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

LABORATORY REPORT

September 23, 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 27, 2009. For your reference, these analyses have been assigned our service request number P0902985.

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 301 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
Project Manager

Client: Environmental Health & Engineering, Inc. CAS Project No: P0902985
Project: 16512

CASE NARRATIVE

The samples were received intact under chain of custody on August 27, 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 upper control criterion was exceeded for Vinyl Acetate in the Continuing Calibration Verification (CCV) analyzed on August 31, 2009. Since the apparent problem equates to a potential high bias and the field sample analyzed in this sequence did not contain the analyte in question, the data quality is not affected. No corrective action was required.

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: P0902985

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 #
P0902985-001.01	103572	6.0 L-Summa Canister Ambient	-2.6	-1.3	3.5				AC01532	**14338**		
P0902985-002.01	103573	6.0 L-Summa Canister Ambient	-4.2	-2.1	3.5				AC00701	**14275**		
P0902985-003.01	103574	6.0 L-Summa Canister Ambient	-4.8	-2.4	3.5				AC01300	**14338**		
P0902985-004.01	103575	6.0 L-Summa Canister Ambient	-5.2	-2.6	3.5				AC00952	**14275**		

Miscellaneous Items - received

FC00148
AVG01085
AVG01193
AVG01148
FC00675
FC00504
FC00661
AVG01141

Environmental Health & Engineering, Inc.

CHAIN OF CUSTODY FORM

DATE: 8/26/09

FROM: Environmental Health and Engineering, Inc.
117 Fourth Avenue
Needham, MA 02494-2725 PO902985

TO: CAS

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 # 16512

The cost of this analysis will be covered by EH&E Purchase Order # 16512

For EH & E Data Coordinator - URGENT DATA ☐

SAMPLE ID	SAMPLE TYPE	ANALYTICAL METHOD/NUMBER	OTHER:Time/Date/Vol.
103572	SUMMA-AIR	EPA TO-15	24HRS, 12:00
103573		↓	↓
103574			
103575			

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 MFRAGALA@EHEINC.COM

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

Relinquished by: [signature] of Environmental Health & Engineering, Inc. Date: 8/26/09

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

Relinquished by: FEDEX of (company name) _____ Date: 8/27/09

Received by: [signature] of (company name) CAS Date: 8/26/09 0940

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

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

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

Page 1 of 1

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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: P0902985

Project: 16512

Sample(s) received on: 08/27/09 Date opened: 08/27/09 by: ADAVID

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
P0902985-001.01	6.0 L Ambient Can					
P0902985-002.01	6.0 L Ambient Can					
P0902985-003.01	6.0 L Ambient Can					
P0902985-004.01	6.0 L Ambient Can					

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

*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: **103572**
Client Project ID: **16512**

CAS Project ID: P0902985
CAS Sample ID: P0902985-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
Analyst: Liliana Marghitoiu
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC01532

Date Collected: 8/26/09
Date Received: 8/27/09
Date Analyzed: 9/4/09
Volume(s) Analyzed: 0.60 Liter(s)

Initial Pressure (psig): -1.3 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.36

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	**Propene**	**17**	1.1	**9.7**	0.66	
75-71-8	**Dichlorodifluoromethane (CFC 12)**	**2.5**	1.1	**0.50**	0.23	
74-87-3	**Chloromethane**	**1.4**	0.23	**0.68**	0.11	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	1.1	ND	0.16	
75-01-4	Vinyl Chloride	ND	0.23	ND	0.089	
106-99-0	1,3-Butadiene	ND	0.23	ND	0.10	
74-83-9	Bromomethane	ND	0.23	ND	0.058	
75-00-3	Chloroethane	ND	0.23	ND	0.086	
64-17-5	**Ethanol**	**950**	11	**510**	6.0	
75-05-8	**Acetonitrile**	**190**	1.1	**110**	0.68	
107-02-8	**Acrolein**	**8.2**	1.1	**3.6**	0.49	
67-64-1	**Acetone**	**150**	11	**62**	4.8	
75-69-4	**Trichlorofluoromethane**	**1.4**	0.23	**0.25**	0.040	
67-63-0	**2-Propanol (Isopropyl Alcohol)**	**120**	1.1	**48**	0.46	
107-13-1	Acrylonitrile	ND	1.1	ND	0.52	
75-35-4	1,1-Dichloroethene	ND	0.23	ND	0.057	
75-09-2	Methylene Chloride	ND	1.1	ND	0.33	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.23	ND	0.072	
76-13-1	**Trichlorotrifluoroethane**	**0.57**	0.23	**0.075**	0.030	
75-15-0	**Carbon Disulfide**	**1.9**	1.1	**0.61**	0.36	
156-60-5	trans-1,2-Dichloroethene	ND	0.23	ND	0.057	
75-34-3	1,1-Dichloroethane	ND	0.23	ND	0.056	
1634-04-4	Methyl tert-Butyl Ether	ND	0.23	ND	0.063	
108-05-4	Vinyl Acetate	ND	11	ND	3.2	
78-93-3	**2-Butanone (MEK)**	**7.3**	1.1	**2.5**	0.38	

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: 9/10/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **103572**
Client Project ID: **16512**

CAS Project ID: P0902985
CAS Sample ID: P0902985-001

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
Analyst: Liliana Marghitoiu
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC01532

Date Collected: 8/26/09
Date Received: 8/27/09
Date Analyzed: 9/4/09
Volume(s) Analyzed: 0.60 Liter(s)

Initial Pressure (psig): -1.3 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.36

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.23	ND	0.057	
141-78-6	**Ethyl Acetate**	**170**	1.1	**48**	0.31	
110-54-3	**n-Hexane**	**13**	1.1	**3.8**	0.32	
67-66-3	**Chloroform**	**0.38**	0.23	**0.078**	0.046	
109-99-9	**Tetrahydrofuran (THF)**	**3.6**	1.1	**1.2**	0.38	
107-06-2	**1,2-Dichloroethane**	**0.80**	0.23	**0.20**	0.056	
71-55-6	1,1,1-Trichloroethane	ND	0.23	ND	0.042	
71-43-2	**Benzene**	**12**	0.23	**3.6**	0.071	
56-23-5	**Carbon Tetrachloride**	**0.61**	0.23	**0.096**	0.036	
110-82-7	**Cyclohexane**	**3.7**	1.1	**1.1**	0.33	
78-87-5	**1,2-Dichloropropane**	**0.31**	0.23	**0.066**	0.049	
75-27-4	Bromodichloromethane	ND	0.23	ND	0.034	
79-01-6	**Trichloroethene**	**0.46**	0.23	**0.086**	0.042	
123-91-1	1,4-Dioxane	ND	1.1	ND	0.31	
80-62-6	Methyl Methacrylate	ND	1.1	ND	0.28	
142-82-5	**n-Heptane**	**2.9**	1.1	**0.71**	0.28	
10061-01-5	cis-1,3-Dichloropropene	ND	1.1	ND	0.25	
108-10-1	4-Methyl-2-pentanone	ND	1.1	ND	0.28	
10061-02-6	trans-1,3-Dichloropropene	ND	1.1	ND	0.25	
79-00-5	1,1,2-Trichloroethane	ND	0.23	ND	0.042	
108-88-3	**Toluene**	**69**	1.1	**18**	0.30	
591-78-6	2-Hexanone	ND	1.1	ND	0.28	
124-48-1	Dibromochloromethane	ND	0.23	ND	0.027	
106-93-4	1,2-Dibromoethane	ND	0.23	ND	0.030	
123-86-4	**n-Butyl Acetate**	**11**	1.1	**2.3**	0.24	

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: 9/10/09

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RESULTS OF ANALYSIS

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Initial Pressure (psig): -1.3 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.36

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	**n-Octane**	**2.1**	1.1	**0.46**	0.24	
127-18-4	**Tetrachloroethene**	**0.70**	0.23	**0.10**	0.033	
108-90-7	Chlorobenzene	ND	0.23	ND	0.049	
100-41-4	**Ethylbenzene**	**6.6**	1.1	**1.5**	0.26	
179601-23-1	**m,p-Xylenes**	**21**	1.1	**4.9**	0.26	
75-25-2	Bromoform	ND	1.1	ND	0.11	
100-42-5	**Styrene**	**5.1**	1.1	**1.2**	0.27	
95-47-6	**o-Xylene**	**7.1**	1.1	**1.6**	0.26	
111-84-2	**n-Nonane**	**2.0**	1.1	**0.38**	0.22	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.23	ND	0.033	
98-82-8	Cumene	ND	1.1	ND	0.23	
80-56-8	**alpha-Pinene**	**83**	1.1	**15**	0.20	
103-65-1	**n-Propylbenzene**	**1.3**	1.1	**0.26**	0.23	
622-96-8	**4-Ethyltoluene**	**2.0**	1.1	**0.41**	0.23	
108-67-8	**1,3,5-Trimethylbenzene**	**1.8**	1.1	**0.36**	0.23	
95-63-6	**1,2,4-Trimethylbenzene**	**6.5**	1.1	**1.3**	0.23	
100-44-7	Benzyl Chloride	ND	0.23	ND	0.044	
541-73-1	1,3-Dichlorobenzene	ND	0.23	ND	0.038	
106-46-7	**1,4-Dichlorobenzene**	**0.38**	0.23	**0.063**	0.038	
95-50-1	1,2-Dichlorobenzene	ND	0.23	ND	0.038	
5989-27-5	**d-Limonene**	**24**	1.1	**4.3**	0.20	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.1	ND	0.12	
120-82-1	1,2,4-Trichlorobenzene	ND	1.1	ND	0.15	
91-20-3	Naphthalene	ND	1.1	ND	0.22	
87-68-3	Hexachlorobutadiene	ND	1.1	ND	0.11	

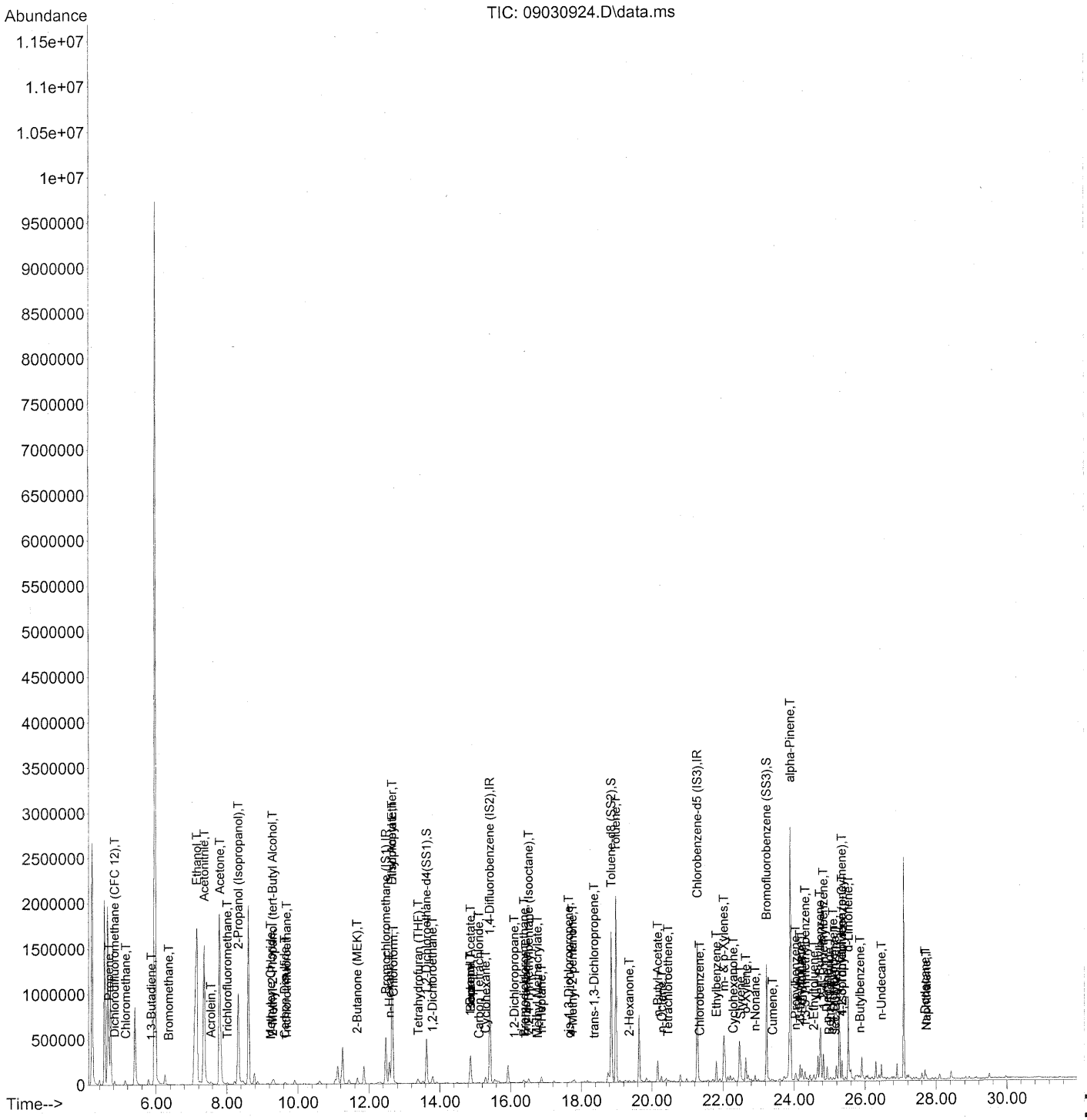
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 9/10/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 09 12:19:05 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



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QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

LM 9/9/09

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.48	130	261956	25.000	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	15.41	114	1307517	25.000	ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.28	82	636289	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.63	65	502042	24.185	ng		-0.02
Spiked Amount 25.000			Recovery =	96.72%			
57) Toluene-d8 (SS2)	18.85	98	1422418	25.014	ng		-0.01
Spiked Amount 25.000			Recovery =	100.04%			
73) Bromofluorobenzene (SS3)	23.23	174	412467	25.203	ng		-0.01
Spiked Amount 25.000			Recovery =	100.80%			
Target Compounds							Qvalue
2) Propene	4.66	42	138862	7.328	ng		98
3) Dichlorodifluoromethan...	4.82	85	36234	1.092	ng		99
4) Chloromethane	5.15	50	13775	0.618	ng		91
5) 1,2-Dichloro-1,1,2,2-t...	5.39	135	678	N.D.			
6) Vinyl Chloride	5.59	62	803	N.D.			
7) 1,3-Butadiene	5.87	54	802	0.051	ng	#	32
8) Bromomethane	6.35	94	924	0.071	ng		87
9) Chloroethane	0.00	64	0	N.D.			
10) Ethanol	7.15	45	4938384	420.299	ng		100
11) Acetonitrile	7.37	41	2707817	82.970	ng		100
12) Acrolein	7.55	56	32494	3.622	ng		98
13) Acetone	7.81	58	787784	64.832	ng	#	82
14) Trichlorofluoromethane	8.01	101	18087	0.619	ng		100
15) 2-Propanol (Isopropanol)	8.33	45	2117084	52.408	ng		99
16) Acrylonitrile	0.00	53	0	N.D.	d		
17) 1,1-Dichloroethene	0.00	96	0	N.D.			
18) 2-Methyl-2-Propanol (t...	9.29	59	36646	0.906	ng	#	1
19) Methylene Chloride	9.24	84	6722	0.436	ng		94
20) 3-Chloro-1-propene (Al...	9.44	41	220	N.D.			
21) Trichlorotrifluoroethane	9.68	151	2933	0.253	ng		100
22) Carbon Disulfide	9.63	76	46021	0.839	ng		97
23) trans-1,2-Dichloroethene	10.68	61	154	N.D.			
24) 1,1-Dichloroethane	11.04	63	87	N.D.			
25) Methyl tert-Butyl Ether	11.18	73	99	N.D.			
26) Vinyl Acetate	0.00	86	0	N.D.	d		
27) 2-Butanone (MEK)	11.66	72	31795	3.239	ng		94
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.			
29) Diisopropyl Ether	12.66	87	7536	0.526	ng	#	1
30) Ethyl Acetate	12.66	61	405527	76.885	ng		99
31) n-Hexane	12.58	57	153567	5.845	ng		99

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Quantitation Report (QT Reviewed)

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Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.68	83	4338	0.167	ng		93
34) Tetrahydrofuran (THF)	13.39	72	16863	1.584	ng	#	80
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	13.79	62	7709	0.355	ng		94
38) 1,1,1-Trichloroethane	14.17	97	220	N.D.			
39) Isopropyl Acetate	14.87	61	2765	0.278	ng	#	1
40) 1-Butanol	14.85	56	72784	4.472	ng	#	32
41) Benzene	14.87	78	313042	5.093	ng		99
42) Carbon Tetrachloride	15.11	117	5514	0.267	ng		96
43) Cyclohexane	15.29	84	36554	1.614	ng		95
44) tert-Amyl Methyl Ether	16.01	73	148	N.D.			
45) 1,2-Dichloropropane	16.11	63	2045	0.135	ng		91
46) Bromodichloromethane	16.39	83	1281	0.063	ng	#	18
47) Trichloroethene	16.44	130	3041	0.203	ng		95
48) 1,4-Dioxane	16.53	88	564	N.D.			
49) 2,2,4-Trimethylpentane...	16.52	57	49198	0.703	ng		87
50) Methyl Methacrylate	16.76	100	368	0.065	ng	#	1
51) n-Heptane	16.88	71	20493	1.286	ng		96
52) cis-1,3-Dichloropropene	17.65	75	2302	0.092	ng		94
53) 4-Methyl-2-pentanone	17.75	58	6412	0.457	ng	CMRL	96
54) trans-1,3-Dichloropropene	18.36	75	2213	0.094	ng		92
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.	d		
58) Toluene	18.98	91	1873091	30.583	ng		99
59) 2-Hexanone	19.36	43	18371	0.491	ng		95
60) Dibromochloromethane	19.53	129	188	N.D.			
61) 1,2-Dibromoethane	19.86	107	633	N.D.			
62) n-Butyl Acetate	20.16	43	210620	4.905	ng		95
63) n-Octane	20.28	57	13353	0.947	ng		94
64) Tetrachloroethene	20.46	166	4772	0.308	ng		99
65) Chlorobenzene	21.34	112	3529	0.090	ng		80
66) Ethylbenzene	21.82	91	204364	2.917	ng		98
67) m- & p-Xylenes	22.03	91	526311	9.437	ng		100
68) Bromoform	22.14	173	201	N.D.			
69) Styrene	22.50	104	93106	2.267	ng		97
70) o-Xylene	22.65	91	176560	3.152	ng		98
71) n-Nonane	22.91	43	29804	0.885	ng		93
72) 1,1,2,2-Tetrachloroethane	22.64	83	768	N.D.			
74) Cumene	23.40	105	13057	0.184	ng		99
75) alpha-Pinene	23.90	93	1345081	36.524	ng		78
76) n-Propylbenzene	24.04	91	50582	0.561	ng		86
77) 3-Ethyltoluene	24.17	105	115558	1.701	ng		99
78) 4-Ethyltoluene	24.22	105	59993	0.895	ng		100
79) 1,3,5-Trimethylbenzene	24.31	105	43115	0.773	ng		100

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 09 12:19:05 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
80) alpha-Methylstyrene	24.51	118	1290	N.D.		
81) 2-Ethyltoluene	24.55	105	39113	0.561 ng		98
82) 1,2,4-Trimethylbenzene	24.82	105	163173	2.865 ng		88
83) n-Decane	24.93	57	58060	1.707 ng		93
84) Benzyl Chloride	24.99	91	3073	0.054 ng		66
85) 1,3-Dichlorobenzene	25.02	146	1166	N.D.		
86) 1,4-Dichlorobenzene	25.10	146	5333	0.166 ng		99
87) sec-Butylbenzene	25.15	105	4719	0.061 ng	#	66
88) 4-Isopropyltoluene (p-...	25.35	119	76493	1.091 ng		99
89) 1,2,3-Trimethylbenzene	25.35	105	36970	0.619 ng		86
90) 1,2-Dichlorobenzene	25.53	146	872	N.D.		
91) d-Limonene	25.53	68	238408	10.486 ng		76
92) 1,2-Dibromo-3-Chloropr...	26.46	157	225	N.D.		
93) n-Undecane	26.45	57	56293	1.595 ng		88
94) 1,2,4-Trichlorobenzene	27.58	180	826	N.D.		
95) Naphthalene	27.72	128	36957	0.470 ng		98
96) n-Dodecane	27.69	57	35901	0.892 ng		97
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.29	55	26275	1.113 ng		95
99) tert-Butylbenzene	24.73	119	9883	0.179 ng		99
100) n-Butylbenzene	25.86	91	16320	0.257 ng	#	56

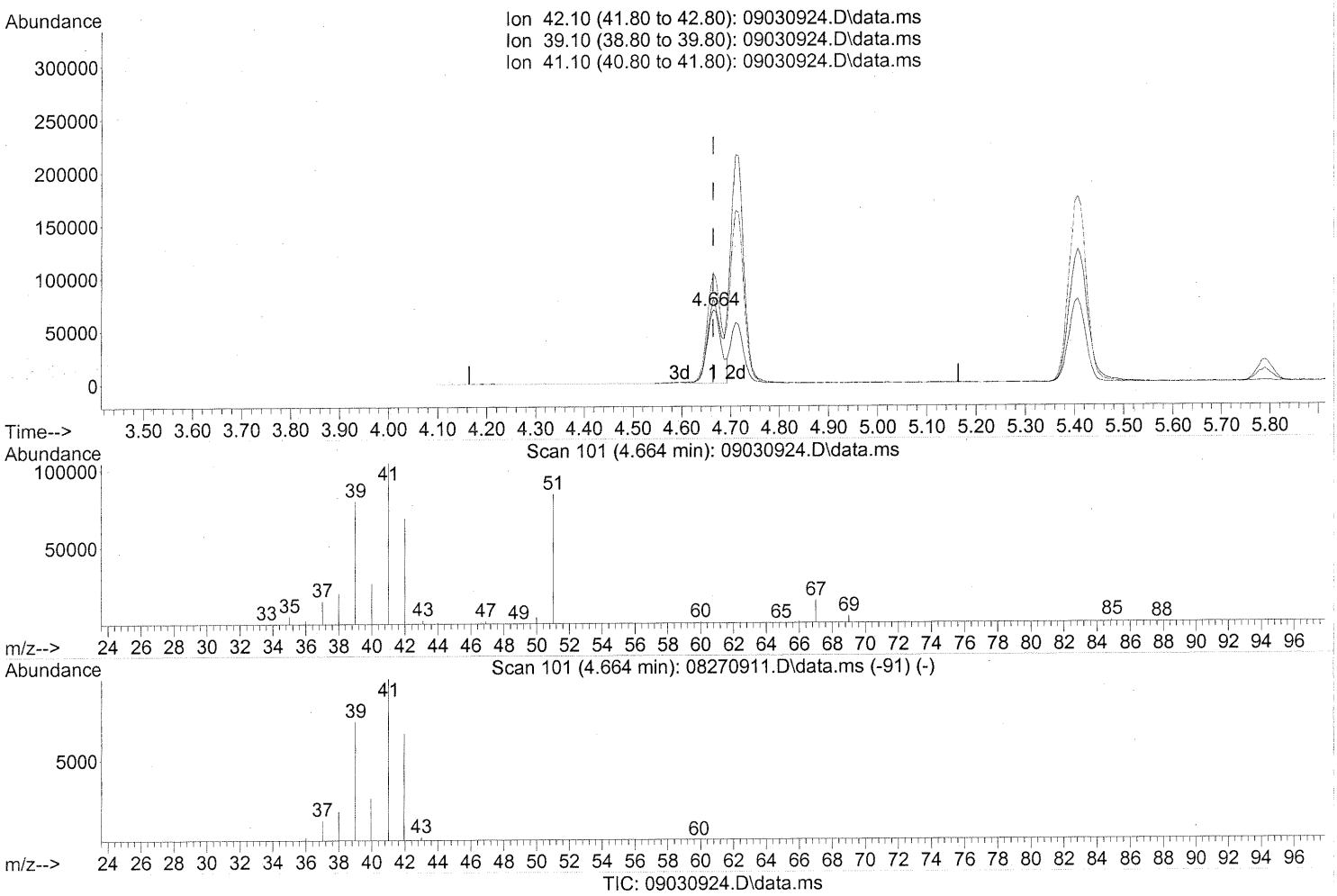
(#) = qualifier out of range (m) = manual integration (+) = signals summed

13

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(2) Propene (T)

4.664min (0.000) 7.33ng

response 138862

Ion	Exp%	Act%
42.10	100	100
39.10	109.70	110.04
41.10	149.80	146.47
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
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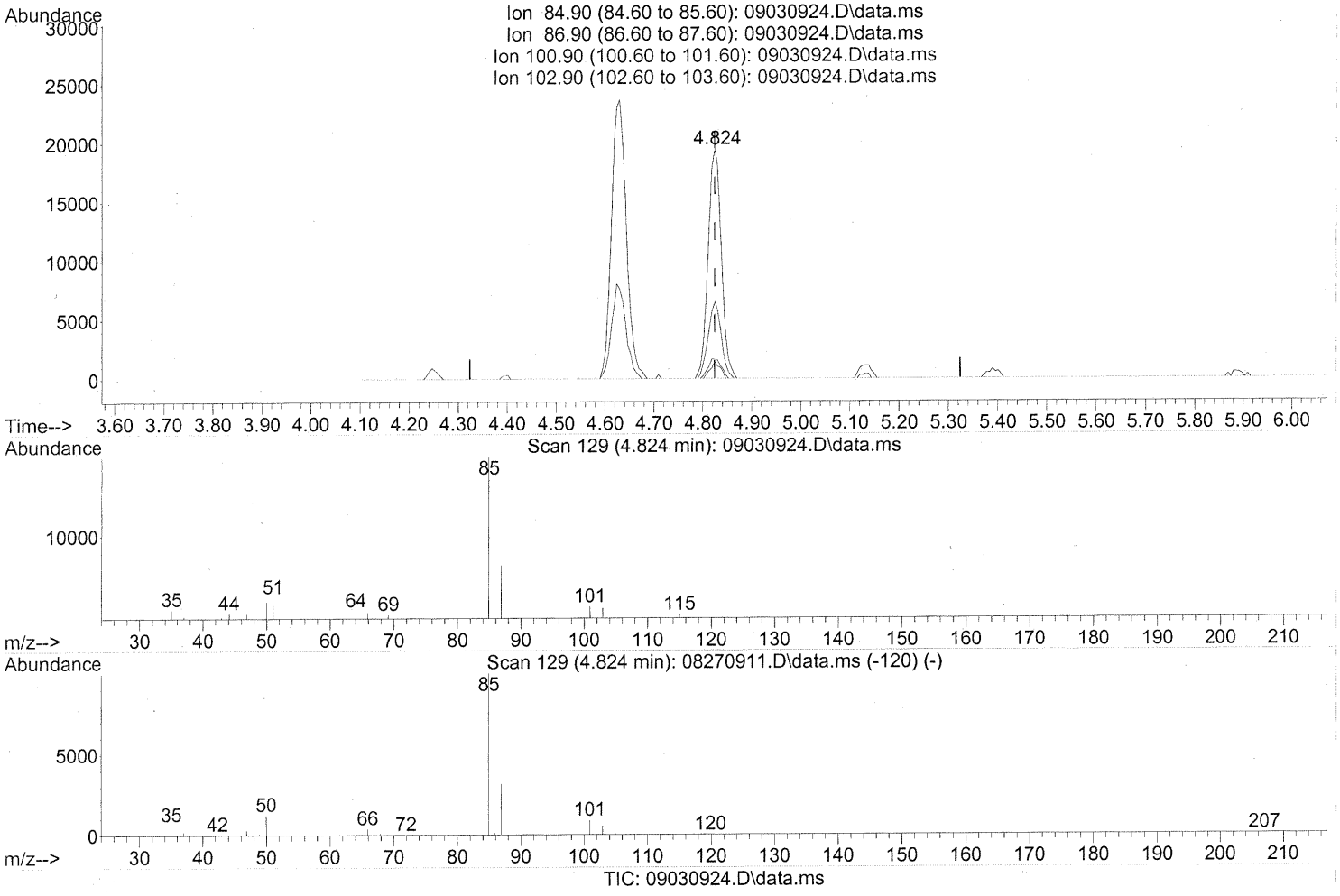
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030924.D\data.ms

(3) Dichlorodifluoromethane (CFC 12) (T)

4.824min (0.000) 1.09ng

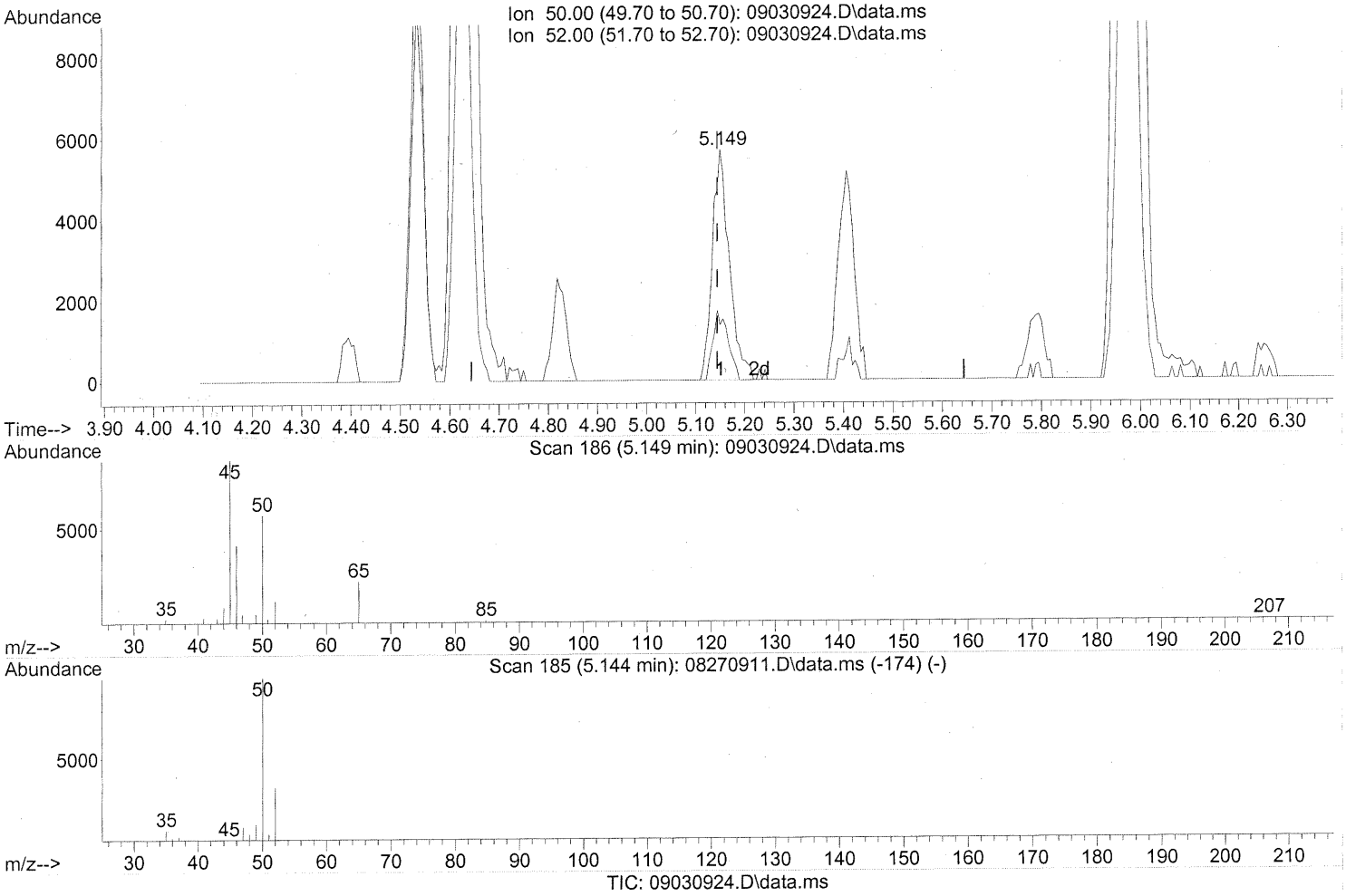
response 36234

Ion	Exp%	Act%
84.90	100	100
86.90	32.00	33.00
100.90	8.80	8.44
102.90	5.60	5.53

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(4) Chloromethane (T)

5.149min (+0.006) 0.62ng

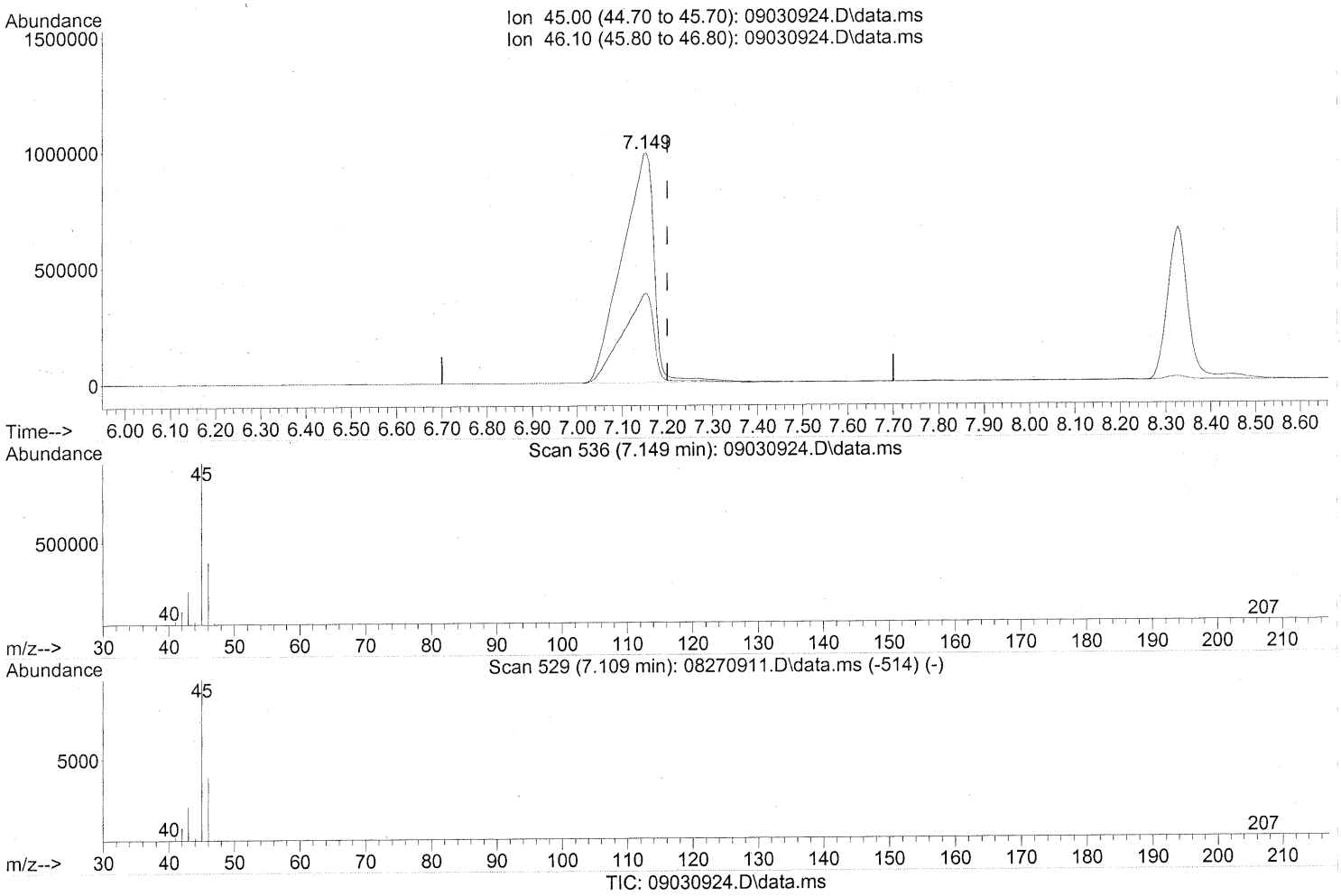
response 13775

Ion	Exp%	Act%
50.00	100	100
52.00	31.60	26.60
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(10) Ethanol (T)

7.149min (-0.051) 420.30ng

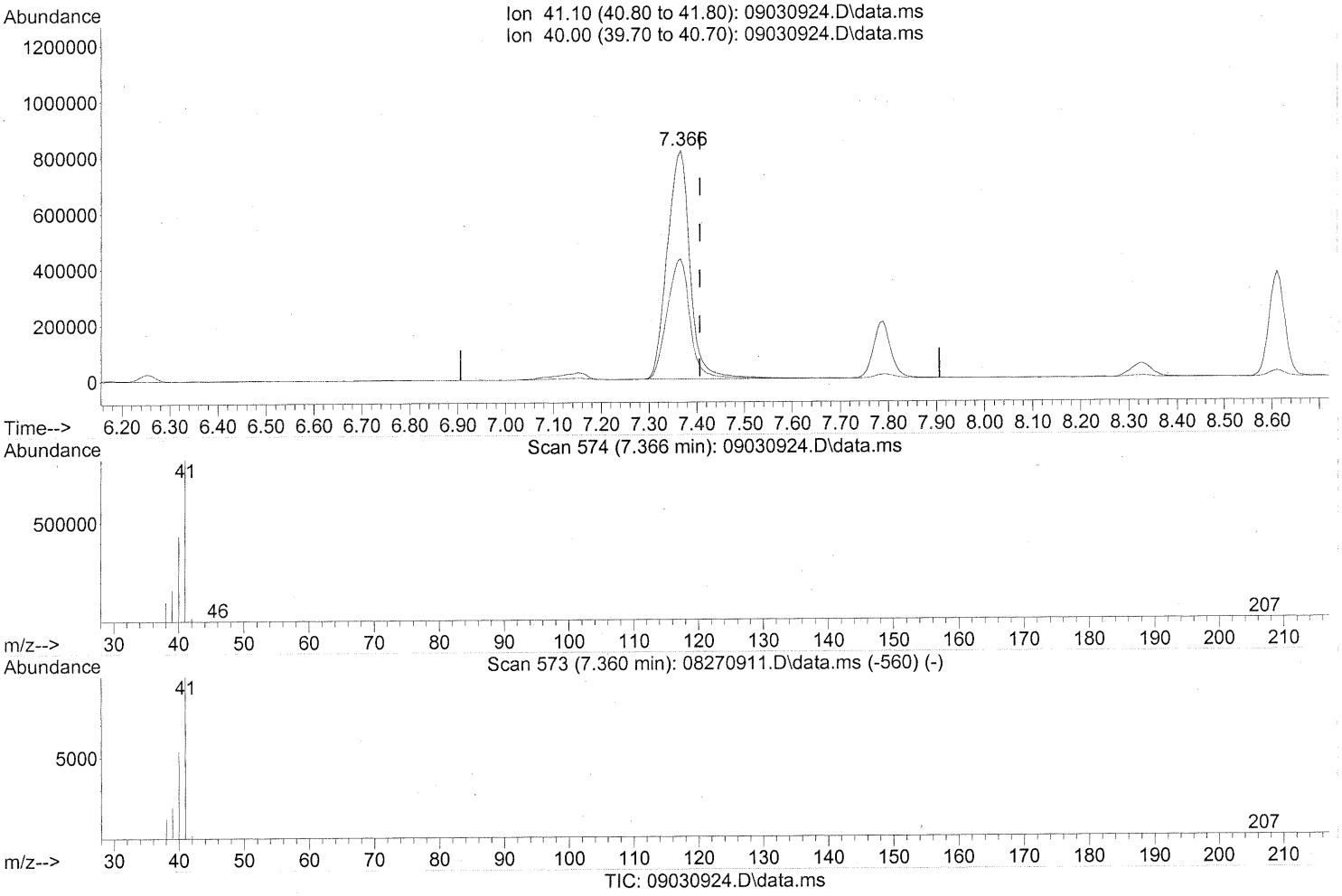
response 4938384

Ion	Exp%	Act%
45.00	100	100
46.10	38.20	38.45
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030924.D\data.ms

(11) Acetonitrile (T)

7.366min (-0.040) 82.97ng

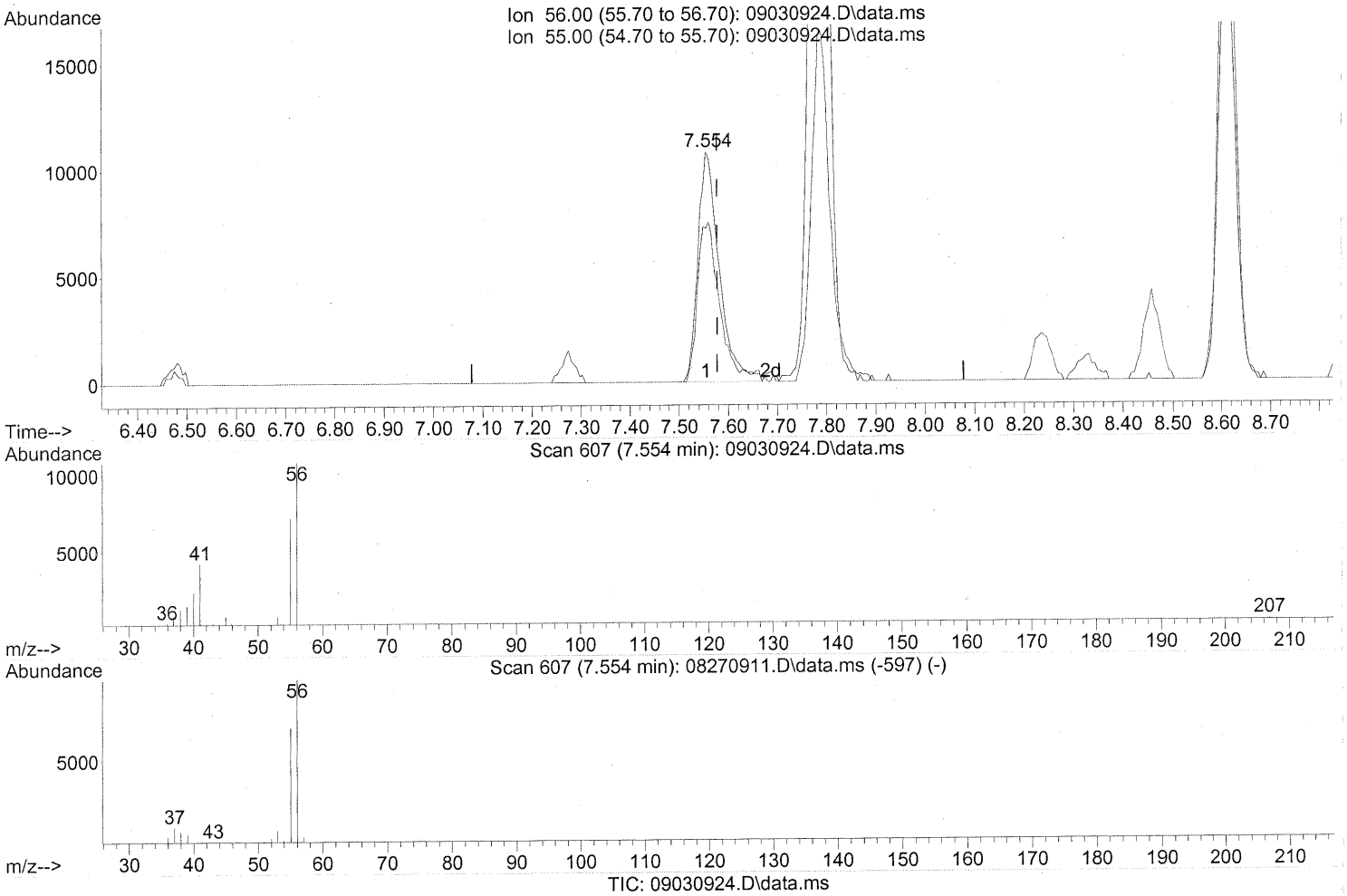
response 2707817

Ion	Exp%	Act%
41.10	100	100
40.00	53.70	53.35
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(12) Acrolein (T)

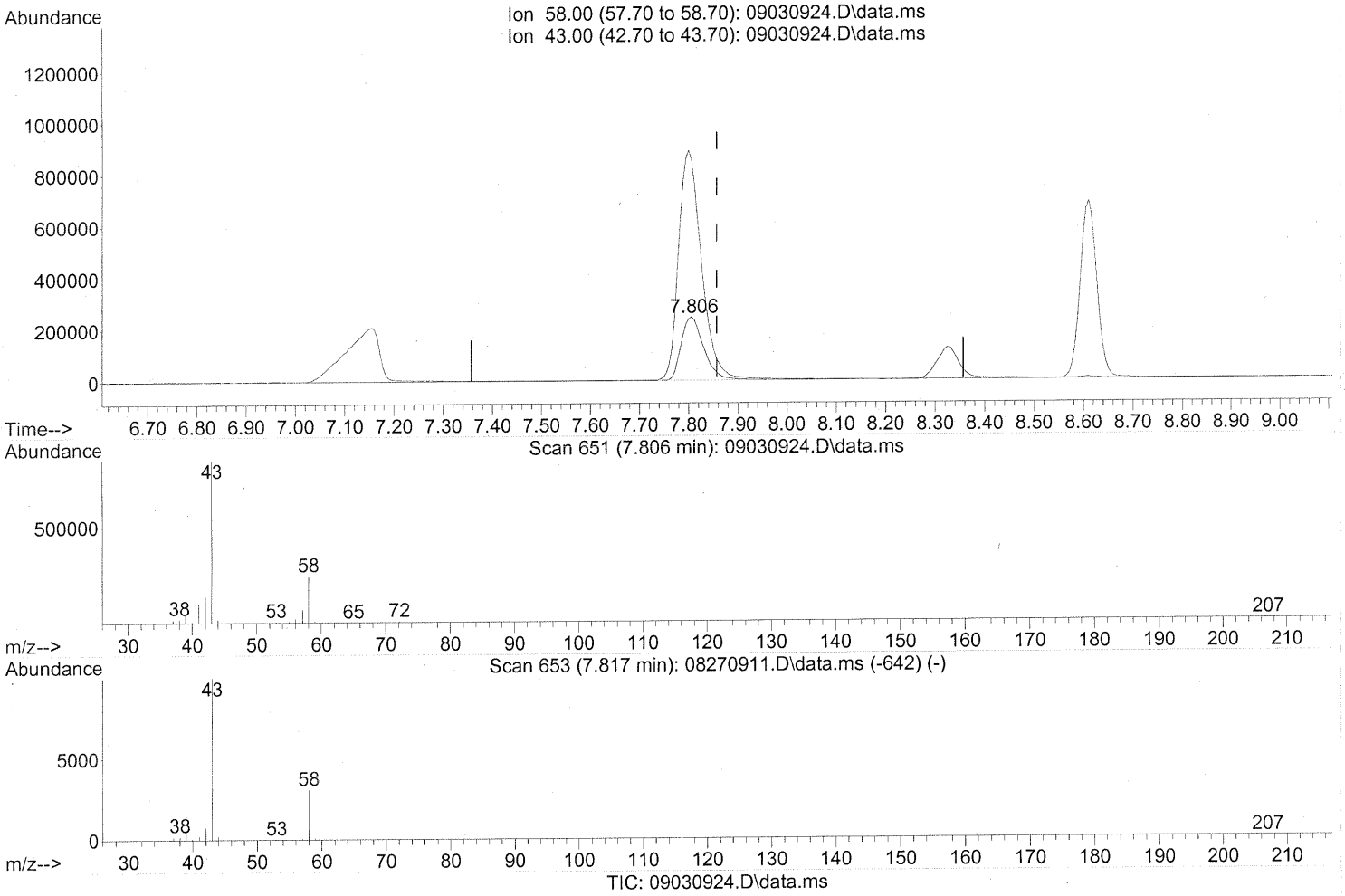
7.554min (-0.023) 3.62ng

response 32494

Ion	Exp%	Act%
56.00	100	100
55.00	71.10	72.65
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(13) Acetone (T)

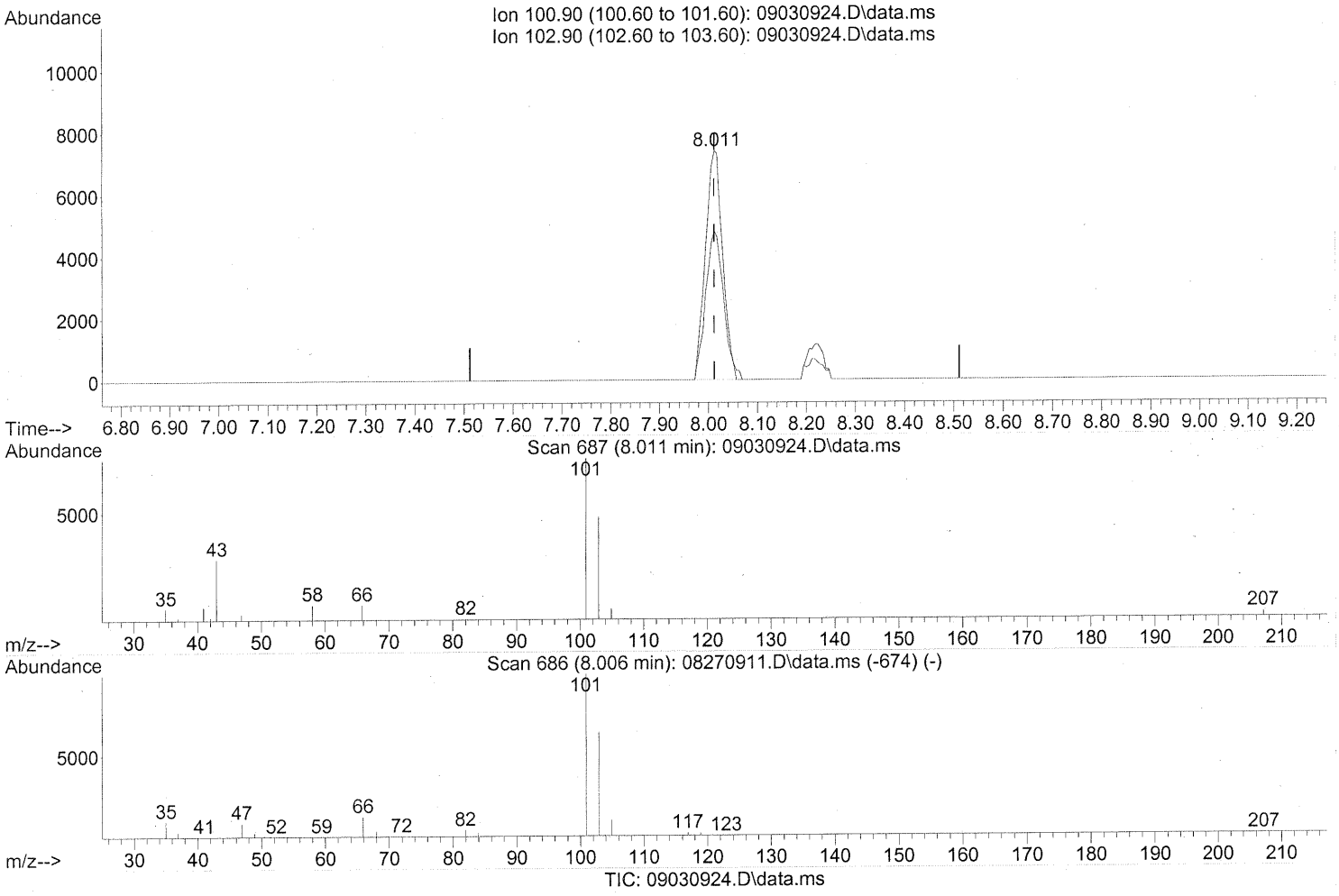
7.806min (-0.051) 64.83ng

response 787784

Ion	Exp%	Act%
58.00	100	100
43.00	331.30	369.35#
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(14) Trichlorofluoromethane (T)

8.011min (0.000) 0.62ng

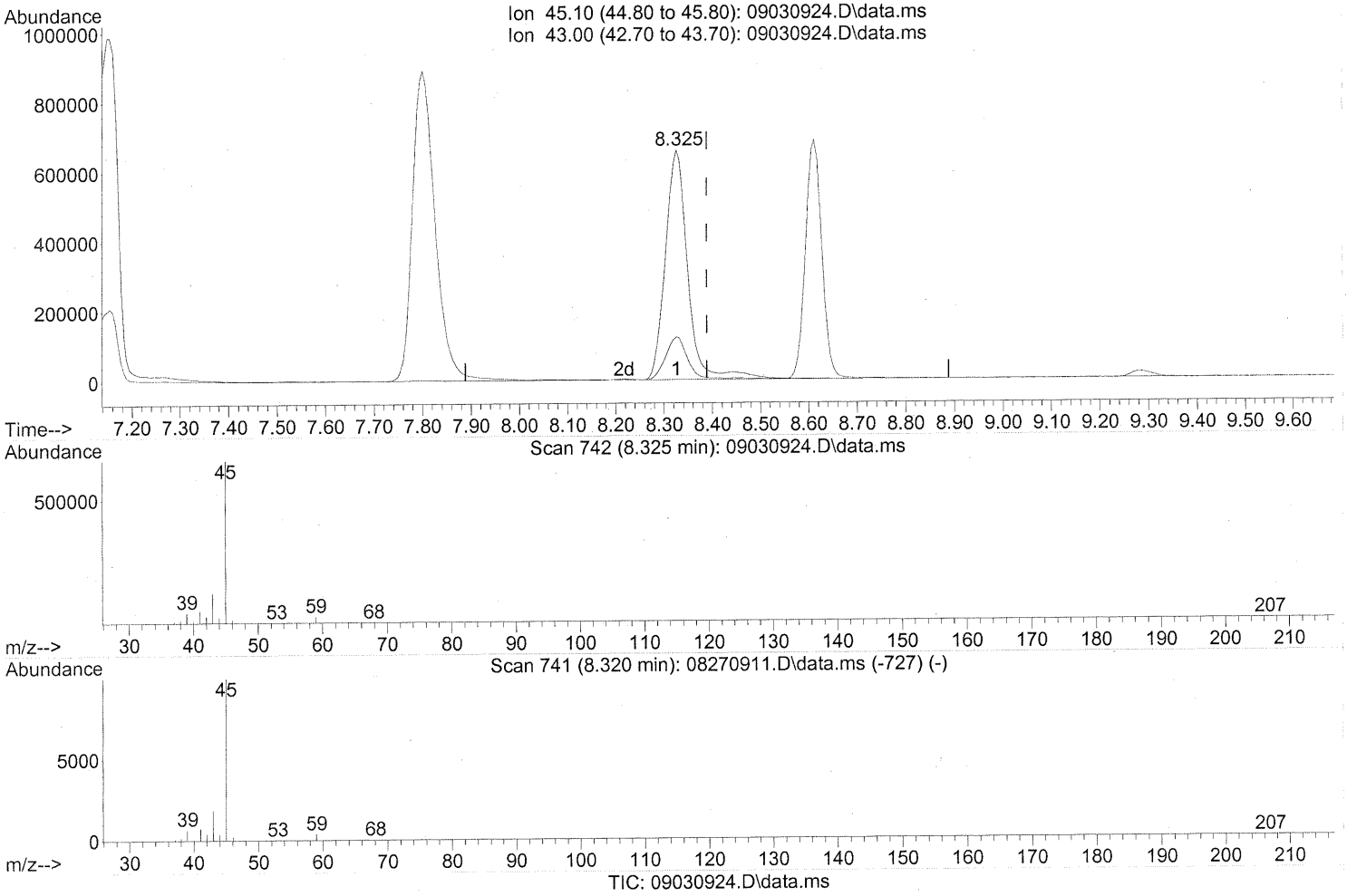
response 18087

Ion	Exp%	Act%
100.90	100	100
102.90	66.10	65.73
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



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

8.325min (-0.063) 52.41ng

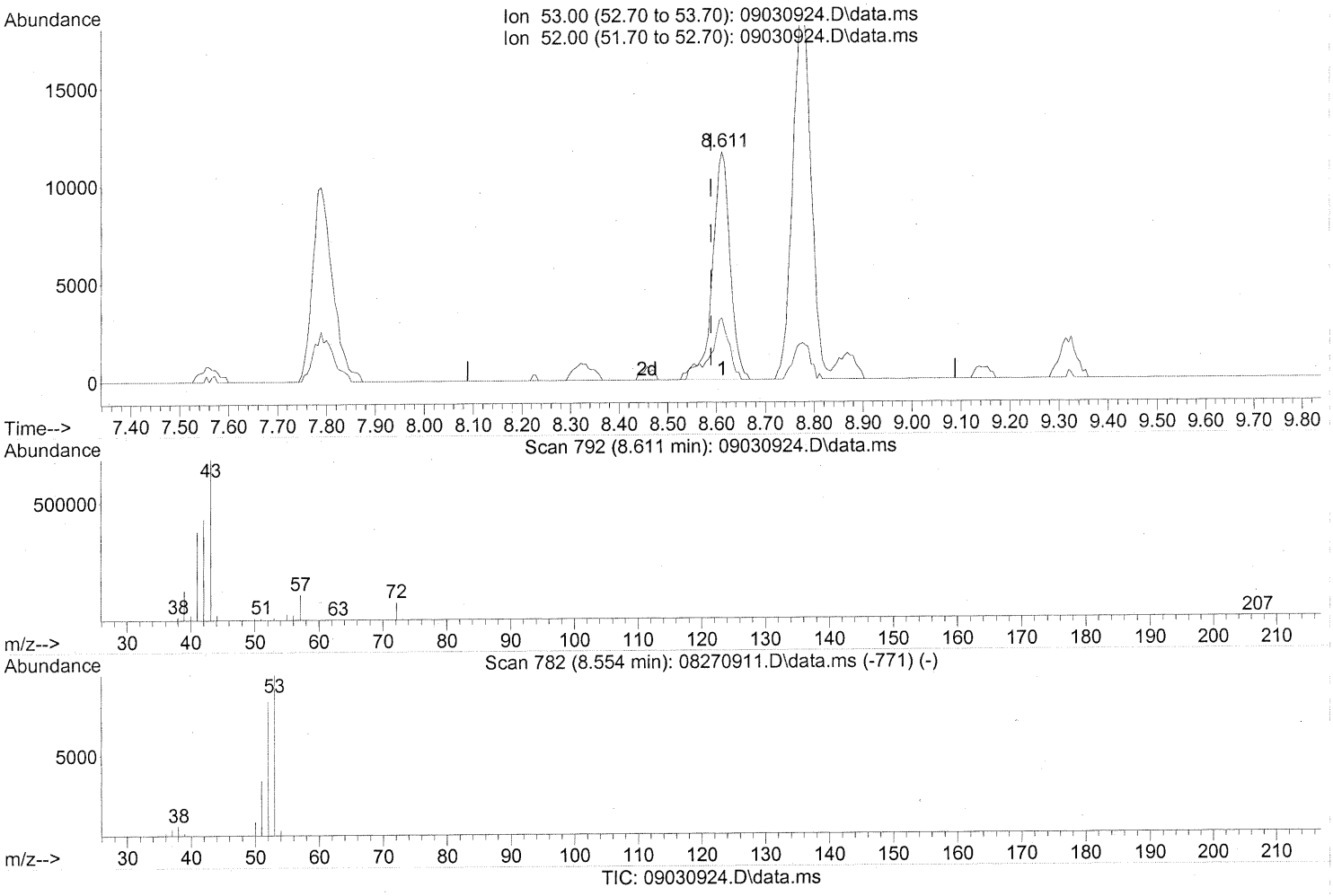
response 2117084

Ion	Exp%	Act%
45.10	100	100
43.00	18.70	18.41
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030924.D\data.ms

(16) Acrylonitrile (T)

8.611min (+0.023) 1.47ng

response 29471

Ion	Exp%	Act%
53.00	100	100
52.00	80.50	28.92#
0.00	0.00	0.00
0.00	0.00	0.00

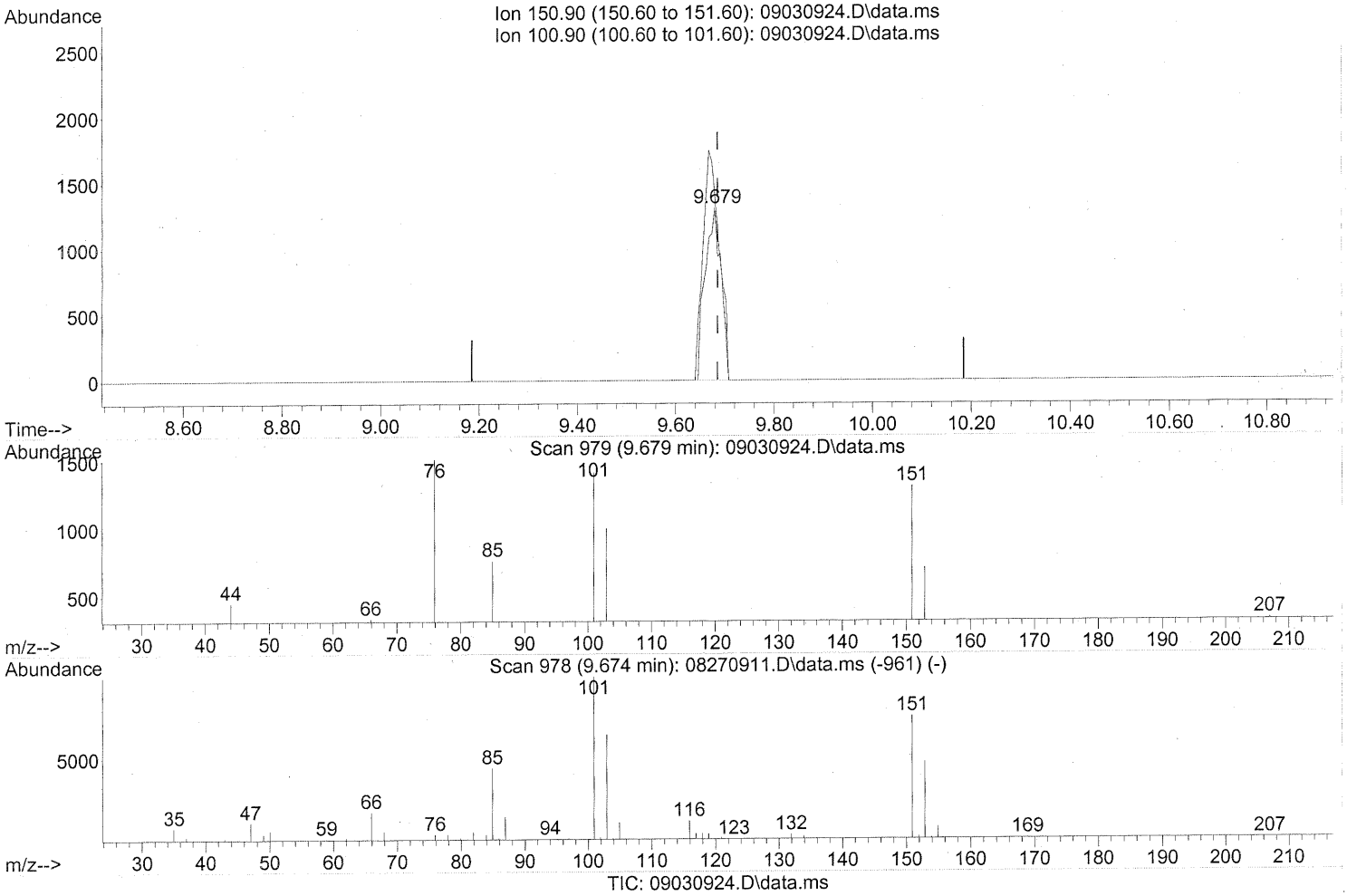
FP
9/9/09

9/10/09

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030924.D\data.ms

(21) Trichlorotrifluoroethane (T)

9.679min (-0.006) 0.25ng

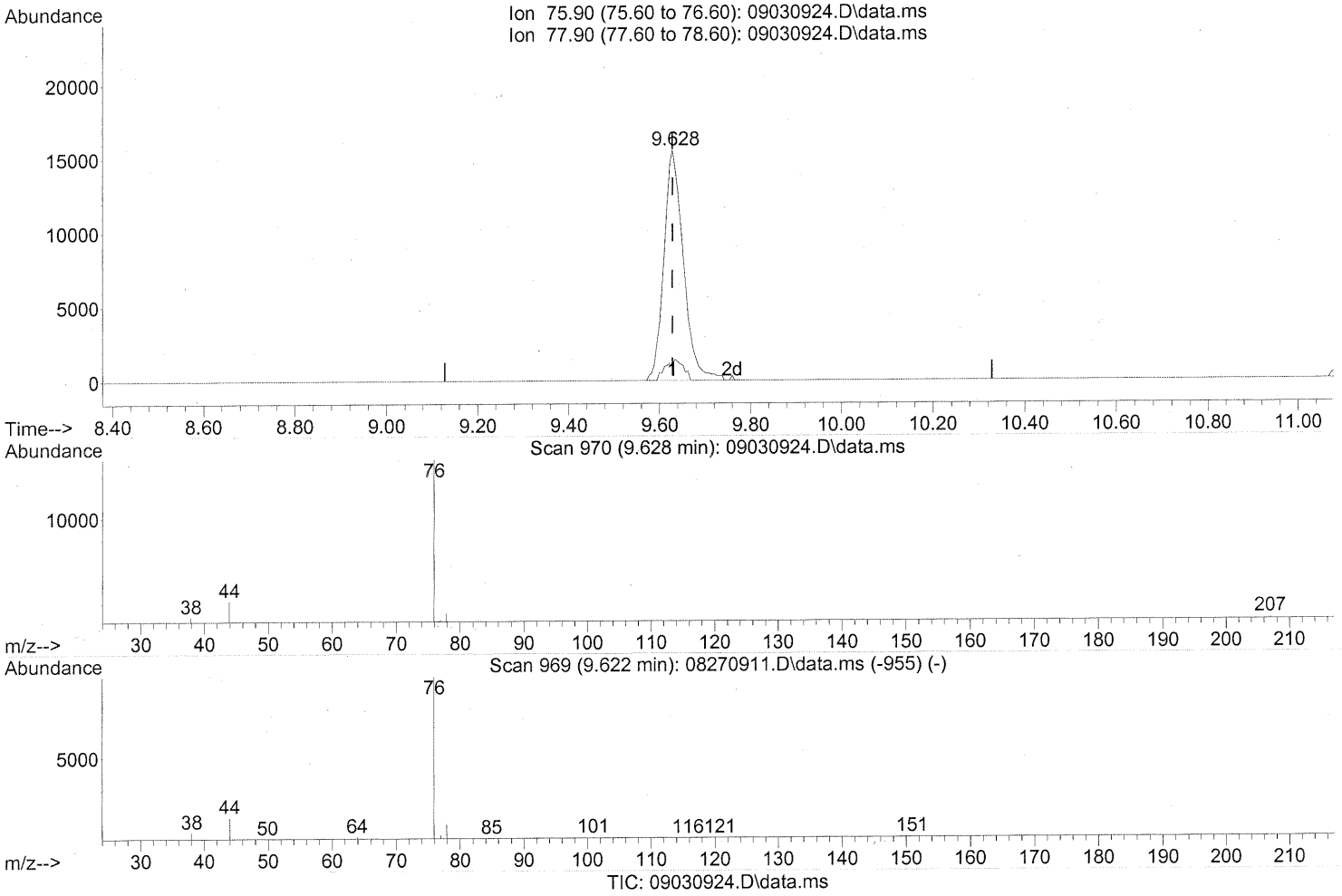
response 2933

Ion	Exp%	Act%
150.90	100	100
100.90	138.30	138.02
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030924.D\data.ms

(22) Carbon Disulfide (T)

9.628min (0.000) 0.84ng

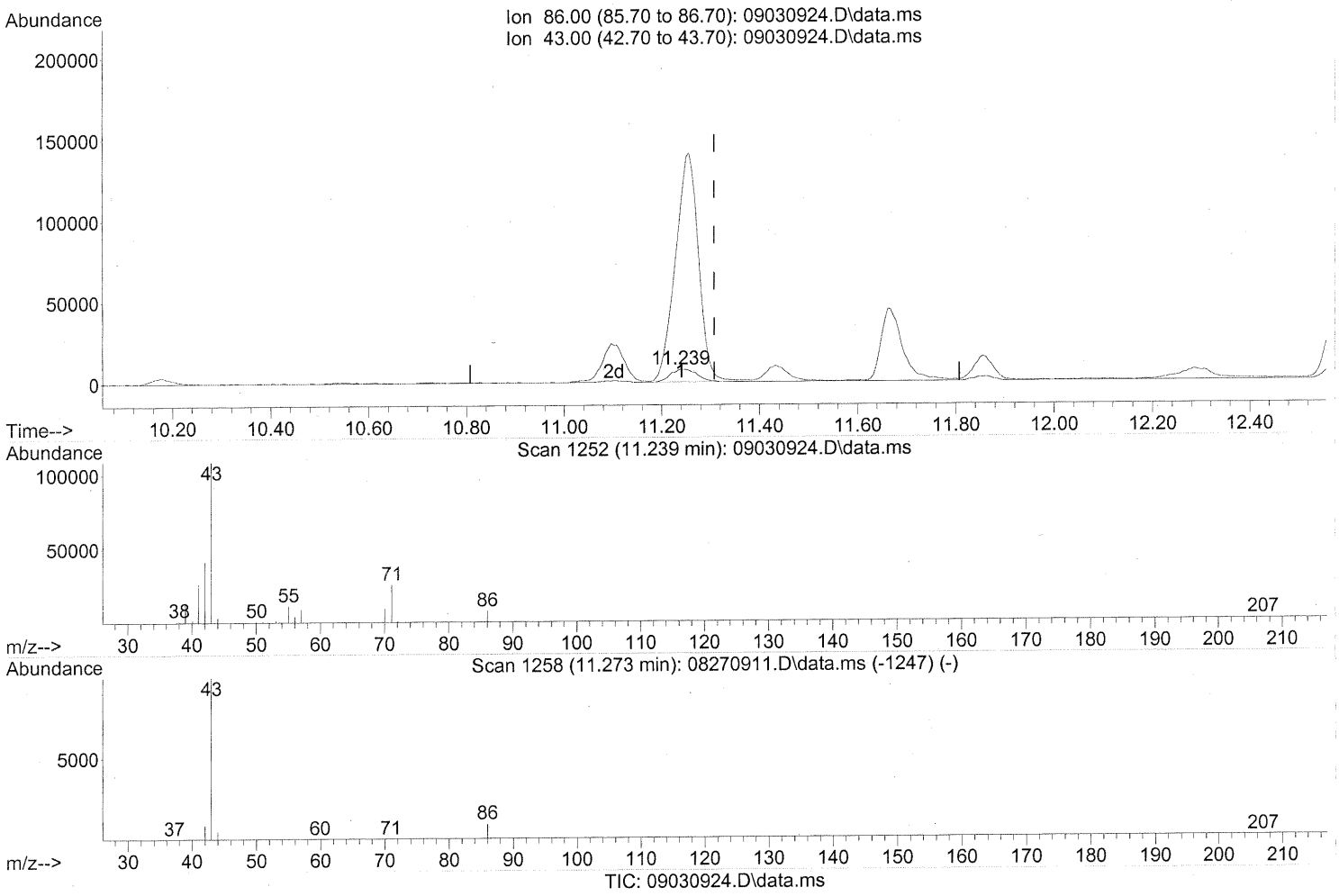
response 46021

Ion	Exp%	Act%
75.90	100	100
77.90	9.40	8.25
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(26) Vinyl Acetate (T)

11.239min (-0.069) 9.49ng

response 28889

Ion	Exp%	Act%
86.00	100	100
43.00	1118.60	1581.98#
0.00	0.00	0.00
0.00	0.00	0.00

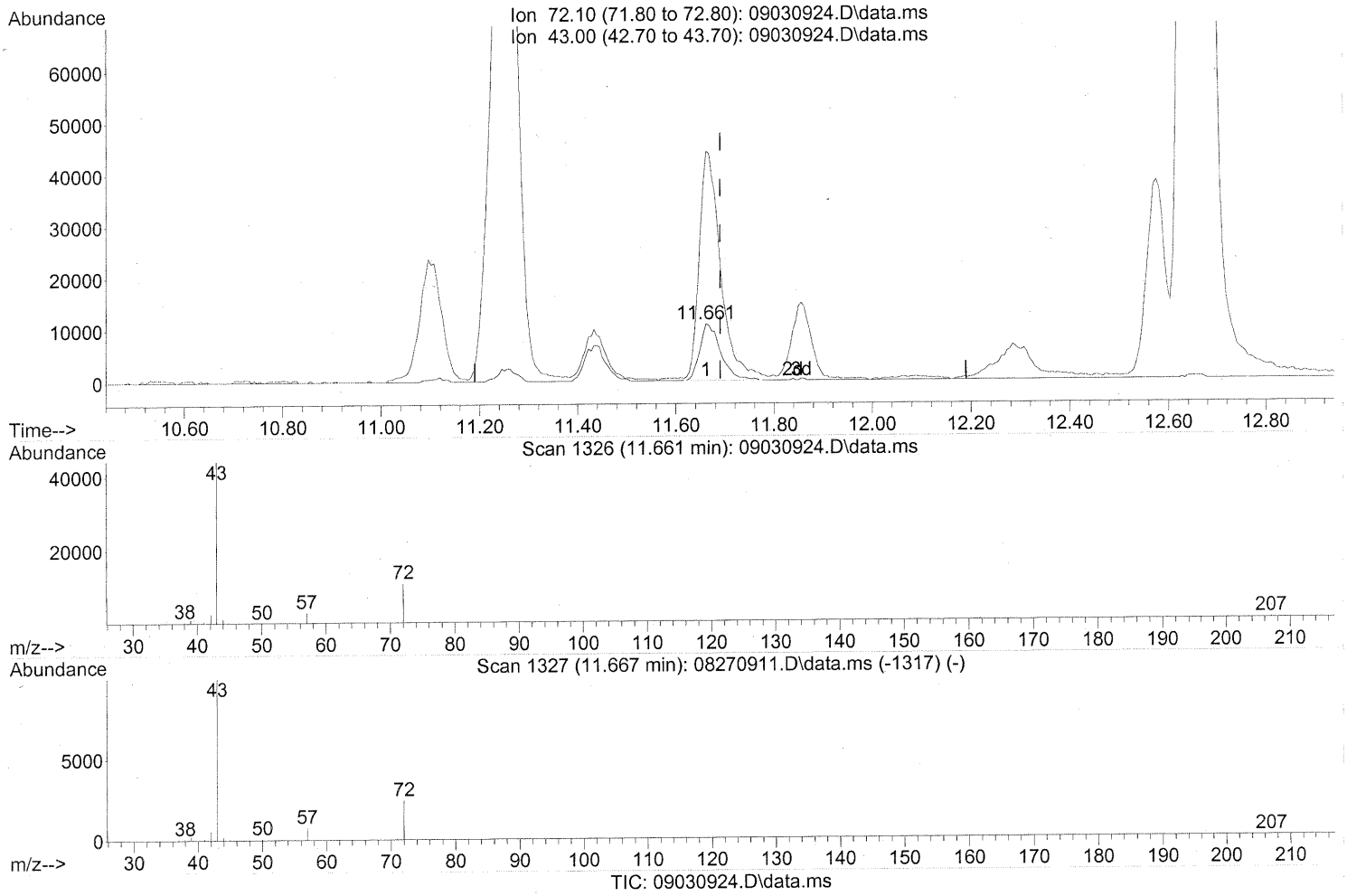
FP
LM 9/9/09

9/10/09

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



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

11.661min (-0.029) 3.24ng

response 31795

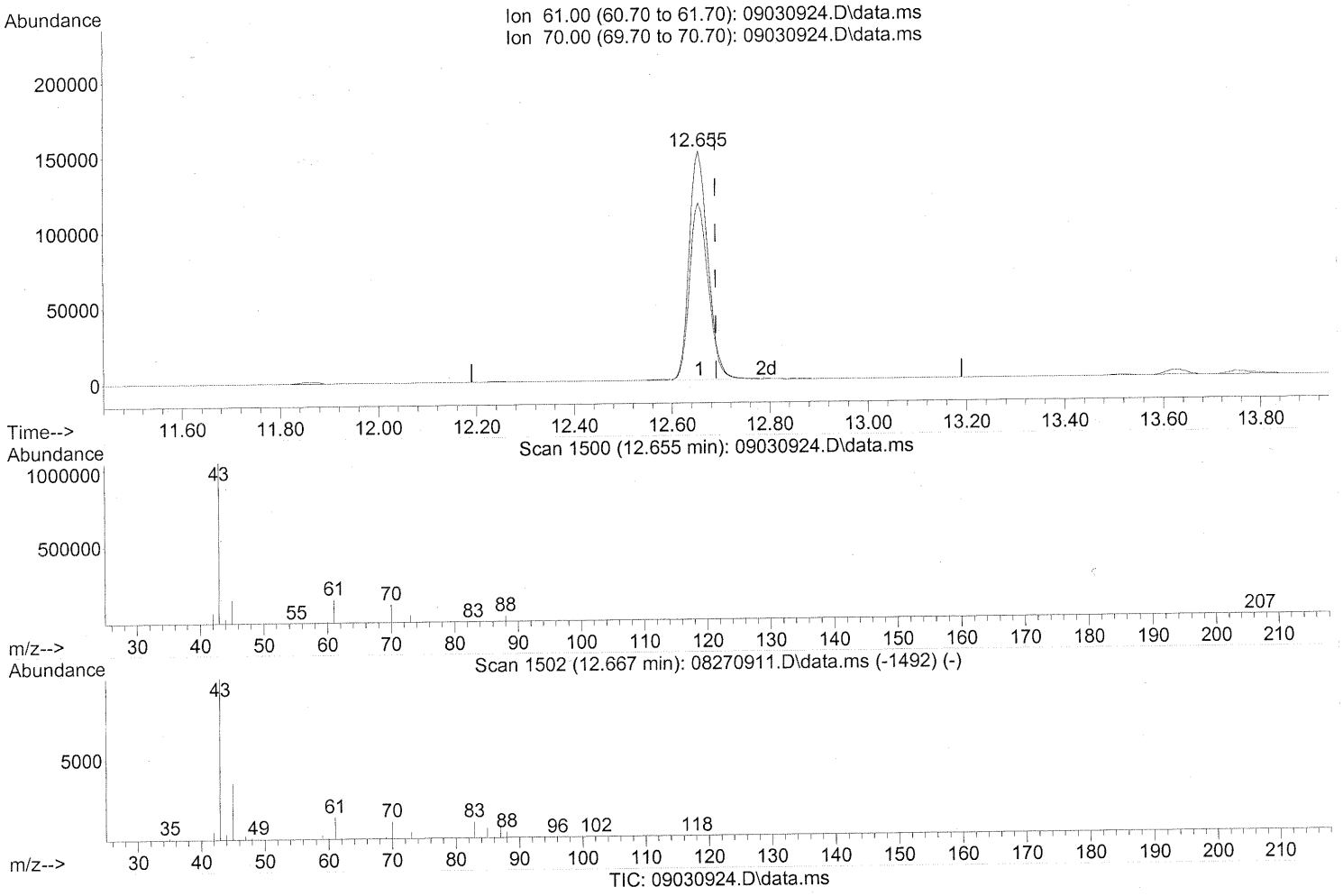
Ion	Exp%	Act%
72.10	100	100
43.00	424.60	409.88
0.00	0.00	0.00
0.00	0.00	0.00

27

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(30) Ethyl Acetate (T)

12.655min (-0.034) 76.89ng

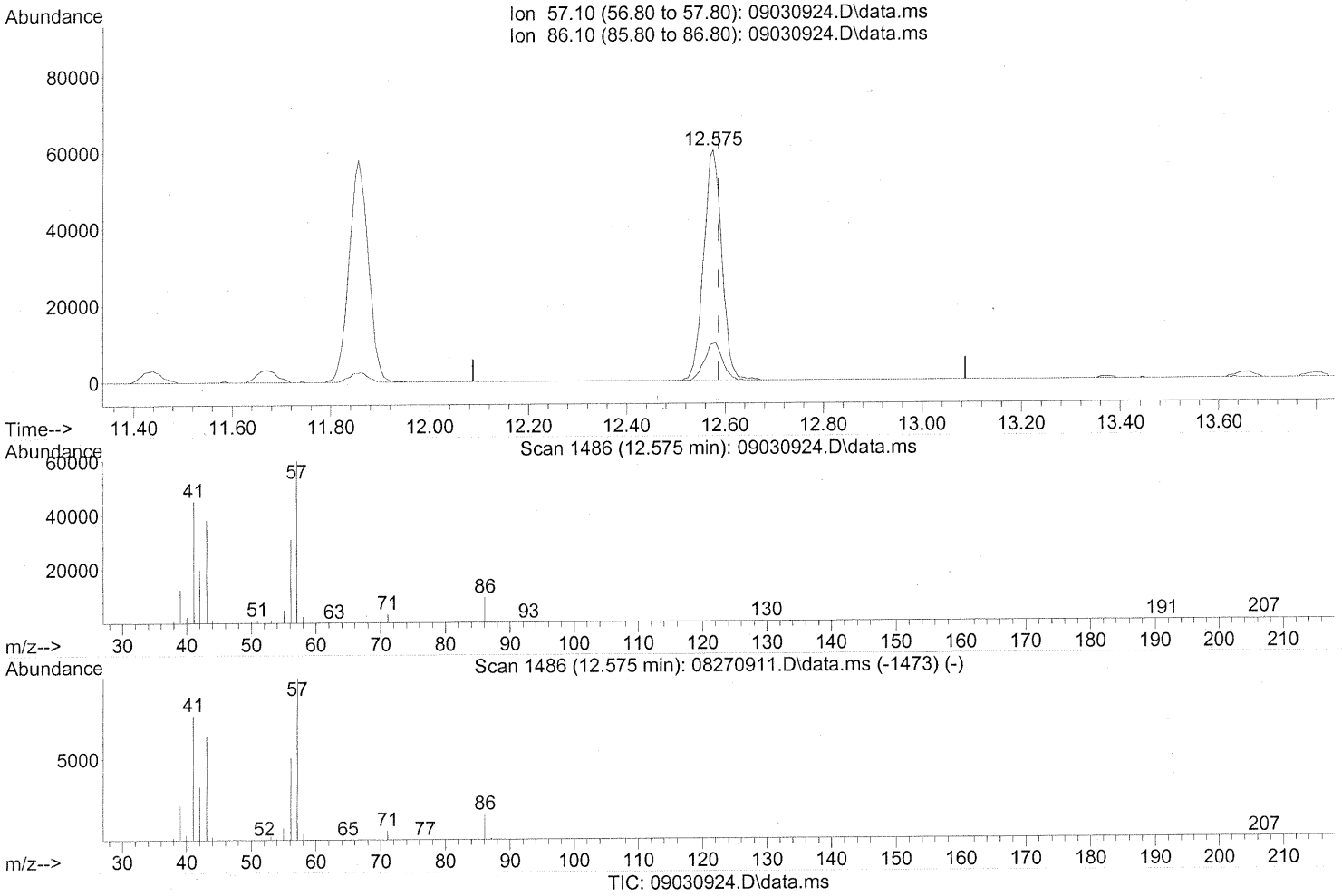
response 405527

Ion	Exp%	Act%
61.00	100	100
70.00	78.70	78.04
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030924.D\data.ms

(31) n-Hexane (T)

12.575min (-0.011) 5.84ng

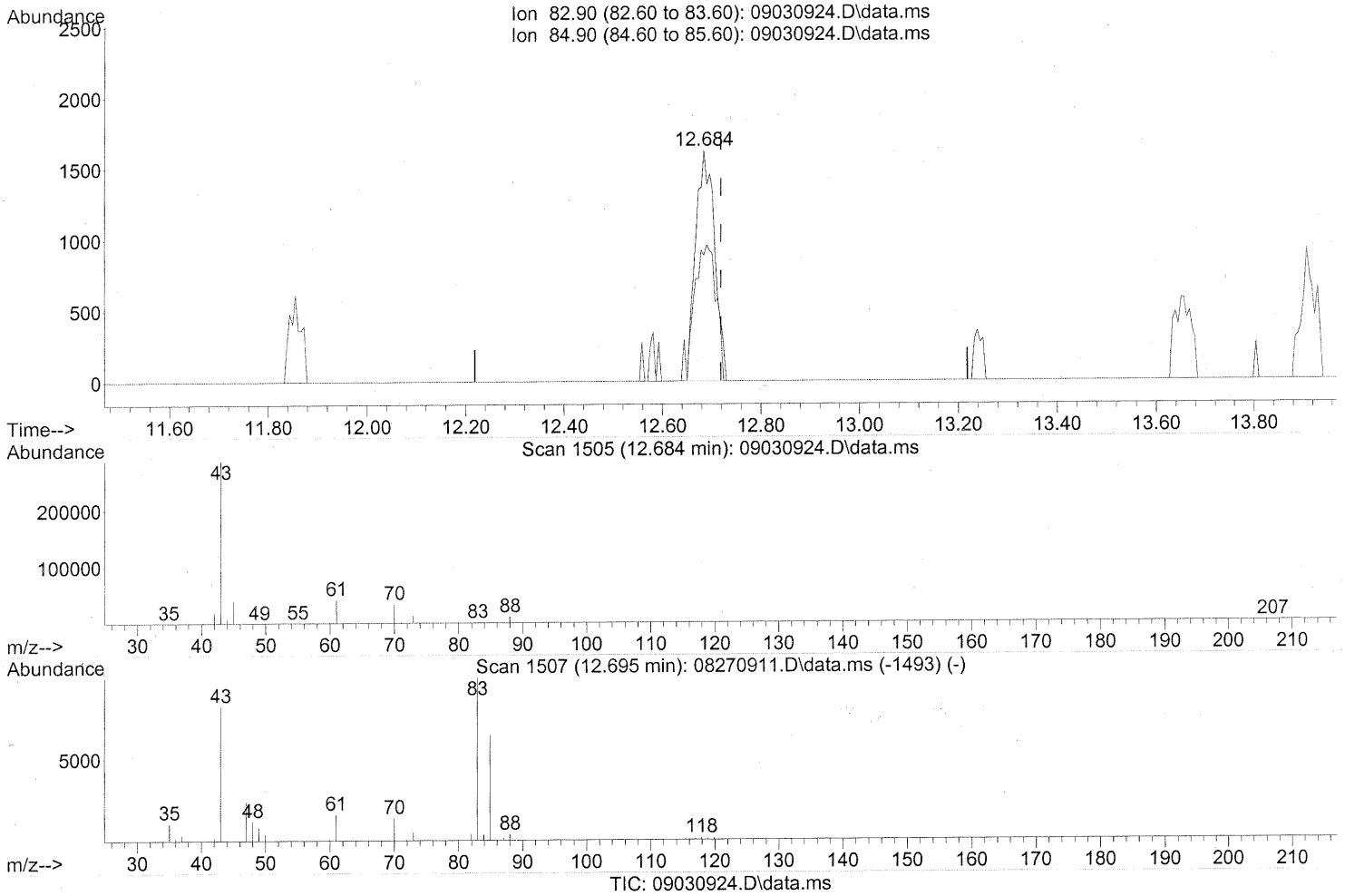
response 153567

Ion	Exp%	Act%
57.10	100	100
86.10	15.40	15.93
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(32) Chloroform (T)

12.684min (-0.034) 0.17ng

response 4338

Ion	Exp%	Act%
82.90	100	100
84.90	62.60	68.07
0.00	0.00	0.00
0.00	0.00	0.00

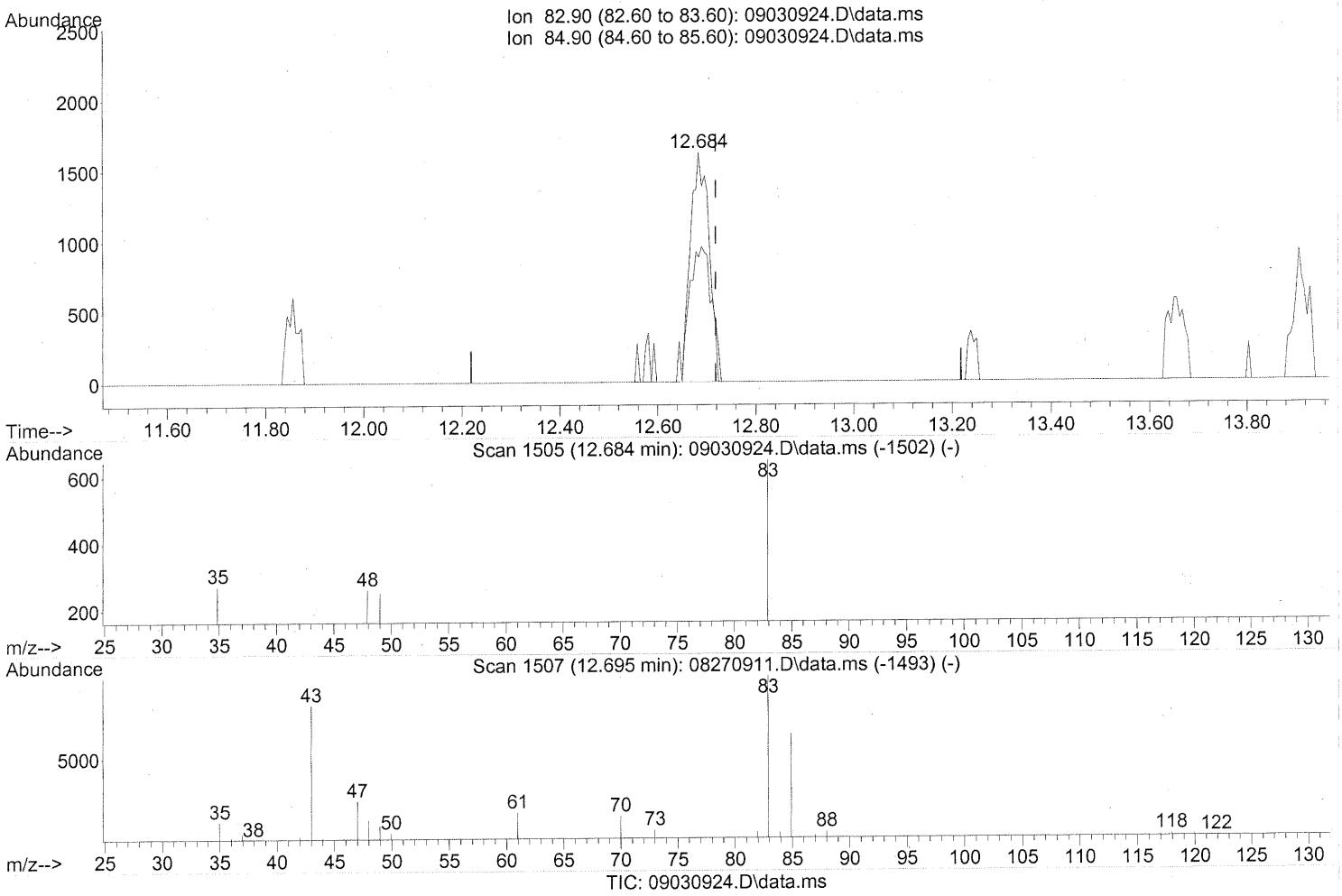
Before

30

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030924.D\data.ms

(32) Chloroform (T)

12.684min (-0.034) 0.17ng

response 4338

Ion	Exp%	Act%
82.90	100	100
84.90	62.60	68.07
0.00	0.00	0.00
0.00	0.00	0.00

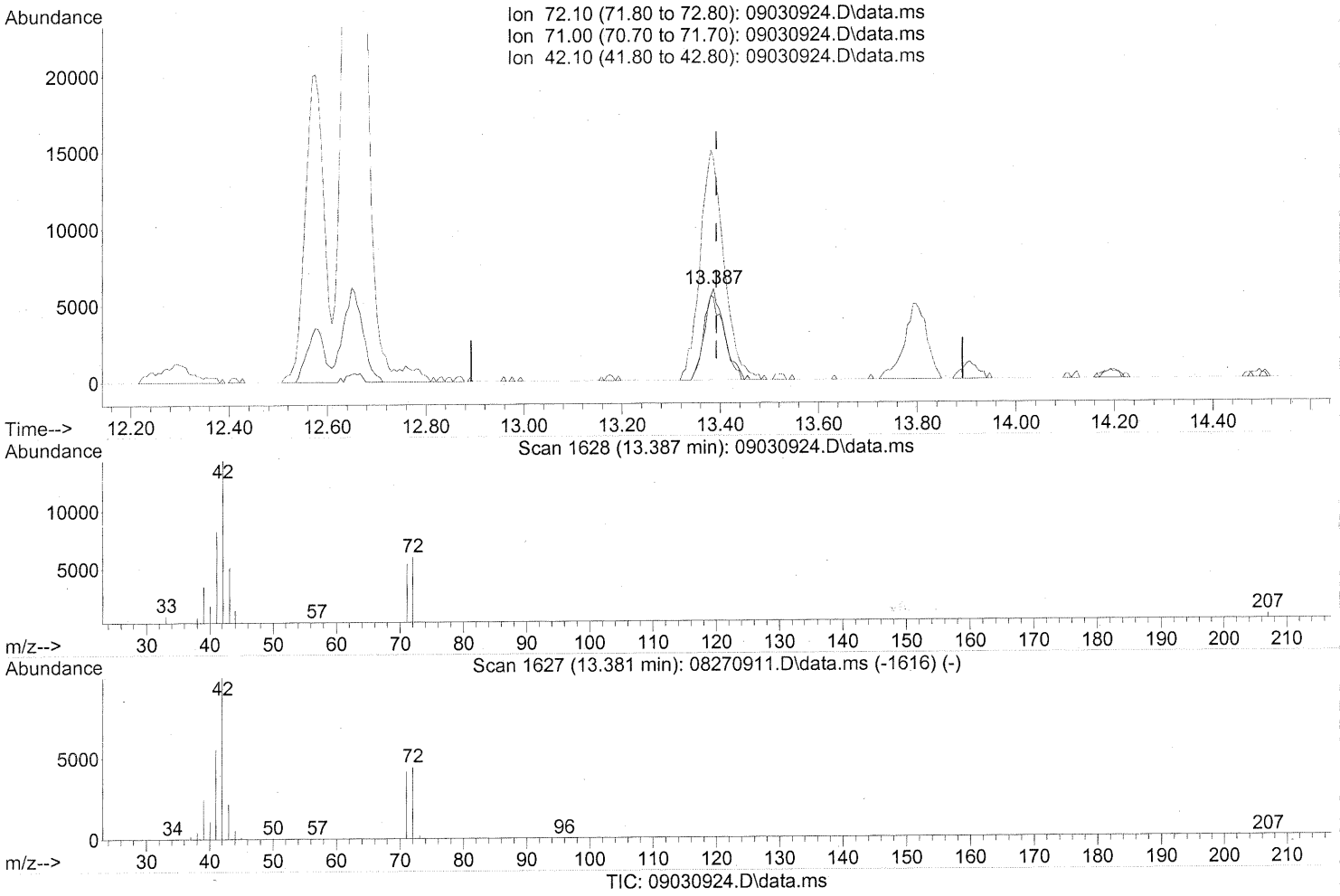
After Subtraction.

