/L	0.0868	161.98%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	21.8	0.624	ug/L	0.2029	0.624	ug/L	0.2029	32.51%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-181.2	-16.43	ug/L	1.141	-16.43	ug/L	1.141	6.95%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	37.2	0.732	ug/L	0.2042	0.732	ug/L	0.2042	27.88%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-2.2	-0.709	ug/L	0.3390	-0.709	ug/L	0.3390	47.84%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	3.7	0.835	ug/L	0.6389	0.835	ug/L	0.6389	76.55%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	41.5	6.559	ug/L	1.1451	6.559	ug/L	1.1451	17.46%
QC value greater than the upper limit for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-1.9	-0.586	ug/L	2.5180	-0.586	ug/L	2.5180	429.45%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	2.9	0.531	ug/L	0.5411	0.531	ug/L	0.5411	101.87%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	-3.8	-0.005	ug/L	0.0094	-0.005	ug/L	0.0094	205.58%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	13.9	0.357	ug/L	0.1687	0.357	ug/L	0.1687	47.26%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-6.6	-2.619	ug/L	2.2100	-2.619	ug/L	2.2100	84.37%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-9.3	-0.107	ug/L	0.0066	-0.107	ug/L	0.0066	6.14%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	10.6	0.111	ug/L	0.1732	0.111	ug/L	0.1732	155.63%
QC value within limits for Zn 206.200 Recovery = Not calculated								

QC Failed. Continue with analysis.

Reprocessing Begun
Logged In Analyst: chemist_metals Technique: ICP Continuous

Results Data Set (original): 150709A6010
Results Library (original): C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb
Results Data Set (reprocessed):
Results Library (reprocessed):

Sequence No.: 1 Autosampler Location: 1
Sample ID: CalBlk 150709RJS I:JL O:R Date Collected: 07/09/15 11:30:48 AM
Analyst: Data Type: Reprocessed on 07/09/15 4:14:08 PM
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:
Wash Time:

Mean Data: CalBlk 150709RJS I:JL O:R

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	231281.8	1525.04	0.66%	100.0	%
Y Radial	15399.4	153.70	1.00%	100.0	%
Ag 338.289†	-243.4	20.36	8.36%	[0.00]	ug/L
Al 308.215†	61.7	3.12	5.06%	[0.00]	ug/L
As 188.979†	-75.3	1.45	1.92%	[0.00]	ug/L
B 249.677†	106.9	10.59	9.90%	[0.00]	ug/L
Ba 233.527†	-12.1	9.64	79.44%	[0.00]	ug/L
Be 313.107†	1886.3	52.47	2.78%	[0.00]	ug/L
Ca 315.887†	-83.9	9.00	10.73%	[0.00]	ug/L
Cd 214.440†	-388.7	6.96	1.79%	[0.00]	ug/L
Co 228.616†	-197.6	5.87	2.97%	[0.00]	ug/L
Cr 267.716†	31.1	8.86	28.46%	[0.00]	ug/L
Cu 327.393†	-1332.0	58.45	4.39%	[0.00]	ug/L
Fe 273.955†	925.9	46.32	5.00%	[0.00]	ug/L
K 766.490†	-705.0	76.11	10.80%	[0.00]	ug/L
Mg 285.213†	100.0	5.24	5.24%	[0.00]	ug/L
Mn 257.610†	-6.7	6.81	102.05%	[0.00]	ug/L
Mo 202.031†	-64.0	7.79	12.18%	[0.00]	ug/L
Na 589.592†	901.0	13.34	1.48%	[0.00]	ug/L
Ni 231.604†	-136.5	14.71	10.78%	[0.00]	ug/L
P 213.617†	-67.7	0.83	1.23%	[0.00]	ug/L
Pb 220.353†	25.3	1.46	5.77%	[0.00]	ug/L
Sb 206.836†	-6.5	1.98	30.54%	[0.00]	ug/L
Se 196.026†	14.8	2.28	15.48%	[0.00]	ug/L
Sn 189.927†	2.4	2.65	109.60%	[0.00]	ug/L
Sr 421.552†	25.0	8.30	33.17%	[0.00]	ug/L
Ti 337.279†	-45.1	15.59	34.54%	[0.00]	ug/L
Tl 190.801†	-12.9	3.13	24.39%	[0.00]	ug/L
V 292.402†	-104.4	8.19	7.84%	[0.00]	ug/L
Zn 206.200†	265.2	16.06	6.06%	[0.00]	ug/L
Li 670.784	12009.9	166.28	1.38%	[0.00]	ug/L

Sequence No.: 2
Sample ID: STD 1 150709RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 2
Date Collected: 07/09/15 11:36:31 AM
Data Type: Reprocessed on 07/09/15 4:14:10 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 1 150709RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	231889.9	790.08	0.34%	100.3	%
Y Radial	16010.8	41.09	0.26%	104.0	%
Ag 338.289†	1066.4	25.99	2.44%	[0.5]	ug/L
Al 308.215†	289.1	2.50	0.87%	[50]	ug/L
As 188.979†	56.5	0.54	0.95%	[2]	ug/L
B 249.677†	1138.8	16.70	1.47%	[25]	ug/L
Ba 233.527†	4780.8	31.86	0.67%	[1.5]	ug/L
Be 313.107†	36448.9	168.03	0.46%	[1]	ug/L
Ca 315.887†	7837.9	23.49	0.30%	[50]	ug/L
Cd 214.440†	2831.2	21.84	0.77%	[0.25]	ug/L
Co 228.616†	1199.7	7.13	0.59%	[2.5]	ug/L
Cr 267.716†	845.2	8.67	1.03%	[0.5]	ug/L
Cu 327.393†	2372.5	51.55	2.17%	[2.5]	ug/L
Fe 273.955†	16236.7	67.90	0.42%	[25]	ug/L
K 766.490†	5173.9	103.53	2.00%	[500]	ug/L
Mg 285.213†	8239.4	34.15	0.41%	[25]	ug/L
Mn 257.610†	878.8	0.89	0.10%	[1]	ug/L
Mo 202.031†	353.8	7.08	2.00%	[1]	ug/L
Na 589.592†	7007.8	78.44	1.12%	[500]	ug/L
Ni 231.604†	508.3	8.71	1.71%	[1]	ug/L
P 213.617†	181.1	5.77	3.19%	[12.5]	ug/L
Pb 220.353†	62.6	2.68	4.28%	[1.5]	ug/L
Sb 206.836†	71.2	2.31	3.24%	[2]	ug/L
Se 196.026†	37.2	4.01	10.80%	[2]	ug/L
Sn 189.927†	63.2	0.37	0.58%	[3]	ug/L
Sr 421.552†	6609.6	38.55	0.58%	[1]	ug/L
Ti 337.279†	434.2	5.11	1.18%	[2.5]	ug/L
Tl 190.801†	59.2	3.69	6.23%	[2]	ug/L
V 292.402†	1036.1	1.28	0.12%	[0.5]	ug/L
Zn 206.200†	3073.1	19.95	0.65%	[25]	ug/L
Li 670.784	75024.3	404.24	0.54%	[5]	ug/L

Sequence No.: 3
Sample ID: STD 2 150709RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 07/09/15 11:42:15 AM
Data Type: Reprocessed on 07/09/15 4:14:11 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 2 150709RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	219996.1	951.21	0.43%	95.12	%
Y Radial	15262.5	26.80	0.18%	99.11	%
Ag 338.289†	45360.2	167.73	0.37%	[250]	ug/L
Al 308.215†	12792.8	33.55	0.26%	[10000]	ug/L
As 188.979†	2484.3	4.53	0.18%	[500]	ug/L
B 249.677†	16987.5	121.08	0.71%	[500]	ug/L
Ba 233.527†	205059.8	289.59	0.14%	[500]	ug/L
Be 313.107†	1792961.5	3284.55	0.18%	[500]	ug/L
Ca 315.887†	379972.1	1302.91	0.34%	[25000]	ug/L
Cd 214.440†	138050.1	177.80	0.13%	[500]	ug/L
Co 228.616†	47378.8	179.46	0.38%	[500]	ug/L
Cr 267.716†	40566.5	91.77	0.23%	[500]	ug/L
Cu 327.393†	100169.9	463.51	0.46%	[500]	ug/L
Fe 273.955†	755431.5	1690.65	0.22%	[10000]	ug/L
K 766.490†	78573.6	404.39	0.51%	[10000]	ug/L
Mg 285.213†	424774.1	1476.62	0.35%	[25000]	ug/L
Mn 257.610†	42238.1	117.40	0.28%	[500]	ug/L
Mo 202.031†	16752.0	28.79	0.17%	[500]	ug/L
Na 589.592†	126522.3	436.86	0.35%	[12500]	ug/L
Ni 231.604†	23709.9	108.41	0.46%	[500]	ug/L
P 213.617†	7877.4	24.19	0.31%	[2500]	ug/L
Pb 220.353†	2848.1	19.68	0.69%	[500]	ug/L
Sb 206.836†	3392.7	6.52	0.19%	[500]	ug/L
Se 196.026†	1570.4	7.18	0.46%	[500]	ug/L
Sn 189.927†	2579.0	6.54	0.25%	[500]	ug/L
Sr 421.552†	323397.2	1123.66	0.35%	[500]	ug/L
Ti 337.279†	18444.0	62.15	0.34%	[500]	ug/L
Tl 190.801†	2452.6	12.34	0.50%	[500]	ug/L
V 292.402†	49794.7	114.40	0.23%	[500]	ug/L
Zn 206.200†	45345.5	40.44	0.09%	[500]	ug/L
Li 670.784	5188679.0	29759.75	0.57%	[250]	ug/L

Sequence No.: 4
Sample ID: STD 3 150709RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 4
Date Collected: 07/09/15 11:47:35 AM
Data Type: Reprocessed on 07/09/15 4:14:12 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: STD 3 150709RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 371.029	216976.8	767.11	0.35%	93.81	%
Y Radial	15450.6	115.32	0.75%	100.3	%
Ag 338.289†	90412.5	114.98	0.13%	[500]	ug/L
Al 308.215†	25587.8	111.90	0.44%	[20000]	ug/L
As 188.979†	4955.1	11.67	0.24%	[1000]	ug/L
B 249.677†	34131.1	127.08	0.37%	[1000]	ug/L
Ba 233.527†	406007.5	632.64	0.16%	[1000]	ug/L
Be 313.107†	3535736.2	2368.75	0.07%	[1000]	ug/L
Ca 315.887†	730278.7	5741.46	0.79%	[50000]	ug/L
Cd 214.440†	271288.7	712.36	0.26%	[1000]	ug/L
Co 228.616†	92832.8	95.17	0.10%	[1000]	ug/L
Cr 267.716†	80386.8	143.11	0.18%	[1000]	ug/L
Cu 327.393†	200158.1	148.66	0.07%	[1000]	ug/L
Fe 273.955†	1486746.0	2367.41	0.16%	[20000]	ug/L
K 766.490†	158246.4	593.90	0.38%	[20000]	ug/L
Mg 285.213†	812821.3	6989.95	0.86%	[50000]	ug/L
Mn 257.610†	83781.3	361.67	0.43%	[1000]	ug/L
Mo 202.031†	33249.6	23.96	0.07%	[1000]	ug/L
Na 589.592†	256131.2	2250.12	0.88%	[25000]	ug/L
Ni 231.604†	46265.0	67.86	0.15%	[1000]	ug/L
P 213.617†	15794.1	26.68	0.17%	[5000]	ug/L
Pb 220.353†	5524.6	20.48	0.37%	[1000]	ug/L
Sb 206.836†	6735.1	28.59	0.42%	[1000]	ug/L
Se 196.026†	3098.5	5.55	0.18%	[1000]	ug/L
Sn 189.927†	5113.6	11.78	0.23%	[1000]	ug/L
Sr 421.552†	655994.7	5447.59	0.83%	[1000]	ug/L
Ti 337.279†	36498.9	166.27	0.46%	[1000]	ug/L
Tl 190.801†	4708.2	35.38	0.75%	[1000]	ug/L
V 292.402†	98653.2	123.60	0.13%	[1000]	ug/L
Zn 206.200†	89237.8	269.78	0.30%	[1000]	ug/L
Li 670.784	11272474.1	53270.62	0.47%	[500]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 338.289	3	Lin Thru 0	0.0	180.9	0.00000	0.999953	
Al 308.215	3	Lin Thru 0	0.0	1.279	0.00000	0.999969	
As 188.979	3	Lin Thru 0	0.0	4.958	0.00000	0.999964	
B 249.677	3	Lin Thru 0	0.0	34.11	0.00000	0.999970	
Ba 233.527	3	Lin Thru 0	0.0	406.8	0.00000	0.999950	
Be 313.107	3	Lin Thru 0	0.0	3546	0.00000	0.999950	
Ca 315.887	3	Lin Thru 0	0.0	14.72	0.00000	0.999833	
Cd 214.440	3	Lin Thru 0	0.0	272.3	0.00000	0.999934	
Co 228.616	3	Lin Thru 0	0.0	93.22	0.00000	0.999923	
Cr 267.716	3	Lin Thru 0	0.0	80.54	0.00000	0.999953	
Cu 327.393	3	Lin Thru 0	0.0	200.2	0.00000	0.999965	
Fe 273.955	3	Lin Thru 0	0.0	74.58	0.00000	0.999942	
K 766.490	3	Lin Thru 0	0.0	7.903	0.00000	0.999972	
Mg 285.213	3	Lin Thru 0	0.0	16.40	0.00000	0.999803	
Mn 257.610	3	Lin Thru 0	0.0	83.92	0.00000	0.999959	
Mo 202.031	3	Lin Thru 0	0.0	33.30	0.00000	0.999958	
Na 589.592	3	Lin Thru 0	0.0	10.22	0.00000	0.999966	
Ni 231.604	3	Lin Thru 0	0.0	46.50	0.00000	0.999911	
P 213.617	3	Lin Thru 0	0.0	3.157	0.00000	0.999967	
Pb 220.353	3	Lin Thru 0	0.0	5.559	0.00000	0.999886	
Sb 206.836	3	Lin Thru 0	0.0	6.745	0.00000	0.999966	
Se 196.026	3	Lin Thru 0	0.0	3.107	0.00000	0.999946	

Sn 189.927	3	Lin Thru 0	0.0	5.123	0.00000	0.999959
Sr 421.552	3	Lin Thru 0	0.0	654.2	0.00000	0.999951
Ti 337.279	3	Lin Thru 0	0.0	36.58	0.00000	0.999956
Tl 190.801	3	Lin Thru 0	0.0	4.748	0.00000	0.999818
V 292.402	3	Lin Thru 0	0.0	98.84	0.00000	0.999953
Zn 206.200	3	Lin Thru 0	0.0	89.55	0.00000	0.999944
Li 670.784	3	Lin Thru 0	0.0	22190	0.00000	0.999475

Sequence No.: 5
Sample ID: ICV 150709RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 07/09/15 12:02:28 PM
Data Type: Reprocessed on 07/09/15 4:14:14 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICV 150709RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	225238.8	97.39	%	0.410				0.42%
Y Radial	15630.4	101.5	%	1.07				1.06%
Ag 338.289†	44199.5	244.3	ug/L	0.98	244.3	ug/L	0.98	0.40%
QC value within limits for Ag 338.289 Recovery = 97.71%								
Al 308.215†	15316.9	11990	ug/L	61.68	11990	ug/L	61.68	0.51%
QC value within limits for Al 308.215 Recovery = 95.96%								
As 188.979†	2007.2	401.8	ug/L	3.81	401.8	ug/L	3.81	0.95%
QC value less than the lower limit for As 188.979 Recovery = 80.36%								
B 249.677†	16435.0	511.6	ug/L	0.76	511.6	ug/L	0.76	0.15%
QC value within limits for B 249.677 Recovery = 102.33%								
Ba 233.527†	198047.2	486.4	ug/L	0.82	486.4	ug/L	0.82	0.17%
QC value within limits for Ba 233.527 Recovery = 97.28%								
Be 313.107†	1698107.1	478.9	ug/L	0.07	478.9	ug/L	0.07	0.01%
QC value within limits for Be 313.107 Recovery = 95.78%								
Ca 315.887†	186163.4	12640	ug/L	70.65	12640	ug/L	70.65	0.56%
QC value within limits for Ca 315.887 Recovery = 101.11%								
Cd 214.440†	134502.0	494.1	ug/L	0.88	494.1	ug/L	0.88	0.18%
QC value within limits for Cd 214.440 Recovery = 98.82%								
Co 228.616†	45751.2	490.7	ug/L	1.51	490.7	ug/L	1.51	0.31%
QC value within limits for Co 228.616 Recovery = 98.14%								
Cr 267.716†	39585.5	491.5	ug/L	1.51	491.5	ug/L	1.51	0.31%
QC value within limits for Cr 267.716 Recovery = 98.29%								
Cu 327.393†	99018.2	495.7	ug/L	1.37	495.7	ug/L	1.37	0.28%
QC value within limits for Cu 327.393 Recovery = 99.13%								
Fe 273.955†	914865.8	12230	ug/L	65.57	12230	ug/L	65.57	0.54%
QC value within limits for Fe 273.955 Recovery = 97.84%								
K 766.490†	96233.2	12150	ug/L	66.75	12150	ug/L	66.75	0.55%
QC value within limits for K 766.490 Recovery = 97.21%								
Mg 285.213†	205143.1	12520	ug/L	63.95	12520	ug/L	63.95	0.51%
QC value within limits for Mg 285.213 Recovery = 100.13%								
Mn 257.610†	40844.1	486.4	ug/L	2.52	486.4	ug/L	2.52	0.52%
QC value within limits for Mn 257.610 Recovery = 97.27%								
Mo 202.031†	15870.3	477.1	ug/L	3.03	477.1	ug/L	3.03	0.63%
QC value within limits for Mo 202.031 Recovery = 95.42%								
Na 589.592†	127202.3	12430	ug/L	127.69	12430	ug/L	127.69	1.03%
QC value within limits for Na 589.592 Recovery = 99.43%								
Ni 231.604†	23229.0	498.7	ug/L	2.83	498.7	ug/L	2.83	0.57%
QC value within limits for Ni 231.604 Recovery = 99.74%								
P 213.617†	7568.9	2397	ug/L	15.71	2397	ug/L	15.71	0.66%
QC value within limits for P 213.617 Recovery = 95.89%								
Pb 220.353†	2664.1	482.7	ug/L	4.80	482.7	ug/L	4.80	0.99%
QC value within limits for Pb 220.353 Recovery = 96.54%								
Sb 206.836†	3134.0	464.6	ug/L	3.02	464.6	ug/L	3.02	0.65%
QC value within limits for Sb 206.836 Recovery = 92.92%								
Se 196.026†	1547.1	502.7	ug/L	4.06	502.7	ug/L	4.06	0.81%
QC value within limits for Se 196.026 Recovery = 100.55%								
Sn 189.927†	1289.8	251.8	ug/L	1.80	251.8	ug/L	1.80	0.71%
QC value within limits for Sn 189.927 Recovery = 100.71%								
Sr 421.552†	331445.0	506.2	ug/L	4.97	506.2	ug/L	4.97	0.98%
QC value within limits for Sr 421.552 Recovery = 101.24%								
Ti 337.279†	17815.6	486.9	ug/L	3.12	486.9	ug/L	3.12	0.64%
QC value within limits for Ti 337.279 Recovery = 97.38%								
Tl 190.801†	2192.0	461.7	ug/L	3.89	461.7	ug/L	3.89	0.84%
QC value within limits for Tl 190.801 Recovery = 92.34%								
V 292.402†	46934.4	474.8	ug/L	0.13	474.8	ug/L	0.13	0.03%
QC value within limits for V 292.402 Recovery = 94.97%								
Zn 206.200†	44798.7	506.3	ug/L	1.32	506.3	ug/L	1.32	0.26%
QC value within limits for Zn 206.200 Recovery = 101.27%								

Li 670.784	5187358.9	233.8 ug/L	1.29	233.8 ug/L	1.29	0.55%

QC value within limits for Li 670.784 Recovery = 93.52%
QC Failed. Continue with analysis.

Sequence No.: 6
Sample ID: ICB 150709RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 07/09/15 12:07:50 PM
Data Type: Reprocessed on 07/09/15 4:14:15 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICB 150709RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	233533.5	101.0	%	1.16				1.15%
Y Radial	15948.8	103.6	%	0.63				0.61%
Ag 338.289†	47.4	0.262	ug/L	0.3719	0.262	ug/L	0.3719	142.11%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	-23.1	-18.13	ug/L	5.733	-18.13	ug/L	5.733	31.63%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	23.6	4.758	ug/L	0.4302	4.758	ug/L	0.4302	9.04%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	95.6	2.804	ug/L	0.1289	2.804	ug/L	0.1289	4.60%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	47.3	0.115	ug/L	0.0096	0.115	ug/L	0.0096	8.37%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	40.4	0.011	ug/L	0.0108	0.011	ug/L	0.0108	94.51%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	80.6	5.464	ug/L	0.6456	5.464	ug/L	0.6456	11.82%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	-52.9	-0.194	ug/L	0.0228	-0.194	ug/L	0.0228	11.79%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	33.3	0.362	ug/L	0.0943	0.362	ug/L	0.0943	26.03%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-10.7	-0.133	ug/L	0.0302	-0.133	ug/L	0.0302	22.62%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	428.4	2.141	ug/L	0.1720	2.141	ug/L	0.1720	8.03%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	2.7	0.052	ug/L	0.4876	0.052	ug/L	0.4876	941.61%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	297.1	37.59	ug/L	8.623	37.59	ug/L	8.623	22.94%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	22.6	1.373	ug/L	0.6560	1.373	ug/L	0.6560	47.80%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	-5.8	-0.070	ug/L	0.1251	-0.070	ug/L	0.1251	179.65%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	52.9	1.587	ug/L	0.1482	1.587	ug/L	0.1482	9.33%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	117.4	11.44	ug/L	2.521	11.44	ug/L	2.521	22.04%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	9.1	0.196	ug/L	0.0836	0.196	ug/L	0.0836	42.71%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-2.3	-0.734	ug/L	1.6575	-0.734	ug/L	1.6575	225.80%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-4.0	-0.724	ug/L	0.4476	-0.724	ug/L	0.4476	61.85%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	28.0	4.154	ug/L	0.8488	4.154	ug/L	0.8488	20.43%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	0.7	0.212	ug/L	1.1429	0.212	ug/L	1.1429	537.89%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	14.1	2.756	ug/L	0.1822	2.756	ug/L	0.1822	6.61%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	-2.5	-0.004	ug/L	0.0377	-0.004	ug/L	0.0377	932.31%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	14.4	0.394	ug/L	0.2792	0.394	ug/L	0.2792	70.78%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	2.6	0.541	ug/L	1.2584	0.541	ug/L	1.2584	232.50%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-21.4	-0.217	ug/L	0.0324	-0.217	ug/L	0.0324	14.96%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-17.7	-0.198	ug/L	0.1127	-0.198	ug/L	0.1127	56.90%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	5515.5	0.249 ug/L	0.0017	0.249 ug/L	0.0017	0.70%

QC value within limits for Li 670.784 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 7
Sample ID: ICSA 150709RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 6
Date Collected: 07/09/15 12:13:33 PM
Data Type: Reprocessed on 07/09/15 4:14:16 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSA 150709RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	221973.2	95.98	%	0.249				0.26%
Y Radial	15652.1	101.6	%	0.77				0.76%
Ag 338.289†	131.1	0.724	ug/L	0.1792	0.724	ug/L	0.1792	24.74%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	132687.5	103700	ug/L	1299.02	103700	ug/L	1299.02	1.25%
QC value within limits for Al 308.215 Recovery = 103.71%								
As 188.979†	6.3	0.899	ug/L	0.3936	0.899	ug/L	0.3936	43.77%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	-7694.6	20.45	ug/L	1.841	20.45	ug/L	1.841	9.00%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	1646.4	-1.487	ug/L	0.0463	-1.487	ug/L	0.0463	3.12%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	253.0	0.071	ug/L	0.0027	0.071	ug/L	0.0027	3.80%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	1592298.7	108100	ug/L	1223.62	108100	ug/L	1223.62	1.13%
QC value within limits for Ca 315.887 Recovery = 108.14%								
Cd 214.440†	1011.2	-0.033	ug/L	0.0383	-0.033	ug/L	0.0383	117.81%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	151.9	-1.267	ug/L	0.0674	-1.267	ug/L	0.0674	5.32%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	78.9	0.080	ug/L	0.0627	0.080	ug/L	0.0627	78.71%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	-392.3	-0.629	ug/L	0.1368	-0.629	ug/L	0.1368	21.76%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	7306638.3	97970	ug/L	541.50	97970	ug/L	541.50	0.55%
QC value within limits for Fe 273.955 Recovery = 97.97%								
K 766.490†	291.3	-61.00	ug/L	7.488	-61.00	ug/L	7.488	12.28%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	1686630.7	102900	ug/L	1196.33	102900	ug/L	1196.33	1.16%
QC value within limits for Mg 285.213 Recovery = 102.91%								
Mn 257.610†	283.0	-0.064	ug/L	0.1078	-0.064	ug/L	0.1078	167.87%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-65.4	-0.562	ug/L	0.6999	-0.562	ug/L	0.6999	124.49%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	382.0	24.69	ug/L	0.300	24.69	ug/L	0.300	1.21%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-83.8	0.648	ug/L	0.0287	0.648	ug/L	0.0287	4.44%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	-114.1	-36.14	ug/L	1.394	-36.14	ug/L	1.394	3.86%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-99.9	-0.379	ug/L	0.0204	-0.379	ug/L	0.0204	5.39%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-22.3	-3.309	ug/L	1.3779	-3.309	ug/L	1.3779	41.64%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-131.8	4.258	ug/L	1.8285	4.258	ug/L	1.8285	42.94%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	12.3	2.399	ug/L	0.6648	2.399	ug/L	0.6648	27.71%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	429.2	-3.570	ug/L	0.0659	-3.570	ug/L	0.0659	1.84%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	49.4	-0.420	ug/L	0.0940	-0.420	ug/L	0.0940	22.37%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	-25.4	-5.350	ug/L	0.8405	-5.350	ug/L	0.8405	15.71%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-30.5	-0.309	ug/L	0.0394	-0.309	ug/L	0.0394	12.74%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	436.6	4.381	ug/L	0.1560	4.381	ug/L	0.1560	3.56%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	1448.5	0.065 ug/L	0.0130	0.065 ug/L	0.0130	19.99%

All analyte(s) passed QC.

Sequence No.: 8
Sample ID: ICSAB 150709RJS I:JL O:RJ
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 7
Date Collected: 07/09/15 12:19:51 PM
Data Type: Reprocessed on 07/09/15 4:14:18 PM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: ICSAB 150709RJS I:JL O:RJ

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	216098.5	93.44	%	0.188				0.20%
Y Radial	15804.3	102.6	%	0.18				0.18%
Ag 338.289†	98275.0	543.1	ug/L	0.84	543.1	ug/L	0.84	0.15%
QC value within limits for Ag 338.289 Recovery = 108.62%								
Al 308.215†	131188.4	102500	ug/L	426.48	102500	ug/L	426.48	0.42%
QC value within limits for Al 308.215 Recovery = 102.55%								
As 188.979†	1261.0	252.5	ug/L	1.33	252.5	ug/L	1.33	0.53%
QC value within limits for As 188.979 Recovery = 100.99%								
B 249.677†	-7667.7	27.75	ug/L	3.585	27.75	ug/L	3.585	12.92%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	108078.7	260.1	ug/L	0.50	260.1	ug/L	0.50	0.19%
QC value within limits for Ba 233.527 Recovery = 104.05%								
Be 313.107†	891767.4	251.5	ug/L	1.00	251.5	ug/L	1.00	0.40%
QC value within limits for Be 313.107 Recovery = 100.60%								
Ca 315.887†	1607595.2	109200	ug/L	405.79	109200	ug/L	405.79	0.37%
QC value within limits for Ca 315.887 Recovery = 109.18%								
Cd 214.440†	140258.1	511.5	ug/L	1.27	511.5	ug/L	1.27	0.25%
QC value within limits for Cd 214.440 Recovery = 102.30%								
Co 228.616†	25103.5	267.0	ug/L	0.58	267.0	ug/L	0.58	0.22%
QC value within limits for Co 228.616 Recovery = 106.81%								
Cr 267.716†	22182.2	274.6	ug/L	0.45	274.6	ug/L	0.45	0.16%
QC value within limits for Cr 267.716 Recovery = 109.83%								
Cu 327.393†	52995.0	265.9	ug/L	0.13	265.9	ug/L	0.13	0.05%
QC value within limits for Cu 327.393 Recovery = 106.37%								
Fe 273.955†	7512410.7	100700	ug/L	381.96	100700	ug/L	381.96	0.38%
QC value within limits for Fe 273.955 Recovery = 100.71%								
K 766.490†	257.5	-68.24	ug/L	7.623	-68.24	ug/L	7.623	11.17%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	1706789.4	104100	ug/L	441.57	104100	ug/L	441.57	0.42%
QC value within limits for Mg 285.213 Recovery = 104.14%								
Mn 257.610†	22222.7	261.4	ug/L	0.65	261.4	ug/L	0.65	0.25%
QC value within limits for Mn 257.610 Recovery = 104.54%								
Mo 202.031†	8526.4	257.7	ug/L	0.61	257.7	ug/L	0.61	0.24%
QC value within limits for Mo 202.031 Recovery = 103.08%								
Na 589.592†	305.4	16.24	ug/L	1.995	16.24	ug/L	1.995	12.29%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	24106.7	520.4	ug/L	0.42	520.4	ug/L	0.42	0.08%
QC value within limits for Ni 231.604 Recovery = 104.07%								
P 213.617†	-265.2	-84.00	ug/L	0.988	-84.00	ug/L	0.988	1.18%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	2572.8	480.8	ug/L	1.21	480.8	ug/L	1.21	0.25%
QC value within limits for Pb 220.353 Recovery = 96.15%								
Sb 206.836†	1853.2	274.7	ug/L	0.62	274.7	ug/L	0.62	0.23%
QC value within limits for Sb 206.836 Recovery = 109.90%								
Se 196.026†	686.3	268.1	ug/L	3.94	268.1	ug/L	3.94	1.47%
QC value within limits for Se 196.026 Recovery = 107.26%								
Sn 189.927†	13.1	2.554	ug/L	1.3242	2.554	ug/L	1.3242	51.84%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	459.2	-3.567	ug/L	0.0299	-3.567	ug/L	0.0299	0.84%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	59.9	-0.104	ug/L	0.3897	-0.104	ug/L	0.3897	373.90%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	971.7	204.7	ug/L	2.76	204.7	ug/L	2.76	1.35%
QC value within limits for Tl 190.801 Recovery = 81.86%								
V 292.402†	25024.2	253.2	ug/L	0.94	253.2	ug/L	0.94	0.37%
QC value within limits for V 292.402 Recovery = 101.27%								
Zn 206.200†	45483.3	510.5	ug/L	1.30	510.5	ug/L	1.30	0.25%
QC value within limits for Zn 206.200 Recovery = 102.09%								

Li 670.784	3571.2	0.161 ug/L	0.0086	0.161 ug/L	0.0086	5.34%

All analyte(s) passed QC.

Sequence No.: 9
Sample ID: CCV1 150709RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 07/09/15 12:26:09 PM
Data Type: Reprocessed on 07/09/15 4:14:19 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV1 150709RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	222838.7	96.35	%	0.306				0.32%
Y Radial	15490.3	100.6	%	0.40				0.40%
Ag 338.289†	45802.2	253.1	ug/L	0.28	253.1	ug/L	0.28	0.11%
QC value within limits for Ag 338.289 Recovery = 101.25%								
Al 308.215†	12575.4	9850	ug/L	43.51	9850	ug/L	43.51	0.44%
QC value within limits for Al 308.215 Recovery = 98.50%								
As 188.979†	2458.2	491.0	ug/L	0.24	491.0	ug/L	0.24	0.05%
QC value within limits for As 188.979 Recovery = 98.19%								
B 249.677†	16684.6	513.3	ug/L	2.04	513.3	ug/L	2.04	0.40%
QC value within limits for B 249.677 Recovery = 102.66%								
Ba 233.527†	203975.9	501.1	ug/L	0.55	501.1	ug/L	0.55	0.11%
QC value within limits for Ba 233.527 Recovery = 100.21%								
Be 313.107†	1725300.4	486.6	ug/L	0.61	486.6	ug/L	0.61	0.13%
QC value within limits for Be 313.107 Recovery = 97.32%								
Ca 315.887†	382122.4	25950	ug/L	97.90	25950	ug/L	97.90	0.38%
QC value within limits for Ca 315.887 Recovery = 103.79%								
Cd 214.440†	138085.9	507.5	ug/L	0.32	507.5	ug/L	0.32	0.06%
QC value within limits for Cd 214.440 Recovery = 101.51%								
Co 228.616†	46764.8	501.6	ug/L	1.55	501.6	ug/L	1.55	0.31%
QC value within limits for Co 228.616 Recovery = 100.33%								
Cr 267.716†	40343.0	500.8	ug/L	0.33	500.8	ug/L	0.33	0.07%
QC value within limits for Cr 267.716 Recovery = 100.16%								
Cu 327.393†	101348.4	507.2	ug/L	0.39	507.2	ug/L	0.39	0.08%
QC value within limits for Cu 327.393 Recovery = 101.45%								
Fe 273.955†	758693.4	10130	ug/L	9.71	10130	ug/L	9.71	0.10%
QC value within limits for Fe 273.955 Recovery = 101.35%								
K 766.490†	81115.7	10240	ug/L	45.85	10240	ug/L	45.85	0.45%
QC value within limits for K 766.490 Recovery = 102.39%								
Mg 285.213†	431378.5	26310	ug/L	140.33	26310	ug/L	140.33	0.53%
QC value within limits for Mg 285.213 Recovery = 105.23%								
Mn 257.610†	42789.5	508.9	ug/L	2.23	508.9	ug/L	2.23	0.44%
QC value within limits for Mn 257.610 Recovery = 101.79%								
Mo 202.031†	16818.1	505.5	ug/L	1.56	505.5	ug/L	1.56	0.31%
QC value within limits for Mo 202.031 Recovery = 101.10%								
Na 589.592†	135311.4	13220	ug/L	169.38	13220	ug/L	169.38	1.28%
QC value within limits for Na 589.592 Recovery = 105.79%								
Ni 231.604†	23762.7	510.2	ug/L	0.71	510.2	ug/L	0.71	0.14%
QC value within limits for Ni 231.604 Recovery = 102.04%								
P 213.617†	7731.0	2449	ug/L	3.66	2449	ug/L	3.66	0.15%
QC value within limits for P 213.617 Recovery = 97.94%								
Pb 220.353†	2546.5	461.8	ug/L	0.58	461.8	ug/L	0.58	0.12%
QC value within limits for Pb 220.353 Recovery = 92.36%								
Sb 206.836†	3290.6	487.8	ug/L	2.13	487.8	ug/L	2.13	0.44%
QC value within limits for Sb 206.836 Recovery = 97.57%								
Se 196.026†	1581.0	512.2	ug/L	1.29	512.2	ug/L	1.29	0.25%
QC value within limits for Se 196.026 Recovery = 102.44%								
Sn 189.927†	2547.3	497.3	ug/L	2.29	497.3	ug/L	2.29	0.46%
QC value within limits for Sn 189.927 Recovery = 99.45%								
Sr 421.552†	351980.5	537.1	ug/L	6.75	537.1	ug/L	6.75	1.26%
QC value within limits for Sr 421.552 Recovery = 107.41%								
Ti 337.279†	18510.9	505.7	ug/L	2.87	505.7	ug/L	2.87	0.57%
QC value within limits for Ti 337.279 Recovery = 101.14%								
Tl 190.801†	1945.3	409.7	ug/L	1.92	409.7	ug/L	1.92	0.47%
QC value less than the lower limit for Tl 190.801 Recovery = 81.95%								
V 292.402†	46859.8	474.1	ug/L	1.10	474.1	ug/L	1.10	0.23%
QC value within limits for V 292.402 Recovery = 94.82%								
Zn 206.200†	46094.7	521.6	ug/L	0.66	521.6	ug/L	0.66	0.13%
QC value within limits for Zn 206.200 Recovery = 104.31%								

Li 670.784	5585994.1	251.8 ug/L	1.82	251.8 ug/L	1.82	0.72%

QC value within limits for Li 670.784 Recovery = 100.71%
QC Failed. Continue with analysis.

Sequence No.: 10
Sample ID: CCB 150709RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 07/09/15 12:33:04 PM
Data Type: Reprocessed on 07/09/15 4:14:20 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150709RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	232456.9	100.5	%	0.21				0.20%
Y Radial	16227.5	105.4	%	0.57				0.54%
Ag 338.289†	40.6	0.224	ug/L	0.3314	0.224	ug/L	0.3314	147.74%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	-28.7	-22.49	ug/L	4.479	-22.49	ug/L	4.479	19.92%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	5.6	1.109	ug/L	1.1795	1.109	ug/L	1.1795	106.32%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	78.8	2.331	ug/L	0.2310	2.331	ug/L	0.2310	9.91%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	72.3	0.176	ug/L	0.0418	0.176	ug/L	0.0418	23.70%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	105.7	0.030	ug/L	0.0114	0.030	ug/L	0.0114	38.06%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	145.4	9.869	ug/L	0.7530	9.869	ug/L	0.7530	7.63%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	-91.7	-0.337	ug/L	0.0177	-0.337	ug/L	0.0177	5.25%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	38.1	0.414	ug/L	0.0872	0.414	ug/L	0.0872	21.05%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-15.3	-0.191	ug/L	0.0997	-0.191	ug/L	0.0997	52.23%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	460.8	2.301	ug/L	0.2641	2.301	ug/L	0.2641	11.48%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	509.4	6.853	ug/L	0.3204	6.853	ug/L	0.3204	4.68%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	336.3	42.55	ug/L	6.006	42.55	ug/L	6.006	14.11%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	11.2	0.682	ug/L	0.7677	0.682	ug/L	0.7677	112.58%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	-6.0	-0.071	ug/L	0.0547	-0.071	ug/L	0.0547	76.66%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	53.2	1.596	ug/L	0.1192	1.596	ug/L	0.1192	7.47%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-68.0	-6.697	ug/L	6.0809	-6.697	ug/L	6.0809	90.80%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	7.2	0.154	ug/L	0.1307	0.154	ug/L	0.1307	84.68%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	1.8	0.586	ug/L	0.7514	0.586	ug/L	0.7514	128.25%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-10.5	-1.895	ug/L	1.0359	-1.895	ug/L	1.0359	54.67%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	10.2	1.511	ug/L	0.5574	1.511	ug/L	0.5574	36.88%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	1.4	0.462	ug/L	2.4716	0.462	ug/L	2.4716	534.79%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	15.0	2.924	ug/L	0.1547	2.924	ug/L	0.1547	5.29%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	12.8	0.019	ug/L	0.0035	0.019	ug/L	0.0035	18.36%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-7.8	-0.212	ug/L	0.5691	-0.212	ug/L	0.5691	268.25%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	8.4	1.762	ug/L	0.6197	1.762	ug/L	0.6197	35.17%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-32.6	-0.330	ug/L	0.0888	-0.330	ug/L	0.0888	26.91%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	39.9	0.445	ug/L	0.1614	0.445	ug/L	0.1614	36.31%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	7902.9	0.356 ug/L	0.0024	0.356 ug/L	0.0024	0.67%

QC value within limits for Li 670.784 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 22
Sample ID: CCV2 150709RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 8
Date Collected: 07/09/15 1:45:12 PM
Data Type: Reprocessed on 07/09/15 4:14:34 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV2 150709RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	224852.4	97.22	%	0.601				0.62%
Y Radial	15746.5	102.3	%	0.45				0.44%
Ag 338.289†	35114.0	194.1	ug/L	0.69	194.1	ug/L	0.69	0.36%
QC value within limits for Ag 338.289 Recovery = 103.50%								
Al 308.215†	8914.1	6980	ug/L	18.41	6980	ug/L	18.41	0.26%
QC value within limits for Al 308.215 Recovery = 93.06%								
As 188.979†	1774.9	354.5	ug/L	1.41	354.5	ug/L	1.41	0.40%
QC value within limits for As 188.979 Recovery = 94.52%								
B 249.677†	12593.8	387.4	ug/L	0.29	387.4	ug/L	0.29	0.08%
QC value within limits for B 249.677 Recovery = 103.32%								
Ba 233.527†	151617.5	372.4	ug/L	1.48	372.4	ug/L	1.48	0.40%
QC value within limits for Ba 233.527 Recovery = 99.31%								
Be 313.107†	1196602.8	337.5	ug/L	2.11	337.5	ug/L	2.11	0.62%
QC value within limits for Be 313.107 Recovery = 89.99%								
Ca 315.887†	274618.3	18650	ug/L	197.40	18650	ug/L	197.40	1.06%
QC value within limits for Ca 315.887 Recovery = 99.45%								
Cd 214.440†	103550.2	380.6	ug/L	1.26	380.6	ug/L	1.26	0.33%
QC value within limits for Cd 214.440 Recovery = 101.49%								
Co 228.616†	34057.8	365.3	ug/L	1.70	365.3	ug/L	1.70	0.46%
QC value within limits for Co 228.616 Recovery = 97.43%								
Cr 267.716†	29829.7	370.2	ug/L	2.23	370.2	ug/L	2.23	0.60%
QC value within limits for Cr 267.716 Recovery = 98.73%								
Cu 327.393†	76488.0	382.8	ug/L	1.48	382.8	ug/L	1.48	0.39%
QC value within limits for Cu 327.393 Recovery = 102.08%								
Fe 273.955†	569774.1	7614	ug/L	32.42	7614	ug/L	32.42	0.43%
QC value within limits for Fe 273.955 Recovery = 101.52%								
K 766.490†	60117.2	7588	ug/L	95.13	7588	ug/L	95.13	1.25%
QC value within limits for K 766.490 Recovery = 101.17%								
Mg 285.213†	311859.1	19020	ug/L	230.24	19020	ug/L	230.24	1.21%
QC value within limits for Mg 285.213 Recovery = 101.43%								
Mn 257.610†	32326.1	384.5	ug/L	0.32	384.5	ug/L	0.32	0.08%
QC value within limits for Mn 257.610 Recovery = 102.54%								
Mo 202.031†	12688.2	381.4	ug/L	0.30	381.4	ug/L	0.30	0.08%
QC value within limits for Mo 202.031 Recovery = 101.70%								
Na 589.592†	104525.8	10220	ug/L	138.38	10220	ug/L	138.38	1.35%
QC value within limits for Na 589.592 Recovery = 108.96%								
Ni 231.604†	17742.1	381.0	ug/L	1.15	381.0	ug/L	1.15	0.30%
QC value within limits for Ni 231.604 Recovery = 101.61%								
P 213.617†	5517.7	1748	ug/L	7.80	1748	ug/L	7.80	0.45%
QC value within limits for P 213.617 Recovery = 93.21%								
Pb 220.353†	1554.3	282.3	ug/L	1.45	282.3	ug/L	1.45	0.51%
QC value less than the lower limit for Pb 220.353 Recovery = 75.27%								
Sb 206.836†	2316.6	343.4	ug/L	1.03	343.4	ug/L	1.03	0.30%
QC value within limits for Sb 206.836 Recovery = 91.58%								
Se 196.026†	1178.8	382.0	ug/L	1.76	382.0	ug/L	1.76	0.46%
QC value within limits for Se 196.026 Recovery = 101.86%								
Sn 189.927†	1845.8	360.3	ug/L	0.94	360.3	ug/L	0.94	0.26%
QC value within limits for Sn 189.927 Recovery = 96.09%								
Sr 421.552†	272736.3	416.2	ug/L	5.81	416.2	ug/L	5.81	1.40%
QC value greater than the upper limit for Sr 421.552 Recovery = 110.99%								
Ti 337.279†	13898.4	379.7	ug/L	1.00	379.7	ug/L	1.00	0.26%
QC value within limits for Ti 337.279 Recovery = 101.26%								
Tl 190.801†	843.4	177.6	ug/L	1.74	177.6	ug/L	1.74	0.98%
QC value less than the lower limit for Tl 190.801 Recovery = 47.37%								
V 292.402†	31548.0	319.2	ug/L	1.69	319.2	ug/L	1.69	0.53%
QC value less than the lower limit for V 292.402 Recovery = 85.11%								
Zn 206.200†	36362.9	411.1	ug/L	0.94	411.1	ug/L	0.94	0.23%
QC value within limits for Zn 206.200 Recovery = 109.62%								

Li 670.784	4352375.0	196.2 ug/L	1.12	196.2 ug/L	1.12	0.57%

QC value within limits for Li 670.784 Recovery = 104.63%
QC Failed. Continue with analysis.

