STAT Analysis Corporation
2242 West Harrison St., Suite 200, Chicago, IL 60612-3766
Tel: (312) 733-0551 Fax: (312) 733-2386 STATinfo@STATAnalysis.com
Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001;AIHA 101160; NVLAP LabCode 101202-

August 21, 2013

Natural Resource Technology, Inc.
23713 W. Paul Road
Suite D
Pewaukee, WI 53072
Telephone: (262) 523-9000
Fax: (262) 523-9001

RE: 69420, Peoples Gas - Willow Street / Hawthorne Ave STAT Project No: 13071475

Dear Sarah Meyer:

STAT Analysis received 1 sample for the referenced project on 7/31/2013 1:20:00 PM. The analytical results are presented in the following report.

This report is revised to reflect changes made after the initial report was issued.

All analyses were performed in accordance with the requirements of 35 IAC part 186 / NELAC standards. Analyses were performed in accordance with methods as referenced on the analytical report. Those analytical results expressed on a dry weight basis are also noted on the analytical report.

All analyses were performed within established holding time criteria, and all Quality Control criteria met EPA or laboratory specifications except when noted in the Case Narrative or Analytical Report. If required, an estimate of uncertainty for the analyses can be provided. A listing of accredited methods/parameters can also be provided.

Thank you for the opportunity to serve you and I look forward to working with you in the future. If you have any questions regarding the enclosed materials, please contact me at (312) 733-0551.

Sincerely,

Eileen M. LaPierre

Eileen LaPierre
Project Manager

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory. This analytical report shall become property of the Customer upon payment in full. Otherwise, STAT will be under no obligation to support, defend or discuss the analytical report.

STAT Analysis Corporation

Date: August 21, 2013

Client: Natural Resource Technology, Inc.
Project: 69420, Peoples Gas - Willow Street / Hawthorne Ave
Lab Order: 13071475

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
13071475-001A	073113111	4'-4.5'	7/31/2013 10:44:00 AM	7/31/2013

Analytical Results

Client: NRT, Inc.
Project: 69420, Peoples Gas - Willow Street / Hawthorne Ave
Lab Order: 13071475
Date Received: July 31, 2013

STAT Analysis Corporation

Date: *August 21, 2013*

CLIENT: Natural Resource Technology, Inc.
Project: 69420, Peoples Gas - Willow Street / Hawthorne
Lab Order: 13071475

CASE NARRATIVE

Please refer to Analytical QC Summary Report for QC outliers.

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Accreditation Numbers: IEPA ELAP 100445; ORELAP IL300001; AIHA 101160; NVLAP LabCode 101202

Date Reported: August 21, 2013
Date Printed: August 21, 2013

Client: Natural Resource Technology, Inc.
Lab Order: 13071475
Project: 69420, Peoples Gas - Willow Street / Hawthorne A
Lab ID: 13071475-001

Client Sample ID: 073113111
Collection Date 7/31/2013 10:44:00 AM
Matrix: Air

Analyses	Result	RL	Qualifier	Units	DF	Date Analyzed
Landfill Gases by EPA Method 3c	**METHOD 3C**			Prep Date:		Analyst: **VP**
Carbon Dioxide	5.74	0.08		mol %	2	8/1/2013
Methane	ND	0.1		mol %	2	8/1/2013
Oxygen	9.35	0.8		mol %	2	8/1/2013
Volatile Organic Compounds in Air by GC/MS	**TO-15**			Prep Date: **8/1/2013**		Analyst: **VP**
Naphthalene	3.3	0.5		µg/m³	1	8/1/2013
Benzene	ND	1.2		µg/m³	1	8/1/2013
Ethylbenzene	ND	1.7		µg/m³	1	8/1/2013
Toluene	3.1	1.6		µg/m³	1	8/1/2013
Xylenes, Total	ND	5		µg/m³	1	8/1/2013
1,2,4-Trichlorobenzene	ND	2.9		µg/m³	1	8/1/2013
1,1,1-Trichloroethane	100	2.1		µg/m³	1	8/1/2013
1,1-Dichloroethane	88	1.6		µg/m³	1	8/1/2013
Acetone	ND	9.3	*	µg/m³	1	8/1/2013
Carbon disulfide	1.9	1.2		µg/m³	1	8/1/2013
cis-1,2-Dichloroethene	120	1.6		µg/m³	1	8/1/2013
trans-1,2-Dichloroethene	19	1.6		µg/m³	1	8/1/2013
2-Butanone	ND	2.9		µg/m³	1	8/1/2013
Methylene chloride	18	13		µg/m³	1	8/1/2013
Styrene	ND	1.7		µg/m³	1	8/1/2013
Tetrachloroethene	340	2.7		µg/m³	1	8/1/2013
Vinyl chloride	1.6	0.97		µg/m³	1	8/1/2013

Qualifiers:

ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
B - Analyte detected in the associated Method Blank
HT - Sample received past holding time
* - Non-accredited parameter
RL - Reporting / Quantitation Limit for the analysis
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
H - Holding time exceeded

Burns & McDonnell SINCE 1898

Request for Chemical Analysis and Chain of Custody Record

Burns & McDonnell Engineering
1431 Opus Place
Downers Grove, Illinois 60515
Phone: (630) 724-3200 Fax: (630) 724-3201

Attention: SARAH MEYER
REPORT TO: SMEYER@NATURALRT.COM

Laboratory: STAT ANALYTICAL
Address: 2242 W. HARRISON SUITE 200
City/State/ZIP: CHICAGO, IL 60612
Telephone: 312-773-0551

Document Control No.: 69420-106-2013
Lab. Reference No. or Episode No.: 13071475

Project Number: 69420 (INVOICE TO INTEGRYS PO 3400002395)
Site Name: PEOPLES GAS - WILLOW HAWTHORNE

Sample Number: Group or SWMU Name	Sample Number: Sample Point	Sample Number: Sample Designator	Sample Event: Round	Sample Event: Year	Sample Depth (in feet): From	Sample Depth (in feet): To	Sample Collected: Date	Sample Collected: Time	Sample Type: Matrix: Liquid	Sample Type: Matrix: Solid	Sample Type: Matrix: Gas	Number of Containers	Parameter/Method Code: PVOCs *	VOCs *	NAPHTHALENE	O_2	CO_2	METHANE	CANISTER #	Remarks	PRESSURE (in Hg)
001 073113111	—	—	—	—	4'	4.5'	7/31/13	1014			X	1	X	X	X	X	X	X	1027		-5

Karen Kesler 7/31/13

Sampler (signature): Karen Kesler
Sampler (signature): Emily Meyer
Custody Seal Number: 69420-1189166 69420-1189167
* SEE SITE SPECIFIC ANALYTE LIST
Special Instructions: 10-DAY TAT

Relinquished By (signature): 1. Karen Kesler
Date/Time: 7/31 1322
Received By (signature): Tim [illegible]
Date/Time: 7/31/13 1322
Ice Present in Container: Yes [ ] No [X]
Temperature Upon Receipt: Ambient

Relinquished By (signature): 2.
Date/Time:
Received By (signature):
Date/Time:
Laboratory Comments:

061301 Form WCD-KC1-CHI

STAT Analysis Corporation

Sample Receipt Checklist

Client Name NRT

Date and Time Received: 7/31/2013 1:20:00 PM

Work Order Number 13071475

Received by: TJW

Checklist completed by: [signature] 7/31/13
Signature Date

Reviewed by: FC 8/1/13
Initials Date

Matrix: Carrier name Client Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels/containers?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container or Temp Blank temperature in compliance?	Yes ☑	No ☐	Temperature Ambient °C
Water - VOA vials have zero headspace?	No VOA vials submitted ☐	Yes ☐	No ☐
Water - Samples pH checked?	Yes ☐	No ☐	Checked by:
Water - Samples properly preserved?	Yes ☐	No ☐	pH Adjusted?

Any No response must be detailed in the comments section below.

Comments:

Client / Person contacted: Date contacted: Contacted by:

Response:

EPA_3C

Landfill Gases

Quality Control Data

Client: NRT, Inc.
Project: 69420, Peoples Gas - Willow Street / Hawthorne Ave
Lab Order: 13071475
Date Received: July 31, 2013

EPA_3C

Landfill Gases

Initial Calibration

Client: NRT, Inc.
Project: 69420, Peoples Gas - Willow Street / Hawthorne Ave
Lab Order: 13071475
Date Received: July 31, 2013

STAT Analysis Corporation

ATTACHMENT : DATA REVIEW CHECKLIST - ICAL

GC-TCD1 Volatiles SOP 4060, EPA 3C

First Level Reviewer: **Vytautas Prasauskas** ____Review Date: **6/1/2012** _____

Second Level Reviewer:_____ __Review Date:_____

Analysis date: **5/25/2012** _____ Batch Start Time: **11:50A** ___Instrument: **GC-TCD** _
ICAL Data File #s: **05251201.d – 05251205.d** _____
Page 1 of 1 Initial Calibration (ICAL)

Item	Aspect	1st Yes	Level No	2nd Yes	Level No	Comments: record routine corrective actions here	CAR # /QER #
1	# of Stds __5__ (minimum = 3)	y					
2	All Stds in period: 8 hr	y					
3	Acceptance criteria met for: CCC's: ≤ 20% RSD RRT ± 0.14 RT units %RSD ≤ 20% avg RF used r ≥ 0.99 linear regression used (list)	y					
4	Calibration updated: RF RT Correct data files used	y					
5	RL = low std Carbon dioxide__0.03_mol% Oxygen_____0.04_mol% Nitrogen_____0.08_mol% Methane_____0.05_mol% _____mol% _____mol%	y					
7	ICV acceptable for: CCCs: ≤ 20%D RT: ± 30 seconds Other compounds	y					
8	Manual Integration acceptable:	y					
9	QC gas ID recorded	y					
10	Carrier gas flow rate, ml/min	26					
11	TCD reference gas flow rate, ml/min	40					
12	Detector block temperature, ^{o}C	220					
13	Sample loop volume, ml	0.5					
14	Chart speed	10					
15	Attenuation factor	0					
16	All other information recorded	y					

Additional Comments:_____
_____
_____
_____

Injection Log

Directory: C:\HPCHEM\1\DATA\TCD\0512\052512

Line	Vial	FileName	Multiplier	SampleName	Misc Info		Injected
1	1	05251201.d	1.	ICAL 3CSTD L1	EPA_3C	18...	25 May 2012 11:50
2	2	05251202.d	1.	ICAL 3CSTD L2	EPA_3C	18...	25 May 2012 12:08
3	3	05251203.d	1.	ICAL 3CSTD L3	EPA_3C	18...	25 May 2012 12:26
4	4	05251204.d	1.	ICAL 3CSTD L4	EPA_3C	18...	25 May 2012 12:44
5	5	05251205.d	1.	ICAL 3CSTD L5	EPA_3C	15...	25 May 2012 13:10
6	6	05251206.d	1.	ICV ICV052512-3C L4	EPA_3C	18...	25 May 2012 13:28
7	7	05251207.d	1.	MBLK MB052512-3C	EPA_3C	18...	25 May 2012 13:46
8	8	05251208.d	1.	ICV ICV052512-3C L4	EPA_3C	18...	25 May 2012 14:43
9	9	05251209.d	1.	ICV ICV052512-3C L4	EPA_3C	18...	25 May 2012 15:19
10	10	05251210.d	1.	MBLK MB052512-3C	EPA_3C	18...	25 May 2012 15:56

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251201.D Vial: 1
Acq On : 25 May 2012 11:50 am Operator: VP
Sample : ICAL 3CSTD L1 Inst : GC Instru
Misc : EPA_3C 186-2-088 CAN 8015 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 14:23 2012 Quant Results File: 3CMM0427.RES

Quant Method : C:\HPCHEM\1...\3CMM0427.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:15:24 2012
Response via : Initial Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
Target Compounds				
1) T	Oxygen	1.54	308	0.049 mol%
2) T	Nitrogen	1.67	595	0.100 mol%
3) T	Methane	4.43	309	0.053 mol% m
4) T	Carbon dioxide	7.14	301	0.031 mol% m

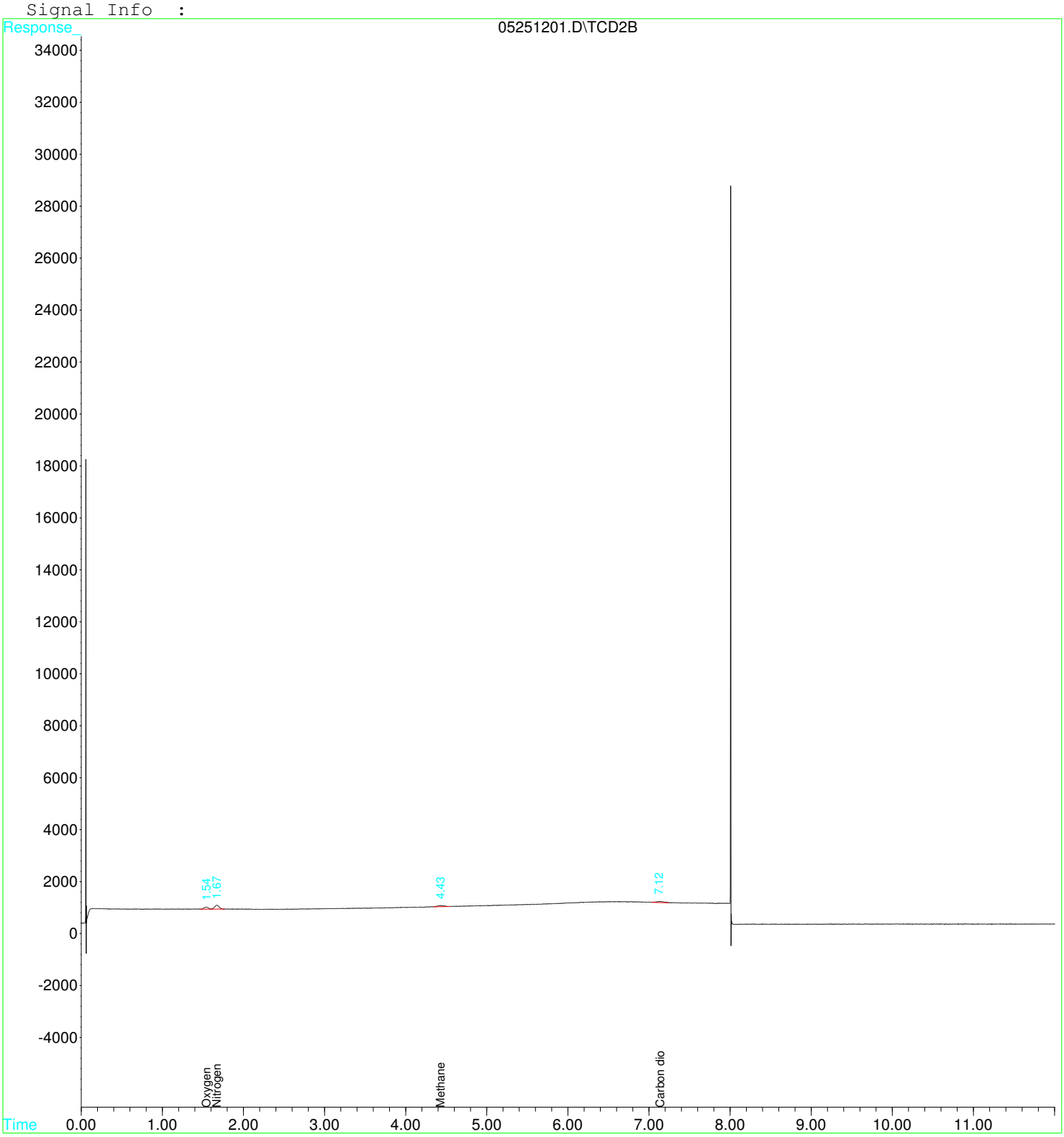
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251201.D Vial: 1
Acq On : 25 May 2012 11:50 am Operator: VP
Sample : ICAL 3CSTD L1 Inst : GC Instru
Misc : EPA_3C 186-2-088 CAN 8015 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 14:23 2012 Quant Results File: 3CMM0427.RES

Quant Method : C:\HPCHEM\1...\3CMM0427.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:15:24 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3CM_0427.M

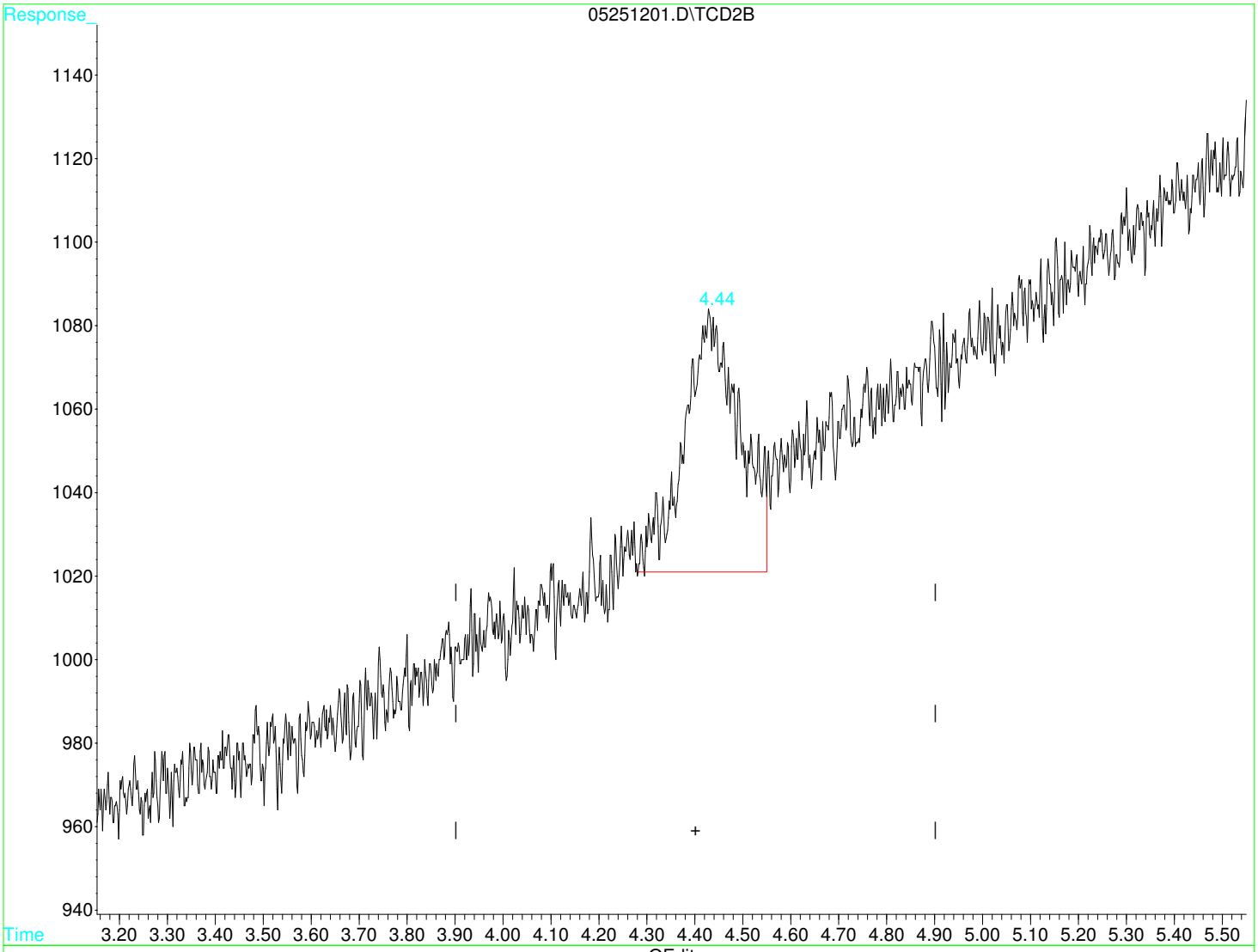
Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251201.D  Vial: 1
Acq On    : 25 May 2012  11:50 am                     Operator: VP
Sample    : ICAL 3CSTD L1                             Inst    : GC Instru
Misc      : EPA_3C         186-2-088  CAN 8015        Multiplr: 1.00
IntFile   : RTEINT1.P
Quant Time: May 25 14:22 2012  Quant Results File: 3CMM0427.RES


Method       : C:\HPCHEM\1\DATA\TCD\0512\052512\3CMM0427.M (RTE Integrator)
Title        :
Last Update  : Fri May 25 14:15:24 2012
Response via : Multiple Level Calibration
```



(3) Methane (T)

4.44min 0.085mol%

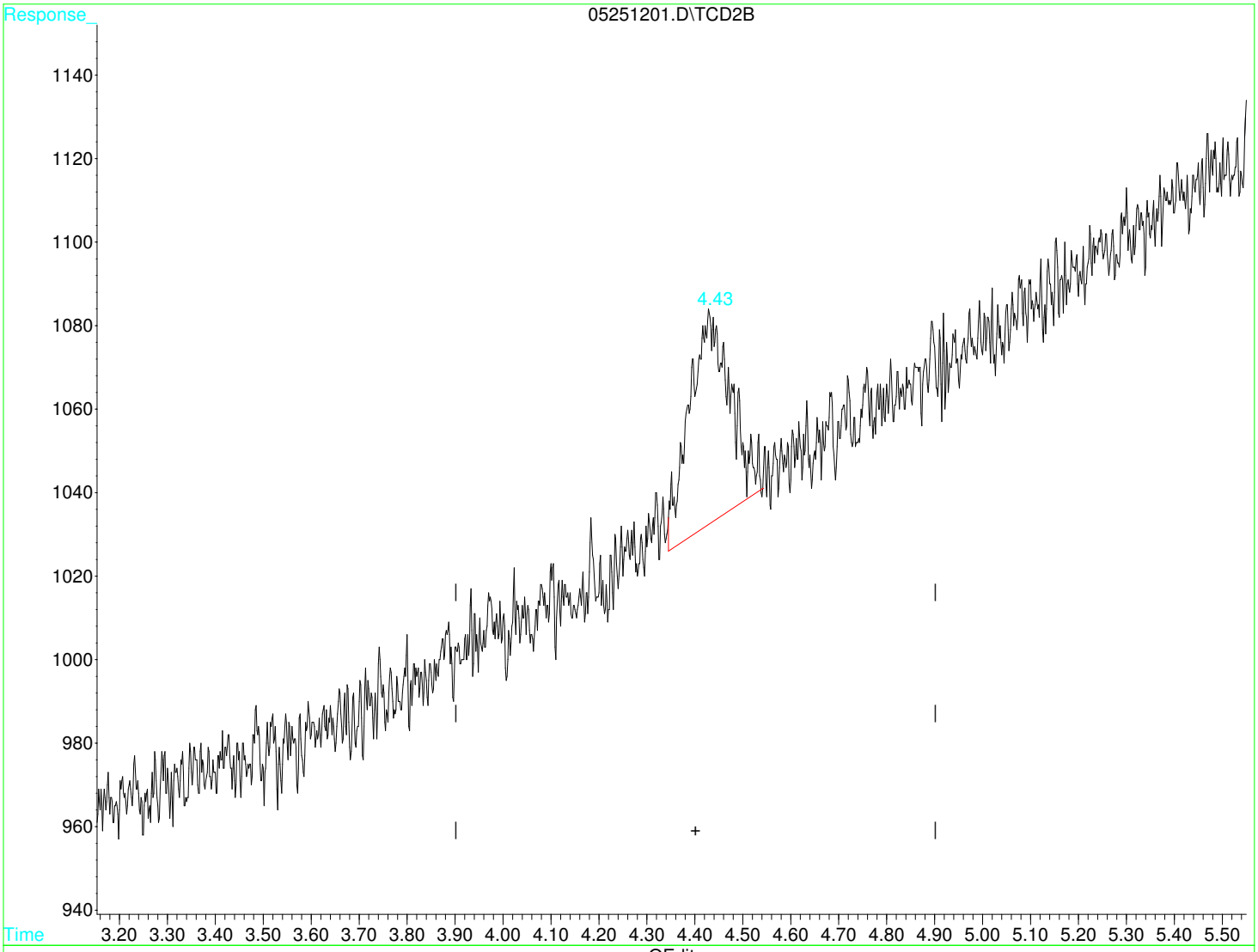
response 499

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251201.D Vial: 1
Acq On : 25 May 2012 11:50 am Operator: VP
Sample : ICAL 3CSTD L1 Inst : GC Instru
Misc : EPA_3C 186-2-088 CAN 8015 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 14:22 2012 Quant Results File: 3CMM0427.RES

Method : C:\HPCHEM\1\DATA\TCD\0512\052512\3CMM0427.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:15:24 2012
Response via : Multiple Level Calibration



(3) Methane (T)

4.43min 0.053mol% m

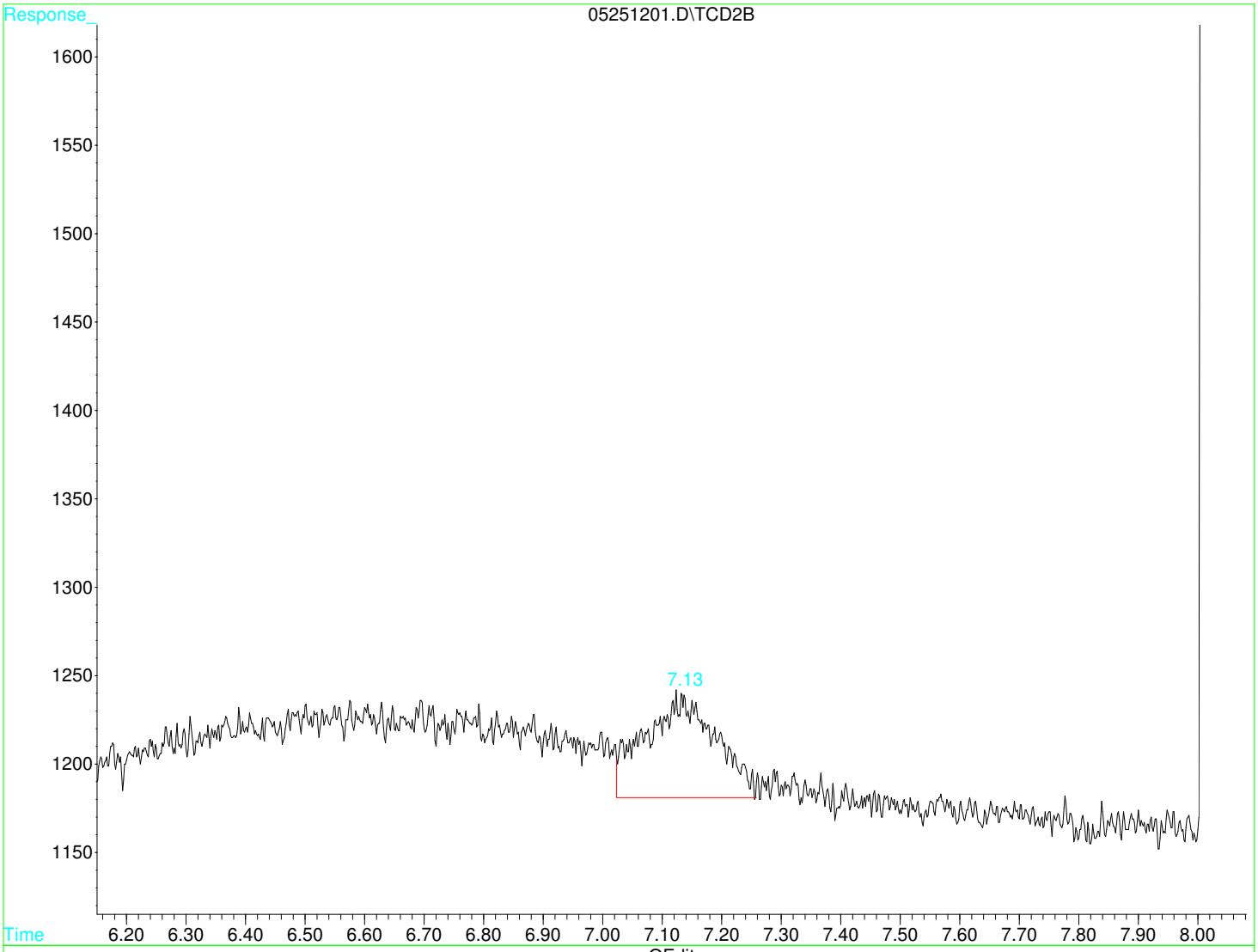
response 309

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251201.D Vial: 1
Acq On : 25 May 2012 11:50 am Operator: VP
Sample : ICAL 3CSTD L1 Inst : GC Instru
Misc : EPA_3C 186-2-088 CAN 8015 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 14:22 2012 Quant Results File: 3CMM0427.RES

Method : C:\HPCHEM\1\DATA\TCD\0512\052512\3CMM0427.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:15:24 2012
Response via : Multiple Level Calibration



(4) Carbon dioxide (T)

7.13min 0.049mol%

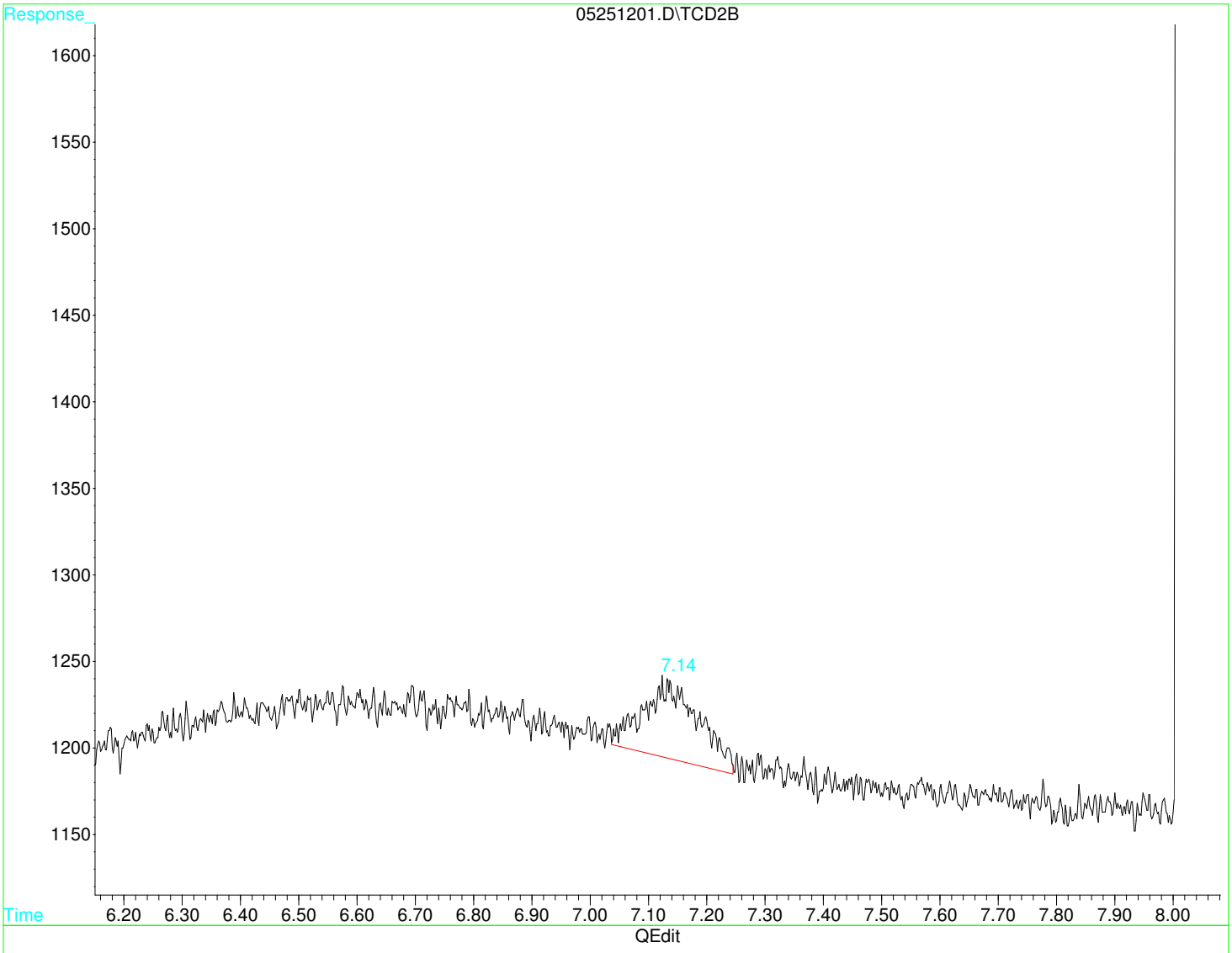
response 478

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251201.D Vial: 1
Acq On : 25 May 2012 11:50 am Operator: VP
Sample : ICAL 3CSTD L1 Inst : GC Instru
Misc : EPA_3C 186-2-088 CAN 8015 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 14:22 2012 Quant Results File: 3CMM0427.RES

Method : C:\HPCHEM\1\DATA\TCD\0512\052512\3CMM0427.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:15:24 2012
Response via : Multiple Level Calibration



(4) Carbon dioxide (T)

7.14min 0.031mol% m

response 301

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251201.D Vial: 1
Acq On : 25 May 2012 11:50 am Operator: VP
Sample : ICAL 3CSTD L1 Inst : GC Instru
Misc : EPA_3C 186-2-088 CAN 8015 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 14:22 2012 Quant Results File: 3CMM0427.RES

Quant Method : C:\HPCHEM\1...\3CMM0427.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:15:24 2012
Response via : Initial Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :

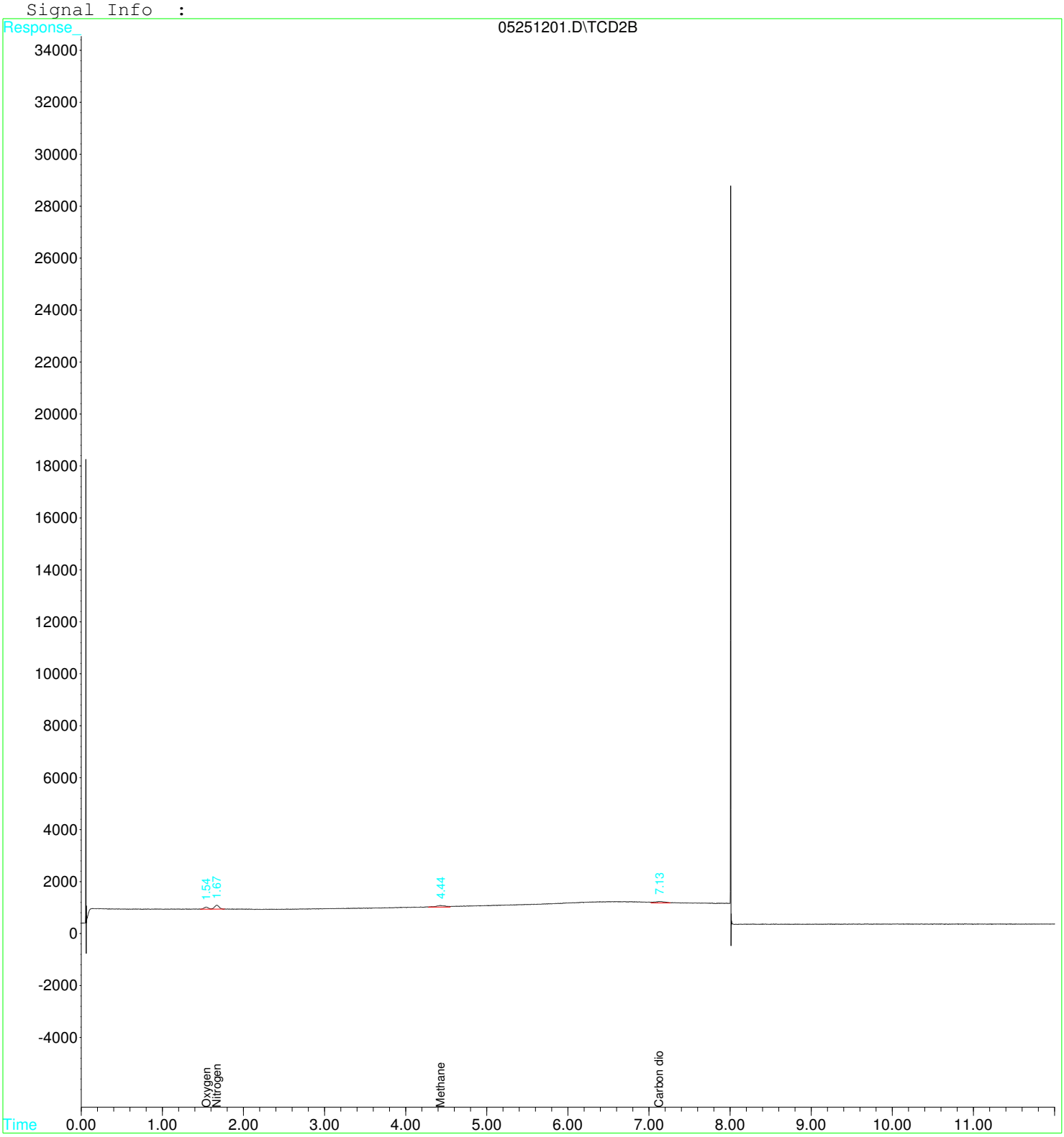
	Compound	R.T.	Response	Conc Units
Target Compounds				
1) T	Oxygen	1.54	308	0.049 mol%
2) T	Nitrogen	1.67	595	0.100 mol%
3) T	Methane	4.44	499	0.085 mol%
4) T	Carbon dioxide	7.13	478	0.049 mol%

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251201.D Vial: 1
Acq On : 25 May 2012 11:50 am Operator: VP
Sample : ICAL 3CSTD L1 Inst : GC Instru
Misc : EPA_3C 186-2-088 CAN 8015 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 14:22 2012 Quant Results File: 3CMM0427.RES

Quant Method : C:\HPCHEM\1...\3CMM0427.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:15:24 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251202.D Vial: 2
Acq On : 25 May 2012 12:08 pm Operator: VP
Sample : ICAL 3CSTD L2 Inst : GC Instru
Misc : EPA_3C 186-2-087 CAN 8029 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 14:24 2012 Quant Results File: 3CMM0427.RES

Quant Method : C:\HPCHEM\1...\3CMM0427.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:15:24 2012
Response via : Initial Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1) T	Oxygen	1.54	1239	0.197 mol%
2) T	Nitrogen	1.67	2379	0.399 mol%
3) T	Methane	4.43	1392	0.237 mol% m
4) T	Carbon dioxide	7.13	1139	0.117 mol%

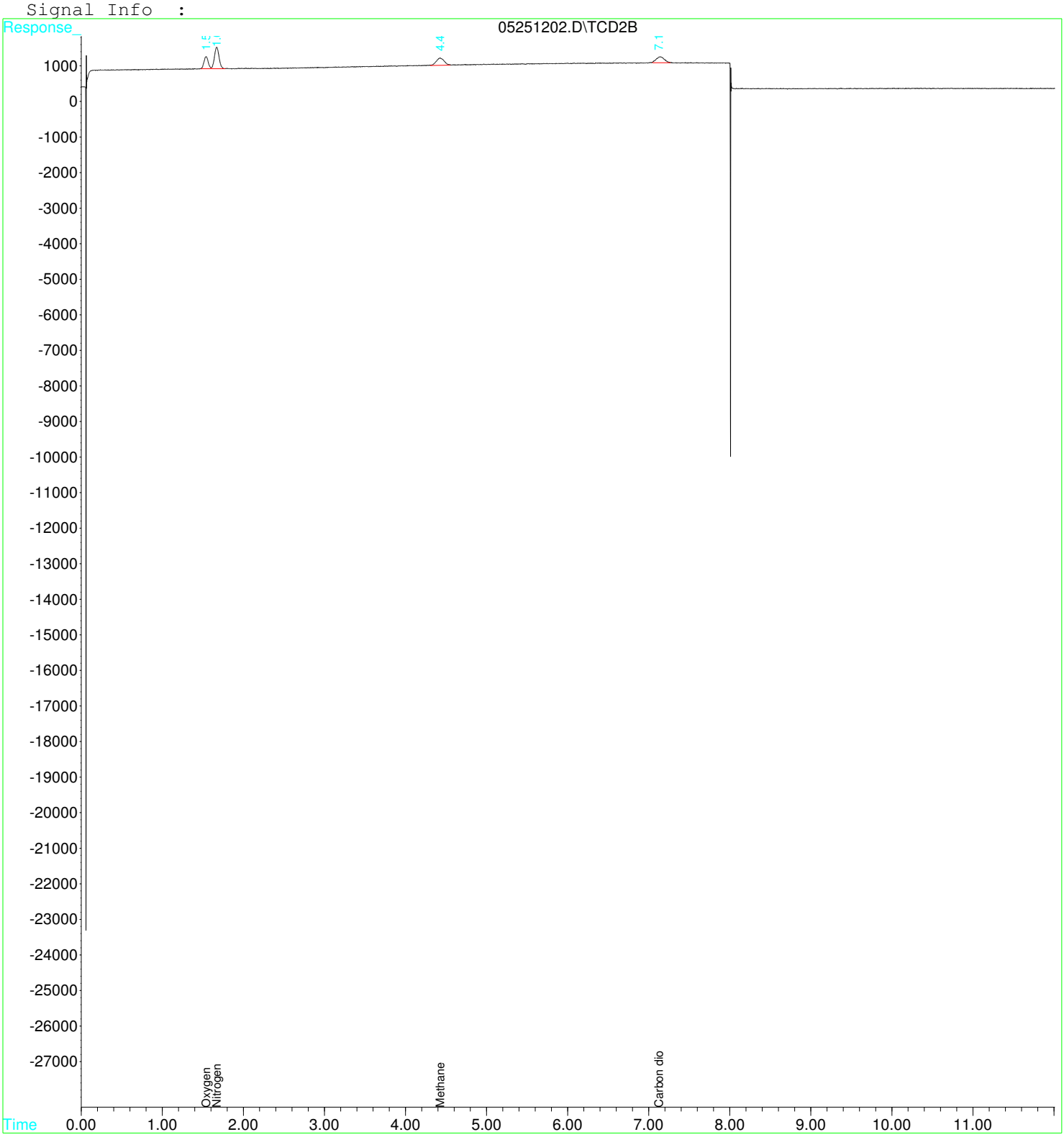
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251202.D Vial: 2
Acq On : 25 May 2012 12:08 pm Operator: VP
Sample : ICAL 3CSTD L2 Inst : GC Instru
Misc : EPA_3C 186-2-087 CAN 8029 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 14:24 2012 Quant Results File: 3CMM0427.RES

Quant Method : C:\HPCHEM\1...\3CMM0427.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:15:24 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3CM_0427.M

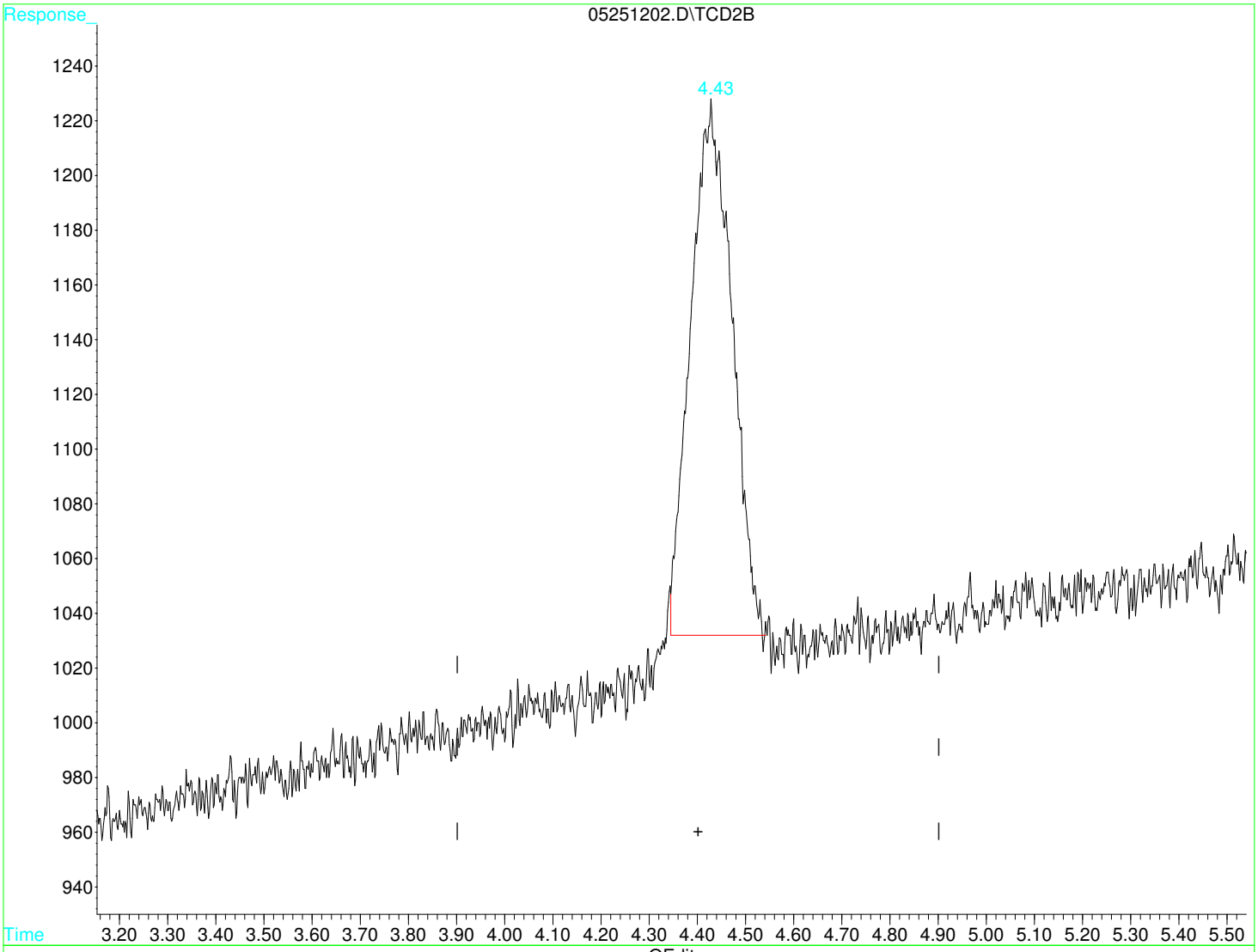
Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251202.D Vial: 2
Acq On : 25 May 2012 12:08 pm Operator: VP
Sample : ICAL 3CSTD L2 Inst : GC Instru
Misc : EPA_3C 186-2-087 CAN 8029 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 14:23 2012 Quant Results File: 3CMM0427.RES

Method : C:\HPCHEM\1\DATA\TCD\0512\052512\3CMM0427.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:15:24 2012
Response via : Multiple Level Calibration



(3) Methane (T)

4.43min 0.197mol%

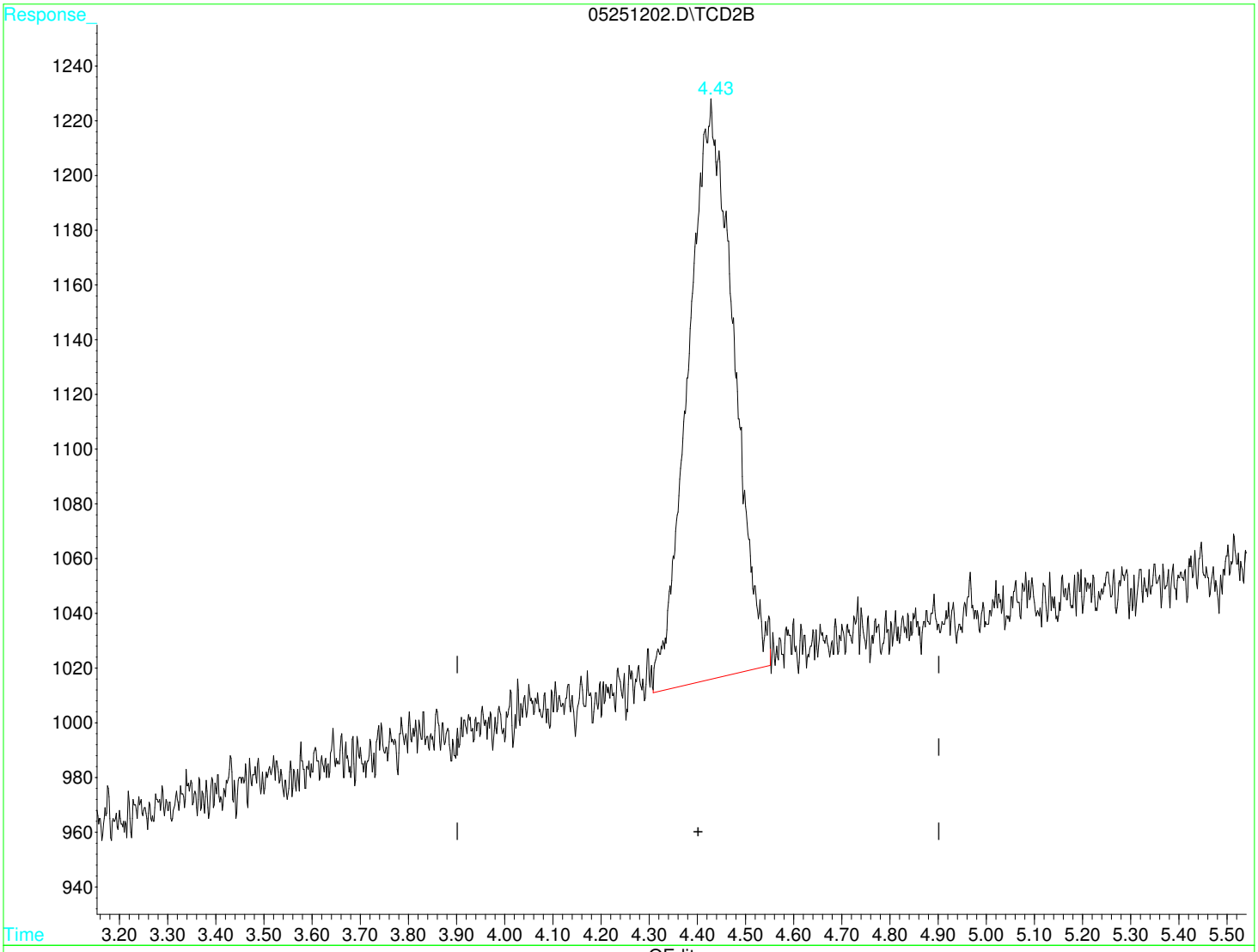
response 1158

(+) = Expected Retention Time

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251202.D Vial: 2
Acq On : 25 May 2012 12:08 pm Operator: VP
Sample : ICAL 3CSTD L2 Inst : GC Instru
Misc : EPA_3C 186-2-087 CAN 8029 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 14:23 2012 Quant Results File: 3CMM0427.RES

Method : C:\HPCHEM\1\DATA\TCD\0512\052512\3CMM0427.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:15:24 2012
Response via : Multiple Level Calibration



(3) Methane (T)

4.43min 0.237mol% m

response 1392

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251202.D Vial: 2
Acq On : 25 May 2012 12:08 pm Operator: VP
Sample : ICAL 3CSTD L2 Inst : GC Instru
Misc : EPA_3C 186-2-087 CAN 8029 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 14:23 2012 Quant Results File: 3CMM0427.RES

Quant Method : C:\HPCHEM\1...\3CMM0427.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:15:24 2012
Response via : Initial Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
Target Compounds				
1) T	Oxygen	1.54	1239	0.197 mol%
2) T	Nitrogen	1.67	2379	0.399 mol%
3) T	Methane	4.43	1158	0.197 mol%
4) T	Carbon dioxide	7.13	1139	0.117 mol%

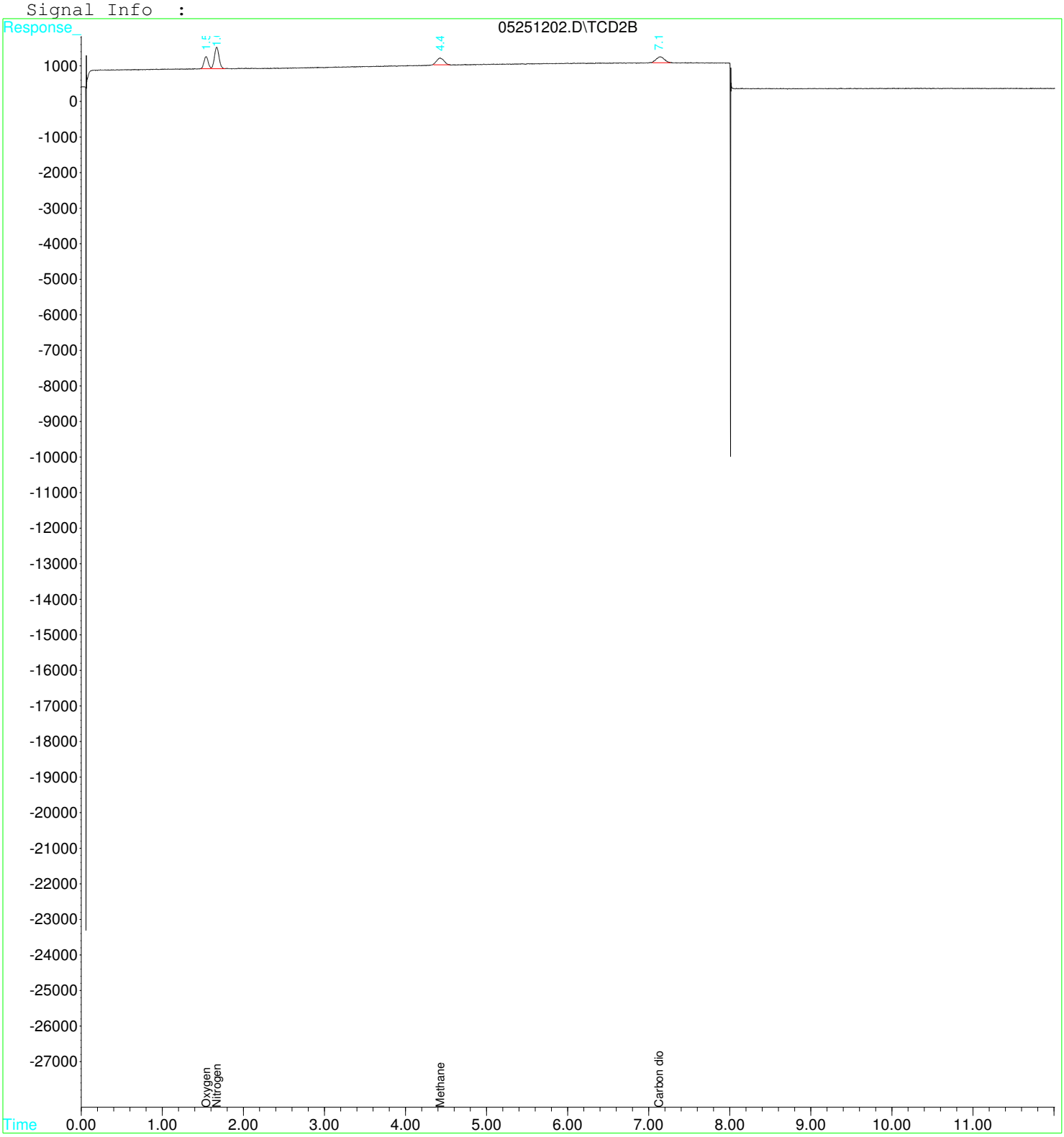
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251202.D Vial: 2
Acq On : 25 May 2012 12:08 pm Operator: VP
Sample : ICAL 3CSTD L2 Inst : GC Instru
Misc : EPA_3C 186-2-087 CAN 8029 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 14:23 2012 Quant Results File: 3CMM0427.RES

Quant Method : C:\HPCHEM\1...\3CMM0427.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:15:24 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251203.D Vial: 3
Acq On : 25 May 2012 12:26 pm Operator: VP
Sample : ICAL 3CSTD L3 Inst : GC Instru
Misc : EPA_3C 186-2-086 CAN 8021 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 14:24 2012 Quant Results File: 3CMM0427.RES

Quant Method : C:\HPCHEM\1...\3CMM0427.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:15:24 2012
Response via : Initial Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :

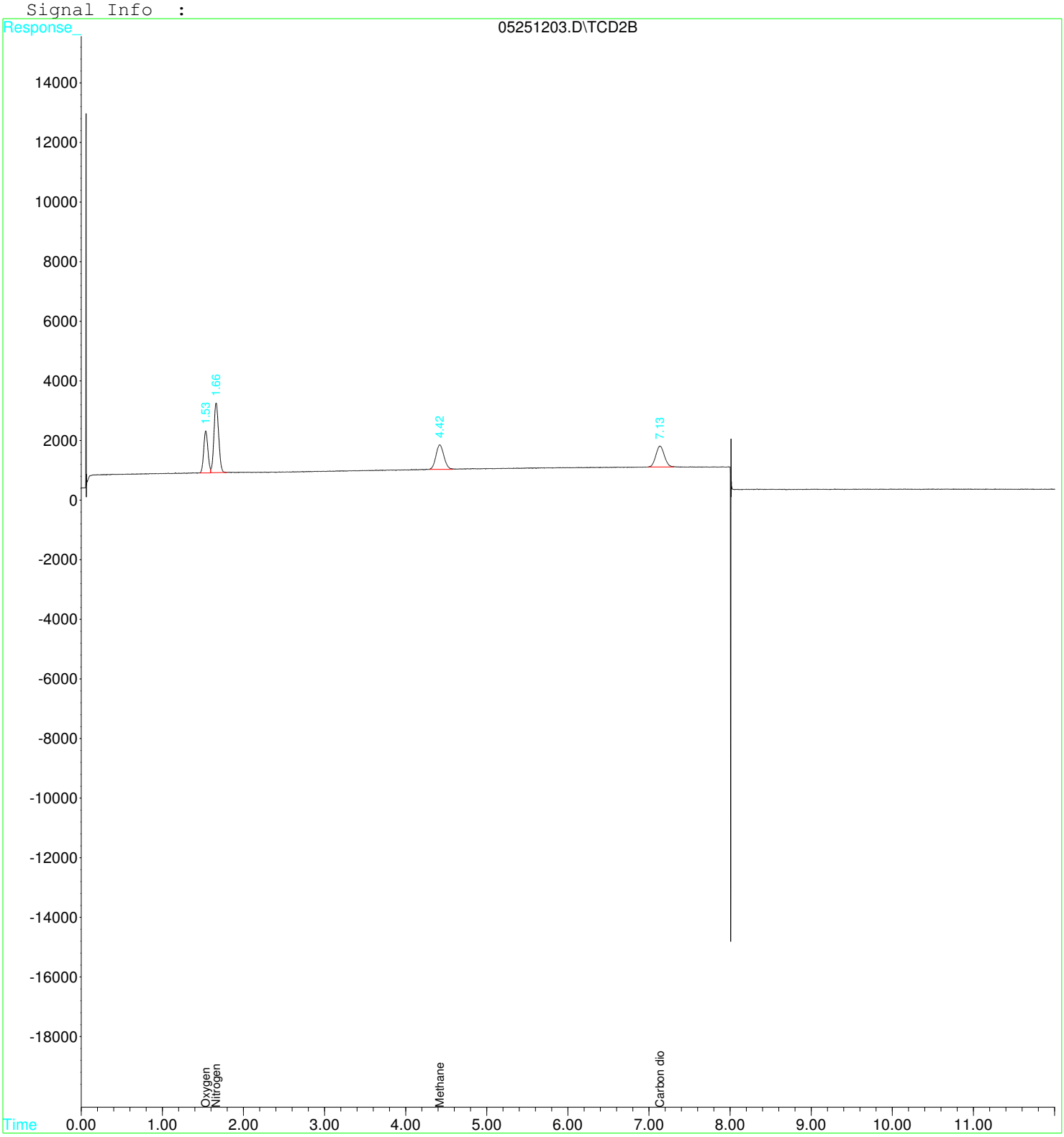
	Compound	R.T.	Response	Conc Units
Target Compounds				
1) T	Oxygen	1.53	5070	0.808 mol%
2) T	Nitrogen	1.66	9412	1.578 mol%
3) T	Methane	4.42	5662	0.964 mol%
4) T	Carbon dioxide	7.13	5059	0.519 mol%

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251203.D Vial: 3
Acq On : 25 May 2012 12:26 pm Operator: VP
Sample : ICAL 3CSTD L3 Inst : GC Instru
Misc : EPA_3C 186-2-086 CAN 8021 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 14:24 2012 Quant Results File: 3CMM0427.RES

Quant Method : C:\HPCHEM\1...\3CMM0427.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:15:24 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251203.D Vial: 3
Acq On : 25 May 2012 12:26 pm Operator: VP
Sample : ICAL 3CSTD L3 Inst : GC Instru
Misc : EPA_3C 186-2-086 CAN 8021 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 14:24 2012 Quant Results File: 3CMM0427.RES

Quant Method : C:\HPCHEM\1...\3CMM0427.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:15:24 2012
Response via : Initial Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1) T	Oxygen	1.53	5070	0.808 mol%
2) T	Nitrogen	1.66	9412	1.578 mol%
3) T	Methane	4.42	5662	0.964 mol%
4) T	Carbon dioxide	7.13	5059	0.519 mol%

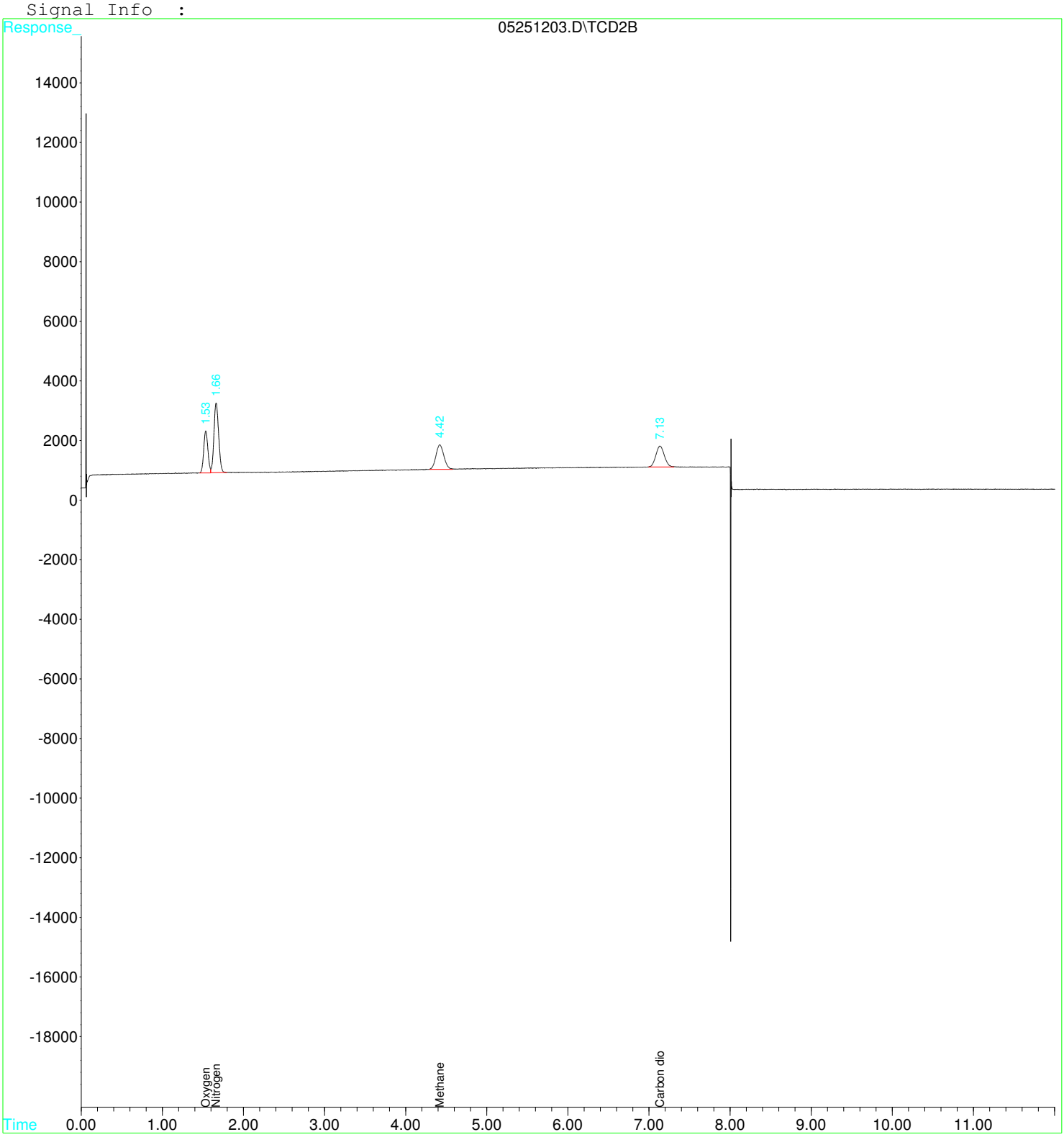
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251203.D Vial: 3
Acq On : 25 May 2012 12:26 pm Operator: VP
Sample : ICAL 3CSTD L3 Inst : GC Instru
Misc : EPA_3C 186-2-086 CAN 8021 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 14:24 2012 Quant Results File: 3CMM0427.RES

Quant Method : C:\HPCHEM\1...\3CMM0427.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:15:24 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251204.D Vial: 4
Acq On : 25 May 2012 12:44 pm Operator: VP
Sample : ICAL 3CSTD L4 Inst : GC Instru
Misc : EPA_3C 186-2-085 CAN 8049 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 14:16 2012 Quant Results File: 3CMM0427.RES

Quant Method : C:\HPCHEM\1...\3CMM0427.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:15:24 2012
Response via : Initial Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc Units
Target Compounds					
1)	T	Oxygen	1.52	25173	4.012 mol%
2)	T	Nitrogen	1.64	47025	7.883 mol%
3)	T	Methane	4.40	28495	4.852 mol%
4)	T	Carbon dioxide	7.12	26596	2.727 mol%

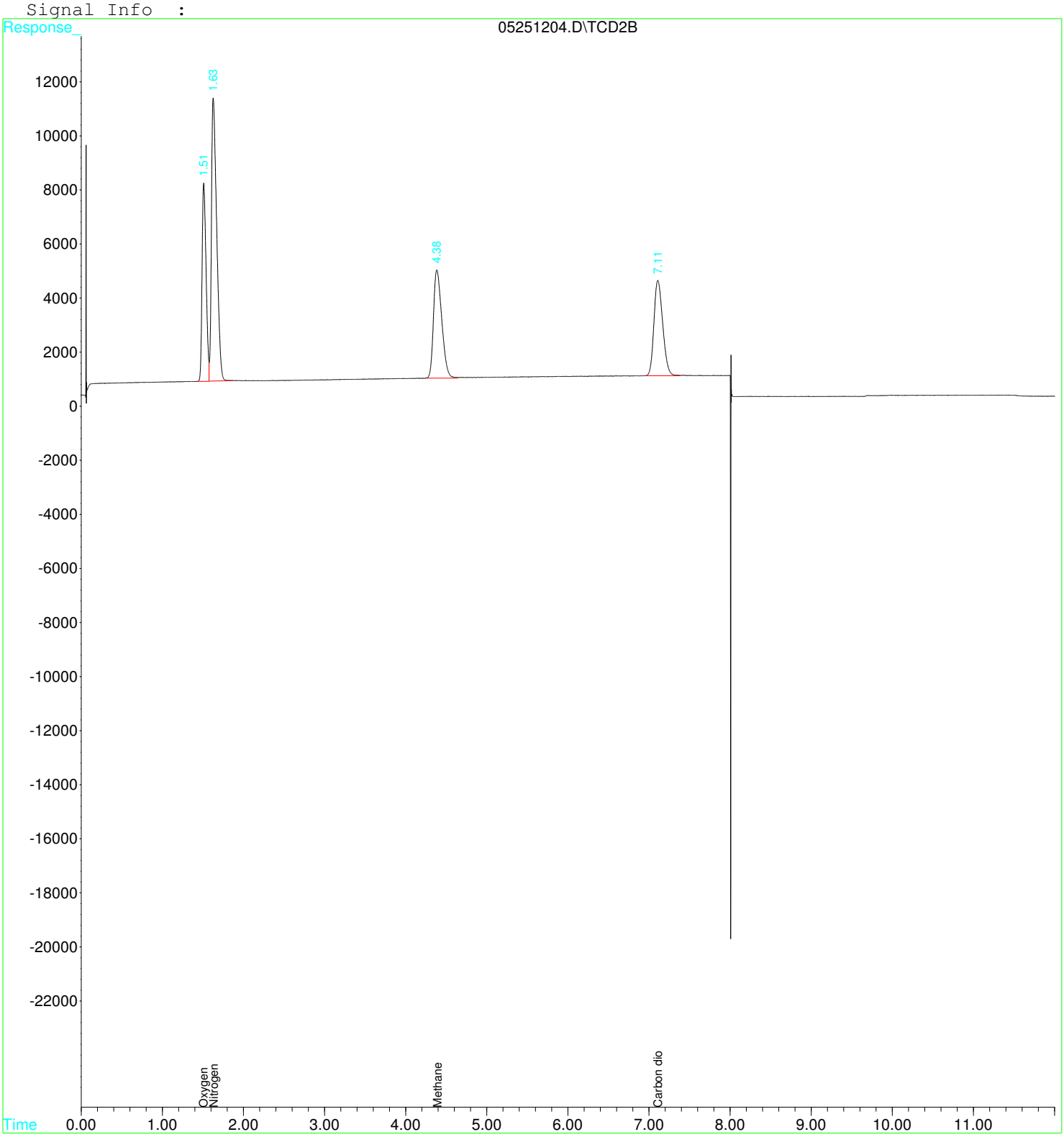
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251204.D Vial: 4
Acq On : 25 May 2012 12:44 pm Operator: VP
Sample : ICAL 3CSTD L4 Inst : GC Instru
Misc : EPA_3C 186-2-085 CAN 8049 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 14:16 2012 Quant Results File: 3CMM0427.RES

Quant Method : C:\HPCHEM\1...\3CMM0427.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:15:24 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251204.D Vial: 4
Acq On : 25 May 2012 12:44 pm Operator: VP
Sample : ICAL 3CSTD L4 Inst : GC Instru
Misc : EPA_3C 186-2-085 CAN 8049 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 14:16 2012 Quant Results File: 3CMM0427.RES

Quant Method : C:\HPCHEM\1...\3CMM0427.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:15:24 2012
Response via : Initial Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc Units
Target Compounds					
1)	T	Oxygen	1.52	25173	4.012 mol%
2)	T	Nitrogen	1.64	47025	7.883 mol%
3)	T	Methane	4.40	28495	4.852 mol%
4)	T	Carbon dioxide	7.12	26596	2.727 mol%

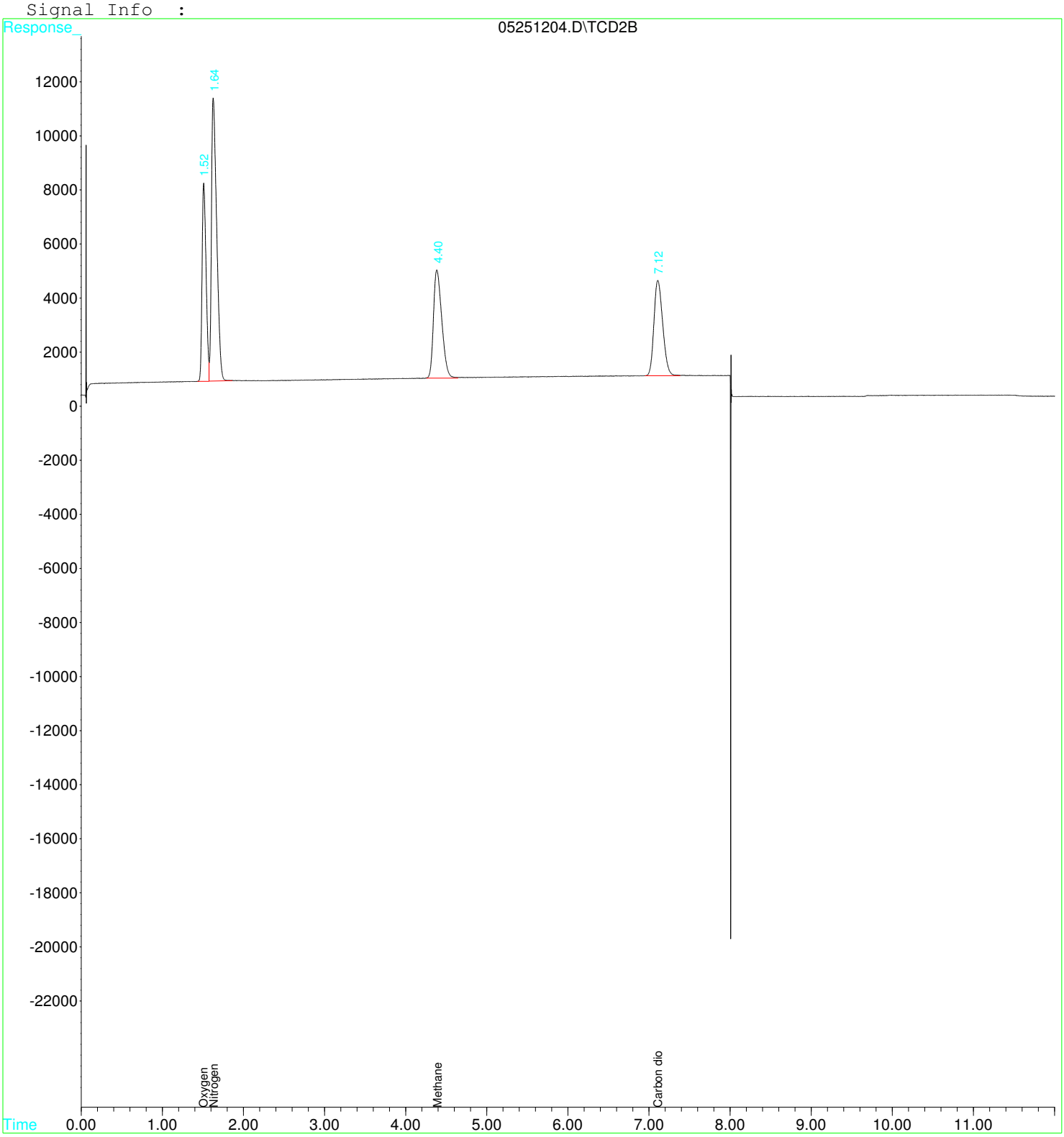
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251204.D Vial: 4
Acq On : 25 May 2012 12:44 pm Operator: VP
Sample : ICAL 3CSTD L4 Inst : GC Instru
Misc : EPA_3C 186-2-085 CAN 8049 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 14:16 2012 Quant Results File: 3CMM0427.RES

Quant Method : C:\HPCHEM\1...\3CMM0427.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:15:24 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251205.D Vial: 5
Acq On : 25 May 2012 1:10 pm Operator: VP
Sample : ICAL 3CSTD L5 Inst : GC Instru
Misc : EPA_3C 158-1-318 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 14:25 2012 Quant Results File: 3CMM0427.RES

Quant Method : C:\HPCHEM\1...\3CMM0427.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:15:24 2012
Response via : Initial Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :

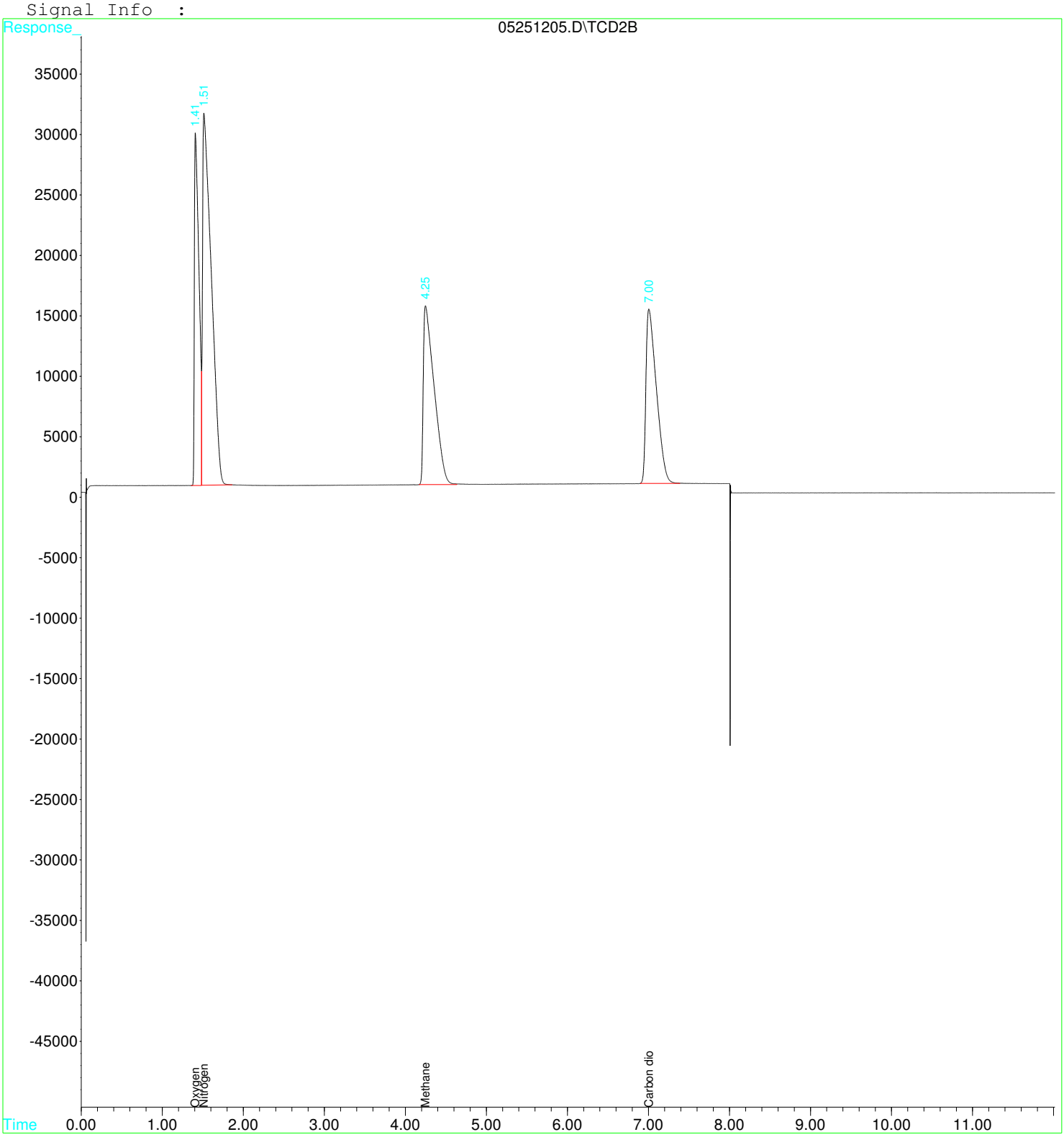
	Compound	R.T.	Response	Conc Units
Target Compounds				
1) T	Oxygen	1.41	115235	18.366 mol% m
2) T	Nitrogen	1.51	231657	38.831 mol%
3) T	Methane	4.25	137058	23.335 mol%
4) T	Carbon dioxide	7.00	129230	13.248 mol%

Quantitation Report (QT Reviewed)

```
Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251205.D  Vial: 5
Acq On    : 25 May 2012   1:10 pm                        Operator: VP
Sample    : ICAL 3CSTD L5                                Inst    : GC Instru
Misc      : EPA_3C         158-1-318                     Multiplr: 1.00
IntFile   : RTEINT1.P
Quant Time: May 25 14:25 2012  Quant Results File: 3CMM0427.RES

Quant Method : C:\HPCHEM\1...\3CMM0427.M (RTE Integrator)
Title        :
Last Update  : Fri May 25 14:15:24 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3CM_0427.M

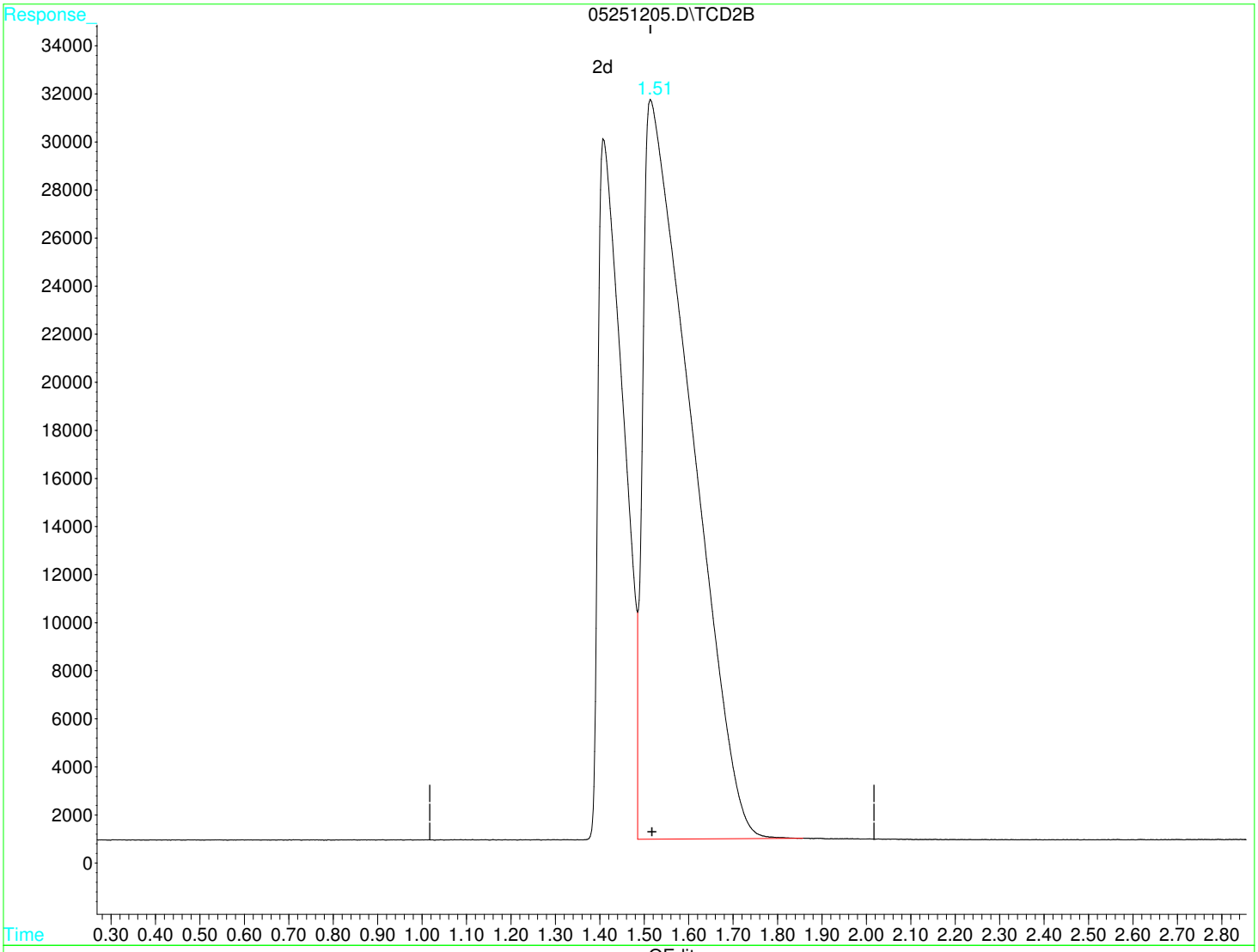
Volume Inj.  :
Signal Phase :
Signal Info  :
```



Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251205.D  Vial: 5
Acq On    : 25 May 2012   1:10 pm                        Operator: VP
Sample    : ICAL 3CSTD L5                                Inst    : GC Instru
Misc      : EPA_3C         158-1-318                     Multiplr: 1.00
IntFile   : RTEINT1.P
Quant Time: May 25 14:24 2012  Quant Results File: 3CMM0427.RES


Method       : C:\HPCHEM\1\DATA\TCD\0512\052512\3CMM0427.M (RTE Integrator)
Title        :
Last Update  : Fri May 25 14:15:24 2012
Response via : Multiple Level Calibration
```



(1) Oxygen (T)

1.51min 36.922mol%

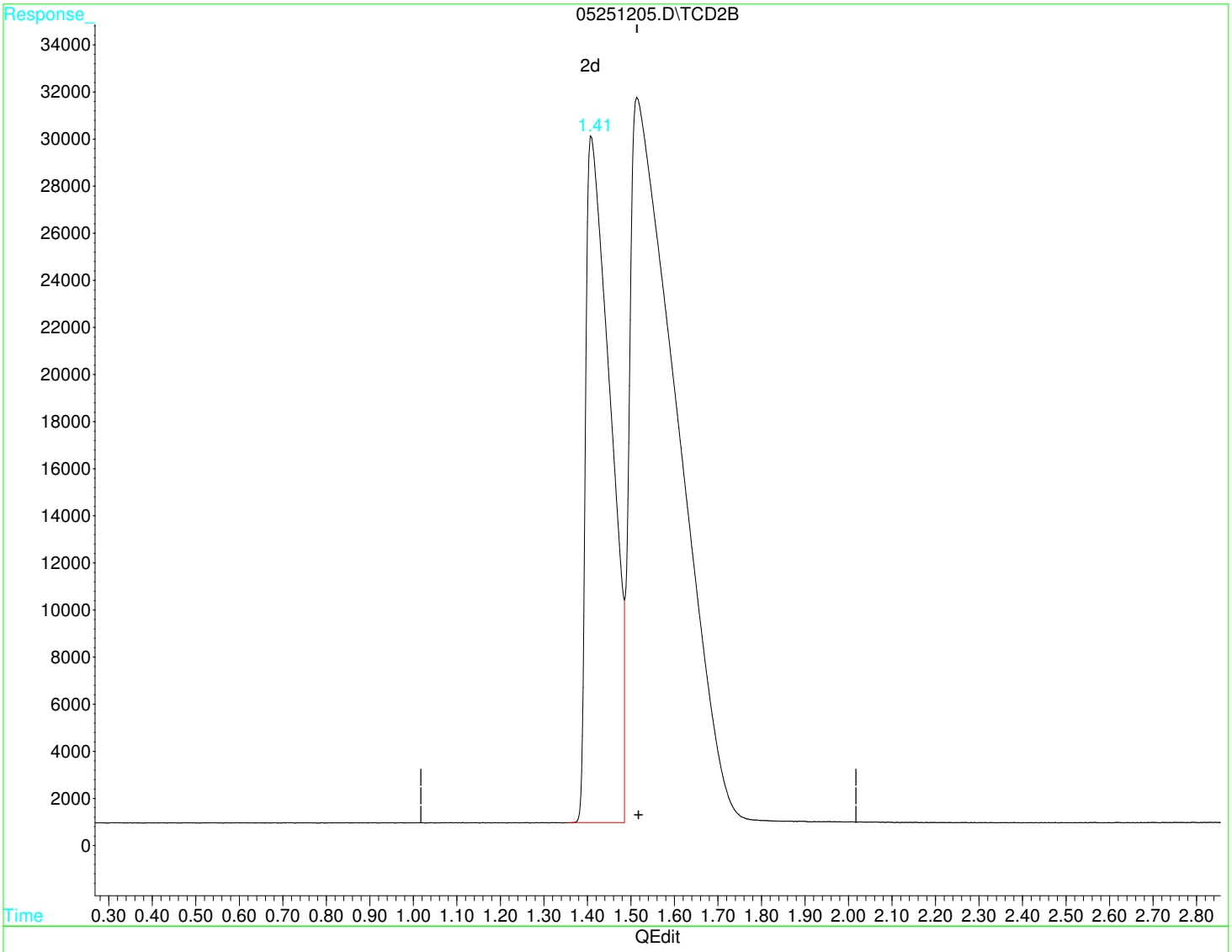
response 231657

(+) = Expected Retention Time

Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251205.D  Vial: 5
Acq On    : 25 May 2012   1:10 pm                        Operator: VP
Sample    : ICAL 3CSTD L5                                Inst    : GC Instru
Misc      : EPA_3C         158-1-318                     Multiplr: 1.00
IntFile   : RTEINT1.P
Quant Time: May 25 14:24 2012  Quant Results File: 3CMM0427.RES


Method       : C:\HPCHEM\1\DATA\TCD\0512\052512\3CMM0427.M (RTE Integrator)
Title        :
Last Update  : Fri May 25 14:15:24 2012
Response via : Multiple Level Calibration
```



(1) Oxygen (T)

1.41min 18.366mol% m

response 115235

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251205.D Vial: 5
Acq On : 25 May 2012 1:10 pm Operator: VP
Sample : ICAL 3CSTD L5 Inst : GC Instru
Misc : EPA_3C 158-1-318 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 14:24 2012 Quant Results File: 3CMM0427.RES

Quant Method : C:\HPCHEM\1...\3CMM0427.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:15:24 2012
Response via : Initial Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1) T	Oxygen	1.51	231657	36.922 mol%
2) T	Nitrogen	1.51	231657	38.831 mol%
3) T	Methane	4.25	137058	23.335 mol%
4) T	Carbon dioxide	7.00	129230	13.248 mol%

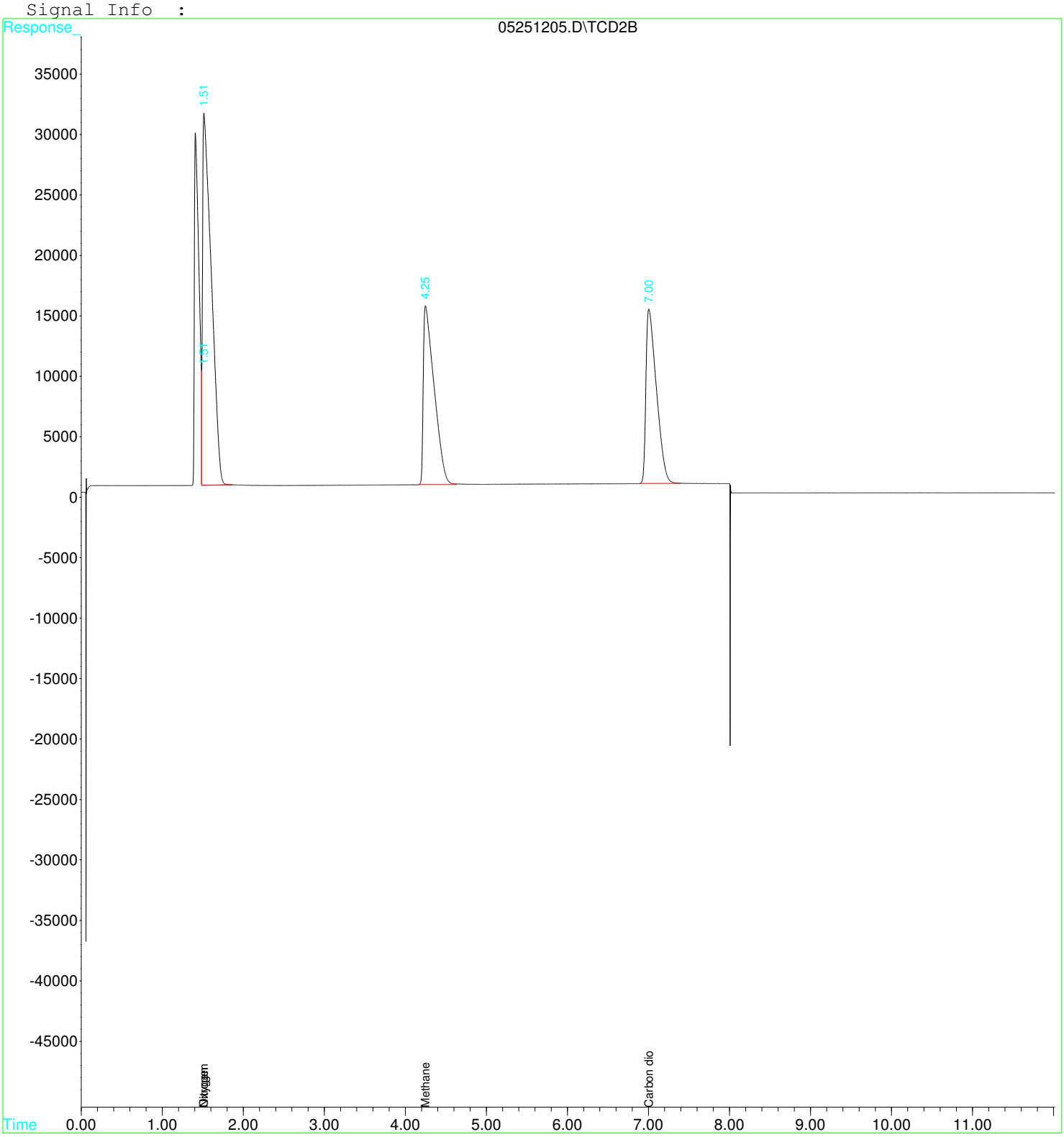
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

```
Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251205.D  Vial: 5
Acq On    : 25 May 2012   1:10 pm                        Operator: VP
Sample    : ICAL 3CSTD L5                                Inst    : GC Instru
Misc      : EPA_3C         158-1-318                     Multiplr: 1.00
IntFile   : RTEINT1.P
Quant Time: May 25 14:24 2012  Quant Results File: 3CMM0427.RES

Quant Method : C:\HPCHEM\1...\3CMM0427.M (RTE Integrator)
Title        :
Last Update  : Fri May 25 14:15:24 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj.  :
Signal Phase :
Signal Info  :
```



Method : C:\HPCHEM\1\DATA\TCD\0512\052512\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012

Calibration Files
1 =05251201.D 2 =05251202.D 3 =05251203.D
4 =05251204.D 5 =05251205.D

		Compound	1	2	3	4	5	Avg	%RSD
1)	T	Oxygen	7.700	6.195	6.338	6.293	5.762	6.458 E3	11.32
2)	T	Nitrogen	7.438	5.947	5.883	5.878	5.791	6.187 E3	11.33
3)	T	Methane	6.180	5.568	5.662	5.699	5.482	5.718 E3	4.75
4)	T	Carbon dioxide	1.003	0.759	0.843	0.887	0.862	0.871 E4	10.12

(#) = Out of Range

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251208.D Vial: 8
Acq On : 25 May 2012 2:43 pm Operator: VP
Sample : ICV ICV052512-3C L4 Inst : GC Instru
Misc : EPA_3C 186-2-089 CAN 1186 Multiplr: 1.00
IntFile : RTEINT1.P

Method : C:\HPCHEM\1\DATA\TCD\0512\052512\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	T	Oxygen	4.000	4.233	-5.8	109	0.00
2	T	Nitrogen	8.000	8.305	-3.8	109	-0.02
3	T	Methane	5.000	5.198	-4.0	104	-0.02
4	T	Carbon dioxide	3.000	3.325	-10.8	109	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251208.D  Vial: 8
Acq On    : 25 May 2012   2:43 pm                    Operator: VP
Sample    : ICV  ICV052512-3C L4                     Inst    : GC Instru
Misc      : EPA_3C         186-2-089  CAN 1186       Multiplr: 1.00
IntFile   : RTEINT1.P

Method       : C:\HPCHEM\1\DATA\TCD\0512\052512\3C052512.M (RTE Integrator)
Title        :
Last Update  : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%

    Compound                      Amount  Calc.      %Dev  Area% Dev(min)
 ---------------------------------------------------------------------------
```

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251208.D Vial: 8
Acq On : 25 May 2012 2:43 pm Operator: VP
Sample : ICV ICV052512-3C L4 Inst : GC Instru
Misc : EPA_3C 186-2-089 CAN 1186 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 15:18 2012 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Initial Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1) T	Oxygen	1.51	27333	4.233 mol%
2) T	Nitrogen	1.62	51385	8.305 mol%
3) T	Methane	4.38	29721	5.198 mol%
4) T	Carbon dioxide	7.10	28950	3.325 mol%

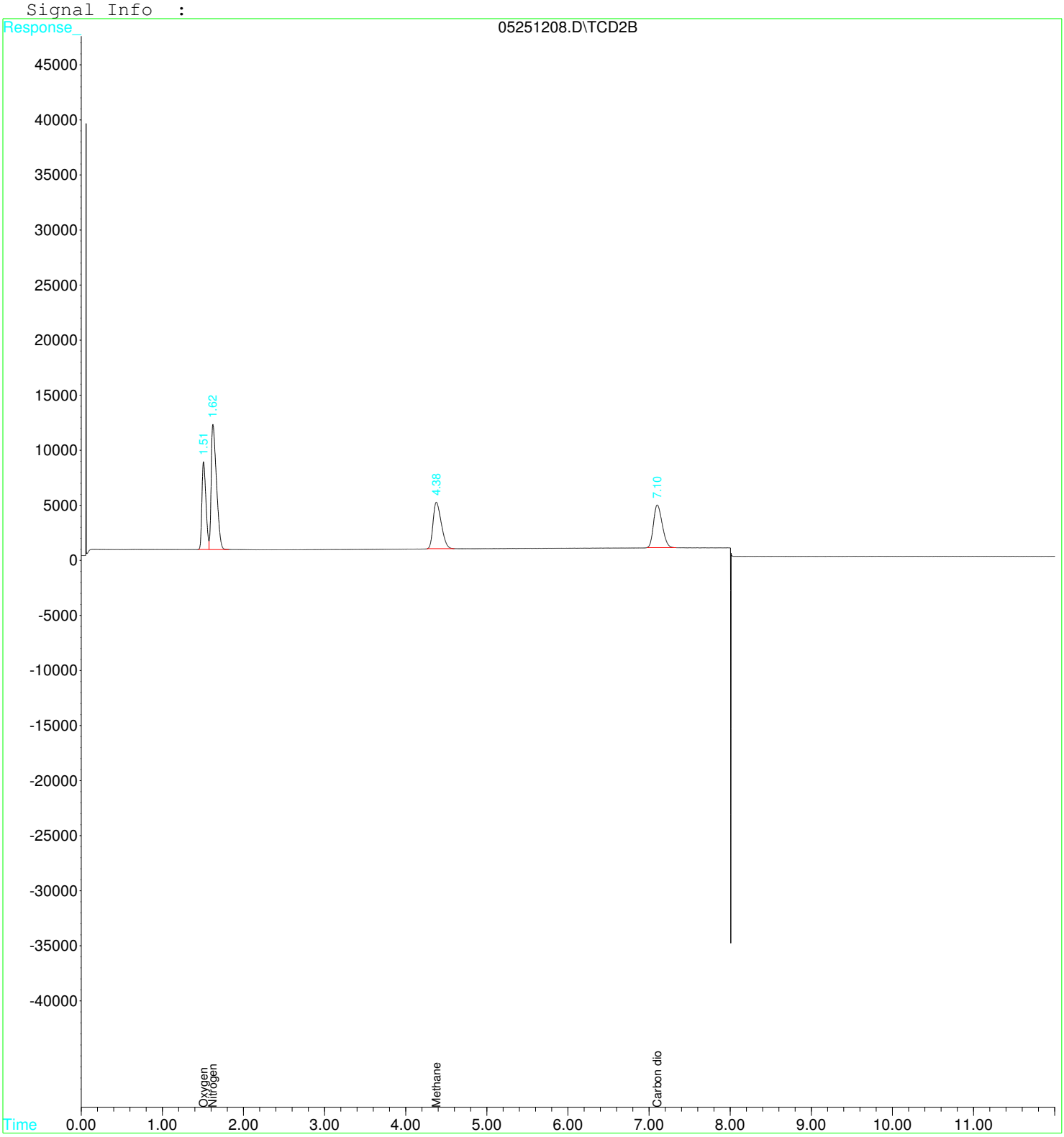
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251208.D Vial: 8
Acq On : 25 May 2012 2:43 pm Operator: VP
Sample : ICV ICV052512-3C L4 Inst : GC Instru
Misc : EPA_3C 186-2-089 CAN 1186 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 15:18 2012 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251208.D Vial: 8
Acq On : 25 May 2012 2:43 pm Operator: VP
Sample : ICV ICV052512-3C L4 Inst : GC Instru
Misc : EPA_3C 186-2-089 CAN 1186 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 15:18 2012 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Initial Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1) T	Oxygen	1.51	27333	4.233 mol%
2) T	Nitrogen	1.62	51385	8.305 mol%
3) T	Methane	4.38	29721	5.198 mol%
4) T	Carbon dioxide	7.10	28950	3.325 mol%

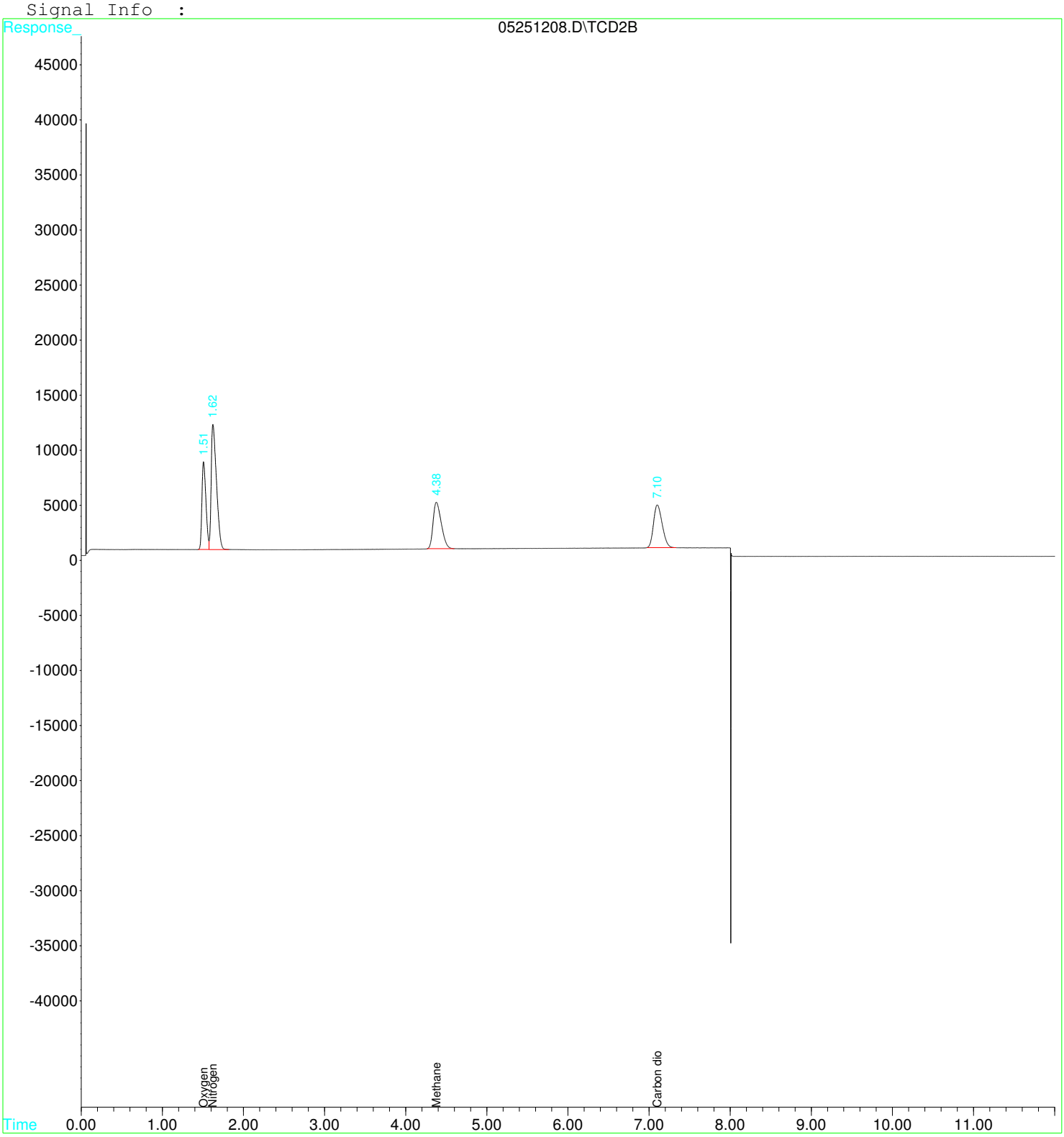
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251208.D Vial: 8
Acq On : 25 May 2012 2:43 pm Operator: VP
Sample : ICV ICV052512-3C L4 Inst : GC Instru
Misc : EPA_3C 186-2-089 CAN 1186 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 25 15:18 2012 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251209.D Vial: 9
Acq On : 25 May 2012 3:19 pm Operator: VP
Sample : ICV ICV052512-3C L4 Inst : GC Instru
Misc : EPA_3C 186-2-089 CAN 1186 Multiplr: 1.00
IntFile : RTEINT1.P

Method : C:\HPCHEM\1\DATA\TCD\0512\052512\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	T	Oxygen	4.000	4.138	-3.4	106	-0.01
2	T	Nitrogen	8.000	8.080	-1.0	106	-0.02
3	T	Methane	5.000	5.167	-3.3	104	-0.02
4	T	Carbon dioxide	3.000	3.334	-11.1	109	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251209.D  Vial: 9
Acq On    : 25 May 2012   3:19 pm                    Operator: VP
Sample    : ICV  ICV052512-3C L4                     Inst    : GC Instru
Misc      : EPA_3C         186-2-089  CAN 1186       Multiplr: 1.00
IntFile   : RTEINT1.P

Method       : C:\HPCHEM\1\DATA\TCD\0512\052512\3C052512.M (RTE Integrator)
Title        :
Last Update  : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%

