Columbia Analytical Services, Inc. 2655 Park Center Drive, Suite A | Simi Valley, CA 93065 | 805.526.7161 | 805.526.7270 fax | www.caslab.com

LABORATORY REPORT

September 24, 2009

Brian Baker
Environmental Health & Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494

RE: 16512

Dear Brian:

Enclosed are the results of the samples submitted to our laboratory on August 28, 2009. For your reference, these analyses have been assigned our service request number P0903023.

All analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. Results are intended to be considered in their entirety and apply only to the samples analyzed and reported herein. Your report contains 174 pages.

Columbia Analytical Services, Inc. is certified by the California Department of Health Services, NELAP Laboratory Certificate No. 02115CA; Arizona Department of Health Services, Certificate No. AZ0694; Florida Department of Health, NELAP Certification E871020; New Jersey Department of Environmental Protection, NELAP Laboratory Certification ID #CA009; New York State Department of Health, NELAP NY Lab ID No: 11221; Oregon Environmental Laboratory Accreditation Program, NELAP ID: CA20007; The American Industrial Hygiene Association, Laboratory #101661; Department of the Navy (NFESC); Pennsylvania Registration No. 68-03307; TX Commission of Environmental Quality, NELAP ID T104704413-08-TX. Each of the certifications listed above have an explicit Scope of Accreditation that applies to specific matrices/methods/analytes; therefore, please contact me for information corresponding to a particular certification.

If you have any questions, please call me at (805) 526-7161.

Respectfully submitted,

Columbia Analytical Services, Inc.

Kate Aguilera

Kate Aguilera
Project Manager

Client: Environmental Health & Engineering, Inc. CAS Project No: P0903023
Project: 16512

CASE NARRATIVE

The samples were received intact under chain of custody on August 28, 2009 and were stored in accordance with the analytical method requirements. Please refer to the sample acceptance check form for additional information. The results reported herein are applicable only to the condition of the samples at the time of sample receipt.

Volatile Organic Compound Analysis

The samples were analyzed for selected volatile organic compounds in accordance with EPA Method TO-15 from the Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition (EPA/625/R-96/010b), January, 1999. The analytical system was comprised of a gas chromatograph / mass spectrometer (GC/MS) interfaced to a whole-air preconcentrator.

The results of analyses are given in the attached laboratory report. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for utilization of less than the complete report.

Client: Environmental Health & Engineering, Incorporated

Folder: P0903023

Project: 16512

Detailed Sample Information

CAS Sample ID	Client Sample ID	Container Type	Pi1 (Hg)	Pi1 (psig)	Pf1	Pi2 (Hg)	Pi2 (psig)	Pf2	Cont ID	Order #	FC ID	Bottle Order #
P0903023-001.01	104327	6.0 L-Summa Canister Ambient	-5.8	-2.8	3.5				AC00591	**14338**		
P0903023-002.01	104328	6.0 L-Summa Canister Ambient	-6.1	-3.0	3.5				AC00871	**14338**		
P0903023-003.02	AC00437	6.0 L-Summa Canister Ambient	-29.8	-14.6					AC00437	**14338**		
P0903023-004.02	AC00761	6.0 L-Summa Canister Ambient	-22.2	-10.9					AC00761	**14403**		

Miscellaneous Items - received

FC00164
AVG00836
AVG00976
AVG00955
FC00442
FC00522

Environmental Health & Engineering, Inc.

CHAIN OF CUSTODY FORM

DATE: 08/27/09

P0903023

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725

TO: Kate Aguilera/Columbia Analytical

Please send invoices to ATTN: Accounts Payable
Please send reports to ATTN: Data Coordinator

In all correspondence regarding this matter, please refer to EH&E Project # 1651 2

The cost of this analysis will be covered by EH&E Purchase Order # _____

For EH & E Data Coordinator - URGENT DATA ☐

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
104327	S	EPA TO-15 Full List	9:42 am
104328	S	EPA TO-15 Full List	9:42 am

Special instructions:

☒ Standard turn around time ☐ Rush by _____ date/time ☐ Other _____

☐ Fax results 781-247-4305

☐ **RETURN SAMPLES** ☒ Electronic transfer - datacoordinator@eheinc.com

☒ Additional report recipient mfragale@eheinc.com

Each signatory please return one copy of this form to the above address

Relinquished by: M. Kaufman of Environmental Health & Engineering, Inc. Date: 8/27/09

Received by: Fedex 870423331020 of (company name) Fedex Date: 8/27/09

Relinquished by: [illegible] of (company name) _____ Date: _____

Received by: [illegible] of (company name) CAS Date: 08/28/09 0940

Relinquished by: _____ of (company name) _____ Date: _____

Received by: _____ of (company name) _____ Date: _____

Lab Data
Received by: _____ of Environmental Health & Engineering, Inc. Date: _____

Page ___ of ___ **4**

WHITE-EH&E FILE COPY YELLOW-LAB COPY PINK-PROJECT MANAGER COPY GOLD-DATA COORDINATOR COPY

Columbia Analytical Services, Inc.
Sample Acceptance Check Form

Client: Environmental Health & Engineering, Inc. Work order: P0903023

Project: Project # 16512 / 16512

Sample(s) received on: 8/28/2009 Date opened: 8/28/2009 by: SSTAPLES

Note: This form is used for all samples received by CAS. The use of this form for custody seals is strictly meant to indicate presence/absence and not as an indication of compliance or nonconformity. Thermal preservation and pH will only be evaluated either at the request of the client and/or as required by the method/SOP.

		Yes	No	N/A
1	Were **sample containers** properly marked with client sample ID?	☒	☐	☐
2	Container(s) **supplied by CAS**?	☒	☐	☐
3	Did **sample containers** arrive in good condition?	☒	☐	☐
4	Was a **chain-of-custody** provided?	☒	☐	☐
5	Was the **chain-of-custody** properly completed?	☒	☐	☐
6	Did **sample container labels** and/or tags agree with custody papers?	☒	☐	☐
7	Was **sample volume** received adequate for analysis?	☒	☐	☐
8	Are samples within specified holding times?	☒	☐	☐
9	Was proper **temperature** (thermal preservation) of cooler at receipt adhered to?	☐	☐	☒
	Cooler Temperature _____ °C Blank Temperature _____ °C			
10	Was a **trip blank** received?	☐	☐	☒
	Trip blank supplied by CAS: _____			
11	Were **custody seals** on outside of cooler/Box?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
	Were custody seals on outside of sample container?	☐	☒	☐
	Location of seal(s)? _____ Sealing Lid?	☐	☐	☒
	Were signature and date included?	☐	☐	☒
	Were seals intact?	☐	☐	☒
12	Do containers have appropriate **preservation**, according to method/SOP or Client specified information?	☐	☐	☒
	Is there a client indication that the submitted samples are **pH** preserved?	☐	☐	☒
	Were **VOA vials** checked for presence/absence of air bubbles?	☐	☐	☒
	Does the client/method/SOP require that the analyst check the sample pH and if necessary alter it?	☐	☐	☒
13	**Tubes:** Are the tubes capped and intact?	☐	☐	☒
	Do they contain moisture?	☐	☐	☒
14	**Badges:** Are the badges properly capped and intact?	☐	☐	☒
	Are dual bed badges separated and individually capped and intact?	☐	☐	☒

Lab Sample ID	Container Description	Required pH *	Received pH	Adjusted pH	VOA Headspace (Presence/Absence)	Receipt / Preservation Comments
P0903023-001.01	6.0 L Ambient Can					
P0903023-002.01	6.0 L Ambient Can					
P0903023-003.02	6.0 L Ambient Can					
P0903023-004.02	6.0 L Ambient Can					

Explain any discrepancies: (include lab sample ID numbers):

Client container labels have been placed on the back of the AMBIENT tags. A conatainer tag was found at the bottom of the shipping box that did not match anthing on the COC. *see project folder*

*Required pH: Phenols/COD/NH3/TOC/TOX/NO3+NO2/TKN/T.PHOS, H2SO4 (pH<2); Metals, HNO3 (pH<2); CN (NaOH or NaOH/Asc Acid) (pH>12); Diss. Sulfide, NaOH (pH>12); T. Sulfide, NaOH/ZnAc (pH>12) RSK - MEEPP, HCL (pH<2); RSK - CO2, (pH 5-8); Sulfur (pH>4)

RESULTS OF VOLATILE ORGANIC ANALYSIS

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **104327**
Client Project ID: **16512**

CAS Project ID: P0903023
CAS Sample ID: P0903023-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Elsa Moctezuma
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC00591

Date Collected: 8/27/09
Date Received: 8/28/09
Date Analyzed: 9/8/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.8 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.53

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.77	ND	0.44	
75-71-8	**Dichlorodifluoromethane (CFC 12)**	**3.4**	0.77	**0.69**	0.15	
74-87-3	**Chloromethane**	**0.92**	0.15	**0.45**	0.074	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.77	ND	0.11	
75-01-4	Vinyl Chloride	ND	0.15	ND	0.060	
106-99-0	1,3-Butadiene	ND	0.15	ND	0.069	
74-83-9	Bromomethane	ND	0.15	ND	0.039	
75-00-3	Chloroethane	ND	0.15	ND	0.058	
64-17-5	**Ethanol**	**290**	7.7	**160**	4.1	
75-05-8	**Acetonitrile**	**200**	0.77	**120**	0.46	**E**
107-02-8	**Acrolein**	**6.7**	0.77	**2.9**	0.33	
67-64-1	**Acetone**	**46**	7.7	**19**	3.2	
75-69-4	**Trichlorofluoromethane**	**1.3**	0.15	**0.22**	0.027	
67-63-0	**2-Propanol (Isopropyl Alcohol)**	**12**	0.77	**4.8**	0.31	**M1**
107-13-1	Acrylonitrile	ND	0.77	ND	0.35	
75-35-4	1,1-Dichloroethene	ND	0.15	ND	0.039	
75-09-2	Methylene Chloride	ND	0.77	ND	0.22	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.15	ND	0.049	
76-13-1	**Trichlorotrifluoroethane**	**0.51**	0.15	**0.066**	0.020	
75-15-0	Carbon Disulfide	ND	0.77	ND	0.25	
156-60-5	trans-1,2-Dichloroethene	ND	0.15	ND	0.039	
75-34-3	1,1-Dichloroethane	ND	0.15	ND	0.038	
1634-04-4	Methyl tert-Butyl Ether	ND	0.15	ND	0.042	
108-05-4	Vinyl Acetate	ND	7.7	ND	2.2	
78-93-3	**2-Butanone (MEK)**	**3.4**	0.77	**1.2**	0.26	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
M1 = Matrix interference due to coelution with a non-target compound; results may be biased high.
E = Estimated; concentration exceeded calibration range.

Verified By: _____ Date: 9/11/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **104327**
Client Project ID: **16512**

CAS Project ID: P0903023
CAS Sample ID: P0903023-001

Test Code: EPA TO-15
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Analyst: Elsa Moctezuma
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC00591

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CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.15	ND	0.039	
141-78-6	Ethyl Acetate	ND	1.5	ND	0.42	
110-54-3	**n-Hexane**	**0.95**	0.77	**0.27**	0.22	
67-66-3	**Chloroform**	**1.6**	0.15	**0.33**	0.031	
109-99-9	Tetrahydrofuran (THF)	ND	0.77	ND	0.26	
107-06-2	**1,2-Dichloroethane**	**3.0**	0.15	**0.74**	0.038	
71-55-6	1,1,1-Trichloroethane	ND	0.15	ND	0.028	
71-43-2	**Benzene**	**1.2**	0.15	**0.36**	0.048	
56-23-5	**Carbon Tetrachloride**	**0.51**	0.15	**0.082**	0.024	
110-82-7	Cyclohexane	ND	0.77	ND	0.22	
78-87-5	1,2-Dichloropropane	ND	0.15	ND	0.033	
75-27-4	**Bromodichloromethane**	**0.27**	0.15	**0.041**	0.023	
79-01-6	Trichloroethene	ND	0.15	ND	0.028	
123-91-1	1,4-Dioxane	ND	0.77	ND	0.21	
80-62-6	Methyl Methacrylate	ND	1.5	ND	0.37	
142-82-5	n-Heptane	ND	0.77	ND	0.19	
10061-01-5	cis-1,3-Dichloropropene	ND	0.77	ND	0.17	
108-10-1	4-Methyl-2-pentanone	ND	0.77	ND	0.19	
10061-02-6	trans-1,3-Dichloropropene	ND	0.77	ND	0.17	
79-00-5	1,1,2-Trichloroethane	ND	0.15	ND	0.028	
108-88-3	**Toluene**	**3.2**	0.77	**0.85**	0.20	
591-78-6	2-Hexanone	ND	0.77	ND	0.19	
124-48-1	Dibromochloromethane	ND	0.15	ND	0.018	
106-93-4	1,2-Dibromoethane	ND	0.15	ND	0.020	
123-86-4	**n-Butyl Acetate**	**1.2**	0.77	**0.25**	0.16	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 9/11/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Environmental Health & Engineering, Inc.**
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Sampling Media: 6.0 L Summa Canister
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Volume(s) Analyzed: 1.00 Liter(s)

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Canister Dilution Factor: 1.53

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.77	ND	0.16	
127-18-4	Tetrachloroethene	ND	0.15	ND	0.023	
108-90-7	Chlorobenzene	ND	0.15	ND	0.033	
100-41-4	Ethylbenzene	ND	0.77	ND	0.18	
179601-23-1	**m,p-Xylenes**	**1.7**	0.77	**0.38**	0.18	
75-25-2	Bromoform	ND	0.77	ND	0.074	
100-42-5	**Styrene**	**1.7**	0.77	**0.39**	0.18	
95-47-6	o-Xylene	ND	0.77	ND	0.18	
111-84-2	n-Nonane	ND	0.77	ND	0.15	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.15	ND	0.022	
98-82-8	Cumene	ND	0.77	ND	0.16	
80-56-8	**alpha-Pinene**	**26**	0.77	**4.7**	0.14	
103-65-1	n-Propylbenzene	ND	0.77	ND	0.16	
622-96-8	4-Ethyltoluene	ND	0.77	ND	0.16	
108-67-8	**1,3,5-Trimethylbenzene**	**1.9**	0.77	**0.38**	0.16	
95-63-6	**1,2,4-Trimethylbenzene**	**4.5**	0.77	**0.92**	0.16	
100-44-7	Benzyl Chloride	ND	0.15	ND	0.030	
541-73-1	1,3-Dichlorobenzene	ND	0.15	ND	0.025	
106-46-7	1,4-Dichlorobenzene	ND	0.15	ND	0.025	
95-50-1	1,2-Dichlorobenzene	ND	0.15	ND	0.025	
5989-27-5	**d-Limonene**	**57**	0.77	**10**	0.14	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.77	ND	0.079	
120-82-1	1,2,4-Trichlorobenzene	ND	0.77	ND	0.10	
91-20-3	Naphthalene	ND	0.77	ND	0.15	
87-68-3	Hexachlorobutadiene	ND	0.77	ND	0.072	

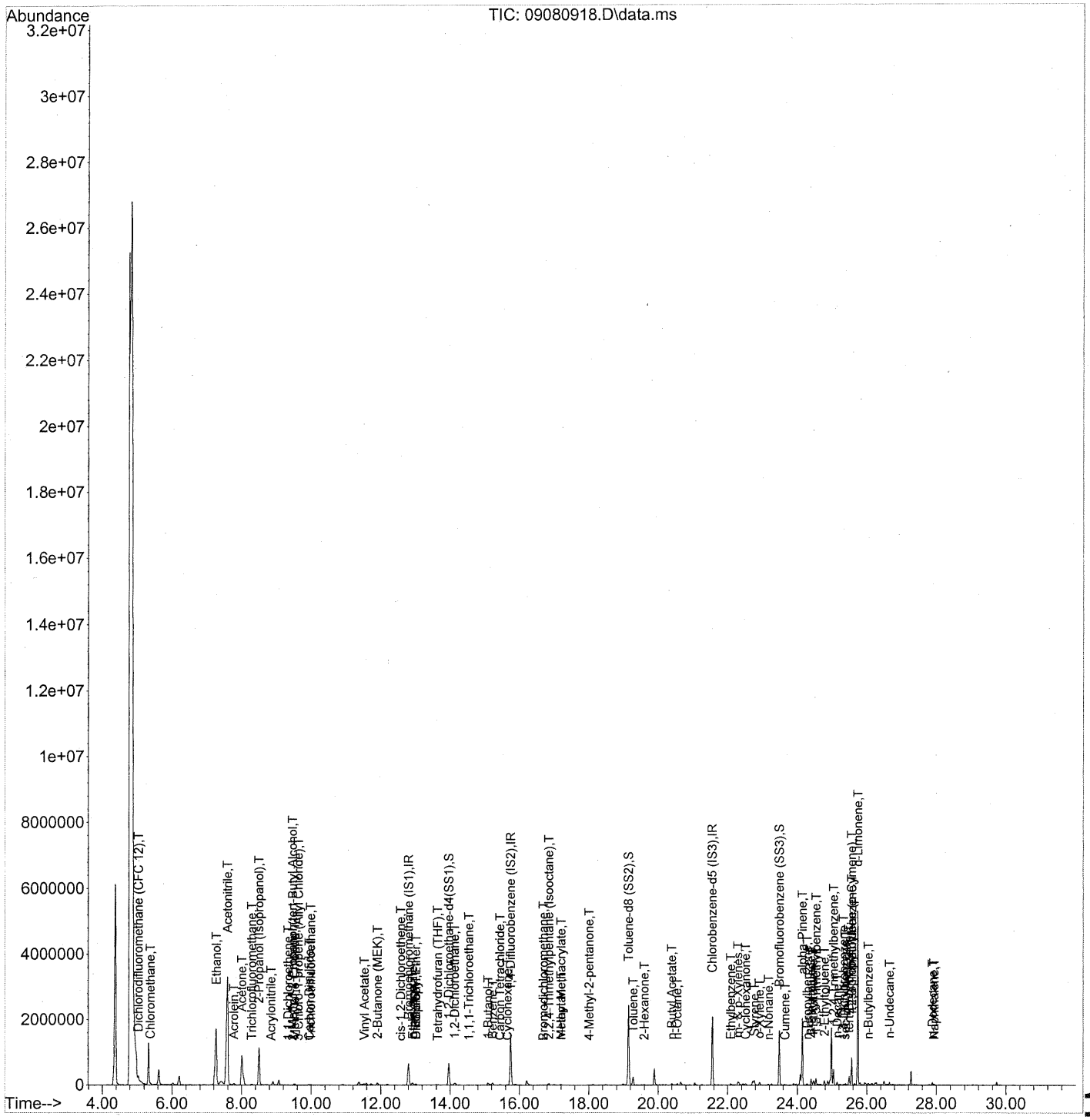
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 9/11/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 10 09:52:11 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



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QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.81	130	347550	25.000	ng		-0.03
37) 1,4-Difluorobenzene (IS2)	15.75	114	1785901	25.000	ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.56	82	887884	25.000	ng		-0.01
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.96	65	654744	26.643	ng		-0.03
Spiked Amount 25.000			Recovery =	106.56%			
57) Toluene-d8 (SS2)	19.15	98	2111605	25.017	ng		-0.01
Spiked Amount 25.000			Recovery =	100.08%			
73) Bromofluorobenzene (SS3)	23.49	174	568566	23.785	ng		0.00
Spiked Amount 25.000			Recovery =	95.12%			
Target Compounds							Qvalue
2) Propene	0.00	42	0	N.D.	d		
3) Dichlorodifluoromethan...	5.04	85	96823m	2.225	ng		
4) Chloromethane	5.38	50	24415	0.602	ng		98
5) 1,2-Dichloro-1,1,2,2-t...	5.62	135	1079	N.D.			
6) Vinyl Chloride	5.83	62	118	N.D.			
7) 1,3-Butadiene	6.11	54	789	N.D.			
8) Bromomethane	6.61	94	724	N.D.			
9) Chloroethane	6.94	64	128	N.D.			
10) Ethanol	7.27	45	3672085m	192.014	ng		
11) Acetonitrile	7.59	41	5953617	127.565	ng	E	99
12) Acrolein	7.78	56	54401	4.362	ng		97
13) Acetone	8.01	58	584666	30.043	ng		99
14) Trichlorofluoromethane	8.29	101	30556	0.821	ng		97
15) 2-Propanol (Isopropanol)	8.50	45	410718m	7.706	ng	M	
16) Acrylonitrile	8.85	53	1964	0.~~069~~	ng		88
17) 1,1-Dichloroethene	9.33	96	1659	0.~~076~~	ng		87
18) 2-Methyl-2-Propanol (t...	9.46	59	14278	0.264	ng	#	82
19) Methylene Chloride	9.53	84	9904	0.~~408~~	ng		84
20) 3-Chloro-1-propene (Al...	9.63	41	2228	0.~~068~~	ng	#	34
21) Trichlorotrifluoroethane	9.99	151	5506	0.331	ng		89
22) Carbon Disulfide	9.94	76	25389	0.~~296~~	ng		98
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	11.30	63	1749	N.D.			
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.			
26) Vinyl Acetate	11.53	86	14091	~~3.343~~	ng	#	1
27) 2-Butanone (MEK)	11.90	72	30554	2.252	ng	#	91
28) cis-1,2-Dichloroethene	12.58	61	1616	0.~~052~~	ng	#	68
29) Diisopropyl Ether	13.02	87	3786	0.197	ng	#	1
30) Ethyl Acetate	12.93	61	7195	~~0.818~~	ng		91
31) n-Hexane	12.92	57	26751	0.624	ng		93

Data Path : J:\MS09\Data\2009_09\08\
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QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	13.02	83	37463	1.044	ng		99
34) Tetrahydrofuran (THF)	13.64	72	726	0.051	ng	#	1
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	14.13	62	53385	1.944	ng		99
38) 1,1,1-Trichloroethane	14.54	97	1818	0.056	ng		78
39) Isopropyl Acetate	0.00	61	0	N.D.			
40) 1-Butanol	15.09	56	70124	3.030	ng		87
41) Benzene	15.23	78	72270	0.752	ng		99
42) Carbon Tetrachloride	15.45	117	9033	0.336	ng		99
43) Cyclohexane	15.65	84	8616	0.232	ng	#	77
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.			
45) 1,2-Dichloropropane	0.00	63	0	N.D.			
46) Bromodichloromethane	16.70	83	5032	0.179	ng		84
47) Trichloroethene	0.00	130	0	N.D.			
48) 1,4-Dioxane	16.76	88	754	N.D.			
49) 2,2,4-Trimethylpentane...	16.85	57	51295	0.464	ng		91
50) Methyl Methacrylate	17.20	100	2412	0.251	ng	#	1
51) n-Heptane	17.20	71	9085	0.355	ng		89
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.			
53) 4-Methyl-2-pentanone	18.01	58	4503	0.217	ng		80
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.			
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.	d		
58) Toluene	19.28	91	214640	2.098	ng		99
59) 2-Hexanone	19.60	43	21064	0.396	ng		81
60) Dibromochloromethane	0.00	129	0	N.D.			
61) 1,2-Dibromoethane	0.00	107	0	N.D.			
62) n-Butyl Acetate	20.39	43	45892	0.791	ng		93
63) n-Octane	20.55	57	9153	0.401	ng		85
64) Tetrachloroethene	20.75	166	1245	N.D.			
65) Chlorobenzene	21.63	112	2299	N.D.			
66) Ethylbenzene	22.09	91	43742	0.396	ng		99
67) m- & p-Xylenes	22.30	91	94853	1.083	ng		99
68) Bromoform	0.00	173	0	N.D.			
69) Styrene	22.77	104	70725	1.093	ng		99
70) o-Xylene	22.92	91	43085	0.489	ng		96
71) n-Nonane	23.17	43	14172	0.267	ng		81
72) 1,1,2,2-Tetrachloroethane	22.91	83	128	N.D.			
74) Cumene	23.65	105	14792	0.129	ng		97
75) alpha-Pinene	24.15	93	958270	17.002	ng		98
76) n-Propylbenzene	24.29	91	30977	0.219	ng		90
77) 3-Ethyltoluene	24.40	105	122993	1.149	ng		98
78) 4-Ethyltoluene	24.46	105	34745	0.323	ng		93
79) 1,3,5-Trimethylbenzene	24.55	105	109790	1.234	ng		97

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 10 09:52:11 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration

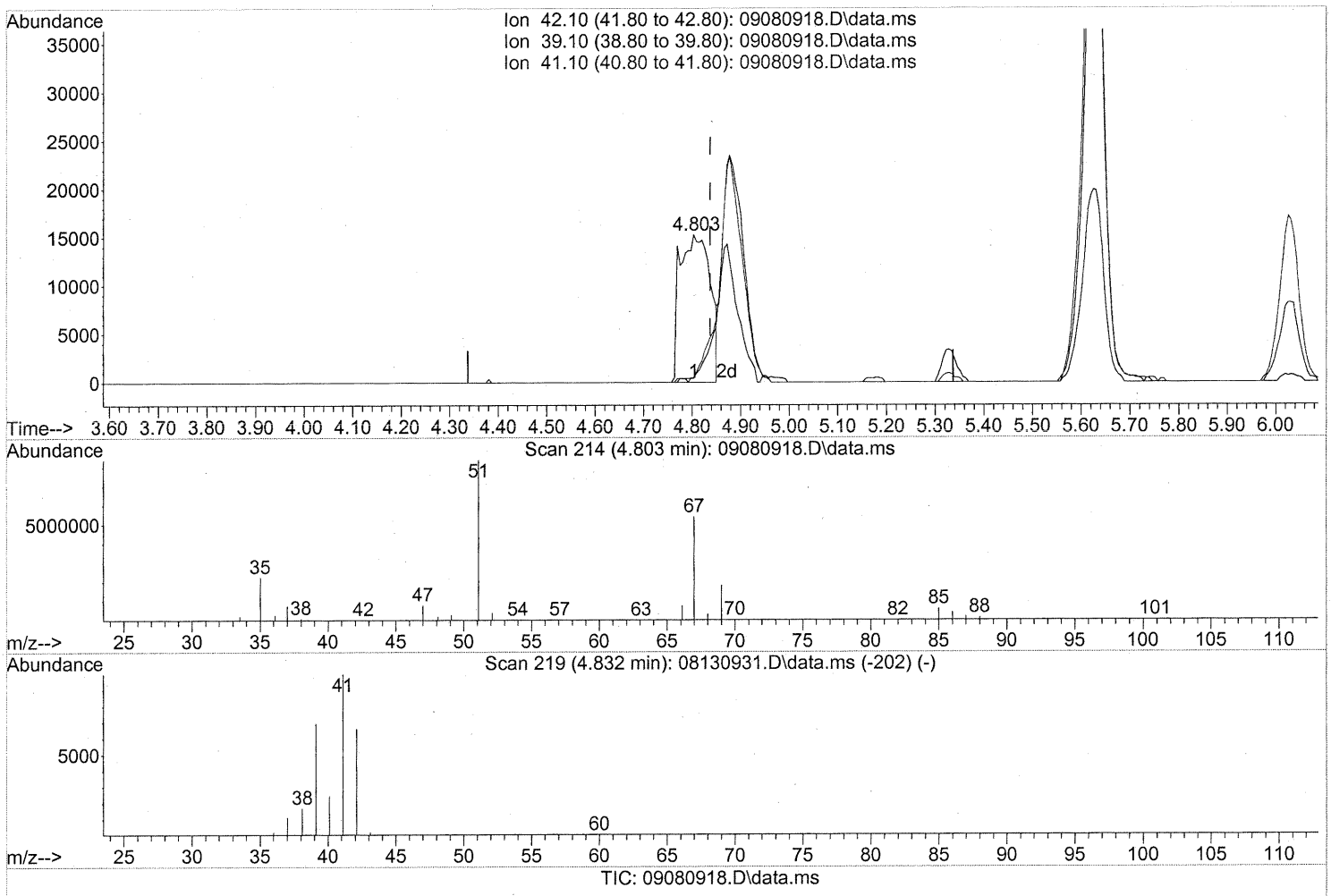
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
80) alpha-Methylstyrene	24.73	118	245	N.D.		
81) 2-Ethyltoluene	24.79	105	97842	0.885 ng		98
82) 1,2,4-Trimethylbenzene	25.05	105	279479	2.959 ng		87
83) n-Decane	25.15	57	34112	0.620 ng		96
84) Benzyl Chloride	0.00	91	0	N.D. d		
85) 1,3-Dichlorobenzene	25.33	146	3837	0.078 ng		99
86) 1,4-Dichlorobenzene	25.33	146	3837	0.074 ng		100
87) sec-Butylbenzene	25.38	105	11329	0.091 ng		96
88) 4-Isopropyltoluene (p-...	25.56	119	464657	3.896 ng		95
89) 1,2,3-Trimethylbenzene	25.57	105	89152	0.934 ng	#	51
90) 1,2-Dichlorobenzene	25.75	146	369	N.D.		
91) d-Limonene	25.74	68	1430333	37.013 ng		93
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.65	57	24136	0.425 ng		86
94) 1,2,4-Trichlorobenzene	0.00	180	0	N.D.		
95) Naphthalene	27.94	128	26951	0.213 ng		98
96) n-Dodecane	27.89	57	28693	0.451 ng		96
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.52	55	26967	0.837 ng	#	91
99) tert-Butylbenzene	25.49	119	17612	0.188 ng		96
100) n-Butylbenzene	26.05	91	11580	0.117 ng	#	30

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

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



(2) Propene (T)

4.803min (-0.034) 2.16ng

response 65798

Ion	Exp%	Act%
42.10	100	100
39.10	115.80	0.00#
41.10	152.70	0.00#
0.00	0.00	0.00

FP Em 9/9/09

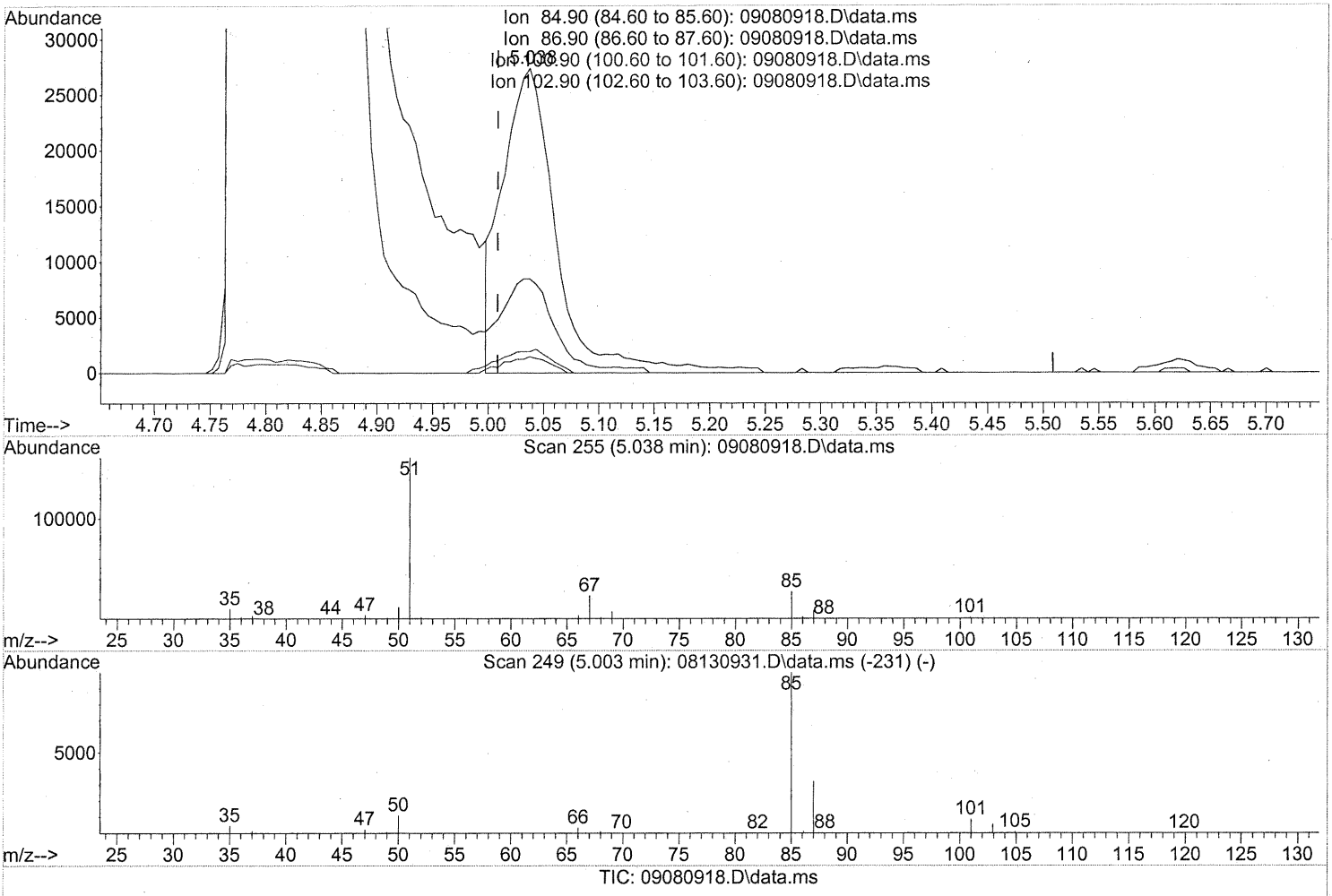
KB 9/9/09

14

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 13:46:21 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080918.D\data.ms

(3) Dichlorodifluoromethane (CFC 12) (T)

5.038min (+0.029) 2.13ng

response 92752

Ion	Exp%	Act%
84.90	100	100
86.90	32.00	30.83
100.90	9.10	7.15
102.90	5.50	4.31

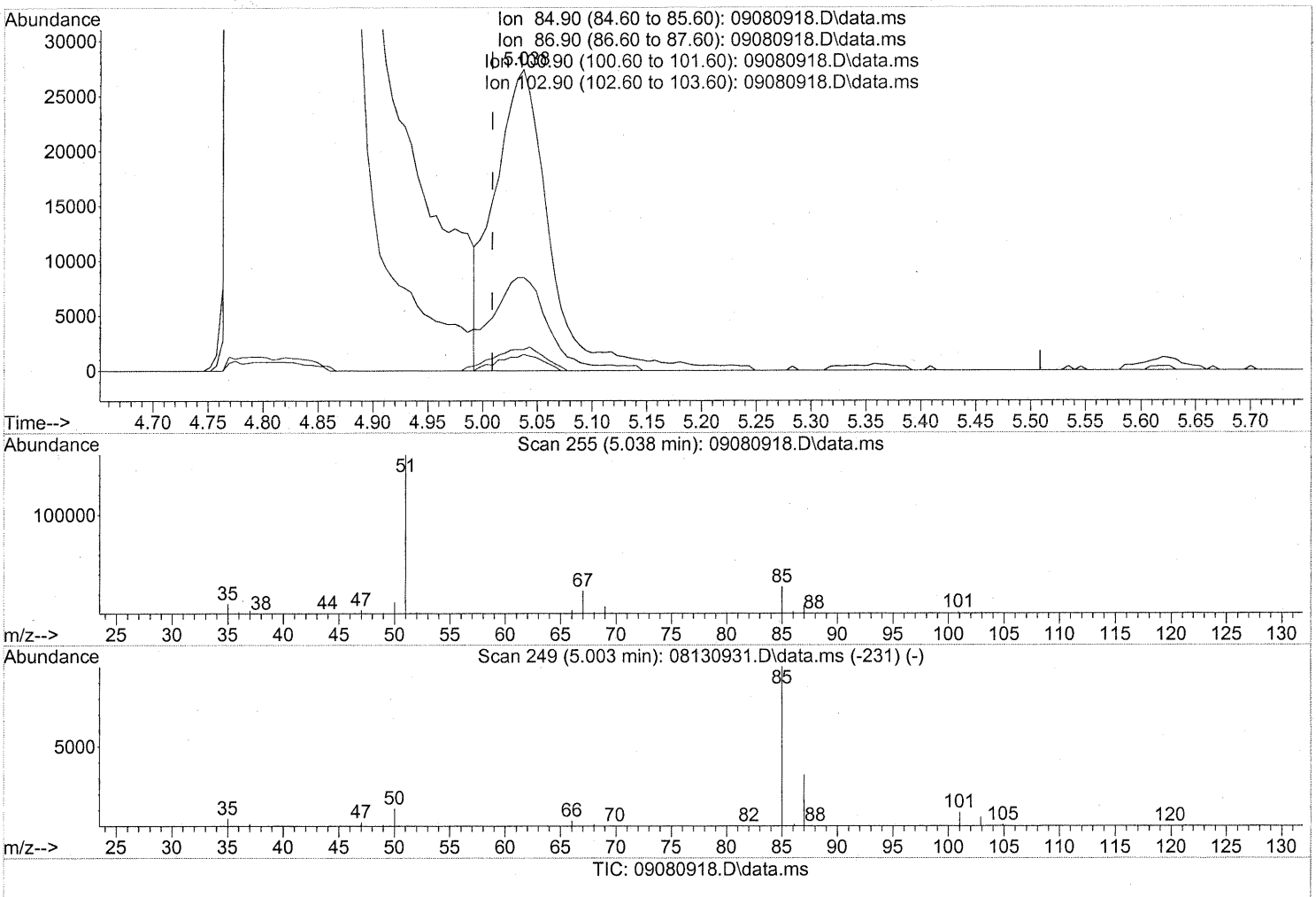
IPI

15

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 13:46:21 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



(3) Dichlorodifluoromethane (CFC 12) (T)

5.038min (+0.029) 2.22ng m

response 96823

Ion	Exp%	Act%
84.90	100	100
86.90	32.00	29.54
100.90	9.10	6.85
102.90	5.50	4.13

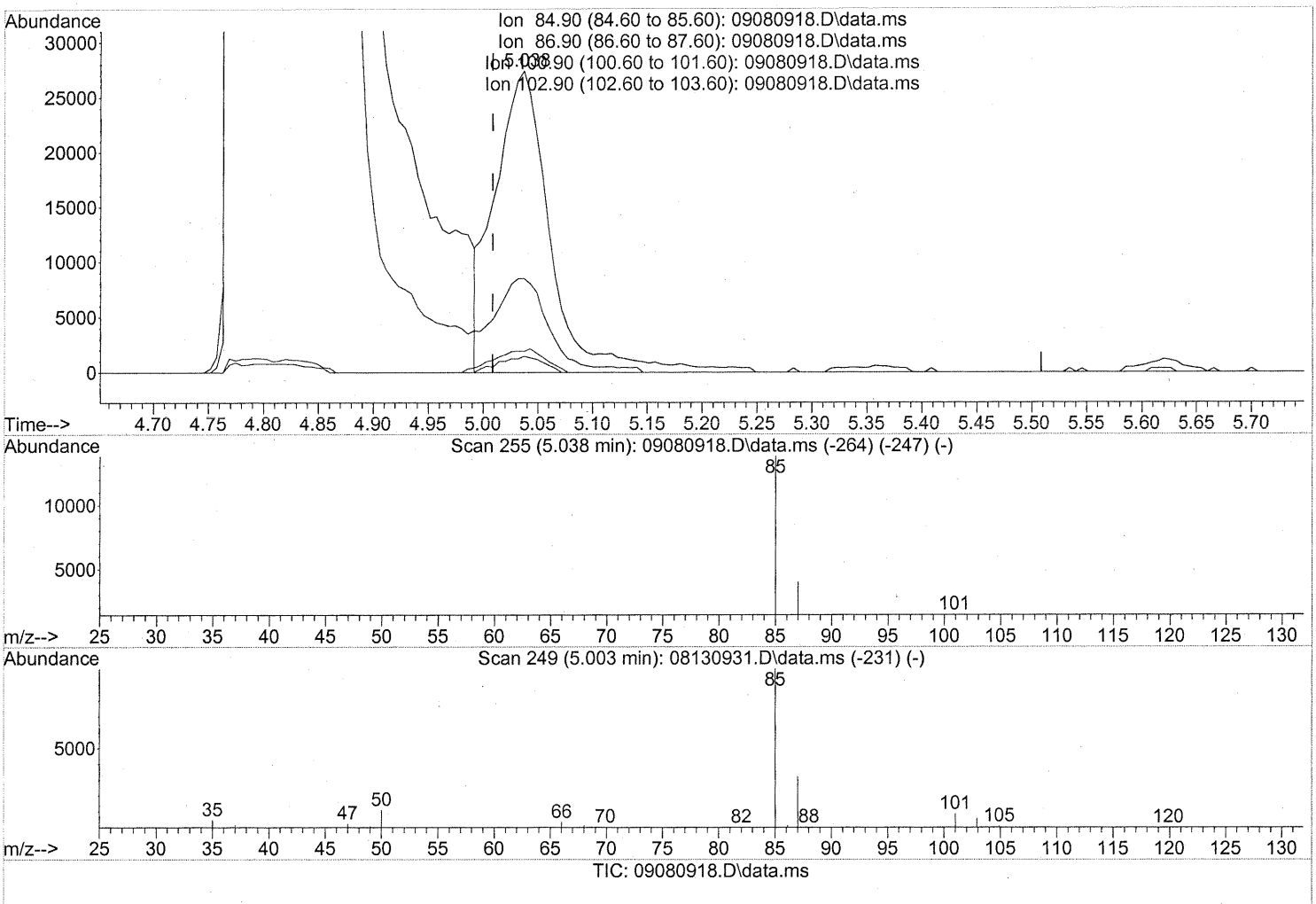
IP → IC
Em 9/10/09
Before subtraction

16

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 13:46:21 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



(3) Dichlorodifluoromethane (CFC 12) (T)

5.038min (+0.029) 2.22ng m

response 96823

Ion	Exp%	Act%
84.90	100	100
86.90	32.00	29.54
100.90	9.10	6.85
102.90	5.50	4.13

After subtraction
Lam 9/10/09

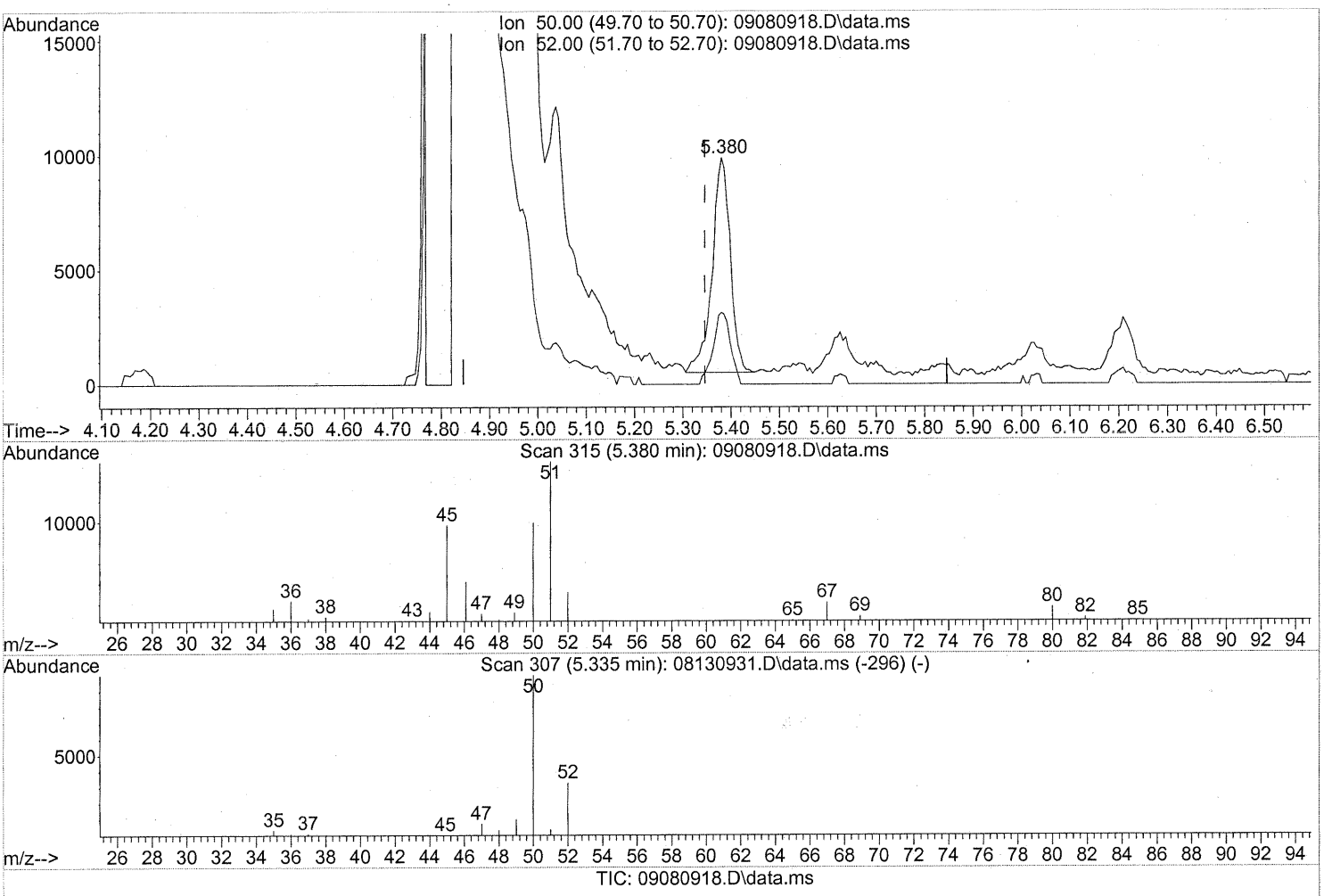
JKR 9/10/09

17

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080918.D\data.ms

(4) Chloromethane (T)

5.380min (+0.034) 0.60ng

response 24415

Ion	Exp%	Act%
50.00	100	100
52.00	33.20	31.79
0.00	0.00	0.00
0.00	0.00	0.00

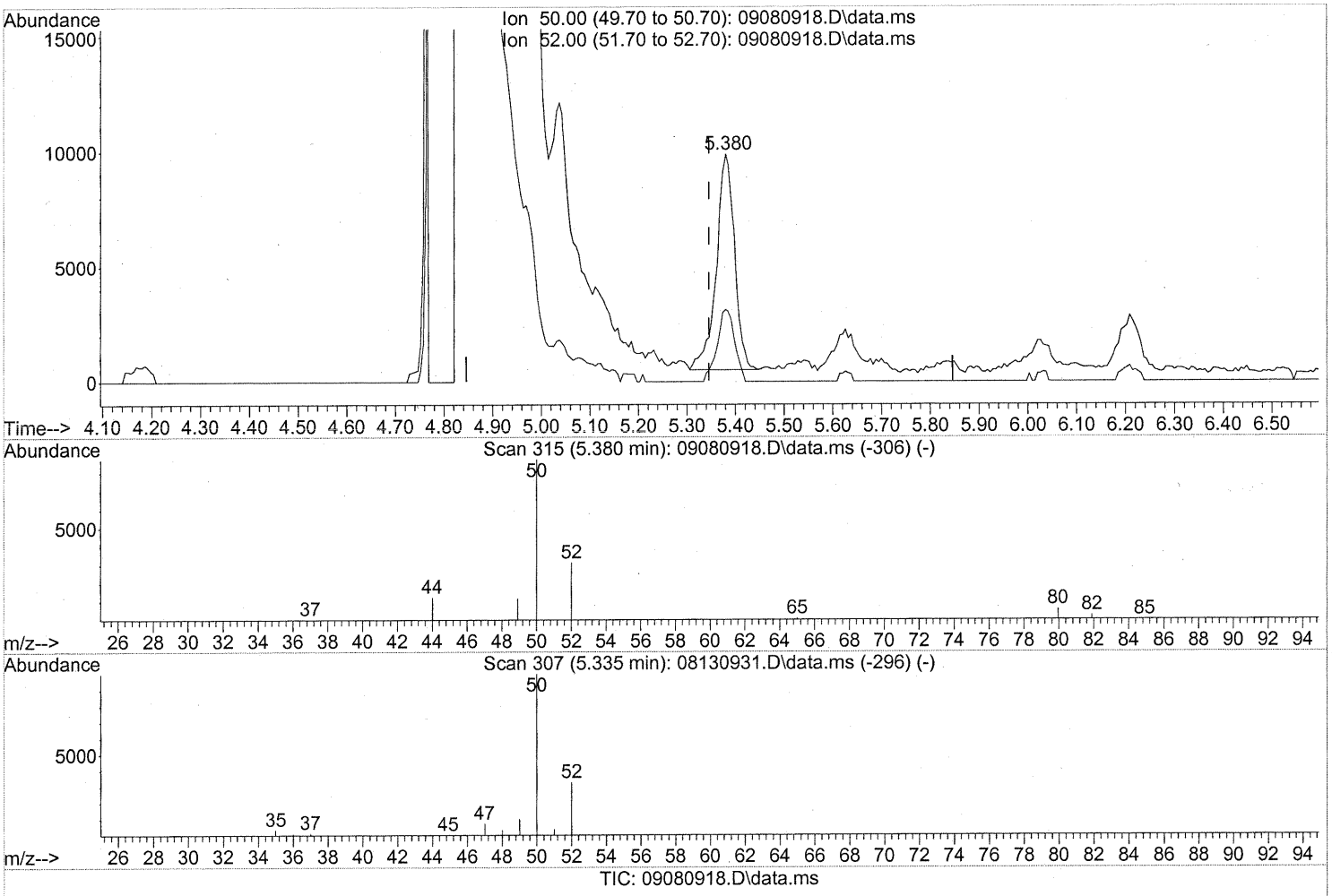
Before subtraction

18

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



(4) Chloromethane (T)

5.380min (+0.034) 0.60ng

response 24415

Ion	Exp%	Act%
50.00	100	100
52.00	33.20	31.79
0.00	0.00	0.00
0.00	0.00	0.00

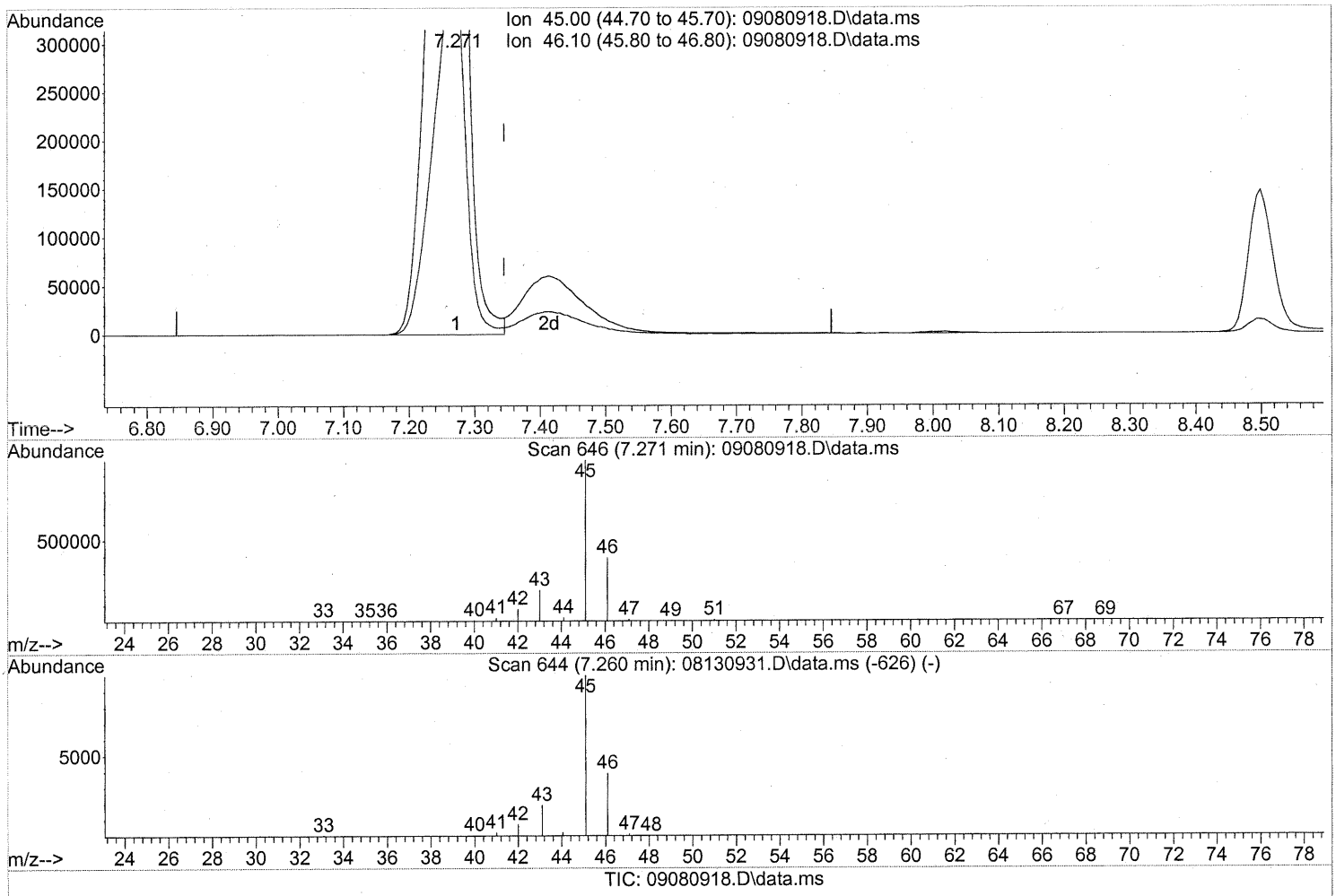
After subtraction
9/9/09

19

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080918.D\data.ms

(10) Ethanol (T)

7.271min (-0.074) 171.36ng

response 3277069

Ion	Exp%	Act%
45.00	100	100
46.10	39.00	39.03
0.00	0.00	0.00
0.00	0.00	0.00

PT

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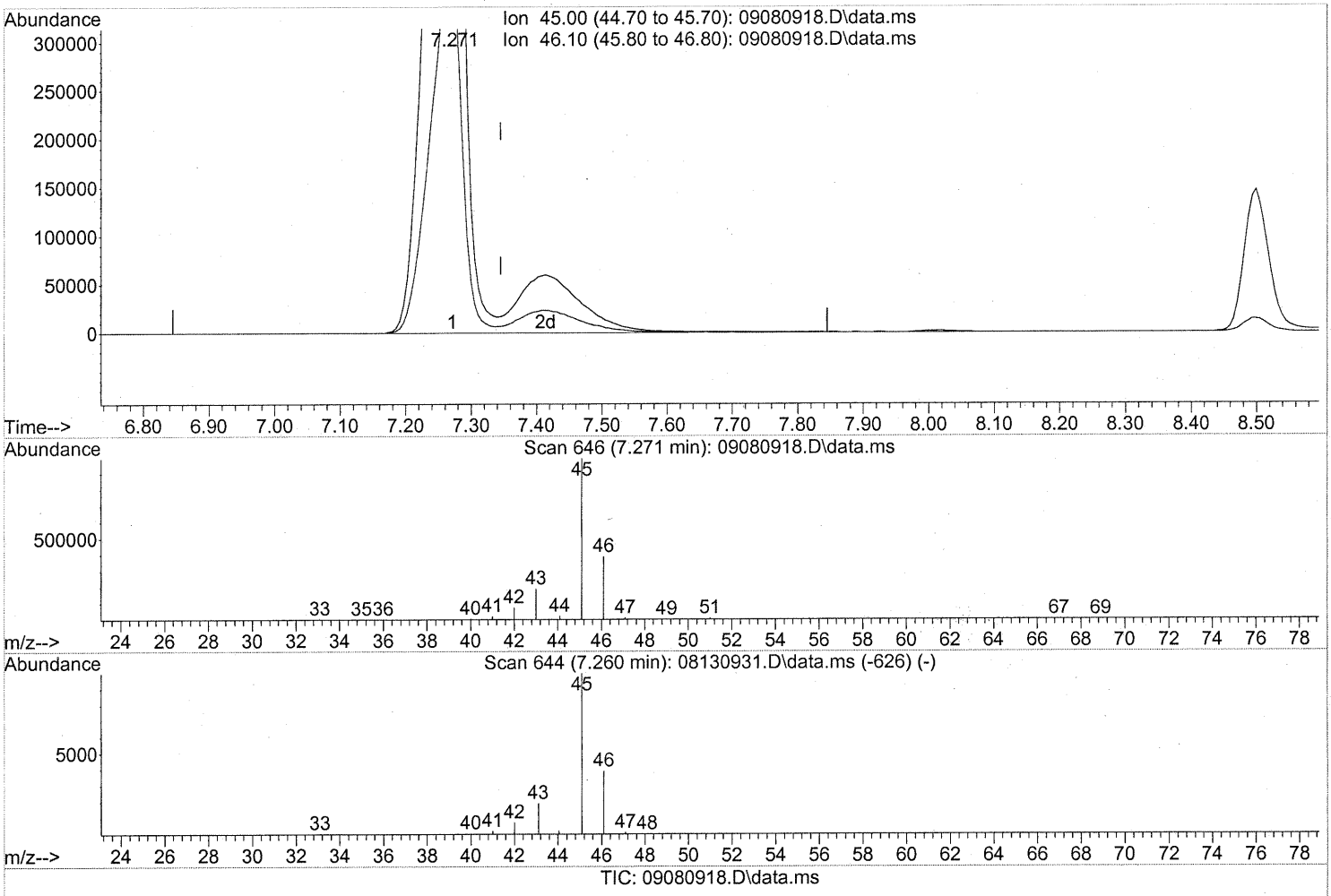
Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080918.D\data.ms

(10) Ethanol (T)

7.271min (-0.074) 192.01ng m

response 3672085

Ion	Exp%	Act%
45.00	100	100
46.10	39.00	34.83
0.00	0.00	0.00
0.00	0.00	0.00

PT → IC
Cm 9/9/09

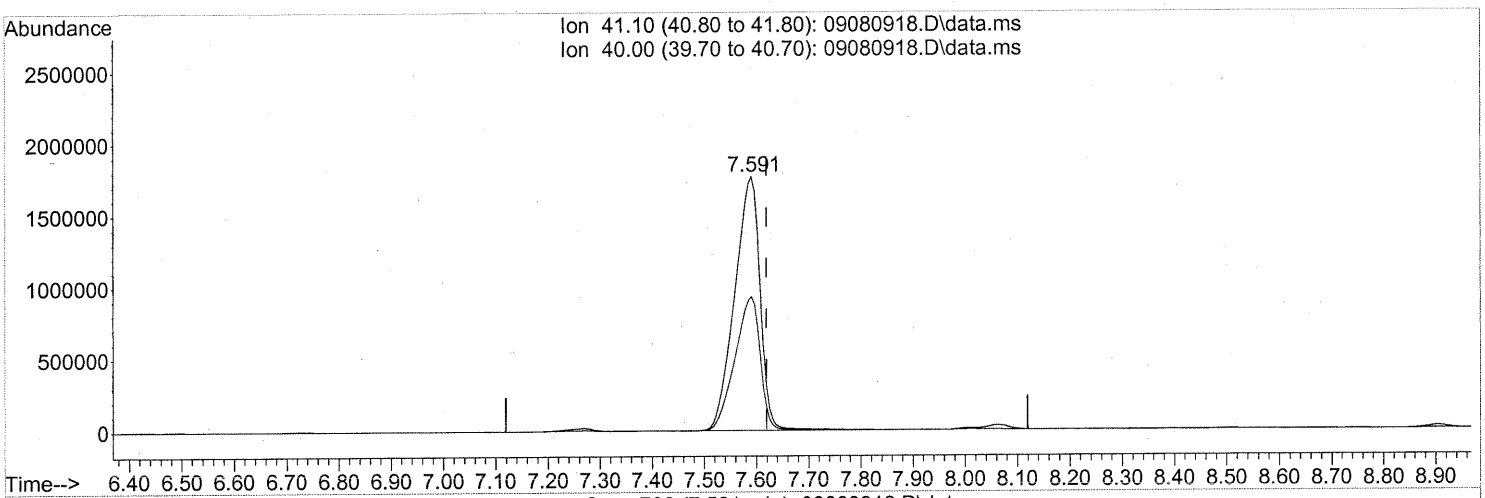
KE 9/9/09

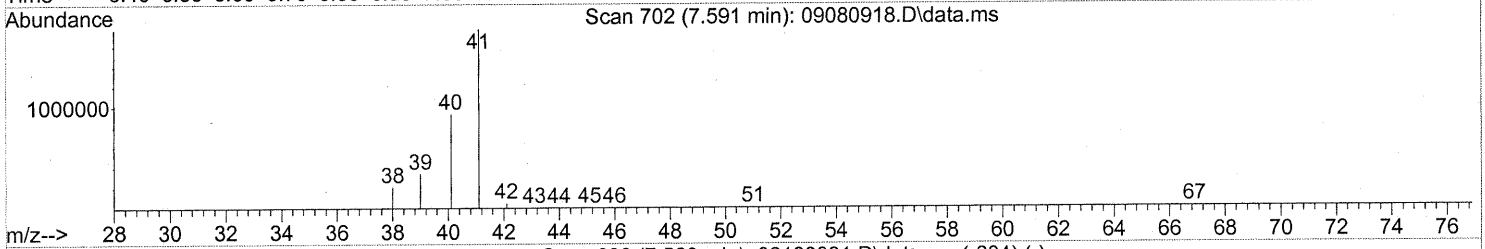
21

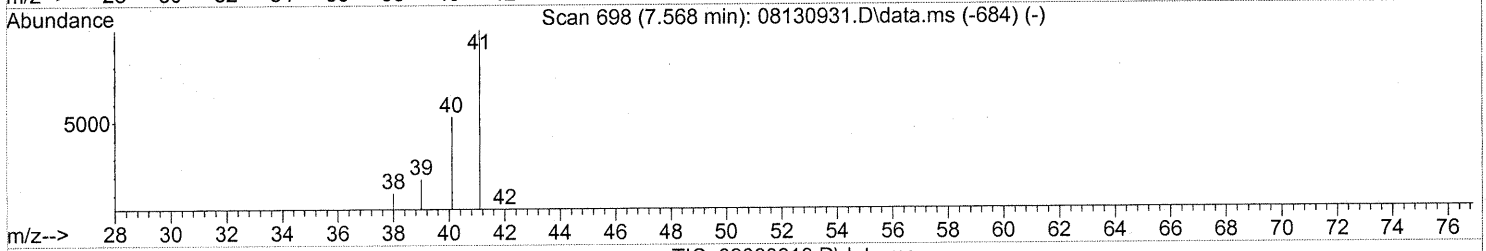
Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration







TIC: 09080918.D\data.ms

(11) Acetonitrile (T)

E

7.591min (-0.029) 127.56ng

response 5953617

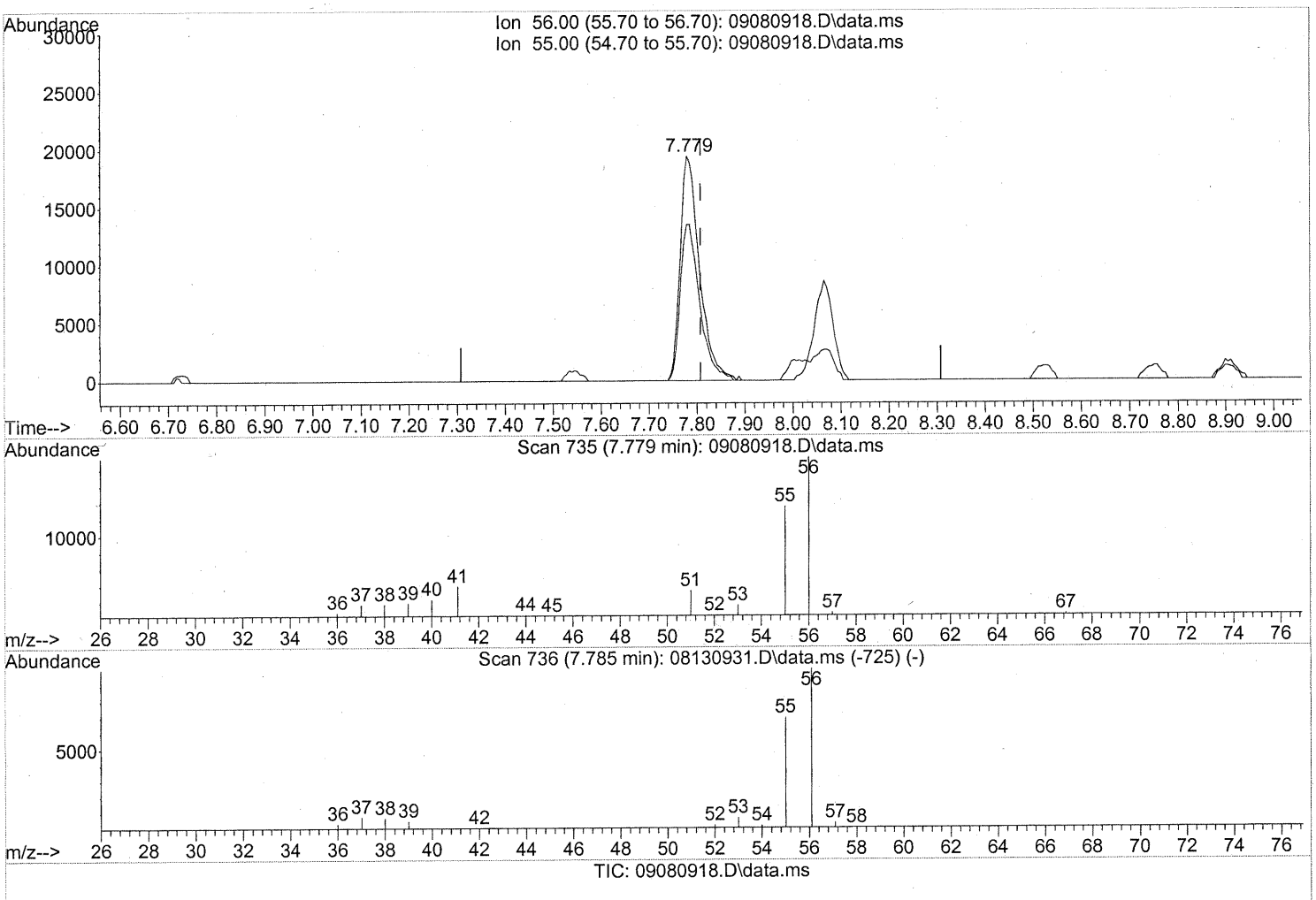
Ion	Exp%	Act%
41.10	100	100
40.00	53.30	52.88
0.00	0.00	0.00
0.00	0.00	0.00

22

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080918.D\data.ms

(12) Acrolein (T)

7.779min (-0.029) 4.36ng

response 54401

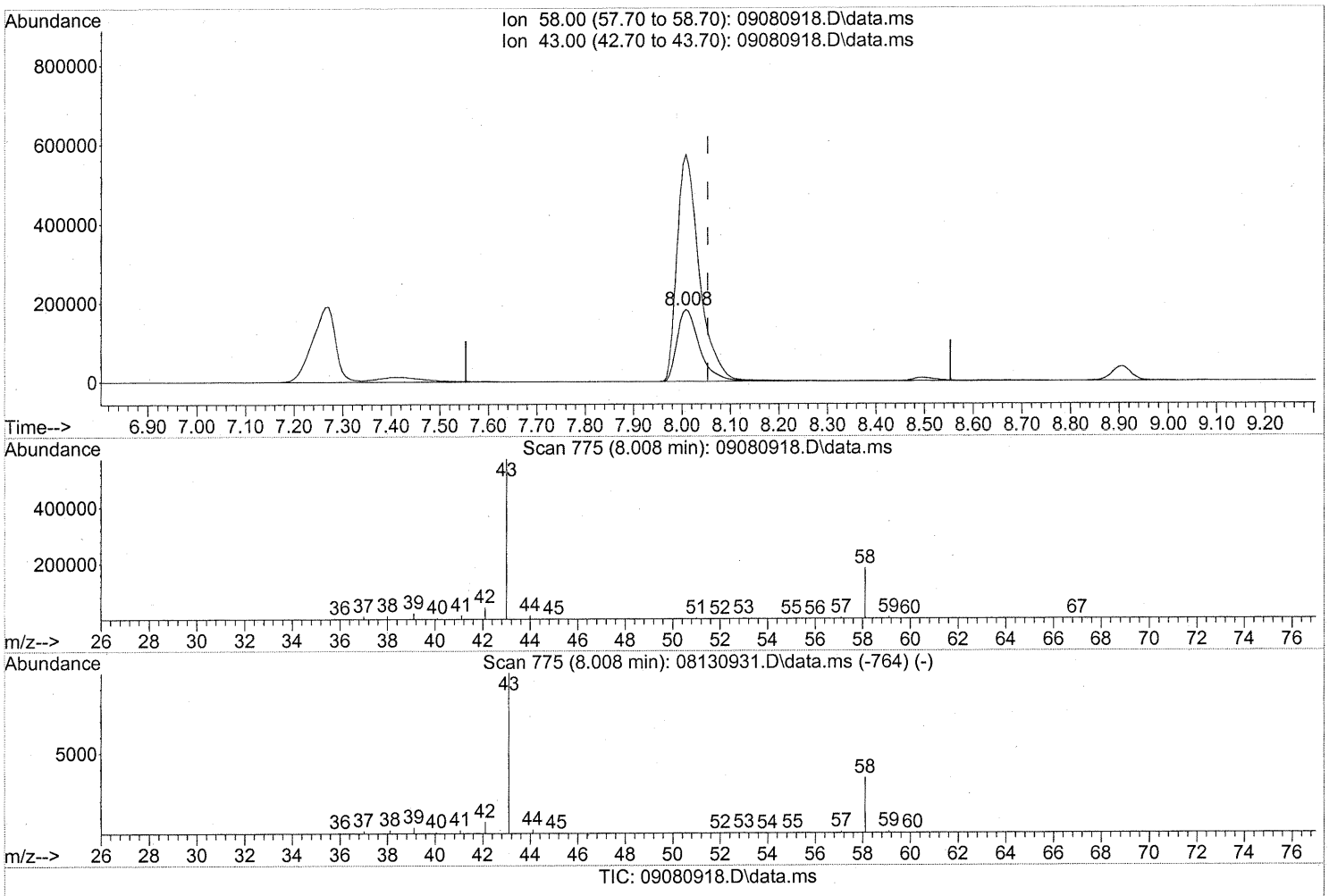
Ion	Exp%	Act%
56.00	100	100
55.00	67.70	70.12
0.00	0.00	0.00
0.00	0.00	0.00

23

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



(13) Acetone (T)

8.008min (-0.046) 30.04ng

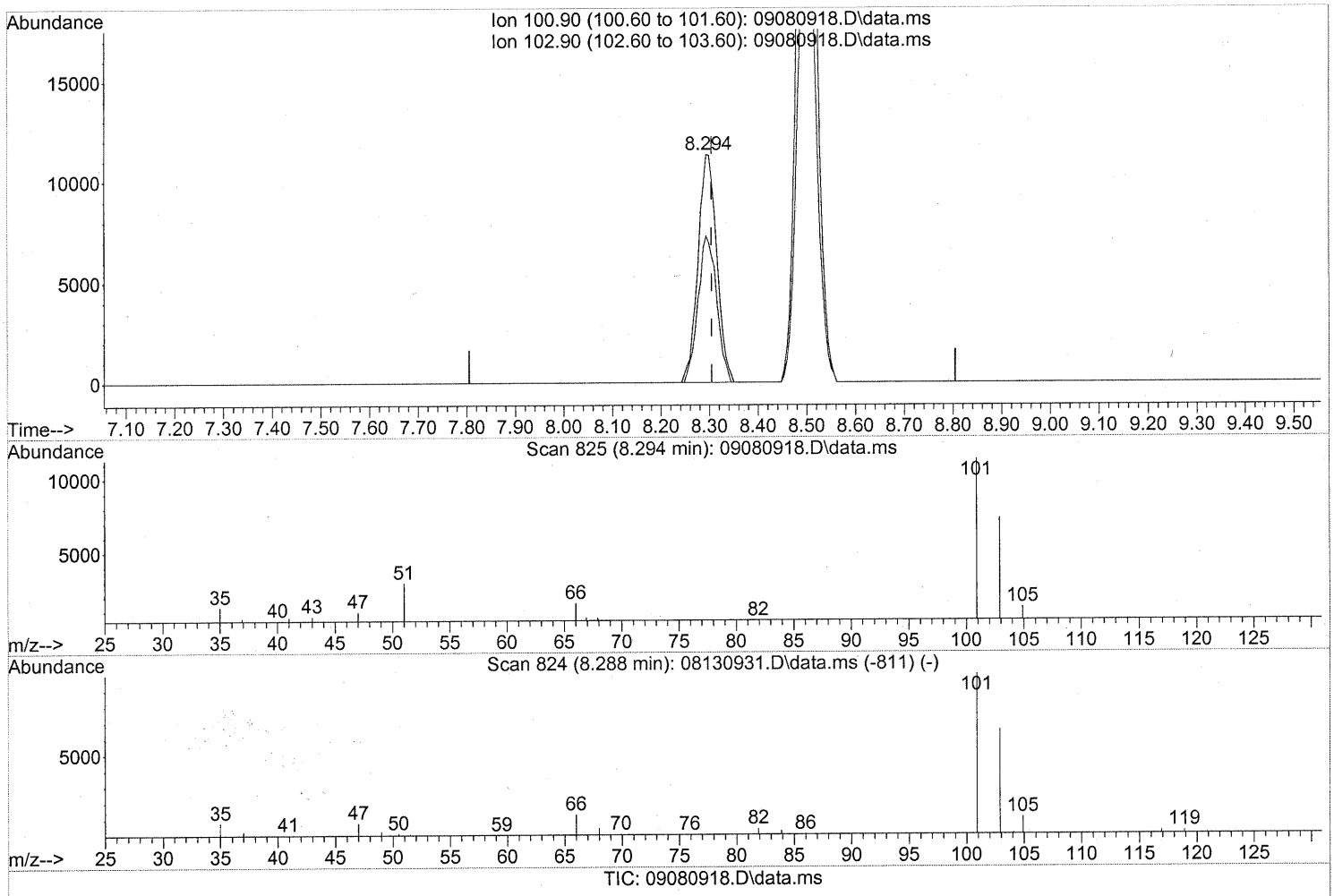
response 584666

Ion	Exp%	Act%
58.00	100	100
43.00	317.70	316.34
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080918.D\data.ms

(14) Trichlorofluoromethane (T)