31

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(34) Tetrahydrofuran (THF) (T)

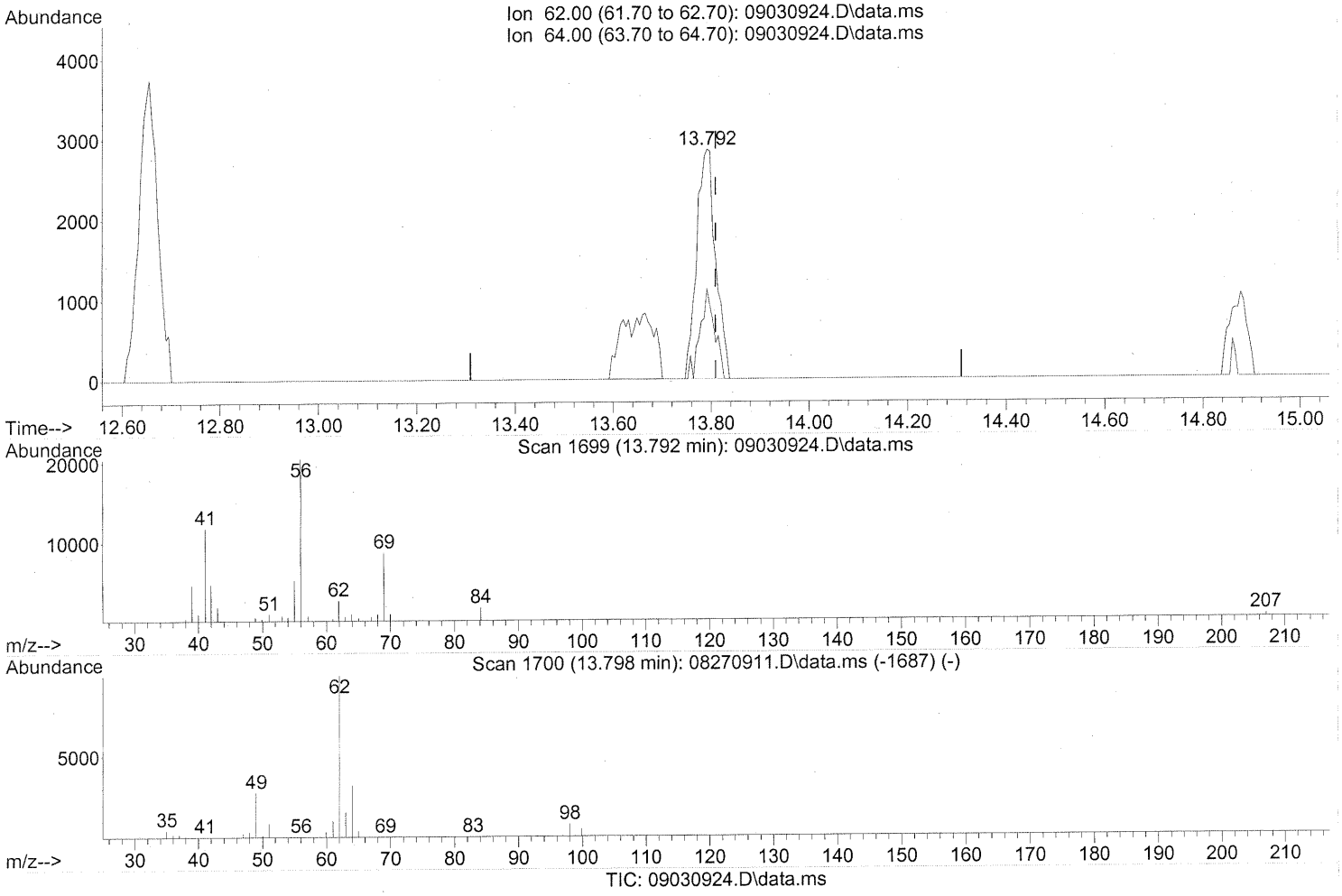
13.387min (-0.005) 1.58ng

response 16863

Ion	Exp%	Act%
72.10	100	100
71.00	92.50	91.26
42.10	254.10	300.66#
0.00	0.00	0.00

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(36) 1,2-Dichloroethane (T)

13.792min (-0.017) 0.35ng

response 7709

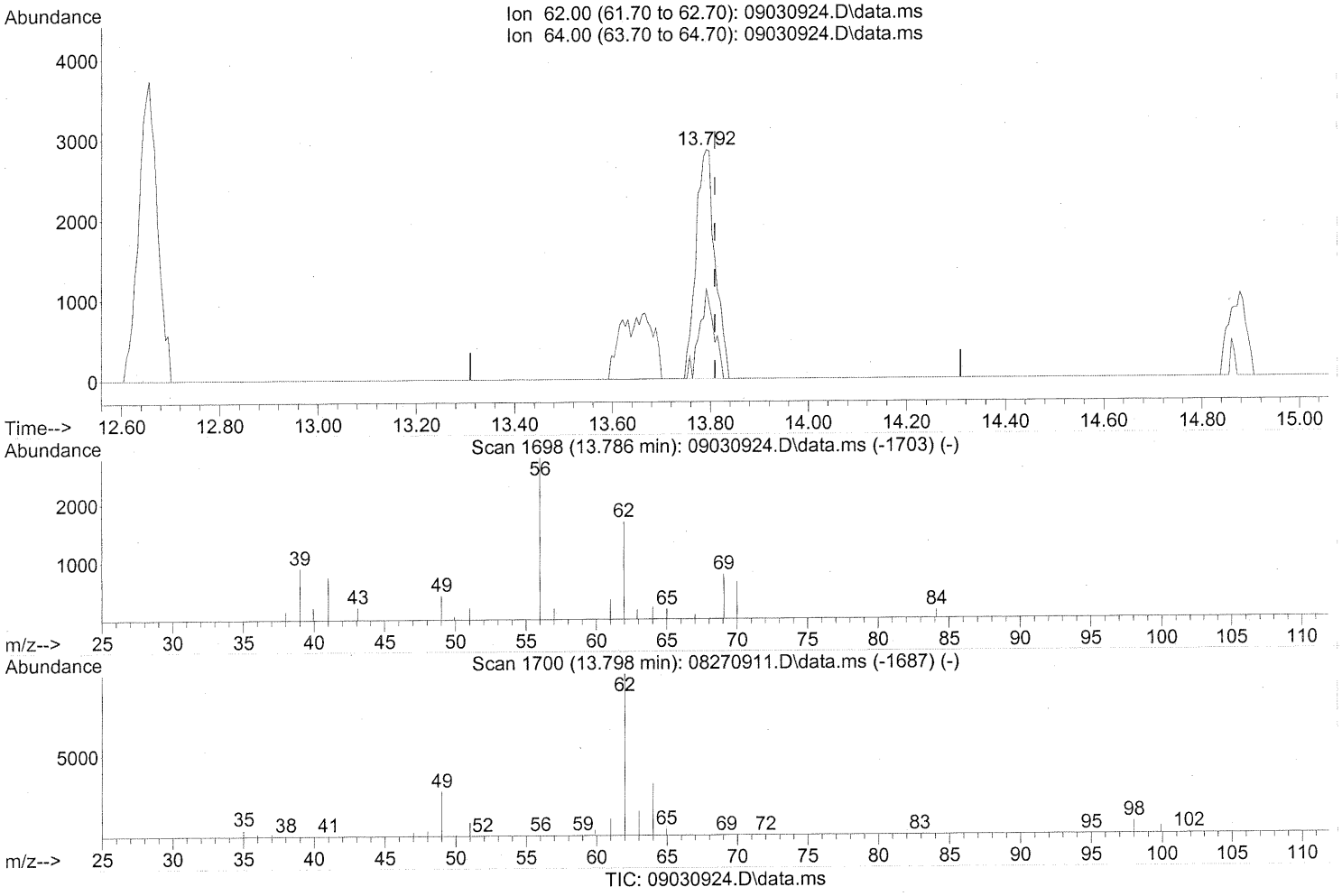
Ion	Exp%	Act%
62.00	100	100
64.00	33.10	29.71
0.00	0.00	0.00
0.00	0.00	0.00

Before subtr.

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030924.D\data.ms

(36) 1,2-Dichloroethane (T)

13.792min (-0.017) 0.35ng

response 7709

Ion	Exp%	Act%
62.00	100	100
64.00	33.10	29.71
0.00	0.00	0.00
0.00	0.00	0.00

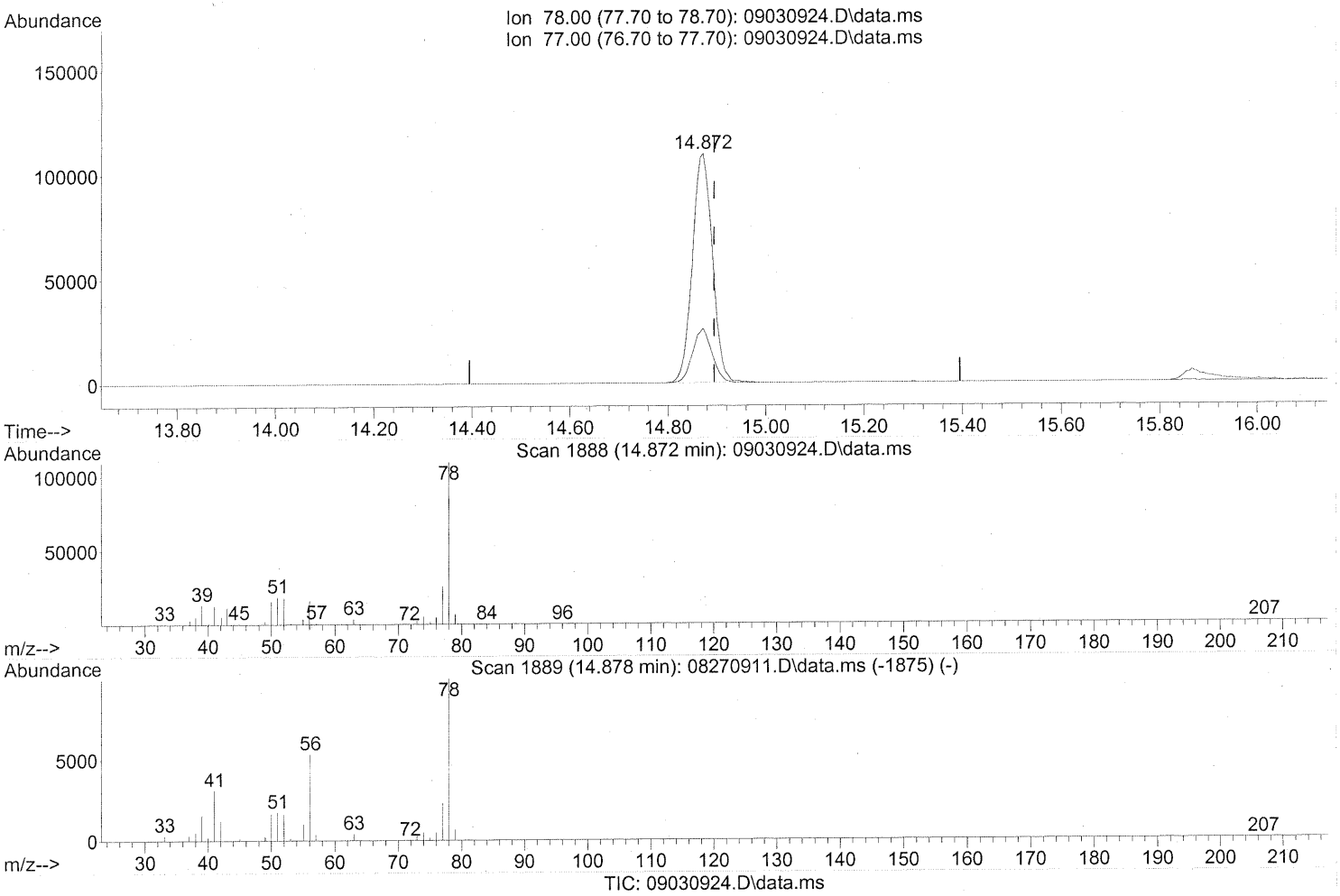
After subtn.

34

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030924.D\data.ms

(41) Benzene (T)

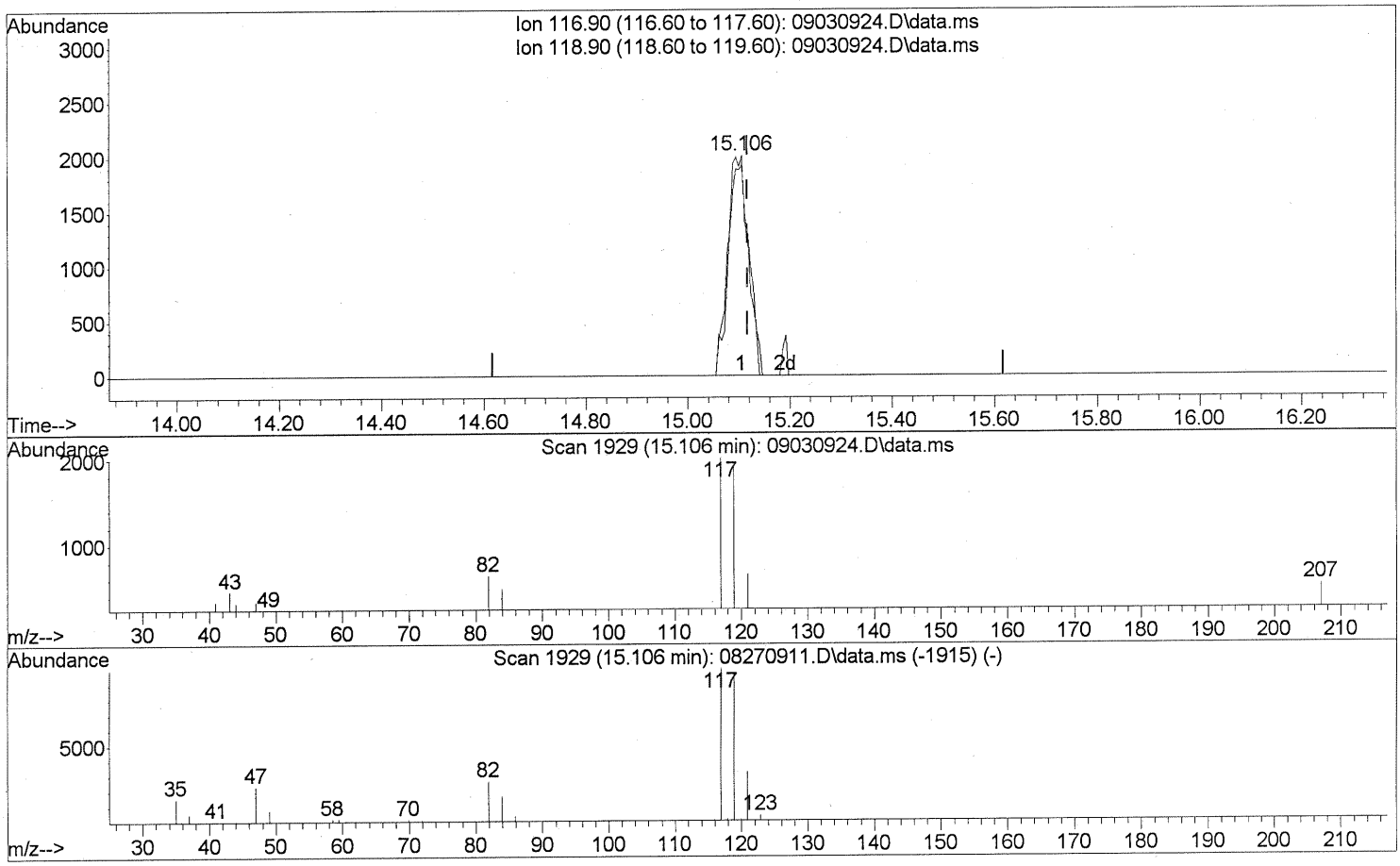
14.872min (-0.023) 5.09ng

response 313042

Ion	Exp%	Act%
78.00	100	100
77.00	23.20	22.82
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 09 12:19:05 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030924.D\data.ms

(42) Carbon Tetrachloride (T)

15.106min (-0.011) 0.27ng

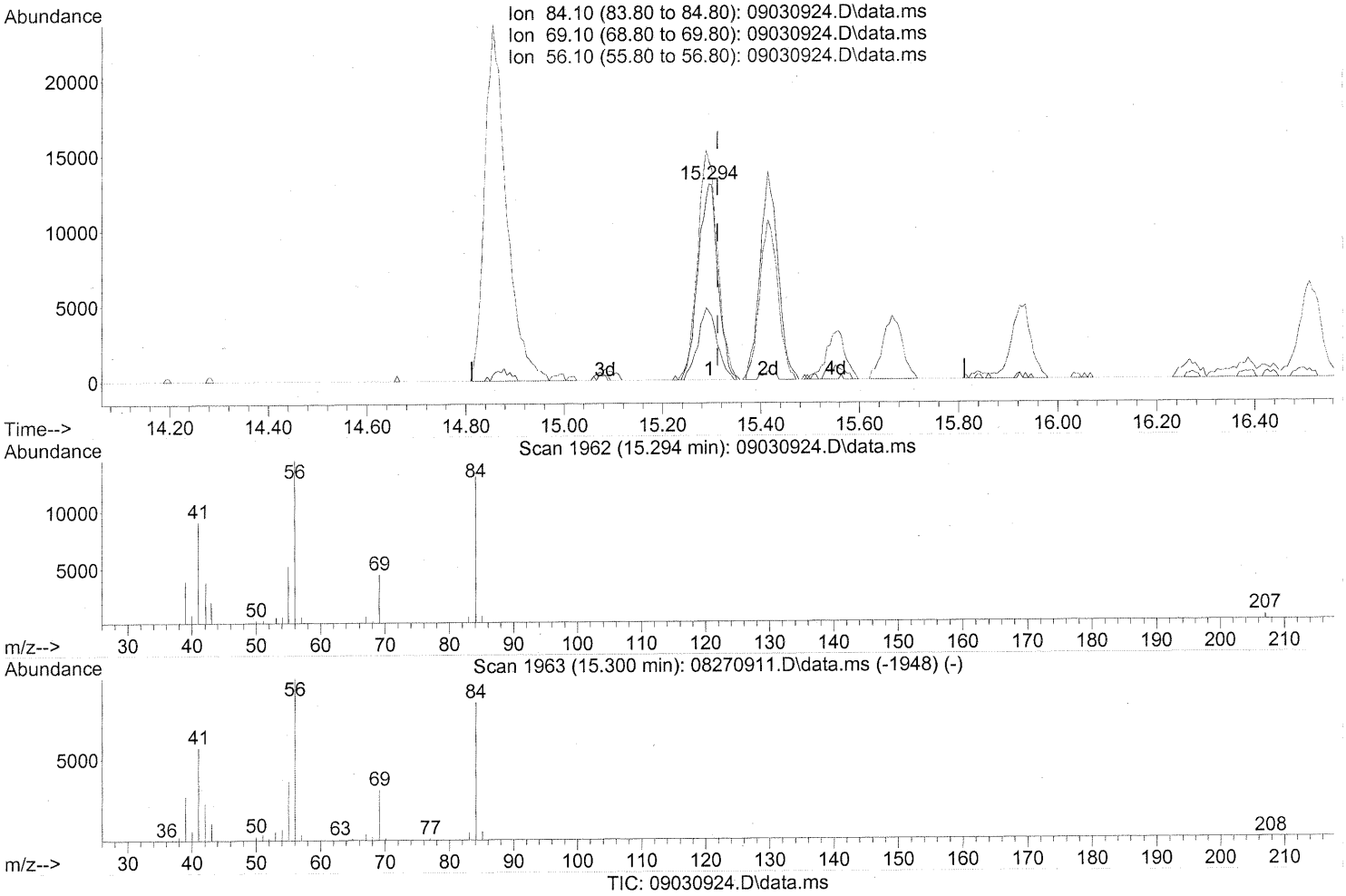
response 5514

Ion	Exp%	Act%
116.90	100	100
118.90	96.20	99.76
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(43) Cyclohexane (T)

15.294min (-0.017) 1.61ng

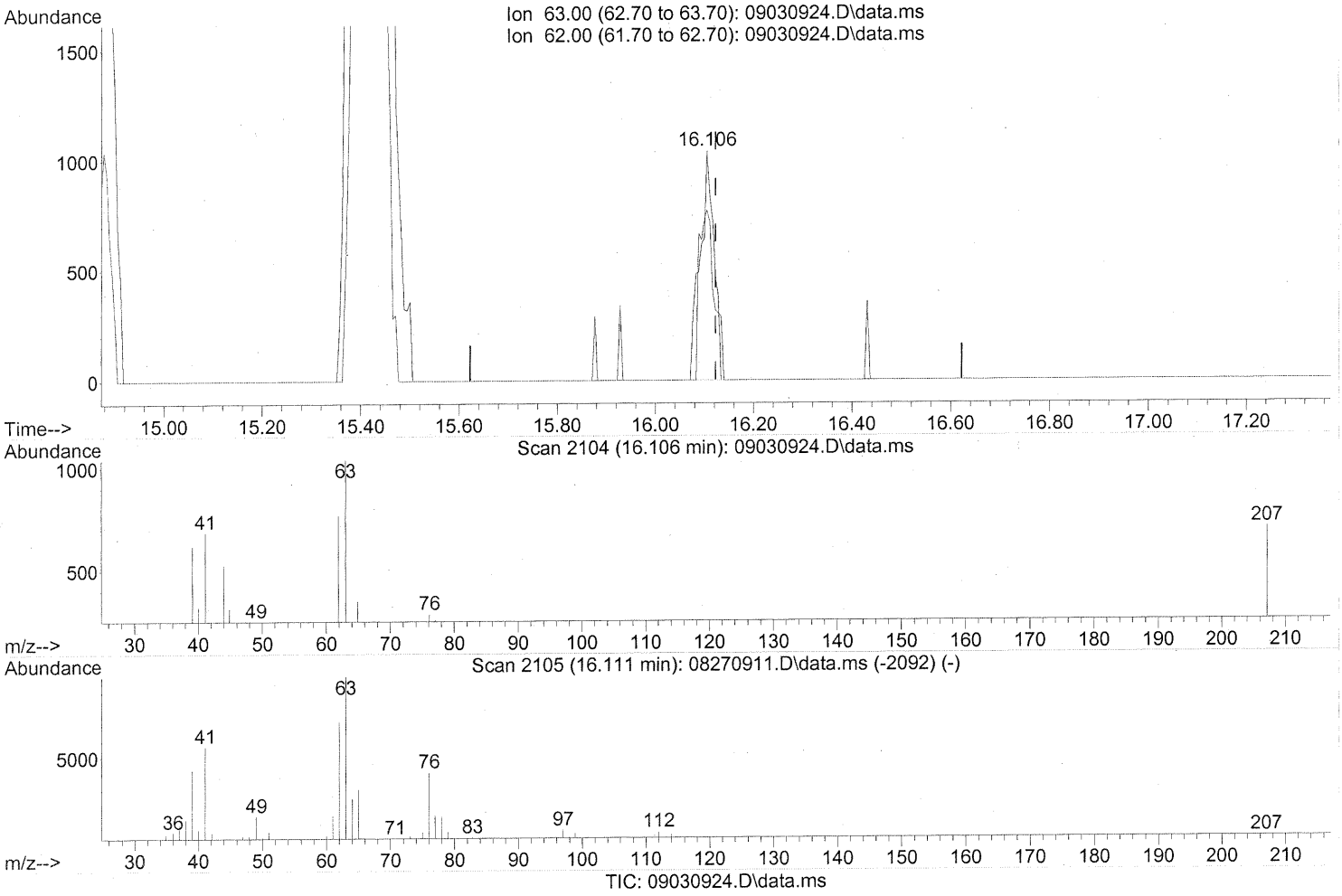
response 36554

Ion	Exp%	Act%
84.10	100	100
69.10	38.90	35.65
56.10	124.50	118.31
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(45) 1,2-Dichloropropane (T)

16.106min (-0.017) 0.13ng

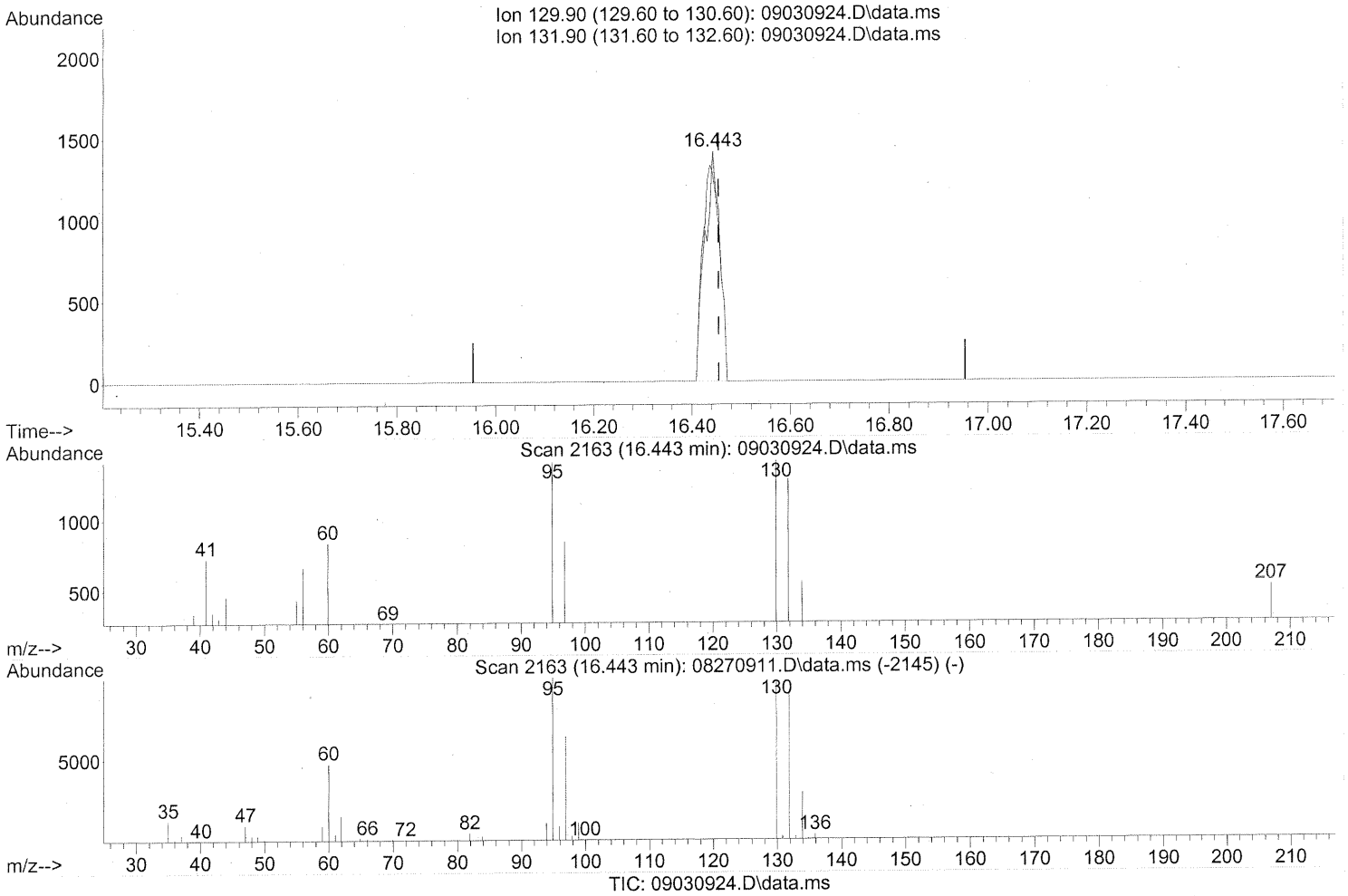
response 2045

Ion	Exp%	Act%
63.00	100	100
62.00	72.90	80.54
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030924.D\data.ms

(47) Trichloroethene (T)

16.443min (-0.011) 0.20ng

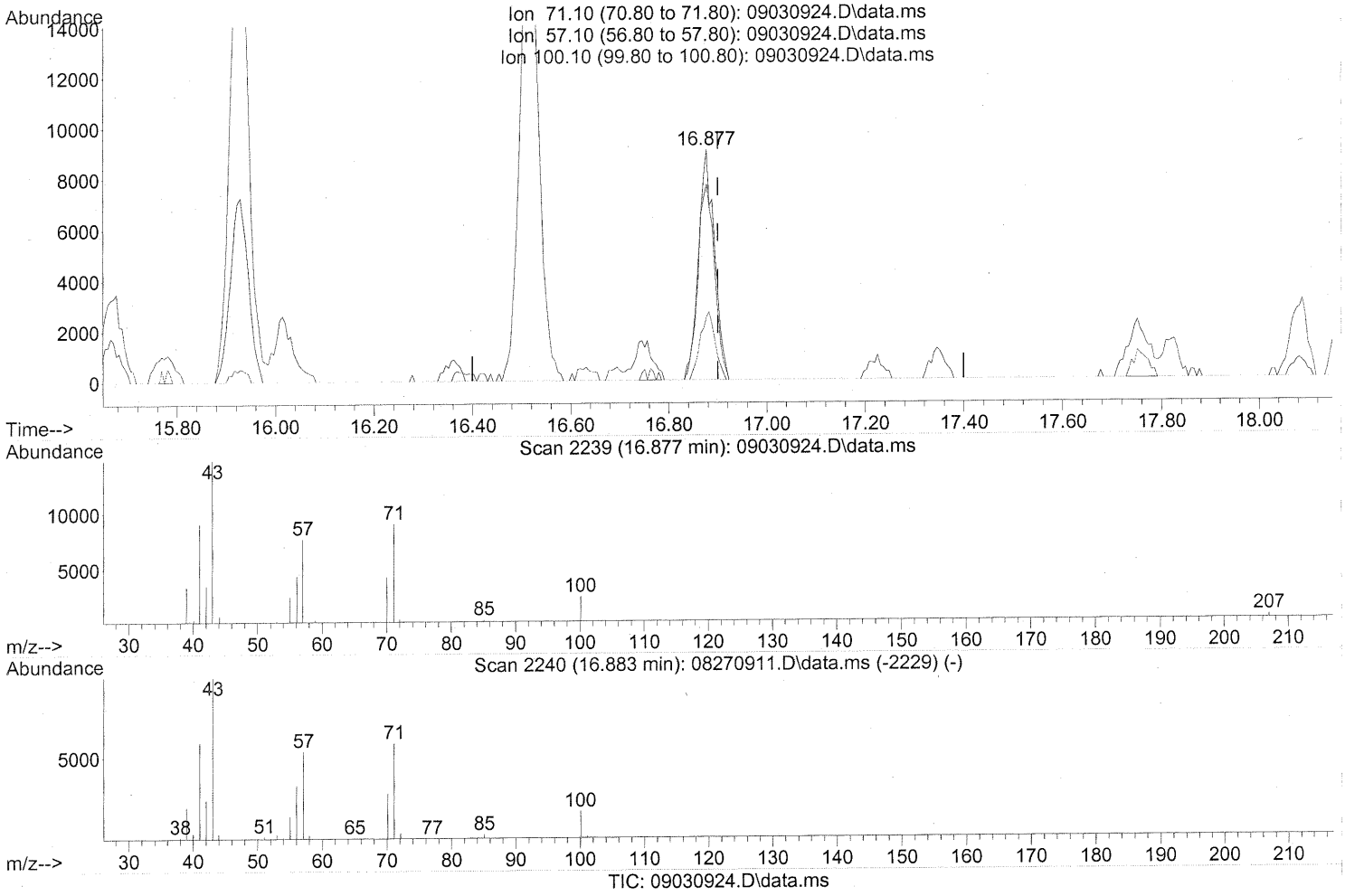
response 3041

Ion	Exp%	Act%
129.90	100	100
131.90	96.50	101.48
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030924.D\data.ms

(51) n-Heptane (T)

16.877min (-0.023) 1.29ng

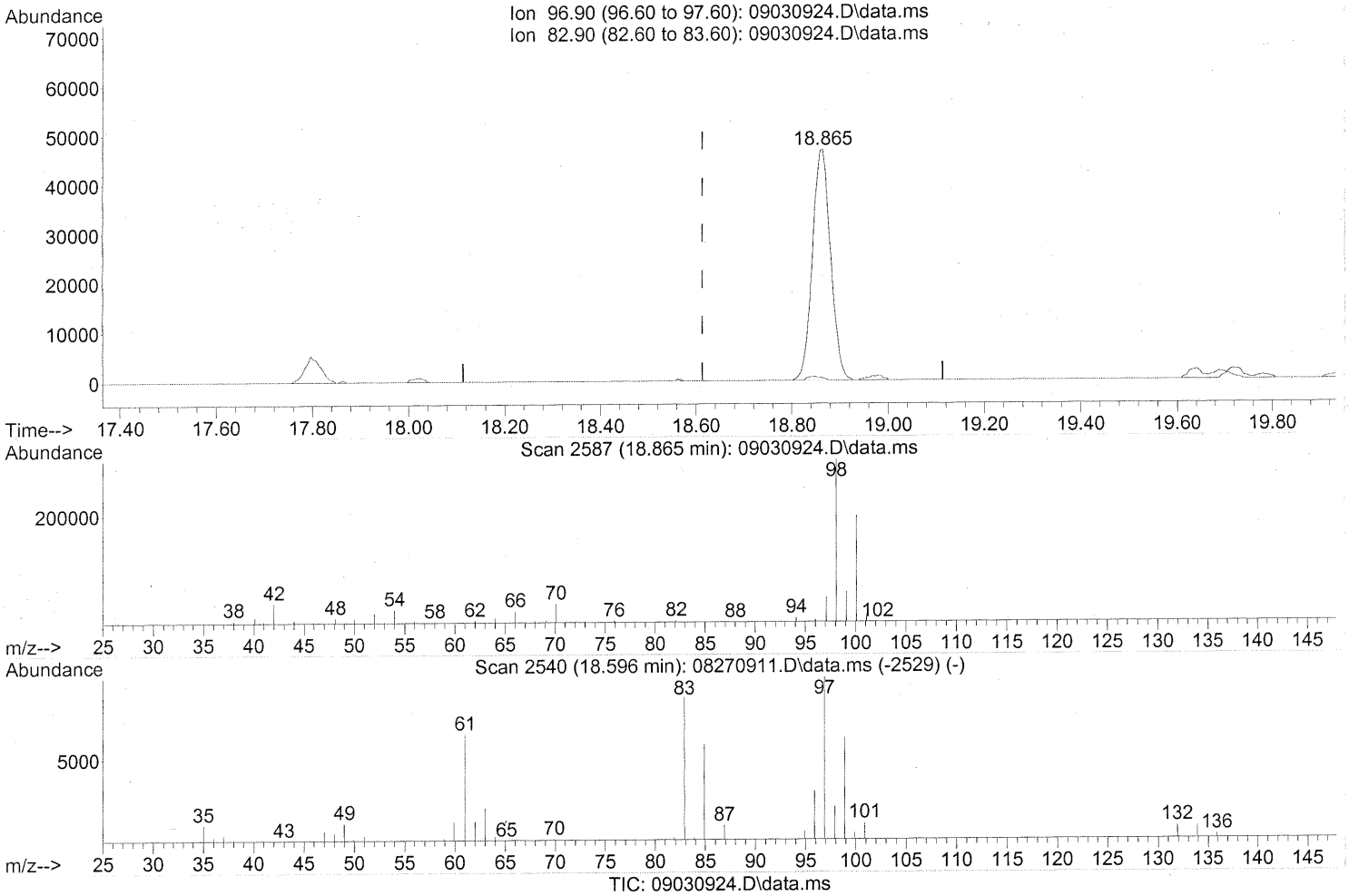
response 20493

Ion	Exp%	Act%
71.10	100	100
57.10	89.80	88.04
100.10	22.00	27.60
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



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

18.865min (+0.251) 8.60ng

response 123200

Ion	Exp%	Act%
96.90	100	100
82.90	87.70	1.22#
0.00	0.00	0.00
0.00	0.00	0.00

FP LM 9/9/09

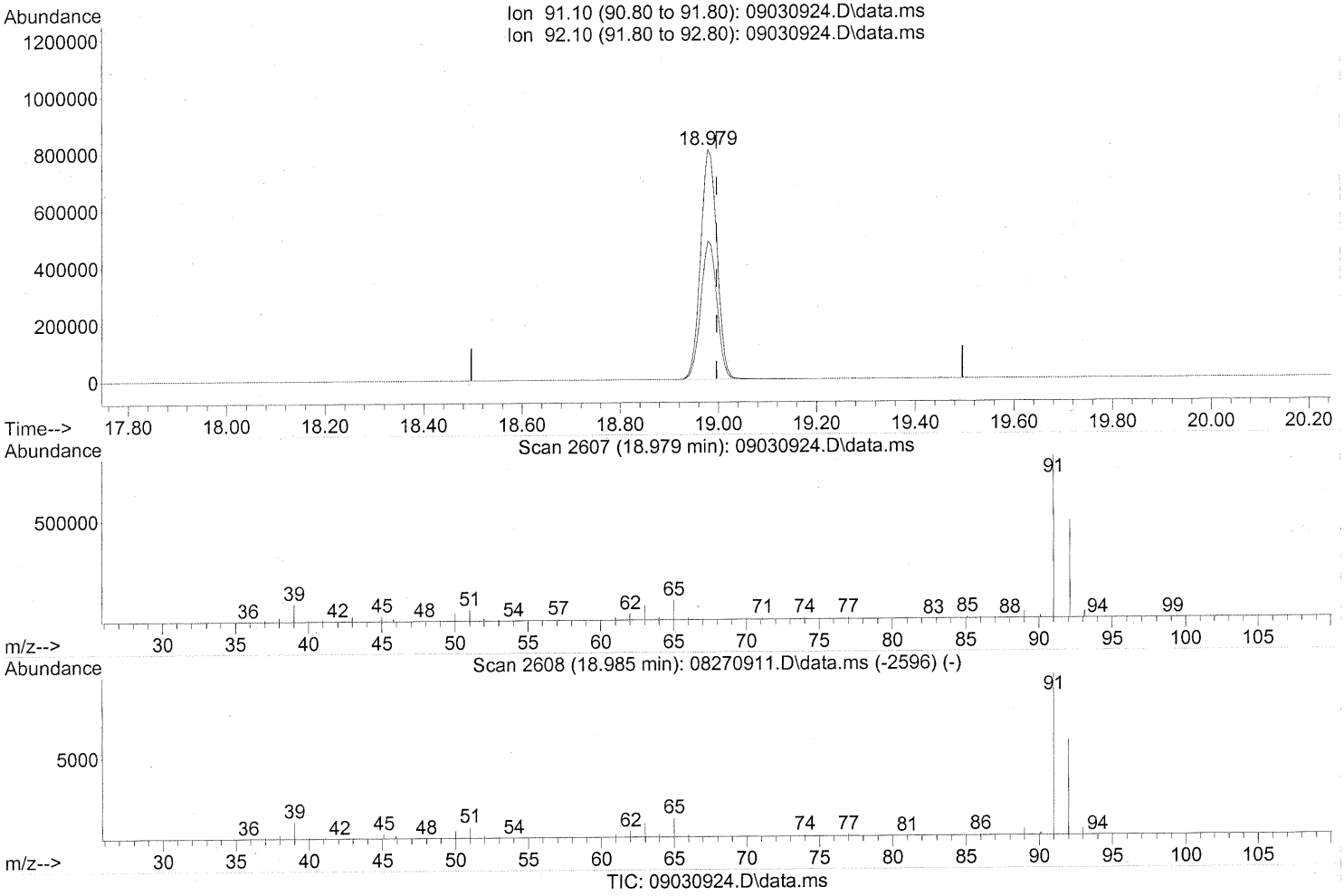
9/10/09

41

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030924.D\data.ms

(58) Toluene (T)

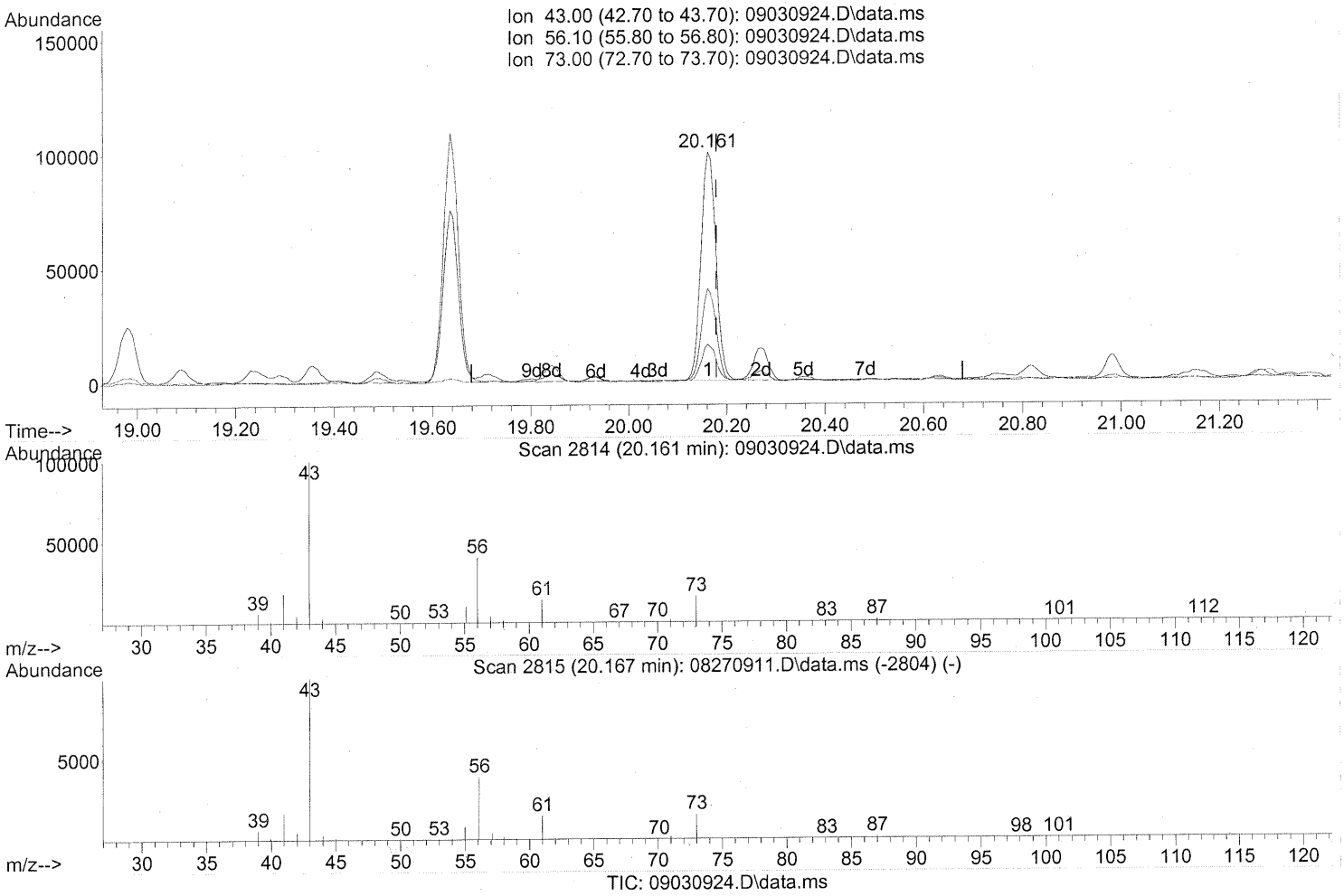
18.979min (-0.017) 30.58ng

response 1873091

Ion	Exp%	Act%
91.10	100	100
92.10	58.80	59.39
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(62) n-Butyl Acetate (T)

20.161min (-0.017) 4.90ng

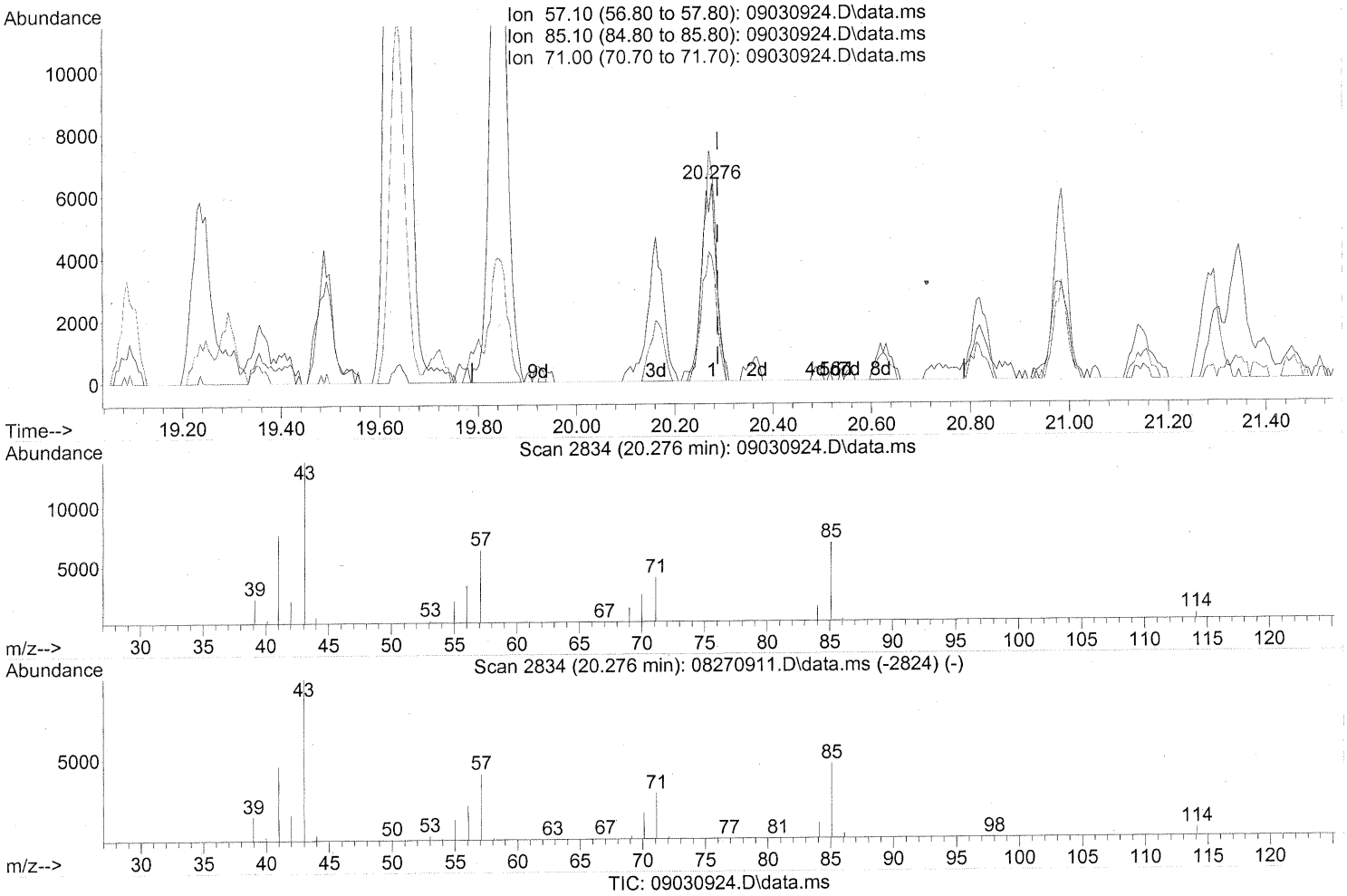
response 210620

Ion	Exp%	Act%
43.00	100	100
56.10	39.50	41.88
73.00	14.30	17.96
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(63) n-Octane (T)

20.276min (-0.011) 0.95ng

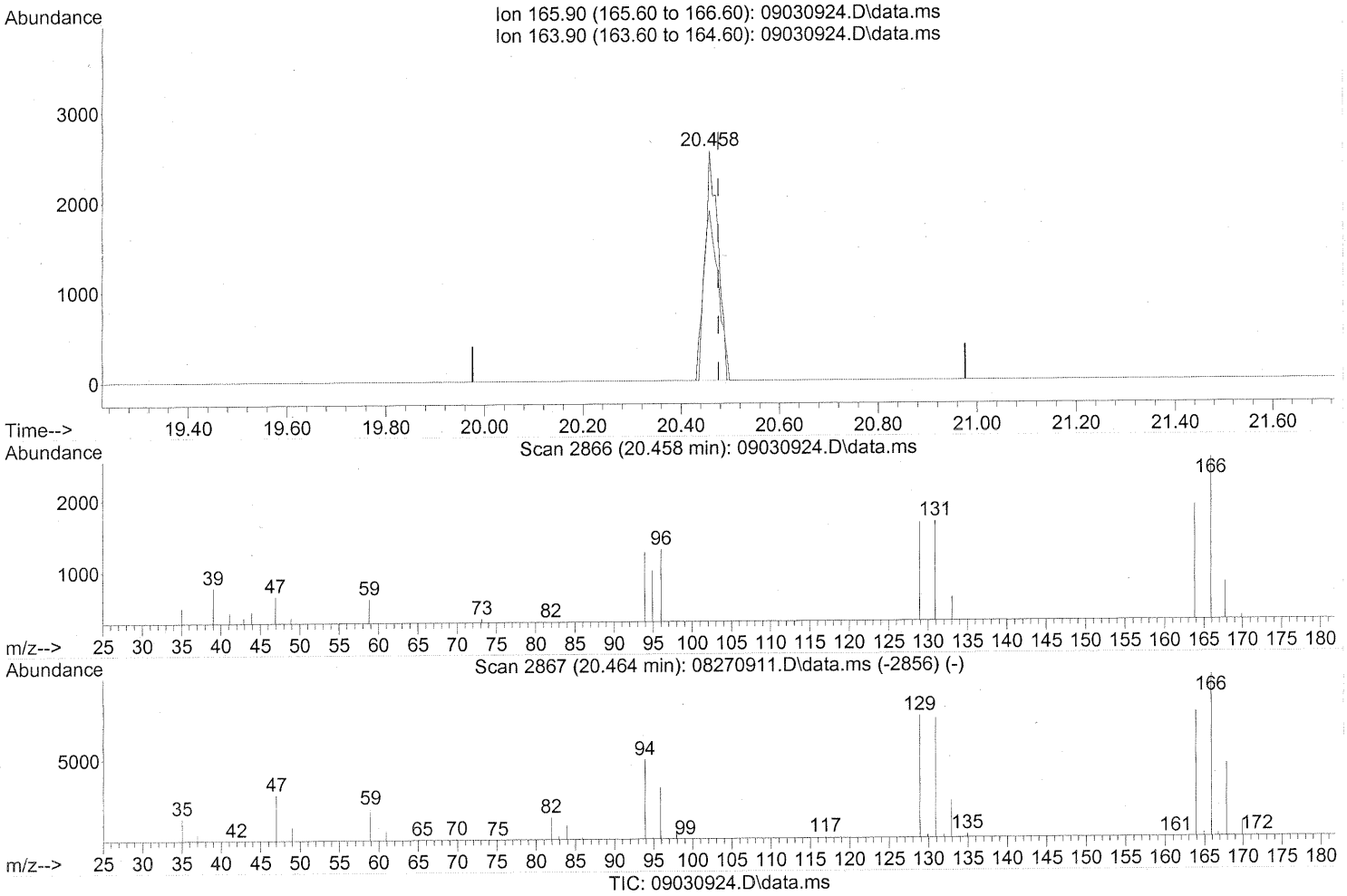
response 13353

Ion	Exp%	Act%
57.10	100	100
85.10	113.70	105.34
71.00	69.10	66.45
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030924.D\data.ms

(64) Tetrachloroethene (T)

20.458min (-0.017) 0.31ng

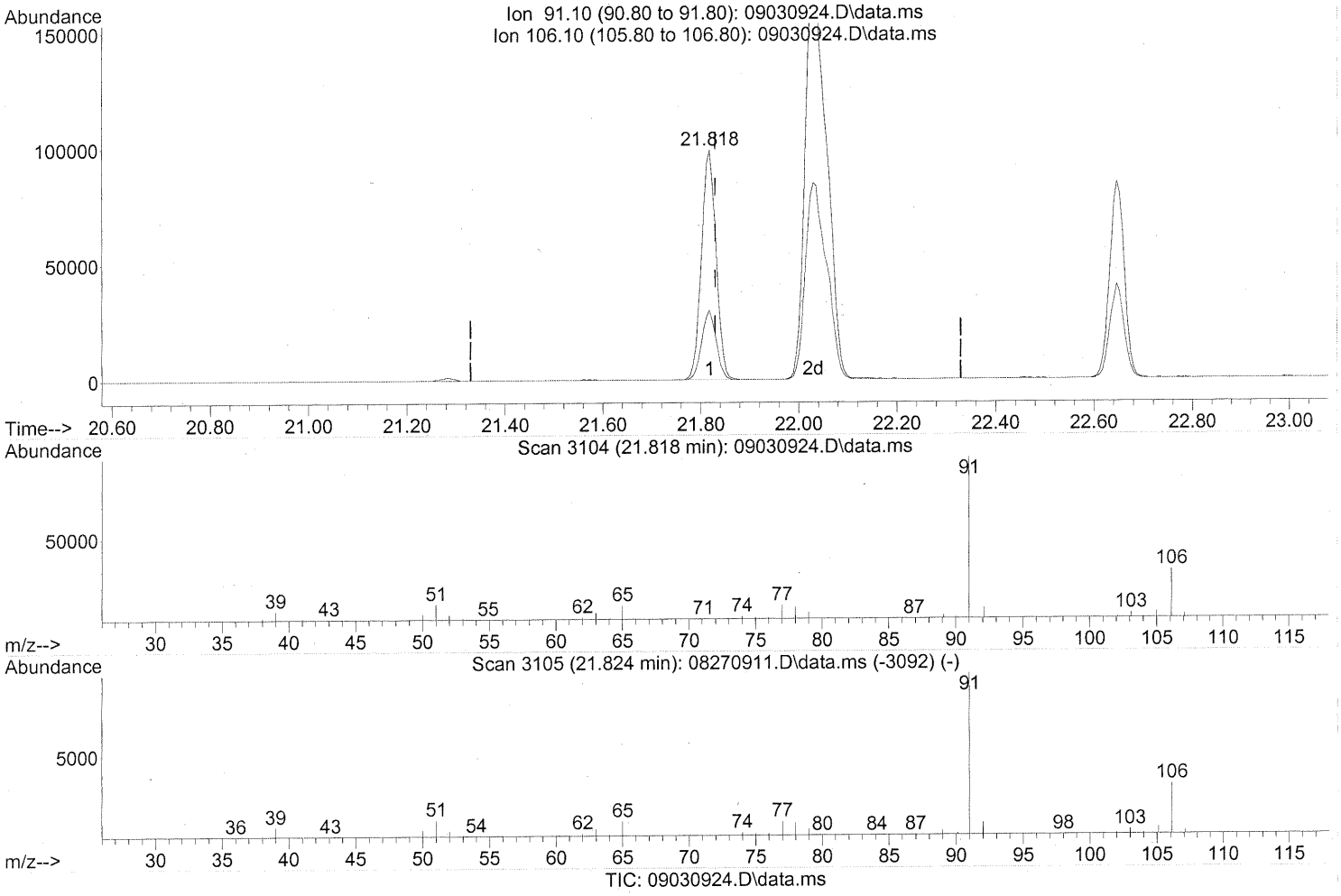
response 4772

Ion	Exp%	Act%
165.90	100	100
163.90	78.80	80.03
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(66) Ethylbenzene (T)

21.818min (-0.011) 2.92ng

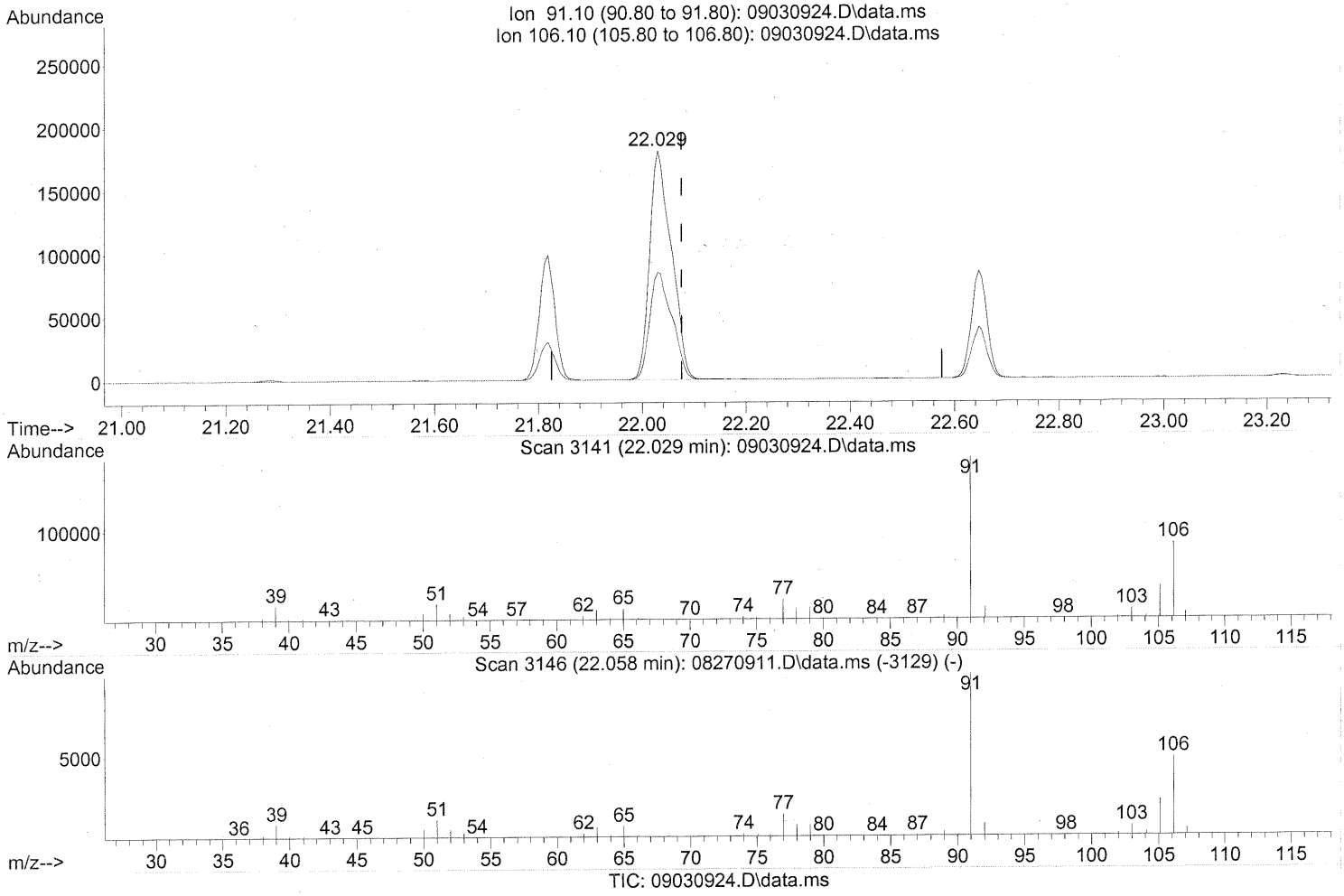
response 204364

Ion	Exp%	Act%
91.10	100	100
106.10	31.00	29.76
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030924.D\data.ms

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

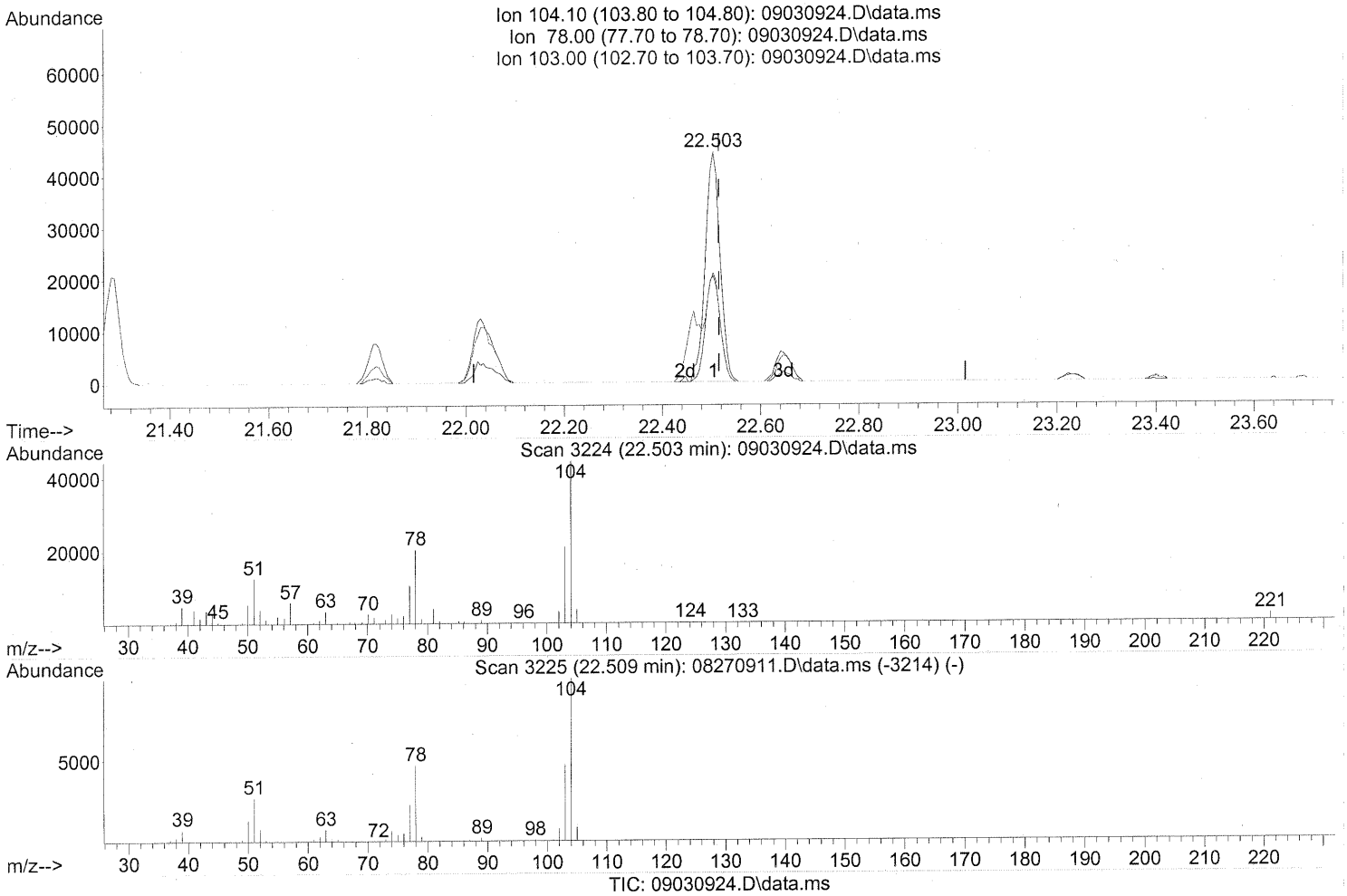
22.029min (-0.046) 9.44ng

response 526311

Ion	Exp%	Act%
91.10	100	100
106.10	48.00	48.14
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030924.D\data.ms

(69) Styrene (T)

22.503min (-0.011) 2.27ng

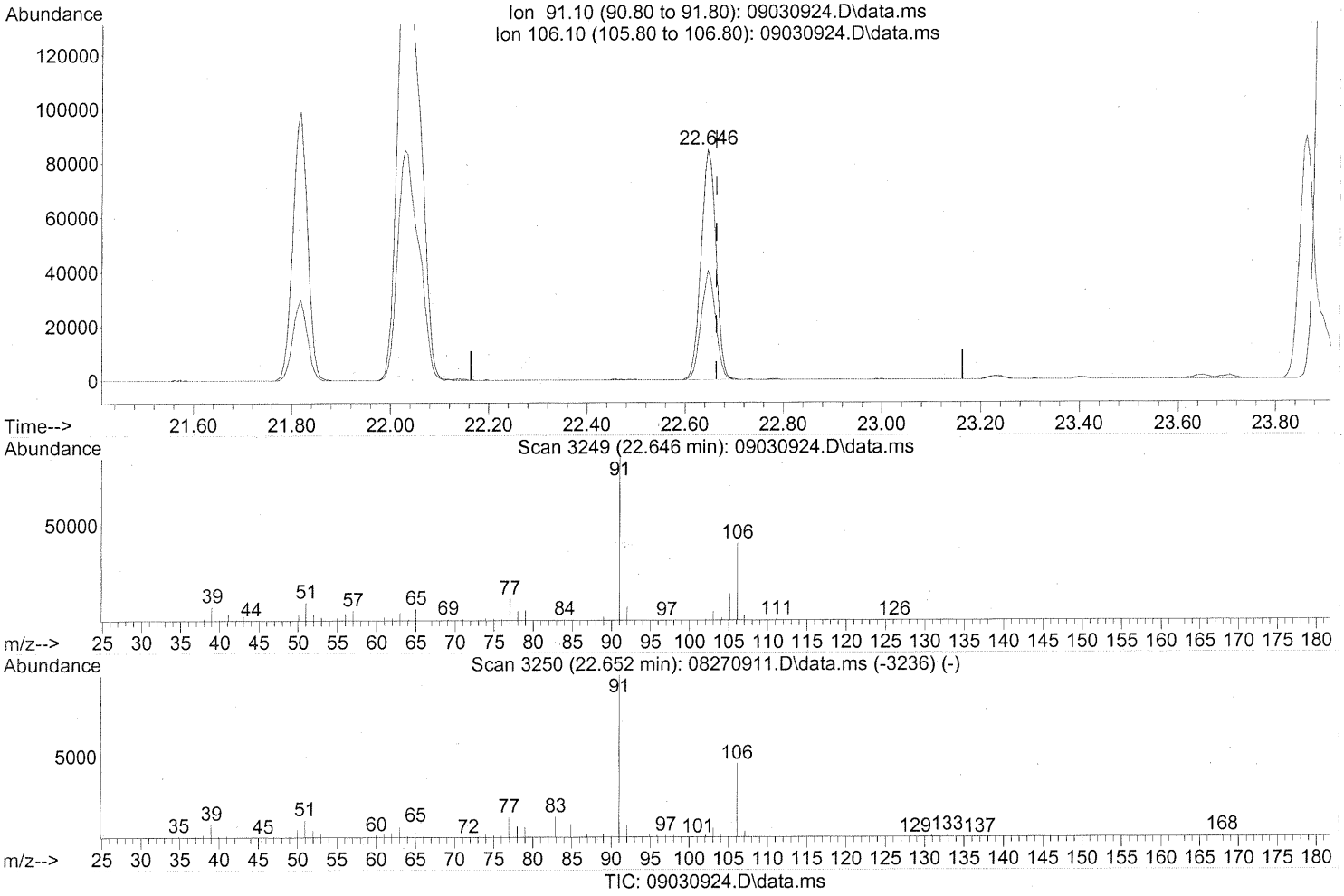
response 93106

Ion	Exp%	Act%
104.10	100	100
78.00	47.20	46.08
103.00	47.00	43.88
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030924.D\data.ms

(70) o-Xylene (T)

22.646min (-0.017) 3.15ng

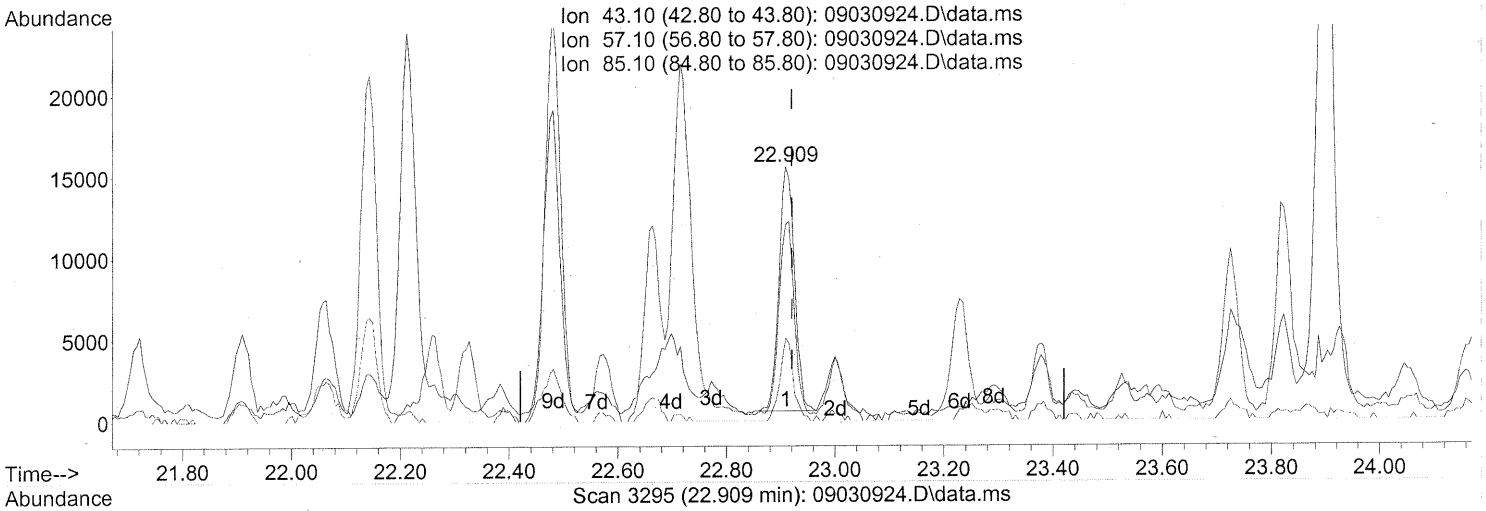
response 176560

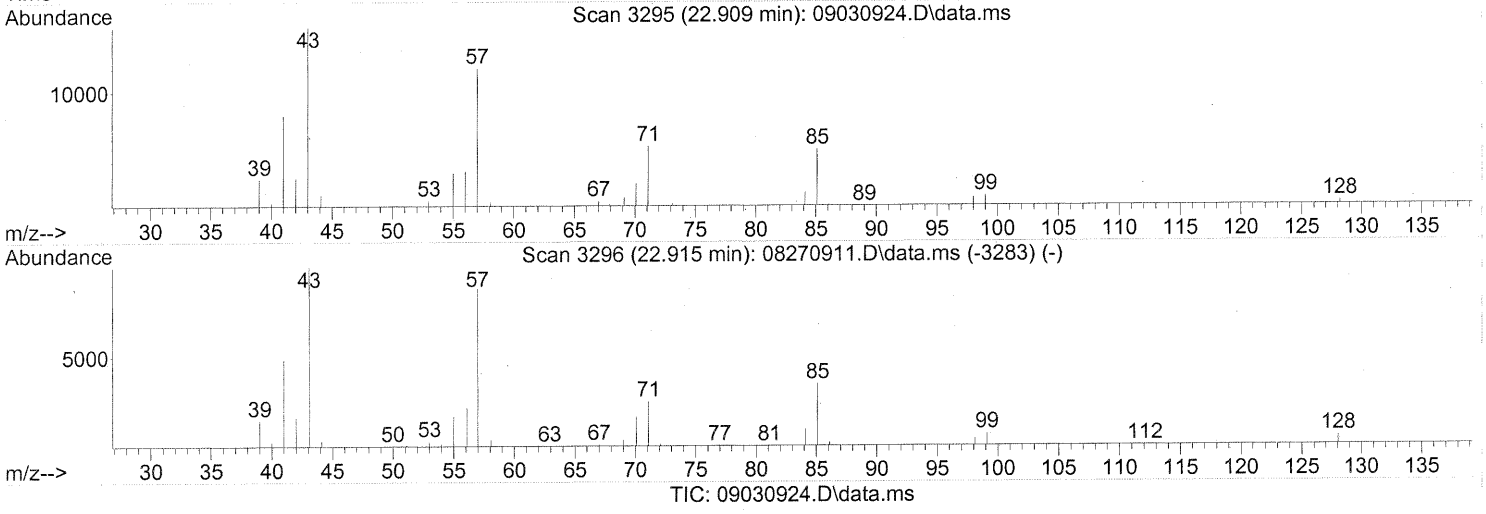
Ion	Exp%	Act%
91.10	100	100
106.10	44.90	46.18
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration





TIC: 09030924.D\data.ms

(71) n-Nonane (T)

22.909min (-0.011) 0.89ng

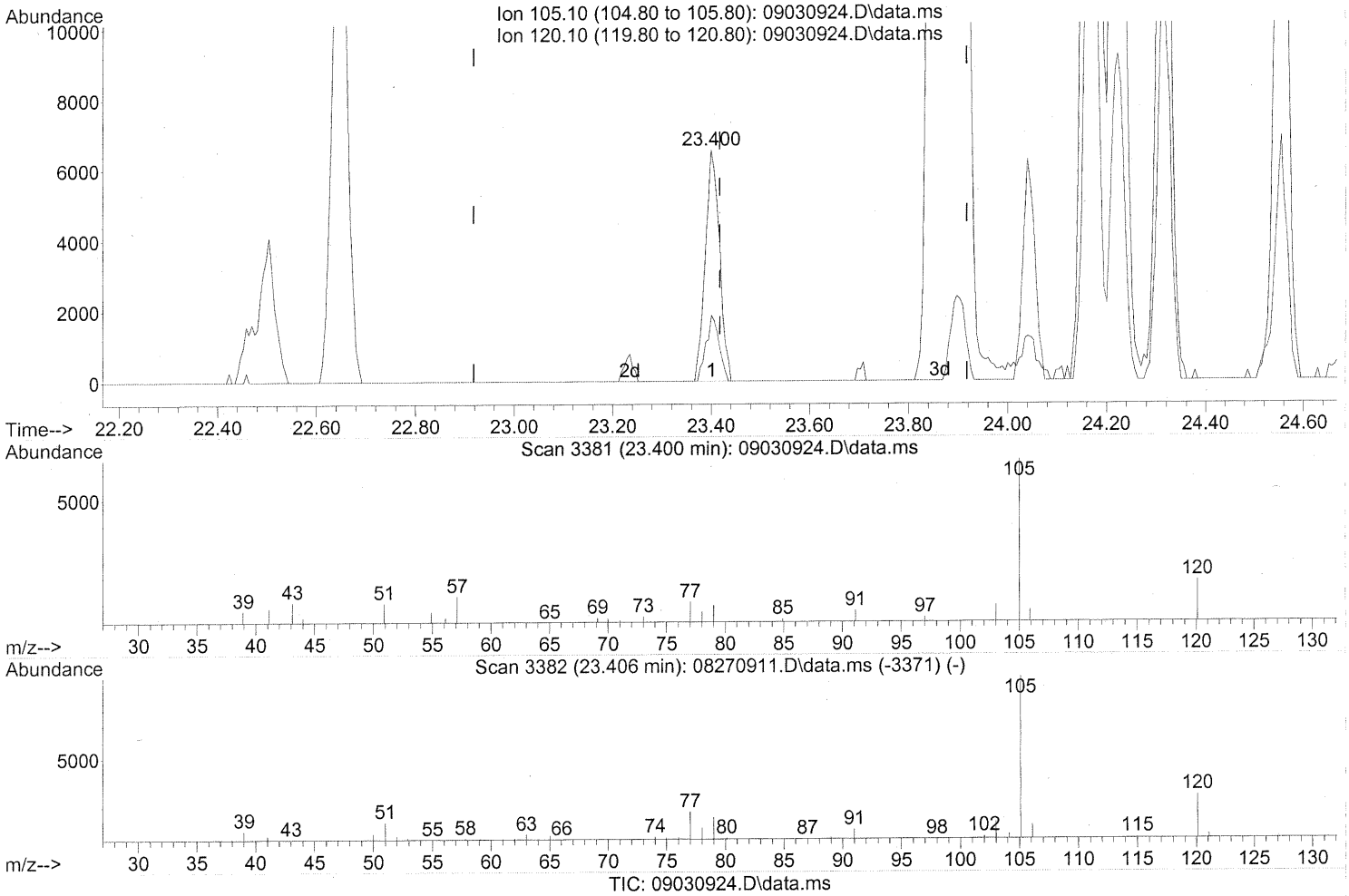
response 29804

Ion	Exp%	Act%
43.10	100	100
57.10	85.90	78.24
85.10	32.20	29.29
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030924.D\data.ms

(74) Cumene (T)

23.400min (-0.017) 0.18ng

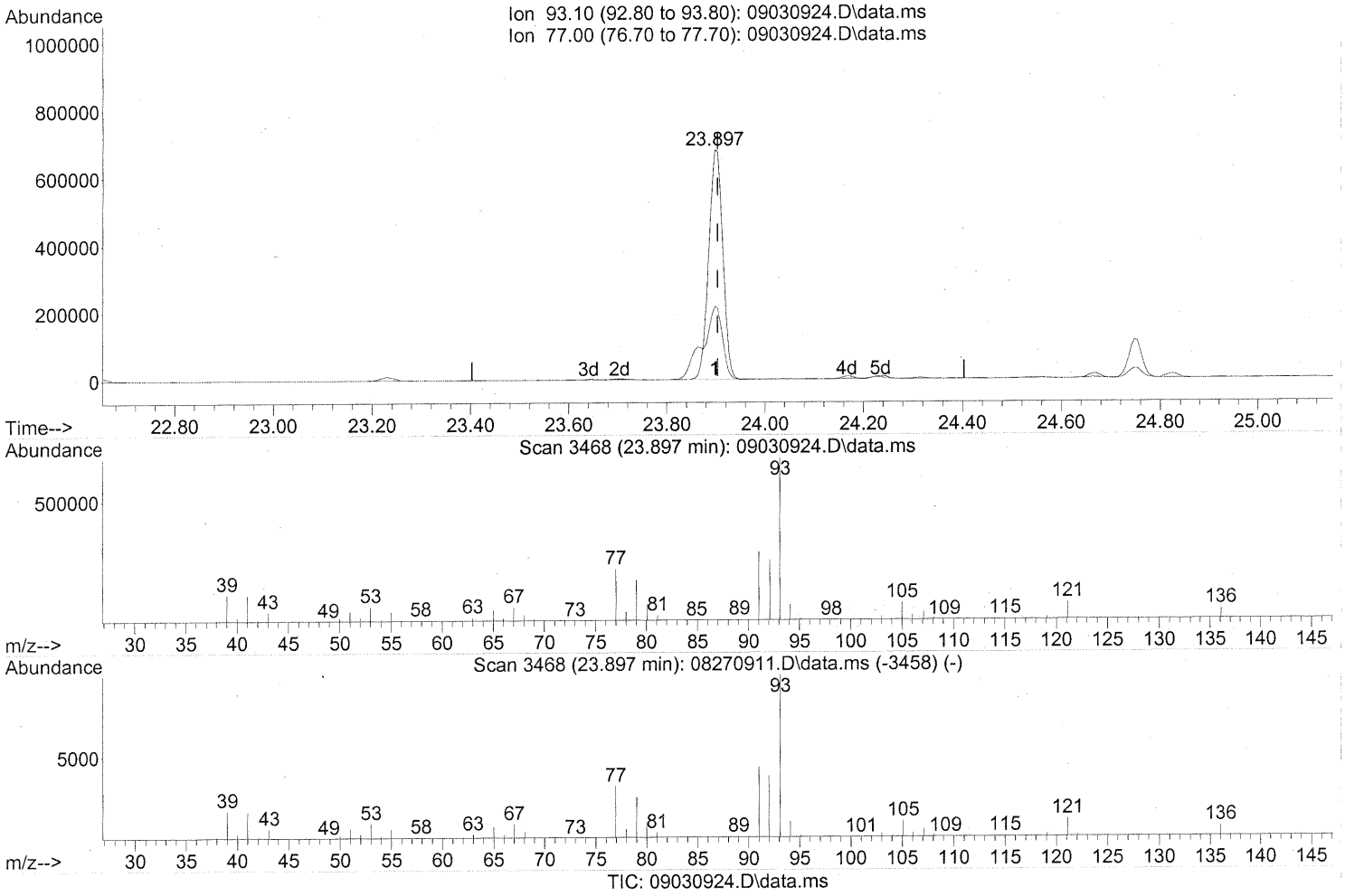
response 13057

Ion	Exp%	Act%
105.10	100	100
120.10	25.50	26.05
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(75) alpha-Pinene (T)

23.897min (-0.006) 36.52ng

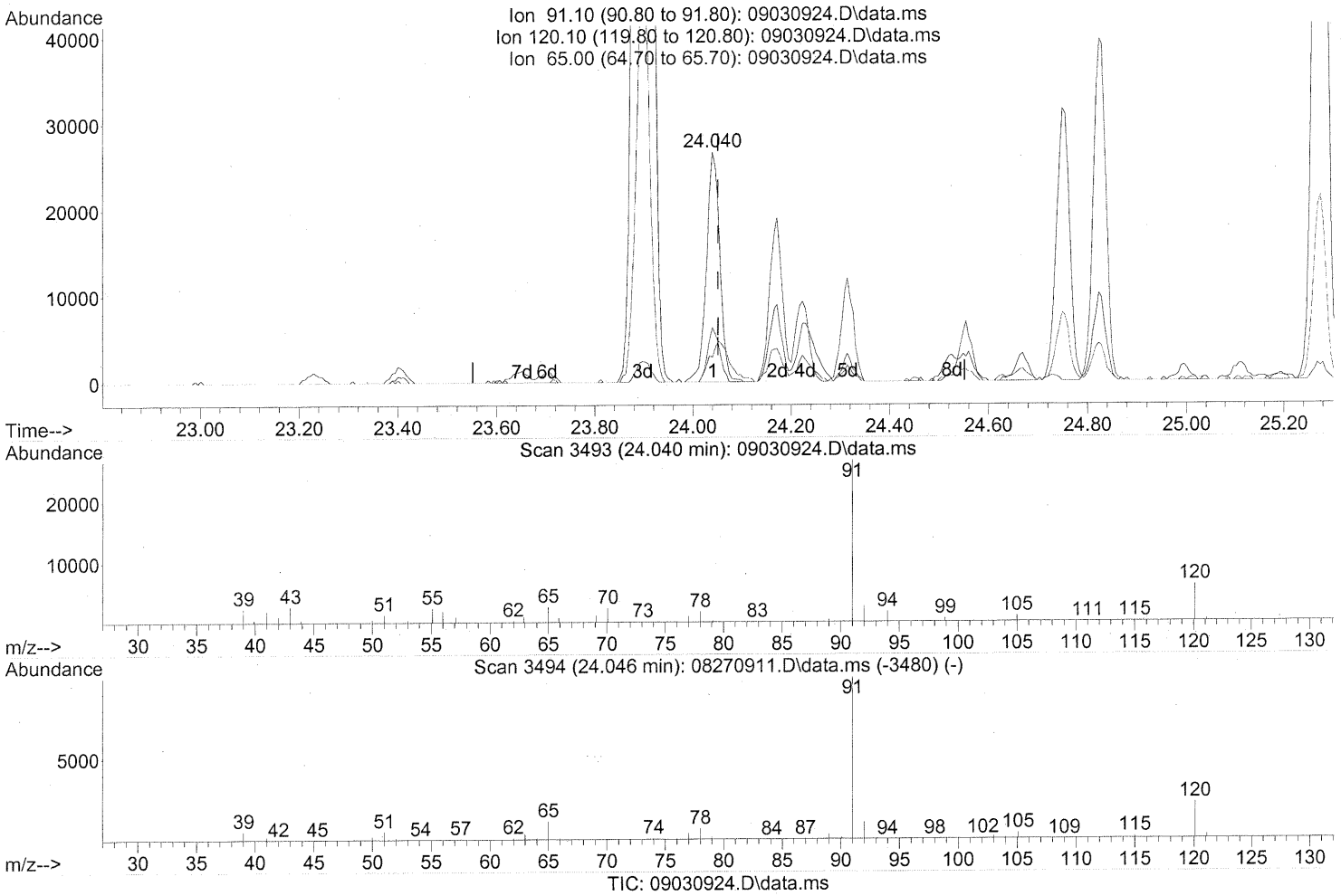
response 1345081

Ion	Exp%	Act%
93.10	100	100
77.00	33.10	45.39
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(76) n-Propylbenzene (T)

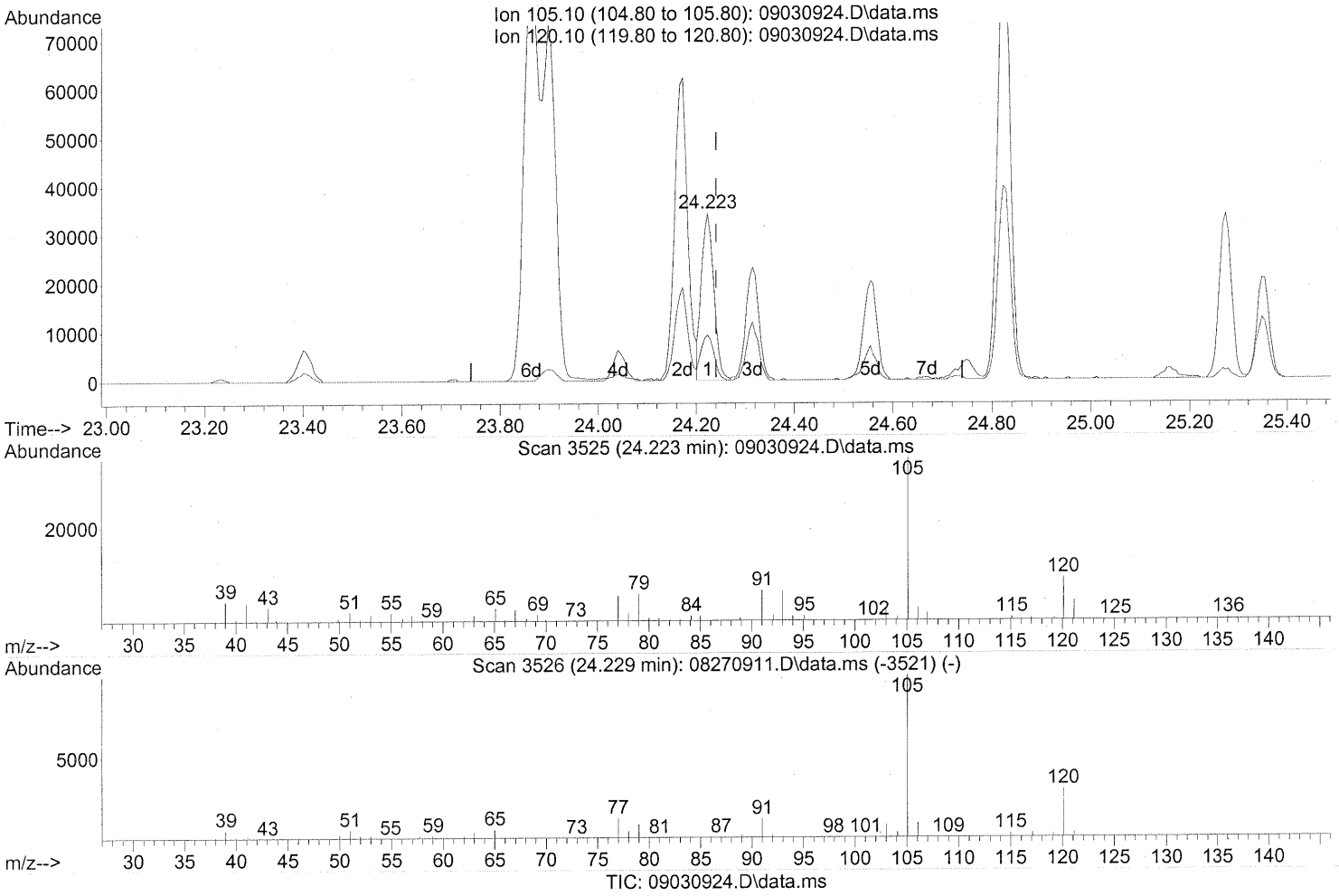
24.040min (-0.011) 0.56ng

response 50582

Ion	Exp%	Act%
91.10	100	100
120.10	21.80	21.06
65.00	11.80	26.00
0.00	0.00	0.00

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(78) 4-Ethyltoluene (T)

24.223min (-0.017) 0.90ng

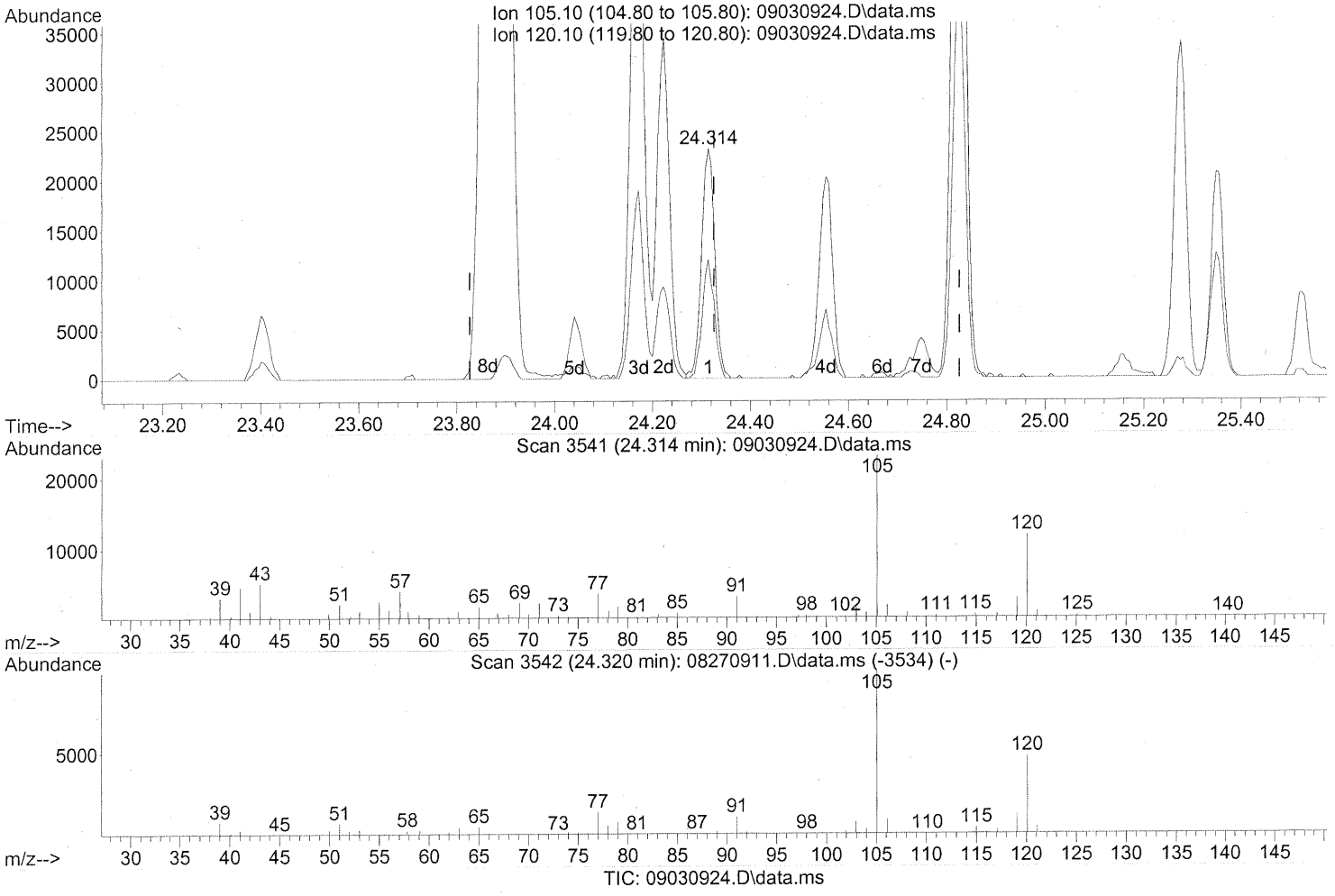
response 59993

Ion	Exp%	Act%
105.10	100	100
120.10	28.70	28.65
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



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

24.314min (-0.011) 0.77ng

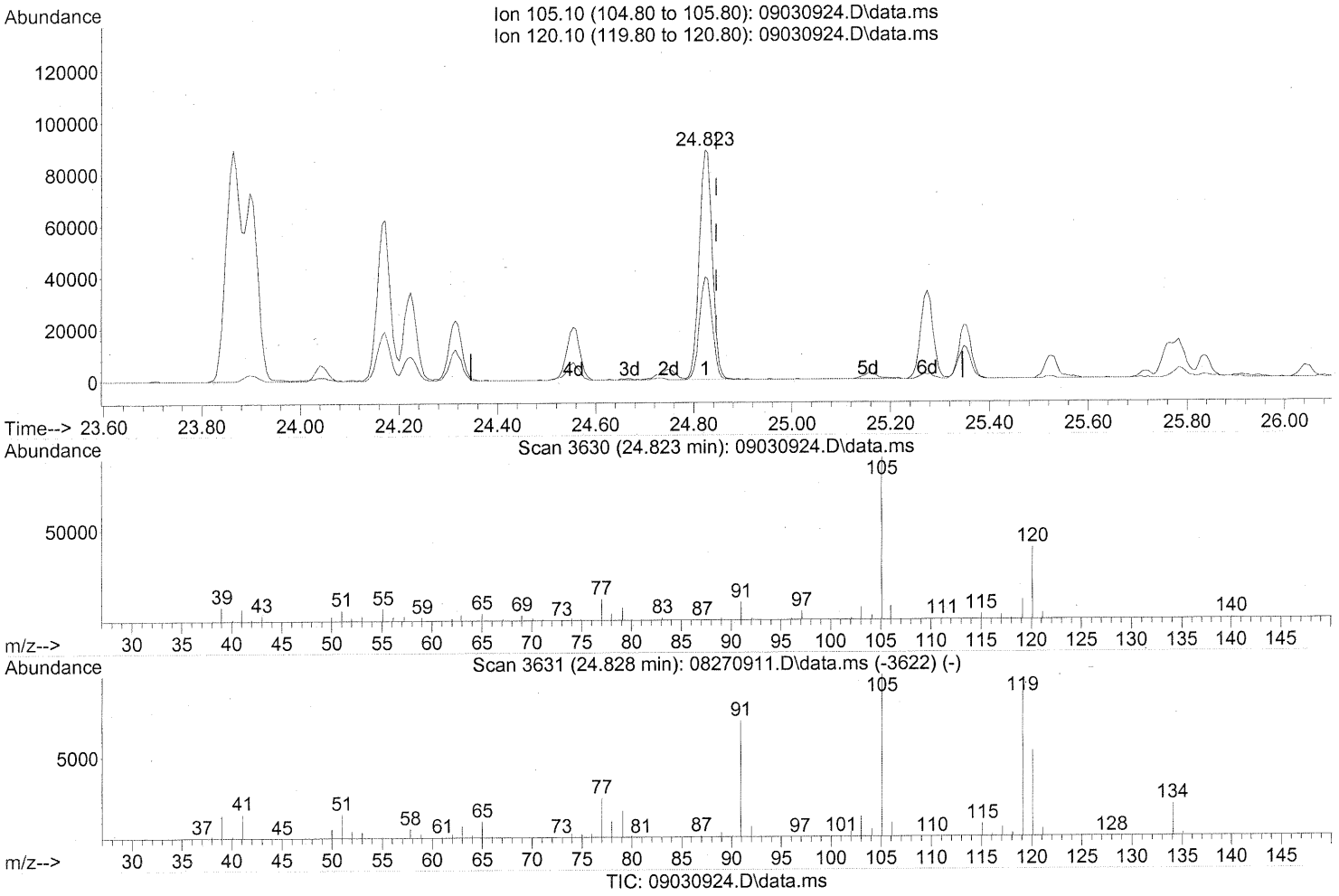
response 43115

Ion	Exp%	Act%
105.10	100	100
120.10	47.70	47.50
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030924.D\data.ms

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

24.823min (-0.023) 2.87ng

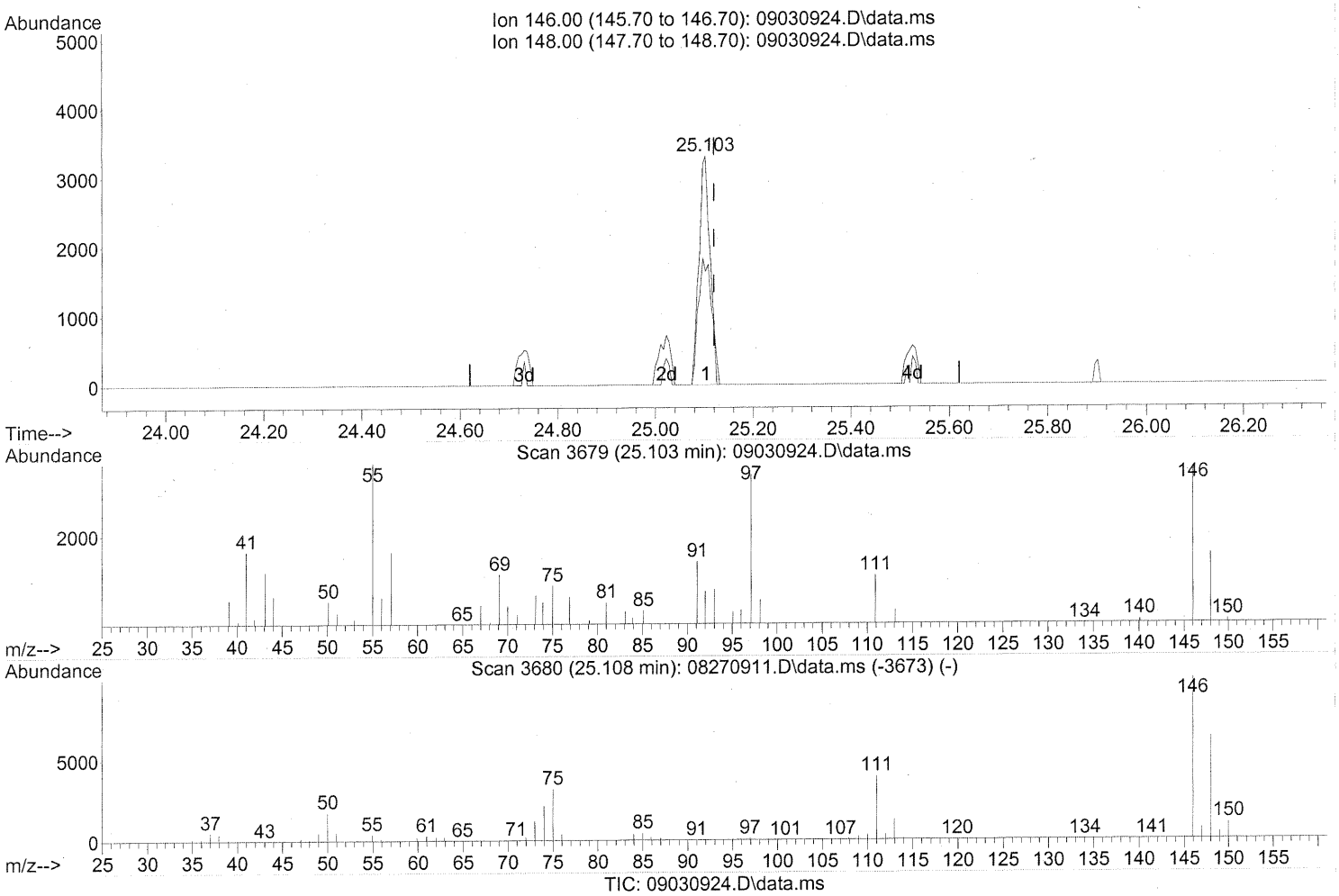
response 163173

Ion	Exp%	Act%
105.10	100	100
120.10	52.00	43.75
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030924.D\data.ms

(86) 1,4-Dichlorobenzene (T)

25.103min (-0.017) 0.17ng

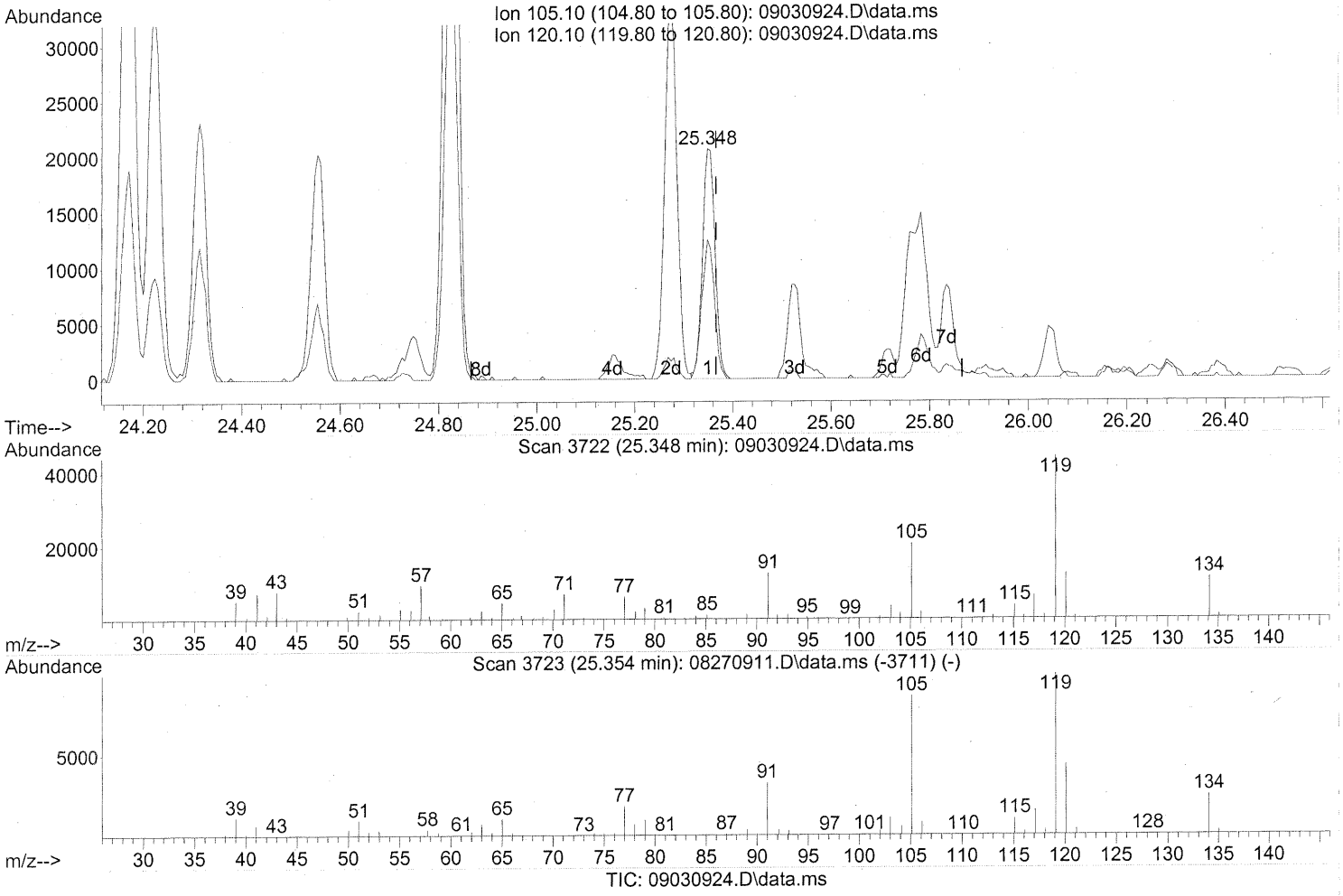
response 5333

Ion	Exp%	Act%
146.00	100	100
148.00	64.20	63.04
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(89) 1,2,3-Trimethylbenzene (T)

25.348min (-0.017) 0.62ng

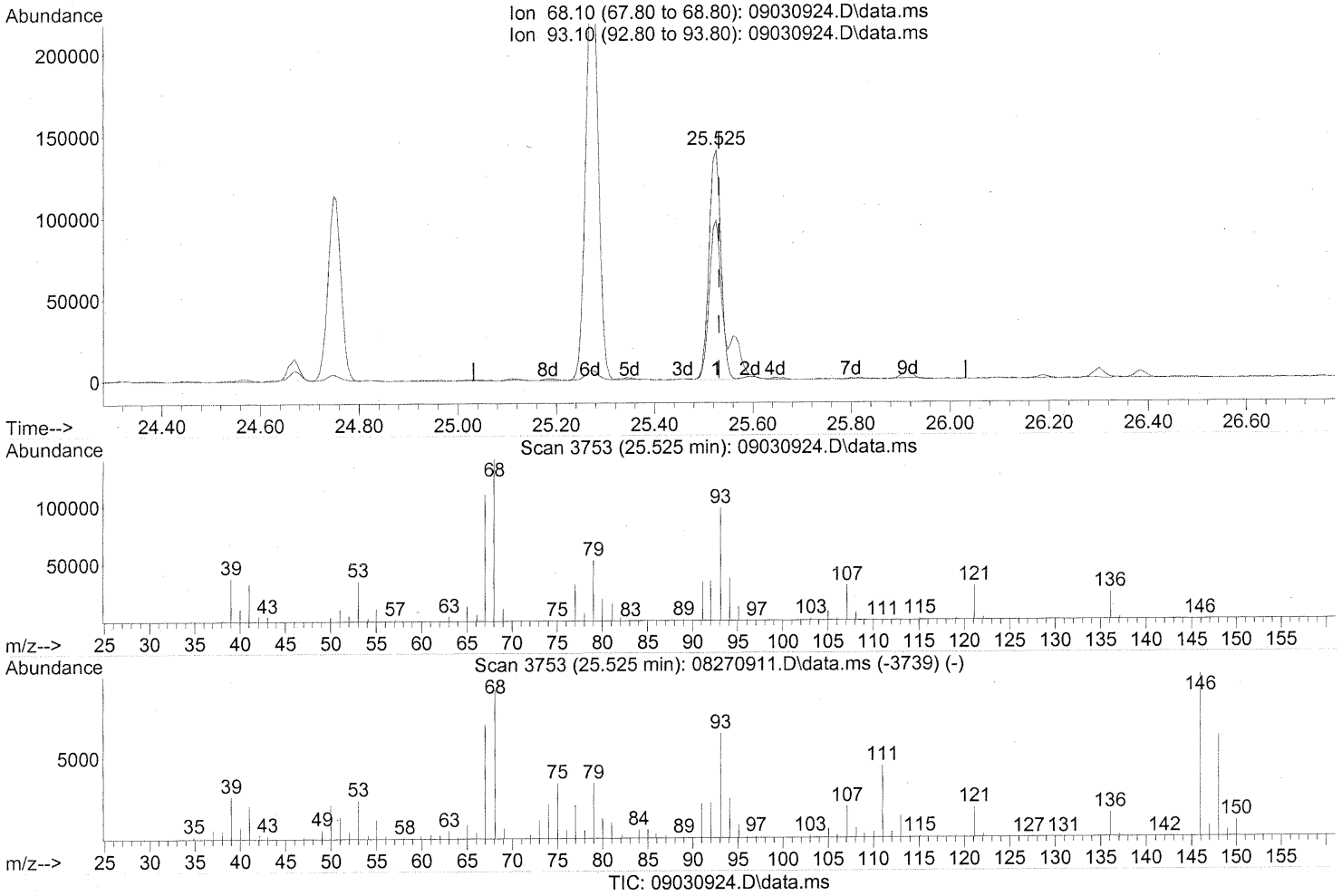
response 36970

Ion	Exp%	Act%
105.10	100	100
120.10	50.60	60.28
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030924.D
Acq On : 4 Sep 2009 2:33 am
Operator : LM/CC
Sample : P0902985-001 (600ml)
Misc : EH&E 103572
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Sep 04 08:53:47 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(91) d-Limonene (T)

25.525min (-0.006) 10.49ng

response 238408

Ion	Exp%	Act%
68.10	100	100
93.10	69.80	89.69
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: **103573**
Client Project ID: **16512**

CAS Project ID: P0902985
CAS Sample ID: P0902985-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
Analyst: Liliana Marghitoiu
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC00701

Date Collected: 8/26/09
Date Received: 8/27/09
Date Analyzed: 9/1/09 & 9/4/09
Volume(s) Analyzed: 0.60 Liter(s)
0.30 Liter(s)

Initial Pressure (psig): -2.1 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.44

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	**Propene**	**21**	1.2	**12**	0.70	
75-71-8	**Dichlorodifluoromethane (CFC 12)**	**2.4**	1.2	**0.48**	0.24	
74-87-3	**Chloromethane**	**1.6**	0.24	**0.78**	0.12	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	1.2	ND	0.17	
75-01-4	Vinyl Chloride	ND	0.24	ND	0.094	
106-99-0	1,3-Butadiene	ND	0.24	ND	0.11	
74-83-9	Bromomethane	ND	0.24	ND	0.062	
75-00-3	Chloroethane	ND	0.24	ND	0.091	
64-17-5	**Ethanol**	**1,000**	12	**560**	6.4	
75-05-8	**Acetonitrile**	**310**	1.2	**180**	0.72	**D**
107-02-8	**Acrolein**	**8.1**	1.2	**3.6**	0.52	
67-64-1	**Acetone**	**180**	12	**75**	5.1	
75-69-4	**Trichlorofluoromethane**	**1.3**	0.24	**0.24**	0.043	
67-63-0	**2-Propanol (Isopropyl Alcohol)**	**150**	1.2	**61**	0.49	
107-13-1	Acrylonitrile	ND	1.2	ND	0.55	
75-35-4	1,1-Dichloroethene	ND	0.24	ND	0.061	
75-09-2	Methylene Chloride	ND	1.2	ND	0.35	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.24	ND	0.077	
76-13-1	**Trichlorotrifluoroethane**	**0.55**	0.24	**0.072**	0.031	
75-15-0	Carbon Disulfide	ND	1.2	ND	0.39	
156-60-5	trans-1,2-Dichloroethene	ND	0.24	ND	0.061	
75-34-3	1,1-Dichloroethane	ND	0.24	ND	0.059	
1634-04-4	Methyl tert-Butyl Ether	ND	0.24	ND	0.067	
108-05-4	Vinyl Acetate	ND	12	ND	3.4	
78-93-3	**2-Butanone (MEK)**	**5.4**	1.2	**1.8**	0.41	

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.
D = The reported result is from a dilution.