    Compound                      Amount  Calc.      %Dev  Area% Dev(min)
 ---------------------------------------------------------------------------
```

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251209.D Vial: 9
Acq On : 25 May 2012 3:19 pm Operator: VP
Sample : ICV ICV052512-3C L4 Inst : GC Instru
Misc : EPA_3C 186-2-089 CAN 1186 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 30 11:53 2012 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Initial Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1) T	Oxygen	1.51	26722	4.138 mol%
2) T	Nitrogen	1.62	49997	8.080 mol%
3) T	Methane	4.38	29544	5.167 mol%
4) T	Carbon dioxide	7.10	29032	3.334 mol%

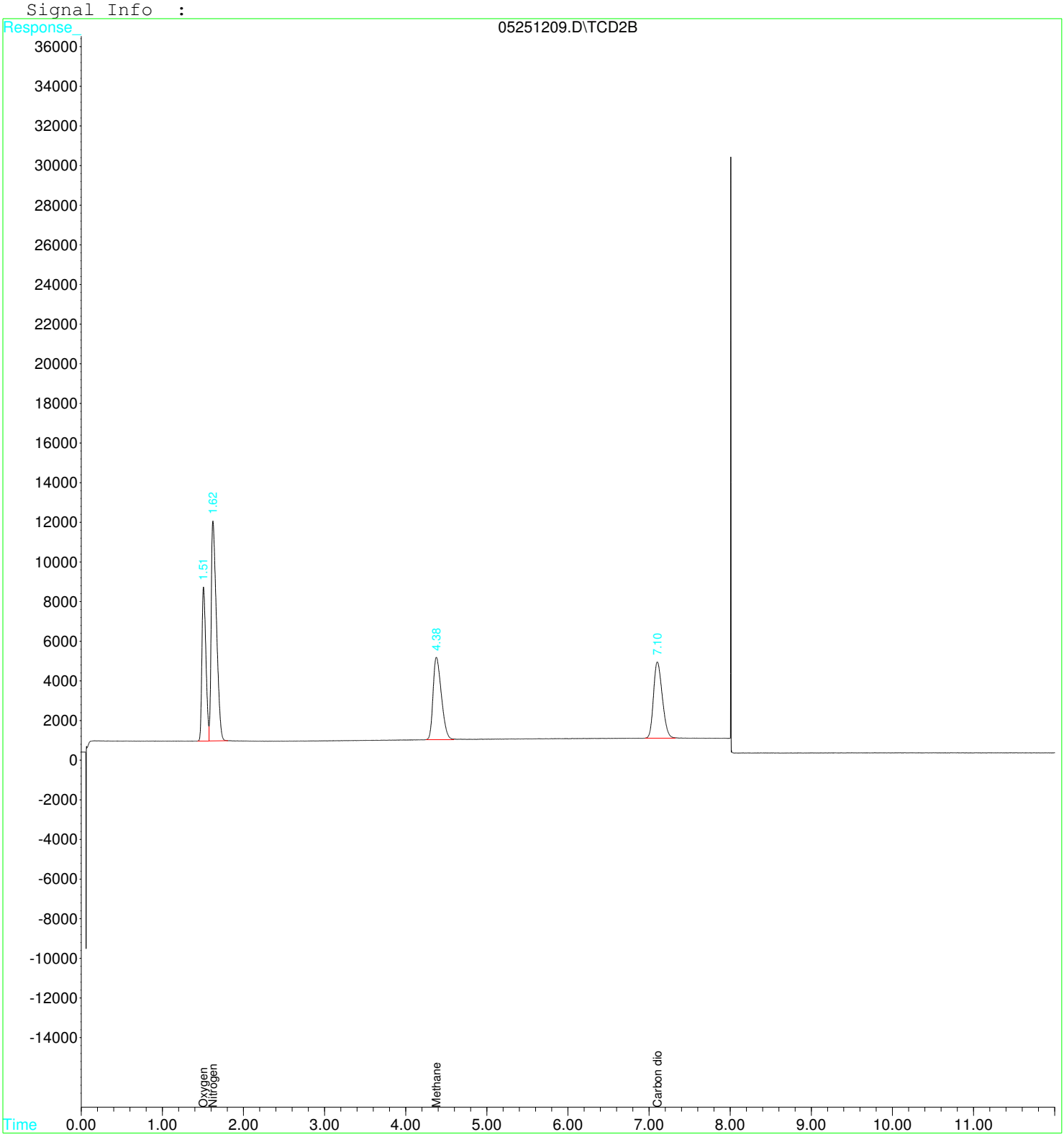
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251209.D Vial: 9
Acq On : 25 May 2012 3:19 pm Operator: VP
Sample : ICV ICV052512-3C L4 Inst : GC Instru
Misc : EPA_3C 186-2-089 CAN 1186 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 30 11:53 2012 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251209.D Vial: 9
Acq On : 25 May 2012 3:19 pm Operator: VP
Sample : ICV ICV052512-3C L4 Inst : GC Instru
Misc : EPA_3C 186-2-089 CAN 1186 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 30 11:53 2012 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Initial Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
Target Compounds				
1) T	Oxygen	1.51	26722	4.138 mol%
2) T	Nitrogen	1.62	49997	8.080 mol%
3) T	Methane	4.38	29544	5.167 mol%
4) T	Carbon dioxide	7.10	29032	3.334 mol%

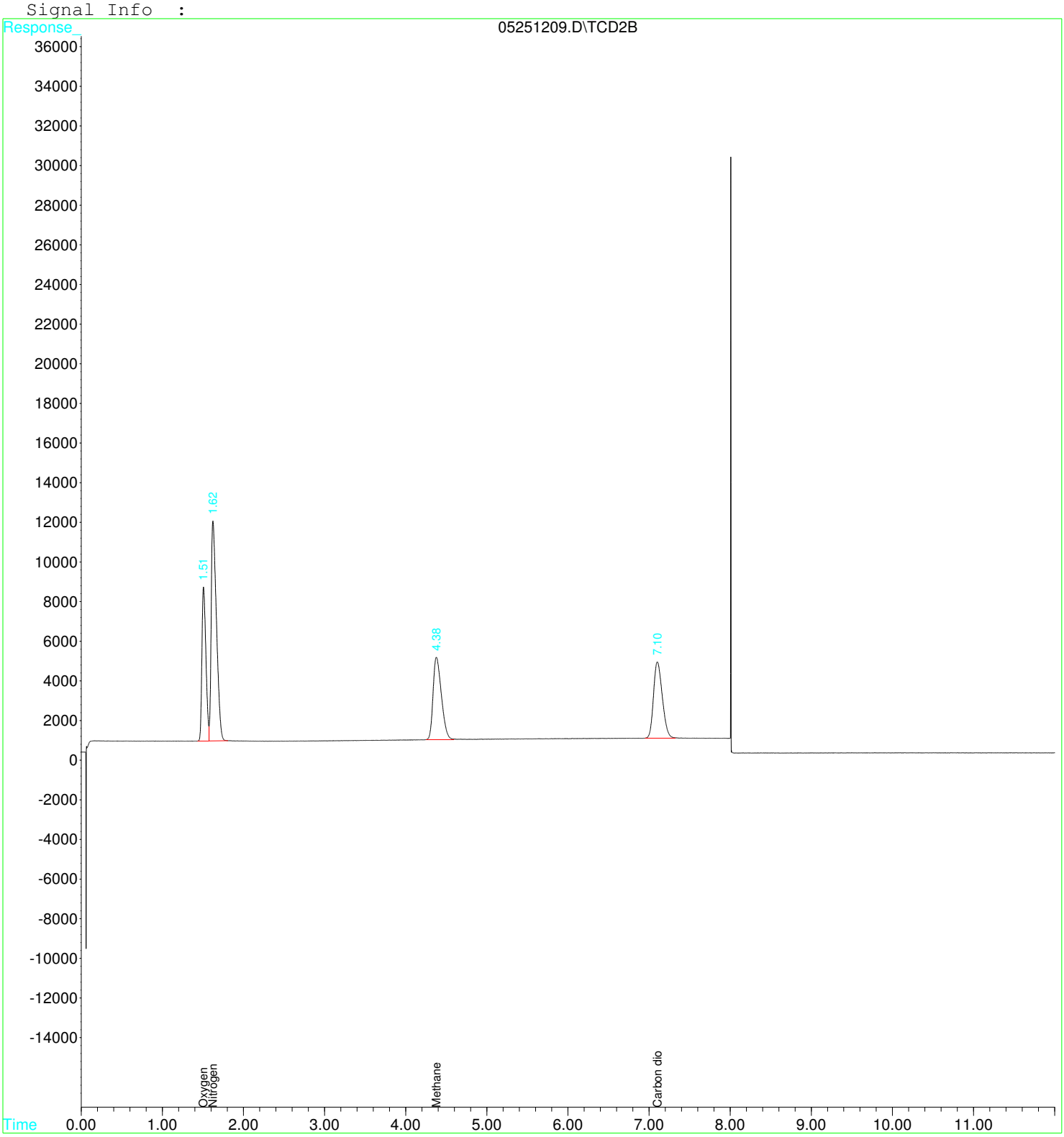
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251209.D Vial: 9
Acq On : 25 May 2012 3:19 pm Operator: VP
Sample : ICV ICV052512-3C L4 Inst : GC Instru
Misc : EPA_3C 186-2-089 CAN 1186 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 30 11:53 2012 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251210.D Vial: 10
Acq On : 25 May 2012 3:56 pm Operator: VP
Sample : MBLK MB052512-3C Inst : GC Instru
Misc : EPA_3C 186-2-082 CAN 1185 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 30 11:54 2012 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Initial Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1) T	Oxygen	0.00	0	N.D.	mol%
2) T	Nitrogen	0.00	0	N.D.	mol%
3) T	Methane	0.00	0	N.D.	mol%
4) T	Carbon dioxide	0.00	0	N.D.	mol%

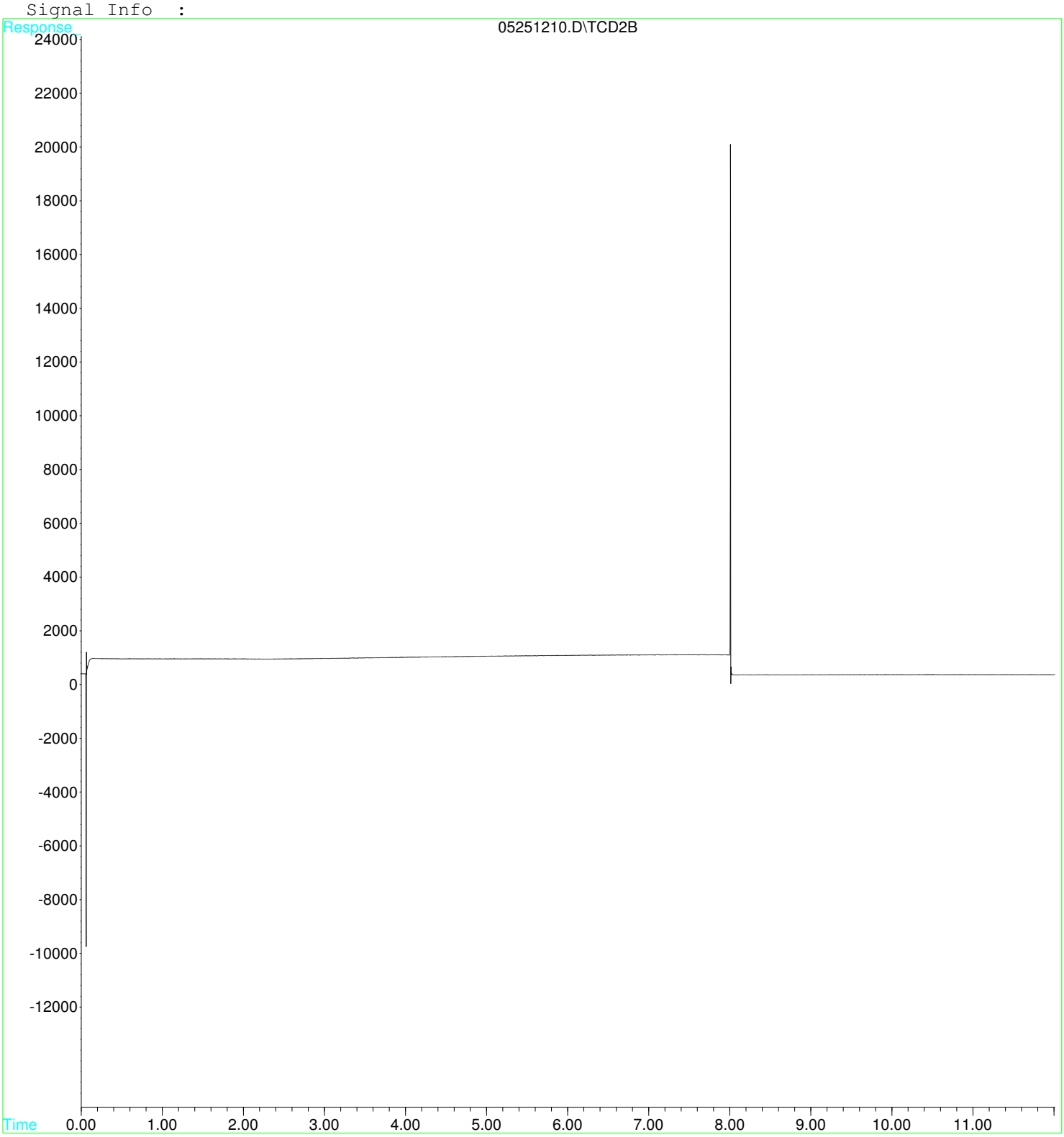
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251210.D Vial: 10
Acq On : 25 May 2012 3:56 pm Operator: VP
Sample : MBLK MB052512-3C Inst : GC Instru
Misc : EPA_3C 186-2-082 CAN 1185 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 30 11:54 2012 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251210.D Vial: 10
Acq On : 25 May 2012 3:56 pm Operator: VP
Sample : MBLK MB052512-3C Inst : GC Instru
Misc : EPA_3C 186-2-082 CAN 1185 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 30 11:54 2012 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Initial Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :

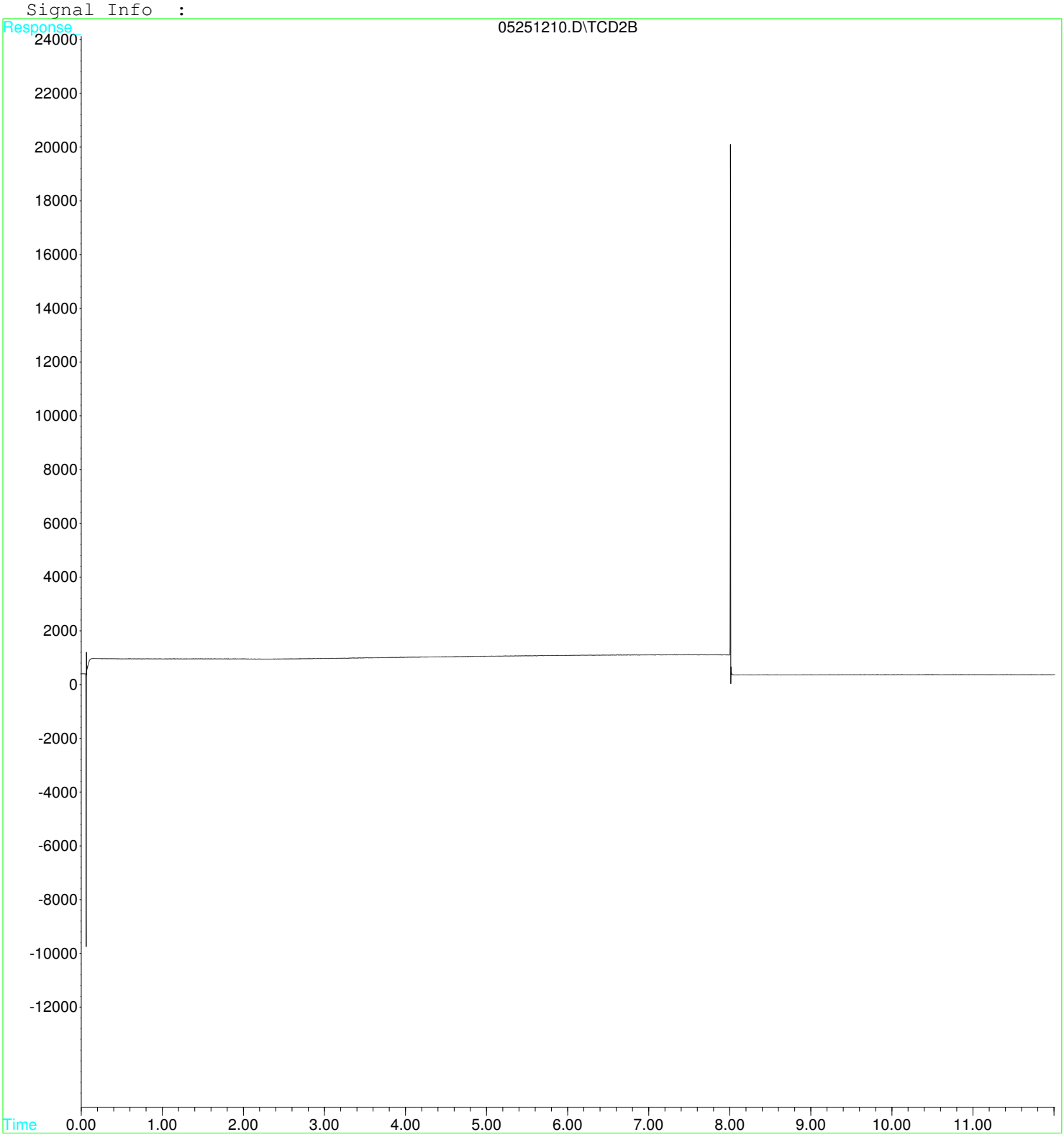
	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1) T	Oxygen	0.00	0	N.D.	mol%
2) T	Nitrogen	0.00	0	N.D.	mol%
3) T	Methane	0.00	0	N.D.	mol%
4) T	Carbon dioxide	0.00	0	N.D.	mol%

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\0512\052512\05251210.D Vial: 10
Acq On : 25 May 2012 3:56 pm Operator: VP
Sample : MBLK MB052512-3C Inst : GC Instru
Misc : EPA_3C 186-2-082 CAN 1185 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: May 30 11:54 2012 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3CM_0427.M

Volume Inj. :
Signal Phase :
Signal Info :



```
  Simulate Run Sequence  Fri May 25 11:25:17 2012

Instrument Name: GC Instrument #1
  Sequence File: C:\HPCHEM\1\SEQUENCE\052512.S
        Comment:
       Operator: VP
      Data Path: C:\HPCHEM\1\DATA\TCD\0512\052512\
    Method Path: C:\HPCHEM\1\DATA\TCD\0512\052512\

  Line Type        Vial  DataFile  Method    Sample Name
  ---------------------------------------------------------------------
    1) Sample         1  05251201  3CM_0427  ICAL 3CSTD L1
    2) Sample         2  05251202  3CM_0427  ICAL 3CSTD L2
    3) Sample         3  05251203  3CM_0427  ICAL 3CSTD L3
    4) Sample         4  05251204  3CM_0427  ICAL 3CSTD L4
    5) Sample         5  05251205  3CM_0427  ICAL 3CSTD L5
    6) Sample         6  05251206  3CM_0427  ICV  ICV052512-3C L4
    7) Sample         7  05251207  3CM_0427  MBLK MB052512-3C
  Bytes Needed: 350000  Space on drive C: 1023932928
  Sequence Verification Done!
```

EPA_3C

Landfill Gases

Run 1

Client: NRT, Inc.
Project: 69420, Peoples Gas - Willow Street / Hawthorne Ave
Lab Order: 13071475
Date Received: July 31, 2013

CLIENT: Natural Resource Technology, Inc.
Work Order: 13071475
Project: 69420, Peoples Gas - Willow Street / Hawthorne Ave

ANALYTICAL QC SUMMARY REPORT

Run ID: **GC-TCD1_130801A**

Sample ID: **CCV080113-3C L4** SampType: **CCV** TestCode: **EPA_3C** Units: **mol %** Prep Date: Run ID: **GC-TCD1_130801A**
Client ID: **ZZZZZ** Batch ID: **R91713** TestNo: **Method 3c** Analysis Date: **08/01/13 10:15** SeqNo: **2479831**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon Dioxide	2.865	0.0400	3	0	95.5	80	120	0	0		
Methane	4.703	0.0500	5	0	94.1	80	120	0	0		
Oxygen	3.741	0.400	4	0	93.5	80	120	0	0		

Sample ID: **LCS080113-3C L3** SampType: **LCS** TestCode: **EPA_3C** Units: **mol %** Prep Date: Run ID: **GC-TCD1_130801A**
Client ID: **ZZZZZ** Batch ID: **R91713** TestNo: **Method 3c** Analysis Date: **08/01/13 10:35** SeqNo: **2479832**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon Dioxide	0.624	0.0800	0.6	0	104	80	120	0	0		
Methane	0.978	0.100	1	0	97.8	80	120	0	0		
Oxygen	0.814	0.800	0.8	0	102	80	120	0	0		

Sample ID: **MB080113-3C** SampType: **MBLK** TestCode: **EPA_3C** Units: **mol %** Prep Date: Run ID: **GC-TCD1_130801A**
Client ID: **ZZZZZ** Batch ID: **R91713** TestNo: **Method 3c** Analysis Date: **08/01/13 10:53** SeqNo: **2479833**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon Dioxide	ND	0.0800									
Methane	ND	0.100									
Oxygen	ND	0.800									

Sample ID: **13071475-001A** SampType: **DUP** TestCode: **EPA_3C** Units: **mol %** Prep Date: Run ID: **GC-TCD1_130801A**
Client ID: **073113111** Batch ID: **R91713** TestNo: **Method 3c** Analysis Date: **08/01/13 12:11** SeqNo: **2479835**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon Dioxide	5.604	0.0800	0	0	0	0	0	5.742	2.43	5	
Methane	ND	0.100	0	0	0	0	0	0	0	5	
Oxygen	9.358	0.800	0	0	0	0	0	9.346	0.128	5	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blank
E - Value above quantitation range

CLIENT: Natural Resource Technology, Inc.
Work Order: 13071475
Project: 69420, Peoples Gas - Willow Street / Hawthorne Ave

ANALYTICAL QC SUMMARY REPORT

Run ID: **GC-TCD1_130801A**

Sample ID: **13071477-001A** SampType: **DUP** TestCode: **EPA_3C** Units: **mol %** Prep Date: Run ID: **GC-TCD1_130801A**
Client ID: **ZZZZZ** Batch ID: **R91713** TestNo: **Method 3c** Analysis Date: **08/01/13 12:57** SeqNo: **2479868**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Carbon Dioxide	2.208	0.0800	0	0	0	0	0	2.174	1.55	5	
Methane	ND	0.100	0	0	0	0	0	0	0	5	
Oxygen	14.4	0.800	0	0	0	0	0	14.47	0.443	5	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blank
E - Value above quantitation range

STAT Analysis Corporation

ATTACHMENT : DATA REVIEW CHECKLIST – BATCH DATA

GC-TCD1 Volatiles SOP 4060, EPA 3C

First Level Reviewer: Vytautas Prasuskas Review Date: 08/14/2013

Second Level Reviewer: Bruce Gallant Review Date: 8/19/2013

Analysis date: 08/01/2013 Batch Start Time: 10:15 am Instrument: GC-TCD1

Page 1 of 1 Continuing Calibration Verification (CCV) and Batch Data

Item	Aspect	1st Yes	Level No	2nd Yes	Level No	Comments: record routine corrective actions here	CAR # QER#
1	All analyses within 8hr window	✔		✔			
2	CCV Acceptance criteria met: CCCs: ≤ 20%D RT: ± 30 seconds Correct ICAL RFs used	✔ ✔ ✔ ✔		✔			
3	LCS: R = 80 - 120%	✔		✔			
4	Method Blank < RL False pos/neg checked	✔ ✔		✔			
5	Duplicates within 5% of average	✔		✔			
6	Test Samples: Correct IDs False pos/neg checked RL, Units Results within curve Dilutions performed	✔ ✔ ✔ ✔ ✔		✔			
7	MB, per batch of 10 samples	✔		✔			
8	Manual Integration acceptable: List files	✔		✔			
9	QC gas ID recorded	✔		✔			
10	All other information recorded	✔		✔			
11	LIMS transcription correct	✔		✔			
12	Analysis within holding time	✔		✔			
13	Corrections properly recorded	✔		✔			

Additional Comments:

Injection Log

Directory: C:\HPCHEM\1\DATA\TCD\080113

Line	Vial	FileName	Multiplier	SampleName	Misc Info		Injected
1	1	08011301.d	1.	CCV CCV080113-3C L4	EPA_3C	18...	1 Aug 2013 10:15
2	2	08011302.d	1.	LCS LCS080113-3C L3	EPA_3C	18...	1 Aug 2013 10:35
3	3	08011303.d	1.	MBLK MB080113-3C	EPA_3C	18...	1 Aug 2013 10:53
4	4	08011304.d	1.	SAMP 13071475-001A	EPA_3C	1/...	1 Aug 2013 11:15
5	4	08011305.d	1.	DUP 13071475-001A	EPA_3C	1/...	1 Aug 2013 11:37
6	5	08011306.d	1.	DUP 13071475-001A	EPA_3C	1/...	1 Aug 2013 12:11
7	5	08011307.d	1.	SAMP 13071477-001A	EPA_3C	1/...	1 Aug 2013 12:38
8	5	08011308.d	1.	DUP 13071477-001A	EPA_3C	1/...	1 Aug 2013 12:57

Not reported,
not completed:
08011305.d

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\TCD\080113\08011301.D Vial: 1
Acq On : 1 Aug 2013 10:15 am Operator: VP
Sample : CCV CCV080113-3C L4 Inst : GC Instru
Misc : EPA_3C 186-3-074 CAN 0199 Multiplr: 1.00
IntFile : RTEINT1.P

Method : C:\HPCHEM\1\DATA\TCD\080113\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	T	Oxygen	4.000	3.741	6.5	96	-0.01
2	T	Nitrogen	8.000	7.220	9.8	95	-0.02
3	T	Methane	5.000	4.703	5.9	94	-0.02
4	T	Carbon dioxide	3.000	2.865	4.5	94	-0.02

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Evaluate Continuing Calibration Report - Not Founds

```
Data File : C:\HPCHEM\1\DATA\TCD\080113\08011301.D       Vial: 1
Acq On    :  1 Aug 2013  10:15 am                    Operator: VP
Sample    : CCV  CCV080113-3C L4                     Inst    : GC Instru
Misc      : EPA_3C         186-3-074 CAN 0199        Multiplr: 1.00
IntFile   : RTEINT1.P

Method       : C:\HPCHEM\1\DATA\TCD\080113\3C052512.M (RTE Integrator)
Title        :
Last Update  : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 150%

    Compound                      Amount  Calc.      %Dev  Area% Dev(min)
 ---------------------------------------------------------------------------
```

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\080113\08011301.D Vial: 1
Acq On : 1 Aug 2013 10:15 am Operator: VP
Sample : CCV CCV080113-3C L4 Inst : GC Instru
Misc : EPA_3C 186-3-074 CAN 0199 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: Aug 1 10:29 2013 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Initial Calibration
DataAcq Meth : 3C052512.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1) T	Oxygen	1.50	24157	3.741	mol%
2) T	Nitrogen	1.62	44673	7.220	mol%
3) T	Methane	4.38	26895	4.703	mol% m
4) T	Carbon dioxide	7.10	24947	2.865	mol%

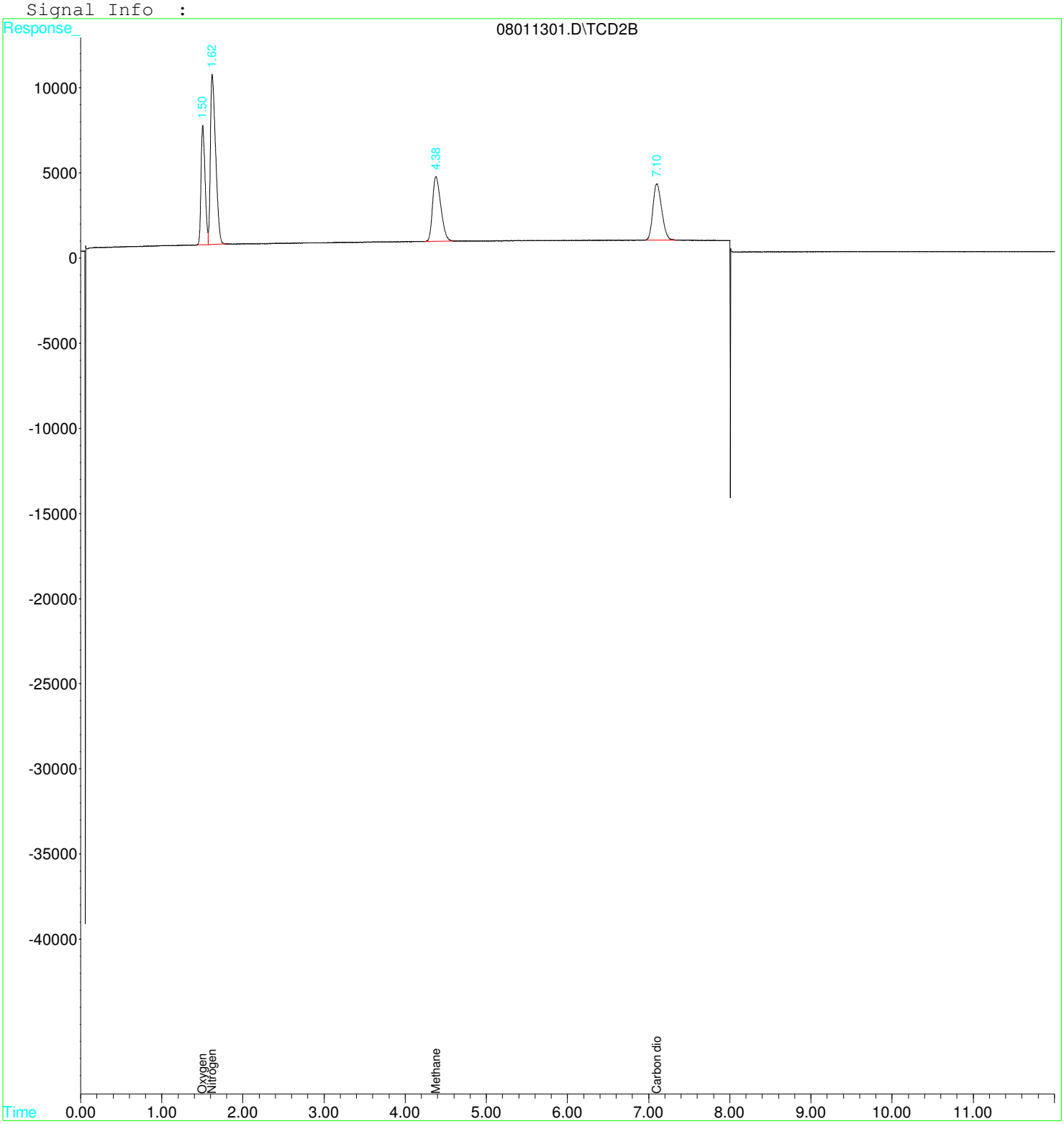
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\080113\08011301.D Vial: 1
Acq On : 1 Aug 2013 10:15 am Operator: VP
Sample : CCV CCV080113-3C L4 Inst : GC Instru
Misc : EPA_3C 186-3-074 CAN 0199 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: Aug 1 10:29 2013 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3C052512.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\080113\08011301.D Vial: 1
Acq On : 1 Aug 2013 10:15 am Operator: VP
Sample : CCV CCV080113-3C L4 Inst : GC Instru
Misc : EPA_3C 186-3-074 CAN 0199 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: Aug 1 10:28 2013 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Initial Calibration
DataAcq Meth : 3C052512.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1) T	Oxygen	1.50	24157	3.741 mol%
2) T	Nitrogen	1.62	44673	7.220 mol%
3) T	Methane	4.38	26567	4.646 mol%
4) T	Carbon dioxide	7.10	24947	2.865 mol%

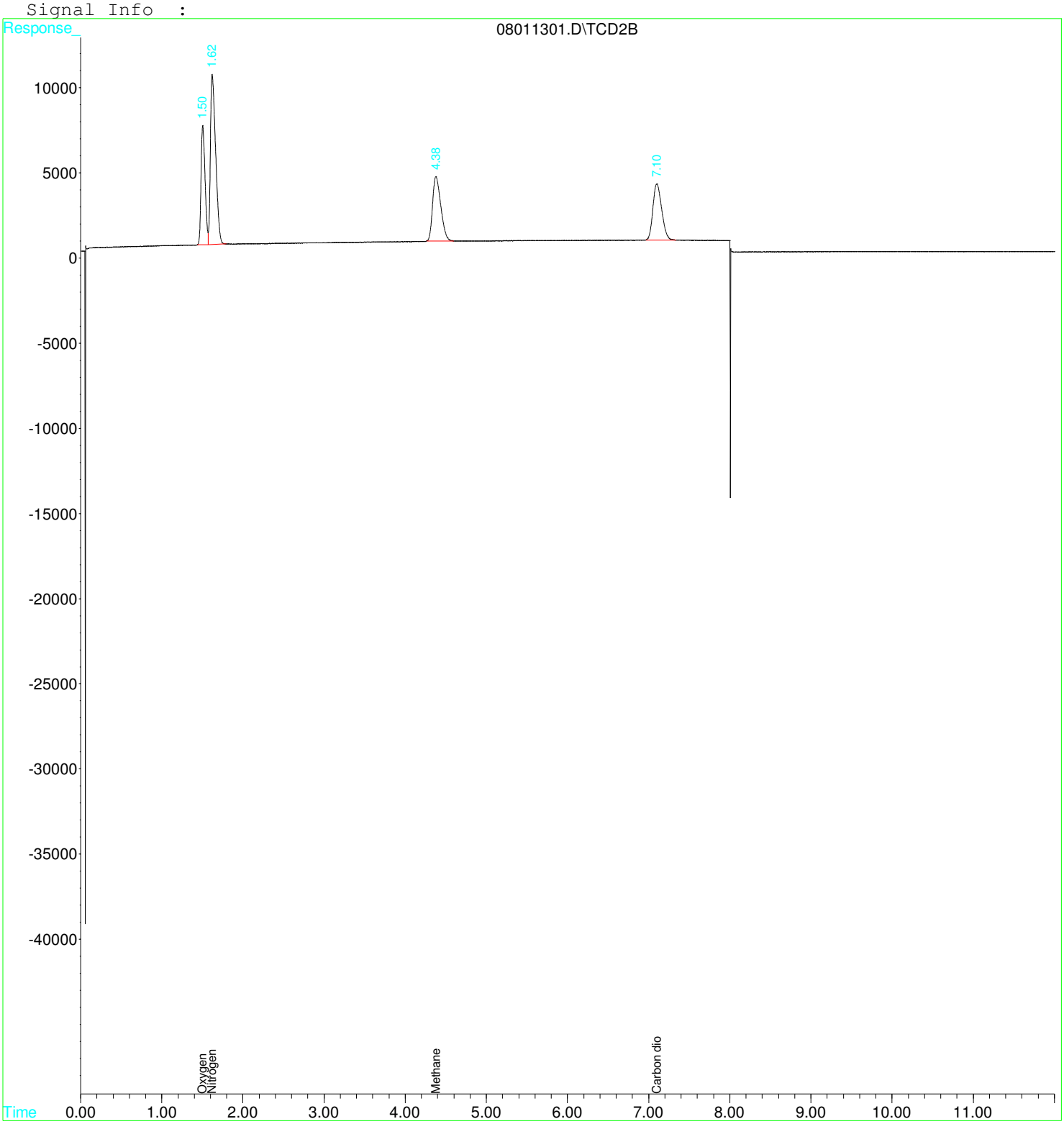
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\080113\08011301.D Vial: 1
Acq On : 1 Aug 2013 10:15 am Operator: VP
Sample : CCV CCV080113-3C L4 Inst : GC Instru
Misc : EPA_3C 186-3-074 CAN 0199 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: Aug 1 10:28 2013 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3C052512.M

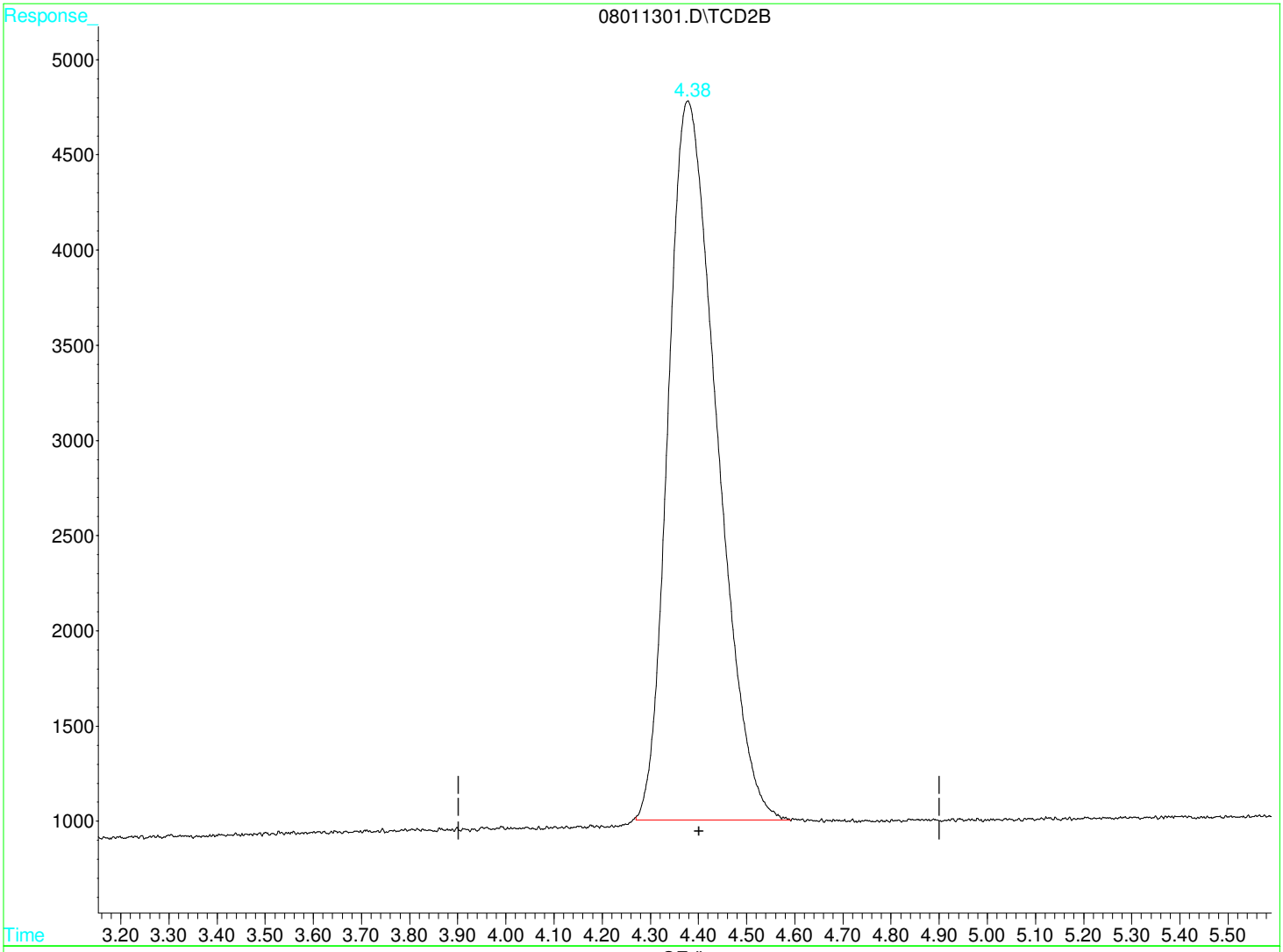
Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\TCD\080113\08011301.D Vial: 1
Acq On : 1 Aug 2013 10:15 am Operator: VP
Sample : CCV CCV080113-3C L4 Inst : GC Instru
Misc : EPA_3C 186-3-074 CAN 0199 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: Aug 1 10:28 2013 Quant Results File: 3C052512.RES

Method : C:\HPCHEM\1\DATA\TCD\080113\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration



(3) Methane (T)

4.38min 4.646mol%

response 26567

BEFORE

By Vytautas at 11:55:41, 8/14/2013

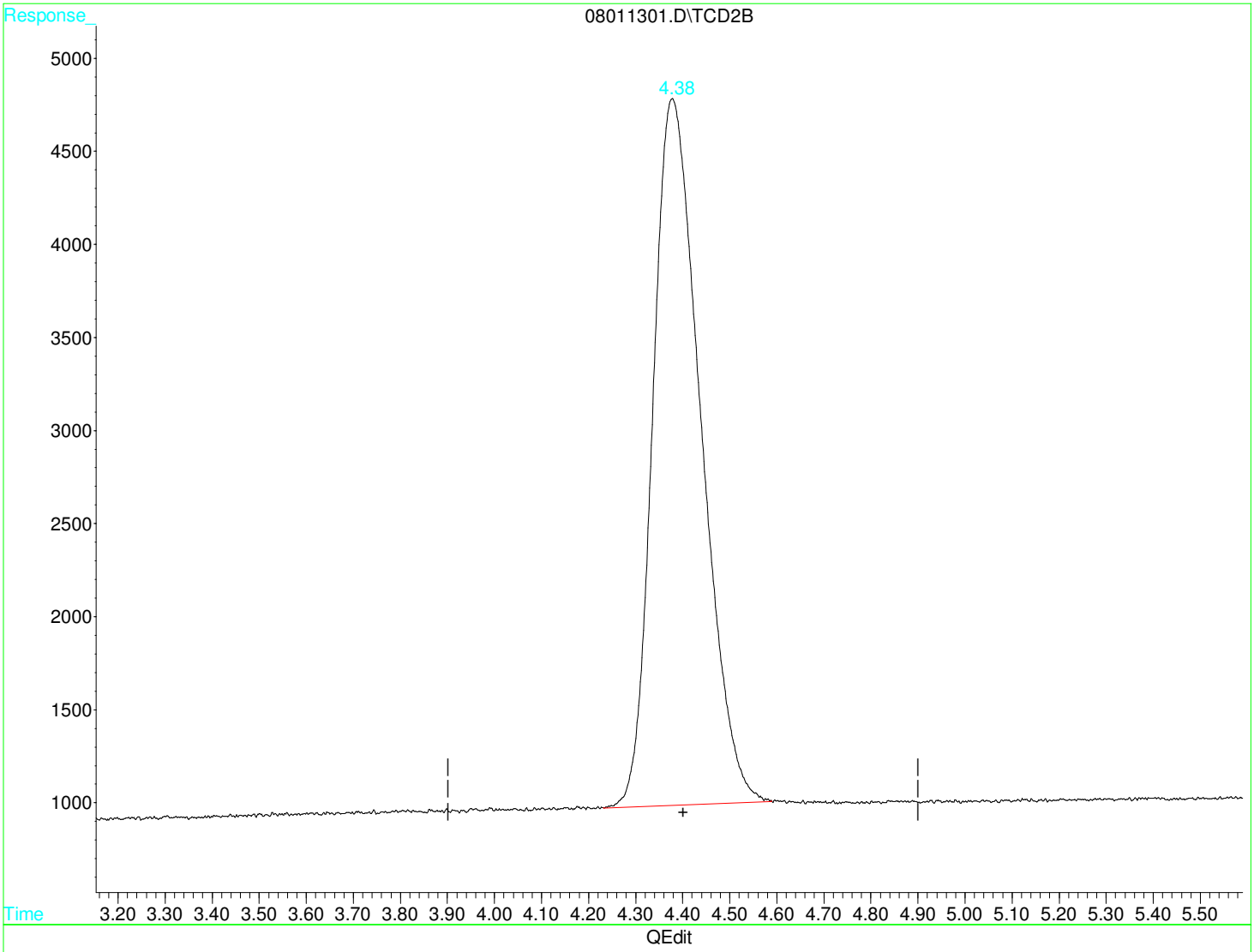
(+) = Expected Retention Time

08011301.D 3C052512.M Thu Aug 01 10:29:30 2013

Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\TCD\080113\08011301.D       Vial: 1
Acq On    :  1 Aug 2013  10:15 am                    Operator: VP
Sample    : CCV  CCV080113-3C L4                     Inst    : GC Instru
Misc      : EPA_3C         186-3-074 CAN 0199        Multiplr: 1.00
IntFile   : RTEINT1.P
Quant Time: Aug  1 10:28 2013  Quant Results File: 3C052512.RES


Method       : C:\HPCHEM\1\DATA\TCD\080113\3C052512.M (RTE Integrator)
Title        :
Last Update  : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration
```



(3) Methane (T)

4.38min 4.703mol% m

response 26895

AFTER M3

By Vytautas at 11:55:47, 8/14/2013

(+) = Expected Retention Time

08011301.D 3C052512.M Thu Aug 01 10:29:49 2013

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\080113\08011302.D Vial: 2
Acq On : 1 Aug 2013 10:35 am Operator: VP
Sample : LCS LCS080113-3C L3 Inst : GC Instru
Misc : EPA_3C 186-3-069 1/2 CAN 1731 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: Aug 1 10:49 2013 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Initial Calibration
DataAcq Meth : 3C052512.M

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units
		Target Compounds				
1)	T	Oxygen	1.53	2627	0.407	mol%
2)	T	Nitrogen	1.66	4756	0.769	mol%
3)	T	Methane	4.41	2796	0.489	mol%
4)	T	Carbon dioxide	7.14	2718	0.312	mol%

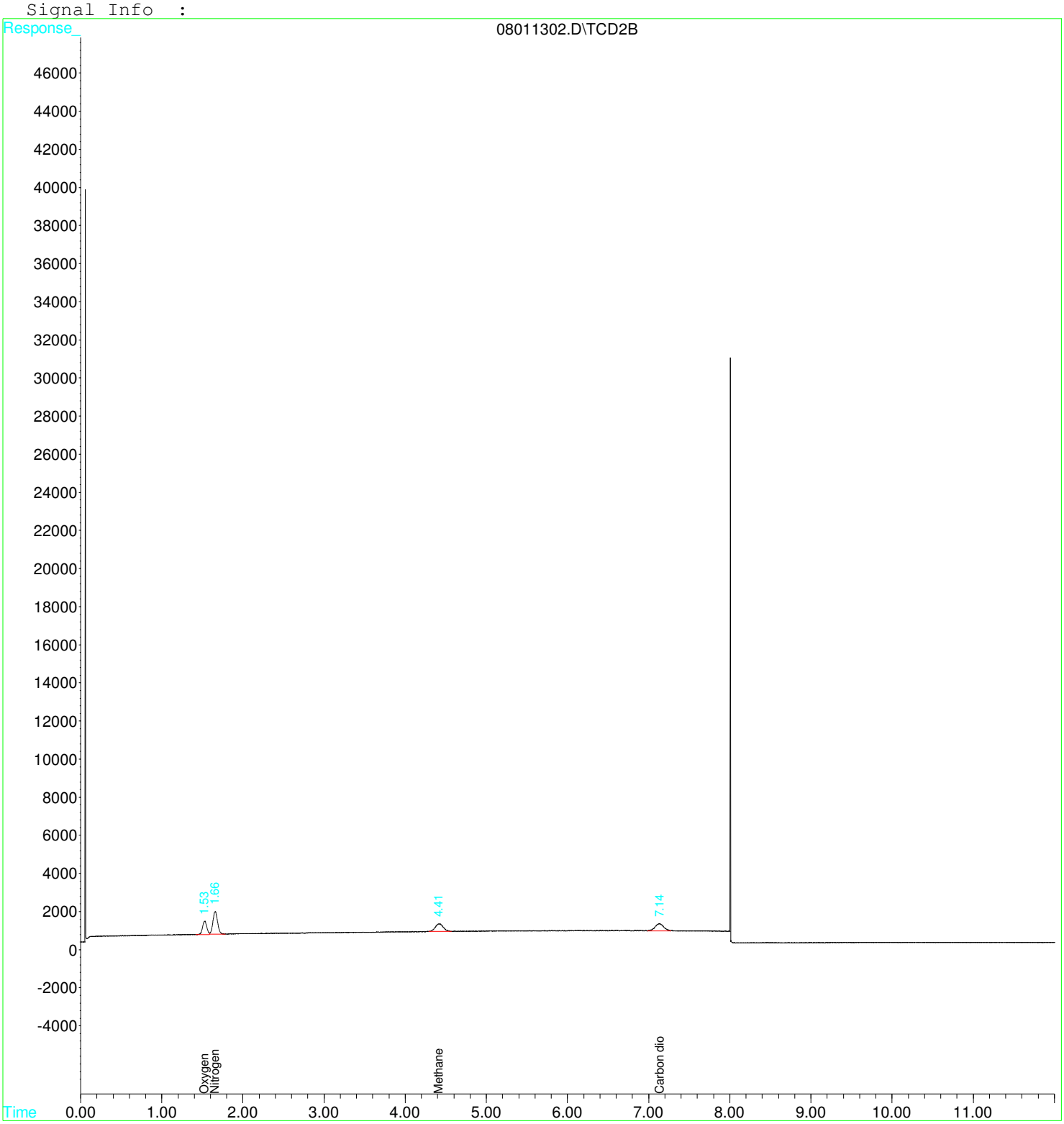
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\080113\08011302.D Vial: 2
Acq On : 1 Aug 2013 10:35 am Operator: VP
Sample : LCS LCS080113-3C L3 Inst : GC Instru
Misc : EPA_3C 186-3-069 1/2 CAN 1731 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: Aug 1 10:49 2013 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3C052512.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\080113\08011302.D Vial: 2
Acq On : 1 Aug 2013 10:35 am Operator: VP
Sample : LCS LCS080113-3C L3 Inst : GC Instru
Misc : EPA_3C 186-3-069 1/2 CAN 1731 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: Aug 1 10:49 2013 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Initial Calibration
DataAcq Meth : 3C052512.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc Units
	Target Compounds			
1) T	Oxygen	1.53	2627	0.407 mol%
2) T	Nitrogen	1.66	4756	0.769 mol%
3) T	Methane	4.41	2796	0.489 mol%
4) T	Carbon dioxide	7.14	2718	0.312 mol%

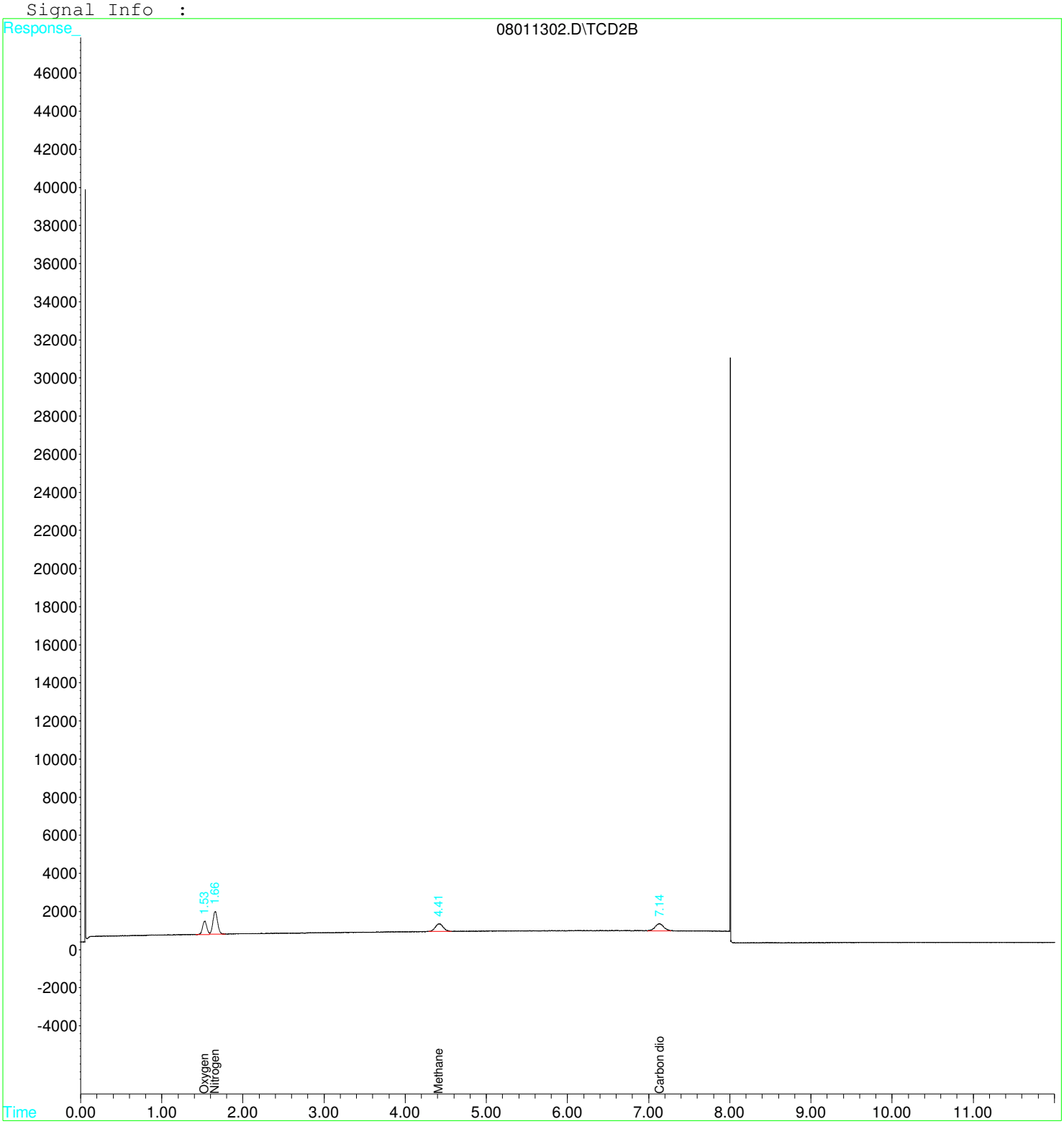
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

```
Data File : C:\HPCHEM\1\DATA\TCD\080113\08011302.D       Vial: 2
Acq On    :  1 Aug 2013  10:35 am                    Operator: VP
Sample    : LCS  LCS080113-3C L3                     Inst    : GC Instru
Misc      : EPA_3C         186-3-069 1/2 CAN 1731    Multiplr: 1.00
IntFile   : RTEINT1.P
Quant Time: Aug  1 10:49 2013  Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title        :
Last Update  : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3C052512.M

Volume Inj.  :
Signal Phase :
Signal Info  :
```



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\080113\08011303.D Vial: 3
Acq On : 1 Aug 2013 10:53 am Operator: VP
Sample : MBLK MB080113-3C Inst : GC Instru
Misc : EPA_3C 186-3-070 1/2 CAN 1732 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: Aug 1 11:06 2013 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Initial Calibration
DataAcq Meth : 3C052512.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1) T	Oxygen	0.00	0	N.D.	mol%
2) T	Nitrogen	0.00	0	N.D.	mol%
3) T	Methane	0.00	0	N.D.	mol%
4) T	Carbon dioxide	0.00	0	N.D.	mol%

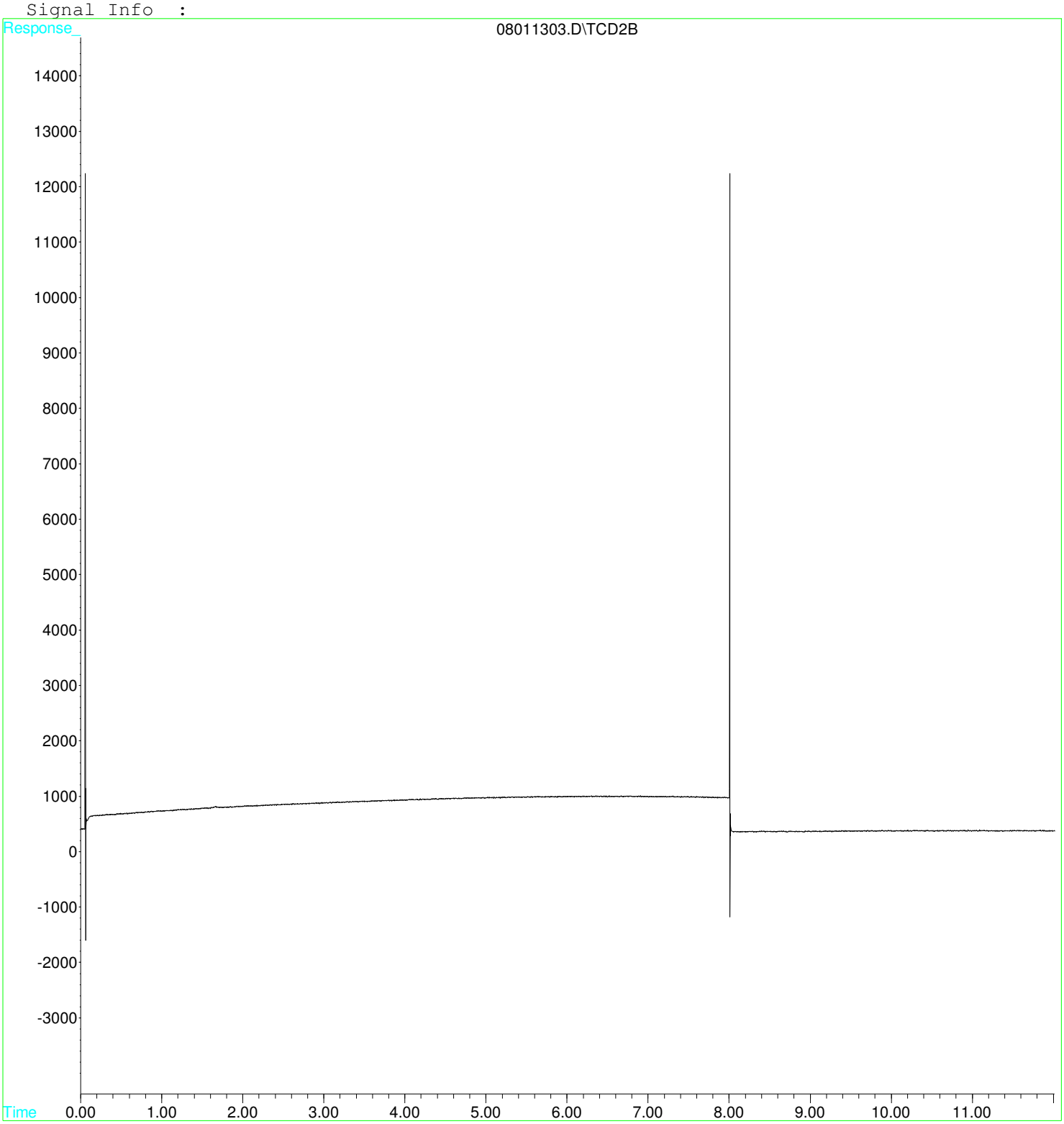
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\080113\08011303.D Vial: 3
Acq On : 1 Aug 2013 10:53 am Operator: VP
Sample : MBLK MB080113-3C Inst : GC Instru
Misc : EPA_3C 186-3-070 1/2 CAN 1732 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: Aug 1 11:06 2013 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3C052512.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\080113\08011303.D Vial: 3
Acq On : 1 Aug 2013 10:53 am Operator: VP
Sample : MBLK MB080113-3C Inst : GC Instru
Misc : EPA_3C 186-3-070 1/2 CAN 1732 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: Aug 1 11:06 2013 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Initial Calibration
DataAcq Meth : 3C052512.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1) T	Oxygen	0.00	0	N.D.	mol%
2) T	Nitrogen	0.00	0	N.D.	mol%
3) T	Methane	0.00	0	N.D.	mol%
4) T	Carbon dioxide	0.00	0	N.D.	mol%

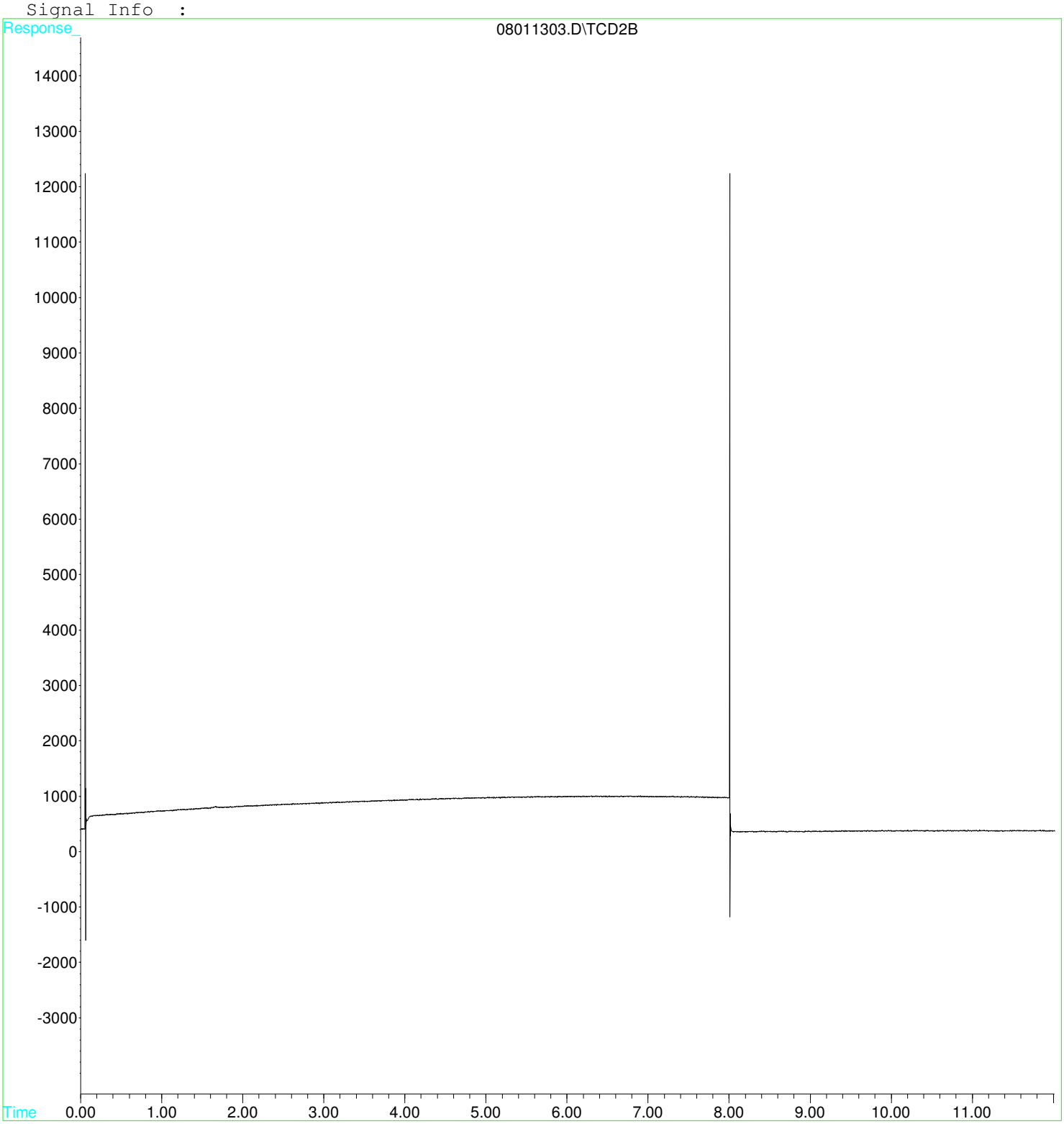
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\080113\08011303.D Vial: 3
Acq On : 1 Aug 2013 10:53 am Operator: VP
Sample : MBLK MB080113-3C Inst : GC Instru
Misc : EPA_3C 186-3-070 1/2 CAN 1732 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: Aug 1 11:06 2013 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3C052512.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\080113\08011304.D Vial: 4
Acq On : 1 Aug 2013 11:15 am Operator: VP
Sample : SAMP 13071475-001A Inst : GC Instru
Misc : EPA_3C 1/2 CAN 1027 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: Aug 1 11:39 2013 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Initial Calibration
DataAcq Meth : 3C052512.M

Volume Inj. :
Signal Phase :
Signal Info :

		Compound	R.T.	Response	Conc	Units	
Target Compounds							
1)	T	Oxygen	1.44	30174	4.673	mol%	m
2)	T	Nitrogen	1.51	217377	35.132	mol%	
3)	T	Methane	0.00	0	N.D.	mol%	
4)	T	Carbon dioxide	7.10	24997	2.871	mol%	

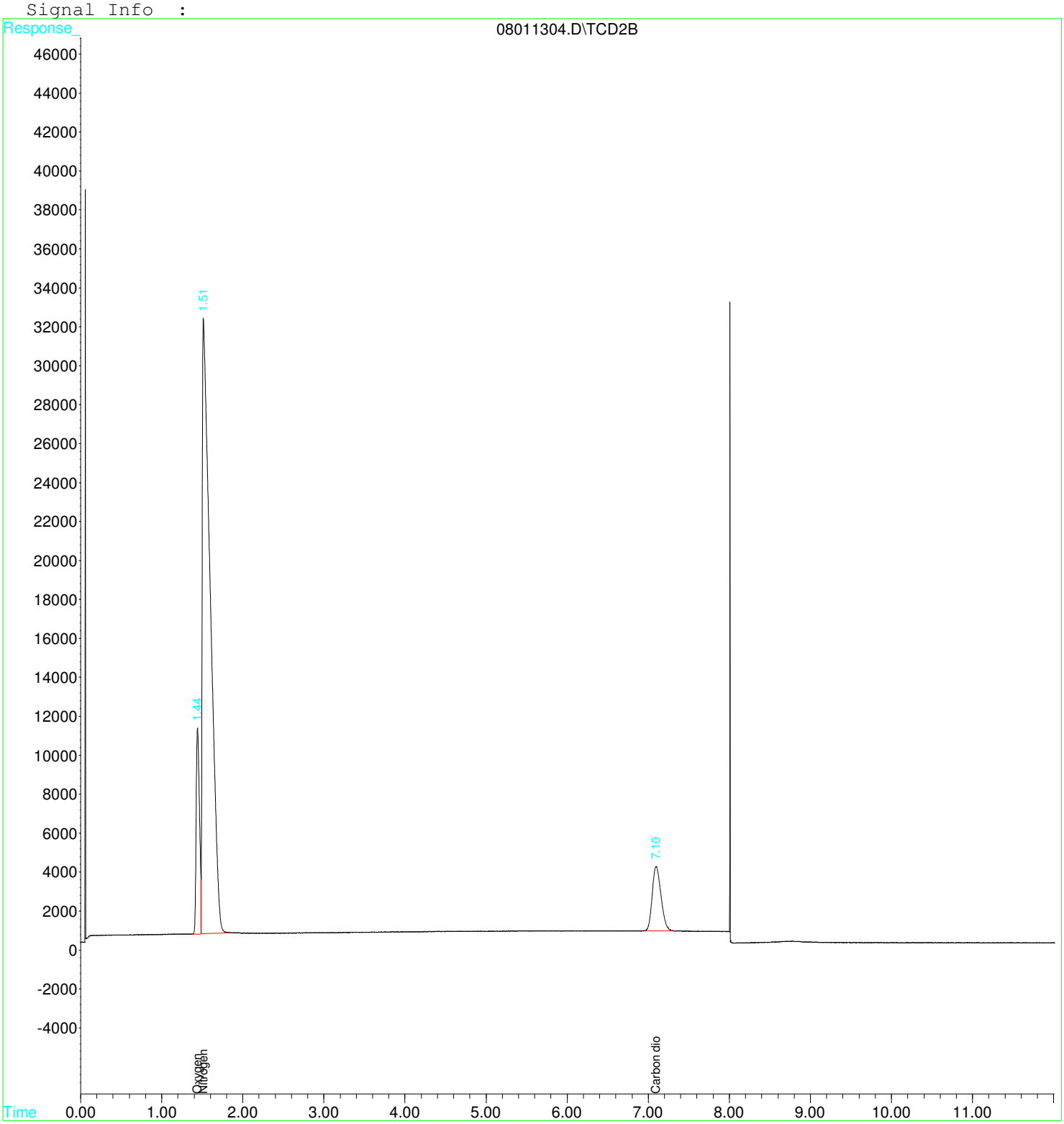
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\080113\08011304.D Vial: 4
Acq On : 1 Aug 2013 11:15 am Operator: VP
Sample : SAMP 13071475-001A Inst : GC Instru
Misc : EPA_3C 1/2 CAN 1027 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: Aug 1 11:39 2013 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3C052512.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\080113\08011304.D Vial: 4
Acq On : 1 Aug 2013 11:15 am Operator: VP
Sample : SAMP 13071475-001A Inst : GC Instru
Misc : EPA_3C 1/2 CAN 1027 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: Aug 1 11:38 2013 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Initial Calibration
DataAcq Meth : 3C052512.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1) T	Oxygen	1.51	217377	33.663	mol%
2) T	Nitrogen	1.51	217377	35.132	mol%
3) T	Methane	0.00	0	N.D.	mol%
4) T	Carbon dioxide	7.10	24997	2.871	mol%

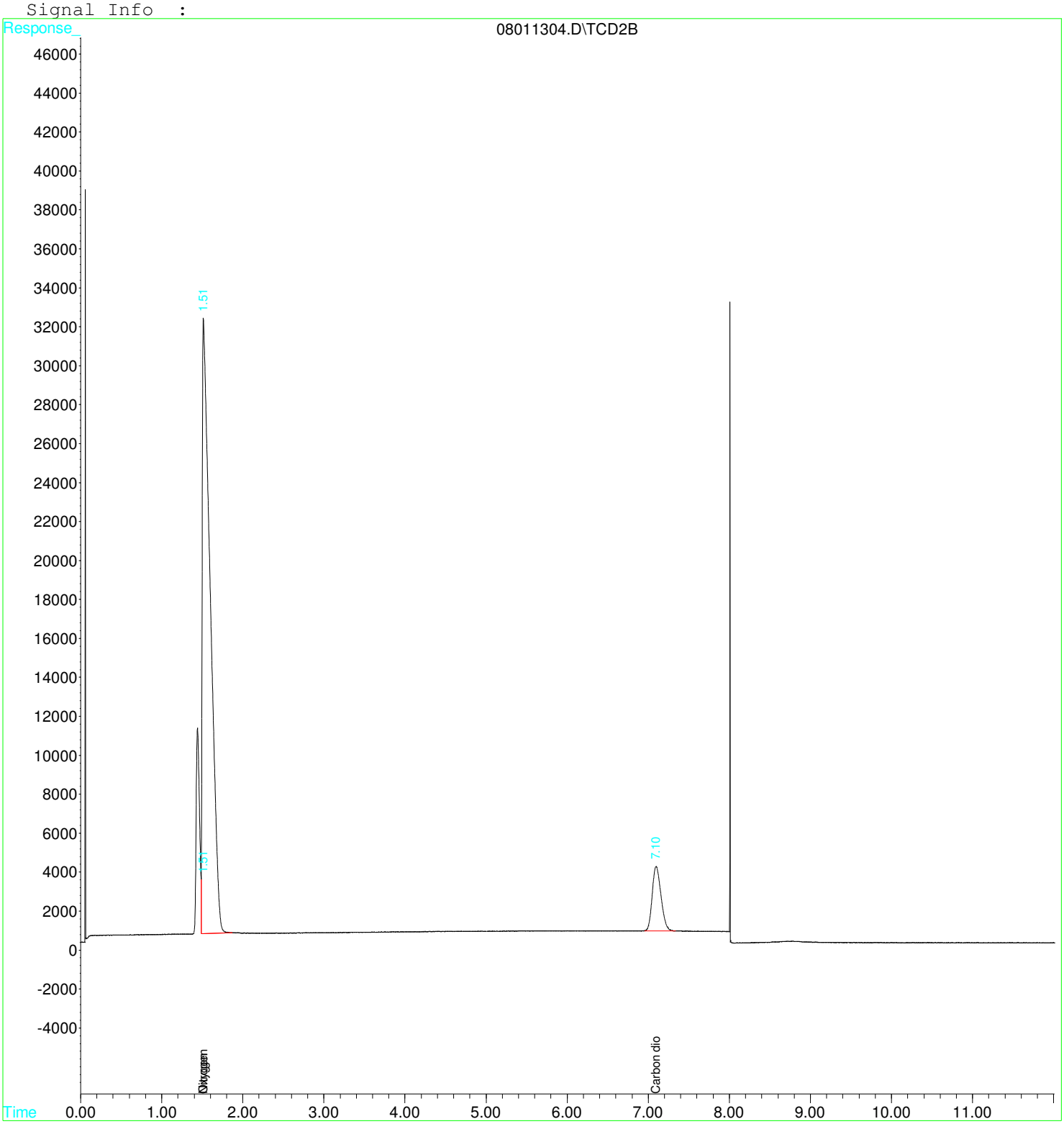
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

```
Data File : C:\HPCHEM\1\DATA\TCD\080113\08011304.D       Vial: 4
Acq On    :  1 Aug 2013  11:15 am                     Operator: VP
Sample    : SAMP 13071475-001A                        Inst    : GC Instru
Misc      : EPA_3C         1/2       CAN 1027         Multiplr: 1.00
IntFile   : RTEINT1.P
Quant Time: Aug  1 11:38 2013  Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title        :
Last Update  : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3C052512.M

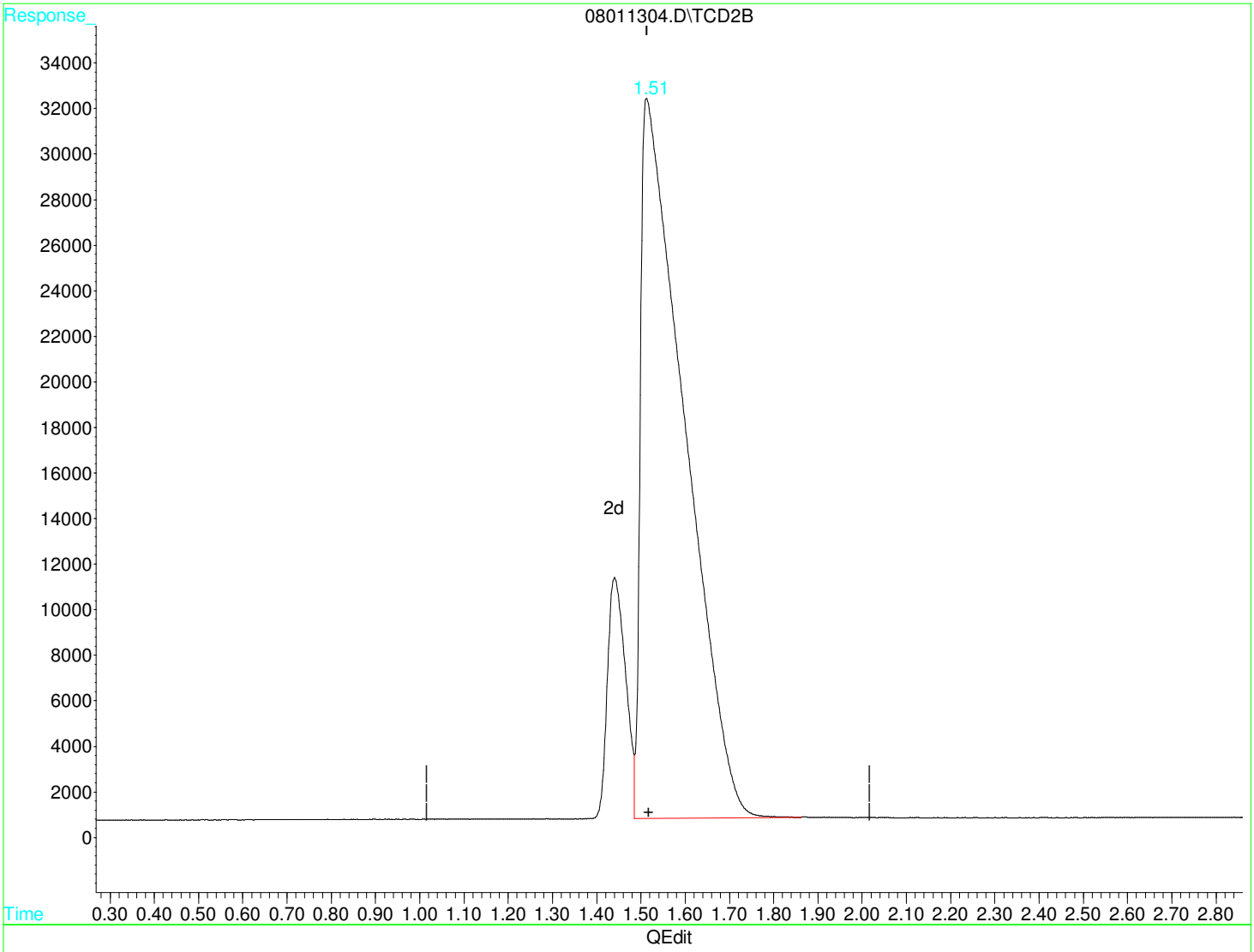
Volume Inj.  :
Signal Phase :
Signal Info  :
```



Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\TCD\080113\08011304.D       Vial: 4
Acq On    :  1 Aug 2013  11:15 am                     Operator: VP
Sample    : SAMP 13071475-001A                        Inst    : GC Instru
Misc      : EPA_3C         1/2       CAN 1027         Multiplr: 1.00
IntFile   : RTEINT1.P
Quant Time: Aug  1 11:38 2013  Quant Results File: 3C052512.RES


Method       : C:\HPCHEM\1\DATA\TCD\080113\3C052512.M (RTE Integrator)
Title        :
Last Update  : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration
```



(1) Oxygen (T)

1.51min 33.663mol%

response 217377

BEFORE

By Vytautas at 11:56:02, 8/14/2013

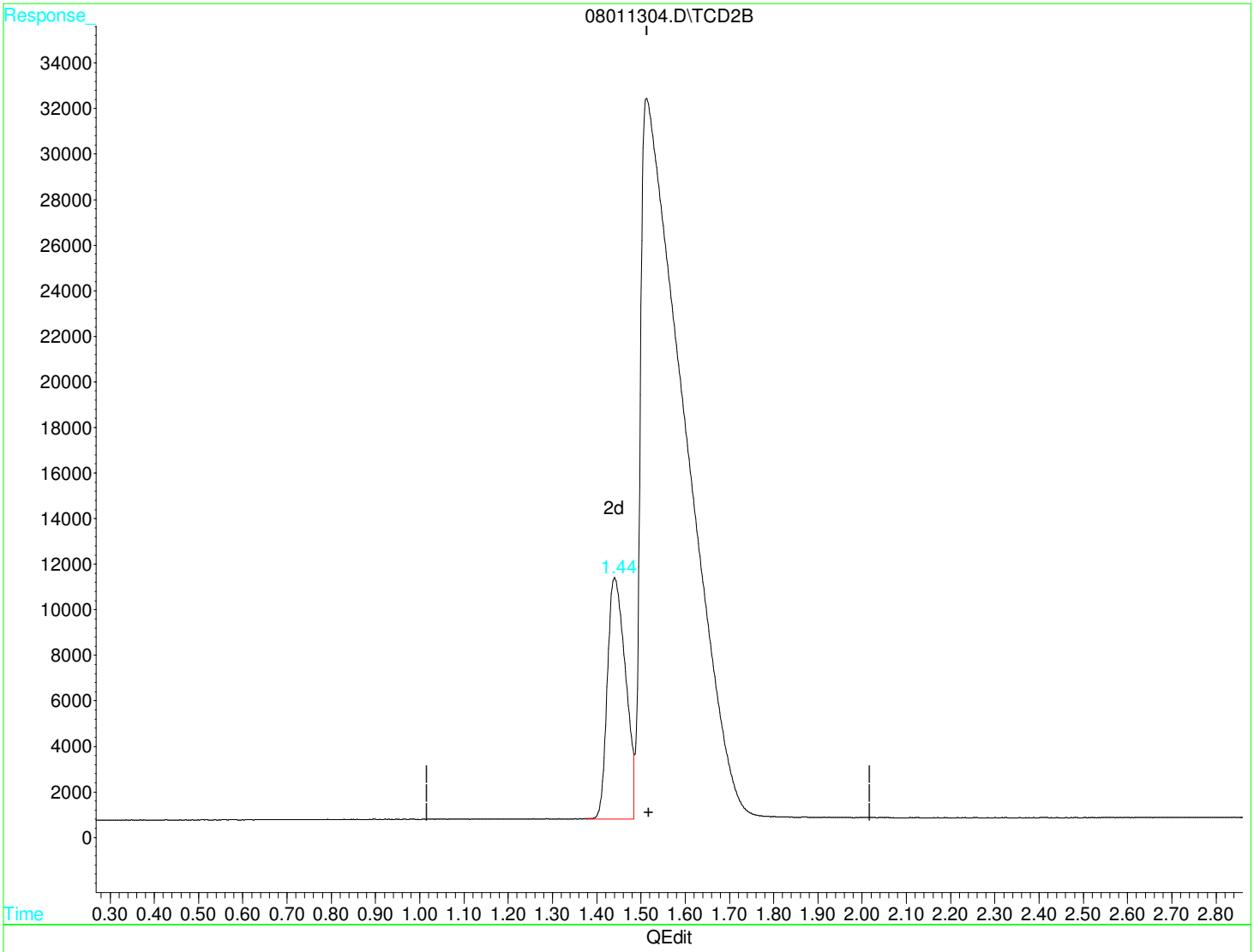
(+) = Expected Retention Time

08011304.D 3C052512.M Thu Aug 01 11:38:36 2013

Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\TCD\080113\08011304.D       Vial: 4
Acq On    :  1 Aug 2013  11:15 am                     Operator: VP
Sample    : SAMP 13071475-001A                        Inst    : GC Instru
Misc      : EPA_3C         1/2       CAN 1027         Multiplr: 1.00
IntFile   : RTEINT1.P
Quant Time: Aug  1 11:38 2013  Quant Results File: 3C052512.RES


Method       : C:\HPCHEM\1\DATA\TCD\080113\3C052512.M (RTE Integrator)
Title        :
Last Update  : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration
```



(1) Oxygen (T)

1.44min 4.673mol% m

response 30174

AFTER M2

By Vytautas at 11:56:09, 8/14/2013

(+) = Expected Retention Time

08011304.D 3C052512.M Thu Aug 01 11:39:18 2013

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\080113\08011306.D Vial: 5
Acq On : 1 Aug 2013 12:11 pm Operator: VP
Sample : DUP 13071475-001A Inst : GC Instru
Misc : EPA_3C 1/2 CAN 1027 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: Aug 1 12:36 2013 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Initial Calibration
DataAcq Meth : 3C052512.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	Target Compounds					
1) T	Oxygen	1.44	30212	4.679	mol%	m
2) T	Nitrogen	1.51	214406	34.652	mol%	
3) T	Methane	0.00	0	N.D.	mol%	
4) T	Carbon dioxide	7.10	24398	2.802	mol%	

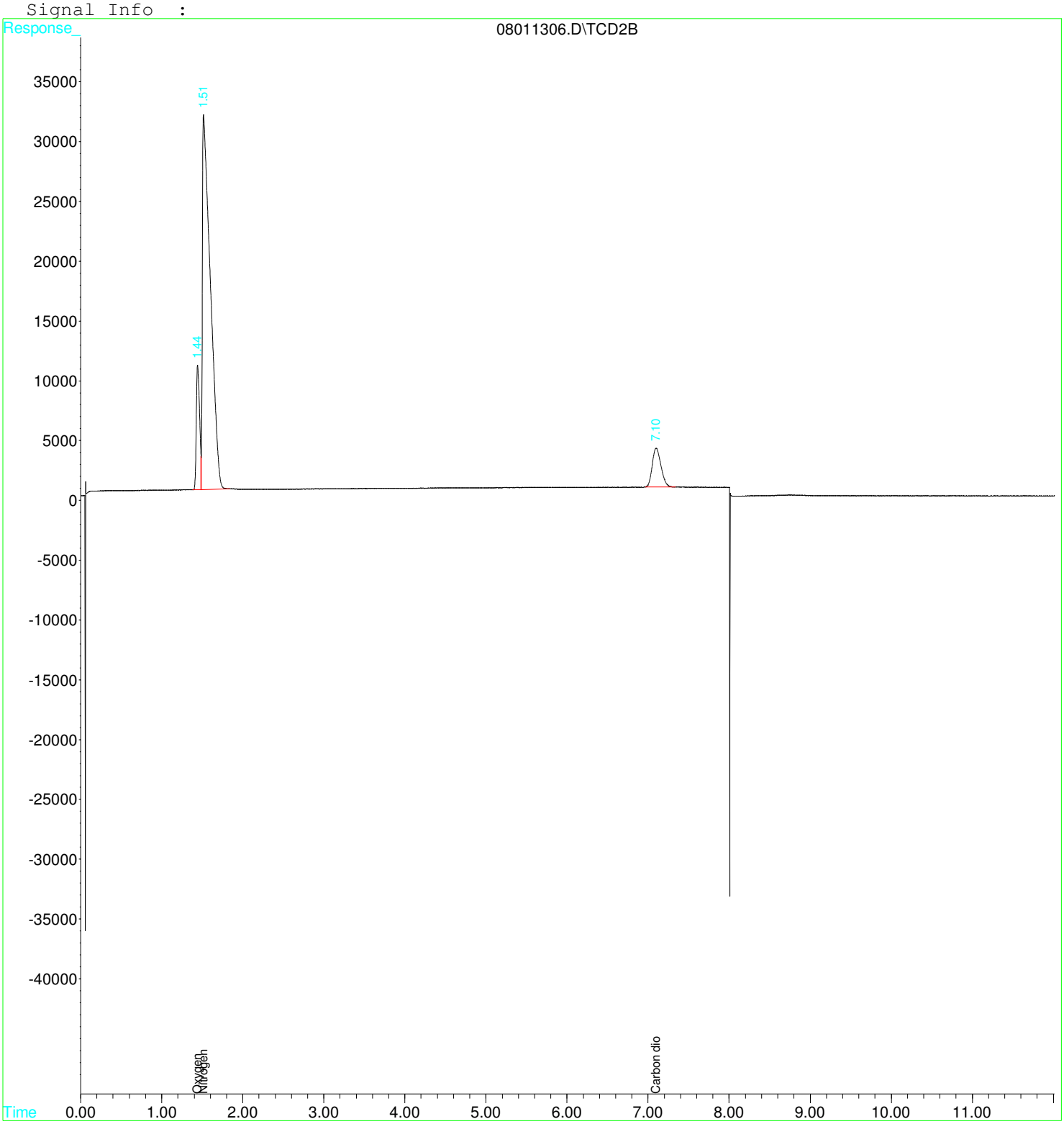
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\080113\08011306.D Vial: 5
Acq On : 1 Aug 2013 12:11 pm Operator: VP
Sample : DUP 13071475-001A Inst : GC Instru
Misc : EPA_3C 1/2 CAN 1027 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: Aug 1 12:36 2013 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3C052512.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\080113\08011306.D Vial: 5
Acq On : 1 Aug 2013 12:11 pm Operator: VP
Sample : DUP 13071475-001A Inst : GC Instru
Misc : EPA_3C 1/2 CAN 1027 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: Aug 1 12:36 2013 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Initial Calibration
DataAcq Meth : 3C052512.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1) T	Oxygen	1.51	214406	33.203	mol%
2) T	Nitrogen	1.51	214406	34.652	mol%
3) T	Methane	0.00	0	N.D.	mol%
4) T	Carbon dioxide	7.10	24398	2.802	mol%

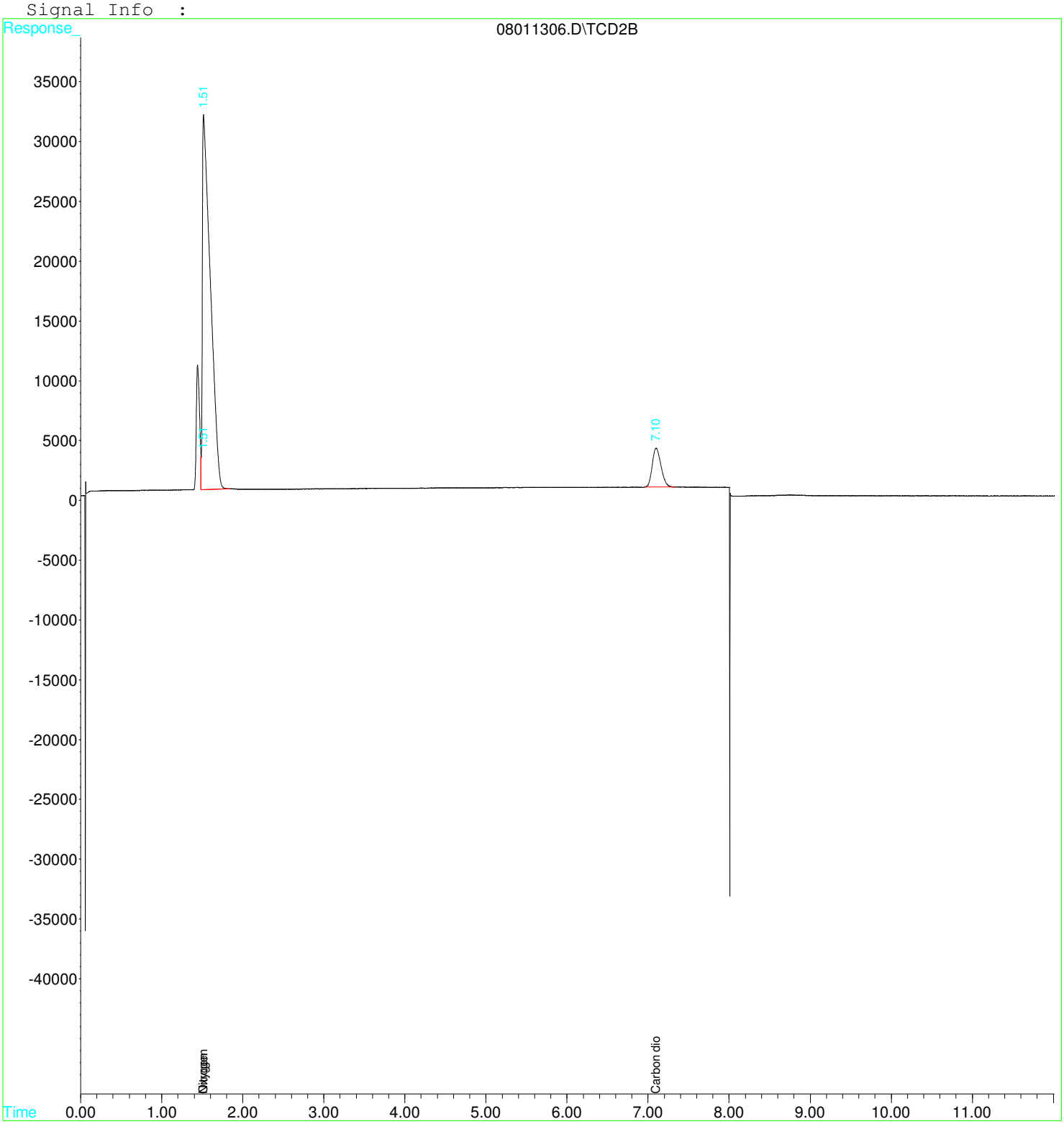
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

```
Data File : C:\HPCHEM\1\DATA\TCD\080113\08011306.D       Vial: 5
Acq On    :  1 Aug 2013  12:11 pm                     Operator: VP
Sample    : DUP  13071475-001A                        Inst    : GC Instru
Misc      : EPA_3C         1/2       CAN 1027         Multiplr: 1.00
IntFile   : RTEINT1.P
Quant Time: Aug  1 12:36 2013  Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title        :
Last Update  : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3C052512.M

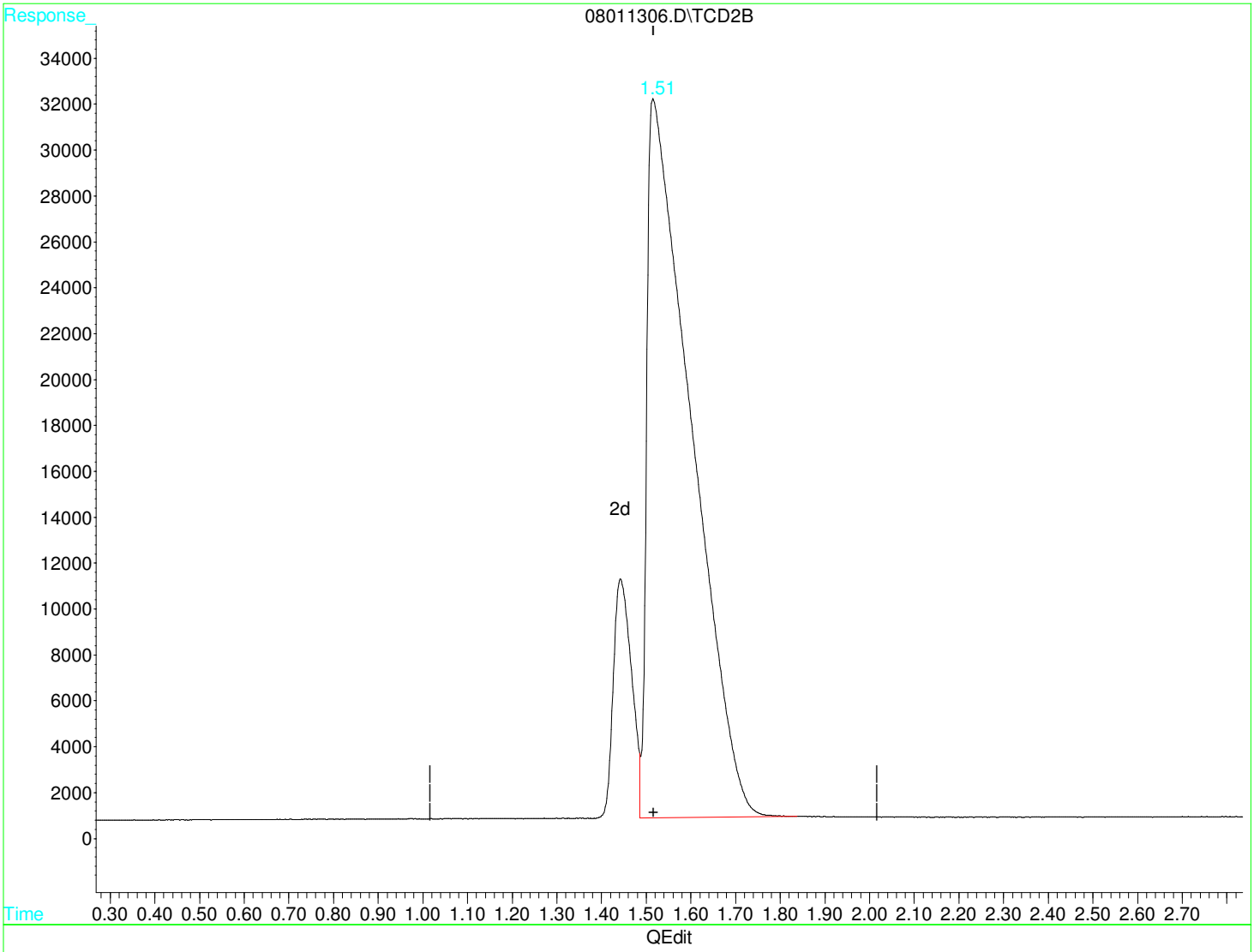
Volume Inj.  :
Signal Phase :
Signal Info  :
```



Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\TCD\080113\08011306.D Vial: 5
Acq On : 1 Aug 2013 12:11 pm Operator: VP
Sample : DUP 13071475-001A Inst : GC Instru
Misc : EPA_3C 1/2 CAN 1027 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: Aug 1 12:36 2013 Quant Results File: 3C052512.RES

Method : C:\HPCHEM\1\DATA\TCD\080113\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration



(1) Oxygen (T)

1.51min 33.203mol%

response 214406

BEFORE

By Vytautas at 11:56:21, 8/14/2013

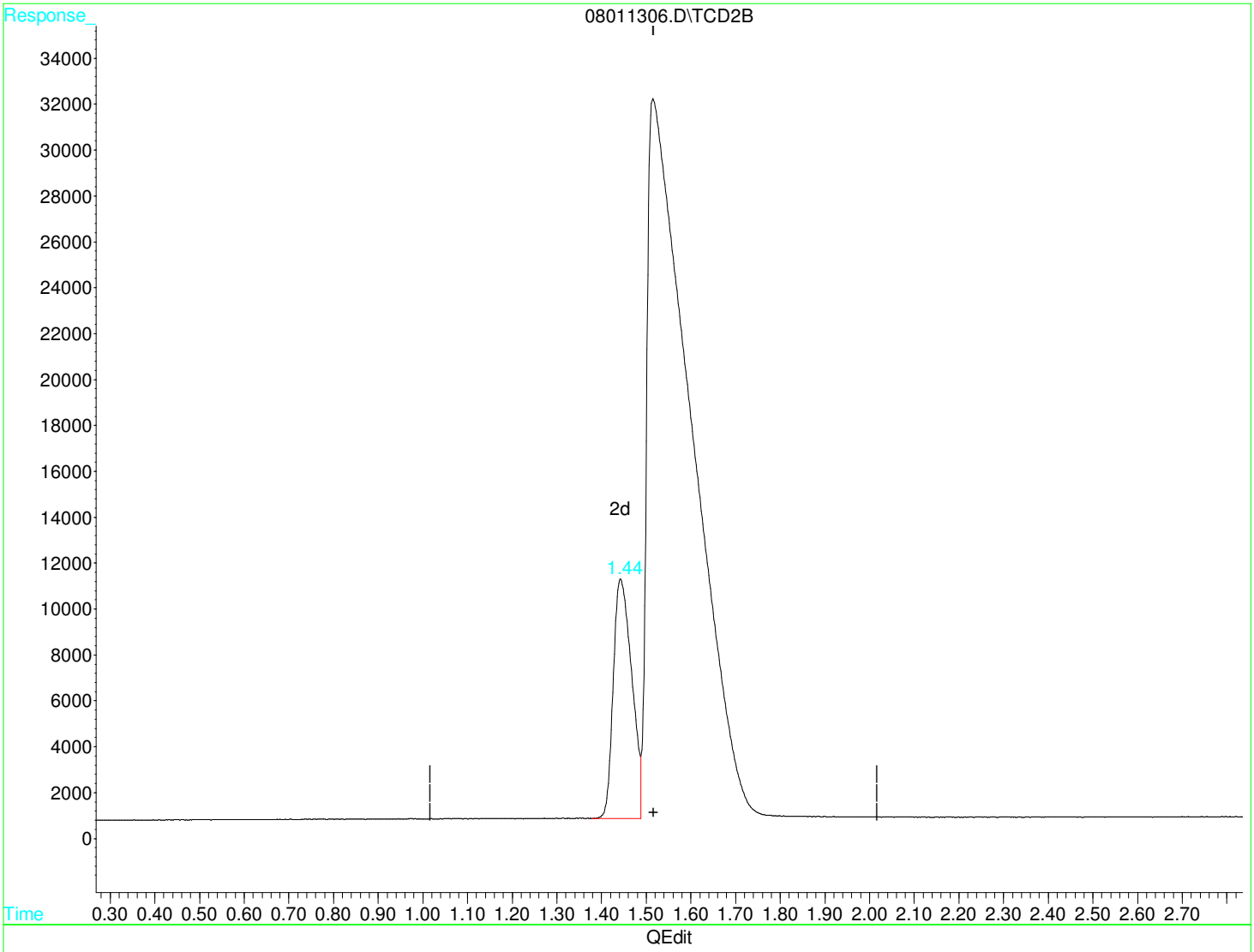
(+) = Expected Retention Time

08011306.D 3C052512.M Thu Aug 01 12:36:23 2013

Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\TCD\080113\08011306.D Vial: 5
Acq On : 1 Aug 2013 12:11 pm Operator: VP
Sample : DUP 13071475-001A Inst : GC Instru
Misc : EPA_3C 1/2 CAN 1027 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: Aug 1 12:36 2013 Quant Results File: 3C052512.RES

Method : C:\HPCHEM\1\DATA\TCD\080113\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration



(1) Oxygen (T)

1.44min 4.679mol% m

response 30212

AFTER M2

By Vytautas at 11:56:15, 8/14/2013

(+) = Expected Retention Time

08011306.D 3C052512.M Thu Aug 01 12:36:54 2013

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\080113\08011308.D Vial: 5
Acq On : 1 Aug 2013 12:57 pm Operator: VP
Sample : DUP 13071477-001A Inst : GC Instru
Misc : EPA_3C 1/2 CAN 8031 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: Aug 1 13:25 2013 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Initial Calibration
DataAcq Meth : 3C052512.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units	
	Target Compounds					
1) T	Oxygen	1.43	46499	7.201	mol%	m
2) T	Nitrogen	1.52	209074	33.790	mol%	
3) T	Methane	0.00	0	N.D.	mol%	
4) T	Carbon dioxide	7.12	9614	1.104	mol%	

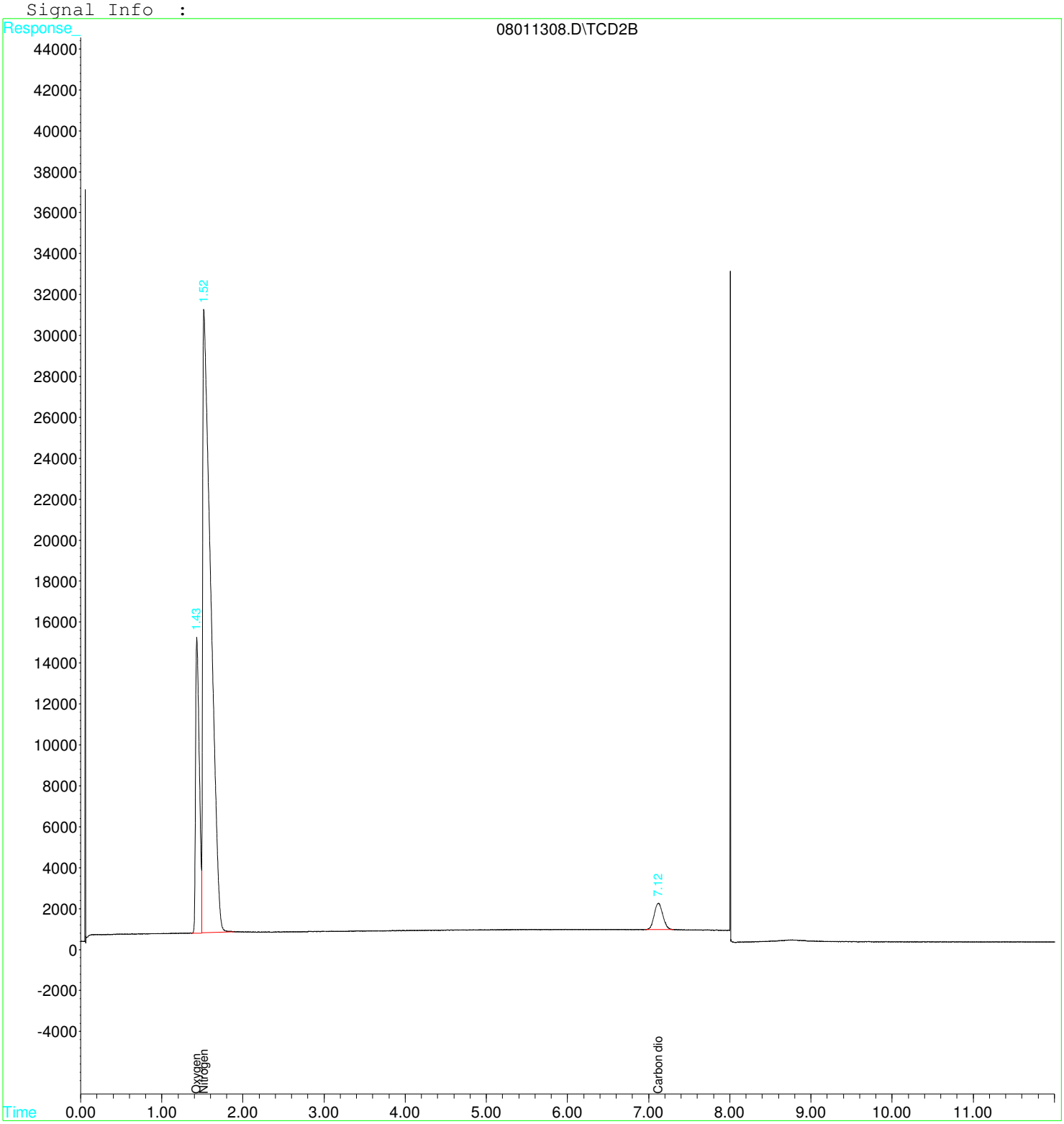
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\080113\08011308.D Vial: 5
Acq On : 1 Aug 2013 12:57 pm Operator: VP
Sample : DUP 13071477-001A Inst : GC Instru
Misc : EPA_3C 1/2 CAN 8031 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: Aug 1 13:25 2013 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3C052512.M

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\TCD\080113\08011308.D Vial: 5
Acq On : 1 Aug 2013 12:57 pm Operator: VP
Sample : DUP 13071477-001A Inst : GC Instru
Misc : EPA_3C 1/2 CAN 8031 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: Aug 1 13:24 2013 Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Initial Calibration
DataAcq Meth : 3C052512.M

Volume Inj. :
Signal Phase :
Signal Info :

	Compound	R.T.	Response	Conc	Units
	Target Compounds				
1) T	Oxygen	1.52	209074	32.377	mol%
2) T	Nitrogen	1.52	209074	33.790	mol%
3) T	Methane	0.00	0	N.D.	mol%
4) T	Carbon dioxide	7.12	9614	1.104	mol%

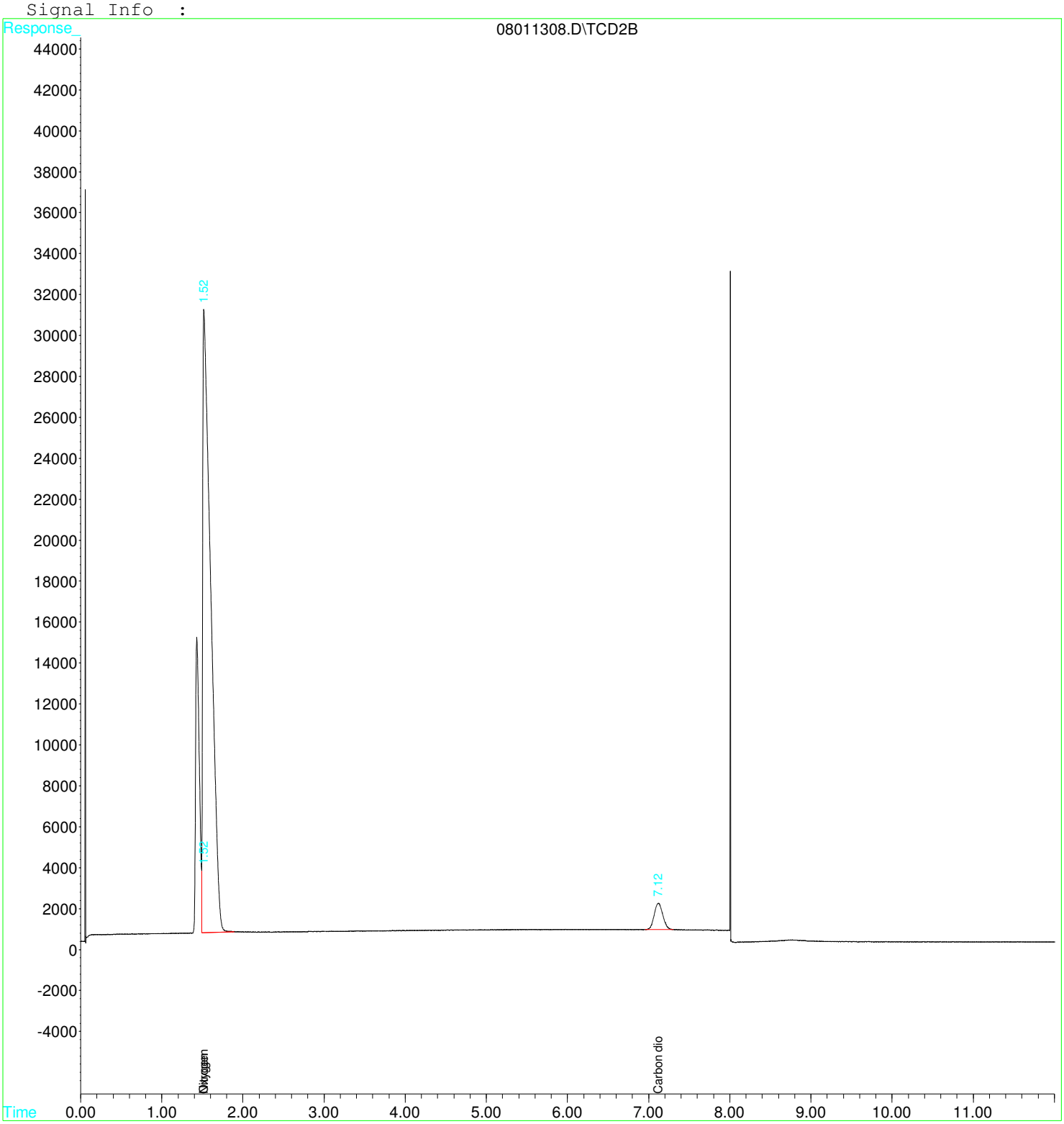
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

```
Data File : C:\HPCHEM\1\DATA\TCD\080113\08011308.D       Vial: 5
Acq On    :  1 Aug 2013  12:57 pm                     Operator: VP
Sample    : DUP  13071477-001A                        Inst    : GC Instru
Misc      : EPA_3C         1/2       CAN 8031         Multiplr: 1.00
IntFile   : RTEINT1.P
Quant Time: Aug  1 13:24 2013  Quant Results File: 3C052512.RES

Quant Method : C:\HPCHEM\1...\3C052512.M (RTE Integrator)
Title        :
Last Update  : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration
DataAcq Meth : 3C052512.M

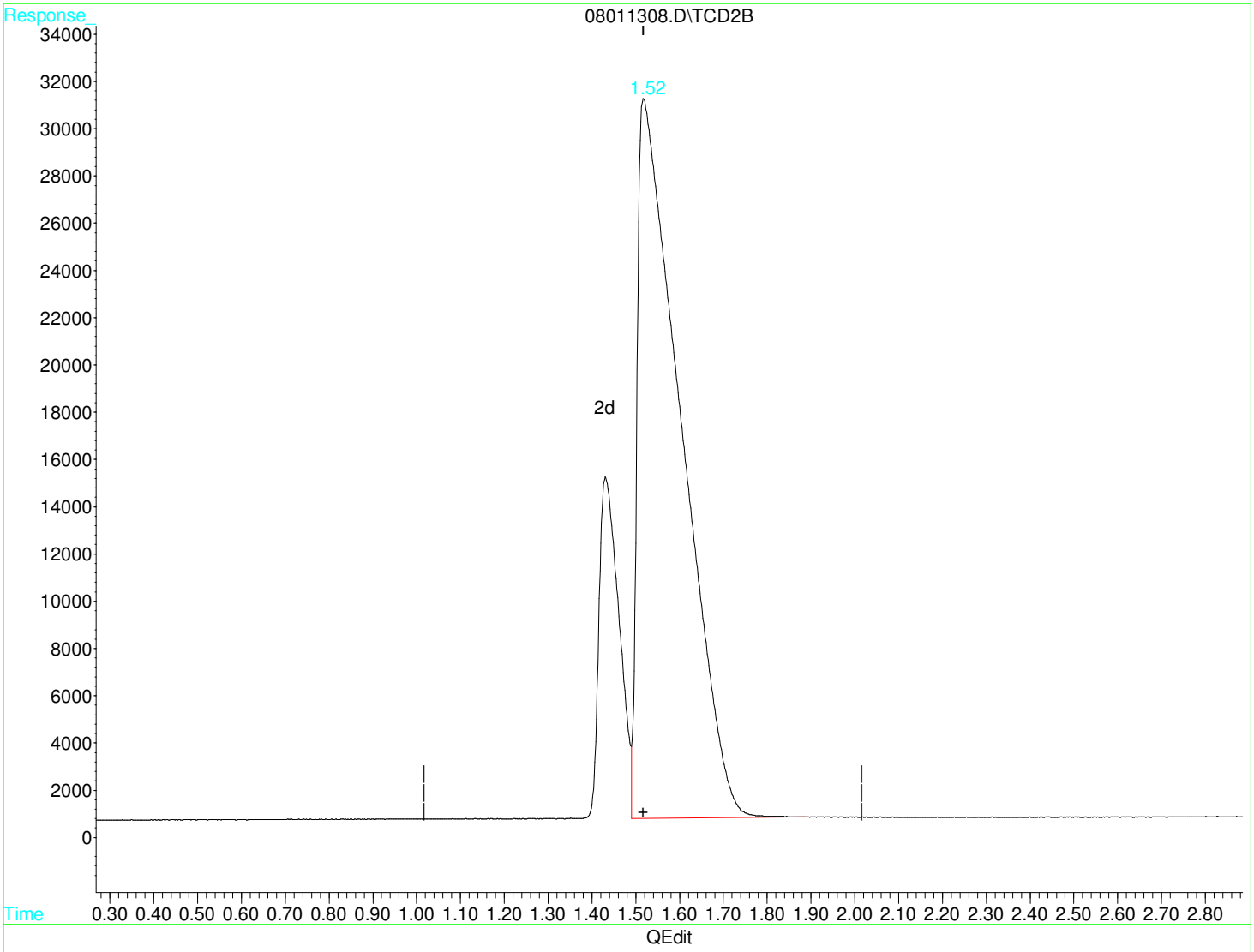
Volume Inj.  :
Signal Phase :
Signal Info  :
```



Quantitation Report (Qedit)

Data File : C:\HPCHEM\1\DATA\TCD\080113\08011308.D Vial: 5
Acq On : 1 Aug 2013 12:57 pm Operator: VP
Sample : DUP 13071477-001A Inst : GC Instru
Misc : EPA_3C 1/2 CAN 8031 Multiplr: 1.00
IntFile : RTEINT1.P
Quant Time: Aug 1 13:24 2013 Quant Results File: 3C052512.RES

Method : C:\HPCHEM\1\DATA\TCD\080113\3C052512.M (RTE Integrator)
Title :
Last Update : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration



(1) Oxygen (T)

1.52min 32.377mol%

response 209074

BEFORE

By Vytautas at 11:56:47, 8/14/2013

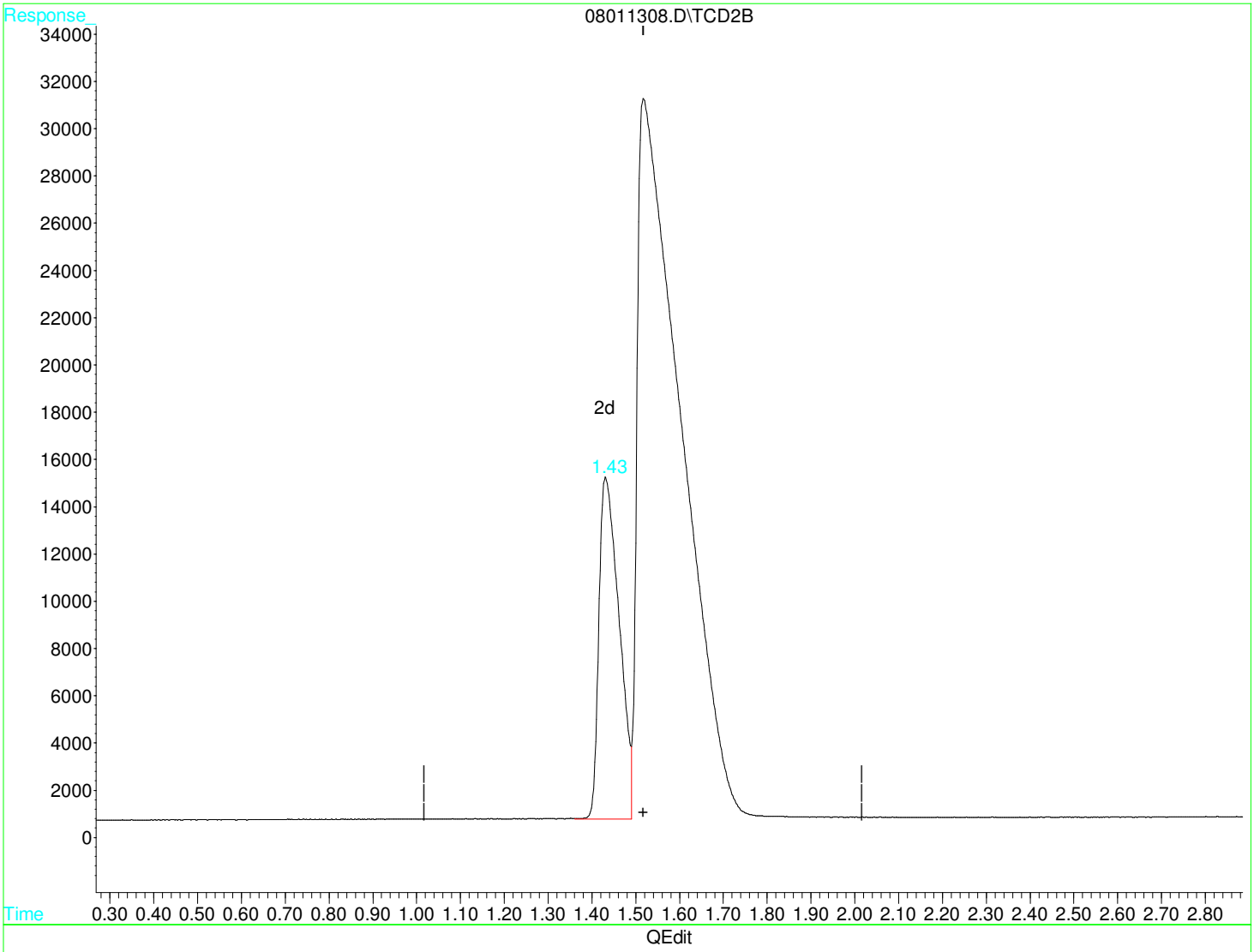
(+) = Expected Retention Time

08011308.D 3C052512.M Thu Aug 01 13:24:41 2013

Quantitation Report (Qedit)

```
Data File : C:\HPCHEM\1\DATA\TCD\080113\08011308.D       Vial: 5
Acq On    :  1 Aug 2013  12:57 pm                     Operator: VP
Sample    : DUP  13071477-001A                        Inst    : GC Instru
Misc      : EPA_3C         1/2       CAN 8031         Multiplr: 1.00
IntFile   : RTEINT1.P
Quant Time: Aug  1 13:24 2013  Quant Results File: 3C052512.RES


Method       : C:\HPCHEM\1\DATA\TCD\080113\3C052512.M (RTE Integrator)
Title        :
Last Update  : Fri May 25 14:30:05 2012
Response via : Multiple Level Calibration
```



(1) Oxygen (T)

1.43min 7.201mol% m

response 46499

AFTER M2

By Vytautas at 11:56:41, 8/14/2013

(+) = Expected Retention Time

08011308.D 3C052512.M Thu Aug 01 13:25:04 2013

Volatile Organic Compounds

EPA TO-15

Quality Control Data

Client: NRT, Inc.
Project: 69420, Peoples Gas - Willow Street / Hawthorne Ave
Lab Order: 13071475
Date Received: July 31, 2013

INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STAT Analysis SDG No.: 13071475

Lab Code: _____

Lab File ID (Standard): 08011301.D Date Analyzed: 8/1/2013

Instrument ID: VOA-5 Time Analyzed: 14:08

GC Column: ID: (mm)

	IS1 AREA #	RT #	IS2 AREA #	RT #	IS3 AREA #	RT #		
12 HOUR STD	435563	9.167	1891862	11.167	1725055	15.443		
UPPER LIMIT	609788.2	9.667	2648606.8	11.667	2415077	15.943		
LOWER LIMIT	261338	8.667	1135117	10.667	1035033	14.943		
SAMPLE NO.								
01 MB080113-5	432314	9.16	1889627	11.16	1711361	15.44		
02 LCS080113-5 5.0	378232	9.17	1813919	11.17	1708369	15.44		
03 LCSD080113-5 5.0	383253	9.17	1806196	11.17	1687704	15.44		
04 073113111	352476	9.16	1854487	11.17	1718452	15.44		

IS1 = Bromochloromethane IS3 = Chlorobenzene-d5
IS2 = 1,4-Difluorobenzene

AREA UPPER LIMIT = +40% of internal standard area
AREA LOWER LIMIT = -40% 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.