Sequence No.: 23
Sample ID: CCB 150709RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 07/09/15 1:53:01 PM
Data Type: Reprocessed on 07/09/15 4:14:36 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150709RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	235355.7	101.8	%	0.39				0.38%
Y Radial	16235.8	105.4	%	0.29				0.28%
Ag 338.289†	35.0	0.193	ug/L	0.2383	0.193	ug/L	0.2383	123.28%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	-42.5	-33.34	ug/L	11.609	-33.34	ug/L	11.609	34.82%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	9.6	1.922	ug/L	0.2675	1.922	ug/L	0.2675	13.92%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	73.5	2.151	ug/L	0.2553	2.151	ug/L	0.2553	11.87%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	141.2	0.346	ug/L	0.0348	0.346	ug/L	0.0348	10.07%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	255.3	0.072	ug/L	0.0057	0.072	ug/L	0.0057	7.95%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	496.9	33.74	ug/L	1.129	33.74	ug/L	1.129	3.35%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	-176.2	-0.646	ug/L	0.0161	-0.646	ug/L	0.0161	2.48%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	71.3	0.775	ug/L	0.0184	0.775	ug/L	0.0184	2.38%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-27.9	-0.347	ug/L	0.1013	-0.347	ug/L	0.1013	29.21%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	330.3	1.649	ug/L	0.1212	1.649	ug/L	0.1212	7.35%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	-156.2	-2.065	ug/L	0.6753	-2.065	ug/L	0.6753	32.71%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	348.0	44.05	ug/L	7.377	44.05	ug/L	7.377	16.75%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	21.2	1.290	ug/L	0.3740	1.290	ug/L	0.3740	29.00%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	-6.1	-0.073	ug/L	0.1199	-0.073	ug/L	0.1199	164.64%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	86.7	2.604	ug/L	0.1243	2.604	ug/L	0.1243	4.77%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-130.8	-12.85	ug/L	2.810	-12.85	ug/L	2.810	21.87%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	14.0	0.300	ug/L	0.1988	0.300	ug/L	0.1988	66.35%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	11.9	3.761	ug/L	0.3377	3.761	ug/L	0.3377	8.98%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-30.8	-5.538	ug/L	0.1209	-5.538	ug/L	0.1209	2.18%
QC value less than the lower limit for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-2.1	-0.316	ug/L	0.0951	-0.316	ug/L	0.0951	30.11%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-2.0	-0.655	ug/L	2.1563	-0.655	ug/L	2.1563	328.98%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	12.5	2.444	ug/L	0.4187	2.444	ug/L	0.4187	17.13%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	24.0	0.035	ug/L	0.0215	0.035	ug/L	0.0215	60.56%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	-7.7	-0.210	ug/L	0.1465	-0.210	ug/L	0.1465	69.61%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	4.7	0.995	ug/L	1.0970	0.995	ug/L	1.0970	110.30%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-41.6	-0.421	ug/L	0.0616	-0.421	ug/L	0.0616	14.62%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-38.0	-0.426	ug/L	0.0088	-0.426	ug/L	0.0088	2.07%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	-1646.2	-0.074 ug/L	0.0015	-0.074 ug/L	0.0015	2.05%

QC value within limits for Li 670.784 Recovery = Not calculated
QC Failed. Continue with analysis.

Sequence No.: 29
Sample ID: CCV1 150709RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 3
Date Collected: 07/09/15 3:04:56 PM
Data Type: Reprocessed on 07/09/15 4:14:43 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV1 150709RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	230008.2	99.45	%	0.307				0.31%
Y Radial	16434.7	106.7	%	1.17				1.10%
Ag 338.289†	45775.5	253.0	ug/L	0.22	253.0	ug/L	0.22	0.09%
QC value within limits for Ag 338.289 Recovery = 101.19%								
Al 308.215†	11760.7	9210	ug/L	52.33	9210	ug/L	52.33	0.57%
QC value within limits for Al 308.215 Recovery = 92.10%								
As 188.979†	2337.2	466.7	ug/L	2.59	466.7	ug/L	2.59	0.55%
QC value within limits for As 188.979 Recovery = 93.35%								
B 249.677†	16072.5	494.8	ug/L	2.31	494.8	ug/L	2.31	0.47%
QC value within limits for B 249.677 Recovery = 98.97%								
Ba 233.527†	197489.8	485.1	ug/L	1.05	485.1	ug/L	1.05	0.22%
QC value within limits for Ba 233.527 Recovery = 97.02%								
Be 313.107†	1598420.7	450.8	ug/L	1.38	450.8	ug/L	1.38	0.31%
QC value within limits for Be 313.107 Recovery = 90.16%								
Ca 315.887†	364804.0	24770	ug/L	137.38	24770	ug/L	137.38	0.55%
QC value within limits for Ca 315.887 Recovery = 99.08%								
Cd 214.440†	133360.4	490.2	ug/L	1.19	490.2	ug/L	1.19	0.24%
QC value within limits for Cd 214.440 Recovery = 98.03%								
Co 228.616†	44760.4	480.2	ug/L	1.01	480.2	ug/L	1.01	0.21%
QC value within limits for Co 228.616 Recovery = 96.03%								
Cr 267.716†	38866.2	482.4	ug/L	0.68	482.4	ug/L	0.68	0.14%
QC value within limits for Cr 267.716 Recovery = 96.49%								
Cu 327.393†	101209.4	506.5	ug/L	0.79	506.5	ug/L	0.79	0.16%
QC value within limits for Cu 327.393 Recovery = 101.30%								
Fe 273.955†	739697.4	9884	ug/L	12.42	9884	ug/L	12.42	0.13%
QC value within limits for Fe 273.955 Recovery = 98.84%								
K 766.490†	79118.3	9987	ug/L	66.90	9987	ug/L	66.90	0.67%
QC value within limits for K 766.490 Recovery = 99.87%								
Mg 285.213†	401021.9	24460	ug/L	262.90	24460	ug/L	262.90	1.08%
QC value within limits for Mg 285.213 Recovery = 97.82%								
Mn 257.610†	41410.7	492.6	ug/L	2.69	492.6	ug/L	2.69	0.55%
QC value within limits for Mn 257.610 Recovery = 98.52%								
Mo 202.031†	16460.3	494.7	ug/L	2.29	494.7	ug/L	2.29	0.46%
QC value within limits for Mo 202.031 Recovery = 98.95%								
Na 589.592†	134327.7	13130	ug/L	139.98	13130	ug/L	139.98	1.07%
QC value within limits for Na 589.592 Recovery = 105.02%								
Ni 231.604†	23042.6	494.8	ug/L	2.61	494.8	ug/L	2.61	0.53%
QC value within limits for Ni 231.604 Recovery = 98.96%								
P 213.617†	7333.2	2323	ug/L	13.26	2323	ug/L	13.26	0.57%
QC value within limits for P 213.617 Recovery = 92.90%								
Pb 220.353†	2176.6	395.1	ug/L	2.13	395.1	ug/L	2.13	0.54%
QC value less than the lower limit for Pb 220.353 Recovery = 79.01%								
Sb 206.836†	3188.5	472.7	ug/L	2.74	472.7	ug/L	2.74	0.58%
QC value within limits for Sb 206.836 Recovery = 94.54%								
Se 196.026†	1550.1	502.2	ug/L	3.22	502.2	ug/L	3.22	0.64%
QC value within limits for Se 196.026 Recovery = 100.44%								
Sn 189.927†	2404.4	469.4	ug/L	2.55	469.4	ug/L	2.55	0.54%
QC value within limits for Sn 189.927 Recovery = 93.88%								
Sr 421.552†	352647.8	538.1	ug/L	5.92	538.1	ug/L	5.92	1.10%
QC value within limits for Sr 421.552 Recovery = 107.63%								
Ti 337.279†	17948.6	490.4	ug/L	3.39	490.4	ug/L	3.39	0.69%
QC value within limits for Ti 337.279 Recovery = 98.07%								
Tl 190.801†	1372.4	289.1	ug/L	1.73	289.1	ug/L	1.73	0.60%
QC value less than the lower limit for Tl 190.801 Recovery = 57.81%								
V 292.402†	42575.7	430.8	ug/L	1.12	430.8	ug/L	1.12	0.26%
QC value less than the lower limit for V 292.402 Recovery = 86.15%								
Zn 206.200†	44650.3	505.2	ug/L	0.80	505.2	ug/L	0.80	0.16%
QC value within limits for Zn 206.200 Recovery = 101.03%								

Li 670.784	6115452.5	275.6 ug/L	0.80	275.6 ug/L	0.80	0.29%

QC value within limits for Li 670.784 Recovery = 110.26%
QC Failed. Continue with analysis.

Sequence No.: 30
Sample ID: CCB 150709RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 1
Date Collected: 07/09/15 3:10:15 PM
Data Type: Reprocessed on 07/09/15 4:14:44 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150709RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	240297.3	103.9	%	0.51				0.50%
Y Radial	16722.0	108.6	%	0.29				0.26%
Ag 338.289†	64.5	0.356	ug/L	0.2321	0.356	ug/L	0.2321	65.11%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	-38.2	-30.02	ug/L	3.561	-30.02	ug/L	3.561	11.86%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	3.5	0.682	ug/L	0.5828	0.682	ug/L	0.5828	85.48%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	122.1	3.601	ug/L	0.2305	3.601	ug/L	0.2305	6.40%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	110.4	0.269	ug/L	0.0321	0.269	ug/L	0.0321	11.91%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	229.7	0.065	ug/L	0.0054	0.065	ug/L	0.0054	8.36%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	470.3	31.94	ug/L	0.959	31.94	ug/L	0.959	3.00%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	-109.7	-0.403	ug/L	0.0386	-0.403	ug/L	0.0386	9.58%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	69.0	0.748	ug/L	0.0345	0.748	ug/L	0.0345	4.61%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-20.4	-0.254	ug/L	0.1221	-0.254	ug/L	0.1221	48.15%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	321.3	1.606	ug/L	0.0997	1.606	ug/L	0.0997	6.21%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	506.6	6.830	ug/L	0.4232	6.830	ug/L	0.4232	6.20%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	288.5	36.52	ug/L	3.097	36.52	ug/L	3.097	8.48%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	6.8	0.417	ug/L	0.3596	0.417	ug/L	0.3596	86.16%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	-14.1	-0.169	ug/L	0.0513	-0.169	ug/L	0.0513	30.42%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	81.7	2.452	ug/L	0.1830	2.452	ug/L	0.1830	7.46%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-269.7	-26.43	ug/L	4.461	-26.43	ug/L	4.461	16.88%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	20.2	0.433	ug/L	0.0920	0.433	ug/L	0.0920	21.25%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	10.0	3.176	ug/L	0.8832	3.176	ug/L	0.8832	27.81%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-21.4	-3.856	ug/L	0.7151	-3.856	ug/L	0.7151	18.55%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-1.6	-0.235	ug/L	0.3251	-0.235	ug/L	0.3251	138.34%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-3.1	-0.989	ug/L	0.2871	-0.989	ug/L	0.2871	29.01%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	8.8	1.711	ug/L	0.2045	1.711	ug/L	0.2045	11.95%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	39.7	0.059	ug/L	0.0089	0.059	ug/L	0.0089	15.05%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	12.3	0.338	ug/L	0.3478	0.338	ug/L	0.3478	102.98%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	4.2	0.877	ug/L	0.1914	0.877	ug/L	0.1914	21.82%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-50.0	-0.506	ug/L	0.0431	-0.506	ug/L	0.0431	8.53%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-34.7	-0.389	ug/L	0.1480	-0.389	ug/L	0.1480	38.05%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	527.0	0.024 ug/L	0.0038	0.024 ug/L	0.0038	16.02%

QC value within limits for Li 670.784 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 35
Sample ID: CCV2 150709RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 8
Date Collected: 07/09/15 3:50:38 PM
Data Type: Reprocessed on 07/09/15 4:14:50 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV2 150709RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	233222.4	100.8	%	0.74				0.73%
Y Radial	16663.7	108.2	%	0.92				0.85%
Ag 338.289†	34522.1	190.8	ug/L	0.32	190.8	ug/L	0.32	0.17%
QC value within limits for Ag 338.289 Recovery = 101.75%								
Al 308.215†	8901.0	6971	ug/L	38.12	6971	ug/L	38.12	0.55%
QC value within limits for Al 308.215 Recovery = 92.94%								
As 188.979†	1778.7	355.3	ug/L	4.84	355.3	ug/L	4.84	1.36%
QC value within limits for As 188.979 Recovery = 94.74%								
B 249.677†	12641.5	388.4	ug/L	5.23	388.4	ug/L	5.23	1.35%
QC value within limits for B 249.677 Recovery = 103.57%								
Ba 233.527†	149009.0	366.0	ug/L	0.87	366.0	ug/L	0.87	0.24%
QC value within limits for Ba 233.527 Recovery = 97.60%								
Be 313.107†	1205663.4	340.0	ug/L	0.87	340.0	ug/L	0.87	0.25%
QC value within limits for Be 313.107 Recovery = 90.67%								
Ca 315.887†	272151.3	18480	ug/L	113.49	18480	ug/L	113.49	0.61%
QC value within limits for Ca 315.887 Recovery = 98.56%								
Cd 214.440†	100466.2	369.3	ug/L	1.08	369.3	ug/L	1.08	0.29%
QC value within limits for Cd 214.440 Recovery = 98.47%								
Co 228.616†	33996.8	364.7	ug/L	1.30	364.7	ug/L	1.30	0.36%
QC value within limits for Co 228.616 Recovery = 97.25%								
Cr 267.716†	31013.5	385.0	ug/L	3.73	385.0	ug/L	3.73	0.97%
QC value within limits for Cr 267.716 Recovery = 102.65%								
Cu 327.393†	76590.7	383.3	ug/L	0.85	383.3	ug/L	0.85	0.22%
QC value within limits for Cu 327.393 Recovery = 102.21%								
Fe 273.955†	556550.0	7436	ug/L	19.18	7436	ug/L	19.18	0.26%
QC value within limits for Fe 273.955 Recovery = 99.15%								
K 766.490†	59802.7	7548	ug/L	32.24	7548	ug/L	32.24	0.43%
QC value within limits for K 766.490 Recovery = 100.64%								
Mg 285.213†	312299.2	19040	ug/L	98.69	19040	ug/L	98.69	0.52%
QC value within limits for Mg 285.213 Recovery = 101.57%								
Mn 257.610†	31244.4	371.6	ug/L	1.68	371.6	ug/L	1.68	0.45%
QC value within limits for Mn 257.610 Recovery = 99.10%								
Mo 202.031†	12371.8	371.9	ug/L	3.48	371.9	ug/L	3.48	0.94%
QC value within limits for Mo 202.031 Recovery = 99.16%								
Na 589.592†	105274.1	10290	ug/L	50.89	10290	ug/L	50.89	0.49%
QC value within limits for Na 589.592 Recovery = 109.75%								
Ni 231.604†	17417.6	374.0	ug/L	3.86	374.0	ug/L	3.86	1.03%
QC value within limits for Ni 231.604 Recovery = 99.74%								
P 213.617†	5558.9	1761	ug/L	20.77	1761	ug/L	20.77	1.18%
QC value within limits for P 213.617 Recovery = 93.90%								
Pb 220.353†	1680.5	305.0	ug/L	4.31	305.0	ug/L	4.31	1.41%
QC value less than the lower limit for Pb 220.353 Recovery = 81.33%								
Sb 206.836†	2421.5	359.0	ug/L	3.26	359.0	ug/L	3.26	0.91%
QC value within limits for Sb 206.836 Recovery = 95.73%								
Se 196.026†	1183.6	383.4	ug/L	3.56	383.4	ug/L	3.56	0.93%
QC value within limits for Se 196.026 Recovery = 102.25%								
Sn 189.927†	1835.0	358.2	ug/L	3.08	358.2	ug/L	3.08	0.86%
QC value within limits for Sn 189.927 Recovery = 95.52%								
Sr 421.552†	270251.6	412.4	ug/L	3.67	412.4	ug/L	3.67	0.89%
QC value within limits for Sr 421.552 Recovery = 109.98%								
Ti 337.279†	13618.3	372.0	ug/L	1.88	372.0	ug/L	1.88	0.50%
QC value within limits for Ti 337.279 Recovery = 99.21%								
Tl 190.801†	1103.8	232.5	ug/L	1.45	232.5	ug/L	1.45	0.62%
QC value less than the lower limit for Tl 190.801 Recovery = 62.00%								
V 292.402†	32434.9	328.2	ug/L	0.89	328.2	ug/L	0.89	0.27%
QC value less than the lower limit for V 292.402 Recovery = 87.51%								
Zn 206.200†	35027.2	396.4	ug/L	3.64	396.4	ug/L	3.64	0.92%
QC value within limits for Zn 206.200 Recovery = 105.69%								

Li 670.784	4532534.9	204.3 ug/L	1.80	204.3 ug/L	1.80	0.88%

QC value within limits for Li 670.784 Recovery = 108.96%
QC Failed. Continue with analysis.

Sequence No.: 36
Sample ID: CCB 150709RJS I:JL O:RJS
Analyst:
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 5
Date Collected: 07/09/15 3:55:55 PM
Data Type: Reprocessed on 07/09/15 4:14:52 PM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB 150709RJS I:JL O:RJS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	244286.5	105.6	%	0.37				0.35%
Y Radial	16933.6	110.0	%	3.34				3.03%
Ag 338.289†	61.0	0.337	ug/L	0.3741	0.337	ug/L	0.3741	110.99%
QC value within limits for Ag 338.289 Recovery = Not calculated								
Al 308.215†	-36.7	-28.84	ug/L	2.451	-28.84	ug/L	2.451	8.50%
QC value within limits for Al 308.215 Recovery = Not calculated								
As 188.979†	7.4	1.473	ug/L	1.6237	1.473	ug/L	1.6237	110.23%
QC value within limits for As 188.979 Recovery = Not calculated								
B 249.677†	92.9	2.727	ug/L	0.2866	2.727	ug/L	0.2866	10.51%
QC value within limits for B 249.677 Recovery = Not calculated								
Ba 233.527†	117.6	0.288	ug/L	0.0402	0.288	ug/L	0.0402	13.98%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	246.2	0.069	ug/L	0.0047	0.069	ug/L	0.0047	6.71%
QC value within limits for Be 313.107 Recovery = Not calculated								
Ca 315.887†	474.2	32.20	ug/L	0.637	32.20	ug/L	0.637	1.98%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Cd 214.440†	-106.0	-0.389	ug/L	0.0298	-0.389	ug/L	0.0298	7.66%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	63.7	0.689	ug/L	0.0915	0.689	ug/L	0.0915	13.27%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-16.4	-0.204	ug/L	0.0772	-0.204	ug/L	0.0772	37.86%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 327.393†	249.0	1.244	ug/L	0.1816	1.244	ug/L	0.1816	14.59%
QC value within limits for Cu 327.393 Recovery = Not calculated								
Fe 273.955†	48.4	0.691	ug/L	0.2206	0.691	ug/L	0.2206	31.92%
QC value within limits for Fe 273.955 Recovery = Not calculated								
K 766.490†	343.5	43.49	ug/L	2.086	43.49	ug/L	2.086	4.80%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	5.2	0.316	ug/L	0.2960	0.316	ug/L	0.2960	93.82%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	-4.2	-0.051	ug/L	0.0565	-0.051	ug/L	0.0565	111.44%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	72.1	2.165	ug/L	0.0422	2.165	ug/L	0.0422	1.95%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	-209.5	-20.54	ug/L	3.260	-20.54	ug/L	3.260	15.87%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	17.5	0.376	ug/L	0.3355	0.376	ug/L	0.3355	89.32%
QC value within limits for Ni 231.604 Recovery = Not calculated								
P 213.617†	7.2	2.269	ug/L	0.8933	2.269	ug/L	0.8933	39.37%
QC value within limits for P 213.617 Recovery = Not calculated								
Pb 220.353†	-15.6	-2.808	ug/L	0.4505	-2.808	ug/L	0.4505	16.04%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-5.6	-0.825	ug/L	0.6261	-0.825	ug/L	0.6261	75.87%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	0.3	0.089	ug/L	1.5282	0.089	ug/L	1.5282	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated								
Sn 189.927†	8.4	1.632	ug/L	0.2364	1.632	ug/L	0.2364	14.48%
QC value within limits for Sn 189.927 Recovery = Not calculated								
Sr 421.552†	42.8	0.064	ug/L	0.0677	0.064	ug/L	0.0677	105.54%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 337.279†	20.3	0.555	ug/L	0.0585	0.555	ug/L	0.0585	10.54%
QC value within limits for Ti 337.279 Recovery = Not calculated								
Tl 190.801†	8.9	1.876	ug/L	1.4927	1.876	ug/L	1.4927	79.59%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 292.402†	-57.1	-0.578	ug/L	0.1020	-0.578	ug/L	0.1020	17.64%
QC value within limits for V 292.402 Recovery = Not calculated								
Zn 206.200†	-28.4	-0.318	ug/L	0.1163	-0.318	ug/L	0.1163	36.58%
QC value within limits for Zn 206.200 Recovery = Not calculated								

Li 670.784	-1605.9	-0.072 ug/L	0.0031	-0.072 ug/L	0.0031	4.34%

QC value within limits for Li 670.784 Recovery = Not calculated
All analyte(s) passed QC.

METALS

Raw Data

APPL, INC.

METALS BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
6010C	ALUMINUM (AL)	80.00 U	300.0	80.00	27.40	ug/L	07/01/15	07/06/15	#61CJU-150701A1-AZ17694
6010C	BORON (B)	40.00 U	50.0	40.00	29.40	ug/L	07/01/15	07/06/15	#61CJU-150701A1-AZ17694
6010C	LITHIUM (LI)	0.67 J	1.0	0.80	0.40	ug/L	07/01/15	07/06/15	#61CJU-150701A1-AZ17694
6010C	ZINC (ZN)	20.00 U	150.0	20.00	13.70	ug/L	07/01/15	07/06/15	#61CJU-150701A1-AZ17694
6010C	ALUMINUM (AL) (DI	80.00 U	300.0	80.00	27.40	ug/L	07/01/15	07/06/15	#61CJU-150701A-AZ17694
6010C	BORON (B) (DISSO	40.00 U	50.0	40.00	29.40	ug/L	07/01/15	07/06/15	#61CJU-150701A-AZ17694
6010C	LITHIUM (LI) (DISSO	0.83 J	1.0	0.80	0.40	ug/L	07/01/15	07/06/15	#61CJU-150701A-AZ17694
6010C	ZINC (ZN) (DISSOL	20.00 U	150.0	20.00	13.70	ug/L	07/01/15	07/06/15	#61CJU-150701A-AZ17694

J = Estimated value.

Metals SC-Blank-REG MDLs
Printed: 07/08/15 3:39:30 PM

Sequence No.: 11
Sample ID: 150701A-3010F BLK
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 38
Date Collected: 07/06/15 12:11:14 PM
Data Type: Reprocessed on 07/07/15 8:53:41 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: 150701A-3010F BLK

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	240720.1	101.0	%	1.95				1.93%
Y Radial	16685.4	102.7	%	0.57				0.55%
Ag 338.289†	8.8	0.046	ug/L	0.2085	0.046	ug/L	0.2085	456.71%
Al 308.215†	0.2	0.125	ug/L	4.4324	0.125	ug/L	4.4324	>999.9%
As 188.979†	-7.5	-1.463	ug/L	1.1264	-1.463	ug/L	1.1264	76.98%
B 249.677†	49.0	1.414	ug/L	0.1201	1.414	ug/L	0.1201	8.50%
Ba 233.527†	-16.9	-0.039	ug/L	0.0458	-0.039	ug/L	0.0458	116.36%
Be 313.107†	122.9	0.035	ug/L	0.0155	0.035	ug/L	0.0155	44.59%
Ca 315.887†	361.1	22.42	ug/L	0.803	22.42	ug/L	0.803	3.58%
Cd 214.440†	-14.6	-0.050	ug/L	0.0249	-0.050	ug/L	0.0249	50.07%
Co 228.616†	7.3	0.074	ug/L	0.1665	0.074	ug/L	0.1665	225.14%
Cr 267.716†	31.8	0.370	ug/L	0.1071	0.370	ug/L	0.1071	28.94%
Cu 327.393†	1948.7	9.323	ug/L	0.3876	9.323	ug/L	0.3876	4.16%
Fe 273.955†	628.7	7.886	ug/L	0.3751	7.886	ug/L	0.3751	4.76%
K 766.490†	156.9	18.11	ug/L	4.944	18.11	ug/L	4.944	27.30%
Mg 285.213†	144.1	8.118	ug/L	0.4733	8.118	ug/L	0.4733	5.83%
Mn 257.610†	1.0	0.011	ug/L	0.0221	0.011	ug/L	0.0221	203.55%
Mo 202.031†	8.1	0.227	ug/L	0.2368	0.227	ug/L	0.2368	104.36%
Na 589.592†	-23.1	-2.080	ug/L	2.4593	-2.080	ug/L	2.4593	118.23%
Ni 231.604†	12.6	0.252	ug/L	0.1620	0.252	ug/L	0.1620	64.26%
P 213.617†	-4.4	-1.335	ug/L	1.3882	-1.335	ug/L	1.3882	103.97%
Pb 220.353†	18.8	3.558	ug/L	0.4944	3.558	ug/L	0.4944	13.89%
Sb 206.836†	-6.2	-0.825	ug/L	0.3635	-0.825	ug/L	0.3635	44.05%
Se 196.026†	0.4	0.110	ug/L	1.8669	0.110	ug/L	1.8669	>999.9%
Sn 189.927†	14.9	2.648	ug/L	0.2179	2.648	ug/L	0.2179	8.23%
Sr 421.552†	33.3	0.045	ug/L	0.0042	0.045	ug/L	0.0042	9.20%
Ti 337.279†	-6.0	-0.151	ug/L	0.2613	-0.151	ug/L	0.2613	172.93%
Tl 190.801†	3.0	0.792	ug/L	2.6719	0.792	ug/L	2.6719	337.55%
V 292.402†	-5.0	-0.050	ug/L	0.0389	-0.050	ug/L	0.0389	77.43%
Zn 206.200†	191.2	1.998	ug/L	0.4463	1.998	ug/L	0.4463	22.34%
Li 670.784	20167.5	0.832	ug/L	0.0194	0.832	ug/L	0.0194	2.34%

Sequence No.: 13
Sample ID: 150701A-3010 BLK
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 40
Date Collected: 07/06/15 12:22:13 PM
Data Type: Reprocessed on 07/07/15 8:53:43 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: 150701A-3010 BLK

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	240977.7	101.1	%	1.61				1.59%
Y Radial	16528.3	101.7	%	2.28				2.24%
Ag 338.289†	42.9	0.222	ug/L	0.3245	0.222	ug/L	0.3245	145.95%
Al 308.215†	-7.2	-5.240	ug/L	5.5018	-5.240	ug/L	5.5018	104.99%
As 188.979†	-4.6	-0.894	ug/L	0.5599	-0.894	ug/L	0.5599	62.63%
B 249.677†	71.1	2.043	ug/L	0.3613	2.043	ug/L	0.3613	17.68%
Ba 233.527†	-7.7	-0.018	ug/L	0.0328	-0.018	ug/L	0.0328	180.05%
Be 313.107†	68.6	0.019	ug/L	0.0136	0.019	ug/L	0.0136	70.09%
Ca 315.887†	425.3	26.41	ug/L	0.501	26.41	ug/L	0.501	1.90%
Cd 214.440†	-30.5	-0.104	ug/L	0.0213	-0.104	ug/L	0.0213	20.43%
Co 228.616†	6.5	0.066	ug/L	0.0547	0.066	ug/L	0.0547	82.31%
Cr 267.716†	11.1	0.129	ug/L	0.0746	0.129	ug/L	0.0746	57.99%
Cu 327.393†	1667.2	7.977	ug/L	0.3227	7.977	ug/L	0.3227	4.04%
Fe 273.955†	625.0	7.838	ug/L	0.3637	7.838	ug/L	0.3637	4.64%
K 766.490†	121.7	14.03	ug/L	5.052	14.03	ug/L	5.052	36.01%
Mg 285.213†	111.3	6.271	ug/L	0.4373	6.271	ug/L	0.4373	6.97%
Mn 257.610†	3.9	0.042	ug/L	0.0810	0.042	ug/L	0.0810	192.40%
Mo 202.031†	12.8	0.356	ug/L	0.1104	0.356	ug/L	0.1104	31.01%
Na 589.592†	180.5	16.10	ug/L	2.461	16.10	ug/L	2.461	15.29%
Ni 231.604†	7.2	0.145	ug/L	0.1443	0.145	ug/L	0.1443	99.53%
P 213.617†	-1.1	-0.334	ug/L	1.3740	-0.334	ug/L	1.3740	411.26%
Pb 220.353†	5.4	1.017	ug/L	0.3981	1.017	ug/L	0.3981	39.14%
Sb 206.836†	-4.4	-0.585	ug/L	0.3675	-0.585	ug/L	0.3675	62.78%
Se 196.026†	0.8	0.259	ug/L	1.4783	0.259	ug/L	1.4783	569.72%
Sn 189.927†	9.9	1.757	ug/L	0.2903	1.757	ug/L	0.2903	16.52%
Sr 421.552†	7.2	0.009	ug/L	0.0179	0.009	ug/L	0.0179	199.76%
Ti 337.279†	-3.5	-0.088	ug/L	0.1985	-0.088	ug/L	0.1985	226.19%
Tl 190.801†	4.8	1.256	ug/L	1.1973	1.256	ug/L	1.1973	95.30%
V 292.402†	-1.6	-0.016	ug/L	0.0274	-0.016	ug/L	0.0274	169.79%
Zn 206.200†	93.7	0.979	ug/L	0.2609	0.979	ug/L	0.2609	26.65%
Li 670.784	16350.8	0.674	ug/L	0.0173	0.674	ug/L	0.0173	2.56%

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)	4.00 U	50.0	4.00	1.98	mg/Kg	07/08/15	07/09/15	#61CJU-150708B-AZ17824
6010C	BORON (B)	4.00 U	5.0	4.00	1.55	mg/Kg	07/08/15	07/09/15	#61CJU-150708B-AZ17824
6010C	LITHIUM (LI)	0.500 U	0.67	0.500	0.250	mg/Kg	07/08/15	07/09/15	#61CJU-150708B-AZ17824
6010C	ZINC (ZN)	4.00 U	8.0	4.00	1.15	mg/Kg	07/08/15	07/09/15	#61CJU-150708B-AZ17824

Metals SC-Blank-REG MDLs
Printed: 07/13/15 10:50:08 AM

Sequence No.: 11
Sample ID: 150708B-3050-BLK
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 1 g
Dilution:
Wash Time:

Autosampler Location: 38
Date Collected: 07/09/15 12:45:20 PM
Data Type: Reprocessed on 07/09/15 4:14:22 PM

Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: 150708B-3050-BLK

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	235185.8	101.7	%	0.87				0.85%
Y Radial	16425.1	106.7	%	0.82				0.77%
Ag 338.289†	5.1	0.028	ug/L	0.2015	0.003	mg/kg	0.0201	709.22%
Al 308.215†	-31.4	-24.62	ug/L	1.266	-2.462	mg/kg	0.1266	5.14%
As 188.979†	2.3	0.452	ug/L	0.1418	0.045	mg/kg	0.0142	31.40%
B 249.677†	34.9	1.041	ug/L	0.1982	0.104	mg/kg	0.0198	19.03%
Ba 233.527†	84.3	0.206	ug/L	0.0157	0.021	mg/kg	0.0016	7.60%
Be 313.107†	113.1	0.032	ug/L	0.0054	0.003	mg/kg	0.0005	16.95%
Ca 315.887†	725.3	49.25	ug/L	1.204	4.925	mg/kg	0.1204	2.44%
Cd 214.440†	-105.9	-0.389	ug/L	0.0317	-0.039	mg/kg	0.0032	8.14%
Co 228.616†	46.3	0.501	ug/L	0.0480	0.050	mg/kg	0.0048	9.57%
Cr 267.716†	-12.2	-0.151	ug/L	0.0301	-0.015	mg/kg	0.0030	19.87%
Cu 327.393†	74.5	0.372	ug/L	0.1776	0.037	mg/kg	0.0178	47.72%
Fe 273.955†	476.2	6.406	ug/L	0.4395	0.641	mg/kg	0.0439	6.86%
K 766.490†	295.8	37.44	ug/L	10.771	3.744	mg/kg	1.0771	28.77%
Mg 285.213†	41.1	2.509	ug/L	0.6800	0.251	mg/kg	0.0680	27.10%
Mn 257.610†	-1.9	-0.022	ug/L	0.0318	-0.002	mg/kg	0.0032	142.83%
Mo 202.031†	49.1	1.473	ug/L	0.1238	0.147	mg/kg	0.0124	8.40%
Na 589.592†	-245.5	-24.06	ug/L	4.888	-2.406	mg/kg	0.4888	20.32%
Ni 231.604†	14.6	0.314	ug/L	0.1844	0.031	mg/kg	0.0184	58.66%
P 213.617†	4.5	1.419	ug/L	0.4412	0.142	mg/kg	0.0441	31.09%
Pb 220.353†	-17.1	-3.074	ug/L	0.1303	-0.307	mg/kg	0.0130	4.24%
Sb 206.836†	-12.7	-1.879	ug/L	0.8727	-0.188	mg/kg	0.0873	46.45%
Se 196.026†	1.0	0.337	ug/L	2.0149	0.034	mg/kg	0.2015	597.70%
Sn 189.927†	2.1	0.402	ug/L	0.2761	0.040	mg/kg	0.0276	68.66%
Sr 421.552†	40.8	0.061	ug/L	0.0222	0.006	mg/kg	0.0022	36.67%
Ti 337.279†	1.0	0.026	ug/L	0.5101	0.003	mg/kg	0.0510	>999.9%
Tl 190.801†	6.8	1.433	ug/L	0.4678	0.143	mg/kg	0.0468	32.64%
V 292.402†	-29.8	-0.301	ug/L	0.0683	-0.030	mg/kg	0.0068	22.69%
Zn 206.200†	-43.3	-0.484	ug/L	0.1033	-0.048	mg/kg	0.0103	21.36%
Li 670.784	695.2	0.031	ug/L	0.0082	0.003	mg/kg	0.0008	26.11%

Laboratory Control Spike Recovery

METALS

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level ug/L	SPK Result ug/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 6010C	ALUMINUM (AL) (DISSOLVED)	2000	1940	97.0	80-120	07/01/15	07/06/15	#61CJU-150701A-AZ17694
EPA 6010C	BORON (B) (DISSOLVED)	250	238	95.2	80-120	07/01/15	07/06/15	#61CJU-150701A-AZ17694
EPA 6010C	LITHIUM (LI) (DISSOLVED)	100.0	92.9	92.9	80-120	07/01/15	07/06/15	#61CJU-150701A-AZ17694
EPA 6010C	ZINC (ZN) (DISSOLVED)	500	472	94.4	80-120	07/01/15	07/06/15	#61CJU-150701A-AZ17694
EPA 6010C	ALUMINUM (AL)	2000	2150	108	80-120	07/01/15	07/06/15	#61CJU-150701A1-AZ17694
EPA 6010C	BORON (B)	250	235	94.0	80-120	07/01/15	07/06/15	#61CJU-150701A1-AZ17694
EPA 6010C	LITHIUM (LI)	100.0	93.3	93.3	80-120	07/01/15	07/06/15	#61CJU-150701A1-AZ17694
EPA 6010C	ZINC (ZN)	500	470	94.0	80-120	07/01/15	07/06/15	#61CJU-150701A1-AZ17694

Comments: _____

Sequence No.: 12
Sample ID: 150701A-3010F LCS
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 39
Date Collected: 07/06/15 12:16:59 PM
Data Type: Reprocessed on 07/07/15 8:53:42 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: 150701A-3010F LCS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	237061.5	99.42	%	1.146				1.15%
Y Radial	16561.7	101.9	%	1.63				1.60%
Ag 338.289†	18716.4	97.01	ug/L	0.931	97.01	ug/L	0.931	0.96%
Al 308.215†	2642.9	1941	ug/L	24.15	1941	ug/L	24.15	1.24%
As 188.979†	1218.3	232.6	ug/L	0.43	232.6	ug/L	0.43	0.18%
B 249.677†	8323.7	238.2	ug/L	1.26	238.2	ug/L	1.26	0.53%
Ba 233.527†	105713.0	243.0	ug/L	2.33	243.0	ug/L	2.33	0.96%
Be 313.107†	169404.7	47.78	ug/L	0.510	47.78	ug/L	0.510	1.07%
Ca 315.887†	394389.0	24490	ug/L	349.73	24490	ug/L	349.73	1.43%
Cd 214.440†	14034.0	48.64	ug/L	0.346	48.64	ug/L	0.346	0.71%
Co 228.616†	24670.1	249.7	ug/L	2.16	249.7	ug/L	2.16	0.87%
Cr 267.716†	21918.4	254.7	ug/L	2.00	254.7	ug/L	2.00	0.79%
Cu 327.393†	50827.8	243.5	ug/L	2.44	243.5	ug/L	2.44	1.00%
Fe 273.955†	77648.9	953.5	ug/L	10.41	953.5	ug/L	10.41	1.09%
K 766.490†	40732.7	4678	ug/L	56.62	4678	ug/L	56.62	1.21%
Mg 285.213†	428584.4	24130	ug/L	300.88	24130	ug/L	300.88	1.25%
Mn 257.610†	22577.3	242.2	ug/L	4.59	242.2	ug/L	4.59	1.89%
Mo 202.031†	8667.6	241.8	ug/L	1.77	241.8	ug/L	1.77	0.73%
Na 589.592†	275021.6	24550	ug/L	314.54	24550	ug/L	314.54	1.28%
Ni 231.604†	11811.7	236.8	ug/L	2.32	236.8	ug/L	2.32	0.98%
P 213.617†	6364.5	1952	ug/L	15.06	1952	ug/L	15.06	0.77%
Pb 220.353†	1240.3	237.1	ug/L	3.25	237.1	ug/L	3.25	1.37%
Sb 206.836†	1761.3	233.0	ug/L	1.93	233.0	ug/L	1.93	0.83%
Se 196.026†	760.8	230.3	ug/L	1.96	230.3	ug/L	1.96	0.85%
Sn 189.927†	1311.7	232.6	ug/L	1.40	232.6	ug/L	1.40	0.60%
Sr 421.552†	175827.0	242.1	ug/L	2.67	242.1	ug/L	2.67	1.10%
Ti 337.279†	9873.5	246.7	ug/L	4.53	246.7	ug/L	4.53	1.84%
Tl 190.801†	885.4	231.5	ug/L	2.08	231.5	ug/L	2.08	0.90%
V 292.402†	24849.6	248.8	ug/L	2.81	248.8	ug/L	2.81	1.13%
Zn 206.200†	44870.1	471.9	ug/L	4.65	471.9	ug/L	4.65	0.98%
Li 670.784	2252819.2	92.92	ug/L	0.427	92.92	ug/L	0.427	0.46%