Verified By: _____ Date: 9/10/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **103573**
Client Project ID: **16512**

CAS Project ID: P0902985
CAS Sample ID: P0902985-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
Analyst: Liliana Marghitoiu
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC00701

Date Collected: 8/26/09
Date Received: 8/27/09
Date Analyzed: 9/1/09 & 9/4/09
Volume(s) Analyzed: 0.60 Liter(s)
0.30 Liter(s)

Initial Pressure (psig): -2.1 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.44

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
156-59-2	cis-1,2-Dichloroethene	ND	0.24	ND	0.061	
141-78-6	**Ethyl Acetate**	**20**	1.2	**5.6**	0.33	
110-54-3	**n-Hexane**	**14**	1.2	**3.8**	0.34	
67-66-3	**Chloroform**	**0.33**	0.24	**0.067**	0.049	
109-99-9	**Tetrahydrofuran (THF)**	**1.4**	1.2	**0.47**	0.41	
107-06-2	**1,2-Dichloroethane**	**0.93**	0.24	**0.23**	0.059	
71-55-6	1,1,1-Trichloroethane	ND	0.24	ND	0.044	
71-43-2	**Benzene**	**14**	0.24	**4.4**	0.075	
56-23-5	**Carbon Tetrachloride**	**0.66**	0.24	**0.10**	0.038	
110-82-7	**Cyclohexane**	**1.6**	1.2	**0.47**	0.35	
78-87-5	**1,2-Dichloropropane**	**0.41**	0.24	**0.088**	0.052	
75-27-4	Bromodichloromethane	ND	0.24	ND	0.036	
79-01-6	**Trichloroethene**	**0.63**	0.24	**0.12**	0.045	
123-91-1	1,4-Dioxane	ND	1.2	ND	0.33	
80-62-6	Methyl Methacrylate	ND	1.2	ND	0.29	
142-82-5	**n-Heptane**	**3.4**	1.2	**0.82**	0.29	
10061-01-5	cis-1,3-Dichloropropene	ND	1.2	ND	0.26	
108-10-1	**4-Methyl-2-pentanone**	**1.3**	1.2	**0.31**	0.29	
10061-02-6	trans-1,3-Dichloropropene	ND	1.2	ND	0.26	
79-00-5	1,1,2-Trichloroethane	ND	0.24	ND	0.044	
108-88-3	**Toluene**	**65**	1.2	**17**	0.32	
591-78-6	2-Hexanone	ND	1.2	ND	0.29	
124-48-1	Dibromochloromethane	ND	0.24	ND	0.028	
106-93-4	1,2-Dibromoethane	ND	0.24	ND	0.031	
123-86-4	**n-Butyl Acetate**	**5.6**	1.2	**1.2**	0.25	

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: 9/10/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **103573**
Client Project ID: **16512**

CAS Project ID: P0902985
CAS Sample ID: P0902985-002

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
Analyst: Liliana Marghitoiu
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC00701

Date Collected: 8/26/09
Date Received: 8/27/09
Date Analyzed: 9/1/09 & 9/4/09
Volume(s) Analyzed: 0.60 Liter(s)
0.30 Liter(s)

Initial Pressure (psig): -2.1 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.44

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	**n-Octane**	**1.6**	1.2	**0.35**	0.26	
127-18-4	Tetrachloroethene	ND	0.24	ND	0.035	
108-90-7	Chlorobenzene	ND	0.24	ND	0.052	
100-41-4	**Ethylbenzene**	**8.8**	1.2	**2.0**	0.28	
179601-23-1	**m,p-Xylenes**	**29**	1.2	**6.8**	0.28	
75-25-2	Bromoform	ND	1.2	ND	0.12	
100-42-5	**Styrene**	**6.2**	1.2	**1.5**	0.28	
95-47-6	**o-Xylene**	**9.8**	1.2	**2.3**	0.28	
111-84-2	**n-Nonane**	**1.6**	1.2	**0.31**	0.23	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.24	ND	0.035	
98-82-8	Cumene	ND	1.2	ND	0.24	
80-56-8	**alpha-Pinene**	**120**	1.2	**22**	0.22	
103-65-1	**n-Propylbenzene**	**1.7**	1.2	**0.34**	0.24	
622-96-8	**4-Ethyltoluene**	**2.8**	1.2	**0.56**	0.24	
108-67-8	**1,3,5-Trimethylbenzene**	**2.4**	1.2	**0.48**	0.24	
95-63-6	**1,2,4-Trimethylbenzene**	**8.8**	1.2	**1.8**	0.24	
100-44-7	Benzyl Chloride	ND	0.24	ND	0.046	
541-73-1	1,3-Dichlorobenzene	ND	0.24	ND	0.040	
106-46-7	**1,4-Dichlorobenzene**	**0.38**	0.24	**0.063**	0.040	
95-50-1	1,2-Dichlorobenzene	ND	0.24	ND	0.040	
5989-27-5	**d-Limonene**	**37**	1.2	**6.7**	0.22	
96-12-8	1,2-Dibromo-3-chloropropane	ND	1.2	ND	0.12	
120-82-1	1,2,4-Trichlorobenzene	ND	1.2	ND	0.16	
91-20-3	**Naphthalene**	**1.4**	1.2	**0.28**	0.23	
87-68-3	Hexachlorobutadiene	ND	1.2	ND	0.11	

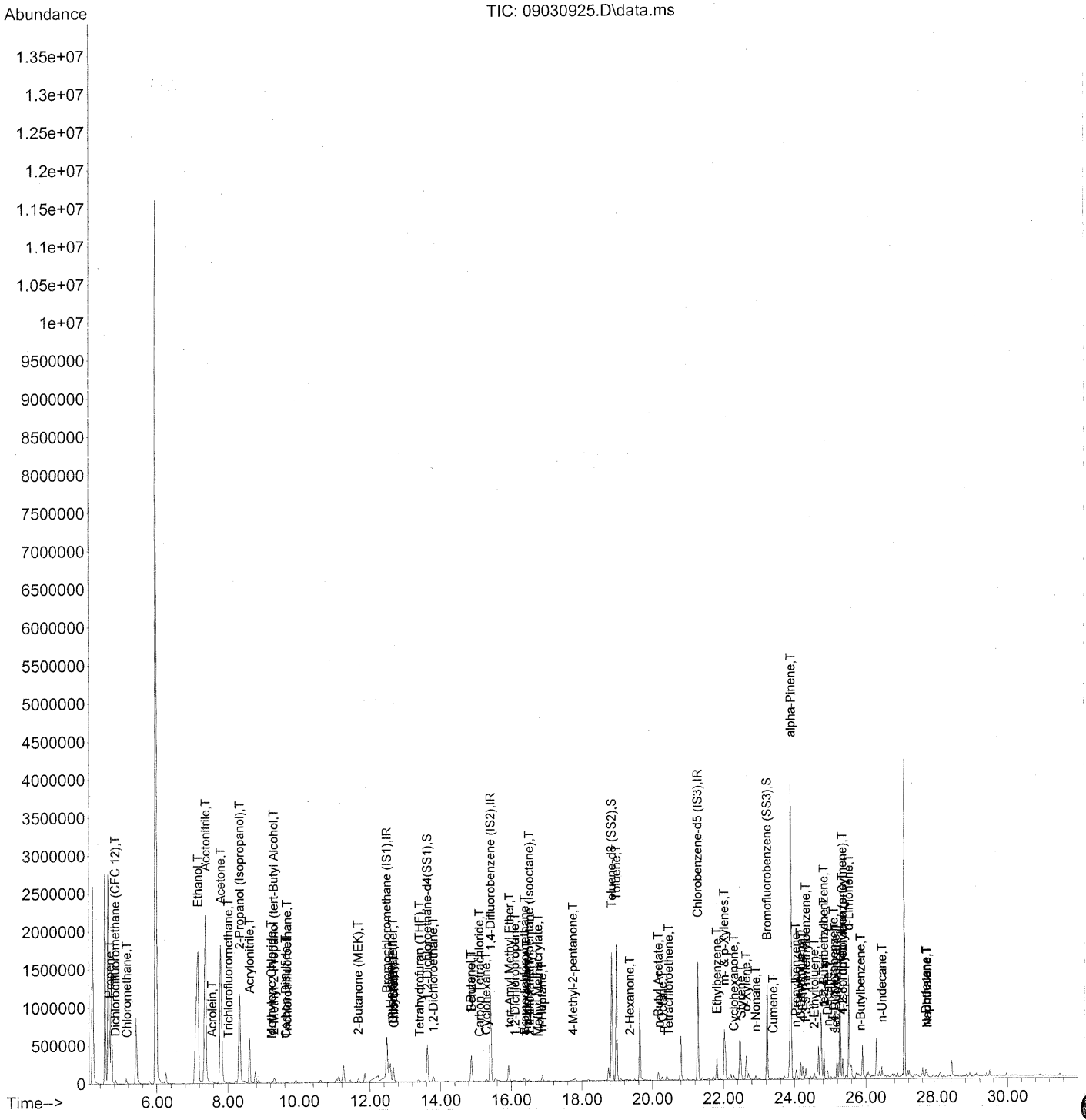
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 9/10/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 12:46:59 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



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um 9/9/09.

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.48	130	263854	25.000	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	15.42	114	1311999	25.000	ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.28	82	638689	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.63	65	501218	23.971	ng		-0.02
Spiked Amount 25.000			Recovery =	95.88%			✓
57) Toluene-d8 (SS2)	18.85	98	1425178	24.968	ng		-0.01
Spiked Amount 25.000			Recovery =	99.88%			✓
73) Bromofluorobenzene (SS3)	23.23	174	410488	24.988	ng		0.00
Spiked Amount 25.000			Recovery =	99.96%			✓
Target Compounds							Qvalue
2) Propene	4.67	42	165299	8.661	ng		94
3) Dichlorodifluoromethan...	4.83	85	32935	0.986	ng		97
4) Chloromethane	5.15	50	14993	0.667	ng		96
5) 1,2-Dichloro-1,1,2,2-t...	5.41	135	293	N.D.			
6) Vinyl Chloride	0.00	62	0	N.D.			
7) 1,3-Butadiene	5.79	54	404	N.D.			
8) Bromomethane	6.35	94	438	N.D.			
9) Chloroethane	0.00	64	0	N.D.			
10) Ethanol	7.17	45	5162281	436.194	ng		100
11) Acetonitrile	7.38	41	4019315	122.270	ng	F see Adl um 9/9/09	100
12) Acrolein	7.56	56	30664	3.393	ng		100
13) Acetone	7.81	58	902772	73.760	ng		86
14) Trichlorofluoromethane	8.02	101	16527	0.561	ng		97
15) 2-Propanol (Isopropanol)	8.34	45	2556286	62.825	ng		100
16) Acrylonitrile	8.62	53	9404	0.465	ng	#	43
17) 1,1-Dichloroethene	0.00	96	0	N.D.			
18) 2-Methyl-2-Propanol (t...	9.30	59	20149	0.495	ng	#	1
19) Methylene Chloride	9.24	84	3690	0.238	ng	CMRL	94
20) 3-Chloro-1-propene (Al...	9.42	41	696	N.D.			
21) Trichlorotrifluoroethane	9.67	151	2692	0.231	ng		99
22) Carbon Disulfide	9.63	76	21591	0.391	ng		97
23) trans-1,2-Dichloroethene	10.60	61	87	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D.			
25) Methyl tert-Butyl Ether	11.20	73	106	N.D.			
26) Vinyl Acetate	0.00	86	0	N.D. d			
27) 2-Butanone (MEK)	11.67	72	22189	2.244	ng		94
28) cis-1,2-Dichloroethene	12.23	61	655	N.D.			
29) Diisopropyl Ether	12.66	87	924	0.064	ng	#	1
30) Ethyl Acetate	12.66	61	44736	8.421	ng		100
31) n-Hexane	12.58	57	149492	5.649	ng		98

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Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.68	83	3586	0.137	ng		98
34) Tetrahydrofuran (THF)	13.40	72	6195	0.578	ng	#	19
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	13.80	62	8490	0.388	ng		98
38) 1,1,1-Trichloroethane	14.17	97	110	N.D.			
39) Isopropyl Acetate	14.82	61	206	N.D.			
40) 1-Butanol	14.86	56	61231	3.749	ng	#	33
41) Benzene	14.87	78	363976	5.901	ng		100
42) Carbon Tetrachloride	15.10	117	5695	0.275	ng		94
43) Cyclohexane	15.29	84	15274	0.672	ng		100
44) tert-Amyl Methyl Ether	15.95	73	2926	0.064	ng	#	46
45) 1,2-Dichloropropane	16.11	63	2593	0.170	ng		89
46) Bromodichloromethane	16.39	83	1121	0.055	ng	#	18
47) Trichloroethene	16.44	130	3940	0.262	ng		92
48) 1,4-Dioxane	16.52	88	679	0.057	ng	#	41
49) 2,2,4-Trimethylpentane...	16.52	57	11548	0.165	ng	#	44
50) Methyl Methacrylate	16.76	100	339	0.059	ng	#	1
51) n-Heptane	16.88	71	22474	1.406	ng		96
52) cis-1,3-Dichloropropene	17.65	75	1165	N.D.			
53) 4-Methyl-2-pentanone	17.75	58	7479	0.531	ng		95
54) trans-1,3-Dichloropropene	18.34	75	102	N.D.			
55) 1,1,2-Trichloroethane	0.00	97	0	N.D. d			
58) Toluene	18.98	91	1665525	27.092	ng		100
59) 2-Hexanone	19.36	43	14169	0.377	ng	MRL	96
60) Dibromochloromethane	0.00	129	0	N.D.			
61) 1,2-Dibromoethane	0.00	107	0	N.D.			
62) n-Butyl Acetate	20.16	43	101165	2.347	ng		96
63) n-Octane	20.28	57	9624	0.680	ng		97
64) Tetrachloroethene	20.46	166	1147	0.074	ng		99
65) Chlorobenzene	21.34	112	106	N.D.			
66) Ethylbenzene	21.82	91	258798	3.681	ng		99
67) m- & p-Xylenes	22.03	91	684324	12.225	ng		100
68) Bromoform	0.00	173	0	N.D.			
69) Styrene	22.50	104	106854	2.592	ng		92
70) o-Xylene	22.65	91	229367	4.079	ng		100
71) n-Nonane	22.91	43	22656	0.671	ng		92
72) 1,1,2,2-Tetrachloroethane	22.64	83	88	N.D.			
74) Cumene	23.40	105	15812	0.222	ng		98
75) alpha-Pinene	23.90	93	1887594	51.063	ng		87
76) n-Propylbenzene	24.04	91	63402	0.700	ng		86
77) 3-Ethyltoluene	24.17	105	148386	2.177	ng		100
78) 4-Ethyltoluene	24.22	105	77130	1.146	ng		99
79) 1,3,5-Trimethylbenzene	24.31	105	55140	0.985	ng		100

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Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
80) alpha-Methylstyrene	24.50	118	1437	N.D.		
81) 2-Ethyltoluene	24.55	105	48982	0.700 ng		99
82) 1,2,4-Trimethylbenzene	24.82	105	210345	3.679 ng		90
83) n-Decane	24.93	57	41947	1.229 ng		88
84) Benzyl Chloride	0.00	91	0	N.D. d		
85) 1,3-Dichlorobenzene	0.00	146	0	N.D. d		
86) 1,4-Dichlorobenzene	25.10	146	5062	0.157 ng		99
87) sec-Butylbenzene	25.15	105	4821	0.062 ng	#	79
88) 4-Isopropyltoluene (p-...	25.35	119	102305	1.454 ng		99
89) 1,2,3-Trimethylbenzene	25.35	105	48036	0.802 ng		87
90) 1,2-Dichlorobenzene	25.52	146	99	N.D.		
91) d-Limonene	25.53	68	352330	15.439 ng		93
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.46	57	48033	1.356 ng		82
94) 1,2,4-Trichlorobenzene	0.00	180	0	N.D.		
95) Naphthalene	27.72	128	47480	0.601 ng		100
96) n-Dodecane	27.69	57	33797	0.837 ng		97
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.30	55	33830	1.427 ng		95
99) tert-Butylbenzene	24.82	119	24436	0.441 ng	#	56
100) n-Butylbenzene	25.85	91	15606	0.245 ng	#	48

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

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Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
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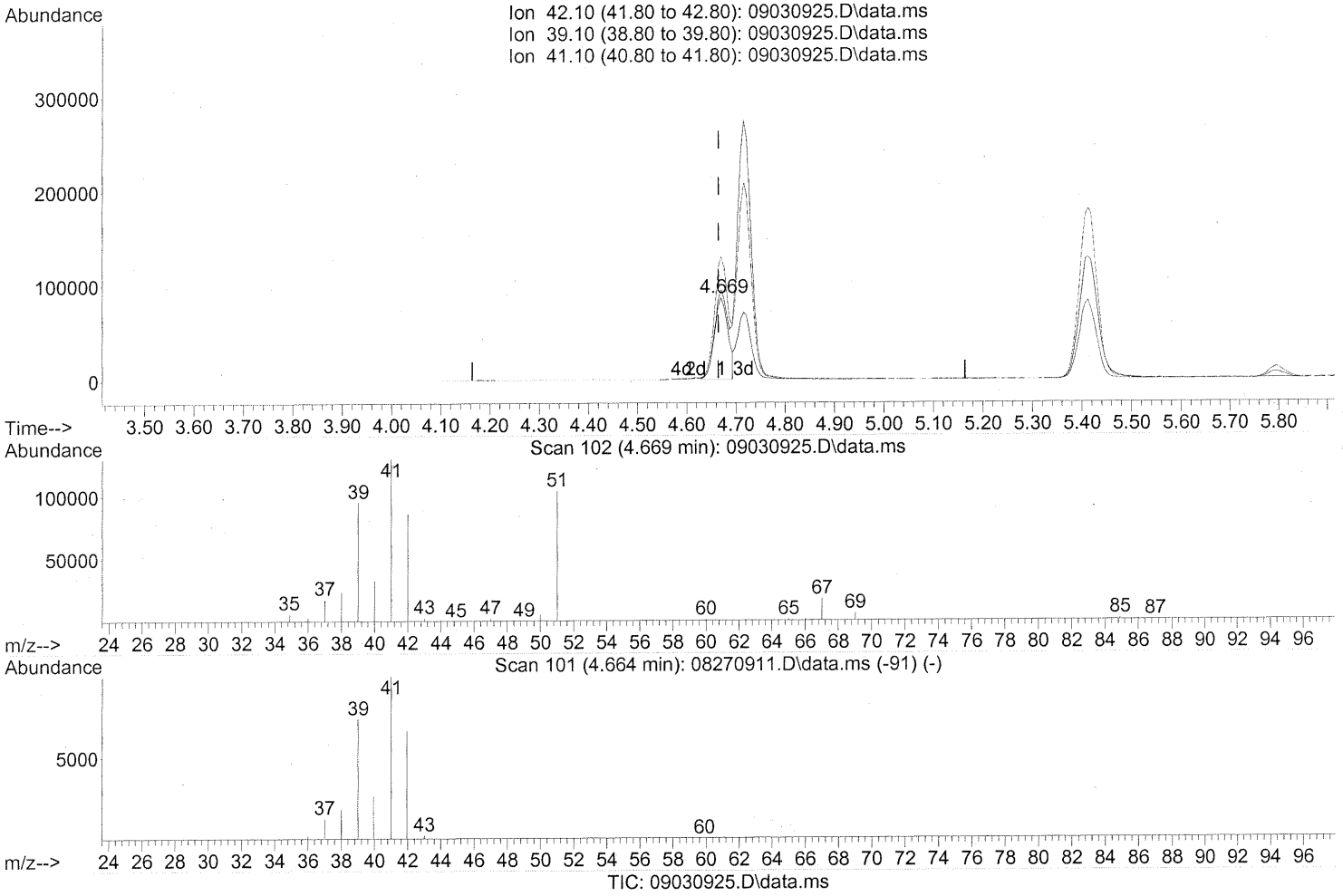

(2) Propene (T)

4.669min (+0.006) 8.66ng

response 165299

Ion	Exp%	Act%
42.10	100	100
39.10	109.70	105.70
41.10	149.80	158.82
0.00	0.00	0.00

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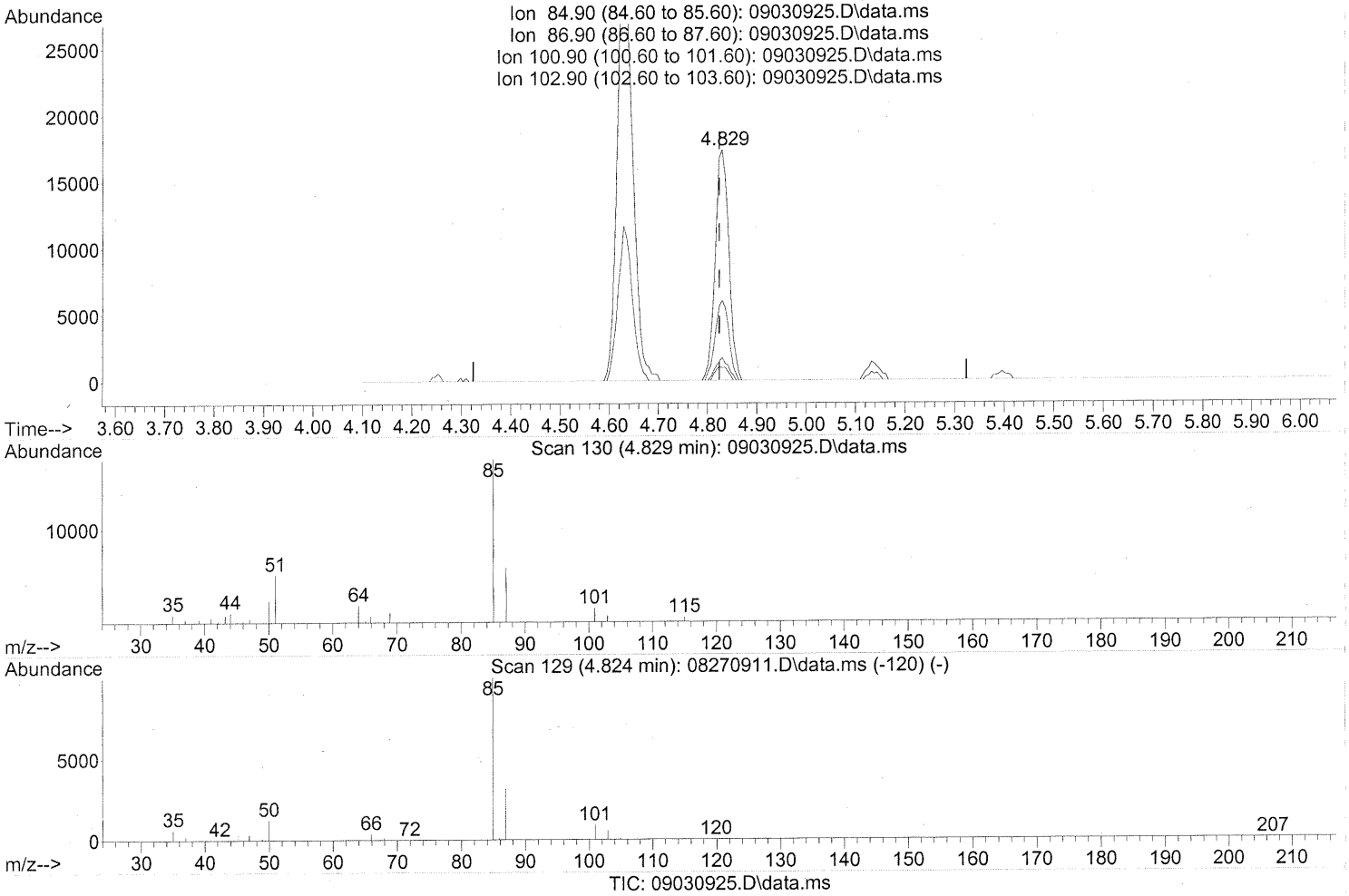

TIC: 09030925.D\data.ms

(3) Dichlorodifluoromethane (CFC 12) (T)

4.829min (+0.006) 0.99ng

response 32935

Ion	Exp%	Act%
84.90	100	100
86.90	32.00	34.67
100.90	8.80	8.87
102.90	5.60	5.36

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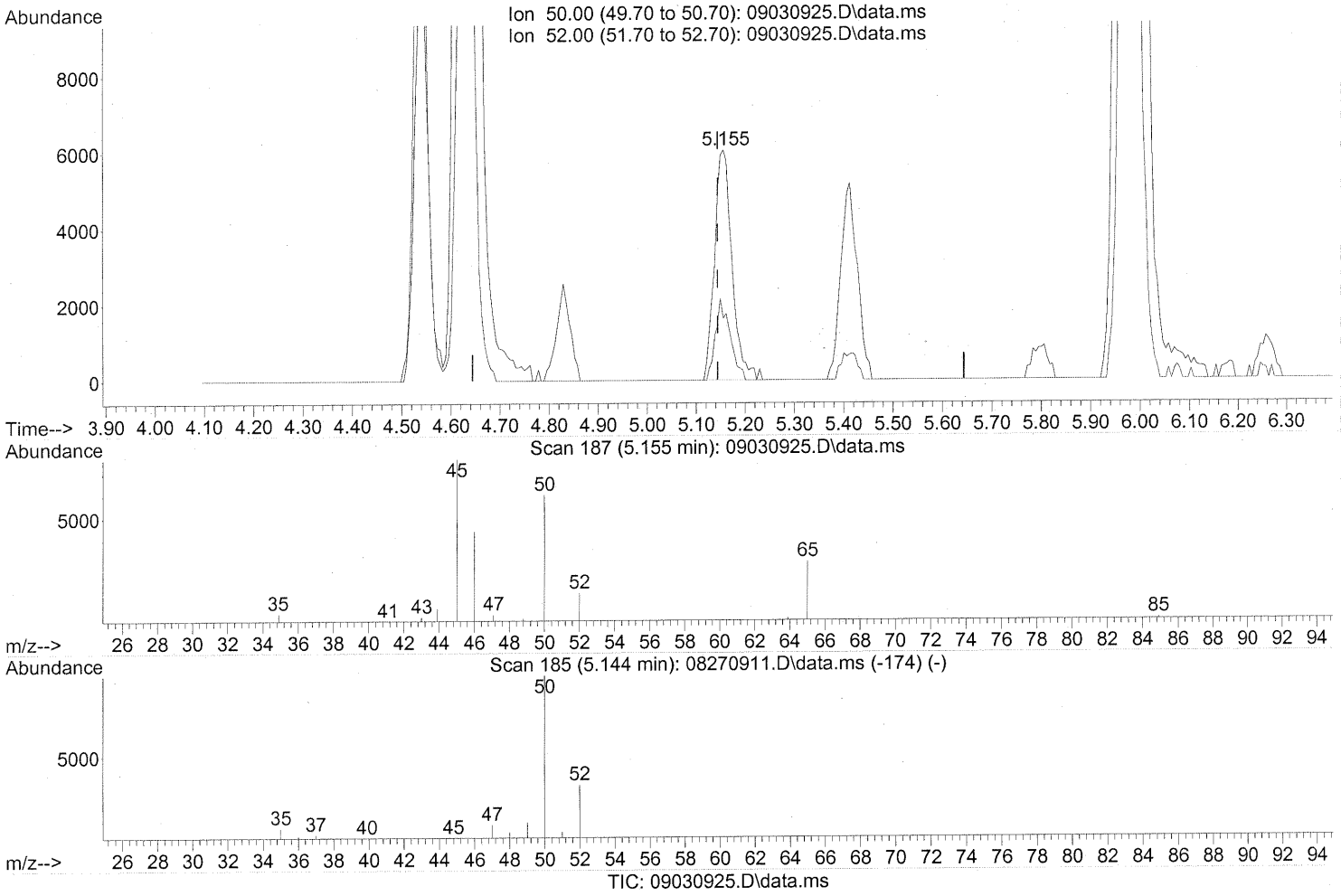

(4) Chloromethane (T)

5.155min (+0.011) 0.67ng

response 14993

Ion	Exp%	Act%
50.00	100	100
52.00	31.60	29.44
0.00	0.00	0.00
0.00	0.00	0.00

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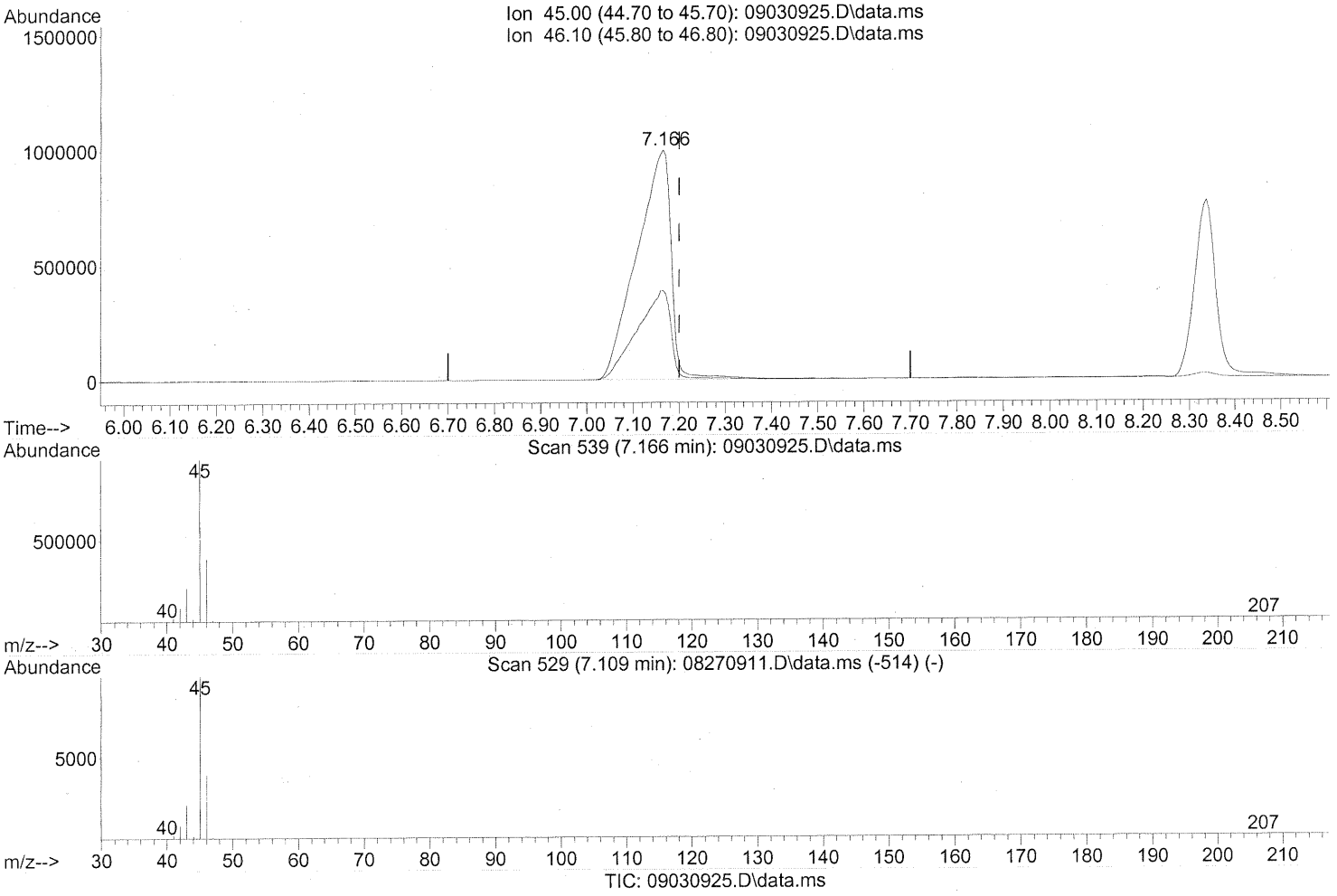

(10) Ethanol (T)

7.166min (-0.034) 436.19ng

response 5162281

Ion	Exp%	Act%
45.00	100	100
46.10	38.20	38.42
0.00	0.00	0.00
0.00	0.00	0.00

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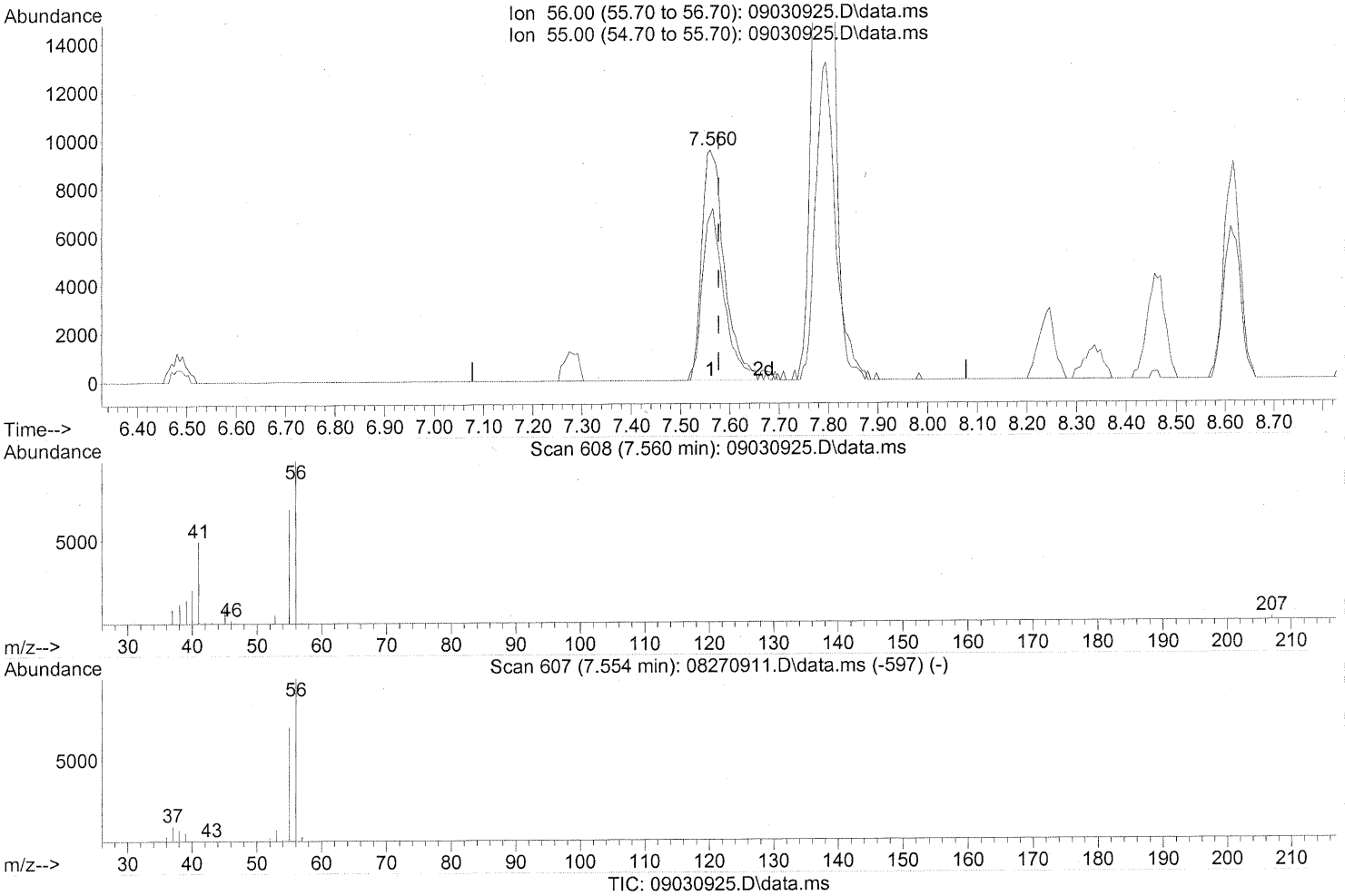

TIC: 09030925.D\data.ms

(12) Acrolein (T)

7.560min (-0.017) 3.39ng

response 30664

Ion	Exp%	Act%
56.00	100	100
55.00	71.10	70.81
0.00	0.00	0.00
0.00	0.00	0.00

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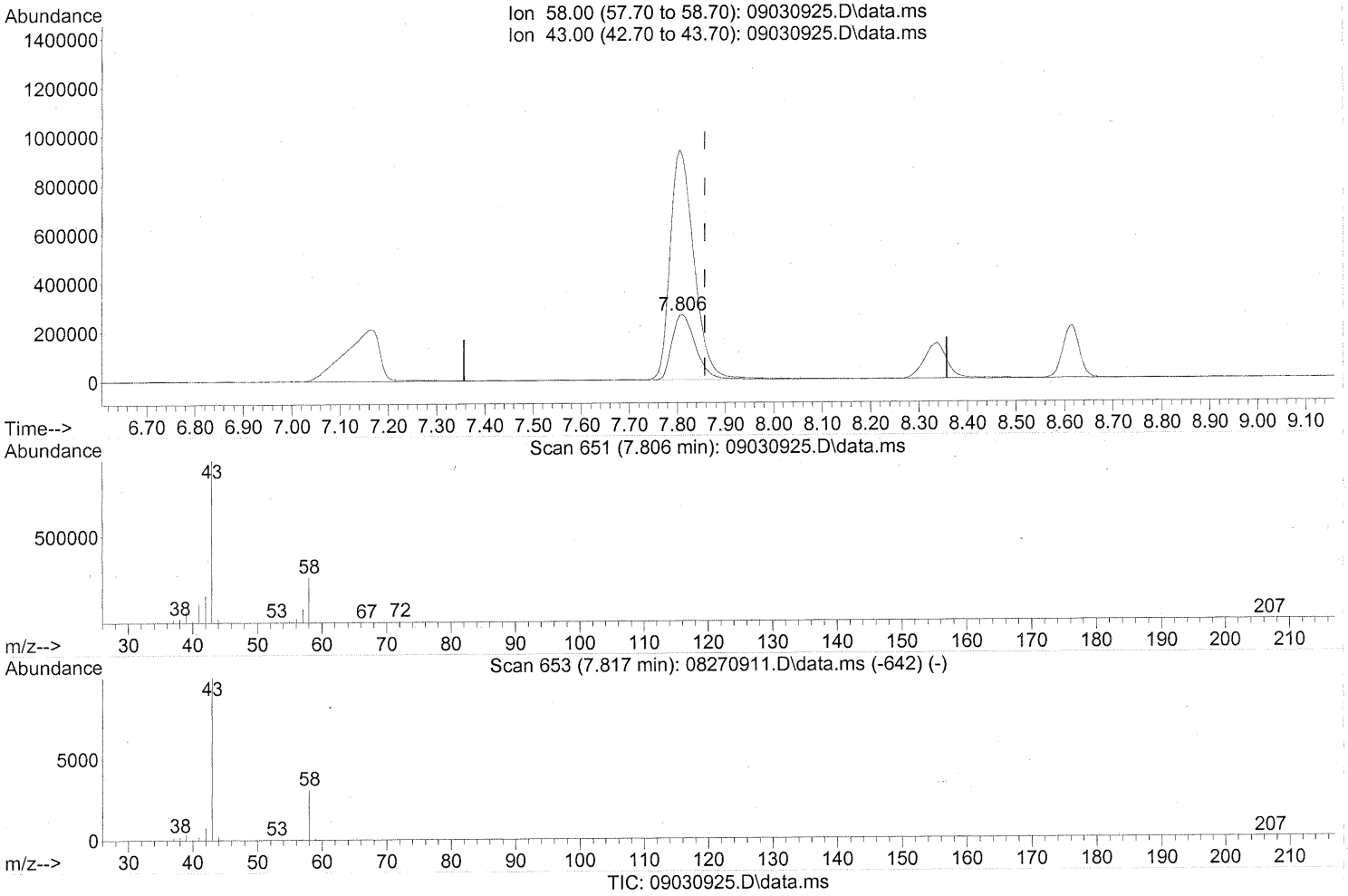

TIC: 09030925.D\data.ms

(13) Acetone (T)

7.806min (-0.051) 73.76ng

response 902772

Ion	Exp%	Act%
58.00	100	100
43.00	331.30	360.06
0.00	0.00	0.00
0.00	0.00	0.00

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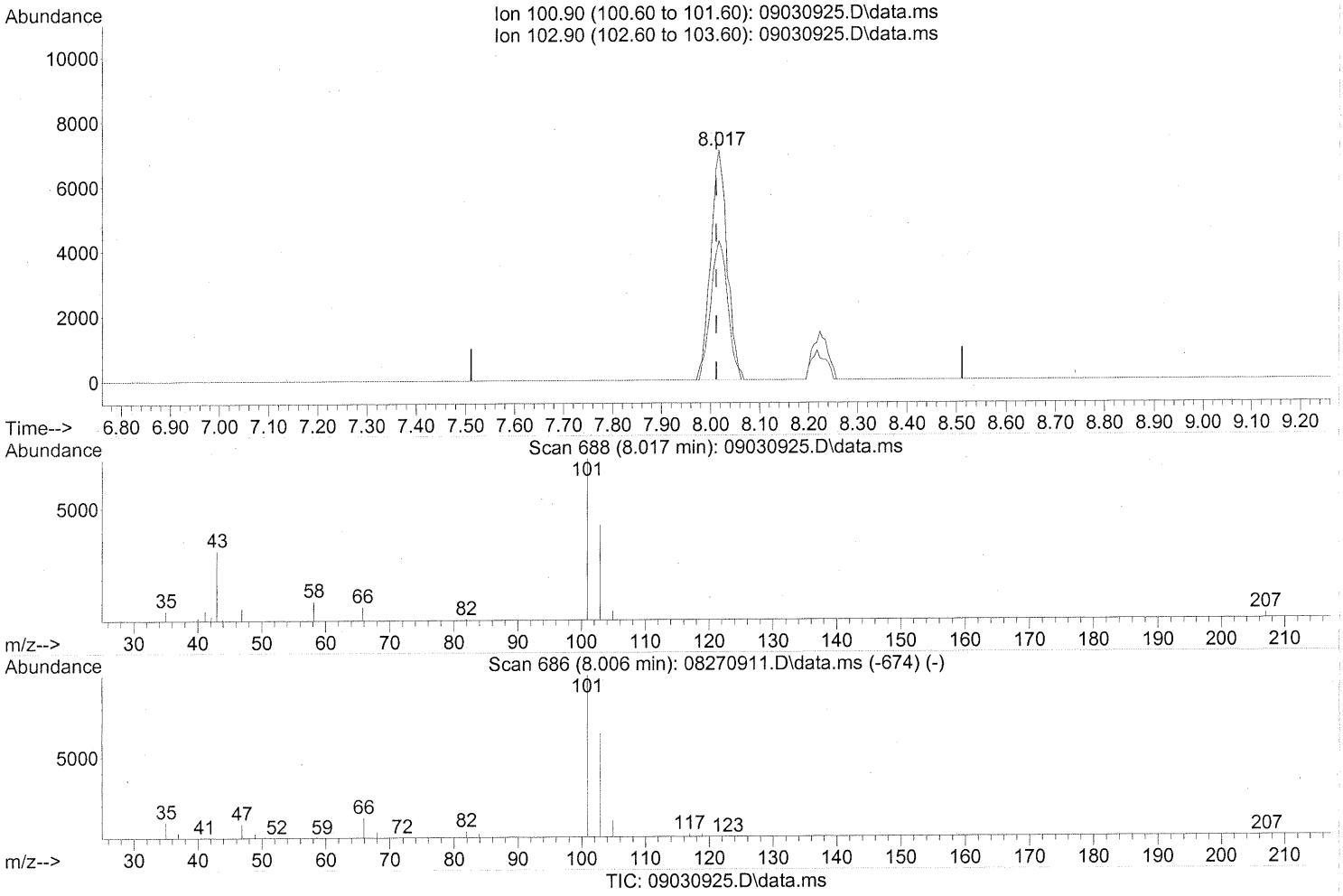

TIC: 09030925.D\data.ms

(14) Trichlorofluoromethane (T)

8.017min (+0.006) 0.56ng

response 16527

Ion	Exp%	Act%
100.90	100	100
102.90	66.10	63.33
0.00	0.00	0.00
0.00	0.00	0.00

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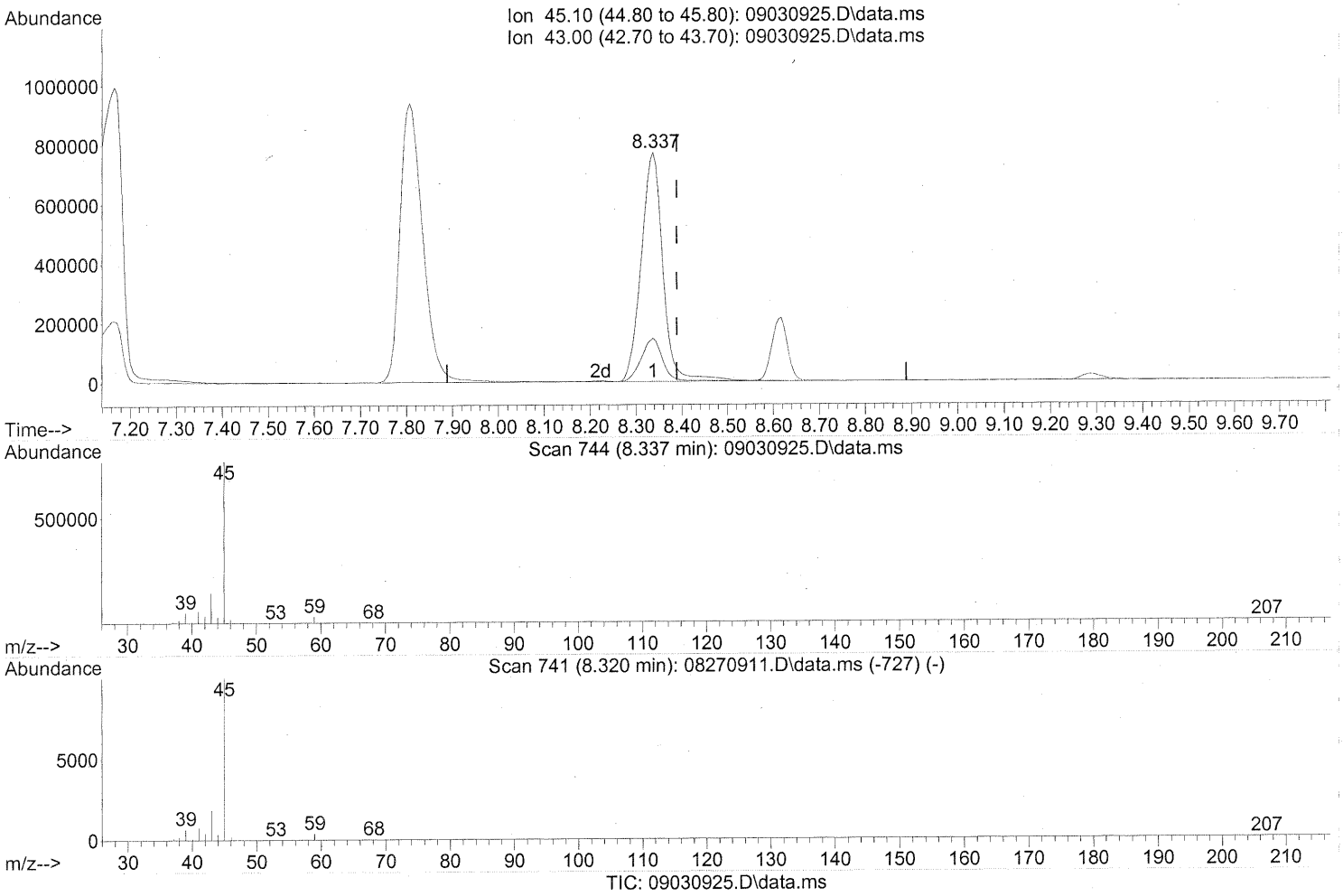

(15) 2-Propanol (Isopropanol) (T)

8.337min (-0.051) 62.83ng

response 2556286

Ion	Exp%	Act%
45.10	100	100
43.00	18.70	18.52
0.00	0.00	0.00
0.00	0.00	0.00

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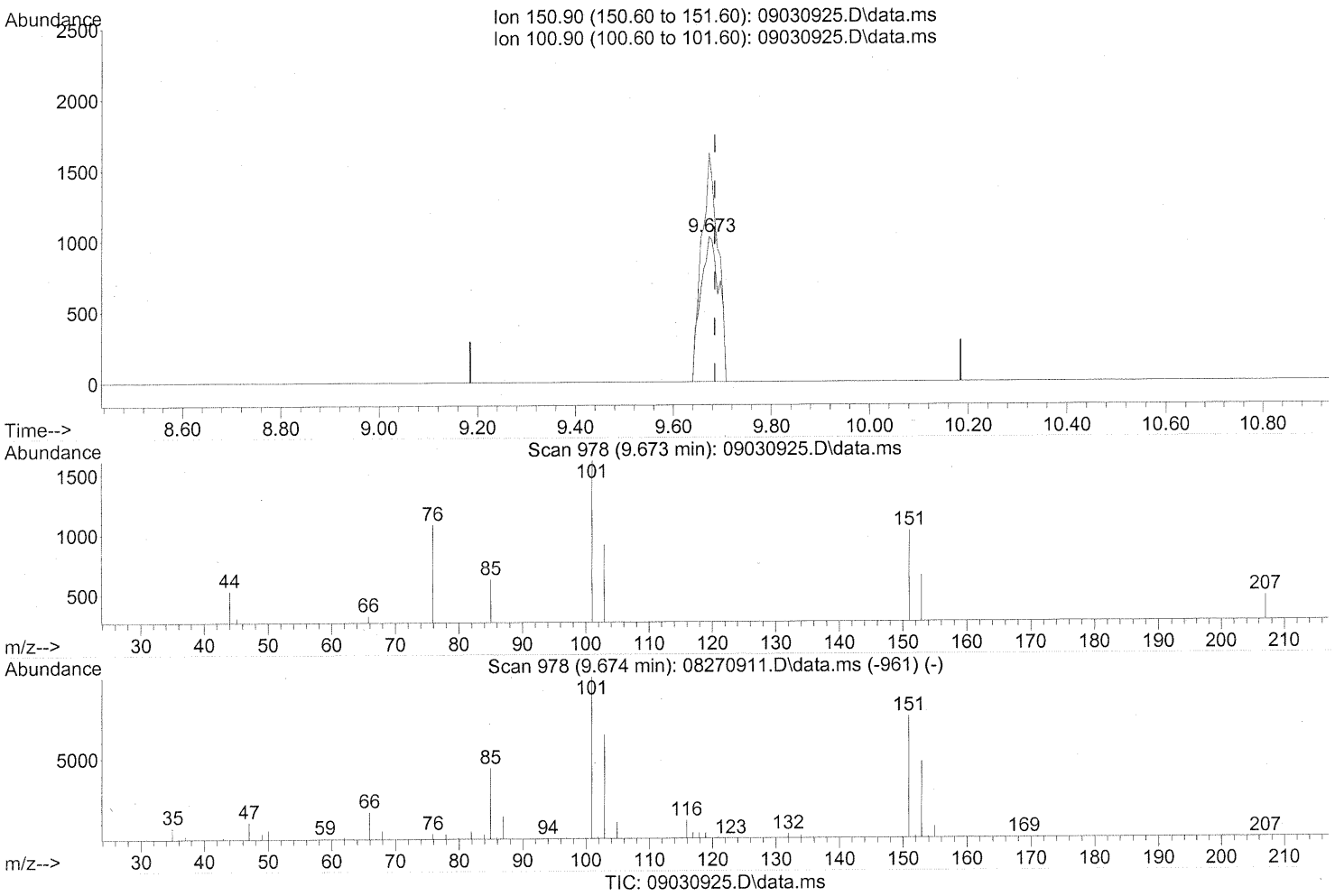

(21) Trichlorotrifluoroethane (T)

9.673min (-0.011) 0.23ng

response 2692

Ion	Exp%	Act%
150.90	100	100
100.90	138.30	136.96
0.00	0.00	0.00
0.00	0.00	0.00

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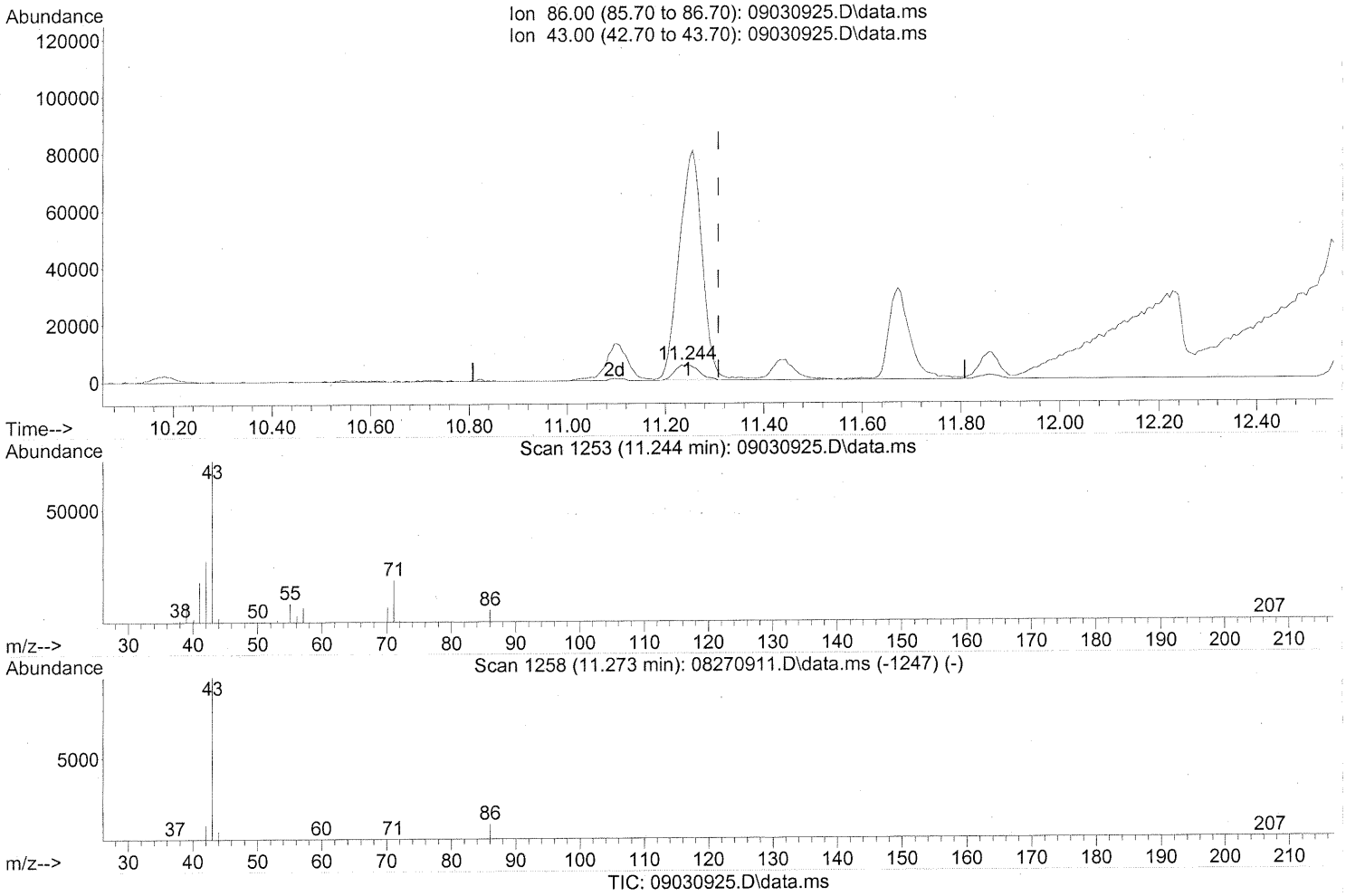

(26) Vinyl Acetate (T)

11.244min (-0.063) 5.85ng

response 17944

Ion	Exp%	Act%
86.00	100	100
43.00	1118.60	1448.70#
0.00	0.00	0.00
0.00	0.00	0.00

FP
LM 9/9/09

E 9/10/09

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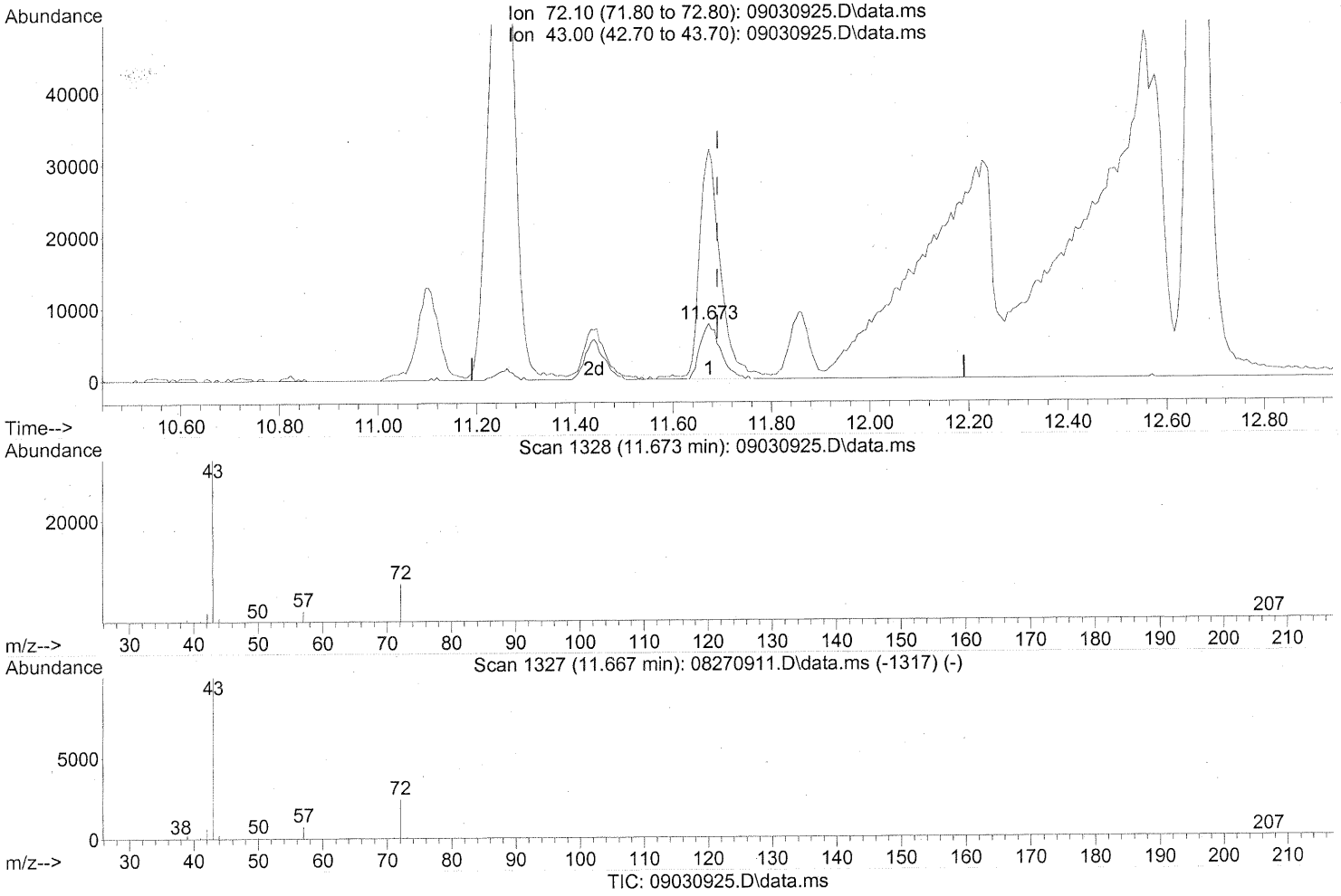
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



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

11.673min (-0.017) 2.24ng

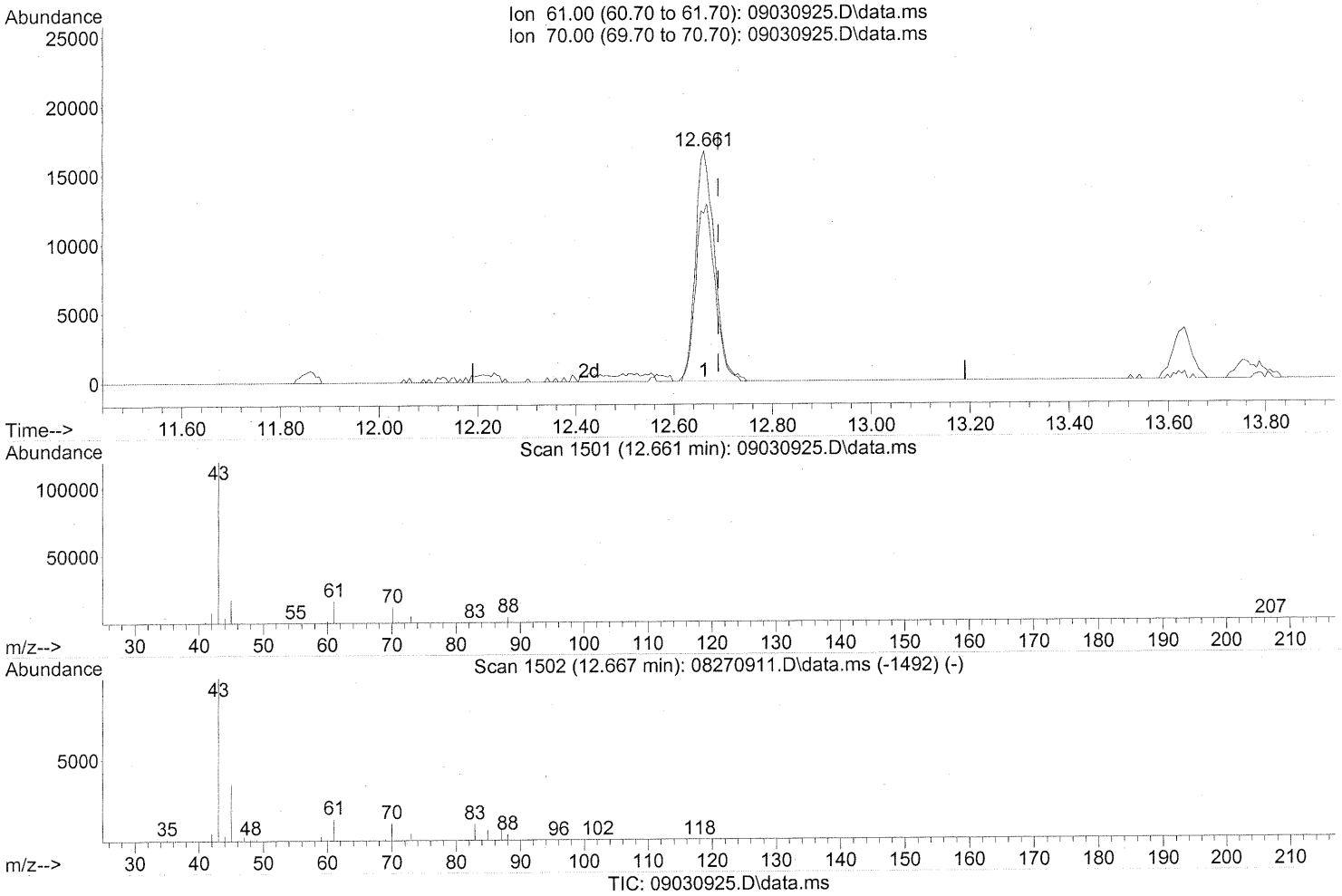
response 22189

Ion	Exp%	Act%
72.10	100	100
43.00	424.60	410.69
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030925.D\data.ms

(30) Ethyl Acetate (T)

12.661min (-0.029) 8.42ng

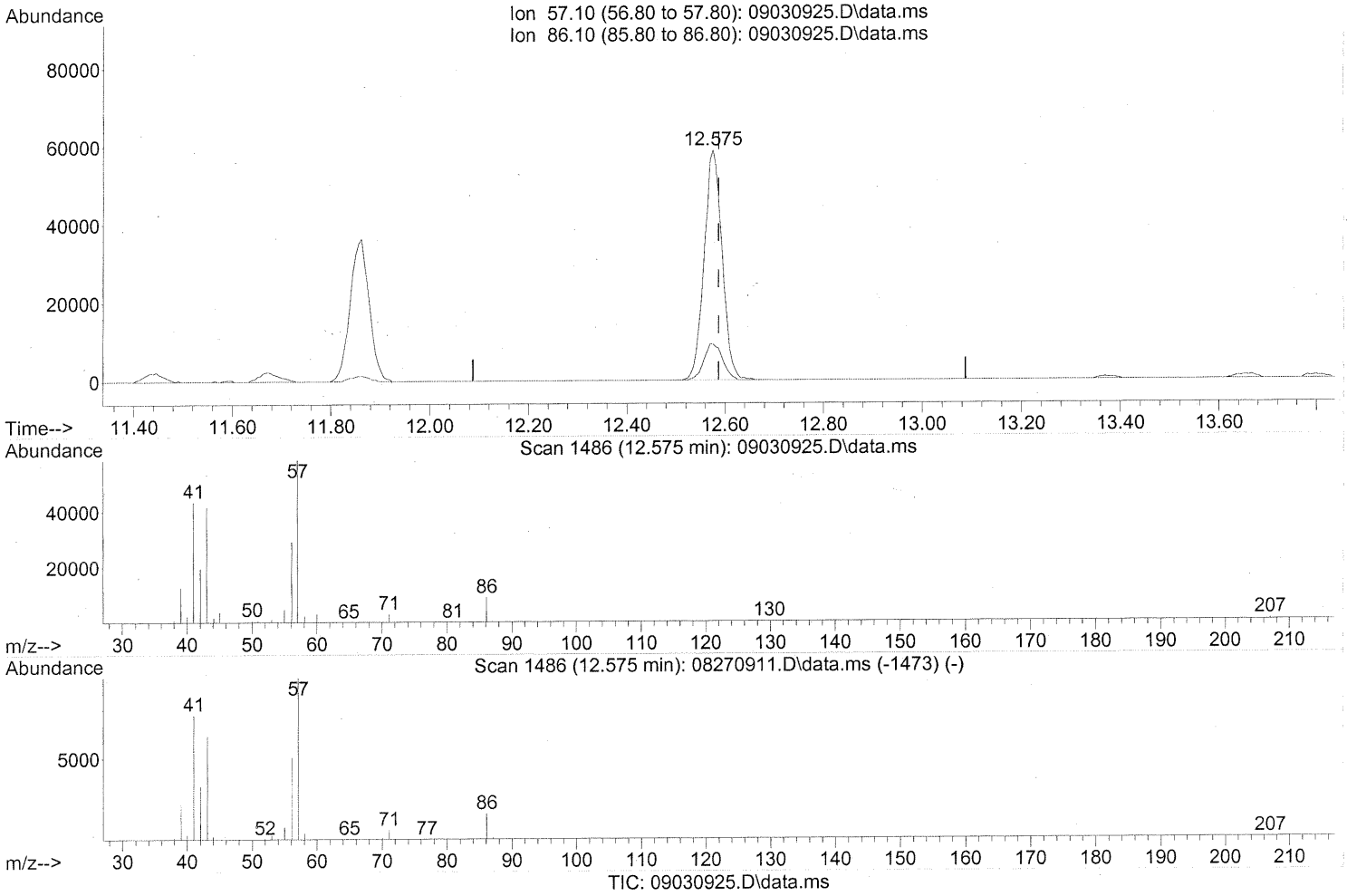
response 44736

Ion	Exp%	Act%
61.00	100	100
70.00	78.70	78.52
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030925.D\data.ms

(31) n-Hexane (T)

12.575min (-0.011) 5.65ng

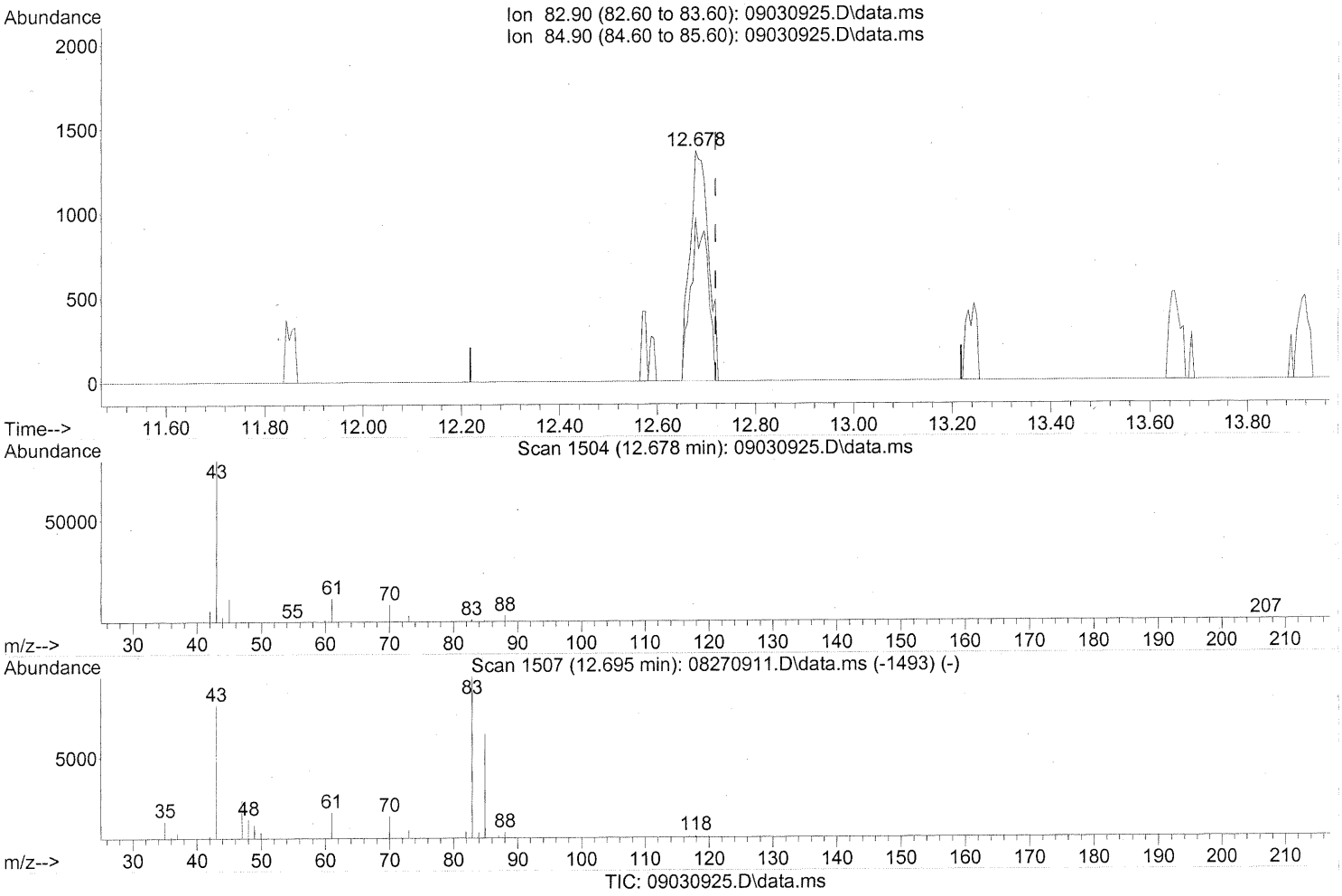
response 149492

Ion	Exp%	Act%
57.10	100	100
86.10	15.40	16.42
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(32) Chloroform (T)

12.678min (-0.040) 0.14ng

response 3586

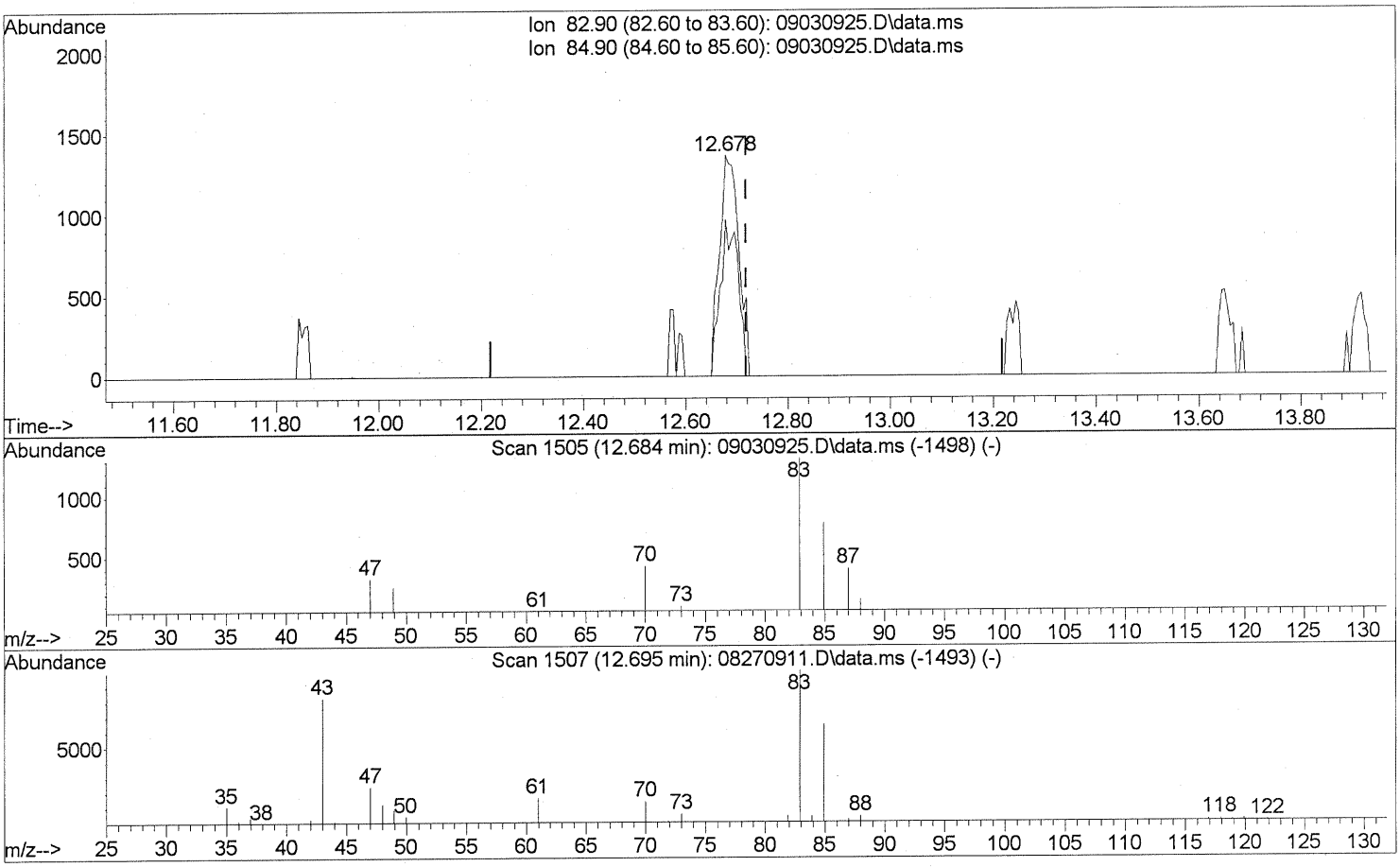
Ion	Exp%	Act%
82.90	100	100
84.90	62.60	64.53
0.00	0.00	0.00
0.00	0.00	0.00

Before

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 09 12:46:59 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030925.D\data.ms

(32) Chloroform (T)

12.678min (-0.040) 0.14ng

response 3586

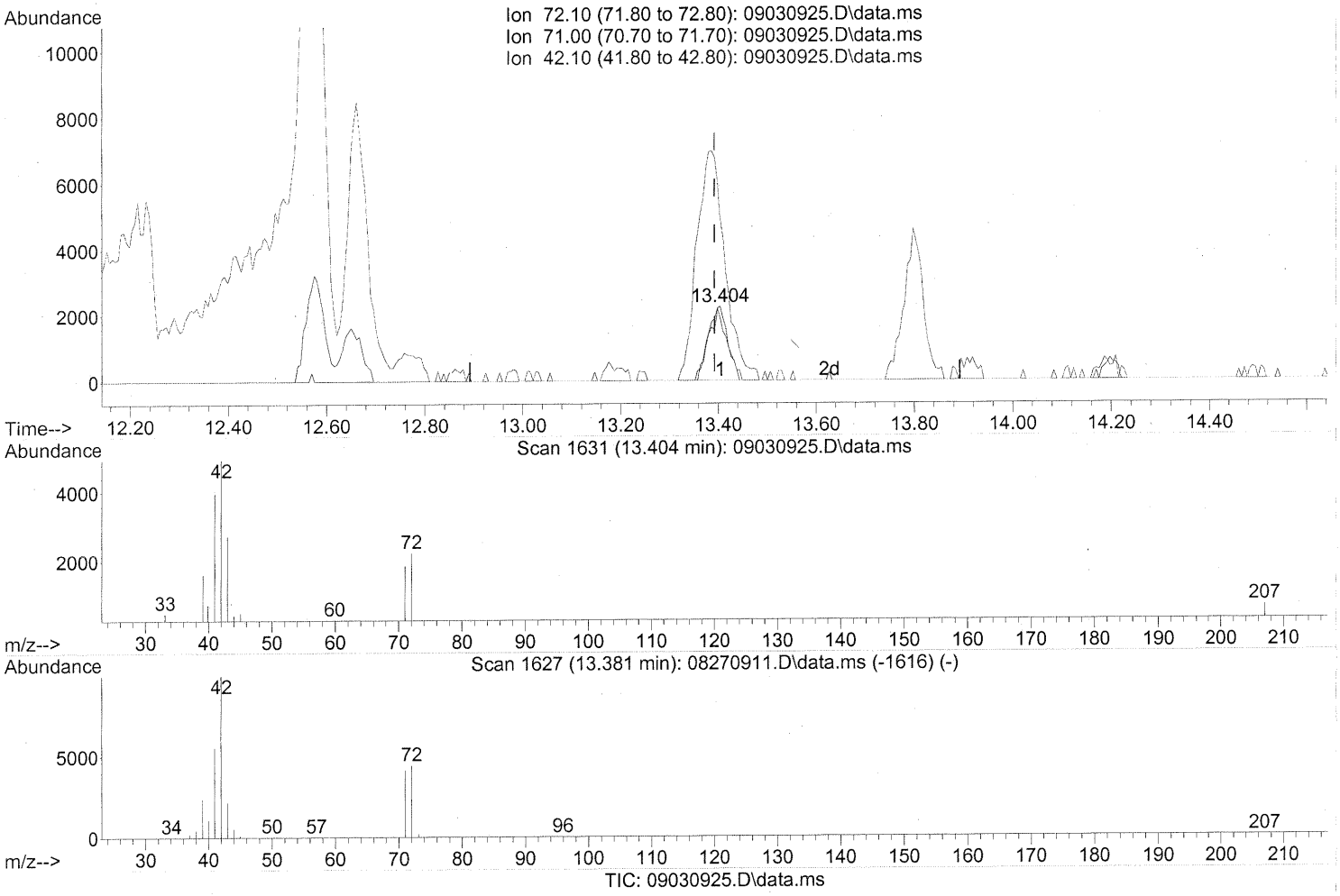
Ion	Exp%	Act%
82.90	100	100
84.90	62.60	64.53
0.00	0.00	0.00
0.00	0.00	0.00

After Subtraction

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030925.D\data.ms

(34) Tetrahydrofuran (THF) (T)

13.404min (+0.012) 0.58ng

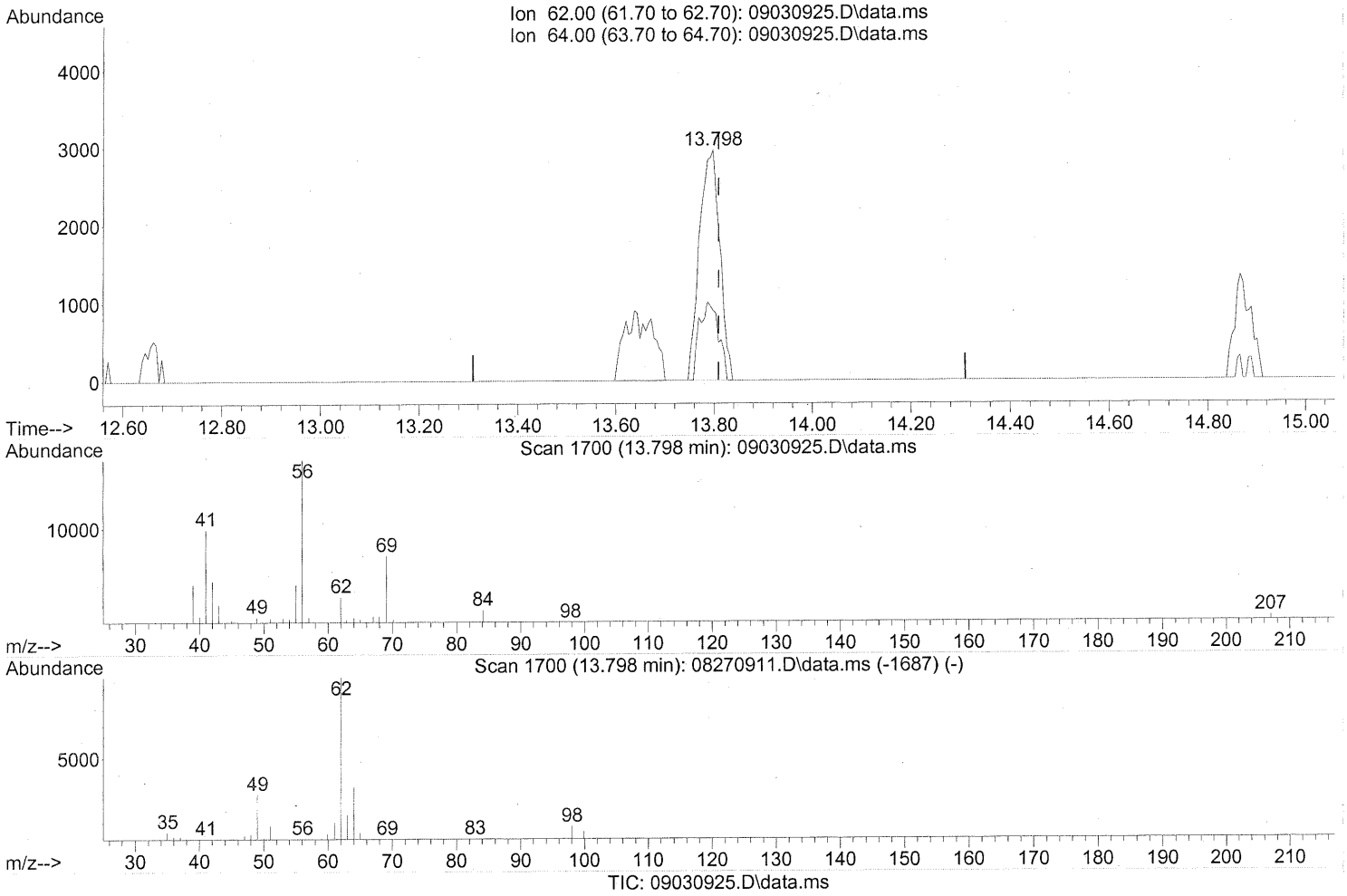
response 6195

Ion	Exp%	Act%
72.10	100	100
71.00	92.50	90.96
42.10	254.10	448.70#
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030925.D\data.ms

(36) 1,2-Dichloroethane (T)

13.798min (-0.011) 0.39ng

response 8490

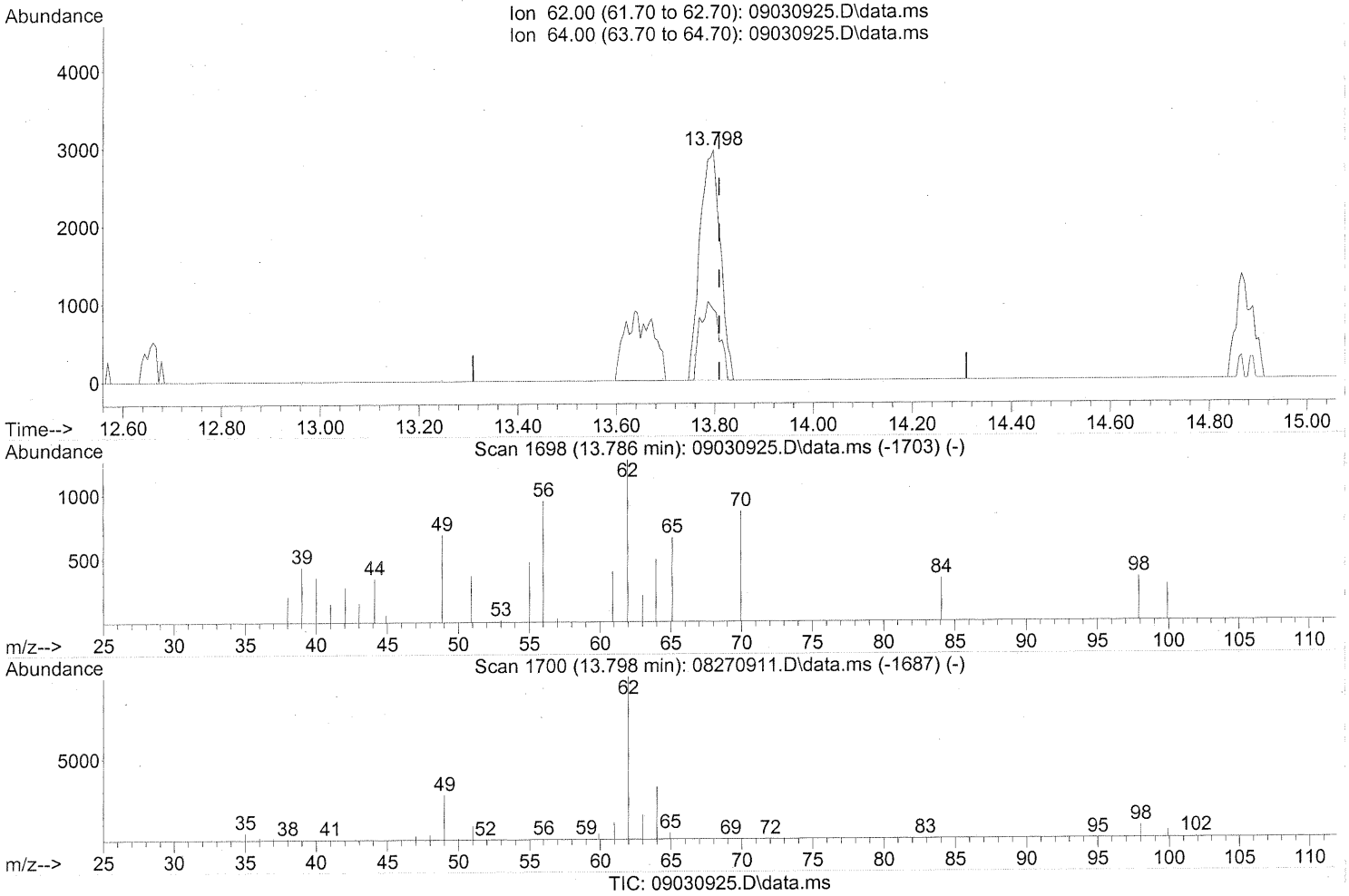
Ion	Exp%	Act%
62.00	100	100
64.00	33.10	31.86
0.00	0.00	0.00
0.00	0.00	0.00

bejan subtr.