8.294min (-0.011) 0.82ng

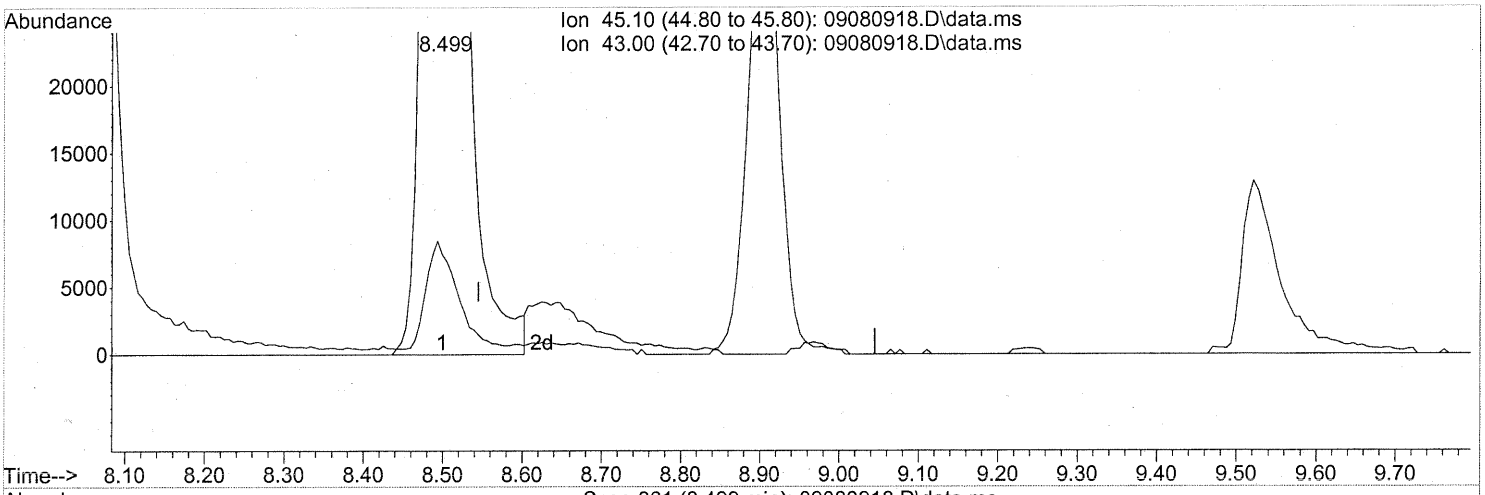
response 30556

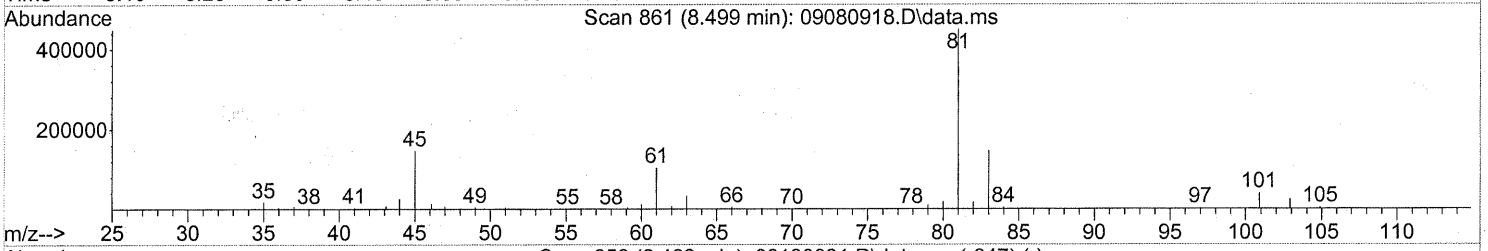
Ion	Exp%	Act%
100.90	100	100
102.90	66.00	63.96
0.00	0.00	0.00
0.00	0.00	0.00

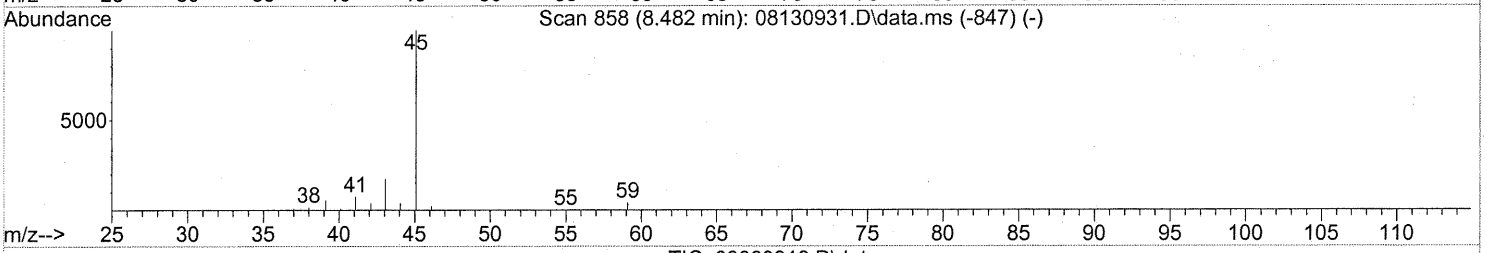
Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration







TIC: 09080918.D\data.ms

(15) 2-Propanol (Isopropanol) (T)

8.499min (-0.046) 7.31ng

response 389432

Ion	Exp%	Act%
45.10	100	100
43.00	20.50	8.16
0.00	0.00	0.00
0.00	0.00	0.00

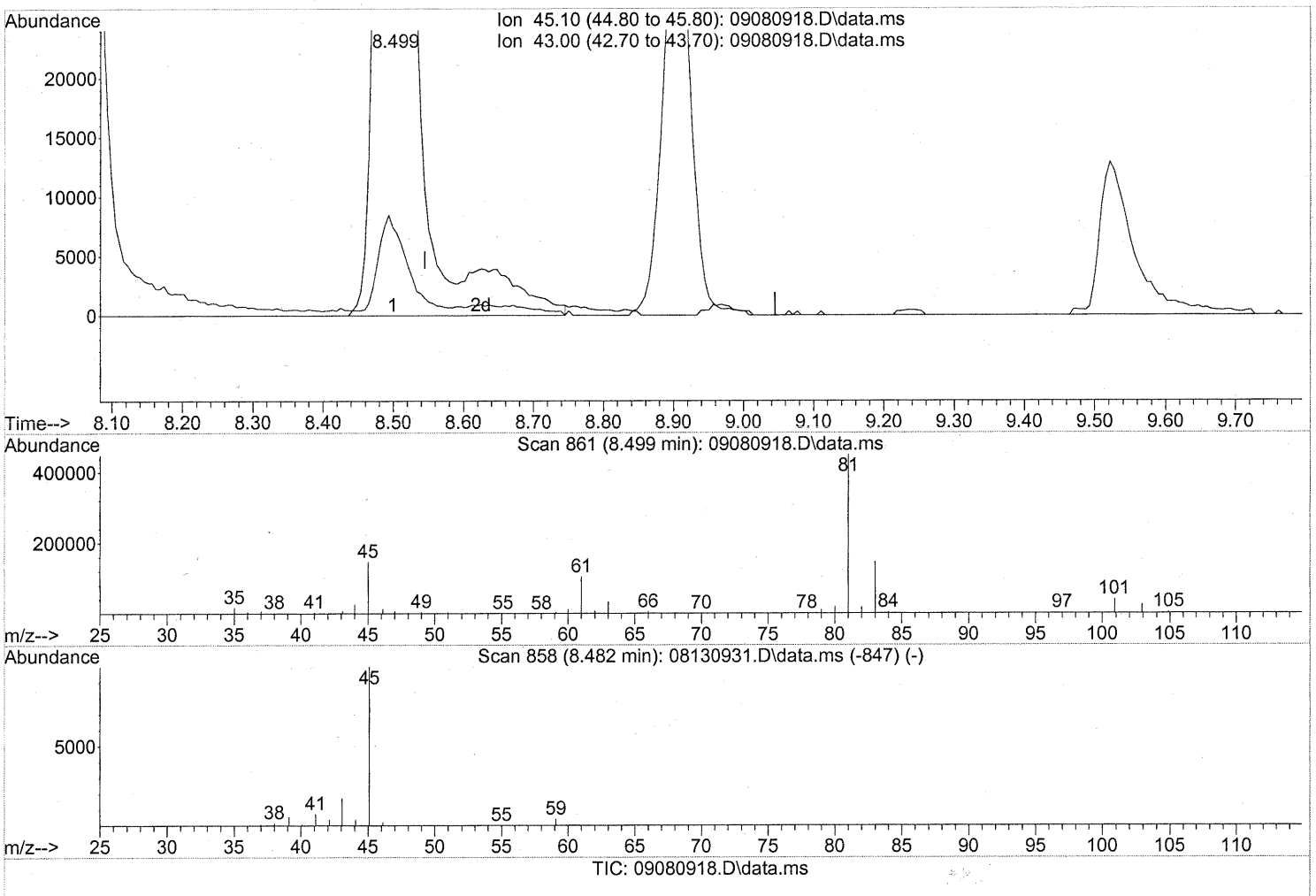
PT

26

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080918.D\data.ms

(15) 2-Propanol (Isopropanol) (T)

8.499min (-0.046) 7.71ng m

response 410718

Ion	Exp%	Act%
45.10	100	100
43.00	20.50	7.74
0.00	0.00	0.00
0.00	0.00	0.00

M

PT → C

9/9/09

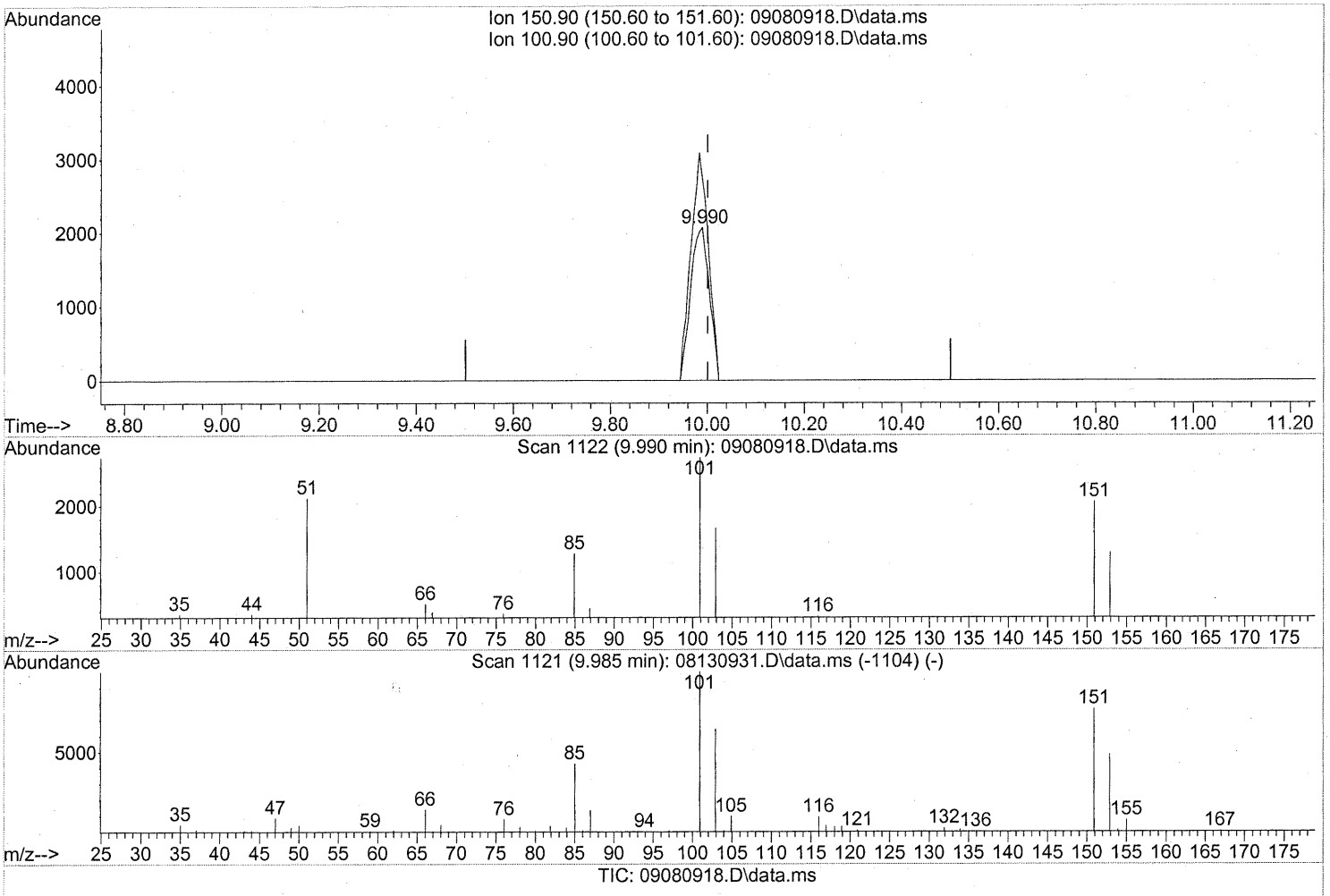
KR 9/9/09

27

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080918.D\data.ms

(21) Trichlorotrifluoroethane (T)

9.990min (-0.011) 0.33ng

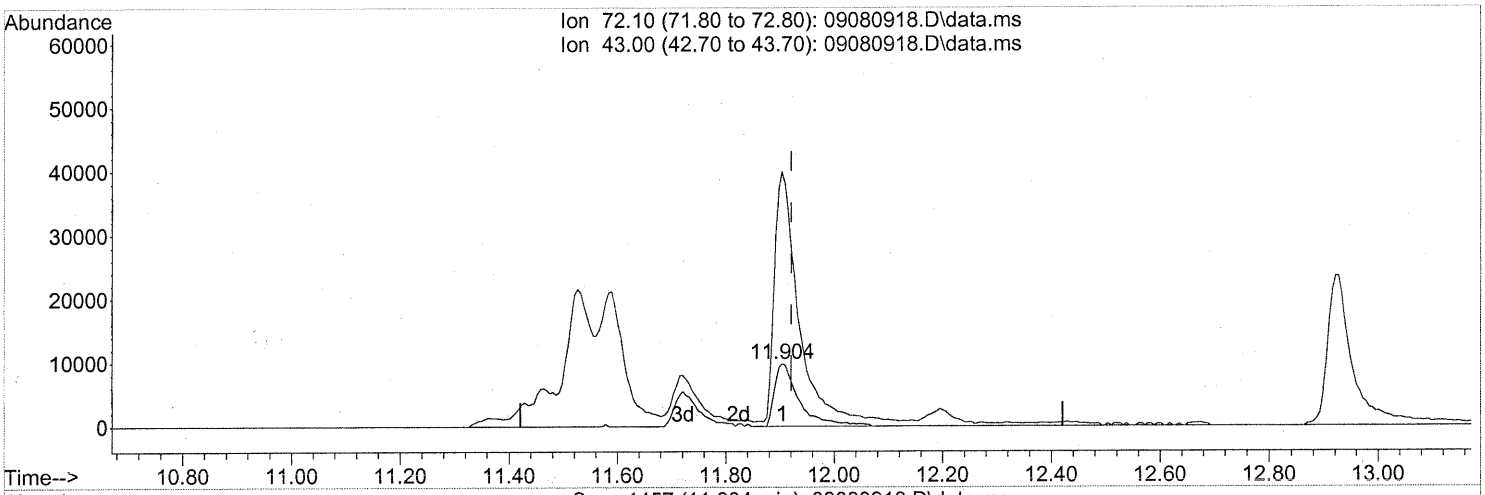
response 5506

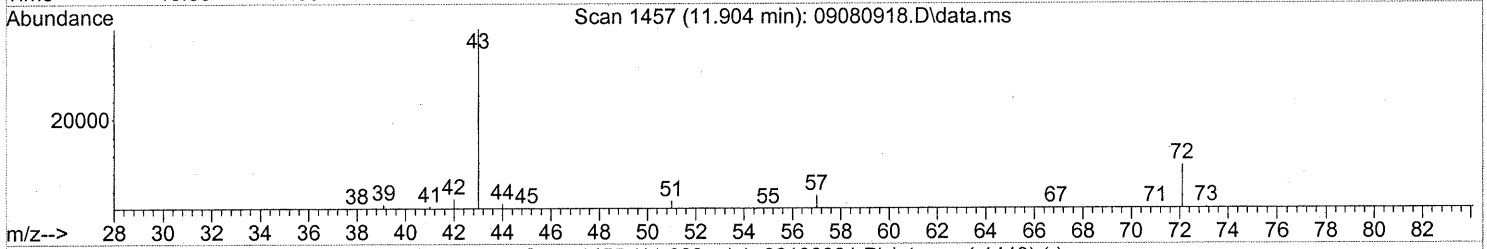
Ion	Exp%	Act%
150.90	100	100
100.90	127.40	140.36
0.00	0.00	0.00
0.00	0.00	0.00

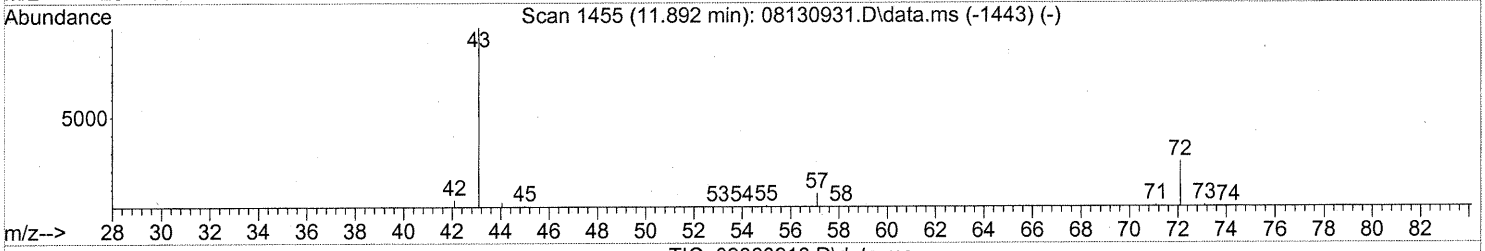
Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration







TIC: 09080918.D\data.ms

(27) 2-Butanone (MEK) (T)

11.904min (-0.017) 2.25ng

response 30554

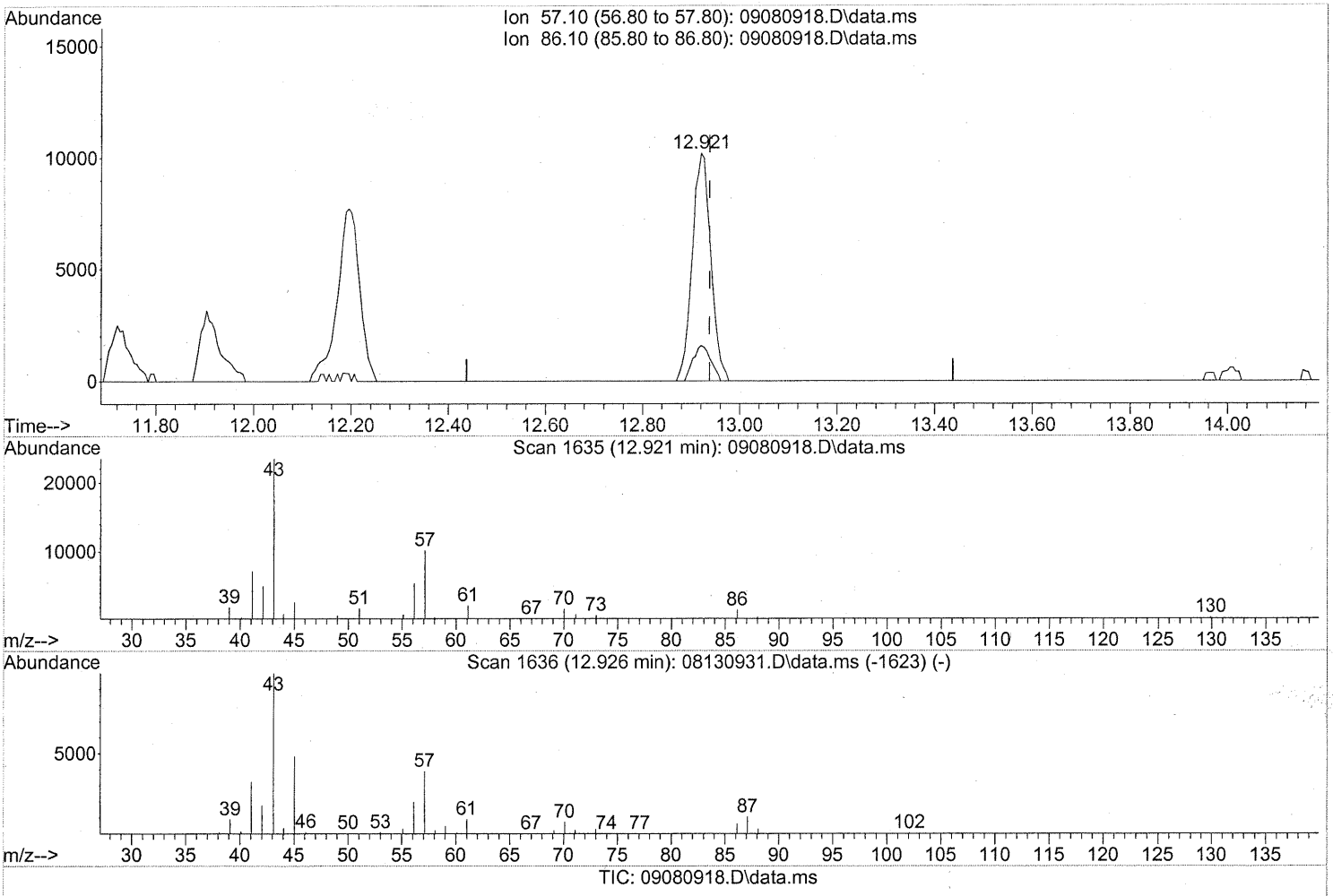
Ion	Exp%	Act%
72.10	100	100
43.00	366.50	387.50#
0.00	0.00	0.00
0.00	0.00	0.00

29

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 13:46:21 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080918.D\data.ms

(31) n-Hexane (T)

12.921min (-0.017) 0.62ng

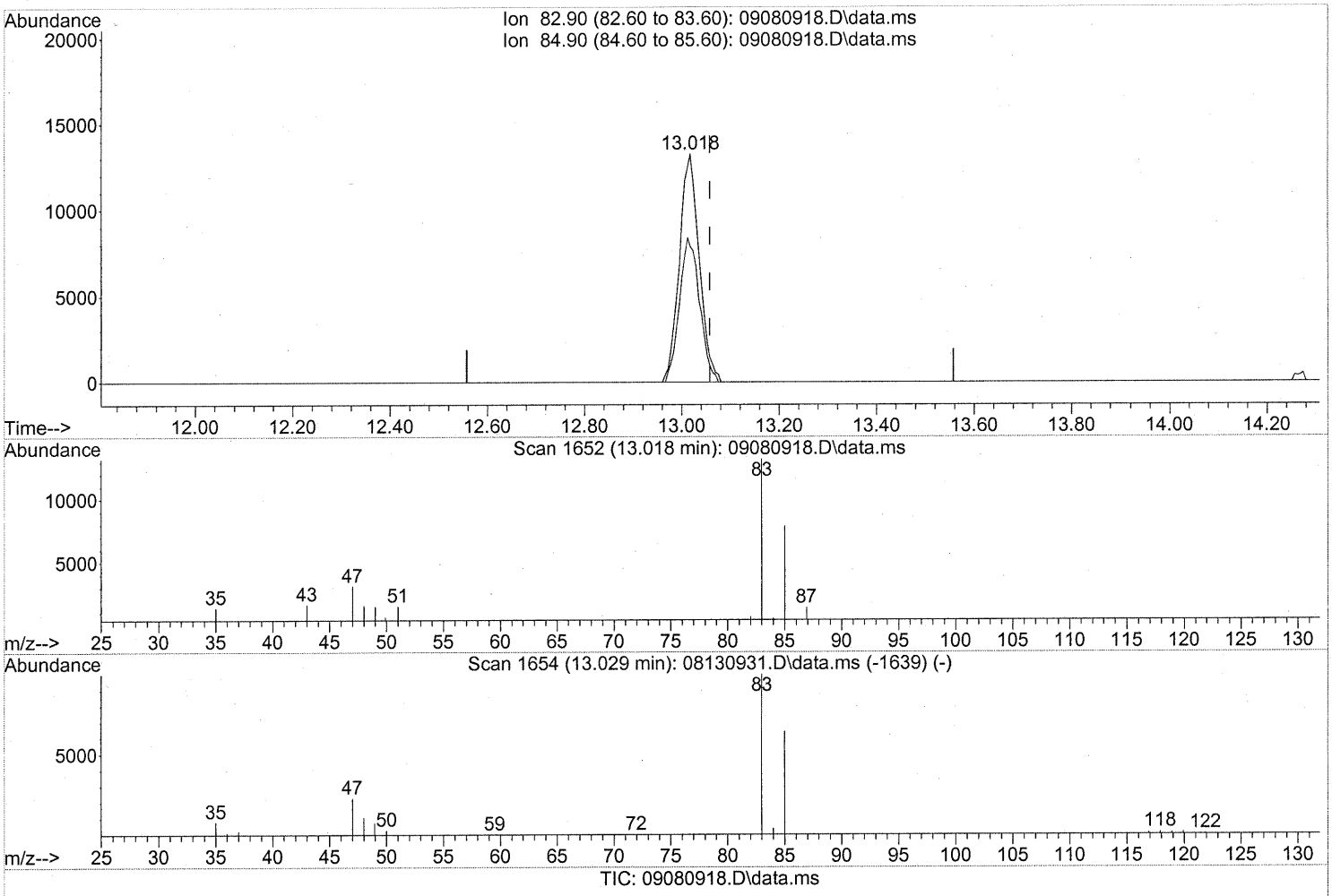
response 26751

Ion	Exp%	Act%
57.10	100	100
86.10	17.50	14.59
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080918.D\data.ms

(32) Chloroform (T)

13.018min (-0.040) 1.04ng

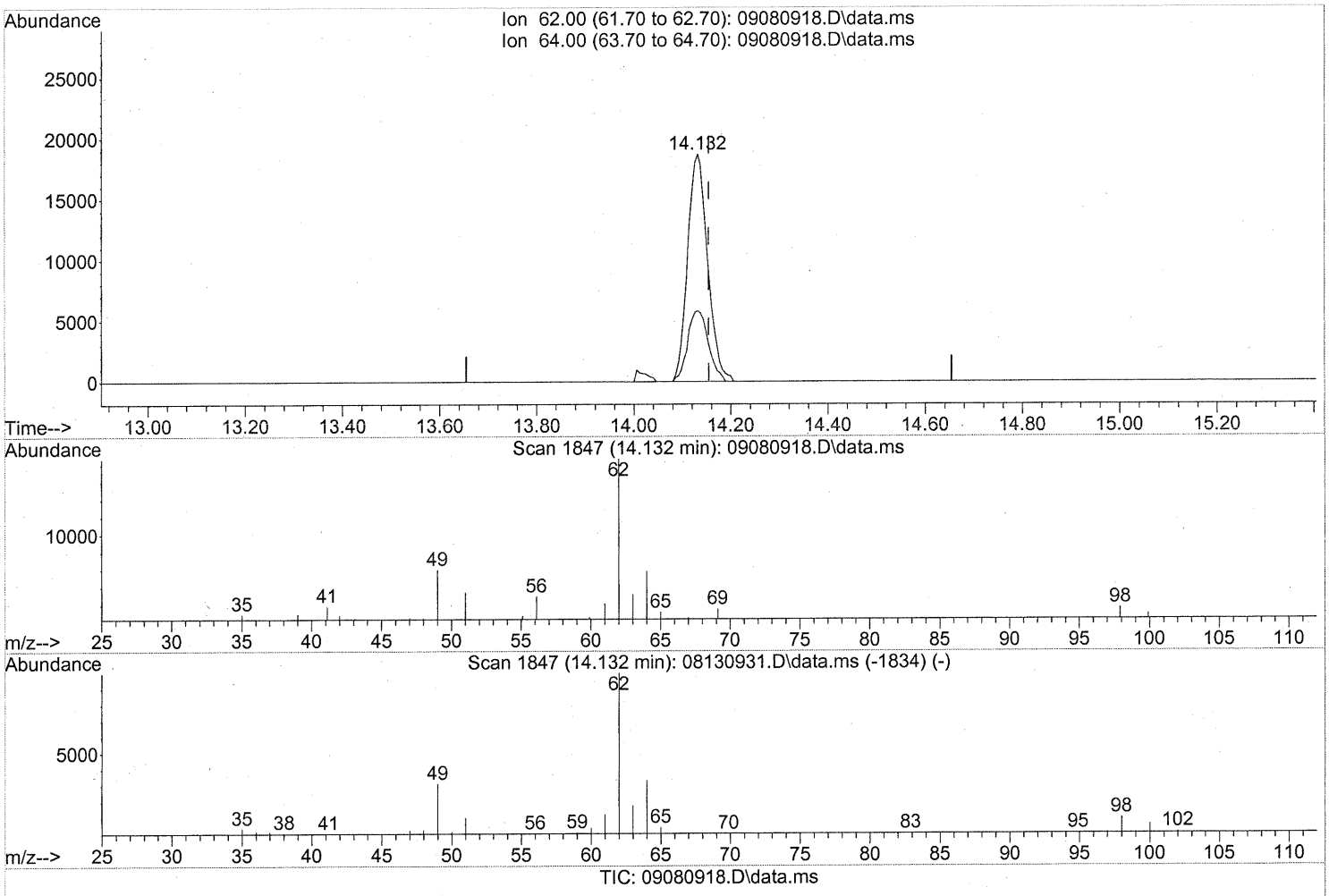
response 37463

Ion	Exp%	Act%
82.90	100	100
84.90	64.70	64.16
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080918.D\data.ms

(36) 1,2-Dichloroethane (T)

14.132min (-0.023) 1.94ng

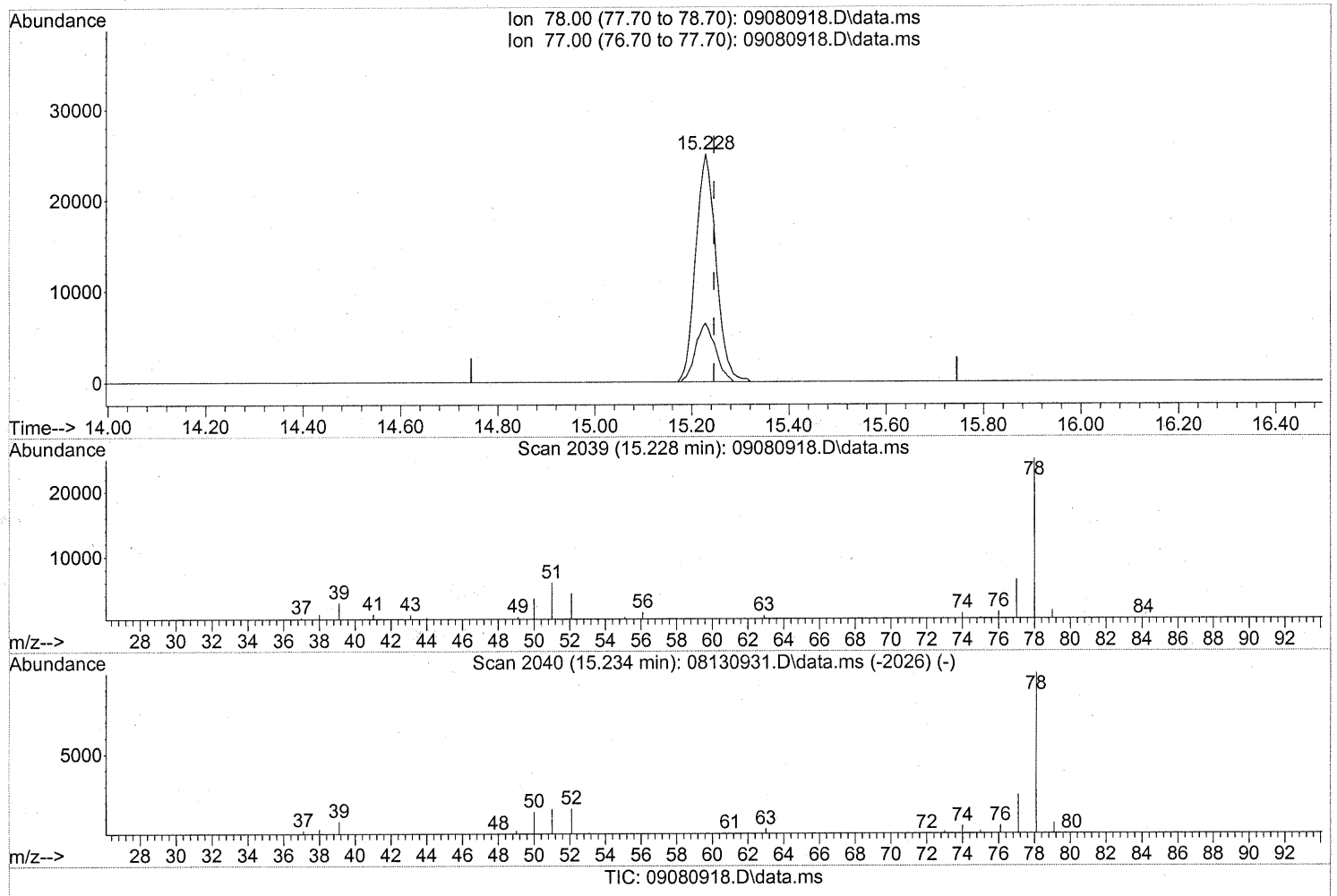
response 53385

Ion	Exp%	Act%
62.00	100	100
64.00	32.70	32.24
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080918.D\data.ms

(41) Benzene (T)

15.228min (-0.017) 0.75ng

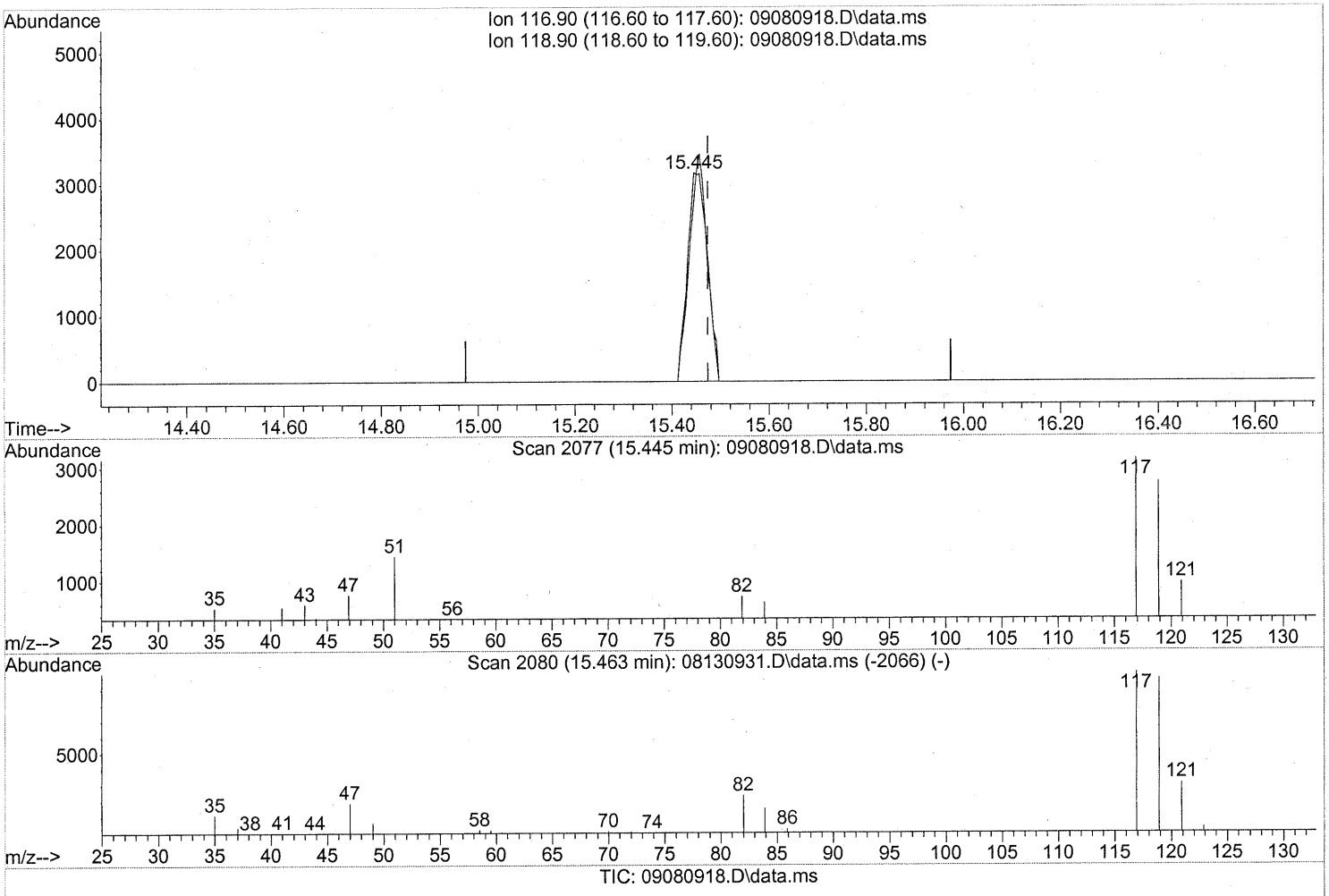
response 72270

Ion	Exp%	Act%
78.00	100	100
77.00	25.10	24.85
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080918.D\data.ms

(42) Carbon Tetrachloride (T)

15.445min (-0.029) 0.34ng

response 9033

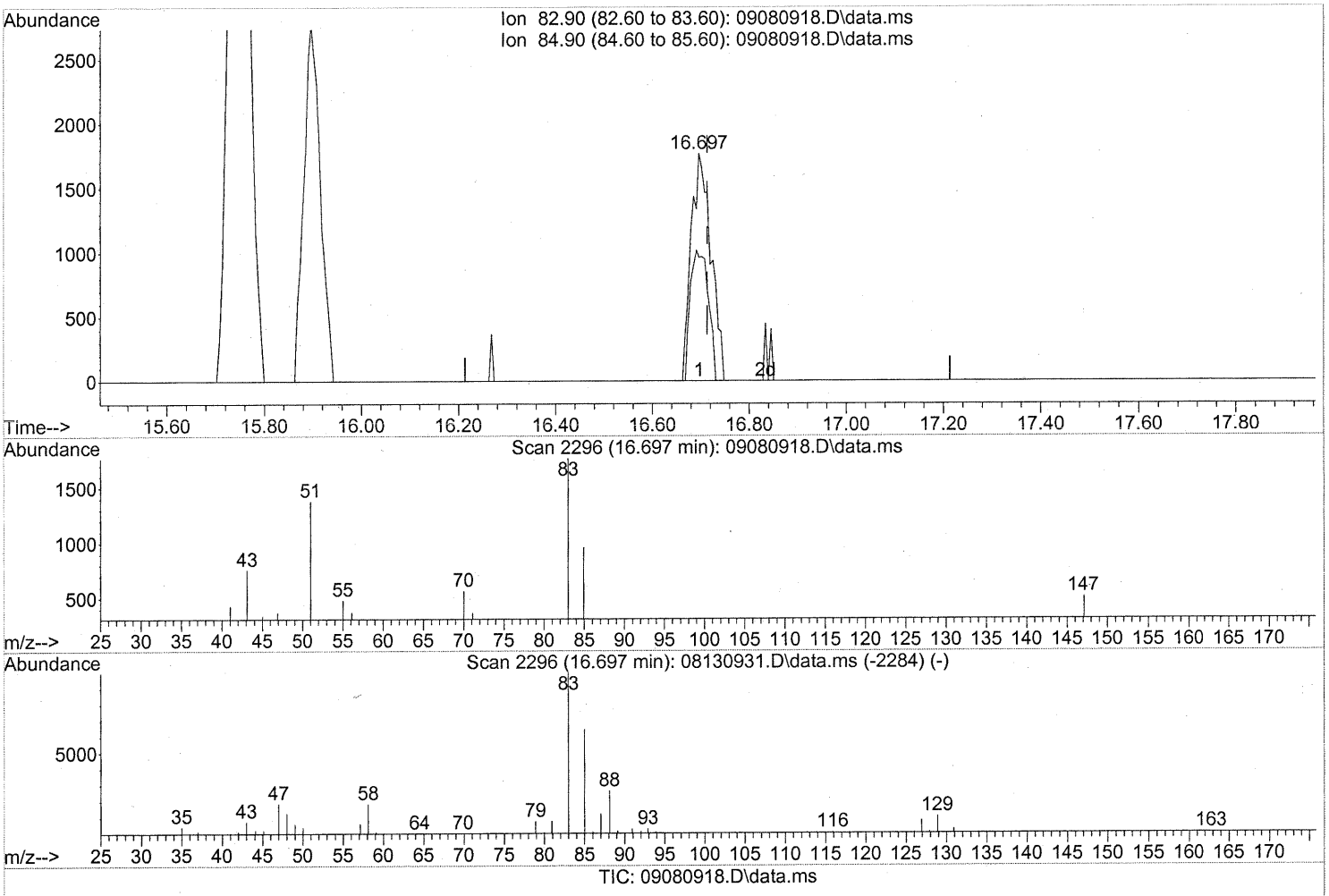
Ion	Exp%	Act%
116.90	100	100
118.90	97.00	95.99
0.00	0.00	0.00
0.00	0.00	0.00

34

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080918.D\data.ms

(46) Bromodichloromethane (T)

16.697min (-0.017) 0.18ng

response 5032

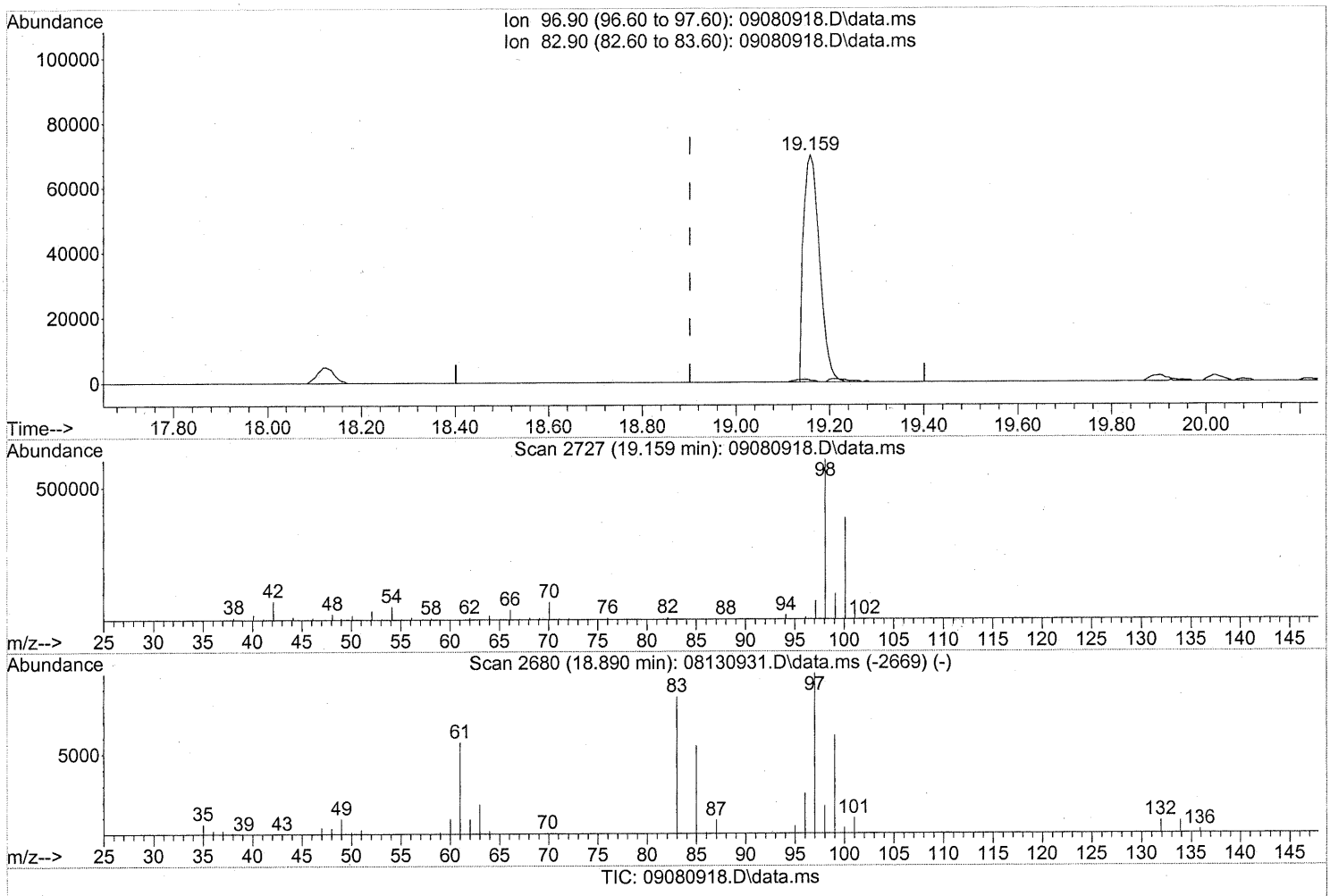
Ion	Exp%	Act%
82.90	100	100
84.90	64.70	51.79
0.00	0.00	0.00
0.00	0.00	0.00

35

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080918.D\data.ms

(55) 1,1,2-Trichloroethane (T)

19.159min (+0.257) 8.04ng

response 165033

Ion	Exp%	Act%
96.90	100	100
82.90	85.30	1.12#
0.00	0.00	0.00
0.00	0.00	0.00

FP EM 9/9/09

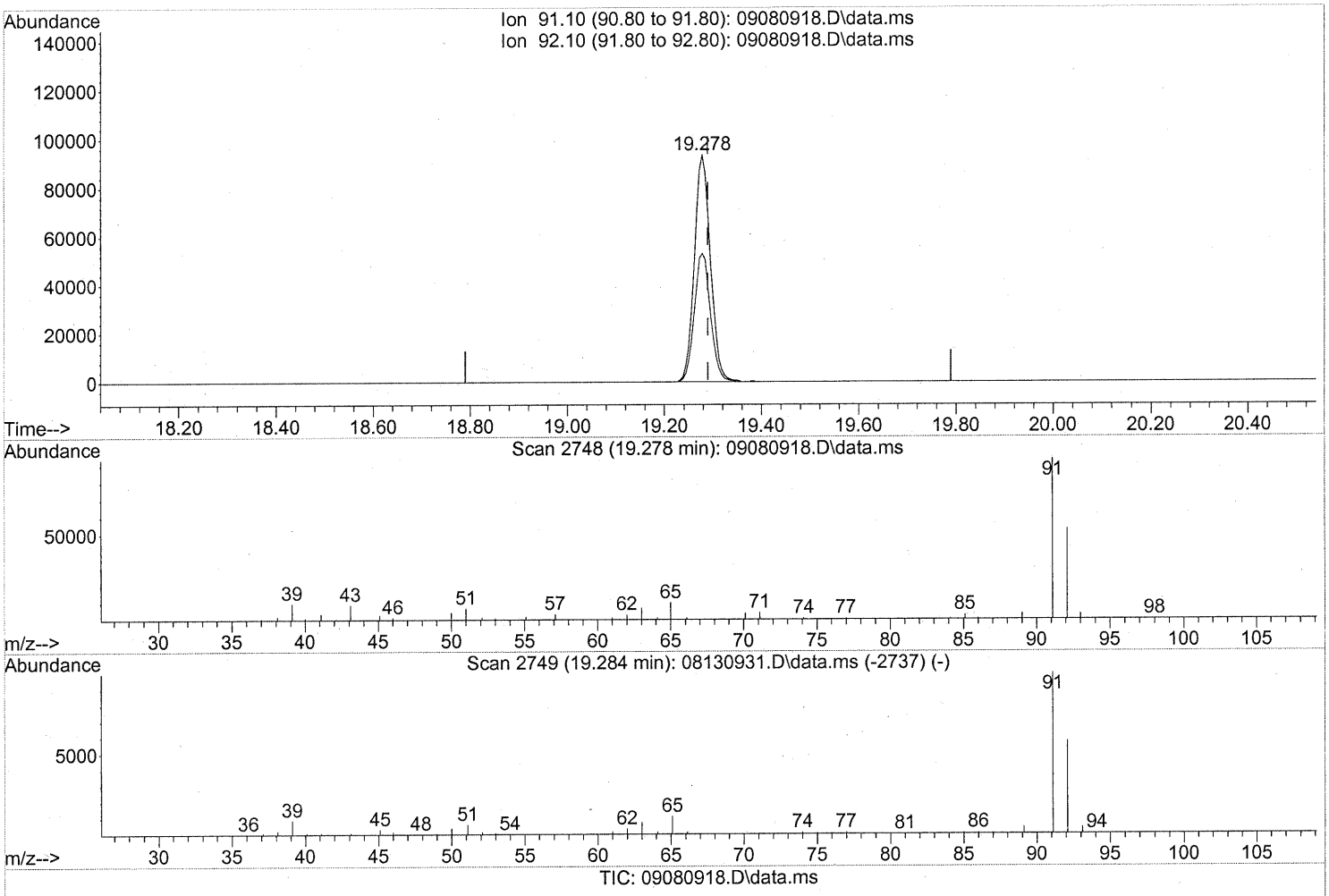
KR 9/9/01

36

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080918.D\data.ms

(58) Toluene (T)

19.278min (-0.011) 2.10ng

response 214640

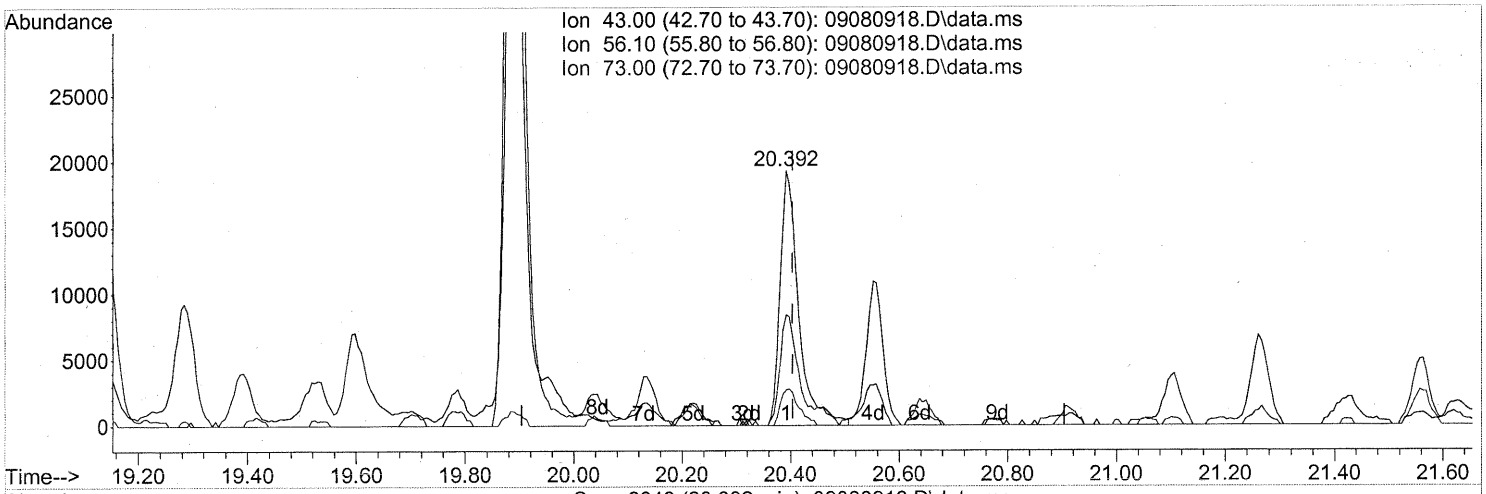
Ion	Exp%	Act%
91.10	100	100
92.10	57.60	56.96
0.00	0.00	0.00
0.00	0.00	0.00

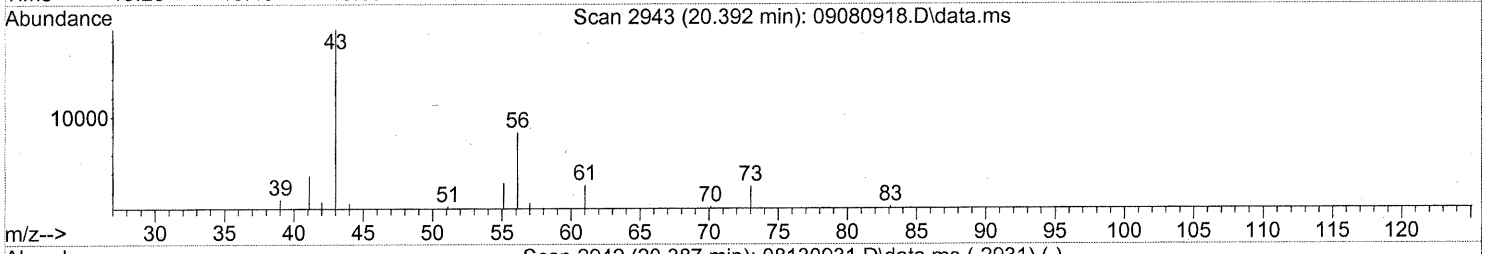
37

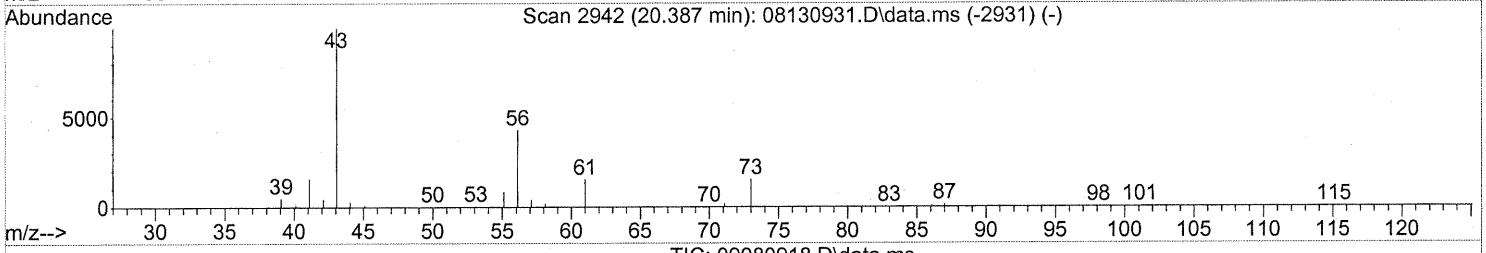
Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration







TIC: 09080918.D\data.ms

(62) n-Butyl Acetate (T)

20.392min (-0.012) 0.79ng

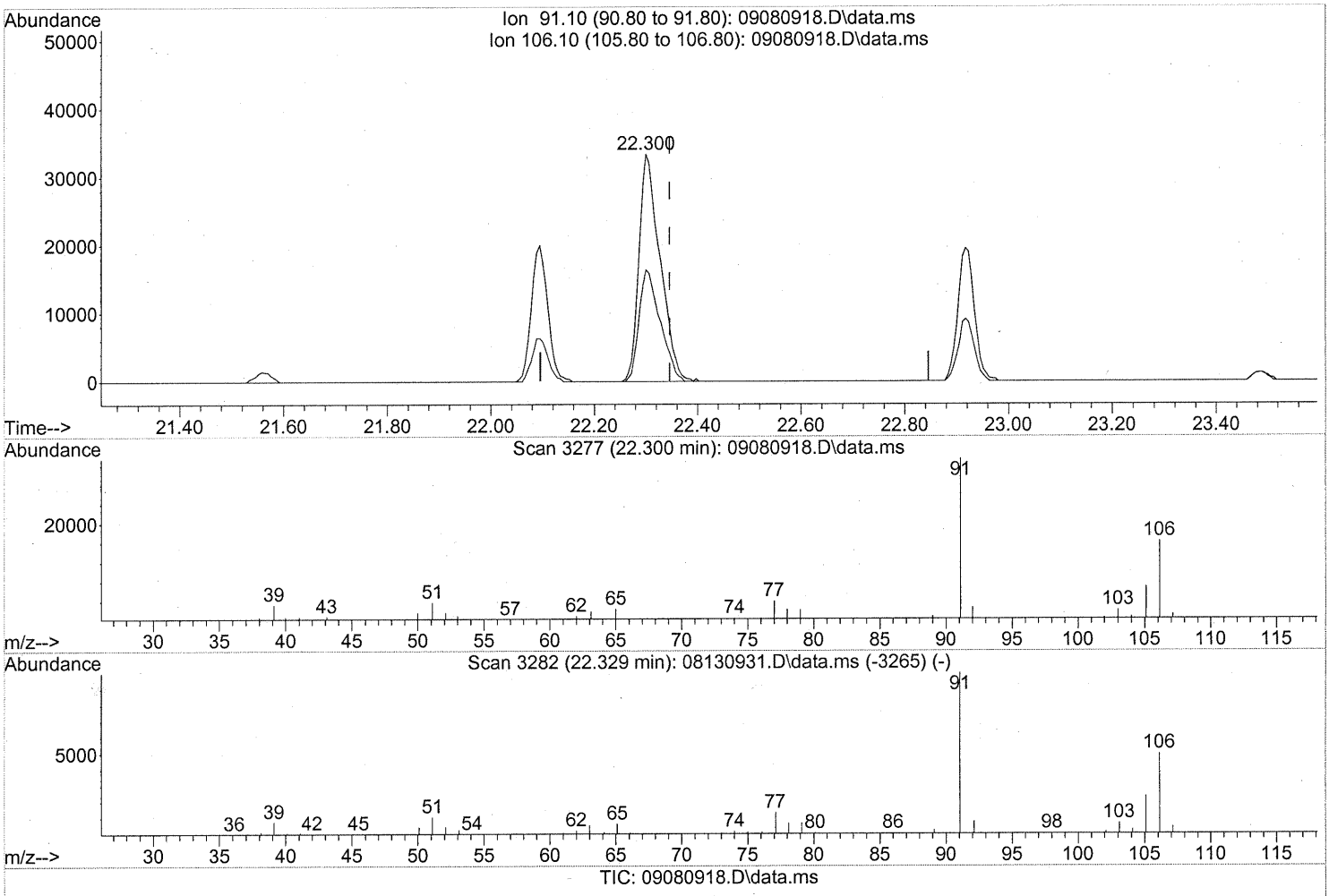
response 45892

Ion	Exp%	Act%
43.00	100	100
56.10	42.90	47.20
73.00	16.90	13.92
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080918.D\data.ms

(67) m- & p-Xylenes (T)

22.300min (-0.046) 1.08ng

response 94853

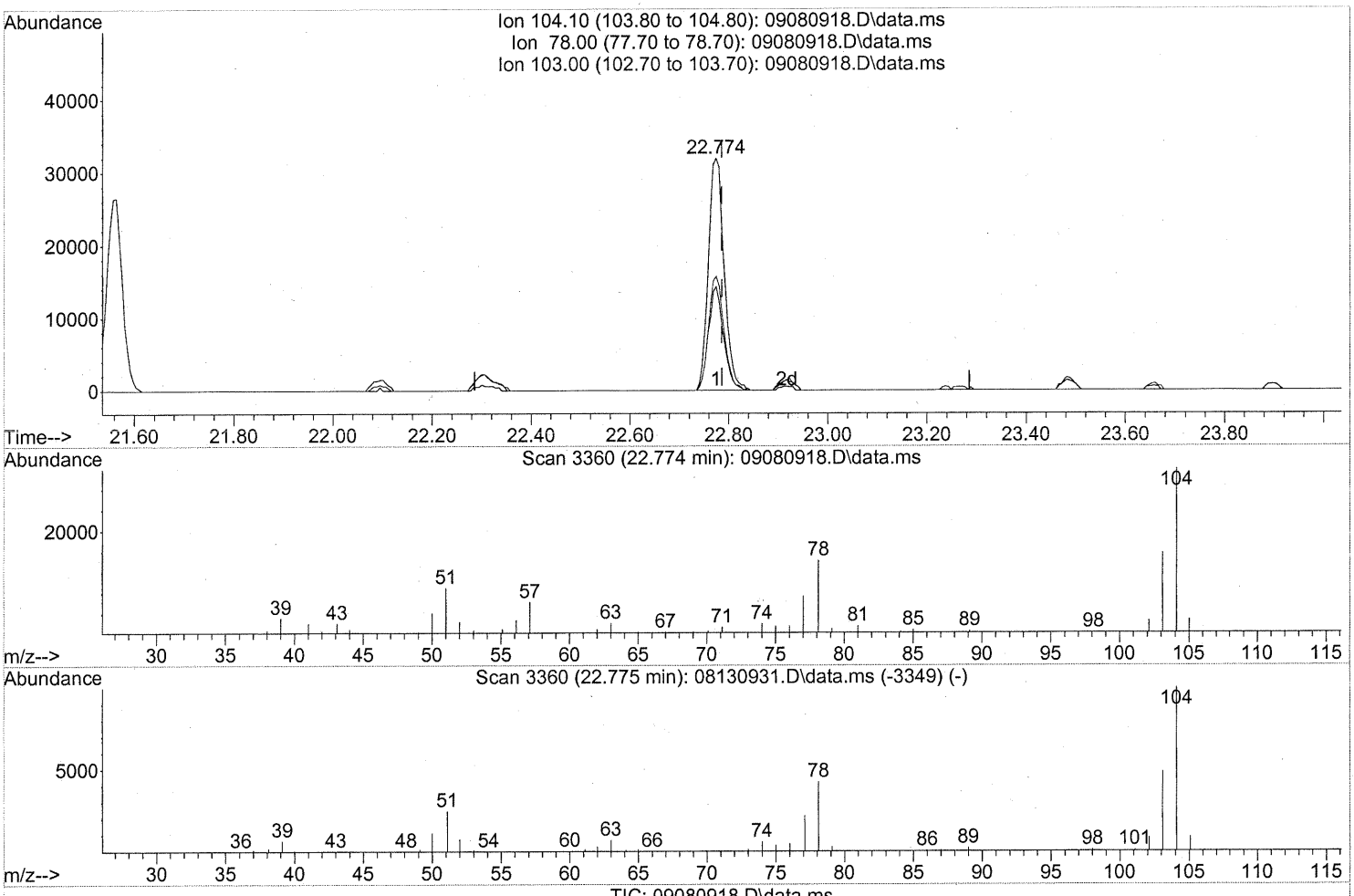
Ion	Exp%	Act%
91.10	100	100
106.10	49.90	49.06
0.00	0.00	0.00
0.00	0.00	0.00

39

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080918.D\data.ms

(69) Styrene (T)

22.774min (-0.011) 1.09ng

response 70725

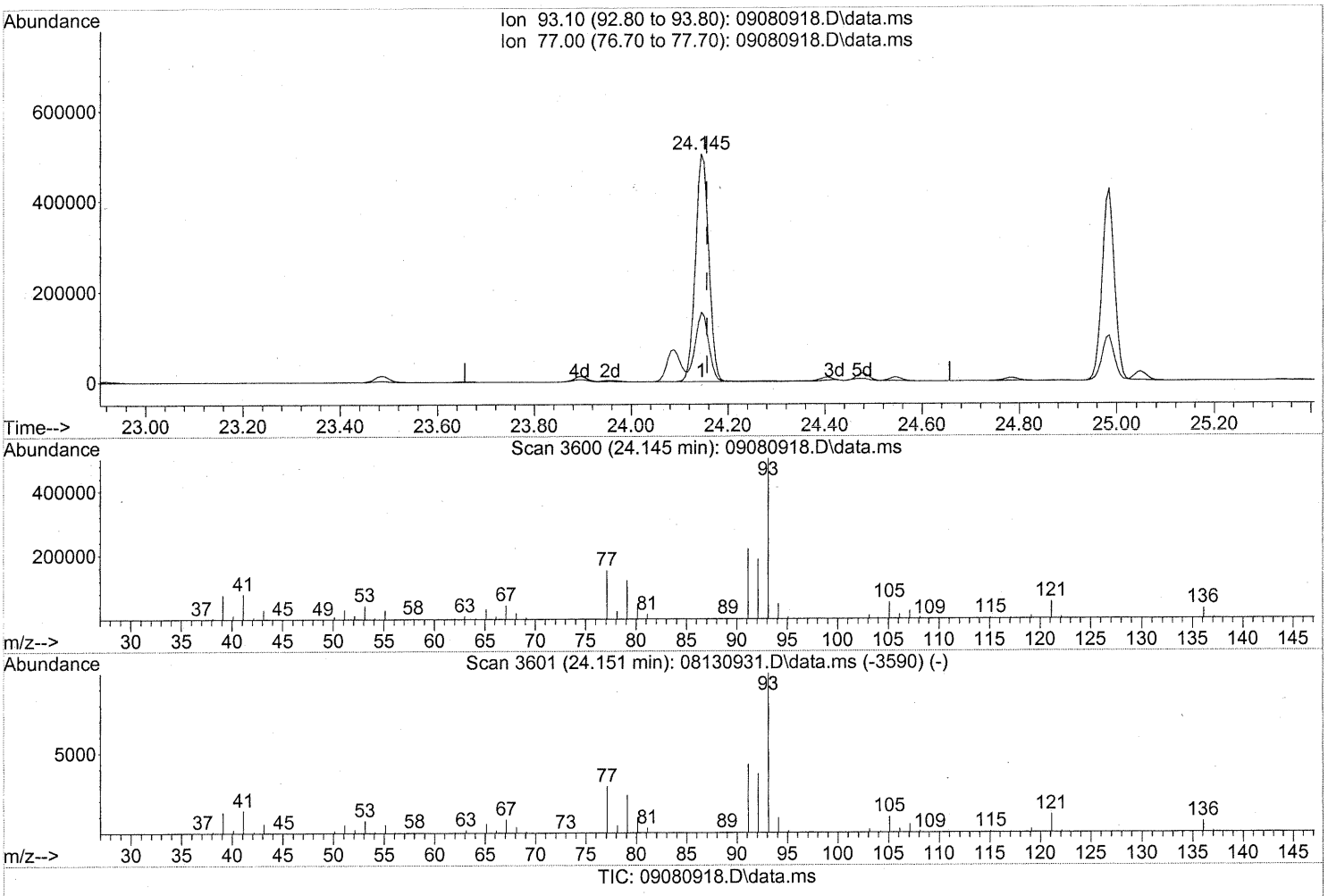
Ion	Exp%	Act%
104.10	100	100
78.00	42.30	42.58
103.00	48.70	48.19
0.00	0.00	0.00

40

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080918.D\data.ms

(75) alpha-Pinene (T)

24.145min (-0.011) 17.00ng

response 958270

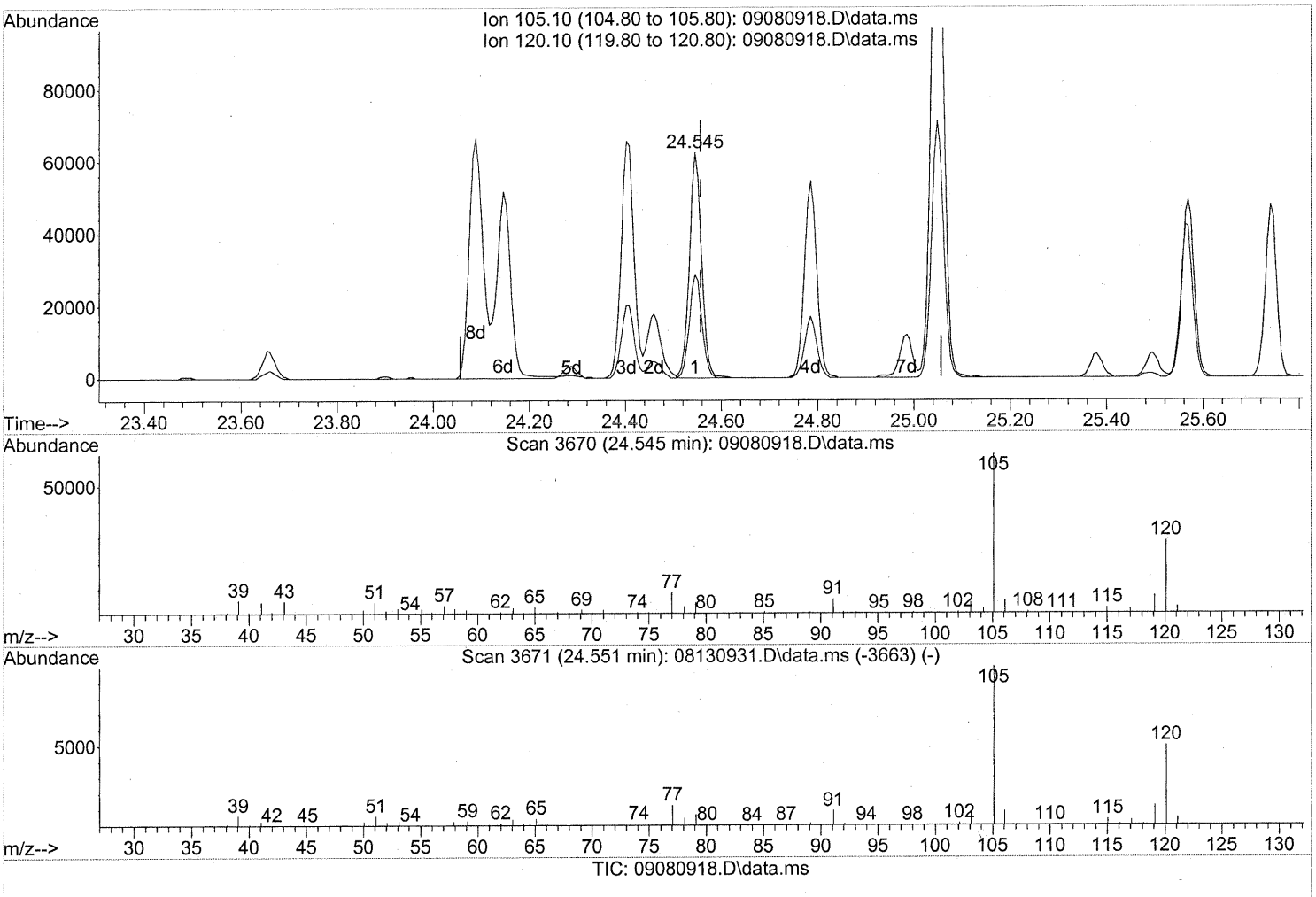
Ion	Exp%	Act%
93.10	100	100
77.00	29.50	30.46
0.00	0.00	0.00
0.00	0.00	0.00

41

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080918.D\data.ms

(79) 1,3,5-Trimethylbenzene (T)

24.545min (-0.011) 1.23ng

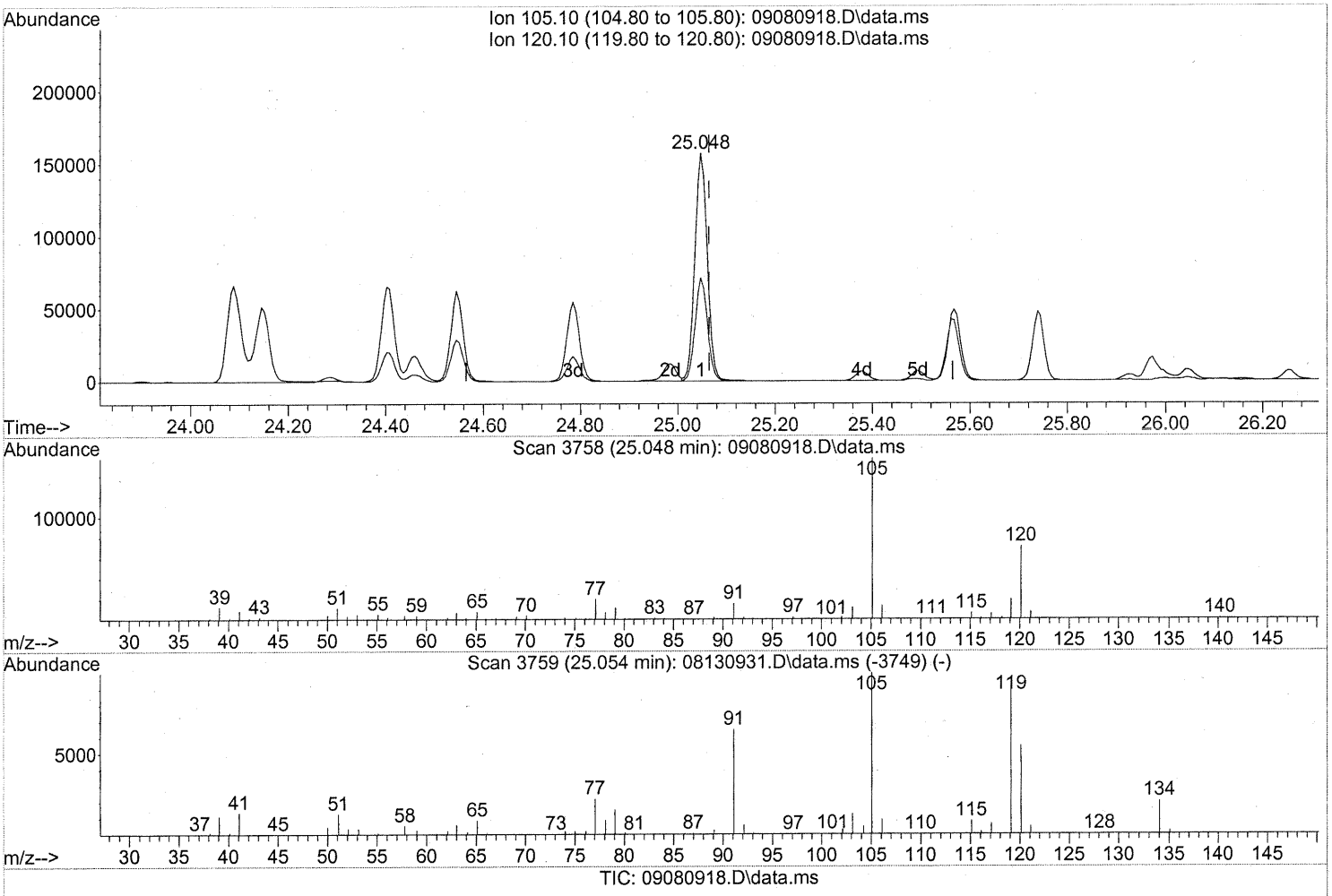
response 109790

Ion	Exp%	Act%
105.10	100	100
120.10	49.50	47.45
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080918.D\data.ms

(82) 1,2,4-Trimethylbenzene (T)