Sequence No.: 14
Sample ID: 150701A-3010 LCS
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 41
Date Collected: 07/06/15 12:27:58 PM
Data Type: Reprocessed on 07/07/15 8:53:44 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: 150701A-3010 LCS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	234096.6	98.18	%	0.792				0.81%
Y Radial	14855.0	91.44	%	10.986				12.01%
Ag 338.289†	17738.2	91.94	ug/L	1.291	91.94	ug/L	1.291	1.40%
Al 308.215†	2932.6	2152	ug/L	278.19	2152	ug/L	278.19	12.93%
As 188.979†	1193.2	227.4	ug/L	1.62	227.4	ug/L	1.62	0.71%
B 249.677†	8212.9	234.9	ug/L	1.10	234.9	ug/L	1.10	0.47%
Ba 233.527†	105290.9	242.0	ug/L	0.87	242.0	ug/L	0.87	0.36%
Be 313.107†	168651.9	47.57	ug/L	0.346	47.57	ug/L	0.346	0.73%
Ca 315.887†	441254.9	27400	ug/L	3462.81	27400	ug/L	3462.81	12.64%
Cd 214.440†	13884.8	48.17	ug/L	0.279	48.17	ug/L	0.279	0.58%
Co 228.616†	24401.4	246.9	ug/L	1.43	246.9	ug/L	1.43	0.58%
Cr 267.716†	21743.8	252.7	ug/L	1.69	252.7	ug/L	1.69	0.67%
Cu 327.393†	50592.5	242.4	ug/L	0.88	242.4	ug/L	0.88	0.36%
Fe 273.955†	77658.5	953.6	ug/L	4.75	953.6	ug/L	4.75	0.50%
K 766.490†	45246.0	5196	ug/L	662.77	5196	ug/L	662.77	12.75%
Mg 285.213†	477427.3	26880	ug/L	3410.98	26880	ug/L	3410.98	12.69%
Mn 257.610†	25105.3	269.3	ug/L	35.68	269.3	ug/L	35.68	13.25%
Mo 202.031†	8597.4	239.9	ug/L	1.62	239.9	ug/L	1.62	0.68%
Na 589.592†	310749.5	27730	ug/L	3544.47	27730	ug/L	3544.47	12.78%
Ni 231.604†	11696.5	234.5	ug/L	1.82	234.5	ug/L	1.82	0.78%
P 213.617†	6225.8	1910	ug/L	13.25	1910	ug/L	13.25	0.69%
Pb 220.353†	1202.8	230.1	ug/L	2.03	230.1	ug/L	2.03	0.88%
Sb 206.836†	1722.1	227.8	ug/L	1.39	227.8	ug/L	1.39	0.61%
Se 196.026†	741.1	224.3	ug/L	1.76	224.3	ug/L	1.76	0.79%
Sn 189.927†	1285.1	227.9	ug/L	0.73	227.9	ug/L	0.73	0.32%
Sr 421.552†	199492.1	274.7	ug/L	34.98	274.7	ug/L	34.98	12.73%
Ti 337.279†	10873.9	271.7	ug/L	34.94	271.7	ug/L	34.94	12.86%
Tl 190.801†	841.6	220.0	ug/L	1.02	220.0	ug/L	1.02	0.46%
V 292.402†	24701.9	247.3	ug/L	1.70	247.3	ug/L	1.70	0.69%
Zn 206.200†	44679.0	470.1	ug/L	1.84	470.1	ug/L	1.84	0.39%
Li 670.784	2262226.9	93.31	ug/L	0.945	93.31	ug/L	0.945	1.01%

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	189	94.5	80-120	07/08/15	07/09/15	#61CJU-150708B-AZ17824
EPA 6010C	BORON (B)	25.0	24.5	98.0	80-120	07/08/15	07/09/15	#61CJU-150708B-AZ17824
EPA 6010C	LITHIUM (LI)	10.00	10.7	107	80-120	07/08/15	07/09/15	#61CJU-150708B-AZ17824
EPA 6010C	ZINC (ZN)	50.0	49.5	99.0	80-120	07/08/15	07/09/15	#61CJU-150708B-AZ17824

Comments: _____

Sequence No.: 12
Sample ID: 150708B-3050-LCS
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 1 g
Dilution:
Wash Time:

Autosampler Location: 39
Date Collected: 07/09/15 12:51:05 PM
Data Type: Reprocessed on 07/09/15 4:14:23 PM

Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: 150708B-3050-LCS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	225234.3	97.39	%	0.668				0.69%
Y Radial	15757.6	102.3	%	0.67				0.66%
Ag 338.289†	17546.7	96.97	ug/L	0.503	9.697	mg/kg	0.0503	0.52%
Al 308.215†	2400.1	1886	ug/L	7.90	188.6	mg/kg	0.79	0.42%
As 188.979†	1189.8	236.1	ug/L	1.04	23.61	mg/kg	0.104	0.44%
B 249.677†	8294.0	244.8	ug/L	0.84	24.48	mg/kg	0.084	0.34%
Ba 233.527†	99855.3	245.5	ug/L	0.59	24.55	mg/kg	0.059	0.24%
Be 313.107†	174017.4	49.08	ug/L	0.150	4.908	mg/kg	0.0150	0.31%
Ca 315.887†	366507.0	24890	ug/L	228.02	2489	mg/kg	22.80	0.92%
Cd 214.440†	13353.5	49.61	ug/L	0.192	4.961	mg/kg	0.0192	0.39%
Co 228.616†	22946.3	246.1	ug/L	1.15	24.61	mg/kg	0.115	0.47%
Cr 267.716†	20441.9	253.7	ug/L	0.82	25.37	mg/kg	0.082	0.32%
Cu 327.393†	51407.2	257.0	ug/L	0.60	25.70	mg/kg	0.060	0.23%
Fe 273.955†	81244.9	1070	ug/L	7.72	107.0	mg/kg	0.77	0.72%
K 766.490†	39141.4	4924	ug/L	35.11	492.4	mg/kg	3.51	0.71%
Mg 285.213†	403122.4	24580	ug/L	201.90	2458	mg/kg	20.19	0.82%
Mn 257.610†	21102.7	250.5	ug/L	0.82	25.05	mg/kg	0.082	0.33%
Mo 202.031†	7534.9	226.5	ug/L	0.48	22.65	mg/kg	0.048	0.21%
Na 589.592†	273634.9	26760	ug/L	228.88	2676	mg/kg	22.89	0.86%
Ni 231.604†	11250.1	241.5	ug/L	1.19	24.15	mg/kg	0.119	0.49%
P 213.617†	6172.2	1955	ug/L	9.94	195.5	mg/kg	0.99	0.51%
Pb 220.353†	1147.3	208.3	ug/L	1.64	20.83	mg/kg	0.164	0.79%
Sb 206.836†	1557.0	230.8	ug/L	1.34	23.08	mg/kg	0.134	0.58%
Se 196.026†	759.7	243.9	ug/L	1.72	24.39	mg/kg	0.172	0.71%
Sn 189.927†	1130.6	220.7	ug/L	0.84	22.07	mg/kg	0.084	0.38%
Sr 421.552†	176563.8	268.9	ug/L	2.26	26.89	mg/kg	0.226	0.84%
Ti 337.279†	8366.3	228.4	ug/L	0.64	22.84	mg/kg	0.064	0.28%
Tl 190.801†	816.4	171.9	ug/L	2.53	17.19	mg/kg	0.253	1.47%
V 292.402†	23090.5	233.6	ug/L	0.82	23.36	mg/kg	0.082	0.35%
Zn 206.200†	43905.1	494.9	ug/L	1.89	49.49	mg/kg	0.189	0.38%
Li 670.784	2368507.0	106.8	ug/L	0.38	10.68	mg/kg	0.038	0.36%

Matrix Spike Recoveries

METALS

APPL ID: **150701W-17823 MS - 198616**

Sample ID: AZ17823

Client ID: S67-SW028-061615

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl ug/L	Matrix Res ug/L	SPK Res ug/L	DUP Res ug/L	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) (DISS	2000	1.2	1930	2320	96.4	116	18.4	20	80-120	07/01/15	07/06/15	07/01/15	07/06/15	198616	AZ17823
EPA 6010C	BORON (B) (DISSOLV	250	47.9	298	299	100	100	0.3	20	80-120	07/01/15	07/06/15	07/01/15	07/06/15	198616	AZ17823
EPA 6010C	LITHIUM (LI) (DISSOLV	100.0	2.4	105	106	103	104	0.9	20	80-120	07/01/15	07/06/15	07/01/15	07/06/15	198616	AZ17823
EPA 6010C	ZINC (ZN) (DISSOLVE	500	1.9	487	490	97.0	97.6	0.6	20	80-120	07/01/15	07/06/15	07/01/15	07/06/15	198616	AZ17823
EPA 6010C	ALUMINUM (AL)	2000	134	2120	2070	99.3	96.8	2.4	20	80-120	07/01/15	07/06/15	07/01/15	07/06/15	198617	AZ17823
EPA 6010C	BORON (B)	250	51.5	301	289	99.8	95.0	4.1	20	80-120	07/01/15	07/06/15	07/01/15	07/06/15	198617	AZ17823
EPA 6010C	LITHIUM (LI)	100.0	2.2	99.8	96.3	97.6	94.1	3.6	20	80-120	07/01/15	07/06/15	07/01/15	07/06/15	198617	AZ17823
EPA 6010C	ZINC (ZN)	500	8.0	487	469	95.8	92.2	3.8	20	80-120	07/01/15	07/06/15	07/01/15	07/06/15	198617	AZ17823

Comments: _____

Sequence No.: 26
Sample ID: AZ17823W19 F MS
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 53
Date Collected: 07/06/15 1:46:57 PM
Data Type: Reprocessed on 07/07/15 8:53:57 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ17823W19 F MS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	226485.7	94.98	%	0.863				0.91%
Y Radial	16168.0	99.53	%	2.472				2.48%
Ag 338.289†	18401.7	95.38	ug/L	0.637	95.38	ug/L	0.637	0.67%
Al 308.215†	2633.0	1931	ug/L	48.84	1931	ug/L	48.84	2.53%
As 188.979†	1259.6	238.7	ug/L	2.77	238.7	ug/L	2.77	1.16%
B 249.677†	10417.9	297.7	ug/L	3.32	297.7	ug/L	3.32	1.11%
Ba 233.527†	121502.7	279.3	ug/L	2.45	279.3	ug/L	2.45	0.88%
Be 313.107†	171088.5	48.25	ug/L	0.363	48.25	ug/L	0.363	0.75%
Ca 315.887†	696593.0	43250	ug/L	1025.77	43250	ug/L	1025.77	2.37%
Cd 214.440†	14204.0	49.41	ug/L	0.405	49.41	ug/L	0.405	0.82%
Co 228.616†	24825.3	251.2	ug/L	2.48	251.2	ug/L	2.48	0.99%
Cr 267.716†	22292.1	259.2	ug/L	2.78	259.2	ug/L	2.78	1.07%
Cu 327.393†	53998.4	258.6	ug/L	2.48	258.6	ug/L	2.48	0.96%
Fe 273.955†	85445.5	1051	ug/L	7.54	1051	ug/L	7.54	0.72%
K 766.490†	59233.7	6783	ug/L	150.19	6783	ug/L	150.19	2.21%
Mg 285.213†	523644.6	29480	ug/L	663.59	29480	ug/L	663.59	2.25%
Mn 257.610†	27527.2	295.4	ug/L	7.60	295.4	ug/L	7.60	2.57%
Mo 202.031†	9007.7	251.3	ug/L	2.28	251.3	ug/L	2.28	0.91%
Na 589.592†	652512.3	58240	ug/L	1269.73	58240	ug/L	1269.73	2.18%
Ni 231.604†	11891.6	238.6	ug/L	1.94	238.6	ug/L	1.94	0.81%
P 213.617†	6560.7	2013	ug/L	18.51	2013	ug/L	18.51	0.92%
Pb 220.353†	1158.7	222.3	ug/L	2.40	222.3	ug/L	2.40	1.08%
Sb 206.836†	1785.4	236.2	ug/L	2.11	236.2	ug/L	2.11	0.89%
Se 196.026†	780.9	236.0	ug/L	1.77	236.0	ug/L	1.77	0.75%
Sn 189.927†	1354.2	240.1	ug/L	2.05	240.1	ug/L	2.05	0.85%
Sr 421.552†	253262.8	348.4	ug/L	7.35	348.4	ug/L	7.35	2.11%
Ti 337.279†	10031.6	250.6	ug/L	6.28	250.6	ug/L	6.28	2.51%
Tl 190.801†	737.4	192.8	ug/L	3.82	192.8	ug/L	3.82	1.98%
V 292.402†	24774.9	248.1	ug/L	1.86	248.1	ug/L	1.86	0.75%
Zn 206.200†	46202.0	487.1	ug/L	3.50	487.1	ug/L	3.50	0.72%
Li 670.784	2533710.1	104.5	ug/L	0.46	104.5	ug/L	0.46	0.44%

Sequence No.: 27
Sample ID: AZ17823W19 F MSD
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 54
Date Collected: 07/06/15 1:53:12 PM
Data Type: Reprocessed on 07/07/15 8:53:58 AM

Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ17823W19 F MSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	227476.6	95.40	%	0.354				0.37%
Y Radial	14165.1	87.20	%	18.095				20.75%
Ag 338.289†	18381.8	95.27	ug/L	0.378	95.27	ug/L	0.378	0.40%
Al 308.215†	3165.4	2319	ug/L	567.98	2319	ug/L	567.98	24.49%
As 188.979†	1274.9	240.9	ug/L	1.92	240.9	ug/L	1.92	0.80%
B 249.677†	10452.4	298.5	ug/L	1.81	298.5	ug/L	1.81	0.61%
Ba 233.527†	121478.9	279.2	ug/L	0.22	279.2	ug/L	0.22	0.08%
Be 313.107†	171973.4	48.50	ug/L	0.100	48.50	ug/L	0.100	0.21%
Ca 315.887†	819981.4	50910	ug/L	12293.55	50910	ug/L	12293.55	24.15%
Cd 214.440†	14300.6	49.84	ug/L	0.268	49.84	ug/L	0.268	0.54%
Co 228.616†	24981.9	252.7	ug/L	1.52	252.7	ug/L	1.52	0.60%
Cr 267.716†	22412.2	260.5	ug/L	1.46	260.5	ug/L	1.46	0.56%
Cu 327.393†	54364.5	260.4	ug/L	0.19	260.4	ug/L	0.19	0.07%
Fe 273.955†	85564.4	1052	ug/L	1.28	1052	ug/L	1.28	0.12%
K 766.490†	70153.9	8035	ug/L	1909.42	8035	ug/L	1909.42	23.76%
Mg 285.213†	623458.5	35100	ug/L	8434.32	35100	ug/L	8434.32	24.03%
Mn 257.610†	32891.4	352.9	ug/L	86.75	352.9	ug/L	86.75	24.58%
Mo 202.031†	9074.1	253.2	ug/L	1.55	253.2	ug/L	1.55	0.61%
Na 589.592†	760658.8	67900	ug/L	16294.15	67900	ug/L	16294.15	24.00%
Ni 231.604†	11949.8	239.8	ug/L	1.51	239.8	ug/L	1.51	0.63%
P 213.617†	6596.3	2024	ug/L	16.67	2024	ug/L	16.67	0.82%
Pb 220.353†	1167.4	224.4	ug/L	3.71	224.4	ug/L	3.71	1.65%
Sb 206.836†	1799.4	238.1	ug/L	1.62	238.1	ug/L	1.62	0.68%
Se 196.026†	779.9	235.5	ug/L	2.70	235.5	ug/L	2.70	1.15%
Sn 189.927†	1361.6	241.4	ug/L	2.53	241.4	ug/L	2.53	1.05%
Sr 421.552†	296325.0	407.7	ug/L	98.08	407.7	ug/L	98.08	24.06%
Ti 337.279†	12057.1	301.2	ug/L	74.50	301.2	ug/L	74.50	24.74%
Tl 190.801†	752.8	196.8	ug/L	3.79	196.8	ug/L	3.79	1.92%
V 292.402†	24866.8	249.0	ug/L	0.79	249.0	ug/L	0.79	0.32%
Zn 206.200†	46439.4	490.0	ug/L	0.50	490.0	ug/L	0.50	0.10%
Li 670.784	2567079.9	105.9	ug/L	0.62	105.9	ug/L	0.62	0.59%

Sequence No.: 54
Sample ID: AZ17823W22 MS
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 77
Date Collected: 07/06/15 5:31:56 PM
Data Type: Reprocessed on 07/07/15 8:54:29 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ17823W22 MS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	232136.3	97.35	%	1.728				1.78%
Y Radial	16829.0	103.6	%	2.64				2.55%
Ag 338.289†	19183.2	99.43	ug/L	2.727	99.43	ug/L	2.727	2.74%
Al 308.215†	2882.1	2115	ug/L	38.50	2115	ug/L	38.50	1.82%
As 188.979†	1294.8	245.8	ug/L	6.39	245.8	ug/L	6.39	2.60%
B 249.677†	10471.7	300.8	ug/L	8.70	300.8	ug/L	8.70	2.89%
Ba 233.527†	121445.2	279.1	ug/L	6.79	279.1	ug/L	6.79	2.43%
Be 313.107†	175288.0	49.44	ug/L	1.111	49.44	ug/L	1.111	2.25%
Ca 315.887†	669738.9	41580	ug/L	1212.80	41580	ug/L	1212.80	2.92%
Cd 214.440†	14243.2	49.48	ug/L	1.272	49.48	ug/L	1.272	2.57%
Co 228.616†	24952.7	252.5	ug/L	6.97	252.5	ug/L	6.97	2.76%
Cr 267.716†	22175.2	257.8	ug/L	6.95	257.8	ug/L	6.95	2.69%
Cu 327.393†	52608.7	251.9	ug/L	5.85	251.9	ug/L	5.85	2.32%
Fe 273.955†	135153.4	1673	ug/L	39.09	1673	ug/L	39.09	2.34%
K 766.490†	56408.9	6460	ug/L	171.97	6460	ug/L	171.97	2.66%
Mg 285.213†	502081.5	28260	ug/L	761.81	28260	ug/L	761.81	2.70%
Mn 257.610†	29427.7	315.9	ug/L	7.79	315.9	ug/L	7.79	2.47%
Mo 202.031†	8855.7	247.1	ug/L	7.02	247.1	ug/L	7.02	2.84%
Na 589.592†	603492.1	53870	ug/L	1433.39	53870	ug/L	1433.39	2.66%
Ni 231.604†	11825.2	237.2	ug/L	6.10	237.2	ug/L	6.10	2.57%
P 213.617†	6883.6	2112	ug/L	55.91	2112	ug/L	55.91	2.65%
Pb 220.353†	1282.2	245.6	ug/L	6.49	245.6	ug/L	6.49	2.64%
Sb 206.836†	1830.4	242.2	ug/L	7.10	242.2	ug/L	7.10	2.93%
Se 196.026†	776.2	234.9	ug/L	5.24	234.9	ug/L	5.24	2.23%
Sn 189.927†	1367.5	242.5	ug/L	7.42	242.5	ug/L	7.42	3.06%
Sr 421.552†	224985.3	309.4	ug/L	8.13	309.4	ug/L	8.13	2.63%
Ti 337.279†	9785.5	244.4	ug/L	6.19	244.4	ug/L	6.19	2.53%
Tl 190.801†	947.7	247.7	ug/L	4.06	247.7	ug/L	4.06	1.64%
V 292.402†	25901.8	259.4	ug/L	5.52	259.4	ug/L	5.52	2.13%
Zn 206.200†	46238.9	487.2	ug/L	11.74	487.2	ug/L	11.74	2.41%
Li 670.784	2419947.6	99.81	ug/L	0.167	99.81	ug/L	0.167	0.17%

Sequence No.: 55
Sample ID: AZ17823W22 MSD
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt:
Dilution:
Wash Time:

Autosampler Location: 78
Date Collected: 07/06/15 5:38:12 PM
Data Type: Reprocessed on 07/07/15 8:54:30 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: AZ17823W22 MSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	235987.8	98.97	%	2.500				2.53%
Y Radial	16759.3	103.2	%	1.76				1.71%
Ag 338.289†	18137.0	94.00	ug/L	2.301	94.00	ug/L	2.301	2.45%
Al 308.215†	2825.7	2073	ug/L	31.23	2073	ug/L	31.23	1.51%
As 188.979†	1238.9	235.1	ug/L	4.79	235.1	ug/L	4.79	2.04%
B 249.677†	10053.8	288.8	ug/L	7.60	288.8	ug/L	7.60	2.63%
Ba 233.527†	116718.9	268.3	ug/L	7.24	268.3	ug/L	7.24	2.70%
Be 313.107†	167758.9	47.31	ug/L	1.423	47.31	ug/L	1.423	3.01%
Ca 315.887†	660310.1	41000	ug/L	1027.00	41000	ug/L	1027.00	2.51%
Cd 214.440†	13590.0	47.22	ug/L	1.156	47.22	ug/L	1.156	2.45%
Co 228.616†	23858.8	241.4	ug/L	5.73	241.4	ug/L	5.73	2.38%
Cr 267.716†	21172.5	246.2	ug/L	6.34	246.2	ug/L	6.34	2.57%
Cu 327.393†	50712.7	242.9	ug/L	5.79	242.9	ug/L	5.79	2.39%
Fe 273.955†	130696.9	1618	ug/L	42.98	1618	ug/L	42.98	2.66%
K 766.490†	55631.4	6371	ug/L	183.50	6371	ug/L	183.50	2.88%
Mg 285.213†	494725.7	27850	ug/L	751.02	27850	ug/L	751.02	2.70%
Mn 257.610†	28917.3	310.4	ug/L	5.86	310.4	ug/L	5.86	1.89%
Mo 202.031†	8432.7	235.3	ug/L	5.52	235.3	ug/L	5.52	2.35%
Na 589.592†	595462.3	53150	ug/L	1463.46	53150	ug/L	1463.46	2.75%
Ni 231.604†	11319.7	227.1	ug/L	5.60	227.1	ug/L	5.60	2.46%
P 213.617†	6562.9	2013	ug/L	50.03	2013	ug/L	50.03	2.48%
Pb 220.353†	1223.7	234.5	ug/L	5.81	234.5	ug/L	5.81	2.48%
Sb 206.836†	1750.8	231.6	ug/L	7.04	231.6	ug/L	7.04	3.04%
Se 196.026†	739.2	223.7	ug/L	5.78	223.7	ug/L	5.78	2.58%
Sn 189.927†	1296.9	230.0	ug/L	6.40	230.0	ug/L	6.40	2.78%
Sr 421.552†	221147.6	304.1	ug/L	8.42	304.1	ug/L	8.42	2.77%
Ti 337.279†	9546.6	238.5	ug/L	4.17	238.5	ug/L	4.17	1.75%
Tl 190.801†	914.6	239.1	ug/L	5.26	239.1	ug/L	5.26	2.20%
V 292.402†	24824.6	248.6	ug/L	7.48	248.6	ug/L	7.48	3.01%
Zn 206.200†	44453.7	468.5	ug/L	13.12	468.5	ug/L	13.12	2.80%
Li 670.784	2336072.1	96.35	ug/L	0.085	96.35	ug/L	0.085	0.09%

Matrix Spike Recoveries

METALS

APPL ID: **150708S-17824 MS - 198719**

Sample ID: AZ17824

Client ID: S67-SD029-0001

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)	408	6250	6560	6070	76.0 #	-44.1 #	7.8	20	80-120	07/08/15	07/09/15	07/08/15	07/09/15	198719	AZ17824
EPA 6010C	BORON (B)	51.0	5.5	43.5	36.4	74.5 #	60.6 #	17.8	20	80-120	07/08/15	07/09/15	07/08/15	07/09/15	198719	AZ17824
EPA 6010C	LITHIUM (LI)	20.4	11.1	35.1	31.6	118	100	10.5	20	80-120	07/08/15	07/09/15	07/08/15	07/09/15	198719	AZ17824
EPA 6010C	ZINC (ZN)	102	196	292	279	94.1	81.4	4.6	20	80-120	07/08/15	07/09/15	07/08/15	07/09/15	198719	AZ17824

= Recovery is outside QC limits.

Comments: _____

Sequence No.: 31
Sample ID: AZ17824S06 MS
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.98 g
Dilution:
Wash Time:

Autosampler Location: 54
Date Collected: 07/09/15 3:15:58 PM
Data Type: Reprocessed on 07/09/15 4:14:46 PM

Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17824S06 MS

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	272202.0	117.7	%	8.46				7.18%
Y Radial	21070.0	136.8	%	0.39				0.28%
Ag 338.289†	48522.5	268.2	ug/L	21.50	27.36	mg/kg	2.194	8.02%
Al 308.215†	66869.3	52290	ug/L	215.03	5336	mg/kg	21.94	0.41%
As 188.979†	2030.7	409.6	ug/L	30.07	41.79	mg/kg	3.069	7.34%
B 249.677†	9879.1	426.1	ug/L	33.83	43.48	mg/kg	3.452	7.94%
Ba 233.527†	265068.7	648.8	ug/L	53.04	66.21	mg/kg	5.412	8.18%
Be 313.107†	260469.3	73.46	ug/L	6.180	7.496	mg/kg	0.6306	8.41%
Ca 315.887†	593969.6	40330	ug/L	246.95	4116	mg/kg	25.20	0.61%
Cd 214.440†	22123.8	79.48	ug/L	5.667	8.110	mg/kg	0.5783	7.13%
Co 228.616†	38335.3	407.5	ug/L	30.48	41.58	mg/kg	3.111	7.48%
Cr 267.716†	39973.2	495.8	ug/L	38.18	50.59	mg/kg	3.896	7.70%
Cu 327.393†	132922.6	667.7	ug/L	54.63	68.13	mg/kg	5.574	8.18%
Fe 273.955†	4075819.9	54610	ug/L	4451.89	5573	mg/kg	454.27	8.15%
K 766.490†	86532.5	10860	ug/L	40.68	1108	mg/kg	4.15	0.37%
Mg 285.213†	669553.7	40860	ug/L	240.04	4170	mg/kg	24.49	0.59%
Mn 257.610†	56329.9	670.1	ug/L	3.31	68.38	mg/kg	0.338	0.49%
Mo 202.031†	11365.8	342.7	ug/L	26.43	34.97	mg/kg	2.697	7.71%
Na 589.592†	406584.4	39760	ug/L	221.84	4057	mg/kg	22.64	0.56%
Ni 231.604†	20208.5	434.7	ug/L	32.73	44.36	mg/kg	3.340	7.53%
P 213.617†	14832.7	4698	ug/L	352.78	479.4	mg/kg	36.00	7.51%
Pb 220.353†	5288.9	959.4	ug/L	74.17	97.90	mg/kg	7.569	7.73%
Sb 206.836†	2392.2	354.6	ug/L	26.74	36.19	mg/kg	2.728	7.54%
Se 196.026†	1120.2	386.0	ug/L	31.14	39.39	mg/kg	3.178	8.07%
Sn 189.927†	1810.7	353.5	ug/L	27.64	36.07	mg/kg	2.821	7.82%
Sr 421.552†	297185.1	452.7	ug/L	2.31	46.19	mg/kg	0.236	0.51%
Ti 337.279†	52590.3	1437	ug/L	5.88	146.6	mg/kg	0.60	0.41%
Tl 190.801†	986.8	207.8	ug/L	14.73	21.21	mg/kg	1.503	7.09%
V 292.402†	48705.0	492.8	ug/L	40.50	50.28	mg/kg	4.132	8.22%
Zn 206.200†	197809.1	2215	ug/L	176.60	226.0	mg/kg	18.02	7.97%
Li 670.784	7634575.3	344.1	ug/L	1.40	35.11	mg/kg	0.143	0.41%

Sequence No.: 32
Sample ID: AZ17824S06 MSD
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.98 g
Dilution:
Wash Time:

Autosampler Location: 55
Date Collected: 07/09/15 3:21:34 PM
Data Type: Reprocessed on 07/09/15 4:14:47 PM

Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17824S06 MSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	295430.2	127.7	%	0.89				0.70%
Y Radial	21417.3	139.1	%	1.20				0.87%
Ag 338.289†	40916.4	226.1	ug/L	1.09	23.07	mg/kg	0.111	0.48%
Al 308.215†	62699.3	49030	ug/L	204.76	5003	mg/kg	20.89	0.42%
As 188.979†	1756.5	354.3	ug/L	3.68	36.15	mg/kg	0.375	1.04%
B 249.677†	8028.7	356.7	ug/L	1.33	36.40	mg/kg	0.135	0.37%
Ba 233.527†	222753.3	545.1	ug/L	2.46	55.62	mg/kg	0.251	0.45%
Be 313.107†	215400.8	60.75	ug/L	0.203	6.199	mg/kg	0.0207	0.33%
Ca 315.887†	536434.7	36430	ug/L	335.73	3717	mg/kg	34.26	0.92%
Cd 214.440†	18812.4	67.54	ug/L	0.150	6.892	mg/kg	0.0153	0.22%
Co 228.616†	32241.9	342.3	ug/L	1.30	34.93	mg/kg	0.132	0.38%
Cr 267.716†	33624.4	417.0	ug/L	1.33	42.55	mg/kg	0.135	0.32%
Cu 327.393†	112792.7	566.9	ug/L	1.83	57.84	mg/kg	0.187	0.32%
Fe 273.955†	3623836.3	48560	ug/L	226.88	4955	mg/kg	23.15	0.47%
K 766.490†	78275.0	9825	ug/L	35.53	1003	mg/kg	3.63	0.36%
Mg 285.213†	599659.3	36600	ug/L	329.47	3734	mg/kg	33.62	0.90%
Mn 257.610†	53627.9	638.0	ug/L	2.88	65.11	mg/kg	0.294	0.45%
Mo 202.031†	9429.3	284.4	ug/L	0.68	29.02	mg/kg	0.070	0.24%
Na 589.592†	363224.3	35520	ug/L	286.63	3624	mg/kg	29.25	0.81%
Ni 231.604†	16959.4	364.9	ug/L	0.88	37.23	mg/kg	0.090	0.24%
P 213.617†	12832.6	4064	ug/L	16.39	414.7	mg/kg	1.67	0.40%
Pb 220.353†	4657.8	845.5	ug/L	3.16	86.28	mg/kg	0.322	0.37%
Sb 206.836†	2006.3	297.4	ug/L	1.78	30.35	mg/kg	0.182	0.60%
Se 196.026†	945.3	327.0	ug/L	3.20	33.36	mg/kg	0.327	0.98%
Sn 189.927†	1479.4	288.8	ug/L	1.47	29.47	mg/kg	0.150	0.51%
Sr 421.552†	269402.2	410.4	ug/L	3.46	41.88	mg/kg	0.353	0.84%
Ti 337.279†	49365.7	1349	ug/L	6.80	137.6	mg/kg	0.69	0.50%
Tl 190.801†	831.4	175.1	ug/L	0.66	17.87	mg/kg	0.067	0.37%
V 292.402†	41876.1	423.7	ug/L	1.16	43.23	mg/kg	0.119	0.27%
Zn 206.200†	175180.6	1961	ug/L	10.69	200.1	mg/kg	1.09	0.54%
Li 670.784	6880207.5	310.1	ug/L	1.69	31.64	mg/kg	0.172	0.54%

Sequence No.: 18
Sample ID: AZ17824S06 MS-1/20
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.98 g
Dilution: 20X
Wash Time:

Autosampler Location: 45
Date Collected: 07/09/15 1:23:06 PM
Data Type: Reprocessed on 07/09/15 4:14:30 PM
Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17824S06 MS-1/20

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Y 371.029	239311.5	103.5	%	0.46				0.45%
Y Radial	16270.5	105.7	%	1.30				1.23%
Ag 338.289†	2897.5	16.01	ug/L	0.542	32.68	mg/kg	1.105	3.38%
Al 308.215†	4111.8	3215	ug/L	25.89	6562	mg/kg	52.85	0.81%
As 188.979†	122.6	24.71	ug/L	0.536	50.42	mg/kg	1.094	2.17%
B 249.677†	585.2	25.65	ug/L	0.196	52.35	mg/kg	0.399	0.76%
Ba 233.527†	15785.7	38.63	ug/L	0.270	78.84	mg/kg	0.551	0.70%
Be 313.107†	14882.3	4.197	ug/L	0.0158	8.566	mg/kg	0.0322	0.38%
Ca 315.887†	39712.2	2697	ug/L	20.38	5503	mg/kg	41.60	0.76%
Cd 214.440†	1224.8	4.388	ug/L	0.0693	8.954	mg/kg	0.1414	1.58%
Co 228.616†	2368.8	25.17	ug/L	0.168	51.37	mg/kg	0.342	0.67%
Cr 267.716†	2317.1	28.73	ug/L	0.158	58.64	mg/kg	0.323	0.55%
Cu 327.393†	7427.5	37.34	ug/L	0.354	76.20	mg/kg	0.722	0.95%
Fe 273.955†	253772.9	3400	ug/L	17.78	6940	mg/kg	36.28	0.52%
K 766.490†	5777.3	725.5	ug/L	13.86	1481	mg/kg	28.29	1.91%
Mg 285.213†	43745.2	2670	ug/L	14.94	5448	mg/kg	30.50	0.56%
Mn 257.610†	3724.9	44.31	ug/L	0.272	90.43	mg/kg	0.556	0.61%
Mo 202.031†	717.9	21.64	ug/L	0.177	44.17	mg/kg	0.360	0.82%
Na 589.592†	25828.2	2526	ug/L	28.14	5154	mg/kg	57.43	1.11%
Ni 231.604†	1263.9	27.19	ug/L	0.215	55.49	mg/kg	0.439	0.79%
P 213.617†	857.3	271.5	ug/L	1.59	554.2	mg/kg	3.24	0.58%
Pb 220.353†	292.3	53.07	ug/L	0.872	108.3	mg/kg	1.78	1.64%
Sb 206.836†	124.2	18.42	ug/L	0.430	37.59	mg/kg	0.877	2.33%
Se 196.026†	64.0	22.18	ug/L	1.768	45.26	mg/kg	3.609	7.97%
Sn 189.927†	111.3	21.73	ug/L	0.366	44.34	mg/kg	0.747	1.68%
Sr 421.552†	19204.8	29.25	ug/L	0.314	59.70	mg/kg	0.641	1.07%
Ti 337.279†	3403.1	92.99	ug/L	0.755	189.8	mg/kg	1.54	0.81%
Tl 190.801†	62.3	13.13	ug/L	1.708	26.80	mg/kg	3.486	13.01%
V 292.402†	2892.3	29.26	ug/L	0.103	59.72	mg/kg	0.210	0.35%
Zn 206.200†	12801.8	143.3	ug/L	0.61	292.4	mg/kg	1.25	0.43%
Li 670.784	252686.3	11.39	ug/L	0.049	23.24	mg/kg	0.101	0.43%

Sequence No.: 19
Sample ID: AZ17824S06 MSD-1/20
Analyst: RJS - Jules
Logged In Analyst (Original) : chemist_metals
Initial Sample Wt: 0.98 g
Dilution: 20X
Wash Time:

Autosampler Location: 46
Date Collected: 07/09/15 1:28:07 PM
Data Type: Reprocessed on 07/09/15 4:14:31 PM

Initial Sample Vol:
Sample Prep Vol: 100 mL

Mean Data: AZ17824S06 MSD-1/20

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Y 371.029	238563.3	103.1	%	0.64				0.62%
Y Radial	16232.6	105.4	%	0.97				0.92%
Ag 338.289†	2670.0	14.76	ug/L	0.106	30.11	mg/kg	0.216	0.72%
Al 308.215†	3801.4	2972	ug/L	15.36	6066	mg/kg	31.34	0.52%
As 188.979†	109.0	21.99	ug/L	1.380	44.88	mg/kg	2.816	6.28%
B 249.677†	542.0	24.05	ug/L	0.295	49.09	mg/kg	0.601	1.23%
Ba 233.527†	14348.1	35.10	ug/L	0.066	71.64	mg/kg	0.134	0.19%
Be 313.107†	13278.6	3.745	ug/L	0.0213	7.643	mg/kg	0.0434	0.57%
Ca 315.887†	35956.0	2442	ug/L	4.90	4983	mg/kg	10.00	0.20%
Cd 214.440†	1105.2	3.948	ug/L	0.0612	8.057	mg/kg	0.1249	1.55%
Co 228.616†	2140.7	22.74	ug/L	0.064	46.40	mg/kg	0.131	0.28%
Cr 267.716†	2116.5	26.25	ug/L	0.103	53.56	mg/kg	0.210	0.39%
Cu 327.393†	6953.9	34.96	ug/L	0.206	71.35	mg/kg	0.421	0.59%
Fe 273.955†	243509.2	3263	ug/L	11.82	6659	mg/kg	24.12	0.36%
K 766.490†	5193.2	652.0	ug/L	4.39	1331	mg/kg	8.96	0.67%
Mg 285.213†	39266.1	2397	ug/L	7.49	4891	mg/kg	15.30	0.31%
Mn 257.610†	3534.6	42.05	ug/L	0.213	85.82	mg/kg	0.434	0.51%
Mo 202.031†	652.2	19.67	ug/L	0.293	40.14	mg/kg	0.598	1.49%
Na 589.592†	22963.2	2245	ug/L	42.71	4582	mg/kg	87.16	1.90%
Ni 231.604†	1153.1	24.81	ug/L	0.135	50.64	mg/kg	0.275	0.54%
P 213.617†	797.9	252.7	ug/L	1.37	515.8	mg/kg	2.79	0.54%
Pb 220.353†	269.3	48.89	ug/L	0.588	99.77	mg/kg	1.201	1.20%
Sb 206.836†	110.1	16.33	ug/L	0.540	33.32	mg/kg	1.103	3.31%
Se 196.026†	56.2	19.60	ug/L	1.927	40.00	mg/kg	3.933	9.83%
Sn 189.927†	99.8	19.48	ug/L	0.653	39.75	mg/kg	1.333	3.35%
Sr 421.552†	17780.7	27.08	ug/L	0.072	55.27	mg/kg	0.148	0.27%
Ti 337.279†	3161.3	86.38	ug/L	0.643	176.3	mg/kg	1.31	0.74%
Tl 190.801†	51.2	10.78	ug/L	0.302	22.00	mg/kg	0.616	2.80%
V 292.402†	2662.6	26.94	ug/L	0.185	54.98	mg/kg	0.377	0.69%
Zn 206.200†	12194.6	136.5	ug/L	0.90	278.5	mg/kg	1.84	0.66%
Li 670.784	230398.2	10.38	ug/L	0.062	21.19	mg/kg	0.126	0.59%

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	07/06/15	07/13/15		0.5ML	QCS ICV B	CPI	15C181-34944	09/19/16
25mL	1%HNO3/5%HCl	07/06/15	07/13/15		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	07/06/15	07/13/15		2mL	Yttrium	O2SI	1073310-35027	10/01/16
25mL	1%HNO3/5%HCl	07/06/15	07/13/15		Prepared in 2L 1%HNO3 / 5%HCl				

1%HNO3 / 5%HCl BLK					6010B/6010C ICSA				
AMOUNT	REAGENT	MANUFACTURER	LOT	OPEN DATE	AMOUNT	STD	MANUFACTURER	LOT	EXP DATE
100 mL	HCL	BDH	4114020	07/07/06	1mL	Al	CPI	14D237-33868	01/15/16
20 mL	HNO3	JT BAKER	0000067379	07/07/06	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	07/07/06	07/14/15		0.5ML	QCS ICV B	CPI	15C181-34944	09/19/16
25mL	1%HNO3/5%HCl	07/07/06	07/14/15		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	07/07/06	07/14/15		2mL	Yttrium	O2SI	1073310-35027	10/01/16
25mL	1%HNO3/5%HCl	07/07/06	07/14/15		Prepared in 2L 1%HNO3 / 5%HCl				

1%HNO3 / 5%HCl BLK					6010B/6010C ICSA				
AMOUNT	REAGENT	MANUFACTURER	LOT	OPEN DATE	AMOUNT	STD	MANUFACTURER	LOT	EXP DATE
100 mL	HCL	BDH	4114020	07/09/15	1mL	Al	CPI	14D237-33868	01/15/16
20 mL	HNO3	JT BAKER	0000067379	07/09/15	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	07/09/15	07/16/15		0.5ML	QCS ICV B	CPI	15C181-34944	09/19/16
25mL	1%HNO3/5%HCl	07/09/15	07/16/15		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	07/09/15	07/16/15		2mL	Yttrium	O2SI	1073310-35027	10/01/16
25mL	1%HNO3/5%HCl	07/09/15	07/16/15		Prepared in 2L 1%HNO3 / 5%HCl				

_M3010

Metals Digestion Worksheet

Method Name 3010A Digestion **Prep Method** M3010 **Set** 150701A **Units** mL

Spikes			
Spiked ID 1	LCSW LOT# 1075288-35199		
Spiked ID 2	LCSW LOT# 1075395-35200		
Spiked ID 3	10mg/L Prep: 7-1-15		
Spiked ID 4			
Spiked By	NM	Date:	07/01/15 8:45:00 AM
Witnessed By	KRG	Date:	07/01/15 8:45:00 AM

Starting Temp:	95 c
Ending Temp:	97 c
Temperature Type:	Mod Block
Sufficient Vol for Matrix QC:	Yes
End Date/Time	07/01/15 13:45

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
1	150701A Blk				50mL	50mL	07/01/15 8:45	equip: Modblock2 TOTAL
2	150701A LCS		500uL	1+2+3	50mL	50mL	07/01/15 8:45	equip: Modblock2
3	AZ17692	AZ17692W07			50mL	50mL	07/01/15 8:45	equip: Modblock2
4	AZ17693	AZ17693W07			50mL	50mL	07/01/15 8:45	equip: Modblock2
5	AZ17694	AZ17694W22			50mL	50mL	07/01/15 8:45	equip: Modblock2
6	AZ17694 MS	AZ17694W22	500uL	1+2+3	50mL	50mL	07/01/15 8:45	equip: Modblock2
7	AZ17694 MSD	AZ17694W22	500uL	1+2+3	50mL	50mL	07/01/15 8:45	equip: Modblock2
8	AZ17695	AZ17695W07			50mL	50mL	07/01/15 8:45	equip: Modblock2
9	AZ17696	AZ17696W10			50mL	50mL	07/01/15 8:45	equip: Modblock2
10	AZ17817	AZ17817W08			50mL	50mL	07/01/15 8:45	equip: Modblock2
11	AZ17818	AZ17818W08			50mL	50mL	07/01/15 8:45	equip: Modblock2
12	AZ17821	AZ17821W08			50mL	50mL	07/01/15 8:45	equip: Modblock2
13	AZ17823	AZ17823W22			50mL	50mL	07/01/15 8:45	equip: Modblock2
14	AZ17823 MS	AZ17823W22	500uL	1+2+3	50mL	50mL	07/01/15 8:45	equip: Modblock2
15	AZ17823 MSD	AZ17823W22	500uL	1+2+3	50mL	50mL	07/01/15 8:45	equip: Modblock2
16	AZ17826	AZ17826W10			50mL	50mL	07/01/15 8:45	equip: Modblock2
17	AZ17827	AZ17827W07			50mL	50mL	07/01/15 8:45	equip: Modblock2
18	AZ17828	AZ17828W10			50mL	50mL	07/01/15 8:45	equip: Modblock2
19	AZ17829	AZ17829W10			50mL	50mL	07/01/15 8:45	equip: Modblock2
20	AZ17907	AZ17907W10			50mL	50mL	07/01/15 8:45	equip: Modblock2
21	AZ17908	AZ17908W07			50mL	50mL	07/01/15 8:45	equip: Modblock2
22	AZ17909	AZ17909W10			50mL	50mL	07/01/15 8:45	equip: Modblock2