Volatile Organic Compounds

EPA TO-15

Initial Calibration

Client: NRT, Inc.
Project: 69420, Peoples Gas - Willow Street / Hawthorne Ave
Lab Order: 13071475
Date Received: July 31, 2013

STAT Analysis Corporation

ATTACHMENT 12: DATA REVIEW CHECKLIST - ICAL

GC/MS Volatiles SOP 4010, EPA T015A

First Level Reviewer: Vytautas Prasuskas Review Date: 07/25/2013

Second Level Reviewer: Secondary Reviewer Review Date: 07/29/2013

Petra Svacha

Analysis date: 06/14/2013 Batch Start Time: 6:31 pm Instrument: VOA-5

ICAL Data File #s: 061431301.D - 06141310.D

Page 1 of 1 Initial Calibration (ICAL)

Item	Aspect	1st Yes	Level No	2nd Yes	Level No	Comments: record routine corrective actions here	CAR # /QER #
1	Tune meets criteria	✔		✔			
2	# of Stds _____ (minimum = 5)	✔		✔		10	
3	All Stds in tune period: 24 hr All Stds. Sequenced w/in 36 hrs.	✔ ✔		✔ ✔			
4	Acceptance criteria met for: CCC's: = 30% RSD RRT ± 0.06 RT units %RSD = 30% avg RF used r = 0.99 linear regression used (list)	✔ ✔ ✔ ✔ 	 ✔	✔ ✔ ✔ ✔ 	 ✔		
5	Calibration updated: RF RT Mid-level used for int stds Correct data files used	 ✔		 ✔			
6	RL = low std _____ppbv RL = _____ ppbv for (list)	✔		✔		0.05-2.00	
7	High std = _____ppbv High std = _____ppbv for (list)	✔		✔		50	
8	ICV acceptable for: CCCs: = 30%D RT: ± 30 seconds Int stds: 60-140% Other compounds	✔ ✔ ✔ ✔ ✔		✔ ✔ ✔ ✔ ✔		Acrolein was not certified with an ICV standard.	
9	Manual Integration acceptable: List files	✔		✔			
10	Tune & QC gas ID recorded	✔		✔			
11	All other information recorded	✔		✔			

Additional Comments:

STAT Analysis Corporation

ATTACHMENT 13: DATA REVIEW CHECKLIST – BATCH DATA

GC/MS Volatiles SOP 4010, EPA TO15A

First Level Reviewer: Vytautas Prasuskas Review Date: 07/25/2013

Second Level Reviewer: Secondary Reviewer Review Date:

Petra Svacha 07/29/2013

Analysis date: 06/14/2013 Batch Start Time: 6:30 pm Instrument: VOA 5

Page 1 of 1 Continuing Calibration Verification (CCV) and Batch Data

Item	Aspect	1st Yes	Level No	2nd Yes	Level No	Comments: record routine corrective actions here	CAR # QER#
1	Tune meets criteria	✔					
2	All Analyses in tune period 24hr	✔					
3	CCV Acceptance criteria met: CCCs: = 30%D RT: ± 30 seconds Int stds: 60 to 140 % Correct ICAL RFs used					Analysis within the same sequence as an ICAL	
4	Method Blank < RL False pos/neg checked	✔ ✔					
5	LCS/LCSD %R = 70-130 %RSD < 25%	✔ ✔				ICV used as LCS	
6	Test Samples: Correct IDs False pos/neg checked RL, Units Results within curve Dilutions performed	✔ ✔ ✔ ✔ ✔					
8	MB, LCS/LCSD per batch of 20 samples	✔					
9	Manual Integration acceptable: List files	✔					
10	Int Stds Check (optional)	✔					
11	Tune & QC gas ID recorded	✔					
12	All other information recorded	✔					
13	LIMS transcription correct	✔					
14	Analysis within holding time	✔					
15	Canister position on Unity verified	✔					
16	Corrections properly recorded	✔					

Additional Comments:

Injection Log

Instrument Name: VOA5
Data Directory: C:\MSDChem\1\DATA\VOA5\061413\

Line	Vial	FileName	Mult	SampleName	Misc Info		Injected
1	19	BLANK1.D	1.	BLANK1	TO_15A+		14 Jun 2013 5:09 pm
2	19	BLANK2.D	1.	BLANK2	TO_15A+		14 Jun 2013 5:51 pm
3	17	06141301.D	1.	ICAL TOSTD 0.05	TO_15A+	117-5-250	14 Jun 2013 6:31 pm
4	13	06141302.D	1.	ICAL TOSTD 0.10	TO_15A+	117-5-250	14 Jun 2013 7:11 pm
5	13	06141303.D	1.	ICAL TOSTD 0.20	TO_15A+	117-5-250	14 Jun 2013 7:52 pm
6	13	06141304.D	1.	ICAL TOSTD 0.50	TO_15A+	117-5-250	14 Jun 2013 8:37 pm
7	18	06141305.D	1.	ICAL TOSTD 1.0	TO_15A+	117-5-249	14 Jun 2013 9:17 pm
8	18	06141306.D	1.	ICAL TOSTD 2.0	TO_15A+	117-5-249	14 Jun 2013 9:58 pm
9	18	06141307.D	1.	ICAL TOSTD 5.0	TO_15A+	117-5-249	14 Jun 2013 10:43 pm
10	14	06141308.D	1.	ICAL TOSTD 10	TO_15A+	117-5-251	14 Jun 2013 11:24 pm
11	14	06141309.D	1.	ICAL TOSTD 25	TO_15A+	117-5-251	15 Jun 2013 12:10 am
12	14	06141310.D	1.	ICAL TOSTD 50	TO_15A+	117-5-251	15 Jun 2013 1:06 am
13	15	06141311.D	1.	ICV ICV061413-5 5.0	TO_15A+	117-5-245	15 Jun 2013 1:53 am
14	16	06141312.D	1.	LCSD LCSD061413-5 5.0	TO_15A+	117-5-245	15 Jun 2013 2:49 am
15	19	06141313.D	1.	MBLK MB061413-5	TO_15A+	117-5-248	15 Jun 2013 3:44 am
16	1	06141314.D	1.	SAMP 13060322-017A	TO_15A	1/1	15 Jun 2013 4:37 am
17	2	06141315.D	1.	SAMP 13060322-018A	TO_15A	1/1	15 Jun 2013 5:33 am
18	3	06141316.D	1.	SAMP 13060322-019A	TO_15A	1/1	15 Jun 2013 6:28 am
19	4	06141317.D	1.	SAMP 13060322-020A	TO_15A	1/1	15 Jun 2013 7:25 am
20	5	06141318.D	1.	SAMP 13060322-021A	TO_15A	1/1	15 Jun 2013 8:10 am
21	6	06141319.D	1.	SAMP 13060322-022A	TO_15A	1/1	15 Jun 2013 8:55 am
22	7	06141320.D	1.	SAMP 13060322-023A	TO_15A	1/1	15 Jun 2013 9:40 am
23	8	06141321.D	1.	SAMP 13060322-024A	TO_15A	1/1	15 Jun 2013 10:35 am
24	9	06141322.D	1.	SAMP 13060322-025A	TO_15A	1/1	15 Jun 2013 11:29 am
25	10	06141323.D	1.	SAMP 13060471-001A	TO_15A+	1/1	15 Jun 2013 12:56 pm
26	11	06141324.D	1.	SAMP 13060471-002A	TO_15A+	1/1	15 Jun 2013 1:51 pm
27	12	06141325.D	1.	SAMP 13060471-003A	TO_15A+	1/1	15 Jun 2013 2:46 pm
28	8	06141326.D	1.	SAMP 13060471-004A	TO_15A+	1/1	15 Jun 2013 3:43 pm
29	1	06141327.D	1.	SAMP 13060483-015A	TO_15A	1/1	15 Jun 2013 4:30 pm
30	2	06141328.D	1.	SAMP 13060483-016A	TO_15A	1/1	15 Jun 2013 5:29 pm
31	3	06141329.D	1.	SAMP 13060483-017A	TO_15A	1/1	15 Jun 2013 6:28 pm

Not reported:
06141328.D
06141329.D

Method Path : C:\MSDChem\1\DATA\VOA5\061413\
Method File : 061413.M
Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
Last Update : Wed Jun 19 14:05:27 2013
Response Via : Initial Calibration

Calibration Files
5 =06141307.D 0.05=06141301.D 0.10=06141302.D 0.20=06141303.D 0.50=06141304.D 1.00=06141305.D 2.00=06141306.D
10.0=06141308.D 25.0=06141309.D 50.0=06141310.D

		Compound	5	0.05	0.10	0.20	0.50	1.00	2.00	10.0	25.0	50.0	Avg	%RSD
1)	I	bromochloromethane	----------ISTD----------											
2)	C	Propene	0.558	0.666	0.619	0.613	0.590	0.543	0.547	0.541	0.510	0.485	0.567	9.63
3)	C	Dichlorodifluo...	2.473	2.680	2.542	2.570	2.638	2.386	2.442	2.365	2.191	1.983	2.427	8.71
4)	C	Chloromethane	0.734	0.979	0.893	0.771	0.762	0.737	0.740	0.700	0.663	0.623	0.760	13.81
5)	C	Freon-114	1.896	1.985	1.960	2.010	1.965	1.838	1.928	1.780	1.523	1.282	1.817	12.98
6)	C	Vinyl chloride	0.611	0.643	0.630	0.618	0.638	0.578	0.606	0.592	0.569	0.543	0.603	5.36
7)	C	1,3-Butadiene	0.424	0.463	0.489	0.456	0.438	0.418	0.410	0.420	0.401	0.373	0.429	7.80
8)	C	Bromomethane	0.583	0.456	0.445	0.454	0.491	0.498	0.537	0.617	0.639	0.664	0.538	15.24
9)	C	Chloroethane	0.366	0.289	0.337	0.329	0.349	0.345	0.359	0.365	0.361	0.367	0.347	6.92
10)	C	Ethanol	0.160		0.168	0.167	0.112	0.193	0.206	0.283	0.229	0.209	0.192	25.29
11)	C	Acrolein	0.279	0.307	0.336	0.307	0.283	0.299	0.296	0.304	0.277	0.240	0.293	8.65
12)	C	Acetone	0.921					1.103	1.077	1.090	0.917	0.626	0.955	19.05
13)	C	Freon-11	2.493	2.670	2.538	2.556	2.622	2.394	2.470	2.431	2.315	2.172	2.466	5.98
14)	C	Isopropyl alcohol	1.196	0.978	0.995	1.231	1.228	1.113	1.171	1.261	1.222	1.150	1.154	8.53
15)	C	1,1-dichloroet...	1.407	1.485	1.455	1.485	1.479	1.351	1.377	1.355	1.285	1.215	1.389	6.56
16)	C	Dichloromethane	0.906					1.113	0.980	0.838	0.788	0.756	0.897	14.87
17)	C	Carbon disulfide	2.568	2.133	2.205	2.288	2.336	2.410	2.519	2.590	2.432	2.216	2.370	6.75
18)	C	Freon-113	2.107	2.482	2.244	2.286	2.268	2.063	2.101	2.056	1.925	1.701	2.123	10.14
19)	C	trans-1,2-Dich...	1.245	1.271	1.306	1.274	1.303	1.187	1.221	1.218	1.157	1.096	1.228	5.45
20)	C	1,1-Dichloroet...	1.615	1.750	1.706	1.689	1.714	1.580	1.595	1.576	1.494	1.408	1.613	6.62
21)	C	Mtbe	2.658	2.643	2.608	2.590	2.668	2.438	2.569	2.600	2.519	2.342	2.564	4.06
22)	C	Vinyl Acetate	1.593	1.468	1.482	1.470	1.482	1.451	1.525	1.630	1.595	1.495	1.519	4.20
23)	C	2-Butanone	1.531	1.526	1.469	1.532	1.541	1.455	1.493	1.506	1.417	1.315	1.478	4.71
24)	C	cis-1,2-Dichlo...	1.194	1.302	1.222	1.255	1.248	1.155	1.170	1.164	1.109	1.048	1.187	6.27
25)	I	1,4-Difluorobenzene	----------ISTD----------											
26)	C	Hexane	0.232	0.226	0.234	0.235	0.232	0.221	0.229	0.228	0.211	0.187	0.223	6.61
27)	C	Ethyl acetate	0.068	0.039	0.056	0.060	0.063	0.064	0.067	0.070	0.066	0.060	0.061	14.64
28)	C	Chloroform	0.417	0.428	0.426	0.417	0.419	0.402	0.413	0.419	0.403	0.371	0.412	4.07
29)	C	Tetrahydrofuran	0.178	0.353	0.253	0.214	0.181	0.174	0.176	0.180	0.171	0.159	0.204	28.99
30)	C	1,2-Dichloroet...	0.258	0.246	0.263	0.259	0.257	0.244	0.256	0.258	0.251	0.235	0.253	3.35
31)	C	1,1,1-Trichlor...	0.428	0.439	0.423	0.421	0.414	0.404	0.420	0.435	0.422	0.384	0.419	3.75
32)	C	Benzene	0.645	0.726	0.704	0.670	0.662	0.623	0.642	0.640	0.599	0.523	0.643	8.72
33)	C	Carbon tetrach...	0.412	0.179	0.249	0.277	0.305	0.355	0.385	0.437	0.431	0.384	0.341	25.17
34)	C	Cyclohexane	0.286	0.281	0.275	0.289	0.288	0.274	0.281	0.285	0.267	0.236	0.276	5.67
35)	C	1,2-Dichloropr...	0.209	0.211	0.214	0.213	0.211	0.201	0.207	0.208	0.194	0.173	0.204	6.08
36)	C	Bromodichlorom...	0.461	0.423	0.428	0.436	0.441	0.427	0.449	0.467	0.436	0.367	0.434	6.35
37)	C	Trichloroethene	0.343	0.360	0.360	0.347	0.336	0.319	0.333	0.346	0.325	0.270	0.334	7.84
38)	C	1,4-Dioxane	0.117				0.100	0.121	0.115	0.129	0.118	0.094	0.113	10.82
39)	C	Methyl methacr...	0.217	0.176	0.178	0.202	0.208	0.198	0.211	0.223	0.214	0.197	0.202	7.76
40)	C	Heptane	0.292	0.283	0.299	0.295	0.302	0.289	0.299	0.288	0.254	0.216	0.282	9.53
41)	C	cis-1,3-Dichlo...	0.368	0.296	0.312	0.322	0.337	0.330	0.353	0.372	0.348	0.298	0.334	8.13

Method Path : C:\MSDChem\1\DATA\VOA5\061413\
Method File : 061413.M
Title : SOP 4010 EPA TO-15 MDL update 12/26/2012

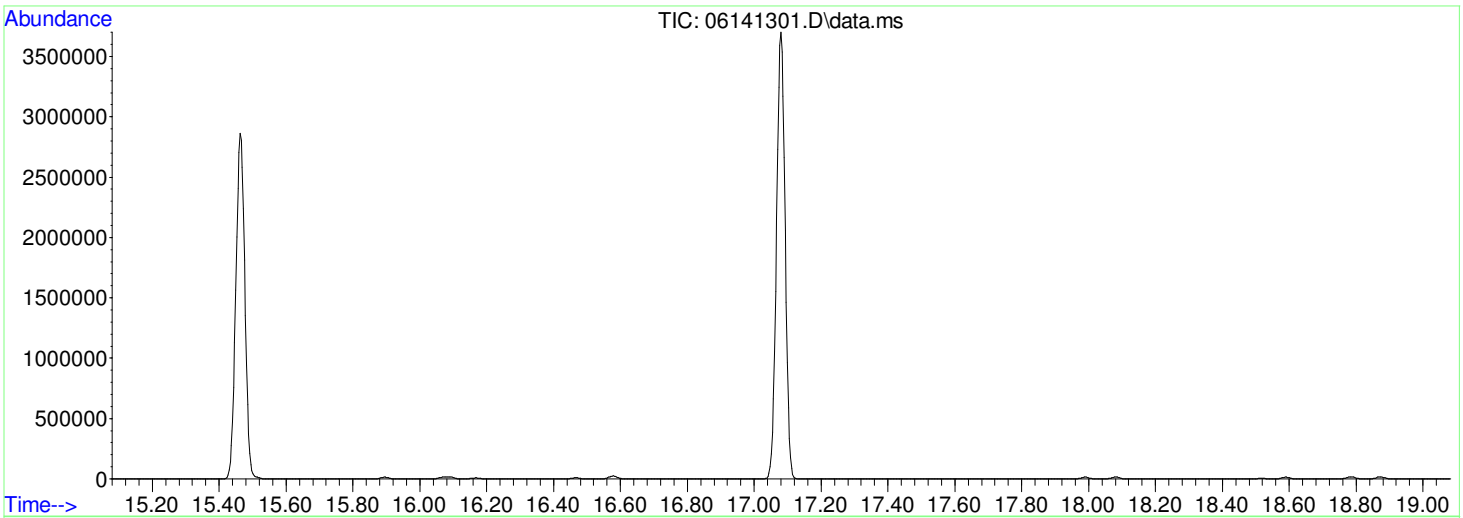
42)	C	4-Methyl-2-pen...	0.413	0.317	0.330	0.360	0.379	0.380	0.405	0.413	0.365	0.308	0.367	10.47
43)	C	trans-1,3-Dich...	0.397	0.254	0.287	0.312	0.331	0.337	0.372	0.412	0.402	0.363	0.347	15.04
44)	C	1,1,2-Trichlor...	0.279	0.305	0.286	0.285	0.288	0.267	0.275	0.282	0.267	0.231	0.277	7.03
45)	C	Toluene	0.840	0.849	0.845	0.834	0.848	0.812	0.834	0.835	0.750	0.597	0.804	9.75
46)	C	2-Hexanone	0.331	0.224	0.238	0.259	0.288	0.296	0.322	0.343	0.317	0.277	0.290	13.83
47)	C	Dibromochlorom...	0.528	0.434	0.445	0.471	0.484	0.469	0.504	0.542	0.504	0.411	0.479	8.68
48)	C	1,2-Dibromoethane	0.442	0.423	0.422	0.432	0.432	0.411	0.431	0.448	0.420	0.352	0.421	6.30
49)	C	Tetrachloroethene	0.491	0.516	0.487	0.472	0.472	0.453	0.475	0.504	0.471	0.381	0.472	7.78
50)	I	Chlorobenzene-d5	----------ISTD----------											
51)	C	Chlorobenzene	0.784	0.847	0.840	0.800	0.793	0.753	0.771	0.781	0.714	0.575	0.766	10.10
52)	C	Ethylbenzene	0.400	0.405	0.390	0.392	0.386	0.373	0.390	0.402	0.372	0.312	0.382	7.10
53)	C,	L1Xylene (1)	0.499	0.519	0.500	0.496	0.498	0.480	0.492	0.496	0.426	0.326	0.473	12.06
54)	C,	L1Xylene (2)	0.482	0.513	0.502	0.480	0.474	0.460	0.471	0.475	0.397	0.309	0.456	13.18
55)	C,	L1Xylenes, total	0.493	0.517	0.501	0.491	0.490	0.474	0.485	0.489	0.416	0.321	0.468	12.39
56)	C	Bromoform	0.617	0.450	0.481	0.504	0.531	0.521	0.570	0.649	0.591	0.467	0.538	12.41
57)	C	Styrene	0.754	0.610	0.624	0.650	0.700	0.691	0.731	0.765	0.698	0.562	0.679	9.70
58)	C	1,1,2,2-Tetrac...	0.613	0.620	0.610	0.613	0.612	0.589	0.610	0.593	0.477	0.349	0.569	15.49
59)	C	4-Ethyltoluene	0.446	0.363	0.394	0.396	0.410	0.406	0.434	0.454	0.411	0.333	0.405	9.08
60)	C	1,3,5-Trimethy...	0.623	0.576	0.574	0.584	0.598	0.581	0.610	0.628	0.555	0.437	0.577	9.39
61)	C	1,2,4-Trimethy...	0.577	0.514	0.500	0.505	0.544	0.530	0.563	0.582	0.526	0.425	0.527	8.76
62)	C	Benzyl chloride	0.947			0.444	0.576	0.645	0.814	0.998	0.893	0.647	0.746	26.35
63)	C	1,3-Dichlorobe...	0.897	0.962	0.924	0.885	0.880	0.839	0.871	0.910	0.776	0.573	0.852	12.89
64)	C	1,4-Dichlorobe...	0.916	0.990	0.927	0.915	0.898	0.856	0.894	0.927	0.811	0.613	0.875	11.81
65)	C	1,2-Dichlorobe...	0.844	0.926	0.854	0.837	0.825	0.780	0.820	0.860	0.781	0.606	0.813	10.32
66)	C	1,2,4-Trichlor...	0.790			1.044	0.864	0.752	0.771	0.801	0.736	0.569	0.791	16.82
67)	C	Naphthalene	1.511	1.230	1.217	1.274	1.368	1.305	1.447	1.499	1.286	0.910	1.305	13.38
68)	C	Hexachlorobuta...	0.698			0.766	0.686	0.613	0.658	0.709	0.596	0.377	0.638	18.57

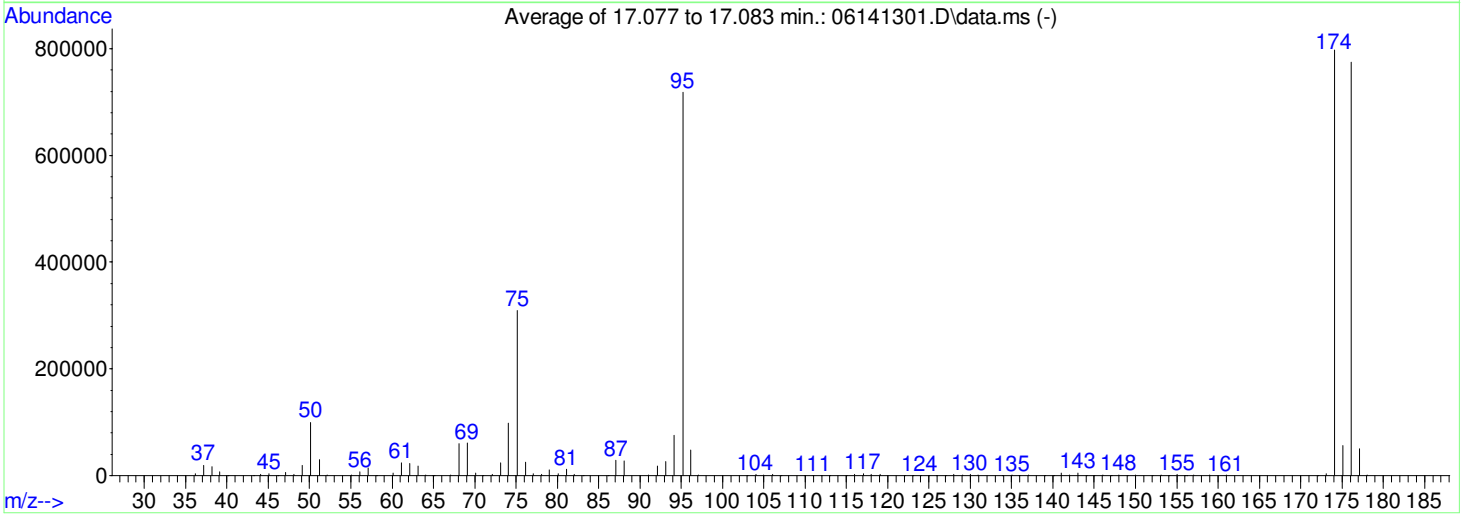
(#) = Out of Range

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141301.D
Acq On : 14 Jun 2013 6:31 pm
Operator : VP
Sample : TUNE BFB061413-5
Misc : BFB 158-1-354
ALS Vial : 17 Sample Multiplier: 1
InstName : VOA5

Integration File: retint.p

Method : C:\MSDChem\1\DATA\VOA5\061413\120612.M
Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
Last Update : Wed Dec 26 10:17:29 2012





AutoFind: Scans 4352, 4353, 4354; Background Corrected with Scan 4335

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	13.9	99570	PASS
75	95	30	66	43.0	309184	PASS
95	95	100	100	100.0	718250	PASS
96	95	5	9	6.7	48074	PASS
173	174	0.00	2	0.5	4181	PASS
174	95	50	120	111.0	797120	PASS
175	174	4	9	7.1	56560	PASS
176	174	93	101	97.2	774848	PASS
177	176	5	9	6.5	50618	PASS

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141301.D
Acq On : 14 Jun 2013 6:31 pm
Operator : VP
Sample : ICAL TOSTD 0.05
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 17 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 12:58:34 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) bromochloromethane	9.173	49	432398	10.00	ppbv		0.00
25) 1,4-Difluorobenzene	11.183	114	2193350	10.00	ppbv		0.00
50) Chlorobenzene-d5	15.463	117	1976006	10.00	ppbv		0.00

Target Compounds							Qvalue
2) Propene	3.598	41	1440	0.07	ppbv		99
3) Dichlorodifluoromethane	3.691	85	5794	0.05	ppbv		98
4) Chloromethane	3.878	50	2117	0.06	ppbv		98
5) Freon-114	4.023	85	4291	0.05	ppbv		97
6) Vinyl chloride	4.148	62	1390	0.06	ppbv		94
7) 1,3-Butadiene	4.322	54	1000	0.05	ppbv	#	81
8) Bromomethane	4.627	94	985	0.02	ppbv		92
9) Chloroethane	4.871	64	625m	0.03	ppbv		
10) Ethanol	5.138	45	170	0.02	ppbv	#	41
11) Acrolein	5.514	56	663	0.05	ppbv		95
12) Acetone	5.704	43	3890	0.08	ppbv		99
13) Freon-11	5.830	101	5772	0.05	ppbv		97
14) Isopropyl alcohol	6.077	45	2115	0.04	ppbv	#	76
15) 1,1-dichloroethene	6.601	61	3210	0.06	ppbv		96
16) Dichloromethane	6.765	49	19743	0.45	ppbv		98
17) Carbon disulfide	7.048	76	4611	0.03	ppbv		77
18) Freon-113	7.096	101	5366	0.05	ppbv		94
19) trans-1,2-Dichloroethene	7.858	61	2747	0.05	ppbv		100
20) 1,1-Dichloroethane	8.083	63	3784	0.05	ppbv		97
21) Mtbe	8.209	73	5715	0.05	ppbv		94
22) Vinyl Acetate	8.309	43	3173	0.05	ppbv		81
23) 2-Butanone	8.575	43	3299	0.05	ppbv		96
24) cis-1,2-Dichloroethene	9.000	61	2814	0.05	ppbv		93
26) Hexane	9.244	57	2976	0.06	ppbv		95
27) Ethyl acetate	9.299	61	361m	0.03	ppbv		
28) Chloroform	9.318	83	4696	0.05	ppbv		99
29) Tetrahydrofuran	9.775	42	3876	0.10	ppbv		96
30) 1,2-Dichloroethane	10.090	62	2703	0.05	ppbv		95
31) 1,1,1-Trichloroethane	10.337	97	4810	0.05	ppbv		95
32) Benzene	10.810	78	7958	0.06	ppbv		97
33) Carbon tetrachloride	10.955	117	1964	0.02	ppbv		86
34) Cyclohexane	11.077	56	3086	0.05	ppbv		97
35) 1,2-Dichloropropane	11.627	63	2312	0.05	ppbv		94
36) Bromodichloromethane	11.829	83	4641	0.05	ppbv		98
37) Trichloroethene	11.865	130	3947	0.05	ppbv		98
38) 1,4-Dioxane	11.890	88	1010m	0.04	ppbv		
39) Methyl methacrylate	12.083	69	1925m	0.04	ppbv		
40) Heptane	12.170	43	3105	0.06	ppbv		100
41) cis-1,3-Dichloropropene	12.723	75	3243	0.05	ppbv		90
42) 4-Methyl-2-pentanone	12.768	43	3061	0.04	ppbv		89
43) trans-1,3-Dichloropropene	13.238	75	2367	0.03	ppbv		73
44) 1,1,2-Trichloroethane	13.408	97	3349	0.05	ppbv		91
45) Toluene	13.685	91	9307	0.05	ppbv		99
46) 2-Hexanone	13.945	43	2461m	0.04	ppbv		
47) Dibromochloromethane	14.102	129	4764	0.05	ppbv		99
48) 1,2-Dibromoethane	14.353	107	4639	0.05	ppbv		100
49) Tetrachloroethene	14.816	166	5662	0.05	ppbv		99
51) Chlorobenzene	15.504	112	8372	0.05	ppbv		92
52) Ethylbenzene	15.897	106	4006	0.05	ppbv		99
53) Xylene (1)	16.086	106	10252m	0.11	ppbv		
54) Xylene (2)	16.581	106	5064	0.05	ppbv		98

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141301.D
Acq On : 14 Jun 2013 6:31 pm
Operator : VP
Sample : ICAL TOSTD 0.05
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 17 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 12:58:34 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

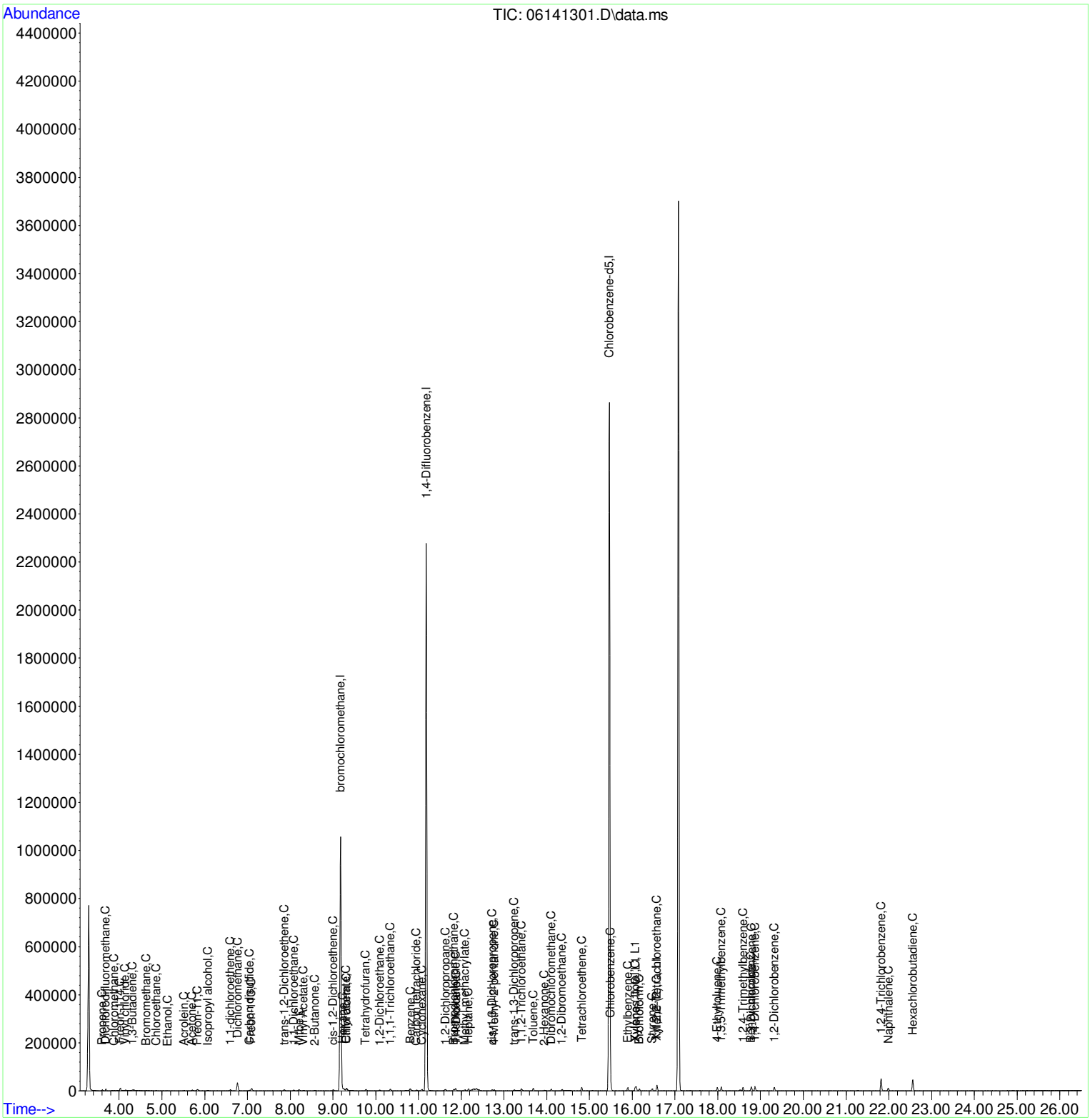
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.073	106	15316m	0.16 ppbv	
56) Bromoform	16.170	173	4444	0.05 ppbv	97
57) Styrene	16.466	104	6027	0.05 ppbv	98
58) 1,1,2,2-Tetrachloroethane	16.572	83	6129	0.05 ppbv	98
59) 4-Ethyltoluene	17.990	120	3590	0.04 ppbv	88
60) 1,3,5-Trimethylbenzene	18.083	120	5693	0.05 ppbv	98
61) 1,2,4-Trimethylbenzene	18.591	120	5078	0.05 ppbv	99
62) Benzyl chloride	18.768	91	2970	0.02 ppbv	91
63) 1,3-Dichlorobenzene	18.787	146	9507	0.05 ppbv	98
64) 1,4-Dichlorobenzene	18.871	146	9782	0.05 ppbv	100
65) 1,2-Dichlorobenzene	19.321	146	9146	0.05 ppbv	98
66) 1,2,4-Trichlorobenzene	21.819	180	21704	0.11 ppbv	98
67) Naphthalene	21.990	128	12152	0.04 ppbv	99
68) Hexachlorobutadiene	22.559	225	11940	0.08 ppbv	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141301.D
Acq On : 14 Jun 2013 6:31 pm
Operator : VP
Sample : ICAL TOSTD 0.05
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 17 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 12:58:34 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141301.D
Acq On : 14 Jun 2013 6:31 pm
Operator : VP
Sample : ICAL TOSTD 0.05
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 17 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:40 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) bromochloromethane	9.173	49	432398	10.00	ppbv		0.00
25) 1,4-Difluorobenzene	11.183	114	2193350	10.00	ppbv		0.00
50) Chlorobenzene-d5	15.463	117	1976006	10.00	ppbv		0.00

Target Compounds							Qvalue
2) Propene	3.598	41	1440	0.07	ppbv		99
3) Dichlorodifluoromethane	3.691	85	5794	0.05	ppbv		98
4) Chloromethane	3.878	50	2117	0.06	ppbv		98
5) Freon-114	4.023	85	4291	0.05	ppbv		97
6) Vinyl chloride	4.148	62	1390	0.06	ppbv		94
7) 1,3-Butadiene	4.322	54	1000	0.05	ppbv	#	81
8) Bromomethane	4.627	94	985	0.02	ppbv		92
9) Chloroethane	4.849	64	153	0.01	ppbv	#	42
10) Ethanol	5.138	45	170	0.02	ppbv	#	41
11) Acrolein	5.514	56	663	0.05	ppbv		95
12) Acetone	5.704	43	3890	0.08	ppbv		99
13) Freon-11	5.830	101	5772	0.05	ppbv		97
14) Isopropyl alcohol	6.077	45	2115	0.04	ppbv	#	76
15) 1,1-dichloroethene	6.601	61	3210	0.06	ppbv		96
16) Dichloromethane	6.765	49	19743	0.45	ppbv		98
17) Carbon disulfide	7.048	76	4611	0.03	ppbv		77
18) Freon-113	7.096	101	5366	0.05	ppbv		94
19) trans-1,2-Dichloroethene	7.858	61	2747	0.05	ppbv		100
20) 1,1-Dichloroethane	8.083	63	3784	0.05	ppbv		97
21) Mtbe	8.209	73	5715	0.05	ppbv		94
22) Vinyl Acetate	8.309	43	3173	0.05	ppbv		81
23) 2-Butanone	8.575	43	3299	0.05	ppbv		96
24) cis-1,2-Dichloroethene	9.000	61	2814	0.05	ppbv		93
26) Hexane	9.244	57	2976	0.06	ppbv		95
27) Ethyl acetate	9.299	61	108	0.01	ppbv	#	4
28) Chloroform	9.318	83	4696	0.05	ppbv		99
29) Tetrahydrofuran	9.775	42	3876	0.10	ppbv		96
30) 1,2-Dichloroethane	10.090	62	2703	0.05	ppbv		95
31) 1,1,1-Trichloroethane	10.337	97	4810	0.05	ppbv		95
32) Benzene	10.810	78	7958	0.06	ppbv		97
33) Carbon tetrachloride	10.955	117	1964	0.02	ppbv		86
34) Cyclohexane	11.077	56	3086	0.05	ppbv		97
35) 1,2-Dichloropropane	11.627	63	2312	0.05	ppbv		94
36) Bromodichloromethane	11.829	83	4641	0.05	ppbv		98
37) Trichloroethene	11.865	130	3947	0.05	ppbv		98
38) 1,4-Dioxane	11.890	88	1010	0.04	ppbv	#	66
39) Methyl methacrylate	12.083	69	1925	0.04	ppbv	#	72
40) Heptane	12.170	43	3105	0.06	ppbv		100
41) cis-1,3-Dichloropropene	12.723	75	3243	0.05	ppbv		90
42) 4-Methyl-2-pentanone	12.768	43	3061	0.04	ppbv		89
43) trans-1,3-Dichloropropene	13.238	75	2367	0.03	ppbv		73
44) 1,1,2-Trichloroethane	13.408	97	3349	0.05	ppbv		91
45) Toluene	13.685	91	9307	0.05	ppbv		99
46) 2-Hexanone	13.945	43	2461	0.04	ppbv	#	54
47) Dibromochloromethane	14.102	129	4764	0.05	ppbv		99
48) 1,2-Dibromoethane	14.353	107	4639	0.05	ppbv		100
49) Tetrachloroethene	14.816	166	5662	0.05	ppbv		99
51) Chlorobenzene	15.504	112	8372	0.05	ppbv		92
52) Ethylbenzene	15.897	106	4006	0.05	ppbv		99
53) Xylene (1)	16.073	106	5792	0.06	ppbv	#	2
54) Xylene (2)	16.581	106	5064	0.05	ppbv		98

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141301.D
Acq On : 14 Jun 2013 6:31 pm
Operator : VP
Sample : ICAL TOSTD 0.05
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 17 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:40 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

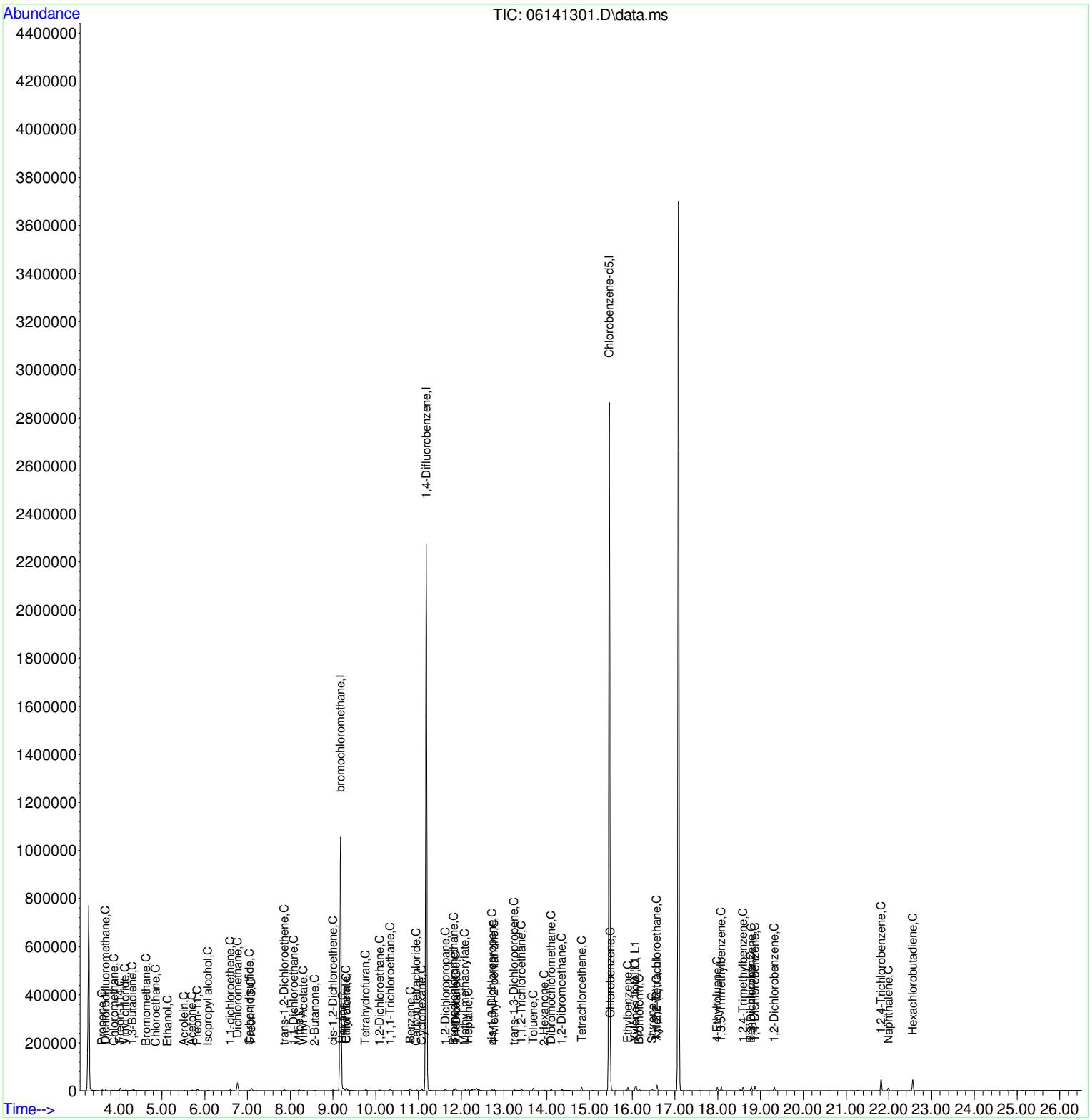
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.073	106	10856m	0.11 ppbv	
56) Bromoform	16.170	173	4444	0.05 ppbv	97
57) Styrene	16.466	104	6027	0.05 ppbv	98
58) 1,1,2,2-Tetrachloroethane	16.572	83	6129	0.05 ppbv	98
59) 4-Ethyltoluene	17.990	120	3590	0.04 ppbv	88
60) 1,3,5-Trimethylbenzene	18.083	120	5693	0.05 ppbv	98
61) 1,2,4-Trimethylbenzene	18.591	120	5078	0.05 ppbv	99
62) Benzyl chloride	18.768	91	2970	0.02 ppbv	91
63) 1,3-Dichlorobenzene	18.787	146	9507	0.05 ppbv	98
64) 1,4-Dichlorobenzene	18.871	146	9782	0.05 ppbv	100
65) 1,2-Dichlorobenzene	19.321	146	9146	0.05 ppbv	98
66) 1,2,4-Trichlorobenzene	21.819	180	21704	0.11 ppbv	98
67) Naphthalene	21.990	128	12152	0.04 ppbv	99
68) Hexachlorobutadiene	22.559	225	11940	0.08 ppbv	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

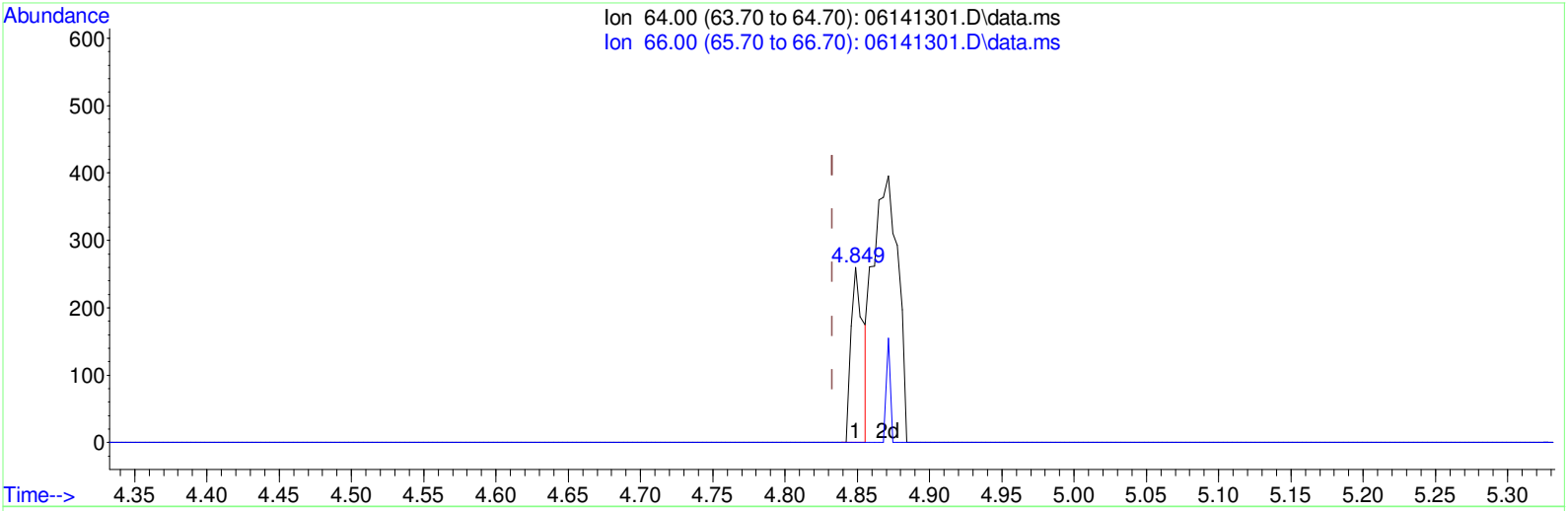
Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141301.D
Acq On : 14 Jun 2013 6:31 pm
Operator : VP
Sample : ICAL TOSTD 0.05
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 17 Sample Multiplier: 1
InstName : VOA5

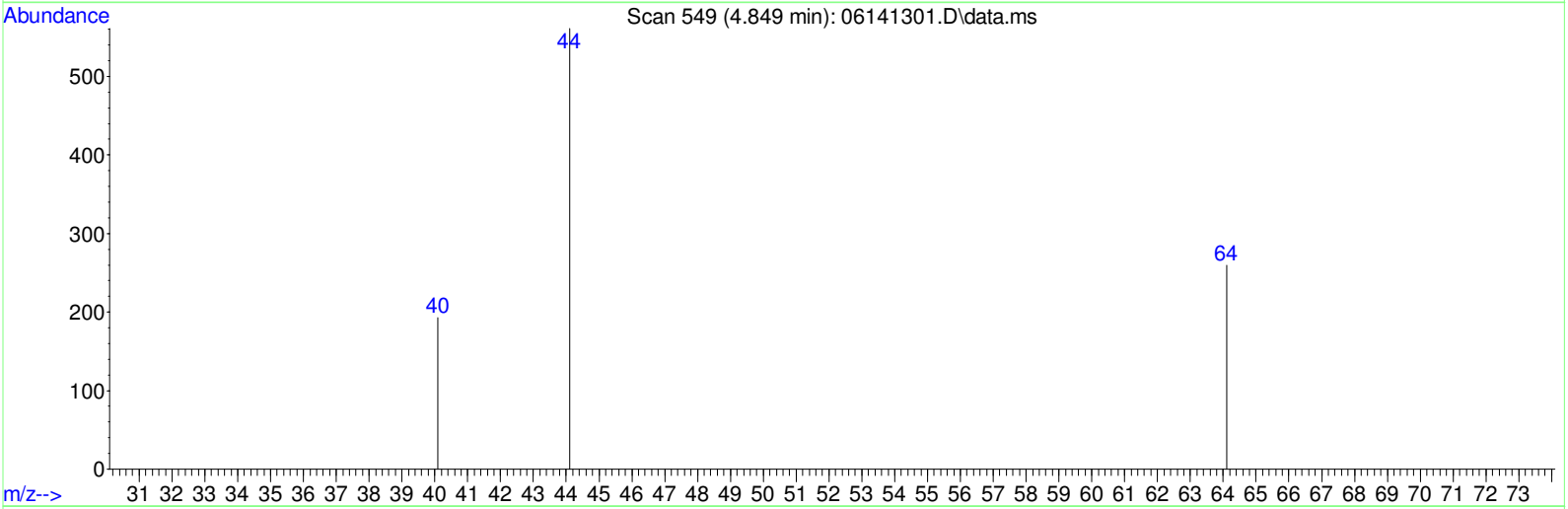
Quant Time: Jun 17 18:58:40 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration



Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141301.D
Acq On : 14 Jun 2013 6:31 pm
Operator : VP
Sample : ICAL TOSTD 0.05
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 17 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:40 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration





TIC: 06141301.D\data.ms

(9) Chloroethane (C)

4.849min (+0.016) 0.01ppbv

response 153

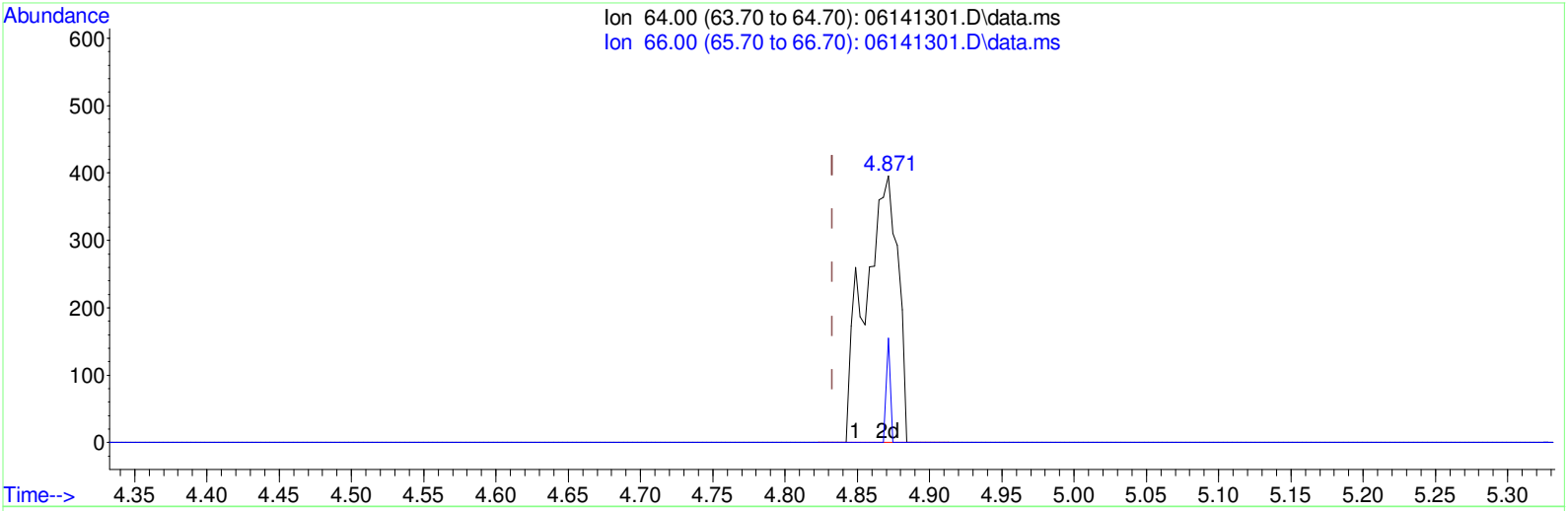
Ion	Exp%	Act%
64.00	100	100
66.00	32.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

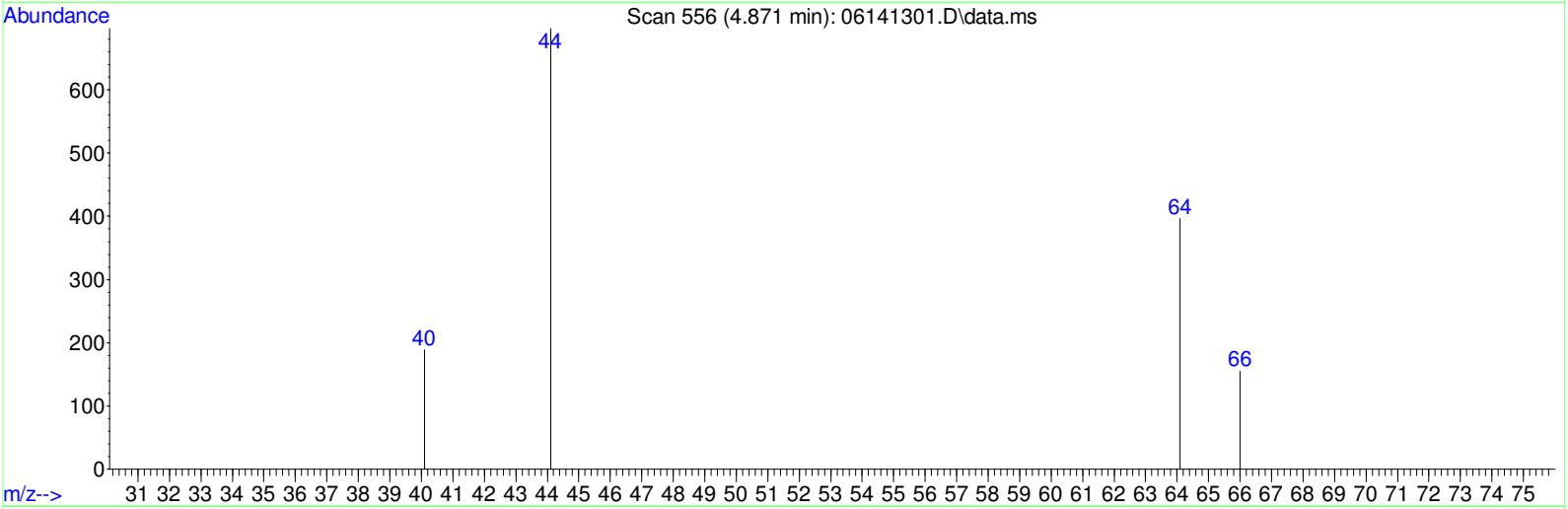
BEFORE

By Vytautas at 15:37:36, 7/25/2013

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141301.D
Acq On : 14 Jun 2013 6:31 pm
Operator : VP
Sample : ICAL TOSTD 0.05
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 17 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:40 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration





TIC: 06141301.D\data.ms

(9) Chloroethane (C)

4.871min (+0.039) 0.03ppbv m

response 625

Ion	Exp%	Act%
64.00	100	100
66.00	32.70	4.80#
0.00	0.00	0.00
0.00	0.00	0.00

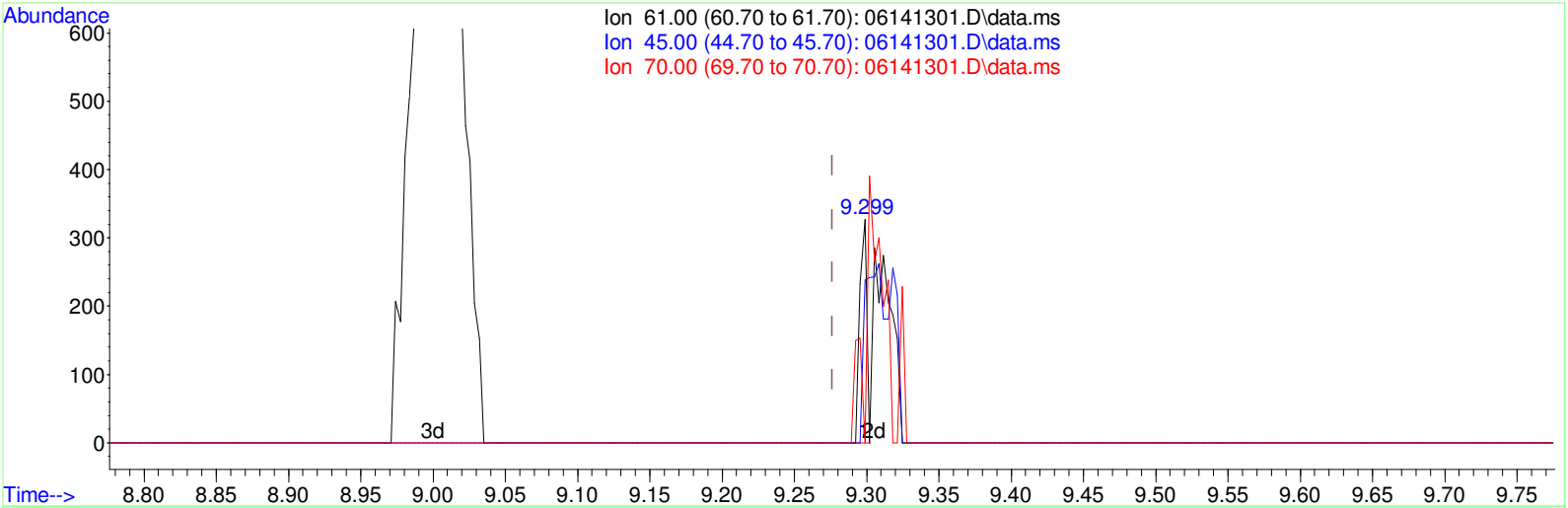
AFTER M3

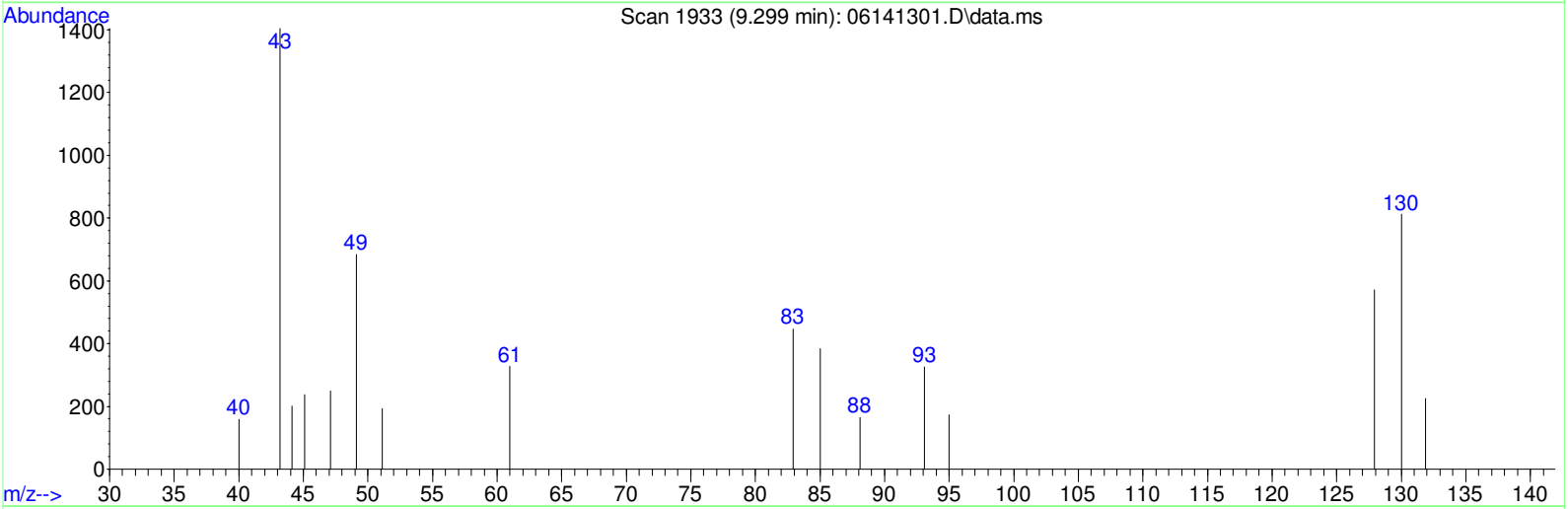
By Vytautas at 15:37:47, 7/25/2013

Quantitation Report (Qedit)

```
Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141301.D
Acq On    : 14 Jun 2013   6:31 pm
Operator  : VP
Sample    : ICAL TOSTD 0.05
Misc      : TO_15A+        117-5-250 CAN 157
ALS Vial  : 17   Sample Multiplier: 1
InstName  : VOA5

Quant Time: Jun 17 18:58:40 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title  : SOP 4010 EPA   TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration
```





TIC: 06141301.D\data.ms

(27) Ethyl acetate (C)

9.299min (+0.023) 0.01ppbv

response 108

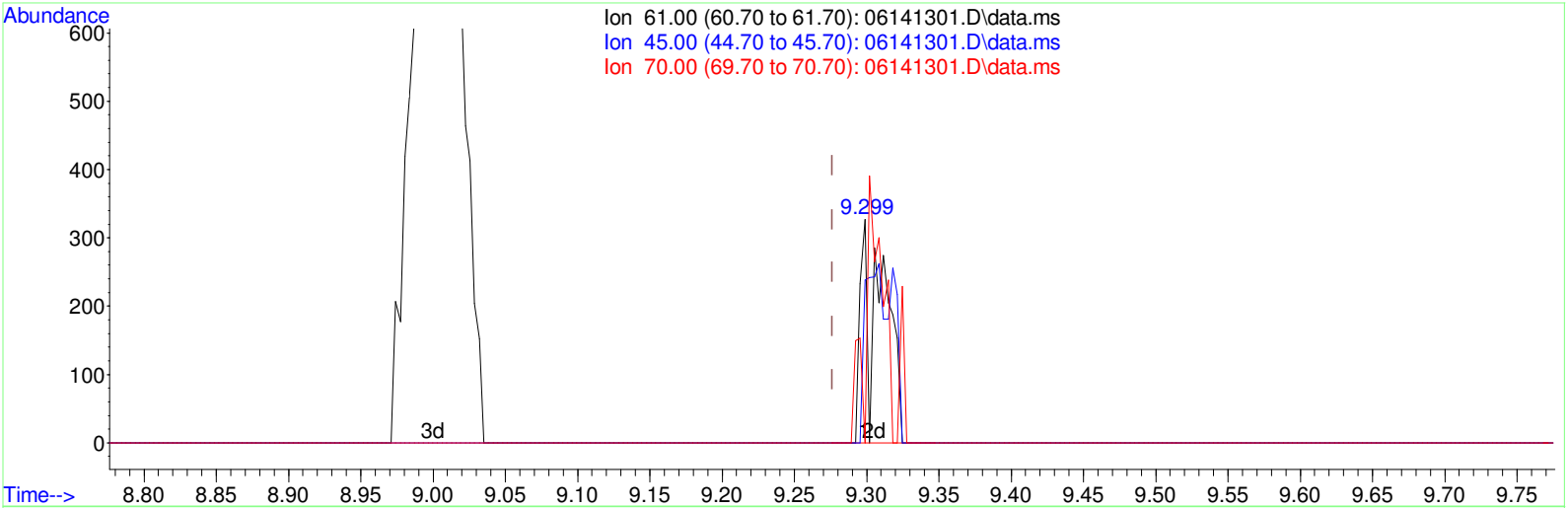
Ion	Exp%	Act%
61.00	100	100
45.00	87.30	0.00#
70.00	93.10	0.00#
0.00	0.00	0.00

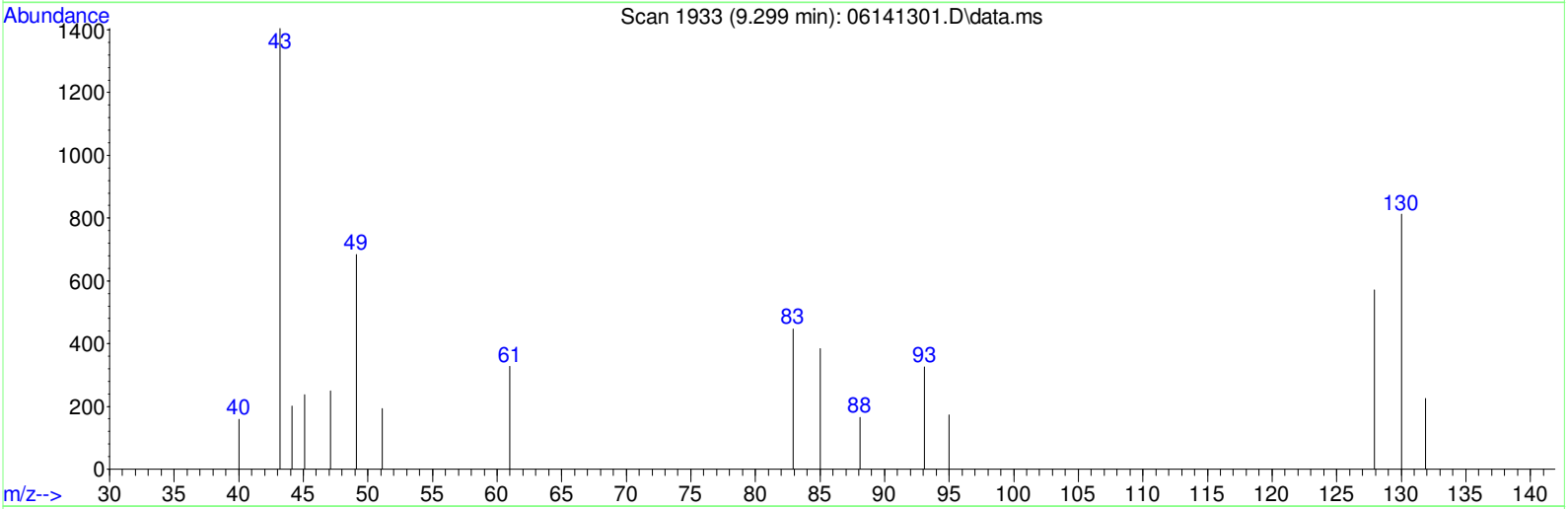
BEFORE

By Vytautas at 15:37:53, 7/25/2013

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141301.D
Acq On : 14 Jun 2013 6:31 pm
Operator : VP
Sample : ICAL TOSTD 0.05
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 17 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:40 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration





TIC: 06141301.D\data.ms

(27) Ethyl acetate (C)

9.299min (+0.023) 0.03ppbv m

response 361

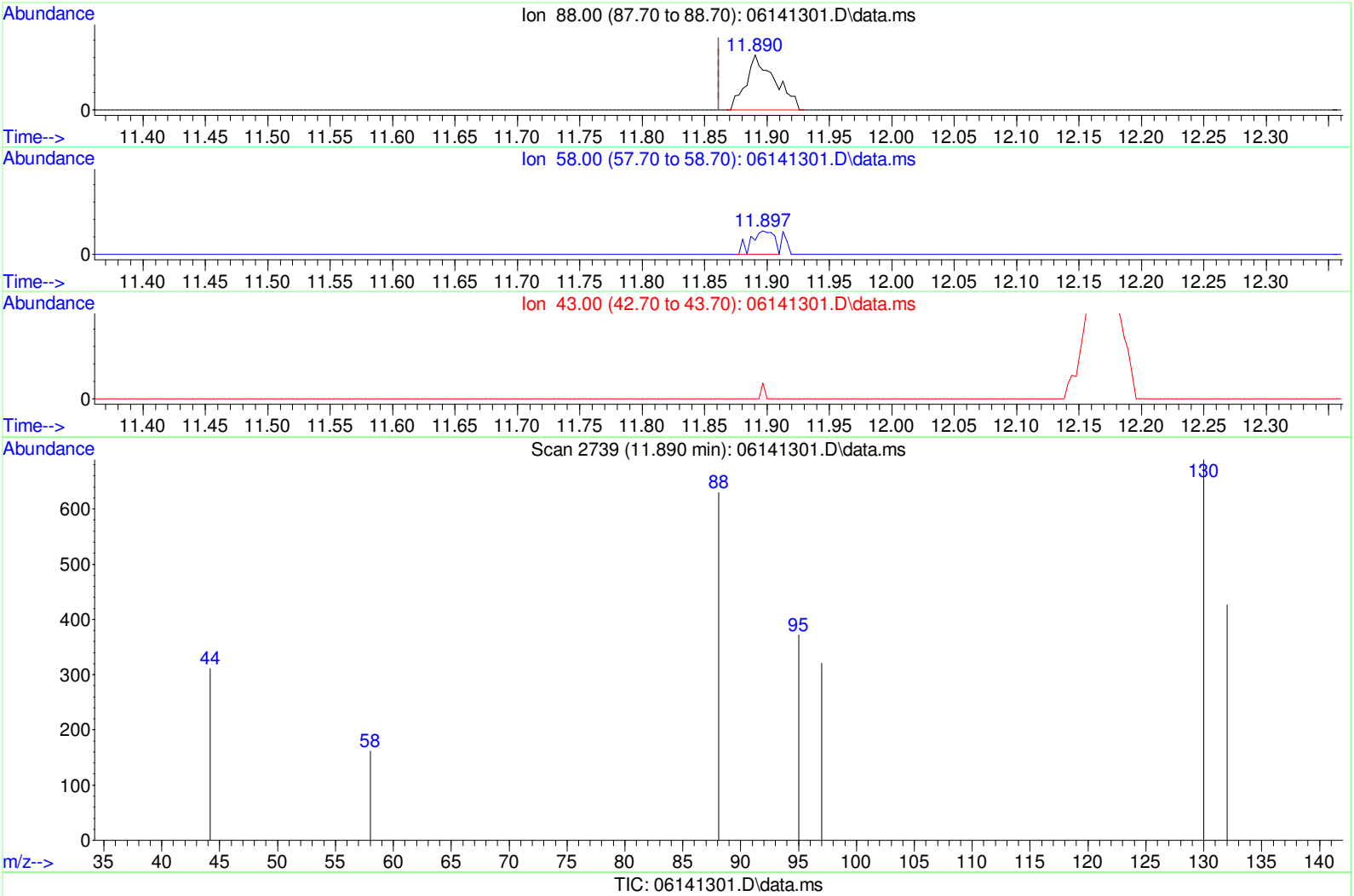
Ion	Exp%	Act%
61.00	100	100
45.00	87.30	97.23
70.00	93.10	102.77
0.00	0.00	0.00

AFTER M3

By Vytautas at 15:38:33, 7/25/2013

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141301.D
Acq On : 14 Jun 2013 6:31 pm
Operator : VP
Sample : ICAL TOSTD 0.05
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 17 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:40 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration



TIC: 06141301.D\data.ms

(38) 1,4-Dioxane (C)

11.890min (+0.029) 0.04ppbv

response 1010

Ion	Exp%	Act%
88.00	100	100
58.00	56.10	33.76#
43.00	20.30	0.00#
0.00	0.00	0.00

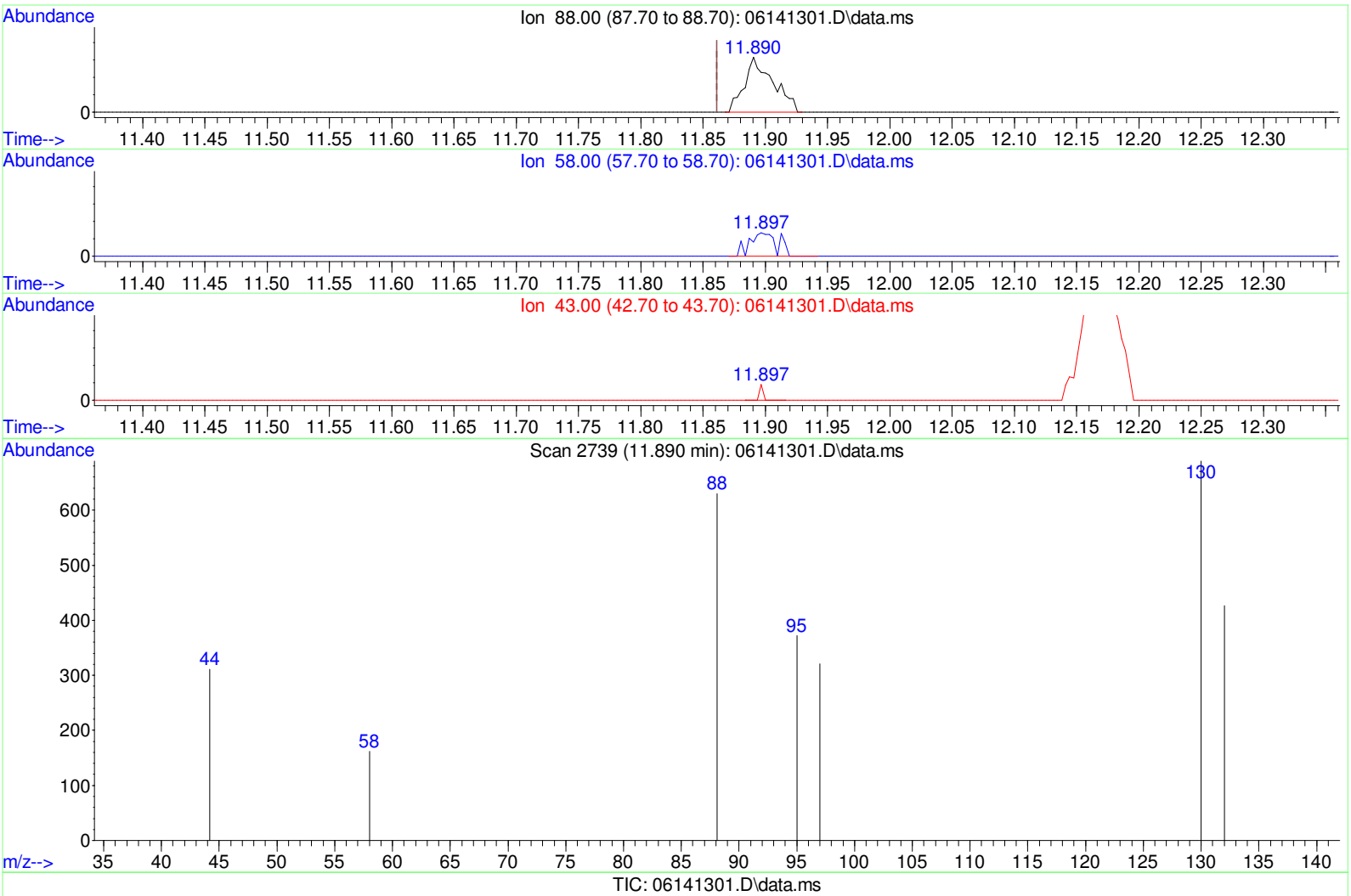
BEFORE

By Vytautas at 15:37:58, 7/25/2013

Quantitation Report (Qedit)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141301.D
Acq On : 14 Jun 2013 6:31 pm
Operator : VP
Sample : ICAL TOSTD 0.05
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 17 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:40 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration



(38) 1,4-Dioxane (C)

11.890min (+0.029) 0.04ppbv m

response 1010

Ion	Exp%	Act%
88.00	100	100
58.00	56.10	41.78
43.00	20.30	3.47
0.00	0.00	0.00

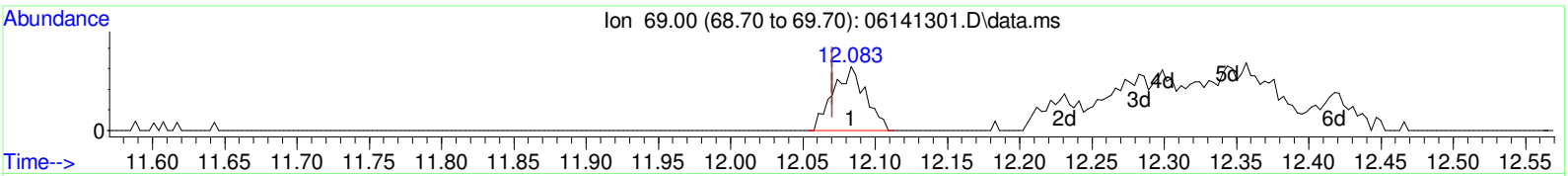
AFTER M5

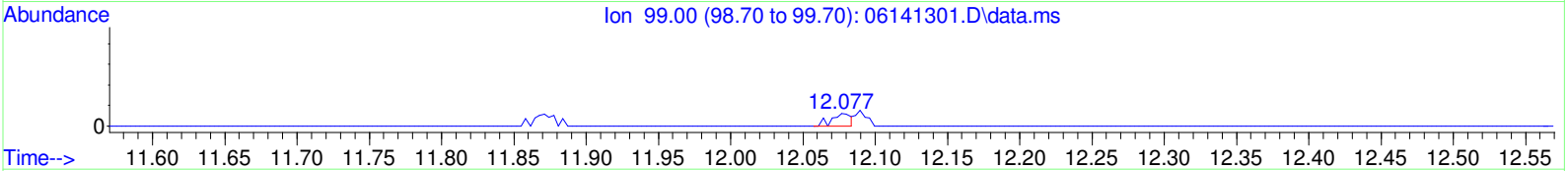
By Vytautas at 15:39:26, 7/25/2013

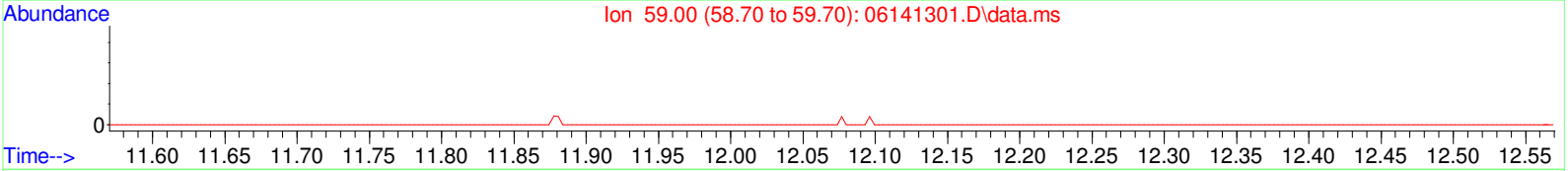
Quantitation Report (Qedit)

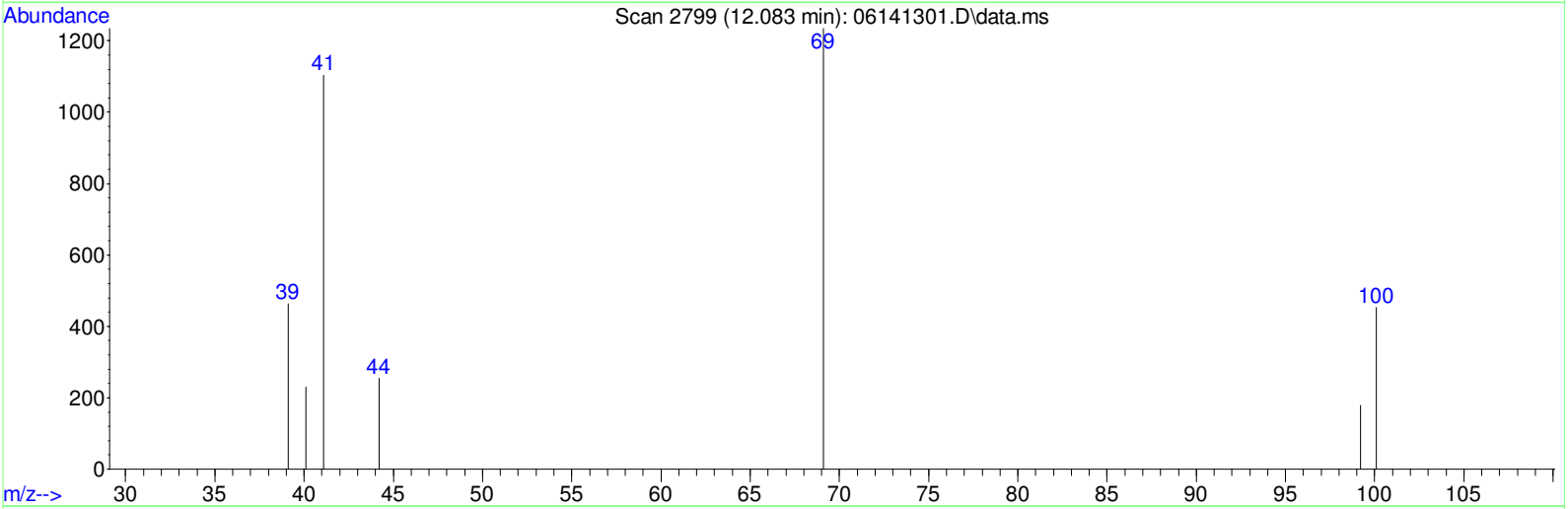
Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141301.D
Acq On : 14 Jun 2013 6:31 pm
Operator : VP
Sample : ICAL TOSTD 0.05
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 17 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:40 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration









(39) Methyl methacrylate (C)

12.083min (+0.013) 0.04ppbv

response 1925

Ion	Exp%	Act%
69.00	100	100
99.00	25.00	11.58
59.00	11.90	0.00
0.00	0.00	0.00

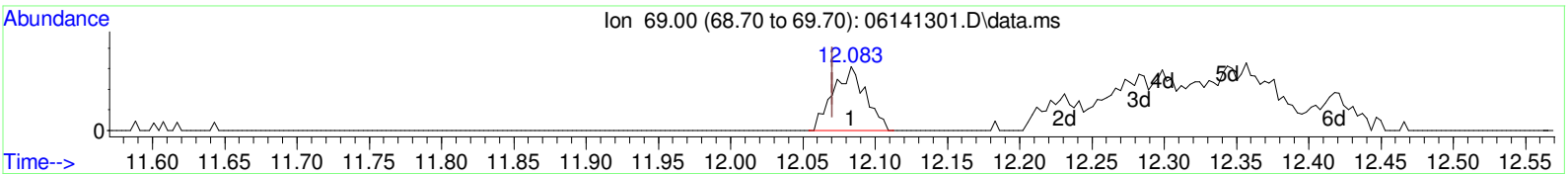
BEFORE

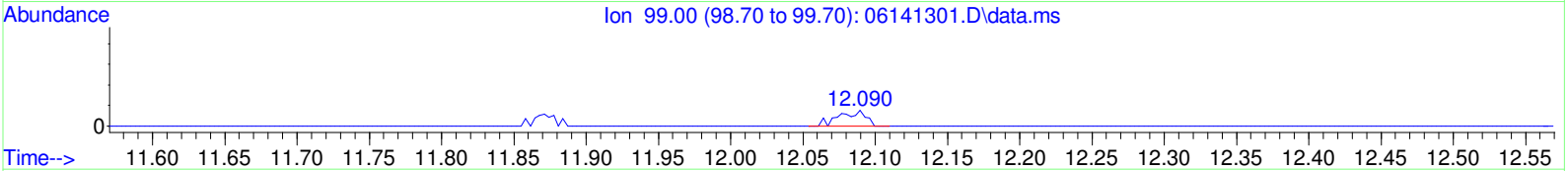
By Vytautas at 15:38:02, 7/25/2013

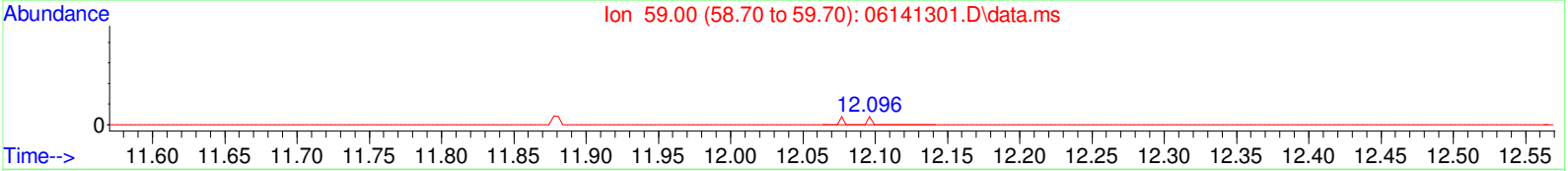
Quantitation Report (Qedit)

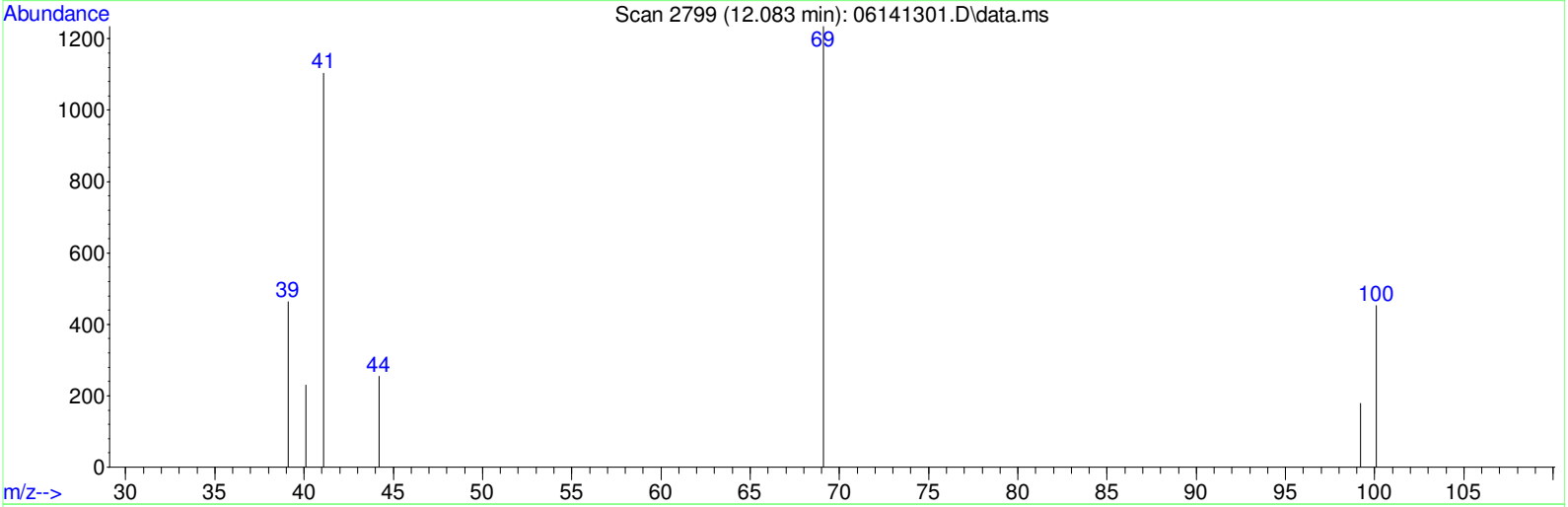
Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141301.D
Acq On : 14 Jun 2013 6:31 pm
Operator : VP
Sample : ICAL TOSTD 0.05
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 17 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:40 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration









TIC: 06141301.D\data.ms

(39) Methyl methacrylate (C)

12.083min (+0.013) 0.04ppbv m

response 1925

Ion	Exp%	Act%
69.00	100	100
99.00	25.00	20.00
59.00	11.90	3.22
0.00	0.00	0.00

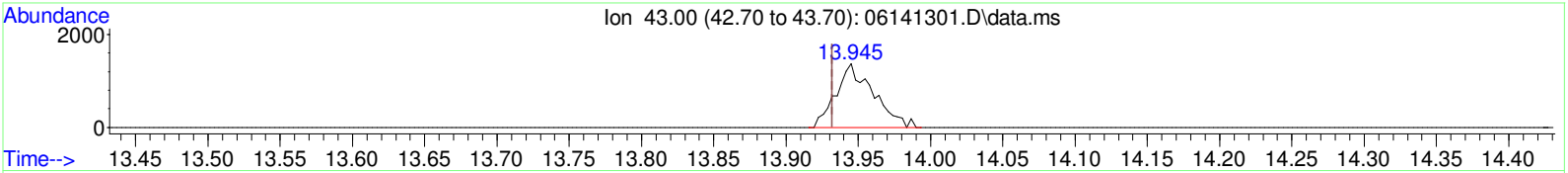
AFTER M5

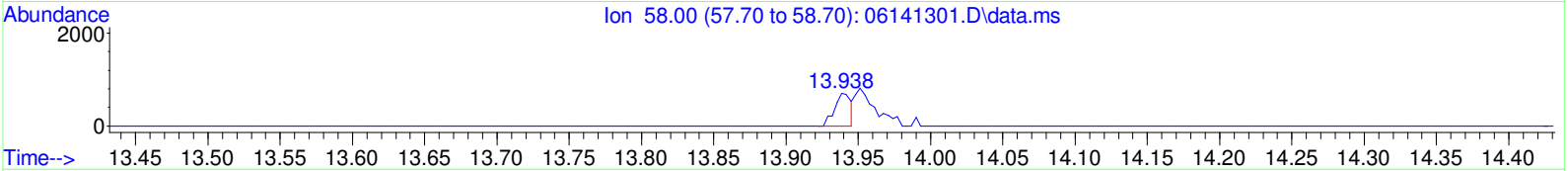
By Vytautas at 15:38:54, 7/25/2013

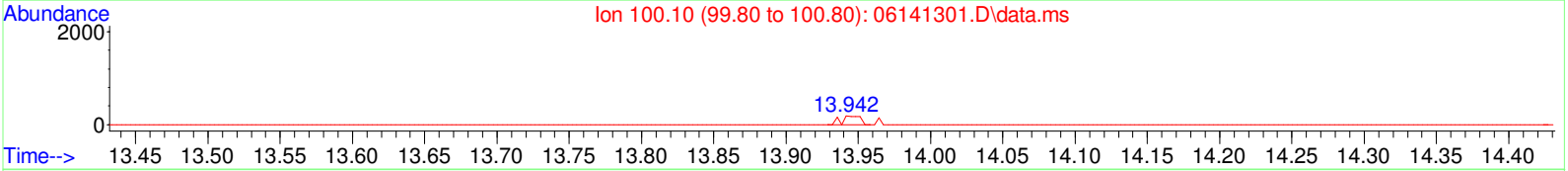
Quantitation Report (Qedit)

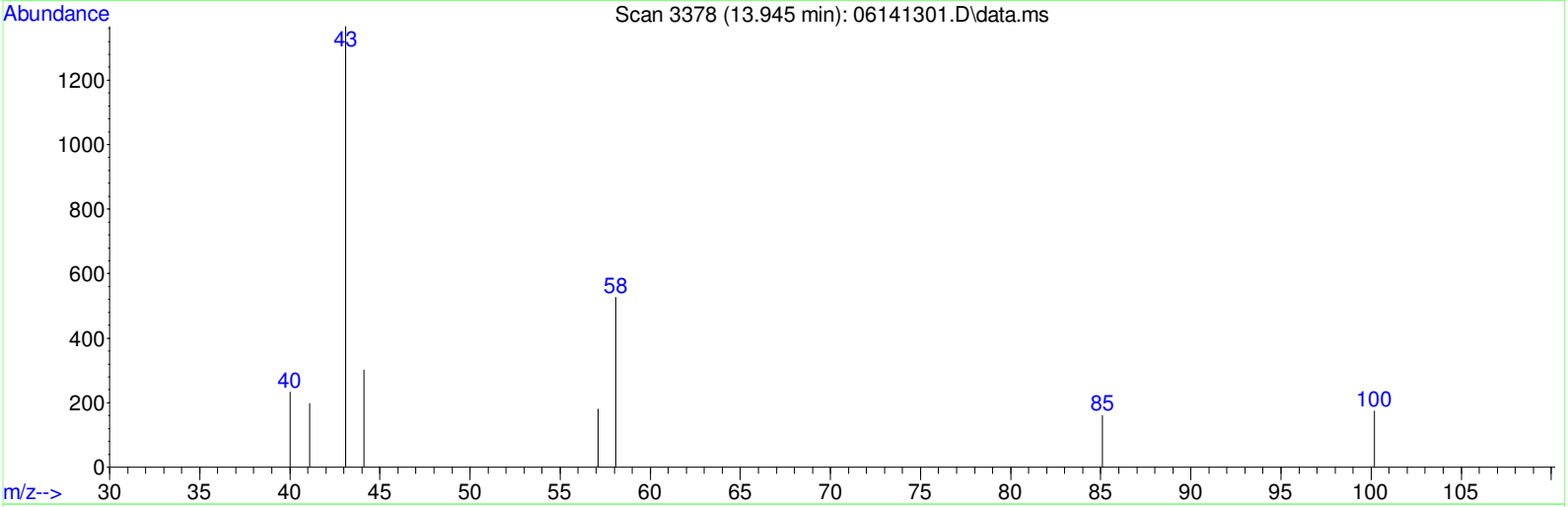
```
Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141301.D
Acq On    : 14 Jun 2013   6:31 pm
Operator  : VP
Sample    : ICAL TOSTD 0.05
Misc      : TO_15A+        117-5-250 CAN 157
ALS Vial  : 17   Sample Multiplier: 1
InstName  : VOA5

Quant Time: Jun 17 18:58:40 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title  : SOP 4010 EPA   TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration
```









(46) 2-Hexanone (C)

13.945min (+0.013) 0.04ppbv

response 2461

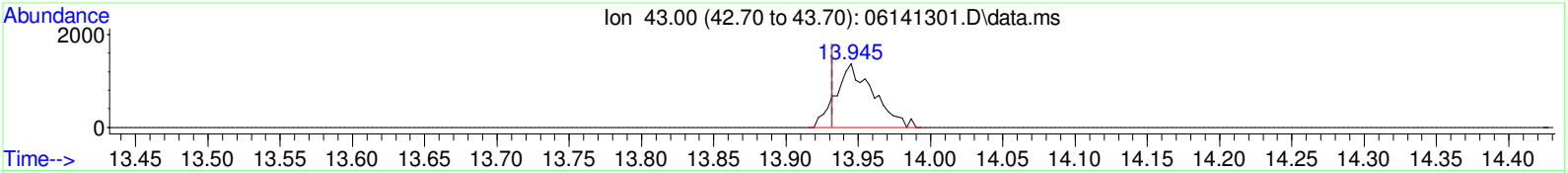
BEFORE

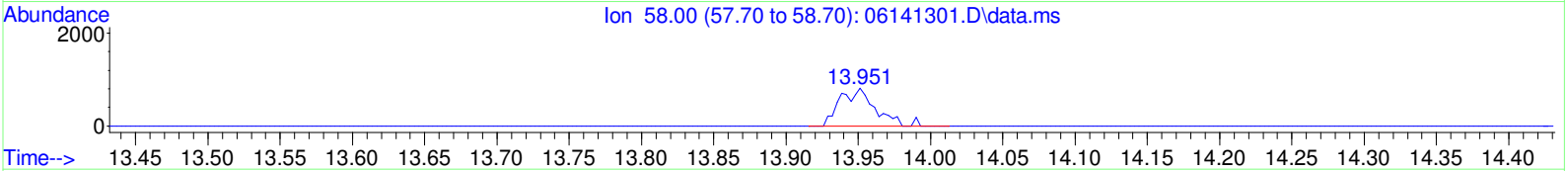
By Vytautas at 15:38:06, 7/25/2013

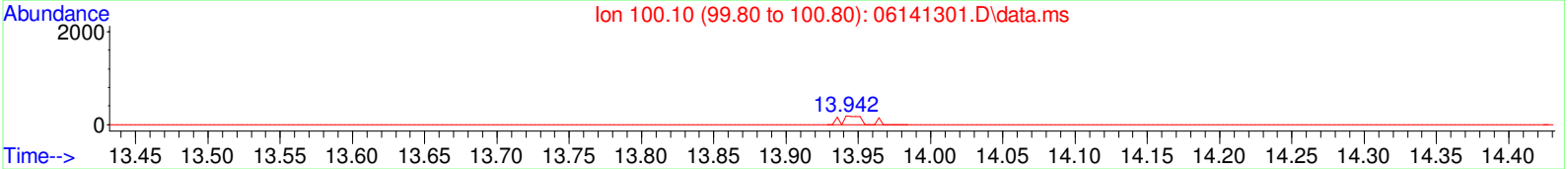
Ion	Exp%	Act%
43.00	100	100
58.00	62.60	22.39#
100.10	16.60	6.83
0.00	0.00	0.00

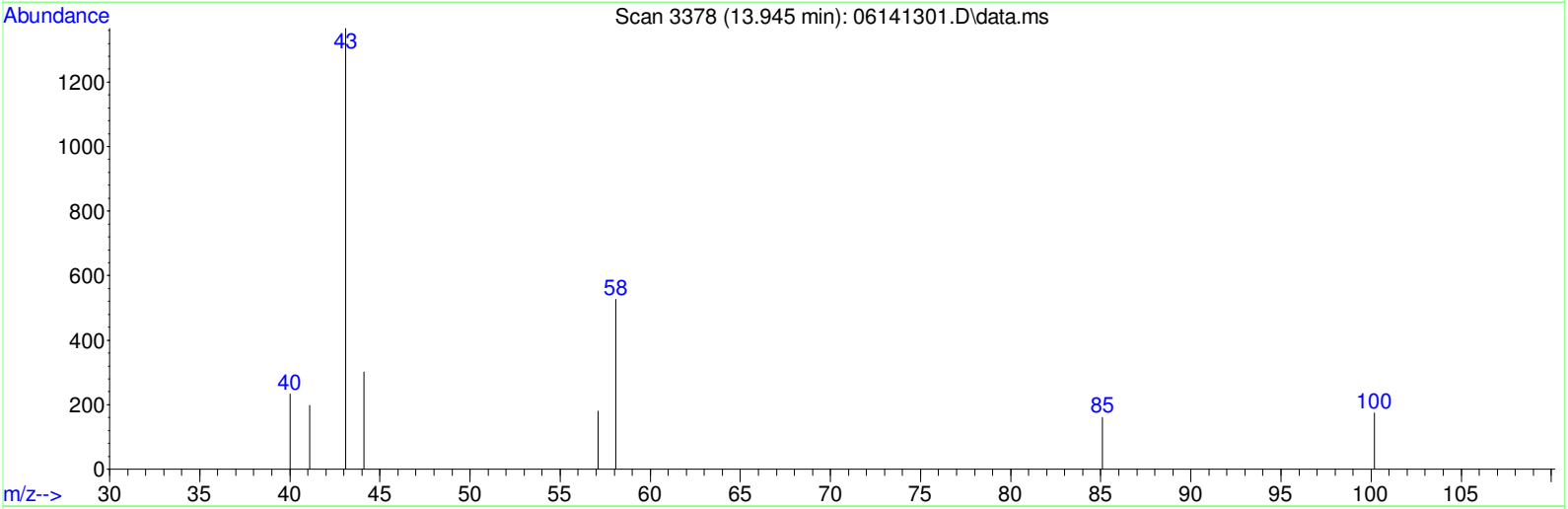
Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141301.D
Acq On : 14 Jun 2013 6:31 pm
Operator : VP
Sample : ICAL TOSTD 0.05
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 17 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:40 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration









TIC: 06141301.D\data.ms

(46) 2-Hexanone (C)

13.945min (+0.013) 0.04ppbv m

response 2461

AFTER M5

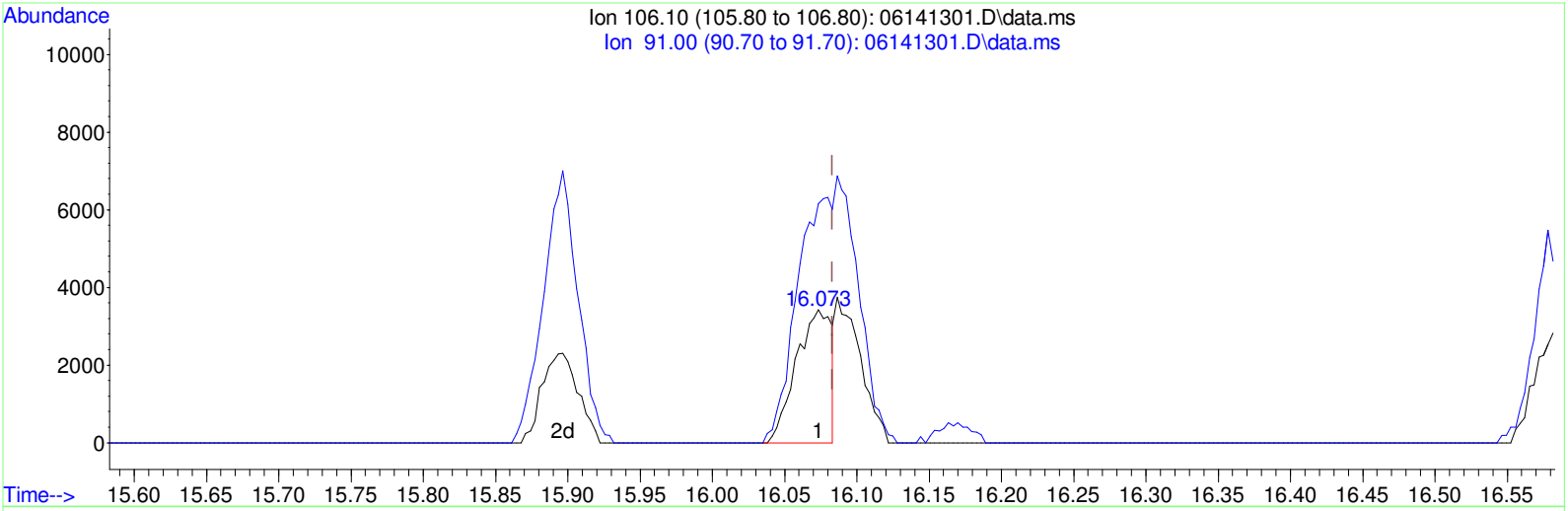
By Vytautas at 15:39:36, 7/25/2013

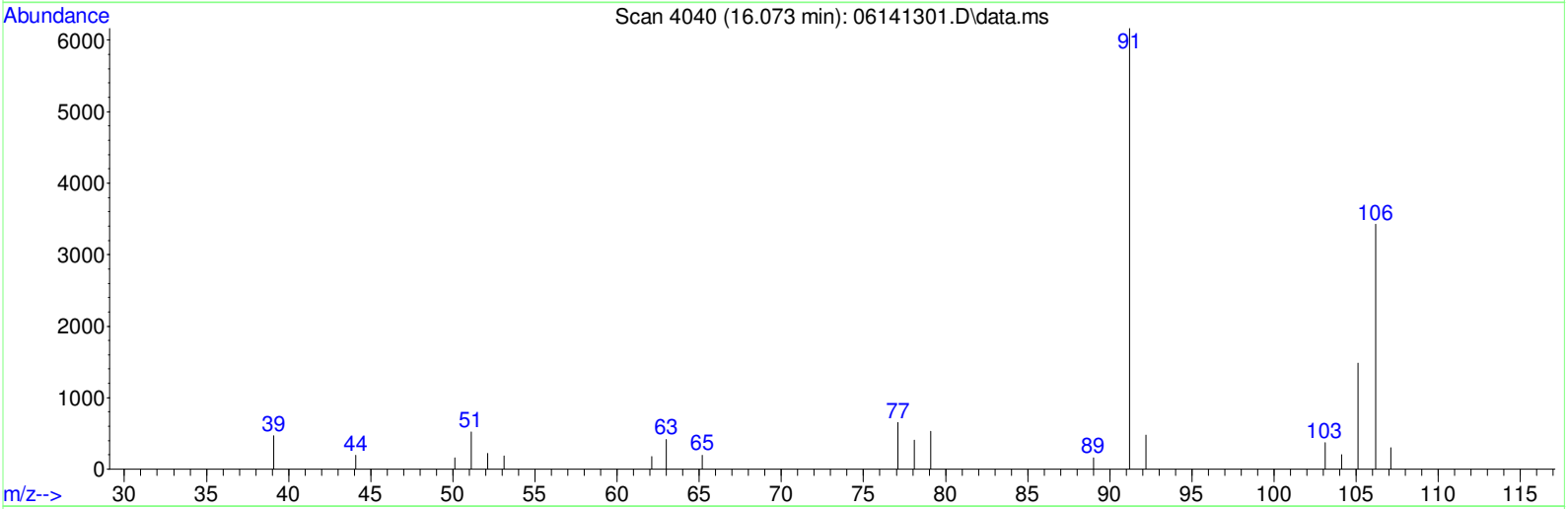
Ion	Exp%	Act%
43.00	100	100
58.00	62.60	56.03
100.10	16.60	8.05
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141301.D
Acq On    : 14 Jun 2013   6:31 pm
Operator  : VP
Sample    : ICAL TOSTD 0.05
Misc      : TO_15A+        117-5-250 CAN 157
ALS Vial  : 17   Sample Multiplier: 1
InstName  : VOA5

Quant Time: Jun 17 18:58:40 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title  : SOP 4010 EPA   TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration
```





TIC: 06141301.D\data.ms

(53) Xylene (1) (C, L1)

16.073min (-0.010) 0.06ppbv

response 5792

Ion	Exp%	Act%
106.10	100	100
91.00	184.10	325.52#
0.00	0.00	0.00
0.00	0.00	0.00

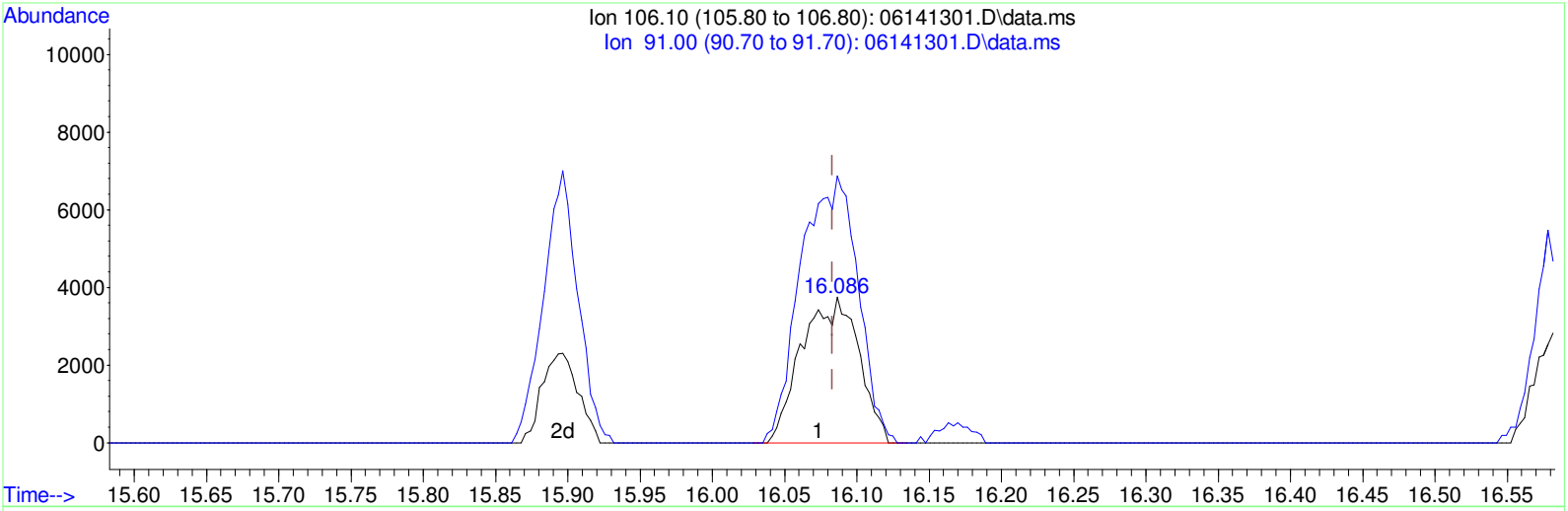
BEFORE

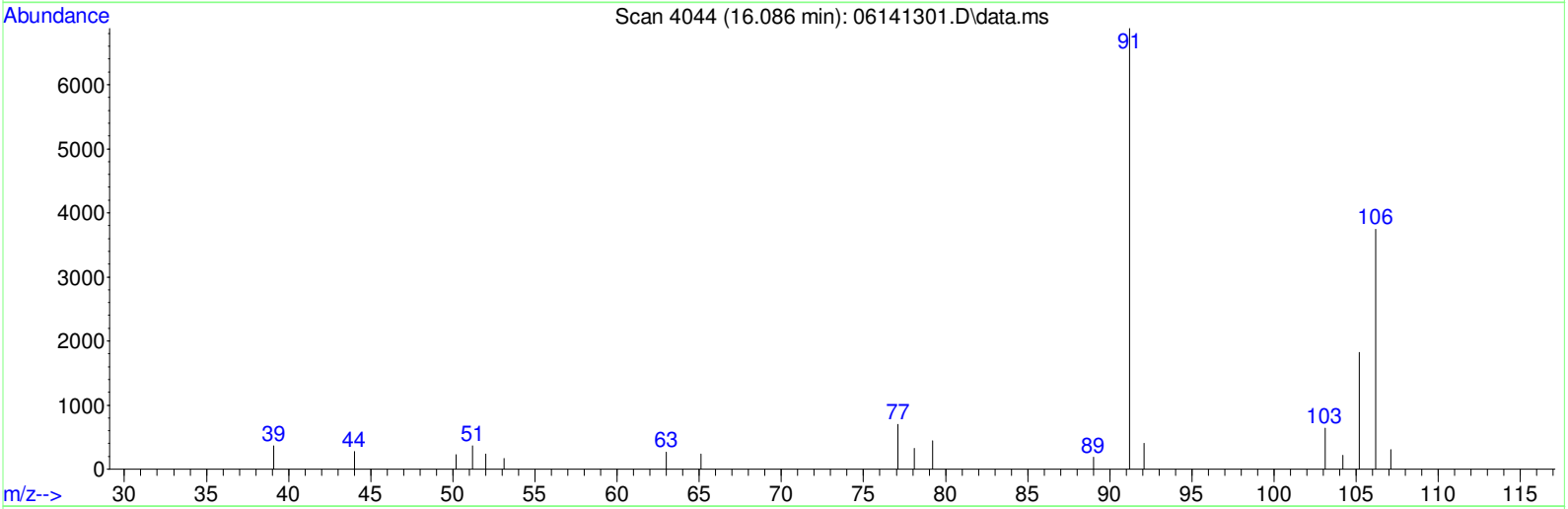
By Vytautas at 15:38:10, 7/25/2013

Quantitation Report (Qedit)

```
Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141301.D
Acq On    : 14 Jun 2013   6:31 pm
Operator  : VP
Sample    : ICAL TOSTD 0.05
Misc      : TO_15A+        117-5-250 CAN 157
ALS Vial  : 17   Sample Multiplier: 1
InstName  : VOA5