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030925.D\data.ms

(36) 1,2-Dichloroethane (T)

13.798min (-0.011) 0.39ng

response 8490

Ion	Exp%	Act%
62.00	100	100
64.00	33.10	31.86
0.00	0.00	0.00
0.00	0.00	0.00

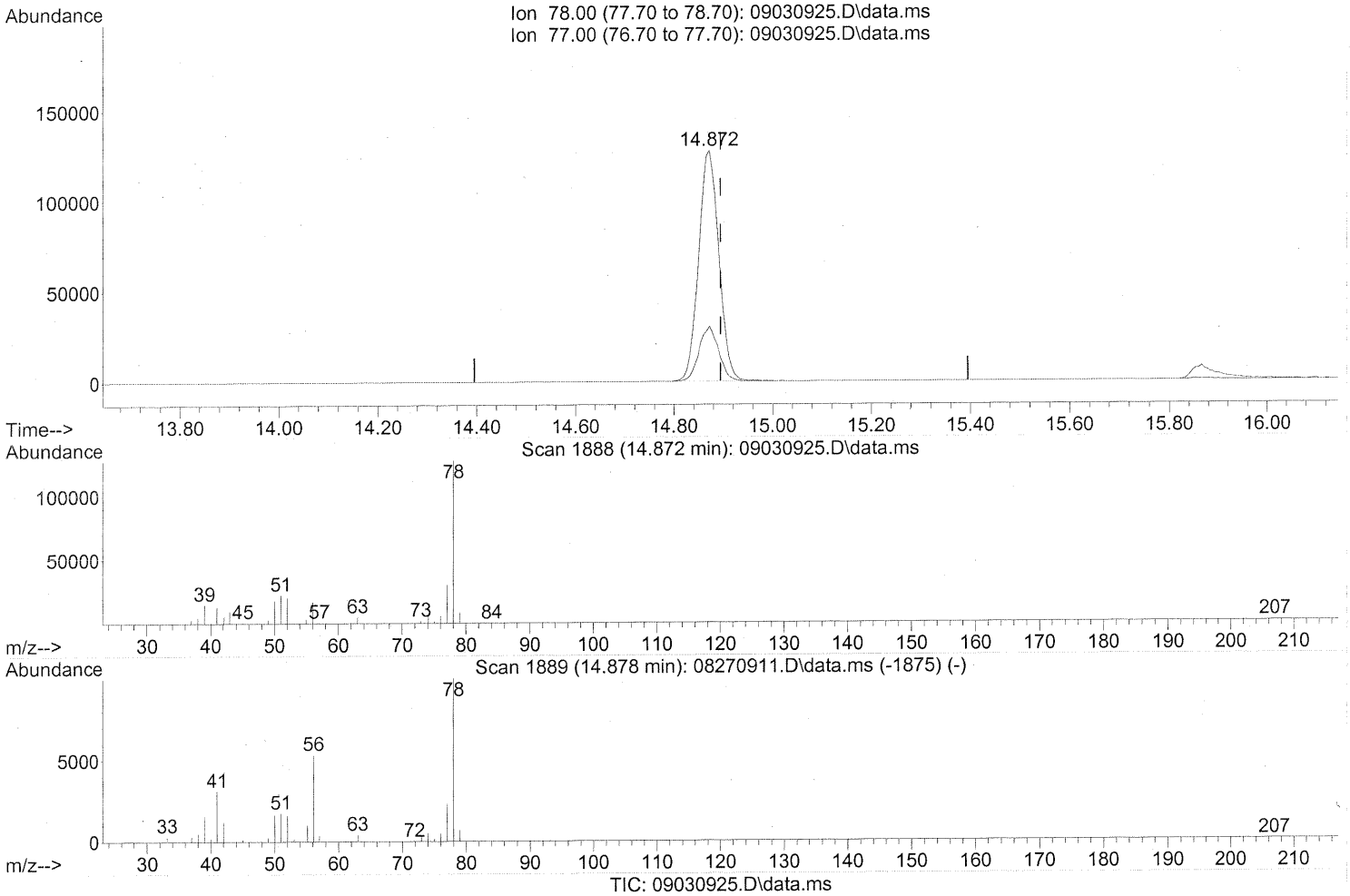
After subtr.

84

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(41) Benzene (T)

14.872min (-0.023) 5.90ng

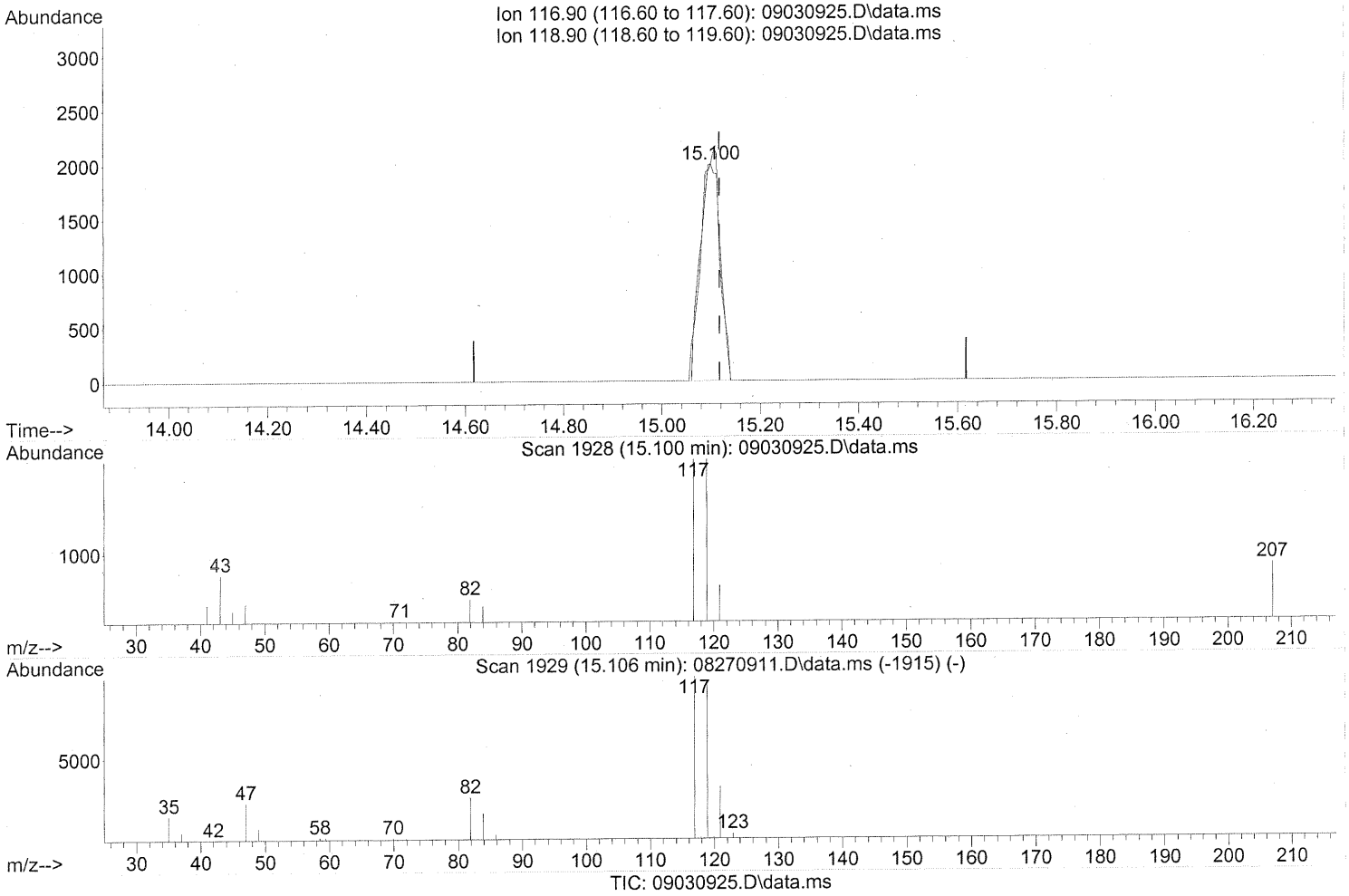
response 363976

Ion	Exp%	Act%
78.00	100	100
77.00	23.20	23.05
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(42) Carbon Tetrachloride (T)

15.100min (-0.017) 0.28ng

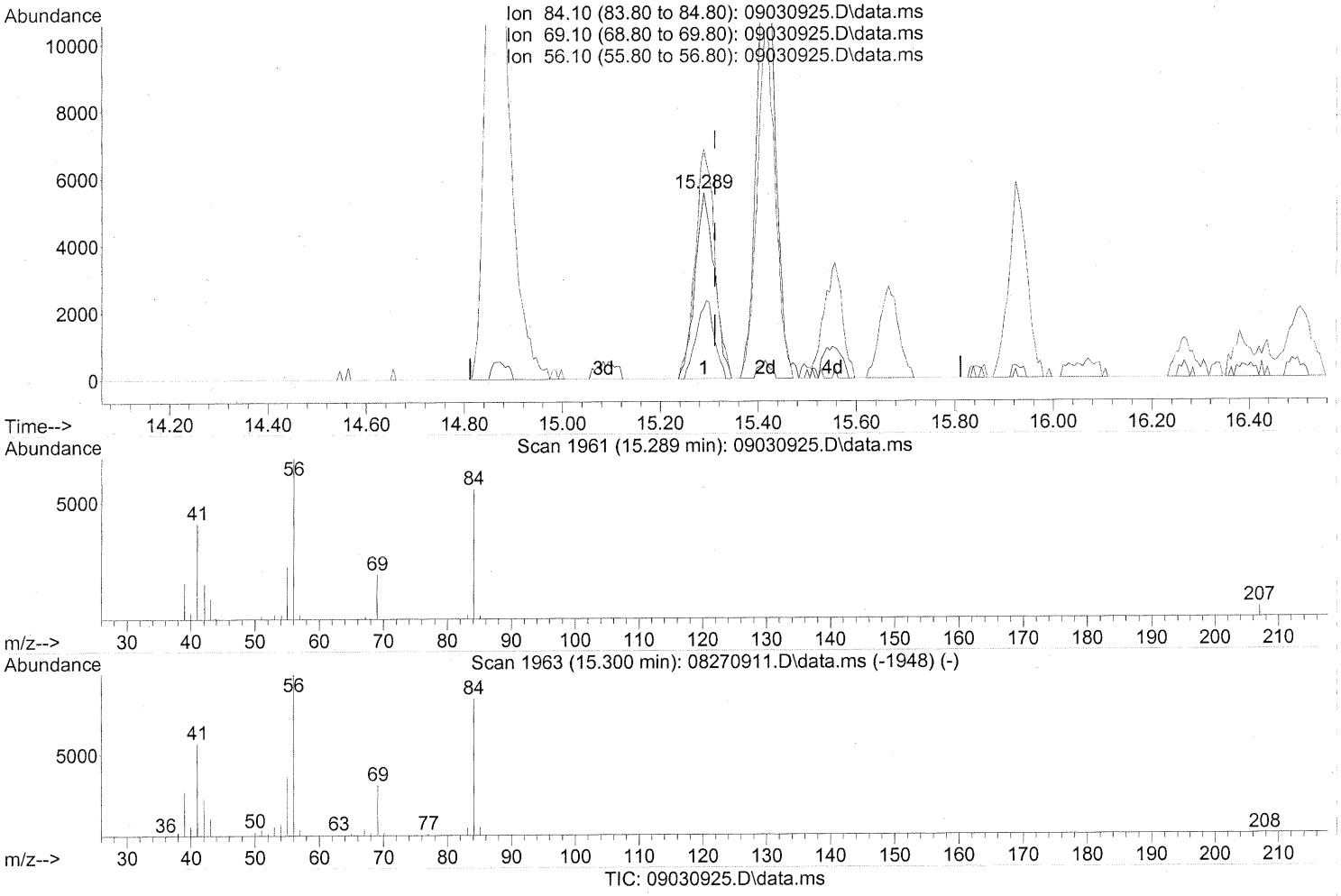
response 5695

Ion	Exp%	Act%
116.90	100	100
118.90	96.20	101.60
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(43) Cyclohexane (T)

15.289min (-0.023) 0.67ng

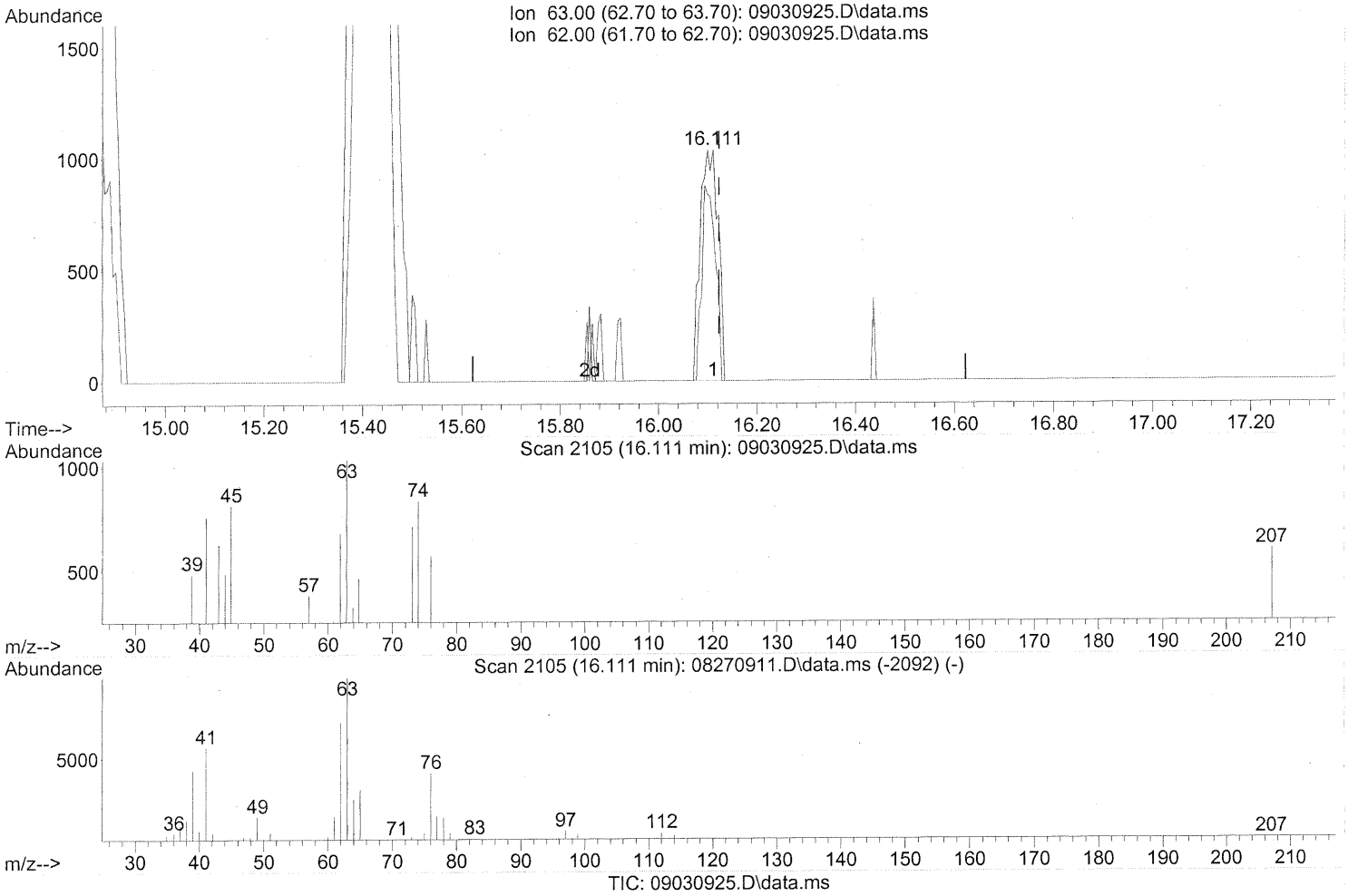
response 15274

Ion	Exp%	Act%
84.10	100	100
69.10	38.90	38.80
56.10	124.50	124.14
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030925.D\data.ms

(45) 1,2-Dichloropropane (T)

16.111min (-0.012) 0.17ng

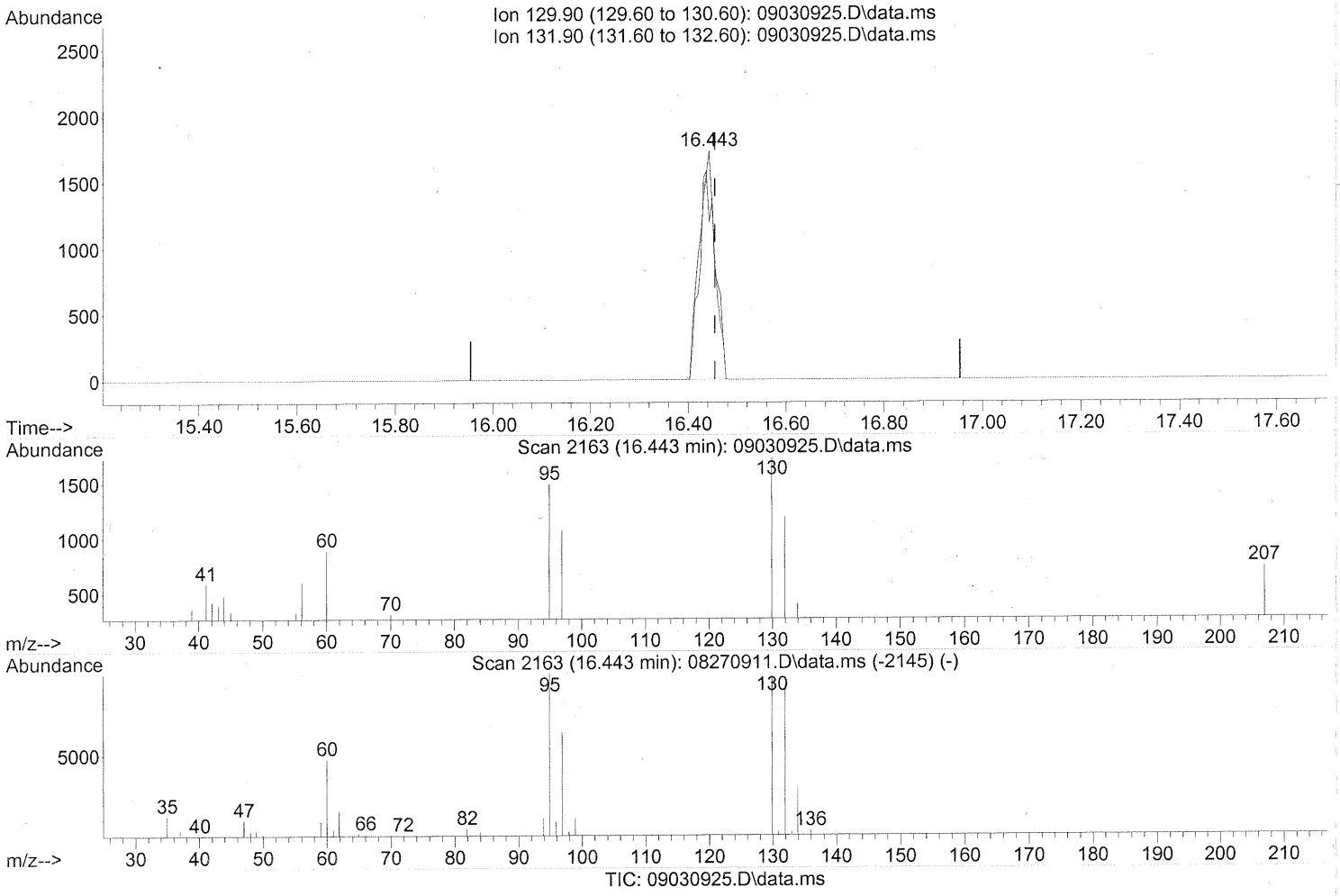
response 2593

Ion	Exp%	Act%
63.00	100	100
62.00	72.90	63.79
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030925.D\data.ms

(47) Trichloroethene (T)

16.443min (-0.012) 0.26ng

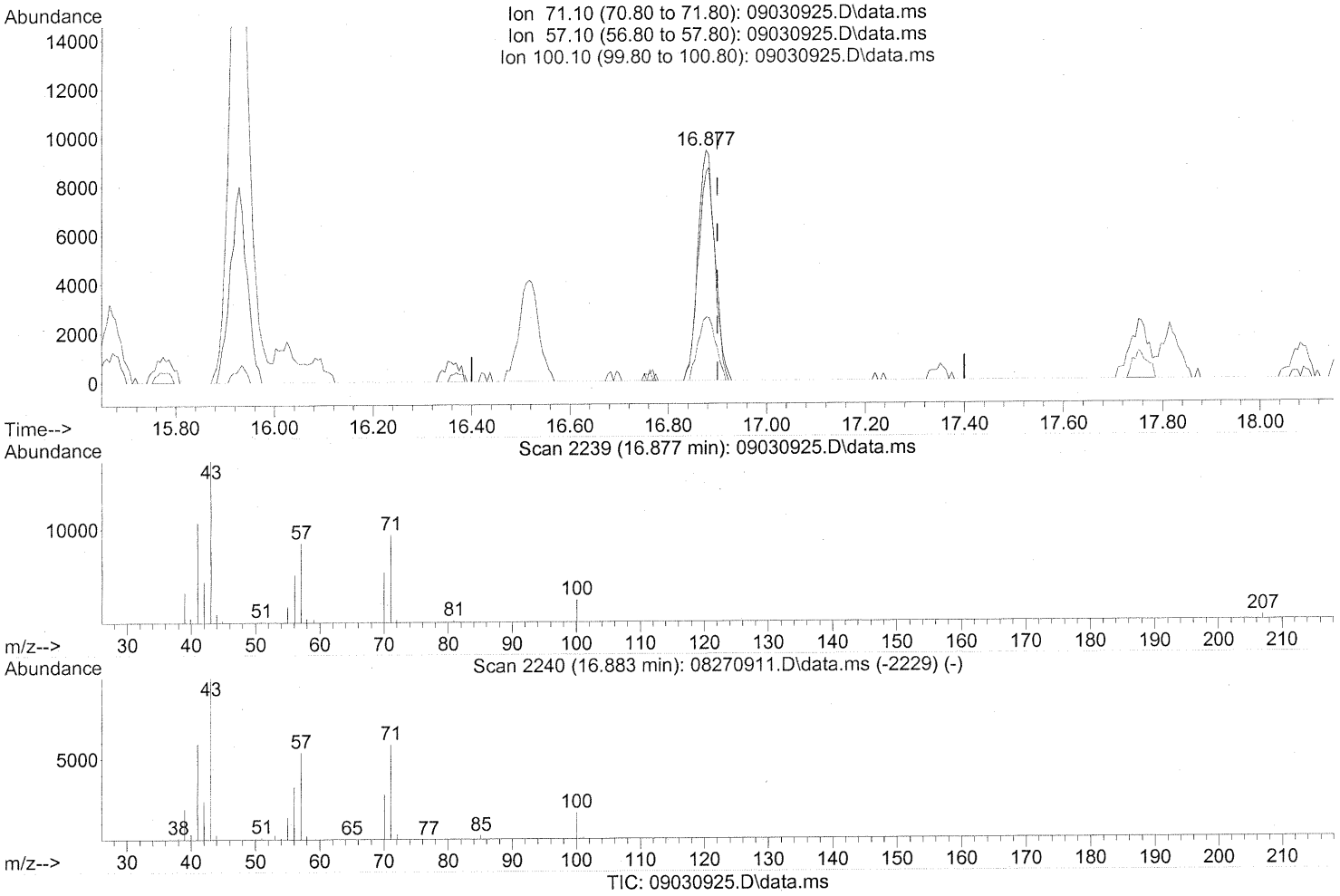
response 3940

Ion	Exp%	Act%
129.90	100	100
131.90	96.50	89.04
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(51) n-Heptane (T)

16.877min (-0.023) 1.41ng

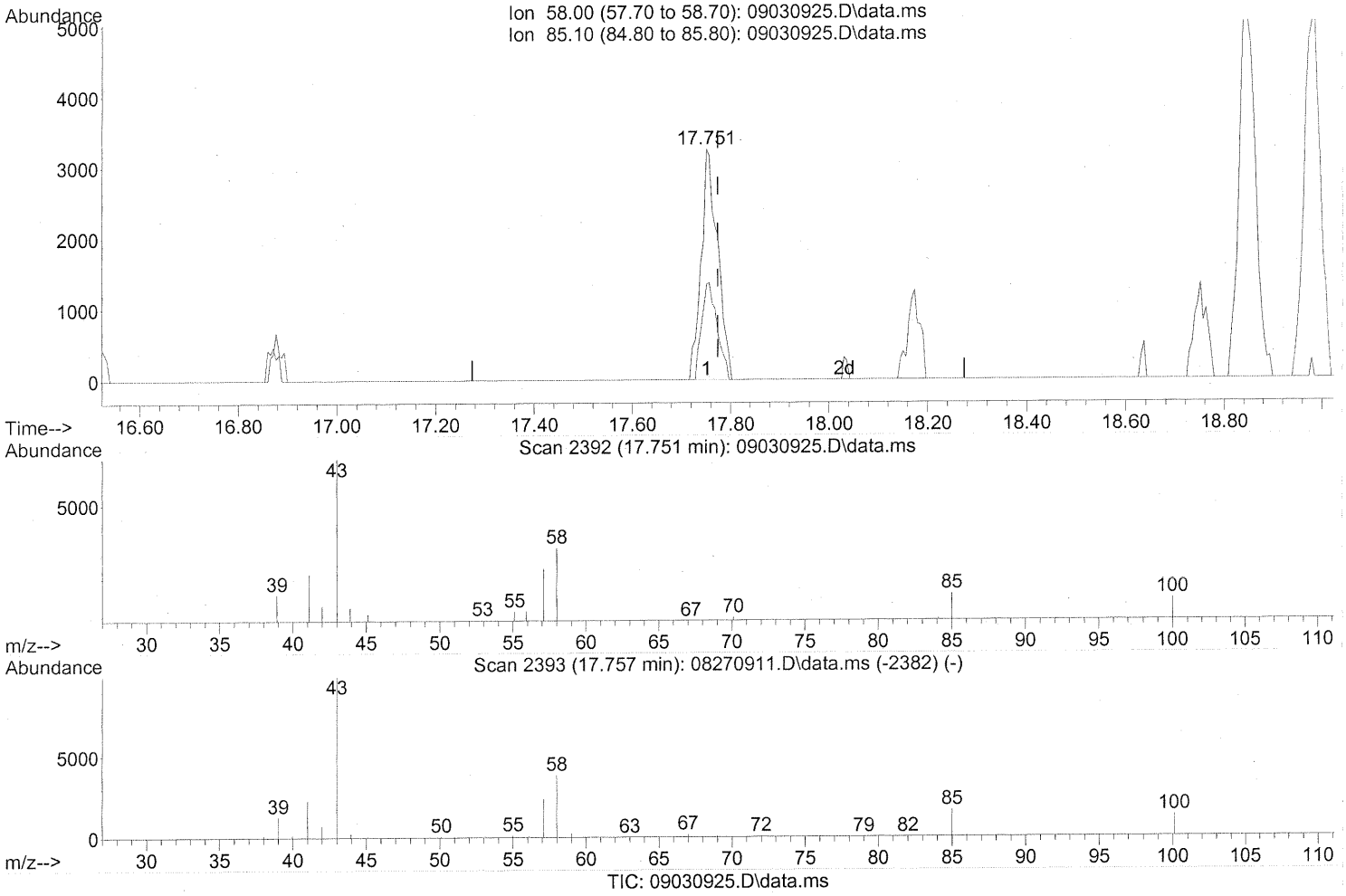
response 22474

Ion	Exp%	Act%
71.10	100	100
57.10	89.80	91.11
100.10	22.00	28.57
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030925.D\data.ms

(53) 4-Methyl-2-pentanone (T)

17.751min (-0.023) 0.53ng

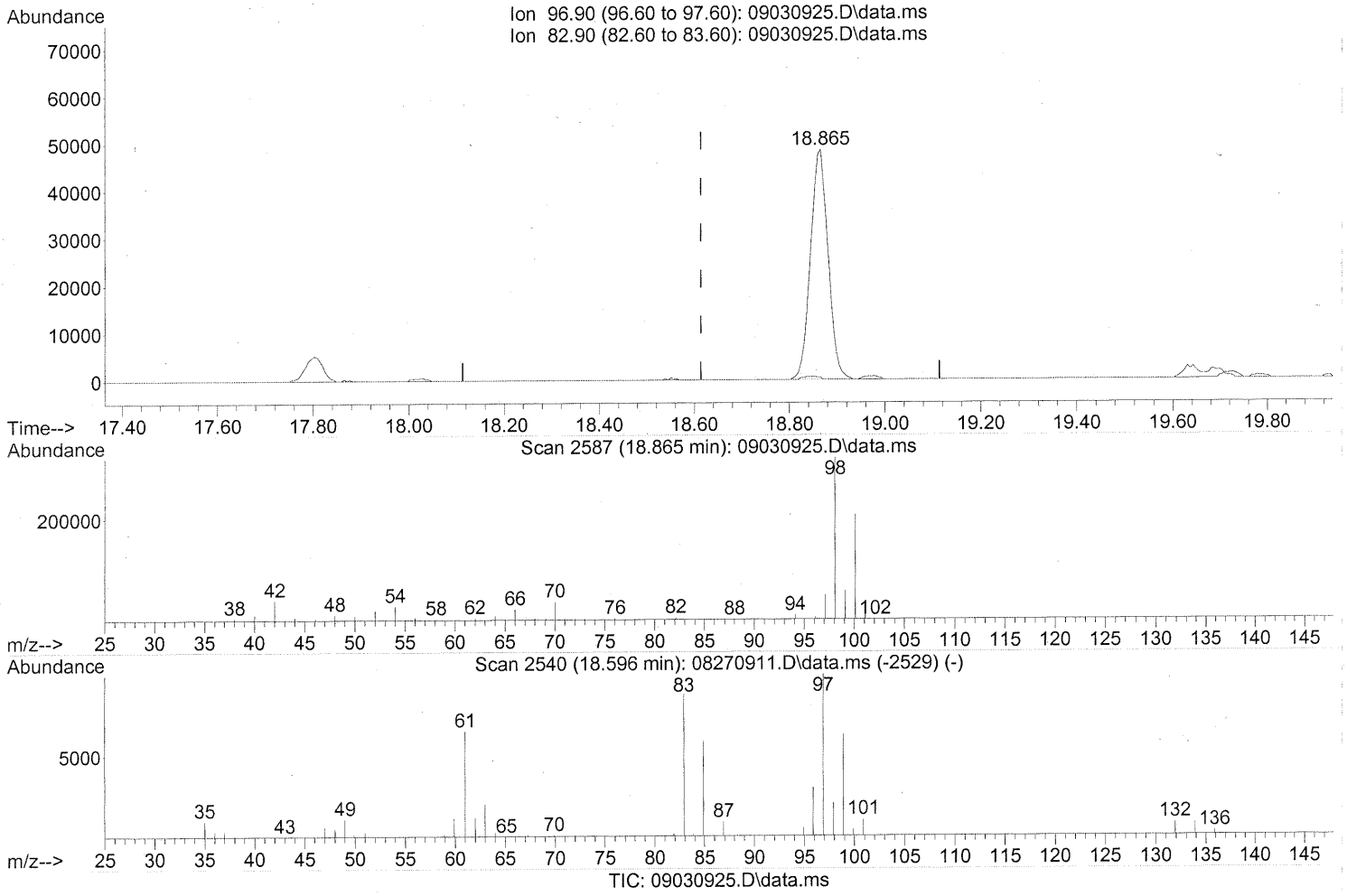
response 7479

Ion	Exp%	Act%
58.00	100	100
85.10	42.40	39.44
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



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

18.865min (+0.251) 8.61ng

response 123673

Ion	Exp%	Act%
96.90	100	100
82.90	87.70	1.14#
0.00	0.00	0.00
0.00	0.00	0.00

FP
LM 9/9/09

9/10/09

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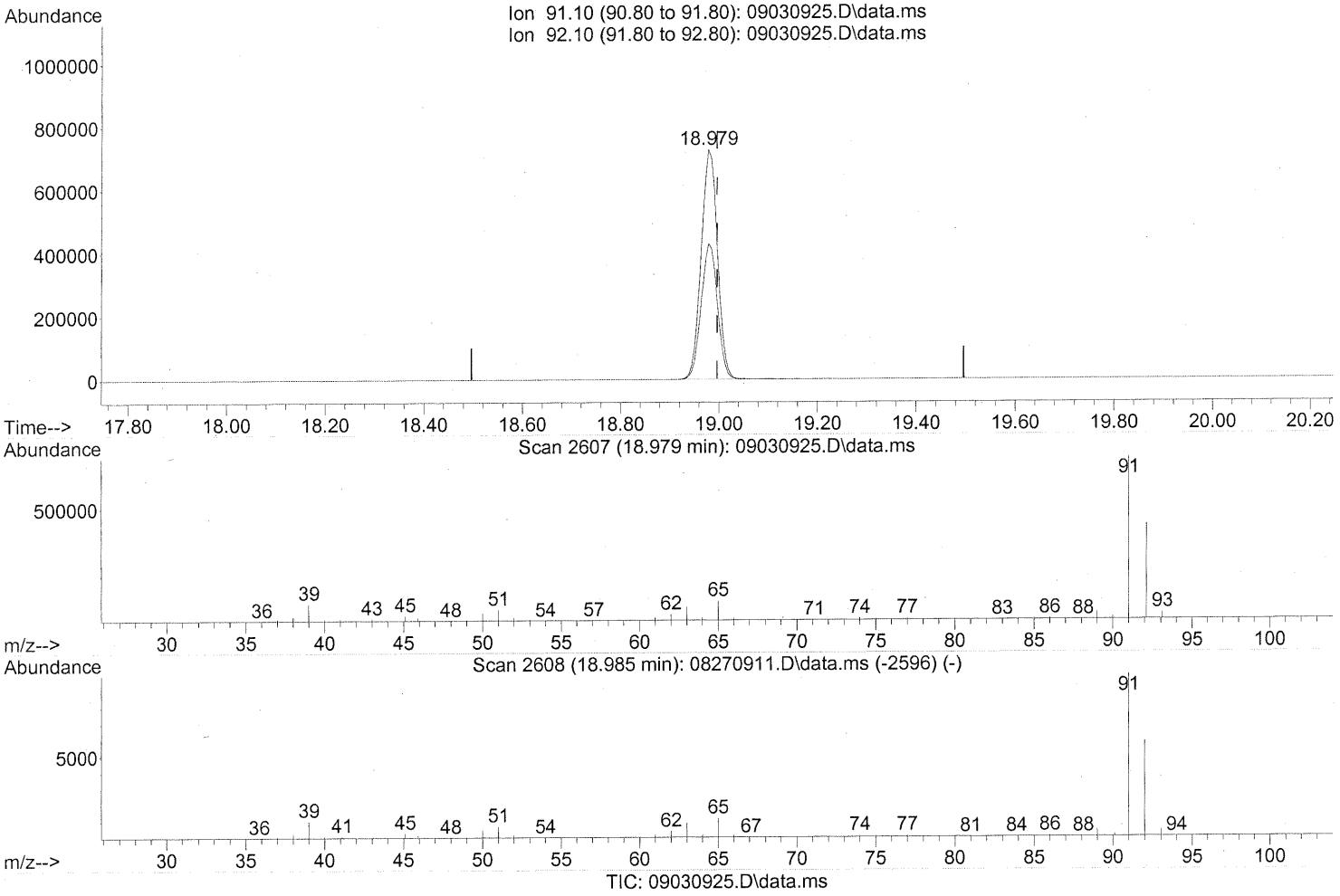
Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030925.D\data.ms

(58) Toluene (T)

18.979min (-0.017) 27.09ng

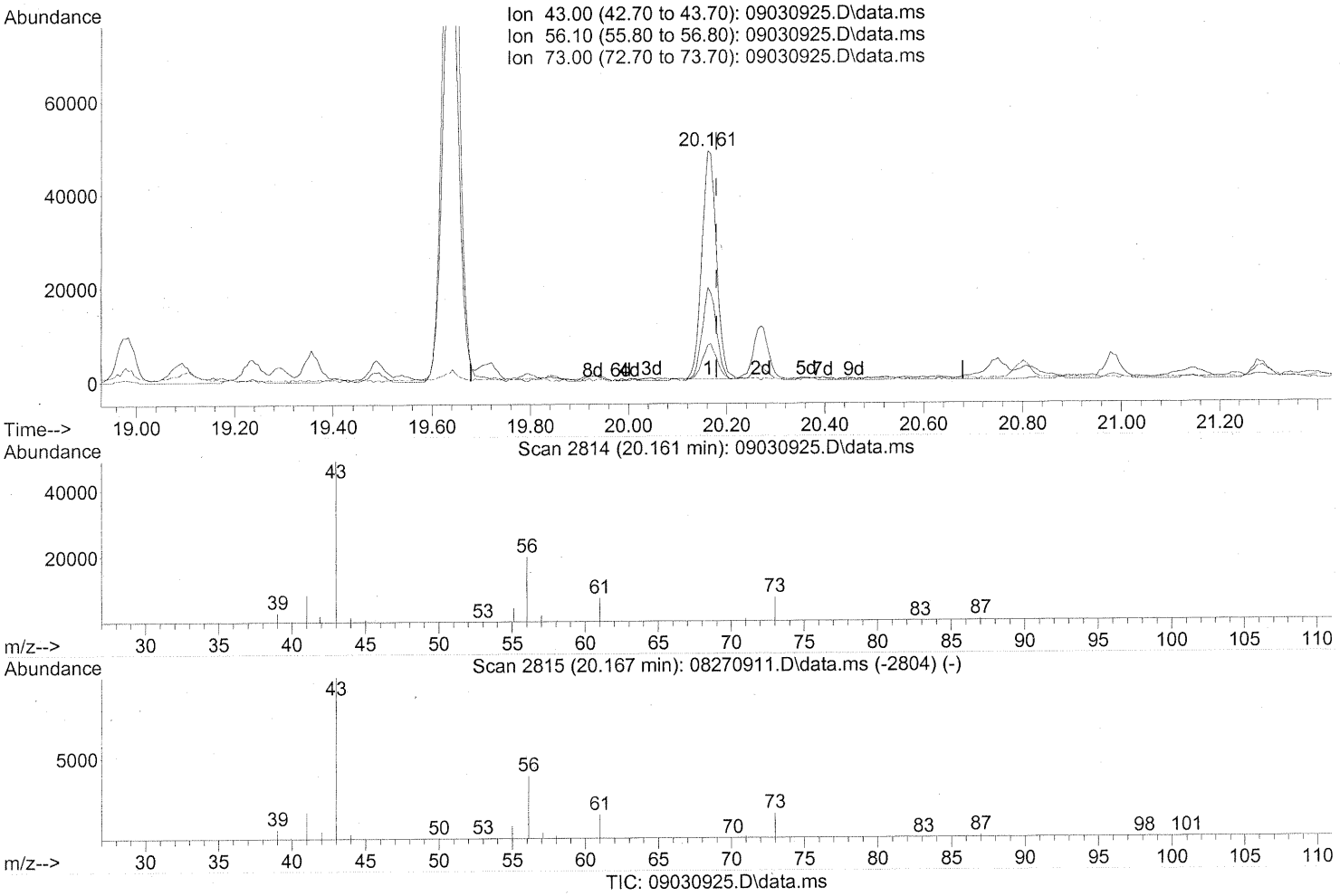
response 1665525

Ion	Exp%	Act%
91.10	100	100
92.10	58.80	59.02
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030925.D\data.ms

(62) n-Butyl Acetate (T)

20.161min (-0.017) 2.35ng

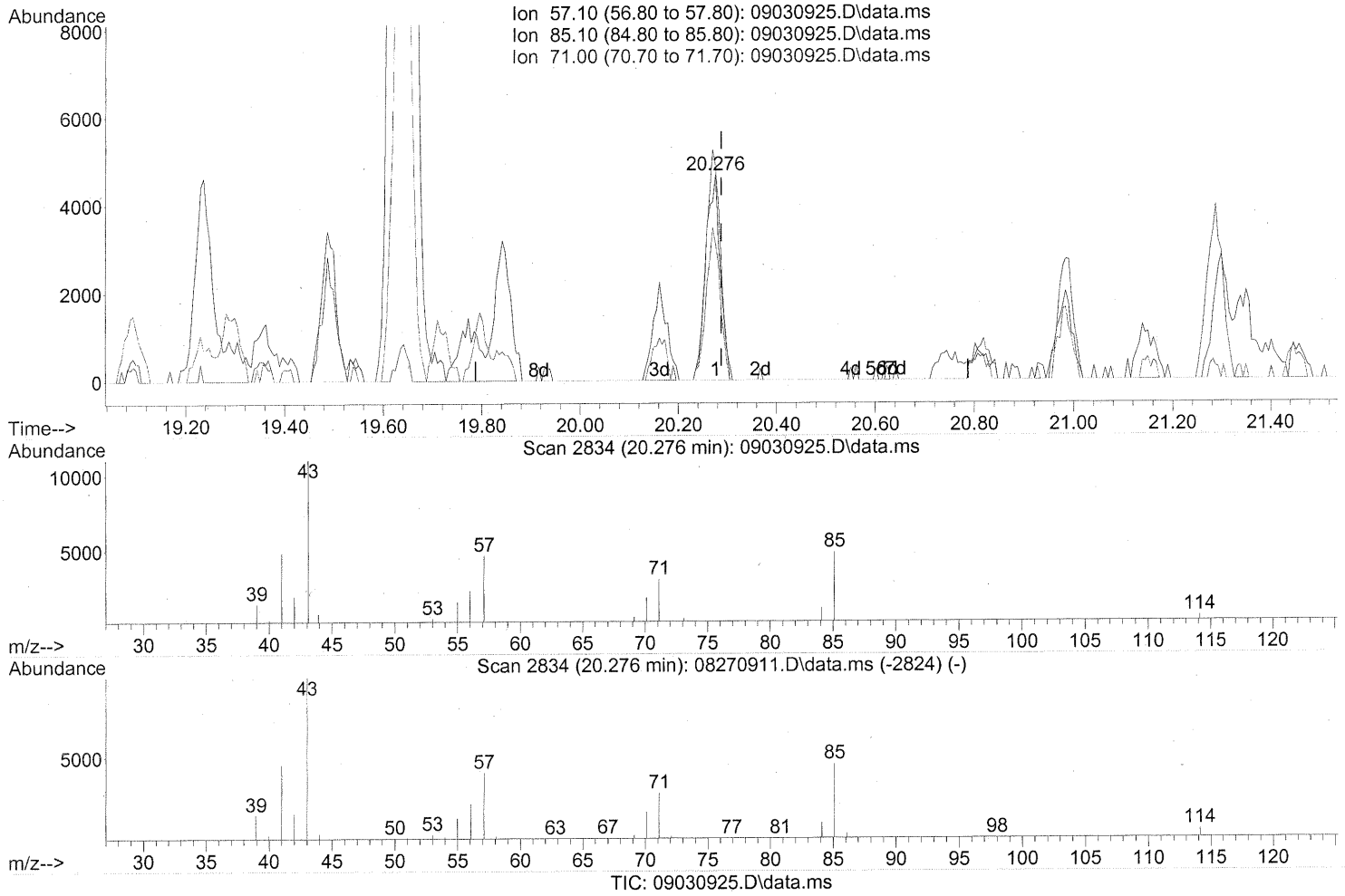
response 101165

Ion	Exp%	Act%
43.00	100	100
56.10	39.50	40.33
73.00	14.30	18.51
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030925.D\data.ms

(63) n-Octane (T)

20.276min (-0.011) 0.68ng

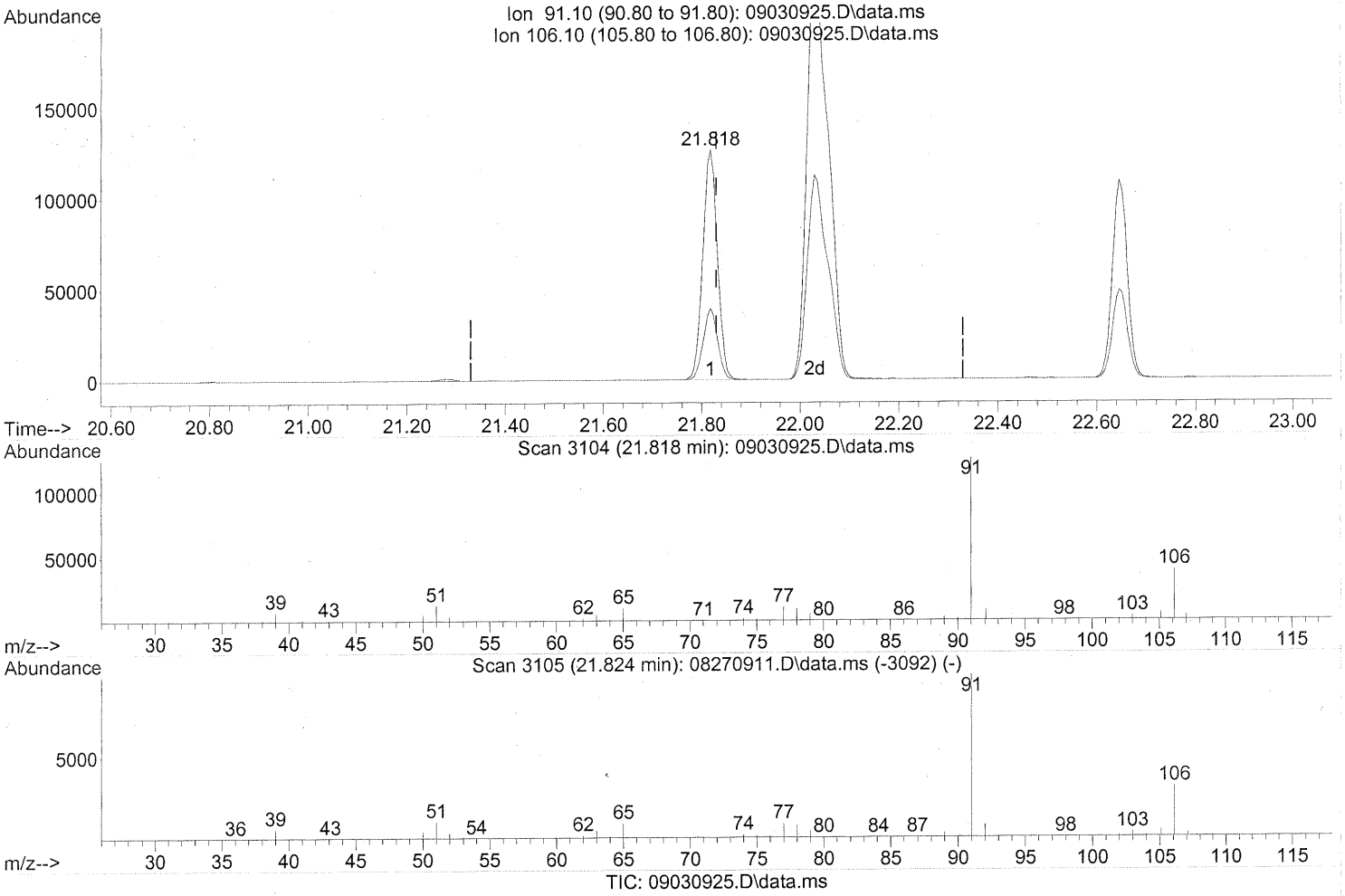
response 9624

Ion	Exp%	Act%
57.10	100	100
85.10	113.70	109.01
71.00	69.10	70.15
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(66) Ethylbenzene (T)

21.818min (-0.011) 3.68ng

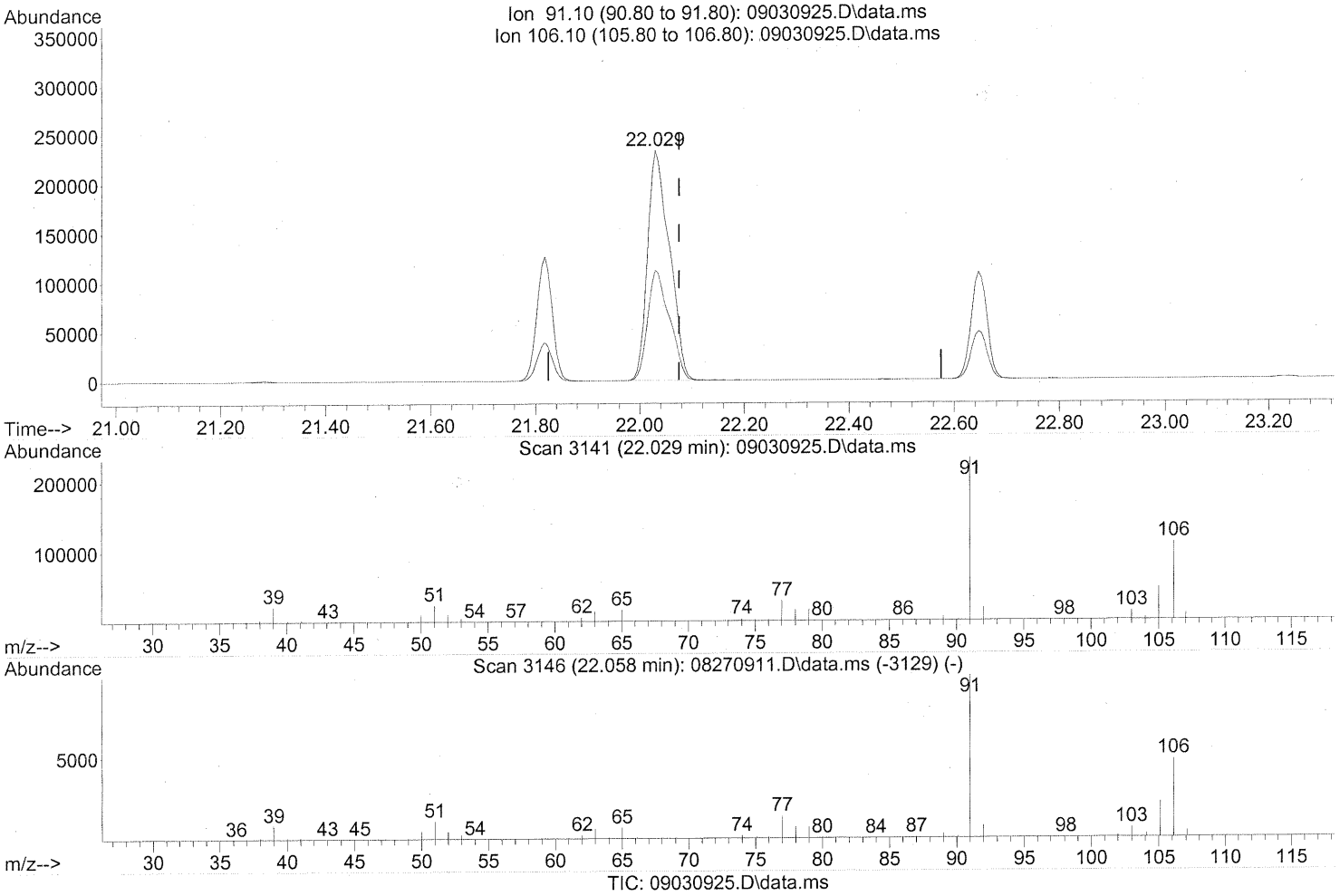
response 258798

Ion	Exp%	Act%
91.10	100	100
106.10	31.00	30.60
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



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

22.029min (-0.046) 12.22ng

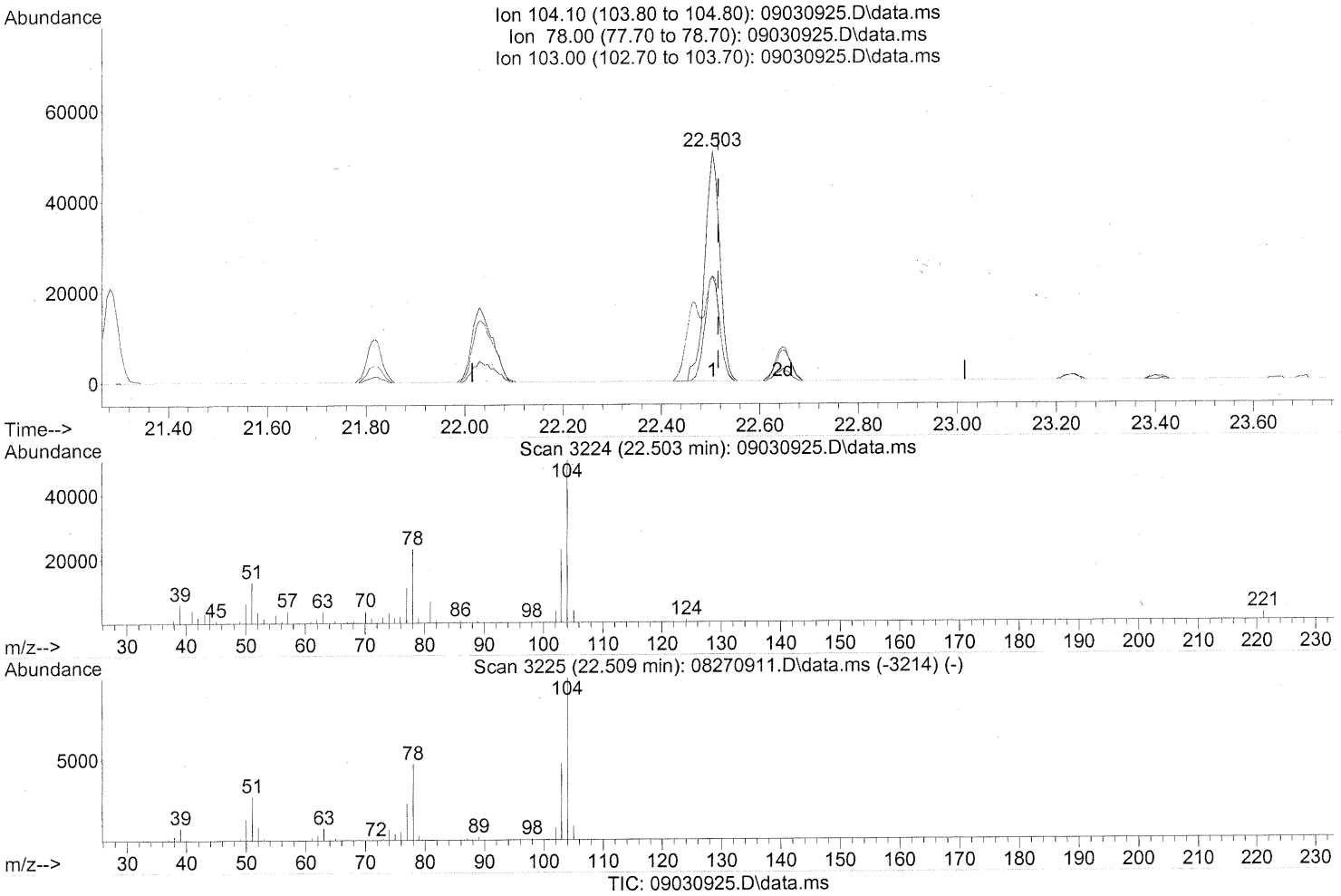
response 684324

Ion	Exp%	Act%
91.10	100	100
106.10	48.00	47.79
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030925.D\data.ms

(69) Styrene (T)

22.503min (-0.011) 2.59ng

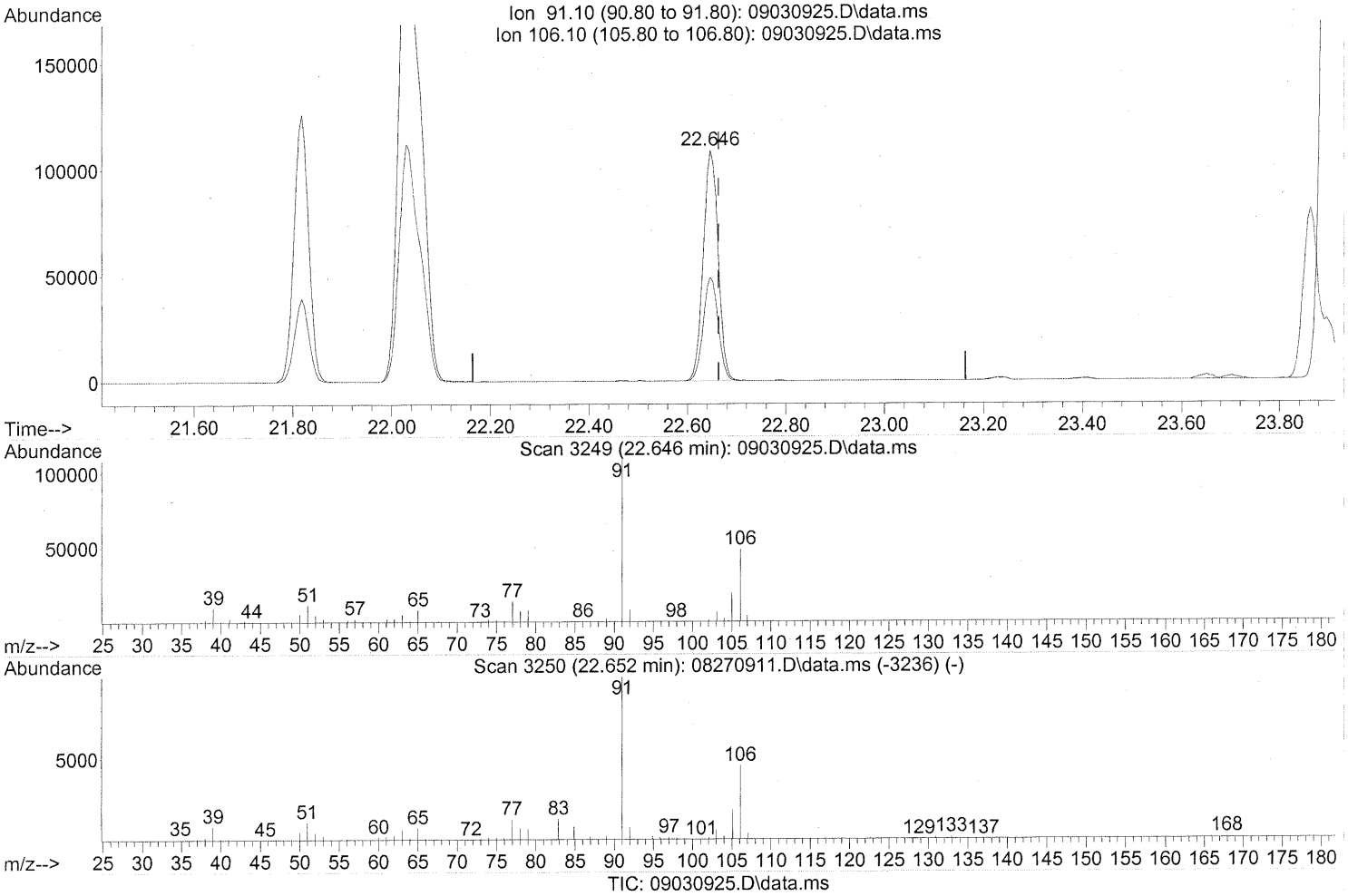
response 106854

Ion	Exp%	Act%
104.10	100	100
78.00	47.20	44.68
103.00	47.00	39.41
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030925.D\data.ms

(70) o-Xylene (T)

22.646min (-0.017) 4.08ng

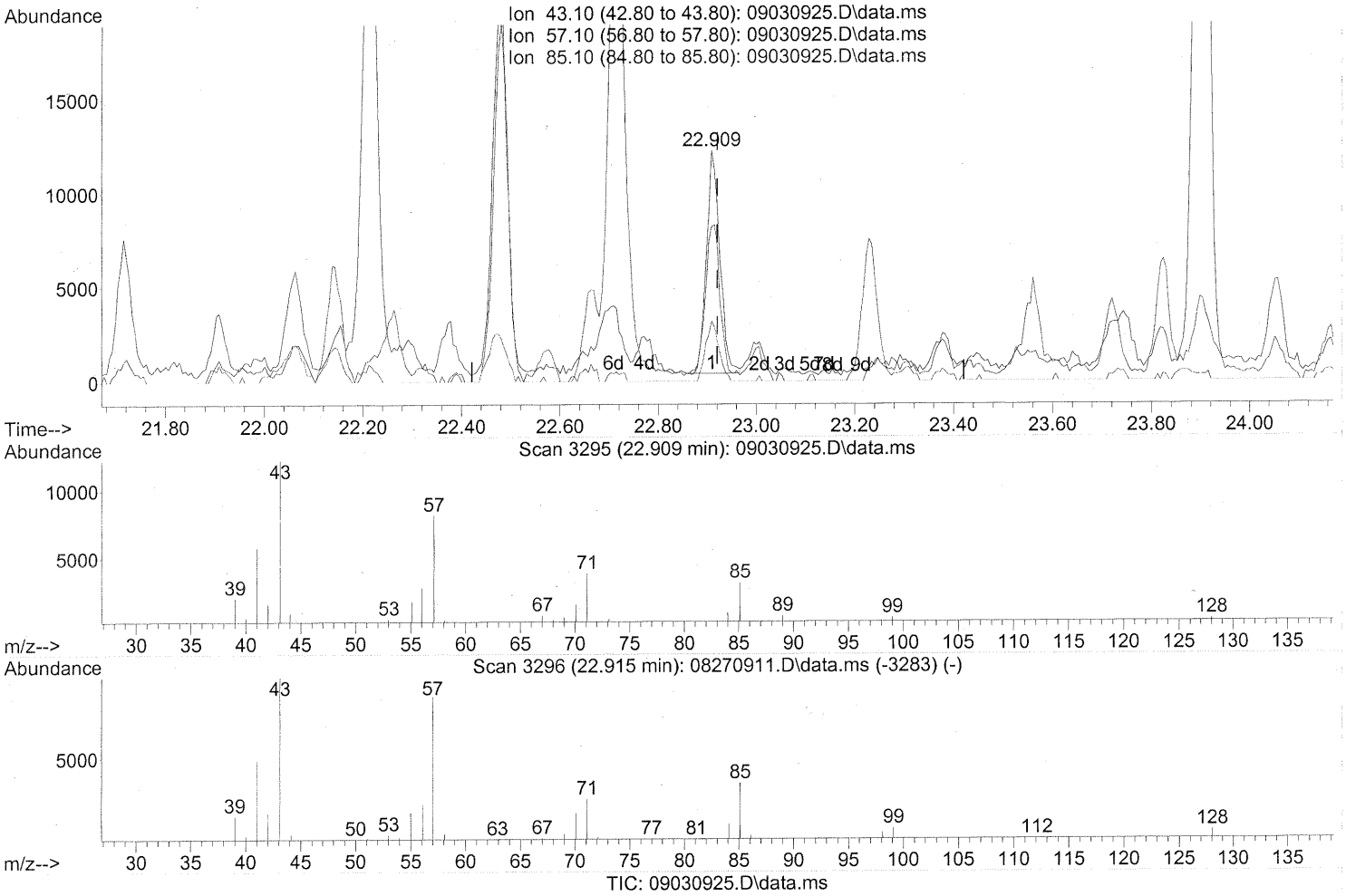
response 229367

Ion	Exp%	Act%
91.10	100	100
106.10	44.90	45.06
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(71) n-Nonane (T)

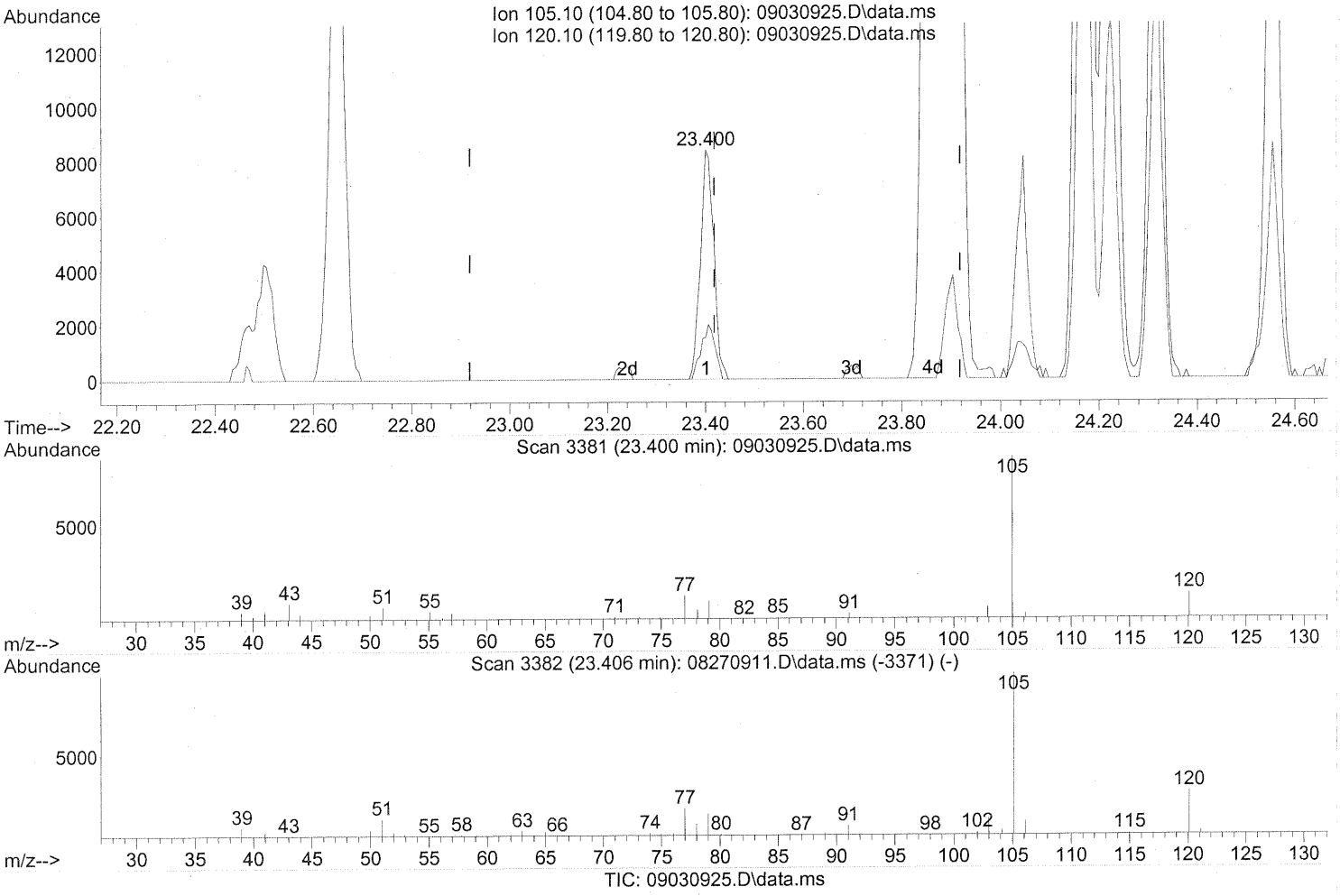
22.909min (-0.011) 0.67ng

response 22656

Ion	Exp%	Act%
43.10	100	100
57.10	85.90	79.98
85.10	32.20	26.10
0.00	0.00	0.00

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(74) Cumene (T)

23.400min (-0.017) 0.22ng

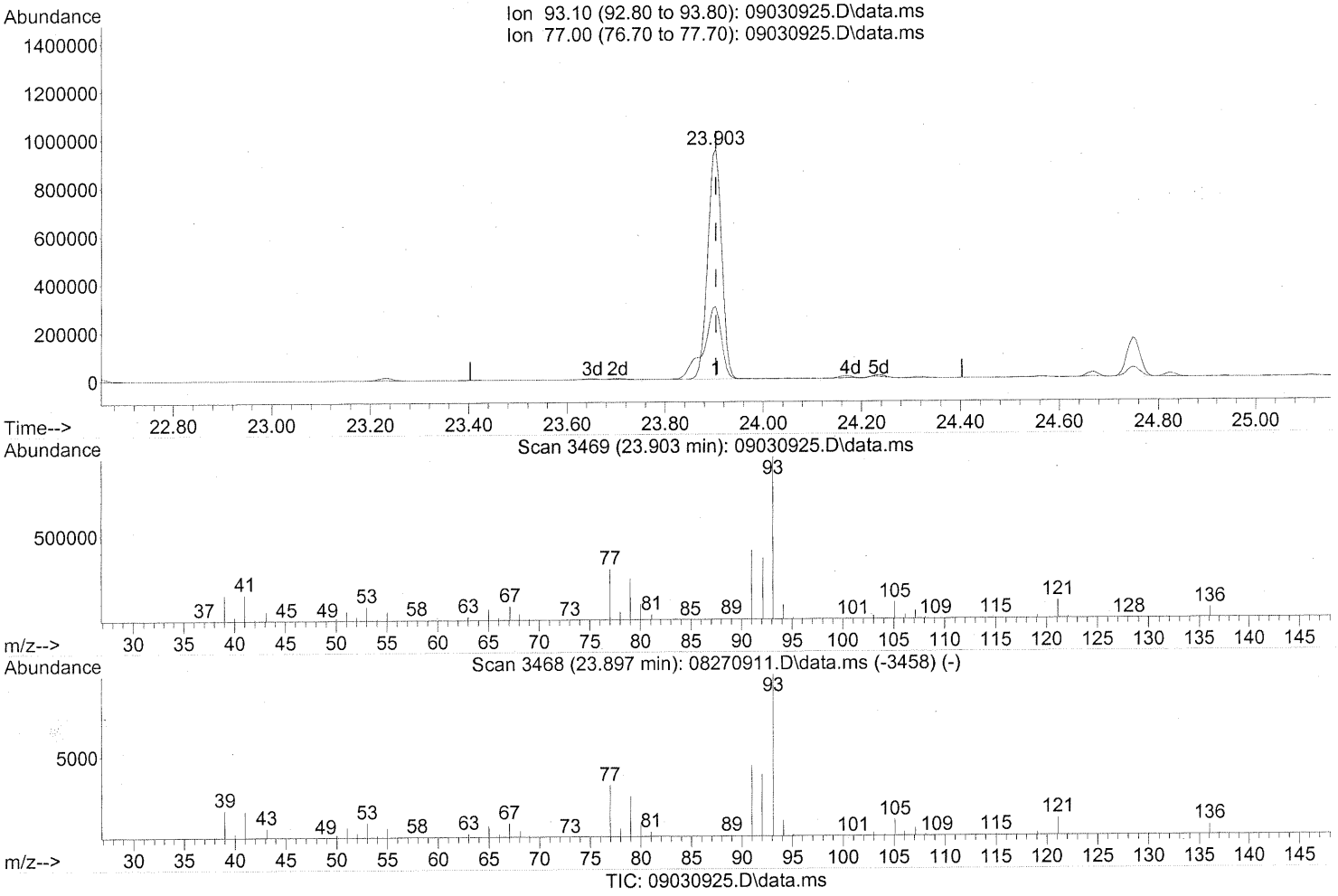
response 15812

Ion	Exp%	Act%
105.10	100	100
120.10	25.50	24.73
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030925.D\data.ms

(75) alpha-Pinene (T)

23.903min (-0.000) 51.06ng

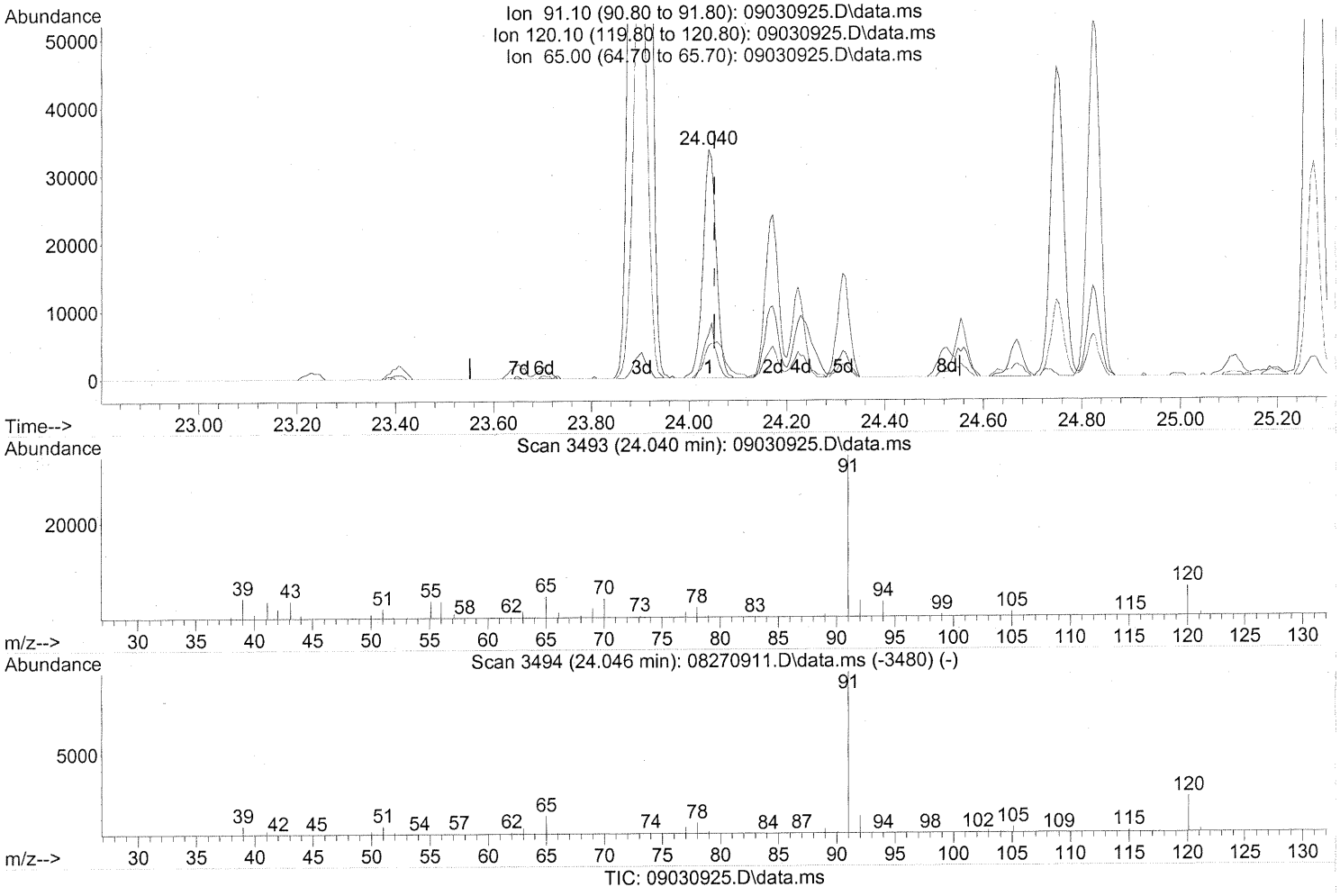
response 1887594

Ion	Exp%	Act%
93.10	100	100
77.00	33.10	40.57
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030925.D\data.ms

(76) n-Propylbenzene (T)

24.040min (-0.011) 0.70ng

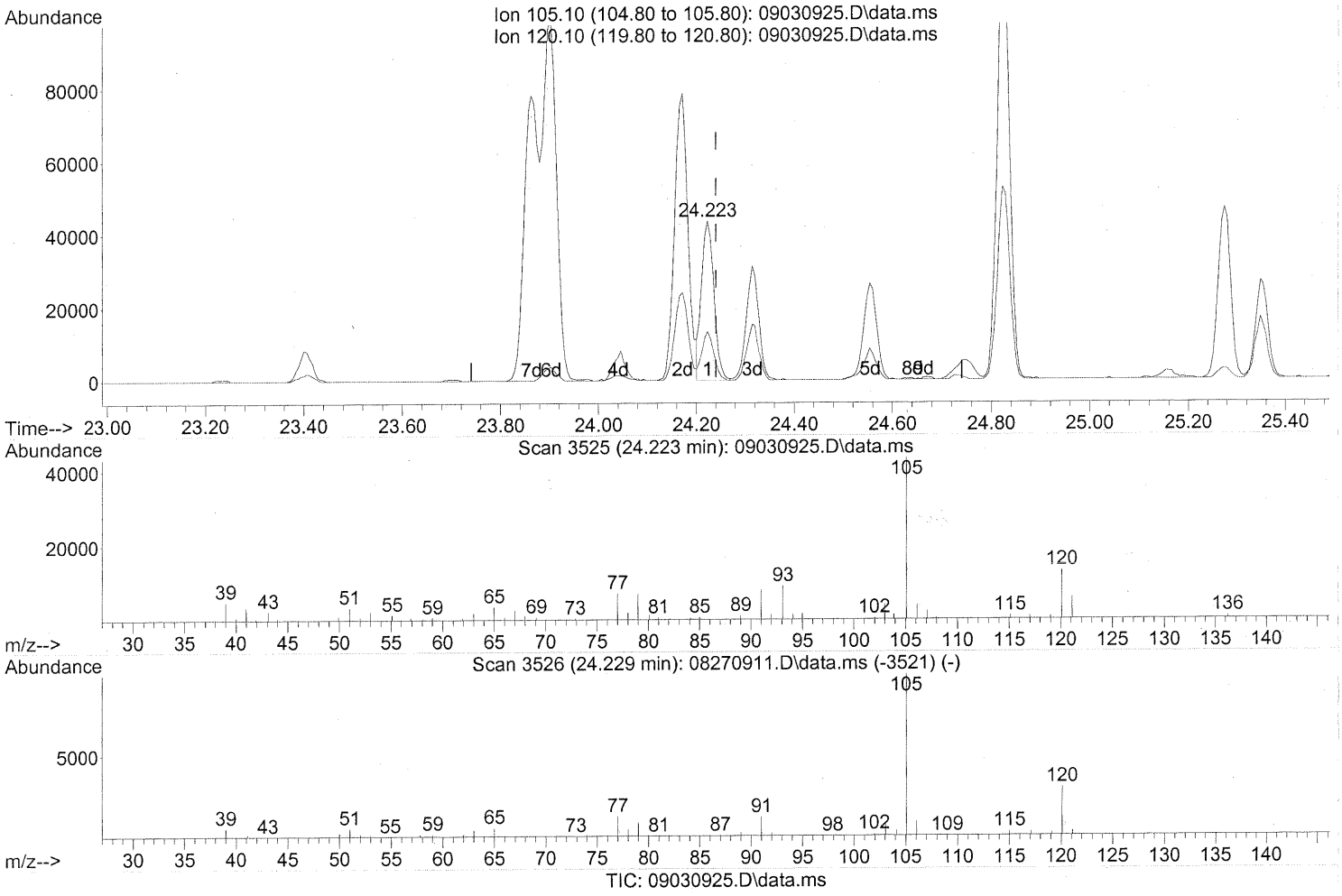
response 63402

Ion	Exp%	Act%
91.10	100	100
120.10	21.80	20.33
65.00	11.80	24.58
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030925.D\data.ms

(78) 4-Ethyltoluene (T)

24.223min (-0.017) 1.15ng

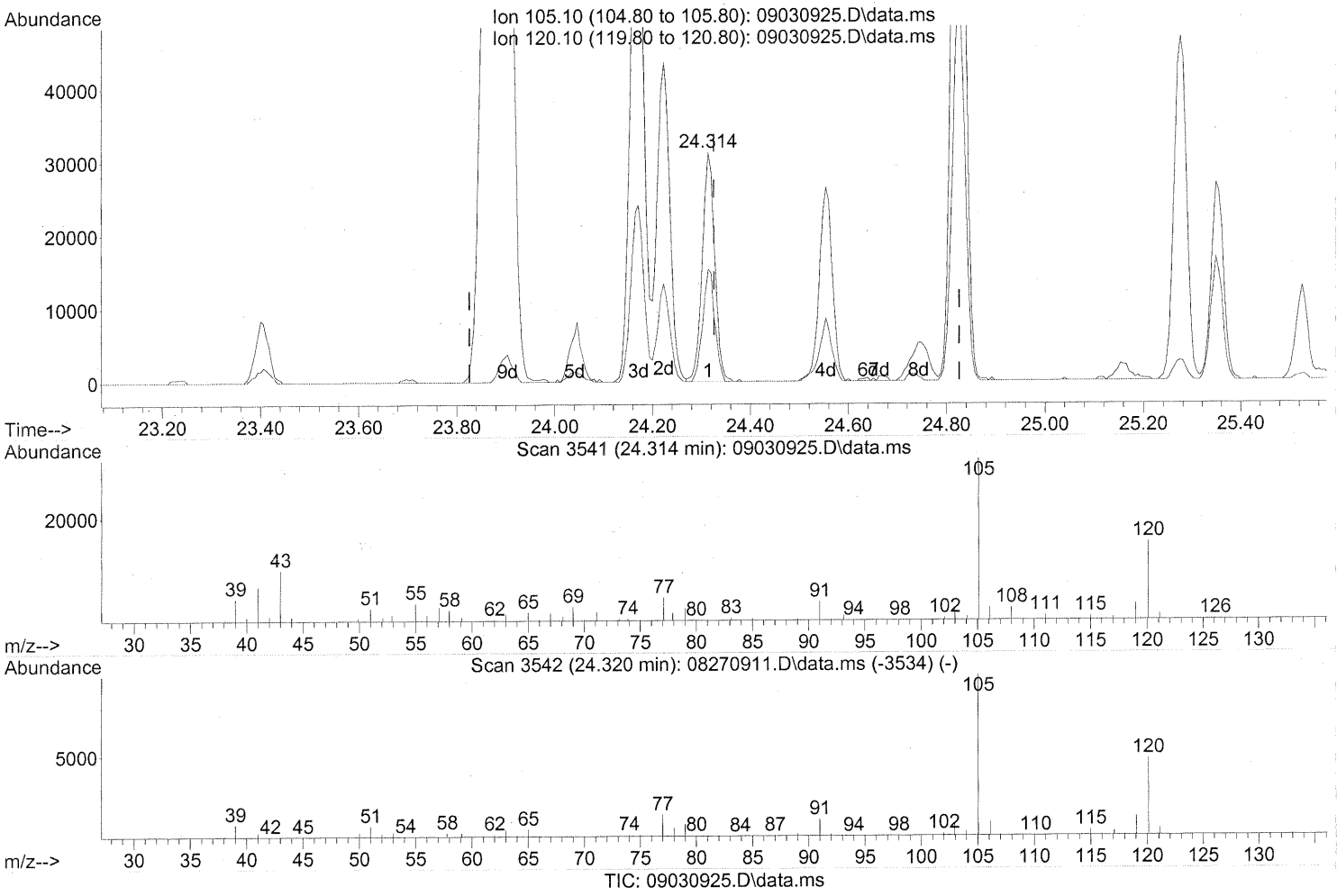
response 77130

Ion	Exp%	Act%
105.10	100	100
120.10	28.70	29.42
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030925.D\data.ms

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

24.314min (-0.011) 0.98ng

response 55140

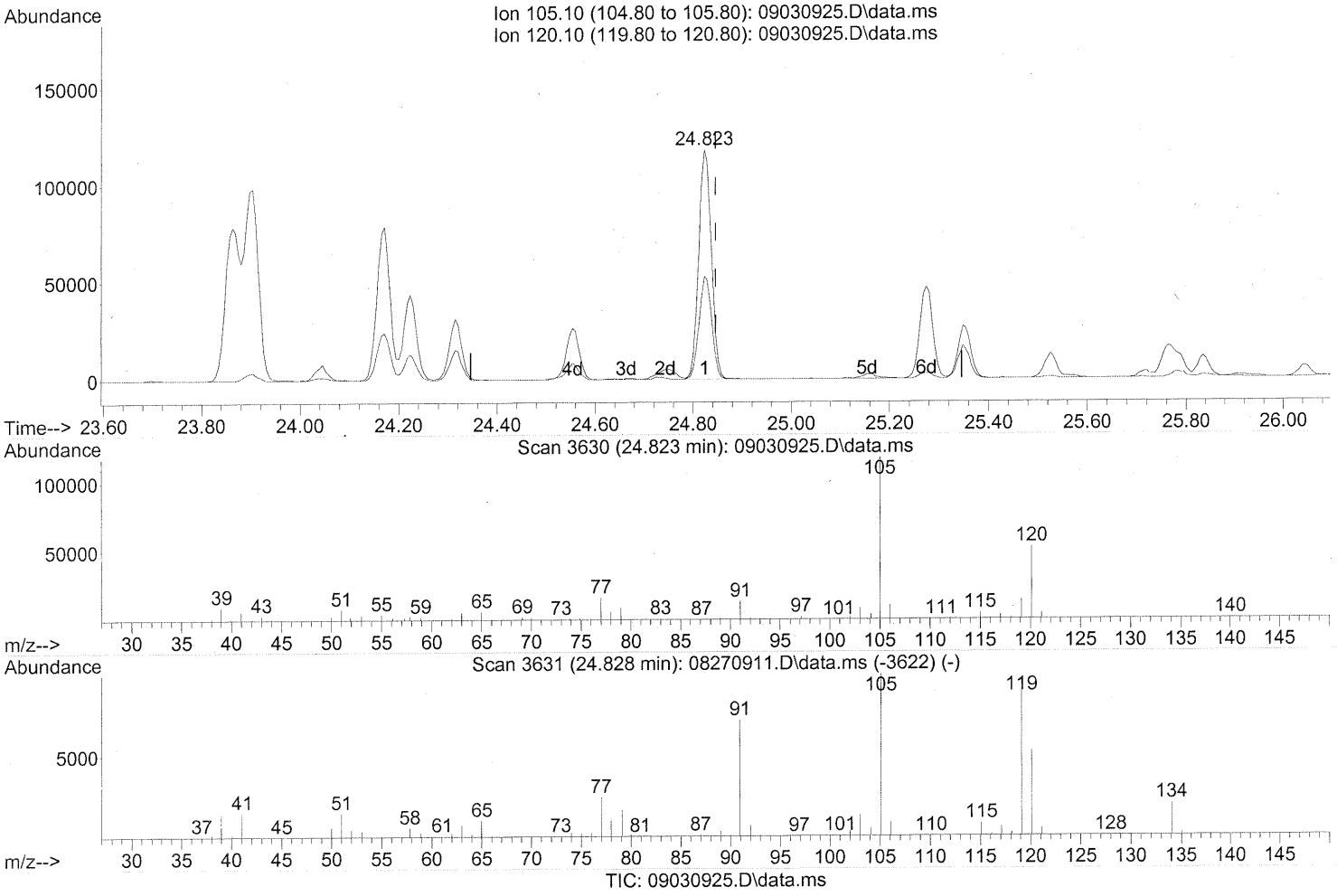
Ion	Exp%	Act%
105.10	100	100
120.10	47.70	47.48
0.00	0.00	0.00
0.00	0.00	0.00

105

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030925.D\data.ms

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

24.823min (-0.023) 3.68ng

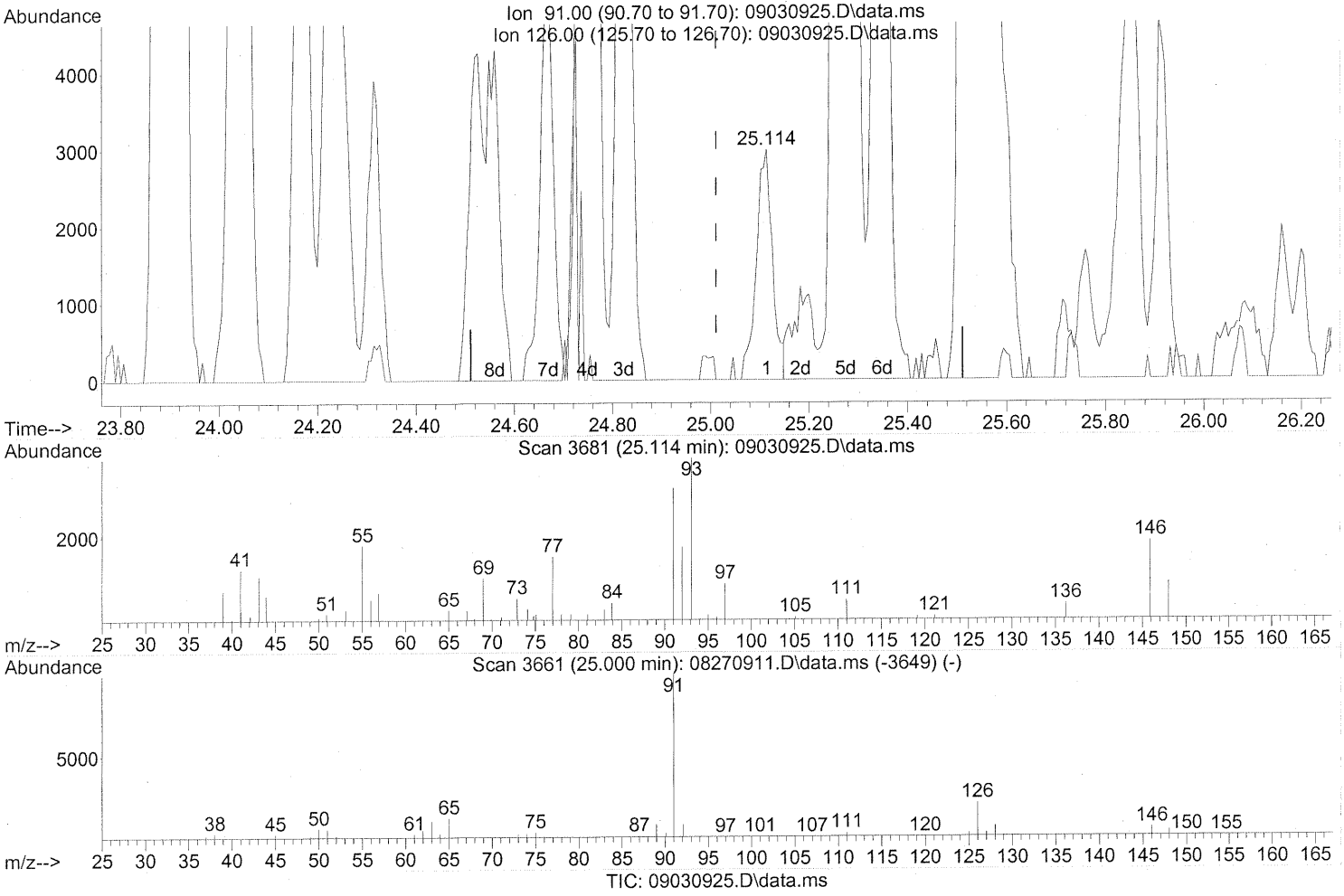
response 210345

Ion	Exp%	Act%
105.10	100	100
120.10	52.00	44.87
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(84) Benzyl Chloride (T)

25.114min (+0.103) 0.12ng

response 6849

Ion	Exp%	Act%
91.00	100	100
126.00	19.50	0.00
0.00	0.00	0.00
0.00	0.00	0.00

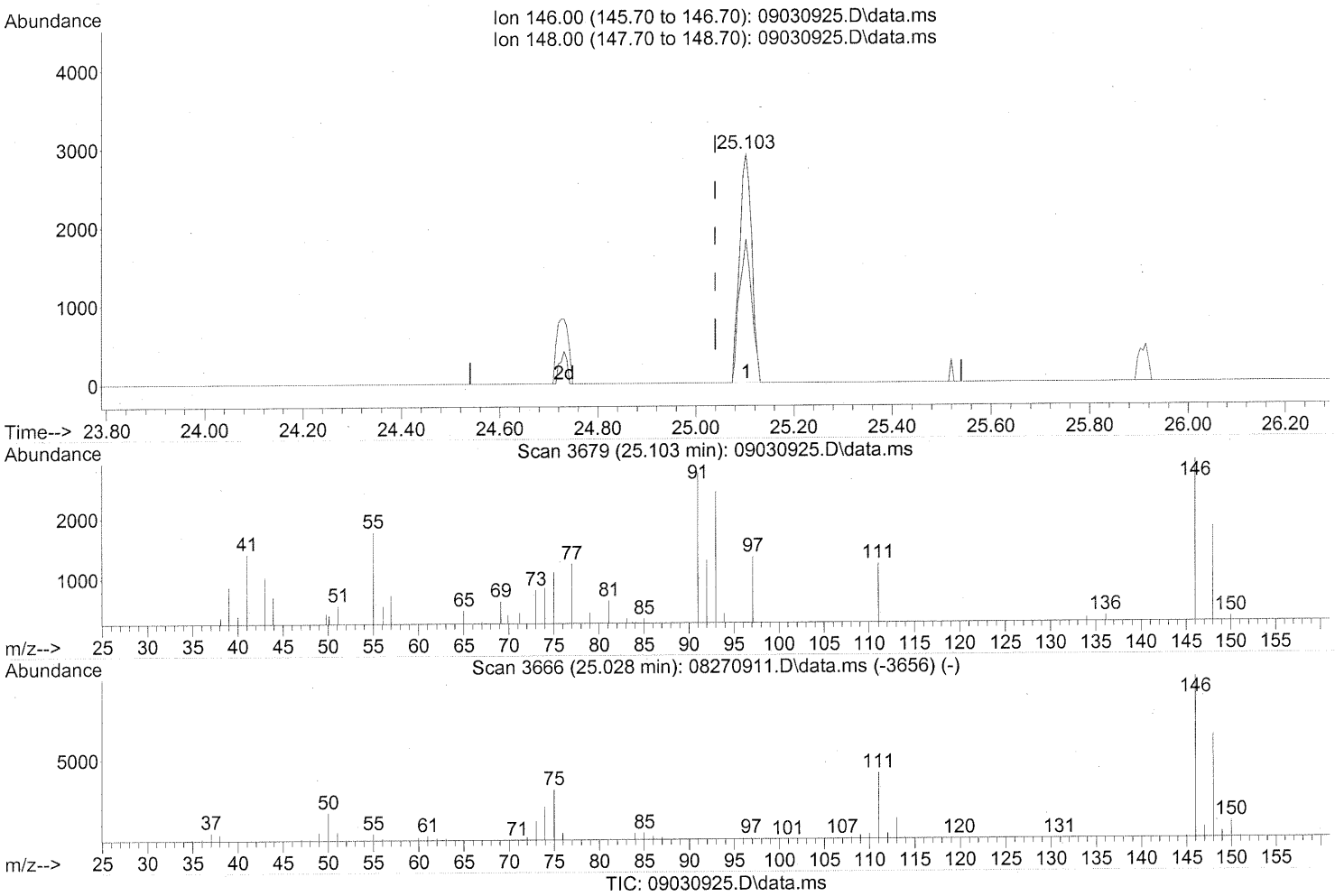
FD
LM 9/9/09

9/10/09

107

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(85) 1,3-Dichlorobenzene (T)