Solvent and Lot#
HNO3 J.T.B. 106819 4358
1:1 HCL 1-12-15

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	ROS
Date	7/1/15
Time	1700
Moved to	METALS

Technician's Initials	
Scanned By	nm
Sample Preparation	nm
Digestion	nm
Bring up to volume	nm
Modified	07/01/15 8:23:16 AM

Reviewed By: ROS **Date:** 7/1/15

Metals Digestion Worksheet

Method Name 3010A Digestion (Field Filter) **Prep Method** M3010F **Set** 150701A **Units** mL

Spikes			
Spiked ID 1	LCSW LOT# 1073180-35017		
Spiked ID 2	LCSW LOT# 1073080-35018		
Spiked ID 3	Li 10mg/L Prep: 7-1-15		
Spiked ID 4			
Spiked By	NM	Date:	07/01/15 8:45:00 AM
Witnessed By	KRG	Date:	07/01/15 8:45:00 AM

Starting Temp:	95 c
Ending Temp:	97 c
Temperature Type:	Mod Block
Sufficient Vol for Matrix QC:	Yes
End Date/Time	07/01/15 14:00

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
1	150701A Blk				50mL	50mL	07/01/15 8:45	equip: Modblock2 FIELD FILTER
2	150701A LCS		500uL	1+2+3	50mL	50mL	07/01/15 8:45	equip: Modblock2
3	AZ17692	AZ17692W06			50mL	50mL	07/01/15 8:45	equip: Modblock2
4	AZ17693	AZ17693W06			50mL	50mL	07/01/15 8:45	equip: Modblock2
5	AZ17694	AZ17694W19			50mL	50mL	07/01/15 8:45	equip: Modblock2
6	AZ17694 MS	AZ17694W19	500uL	1+2+3	50mL	50mL	07/01/15 8:45	equip: Modblock2
7	AZ17694 MSD	AZ17694W19	500uL	1+2+3	50mL	50mL	07/01/15 8:45	equip: Modblock2
8	AZ17695	AZ17695W06			50mL	50mL	07/01/15 8:45	equip: Modblock2
9	AZ17696	AZ17696W09			50mL	50mL	07/01/15 8:45	equip: Modblock2
10	AZ17817	AZ17817W07			50mL	50mL	07/01/15 8:45	equip: Modblock2
11	AZ17818	AZ17818W07			50mL	50mL	07/01/15 8:45	equip: Modblock2
12	AZ17821	AZ17821W07			50mL	50mL	07/01/15 8:45	equip: Modblock2
13	AZ17823	AZ17823W19			50mL	50mL	07/01/15 8:45	equip: Modblock2
14	AZ17823 MS	AZ17823W19	500uL	1+2+3	50mL	50mL	07/01/15 8:45	equip: Modblock2
15	AZ17823 MSD	AZ17823W19	500uL	1+2+3	50mL	50mL	07/01/15 8:45	equip: Modblock2
16	AZ17826	AZ17826W09			50mL	50mL	07/01/15 8:45	equip: Modblock2
17	AZ17827	AZ17827W06			50mL	50mL	07/01/15 8:45	equip: Modblock2
18	AZ17828	AZ17828W09			50mL	50mL	07/01/15 8:45	equip: Modblock2
19	AZ17829	AZ17829W09			50mL	50mL	07/01/15 8:45	equip: Modblock2
20	AZ17907	AZ17907W09			50mL	50mL	07/01/15 8:45	equip: Modblock2
21	AZ17908	AZ17908W06			50mL	50mL	07/01/15 8:45	equip: Modblock2
22	AZ17909	AZ17909W09			50mL	50mL	07/01/15 8:45	equip: Modblock2

Solvent and Lot#
HNO3 J.T.B. 106819 4358
1:1 HCL 1-12-15

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	RBS
Date	7/1/15
Time	1700
Moved to	METALS

Technician's Initials	
Scanned By	nm
Sample Preparation	nm
Digestion	nm
Bring up to volume	nm
Modified	07/01/15 8:19:29 AM

Reviewed By: RBS **Date:** 7/1/15

Metals Digestion Worksheet

Method Name 3050B Digestion **Prep Method** M3050alt **Set** 150708B **Units** mL

Spikes	
Spiked ID 1	LCSW LOT# 1068928-34553
Spiked ID 2	LCSW LOT# 1066597-34174
Spiked ID 3	Li 10mg/L Prep: 7-8-15
Spiked ID 4	
Spiked By	NM Date: 07/08/15 9:48:00 AM
Witnessed By	MM Date: 07/08/15 9:48:00 AM

Starting Temp:	95 c
Ending Temp:	95 c
Temperature Type:	Mod Block
Sufficient Vol for Matrix QC:	Yes
End Date/Time	07/08/15 12:00

	Sample	Sample Container	Spike Amount	Spike ID	Digested Amount	Final Volume	Start Date/Time	Comments
1	150708B Blk				1.00g	100mL	07/08/15 9:48	equip: Modblock3
2	150708B LCS		1mL	1+2+3	1.00g	100mL	07/08/15 9:48	equip: Modblock3
3	AZ17816	AZ17816S01			0.98g	100mL	07/08/15 9:48	equip: Modblock3
4	AZ17819	AZ17819S01			1.01g	100mL	07/08/15 9:48	equip: Modblock3
5	AZ17820	AZ17820S02			0.97g	100mL	07/08/15 9:48	equip: Modblock3
6	AZ17822	AZ17822S02			1.00g	100mL	07/08/15 9:48	equip: Modblock3
7	AZ17824	AZ17824S06			0.98g	100mL	07/08/15 9:48	equip: Modblock3
8	AZ17824 MS	AZ17824S06	2mL	1+2+3	0.98g	100mL	07/08/15 9:48	equip: Modblock3
9	AZ17824 MSD	AZ17824S06	2mL	1+2+3	0.98g	100mL	07/08/15 9:48	equip: Modblock3

Solvent and Lot#
1:1 HNO3 NA
HNO3 J.T.B. 113071 4479
H2O2 EMD na
HCL BDH 4115022 4416

Sample COC Transfer	
Sample prep employee Initials	nm
Analyst's initials	[illegible]
Date	7/9/15
Time	900
Moved to	METALS

Technician's Initials	
Scanned By	nm
Sample Preparation	nm
Digestion	nm
Bring up to volume	nm
Modified	07/08/15 3:20:14 PM

Reviewed By: [illegible] **Date:** 7/9/15

6010 Injection Log

Directory: K:\ICAP JULES\Backup Excel\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	06 Jul 2015	11:08	CalBlk 150706RJS I:JL O:R		150706A6010	1.
2	06 Jul 2015	11:14	STD 1 150706RJS I:JL O:RJ		150706A6010	1.
3	06 Jul 2015	11:19	STD 2 150706RJS I:JL O:RJ		150706A6010	1.
4	06 Jul 2015	11:25	STD 3 150706RJS I:JL O:RJ		150706A6010	1.
5	06 Jul 2015	11:29	ICV 150706RJS I:JL O:RJS		150706A6010	1.
6	06 Jul 2015	11:35	ICB 150706RJS I:JL O:RJS		150706A6010	1.
7	06 Jul 2015	11:41	ICSA 150706RJS I:JL O:RJS		150706A6010	1.
8	06 Jul 2015	11:47	ICSAB 150706RJS I:JL O:RJ		150706A6010	1.
9	06 Jul 2015	11:53	CCV1 150706RJS I:JL O:RJS		150706A6010	1.
10	06 Jul 2015	12:03	CCB 150706RJS I:JL O:RJS		150706A6010	1.
11	06 Jul 2015	12:11	150701A-3010F BLK		150706A6010	1.
12	06 Jul 2015	12:16	150701A-3010F LCS		150706A6010	1.
13	06 Jul 2015	12:22	150701A-3010 BLK		150706A6010	1.
14	06 Jul 2015	12:27	150701A-3010 LCS		150706A6010	1.
22	06 Jul 2015	13:19	AZ17817W07 F		150706A6010	1.
23	06 Jul 2015	13:26	AZ17818W07 F		150706A6010	1.
24	06 Jul 2015	13:33	AZ17821W07 F		150706A6010	1.
25	06 Jul 2015	13:40	AZ17823W19 F		150706A6010	1.
26	06 Jul 2015	13:46	AZ17823W19 F MS		150706A6010	1.
27	06 Jul 2015	13:53	AZ17823W19 F MSD		150706A6010	1.
28	06 Jul 2015	13:59	AZ17826W09 F		150706A6010	1.
29	06 Jul 2015	14:53	CCV2 150706RJS I:JL O:RJS		150706A6010	1.
30	06 Jul 2015	14:58	CCB 150706RJS I:JL O:RJS		150706A6010	1.
31	06 Jul 2015	15:04	AZ17827W06 F		150706A6010	1.
32	06 Jul 2015	15:10	AZ17828W09 F		150706A6010	1.
33	06 Jul 2015	15:17	AZ17829W09 F		150706A6010	1.
39	06 Jul 2015	15:56	AZ17823W19-A F		150706A6010	1.
40	06 Jul 2015	16:02	AZ17823W19-1/5 F		150706A6010	5.
41	06 Jul 2015	16:08	CCV1 150706RJS I:JL O:RJS		150706A6010	1.
42	06 Jul 2015	16:13	CCB 150706RJS I:JL O:RJS		150706A6010	1.
50	06 Jul 2015	17:04	AZ17817W08		150706A6010	1.
51	06 Jul 2015	17:11	AZ17818W08		150706A6010	1.
52	06 Jul 2015	17:18	AZ17821W08		150706A6010	1.
53	06 Jul 2015	17:25	AZ17823W22		150706A6010	1.
54	06 Jul 2015	17:31	AZ17823W22 MS		150706A6010	1.
55	06 Jul 2015	17:38	AZ17823W22 MSD		150706A6010	1.
56	06 Jul 2015	17:44	AZ17826W10		150706A6010	1.
57	06 Jul 2015	17:50	CCV2 150706RJS I:JL O:RJS		150706A6010	1.
58	06 Jul 2015	17:55	CCB 150706RJS I:JL O:RJS		150706A6010	1.
59	06 Jul 2015	18:01	AZ17827W07		150706A6010	1.
60	06 Jul 2015	18:07	AZ17828W10		150706A6010	1.
61	06 Jul 2015	18:13	AZ17829W10		150706A6010	1.
67	06 Jul 2015	18:52	AZ17823W22-A		150706A6010	1.

68	06 Jul 2015	18:58	AZ17823W22-1/5	150706A6010	5.
69	06 Jul 2015	19:04	CCV1 150706RJS I:JL O:RJS	150706A6010	1.
70	06 Jul 2015	19:09	CCB 150706RJS I:JL O:RJS	150706A6010	1.

6010 Injection Log

Directory: K:\ICAP JULES\Backup Excel\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
2	07 Jul 2015	12:55	CalBlk 150707RJS I:JL O:R		150707A6010	1.
3	07 Jul 2015	12:59	STD 1 150707RJS I:JL O:RJ		150707A6010	1.
4	07 Jul 2015	13:03	STD 2 150707RJS I:JL O:RJ		150707A6010	1.
5	07 Jul 2015	13:06	STD 3 150707RJS I:JL O:RJ		150707A6010	1.
6	07 Jul 2015	13:11	ICV 150707RJS I:JL O:RJS		150707A6010	1.
7	07 Jul 2015	13:16	ICB 150707RJS I:JL O:RJS		150707A6010	1.
8	07 Jul 2015	13:25	ICSA 150707RJS I:JL O:RJS		150707A6010	1.
9	07 Jul 2015	13:30	ICSAB 150707RJS I:JL O:RJ		150707A6010	1.
10	07 Jul 2015	13:34	CCV1 150707RJS I:JL O:RJS		150707A6010	1.
11	07 Jul 2015	13:42	CCB 150707RJS I:JL O:RJS		150707A6010	1.
12	07 Jul 2015	13:52	AZ17828W09-1/10 F		150707A6010	10.
13	07 Jul 2015	13:58	AZ17828W10-1/10		150707A6010	10.
14	07 Jul 2015	14:03	CCV2 150707RJS I:JL O:RJS		150707A6010	1.
15	07 Jul 2015	14:11	CCB 150707RJS I:JL O:RJS		150707A6010	1.

6010 Injection Log

Directory: K:\ICAP JULES\Backup Excel\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	09 Jul 2015	11:30	CalBlk 150709RJS I:JL O:R		150709A6010	1.
2	09 Jul 2015	11:36	STD 1 150709RJS I:JL O:RJ		150709A6010	1.
3	09 Jul 2015	11:42	STD 2 150709RJS I:JL O:RJ		150709A6010	1.
4	09 Jul 2015	11:47	STD 3 150709RJS I:JL O:RJ		150709A6010	1.
5	09 Jul 2015	12:02	ICV 150709RJS I:JL O:RJS		150709A6010	1.
6	09 Jul 2015	12:07	ICB 150709RJS I:JL O:RJS		150709A6010	1.
7	09 Jul 2015	12:13	ICSA 150709RJS I:JL O:RJS		150709A6010	1.
8	09 Jul 2015	12:19	ICSAB 150709RJS I:JL O:RJ		150709A6010	1.
9	09 Jul 2015	12:26	CCV1 150709RJS I:JL O:RJS		150709A6010	1.
10	09 Jul 2015	12:33	CCB 150709RJS I:JL O:RJS		150709A6010	1.
11	09 Jul 2015	12:45	150708B-3050-BLK		150709A6010	1.
12	09 Jul 2015	12:51	150708B-3050-LCS		150709A6010	1.
14	09 Jul 2015	13:02	AZ17819S01-1/20		150709A6010	20.
15	09 Jul 2015	13:07	AZ17820S02-1/20		150709A6010	20.
16	09 Jul 2015	13:12	AZ17822S02-1/20		150709A6010	20.
17	09 Jul 2015	13:17	AZ17824S06-1/20		150709A6010	20.
18	09 Jul 2015	13:23	AZ17824S06 MS-1/20		150709A6010	20.
19	09 Jul 2015	13:28	AZ17824S06 MSD-1/20		150709A6010	20.
21	09 Jul 2015	13:39	AZ17824S06-1/100		150709A6010	100.
22	09 Jul 2015	13:45	CCV2 150709RJS I:JL O:RJS		150709A6010	1.
23	09 Jul 2015	13:53	CCB 150709RJS I:JL O:RJS		150709A6010	1.
24	09 Jul 2015	14:03	AZ17816S01		150709A6010	1.
25	09 Jul 2015	14:09	AZ17819S01		150709A6010	1.
26	09 Jul 2015	14:32	AZ17820S02		150709A6010	1.
27	09 Jul 2015	14:38	AZ17822S02		150709A6010	1.
28	09 Jul 2015	14:44	AZ17824S06		150709A6010	1.
29	09 Jul 2015	15:04	CCV1 150709RJS I:JL O:RJS		150709A6010	1.
30	09 Jul 2015	15:10	CCB 150709RJS I:JL O:RJS		150709A6010	1.
31	09 Jul 2015	15:15	AZ17824S06 MS		150709A6010	1.
32	09 Jul 2015	15:21	AZ17824S06 MSD		150709A6010	1.
33	09 Jul 2015	15:27	AZ17824S06-A		150709A6010	1.
35	09 Jul 2015	15:50	CCV2 150709RJS I:JL O:RJS		150709A6010	1.
36	09 Jul 2015	15:55	CCB 150709RJS I:JL O:RJS		150709A6010	1.

INORGANIC ANALYSIS

APPL, INC.

INORGANIC ANALYSIS
QC Summary

APPL, INC.

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	06/18/15	06/18/15	#300W-150618A-AZ17823
EPA 300.0	NITRATE	0.18 U	0.5	0.18	0.04	mg/L	06/18/15	06/18/15	#300W-150618A-AZ17823
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	06/18/15	06/18/15	#300W-150618A-AZ17823
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	06/18/15	06/18/15	#300W-150618A-AZ17823
WalkBlk	TOTAL ORGANIC C	150.00 U	200.0	150.00	100.00	mg/Kg	07/09/15	07/09/15	OC-WB-150709A1-AZ17824
EPA 300.0	CHLORIDE	1.4	1.0	0.20	0.08	mg/L	06/19/15	06/19/15	#300WD-150619A-AZ17826
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	06/19/15	06/19/15	#300WD-150619A-AZ17826
SW846 90	TOTAL ORGANIC C	0.35 U	0.5	0.35	0.13	mg/L	07/01/15	07/01/15	#906-150701A-AZ17694

Wetlab SC-Blank-REG MDLs
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Laboratory Control Spike Recovery

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level mg/L	SPK Result mg/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	20.0	18.1	90.5	90-110	06/18/15	06/18/15	#300W-150618A-AZ17823
EPA 300.0	NITRATE	22.1	21.1	95.5	90-110	06/18/15	06/18/15	#300W-150618A-AZ17823
EPA 300.0	NITRITE	9.98	9.08	91.0	90-110	06/18/15	06/18/15	#300W-150618A-AZ17823
EPA 300.0	SULFATE	20.0	18.6	93.0	90-110	06/18/15	06/18/15	#300W-150618A-AZ17823

Comments: _____

Laboratory Control Spike Recovery

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level mg/L	SPK Result mg/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	20.0	19.0	95.0	90-110	06/19/15	06/19/15	#300WD-150619A-AZ17826
EPA 300.0	SULFATE	20.0	20.2	101	90-110	06/19/15	06/19/15	#300WD-150619A-AZ17826
SW846 906	TOTAL ORGANIC CARBON	10.00	10.2	102	90-110	07/01/15	07/01/15	#906-150701A-AZ17694

Comments: _____

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	07/09/15	07/09/15	#TOC-WB-150709A1-AZ17824

Comments: _____

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APPL Standard LCS

Matrix Spike Recoveries

WETLAB

APPL ID: **150618W-17823 MS - 198377**

Sample ID: AZ17823

Client ID: S67-SW028-061615

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	Matrix Res mg/L	SPK Res mg/L	DUP Res mg/L	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 300.0	CHLORIDE	20	42.0	62.4	61.6	102	98.0	1.3	20	90-110	06/18/15	06/18/15	06/18/15	06/18/15	198377	AZ17823
EPA 300.0	NITRATE	22.1	0.76	20.0	20.1	87.1 #	87.5 #	0.50	20	90-110	06/18/15	06/18/15	06/18/15	06/18/15	198377	AZ17823
EPA 300.0	NITRITE	9.98	ND	10.4	12.0	104	120 #	14.3	20	90-110	06/18/15	06/18/15	06/18/15	06/18/15	198377	AZ17823
EPA 300.0	SULFATE	20	15.5	34.3	34.4	94.0	94.5	0.29	20	90-110	06/18/15	06/18/15	06/18/15	06/18/15	198377	AZ17823

= Recovery is outside QC limits.

Comments: _____

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APPL MSD SCII

Matrix Spike Recoveries

WETLAB

APPL ID: **150709S-17824 MS - 198783**

Sample ID: AZ17824

Client ID: S67-SD029-0001

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	34300	36000	36000	85.0	85.0	0.0	20	80-120	07/09/15	07/09/15	07/09/15	07/09/15	198783	AZ17824

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: AZ17816
Client ID: S67-SD026-0001

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

ARF: 76674

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	AZ17816	27.8	28.7	3.2	20		2.0	%	06/23/15	06/24/15	06/23/15	06/24/15

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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: AZ17824
Client ID: S67-SD029-0001

APPL Inc.
908 North Temperance Avenu
Clovis, CA 93611

ARF: 76674

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	AZ17824	72.1	75.2	4.2	20		2.0	%	06/24/15	06/25/15	06/24/15	06/25/15

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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-SW026-061615

Sample Collection Date: 06/16/15

APPL ID: AZ17817

ARF: 76674

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	42.8	1.0	0.20	0.08	mg/L	1	06/18/15	06/18/15
EPA 300.0	NITRATE	1.1	0.5	0.18	0.04	mg/L	1	06/18/15	06/18/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	06/18/15	06/18/15
EPA 300.0	SULFATE	16.0	1.0	0.20	0.09	mg/L	1	06/18/15	06/18/15

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APPL-F1-SC-NoMC-REG MDLs

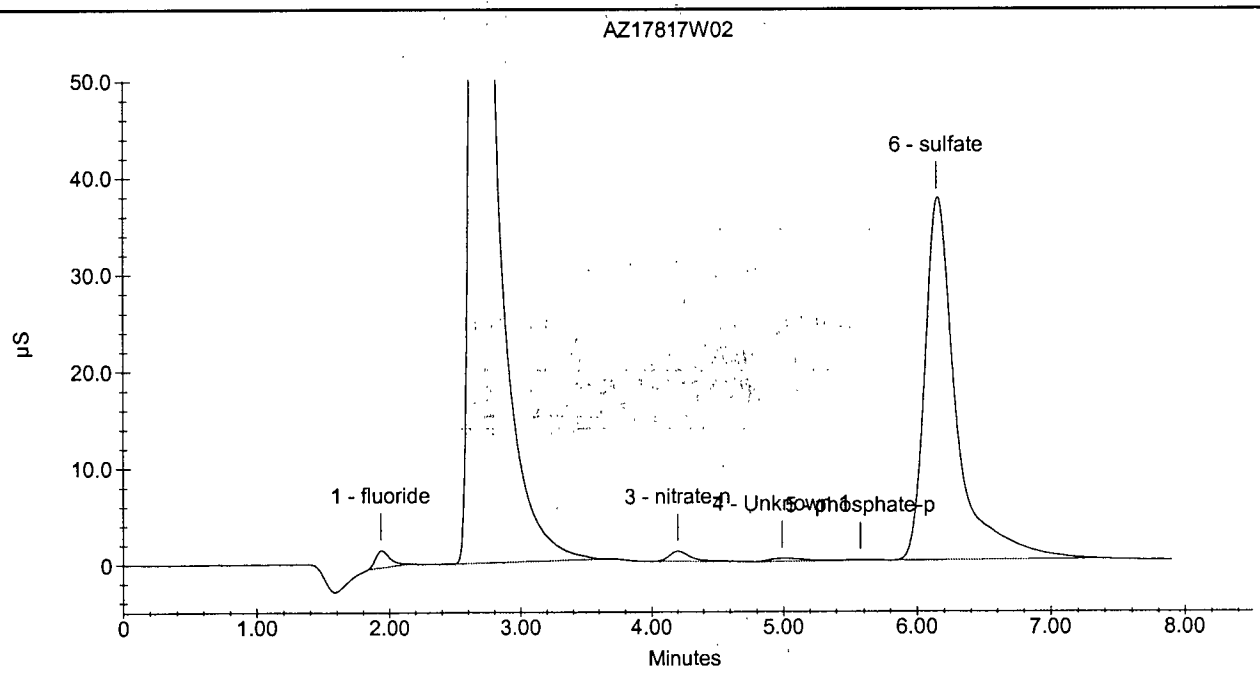
Sample Analysis Report

Sample Name : AZ17817W02
Data File Name : I:\DIONEX\D1ANIONS\DATA\150618A\150618a_018.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/18/15 10:40:10
System Operator : EM
Injection Number : 18
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.93	fluoride	0.2043	133533	17731
2	2.68	chloride	42.7632	23655973	2653692
3	4.20	nitrate-n	0.2377	122644	10496
4	4.99	Unknown 1	0.0000	56733	3223
5	5.57	phosphate-p	-0.2627	16278	1109
6	6.15	sulfate	16.0179	6081235	371892



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-SW026P-061615

Sample Collection Date: 06/16/15

APPL ID: AZ17818

ARF: 76674

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	41.7	1.0	0.20	0.08	mg/L	1	06/18/15	06/18/15
EPA 300.0	NITRATE	0.78	0.5	0.18	0.04	mg/L	1	06/18/15	06/18/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	06/18/15	06/18/15
EPA 300.0	SULFATE	16.1	1.0	0.20	0.09	mg/L	1	06/18/15	06/18/15

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APPL-F1-SC-NoMC-REG MDLs

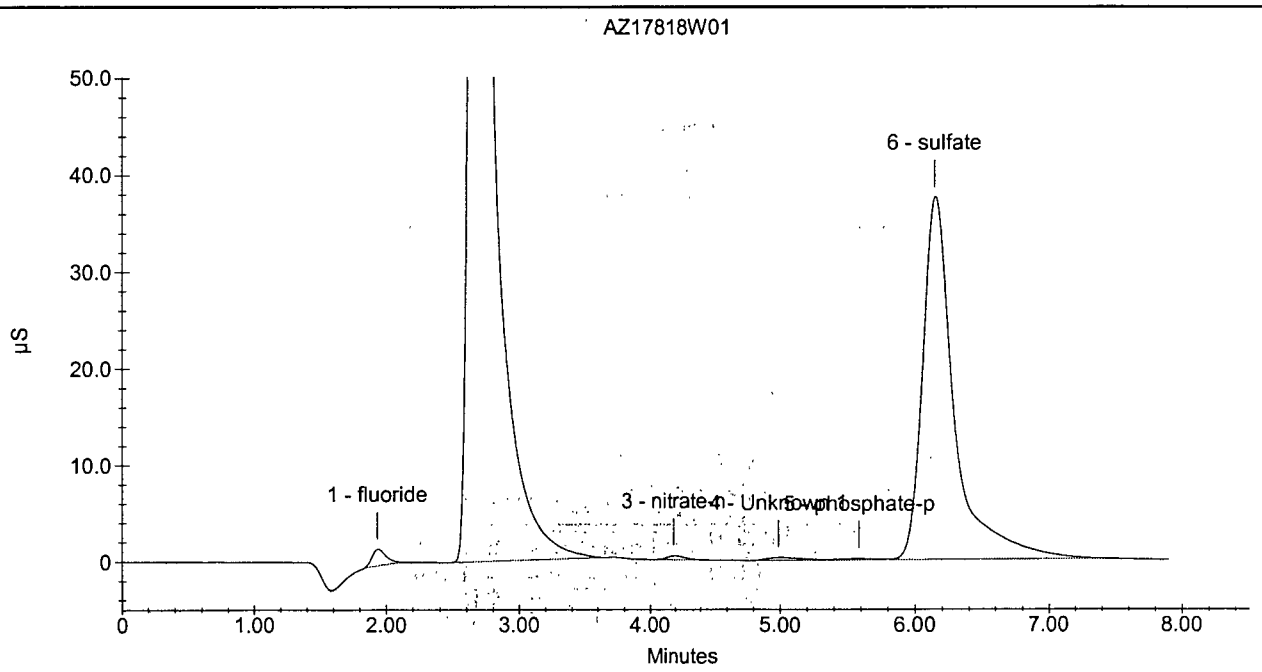
Sample Analysis Report

Sample Name : AZ17818W01
Data File Name : I:\DIONEX\D1ANIONS\DATA\150618A\150618a_019.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/18/15 10:50:47
System Operator : EM
Injection Number : 19
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.93	fluoride	0.1890	123754	17041
2	2.68	chloride	41.6733	23037188	2615910
3	4.19	nitrate-n	0.1763	41781	4062
4	4.99	Unknown 1	0.0000	50728	2925
5	5.59	phosphate-p	-0.2413	25567	1470
6	6.15	sulfate	16.0994	6113141	373864



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-SD027-0001

Sample Collection Date: 06/16/15

APPL ID: AZ17819

ARF: 76674

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
WalkBlk	TOTAL ORGANIC CARBON	26100	200.0	150.00	100.00	mg/Kg	1	07/09/15	07/09/15

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APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

Tetra Tech
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Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-SD027P-0001

Sample Collection Date: 06/16/15

APPL ID: AZ17820

ARF: 76674

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
WalkBlk	TOTAL ORGANIC CARBON	29100	200.0	150.00	100.00	mg/Kg	1	07/09/15	07/09/15

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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-SW027-061615

Sample Collection Date: 06/16/15

APPL ID: AZ17821

ARF: 76674

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	49.6	1.0	0.20	0.08	mg/L	1	06/18/15	06/18/15
EPA 300.0	NITRATE	0.78	0.5	0.18	0.04	mg/L	1	06/18/15	06/18/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	06/18/15	06/18/15
EPA 300.0	SULFATE	17.0	1.0	0.20	0.09	mg/L	1	06/18/15	06/18/15

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APPL-F1-SC-NoMC-REG MDLs

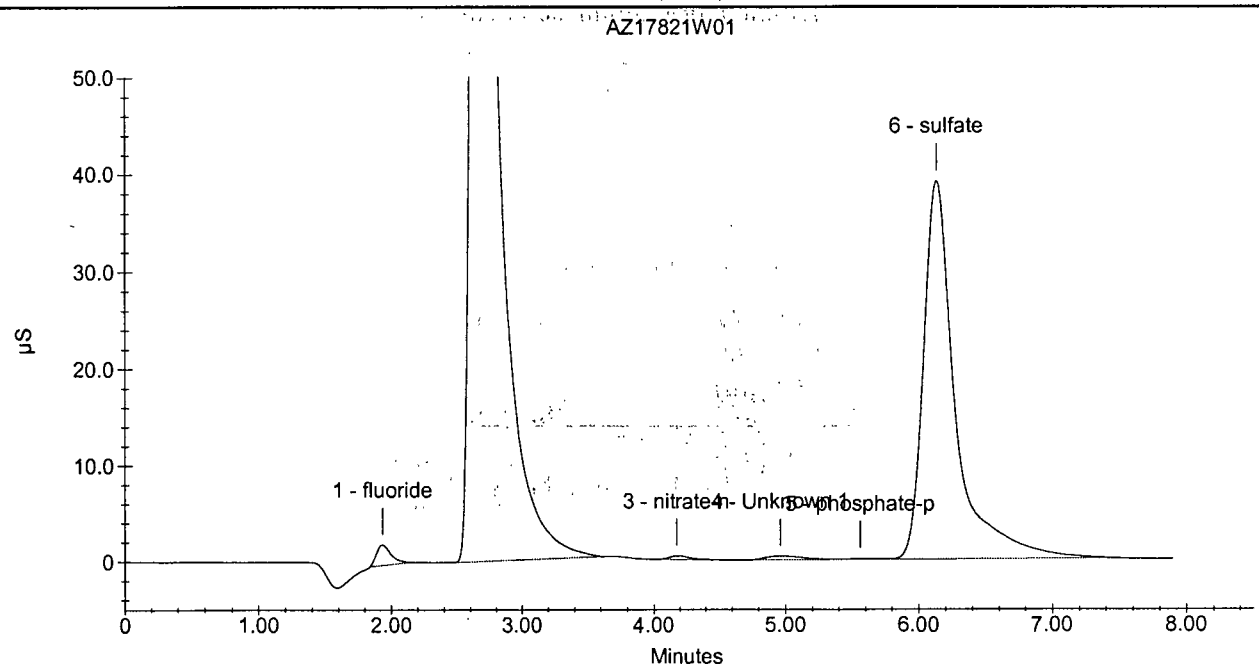
Sample Analysis Report

Sample Name : AZ17821W01
Data File Name : I:\DIONEX\D1ANIONS\DATA\150618A\150618a_012.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/18/15 09:36:10
System Operator : EM
Injection Number : 12
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.93	fluoride	0.2461	160210	21147
2	2.68	chloride	49.5568	27512853	3091908
3	4.17	nitrate-n	0.1755	40628	3682
4	4.96	Unknown 1	0.0000	77553	4048
5	5.56	phosphate-p	-0.2535	20263	1099
6	6.13	sulfate	16.9848	6459882	389635



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-SW028-061615

Sample Collection Date: 06/16/15

APPL ID: AZ17823

ARF: 76674

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	42.0	1.0	0.20	0.08	mg/L	1	06/18/15	06/18/15
EPA 300.0	NITRATE	0.76	0.5	0.18	0.04	mg/L	1	06/18/15	06/18/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	06/18/15	06/18/15
EPA 300.0	SULFATE	15.5	1.0	0.20	0.09	mg/L	1	06/18/15	06/18/15

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APPL-F1-SC-NoMC-REG MDLs

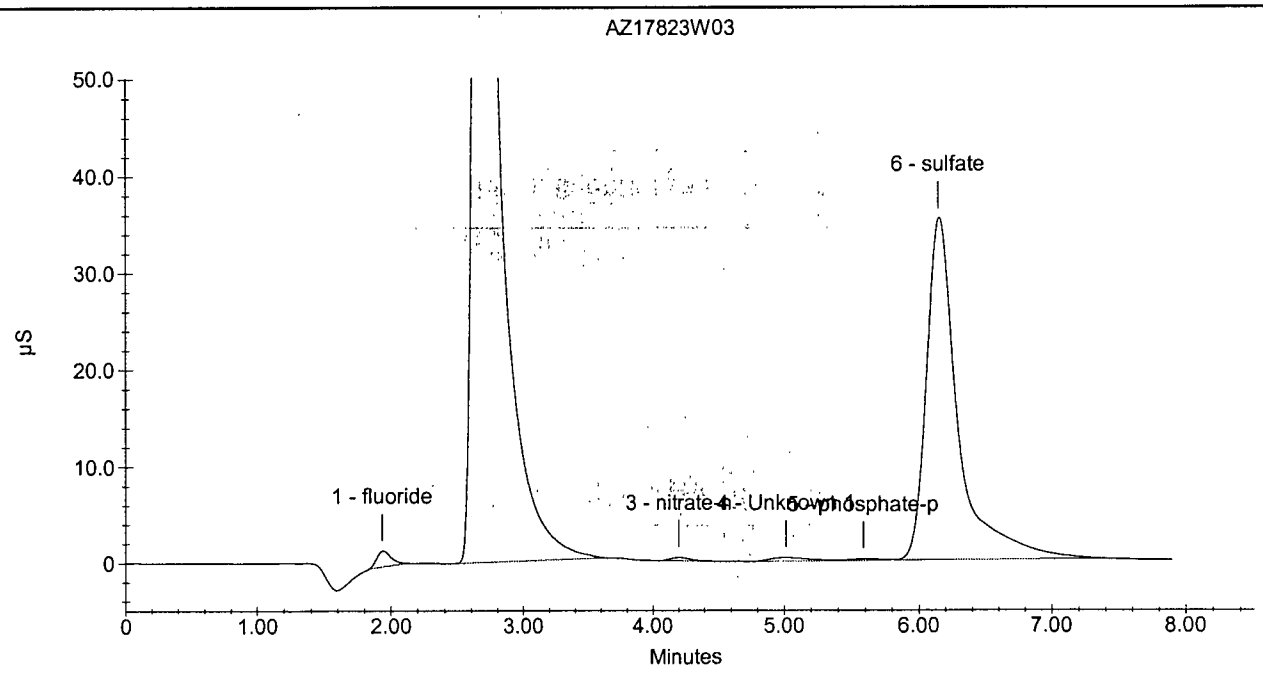
Sample Analysis Report

Sample Name : AZ17823W03
Data File Name : I:\DIONEX\D1ANIONS\DATA\150618A\150618a_009.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/18/15 09:04:19
System Operator : EM
Injection Number : 9
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.93	fluoride	0.1869	122409	16417
2	2.68	chloride	41.9769	23209582	2515639
3	4.20	nitrate-n	0.1710	34733	3471
4	5.01	Unknown 1	0.0000	74412	3780
5	5.59	phosphate-p	-0.2338	28823	1720
6	6.15	sulfate	15.5455	5896234	351971



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-SD029-0001

Sample Collection Date: 06/16/15

APPL ID: AZ17824

ARF: 76674

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
WalkBlk	TOTAL ORGANIC CARBON	34300	200.0	150.00	100.00	mg/Kg	1	07/09/15	07/09/15

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APPL-F1-SC-NoMC-REG MDLs

Wet Lab Analysis

Tetra Tech
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Norfolk, VA 23502

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Attn: Ed Corack

Project: CTO JU11 112G02622 NSF Indian Head

Sample ID: S67-SW029-061615

Sample Collection Date: 06/16/15

APPL ID: AZ17825

ARF: 76674

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	36.4	1.0	0.20	0.08	mg/L	1	06/18/15	06/18/15
EPA 300.0	NITRATE	0.90	0.5	0.18	0.04	mg/L	1	06/18/15	06/18/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	06/18/15	06/18/15
EPA 300.0	SULFATE	17.1	1.0	0.20	0.09	mg/L	1	06/18/15	06/18/15

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APPL-F1-SC-NoMC-REG MDLs

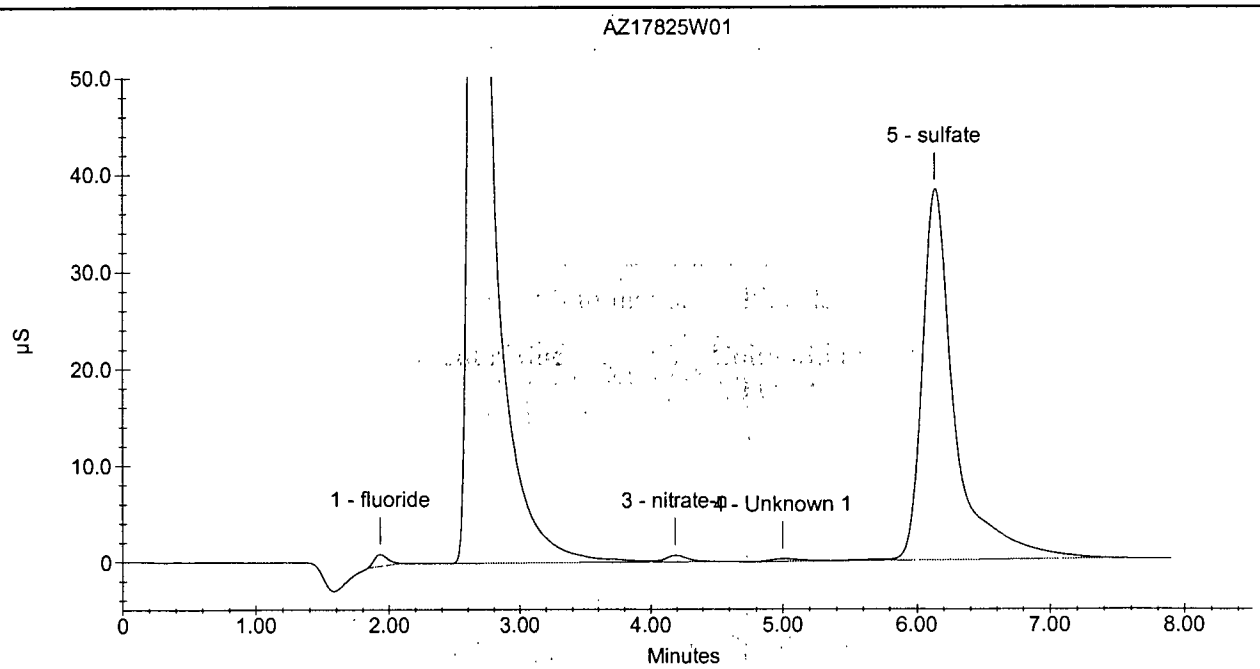
Sample Analysis Report

Sample Name : AZ17825W01
Data File Name : I:\DIONEX\D1ANIONS\DATA\150618A\150618a_011.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/18/15 09:25:31
System Operator : EM
Injection Number : 11
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.93	fluoride	0.1314	87013	12143
2	2.68	chloride	36.4057	20046633	2219134
3	4.19	nitrate-n	0.2043	78591	6624
4	5.00	Unknown 1	0.0000	45933	2796
5	6.13	sulfate	17.1067	6507626	381018



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-MW018-061615

Sample Collection Date: 06/16/15

APPL ID: AZ17826

ARF: 76674

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	101	10.0	2.00	0.80	mg/L	10	06/19/15	06/19/15
EPA 300.0	SULFATE	163	10.0	2.00	0.90	mg/L	10	06/19/15	06/19/15
EPA 300.0	NITRATE	0.92	0.5	0.18	0.04	mg/L	1	06/18/15	06/18/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	06/18/15	06/18/15
SW846 9060	TOTAL ORGANIC CARBON	0.62	0.5	0.35	0.13	mg/L	1	07/01/15	07/01/15

Printed: 07/13/15 2:22:11 PM

APPL-F1-SC-NoMC-REG MDLs

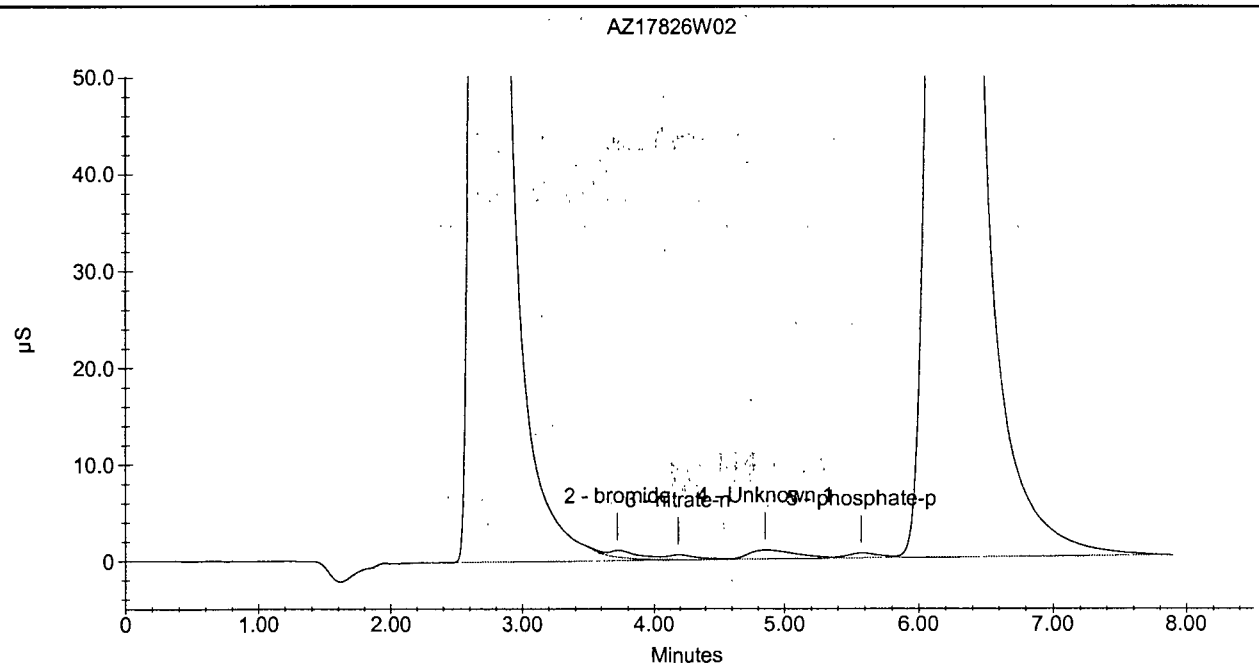
Sample Analysis Report

Sample Name : AZ17826W02
Data File Name : I:\DIONEX\D1ANIONS\DATA\150618A\150618a_026.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/18/15 12:05:22
System Operator : EM
Injection Number : 26
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	2.71	chloride	114.1985	64211752	7146807
2	3.72	bromide	0.7261	113132	7306
3	4.19	nitrate-n	0.2085	84222	5037
4	4.85	Unknown 1	0.0000	228493	9387
5	5.57	phosphate-p	-0.1116	81901	5025
6	6.24	sulfate	158.2578	61783127	3914250



APPL, Inc.