Quant Time: Jun 17 18:58:40 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title  : SOP 4010 EPA   TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration
```





TIC: 06141301.D\data.ms

(53) Xylene (1) (C, L1)

16.086min (+0.003) 0.11ppbv m

response 10252

AFTER M3

By Vytautas at 15:39:42, 7/25/2013

Ion	Exp%	Act%
106.10	100	100
91.00	184.10	183.91
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141302.D
Acq On : 14 Jun 2013 7:11 pm
Operator : VP
Sample : ICAL TOSTD 0.10
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 13 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 13:03:20 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.177	49	436658	10.00 ppbv	0.00
25) 1,4-Difluorobenzene	11.183	114	2187005	10.00 ppbv	0.00
50) Chlorobenzene-d5	15.462	117	1978753	10.00 ppbv	0.00

Target Compounds					Qvalue
2) Propene	3.588	41	2704	0.12 ppbv	95
3) Dichlorodifluoromethane	3.682	85	11099	0.10 ppbv	100
4) Chloromethane	3.871	50	3900	0.12 ppbv	93
5) Freon-114	4.019	85	8558	0.10 ppbv	100
6) Vinyl chloride	4.135	62	2749	0.11 ppbv	96
7) 1,3-Butadiene	4.309	54	2137	0.11 ppbv	92
8) Bromomethane	4.627	94	1942	0.05 ppbv	97
9) Chloroethane	4.862	64	1473	0.07 ppbv	68
10) Ethanol	5.128	45	654	0.06 ppbv	81
11) Acrolein	5.511	56	1469m	0.10 ppbv	
12) Acetone	5.701	43	6502	0.13 ppbv	98
13) Freon-11	5.823	101	11082	0.09 ppbv	100
14) Isopropyl alcohol	6.061	45	4346	0.09 ppbv #	71
15) 1,1-dichloroethene	6.601	61	6355	0.11 ppbv	90
16) Dichloromethane	6.762	49	21266	0.48 ppbv	100
17) Carbon disulfide	7.051	76	9629	0.07 ppbv	76
18) Freon-113	7.093	101	9798	0.10 ppbv	97
19) trans-1,2-Dichloroethene	7.862	61	5701	0.10 ppbv	98
20) 1,1-Dichloroethane	8.080	63	7450	0.10 ppbv	99
21) Mtbe	8.202	73	11386	0.09 ppbv	97
22) Vinyl Acetate	8.305	43	6473	0.10 ppbv	94
23) 2-Butanone	8.569	43	6414	0.10 ppbv	100
24) cis-1,2-Dichloroethene	9.000	61	5335	0.10 ppbv	95
26) Hexane	9.247	57	6135	0.13 ppbv	97
27) Ethyl acetate	9.305	61	1049	0.07 ppbv	99
28) Chloroform	9.321	83	9324	0.11 ppbv	98
29) Tetrahydrofuran	9.771	42	5540	0.15 ppbv	97
30) 1,2-Dichloroethane	10.086	62	5749	0.11 ppbv	82
31) 1,1,1-Trichloroethane	10.341	97	9242	0.10 ppbv	96
32) Benzene	10.813	78	15393	0.11 ppbv	98
33) Carbon tetrachloride	10.958	117	5437	0.07 ppbv	96
34) Cyclohexane	11.083	56	6025	0.10 ppbv	96
35) 1,2-Dichloropropane	11.633	63	4687	0.10 ppbv	97
36) Bromodichloromethane	11.826	83	9364	0.11 ppbv	100
37) Trichloroethene	11.871	130	7877	0.11 ppbv	98
38) 1,4-Dioxane	11.884	88	1927	0.08 ppbv	95
39) Methyl methacrylate	12.080	69	3902	0.09 ppbv	81
40) Heptane	12.170	43	6536	0.12 ppbv	99
41) cis-1,3-Dichloropropene	12.726	75	6813	0.10 ppbv	97
42) 4-Methyl-2-pentanone	12.758	43	6355	0.09 ppbv	91
43) trans-1,3-Dichloropropene	13.234	75	5337	0.07 ppbv	99
44) 1,1,2-Trichloroethane	13.411	97	6253	0.10 ppbv	99
45) Toluene	13.681	91	18489	0.10 ppbv	97
46) 2-Hexanone	13.945	43	5208	0.09 ppbv	93
47) Dibromochloromethane	14.109	129	9731	0.10 ppbv	99
48) 1,2-Dibromoethane	14.347	107	9224	0.10 ppbv	97
49) Tetrachloroethene	14.816	166	10644	0.10 ppbv	99
51) Chlorobenzene	15.508	112	16613	0.11 ppbv	94
52) Ethylbenzene	15.897	106	7715	0.10 ppbv	97
53) Xylene (1)	16.077	106	19784	0.21 ppbv	100
54) Xylene (2)	16.581	106	9940	0.11 ppbv	100

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141302.D
Acq On : 14 Jun 2013 7:11 pm
Operator : VP
Sample : ICAL TOSTD 0.10
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 13 Sample Multiplier: 1
InstName : VOA5

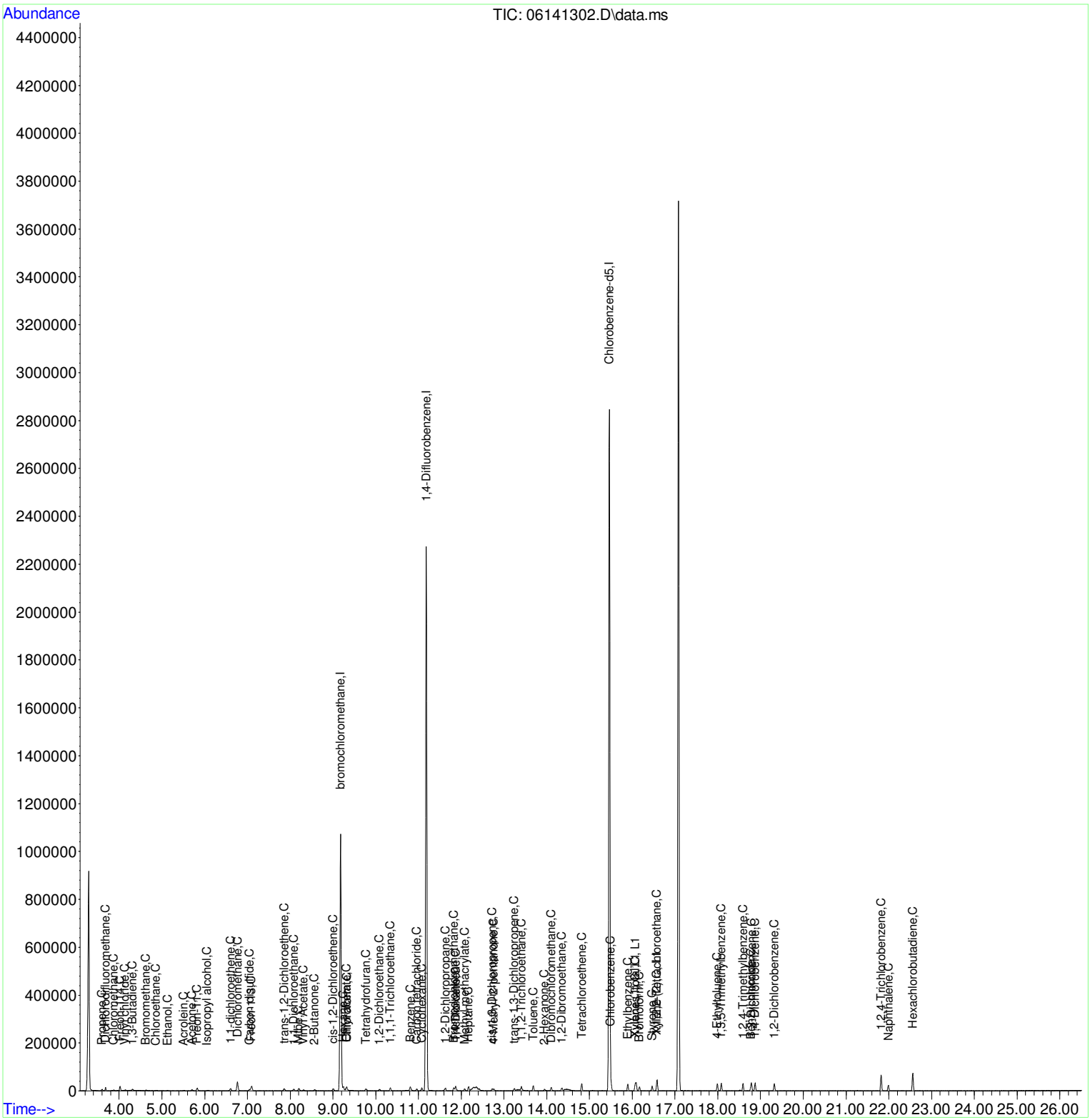
Quant Time: Jun 19 13:03:20 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.077	106	29724m	0.31 ppbv	
56) Bromoform	16.170	173	9511	0.10 ppbv	97
57) Styrene	16.466	104	12353	0.09 ppbv	98
58) 1,1,2,2-Tetrachloroethane	16.575	83	12079	0.10 ppbv	98
59) 4-Ethyltoluene	17.986	120	7790	0.10 ppbv	100
60) 1,3,5-Trimethylbenzene	18.080	120	11357	0.09 ppbv	97
61) 1,2,4-Trimethylbenzene	18.591	120	9890	0.09 ppbv	95
62) Benzyl chloride	18.768	91	6979	0.05 ppbv	96
63) 1,3-Dichlorobenzene	18.787	146	18287	0.10 ppbv	99
64) 1,4-Dichlorobenzene	18.874	146	18336	0.10 ppbv	97
65) 1,2-Dichlorobenzene	19.324	146	16903	0.10 ppbv	99
66) 1,2,4-Trichlorobenzene	21.822	180	27634	0.14 ppbv	99
67) Naphthalene	21.990	128	24087	0.08 ppbv	99
68) Hexachlorobutadiene	22.562	225	18450	0.12 ppbv	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141302.D
Acq On : 14 Jun 2013 7:11 pm
Operator : VP
Sample : ICAL TOSTD 0.10
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 13 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 13:03:20 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141302.D
Acq On : 14 Jun 2013 7:11 pm
Operator : VP
Sample : ICAL TOSTD 0.10
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 13 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:42 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.177	49	436658	10.00 ppbv	0.00
25) 1,4-Difluorobenzene	11.183	114	2187005	10.00 ppbv	0.00
50) Chlorobenzene-d5	15.462	117	1978753	10.00 ppbv	0.00

Target Compounds					Qvalue
2) Propene	3.588	41	2704	0.12 ppbv	95
3) Dichlorodifluoromethane	3.682	85	11099	0.10 ppbv	100
4) Chloromethane	3.871	50	3900	0.12 ppbv	93
5) Freon-114	4.019	85	8558	0.10 ppbv	100
6) Vinyl chloride	4.135	62	2749	0.11 ppbv	96
7) 1,3-Butadiene	4.309	54	2137	0.11 ppbv	92
8) Bromomethane	4.627	94	1942	0.05 ppbv	97
9) Chloroethane	4.862	64	1473	0.07 ppbv	68
10) Ethanol	5.128	45	654	0.06 ppbv	81
11) Acrolein	5.511	56	1469	0.10 ppbv #	63
12) Acetone	5.701	43	6502	0.13 ppbv	98
13) Freon-11	5.823	101	11082	0.09 ppbv	100
14) Isopropyl alcohol	6.061	45	4346	0.09 ppbv #	71
15) 1,1-dichloroethene	6.601	61	6355	0.11 ppbv	90
16) Dichloromethane	6.762	49	21266	0.48 ppbv	100
17) Carbon disulfide	7.051	76	9629	0.07 ppbv	76
18) Freon-113	7.093	101	9798	0.10 ppbv	97
19) trans-1,2-Dichloroethene	7.862	61	5701	0.10 ppbv	98
20) 1,1-Dichloroethane	8.080	63	7450	0.10 ppbv	99
21) Mtbe	8.202	73	11386	0.09 ppbv	97
22) Vinyl Acetate	8.305	43	6473	0.10 ppbv	94
23) 2-Butanone	8.569	43	6414	0.10 ppbv	100
24) cis-1,2-Dichloroethene	9.000	61	5335	0.10 ppbv	95
26) Hexane	9.247	57	6135	0.13 ppbv	97
27) Ethyl acetate	9.305	61	1049	0.07 ppbv	99
28) Chloroform	9.321	83	9324	0.11 ppbv	98
29) Tetrahydrofuran	9.771	42	5540	0.15 ppbv	97
30) 1,2-Dichloroethane	10.086	62	5749	0.11 ppbv	82
31) 1,1,1-Trichloroethane	10.341	97	9242	0.10 ppbv	96
32) Benzene	10.813	78	15393	0.11 ppbv	98
33) Carbon tetrachloride	10.958	117	5437	0.07 ppbv	96
34) Cyclohexane	11.083	56	6025	0.10 ppbv	96
35) 1,2-Dichloropropane	11.633	63	4687	0.10 ppbv	97
36) Bromodichloromethane	11.826	83	9364	0.11 ppbv	100
37) Trichloroethene	11.871	130	7877	0.11 ppbv	98
38) 1,4-Dioxane	11.884	88	1927	0.08 ppbv	95
39) Methyl methacrylate	12.080	69	3902	0.09 ppbv	81
40) Heptane	12.170	43	6536	0.12 ppbv	99
41) cis-1,3-Dichloropropene	12.726	75	6813	0.10 ppbv	97
42) 4-Methyl-2-pentanone	12.758	43	6355	0.09 ppbv	91
43) trans-1,3-Dichloropropene	13.234	75	5337	0.07 ppbv	99
44) 1,1,2-Trichloroethane	13.411	97	6253	0.10 ppbv	99
45) Toluene	13.681	91	18489	0.10 ppbv	97
46) 2-Hexanone	13.945	43	5208	0.09 ppbv	93
47) Dibromochloromethane	14.109	129	9731	0.10 ppbv	99
48) 1,2-Dibromoethane	14.347	107	9224	0.10 ppbv	97
49) Tetrachloroethene	14.816	166	10644	0.10 ppbv	99
51) Chlorobenzene	15.508	112	16613	0.11 ppbv	94
52) Ethylbenzene	15.897	106	7715	0.10 ppbv	97
53) Xylene (1)	16.077	106	19784	0.21 ppbv	100
54) Xylene (2)	16.581	106	9940	0.11 ppbv	100

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141302.D
Acq On : 14 Jun 2013 7:11 pm
Operator : VP
Sample : ICAL TOSTD 0.10
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 13 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:42 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

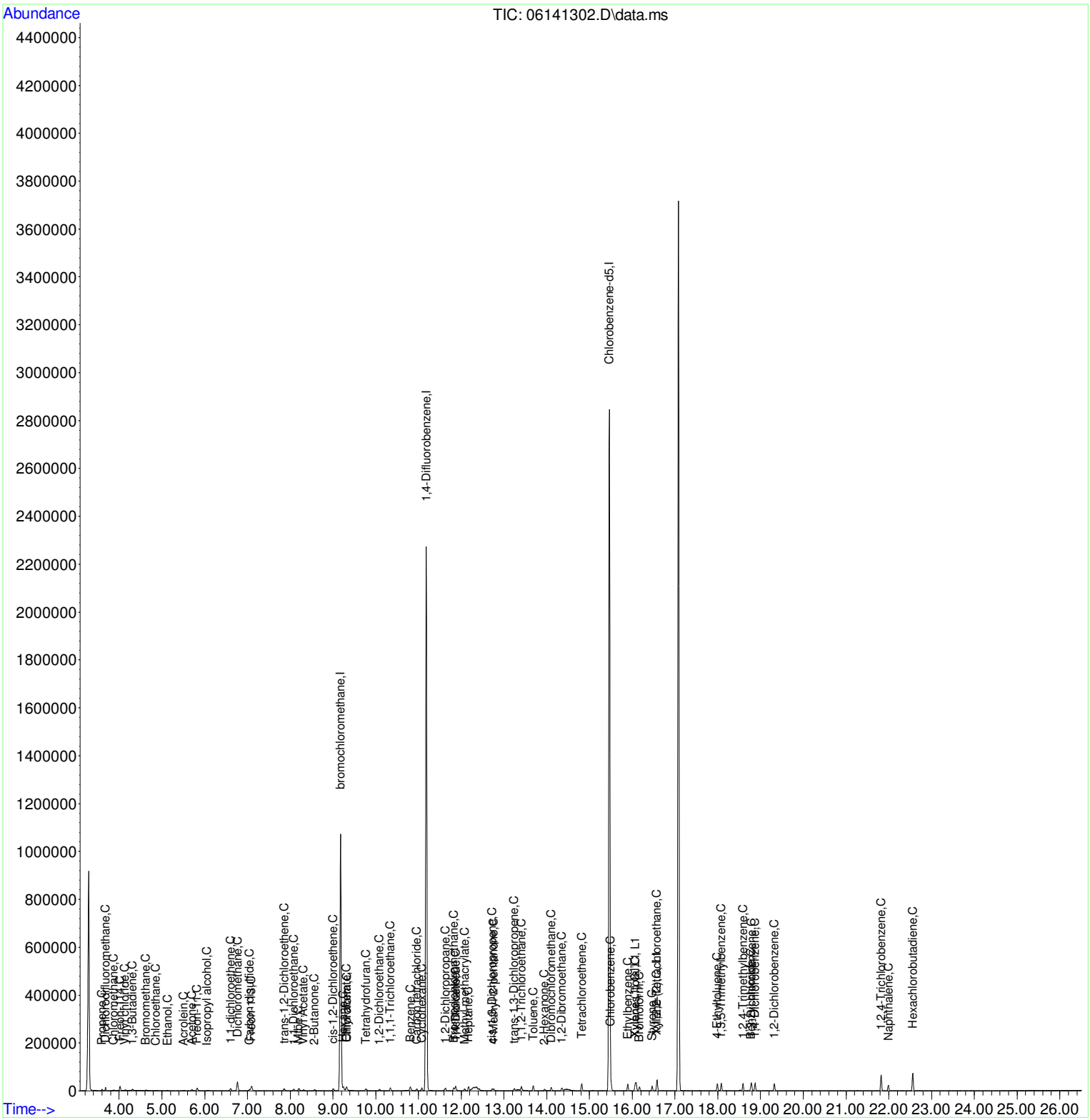
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.077	106	29724m	0.31 ppbv	
56) Bromoform	16.170	173	9511	0.10 ppbv	97
57) Styrene	16.466	104	12353	0.09 ppbv	98
58) 1,1,2,2-Tetrachloroethane	16.575	83	12079	0.10 ppbv	98
59) 4-Ethyltoluene	17.986	120	7790	0.10 ppbv	100
60) 1,3,5-Trimethylbenzene	18.080	120	11357	0.09 ppbv	97
61) 1,2,4-Trimethylbenzene	18.591	120	9890	0.09 ppbv	95
62) Benzyl chloride	18.768	91	6979	0.05 ppbv	96
63) 1,3-Dichlorobenzene	18.787	146	18287	0.10 ppbv	99
64) 1,4-Dichlorobenzene	18.874	146	18336	0.10 ppbv	97
65) 1,2-Dichlorobenzene	19.324	146	16903	0.10 ppbv	99
66) 1,2,4-Trichlorobenzene	21.822	180	27634	0.14 ppbv	99
67) Naphthalene	21.990	128	24087	0.08 ppbv	99
68) Hexachlorobutadiene	22.562	225	18450	0.12 ppbv	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

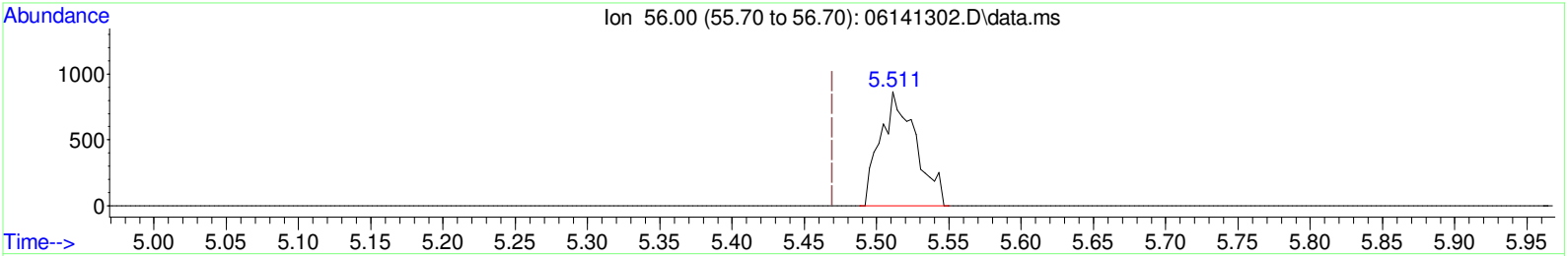
Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141302.D
Acq On : 14 Jun 2013 7:11 pm
Operator : VP
Sample : ICAL TOSTD 0.10
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 13 Sample Multiplier: 1
InstName : VOA5

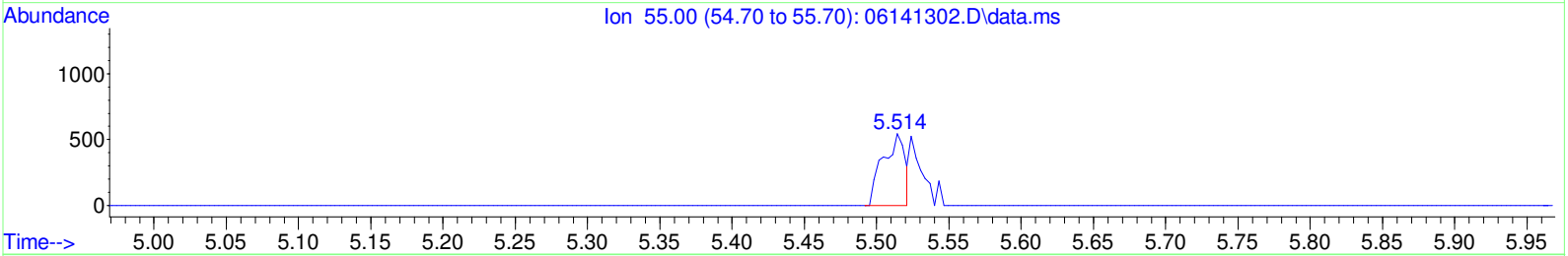
Quant Time: Jun 17 18:58:42 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

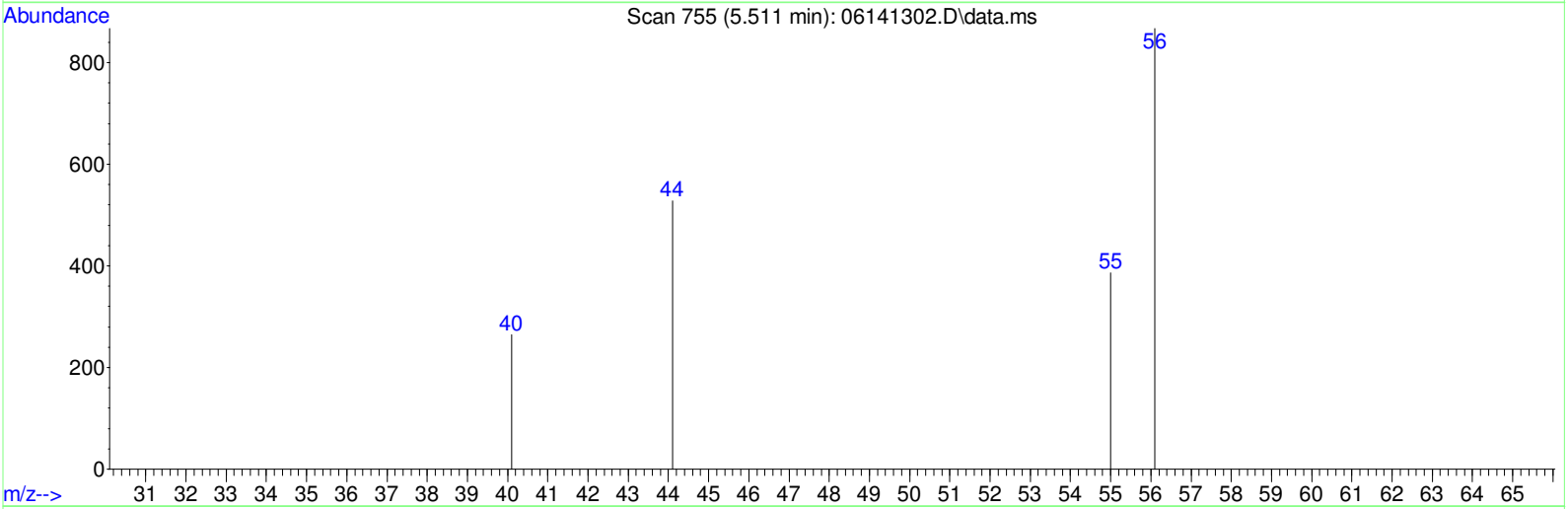


Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141302.D
Acq On : 14 Jun 2013 7:11 pm
Operator : VP
Sample : ICAL TOSTD 0.10
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 13 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:42 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration







TIC: 06141302.D\data.ms

(11) Acrolein (C)

5.511min (+0.042) 0.10ppbv

response 1469

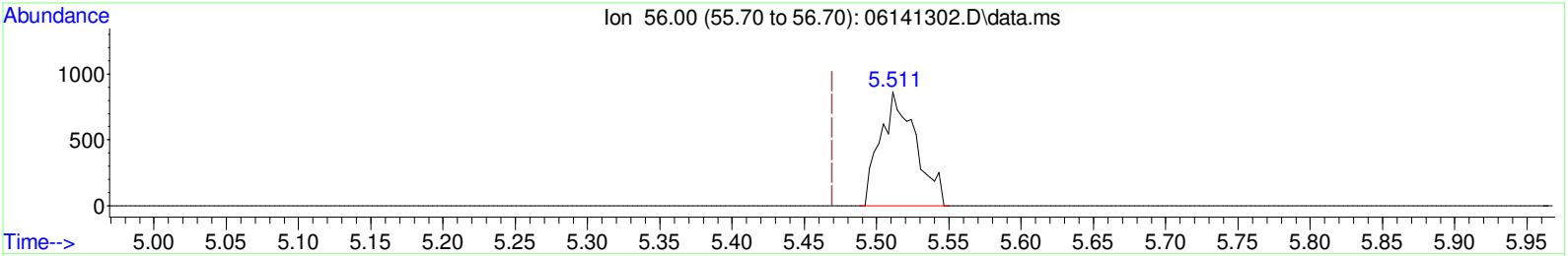
BEFORE

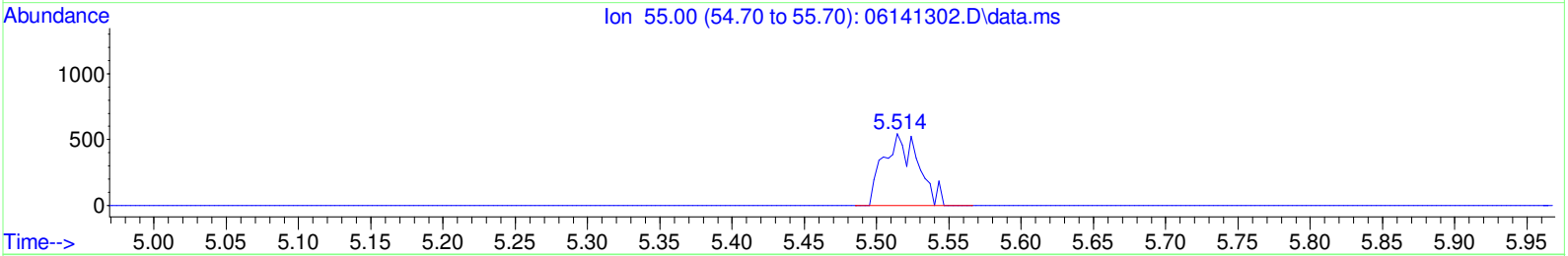
By Vytautas at 15:39:51, 7/25/2013

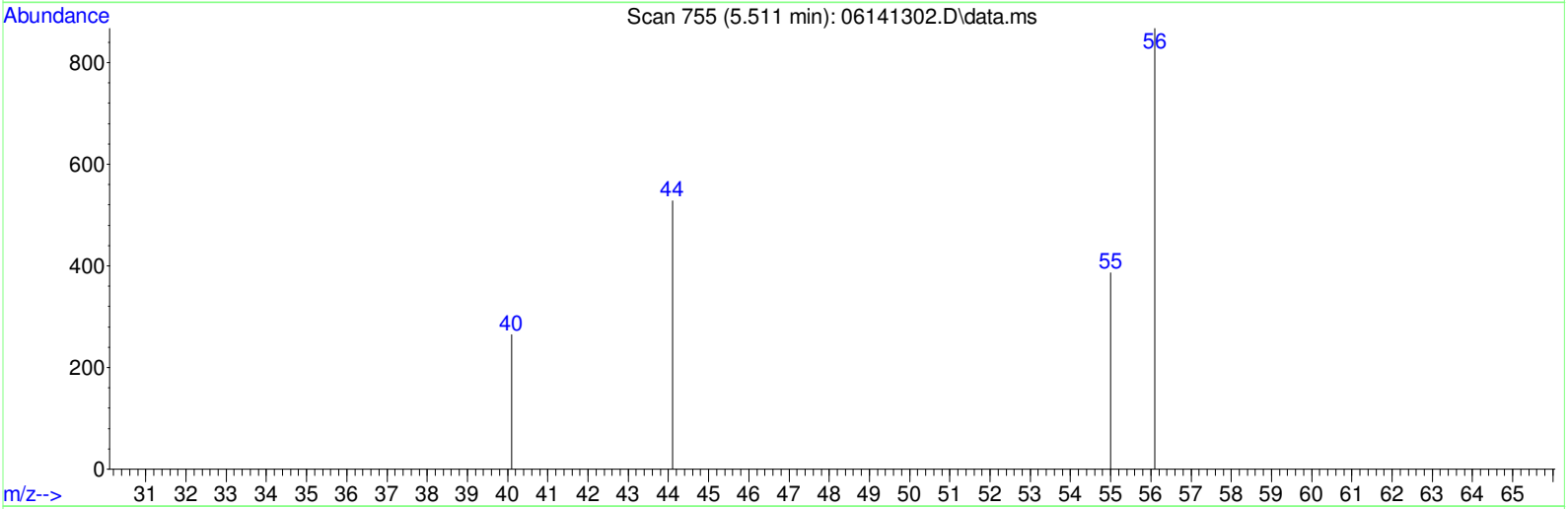
Ion	Exp%	Act%
56.00	100	100
55.00	68.90	38.73#
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141302.D
Acq On : 14 Jun 2013 7:11 pm
Operator : VP
Sample : ICAL TOSTD 0.10
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 13 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:42 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration







TIC: 06141302.D\data.ms

(11) Acrolein (C)

5.511min (+0.042) 0.10ppbv m

response 1469

Ion	Exp%	Act%
56.00	100	100
55.00	68.90	61.13
0.00	0.00	0.00
0.00	0.00	0.00

AFTER M5

By Vytautas at 15:40:00, 7/25/2013

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141303.D
Acq On : 14 Jun 2013 7:52 pm
Operator : VP
Sample : ICAL TOSTD 0.20
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 13 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 13:05:40 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.173	49	436962	10.00 ppbv	0.00
25) 1,4-Difluorobenzene	11.180	114	2191363	10.00 ppbv	0.00
50) Chlorobenzene-d5	15.462	117	1985861	10.00 ppbv	0.00

Target Compounds					Qvalue
2) Propene	3.579	41	5359	0.24 ppbv	98
3) Dichlorodifluoromethane	3.669	85	22457	0.20 ppbv	100
4) Chloromethane	3.858	50	6739	0.20 ppbv	98
5) Freon-114	4.003	85	17569	0.20 ppbv	97
6) Vinyl chloride	4.125	62	5405	0.22 ppbv	97
7) 1,3-Butadiene	4.292	54	3987	0.20 ppbv	94
8) Bromomethane	4.614	94	3967	0.09 ppbv	99
9) Chloroethane	4.849	64	2873	0.13 ppbv	97
10) Ethanol	5.112	45	1299m	0.12 ppbv	
11) Acrolein	5.495	56	2683	0.19 ppbv	95
12) Acetone	5.681	43	10851	0.22 ppbv	96
13) Freon-11	5.816	101	22339	0.19 ppbv	99
14) Isopropyl alcohol	6.054	45	10761m	0.23 ppbv	
15) 1,1-dichloroethene	6.591	61	12975	0.22 ppbv	99
16) Dichloromethane	6.755	49	25108	0.57 ppbv	99
17) Carbon disulfide	7.035	76	19999	0.15 ppbv	93
18) Freon-113	7.087	101	19977	0.20 ppbv	97
19) trans-1,2-Dichloroethene	7.855	61	11133	0.20 ppbv	100
20) 1,1-Dichloroethane	8.080	63	14761	0.20 ppbv	99
21) Mtbe	8.186	73	22639	0.19 ppbv	98
22) Vinyl Acetate	8.295	43	12850	0.19 ppbv	99
23) 2-Butanone	8.559	43	13390	0.20 ppbv	96
24) cis-1,2-Dichloroethene	8.996	61	10964	0.20 ppbv	98
26) Hexane	9.241	57	12366	0.26 ppbv	98
27) Ethyl acetate	9.289	61	2237	0.16 ppbv	98
28) Chloroform	9.318	83	18280	0.21 ppbv	97
29) Tetrahydrofuran	9.755	42	9383	0.25 ppbv	94
30) 1,2-Dichloroethane	10.086	62	11354	0.22 ppbv	99
31) 1,1,1-Trichloroethane	10.337	97	18431	0.21 ppbv	98
32) Benzene	10.810	78	29348	0.20 ppbv	99
33) Carbon tetrachloride	10.951	117	12138	0.15 ppbv	99
34) Cyclohexane	11.077	56	12683	0.22 ppbv	99
35) 1,2-Dichloropropane	11.630	63	9339	0.21 ppbv	98
36) Bromodichloromethane	11.829	83	19125	0.22 ppbv	98
37) Trichloroethene	11.868	130	15218	0.21 ppbv	99
38) 1,4-Dioxane	11.881	88	4228	0.17 ppbv	94
39) Methyl methacrylate	12.077	69	8859	0.20 ppbv	97
40) Heptane	12.170	43	12928	0.23 ppbv	98
41) cis-1,3-Dichloropropene	12.723	75	14128	0.21 ppbv	99
42) 4-Methyl-2-pentanone	12.758	43	13895	0.19 ppbv	99
43) trans-1,3-Dichloropropene	13.237	75	11605	0.16 ppbv	98
44) 1,1,2-Trichloroethane	13.411	97	12499	0.20 ppbv	98
45) Toluene	13.684	91	36559	0.20 ppbv	100
46) 2-Hexanone	13.942	43	11364	0.20 ppbv	97
47) Dibromochloromethane	14.105	129	20623	0.21 ppbv	99
48) 1,2-Dibromoethane	14.350	107	18914	0.20 ppbv	100
49) Tetrachloroethene	14.813	166	20674	0.19 ppbv	95
51) Chlorobenzene	15.504	112	31775	0.20 ppbv	98
52) Ethylbenzene	15.893	106	15575	0.20 ppbv	99
53) Xylene (1)	16.076	106	39369	0.41 ppbv	99
54) Xylene (2)	16.581	106	19082	0.20 ppbv	100

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141303.D
Acq On : 14 Jun 2013 7:52 pm
Operator : VP
Sample : ICAL TOSTD 0.20
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 13 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 13:05:40 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

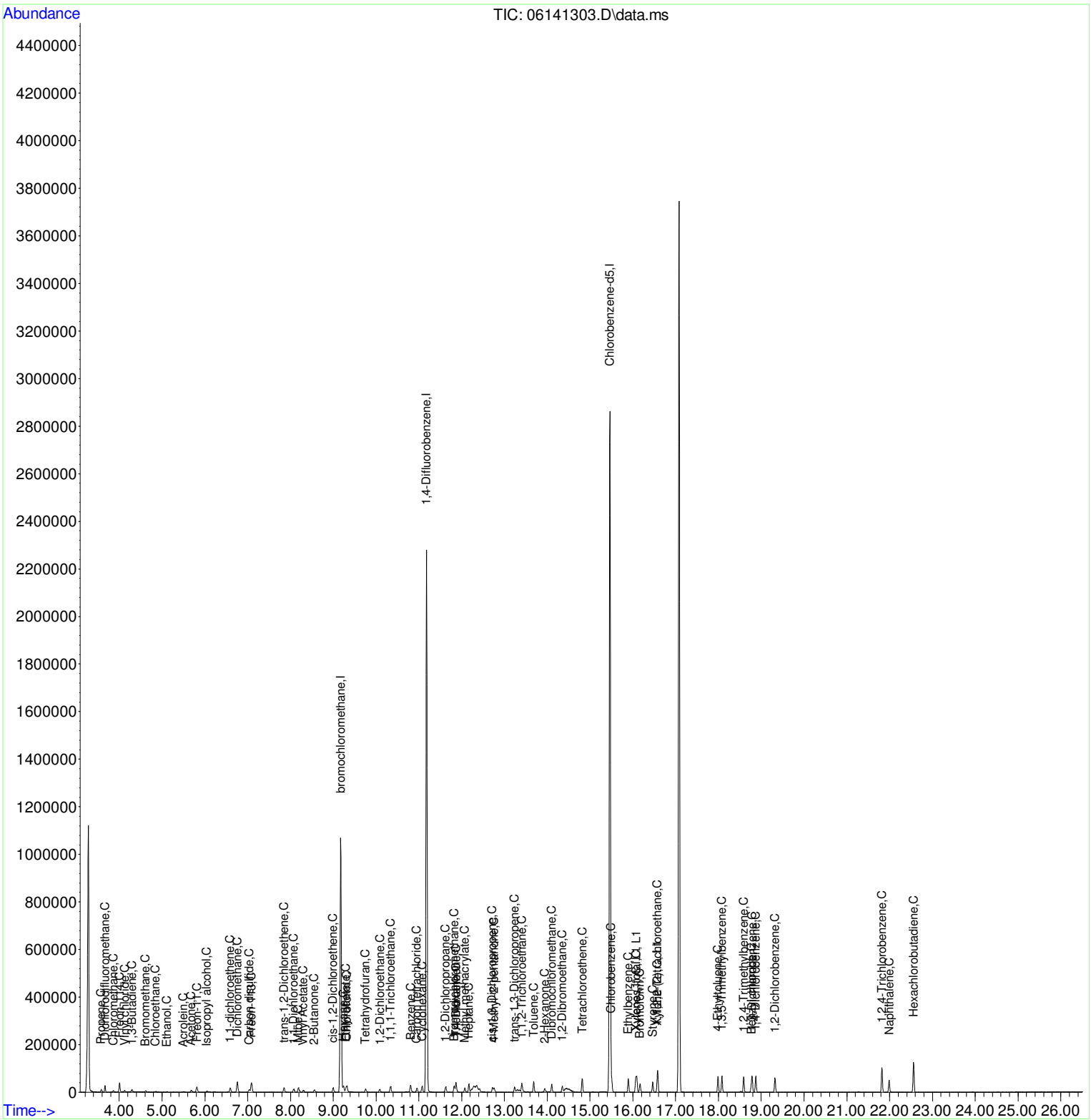
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.076	106	58451m	0.61 ppbv	
56) Bromoform	16.170	173	20021	0.20 ppbv	96
57) Styrene	16.466	104	25809	0.19 ppbv	98
58) 1,1,2,2-Tetrachloroethane	16.572	83	24360	0.21 ppbv	98
59) 4-Ethyltoluene	17.990	120	15745	0.19 ppbv	94
60) 1,3,5-Trimethylbenzene	18.083	120	23203	0.19 ppbv	98
61) 1,2,4-Trimethylbenzene	18.591	120	20049	0.18 ppbv	94
62) Benzyl chloride	18.764	91	17651	0.12 ppbv	98
63) 1,3-Dichlorobenzene	18.784	146	35135	0.19 ppbv	97
64) 1,4-Dichlorobenzene	18.871	146	36323	0.19 ppbv	99
65) 1,2-Dichlorobenzene	19.321	146	33225	0.19 ppbv	98
66) 1,2,4-Trichlorobenzene	21.822	180	41482	0.21 ppbv	99
67) Naphthalene	21.989	128	50612	0.18 ppbv	100
68) Hexachlorobutadiene	22.562	225	30443	0.19 ppbv	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141303.D
Acq On : 14 Jun 2013 7:52 pm
Operator : VP
Sample : ICAL TOSTD 0.20
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 13 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 13:05:40 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141303.D
Acq On : 14 Jun 2013 7:52 pm
Operator : VP
Sample : ICAL TOSTD 0.20
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 13 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:44 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) bromochloromethane	9.173	49	436962	10.00	ppbv		0.00
25) 1,4-Difluorobenzene	11.180	114	2191363	10.00	ppbv		0.00
50) Chlorobenzene-d5	15.462	117	1985861	10.00	ppbv		0.00

Target Compounds							Qvalue
2) Propene	3.579	41	5359	0.24	ppbv		98
3) Dichlorodifluoromethane	3.669	85	22457	0.20	ppbv		100
4) Chloromethane	3.858	50	6739	0.20	ppbv		98
5) Freon-114	4.003	85	17569	0.20	ppbv		97
6) Vinyl chloride	4.125	62	5405	0.22	ppbv		97
7) 1,3-Butadiene	4.292	54	3987	0.20	ppbv		94
8) Bromomethane	4.614	94	3967	0.09	ppbv		99
9) Chloroethane	4.849	64	2873	0.13	ppbv		97
10) Ethanol	5.112	45	1234	0.11	ppbv	#	64
11) Acrolein	5.495	56	2683	0.19	ppbv		95
12) Acetone	5.681	43	10851	0.22	ppbv		96
13) Freon-11	5.816	101	22339	0.19	ppbv		99
14) Isopropyl alcohol	6.054	45	8537	0.18	ppbv	#	93
15) 1,1-dichloroethene	6.591	61	12975	0.22	ppbv		99
16) Dichloromethane	6.755	49	25108	0.57	ppbv		99
17) Carbon disulfide	7.035	76	19999	0.15	ppbv		93
18) Freon-113	7.087	101	19977	0.20	ppbv		97
19) trans-1,2-Dichloroethene	7.855	61	11133	0.20	ppbv		100
20) 1,1-Dichloroethane	8.080	63	14761	0.20	ppbv		99
21) Mtbe	8.186	73	22639	0.19	ppbv		98
22) Vinyl Acetate	8.295	43	12850	0.19	ppbv		99
23) 2-Butanone	8.559	43	13390	0.20	ppbv		96
24) cis-1,2-Dichloroethene	8.996	61	10964	0.20	ppbv		98
26) Hexane	9.241	57	12366	0.26	ppbv		98
27) Ethyl acetate	9.289	61	2237	0.16	ppbv		98
28) Chloroform	9.318	83	18280	0.21	ppbv		97
29) Tetrahydrofuran	9.755	42	9383	0.25	ppbv		94
30) 1,2-Dichloroethane	10.086	62	11354	0.22	ppbv		99
31) 1,1,1-Trichloroethane	10.337	97	18431	0.21	ppbv		98
32) Benzene	10.810	78	29348	0.20	ppbv		99
33) Carbon tetrachloride	10.951	117	12138	0.15	ppbv		99
34) Cyclohexane	11.077	56	12683	0.22	ppbv		99
35) 1,2-Dichloropropane	11.630	63	9339	0.21	ppbv		98
36) Bromodichloromethane	11.829	83	19125	0.22	ppbv		98
37) Trichloroethene	11.868	130	15218	0.21	ppbv		99
38) 1,4-Dioxane	11.881	88	4228	0.17	ppbv		94
39) Methyl methacrylate	12.077	69	8859	0.20	ppbv		97
40) Heptane	12.170	43	12928	0.23	ppbv		98
41) cis-1,3-Dichloropropene	12.723	75	14128	0.21	ppbv		99
42) 4-Methyl-2-pentanone	12.758	43	13895	0.19	ppbv		99
43) trans-1,3-Dichloropropene	13.237	75	11605	0.16	ppbv		98
44) 1,1,2-Trichloroethane	13.411	97	12499	0.20	ppbv		98
45) Toluene	13.684	91	36559	0.20	ppbv		100
46) 2-Hexanone	13.942	43	11364	0.20	ppbv		97
47) Dibromochloromethane	14.105	129	20623	0.21	ppbv		99
48) 1,2-Dibromoethane	14.350	107	18914	0.20	ppbv		100
49) Tetrachloroethene	14.813	166	20674	0.19	ppbv		95
51) Chlorobenzene	15.504	112	31775	0.20	ppbv		98
52) Ethylbenzene	15.893	106	15575	0.20	ppbv		99
53) Xylene (1)	16.076	106	39369	0.41	ppbv		99
54) Xylene (2)	16.581	106	19082	0.20	ppbv		100

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141303.D
Acq On : 14 Jun 2013 7:52 pm
Operator : VP
Sample : ICAL TOSTD 0.20
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 13 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:44 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

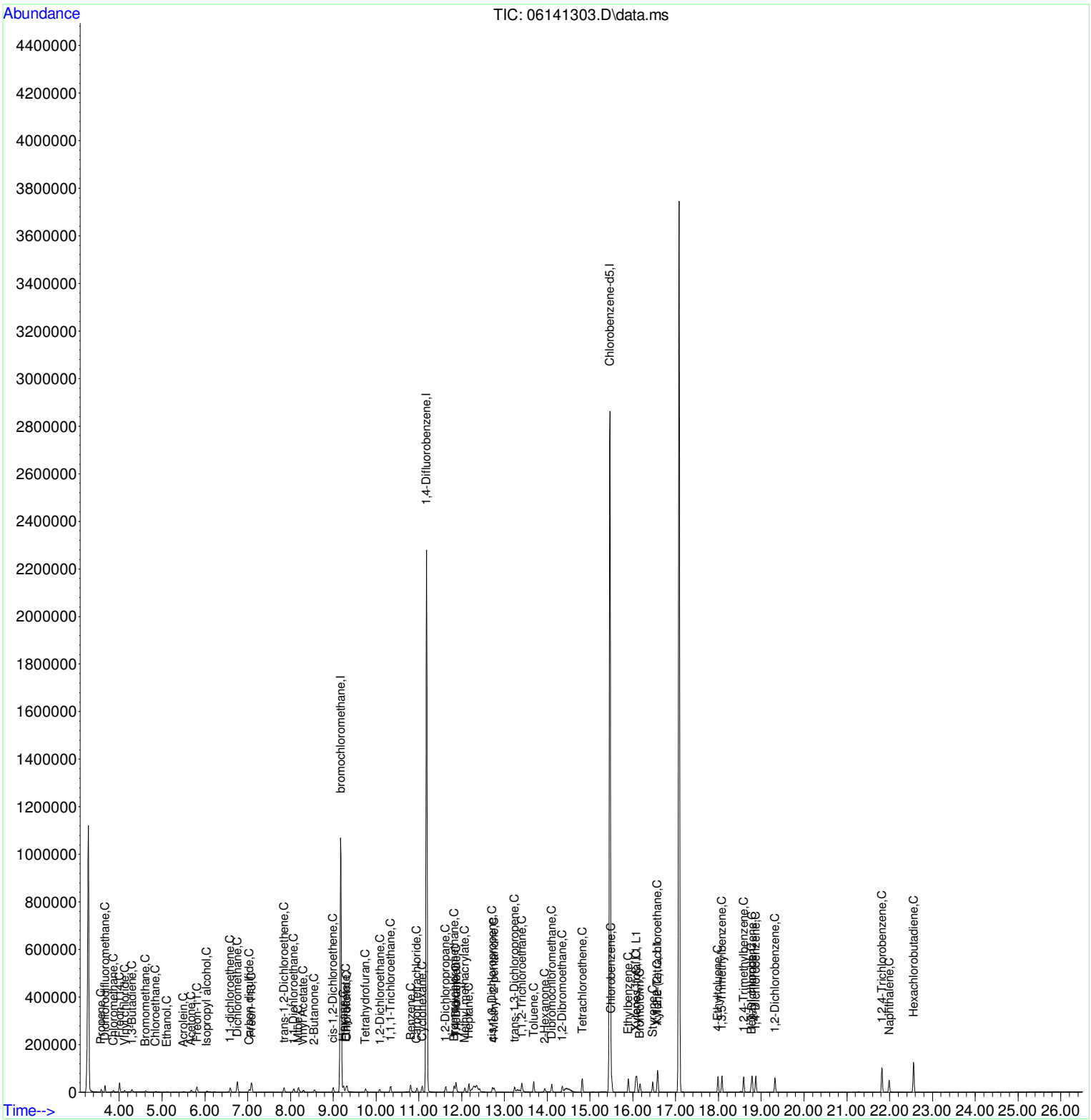
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.076	106	58451m	0.61 ppbv	
56) Bromoform	16.170	173	20021	0.20 ppbv	96
57) Styrene	16.466	104	25809	0.19 ppbv	98
58) 1,1,2,2-Tetrachloroethane	16.572	83	24360	0.21 ppbv	98
59) 4-Ethyltoluene	17.990	120	15745	0.19 ppbv	94
60) 1,3,5-Trimethylbenzene	18.083	120	23203	0.19 ppbv	98
61) 1,2,4-Trimethylbenzene	18.591	120	20049	0.18 ppbv	94
62) Benzyl chloride	18.764	91	17651	0.12 ppbv	98
63) 1,3-Dichlorobenzene	18.784	146	35135	0.19 ppbv	97
64) 1,4-Dichlorobenzene	18.871	146	36323	0.19 ppbv	99
65) 1,2-Dichlorobenzene	19.321	146	33225	0.19 ppbv	98
66) 1,2,4-Trichlorobenzene	21.822	180	41482	0.21 ppbv	99
67) Naphthalene	21.989	128	50612	0.18 ppbv	100
68) Hexachlorobutadiene	22.562	225	30443	0.19 ppbv	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141303.D
Acq On : 14 Jun 2013 7:52 pm
Operator : VP
Sample : ICAL TOSTD 0.20
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 13 Sample Multiplier: 1
InstName : VOA5

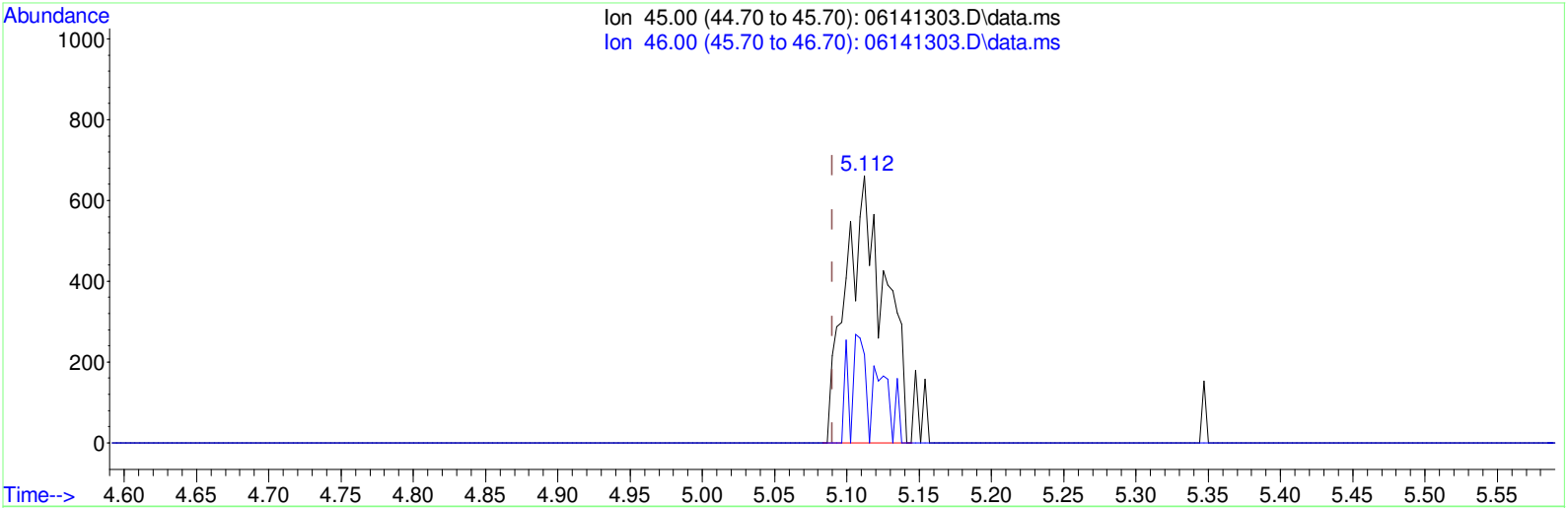
Quant Time: Jun 17 18:58:44 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

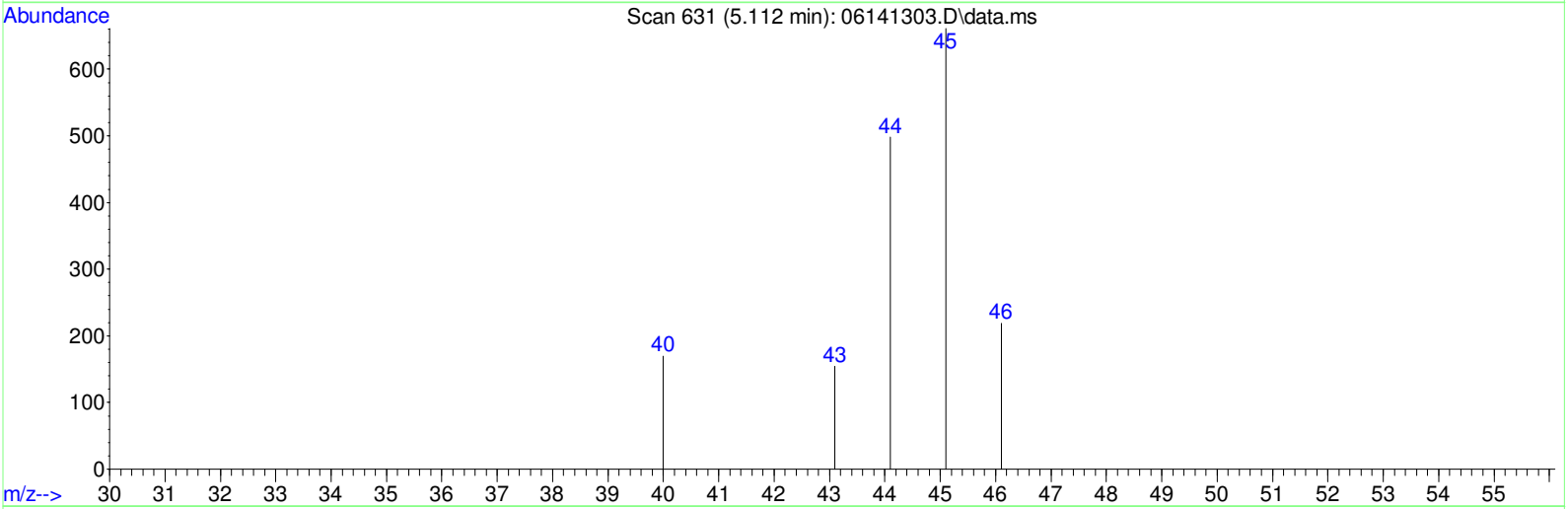


Quantitation Report (Qedit)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141303.D
Acq On : 14 Jun 2013 7:52 pm
Operator : VP
Sample : ICAL TOSTD 0.20
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 13 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:44 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration





TIC: 06141303.D\data.ms

(10) Ethanol (C)

5.112min (+0.022) 0.11ppbv

response 1234

Ion	Exp%	Act%
45.00	100	100
46.00	33.60	12.88#
0.00	0.00	0.00
0.00	0.00	0.00

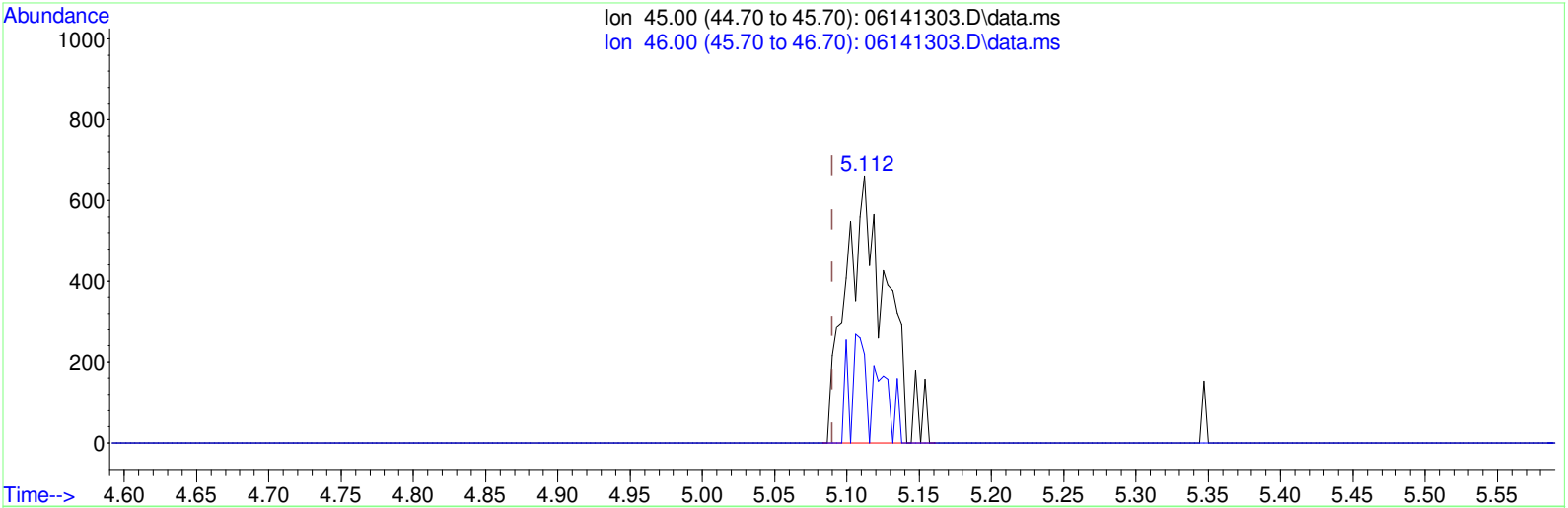
BEFORE

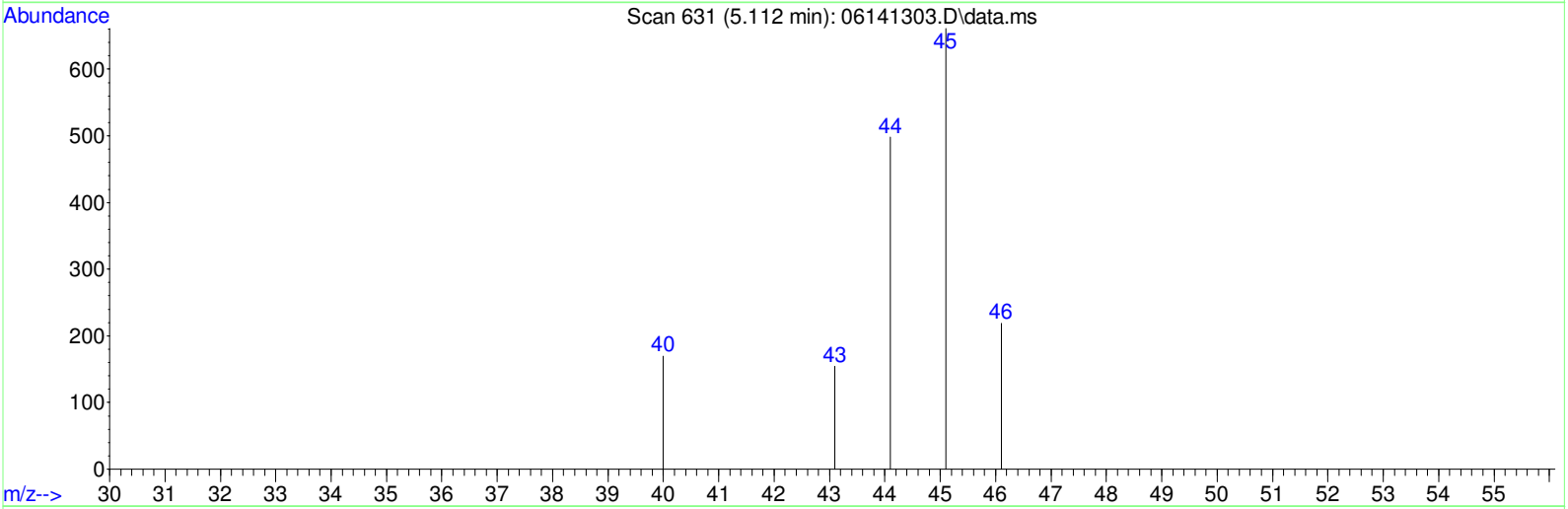
By Vytautas at 15:40:12, 7/25/2013

Quantitation Report (Qedit)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141303.D
Acq On : 14 Jun 2013 7:52 pm
Operator : VP
Sample : ICAL TOSTD 0.20
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 13 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:44 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration





TIC: 06141303.D\data.ms

(10) Ethanol (C)

5.112min (+0.022) 0.12ppbv m

response 1299

Ion	Exp%	Act%
45.00	100	100
46.00	33.60	27.10
0.00	0.00	0.00
0.00	0.00	0.00

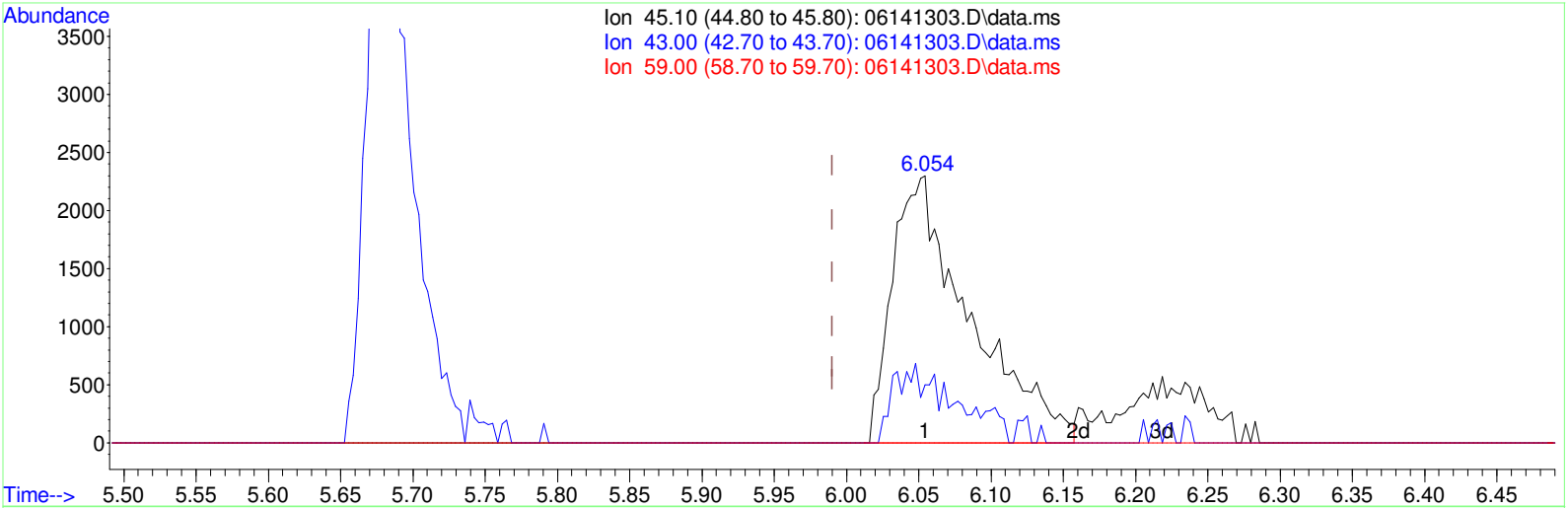
AFTER M3

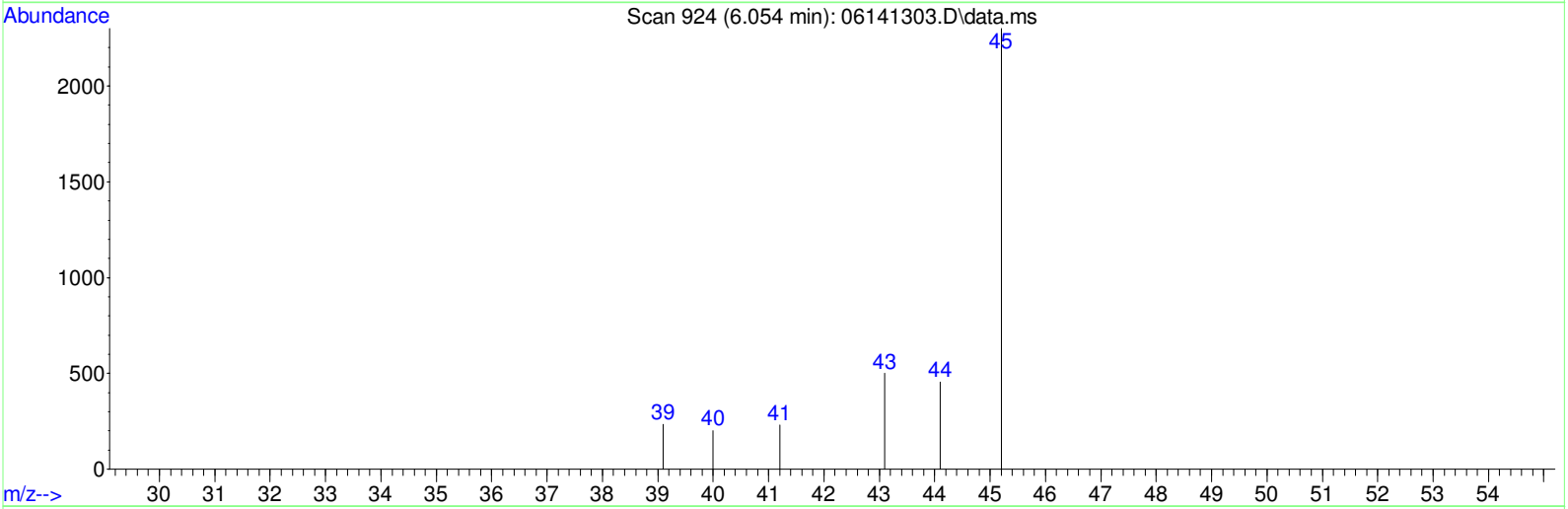
By Vytautas at 15:40:33, 7/25/2013

Quantitation Report (Qedit)

```
Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141303.D
Acq On    : 14 Jun 2013   7:52 pm
Operator  : VP
Sample    : ICAL TOSTD 0.20
Misc      : TO_15A+        117-5-250 CAN 157
ALS Vial  : 13   Sample Multiplier: 1
InstName  : VOA5

Quant Time: Jun 17 18:58:44 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title  : SOP 4010 EPA   TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration
```





TIC: 06141303.D\data.ms

(14) Isopropyl alcohol (C)

6.054min (+0.064) 0.18ppbv

response 8537

BEFORE

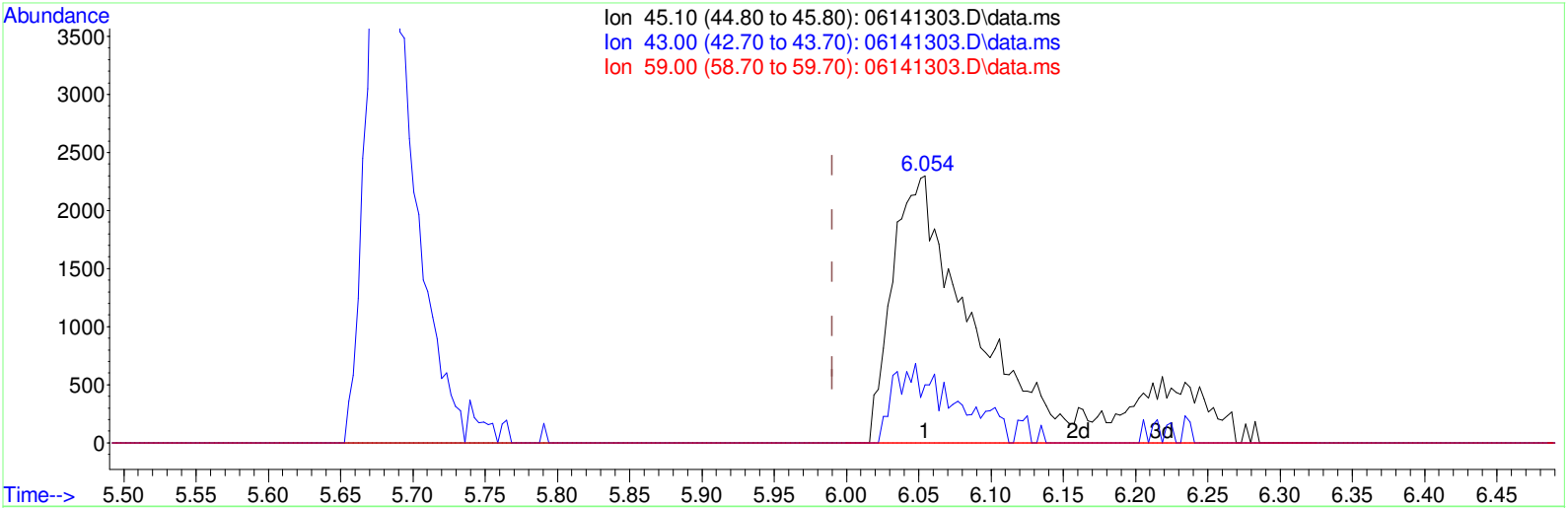
By Vytautas at 15:40:18, 7/25/2013

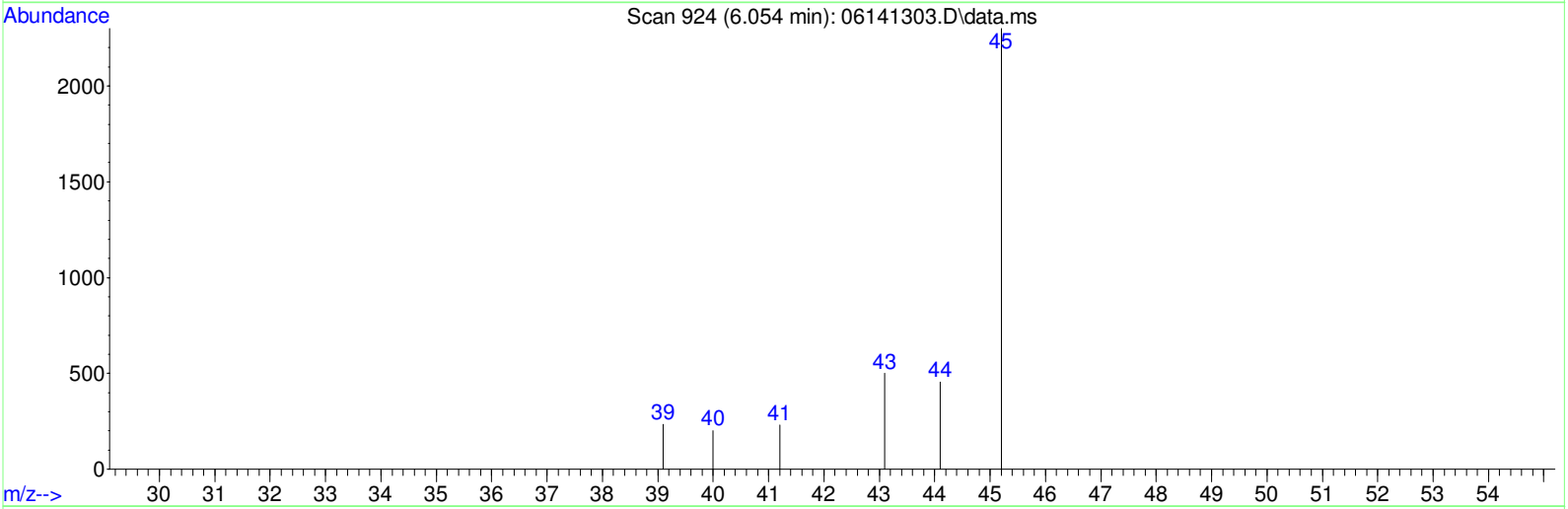
Ion	Exp%	Act%
45.10	100	100
43.00	20.80	23.20
59.00	4.40	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141303.D
Acq On    : 14 Jun 2013   7:52 pm
Operator  : VP
Sample    : ICAL TOSTD 0.20
Misc      : TO_15A+        117-5-250 CAN 157
ALS Vial  : 13   Sample Multiplier: 1
InstName  : VOA5

Quant Time: Jun 17 18:58:44 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title  : SOP 4010 EPA   TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration
```





TIC: 06141303.D\data.ms

(14) Isopropyl alcohol (C)

6.054min (+0.064) 0.23ppbv m

response 10761

Ion	Exp%	Act%
45.10	100	100
43.00	20.80	22.08
59.00	4.40	0.00
0.00	0.00	0.00

AFTER M3

By Vytautas at 15:40:38, 7/25/2013

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141304.D
Acq On : 14 Jun 2013 8:37 pm
Operator : VP
Sample : ICAL TOSTD 0.50
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 13 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 13:07:08 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.180	49	431886	10.00 ppbv	0.00
25) 1,4-Difluorobenzene	11.183	114	2194610	10.00 ppbv	0.00
50) Chlorobenzene-d5	15.466	117	1993243	10.00 ppbv	0.00

Target Compounds					Qvalue
2) Propene	3.579	41	12736	0.58 ppbv	98
3) Dichlorodifluoromethane	3.669	85	56960	0.52 ppbv	100
4) Chloromethane	3.862	50	16452	0.50 ppbv	98
5) Freon-114	4.009	85	42426	0.49 ppbv	99
6) Vinyl chloride	4.128	62	13780	0.57 ppbv	100
7) 1,3-Butadiene	4.299	54	9450	0.48 ppbv	97
8) Bromomethane	4.617	94	10596	0.25 ppbv	96
9) Chloroethane	4.852	64	7541	0.35 ppbv	97
10) Ethanol	5.109	45	2150	0.19 ppbv	97
11) Acrolein	5.495	56	6117	0.44 ppbv	90
12) Acetone	5.672	43	22813	0.46 ppbv	99
13) Freon-11	5.816	101	56628	0.49 ppbv	100
14) Isopropyl alcohol	6.022	45	26512m	0.56 ppbv	
15) 1,1-dichloroethene	6.595	61	31942	0.55 ppbv	99
16) Dichloromethane	6.762	49	40167	0.92 ppbv	99
17) Carbon disulfide	7.035	76	50451	0.38 ppbv	96
18) Freon-113	7.090	101	48978	0.49 ppbv	97
19) trans-1,2-Dichloroethene	7.855	61	28143	0.50 ppbv	99
20) 1,1-Dichloroethane	8.083	63	37020	0.51 ppbv	100
21) Mtbe	8.180	73	57624	0.49 ppbv	100
22) Vinyl Acetate	8.302	43	31996	0.48 ppbv	100
23) 2-Butanone	8.549	43	33275	0.51 ppbv	100
24) cis-1,2-Dichloroethene	9.003	61	26941	0.50 ppbv	99
26) Hexane	9.241	57	30501	0.64 ppbv	99
27) Ethyl acetate	9.283	61	5908	0.42 ppbv	98
28) Chloroform	9.321	83	45979	0.53 ppbv	100
29) Tetrahydrofuran	9.746	42	19825	0.53 ppbv	98
30) 1,2-Dichloroethane	10.090	62	28195	0.54 ppbv	98
31) 1,1,1-Trichloroethane	10.344	97	45449	0.51 ppbv	99
32) Benzene	10.810	78	72668	0.50 ppbv	100
33) Carbon tetrachloride	10.961	117	33434	0.41 ppbv	99
34) Cyclohexane	11.083	56	31578	0.54 ppbv	99
35) 1,2-Dichloropropane	11.633	63	23193	0.52 ppbv	98
36) Bromodichloromethane	11.829	83	48425	0.55 ppbv	98
37) Trichloroethene	11.871	130	36855	0.50 ppbv	96
38) 1,4-Dioxane	11.871	88	10919m	0.43 ppbv	
39) Methyl methacrylate	12.073	69	22803	0.53 ppbv	98
40) Heptane	12.170	43	33185	0.60 ppbv	98
41) cis-1,3-Dichloropropene	12.723	75	37015	0.54 ppbv	98
42) 4-Methyl-2-pentanone	12.752	43	36627	0.50 ppbv	99
43) trans-1,3-Dichloropropene	13.237	75	30837	0.43 ppbv	98
44) 1,1,2-Trichloroethane	13.411	97	31637	0.51 ppbv	98
45) Toluene	13.681	91	93063	0.52 ppbv	98
46) 2-Hexanone	13.935	43	31566	0.56 ppbv	96
47) Dibromochloromethane	14.105	129	53132	0.54 ppbv	99
48) 1,2-Dibromoethane	14.353	107	47373	0.50 ppbv	99
49) Tetrachloroethene	14.816	166	51817	0.48 ppbv	97
51) Chlorobenzene	15.507	112	78989	0.50 ppbv	98
52) Ethylbenzene	15.893	106	38504	0.48 ppbv	95
53) Xylene (1)	16.080	106	99345	1.03 ppbv	98
54) Xylene (2)	16.584	106	47285	0.50 ppbv	95

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141304.D
Acq On : 14 Jun 2013 8:37 pm
Operator : VP
Sample : ICAL TOSTD 0.50
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 13 Sample Multiplier: 1
InstName : VOA5

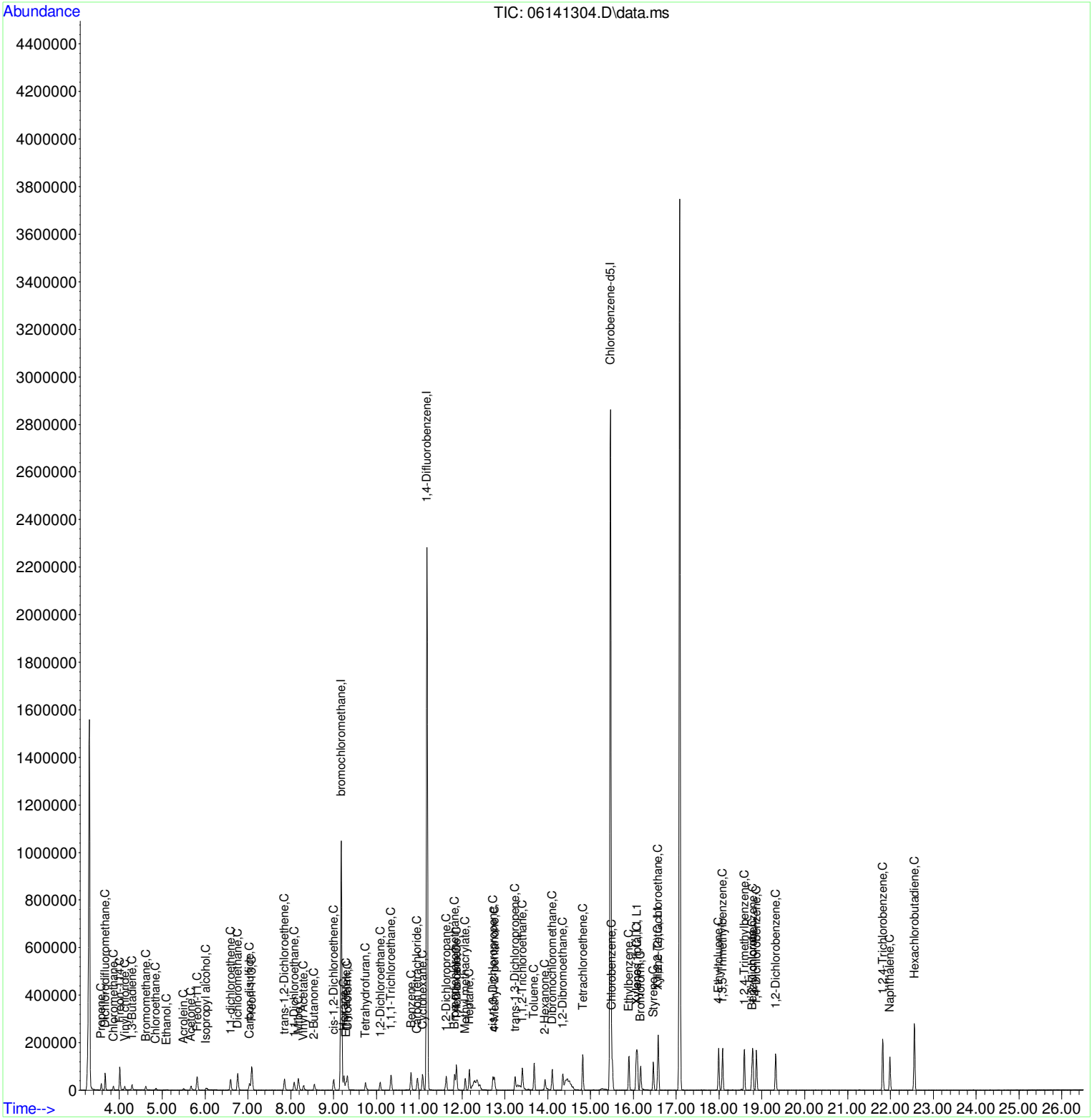
Quant Time: Jun 19 13:07:08 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.080	106	146630m	1.53 ppbv	
56) Bromoform	16.170	173	52881	0.54 ppbv	96
57) Styrene	16.466	104	69810	0.52 ppbv	99
58) 1,1,2,2-Tetrachloroethane	16.572	83	61005	0.52 ppbv	99
59) 4-Ethyltoluene	17.990	120	40867	0.50 ppbv	91
60) 1,3,5-Trimethylbenzene	18.083	120	59594	0.49 ppbv	98
61) 1,2,4-Trimethylbenzene	18.591	120	54261	0.49 ppbv	97
62) Benzyl chloride	18.764	91	57405	0.40 ppbv	100
63) 1,3-Dichlorobenzene	18.784	146	87691	0.48 ppbv	99
64) 1,4-Dichlorobenzene	18.874	146	89501	0.47 ppbv	99
65) 1,2-Dichlorobenzene	19.321	146	82237	0.46 ppbv	99
66) 1,2,4-Trichlorobenzene	21.819	180	86062	0.43 ppbv	100
67) Naphthalene	21.986	128	136356	0.48 ppbv	99
68) Hexachlorobutadiene	22.562	225	68359	0.43 ppbv	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141304.D
Acq On : 14 Jun 2013 8:37 pm
Operator : VP
Sample : ICAL TOSTD 0.50
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 13 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 13:07:08 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141304.D
Acq On : 14 Jun 2013 8:37 pm
Operator : VP
Sample : ICAL TOSTD 0.50
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 13 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:46 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.180	49	431886	10.00 ppbv	0.00
25) 1,4-Difluorobenzene	11.183	114	2194610	10.00 ppbv	0.00
50) Chlorobenzene-d5	15.466	117	1993243	10.00 ppbv	0.00

Target Compounds					Qvalue
2) Propene	3.579	41	12736	0.58 ppbv	98
3) Dichlorodifluoromethane	3.669	85	56960	0.52 ppbv	100
4) Chloromethane	3.862	50	16452	0.50 ppbv	98
5) Freon-114	4.009	85	42426	0.49 ppbv	99
6) Vinyl chloride	4.128	62	13780	0.57 ppbv	100
7) 1,3-Butadiene	4.299	54	9450	0.48 ppbv	97
8) Bromomethane	4.617	94	10596	0.25 ppbv	96
9) Chloroethane	4.852	64	7541	0.35 ppbv	97
10) Ethanol	5.109	45	2150	0.19 ppbv	97
11) Acrolein	5.495	56	6117	0.44 ppbv	90
12) Acetone	5.672	43	22813	0.46 ppbv	99
13) Freon-11	5.816	101	56628	0.49 ppbv	100
14) Isopropyl alcohol	6.022	45	21423	0.45 ppbv	95
15) 1,1-dichloroethene	6.595	61	31942	0.55 ppbv	99
16) Dichloromethane	6.762	49	40167	0.92 ppbv	99
17) Carbon disulfide	7.035	76	50451	0.38 ppbv	96
18) Freon-113	7.090	101	48978	0.49 ppbv	97
19) trans-1,2-Dichloroethene	7.855	61	28143	0.50 ppbv	99
20) 1,1-Dichloroethane	8.083	63	37020	0.51 ppbv	100
21) Mtbe	8.180	73	57624	0.49 ppbv	100
22) Vinyl Acetate	8.302	43	31996	0.48 ppbv	100
23) 2-Butanone	8.549	43	33275	0.51 ppbv	100
24) cis-1,2-Dichloroethene	9.003	61	26941	0.50 ppbv	99
26) Hexane	9.241	57	30501	0.64 ppbv	99
27) Ethyl acetate	9.283	61	5908	0.42 ppbv	98
28) Chloroform	9.321	83	45979	0.53 ppbv	100
29) Tetrahydrofuran	9.746	42	19825	0.53 ppbv	98
30) 1,2-Dichloroethane	10.090	62	28195	0.54 ppbv	98
31) 1,1,1-Trichloroethane	10.344	97	45449	0.51 ppbv	99
32) Benzene	10.810	78	72668	0.50 ppbv	100
33) Carbon tetrachloride	10.961	117	33434	0.41 ppbv	99
34) Cyclohexane	11.083	56	31578	0.54 ppbv	99
35) 1,2-Dichloropropane	11.633	63	23193	0.52 ppbv	98
36) Bromodichloromethane	11.829	83	48425	0.55 ppbv	98
37) Trichloroethene	11.871	130	36855	0.50 ppbv	96
38) 1,4-Dioxane	11.871	88	10198	0.40 ppbv #	71
39) Methyl methacrylate	12.073	69	22803	0.53 ppbv	98
40) Heptane	12.170	43	33185	0.60 ppbv	98
41) cis-1,3-Dichloropropene	12.723	75	37015	0.54 ppbv	98
42) 4-Methyl-2-pentanone	12.752	43	36627	0.50 ppbv	99
43) trans-1,3-Dichloropropene	13.237	75	30837	0.43 ppbv	98
44) 1,1,2-Trichloroethane	13.411	97	31637	0.51 ppbv	98
45) Toluene	13.681	91	93063	0.52 ppbv	98
46) 2-Hexanone	13.935	43	31566	0.56 ppbv	96
47) Dibromochloromethane	14.105	129	53132	0.54 ppbv	99
48) 1,2-Dibromoethane	14.353	107	47373	0.50 ppbv	99
49) Tetrachloroethene	14.816	166	51817	0.48 ppbv	97
51) Chlorobenzene	15.507	112	78989	0.50 ppbv	98
52) Ethylbenzene	15.893	106	38504	0.48 ppbv	95
53) Xylene (1)	16.080	106	99345	1.03 ppbv	98
54) Xylene (2)	16.584	106	47285	0.50 ppbv	95

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141304.D
Acq On : 14 Jun 2013 8:37 pm
Operator : VP
Sample : ICAL TOSTD 0.50
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 13 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:46 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

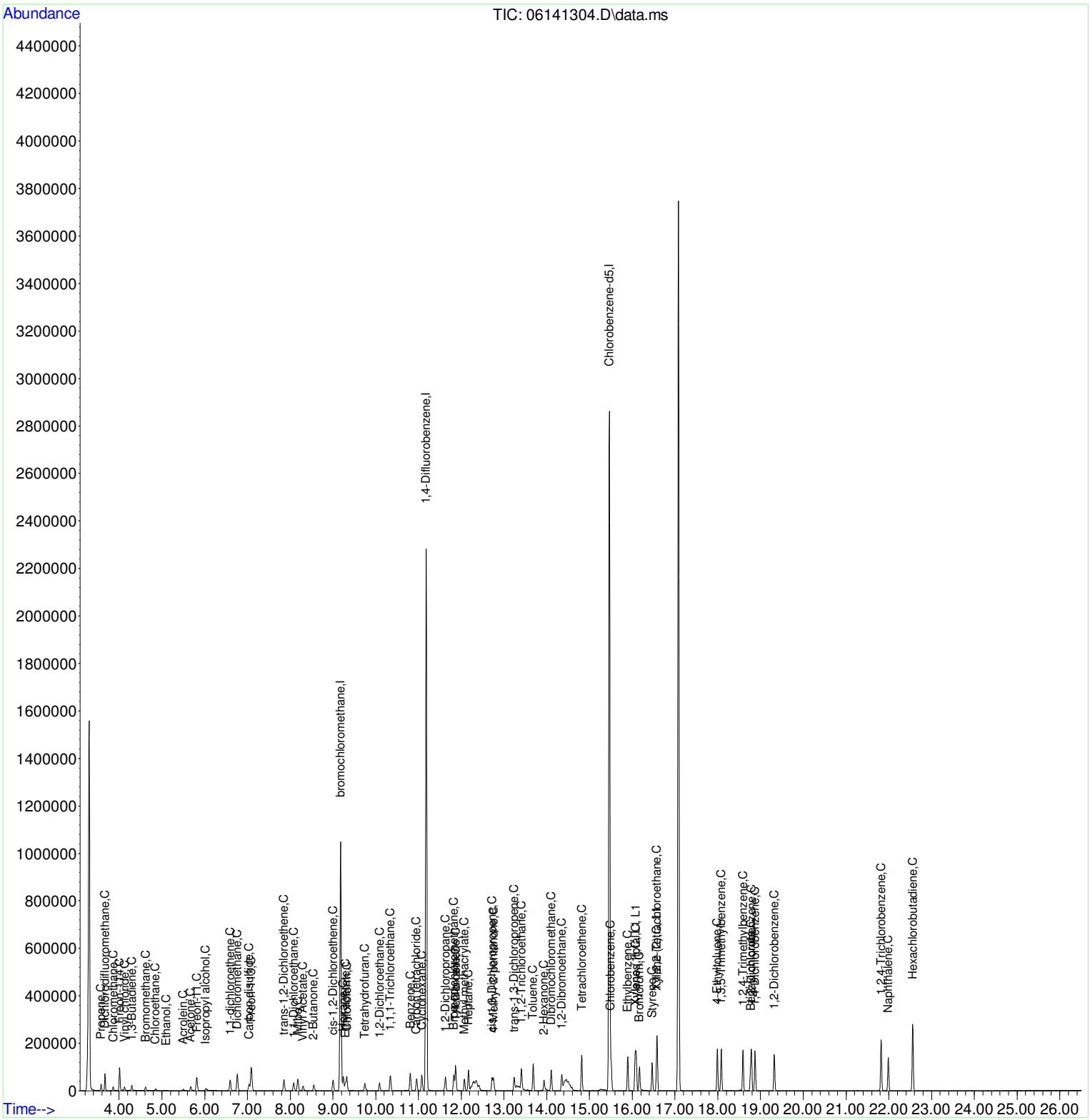
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.080	106	146630m	1.53 ppbv	
56) Bromoform	16.170	173	52881	0.54 ppbv	96
57) Styrene	16.466	104	69810	0.52 ppbv	99
58) 1,1,2,2-Tetrachloroethane	16.572	83	61005	0.52 ppbv	99
59) 4-Ethyltoluene	17.990	120	40867	0.50 ppbv	91
60) 1,3,5-Trimethylbenzene	18.083	120	59594	0.49 ppbv	98
61) 1,2,4-Trimethylbenzene	18.591	120	54261	0.49 ppbv	97
62) Benzyl chloride	18.764	91	57405	0.40 ppbv	100
63) 1,3-Dichlorobenzene	18.784	146	87691	0.48 ppbv	99
64) 1,4-Dichlorobenzene	18.874	146	89501	0.47 ppbv	99
65) 1,2-Dichlorobenzene	19.321	146	82237	0.46 ppbv	99
66) 1,2,4-Trichlorobenzene	21.819	180	86062	0.43 ppbv	100
67) Naphthalene	21.986	128	136356	0.48 ppbv	99
68) Hexachlorobutadiene	22.562	225	68359	0.43 ppbv	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

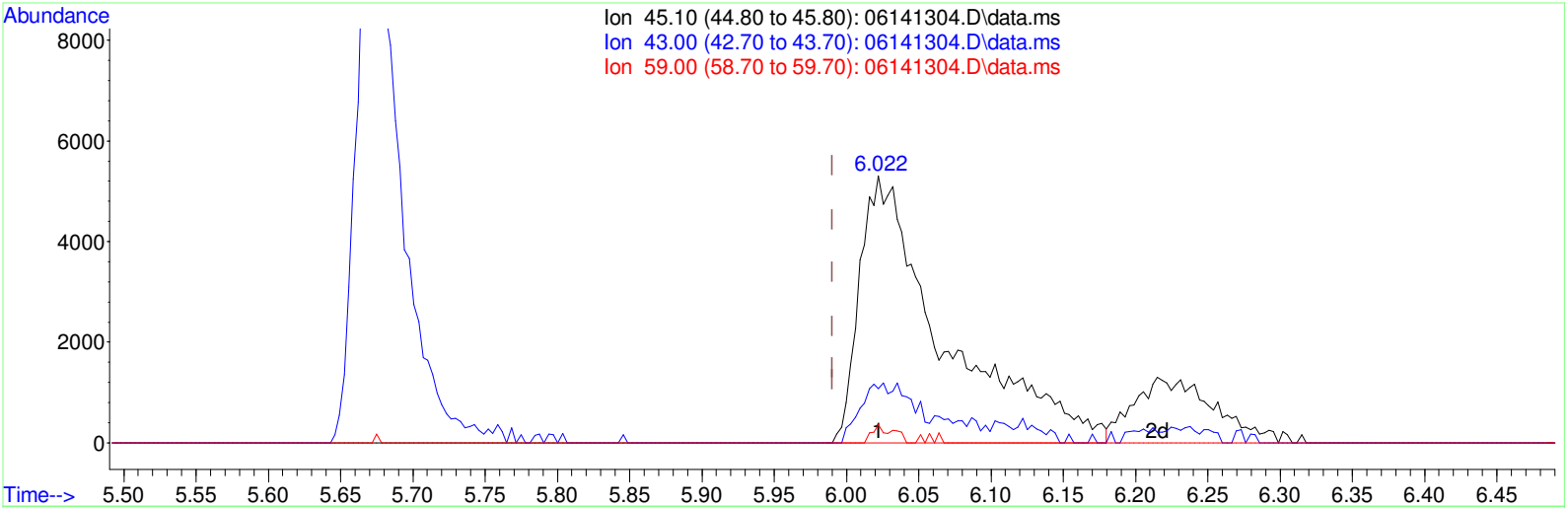
Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141304.D
Acq On : 14 Jun 2013 8:37 pm
Operator : VP
Sample : ICAL TOSTD 0.50
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 13 Sample Multiplier: 1
InstName : VOA5

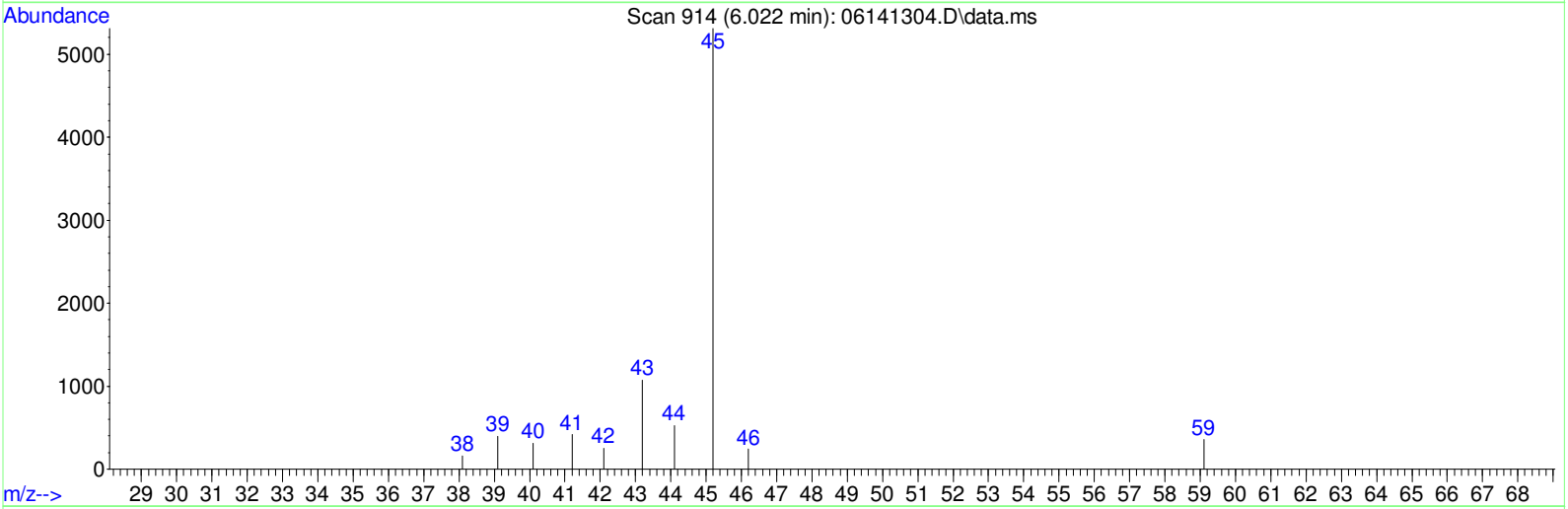
Quant Time: Jun 17 18:58:46 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration



Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141304.D
Acq On : 14 Jun 2013 8:37 pm
Operator : VP
Sample : ICAL TOSTD 0.50
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 13 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:46 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration





TIC: 06141304.D\data.ms

(14) Isopropyl alcohol (C)

6.022min (+0.032) 0.45ppbv

response 21423

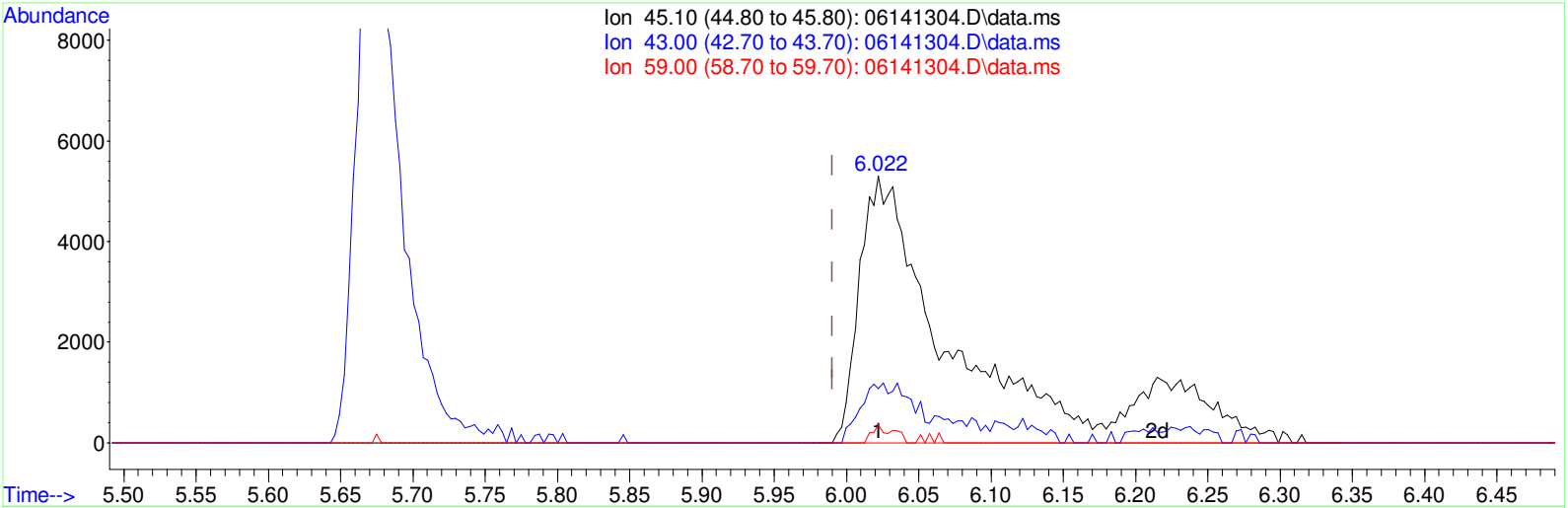
BEFORE

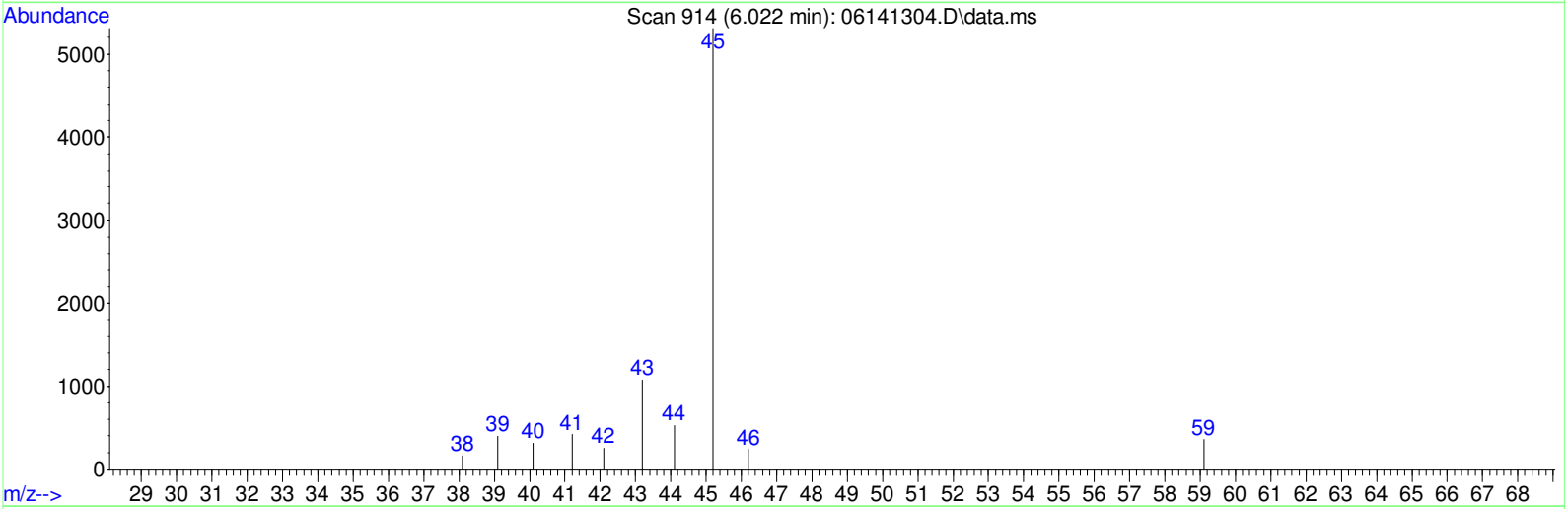
By Vytautas at 15:40:48, 7/25/2013

Ion	Exp%	Act%
45.10	100	100
43.00	20.80	18.55
59.00	4.40	1.65
0.00	0.00	0.00

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141304.D
Acq On : 14 Jun 2013 8:37 pm
Operator : VP
Sample : ICAL TOSTD 0.50
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 13 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:46 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration





(14) Isopropyl alcohol (C)

6.022min (+0.032) 0.56ppbv m

response 26512

Ion	Exp%	Act%
45.10	100	100
43.00	20.80	22.88
59.00	4.40	1.74
0.00	0.00	0.00

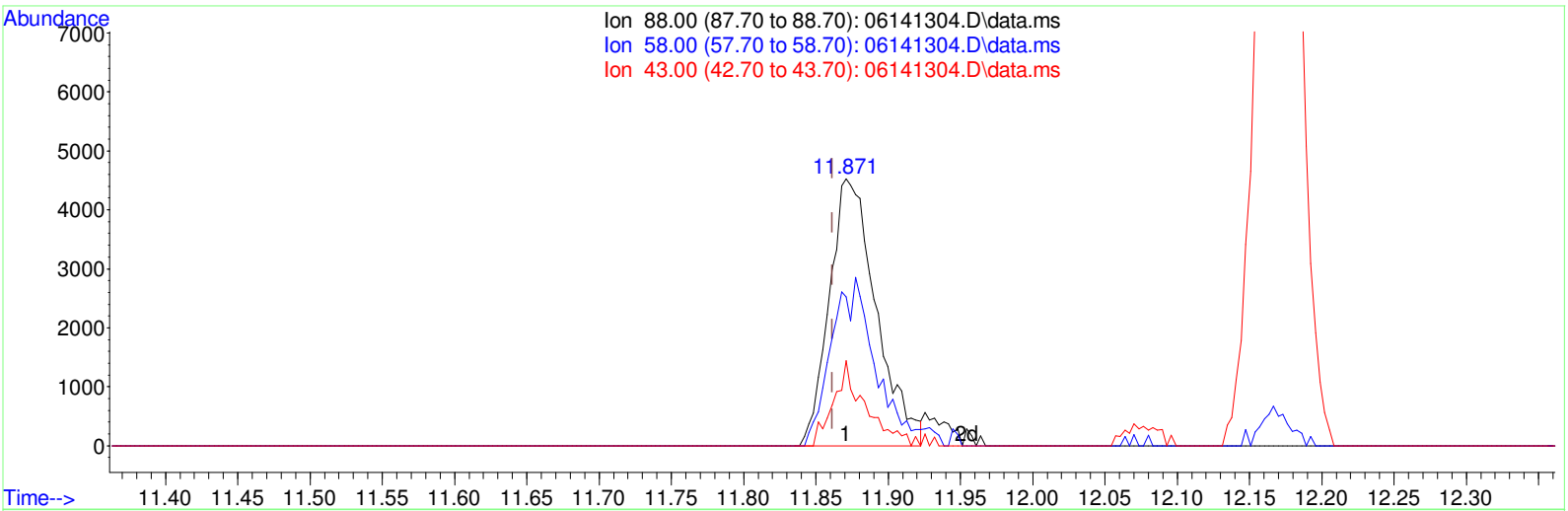
AFTER M3

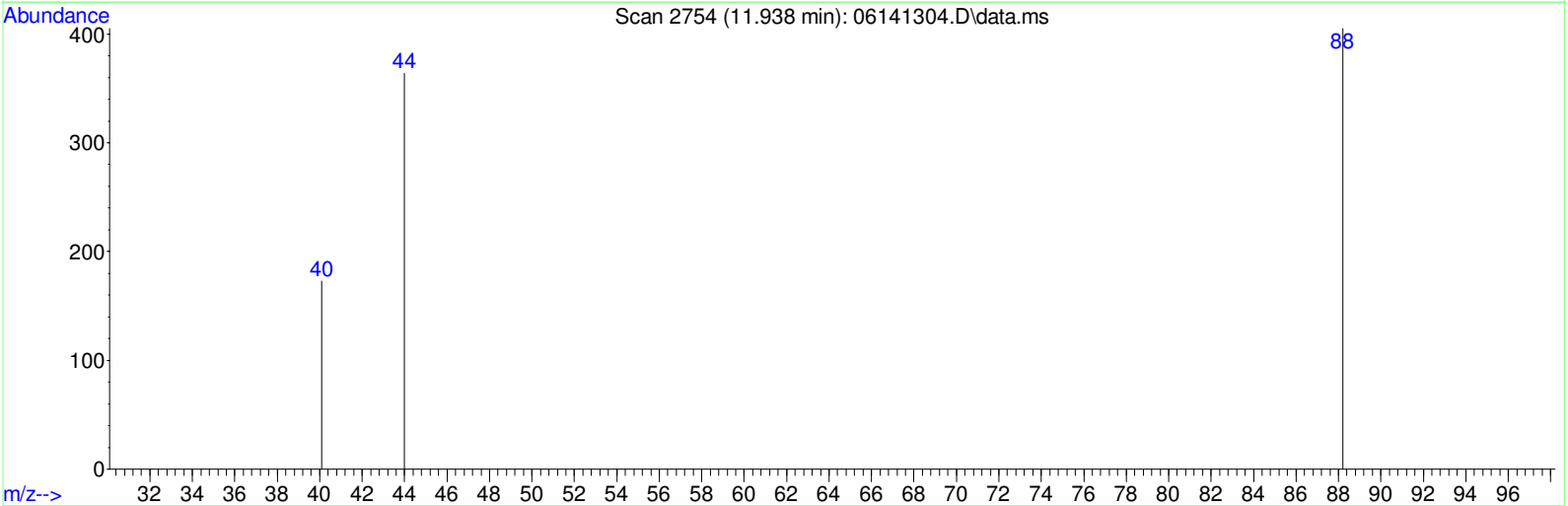
By Vytautas at 15:41:08, 7/25/2013

Quantitation Report (Qedit)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141304.D
Acq On : 14 Jun 2013 8:37 pm
Operator : VP
Sample : ICAL TOSTD 0.50
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 13 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:46 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration





TIC: 06141304.D\data.ms

(38) 1,4-Dioxane (C)

11.871min (+0.010) 0.40ppbv

response 10198

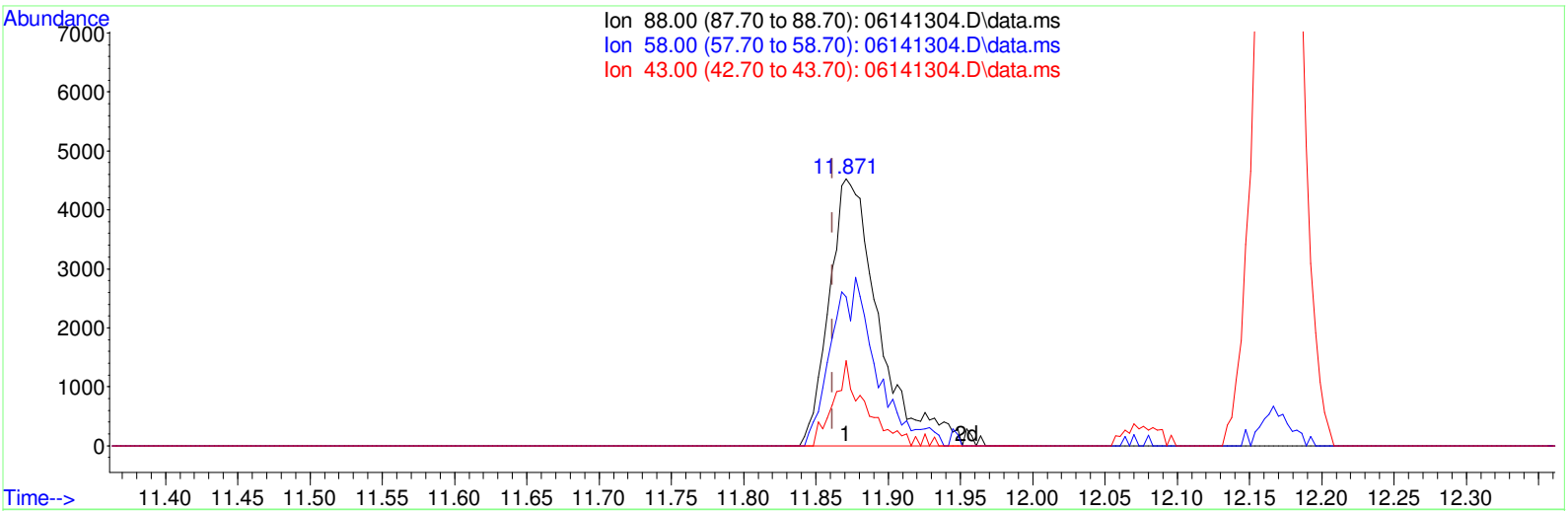
Ion	Exp%	Act%
88.00	100	100
58.00	56.10	28.05#
43.00	20.30	21.42
0.00	0.00	0.00

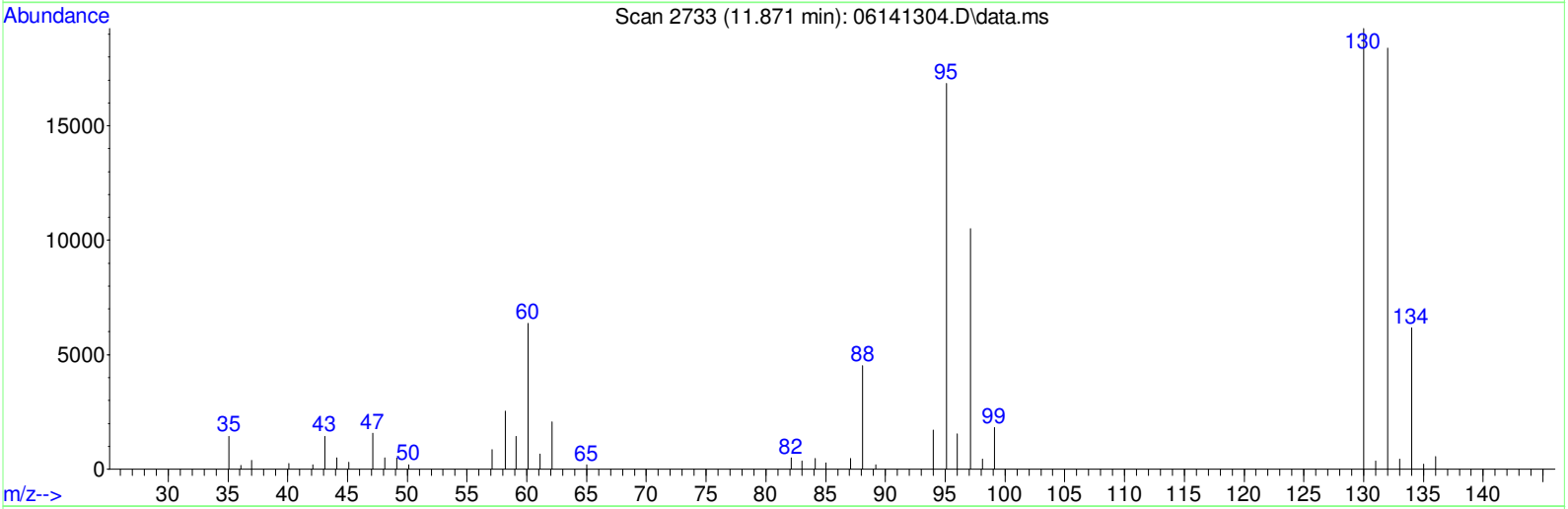
BEFORE

By Vytautas at 15:40:54, 7/25/2013

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141304.D
Acq On : 14 Jun 2013 8:37 pm
Operator : VP
Sample : ICAL TOSTD 0.50
Misc : TO_15A+ 117-5-250 CAN 157
ALS Vial : 13 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:46 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration





TIC: 06141304.D\data.ms

(38) 1,4-Dioxane (C)

11.871min (+0.010) 0.43ppbv m

response 10919

AFTER M3

By Vytautas at 15:41:12, 7/25/2013

Ion	Exp%	Act%
88.00	100	100
58.00	56.10	57.76
43.00	20.30	20.90
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141305.D
Acq On : 14 Jun 2013 9:17 pm
Operator : VP
Sample : ICAL TOSTD 1.0
Misc : TO_15A+ 117-5-249 CAN 154
ALS Vial : 18 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 13:08:18 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.180	49	451541	10.00 ppbv	0.00
25) 1,4-Difluorobenzene	11.183	114	2192490	10.00 ppbv	0.00
50) Chlorobenzene-d5	15.462	117	1991124	10.00 ppbv	0.00

Target Compounds					Qvalue
2) Propene	3.575	41	24541	1.07 ppbv	99
3) Dichlorodifluoromethane	3.665	85	107754	0.94 ppbv	100
4) Chloromethane	3.858	50	33285	0.97 ppbv	100
5) Freon-114	4.006	85	82971	0.92 ppbv	100
6) Vinyl chloride	4.125	62	26096	1.03 ppbv	99
7) 1,3-Butadiene	4.292	54	18871	0.91 ppbv	99
8) Bromomethane	4.614	94	22501	0.52 ppbv	100
9) Chloroethane	4.849	64	15587	0.68 ppbv	100
10) Ethanol	5.096	45	7763	0.67 ppbv	99
11) Acrolein	5.488	56	13491	0.92 ppbv	100
12) Acetone	5.662	43	49784	0.96 ppbv	100
13) Freon-11	5.813	101	108080	0.89 ppbv	99
14) Isopropyl alcohol	6.009	45	50247m	1.02 ppbv	
15) 1,1-dichloroethene	6.595	61	61000	1.01 ppbv	99
16) Dichloromethane	6.765	49	50238	1.10 ppbv	99
17) Carbon disulfide	7.041	76	108805	0.78 ppbv	100
18) Freon-113	7.090	101	93145	0.90 ppbv	100
19) trans-1,2-Dichloroethene	7.855	61	53597	0.92 ppbv	99
20) 1,1-Dichloroethane	8.083	63	71347	0.94 ppbv	100
21) Mtbe	8.170	73	110076	0.89 ppbv	99
22) Vinyl Acetate	8.295	43	65497	0.94 ppbv	100
23) 2-Butanone	8.546	43	65685	0.96 ppbv	100
24) cis-1,2-Dichloroethene	9.006	61	52146	0.93 ppbv	98
26) Hexane	9.244	57	58267	1.23 ppbv	99
27) Ethyl acetate	9.286	61	11874	0.84 ppbv	96
28) Chloroform	9.328	83	88043	1.01 ppbv	99
29) Tetrahydrofuran	9.733	42	38238	1.02 ppbv	99
30) 1,2-Dichloroethane	10.086	62	53524	1.03 ppbv	99
31) 1,1,1-Trichloroethane	10.344	97	88615	0.99 ppbv	99
32) Benzene	10.810	78	136593	0.95 ppbv	99
33) Carbon tetrachloride	10.958	117	77886	0.96 ppbv	100
34) Cyclohexane	11.080	56	60150	1.03 ppbv	99
35) 1,2-Dichloropropane	11.630	63	44136	0.98 ppbv	98
36) Bromodichloromethane	11.826	83	93706	1.06 ppbv	99
37) Trichloroethene	11.868	130	69878	0.95 ppbv	97
38) 1,4-Dioxane	11.868	88	26594m	1.05 ppbv	
39) Methyl methacrylate	12.073	69	43512	1.00 ppbv	99
40) Heptane	12.170	43	63448	1.15 ppbv	99
41) cis-1,3-Dichloropropene	12.723	75	72349	1.06 ppbv	100
42) 4-Methyl-2-pentanone	12.752	43	73410	1.01 ppbv	98
43) trans-1,3-Dichloropropene	13.237	75	62851	0.88 ppbv	100
44) 1,1,2-Trichloroethane	13.408	97	58522	0.94 ppbv	99
45) Toluene	13.684	91	178053	0.99 ppbv	100
46) 2-Hexanone	13.932	43	64889	1.15 ppbv	97
47) Dibromochloromethane	14.105	129	102850	1.04 ppbv	100
48) 1,2-Dibromoethane	14.350	107	90147	0.96 ppbv	99
49) Tetrachloroethene	14.816	166	99419	0.93 ppbv	98
51) Chlorobenzene	15.507	112	150007	0.95 ppbv	99
52) Ethylbenzene	15.893	106	74305	0.93 ppbv	96
53) Xylene (1)	16.076	106	191251	1.98 ppbv	100
54) Xylene (2)	16.581	106	91668	0.97 ppbv	98

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141305.D
Acq On : 14 Jun 2013 9:17 pm
Operator : VP
Sample : ICAL TOSTD 1.0
Misc : TO_15A+ 117-5-249 CAN 154
ALS Vial : 18 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 13:08:18 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