25.048min (-0.017) 2.96ng

response 279479

Ion	Exp%	Act%
105.10	100	100
120.10	53.80	44.83
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
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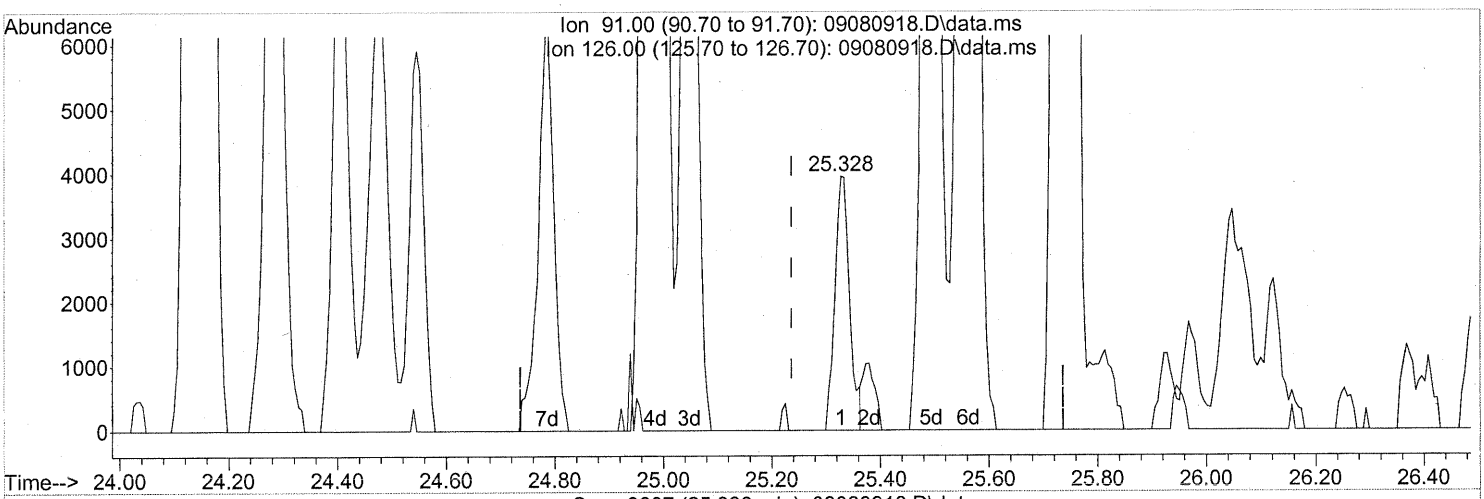
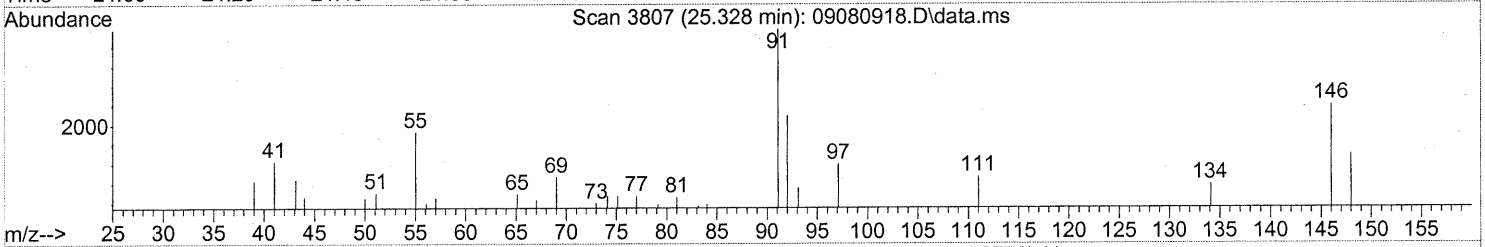
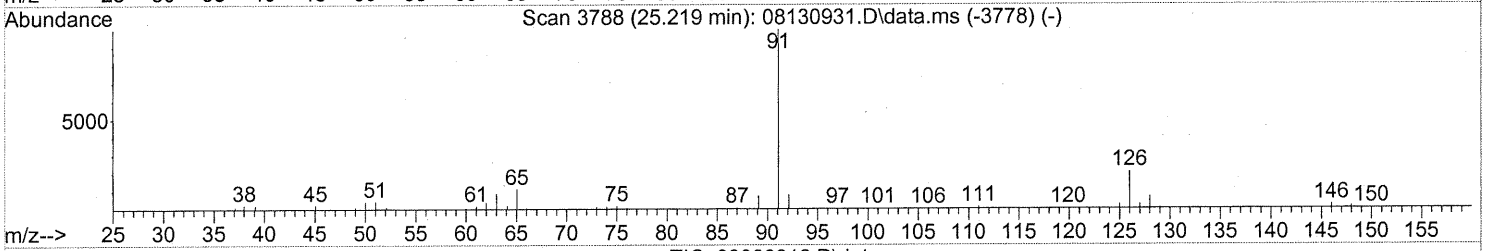
Response via : Initial Calibration







TIC: 09080918.D\data.ms

(84) Benzyl Chloride (T)

25.328min (+0.091) 0.10ng

response 7426

Ion	Exp%	Act%
91.00	100	100
126.00	21.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

FP Tom 9/9/09

KB 9/9/09

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Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080918.D
Acq On : 8 Sep 2009 21:43
Operator : EM
Sample : P0903023-001 (1000ml)
Misc : Environmental H & E 104327
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 07:51:53 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
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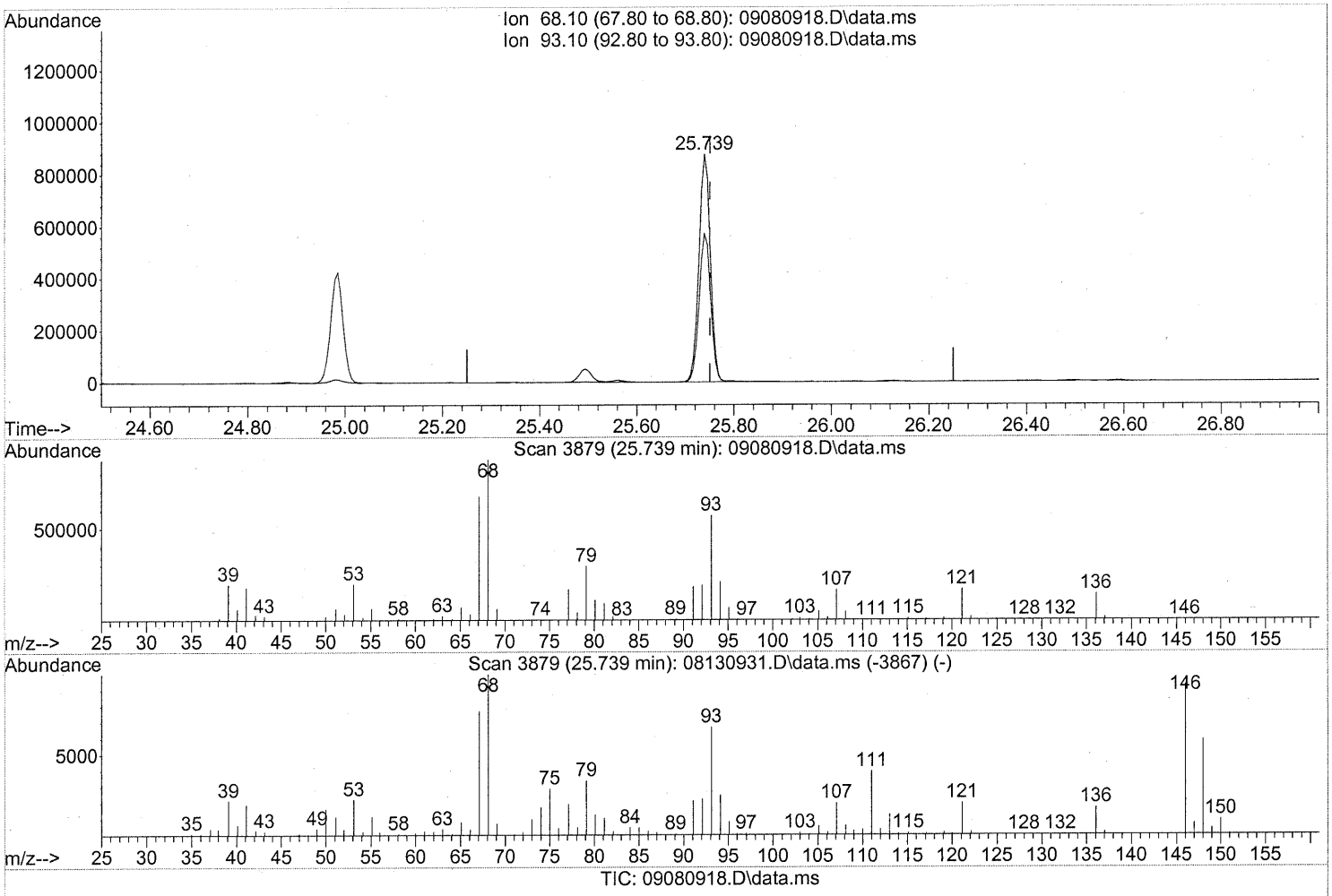

TIC: 09080918.D\data.ms

(91) d-Limonene (T)

25.739min (-0.011) 37.01ng

response 1430333

Ion	Exp%	Act%
68.10	100	100
93.10	71.90	66.10
0.00	0.00	0.00
0.00	0.00	0.00

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COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **104328** CAS Project ID: P0903023
Client Project ID: **16512** CAS Sample ID: P0903023-002

Test Code: EPA TO-15 Date Collected: 8/27/09
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: 8/28/09
Analyst: Elsa Moctezuma Date Analyzed: 9/8/09
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC00871

Initial Pressure (psig): -3.0 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.56

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.78	ND	0.45	
75-71-8	**Dichlorodifluoromethane (CFC 12)**	**3.3**	0.78	**0.66**	0.16	
74-87-3	**Chloromethane**	**0.97**	0.16	**0.47**	0.076	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.78	ND	0.11	
75-01-4	Vinyl Chloride	ND	0.16	ND	0.061	
106-99-0	1,3-Butadiene	ND	0.16	ND	0.071	
74-83-9	Bromomethane	ND	0.16	ND	0.040	
75-00-3	Chloroethane	ND	0.16	ND	0.059	
64-17-5	**Ethanol**	**260**	7.8	**140**	4.1	
75-05-8	**Acetonitrile**	**170**	0.78	**100**	0.46	**E**
107-02-8	**Acrolein**	**6.2**	0.78	**2.7**	0.34	
67-64-1	**Acetone**	**45**	7.8	**19**	3.3	
75-69-4	**Trichlorofluoromethane**	**1.2**	0.16	**0.22**	0.028	
67-63-0	**2-Propanol (Isopropyl Alcohol)**	**9.5**	0.78	**3.9**	0.32	**M1**
107-13-1	Acrylonitrile	ND	0.78	ND	0.36	
75-35-4	1,1-Dichloroethene	ND	0.16	ND	0.039	
75-09-2	Methylene Chloride	ND	0.78	ND	0.22	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.16	ND	0.050	
76-13-1	**Trichlorotrifluoroethane**	**0.48**	0.16	**0.063**	0.020	
75-15-0	Carbon Disulfide	ND	0.78	ND	0.25	
156-60-5	trans-1,2-Dichloroethene	ND	0.16	ND	0.039	
75-34-3	1,1-Dichloroethane	ND	0.16	ND	0.039	
1634-04-4	Methyl tert-Butyl Ether	ND	0.16	ND	0.043	
108-05-4	Vinyl Acetate	ND	7.8	ND	2.2	
78-93-3	**2-Butanone (MEK)**	**2.7**	0.78	**0.93**	0.26	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.
M1 = Matrix interference due to coelution with a non-target compound; results may be biased high.
E = Estimated; concentration exceeded calibration range.

Verified By: _____ Date: 9/11/09

COLUMBIA ANALYTICAL SERVICES, INC.

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Client Project ID: **16512** CAS Sample ID: P0903023-002

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Analyst: Elsa Moctezuma Date Analyzed: 9/8/09
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:
Container ID: AC00871

Initial Pressure (psig): -3.0 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.56

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.16	ND	0.039	
141-78-6	Ethyl Acetate	ND	1.6	ND	0.43	
110-54-3	**n-Hexane**	**0.82**	0.78	**0.23**	0.22	
67-66-3	**Chloroform**	**1.4**	0.16	**0.29**	0.032	
109-99-9	Tetrahydrofuran (THF)	ND	0.78	ND	0.26	
107-06-2	**1,2-Dichloroethane**	**2.4**	0.16	**0.58**	0.039	
71-55-6	1,1,1-Trichloroethane	ND	0.16	ND	0.029	
71-43-2	**Benzene**	**1.0**	0.16	**0.32**	0.049	
56-23-5	**Carbon Tetrachloride**	**0.51**	0.16	**0.081**	0.025	
110-82-7	Cyclohexane	ND	0.78	ND	0.23	
78-87-5	1,2-Dichloropropane	ND	0.16	ND	0.034	
75-27-4	**Bromodichloromethane**	**0.23**	0.16	**0.034**	0.023	
79-01-6	Trichloroethene	ND	0.16	ND	0.029	
123-91-1	1,4-Dioxane	ND	0.78	ND	0.22	
80-62-6	Methyl Methacrylate	ND	1.6	ND	0.38	
142-82-5	n-Heptane	ND	0.78	ND	0.19	
10061-01-5	cis-1,3-Dichloropropene	ND	0.78	ND	0.17	
108-10-1	4-Methyl-2-pentanone	ND	0.78	ND	0.19	
10061-02-6	trans-1,3-Dichloropropene	ND	0.78	ND	0.17	
79-00-5	1,1,2-Trichloroethane	ND	0.16	ND	0.029	
108-88-3	**Toluene**	**2.8**	0.78	**0.75**	0.21	
591-78-6	2-Hexanone	ND	0.78	ND	0.19	
124-48-1	Dibromochloromethane	ND	0.16	ND	0.018	
106-93-4	1,2-Dibromoethane	ND	0.16	ND	0.020	
123-86-4	**n-Butyl Acetate**	**1.1**	0.78	**0.23**	0.16	

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Verified By: _____ Date: 9/11/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **104328**
Client Project ID: **16512**

CAS Project ID: P0903023
CAS Sample ID: P0903023-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Elsa Moctezuma
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC00871

Date Collected: 8/27/09
Date Received: 8/28/09
Date Analyzed: 9/8/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -3.0 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.56

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.78	ND	0.17	
127-18-4	Tetrachloroethene	ND	0.16	ND	0.023	
108-90-7	Chlorobenzene	ND	0.16	ND	0.034	
100-41-4	Ethylbenzene	ND	0.78	ND	0.18	
179601-23-1	**m,p-Xylenes**	**1.5**	0.78	**0.35**	0.18	
75-25-2	Bromoform	ND	0.78	ND	0.075	
100-42-5	**Styrene**	**1.7**	0.78	**0.40**	0.18	
95-47-6	o-Xylene	ND	0.78	ND	0.18	
111-84-2	n-Nonane	ND	0.78	ND	0.15	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.16	ND	0.023	
98-82-8	Cumene	ND	0.78	ND	0.16	
80-56-8	**alpha-Pinene**	**22**	0.78	**3.9**	0.14	
103-65-1	n-Propylbenzene	ND	0.78	ND	0.16	
622-96-8	4-Ethyltoluene	ND	0.78	ND	0.16	
108-67-8	**1,3,5-Trimethylbenzene**	**1.6**	0.78	**0.32**	0.16	
95-63-6	**1,2,4-Trimethylbenzene**	**3.8**	0.78	**0.76**	0.16	
100-44-7	Benzyl Chloride	ND	0.16	ND	0.030	
541-73-1	1,3-Dichlorobenzene	ND	0.16	ND	0.026	
106-46-7	1,4-Dichlorobenzene	ND	0.16	ND	0.026	
95-50-1	1,2-Dichlorobenzene	ND	0.16	ND	0.026	
5989-27-5	**d-Limonene**	**34**	0.78	**6.2**	0.14	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.78	ND	0.081	
120-82-1	1,2,4-Trichlorobenzene	ND	0.78	ND	0.11	
91-20-3	Naphthalene	ND	0.78	ND	0.15	
87-68-3	Hexachlorobutadiene	ND	0.78	ND	0.073	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
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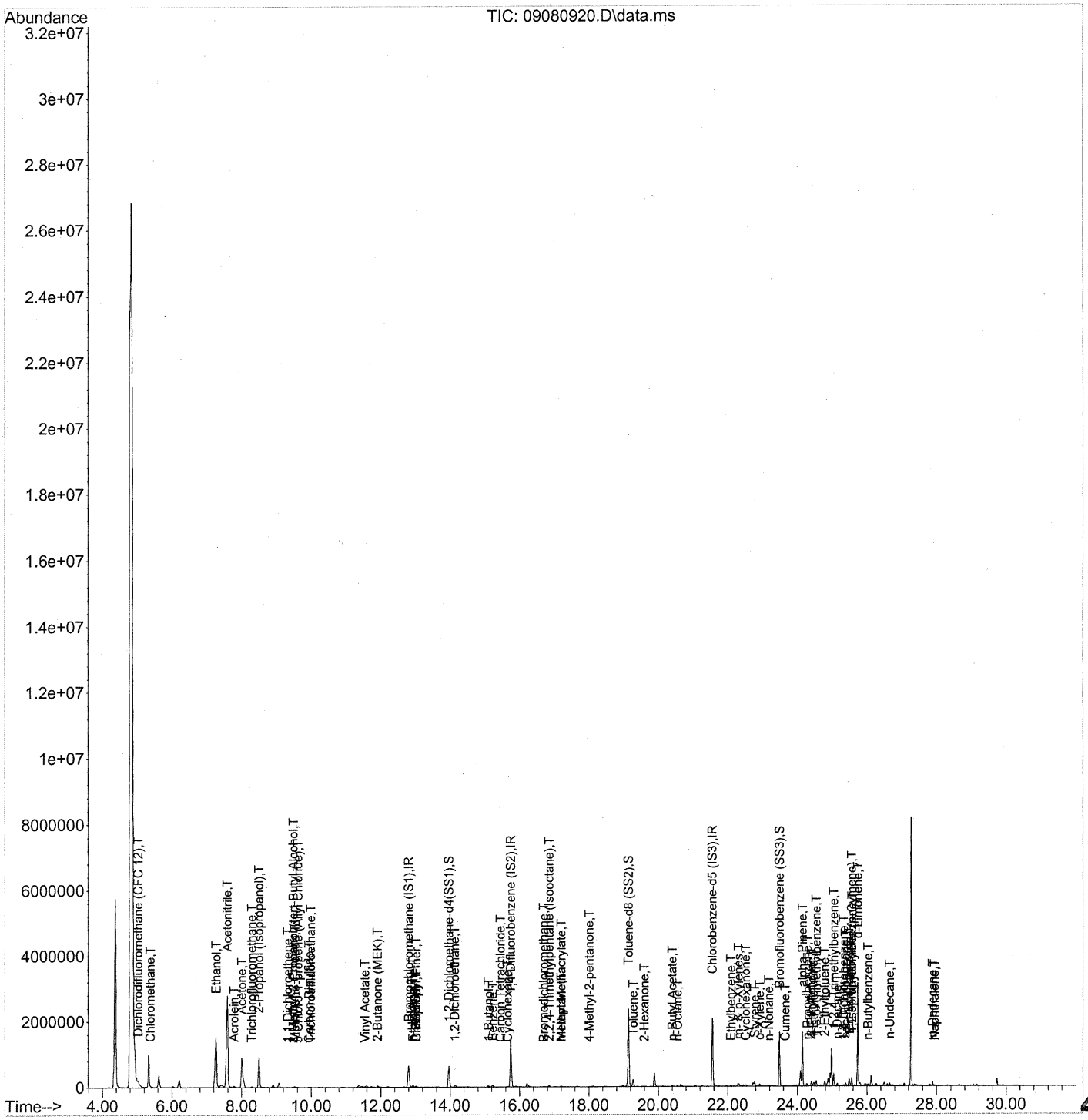
Verified By: _____ Date: 9/11/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 13:49:34 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



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Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
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QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Bromochloromethane (IS1)	12.81	130	338425	25.000 ng		-0.03
37) 1,4-Difluorobenzene (IS2)	15.75	114	1739444	25.000 ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.56	82	874380	25.000 ng		-0.01
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4(...	13.96	65	636907	26.616 ng		-0.03
Spiked Amount 25.000			Recovery =	106.48%		
57) Toluene-d8 (SS2)	19.15	98	2055509	24.728 ng		-0.01
Spiked Amount 25.000			Recovery =	98.92%		
73) Bromofluorobenzene (SS3)	23.49	174	558380	23.720 ng		0.00
Spiked Amount 25.000			Recovery =	94.88%		
Target Compounds						Qvalue
2) Propene	0.00	42	0	N.D. d		
3) Dichlorodifluoromethan...	5.03	85	88724	2.094 ng		98
4) Chloromethane	5.39	50	24453	0.619 ng		91
5) 1,2-Dichloro-1,1,2,2-t...	5.62	135	855	N.D.		
6) Vinyl Chloride	0.00	62	0	N.D.		
7) 1,3-Butadiene	6.11	54	505	N.D.		
8) Bromomethane	6.61	94	611	N.D.		
9) Chloroethane	0.00	64	0	N.D.		
10) Ethanol	7.27	45	3050971m	163.837 ng		
11) Acetonitrile	7.59	41	4924020	108.349 ng		100
12) Acrolein	7.79	56	48234	3.972 ng		99
13) Acetone	8.01	58	552045	29.132 ng		99
14) Trichlorofluoromethane	8.29	101	28888	0.797 ng		100
15) 2-Propanol (Isopropanol)	8.50	45	317446	6.117 ng	m	71
16) Acrylonitrile	8.85	53	1292	N.D.		
17) 1,1-Dichloroethene	9.33	96	1774	0.083 ng		92
18) 2-Methyl-2-Propanol (t...	9.48	59	9420	0.179 ng	#	83
19) Methylene Chloride	9.53	84	7755	0.328 ng		83
20) 3-Chloro-1-propene (Al...	9.62	41	2157	0.068 ng	#	34
21) Trichlorotrifluoroethane	9.98	151	4997	0.308 ng		87
22) Carbon Disulfide	9.94	76	20979	0.251 ng		97
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.		
24) 1,1-Dichloroethane	0.00	63	0	N.D.		
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.		
26) Vinyl Acetate	11.54	86	6591	1.606 ng	#	1
27) 2-Butanone (MEK)	11.90	72	23163	1.753 ng	#	82
28) cis-1,2-Dichloroethene	12.58	61	107	N.D.		
29) Diisopropyl Ether	13.02	87	2949	0.157 ng	#	1
30) Ethyl Acetate	12.94	61	5448	0.636 ng		86
31) n-Hexane	12.92	57	22040	0.528 ng		92

9/9/09

Quantitation Report (QT Reviewed)

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Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 13:49:34 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	13.02	83	31343	0.897	ng		100
34) Tetrahydrofuran (THF)	13.65	72	460	N.D.			
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	14.13	62	40455	1.513	ng		97
38) 1,1,1-Trichloroethane	14.54	97	991	N.D.			
39) Isopropyl Acetate	0.00	61	0	N.D.			
40) 1-Butanol	15.10	56	52939	2.349	ng		87
41) Benzene	15.23	78	60900	0.651	ng		98
42) Carbon Tetrachloride	15.45	117	8548	0.327	ng		97
43) Cyclohexane	15.65	84	7484	0.207	ng	#	80
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.			
45) 1,2-Dichloropropane	0.00	63	0	N.D.			
46) Bromodichloromethane	16.70	83	3996	0.146	ng		87
47) Trichloroethene	0.00	130	0	N.D.			
48) 1,4-Dioxane	0.00	88	0	N.D.			
49) 2,2,4-Trimethylpentane...	16.85	57	42473	0.395	ng		92
50) Methyl Methacrylate	17.21	100	1914	0.205	ng	#	1
51) n-Heptane	17.21	71	7490	0.301	ng		87
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.			
53) 4-Methyl-2-pentanone	18.01	58	3810	0.188	ng		76
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.			
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.	d		
58) Toluene	19.28	91	183435	1.820	ng		100
59) 2-Hexanone	19.60	43	14769	0.282	ng		80
60) Dibromochloromethane	0.00	129	0	N.D.			
61) 1,2-Dibromoethane	0.00	107	0	N.D.			
62) n-Butyl Acetate	20.40	43	40849	0.715	ng		98
63) n-Octane	20.56	57	5506	0.245	ng		89
64) Tetrachloroethene	20.76	166	1021	N.D.			
65) Chlorobenzene	21.62	112	1772	N.D.			
66) Ethylbenzene	22.09	91	38117	0.350	ng		95
67) m- & p-Xylenes	22.31	91	83074	0.963	ng		99
68) Bromoform	0.00	173	0	N.D.			
69) Styrene	22.77	104	70345	1.103	ng		99
70) o-Xylene	22.92	91	37674	0.434	ng		95
71) n-Nonane	23.17	43	15677	0.300	ng		91
72) 1,1,2,2-Tetrachloroethane	22.92	83	117	N.D.			
74) Cumene	23.65	105	12146	0.108	ng		98
75) alpha-Pinene	24.15	93	776248	13.985	ng		98
76) n-Propylbenzene	24.28	91	27387	0.197	ng	#	67
77) 3-Ethyltoluene	24.40	105	100505	0.954	ng		96
78) 4-Ethyltoluene	24.46	105	28018	0.264	ng	<RL	96
79) 1,3,5-Trimethylbenzene	24.55	105	87209	0.995	ng	yes	98

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 13:49:34 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration

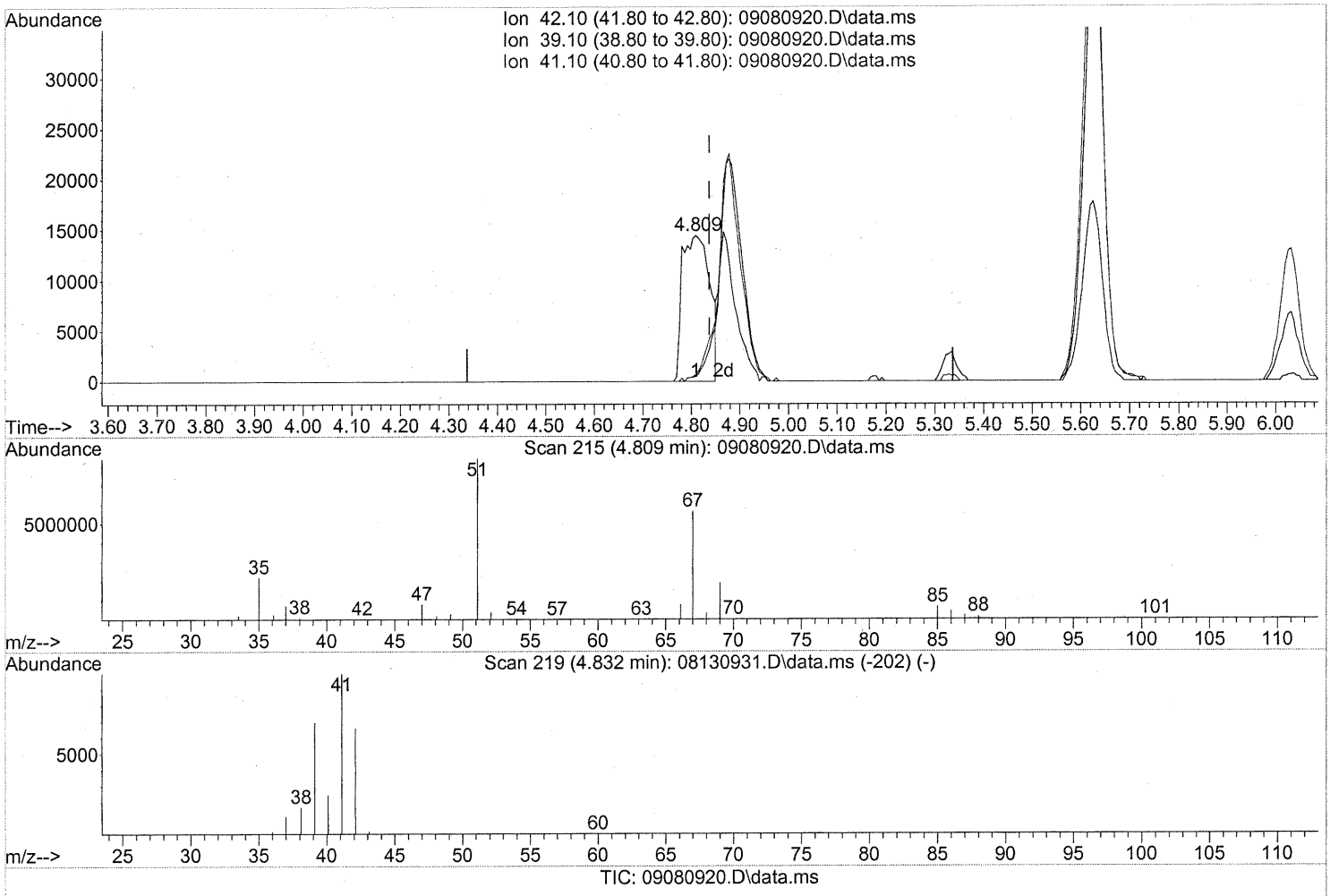
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
80) alpha-Methylstyrene	24.73	118	846	N.D.		
81) 2-Ethyltoluene	24.79	105	79982	0.735 ng		97
82) 1,2,4-Trimethylbenzene	25.05	105	224125	2.409 ng		88
83) n-Decane	25.15	57	32304	0.597 ng		99
84) Benzyl Chloride	0.00	91	0	N.D. d		
85) 1,3-Dichlorobenzene	25.33	146	3576	0.074 ng		100
86) 1,4-Dichlorobenzene	25.33	146	3576	0.070 ng		99
87) sec-Butylbenzene	25.38	105	9741	0.079 ng	#	78
88) 4-Isopropyltoluene (p-...	25.56	119	98815	0.841 ng		98
89) 1,2,3-Trimethylbenzene	25.57	105	65029	0.692 ng		96
90) 1,2-Dichlorobenzene	25.75	146	115	N.D.		
91) d-Limonene	25.74	68	839267	22.053 ng		96
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.65	57	25829	0.462 ng	#	69
94) 1,2,4-Trichlorobenzene	0.00	180	0	N.D.		
95) Naphthalene	27.94	128	19046	0.153 ng		96
96) n-Dodecane	27.89	57	40238	0.643 ng		95
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.51	55	25558	0.805 ng	#	87
99) tert-Butylbenzene	25.49	119	14370	0.156 ng		99
100) n-Butylbenzene	26.03	91	15060	0.154 ng	#	27

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

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



(2) Propene (T)

4.809min (-0.029) 1.91ng

response 56602

Ion	Exp%	Act%
42.10	100	100
39.10	115.80	0.00#
41.10	152.70	0.00#
0.00	0.00	0.00

FP on 9/9/09

KR 9/9/09

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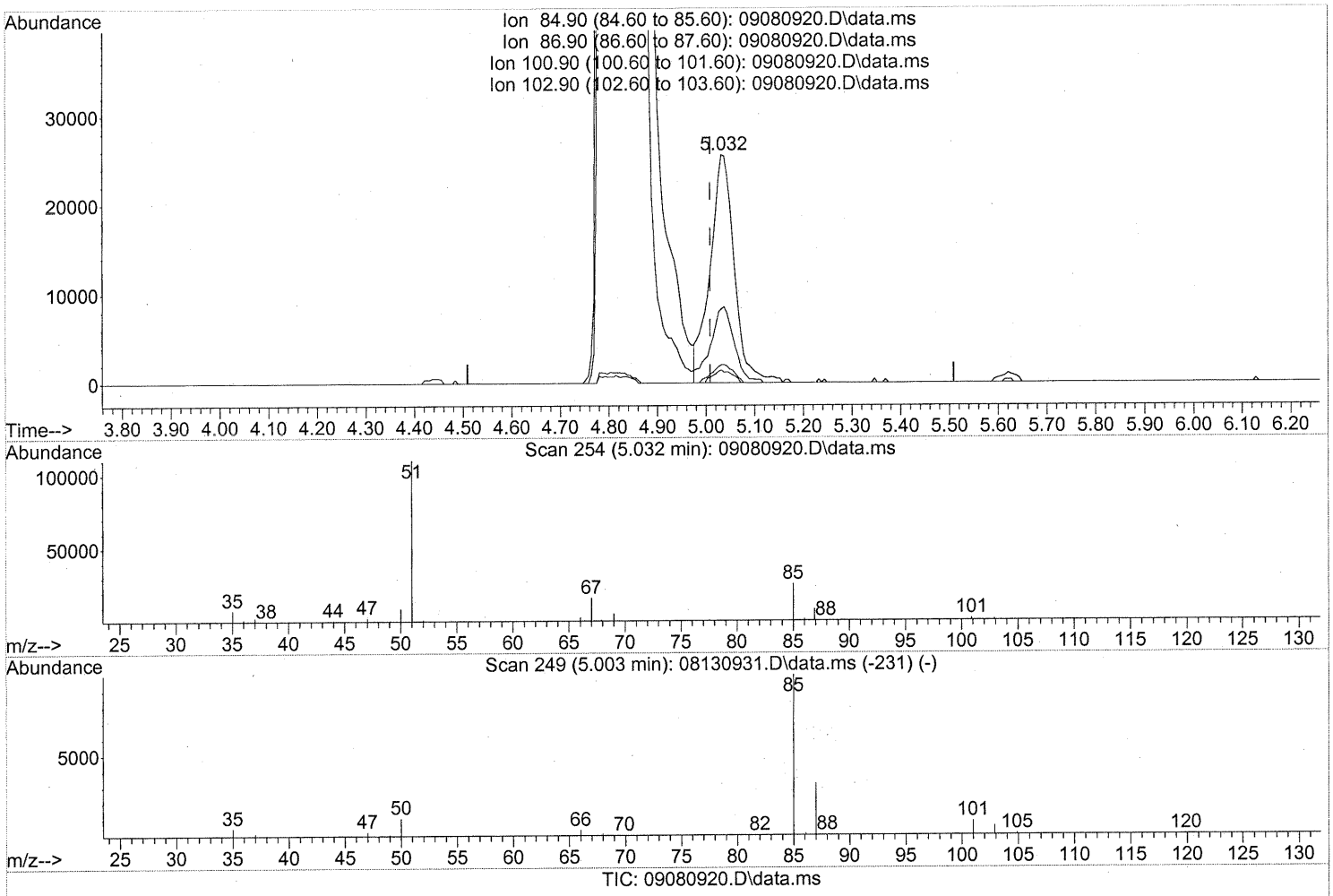
Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080920.D\data.ms

(3) Dichlorodifluoromethane (CFC 12) (T)

5.032min (+0.023) 2.09ng

response 88724

Ion	Exp%	Act%
84.90	100	100
86.90	32.00	32.37
100.90	9.10	6.85
102.90	5.50	4.27

Before subtraction

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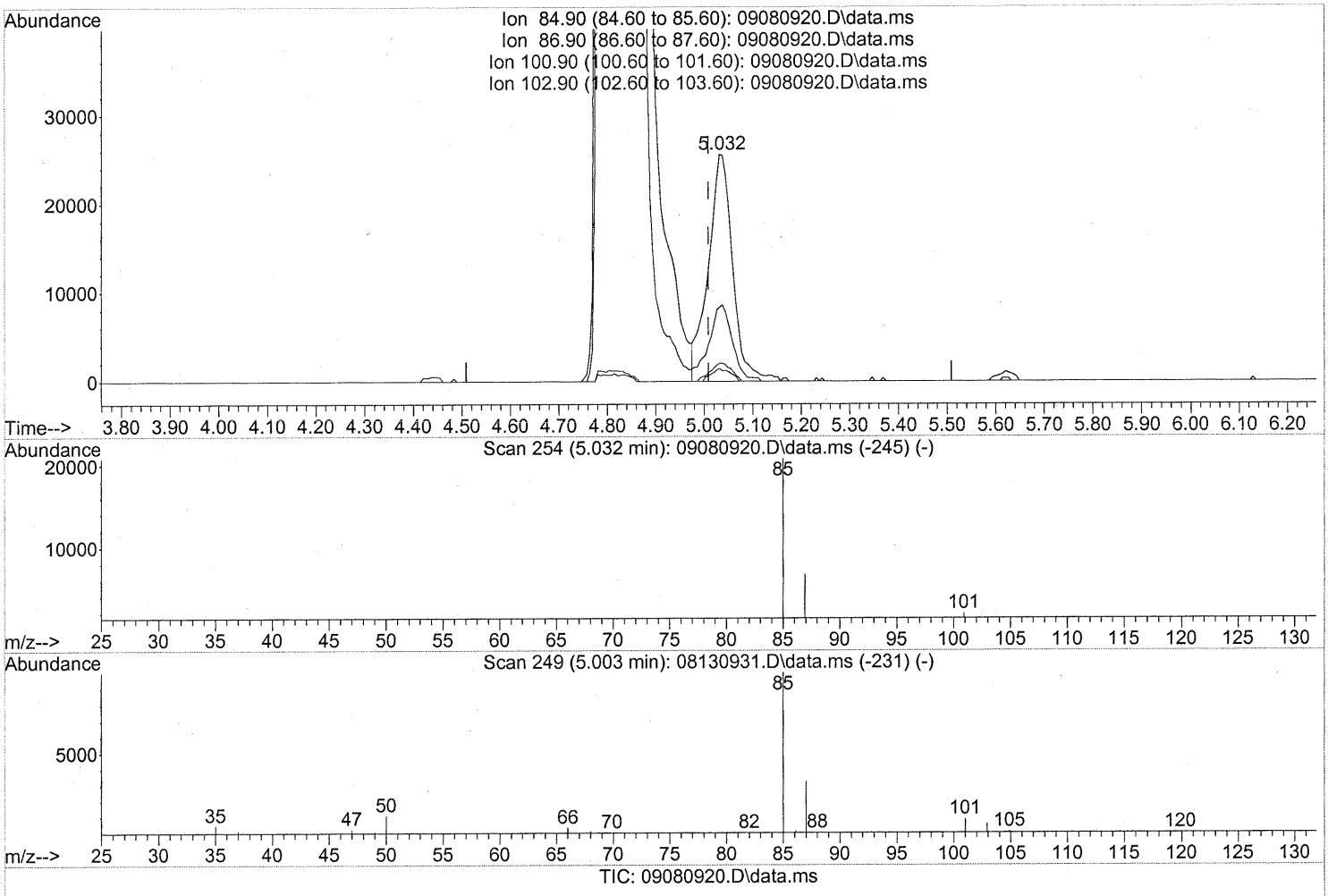
Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



(3) Dichlorodifluoromethane (CFC 12) (T)

5.032min (+0.023) 2.09ng

response 88724

Ion	Exp%	Act%
84.90	100	100
86.90	32.00	32.37
100.90	9.10	6.85
102.90	5.50	4.27

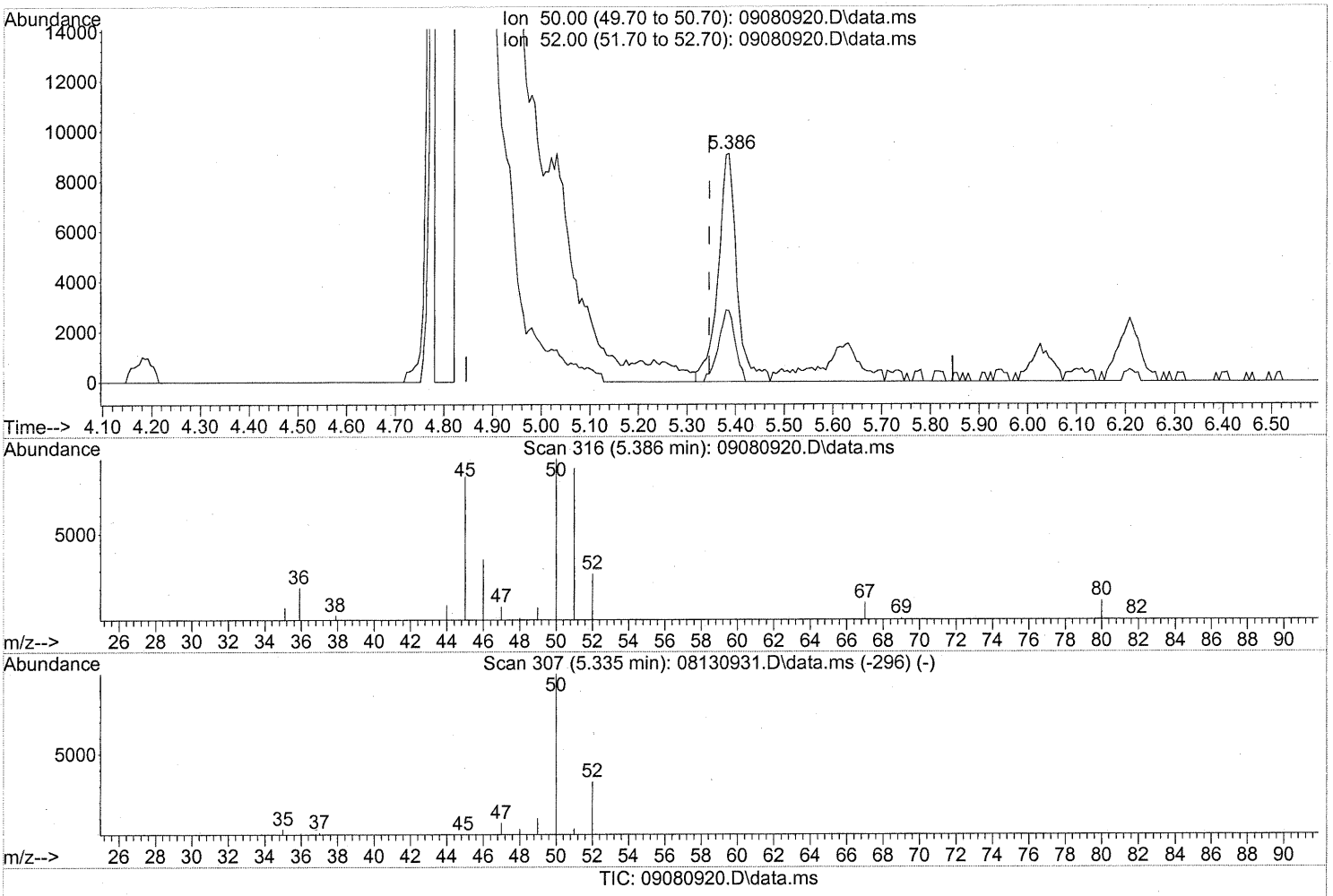
After subtraction
9/9/09

55

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



(4) Chloromethane (T)

5.386min (+0.040) 0.62ng

response 24453

Ion	Exp%	Act%
50.00	100	100
52.00	33.20	27.85
0.00	0.00	0.00
0.00	0.00	0.00

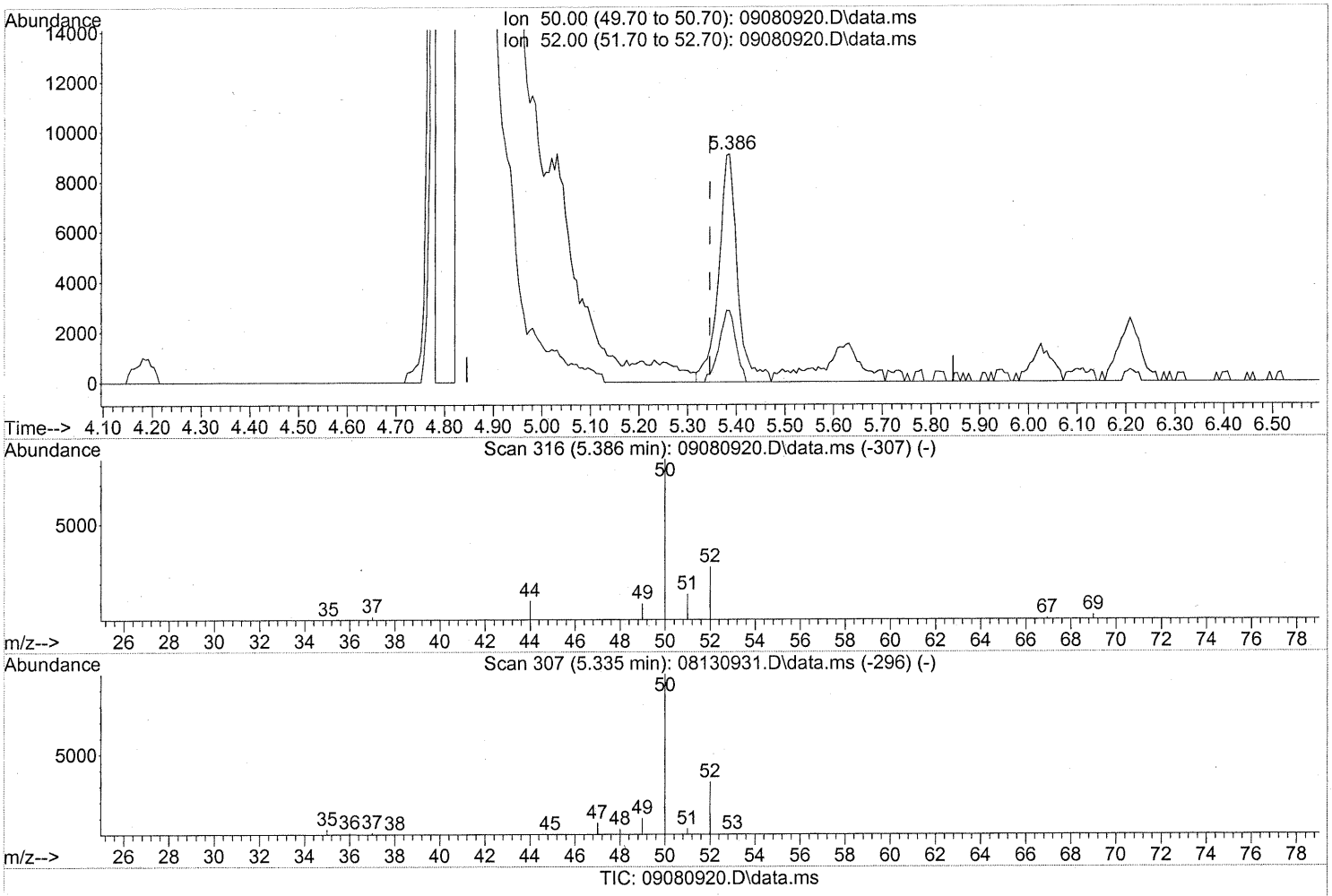
Before subtraction

56

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



(4) Chloromethane (T)

5.386min (+0.040) 0.62ng

response 24453

Ion	Exp%	Act%
50.00	100	100
52.00	33.20	27.85
0.00	0.00	0.00
0.00	0.00	0.00

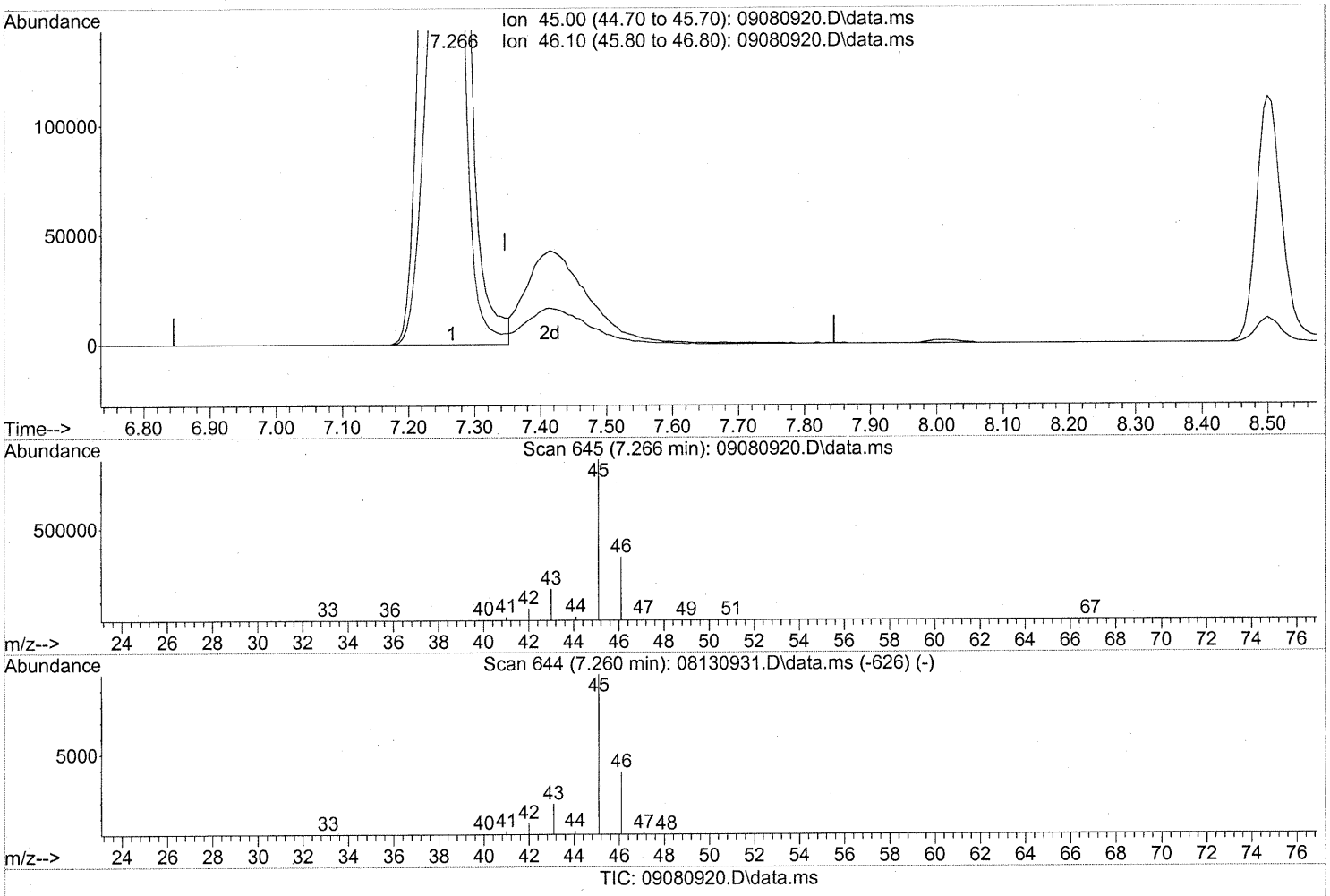
After subtraction
Tom 9/9/09

57

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080920.D\data.ms

(10) Ethanol (T)

7.266min (-0.080) 148.79ng

response 2770807

PT

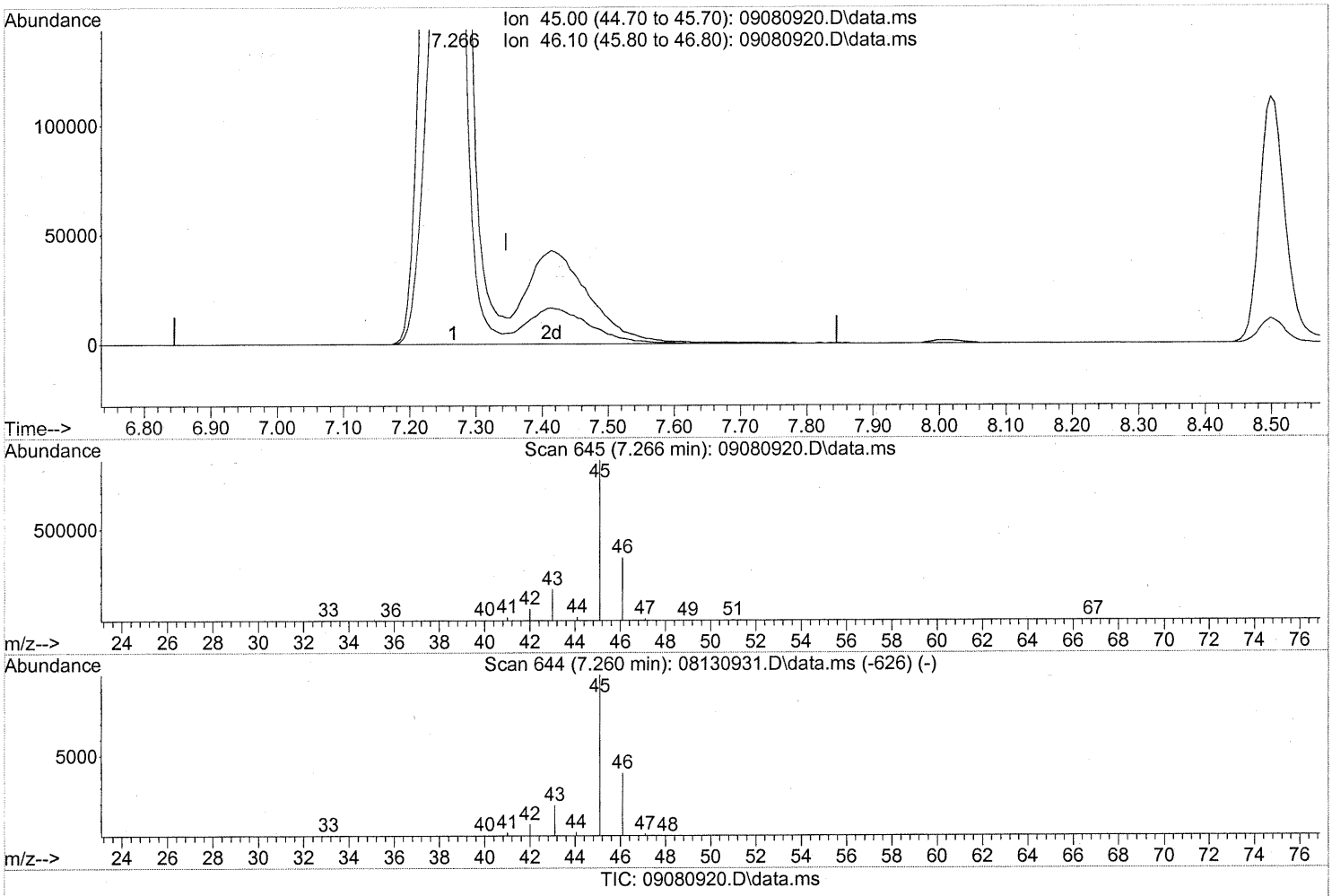
Ion	Exp%	Act%
45.00	100	100
46.10	39.00	39.03
0.00	0.00	0.00
0.00	0.00	0.00

58

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080920.D\data.ms

(10) Ethanol (T)

7.266min (-0.080) 163.84ng m

response 3050971

Ion	Exp%	Act%
45.00	100	100
46.10	39.00	35.44
0.00	0.00	0.00
0.00	0.00	0.00

PT → TC
9/9/09

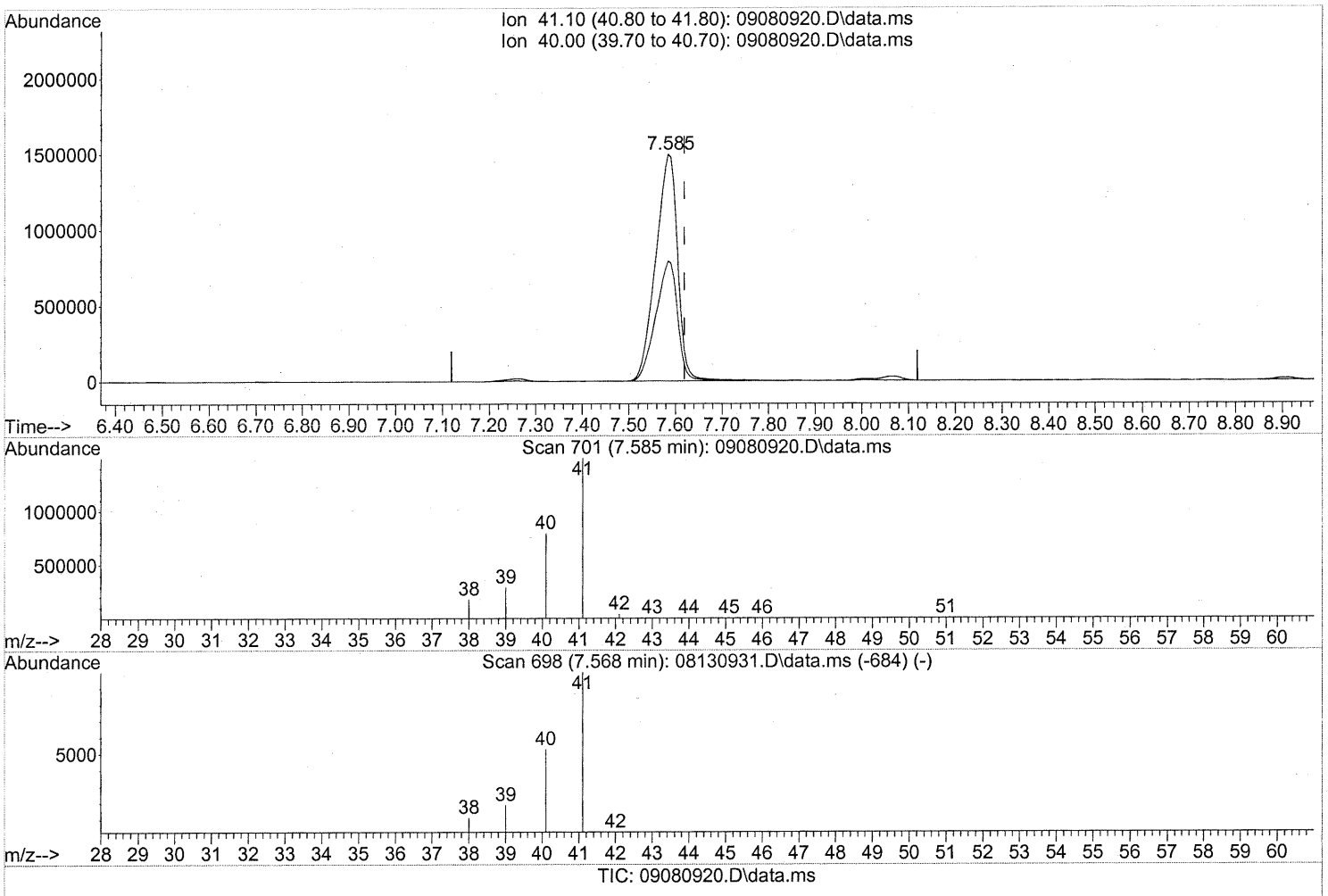
KR 9/9/09

59

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080920.D\data.ms

(11) Acetonitrile (T)

7.585min (-0.034) 108.35ng

response 4924020

Ion	Exp%	Act%
41.10	100	100
40.00	53.30	52.95
0.00	0.00	0.00
0.00	0.00	0.00

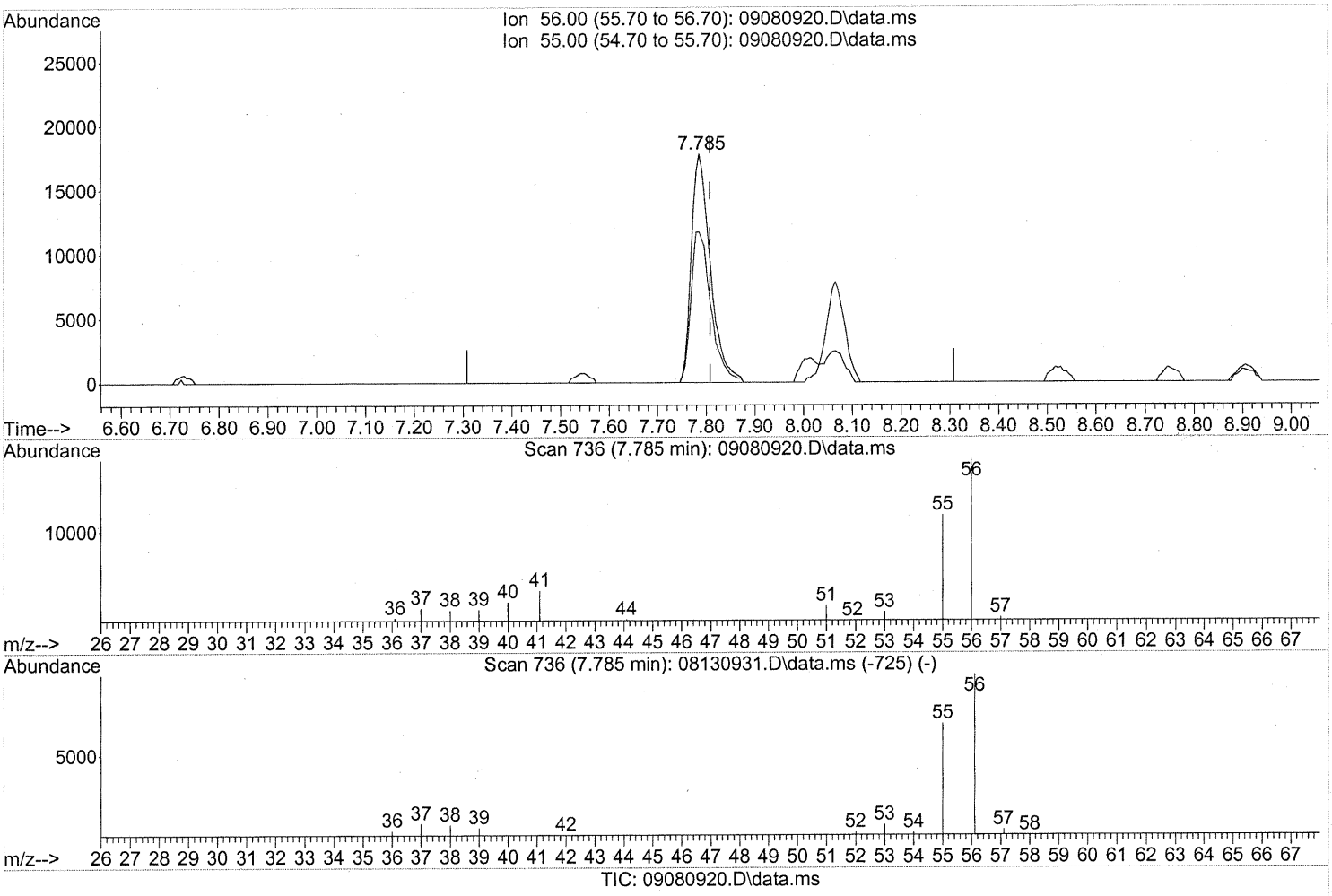
E

60

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080920.D\data.ms

(12) Acrolein (T)

7.785min (-0.023) 3.97ng

response 48234

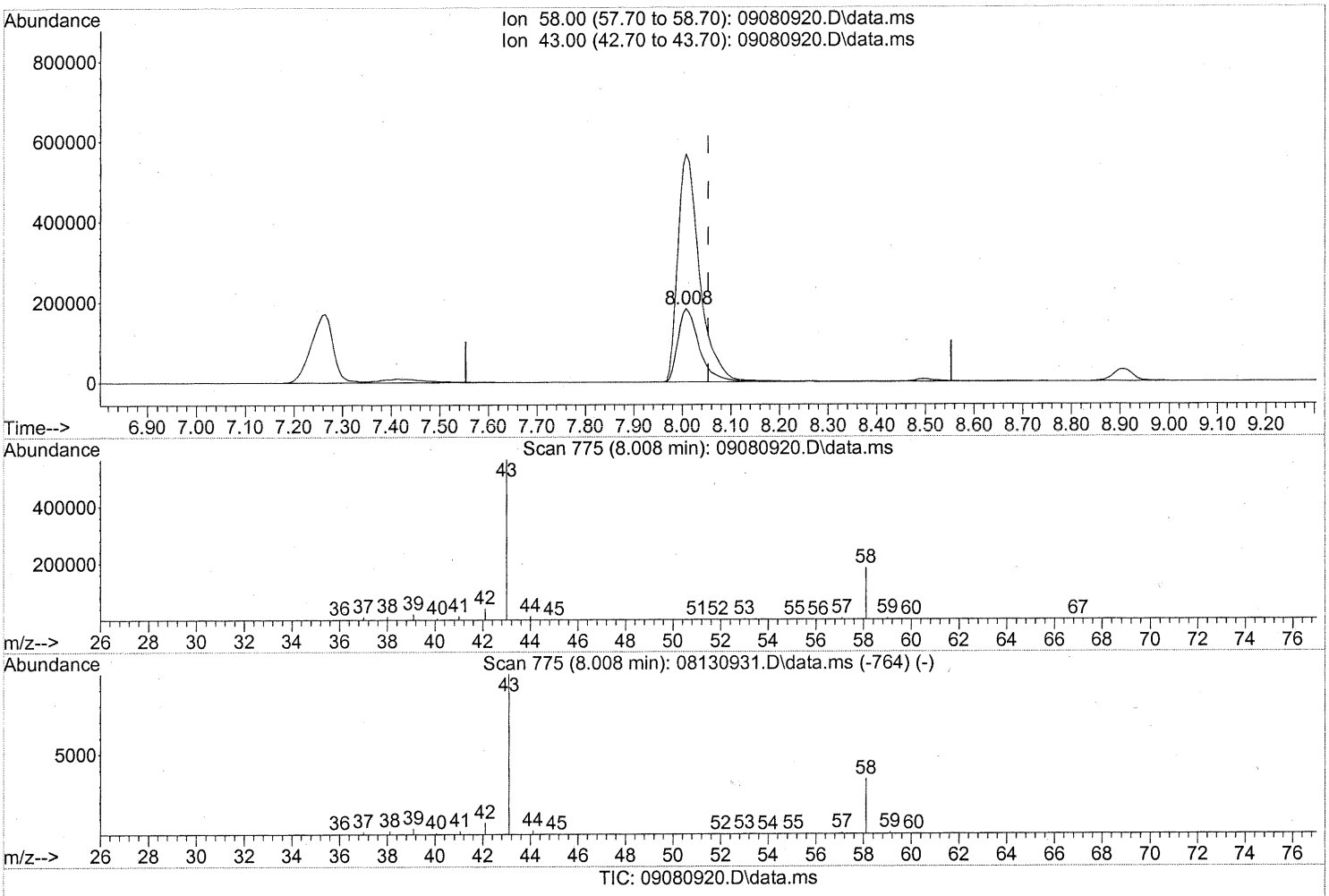
Ion	Exp%	Act%
56.00	100	100
55.00	67.70	68.73
0.00	0.00	0.00
0.00	0.00	0.00

61

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080920.D\data.ms

(13) Acetone (T)

8.008min (-0.046) 29.13ng

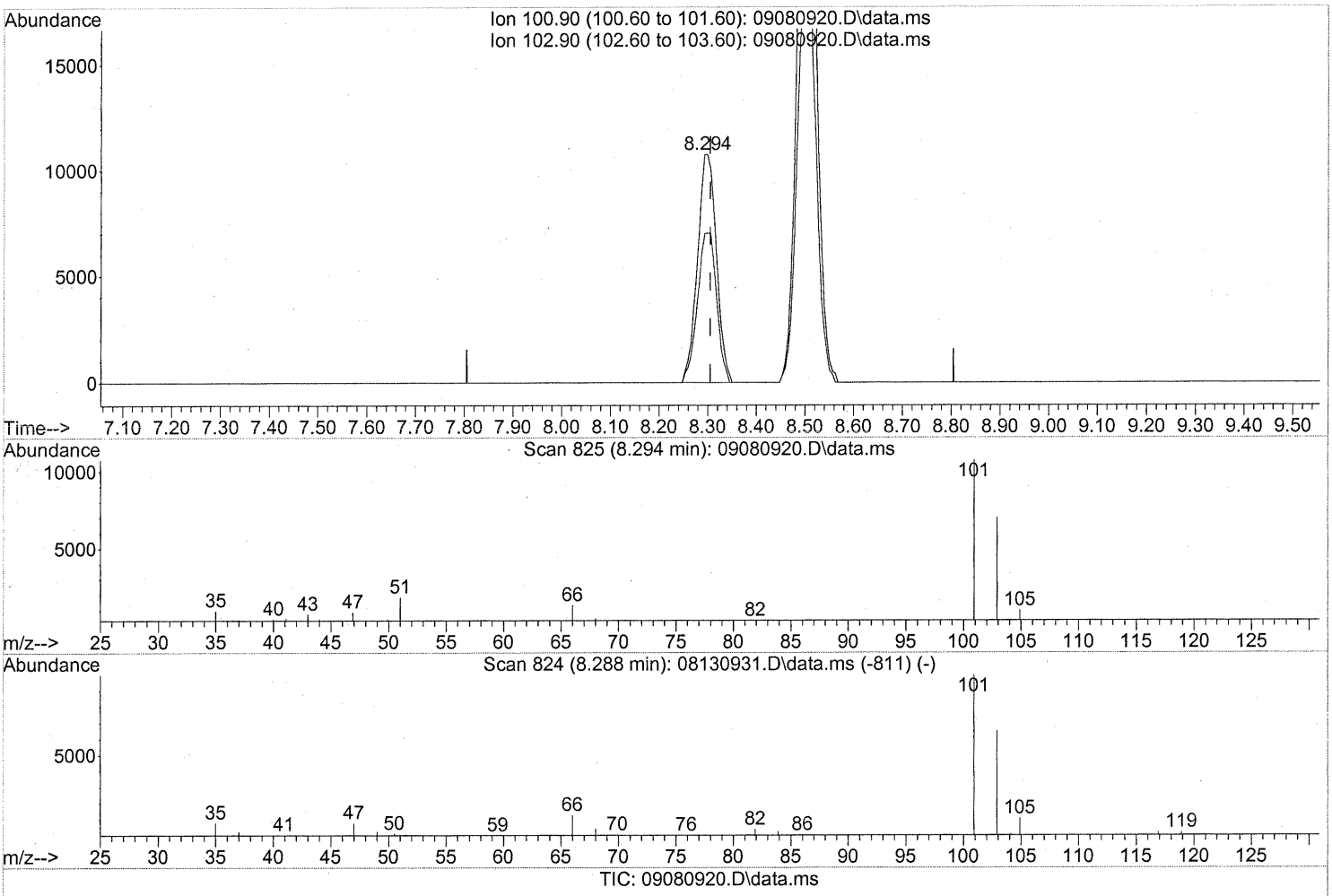
response 552045

Ion	Exp%	Act%
58.00	100	100
43.00	317.70	320.24
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080920.D\data.ms

(14) Trichlorofluoromethane (T)

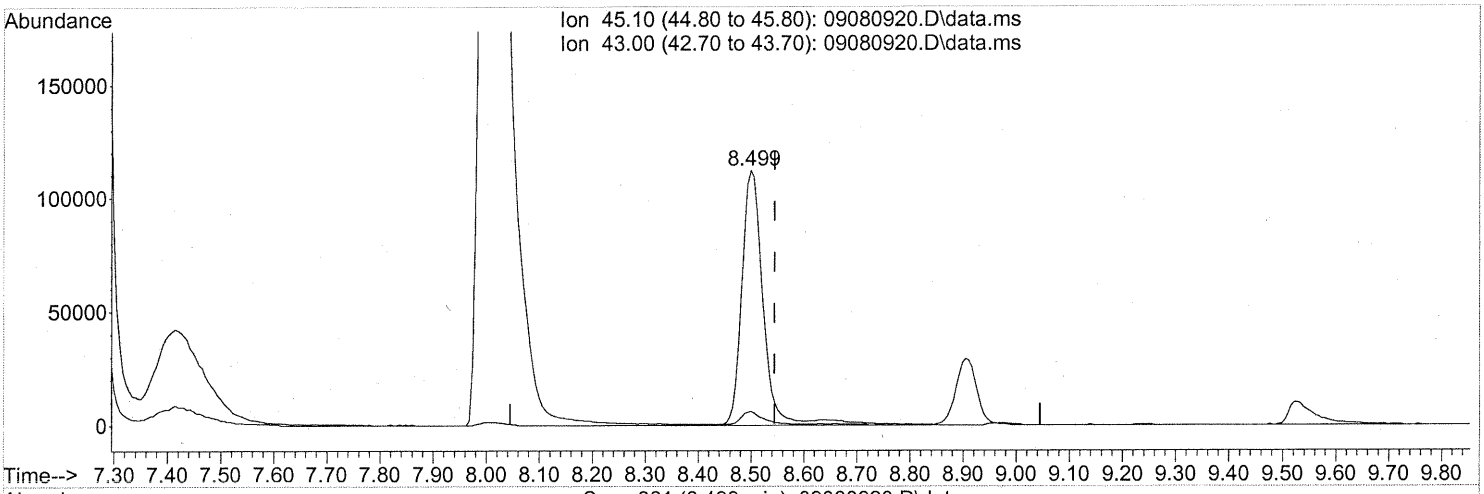
8.294min (-0.011) 0.80ng

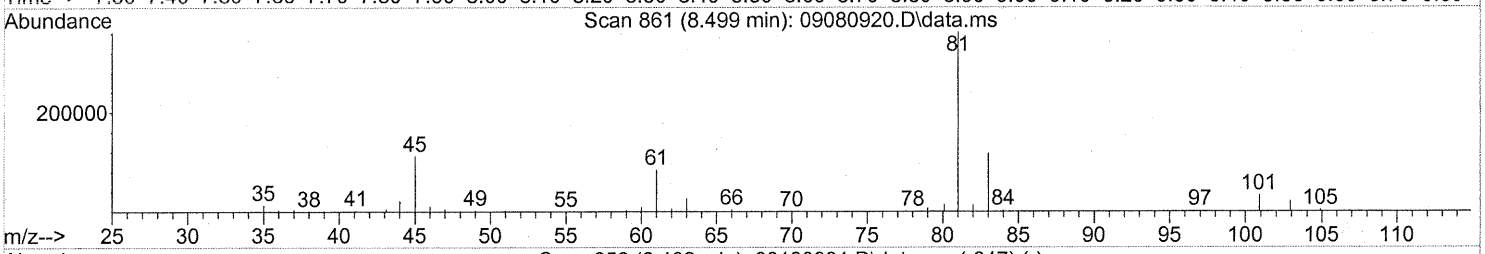
response 28888

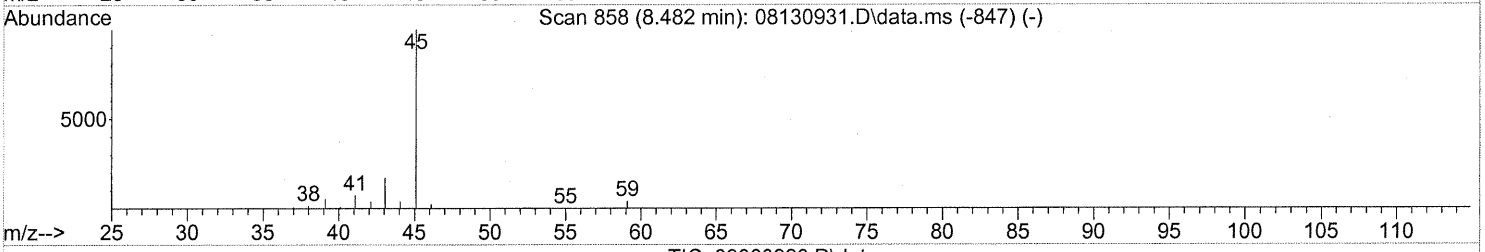
Ion	Exp%	Act%
100.90	100	100
102.90	66.00	66.11
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration







TIC: 09080920.D\data.ms

(15) 2-Propanol (Isopropanol) (T)

8.499min (-0.046) 6.12ng

response 317446

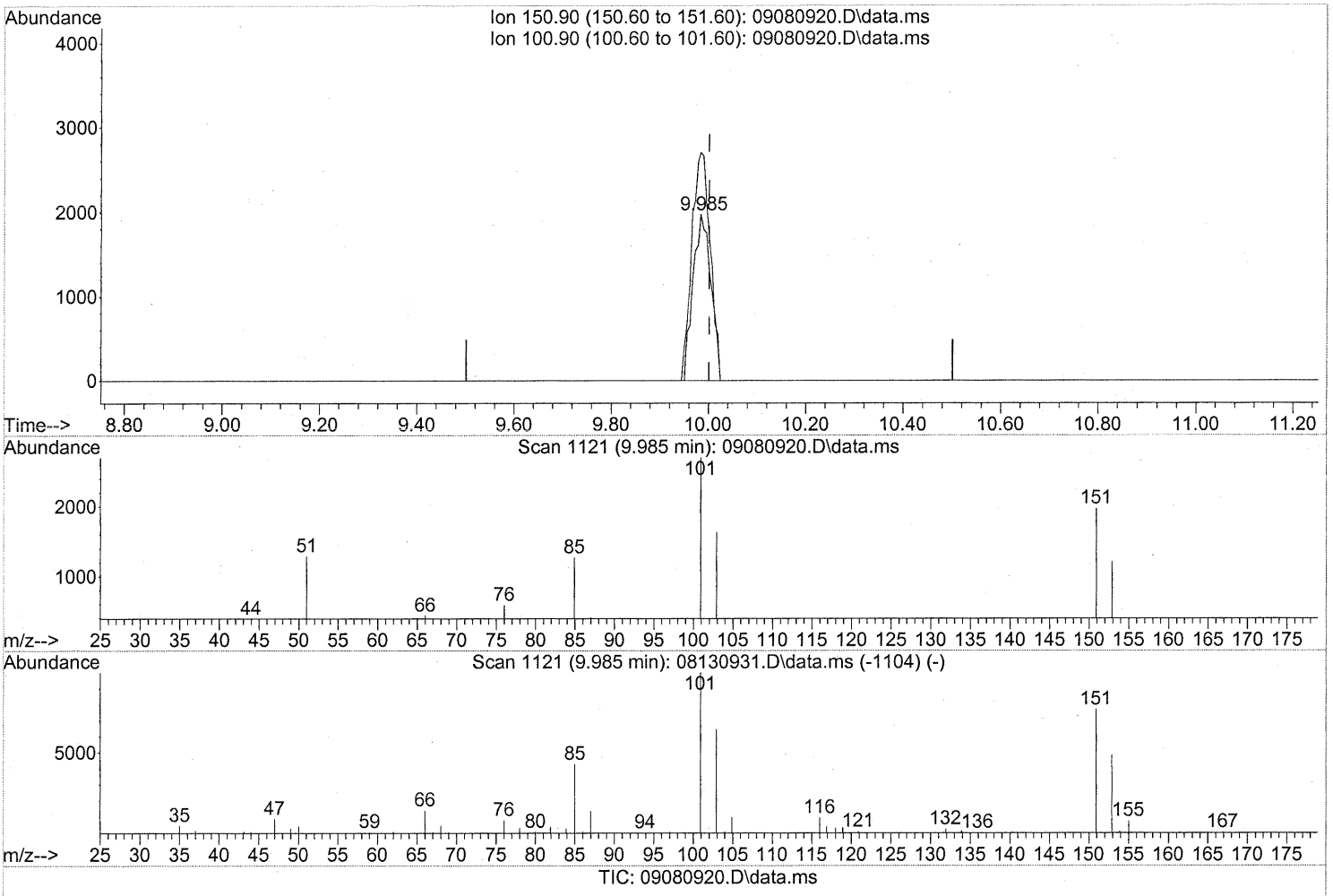
Ion	Exp%	Act%
45.10	100	100
43.00	20.50	6.93
0.00	0.00	0.00
0.00	0.00	0.00

64

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080920.D\data.ms

(21) Trichlorotrifluoroethane (T)

9.985min (-0.017) 0.31ng

response 4997

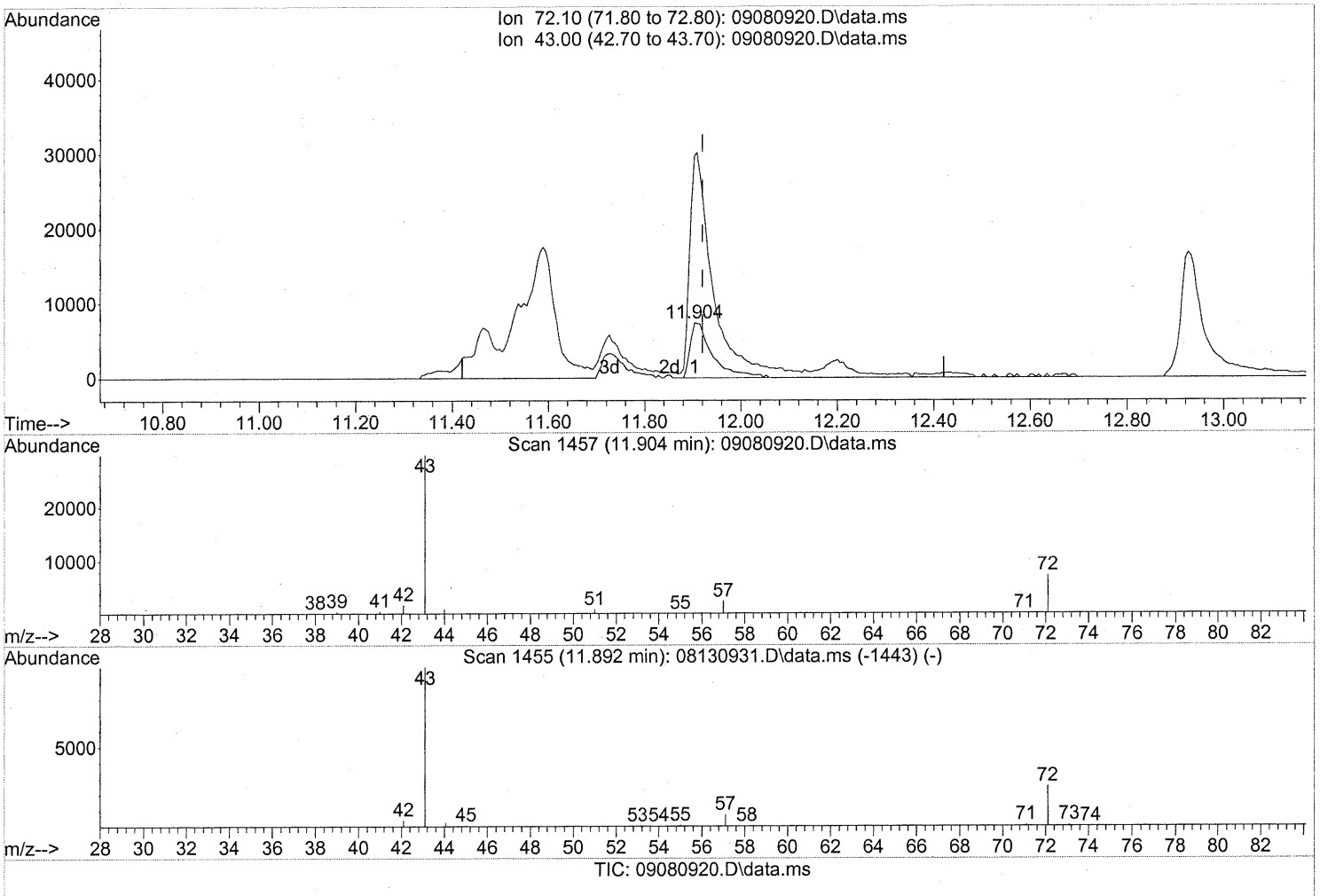
Ion	Exp%	Act%
150.90	100	100
100.90	127.40	141.83
0.00	0.00	0.00
0.00	0.00	0.00

65

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080920.D\data.ms

(27) 2-Butanone (MEK) (T)

11.904min (-0.017) 1.75ng

response 23163

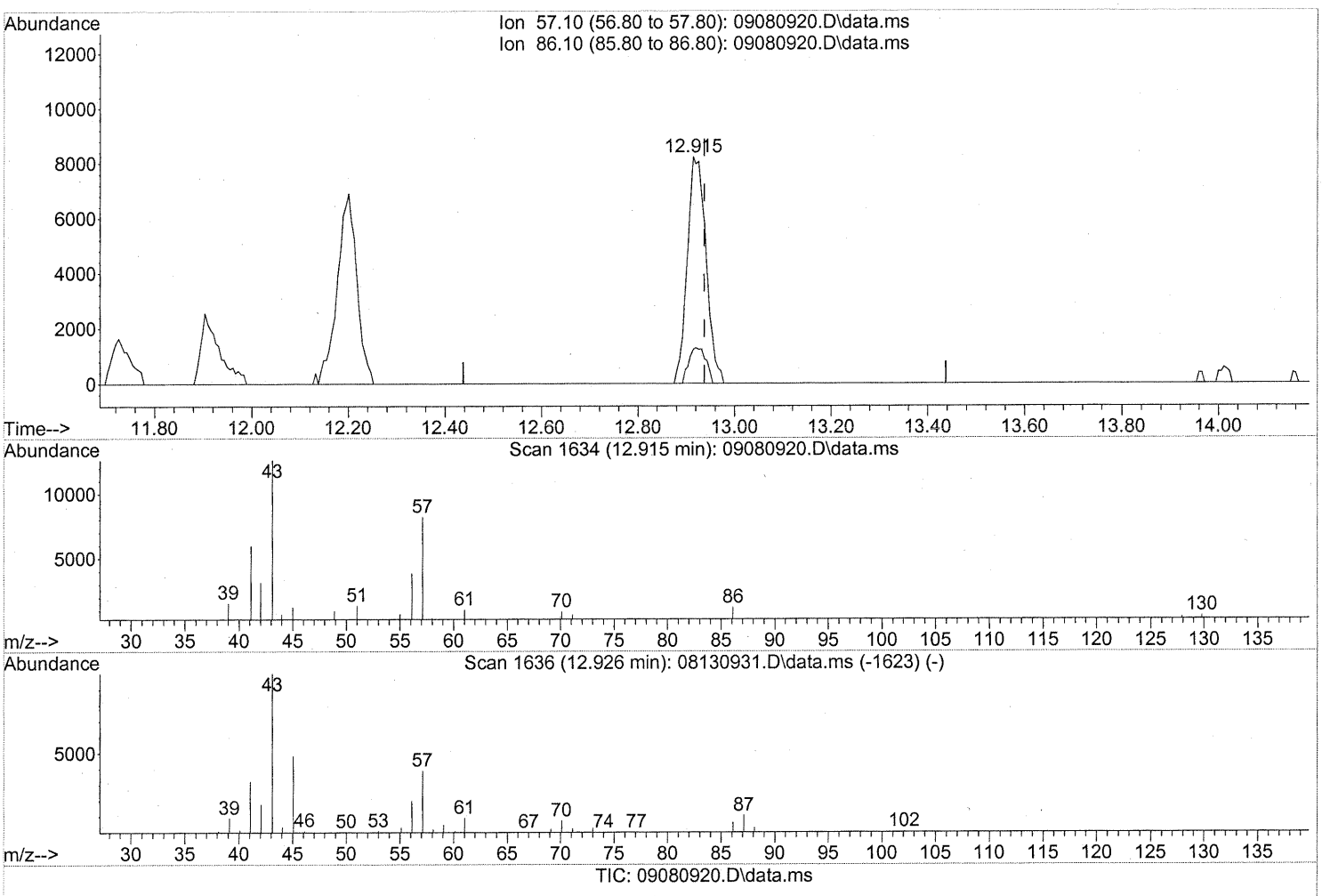
Ion	Exp%	Act%
72.10	100	100
43.00	366.50	406.35#
0.00	0.00	0.00
0.00	0.00	0.00

66

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080920.D\data.ms

(31) n-Hexane (T)

12.915min (-0.023) 0.53ng

response 22040

Ion	Exp%	Act%
57.10	100	100
86.10	17.50	14.12
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
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Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
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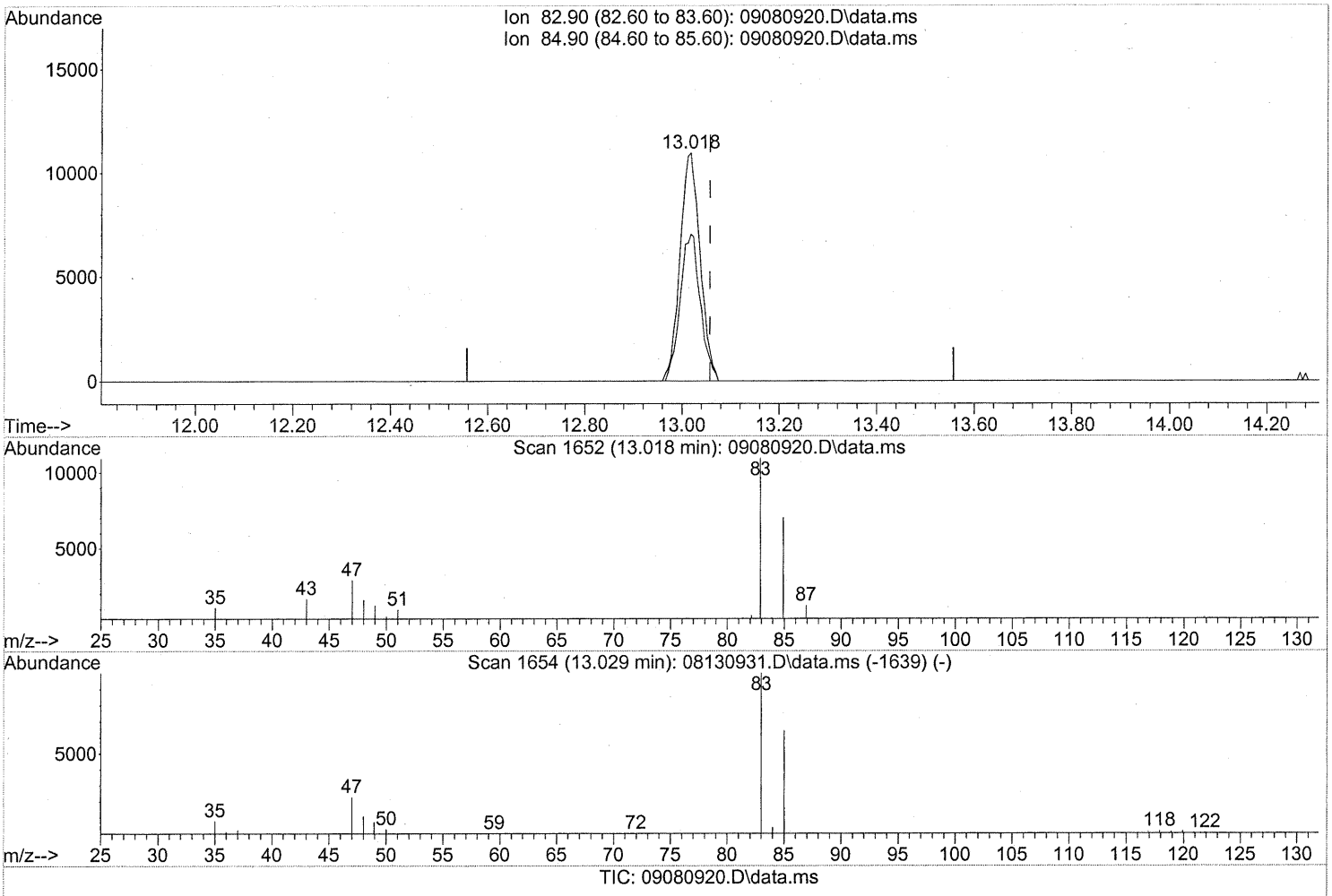

TIC: 09080920.D\data.ms

(32) Chloroform (T)

13.018min (-0.040) 0.90ng

response 31343

Ion	Exp%	Act%
82.90	100	100
84.90	64.70	64.67
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
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ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
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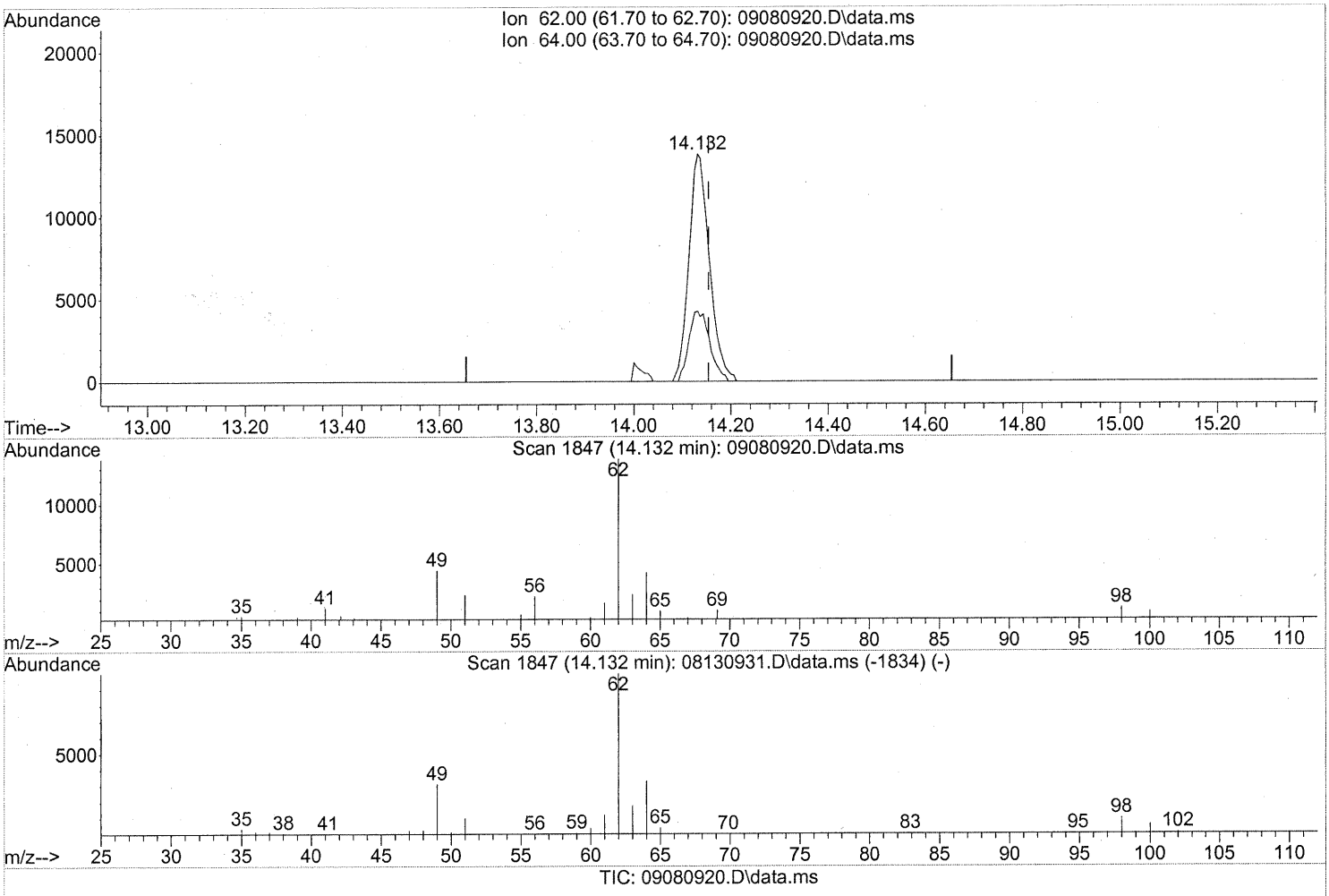
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080920.D\data.ms

(36) 1,2-Dichloroethane (T)

14.132min (-0.023) 1.51ng

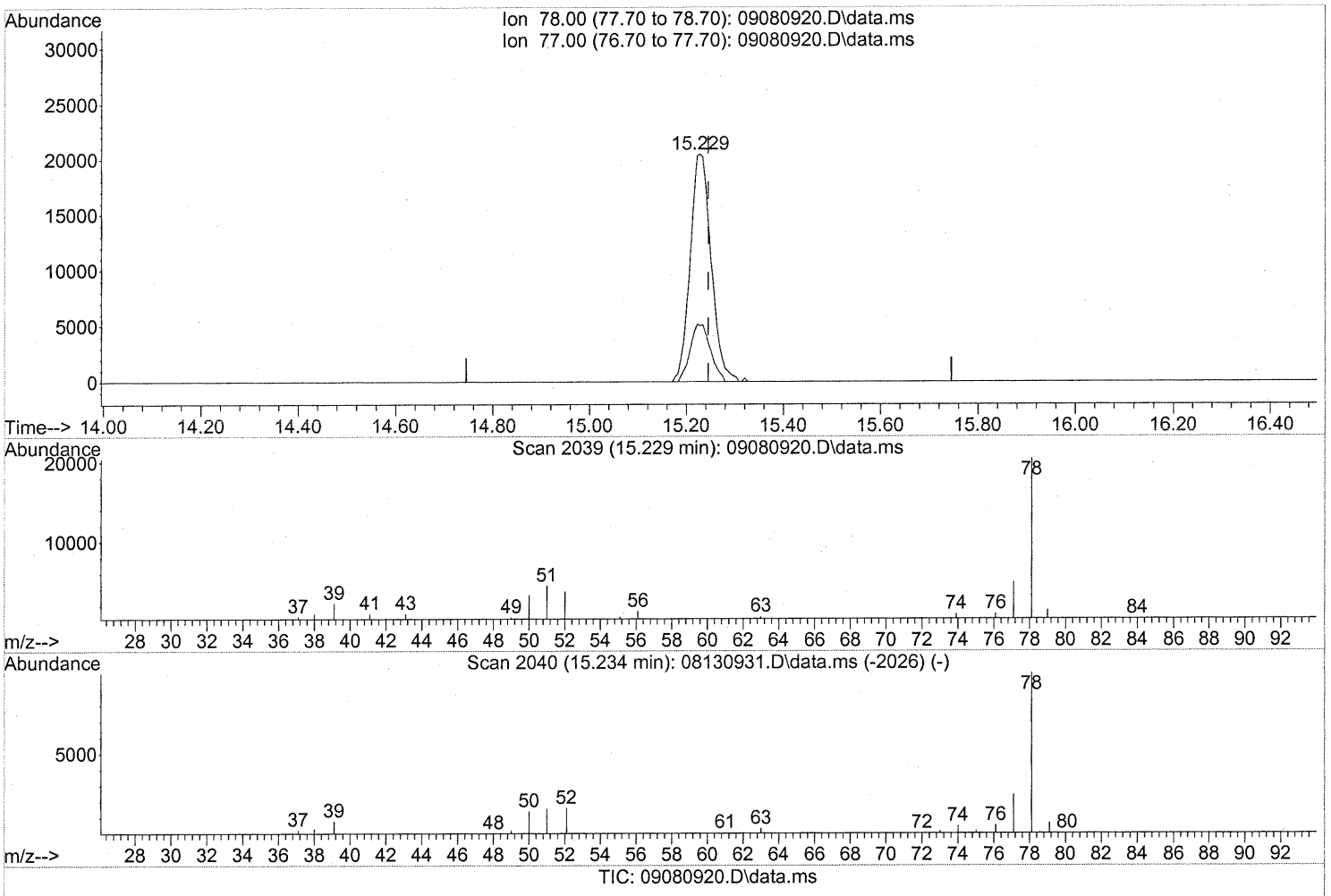
response 40455

Ion	Exp%	Act%
62.00	100	100
64.00	32.70	31.23
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



(41) Benzene (T)

15.229min (-0.017) 0.65ng

response 60900

Ion	Exp%	Act%
78.00	100	100
77.00	25.10	24.21
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
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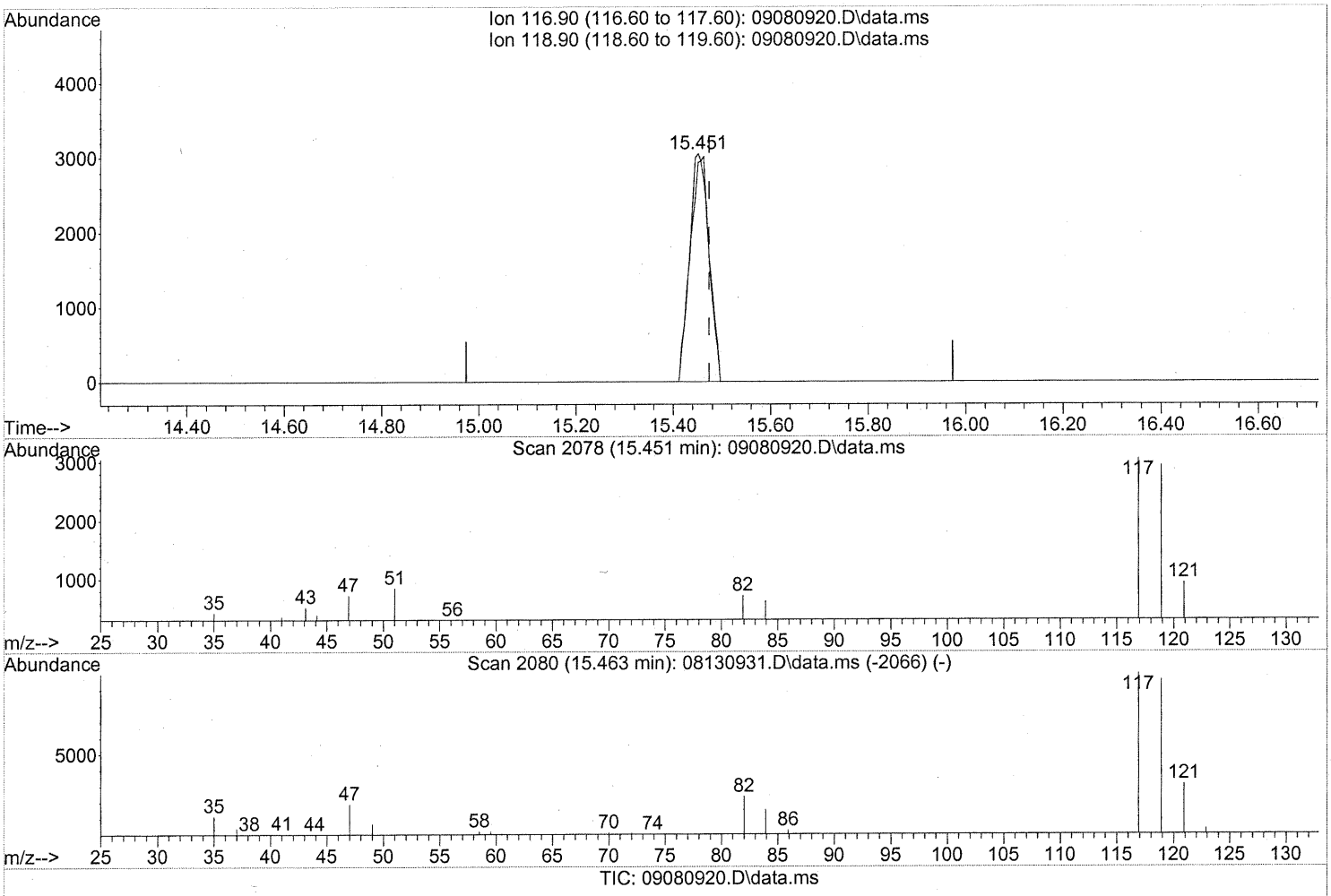

TIC: 09080920.D\data.ms

(42) Carbon Tetrachloride (T)

15.451min (-0.023) 0.33ng

response 8548

Ion	Exp%	Act%
116.90	100	100
118.90	97.00	93.92
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
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Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
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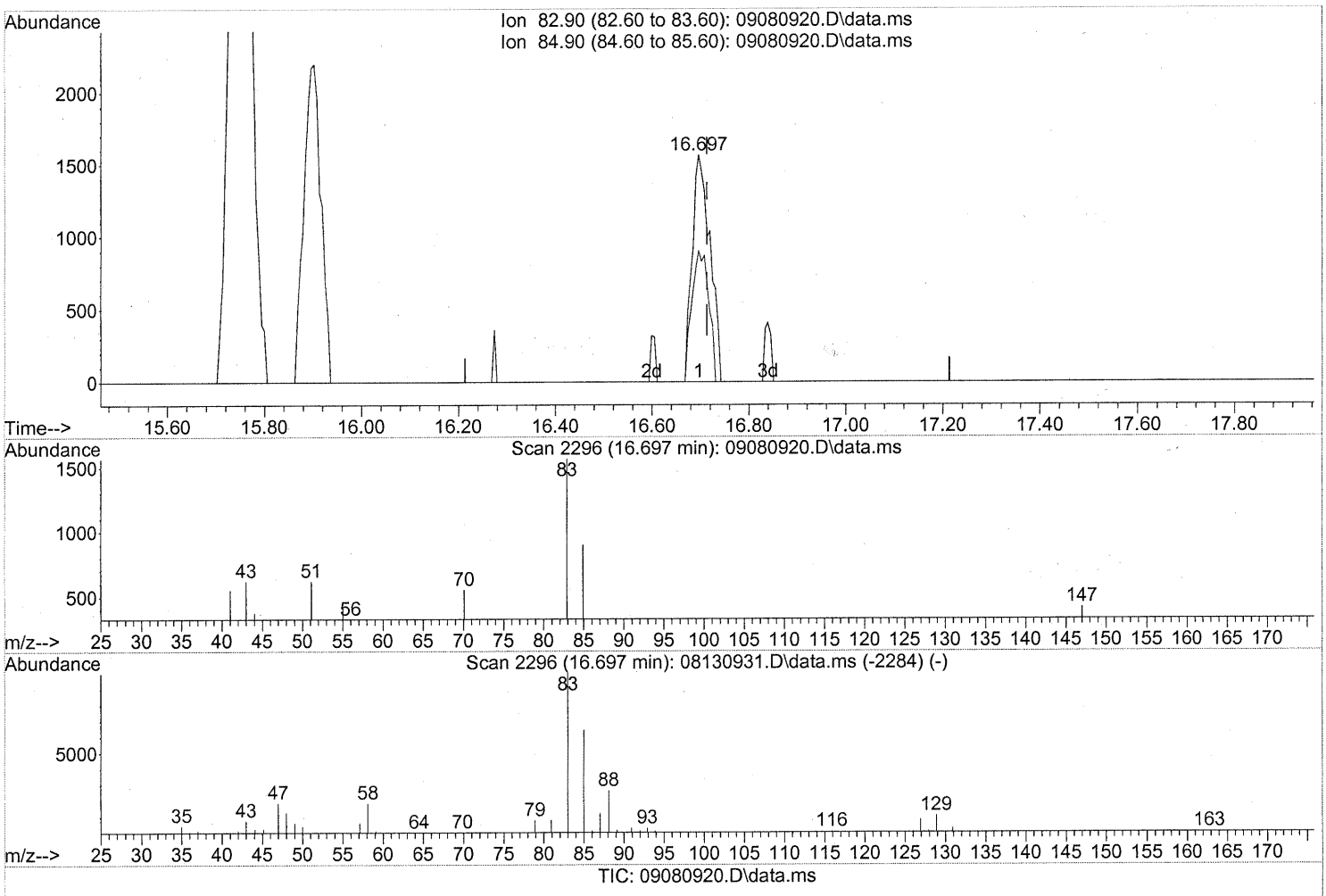
Response via : Initial Calibration



TIC: 09080920.D\data.ms

(46) Bromodichloromethane (T)

16.697min (-0.017) 0.15ng

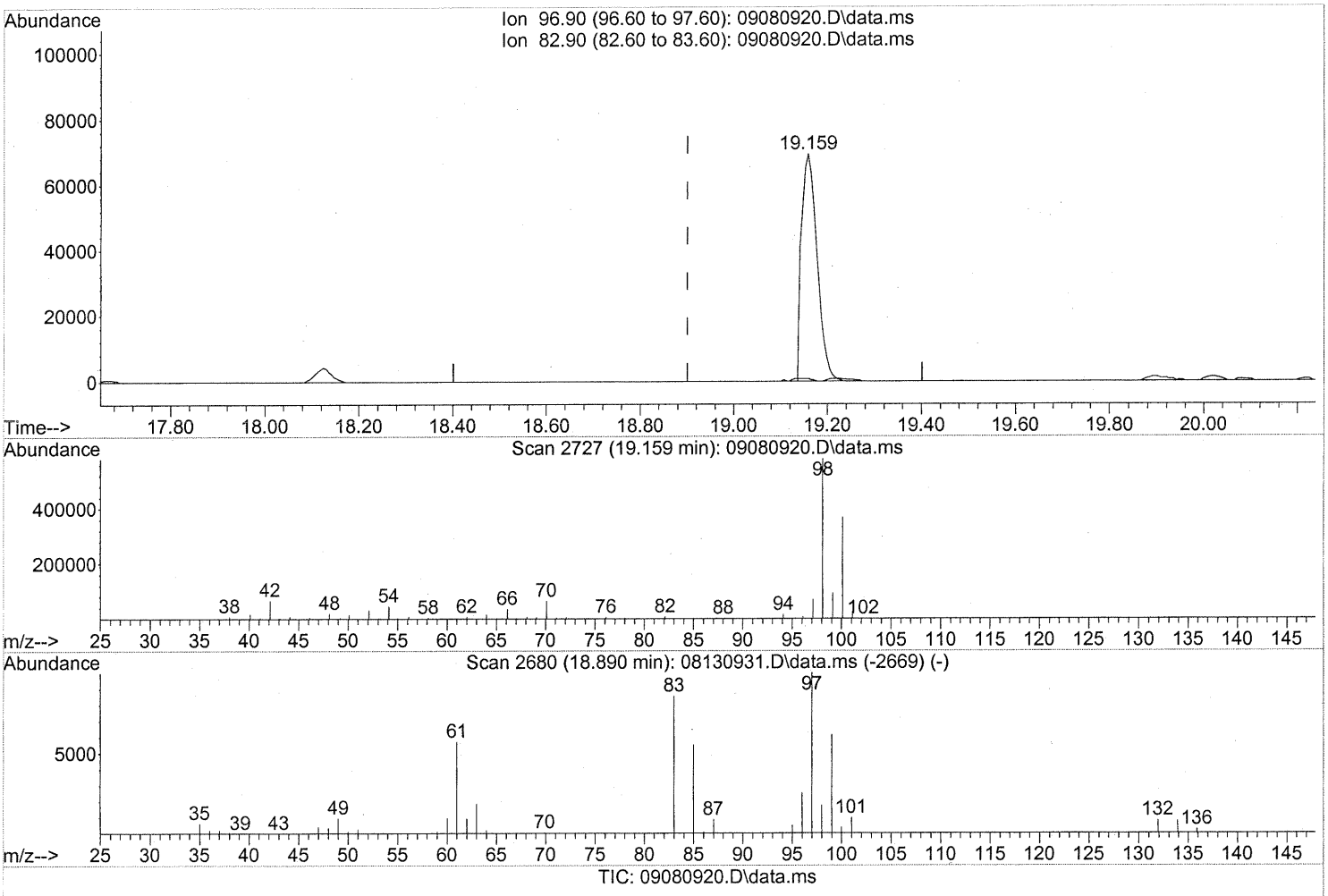
response 3996

Ion	Exp%	Act%
82.90	100	100
84.90	64.70	54.43
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080920.D\data.ms

(55) 1,1,2-Trichloroethane (T)

19.159min (+0.257) 8.02ng

response 160374

Ion	Exp%	Act%
96.90	100	100
82.90	85.30	1.16#
0.00	0.00	0.00
0.00	0.00	0.00

FP EM 9/9/09

KR 9/9/09

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Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
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Quant Method : J:\MS09\Methods\R9081309.M
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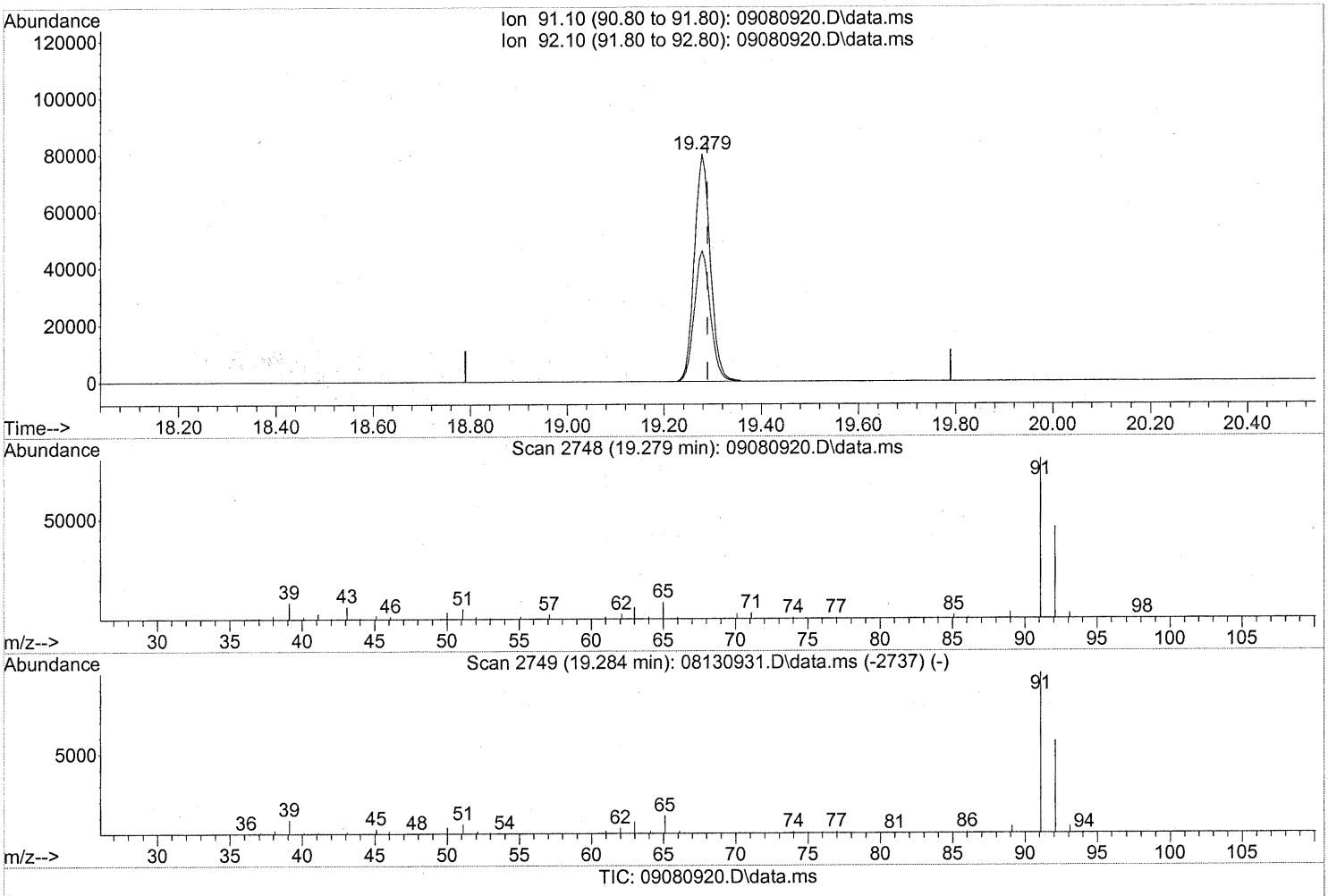
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080920.D\data.ms

(58) Toluene (T)

19.279min (-0.011) 1.82ng

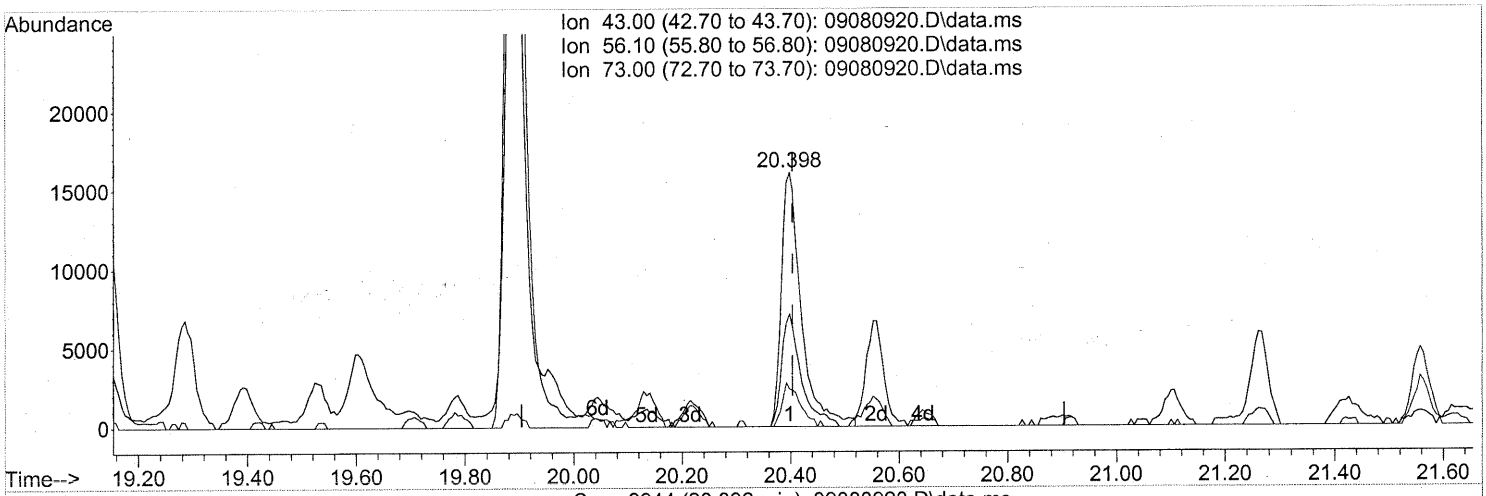
response 183435

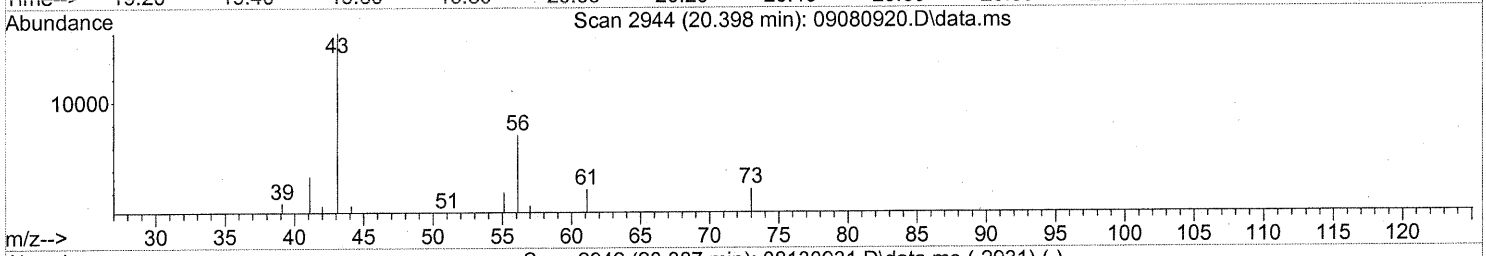
Ion	Exp%	Act%
91.10	100	100
92.10	57.60	57.46
0.00	0.00	0.00
0.00	0.00	0.00

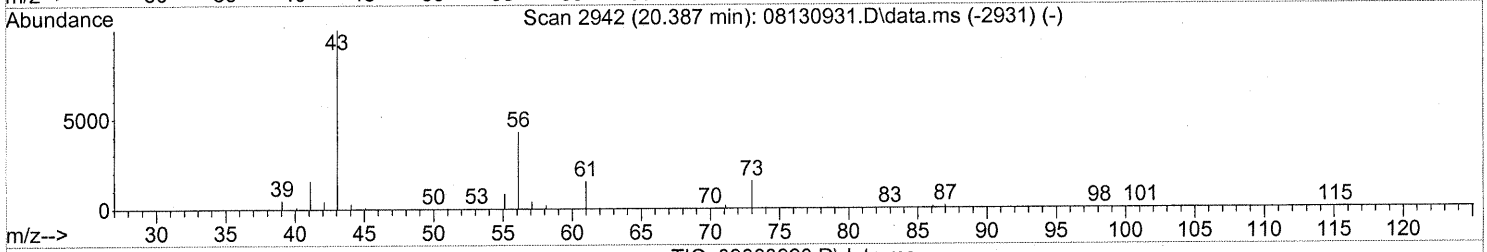
Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration







TIC: 09080920.D\data.ms

(62) n-Butyl Acetate (T)

20.398min (-0.006) 0.71ng

response 40849

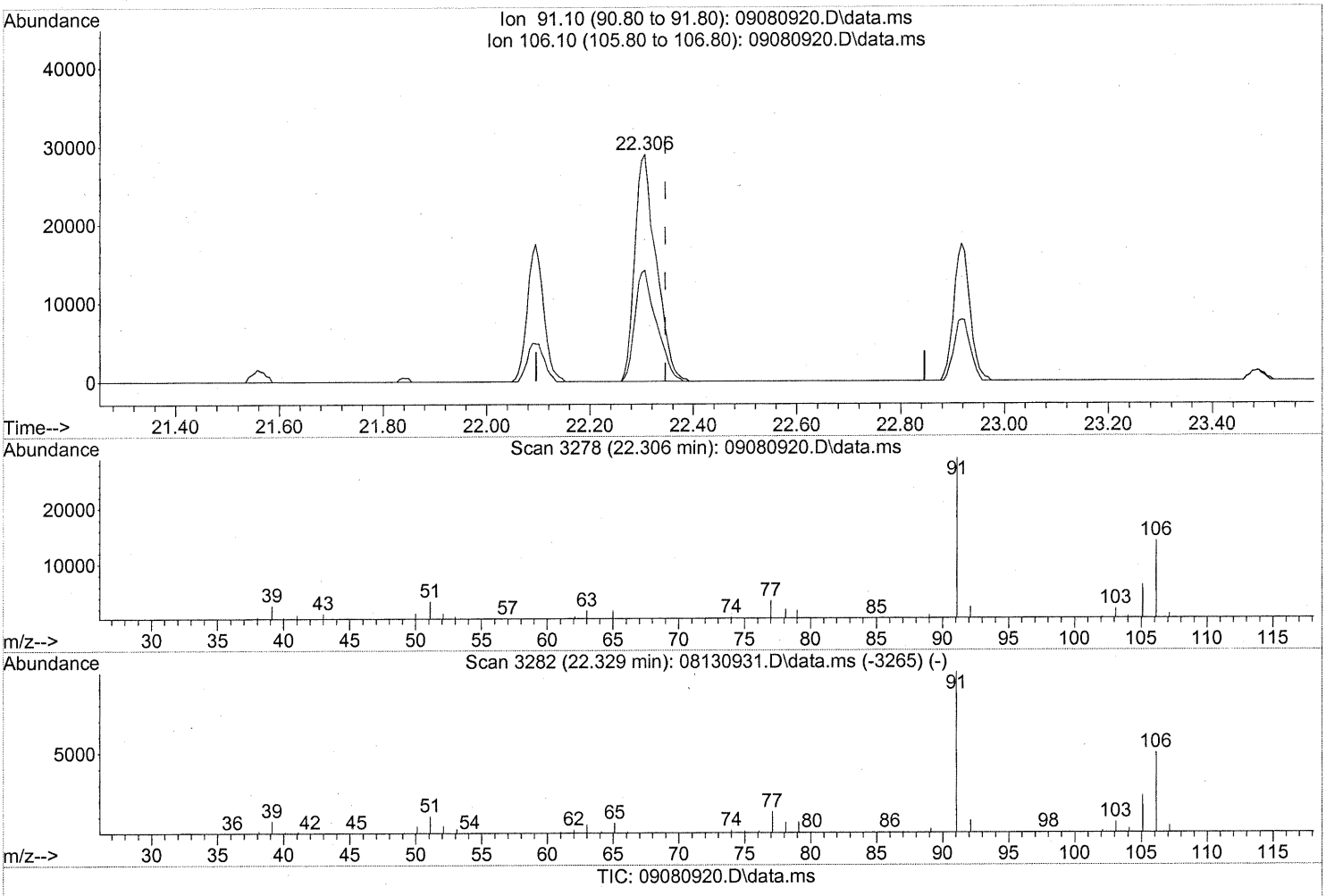
Ion	Exp%	Act%
43.00	100	100
56.10	42.90	43.43
73.00	16.90	15.28
0.00	0.00	0.00

75

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080920.D\data.ms

(67) m- & p-Xylenes (T)

22.306min (-0.040) 0.96ng

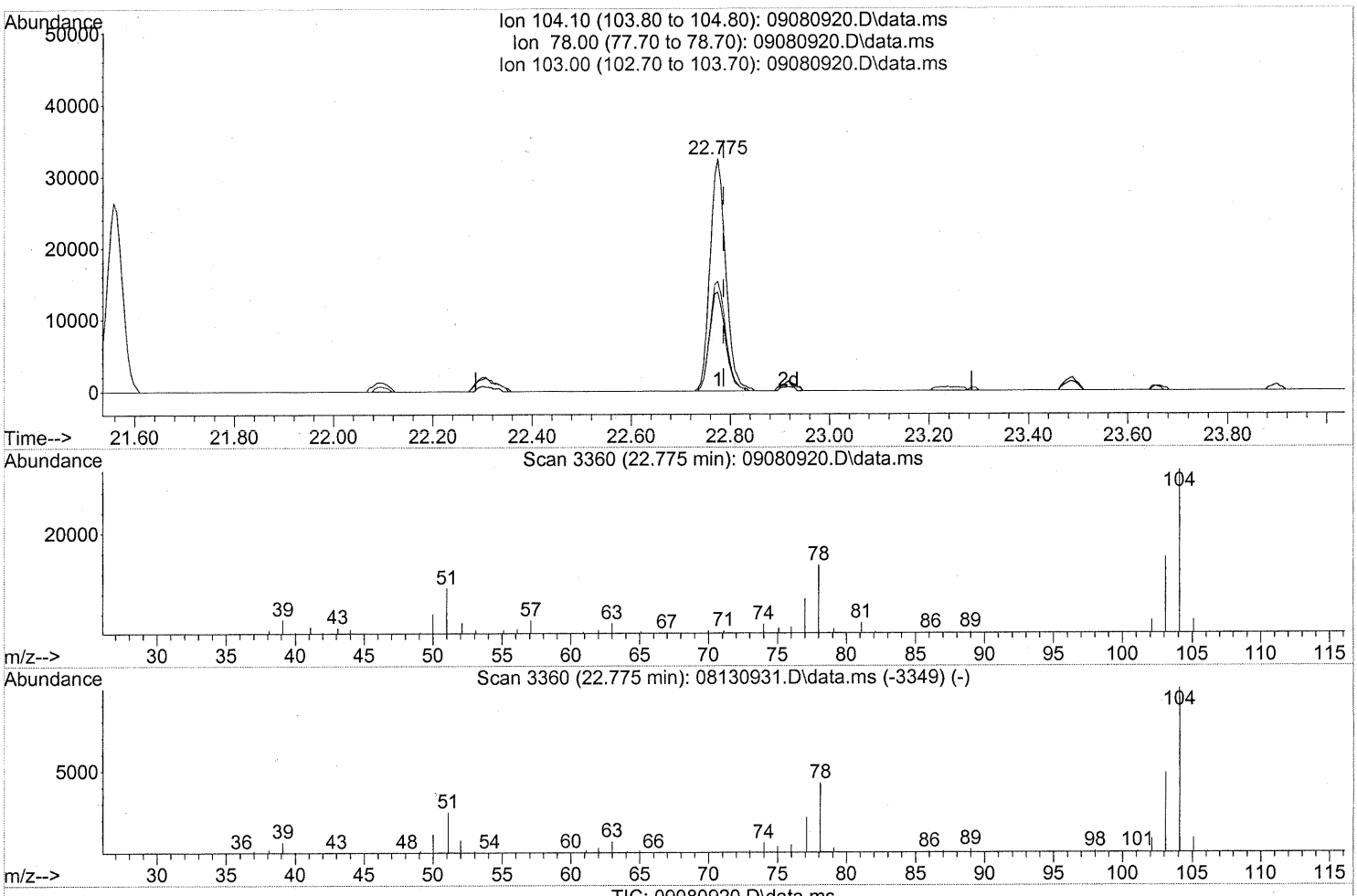
response 83074

Ion	Exp%	Act%
91.10	100	100
106.10	49.90	48.92
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080920.D\data.ms

(69) Styrene (T)

22.775min (-0.011) 1.10ng

response 70345

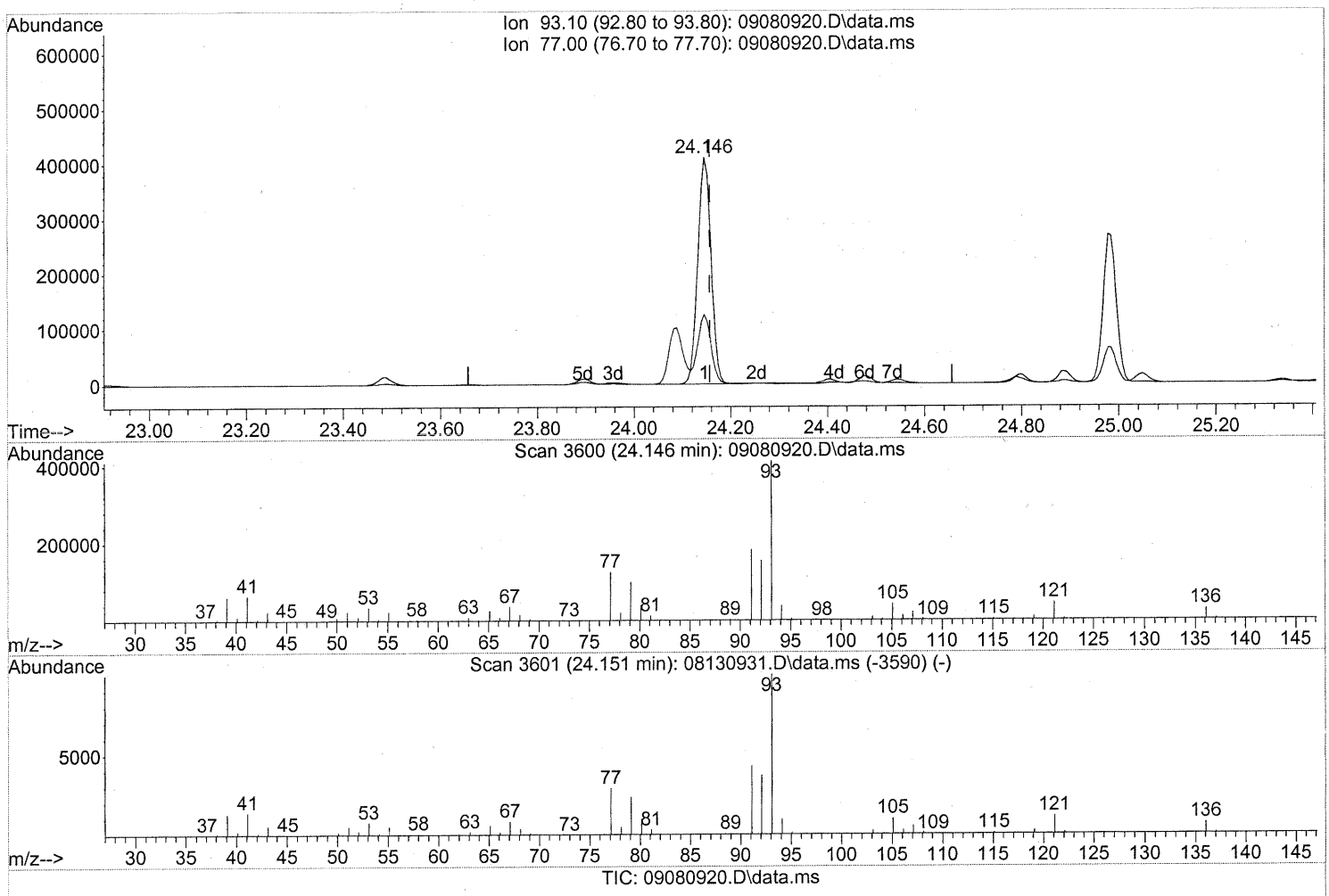
Ion	Exp%	Act%
104.10	100	100
78.00	42.30	42.53
103.00	48.70	47.65
0.00	0.00	0.00

77

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080920.D\data.ms

(75) alpha-Pinene (T)

24.146min (-0.011) 13.99ng

response 776248

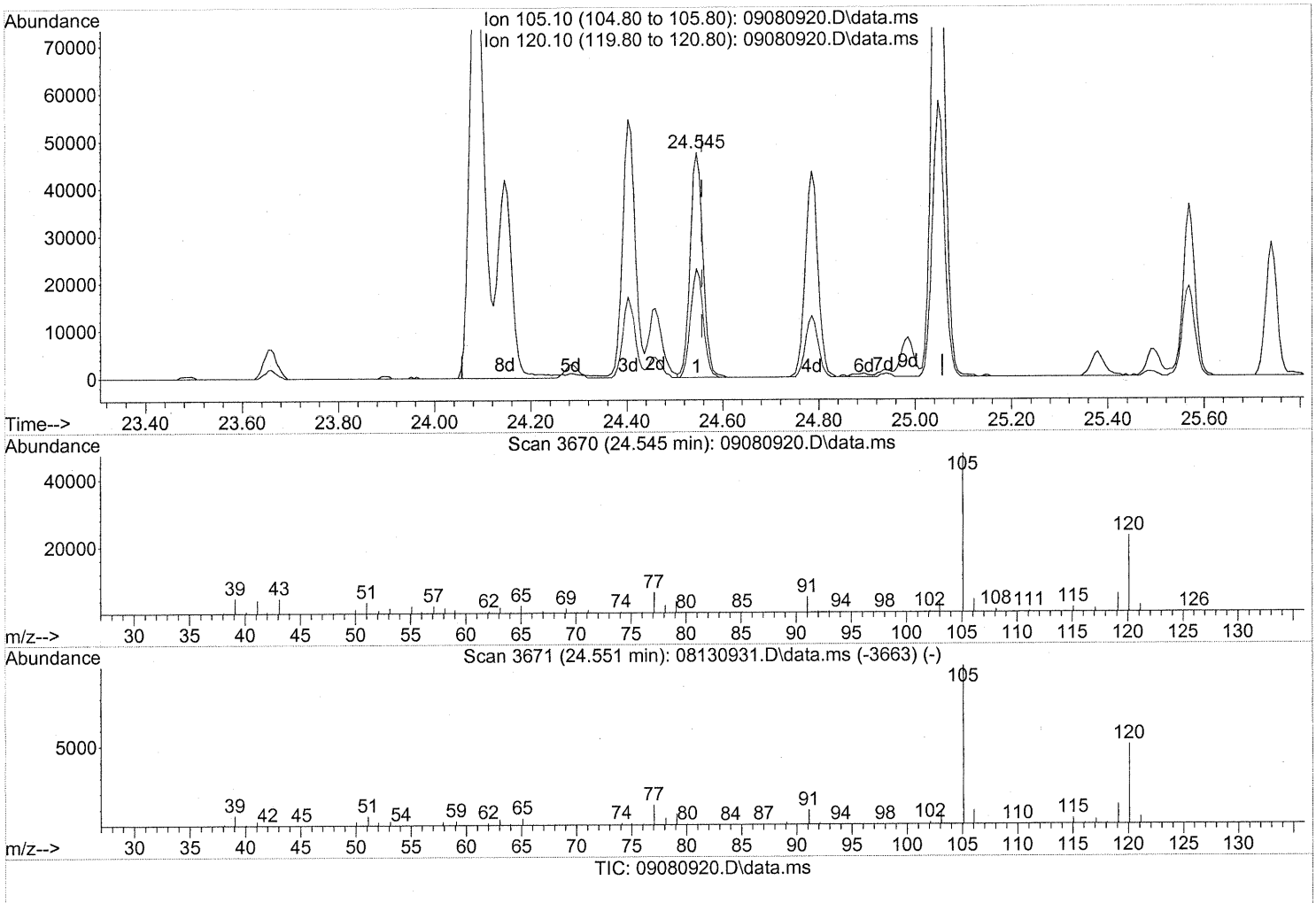
Ion	Exp%	Act%
93.10	100	100
77.00	29.50	30.75
0.00	0.00	0.00
0.00	0.00	0.00

78

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080920.D\data.ms

(79) 1,3,5-Trimethylbenzene (T)

24.545min (-0.011) 1.00ng

response 87209

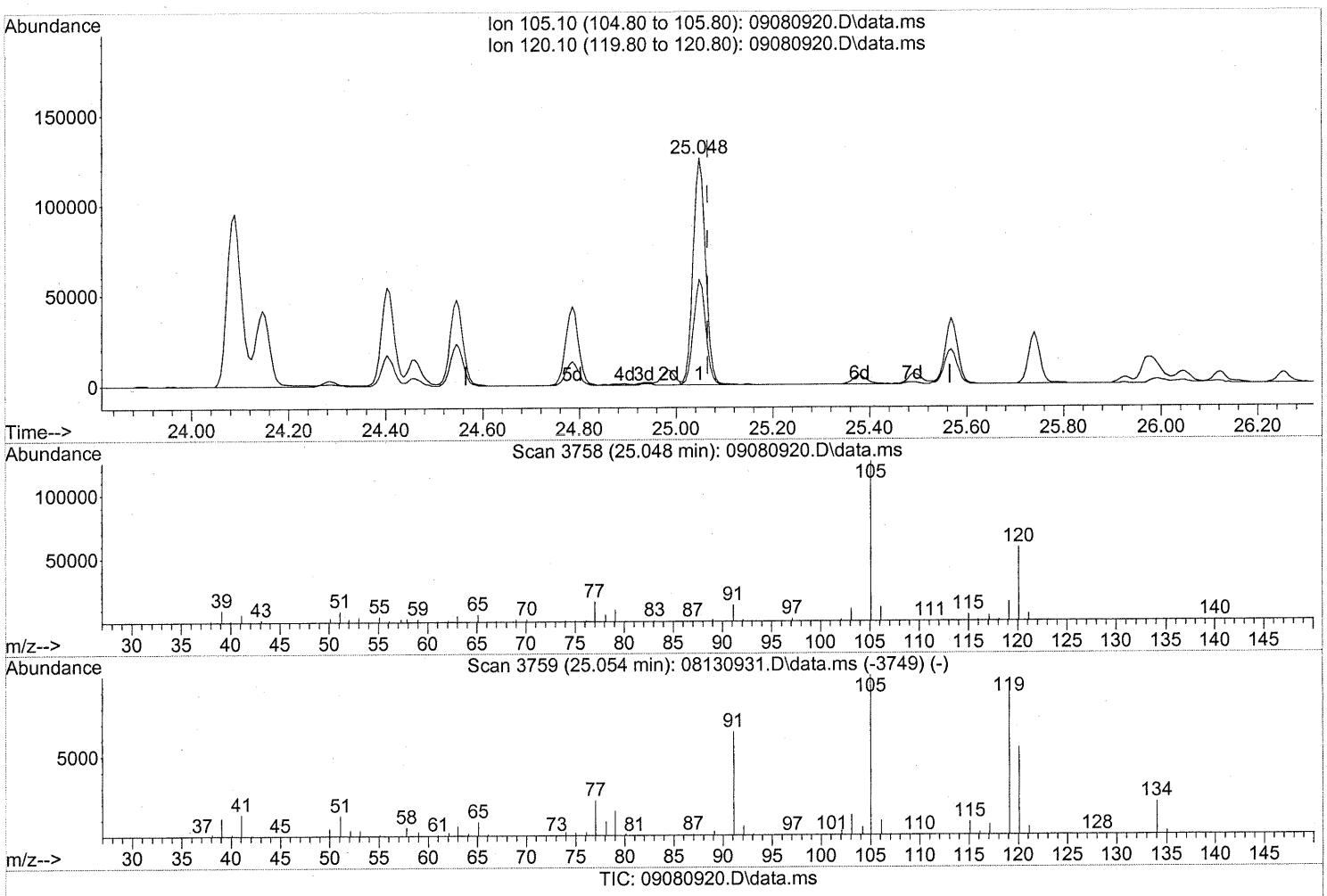
Ion	Exp%	Act%
105.10	100	100
120.10	49.50	47.80
0.00	0.00	0.00
0.00	0.00	0.00

79

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080920.D\data.ms

(82) 1,2,4-Trimethylbenzene (T)

25.048min (-0.017) 2.41ng

response 224125

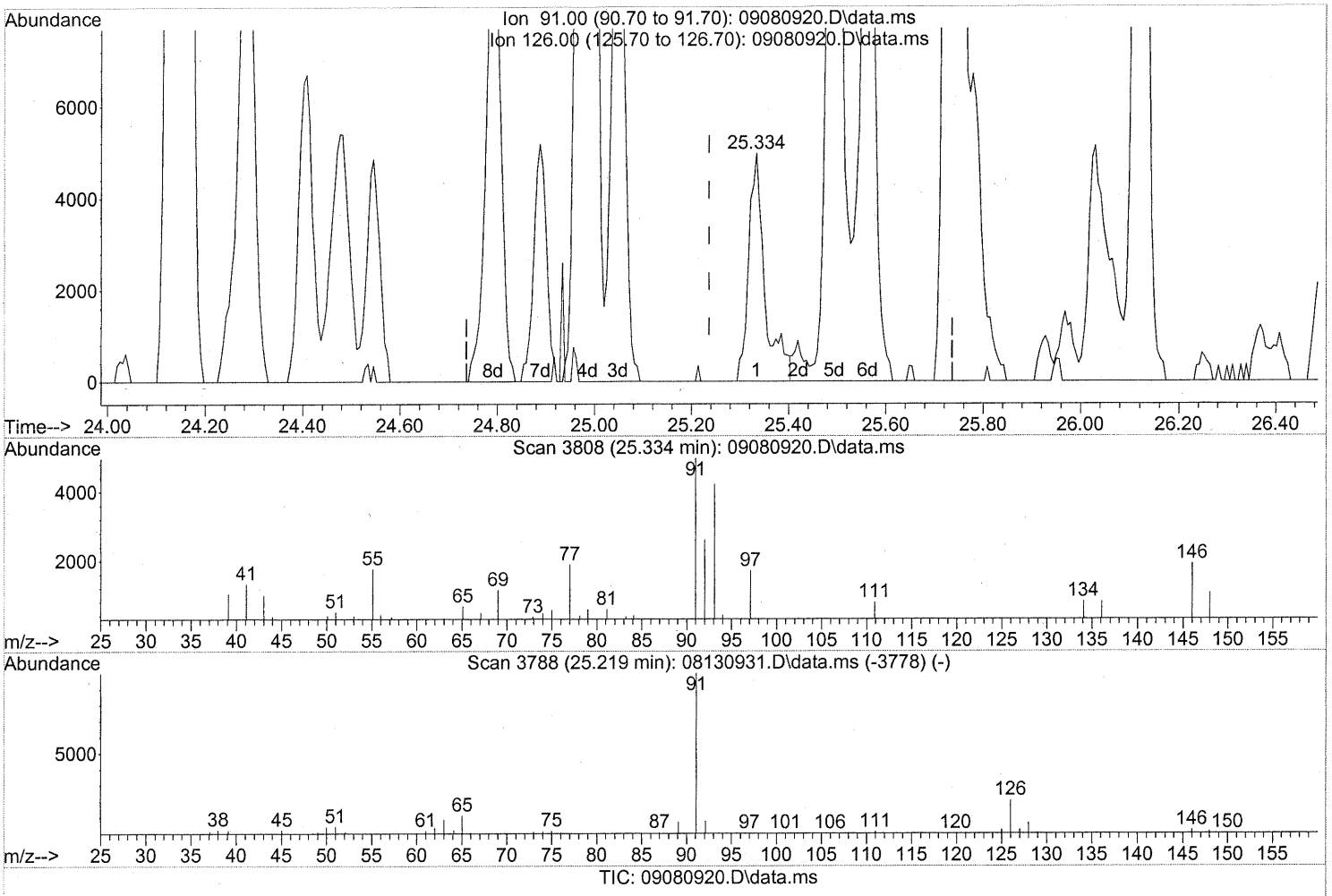
Ion	Exp%	Act%
105.10	100	100
120.10	53.80	45.45
0.00	0.00	0.00
0.00	0.00	0.00

80

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080920.D\data.ms

(84) Benzyl Chloride (T)

25.334min (+0.097) 0.16ng

response 11574

Ion	Exp%	Act%
91.00	100	100
126.00	21.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

FP Em 9/9/09

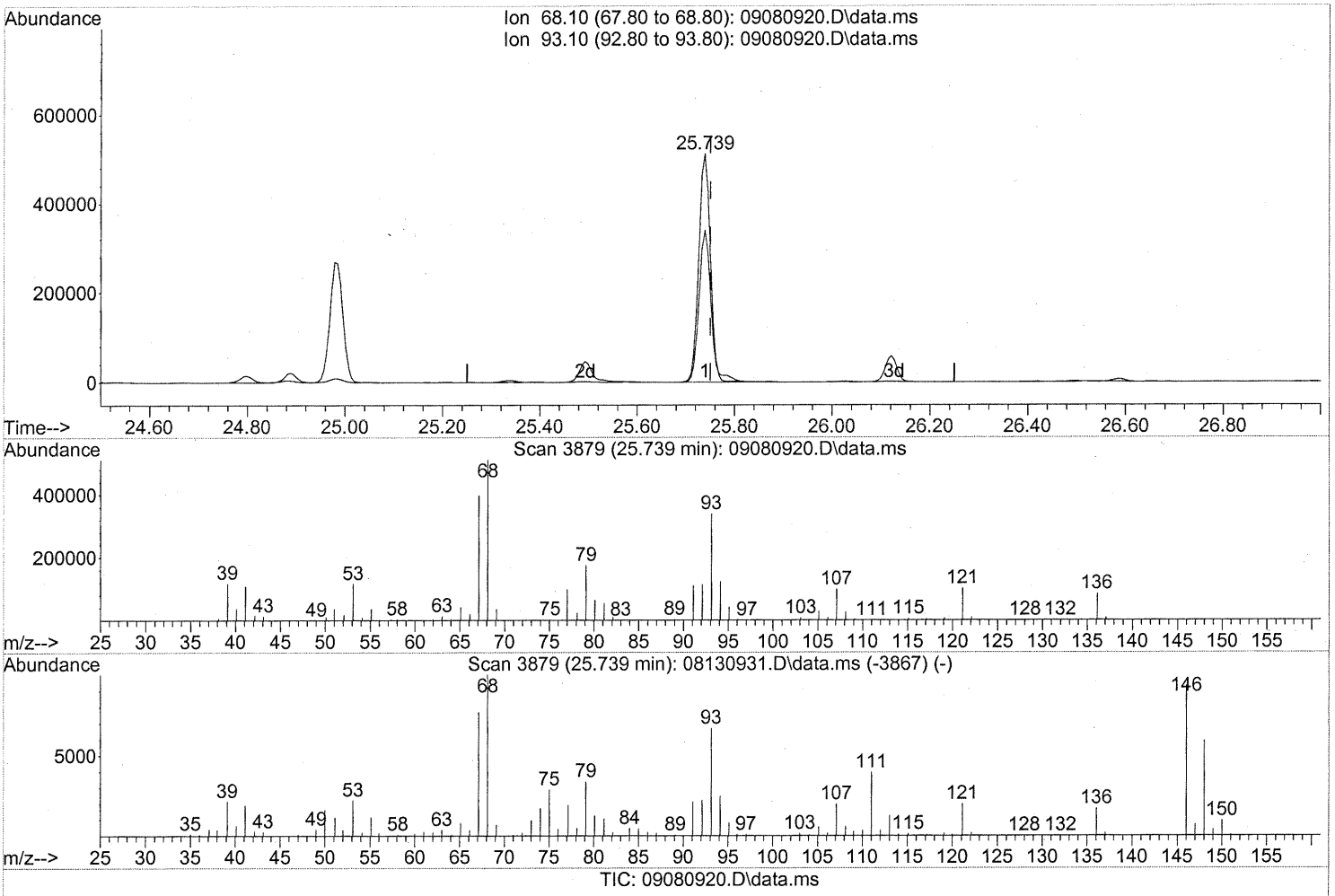
KP 9/9/09

81

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080920.D
Acq On : 8 Sep 2009 23:07
Operator : EM
Sample : P0903023-002 (1000ml)
Misc : Environmental H & E 104328
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 07:52:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080920.D\data.ms

(91) d-Limonene (T)

25.739min (-0.011) 22.05ng

response 839267

Ion	Exp%	Act%
68.10	100	100
93.10	71.90	68.90
0.00	0.00	0.00
0.00	0.00	0.00

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **16512**

CAS Project ID: P0903023
CAS Sample ID: P090908-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Elsa Moctezuma
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 9/8/09
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.50	ND	0.29	
75-71-8	Dichlorodifluoromethane (CFC 12)	ND	0.50	ND	0.10	
74-87-3	Chloromethane	ND	0.10	ND	0.048	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.50	ND	0.072	
75-01-4	Vinyl Chloride	ND	0.10	ND	0.039	
106-99-0	1,3-Butadiene	ND	0.10	ND	0.045	
74-83-9	Bromomethane	ND	0.10	ND	0.026	
75-00-3	Chloroethane	ND	0.10	ND	0.038	
64-17-5	Ethanol	ND	5.0	ND	2.7	
75-05-8	Acetonitrile	ND	0.50	ND	0.30	
107-02-8	Acrolein	ND	0.50	ND	0.22	
67-64-1	Acetone	ND	5.0	ND	2.1	
75-69-4	Trichlorofluoromethane	ND	0.10	ND	0.018	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	0.50	ND	0.20	
107-13-1	Acrylonitrile	ND	0.50	ND	0.23	
75-35-4	1,1-Dichloroethene	ND	0.10	ND	0.025	
75-09-2	Methylene Chloride	ND	0.50	ND	0.14	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.10	ND	0.032	
76-13-1	Trichlorotrifluoroethane	ND	0.10	ND	0.013	
75-15-0	Carbon Disulfide	ND	0.50	ND	0.16	
156-60-5	trans-1,2-Dichloroethene	ND	0.10	ND	0.025	
75-34-3	1,1-Dichloroethane	ND	0.10	ND	0.025	
1634-04-4	Methyl tert-Butyl Ether	ND	0.10	ND	0.028	
108-05-4	Vinyl Acetate	ND	5.0	ND	1.4	
78-93-3	2-Butanone (MEK)	ND	0.50	ND	0.17	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 9/11/09

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **Method Blank** CAS Project ID: P0903023
Client Project ID: **16512** CAS Sample ID: P090908-MB

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9 Date Received: NA
Analyst: Elsa Moctezuma Date Analyzed: 9/8/09
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: 1.00 Liter(s)
Test Notes:

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.10	ND	0.025	
141-78-6	Ethyl Acetate	ND	1.0	ND	0.28	
110-54-3	n-Hexane	ND	0.50	ND	0.14	
67-66-3	Chloroform	ND	0.10	ND	0.020	
109-99-9	Tetrahydrofuran (THF)	ND	0.50	ND	0.17	
107-06-2	1,2-Dichloroethane	ND	0.10	ND	0.025	
71-55-6	1,1,1-Trichloroethane	ND	0.10	ND	0.018	
71-43-2	Benzene	ND	0.10	ND	0.031	
56-23-5	Carbon Tetrachloride	ND	0.10	ND	0.016	
110-82-7	Cyclohexane	ND	0.50	ND	0.15	
78-87-5	1,2-Dichloropropane	ND	0.10	ND	0.022	
75-27-4	Bromodichloromethane	ND	0.10	ND	0.015	
79-01-6	Trichloroethene	ND	0.10	ND	0.019	
123-91-1	1,4-Dioxane	ND	0.50	ND	0.14	
80-62-6	Methyl Methacrylate	ND	1.0	ND	0.24	
142-82-5	n-Heptane	ND	0.50	ND	0.12	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ND	0.11	
108-10-1	4-Methyl-2-pentanone	ND	0.50	ND	0.12	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ND	0.11	
79-00-5	1,1,2-Trichloroethane	ND	0.10	ND	0.018	
108-88-3	Toluene	ND	0.50	ND	0.13	
591-78-6	2-Hexanone	ND	0.50	ND	0.12	
124-48-1	Dibromochloromethane	ND	0.10	ND	0.012	
106-93-4	1,2-Dibromoethane	ND	0.10	ND	0.013	
123-86-4	n-Butyl Acetate	ND	0.50	ND	0.11	

ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 9/11/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **Method Blank**
Client Project ID: **16512**

CAS Project ID: P0903023
CAS Sample ID: P090908-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Elsa Moctezuma
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 9/8/09
Volume(s) Analyzed: 1.00 Liter(s)

Canister Dilution Factor: 1.00

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.50	ND	0.11	
127-18-4	Tetrachloroethene	ND	0.10	ND	0.015	
108-90-7	Chlorobenzene	ND	0.10	ND	0.022	
100-41-4	Ethylbenzene	ND	0.50	ND	0.12	
179601-23-1	m,p-Xylenes	ND	0.50	ND	0.12	
75-25-2	Bromoform	ND	0.50	ND	0.048	
100-42-5	Styrene	ND	0.50	ND	0.12	
95-47-6	o-Xylene	ND	0.50	ND	0.12	
111-84-2	n-Nonane	ND	0.50	ND	0.095	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.10	ND	0.015	
98-82-8	Cumene	ND	0.50	ND	0.10	
80-56-8	alpha-Pinene	ND	0.50	ND	0.090	
103-65-1	n-Propylbenzene	ND	0.50	ND	0.10	
622-96-8	4-Ethyltoluene	ND	0.50	ND	0.10	
108-67-8	1,3,5-Trimethylbenzene	ND	0.50	ND	0.10	
95-63-6	1,2,4-Trimethylbenzene	ND	0.50	ND	0.10	
100-44-7	Benzyl Chloride	ND	0.10	ND	0.019	
541-73-1	1,3-Dichlorobenzene	ND	0.10	ND	0.017	
106-46-7	1,4-Dichlorobenzene	ND	0.10	ND	0.017	
95-50-1	1,2-Dichlorobenzene	ND	0.10	ND	0.017	
5989-27-5	d-Limonene	ND	0.50	ND	0.090	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.50	ND	0.052	
120-82-1	1,2,4-Trichlorobenzene	ND	0.50	ND	0.067	
91-20-3	Naphthalene	ND	0.50	ND	0.095	
87-68-3	Hexachlorobutadiene	ND	0.50	ND	0.047	

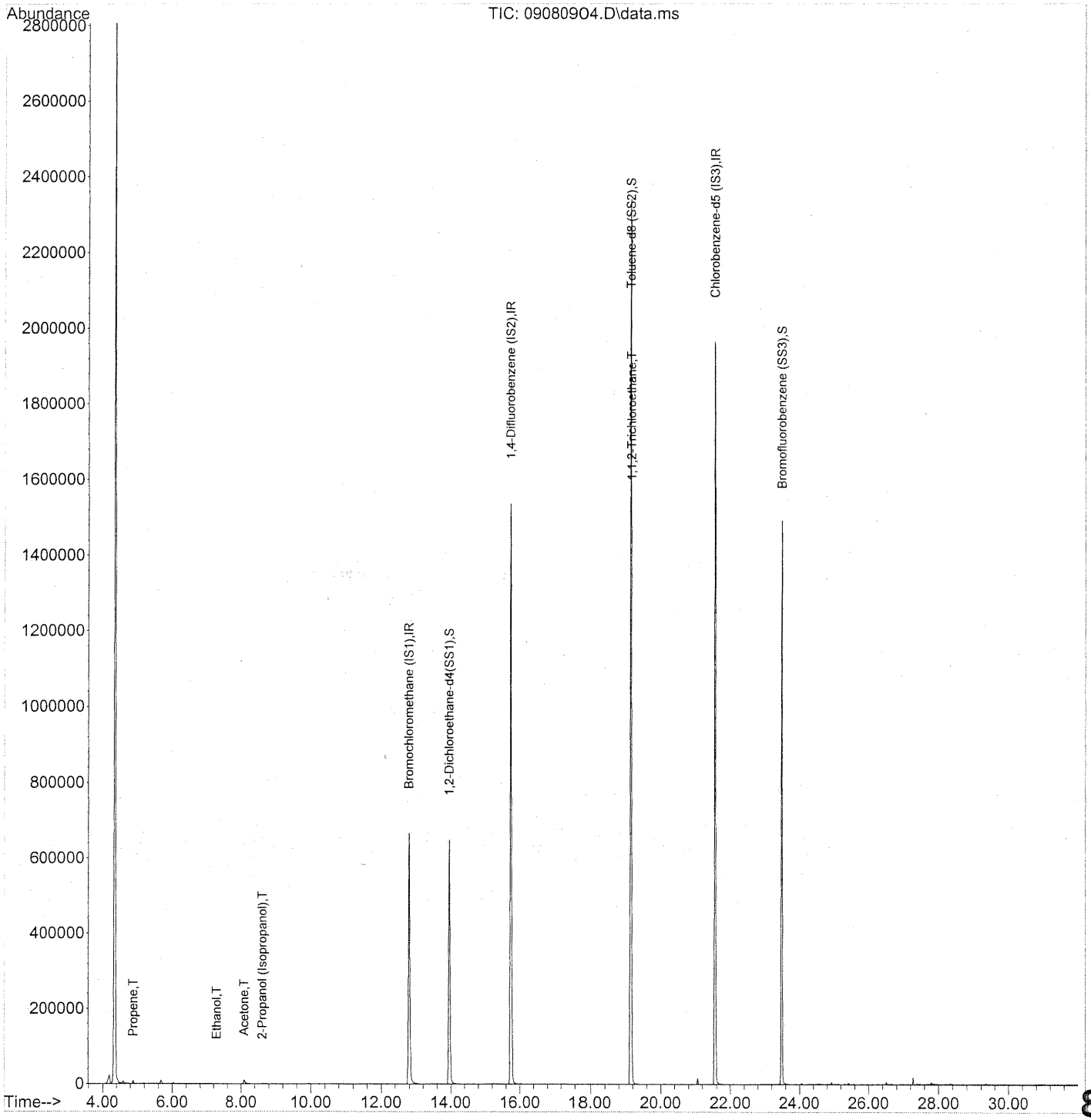
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 9/11/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080904.D
Acq On : 8 Sep 2009 9:53
Operator : EM
Sample : TO-15 Method Blank (1000ml)
Misc : S20-08130905
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 13:03:37 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



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Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080904.D
Acq On : 8 Sep 2009 9:53
Operator : EM
Sample : TO-15 Method Blank (1000ml)
Misc : S20-08130905
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 13:03:37 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.80	130	344379	25.000	ng		-0.04
37) 1,4-Difluorobenzene (IS2)	15.74	114	1773373	25.000	ng		-0.03
56) Chlorobenzene-d5 (IS3)	21.56	82	841610	25.000	ng		-0.01
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.95	65	646253	26.540	ng		-0.03
Spiked Amount 25.000			Recovery = 106.16%				
57) Toluene-d8 (SS2)	19.14	98	2049332	25.614	ng		-0.02
Spiked Amount 25.000			Recovery = 102.44%				
73) Bromofluorobenzene (SS3)	23.49	174	518098	22.865	ng		0.00
Spiked Amount 25.000			Recovery = 91.48%				
Target Compounds							Qvalue
2) Propene	4.88	42	2693	0.089	ng		92
3) Dichlorodifluoromethan...	0.00	85	0	N.D.			
4) Chloromethane	0.00	50	0	N.D.			
5) 1,2-Dichloro-1,1,2,2-t...	0.00	135	0	N.D.			
6) Vinyl Chloride	0.00	62	0	N.D.			
7) 1,3-Butadiene	0.00	54	0	N.D.			
8) Bromomethane	0.00	94	0	N.D.			
9) Chloroethane	0.00	64	0	N.D.			
10) Ethanol	7.29	45	1899	0.100	ng	#	36
11) Acetonitrile	7.63	41	129	N.D.			
12) Acrolein	0.00	56	0	N.D.			
13) Acetone	8.09	58	7424	0.385	ng	#	85
14) Trichlorofluoromethane	0.00	101	0	N.D.			
15) 2-Propanol (Isopropanol)	8.61	45	5192	0.098	ng	#	56
16) Acrylonitrile	0.00	53	0	N.D.			
17) 1,1-Dichloroethene	0.00	96	0	N.D.			
18) 2-Methyl-2-Propanol (t...	0.00	59	0	N.D.			
19) Methylene Chloride	9.53	84	326	N.D.			
20) 3-Chloro-1-propene (Al...	0.00	41	0	N.D.			
21) Trichlorotrifluoroethane	0.00	151	0	N.D.			
22) Carbon Disulfide	9.94	76	2455	N.D.			
23) trans-1,2-Dichloroethene	0.00	61	0	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D.			
25) Methyl tert-Butyl Ether	0.00	73	0	N.D.			
26) Vinyl Acetate	0.00	86	0	N.D.			
27) 2-Butanone (MEK)	0.00	72	0	N.D.			
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	0.00	87	0	N.D.			
30) Ethyl Acetate	0.00	61	0	N.D.			
31) n-Hexane	0.00	57	0	N.D.			