Current Date : 6/18/15
Current Time : 12:15:57

Sample Analysis Report

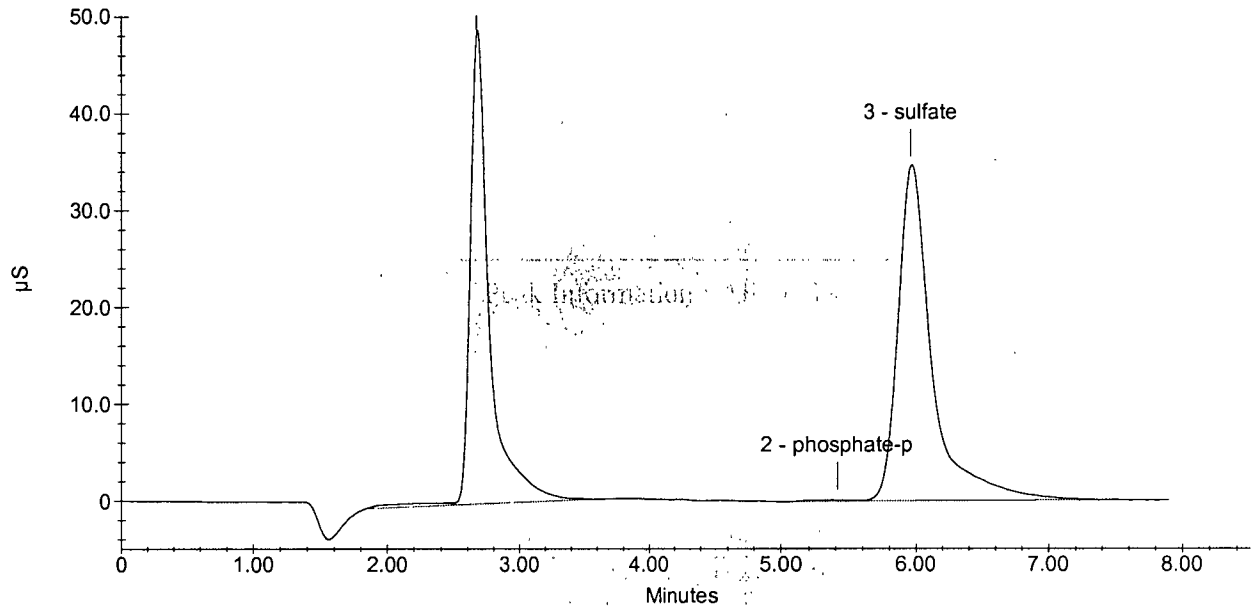
Sample Name : AZ17826W02 1/10
Data File Name : I:\DIONEX\D1ANIONS\DATA\150619A\150619a_018.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/19/15 14:15:25
System Operator : EM
Injection Number : 18
Multiplier : 10.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	2.67	chloride	100.5490	5086555	477117
2	5.41	phosphate-p	-2.3094	30065	1324
3	5.96	sulfate	162.7060	6180202	343646

AZ17826W02 1/10



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-MW023-061615

Sample Collection Date: 06/16/15

APPL ID: AZ17828

ARF: 76674

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	84.2	10.0	2.00	0.80	mg/L	10	06/19/15	06/19/15
EPA 300.0	SULFATE	343	10.0	2.00	0.90	mg/L	10	06/19/15	06/19/15
EPA 300.0	NITRATE	0.92	0.5	0.18	0.04	mg/L	1	06/18/15	06/18/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	06/18/15	06/18/15
SW846 9060	TOTAL ORGANIC CARBON	1.7	0.5	0.35	0.13	mg/L	1	07/01/15	07/01/15

Printed: 07/13/15 2:22:11 PM

APPL-F1-SC-NoMC-REG MDLs

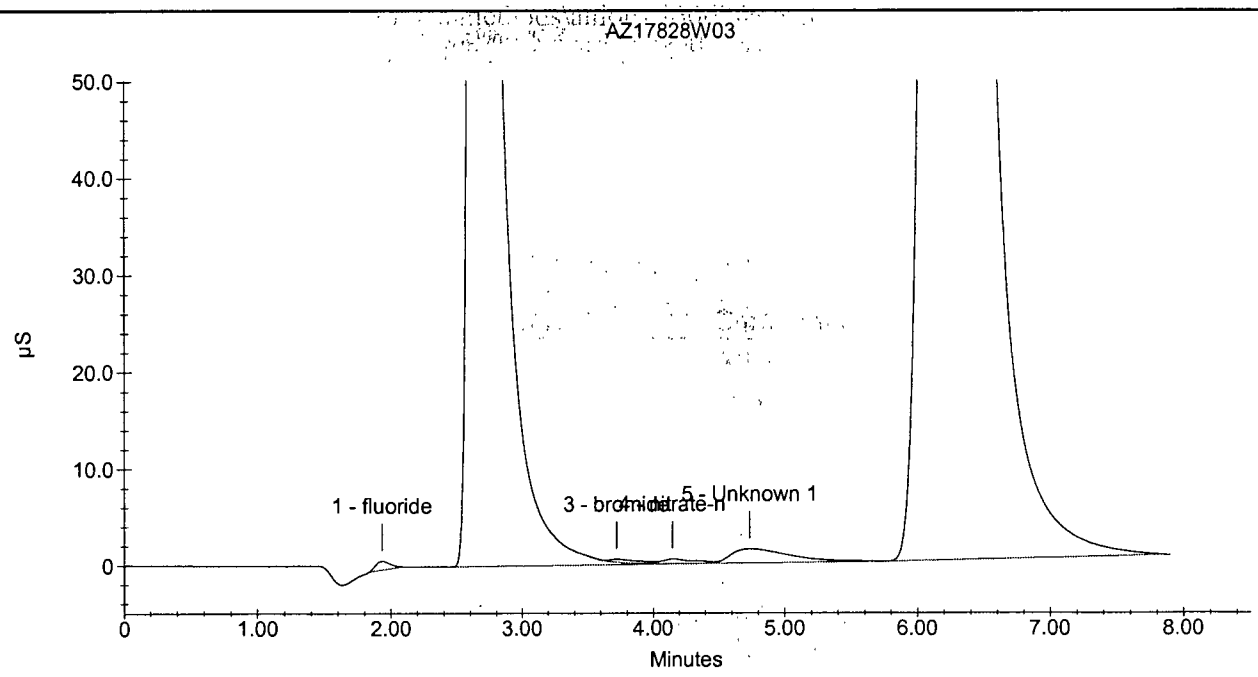
Sample Analysis Report

Sample Name : AZ17828W03
Data File Name : I:\DIONEX\D1ANIONS\DATA\150618A\150618a_029.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/18/15 12:37:18
System Operator : EM
Injection Number : 29
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.93	fluoride	0.1021	68330	8984
2	2.68	chloride	75.7871	42404569	4628388
3	3.72	bromide	0.4341	52050	3157
4	4.15	nitrate-n	0.2068	81894	4723
5	4.73	Unknown 1	0.0000	446473	14699
6	6.29	sulfate	387.6470	151613173	9225470



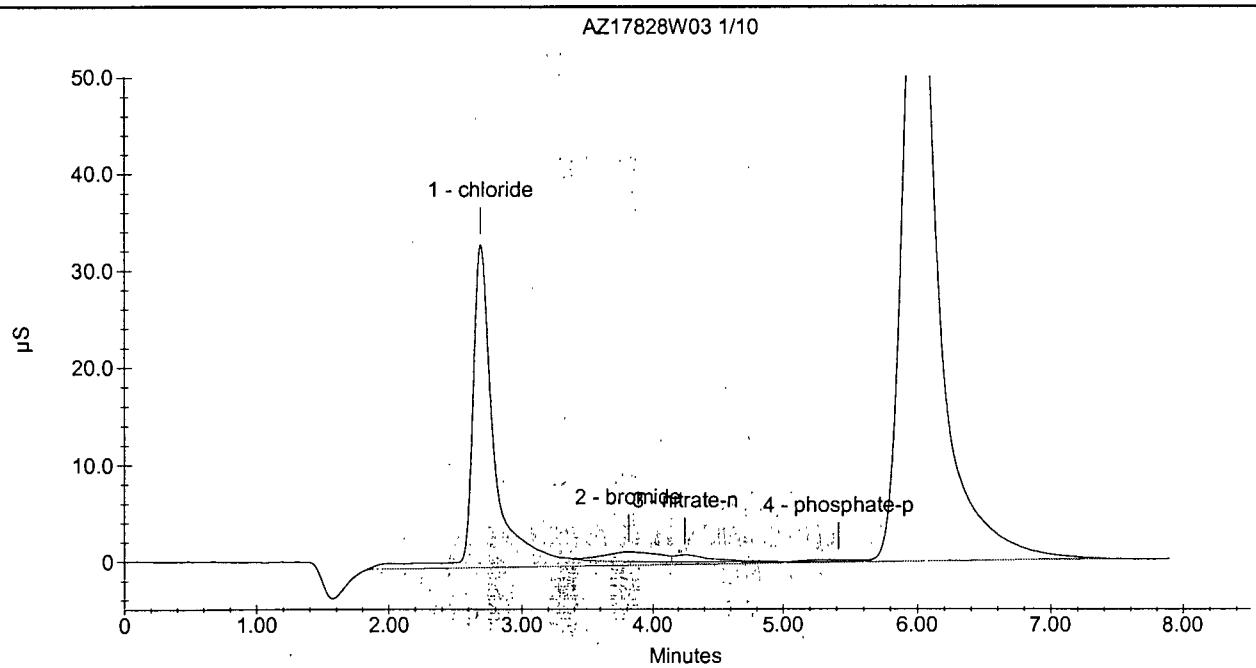
Sample Analysis Report

Sample Name : AZ17828W03 1/10
Data File Name : I:\DIONEX\D1ANIONS\DATA\150619A\150619a_024.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/19/15 15:19:13
System Operator : EM
Injection Number : 24
Multiplier : 10.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	2.69	chloride	84.2379	4160530	332587
2	3.81	bromide	16.6249	309012	10448
3	4.25	nitrate-n	2.5409	144294	7254
4	5.41	phosphate-p	-1.7367	54946	2122
5	6.00	sulfate	342.6771	13227967	761675



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-MW022-061615

Sample Collection Date: 06/16/15

APPL ID: AZ17829

ARF: 76674

Method	Analyte	Result	LOQ	LOD	DL	Units	DF	Prep Date	Analysis Date
EPA 300.0	CHLORIDE	108	10.0	2.00	0.80	mg/L	10	06/19/15	06/19/15
EPA 300.0	SULFATE	89.8	10.0	2.00	0.90	mg/L	10	06/19/15	06/19/15
EPA 300.0	NITRATE	1.0	0.5	0.18	0.04	mg/L	1	06/18/15	06/18/15
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	1	06/18/15	06/18/15
SW846 9060	TOTAL ORGANIC CARBON	1.3	0.5	0.35	0.13	mg/L	1	07/01/15	07/01/15

Printed: 07/13/15 2:22:11 PM

APPL-F1-SC-NoMC-REG MDLs

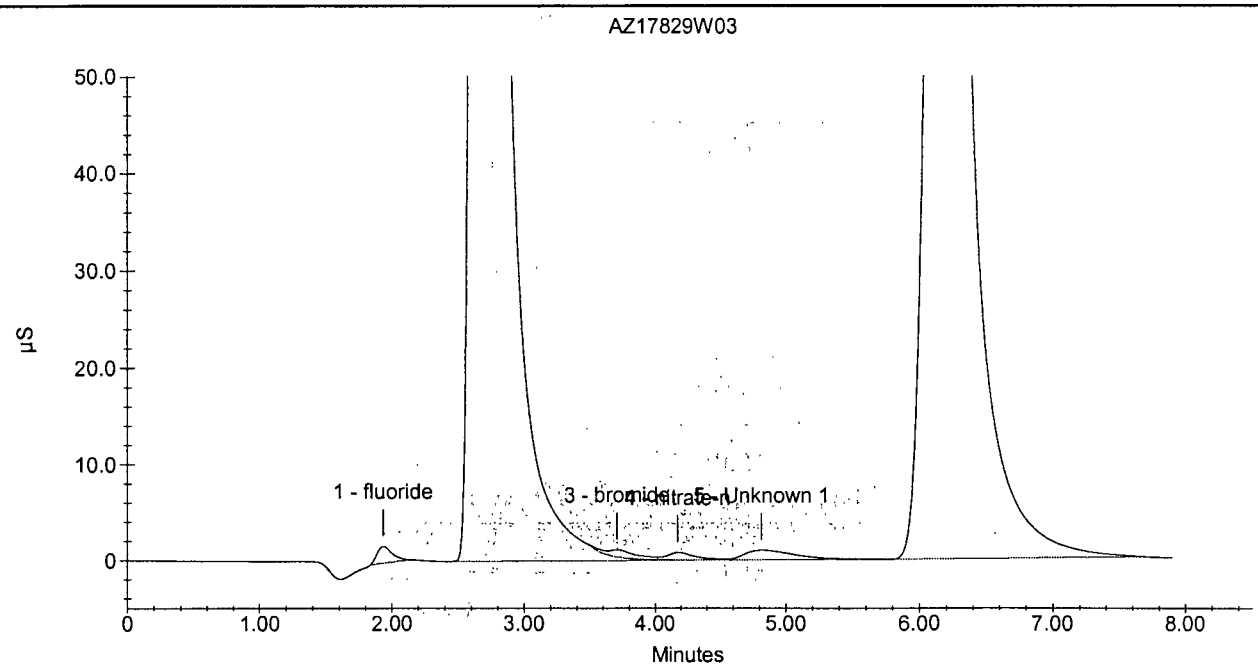
Sample Analysis Report

Sample Name : AZ17829W03
Data File Name : I:\DIONEX\D1ANIONS\DATA\150618A\150618a_030.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/18/15 12:48:01
System Operator : EM
Injection Number : 30
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.93	fluoride	0.2114	138019	17512
2	2.69	chloride	119.8367	67412725	7445491
3	3.71	bromide	0.7332	114612	7751
4	4.17	nitrate-n	0.2364	120921	7833
5	4.81	Unknown 1	0.0000	268316	10038
6	6.19	sulfate	101.1103	39403883	2534294



APPL, Inc.

Current Date : 6/18/15
Current Time : 12:58:37

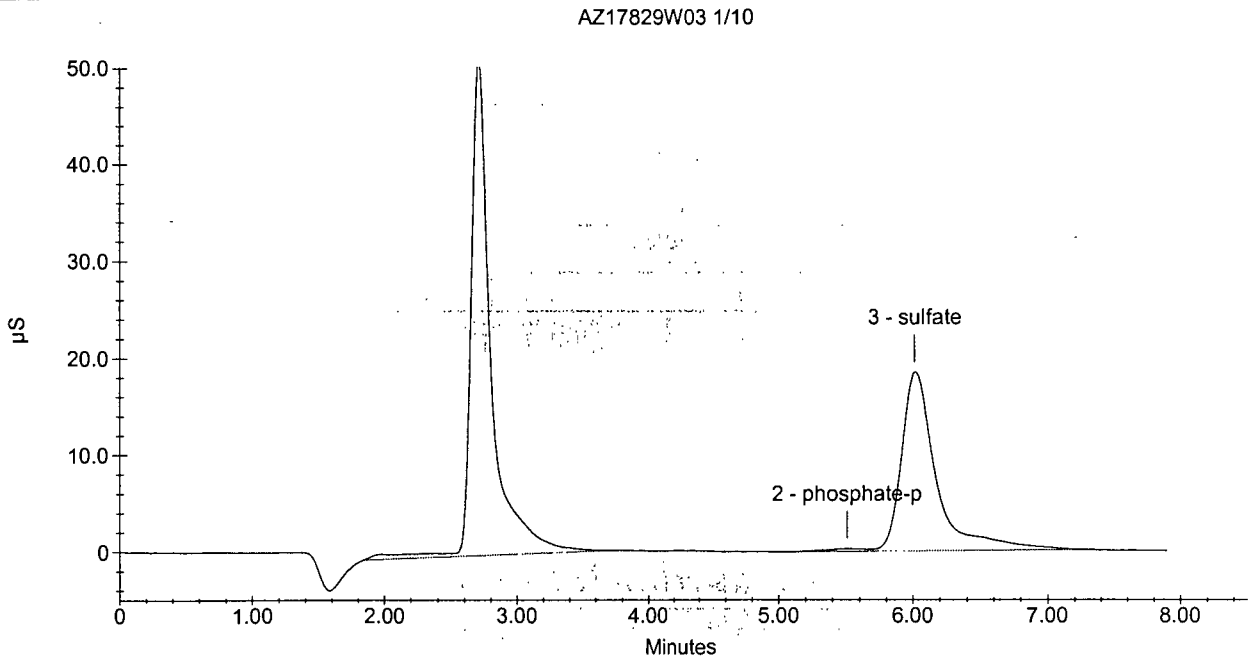
Sample Analysis Report

Sample Name : AZ17829W03 1/10
Data File Name : I:\DIONEX\D1ANIONS\DATA\150619A\150619a_029.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/19/15 16:12:27
System Operator : EM
Injection Number : 29
Multiplier : 10.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	2.71	chloride	107.5217	5482413	509118
2	5.51	phosphate-p	1.7765	53218	2674
3	6.01	sulfate	89.8192	3325916	183875



Wetlab Results

ARF: 76674

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: AZ17816	-Client Sample ID: S67-SD026-0001		-Sample Collection Date: 06/16/15		Project: CTO JU11 112G02622 N		
CLP MOIST	MOISTURE	27.8	2.0		%	06/23/15	06/24/15
APPL ID: AZ17819	-Client Sample ID: S67-SD027-0001		-Sample Collection Date: 06/16/15		Project: CTO JU11 112G02622 N		
CLP MOIST	MOISTURE	50.7	2.0		%	06/23/15	06/24/15
APPL ID: AZ17820	-Client Sample ID: S67-SD027P-0001		-Sample Collection Date: 06/16/15		Project: CTO JU11 112G02622 N		
CLP MOIST	MOISTURE	53.5	2.0		%	06/23/15	06/24/15
APPL ID: AZ17822	-Client Sample ID: S67-SD028-0001		-Sample Collection Date: 06/16/15		Project: CTO JU11 112G02622 N		
CLP MOIST	MOISTURE	73.1	2.0		%	06/23/15	06/24/15
APPL ID: AZ17824	-Client Sample ID: S67-SD029-0001		-Sample Collection Date: 06/16/15		Project: CTO JU11 112G02622 N		
CLP MOIST	MOISTURE	72.1	2.0		%	06/24/15	06/25/15

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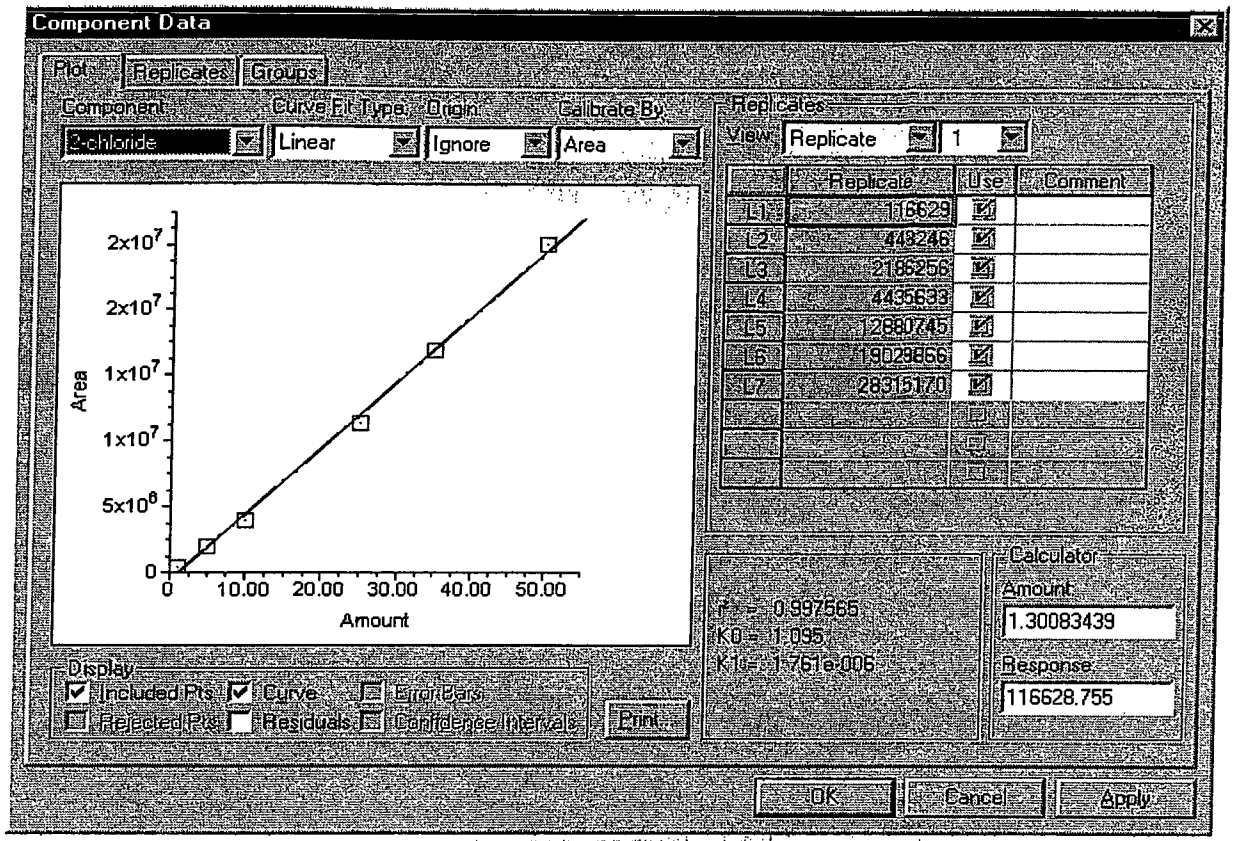
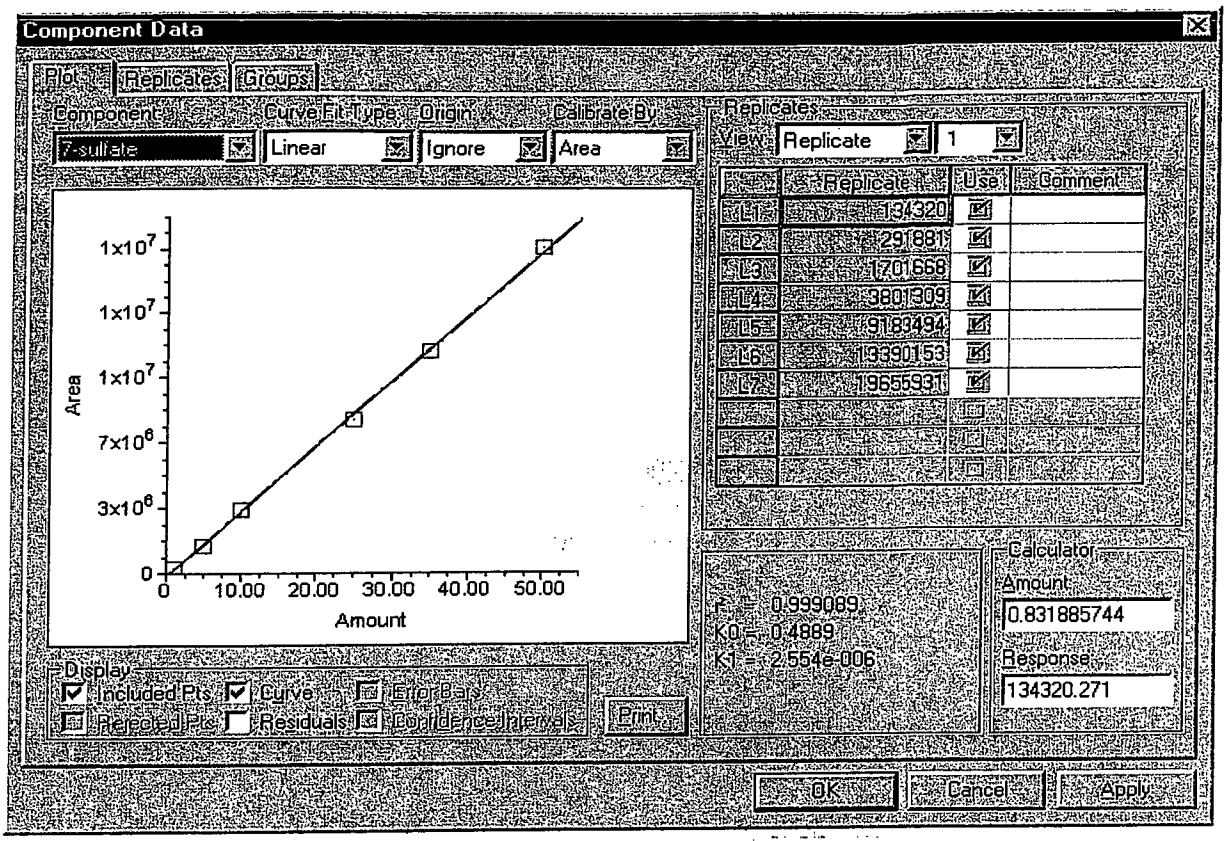
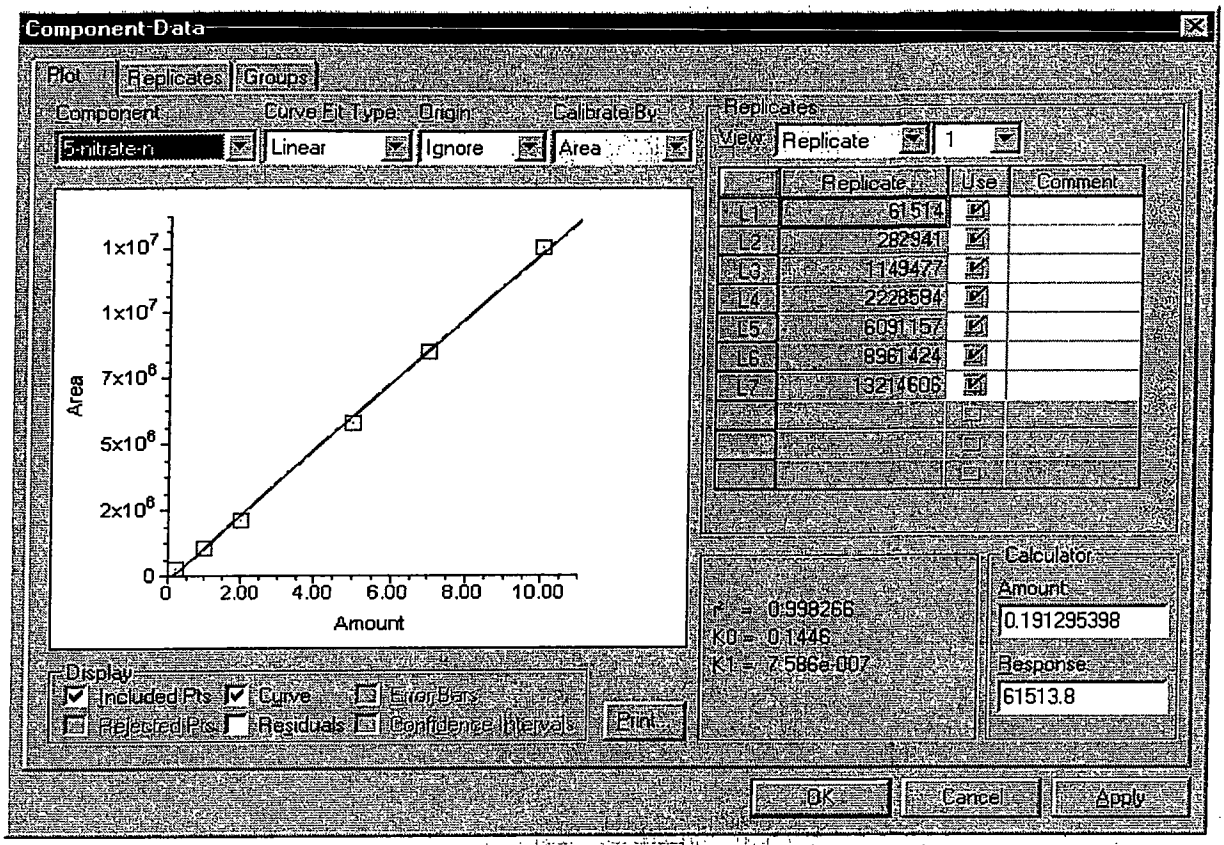
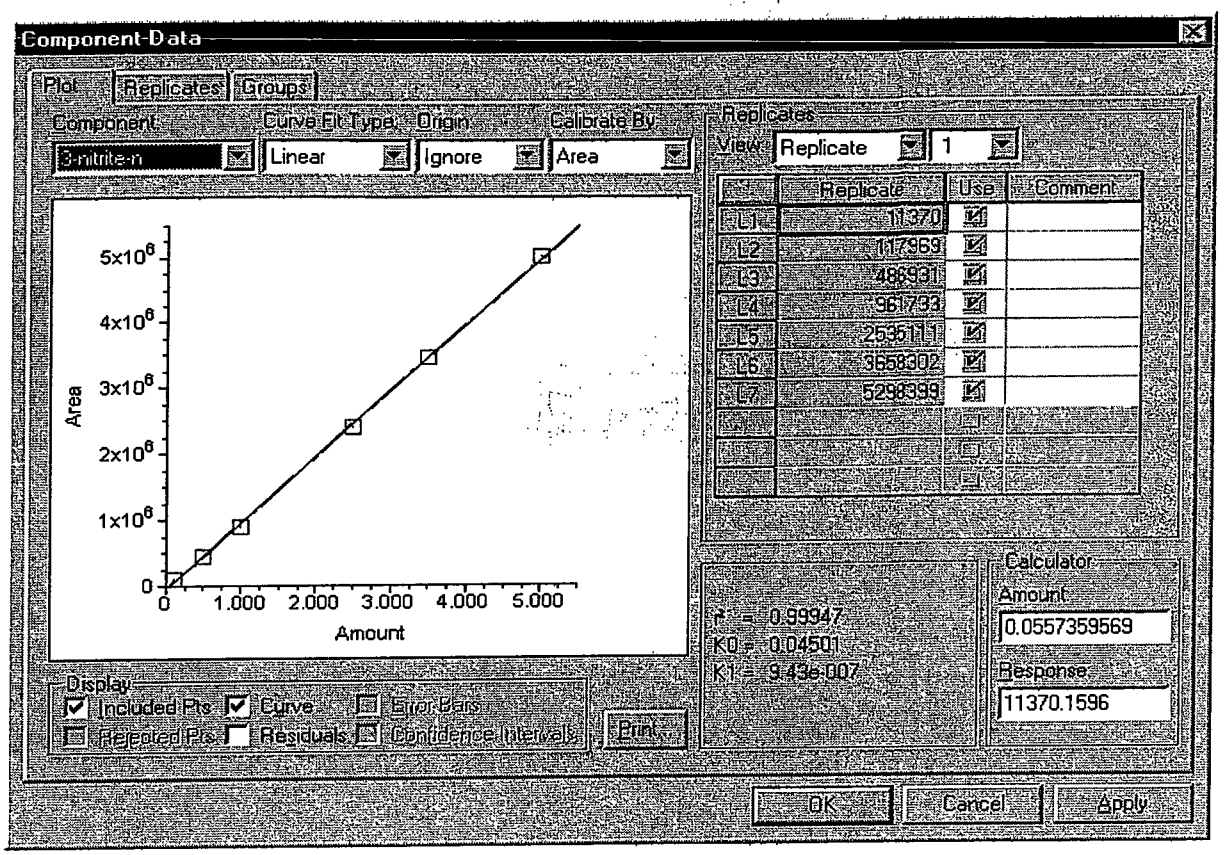
INORGANIC ANALYSIS
Calibration Data

APPL, INC.


Component Data
Plot
Replicates
Groups
Component
Curve Fit Type
Origin
Calibrate By
2-chloride
Linear
Ignore
Area
Area
Amount
2x10^7
2x10^7
1x10^7
1x10^7
5x10^6
0
0
10.00
20.00
30.00
40.00
50.00
Replicates
View
Replicate
1
Replicate
Use
Comment
L1 116629
L2 448246
L3 2186256
L4 4435633
L5 12880745
L6 19029866
L7 28315170
r^2 = 0.997565
K0 = 1.095
K1 = 1.751e-006
Calculator
Amount
1.30083439
Response
116628.755
Display
Included Pts
Curve
Error Bars
Rejected Pts
Residuals
Confidence Intervals
Print
OK
Cancel
Apply


Component Data
Plot
Replicates
Groups
Component
Curve Fit Type
Origin
Calibrate By
7-sulfate
Linear
Ignore
Area
1x10^7
1x10^7
1x10^7
7x10^6
3x10^6
0
Area
0
10.00
20.00
30.00
40.00
50.00
Amount
Display
Included Pts
Curve
Error Bars
Rejected Pts
Residuals
Confidence Interval
Print
Replicates
View
Replicate
1
Replicate
Use
Comment
L1
134320
L2
291881
L3
701668
L4
3801309
L5
9183494
L6
19390153
L7
19655931
r^2 = 0.999089
K0 = 0.4889
K1 = 2.554e-006
Calculator
Amount
0.831885744
Response
134320.271
OK
Cancel
Apply


Component Data
Plot
Replicates
Groups
Component
Curve Fit Type
Origin
Calibrate By
5-nitrate-n
Linear
Ignore
Area
1x10^7
1x10^7
7x10^6
5x10^6
2x10^6
0
Area
0
2.00
4.00
6.00
8.00
10.00
Amount
Replicates
View
Replicate
1
Replicate
Use
Comment
L1 61514
L2 282941
L3 1149477
L4 2228584
L5 6091157
L6 8961424
L7 13214606
r = 0.998266
K0 = 0.1446
K1 = 7.586e-007
Calculator
Amount
0.191295398
Response
61513.8
Display
Included Pts
Curve
Error Bars
Rejected Pts
Residuals
Confidence Intervals
Print
OK
Cancel
Apply


Component-Data
Plot
Replicates
Groups
Component
Curve Fit Type
Origin
Calibrate By
3-nitrite-n
Linear
Ignore
Area
5x10^6
4x10^6
3x10^6
2x10^6
1x10^6
0
Area
0
1.000
2.000
3.000
4.000
5.000
Amount
Replicates
View
Replicate
1
Replicate
Use
Comment
L1 11370
L2 117969
L3 486931
L4 961733
L5 2536111
L6 3558302
L7 5298399
r² = 0.99947
K0 = 0.04501
K1 = 9.43e-007
Calculator
Amount
0.0557359569
Response
11370.1596
Display
Included Pts
Curve
Error Bars
Rejected Pts
Residuals
Confidence Intervals
Print...
OK
Cancel
Apply

INORGANIC ANALYSES
AUTO CALIBRATION

Analytical Method: 300/9056A

Lab Name: APPL, Inc.

Instrument ID: Dionex

Autocal ID: 150604a

Concentration Units (mg/L or mg/kg): mg/L

Analyte	1	2	3	4	5	6	7
	Autocal 12:53	Autocal 13:03	Autocal 13:14	Autocal 13:25	Autocal 13:35	Autocal 13:35	Autocal 13:46
Bromide	13196	128787	494940	947418	2521515	2521515	3609161
Chloride	116628	443245	2186255	4435632	12880745	12880745	19029865
Fluoride	73804	56647	306356	600958	1629248	1629248	2227813
Nitrate-N	61513	282940	1149477	2228583	6091157	6091157	8961424
Nitrite-N	11370	117968	486930	961733	2535111	2535111	3658301
Phosphate-P	100931	205911	611253	1039285	2311592	2311592	3167637
Sulfate	134320	291880	1701667	3801308	9183493	9183493	13390153

Comments:

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: _____

ARF No: _____ SDG: _____

Initial Calibration Source: o2si

Continuing Calibration Source: o2si

Analysis Date: 06/04/15

Analyte	Calibration Verification									M
	True ICV	Found 14:52	%R(1)	True	Found	%R(1)	True	Found	%R(1)	
bromide	12.5	11.9465	95.6							
chloride	20	18.5471	92.7							
fluoride	2.5	2.50301	100							
Nitrate(NO3)-N	5	4.82436	96.5							
Nitrite(NO2)-N	3.04	2.84916	93.7							
phosphate-p	5	4.86564	97.3							
sulfate	20	18.5541	92.8							

(1) Control Limits: 90-110

ILM02.0

A.P.P.L. INC.