25.103min (+0.063) 0.16ng

response 5062

Ion	Exp%	Act%
146.00	100	100
148.00	64.00	63.26
0.00	0.00	0.00
0.00	0.00	0.00

FP
9/9/09

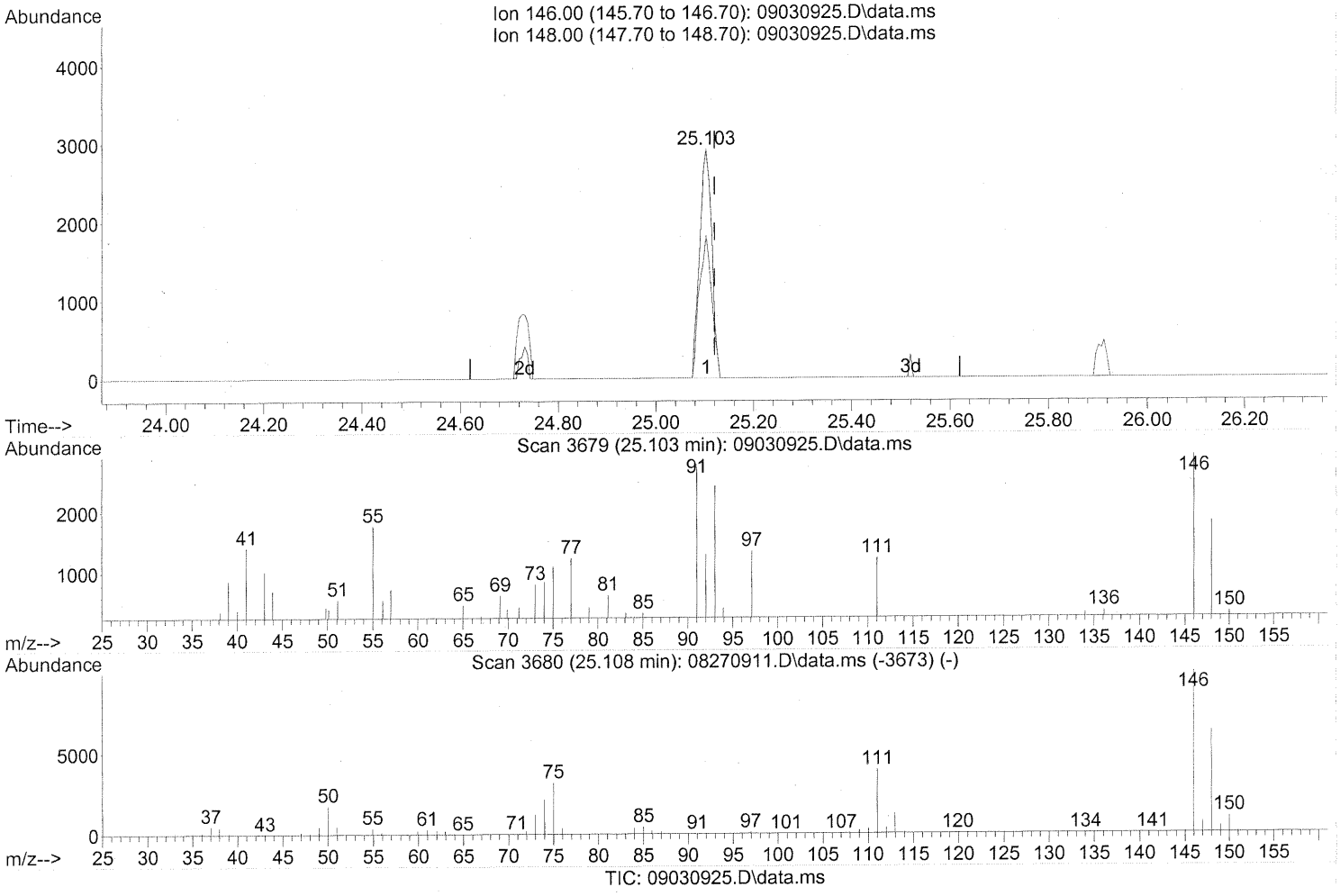
9/10/09

108

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030925.D\data.ms

(86) 1,4-Dichlorobenzene (T)

25.103min (-0.017) 0.16ng

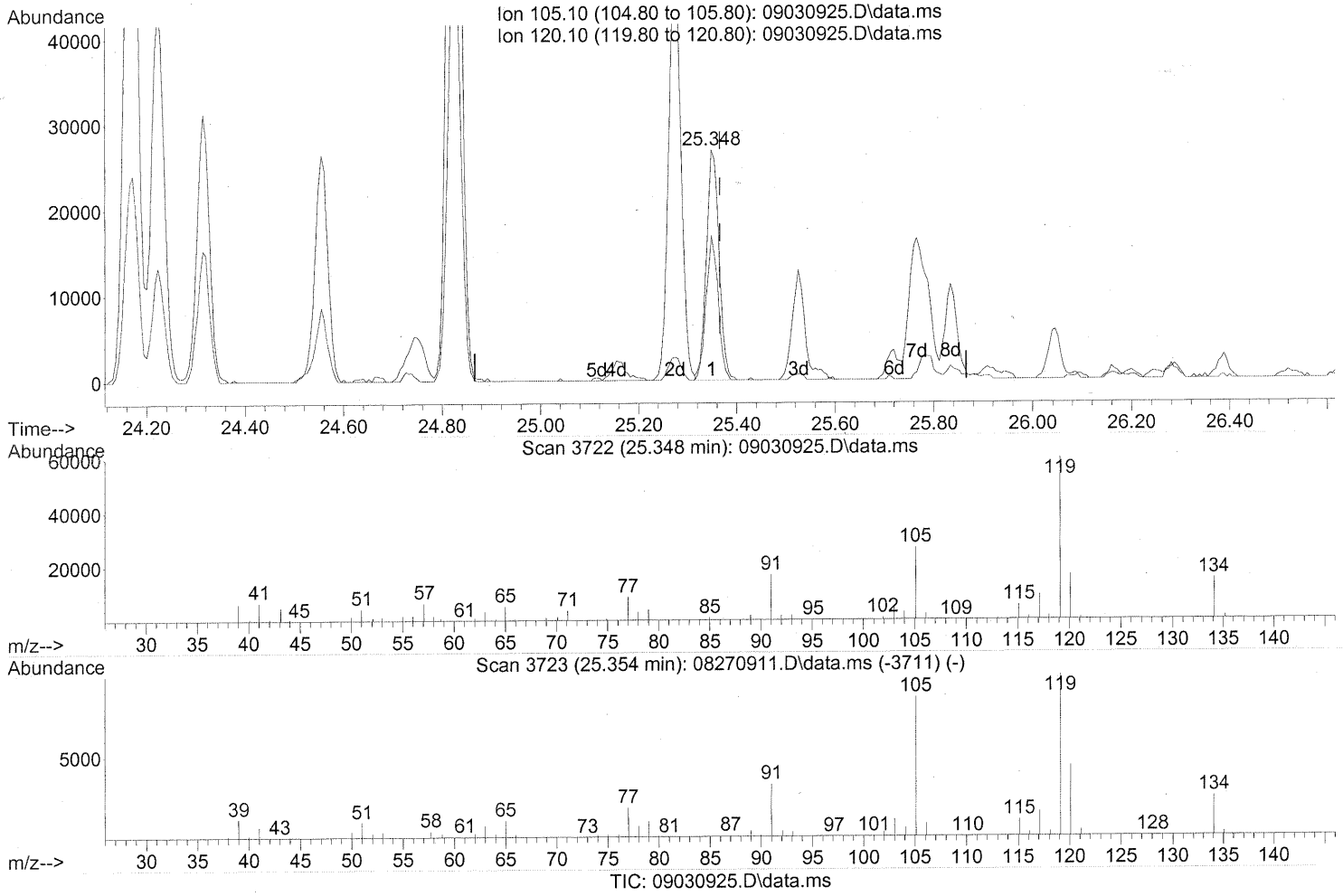
response 5062

Ion	Exp%	Act%
146.00	100	100
148.00	64.20	63.26
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030925.D\data.ms

(89) 1,2,3-Trimethylbenzene (T)

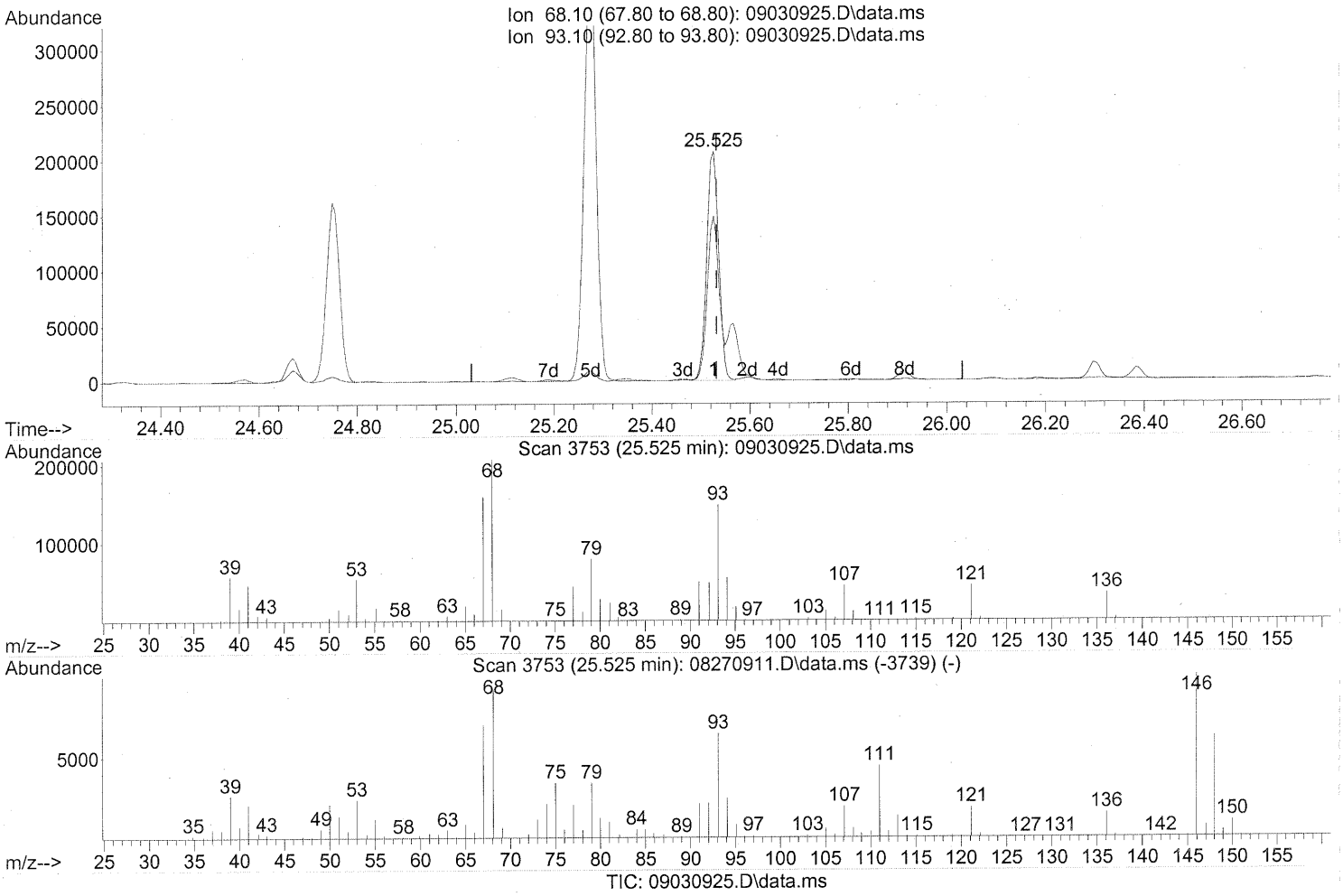
25.348min (-0.017) 0.80ng

response 48036

Ion	Exp%	Act%
105.10	100	100
120.10	50.60	59.27
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030925.D\data.ms

(91) d-Limonene (T)

25.525min (-0.006) 15.44ng

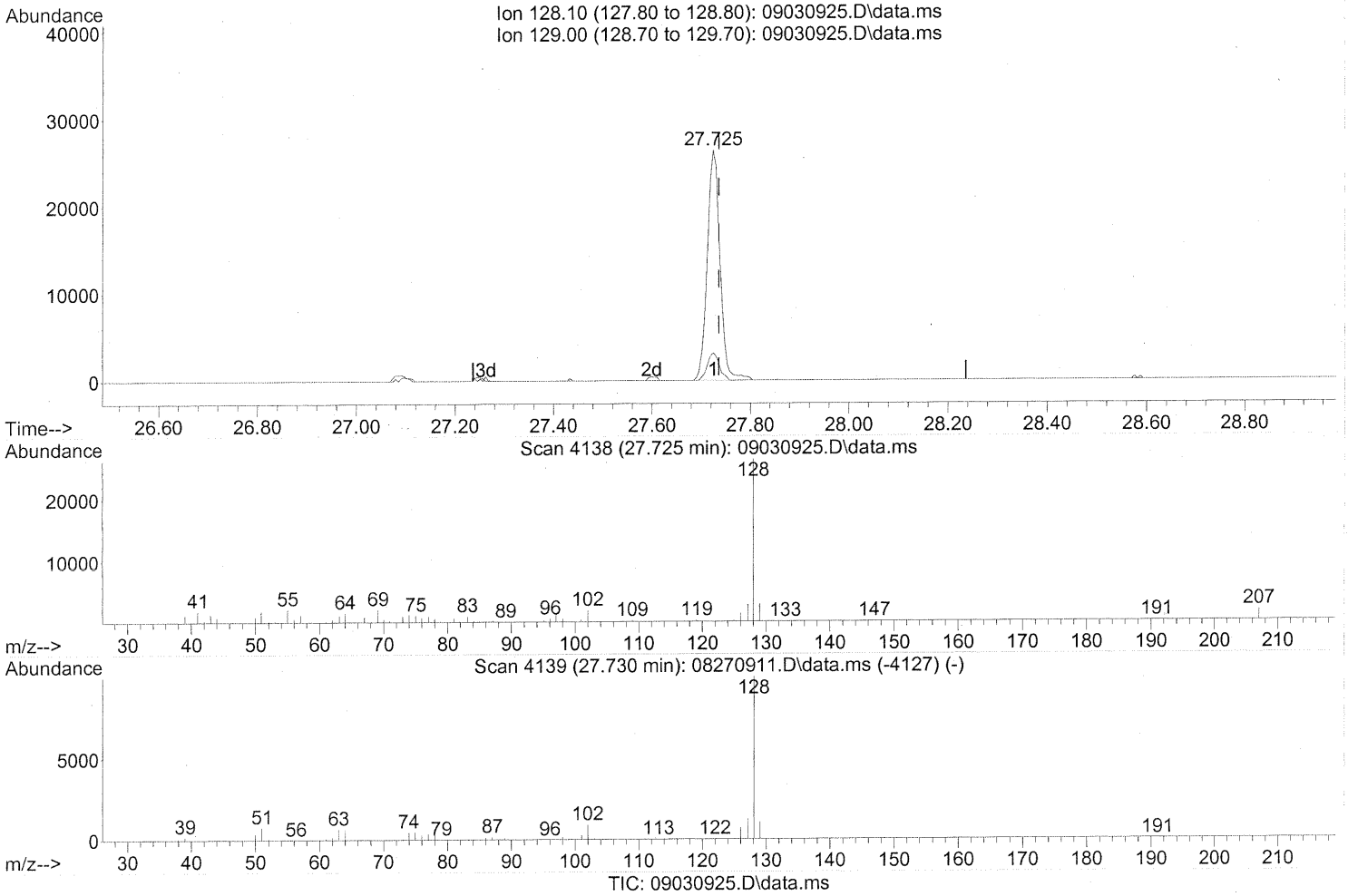
response 352330

Ion	Exp%	Act%
68.10	100	100
93.10	69.80	75.76
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030925.D
Acq On : 4 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 (600ml)
Misc : EH&E 103573
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Sep 04 08:53:57 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030925.D\data.ms

(95) Naphthalene (T)

27.725min (-0.012) 0.60ng

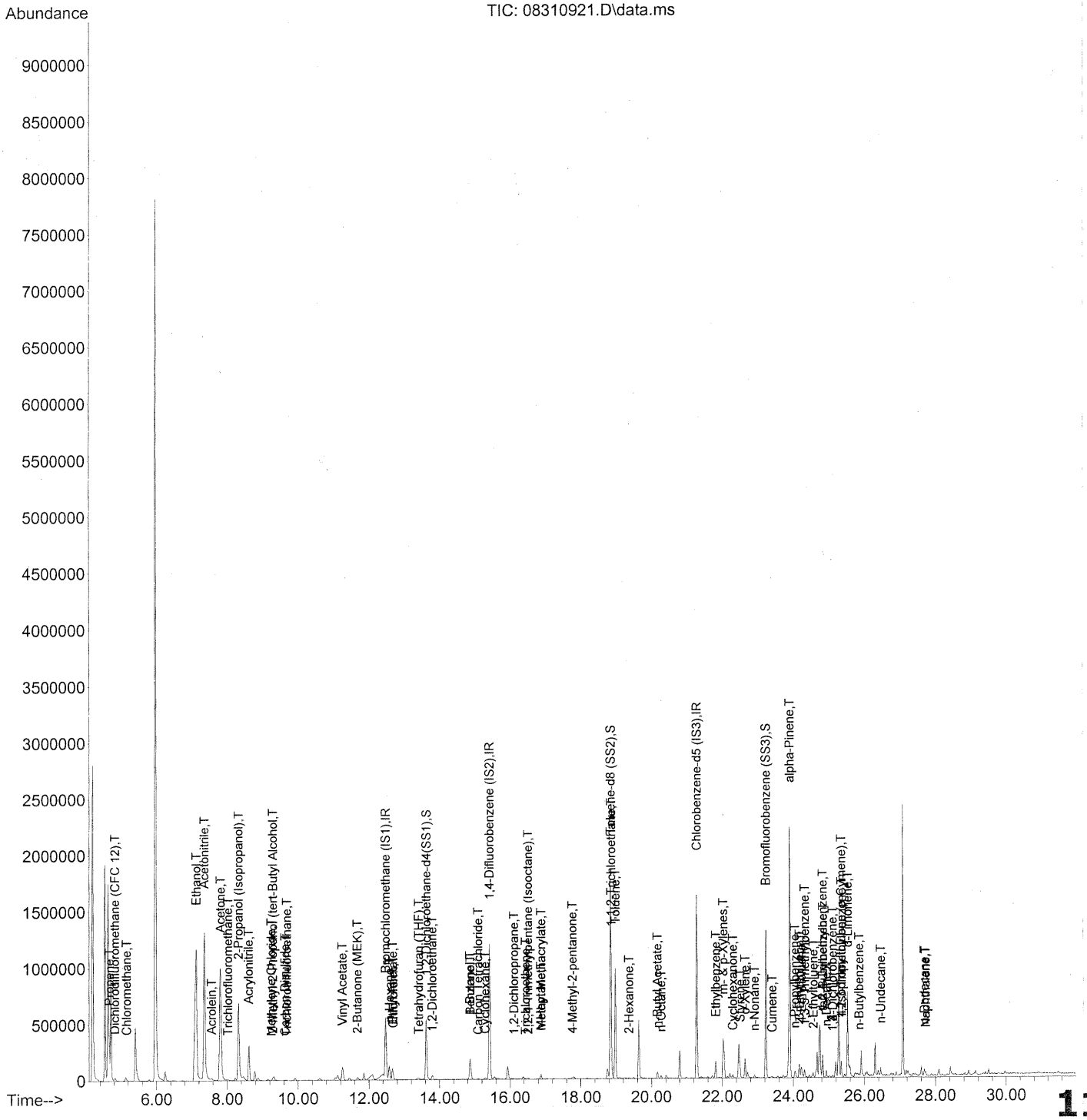
response 47480

Ion	Exp%	Act%
128.10	100	100
129.00	10.90	11.08
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310921.D
Acq On : 1 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 dil (300ml)
Misc : EH&E 103573
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 09 13:35:03 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310921.D
Acq On : 1 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 dil (300ml)
Misc : EH&E 103573
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 09 13:35:03 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

LM 9/9/09

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.47	130	275855	25.000	ng		-0.03
37) 1,4-Difluorobenzene (IS2)	15.41	114	1373260	25.000	ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.28	82	671854	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.63	65	540548	24.727	ng		-0.02
Spiked Amount 25.000			Recovery =	98.92%			
57) Toluene-d8 (SS2)	18.85	98	1493259	24.870	ng		-0.01
Spiked Amount 25.000			Recovery =	99.48%			
73) Bromofluorobenzene (SS3)	23.23	174	424534	24.567	ng		0.00
Spiked Amount 25.000			Recovery =	98.28%			
Target Compounds							Qvalue
2) Propene	4.67	42	84162	4.218	ng		95
3) Dichlorodifluoromethan...	4.82	85	18487	0.529	ng		99
4) Chloromethane	5.16	50	10540	0.449	ng		95
5) 1,2-Dichloro-1,1,2,2-t...	5.40	135	93	N.D.			
6) Vinyl Chloride	0.00	62	0	N.D.			
7) 1,3-Butadiene	0.00	54	0	N.D.			
8) Bromomethane	6.35	94	95	N.D.			
9) Chloroethane	0.00	64	0	N.D.			
10) Ethanol	7.13	45	2904407	234.735	ng		100
11) Acetonitrile	7.35	41	2190354	63.733	ng		100
12) Acrolein	7.56	56	15574	1.648	ng		99
13) Acetone	7.81	58	496853	38.829	ng		86
14) Trichlorofluoromethane	8.02	101	8771	0.285	ng		98
15) 2-Propanol (Isopropanol)	8.32	45	1488059	34.981	ng		100
16) Acrylonitrile	8.61	53	5290	0.250	ng	#	41
17) 1,1-Dichloroethene	9.02	96	87	N.D.			
18) 2-Methyl-2-Propanol (t...	9.28	59	21573	0.506	ng	#	1
19) Methylene Chloride	9.24	84	2269	0.140	ng		96
20) 3-Chloro-1-propene (Al...	9.39	41	350	N.D.			
21) Trichlorotrifluoroethane	9.68	151	1149	0.094	ng	#	63
22) Carbon Disulfide	9.63	76	11437	0.198	ng		95
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	11.14	73	110	N.D.			
26) Vinyl Acetate	11.24	86	8371	2.610	ng	#	1
27) 2-Butanone (MEK)	11.67	72	11633	1.125	ng		95
28) cis-1,2-Dichloroethene	12.33	61	221	N.D.			
29) Diisopropyl Ether	12.67	87	184	N.D.			
30) Ethyl Acetate	12.67	61	23888	4.301	ng		99
31) n-Hexane	12.58	57	78833	2.849	ng		100

NOT NEEDED

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310921.D
Acq On : 1 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 dil (300ml)
Misc : EH&E 103573
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 09 13:35:03 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
32) Chloroform	12.68	83	1818	0.067 ng		97
34) Tetrahydrofuran (THF)	13.41	72	4129	0.368 ng	#	36
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.		
36) 1,2-Dichloroethane	13.79	62	4540	0.198 ng		91
38) 1,1,1-Trichloroethane	0.00	97	0	N.D.		
39) Isopropyl Acetate	14.84	61	496	N.D.		
40) 1-Butanol	14.87	56	31582	1.848 ng	#	35
41) Benzene	14.87	78	197150	3.054 ng		100
42) Carbon Tetrachloride	15.09	117	3440	0.159 ng		95
43) Cyclohexane	15.29	84	7611	0.320 ng		96
44) tert-Amyl Methyl Ether	15.79	73	109	N.D.		
45) 1,2-Dichloropropane	16.11	63	1413	0.089 ng		91
46) Bromodichloromethane	16.38	83	471	N.D.		
47) Trichloroethene	16.44	130	1998	0.127 ng		82
48) 1,4-Dioxane	0.00	88	0	N.D.		
49) 2,2,4-Trimethylpentane...	16.51	57	5889	0.080 ng	#	44
50) Methyl Methacrylate	16.88	100	3361	0.562 ng	#	1
51) n-Heptane	16.88	71	12478	0.746 ng		95
52) cis-1,3-Dichloropropene	17.65	75	407	N.D.		
53) 4-Methyl-2-pentanone	17.76	58	3438	0.233 ng		91
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.		
55) 1,1,2-Trichloroethane	18.86	97	130013	8.643 ng	#	6
58) Toluene	18.98	91	905294	13.999 ng		99
59) 2-Hexanone	19.36	43	8511	0.215 ng		88
60) Dibromochloromethane	0.00	129	0	N.D.		
61) 1,2-Dibromoethane	0.00	107	0	N.D.		
62) n-Butyl Acetate	20.17	43	55343	1.221 ng		97
63) n-Octane	20.27	57	5085	0.342 ng		97
64) Tetrachloroethene	20.46	166	377	N.D.		
65) Chlorobenzene	21.38	112	189	N.D.		
66) Ethylbenzene	21.82	91	138220	1.869 ng		99
67) m- & p-Xylenes	22.03	91	367038	6.233 ng		98
68) Bromoform	0.00	173	0	N.D.		
69) Styrene	22.51	104	55847	1.288 ng		94
70) o-Xylene	22.65	91	123400	2.086 ng		99
71) n-Nonane	22.91	43	13858	0.390 ng		87
72) 1,1,2,2-Tetrachloroethane	22.49	83	205	N.D.		
74) Cumene	23.41	105	8377	0.112 ng		98
75) alpha-Pinene	23.90	93	1040898	26.768 ng		87
76) n-Propylbenzene	24.04	91	34006	0.357 ng		90
77) 3-Ethyltoluene	24.17	105	77781	1.085 ng		100
78) 4-Ethyltoluene	24.22	105	41041	0.580 ng		98
79) 1,3,5-Trimethylbenzene	24.31	105	29090	0.494 ng		99

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310921.D
Acq On : 1 Sep 2009 3:13 am
Operator : LM/CC
Sample : P0902985-002 dil (300ml)
Misc : EH&E 103573
ALS Vial : 14 Sample Multiplier: 1

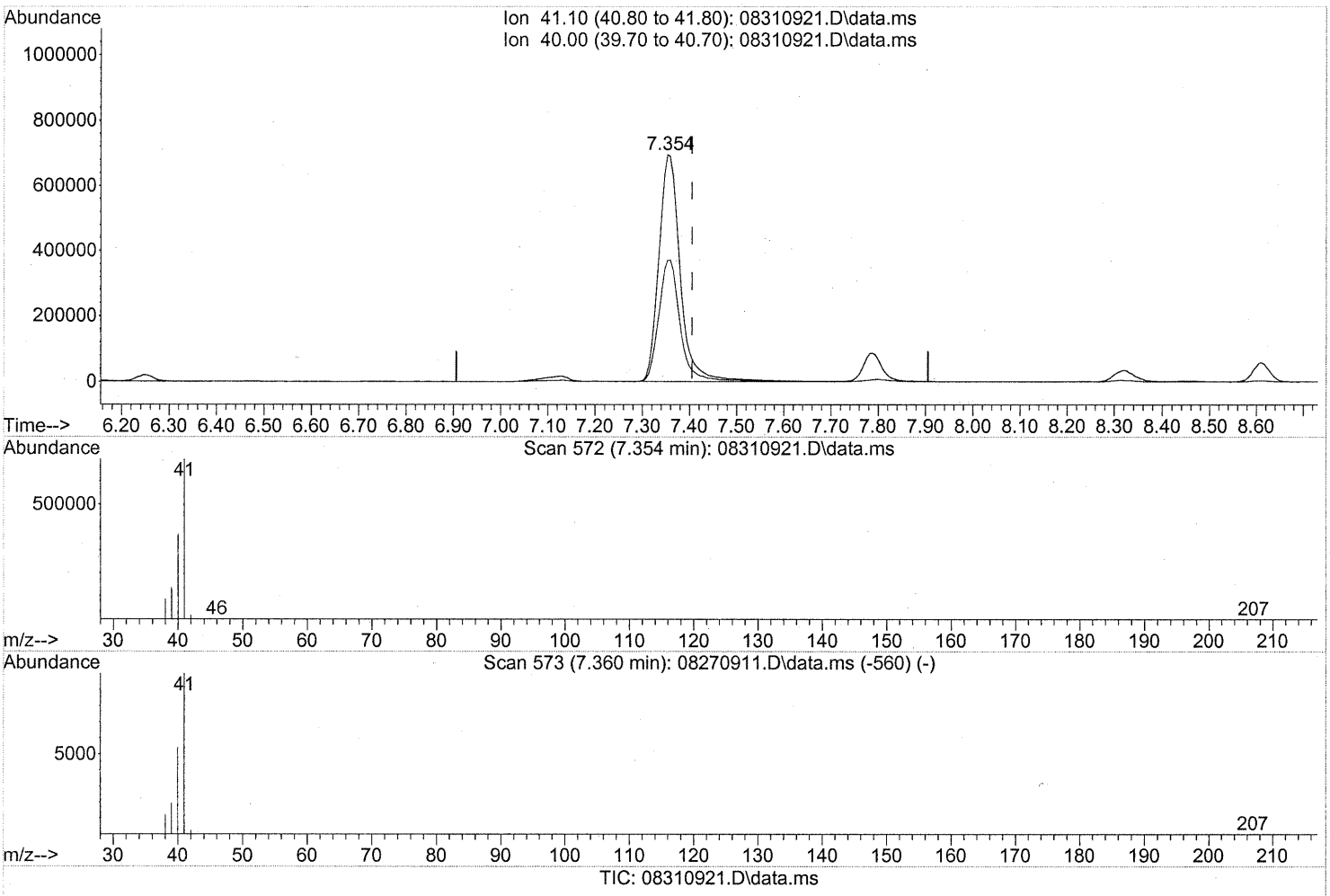
Quant Time: Sep 09 13:35:03 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
80) alpha-Methylstyrene	24.51	118	741	N.D.		
81) 2-Ethyltoluene	24.56	105	25533	0.347 ng		98
82) 1,2,4-Trimethylbenzene	24.82	105	115608	1.922 ng		90
83) n-Decane	24.93	57	25338	0.706 ng		99
84) Benzyl Chloride	24.99	91	650	N.D.		
85) 1,3-Dichlorobenzene	25.10	146	2718	0.084 ng		90
86) 1,4-Dichlorobenzene	25.10	146	2718	0.080 ng		90
87) sec-Butylbenzene	25.16	105	2553	N.D.		
88) 4-Isopropyltoluene (p-...	25.35	119	55625	0.751 ng		98
89) 1,2,3-Trimethylbenzene	25.35	105	24858	0.394 ng		84
90) 1,2-Dichlorobenzene	25.10	146	2718	0.090 ng		88
91) d-Limonene	25.53	68	192992	8.039 ng		94
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.46	57	26650	0.715 ng		80
94) 1,2,4-Trichlorobenzene	0.00	180	0	N.D.		
95) Naphthalene	27.72	128	25577	0.308 ng		100
96) n-Dodecane	27.69	57	19019	0.448 ng		91
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.30	55	17185	0.689 ng		98
99) tert-Butylbenzene	24.83	119	13145	0.226 ng	#	56
100) n-Butylbenzene	25.85	91	9287	0.139 ng	#	48

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

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310921.D
Acq On : 1 Sep 2009 3:13
Operator : LM/CC
Sample : P0902985-002 dil (300ml)
Misc : EH&E 103573
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Sep 09 13:35:03 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(11) Acetonitrile (T)

7.354min (-0.052) 63.73ng

response 2190354

Ion	Exp%	Act%
41.10	100	100
40.00	53.70	53.60
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: **103574**
Client Project ID: **16512**

CAS Project ID: P0902985
CAS Sample ID: P0902985-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
Analyst: Liliana Marghitoiu
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC01300

Date Collected: 8/26/09
Date Received: 8/27/09
Date Analyzed: 9/1/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.4 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.48

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	Propene	ND	0.74	ND	0.43	
75-71-8	**Dichlorodifluoromethane (CFC 12)**	**2.8**	0.74	**0.56**	0.15	
74-87-3	**Chloromethane**	**0.46**	0.15	**0.22**	0.072	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.74	ND	0.11	
75-01-4	Vinyl Chloride	ND	0.15	ND	0.058	
106-99-0	1,3-Butadiene	ND	0.15	ND	0.067	
74-83-9	Bromomethane	ND	0.15	ND	0.038	
75-00-3	Chloroethane	ND	0.15	ND	0.056	
64-17-5	Ethanol	ND	7.4	ND	3.9	
75-05-8	**Acetonitrile**	**3.1**	0.74	**1.8**	0.44	
107-02-8	**Acrolein**	**1.1**	0.74	**0.46**	0.32	
67-64-1	**Acetone**	**21**	7.4	**8.9**	3.1	
75-69-4	**Trichlorofluoromethane**	**1.3**	0.15	**0.23**	0.026	
67-63-0	2-Propanol (Isopropyl Alcohol)	ND	0.74	ND	0.30	
107-13-1	Acrylonitrile	ND	0.74	ND	0.34	
75-35-4	1,1-Dichloroethene	ND	0.15	ND	0.037	
75-09-2	Methylene Chloride	ND	0.74	ND	0.21	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.15	ND	0.047	
76-13-1	**Trichlorotrifluoroethane**	**0.58**	0.15	**0.076**	0.019	
75-15-0	Carbon Disulfide	ND	0.74	ND	0.24	
156-60-5	trans-1,2-Dichloroethene	ND	0.15	ND	0.037	
75-34-3	1,1-Dichloroethane	ND	0.15	ND	0.037	
1634-04-4	Methyl tert-Butyl Ether	ND	0.15	ND	0.041	
108-05-4	Vinyl Acetate	ND	7.4	ND	2.1	
78-93-3	**2-Butanone (MEK)**	**3.0**	0.74	**1.0**	0.25	

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: 9/10/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **103574**
Client Project ID: **16512**

CAS Project ID: P0902985
CAS Sample ID: P0902985-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
Analyst: Liliana Marghitoiu
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC01300

Date Collected: 8/26/09
Date Received: 8/27/09
Date Analyzed: 9/1/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.4 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.48

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	0.037	
141-78-6	**Ethyl Acetate**	**0.83**	0.74	**0.23**	0.21	
110-54-3	n-Hexane	ND	0.74	ND	0.21	
67-66-3	Chloroform	ND	0.15	ND	0.030	
109-99-9	Tetrahydrofuran (THF)	ND	0.74	ND	0.25	
107-06-2	1,2-Dichloroethane	ND	0.15	ND	0.037	
71-55-6	1,1,1-Trichloroethane	ND	0.15	ND	0.027	
71-43-2	**Benzene**	**0.46**	0.15	**0.14**	0.046	
56-23-5	**Carbon Tetrachloride**	**0.55**	0.15	**0.087**	0.024	
110-82-7	Cyclohexane	ND	0.74	ND	0.22	
78-87-5	1,2-Dichloropropane	ND	0.15	ND	0.032	
75-27-4	Bromodichloromethane	ND	0.15	ND	0.022	
79-01-6	Trichloroethene	ND	0.15	ND	0.028	
123-91-1	1,4-Dioxane	ND	0.74	ND	0.21	
80-62-6	Methyl Methacrylate	ND	0.74	ND	0.18	
142-82-5	n-Heptane	ND	0.74	ND	0.18	
10061-01-5	cis-1,3-Dichloropropene	ND	0.74	ND	0.16	
108-10-1	4-Methyl-2-pentanone	ND	0.74	ND	0.18	
10061-02-6	trans-1,3-Dichloropropene	ND	0.74	ND	0.16	
79-00-5	1,1,2-Trichloroethane	ND	0.15	ND	0.027	
108-88-3	**Toluene**	**1.2**	0.74	**0.32**	0.20	
591-78-6	2-Hexanone	ND	0.74	ND	0.18	
124-48-1	Dibromochloromethane	ND	0.15	ND	0.017	
106-93-4	1,2-Dibromoethane	ND	0.15	ND	0.019	
123-86-4	**n-Butyl Acetate**	**1.0**	0.74	**0.21**	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: 9/10/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **103574**
Client Project ID: **16512**

CAS Project ID: P0902985
CAS Sample ID: P0902985-003

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
Analyst: Liliana Marghitoiu
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC01300

Date Collected: 8/26/09
Date Received: 8/27/09
Date Analyzed: 9/1/09
Volume(s) Analyzed: 1.00 Liter(s)

Initial Pressure (psig): -2.4 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.48

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	n-Octane	ND	0.74	ND	0.16	
127-18-4	Tetrachloroethene	ND	0.15	ND	0.022	
108-90-7	Chlorobenzene	ND	0.15	ND	0.032	
100-41-4	Ethylbenzene	ND	0.74	ND	0.17	
179601-23-1	m,p-Xylenes	ND	0.74	ND	0.17	
75-25-2	Bromoform	ND	0.74	ND	0.072	
100-42-5	Styrene	ND	0.74	ND	0.17	
95-47-6	o-Xylene	ND	0.74	ND	0.17	
111-84-2	n-Nonane	ND	0.74	ND	0.14	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.15	ND	0.022	
98-82-8	Cumene	ND	0.74	ND	0.15	
80-56-8	**alpha-Pinene**	**0.98**	0.74	**0.18**	0.13	
103-65-1	n-Propylbenzene	ND	0.74	ND	0.15	
622-96-8	4-Ethyltoluene	ND	0.74	ND	0.15	
108-67-8	1,3,5-Trimethylbenzene	ND	0.74	ND	0.15	
95-63-6	1,2,4-Trimethylbenzene	ND	0.74	ND	0.15	
100-44-7	Benzyl Chloride	ND	0.15	ND	0.029	
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	ND	0.74	ND	0.13	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.74	ND	0.077	
120-82-1	1,2,4-Trichlorobenzene	ND	0.74	ND	0.10	
91-20-3	Naphthalene	ND	0.74	ND	0.14	
87-68-3	Hexachlorobutadiene	ND	0.74	ND	0.069	

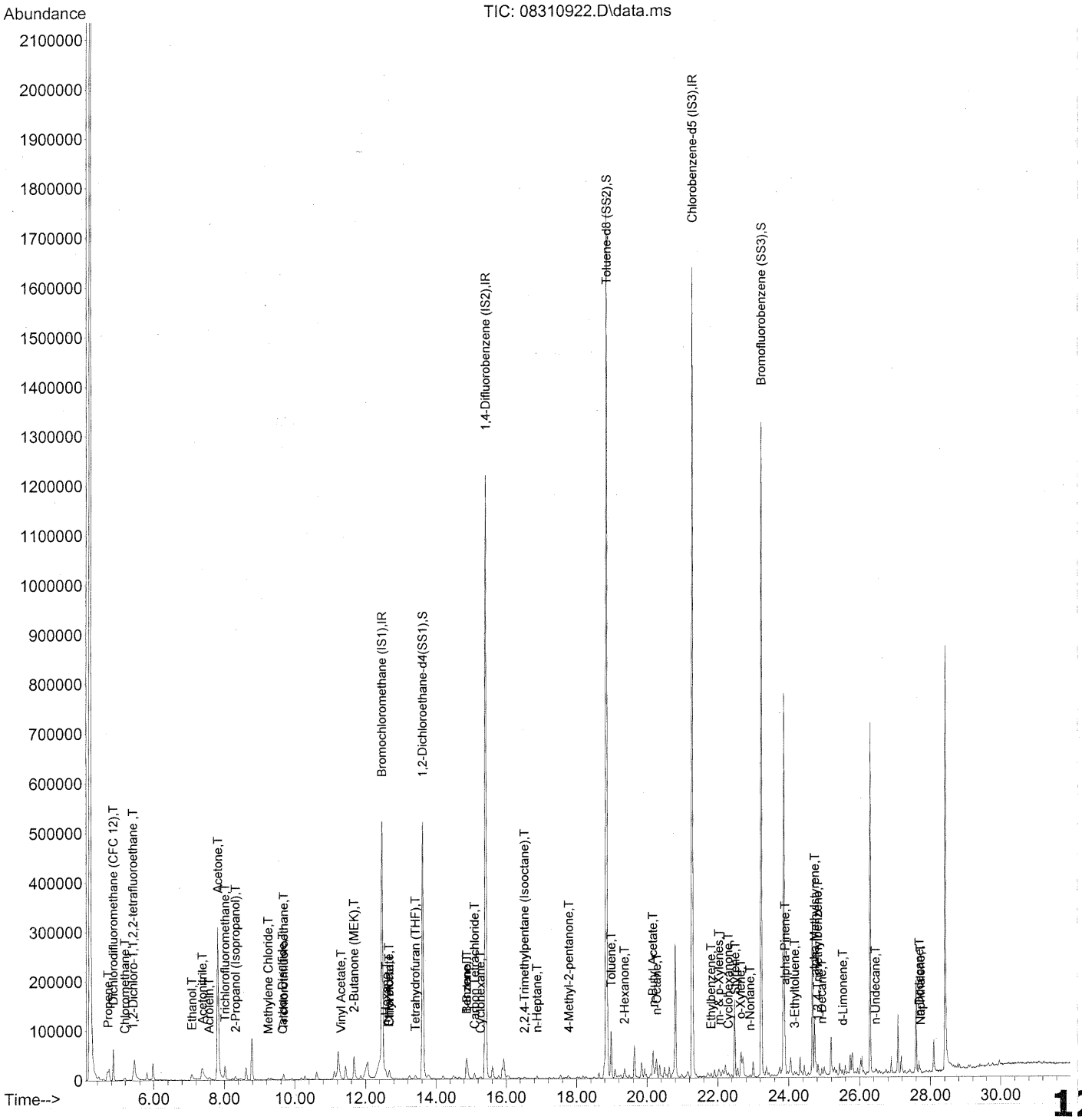
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 9/10/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310922.D
Acq On : 1 Sep 2009 3:55 am
Operator : LM/CC
Sample : P0902985-003 (1000ml)
Misc : EH&E 103574
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 09 13:38:19 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310922.D
Acq On : 1 Sep 2009 3:55 am
Operator : LM/CC
Sample : P0902985-003 (1000ml)
Misc : EH&E 103574
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 09 13:38:19 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

9/9/09

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
1) Bromochloromethane (IS1)	12.47	130	280279	25.000 ng		-0.03
37) 1,4-Difluorobenzene (IS2)	15.41	114	1391069	25.000 ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.28	82	672703	25.000 ng		0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4(...	13.62	65	542542	24.427 ng		-0.03
Spiked Amount 25.000			Recovery =	97.72%		
57) Toluene-d8 (SS2)	18.85	98	1508842	25.098 ng		-0.01
Spiked Amount 25.000			Recovery =	100.40%		
73) Bromofluorobenzene (SS3)	23.23	174	430167	24.861 ng		0.00
Spiked Amount 25.000			Recovery =	99.44%		
Target Compounds						Qvalue
2) Propene	4.70	42	7673	0.378 ng	#	41
3) Dichlorodifluoromethan...	4.85	85	66352	1.869 ng		99
4) Chloromethane	5.19	50	7453	0.312 ng		98
5) 1,2-Dichloro-1,1,2,2-t...	5.42	135	1039	0.071 ng	#	43
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	7.08	45	43842	3.487 ng		83
11) Acetonitrile	7.38	41	72093	2.065 ng	#	25
12) Acrolein	7.57	56	6913	0.720 ng		96
13) Acetone	7.82	58	186028	14.309 ng		87
14) Trichlorofluoromethane	8.02	101	27687	0.885 ng		99
15) 2-Propanol (Isopropanol)	8.32	45	12201	0.282 ng		75
16) Acrylonitrile	0.00	53	0	N.D.		
17) 1,1-Dichloroethene	8.91	96	98	N.D.		
18) 2-Methyl-2-Propanol (t...	9.29	59	1527	N.D.		
19) Methylene Chloride	9.25	84	1776	0.108 ng		98
20) 3-Chloro-1-propene (Al...	9.37	41	198	N.D.		
21) Trichlorotrifluoroethane	9.68	151	4882	0.394 ng		99
22) Carbon Disulfide	9.65	76	2973	0.051 ng	#	74
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	11.30	86	217	0.067 ng	#	1
27) 2-Butanone (MEK)	11.67	72	21454	2.043 ng		97
28) cis-1,2-Dichloroethene	12.38	61	435	N.D.		
29) Diisopropyl Ether	0.00	87	0	N.D.		
30) Ethyl Acetate	12.67	61	3165	0.561 ng		95
31) n-Hexane	12.58	57	5087	0.181 ng		99

< MRL
9/10/09

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310922.D
Acq On : 1 Sep 2009 3:55 am
Operator : LM/CC
Sample : P0902985-003 (1000ml)
Misc : EH&E 103574
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 09 13:38:19 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.67	83	1512	0.055	ng	#	60
34) Tetrahydrofuran (THF)	13.41	72	1995	0.175	ng	#	64
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	13.80	62	198	N.D.			
38) 1,1,1-Trichloroethane	14.17	97	510	N.D.			
39) Isopropyl Acetate	0.00	61	0	N.D.			
40) 1-Butanol	14.88	56	31938	1.845	ng	#	36
41) Benzene	14.87	78	20387	0.312	ng		99
42) Carbon Tetrachloride	15.10	117	8100	0.369	ng		98
43) Cyclohexane	15.27	84	1514	0.063	ng	#	1
44) tert-Amyl Methyl Ether	15.93	73	290	N.D.			
45) 1,2-Dichloropropane	15.89	63	103	N.D.			
46) Bromodichloromethane	16.06	83	284	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...	16.52	57	3823	0.051	ng	#	57
50) Methyl Methacrylate	0.00	100	0	N.D.			
51) n-Heptane	16.87	71	1245	0.073	ng	#	88
52) cis-1,3-Dichloropropene	0.00	75	0	N.D.			
53) 4-Methyl-2-pentanone	17.78	58	1774	0.119	ng	#	66
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	18.98	91	52702	0.814	ng		100
59) 2-Hexanone	19.36	43	19249	0.486	ng		94
60) Dibromochloromethane	0.00	129	0	N.D.			
61) 1,2-Dibromoethane	0.00	107	0	N.D.			
62) n-Butyl Acetate	20.17	43	31031	0.684	ng		83
63) n-Octane	20.26	57	6713	0.451	ng		85
64) Tetrachloroethene	20.46	166	287	N.D.			
65) Chlorobenzene	0.00	112	0	N.D.			
66) Ethylbenzene	21.81	91	7226	0.098	ng		99
67) m- & p-Xylenes	22.04	91	17507	0.297	ng		99
68) Bromoform	0.00	173	0	N.D.			
69) Styrene	22.50	104	2447	0.056	ng		99
70) o-Xylene	22.65	91	6068	0.102	ng		97
71) n-Nonane	22.91	43	2745	0.077	ng	#	81
72) 1,1,2,2-Tetrachloroethane	22.66	83	92	N.D.			
74) Cumene	23.23	105	717	N.D.			
75) alpha-Pinene	23.90	93	25882	0.665	ng	#	42
76) n-Propylbenzene	24.05	91	2600	N.D.			
77) 3-Ethyltoluene	24.17	105	5488	0.076	ng		90
78) 4-Ethyltoluene	24.22	105	2793	N.D.			
79) 1,3,5-Trimethylbenzene	24.31	105	2439	N.D.			

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310922.D
Acq On : 1 Sep 2009 3:55 am
Operator : LM/CC
Sample : P0902985-003 (1000ml)
Misc : EH&E 103574
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 09 13:38:19 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

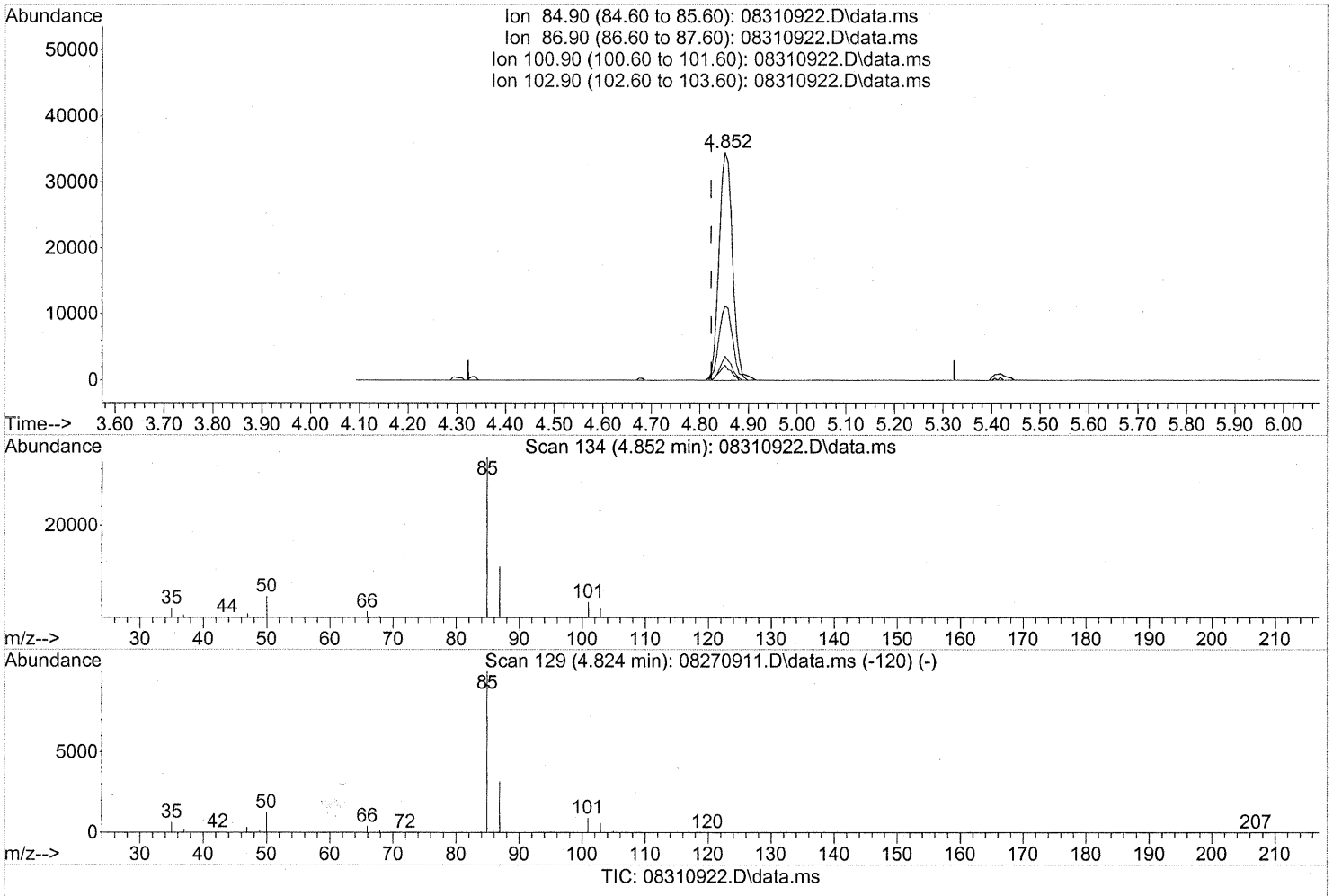
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.73	118	1725	0.056	ng	#	1
81) 2-Ethyltoluene	24.56	105	2021	N.D.			
82) 1,2,4-Trimethylbenzene	24.82	105	6741	~~0.112~~	ng		77
83) n-Decane	24.93	57	10404	0.289	ng		92
84) Benzyl Chloride	25.01	91	762	N.D.			
85) 1,3-Dichlorobenzene	25.10	146	672	N.D.			
86) 1,4-Dichlorobenzene	25.10	146	672	N.D.			
87) sec-Butylbenzene	25.16	105	195	N.D.			
88) 4-Isopropyltoluene (p-...	25.35	119	1729	N.D.			
89) 1,2,3-Trimethylbenzene	25.35	105	1763	N.D.			
90) 1,2-Dichlorobenzene	25.10	146	672	N.D.			
91) d-Limonene	25.53	68	2359	~~0.098~~	ng		85
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.			
93) n-Undecane	26.45	57	6032	0.162	ng		85
94) 1,2,4-Trichlorobenzene	0.00	180	0	N.D.			
95) Naphthalene	27.72	128	5991	~~0.072~~	ng		93
96) n-Dodecane	27.69	57	9853	0.232	ng		94
97) Hexachlorobutadiene	0.00	225	0	N.D.			
98) Cyclohexanone	22.30	55	5309	0.213	ng	#	91
99) tert-Butylbenzene	24.82	119	619	N.D.			
100) n-Butylbenzene	25.86	91	2186	N.D.			

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

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310922.D
Acq On : 1 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-003 (1000ml)
Misc : EH&E 103574
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 09 13:35:37 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 08310922.D\data.ms

(3) Dichlorodifluoromethane (CFC 12) (T)

4.852min (+0.029) 1.87ng

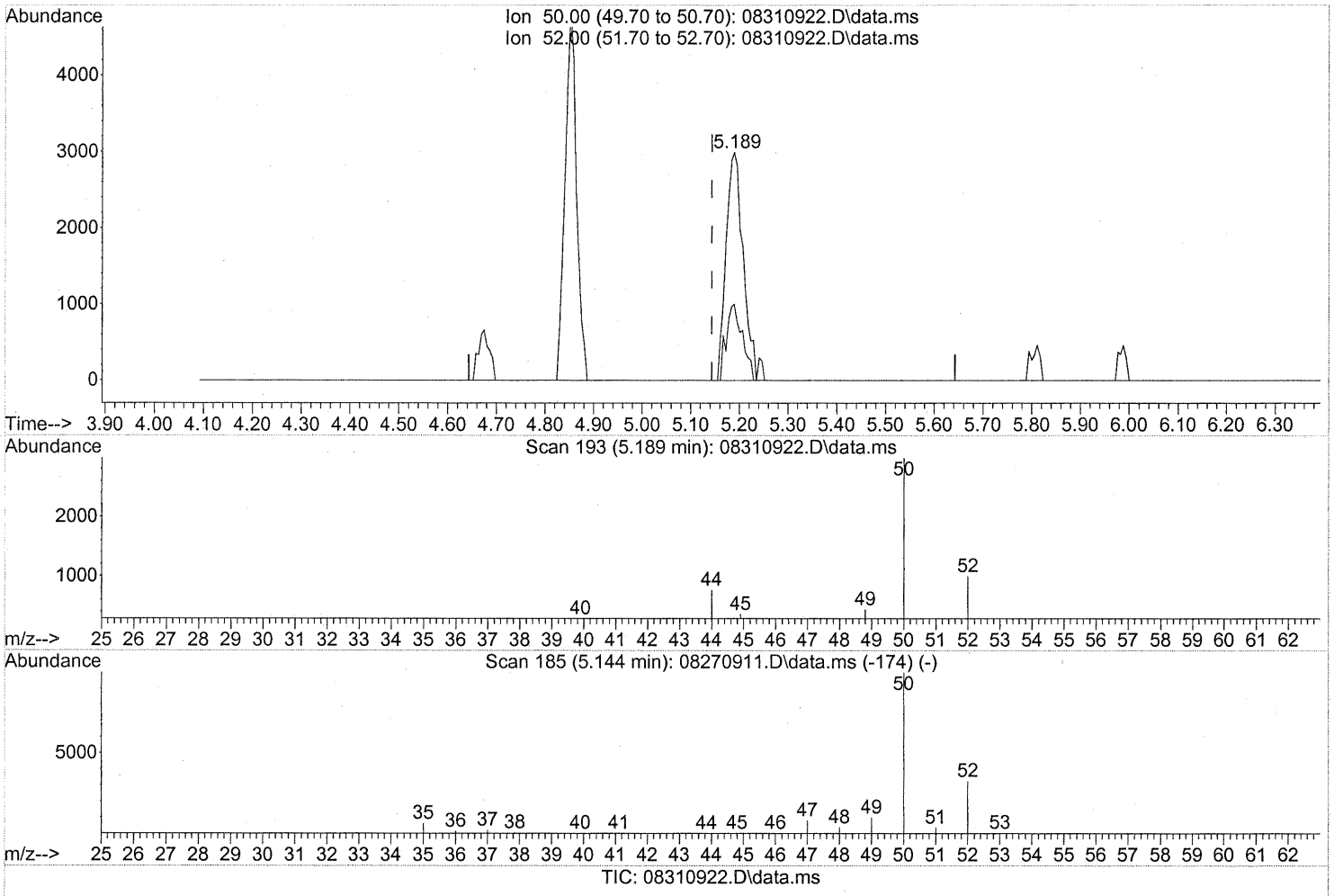
response 66352

Ion	Exp%	Act%
84.90	100	100
86.90	32.00	32.85
100.90	8.80	8.81
102.90	5.60	5.45

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310922.D
Acq On : 1 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-003 (1000ml)
Misc : EH&E 103574
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 09 13:35:37 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(4) Chloromethane (T)

5.189min (+0.046) 0.31ng

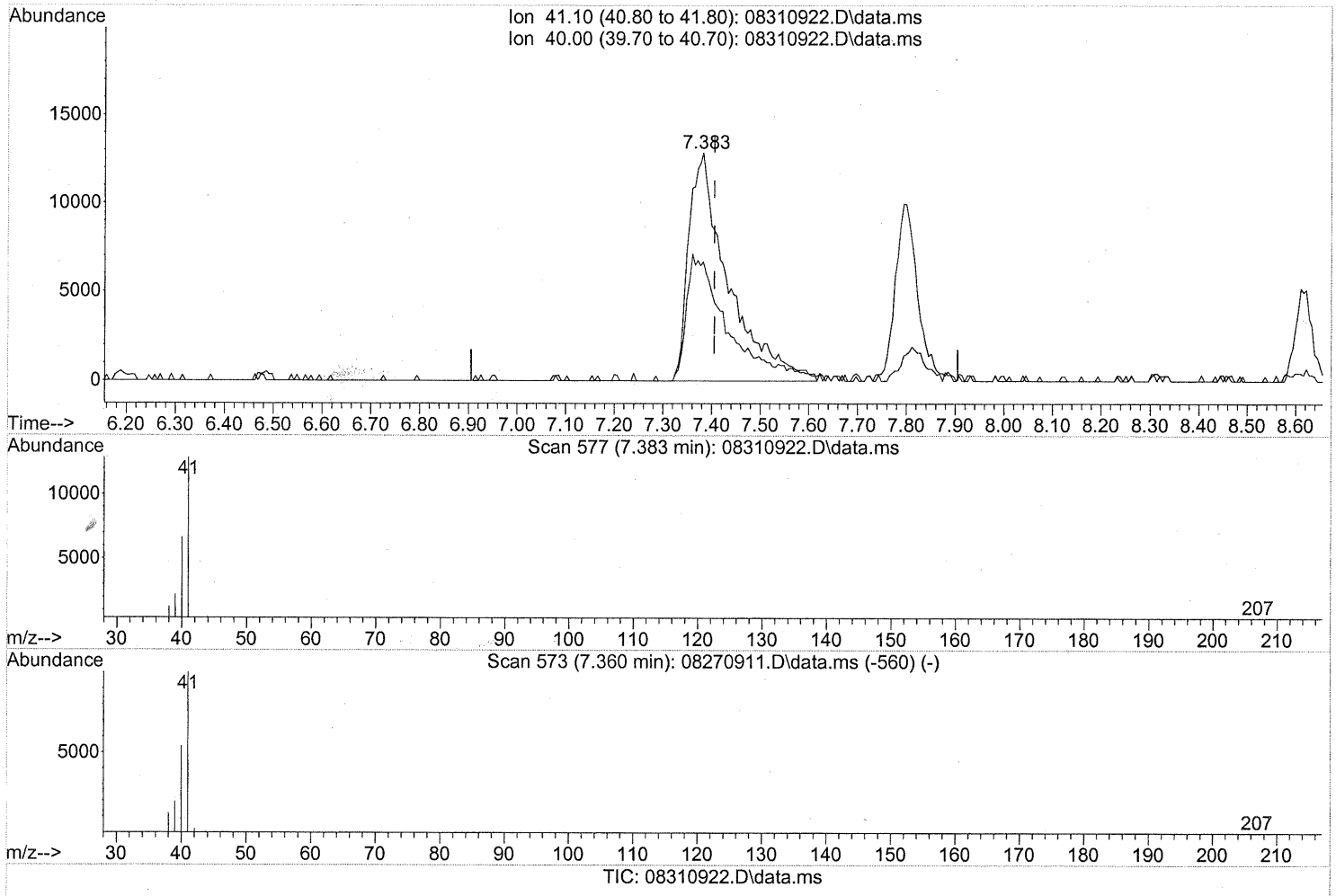
response 7453

Ion	Exp%	Act%
50.00	100	100
52.00	31.60	30.77
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310922.D
Acq On : 1 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-003 (1000ml)
Misc : EH&E 103574
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 09 13:35:37 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 08310922.D\data.ms

(11) Acetonitrile (T)

7.383min (-0.023) 2.06ng

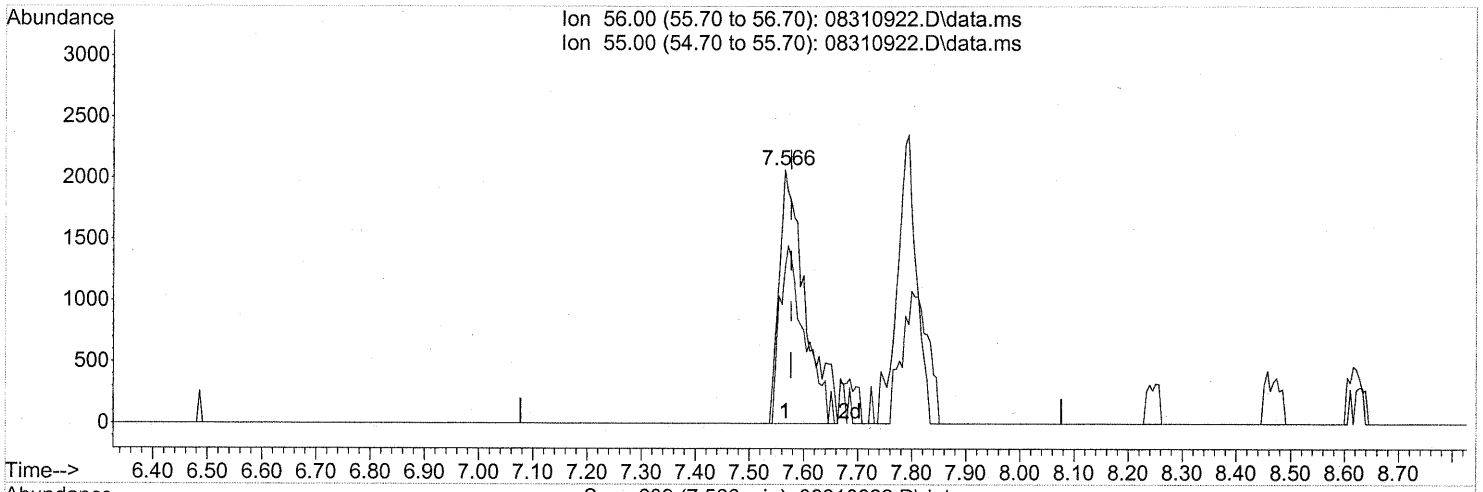
response 72093

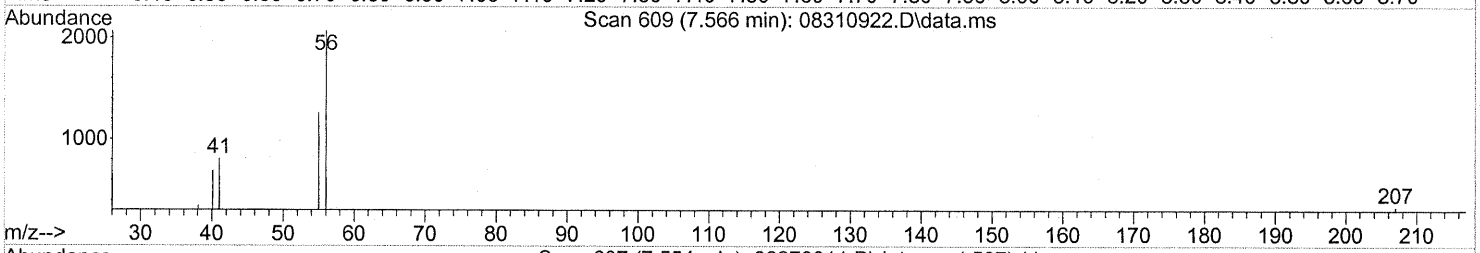
Ion	Exp%	Act%
41.10	100	100
40.00	53.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

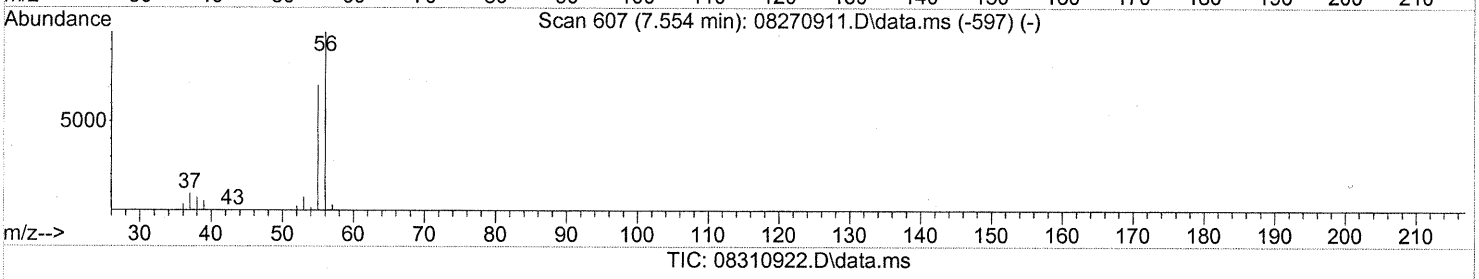
Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310922.D
Acq On : 1 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-003 (1000ml)
Misc : EH&E 103574
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 09 13:35:37 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration







TIC: 08310922.D\data.ms

(12) Acrolein (T)

7.566min (-0.011) 0.72ng

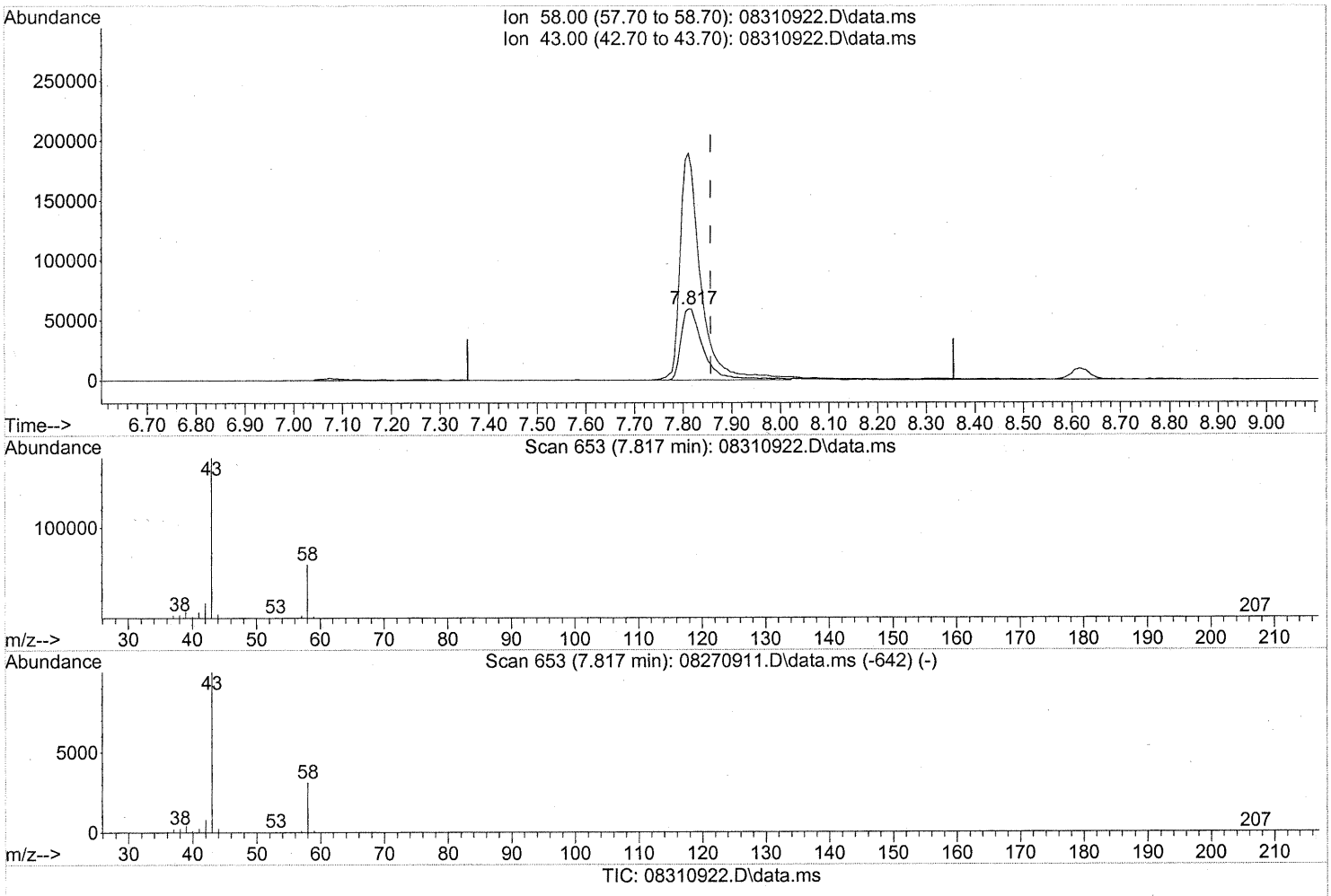
response 6913

Ion	Exp%	Act%
56.00	100	100
55.00	71.10	67.45
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310922.D
Acq On : 1 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-003 (1000ml)
Misc : EH&E 103574
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 09 13:35:37 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 08310922.D\data.ms

(13) Acetone (T)

7.817min (-0.040) 14.31ng

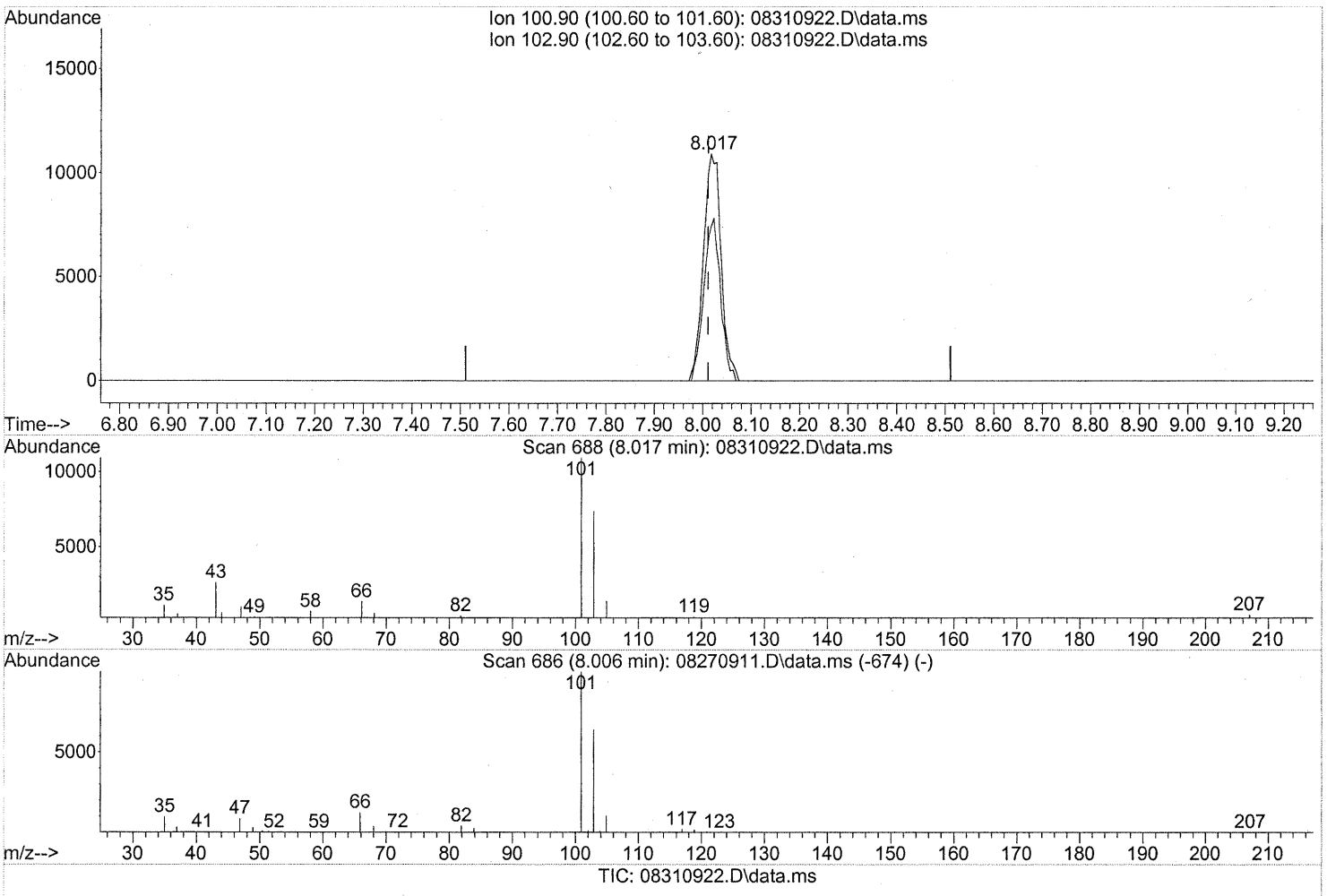
response 186028

Ion	Exp%	Act%
58.00	100	100
43.00	331.30	303.14
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310922.D
Acq On : 1 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-003 (1000ml)
Misc : EH&E 103574
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 09 13:35:37 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 08310922.D\data.ms

(14) Trichlorofluoromethane (T)

8.017min (+0.006) 0.88ng

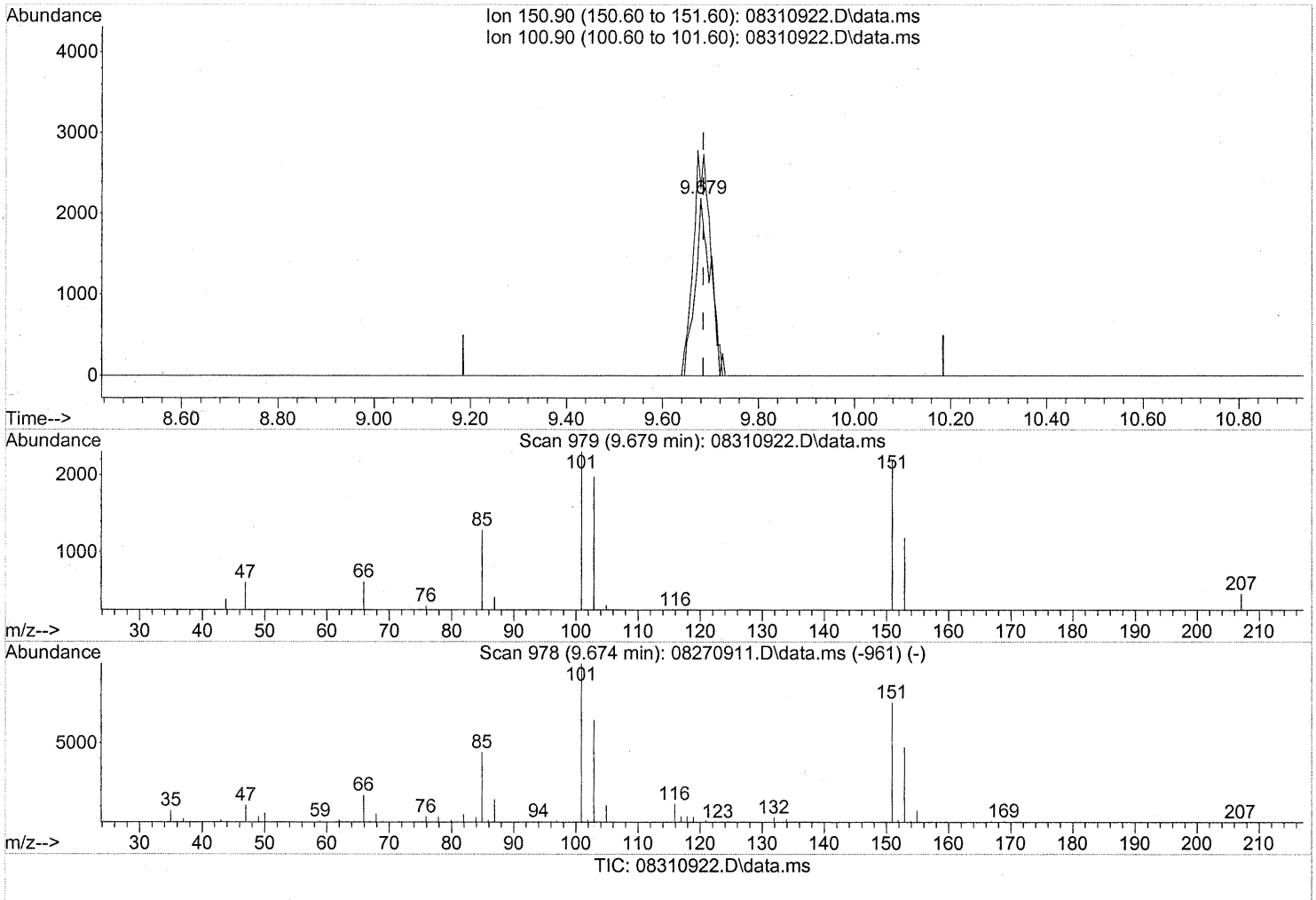
response 27687

Ion	Exp%	Act%
100.90	100	100
102.90	66.10	67.12
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310922.D
Acq On : 1 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-003 (1000ml)
Misc : EH&E 103574
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 09 13:35:37 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 08310922.D\data.ms

(21) Trichlorotrifluoroethane (T)

9.679min (-0.006) 0.39ng

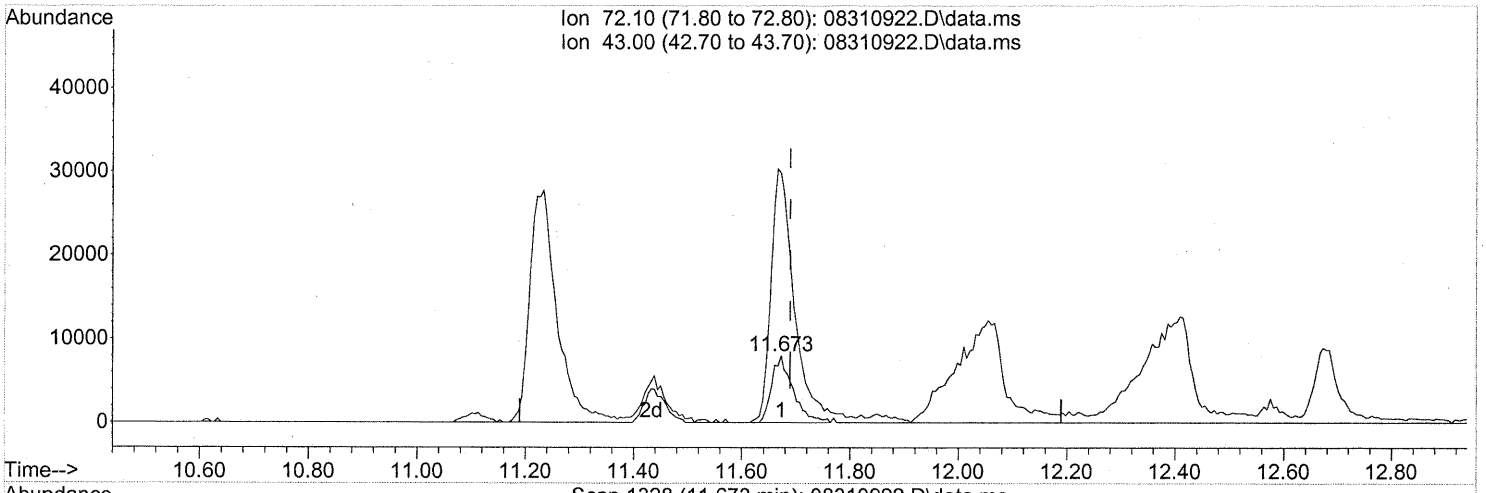
response 4882

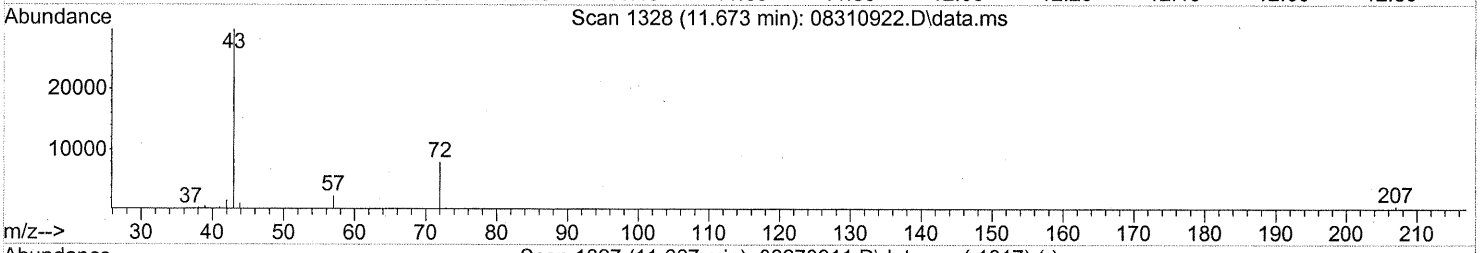
Ion	Exp%	Act%
150.90	100	100
100.90	138.30	139.61
0.00	0.00	0.00
0.00	0.00	0.00

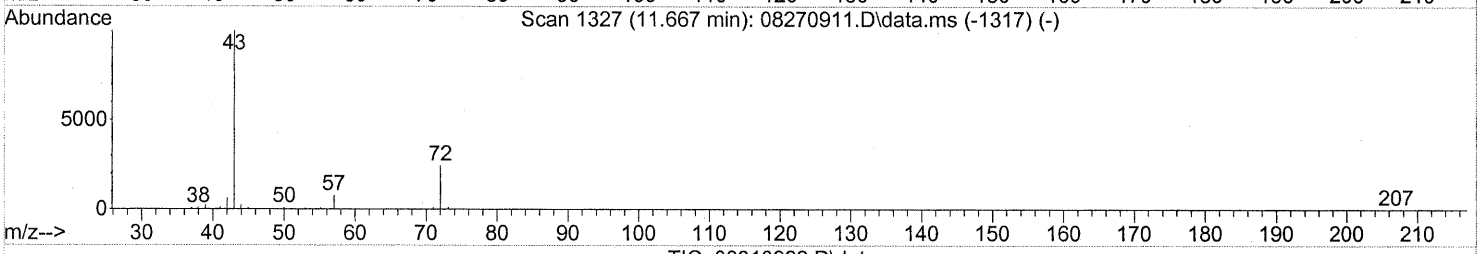
Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310922.D
Acq On : 1 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-003 (1000ml)
Misc : EH&E 103574
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 09 13:35:37 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration







TIC: 08310922.D\data.ms

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

11.673min (-0.017) 2.04ng

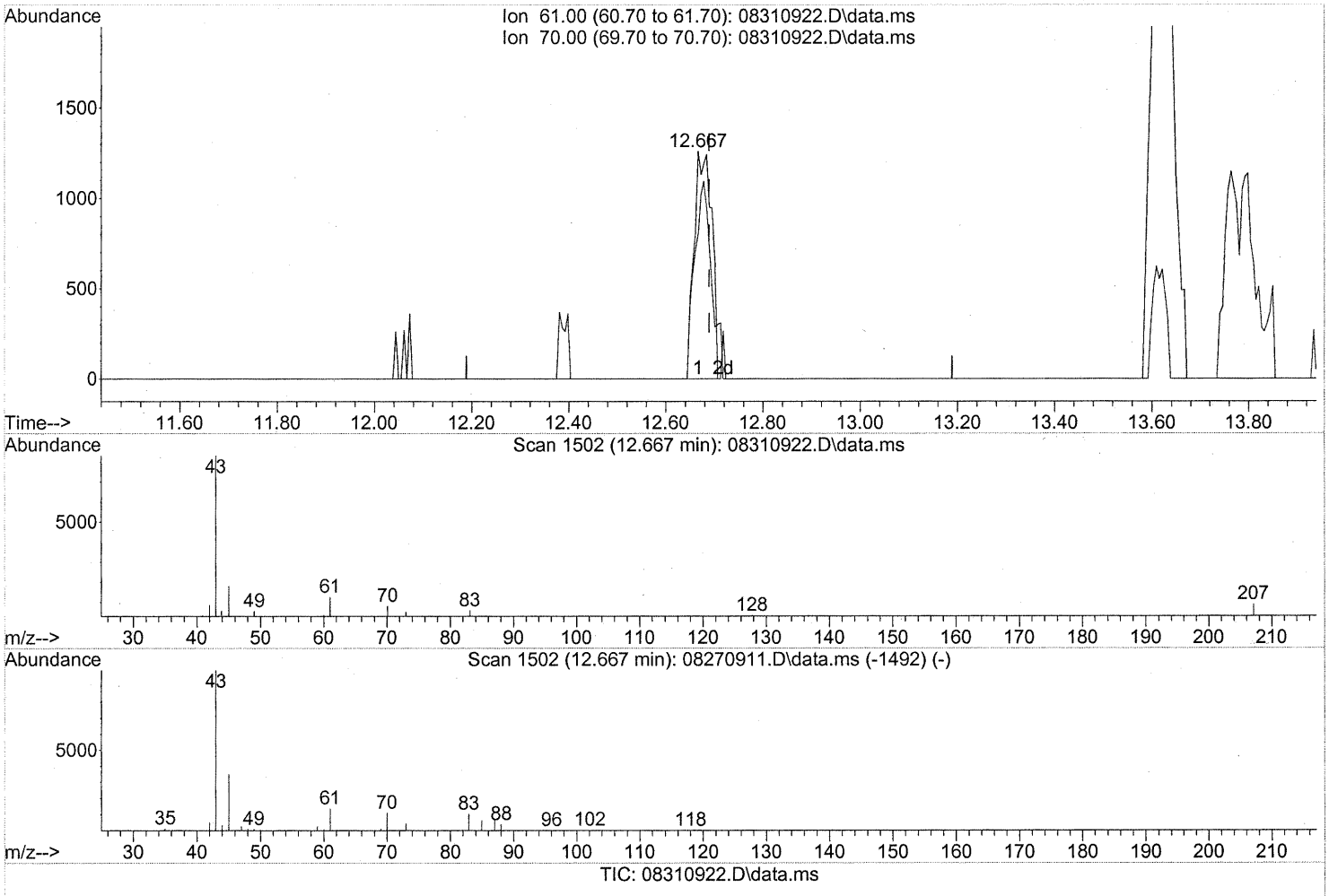
response 21454

Ion	Exp%	Act%
72.10	100	100
43.00	424.60	431.62
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310922.D
Acq On : 1 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-003 (1000ml)
Misc : EH&E 103574
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 09 13:35:37 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 08310922.D\data.ms

(30) Ethyl Acetate (T)

12.667min (-0.023) 0.56ng

response 3165

Ion	Exp%	Act%
61.00	100	100
70.00	78.70	83.16
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310922.D
Acq On : 1 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-003 (1000ml)
Misc : EH&E 103574
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 09 13:35:37 2009
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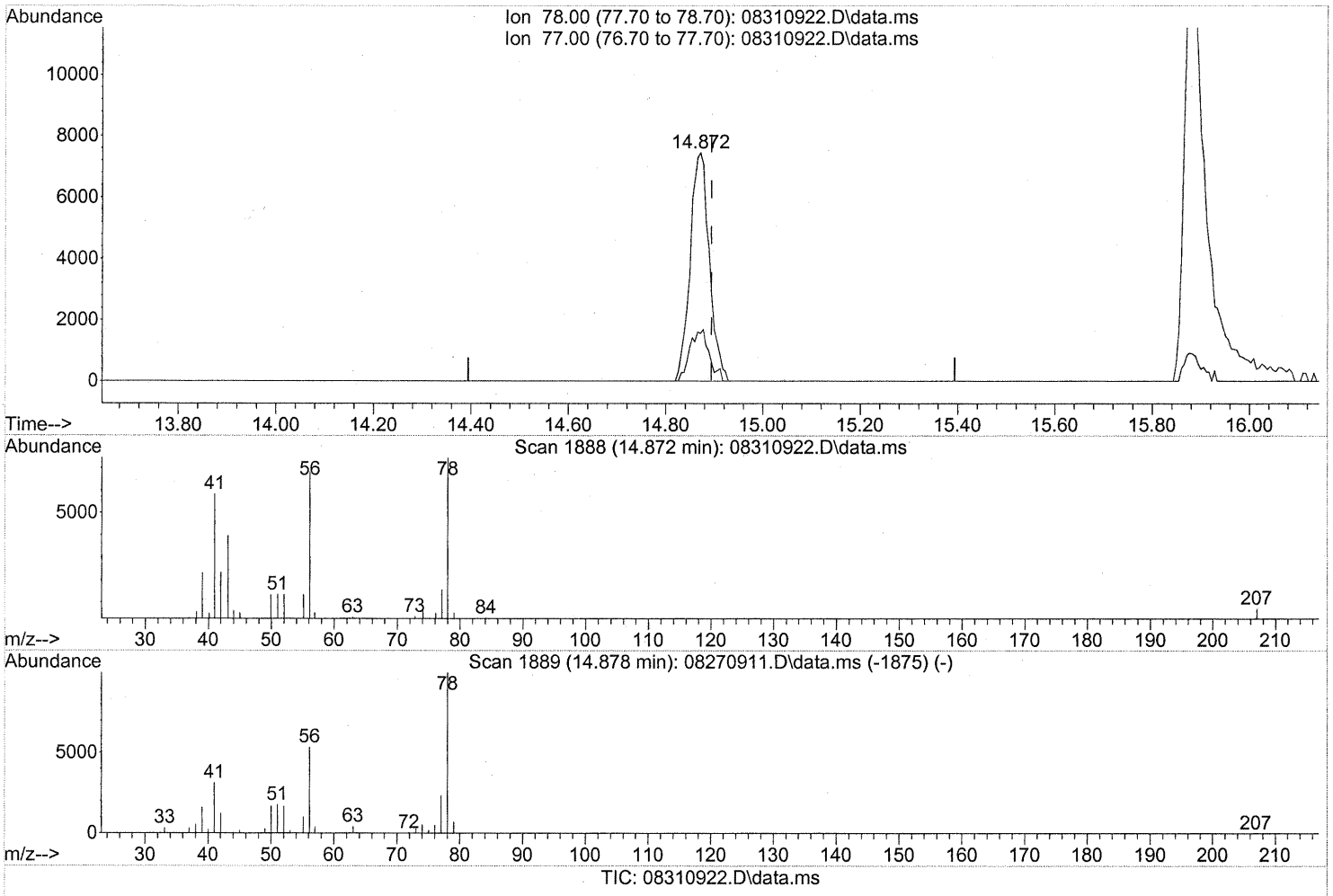
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 08310922.D\data.ms

(41) Benzene (T)

14.872min (-0.023) 0.31ng

response 20387

Ion	Exp%	Act%
78.00	100	100
77.00	23.20	22.60
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310922.D
Acq On : 1 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-003 (1000ml)
Misc : EH&E 103574
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 09 13:35:37 2009
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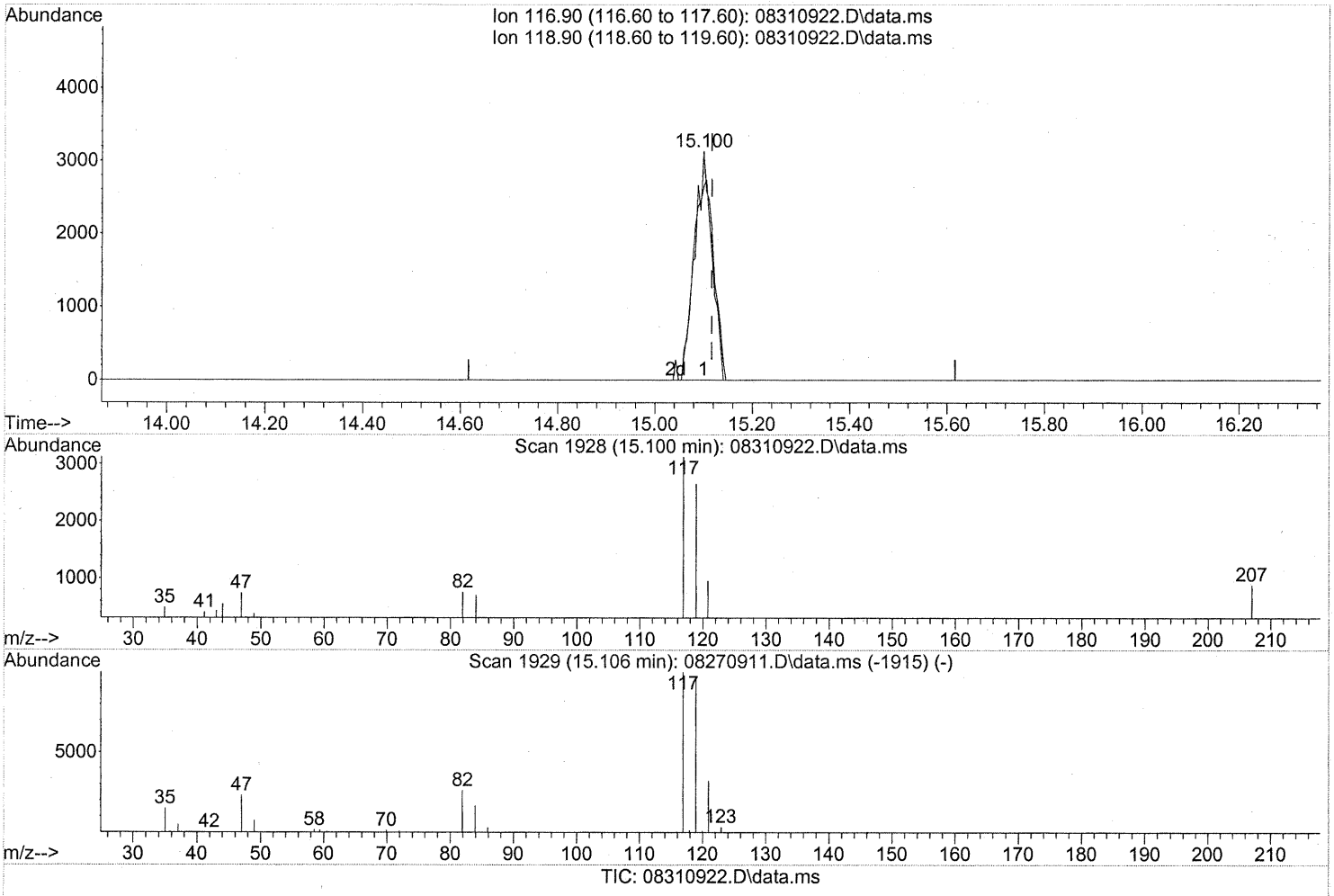
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 08310922.D\data.ms

(42) Carbon Tetrachloride (T)

15.100min (-0.017) 0.37ng

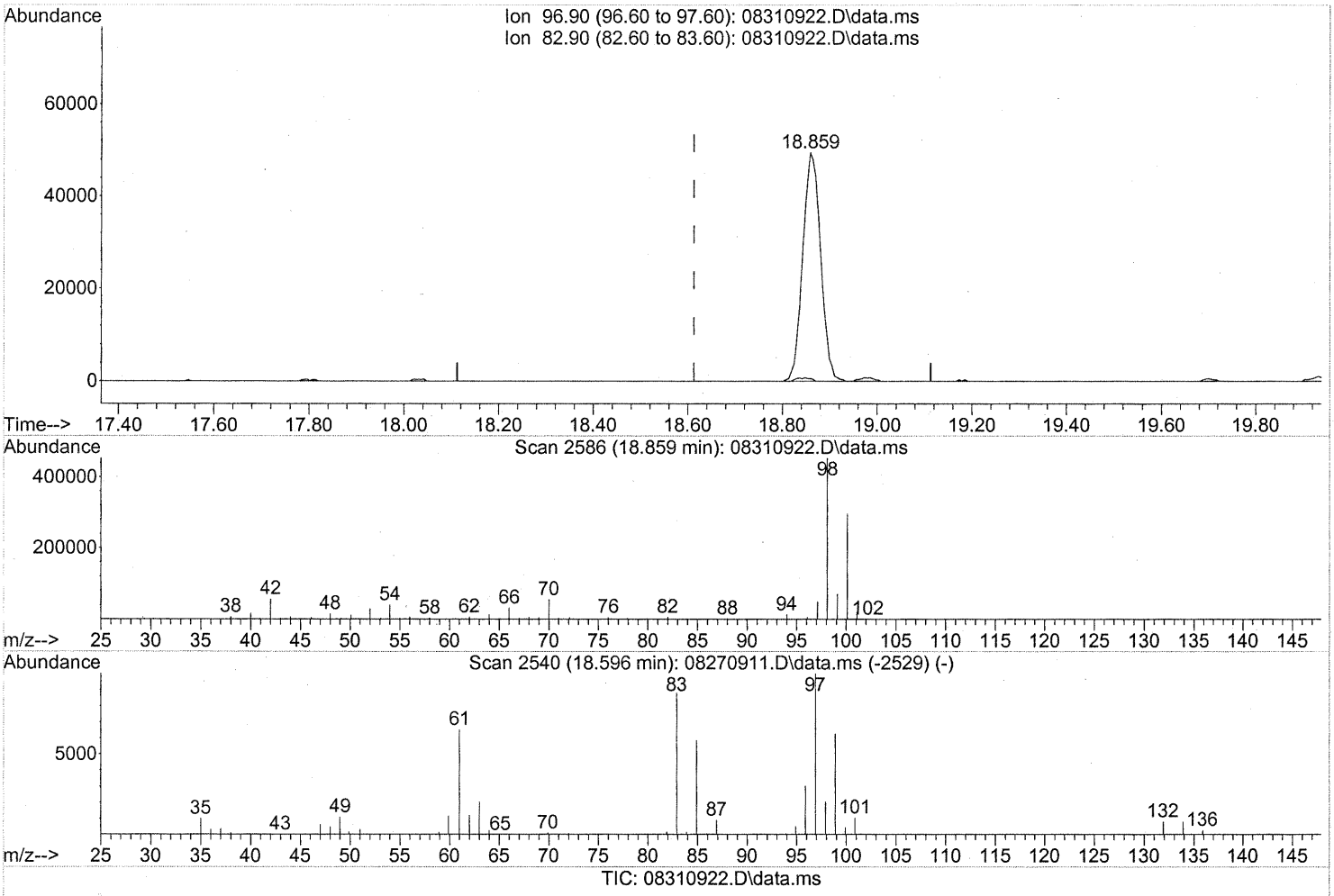
response 8100

Ion	Exp%	Act%
116.90	100	100
118.90	96.20	94.42
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310922.D
Acq On : 1 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-003 (1000ml)
Misc : EH&E 103574
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 09 13:35:37 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 08310922.D\data.ms