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080904.D
Acq On : 8 Sep 2009 9:53
Operator : EM
Sample : TO-15 Method Blank (1000ml)
Misc : S20-08130905
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 13:03:37 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	0.00	83	0	N.D.			
34) Tetrahydrofuran (THF)	0.00	72	0	N.D.			
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	0.00	62	0	N.D.			
38) 1,1,1-Trichloroethane	0.00	97	0	N.D.			
39) Isopropyl Acetate	0.00	61	0	N.D.			
40) 1-Butanol	0.00	56	0	N.D.			
41) Benzene	15.23	78	2310	N.D.			
42) Carbon Tetrachloride	0.00	117	0	N.D.			
43) Cyclohexane	15.74	84	578	N.D.			
44) tert-Amyl Methyl Ether	0.00	73	0	N.D.			
45) 1,2-Dichloropropane	0.00	63	0	N.D.			
46) Bromodichloromethane	0.00	83	0	N.D.			
47) Trichloroethene	0.00	130	0	N.D.			
48) 1,4-Dioxane	0.00	88	0	N.D.			
49) 2,2,4-Trimethylpentane...	16.86	57	120	N.D.			
50) Methyl Methacrylate	0.00	100	0	N.D.			
51) n-Heptane	0.00	71	0	N.D.			
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.			
53) 4-Methyl-2-pentanone	0.00	58	0	N.D.			
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.			
55) 1,1,2-Trichloroethane	19.16	97	168557	~~8.273~~	ng	#	7
58) Toluene	19.30	91	1049	N.D.			
59) 2-Hexanone	0.00	43	0	N.D.			
60) Dibromochloromethane	0.00	129	0	N.D.			
61) 1,2-Dibromoethane	0.00	107	0	N.D.			
62) n-Butyl Acetate	0.00	43	0	N.D.			
63) n-Octane	0.00	57	0	N.D.			
64) Tetrachloroethene	0.00	166	0	N.D.			
65) Chlorobenzene	0.00	112	0	N.D.			
66) Ethylbenzene	0.00	91	0	N.D.			
67) m- & p-Xylenes	0.00	91	0	N.D.			
68) Bromoform	0.00	173	0	N.D.			
69) Styrene	0.00	104	0	N.D.			
70) o-Xylene	0.00	91	0	N.D.			
71) n-Nonane	0.00	43	0	N.D.			
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.			
74) Cumene	23.66	105	3121	N.D.			
75) alpha-Pinene	0.00	93	0	N.D.			
76) n-Propylbenzene	24.26	91	1082	N.D.			
77) 3-Ethyltoluene	24.41	105	3898	N.D.			
78) 4-Ethyltoluene	24.52	105	628	N.D.			
79) 1,3,5-Trimethylbenzene	24.55	105	2448	N.D.			

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Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080904.D
Acq On : 8 Sep 2009 9:53
Operator : EM
Sample : TO-15 Method Blank (1000ml)
Misc : S20-08130905
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 13:03:37 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
80) alpha-Methylstyrene	0.00	118	0	N.D.	
81) 2-Ethyltoluene	24.79	105	781	N.D.	
82) 1,2,4-Trimethylbenzene	25.05	105	1453	N.D.	
83) n-Decane	25.16	57	534	N.D.	
84) Benzyl Chloride	25.57	91	104	N.D.	
85) 1,3-Dichlorobenzene	25.33	146	709	N.D.	
86) 1,4-Dichlorobenzene	25.33	146	709	N.D.	
87) sec-Butylbenzene	25.58	105	895	N.D.	
88) 4-Isopropyltoluene (p-...	25.56	119	778	N.D.	
89) 1,2,3-Trimethylbenzene	25.58	105	895	N.D.	
90) 1,2-Dichlorobenzene	25.33	146	709	N.D.	
91) d-Limonene	0.00	68	0	N.D.	
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.	
93) n-Undecane	26.65	57	926	N.D.	
94) 1,2,4-Trichlorobenzene	0.00	180	0	N.D.	
95) Naphthalene	27.95	128	1881	N.D.	
96) n-Dodecane	27.89	57	1246	N.D.	
97) Hexachlorobutadiene	0.00	225	0	N.D.	
98) Cyclohexanone	22.56	55	138	N.D.	
99) tert-Butylbenzene	25.07	119	112	N.D.	
100) n-Butylbenzene	0.00	91	0	N.D.	

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

QC SUMMARY FORMS

COLUMBIA ANALYTICAL SERVICES, INC.

SURROGATE SPIKE RECOVERY RESULTS

Client: **Environmental Health & Engineering, Inc.**
Client Project ID: **16512** CAS Project ID: P0903023

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Elsa Moctezuma
Sampling Media: 6.0 L Summa Canister(s)
Test Notes:

Date(s) Collected: 8/27/09
Date(s) Received: 8/28/09
Date(s) Analyzed: 9/8/09

Client Sample ID	CAS Sample ID	1,2-Dichloroethane-d4 % Recovered	1,2-Dichloroethane-d4 Acceptance Limits	Toluene-d8 % Recovered	Toluene-d8 Acceptance Limits	Bromofluorobenzene % Recovered	Bromofluorobenzene Acceptance Limits	Data Qualifier
Method Blank	P090908-MB	**106**	70-130	**102**	70-130	**91**	70-130	
Lab Control Sample	P090908-LCS	**104**	70-130	**101**	70-130	**95**	70-130	
104327	P0903023-001	**107**	70-130	**100**	70-130	**95**	70-130	
104328	P0903023-002	**106**	70-130	**99**	70-130	**95**	70-130	

Verified By: _____ Date: 9/11/09

COLUMBIA ANALYTICAL SERVICES, INC.

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **Lab Control Sample**
Client Project ID: **16512**

CAS Project ID: P0903023
CAS Sample ID: P090908-LCS

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Elsa Moctezuma
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 9/08/09
Volume(s) Analyzed: NA Liter(s)

CAS #	Compound	Spike Amount ng	Result ng	% Recovery	CAS Acceptance Limits	Data Qualifier
115-07-1	Propene	26.3	**24.1**	**92**	58-134	
75-71-8	Dichlorodifluoromethane (CFC 12)	26.0	**20.9**	**80**	61-118	
74-87-3	Chloromethane	25.0	**20.9**	**84**	46-132	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	26.0	**21.3**	**82**	65-122	
75-01-4	Vinyl Chloride	25.3	**20.4**	**81**	57-132	
106-99-0	1,3-Butadiene	26.8	**22.7**	**85**	66-161	
74-83-9	Bromomethane	25.8	**22.1**	**86**	67-130	
75-00-3	Chloroethane	25.5	**21.6**	**85**	68-123	
64-17-5	Ethanol	130	**111**	**85**	50-155	
75-05-8	Acetonitrile	26.0	**22.0**	**85**	48-148	
107-02-8	Acrolein	26.3	**24.8**	**94**	67-138	
67-64-1	Acetone	132	**106**	**80**	59-121	
75-69-4	Trichlorofluoromethane	26.3	**21.6**	**82**	67-132	
67-63-0	2-Propanol (Isopropyl Alcohol)	48.0	**35.3**	**74**	54-126	
107-13-1	Acrylonitrile	25.8	**25.3**	**98**	65-134	
75-35-4	1,1-Dichloroethene	27.5	**22.6**	**82**	70-123	
75-09-2	Methylene Chloride	26.8	**21.0**	**78**	66-121	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	27.0	**25.2**	**93**	63-149	
76-13-1	Trichlorotrifluoroethane	27.5	**23.8**	**87**	69-126	
75-15-0	Carbon Disulfide	26.0	**21.8**	**84**	66-115	
156-60-5	trans-1,2-Dichloroethene	25.5	**22.6**	**89**	69-125	
75-34-3	1,1-Dichloroethane	26.5	**23.0**	**87**	72-130	
1634-04-4	Methyl tert-Butyl Ether	26.3	**23.3**	**89**	72-132	
108-05-4	Vinyl Acetate	126	**130**	**103**	73-158	
78-93-3	2-Butanone (MEK)	26.8	**26.0**	**97**	68-126	

Verified By: _____ Date: 9/11/09

COLUMBIA ANALYTICAL SERVICES, INC.

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **Lab Control Sample**
Client Project ID: **16512**

CAS Project ID: P0903023
CAS Sample ID: P090908-LCS

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Elsa Moctezuma
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 9/08/09
Volume(s) Analyzed: NA Liter(s)

CAS #	Compound	Spike Amount ng	Result ng	% Recovery	CAS Acceptance Limits	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	27.0	**23.9**	**89**	69-124	
141-78-6	Ethyl Acetate	52.0	**48.1**	**93**	65-126	
110-54-3	n-Hexane	26.0	**22.4**	**86**	63-125	
67-66-3	Chloroform	27.5	**23.4**	**85**	68-126	
109-99-9	Tetrahydrofuran (THF)	26.5	**24.4**	**92**	65-124	
107-06-2	1,2-Dichloroethane	26.3	**24.3**	**92**	61-129	
71-55-6	1,1,1-Trichloroethane	26.0	**23.1**	**89**	69-127	
71-43-2	Benzene	25.8	**21.9**	**85**	68-122	
56-23-5	Carbon Tetrachloride	26.3	**23.7**	**90**	68-137	
110-82-7	Cyclohexane	51.8	**45.1**	**87**	68-121	
78-87-5	1,2-Dichloropropane	26.0	**23.2**	**89**	69-128	
75-27-4	Bromodichloromethane	26.3	**24.0**	**91**	71-131	
79-01-6	Trichloroethene	25.8	**21.7**	**84**	72-122	
123-91-1	1,4-Dioxane	26.0	**25.4**	**98**	73-127	
80-62-6	Methyl Methacrylate	52.8	**47.6**	**90**	80-133	
142-82-5	n-Heptane	25.8	**22.4**	**87**	69-126	
10061-01-5	cis-1,3-Dichloropropene	24.5	**23.6**	**96**	73-122	
108-10-1	4-Methyl-2-pentanone	26.8	**26.3**	**98**	67-122	
10061-02-6	trans-1,3-Dichloropropene	27.0	**27.3**	**101**	75-131	
79-00-5	1,1,2-Trichloroethane	26.0	**23.9**	**92**	76-125	
108-88-3	Toluene	26.8	**23.0**	**86**	74-119	
591-78-6	2-Hexanone	27.0	**25.5**	**94**	64-118	
124-48-1	Dibromochloromethane	28.3	**25.7**	**91**	79-129	
106-93-4	1,2-Dibromoethane	26.3	**24.6**	**94**	79-125	
123-86-4	n-Butyl Acetate	27.5	**27.8**	**101**	70-136	

Verified By: _____ Date: 9/11/09

COLUMBIA ANALYTICAL SERVICES, INC.

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **Lab Control Sample**
Client Project ID: **16512**

CAS Project ID: P0903023
CAS Sample ID: P090908-LCS

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5973inert/6890N/MS9
Analyst: Elsa Moctezuma
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 9/08/09
Volume(s) Analyzed: NA Liter(s)

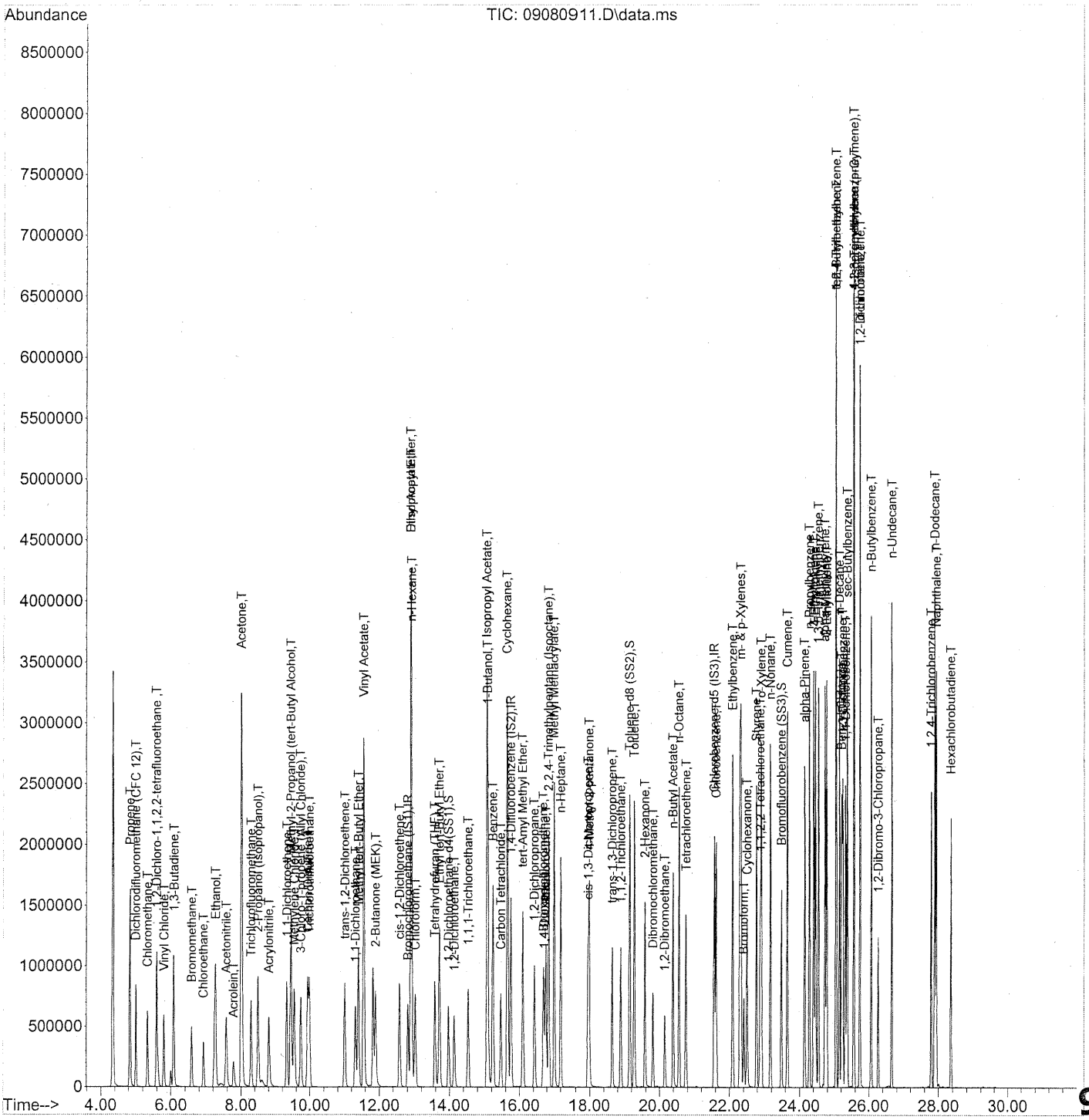
CAS #	Compound	Spike Amount ng	Result ng	% Recovery	CAS Acceptance Limits	Data Qualifier
111-65-9	n-Octane	26.3	**23.7**	**90**	75-126	
127-18-4	Tetrachloroethene	25.3	**21.6**	**85**	72-125	
108-90-7	Chlorobenzene	26.5	**22.9**	**86**	74-121	
100-41-4	Ethylbenzene	26.3	**23.4**	**89**	76-120	
179601-23-1	m,p-Xylenes	51.5	**46.0**	**89**	75-120	
75-25-2	Bromoform	26.5	**23.9**	**90**	76-143	
100-42-5	Styrene	26.3	**24.4**	**93**	78-124	
95-47-6	o-Xylene	26.0	**23.4**	**90**	76-121	
111-84-2	n-Nonane	25.8	**23.6**	**91**	69-129	
79-34-5	1,1,2,2-Tetrachloroethane	27.0	**24.7**	**91**	77-126	
98-82-8	Cumene	25.3	**22.4**	**89**	78-125	
80-56-8	alpha-Pinene	24.8	**22.1**	**89**	78-125	
103-65-1	n-Propylbenzene	25.3	**22.7**	**90**	80-127	
622-96-8	4-Ethyltoluene	26.3	**23.4**	**89**	75-123	
108-67-8	1,3,5-Trimethylbenzene	26.5	**23.7**	**89**	76-124	
95-63-6	1,2,4-Trimethylbenzene	25.5	**24.0**	**94**	76-123	
100-44-7	Benzyl Chloride	26.8	**26.5**	**99**	80-137	
541-73-1	1,3-Dichlorobenzene	26.0	**23.8**	**92**	74-125	
106-46-7	1,4-Dichlorobenzene	26.3	**22.8**	**87**	74-126	
95-50-1	1,2-Dichlorobenzene	25.8	**23.3**	**90**	75-124	
5989-27-5	d-Limonene	26.5	**24.9**	**94**	66-129	
96-12-8	1,2-Dibromo-3-chloropropane	27.0	**26.6**	**99**	79-144	
120-82-1	1,2,4-Trichlorobenzene	27.3	**24.8**	**91**	70-139	
91-20-3	Naphthalene	25.0	**23.7**	**95**	69-141	
87-68-3	Hexachlorobutadiene	26.8	**24.4**	**91**	68-138	

Verified By: _____ Date: 9/11/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080911.D
Acq On : 8 Sep 2009 15:26
Operator : EM
Sample : 25ng TO-15 LCS STD
Misc : S20-08130905/S20-08240914
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 16:29:51 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080911.D
Acq On : 8 Sep 2009 15:26
Operator : EM
Sample : 25ng TO-15 LCS STD
Misc : S20-08130905/S20-08240914
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 16:29:51 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.82	130	360065	25.000	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	15.76	114	1835587	25.000	ng		-0.01
56) Chlorobenzene-d5 (IS3)	21.56	82	880386	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.97	65	663052	26.043	ng		-0.02
Spiked Amount 25.000			Recovery = 104.16%				
57) Toluene-d8 (SS2)	19.15	98	2121985	25.354	ng		-0.01
Spiked Amount 25.000			Recovery = 101.40%				
73) Bromofluorobenzene (SS3)	23.49	174	565816	23.872	ng		0.00
Spiked Amount 25.000			Recovery = 95.48%				
Target Compounds							Qvalue
2) Propene	4.84	42	762077	24.128	ng		97
3) Dichlorodifluoromethan...	5.00	85	943033	20.916	ng		99
4) Chloromethane	5.33	50	878858	20.915	ng		98
5) 1,2-Dichloro-1,1,2,2-t...	5.59	135	508079	21.326	ng		100
6) Vinyl Chloride	5.80	62	846013	20.410	ng		98
7) 1,3-Butadiene	6.09	54	668495	22.705	ng		98
8) Bromomethane	6.59	94	478607	22.081	ng		99
9) Chloroethane	6.93	64	444189	21.600	ng		100
10) Ethanol	7.27	45	2207295m	111.408	ng		
11) Acetonitrile	7.58	41	1066080	22.048	ng		99
12) Acrolein	7.79	56	320076	24.772	ng		98
13) Acetone	8.01	58	2131857	105.739	ng		94
14) Trichlorofluoromethane	8.29	101	832302	21.588	ng		98
15) 2-Propanol (Isopropanol)	8.49	45	1949896m	35.315	ng		
16) Acrylonitrile	8.81	53	741619	25.324	ng		99
17) 1,1-Dichloroethene	9.33	96	512361	22.645	ng		95
18) 2-Methyl-2-Propanol (t...	9.45	59	2700832	48.182	ng		98
19) Methylene Chloride	9.54	84	527813	20.983	ng		86
20) 3-Chloro-1-propene (Al...	9.73	41	848400	25.151	ng		88
21) Trichlorotrifluoroethane	9.98	151	410124	23.767	ng		95
22) Carbon Disulfide	9.94	76	1936690	21.817	ng		98
23) trans-1,2-Dichloroethene	11.01	61	783407	22.563	ng		92
24) 1,1-Dichloroethane	11.32	63	979842	23.043	ng		99
25) Methyl tert-Butyl Ether	11.40	73	1607721	23.332	ng		96
26) Vinyl Acetate	11.56	86	568463	130.183	ng	#	64
27) 2-Butanone (MEK)	11.89	72	364851	25.958	ng	#	80
28) cis-1,2-Dichloroethene	12.58	61	774583	23.907	ng		92
29) Diisopropyl Ether	12.91	87	463739	23.239	ng	#	63
30) Ethyl Acetate	12.91	61	438791	48.141	ng		95
31) n-Hexane	12.93	57	996281	22.423	ng		95

EM 9/8/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080911.D
Acq On : 8 Sep 2009 15:26
Operator : EM
Sample : 25ng TO-15 LCS STD
Misc : S20-08130905/S20-08240914
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 16:29:51 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	13.03	83	870901	23.420	ng		99
34) Tetrahydrofuran (THF)	13.58	72	356059	24.366	ng	#	86
35) Ethyl tert-Butyl Ether	13.71	87	638135	22.414	ng	#	86
36) 1,2-Dichloroethane	14.14	62	691845	24.313	ng		99
38) 1,1,1-Trichloroethane	14.54	97	769661	23.054	ng		99
39) Isopropyl Acetate	15.07	61	760276	50.750	ng	#	76
40) 1-Butanol	15.09	56	1300841	54.688	ng		85
41) Benzene	15.23	78	2159276	21.874	ng		99
42) Carbon Tetrachloride	15.46	117	654620	23.724	ng		99
43) Cyclohexane	15.66	84	1725215	45.128	ng		88
44) tert-Amyl Methyl Ether	16.10	73	1580991	22.787	ng		98
45) 1,2-Dichloropropane	16.43	63	561583	23.190	ng		99
46) Bromodichloromethane	16.70	83	694430	24.047	ng		99
47) Trichloroethene	16.78	130	542964	21.663	ng		100
48) 1,4-Dioxane	16.72	88	445292	25.362	ng		87
49) 2,2,4-Trimethylpentane...	16.86	57	2510794	22.100	ng		95
50) Methyl Methacrylate	17.02	100	469176	47.565	ng		89
51) n-Heptane	17.21	71	588921	22.410	ng		94
52) cis-1,3-Dichloropropene	17.95	75	862062	23.625	ng		100
53) 4-Methyl-2-pentanone	17.99	58	560893	26.294	ng		94
54) trans-1,3-Dichloropropene	18.64	75	872041	27.318	ng		100
55) 1,1,2-Trichloroethane	18.89	97	504193	23.907	ng		98
58) Toluene	19.28	91	2330368	22.969	ng		100
59) 2-Hexanone	19.58	43	1345864	25.524	ng		98
60) Dibromochloromethane	19.82	129	557262	25.723	ng		100
61) 1,2-Dibromoethane	20.15	107	561947	24.610	ng		100
62) n-Butyl Acetate	20.39	43	1600199	27.813	ng		98
63) n-Octane	20.56	57	536190	23.709	ng		91
64) Tetrachloroethene	20.76	166	542788	21.559	ng		99
65) Chlorobenzene	21.62	112	1425373	22.877	ng		100
66) Ethylbenzene	22.09	91	2561602	23.385	ng		99
67) m- & p-Xylenes	22.33	91	3991156	45.960	ng		99
68) Bromoform	22.41	173	449764	23.918	ng		99
69) Styrene	22.77	104	1568265	24.432	ng		99
70) o-Xylene	22.92	91	2044017	23.397	ng		98
71) n-Nonane	23.17	43	1239237	23.555	ng		92
72) 1,1,2,2-Tetrachloroethane	22.89	83	927257	24.709	ng		100
74) Cumene	23.66	105	2536264	22.391	ng		99
75) alpha-Pinene	24.15	93	1234684	22.093	ng		99
76) n-Propylbenzene	24.28	91	3171178	22.652	ng		99
77) 3-Ethyltoluene	24.41	105	2514479	23.695	ng		98
78) 4-Ethyltoluene	24.46	105	2496524	23.402	ng		100
79) 1,3,5-Trimethylbenzene	24.55	105	2094130	23.740	ng		99

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080911.D
Acq On : 8 Sep 2009 15:26
Operator : EM
Sample : 25ng TO-15 LCS STD
Misc : S20-08130905/S20-08240914
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Sep 08 16:29:51 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.73	118	1162422	24.287	ng	99
81) 2-Ethyltoluene	24.79	105	2486438	22.690	ng	99
82) 1,2,4-Trimethylbenzene	25.05	105	2246962	23.992	ng	99
83) n-Decane	25.15	57	1275378	23.396	ng	95
84) Benzyl Chloride	25.22	91	1922703	26.535	ng	99
85) 1,3-Dichlorobenzene	25.25	146	1153577	23.792	ng	100
86) 1,4-Dichlorobenzene	25.33	146	1173405	22.809	ng	99
87) sec-Butylbenzene	25.38	105	2836810	22.986	ng	99
88) 4-Isopropyltoluene (p-...	25.57	119	2731061	23.096	ng	99
89) 1,2,3-Trimethylbenzene	25.57	105	2260307	23.877	ng	98
90) 1,2-Dichlorobenzene	25.75	146	1133968	23.292	ng	100
91) d-Limonene	25.74	68	954188	24.902	ng	95
92) 1,2-Dibromo-3-Chloropr...	26.26	157	390753	26.578	ng	93
93) n-Undecane	26.65	57	1357601	24.101	ng	96
94) 1,2,4-Trichlorobenzene	27.79	180	844765	24.837	ng	100
95) Naphthalene	27.94	128	2973196	23.660	ng	100
96) n-Dodecane	27.89	57	1395901	22.139	ng	96
97) Hexachlorobutadiene	28.36	225	473238	24.366	ng	99
98) Cyclohexanone	22.51	55	783481	24.520	ng	95
99) tert-Butylbenzene	25.05	119	2171826	23.382	ng	100
100) n-Butylbenzene	26.07	91	2365170	24.079	ng	100

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

INITIAL CALIBRATION STANDARDS

Response Factor Report MS09

Method Path : J:\MS09\Methods\
Method File : R9081309.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Fri Aug 14 07:31:29 2009
Response Via : Initial Calibration

Calibration Files
0.1 =08130926.D 0.2 =08130927.D 0.5 =08130928.D 1.0 =08130929.D 5.0 =08130930.D 25 =08130931.D
50 =08130932.D 100 =08130933.D

		Compound	0.1	0.2	0.5	1.0	5.0	25	50	100	Avg	%RSD
1)	IR	Bromochloromethane...	ISTD									
2)	T	Propene	2.174	2.059	2.094	1.808	2.232	2.290	2.446	2.441	2.193	9.63
3)	T	Dichlorodifluo...	3.035	3.114	3.770	3.266	3.072	2.931	2.923	2.931	3.130	9.06
4)	T	Chloromethane	2.821	2.880	3.586	3.105	2.875	2.912	2.723	2.438	2.918	11.31
5)	T	1,2-Dichloro-1...	1.540	1.594	1.974	1.722	1.584	1.592	1.618	1.608	1.654	8.41
6)	T	Vinyl Chloride	2.832	2.792	3.468	3.004	2.799	2.744	2.731	2.654	2.878	8.99
7)	T	1,3-Butadiene	1.798	1.830	2.433	2.110	2.037	2.073	2.052	2.021	2.044	9.50
8)	T	Bromomethane	1.454	1.354	1.828	1.539	1.457	1.488	1.450	1.470	1.505	9.32
9)	T	Chloroethane	1.288	1.353	1.704	1.532	1.407	1.388	1.372	1.378	1.428	9.16
10)	T	Ethanol	1.327	1.340	1.502	1.355	1.359	1.397	1.382	1.343	1.376	4.08
11)	T	Acetonitrile	3.225	3.235	3.880	3.469	3.312	3.308	3.278	3.151	3.357	6.86
12)	T	Acrolein	0.587	0.838	1.022	0.925	0.938	0.968	0.960	0.938	0.897	15.10
13)	T	Acetone	1.737	1.573	1.514	1.326	1.242	1.261	1.272	1.274	1.400	13.19
14)	T	Trichlorofluor...	2.460	2.470	3.217	2.781	2.602	2.632	2.617	2.637	2.677	8.99
15)	T	2-Propanol (Is...	3.909	4.076	5.169	4.663	3.537	3.561	2.938	2.816	3.834	21.00
16)	T	Acrylonitrile	1.184	1.544	2.296	2.130	2.248	2.314	2.290	2.261	2.033	21.03
17)	T	1,1-Dichloroet...	1.628	1.534	1.819	1.557	1.481	1.503	1.505	1.541	1.571	6.98
18)	T	2-Methyl-2-Pro...	3.719	3.691	4.575	4.109	4.026	4.261	2.863		3.892	14.06
19)	T	Methylene Chlo...	2.075	1.791	2.042	1.702	1.591	1.591	1.590	1.589	1.747	11.79
20)	T	3-Chloro-1-pro...	1.881	1.974	2.644	2.375	2.386	2.488	2.495	2.494	2.342	11.52
21)	T	Trichlorotrifl...	1.029	1.052	1.425	1.232	1.189	1.220	1.226	1.212	1.198	10.17
22)	T	Carbon Disulfide	6.127	5.864	7.192	6.199	5.928	5.960	5.995	6.042	6.163	6.96
23)	T	trans-1,2-Dich...	2.076	2.186	2.809	2.490	2.391	2.447	2.447	2.439	2.411	9.02
24)	T	1,1-Dichloroet...	2.858	2.714	3.451	2.979	2.870	2.922	2.925	2.901	2.952	7.32
25)	T	Methyl tert-Bu...	4.501	4.369	5.328	4.761	4.707	4.811	4.903	4.894	4.784	6.03
26)	T	Vinyl Acetate			0.219	0.227	0.282	0.357	0.377	0.356	0.303	23.05
27)	T	2-Butanone (MEK)			0.903	0.913	1.059	1.121	1.122	0.739	0.976	15.54
28)	T	cis-1,2-Dichlo...	2.018	2.033	2.703	2.314	2.205	2.250	2.252	2.222	2.250	9.40
29)	T	Diisopropyl Ether	1.155	1.224	1.532	1.408	1.329	1.407	1.482	1.548	1.386	10.24
30)	T	Ethyl Acetate			0.547	0.527	0.598	0.673	0.712	0.741	0.633	14.01
31)	T	n-Hexane	2.858	2.878	3.605	3.054	2.887	2.950	3.149	3.298	3.085	8.42

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Method Path : J:\MS09\Methods\
Method File : R9081309.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)

32)	T	Chloroform	2.288	2.357	3.101	2.678	2.528	2.559	2.566	2.581	2.582	9.48
33)	S	1,2-Dichloroet...	1.783	1.785	1.775	1.777	1.772	1.756	1.748	1.745	1.768	0.87
34)	T	Tetrahydrofura...	0.777	0.944	1.132	1.091	1.068	1.060	1.025	1.021	1.015	10.94
35)	T	Ethyl tert-But...	1.774	1.706	2.202	2.019	1.944	2.017	2.064	2.089	1.977	8.34
36)	T	1,2-Dichloroet...	1.727	1.673	2.296	2.056	1.996	2.029	2.021	2.008	1.976	9.92
37)	IR	1,4-Difluorobenzen...	----------ISTD----------									
38)	T	1,1,1-Trichlor...	0.444	0.420	0.523	0.463	0.437	0.451	0.456	0.445	0.455	6.67
39)	T	Isopropyl Acetate	0.140	0.170	0.218	0.205	0.205	0.228	0.231	0.236	0.204	16.31
40)	T	1-Butanol		0.193	0.296	0.289	0.324	0.388	0.392	0.385	0.324	22.49
41)	T	Benzene	1.392	1.274	1.620	1.363	1.255	1.281	1.288	1.283	1.344	9.01
42)	T	Carbon Tetrach...	0.325	0.355	0.434	0.386	0.359	0.378	0.384	0.386	0.376	8.32
43)	T	Cyclohexane	0.487	0.473	0.597	0.520	0.494	0.516	0.530	0.548	0.521	7.54
44)	T	tert-Amyl Meth...	0.885	0.846	1.058	0.930	0.920	0.958	0.977	0.986	0.945	6.91
45)	T	1,2-Dichloropr...	0.287	0.294	0.386	0.342	0.323	0.336	0.336	0.335	0.330	9.28
46)	T	Bromodichlorom...	0.310	0.343	0.460	0.400	0.392	0.412	0.417	0.413	0.393	11.87
47)	T	Trichloroethene	0.350	0.332	0.393	0.342	0.315	0.328	0.331	0.341	0.341	6.80
48)	T	1,4-Dioxane	0.149	0.181	0.262	0.247	0.250	0.272	0.277	0.275	0.239	19.91
49)	T	2,2,4-Trimethy...	1.490	1.428	1.805	1.593	1.481	1.519	1.540	1.522	1.547	7.41
50)	T	Methyl Methacr...			0.126	0.120	0.127	0.140	0.144	0.149	0.134	8.76
51)	T	n-Heptane	0.318	0.311	0.430	0.377	0.344	0.357	0.362	0.363	0.358	10.30
52)	T	cis-1,3-Dichlo...	0.369	0.393	0.562	0.496	0.513	0.543	0.550	0.550	0.497	15.11
53)	T	4-Methyl-2-pen...		0.183	0.286	0.279	0.295	0.328	0.332	0.330	0.291	18.02
54)	T	trans-1,3-Dich...	0.279	0.328	0.475	0.439	0.461	0.496	0.501	0.498	0.435	19.49
55)	T	1,1,2-Trichlor...	0.220	0.242	0.336	0.299	0.290	0.302	0.303	0.305	0.287	13.09
56)	IR	Chlorobenzene-d5 (...	----------ISTD----------									
57)	S	Toluene-d8 (SS2)	2.389	2.355	2.357	2.374	2.368	2.378	2.373	2.420	2.377	0.87
58)	T	Toluene	2.992	2.615	3.218	2.870	2.713	2.825	2.847	2.969	2.881	6.39
59)	T	2-Hexanone			1.374	1.315	1.424	1.609	1.622	1.640	1.497	9.52
60)	T	Dibromochlorom...	0.498	0.484	0.692	0.611	0.611	0.658	0.666	0.701	0.615	13.57
61)	T	1,2-Dibromoethane	0.480	0.540	0.721	0.653	0.655	0.697	0.706	0.736	0.648	14.14
62)	T	n-Butyl Acetate		0.946	1.471	1.454	1.644	1.883	1.948	2.090	1.634	23.73
63)	T	n-Octane	0.573	0.534	0.733	0.656	0.631	0.651	0.665	0.695	0.642	9.96
64)	T	Tetrachloroethene	0.653	0.633	0.813	0.718	0.674	0.715	0.728	0.785	0.715	8.69
65)	T	Chlorobenzene	1.711	1.658	1.998	1.775	1.674	1.736	1.755	1.847	1.769	6.22
66)	T	Ethylbenzene	2.866	2.701	3.479	3.120	3.007	3.146	3.209	3.355	3.111	8.11
67)	T	m- & p-Xylenes	2.202	2.207	2.735	2.430	2.352	2.488	2.570	2.744	2.466	8.56
68)	T	Bromoform	0.379	0.408	0.568	0.518	0.530	0.592	0.616	0.661	0.534	18.39
69)	T	Styrene	1.461	1.519	1.980	1.784	1.806	1.936	1.981	2.115	1.823	12.67
70)	T	o-Xylene	2.290	2.120	2.774	2.457	2.356	2.507	2.579	2.763	2.481	9.13

TO-15

Method Path : J:\MS09\Methods\
Method File : R9081309.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)

71)	T	n-Nonane	1.391	1.313	1.710	1.525	1.444	1.512	1.522	1.535	1.494	7.85
72)	T	1,1,2,2-Tetrac...	0.879	0.869	1.168	1.042	1.050	1.120	1.157	1.240	1.066	12.60
73)	S	Bromofluoroben...	0.673	0.671	0.674	0.671	0.671	0.677	0.676	0.671	0.673	0.39
74)	T	Cumene	2.984	2.848	3.575	3.168	3.066	3.250	3.329	3.513	3.217	7.84
75)	T	alpha-Pinene	1.402	1.392	1.723	1.533	1.537	1.629	1.680	1.799	1.587	9.28
76)	T	n-Propylbenzene	3.674	3.502	4.445	3.969	3.822	4.041	4.126	4.224	3.975	7.65
77)	T	3-Ethyltoluene	2.729	2.641	3.288	2.935	2.885	3.119	3.151	3.357	3.013	8.56
78)	T	4-Ethyltoluene	2.922	2.595	3.364	2.976	2.853	2.991	3.174	3.361	3.029	8.63
79)	T	1,3,5-Trimethy...	2.363	2.252	2.746	2.471	2.345	2.495	2.579	2.787	2.505	7.61
80)	T	alpha-Methylst...	1.104	1.096	1.433	1.304	1.329	1.447	1.506	1.655	1.359	14.20
81)	T	2-Ethyltoluene	2.902	2.717	3.467	3.084	2.953	3.115	3.211	3.445	3.112	8.35
82)	T	1,2,4-Trimethy...	2.333	2.241	2.782	2.509	2.448	2.756	2.954	3.253	2.660	12.81
83)	T	n-Decane	1.406	1.408	1.725	1.551	1.487	1.557	1.583	1.667	1.548	7.34
84)	T	Benzyl Chloride	1.491	1.511	2.028	1.926	2.036	2.350	2.447	2.671	2.058	20.55
85)	T	1,3-Dichlorobe...	1.210	1.172	1.550	1.346	1.295	1.384	1.445	1.613	1.377	11.26
86)	T	1,4-Dichlorobe...	1.347	1.288	1.627	1.448	1.360	1.452	1.505	1.660	1.461	9.06
87)	T	sec-Butylbenzene	3.353	3.011	3.930	3.477	3.335	3.526	3.611	3.794	3.505	8.16
88)	T	4-Isopropyltol...	2.950	2.839	3.579	3.210	3.135	3.474	3.717	3.960	3.358	11.59
89)	T	1,2,3-Trimethy...	2.386	2.250	2.845	2.562	2.467	2.766	2.966	3.263	2.688	12.46
90)	T	1,2-Dichlorobe...	1.220	1.146	1.485	1.306	1.278	1.394	1.496	1.734	1.382	13.57
91)	T	d-Limonene	0.937	0.883	1.147	1.025	1.046	1.162	1.214	1.291	1.088	12.84
92)	T	1,2-Dibromo-3-...	0.295	0.296	0.441	0.401	0.429	0.466	0.485	0.526	0.417	20.10
93)	T	n-Undecane	1.416	1.402	1.777	1.589	1.558	1.633	1.676	1.747	1.600	8.68
94)	T	1,2,4-Trichlor...	0.808	0.826	1.050	0.940	0.928	0.973	1.039	1.161	0.966	12.19
95)	T	Naphthalene	3.242	3.022	3.838	3.521	3.475	3.603	3.831	4.017	3.568	9.23
96)	T	n-Dodecane	1.632	1.515	1.880	1.777	1.765	1.836	1.917	2.002	1.790	8.78
97)	T	Hexachlorobuta...	0.472	0.478	0.593	0.532	0.519	0.556	0.594	0.670	0.552	12.05
98)	T	Cyclohexanone	0.755	0.834	0.846	0.808	0.815	1.045	1.063	1.092	0.907	14.91
99)	T	tert-Butylbenzene	2.347	2.275	2.769	2.506	2.410	2.702	2.885	3.206	2.638	11.91
100)	T	n-Butylbenzene	2.446	2.495	3.071	2.751	2.686	2.854	2.924	3.088	2.789	8.64

(#) = Out of Range

102

Primary Source Standards Concentrations
(Working & Initial Calibration)

4ng/L Std. ID: [redacted]
20ng/L Std. ID: [redacted]
200ng/L Std. ID: [redacted]
Dilution Factors: 5 50 250

Compounds	Source Std. mg/m³	Primary Working Standards 200ng/L	20ng/L	4ng/L
Propene	1.07	214	21.4	4.28
Dichlorodifluoromethane	1.05	210	21.0	4.20
Chloromethane	1.00	200	20.0	4.00
Freon-114	1.06	212	21.2	4.24
Vinyl Chloride	1.01	202	20.2	4.04
1,3-Butadiene	1.20	240	24.0	4.80
Bromomethane	1.02	204	20.4	4.08
Chloroethane	1.01	202	20.2	4.04
Ethanol	5.20	1040	104	20.8
Acetonitrile	1.05	210	21.0	4.20
Acrolein	1.08	216	21.6	4.32
Acetone	5.50	1100	110	22.0
Trichlorofluoromethane	1.05	210	21.0	4.20
Isopropanol	1.89	378	37.8	7.56
Acrylonitrile	1.06	212	21.2	4.24
1,1-Dichloroethene	1.10	220	22.0	4.40
tert-Butanol	2.02	404	40.4	8.08
Methylene Chloride	1.07	214	21.4	4.28
Allyl Chloride	1.08	216	21.6	4.32
Trichlorotrifluoroethane	1.10	220	22.0	4.40
Carbon Disulfide	1.07	214	21.4	4.28
trans-1,2-Dichloroethene	1.06	212	21.2	4.24
1,1-Dichloroethane	1.06	212	21.2	4.24
Methyl tert-Butyl Ether	1.09	218	21.8	4.36
Vinyl Acetate	5.02	1004	100	20.1
2-Butanone	1.10	220	22.0	4.40
cis-1,2-Dichloroethene	1.09	218	21.8	4.36
Diisopropyl Ether	1.07	214	21.4	4.28
Ethyl Acetate	2.13	426	42.6	8.52
n-Hexane	1.09	218	21.8	4.36
Chloroform	1.07	214	21.4	4.28
Tetrahydrofuran	1.10	220	22.0	4.40
Ethyl tert-Butyl Ether	1.03	206	20.6	4.12
1,2-Dichloroethane	1.06	212	21.2	4.24
1,1,1-Trichloroethane	1.05	210	21.0	4.20
Isopropyl Acetate	2.09	418	41.8	8.36
1-Butanol	2.07	414	41.4	8.28
Benzene	1.06	212	21.2	4.24
Carbon Tetrachloride	1.08	216	21.6	4.32
Cyclohexane	2.15	430	43.0	8.60
tert-Amyl Methyl Ether	1.04	208	20.8	4.16
1,2-Dichloropropane	1.05	210	21.0	4.20
Bromodichloromethane	1.08	216	21.6	4.32
Trichloroethene	1.06	212	21.2	4.24
1,4-Dioxane	1.07	214	21.4	4.28
Isooctane	1.04	208	20.8	4.16
Methyl Methacrylate	2.13	426	42.6	8.52
n-Heptane	1.06	212	21.2	4.24
cis-1,3-Dichloropropene	0.99	198	19.8	3.96
4-Methyl-2-pentanone	1.10	220	22.0	4.40
trans-1,3-Dichloropropene	1.10	220	22.0	4.40
1,1,2-Trichloroethane	1.05	210	21.0	4.20
Toluene	1.08	216	21.6	4.32
2-Hexanone	1.10	220	22.0	4.40
Dibromochloromethane	1.15	230	23.0	4.60
1,2-Dibromoethane	1.06	212	21.2	4.24
n-Butyl Acetate	1.10	220	22.0	4.40
n-Octane	1.07	214	21.4	4.28
Tetrachloroethene	1.02	204	20.4	4.08
Chlorobenzene	1.08	216	21.6	4.32
Ethylbenzene	1.06	212	21.2	4.24
m-&p-Xylene	2.08	416	41.6	8.32

Working STD Conc.(ng/L):	ICAL Concentrations (Primary Source)							
	[redacted]		[redacted]		20	200	200	200
Injection (L):	0.025	0.05	0.025	0.050	0.25	0.125	0.25	0.50
ICAL Points:	0.1ng	0.2ng	0.5ng	1ng	5ng	25ng	50ng	100ng
	0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
	0.100	0.200	0.500	1.00	5.00	25.0	50.0	100
	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
	0.101	0.202	0.505	1.01	5.05	25.3	50.5	101
	0.120	0.240	0.600	1.20	6.00	30.0	60.0	120
	0.102	0.204	0.510	1.02	5.10	25.5	51.0	102
	0.101	0.202	0.505	1.01	5.05	25.3	50.5	101
	0.520	1.040	2.60	5.20	26.0	130	260	520
	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
	0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
	0.550	1.100	2.75	5.50	27.5	138	275	550
	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
	0.189	0.378	0.945	1.89	9.45	47.3	94.5	189
	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
	0.202	0.404	1.01	2.02	10.1	50.5	101	202
	0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
	0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
	0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
	0.109	0.218	0.545	1.09	5.45	27.3	54.5	109
	0.502	1.004	2.51	5.02	25.1	126	251	502
	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
	0.109	0.218	0.545	1.09	5.45	27.3	54.5	109
	0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
	0.213	0.426	1.07	2.13	10.7	53.3	107	213
	0.109	0.218	0.545	1.09	5.45	27.3	54.5	109
	0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
	0.209	0.418	1.05	2.09	10.5	52.3	105	209
	0.207	0.414	1.04	2.07	10.4	51.8	104	207
	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
	0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
	0.215	0.430	1.08	2.15	10.8	53.8	108	215
	0.104	0.208	0.520	1.04	5.20	26.0	52.0	104
	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
	0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
	0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
	0.104	0.208	0.520	1.04	5.20	26.0	52.0	104
	0.213	0.426	1.07	2.13	10.7	53.3	107	213
	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
	0.099	0.198	0.495	0.990	4.95	24.8	49.5	99.0
	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
	0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
	0.115	0.230	0.575	1.15	5.75	28.8	57.5	115
	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
	0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
	0.102	0.204	0.510	1.02	5.10	25.5	51.0	102
	0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
	0.208	0.416	1.04	2.08	10.4	52.0	104	208

Tom 8/14/09

Primary Source Standards Concentrations
(Working & Initial Calibration)

4ng/L Std. ID: S20-07240912
20ng/L Std. ID: S20-08100904

200ng/L Std. ID: S20-08100902
Dilution Factors:

Compounds	Source Std. mg/m³	Primary Working Standards 5 200ng/L	50 20ng/L	250 4ng/L
Bromoform	1.03	206	20.6	4.12
Styrene	1.07	214	21.4	4.28
o-Xylene	1.06	212	21.2	4.24
n-Nonane	1.06	212	21.2	4.24
1,1,2,2-Tetrachloroethane	1.07	214	21.4	4.28
Cumene	1.03	206	20.6	4.12
alpha-Pinene	1.01	202	20.2	4.04
n-Propylbenzene	1.03	206	20.6	4.12
3-Ethyltoluene	1.09	218	21.8	4.36
4-Ethyltoluene	1.09	218	21.8	4.36
1,3,5-Trimethylbenzene	1.09	218	21.8	4.36
alpha-Methylstyrene	1.07	214	21.4	4.28
2-Ethyltoluene	1.05	210	21.0	4.20
1,2,4-Trimethylbenzene	1.06	212	21.2	4.24
n-Decane	1.08	216	21.6	4.32
Benzyl Chloride	1.10	220	22.0	4.40
1,3-Dichlorobenzene	1.09	218	21.8	4.36
1,4-Dichlorobenzene	1.06	212	21.2	4.24
sec-Butylbenzene	1.06	212	21.2	4.24
p-Isopropyltoluene	1.03	206	20.6	4.12
1,2,3-Trimethylbenzene	1.07	214	21.4	4.28
1,2-Dichlorobenzene	1.06	212	21.2	4.24
d-Limonene	1.09	218	21.8	4.36
chloropropane	1.10	220	22.0	4.40
n-Undecane	1.09	218	21.8	4.36
1,2,4-Trichlorobenzene	1.12	224	22.4	4.48
Naphthalene	1.06	212	21.2	4.24
n-Dodecane	0.99	198	19.8	3.96
Hexachloro-1,3-butadiene	1.10	220	22.0	4.40
Methacrylonitrile	1.06	212	21.2	4.24
Cyclohexanone	0.98	196	19.6	3.92
tert-Butylbenzene	1.06	212	21.2	4.24
n-Butylbenzene	1.09	218	21.8	4.36

Working STD Conc.(ng/L):	ICAL Concentrations (Primary Source) 4	4	20	20	20	200	200	200
Injection (L):	0.025	0.050	0.025	0.05	0.25	0.125	0.25	0.50
ICAL Points:	0.1ng	0.2ng	0.5ng	1ng	5ng	25ng	50ng	100ng
	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
	0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
	0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
	0.101	0.202	0.505	1.01	5.05	25.3	50.5	101
	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
	0.109	0.218	0.545	1.09	5.45	27.3	54.5	109
	0.109	0.218	0.545	1.09	5.45	27.3	54.5	109
	0.109	0.218	0.545	1.09	5.45	27.3	54.5	109
	0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
	0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
	0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
	0.109	0.218	0.545	1.09	5.45	27.3	54.5	109
	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
	0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
	0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
	0.109	0.218	0.545	1.09	5.45	27.3	54.5	109
	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
	0.109	0.218	0.545	1.09	5.45	27.3	54.5	109
	0.112	0.224	0.560	1.12	5.60	28.0	56.0	112
	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
	0.099	0.198	0.495	0.990	4.95	24.8	49.5	99.0
	0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
	0.098	0.196	0.490	0.980	4.90	24.5	49.0	98.0
	0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
	0.109	0.218	0.545	1.09	5.45	27.3	54.5	109

*Enter Information in the Solid Shaded Areas ONLY.

Gem 8/14/09

Method Path : J:\MS09\Methods\
Method File : R9081309.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Fri Aug 14 07:31:29 2009
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	0.1	0	25	J:\MS09\Data\2009_08\13\O8130926.D
2	0.2	0	25	J:\MS09\Data\2009_08\13\O8130927.D
3	0.5	1	25	J:\MS09\Data\2009_08\13\O8130928.D
4	1.0	1	25	J:\MS09\Data\2009_08\13\O8130929.D
5	5.0	5	25	J:\MS09\Data\2009_08\13\O8130930.D
6	25	27	25	J:\MS09\Data\2009_08\13\O8130931.D
7	50	54	25	J:\MS09\Data\2009_08\13\O8130932.D
8	100	107	25	J:\MS09\Data\2009_08\13\O8130933.D

#	ID	Update Time	Quant Time	Acquisition Time
1	0.1	Aug 14 07:29 2009	Aug 14 07:05 2009	14 Aug 2009 1:56
2	0.2	Aug 14 07:30 2009	Aug 14 07:14 2009	14 Aug 2009 2:38
3	0.5	Aug 14 07:30 2009	Aug 14 07:20 2009	14 Aug 2009 3:19
4	1.0	Aug 14 07:30 2009	Aug 14 07:21 2009	14 Aug 2009 4:01
5	5.0	Aug 14 07:30 2009	Aug 14 07:23 2009	14 Aug 2009 4:43
6	25	Aug 14 07:31 2009	Aug 14 07:26 2009	14 Aug 2009 5:24
7	50	Aug 14 07:31 2009	Aug 14 07:27 2009	14 Aug 2009 6:06
8	100	Aug 14 07:31 2009	Aug 14 07:28 2009	14 Aug 2009 6:47

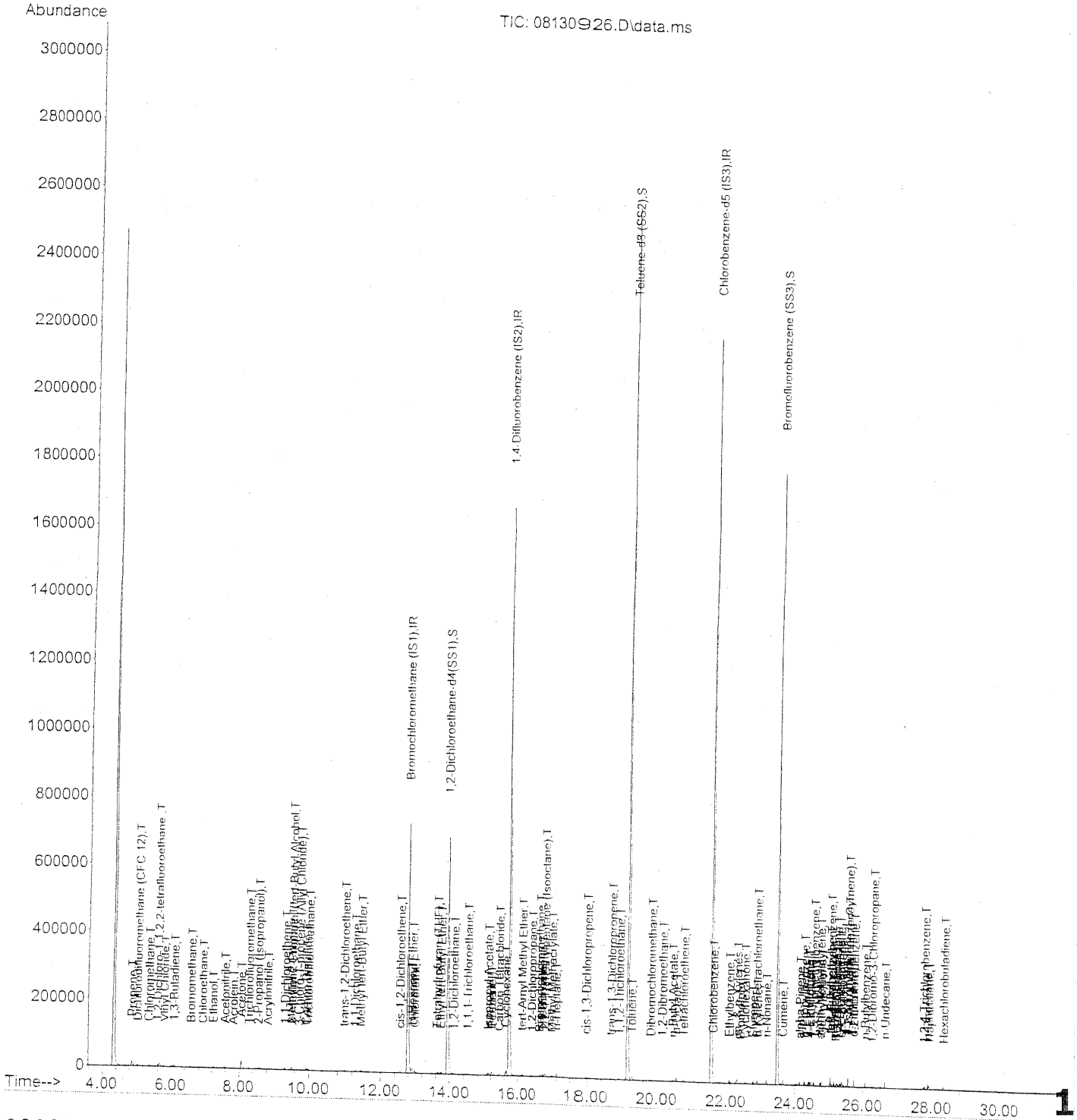
R9081309.M Fri Aug 14 07:48:55 2009

EM 8/14/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130926.D
Acq On : 14 Aug 2009 1:56
Operator : EM
Sample : 0.1ng TO-15 ICAL STD
Misc : S20-08130905/S20-07240912
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 14 07:05:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration



R9081309.M Fri Aug 14 07:12:43 2009

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130926.D
Acq On : 14 Aug 2009 1:56
Operator : EM
Sample : 0.1ng TO-15 ICAL STD
Misc : S20-08130905/S20-07240912
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 14 07:05:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.80	130	388910	25.000	ng		-0.04
37) 1,4-Difluorobenzene (IS2)	15.74	114	1986864	25.000	ng		-0.03
56) Chlorobenzene-d5 (IS3)	21.56	82	961494	25.000	ng		-0.01
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.95	65	693371	25.200	ng		-0.04
Spiked Amount 25.000			Recovery =	100.80%			
57) Toluene-d8 (SS2)	19.14	98	2296672	24.144	ng		-0.02
Spiked Amount 25.000			Recovery =	96.56%			
73) Bromofluorobenzene (SS3)	23.49	174	646809	22.617	ng		0.00
Spiked Amount 25.000			Recovery =	90.48%			
Target Compounds							Qvalue
2) Propene	4.87	42	3618	0.147	ng		98
3) Dichlorodifluoromethan...	5.03	85	4958	0.101	ng	#	88
4) Chloromethane	5.36	50	4388	0.120	ng		94
5) 1,2-Dichloro-1,1,2,2-t...	5.61	135	2540	0.092	ng		85
6) Vinyl Chloride	5.81	62	4449	0.114	ng		88
7) 1,3-Butadiene	6.11	54	3356	0.119	ng		97
8) Bromomethane	6.60	94	2307	0.100	ng		99
9) Chloroethane	6.94	64	2024	0.103	ng	#	53
10) Ethanol	7.25	45	10733m	0.659	ng		
11) Acetonitrile	7.59	41	5267	0.143	ng		82
12) Acrolein	7.83	56	986	0.083	ng		87
13) Acetone	8.06	58	14865	0.803	ng		89
14) Trichlorofluoromethane	8.29	101	4018	0.094	ng		99
15) 2-Propanol (Isopropanol)	8.56	45	11494	0.236	ng		77
16) Acrylonitrile	8.84	53	1953	0.079	ng		89
17) 1,1-Dichloroethene	9.33	96	2785	0.128	ng		91
18) 2-Methyl-2-Propanol (t...	9.53	59	11686	0.213	ng	#	84
19) Methylene Chloride	9.53	84	3454	0.141	ng		90
20) 3-Chloro-1-propene (Al...	9.73	41	3161	0.119	ng		68
21) Trichlorotrifluoroethane	9.98	151	1761	0.091	ng	#	81
22) Carbon Disulfide	9.93	76	10199	0.122	ng		81
23) trans-1,2-Dichloroethene	10.99	61	3423	0.107	ng		87
24) 1,1-Dichloroethane	11.29	63	4712	0.121	ng		83
25) Methyl tert-Butyl Ether	11.46	73	7632	0.111	ng		94
26) Vinyl Acetate	0.00	86	0	N.D.			
27) 2-Butanone (MEK)	0.00	72	0	N.D.			
28) cis-1,2-Dichloroethene	12.57	61	3421	0.111	ng		88
29) Diisopropyl Ether	12.94	87	1922	0.088	ng	#	89
30) Ethyl Acetate	0.00	61	0	N.D.			
31) n-Hexane	12.93	57	4846	0.113	ng		

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130926.D
Acq On : 14 Aug 2009 1:56
Operator : EM
Sample : 0.1ng TO-15 ICAL STD
Misc : S20-08130905/S20-07240912
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 14 07:05:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	13.01	83	3808	0.098	ng		92
34) Tetrahydrofuran (THF)	13.65	72	1329	0.100	ng	#	49
35) Ethyl tert-Butyl Ether	13.75	87	2842	0.097	ng	#	88
36) 1,2-Dichloroethane	14.14	62	2848	0.091	ng	#	63
38) 1,1,1-Trichloroethane	14.53	97	3702	0.102	ng		86
39) Isopropyl Acetate	15.13	61	2323	0.161	ng	#	40
40) 1-Butanol	15.23	56	2885	0.117	ng	#	48
41) Benzene	15.23	78	11726	0.111	ng		95
42) Carbon Tetrachloride	15.45	117	2792	0.090	ng		94
43) Cyclohexane	15.65	84	8323	0.210	ng	#	85
44) tert-Amyl Methyl Ether	16.14	73	7312	0.104	ng		95
45) 1,2-Dichloropropane	16.45	63	2391	0.107	ng		92
46) Bromodichloromethane	16.69	83	2661	0.087	ng		93
47) Trichloroethene	16.77	130	2951	0.109	ng		96
48) 1,4-Dioxane	16.78	88	1271	0.071	ng	#	58
49) 2,2,4-Trimethylpentane...	16.85	57	12314	0.120	ng		92
50) Methyl Methacrylate	17.07	100	553	0.056	ng	#	1
51) n-Heptane	17.21	71	2682	0.105	ng		93
52) cis-1,3-Dichloropropene	17.97	75	2905	0.078	ng	#	57
53) 4-Methyl-2-pentanone	18.04	58	915	N.D.			
54) trans-1,3-Dichloropropene	18.67	75	2439	0.075	ng	#	60
55) 1,1,2-Trichloroethane	18.90	97	1838	0.083	ng		99
58) Toluene	19.28	91	12428	0.107	ng		98
59) 2-Hexanone	19.68	43	1480	N.D.			
60) Dibromochloromethane	19.83	129	2204	0.084	ng		85
61) 1,2-Dibromoethane	20.15	107	1955	0.072	ng		94
62) n-Butyl Acetate	20.44	43	2958	0.053	ng	#	49
63) n-Octane	20.56	57	2356	0.104	ng		88
64) Tetrachloroethene	20.76	166	2562	0.083	ng		98
65) Chlorobenzene	21.62	112	7106	0.097	ng		98
66) Ethylbenzene	22.09	91	11683	0.092	ng		94
67) m- & p-Xylenes	22.32	91	17613	0.169	ng		99
68) Bromoform	22.42	173	1501	0.064	ng	#	65
69) Styrene	22.79	104	6011	0.078	ng		94
70) o-Xylene	22.92	91	9337	0.090	ng		95
71) n-Nonane	23.17	43	5669	0.112	ng		87
72) 1,1,2,2-Tetrachloroethane	22.89	83	3618	0.084	ng		92
74) Cumene	23.66	105	11820	0.086	ng		93
75) alpha-Pinene	24.15	93	5445	0.082	ng		99
76) n-Propylbenzene	24.28	91	14553	0.087	ng		93
77) 3-Ethyltoluene	24.41	105	11442	0.087	ng		100
78) 4-Ethyltoluene	24.46	105	12248	0.093	ng		95
79) 1,3,5-Trimethylbenzene	24.55	105	9904	0.091	ng		96

Tam 8/14/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130926.D
Acq On : 14 Aug 2009 1:56
Operator : EM
Sample : 0.1ng TO-15 ICAL STD
Misc : S20-08130905/S20-07240912
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 14 07:05:01 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.74	118	4543	0.074	ng		98
81) 2-Ethyltoluene	24.79	105	11719	0.085	ng		95
82) 1,2,4-Trimethylbenzene	25.05	105	9509	0.078	ng		100
83) n-Decane	25.15	57	5840	0.099	ng		89
84) Benzyl Chloride	25.22	91	6309	0.072	ng		92
85) 1,3-Dichlorobenzene	25.25	146	5071	0.079	ng		100
86) 1,4-Dichlorobenzene	25.33	146	5490	0.082	ng		97
87) sec-Butylbenzene	25.38	105	13671	0.089	ng		96
88) 4-Isopropyltoluene (p-...	25.56	119	11685	0.076	ng		96
89) 1,2,3-Trimethylbenzene	25.57	105	9819	0.079	ng		99
90) 1,2-Dichlorobenzene	25.75	146	4975	0.075	ng		99
91) d-Limonene	25.74	68	3927	0.081	ng		84
92) 1,2-Dibromo-3-Chloropr...	26.28	157	1250	0.067	ng	#	78
93) n-Undecane	26.65	57	5934	0.098	ng		93
94) 1,2,4-Trichlorobenzene	27.79	180	3482	0.081	ng	#	95
95) Naphthalene	27.94	128	13216	0.088	ng		98
96) n-Dodecane	27.89	57	6214	0.096	ng		91
97) Hexachlorobutadiene	28.36	225	1995	0.081	ng		96
98) Cyclohexanone	22.55	55	2844	0.081	ng	#	82
99) tert-Butylbenzene	25.05	119	9567	0.077	ng		93
100) n-Butylbenzene	26.07	91	10255	0.084	ng		99