3

BLANKS

Lab Name: A.P.P.L. INC. Contract: _____

ARF No.: _____ SDG: _____

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	ICB 06/04/15 15:03	C		C		C		C		C	
bromide	.500	U									
chloride	1.000	U									
fluoride	.100	U									
Nitrate(NO3)-N	.200	U									
Nitrite(NO2)-N	.100	U									
phosphate-p	.200	U									
sulfate	1.000	U									

Calibration Update Report

Sample Name : CAL STD #1 05/05/15
Data File Name : I:\DIONEX\D1ANIONS\DATA\150604A\150604a_023.DXD

Method File Name : ...\anions 150604a.met
Schedule File Name : ...\150604a.sch
Date Time Collected : 6/4/15 12:53:15

Calibration Date : 6/4/15 13:03:33
System Operator : DT
Injection Number : 23

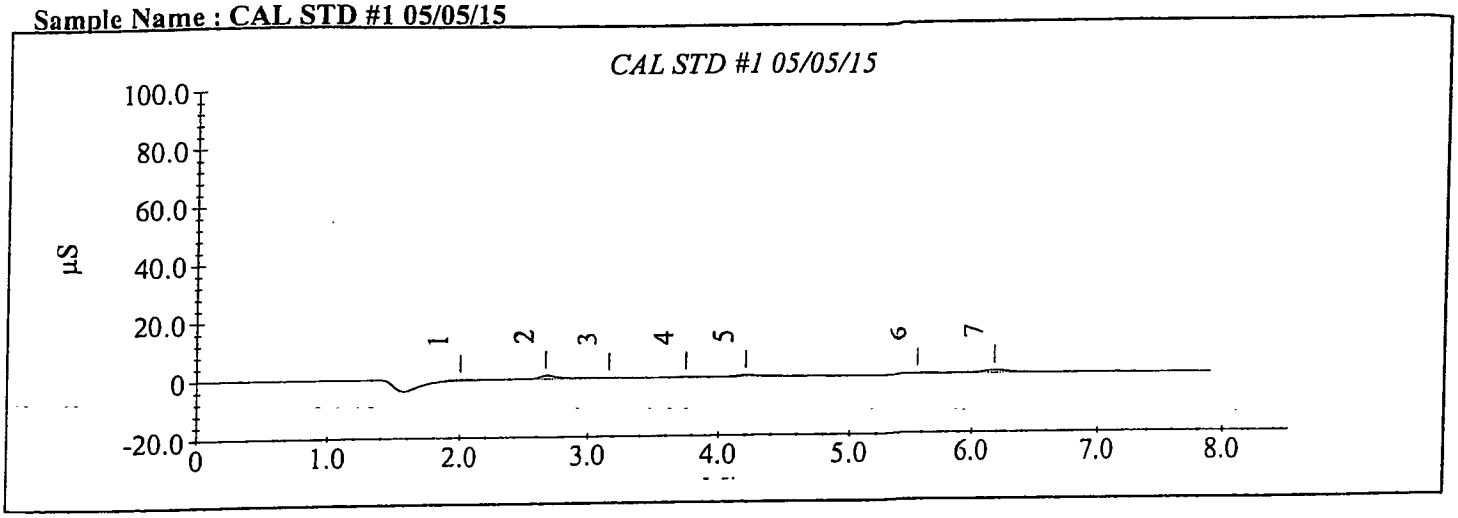
Peak Information : All Components

Peak #	Retention Time	Component Name	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
1	2.00	fluoride	32228	73804	73804
2	2.67	chloride	93020	116629	116629
3	3.16	nitrite-n	12996	11370	11370
4	3.75	bromide	13290	13196	13196
5	4.20	nitrate-n	40653	61514	61514
6	5.56	phosphate-p	90339	100931	100931
7	6.17	sulfate	67957	134320	134320

Peak Information : All Components

Peak #	Retention Time	Component Name	Amount (mg/L)	Peak Area	Peak Height	Limit Exceeded
1	2.00	fluoride	0.04	73804	4628	-
2	2.67	chloride	0.40	116629	11041	-
3	3.16	nitrite-n	0.04	11370	1252	-
4	3.75	bromide	0.20	13196	1445	-
5	4.20	nitrate-n	0.08	61514	4993	-
6	5.56	phosphate-p	0.08	100931	3845	-
7	6.17	sulfate	0.40	134320	8119	-

Sample Name : CAL STD #1 05/05/15



Calibration Update Report

Sample Name : CAL STD #2
Data File Name : I:\DIONEX\D1ANIONS\DATA\150604A\150604a_024.DXD

Method File Name : ...\anions 150604a.met
Schedule File Name : ...\150604a.sch
Date Time Collected : 6/4/15 13:03:54

Calibration Date : 6/4/15 13:14:12
System Operator : DT
Injection Number : 24

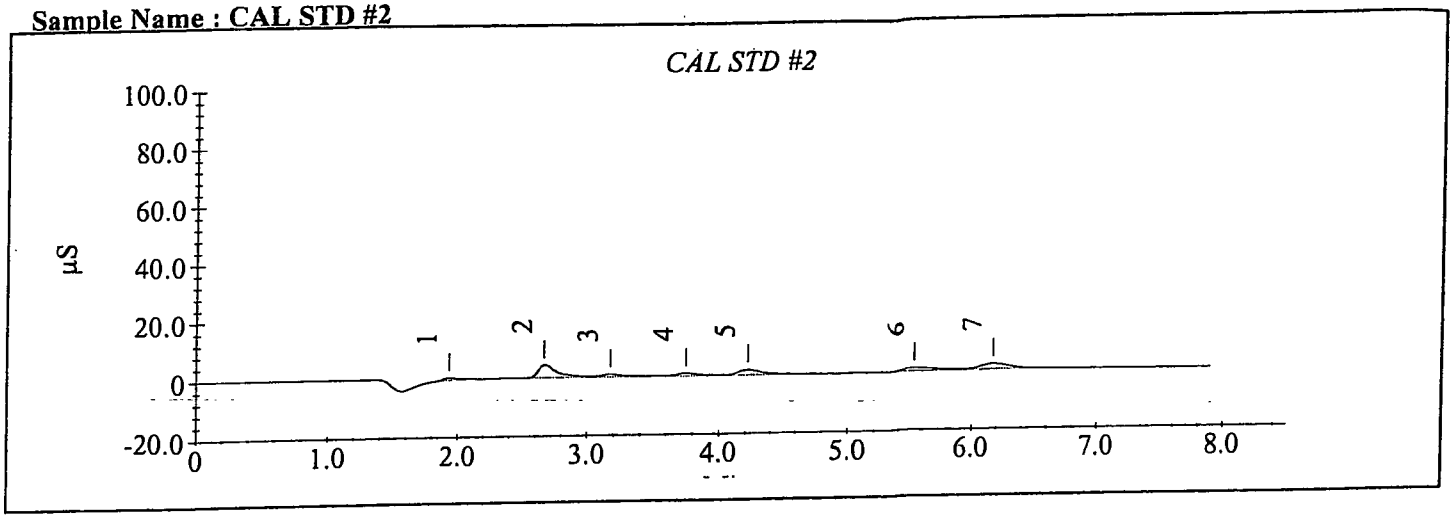
Peak Information : All Components

Peak #	Retention Time	Component Name	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
1	1.93	fluoride	57622	56647	56647
2	2.67	chloride	430478	443246	443246
3	3.17	nitrite-n	133908	117969	117969
4	3.75	bromide	120492	128787	128787
5	4.21	nitrate-n	254028	282941	282941
6	5.55	phosphate-p	171940	205911	205911
7	6.17	sulfate	291321	291881	291881

Peak Information : All Components

Peak #	Retention Time	Component Name	Amount (mg/L)	Peak Area	Peak Height	Limit Exceeded
1	1.93	fluoride	0.10	56647	7929	
2	2.67	chloride	1.00	443246	43892	
3	3.17	nitrite-n	0.10	117969	8901	
4	3.75	bromide	0.50	128787	9430	
5	4.21	nitrate-n	0.20	282941	18584	
6	5.55	phosphate-p	0.20	205911	10220	
7	6.17	sulfate	1.00	291881	18607	

Sample Name : CAL STD #2



Calibration Update Report

Sample Name : CAL STD #3
Data File Name : I:\DIONEX\D1ANIONS\DATA\150604A\150604a_025.DXD

Method File Name : ...\anions 150604a.met
Schedule File Name : ...\150604a.sch
Date Time Collected : 6/4/15 13:14:34

Calibration Date : 6/4/15 13:24:52
System Operator : DT
Injection Number : 25

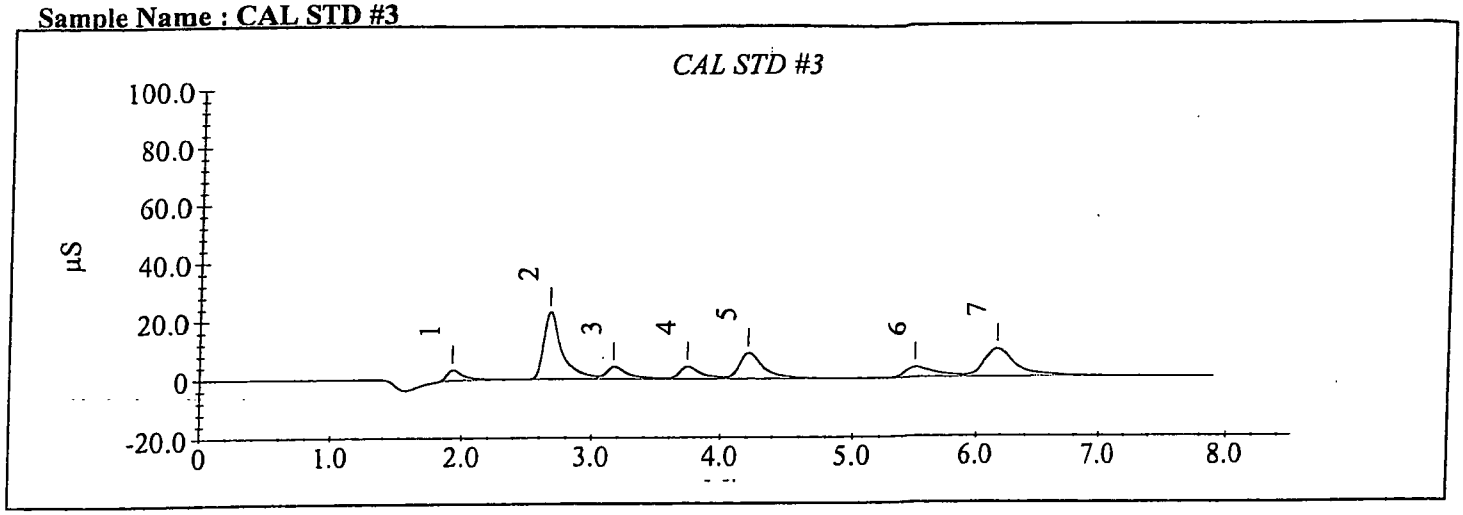
Peak Information : All Components

Peak #	Retention Time	Component Name	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
1	1.92	fluoride	321944	306357	306357
2	2.67	chloride	2136860	2186256	2186256
3	3.16	nitrite-n	545677	486931	486931
4	3.73	bromide	484621	494941	494941
5	4.20	nitrate-n	1101997	1149477	1149477
6	5.51	phosphate-p	572833	611254	611254
7	6.16	sulfate	1510375	1701668	1701668

Peak Information : All Components

Peak #	Retention Time	Component Name	Amount (mg/L)	Peak Area	Peak Height	Limit Exceeded
1	1.92	fluoride	0.50	306357	35643	
2	2.67	chloride	5.00	2186256	228631	
3	3.16	nitrite-n	0.50	486931	41752	
4	3.73	bromide	2.50	494941	42142	
5	4.20	nitrate-n	1.00	1149477	87569	
6	5.51	phosphate-p	1.00	611254	33175	
7	6.16	sulfate	5.00	1701668	94475	

Sample Name : CAL STD #3



Calibration Update Report

Sample Name : CAL STD #4
Data File Name : I:\DIONEX\D1ANIONS\DATA\150604A\150604a_026.DXD

Method File Name : ...\anions 150604a.met
Schedule File Name : ...\150604a.sch
Date Time Collected : 6/4/15 13:25:14

Calibration Date : 6/4/15 13:35:32
System Operator : DT
Injection Number : 26

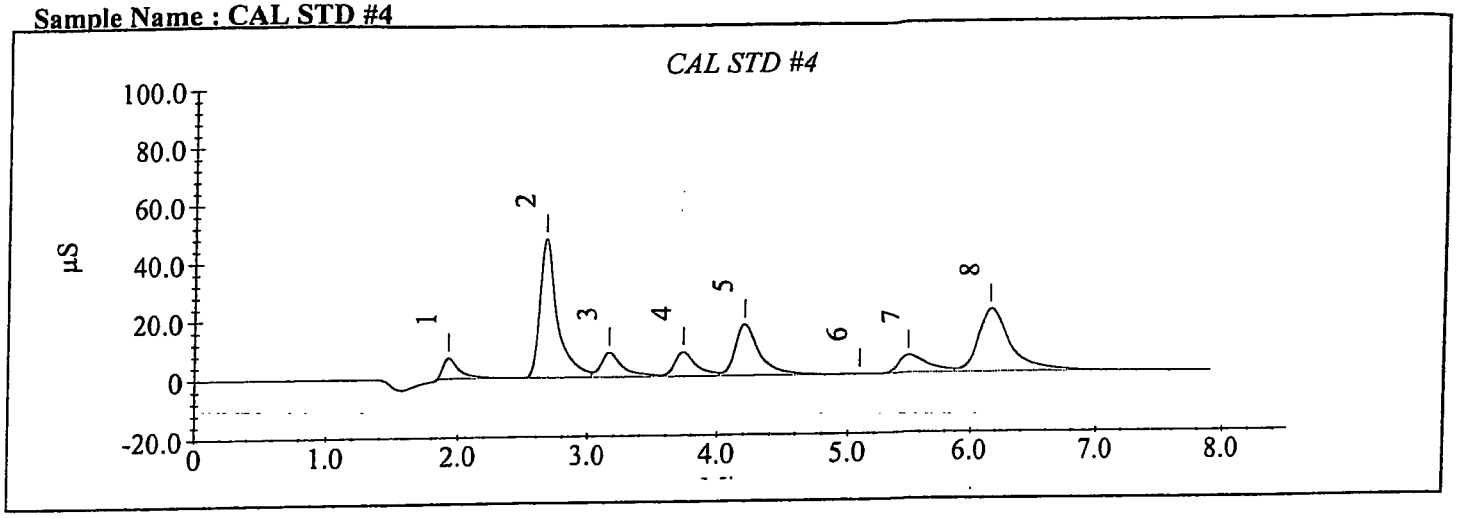
Peak Information : All Components

Peak #	Retention Time	Component Name	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
1	1.92	fluoride	747950	600959	600959
2	2.67	chloride	4658364	4435633	4435633
3	3.16	nitrite-n	1140946	961733	961733
4	3.73	bromide	1009395	947419	947419
5	4.20	nitrate-n	2269536	2228584	2228584
7	5.49	phosphate-p	1002780	1039285	1039285
8	6.15	sulfate	3203590	3801309	3801309

Peak Information : All Components

Peak #	Retention Time	Component Name	Amount (mg/L)	Peak Area	Peak Height	Limit Exceeded
1	1.92	fluoride	1.00	600959	70213	
2	2.67	chloride	10.00	4435633	478180	
3	3.16	nitrite-n	1.00	961733	83768	
4	3.73	bromide	5.00	947419	82703	
5	4.20	nitrate-n	2.00	2228584	174883	
7	5.49	phosphate-p	2.00	1039285	59740	
8	6.15	sulfate	10.00	3801309	213680	

Sample Name : CAL STD #4



Calibration Update Report

Sample Name : CAL STD #5
Data File Name : I:\DIONEX\D1ANIONS\DATA\150604A\150604a_027.DXD

Method File Name : ...\anions 150604a.met
Schedule File Name : ...\150604a.sch
Date Time Collected : 6/4/15 13:35:59

Calibration Date : 6/4/15 13:46:17
System Operator : DT
Injection Number : 27

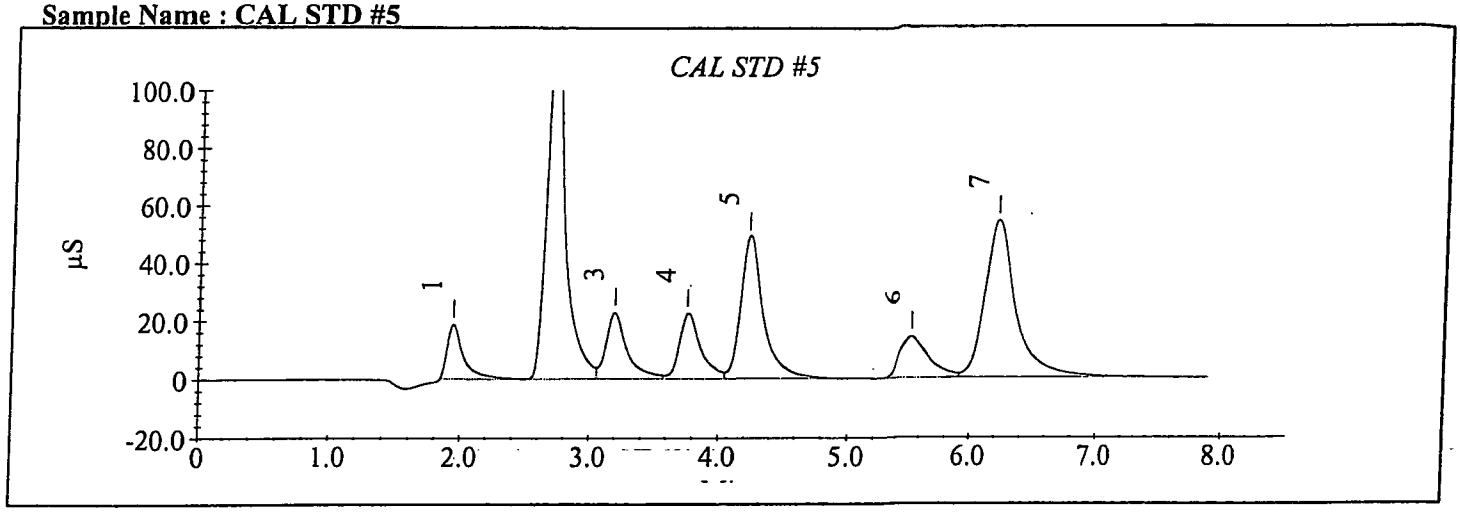
Peak Information : All Components

Peak #	Retention Time	Component Name	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
1	1.93	fluoride	1627638	1629248	1629248
2	2.68	chloride	12647726	12880745	12880745
3	3.19	nitrite-n	2651302	2535111	2535111
4	3.75	bromide	2485415	2521516	2521516
5	4.21	nitrate-n	6110954	6091157	6091157
6	5.52	phosphate-p	2255377	2311592	2311592
7	6.20	sulfate	8790093	9183494	9183494

Peak Information : All Components

Peak #	Retention Time	Component Name	Amount (mg/L)	Peak Area	Peak Height	Limit Exceeded
1	1.93	fluoride	2.50	1629248	186759	
2	2.68	chloride	25.00	12880745	1414042	
3	3.19	nitrite-n	2.50	2535111	227759	
4	3.75	bromide	12.50	2521516	222264	
5	4.21	nitrate-n	5.00	6091157	489104	
6	5.52	phosphate-p	5.00	2311592	141653	
7	6.20	sulfate	25.00	9183494	540987	

Sample Name : CAL STD #5



Calibration Update Report

EM 6/4/15

Sample Name : CAL STD #6
Data File Name : I:\DIONEX\D1ANIONS\DATA\150604A\150604A_M028.DXD

M11 DD 6.4.15

Method File Name : ...\anions 150604a.met
Schedule File Name : ...\150604a.sch
Date Time Collected : 6/4/15 13:46:39

Calibration Date : 6/4/15 13:56:57
System Operator : DT
Injection Number : 28

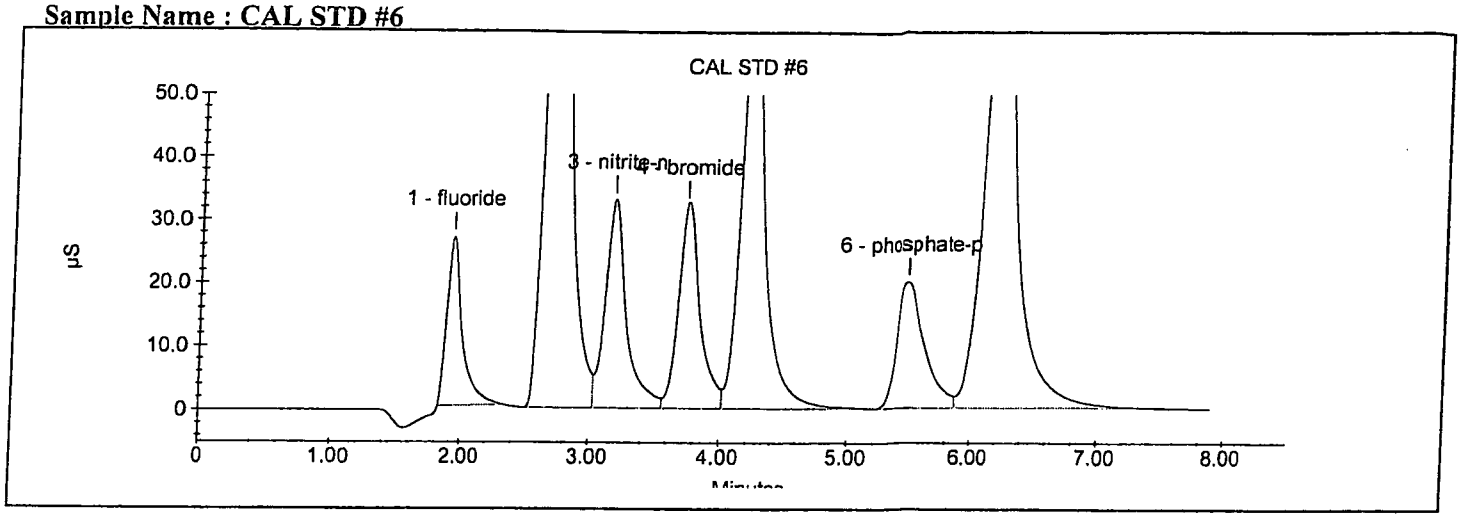
Peak Information : All Components

Peak #	Retention Time	Component Name	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
1	1.92	fluoride	2536233	2227813	1851094
2	2.67	chloride	18712590	19029866	19029866
3	3.16	nitrite-n	3843358	3658302	3658302
4	3.72	bromide	3656064	3609161	3609161
5	4.19	nitrate-n	9060782	8961424	8961424
6	5.48	phosphate-p	3183590	3167637	3167637
7	6.16	sulfate	12873666	13390153	13390153

Peak Information : All Components

Peak #	Retention Time	Component Name	Amount (mg/L)	Peak Area	Peak Height	Limit Exceeded
1	1.92	fluoride	3.50	2227813	265757	
2	2.67	chloride	35.00	19029866	2147059	
3	3.16	nitrite-n	3.50	3658302	328328	
4	3.72	bromide	17.50	3609161	320796	
5	4.19	nitrate-n	7.00	8961424	725966	
6	5.48	phosphate-p	7.00	3167637	198451	
7	6.16	sulfate	35.00	13390153	803383	

Sample Name : CAL STD #6



Calibration Update Report

Sample Name : CAL STD #6
Data File Name : I:\DIONEX\D1ANIONS\DATA\150604A\150604a_028.DXD

Method File Name : ...\anions 150604a.met
Schedule File Name : ...\150604a.sch
Date Time Collected : 6/4/15 13:46:39

Calibration Date : 6/4/15 13:56:57
System Operator : DT
Injection Number : 28

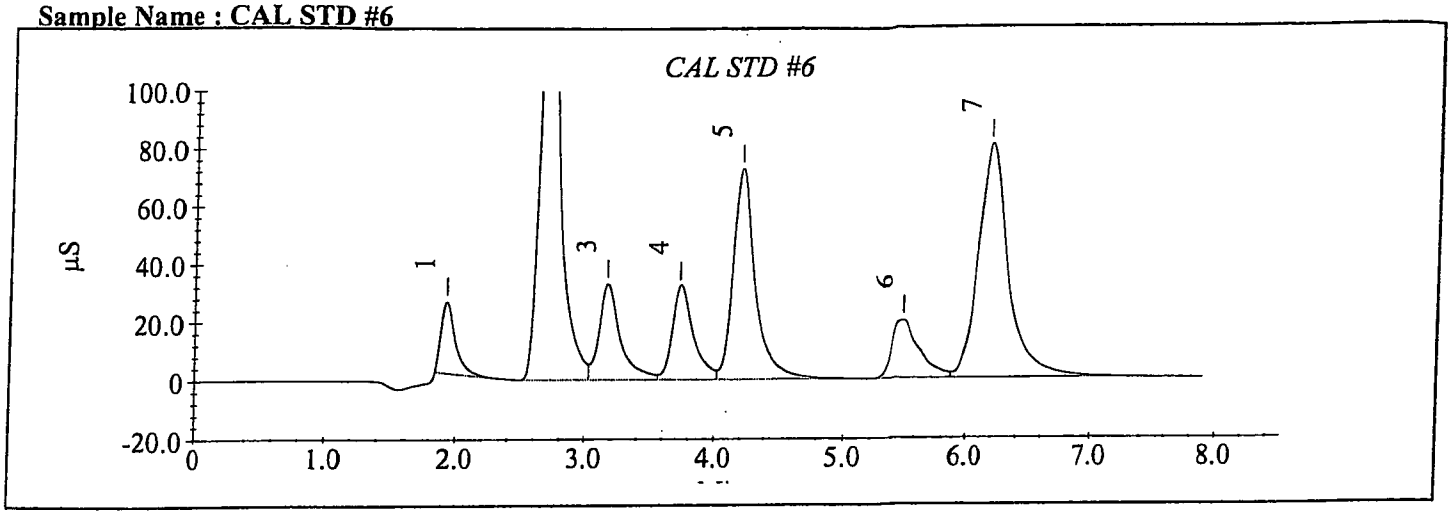
Peak Information : All Components

Peak #	Retention Time	Component Name	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
1	1.92	fluoride	2536233	1851094	1851094
2	2.67	chloride	18712590	19029866	19029866
3	3.16	nitrite-n	3843358	3658302	3658302
4	3.72	bromide	3656064	3609161	3609161
5	4.19	nitrate-n	9060782	8961424	8961424
6	5.48	phosphate-p	3183590	3167637	3167637
7	6.16	sulfate	12873666	13390153	13390153

Peak Information : All Components

Peak #	Retention Time	Component Name	Amount (mg/L)	Peak Area	Peak Height	Limit Exceeded
1	1.92	fluoride	3.50	1851094	245148	
2	2.67	chloride	35.00	19029866	2147059	
3	3.16	nitrite-n	3.50	3658302	328328	
4	3.72	bromide	17.50	3609161	320796	
5	4.19	nitrate-n	7.00	8961424	725966	
6	5.48	phosphate-p	7.00	3167637	198451	
7	6.16	sulfate	35.00	13390153	803383	

Sample Name : CAL STD #6



Calibration Update Report

EM 6/4/15

M11

06.4.15

Sample Name : CAL STD #7
Data File Name : I:\DIONEX\D1ANIONS\DATA\150604A\150604A_M029.DXD

Method File Name : ...\anions 150604a.met
Schedule File Name : ...\150604a.sch
Date Time Collected : 6/4/15 13:57:19

Calibration Date : 6/4/15 14:07:37
System Operator : DT
Injection Number : 29

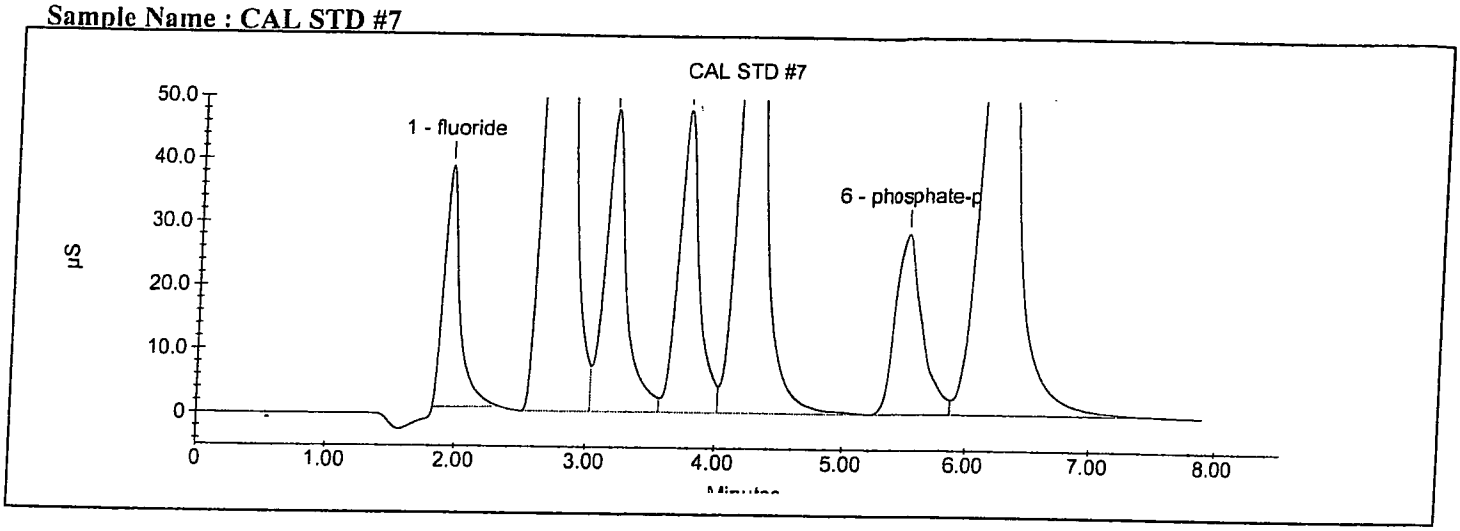
Peak Information : All Components

Peak #	Retention Time	Component Name	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
1	1.92	fluoride	3565505	3190365	2696582
2	2.68	chloride	28275016	28315170	28315170
3	3.16	nitrite-n	5501151	5298399	5298399
4	3.73	bromide	5312485	5234318	5234318
5	4.19	nitrate-n	13407822	13214606	13214606
6	5.48	phosphate-p	4524114	4459977	4459977
7	6.17	sulfate	19278034	19655931	19655931

Peak Information : All Components

Peak #	Retention Time	Component Name	Amount (mg/L)	Peak Area	Peak Height	Limit Exceeded
1	1.92	fluoride	5.00	3190365	379126	
2	2.68	chloride	50.00	28315170	3247050	
3	3.16	nitrite-n	5.00	5298399	469665	
4	3.73	bromide	25.00	5234318	476237	
5	4.19	nitrate-n	10.00	13214606	1073141	
6	5.48	phosphate-p	10.00	4459977	283597	
7	6.17	sulfate	50.00	19655931	1192433	

Sample Name : CAL STD #7



Calibration Update Report

Sample Name : CAL STD #7
Data File Name : I:\DIONEX\D1ANIONS\DATA\150604A\150604a_029.DXD

Method File Name : ...\anions 150604a.met
Schedule File Name : ...\150604a.sch
Date Time Collected : 6/4/15 13:57:19

Calibration Date : 6/4/15 14:07:37
System Operator : DT
Injection Number : 29

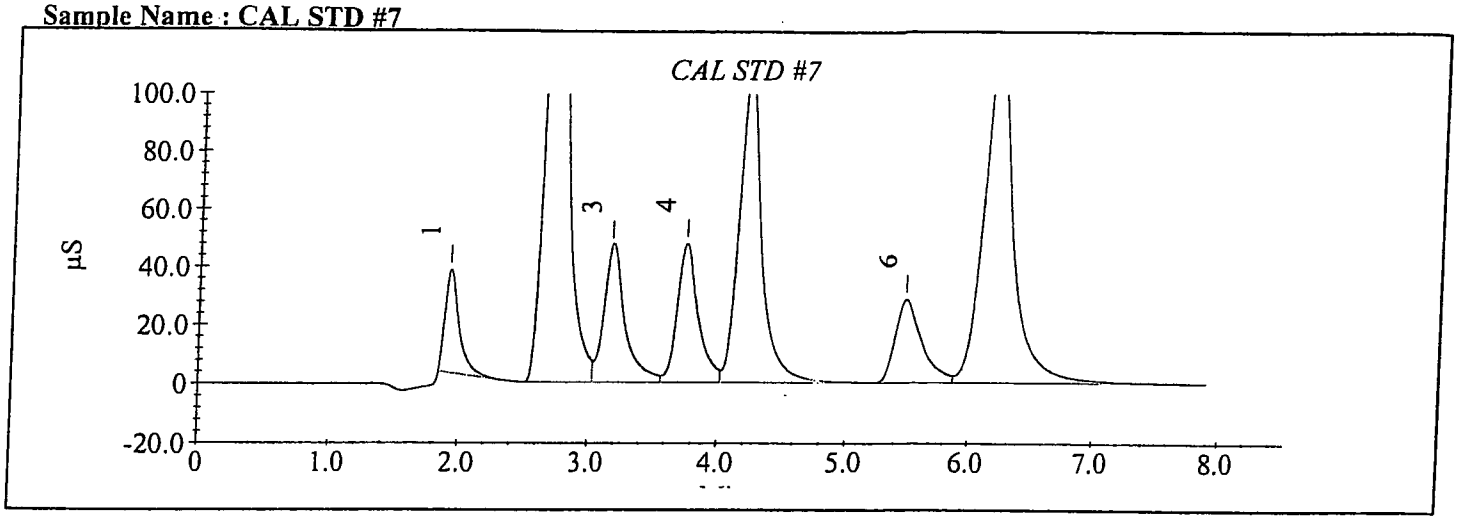
Peak Information : All Components

Peak #	Retention Time	Component Name	Cal Response (Previous)	Cal Response (Measured)	Cal Response (New)
1	1.92	fluoride	3565505	2696582	2696582
2	2.68	chloride	28275016	28315170	28315170
3	3.16	nitrite-n	5501151	5298399	5298399
4	3.73	bromide	5312485	5234318	5234318
5	4.19	nitrate-n	13407822	13214606	13214606
6	5.48	phosphate-p	4524114	4459977	4459977
7	6.17	sulfate	19278034	19655931	19655931

Peak Information : All Components

Peak #	Retention Time	Component Name	Amount (mg/L)	Peak Area	Peak Height	Limit Exceeded
1	1.92	fluoride	5.00	2696582	352393	
2	2.68	chloride	50.00	28315170	3247050	
3	3.16	nitrite-n	5.00	5298399	469665	
4	3.73	bromide	25.00	5234318	476237	
5	4.19	nitrate-n	10.00	13214606	1073141	
6	5.48	phosphate-p	10.00	4459977	283597	
7	6.17	sulfate	50.00	19655931	1192433	

Sample Name : CAL STD #7



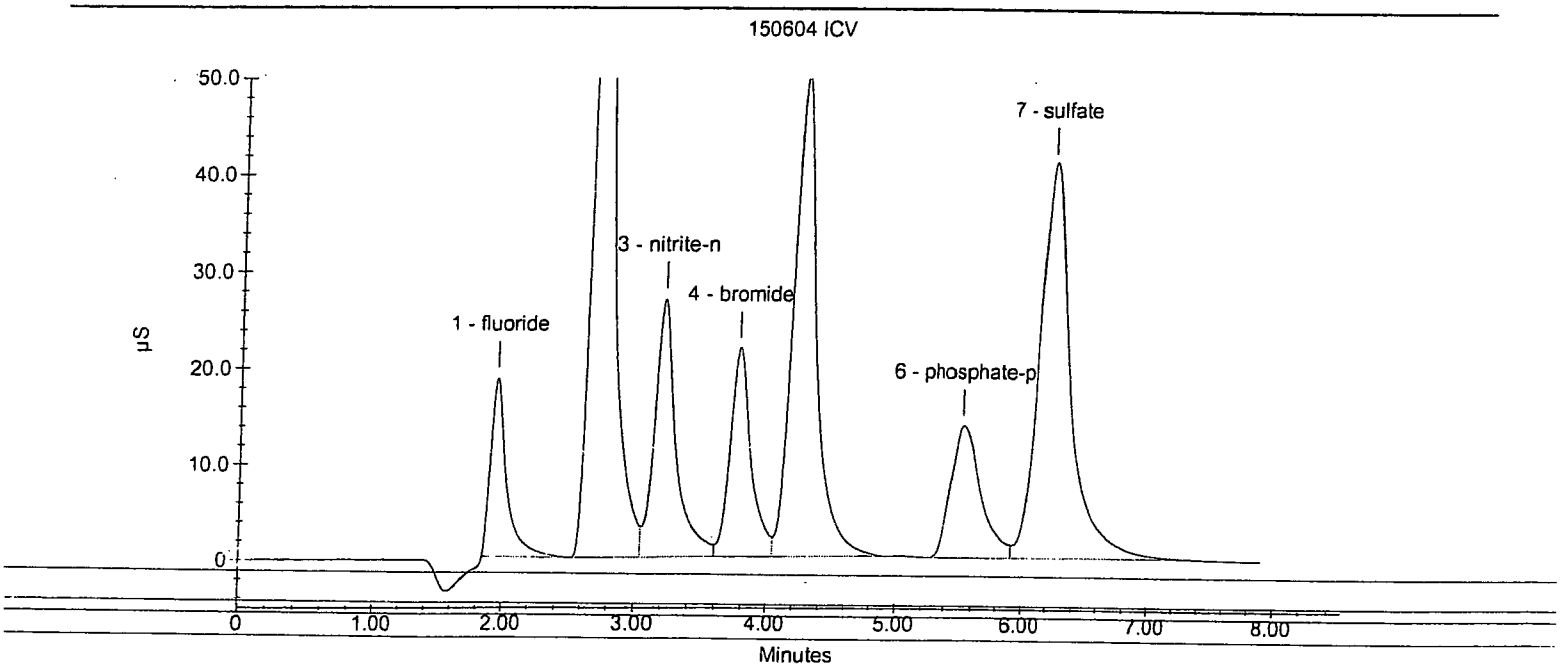
Sample Analysis Report

Sample Name : 150604 ICV
Data File Name : I:\DIONEX\D1ANIONS\DATA\150604A\150604a_033.DXD

Method File Name : I:\DIONEX\D1ANIONS\METHODS\ANIONS 150604A.met
Date Time Collected : 6/4/15 14:52:30
System Operator : DT
Injection Number : 33
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.93	fluoride	2.5030	1599821	185817
2	2.68	chloride	18.5472	9907866	1085827
3	3.19	nitrite-n	2.8492	2973632	268429
4	3.75	bromide	11.9465	2460301	216840
5	4.21	nitrate-n	4.8244	6168865	496531
6	5.51	phosphate-p	4.8656	2244450	137228
7	6.19	sulfate	18.5542	7074471	408451



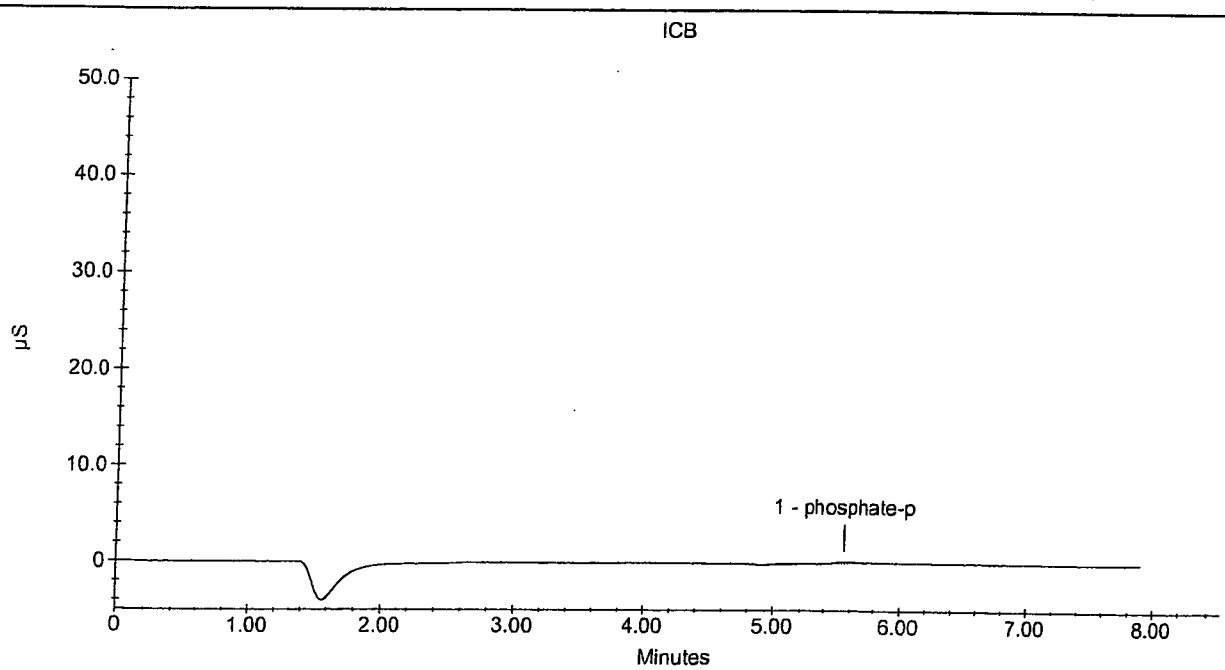
Sample Analysis Report

Sample Name : ICB
Data File Name : I:\DIONEX\D1ANIONS\DATA\150604A\150604a_034.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/4/15 15:03:25
System Operator : DT
Injection Number : 34
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	5.55	phosphate-p	-0.1768	53577	1920



A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No: 76674 SDG: 76674

Initial Calibration Source: o2si

Continuing Calibration Source: o2si

Analysis Date: 06/18/15

Analyte	Calibration Verification									M
	True CCV1	Found 8:32	%R(1)	True CCV1	Found 11:12	%R(1)	True CCV1	Found 14:13	%R(1)	
chloride	25	23.0949	92.4	25	23.5369	94.1	25	23.1890	92.8	
Nitrate(NO3)	22.1	21.8103	98.7	22.1	21.5830	97.7	22.1	20.9676	94.9	
Nitrite(NO2)	8.211	7.98433	97.2	8.211	8.12387	98.9	8.211	8.16598	99.5	
sulfate	25	23.8070	95.2	25	23.5750	94.3	25	23.5298	94.1	

(1) Control Limits: 90-110

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No.: 76674 SDG: 76674

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	CCB 06/18/15 08:43	C	CCB 06/18/15 11:22	C	CCB 06/18/15 14:24	C		C		C	
chloride	1.000	U	1.000	U	1.120	*					*
Nitrate(NO3)	.500	U	.500	U	.500	U					
Nitrite(NO2)	.300	U	.300	U	.300	U					
sulfate	1.000	U	1.000	U	1.000	U					

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No: 76674 SDG: 76674

Initial Calibration Source: o2si

Continuing Calibration Source: o2si

Analysis Date: 06/19/15

Analyte	Calibration Verification									M
	True CCV1	Found 9:42	%R(1)	True CCV1	Found 14:47	%R(1)	True CCV1	Found 17:26	%R(1)	
chloride	25	24.7470	99.0	25	24.5424	98.2	25	24.9151	99.7	
sulfate	25	25.3658	101	25	25.0363	100	25	25.0104	100	

(1) Control Limits: 90-110

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No.: 76674 SDG: 76674

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	CCB 06/19/15 09:53	C	CCB 06/19/15 14:58	C	CCB 06/19/15 17:37	C		C		C	
chloride	1.370	*	1.480	*	1.410	*					*
sulfate	1.000	U	1.000	U	1.000	U					

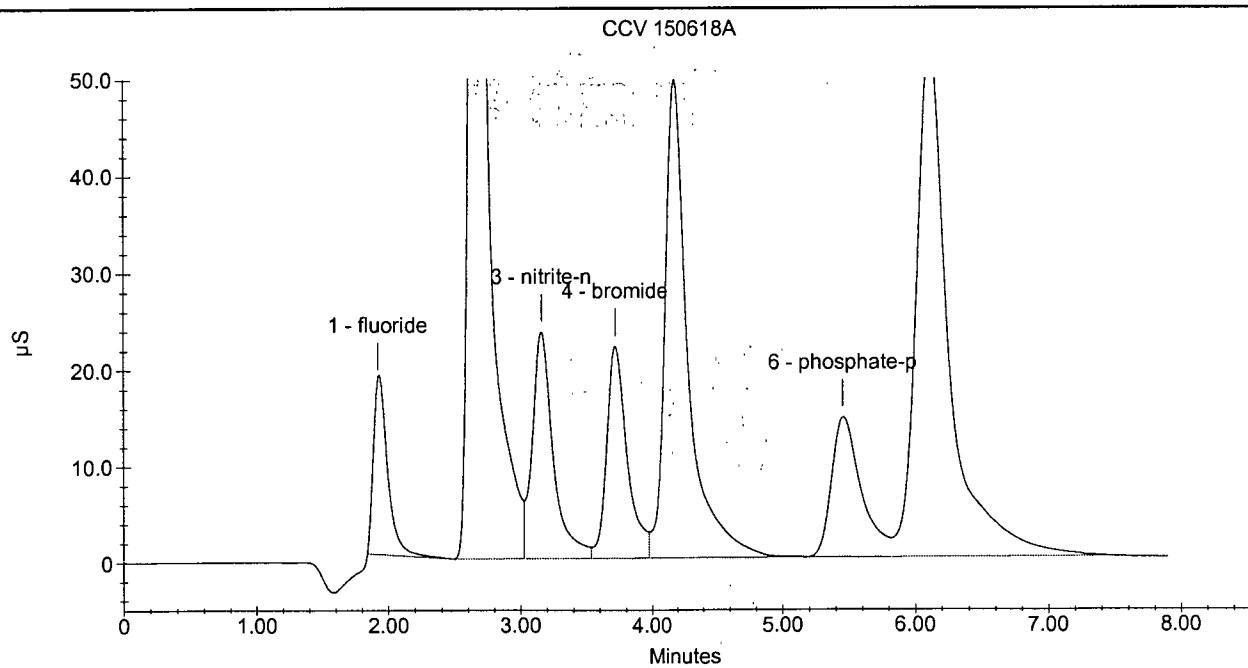
Sample Analysis Report

Sample Name : CCV 150618A
Data File Name : I:\DIONEX\D1ANIONS\DATA\150618A\150618a_006.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/18/15 08:32:37
System Operator : EM
Injection Number : 6
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.92	fluoride	2.1811	1394452	180712
2	2.67	chloride	23.0950	12489771	1427471
3	3.16	nitrite-n	2.4308	2530025	234844
4	3.72	bromide	11.4824	2363221	219800
5	4.17	nitrate-n	4.9249	6301366	493610
6	5.45	phosphate-p	4.8997	2259251	145341
7	6.11	sulfate	23.8071	9131534	534577



APPL, Inc.