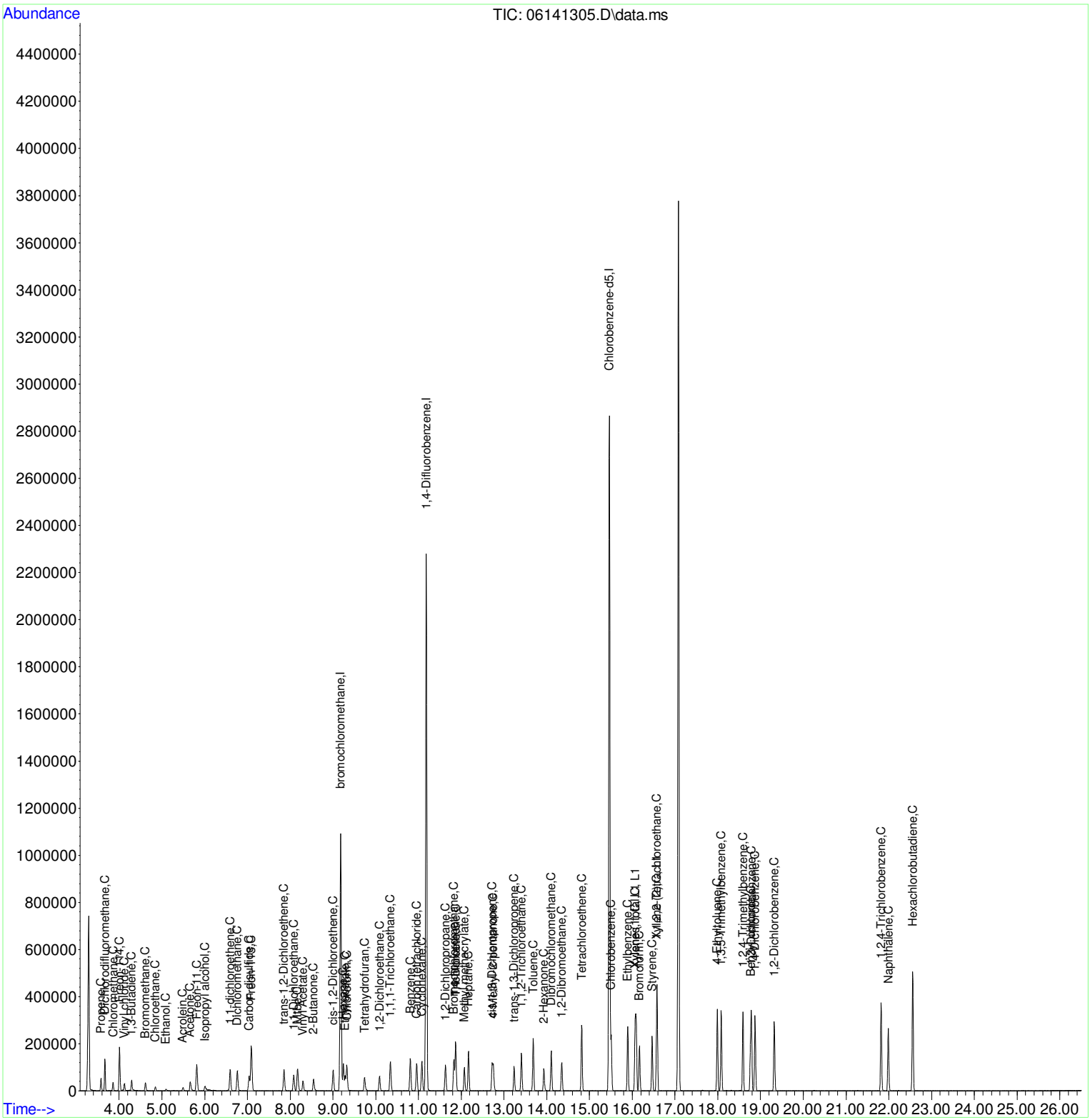
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.076	106	282919m	2.95 ppbv	
56) Bromoform	16.170	173	103830	1.05 ppbv	98
57) Styrene	16.465	104	137553	1.02 ppbv	99
58) 1,1,2,2-Tetrachloroethane	16.572	83	117370	0.99 ppbv	100
59) 4-Ethyltoluene	17.990	120	80925	1.00 ppbv	96
60) 1,3,5-Trimethylbenzene	18.083	120	115632	0.95 ppbv	98
61) 1,2,4-Trimethylbenzene	18.591	120	105495	0.95 ppbv	97
62) Benzyl chloride	18.764	91	128395	0.89 ppbv	99
63) 1,3-Dichlorobenzene	18.787	146	167110	0.91 ppbv	100
64) 1,4-Dichlorobenzene	18.874	146	170413	0.90 ppbv	99
65) 1,2-Dichlorobenzene	19.324	146	155322	0.88 ppbv	99
66) 1,2,4-Trichlorobenzene	21.819	180	149677	0.75 ppbv	99
67) Naphthalene	21.989	128	259804	0.91 ppbv	99
68) Hexachlorobutadiene	22.558	225	121971	0.78 ppbv	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141305.D
Acq On : 14 Jun 2013 9:17 pm
Operator : VP
Sample : ICAL TOSTD 1.0
Misc : TO_15A+ 117-5-249 CAN 154
ALS Vial : 18 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 13:08:18 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141305.D
Acq On : 14 Jun 2013 9:17 pm
Operator : VP
Sample : ICAL TOSTD 1.0
Misc : TO_15A+ 117-5-249 CAN 154
ALS Vial : 18 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:48 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.180	49	451541	10.00 ppbv	0.00
25) 1,4-Difluorobenzene	11.183	114	2192490	10.00 ppbv	0.00
50) Chlorobenzene-d5	15.462	117	1991124	10.00 ppbv	0.00

Target Compounds					Qvalue
2) Propene	3.575	41	24541	1.07 ppbv	99
3) Dichlorodifluoromethane	3.665	85	107754	0.94 ppbv	100
4) Chloromethane	3.858	50	33285	0.97 ppbv	100
5) Freon-114	4.006	85	82971	0.92 ppbv	100
6) Vinyl chloride	4.125	62	26096	1.03 ppbv	99
7) 1,3-Butadiene	4.292	54	18871	0.91 ppbv	99
8) Bromomethane	4.614	94	22501	0.52 ppbv	100
9) Chloroethane	4.849	64	15587	0.68 ppbv	100
10) Ethanol	5.096	45	7763	0.67 ppbv	99
11) Acrolein	5.488	56	13491	0.92 ppbv	100
12) Acetone	5.662	43	49784	0.96 ppbv	100
13) Freon-11	5.813	101	108080	0.89 ppbv	99
14) Isopropyl alcohol	6.009	45	43287	0.88 ppbv	96
15) 1,1-dichloroethene	6.595	61	61000	1.01 ppbv	99
16) Dichloromethane	6.765	49	50238	1.10 ppbv	99
17) Carbon disulfide	7.041	76	108805	0.78 ppbv	100
18) Freon-113	7.090	101	93145	0.90 ppbv	100
19) trans-1,2-Dichloroethene	7.855	61	53597	0.92 ppbv	99
20) 1,1-Dichloroethane	8.083	63	71347	0.94 ppbv	100
21) Mtbe	8.170	73	110076	0.89 ppbv	99
22) Vinyl Acetate	8.295	43	65497	0.94 ppbv	100
23) 2-Butanone	8.546	43	65685	0.96 ppbv	100
24) cis-1,2-Dichloroethene	9.006	61	52146	0.93 ppbv	98
26) Hexane	9.244	57	58267	1.23 ppbv	99
27) Ethyl acetate	9.286	61	11874	0.84 ppbv	96
28) Chloroform	9.328	83	88043	1.01 ppbv	99
29) Tetrahydrofuran	9.733	42	38238	1.02 ppbv	99
30) 1,2-Dichloroethane	10.086	62	53524	1.03 ppbv	99
31) 1,1,1-Trichloroethane	10.344	97	88615	0.99 ppbv	99
32) Benzene	10.810	78	136593	0.95 ppbv	99
33) Carbon tetrachloride	10.958	117	77886	0.96 ppbv	100
34) Cyclohexane	11.080	56	60150	1.03 ppbv	99
35) 1,2-Dichloropropane	11.630	63	44136	0.98 ppbv	98
36) Bromodichloromethane	11.826	83	93706	1.06 ppbv	99
37) Trichloroethene	11.868	130	69878	0.95 ppbv	97
38) 1,4-Dioxane	11.868	88	25065	0.99 ppbv	94
39) Methyl methacrylate	12.073	69	43512	1.00 ppbv	99
40) Heptane	12.170	43	63448	1.15 ppbv	99
41) cis-1,3-Dichloropropene	12.723	75	72349	1.06 ppbv	100
42) 4-Methyl-2-pentanone	12.752	43	73410	1.01 ppbv	98
43) trans-1,3-Dichloropropene	13.237	75	62851	0.88 ppbv	100
44) 1,1,2-Trichloroethane	13.408	97	58522	0.94 ppbv	99
45) Toluene	13.684	91	178053	0.99 ppbv	100
46) 2-Hexanone	13.932	43	64889	1.15 ppbv	97
47) Dibromochloromethane	14.105	129	102850	1.04 ppbv	100
48) 1,2-Dibromoethane	14.350	107	90147	0.96 ppbv	99
49) Tetrachloroethene	14.816	166	99419	0.93 ppbv	98
51) Chlorobenzene	15.507	112	150007	0.95 ppbv	99
52) Ethylbenzene	15.893	106	74305	0.93 ppbv	96
53) Xylene (1)	16.076	106	191251	1.98 ppbv	100
54) Xylene (2)	16.581	106	91668	0.97 ppbv	98

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141305.D
Acq On : 14 Jun 2013 9:17 pm
Operator : VP
Sample : ICAL TOSTD 1.0
Misc : TO_15A+ 117-5-249 CAN 154
ALS Vial : 18 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:48 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

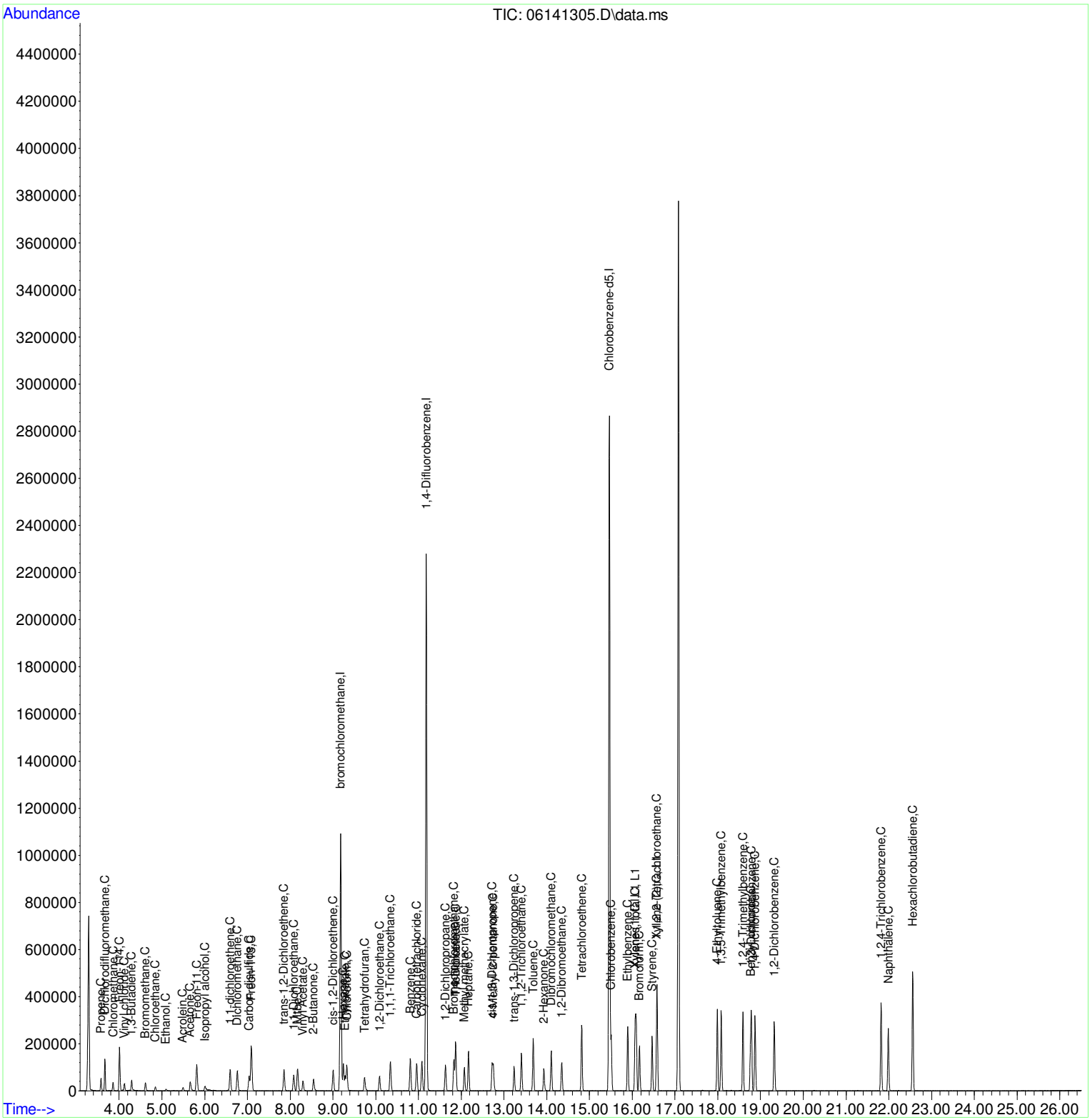
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.076	106	282919m	2.95 ppbv	
56) Bromoform	16.170	173	103830	1.05 ppbv	98
57) Styrene	16.465	104	137553	1.02 ppbv	99
58) 1,1,2,2-Tetrachloroethane	16.572	83	117370	0.99 ppbv	100
59) 4-Ethyltoluene	17.990	120	80925	1.00 ppbv	96
60) 1,3,5-Trimethylbenzene	18.083	120	115632	0.95 ppbv	98
61) 1,2,4-Trimethylbenzene	18.591	120	105495	0.95 ppbv	97
62) Benzyl chloride	18.764	91	128395	0.89 ppbv	99
63) 1,3-Dichlorobenzene	18.787	146	167110	0.91 ppbv	100
64) 1,4-Dichlorobenzene	18.874	146	170413	0.90 ppbv	99
65) 1,2-Dichlorobenzene	19.324	146	155322	0.88 ppbv	99
66) 1,2,4-Trichlorobenzene	21.819	180	149677	0.75 ppbv	99
67) Naphthalene	21.989	128	259804	0.91 ppbv	99
68) Hexachlorobutadiene	22.558	225	121971	0.78 ppbv	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141305.D
Acq On : 14 Jun 2013 9:17 pm
Operator : VP
Sample : ICAL TOSTD 1.0
Misc : TO_15A+ 117-5-249 CAN 154
ALS Vial : 18 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:48 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration



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Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141305.D
Acq On    : 14 Jun 2013   9:17 pm
Operator  : VP
Sample    : ICAL TOSTD 1.0
Misc      : TO_15A+        117-5-249 CAN 154
ALS Vial  : 18   Sample Multiplier: 1
InstName  : VOA5

Quant Time: Jun 17 18:58:48 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title  : SOP 4010 EPA   TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration
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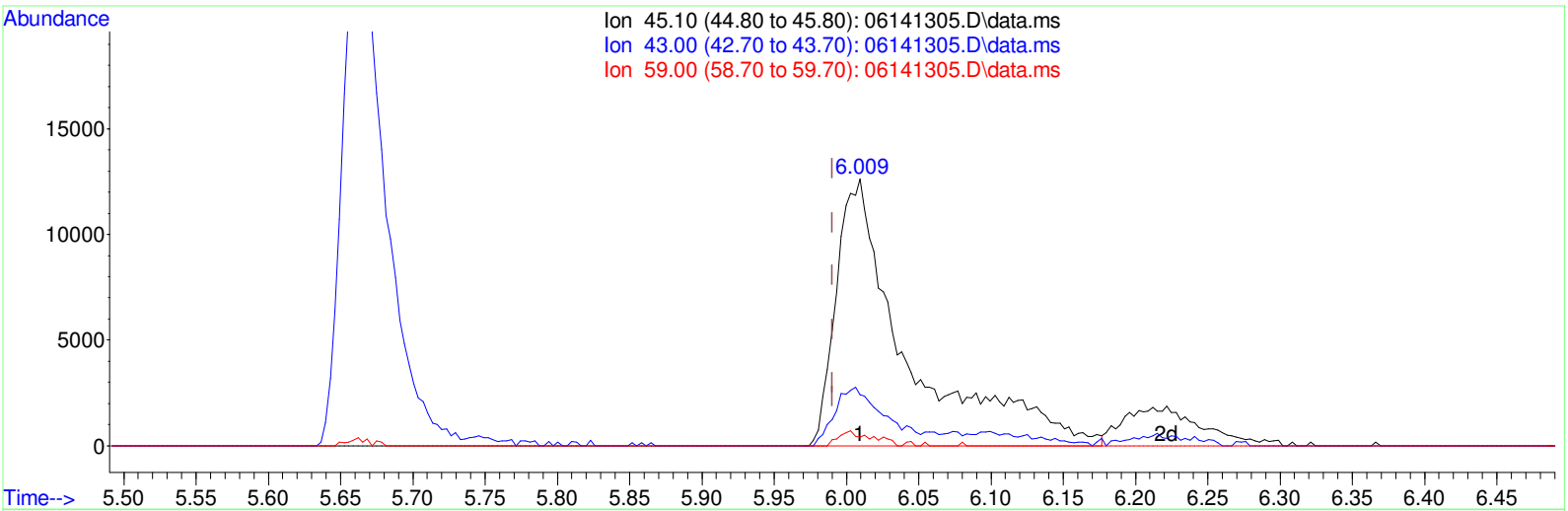

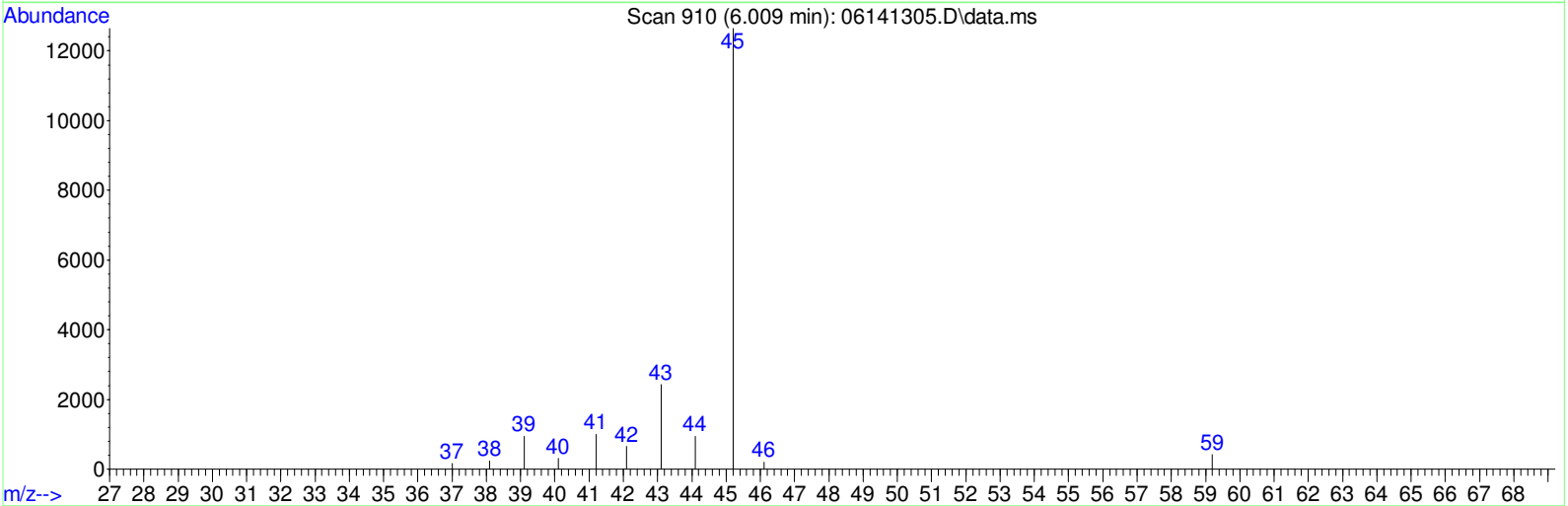

(14) Isopropyl alcohol (C)

6.009min (+0.019) 0.88ppbv

response 43287

BEFORE

By Vytautas at 15:42:59, 7/25/2013

Ion	Exp%	Act%
45.10	100	100
43.00	20.80	22.56
59.00	4.40	2.60
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141305.D
Acq On    : 14 Jun 2013   9:17 pm
Operator  : VP
Sample    : ICAL TOSTD 1.0
Misc      : TO_15A+        117-5-249 CAN 154
ALS Vial  : 18   Sample Multiplier: 1
InstName  : VOA5

Quant Time: Jun 17 18:58:48 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title  : SOP 4010 EPA   TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration
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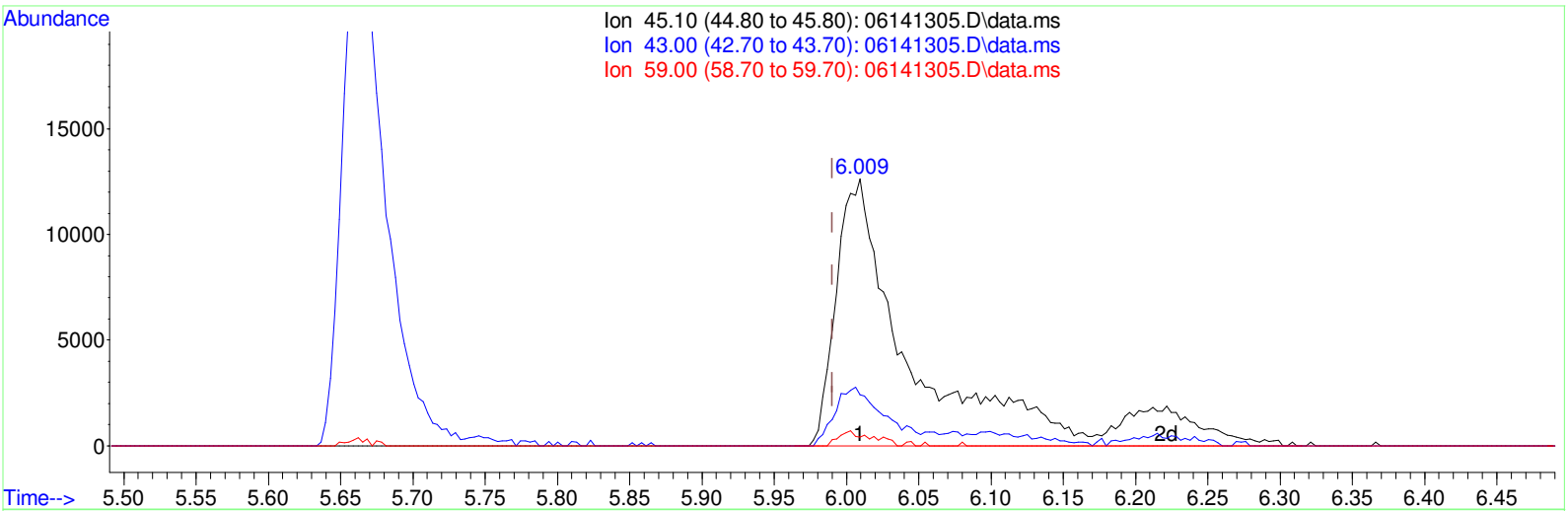
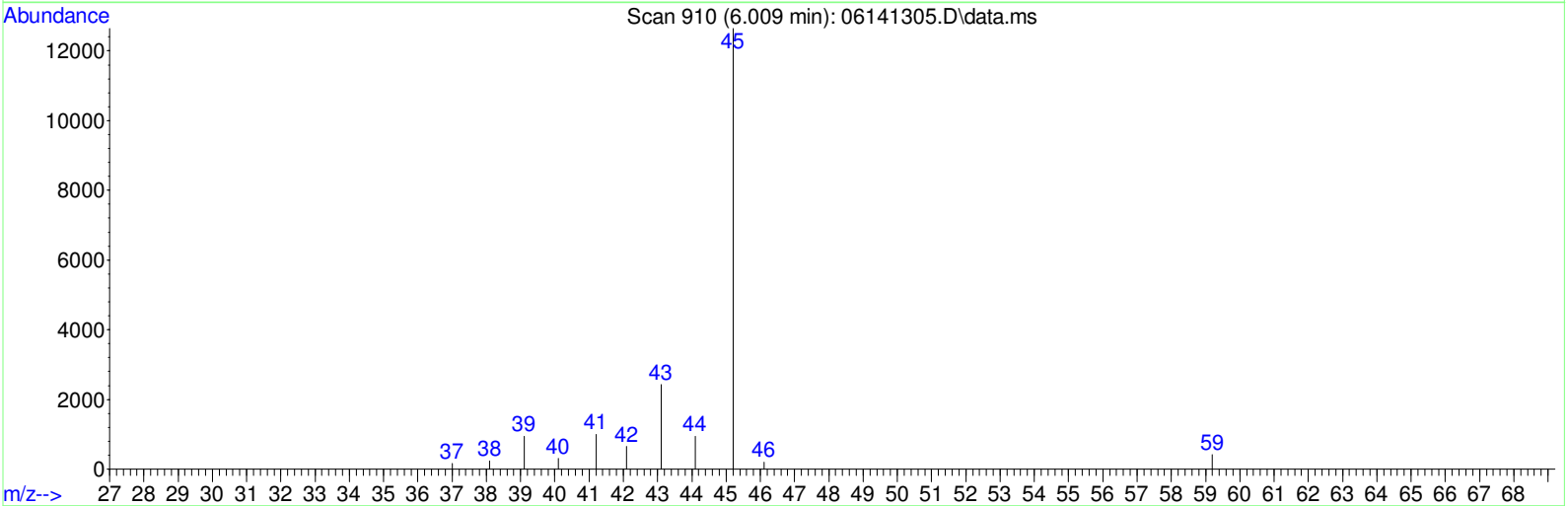




(14) Isopropyl alcohol (C)

6.009min (+0.019) 1.02ppbv m

response 50247

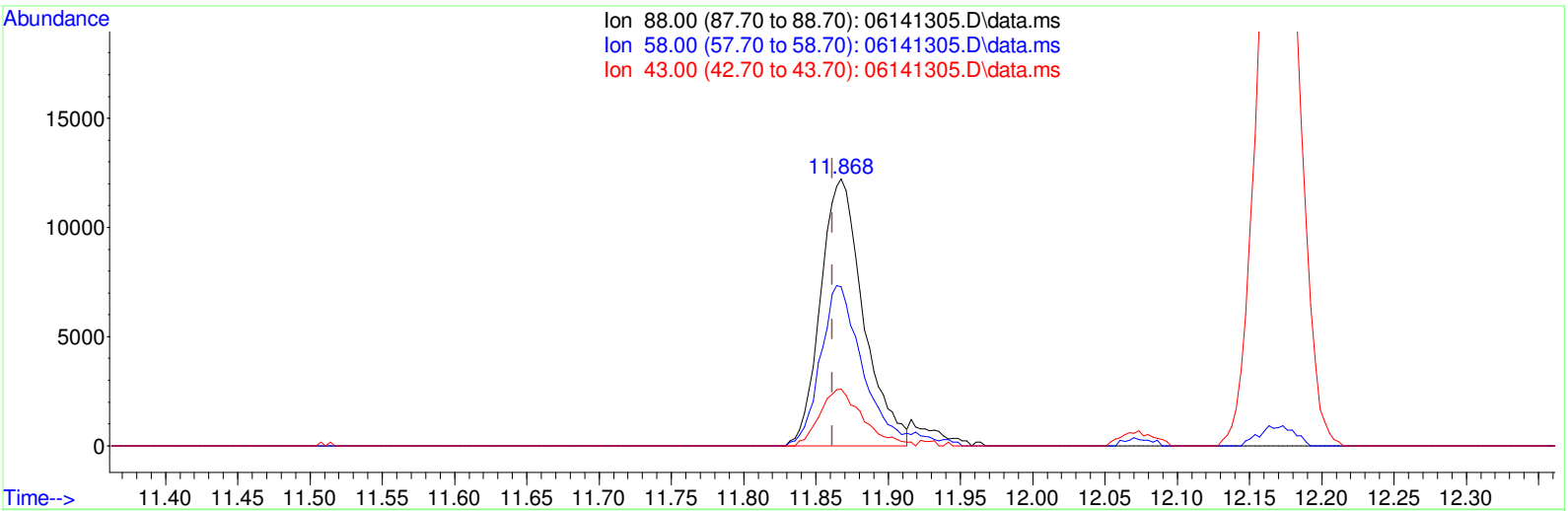
AFTER M3

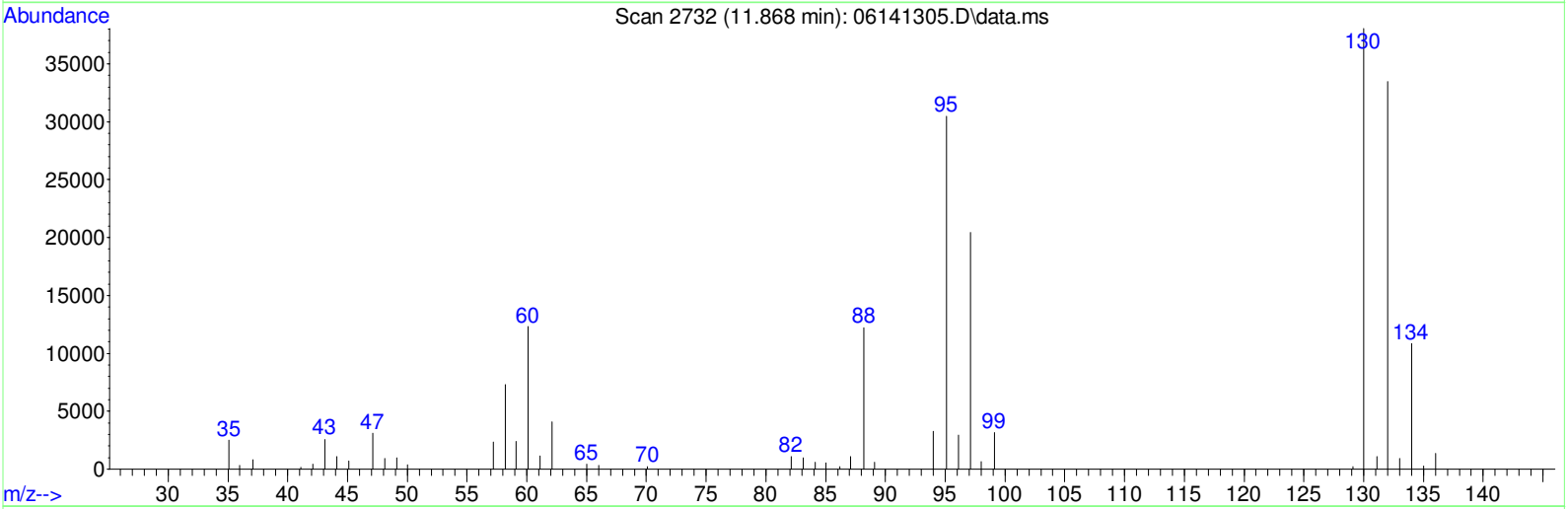
By Vytautas at 15:41:19, 7/25/2013

Ion	Exp%	Act%
45.10	100	100
43.00	20.80	22.89
59.00	4.40	2.24
0.00	0.00	0.00

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141305.D
Acq On : 14 Jun 2013 9:17 pm
Operator : VP
Sample : ICAL TOSTD 1.0
Misc : TO_15A+ 117-5-249 CAN 154
ALS Vial : 18 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:48 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration





TIC: 06141305.D\data.ms

(38) 1,4-Dioxane (C)

11.868min (+0.006) 0.99ppbv

response 25065

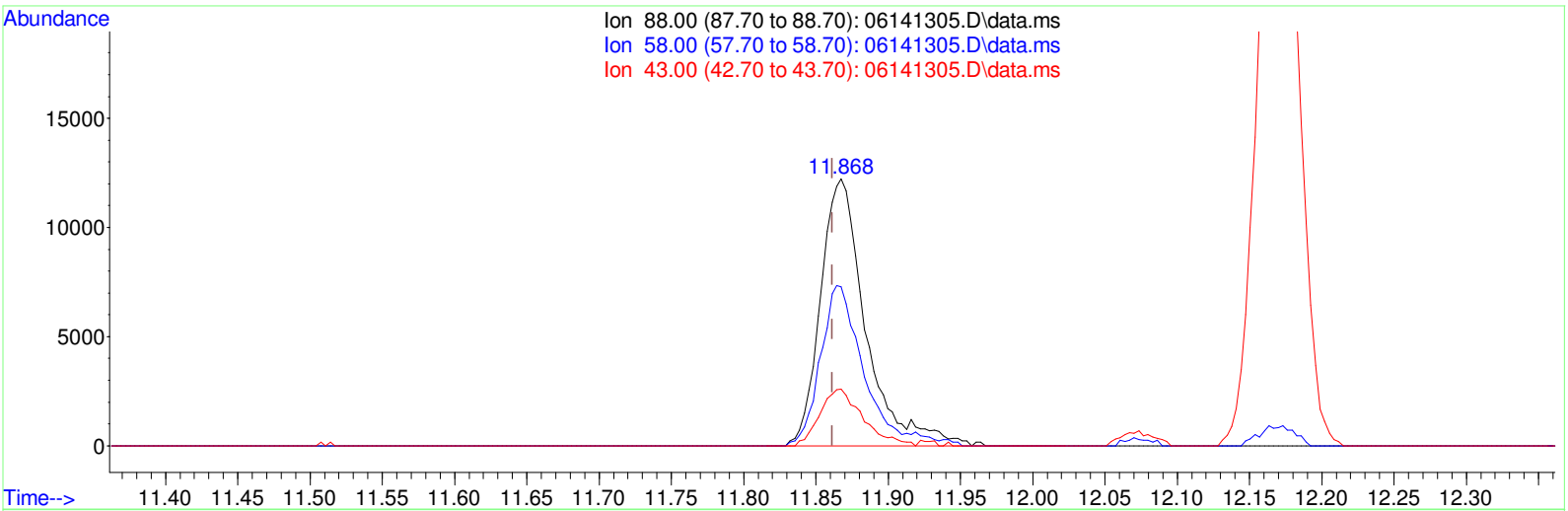
BEFORE

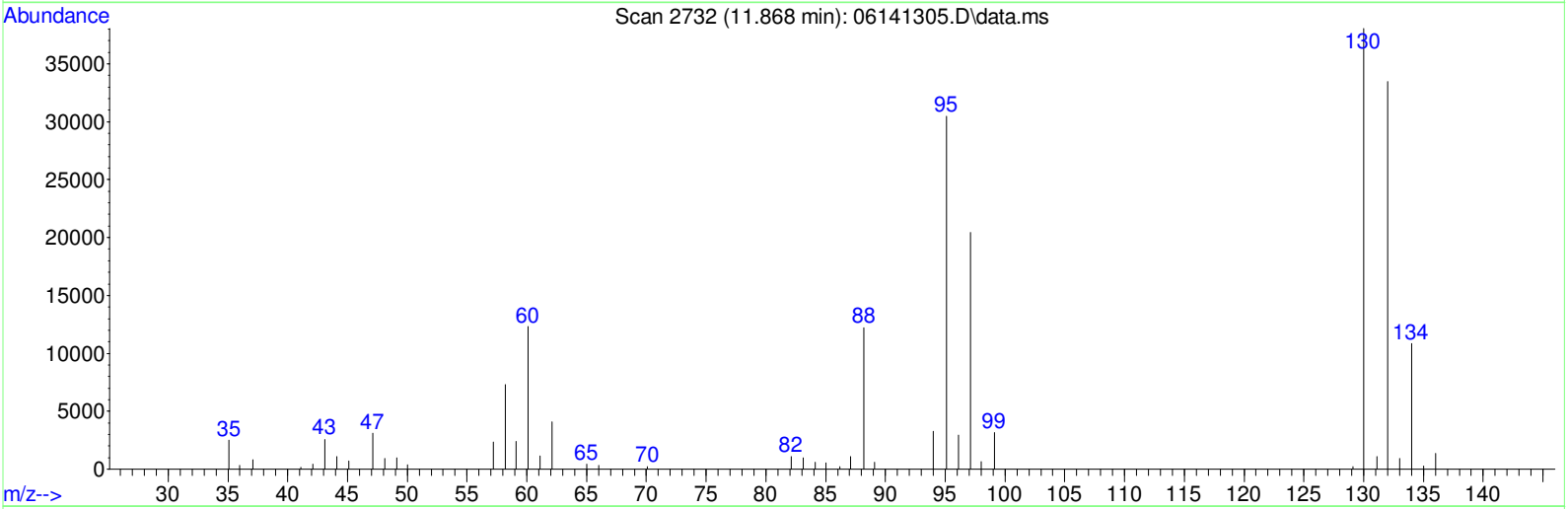
By Vytautas at 15:43:03, 7/25/2013

Ion	Exp%	Act%
88.00	100	100
58.00	56.10	61.59
43.00	20.30	21.27
0.00	0.00	0.00

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141305.D
Acq On : 14 Jun 2013 9:17 pm
Operator : VP
Sample : ICAL TOSTD 1.0
Misc : TO_15A+ 117-5-249 CAN 154
ALS Vial : 18 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:48 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration





(38) 1,4-Dioxane (C)

11.868min (+0.006) 1.05ppbv m

response 26594

Ion	Exp%	Act%
88.00	100	100
58.00	56.10	58.05
43.00	20.30	20.05
0.00	0.00	0.00

AFTER M3

By Vytautas at 15:41:23, 7/25/2013

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141306.D
Acq On : 14 Jun 2013 9:58 pm
Operator : VP
Sample : ICAL TOSTD 2.0
Misc : TO_15A+ 117-5-249 CAN 154
ALS Vial : 18 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 13:09:35 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.180	49	453888	10.00 ppbv	0.00
25) 1,4-Difluorobenzene	11.183	114	2192197	10.00 ppbv	0.00
50) Chlorobenzene-d5	15.466	117	1991258	10.00 ppbv	0.00

Target Compounds					Qvalue
2) Propene	3.556	41	49696	2.15 ppbv	98
3) Dichlorodifluoromethane	3.653	85	221643	1.93 ppbv	100
4) Chloromethane	3.842	50	67176	1.94 ppbv	100
5) Freon-114	3.993	85	175030	1.92 ppbv	99
6) Vinyl chloride	4.112	62	55041	2.16 ppbv	100
7) 1,3-Butadiene	4.280	54	37251	1.79 ppbv	96
8) Bromomethane	4.607	94	48755	1.11 ppbv	98
9) Chloroethane	4.836	64	32544	1.42 ppbv	99
10) Ethanol	5.087	45	16624m	1.43 ppbv	
11) Acrolein	5.482	56	26858	1.82 ppbv	99
12) Acetone	5.649	43	97758	1.88 ppbv	98
13) Freon-11	5.807	101	224227	1.84 ppbv	99
14) Isopropyl alcohol	5.993	45	106319m	2.15 ppbv	
15) 1,1-dichloroethene	6.588	61	125017	2.06 ppbv	100
16) Dichloromethane	6.759	49	88977	1.93 ppbv	99
17) Carbon disulfide	7.032	76	228711	1.64 ppbv	99
18) Freon-113	7.086	101	190703	1.82 ppbv	99
19) trans-1,2-Dichloroethene	7.855	61	110831	1.89 ppbv	99
20) 1,1-Dichloroethane	8.080	63	144776	1.90 ppbv	100
21) Mtbe	8.164	73	233239	1.87 ppbv	100
22) Vinyl Acetate	8.295	43	138458	1.98 ppbv	100
23) 2-Butanone	8.537	43	135518	1.96 ppbv	100
24) cis-1,2-Dichloroethene	9.006	61	106184	1.88 ppbv	99
26) Hexane	9.241	57	120523	2.54 ppbv	99
27) Ethyl acetate	9.283	61	25038	1.77 ppbv	96
28) Chloroform	9.328	83	180945	2.08 ppbv	99
29) Tetrahydrofuran	9.729	42	77289	2.07 ppbv	98
30) 1,2-Dichloroethane	10.090	62	112083	2.16 ppbv	99
31) 1,1,1-Trichloroethane	10.344	97	183967	2.07 ppbv	100
32) Benzene	10.810	78	281501	1.95 ppbv	99
33) Carbon tetrachloride	10.958	117	168774	2.07 ppbv	99
34) Cyclohexane	11.080	56	123304	2.11 ppbv	99
35) 1,2-Dichloropropane	11.633	63	90856	2.02 ppbv	100
36) Bromodichloromethane	11.829	83	196966	2.23 ppbv	100
37) Trichloroethene	11.871	130	146067	1.98 ppbv	98
38) 1,4-Dioxane	11.864	88	50440	1.98 ppbv	99
39) Methyl methacrylate	12.070	69	92680	2.14 ppbv	99
40) Heptane	12.173	43	131060	2.38 ppbv	98
41) cis-1,3-Dichloropropene	12.723	75	154907	2.27 ppbv	100
42) 4-Methyl-2-pentanone	12.749	43	156092	2.15 ppbv	100
43) trans-1,3-Dichloropropene	13.237	75	138696	1.94 ppbv	99
44) 1,1,2-Trichloroethane	13.408	97	120719	1.93 ppbv	99
45) Toluene	13.684	91	365689	2.03 ppbv	99
46) 2-Hexanone	13.929	43	141099	2.49 ppbv	99
47) Dibromochloromethane	14.105	129	220794	2.23 ppbv	100
48) 1,2-Dibromoethane	14.350	107	188983	2.01 ppbv	99
49) Tetrachloroethene	14.819	166	208225	1.95 ppbv	99
51) Chlorobenzene	15.507	112	307245	1.95 ppbv	100
52) Ethylbenzene	15.896	106	155476	1.96 ppbv	97
53) Xylene (1)	16.083	106	391758	4.05 ppbv	98
54) Xylene (2)	16.581	106	187535	1.98 ppbv	97

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141306.D
Acq On : 14 Jun 2013 9:58 pm
Operator : VP
Sample : ICAL TOSTD 2.0
Misc : TO_15A+ 117-5-249 CAN 154
ALS Vial : 18 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 13:09:35 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

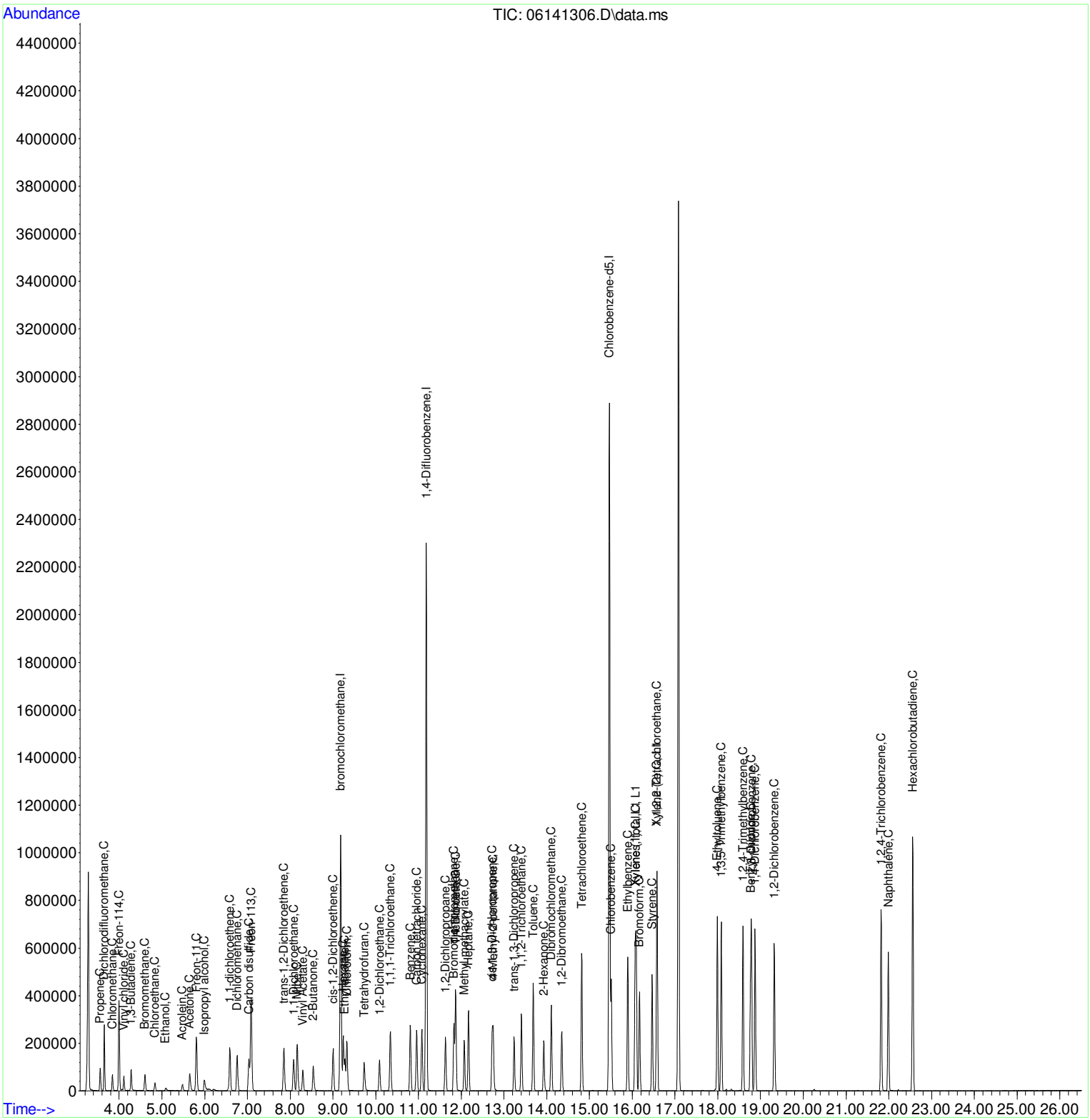
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.083	106	579293m	6.04 ppbv	
56) Bromoform	16.170	173	227050	2.30 ppbv	99
57) Styrene	16.466	104	291257	2.16 ppbv	99
58) 1,1,2,2-Tetrachloroethane	16.572	83	243011	2.06 ppbv	100
59) 4-Ethyltoluene	17.990	120	172899	2.13 ppbv	98
60) 1,3,5-Trimethylbenzene	18.083	120	243081	2.01 ppbv	99
61) 1,2,4-Trimethylbenzene	18.591	120	224412	2.01 ppbv	99
62) Benzyl chloride	18.764	91	324200	2.24 ppbv	99
63) 1,3-Dichlorobenzene	18.787	146	346682	1.88 ppbv	99
64) 1,4-Dichlorobenzene	18.871	146	356024	1.89 ppbv	99
65) 1,2-Dichlorobenzene	19.321	146	326503	1.85 ppbv	100
66) 1,2,4-Trichlorobenzene	21.822	180	306933	1.55 ppbv	100
67) Naphthalene	21.986	128	576168	2.02 ppbv	100
68) Hexachlorobutadiene	22.559	225	262246	1.67 ppbv	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141306.D
Acq On : 14 Jun 2013 9:58 pm
Operator : VP
Sample : ICAL TOSTD 2.0
Misc : TO_15A+ 117-5-249 CAN 154
ALS Vial : 18 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 13:09:35 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141306.D
Acq On : 14 Jun 2013 9:58 pm
Operator : VP
Sample : ICAL TOSTD 2.0
Misc : TO_15A+ 117-5-249 CAN 154
ALS Vial : 18 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:50 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.180	49	453888	10.00 ppbv	0.00
25) 1,4-Difluorobenzene	11.183	114	2192197	10.00 ppbv	0.00
50) Chlorobenzene-d5	15.466	117	1991258	10.00 ppbv	0.00

Target Compounds					Qvalue
2) Propene	3.556	41	49696	2.15 ppbv	98
3) Dichlorodifluoromethane	3.653	85	221643	1.93 ppbv	100
4) Chloromethane	3.842	50	67176	1.94 ppbv	100
5) Freon-114	3.993	85	175030	1.92 ppbv	99
6) Vinyl chloride	4.112	62	55041	2.16 ppbv	100
7) 1,3-Butadiene	4.280	54	37251	1.79 ppbv	96
8) Bromomethane	4.607	94	48755	1.11 ppbv	98
9) Chloroethane	4.836	64	32544	1.42 ppbv	99
10) Ethanol	5.087	45	14676	1.26 ppbv	93
11) Acrolein	5.482	56	26858	1.82 ppbv	99
12) Acetone	5.649	43	97758	1.88 ppbv	98
13) Freon-11	5.807	101	224227	1.84 ppbv	99
14) Isopropyl alcohol	5.993	45	91920	1.86 ppbv	97
15) 1,1-dichloroethene	6.588	61	125017	2.06 ppbv	100
16) Dichloromethane	6.759	49	88977	1.93 ppbv	99
17) Carbon disulfide	7.032	76	228711	1.64 ppbv	99
18) Freon-113	7.086	101	190703	1.82 ppbv	99
19) trans-1,2-Dichloroethene	7.855	61	110831	1.89 ppbv	99
20) 1,1-Dichloroethane	8.080	63	144776	1.90 ppbv	100
21) Mtbe	8.164	73	233239	1.87 ppbv	100
22) Vinyl Acetate	8.295	43	138458	1.98 ppbv	100
23) 2-Butanone	8.537	43	135518	1.96 ppbv	100
24) cis-1,2-Dichloroethene	9.006	61	106184	1.88 ppbv	99
26) Hexane	9.241	57	120523	2.54 ppbv	99
27) Ethyl acetate	9.283	61	25038	1.77 ppbv	96
28) Chloroform	9.328	83	180945	2.08 ppbv	99
29) Tetrahydrofuran	9.729	42	77289	2.07 ppbv	98
30) 1,2-Dichloroethane	10.090	62	112083	2.16 ppbv	99
31) 1,1,1-Trichloroethane	10.344	97	183967	2.07 ppbv	100
32) Benzene	10.810	78	281501	1.95 ppbv	99
33) Carbon tetrachloride	10.958	117	168774	2.07 ppbv	99
34) Cyclohexane	11.080	56	123304	2.11 ppbv	99
35) 1,2-Dichloropropane	11.633	63	90856	2.02 ppbv	100
36) Bromodichloromethane	11.829	83	196966	2.23 ppbv	100
37) Trichloroethene	11.871	130	146067	1.98 ppbv	98
38) 1,4-Dioxane	11.864	88	50440	1.98 ppbv	99
39) Methyl methacrylate	12.070	69	92680	2.14 ppbv	99
40) Heptane	12.173	43	131060	2.38 ppbv	98
41) cis-1,3-Dichloropropene	12.723	75	154907	2.27 ppbv	100
42) 4-Methyl-2-pentanone	12.749	43	156092	2.15 ppbv	100
43) trans-1,3-Dichloropropene	13.237	75	138696	1.94 ppbv	99
44) 1,1,2-Trichloroethane	13.408	97	120719	1.93 ppbv	99
45) Toluene	13.684	91	365689	2.03 ppbv	99
46) 2-Hexanone	13.929	43	141099	2.49 ppbv	99
47) Dibromochloromethane	14.105	129	220794	2.23 ppbv	100
48) 1,2-Dibromoethane	14.350	107	188983	2.01 ppbv	99
49) Tetrachloroethene	14.819	166	208225	1.95 ppbv	99
51) Chlorobenzene	15.507	112	307245	1.95 ppbv	100
52) Ethylbenzene	15.896	106	155476	1.96 ppbv	97
53) Xylene (1)	16.083	106	391758	4.05 ppbv	98
54) Xylene (2)	16.581	106	187535	1.98 ppbv	97

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141306.D
Acq On : 14 Jun 2013 9:58 pm
Operator : VP
Sample : ICAL TOSTD 2.0
Misc : TO_15A+ 117-5-249 CAN 154
ALS Vial : 18 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:50 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

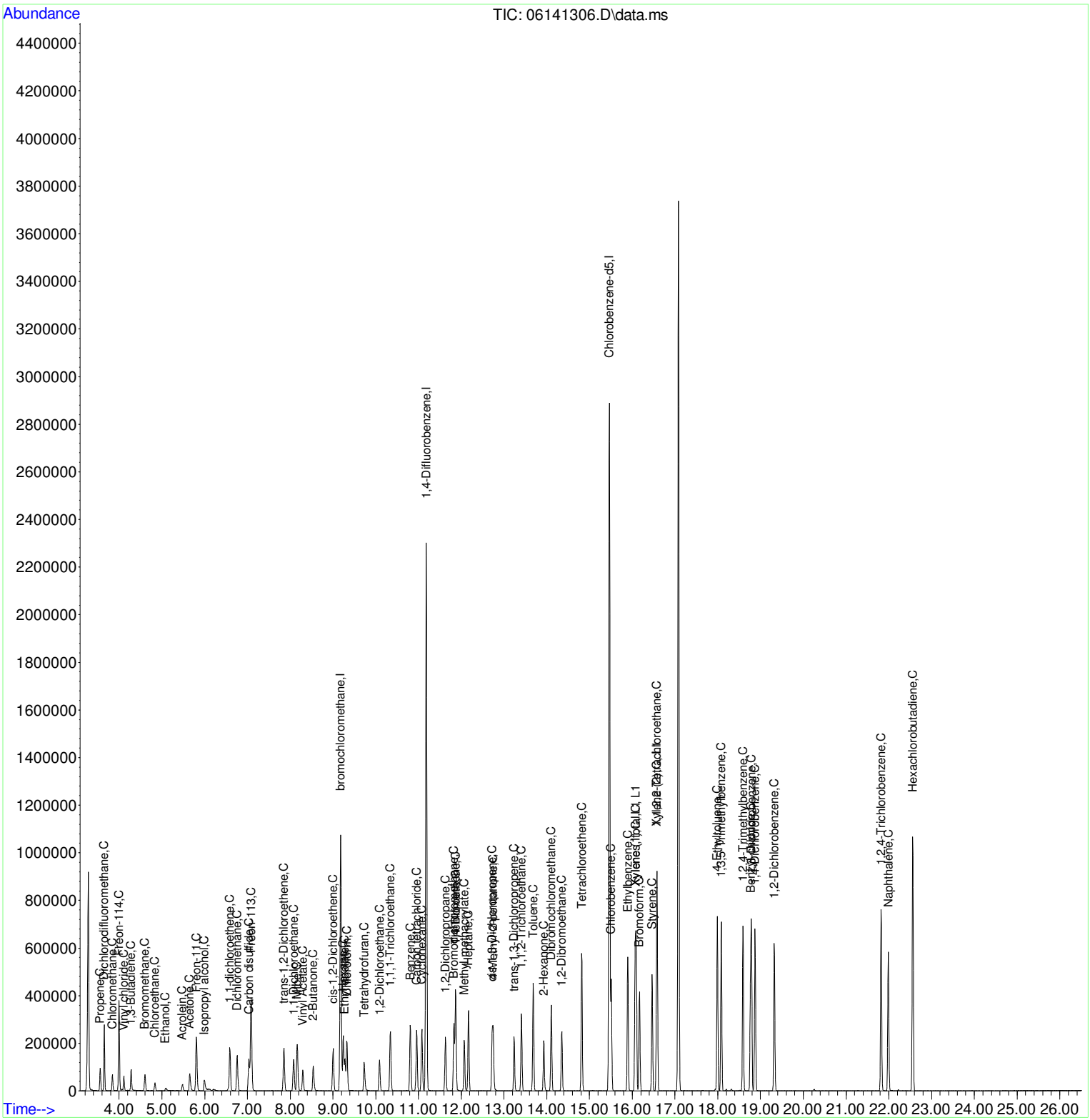
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.083	106	579293m	6.04 ppbv	
56) Bromoform	16.170	173	227050	2.30 ppbv	99
57) Styrene	16.466	104	291257	2.16 ppbv	99
58) 1,1,2,2-Tetrachloroethane	16.572	83	243011	2.06 ppbv	100
59) 4-Ethyltoluene	17.990	120	172899	2.13 ppbv	98
60) 1,3,5-Trimethylbenzene	18.083	120	243081	2.01 ppbv	99
61) 1,2,4-Trimethylbenzene	18.591	120	224412	2.01 ppbv	99
62) Benzyl chloride	18.764	91	324200	2.24 ppbv	99
63) 1,3-Dichlorobenzene	18.787	146	346682	1.88 ppbv	99
64) 1,4-Dichlorobenzene	18.871	146	356024	1.89 ppbv	99
65) 1,2-Dichlorobenzene	19.321	146	326503	1.85 ppbv	100
66) 1,2,4-Trichlorobenzene	21.822	180	306933	1.55 ppbv	100
67) Naphthalene	21.986	128	576168	2.02 ppbv	100
68) Hexachlorobutadiene	22.559	225	262246	1.67 ppbv	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141306.D
Acq On : 14 Jun 2013 9:58 pm
Operator : VP
Sample : ICAL TOSTD 2.0
Misc : TO_15A+ 117-5-249 CAN 154
ALS Vial : 18 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:50 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration



Quantitation Report (Qedit)

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Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141306.D
Acq On    : 14 Jun 2013   9:58 pm
Operator  : VP
Sample    : ICAL TOSTD 2.0
Misc      : TO_15A+        117-5-249 CAN 154
ALS Vial  : 18   Sample Multiplier: 1
InstName  : VOA5

Quant Time: Jun 17 18:58:50 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title  : SOP 4010 EPA   TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration
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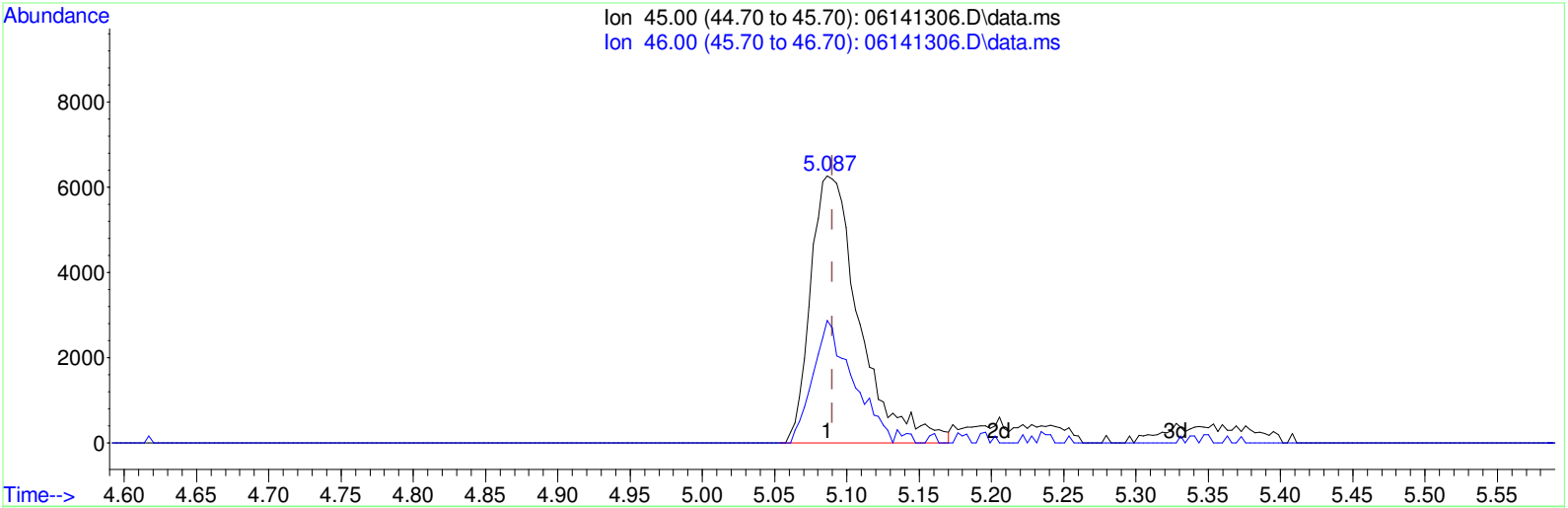
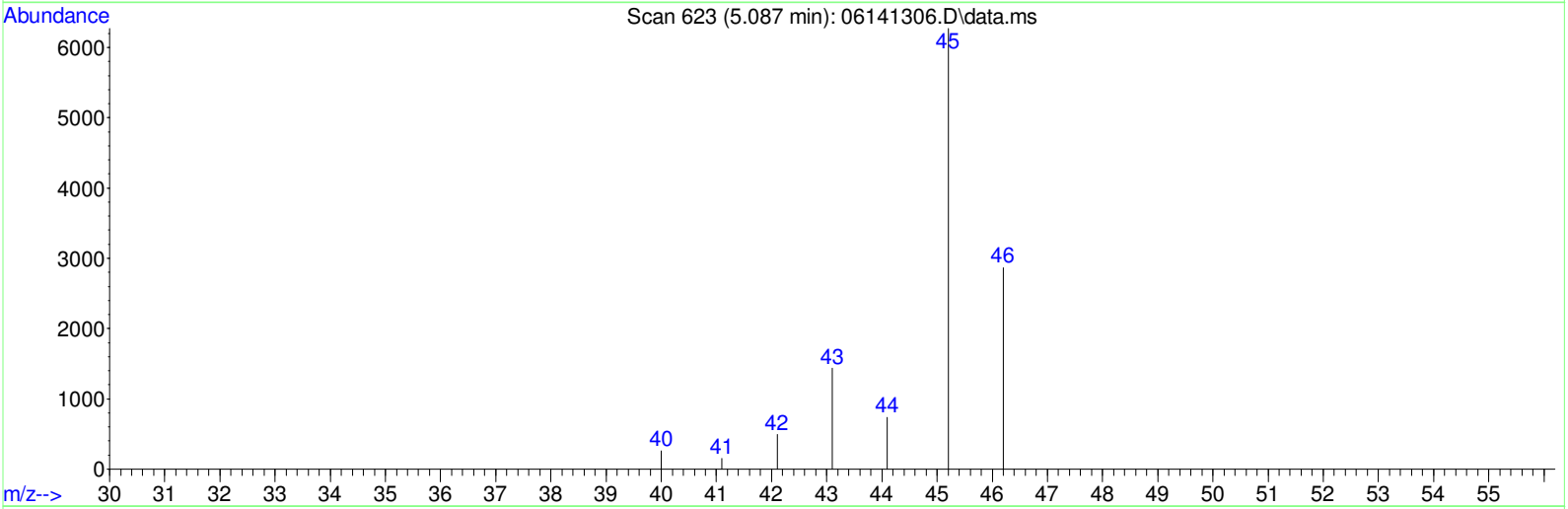




TIC: 06141306.D\data.ms

(10) Ethanol (C)

5.087min (-0.003) 1.26ppbv

response 14676

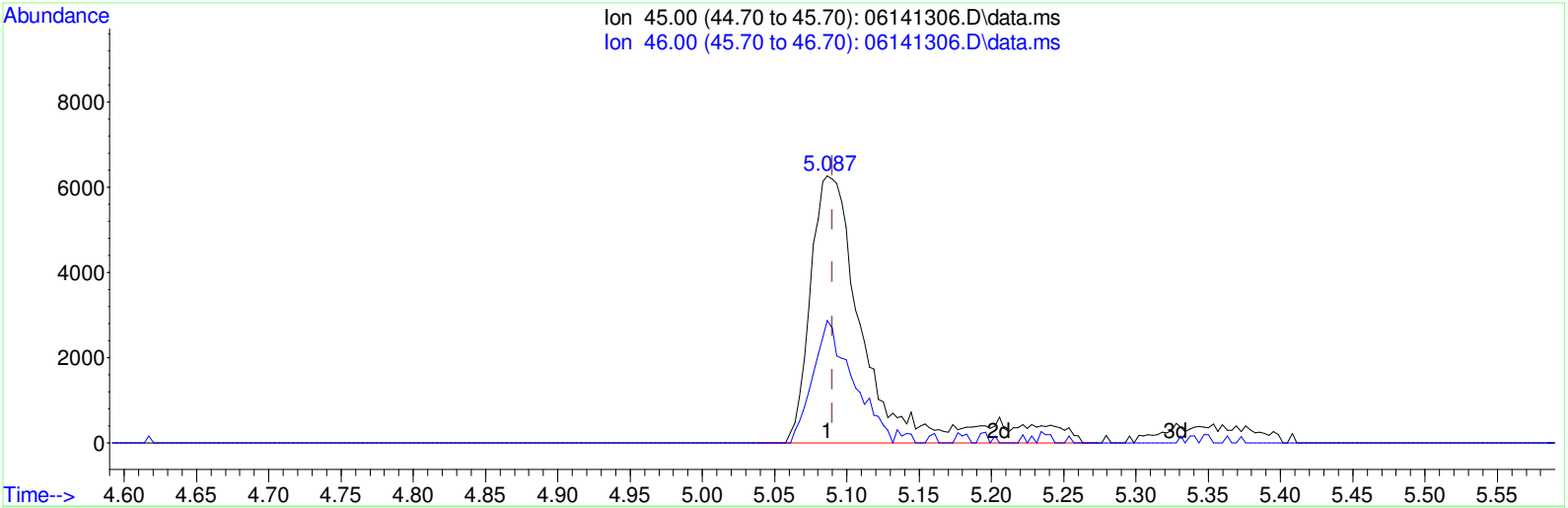
BEFORE

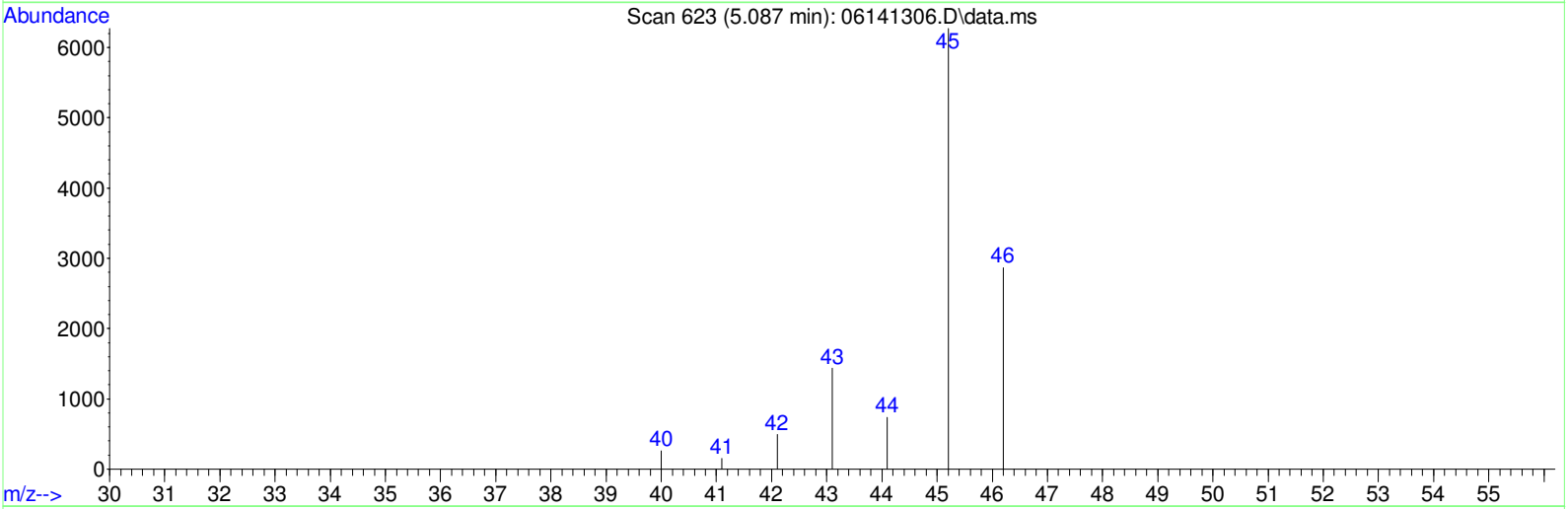
By Vytautas at 15:43:12, 7/25/2013

Ion	Exp%	Act%
45.00	100	100
46.00	33.60	37.56
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141306.D
Acq On : 14 Jun 2013 9:58 pm
Operator : VP
Sample : ICAL TOSTD 2.0
Misc : TO_15A+ 117-5-249 CAN 154
ALS Vial : 18 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:50 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration





TIC: 06141306.D\data.ms

(10) Ethanol (C)

5.087min (-0.003) 1.43ppbv m

response 16624

AFTER M3

By Vytautas at 15:43:27, 7/25/2013

Ion	Exp%	Act%
45.00	100	100
46.00	33.60	37.39
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141306.D
Acq On    : 14 Jun 2013   9:58 pm
Operator  : VP
Sample    : ICAL TOSTD 2.0
Misc      : TO_15A+        117-5-249 CAN 154
ALS Vial  : 18   Sample Multiplier: 1
InstName  : VOA5

Quant Time: Jun 17 18:58:50 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title  : SOP 4010 EPA   TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration
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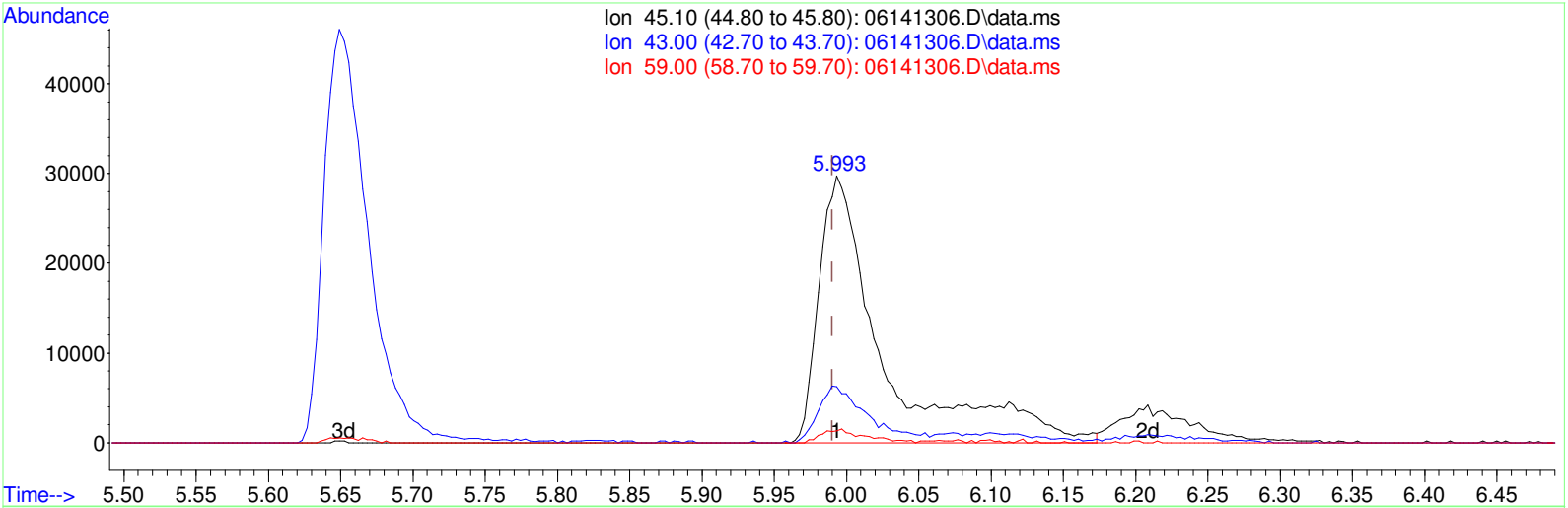

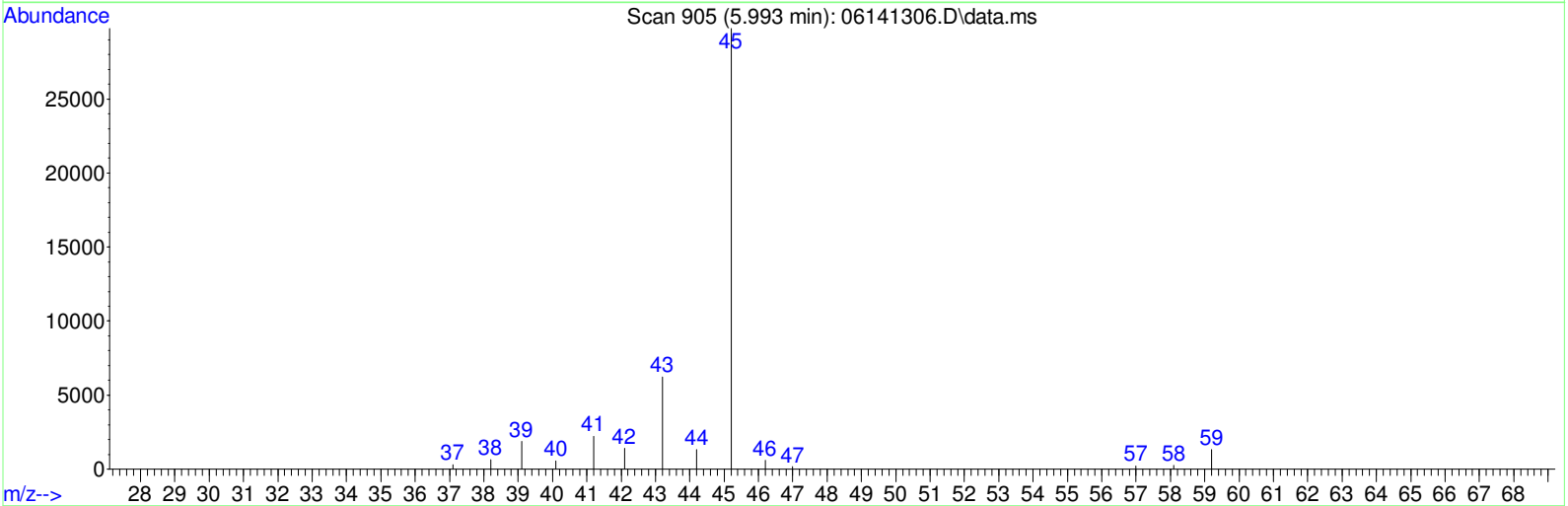

(14) Isopropyl alcohol (C)

5.993min (+0.003) 1.86ppbv

response 91920

Ion	Exp%	Act%
45.10	100	100
43.00	20.80	22.05
59.00	4.40	3.37
0.00	0.00	0.00

BEFORE

By Vytautas at 15:43:17, 7/25/2013

Quantitation Report (Qedit)

```
Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141306.D
Acq On    : 14 Jun 2013   9:58 pm
Operator  : VP
Sample    : ICAL TOSTD 2.0
Misc      : TO_15A+        117-5-249 CAN 154
ALS Vial  : 18   Sample Multiplier: 1
InstName  : VOA5

Quant Time: Jun 17 18:58:50 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title  : SOP 4010 EPA   TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration
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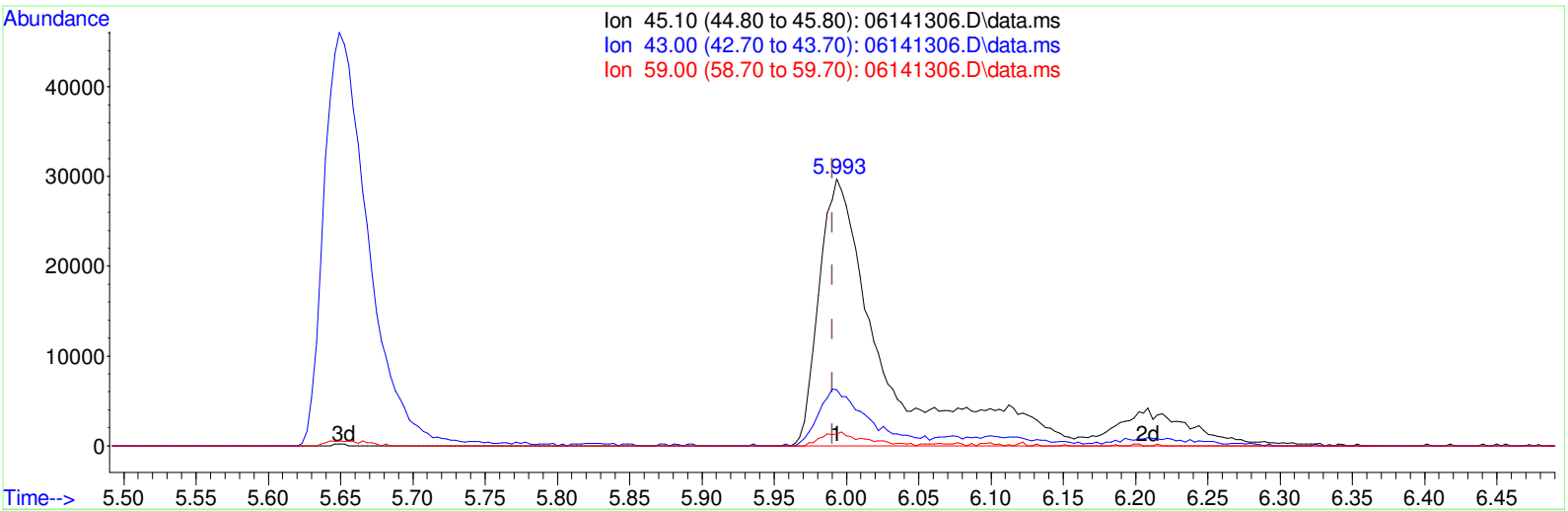
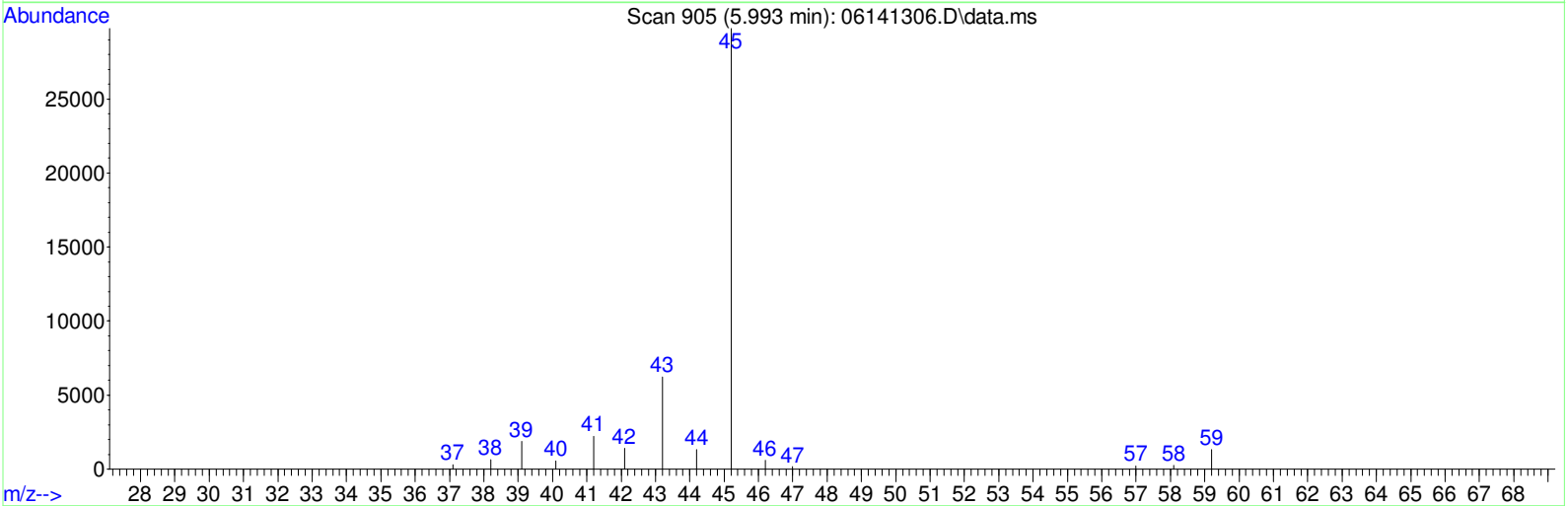




(14) Isopropyl alcohol (C)

5.993min (+0.003) 2.15ppbv m

response 106319

Ion	Exp%	Act%
45.10	100	100
43.00	20.80	22.12
59.00	4.40	3.86
0.00	0.00	0.00

AFTER M3

By Vytautas at 15:43:23, 7/25/2013

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141307.D
Acq On : 14 Jun 2013 10:43 pm
Operator : VP
Sample : ICAL TOSTD 5.0
Misc : TO_15A+ 117-5-249 CAN 154
ALS Vial : 18 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:30:16 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Dec 26 10:17:29 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.183	49	454814	10.00 ppbv	0.00
25) 1,4-Difluorobenzene	11.183	114	2203147	10.00 ppbv	0.00
50) Chlorobenzene-d5	15.466	117	2011600	10.00 ppbv	0.00

Target Compounds					Qvalue
2) Propene	3.537	41	126852	5.51 ppbv	99
3) Dichlorodifluoromethane	3.640	85	562384	4.85 ppbv	100
4) Chloromethane	3.833	50	166806	4.80 ppbv	100
5) Freon-114	3.987	85	431213	4.67 ppbv	99
6) Vinyl chloride	4.103	62	138972	5.48 ppbv	100
7) 1,3-Butadiene	4.276	54	96318	4.68 ppbv	98
8) Bromomethane	4.598	94	132622	2.89 ppbv	100
9) Chloroethane	4.833	64	83131	4.21 ppbv	99
10) Ethanol	5.090	45	32401	2.36 ppbv	97
11) Acrolein	5.469	56	63444	3.83 ppbv	99
12) Acetone	5.643	43	209435	3.95 ppbv	92
13) Freon-11	5.807	101	566968	4.58 ppbv	100
14) Isopropyl alcohol	5.990	45	271990m	5.16 ppbv	
15) 1,1-dichloroethene	6.585	61	320049	5.82 ppbv	92
16) Dichloromethane	6.762	49	205921	4.41 ppbv	87
17) Carbon disulfide	7.035	76	583930	4.85 ppbv	95
18) Freon-113	7.083	101	479176	4.52 ppbv	98
19) trans-1,2-Dichloroethene	7.852	61	283010	4.77 ppbv	92
20) 1,1-Dichloroethane	8.083	63	367206	5.25 ppbv	99
21) Mtbe	8.157	73	604456	5.74 ppbv	99
22) Vinyl Acetate	8.292	43	362337	5.13 ppbv	95
23) 2-Butanone	8.537	43	348106	5.01 ppbv	92
24) cis-1,2-Dichloroethene	9.006	61	271562	4.76 ppbv	91
26) Hexane	9.241	57	306300	6.44 ppbv	92
27) Ethyl acetate	9.276	61	63953	5.25 ppbv	94
28) Chloroform	9.328	83	459543	5.26 ppbv	100
29) Tetrahydrofuran	9.726	42	196432	5.28 ppbv	87
30) 1,2-Dichloroethane	10.093	62	284640	6.07 ppbv	99
31) 1,1,1-Trichloroethane	10.344	97	471644	5.26 ppbv	98
32) Benzene	10.810	78	710360	4.88 ppbv	99
33) Carbon tetrachloride	10.961	117	453842	5.51 ppbv	99
34) Cyclohexane	11.080	56	314840	5.37 ppbv	93
35) 1,2-Dichloropropane	11.633	63	230483	5.10 ppbv	94
36) Bromodichloromethane	11.829	83	507839	5.75 ppbv	99
37) Trichloroethene	11.871	130	378305	5.09 ppbv	98
38) 1,4-Dioxane	11.861	88	128780	4.06 ppbv	93
39) Methyl methacrylate	12.070	69	239118	5.44 ppbv	99
40) Heptane	12.170	43	321887	6.49 ppbv	92
41) cis-1,3-Dichloropropene	12.723	75	405419	5.93 ppbv	96
42) 4-Methyl-2-pentanone	12.749	43	400798	5.61 ppbv	93
43) trans-1,3-Dichloropropene	13.237	75	371454	5.23 ppbv	100
44) 1,1,2-Trichloroethane	13.411	97	307681	5.35 ppbv	96
45) Toluene	13.684	91	925034	5.08 ppbv	100
46) 2-Hexanone	13.932	43	364723	5.92 ppbv	93
47) Dibromochloromethane	14.106	129	582123	5.84 ppbv	100
48) 1,2-Dibromoethane	14.353	107	486569	5.10 ppbv	100
49) Tetrachloroethene	14.819	166	540792	5.00 ppbv	99
51) Chlorobenzene	15.511	112	788133	4.91 ppbv	99
52) Ethylbenzene	15.897	106	402479	4.96 ppbv	98
53) Xylene (1)	16.083	106	1003547	10.18 ppbv	98
54) Xylene (2)	16.581	106	484770	5.03 ppbv	98

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141307.D
Acq On : 14 Jun 2013 10:43 pm
Operator : VP
Sample : ICAL TOSTD 5.0
Misc : TO_15A+ 117-5-249 CAN 154
ALS Vial : 18 Sample Multiplier: 1
InstName : VOA5

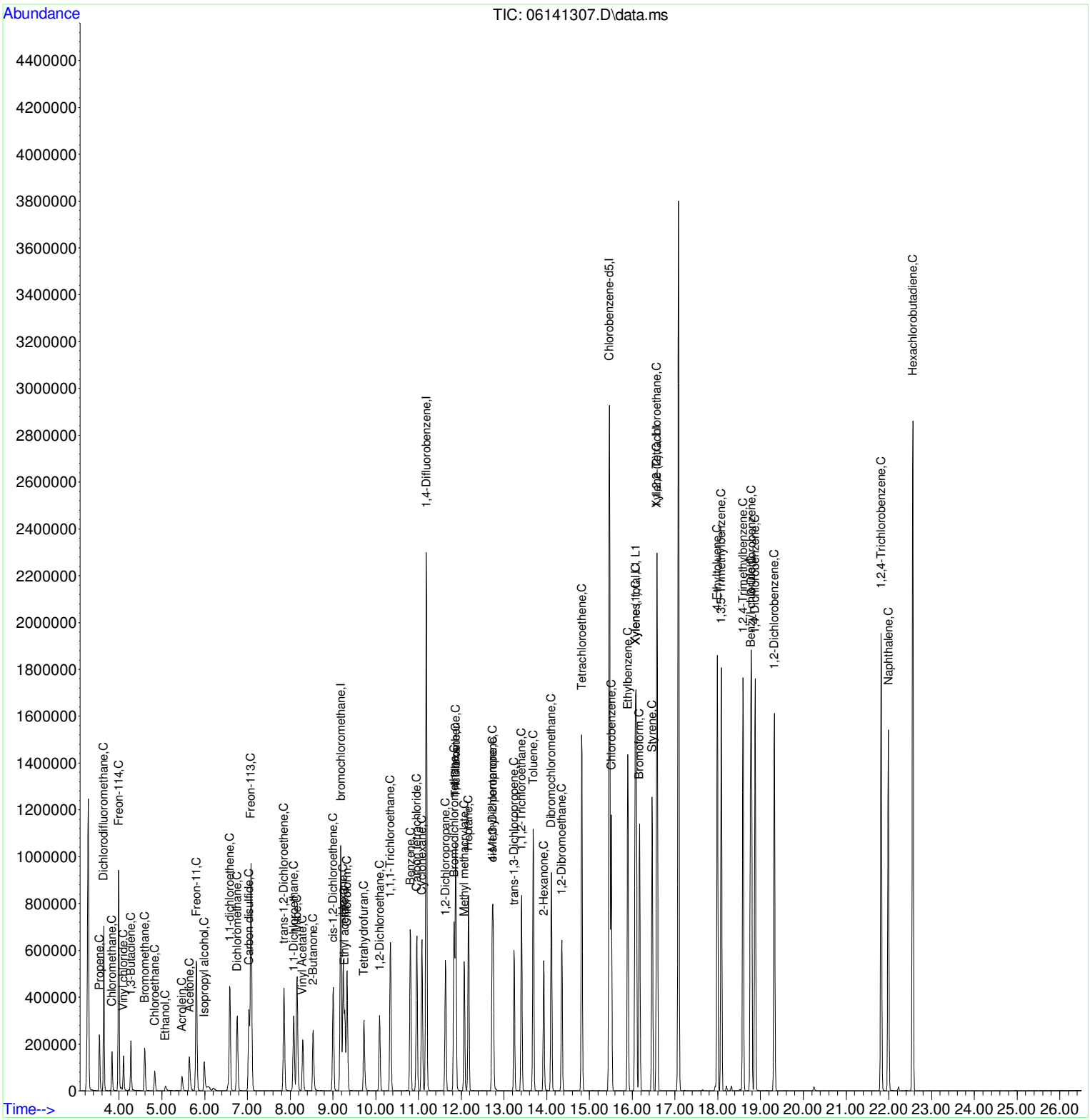
Quant Time: Jun 17 18:30:16 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Dec 26 10:17:29 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.083	106	1488317m	15.21 ppbv	
56) Bromoform	16.170	173	620991	6.20 ppbv	98
57) Styrene	16.466	104	758076	6.59 ppbv	97
58) 1,1,2,2-Tetrachloroethane	16.572	83	616676	5.62 ppbv	99
59) 4-Ethyltoluene	17.990	120	448560	5.41 ppbv	96
60) 1,3,5-Trimethylbenzene	18.083	120	626561	5.57 ppbv	98
61) 1,2,4-Trimethylbenzene	18.591	120	580666	5.09 ppbv	98
62) Benzyl chloride	18.765	91	952570	6.44 ppbv	99
63) 1,3-Dichlorobenzene	18.787	146	901834	4.78 ppbv	98
64) 1,4-Dichlorobenzene	18.874	146	921456	5.20 ppbv	99
65) 1,2-Dichlorobenzene	19.324	146	848796	5.16 ppbv	98
66) 1,2,4-Trichlorobenzene	21.822	180	795058	4.29 ppbv	100
67) Naphthalene	21.990	128	1519517	5.66 ppbv	100
68) Hexachlorobutadiene	22.562	225	701939	4.36 ppbv	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141307.D
Acq On : 14 Jun 2013 10:43 pm
Operator : VP
Sample : ICAL TOSTD 5.0
Misc : TO_15A+ 117-5-249 CAN 154
ALS Vial : 18 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:30:16 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Dec 26 10:17:29 2012
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141307.D
Acq On : 14 Jun 2013 10:43 pm
Operator : VP
Sample : ICAL TOSTD 5.0
Misc : TO_15A+ 117-5-249 CAN 154
ALS Vial : 18 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 17:50:55 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Dec 26 10:17:29 2012
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.183	49	454814	10.00 ppbv	0.00
25) 1,4-Difluorobenzene	11.183	114	2203147	10.00 ppbv	0.00
50) Chlorobenzene-d5	15.466	117	2011600	10.00 ppbv	0.00

Target Compounds					Qvalue
2) Propene	3.537	41	126852	5.51 ppbv	99
3) Dichlorodifluoromethane	3.640	85	562384	4.85 ppbv	100
4) Chloromethane	3.833	50	166806	4.80 ppbv	100
5) Freon-114	3.987	85	431213	4.67 ppbv	99
6) Vinyl chloride	4.103	62	138972	5.48 ppbv	100
7) 1,3-Butadiene	4.276	54	96318	4.68 ppbv	98
8) Bromomethane	4.598	94	132622	2.89 ppbv	100
9) Chloroethane	4.833	64	83131	4.21 ppbv	99
10) Ethanol	5.090	45	32401	2.36 ppbv	97
11) Acrolein	5.469	56	63444	3.83 ppbv	99
12) Acetone	5.643	43	209435	3.95 ppbv	92
13) Freon-11	5.807	101	566968	4.58 ppbv	100
14) Isopropyl alcohol	5.990	45	242924	4.61 ppbv	99
15) 1,1-dichloroethene	6.585	61	320049	5.82 ppbv	92
16) Dichloromethane	6.762	49	205921	4.41 ppbv	87
17) Carbon disulfide	7.035	76	583930	4.85 ppbv	95
18) Freon-113	7.083	101	479176	4.52 ppbv	98
19) trans-1,2-Dichloroethene	7.852	61	283010	4.77 ppbv	92
20) 1,1-Dichloroethane	8.083	63	367206	5.25 ppbv	99
21) Mtbe	8.157	73	604456	5.74 ppbv	99
22) Vinyl Acetate	8.292	43	362337	5.13 ppbv	95
23) 2-Butanone	8.537	43	348106	5.01 ppbv	92
24) cis-1,2-Dichloroethene	9.006	61	271562	4.76 ppbv	91
26) Hexane	9.241	57	306300	6.44 ppbv	92
27) Ethyl acetate	9.276	61	63953	5.25 ppbv	94
28) Chloroform	9.328	83	459543	5.26 ppbv	100
29) Tetrahydrofuran	9.726	42	196432	5.28 ppbv	87
30) 1,2-Dichloroethane	10.093	62	284640	6.07 ppbv	99
31) 1,1,1-Trichloroethane	10.344	97	471644	5.26 ppbv	98
32) Benzene	10.810	78	710360	4.88 ppbv	99
33) Carbon tetrachloride	10.961	117	453842	5.51 ppbv	99
34) Cyclohexane	11.080	56	314840	5.37 ppbv	93
35) 1,2-Dichloropropane	11.633	63	230483	5.10 ppbv	94
36) Bromodichloromethane	11.829	83	507839	5.75 ppbv	99
37) Trichloroethene	11.871	130	378305	5.09 ppbv	98
38) 1,4-Dioxane	11.861	88	128780	4.06 ppbv	93
39) Methyl methacrylate	12.070	69	239118	5.44 ppbv	99
40) Heptane	12.170	43	321887	6.49 ppbv	92
41) cis-1,3-Dichloropropene	12.723	75	405419	5.93 ppbv	96
42) 4-Methyl-2-pentanone	12.749	43	400798	5.61 ppbv	93
43) trans-1,3-Dichloropropene	13.237	75	371454	5.23 ppbv	100
44) 1,1,2-Trichloroethane	13.411	97	307681	5.35 ppbv	96
45) Toluene	13.684	91	925034	5.08 ppbv	100
46) 2-Hexanone	13.932	43	364723	5.92 ppbv	93
47) Dibromochloromethane	14.106	129	582123	5.84 ppbv	100
48) 1,2-Dibromoethane	14.353	107	486569	5.10 ppbv	100
49) Tetrachloroethene	14.819	166	540792	5.00 ppbv	99
51) Chlorobenzene	15.511	112	788133	4.91 ppbv	99
52) Ethylbenzene	15.897	106	402479	4.96 ppbv	98
53) Xylene (1)	16.083	106	1003547	10.18 ppbv	98
54) Xylene (2)	16.581	106	484770	5.03 ppbv	98

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141307.D
Acq On : 14 Jun 2013 10:43 pm
Operator : VP
Sample : ICAL TOSTD 5.0
Misc : TO_15A+ 117-5-249 CAN 154
ALS Vial : 18 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 17:50:55 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Dec 26 10:17:29 2012
Response via : Initial Calibration

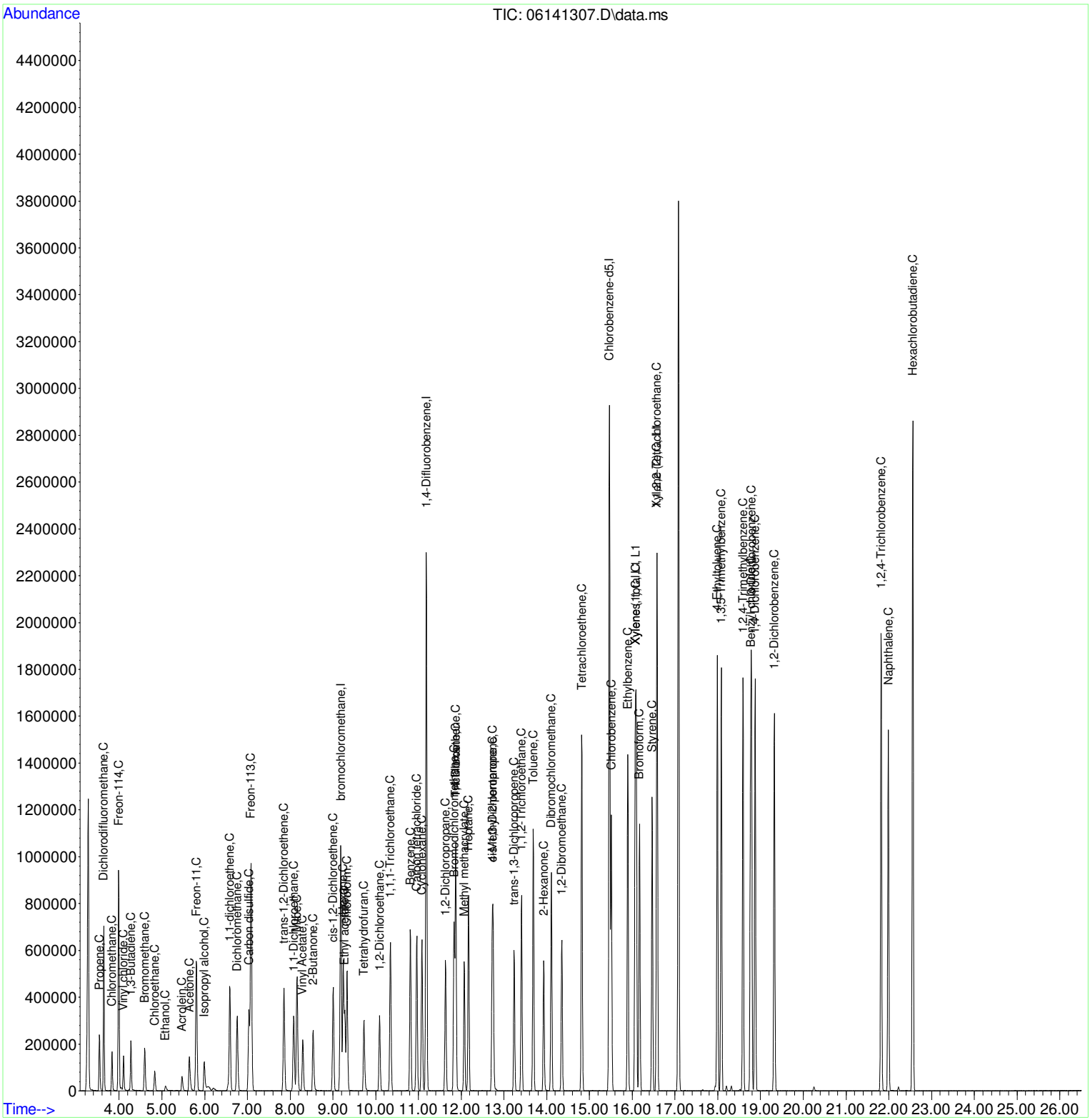
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.083	106	1488317m	15.21 ppbv	
56) Bromoform	16.170	173	620991	6.20 ppbv	98
57) Styrene	16.466	104	758076	6.59 ppbv	97
58) 1,1,2,2-Tetrachloroethane	16.572	83	616676	5.62 ppbv	99
59) 4-Ethyltoluene	17.990	120	448560	5.41 ppbv	96
60) 1,3,5-Trimethylbenzene	18.083	120	626561	5.57 ppbv	98
61) 1,2,4-Trimethylbenzene	18.591	120	580666	5.09 ppbv	98
62) Benzyl chloride	18.765	91	952570	6.44 ppbv	99
63) 1,3-Dichlorobenzene	18.787	146	901834	4.78 ppbv	98
64) 1,4-Dichlorobenzene	18.874	146	921456	5.20 ppbv	99
65) 1,2-Dichlorobenzene	19.324	146	848796	5.16 ppbv	98
66) 1,2,4-Trichlorobenzene	21.822	180	795058	4.29 ppbv	100
67) Naphthalene	21.990	128	1519517	5.66 ppbv	100
68) Hexachlorobutadiene	22.562	225	701939	4.36 ppbv	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

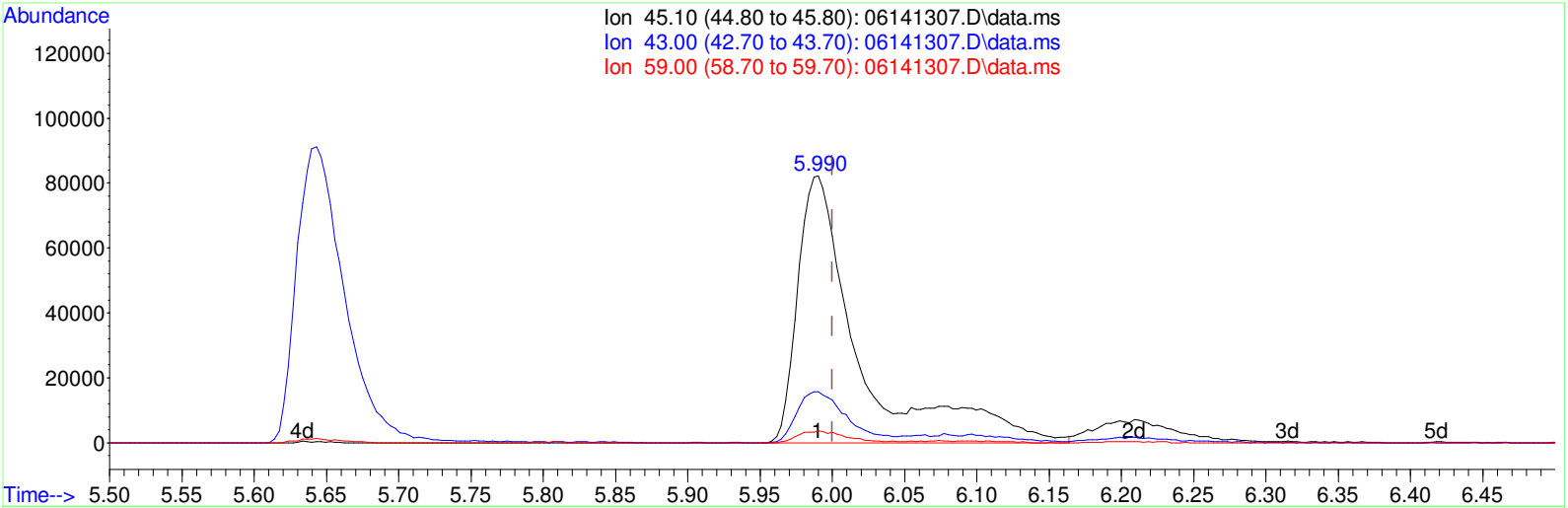
Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141307.D
Acq On : 14 Jun 2013 10:43 pm
Operator : VP
Sample : ICAL TOSTD 5.0
Misc : TO_15A+ 117-5-249 CAN 154
ALS Vial : 18 Sample Multiplier: 1
InstName : VOA5

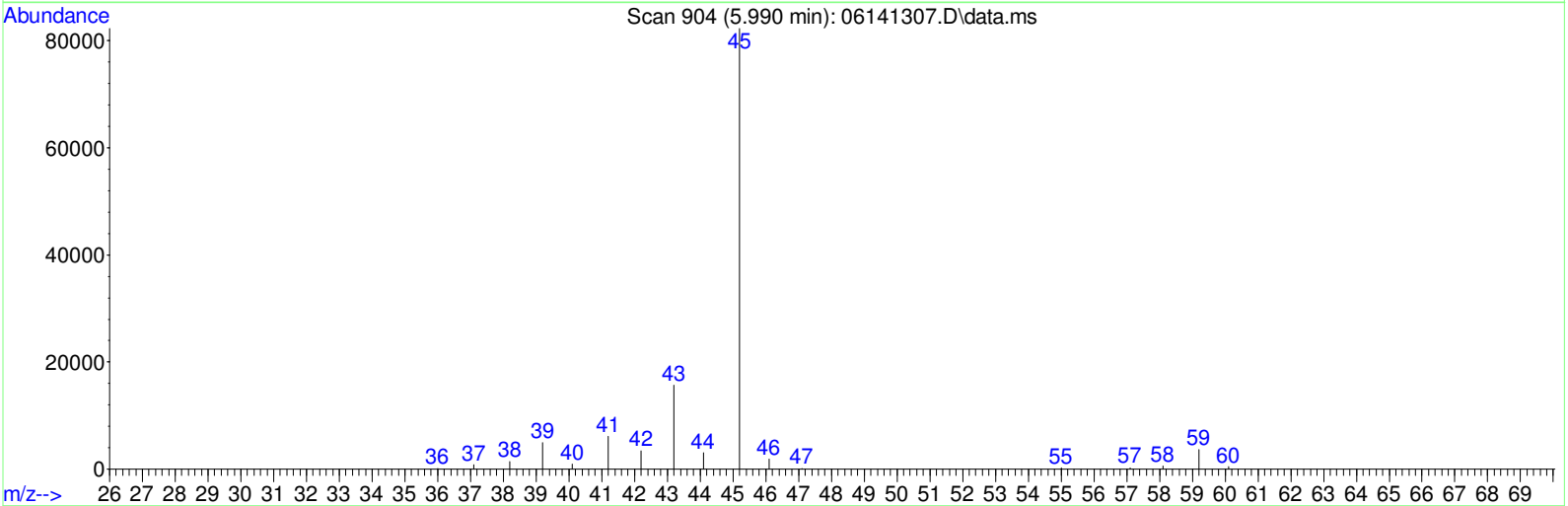
Quant Time: Jun 17 17:50:55 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Dec 26 10:17:29 2012
Response via : Initial Calibration



Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141307.D
Acq On : 14 Jun 2013 10:43 pm
Operator : VP
Sample : ICAL TOSTD 5.0
Misc : TO_15A+ 117-5-249 CAN 154
ALS Vial : 18 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 17:50:55 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Dec 26 10:17:29 2012
Response via : Initial Calibration





TIC: 06141307.D\data.ms

(14) Isopropyl alcohol (C)

5.990min (-0.010) 4.61ppbv

response 242924

Ion	Exp%	Act%
45.10	100	100
43.00	20.50	20.46
59.00	4.70	3.54
0.00	0.00	0.00

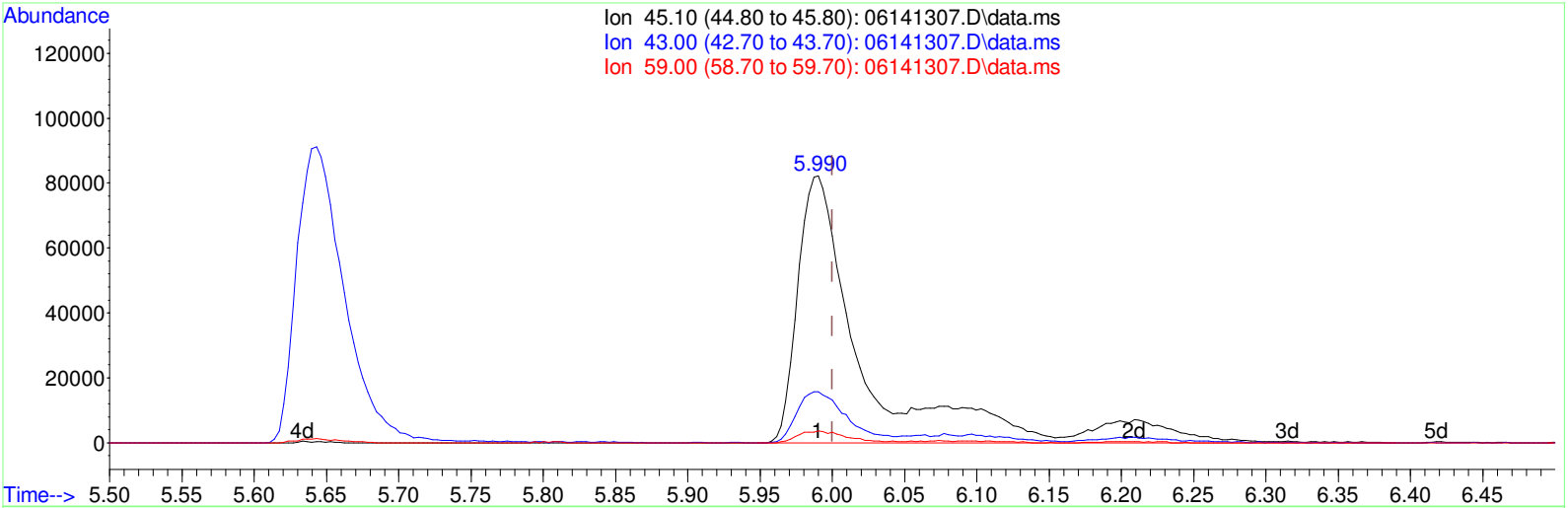
BEFORE

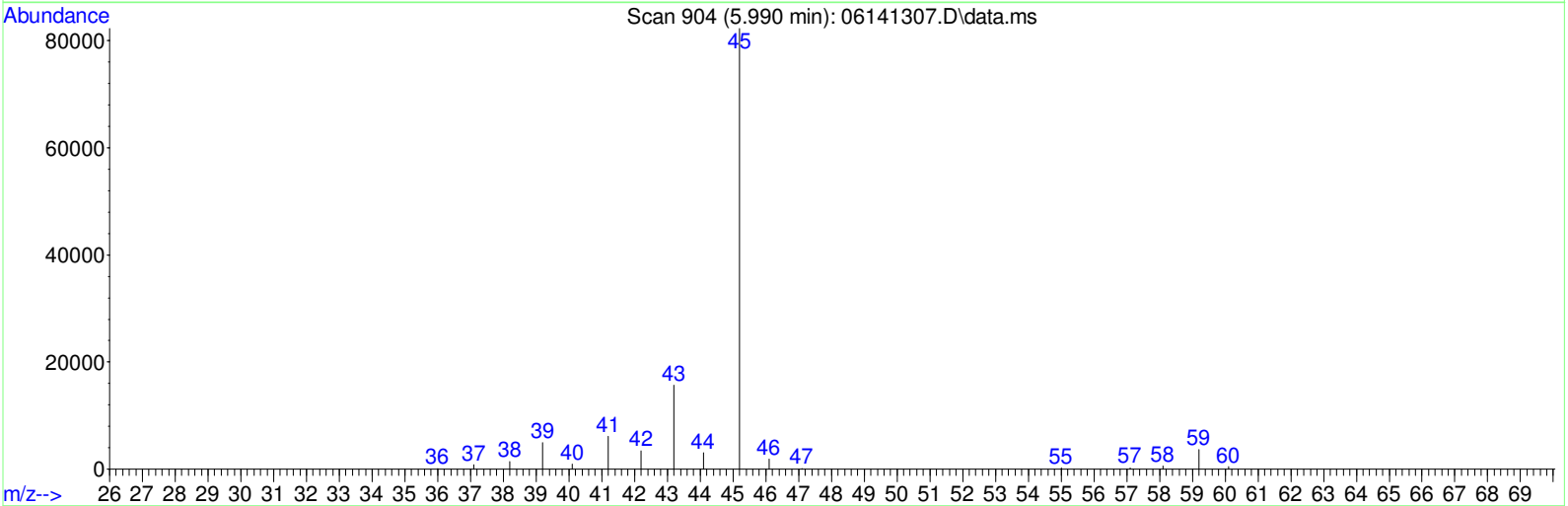
By Vytautas at 15:43:41, 7/25/2013

Quantitation Report (Qedit)

```
Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141307.D
Acq On    : 14 Jun 2013  10:43 pm
Operator  : VP
Sample    : ICAL TOSTD 5.0
Misc      : TO_15A+        117-5-249 CAN 154
ALS Vial  : 18   Sample Multiplier: 1
InstName  : VOA5