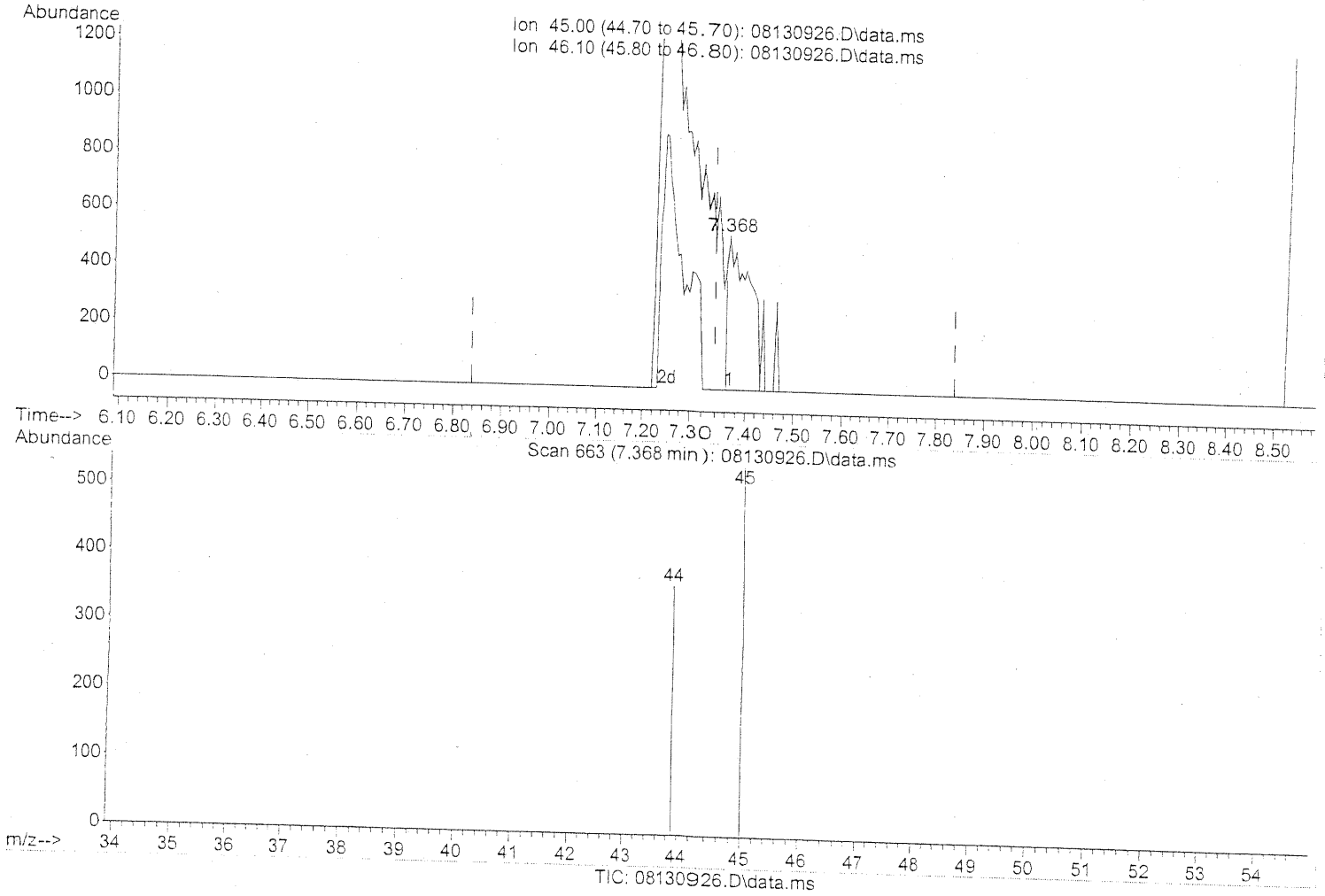
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Tom 8/14/09

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130926.D
Acq On : 14 Aug 2009 1:56
Operator : EM
Sample : 0.1ng TO-15 ICAL STD
Misc : S20-08130905/S20-07240912
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 14 07:04:25 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration



(10) Ethanol (T)

7.368min (+0.029) 0.10ng

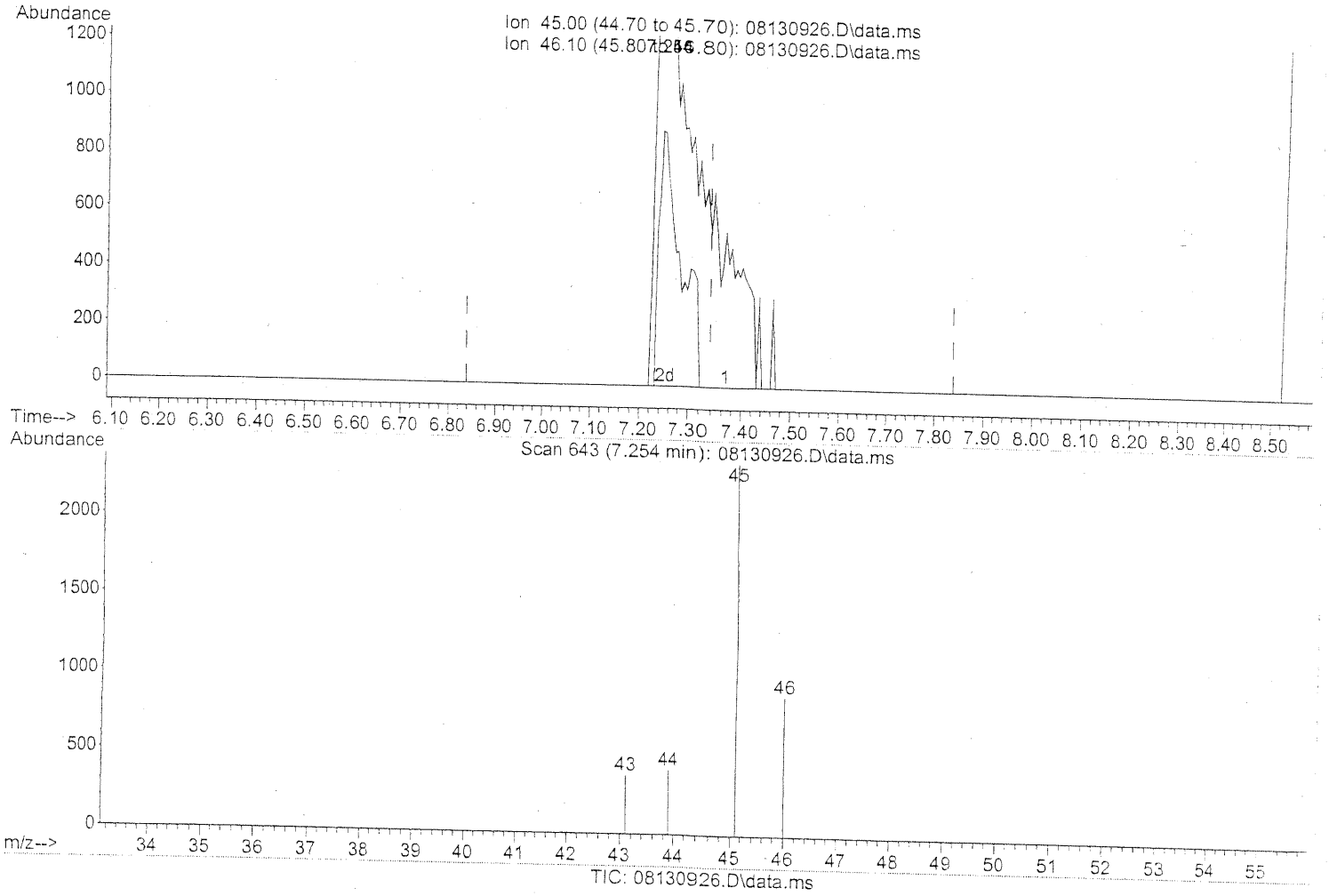
response 1639

Ion	Exp%	Act%
45.00	100	100
46.10	39.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

SP

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130926.D
Acq On : 14 Aug 2009 1:56
Operator : EM
Sample : 0.1ng TO-15 ICAL STD
Misc : S20-08130905/S20-07240912
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 14 07:04:25 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration



(10) Ethanol (T)

7.254min (-0.086) 0.66ng m

response 10733

Ion	Exp%	Act%
45.00	100	100
46.10	39.00	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

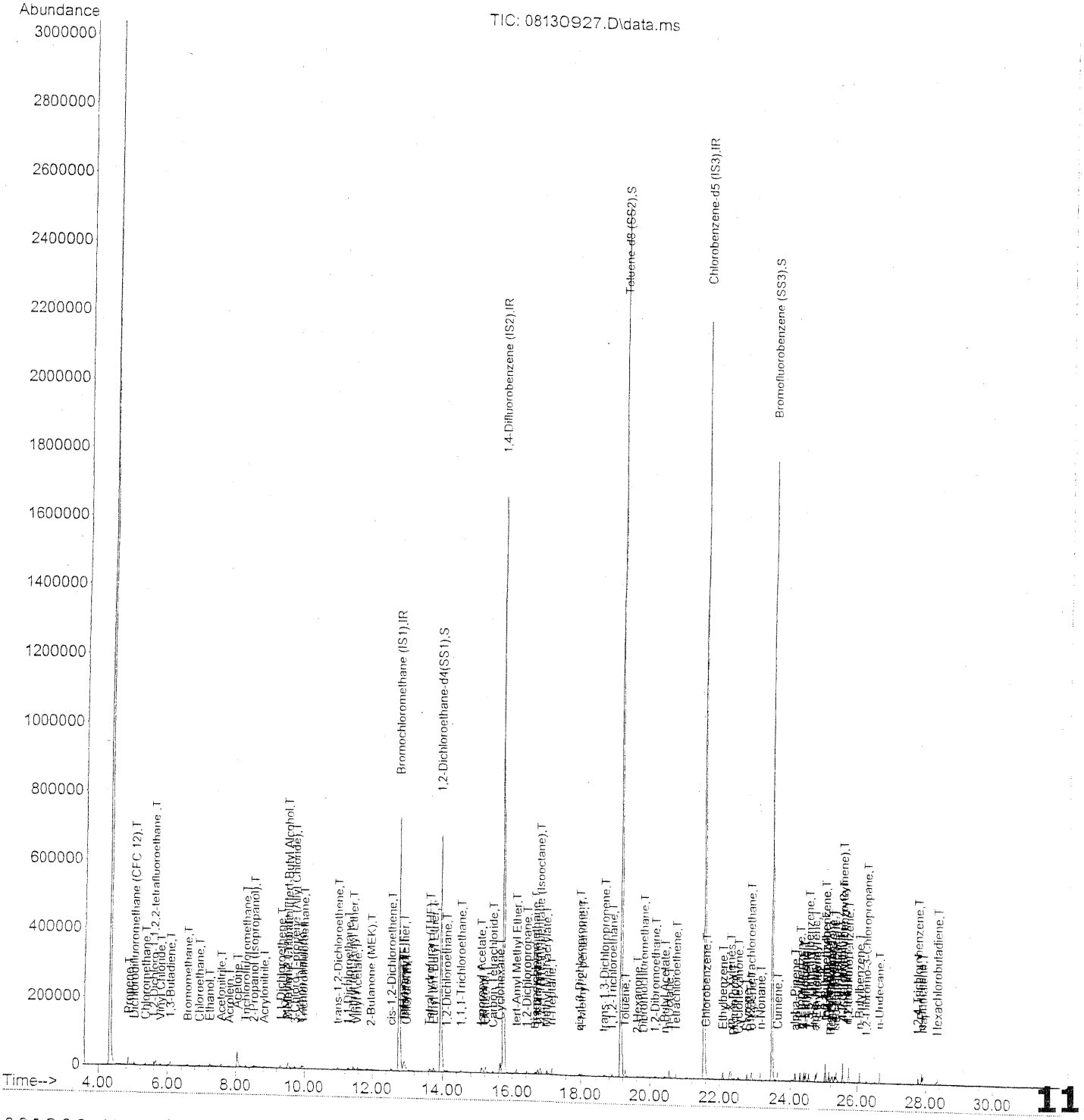
SP → IC
Tom 8/14/09

DM 8/15/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130927.D
Acq On : 14 Aug 2009 2:38
Operator : EM
Sample : 0.2ng TO-15 ICAL STD
Misc : S20-08130905/S20-07240912
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 14 07:14:00 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration



R9081309.M Fri Aug 14 07:20:23 2009

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130927.D
Acq On : 14 Aug 2009 2:38
Operator : EM
Sample : 0.2ng TO-15 ICAL STD
Misc : S20-08130905/S20-07240912
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 14 07:14:00 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.80	130	387904	25.000	ng		-0.04
37) 1,4-Difluorobenzene (IS2)	15.74	114	1988065	25.000	ng		-0.03
56) Chlorobenzene-d5 (IS3)	21.56	82	969971	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.95	65	692264	25.225	ng		-0.03
Spiked Amount 25.000			Recovery =	100.92%			
57) Toluene-d8 (SS2)	19.14	98	2284146	23.803	ng		-0.02
Spiked Amount 25.000			Recovery =	95.20%			
73) Bromofluorobenzene (SS3)	23.49	174	650502	22.548	ng		0.00
Spiked Amount 25.000			Recovery =	90.20%			
Target Compounds							Qvalue
2) Propene	4.87	42	6837	0.279	ng		97
3) Dichlorodifluoromethan...	5.02	85	10147	0.208	ng		95
4) Chloromethane	5.36	50	8936	0.244	ng		97
5) 1,2-Dichloro-1,1,2,2-t...	5.60	135	5244	0.191	ng		89
6) Vinyl Chloride	5.81	62	8752	0.224	ng		91
7) 1,3-Butadiene	6.10	54	6814	0.243	ng		94
8) Bromomethane	6.60	94	4286	0.186	ng		92
9) Chloroethane	6.94	64	4242	0.217	ng		84
10) Ethanol	7.24	45	21624	1.332	ng		85
11) Acetonitrile	7.58	41	10541	0.287	ng		86
12) Acrolein	7.82	56	2810	0.237	ng		96
13) Acetone	8.05	58	26843	1.453	ng		93
14) Trichlorofluoromethane	8.29	101	8048	0.189	ng		100
15) 2-Propanol (Isopropanol)	8.53	45	23904	0.492	ng		96
16) Acrylonitrile	8.83	53	5080	0.205	ng		92
17) 1,1-Dichloroethene	9.32	96	5237	0.242	ng		94
18) 2-Methyl-2-Propanol (t...	9.52	59	23137	0.423	ng		93
19) Methylene Chloride	9.52	84	5947	0.243	ng		88
20) 3-Chloro-1-propene (Al...	9.73	41	6616	0.251	ng		84
21) Trichlorotrifluoroethane	9.98	151	3591	0.186	ng		91
22) Carbon Disulfide	9.93	76	19471	0.234	ng		95
23) trans-1,2-Dichloroethene	10.99	61	7192	0.226	ng		85
24) 1,1-Dichloroethane	11.30	63	8927	0.230	ng		93
25) Methyl tert-Butyl Ether	11.45	73	14779	0.216	ng		98
26) Vinyl Acetate	11.58	86	1274	0.289	ng	#	1
27) 2-Butanone (MEK)	11.97	72	1592	0.113	ng	#	1
28) cis-1,2-Dichloroethene	12.57	61	6876	0.224	ng		90
29) Diisopropyl Ether	12.94	87	4063	0.186	ng	#	86
30) Ethyl Acetate	12.95	61	1611	0.175	ng		96
31) n-Hexane	12.93	57	9734	0.228	ng		98

Tam 8/14/09

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130927.D
Acq On : 14 Aug 2009 2:38
Operator : EM
Sample : 0.2ng TO-15 ICAL STD
Misc : S20-08130905/S20-07240912
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 14 07:14:00 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	13.00	83	7826	0.202	ng		98
34) Tetrahydrofuran (THF)	13.64	72	3221	0.243	ng	#	69
35) Ethyl tert-Butyl Ether	13.75	87	5452	0.186	ng	#	80
36) 1,2-Dichloroethane	14.13	62	5503	0.177	ng		92
38) 1,1,1-Trichloroethane	14.53	97	7018	0.192	ng		98
39) Isopropyl Acetate	15.10	61	5649	0.390	ng	#	69
40) 1-Butanol	15.17	56	6339	0.257	ng		89
41) Benzene	15.22	78	21485	0.203	ng		96
42) Carbon Tetrachloride	15.45	117	6103	0.196	ng		91
43) Cyclohexane	15.65	84	16172	0.408	ng		86
44) tert-Amyl Methyl Ether	16.14	73	13999	0.200	ng		94
45) 1,2-Dichloropropane	16.43	63	4918	0.220	ng		99
46) Bromodichloromethane	16.69	83	5890	0.192	ng		95
47) Trichloroethene	16.77	130	5590	0.206	ng		98
48) 1,4-Dioxane	16.77	88	3080	0.173	ng		100
49) 2,2,4-Trimethylpentane...	16.85	57	23620	0.230	ng		93
50) Methyl Methacrylate	17.05	100	2700	0.272	ng	#	80
51) n-Heptane	17.20	71	5246	0.204	ng		91
52) cis-1,3-Dichloropropene	17.96	75	6183	0.166	ng		93
53) 4-Methyl-2-pentanone	18.03	58	3201	0.159	ng		70
54) trans-1,3-Dichloropropene	18.66	75	5739	0.175	ng		84
55) 1,1,2-Trichloroethane	18.90	97	4035	0.181	ng		90
58) Toluene	19.28	91	21913	0.187	ng		99
59) 2-Hexanone	19.64	43	6660	0.132	ng		82
60) Dibromochloromethane	19.82	129	4315	0.163	ng		96
61) 1,2-Dibromoethane	20.15	107	4442	0.163	ng		99
62) n-Butyl Acetate	20.43	43	8074	0.144	ng		86
63) n-Octane	20.55	57	4432	0.193	ng		95
64) Tetrachloroethene	20.75	166	5009	0.161	ng		96
65) Chlorobenzene	21.62	112	13897	0.188	ng		94
66) Ethylbenzene	22.09	91	22216	0.174	ng		99
67) m- & p-Xylenes	22.32	91	35625	0.338	ng		96
68) Bromoform	22.42	173	3262	0.139	ng		90
69) Styrene	22.78	104	12611	0.162	ng		95
70) o-Xylene	22.92	91	17434	0.166	ng		97
71) n-Nonane	23.17	43	10801	0.211	ng		93
72) 1,1,2,2-Tetrachloroethane	22.89	83	7219	0.165	ng		100
74) Cumene	23.66	105	22760	0.163	ng		98
75) alpha-Pinene	24.15	93	10911	0.164	ng		97
76) n-Propylbenzene	24.29	91	27992	0.167	ng		100
77) 3-Ethyltoluene	24.41	105	22341	0.169	ng		99
78) 4-Ethyltoluene	24.46	105	21950	0.166	ng		99
79) 1,3,5-Trimethylbenzene	24.55	105	19048	0.173	ng		95

8/14/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130927.D
Acq On : 14 Aug 2009 2:38
Operator : EM
Sample : 0.2ng TO-15 ICAL STD
Misc : S20-08130905/S20-07240912
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Aug 14 07:14:00 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.73	118	9096	0.148	ng		94
81) 2-Ethyltoluene	24.79	105	22138	0.160	ng		100
82) 1,2,4-Trimethylbenzene	25.05	105	18432	0.150	ng		99
83) n-Decane	25.15	57	11801	0.198	ng		93
84) Benzyl Chloride	25.22	91	12901	0.146	ng		92
85) 1,3-Dichlorobenzene	25.25	146	9910	0.153	ng		99
86) 1,4-Dichlorobenzene	25.33	146	10593	0.157	ng		99
87) sec-Butylbenzene	25.38	105	24768	0.161	ng		98
88) 4-Isopropyltoluene (p-...	25.56	119	22687	0.146	ng		99
89) 1,2,3-Trimethylbenzene	25.57	105	18683	0.149	ng		99
90) 1,2-Dichlorobenzene	25.74	146	9423	0.140	ng		99
91) d-Limonene	25.74	68	7469	0.153	ng		97
92) 1,2-Dibromo-3-Chloropr...	26.27	157	2528	0.134	ng		79
93) n-Undecane	26.65	57	11857	0.194	ng		93
94) 1,2,4-Trichlorobenzene	27.79	180	7181	0.165	ng		94
95) Naphthalene	27.94	128	24854	0.164	ng		98
96) n-Dodecane	27.89	57	11636	0.179	ng		92
97) Hexachlorobutadiene	28.36	225	4076	0.164	ng		100
98) Cyclohexanone	22.54	55	6345	0.179	ng	#	80
99) tert-Butylbenzene	25.05	119	18711	0.150	ng		97
100) n-Butylbenzene	26.07	91	21106	0.172	ng		97

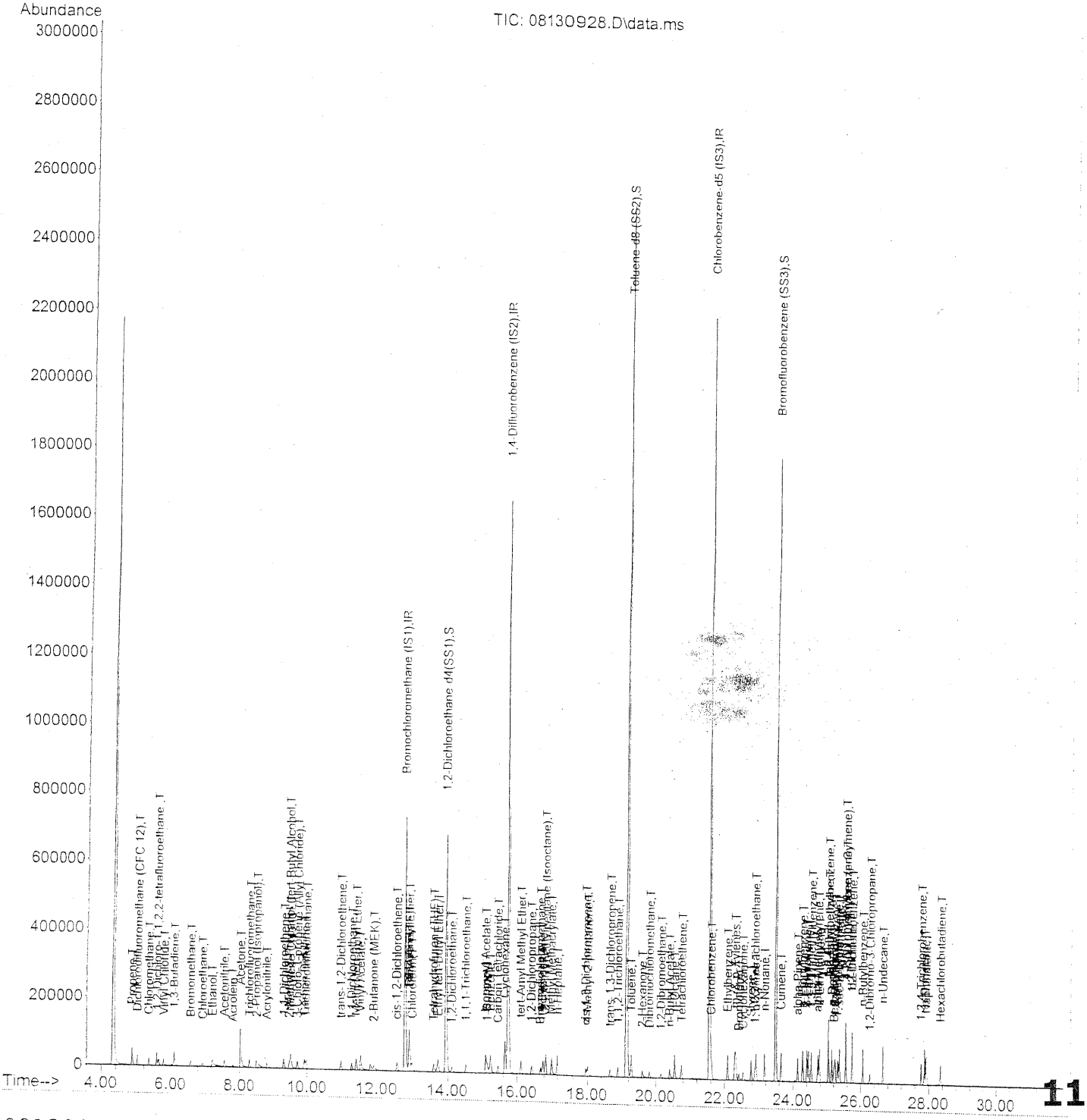
(#) = qualifier out of range (m) = manual integration (+) = signals summed

EM 8/14/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130928.D
Acq On : 14 Aug 2009 3:19
Operator : EM
Sample : 0.5ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100904
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:20:31 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130928.D
Acq On : 14 Aug 2009 3:19
Operator : EM
Sample : 0.5ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100904
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:20:31 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.80	130	387943	25.000	ng		-0.04
37) 1,4-Difluorobenzene (IS2)	15.74	114	1964748	25.000	ng		-0.03
56) Chlorobenzene-d5 (IS3)	21.56	82	963338	25.000	ng		-0.01
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.95	65	688763	25.095	ng		-0.03
Spiked Amount 25.000			Recovery	=	100.40%		
57) Toluene-d8 (SS2)	19.14	98	2270133	23.819	ng		-0.02
Spiked Amount 25.000			Recovery	=	95.28%		
73) Bromofluorobenzene (SS3)	23.49	174	649766	22.677	ng		0.00
Spiked Amount 25.000			Recovery	=	90.72%		
Target Compounds							Qvalue
2) Propene	4.86	42	17385	0.710	ng		95
3) Dichlorodifluoromethan...	5.01	85	30715	0.629	ng		99
4) Chloromethane	5.35	50	27825	0.761	ng		99
5) 1,2-Dichloro-1,1,2,2-t...	5.60	135	16234	0.590	ng		100
6) Vinyl Chloride	5.80	62	27174	0.697	ng		98
7) 1,3-Butadiene	6.09	54	22656	0.808	ng		97
8) Bromomethane	6.59	94	14465	0.629	ng		99
9) Chloroethane	6.94	64	13353	0.684	ng		98
10) Ethanol	7.23	45	60616	3.733	ng		99
11) Acetonitrile	7.56	41	31606	0.861	ng		97
12) Acrolein	7.80	56	8567	0.724	ng		99
13) Acetone	8.03	58	64613	3.498	ng		95
14) Trichlorofluoromethane	8.29	101	26206	0.616	ng		99
15) 2-Propanol (Isopropanol)	8.50	45	75804	1.560	ng		98
16) Acrylonitrile	8.80	53	18881	0.762	ng		99
17) 1,1-Dichloroethene	9.32	96	15523	0.716	ng		96
18) 2-Methyl-2-Propanol (t...	9.48	59	71705	1.310	ng	#	68
19) Methylene Chloride	9.52	84	16956	0.693	ng		88
20) 3-Chloro-1-propene (Al...	9.72	41	22154	0.839	ng		86
21) Trichlorotrifluoroethane	9.98	151	12159	0.630	ng		94
22) Carbon Disulfide	9.93	76	59708	0.717	ng		99
23) trans-1,2-Dichloroethene	10.98	61	23100	0.727	ng		91
24) 1,1-Dichloroethane	11.30	63	28384	0.733	ng		98
25) Methyl tert-Butyl Ether	11.42	73	45062	0.660	ng		96
26) Vinyl Acetate	11.56	86	8549	1.941	ng	#	31
27) 2-Butanone (MEK)	11.93	72	7703	0.547	ng	#	14
28) cis-1,2-Dichloroethene	12.56	61	22859	0.746	ng		91
29) Diisopropyl Ether	12.92	87	12722	0.581	ng	#	75
30) Ethyl Acetate	12.93	61	9081	0.984	ng		98
31) n-Hexane	12.92	57	30486	0.714	ng		91

R9081309.M Fri Aug 14 07:21:36 2009 Cam 8/14/09 Page: 1

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130928.D
Acq On : 14 Aug 2009 3:19
Operator : EM
Sample : 0.5ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100904
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:20:31 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	13.01	83	25741	0.664	ng		99
34) Tetrahydrofuran (THF)	13.61	72	9662	0.728	ng	#	69
35) Ethyl tert-Butyl Ether	13.73	87	17600	0.600	ng	#	86
36) 1,2-Dichloroethane	14.13	62	18883	0.608	ng		98
38) 1,1,1-Trichloroethane	14.53	97	21567	0.598	ng		99
39) Isopropyl Acetate	15.09	61	18003	1.258	ng	#	76
40) 1-Butanol	15.14	56	24186	0.991	ng	#	5
41) Benzene	15.23	78	67490	0.644	ng		97
42) Carbon Tetrachloride	15.45	117	18399	0.598	ng		99
43) Cyclohexane	15.65	84	50652	1.293	ng		87
44) tert-Amyl Methyl Ether	16.12	73	43234	0.624	ng		98
45) 1,2-Dichloropropane	16.43	63	15929	0.721	ng		99
46) Bromodichloromethane	16.69	83	19513	0.644	ng		99
47) Trichloroethene	16.77	130	16351	0.611	ng		99
48) 1,4-Dioxane	16.75	88	11029	0.625	ng		88
49) 2,2,4-Trimethylpentane...	16.86	57	73776	0.727	ng		94
50) Methyl Methacrylate	17.03	100	10559	1.075	ng		90
51) n-Heptane	17.21	71	17902	0.706	ng		96
52) cis-1,3-Dichloropropene	17.95	75	21881	0.596	ng		96
53) 4-Methyl-2-pentanone	18.00	58	12377	0.624	ng		89
54) trans-1,3-Dichloropropene	18.66	75	20538	0.635	ng		94
55) 1,1,2-Trichloroethane	18.89	97	13863	0.630	ng		98
58) Toluene	19.28	91	66952	0.574	ng		99
59) 2-Hexanone	19.60	43	29124	0.580	ng		87
60) Dibromochloromethane	19.82	129	15336	0.585	ng		96
61) 1,2-Dibromoethane	20.15	107	14720	0.545	ng		97
62) n-Butyl Acetate	20.40	43	31166	0.559	ng		97
63) n-Octane	20.56	57	15118	0.663	ng		92
64) Tetrachloroethene	20.76	166	15982	0.518	ng		98
65) Chlorobenzene	21.62	112	41581	0.567	ng		100
66) Ethylbenzene	22.09	91	71057	0.560	ng		96
67) m- & p-Xylenes	22.31	91	109600	1.048	ng		99
68) Bromoform	22.42	173	11272	0.482	ng		99
69) Styrene	22.77	104	40825	0.529	ng		99
70) o-Xylene	22.92	91	56661	0.544	ng		99
71) n-Nonane	23.17	43	34926	0.686	ng		91
72) 1,1,2,2-Tetrachloroethane	22.89	83	24083	0.556	ng		98
74) Cumene	23.65	105	70945	0.513	ng		98
75) alpha-Pinene	24.15	93	33531	0.507	ng		99
76) n-Propylbenzene	24.28	91	88210	0.529	ng		99
77) 3-Ethyltoluene	24.40	105	69045	0.526	ng		98
78) 4-Ethyltoluene	24.46	105	70642	0.537	ng		100
79) 1,3,5-Trimethylbenzene	24.55	105	57676	0.527	ng		100

Tom 8/14/09

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130928.D
Acq On : 14 Aug 2009 3:19
Operator : EM
Sample : 0.5ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100904
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:20:31 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.73	118	29532	0.482	ng	96
81) 2-Ethyltoluene	24.79	105	70128	0.510	ng	98
82) 1,2,4-Trimethylbenzene	25.05	105	56820	0.464	ng	97
83) n-Decane	25.15	57	35901	0.607	ng	95
84) Benzyl Chloride	25.22	91	42984	0.490	ng	98
85) 1,3-Dichlorobenzene	25.25	146	32555	0.507	ng	99
86) 1,4-Dichlorobenzene	25.33	146	33227	0.496	ng	100
87) sec-Butylbenzene	25.38	105	80257	0.524	ng	98
88) 4-Isopropyltoluene (p-...	25.56	119	71025	0.460	ng	99
89) 1,2,3-Trimethylbenzene	25.57	105	58655	0.470	ng	99
90) 1,2-Dichlorobenzene	25.75	146	30332	0.454	ng	100
91) d-Limonene	25.74	68	24087	0.495	ng	94
92) 1,2-Dibromo-3-Chloropr...	26.27	157	9351	0.498	ng	89
93) n-Undecane	26.65	57	37313	0.616	ng	95
94) 1,2,4-Trichlorobenzene	27.79	180	22652	0.526	ng	99
95) Naphthalene	27.94	128	78387	0.522	ng	100
96) n-Dodecane	27.89	57	35864	0.554	ng	97
97) Hexachlorobutadiene	28.36	225	12566	0.510	ng	97
98) Cyclohexanone	22.53	55	15980	0.454	ng	92
99) tert-Butylbenzene	25.05	119	56558	0.457	ng	100
100) n-Butylbenzene	26.07	91	64485	0.529	ng	98

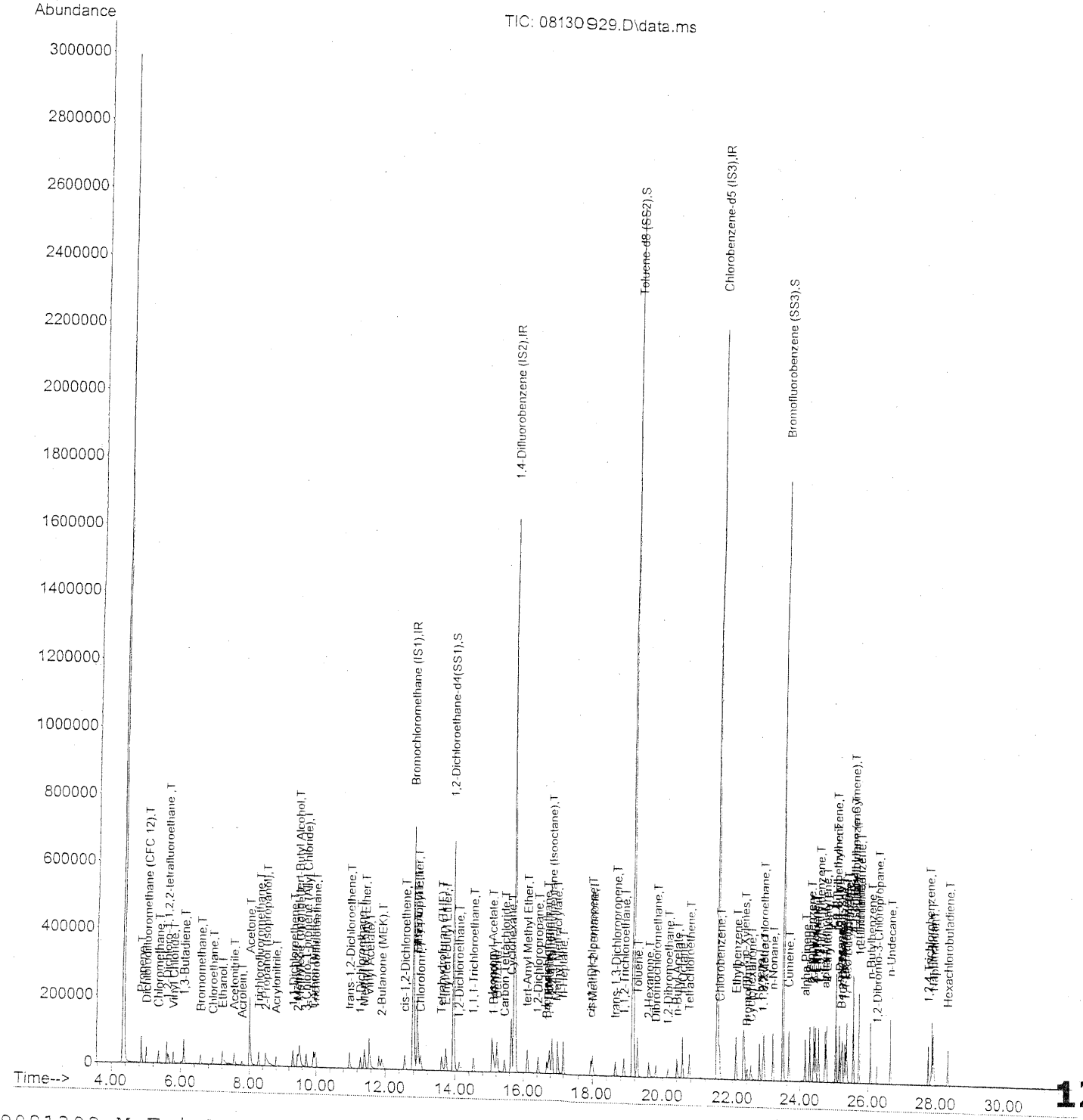
(#) = qualifier out of range (m) = manual integration (+) = signals summed

8/14/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130929.D
Acq On : 14 Aug 2009 4:01
Operator : EM
Sample : 1.0ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100904
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:21:44 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration



R9081309.M Fri Aug 14 07:22:53 2009

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130929.D
Acq On : 14 Aug 2009 4:01
Operator : EM
Sample : 1.0ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100904
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:21:44 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.80	130	385393	25.000	ng		-0.03
37) 1,4-Difluorobenzene (IS2)	15.75	114	1968754	25.000	ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.56	82	961740	25.000	ng		-0.01
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.95	65	684680	25.111	ng		-0.03
Spiked Amount 25.000			Recovery =	100.44%			
57) Toluene-d8 (SS2)	19.14	98	2283397	23.998	ng		-0.02
Spiked Amount 25.000			Recovery =	96.00%			
73) Bromofluorobenzene (SS3)	23.49	174	645460	22.564	ng		0.00
Spiked Amount 25.000			Recovery =	90.24%			
Target Compounds							Qvalue
2) Propene	4.86	42	29829	1.227	ng		97
3) Dichlorodifluoromethan...	5.01	85	52865	1.090	ng		99
4) Chloromethane	5.35	50	47868	1.317	ng		100
5) 1,2-Dichloro-1,1,2,2-t...	5.60	135	28143	1.030	ng		98
6) Vinyl Chloride	5.80	62	46770	1.207	ng		98
7) 1,3-Butadiene	6.09	54	39034	1.402	ng		96
8) Bromomethane	6.59	94	24199	1.059	ng		99
9) Chloroethane	6.94	64	23852	1.231	ng		99
10) Ethanol	7.22	45	108628	6.734	ng		100
11) Acetonitrile	7.56	41	56154	1.539	ng		98
12) Acrolein	7.80	56	15400	1.309	ng		97
13) Acetone	8.01	58	112407	6.126	ng		94
14) Trichlorofluoromethane	8.29	101	45022	1.065	ng		99
15) 2-Propanol (Isopropanol)	8.48	45	135858	2.814	ng		99
16) Acrylonitrile	8.80	53	34799	1.414	ng		99
17) 1,1-Dichloroethene	9.32	96	26402	1.227	ng		95
18) 2-Methyl-2-Propanol (t...	9.46	59	127946	2.353	ng		95
19) Methylene Chloride	9.52	84	28073	1.155	ng		86
20) 3-Chloro-1-propene (Al...	9.72	41	39535	1.508	ng		89
21) Trichlorotrifluoroethane	9.98	151	20891	1.090	ng		95
22) Carbon Disulfide	9.93	76	102252	1.236	ng		98
23) trans-1,2-Dichloroethene	10.99	61	40695	1.289	ng		93
24) 1,1-Dichloroethane	11.30	63	48687	1.265	ng		98
25) Methyl tert-Butyl Ether	11.42	73	79993	1.179	ng		96
26) Vinyl Acetate	11.56	86	17582	4.017	ng	#	44
27) 2-Butanone (MEK)	11.91	72	15476	1.106	ng	#	70
28) cis-1,2-Dichloroethene	12.57	61	38880	1.276	ng		94
29) Diisopropyl Ether	12.91	87	23217	1.067	ng	#	79
30) Ethyl Acetate	12.91	61	17295	1.887	ng		98
31) n-Hexane	12.92	57	51322	1.211	ng		95

R9081309.M Fri Aug 14 07:22:53 2009

Tom 8/14/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130929.D
Acq On : 14 Aug 2009 4:01
Operator : EM
Sample : 1.0ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100904
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:21:44 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	13.01	83	44169	1.147	ng		99
34) Tetrahydrofuran (THF)	13.61	72	18493	1.402	ng	#	78
35) Ethyl tert-Butyl Ether	13.73	87	32059	1.099	ng	#	88
36) 1,2-Dichloroethane	14.13	62	33602	1.089	ng		100
38) 1,1,1-Trichloroethane	14.53	97	38262	1.060	ng		99
39) Isopropyl Acetate	15.09	61	33761	2.355	ng	#	85
40) 1-Butanol	15.13	56	47102	1.925	ng	#	74
41) Benzene	15.23	78	113746	1.083	ng		99
42) Carbon Tetrachloride	15.46	117	32803	1.064	ng		98
43) Cyclohexane	15.65	84	88044	2.243	ng		87
44) tert-Amyl Methyl Ether	16.11	73	76135	1.097	ng		97
45) 1,2-Dichloropropane	16.43	63	28251	1.276	ng		100
46) Bromodichloromethane	16.69	83	33986	1.120	ng		99
47) Trichloroethene	16.77	130	28512	1.063	ng		100
48) 1,4-Dioxane	16.74	88	20845	1.180	ng		92
49) 2,2,4-Trimethylpentane...	16.85	57	130464	1.282	ng		93
50) Methyl Methacrylate	17.02	100	20121	2.044	ng	#	88
51) n-Heptane	17.20	71	31494	1.239	ng		96
52) cis-1,3-Dichloropropene	17.95	75	38638	1.049	ng		99
53) 4-Methyl-2-pentanone	18.00	58	24206	1.218	ng		89
54) trans-1,3-Dichloropropene	18.65	75	38043	1.174	ng		99
55) 1,1,2-Trichloroethane	18.89	97	24731	1.121	ng		97
58) Toluene	19.28	91	119238	1.024	ng		99
59) 2-Hexanone	19.60	43	55664	1.111	ng		92
60) Dibromochloromethane	19.82	129	27040	1.032	ng		99
61) 1,2-Dibromoethane	20.15	107	26630	0.987	ng		99
62) n-Butyl Acetate	20.40	43	61529	1.105	ng		98
63) n-Octane	20.56	57	26993	1.186	ng		92
64) Tetrachloroethene	20.75	166	28187	0.915	ng		99
65) Chlorobenzene	21.62	112	73763	1.007	ng		100
66) Ethylbenzene	22.09	91	127246	1.005	ng		97
67) m- & p-Xylenes	22.32	91	194401	1.861	ng		99
68) Bromoform	22.41	173	20518	0.879	ng		99
69) Styrene	22.77	104	73446	0.954	ng		100
70) o-Xylene	22.92	91	100172	0.963	ng		98
71) n-Nonane	23.17	43	62203	1.225	ng		92
72) 1,1,2,2-Tetrachloroethane	22.89	83	42899	0.991	ng		100
74) Cumene	23.65	105	125520	0.908	ng		97
75) alpha-Pinene	24.15	93	59580	0.902	ng		99
76) n-Propylbenzene	24.28	91	157275	0.945	ng		98
77) 3-Ethyltoluene	24.40	105	123089	0.940	ng		99
78) 4-Ethyltoluene	24.46	105	124771	0.950	ng		100
79) 1,3,5-Trimethylbenzene	24.55	105	103623	0.948	ng		98

R9081309.M Fri Aug 14 07:22:53 2009

EM 8/14/09

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130929.D
Acq On : 14 Aug 2009 4:01
Operator : EM
Sample : 1.0ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100904
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:21:44 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.73	118	53658	0.878	ng	96
81) 2-Ethyltoluene	24.79	105	124584	0.908	ng	97
82) 1,2,4-Trimethylbenzene	25.05	105	102293	0.837	ng	100
83) n-Decane	25.15	57	64455	1.092	ng	94
84) Benzyl Chloride	25.21	91	81497	0.930	ng	98
85) 1,3-Dichlorobenzene	25.25	146	56441	0.880	ng	100
86) 1,4-Dichlorobenzene	25.33	146	59032	0.883	ng	98
87) sec-Butylbenzene	25.38	105	141772	0.928	ng	98
88) 4-Isopropyltoluene (p-...	25.56	119	127195	0.826	ng	99
89) 1,2,3-Trimethylbenzene	25.57	105	105475	0.847	ng	99
90) 1,2-Dichlorobenzene	25.74	146	53268	0.799	ng	100
91) d-Limonene	25.74	68	42966	0.885	ng	95
92) 1,2-Dibromo-3-Chloropr...	26.27	157	16960	0.906	ng	91
93) n-Undecane	26.65	57	66615	1.102	ng	96
94) 1,2,4-Trichlorobenzene	27.79	180	40513	0.942	ng	100
95) Naphthalene	27.94	128	143580	0.957	ng	99
96) n-Dodecane	27.89	57	67663	1.047	ng	94
97) Hexachlorobutadiene	28.36	225	22500	0.914	ng	97
98) Cyclohexanone	22.52	55	30464	0.867	ng	93
99) tert-Butylbenzene	25.05	119	102193	0.827	ng	100
100) n-Butylbenzene	26.06	91	115342	0.948	ng	99

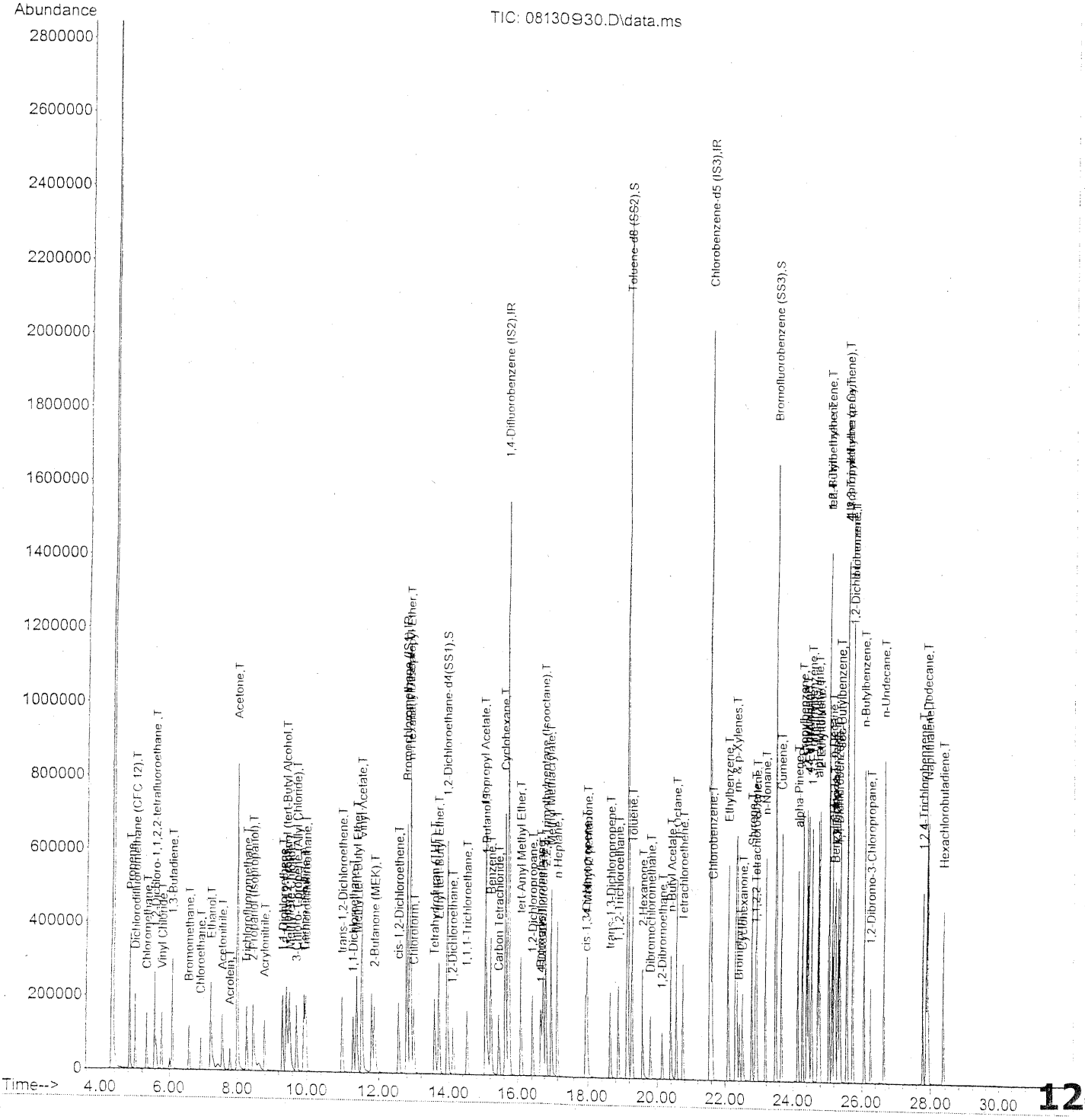
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sm 8/14/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130930.D
Acq On : 14 Aug 2009 4:43
Operator : EM
Sample : 5ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100904
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:23:40 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130930.D
Acq On : 14 Aug 2009 4:43
Operator : EM
Sample : 5ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100904
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:23:40 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.80	130	356661	25.000	ng		-0.03
37) 1,4-Difluorobenzene (IS2)	15.75	114	1839686	25.000	ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.56	82	890260	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.96	65	631936	25.044	ng		-0.03
Spiked Amount 25.000			Recovery =	100.16%			
57) Toluene-d8 (SS2)	19.15	98	2108383	23.938	ng		-0.01
Spiked Amount 25.000			Recovery =	95.76%			
73) Bromofluorobenzene (SS3)	23.49	174	597126	22.551	ng		0.00
Spiked Amount 25.000			Recovery =	90.20%			
Target Compounds							Qvalue
2) Propene	4.84	42	170359	7.571	ng		96
3) Dichlorodifluoromethan...	5.00	85	230084	5.124	ng		99
4) Chloromethane	5.33	50	205078	6.099	ng		97
5) 1,2-Dichloro-1,1,2,2-t...	5.59	135	119794	4.737	ng		99
6) Vinyl Chloride	5.79	62	201673	5.626	ng		98
7) 1,3-Butadiene	6.08	54	174352	6.764	ng		98
8) Bromomethane	6.57	94	105980	5.012	ng		99
9) Chloroethane	6.92	64	101343	5.650	ng		100
10) Ethanol	7.22	45	503955m	33.755	ng		
11) Acetonitrile	7.55	41	248065	7.348	ng		100
12) Acrolein	7.78	56	72285	6.641	ng		98
13) Acetone	8.00	58	487378	28.701	ng		91
14) Trichlorofluoromethane	8.28	101	194921	4.983	ng		99
15) 2-Propanol (Isopropanol)	8.46	45	476882m	10.673	ng		
16) Acrylonitrile	8.79	53	169954	7.460	ng		97
17) 1,1-Dichloroethene	9.32	96	116215	5.835	ng		97
18) 2-Methyl-2-Propanol (t...	9.43	59	580085	11.527	ng		96
19) Methylene Chloride	9.53	84	121460	5.402	ng		88
20) 3-Chloro-1-propene (Al...	9.72	41	183785	7.574	ng		88
21) Trichlorotrifluoroethane	9.98	151	93260	5.256	ng		96
22) Carbon Disulfide	9.93	76	452470	5.908	ng		98
23) trans-1,2-Dichloroethene	10.99	61	180824	6.190	ng		92
24) 1,1-Dichloroethane	11.30	63	216980	6.093	ng		99
25) Methyl tert-Butyl Ether	11.40	73	365953	5.827	ng		96
26) Vinyl Acetate	11.54	86	100963	24.928	ng	#	65
27) 2-Butanone (MEK)	11.89	72	83061	6.413	ng	#	77
28) cis-1,2-Dichloroethene	12.57	61	171418	6.081	ng		93
29) Diisopropyl Ether	12.90	87	101448	5.039	ng	#	66
30) Ethyl Acetate	12.90	61	91320	10.764	ng		99
31) n-Hexane	12.92	57	224482	5.722	ng		9

R9081309.M Fri Aug 14 07:25:02 2009 EM 8/14/09 Page: 1

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130930.D
Acq On : 14 Aug 2009 4:43
Operator : EM
Sample : 5ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100904
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:23:40 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	13.01	83	192914	5.415	ng		99
34) Tetrahydrofuran (THF)	13.58	72	83814	6.867	ng	#	86
35) Ethyl tert-Butyl Ether	13.71	87	142829	5.293	ng	#	86
36) 1,2-Dichloroethane	14.13	62	150902	5.284	ng		99
38) 1,1,1-Trichloroethane	14.53	97	168717	5.000	ng		99
39) Isopropyl Acetate	15.06	61	158534	11.834	ng	#	79
40) 1-Butanol	15.09	56	248323	10.863	ng		81
41) Benzene	15.23	78	489432	4.989	ng		98
42) Carbon Tetrachloride	15.46	117	142799	4.955	ng		100
43) Cyclohexane	15.65	84	392518	10.699	ng		89
44) tert-Amyl Methyl Ether	16.10	73	352122	5.430	ng		98
45) 1,2-Dichloropropane	16.43	63	124973	6.043	ng		98
46) Bromodichloromethane	16.69	83	155746	5.492	ng		98
47) Trichloroethene	16.77	130	122841	4.899	ng		99
48) 1,4-Dioxane	16.72	88	98401	5.959	ng		91
49) 2,2,4-Trimethylpentane...	16.85	57	566857	5.963	ng		93
50) Methyl Methacrylate	17.02	100	99872	10.855	ng		90
51) n-Heptane	17.21	71	134268	5.652	ng		95
52) cis-1,3-Dichloropropene	17.95	75	186847	5.431	ng		98
53) 4-Methyl-2-pentanone	17.99	58	119233	6.420	ng		95
54) trans-1,3-Dichloropropene	18.64	75	186516	6.159	ng		98
55) 1,1,2-Trichloroethane	18.88	97	112218	5.445	ng		99
58) Toluene	19.28	91	521746	4.839	ng		100
59) 2-Hexanone	19.58	43	278990	6.017	ng		99
60) Dibromochloromethane	19.82	129	125108	5.160	ng		99
61) 1,2-Dibromoethane	20.15	107	123637	4.951	ng		100
62) n-Butyl Acetate	20.39	43	322004	6.246	ng		98
63) n-Octane	20.56	57	120268	5.709	ng		91
64) Tetrachloroethene	20.75	166	122324	4.291	ng		100
65) Chlorobenzene	21.62	112	321850	4.745	ng		99
66) Ethylbenzene	22.09	91	567585	4.841	ng		98
67) m- & p-Xylenes	22.32	91	871075	9.010	ng		100
68) Bromoform	22.41	173	97277	4.503	ng		100
69) Styrene	22.77	104	344065	4.826	ng		99
70) o-Xylene	22.92	91	444727	4.618	ng		99
71) n-Nonane	23.17	43	272588	5.797	ng		93
72) 1,1,2,2-Tetrachloroethane	22.88	83	199967	4.992	ng		100
74) Cumene	23.65	105	562278	4.396	ng		98
75) alpha-Pinene	24.15	93	276329	4.521	ng		99
76) n-Propylbenzene	24.28	91	700875	4.549	ng		99
77) 3-Ethyltoluene	24.40	105	559902	4.619	ng		98
78) 4-Ethyltoluene	24.46	105	553680	4.552	ng		100
79) 1,3,5-Trimethylbenzene	24.55	105	455198	4.500	ng		99

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130930.D
Acq On : 14 Aug 2009 4:43
Operator : EM
Sample : 5ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100904
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:23:40 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
80) alpha-Methylstyrene	24.73	118	253262	4.476 ng	99
81) 2-Ethyltoluene	24.79	105	552087	4.348 ng	99
82) 1,2,4-Trimethylbenzene	25.05	105	462116	4.084 ng	99
83) n-Decane	25.15	57	285891	5.231 ng	94
84) Benzyl Chloride	25.21	91	398762	4.917 ng	98
85) 1,3-Dichlorobenzene	25.25	146	251311	4.232 ng	100
86) 1,4-Dichlorobenzene	25.32	146	256766	4.150 ng	100
87) sec-Butylbenzene	25.38	105	629377	4.449 ng	99
88) 4-Isopropyltoluene (p-...	25.56	119	574902	4.031 ng	99
89) 1,2,3-Trimethylbenzene	25.57	105	470067	4.080 ng	98
90) 1,2-Dichlorobenzene	25.75	146	241180	3.907 ng	100
91) d-Limonene	25.74	68	203082	4.518 ng	94
92) 1,2-Dibromo-3-Chloropr...	26.26	157	84105	4.852 ng	96
93) n-Undecane	26.65	57	302353	5.403 ng	96
94) 1,2,4-Trichlorobenzene	27.79	180	185058	4.646 ng	99
95) Naphthalene	27.94	128	655899	4.724 ng	99
96) n-Dodecane	27.89	57	311207	5.204 ng	96
97) Hexachlorobutadiene	28.36	225	101578	4.458 ng	98
98) Cyclohexanone	22.51	55	142237	4.374 ng	94
99) tert-Butylbenzene	25.05	119	454889	3.978 ng	99
100) n-Butylbenzene	26.06	91	521247	4.628 ng	99

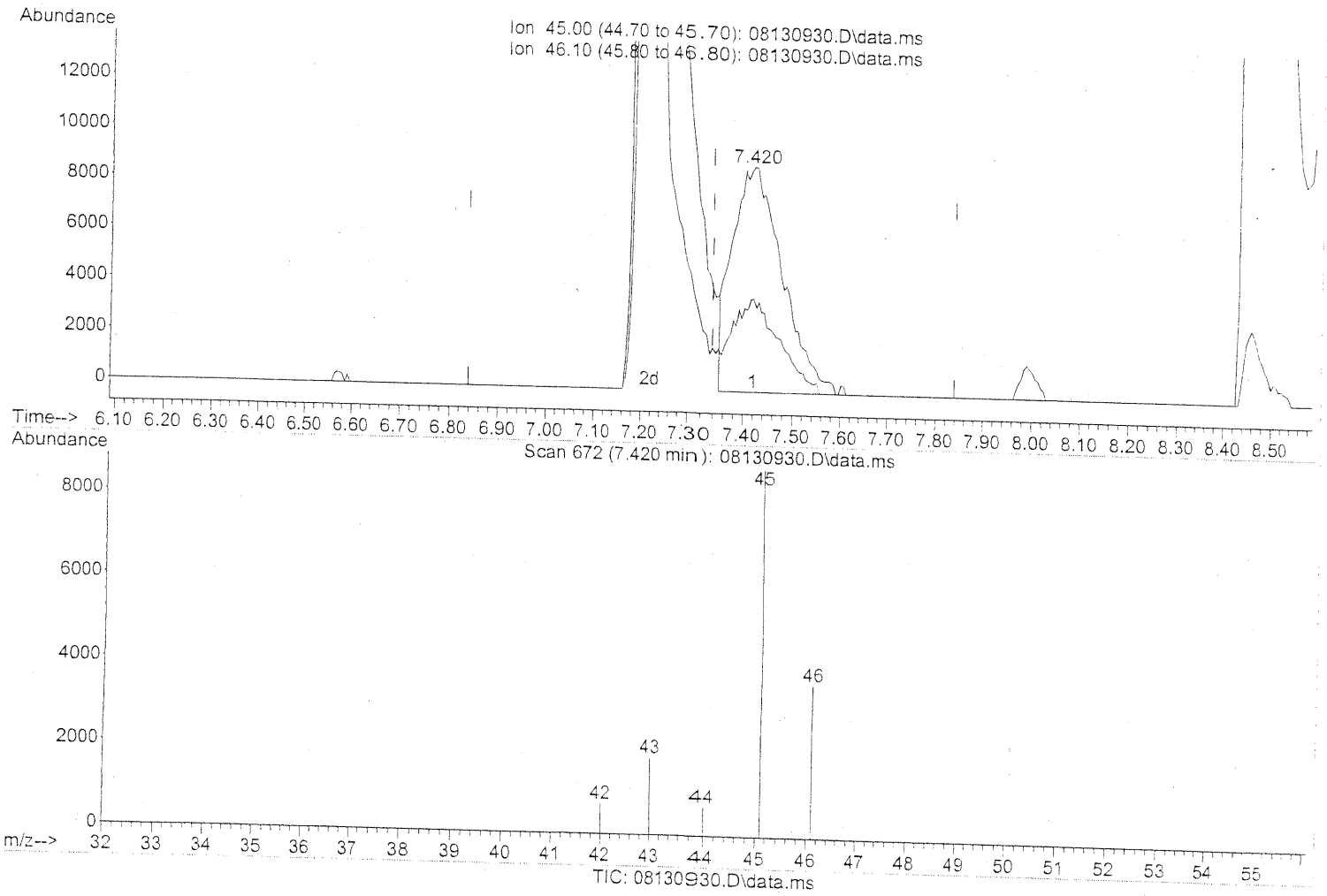
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Sam 8/14/09

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130930.D
Acq On : 14 Aug 2009 4:43
Operator : EM
Sample : 5ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100904
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:23:02 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration



(10) Ethanol (T)

7.420min (+0.080) 4.20ng

response 62719

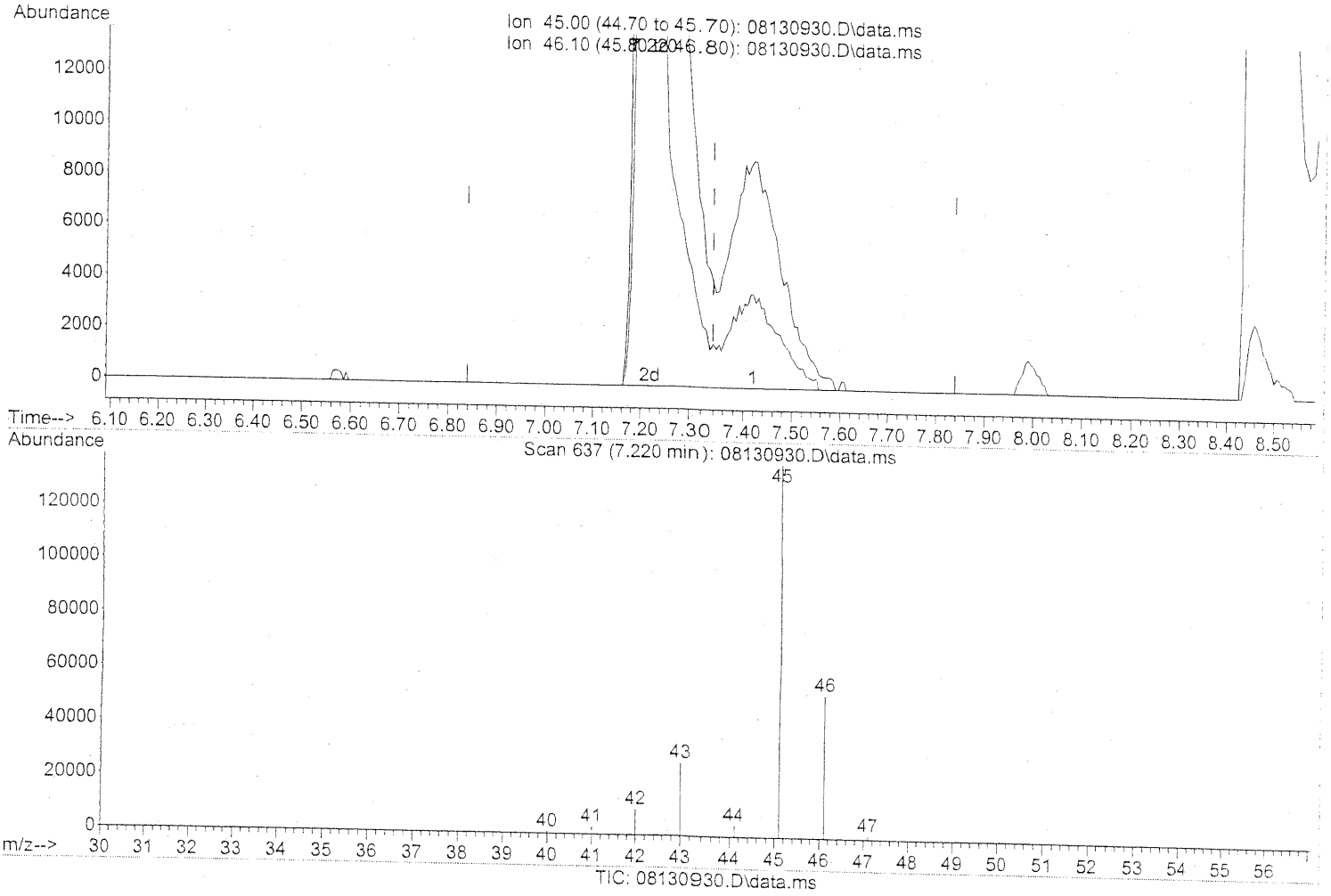
Ion	Exp%	Act%
45.00	100	100
46.10	39.00	38.29
0.00	0.00	0.00
0.00	0.00	0.00

SP

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130930.D
Acq On : 14 Aug 2009 4:43
Operator : EM
Sample : 5ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100904
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:23:02 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration



(10) Ethanol (T)

7.220min (-0.120) 33.76ng m

response 503955

Ion	Exp%	Act%
45.00	100	100
46.10	39.00	4.77#
0.00	0.00	0.00
0.00	0.00	0.00

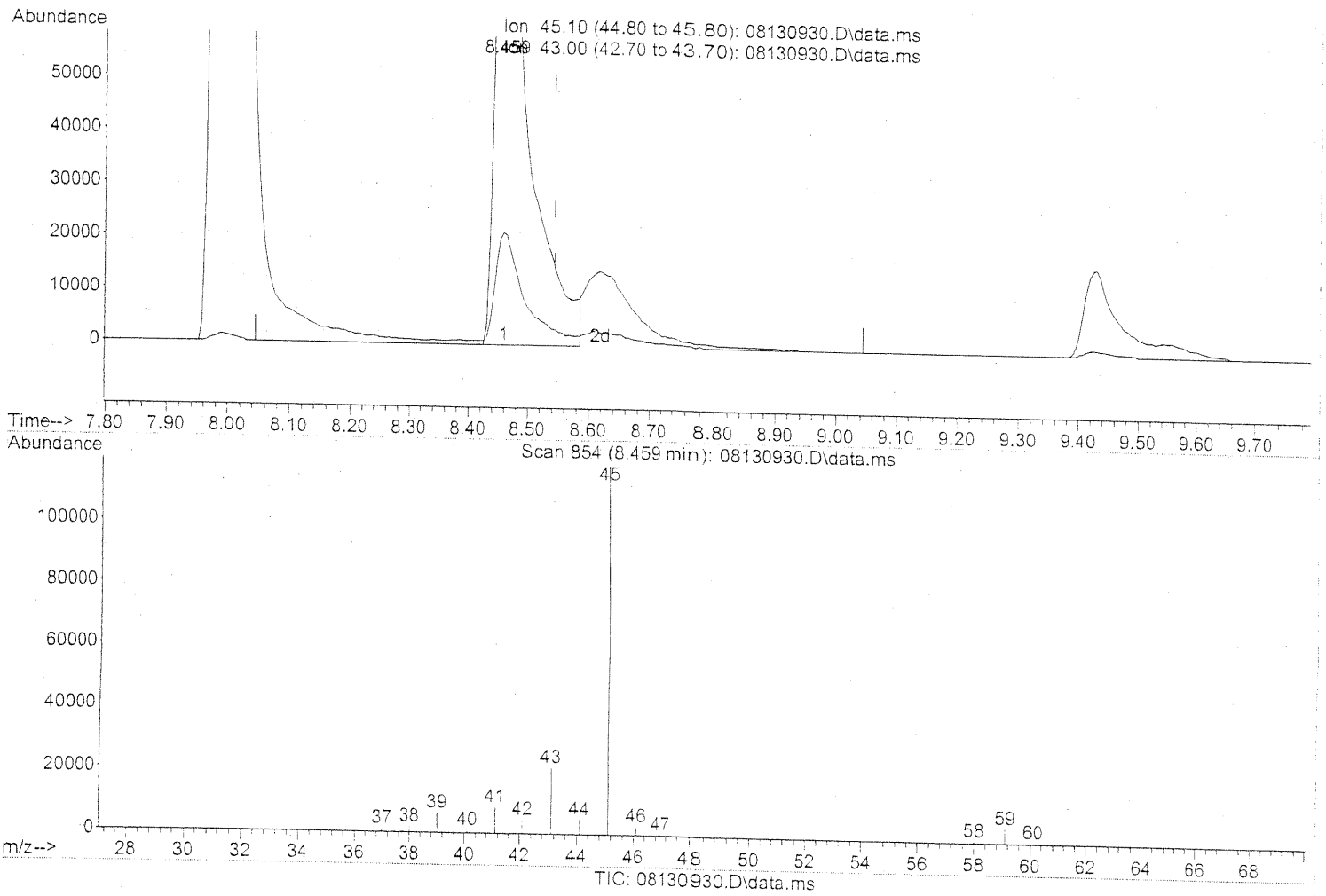
SP → IC
EM 8/14/09

RA 8/15/09

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130930.D
Acq On : 14 Aug 2009 4:43
Operator : EM
Sample : 5ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100904
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:23:02 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration



(15) 2-Propanol (Isopropanol) (T)

8.459min (-0.086) 8.88ng

response 396677

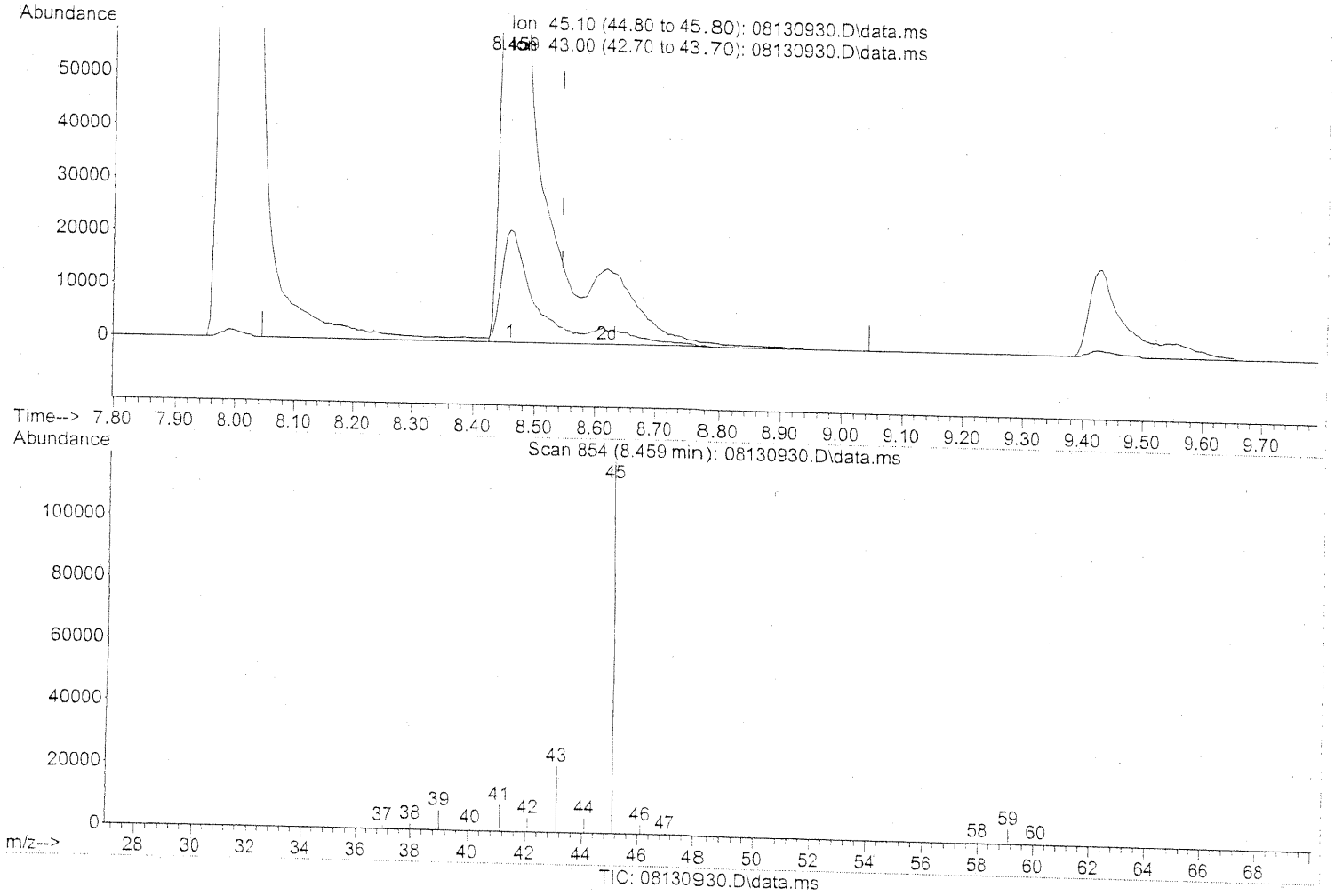
Ion	Exp%	Act%
45.10	100	100
43.00	20.50	17.32
0.00	0.00	0.00
0.00	0.00	0.00

PT

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130930.D
Acq On : 14 Aug 2009 4:43
Operator : EM
Sample : 5ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100904
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:23:02 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration



(15) 2-Propanol (Isopropanol) (T)