Current Date : 6/18/15
Current Time : 08:43:13

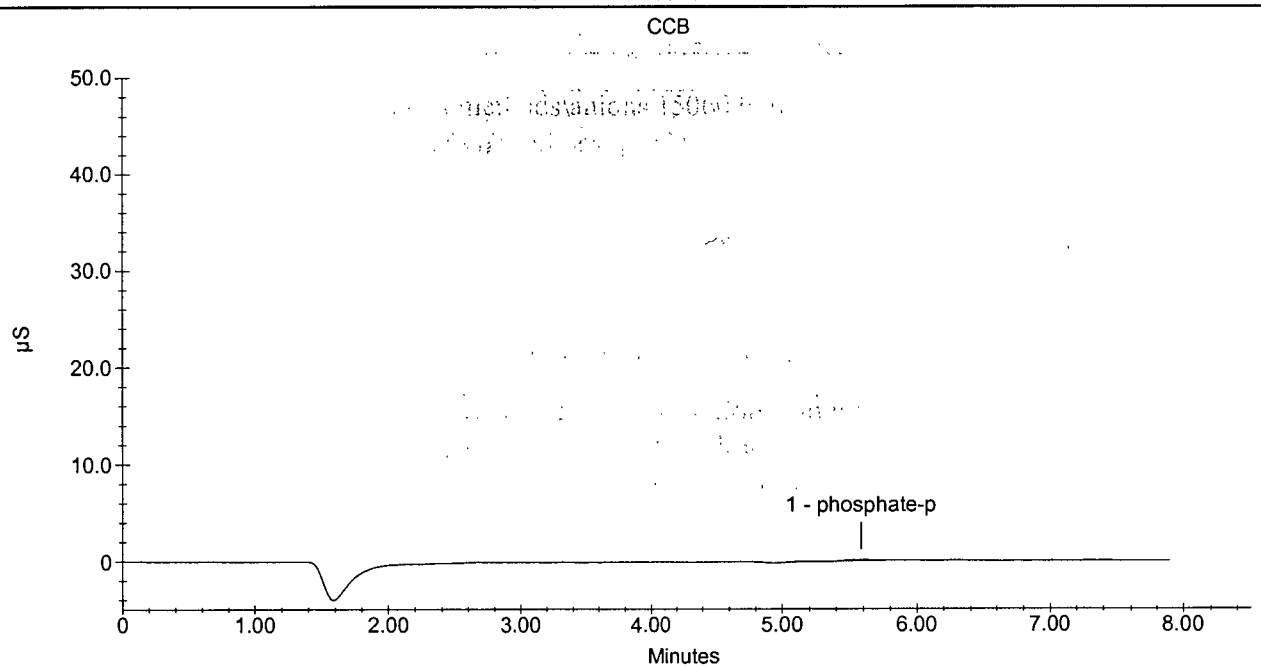
Sample Analysis Report

Sample Name : CCB
Data File Name : I:\DIONEX\D1ANIONS\DATA\150618A\150618a_007.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/18/15 08:43:18
System Operator : EM
Injection Number : 7
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	5.59	phosphate-p	-0.2194	35085	1216



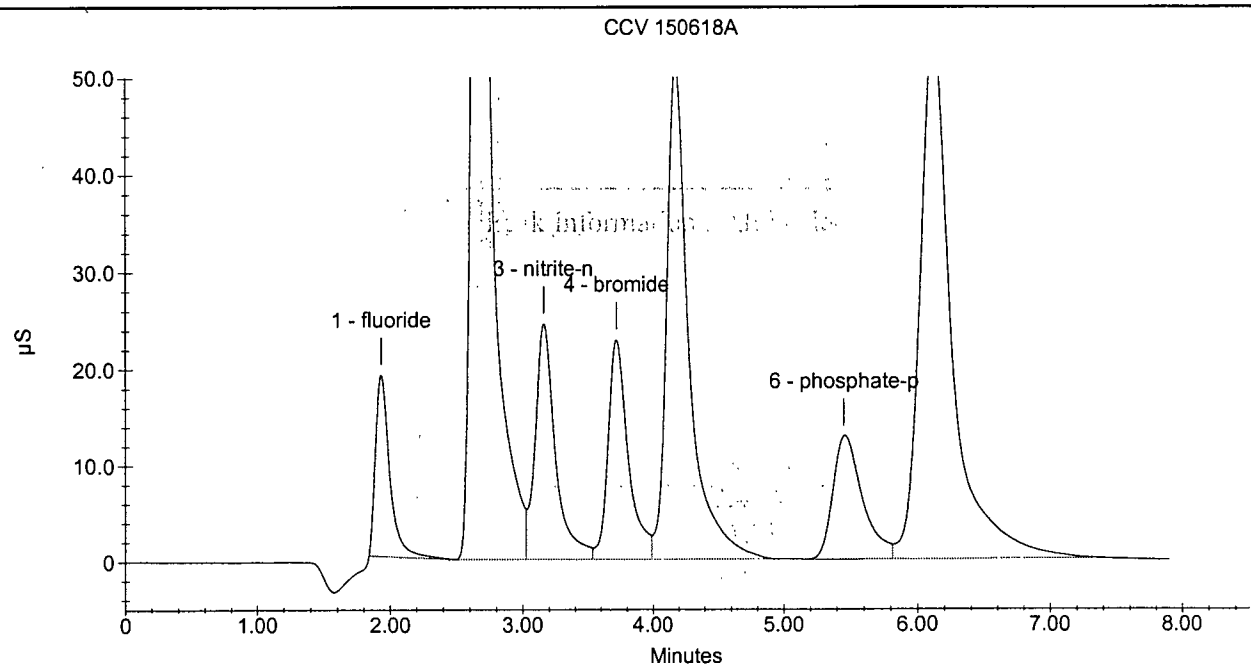
Sample Analysis Report

Sample Name : CCV 150618A
Data File Name : I:\DIONEX\D1ANIONS\DATA\150618A\150618a_021.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/18/15 11:12:10
System Operator : EM
Injection Number : 21
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.93	fluoride	2.2235	1421501	187964
2	2.67	chloride	23.5370	12740702	1466221
3	3.16	nitrite-n	2.4733	2575075	244136
4	3.72	bromide	11.8323	2436418	227714
5	4.17	nitrate-n	4.8736	6233717	508980
6	5.45	phosphate-p	4.2320	1969155	128121
7	6.12	sulfate	23.5750	9040655	546569



APPL, Inc.

Current Date : 6/18/15
Current Time : 11:22:46

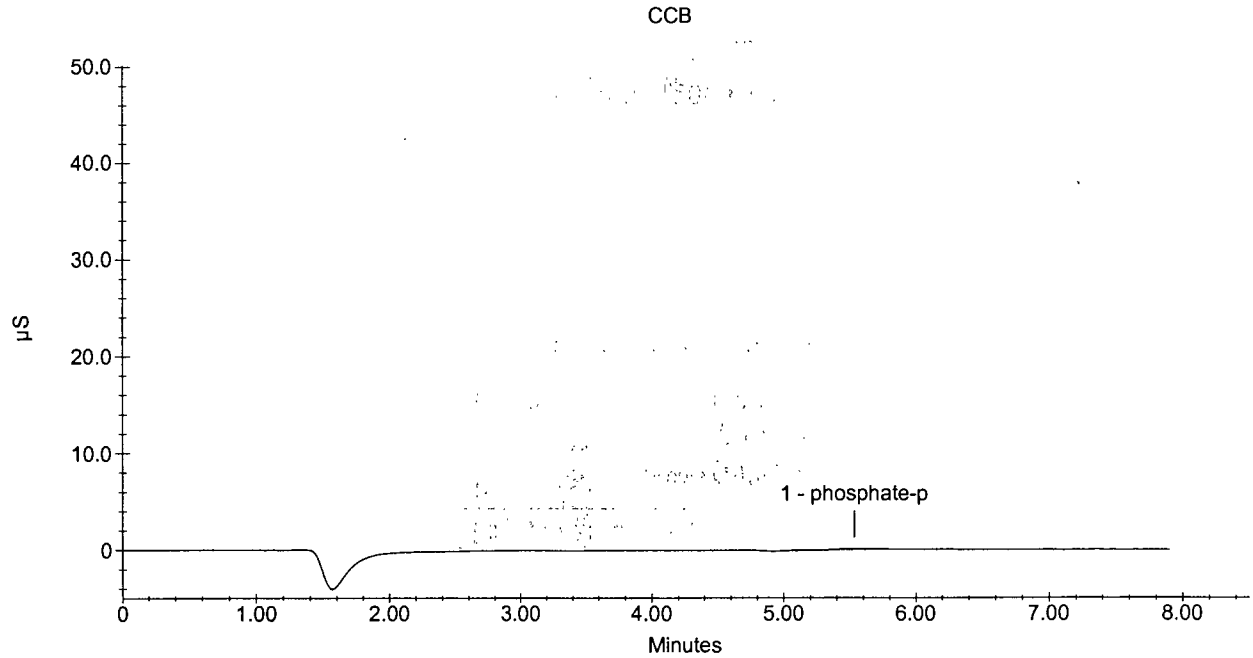
Sample Analysis Report

Sample Name : CCB
Data File Name : I:\DIONEX\D1ANIONS\DATA\150618A\150618a_022.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/18/15 11:22:51
System Operator : EM
Injection Number : 22
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	5.53	phosphate-p	-0.2114	38548	1272



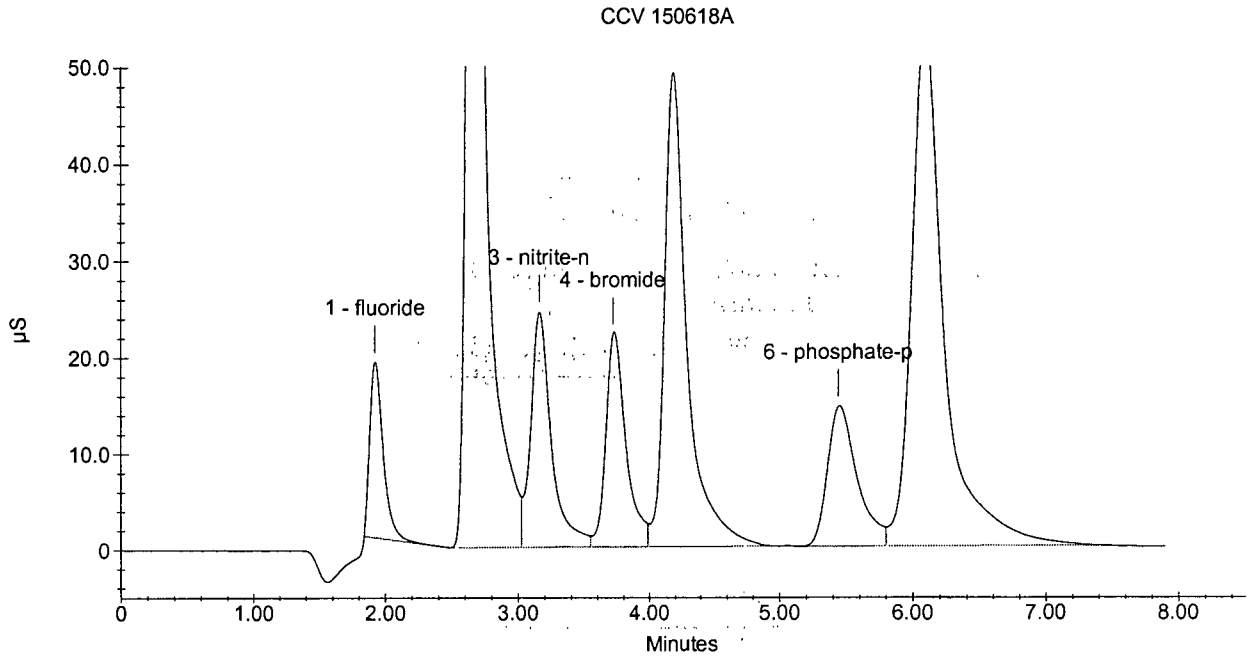
Sample Analysis Report

Sample Name : CCV 150618A
Data File Name : I:\DIONEX\D1ANIONS\DATA\150618A\150618a_038.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/18/15 14:13:56
System Operator : EM
Injection Number : 38
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.92	fluoride	2.0147	1288355	181447
2	2.67	chloride	23.1891	12543193	1463227
3	3.16	nitrite-n	2.4861	2588671	243289
4	3.72	bromide	11.5415	2375583	219740
5	4.19	nitrate-n	4.7346	6050543	489855
6	5.44	phosphate-p	4.9210	2268502	144867
7	6.09	sulfate	23.5298	9022957	540863



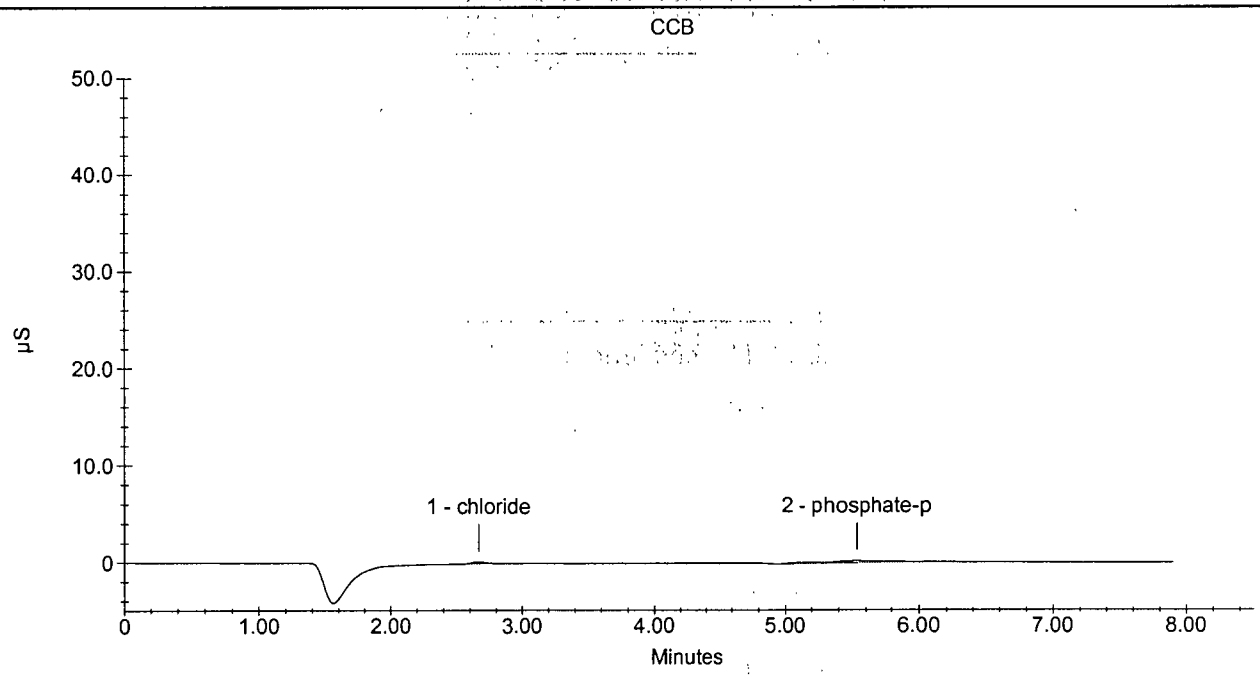
Sample Analysis Report

Sample Name : CCB
Data File Name : I:\DIONEX\D1ANIONS\DATA\150618A\150618a_039.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/18/15 14:24:41
System Operator : EM
Injection Number : 39
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	2.67	chloride	1.1169	12196	1863
2	5.53	phosphate-p	-0.1546	63244	2055



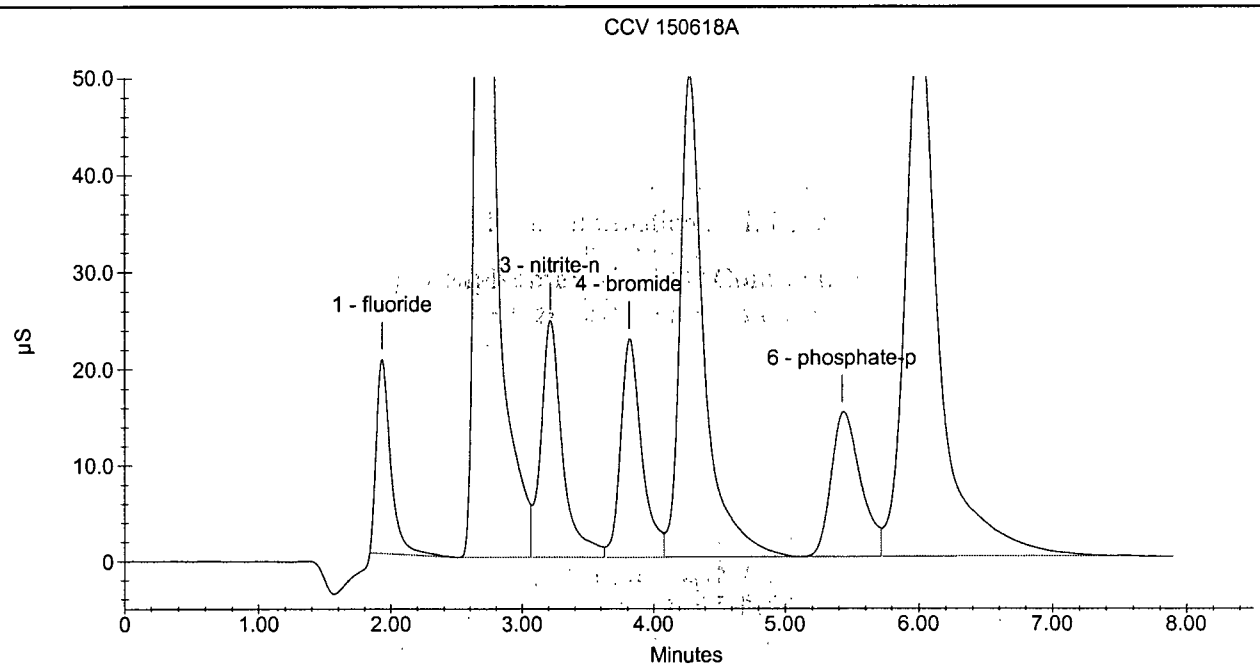
Sample Analysis Report

Sample Name : CCV 150618A
Data File Name : I:\DIONEX\D1ANIONS\DATA\150619A\150609a_005.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/19/15 09:42:35
System Operator : EM
Injection Number : 5
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.93	fluoride	2.4103	1540681	201342
2	2.69	chloride	24.7471	13427715	1500331
3	3.21	nitrite-n	2.6403	2752181	245240
4	3.81	bromide	12.1945	2512173	226047
5	4.28	nitrate-n	5.0757	6500229	498033
6	5.43	phosphate-p	5.1153	2352906	149827
7	6.00	sulfate	25.3659	9741964	556040



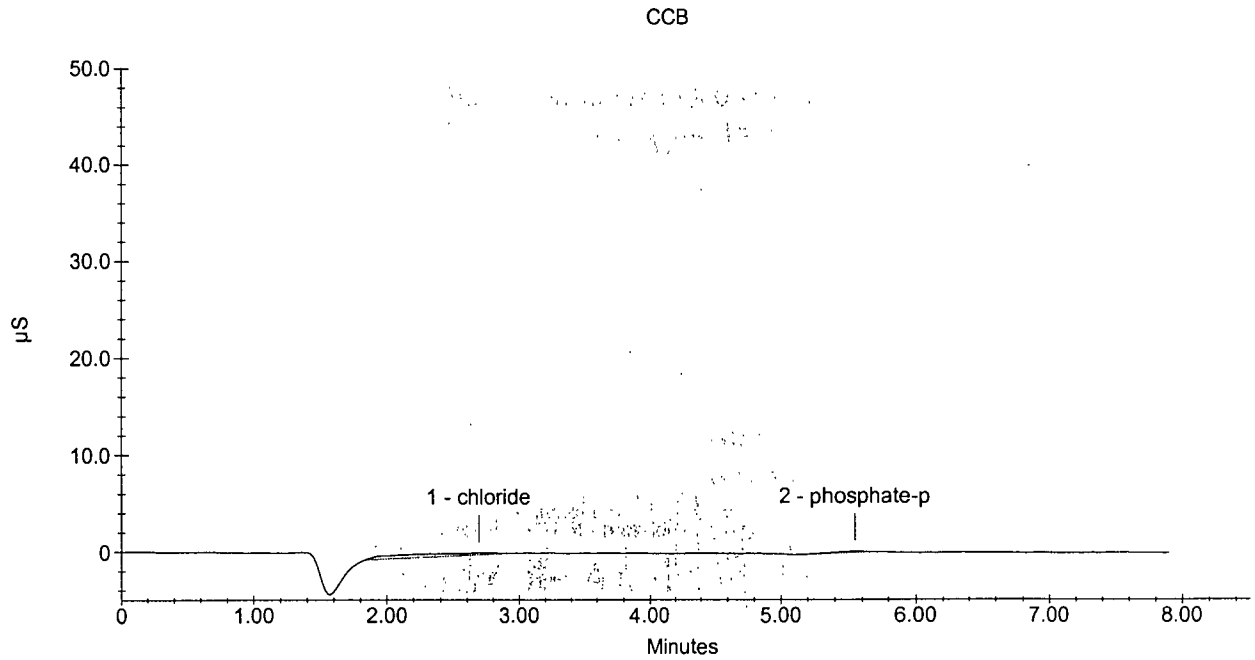
Sample Analysis Report

Sample Name : CCB
Data File Name : I:\DIONEX\D1ANIONS\DATA\150619A\150609a_006.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/19/15 09:53:15
System Operator : EM
Injection Number : 6
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	2.69	chloride	1.3730	157586	2220
2	5.55	phosphate-p	-0.2524	20734	1269



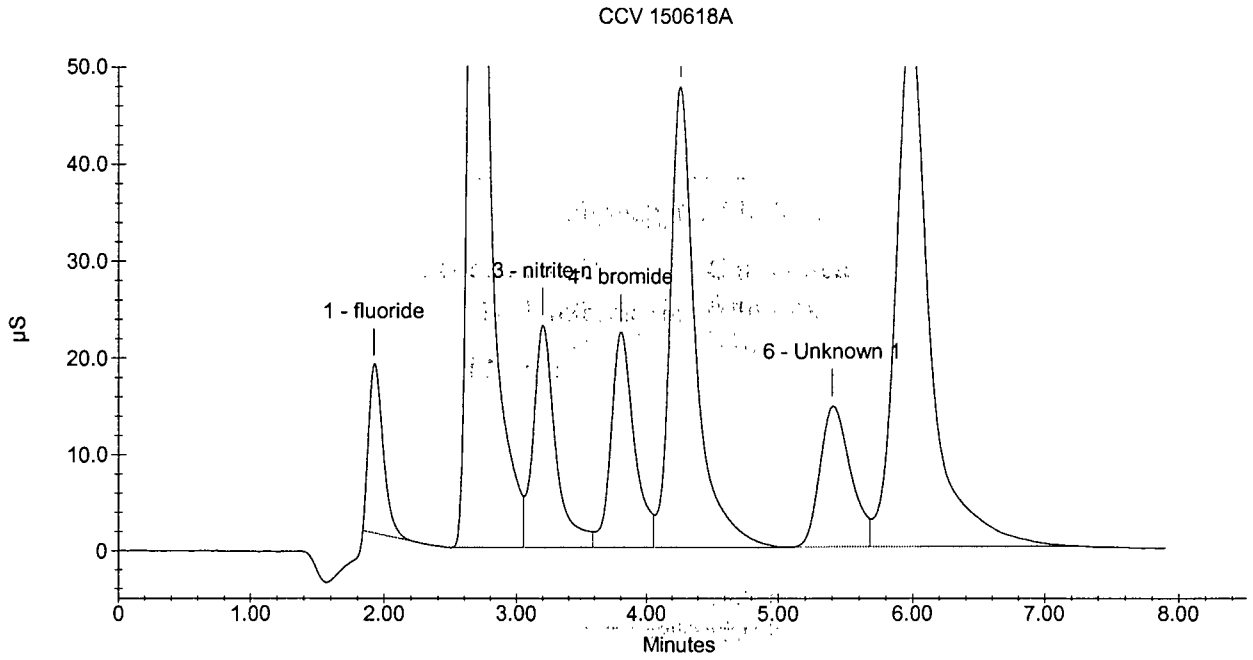
Sample Analysis Report

Sample Name : CCV 150618A
Data File Name : C:\DATA_021.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/19/15 14:47:15
System Operator : EM
Injection Number : 21
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.92	fluoride	2.0634	1319391	172661
2	2.69	chloride	24.5425	13311545	1412057
3	3.20	nitrite-n	2.6163	2726721	229569
4	3.80	bromide	13.2962	2742648	222989
5	4.27	nitrate-n	5.1055	6539410	474910
6	5.40	Unknown 1	0.0000	2319052	145861
7	5.97	sulfate	25.0363	9612908	541455



APPL, Inc.

Current Date : 6/19/15
Current Time : 14:57:59

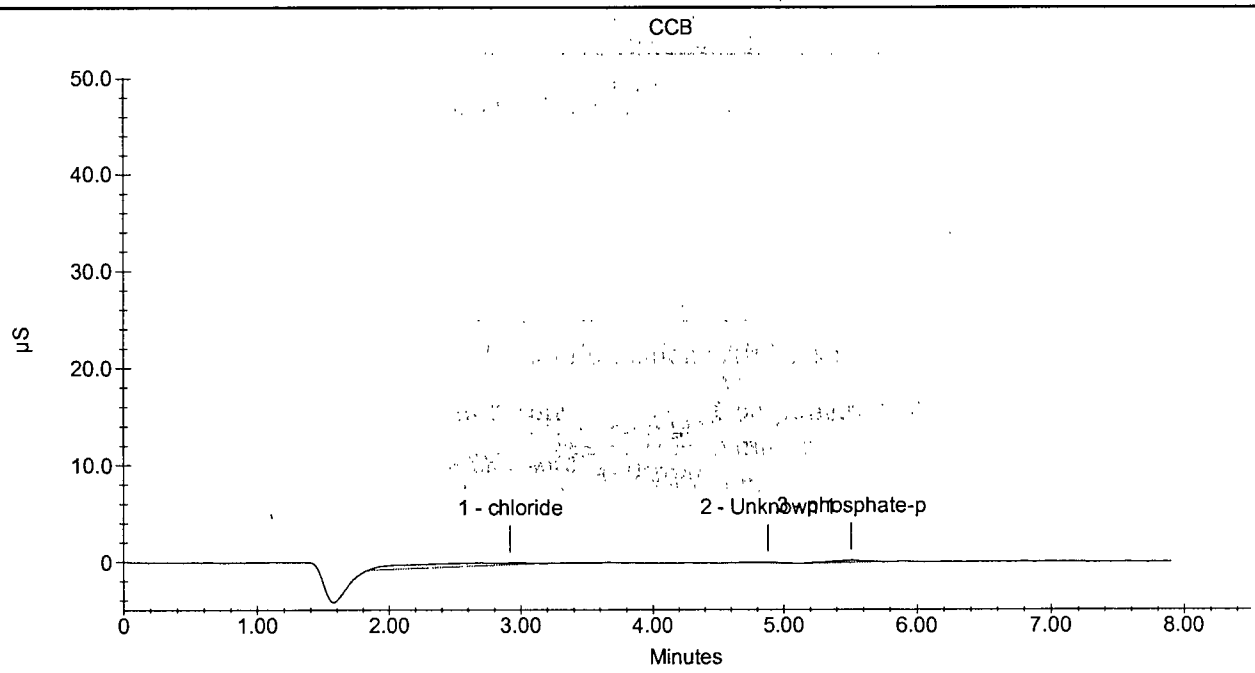
Sample Analysis Report

Sample Name : CCB
Data File Name : I:\DIONEX\D1ANIONS\DATA\150619A\150619a_022.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/19/15 14:58:03
System Operator : EM
Injection Number : 22
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	~~2.92~~	~~chloride~~ wrong RT	1.4796	218096	1822
2	4.88	Unknown 1 6/24/15	0.0000	8418	941
3	5.51	phosphate-p	-0.2035	41967	2207



APPL, Inc.

Current Date : 6/19/15
Current Time : 15:08:32

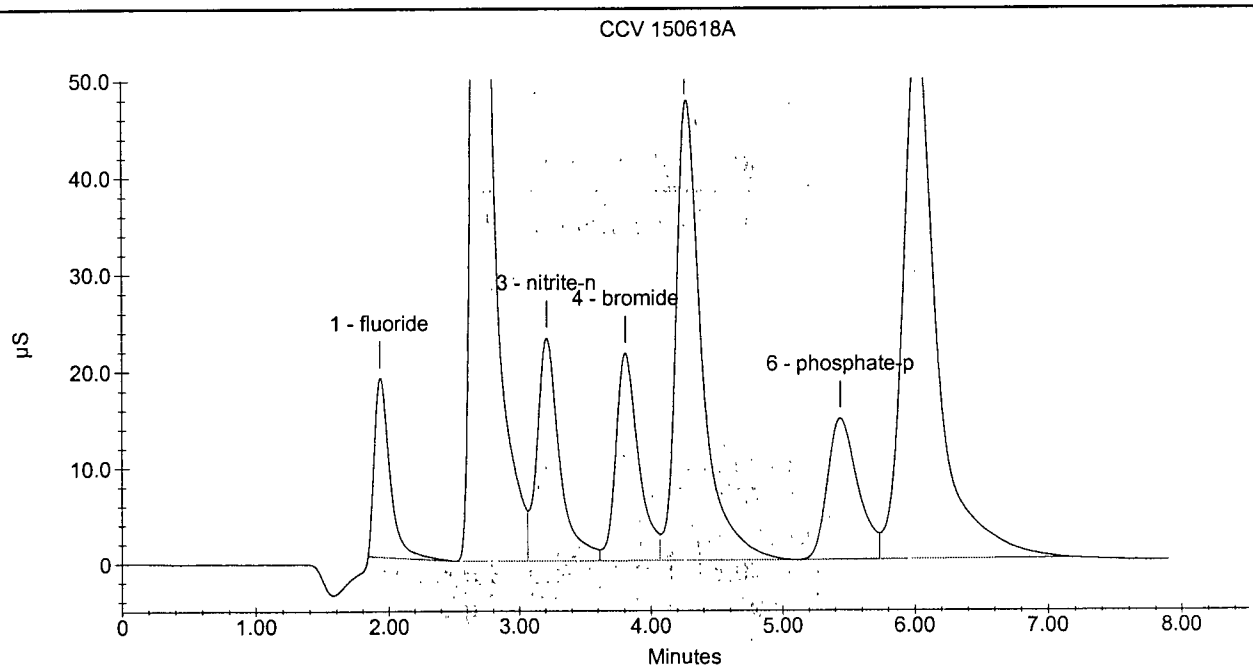
Sample Analysis Report

Sample Name : CCV 150618A
Data File Name : C:\DATA_A036.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/19/15 17:26:37
System Operator : EM
Injection Number : 36
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.93	fluoride	2.4354	1556689	185465
2	2.69	chloride	24.9151	13523112	1398830
3	3.21	nitrite-n	2.6179	2728387	231080
4	3.81	bromide	12.3569	2546161	215105
5	4.27	nitrate-n	5.0787	6504072	470876
6	5.44	phosphate-p	5.1070	2349300	146698
7	6.03	sulfate	25.0105	9602793	547775



APPL, Inc.

Current Date : 6/19/15
Current Time : 17:37:13

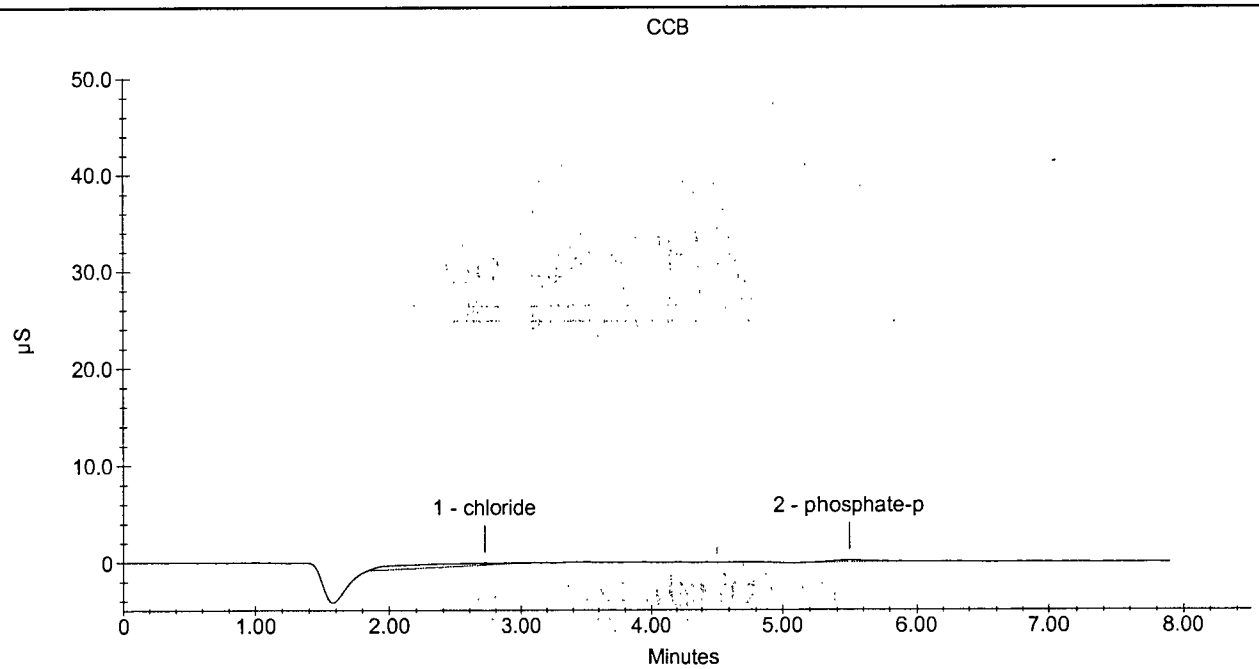
Sample Analysis Report

Sample Name : CCB
Data File Name : I:\DIONEX\D1ANIONS\DATA\150619A\150619a_037.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/19/15 17:37:17
System Operator : EM
Injection Number : 37
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	2.72	~~chloride~~ Wrong RT	1.4149	181381	2098
2	5.49	phosphate-p DS 6/22/15	-0.2010	43071	2246



Calibration Report Print Date/Time: 2015/07/08 15:52:43

Cal. Curve ID: 150623I9
Created: 2015/06/24 07:34
Calibration Factor (m): 1.011e+05
Y Intercept (b): 7103
r-squared: 0.99977

Standard ID	Y Raw Data	X Expected ug C	Measured ug C	Message	Date & Time
DI WATER	14316	0.000	0.071		2015/06/23 13:49
autocal1	28925	0.250	0.216		2015/06/23 14:15
autocal2	37616	0.500	0.302		2015/06/23 14:41
autocal3	259139	2.500	2.493		2015/06/23 15:09
autocal4	518954	5.000	5.062		2015/06/23 15:39
autocal5	1294106	12.500	12.728		2015/06/23 16:38
autocal6	2522764	25.000	24.879		2015/06/23 17:09

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract:

ARF No: SDG:

Initial Calibration Source: o2si

Continuing Calibration Source: o2si

Analysis Date: 06/24/15

Analyte	Calibration Verification									M
	True ICV	Found 9:50	%R(1)	True	Found	%R(1)	True	Found	%R(1)	
Total Organic Carbon	10	9.82345	98.2							

(1) Control Limits: 90-110

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract:

ARF No.: SDG:

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	ICB 06/24/15 10:15	C		C		C		C		C	
Total Organic Carbon	.500	U									

Detailed Analysis Report Print Date/Time: 2015/07/08 15:54:17

Sample ID: DI WATER
Method: TOC 0 - 20 ppmC
Cal. Curve: 150623I9
Operator ID: DT
Mode: TOC
Filename: 06231241
Timestamp: 2015/06/23 13:49
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			15536	58.980	59.178	96
2			13927	59.050	59.249	96
3			14812	59.107	59.304	96
4			12990	59.178	59.378	97

<<<Statistics>>> Mean: 14316 Std Dev: 1102 RSD: 7.70

Sample ID: autocal1
Method: TOC 0 - 20 ppmC
Cal. Curve: 150623I9
Operator ID: DT
Mode: TOC
Filename: 06231241
Timestamp: 2015/06/23 14:15
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			26095	59.187	59.387	109
2			29517	59.199	59.399	110
3			26421	59.278	59.477	109
4			33667	59.285	59.485	114

<<<Statistics>>> Mean: 28925 Std Dev: 3517 RSD: 12.16

Sample ID: autocal2
Method: TOC 0 - 20 ppmC
Cal. Curve: 150623I9
Operator ID: DT
Mode: TOC
Filename: 06231241
Timestamp: 2015/06/23 14:41
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			39288	59.276	59.475	115
2			36049	59.373	59.572	112
3			37420	59.491	59.687	118
4			37705	59.636	59.833	117

<<<Statistics>>> Mean: 37616 Std Dev: 1329 RSD: 3.53

Sample ID: autocal3
Method: TOC 0 - 20 ppmC
Cal. Curve: 150623I9
Operator ID: DT
Mode: TOC
Filename: 06231241
Timestamp: 2015/06/23 15:09
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			273241	60.083	60.278	178
2			251339	60.296	60.496	159
3			254133	60.505	60.703	145
4			257844	60.594	60.788	154

<<<Statistics>>> Mean: 259139 Std Dev: 9771 RSD: 3.77

Sample ID: autocal4
Method: TOC 0 - 20 ppmC
Cal. Curve: 150623I9
Operator ID: DT
Mode: TOC
Filename: 06231241
Timestamp: 2015/06/23 15:39
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			539285	60.695	60.893	203
2			523132	60.967	61.167	182
3			512417	61.212	61.410	158
4			500981	61.338	61.537	166

<<<Statistics>>> Mean: 518954 Std Dev: 16295 RSD: 3.14

Sample ID: autocal5
Method: TOC 0 - 20 ppmC
Cal. Curve: 150623I9
Operator ID: DT
Mode: TOC
Filename: 06231241
Timestamp: 2015/06/23 16:38
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			1322848	61.197	61.395	189
2			1307295	61.503	61.701	177
3			1274729	61.817	62.014	163
4			1271551	61.915	62.114	167

<<<Statistics>>> Mean: 1294106 Std Dev: 25062 RSD: 1.94

Sample ID: autocal6
Method: TOC 0 - 20 ppmC
Cal. Curve: 150623I9
Operator ID: DT
Mode: TOC
Filename: 06231241
Timestamp: 2015/06/23 17:09
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			2571981	61.789	61.987	192
2			2547419	61.942	62.140	190
3			2460559	62.555	62.754	194
4			2511094	62.421	62.620	191

<<<Statistics>>> Mean: 2522763 Std Dev: 48428 RSD: 1.92

Detailed Analysis Report Print Date/Time: 2015/07/08 15:55:01

Sample ID: ICV
Method: TOC 0 - 20 ppmC
Cal. Curve: 150623I9
Operator ID: DT
Mode: TOC
Filename: 06240735
Timestamp: 2015/06/24 09:50
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10.6592	5.3296	577452	60.430	60.629	213
2	9.8191	4.9095	534976	60.811	61.008	174
3	9.5586	4.7793	521807	60.959	61.159	175
4	9.2569	4.6285	506554	61.129	61.326	168

<<<Statistics>>> Mean: 9.8235 Std Dev: 0.6027 RSD: 6.13

Sample ID: ICB
Method: TOC 0 - 20 ppmC
Cal. Curve: 150623I9
Operator ID: DT
Mode: TOC
Filename: 06240735
Timestamp: 2015/06/24 10:15
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-0.2247	-0.1124	27175	60.277	60.476	96
2	-0.2864	-0.1432	24059	60.221	60.420	97
3	-0.2753	-0.1376	24620	60.254	60.453	97
4	-0.3205	-0.1602	22334	60.339	60.534	97

<<<Statistics>>> Mean: -0.2767 Std Dev: 0.0397 RSD: -14.33

A.P.P.L. INC.

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No: 76674 SDG: 76674

Initial Calibration Source: o2si

Continuing Calibration Source: o2si

Analysis Date: 07/01/15

Analyte	Calibration Verification									M
	True CCV1	Found 12:58	%R(1)	True CCV2	Found 19:30	%R(1)	True	Found	%R(1)	
Total Organic Carbon	10	9.8027	98.0	5	5.16625	103				

(1) Control Limits: 90-110

ILM02.0

A.P.P.L. INC.
3
BLANKS

Lab Name: A.P.P.L. INC. Contract: Tetra Tech

ARF No.: 76674 SDG: 76674

Preparation Blank Matrix (soil/water): water

Preparation Blank Concentration Units (ug/L or mg/kg): mg/L

Analyte	Calibration Blanks										M
	CCB 07/01/15 13:23	C	CCB 07/01/15 19:54	C		C		C		C	
Total Organic Carbon	.500	U	.500	U							

INORGANIC ANALYSIS
Raw Data

APPL, INC.