Quant Time: Jun 17 17:50:55 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612.M
Quant Title  : SOP 4010 EPA   TO-15 MDL update 12/26/2012
QLast Update : Wed Dec 26 10:17:29 2012
Response via : Initial Calibration
```





TIC: 06141307.D\data.ms

(14) Isopropyl alcohol (C)

5.990min (-0.010) 5.16ppbv m

response 271990

AFTER M3

By Vytautas at 15:43:35, 7/25/2013

Ion	Exp%	Act%
45.10	100	100
43.00	20.50	20.84
59.00	4.70	4.36
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141308.D
Acq On : 14 Jun 2013 11:24 pm
Operator : VP
Sample : ICAL TOSTD 10
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 13:24:22 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.189	49	466764	10.00 ppbv	0.00
25) 1,4-Difluorobenzene	11.189	114	2196084	10.00 ppbv	0.00
50) Chlorobenzene-d5	15.466	117	2008866	10.00 ppbv	0.00

Target Compounds					Qvalue
2) Propene	3.540	41	252570	10.61 ppbv	100
3) Dichlorodifluoromethane	3.649	85	1104085	9.34 ppbv	99
4) Chloromethane	3.842	50	326677	9.19 ppbv	99
5) Freon-114	3.997	85	830869	8.86 ppbv	99
6) Vinyl chloride	4.112	62	276282	10.55 ppbv	100
7) 1,3-Butadiene	4.286	54	196265	9.18 ppbv	99
8) Bromomethane	4.611	94	287796	6.38 ppbv	99
9) Chloroethane	4.846	64	170357	7.24 ppbv	100
10) Ethanol	5.100	45	117710m	9.86 ppbv	
11) Acrolein	5.479	56	141677	9.33 ppbv	99
12) Acetone	5.646	43	508600	9.52 ppbv	99
13) Freon-11	5.817	101	1134875	9.04 ppbv	99
14) Isopropyl alcohol	6.000	45	588480m	11.55 ppbv	
15) 1,1-dichloroethene	6.601	61	632256	10.15 ppbv	99
16) Dichloromethane	6.775	49	391079	8.25 ppbv	100
17) Carbon disulfide	7.048	76	1209085	8.42 ppbv	100
18) Freon-113	7.093	101	959883	8.93 ppbv	99
19) trans-1,2-Dichloroethene	7.865	61	568304	9.41 ppbv	99
20) 1,1-Dichloroethane	8.090	63	735519	9.37 ppbv	100
21) Mtbe	8.164	73	1213541	9.46 ppbv	100
22) Vinyl Acetate	8.302	43	761049	10.58 ppbv	99
23) 2-Butanone	8.543	43	702942	9.89 ppbv	99
24) cis-1,2-Dichloroethene	9.013	61	543417	9.35 ppbv	99
26) Hexane	9.247	57	600549	12.62 ppbv	100
27) Ethyl acetate	9.283	61	130447	9.18 ppbv	99
28) Chloroform	9.337	83	920652	10.55 ppbv	100
29) Tetrahydrofuran	9.726	42	394414	10.54 ppbv	98
30) 1,2-Dichloroethane	10.099	62	566049	10.90 ppbv	100
31) 1,1,1-Trichloroethane	10.350	97	955652	10.71 ppbv	100
32) Benzene	10.816	78	1406220	9.72 ppbv	100
33) Carbon tetrachloride	10.964	117	959178	11.75 ppbv	100
34) Cyclohexane	11.086	56	625307	10.68 ppbv	99
35) 1,2-Dichloropropane	11.636	63	455957	10.14 ppbv	100
36) Bromodichloromethane	11.836	83	1024598	11.60 ppbv	99
37) Trichloroethene	11.877	130	760741	10.30 ppbv	100
38) 1,4-Dioxane	11.861	88	283845	11.14 ppbv	98
39) Methyl methacrylate	12.074	69	488851	11.25 ppbv	100
40) Heptane	12.173	43	631870	11.46 ppbv	99
41) cis-1,3-Dichloropropene	12.726	75	817312	11.95 ppbv	98
42) 4-Methyl-2-pentanone	12.749	43	797310	10.96 ppbv	99
43) trans-1,3-Dichloropropene	13.241	75	768824	10.71 ppbv	100
44) 1,1,2-Trichloroethane	13.414	97	618562	9.89 ppbv	100
45) Toluene	13.688	91	1834080	10.16 ppbv	100
46) 2-Hexanone	13.929	43	753948	13.30 ppbv	99
47) Dibromochloromethane	14.109	129	1189222	12.00 ppbv	100
48) 1,2-Dibromoethane	14.356	107	984921	10.43 ppbv	100
49) Tetrachloroethene	14.823	166	1107695	10.35 ppbv	99
51) Chlorobenzene	15.511	112	1568722	9.85 ppbv	99
52) Ethylbenzene	15.897	106	807051	10.06 ppbv	98
53) Xylene (1)	16.093	106	1994748	20.46 ppbv	98
54) Xylene (2)	16.585	106	954970	10.01 ppbv	98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141308.D
Acq On : 14 Jun 2013 11:24 pm
Operator : VP
Sample : ICAL TOSTD 10
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 13:24:22 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

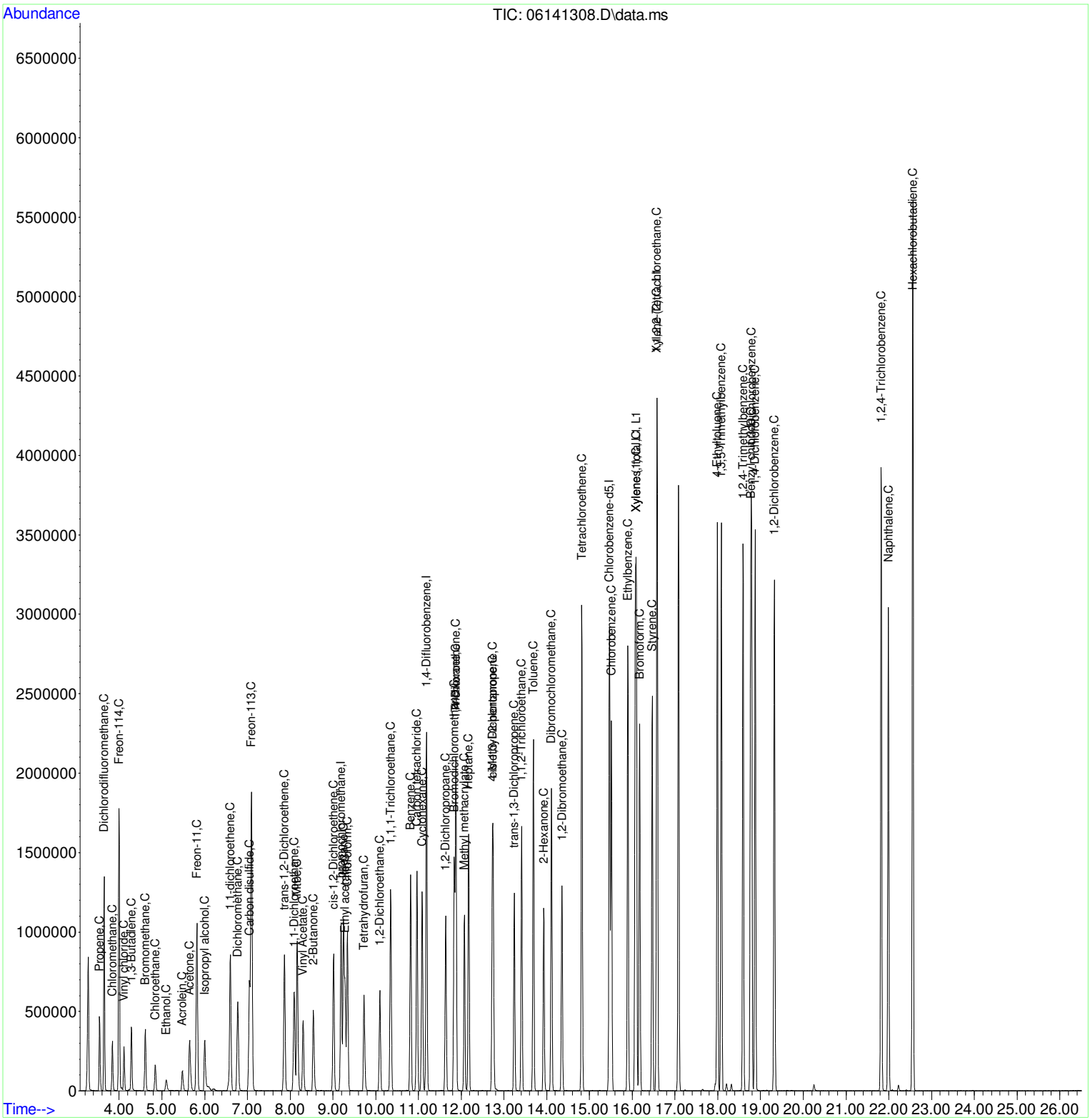
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.093	106	2949718m	30.48 ppbv	
56) Bromoform	16.173	173	1303826	13.09 ppbv	99
57) Styrene	16.469	104	1536907	11.32 ppbv	100
58) 1,1,2,2-Tetrachloroethane	16.575	83	1191047	9.99 ppbv	100
59) 4-Ethyltoluene	17.990	120	912113	11.13 ppbv	95
60) 1,3,5-Trimethylbenzene	18.083	120	1260754	10.32 ppbv	98
61) 1,2,4-Trimethylbenzene	18.594	120	1170139	10.39 ppbv	98
62) Benzyl chloride	18.765	91	2005402	13.70 ppbv	98
63) 1,3-Dichlorobenzene	18.790	146	1827101	9.83 ppbv	99
64) 1,4-Dichlorobenzene	18.874	146	1862870	9.79 ppbv	100
65) 1,2-Dichlorobenzene	19.324	146	1726798	9.68 ppbv	100
66) 1,2,4-Trichlorobenzene	21.822	180	1608775	8.03 ppbv	100
67) Naphthalene	21.990	128	3010588	10.44 ppbv	99
68) Hexachlorobutadiene	22.562	225	1424181	8.97 ppbv	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141308.D
Acq On : 14 Jun 2013 11:24 pm
Operator : VP
Sample : ICAL TOSTD 10
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 13:24:22 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141308.D
Acq On : 14 Jun 2013 11:24 pm
Operator : VP
Sample : ICAL TOSTD 10
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:52 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.189	49	466764	10.00 ppbv	0.00
25) 1,4-Difluorobenzene	11.189	114	2196084	10.00 ppbv	0.00
50) Chlorobenzene-d5	15.466	117	2008866	10.00 ppbv	0.00

Target Compounds					Qvalue
2) Propene	3.540	41	252570	10.61 ppbv	100
3) Dichlorodifluoromethane	3.649	85	1104085	9.34 ppbv	99
4) Chloromethane	3.842	50	326677	9.19 ppbv	99
5) Freon-114	3.997	85	830869	8.86 ppbv	99
6) Vinyl chloride	4.112	62	276282	10.55 ppbv	100
7) 1,3-Butadiene	4.286	54	196265	9.18 ppbv	99
8) Bromomethane	4.611	94	287796	6.38 ppbv	99
9) Chloroethane	4.846	64	170357	7.24 ppbv	100
10) Ethanol	5.100	45	116284	9.74 ppbv	91
11) Acrolein	5.479	56	141677	9.33 ppbv	99
12) Acetone	5.646	43	508600	9.52 ppbv	99
13) Freon-11	5.817	101	1134875	9.04 ppbv	99
14) Isopropyl alcohol	6.000	45	556328	10.92 ppbv	97
15) 1,1-dichloroethene	6.601	61	632256	10.15 ppbv	99
16) Dichloromethane	6.775	49	391079	8.25 ppbv	100
17) Carbon disulfide	7.048	76	1209085	8.42 ppbv	100
18) Freon-113	7.093	101	959883	8.93 ppbv	99
19) trans-1,2-Dichloroethene	7.865	61	568304	9.41 ppbv	99
20) 1,1-Dichloroethane	8.090	63	735519	9.37 ppbv	100
21) Mtbe	8.164	73	1213541	9.46 ppbv	100
22) Vinyl Acetate	8.302	43	761049	10.58 ppbv	99
23) 2-Butanone	8.543	43	702942	9.89 ppbv	99
24) cis-1,2-Dichloroethene	9.013	61	543417	9.35 ppbv	99
26) Hexane	9.247	57	600549	12.62 ppbv	100
27) Ethyl acetate	9.283	61	130447	9.18 ppbv	99
28) Chloroform	9.337	83	920652	10.55 ppbv	100
29) Tetrahydrofuran	9.726	42	394414	10.54 ppbv	98
30) 1,2-Dichloroethane	10.099	62	566049	10.90 ppbv	100
31) 1,1,1-Trichloroethane	10.350	97	955652	10.71 ppbv	100
32) Benzene	10.816	78	1406220	9.72 ppbv	100
33) Carbon tetrachloride	10.964	117	959178	11.75 ppbv	100
34) Cyclohexane	11.086	56	625307	10.68 ppbv	99
35) 1,2-Dichloropropane	11.636	63	455957	10.14 ppbv	100
36) Bromodichloromethane	11.836	83	1024598	11.60 ppbv	99
37) Trichloroethene	11.877	130	760741	10.30 ppbv	100
38) 1,4-Dioxane	11.861	88	283845	11.14 ppbv	98
39) Methyl methacrylate	12.074	69	488851	11.25 ppbv	100
40) Heptane	12.173	43	631870	11.46 ppbv	99
41) cis-1,3-Dichloropropene	12.726	75	817312	11.95 ppbv	98
42) 4-Methyl-2-pentanone	12.749	43	797310	10.96 ppbv	99
43) trans-1,3-Dichloropropene	13.241	75	768824	10.71 ppbv	100
44) 1,1,2-Trichloroethane	13.414	97	618562	9.89 ppbv	100
45) Toluene	13.688	91	1834080	10.16 ppbv	100
46) 2-Hexanone	13.929	43	753948	13.30 ppbv	99
47) Dibromochloromethane	14.109	129	1189222	12.00 ppbv	100
48) 1,2-Dibromoethane	14.356	107	984921	10.43 ppbv	100
49) Tetrachloroethene	14.823	166	1107695	10.35 ppbv	99
51) Chlorobenzene	15.511	112	1568722	9.85 ppbv	99
52) Ethylbenzene	15.897	106	807051	10.06 ppbv	98
53) Xylene (1)	16.093	106	1994748	20.46 ppbv	98
54) Xylene (2)	16.585	106	954970	10.01 ppbv	98

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141308.D
Acq On : 14 Jun 2013 11:24 pm
Operator : VP
Sample : ICAL TOSTD 10
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:52 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

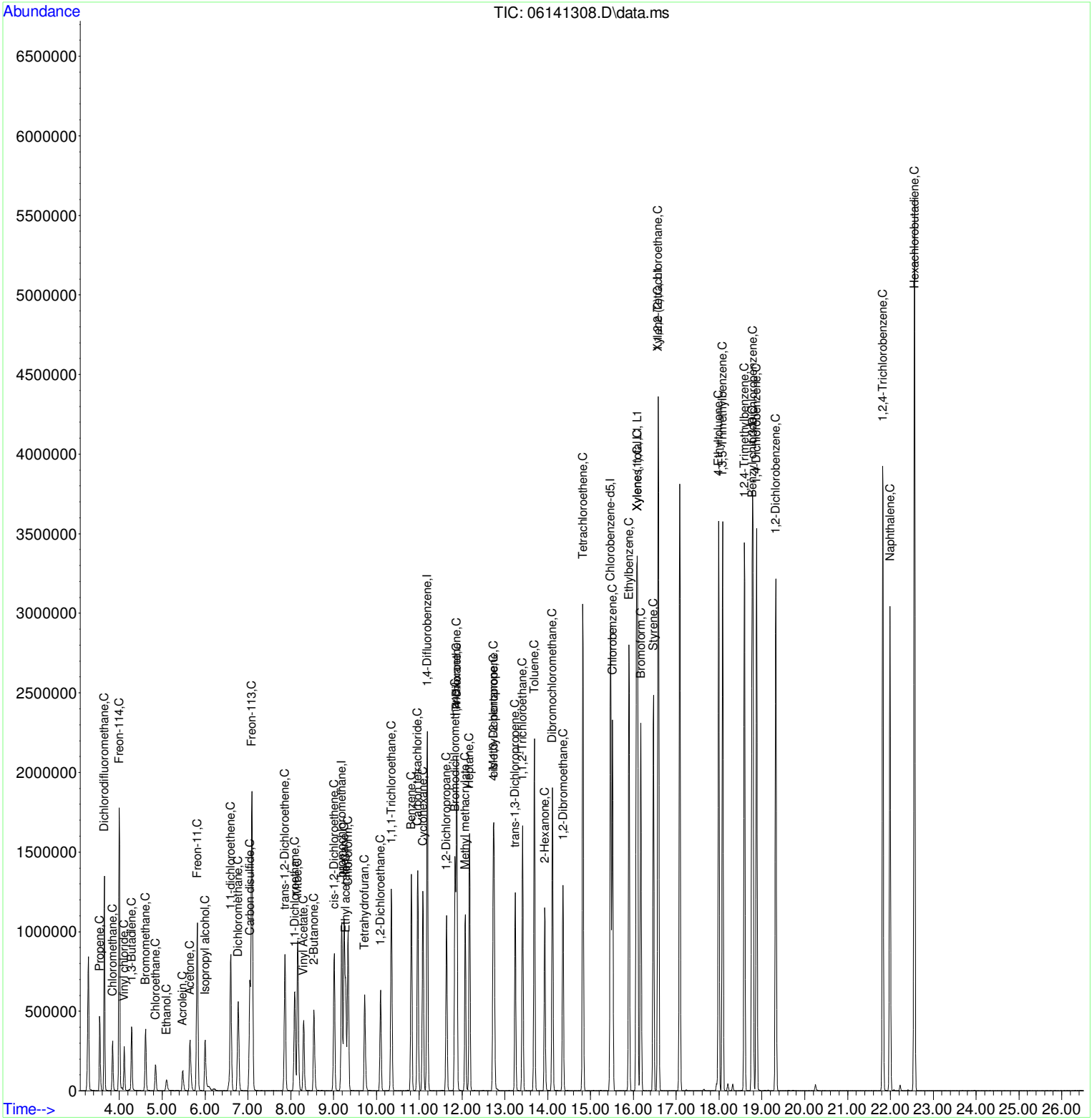
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
55) Xylenes, total	16.093	106	2949718m	30.48	ppbv	
56) Bromoform	16.173	173	1303826	13.09	ppbv	99
57) Styrene	16.469	104	1536907	11.32	ppbv	100
58) 1,1,2,2-Tetrachloroethane	16.575	83	1191047	9.99	ppbv	100
59) 4-Ethyltoluene	17.990	120	912113	11.13	ppbv	95
60) 1,3,5-Trimethylbenzene	18.083	120	1260754	10.32	ppbv	98
61) 1,2,4-Trimethylbenzene	18.594	120	1170139	10.39	ppbv	98
62) Benzyl chloride	18.765	91	2005402	13.70	ppbv	98
63) 1,3-Dichlorobenzene	18.790	146	1827101	9.83	ppbv	99
64) 1,4-Dichlorobenzene	18.874	146	1862870	9.79	ppbv	100
65) 1,2-Dichlorobenzene	19.324	146	1726798	9.68	ppbv	100
66) 1,2,4-Trichlorobenzene	21.822	180	1608775	8.03	ppbv	100
67) Naphthalene	21.990	128	3010588	10.44	ppbv	99
68) Hexachlorobutadiene	22.562	225	1424181	8.97	ppbv	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141308.D
Acq On : 14 Jun 2013 11:24 pm
Operator : VP
Sample : ICAL TOSTD 10
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

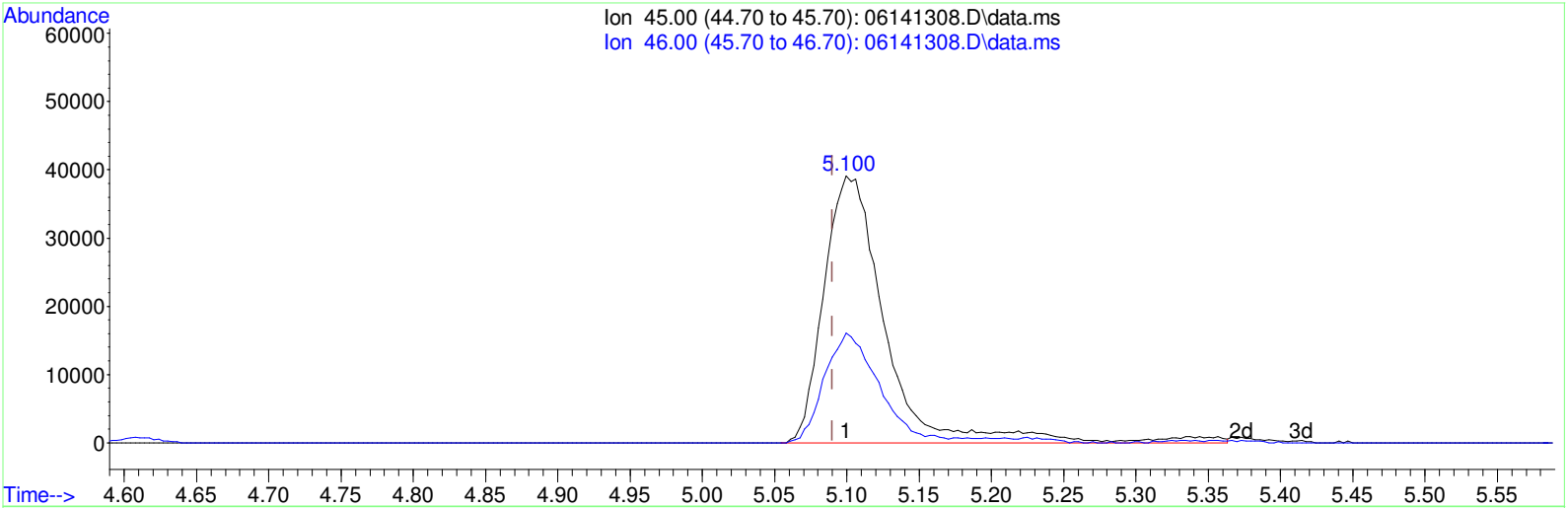
Quant Time: Jun 17 18:58:52 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

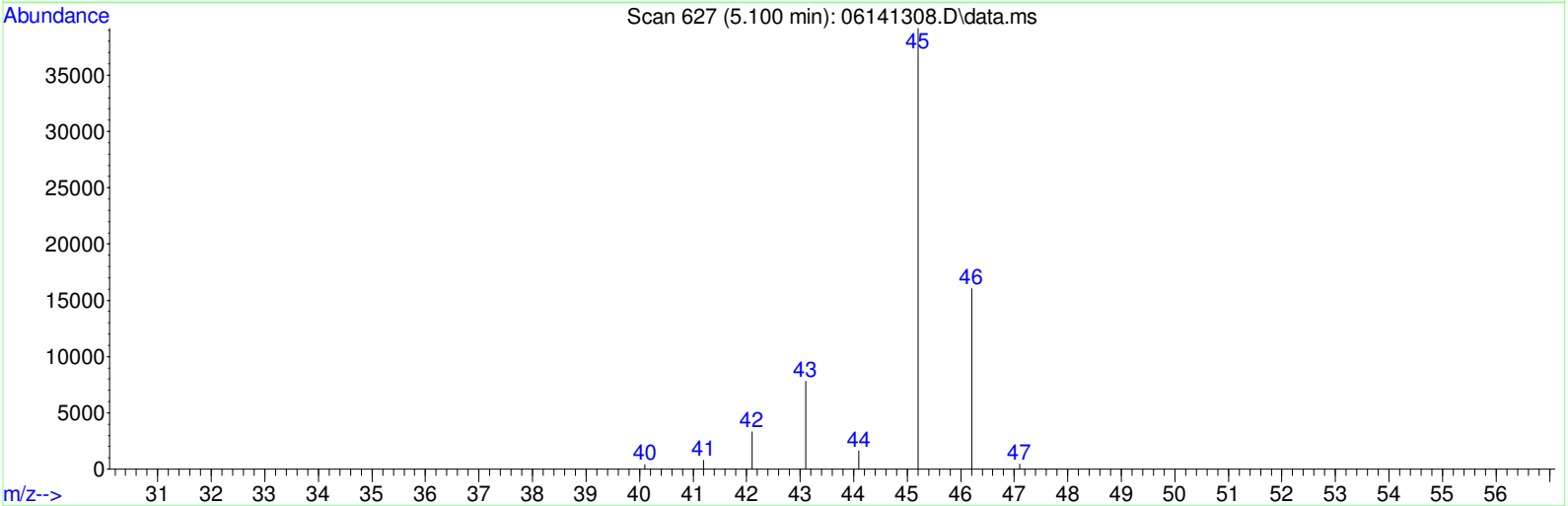


Quantitation Report (Qedit)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141308.D
Acq On : 14 Jun 2013 11:24 pm
Operator : VP
Sample : ICAL TOSTD 10
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:52 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration





TIC: 06141308.D\data.ms

(10) Ethanol (C)

5.100min (+0.010) 9.74ppbv

response 116284

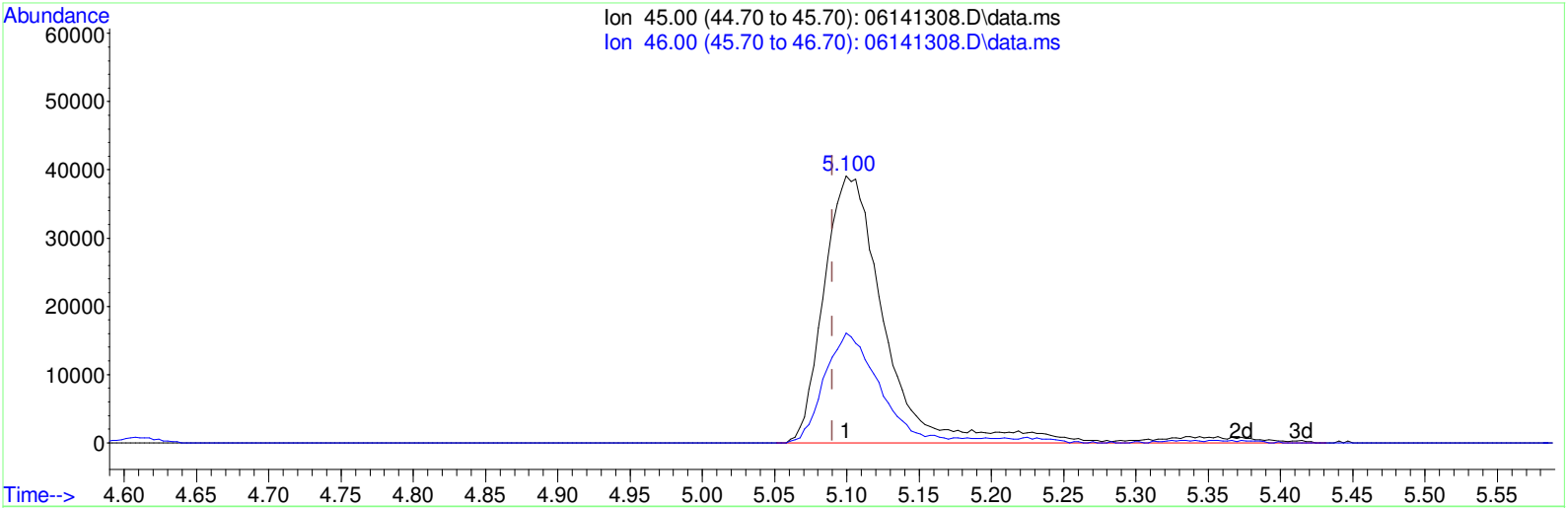
BEFORE

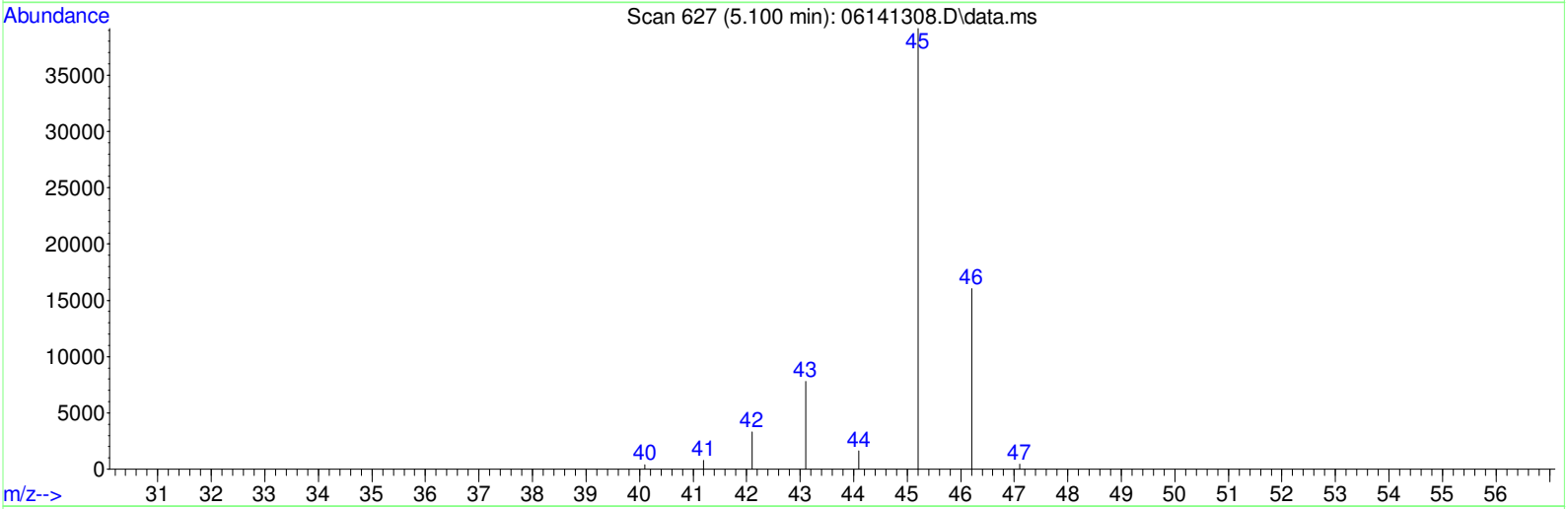
By Vytautas at 15:43:49, 7/25/2013

Ion	Exp%	Act%
45.00	100	100
46.00	33.60	38.53
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141308.D
Acq On : 14 Jun 2013 11:24 pm
Operator : VP
Sample : ICAL TOSTD 10
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:52 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration





TIC: 06141308.D\data.ms

(10) Ethanol (C)

5.100min (+0.010) 9.86ppbv m

response 117710

Ion	Exp%	Act%
45.00	100	100
46.00	33.60	38.06
0.00	0.00	0.00
0.00	0.00	0.00

AFTER M3

By Vytautas at 15:44:06, 7/25/2013

Quantitation Report (Qedit)

```
Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141308.D
Acq On    : 14 Jun 2013  11:24 pm
Operator  : VP
Sample    : ICAL TOSTD 10
Misc      : TO_15A+        117-5-251 CAN 156
ALS Vial  : 14   Sample Multiplier: 1
InstName  : VOA5

Quant Time: Jun 17 18:58:52 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title  : SOP 4010 EPA   TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration
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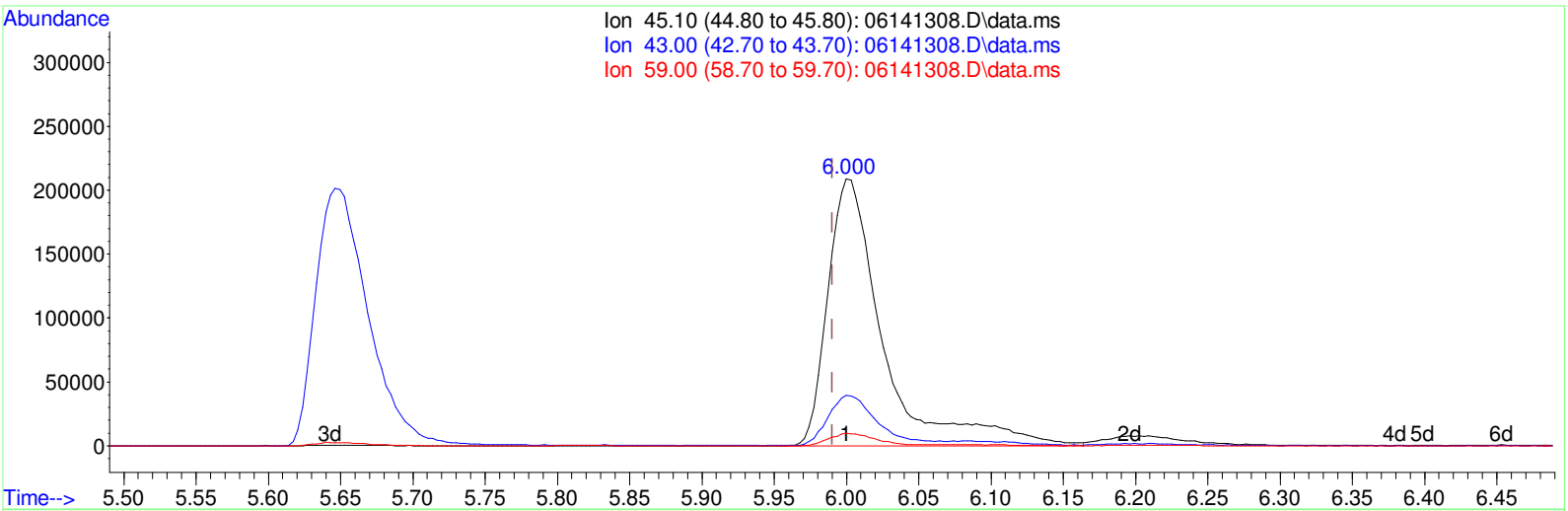
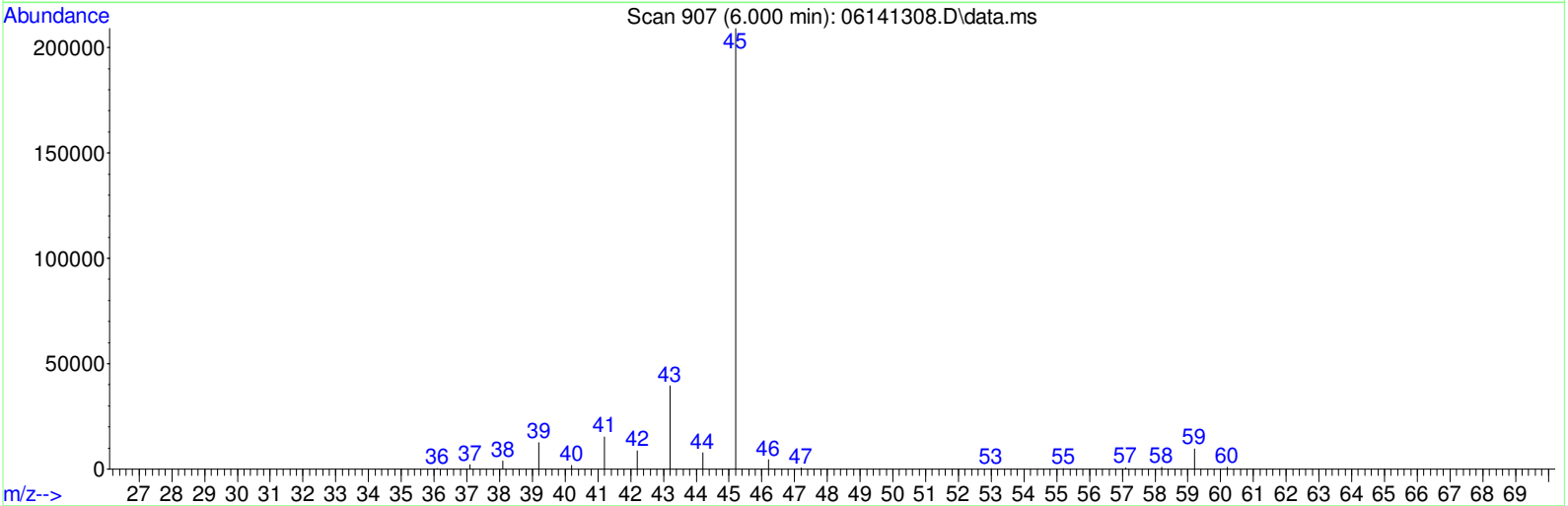




TIC: 06141308.D\data.ms

(14) Isopropyl alcohol (C)

6.000min (+0.010) 10.92ppbv

response 556328

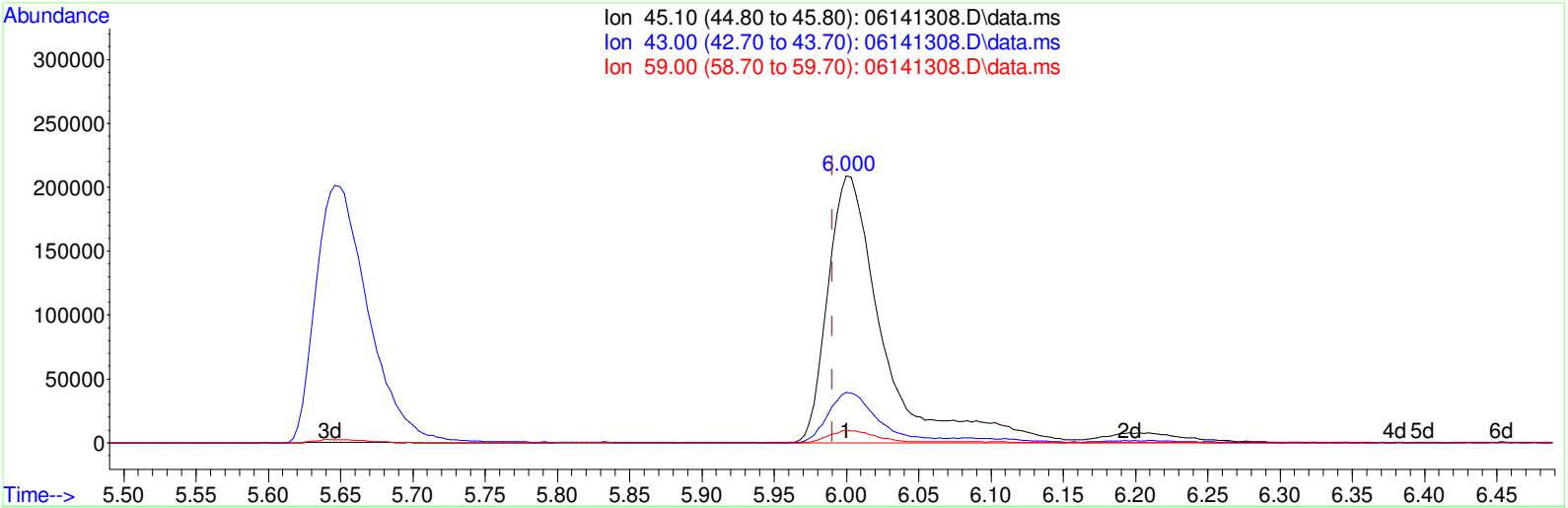
BEFORE

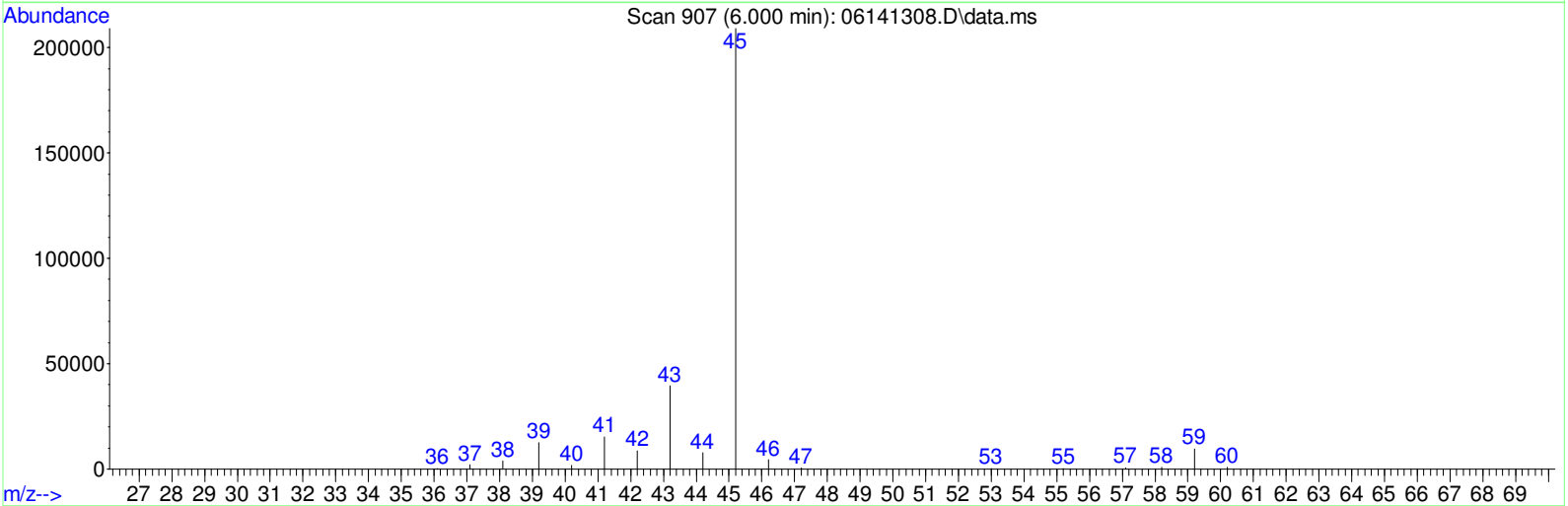
By Vytautas at 15:43:54, 7/25/2013

Ion	Exp%	Act%
45.10	100	100
43.00	20.80	19.29
59.00	4.40	4.57
0.00	0.00	0.00

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141308.D
Acq On : 14 Jun 2013 11:24 pm
Operator : VP
Sample : ICAL TOSTD 10
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:52 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration





TIC: 06141308.D\data.ms

(14) Isopropyl alcohol (C)

6.000min (+0.010) 11.55ppbv m

response 588480

AFTER M3

By Vytautas at 15:44:02, 7/25/2013

Ion	Exp%	Act%
45.10	100	100
43.00	20.80	18.24
59.00	4.40	4.32
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141309.D
Acq On : 15 Jun 2013 12:10 am
Operator : VP
Sample : ICAL TOSTD 25
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 13:25:35 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.196	49	484516	10.00 ppbv	0.01
25) 1,4-Difluorobenzene	11.193	114	2260863	10.00 ppbv	0.00
50) Chlorobenzene-d5	15.469	117	2072905	10.00 ppbv	0.00

Target Compounds					Qvalue
2) Propene	3.534	41	617941	25.00 ppbv	100
3) Dichlorodifluoromethane	3.646	85	2654466	21.63 ppbv	98
4) Chloromethane	3.842	50	802960	21.76 ppbv	99
5) Freon-114	3.997	85	1844781	18.96 ppbv	98
6) Vinyl chloride	4.116	62	688877	25.35 ppbv	100
7) 1,3-Butadiene	4.293	54	485646	21.89 ppbv	98
8) Bromomethane	4.614	94	773603	16.53 ppbv	99
9) Chloroethane	4.849	64	437364	17.90 ppbv	99
10) Ethanol	5.109	45	247271m	19.96 ppbv	
11) Acrolein	5.482	56	335193	21.26 ppbv	99
12) Acetone	5.653	43	1110270	20.03 ppbv	99
13) Freon-11	5.823	101	2803673	21.51 ppbv	99
14) Isopropyl alcohol	6.013	45	1479656m	27.98 ppbv	
15) 1,1-dichloroethene	6.604	61	1556980	24.08 ppbv	98
16) Dichloromethane	6.778	49	954214	19.40 ppbv	97
17) Carbon disulfide	7.054	76	2946222	19.76 ppbv	100
18) Freon-113	7.096	101	2331585	20.89 ppbv	95
19) trans-1,2-Dichloroethene	7.871	61	1401206	22.36 ppbv	96
20) 1,1-Dichloroethane	8.096	63	1810086	22.22 ppbv	99
21) Mtbe	8.164	73	3051412	22.91 ppbv	100
22) Vinyl Acetate	8.308	43	1931412	25.86 ppbv	98
23) 2-Butanone	8.546	43	1716498	23.26 ppbv	97
24) cis-1,2-Dichloroethene	9.019	61	1343417	22.28 ppbv	97
26) Hexane	9.251	57	1429231	29.18 ppbv	99
27) Ethyl acetate	9.289	61	318458	21.77 ppbv	96
28) Chloroform	9.344	83	2280530	25.39 ppbv	99
29) Tetrahydrofuran	9.726	42	965521	25.07 ppbv	96
30) 1,2-Dichloroethane	10.103	62	1416527	26.49 ppbv	99
31) 1,1,1-Trichloroethane	10.353	97	2387382	25.99 ppbv	99
32) Benzene	10.820	78	3385682	22.73 ppbv	99
33) Carbon tetrachloride	10.968	117	2435308	28.99 ppbv	99
34) Cyclohexane	11.090	56	1507639	25.02 ppbv	97
35) 1,2-Dichloropropane	11.640	63	1098836	23.73 ppbv	98
36) Bromodichloromethane	11.839	83	2463620	27.10 ppbv	99
37) Trichloroethene	11.881	130	1836757	24.16 ppbv	98
38) 1,4-Dioxane	11.861	88	666001	25.38 ppbv	96
39) Methyl methacrylate	12.080	69	1211591	27.09 ppbv	98
40) Heptane	12.176	43	1434313	25.27 ppbv	96
41) cis-1,3-Dichloropropene	12.730	75	1967333	27.95 ppbv	96
42) 4-Methyl-2-pentanone	12.752	43	1814342	24.23 ppbv	96
43) trans-1,3-Dichloropropene	13.244	75	1930575	26.13 ppbv	99
44) 1,1,2-Trichloroethane	13.418	97	1508061	23.42 ppbv	99
45) Toluene	13.691	91	4239096	22.81 ppbv	97
46) 2-Hexanone	13.935	43	1792603	30.71 ppbv	97
47) Dibromochloromethane	14.115	129	2845867	27.89 ppbv	99
48) 1,2-Dibromoethane	14.360	107	2372709	24.42 ppbv	100
49) Tetrachloroethene	14.823	166	2659840	24.13 ppbv	99
51) Chlorobenzene	15.514	112	3701411	22.52 ppbv	98
52) Ethylbenzene	15.900	106	1929527	23.31 ppbv	88
53) Xylene (1)	16.096	106	4419566	43.93 ppbv	94
54) Xylene (2)	16.591	106	2054792	20.88 ppbv	96

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141309.D
Acq On : 15 Jun 2013 12:10 am
Operator : VP
Sample : ICAL TOSTD 25
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

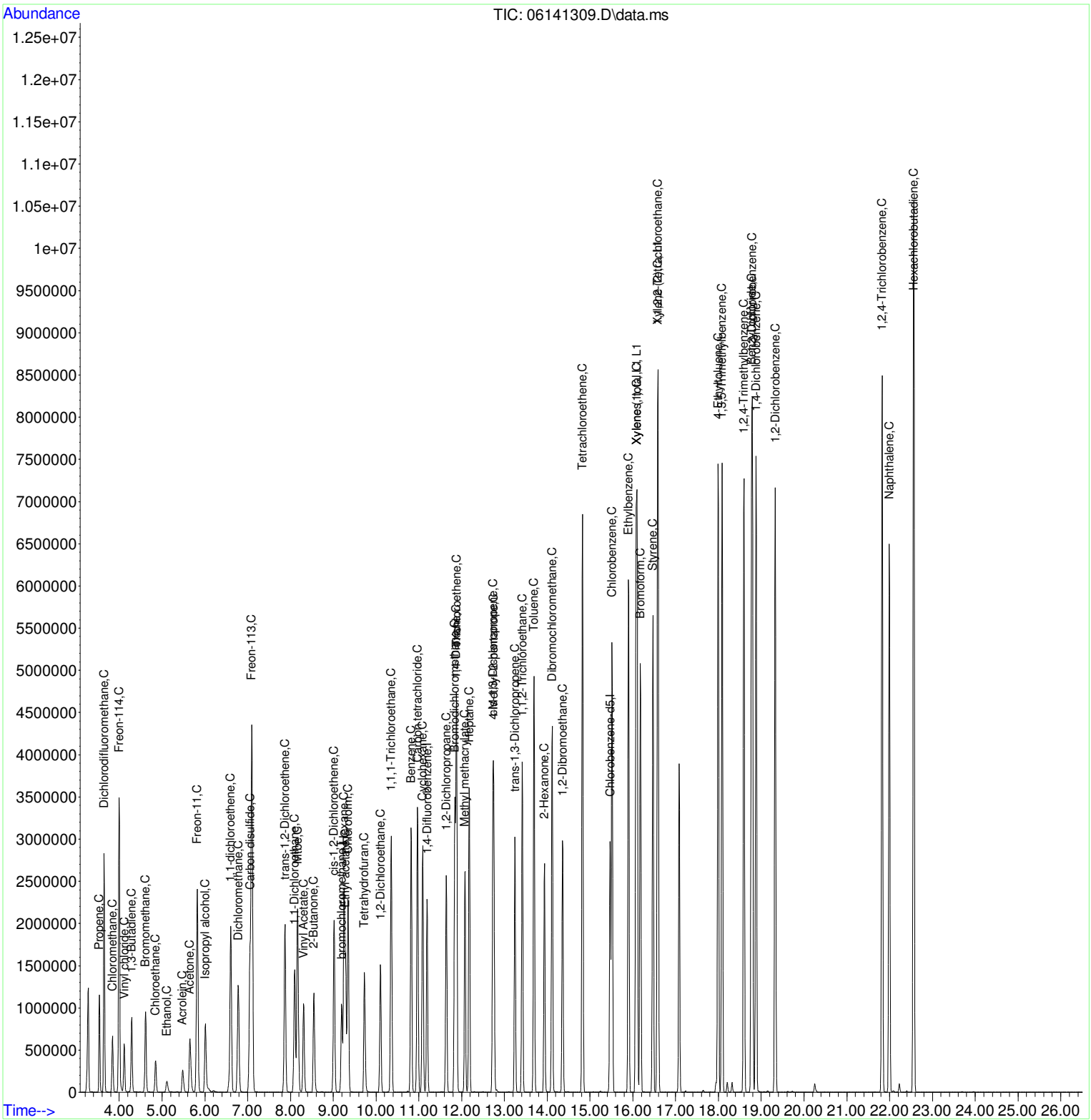
Quant Time: Jun 19 13:25:35 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.096	106	6474358m	64.83 ppbv	
56) Bromoform	16.176	173	3065030	29.82 ppbv	98
57) Styrene	16.472	104	3618571	25.83 ppbv	97
58) 1,1,2,2-Tetrachloroethane	16.575	83	2471315	20.08 ppbv	99
59) 4-Ethyltoluene	17.993	120	2129501	25.18 ppbv	82
60) 1,3,5-Trimethylbenzene	18.086	120	2875100	22.81 ppbv	92
61) 1,2,4-Trimethylbenzene	18.594	120	2728284	23.48 ppbv	92
62) Benzyl chloride	18.771	91	4626696	30.64 ppbv	93
63) 1,3-Dichlorobenzene	18.794	146	4023670	20.98 ppbv	98
64) 1,4-Dichlorobenzene	18.880	146	4204606	21.42 ppbv	98
65) 1,2-Dichlorobenzene	19.327	146	4046003	21.99 ppbv	99
66) 1,2,4-Trichlorobenzene	21.826	180	3814675	18.46 ppbv	99
67) Naphthalene	21.993	128	6664265	22.40 ppbv	96
68) Hexachlorobutadiene	22.565	225	3086458	18.85 ppbv	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141309.D
Acq On : 15 Jun 2013 12:10 am
Operator : VP
Sample : ICAL TOSTD 25
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 13:25:35 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141309.D
Acq On : 15 Jun 2013 12:10 am
Operator : VP
Sample : ICAL TOSTD 25
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:54 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.196	49	484516	10.00 ppbv	0.01
25) 1,4-Difluorobenzene	11.193	114	2260863	10.00 ppbv	0.00
50) Chlorobenzene-d5	15.469	117	2072905	10.00 ppbv	0.00

Target Compounds					Qvalue
2) Propene	3.534	41	617941	25.00 ppbv	100
3) Dichlorodifluoromethane	3.646	85	2654466	21.63 ppbv	98
4) Chloromethane	3.842	50	802960	21.76 ppbv	99
5) Freon-114	3.997	85	1844781	18.96 ppbv	98
6) Vinyl chloride	4.116	62	688877	25.35 ppbv	100
7) 1,3-Butadiene	4.293	54	485646	21.89 ppbv	98
8) Bromomethane	4.614	94	773603	16.53 ppbv	99
9) Chloroethane	4.849	64	437364	17.90 ppbv	99
10) Ethanol	5.109	45	242228	19.55 ppbv	89
11) Acrolein	5.482	56	335193	21.26 ppbv	99
12) Acetone	5.653	43	1110270	20.03 ppbv	99
13) Freon-11	5.823	101	2803673	21.51 ppbv	99
14) Isopropyl alcohol	6.013	45	1438458	27.20 ppbv	97
15) 1,1-dichloroethene	6.604	61	1556980	24.08 ppbv	98
16) Dichloromethane	6.778	49	954214	19.40 ppbv	97
17) Carbon disulfide	7.054	76	2946222	19.76 ppbv	100
18) Freon-113	7.096	101	2331585	20.89 ppbv	95
19) trans-1,2-Dichloroethene	7.871	61	1401206	22.36 ppbv	96
20) 1,1-Dichloroethane	8.096	63	1810086	22.22 ppbv	99
21) Mtbe	8.164	73	3051412	22.91 ppbv	100
22) Vinyl Acetate	8.308	43	1931412	25.86 ppbv	98
23) 2-Butanone	8.546	43	1716498	23.26 ppbv	97
24) cis-1,2-Dichloroethene	9.019	61	1343417	22.28 ppbv	97
26) Hexane	9.251	57	1429231	29.18 ppbv	99
27) Ethyl acetate	9.289	61	318458	21.77 ppbv	96
28) Chloroform	9.344	83	2280530	25.39 ppbv	99
29) Tetrahydrofuran	9.726	42	965521	25.07 ppbv	96
30) 1,2-Dichloroethane	10.103	62	1416527	26.49 ppbv	99
31) 1,1,1-Trichloroethane	10.353	97	2387382	25.99 ppbv	99
32) Benzene	10.820	78	3385682	22.73 ppbv	99
33) Carbon tetrachloride	10.968	117	2435308	28.99 ppbv	99
34) Cyclohexane	11.090	56	1507639	25.02 ppbv	97
35) 1,2-Dichloropropane	11.640	63	1098836	23.73 ppbv	98
36) Bromodichloromethane	11.839	83	2463620	27.10 ppbv	99
37) Trichloroethene	11.881	130	1836757	24.16 ppbv	98
38) 1,4-Dioxane	11.861	88	666001	25.38 ppbv	96
39) Methyl methacrylate	12.080	69	1211591	27.09 ppbv	98
40) Heptane	12.176	43	1434313	25.27 ppbv	96
41) cis-1,3-Dichloropropene	12.730	75	1967333	27.95 ppbv	96
42) 4-Methyl-2-pentanone	12.752	43	1814342	24.23 ppbv	96
43) trans-1,3-Dichloropropene	13.244	75	1930575	26.13 ppbv	99
44) 1,1,2-Trichloroethane	13.418	97	1508061	23.42 ppbv	99
45) Toluene	13.691	91	4239096	22.81 ppbv	97
46) 2-Hexanone	13.935	43	1792603	30.71 ppbv	97
47) Dibromochloromethane	14.115	129	2845867	27.89 ppbv	99
48) 1,2-Dibromoethane	14.360	107	2372709	24.42 ppbv	100
49) Tetrachloroethene	14.823	166	2659840	24.13 ppbv	99
51) Chlorobenzene	15.514	112	3701411	22.52 ppbv	98
52) Ethylbenzene	15.900	106	1929527	23.31 ppbv	88
53) Xylene (1)	16.096	106	4419566	43.93 ppbv	94
54) Xylene (2)	16.591	106	2054792	20.88 ppbv	96

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141309.D
Acq On : 15 Jun 2013 12:10 am
Operator : VP
Sample : ICAL TOSTD 25
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:54 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

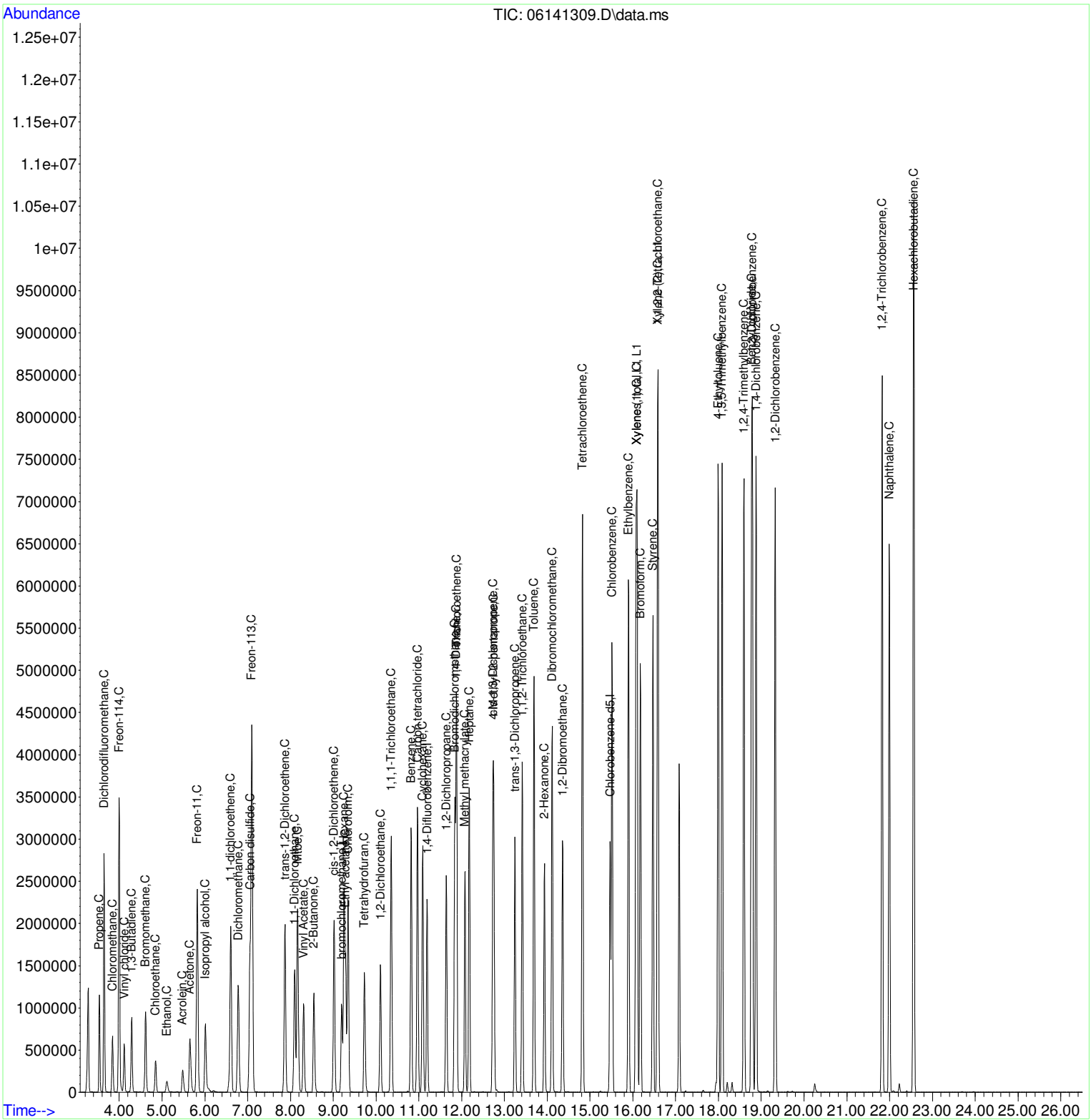
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.096	106	6474358m	64.83 ppbv	
56) Bromoform	16.176	173	3065030	29.82 ppbv	98
57) Styrene	16.472	104	3618571	25.83 ppbv	97
58) 1,1,2,2-Tetrachloroethane	16.575	83	2471315	20.08 ppbv	99
59) 4-Ethyltoluene	17.993	120	2129501	25.18 ppbv	82
60) 1,3,5-Trimethylbenzene	18.086	120	2875100	22.81 ppbv	92
61) 1,2,4-Trimethylbenzene	18.594	120	2728284	23.48 ppbv	92
62) Benzyl chloride	18.771	91	4626696	30.64 ppbv	93
63) 1,3-Dichlorobenzene	18.794	146	4023670	20.98 ppbv	98
64) 1,4-Dichlorobenzene	18.880	146	4204606	21.42 ppbv	98
65) 1,2-Dichlorobenzene	19.327	146	4046003	21.99 ppbv	99
66) 1,2,4-Trichlorobenzene	21.826	180	3814675	18.46 ppbv	99
67) Naphthalene	21.993	128	6664265	22.40 ppbv	96
68) Hexachlorobutadiene	22.565	225	3086458	18.85 ppbv	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141309.D
Acq On : 15 Jun 2013 12:10 am
Operator : VP
Sample : ICAL TOSTD 25
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

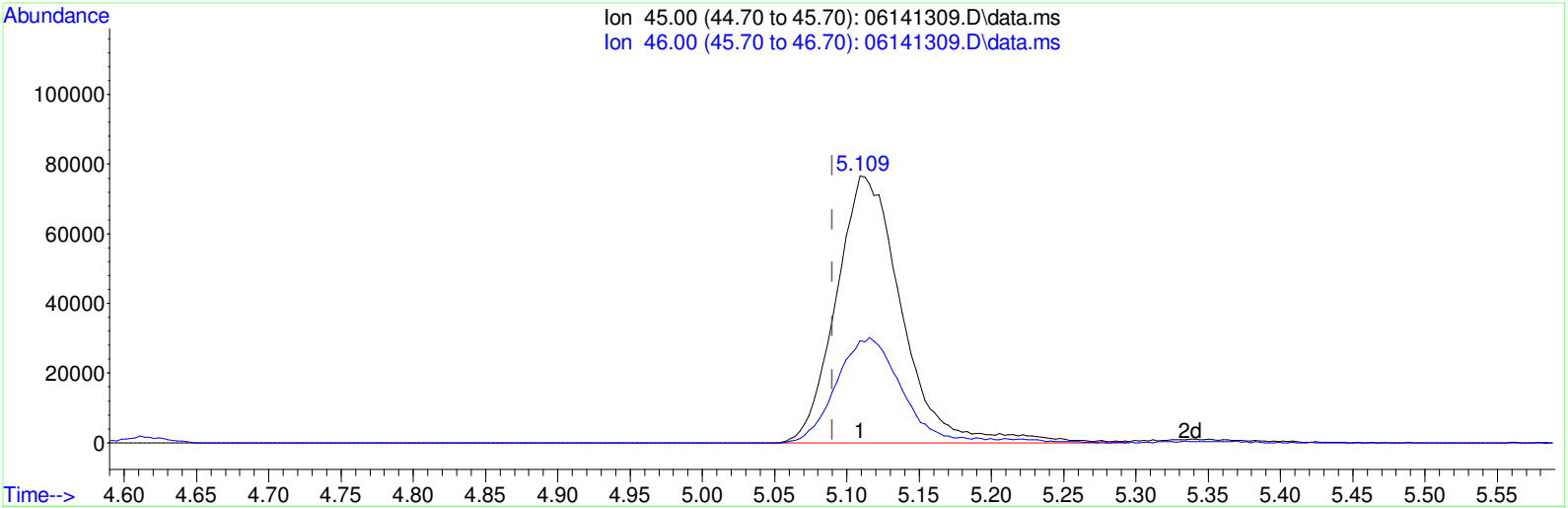
Quant Time: Jun 17 18:58:54 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

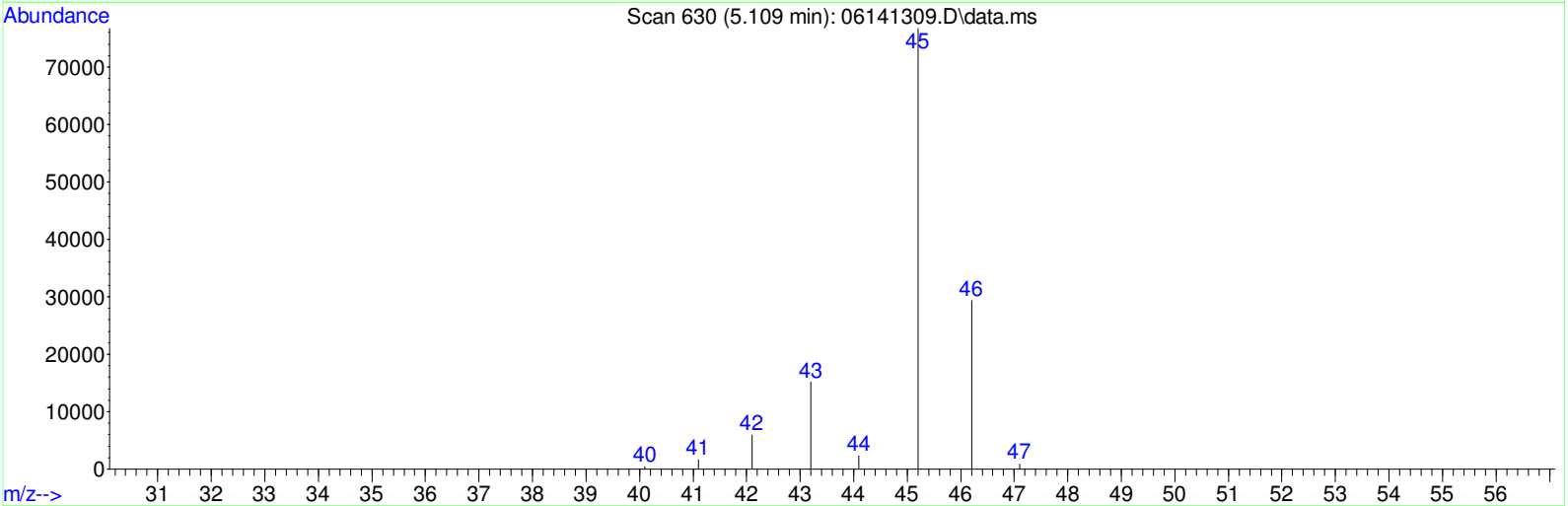


Quantitation Report (Qedit)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141309.D
Acq On : 15 Jun 2013 12:10 am
Operator : VP
Sample : ICAL TOSTD 25
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:54 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration





TIC: 06141309.D\data.ms

(10) Ethanol (C)

5.109min (+0.019) 19.55ppbv

response 242228

Ion	Exp%	Act%
45.00	100	100
46.00	33.60	39.70
0.00	0.00	0.00
0.00	0.00	0.00

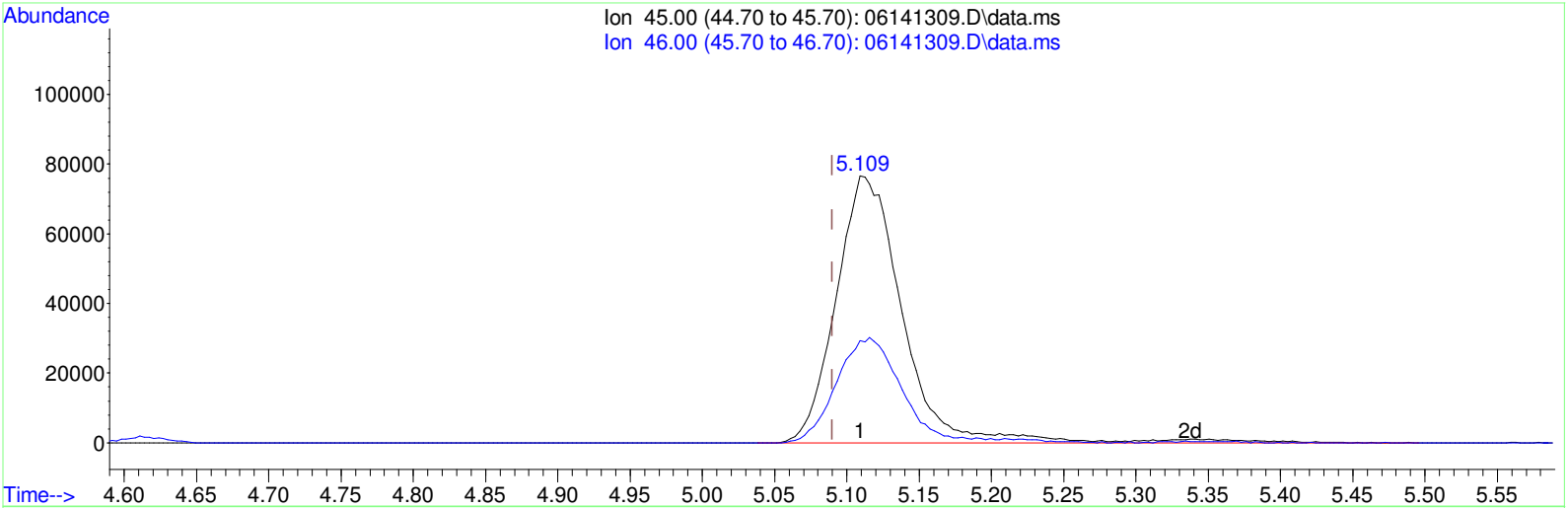
BEFORE

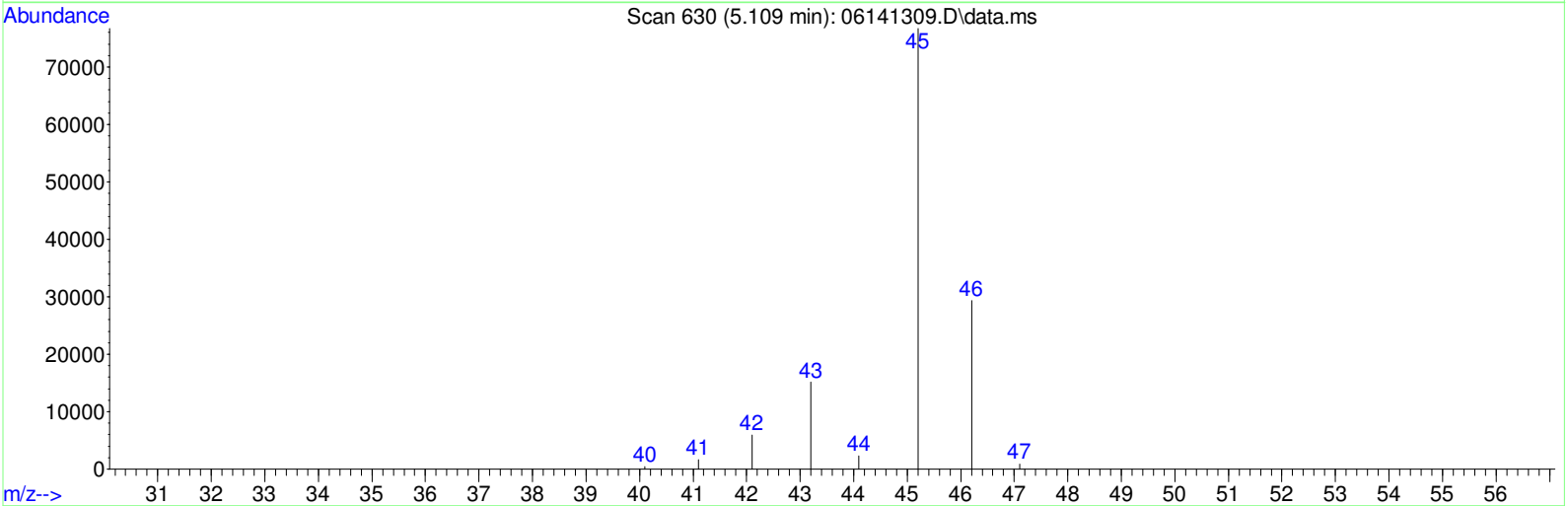
By Vytautas at 15:44:38, 7/25/2013

Quantitation Report (Qedit)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141309.D
Acq On : 15 Jun 2013 12:10 am
Operator : VP
Sample : ICAL TOSTD 25
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:54 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration





TIC: 06141309.D\data.ms

(10) Ethanol (C)

5.109min (+0.019) 19.96ppbv m

response 247271

AFTER M3

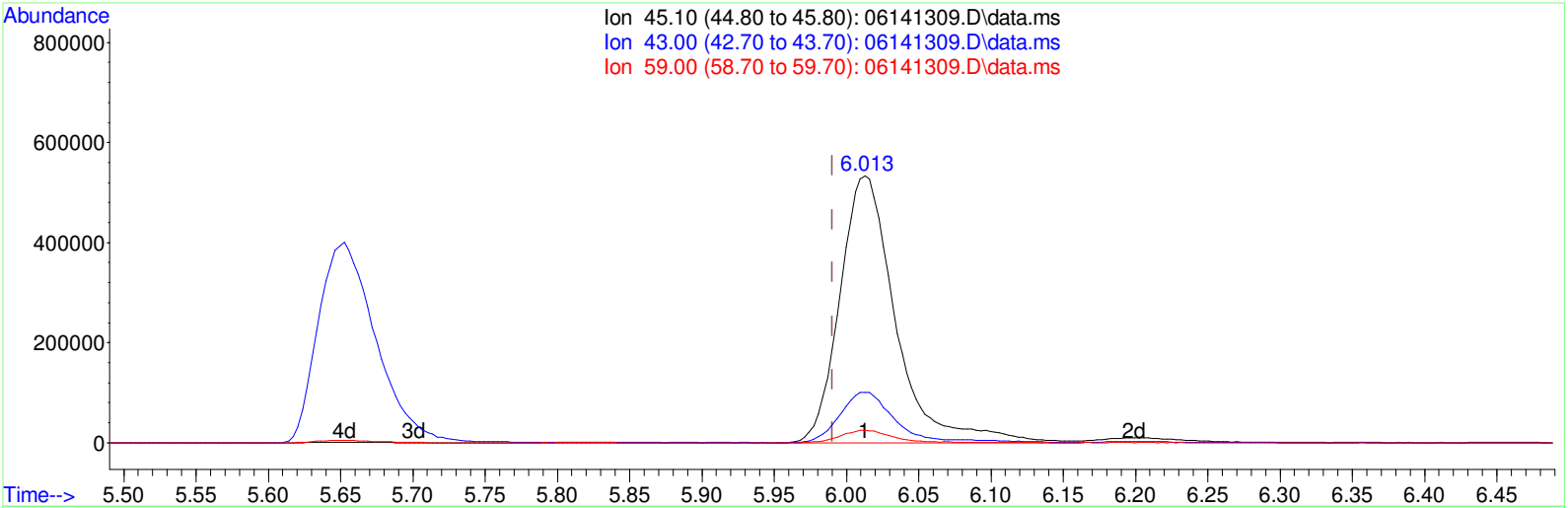
By Vytautas at 15:44:21, 7/25/2013

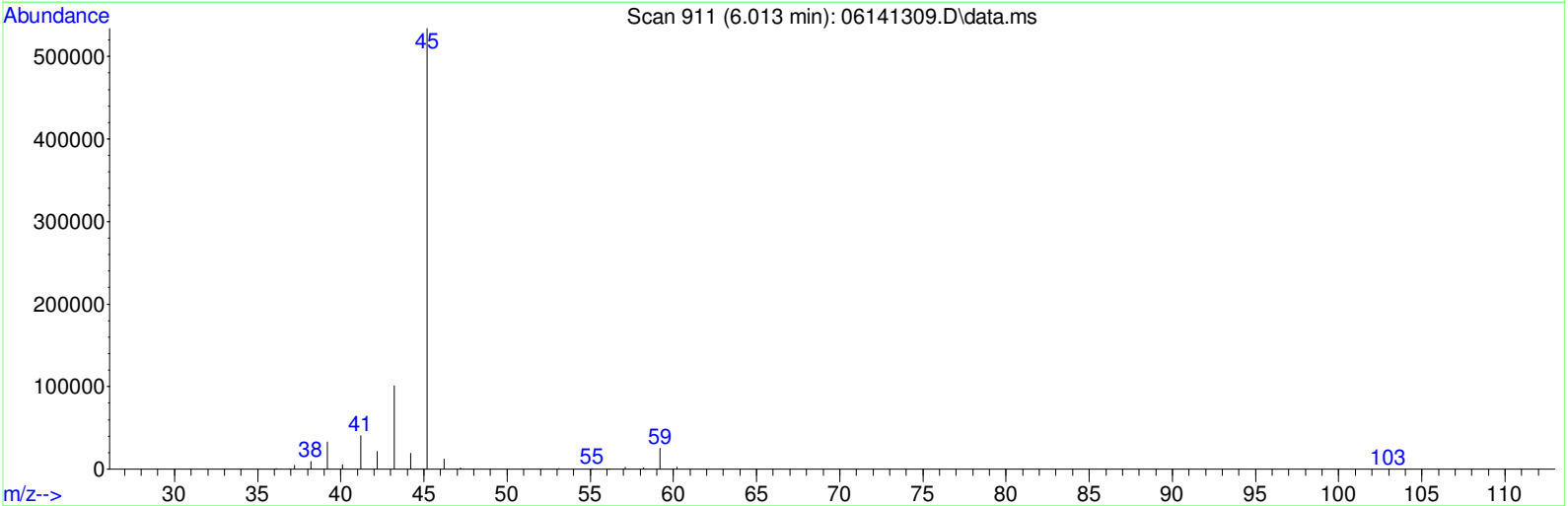
Ion	Exp%	Act%
45.00	100	100
46.00	33.60	38.89
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141309.D
Acq On : 15 Jun 2013 12:10 am
Operator : VP
Sample : ICAL TOSTD 25
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:54 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration





TIC: 06141309.D\data.ms

(14) Isopropyl alcohol (C)

6.013min (+0.023) 27.20ppbv

response 1438458

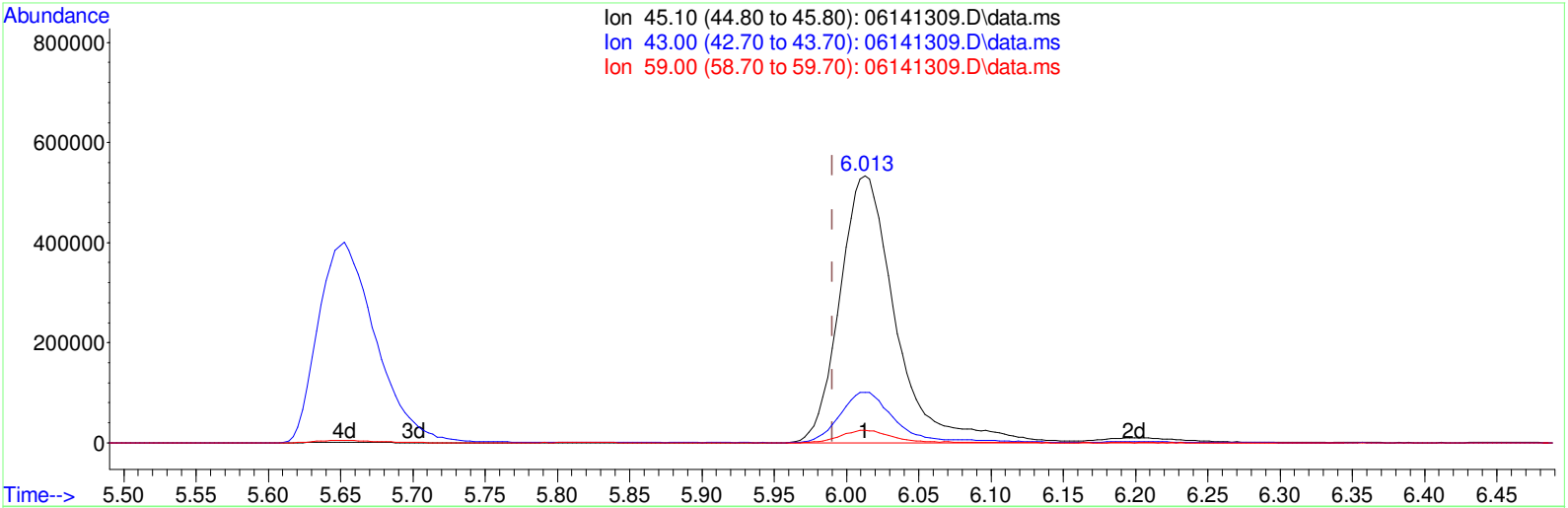
BEFORE

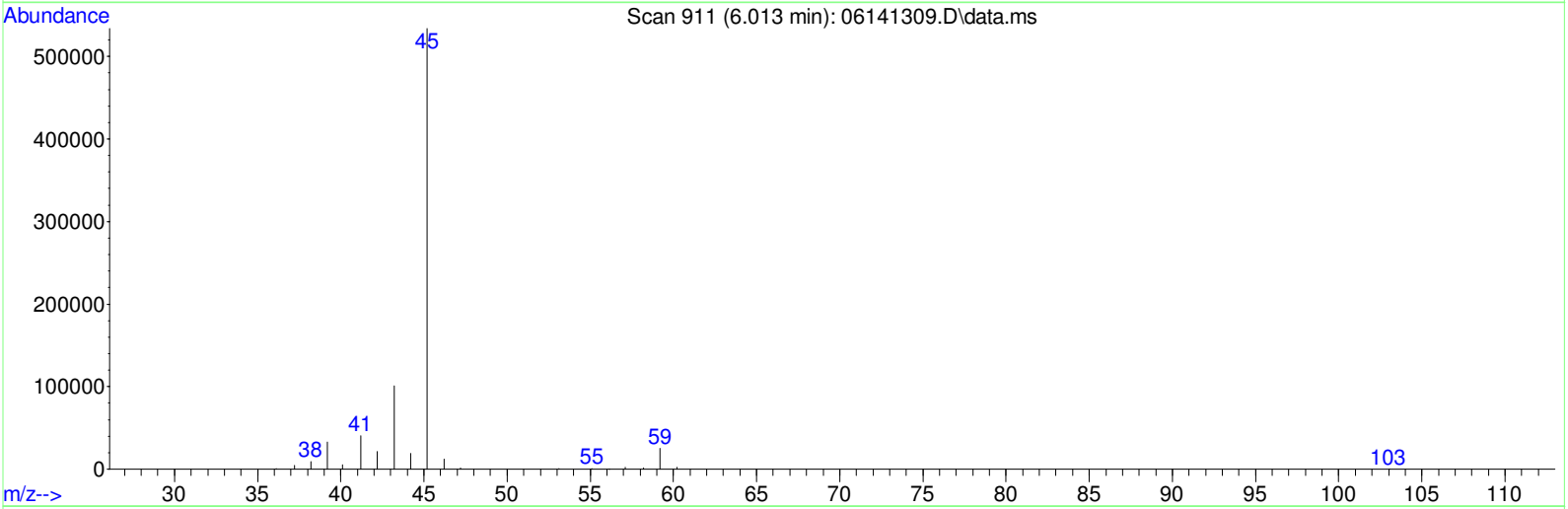
By Vytautas at 15:44:33, 7/25/2013

Ion	Exp%	Act%
45.10	100	100
43.00	20.80	19.04
59.00	4.40	4.53
0.00	0.00	0.00

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141309.D
Acq On : 15 Jun 2013 12:10 am
Operator : VP
Sample : ICAL TOSTD 25
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:54 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration





TIC: 06141309.D\data.ms

(14) Isopropyl alcohol (C)

6.013min (+0.023) 27.98ppbv m

response 1479656

AFTER M3

By Vytautas at 15:44:27, 7/25/2013

Ion	Exp%	Act%
45.10	100	100
43.00	20.80	18.51
59.00	4.40	4.40
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141310.D
Acq On : 15 Jun 2013 1:06 am
Operator : VP
Sample : ICAL TOSTD 50
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 13:27:08 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.205	49	492553	10.00 ppbv	0.02
25) 1,4-Difluorobenzene	11.199	114	2327514	10.00 ppbv	0.02
50) Chlorobenzene-d5	15.472	117	2152875	10.00 ppbv	0.00

Target Compounds					Qvalue
2) Propene	3.546	41	1194060	47.52 ppbv	99
3) Dichlorodifluoromethane	3.659	85	4884723	39.15 ppbv	95
4) Chloromethane	3.858	50	1535506	40.92 ppbv	98
5) Freon-114	4.009	85	3157603	31.92 ppbv	98
6) Vinyl chloride	4.128	62	1336957	48.39 ppbv	99
7) 1,3-Butadiene	4.305	54	918459	40.72 ppbv	97
8) Bromomethane	4.630	94	1635166	34.37 ppbv	99
9) Chloroethane	4.862	64	903116	36.36 ppbv	100
10) Ethanol	5.135	45	459189	36.45 ppbv	89
11) Acrolein	5.495	56	591278	36.89 ppbv	99
12) Acetone	5.665	43	1541363	27.35 ppbv	98
13) Freon-11	5.833	101	5348870	40.36 ppbv	98
14) Isopropyl alcohol	6.032	45	2831886m	52.67 ppbv	
15) 1,1-dichloroethene	6.620	61	2993199	45.54 ppbv	96
16) Dichloromethane	6.791	49	1861189	37.23 ppbv	95
17) Carbon disulfide	7.064	76	5458527	36.01 ppbv	98
18) Freon-113	7.106	101	4188791	36.91 ppbv	93
19) trans-1,2-Dichloroethene	7.881	61	2698748	42.36 ppbv	95
20) 1,1-Dichloroethane	8.109	63	3466469	41.86 ppbv	98
21) Mtbe	8.173	73	5766845	42.60 ppbv	99
22) Vinyl Acetate	8.318	43	3682983	48.51 ppbv	96
23) 2-Butanone	8.556	43	3239743	43.19 ppbv	95
24) cis-1,2-Dichloroethene	9.029	61	2580826	42.10 ppbv	96
26) Hexane	9.260	57	2605401	51.68 ppbv	99
27) Ethyl acetate	9.299	61	597289	39.67 ppbv	95
28) Chloroform	9.353	83	4311815	46.63 ppbv	99
29) Tetrahydrofuran	9.736	42	1845584	46.55 ppbv	93
30) 1,2-Dichloroethane	10.112	62	2739748	49.76 ppbv	99
31) 1,1,1-Trichloroethane	10.363	97	4469418	47.26 ppbv	99
32) Benzene	10.826	78	6087489	39.70 ppbv	97
33) Carbon tetrachloride	10.974	117	4467258	51.65 ppbv	99
34) Cyclohexane	11.096	56	2750186	44.33 ppbv	95
35) 1,2-Dichloropropane	11.649	63	2015569	42.28 ppbv	95
36) Bromodichloromethane	11.845	83	4266928	45.60 ppbv	98
37) Trichloroethene	11.887	130	3143980	40.17 ppbv	99
38) 1,4-Dioxane	11.868	88	1098024	40.65 ppbv	97
39) Methyl methacrylate	12.083	69	2287689	49.69 ppbv	97
40) Heptane	12.183	43	2514996	43.04 ppbv	94
41) cis-1,3-Dichloropropene	12.736	75	3465748	47.82 ppbv	94
42) 4-Methyl-2-pentanone	12.762	43	3158064	40.97 ppbv	94
43) trans-1,3-Dichloropropene	13.250	75	3589779	47.19 ppbv	97
44) 1,1,2-Trichloroethane	13.424	97	2692093	40.61 ppbv	99
45) Toluene	13.697	91	6951763	36.34 ppbv	93
46) 2-Hexanone	13.942	43	3221491	53.61 ppbv	95
47) Dibromochloromethane	14.118	129	4779211	45.49 ppbv	98
48) 1,2-Dibromoethane	14.366	107	4099218	40.98 ppbv	100
49) Tetrachloroethene	14.829	166	4438216	39.11 ppbv	99
51) Chlorobenzene	15.520	112	6186892	36.24 ppbv	95
52) Ethylbenzene	15.903	106	3355047	39.03 ppbv	74
53) Xylene (1)	16.099	106	7023291	67.22 ppbv	85
54) Xylene (2)	16.597	106	3331504	32.59 ppbv	90

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141310.D
Acq On : 15 Jun 2013 1:06 am
Operator : VP
Sample : ICAL TOSTD 50
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 13:27:08 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

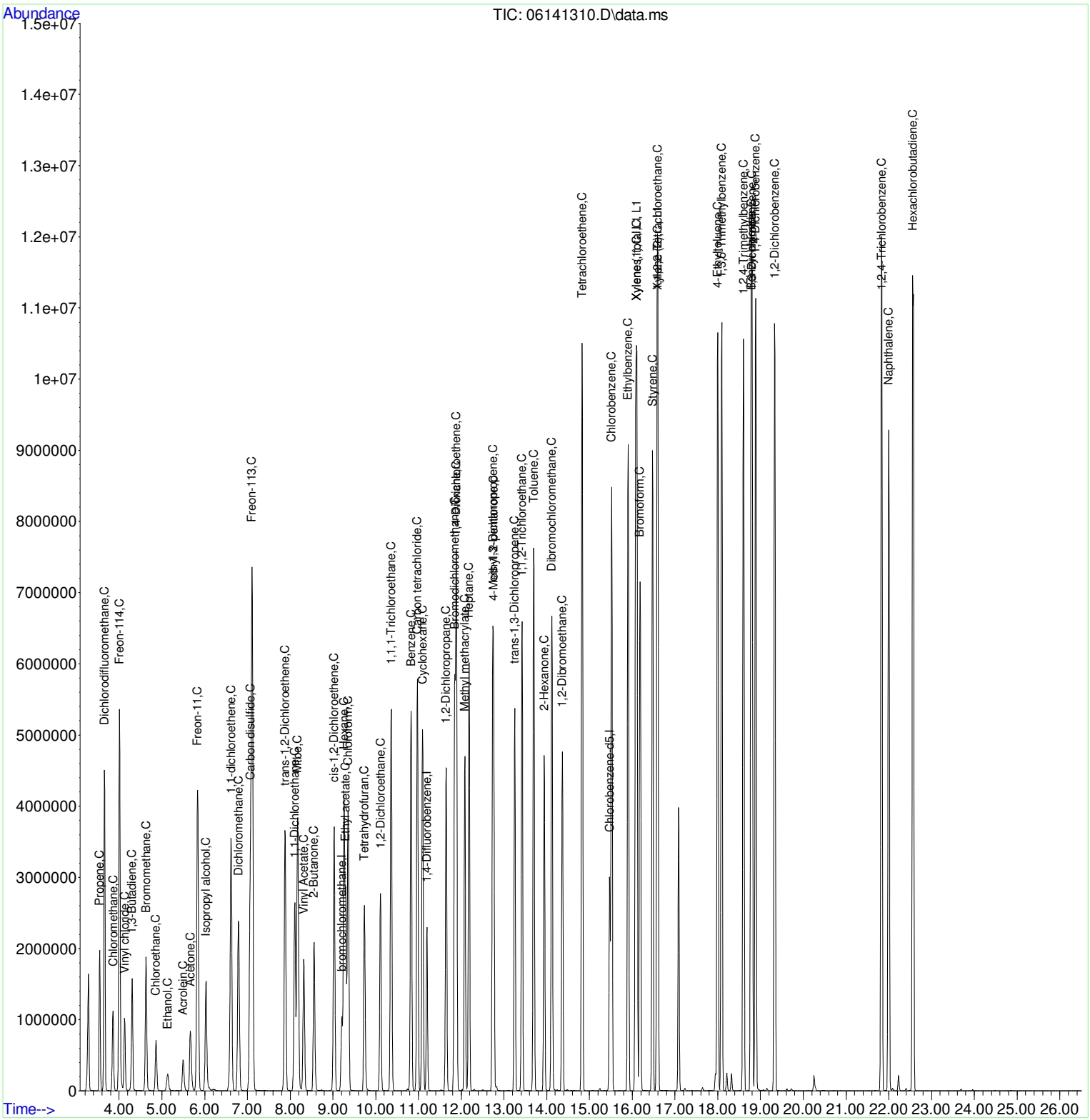
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.099	106	10354795m	99.83 ppbv	
56) Bromoform	16.186	173	5022812	47.05 ppbv	99
57) Styrene	16.475	104	6050531	41.58 ppbv	92
58) 1,1,2,2-Tetrachloroethane	16.581	83	3753796	29.37 ppbv	98
59) 4-Ethyltoluene	17.999	120	3581306	40.77 ppbv	66
60) 1,3,5-Trimethylbenzene	18.093	120	4705395	35.94 ppbv	84
61) 1,2,4-Trimethylbenzene	18.601	120	4569510	37.87 ppbv	83
62) Benzyl chloride	18.777	91	6965341	44.42 ppbv	86
63) 1,3-Dichlorobenzene	18.803	146	6168384	30.96 ppbv	95
64) 1,4-Dichlorobenzene	18.887	146	6594474	32.35 ppbv	93
65) 1,2-Dichlorobenzene	19.334	146	6520653	34.12 ppbv	94
66) 1,2,4-Trichlorobenzene	21.829	180	6125153	28.53 ppbv	98
67) Naphthalene	21.999	128	9799210	31.71 ppbv	89
68) Hexachlorobutadiene	22.559	225	4062883	23.89 ppbv	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141310.D
Acq On : 15 Jun 2013 1:06 am
Operator : VP
Sample : ICAL TOSTD 50
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 13:27:08 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141310.D
Acq On : 15 Jun 2013 1:06 am
Operator : VP
Sample : ICAL TOSTD 50
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:56 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.205	49	492553	10.00 ppbv	0.02
25) 1,4-Difluorobenzene	11.199	114	2327514	10.00 ppbv	0.02
50) Chlorobenzene-d5	15.472	117	2152875	10.00 ppbv	0.00

Target Compounds					Qvalue
2) Propene	3.546	41	1194060	47.52 ppbv	99
3) Dichlorodifluoromethane	3.659	85	4884723	39.15 ppbv	95
4) Chloromethane	3.858	50	1535506	40.92 ppbv	98
5) Freon-114	4.009	85	3157603	31.92 ppbv	98
6) Vinyl chloride	4.128	62	1336957	48.39 ppbv	99
7) 1,3-Butadiene	4.305	54	918459	40.72 ppbv	97
8) Bromomethane	4.630	94	1635166	34.37 ppbv	99
9) Chloroethane	4.862	64	903116	36.36 ppbv	100
10) Ethanol	5.135	45	459189	36.45 ppbv	89
11) Acrolein	5.495	56	591278	36.89 ppbv	99
12) Acetone	5.665	43	1541363	27.35 ppbv	98
13) Freon-11	5.833	101	5348870	40.36 ppbv	98
14) Isopropyl alcohol	6.032	45	2778625	51.68 ppbv	97
15) 1,1-dichloroethene	6.620	61	2993199	45.54 ppbv	96
16) Dichloromethane	6.791	49	1861189	37.23 ppbv	95
17) Carbon disulfide	7.064	76	5458527	36.01 ppbv	98
18) Freon-113	7.106	101	4188791	36.91 ppbv	93
19) trans-1,2-Dichloroethene	7.881	61	2698748	42.36 ppbv	95
20) 1,1-Dichloroethane	8.109	63	3466469	41.86 ppbv	98
21) Mtbe	8.173	73	5766845	42.60 ppbv	99
22) Vinyl Acetate	8.318	43	3682983	48.51 ppbv	96
23) 2-Butanone	8.556	43	3239743	43.19 ppbv	95
24) cis-1,2-Dichloroethene	9.029	61	2580826	42.10 ppbv	96
26) Hexane	9.260	57	2605401	51.68 ppbv	99
27) Ethyl acetate	9.299	61	597289	39.67 ppbv	95
28) Chloroform	9.353	83	4311815	46.63 ppbv	99
29) Tetrahydrofuran	9.736	42	1845584	46.55 ppbv	93
30) 1,2-Dichloroethane	10.112	62	2739748	49.76 ppbv	99
31) 1,1,1-Trichloroethane	10.363	97	4469418	47.26 ppbv	99
32) Benzene	10.826	78	6087489	39.70 ppbv	97
33) Carbon tetrachloride	10.974	117	4467258	51.65 ppbv	99
34) Cyclohexane	11.096	56	2750186	44.33 ppbv	95
35) 1,2-Dichloropropane	11.649	63	2015569	42.28 ppbv	95
36) Bromodichloromethane	11.845	83	4266928	45.60 ppbv	98
37) Trichloroethene	11.887	130	3143980	40.17 ppbv	99
38) 1,4-Dioxane	11.868	88	1098024	40.65 ppbv	97
39) Methyl methacrylate	12.083	69	2287689	49.69 ppbv	97
40) Heptane	12.183	43	2514996	43.04 ppbv	94
41) cis-1,3-Dichloropropene	12.736	75	3465748	47.82 ppbv	94
42) 4-Methyl-2-pentanone	12.762	43	3158064	40.97 ppbv	94
43) trans-1,3-Dichloropropene	13.250	75	3589779	47.19 ppbv	97
44) 1,1,2-Trichloroethane	13.424	97	2692093	40.61 ppbv	99
45) Toluene	13.697	91	6951763	36.34 ppbv	93
46) 2-Hexanone	13.942	43	3221491	53.61 ppbv	95
47) Dibromochloromethane	14.118	129	4779211	45.49 ppbv	98
48) 1,2-Dibromoethane	14.366	107	4099218	40.98 ppbv	100
49) Tetrachloroethene	14.829	166	4438216	39.11 ppbv	99
51) Chlorobenzene	15.520	112	6186892	36.24 ppbv	95
52) Ethylbenzene	15.903	106	3355047	39.03 ppbv	74
53) Xylene (1)	16.099	106	7023291	67.22 ppbv	85
54) Xylene (2)	16.597	106	3331504	32.59 ppbv	90

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141310.D
Acq On : 15 Jun 2013 1:06 am
Operator : VP
Sample : ICAL TOSTD 50
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:56 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration

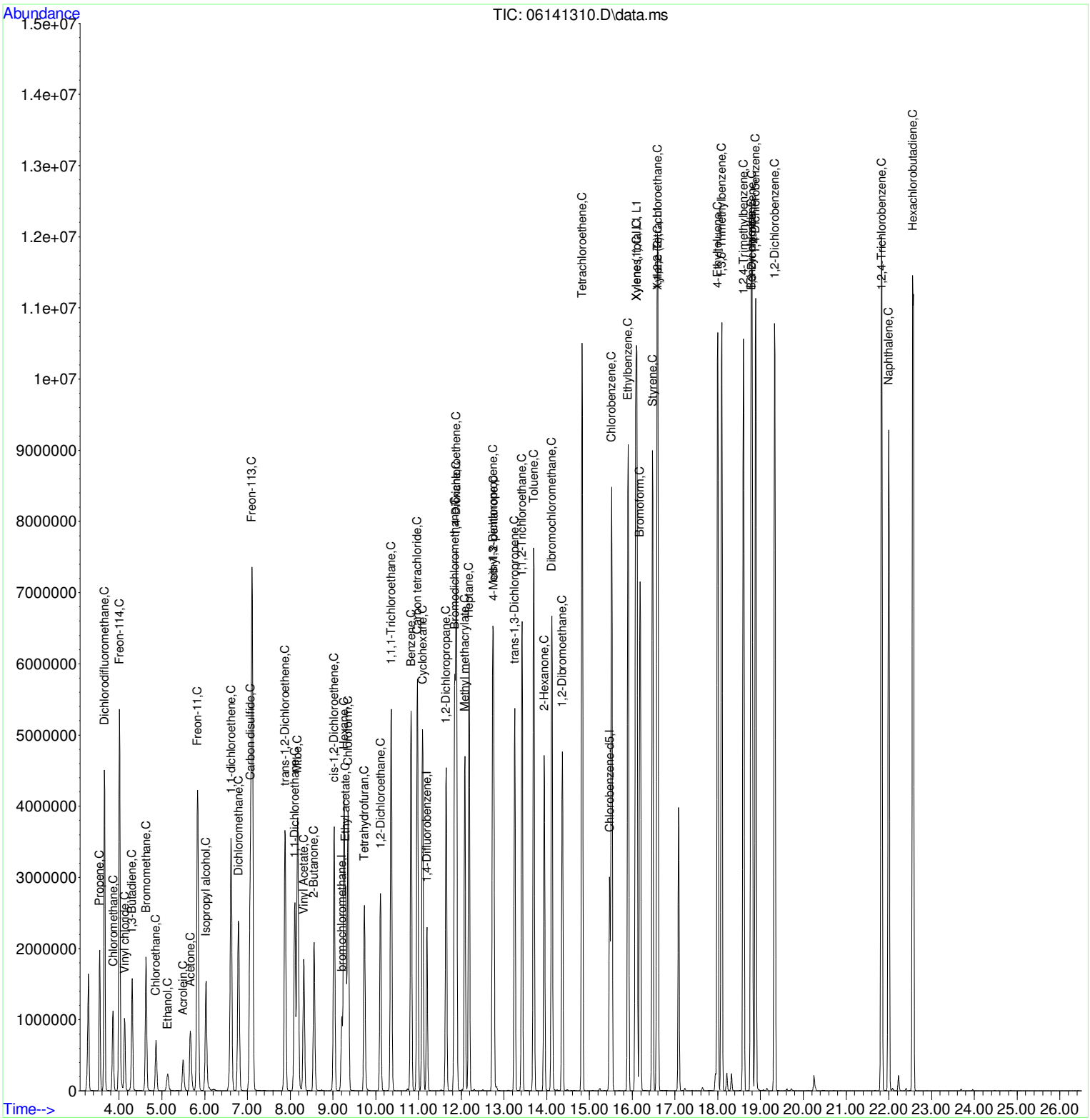
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.099	106	10354795m	99.83 ppbv	
56) Bromoform	16.186	173	5022812	47.05 ppbv	99
57) Styrene	16.475	104	6050531	41.58 ppbv	92
58) 1,1,2,2-Tetrachloroethane	16.581	83	3753796	29.37 ppbv	98
59) 4-Ethyltoluene	17.999	120	3581306	40.77 ppbv	66
60) 1,3,5-Trimethylbenzene	18.093	120	4705395	35.94 ppbv	84
61) 1,2,4-Trimethylbenzene	18.601	120	4569510	37.87 ppbv	83
62) Benzyl chloride	18.777	91	6965341	44.42 ppbv	86
63) 1,3-Dichlorobenzene	18.803	146	6168384	30.96 ppbv	95
64) 1,4-Dichlorobenzene	18.887	146	6594474	32.35 ppbv	93
65) 1,2-Dichlorobenzene	19.334	146	6520653	34.12 ppbv	94
66) 1,2,4-Trichlorobenzene	21.829	180	6125153	28.53 ppbv	98
67) Naphthalene	21.999	128	9799210	31.71 ppbv	89
68) Hexachlorobutadiene	22.559	225	4062883	23.89 ppbv	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

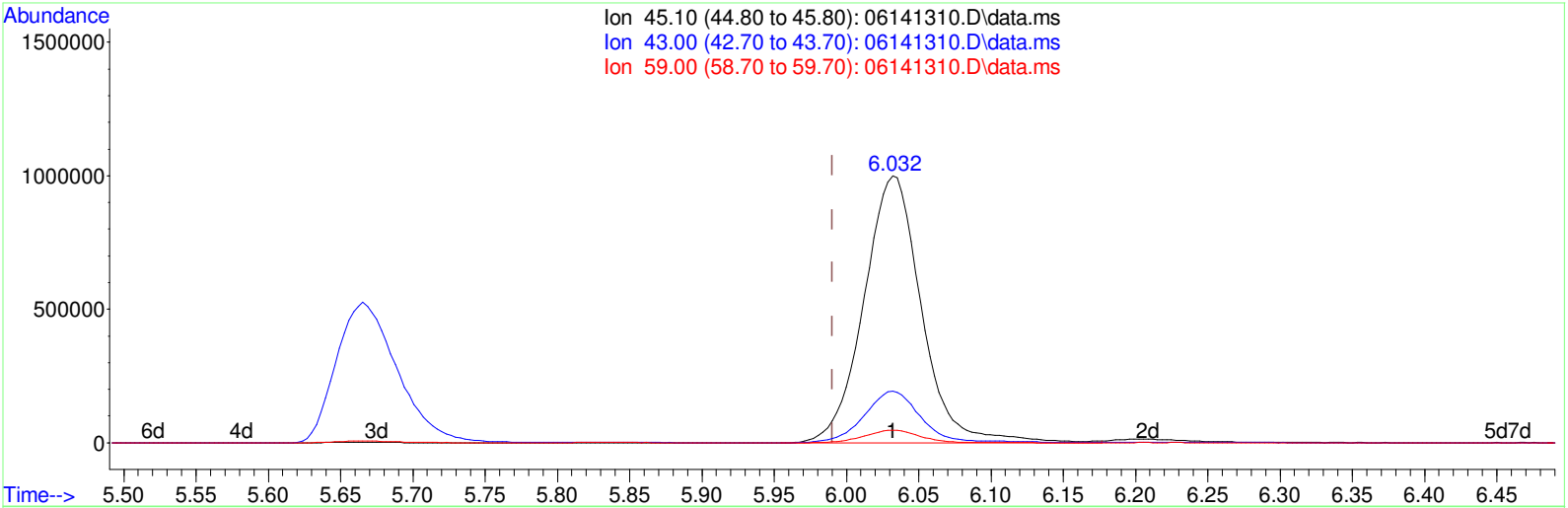
Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141310.D
Acq On : 15 Jun 2013 1:06 am
Operator : VP
Sample : ICAL TOSTD 50
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

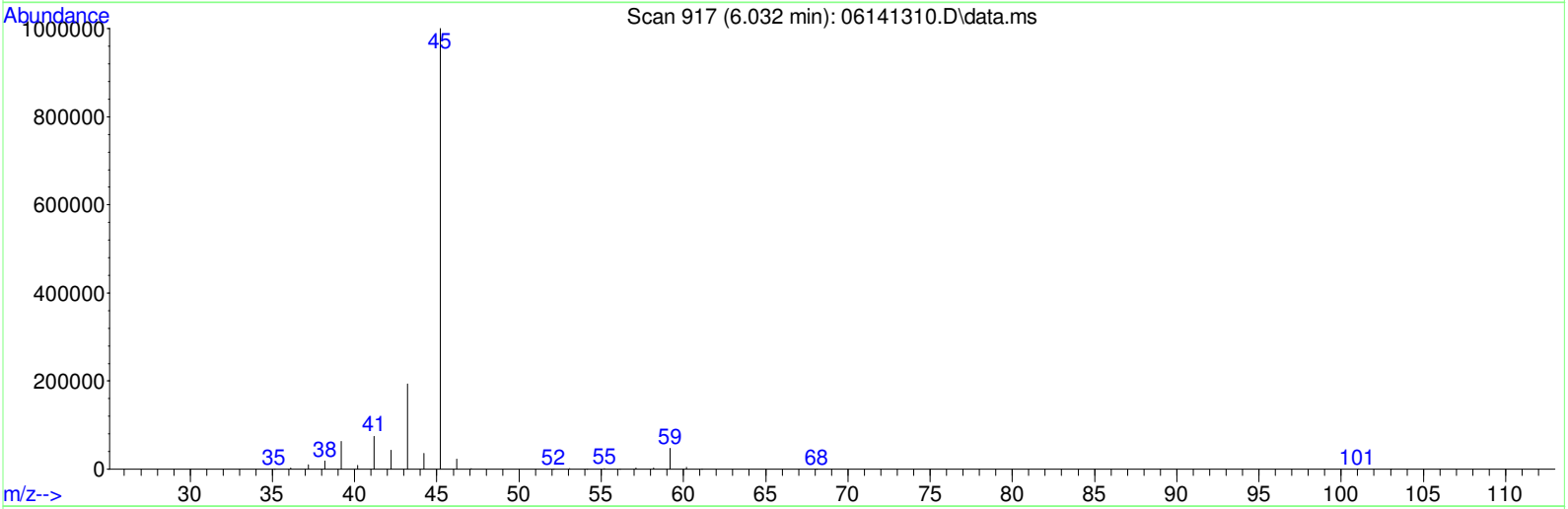
Quant Time: Jun 17 18:58:56 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration



Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141310.D
Acq On : 15 Jun 2013 1:06 am
Operator : VP
Sample : ICAL TOSTD 50
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:56 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration





TIC: 06141310.D\data.ms

(14) Isopropyl alcohol (C)

6.032min (+0.042) 51.68ppbv

response 2778625

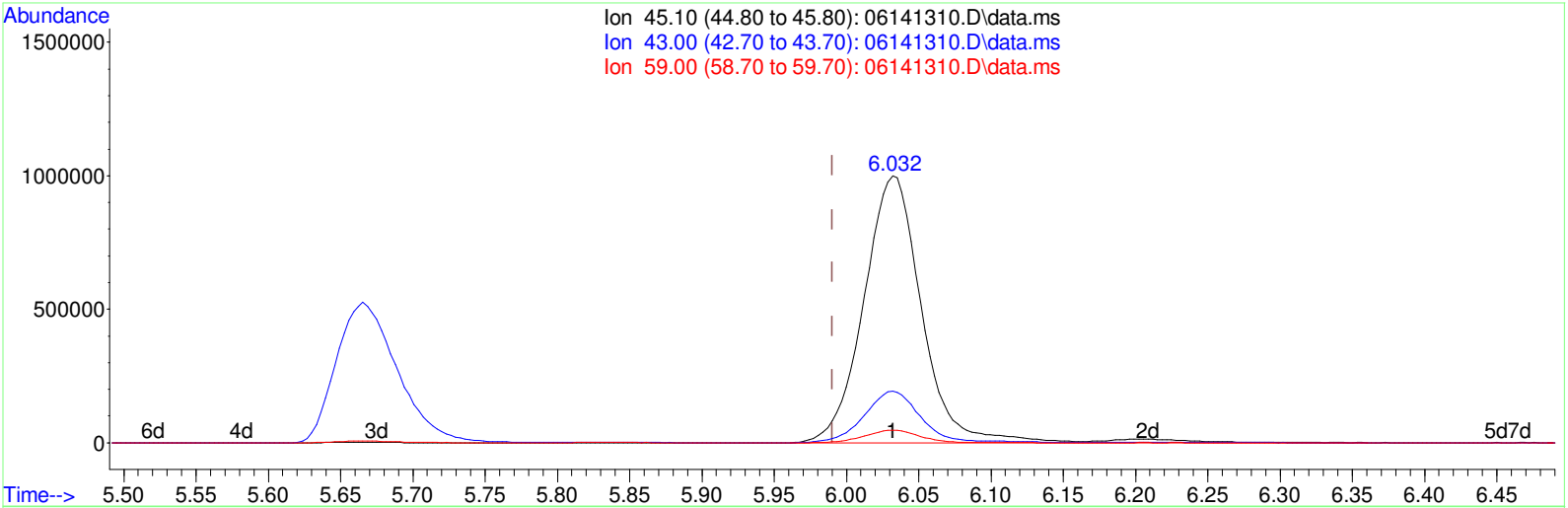
Ion	Exp%	Act%
45.10	100	100
43.00	20.80	19.04
59.00	4.40	4.65
0.00	0.00	0.00

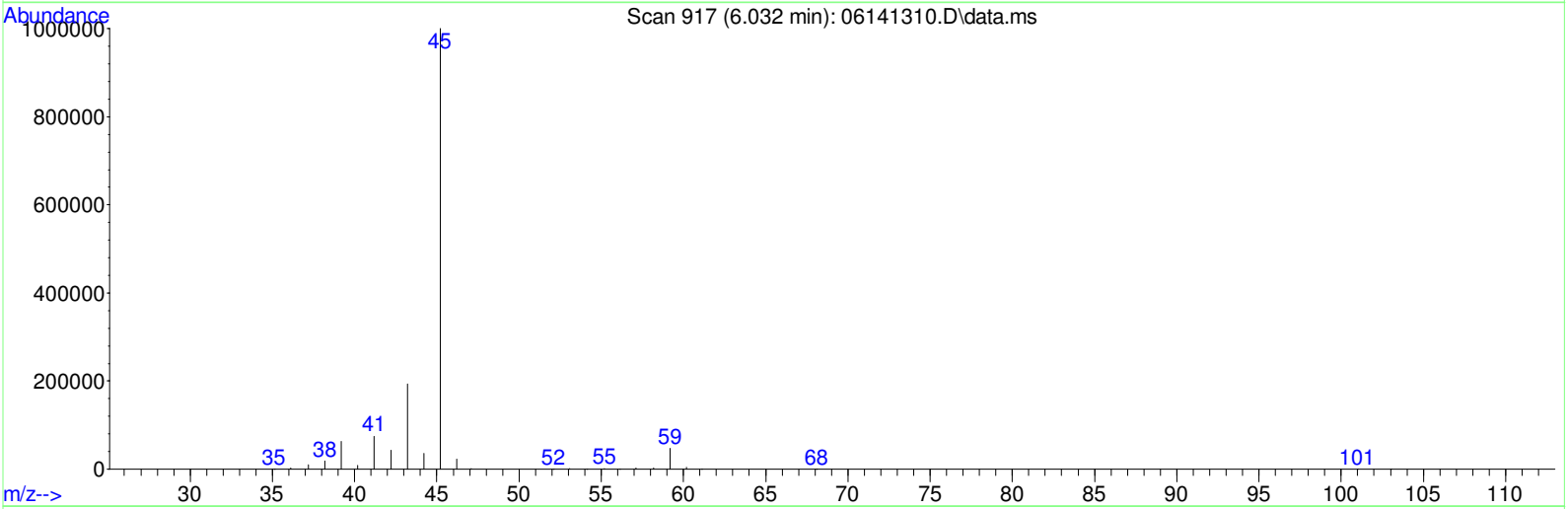
BEFORE

By Vytautas at 15:44:49, 7/25/2013

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141310.D
Acq On : 15 Jun 2013 1:06 am
Operator : VP
Sample : ICAL TOSTD 50
Misc : TO_15A+ 117-5-251 CAN 156
ALS Vial : 14 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 17 18:58:56 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\120612M.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Mon Jun 17 18:55:53 2013
Response via : Initial Calibration





TIC: 06141310.D\data.ms

(14) Isopropyl alcohol (C)

6.032min (+0.042) 52.67ppbv m

response 2831886

Ion	Exp%	Act%
45.10	100	100
43.00	20.80	18.68
59.00	4.40	4.56
0.00	0.00	0.00

AFTER M3

By Vytautas at 15:44:55, 7/25/2013

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141311.D
Acq On : 15 Jun 2013 1:53 am
Operator : VP
Sample : ICV ICV061413-5 5.0
Misc : TO_15A+ 117-5-245/1 CAN 159
ALS Vial : 15 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 14:13:26 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) bromochloromethane	9.186	49	456145	10.00	ppbv	0.00
25) 1,4-Difluorobenzene	11.186	114	2267058	10.00	ppbv	0.00
50) Chlorobenzene-d5	15.466	117	2058667	10.00	ppbv	0.00

Target Compounds						Qvalue
2) Propene	3.553	41	122490	4.73	ppbv	100
3) Dichlorodifluoromethane	3.656	85	565379	5.11	ppbv	100
4) Chloromethane	3.849	50	162781	4.69	ppbv	100
5) Freon-114	4.000	85	505774	6.10	ppbv	89
6) Vinyl chloride	4.116	62	139688	5.08	ppbv	99
7) 1,3-Butadiene	4.289	54	90704	4.63	ppbv	98
8) Bromomethane	4.614	94	146269	5.96	ppbv	100
9) Chloroethane	4.846	64	90513	5.72	ppbv	99
10) Ethanol	5.093	45	34761	3.97	ppbv	97
11) Acrolein	5.492	56	2330	0.17	ppbv	95
12) Acetone	5.653	43	164701	3.78	ppbv	99
13) Freon-11	5.813	101	574408	5.11	ppbv	100
14) Isopropyl alcohol	5.997	45	292513m	5.55	ppbv	
15) 1,1-dichloroethene	6.598	61	322066	5.08	ppbv	99
16) Dichloromethane	6.765	49	210793	5.15	ppbv	100
17) Carbon disulfide	7.045	76	527863	4.88	ppbv	100
18) Freon-113	7.093	101	482873	4.99	ppbv	100
19) trans-1,2-Dichloroethene	7.861	61	282470	5.04	ppbv	99
20) 1,1-Dichloroethane	8.087	63	371211	5.05	ppbv	100
21) Mtbe	8.164	73	605271	5.18	ppbv	100
22) Vinyl Acetate	8.299	43	337001	4.86	ppbv	99
23) 2-Butanone	8.543	43	328086	4.86	ppbv	98
24) cis-1,2-Dichloroethene	9.009	61	281755	5.21	ppbv	100
26) Hexane	9.244	57	292966	5.78	ppbv	99
27) Ethyl acetate	9.283	61	66548	4.78	ppbv	100
28) Chloroform	9.334	83	462030	4.95	ppbv	99
29) Tetrahydrofuran	9.730	42	194867	4.21	ppbv	99
30) 1,2-Dichloroethane	10.096	62	284601	4.97	ppbv	100
31) 1,1,1-Trichloroethane	10.347	97	485119	5.11	ppbv	100
32) Benzene	10.813	78	717480	4.92	ppbv	99
33) Carbon tetrachloride	10.961	117	443241	5.73	ppbv	100
34) Cyclohexane	11.083	56	313415	5.00	ppbv	99
35) 1,2-Dichloropropane	11.636	63	241594	5.22	ppbv	99
36) Bromodichloromethane	11.832	83	489718	4.98	ppbv	100
37) Trichloroethene	11.874	130	381269	5.04	ppbv	99
38) 1,4-Dioxane	11.865	88	159867	6.22	ppbv	99
39) Methyl methacrylate	12.073	69	250532	5.46	ppbv	100
40) Heptane	12.173	43	323876	5.07	ppbv	99
41) cis-1,3-Dichloropropene	12.726	75	382610	5.06	ppbv	100
42) 4-Methyl-2-pentanone	12.749	43	402529	4.84	ppbv	100
43) trans-1,3-Dichloropropene	13.241	75	380723	4.85	ppbv	100
44) 1,1,2-Trichloroethane	13.411	97	320090	5.10	ppbv	99
45) Toluene	13.684	91	938304	5.14	ppbv	100
46) 2-Hexanone	13.929	43	376531	5.74	ppbv	100
47) Dibromochloromethane	14.109	129	576504	5.31	ppbv	100
48) 1,2-Dibromoethane	14.353	107	502925	5.27	ppbv	99
49) Tetrachloroethene	14.819	166	550576	5.14	ppbv	100
51) Chlorobenzene	15.511	112	801588	5.08	ppbv	100
52) Ethylbenzene	15.897	106	415522	5.28	ppbv	100
53) Xylene (1)	16.086	106	1045856	10.73	ppbv	100
54) Xylene (2)	16.585	106	510627	5.43	ppbv	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141311.D
Acq On : 15 Jun 2013 1:53 am
Operator : VP
Sample : ICV ICV061413-5 5.0
Misc : TO_15A+ 117-5-245/1 CAN 159
ALS Vial : 15 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 14:13:26 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