8.459min (-0.086) 10.67ng m

response 476882

Ion	Exp%	Act%
45.10	100	100
43.00	20.50	14.41
0.00	0.00	0.00
0.00	0.00	0.00

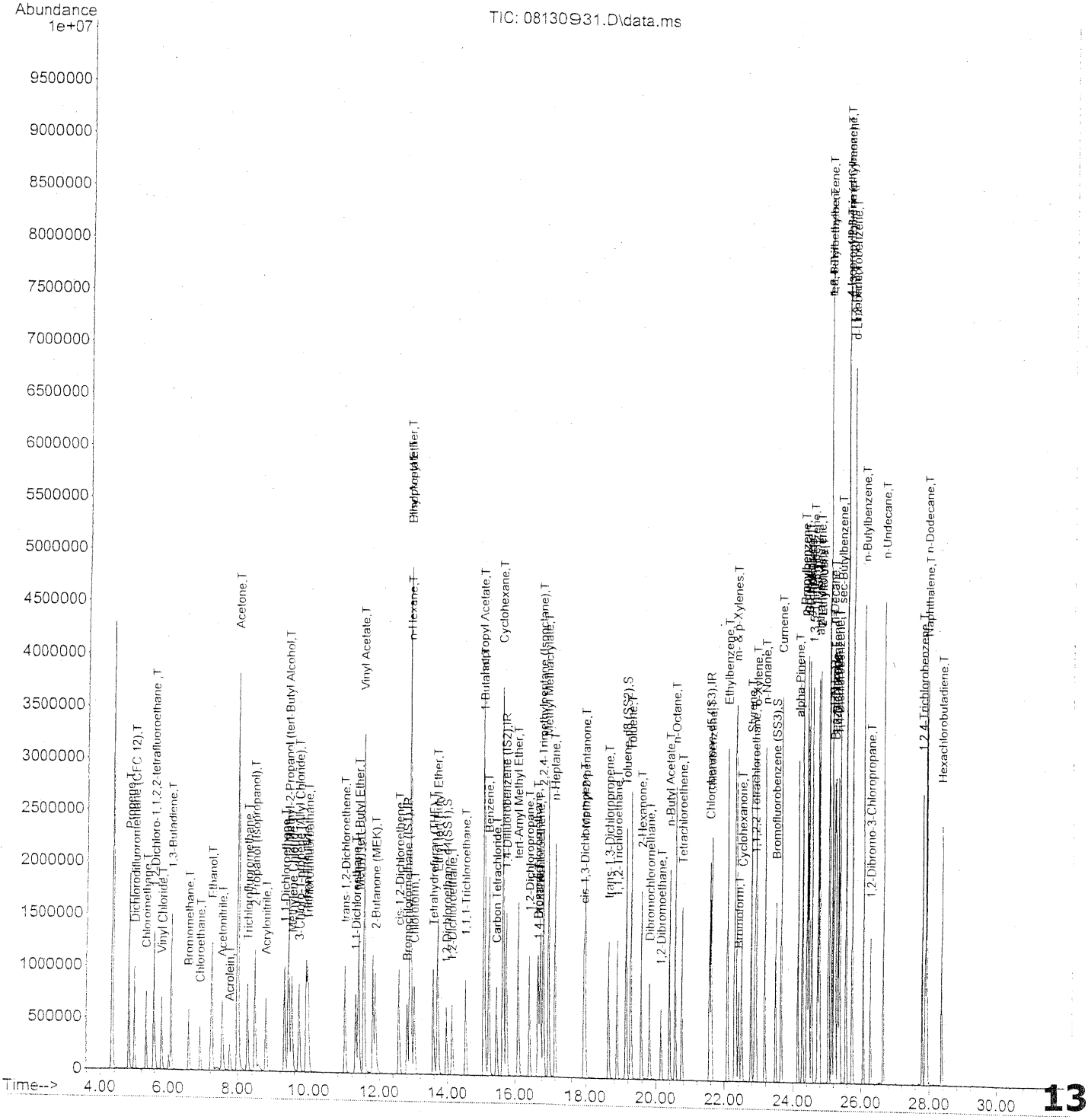
PT → LC
Tom 8/14/09

8/14 8/15/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130931.D
Acq On : 14 Aug 2009 5:24
Operator : EM
Sample : 25ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100902
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:26:12 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130931.D
Acq On : 14 Aug 2009 5:24
Operator : EM
Sample : 25ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100902
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:26:12 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.82	130	364116	25.000	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	15.75	114	1865895	25.000	ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.56	82	897905	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.97	65	639555	24.827	ng		-0.02
Spiked Amount 25.000			Recovery =	99.32%			
57) Toluene-d8 (SS2)	19.15	98	2134862	24.032	ng		-0.01
Spiked Amount 25.000			Recovery =	96.12%			
73) Bromofluorobenzene (SS3)	23.49	174	608116	22.770	ng		0.00
Spiked Amount 25.000			Recovery =	91.08%			
Target Compounds							Qvalue
2) Propene	4.83	42	893813	38.911	ng		96
3) Dichlorodifluoromethan...	5.00	85	1122799	24.492	ng		99
4) Chloromethane	5.33	50	1060306	30.886	ng		99
5) 1,2-Dichloro-1,1,2,2-t...	5.59	135	614382	23.795	ng		100
6) Vinyl Chloride	5.80	62	1011049	27.626	ng		99
7) 1,3-Butadiene	6.08	54	905992	34.431	ng		99
8) Bromomethane	6.58	94	552570	25.596	ng		100
9) Chloroethane	6.93	64	511522	27.936	ng		100
10) Ethanol	7.26	45	2645495m	173.570	ng		
11) Acetonitrile	7.57	41	1267304	36.772	ng		98
12) Acrolein	7.79	56	380570	34.250	ng		98
13) Acetone	8.01	58	2533900	146.162	ng		88
14) Trichlorofluoromethane	8.29	101	1008004	25.243	ng		98
15) 2-Propanol (Isopropanol)	8.48	45	2453135m	53.777	ng		
16) Acrylonitrile	8.80	53	893242	38.407	ng		98
17) 1,1-Dichloroethene	9.33	96	601910	29.600	ng		97
18) 2-Methyl-2-Propanol (t...	9.44	59	3134377	61.010	ng		97
19) Methylene Chloride	9.54	84	621124	27.058	ng		89
20) 3-Chloro-1-propene (Al...	9.73	41	978578	39.503	ng		90
21) Trichlorotrifluoroethane	9.98	151	488676	26.977	ng		97
22) Carbon Disulfide	9.93	76	2326514	29.756	ng		99
23) trans-1,2-Dichloroethene	11.00	61	944327	31.664	ng		92
24) 1,1-Dichloroethane	11.31	63	1127620	31.017	ng		100
25) Methyl tert-Butyl Ether	11.40	73	1913053	29.838	ng		96
26) Vinyl Acetate	11.56	86	656008	158.651	ng	#	71
27) 2-Butanone (MEK)	11.89	72	449156	33.967	ng	#	85
28) cis-1,2-Dichloroethene	12.58	61	894671	31.087	ng		93
29) Diisopropyl Ether	12.91	87	549290	26.727	ng	#	69
30) Ethyl Acetate	12.91	61	522358	60.309	ng		97
31) n-Hexane	12.93	57	1172996	29.289	ng		96

R9081309.M Fri Aug 14 07:27:05 2009

Em 8/14/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130931.D
Acq On : 14 Aug 2009 5:24
Operator : EM
Sample : 25ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100902
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:26:12 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	13.03	83	998779	27.462	ng		100
34) Tetrahydrofuran (THF)	13.58	72	424555	34.073	ng	#	88
35) Ethyl tert-Butyl Ether	13.71	87	757840	27.508	ng	#	88
36) 1,2-Dichloroethane	14.13	62	783128	26.860	ng		99
38) 1,1,1-Trichloroethane	14.54	97	885515	25.875	ng		99
39) Isopropyl Acetate	15.07	61	888654	65.401	ng	#	83
40) 1-Butanol	15.09	56	1501433	64.760	ng		88
41) Benzene	15.23	78	2534149	25.468	ng		98
42) Carbon Tetrachloride	15.46	117	761579	26.057	ng		99
43) Cyclohexane	15.66	84	2072518	55.700	ng		89
44) tert-Amyl Methyl Ether	16.10	73	1859147	28.269	ng		99
45) 1,2-Dichloropropane	16.43	63	658884	31.411	ng		99
46) Bromodichloromethane	16.70	83	830347	28.871	ng		99
47) Trichloroethene	16.77	130	648588	25.505	ng		100
48) 1,4-Dioxane	16.72	88	543245	32.435	ng		89
49) 2,2,4-Trimethylpentane...	16.86	57	2947745	30.571	ng		93
50) Methyl Methacrylate	17.02	100	558743	59.877	ng		92
51) n-Heptane	17.21	71	706671	29.331	ng		94
52) cis-1,3-Dichloropropene	17.95	75	1004919	28.799	ng		100
53) 4-Methyl-2-pentanone	17.99	58	673431	35.750	ng		95
54) trans-1,3-Dichloropropene	18.64	75	1018443	33.158	ng		100
55) 1,1,2-Trichloroethane	18.89	97	592726	28.354	ng		99
58) Toluene	19.28	91	2739340	25.191	ng		100
59) 2-Hexanone	19.58	43	1588763	33.971	ng		99
60) Dibromochloromethane	19.82	129	680507	27.831	ng		99
61) 1,2-Dibromoethane	20.15	107	663705	26.350	ng		99
62) n-Butyl Acetate	20.39	43	1860228	35.779	ng		99
63) n-Octane	20.56	57	626246	29.472	ng		92
64) Tetrachloroethene	20.76	166	654987	22.781	ng		99
65) Chlorobenzene	21.62	112	1683217	24.606	ng		100
66) Ethylbenzene	22.09	91	2994707	25.325	ng		99
67) m- & p-Xylenes	22.33	91	4647270	47.659	ng		100
68) Bromoform	22.42	173	548438	25.169	ng		100
69) Styrene	22.77	104	1863220	25.911	ng		100
70) o-Xylene	22.92	91	2385962	24.562	ng		99
71) n-Nonane	23.18	43	1438625	30.334	ng		93
72) 1,1,2,2-Tetrachloroethane	22.89	83	1078529	26.696	ng		100
74) Cumene	23.66	105	3011318	23.343	ng		99
75) alpha-Pinene	24.15	93	1480597	24.016	ng		99
76) n-Propylbenzene	24.28	91	3744994	24.101	ng		99
77) 3-Ethyltoluene	24.41	105	3058348	25.017	ng		99
78) 4-Ethyltoluene	24.46	105	2932516	23.903	ng		100
79) 1,3,5-Trimethylbenzene	24.55	105	2446240	23.977	ng		100

tm 8/14/09

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130931.D
Acq On : 14 Aug 2009 5:24
Operator : EM
Sample : 25ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100902
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:26:12 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
80) alpha-Methylstyrene	24.74	118	1393210	24.411 ng	99
81) 2-Ethyltoluene	24.79	105	2942387	22.975 ng	99
82) 1,2,4-Trimethylbenzene	25.05	105	2623418	22.990 ng	99
83) n-Decane	25.16	57	1509811	27.388 ng	95
84) Benzyl Chloride	25.22	91	2320976	28.376 ng	99
85) 1,3-Dichlorobenzene	25.25	146	1356990	22.655 ng	99
86) 1,4-Dichlorobenzene	25.33	146	1381988	22.145 ng	100
87) sec-Butylbenzene	25.38	105	3356026	23.524 ng	99
88) 4-Isopropyltoluene (p-...	25.57	119	3219478	22.384 ng	99
89) 1,2,3-Trimethylbenzene	25.57	105	2662217	22.911 ng	98
90) 1,2-Dichlorobenzene	25.74	146	1327033	21.315 ng	100
91) d-Limonene	25.74	68	1139413	25.133 ng	95
92) 1,2-Dibromo-3-Chloropr...	26.27	157	460372	26.331 ng	95
93) n-Undecane	26.65	57	1601142	28.367 ng	97
94) 1,2,4-Trichlorobenzene	27.79	180	978833	24.366 ng	99
95) Naphthalene	27.94	128	3428876	24.487 ng	100
96) n-Dodecane	27.89	57	1635236	27.111 ng	96
97) Hexachlorobutadiene	28.36	225	549265	23.899 ng	99
98) Cyclohexanone	22.51	55	919787	28.042 ng	94
99) tert-Butylbenzene	25.05	119	2572033	22.302 ng	100
100) n-Butylbenzene	26.07	91	2798242	24.631 ng	100

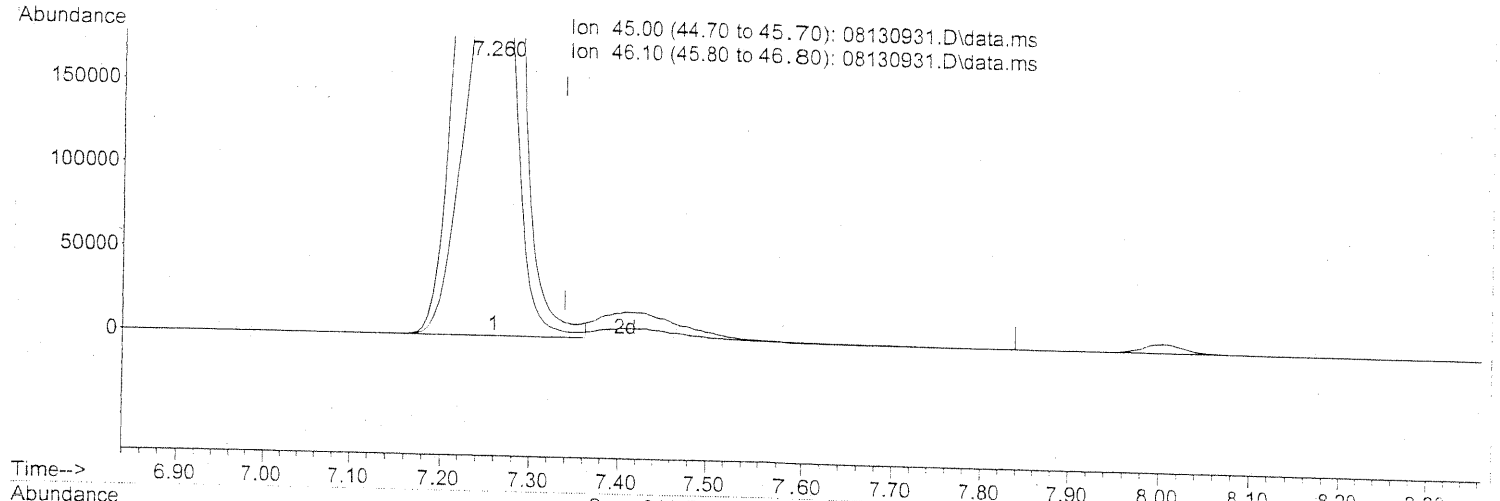
(#) = qualifier out of range (m) = manual integration (+) = signals summed

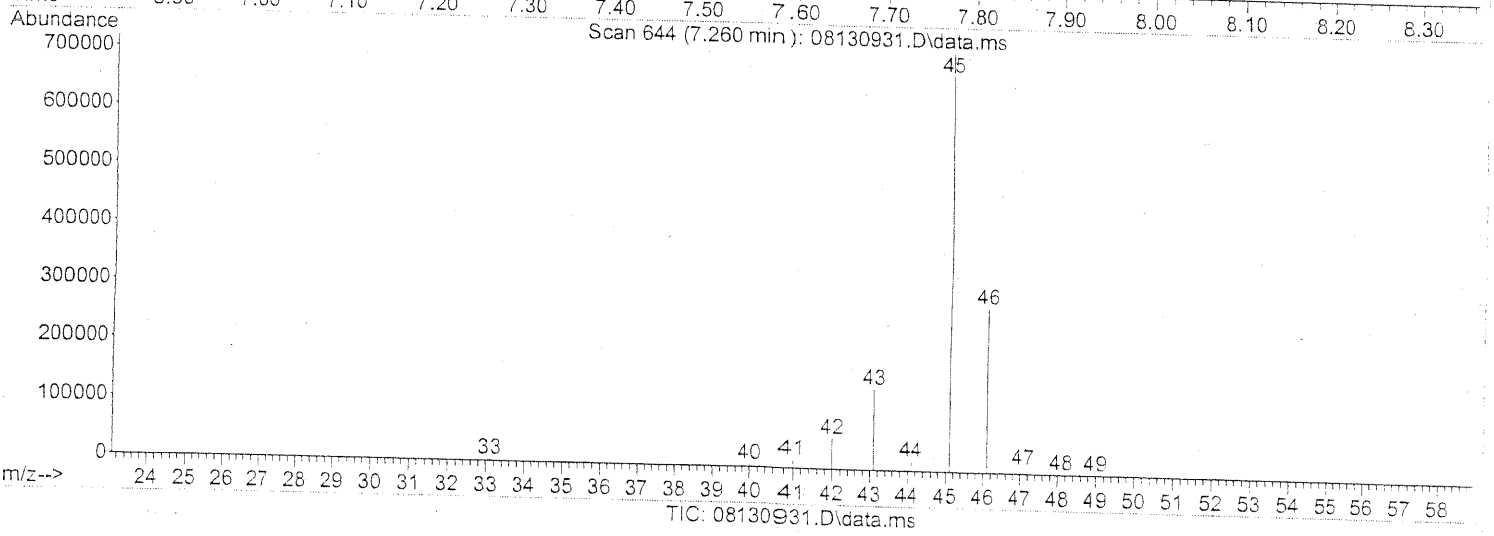
EM 8/14/09

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130931.D
Acq On : 14 Aug 2009 5:24
Operator : EM
Sample : 25ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100902
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:25:12 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration





(10) Ethanol (T)

7.260min (-0.080) 166.43ng

response 2536739

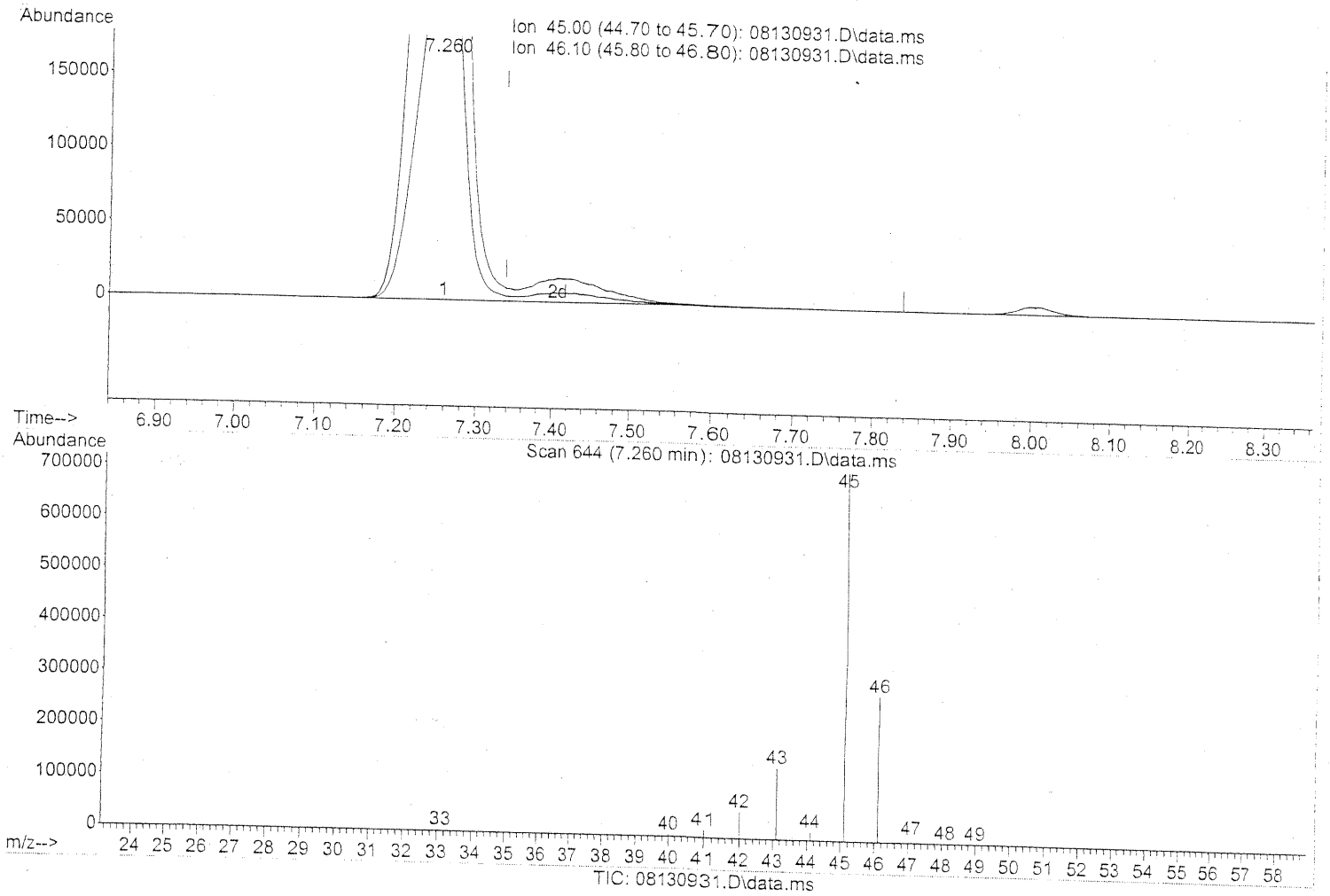
PT

Ion	Exp%	Act%
45.00	100	100
46.10	39.00	39.10
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130931.D
Acq On : 14 Aug 2009 5:24
Operator : EM
Sample : 25ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100902
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:25:12 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration



(10) Ethanol (T)

7.260min (-0.080) 173.57ng m

response 2645495

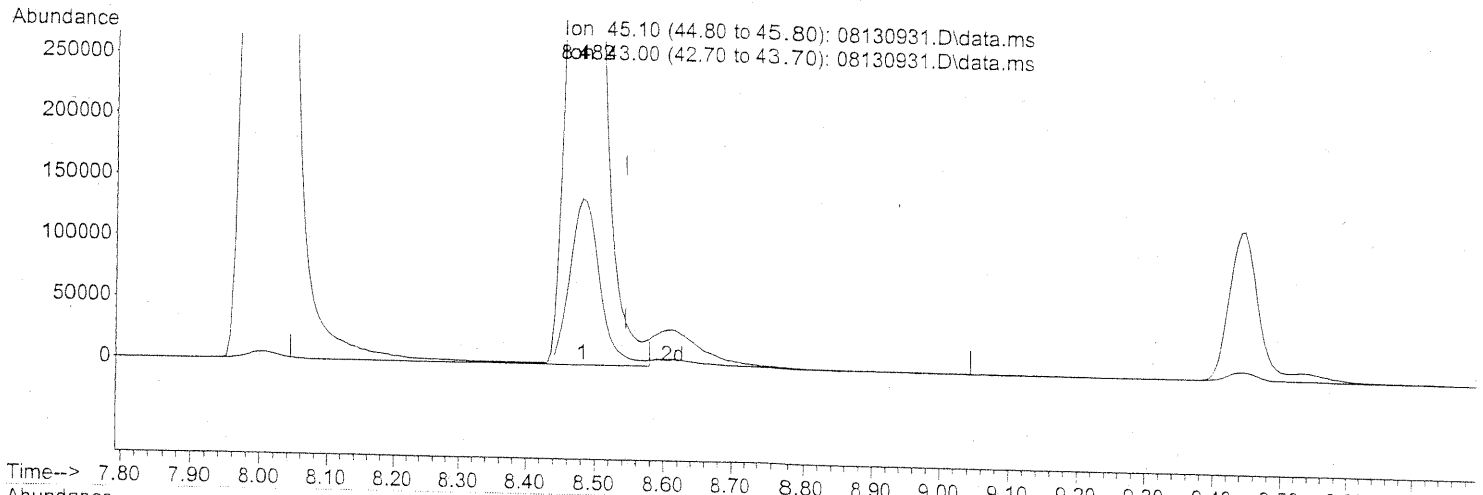
Ion	Exp%	Act%
45.00	100	100
46.10	39.00	37.49
0.00	0.00	0.00
0.00	0.00	0.00

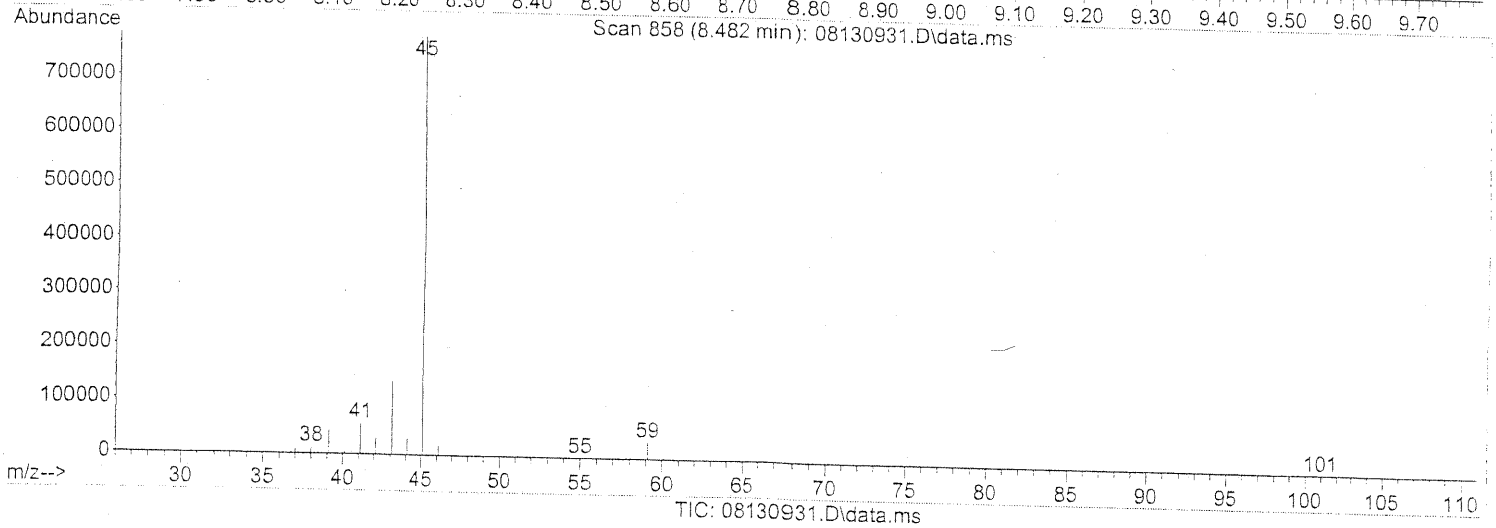
PT → LC
8/14/09

8/15/09

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130931.D
Acq On : 14 Aug 2009 5:24
Operator : EM
Sample : 25ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100902
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:25:12 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration





(15) 2-Propanol (Isopropanol) (T)

8.482min (-0.063) 50.45ng

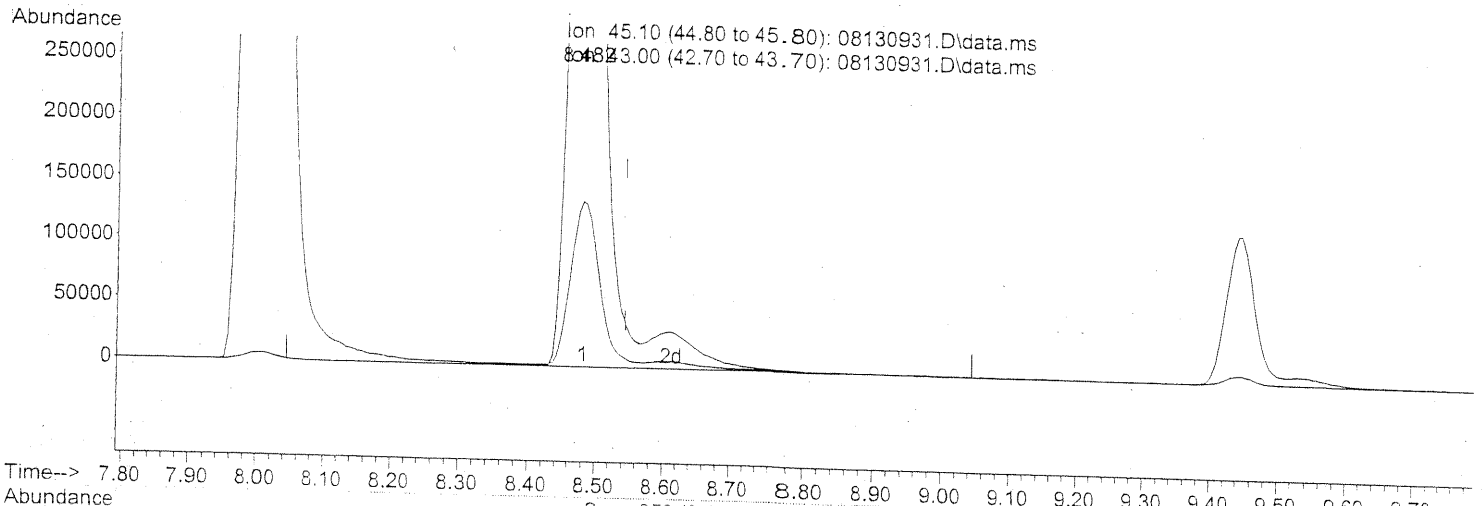
response 2301319

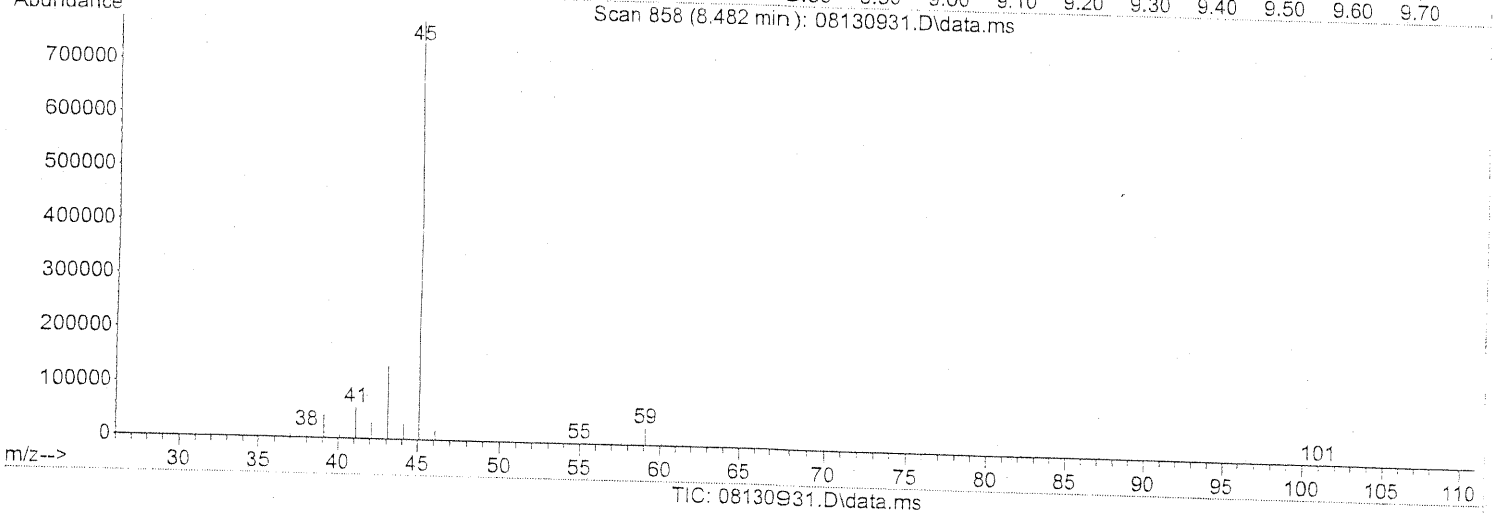
Ion	Exp%	Act%
45.10	100	100
43.00	20.50	19.19
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130931.D
Acq On : 14 Aug 2009 5:24
Operator : EM
Sample : 25ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100902
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:25:12 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration





(15) 2-Propanol (Isopropanol) (T)

8.482min (-0.063) 53.78ng m

response 2453135

Ion	Exp%	Act%
45.10	100	100
43.00	20.50	18.00
0.00	0.00	0.00
0.00	0.00	0.00

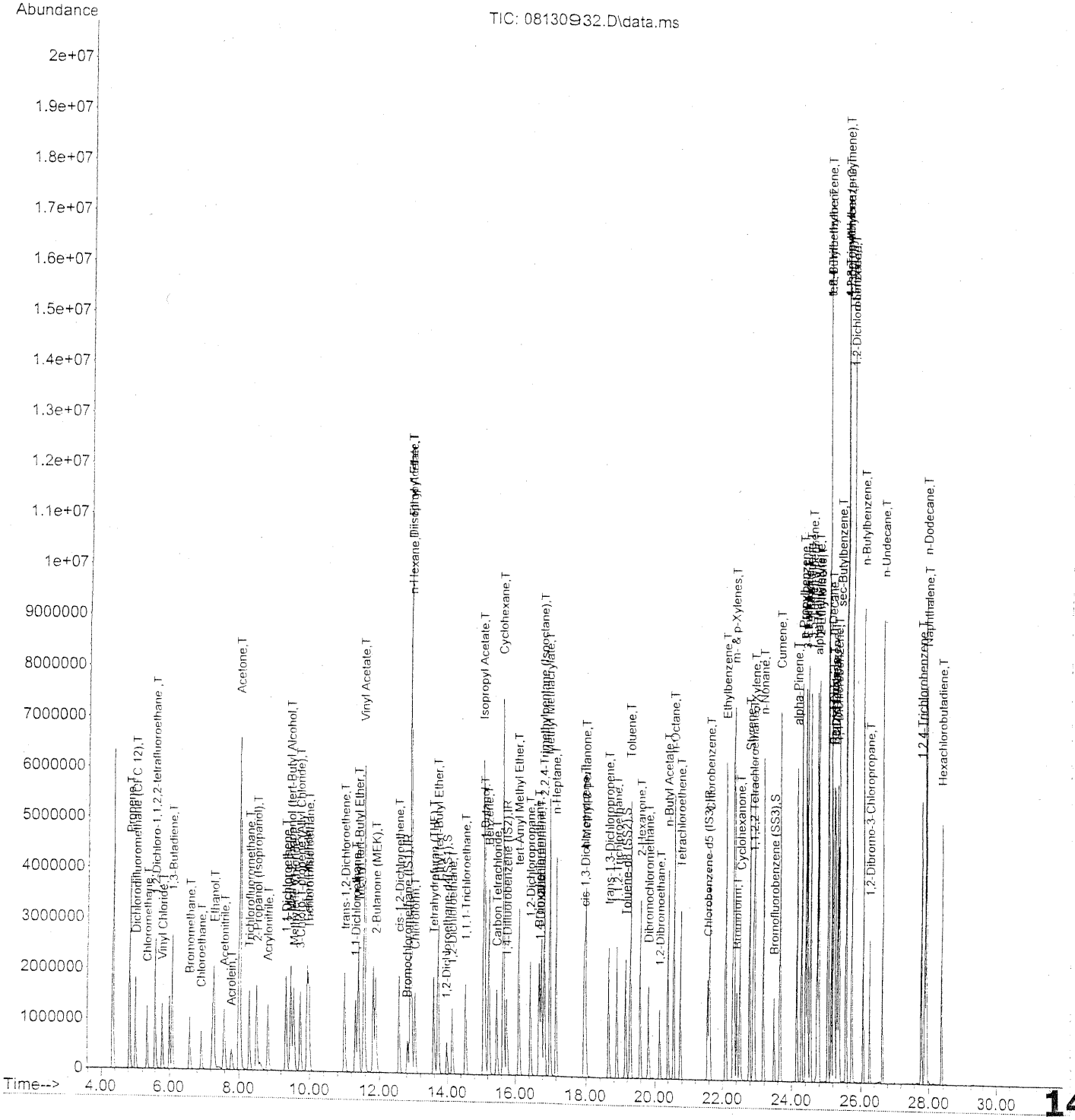
PT → TIC
Tom 8/14/09

PM 8/15/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130932.D
Acq On : 14 Aug 2009 6:06
Operator : EM
Sample : 50ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100902
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:27:14 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration



Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130932.D
Acq On : 14 Aug 2009 6:06
Operator : EM
Sample : 50ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100902
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:27:14 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.82	130	350547	25.000	ng		-0.01
37) 1,4-Difluorobenzene (IS2)	15.77	114	1802547	25.000	ng		0.00
56) Chlorobenzene-d5 (IS3)	21.56	82	865291	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.98	65	612890	24.713	ng		-0.01
Spiked Amount 25.000			Recovery =	98.84%			
57) Toluene-d8 (SS2)	19.15	98	2053608	23.989	ng		0.00
Spiked Amount 25.000			Recovery =	95.96%			
73) Bromofluorobenzene (SS3)	23.49	174	585162	22.737	ng		0.00
Spiked Amount 25.000			Recovery =	90.96%			
Target Compounds							Qvalue
2) Propene	4.84	42	1835063	82.979	ng		96
3) Dichlorodifluoromethan...	5.01	85	2152098	48.762	ng		99
4) Chloromethane	5.34	50	1909302	57.769	ng		99
5) 1,2-Dichloro-1,1,2,2-t...	5.60	135	1202790	48.388	ng		100
6) Vinyl Chloride	5.80	62	1933734	54.883	ng		99
7) 1,3-Butadiene	6.09	54	1726352	68.147	ng		99
8) Bromomethane	6.59	94	1036817	49.887	ng		100
9) Chloroethane	6.93	64	971424	55.107	ng		100
10) Ethanol	7.30	45	5039053	343.407	ng		100
11) Acetonitrile	7.59	41	2412776	72.719	ng		99
12) Acrolein	7.79	56	727129	67.972	ng		98
13) Acetone	8.03	58	4904508	293.855	ng		87
14) Trichlorofluoromethane	8.29	101	1926285	50.107	ng		98
15) 2-Propanol (Isopropanol)	8.51	45	3892928	88.644	ng		94
16) Acrylonitrile	8.82	53	1701577	75.996	ng		99
17) 1,1-Dichloroethene	9.33	96	1160521	59.280	ng		98
18) 2-Methyl-2-Propanol (t...	9.46	59	4054207	81.969	ng		97
19) Methylene Chloride	9.56	84	1192968	53.981	ng		89
20) 3-Chloro-1-propene (Al...	9.74	41	1889044	79.209	ng		90
21) Trichlorotrifluoroethane	9.99	151	945670	54.226	ng		97
22) Carbon Disulfide	9.94	76	4497151	59.746	ng		98
23) trans-1,2-Dichloroethene	11.01	61	1818529	63.338	ng		93
24) 1,1-Dichloroethane	11.32	63	2174072	62.117	ng		100
25) Methyl tert-Butyl Ether	11.40	73	3746603	60.699	ng		96
26) Vinyl Acetate	11.57	86	1327059	333.362	ng	#	78
27) 2-Butanone (MEK)	11.90	72	865059	67.951	ng	#	86
28) cis-1,2-Dichloroethene	12.58	61	1721120	62.119	ng		94
29) Diisopropyl Ether	12.92	87	1111656	56.184	ng	#	74
30) Ethyl Acetate	12.92	61	1067973	128.075	ng		97
31) n-Hexane	12.93	57	2406714	62.420	ng		94

EM 8/14/09

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Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130932.D
Acq On : 14 Aug 2009 6:06
Operator : EM
Sample : 50ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100902
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:27:14 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	13.04	83	1924717	54.970	ng		100
34) Tetrahydrofuran (THF)	13.59	72	790606	65.907	ng	#	87
35) Ethyl tert-Butyl Ether	13.72	87	1490436	56.193	ng	#	88
36) 1,2-Dichloroethane	14.14	62	1501599	53.495	ng		99
38) 1,1,1-Trichloroethane	14.54	97	1725003	52.176	ng		100
39) Isopropyl Acetate	15.08	61	1746401	133.045	ng	#	85
40) 1-Butanol	15.11	56	2940898	131.304	ng		88
41) Benzene	15.24	78	4920242	51.185	ng		99
42) Carbon Tetrachloride	15.47	117	1493939	52.911	ng		99
43) Cyclohexane	15.66	84	4129214	114.874	ng		88
44) tert-Amyl Methyl Ether	16.11	73	3664090	57.672	ng		99
45) 1,2-Dichloropropane	16.44	63	1271414	62.743	ng		98
46) Bromodichloromethane	16.70	83	1623042	58.416	ng		99
47) Trichloroethene	16.78	130	1266559	51.557	ng		100
48) 1,4-Dioxane	16.73	88	1067524	65.978	ng		89
49) 2,2,4-Trimethylpentane...	16.86	57	5774283	61.989	ng		93
50) Methyl Methacrylate	17.03	100	1111183	123.264	ng		93
51) n-Heptane	17.22	71	1384269	59.475	ng		95
52) cis-1,3-Dichloropropene	17.95	75	1961714	58.194	ng		100
53) 4-Methyl-2-pentanone	17.99	58	1317291	72.388	ng		95
54) trans-1,3-Dichloropropene	18.65	75	1988137	67.004	ng		100
55) 1,1,2-Trichloroethane	18.90	97	1148732	56.882	ng		98
58) Toluene	19.28	91	5320486	50.772	ng		100
59) 2-Hexanone	19.59	43	3087649	68.509	ng		100
60) Dibromochloromethane	19.82	129	1325208	56.240	ng		100
61) 1,2-Dibromoethane	20.15	107	1295084	53.355	ng		100
62) n-Butyl Acetate	20.39	43	3708971	74.026	ng		99
63) n-Octane	20.56	57	1231350	60.134	ng		92
64) Tetrachloroethene	20.76	166	1285349	46.390	ng		99
65) Chlorobenzene	21.63	112	3279777	49.753	ng		100
66) Ethylbenzene	22.09	91	5886739	51.658	ng		99
67) m- & p-Xylenes	22.33	91	9252004	98.458	ng		100
68) Bromoform	22.42	173	1097931	52.286	ng		100
69) Styrene	22.78	104	3668340	52.938	ng		100
70) o-Xylene	22.92	91	4731058	50.539	ng		99
71) n-Nonane	23.18	43	2791725	61.083	ng		94
72) 1,1,2,2-Tetrachloroethane	22.89	83	2141569	55.006	ng		100
74) Cumene	23.66	105	5934180	47.735	ng		99
75) alpha-Pinene	24.15	93	2936785	49.431	ng		100
76) n-Propylbenzene	24.29	91	7354011	49.110	ng		100
77) 3-Ethyltoluene	24.41	105	5944493	50.459	ng		99
78) 4-Ethyltoluene	24.47	105	5986526	50.636	ng		100
79) 1,3,5-Trimethylbenzene	24.55	105	4865603	49.487	ng		99

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130932.D
Acq On : 14 Aug 2009 6:06
Operator : EM
Sample : 50ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100902
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:27:14 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration

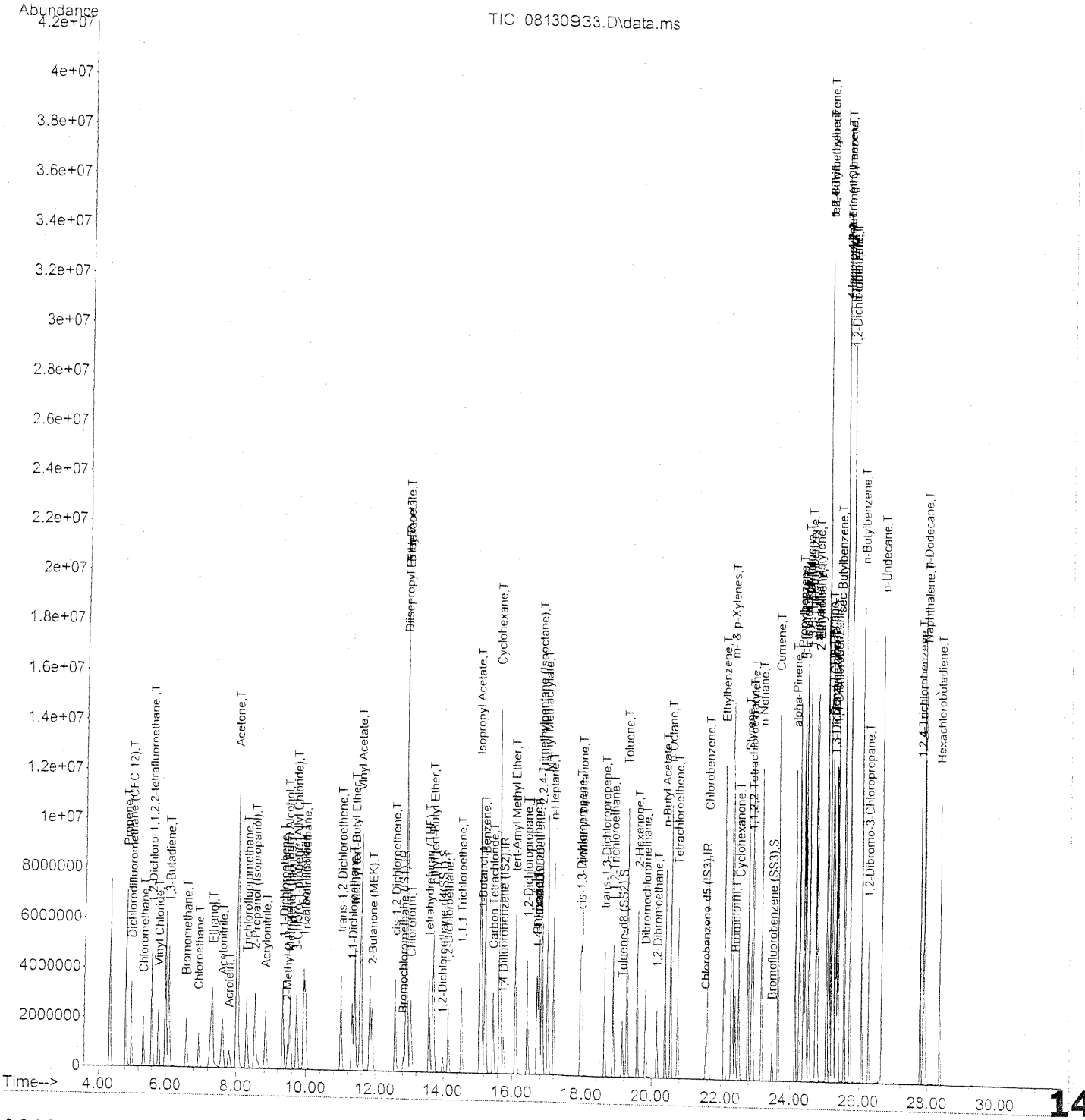
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.75	118	2788713	50.704	ng	98
81) 2-Ethyltoluene	24.79	105	5835415	47.282	ng	100
82) 1,2,4-Trimethylbenzene	25.06	105	5419555	49.283	ng	98
83) n-Decane	25.16	57	2958484	55.690	ng	96
84) Benzyl Chloride	25.23	91	4657935	59.094	ng	100
85) 1,3-Dichlorobenzene	25.25	146	2725906	47.225	ng	100
86) 1,4-Dichlorobenzene	25.33	146	2761502	45.918	ng	100
87) sec-Butylbenzene	25.39	105	6623319	48.176	ng	100
88) 4-Isopropyltoluene (p-...	25.57	119	6624766	47.796	ng	100
89) 1,2,3-Trimethylbenzene	25.57	105	5491766	49.043	ng	97
90) 1,2-Dichlorobenzene	25.75	146	2744516	45.744	ng	100
91) d-Limonene	25.75	68	2289426	52.402	ng	97
92) 1,2-Dibromo-3-Chloropr...	26.27	157	922457	54.748	ng	95
93) n-Undecane	26.66	57	3160860	58.111	ng	98
94) 1,2,4-Trichlorobenzene	27.80	180	2014621	52.040	ng	99
95) Naphthalene	27.94	128	7027186	52.076	ng	100
96) n-Dodecane	27.89	57	3283767	56.494	ng	97
97) Hexachlorobutadiene	28.36	225	1130021	51.021	ng	99
98) Cyclohexanone	22.52	55	1802415	57.022	ng	95
99) tert-Butylbenzene	25.06	119	5291689	47.613	ng	100
100) n-Butylbenzene	26.07	91	5516279	50.386	ng	99

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

8/14/09

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130933.D
Acq On : 14 Aug 2009 6:47
Operator : EM
Sample : 100ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100902
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:28:24 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130933.D
Acq On : 14 Aug 2009 6:47
Operator : EM
Sample : 100ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100902
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:28:24 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.84	130	348166	25.000	ng		0.00
37) 1,4-Difluorobenzene (IS2)	15.77	114	1791529	25.000	ng		0.00
56) Chlorobenzene-d5 (IS3)	21.57	82	827819	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.99	65	607715	24.672	ng		0.00
Spiked Amount 25.000			Recovery =	98.68%			
57) Toluene-d8 (SS2)	19.16	98	2003126	24.459	ng		0.00
Spiked Amount 25.000			Recovery =	97.84%			
73) Bromofluorobenzene (SS3)	23.49	174	555754	22.571	ng		0.00
Spiked Amount 25.000			Recovery =	90.28%			
Target Compounds							Qvalue
2) Propene	4.84	42	3637379	165.601	ng		96
3) Dichlorodifluoromethan...	5.01	85	4285891	97.773	ng		99
4) Chloromethane	5.35	50	3395552	103.441	ng		99
5) 1,2-Dichloro-1,1,2,2-t...	5.60	135	2374269	96.170	ng		100
6) Vinyl Chloride	5.81	62	3733511	106.688	ng		99
7) 1,3-Butadiene	6.09	54	3376996	134.217	ng		100
8) Bromomethane	6.60	94	2088575	101.180	ng		99
9) Chloroethane	6.94	64	1938501	110.719	ng		100
10) Ethanol	7.35	45	9723278	667.164	ng		100
11) Acetonitrile	7.62	41	4607769	139.823	ng		99
12) Acrolein	7.81	56	1410648	132.769	ng		98
13) Acetone	8.05	58	9758235	588.667	ng	#	81
14) Trichlorofluoromethane	8.31	101	3855506	100.976	ng		98
15) 2-Propanol (Isopropanol)	8.54	45	7411494	169.917	ng		94
16) Acrylonitrile	8.84	53	3337367	150.073	ng		98
17) 1,1-Dichloroethene	9.34	96	2361373	121.445	ng		99
18) 2-Methyl-2-Propanol (t...	9.49	59	1930576	39.300	ng		94
19) Methylene Chloride	9.56	84	2367946	107.882	ng		91
20) 3-Chloro-1-propene (Al...	9.75	41	3751505	158.379	ng		90
21) Trichlorotrifluoroethane	10.00	151	1857232	107.225	ng		98
22) Carbon Disulfide	9.95	76	9003969	120.438	ng		98
23) trans-1,2-Dichloroethene	11.02	61	3600834	126.271	ng		94
24) 1,1-Dichloroethane	11.33	63	4282531	123.196	ng		100
25) Methyl tert-Butyl Ether	11.41	73	7429243	121.184	ng		96
26) Vinyl Acetate	11.59	86	2488460	629.386	ng	#	93
27) 2-Butanone (MEK)	11.92	72	1131449	89.484	ng	#	88
28) cis-1,2-Dichloroethene	12.60	61	3373649	122.596	ng		95
29) Diisopropyl Ether	12.92	87	2306270	117.357	ng	#	89
30) Ethyl Acetate	12.94	61	2196811	265.252	ng		98
31) n-Hexane	12.94	57	5006652	130.739	ng		97

R9081309.M Fri Aug 14 07:29:42 2009

Tom 8/14/09

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130933.D
Acq On : 14 Aug 2009 6:47
Operator : EM
Sample : 100ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100902
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:28:24 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	13.06	83	3845350	110.575	ng		100
34) Tetrahydrofuran (THF)	13.59	72	1563630	131.239	ng	#	88
35) Ethyl tert-Butyl Ether	13.73	87	2996398	113.745	ng		90
36) 1,2-Dichloroethane	14.15	62	2964635	106.339	ng		100
38) 1,1,1-Trichloroethane	14.55	97	3345979	101.827	ng		99
39) Isopropyl Acetate	15.10	61	3529470	270.537	ng	#	92
40) 1-Butanol	15.15	56	5716126	256.782	ng	#	5
41) Benzene	15.25	78	9743540	101.985	ng		99
42) Carbon Tetrachloride	15.47	117	2984668	106.359	ng		99
43) Cyclohexane	15.67	84	8447133	236.444	ng		90
44) tert-Amyl Methyl Ether	16.11	73	7344919	116.318	ng		99
45) 1,2-Dichloropropane	16.45	63	2518901	125.070	ng		98
46) Bromodichloromethane	16.71	83	3199002	115.846	ng		99
47) Trichloroethene	16.79	130	2587187	105.962	ng		100
48) 1,4-Dioxane	16.74	88	2105550	130.933	ng		89
49) 2,2,4-Trimethylpentane...	16.87	57	11343752	122.528	ng		93
50) Methyl Methacrylate	17.05	100	2277585	254.207	ng		95
51) n-Heptane	17.22	71	2756301	119.152	ng		95
52) cis-1,3-Dichloropropene	17.96	75	3903750	116.517	ng		99
53) 4-Methyl-2-pentanone	18.00	58	2601880	143.858	ng		96
54) trans-1,3-Dichloropropene	18.66	75	3928268	133.204	ng		100
55) 1,1,2-Trichloroethane	18.90	97	2295248	114.353	ng		99
58) Toluene	19.29	91	10619232	105.924	ng		98
59) 2-Hexanone	19.60	43	5972025	138.505	ng		99
60) Dibromochloromethane	19.83	129	2671138	118.490	ng		99
61) 1,2-Dibromoethane	20.16	107	2581710	111.177	ng		100
62) n-Butyl Acetate	20.40	43	7613756	158.839	ng		98
63) n-Octane	20.57	57	2463694	125.762	ng		94
64) Tetrachloroethene	20.76	166	2651443	100.026	ng		98
65) Chlorobenzene	21.63	112	6606674	104.758	ng		99
66) Ethylbenzene	22.10	91	11775803	108.015	ng		99
67) m- & p-Xylenes	22.35	91	18896858	210.199	ng		98
68) Bromoform	22.43	173	2253843	112.193	ng		100
69) Styrene	22.79	104	7494579	113.049	ng		100
70) o-Xylene	22.93	91	9698083	108.288	ng		100
71) n-Nonane	23.19	43	5386497	123.192	ng		98
72) 1,1,2,2-Tetrachloroethane	22.91	83	4392172	117.919	ng		99
74) Cumene	23.67	105	11982041	100.747	ng		99
75) alpha-Pinene	24.16	93	6016933	105.858	ng		99
76) n-Propylbenzene	24.29	91	14406754	100.564	ng		98
77) 3-Ethyltoluene	24.41	105	12117897	107.517	ng		99
78) 4-Ethyltoluene	24.47	105	12131828	107.260	ng		97
79) 1,3,5-Trimethylbenzene	24.56	105	10058671	106.936	ng		98

8/14/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130933.D
Acq On : 14 Aug 2009 6:47
Operator : EM
Sample : 100ng TO-15 ICAL STD
Misc : S20-08130905/S20-08100902
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Aug 14 07:28:24 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Mon Jul 27 09:38:25 2009
Response via : Initial Calibration

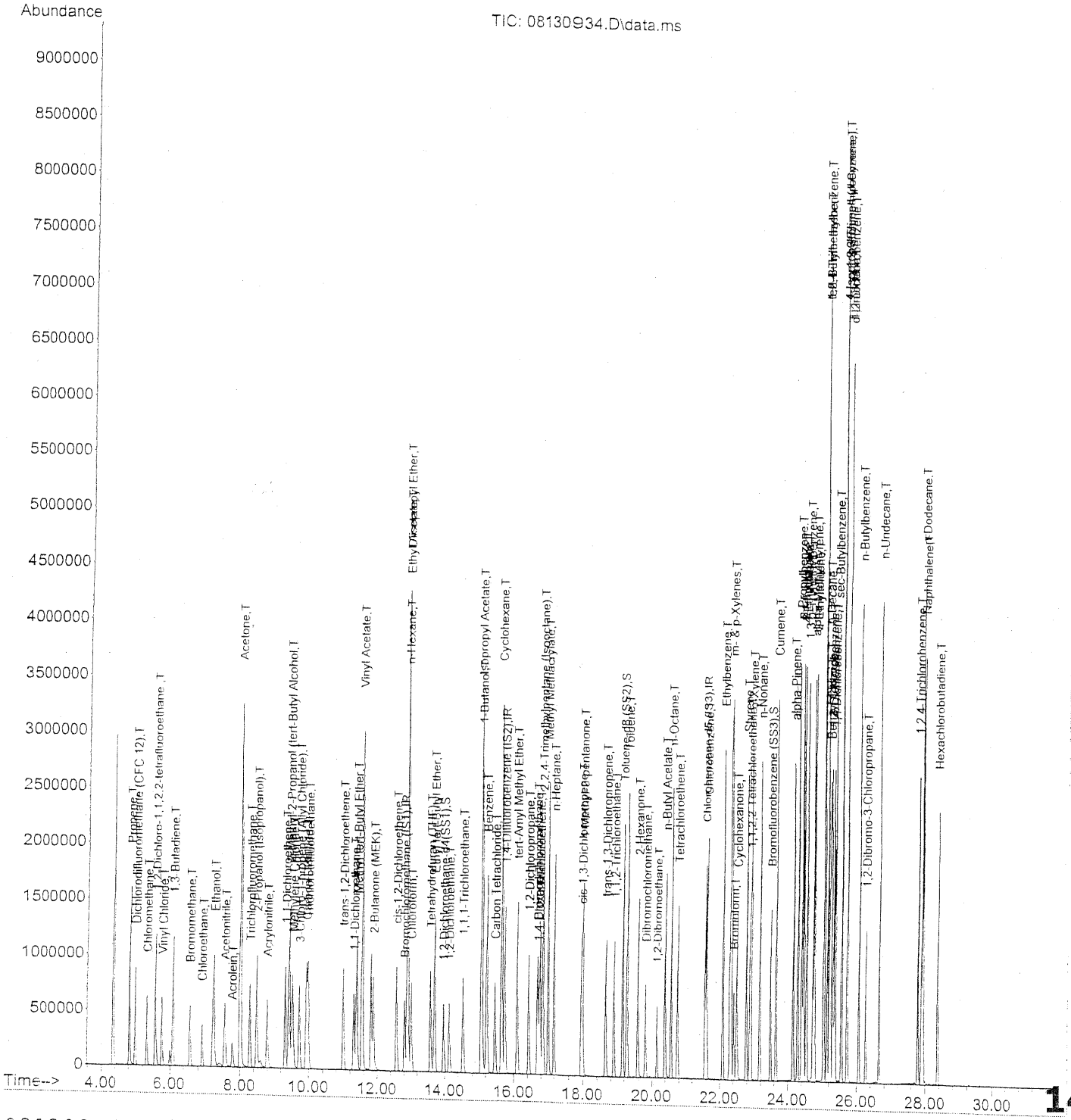
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.75	118	5862974	111.426	ng	98
81) 2-Ethyltoluene	24.80	105	11978631	101.452	ng	98
82) 1,2,4-Trimethylbenzene	25.07	105	11417406	108.524	ng	95
83) n-Decane	25.17	57	5959851	117.266	ng	97
84) Benzyl Chloride	25.24	91	9728914	129.016	ng	99
85) 1,3-Dichlorobenzene	25.27	146	5822861	105.443	ng	100
86) 1,4-Dichlorobenzene	25.34	146	5826479	101.267	ng	100
87) sec-Butylbenzene	25.39	105	13318015	101.255	ng	98
88) 4-Isopropyltoluene (p-...	25.58	119	13504368	101.840	ng	96
89) 1,2,3-Trimethylbenzene	25.59	105	11559732	107.903	ng	95
90) 1,2-Dichlorobenzene	25.76	146	6086420	106.037	ng	99
91) d-Limonene	25.75	68	4660560	111.503	ng	99
92) 1,2-Dibromo-3-Chloropr...	26.28	157	1916720	118.907	ng	94
93) n-Undecane	26.66	57	6305897	121.179	ng	100
94) 1,2,4-Trichlorobenzene	27.80	180	4306788	116.286	ng	100
95) Naphthalene	27.94	128	14097900	109.204	ng	98
96) n-Dodecane	27.90	57	6564038	118.039	ng	100
97) Hexachlorobutadiene	28.36	225	2440971	115.199	ng	99
98) Cyclohexanone	22.53	55	3544648	117.216	ng	95
99) tert-Butylbenzene	25.07	119	11254211	105.845	ng	98
100) n-Butylbenzene	26.08	91	11144477	106.402	ng	96

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

Tam 8/14/09

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130934.D
Acq On : 14 Aug 2009 7:29
Operator : EM
Sample : 25ng TO-15 ICV STD
Misc : S20-08130905/S20-08070903
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 14 09:08:41 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130934.D
Acq On : 14 Aug 2009 7:29
Operator : EM
Sample : 25ng TO-15 ICV STD
Misc : S20-08130905/S20-08070903
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 14 09:08:41 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.82	130	347390	25.000	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	15.75	114	1780684	25.000	ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.56	82	815195	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.97	65	604640	24.616	ng		-0.02
Spiked Amount 25.000			Recovery =	98.48%			
57) Toluene-d8 (SS2)	19.15	98	2007417	25.903	ng		-0.01
Spiked Amount 25.000			Recovery =	103.60%			
73) Bromofluorobenzene (SS3)	23.49	174	549810	25.051	ng		0.00
Spiked Amount 25.000			Recovery =	100.20%			
Target Compounds							Qvalue
2) Propene	4.83	42	755258	24.784	ng		97
3) Dichlorodifluoromethan...	5.00	85	1005106	23.107	ng		99
4) Chloromethane	5.33	50	889752	21.947	ng		99
5) 1,2-Dichloro-1,1,2,2-t...	5.59	135	564338	24.551	ng		100
6) Vinyl Chloride	5.79	62	876778	21.924	ng		99
7) 1,3-Butadiene	6.08	54	701163	24.684	ng		99
8) Bromomethane	6.58	94	517466	24.745	ng		100
9) Chloroethane	6.93	64	453736	22.870	ng		100
10) Ethanol	7.27	45	2232593m	116.796	ng		
11) Acetonitrile	7.57	41	1091608	23.400	ng		98
12) Acrolein	7.79	56	337125	27.044	ng		99
13) Acetone	8.01	58	2192988	112.739	ng		90
14) Trichlorofluoromethane	8.29	101	901533	24.237	ng		98
15) 2-Propanol (Isopropanol)	8.49	45	2159425m	40.537	ng		
16) Acrylonitrile	8.81	53	785326	27.795	ng		99
17) 1,1-Dichloroethene	9.33	96	557081	25.520	ng		100
18) 2-Methyl-2-Propanol (t...	9.45	59	2821970	52.180	ng		97
19) Methylene Chloride	9.54	84	567231	23.372	ng		92
20) 3-Chloro-1-propene (Al...	9.73	41	863616	26.536	ng		90
21) Trichlorotrifluoroethane	9.98	151	460905	27.684	ng		100
22) Carbon Disulfide	9.93	76	2066628	24.130	ng		98
23) trans-1,2-Dichloroethene	11.00	61	828040	24.719	ng		94
24) 1,1-Dichloroethane	11.31	63	1028210	25.062	ng		99
25) Methyl tert-Butyl Ether	11.40	73	1722756	25.914	ng		97
26) Vinyl Acetate	11.56	86	625023	148.358	ng	#	78
27) 2-Butanone (MEK)	11.89	72	401170	29.583	ng	#	87
28) cis-1,2-Dichloroethene	12.58	61	818774	26.193	ng		94
29) Diisopropyl Ether	12.91	87	504111	26.184	ng	#	78
30) Ethyl Acetate	12.90	61	457829	52.062	ng		99
31) n-Hexane	12.93	57	1031014	24.051	ng		96

R9081309.M Fri Aug 14 09:14:04 2009 EM 8/14/09 Page: 1

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130934.D
Acq On : 14 Aug 2009 7:29
Operator : EM
Sample : 25ng TO-15 ICV STD
Misc : S20-08130905/S20-08070903
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 14 09:08:41 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	13.03	83	925757	25.803	ng		100
34) Tetrahydrofuran (THF)	13.58	72	383882	27.228	ng	#	90
35) Ethyl tert-Butyl Ether	13.71	87	697007	25.375	ng		90
36) 1,2-Dichloroethane	14.13	62	726093	26.447	ng		100
38) 1,1,1-Trichloroethane	14.54	97	832543	25.706	ng		100
39) Isopropyl Acetate	15.07	61	799888	55.041	ng	#	83
40) 1-Butanol	15.09	56	1373581	59.526	ng		88
41) Benzene	15.23	78	2340548	24.441	ng		98
42) Carbon Tetrachloride	15.46	117	716257	26.758	ng		99
43) Cyclohexane	15.66	84	1852146	49.942	ng		90
44) tert-Amyl Methyl Ether	16.10	73	1708871	25.389	ng		99
45) 1,2-Dichloropropane	16.43	63	596499	25.392	ng		98
46) Bromodichloromethane	16.70	83	745141	26.598	ng		99
47) Trichloroethene	16.77	130	608704	25.035	ng		100
48) 1,4-Dioxane	16.72	88	489317	28.729	ng		89
49) 2,2,4-Trimethylpentane...	16.86	57	2653373	24.075	ng		94
50) Methyl Methacrylate	17.02	100	520131	54.356	ng		94
51) n-Heptane	17.21	71	631643	24.777	ng		96
52) cis-1,3-Dichloropropene	17.95	75	924165	26.108	ng		100
53) 4-Methyl-2-pentanone	17.98	58	595650	28.784	ng		96
54) trans-1,3-Dichloropropene	18.64	75	942904	30.449	ng		100
55) 1,1,2-Trichloroethane	18.89	97	547475	26.759	ng		99
58) Toluene	19.28	91	2532381	26.956	ng		99
59) 2-Hexanone	19.58	43	1400765	28.689	ng		100
60) Dibromochloromethane	19.82	129	613012	30.559	ng		100
61) 1,2-Dibromoethane	20.15	107	619801	29.314	ng		99
62) n-Butyl Acetate	20.39	43	1666866	31.288	ng		99
63) n-Octane	20.56	57	565014	26.981	ng		94
64) Tetrachloroethene	20.76	166	616353	26.439	ng		100
65) Chlorobenzene	21.62	112	1574474	27.291	ng		99
66) Ethylbenzene	22.09	91	2787656	27.484	ng		99
67) m- & p-Xylenes	22.33	91	4338755	53.958	ng		100
68) Bromoform	22.42	173	508656	29.212	ng		100
69) Styrene	22.77	104	1750906	29.458	ng		99
70) o-Xylene	22.92	91	2234503	27.623	ng		99
71) n-Nonane	23.17	43	1287447	26.429	ng		94
72) 1,1,2,2-Tetrachloroethane	22.89	83	1004176	28.898	ng		99
74) Cumene	23.66	105	2788818	26.590	ng		99
75) alpha-Pinene	24.15	93	1368269	26.441	ng		99
76) n-Propylbenzene	24.28	91	3462821	26.713	ng		100
77) 3-Ethyltoluene	24.41	105	2770931	28.200	ng		99
78) 4-Ethyltoluene	24.46	105	2777194	28.115	ng		98
79) 1,3,5-Trimethylbenzene	24.55	105	2322017	28.429	ng		100

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130934.D
Acq On : 14 Aug 2009 7:29
Operator : EM
Sample : 25ng TO-15 ICV STD
Misc : S20-08130905/S20-08070903
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 14 09:08:41 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration

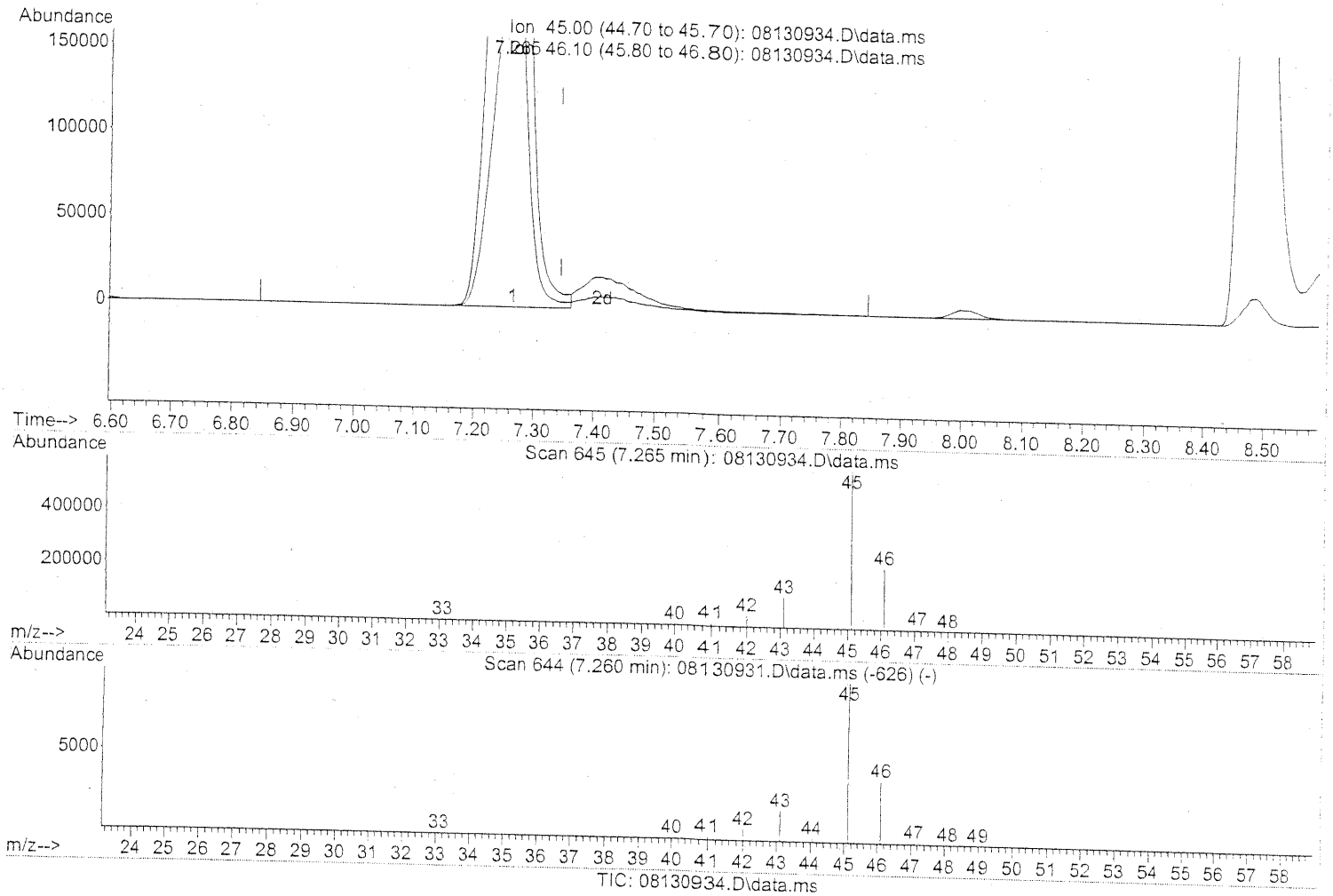
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.74	118	1304171	29.427	ng	99
81) 2-Ethyltoluene	24.79	105	2766681	27.266	ng	100
82) 1,2,4-Trimethylbenzene	25.05	105	2490909	28.723	ng	99
83) n-Decane	25.15	57	1378346	27.307	ng	96
84) Benzyl Chloride	25.22	91	2140806	31.908	ng	99
85) 1,3-Dichlorobenzene	25.25	146	1296940	28.888	ng	100
86) 1,4-Dichlorobenzene	25.33	146	1331268	27.947	ng	100
87) sec-Butylbenzene	25.38	105	3145430	27.525	ng	99
88) 4-Isopropyltoluene (p-...	25.57	119	3016689	27.552	ng	99
89) 1,2,3-Trimethylbenzene	25.57	105	2500322	28.525	ng	98
90) 1,2-Dichlorobenzene	25.74	146	1277785	28.345	ng	100
91) d-Limonene	25.74	68	1049611	29.583	ng	96
92) 1,2-Dibromo-3-Chloropr...	26.26	157	440710	32.373	ng	95
93) n-Undecane	26.65	57	1469089	28.166	ng	97
94) 1,2,4-Trichlorobenzene	27.79	180	966603	30.692	ng	99
95) Naphthalene	27.94	128	3356047	28.842	ng	100
96) n-Dodecane	27.89	57	1529739	26.201	ng	97
97) Hexachlorobutadiene	28.36	225	537772	29.903	ng	99
98) Cyclohexanone	22.51	55	852691	28.820	ng	95
99) tert-Butylbenzene	25.05	119	2409546	28.016	ng	100
100) n-Butylbenzene	26.07	91	2612795	28.727	ng	99

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

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130934.D
Acq On : 14 Aug 2009 7:29
Operator : EM
Sample : 25ng TO-15 ICV STD
Misc : S20-08130905/S20-08070903
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 14 08:58:52 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



(10) Ethanol (T)

7.265min (-0.080) 110.49ng

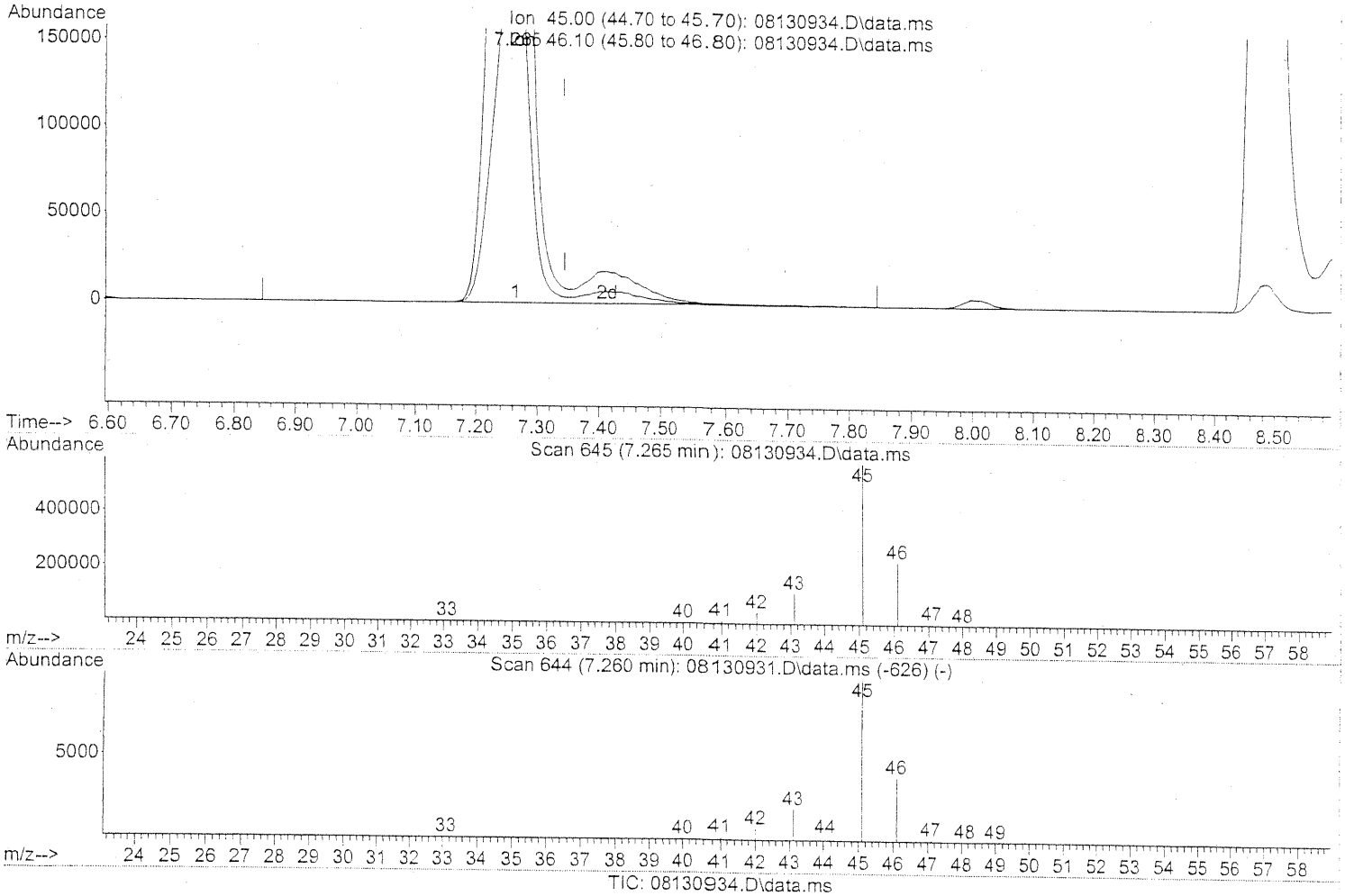
response 2112003

Ion	Exp%	Act%
45.00	100	100
46.10	39.00	38.87
0.00	0.00	0.00
0.00	0.00	0.00

PT

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130934.D
Acq On : 14 Aug 2009 7:29
Operator : EM
Sample : 25ng TO-15 ICV STD
Misc : S20-08130905/S20-08070903
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 14 08:58:52 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