WETLAB BLANK

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Analyte	Result	LOQ	LOD	DL	Units	Prep Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	0.20 U	1.0	0.20	0.08	mg/L	06/18/15	06/18/15	#300W-150618A-AZ17823
EPA 300.0	NITRATE	0.18 U	0.5	0.18	0.04	mg/L	06/18/15	06/18/15	#300W-150618A-AZ17823
EPA 300.0	NITRITE	0.13 U	0.3	0.13	0.03	mg/L	06/18/15	06/18/15	#300W-150618A-AZ17823
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	06/18/15	06/18/15	#300W-150618A-AZ17823
WalkBlk	TOTAL ORGANIC C	150.00 U	200.0	150.00	100.00	mg/Kg	07/09/15	07/09/15	OC-WB-150709A1-AZ17824
EPA 300.0	CHLORIDE	1.4	1.0	0.20	0.08	mg/L	06/19/15	06/19/15	#300WD-150619A-AZ17826
EPA 300.0	SULFATE	0.20 U	1.0	0.20	0.09	mg/L	06/19/15	06/19/15	#300WD-150619A-AZ17826
SW846 90	TOTAL ORGANIC C	0.35 U	0.5	0.35	0.13	mg/L	07/01/15	07/01/15	#906-150701A-AZ17694

Wetlab SC-Blank-REG MDLs
Printed: 07/13/15 2:21:22 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	07/09/15	07/09/15	#TOC-WB-150709A1-AZ17824

Comments: _____

Laboratory Control Spike Recovery

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level mg/L	SPK Result mg/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	20.0	18.1	90.5	90-110	06/18/15	06/18/15	#300W-150618A-AZ17823
EPA 300.0	NITRATE	22.1	21.1	95.5	90-110	06/18/15	06/18/15	#300W-150618A-AZ17823
EPA 300.0	NITRITE	9.98	9.08	91.0	90-110	06/18/15	06/18/15	#300W-150618A-AZ17823
EPA 300.0	SULFATE	20.0	18.6	93.0	90-110	06/18/15	06/18/15	#300W-150618A-AZ17823

Comments: _____

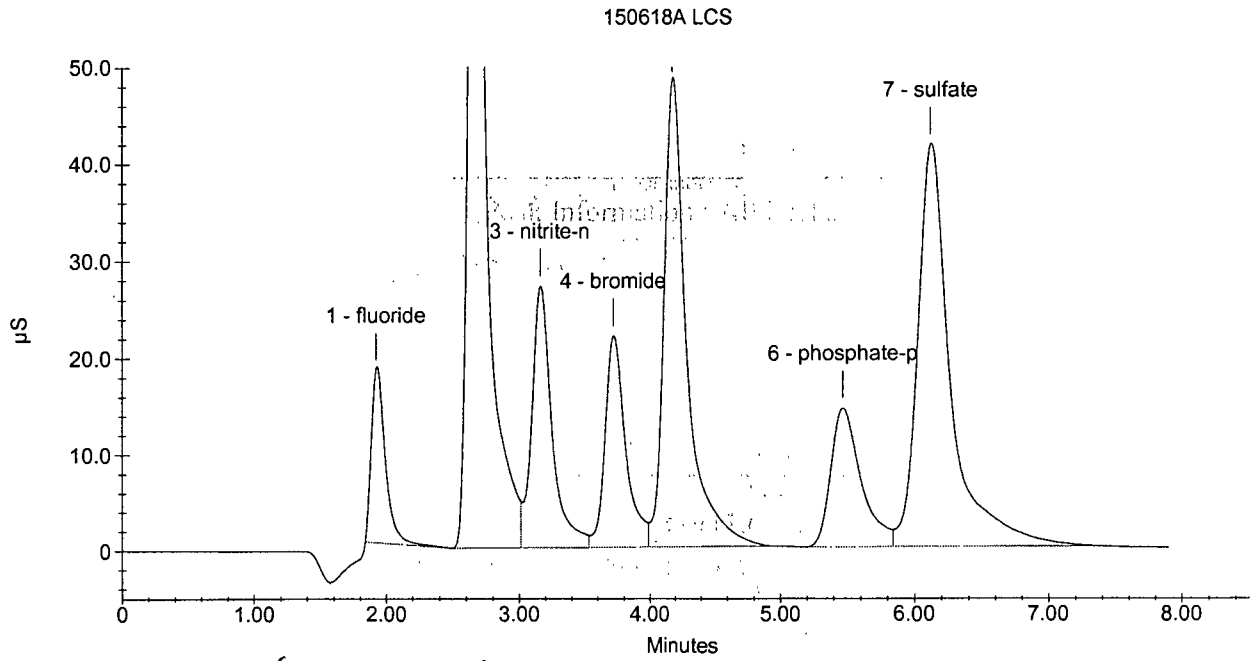
Sample Analysis Report

Sample Name : 150618A LCS
Data File Name : I:\DIONEX\D1ANIONS\DATA\150618A\150618a_013.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/18/15 09:46:46
System Operator : EM
Injection Number : 13
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.92	fluoride	2.1167	1353369	178576
2	2.67	chloride	18.0909	9648835	1097414
3	3.16	nitrite-n	2.7635	2882842	270237
4	3.72	bromide	11.6157	2391101	218914
5	4.17	nitrate-n	4.7556	6078235	480149
6	5.47	phosphate-p	4.9046	2261392	144445
7	6.12	sulfate	18.6236	7101650	415287



$(2.554 \times 10^{-6} \times 7101650) + .4889 = 18.6$

algorithm check ✓ 7.13.15

APPL, Inc.

Current Date : 6/18/15
Current Time : 09:57:20

Laboratory Control Spike Recovery

WETLAB

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Level mg/L	SPK Result mg/L	SPK % Recovery	Recovery Limits	Extract Date	Analysis Date	QC Group
EPA 300.0	CHLORIDE	20.0	19.0	95.0	90-110	06/19/15	06/19/15	#300WD-150619A-AZ17826
EPA 300.0	SULFATE	20.0	20.2	101	90-110	06/19/15	06/19/15	#300WD-150619A-AZ17826
SW846 906	TOTAL ORGANIC CARBON	10.00	10.2	102	90-110	07/01/15	07/01/15	#906-150701A-AZ17694

Comments: _____

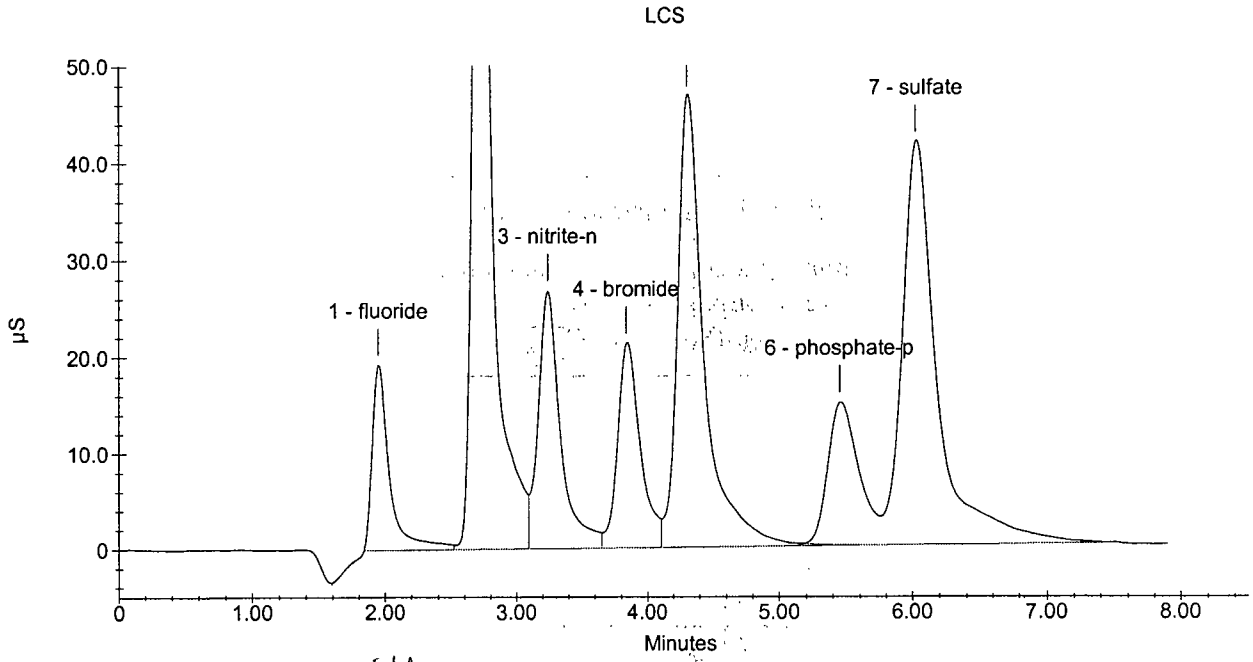
Sample Analysis Report

Sample Name : LCS
Data File Name : I:\DIONEX\D1ANIONS\DATA\150619A\150609a_007.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/19/15 12:18:34
System Operator : EM
Injection Number : 7
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.95	fluoride	2.7977	1787815	191527
2	2.72	chloride	19.0447 ✓	10190318	1069940
3	3.24	nitrite-n	3.0275	3162695	266659
4	3.84	bromide	12.3300	2540516	211694
5	4.31	nitrate-n	5.1300	6571715	465350
6	5.45	phosphate-p	5.1751	2378912	148056
7	6.03	sulfate	20.1528	7700482	415588



algorithm check DS 7-13-15

$(1.761 \times 10^{-6} \times 10190318) + .1095 = 19.0$ ✓

APPL, Inc.

Current Date : 6/19/15
Current Time : 12:29:12

Matrix Spike Recoveries

WETLAB

APPL ID: **150618W-17823 MS - 198377**

Sample ID: AZ17823

Client ID: S67-SW028-061615

APPL Inc.
908 North Temperance Avenue
Clovis, CA 93611

Method	Compound Name	Spike Lvl mg/L	Matrix Res mg/L	SPK Res mg/L	DUP Res mg/L	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 300.0	CHLORIDE	20	42.0	62.4	61.6	102	98.0	1.3	20	90-110	06/18/15	06/18/15	06/18/15	06/18/15	198377	AZ17823
EPA 300.0	NITRATE	22.1	0.76	20.0	20.1	87.1 #	87.5 #	0.50	20	90-110	06/18/15	06/18/15	06/18/15	06/18/15	198377	AZ17823
EPA 300.0	NITRITE	9.98	ND	10.4	12.0	104	120 #	14.3	20	90-110	06/18/15	06/18/15	06/18/15	06/18/15	198377	AZ17823
EPA 300.0	SULFATE	20	15.5	34.3	34.4	94.0	94.5	0.29	20	90-110	06/18/15	06/18/15	06/18/15	06/18/15	198377	AZ17823

= Recovery is outside QC limits.

Comments: _____

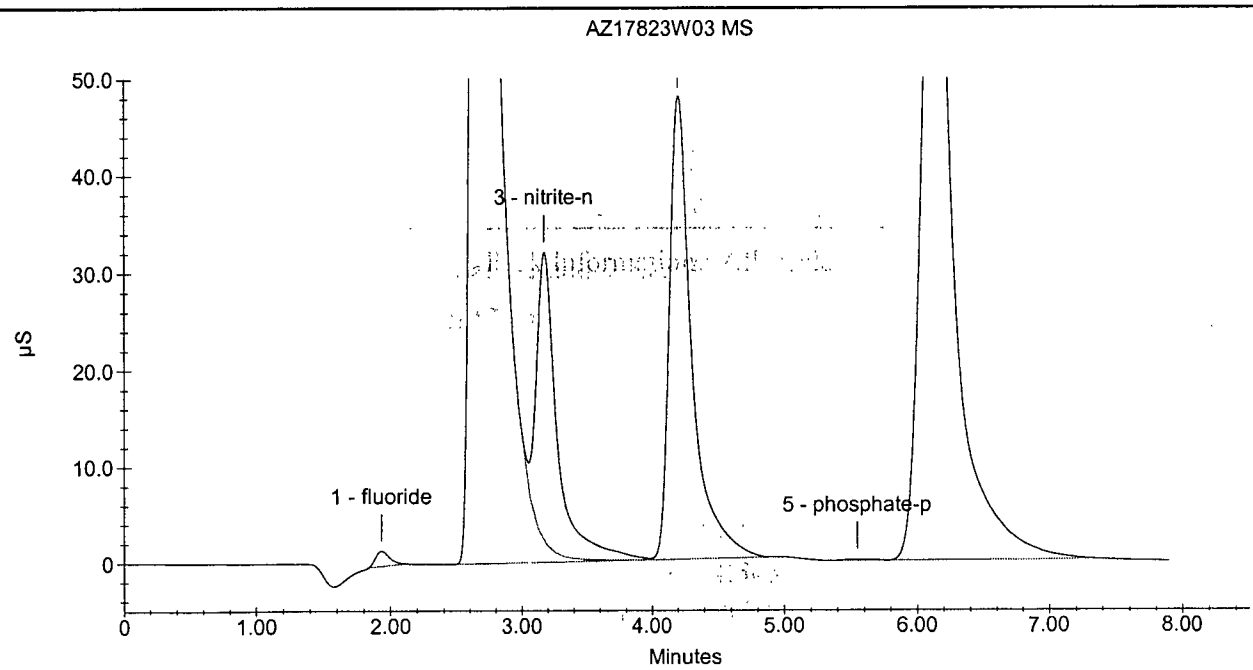
Sample Analysis Report

Sample Name : AZ17823W03 MS
Data File Name : I:\DIONEX\D1ANIONS\DATA\150618A\150618a_036.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/18/15 13:52:27
System Operator : EM
Injection Number : 36
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.93	fluoride	0.1773	116289	15962
2	2.69	chloride	62.3689	34786654	4021787
3	3.17	nitrite-n	3.1775	3321815	297335
4	4.20	nitrate-n	4.5165	5763091	475701
5	5.55	phosphate-p	-0.2572	18643	1423
6	6.13	sulfate	34.2670	13227671	827606



APPL, Inc.

Current Date : 6/18/15
Current Time : 14:03:04

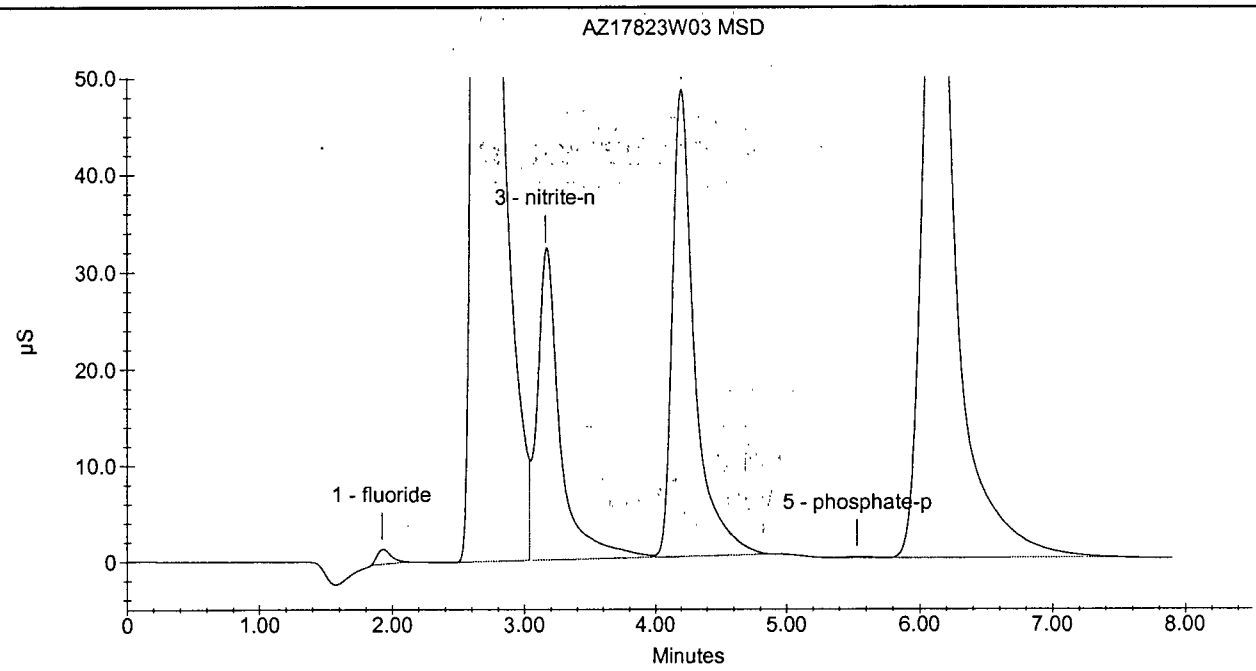
Sample Analysis Report

Sample Name : AZ17823W03 MSD
Data File Name : I:\DIONEX\D1ANIONS\DATA\150618A\150618a_037.DXD

Method File Name : i:\dionex\d1anions\methods\anions 150604a.met
Date Time Collected : 6/18/15 14:03:08
System Operator : EM
Injection Number : 37
Multiplier : 1.00

Peak Information : All Peaks

Peak Number	Peak Retention Time	Component Name	Component Amount (mg/L)	Peak Area	Peak Height
1	1.92	fluoride	0.1724	113180	15308
2	2.68	chloride	61.6252	34364430	3952554
3	3.16	nitrite-n	3.6477	3820441	317468
4	4.20	nitrate-n	4.5491	5806038	482079
5	5.53	phosphate-p	-0.2662	14760	1233
6	6.12	sulfate	34.4458	13297722	827231



APPL, Inc.

Current Date : 6/18/15
Current Time : 14:13:52

Matrix Spike Recoveries

WETLAB

APPL ID: **150709S-17824 MS - 198783**

Sample ID: AZ17824

Client ID: S67-SD029-0001

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	34300	36000	36000	85.0	85.0	0.0	20	80-120	07/09/15	07/09/15	07/09/15	07/09/15	198783	AZ17824

Comments: _____

Walkley Black titration

Date: 07/09/15
Initials: bb
QCG: 150709a

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	39.40	0.10	0.0003940

Reagents
H2SO4 JT Baker
0000-107911
H3PO4 BDH

TOC std

Manufacturer	Lot number	Conc (mg/L)
O2SI	1052126-33043	1000

2011081075
Ottawa Sand Lot number 3223c517

KCrO7 Prep 07/09/15

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
150709A BLK	0.50	27.80	=			15:00
150709A LCS	0.50	27.00	=	0.1897%	94.8%	15:03
AZ17824S05	0.50	13.30		3.4268%		15:06
AZ17824S05 ms	0.50	12.60		3.5951%	84.15%	15:09
AZ17824S05 msd	0.50	12.55		3.6026%	87.91%	15:12
AZ17820S01	0.50	15.50	=	2.9104%		15:15
AZ17819S01	0.50	16.75	=	2.6084%		15:18
AZ17402S01	0.50	27.25	=	0.1301%		15:21

TOC in mg/Kg

Sample number	sample (g)	titrant (mL)		c in mg/kg		Time
150709A BLK	0.500	27.800	=	0.0		15:00
150709A LCS	0.499	27.000	=	1896.7	94.8%	15:03
AZ17824S05	0.501	13.300	=	34268.3		15:06
AZ17824S05 ms	0.500	12.600	=	35951.4		15:09
AZ17824S05 msd	0.501	12.550	=	36026.4		15:12
AZ17820S01	0.500	15.500	=	29103.9		15:15
AZ17819S01	0.501	16.750	=	26083.5		15:18
AZ17402S01	0.500	27.250	=	1301.4		15:21
0	0.499	12.750		35682.2		12:39
0	0.502	15.000		30184.3		12:42
0	0.500	15.050		30156.6		12:45
0	0.502	21.800		14154.5		12:48
0	0.500	11.300		39073.0		12:51

Detailed Analysis Report Print Date/Time: 2015/07/13 14:57:24

Sample ID: CCV1 10PPM
Method: TOC 0 - 20 ppmC
Cal. Curve: 150623I9
Operator ID: DT
Mode: TOC
Filename: 07011213
Timestamp: 2015/07/01 12:58
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10.0408	5.0204	546185	60.334	60.532	187
2	9.7800	4.8900	532998	60.486	60.685	181
3	9.9101	4.9551	539579	60.469	60.666	187
4	9.4799	4.7399	517827	60.642	60.842	174

<<<Statistics>>> Mean: 9.8027 Std Dev: 0.2401 RSD: 2.45

Sample ID: CCB
Method: TOC 0 - 20 ppmC
Cal. Curve: 150623I9
Operator ID: DT
Mode: TOC
Filename: 07011213
Timestamp: 2015/07/01 13:23
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-0.4238	-0.2119	17111	59.952	60.148	93
2	-0.4441	-0.2220	16086	59.952	60.152	94
3	-0.5186	-0.2593	12318	60.099	60.298	94
4	-0.4522	-0.2261	15676	60.127	60.326	93

<<<Statistics>>> Mean: -0.4597 Std Dev: 0.0411 RSD: -8.93

algorithm check
KJ 7.13.15

Sample ID: 150701A LCS
Method: TOC 0 - 20 ppmC
Cal. Curve: 150623I9
Operator ID: DT
Mode: TOC
Filename: 07011213
Timestamp: 2015/07/01 13:52
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10.3880	5.1940	563741	60.255	60.454	162
2	10.1634	5.0817	552384	60.543	60.743	145
3	10.2210	5.1105	555298	60.643	60.843	171
4	10.1831	5.0915	553378	60.728	60.926	164

<<<Statistics>>> Mean: 10.2389 Std Dev: 0.1022 RSD: 1.00

$\frac{(563741-38538)}{101100}$ x2 = 10.4

Sample ID: AZ17826W04
Method: TOC 0 - 20 ppmC
Cal. Curve: 150623I9
Operator ID: DT
Mode: TOC
Filename: 07011213
Timestamp: 2015/07/01 16:08
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	0.6236	0.3118	70067	61.525	61.725	134
2	0.6485	0.3243	71325	61.565	61.764	139
3	0.6355	0.3177	70665	61.581	61.779	140
4	0.5609	0.2804	66895	61.627	61.826	139

<<<Statistics>>> Mean: 0.6171 Std Dev: 0.0388 RSD: 6.29

Sample ID: AZ17828W04
Method: TOC 0 - 20 ppmC
Cal. Curve: 150623I9
Operator ID: DT
Mode: TOC
Filename: 07011213
Timestamp: 2015/07/01 16:37
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1.8305	0.9152	131084	61.326	61.523	153
2	1.7795	0.8898	128507	61.232	61.428	159
3	1.6694	0.8347	122937	61.245	61.444	157
4	1.6368	0.8184	121289	61.276	61.474	156

<<<Statistics>>> Mean: 1.7290 Std Dev: 0.0911 RSD: 5.27

Sample ID: AZ17829W04
Method: TOC 0 - 20 ppmC
Cal. Curve: 150623I9
Operator ID: DT
Mode: TOC
Filename: 07011213
Timestamp: 2015/07/01 17:06
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1.3600	0.6800	107297	61.009	61.208	151
2	1.3886	0.6943	108741	60.983	61.179	154
3	1.3669	0.6834	107645	61.059	61.258	155
4	1.2645	0.6323	102470	61.125	61.319	153

<<<Statistics>>> Mean: 1.3450 Std Dev: 0.0550 RSD: 4.09

5 @ 7.13.15

Sample ID: CCV1 ~~10~~PPM
Method: TOC 0 - 20 ppmC
Cal. Curve: 150623I9
Operator ID: DT
Mode: TOC
Filename: 07011213
Timestamp: 2015/07/01 19:30
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5.2703	2.6352	304996	61.145	61.340	172
2	4.9365	2.4683	288122	61.320	61.520	165
3	5.3499	2.6750	309022	61.430	61.628	186
4	5.1083	2.5542	296806	61.789	61.989	172

<<<Statistics>>> Mean: 5.1663 Std Dev: 0.1832 RSD: 3.55

Sample ID: CCB
Method: TOC 0 - 20 ppmC
Cal. Curve: 150623I9
Operator ID: DT
Mode: TOC
Filename: 07011213
Timestamp: 2015/07/01 19:54
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-0.6107	-0.3054	7661	61.919	62.115	90
2	-0.4906	-0.2453	13734	61.853	62.053	93
3	-0.5661	-0.2830	9917	61.907	62.106	91
4	-0.6532	-0.3266	5512	61.920	62.120	89

<<<Statistics>>> Mean: -0.5802 Std Dev: 0.0695 RSD: -11.98

% Moisture

Batch: QCG 150623-M005716

Method: CLP 4.0

Date: 06/23/15 17:22

Sample	Container	Pan (g)	Pan+Wet (g)	Pan+Dry 1 (g)	Pan+Dry 2 (g)	Moisture (%)	Comments
AZ17975		0.8401	9.6929	9.0578	9.0581	7.171	AZ17975S04
		06/23/15 17:22	06/23/15 17:23	06/24/15 08:55	06/24/15 08:55		
AZ17974		0.8206	8.9302	8.3230	8.3232	7.485	AZ17974S04
		06/23/15 17:21	06/23/15 17:22	06/24/15 08:54	06/24/15 08:54		
AZ17973		0.8315	9.0648	8.4242	8.4243	7.779	AZ17973S04
		06/23/15 17:19	06/23/15 17:20	06/24/15 08:54	06/24/15 08:54		
AZ17822		0.8220	9.1221	3.0562	3.0563	73.081	AZ17822S02
		06/23/15 17:18	06/23/15 17:19	06/24/15 08:53	06/24/15 08:53		
AZ17820		0.8265	9.6395	4.9230	4.9231	53.516	AZ17820S02
		06/23/15 17:15	06/23/15 17:17	06/24/15 08:53	06/24/15 08:53		
AZ17819		0.8318	9.9711	5.3411	5.3412	50.659	AZ17819S01
		06/23/15 17:13	06/23/15 17:14	06/24/15 08:52	06/24/15 08:52		
AZ17816D		0.8272	9.4291	6.9641	6.9642	28.655	AZ17816S01
		06/23/15 17:12	06/23/15 17:12	06/24/15 08:51	06/24/15 08:51		
AZ17816		0.8225	9.0146	6.7364	6.7368	27.805	AZ17816S01
		06/23/15 17:08	06/23/15 17:10	06/24/15 08:50	06/24/15 08:51		
AZ17804		0.8311	9.8706	9.4210	9.4211	4.973	AZ17804S08
		06/23/15 17:07	06/23/15 17:08	06/24/15 08:50	06/24/15 08:50		
AZ17803		0.8213	9.3659	8.8137	8.8140	6.459	AZ17803S08
		06/23/15 17:06	06/23/15 17:07	06/24/15 08:49	06/24/15 08:49		
AZ17802		0.8438	9.4349	8.0392	8.0393	16.245	AZ17802S08
		06/23/15 17:05	06/23/15 17:06	06/24/15 08:49	06/24/15 08:49		
AZ17801		0.8394	9.1612	8.0226	8.0232	13.675	AZ17801S01
		06/23/15 17:03	06/23/15 17:05	06/24/15 08:48	06/24/15 08:48		

Date/Time InOven@104°C	Date/Time OutOven@104°C	Date/Time InOven@104°C	Date/Time OutOven@104°C
06/23/15 5:23:00 PM			06/24/15 8:55:00 AM

% Moisture

Batch: QCG 150624-M005717

Method: CLP 4.0

Date: 06/24/15 16:20

Sample	Container	Pan (g)	Pan+Wet (g)	Pan+Dry 1 (g)	Pan+Dry 2 (g)	Moisture (%)	Comments
AZ17824D		0.8340	9.5555	2.9970	2.9972	75.197	AZ17824S04
		06/24/15 16:20	06/24/15 16:22	06/25/15 12:56	06/25/15 12:56		
AZ17824		0.8229	8.8623	3.0672	3.0674	72.081	AZ17824S04
		06/24/15 16:18	06/24/15 16:19	06/25/15 12:55	06/25/15 12:55		

Date/Time InOven@104°C	Date/Time OutOven@104°C	Date/Time InOven@104°C	Date/Time OutOven@104°C
06/24/15 4:22:00 PM			06/25/15 12:56:00 PM

Inorganic Balance Calibration Verification Logbook #22

Date	Initials	Balance	Weight	Reading	Lower Limit	Upper Limit	Comments / Is the Bubble Centered?
6/23/15	EM	Mettler AT200	0.5g	0.5002 g	0.4995	0.5005	Yes
		Mettler AT200	1g	1.0002 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	149.9987 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	1000.02 g	980.00	1020.00	
		OHAUS ARC120	2kg	2000.09 g	1960.00	2040.00	
6/24/15	EM	Mettler AT200	0.5g	0.5002 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	49.9998 g	49.9500	50.0500	
		Mettler AT200	100g	99.9995 g	99.9000	100.1000	
		Mettler AT200	150g	149.9991 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	1000.03 g	980.00	1020.00	
		OHAUS ARC120	2kg	2000.09 g	1960.00	2040.00	
6/25/15	EM	Mettler AT200	0.5g	0.4999 g	0.4995	0.5005	Yes
		Mettler AT200	1g	1.0002 g	0.9990	1.0010	
		Mettler AT200	20g	20.0000 g	19.9800	20.0200	
		Mettler AT200	50g	49.9996 g	49.9500	50.0500	
		Mettler AT200	100g	99.9993 g	99.9000	100.1000	
		Mettler AT200	150g	149.9999 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	2000.01 g	1960.00	2040.00	
6/26/15	EM	Mettler AT200	0.5g	0.5001 g	0.4995	0.5005	Yes
		Mettler AT200	1g	1.0003 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	99.9991 g	99.9000	100.1000	
		Mettler AT200	150g	149.9985 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	999.98 g	980.00	1020.00	
		OHAUS ARC120	2kg	2000.04 g	1960.00	2040.00	

Standards Prep Log Book# 62 page#

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 4000NTU(Thermo Scientific Lot SX1-33618)/100 ml DI → 8 NTU

3/13/15 AP Color 2120B
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 FMD lot 2013050298
40 mL H_2SO_4 JT Baker 00000 71333
Final vol 1L w/DI water

METHOD 300 / 9056		ANION STOCK				
SUPPLIER		mg/L	LOT #	EXP.	mL	Final Conc (mg/L)
O2SI	F-	1,000	1053804	05/27/15	0.25	5
O2SI	Cl-	5,000	1069557	07/08/16	0.5	50
O2SI	NO2-N	1,000	1062905	01/10/16	0.25	5
Ultra Scientific	Br-	1,000	p00939	10/31/16	1.25	25
O2SI	NO3-N	1,000	1057207	08/30/15	0.5	10
O2SI	PO4-P	1,000	1072004	09/03/16	0.5	10
Ultra Scientific	SO4	5,000	t00419	05/31/16	0.5	50
Brought up with milipore water to Final Volume of:					50	

METHOD 300 / 9056		ANION ICV / LCS/MS/MSD				
SUPPLIER		mg/L	LOT #	EXP.	mL	Final Conc (mg/L)
CPI	F-	1,000	13G095	05/27/15	0.125	2.50
CPI	Cl-	1,000	15D270	10/30/16	1.00	20.00
CPI	NO2-N	304	15C058	12/08/16	0.50	3.04
CPI	Br-	1,000	14H100	03/19/16	0.625	12.50
CPI	NO3-N	1,000	13L102	11/22/15	0.25	5.00
CPI	PO4-P	1,000	14L003	07/25/15	0.25	5.00
CPI	SO4	1,000	15D051	10/17/16	1.00	20.00
Brought up with milipore water to Final Volume of:					50	

METHOD 300 / 9056			ANION CAL CURVE							
				ICAL #1	ICAL#2	ICAL#3	ICAL #4	ICAL #5	ICAL #6	ICAL #7
ID#	mg/L	Prep Date	EXP. DATE	mL	mL	mL	mL	mL	mL	mL
ANION STOCK	100			0.4	2	10	2	5	7	10
Brought up w/ Milipore Water to final volume of (mL):				100	100	100	10	10	10	na
Final Conc F (mg/L):				0.04	0.1	0.5	1	2.5	3.5	5
Final Conc Cl (mg/L):				0.4	1	5	10	25	35	50
Final Conc NO2-N (mg/L):				0.04	0.1	0.5	1	2.5	3.5	5
Final Conc Br (mg/L):				0.2	0.5	2.5	5	12.5	17.5	25
Final Conc NO3-N (mg/L):				0.08	0.2	1	2	5	7	10
Final Conc PO4-P (mg/L):				0.08	0.2	1	2	5	7	10
Final Conc SO4 (mg/L):				0.4	1	5	10	25	35	50

METHOD 5310/9060 TOC CALIBRATION CURVE

ID#	mg/L	Prep Date	EXP. DATE	mL	mL	mL	mL	mL	mL	mL
TOC INTERMEDIATE 1 STD	100	06/23/15	07/24/15	0	0.5	1	5	10	25	50
Brought up with milipore water to Final Volume of:				50	100	100	100	100	100	100
		Final Conc (mg/L):		0	0.5	1.0	5	10	25	50

METHOD 5310B/9060		**TOC INTERMEDIATE 1° STD**				
UPPLIER		**mg/L**	**LOT #**	**open**	**EXP.**	**mL**
)2SI	Potassium Hydrogen Phthalate	1,000	1072005	04/10/15	09/03/16	10mL
					Brought up with milipore water to Final Volume of:	100mL
					Final Conc (mg/L)	100

METHOD 5310B/9060	**TOC CCVS**				
	mg/L	**Prep Date**	**EXP.**	**CCV1**	**CCV2**
TOC INTERMEDIATE 1° STD	100	06/23/15	07/24/15	10	5
Brought up with milipore water to Final Volume of:				100	100
			Final Conc (mg/L)	10	5

IETHOD 5310B/9060		**TOC INTERMEDIATE 2° STD**				
UPPLIER		**mg/L**	**LOT #**	**open**	**EXP.**	**mL**
LTRA SCI	Potassium Hydrogen Phthalate	1,000	CM-0176	04/10/15	02/28/17	10mL
					Brought up with milipore water to Final Volume of:	100mL
					Final Conc (mg/L)	100

METHOD 5310B/9060	**TOC ICV/LCS**			
	mg/L	**Prep Date**	**EXP.**	**ICV/LCS**
TOC INTERMEDIATE 2° STD	100	06/23/15	07/24/15	10
Brought up with milipore water to Final Volume of:				100
			Final Conc (mg/L)	10

150618

		ANION CCV				
SUPPLIER		mg/L	LOT #	EXP.	mL	Final Conc (mg/L)
O2SI	F-	1,000	1053804	05/27/15	0.125	2.50
O2SI	Cl-	5,000	1069557	07/08/16	0.25	25.0
O2SI	NO2-N	1,000	1062905	01/10/16	0.125	2.5
Ultra Scientific	Br-	1,000	p00939	10/31/16	0.625	12.50
O2SI	NO3-N	1,000	1057207	08/30/15	0.25	5.0
O2SI	PO4-P	1,000	1072004	09/03/16	0.25	5.0
Ultra Scientific	SO4	5,000	t00419	05/31/16	0.25	25.0
Brought up with milipore water to Final Volume of:					50	

METHOD 300 / 9056		ANION MS/MSD				
SUPPLIER		mg/L	LOT #	EXP.	mL	Final Conc (mg/L)
CPI	F-	1,000	13G095	05/27/15	0.125	2.50
CPI	Cl-	1,000	15D270	10/30/16	1.00	20.00
CPI	NO2-N	304	15C058	12/08/16	0.50	3.04
CPI	Br-	1,000	14H100	03/19/16	0.63	12.50
CPI	NO3-N	1,000	13L102	11/22/15	0.25	5.00
CPI	PO4-P	1,000	14L003	07/25/15	0.25	5.00
CPI	SO4	1,000	15D051	10/17/16	1.00	20.00
Final Volume of Sample: (mL)					50	

METHOD 300 / 9056		ANION LCS				
SUPPLIER		mg/L	LOT #	EXP.	mL	Final Conc (mg/L)
CPI	F-	1,000	13G095	05/27/15	0.125	2.50
CPI	Cl-	1,000	15D270	10/30/16	1.00	20.00
CPI	NO2-N	304	15C058	12/08/16	0.50	3.04
CPI	Br-	1,000	14H100	03/19/16	0.63	12.50
CPI	NO3-N	1,000	13L102	11/22/15	0.25	5.00
CPI	PO4-P	1,000	14L003	07/25/15	0.25	5.00
CPI	SO4	1,000	15D051	10/17/16	1.00	20.00
Brought up with milipore water to Final Volume of:					50	

150619

		ANION CCV				
SUPPLIER		mg/L	LOT #	EXP.	mL	Final Conc (mg/L)
O2SI	F-	1,000	1053804	05/27/15	0.125	2.50
O2SI	Cl-	5,000	1069557	07/08/16	0.25	25.0
O2SI	NO2-N	1,000	1062905	01/10/16	0.125	2.5
Ultra Scientific	Br-	1,000	p00939	10/31/16	0.625	12.50
O2SI	NO3-N	1,000	1057207	08/30/15	0.25	5.0
O2SI	PO4-P	1,000	1072004	09/03/16	0.25	5.0
Ultra Scientific	SO4	5,000	t00419	05/31/16	0.25	25.0
Brought up with milipore water to Final Volume of:					50	

METHOD 300 / 9056		ANION MS/MSD				
SUPPLIER		mg/L	LOT #	EXP.	mL	Final Conc (mg/L)
CPI	F-	1,000	13G095	05/27/15	0.125	2.50
CPI	Cl-	1,000	15D270	10/30/16	1.00	20.00
CPI	NO2-N	304	15C058	12/08/16	0.50	3.04
CPI	Br-	1,000	14H100	03/19/16	0.63	12.50
CPI	NO3-N	1,000	13L102	11/22/15	0.25	5.00
CPI	PO4-P	1,000	14L003	07/25/15	0.25	5.00
CPI	SO4	1,000	15D051	10/17/16	1.00	20.00
Final Volume of Sample: (mL)					50	

METHOD 300 / 9056		ANION LCS				
SUPPLIER		mg/L	LOT #	EXP.	mL	Final Conc (mg/L)
CPI	F-	1,000	13G095	05/27/15	0.125	2.50
CPI	Cl-	1,000	15D270	10/30/16	1.00	20.00
CPI	NO2-N	304	15C058	12/08/16	0.50	3.04
CPI	Br-	1,000	14H100	03/19/16	0.63	12.50
CPI	NO3-N	1,000	13L102	11/22/15	0.25	5.00
CPI	PO4-P	1,000	14L003	07/25/15	0.25	5.00
CPI	SO4	1,000	15D051	10/17/16	1.00	20.00
Brought up with milipore water to Final Volume of:					50	

300/9056A Injection Log

Directory: I:\Dionex\D1Anions\data\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
23	04 Jun 2015	12:53	CAL STD #1 05/05/15		150604a	1.
24	04 Jun 2015	13:03	CAL STD #2		150604a	1.
25	04 Jun 2015	13:14	CAL STD #3		150604a	1.
26	04 Jun 2015	13:25	CAL STD #4		150604a	1.
27	04 Jun 2015	13:35	CAL STD #5		150604a	1.
28	04 Jun 2015	13:46	CAL STD #6		150604a	1.
29	04 Jun 2015	13:57	CAL STD #7		150604a	1.
~~32~~ 33	04 Jun 2015	14:52	150604 ICV		150604a	1.
~~33~~ 34	04 Jun 2015	15:03	ICB		150604a	1.

RD 6.15.15

300/9056A Injection Log

Directory: I:\Dionex\D1Anions\data\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
5	19 Jun 2015	09:42	CCV 150618A		150619a	1.
6	19 Jun 2015	09:53	CCB		150619a	1.
7	19 Jun 2015	12:18	LCS		150619a	1.
18	19 Jun 2015	14:15	AZ17826W02 1/10		150619a	10.
21	19 Jun 2015	14:47	CCV 150618A		150619a	1.
22	19 Jun 2015	14:58	CCB		150619a	1.
24	19 Jun 2015	15:19	AZ17828W03 1/10		150619a	10.
29	19 Jun 2015	16:12	AZ17829W03 1/10		150619a	10.
36	19 Jun 2015	17:26	CCV 150618A		150619a	1.
37	19 Jun 2015	17:37	CCB		150619a	1.

300/9056A Injection Log

Directory: I:\Dionex\D1Anions\data\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
6	18 Jun 2015	08:32	CCV 150618A		150618A	1.
7	18 Jun 2015	08:43	CCB		150618A	1.
9	18 Jun 2015	09:04	AZ17823W03		150618A	1.
11	18 Jun 2015	09:25	AZ17825W01		150618A	1.
12	18 Jun 2015	09:36	AZ17821W01		150618A	1.
13	18 Jun 2015	09:46	150618A LCS		150618A	1.
18	18 Jun 2015	10:40	AZ17817W02		150618A	1.
19	18 Jun 2015	10:50	AZ17818W01		150618A	1.
21	18 Jun 2015	11:12	CCV 150618A		150618A	1.
22	18 Jun 2015	11:22	CCB		150618A	1.
26	18 Jun 2015	12:05	AZ17826W02		150618A	1.
29	18 Jun 2015	12:37	AZ17828W03		150618A	1.
30	18 Jun 2015	12:48	AZ17829W03		150618A	1.
36	18 Jun 2015	13:52	AZ17823W03 MS		150618A	1.
37	18 Jun 2015	14:03	AZ17823W03 MSD		150618A	1.
38	18 Jun 2015	14:13	CCV 150618A		150618A	1.
39	18 Jun 2015	14:24	CCB		150618A	1.

415/9060 Injection Log

Directory: I:\Tekmar\uploadrun\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	23 Jun 2015	13:49	DI WATER		150624A9-T	1.
2	23 Jun 2015	14:15	autocal1		150624A9-T	1.
3	23 Jun 2015	14:41	autocal2		150624A9-T	1.
4	23 Jun 2015	15:09	autocal3		150624A9-T	1.
5	23 Jun 2015	15:39	autocal4		150624A9-T	1.
6	23 Jun 2015	16:38	autocal5		150624A9-T	1.
7	23 Jun 2015	17:09	autocal6		150624A9-T	1.

415/9060 Injection Log

Directory: I:\Tekmar\uploadrun\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
8	24 Jun 2015	09:50	ICV		150624A9-T	1.
9	24 Jun 2015	10:15	ICB		150624A9-T	1.

415/9060 Injection Log

Directory: I:\Tekmar\uploadrun\

RunID	Injected		Sample Name	Misc Info	FileName	Multiplier
1	01 Jul 2015	12:58	CCV1 10PPM		150701A9-T	1.
2	01 Jul 2015	13:23	CCB		150701A9-T	1.
3	01 Jul 2015	13:52	150701A LCS		150701A9-T	1.
8	01 Jul 2015	16:08	AZ17826W04		150701A9-T	1.
9	01 Jul 2015	16:37	AZ17828W04		150701A9-T	1.
10	01 Jul 2015	17:06	AZ17829W04		150701A9-T	1.
15	01 Jul 2015	19:30	CCV2 5PPM		150701A9-T	1.
16	01 Jul 2015	19:54	CCB		150701A9-T	1.