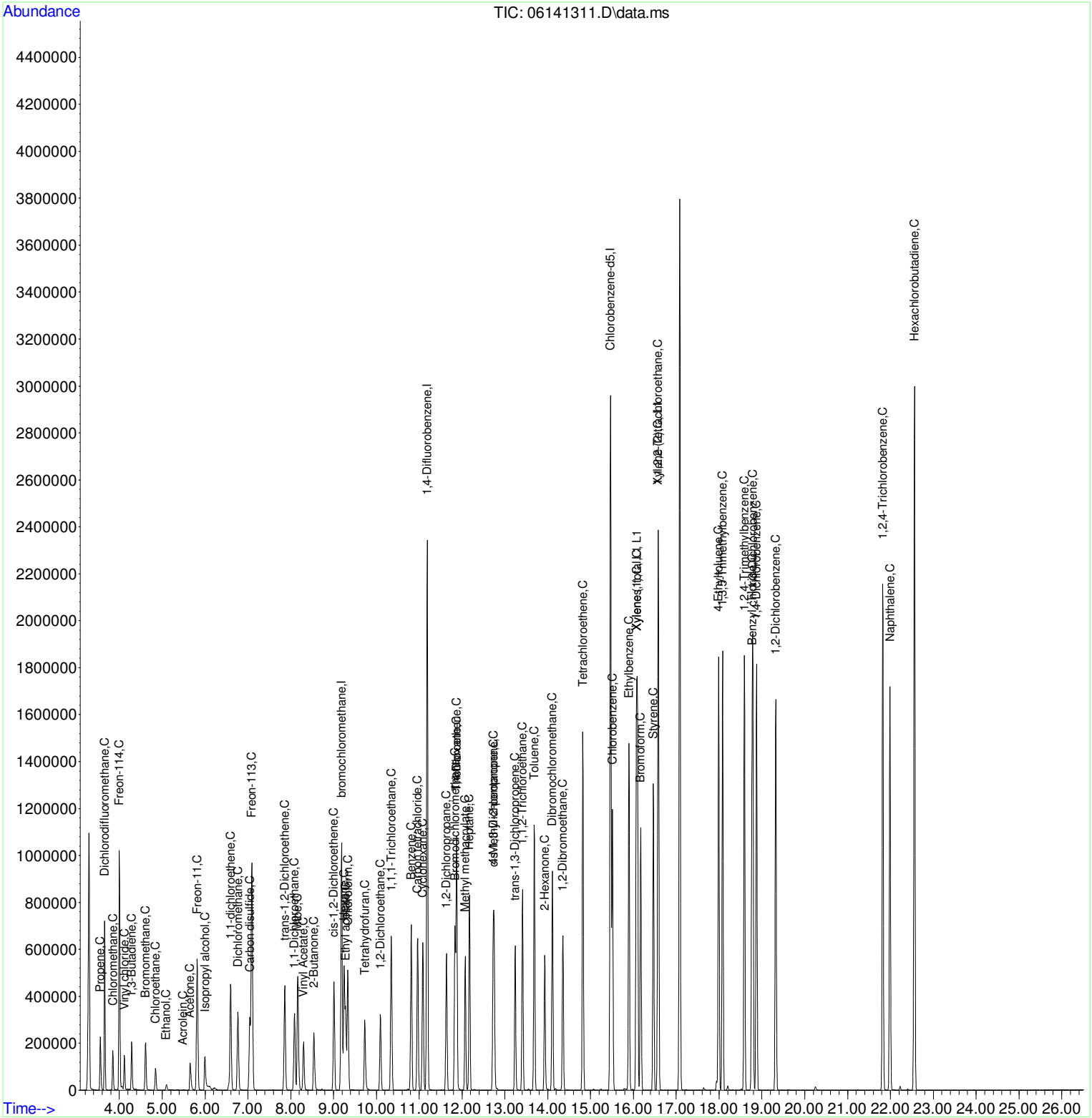
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.086	106	1556483m	16.17 ppbv	
56) Bromoform	16.170	173	617336	5.57 ppbv	100
57) Styrene	16.466	104	800875	5.73 ppbv	100
58) 1,1,2,2-Tetrachloroethane	16.572	83	645057	5.51 ppbv	100
59) 4-Ethyltoluene	17.990	120	446786	5.36 ppbv	100
60) 1,3,5-Trimethylbenzene	18.083	120	649825	5.47 ppbv	100
61) 1,2,4-Trimethylbenzene	18.591	120	611258	5.64 ppbv	100
62) Benzyl chloride	18.765	91	913261	5.95 ppbv	99
63) 1,3-Dichlorobenzene	18.787	146	944490	5.39 ppbv	100
64) 1,4-Dichlorobenzene	18.877	146	955244	5.31 ppbv	100
65) 1,2-Dichlorobenzene	19.324	146	889061	5.31 ppbv	100
66) 1,2,4-Trichlorobenzene	21.822	180	881537	5.41 ppbv	100
67) Naphthalene	21.990	128	1686739	6.28 ppbv	100
68) Hexachlorobutadiene	22.562	225	744389	5.67 ppbv	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141311.D
Acq On : 15 Jun 2013 1:53 am
Operator : VP
Sample : ICV ICV061413-5 5.0
Misc : TO_15A+ 117-5-245/1 CAN 159
ALS Vial : 15 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 14:13:26 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141311.D
Acq On : 15 Jun 2013 1:53 am
Operator : VP
Sample : ICV ICV061413-5 5.0
Misc : TO_15A+ 117-5-245/1 CAN 159
ALS Vial : 15 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 14:12:15 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.186	49	456145	10.00 ppbv	0.00
25) 1,4-Difluorobenzene	11.186	114	2267058	10.00 ppbv	0.00
50) Chlorobenzene-d5	15.466	117	2058667	10.00 ppbv	0.00

Target Compounds					Qvalue
2) Propene	3.553	41	122490	4.73 ppbv	100
3) Dichlorodifluoromethane	3.656	85	565379	5.11 ppbv	100
4) Chloromethane	3.849	50	162781	4.69 ppbv	100
5) Freon-114	4.000	85	505774	6.10 ppbv	89
6) Vinyl chloride	4.116	62	139688	5.08 ppbv	99
7) 1,3-Butadiene	4.289	54	90704	4.63 ppbv	98
8) Bromomethane	4.614	94	146269	5.96 ppbv	100
9) Chloroethane	4.846	64	90513	5.72 ppbv	99
10) Ethanol	5.093	45	34761	3.97 ppbv	97
11) Acrolein	5.492	56	2330	0.17 ppbv	95
12) Acetone	5.653	43	164701	3.78 ppbv	99
13) Freon-11	5.813	101	574408	5.11 ppbv	100
14) Isopropyl alcohol	5.997	45	266261	5.06 ppbv	98
15) 1,1-dichloroethene	6.598	61	322066	5.08 ppbv	99
16) Dichloromethane	6.765	49	210793	5.15 ppbv	100
17) Carbon disulfide	7.045	76	527863	4.88 ppbv	100
18) Freon-113	7.093	101	482873	4.99 ppbv	100
19) trans-1,2-Dichloroethene	7.861	61	282470	5.04 ppbv	99
20) 1,1-Dichloroethane	8.087	63	371211	5.05 ppbv	100
21) Mtbe	8.164	73	605271	5.18 ppbv	100
22) Vinyl Acetate	8.299	43	337001	4.86 ppbv	99
23) 2-Butanone	8.543	43	328086	4.86 ppbv	98
24) cis-1,2-Dichloroethene	9.009	61	281755	5.21 ppbv	100
26) Hexane	9.244	57	292966	5.78 ppbv	99
27) Ethyl acetate	9.283	61	66548	4.78 ppbv	100
28) Chloroform	9.334	83	462030	4.95 ppbv	99
29) Tetrahydrofuran	9.730	42	194867	4.21 ppbv	99
30) 1,2-Dichloroethane	10.096	62	284601	4.97 ppbv	100
31) 1,1,1-Trichloroethane	10.347	97	485119	5.11 ppbv	100
32) Benzene	10.813	78	717480	4.92 ppbv	99
33) Carbon tetrachloride	10.961	117	443241	5.73 ppbv	100
34) Cyclohexane	11.083	56	313415	5.00 ppbv	99
35) 1,2-Dichloropropane	11.636	63	241594	5.22 ppbv	99
36) Bromodichloromethane	11.832	83	489718	4.98 ppbv	100
37) Trichloroethene	11.874	130	381269	5.04 ppbv	99
38) 1,4-Dioxane	11.865	88	159867	6.22 ppbv	99
39) Methyl methacrylate	12.073	69	250532	5.46 ppbv	100
40) Heptane	12.173	43	323876	5.07 ppbv	99
41) cis-1,3-Dichloropropene	12.726	75	382610	5.06 ppbv	100
42) 4-Methyl-2-pentanone	12.749	43	402529	4.84 ppbv	100
43) trans-1,3-Dichloropropene	13.241	75	380723	4.85 ppbv	100
44) 1,1,2-Trichloroethane	13.411	97	320090	5.10 ppbv	99
45) Toluene	13.684	91	938304	5.14 ppbv	100
46) 2-Hexanone	13.929	43	376531	5.74 ppbv	100
47) Dibromochloromethane	14.109	129	576504	5.31 ppbv	100
48) 1,2-Dibromoethane	14.353	107	502925	5.27 ppbv	99
49) Tetrachloroethene	14.819	166	550576	5.14 ppbv	100
51) Chlorobenzene	15.511	112	801588	5.08 ppbv	100
52) Ethylbenzene	15.897	106	415522	5.28 ppbv	100
53) Xylene (1)	16.086	106	1045856	10.73 ppbv	100
54) Xylene (2)	16.585	106	510627	5.43 ppbv	100

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141311.D
Acq On : 15 Jun 2013 1:53 am
Operator : VP
Sample : ICV ICV061413-5 5.0
Misc : TO_15A+ 117-5-245/1 CAN 159
ALS Vial : 15 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 14:12:15 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

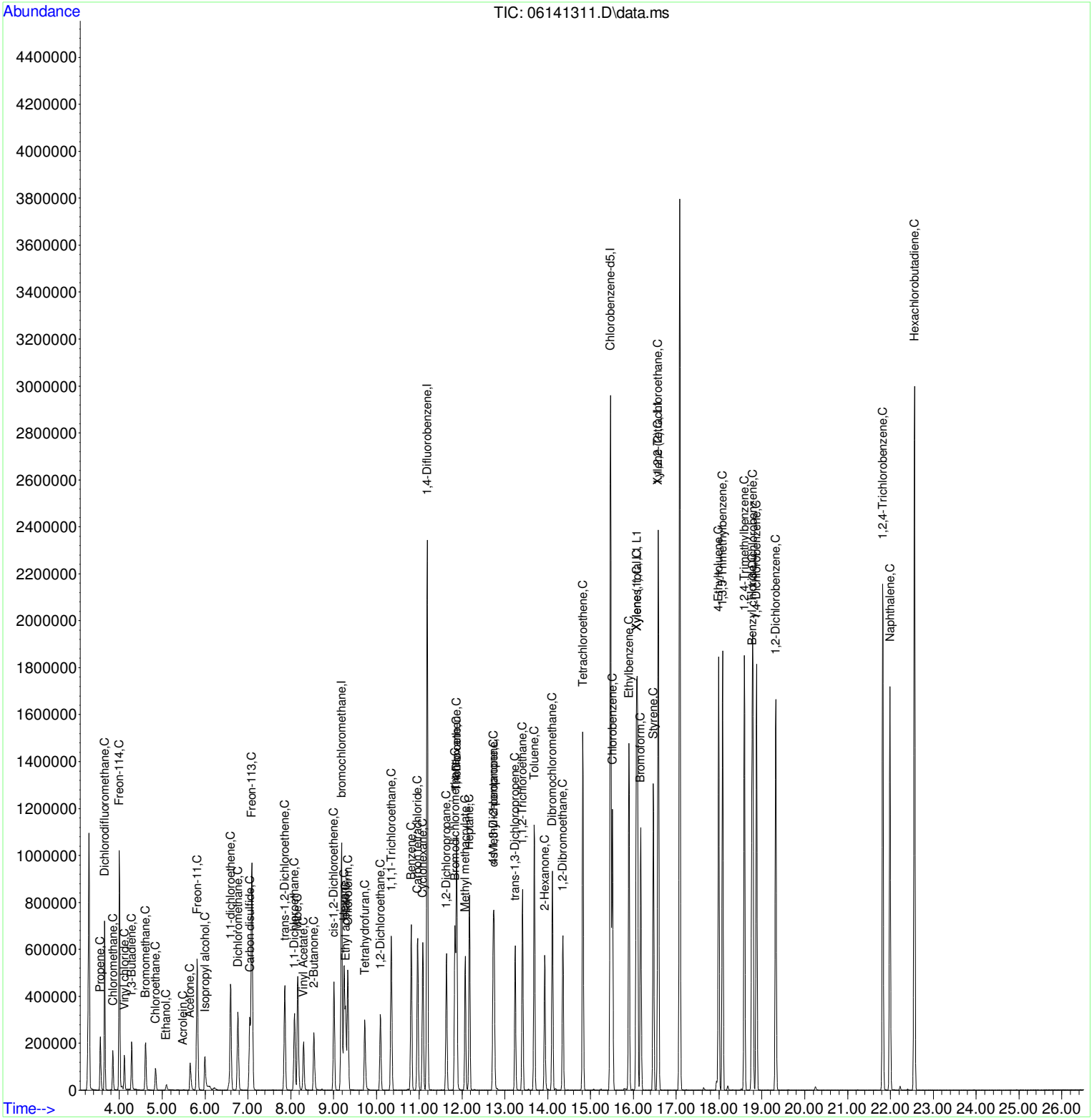
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.086	106	1556483m	16.17 ppbv	
56) Bromoform	16.170	173	617336	5.57 ppbv	100
57) Styrene	16.466	104	800875	5.73 ppbv	100
58) 1,1,2,2-Tetrachloroethane	16.572	83	645057	5.51 ppbv	100
59) 4-Ethyltoluene	17.990	120	446786	5.36 ppbv	100
60) 1,3,5-Trimethylbenzene	18.083	120	649825	5.47 ppbv	100
61) 1,2,4-Trimethylbenzene	18.591	120	611258	5.64 ppbv	100
62) Benzyl chloride	18.765	91	913261	5.95 ppbv	99
63) 1,3-Dichlorobenzene	18.787	146	944490	5.39 ppbv	100
64) 1,4-Dichlorobenzene	18.877	146	955244	5.31 ppbv	100
65) 1,2-Dichlorobenzene	19.324	146	889061	5.31 ppbv	100
66) 1,2,4-Trichlorobenzene	21.822	180	881537	5.41 ppbv	100
67) Naphthalene	21.990	128	1686739	6.28 ppbv	100
68) Hexachlorobutadiene	22.562	225	744389	5.67 ppbv	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141311.D
Acq On : 15 Jun 2013 1:53 am
Operator : VP
Sample : ICV ICV061413-5 5.0
Misc : TO_15A+ 117-5-245/1 CAN 159
ALS Vial : 15 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 14:12:15 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration



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Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141311.D
Acq On    : 15 Jun 2013   1:53 am
Operator  : VP
Sample    : ICV  ICV061413-5 5.0
Misc      : TO_15A+        117-5-245/1 CAN 159
ALS Vial  : 15   Sample Multiplier: 1
InstName  : VOA5

Quant Time: Jun 19 14:12:15 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\061413.M
Quant Title  : SOP 4010 EPA   TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration
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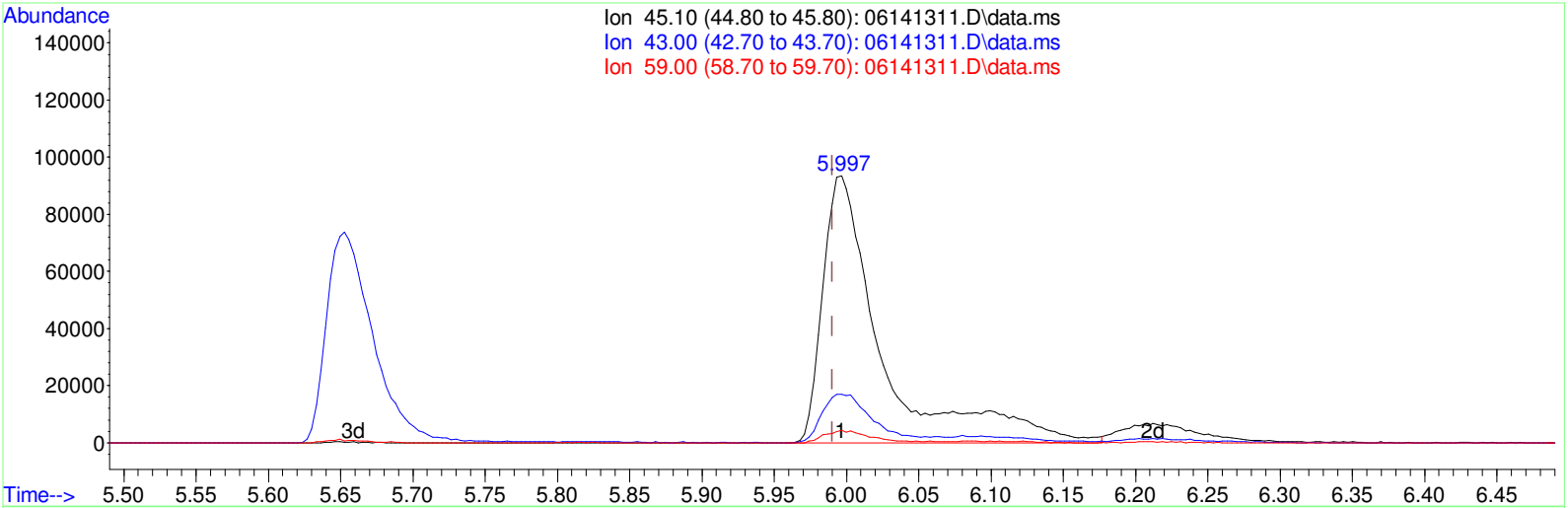

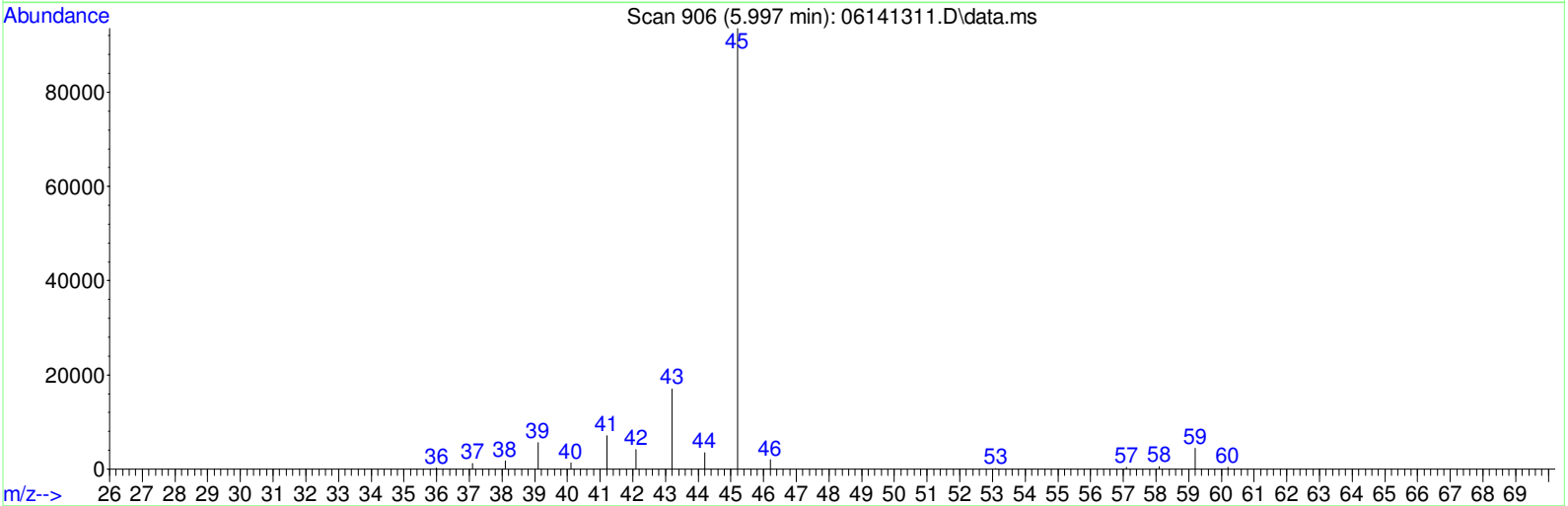

(14) Isopropyl alcohol (C)

5.997min (+0.006) 5.06ppbv

response 266261

BEFORE

By Vytautas at 15:45:09, 7/25/2013

Ion	Exp%	Act%
45.10	100	100
43.00	20.80	19.64
59.00	4.40	4.51
0.00	0.00	0.00

```
Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141311.D
Acq On    : 15 Jun 2013   1:53 am
Operator  : VP
Sample    : ICV  ICV061413-5 5.0
Misc      : TO_15A+        117-5-245/1 CAN 159
ALS Vial  : 15   Sample Multiplier: 1
InstName  : VOA5

Quant Time: Jun 19 14:12:15 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\061413.M
Quant Title  : SOP 4010 EPA   TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration
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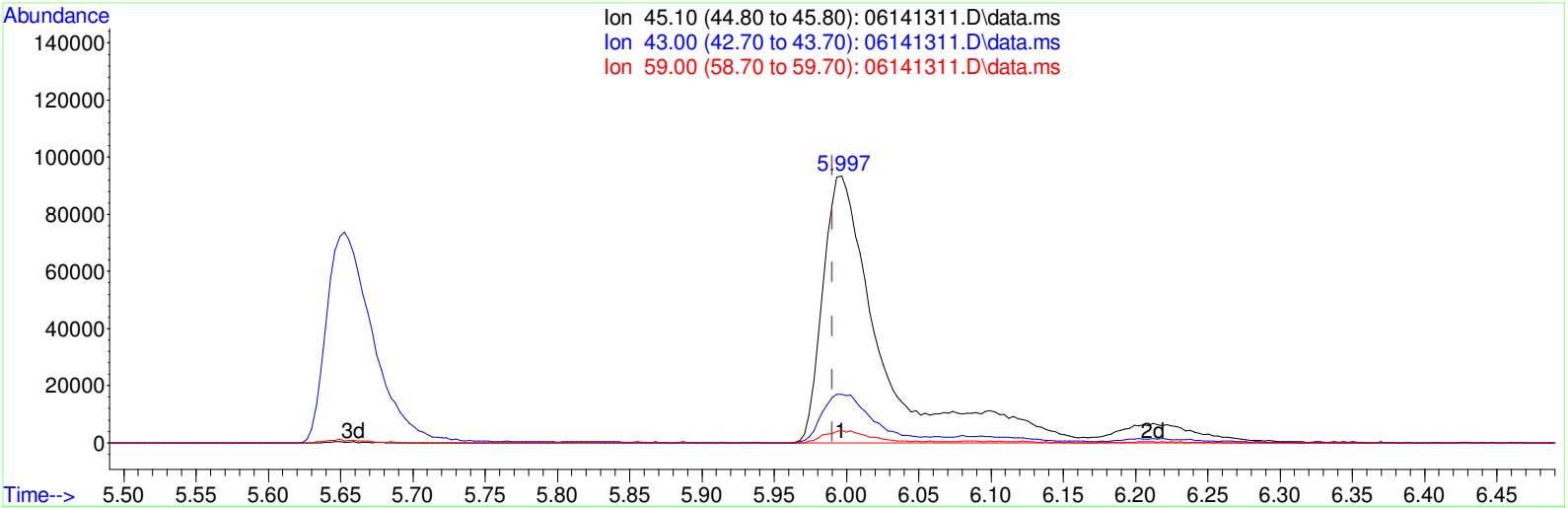
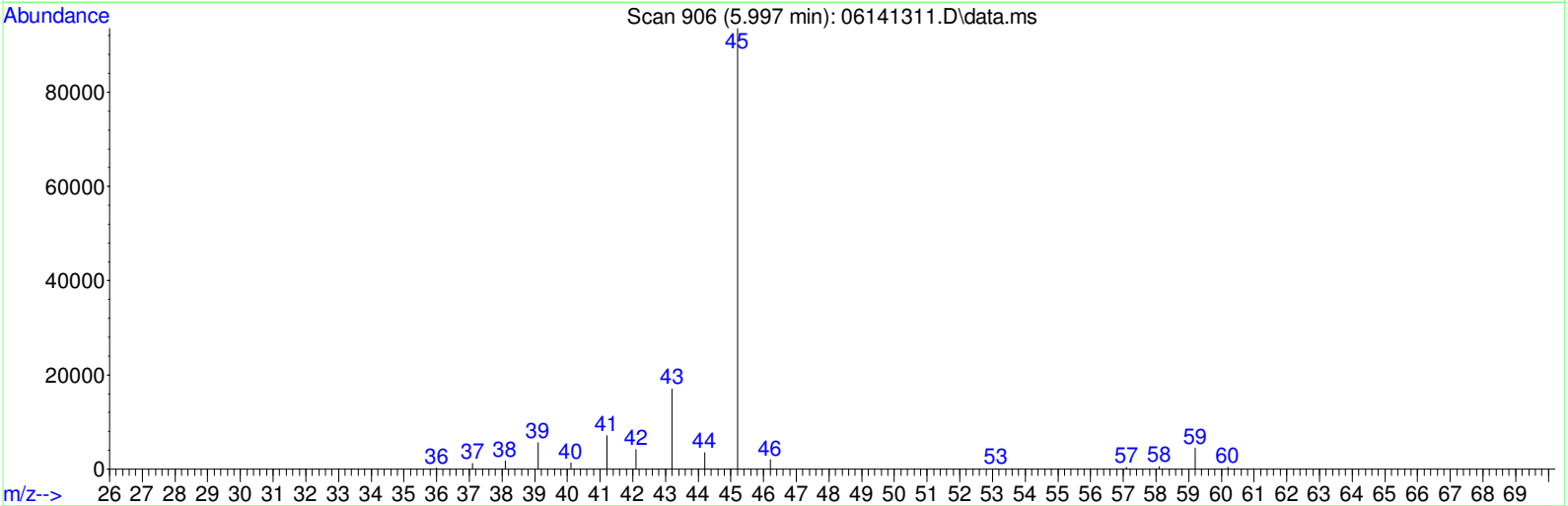




(14) Isopropyl alcohol (C)

5.997min (+0.006) 5.55ppbv m

response 292513

AFTER M3

By Vytautas at 15:45:02, 7/25/2013

Ion	Exp%	Act%
45.10	100	100
43.00	20.80	17.88
59.00	4.40	4.10
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141312.D
Acq On : 15 Jun 2013 2:49 am
Operator : VP
Sample : LCSD LCSD061413-5 5.0
Misc : TO_15A+ 117-5-245/2 CAN 160
ALS Vial : 16 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 14:14:45 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.183	49	459815	10.00 ppbv	0.00
25) 1,4-Difluorobenzene	11.186	114	2282260	10.00 ppbv	0.00
50) Chlorobenzene-d5	15.466	117	2066557	10.00 ppbv	0.00

Target Compounds					Qvalue
2) Propene	3.553	41	121443	4.66 ppbv	99
3) Dichlorodifluoromethane	3.656	85	564226	5.06 ppbv	100
4) Chloromethane	3.846	50	164014	4.69 ppbv	100
5) Freon-114	4.000	85	494498	5.92 ppbv	89
6) Vinyl chloride	4.116	62	135702	4.90 ppbv	99
7) 1,3-Butadiene	4.289	54	88372	4.48 ppbv	97
8) Bromomethane	4.611	94	142421	5.75 ppbv	100
9) Chloroethane	4.846	64	87978	5.52 ppbv	100
10) Ethanol	5.093	45	34181	3.87 ppbv	92
11) Acrolein	5.489	56	1845	0.14 ppbv	97
12) Acetone	5.649	43	160946	3.66 ppbv	99
13) Freon-11	5.817	101	576174	5.08 ppbv	100
14) Isopropyl alcohol	5.994	45	291899m	5.50 ppbv	
15) 1,1-dichloroethene	6.595	61	322210	5.04 ppbv	99
16) Dichloromethane	6.765	49	211158	5.12 ppbv	100
17) Carbon disulfide	7.045	76	523146	4.80 ppbv	100
18) Freon-113	7.093	101	480922	4.93 ppbv	100
19) trans-1,2-Dichloroethene	7.858	61	283605	5.02 ppbv	100
20) 1,1-Dichloroethane	8.087	63	371888	5.02 ppbv	100
21) Mtbe	8.164	73	604986	5.13 ppbv	100
22) Vinyl Acetate	8.299	43	343131	4.91 ppbv	99
23) 2-Butanone	8.540	43	333128	4.90 ppbv	99
24) cis-1,2-Dichloroethene	9.009	61	279902	5.13 ppbv	100
26) Hexane	9.244	57	290571	5.70 ppbv	100
27) Ethyl acetate	9.280	61	66300	4.73 ppbv	99
28) Chloroform	9.331	83	459920	4.90 ppbv	100
29) Tetrahydrofuran	9.726	42	192164	4.13 ppbv	98
30) 1,2-Dichloroethane	10.093	62	281905	4.89 ppbv	100
31) 1,1,1-Trichloroethane	10.347	97	486342	5.09 ppbv	100
32) Benzene	10.813	78	718097	4.89 ppbv	100
33) Carbon tetrachloride	10.961	117	447718	5.75 ppbv	100
34) Cyclohexane	11.083	56	312603	4.96 ppbv	99
35) 1,2-Dichloropropane	11.636	63	237820	5.10 ppbv	99
36) Bromodichloromethane	11.833	83	492114	4.97 ppbv	100
37) Trichloroethene	11.871	130	380626	4.99 ppbv	99
38) 1,4-Dioxane	11.861	88	167251	6.46 ppbv	99
39) Methyl methacrylate	12.074	69	251660	5.45 ppbv	100
40) Heptane	12.173	43	323662	5.03 ppbv	99
41) cis-1,3-Dichloropropene	12.726	75	383157	5.03 ppbv	99
42) 4-Methyl-2-pentanone	12.749	43	409667	4.89 ppbv	99
43) trans-1,3-Dichloropropene	13.241	75	379728	4.80 ppbv	100
44) 1,1,2-Trichloroethane	13.411	97	318297	5.04 ppbv	99
45) Toluene	13.685	91	937192	5.10 ppbv	100
46) 2-Hexanone	13.932	43	391632	5.93 ppbv	100
47) Dibromochloromethane	14.109	129	576317	5.27 ppbv	100
48) 1,2-Dibromoethane	14.353	107	501472	5.22 ppbv	99
49) Tetrachloroethene	14.820	166	549918	5.10 ppbv	100
51) Chlorobenzene	15.511	112	799844	5.05 ppbv	100
52) Ethylbenzene	15.897	106	414282	5.24 ppbv	99
53) Xylene (1)	16.090	106	1033582	10.57 ppbv	100
54) Xylene (2)	16.585	106	509431	5.40 ppbv	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141312.D
Acq On : 15 Jun 2013 2:49 am
Operator : VP
Sample : LCSD LCSD061413-5 5.0
Misc : TO_15A+ 117-5-245/2 CAN 160
ALS Vial : 16 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 14:14:45 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

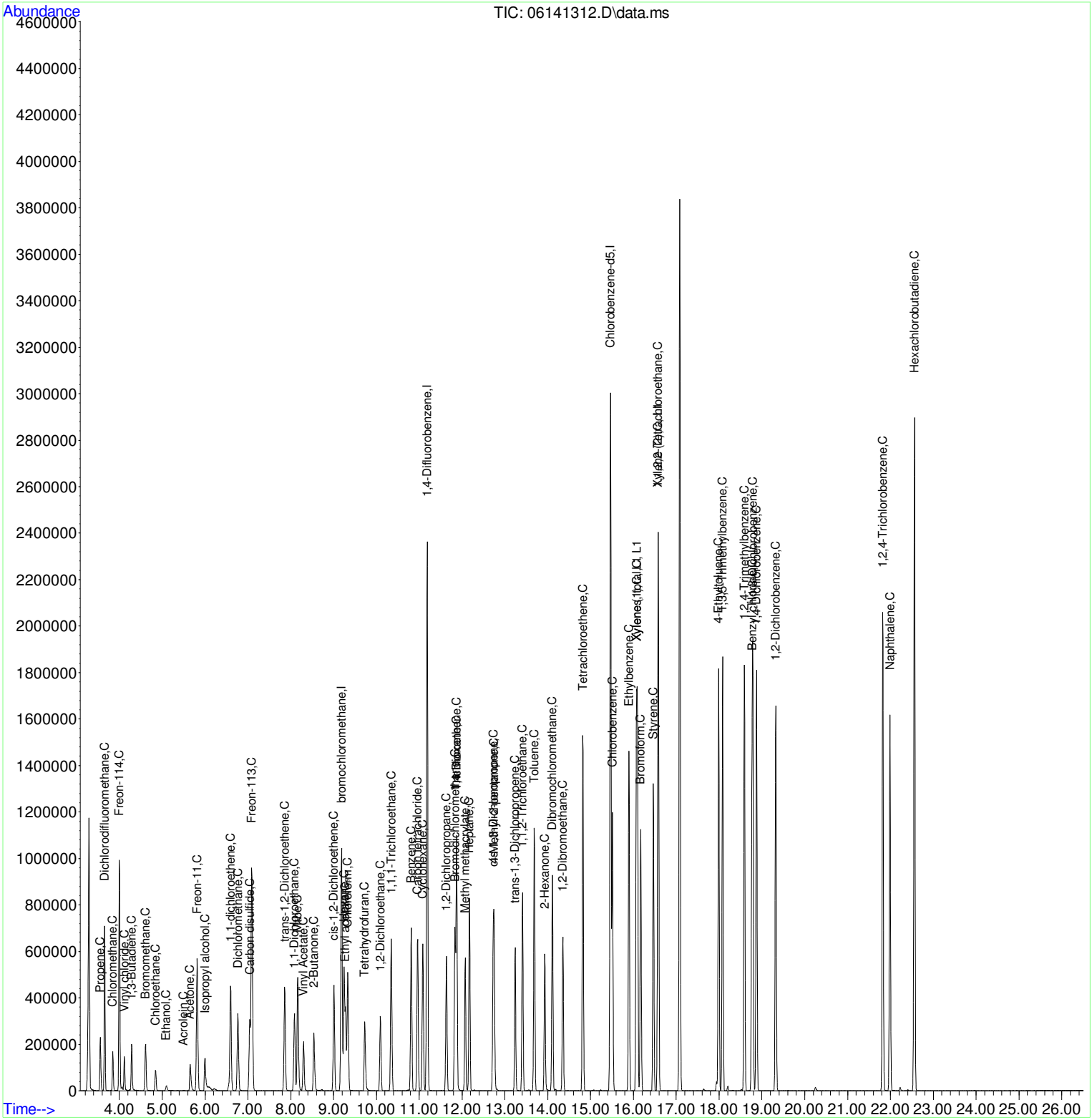
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.090	106	1543013m	15.97 ppbv	
56) Bromoform	16.170	173	618234	5.56 ppbv	100
57) Styrene	16.466	104	801415	5.71 ppbv	99
58) 1,1,2,2-Tetrachloroethane	16.572	83	641444	5.46 ppbv	100
59) 4-Ethyltoluene	17.990	120	445527	5.33 ppbv	99
60) 1,3,5-Trimethylbenzene	18.083	120	644940	5.41 ppbv	100
61) 1,2,4-Trimethylbenzene	18.591	120	608028	5.59 ppbv	100
62) Benzyl chloride	18.765	91	911695	5.92 ppbv	100
63) 1,3-Dichlorobenzene	18.787	146	945288	5.37 ppbv	100
64) 1,4-Dichlorobenzene	18.874	146	950447	5.26 ppbv	100
65) 1,2-Dichlorobenzene	19.324	146	887686	5.28 ppbv	100
66) 1,2,4-Trichlorobenzene	21.822	180	838561	5.13 ppbv	100
67) Naphthalene	21.990	128	1602174	5.94 ppbv	100
68) Hexachlorobutadiene	22.562	225	719468	5.46 ppbv	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141312.D
Acq On : 15 Jun 2013 2:49 am
Operator : VP
Sample : LCSD LCSD061413-5 5.0
Misc : TO_15A+ 117-5-245/2 CAN 160
ALS Vial : 16 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 14:14:45 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141312.D
Acq On : 15 Jun 2013 2:49 am
Operator : VP
Sample : LCSD LCSD061413-5 5.0
Misc : TO_15A+ 117-5-245/2 CAN 160
ALS Vial : 16 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 14:13:47 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.183	49	459815	10.00 ppbv	0.00
25) 1,4-Difluorobenzene	11.186	114	2282260	10.00 ppbv	0.00
50) Chlorobenzene-d5	15.466	117	2066557	10.00 ppbv	0.00

Target Compounds					Qvalue
2) Propene	3.553	41	121443	4.66 ppbv	99
3) Dichlorodifluoromethane	3.656	85	564226	5.06 ppbv	100
4) Chloromethane	3.846	50	164014	4.69 ppbv	100
5) Freon-114	4.000	85	494498	5.92 ppbv	89
6) Vinyl chloride	4.116	62	135702	4.90 ppbv	99
7) 1,3-Butadiene	4.289	54	88372	4.48 ppbv	97
8) Bromomethane	4.611	94	142421	5.75 ppbv	100
9) Chloroethane	4.846	64	87978	5.52 ppbv	100
10) Ethanol	5.093	45	34181	3.87 ppbv	92
11) Acrolein	5.489	56	1845	0.14 ppbv	97
12) Acetone	5.649	43	160946	3.66 ppbv	99
13) Freon-11	5.817	101	576174	5.08 ppbv	100
14) Isopropyl alcohol	5.994	45	268766	5.06 ppbv	98
15) 1,1-dichloroethene	6.595	61	322210	5.04 ppbv	99
16) Dichloromethane	6.765	49	211158	5.12 ppbv	100
17) Carbon disulfide	7.045	76	523146	4.80 ppbv	100
18) Freon-113	7.093	101	480922	4.93 ppbv	100
19) trans-1,2-Dichloroethene	7.858	61	283605	5.02 ppbv	100
20) 1,1-Dichloroethane	8.087	63	371888	5.02 ppbv	100
21) Mtbe	8.164	73	604986	5.13 ppbv	100
22) Vinyl Acetate	8.299	43	343131	4.91 ppbv	99
23) 2-Butanone	8.540	43	333128	4.90 ppbv	99
24) cis-1,2-Dichloroethene	9.009	61	279902	5.13 ppbv	100
26) Hexane	9.244	57	290571	5.70 ppbv	100
27) Ethyl acetate	9.280	61	66300	4.73 ppbv	99
28) Chloroform	9.331	83	459920	4.90 ppbv	100
29) Tetrahydrofuran	9.726	42	192164	4.13 ppbv	98
30) 1,2-Dichloroethane	10.093	62	281905	4.89 ppbv	100
31) 1,1,1-Trichloroethane	10.347	97	486342	5.09 ppbv	100
32) Benzene	10.813	78	718097	4.89 ppbv	100
33) Carbon tetrachloride	10.961	117	447718	5.75 ppbv	100
34) Cyclohexane	11.083	56	312603	4.96 ppbv	99
35) 1,2-Dichloropropane	11.636	63	237820	5.10 ppbv	99
36) Bromodichloromethane	11.833	83	492114	4.97 ppbv	100
37) Trichloroethene	11.871	130	380626	4.99 ppbv	99
38) 1,4-Dioxane	11.861	88	167251	6.46 ppbv	99
39) Methyl methacrylate	12.074	69	251660	5.45 ppbv	100
40) Heptane	12.173	43	323662	5.03 ppbv	99
41) cis-1,3-Dichloropropene	12.726	75	383157	5.03 ppbv	99
42) 4-Methyl-2-pentanone	12.749	43	409667	4.89 ppbv	99
43) trans-1,3-Dichloropropene	13.241	75	379728	4.80 ppbv	100
44) 1,1,2-Trichloroethane	13.411	97	318297	5.04 ppbv	99
45) Toluene	13.685	91	937192	5.10 ppbv	100
46) 2-Hexanone	13.932	43	391632	5.93 ppbv	100
47) Dibromochloromethane	14.109	129	576317	5.27 ppbv	100
48) 1,2-Dibromoethane	14.353	107	501472	5.22 ppbv	99
49) Tetrachloroethene	14.820	166	549918	5.10 ppbv	100
51) Chlorobenzene	15.511	112	799844	5.05 ppbv	100
52) Ethylbenzene	15.897	106	414282	5.24 ppbv	99
53) Xylene (1)	16.090	106	1033582	10.57 ppbv	100
54) Xylene (2)	16.585	106	509431	5.40 ppbv	100

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141312.D
Acq On : 15 Jun 2013 2:49 am
Operator : VP
Sample : LCSD LCSD061413-5 5.0
Misc : TO_15A+ 117-5-245/2 CAN 160
ALS Vial : 16 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 14:13:47 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

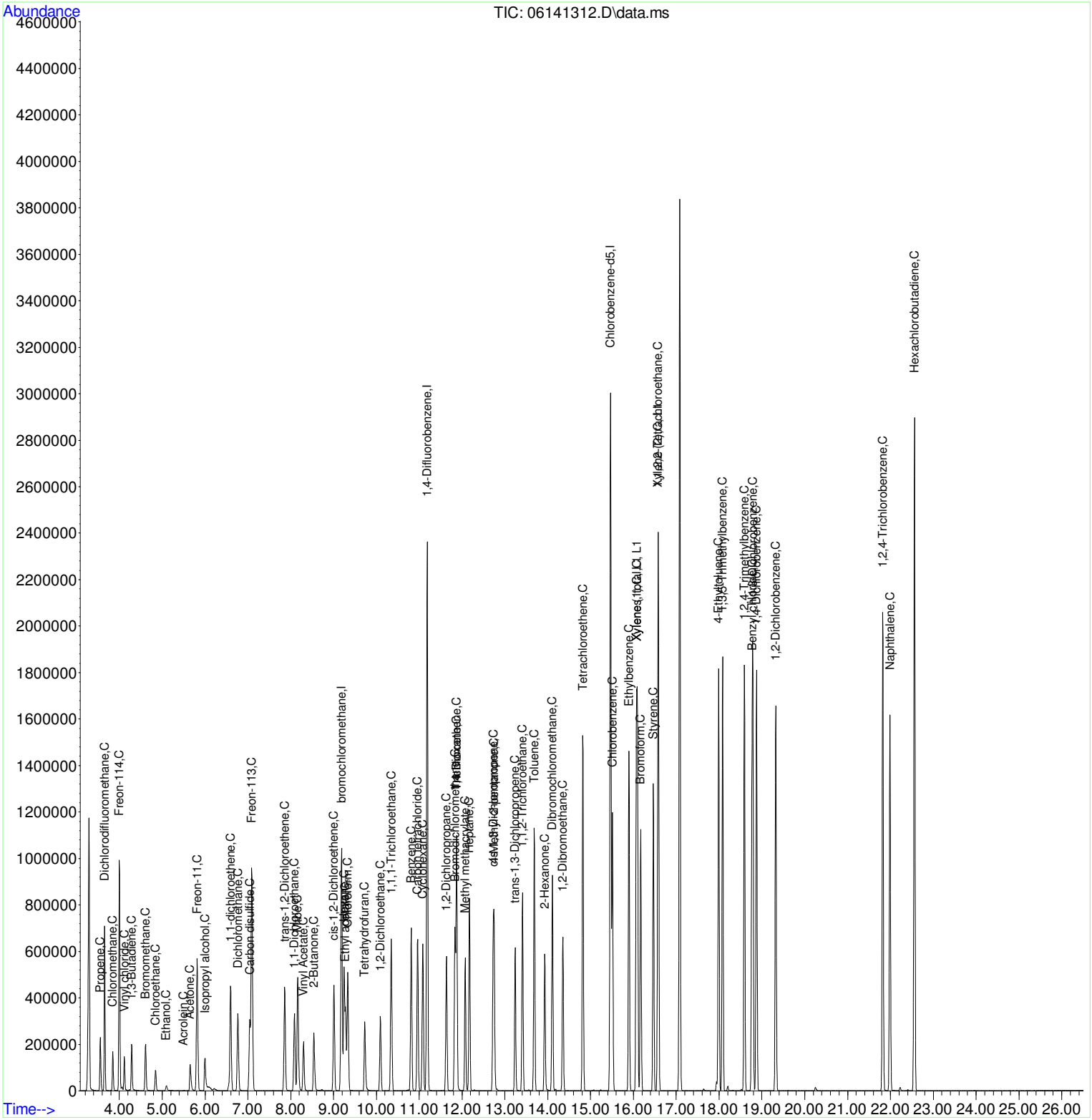
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.090	106	1543013m	15.97 ppbv	
56) Bromoform	16.170	173	618234	5.56 ppbv	100
57) Styrene	16.466	104	801415	5.71 ppbv	99
58) 1,1,2,2-Tetrachloroethane	16.572	83	641444	5.46 ppbv	100
59) 4-Ethyltoluene	17.990	120	445527	5.33 ppbv	99
60) 1,3,5-Trimethylbenzene	18.083	120	644940	5.41 ppbv	100
61) 1,2,4-Trimethylbenzene	18.591	120	608028	5.59 ppbv	100
62) Benzyl chloride	18.765	91	911695	5.92 ppbv	100
63) 1,3-Dichlorobenzene	18.787	146	945288	5.37 ppbv	100
64) 1,4-Dichlorobenzene	18.874	146	950447	5.26 ppbv	100
65) 1,2-Dichlorobenzene	19.324	146	887686	5.28 ppbv	100
66) 1,2,4-Trichlorobenzene	21.822	180	838561	5.13 ppbv	100
67) Naphthalene	21.990	128	1602174	5.94 ppbv	100
68) Hexachlorobutadiene	22.562	225	719468	5.46 ppbv	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

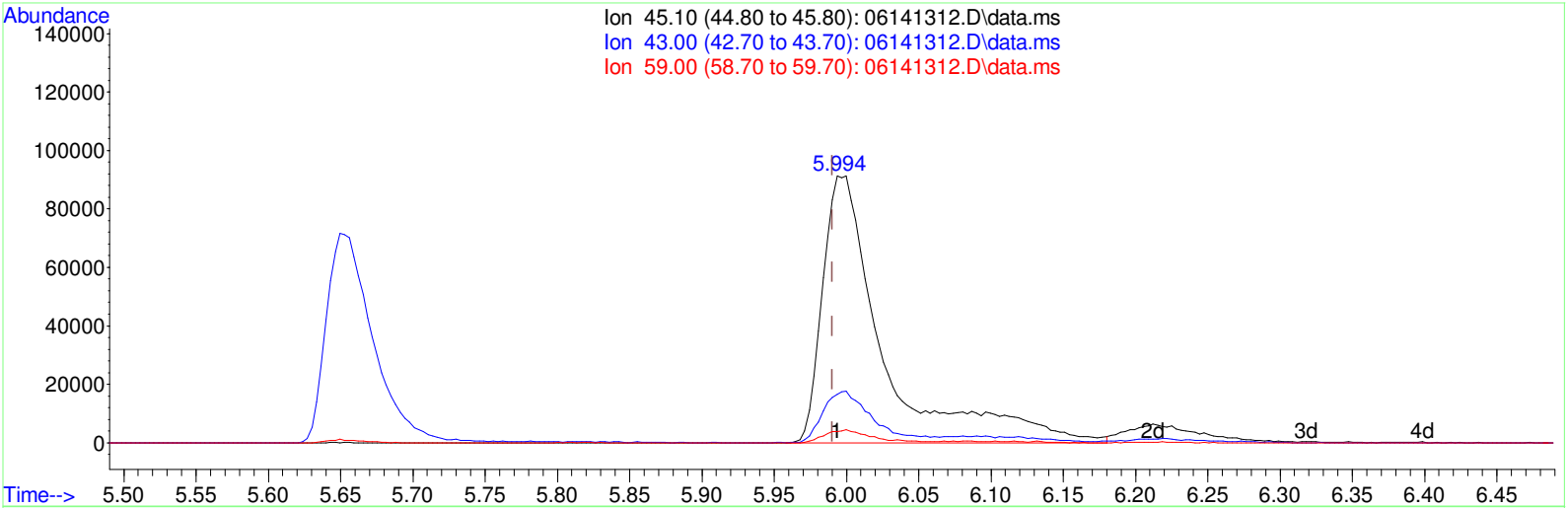
Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141312.D
Acq On : 15 Jun 2013 2:49 am
Operator : VP
Sample : LCSD LCSD061413-5 5.0
Misc : TO_15A+ 117-5-245/2 CAN 160
ALS Vial : 16 Sample Multiplier: 1
InstName : VOA5

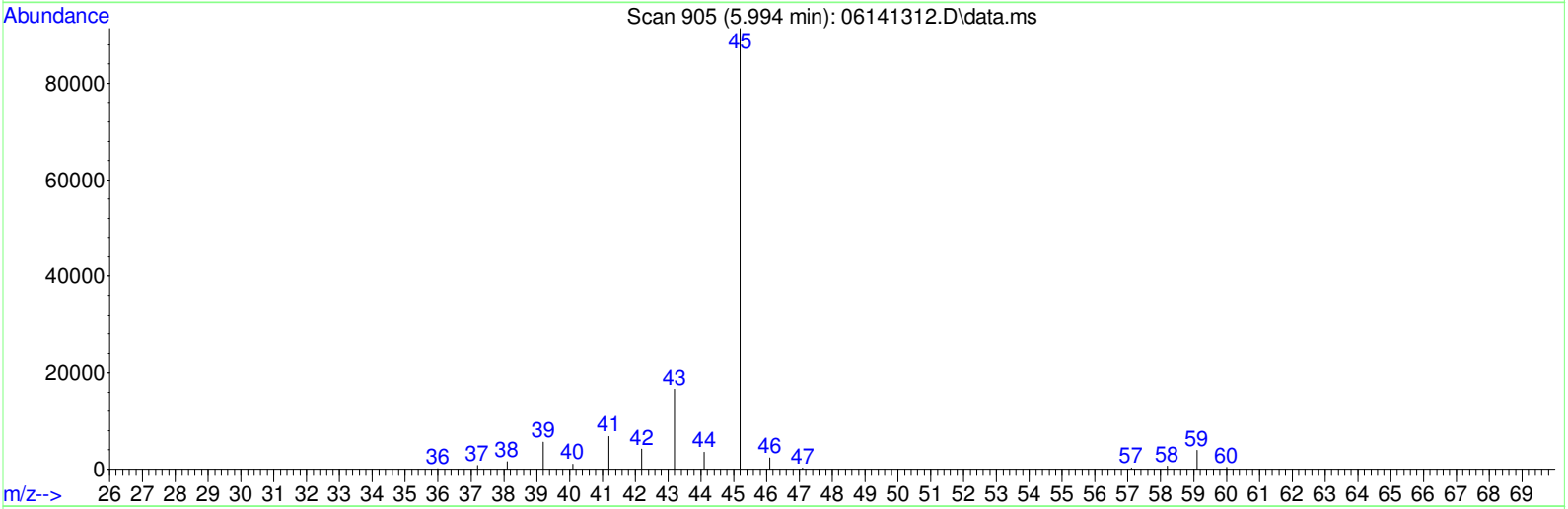
Quant Time: Jun 19 14:13:47 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration



Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141312.D
Acq On : 15 Jun 2013 2:49 am
Operator : VP
Sample : LCSD LCSD061413-5 5.0
Misc : TO_15A+ 117-5-245/2 CAN 160
ALS Vial : 16 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 14:13:47 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration





TIC: 06141312.D\data.ms

(14) Isopropyl alcohol (C)

5.994min (+0.003) 5.06ppbv

response 268766

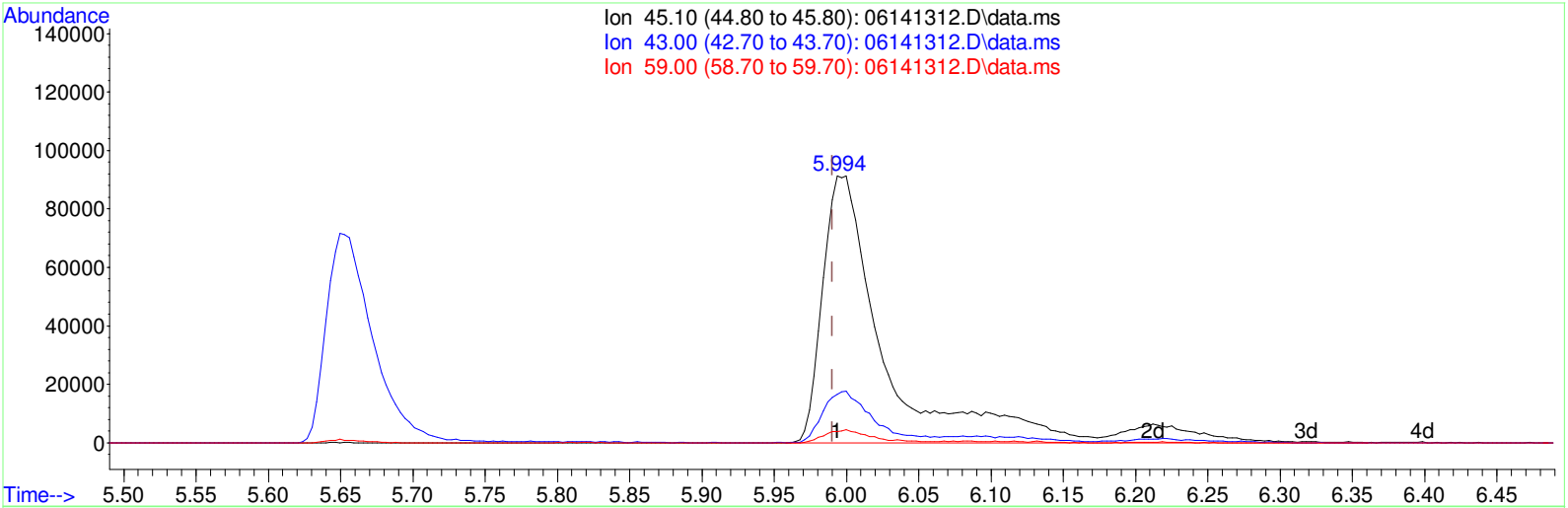
BEFORE

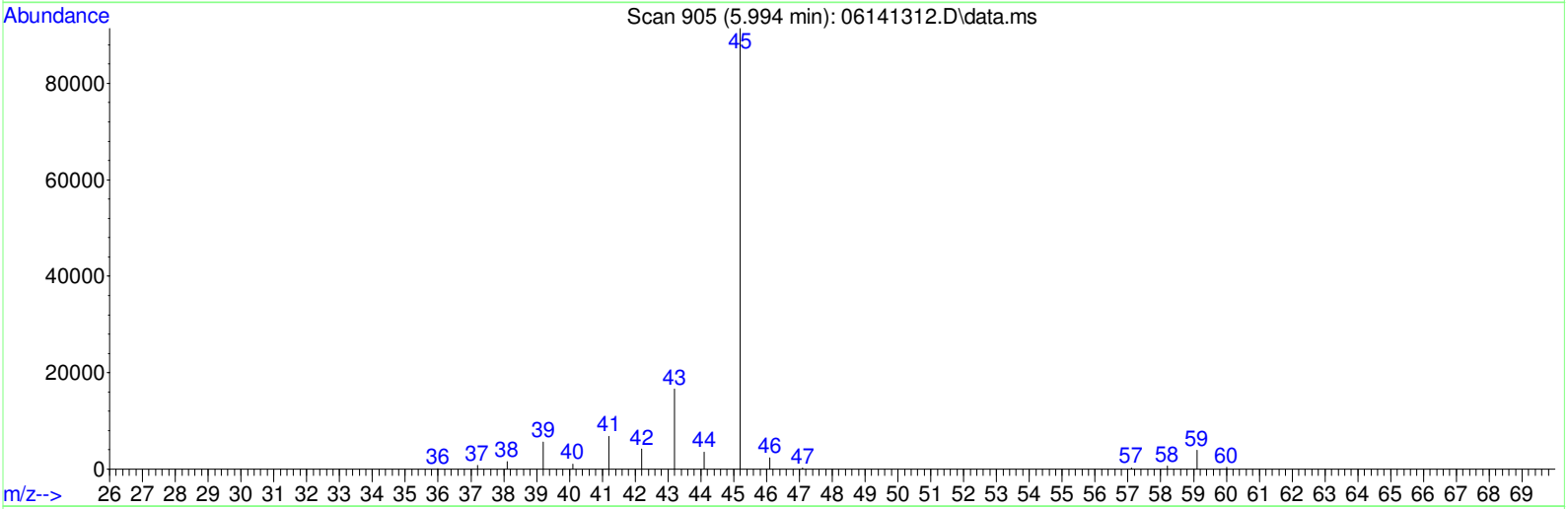
By Vytautas at 15:45:16, 7/25/2013

Ion	Exp%	Act%
45.10	100	100
43.00	20.80	19.76
59.00	4.40	4.38
0.00	0.00	0.00

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141312.D
Acq On : 15 Jun 2013 2:49 am
Operator : VP
Sample : LCSD LCSD061413-5 5.0
Misc : TO_15A+ 117-5-245/2 CAN 160
ALS Vial : 16 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 14:13:47 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration





TIC: 06141312.D\data.ms

(14) Isopropyl alcohol (C)

5.994min (+0.003) 5.50ppbv m

response 291899

Ion	Exp%	Act%
45.10	100	100
43.00	20.80	18.20
59.00	4.40	4.03
0.00	0.00	0.00

AFTER M3

By Vytautas at 15:45:23, 7/25/2013

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141313.D
Acq On : 15 Jun 2013 3:44 am
Operator : VP
Sample : MBLK MB061413-5
Misc : TO_15A+ 117-5-248 CAN 3157
ALS Vial : 19 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 14:15:38 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) bromochloromethane	9.170	49	482965	10.00	ppbv	-0.01
25) 1,4-Difluorobenzene	11.180	114	2294102	10.00	ppbv	0.00
50) Chlorobenzene-d5	15.462	117	2072867	10.00	ppbv	0.00

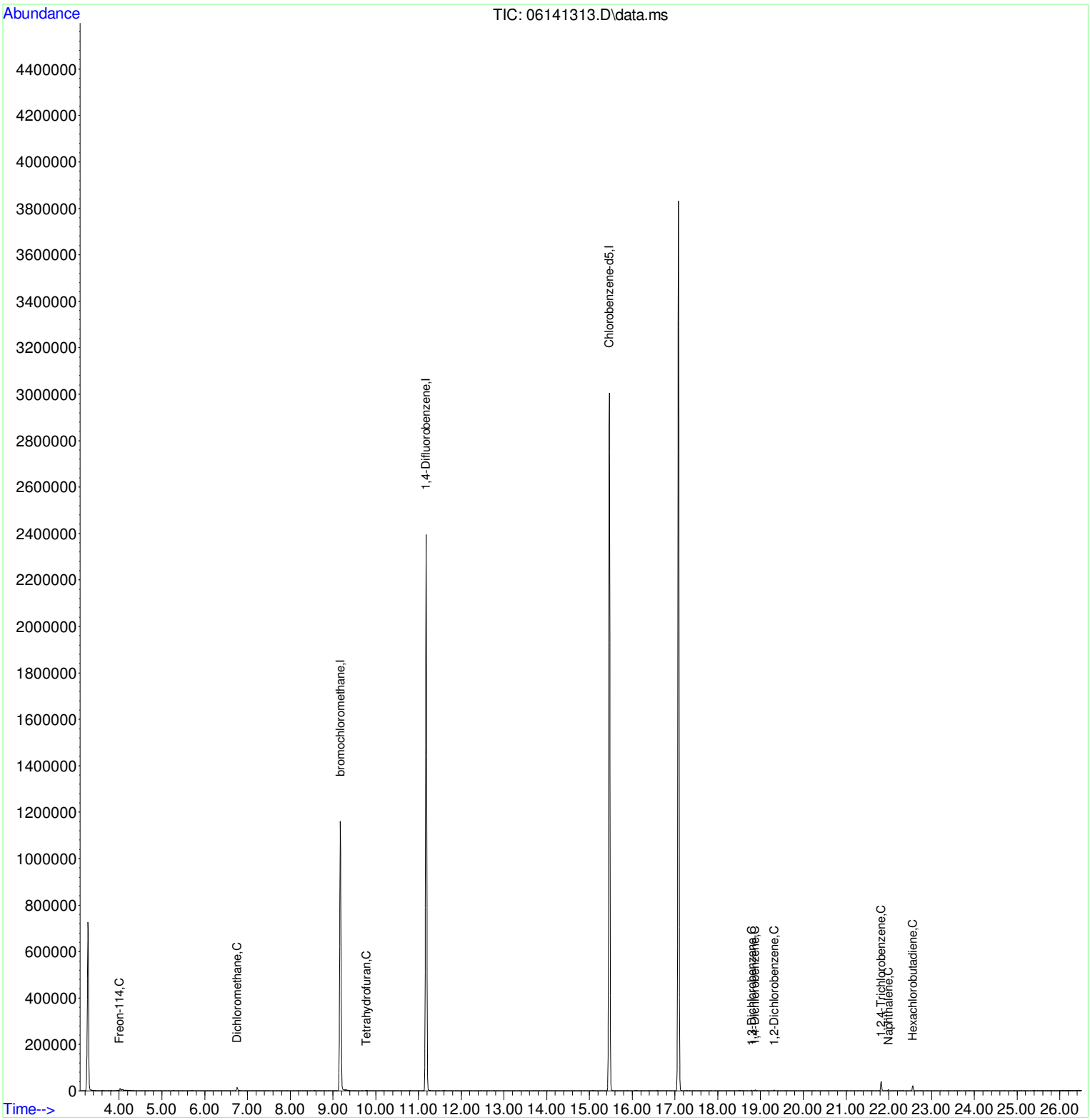
Target Compounds						Qvalue
5) Freon-114	4.019	85	3930	0.04	ppbv	90
16) Dichloromethane	6.759	49	8756	0.20	ppbv	97
29) Tetrahydrofuran	9.787	42	1505	0.03	ppbv #	66
63) 1,3-Dichlorobenzene	18.793	146	1951	0.01	ppbv	76
64) 1,4-Dichlorobenzene	18.880	146	2391	0.01	ppbv	95
65) 1,2-Dichlorobenzene	19.324	146	1959	0.01	ppbv	81
66) 1,2,4-Trichlorobenzene	21.822	180	17301	0.11	ppbv	99
67) Naphthalene	21.989	128	5585	0.02	ppbv	95
68) Hexachlorobutadiene	22.562	225	5831	0.04	ppbv	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141313.D
Acq On : 15 Jun 2013 3:44 am
Operator : VP
Sample : MBLK MB061413-5
Misc : TO_15A+ 117-5-248 CAN 3157
ALS Vial : 19 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 14:15:38 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141313.D
Acq On : 15 Jun 2013 3:44 am
Operator : VP
Sample : MBLK MB061413-5
Misc : TO_15A+ 117-5-248 CAN 3157
ALS Vial : 19 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 14:15:08 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) bromochloromethane	9.170	49	482965	10.00	ppbv	-0.01
25) 1,4-Difluorobenzene	11.180	114	2294102	10.00	ppbv	0.00
50) Chlorobenzene-d5	15.462	117	2072867	10.00	ppbv	0.00

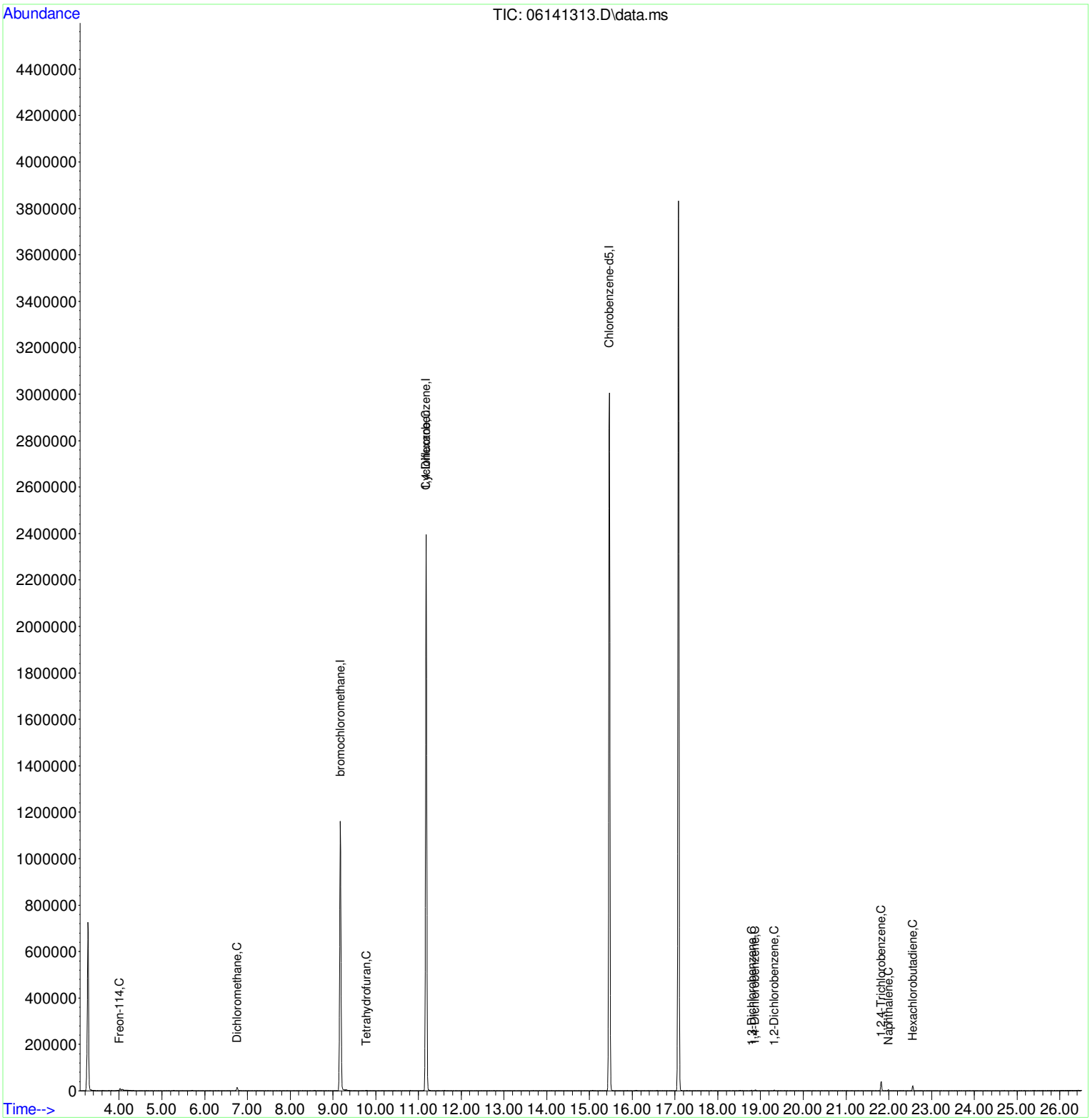
Target Compounds						Qvalue
5) Freon-114	4.019	85	3930	0.04	ppbv	90
16) Dichloromethane	6.759	49	8756	0.20	ppbv	97
29) Tetrahydrofuran	9.787	42	1505	0.03	ppbv #	66
34) Cyclohexane	11.180	56	29538	0.47	ppbv #	11
63) 1,3-Dichlorobenzene	18.793	146	1951	0.01	ppbv	76
64) 1,4-Dichlorobenzene	18.880	146	2391	0.01	ppbv	95
65) 1,2-Dichlorobenzene	19.324	146	1959	0.01	ppbv	81
66) 1,2,4-Trichlorobenzene	21.822	180	17301	0.11	ppbv	99
67) Naphthalene	21.989	128	5585	0.02	ppbv	95
68) Hexachlorobutadiene	22.562	225	5831	0.04	ppbv	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\061413\
Data File : 06141313.D
Acq On : 15 Jun 2013 3:44 am
Operator : VP
Sample : MBLK MB061413-5
Misc : TO_15A+ 117-5-248 CAN 3157
ALS Vial : 19 Sample Multiplier: 1
InstName : VOA5

Quant Time: Jun 19 14:15:08 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\061413\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration



TEKLINK AUTOCAN SCHEDULE VERSION 1.01

Schedule Filename: C:\AUTOCAN\Schedules\VOA5\061413-1.scd

Run#	Sample Name	Pos	Method	Smpl Vol	ISTD Vol	ISX Vol	ISX Type
1	BLANK1	13	TO15-5.MTC	0	50	50	C
2	BLANK2	13	TO15-5.MTC	0	50	50	C
3	ICAL TOSTD0.05	13	TO15-5.MTC	25	50	0	C
4	ICAL TOSTD 0.1	13	TO15-5.MTC	50	50	0	C
5	ICAL TOSTD 0.2	13	TO15-5.MTC	100	50	0	C
6	ICAL TOSTD 0.5	13	TO15-5.MTC	250	50	0	C
7	ICAL TOSTD 1.0	13	TO15-5.MTC	0	50	50	B
8	ICAL TOSTD 2.0	13	TO15-5.MTC	0	50	100	B
9	ICAL TOSTD 5.0	13	TO15-5.MTC	0	50	250	B
10	ICAL TOSTD 10	14	TO15-5.MTC	100	50	0	B
11	ICAL TOSTD 25	14	TO15-5.MTC	250	50	0	B
12	ICAL TOSTD 50	14	TO15-5.MTC	500	50	0	B
13	ICV TOSTD 5.0	15	TO15-5.MTC	500	50	0	B
14	LCSD TOSTD 5.0	16	TO15-5.MTC	500	50	0	B
15	MBLK	13	TO15-5.MTC	0	50	500	C
16	13060322-017A	1	TO15-5.MTC	500	50	0	B
17	13060322-018A	2	TO15-5.MTC	500	50	0	B
18	13060322-019A	3	TO15-5.MTC	500	50	0	B
19	13060322-020A	4	TO15-5.MTC	500	50	0	B
20	13060322-021A	5	TO15-5.MTC	500	50	0	B
21	13060322-022A	6	TO15-5.MTC	500	50	0	B
22	13060322-023A	7	TO15-5.MTC	500	50	0	B
23	13060322-024A	8	TO15-5.MTC	500	50	0	B
24	13060322-025A	9	TO15-5.MTC	500	50	0	B
25	13060471-001A	10	TO15-5.MTC	500	50	0	B
26	13060471-002A	11	TO15-5.MTC	500	50	0	B
27	13060471-003A	12	TO15-5.MTC	500	50	0	B

QC Report: Unit #1

QAQC Leak Check Filename:QAQC\06132013\1_103837.chk

Report Date/Time: 06/13/2013 10:38:37

Position Sy: Passed: DeltaP:0.1 LeakP:2.1 EvacP:2.2
Position A : Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 11: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 12: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0

Leak Check Finished Normally
Total Cans Checked = 4

QC Report: Unit #1

QAQC Leak Check Filename:QAQC\06132013\1_155404.chk

Report Date/Time: 06/13/2013 15:54:04

Position 08: Passed: DeltaP:0.3 LeakP:1.9 EvacP:2.2

Leak Check Finished Normally
Total Cans Checked = 1

QC Report: Unit #1

QAQC Leak Check Filename:QAQC\06132013\1_191349.chk

Report Date/Time: 06/13/2013 19:13:49

Position 07: Passed: DeltaP:0.2 LeakP:2.0 EvacP:2.2
Position 08: Passed: DeltaP:0.3 LeakP:1.9 EvacP:2.2
Position 09: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 10: Passed: DeltaP:0.2 LeakP:1.9 EvacP:2.1
Position 11: Passed: DeltaP:0.2 LeakP:1.9 EvacP:2.1
Position 12: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 13: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 14: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 15: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 16: Passed: DeltaP:0.2 LeakP:1.9 EvacP:2.1

Leak Check Finished Normally
Total Cans Checked = 10

QC Report: Unit #1

QAQC Leak Check Filename:QAQC\06142013\1_135001.chk

Report Date/Time: 06/14/2013 13:50:01

```
Position Sy: Passed: DeltaP:0.2 LeakP:2.0 EvacP:2.2
Position A : Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position B : Passed: DeltaP:0.3 LeakP:1.9 EvacP:2.2
Position C : Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 01: Passed: DeltaP:0.3 LeakP:1.9 EvacP:2.2
Position 02: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 03: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 04: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 05: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 06: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 07: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 08: Passed: DeltaP:0.2 LeakP:1.9 EvacP:2.1
Position 09: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 13: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 14: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0


Leak Check Finished Normally
Total Cans Checked = 15
```

QC Report: Unit #1

QAQC Leak Check Filename:QAQC\06142013\1_154856.chk

Report Date/Time: 06/14/2013 15:48:56

Position 10: Passed: DeltaP:0.1 LeakP:2.0 EvacP:2.1
Position 11: Passed: DeltaP:0.2 LeakP:1.9 EvacP:2.1
Position 12: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 15: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 16: Passed: DeltaP:0.0 LeakP:1.9 EvacP:1.9

Leak Check Finished Normally
Total Cans Checked = 5

QC Report: Unit #1

QAQC Leak Check Filename:QAQC\06152013\1_120908.chk

Report Date/Time: 06/15/2013 12:09:08

Position 01: Failed: DeltaP:0.5 LeakP:1.9 EvacP:2.4
Position 02: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 03: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 04: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 05: Failed: DeltaP:0.5 LeakP:1.9 EvacP:2.4
Position 06: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 07: Passed: DeltaP:0.3 LeakP:1.9 EvacP:2.2
Position 08: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0

Leak Check Finished Normally
Total Cans Checked = 8

QC Report: Unit #1

QAQC Leak Check Filename:QAQC\06152013\1_121702.chk

Report Date/Time: 06/15/2013 12:17:02

Position 01: Passed: DeltaP:0.1 LeakP:2.0 EvacP:2.1
Position 05: Passed: DeltaP:0.2 LeakP:1.9 EvacP:2.1

Leak Check Finished Normally
Total Cans Checked = 2

STAT Analysis Corporation

Volatile Organic Compounds

EPA TO-15

Run 1

Client: NRT, Inc.
Project: 69420, Peoples Gas - Willow Street / Hawthorne Ave
Lab Order: 13071475
Date Received: July 31, 2013

CLIENT: Natural Resource Technology, Inc.
Work Order: 13071475
Project: 69420, Peoples Gas - Willow Street / Hawthorne Ave

ANALYTICAL QC SUMMARY REPORT

Run ID: **VOA-5_130801A**

Sample ID: **BFB080113-5** SampType: **TUNE** TestCode: **BFB** Units: Prep Date: Run ID: **VOA-5_130801A**
Client ID: **ZZZZZ** Batch ID: **R91742** TestNo: **BFB_Tune** Analysis Date: **08/01/13 14:08** SeqNo: **2480778**

Mass	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
50	15.4	0	100	0	15.4	8	40	0	0		
75	45.3	0	100	0	45.3	30	66	0	0		
95	100	0	100	0	100	100	100	0	0		
96	6.6	0	100	0	6.6	5	9	0	0		
173	0.5	0	100	0	0.5	0	2	0	0		
174	101.2	0	100	0	101	50	120	0	0		
175	7.1	0	100	0	7.1	5	9	0	0		
176	98.5	0	100	0	98.5	93	101	0	0		
177	6.5	0	100	0	6.5	5	9	0	0		

Sample ID: **CCV080113-5 5.0** SampType: **CCV** TestCode: **TO_15A+** Units: **ppbv** Prep Date: Run ID: **VOA-5_130801A**
Client ID: **ZZZZZ** Batch ID: **R91742** TestNo: **TO-15** Analysis Date: **08/01/13 14:08** SeqNo: **2480779**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	5.39	0.20	5	0	108	70	130	0	0		
1,1-Dichloroethane	4.98	0.20	5	0	99.6	70	130	0	0		
1,2,4-Trichlorobenzene	4.43	0.20	5	0	88.6	70	130	0	0		
2-Butanone	5.34	0.50	5	0	107	70	130	0	0		
Acetone	5.87	2.0	5	0	117	70	130	0	0		*
Benzene	5.24	0.20	5	0	105	70	130	0	0		
Carbon disulfide	5.12	0.20	5	0	102	70	130	0	0		
cis-1,2-Dichloroethene	4.98	0.20	5	0	99.6	70	130	0	0		
Ethylbenzene	5.08	0.20	5	0	102	70	130	0	0		
Methylene chloride	5.79	2.0	5	0	116	70	130	0	0		
Naphthalene	5.6	0.20	5	0	112	70	130	0	0		
Styrene	5.4	0.20	5	0	108	70	130	0	0		
Tetrachloroethene	4.65	0.20	5	0	93	70	130	0	0		
Toluene	5.37	0.20	5	0	107	70	130	0	0		
trans-1,2-Dichloroethene	4.97	0.20	5	0	99.4	70	130	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blank
E - Value above quantitation range

CLIENT: Natural Resource Technology, Inc.
Work Order: 13071475
Project: 69420, Peoples Gas - Willow Street / Hawthorne Ave

ANALYTICAL QC SUMMARY REPORT

Run ID: **VOA-5_130801A**

Sample ID: **CCV080113-5 5.0** SampType: **CCV** TestCode: **TO_15A+** Units: **ppbv** Prep Date: Run ID: **VOA-5_130801A**
Client ID: **ZZZZZ** Batch ID: **R91742** TestNo: **TO-15** Analysis Date: **08/01/13 14:08** SeqNo: **2480779**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl chloride	4.9	0.20	5	0	98	70	130	0	0		
Xylenes, Total	15.7	0.60	15	0	105	70	130	0	0		

Sample ID: **MB080113-5** SampType: **MBLK** TestCode: **TO_15UG+** Units: **µg/m³** Prep Date: Run ID: **VOA-5_130801A**
Client ID: **ZZZZZ** Batch ID: **R91742** TestNo: **TO-15** Analysis Date: **08/01/13 14:53** SeqNo: **2482394**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	1.1									
1,1-Dichloroethane	ND	0.80									
1,2,4-Trichlorobenzene	0.5195	1.5									J
2-Butanone	ND	1.5									
Acetone	ND	4.8									*
Benzene	ND	0.60									
Carbon disulfide	ND	0.62									
cis-1,2-Dichloroethene	ND	0.80									
Ethylbenzene	ND	0.90									
Methylene chloride	2.015	6.9									J
Naphthalene	ND	1.0									
Styrene	ND	0.90									
Tetrachloroethene	ND	1.4									
Toluene	ND	0.80									
trans-1,2-Dichloroethene	ND	0.80									
Vinyl chloride	ND	0.50									
Xylenes, Total	ND	2.6									

Sample ID: **LCS080113-5 5.0** SampType: **LCS** TestCode: **TO_15UG+** Units: **µg/m³** Prep Date: Run ID: **VOA-5_130801A**
Client ID: **ZZZZZ** Batch ID: **R91742** TestNo: **TO-15** Analysis Date: **08/01/13 15:38** SeqNo: **2482395**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	29.63	1.1	27.28	0	109	70	130	0	0		
1,1-Dichloroethane	21.65	0.80	20.24	0	107	70	130	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blank
E - Value above quantitation range

CLIENT: Natural Resource Technology, Inc.
Work Order: 13071475
Project: 69420, Peoples Gas - Willow Street / Hawthorne Ave

ANALYTICAL QC SUMMARY REPORT

Run ID: **VOA-5_130801A**

Sample ID: **LCS080113-5 5.0** SampType: **LCS** TestCode: **TO_15UG+** Units: **µg/m³** Prep Date: Run ID: **VOA-5_130801A**
Client ID: **ZZZZZ** Batch ID: **R91742** TestNo: **TO-15** Analysis Date: **08/01/13 15:38** SeqNo: **2482395**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	34.95	1.5	37.11	0.5195	92.8	70	130	0	0		
2-Butanone	15.72	1.5	14.75	0	107	70	130	0	0		
Acetone	12.14	4.8	11.88	0	102	70	130	0	0		*
Benzene	16.45	0.60	15.97	0	103	70	130	0	0		
Carbon disulfide	15.6	0.62	15.57	0	100	70	130	0	0		
cis-1,2-Dichloroethene	21.97	0.80	19.82	0	111	70	130	0	0		
Ethylbenzene	21.62	0.90	21.71	0	99.6	70	130	0	0		
Methylene chloride	28.59	6.9	17.37	2.015	153	70	130	0	0		S
Naphthalene	30.77	1.0	26.21	0	117	70	130	0	0		
Styrene	22.58	0.90	21.3	0	106	70	130	0	0		
Tetrachloroethene	31.33	1.4	33.91	0	92.4	70	130	0	0		
Toluene	19.74	0.80	18.84	0	105	70	130	0	0		
trans-1,2-Dichloroethene	21.33	0.80	19.82	0	108	70	130	0	0		
Vinyl chloride	13.93	0.50	12.78	0	109	70	130	0	0		
Xylenes, Total	66.91	2.6	65.13	0	103	70	130	0	0		

Sample ID: **LCSD080113-5 5.0** SampType: **LCSD** TestCode: **TO_15UG+** Units: **µg/m³** Prep Date: Run ID: **VOA-5_130801A**
Client ID: **ZZZZZ** Batch ID: **R91742** TestNo: **TO-15** Analysis Date: **08/01/13 16:23** SeqNo: **2482396**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	29.79	1.1	27.28	0	109	70	130	29.63	0.551	25	
1,1-Dichloroethane	21.41	0.80	20.24	0	106	70	130	21.65	1.13	25	
1,2,4-Trichlorobenzene	32.43	1.5	37.11	0.5195	86	70	130	34.95	7.49	25	
2-Butanone	15.78	1.5	14.75	0	107	70	130	15.72	0.375	25	
Acetone	11.09	4.8	11.88	0	93.4	70	130	12.14	9.00	25	*
Benzene	16.64	0.60	15.97	0	104	70	130	16.45	1.16	25	
Carbon disulfide	15.48	0.62	15.57	0	99.4	70	130	15.6	0.802	25	
cis-1,2-Dichloroethene	22	0.80	19.82	0	111	70	130	21.97	0.180	25	
Ethylbenzene	22.01	0.90	21.71	0	101	70	130	21.62	1.79	25	
Methylene chloride	22.2	6.9	17.37	2.015	116	70	130	28.59	25.2	25	R
Naphthalene	27.73	1.0	26.21	0	106	70	130	30.77	10.4	25	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blank
E - Value above quantitation range

CLIENT: Natural Resource Technology, Inc.
Work Order: 13071475
Project: 69420, Peoples Gas - Willow Street / Hawthorne Ave

ANALYTICAL QC SUMMARY REPORT

Run ID: **VOA-5_130801A**

Sample ID: **LCSD080113-5 5.0** SampType: **LCSD** TestCode: **TO_15UG+** Units: **µg/m³** Prep Date: Run ID: **VOA-5_130801A**
Client ID: **ZZZZZ** Batch ID: **R91742** TestNo: **TO-15** Analysis Date: **08/01/13 16:23** SeqNo: **2482396**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Styrene	23.05	0.90	21.3	0	108	70	130	22.58	2.05	25	
Tetrachloroethene	32.22	1.4	33.91	0	95	70	130	31.33	2.77	25	
Toluene	19.93	0.80	18.84	0	106	70	130	19.74	0.950	25	
trans-1,2-Dichloroethene	21.17	0.80	19.82	0	107	70	130	21.33	0.746	25	
Vinyl chloride	13.62	0.50	12.78	0	107	70	130	13.93	2.23	25	
Xylenes, Total	67.99	2.6	65.13	0	104	70	130	66.91	1.61	25	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
* - Non Accredited Parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
H/HT - Holding Time Exceeded
B - Analyte detected in the associated Method Blank
E - Value above quantitation range

STAT Analysis Corporation

ATTACHMENT 13: DATA REVIEW CHECKLIST – BATCH DATA

GC/MS Volatiles SOP 4010, EPA TO15A

First Level Reviewer: Vytautas Prasuskas Review Date: 08/14/2013

Second Level Reviewer: Bruce Gallant Review Date: 8/19/2013

Analysis date: 08/01/2013 Batch Start Time: 2:08 pm Instrument: VOA-5

Page 1 of 1 Continuing Calibration Verification (CCV) and Batch Data

Item	Aspect	1st Yes	Level No	2nd Yes	Level No	Comments: record routine corrective actions here	CAR # QER#
1	Tune meets criteria	✔		✔			
2	All Analyses in tune period 24hr	✔		✔			
3	CCV Acceptance criteria met: CCCs: = 30%D RT: ± 30 seconds Int stds: 60 to 140 % Correct ICAL RFs used	 ✔ ✔ ✔ ✔		✔			
4	Method Blank < RL False pos/neg checked	✔ ✔		✔			
5	LCS/LCSD %R = 70-130 %RSD < 25%	✔ ✔	✔ ✔			See attached ✔ See attached ✔	
6	Test Samples: Correct IDs False pos/neg checked RL, Units Results within curve Dilutions performed	✔ ✔ ✔ ✔ ✔		✔			
8	MB, LCS/LCSD per batch of 20 samples	✔		✔			
9	Manual Integration acceptable: List files	✔		✔			
10	Int Stds Check (optional)	✔		✔			
11	Tune & QC gas ID recorded	✔		✔			
12	All other information recorded	✔		✔			
13	LIMS transcription correct	✔		✔			
14	Analysis within holding time	✔		✔			
15	Canister position on Unity verified	✔		✔			
16	Corrections properly recorded	✔		✔			

Additional Comments:

Batch Data and/or ICAL
GC/MS Volatiles SOP 4010, EPA TO-15A
Results Outside of the Control Limits for VOA 5

The TO-15 CCV analyzed 8/1/13 had the following outside of control limits:
N/A

The TO-15 LCS/LCSD analyzed 8/1/13 had the following outside of control limits:
Bromomethane: 133/133% (LCS/LCSD) recovery (QC Limits 70-130%), not detected/reported.
Chloroethane: 135/133% (LCS/LCSD) recovery (QC Limits 70-130%).
Hexane: 130.2% (LCS) recovery (QC Limits 70-130%).
Methylene chloride: 153% (LCS) recovery (QC Limits 70-130%), 25.2% (RPD) (QC Limit 25%).

The TO-15 Method Blank analyzed 8/1/13 had the following compounds above the RL or giving a "B" flag indicator:
N/A

1st Level Reviewer/Date: _____ 2nd Level Reviewer/Date: _____

Injection Log

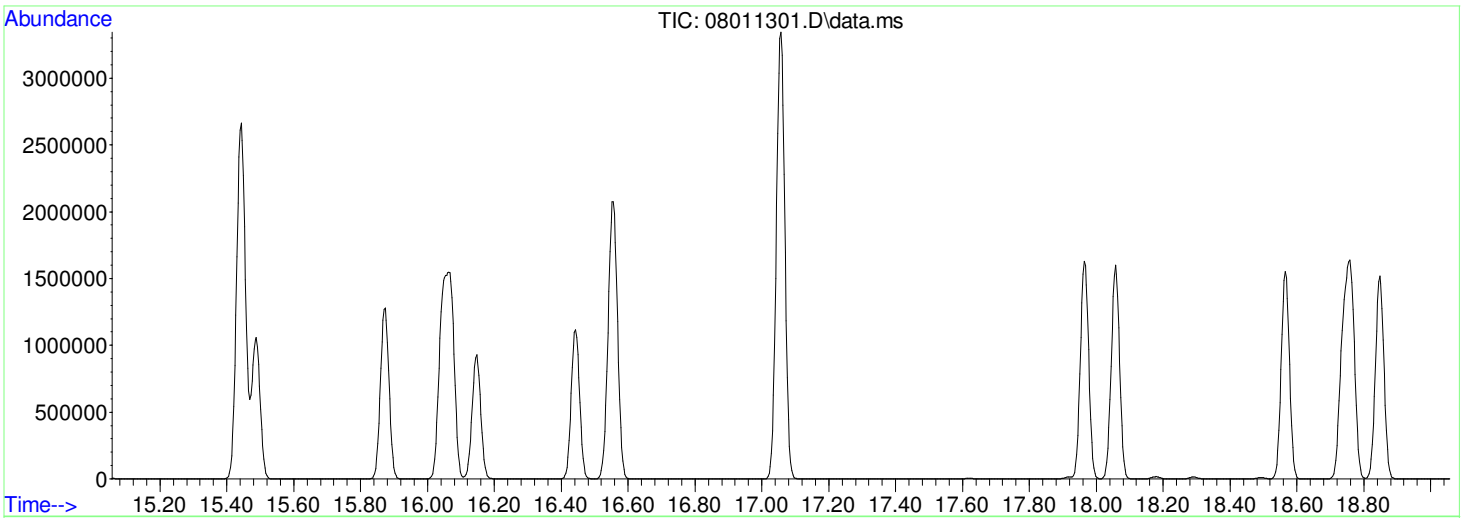
Instrument Name: VOA5
Data Directory: C:\MSDChem\1\DATA\VOA5\080113\

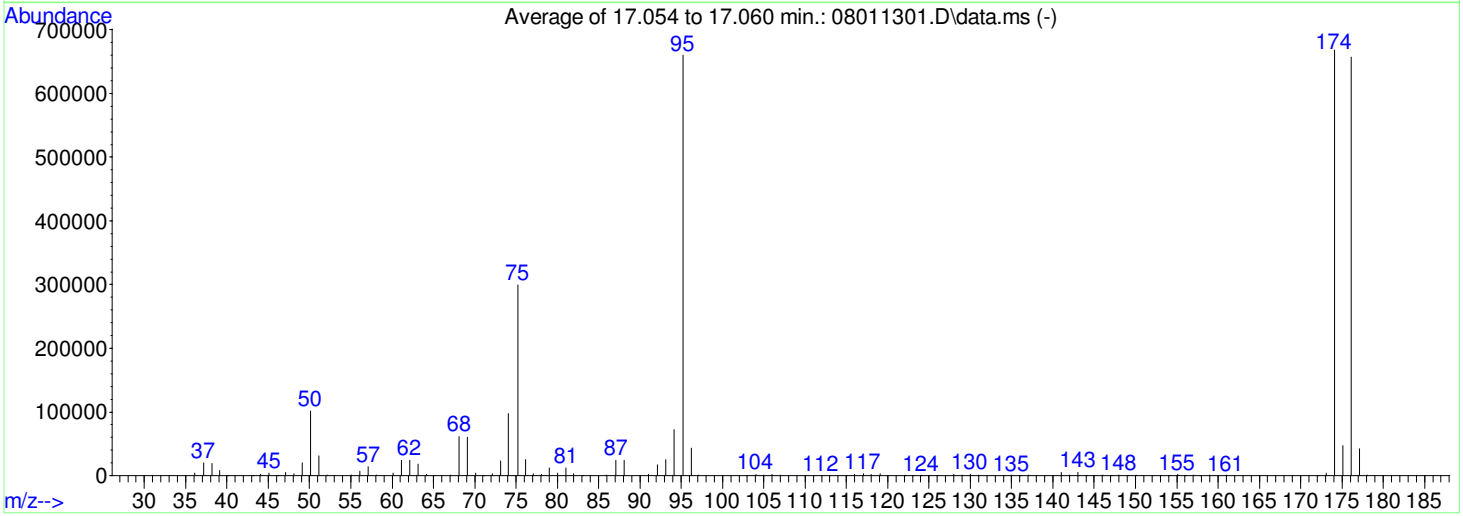
Line	Vial	FileName	Mult	SampleName	Misc Info		Injected
1	17	08011301.D	1.	CCV CCV080113-5 5.0	TO_15A+	117-5-274	1 Aug 2013 2:08 pm
2	19	08011302.D	1.	MBLK MB080113-5	TO_15A+	117-5-287	1 Aug 2013 2:53 pm
3	1	08011303.D	1.	LCS LCS080113-5 5.0	TO_15A+	117-5-267	1 Aug 2013 3:38 pm
4	2	08011304.D	1.	LCSD LCSD080113-5 5.0	TO_15A+	117-5-267	1 Aug 2013 4:23 pm
5	7	08011305.D	1.	SAMP 13071475-001A	TO_15A+	1/1	1 Aug 2013 5:07 pm
6	8	08011306.D	1.	SAMP 13071477-001A	TO_15A+	1/1	1 Aug 2013 5:52 pm
7	3	08011307.D	1.	SAMP 13071451-001A	TO_15A+	1/1	1 Aug 2013 6:37 pm
8	4	08011308.D	1.	SAMP 13071451-002A	TO_15A+	1/1	1 Aug 2013 7:45 pm
9	5	08011309.D	1.	SAMP 13071451-003A	TO_15A+	1/1	1 Aug 2013 8:30 pm
10	6	08011310.D	1.	SAMP 13071451-004A	TO_15A+	1/1	1 Aug 2013 9:15 pm
11	9	08011311.D	1.	SAMP 13080016-039A	TO_15A	1/1	1 Aug 2013 10:00 pm
12	10	08011312.D	1.	SAMP 13080016-040A	TO_15A	1/1	1 Aug 2013 10:44 pm
13	11	08011313.D	1.	SAMP 13080017-001A	TO_15A	1/25	1 Aug 2013 11:24 pm
14	12	08011314.D	1.	SAMP 13080017-002A	TO_15A	1/25	2 Aug 2013 12:04 am
15	13	08011315.D	1.	SAMP 13080017-003A	TO_15A	1/25	2 Aug 2013 12:43 am
16	14	08011316.D	1.	SAMP 13080017-004A	TO_15A	1/25	2 Aug 2013 1:23 am
17	9	08011317.D	1.	SAMP 13080016-039A	TO_15A	1/10	2 Aug 2013 9:45 am
18	11	08011318.D	1.	SAMP 13080017-001A	TO_15A	1/1	2 Aug 2013 10:28 am
19	12	08011319.D	1.	SAMP 13080017-002A	TO_15A	1/1	2 Aug 2013 11:13 am
20	13	08011320.D	1.	SAMP 13080017-003A	TO_15A	1/1	2 Aug 2013 11:58 am
21	14	08011321.D	1.	SAMP 13080017-004A	TO_15A	1/1	2 Aug 2013 12:42 pm
22	3	08011322.D	1.	MBLK C080113	TO_15A+	117-5-290	2 Aug 2013 1:45 pm

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011301.D
Acq On : 1 Aug 2013 2:08 pm
Operator : VP
Sample : TUNE BFB080113-5
Misc : BFB 158-1-354
ALS Vial : 17 Sample Multiplier: 1
InstName : VOA5

Integration File: retint.p

Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
Last Update : Wed Jun 19 14:05:27 2013





AutoFind: Scans 4345, 4346, 4347; Background Corrected with Scan 4328

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	15.4	101778	PASS
75	95	30	66	45.3	299114	PASS
95	95	100	100	100.0	660032	PASS
96	95	5	9	6.6	43632	PASS
173	174	0.00	2	0.5	3591	PASS
174	95	50	120	101.2	668032	PASS
175	174	4	9	7.1	47762	PASS
176	174	93	101	98.5	657685	PASS
177	176	5	9	6.5	42429	PASS

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011301.D
Acq On : 1 Aug 2013 2:08 pm
Operator : VP
Sample : CCV CCV080113-5 5.0
Misc : TO_15A+ 117-5-274 CAN 155
ALS Vial : 17 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 14:37:23 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	bromochloromethane	10.000	10.000	0.0	96	-0.02
2	C	Propene	5.000	5.220	-4.4	102	-0.01
3	C	Dichlorodifluoromethane	5.000	5.095	-1.9	96	0.00
4	C	Chloromethane	5.000	5.096	-1.9	101	-0.01
5	C	Freon-114	5.000	4.857	2.9	89	-0.01
6	C	Vinyl chloride	5.000	4.903	1.9	93	-0.01
7	C	1,3-Butadiene	5.000	4.821	3.6	94	-0.01
8	C	Bromomethane	5.000	5.919	-18.4	105	-0.01
9	C	Chloroethane	5.000	5.877	-17.5	107	-0.01
10	C	Ethanol	4.450	4.628	-4.0	119	-0.01
11	C	Acrolein	5.000	4.774	4.5	96	-0.01
12	C	Acetone	5.000	5.869	-17.4	117	-0.01
13	C	Freon-11	5.000	4.760	4.8	90	-0.02
14	C	Isopropyl alcohol	5.000	5.171	-3.4	96	-0.01
15	C	1,1-dichloroethene	5.000	4.999	0.0	95	-0.01
16	C	Dichloromethane	5.000	5.793	-15.9	110	-0.02
17	C	Carbon disulfide	5.000	5.124	-2.5	91	-0.02
18	C	Freon-113	5.000	4.584	8.3	88	-0.02
19	C	trans-1,2-Dichloroethene	5.000	4.971	0.6	94	-0.01
20	C	1,1-Dichloroethane	5.000	4.978	0.4	95	-0.02
21	C	Mtbe	5.000	4.926	1.5	91	-0.01
22	C	Vinyl Acetate	5.000	5.635	-12.7	103	-0.01
23	C	2-Butanone	5.000	5.341	-6.8	99	-0.02
24	C	cis-1,2-Dichloroethene	5.000	4.978	0.4	95	-0.02
25	I	1,4-Difluorobenzene	10.000	10.000	0.0	86	-0.02
26	C	Hexane	6.000	6.938	-15.6	96	-0.02
27	C	Ethyl acetate	4.250	5.128	-20.7	93	-0.01
28	C	Chloroform	5.000	5.429	-8.6	92	-0.02
29	C	Tetrahydrofuran	5.000	5.036	-0.7	99	-0.02
30	C	1,2-Dichloroethane	5.000	5.843	-16.9	98	-0.02
31	C	1,1,1-Trichloroethane	5.000	5.393	-7.9	91	-0.02
32	C	Benzene	5.000	5.236	-4.7	90	-0.02
33	C	Carbon tetrachloride	5.000	6.136	-22.7	87	-0.02
34	C	Cyclohexane	5.000	5.675	-13.5	94	-0.02
35	C	1,2-Dichloropropane	5.000	5.519	-10.4	93	-0.02
36	C	Bromodichloromethane	5.000	5.692	-13.8	92	-0.02
37	C	Trichloroethene	5.000	4.759	4.8	79	-0.02
38	C	1,4-Dioxane	5.000	4.971	0.6	83	-0.02
39	C	Methyl methacrylate	5.000	5.645	-12.9	90	-0.02
40	C	Heptane	5.000	5.963	-19.3	99	-0.02
41	C	cis-1,3-Dichloropropene	5.000	5.744	-14.9	89	-0.02
42	C	4-Methyl-2-pentanone	4.400	5.640	-28.2	98	-0.02
43	C	trans-1,3-Dichloropropene	4.250	5.097	-19.9	90	-0.02
44	C	1,1,2-Trichloroethane	5.000	5.130	-2.6	87	-0.02
45	C	Toluene	5.000	5.367	-7.3	88	-0.02
46	C	2-Hexanone	5.000	6.426	-28.5	97	-0.02
47	C	Dibromochloromethane	5.000	5.325	-6.5	83	-0.02
48	C	1,2-Dibromoethane	5.000	5.177	-3.5	85	-0.02
49	C	Tetrachloroethene	5.000	4.654	6.9	77	-0.02
50	I	Chlorobenzene-d5	10.000	10.000	0.0	86	-0.02

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011301.D
Acq On : 1 Aug 2013 2:08 pm
Operator : VP
Sample : CCV CCV080113-5 5.0
Misc : TO_15A+ 117-5-274 CAN 155
ALS Vial : 17 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 14:37:23 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 140%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
51 C	Chlorobenzene	5.000	4.914	1.7	82	-0.02
52 C	Ethylbenzene	5.000	5.082	-1.6	83	-0.02
53 C, L1	Xylene (1)	10.000	10.445	-4.5	85	-0.02
54 C, L1	Xylene (2)	5.000	5.252	-5.0	85	-0.02
55 C, L1	Xylenes, total	15.000	15.696	-4.6	85	-0.02
56 C	Bromoform	5.000	5.214	-4.3	78	-0.02
57 C	Styrene	5.000	5.403	-8.1	83	-0.02
58 C	1,1,2,2-Tetrachloroethane	5.000	5.669	-13.4	90	-0.02
59 C	4-Ethyltoluene	5.000	5.205	-4.1	81	-0.03
60 C	1,3,5-Trimethylbenzene	5.000	5.152	-3.0	82	-0.03
61 C	1,2,4-Trimethylbenzene	5.000	5.220	-4.4	82	-0.02
62 C	Benzyl chloride	5.000	6.286	-25.7	85	-0.03
63 C	1,3-Dichlorobenzene	5.000	4.952	1.0	81	-0.03
64 C	1,4-Dichlorobenzene	5.000	4.907	1.9	80	-0.03
65 C	1,2-Dichlorobenzene	5.000	4.804	3.9	79	-0.03
66 C	1,2,4-Trichlorobenzene	5.000	4.431	11.4	76	-0.03
67 C	Naphthalene	5.000	5.602	-12.0	83	-0.03
68 C	Hexachlorobutadiene	5.000	4.717	5.7	74	-0.03

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011301.D
Acq On : 1 Aug 2013 2:08 pm
Operator : VP
Sample : CCV CCV080113-5 5.0
Misc : TO_15A+ 117-5-274 CAN 155
ALS Vial : 17 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 14:37:23 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.167	49	435563	10.00 ppbv	-0.02
25) 1,4-Difluorobenzene	11.167	114	1891862	10.00 ppbv	-0.02
50) Chlorobenzene-d5	15.443	117	1725055	10.00 ppbv	-0.02

Target Compounds					Qvalue
2) Propene	3.524	41	128975	5.22 ppbv	99
3) Dichlorodifluoromethane	3.630	85	538646	5.10 ppbv	99
4) Chloromethane	3.820	50	168752	5.10 ppbv	100
5) Freon-114	3.974	85	384320	4.86 ppbv	94
6) Vinyl chloride	4.090	62	128732	4.90 ppbv	100
7) 1,3-Butadiene	4.263	54	90123	4.82 ppbv	96
8) Bromomethane	4.585	94	138783	5.92 ppbv	100
9) Chloroethane	4.820	64	88739	5.88 ppbv	99
10) Ethanol	5.077	45	38713	4.63 ppbv	98
11) Acrolein	5.456	56	60864	4.77 ppbv	98
12) Acetone	5.630	43	244232	5.87 ppbv	97
13) Freon-11	5.791	101	511343	4.76 ppbv	100
14) Isopropyl alcohol	5.977	45	260037m	5.17 ppbv	
15) 1,1-dichloroethene	6.572	61	302572	5.00 ppbv	94
16) Dichloromethane	6.746	49	226237	5.79 ppbv	91
17) Carbon disulfide	7.019	76	528877	5.12 ppbv	96
18) Freon-113	7.067	101	423982	4.58 ppbv	92
19) trans-1,2-Dichloroethene	7.839	61	265820	4.97 ppbv	93
20) 1,1-Dichloroethane	8.067	63	349645	4.98 ppbv	100
21) Mtbe	8.144	73	550026	4.93 ppbv	99
22) Vinyl Acetate	8.279	43	372866	5.64 ppbv	97
23) 2-Butanone	8.520	43	343922	5.34 ppbv	96
24) cis-1,2-Dichloroethene	8.987	61	257246	4.98 ppbv	92
26) Hexane	9.225	57	293256	6.94 ppbv	96
27) Ethyl acetate	9.263	61	59599	5.13 ppbv	97
28) Chloroform	9.311	83	422663	5.43 ppbv	99
29) Tetrahydrofuran	9.707	42	194323	5.04 ppbv	94
30) 1,2-Dichloroethane	10.073	62	279353	5.84 ppbv	99
31) 1,1,1-Trichloroethane	10.324	97	427442	5.39 ppbv	97
32) Benzene	10.790	78	637310	5.24 ppbv	99
33) Carbon tetrachloride	10.938	117	396220	6.14 ppbv	100
34) Cyclohexane	11.061	56	296683	5.68 ppbv	94
35) 1,2-Dichloropropane	11.614	63	213259	5.52 ppbv	96
36) Bromodichloromethane	11.810	83	466926	5.69 ppbv	100
37) Trichloroethene	11.852	130	300705	4.76 ppbv	88
38) 1,4-Dioxane	11.842	88	106691	4.97 ppbv	95
39) Methyl methacrylate	12.054	69	216186	5.64 ppbv	97
40) Heptane	12.151	43	317856	5.96 ppbv	96
41) cis-1,3-Dichloropropene	12.704	75	362572	5.74 ppbv	96
42) 4-Methyl-2-pentanone	12.726	43	391693	5.64 ppbv	95
43) trans-1,3-Dichloropropene	13.218	75	334234	5.10 ppbv	99
44) 1,1,2-Trichloroethane	13.388	97	268489	5.13 ppbv	95
45) Toluene	13.665	91	816892	5.37 ppbv	99
46) 2-Hexanone	13.909	43	352040	6.43 ppbv	96
47) Dibromochloromethane	14.086	129	482686	5.33 ppbv	100
48) 1,2-Dibromoethane	14.331	107	412542	5.18 ppbv	99
49) Tetrachloroethene	14.797	166	415800	4.65 ppbv	93
51) Chlorobenzene	15.488	112	649120	4.91 ppbv	95
52) Ethylbenzene	15.874	106	335158	5.08 ppbv	92
53) Xylene (1)	16.060	106	852745	10.44 ppbv	94
54) Xylene (2)	16.559	106	413561	5.25 ppbv	95

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011301.D
Acq On : 1 Aug 2013 2:08 pm
Operator : VP
Sample : CCV CCV080113-5 5.0
Misc : TO_15A+ 117-5-274 CAN 155
ALS Vial : 17 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 14:37:23 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

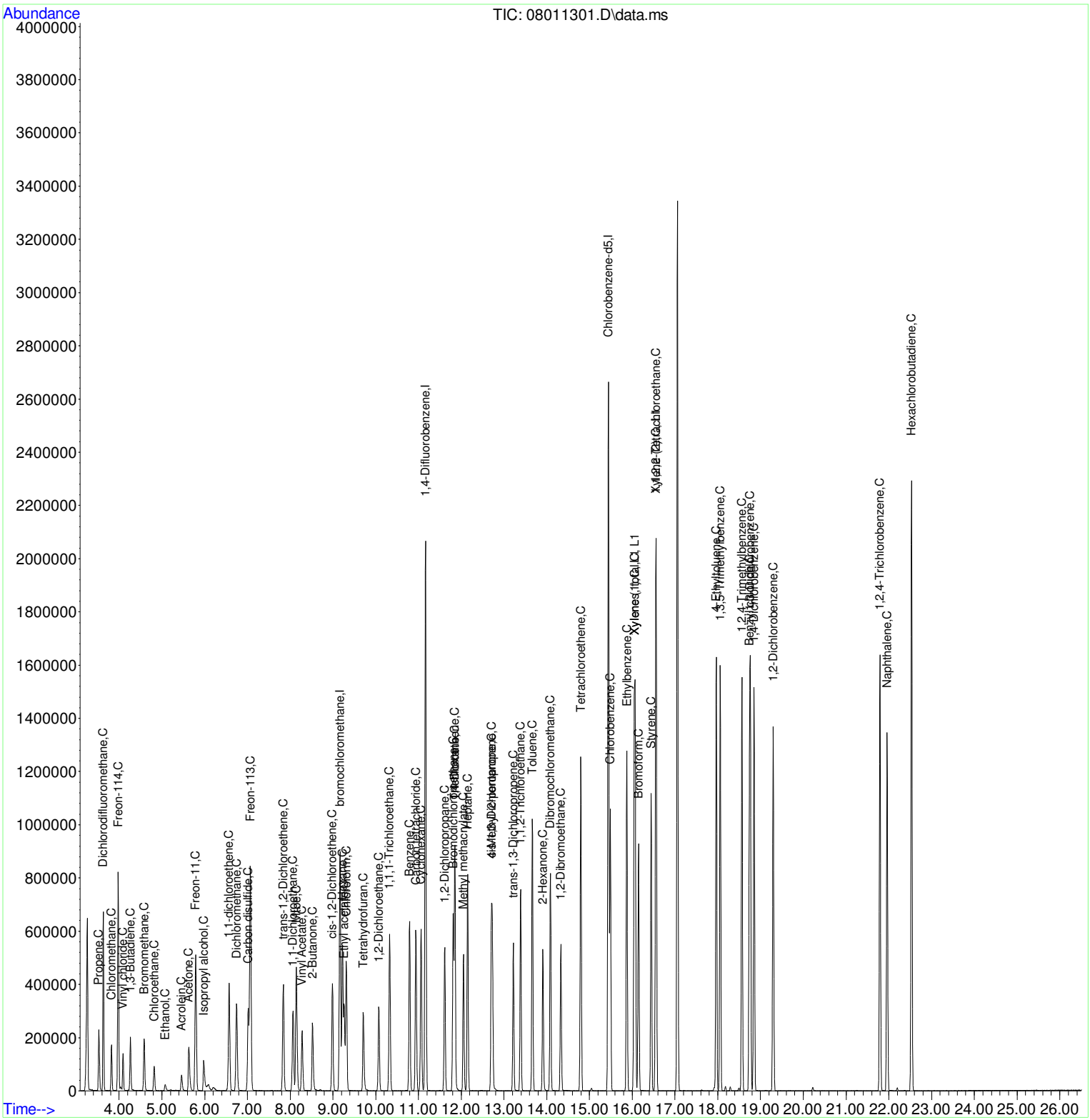
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.060	106	1266306m	15.70 ppbv	
56) Bromoform	16.147	173	484026	5.21 ppbv	94
57) Styrene	16.443	104	632444	5.40 ppbv	95
58) 1,1,2,2-Tetrachloroethane	16.549	83	556198	5.67 ppbv	100
59) 4-Ethyltoluene	17.964	120	363427	5.20 ppbv	92
60) 1,3,5-Trimethylbenzene	18.057	120	512439	5.15 ppbv	94
61) 1,2,4-Trimethylbenzene	18.565	120	474282	5.22 ppbv	94
62) Benzyl chloride	18.739	91	808493	6.29 ppbv	96
63) 1,3-Dichlorobenzene	18.761	146	727560	4.95 ppbv	95
64) 1,4-Dichlorobenzene	18.848	146	740440	4.91 ppbv	95
65) 1,2-Dichlorobenzene	19.295	146	673851	4.80 ppbv	95
66) 1,2,4-Trichlorobenzene	21.793	180	604481	4.43 ppbv	99
67) Naphthalene	21.960	128	1260739	5.60 ppbv	100
68) Hexachlorobutadiene	22.533	225	519127	4.72 ppbv	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011301.D
Acq On : 1 Aug 2013 2:08 pm
Operator : VP
Sample : CCV CCV080113-5 5.0
Misc : TO_15A+ 117-5-274 CAN 155
ALS Vial : 17 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 14:37:23 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011301.D
Acq On : 1 Aug 2013 2:08 pm
Operator : VP
Sample : CCV CCV080113-5 5.0
Misc : TO_15A+ 117-5-274 CAN 155
ALS Vial : 17 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 14:36:40 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.167	49	435563	10.00 ppbv	-0.02
25) 1,4-Difluorobenzene	11.167	114	1891862	10.00 ppbv	-0.02
50) Chlorobenzene-d5	15.443	117	1725055	10.00 ppbv	-0.02

Target Compounds					Qvalue
2) Propene	3.524	41	128975	5.22 ppbv	99
3) Dichlorodifluoromethane	3.630	85	538646	5.10 ppbv	99
4) Chloromethane	3.820	50	168752	5.10 ppbv	100
5) Freon-114	3.974	85	384320	4.86 ppbv	94
6) Vinyl chloride	4.090	62	128732	4.90 ppbv	100
7) 1,3-Butadiene	4.263	54	90123	4.82 ppbv	96
8) Bromomethane	4.585	94	138783	5.92 ppbv	100
9) Chloroethane	4.820	64	88739	5.88 ppbv	99
10) Ethanol	5.077	45	38713	4.63 ppbv	98
11) Acrolein	5.456	56	60864	4.77 ppbv	98
12) Acetone	5.630	43	244232	5.87 ppbv	97
13) Freon-11	5.791	101	511343	4.76 ppbv	100
14) Isopropyl alcohol	5.977	45	229255	4.56 ppbv	95
15) 1,1-dichloroethene	6.572	61	302572	5.00 ppbv	94
16) Dichloromethane	6.746	49	226237	5.79 ppbv	91
17) Carbon disulfide	7.019	76	528877	5.12 ppbv	96
18) Freon-113	7.067	101	423982	4.58 ppbv	92
19) trans-1,2-Dichloroethene	7.839	61	265820	4.97 ppbv	93
20) 1,1-Dichloroethane	8.067	63	349645	4.98 ppbv	100
21) Mtbe	8.144	73	550026	4.93 ppbv	99
22) Vinyl Acetate	8.279	43	372866	5.64 ppbv	97
23) 2-Butanone	8.520	43	343922	5.34 ppbv	96
24) cis-1,2-Dichloroethene	8.987	61	257246	4.98 ppbv	92
26) Hexane	9.225	57	293256	6.94 ppbv	96
27) Ethyl acetate	9.263	61	59599	5.13 ppbv	97
28) Chloroform	9.311	83	422663	5.43 ppbv	99
29) Tetrahydrofuran	9.707	42	194323	5.04 ppbv	94
30) 1,2-Dichloroethane	10.073	62	279353	5.84 ppbv	99
31) 1,1,1-Trichloroethane	10.324	97	427442	5.39 ppbv	97
32) Benzene	10.790	78	637310	5.24 ppbv	99
33) Carbon tetrachloride	10.938	117	396220	6.14 ppbv	100
34) Cyclohexane	11.061	56	296683	5.68 ppbv	94
35) 1,2-Dichloropropane	11.614	63	213259	5.52 ppbv	96
36) Bromodichloromethane	11.810	83	466926	5.69 ppbv	100
37) Trichloroethene	11.852	130	300705	4.76 ppbv	88
38) 1,4-Dioxane	11.842	88	106691	4.97 ppbv	95
39) Methyl methacrylate	12.054	69	216186	5.64 ppbv	97
40) Heptane	12.151	43	317856	5.96 ppbv	96
41) cis-1,3-Dichloropropene	12.704	75	362572	5.74 ppbv	96
42) 4-Methyl-2-pentanone	12.726	43	391693	5.64 ppbv	95
43) trans-1,3-Dichloropropene	13.218	75	334234	5.10 ppbv	99
44) 1,1,2-Trichloroethane	13.388	97	268489	5.13 ppbv	95
45) Toluene	13.665	91	816892	5.37 ppbv	99
46) 2-Hexanone	13.909	43	352040	6.43 ppbv	96
47) Dibromochloromethane	14.086	129	482686	5.33 ppbv	100
48) 1,2-Dibromoethane	14.331	107	412542	5.18 ppbv	99
49) Tetrachloroethene	14.797	166	415800	4.65 ppbv	93
51) Chlorobenzene	15.488	112	649120	4.91 ppbv	95
52) Ethylbenzene	15.874	106	335158	5.08 ppbv	92
53) Xylene (1)	16.060	106	852745	10.44 ppbv	94
54) Xylene (2)	16.559	106	413561	5.25 ppbv	95

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011301.D
Acq On : 1 Aug 2013 2:08 pm
Operator : VP
Sample : CCV CCV080113-5 5.0
Misc : TO_15A+ 117-5-274 CAN 155
ALS Vial : 17 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 14:36:40 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

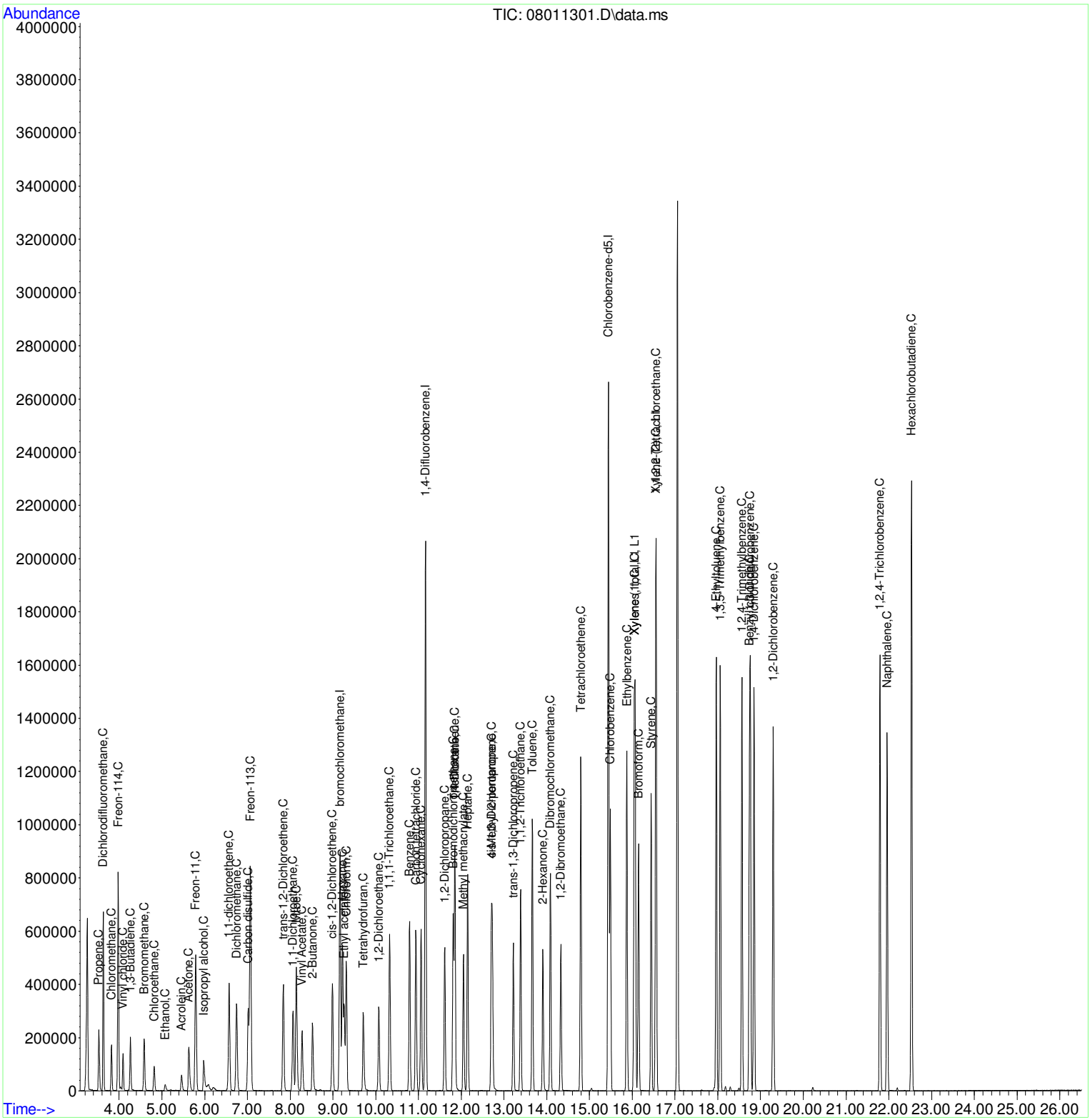
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.060	106	1266306m	15.70 ppbv	
56) Bromoform	16.147	173	484026	5.21 ppbv	94
57) Styrene	16.443	104	632444	5.40 ppbv	95
58) 1,1,2,2-Tetrachloroethane	16.549	83	556198	5.67 ppbv	100
59) 4-Ethyltoluene	17.964	120	363427	5.20 ppbv	92
60) 1,3,5-Trimethylbenzene	18.057	120	512439	5.15 ppbv	94
61) 1,2,4-Trimethylbenzene	18.565	120	474282	5.22 ppbv	94
62) Benzyl chloride	18.739	91	808493	6.29 ppbv	96
63) 1,3-Dichlorobenzene	18.761	146	727560	4.95 ppbv	95
64) 1,4-Dichlorobenzene	18.848	146	740440	4.91 ppbv	95
65) 1,2-Dichlorobenzene	19.295	146	673851	4.80 ppbv	95
66) 1,2,4-Trichlorobenzene	21.793	180	604481	4.43 ppbv	99
67) Naphthalene	21.960	128	1260739	5.60 ppbv	100
68) Hexachlorobutadiene	22.533	225	519127	4.72 ppbv	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011301.D
Acq On : 1 Aug 2013 2:08 pm
Operator : VP
Sample : CCV CCV080113-5 5.0
Misc : TO_15A+ 117-5-274 CAN 155
ALS Vial : 17 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 14:36:40 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration



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Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011301.D
Acq On    :  1 Aug 2013   2:08 pm
Operator  : VP
Sample    : CCV  CCV080113-5 5.0
Misc      : TO_15A+        117-5-274 CAN 155
ALS Vial  : 17   Sample Multiplier: 1
InstName  : VOA5

Quant Time: Aug 01 14:36:40 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title  : SOP 4010 EPA   TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration
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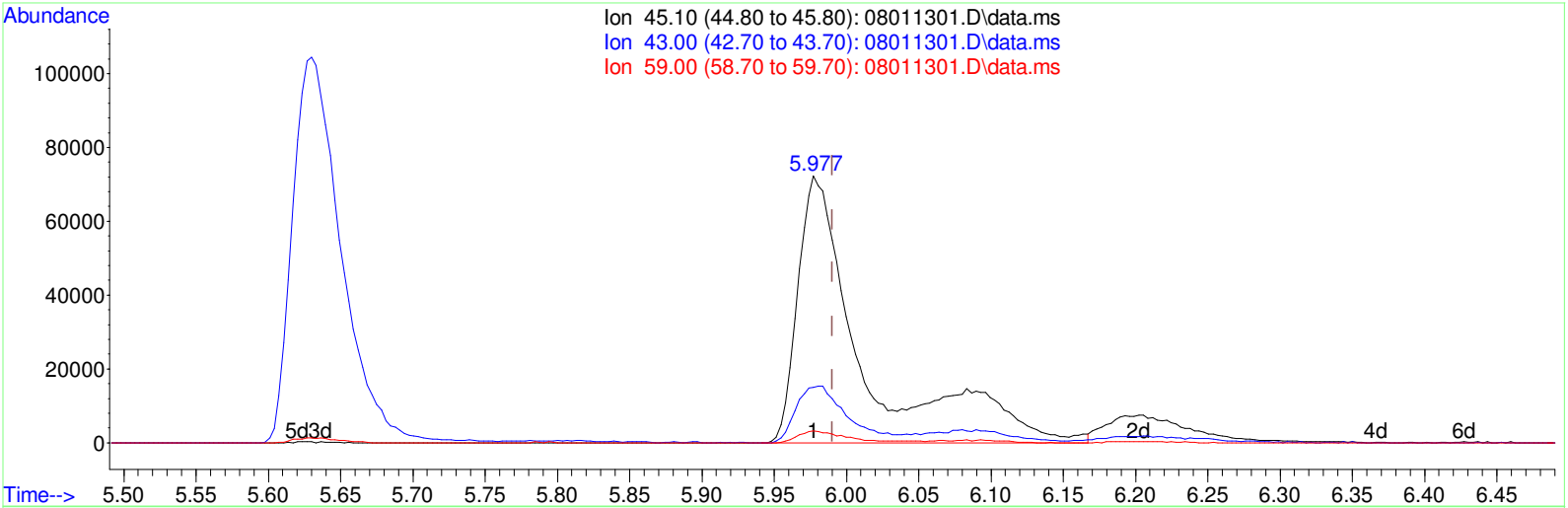
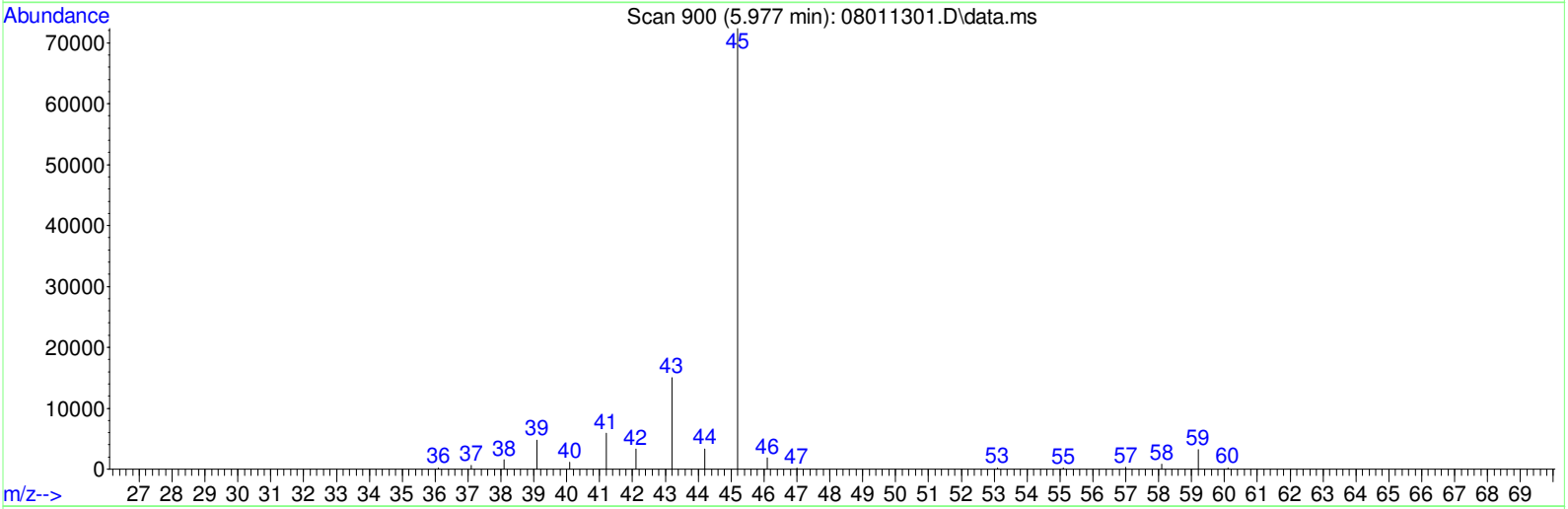




TIC: 08011301.D\data.ms

(14) Isopropyl alcohol (C)

5.977min (-0.013) 4.56ppbv

response 229255

BEFORE

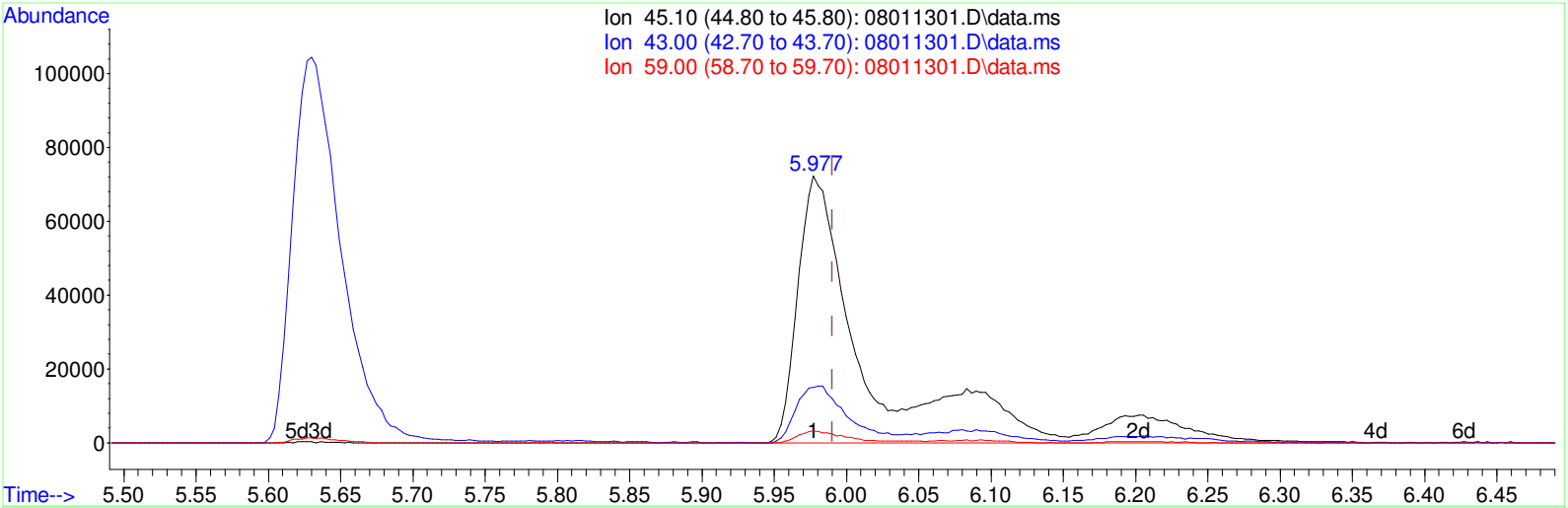
By Vytautas at 14:15:55, 8/14/2013

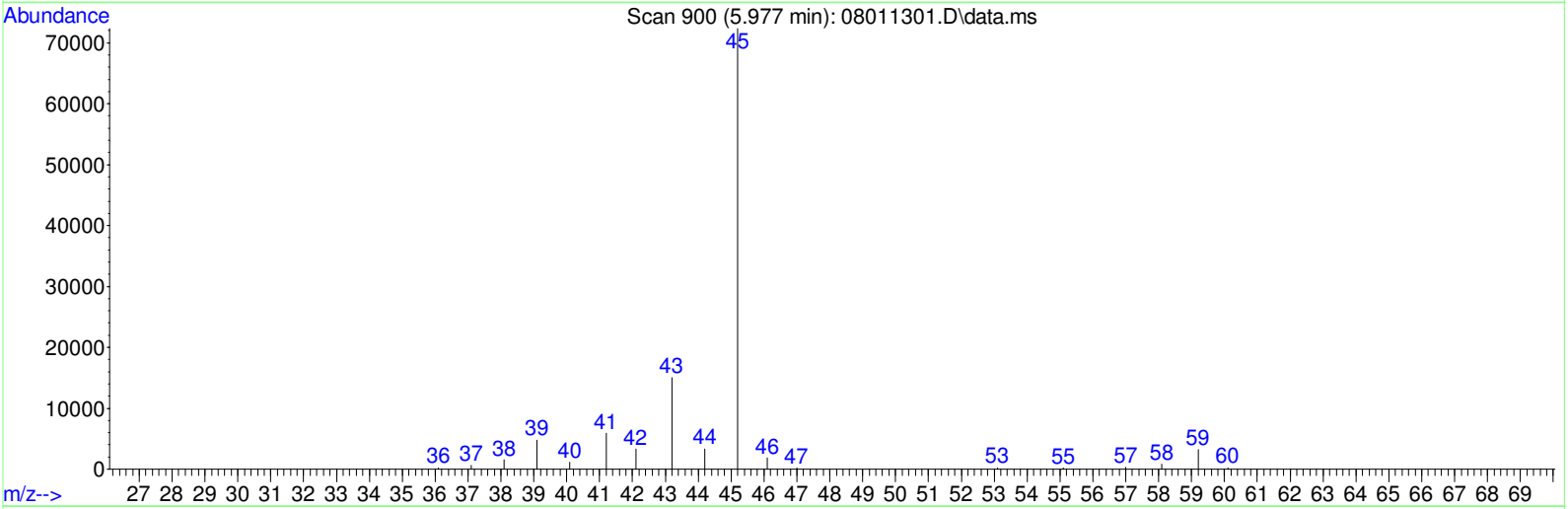
Ion	Exp%	Act%
45.10	100	100
43.00	20.80	23.18
59.00	4.40	3.41
0.00	0.00	0.00

Quantitation Report (Qedit)