(10) Ethanol (T)

7.265min (-0.080) 116.80ng m

response 2232593

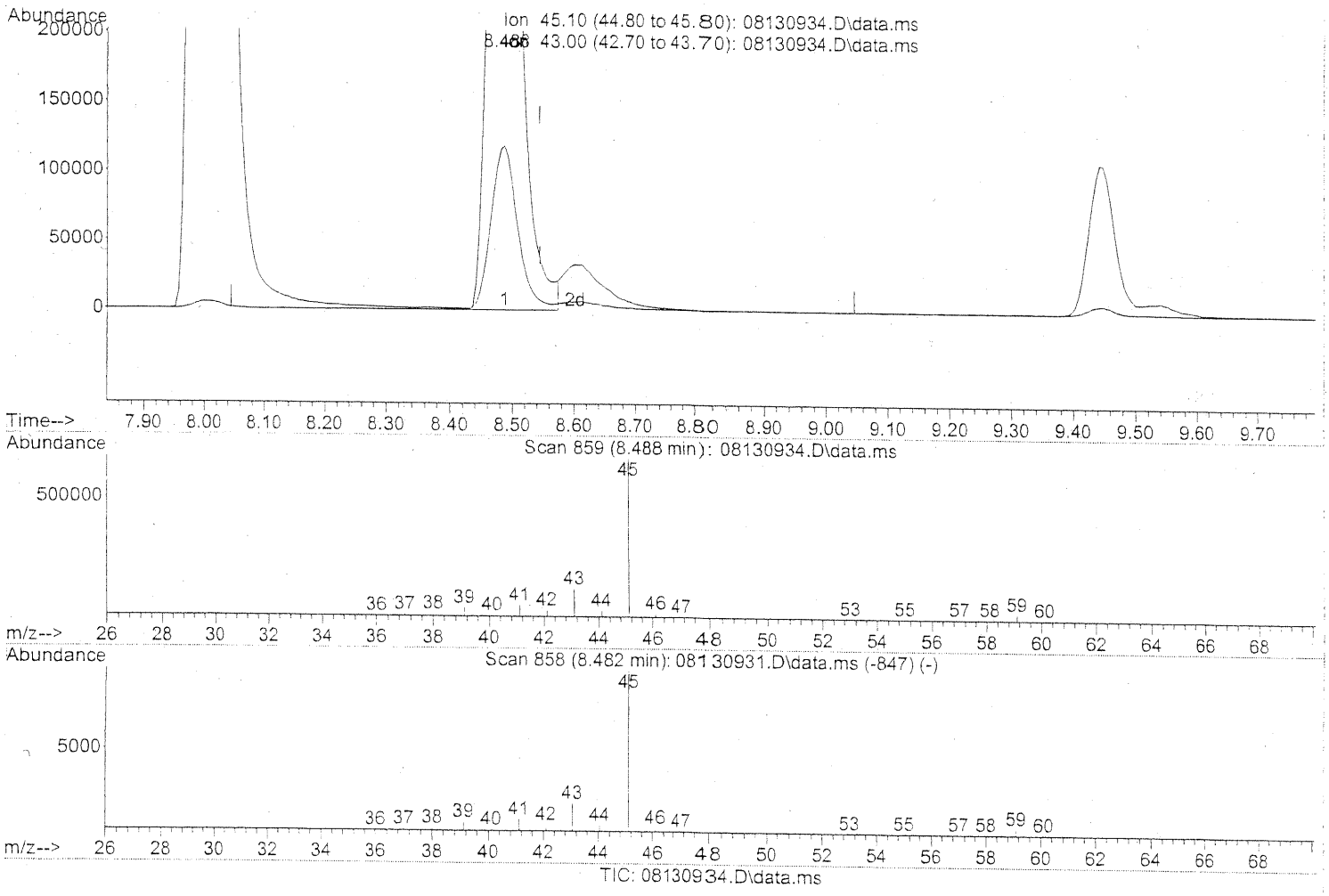
Ion	Exp%	Act%
45.00	100	100
46.10	39.00	36.77
0.00	0.00	0.00
0.00	0.00	0.00

PT → IC
Em 8/13/09
14

DA 8/13/09

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130934.D
Acq On : 14 Aug 2009 7:29
Operator : EM
Sample : 25ng TO-15 ICV STD
Misc : S20-08130905/S20-08070903
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 14 08:58:52 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



(15) 2-Propanol (Isopropanol) (T)

8.488min (-0.057) 37.42ng

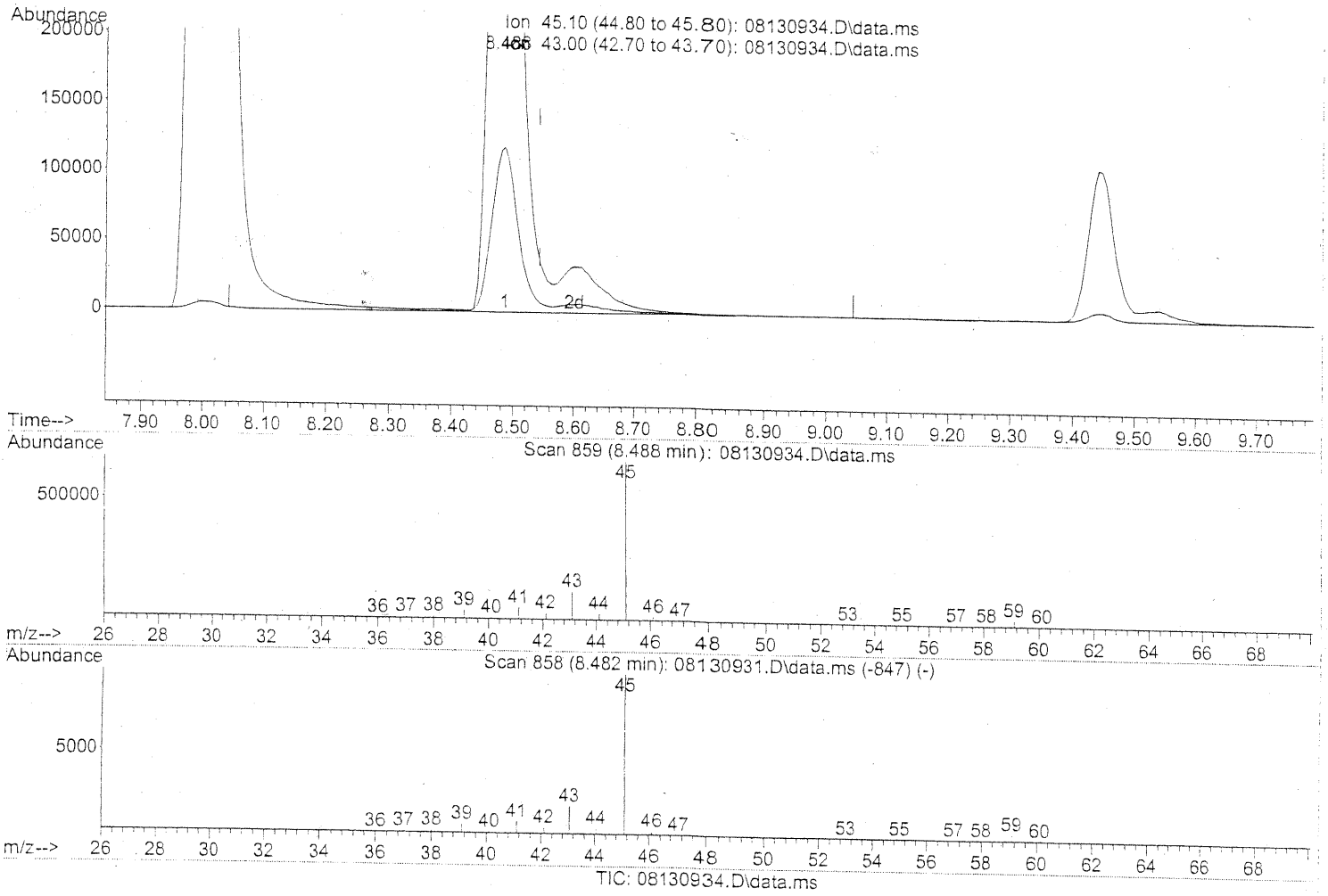
response 1993602

Ion	Exp%	Act%
45.10	100	100
43.00	20.50	17.46
0.00	0.00	0.00
0.00	0.00	0.00

PT

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130934.D
Acq On : 14 Aug 2009 7:29
Operator : EM
Sample : 25ng TO-15 ICV STD
Misc : S20-08130905/S20-08070903
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Aug 14 08:58:52 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



(15) 2-Propanol (Isopropanol) (T)

8.488min (-0.057) 40.54ng m

response 2159425

Ion	Exp%	Act%
45.10	100	100
43.00	20.50	16.12
0.00	0.00	0.00
0.00	0.00	0.00

PT → IC
Cam 8/13/09
14

DA 8/15/09

INITIAL CALIBRATION VERIFICATION CHECK SHEET

Data File Name: 08130934.D
Data File Path: J:\MS09\Data\2009_08\13\
Operator: EM
Date Acquired: 8/14/09 7:29

Acq. Method File: TO15LOW.M
Name: 25ng TO-15 ICV STD
Misc Info: S20-08130905/S20-08070903
Instrument Name: MS09

#	Compound	Ret. Time	Amt. (ng)	Spike Amt.(ng)	% Rec.	Lower Limit	Upper Limit	* OR Fail
2)	Propene	4.83	24.8	26.3	94.3	70	130	*
3)	Dichlorodifluoromethane (CFC	5.00	23.1	26.0	88.8	70	130	*
4)	Chloromethane	5.33	21.9	25.0	87.6	70	130	*
5)	1,2-Dichloro-1,1,2,2-tetrafluoro(	5.59	24.6	26.0	94.6	70	130	*
6)	Vinyl Chloride	5.79	21.9	25.3	86.6	70	130	*
7)	1,3-Butadiene	6.08	24.7	26.8	92.2	70	130	*
8)	Bromomethane	6.58	24.7	25.8	95.7	70	130	*
9)	Chloroethane	6.93	22.9	25.5	89.8	70	130	*
10)	Ethanol	7.27	116.8	130.0	89.8	70	130	*
11)	Acetonitrile	7.57	23.4	26.0	90.0	70	130	*
12)	Acrolein	7.79	27.0	26.3	102.7	70	130	*
13)	Acetone	8.01	112.7	132.0	85.4	70	130	*
14)	Trichlorofluoromethane	8.29	24.2	26.3	92.0	70	130	*
15)	2-Propanol (Isopropanol)	8.49	40.5	48.0	84.4	70	130	*
16)	Acrylonitrile	8.81	27.8	25.8	107.8	70	130	*
17)	1,1-Dichloroethene	9.33	25.5	27.5	92.7	70	130	*
18)	2-Methyl-2-Propanol (tert-Butyl Al	9.45	52.2	50.0	104.4	70	130	*
19)	Methylene Chloride	9.54	23.4	26.8	87.3	70	130	*
20)	3-Chloro-1-propene (Allyl Chlor	9.73	26.5	27.0	98.1	70	130	*
21)	Trichlorotrifluoroethane	9.98	27.7	27.5	100.7	70	130	*
22)	Carbon Disulfide	9.93	24.1	26.0	92.7	70	130	*
23)	trans-1,2-Dichloroethene	11.00	24.7	25.5	96.9	70	130	*
24)	1,1-Dichloroethane	11.31	25.1	26.5	94.7	70	130	*
25)	Methyl tert-Butyl Ether	11.40	25.9	26.3	98.5	70	130	*
26)	Vinyl Acetate	11.56	148.4	126.0	117.8	70	130	*
27)	2-Butanone (MEK)	11.89	29.6	26.8	110.4	70	130	*
28)	cis-1,2-Dichloroethene	12.58	26.2	27.0	97.0	70	130	*
29)	Diisopropyl Ether	12.91	26.2	26.5	98.9	70	130	*
30)	Ethyl Acetate	12.90	52.1	52.0	100.2	70	130	*
31)	n-Hexane	12.93	24.1	26.0	92.7	70	130	*
32)	Chloroform	13.03	25.8	27.5	93.8	70	130	*
34)	Tetrahydrofuran (THF)	13.58	27.2	26.5	102.6	70	130	*
35)	Ethyl tert-Butyl Ether	13.71	25.4	25.5	99.6	70	130	*
36)	1,2-Dichloroethane	14.13	26.4	26.3	100.4	70	130	*
38)	1,1,1-Trichloroethane	14.54	25.7	26.0	98.8	70	130	*
39)	Isopropyl Acetate	15.07	55.0	52.3	105.2	70	130	*
40)	1-Butanol	15.09	59.5	52.8	112.7	70	130	*
41)	Benzene	15.23	24.4	25.8	94.6	70	130	*
42)	Carbon Tetrachloride	15.46	26.8	26.3	101.9	70	130	*
43)	Cyclohexane	15.66	49.9	51.8	96.3	70	130	*
44)	tert-Amyl Methyl Ether	16.10	25.4	25.5	99.6	70	130	*
45)	1,2-Dichloropropane	16.43	25.4	26.0	97.7	70	130	*
46)	Bromodichloromethane	16.70	26.6	26.3	101.1	70	130	*
47)	Trichloroethene	16.77	25.0	25.8	96.9	70	130	*
48)	1,4-Dioxane	16.72	28.7	26.0	110.4	70	130	*
49)	2,2,4-Trimethylpentane (Isooctan	16.86	24.1	25.8	93.4	70	130	*
50)	Methyl Methacrylate	17.02	54.4	52.8	103.0	70	130	*

EM 8/14/09

INITIAL CALIBRATION VERIFICATION CHECK SHEET

Data File Name: 08130934.D
Data File Path: J:\MS09\Data\2009_08\13\
Operator: EM
Date Acquired: 8/14/09 7:29

Acq. Method File: TO15LOW.M
Name: 25ng TO-15 ICV STD
Misc Info: S20-08130905/S20-08070903
Instrument Name: MS09

#	Compound	Ret. Time	Amt. (ng)	Spike Amt. (ng)	% Rec.	Lower Limit	Upper Limit	* OR Fail
51)	n-Heptane	17.21	24.8	25.8	96.1	70	130	*
52)	cis-1,3-Dichloropropene	17.95	26.1	24.5	106.5	70	130	*
53)	4-Methyl-2-pentanone	17.98	28.8	26.8	107.5	70	130	*
54)	trans-1,3-Dichloropropene	18.64	30.4	27.0	112.6	70	130	*
55)	1,1,2-Trichloroethane	18.89	26.8	26.0	103.1	70	130	*
58)	Toluene	19.28	27.0	26.8	100.7	70	130	*
59)	2-Hexanone	19.58	28.7	27.0	106.3	70	130	*
60)	Dibromochloromethane	19.82	30.6	28.3	108.1	70	130	*
61)	1,2-Dibromoethane	20.15	29.3	26.3	111.4	70	130	*
62)	n-Butyl Acetate	20.39	31.3	27.5	113.8	70	130	*
63)	n-Octane	20.56	27.0	26.3	102.7	70	130	*
64)	Tetrachloroethene	20.76	26.4	25.3	104.3	70	130	*
65)	Chlorobenzene	21.62	27.3	26.5	103.0	70	130	*
66)	Ethylbenzene	22.09	27.5	26.3	104.6	70	130	*
67)	m- & p-Xylenes	22.33	54.0	51.5	104.9	70	130	*
68)	Bromoform	22.42	29.2	26.5	110.2	70	130	*
69)	Styrene	22.77	29.5	26.3	112.2	70	130	*
70)	o-Xylene	22.92	27.6	26.0	106.2	70	130	*
71)	n-Nonane	23.17	26.4	25.8	102.3	70	130	*
72)	1,1,2,2-Tetrachloroethane	22.89	28.9	27.0	107.0	70	130	*
74)	Cumene	23.66	26.6	25.3	105.1	70	130	*
75)	alpha-Pinene	24.15	26.4	24.8	106.5	70	130	*
76)	n-Propylbenzene	24.28	26.7	25.3	105.5	70	130	*
77)	3-Ethyltoluene	24.41	28.2	26.3	107.2	70	130	*
78)	4-Ethyltoluene	24.46	28.1	26.3	106.8	70	130	*
79)	1,3,5-Trimethylbenzene	24.55	28.4	26.5	107.2	70	130	*
80)	alpha-Methylstyrene	24.74	29.4	26.0	113.1	70	130	*
81)	2-Ethyltoluene	24.79	27.3	26.0	105.0	70	130	*
82)	1,2,4-Trimethylbenzene	25.05	28.7	25.5	112.5	70	130	*
83)	n-Decane	25.15	27.3	26.3	103.8	70	130	*
84)	Benzyl Chloride	25.22	31.9	26.8	119.0	70	130	*
85)	1,3-Dichlorobenzene	25.25	28.9	26.0	111.2	70	130	*
86)	1,4-Dichlorobenzene	25.33	27.9	26.3	106.1	70	130	*
87)	sec-Butylbenzene	25.38	27.5	25.8	106.6	70	130	*
88)	4-Isopropyltoluene (p-Cymene)	25.57	27.6	25.0	110.4	70	130	*
89)	1,2,3-Trimethylbenzene	25.57	28.5	26.0	109.6	70	130	*
90)	1,2-Dichlorobenzene	25.74	28.3	25.8	109.7	70	130	*
91)	d-Limonene	25.74	29.6	26.5	111.7	70	130	*
92)	1,2-Dibromo-3-Chloropropane	26.26	32.4	27.0	120.0	70	130	*
93)	n-Undecane	26.65	28.2	26.3	107.2	70	130	*
94)	1,2,4-Trichlorobenzene	27.79	30.7	27.3	112.5	70	130	*
95)	Naphthalene	27.94	28.8	25.0	115.2	70	130	*
96)	n-Dodecane	27.89	26.2	24.3	107.8	70	130	*
97)	Hexachlorobutadiene	28.36	29.9	26.8	111.6	70	130	*
98)	Cyclohexanone	22.51	28.8	24.8	116.1	70	130	*
99)	tert-Butylbenzene	25.05	28.0	26.5	105.7	70	130	*
100)	n-Butylbenzene	26.07	28.7	26.5	108.3	70	130	*

EM 8/14/09

* Denotes Passing Criterion

CONTINUING CALIBRATION STANDARDS

Evaluate Continuing Calibration Report

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080902.D
Acq On : 8 Sep 2009 8:31
Operator : EM
Sample : 25ng TO-15 CCV STD
Misc : S20-08130905/S20-09030903
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 13:03:00 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	IR	Bromochloromethane (IS1)	1.000	1.000	0.0	92	-0.02
2	T	Propene	2.193	2.431	-10.9	98	0.00
3	T	Dichlorodifluoromethane (CF	3.130	2.879	8.0	91	0.00
4	T	Chloromethane	2.918	2.843	2.6	90	-0.01
5	T	1,2-Dichloro-1,1,2,2-tetraf	1.654	1.529	7.6	89	-0.01
6	T	Vinyl Chloride	2.878	2.666	7.4	90	-0.01
7	T	1,3-Butadiene	2.044	2.157	-5.5	96	-0.01
8	T	Bromomethane	1.505	1.481	1.6	92	-0.02
9	T	Chloroethane	1.428	1.379	3.4	92	-0.01
10	T	Ethanol	1.376	1.357	1.4	90	-0.07
11	T	Acetonitrile	3.357	3.296	1.8	92	-0.04
12	T	Acrolein	0.897	0.979	-9.1	93	-0.02
13	T	Acetone	1.400	1.304	6.9	95	-0.04
14	T	Trichlorofluoromethane	2.677	2.600	2.9	91	-0.02
15	T	2-Propanol (Isopropanol)	3.834	3.098	19.2	80	-0.05
16	T	Acrylonitrile	2.033	2.289	-12.6	91	-0.03
17	T	1,1-Dichloroethene	1.571	1.468	6.6	90	-0.02
18	T	2-Methyl-2-Propanol (tert-B	3.892	4.259	-9.4	92	-0.03
19	T	Methylene Chloride	1.747	1.565	10.4	91	-0.02
20	T	3-Chloro-1-propene (Allyl C	2.342	2.535	-8.2	94	-0.02
21	T	Trichlorotrifluoroethane	1.198	1.173	2.1	89	-0.02
22	T	Carbon Disulfide	6.163	5.881	4.6	91	-0.01
23	T	trans-1,2-Dichloroethene	2.411	2.425	-0.6	91	-0.02
24	T	1,1-Dichloroethane	2.952	2.934	0.6	93	-0.02
25	T	Methyl tert-Butyl Ether	4.784	4.814	-0.6	92	0.00
26	T	Vinyl Acetate	0.303	0.381	-25.7	98	-0.03
27	T	2-Butanone (MEK)	0.976	1.105	-13.2	91	-0.03
28	T	cis-1,2-Dichloroethene	2.250	2.241	0.4	92	-0.02
29	T	Diisopropyl Ether	1.386	1.393	-0.5	91	-0.01
30	T	Ethyl Acetate	0.633	0.679	-7.3	93	-0.03
31	T	n-Hexane	3.085	2.998	2.8	94	-0.01
32	T	Chloroform	2.582	2.556	1.0	92	-0.03
33	S	1,2-Dichloroethane-d4(SS1)	1.768	1.844	-4.3	97	-0.02
34	T	Tetrahydrofuran (THF)	1.015	1.049	-3.3	91	-0.01
35	T	Ethyl tert-Butyl Ether	1.977	1.979	-0.1	90	-0.01
36	T	1,2-Dichloroethane	1.976	2.057	-4.1	93	-0.02
37	IR	1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	93	-0.01
38	T	1,1,1-Trichloroethane	0.455	0.446	2.0	92	-0.01

EM 9/8/09

Evaluate Continuing Calibration Report

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080902.D
Acq On : 8 Sep 2009 8:31
Operator : EM
Sample : 25ng TO-15 CCV STD
Misc : S20-08130905/S20-09030903
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 13:03:00 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
39	T	Isopropyl Acetate	0.204	0.224	-9.8	91	-0.03
40	T	1-Butanol	0.324	0.392	-21.0	93	-0.06
41	T	Benzene	1.344	1.258	6.4	91	-0.01
42	T	Carbon Tetrachloride	0.376	0.372	1.1	91	-0.01
43	T	Cyclohexane	0.521	0.509	2.3	91	-0.02
44	T	tert-Amyl Methyl Ether	0.945	0.949	-0.4	92	-0.01
45	T	1,2-Dichloropropane	0.330	0.328	0.6	91	-0.02
46	T	Bromodichloromethane	0.393	0.406	-3.3	91	-0.02
47	T	Trichloroethene	0.341	0.313	8.2	88	-0.02
48	T	1,4-Dioxane	0.239	0.263	-10.0	90	-0.02
49	T	2,2,4-Trimethylpentane (Iso	1.547	1.498	3.2	91	-0.02
50	T	Methyl Methacrylate	0.134	0.135	-0.7	89	-0.02
51	T	n-Heptane	0.358	0.352	1.7	91	-0.01
52	T	cis-1,3-Dichloropropene	0.497	0.533	-7.2	91	0.00
53	T	4-Methyl-2-pentanone	0.291	0.323	-11.0	91	-0.02
54	T	trans-1,3-Dichloropropene	0.435	0.487	-12.0	91	-0.02
55	T	1,1,2-Trichloroethane	0.287	0.292	-1.7	90	-0.01
56	IR	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	89	0.00
57	S	Toluene-d8 (SS2)	2.377	2.463	-3.6	92	-0.01
58	T	Toluene	2.881	2.855	0.9	90	-0.01
59	T	2-Hexanone	1.497	1.686	-12.6	94	-0.02
60	T	Dibromochloromethane	0.615	0.656	-6.7	89	-0.01
61	T	1,2-Dibromoethane	0.648	0.703	-8.5	90	-0.01
62	T	n-Butyl Acetate	1.634	1.979	-21.1	94	-0.02
63	T	n-Octane	0.642	0.672	-4.7	92	-0.01
64	T	Tetrachloroethene	0.715	0.702	1.8	88	-0.01
65	T	Chlorobenzene	1.769	1.737	1.8	89	-0.01
66	T	Ethylbenzene	3.111	3.214	-3.3	91	0.00
67	T	m- & p-Xylenes	2.466	2.540	-3.0	91	-0.02
68	T	Bromoform	0.534	0.594	-11.2	90	-0.01
69	T	Styrene	1.823	1.949	-6.9	90	-0.01
70	T	o-Xylene	2.481	2.555	-3.0	91	-0.02
71	T	n-Nonane	1.494	1.579	-5.7	93	-0.01
72	T	1,1,2,2-Tetrachloroethane	1.066	1.150	-7.9	92	-0.02
73	S	Bromofluorobenzene (SS3)	0.673	0.642	4.6	85	0.00
74	T	Cumene	3.217	3.298	-2.5	91	0.00
75	T	alpha-Pinene	1.587	1.641	-3.4	90	-0.01
76	T	n-Propylbenzene	3.975	4.132	-3.9	91	-0.01

Evaluate Continuing Calibration Report

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080902.D
Acq On : 8 Sep 2009 8:31
Operator : EM
Sample : 25ng TO-15 CCV STD
Misc : S20-08130905/S20-09030903
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 13:03:00 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
77	T	3-Ethyltoluene	3.013	3.090	-2.6	88	0.00
78	T	4-Ethyltoluene	3.029	3.132	-3.4	93	-0.01
79	T	1,3,5-Trimethylbenzene	2.505	2.535	-1.2	91	-0.01
80	T	alpha-Methylstyrene	1.359	1.449	-6.6	89	-0.02
81	T	2-Ethyltoluene	3.112	3.167	-1.8	91	-0.02
82	T	1,2,4-Trimethylbenzene	2.660	2.816	-5.9	91	-0.01
83	T	n-Decane	1.548	1.598	-3.2	92	-0.02
84	T	Benzyl Chloride	2.058	2.412	-17.2	92	-0.02
85	T	1,3-Dichlorobenzene	1.377	1.396	-1.4	90	-0.02
86	T	1,4-Dichlorobenzene	1.461	1.460	0.1	90	-0.01
87	T	sec-Butylbenzene	3.505	3.576	-2.0	91	-0.01
88	T	4-Isopropyltoluene (p-Cymen	3.358	3.557	-5.9	91	-0.01
89	T	1,2,3-Trimethylbenzene	2.688	2.832	-5.4	91	-0.02
90	T	1,2-Dichlorobenzene	1.382	1.410	-2.0	90	-0.01
91	T	d-Limonene	1.088	1.182	-8.6	91	-0.01
92	T	1,2-Dibromo-3-Chloropropane	0.417	0.463	-11.0	89	-0.01
93	T	n-Undecane	1.600	1.674	-4.6	92	0.00
94	T	1,2,4-Trichlorobenzene	0.966	0.959	0.7	88	-0.01
95	T	Naphthalene	3.568	3.586	-0.5	89	0.00
96	T	n-Dodecane	1.790	1.879	-5.0	91	0.00
97	T	Hexachlorobutadiene	0.552	0.550	0.4	88	0.00
98	T	Cyclohexanone	0.907	1.078	-18.9	92	-0.02
99	T	tert-Butylbenzene	2.638	2.767	-4.9	91	-0.01
100	T	n-Butylbenzene	2.789	2.896	-3.8	91	0.00

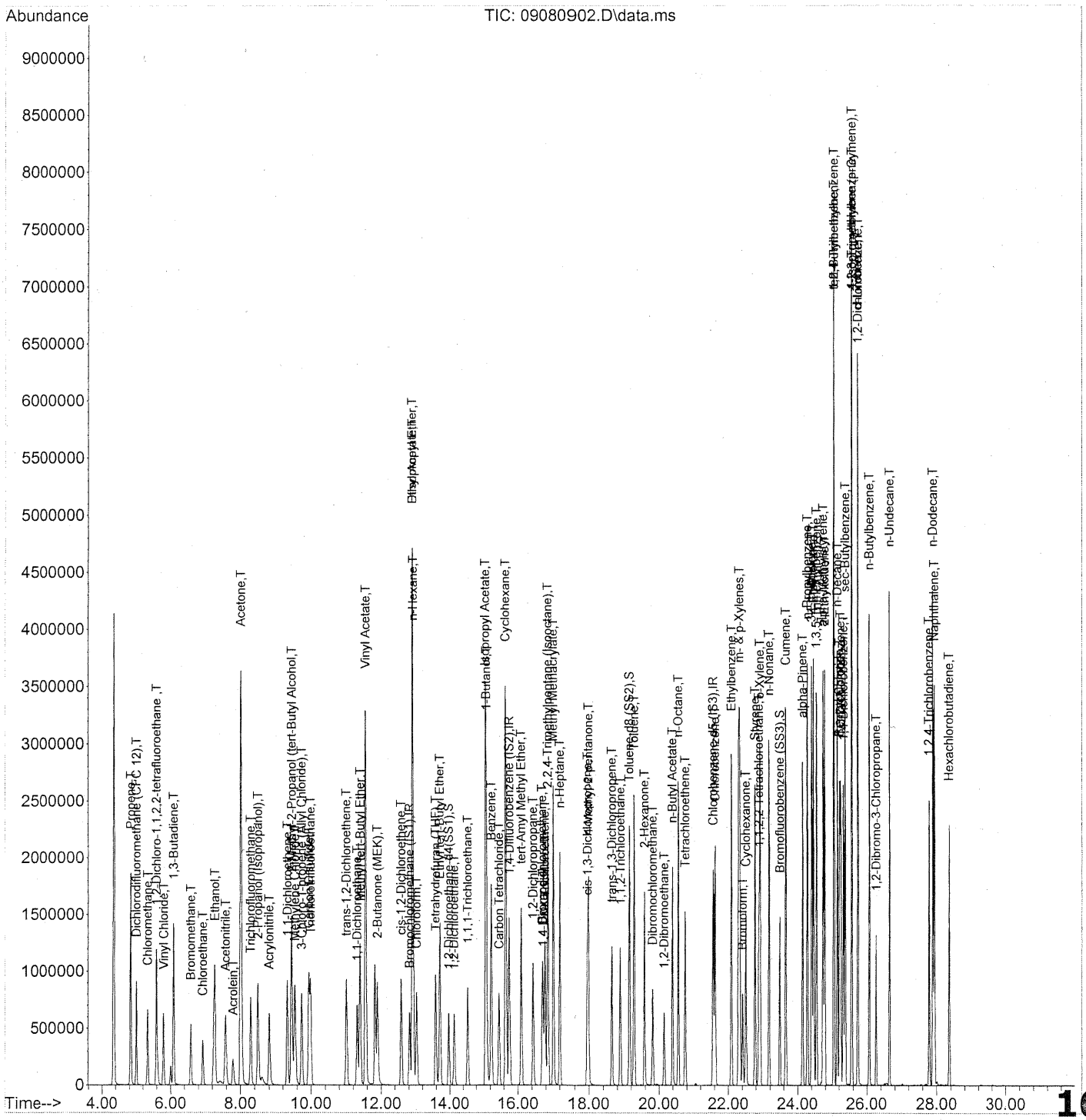
(#) = Out of Range SPCC's out = 0 CCC's out = 0

EM 9/8/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080902.D
Acq On : 8 Sep 2009 8:31
Operator : EM
Sample : 25ng TO-15 CCV STD
Misc : S20-08130905/S20-09030903
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 13:03:00 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080902.D
Acq On : 8 Sep 2009 8:31
Operator : EM
Sample : 25ng TO-15 CCV STD
Misc : S20-08130905/S20-09030903
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 13:03:00 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.82	130	335598	25.000	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	15.76	114	1728800	25.000	ng		-0.01
56) Chlorobenzene-d5 (IS3)	21.56	82	801437	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.97	65	618713	26.074	ng		-0.02
Spiked Amount 25.000			Recovery = 104.28%				
57) Toluene-d8 (SS2)	19.15	98	1974170	25.911	ng		-0.01
Spiked Amount 25.000			Recovery = 103.64%				
73) Bromofluorobenzene (SS3)	23.49	174	514650	23.852	ng		0.00
Spiked Amount 25.000			Recovery = 95.40%				
Target Compounds							Qvalue
2) Propene	4.84	42	874514	29.706	ng		97
3) Dichlorodifluoromethan...	5.00	85	1016333	24.186	ng		99
4) Chloromethane	5.33	50	953955	24.358	ng		98
5) 1,2-Dichloro-1,1,2,2-t...	5.59	135	543841	24.491	ng		99
6) Vinyl Chloride	5.80	62	905401	23.436	ng		99
7) 1,3-Butadiene	6.08	54	868488	31.648	ng		97
8) Bromomethane	6.58	94	506949	25.094	ng		99
9) Chloroethane	6.93	64	468348	24.436	ng		100
10) Ethanol	7.27	45	2368174m	128.242	ng		
11) Acetonitrile	7.58	41	1163530	25.818	ng		99
12) Acrolein	7.79	56	354883	29.469	ng		97
13) Acetone	8.01	58	2416449	128.592	ng		94
14) Trichlorofluoromethane	8.29	101	917774	25.540	ng		98
15) 2-Propanol (Isopropanol)	8.49	45	1967213m	38.226	ng		
16) Acrylonitrile	8.81	53	814149	29.828	ng		99
17) 1,1-Dichloroethene	9.33	96	542098	25.706	ng		93
18) 2-Methyl-2-Propanol (t...	9.45	59	2887091	55.260	ng		98
19) Methylene Chloride	9.54	84	562970	24.012	ng		85
20) 3-Chloro-1-propene (Al...	9.73	41	918873	29.226	ng		88
21) Trichlorotrifluoroethane	9.98	151	433196	26.934	ng		95
22) Carbon Disulfide	9.94	76	2115739	25.571	ng		98
23) trans-1,2-Dichloroethene	11.00	61	862727	26.659	ng		91
24) 1,1-Dichloroethane	11.32	63	1043587	26.331	ng		99
25) Methyl tert-Butyl Ether	11.40	73	1764240	27.471	ng		95
26) Vinyl Acetate	11.56	86	644962	158.470	ng	#	61
27) 2-Butanone (MEK)	11.89	72	408037	31.147	ng	#	79
28) cis-1,2-Dichloroethene	12.58	61	821374	27.200	ng		92
29) Diisopropyl Ether	12.91	87	501272	26.951	ng	#	58
30) Ethyl Acetate	12.91	61	485876	57.193	ng		96
31) n-Hexane	12.93	57	1098863	26.535	ng		15

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080902.D
Acq On : 8 Sep 2009 8:31
Operator : EM
Sample : 25ng TO-15 CCV STD
Misc : S20-08130905/S20-09030903
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 13:03:00 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	13.03	83	919418	26.527	ng		100
34) Tetrahydrofuran (THF)	13.58	72	387185	28.428	ng	#	83
35) Ethyl tert-Butyl Ether	13.71	87	685491	25.832	ng	#	85
36) 1,2-Dichloroethane	14.13	62	731758	27.590	ng		99
38) 1,1,1-Trichloroethane	14.54	97	811301	25.802	ng		99
39) Isopropyl Acetate	15.07	61	811891	57.543	ng	#	75
40) 1-Butanol	15.09	56	1402988	62.625	ng		85
41) Benzene	15.23	78	2305139	24.794	ng		99
42) Carbon Tetrachloride	15.46	117	693682	26.693	ng		99
43) Cyclohexane	15.66	84	1893116	52.579	ng		87
44) tert-Amyl Methyl Ether	16.10	73	1705554	26.101	ng		98
45) 1,2-Dichloropropane	16.43	63	597324	26.190	ng		99
46) Bromodichloromethane	16.70	83	757992	27.869	ng		99
47) Trichloroethene	16.77	130	573716	24.304	ng		100
48) 1,4-Dioxane	16.72	88	487896	29.505	ng		88
49) 2,2,4-Trimethylpentane...	16.86	57	2693035	25.168	ng		95
50) Methyl Methacrylate	17.02	100	496744	53.470	ng	#	89
51) n-Heptane	17.21	71	644155	26.026	ng		94
52) cis-1,3-Dichloropropene	17.95	75	914670	26.615	ng		100
53) 4-Methyl-2-pentanone	17.98	58	614421	30.582	ng		94
54) trans-1,3-Dichloropropene	18.64	75	925496	30.784	ng		100
55) 1,1,2-Trichloroethane	18.89	97	531778	26.772	ng		98
58) Toluene	19.28	91	2470763	26.752	ng		100
59) 2-Hexanone	19.58	43	1486334	30.964	ng		98
60) Dibromochloromethane	19.82	129	605694	30.713	ng		100
61) 1,2-Dibromoethane	20.15	107	597191	28.730	ng		99
62) n-Butyl Acetate	20.39	43	1744216	33.302	ng		98
63) n-Octane	20.56	57	577007	28.027	ng		90
64) Tetrachloroethene	20.75	166	573602	25.028	ng		99
65) Chlorobenzene	21.62	112	1503145	26.501	ng		100
66) Ethylbenzene	22.09	91	2730318	27.381	ng		98
67) m- & p-Xylenes	22.32	91	4233851	53.558	ng		99
68) Bromoform	22.41	173	491556	28.715	ng		100
69) Styrene	22.77	104	1674454	28.656	ng		100
70) o-Xylene	22.92	91	2170951	27.298	ng		98
71) n-Nonane	23.17	43	1341669	28.014	ng		92
72) 1,1,2,2-Tetrachloroethane	22.89	83	988284	28.929	ng		100
74) Cumene	23.66	105	2727790	26.454	ng		98
75) alpha-Pinene	24.15	93	1330736	26.157	ng		99
76) n-Propylbenzene	24.28	91	3417631	26.817	ng		99
77) 3-Ethyltoluene	24.41	105	2704241	27.994	ng		98
78) 4-Ethyltoluene	24.46	105	2741117	28.226	ng		100
79) 1,3,5-Trimethylbenzene	24.55	105	2218580	27.629	ng		99

Quantitation Report (QT Reviewed)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080902.D
Acq On : 8 Sep 2009 8:31
Operator : EM
Sample : 25ng TO-15 CCV STD
Misc : S20-08130905/S20-09030903
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 13:03:00 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration

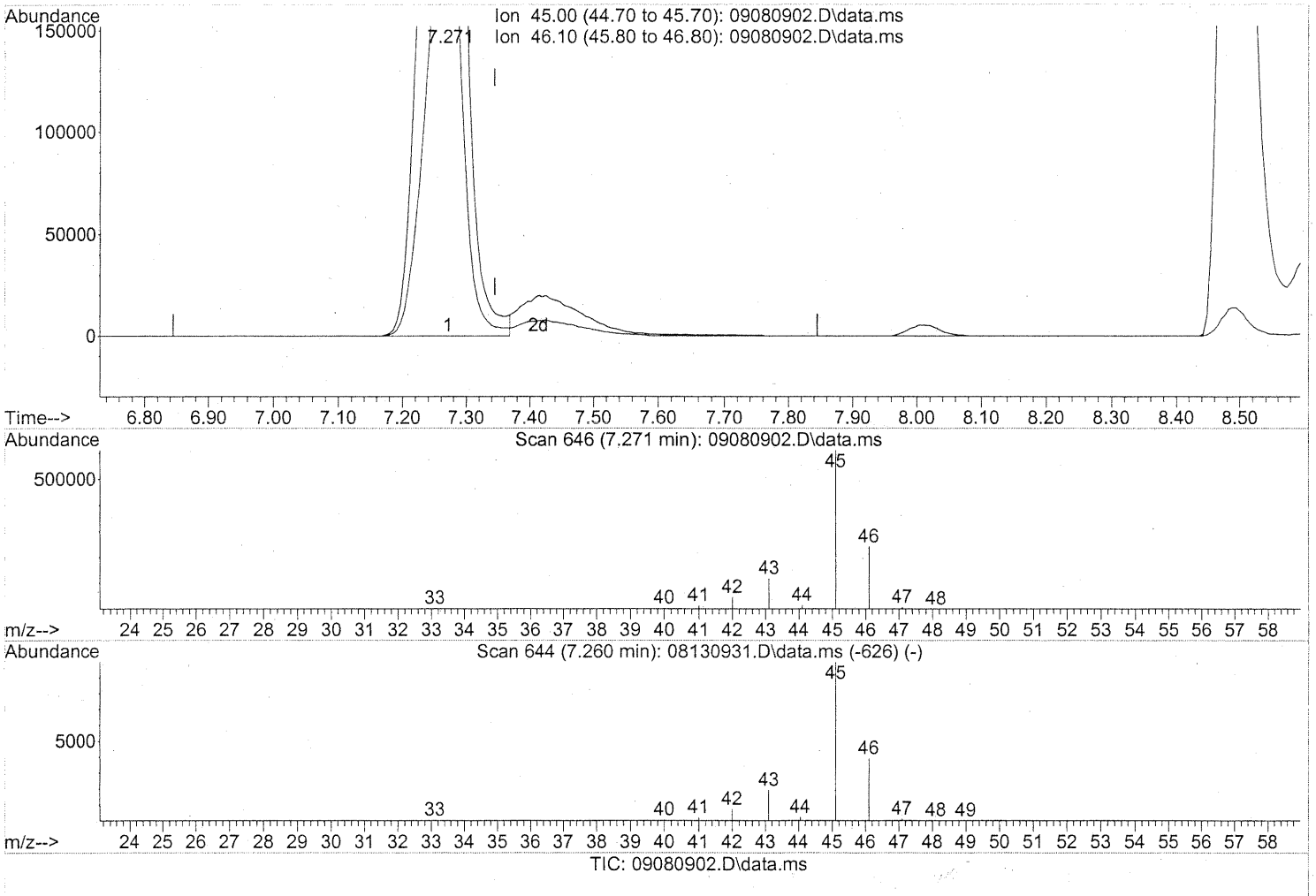
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.73	118	1245138	28.578	ng	98
81) 2-Ethyltoluene	24.79	105	2669748	26.763	ng	99
82) 1,2,4-Trimethylbenzene	25.05	105	2392409	28.061	ng	99
83) n-Decane	25.15	57	1383198	27.873	ng	95
84) Benzyl Chloride	25.22	91	2126348	32.237	ng	99
85) 1,3-Dichlorobenzene	25.25	146	1221467	27.674	ng	100
86) 1,4-Dichlorobenzene	25.33	146	1240672	26.492	ng	99
87) sec-Butylbenzene	25.38	105	3038234	27.043	ng	99
88) 4-Isopropyltoluene (p-...	25.57	119	2941623	27.327	ng	99
89) 1,2,3-Trimethylbenzene	25.57	105	2433304	28.237	ng	99
90) 1,2-Dichlorobenzene	25.75	146	1197902	27.029	ng	100
91) d-Limonene	25.74	68	1034594	29.660	ng	94
92) 1,2-Dibromo-3-Chloropr...	26.26	157	408481	30.520	ng	92
93) n-Undecane	26.65	57	1465056	28.571	ng	96
94) 1,2,4-Trichlorobenzene	27.79	180	860604	27.795	ng	99
95) Naphthalene	27.94	128	3046103	26.628	ng	100
96) n-Dodecane	27.89	57	1493490	26.020	ng	96
97) Hexachlorobutadiene	28.36	225	484918	27.427	ng	99
98) Cyclohexanone	22.51	55	846406	29.099	ng	95
99) tert-Butylbenzene	25.05	119	2350936	27.804	ng	99
100) n-Butylbenzene	26.07	91	2534747	28.347	ng	99

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

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080902.D
Acq On : 8 Sep 2009 8:31
Operator : EM
Sample : 25ng TO-15 CCV STD
Misc : S20-08130905/S20-09030903
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 12:32:35 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080902.D\data.ms

(10) Ethanol (T)

7.271min (-0.074) 120.86ng

response 2231861

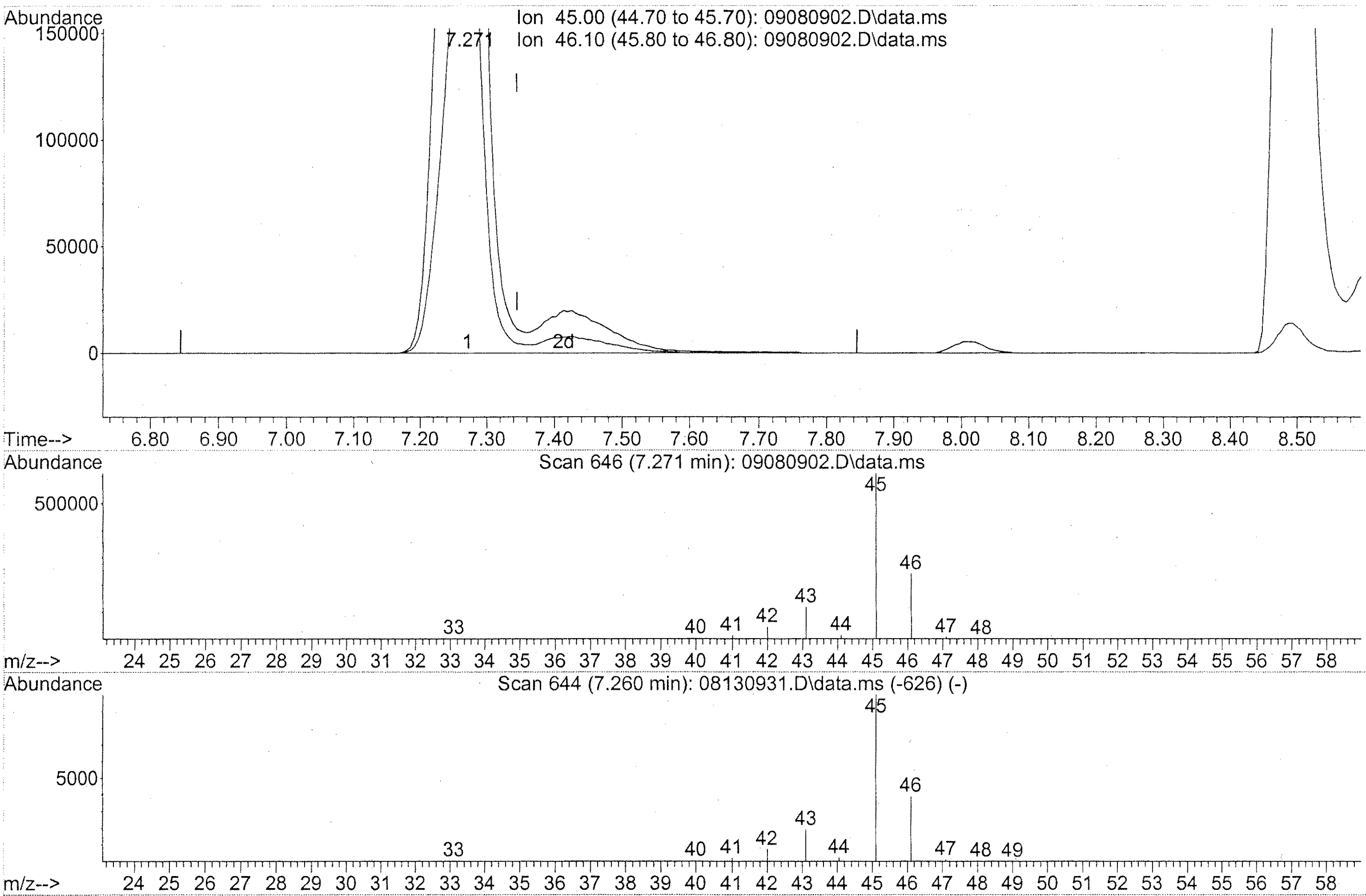
PT

Ion	Exp%	Act%
45.00	100	100
46.10	39.00	39.26
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080902.D
Acq On : 8 Sep 2009 8:31
Operator : EM
Sample : 25ng TO-15 CCV STD
Misc : S20-08130905/S20-09030903
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 12:32:35 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080902.D\data.ms

(10) Ethanol (T)

7.271min (-0.074) 128.24ng m

response 2368174

Ion	Exp%	Act%
45.00	100	100
46.10	39.00	37.00
0.00	0.00	0.00
0.00	0.00	0.00

PT → IC

em 9/8/09

4l 9/8/09

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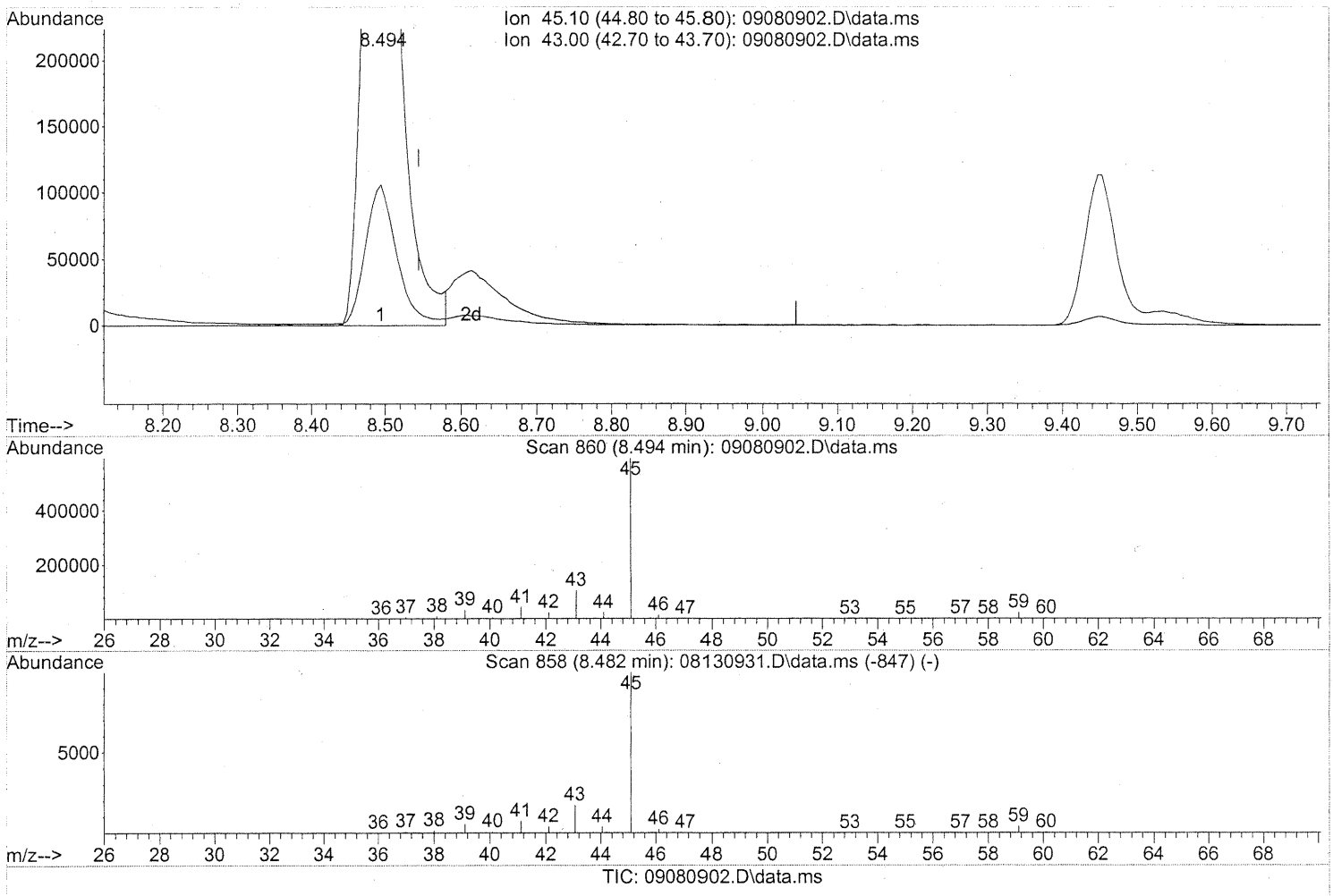
Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080902.D
Acq On : 8 Sep 2009 8:31
Operator : EM
Sample : 25ng TO-15 CCV STD
Misc : S20-08130905/S20-09030903
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 12:32:35 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080902.D\data.ms

(15) 2-Propanol (Isopropanol) (T)

8.494min (-0.051) 34.24ng

response 1762262

Ion	Exp%	Act%
45.10	100	100
43.00	20.50	17.40
0.00	0.00	0.00
0.00	0.00	0.00

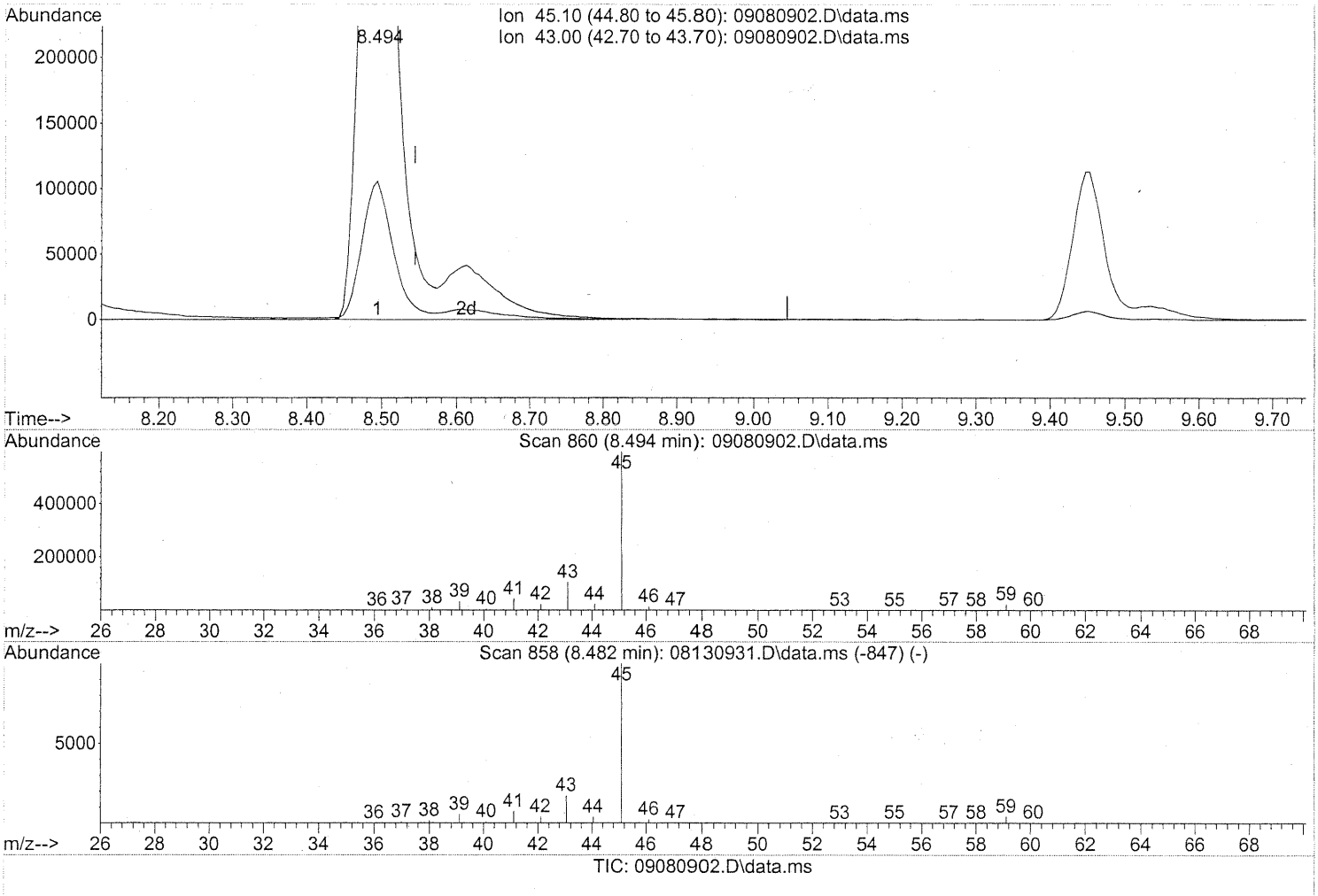
PT

168

Quantitation Report (Qedit)

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080902.D
Acq On : 8 Sep 2009 8:31
Operator : EM
Sample : 25ng TO-15 CCV STD
Misc : S20-08130905/S20-09030903
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 08 12:32:35 2009
Quant Method : J:\MS09\Methods\R9081309.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 14 07:39:36 2009
Response via : Initial Calibration



TIC: 09080902.D\data.ms

(15) 2-Propanol (Isopropanol) (T)

8.494min (-0.051) 38.23ng m

response 1967213

Ion	Exp%	Act%
45.10	100	100
43.00	20.50	15.58
0.00	0.00	0.00
0.00	0.00	0.00

PT → IC

Cam 9/8/09

MH 9/8/09

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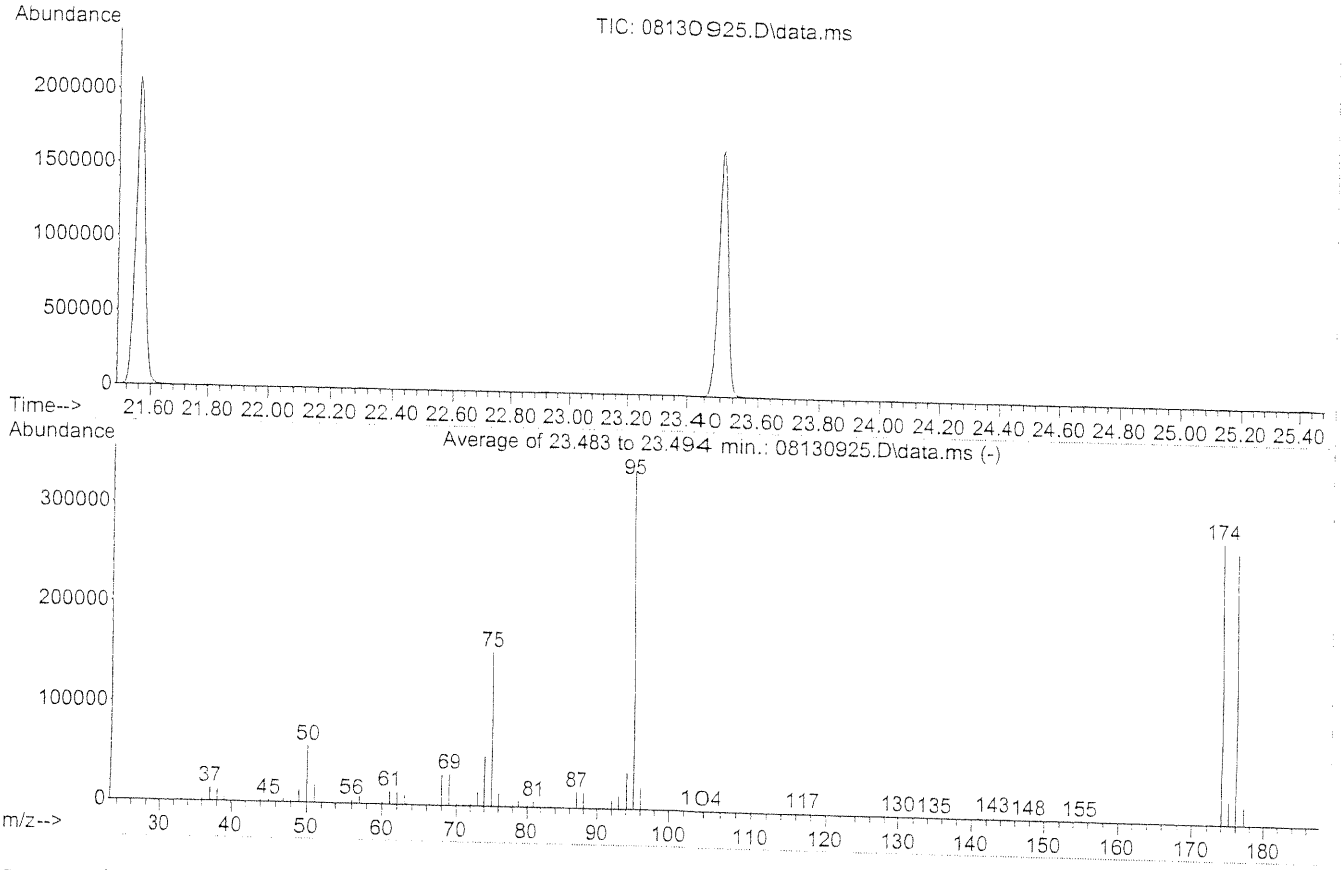
BFB TUNING & MASS CALIBRATIONS

BFB

Data Path : J:\MS09\Data\2009_08\13\
Data File : 08130925.D
Acq On : 14 Aug 2009 1:14
Operator : EM
Sample : TO-15 BFB Standard (200ml)
Misc : S20-08130905
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : J:\MS09\Methods\R9081309.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Mon Jul 27 09:38:25 2009



AutoFind: Scans 3484, 3485, 3486; Background Corrected with Scan 3474

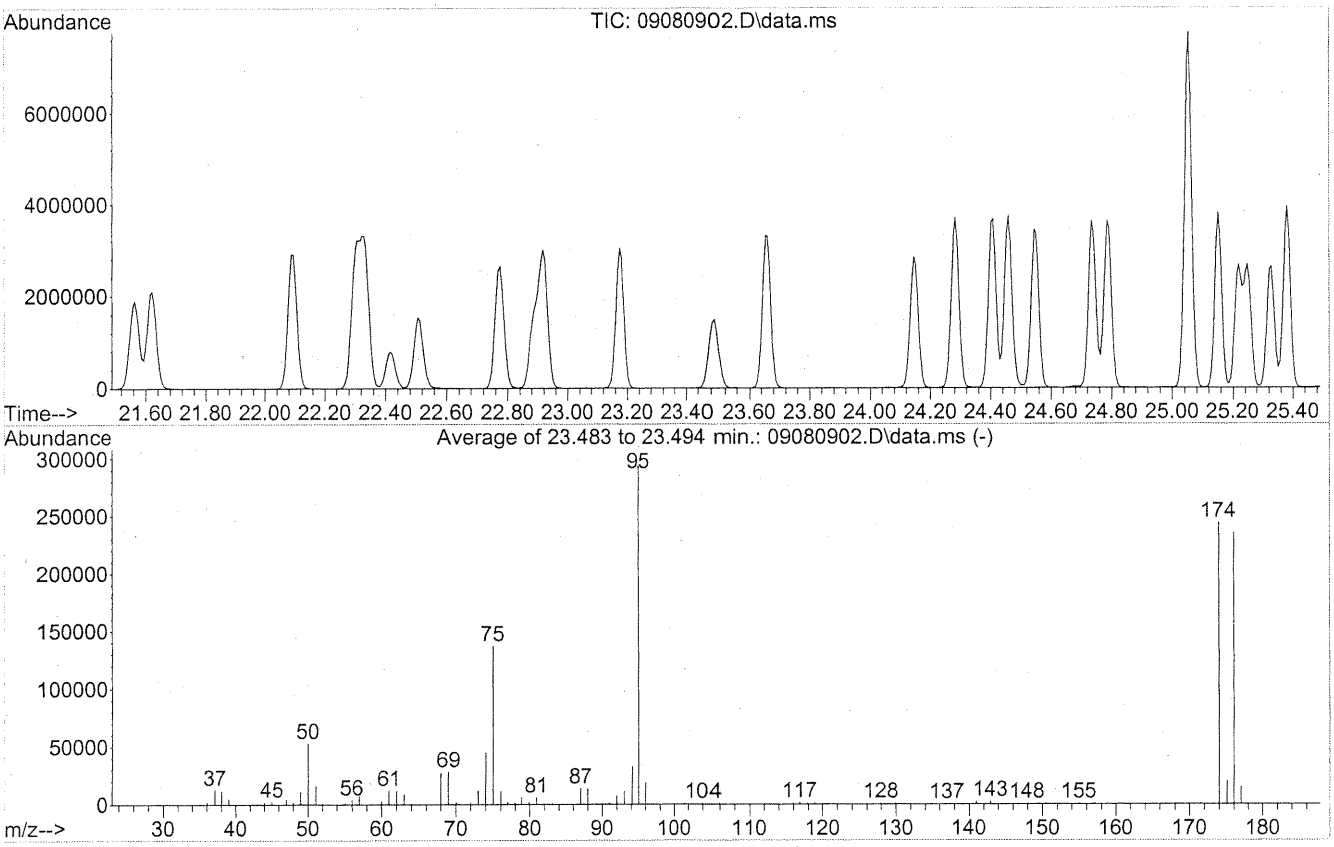
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	16.9	57432	PASS
75	95	30	66	45.6	154987	PASS
95	95	100	100	100.0	339563	PASS
96	95	5	9	6.4	21896	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	83.2	282475	PASS
175	174	4	9	8.1	22795	PASS
176	174	93	101	96.4	272171	PASS
177	176	5	9	6.4	17522	PASS

GM 8/14/09

Data Path : J:\MS09\Data\2009_09\08\
Data File : 09080902.D
Acq On : 8 Sep 2009 8:31
Operator : EM
Sample : 25ng TO-15 CCV STD
Misc : S20-08130905/S20-09030903
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : J:\MS09\Methods\R9081309.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Fri Aug 14 07:39:36 2009



AutoFind: Scans 3484, 3485, 3486; Background Corrected with Scan 3474

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	18.1	52992	PASS
75	95	30	66	46.7	136957	PASS
95	95	100	100	100.0	293483	PASS
96	95	5	9	6.4	18680	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	83.1	243947	PASS
175	174	4	9	8.0	19608	PASS
176	174	93	101	96.5	235499	PASS
177	176	5	9	6.3	14939	PASS

Em 9/8/09

RUN LOGS

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
1	08/13/09 6:23	08130901.D	25ng TO-15 CCV STD	S20-07200901/S20-07240905	EM	1	Pass
2	08/13/09 7:04	08130902.D	25ng TO-15 AC&F STD	S20-07200901/S20-07220902	EM	16	Pass
3	08/13/09 8:54	08130903.D	TO-15 Method Blank (1000ml)	S20-07200901	EM	1	Pass as MB
4	08/13/09 10:01	08130904.D	P0902767-001 (5ml)	[redacted]	EM	1	Case File
5	08/13/09 10:43	08130905.D	P0902767-002 (0.5ml)	[redacted]	EM	1	↓
6	08/13/09 11:34	08130906.D	P0902780-001 (0.5ml)	[redacted]	EM	1	Case File
7	08/13/09 12:15	08130907.D	P0902678-013 (30ml)	[redacted]	EM	5	
8	08/13/09 12:57	08130908.D	25ng TO-15 LCS STD	S20-07200901/S20-08070903	EM	2	Pass Acrylonitrile
9	08/13/09 13:52	08130909.D	P0902780-002 (0.5ml)	[redacted]	EM	1	
10	08/13/09 14:33	08130910.D	P0902780-001 (1ml)	[redacted]	EM	1	
11	08/13/09 15:15	08130911.D	P0902780-001 dup (1ml)	[redacted]	EM	1	Pass as Lab Dup.
12	08/13/09 16:15	08130912.D	P0902780-002 dil (0.1ml)	[redacted]	EM	1	
13	08/13/09 16:56	08130913.D	25ng std check	S20-08130905/S20-08070903	EM	2	
14	08/13/09 17:37	08130914.D	P0902678-013 dil (15ml)	[redacted]	EM	5	
15	08/13/09 18:19	08130915.D	P0902678-005 dil (100ml)	[redacted]	EM	9	
16	08/13/09 19:00	08130916.D	P0902678-011 dil (100ml)	[redacted]	EM	14	
17	08/13/09 19:41	08130917.D	P0902678-012 dil (100ml)	[redacted]	EM	15	
18	08/13/09 20:23	08130918.D	P0902678-014 (1000ml)	[redacted]	EM	6	
19	08/13/09 21:04	08130919.D	P0902678-014 dil (100ml)	[redacted]	EM	6	
20	08/13/09 21:46	08130920.D	P0902678-015 (1000ml)	[redacted]	EM	7	
21	08/13/09 22:28	08130921.D	P0902678-015 dil (100ml)	[redacted]	EM	7	
22	08/13/09 23:09	08130922.D	5ng std check	S20-08130905/S20-08100904	EM	1	
23	08/13/09 23:51	08130923.D	25ng std check	S20-08130905/S20-08100902	EM	1	
24	08/14/09 0:33	08130924.D	System Check		EM	4	
25	08/14/09 1:14	08130925.D	TO-15 BFB Standard (200ml)	S20-08130905	EM	1	Pass
26	08/14/09 1:56	08130926.D	0.1ng TO-15 ICAL STD	S20-08130905/S20-07240912	EM	8	ICAL R9081309.M
27	08/14/09 2:38	08130927.D	0.2ng TO-15 ICAL STD	S20-08130905/S20-07240912	EM	8	
28	08/14/09 3:19	08130928.D	0.5ng TO-15 ICAL STD	S20-08130905/S20-08100904	EM	1	
29	08/14/09 4:01	08130929.D	1.0ng TO-15 ICAL STD	S20-08130905/S20-08100904	EM	1	
30	08/14/09 4:43	08130930.D	5ng TO-15 ICAL STD	S20-08130905/S20-08100904	EM	1	
31	08/14/09 5:24	08130931.D	25ng TO-15 ICAL STD	S20-08130905/S20-08100902	EM	1	
32	08/14/09 6:06	08130932.D	50ng TO-15 ICAL STD	S20-08130905/S20-08100902	EM	1	
33	08/14/09 6:47	08130933.D	100ng TO-15 ICAL STD	S20-08130905/S20-08100902	EM	1	
34	08/14/09 7:29	08130934.D	25ng TO-15 ICV STD	S20-08130905/S20-08070903	EM	2	Pass
35	08/14/09 8:26	08130935.D	25ng TO-15 ICV STD	S20-08130905/S20-07270906	EM	10	Case File Extra

ICAL R9081309.M: 0.2ng-100ng: 1-Butanol, n-Butyl Acetate, 4-methyl-2-pentanone
0.5ng-100ng: Vinyl Acetate, 2-Butanone, Ethyl Acetate
Methyl Methacrylate, 2-Hexanone
0.1ng-50ng: TBA
0.1ng-100ng: Rest of compounds.

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
15	09/04/09 18:07	09040915.D	P0902972-002 dil (100ml)	[redacted]	EM	8	
16	09/04/09 18:49	09040916.D	P0903130-001 dup (0.0015ml)	[redacted]	EM	5	Pass as Lab Dup.
17	09/04/09 19:30	09040917.D	P0902972-001 (1000ml)	[redacted]	EM	7	
18	09/04/09 20:12	09040918.D	P0902972-004 (1000ml)	[redacted]	EM	13	
19	09/04/09 20:54	09040919.D	P0903080-001 (1000ml)	[redacted]	EM	9	
20	09/04/09 21:35	09040920.D	P0903080-001 dil (100ml)	[redacted]	EM	9	
21	09/04/09 22:17	09040921.D	P0903080-002 (1000ml)	[redacted]	EM	10	
22	09/04/09 22:59	09040922.D	System Check		EM	4	
23	09/04/09 23:41	09040923.D	P0903080-002 dil (100ml)	[redacted]	EM	10	
24	09/05/09 0:23	09040924.D	P0903080-003 (1000ml)	[redacted]	EM	11	
25	09/05/09 1:05	09040925.D	P0903080-003 dup (1000ml)	[redacted]	EM	11	Case, File Extra
26	09/05/09 1:46	09040926.D	P0903080-004 (1000ml)	[redacted]	EM	12	
27	09/05/09 2:28	09040927.D	P0903080-004 dil (100ml)	[redacted]	EM	12	
28	09/05/09 3:10	09040928.D	P0903080-005 (1000ml)	[redacted]	EM	14	
29	09/05/09 3:52	09040929.D	P0903080-005 dil (100ml)	[redacted]	EM	14	Case, File
30	09/05/09 4:34	09040930.D	System Check		EM	4	

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
1	09/08/09 7:49	09080901.D	System Check		EM	4	
2	09/08/09 8:31	09080902.D	25ng TO-15 CCV STD	S20-08130905/S20-09030903	EM	1	Pass
3	09/08/09 9:12	09080903.D	25ng TO-15 MAPH STD	S20-08130905/S20-08210904	EM	5	
4	09/08/09 9:53	09080904.D	TO-15 Method Blank (1000ml)	S20-08130905	EM	1	Pass as MB
5	09/08/09 10:56	09080905.D	P0902944-001 (0.1ml)	[redacted]	EM	1	
6	09/08/09 11:38	09080906.D	P0902944-001 dup (0.1ml)	[redacted]	EM	1	Pass as Lab Dup.
7	09/08/09 12:19	09080907.D	CAS CAN QC No Batch#	SC00191	EM	6	Pass 75 @ 0.5ug/m3
8	09/08/09 13:22	09080908.D	P0903155-001 (400ml)	[redacted]	EM	7	
9	09/08/09 14:03	09080909.D	P0903155-003 (400ml)	[redacted]	EM	8	
10	09/08/09 14:45	09080910.D	P0902944-002 (0.5ml)	[redacted]	EM	1	
11	09/08/09 15:26	09080911.D	25ng TO-15 LCS STD	S20-08130905/S20-08240914	EM	2	Pass
12	09/08/09 16:08	09080912.D	P0903080-003 dil (100ml)	[redacted]	EM	11	
13	09/08/09 18:15	09080913.D	P0902944-003 (0.150ml)	[redacted]	EM	1	
14	09/08/09 18:57	09080914.D	P0903155-002 (25ml)	[redacted]	EM	7	
15	09/08/09 19:38	09080915.D	P0903155-004 (400ml)	[redacted]	EM	8	
16	09/08/09 20:20	09080916.D	P0903155-005 (400ml)	[redacted]	EM	9	
17	09/08/09 21:02	09080917.D	P0903155-006 (400ml)	[redacted]	EM	10	
18	09/08/09 21:43	09080918.D	P0903023-001 (1000ml)	Environmental H & E 104327	EM	11	
19	09/08/09 22:25	09080919.D	P0903023-001 dil (100ml)	Environmental H & E 104327	EM	11	Case, File
20	09/08/09 23:07	09080920.D	P0903023-002 (1000ml)	Environmental H & E 104328	EM	12	
21	09/08/09 23:49	09080921.D	P0903023-002 dil (100ml)	Environmental H & E 104328	EM	12	Case, File
22	09/09/09 0:31	09080922.D	K0907780-001 (15ml)	[redacted]	EM	6	
23	09/09/09 1:13	09080923.D	CAS CAN QC C1S 3736	1SC00212 (400ml)	EM	14	Failed.
24	09/09/09 1:55	09080924.D	System Check		EM	4	