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

18.859min (+0.246) 8.51ng

response 129689

Ion	Exp%	Act%
96.90	100	100
82.90	87.70	1.10#
0.00	0.00	0.00
0.00	0.00	0.00

FP
LM 9/9/09

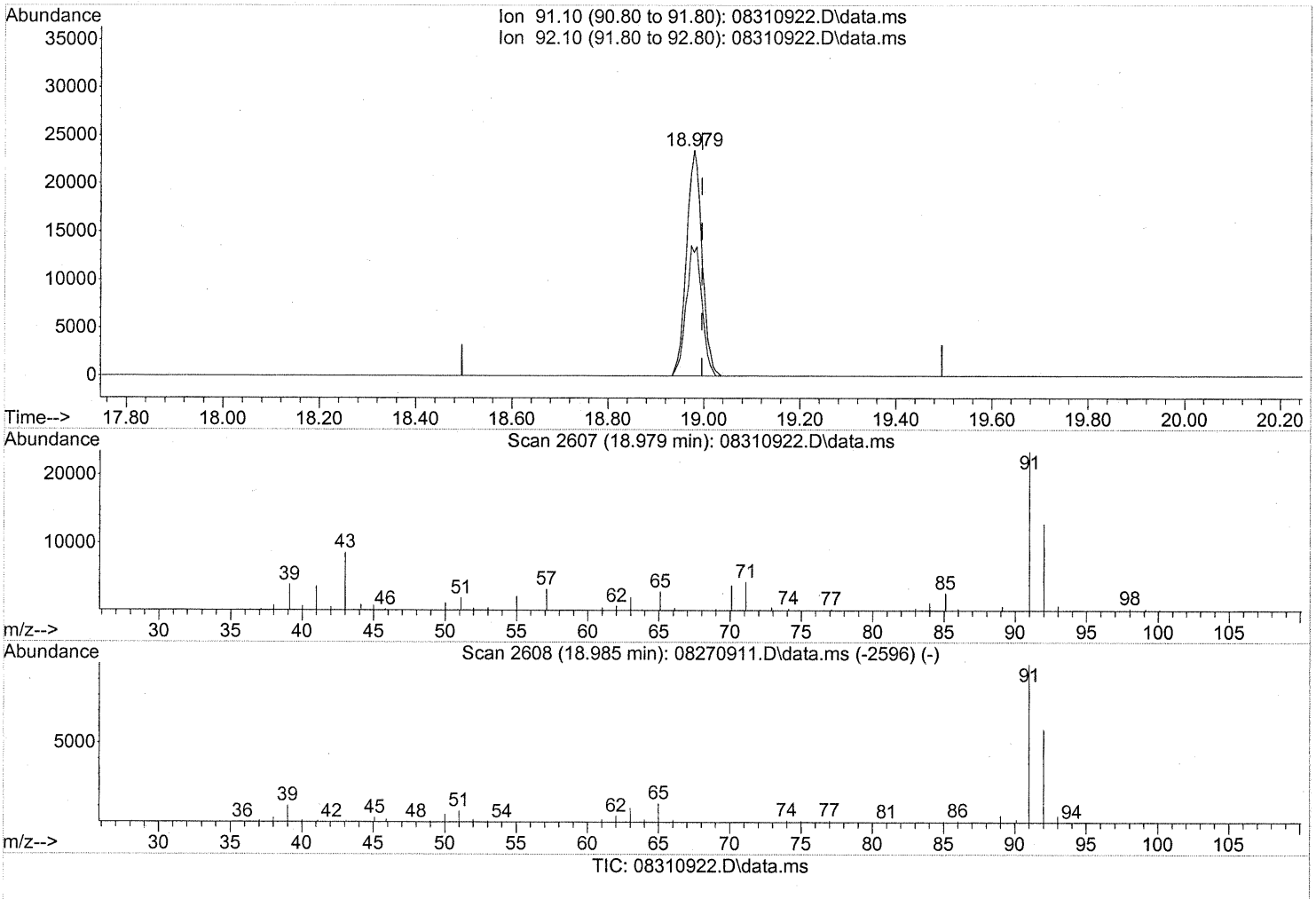
9/10/09

136

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310922.D
Acq On : 1 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-003 (1000ml)
Misc : EH&E 103574
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 09 13:35:37 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 08310922.D\data.ms

(58) Toluene (T)

18.979min (-0.017) 0.81ng

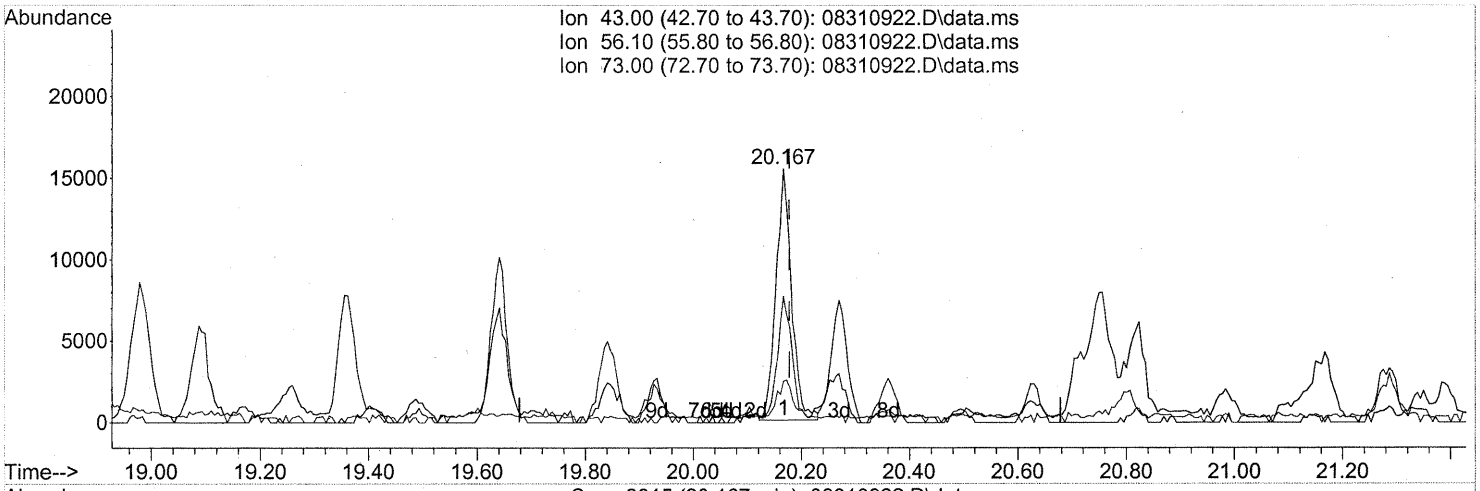
response 52702

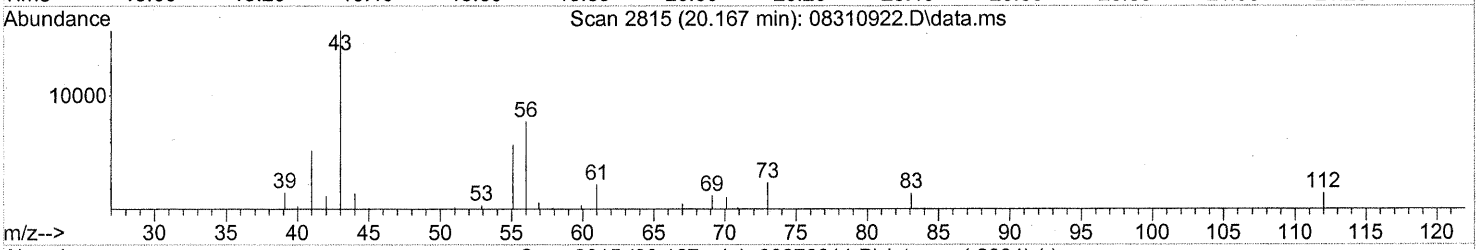
Ion	Exp%	Act%
91.10	100	100
92.10	58.80	58.71
0.00	0.00	0.00
0.00	0.00	0.00

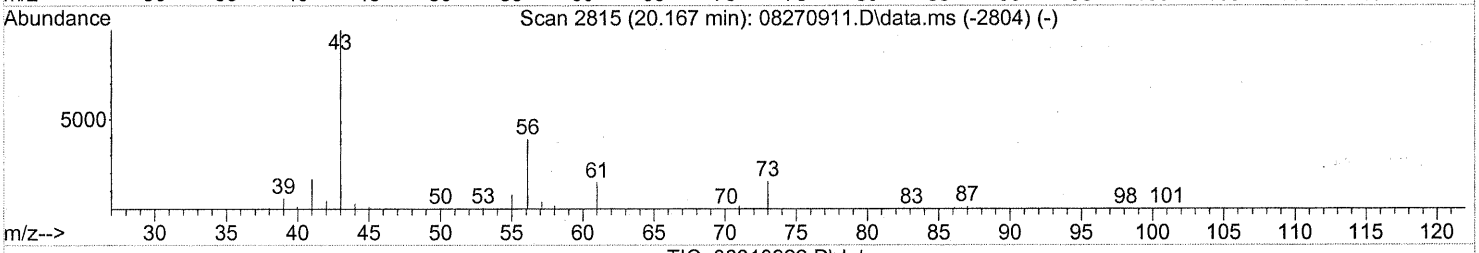
Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310922.D
Acq On : 1 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-003 (1000ml)
Misc : EH&E 103574
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 09 13:35:37 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration







TIC: 08310922.D\data.ms

(62) n-Butyl Acetate (T)

20.167min (-0.011) 0.68ng

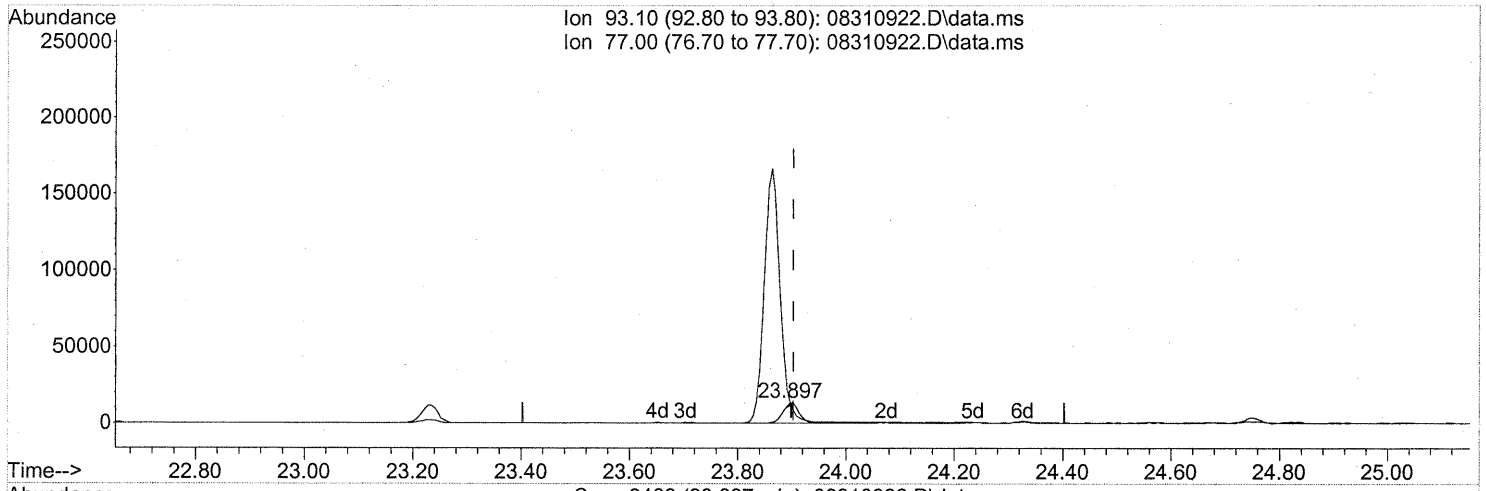
response 31031

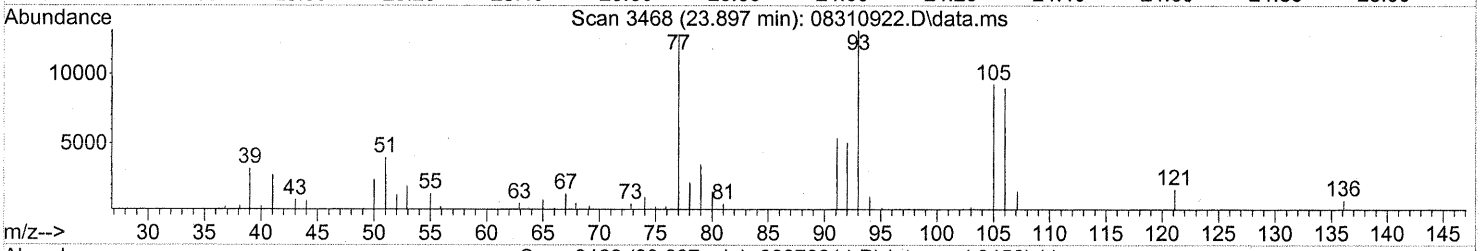
Ion	Exp%	Act%
43.00	100	100
56.10	39.50	48.50
73.00	14.30	24.17
0.00	0.00	0.00

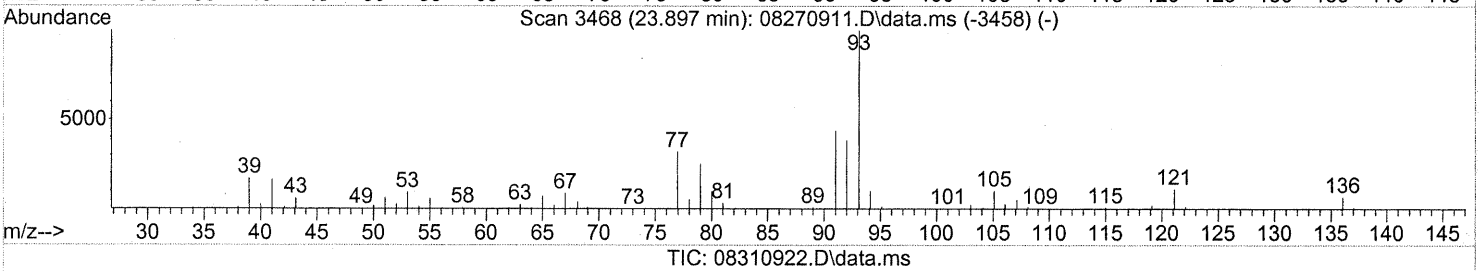
Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310922.D
Acq On : 1 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-003 (1000ml)
Misc : EH&E 103574
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Sep 09 13:35:37 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration







TIC: 08310922.D\data.ms

(75) alpha-Pinene (T)

23.897min (-0.006) 0.66ng

response 25882

Ion	Exp%	Act%
93.10	100	100
77.00	33.10	0.00#
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: **103575**
Client Project ID: **16512**

CAS Project ID: P0902985
CAS Sample ID: P0902985-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
Analyst: Liliana Marghitoiu
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC00952

Date Collected: 8/26/09
Date Received: 8/27/09
Date Analyzed: 9/1/09 & 9/4/09
Volume(s) Analyzed: 1.00 Liter(s)
0.30 Liter(s)

Initial Pressure (psig): -2.6 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.50

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
115-07-1	**Propene**	**18**	0.75	**11**	0.44	
75-71-8	**Dichlorodifluoromethane (CFC 12)**	**2.1**	0.75	**0.43**	0.15	
74-87-3	**Chloromethane**	**0.82**	0.15	**0.40**	0.073	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	ND	0.75	ND	0.11	
75-01-4	Vinyl Chloride	ND	0.15	ND	0.059	
106-99-0	1,3-Butadiene	ND	0.15	ND	0.068	
74-83-9	Bromomethane	ND	0.15	ND	0.039	
75-00-3	Chloroethane	ND	0.15	ND	0.057	
64-17-5	**Ethanol**	**960**	7.5	**510**	4.0	**D**
75-05-8	**Acetonitrile**	**200**	0.75	**120**	0.45	**D**
107-02-8	**Acrolein**	**6.8**	0.75	**3.0**	0.33	
67-64-1	**Acetone**	**150**	7.5	**64**	3.2	
75-69-4	**Trichlorofluoromethane**	**1.2**	0.15	**0.21**	0.027	
67-63-0	**2-Propanol (Isopropyl Alcohol)**	**130**	0.75	**53**	0.31	
107-13-1	Acrylonitrile	ND	0.75	ND	0.35	
75-35-4	1,1-Dichloroethene	ND	0.15	ND	0.038	
75-09-2	Methylene Chloride	ND	0.75	ND	0.22	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	ND	0.15	ND	0.048	
76-13-1	**Trichlorotrifluoroethane**	**0.49**	0.15	**0.064**	0.020	
75-15-0	**Carbon Disulfide**	**0.83**	0.75	**0.27**	0.24	
156-60-5	trans-1,2-Dichloroethene	ND	0.15	ND	0.038	
75-34-3	1,1-Dichloroethane	ND	0.15	ND	0.037	
1634-04-4	Methyl tert-Butyl Ether	ND	0.15	ND	0.042	
108-05-4	Vinyl Acetate	ND	7.5	ND	2.1	
78-93-3	**2-Butanone (MEK)**	**4.7**	0.75	**1.6**	0.25	

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.
D = The reported result is from a dilution.

Verified By: _____ Date: 9/10/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **103575**
Client Project ID: **16512**

CAS Project ID: P0902985
CAS Sample ID: P0902985-004

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
Analyst: Liliana Marghitoiu
Sampling Media: 6.0 L Summa Canister
Test Notes:
Container ID: AC00952

Date Collected: 8/26/09
Date Received: 8/27/09
Date Analyzed: 9/1/09 & 9/4/09
Volume(s) Analyzed: 1.00 Liter(s)
0.30 Liter(s)

Initial Pressure (psig): -2.6 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.50

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	0.038	
141-78-6	**Ethyl Acetate**	**17**	0.75	**4.7**	0.21	
110-54-3	**n-Hexane**	**12**	0.75	**3.3**	0.21	
67-66-3	**Chloroform**	**0.27**	0.15	**0.054**	0.031	
109-99-9	**Tetrahydrofuran (THF)**	**1.1**	0.75	**0.37**	0.25	
107-06-2	**1,2-Dichloroethane**	**0.99**	0.15	**0.24**	0.037	
71-55-6	1,1,1-Trichloroethane	ND	0.15	ND	0.028	
71-43-2	**Benzene**	**12**	0.15	**3.8**	0.047	
56-23-5	**Carbon Tetrachloride**	**0.50**	0.15	**0.080**	0.024	
110-82-7	**Cyclohexane**	**1.5**	0.75	**0.43**	0.22	
78-87-5	**1,2-Dichloropropane**	**0.37**	0.15	**0.080**	0.032	
75-27-4	Bromodichloromethane	ND	0.15	ND	0.022	
79-01-6	**Trichloroethene**	**0.50**	0.15	**0.094**	0.028	
123-91-1	1,4-Dioxane	ND	0.75	ND	0.21	
80-62-6	Methyl Methacrylate	ND	0.75	ND	0.18	
142-82-5	**n-Heptane**	**3.1**	0.75	**0.76**	0.18	
10061-01-5	cis-1,3-Dichloropropene	ND	0.75	ND	0.17	
108-10-1	**4-Methyl-2-pentanone**	**1.1**	0.75	**0.27**	0.18	
10061-02-6	trans-1,3-Dichloropropene	ND	0.75	ND	0.17	
79-00-5	1,1,2-Trichloroethane	ND	0.15	ND	0.028	
108-88-3	**Toluene**	**55**	0.75	**15**	0.20	
591-78-6	**2-Hexanone**	**0.89**	0.75	**0.22**	0.18	
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**	**4.7**	0.75	**0.99**	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: 9/10/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **103575**
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CAS Project ID: P0902985
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Test Code: EPA TO-15
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Container ID: AC00952

Date Collected: 8/26/09
Date Received: 8/27/09
Date Analyzed: 9/1/09 & 9/4/09
Volume(s) Analyzed: 1.00 Liter(s)
0.30 Liter(s)

Initial Pressure (psig): -2.6 Final Pressure (psig): 3.5

Canister Dilution Factor: 1.50

CAS #	Compound	Result µg/m³	MRL µg/m³	Result ppbV	MRL ppbV	Data Qualifier
111-65-9	**n-Octane**	**1.4**	0.75	**0.29**	0.16	
127-18-4	**Tetrachloroethene**	**0.15**	0.15	**0.023**	0.022	
108-90-7	Chlorobenzene	ND	0.15	ND	0.033	
100-41-4	**Ethylbenzene**	**7.5**	0.75	**1.7**	0.17	
179601-23-1	**m,p-Xylenes**	**25**	0.75	**5.7**	0.17	
75-25-2	Bromoform	ND	0.75	ND	0.073	
100-42-5	**Styrene**	**5.5**	0.75	**1.3**	0.18	
95-47-6	**o-Xylene**	**8.3**	0.75	**1.9**	0.17	
111-84-2	**n-Nonane**	**1.3**	0.75	**0.25**	0.14	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.15	ND	0.022	
98-82-8	Cumene	ND	0.75	ND	0.15	
80-56-8	**alpha-Pinene**	**110**	0.75	**20**	0.13	
103-65-1	**n-Propylbenzene**	**1.4**	0.75	**0.29**	0.15	
622-96-8	**4-Ethyltoluene**	**2.4**	0.75	**0.48**	0.15	
108-67-8	**1,3,5-Trimethylbenzene**	**2.0**	0.75	**0.41**	0.15	
95-63-6	**1,2,4-Trimethylbenzene**	**7.6**	0.75	**1.6**	0.15	
100-44-7	Benzyl Chloride	ND	0.15	ND	0.029	
541-73-1	1,3-Dichlorobenzene	ND	0.15	ND	0.025	
106-46-7	**1,4-Dichlorobenzene**	**0.37**	0.15	**0.062**	0.025	
95-50-1	1,2-Dichlorobenzene	ND	0.15	ND	0.025	
5989-27-5	**d-Limonene**	**33**	0.75	**5.9**	0.13	
96-12-8	1,2-Dibromo-3-chloropropane	ND	0.75	ND	0.078	
120-82-1	1,2,4-Trichlorobenzene	ND	0.75	ND	0.10	
91-20-3	**Naphthalene**	**1.3**	0.75	**0.26**	0.14	
87-68-3	Hexachlorobutadiene	ND	0.75	ND	0.070	

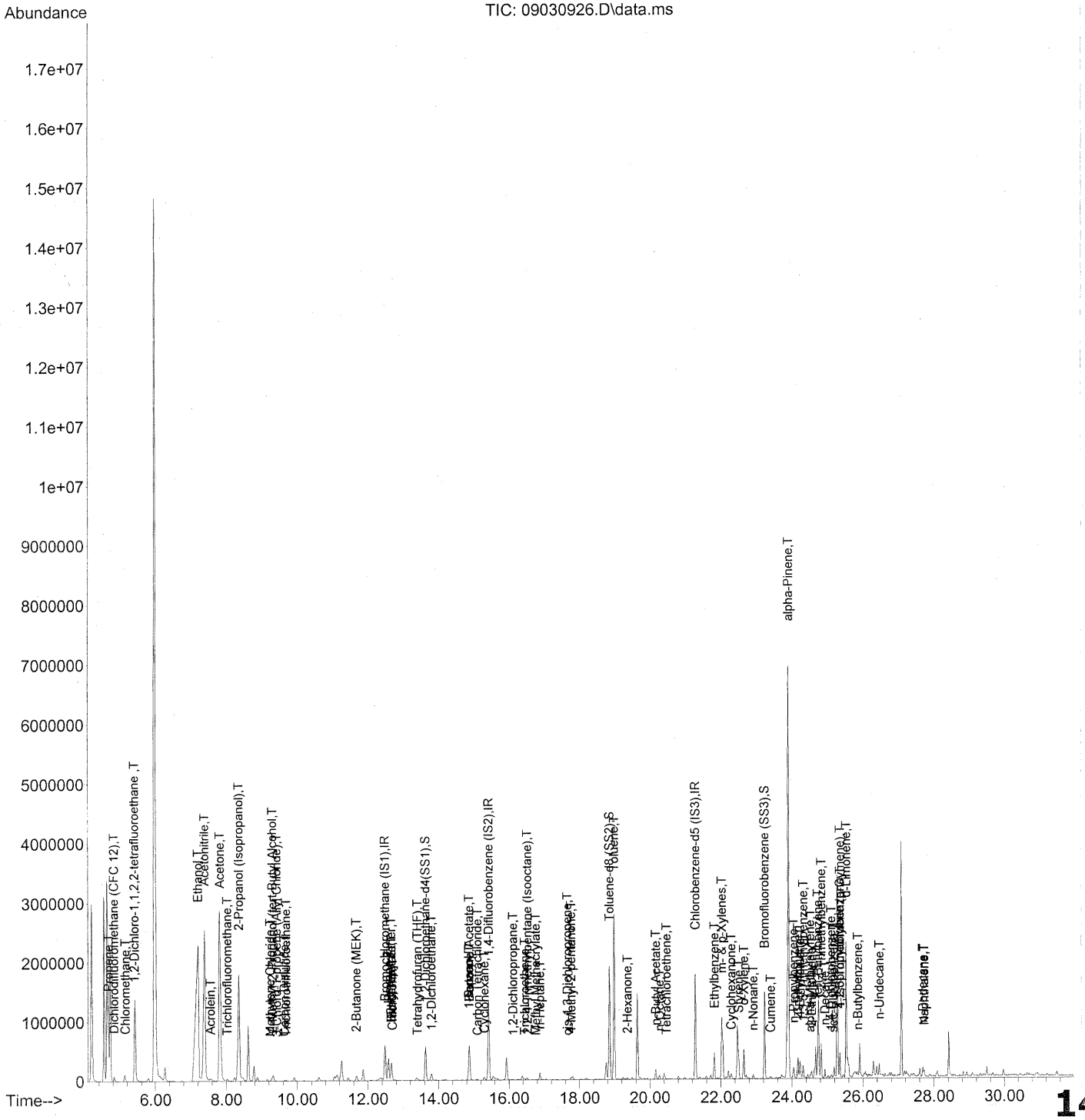
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 9/10/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55 am
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 13:46:21 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55 am
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 13:46:21 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

lm 9/9/09

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.48	130	304886	25.000	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	15.42	114	1530627	25.000	ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.28	82	744190	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.63	65	580614	24.031	ng		-0.02
Spiked Amount 25.000			Recovery =	96.12%			✓
57) Toluene-d8 (SS2)	18.85	98	1658020	24.930	ng		-0.01 ✓
Spiked Amount 25.000			Recovery =	99.72%			
73) Bromofluorobenzene (SS3)	23.23	174	486976	25.441	ng		0.00 ✓
Spiked Amount 25.000			Recovery =	101.76%			
Target Compounds							Qvalue
2) Propene	4.67	42	266009	12.062	ng		94
3) Dichlorodifluoromethan...	4.83	85	54851	1.421	ng		99
4) Chloromethane	5.15	50	14111	0.544	ng		91
5) 1,2-Dichloro-1,1,2,2-t...	5.40	135	974	0.061	ng	#	43
6) Vinyl Chloride	0.00	62	0	N.D.			
7) 1,3-Butadiene	5.87	54	623	N.D.			
8) Bromomethane	6.36	94	520	N.D.			
9) Chloroethane	6.71	64	98	N.D.			
10) Ethanol	7.20	45	8026918	586.966	ng	Sec dil	99
11) Acetonitrile	7.39	41	4994981	131.500	ng	Sec dil	100
12) Acrolein	7.55	56	47467	4.546	ng		98
13) Acetone	7.82	58	1442850	102.022	ng		86
14) Trichlorofluoromethane	8.02	101	26199	0.770	ng		99
15) 2-Propanol (Isopropanol)	8.35	45	4060309	86.360	ng		100
16) Acrylonitrile	0.00	53	0	N.D.	d		
17) 1,1-Dichloroethene	9.03	96	212	N.D.			
18) 2-Methyl-2-Propanol (t...	9.30	59	23853	0.507	ng	#	1
19) Methylene Chloride	9.24	84	5892	0.328	ng		99
20) 3-Chloro-1-propene (Al...	9.42	41	1399	0.050	ng	#	41
21) Trichlorotrifluoroethane	9.68	151	4410	0.327	ng		95
22) Carbon Disulfide	9.63	76	35093	0.550	ng		97
23) trans-1,2-Dichloroethene	10.60	61	463	N.D.			
24) 1,1-Dichloroethane	0.00	63	0	N.D.			
25) Methyl tert-Butyl Ether	11.14	73	1362	N.D.			
26) Vinyl Acetate	0.00	86	0	N.D.	d		
27) 2-Butanone (MEK)	11.67	72	36144	3.164	ng		96
28) cis-1,2-Dichloroethene	12.32	61	194	N.D.			
29) Diisopropyl Ether	12.65	87	2021	0.121	ng	#	1
30) Ethyl Acetate	12.66	61	69409	11.307	ng		100
31) n-Hexane	12.58	57	234614	7.672	ng		98

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55 am
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 13:46:21 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.69	83	5324	0.177	ng		82
34) Tetrahydrofuran (THF)	13.40	72	8932	0.721	ng	#	1
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	13.79	62	16689	0.660	ng		92
38) 1,1,1-Trichloroethane	14.18	97	456	N.D.			
39) Isopropyl Acetate	14.87	61	5294	0.455	ng	#	1
40) 1-Butanol	14.85	56	146481	7.689	ng	#	36
41) Benzene	14.87	78	581622	8.083	ng		100
42) Carbon Tetrachloride	15.10	117	8059	0.334	ng		100
43) Cyclohexane	15.29	84	26121	0.985	ng	NOT NEEDED	99
44) tert-Amyl Methyl Ether	16.03	73	94	N.D.			
45) 1,2-Dichloropropane	16.11	63	4358	0.245	ng		95
46) Bromodichloromethane	0.00	83	0	N.D.	d		
47) Trichloroethene	16.44	130	5899	0.336	ng		99
48) 1,4-Dioxane	16.52	88	451	N.D.			
49) 2,2,4-Trimethylpentane...	16.52	57	19445	0.237	ng	#	47
50) Methyl Methacrylate	16.76	100	1111	0.167	ng	# <MRL	10
51) n-Heptane	16.87	71	38809	2.081	ng	9/1-4/09	94
52) cis-1,3-Dichloropropene	17.65	75	1722	0.059	ng		89
53) 4-Methyl-2-pentanone	17.76	58	11913	0.725	ng		99
54) trans-1,3-Dichloropropene	18.36	75	414	N.D.			
55) 1,1,2-Trichloroethane	0.00	97	0	N.D.	d		
58) Toluene	18.98	91	2624772	36.642	ng		99
59) 2-Hexanone	19.36	43	26064	0.595	ng		98
60) Dibromochloromethane	0.00	129	0	N.D.			
61) 1,2-Dibromoethane	0.00	107	0	N.D.			
62) n-Butyl Acetate	20.16	43	157573	3.137	ng		98
63) n-Octane	20.27	57	14867	0.902	ng		97
64) Tetrachloroethene	20.46	166	1851	0.102	ng		95
65) Chlorobenzene	21.34	112	2122	N.D.			
66) Ethylbenzene	21.82	91	407383	4.972	ng		99
67) m- & p-Xylenes	22.03	91	1073231	16.454	ng		100
68) Bromoform	0.00	173	0	N.D.			
69) Styrene	22.50	104	176592	3.677	ng		97
70) o-Xylene	22.65	91	362377	5.531	ng		100
71) n-Nonane	22.91	43	34587	0.878	ng		90
72) 1,1,2,2-Tetrachloroethane	22.65	83	668	N.D.			
74) Cumene	23.40	105	25133	0.303	ng	<MRL	98
75) alpha-Pinene	23.90	93	3272982	75.988	ng	9/10/09	76
76) n-Propylbenzene	24.05	91	101189	0.959	ng		90
77) 3-Ethyltoluene	24.17	105	233963	2.945	ng		99
78) 4-Ethyltoluene	24.22	105	123640	1.577	ng		100
79) 1,3,5-Trimethylbenzene	24.31	105	87753	1.345	ng		100

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55 am
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 13:46:21 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

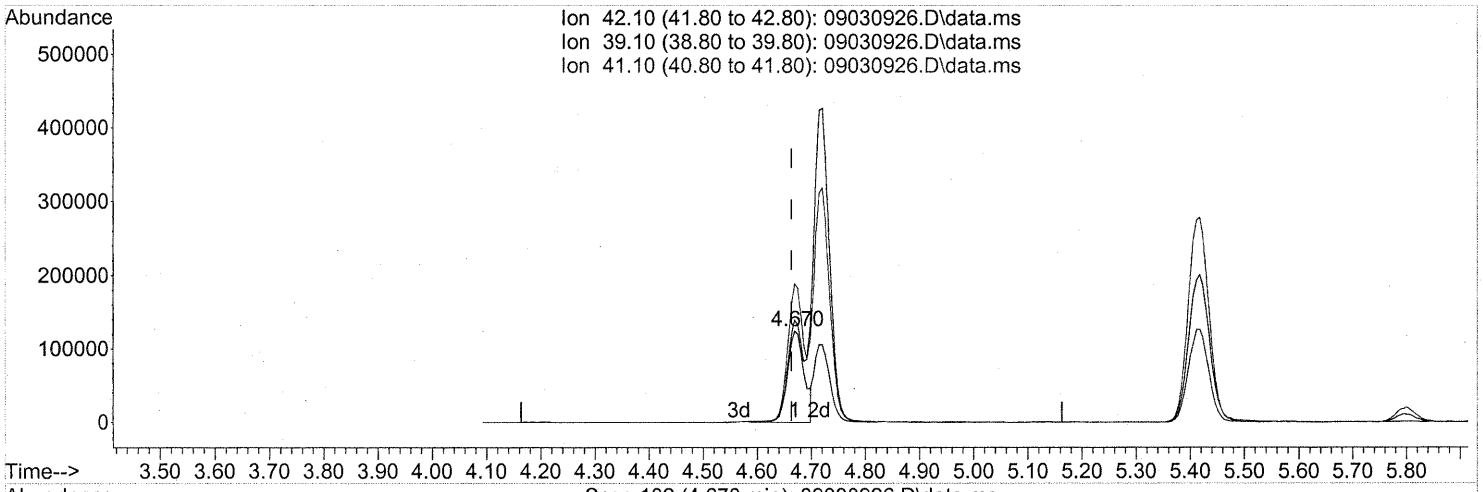
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
80) alpha-Methylstyrene	24.51	118	2183	0.064 ng	#	1
81) 2-Ethyltoluene	24.55	105	77773	0.954 ng		96
82) 1,2,4-Trimethylbenzene	24.82	105	338402	5.080 ng		90
83) n-Decane	24.93	57	55957	1.407 ng		92
84) Benzyl Chloride	0.00	91	0	N.D. d		
85) 1,3-Dichlorobenzene	0.00	146	0	N.D. d		
86) 1,4-Dichlorobenzene	25.10	146	9271	0.247 ng		94
87) sec-Butylbenzene	25.16	105	7843	0.086 ng	#	77
88) 4-Isopropyltoluene (p-...	25.35	119	183743	2.241 ng		97
89) 1,2,3-Trimethylbenzene	25.35	105	77496	1.110 ng		85
90) 1,2-Dichlorobenzene	0.00	146	0	N.D. d		
91) d-Limonene	25.53	68	585909	22.034 ng		91
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.46	57	73253	1.774 ng		88
94) 1,2,4-Trichlorobenzene	27.58	180	308	N.D.		
95) Naphthalene	27.72	128	82183	0.893 ng		99
96) n-Dodecane	27.69	57	52621	1.118 ng		98
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.29	55	46153	1.671 ng		95
99) tert-Butylbenzene	24.73	119	14038	0.218 ng		94
100) n-Butylbenzene	25.85	91	30134	0.406 ng	#	50

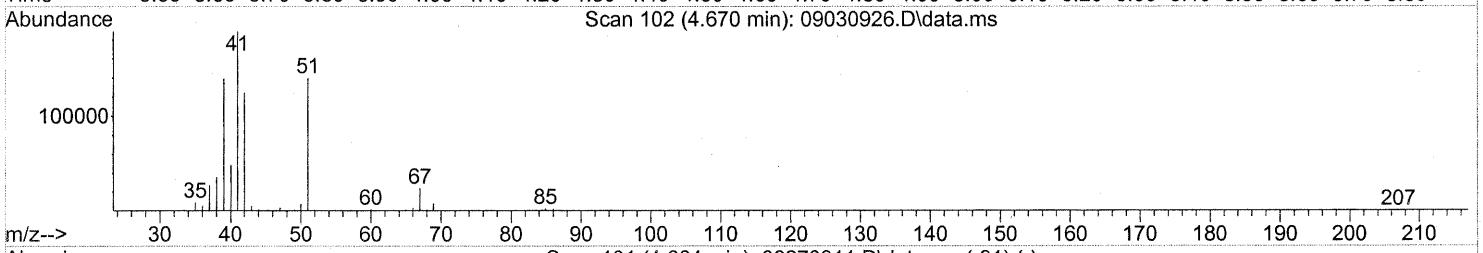
(#) = qualifier out of range (m) = manual integration (+) = signals summed

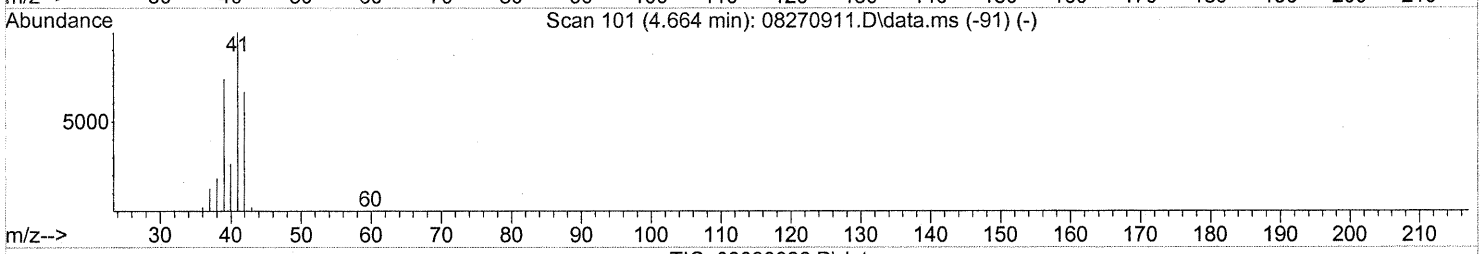
Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration







TIC: 09030926.D\data.ms

(2) Propene (T)

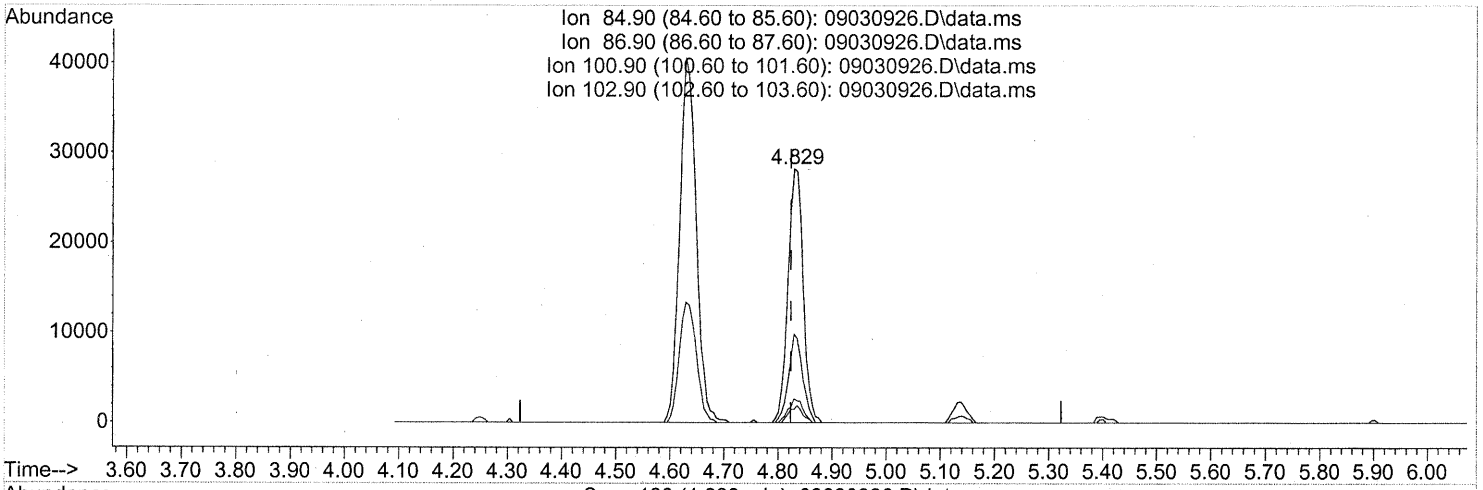
4.670min (+0.006) 12.06ng

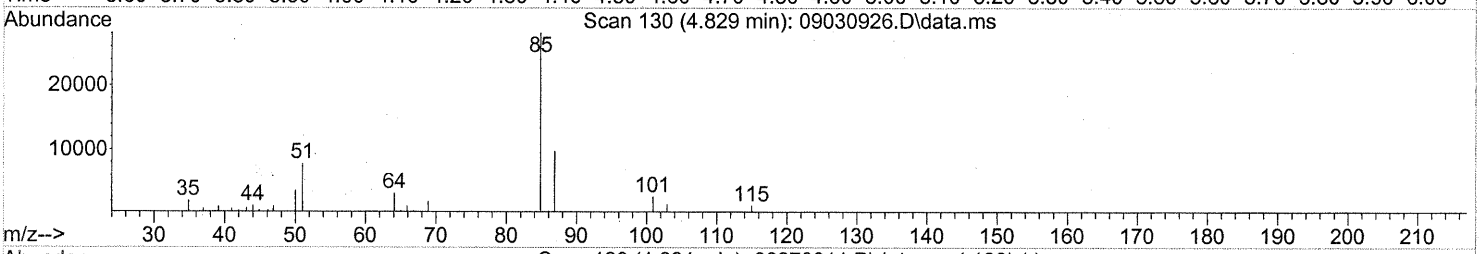
response 266009

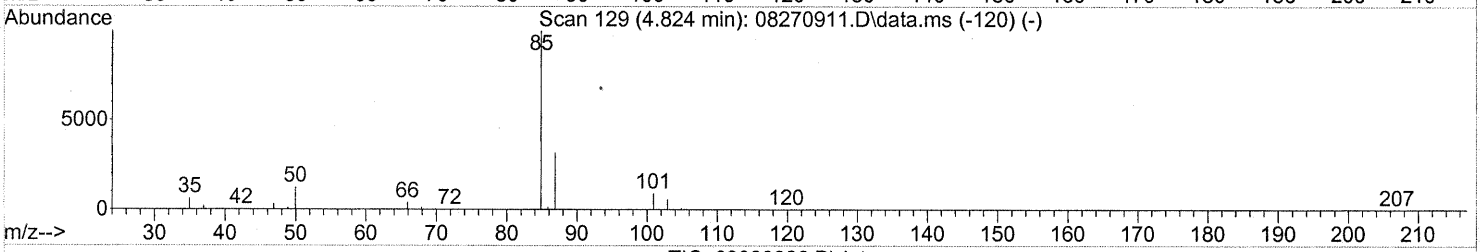
Ion	Exp%	Act%
42.10	100	100
39.10	109.70	99.51
41.10	149.80	145.16
0.00	0.00	0.00

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration







TIC: 09030926.D\data.ms

(3) Dichlorodifluoromethane (CFC 12) (T)

4.829min (+0.006) 1.42ng

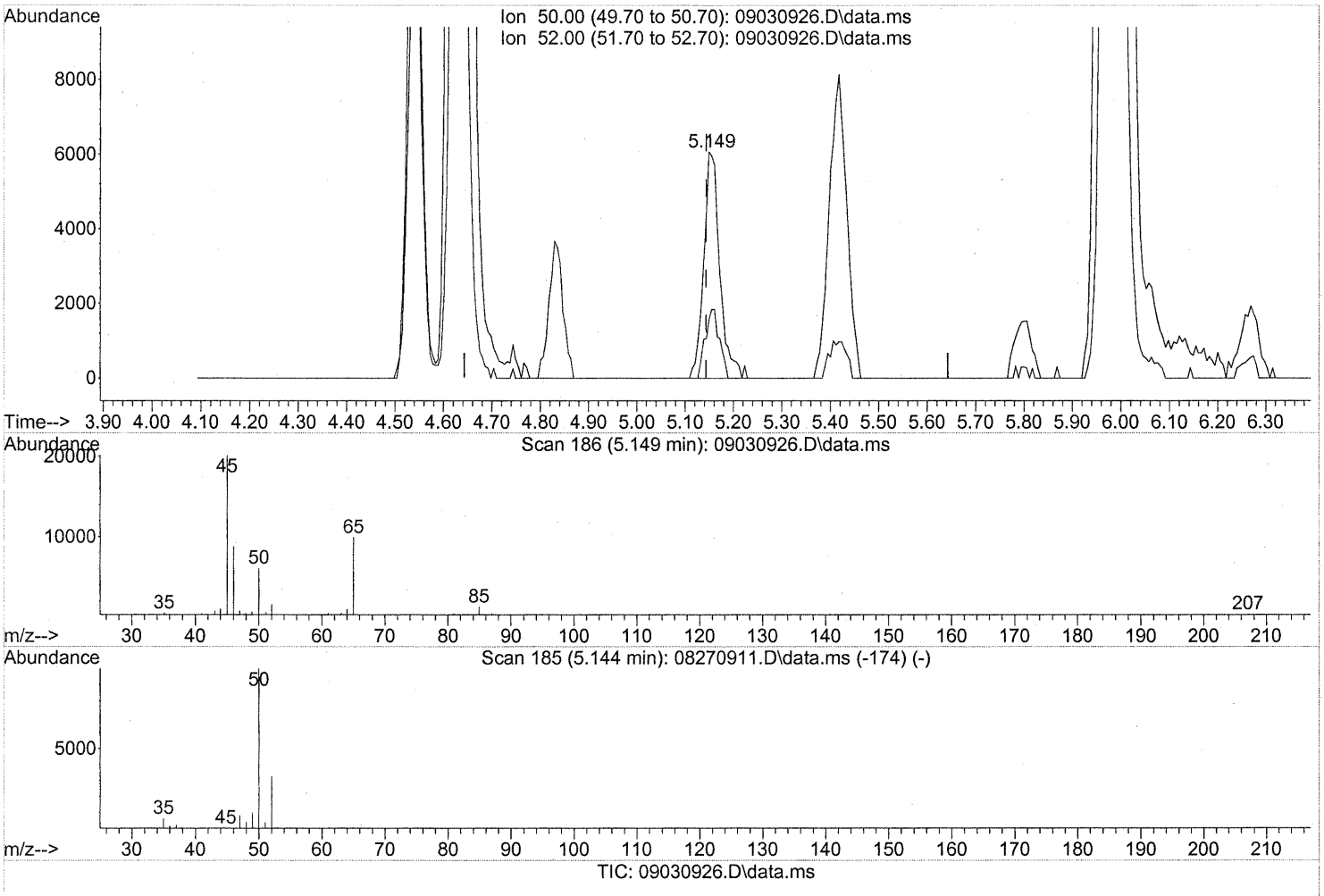
response 54851

Ion	Exp%	Act%
84.90	100	100
86.90	32.00	32.37
100.90	8.80	8.87
102.90	5.60	5.73

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

(4) Chloromethane (T)

5.149min (+0.006) 0.54ng

response 14111

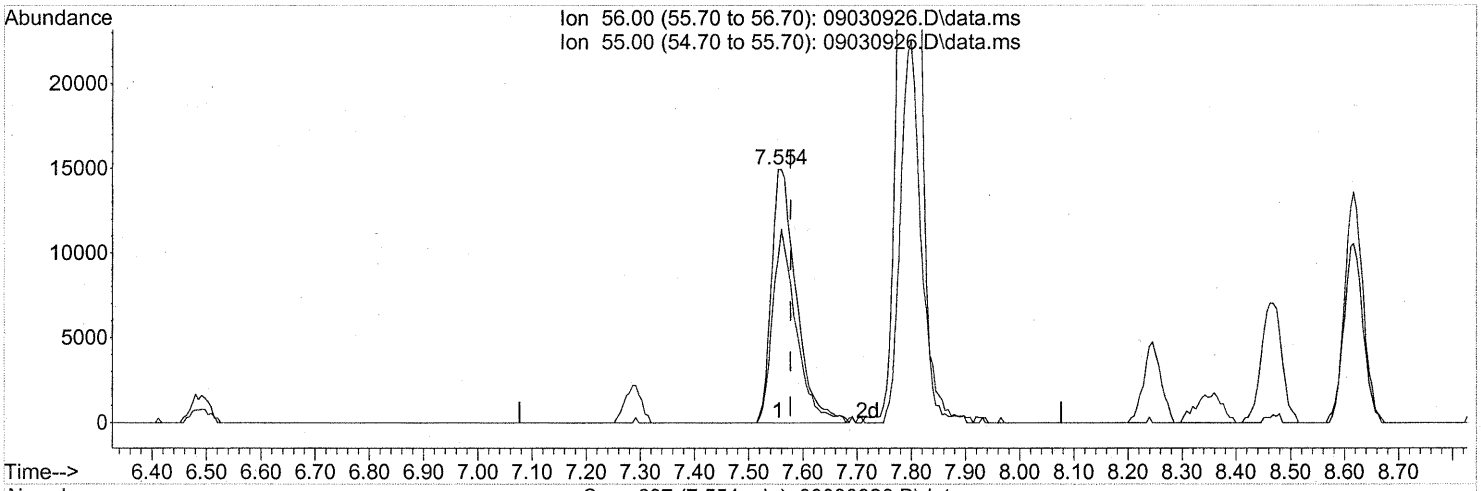
Ion	Exp%	Act%
50.00	100	100
52.00	31.60	26.63
0.00	0.00	0.00
0.00	0.00	0.00

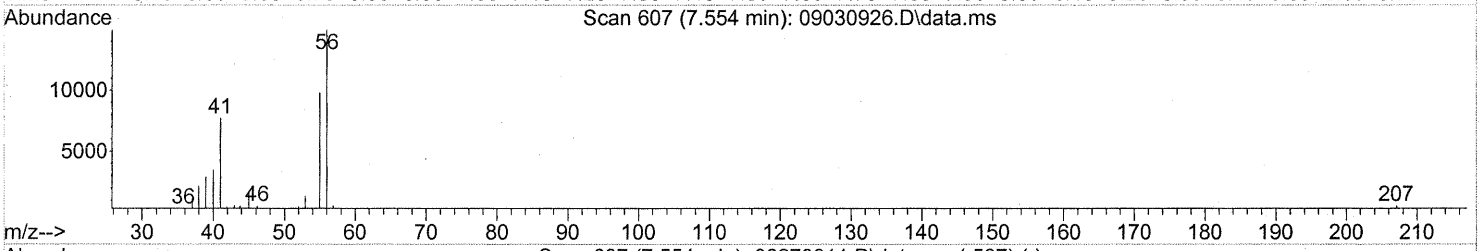
149

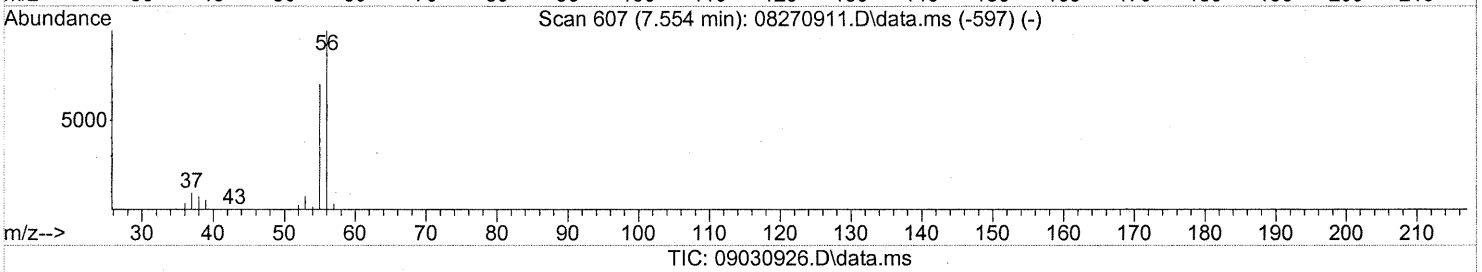
Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration







TIC: 09030926.D\data.ms

(12) Acrolein (T)

7.554min (-0.023) 4.55ng

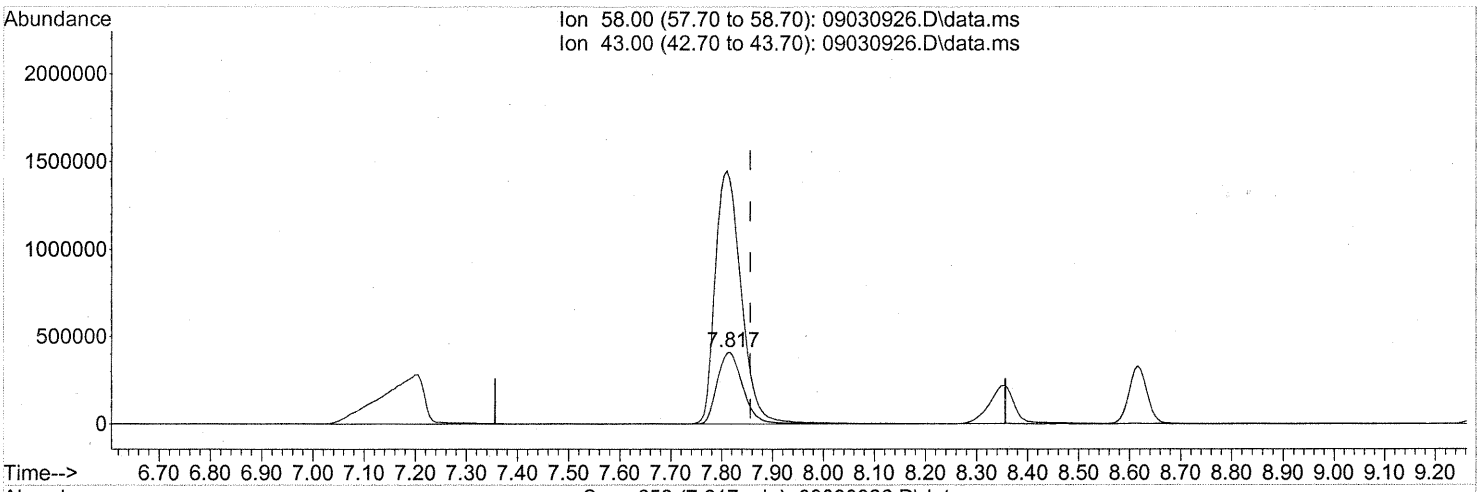
response 47467

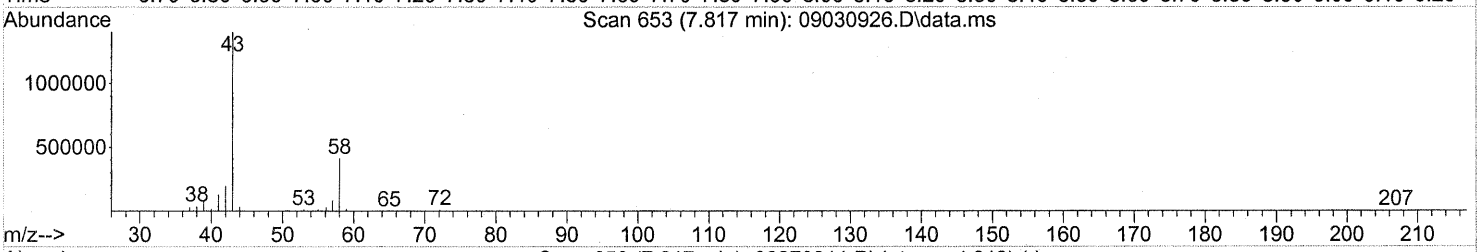
Ion	Exp%	Act%
56.00	100	100
55.00	71.10	72.47
0.00	0.00	0.00
0.00	0.00	0.00

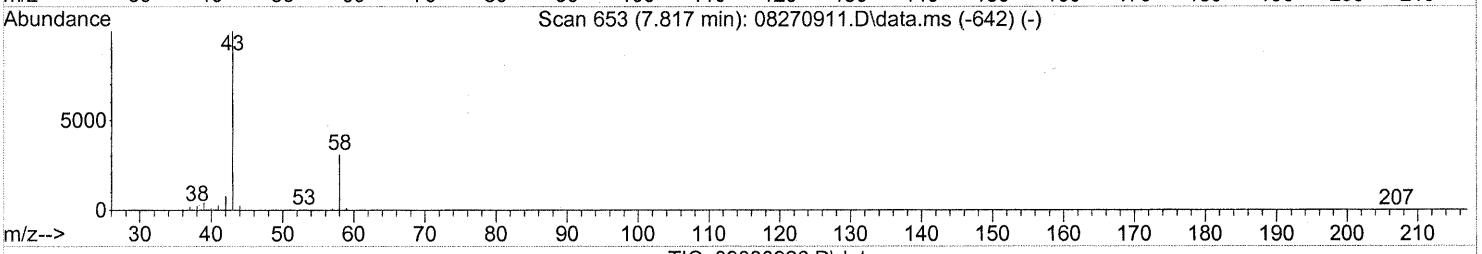
Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration







TIC: 09030926.D\data.ms

(13) Acetone (T)

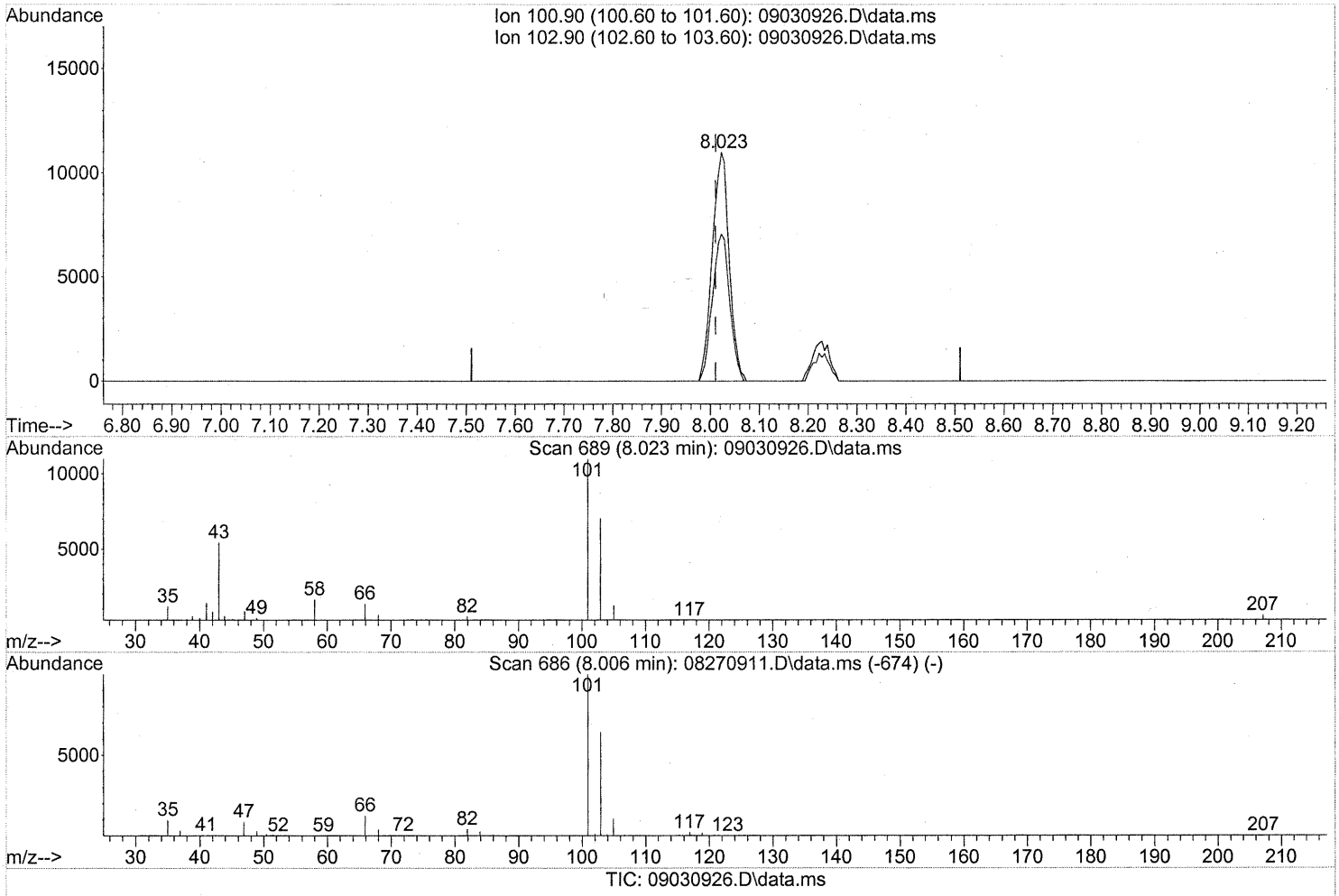
7.817min (-0.040) 102.02ng

response 1442850

Ion	Exp%	Act%
58.00	100	100
43.00	331.30	360.83
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

(14) Trichlorofluoromethane (T)

8.023min (+0.011) 0.77ng

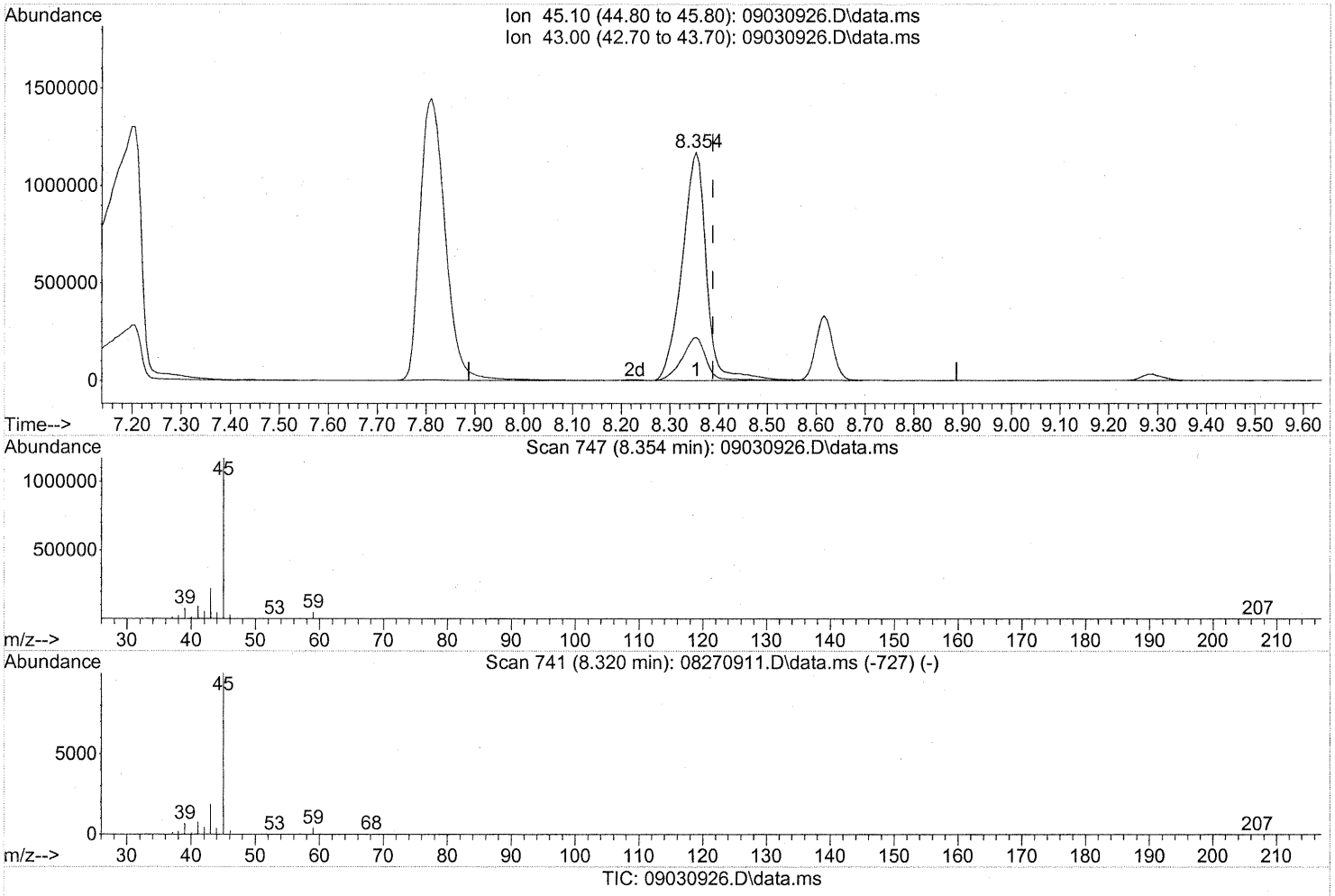
response 26199

Ion	Exp%	Act%
100.90	100	100
102.90	66.10	65.45
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

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

8.354min (-0.034) 86.36ng

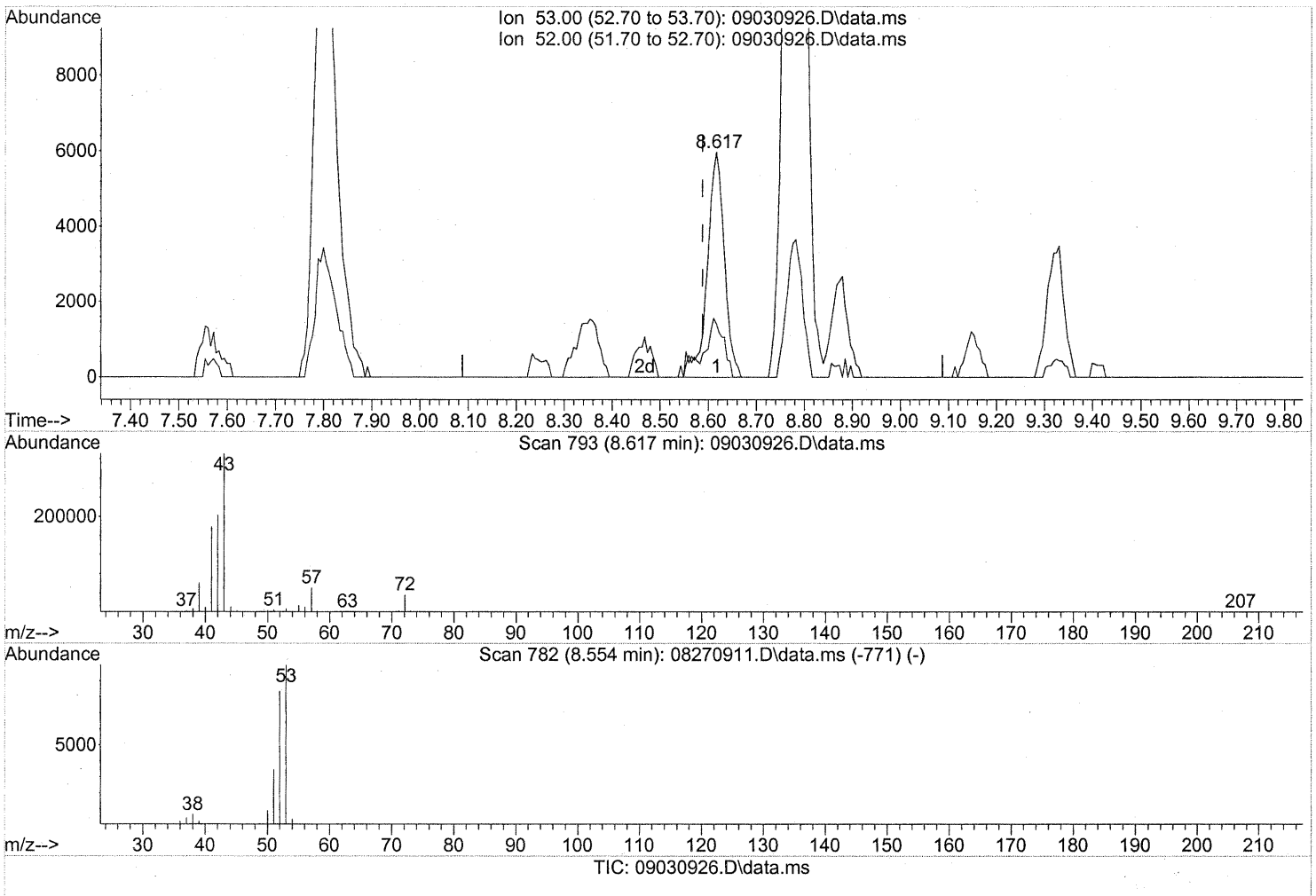
response 4060309

Ion	Exp%	Act%
45.10	100	100
43.00	18.70	18.62
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

(16) Acrylonitrile (T)

8.617min (+0.029) 0.64ng

response 14961

Ion	Exp%	Act%
53.00	100	100
52.00	80.50	23.83#
0.00	0.00	0.00
0.00	0.00	0.00

FP

9/10/09

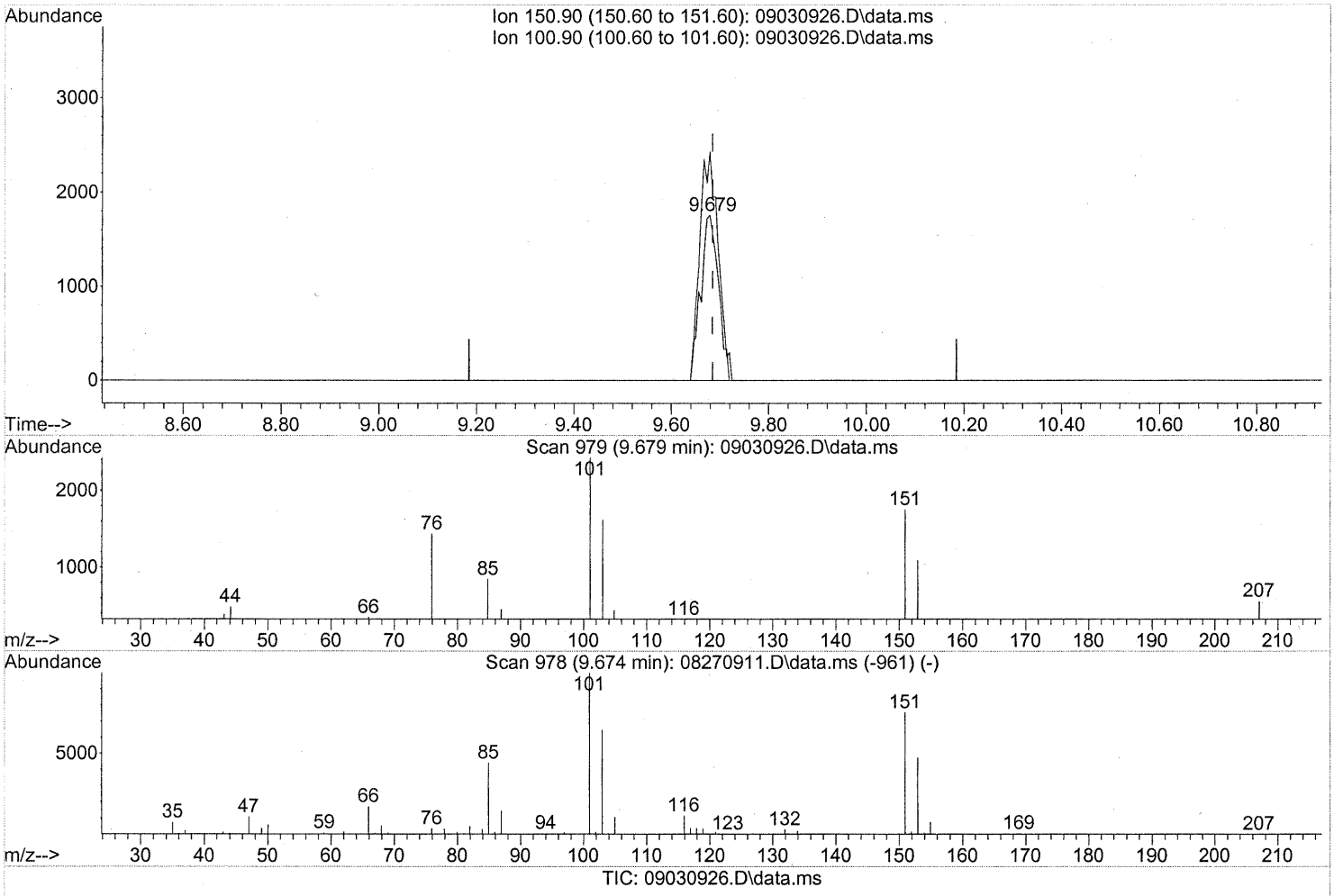
MM 9/10/09.

154

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

(21) Trichlorotrifluoroethane (T)

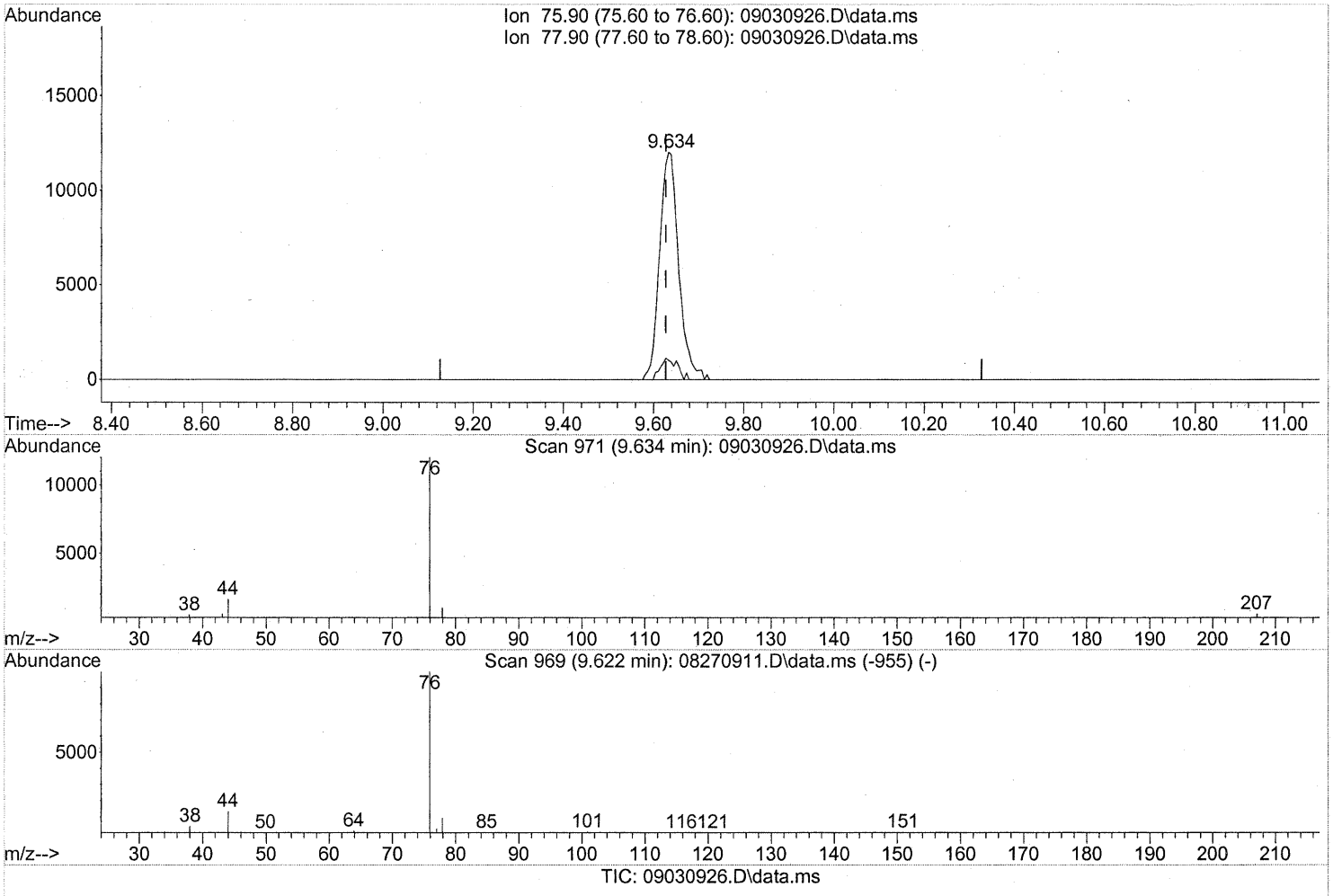
9.679min (-0.006) 0.33ng

response 4410

Ion	Exp%	Act%
150.90	100	100
100.90	138.30	144.33
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

(22) Carbon Disulfide (T)

9.634min (+0.006) 0.55ng

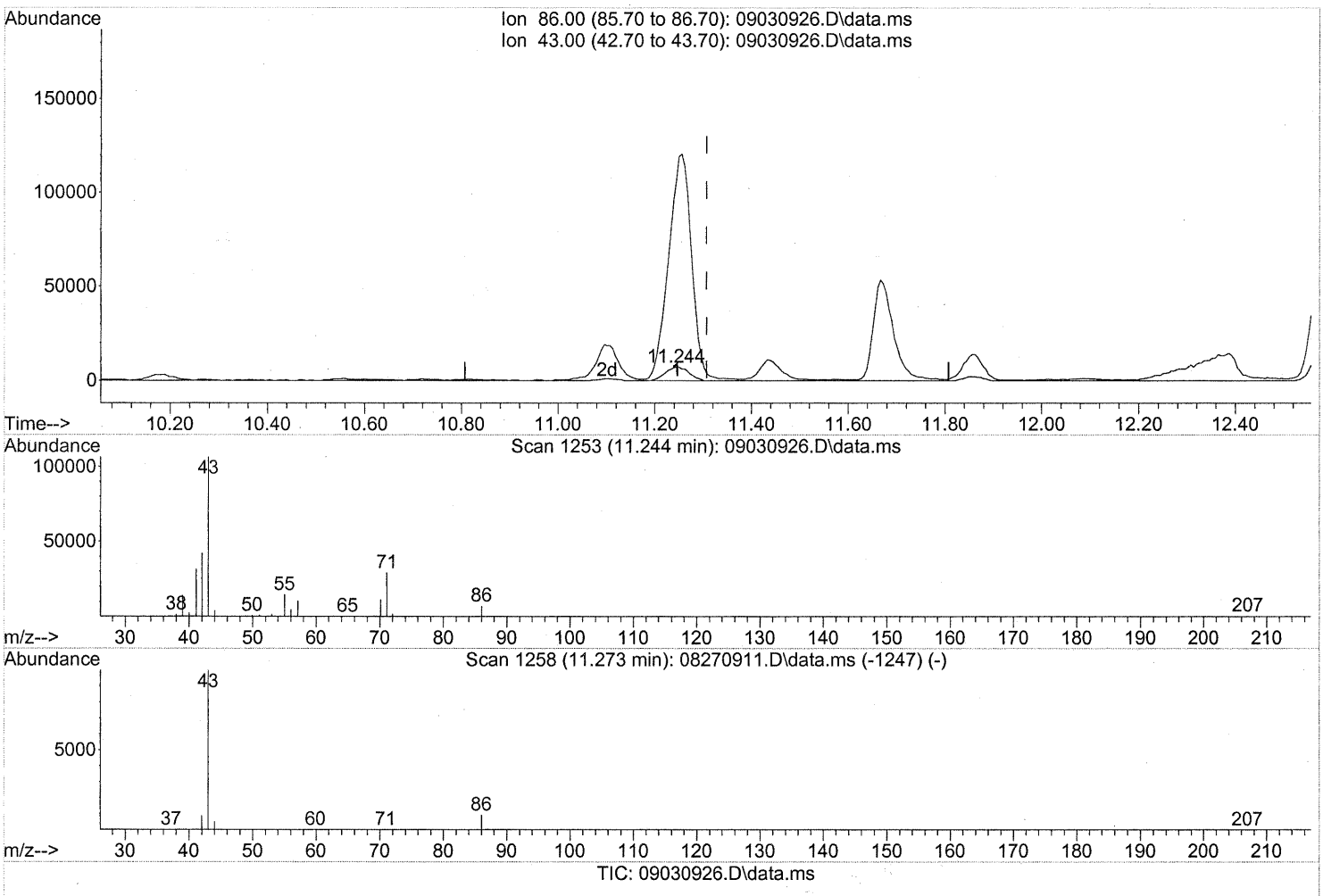
response 35093

Ion	Exp%	Act%
75.90	100	100
77.90	9.40	8.17
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

(26) Vinyl Acetate (T)

11.244min (-0.063) 6.65ng

response 23552

Ion	Exp%	Act%
86.00	100	100
43.00	1118.60	1662.55#
0.00	0.00	0.00
0.00	0.00	0.00

FP
9/9/09

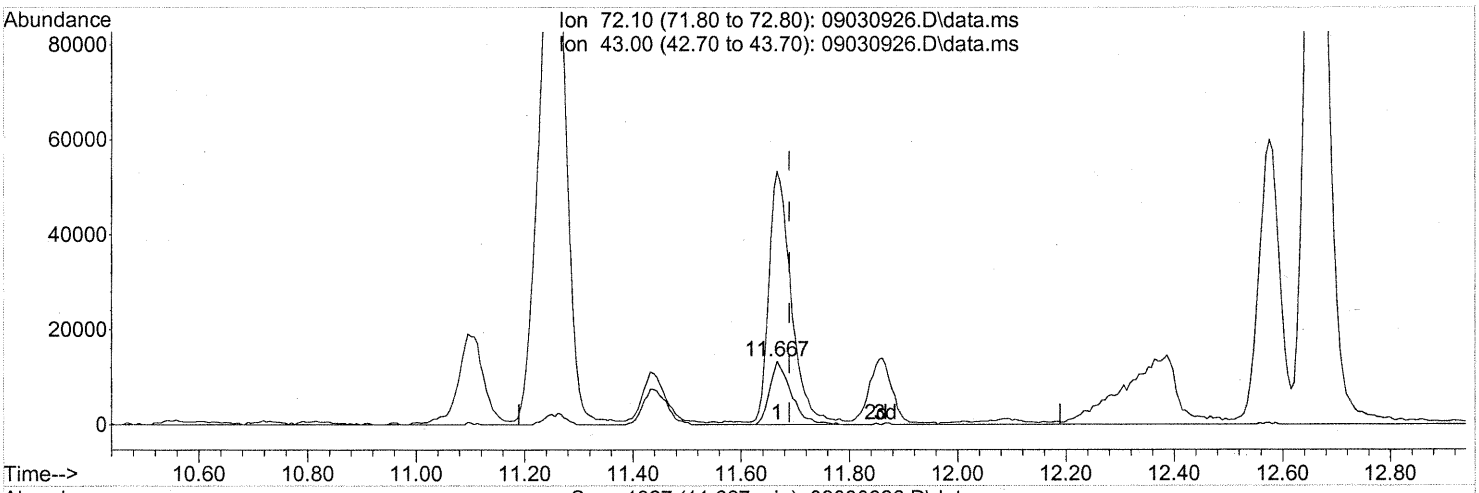
9/10/09

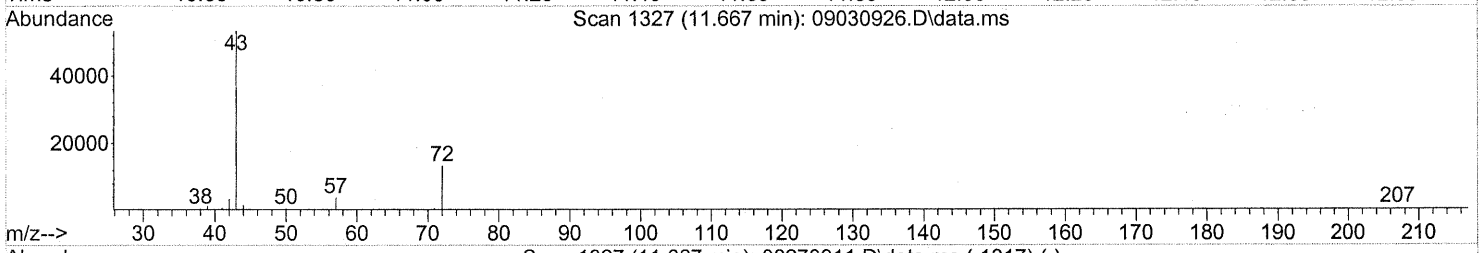
157

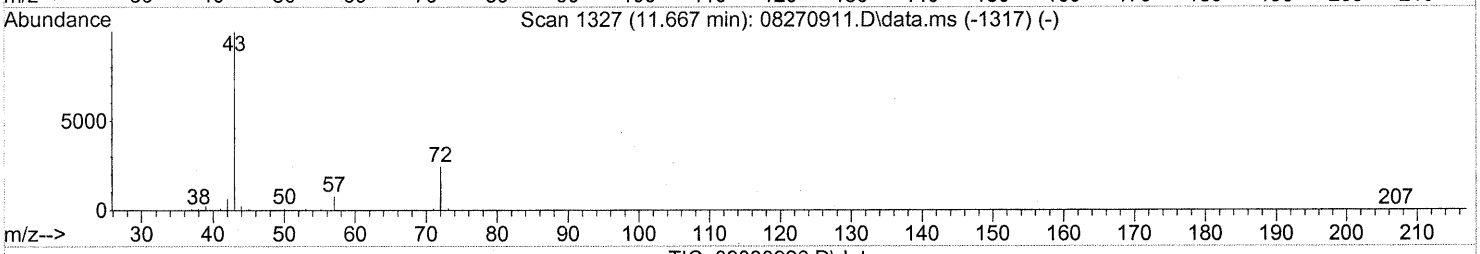
Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration







TIC: 09030926.D\data.ms

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

11.667min (-0.023) 3.16ng

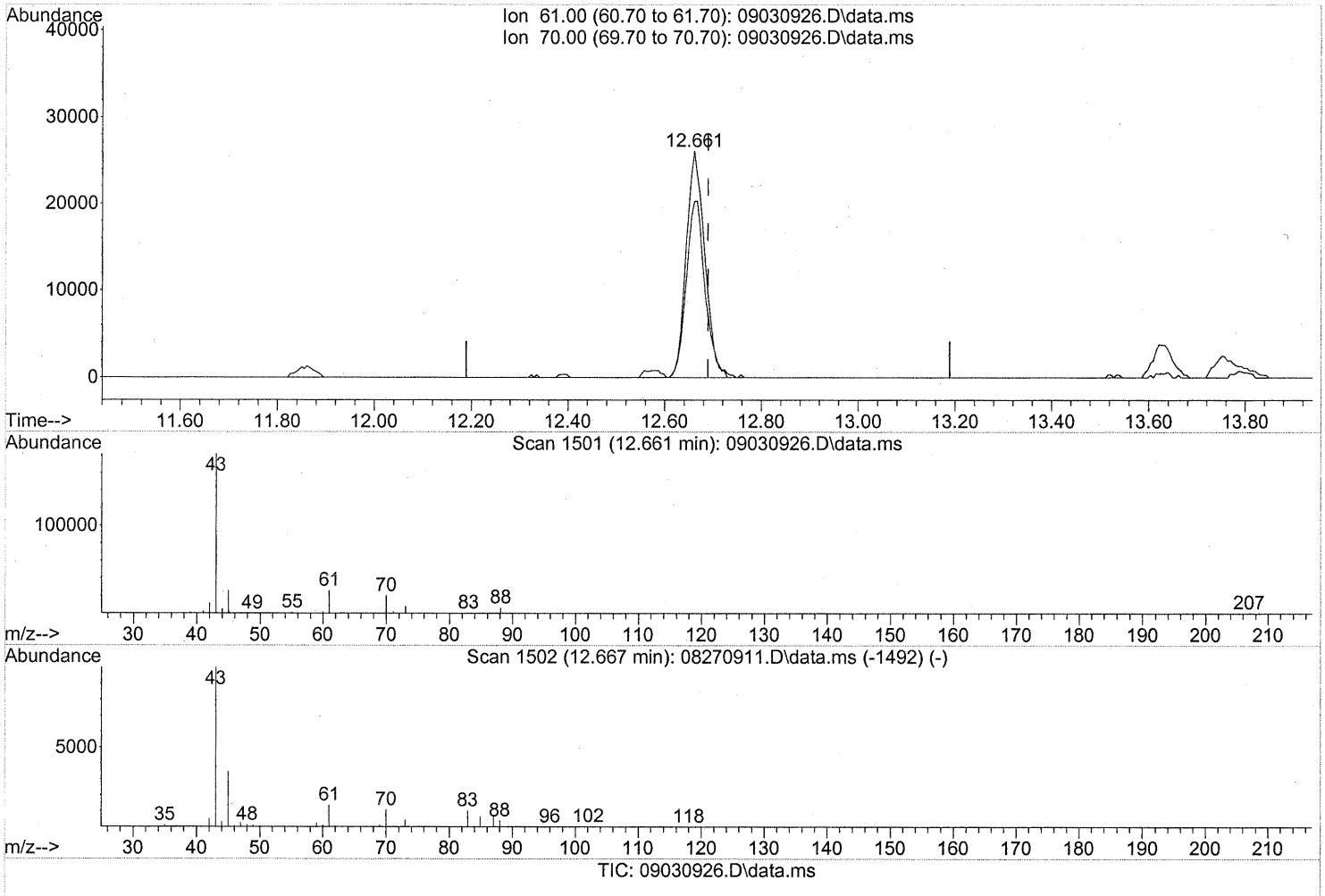
response 36144

Ion	Exp%	Act%
72.10	100	100
43.00	424.60	415.85
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

(30) Ethyl Acetate (T)

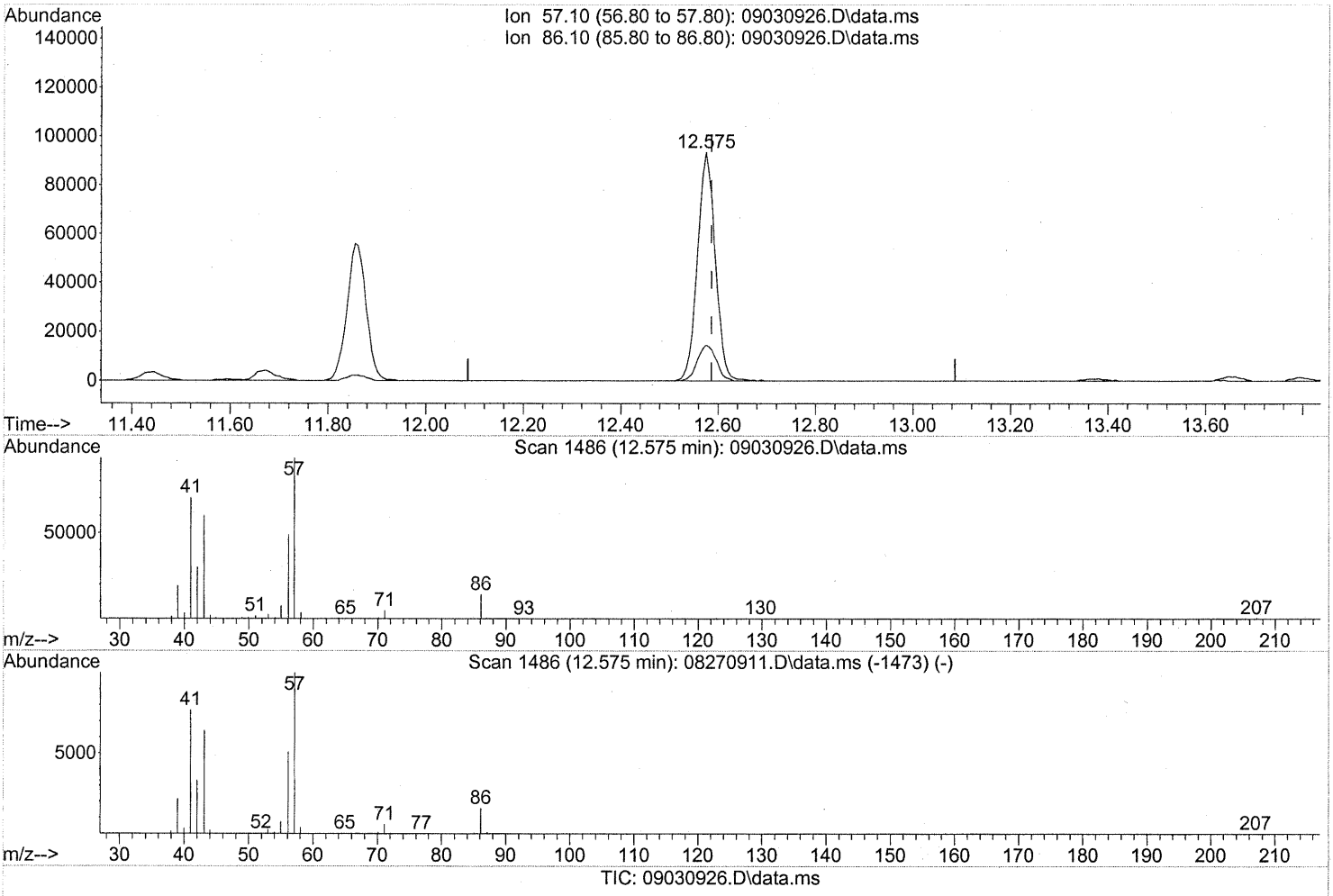
12.661min (-0.029) 11.31ng

response 69409

Ion	Exp%	Act%
61.00	100	100
70.00	78.70	78.77
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

(31) n-Hexane (T)

12.575min (-0.011) 7.67ng

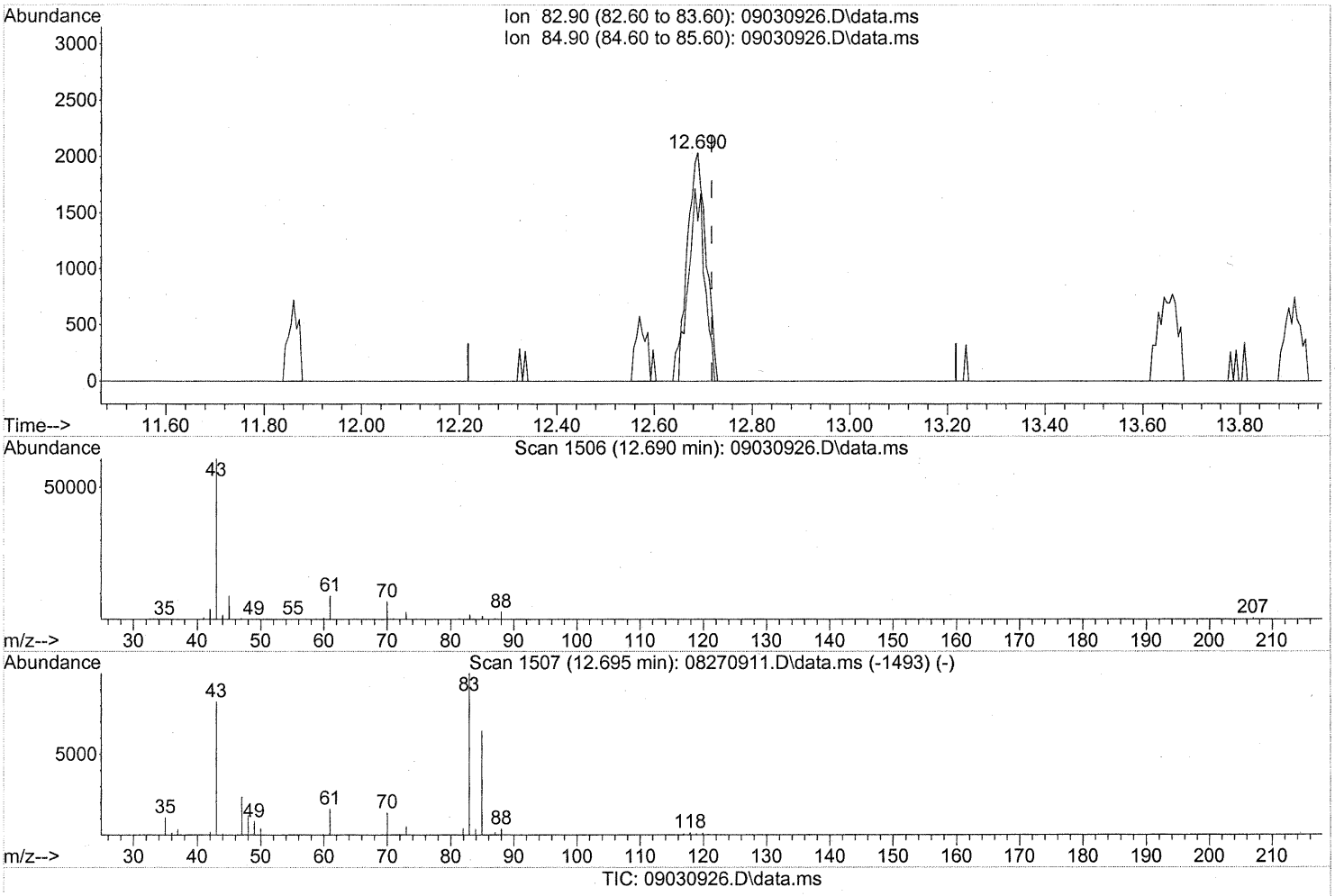
response 234614

Ion	Exp%	Act%
57.10	100	100
86.10	15.40	16.31
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