```
Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011301.D
Acq On    :  1 Aug 2013   2:08 pm
Operator  : VP
Sample    : CCV  CCV080113-5 5.0
Misc      : TO_15A+        117-5-274 CAN 155
ALS Vial  : 17   Sample Multiplier: 1
InstName  : VOA5

Quant Time: Aug 01 14:36:40 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title  : SOP 4010 EPA   TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration
```





TIC: 08011301.D\data.ms

(14) Isopropyl alcohol (C)

5.977min (-0.013) 5.17ppbv m

response 260037

Ion	Exp%	Act%
45.10	100	100
43.00	20.80	20.44
59.00	4.40	3.00
0.00	0.00	0.00

AFTER M3

By Vytautas at 14:15:49, 8/14/2013

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011302.D
Acq On : 1 Aug 2013 2:53 pm
Operator : VP
Sample : MBLK MB080113-5
Misc : TO_15A+ 117-5-287 CAN 3155
ALS Vial : 19 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 15:20:25 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.157	49	432314	10.00 ppbv	-0.02
25) 1,4-Difluorobenzene	11.164	114	1889627	10.00 ppbv	-0.02
50) Chlorobenzene-d5	15.440	117	1711361	10.00 ppbv	-0.03

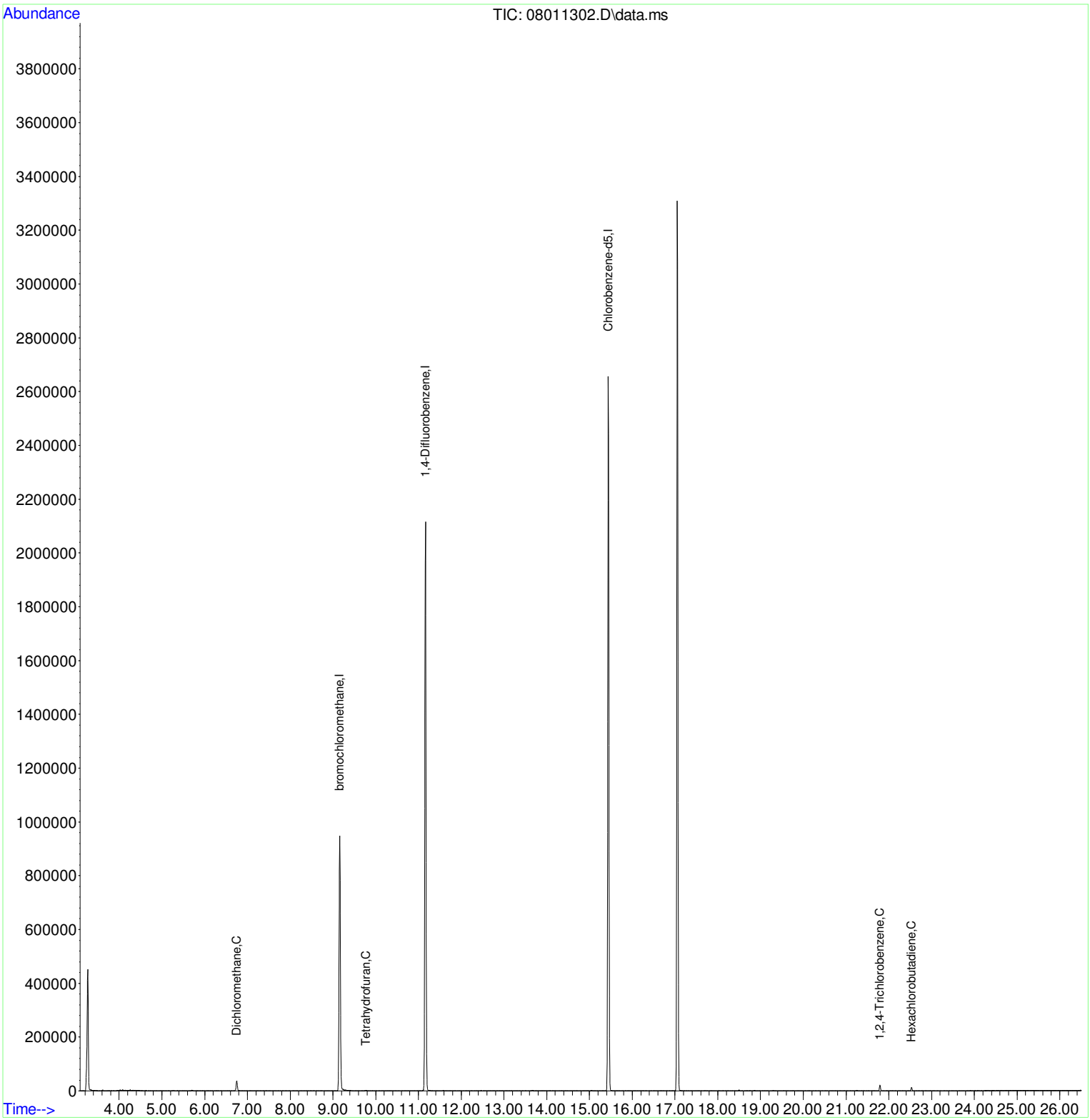
Target Compounds					Qvalue
16) Dichloromethane	6.752	49	22459	0.58 ppbv	89
29) Tetrahydrofuran	9.768	42	1392	0.04 ppbv #	61
66) 1,2,4-Trichlorobenzene	21.793	180	8842	0.07 ppbv	99
68) Hexachlorobutadiene	22.533	225	3426	0.03 ppbv	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011302.D
Acq On : 1 Aug 2013 2:53 pm
Operator : VP
Sample : MBLK MB080113-5
Misc : TO_15A+ 117-5-287 CAN 3155
ALS Vial : 19 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 15:20:25 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011302.D
Acq On : 1 Aug 2013 2:53 pm
Operator : VP
Sample : MBLK MB080113-5
Misc : TO_15A+ 117-5-287 CAN 3155
ALS Vial : 19 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 15:19:54 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) bromochloromethane	9.157	49	432314	10.00	ppbv		-0.02
25) 1,4-Difluorobenzene	11.164	114	1889627	10.00	ppbv		-0.02
50) Chlorobenzene-d5	15.440	117	1711361	10.00	ppbv		-0.03

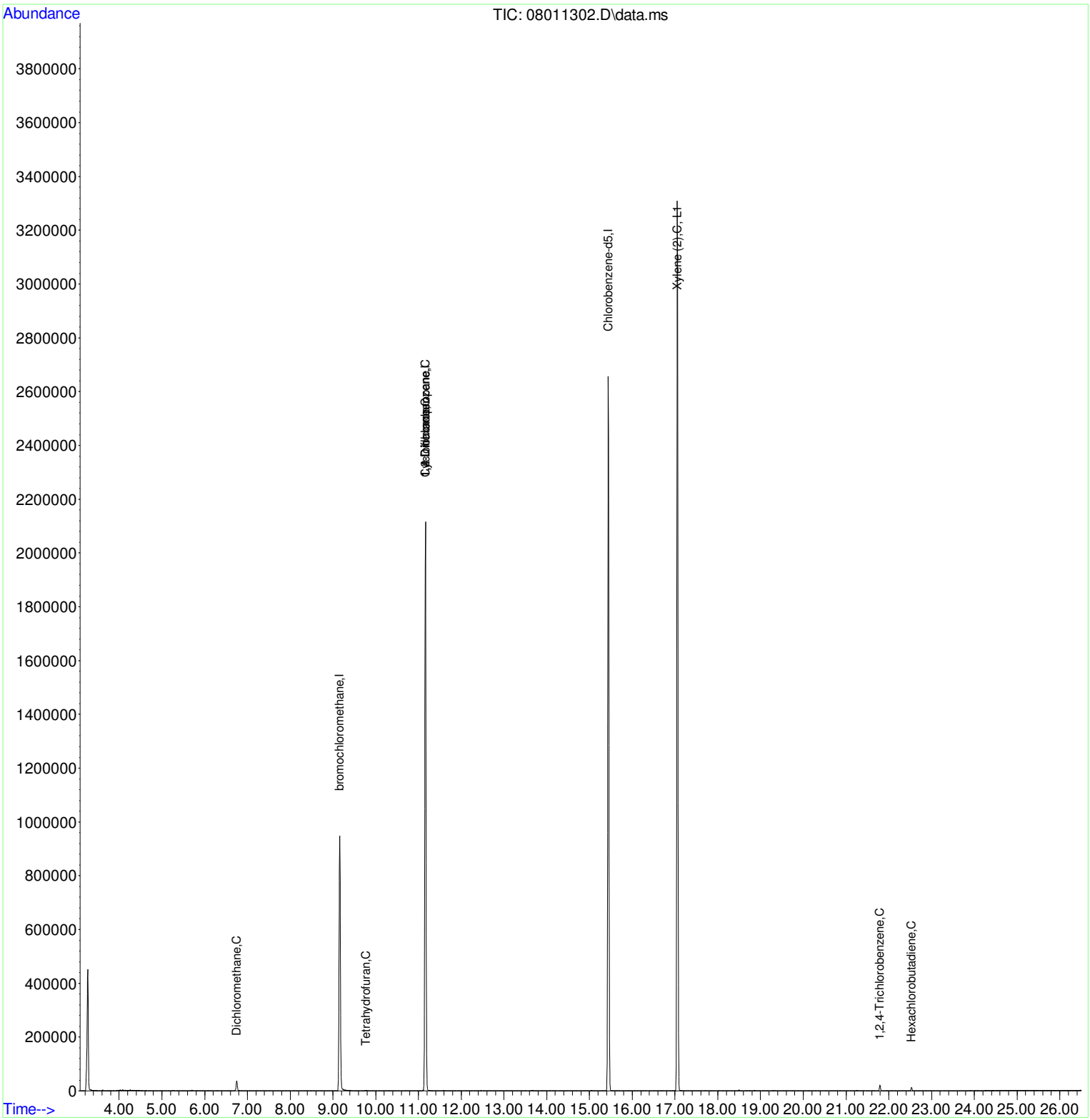
Target Compounds							Qvalue
16) Dichloromethane	6.752	49	22459	0.58	ppbv		89
29) Tetrahydrofuran	9.768	42	1392	0.04	ppbv	#	61
34) Cyclohexane	11.160	56	28881	0.55	ppbv	#	11
35) 1,2-Dichloropropane	11.160	63	322058	8.34	ppbv	#	31
54) Xylene (2)	17.054	106	3640	0.05	ppbv	#	22
55) Xylenes, total	0.000	106	3640m	0.05	ppbv		
66) 1,2,4-Trichlorobenzene	21.793	180	8842	0.07	ppbv		99
68) Hexachlorobutadiene	22.533	225	3426	0.03	ppbv		94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011302.D
Acq On : 1 Aug 2013 2:53 pm
Operator : VP
Sample : MBLK MB080113-5
Misc : TO_15A+ 117-5-287 CAN 3155
ALS Vial : 19 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 15:19:54 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011303.D
Acq On : 1 Aug 2013 3:38 pm
Operator : VP
Sample : LCS LCS080113-5 5.0
Misc : TO_15A+ 117-5-267-1 CAN 159
ALS Vial : 1 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 16:10:58 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.167	49	378232	10.00 ppbv	-0.02
25) 1,4-Difluorobenzene	11.167	114	1813919	10.00 ppbv	-0.02
50) Chlorobenzene-d5	15.443	117	1708369	10.00 ppbv	-0.02

Target Compounds					Qvalue
2) Propene	3.537	41	112226	5.23 ppbv	99
3) Dichlorodifluoromethane	3.637	85	505029	5.50 ppbv	100
4) Chloromethane	3.830	50	104983	3.65 ppbv	99
5) Freon-114	3.984	85	408428	5.94 ppbv	85
6) Vinyl chloride	4.096	62	124369	5.45 ppbv	99
7) 1,3-Butadiene	4.270	54	76364	4.70 ppbv	95
8) Bromomethane	4.592	94	135505	6.66 ppbv	99
9) Chloroethane	4.826	64	88364	6.74 ppbv	99
10) Ethanol	5.083	45	25776	3.55 ppbv	94
11) Acrolein	5.482	56	2209	0.20 ppbv	100
12) Acetone	5.633	43	184652	5.11 ppbv	98
13) Freon-11	5.797	101	456698	4.90 ppbv	100
14) Isopropyl alcohol	5.984	45	257358m	5.89 ppbv	
15) 1,1-dichloroethene	6.579	61	289099	5.50 ppbv	94
16) Dichloromethane	6.749	49	279224	8.23 ppbv	90
17) Carbon disulfide	7.022	76	448860	5.01 ppbv	95
18) Freon-113	7.074	101	398650	4.96 ppbv	92
19) trans-1,2-Dichloroethene	7.839	61	249706	5.38 ppbv	92
20) 1,1-Dichloroethane	8.071	63	326222	5.35 ppbv	100
21) Mtbe	8.148	73	498714	5.14 ppbv	98
22) Vinyl Acetate	8.283	43	249685	4.35 ppbv	96
23) 2-Butanone	8.524	43	297956	5.33 ppbv	95
24) cis-1,2-Dichloroethene	8.990	61	248831	5.54 ppbv	91
26) Hexane	9.225	57	263668	6.51 ppbv	96
27) Ethyl acetate	9.263	61	56016	5.03 ppbv	98
28) Chloroform	9.315	83	399175	5.35 ppbv	100
29) Tetrahydrofuran	9.714	42	177896	4.81 ppbv	94
30) 1,2-Dichloroethane	10.077	62	262808	5.73 ppbv	99
31) 1,1,1-Trichloroethane	10.328	97	412797	5.43 ppbv	97
32) Benzene	10.797	78	600571	5.15 ppbv	99
33) Carbon tetrachloride	10.942	117	345796	5.59 ppbv	100
34) Cyclohexane	11.064	56	275036	5.49 ppbv	93
35) 1,2-Dichloropropane	11.617	63	206581	5.58 ppbv	95
36) Bromodichloromethane	11.813	83	417257	5.31 ppbv	100
37) Trichloroethene	11.852	130	284946	4.70 ppbv	87
38) 1,4-Dioxane	11.845	88	118984	5.78 ppbv	94
39) Methyl methacrylate	12.054	69	205527	5.60 ppbv	97
40) Heptane	12.154	43	299237	5.86 ppbv	95
41) cis-1,3-Dichloropropene	12.707	75	309481	5.11 ppbv	95
42) 4-Methyl-2-pentanone	12.729	43	364201	5.47 ppbv	95
43) trans-1,3-Dichloropropene	13.221	75	307301	4.89 ppbv	100
44) 1,1,2-Trichloroethane	13.392	97	257919	5.14 ppbv	94
45) Toluene	13.665	91	764608	5.24 ppbv	99
46) 2-Hexanone	13.910	43	327324	6.23 ppbv	95
47) Dibromochloromethane	14.086	129	444065	5.11 ppbv	100
48) 1,2-Dibromoethane	14.334	107	395710	5.18 ppbv	100
49) Tetrachloroethene	14.800	166	396103	4.62 ppbv	92
51) Chlorobenzene	15.488	112	615506	4.70 ppbv	94
52) Ethylbenzene	15.874	106	325581	4.98 ppbv	93
53) Xylene (1)	16.067	106	818858	10.13 ppbv	93
54) Xylene (2)	16.562	106	412368	5.29 ppbv	94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011303.D
Acq On : 1 Aug 2013 3:38 pm
Operator : VP
Sample : LCS LCS080113-5 5.0
Misc : TO_15A+ 117-5-267-1 CAN 159
ALS Vial : 1 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 16:10:58 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

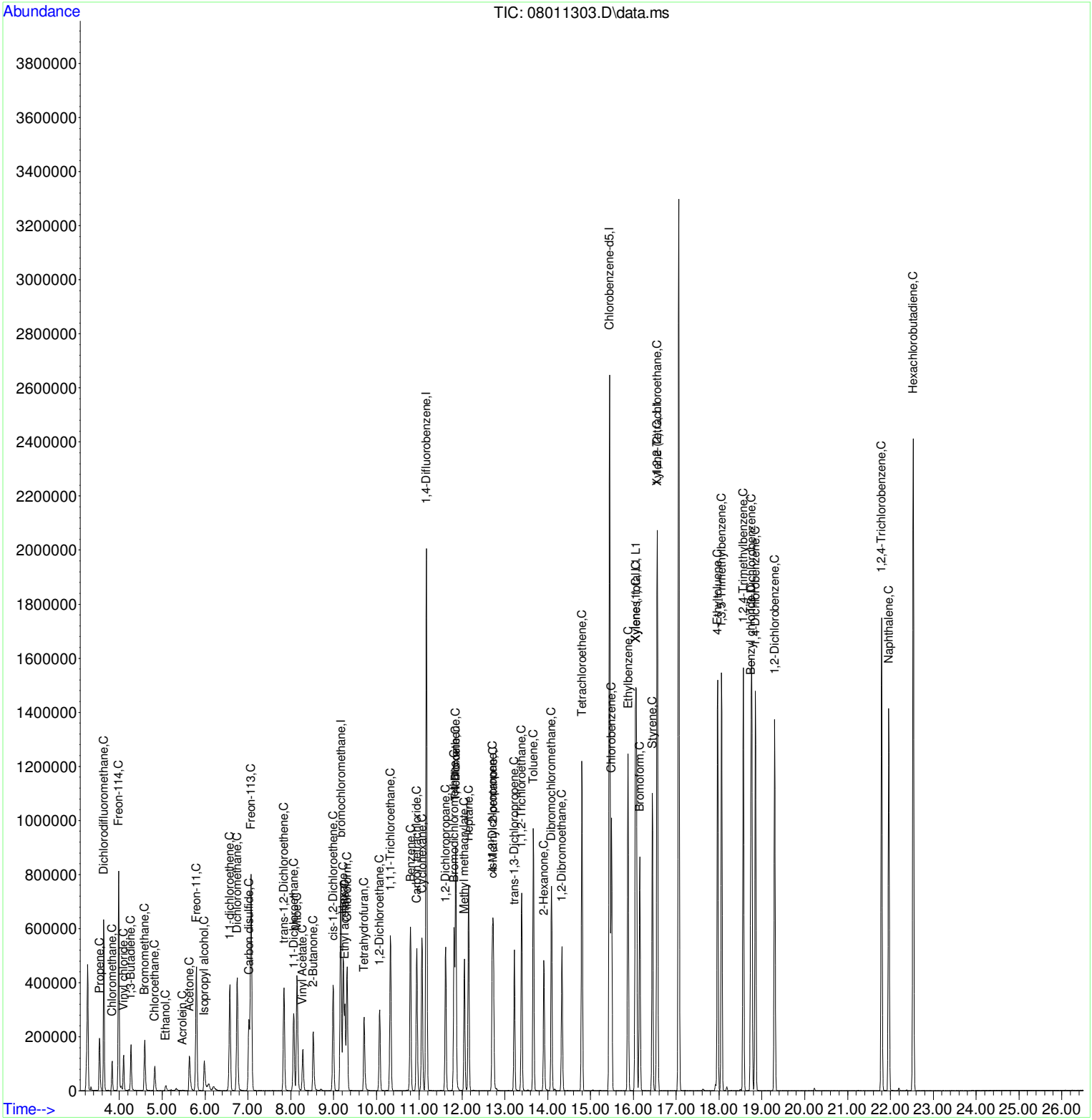
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.067	106	1231226m	15.41 ppbv	
56) Bromoform	16.147	173	441457	4.80 ppbv	93
57) Styrene	16.443	104	613858	5.30 ppbv	95
58) 1,1,2,2-Tetrachloroethane	16.549	83	548906	5.65 ppbv	100
59) 4-Ethyltoluene	17.967	120	342179	4.95 ppbv	92
60) 1,3,5-Trimethylbenzene	18.060	120	497329	5.05 ppbv	93
61) 1,2,4-Trimethylbenzene	18.565	120	468091	5.20 ppbv	93
62) Benzyl chloride	18.739	91	686032	5.39 ppbv	96
63) 1,3-Dichlorobenzene	18.761	146	717066	4.93 ppbv	94
64) 1,4-Dichlorobenzene	18.848	146	717927	4.80 ppbv	95
65) 1,2-Dichlorobenzene	19.298	146	664044	4.78 ppbv	94
66) 1,2,4-Trichlorobenzene	21.793	180	636256	4.71 ppbv	99
67) Naphthalene	21.961	128	1309401	5.87 ppbv	100
68) Hexachlorobutadiene	22.533	225	546767	5.02 ppbv	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011303.D
Acq On : 1 Aug 2013 3:38 pm
Operator : VP
Sample : LCS LCS080113-5 5.0
Misc : TO_15A+ 117-5-267-1 CAN 159
ALS Vial : 1 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 16:10:58 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011303.D
Acq On : 1 Aug 2013 3:38 pm
Operator : VP
Sample : LCS LCS080113-5 5.0
Misc : TO_15A+ 117-5-267-1 CAN 159
ALS Vial : 1 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 16:09:49 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.167	49	378232	10.00 ppbv	-0.02
25) 1,4-Difluorobenzene	11.167	114	1813919	10.00 ppbv	-0.02
50) Chlorobenzene-d5	15.443	117	1708369	10.00 ppbv	-0.02

Target Compounds					Qvalue
2) Propene	3.537	41	112226	5.23 ppbv	99
3) Dichlorodifluoromethane	3.637	85	505029	5.50 ppbv	100
4) Chloromethane	3.830	50	104983	3.65 ppbv	99
5) Freon-114	3.984	85	408428	5.94 ppbv	85
6) Vinyl chloride	4.096	62	124369	5.45 ppbv	99
7) 1,3-Butadiene	4.270	54	76364	4.70 ppbv	95
8) Bromomethane	4.592	94	135505	6.66 ppbv	99
9) Chloroethane	4.826	64	88364	6.74 ppbv	99
10) Ethanol	5.083	45	25776	3.55 ppbv	94
11) Acrolein	5.482	56	2209	0.20 ppbv	100
12) Acetone	5.633	43	184652	5.11 ppbv	98
13) Freon-11	5.797	101	456698	4.90 ppbv	100
14) Isopropyl alcohol	5.984	45	219979	5.04 ppbv	94
15) 1,1-dichloroethene	6.579	61	289099	5.50 ppbv	94
16) Dichloromethane	6.749	49	279224	8.23 ppbv	90
17) Carbon disulfide	7.022	76	448860	5.01 ppbv	95
18) Freon-113	7.074	101	398650	4.96 ppbv	92
19) trans-1,2-Dichloroethene	7.839	61	249706	5.38 ppbv	92
20) 1,1-Dichloroethane	8.071	63	326222	5.35 ppbv	100
21) Mtbe	8.148	73	498714	5.14 ppbv	98
22) Vinyl Acetate	8.283	43	249685	4.35 ppbv	96
23) 2-Butanone	8.524	43	297956	5.33 ppbv	95
24) cis-1,2-Dichloroethene	8.990	61	248831	5.54 ppbv	91
26) Hexane	9.225	57	263668	6.51 ppbv	96
27) Ethyl acetate	9.263	61	56016	5.03 ppbv	98
28) Chloroform	9.315	83	399175	5.35 ppbv	100
29) Tetrahydrofuran	9.714	42	177896	4.81 ppbv	94
30) 1,2-Dichloroethane	10.077	62	262808	5.73 ppbv	99
31) 1,1,1-Trichloroethane	10.328	97	412797	5.43 ppbv	97
32) Benzene	10.797	78	600571	5.15 ppbv	99
33) Carbon tetrachloride	10.942	117	345796	5.59 ppbv	100
34) Cyclohexane	11.064	56	275036	5.49 ppbv	93
35) 1,2-Dichloropropane	11.617	63	206581	5.58 ppbv	95
36) Bromodichloromethane	11.813	83	417257	5.31 ppbv	100
37) Trichloroethene	11.852	130	284946	4.70 ppbv	87
38) 1,4-Dioxane	11.845	88	118984	5.78 ppbv	94
39) Methyl methacrylate	12.054	69	205527	5.60 ppbv	97
40) Heptane	12.154	43	299237	5.86 ppbv	95
41) cis-1,3-Dichloropropene	12.707	75	309481	5.11 ppbv	95
42) 4-Methyl-2-pentanone	12.729	43	364201	5.47 ppbv	95
43) trans-1,3-Dichloropropene	13.221	75	307301	4.89 ppbv	100
44) 1,1,2-Trichloroethane	13.392	97	257919	5.14 ppbv	94
45) Toluene	13.665	91	764608	5.24 ppbv	99
46) 2-Hexanone	13.910	43	327324	6.23 ppbv	95
47) Dibromochloromethane	14.086	129	444065	5.11 ppbv	100
48) 1,2-Dibromoethane	14.334	107	395710	5.18 ppbv	100
49) Tetrachloroethene	14.800	166	396103	4.62 ppbv	92
51) Chlorobenzene	15.488	112	615506	4.70 ppbv	94
52) Ethylbenzene	15.874	106	325581	4.98 ppbv	93
53) Xylene (1)	16.067	106	818858	10.13 ppbv	93
54) Xylene (2)	16.562	106	412368	5.29 ppbv	94

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011303.D
Acq On : 1 Aug 2013 3:38 pm
Operator : VP
Sample : LCS LCS080113-5 5.0
Misc : TO_15A+ 117-5-267-1 CAN 159
ALS Vial : 1 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 16:09:49 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

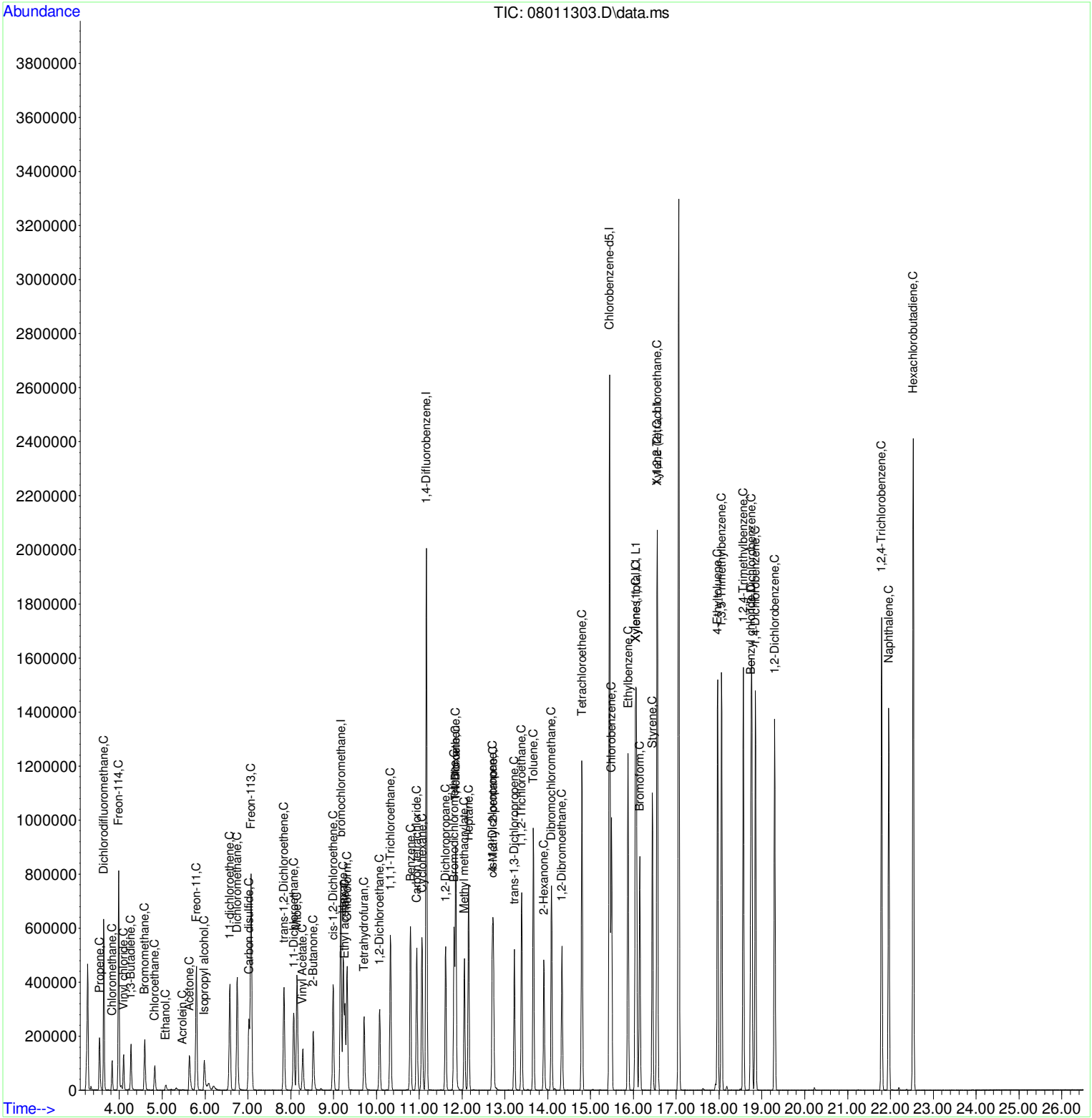
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.067	106	1231226m	15.41 ppbv	
56) Bromoform	16.147	173	441457	4.80 ppbv	93
57) Styrene	16.443	104	613858	5.30 ppbv	95
58) 1,1,2,2-Tetrachloroethane	16.549	83	548906	5.65 ppbv	100
59) 4-Ethyltoluene	17.967	120	342179	4.95 ppbv	92
60) 1,3,5-Trimethylbenzene	18.060	120	497329	5.05 ppbv	93
61) 1,2,4-Trimethylbenzene	18.565	120	468091	5.20 ppbv	93
62) Benzyl chloride	18.739	91	686032	5.39 ppbv	96
63) 1,3-Dichlorobenzene	18.761	146	717066	4.93 ppbv	94
64) 1,4-Dichlorobenzene	18.848	146	717927	4.80 ppbv	95
65) 1,2-Dichlorobenzene	19.298	146	664044	4.78 ppbv	94
66) 1,2,4-Trichlorobenzene	21.793	180	636256	4.71 ppbv	99
67) Naphthalene	21.961	128	1309401	5.87 ppbv	100
68) Hexachlorobutadiene	22.533	225	546767	5.02 ppbv	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

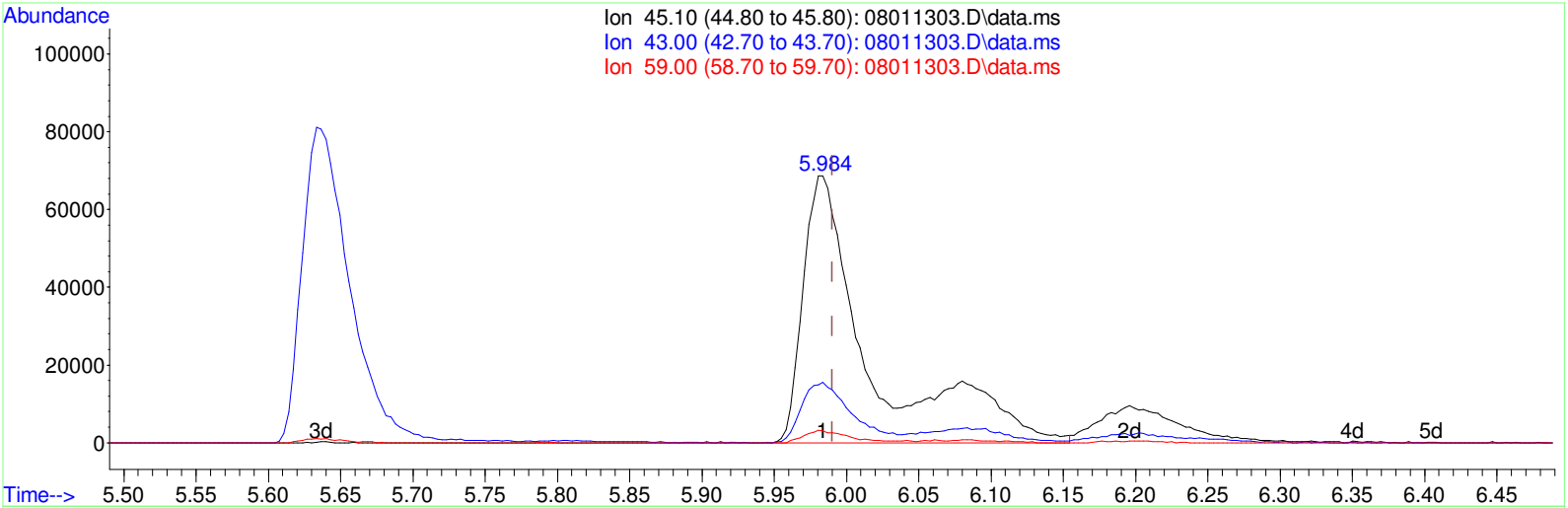
Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011303.D
Acq On : 1 Aug 2013 3:38 pm
Operator : VP
Sample : LCS LCS080113-5 5.0
Misc : TO_15A+ 117-5-267-1 CAN 159
ALS Vial : 1 Sample Multiplier: 1
InstName : VOA5

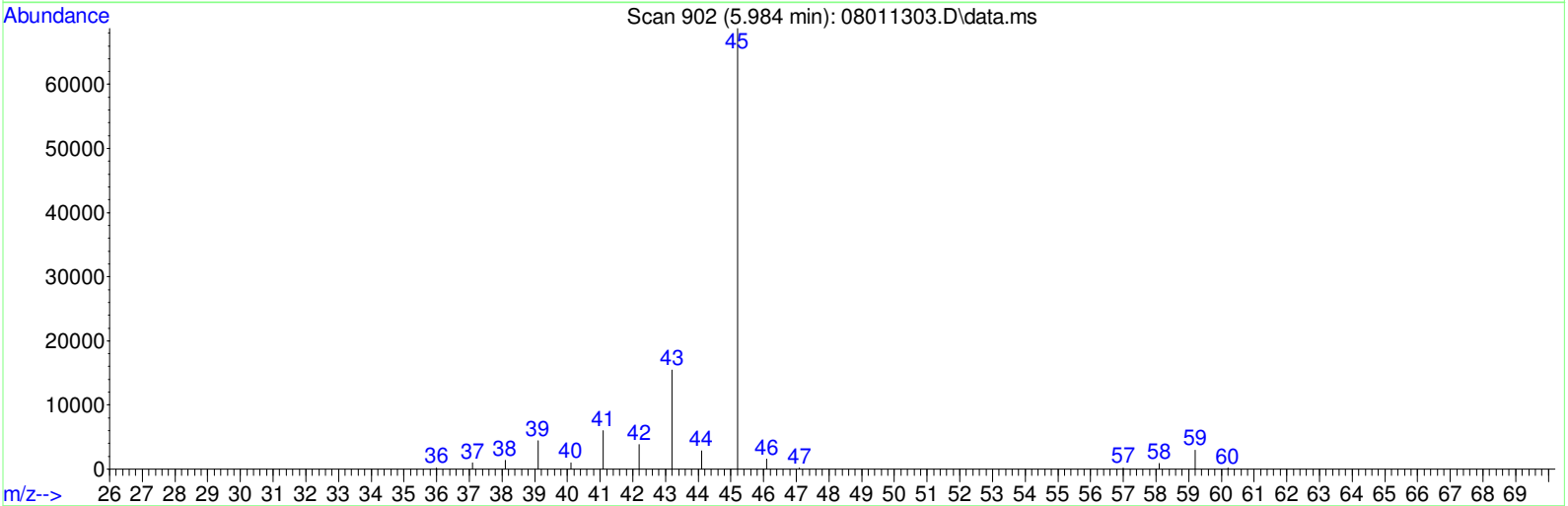
Quant Time: Aug 01 16:09:49 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration



Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011303.D
Acq On : 1 Aug 2013 3:38 pm
Operator : VP
Sample : LCS LCS080113-5 5.0
Misc : TO_15A+ 117-5-267-1 CAN 159
ALS Vial : 1 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 16:09:49 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration





TIC: 08011303.D\data.ms

(14) Isopropyl alcohol (C)

5.984min (-0.006) 5.04ppbv

response 219979

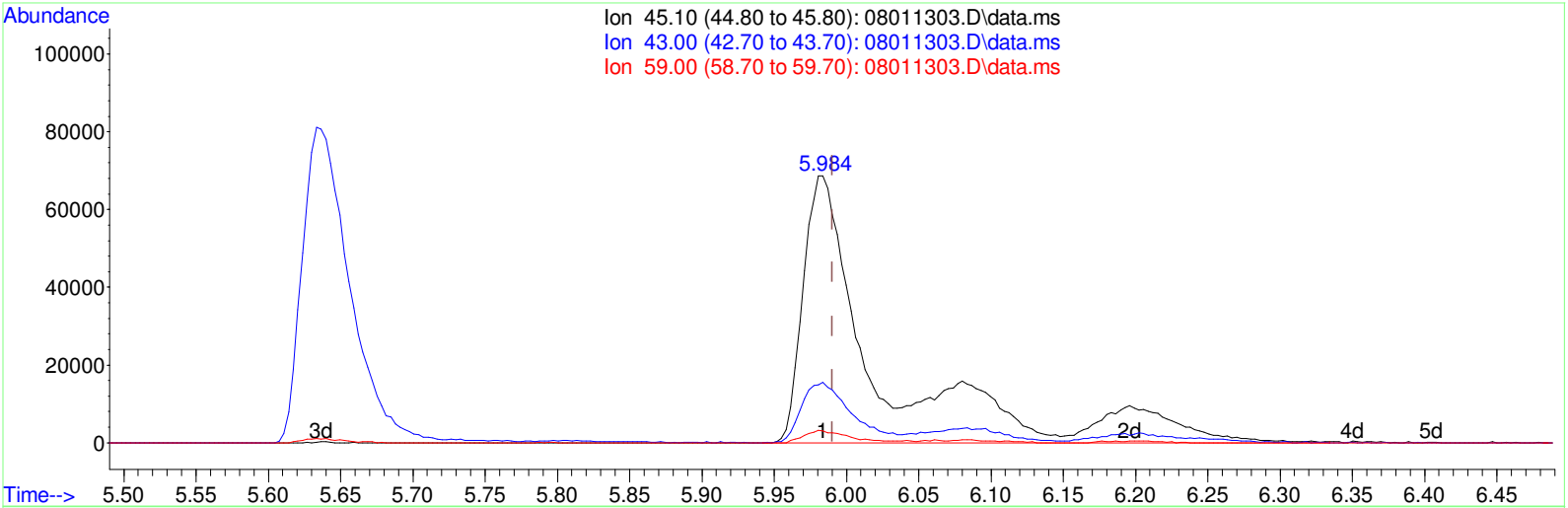
Ion	Exp%	Act%
45.10	100	100
43.00	20.80	23.97
59.00	4.40	3.59
0.00	0.00	0.00

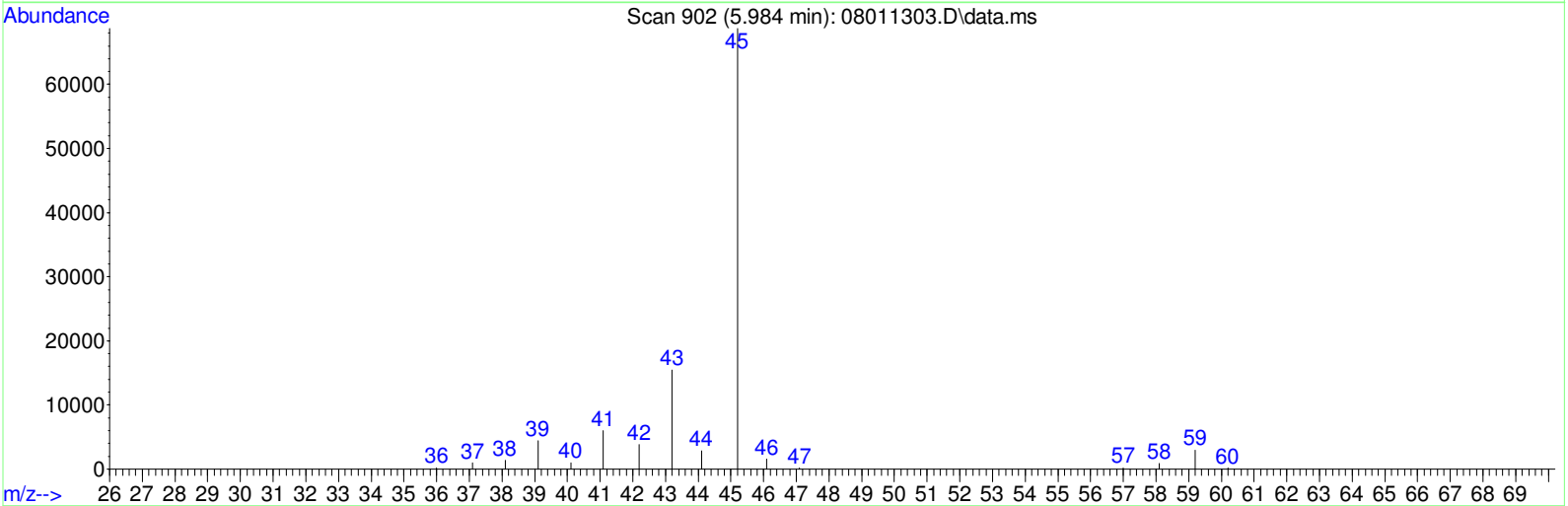
BEFORE

By Vytautas at 14:16:04, 8/14/2013

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011303.D
Acq On : 1 Aug 2013 3:38 pm
Operator : VP
Sample : LCS LCS080113-5 5.0
Misc : TO_15A+ 117-5-267-1 CAN 159
ALS Vial : 1 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 16:09:49 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration





TIC: 08011303.D\data.ms

(14) Isopropyl alcohol (C)

5.984min (-0.006) 5.89ppbv m

response 257358

Ion	Exp%	Act%
45.10	100	100
43.00	20.80	20.49
59.00	4.40	3.07
0.00	0.00	0.00

AFTER M3

By Vytautas at 14:16:16, 8/14/2013

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011304.D
Acq On : 1 Aug 2013 4:23 pm
Operator : VP
Sample : LCSD LCSD080113-5 5.0
Misc : TO_15A+ 117-5-267-2 CAN 160
ALS Vial : 2 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 17:00:54 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.167	49	383253	10.00 ppbv	-0.02
25) 1,4-Difluorobenzene	11.167	114	1806196	10.00 ppbv	-0.02
50) Chlorobenzene-d5	15.443	117	1687704	10.00 ppbv	-0.02

Target Compounds					Qvalue
2) Propene	3.531	41	115077	5.29 ppbv	99
3) Dichlorodifluoromethane	3.633	85	509181	5.47 ppbv	100
4) Chloromethane	3.823	50	128637	4.42 ppbv	100
5) Freon-114	3.977	85	413504	5.94 ppbv	85
6) Vinyl chloride	4.093	62	123173	5.33 ppbv	99
7) 1,3-Butadiene	4.267	54	79085	4.81 ppbv	96
8) Bromomethane	4.588	94	137107	6.65 ppbv	99
9) Chloroethane	4.820	64	88459	6.66 ppbv	100
10) Ethanol	5.077	45	24640	3.35 ppbv	81
11) Acrolein	5.469	56	1734	0.15 ppbv	88
12) Acetone	5.630	43	170989	4.67 ppbv	97
13) Freon-11	5.794	101	467630	4.95 ppbv	100
14) Isopropyl alcohol	5.977	45	249571m	5.64 ppbv	
15) 1,1-dichloroethene	6.572	61	291414	5.47 ppbv	94
16) Dichloromethane	6.749	49	219429	6.39 ppbv	90
17) Carbon disulfide	7.022	76	451048	4.97 ppbv	95
18) Freon-113	7.067	101	402551	4.95 ppbv	92
19) trans-1,2-Dichloroethene	7.839	61	251203	5.34 ppbv	93
20) 1,1-Dichloroethane	8.067	63	326842	5.29 ppbv	100
21) Mtbe	8.148	73	511735	5.21 ppbv	98
22) Vinyl Acetate	8.280	43	277130	4.76 ppbv	96
23) 2-Butanone	8.521	43	302930	5.35 ppbv	95
24) cis-1,2-Dichloroethene	8.987	61	252509	5.55 ppbv	91
26) Hexane	9.225	57	261631	6.48 ppbv	96
27) Ethyl acetate	9.263	61	59064	5.32 ppbv	96
28) Chloroform	9.312	83	401497	5.40 ppbv	99
29) Tetrahydrofuran	9.710	42	178583	4.85 ppbv	94
30) 1,2-Dichloroethane	10.074	62	264185	5.79 ppbv	99
31) 1,1,1-Trichloroethane	10.328	97	412935	5.46 ppbv	97
32) Benzene	10.794	78	605505	5.21 ppbv	98
33) Carbon tetrachloride	10.942	117	351711	5.71 ppbv	99
34) Cyclohexane	11.064	56	277431	5.56 ppbv	94
35) 1,2-Dichloropropane	11.614	63	209391	5.68 ppbv	96
36) Bromodichloromethane	11.813	83	420127	5.36 ppbv	100
37) Trichloroethene	11.852	130	287914	4.77 ppbv	88
38) 1,4-Dioxane	11.842	88	126582	6.18 ppbv	94
39) Methyl methacrylate	12.054	69	209460	5.73 ppbv	97
40) Heptane	12.151	43	300561	5.91 ppbv	96
41) cis-1,3-Dichloropropene	12.704	75	309586	5.14 ppbv	96
42) 4-Methyl-2-pentanone	12.729	43	370265	5.58 ppbv	95
43) trans-1,3-Dichloropropene	13.221	75	310181	4.95 ppbv	100
44) 1,1,2-Trichloroethane	13.392	97	258688	5.18 ppbv	95
45) Toluene	13.665	91	768888	5.29 ppbv	99
46) 2-Hexanone	13.910	43	339047	6.48 ppbv	95
47) Dibromochloromethane	14.086	129	444590	5.14 ppbv	100
48) 1,2-Dibromoethane	14.331	107	398342	5.24 ppbv	99
49) Tetrachloroethene	14.797	166	404988	4.75 ppbv	93
51) Chlorobenzene	15.488	112	620458	4.80 ppbv	96
52) Ethylbenzene	15.874	106	327153	5.07 ppbv	93
53) Xylene (1)	16.064	106	825128	10.33 ppbv	93
54) Xylene (2)	16.559	106	410639	5.33 ppbv	93

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011304.D
Acq On : 1 Aug 2013 4:23 pm
Operator : VP
Sample : LCSD LCSD080113-5 5.0
Misc : TO_15A+ 117-5-267-2 CAN 160
ALS Vial : 2 Sample Multiplier: 1
InstName : VOA5

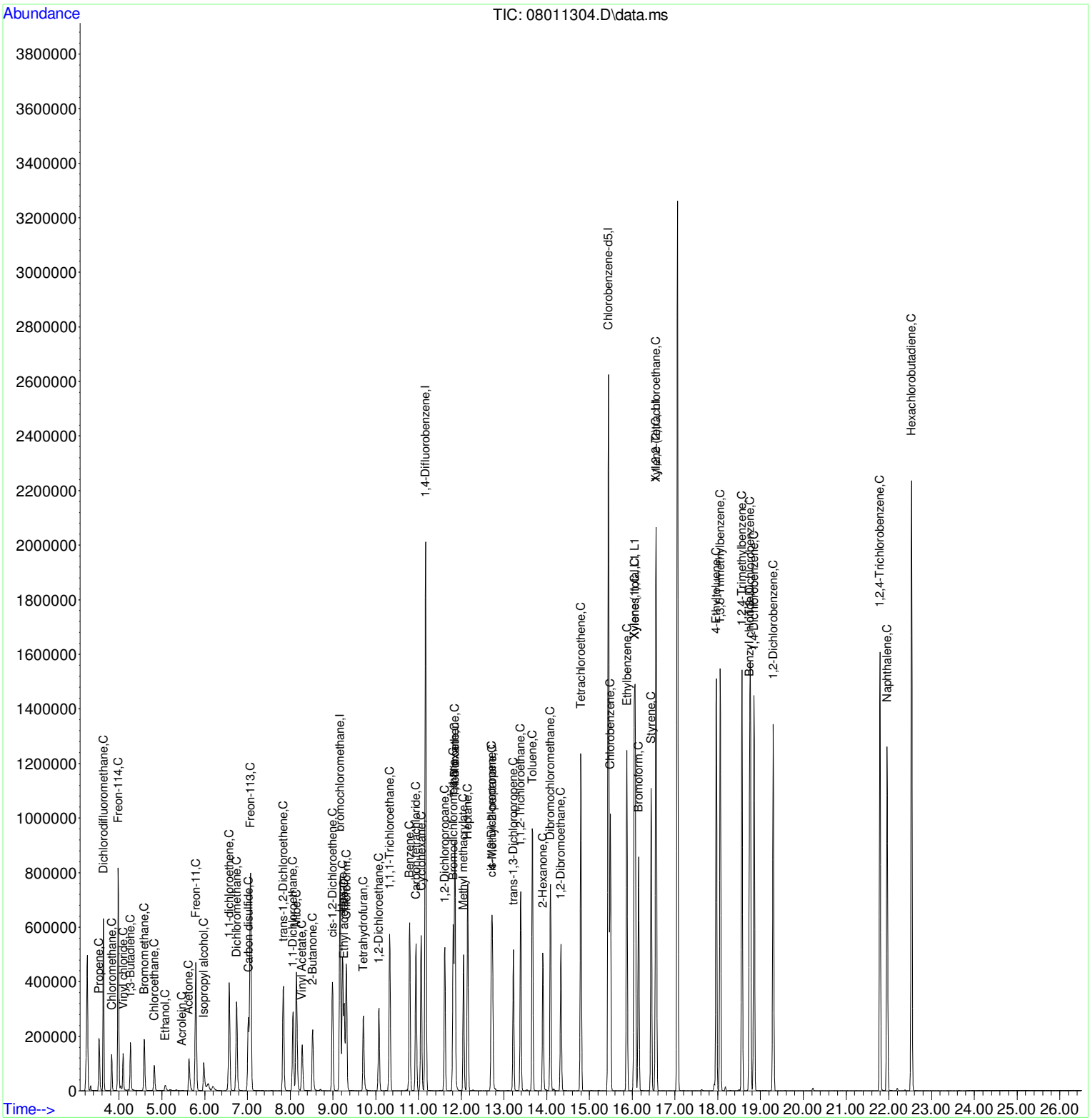
Quant Time: Aug 01 17:00:54 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.064	106	1235767m	15.66 ppbv	
56) Bromoform	16.147	173	442771	4.88 ppbv	93
57) Styrene	16.443	104	619533	5.41 ppbv	94
58) 1,1,2,2-Tetrachloroethane	16.549	83	545475	5.68 ppbv	100
59) 4-Ethyltoluene	17.964	120	342946	5.02 ppbv	93
60) 1,3,5-Trimethylbenzene	18.057	120	495570	5.09 ppbv	93
61) 1,2,4-Trimethylbenzene	18.565	120	465489	5.24 ppbv	93
62) Benzyl chloride	18.739	91	687449	5.46 ppbv	95
63) 1,3-Dichlorobenzene	18.761	146	710387	4.94 ppbv	94
64) 1,4-Dichlorobenzene	18.848	146	707084	4.79 ppbv	94
65) 1,2-Dichlorobenzene	19.298	146	655126	4.77 ppbv	94
66) 1,2,4-Trichlorobenzene	21.793	180	582727	4.37 ppbv	99
67) Naphthalene	21.961	128	1164248	5.29 ppbv	100
68) Hexachlorobutadiene	22.533	225	503282	4.67 ppbv	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011304.D
Acq On : 1 Aug 2013 4:23 pm
Operator : VP
Sample : LCSD LCSD080113-5 5.0
Misc : TO_15A+ 117-5-267-2 CAN 160
ALS Vial : 2 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 17:00:54 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011304.D
Acq On : 1 Aug 2013 4:23 pm
Operator : VP
Sample : LCSD LCSD080113-5 5.0
Misc : TO_15A+ 117-5-267-2 CAN 160
ALS Vial : 2 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 16:59:59 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.167	49	383253	10.00 ppbv	-0.02
25) 1,4-Difluorobenzene	11.167	114	1806196	10.00 ppbv	-0.02
50) Chlorobenzene-d5	15.443	117	1687704	10.00 ppbv	-0.02

Target Compounds					Qvalue
2) Propene	3.531	41	115077	5.29 ppbv	99
3) Dichlorodifluoromethane	3.633	85	509181	5.47 ppbv	100
4) Chloromethane	3.823	50	128637	4.42 ppbv	100
5) Freon-114	3.977	85	413504	5.94 ppbv	85
6) Vinyl chloride	4.093	62	123173	5.33 ppbv	99
7) 1,3-Butadiene	4.267	54	79085	4.81 ppbv	96
8) Bromomethane	4.588	94	137107	6.65 ppbv	99
9) Chloroethane	4.820	64	88459	6.66 ppbv	100
10) Ethanol	5.077	45	24640	3.35 ppbv	81
11) Acrolein	5.469	56	1734	0.15 ppbv	88
12) Acetone	5.630	43	170989	4.67 ppbv	97
13) Freon-11	5.794	101	467630	4.95 ppbv	100
14) Isopropyl alcohol	5.977	45	210961	4.77 ppbv	95
15) 1,1-dichloroethene	6.572	61	291414	5.47 ppbv	94
16) Dichloromethane	6.749	49	219429	6.39 ppbv	90
17) Carbon disulfide	7.022	76	451048	4.97 ppbv	95
18) Freon-113	7.067	101	402551	4.95 ppbv	92
19) trans-1,2-Dichloroethene	7.839	61	251203	5.34 ppbv	93
20) 1,1-Dichloroethane	8.067	63	326842	5.29 ppbv	100
21) Mtbe	8.148	73	511735	5.21 ppbv	98
22) Vinyl Acetate	8.280	43	277130	4.76 ppbv	96
23) 2-Butanone	8.521	43	302930	5.35 ppbv	95
24) cis-1,2-Dichloroethene	8.987	61	252509	5.55 ppbv	91
26) Hexane	9.225	57	261631	6.48 ppbv	96
27) Ethyl acetate	9.263	61	59064	5.32 ppbv	96
28) Chloroform	9.312	83	401497	5.40 ppbv	99
29) Tetrahydrofuran	9.710	42	178583	4.85 ppbv	94
30) 1,2-Dichloroethane	10.074	62	264185	5.79 ppbv	99
31) 1,1,1-Trichloroethane	10.328	97	412935	5.46 ppbv	97
32) Benzene	10.794	78	605505	5.21 ppbv	98
33) Carbon tetrachloride	10.942	117	351711	5.71 ppbv	99
34) Cyclohexane	11.064	56	277431	5.56 ppbv	94
35) 1,2-Dichloropropane	11.614	63	209391	5.68 ppbv	96
36) Bromodichloromethane	11.813	83	420127	5.36 ppbv	100
37) Trichloroethene	11.852	130	287914	4.77 ppbv	88
38) 1,4-Dioxane	11.842	88	126582	6.18 ppbv	94
39) Methyl methacrylate	12.054	69	209460	5.73 ppbv	97
40) Heptane	12.151	43	300561	5.91 ppbv	96
41) cis-1,3-Dichloropropene	12.704	75	309586	5.14 ppbv	96
42) 4-Methyl-2-pentanone	12.729	43	370265	5.58 ppbv	95
43) trans-1,3-Dichloropropene	13.221	75	310181	4.95 ppbv	100
44) 1,1,2-Trichloroethane	13.392	97	258688	5.18 ppbv	95
45) Toluene	13.665	91	768888	5.29 ppbv	99
46) 2-Hexanone	13.910	43	339047	6.48 ppbv	95
47) Dibromochloromethane	14.086	129	444590	5.14 ppbv	100
48) 1,2-Dibromoethane	14.331	107	398342	5.24 ppbv	99
49) Tetrachloroethene	14.797	166	404988	4.75 ppbv	93
51) Chlorobenzene	15.488	112	620458	4.80 ppbv	96
52) Ethylbenzene	15.874	106	327153	5.07 ppbv	93
53) Xylene (1)	16.064	106	825128	10.33 ppbv	93
54) Xylene (2)	16.559	106	410639	5.33 ppbv	93

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011304.D
Acq On : 1 Aug 2013 4:23 pm
Operator : VP
Sample : LCSD LCSD080113-5 5.0
Misc : TO_15A+ 117-5-267-2 CAN 160
ALS Vial : 2 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 16:59:59 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

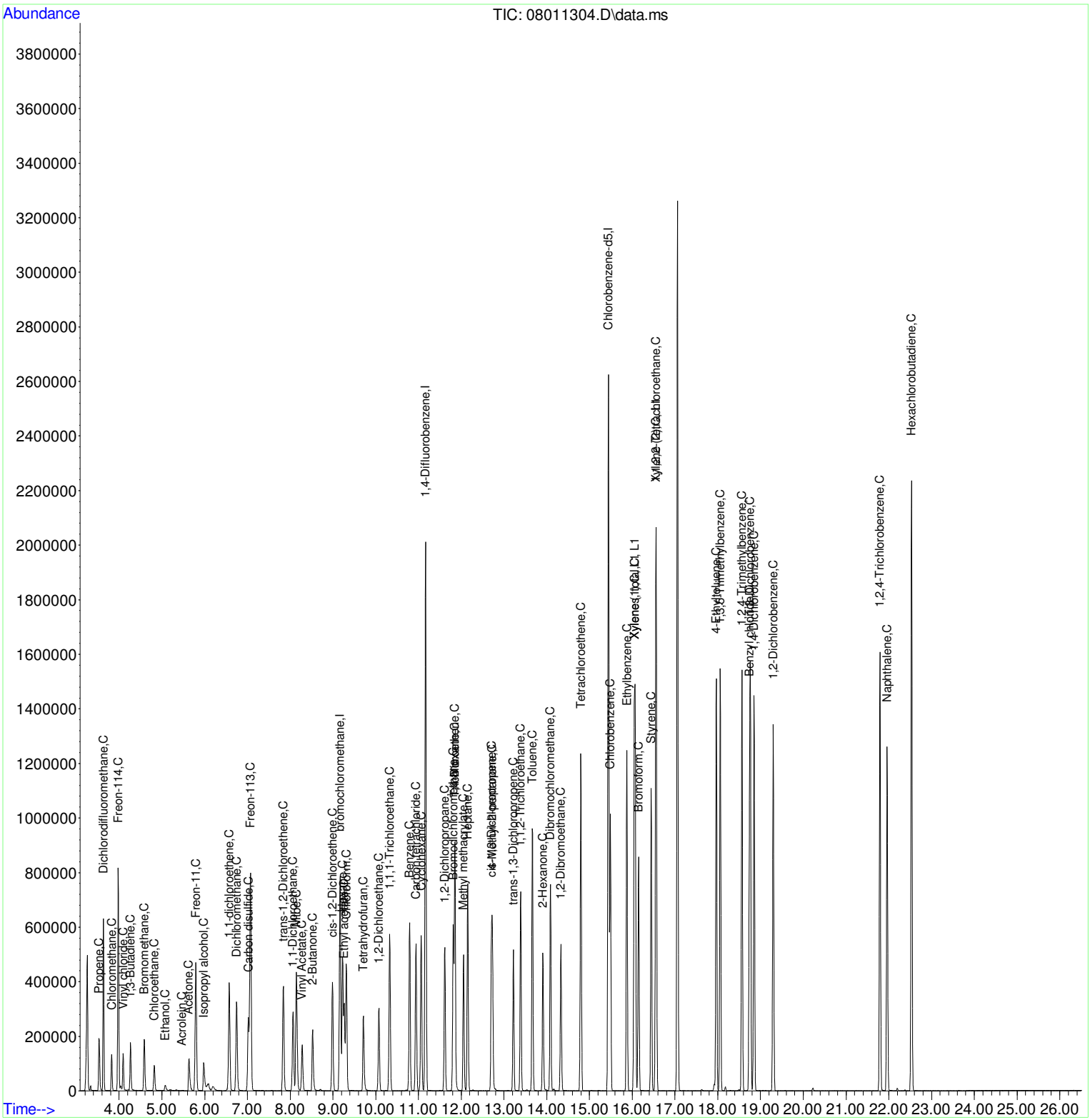
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
55) Xylenes, total	16.064	106	1235767m	15.66 ppbv	
56) Bromoform	16.147	173	442771	4.88 ppbv	93
57) Styrene	16.443	104	619533	5.41 ppbv	94
58) 1,1,2,2-Tetrachloroethane	16.549	83	545475	5.68 ppbv	100
59) 4-Ethyltoluene	17.964	120	342946	5.02 ppbv	93
60) 1,3,5-Trimethylbenzene	18.057	120	495570	5.09 ppbv	93
61) 1,2,4-Trimethylbenzene	18.565	120	465489	5.24 ppbv	93
62) Benzyl chloride	18.739	91	687449	5.46 ppbv	95
63) 1,3-Dichlorobenzene	18.761	146	710387	4.94 ppbv	94
64) 1,4-Dichlorobenzene	18.848	146	707084	4.79 ppbv	94
65) 1,2-Dichlorobenzene	19.298	146	655126	4.77 ppbv	94
66) 1,2,4-Trichlorobenzene	21.793	180	582727	4.37 ppbv	99
67) Naphthalene	21.961	128	1164248	5.29 ppbv	100
68) Hexachlorobutadiene	22.533	225	503282	4.67 ppbv	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

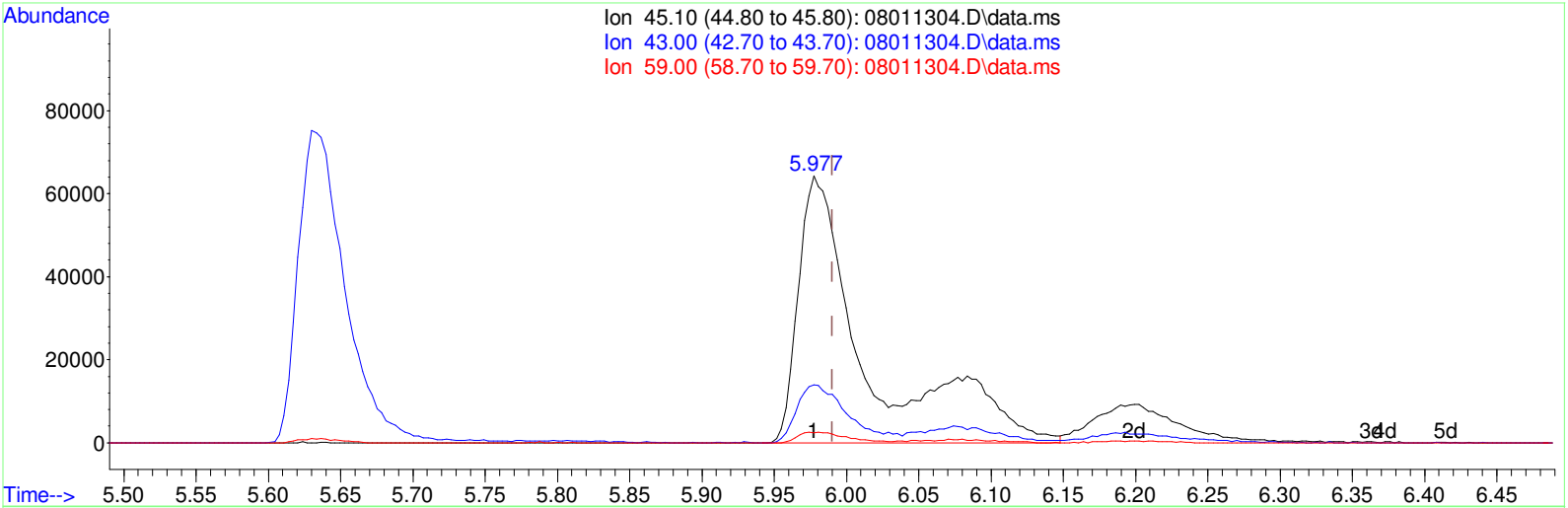
Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011304.D
Acq On : 1 Aug 2013 4:23 pm
Operator : VP
Sample : LCSD LCSD080113-5 5.0
Misc : TO_15A+ 117-5-267-2 CAN 160
ALS Vial : 2 Sample Multiplier: 1
InstName : VOA5

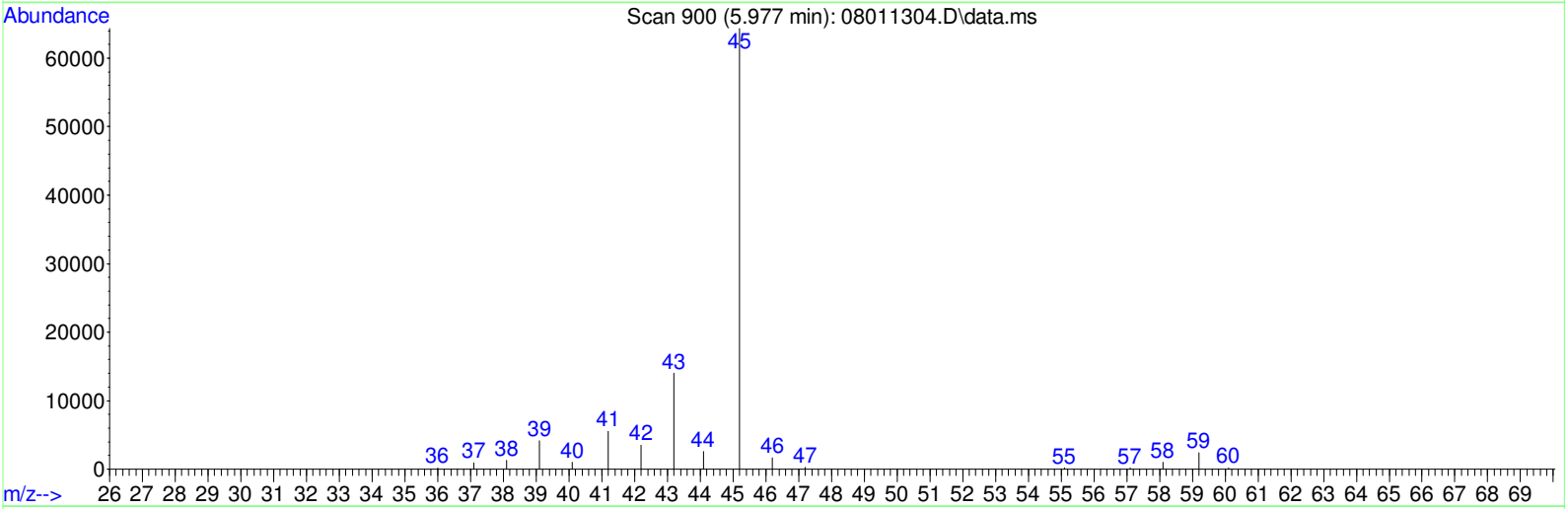
Quant Time: Aug 01 16:59:59 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration



Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011304.D
Acq On : 1 Aug 2013 4:23 pm
Operator : VP
Sample : LCSD LCSD080113-5 5.0
Misc : TO_15A+ 117-5-267-2 CAN 160
ALS Vial : 2 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 16:59:59 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration





TIC: 08011304.D\data.ms

(14) Isopropyl alcohol (C)

5.977min (-0.013) 4.77ppbv

response 210961

Ion	Exp%	Act%
45.10	100	100
43.00	20.80	23.46
59.00	4.40	2.98
0.00	0.00	0.00

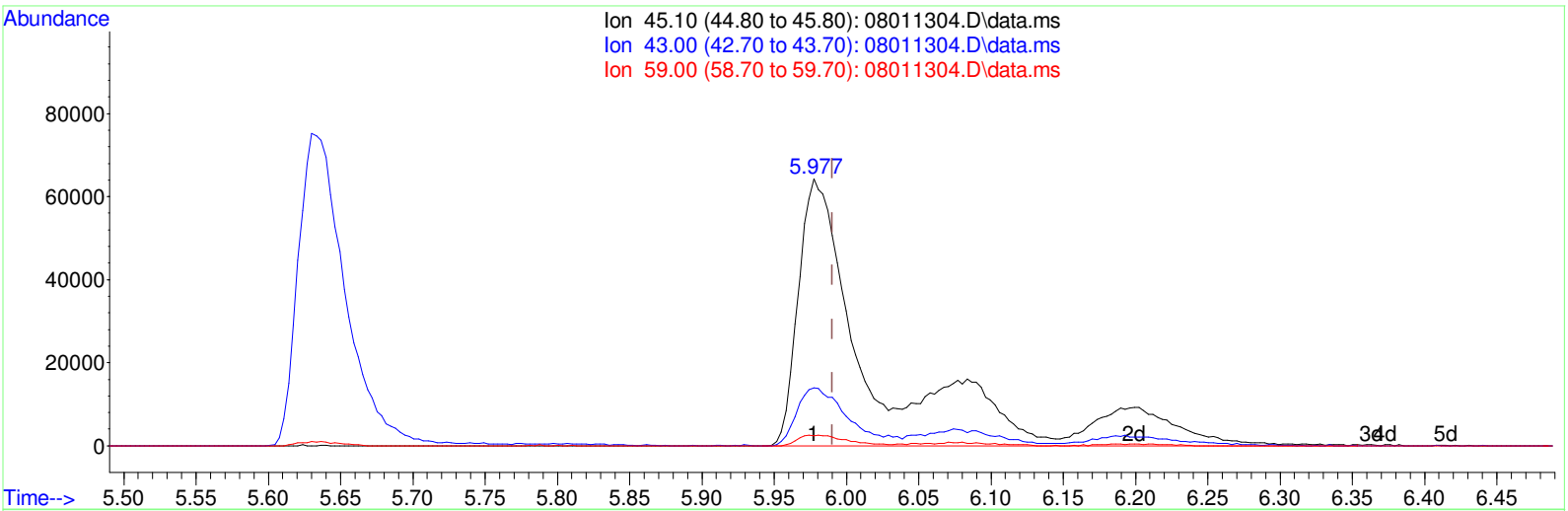
BEFORE

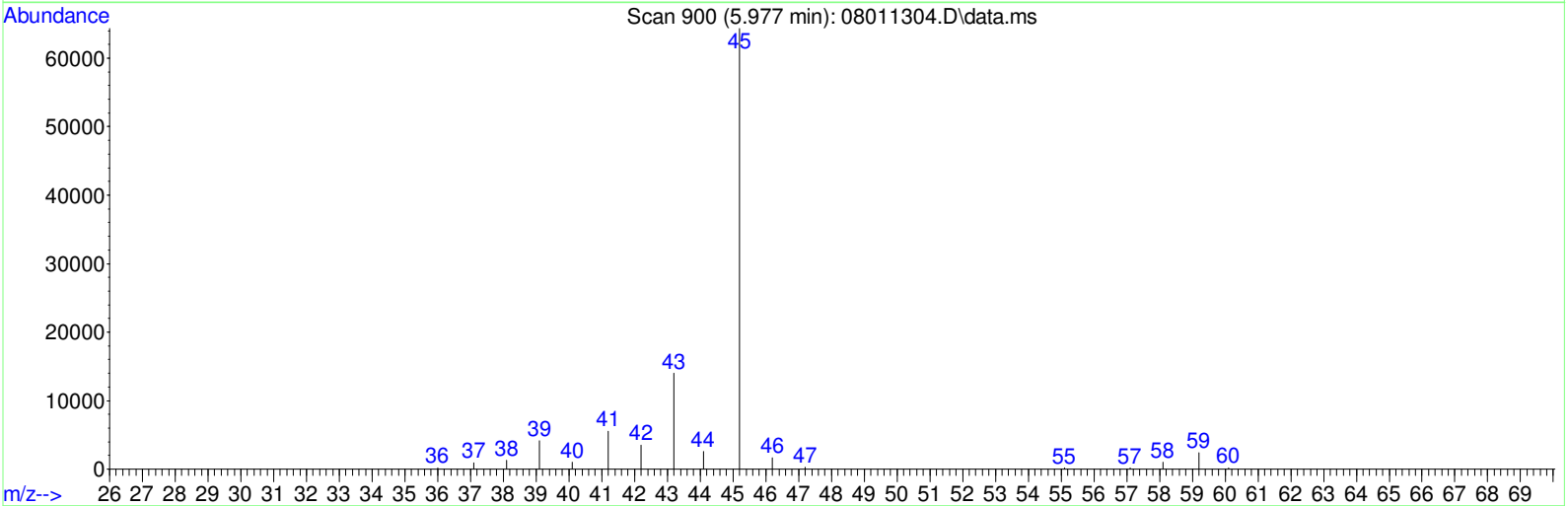
By Vytautas at 14:16:45, 8/14/2013

Quantitation Report (Qedit)

```
Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011304.D
Acq On    :  1 Aug 2013   4:23 pm
Operator  : VP
Sample    : LCSD LCSD080113-5 5.0
Misc      : TO_15A+        117-5-267-2 CAN 160
ALS Vial  : 2   Sample Multiplier: 1
InstName  : VOA5

Quant Time: Aug 01 16:59:59 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title  : SOP 4010 EPA   TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration
```





TIC: 08011304.D\data.ms

(14) Isopropyl alcohol (C)

5.977min (-0.013) 5.64ppbv m

response 249571

Ion	Exp%	Act%
45.10	100	100
43.00	20.80	19.83
59.00	4.40	2.52
0.00	0.00	0.00

AFTER M3

By Vytautas at 14:16:40, 8/14/2013

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011305.D
Acq On : 1 Aug 2013 5:07 pm
Operator : VP
Sample : SAMP 13071475-001A
Misc : TO_15A+ 1/1 CAN 1027
ALS Vial : 7 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 17:47:40 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) bromochloromethane	9.164	49	352476	10.00	ppbv		-0.02
25) 1,4-Difluorobenzene	11.167	114	1854487	10.00	ppbv		-0.02
50) Chlorobenzene-d5	15.443	117	1718452	10.00	ppbv		-0.02

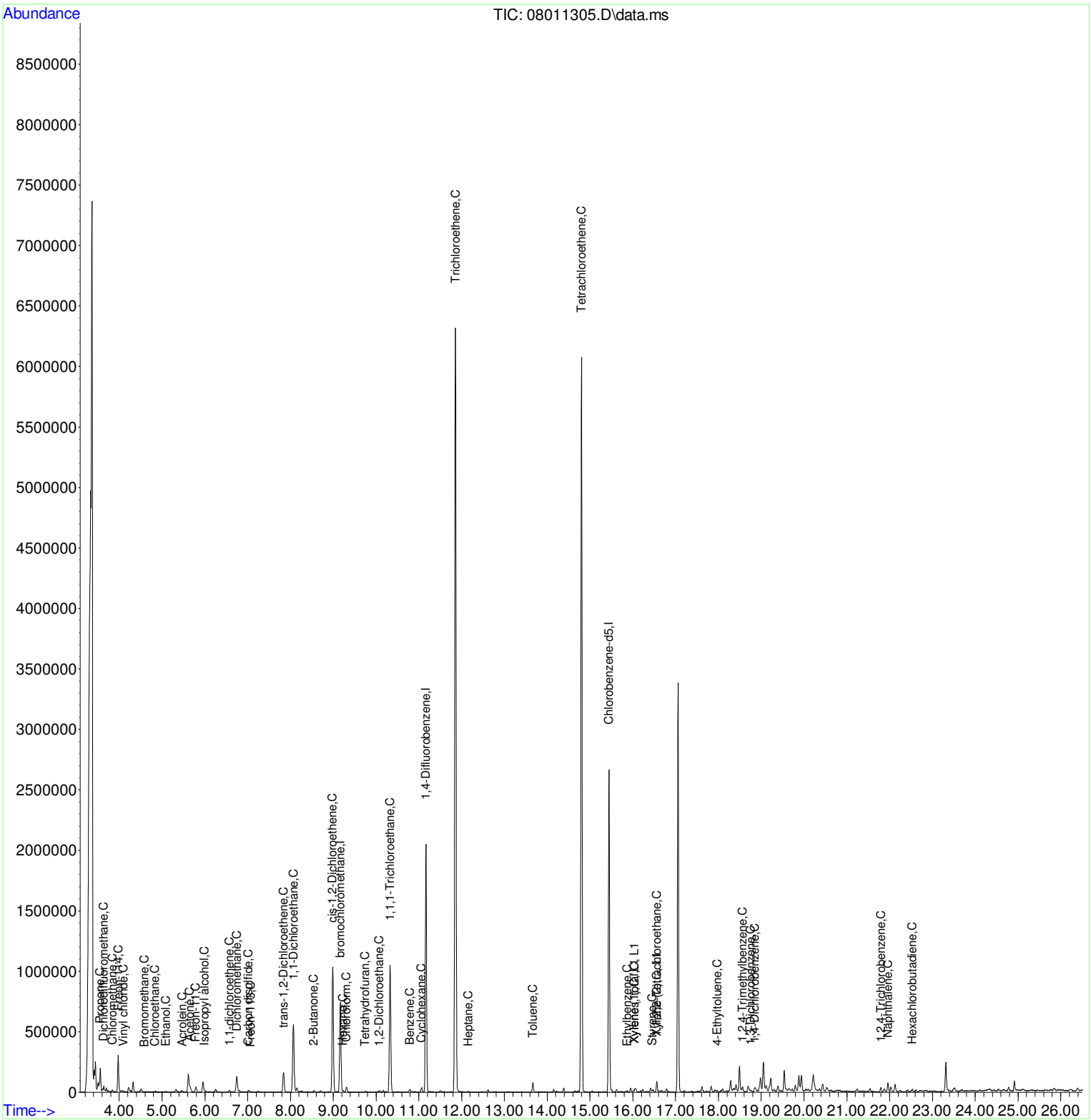
Target Compounds							Qvalue
2) Propene	3.556	41	36604	1.83	ppbv	#	51
3) Dichlorodifluoromethane	3.640	85	38261	0.45	ppbv		100
4) Chloromethane	3.833	50	2107	0.08	ppbv		94
5) Freon-114	3.987	85	3496	0.05	ppbv		85
6) Vinyl chloride	4.096	62	6820	0.32	ppbv		98
8) Bromomethane	4.588	94	1157	0.06	ppbv		99
9) Chloroethane	4.829	64	744	0.06	ppbv	#	42
10) Ethanol	5.096	45	6439	0.95	ppbv		97
11) Acrolein	5.482	56	3409	0.33	ppbv		96
12) Acetone	5.659	43	61609	1.83	ppbv		98
13) Freon-11	5.791	101	43206	0.50	ppbv		100
14) Isopropyl alcohol	5.997	45	18988	0.47	ppbv		96
15) 1,1-dichloroethene	6.575	61	11838	0.24	ppbv		94
16) Dichloromethane	6.746	49	83583	2.64	ppbv		90
17) Carbon disulfide	7.016	76	26569	0.32	ppbv		90
18) Freon-113	7.074	101	2705	0.04	ppbv		87
19) trans-1,2-Dichloroethene	7.839	61	108471	2.51	ppbv		91
20) 1,1-Dichloroethane	8.070	63	634260	11.16	ppbv		99
23) 2-Butanone	8.546	43	17678	0.34	ppbv		93
24) cis-1,2-Dichloroethene	8.987	61	654402	15.65	ppbv		93
26) Hexane	9.228	57	5452	0.13	ppbv		95
28) Chloroform	9.308	83	35926	0.47	ppbv		99
29) Tetrahydrofuran	9.742	42	5982	0.16	ppbv		84
30) 1,2-Dichloroethane	10.077	62	3596	0.08	ppbv		92
31) 1,1,1-Trichloroethane	10.328	97	762701	9.82	ppbv		98
32) Benzene	10.797	78	7793	0.07	ppbv		80
34) Cyclohexane	11.064	56	18006	0.35	ppbv		89
37) Trichloroethene	11.855	130	2656462	42.89	ppbv		96
40) Heptane	12.160	43	2831	0.05	ppbv		80
45) Toluene	13.665	91	62223	0.42	ppbv		98
49) Tetrachloroethene	14.800	166	2263718	25.85	ppbv		98
52) Ethylbenzene	15.871	106	2688	0.04	ppbv		88
53) Xylene (1)	16.048	106	12679	0.16	ppbv		91
54) Xylene (2)	16.559	106	7362	0.09	ppbv		88
55) Xylenes, total	16.048	106	20041m	0.25	ppbv		
57) Styrene	16.443	104	2752	0.02	ppbv		83
58) 1,1,2,2-Tetrachloroethane	16.559	83	4410	0.05	ppbv	#	40
59) 4-Ethyltoluene	17.964	120	2396	0.03	ppbv		75
61) 1,2,4-Trimethylbenzene	18.562	120	9060	0.10	ppbv		87
63) 1,3-Dichlorobenzene	18.755	146	2706	0.02	ppbv		85
64) 1,4-Dichlorobenzene	18.848	146	9316	0.06	ppbv		87
66) 1,2,4-Trichlorobenzene	21.797	180	13070	0.10	ppbv		98
67) Naphthalene	21.961	128	70849	0.32	ppbv		100
68) Hexachlorobutadiene	22.530	225	4077	0.04	ppbv		92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011305.D
Acq On : 1 Aug 2013 5:07 pm
Operator : VP
Sample : SAMP 13071475-001A
Misc : TO_15A+ 1/1 CAN 1027
ALS Vial : 7 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 17:47:40 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011305.D
Acq On : 1 Aug 2013 5:07 pm
Operator : VP
Sample : SAMP 13071475-001A
Misc : TO_15A+ 1/1 CAN 1027
ALS Vial : 7 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 17:45:51 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) bromochloromethane	9.164	49	352476	10.00 ppbv	-0.02
25) 1,4-Difluorobenzene	11.167	114	1854487	10.00 ppbv	-0.02
50) Chlorobenzene-d5	15.443	117	1718452	10.00 ppbv	-0.02

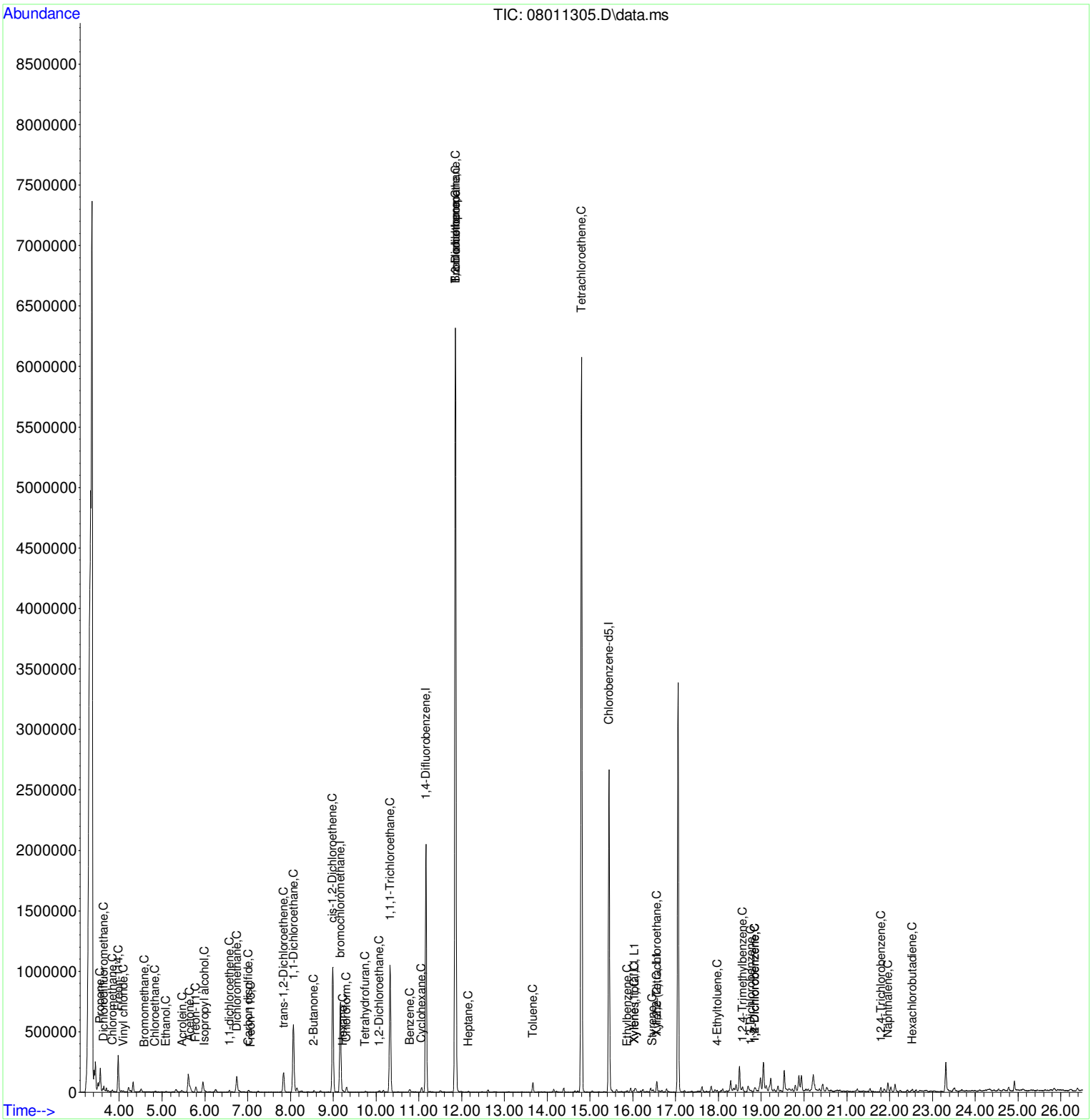
Target Compounds					Qvalue
2) Propene	3.556	41	36604	1.83 ppbv #	51
3) Dichlorodifluoromethane	3.640	85	38261	0.45 ppbv	100
4) Chloromethane	3.833	50	2107	0.08 ppbv	94
5) Freon-114	3.987	85	3496	0.05 ppbv	85
6) Vinyl chloride	4.096	62	6820	0.32 ppbv	98
8) Bromomethane	4.588	94	1157	0.06 ppbv	99
9) Chloroethane	4.829	64	744	0.06 ppbv #	42
10) Ethanol	5.096	45	6439	0.95 ppbv	97
11) Acrolein	5.482	56	3409	0.33 ppbv	96
12) Acetone	5.659	43	61609	1.83 ppbv	98
13) Freon-11	5.791	101	43206	0.50 ppbv	100
14) Isopropyl alcohol	5.997	45	18988	0.47 ppbv	96
15) 1,1-dichloroethene	6.575	61	11838	0.24 ppbv	94
16) Dichloromethane	6.746	49	83583	2.64 ppbv	90
17) Carbon disulfide	7.016	76	26569	0.32 ppbv	90
18) Freon-113	7.074	101	2705	0.04 ppbv	87
19) trans-1,2-Dichloroethene	7.839	61	108471	2.51 ppbv	91
20) 1,1-Dichloroethane	8.070	63	634260	11.16 ppbv	99
23) 2-Butanone	8.546	43	17678	0.34 ppbv	93
24) cis-1,2-Dichloroethene	8.987	61	654402	15.65 ppbv	93
26) Hexane	9.228	57	5452	0.13 ppbv	95
28) Chloroform	9.308	83	35926	0.47 ppbv	99
29) Tetrahydrofuran	9.742	42	5982	0.16 ppbv	84
30) 1,2-Dichloroethane	10.077	62	3596	0.08 ppbv	92
31) 1,1,1-Trichloroethane	10.328	97	762701	9.82 ppbv	98
32) Benzene	10.797	78	7793	0.07 ppbv	80
34) Cyclohexane	11.064	56	18006	0.35 ppbv	89
35) 1,2-Dichloropropane	11.852	63	7413	0.20 ppbv #	63
36) Bromodichloromethane	11.855	83	26656	0.33 ppbv	96
37) Trichloroethene	11.855	130	2656462	42.89 ppbv	96
40) Heptane	12.160	43	2831	0.05 ppbv	80
45) Toluene	13.665	91	62223	0.42 ppbv	98
49) Tetrachloroethene	14.800	166	2263718	25.85 ppbv	98
52) Ethylbenzene	15.871	106	2688	0.04 ppbv	88
53) Xylene (1)	16.048	106	12679	0.16 ppbv	91
54) Xylene (2)	16.559	106	7362	0.09 ppbv	88
55) Xylenes, total	16.048	106	20041m	0.25 ppbv	
57) Styrene	16.443	104	2752	0.02 ppbv	83
58) 1,1,2,2-Tetrachloroethane	16.559	83	4410	0.05 ppbv #	40
59) 4-Ethyltoluene	17.964	120	2396	0.03 ppbv	75
61) 1,2,4-Trimethylbenzene	18.562	120	9060	0.10 ppbv	87
63) 1,3-Dichlorobenzene	18.755	146	2706	0.02 ppbv	85
64) 1,4-Dichlorobenzene	18.848	146	9316	0.06 ppbv	87
65) 1,2-Dichlorobenzene	18.848	146	8668	0.06 ppbv	91
66) 1,2,4-Trichlorobenzene	21.797	180	13070	0.10 ppbv	98
67) Naphthalene	21.961	128	70849	0.32 ppbv	100
68) Hexachlorobutadiene	22.530	225	4077	0.04 ppbv	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\DATA\VOA5\080113\
Data File : 08011305.D
Acq On : 1 Aug 2013 5:07 pm
Operator : VP
Sample : SAMP 13071475-001A
Misc : TO_15A+ 1/1 CAN 1027
ALS Vial : 7 Sample Multiplier: 1
InstName : VOA5

Quant Time: Aug 01 17:45:51 2013
Quant Method : C:\MSDChem\1\DATA\VOA5\080113\061413.M
Quant Title : SOP 4010 EPA TO-15 MDL update 12/26/2012
QLast Update : Wed Jun 19 14:05:27 2013
Response via : Initial Calibration



TEKLINK AUTOCAN SCHEDULE VERSION 1.01

Schedule Filename: C:\AUTOCAN\Schedules\VOA5\080113-1.scd

Run#	Sample Name	Pos	Method	Smpl Vol	ISTD Vol	ISX Vol	ISX Type
1	CCV TOSTD 5.0	1	TO15-5.MTC	0	50	250	B
2	MBLK	12	TO15-5.MTC	0	50	500	C
3	LCS TOSTD 5.0	1	TO15-5.MTC	500	50	0	C
4	LCSD TOSTD 5.0	2	TO15-5.MTC	500	50	0	C
5	13071475-001A	7	TO15-5.MTC	500	50	0	C
6	13071477-001A	8	TO15-5.MTC	500	50	0	C
7	13071451-001A	3	TO15-5.MTC	500	50	0	C
8	13071451-002A	4	TO15-5.MTC	500	50	0	C
9	13071451-003A	5	TO15-5.MTC	500	50	0	C
10	13071451-004A	6	TO15-5.MTC	500	50	0	C

TEKLINK AUTOCAN SCHEDULE VERSION 1.01

Schedule Filename: C:\AUTOCAN\Schedules\VOA5\080113-2.scd

Run#	Sample Name	Pos	Method	Smpl Vol	ISTD Vol	ISX Vol	ISX Type
1	13071451-002A	4	TO15-5.MTC	500	50	0	C
2	13071451-003A	5	TO15-5.MTC	500	50	0	C
3	13071451-004A	6	TO15-5.MTC	500	50	0	C
4	13080016-039A	9	TO15-5.MTC	500	50	0	C
5	13080016-040A	10	TO15-5.MTC	500	50	0	C
6	13080017-001A	11	TO15-5.MTC	20	50	0	C
7	13080017-002A	12	TO15-5.MTC	20	50	0	C
8	13080017-003A	13	TO15-5.MTC	20	50	0	C
9	13080017-004A	14	TO15-5.MTC	20	50	0	C

TEKLINK AUTOCAN SCHEDULE VERSION 1.01

Schedule Filename: C:\AUTOCAN\Schedules\VOA5\080113-3.scd

Run#	Sample Name	Pos	Method	Smpl Vol	ISTD Vol	ISX Vol	ISX Type
1	13080016-039A	9	TO15-5.MTC	50	50	0	C

TEKLINK AUTOCAN SCHEDULE VERSION 1.01

Schedule Filename: C:\AUTOCAN\Schedules\VOA5\080113-4.scd

Run#	Sample Name	Pos	Method	Smpl Vol	ISTD Vol	ISX Vol	ISX Type
1	13080017-001A	11	TO15-5.MTC	500	50	0	C
2	13080017-002A	12	TO15-5.MTC	500	50	0	C
3	13080017-003A	13	TO15-5.MTC	500	50	0	C
4	13080017-004A	14	TO15-5.MTC	500	50	0	C

TEKLINK AUTOCAN SCHEDULE VERSION 1.01

Schedule Filename: C:\AUTOCAN\Schedules\VOA5\080113-5.scd

Run#	Sample Name	Pos	Method	Smpl Vol	ISTD Vol	ISX Vol	ISX Type
1	C080113	3	TO15-5.MTC	500	50	0	C

QC Report: Unit #1

QAQC Leak Check Filename:QAQC\07312013\1_211206.chk

Report Date/Time: 07/31/2013 14:16:52

Position Sy: Passed: DeltaP:0.2 LeakP:2.0 EvacP:2.2
Position A : Passed: DeltaP:0.2 LeakP:1.9 EvacP:2.1
Position B : Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position C : Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 01: Passed: DeltaP:0.2 LeakP:1.9 EvacP:2.1
Position 02: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 03: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0

Leak Check Finished Normally
Total Cans Checked = 7

QC Report: Unit #1

QAQC Leak Check Filename:QAQC\08012013\1_120420.chk

Report Date/Time: 08/01/2013 12:47:57

```
Position Sy: Passed: DeltaP:0.1 LeakP:2.1 EvacP:2.2
Position A : Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position B : Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position C : Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 01: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 02: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 03: Failed: DeltaP:7.3 LeakP:2.0 EvacP:9.3
Position 04: Failed: DeltaP:1.1 LeakP:1.9 EvacP:3.0
Position 05: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 06: Passed: DeltaP:0.3 LeakP:1.9 EvacP:2.2
```

Leak Check Finished Normally
Total Cans Checked = 10

QC Report: Unit #1

QAQC Leak Check Filename:QAQC\08012013\1_130607.chk

Report Date/Time: 08/01/2013 13:36:55

Position 03: Passed: DeltaP:0.2 LeakP:1.9 EvacP:2.1
Position 04: Passed: DeltaP:0.2 LeakP:1.9 EvacP:2.1
Position 07: Failed: DeltaP:0.5 LeakP:1.9 EvacP:2.4
Position 08: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0

Leak Check Finished Normally
Total Cans Checked = 4

QC Report: Unit #1

QAQC Leak Check Filename:QAQC\08012013\1_133655.chk

Report Date/Time: 08/01/2013 13:39:18

Position 07: Passed: DeltaP:0.4 LeakP:2.0 EvacP:2.4

Leak Check Finished Normally
Total Cans Checked = 1

QC Report: Unit #1

QAQC Leak Check Filename:QAQC\08012013\1_183711.chk

Report Date/Time: 08/01/2013 19:07:07

Position 09: Passed: DeltaP:0.3 LeakP:1.9 EvacP:2.2
Position 10: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 11: Passed: DeltaP:0.2 LeakP:1.9 EvacP:2.1
Position 12: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0
Position 13: Passed: DeltaP:0.0 LeakP:1.9 EvacP:1.9
Position 14: Passed: DeltaP:0.1 LeakP:1.9 EvacP:2.0

Leak Check Finished Normally
Total Cans Checked = 6