(32) Chloroform (T)

12.690min (-0.029) 0.18ng

response 5324

Ion	Exp%	Act%
82.90	100	100
84.90	62.60	76.39
0.00	0.00	0.00
0.00	0.00	0.00

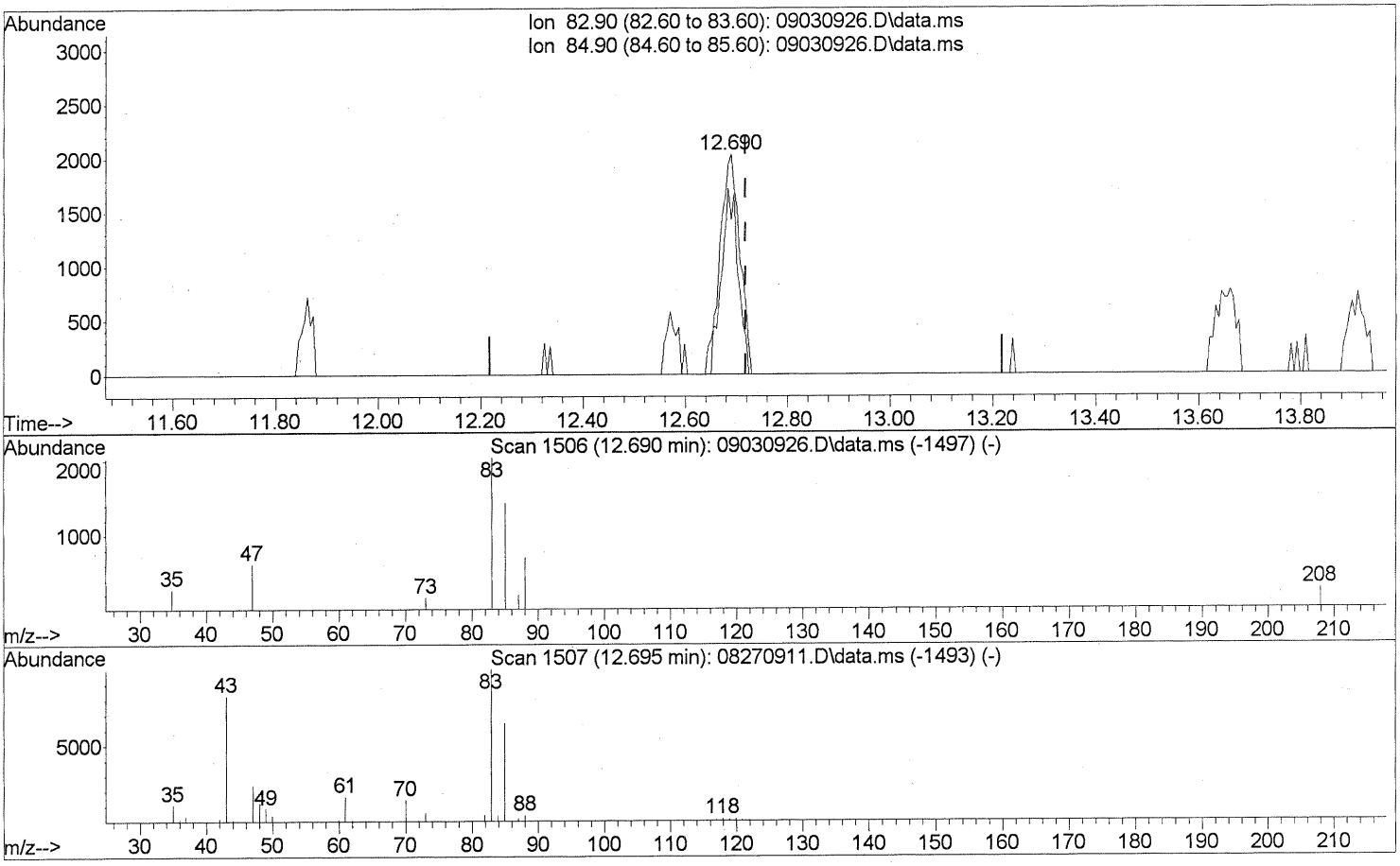
Before

161

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 09 13:46:21 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

(32) Chloroform (T)

12.690min (-0.029) 0.18ng

response 5324

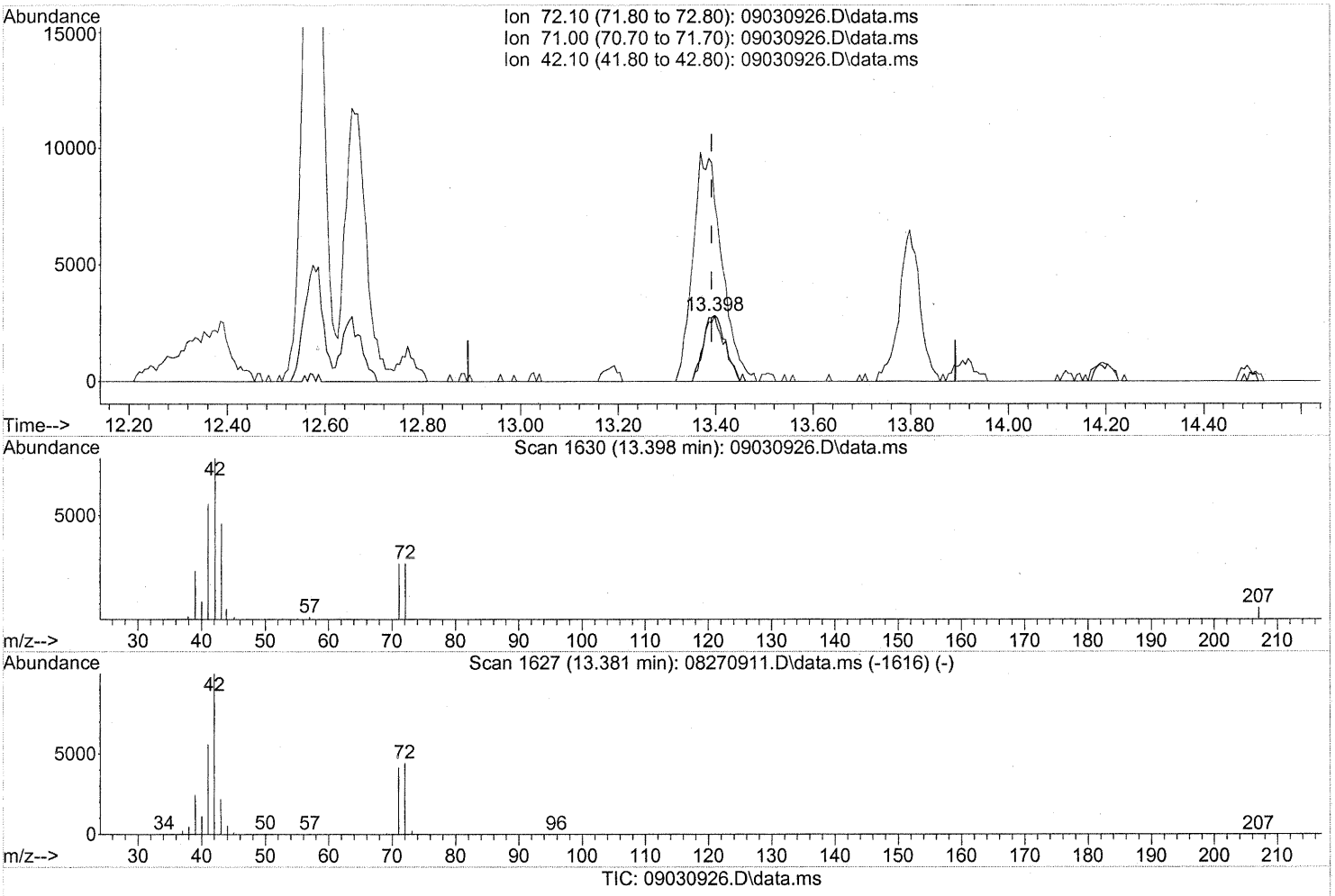
Ion	Exp%	Act%
82.90	100	100
84.90	62.60	76.39
0.00	0.00	0.00
0.00	0.00	0.00

After Subtraction

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

(34) Tetrahydrofuran (THF) (T)

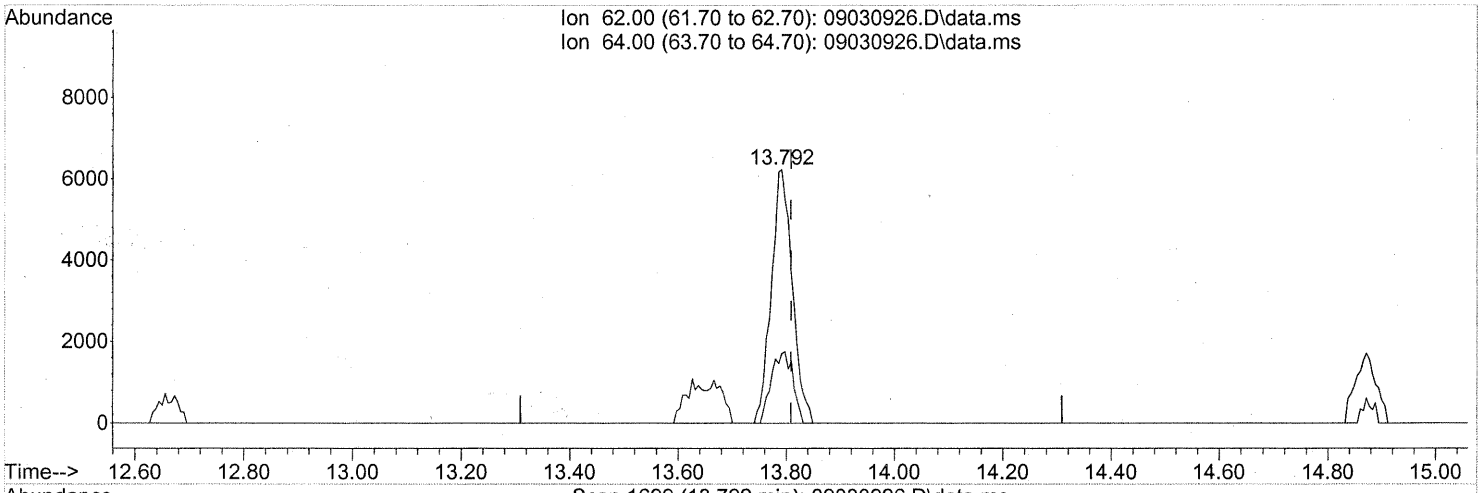
13.398min (+0.006) 0.72ng

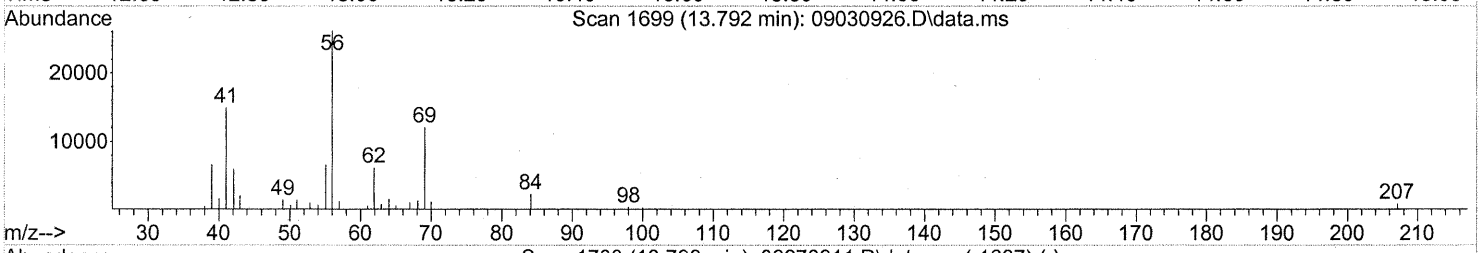
response 8932

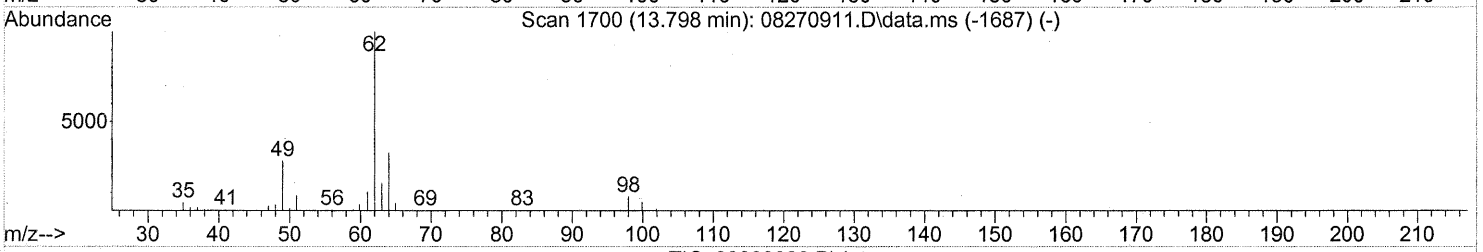
Ion	Exp%	Act%
72.10	100	100
71.00	92.50	91.91
42.10	254.10	0.00#
0.00	0.00	0.00

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration







TIC: 09030926.D\data.ms

(36) 1,2-Dichloroethane (T)

13.792min (-0.017) 0.66ng

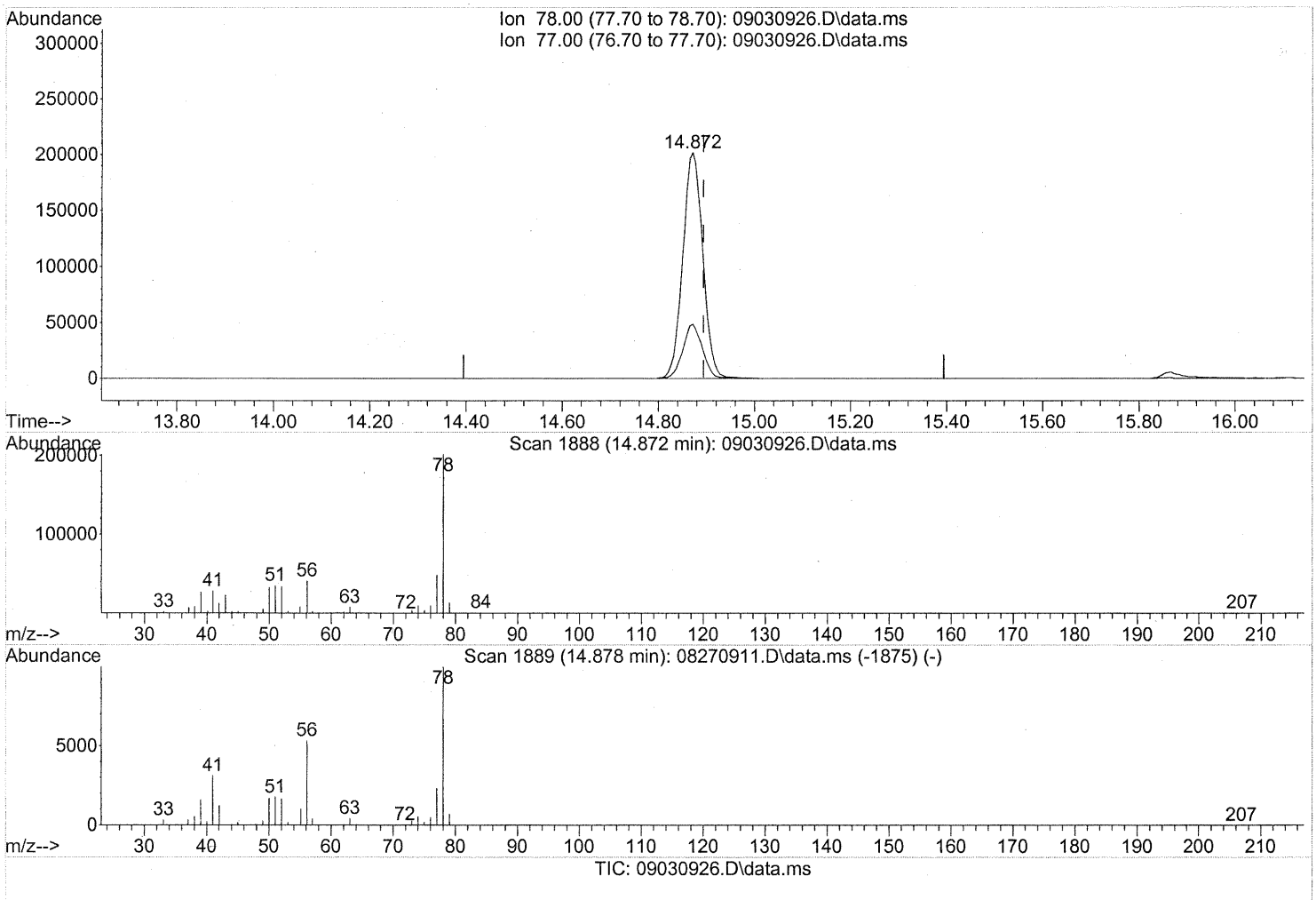
response 16689

Ion	Exp%	Act%
62.00	100	100
64.00	33.10	28.64
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

(41) Benzene (T)

14.872min (-0.023) 8.08ng

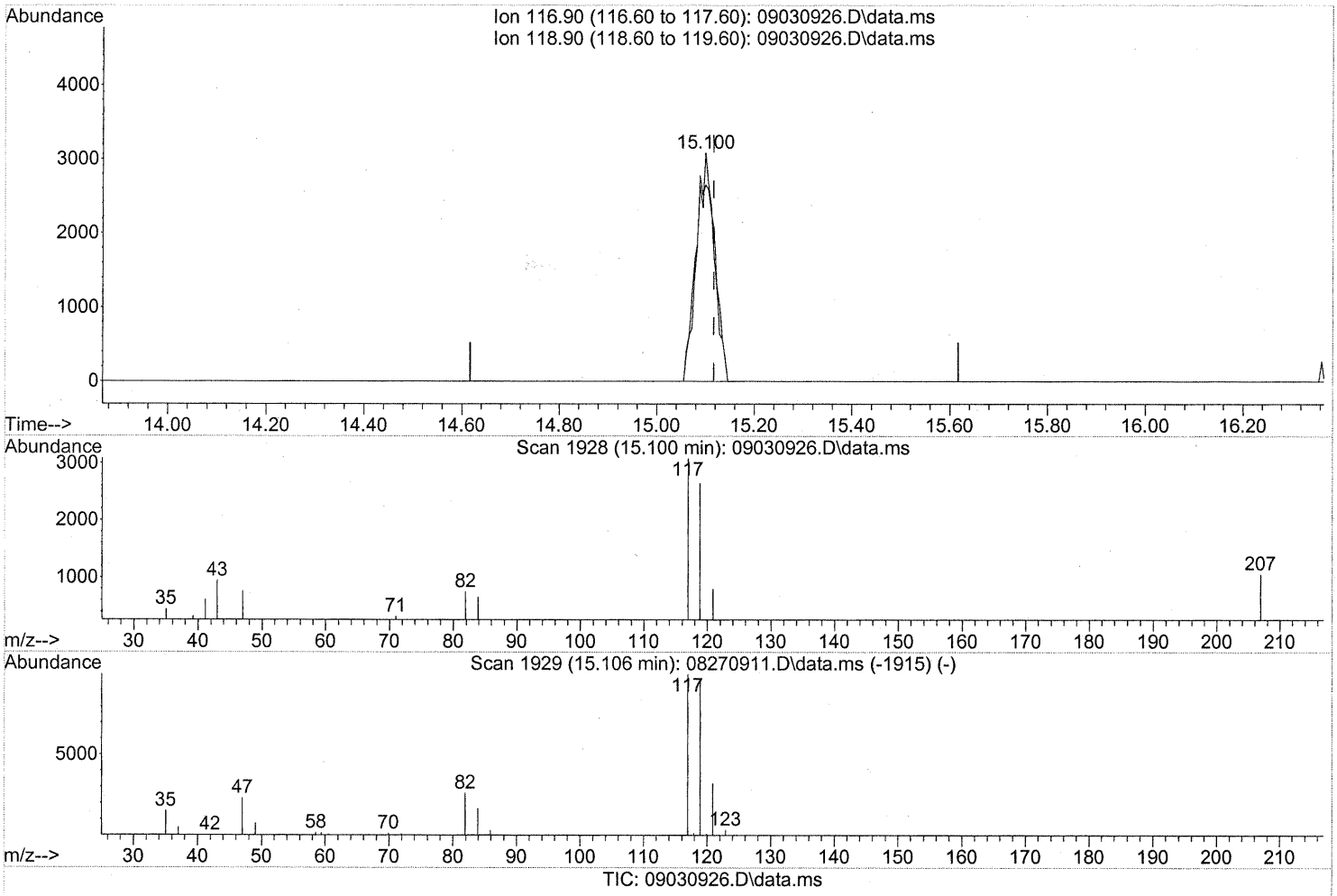
response 581622

Ion	Exp%	Act%
78.00	100	100
77.00	23.20	23.26
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

(42) Carbon Tetrachloride (T)

15.100min (-0.017) 0.33ng

response 8059

Ion	Exp%	Act%
116.90	100	100
118.90	96.20	96.28
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
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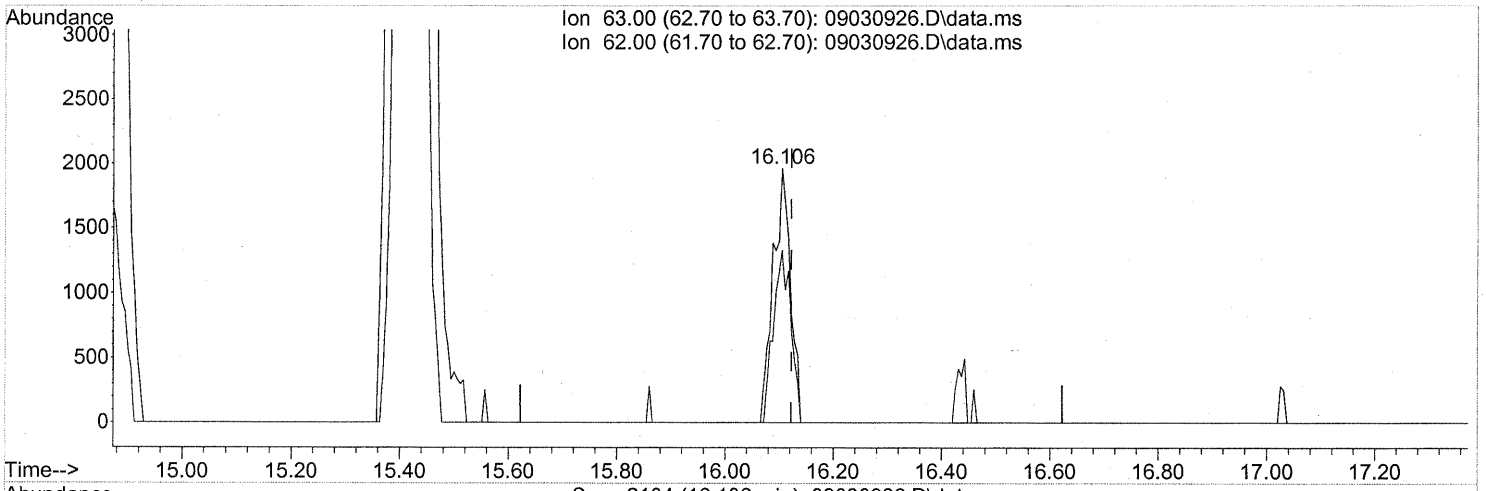
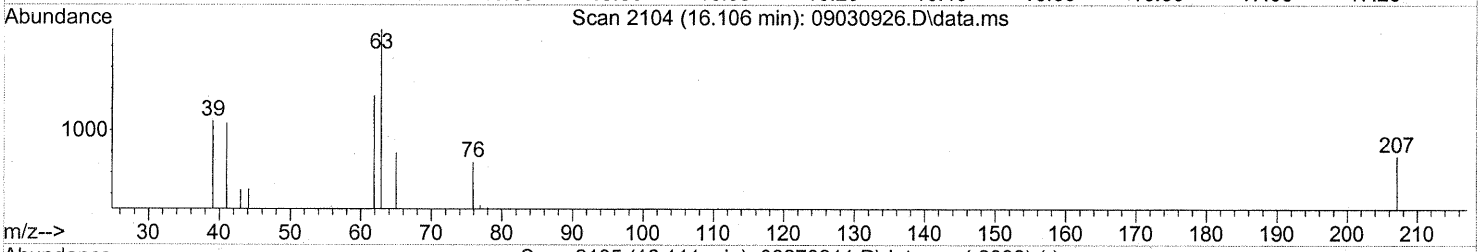
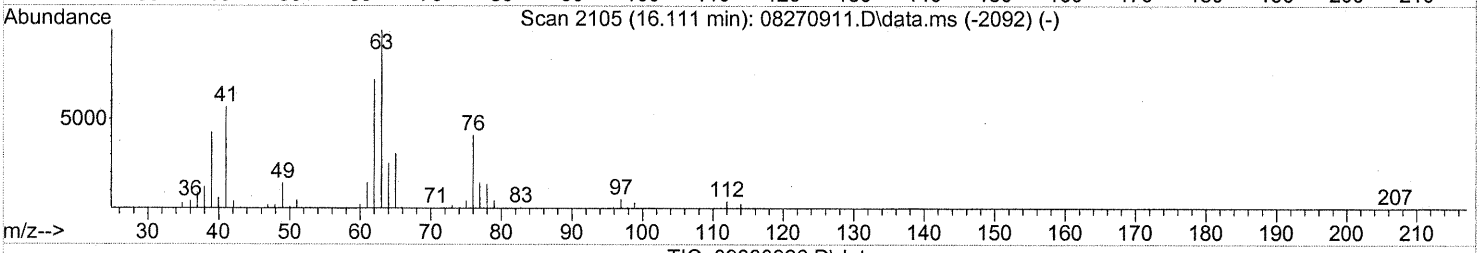
Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration







TIC: 09030926.D\data.ms

(45) 1,2-Dichloropropane (T)

16.106min (-0.017) 0.25ng

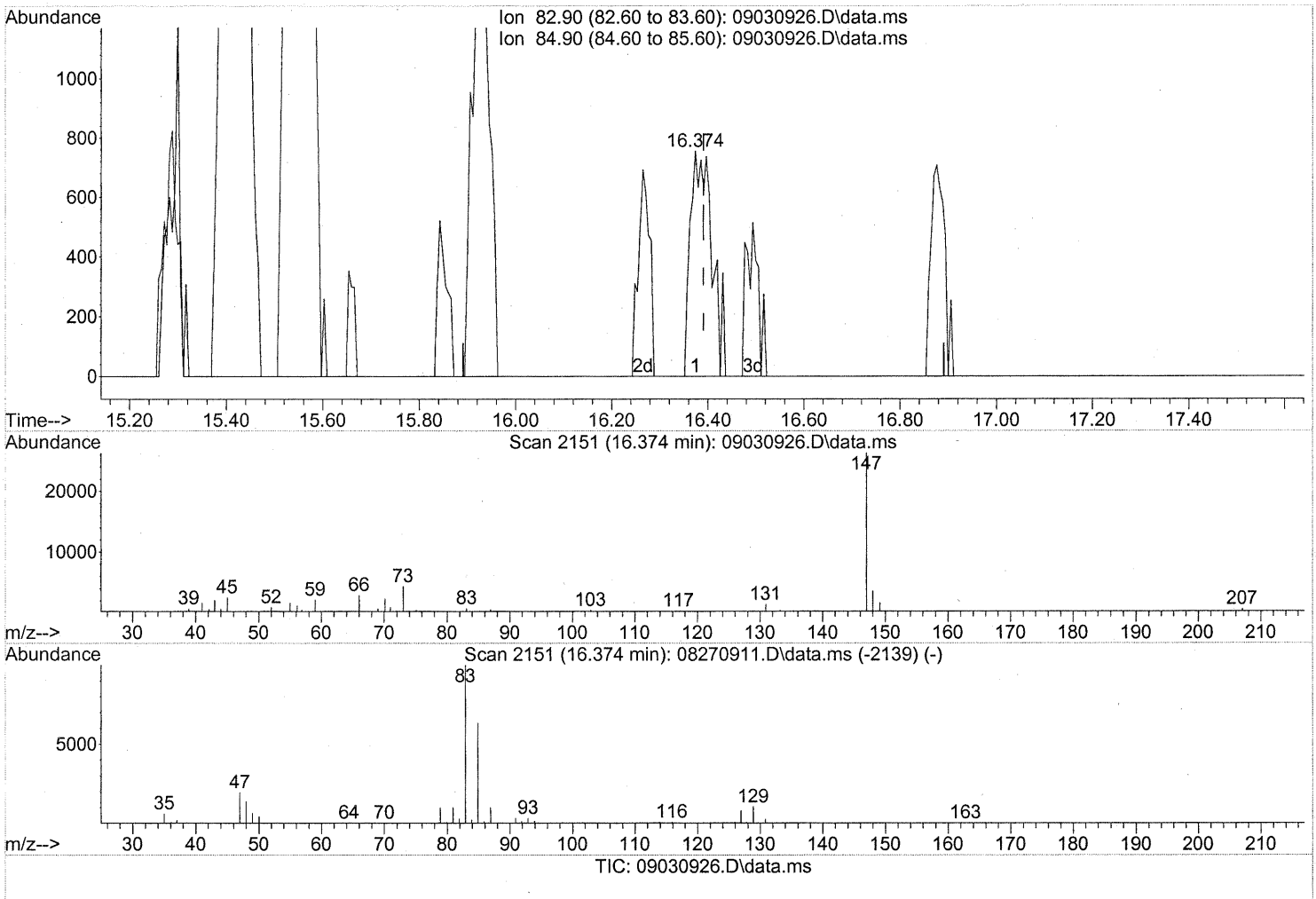
response 4358

Ion	Exp%	Act%
63.00	100	100
62.00	72.90	68.38
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

(46) Bromodichloromethane (T)

16.374min (-0.017) 0.10ng

response 2349

Ion	Exp%	Act%
82.90	100	100
84.90	64.50	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

FP
9/9/09.

9/10/09

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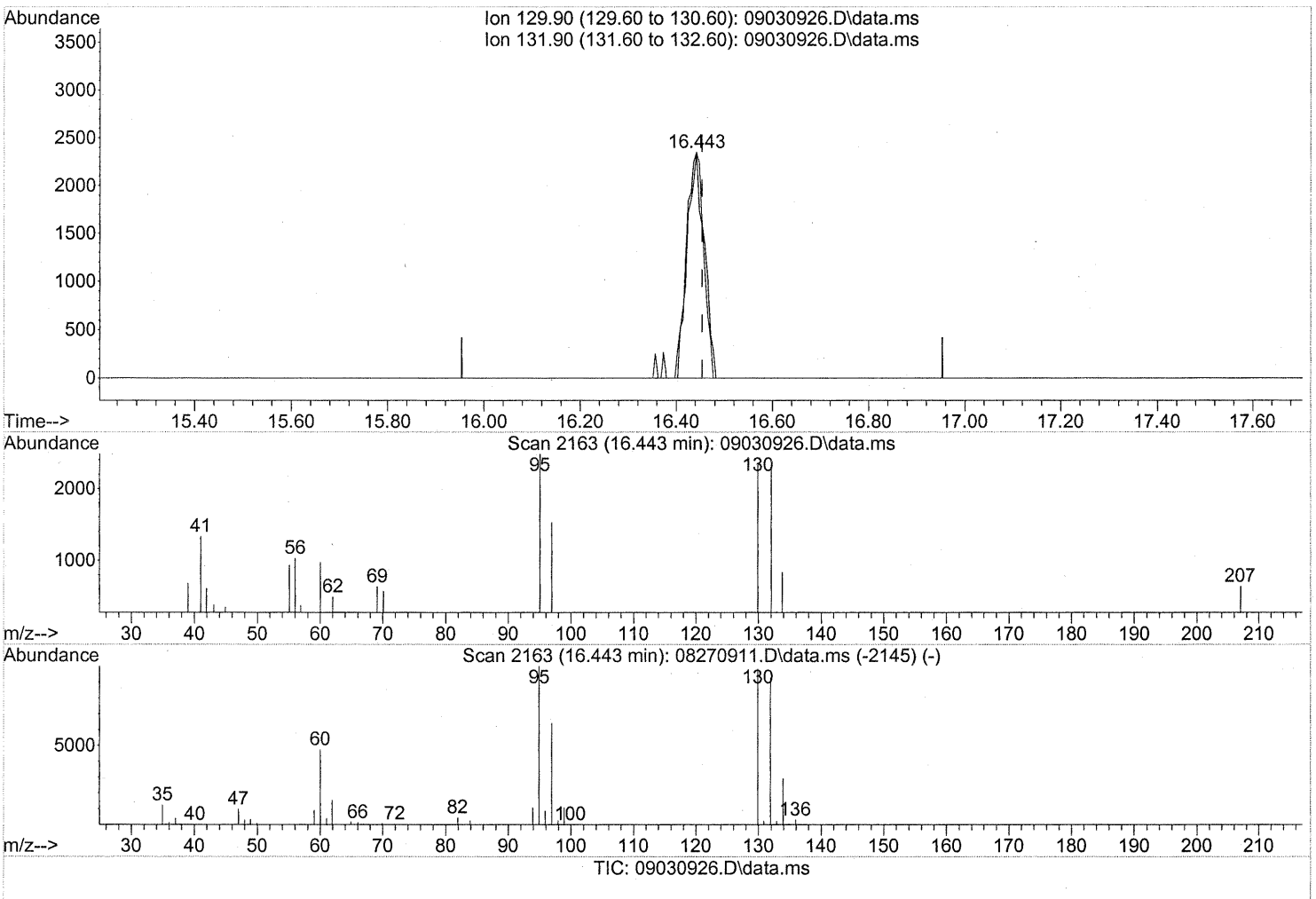
Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

(47) Trichloroethene (T)

16.443min (-0.011) 0.34ng

response 5899

Ion	Exp%	Act%
129.90	100	100
131.90	96.50	95.10
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
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Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
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Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
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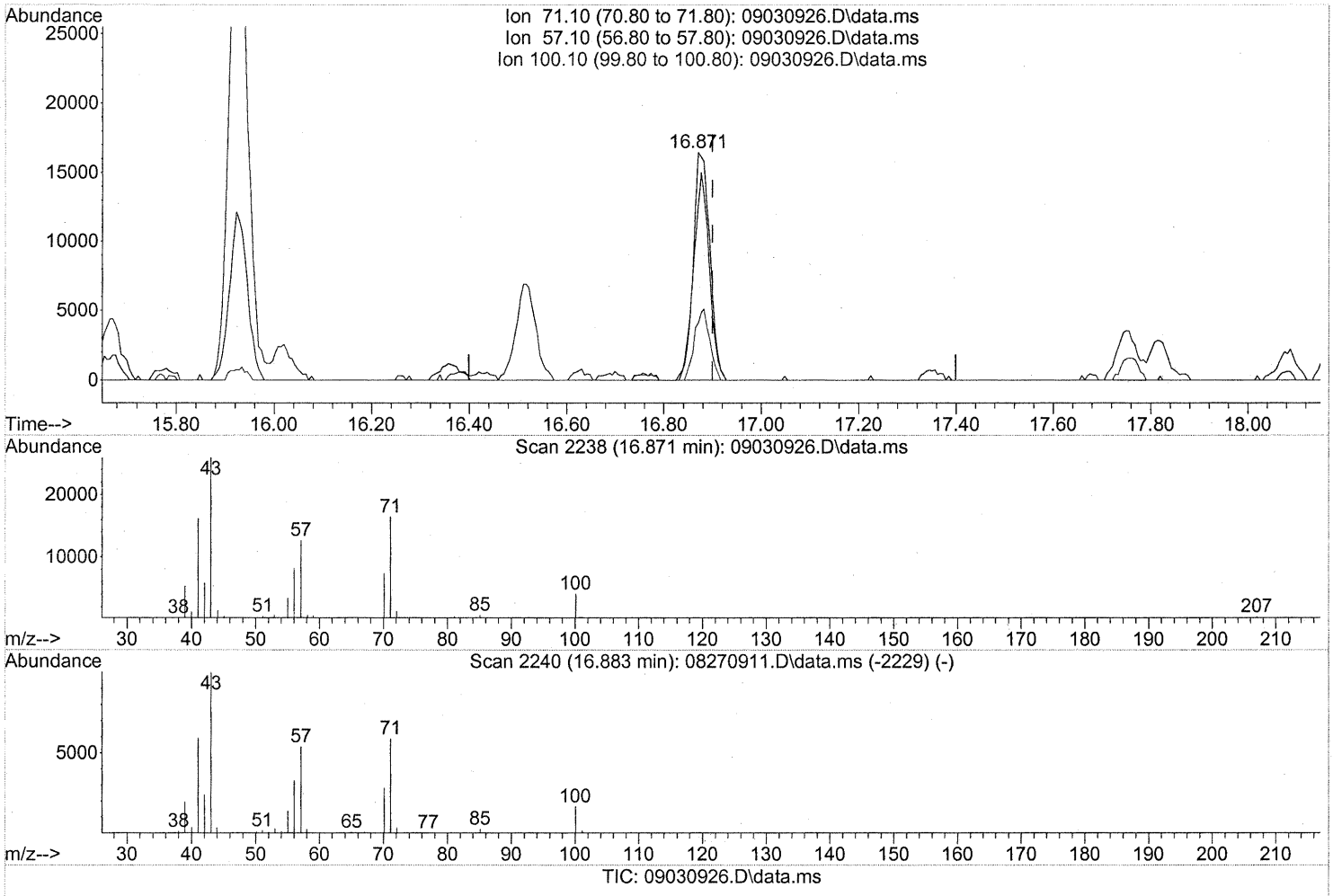

TIC: 09030926.D\data.ms

(51) n-Heptane (T)

16.871min (-0.029) 2.08ng

response 38809

Ion	Exp%	Act%
71.10	100	100
57.10	89.80	85.32
100.10	22.00	27.88
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
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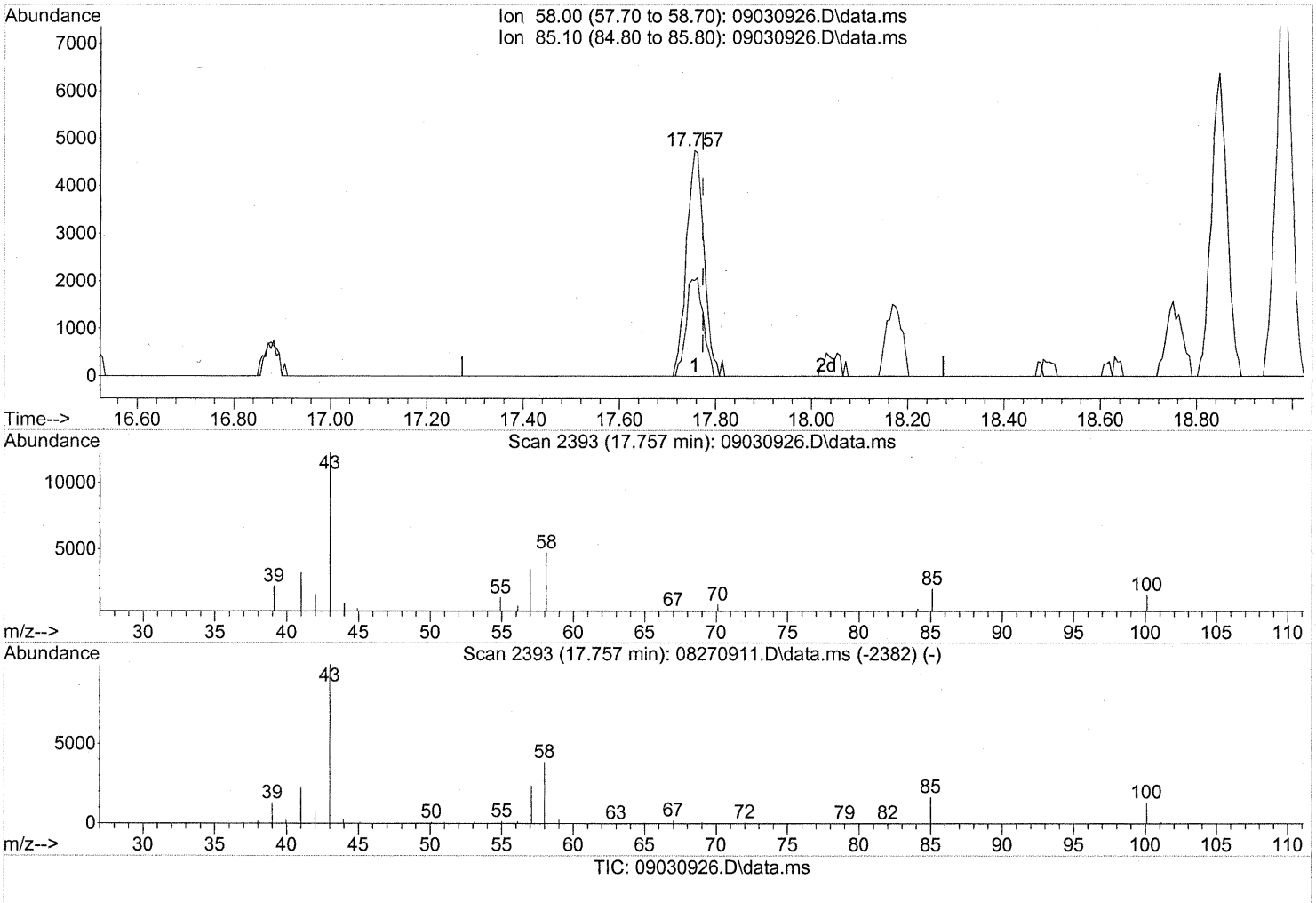
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

(53) 4-Methyl-2-pentanone (T)

17.757min (-0.017) 0.72ng

response 11913

Ion	Exp%	Act%
58.00	100	100
85.10	42.40	42.82
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
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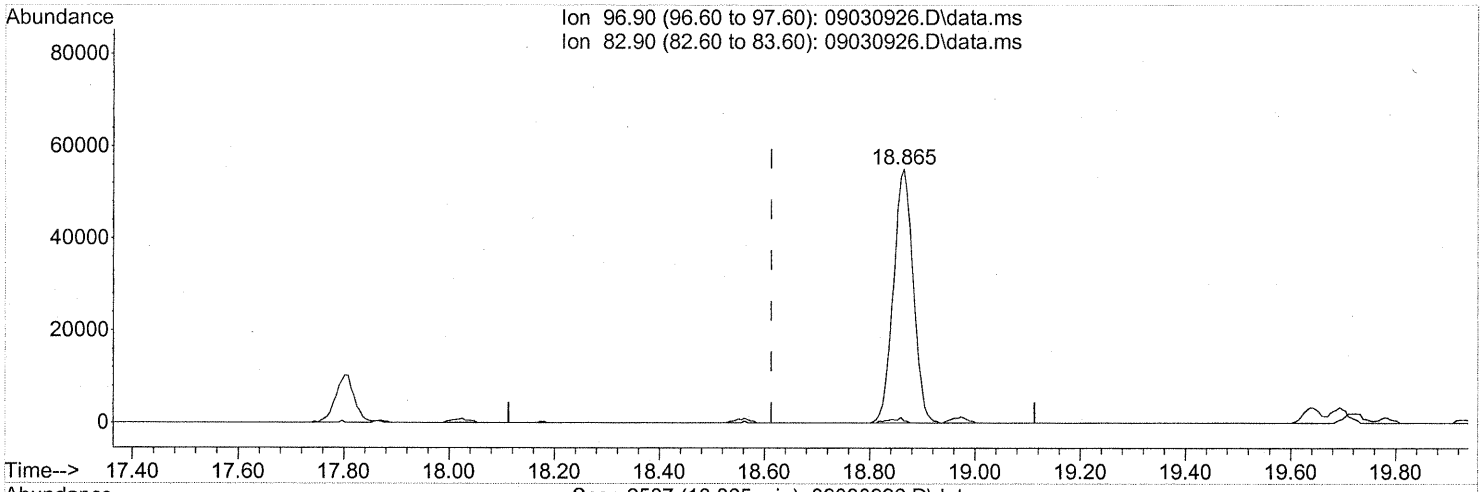

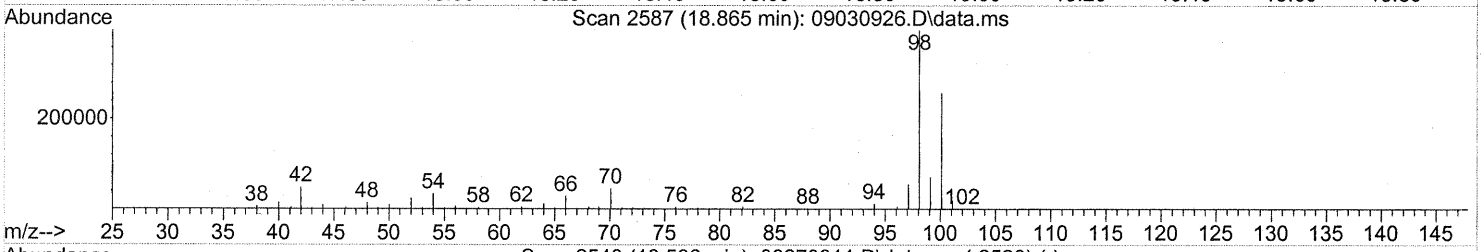

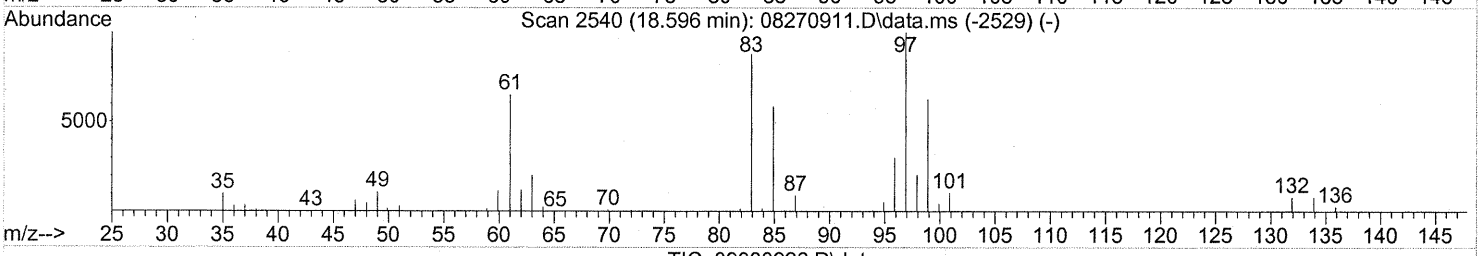

TIC: 09030926.D\data.ms

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

18.865min (+0.251) 8.53ng

response 142968

Ion	Exp%	Act%
96.90	100	100
82.90	87.70	1.32#
0.00	0.00	0.00
0.00	0.00	0.00

FP
LM 9/9/09

9/10/09

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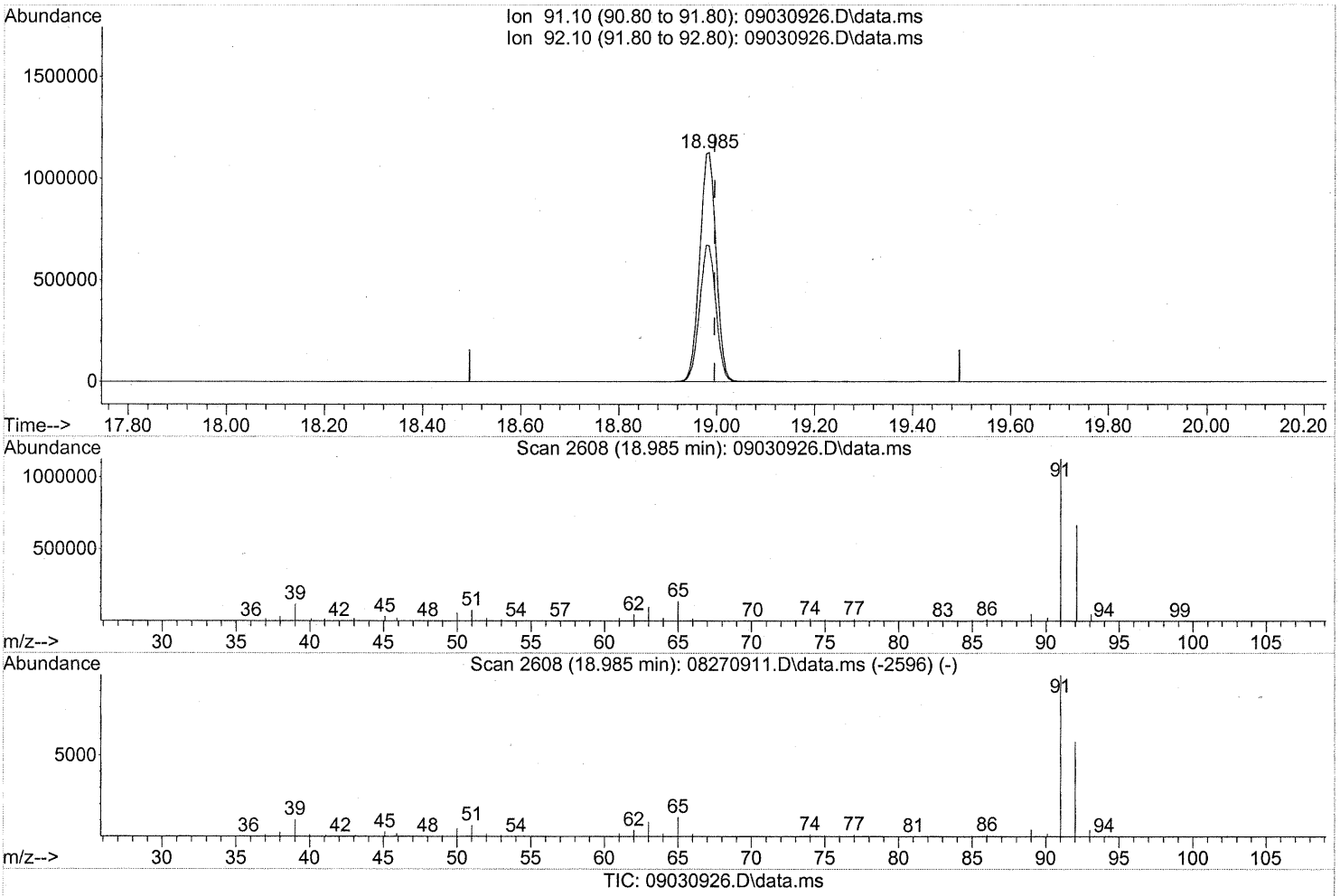
Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

(58) Toluene (T)

18.985min (-0.011) 36.64ng

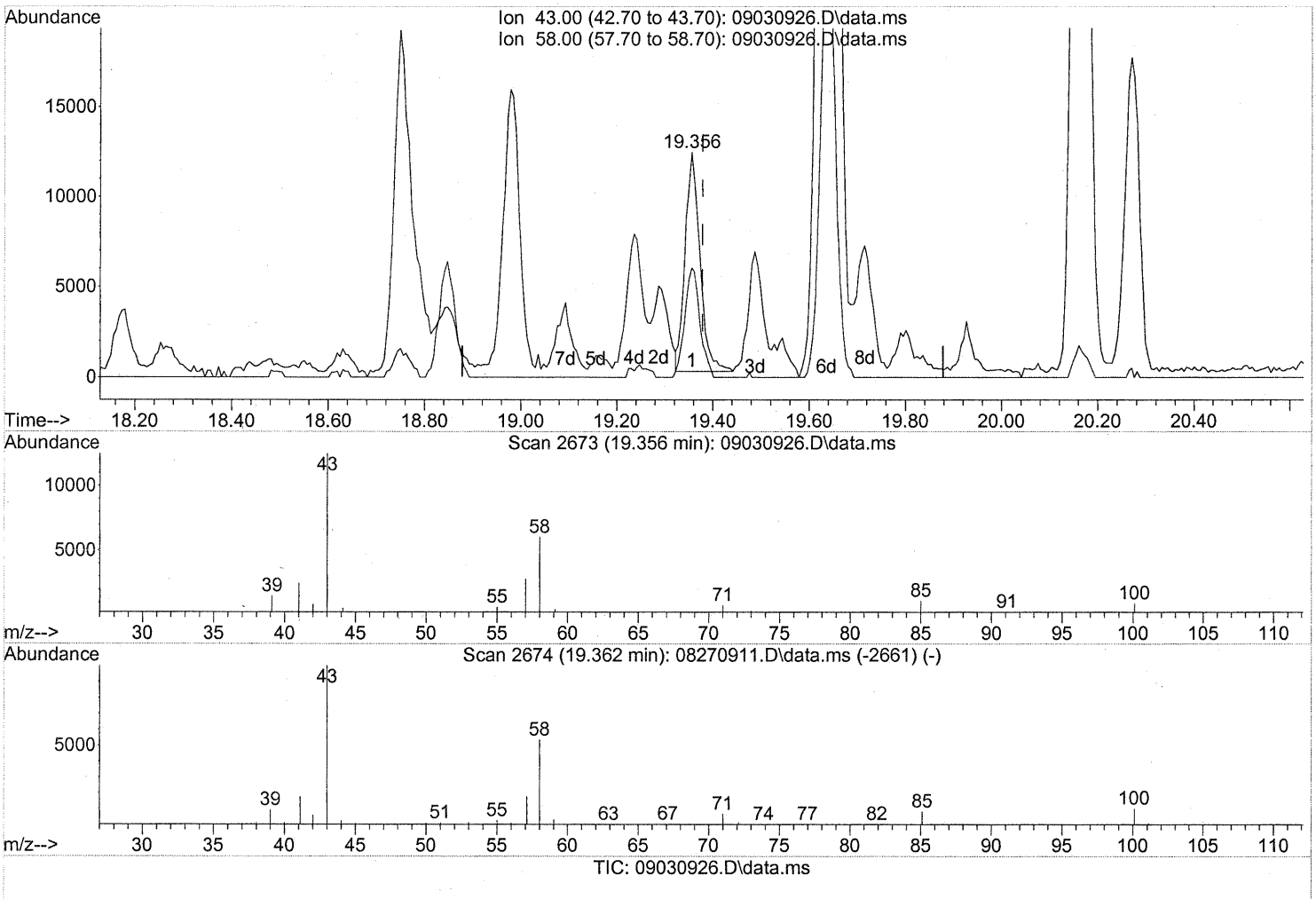
response 2624772

Ion	Exp%	Act%
91.10	100	100
92.10	58.80	59.22
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

(59) 2-Hexanone (T)

19.356min (-0.023) 0.60ng

response 26064

Ion	Exp%	Act%
43.00	100	100
58.00	51.70	50.60
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
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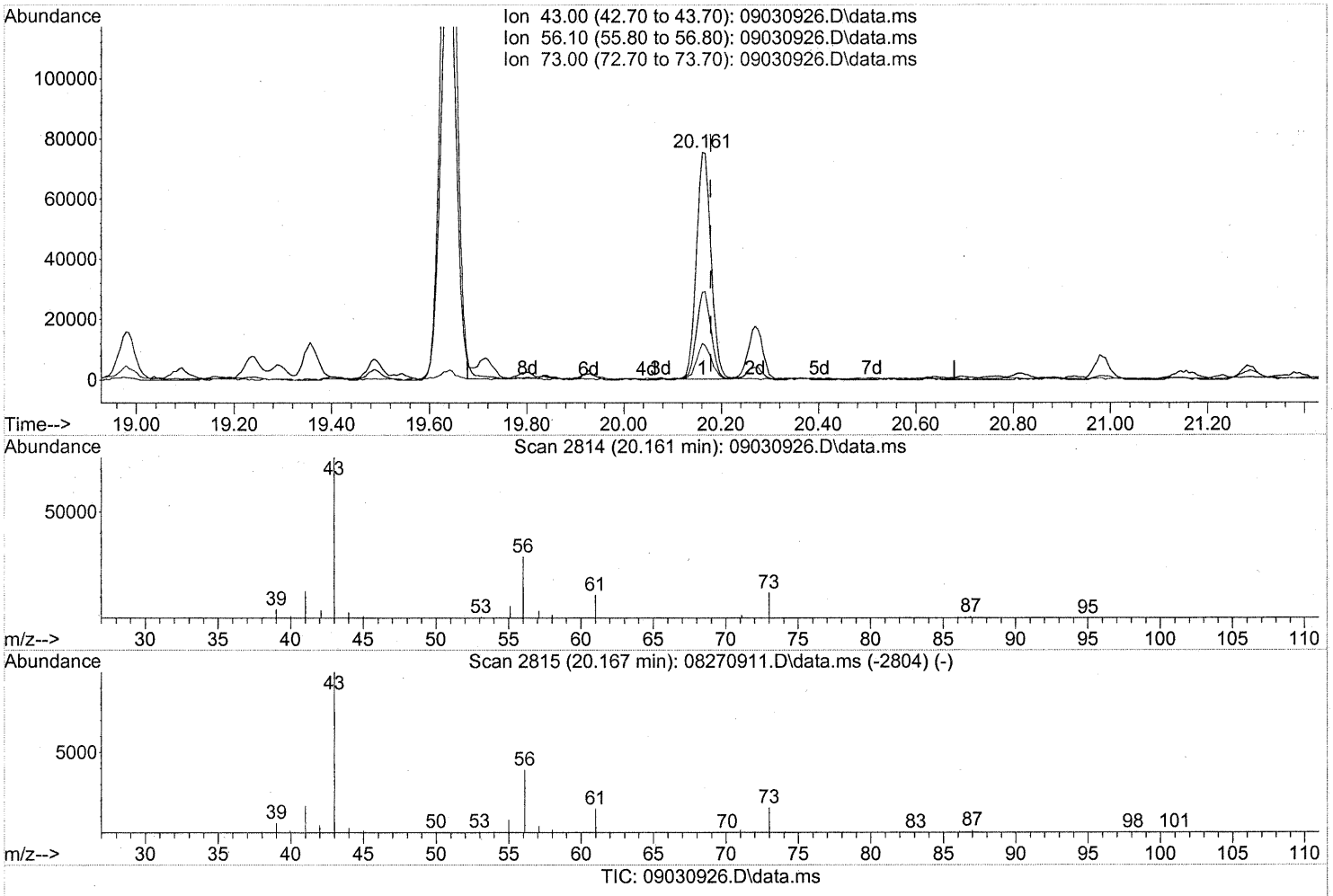
Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

(62) n-Butyl Acetate (T)

20.161min (-0.017) 3.14ng

response 157573

Ion	Exp%	Act%
43.00	100	100
56.10	39.50	39.51
73.00	14.30	17.59
0.00	0.00	0.00

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

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Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
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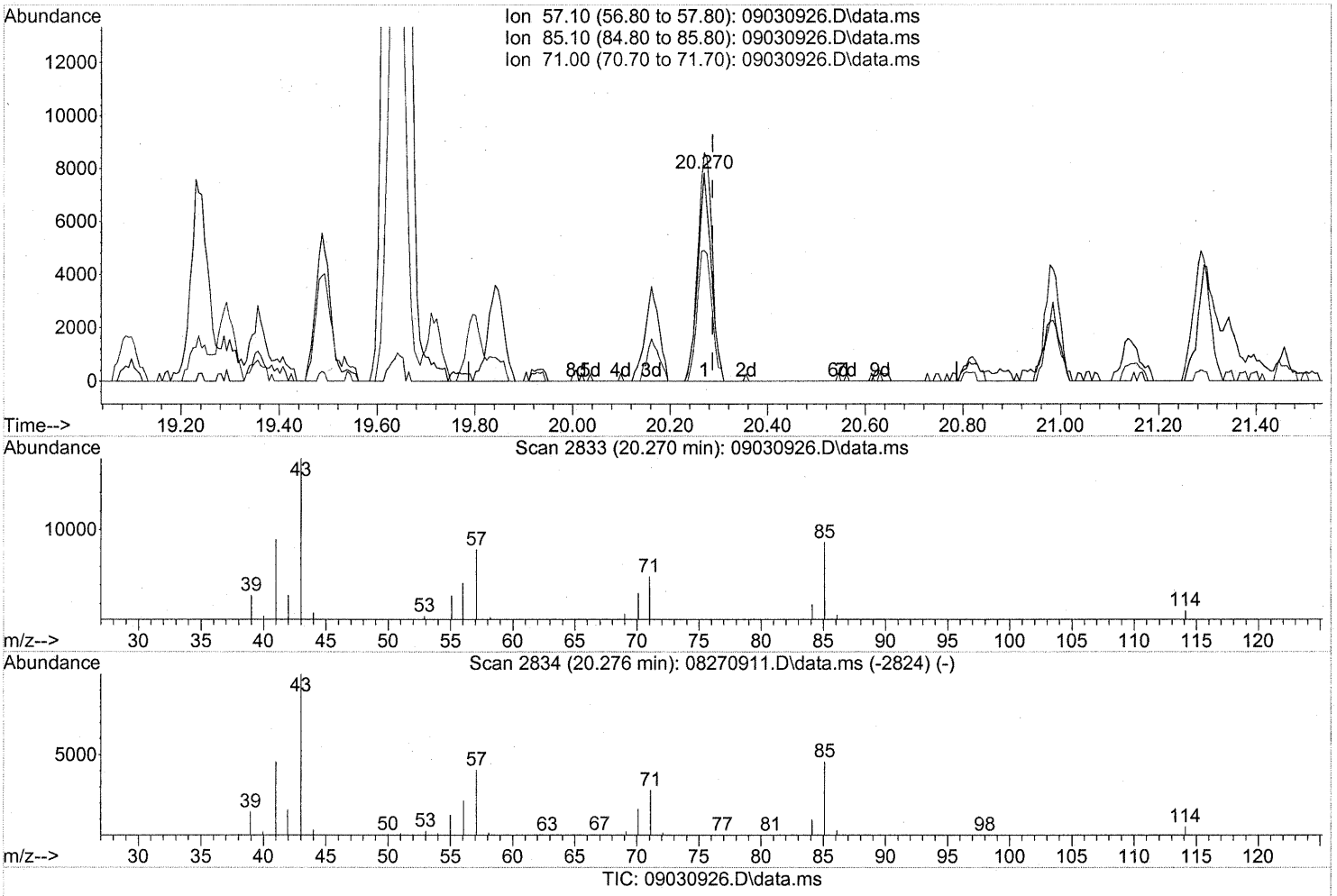
Response via : Initial Calibration



TIC: 09030926.D\data.ms

(63) n-Octane (T)

20.270min (-0.017) 0.90ng

response 14867

Ion	Exp%	Act%
57.10	100	100
85.10	113.70	118.87
71.00	69.10	69.06
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
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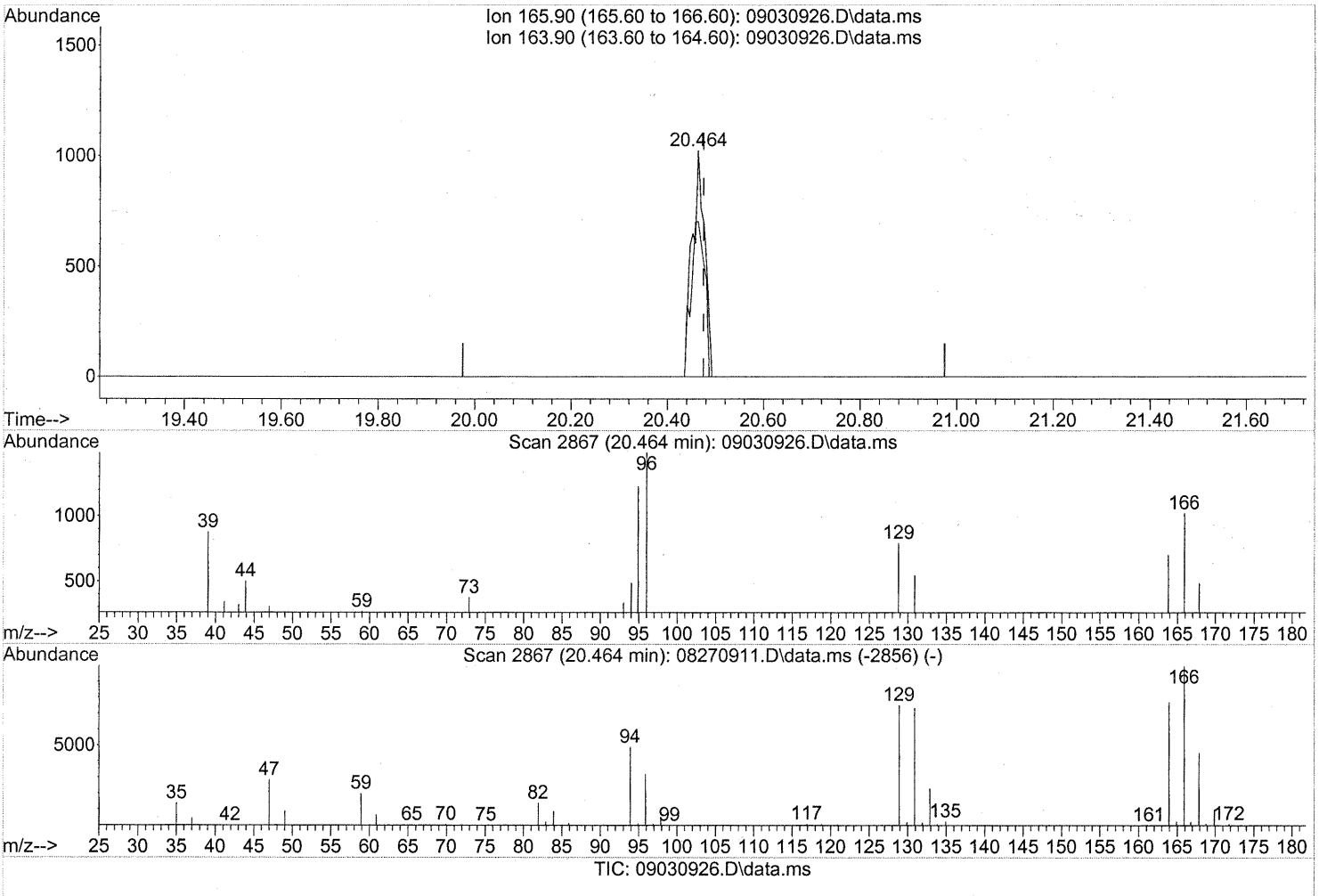

TIC: 09030926.D\data.ms

(64) Tetrachloroethene (T)

20.464min (-0.011) 0.10ng

response 1851

Ion	Exp%	Act%
165.90	100	100
163.90	78.80	74.72
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
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Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
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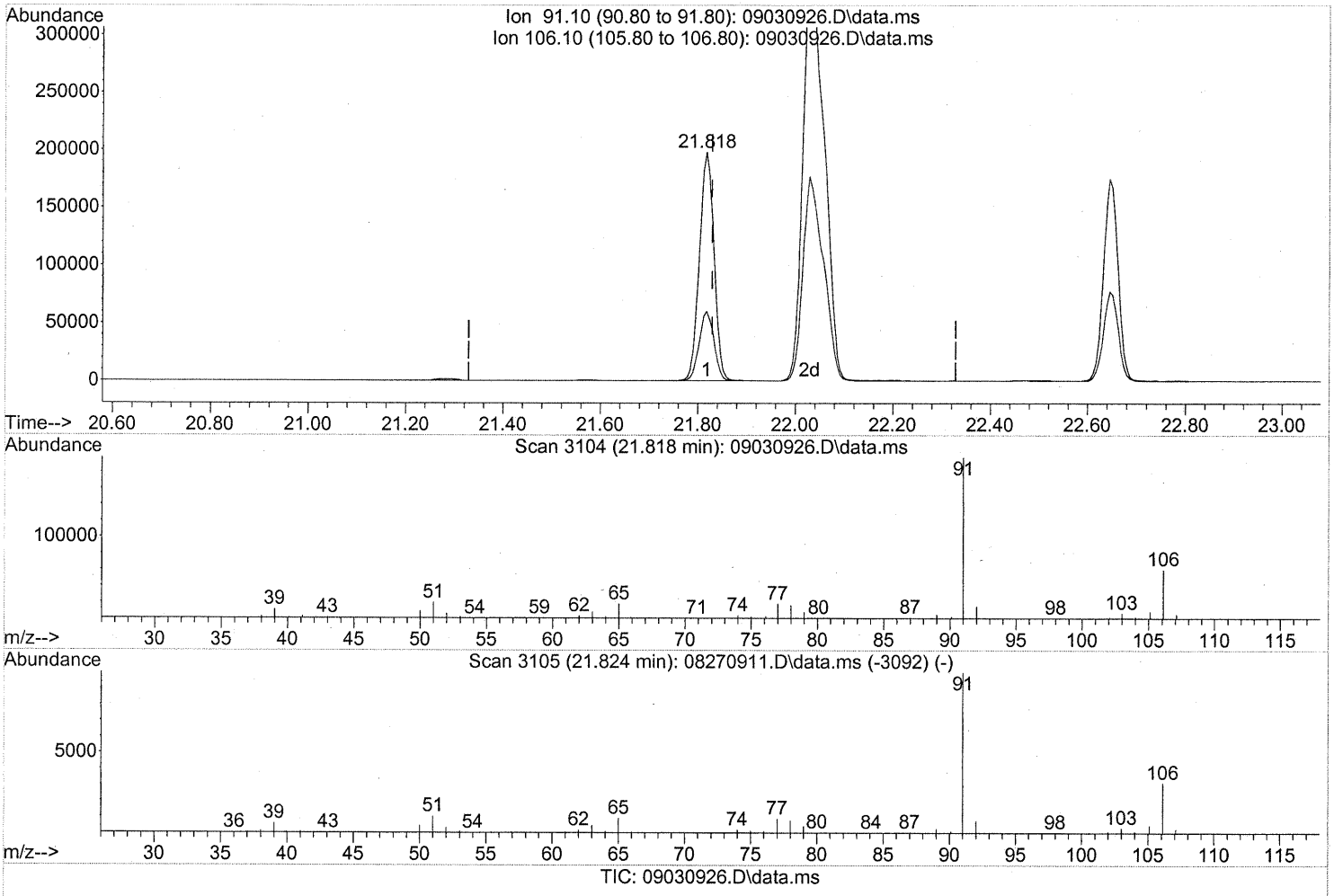

TIC: 09030926.D\data.ms

(66) Ethylbenzene (T)

21.818min (-0.011) 4.97ng

response 407383

Ion	Exp%	Act%
91.10	100	100
106.10	31.00	30.66
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
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Quant Time: Sep 04 08:54:06 2009
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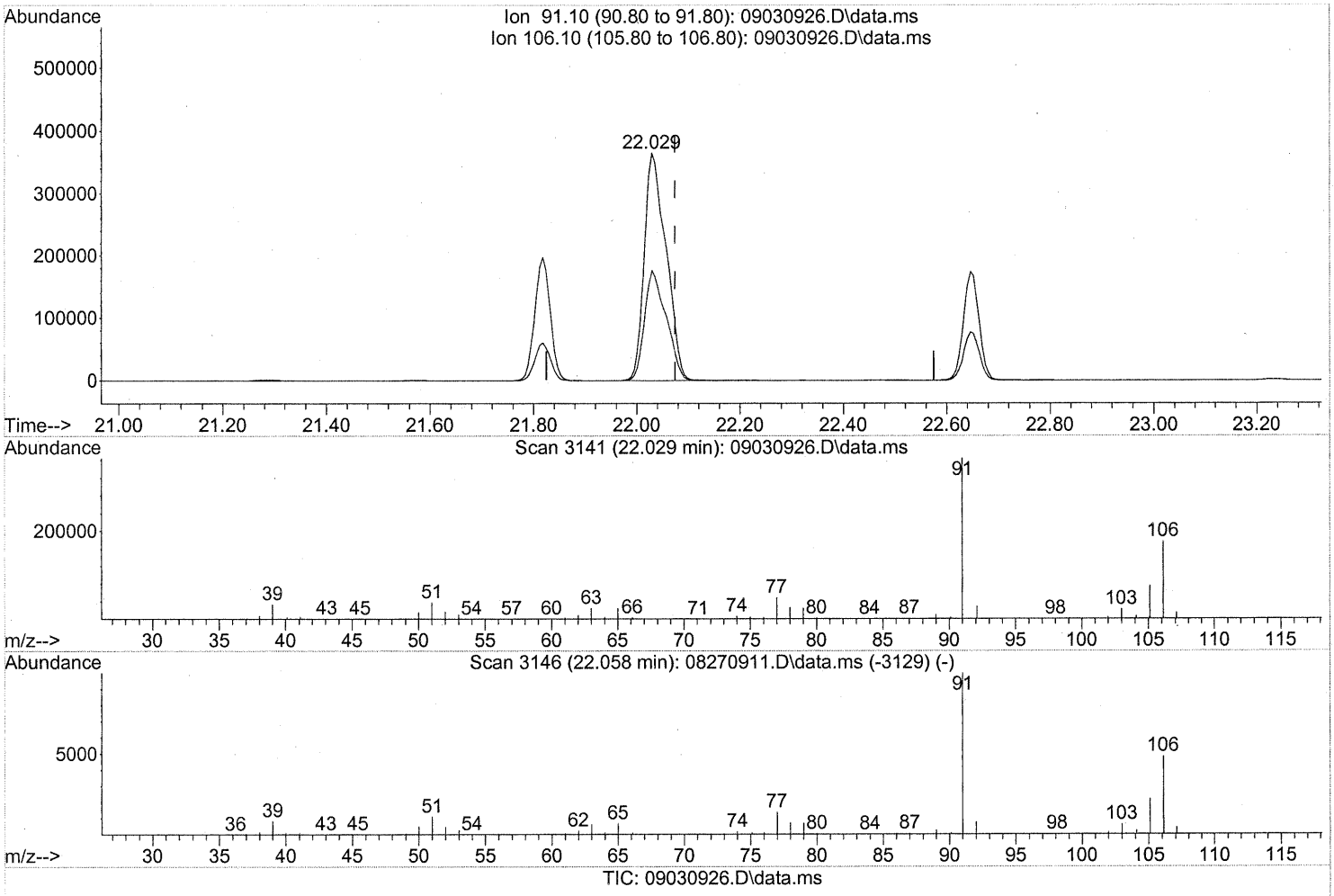
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

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

22.029min (-0.046) 16.45ng

response 1073231

Ion	Exp%	Act%
91.10	100	100
106.10	48.00	47.91
0.00	0.00	0.00
0.00	0.00	0.00

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
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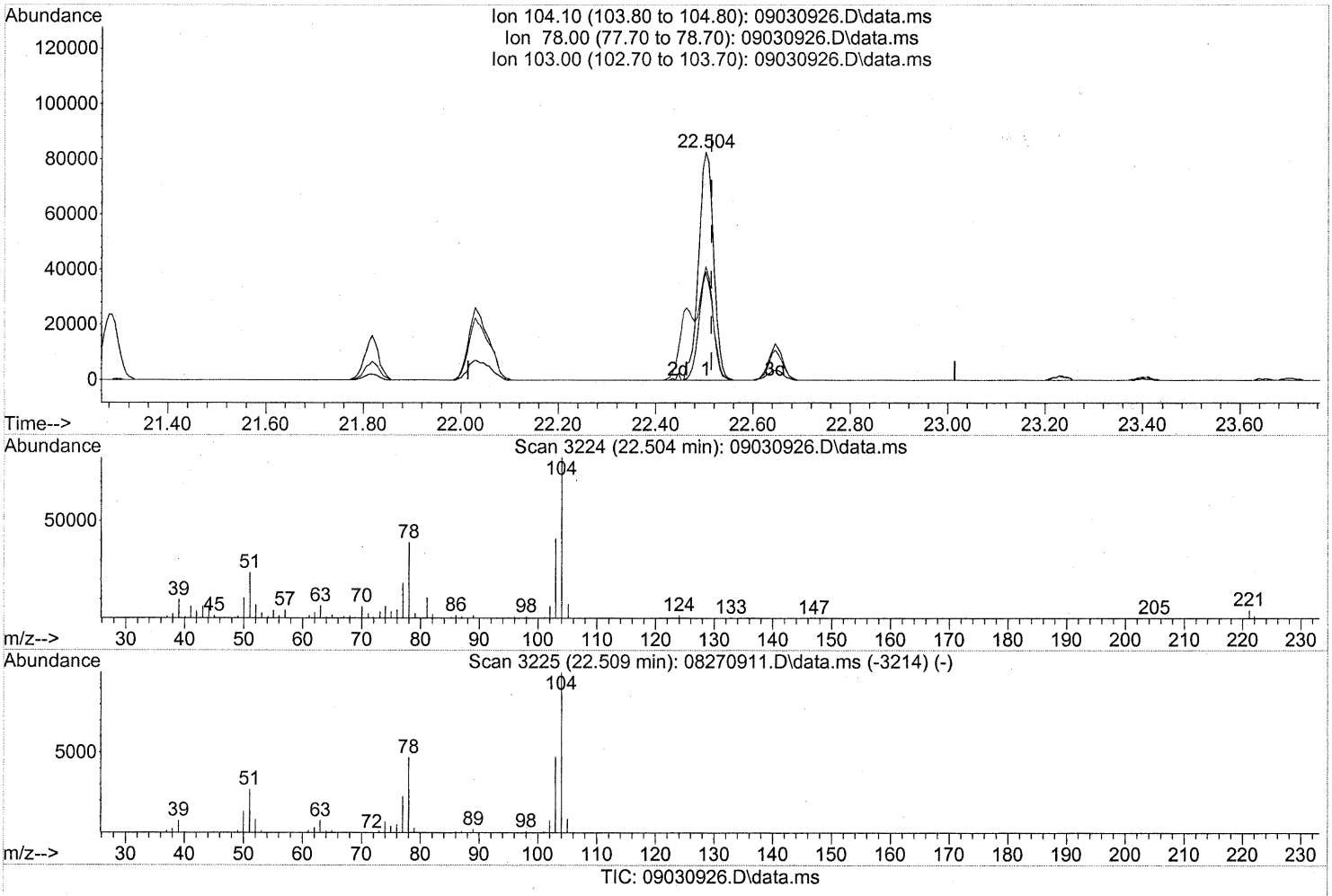
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

(69) Styrene (T)

22.504min (-0.011) 3.68ng

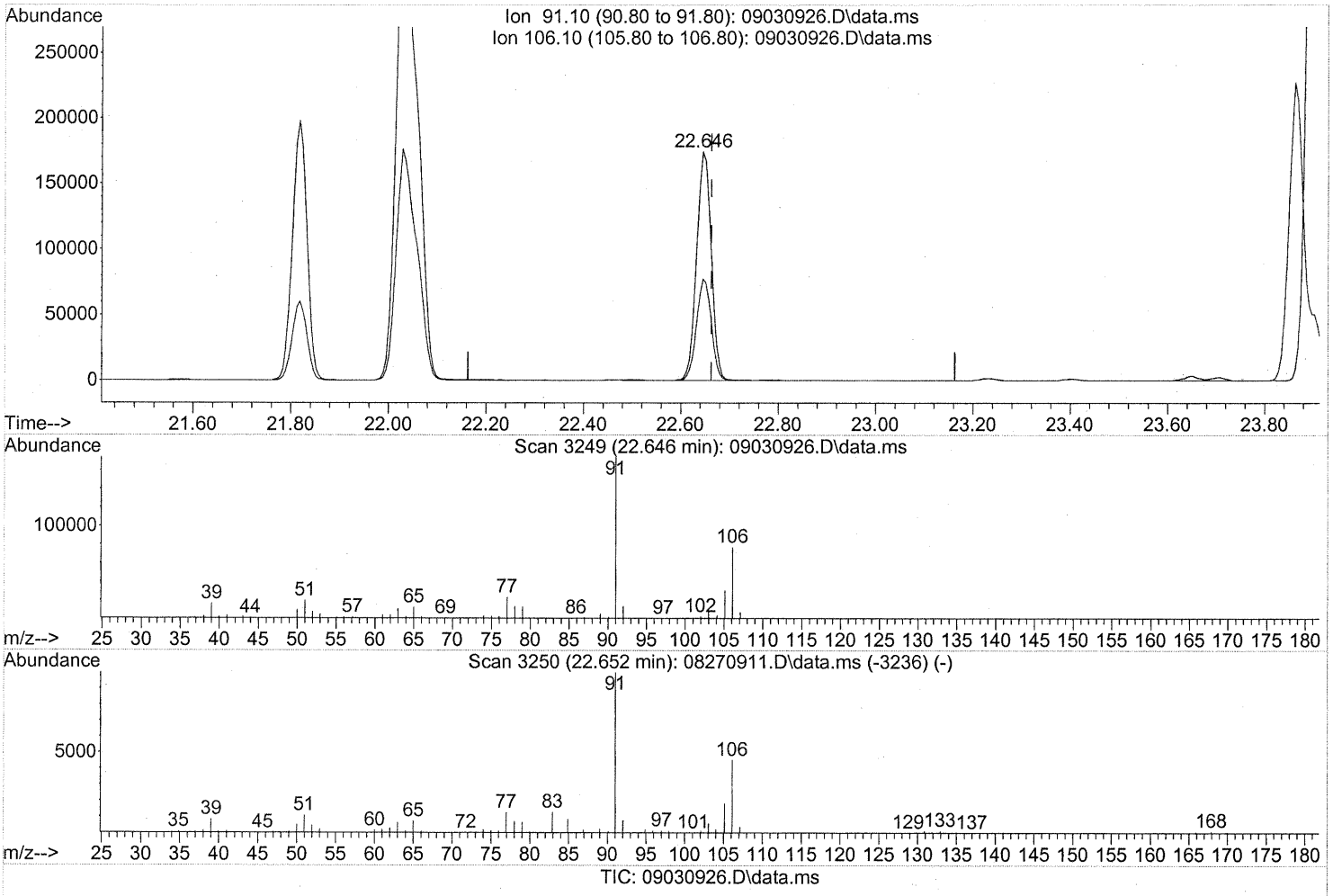
response 176592

Ion	Exp%	Act%
104.10	100	100
78.00	47.20	44.44
103.00	47.00	45.34
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

(70) o-Xylene (T)

22.646min (-0.017) 5.53ng

response 362377

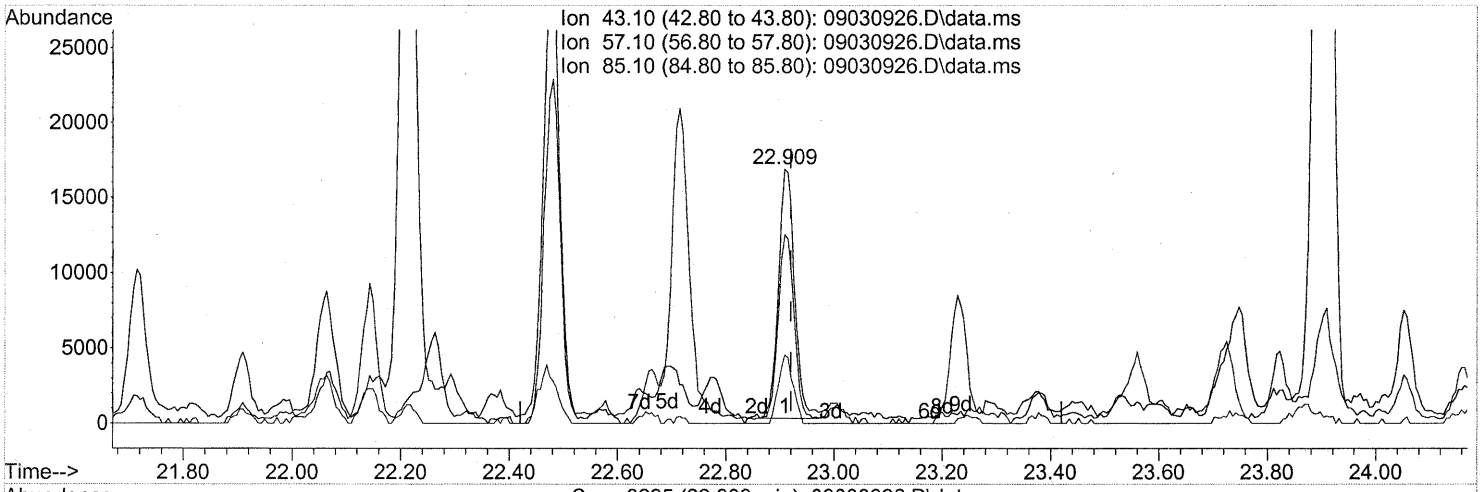
Ion	Exp%	Act%
91.10	100	100
106.10	44.90	44.71
0.00	0.00	0.00
0.00	0.00	0.00

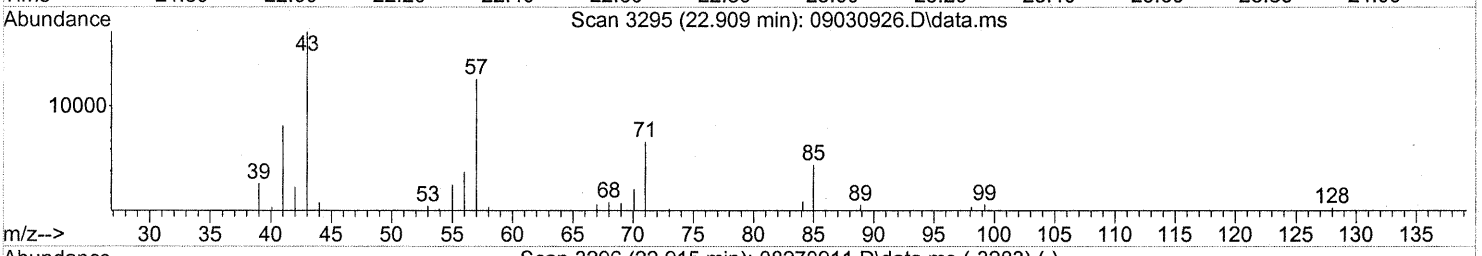
181

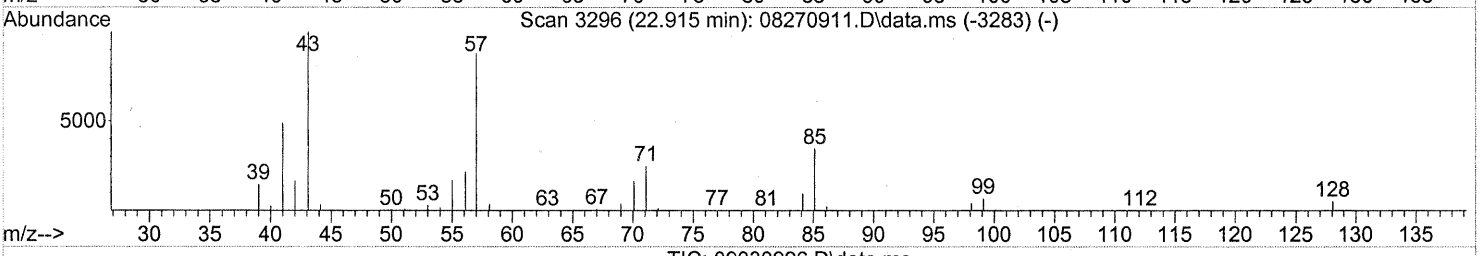
Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration







TIC: 09030926.D\data.ms

(71) n-Nonane (T)

22.909min (-0.011) 0.88ng

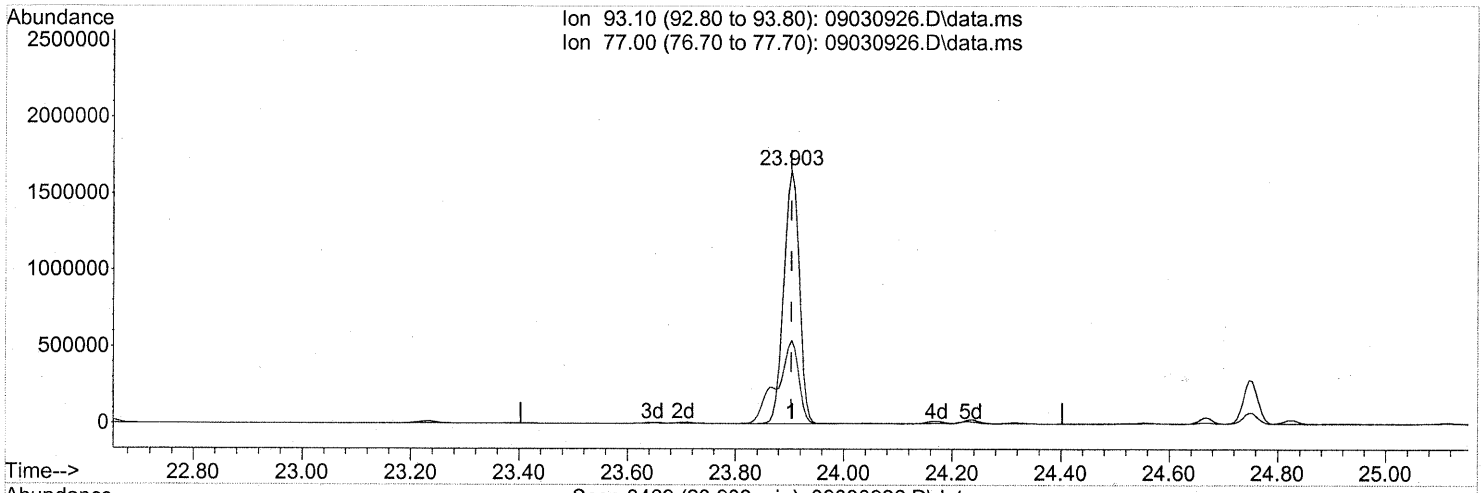
response 34587

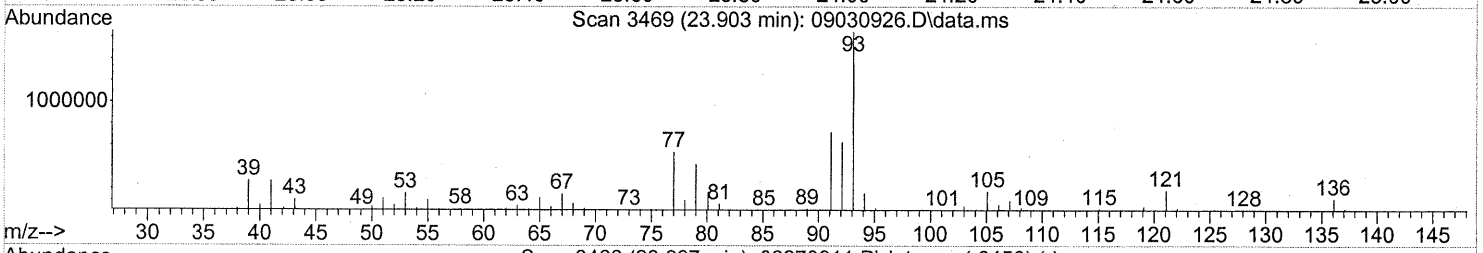
Ion	Exp%	Act%
43.10	100	100
57.10	85.90	77.90
85.10	32.20	24.69
0.00	0.00	0.00

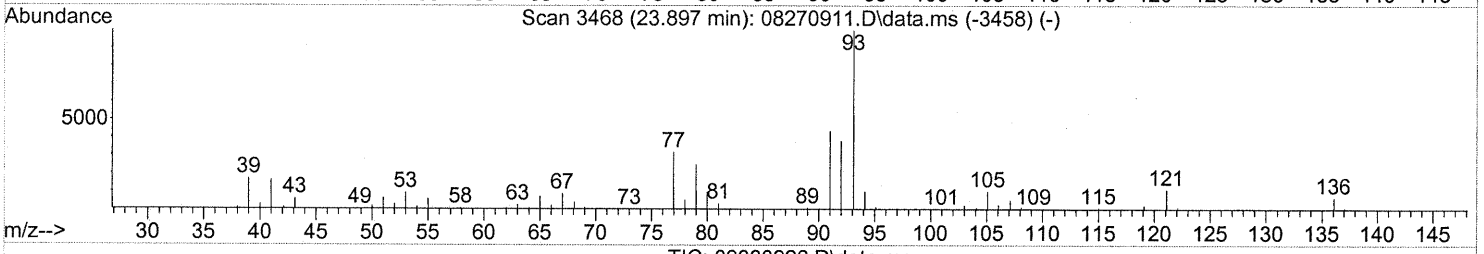
Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration







TIC: 09030926.D\data.ms

(75) alpha-Pinene (T)

23.903min (+0.000) 75.99ng

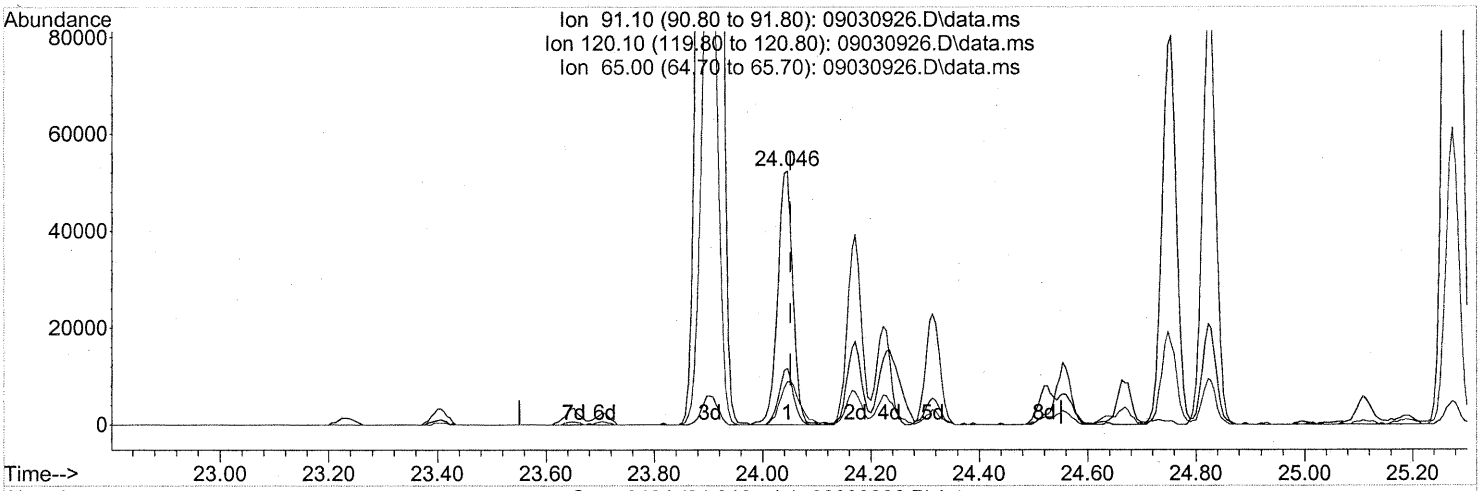
response 3272982

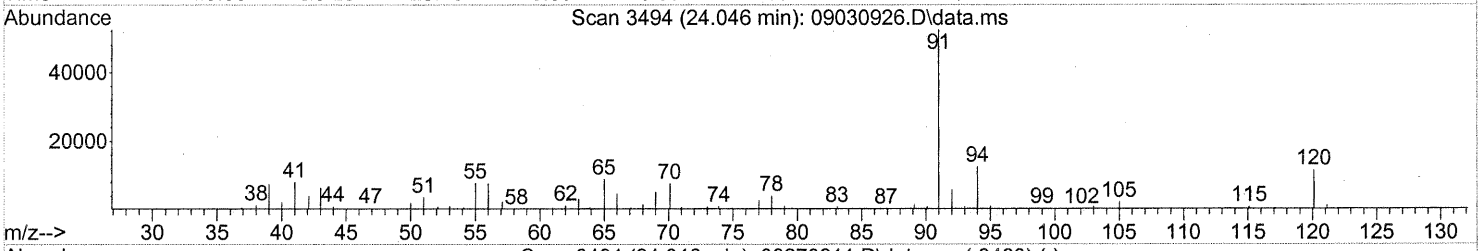
Ion	Exp%	Act%
93.10	100	100
77.00	33.10	46.42
0.00	0.00	0.00
0.00	0.00	0.00

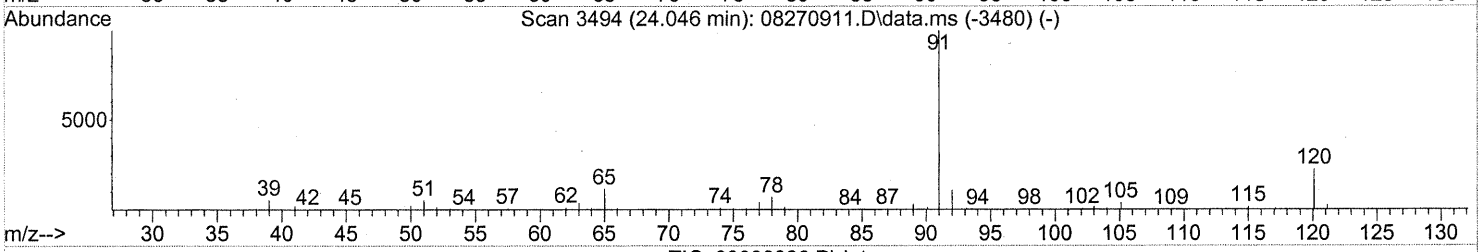
Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration







TIC: 09030926.D\data.ms

(76) n-Propylbenzene (T)

24.046min (-0.006) 0.96ng

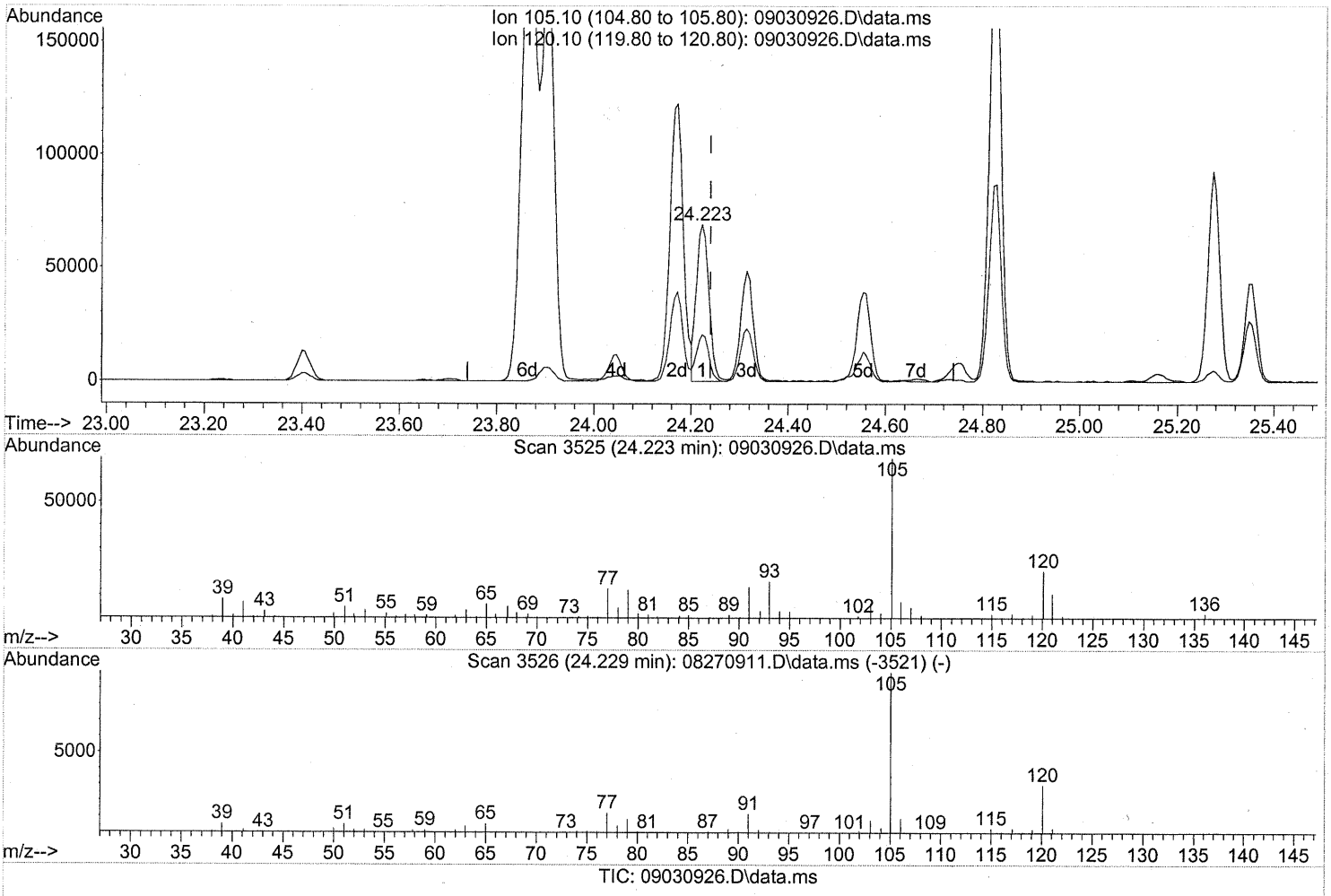
response 101189

Ion	Exp%	Act%
91.10	100	100
120.10	21.80	21.11
65.00	11.80	22.27
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



(78) 4-Ethyltoluene (T)

24.223min (-0.017) 1.58ng

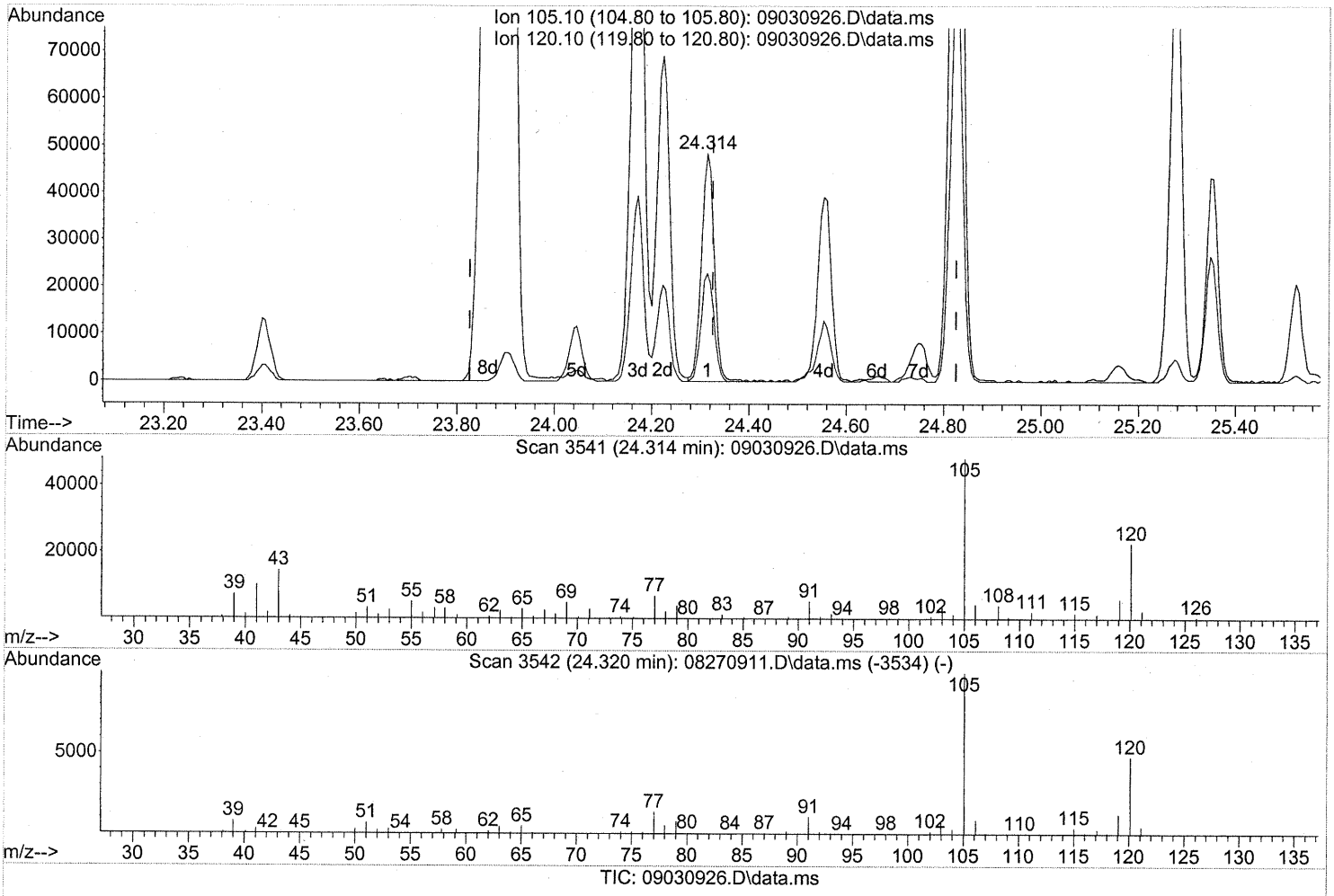
response 123640

Ion	Exp%	Act%
105.10	100	100
120.10	28.70	28.93
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

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

24.314min (-0.011) 1.34ng

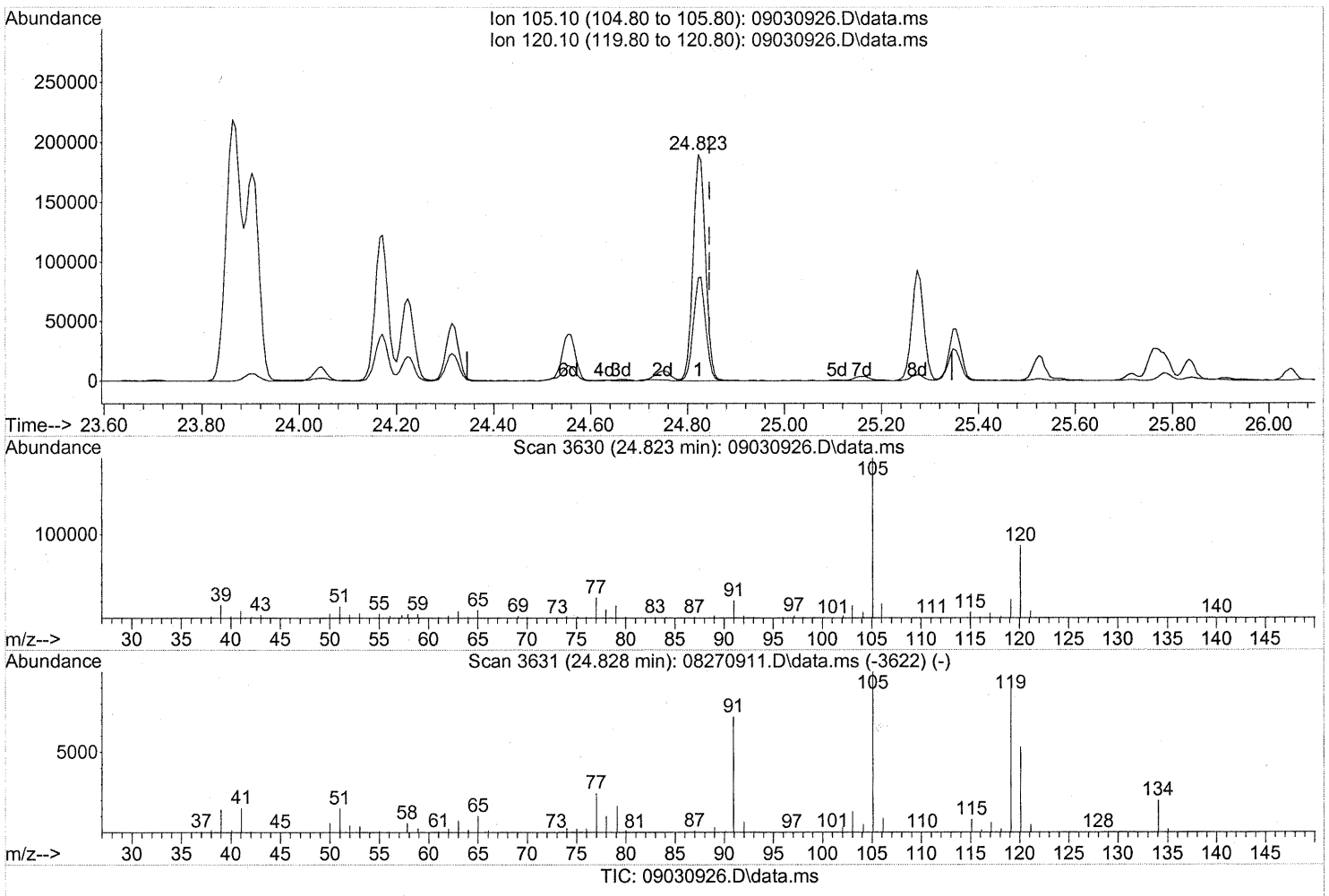
response 87753

Ion	Exp%	Act%
105.10	100	100
120.10	47.70	48.03
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

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

24.823min (-0.023) 5.08ng

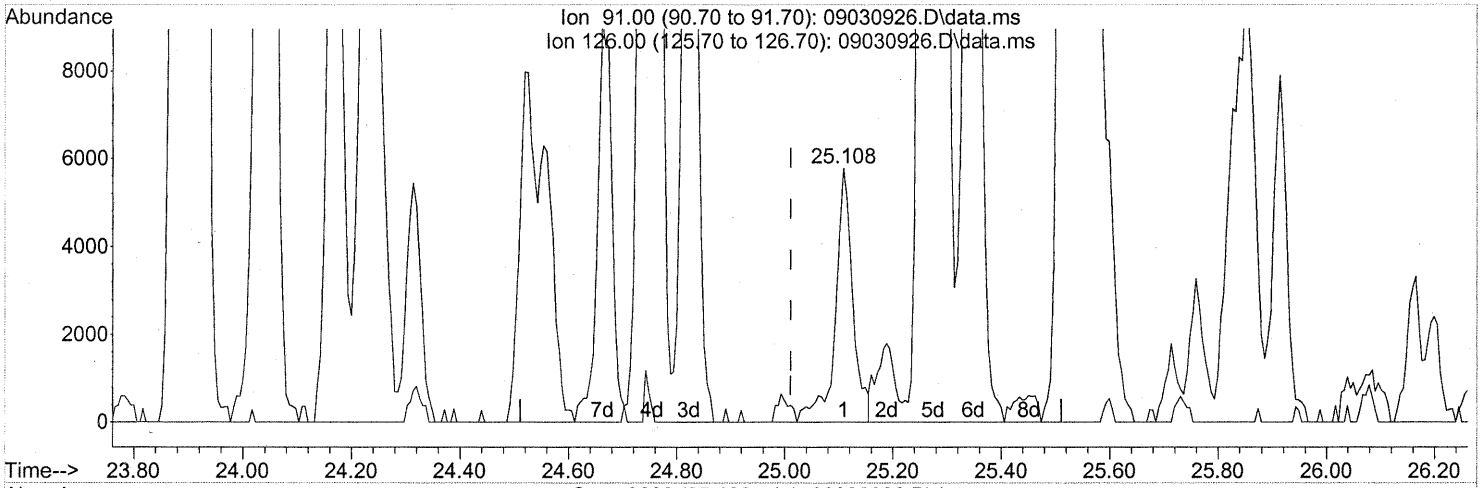
response 338402

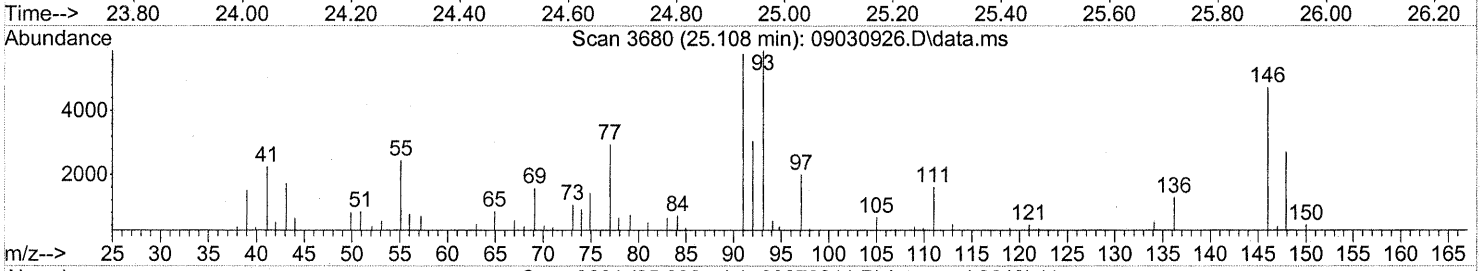
Ion	Exp%	Act%
105.10	100	100
120.10	52.00	44.95
0.00	0.00	0.00
0.00	0.00	0.00

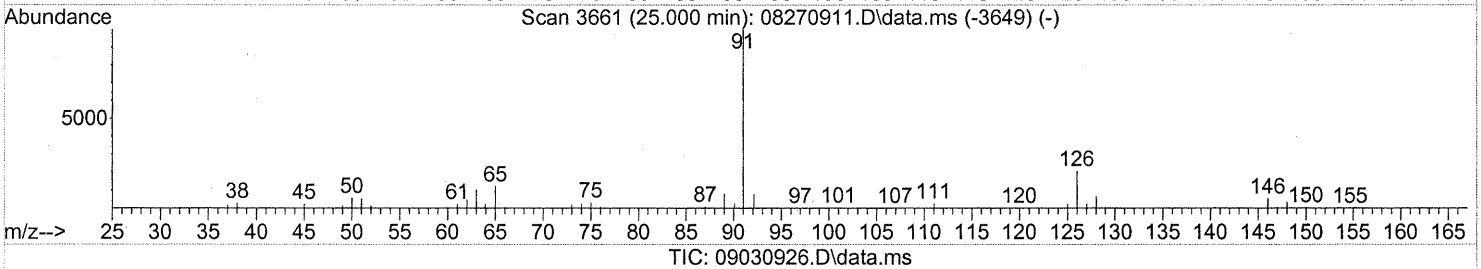
Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration







TIC: 09030926.D\data.ms

(84) Benzyl Chloride (T)

25.108min (+0.097) 0.20ng

response 12981

Ion	Exp%	Act%
91.00	100	100
126.00	19.50	0.00
0.00	0.00	0.00
0.00	0.00	0.00

FP
LM 9/9/09

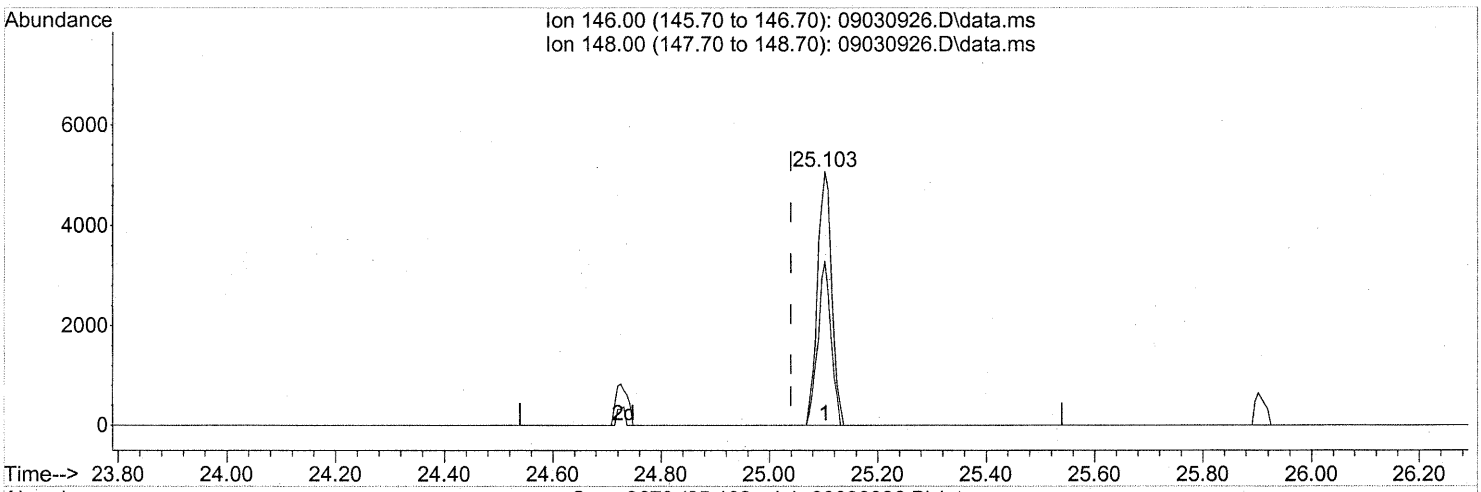
9/10/09

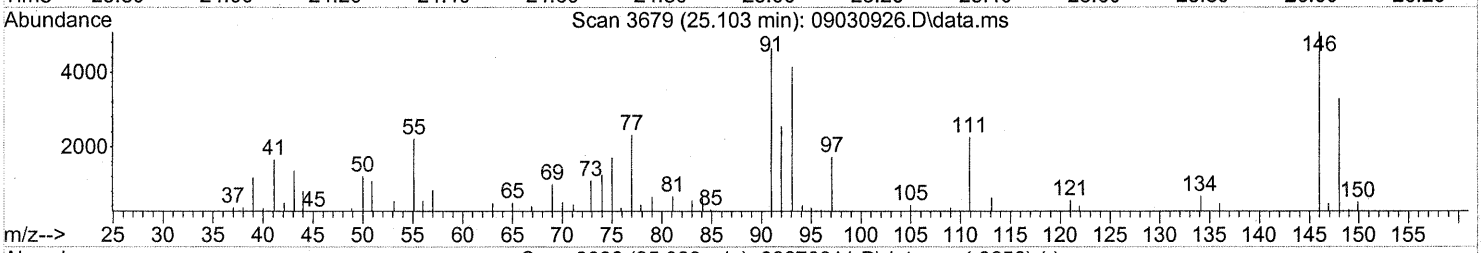
188

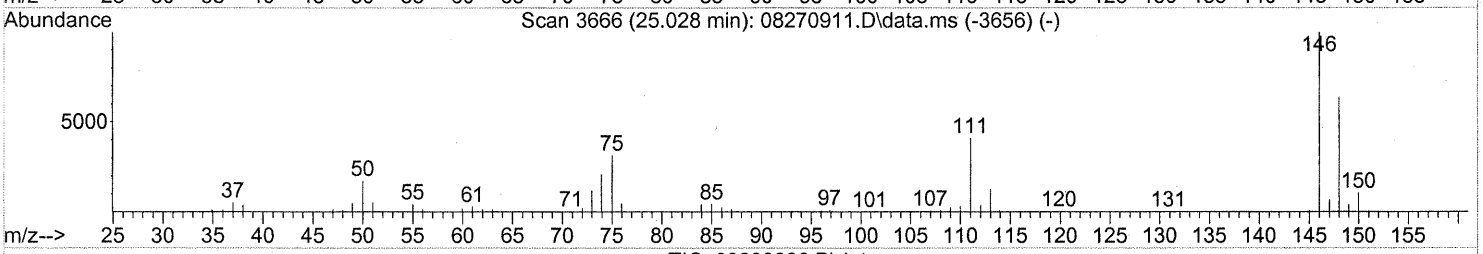
Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration







TIC: 09030926.D\data.ms

(85) 1,3-Dichlorobenzene (T)

25.103min (+0.063) 0.26ng

response 9271

Ion	Exp%	Act%
146.00	100	100
148.00	64.00	59.77
0.00	0.00	0.00
0.00	0.00	0.00

FP
09/09/09

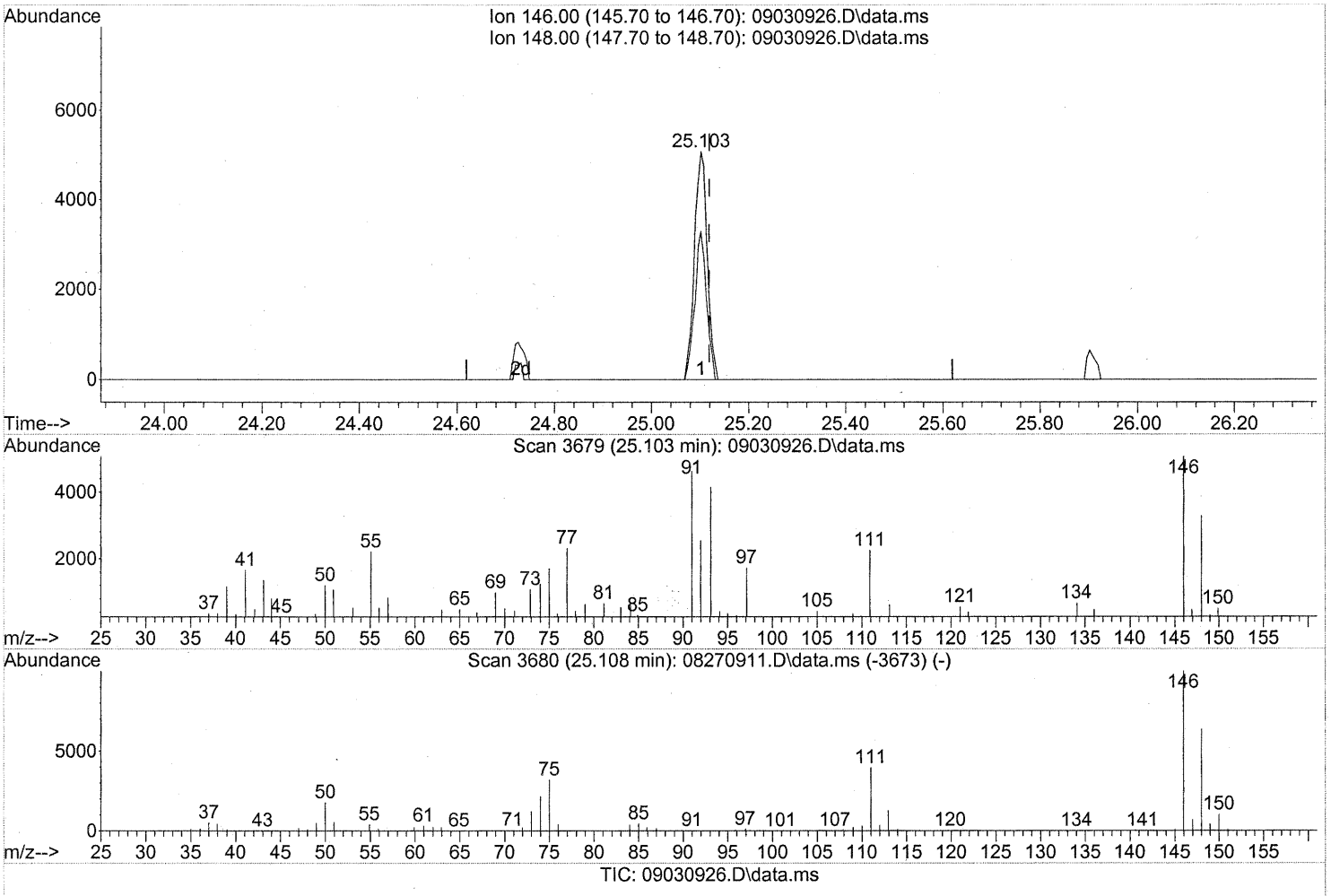
a/10/09

189

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

(86) 1,4-Dichlorobenzene (T)

25.103min (-0.017) 0.25ng

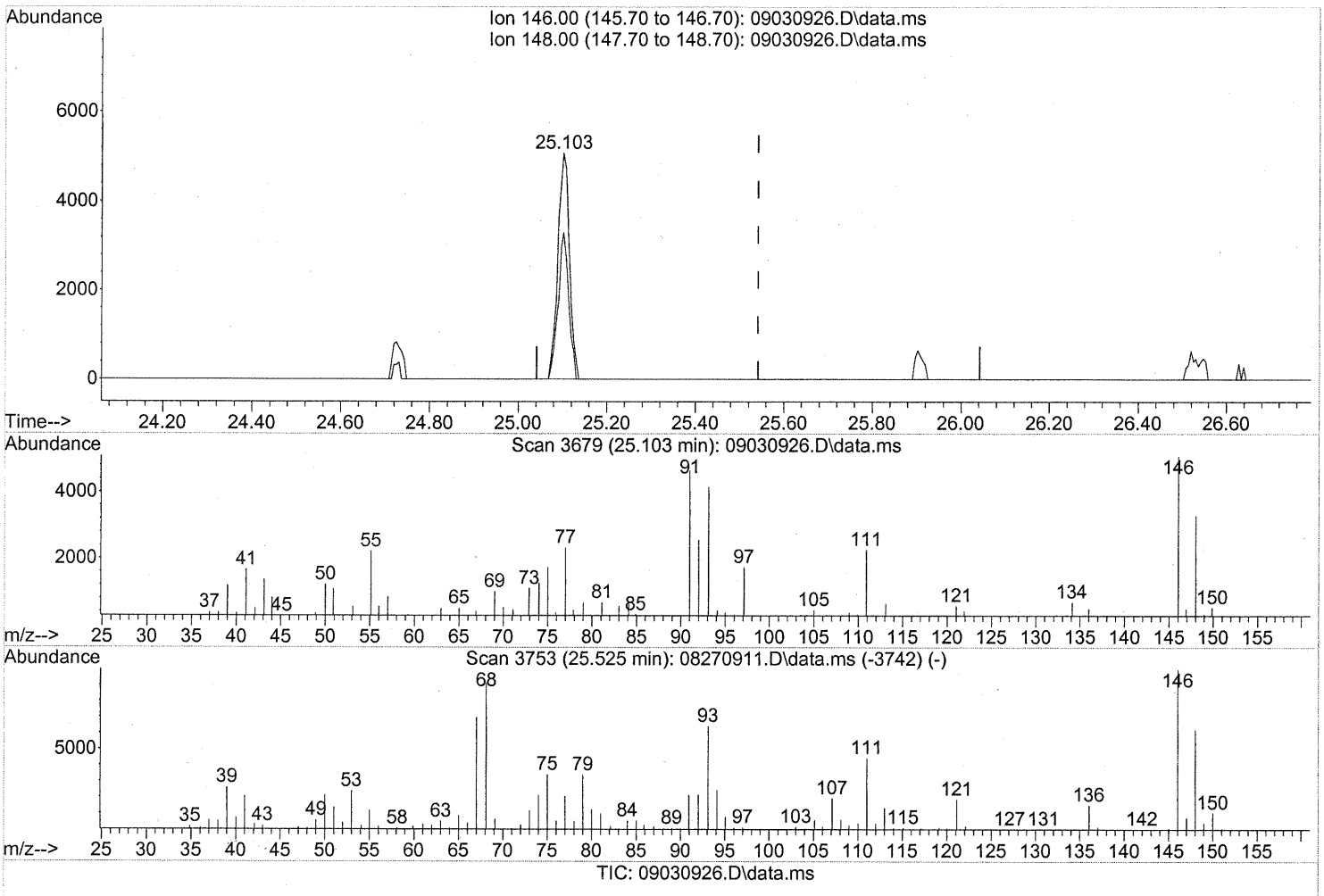
response 9271

Ion	Exp%	Act%
146.00	100	100
148.00	64.20	59.77
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

(90) 1,2-Dichlorobenzene (T)

25.103min (-0.440) 0.28ng

response 9271

Ion	Exp%	Act%
146.00	100	100
148.00	62.80	59.77
0.00	0.00	0.00
0.00	0.00	0.00

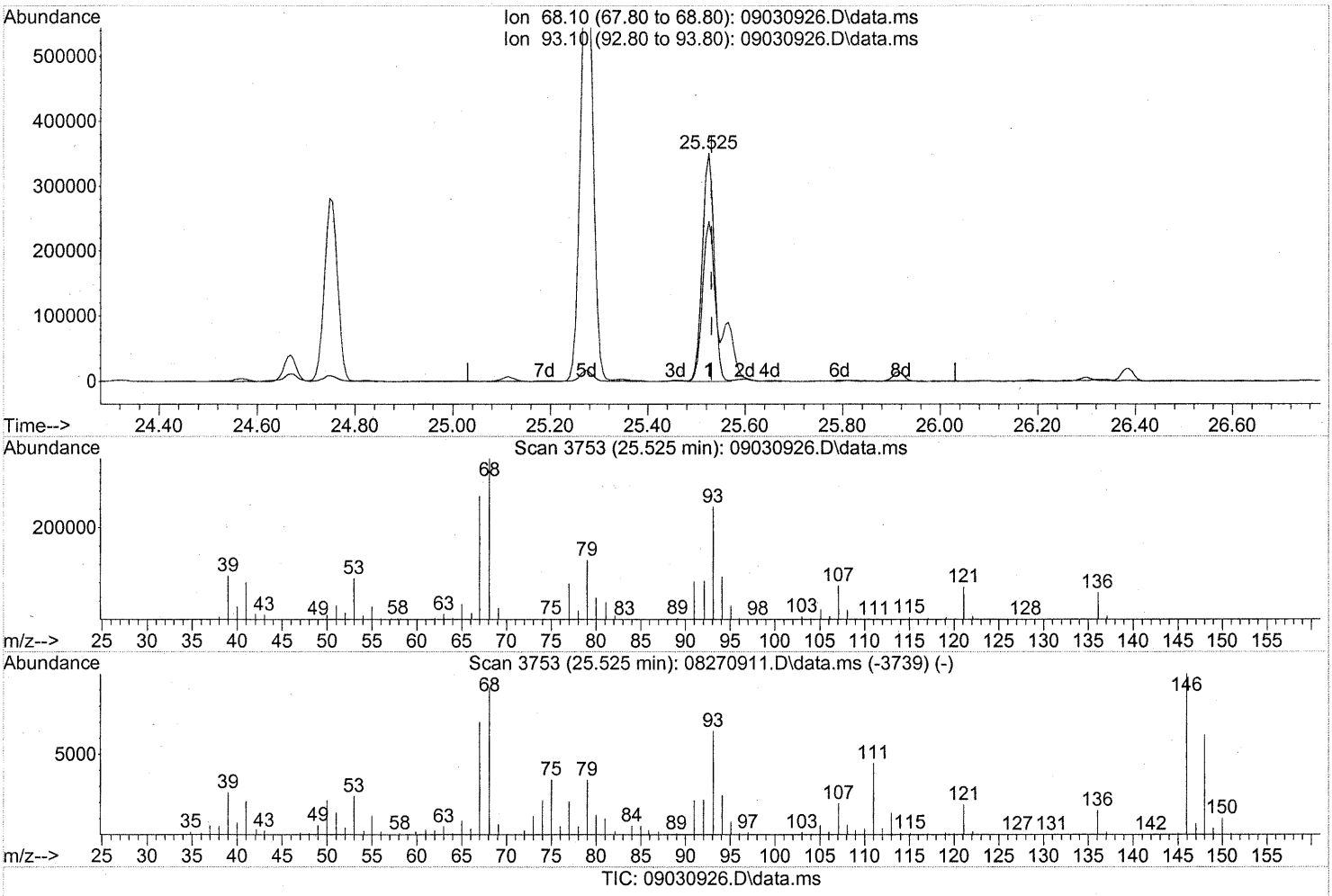
FP
LM 9/9/09

9/10/09

191

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

(91) d-Limonene (T)

25.525min (-0.006) 22.03ng

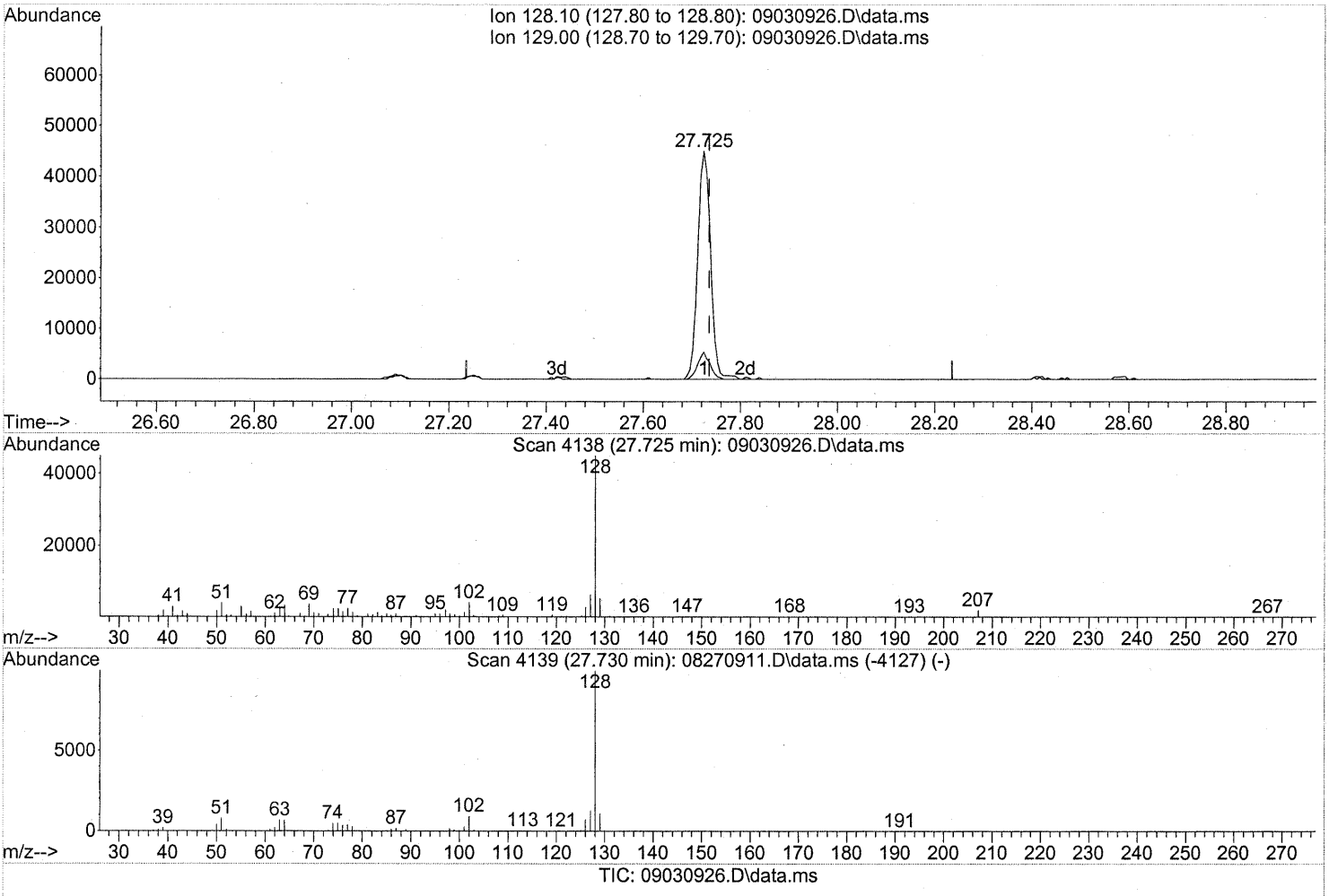
response 585909

Ion	Exp%	Act%
68.10	100	100
93.10	69.80	77.35
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030926.D
Acq On : 4 Sep 2009 3:55
Operator : LM/CC
Sample : P0902985-004 (1000ml)
Misc : EH&E 103575
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Sep 04 08:54:06 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 09030926.D\data.ms

(95) Naphthalene (T)

27.725min (-0.011) 0.89ng

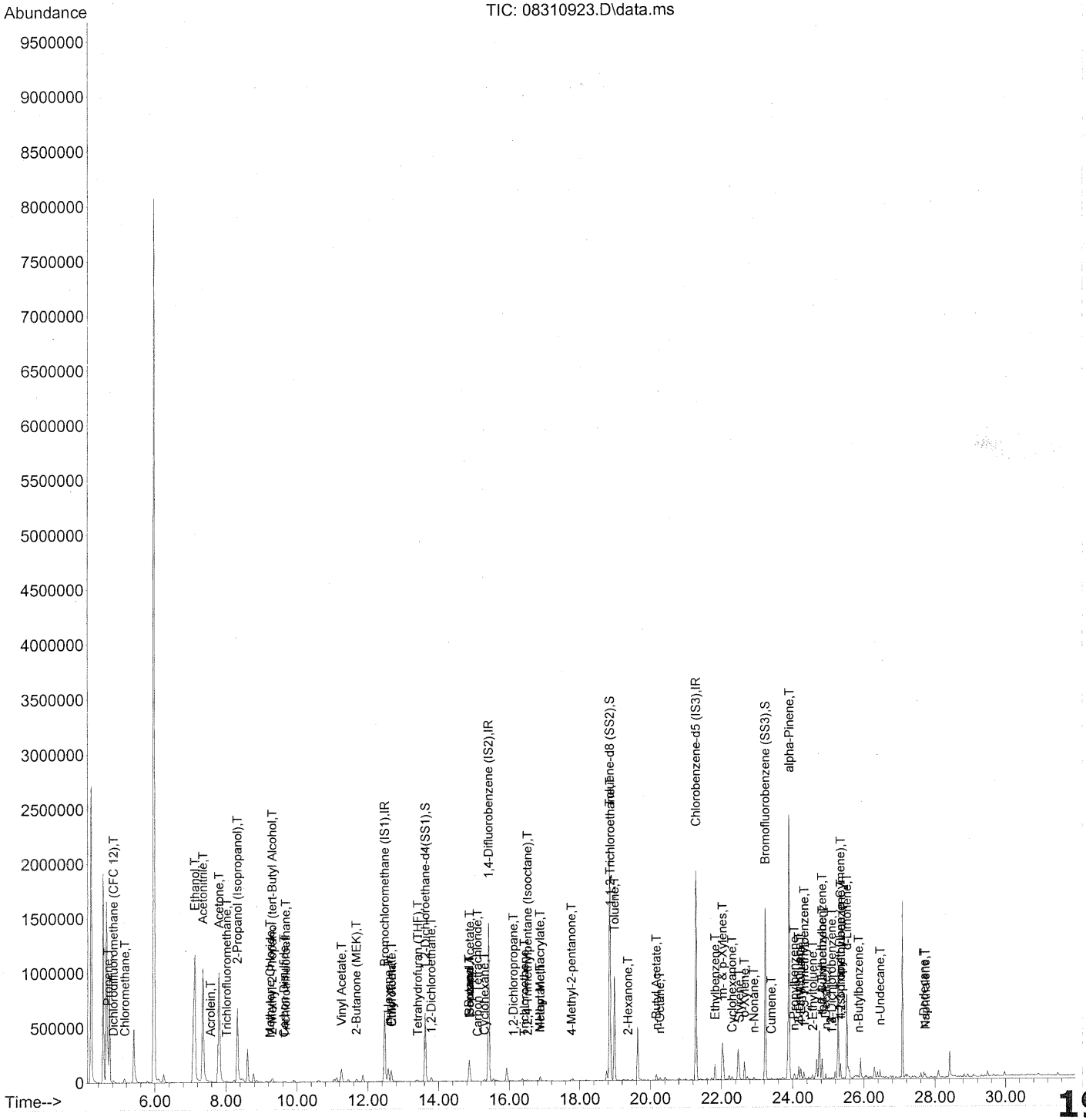
response 82183

Ion	Exp%	Act%
128.10	100	100
129.00	10.90	11.19
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310923.D
Acq On : 1 Sep 2009 4:36 am
Operator : LM/CC
Sample : P0902985-004 dil (300ml)
Misc : EH&E 103575
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 09 13:46:58 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310923.D
Acq On : 1 Sep 2009 4:36 am
Operator : LM/CC
Sample : P0902985-004 dil (300ml)
Misc : EH&E 103575
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 09 13:46:58 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

LM 9/9/09

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Bromochloromethane (IS1)	12.47	130	332029	25.000 ng	-0.03
37) 1,4-Difluorobenzene (IS2)	15.41	114	1656487	25.000 ng	-0.02
56) Chlorobenzene-d5 (IS3)	21.28	82	798716	25.000 ng	0.00
System Monitoring Compounds					
33) 1,2-Dichloroethane-d4(...	13.63	65	649480	24.684 ng	-0.02
Spiked Amount 25.000			Recovery =	98.72%	
57) Toluene-d8 (SS2)	18.85	98	1800500	25.224 ng	-0.01
Spiked Amount 25.000			Recovery =	100.88%	
73) Bromofluorobenzene (SS3)	23.23	174	512638	24.953 ng	0.00
Spiked Amount 25.000			Recovery =	99.80%	
Target Compounds					Qvalue
2) Propene	4.67	42	91403	3.806 ng	95
3) Dichlorodifluoromethan...	4.82	85	18650	0.444 ng	98
4) Chloromethane	5.16	50	10589	0.375 ng	97
5) 1,2-Dichloro-1,1,2,2-t...	5.39	135	101	N.D.	
6) Vinyl Chloride	0.00	62	0	N.D.	
7) 1,3-Butadiene	5.80	54	87	N.D.	
8) Bromomethane	6.35	94	115	N.D.	
9) Chloroethane	0.00	64	0	N.D.	
10) Ethanol	7.13	45	2869054	192.648 ng	100
11) Acetonitrile	7.35	41	1692566	40.917 ng	99
12) Acrolein	7.57	56	14686	1.291 ng	98
13) Acetone	7.81	58	497219	32.284 ng	86
14) Trichlorofluoromethane	8.02	101	8857	0.239 ng	96
15) 2-Propanol (Isopropanol)	8.32	45	1452997	28.378 ng	99
16) Acrylonitrile	8.56	53	88	N.D.	
17) 1,1-Dichloroethene	0.00	96	0	N.D.	
18) 2-Methyl-2-Propanol (t...	9.30	59	21661	0.422 ng #	1
19) Methylene Chloride	9.25	84	2387	0.122 ng	97
20) 3-Chloro-1-propene (Al...	9.43	41	134	N.D.	
21) Trichlorotrifluoroethane	9.68	151	1230	0.084 ng	87
22) Carbon Disulfide	9.63	76	11864	0.171 ng	88
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	11.13	73	107	N.D.	
26) Vinyl Acetate	11.25	86	7787	2.018 ng #	1
27) 2-Butanone (MEK)	11.67	72	13244	1.065 ng	97
28) cis-1,2-Dichloroethene	0.00	61	0	N.D.	
29) Diisopropyl Ether	12.67	87	212	N.D.	
30) Ethyl Acetate	12.67	61	23628	3.534 ng	97
31) n-Hexane	12.58	57	77927	2.340 ng	100

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310923.D
Acq On : 1 Sep 2009 4:36 am
Operator : LM/CC
Sample : P0902985-004 dil (300ml)
Misc : EH&E 103575
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 09 13:46:58 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.67	83	1898	0.058	ng		92
34) Tetrahydrofuran (THF)	13.41	72	4272	0.317	ng	#	39
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	13.79	62	5290	0.192	ng		96
38) 1,1,1-Trichloroethane	14.17	97	105	N.D.			
39) Isopropyl Acetate	14.88	61	1583	0.126	ng	#	1
40) 1-Butanol	14.86	56	45381	2.201	ng	#	34
41) Benzene	14.87	78	191398	2.458	ng		98
42) Carbon Tetrachloride	15.10	117	2755	0.105	ng	#	77
43) Cyclohexane	15.29	84	8838	0.308	ng		97
44) tert-Amyl Methyl Ether	15.87	73	89	N.D.			
45) 1,2-Dichloropropane	16.12	63	1429	0.074	ng	#	13
46) Bromodichloromethane	16.39	83	204	N.D.			
47) Trichloroethene	16.43	130	1821	0.096	ng		84
48) 1,4-Dioxane	0.00	88	0	N.D.			
49) 2,2,4-Trimethylpentane...	16.52	57	6342	0.072	ng	#	38
50) Methyl Methacrylate	16.88	100	3612	0.500	ng	#	1
51) n-Heptane	16.88	71	12065	0.598	ng		97
52) cis-1,3-Dichloropropene	17.65	75	299	N.D.			
53) 4-Methyl-2-pentanone	17.76	58	3548	0.199	ng		99
54) trans-1,3-Dichloropropene	0.00	75	0	N.D.			
55) 1,1,2-Trichloroethane	18.86	97	156174	8.607	ng	#	6
58) Toluene	18.98	91	881038	11.460	ng		100
59) 2-Hexanone	19.36	43	9250	0.197	ng		91
60) Dibromochloromethane	0.00	129	0	N.D.			
61) 1,2-Dibromoethane	0.00	107	0	N.D.			
62) n-Butyl Acetate	20.17	43	50434	0.936	ng		92
63) n-Octane	20.26	57	5219	0.295	ng		94
64) Tetrachloroethene	20.46	166	244	N.D.			
65) Chlorobenzene	21.34	112	87	N.D.			
66) Ethylbenzene	21.82	91	134476	1.529	ng		98
67) m- & p-Xylenes	22.03	91	353187	5.045	ng		100
68) Bromoform	0.00	173	0	N.D.			
69) Styrene	22.50	104	56314	1.093	ng		93
70) o-Xylene	22.65	91	119310	1.697	ng		100
71) n-Nonane	22.91	43	12578	0.298	ng		82
72) 1,1,2,2-Tetrachloroethane	22.49	83	341	N.D.			
74) Cumene	23.40	105	7800	0.088	ng		96
75) alpha-Pinene	23.90	93	1130502	24.455	ng		79
76) n-Propylbenzene	24.04	91	33124	0.293	ng		89
77) 3-Ethyltoluene	24.17	105	75562	0.886	ng		100
78) 4-Ethyltoluene	24.22	105	41001	0.487	ng		100
79) 1,3,5-Trimethylbenzene	24.32	105	28608	0.408	ng		99

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310923.D
Acq On : 1 Sep 2009 4:36 am
Operator : LM/CC
Sample : P0902985-004 dil (300ml)
Misc : EH&E 103575
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 09 13:46:58 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

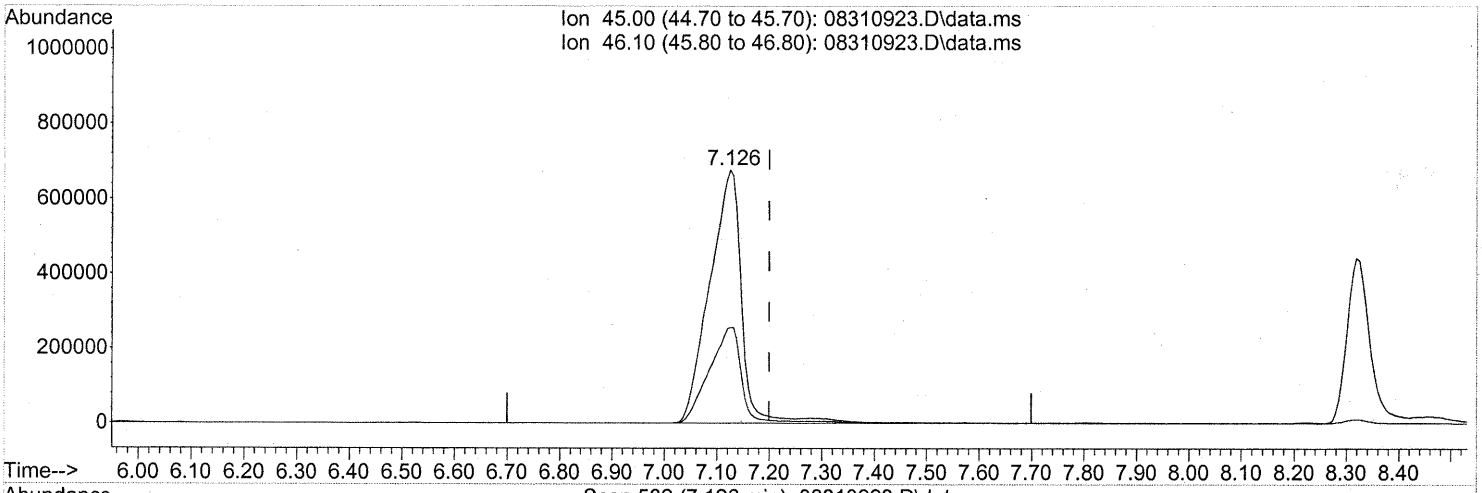
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
80) alpha-Methylstyrene	24.52	118	451	N.D.		
81) 2-Ethyltoluene	24.56	105	24845	0.284 ng		96
82) 1,2,4-Trimethylbenzene	24.82	105	110954	1.552 ng		90
83) n-Decane	24.93	57	20048	0.470 ng		100
84) Benzyl Chloride	24.98	91	819	N.D.		
85) 1,3-Dichlorobenzene	25.10	146	2670	0.069 ng		98
86) 1,4-Dichlorobenzene	25.10	146	2670	0.066 ng		98
87) sec-Butylbenzene	25.15	105	2522	N.D.		
88) 4-Isopropyltoluene (p-...	25.35	119	60241	0.684 ng		98
89) 1,2,3-Trimethylbenzene	25.35	105	25320	0.338 ng		88
90) 1,2-Dichlorobenzene	25.10	146	2670	0.074 ng		97
91) d-Limonene	25.53	68	195688	6.857 ng		94
92) 1,2-Dibromo-3-Chloropr...	0.00	157	0	N.D.		
93) n-Undecane	26.46	57	24054	0.543 ng	#	70
94) 1,2,4-Trichlorobenzene	0.00	180	0	N.D.		
95) Naphthalene	27.73	128	27828	0.282 ng		98
96) n-Dodecane	27.69	57	17488	0.346 ng		88
97) Hexachlorobutadiene	0.00	225	0	N.D.		
98) Cyclohexanone	22.30	55	16880	0.569 ng		94
99) tert-Butylbenzene	24.83	119	12869	0.186 ng	#	56
100) n-Butylbenzene	25.86	91	10184	0.128 ng	#	60

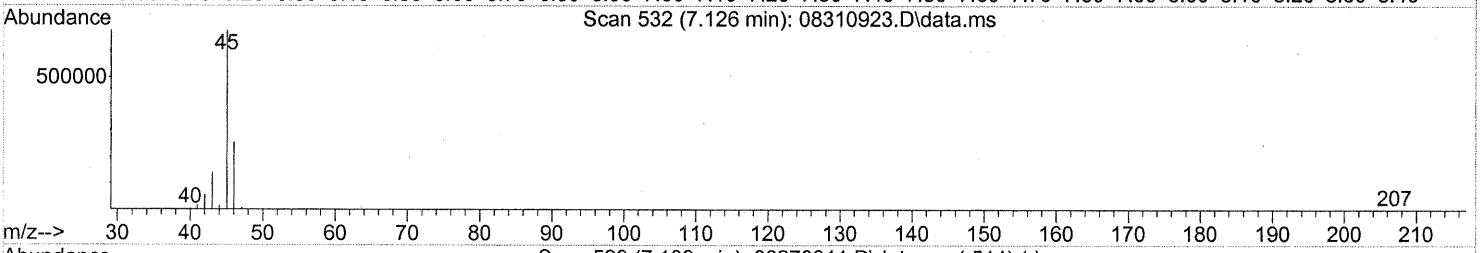
(#) = qualifier out of range (m) = manual integration (+) = signals summed

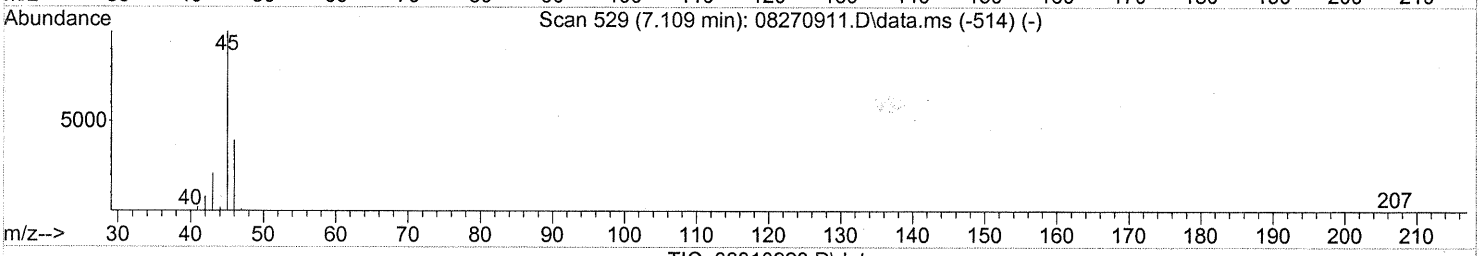
Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310923.D
Acq On : 1 Sep 2009 4:36
Operator : LM/CC
Sample : P0902985-004 dil (300ml)
Misc : EH&E 103575
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 09 13:46:58 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration







TIC: 08310923.D\data.ms

(10) Ethanol (T)

7.126min (-0.074) 192.65ng

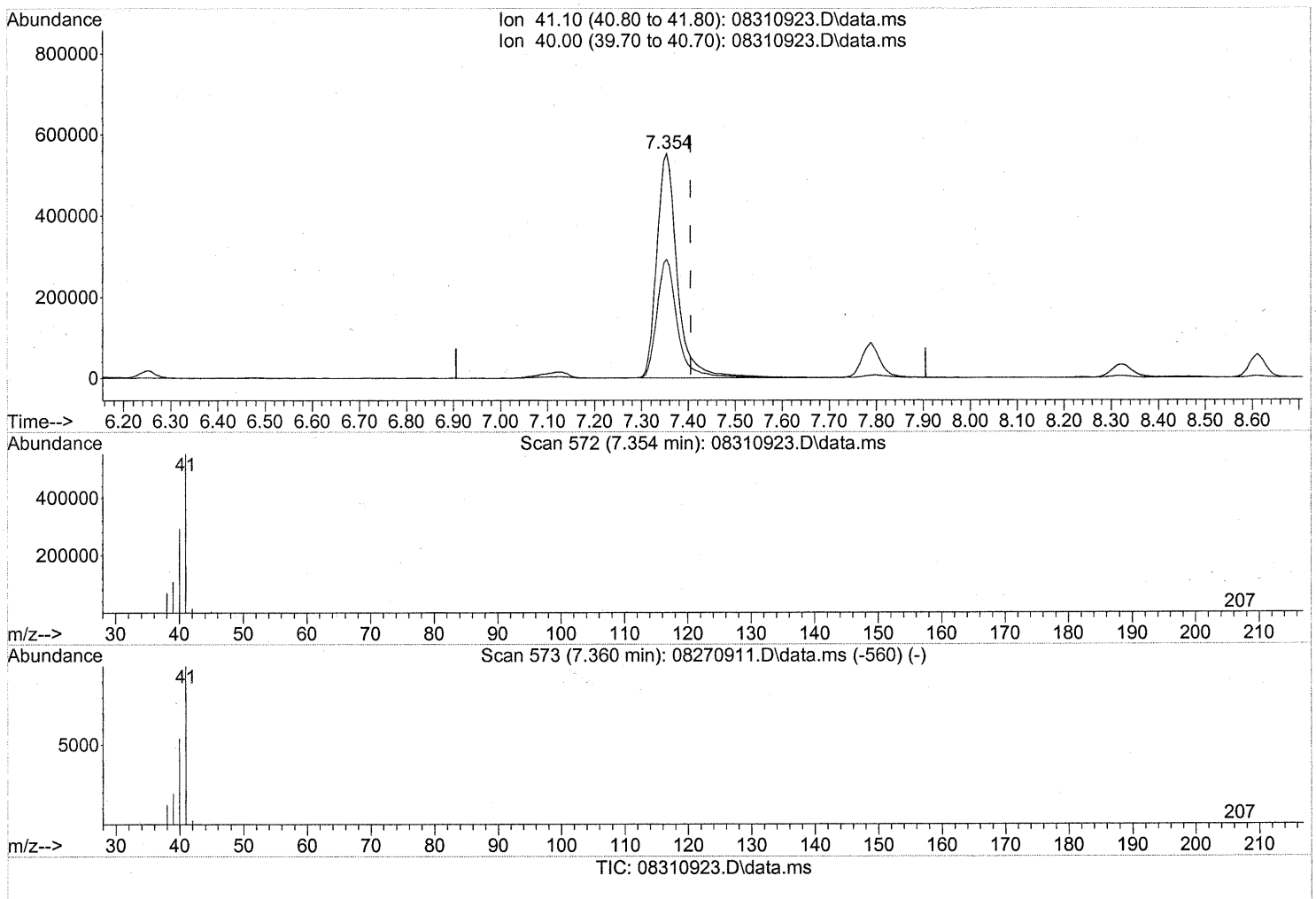
response 2869054

Ion	Exp%	Act%
45.00	100	100
46.10	38.20	38.27
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310923.D
Acq On : 1 Sep 2009 4:36
Operator : LM/CC
Sample : P0902985-004 dil (300ml)
Misc : EH&E 103575
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Sep 09 13:46:58 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



TIC: 08310923.D\data.ms

(11) Acetonitrile (T)

7.354min (-0.052) 40.92ng

response 1692566

Ion	Exp%	Act%
41.10	100	100
40.00	53.70	53.23
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: P0902985
CAS Sample ID: P090831-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
Analyst: Liliana Marghitoiu
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 8/31/09
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: 9/10/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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

CAS Project ID: P0902985
CAS Sample ID: P090831-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
Analyst: Liliana Marghitoiu
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 8/31/09
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
156-59-2	cis-1,2-Dichloroethene	ND	0.10	ND	0.025	
141-78-6	Ethyl Acetate	ND	0.50	ND	0.14	
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	0.50	ND	0.12	
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: 9/10/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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

CAS Project ID: P0902985
CAS Sample ID: P090831-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
Analyst: Liliana Marghitoiu
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 8/31/09
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	

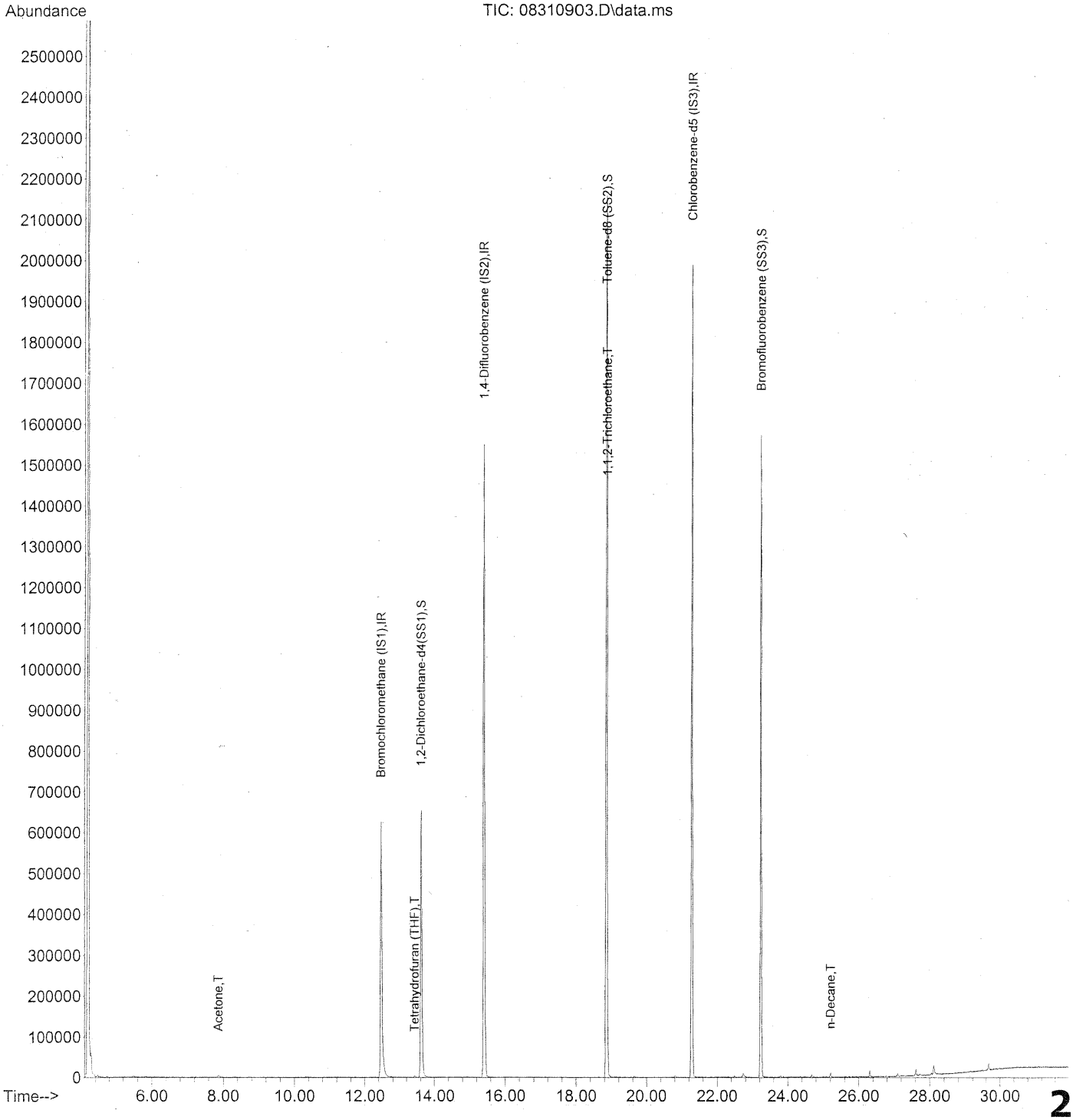
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 9/10/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310903.D
Acq On : 31 Aug 2009 11:40 am
Operator : LM/CC
Sample : TO-15 Method Blank (1000ml)
Misc : S20-08140906
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 31 12:12:02 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310903.D
Acq On : 31 Aug 2009 11:40 am
Operator : LM/CC
Sample : TO-15 Method Blank (1000ml)
Misc : S20-08140906
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 31 12:12:02 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

LM 9/2/09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS1)	12.47	130	347586	25.000	ng	-0.03
37) 1,4-Difluorobenzene (IS2)	15.42	114	1778378	25.000	ng	-0.02
56) Chlorobenzene-d5 (IS3)	21.29	82	817485	25.000	ng	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4(...	13.62	65	694566	25.216	ng	-0.03
Spiked Amount 25.000			Recovery =	100.88%		
57) Toluene-d8 (SS2)	18.85	98	1884336	25.792	ng	-0.01
Spiked Amount 25.000			Recovery =	103.16%		
73) Bromofluorobenzene (SS3)	23.23	174	509478	24.230	ng	0.00
Spiked Amount 25.000			Recovery =	96.92%		
Target Compounds						Qvalue
2) Propene	4.73	42	550	N.D.		
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	0.00	45	0	N.D.		
11) Acetonitrile	7.48	41	91	N.D.		
12) Acrolein	7.59	56	89	N.D.		
13) Acetone	7.87	58	3656	0.227	ng	92
14) Trichlorofluoromethane	0.00	101	0	N.D.		
15) 2-Propanol (Isopropanol)	8.37	45	832	N.D.		
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	9.25	84	206	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	0.00	76	0	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.		

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310903.D
Acq On : 31 Aug 2009 11:40 am
Operator : LM/CC
Sample : TO-15 Method Blank (1000ml)
Misc : S20-08140906
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 31 12:12:02 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 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)	13.43	72	952	0.067	ng	#	83
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.			
36) 1,2-Dichloroethane	13.63	62	97	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	14.92	56	978	N.D.			
41) Benzene	14.88	78	933	N.D.			
42) Carbon Tetrachloride	0.00	117	0	N.D.			
43) Cyclohexane	15.41	84	1020	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...	0.00	57	0	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	18.86	97	164165	8.427	ng	#	7
58) Toluene	18.99	91	450	N.D.			
59) 2-Hexanone	19.38	43	219	N.D.			
60) Dibromochloromethane	0.00	129	0	N.D.			
61) 1,2-Dibromoethane	0.00	107	0	N.D.			
62) n-Butyl Acetate	20.26	43	98	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	21.82	91	136	N.D.			
67) m- & p-Xylenes	22.09	91	417	N.D.			
68) Bromoform	0.00	173	0	N.D.			
69) Styrene	0.00	104	0	N.D.			
70) o-Xylene	22.65	91	725	N.D.			
71) n-Nonane	22.90	43	287	N.D.			
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.			
74) Cumene	23.41	105	89	N.D.			
75) alpha-Pinene	0.00	93	0	N.D.			
76) n-Propylbenzene	24.06	91	103	N.D.			
77) 3-Ethyltoluene	24.17	105	469	N.D.			
78) 4-Ethyltoluene	24.17	105	469	N.D.			
79) 1,3,5-Trimethylbenzene	24.33	105	228	N.D.			

9.1.09

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Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310903.D
Acq On : 31 Aug 2009 11:40 am
Operator : LM/CC
Sample : TO-15 Method Blank (1000ml)
Misc : S20-08140906
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 31 12:12:02 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.35	118	105	N.D.			
81) 2-Ethyltoluene	24.33	105	228	N.D.			
82) 1,2,4-Trimethylbenzene	24.85	105	92	N.D.			
83) n-Decane	25.21	57	7000	0.160	ng	#	44
84) Benzyl Chloride	25.01	91	1318	N.D.			
85) 1,3-Dichlorobenzene	25.10	146	132	N.D.			
86) 1,4-Dichlorobenzene	25.10	146	132	N.D.			
87) sec-Butylbenzene	24.85	105	92	N.D.			
88) 4-Isopropyltoluene (p-...	0.00	119	0	N.D.			
89) 1,2,3-Trimethylbenzene	25.82	105	197	N.D.			
90) 1,2-Dichlorobenzene	25.10	146	132	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	26.38	57	103	N.D.			
94) 1,2,4-Trichlorobenzene	27.59	180	728	N.D.			
95) Naphthalene	27.74	128	4279	N.D.			
96) n-Dodecane	27.70	57	235	N.D.			
97) Hexachlorobutadiene	0.00	225	0	N.D.			
98) Cyclohexanone	22.31	55	471	N.D.			
99) tert-Butylbenzene	0.00	119	0	N.D.			
100) n-Butylbenzene	25.87	91	100	N.D.			

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

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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

CAS Project ID: P0902985
CAS Sample ID: P090903-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
Analyst: Liliana Marghitoiu
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 9/3/09
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: 9/10/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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

CAS Project ID: P0902985
CAS Sample ID: P090903-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
Analyst: Liliana Marghitoiu
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 9/3/09
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
156-59-2	cis-1,2-Dichloroethene	ND	0.10	ND	0.025	
141-78-6	Ethyl Acetate	ND	0.50	ND	0.14	
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	0.50	ND	0.12	
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: 9/10/09

COLUMBIA ANALYTICAL SERVICES, INC.

RESULTS OF ANALYSIS

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

CAS Project ID: P0902985
CAS Sample ID: P090903-MB

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
Analyst: Liliana Marghitoiu
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 9/3/09
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	

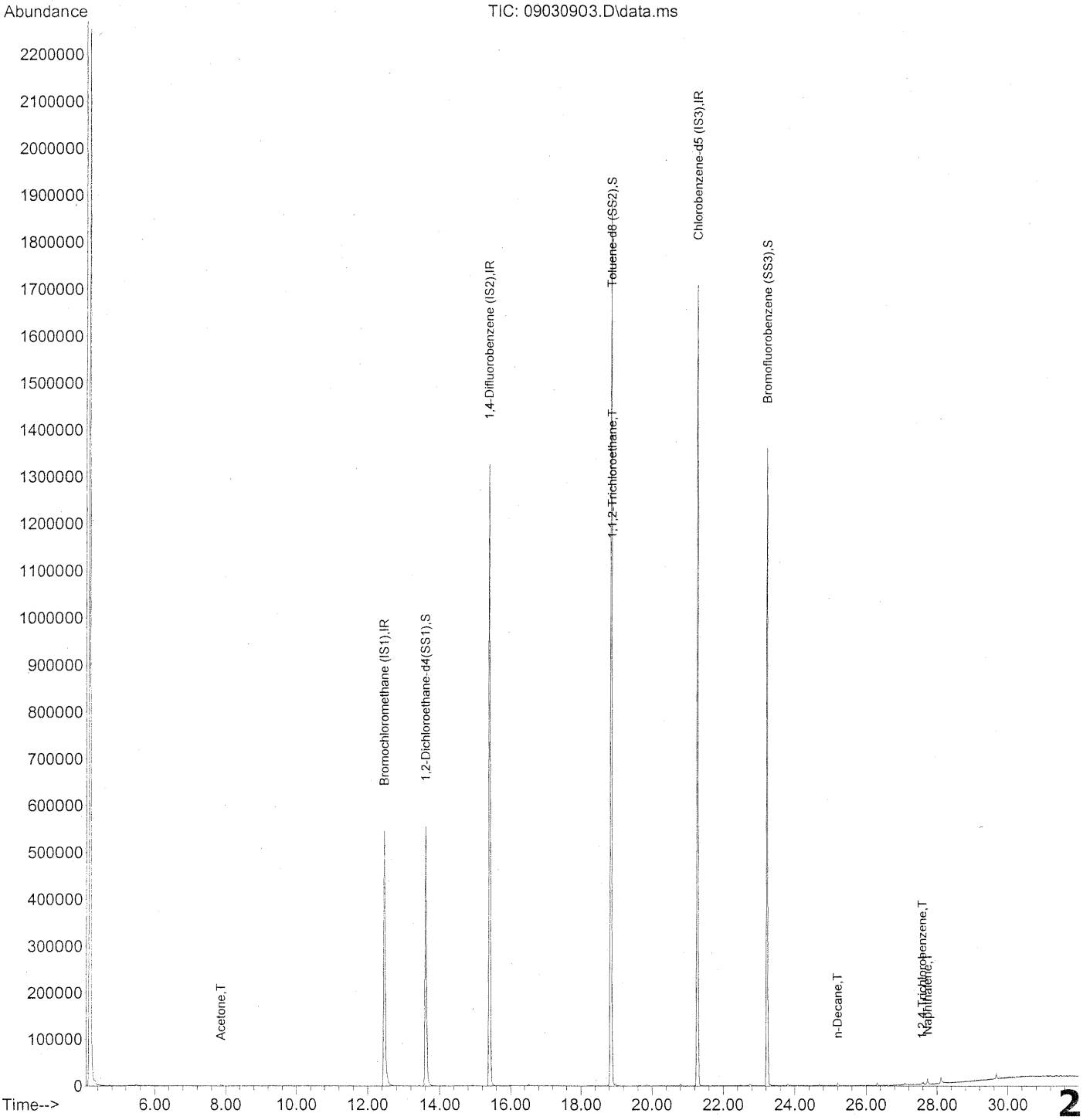
ND = Compound was analyzed for, but not detected above the laboratory reporting limit.
MRL = Method Reporting Limit - The minimum quantity of a target analyte that can be confidently determined by the referenced method.

Verified By: _____ Date: 9/10/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030903.D
Acq On : 3 Sep 2009 9:57 am
Operator : LM/CC
Sample : TO-15 Method Blank (1000ml)
Misc : S20-08140906 QC tank lot#14-103489922-1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 03 10:28:31 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030903.D
Acq On : 3 Sep 2009 9:57 am
Operator : LM/CC
Sample : TO-15 Method Blank (1000ml)
Misc : S20-08140906 QC tank lot#14-103489922-1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 03 10:28:31 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

9-4-09
MM 9/4/09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS1)	12.47	130	303079	25.000	ng	-0.03
37) 1,4-Difluorobenzene (IS2)	15.41	114	1522519	25.000	ng	-0.02
56) Chlorobenzene-d5 (IS3)	21.29	82	710340	25.000	ng	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4(...	13.62	65	596922	24.853	ng	-0.03
Spiked Amount 25.000			Recovery =	99.40%		
57) Toluene-d8 (SS2)	18.85	98	1626080	25.615	ng	-0.01
Spiked Amount 25.000			Recovery =	102.44%		
73) Bromofluorobenzene (SS3)	23.23	174	437896	23.967	ng	0.00
Spiked Amount 25.000			Recovery =	95.88%		
Target Compounds						Qvalue
2) Propene	4.73	42	374	N.D.		
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	7.15	45	113	N.D.		
11) Acetonitrile	0.00	41	0	N.D.		
12) Acrolein	0.00	56	0	N.D.		
13) Acetone	7.87	58	2337	0.166	ng	# 78
14) Trichlorofluoromethane	0.00	101	0	N.D.		
15) 2-Propanol (Isopropanol)	8.37	45	91	N.D.		
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	9.24	84	144	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	0.00	76	0	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:\MS13\DATA\2009_09\03\
Data File : 09030903.D
Acq On : 3 Sep 2009 9:57 am
Operator : LM/CC
Sample : TO-15 Method Blank (1000ml)
Misc : S20-08140906 QC tank lot#14-103489922-1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 03 10:28:31 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 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)	13.42	72	96	N.D.	
35) Ethyl tert-Butyl Ether	0.00	87	0	N.D.	
36) 1,2-Dichloroethane	13.61	62	87	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	14.91	56	714	N.D.	
41) Benzene	14.88	78	459	N.D.	
42) Carbon Tetrachloride	0.00	117	0	N.D.	
43) Cyclohexane	15.41	84	1020	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...	16.52	57	3004	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	18.86	97	141891	8.508 ng FP	# 7
58) Toluene	18.97	91	535	N.D.	
59) 2-Hexanone	19.38	43	206	N.D.	
60) Dibromochloromethane	0.00	129	0	N.D.	
61) 1,2-Dibromoethane	0.00	107	0	N.D.	
62) n-Butyl Acetate	19.85	43	333	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	21.83	91	197	N.D.	
67) m- & p-Xylenes	22.07	91	206	N.D.	
68) Bromoform	0.00	173	0	N.D.	
69) Styrene	0.00	104	0	N.D.	
70) o-Xylene	22.83	91	98	N.D.	
71) n-Nonane	22.91	43	90	N.D.	
72) 1,1,2,2-Tetrachloroethane	0.00	83	0	N.D.	
74) Cumene	23.44	105	1468	N.D.	
75) alpha-Pinene	0.00	93	0	N.D.	
76) n-Propylbenzene	24.05	91	226	N.D.	
77) 3-Ethyltoluene	24.18	105	490	N.D.	
78) 4-Ethyltoluene	24.26	105	108	N.D.	
79) 1,3,5-Trimethylbenzene	24.31	105	291	N.D.	

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030903.D
Acq On : 3 Sep 2009 9:57 am
Operator : LM/CC
Sample : TO-15 Method Blank (1000ml)
Misc : S20-08140906 QC tank lot#14-103489922-1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Sep 03 10:28:31 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 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	24.55	105	411	N.D.			
82) 1,2,4-Trimethylbenzene	24.83	105	86	N.D.			
83) n-Decane	25.20	57	4359	0.115	ng	#	42
84) Benzyl Chloride	25.00	91	1986	N.D.			
85) 1,3-Dichlorobenzene	25.03	146	305	N.D.			
86) 1,4-Dichlorobenzene	25.10	146	604	N.D.			
87) sec-Butylbenzene	24.83	105	86	N.D.			
88) 4-Isopropyltoluene (p-...	25.35	119	116	N.D.			
89) 1,2,3-Trimethylbenzene	0.00	105	0	N.D.			
90) 1,2-Dichlorobenzene	25.54	146	88	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	26.31	57	1359	N.D.			
94) 1,2,4-Trichlorobenzene	27.58	180	1132	0.050	ng	#	86
95) Naphthalene	27.73	128	11565	0.132	ng		88
96) n-Dodecane	27.70	57	304	N.D.			
97) Hexachlorobutadiene	28.14	225	99	N.D.			
98) Cyclohexanone	22.31	55	417	N.D.			
99) tert-Butylbenzene	24.62	119	88	N.D.			
100) n-Butylbenzene	25.87	91	365	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: P0902985

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
Analyst: Liliana Marghitoiu
Sampling Media: 6.0 L Summa Canister(s)
Test Notes:

Date(s) Collected: 8/26/09
Date(s) Received: 8/27/09
Date(s) Analyzed: 8/31 - 9/4/09

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	P090831-MB	**101**	70-130	**103**	70-130	**97**	70-130	
Method Blank	P090903-MB	**99**	70-130	**102**	70-130	**96**	70-130	
Lab Control Sample	P090831-LCS	**99**	70-130	**102**	70-130	**98**	70-130	
Lab Control Sample	P090903-LCS	**98**	70-130	**102**	70-130	**98**	70-130	
103572	P0902985-001	**97**	70-130	**100**	70-130	**101**	70-130	
103573	P0902985-002	**96**	70-130	**100**	70-130	**100**	70-130	
103574	P0902985-003	**98**	70-130	**100**	70-130	**99**	70-130	
103575	P0902985-004	**96**	70-130	**100**	70-130	**102**	70-130	

Verified By: _____ Date: 9/10/09

COLUMBIA ANALYTICAL SERVICES, INC.

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **Lab Control Sample** CAS Project ID: P0902985
Client Project ID: **16512** CAS Sample ID: P090831-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Liliana Marghitoiu Date Analyzed: 8/31/09
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: NA Liter(s)
Test Notes:

CAS #	Compound	Spike Amount ng	Result ng	% Recovery	CAS Acceptance Limits	Data Qualifier
115-07-1	Propene	26.3	**21.3**	**81**	58-134	
75-71-8	Dichlorodifluoromethane (CFC 12)	26.0	**19.7**	**76**	61-118	
74-87-3	Chloromethane	25.0	**22.0**	**88**	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	**20.8**	**82**	57-132	
106-99-0	1,3-Butadiene	26.8	**22.6**	**84**	66-161	
74-83-9	Bromomethane	25.8	**24.8**	**96**	67-130	
75-00-3	Chloroethane	25.5	**21.5**	**84**	68-123	
64-17-5	Ethanol	130	**111**	**85**	50-155	
75-05-8	Acetonitrile	26.0	**20.8**	**80**	48-148	
107-02-8	Acrolein	26.3	**23.9**	**91**	67-138	
67-64-1	Acetone	132	**105**	**80**	59-121	
75-69-4	Trichlorofluoromethane	26.3	**21.6**	**82**	67-132	
67-63-0	2-Propanol (Isopropyl Alcohol)	48.0	**40.9**	**85**	54-126	
107-13-1	Acrylonitrile	25.8	**23.9**	**93**	65-134	
75-35-4	1,1-Dichloroethene	27.5	**23.5**	**85**	70-123	
75-09-2	Methylene Chloride	26.8	**21.6**	**81**	66-121	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	27.0	**23.7**	**88**	63-149	
76-13-1	Trichlorotrifluoroethane	27.5	**24.1**	**88**	69-126	
75-15-0	Carbon Disulfide	26.0	**22.3**	**86**	66-115	
156-60-5	trans-1,2-Dichloroethene	25.5	**23.3**	**91**	69-125	
75-34-3	1,1-Dichloroethane	26.5	**22.9**	**86**	72-130	
1634-04-4	Methyl tert-Butyl Ether	26.3	**22.5**	**86**	72-132	
108-05-4	Vinyl Acetate	126	**125**	**99**	73-158	
78-93-3	2-Butanone (MEK)	26.8	**24.6**	**92**	68-126	

Verified By: _____ Date: 9/10/09

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: P0902985
CAS Sample ID: P090831-LCS

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
Analyst: Liliana Marghitoiu
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 8/31/09
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	**23.8**	**88**	69-124	
141-78-6	Ethyl Acetate	52.0	**48.1**	**93**	65-126	
110-54-3	n-Hexane	26.0	**22.0**	**85**	63-125	
67-66-3	Chloroform	27.5	**22.9**	**83**	68-126	
109-99-9	Tetrahydrofuran (THF)	26.5	**22.0**	**83**	65-124	
107-06-2	1,2-Dichloroethane	26.3	**22.4**	**85**	61-129	
71-55-6	1,1,1-Trichloroethane	26.0	**22.1**	**85**	69-127	
71-43-2	Benzene	25.8	**21.4**	**83**	68-122	
56-23-5	Carbon Tetrachloride	26.3	**23.2**	**88**	68-137	
110-82-7	Cyclohexane	51.8	**44.9**	**87**	68-121	
78-87-5	1,2-Dichloropropane	26.0	**22.7**	**87**	69-128	
75-27-4	Bromodichloromethane	26.3	**23.0**	**87**	71-131	
79-01-6	Trichloroethene	25.8	**23.0**	**89**	72-122	
123-91-1	1,4-Dioxane	26.0	**23.6**	**91**	73-127	
80-62-6	Methyl Methacrylate	52.8	**49.9**	**95**	80-133	
142-82-5	n-Heptane	25.8	**22.4**	**87**	69-126	
10061-01-5	cis-1,3-Dichloropropene	24.5	**21.9**	**89**	73-122	
108-10-1	4-Methyl-2-pentanone	26.8	**23.9**	**89**	67-122	
10061-02-6	trans-1,3-Dichloropropene	27.0	**24.5**	**91**	75-131	
79-00-5	1,1,2-Trichloroethane	26.0	**22.3**	**86**	76-125	
108-88-3	Toluene	26.8	**23.6**	**88**	74-119	
591-78-6	2-Hexanone	27.0	**23.9**	**89**	64-118	
124-48-1	Dibromochloromethane	28.3	**25.9**	**92**	79-129	
106-93-4	1,2-Dibromoethane	26.3	**24.1**	**92**	79-125	
123-86-4	n-Butyl Acetate	27.5	**24.1**	**88**	70-136	

Verified By: _____ Date: 9/10/09

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: P0902985
CAS Sample ID: P090831-LCS

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
Analyst: Liliana Marghitoiu
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 8/31/09
Volume(s) Analyzed: NA Liter(s)

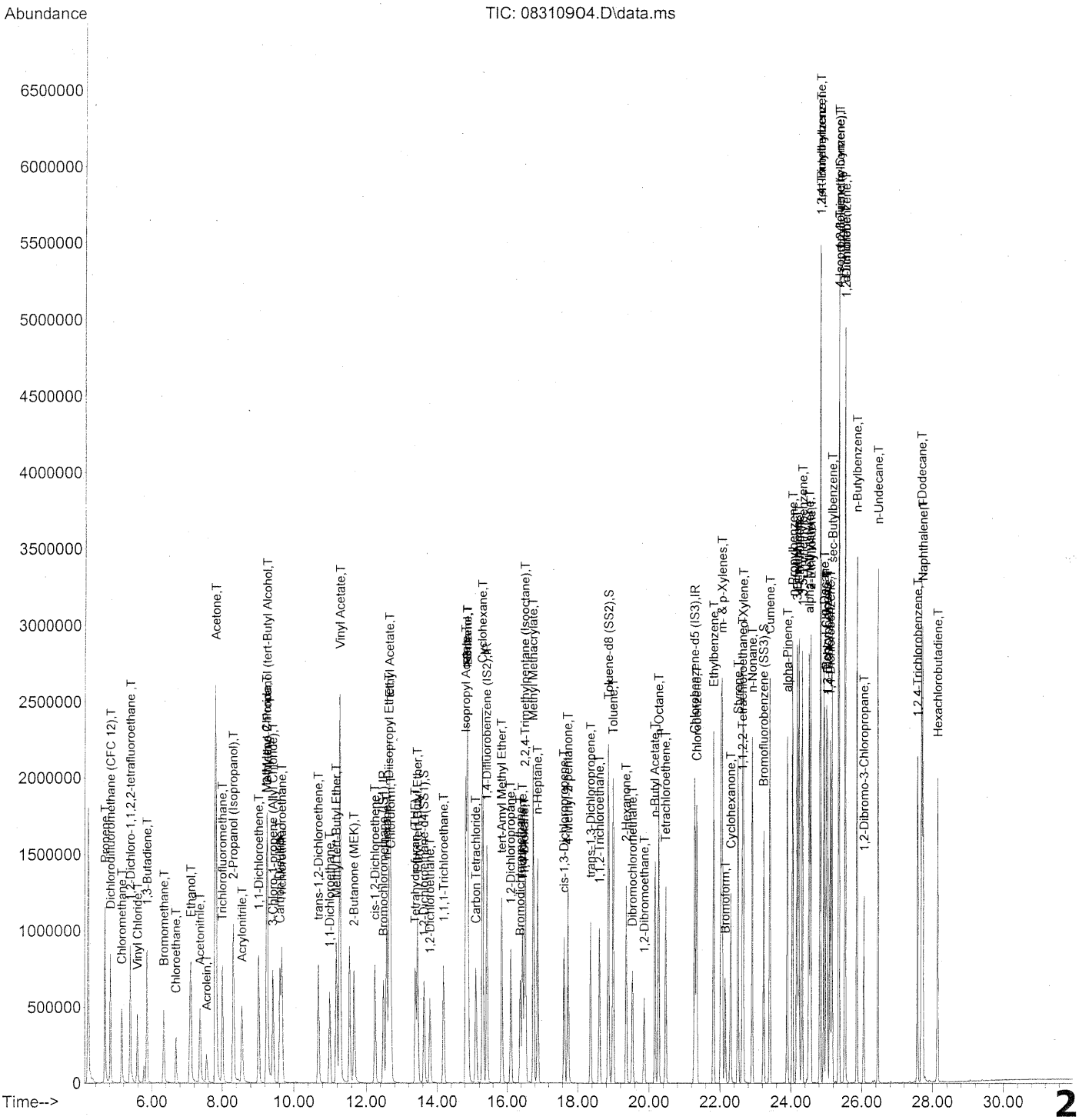
CAS #	Compound	Spike Amount ng	Result ng	% Recovery	CAS Acceptance Limits	Data Qualifier
111-65-9	n-Octane	26.3	**23.1**	**88**	75-126	
127-18-4	Tetrachloroethene	25.3	**22.7**	**90**	72-125	
108-90-7	Chlorobenzene	26.5	**23.8**	**90**	74-121	
100-41-4	Ethylbenzene	26.3	**23.5**	**89**	76-120	
179601-23-1	m,p-Xylenes	51.5	**46.2**	**90**	75-120	
75-25-2	Bromoform	26.5	**23.9**	**90**	76-143	
100-42-5	Styrene	26.3	**24.6**	**94**	78-124	
95-47-6	o-Xylene	26.0	**23.8**	**92**	76-121	
111-84-2	n-Nonane	25.8	**22.7**	**88**	69-129	
79-34-5	1,1,2,2-Tetrachloroethane	27.0	**24.2**	**90**	77-126	
98-82-8	Cumene	25.3	**22.8**	**90**	78-125	
80-56-8	alpha-Pinene	24.8	**22.3**	**90**	78-125	
103-65-1	n-Propylbenzene	25.3	**22.9**	**91**	80-127	
622-96-8	4-Ethyltoluene	26.3	**24.1**	**92**	75-123	
108-67-8	1,3,5-Trimethylbenzene	26.5	**24.5**	**92**	76-124	
95-63-6	1,2,4-Trimethylbenzene	25.5	**24.2**	**95**	76-123	
100-44-7	Benzyl Chloride	26.8	**24.1**	**90**	80-137	
541-73-1	1,3-Dichlorobenzene	26.0	**24.3**	**93**	74-125	
106-46-7	1,4-Dichlorobenzene	26.3	**23.8**	**90**	74-126	
95-50-1	1,2-Dichlorobenzene	25.8	**24.1**	**93**	75-124	
5989-27-5	d-Limonene	26.5	**25.8**	**97**	66-129	
96-12-8	1,2-Dibromo-3-chloropropane	27.0	**27.1**	**100**	79-144	
120-82-1	1,2,4-Trichlorobenzene	27.3	**26.5**	**97**	70-139	
91-20-3	Naphthalene	25.0	**24.6**	**98**	69-141	
87-68-3	Hexachlorobutadiene	26.8	**25.0**	**93**	68-138	

Verified By: _____ Date: 9/10/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310904.D
Acq On : 31 Aug 2009 12:35 pm
Operator : LM/CC
Sample : 25ng TO-15 LCS STD
Misc : S20-08140906/08240912
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 31 13:44:46 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310904.D
Acq On : 31 Aug 2009 12:35 pm
Operator : LM/CC
Sample : 25ng TO-15 LCS STD
Misc : S20-08140906/08240912
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 31 13:44:46 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

LM 9/2/09
CC 9.1.09

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.48	130	349549	25.000	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	15.43	114	1766504	25.000	ng		-0.01
56) Chlorobenzene-d5 (IS3)	21.29	82	828530	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.63	65	687258	24.811	ng		-0.02
Spiked Amount 25.000			Recovery =	99.24%			
57) Toluene-d8 (SS2)	18.85	98	1896795	25.617	ng		0.00
Spiked Amount 25.000			Recovery =	102.48%			
73) Bromofluorobenzene (SS3)	23.23	174	523909	24.584	ng		0.00
Spiked Amount 25.000			Recovery =	98.32%			
Target Compounds							Qvalue
2) Propene	4.66	42	537673	21.265	ng		100
3) Dichlorodifluoromethan...	4.83	85	871426	19.685	ng		99
4) Chloromethane	5.14	50	655580	22.031	ng		98
5) 1,2-Dichloro-1,1,2,2-t...	5.39	135	388791	21.266	ng		100
6) Vinyl Chloride	5.59	62	580076	20.782	ng		98
7) 1,3-Butadiene	5.86	54	470293	22.593	ng		99
8) Bromomethane	6.35	94	428164	24.816	ng		98
9) Chloroethane	6.69	64	328850	21.521	ng		99
10) Ethanol	7.11	45	1741435	111.071	ng		99
11) Acetonitrile	7.37	41	903972	20.758	ng		99
12) Acrolein	7.56	56	285949	23.886	ng		98
13) Acetone	7.82	58	1697737	104.706	ng		96
14) Trichlorofluoromethane	8.01	101	842387	21.590	ng		98
15) 2-Propanol (Isopropanol)	8.31	45	2205647	40.918	ng		98
16) Acrylonitrile	8.56	53	640492	23.929	ng		98
17) 1,1-Dichloroethene	9.03	96	444865	23.505	ng		92
18) 2-Methyl-2-Propanol (t...	9.27	59	2377991	44.056	ng		99
19) Methylene Chloride	9.25	84	444487	21.614	ng		97
20) 3-Chloro-1-propene (Al...	9.43	41	757035	23.652	ng		97
21) Trichlorotrifluoroethane	9.67	151	372777	24.128	ng		96
22) Carbon Disulfide	9.62	76	1629388	22.269	ng		98
23) trans-1,2-Dichloroethene	10.68	61	684509	23.267	ng		93
24) 1,1-Dichloroethane	10.99	63	841260	22.863	ng		100
25) Methyl tert-Butyl Ether	11.18	73	1305552	22.463	ng		99
26) Vinyl Acetate	11.28	86	508649	125.180	ng		98
27) 2-Butanone (MEK)	11.67	72	322284	24.607	ng		97
28) cis-1,2-Dichloroethene	12.25	61	665973	23.801	ng		92
29) Diisopropyl Ether	12.64	87	461146	24.113	ng	#	18
30) Ethyl Acetate	12.67	61	338216	48.055	ng		98
31) n-Hexane	12.58	57	771097	21.994	ng		99

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310904.D
Acq On : 31 Aug 2009 12:35 pm
Operator : LM/CC
Sample : 25ng TO-15 LCS STD
Misc : S20-08140906/08240912
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 31 13:44:46 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.70	83	789926	22.857	ng		98
34) Tetrahydrofuran (THF)	13.38	72	312152	21.977	ng		94
35) Ethyl tert-Butyl Ether	13.45	87	516363	22.008	ng		95
36) 1,2-Dichloroethane	13.80	62	649137	22.387	ng		99
38) 1,1,1-Trichloroethane	14.19	97	720150	22.053	ng		98
39) Isopropyl Acetate	14.83	61	613437	45.653	ng	#	72
40) 1-Butanol	14.87	56	1004572	45.688	ng	#	1
41) Benzene	14.88	78	1773630	21.358	ng		100
42) Carbon Tetrachloride	15.11	117	647331	23.220	ng		100
43) Cyclohexane	15.30	84	1375516	44.943	ng		95
44) tert-Amyl Methyl Ether	15.85	73	1325108	21.544	ng		98
45) 1,2-Dichloropropane	16.11	63	465270	22.675	ng		99
46) Bromodichloromethane	16.38	83	628065	22.951	ng		100
47) Trichloroethene	16.45	130	466411	23.022	ng		99
48) 1,4-Dioxane	16.50	88	377171	23.633	ng		92
49) 2,2,4-Trimethylpentane...	16.52	57	2070367	21.908	ng		98
50) Methyl Methacrylate	16.76	100	384065	49.899	ng		95
51) n-Heptane	16.89	71	482792	22.431	ng		97
52) cis-1,3-Dichloropropene	17.65	75	738322	21.902	ng		99
53) 4-Methyl-2-pentanone	17.76	58	453519	23.912	ng		99
54) trans-1,3-Dichloropropene	18.36	75	781753	24.483	ng		100
55) 1,1,2-Trichloroethane	18.60	97	432043	22.327	ng		99
58) Toluene	18.98	91	1880600	23.581	ng		99
59) 2-Hexanone	19.36	43	1164083	23.883	ng		97
60) Dibromochloromethane	19.53	129	518694	25.871	ng		100
61) 1,2-Dibromoethane	19.86	107	504000	24.063	ng		100
62) n-Butyl Acetate	20.17	43	1350151	24.146	ng		99
63) n-Octane	20.28	57	423192	23.059	ng		98
64) Tetrachloroethene	20.46	166	457771	22.669	ng		100
65) Chlorobenzene	21.34	112	1217278	23.794	ng		100
66) Ethylbenzene	21.82	91	2143222	23.496	ng		100
67) m- & p-Xylenes	22.06	91	3352948	46.173	ng		99
68) Bromoform	22.15	173	415244	23.920	ng		100
69) Styrene	22.51	104	1316815	24.628	ng		99
70) o-Xylene	22.65	91	1737767	23.824	ng		98
71) n-Nonane	22.91	43	993654	22.669	ng		96
72) 1,1,2,2-Tetrachloroethane	22.63	83	809378	24.203	ng		98
74) Cumene	23.41	105	2110680	22.831	ng		98
75) alpha-Pinene	23.90	93	1069587	22.305	ng		98
76) n-Propylbenzene	24.05	91	2694045	22.941	ng		99
77) 3-Ethyltoluene	24.17	105	2131208	24.098	ng		99
78) 4-Ethyltoluene	24.23	105	2101408	24.076	ng		98
79) 1,3,5-Trimethylbenzene	24.32	105	1781235	24.517	ng		99

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310904.D
Acq On : 31 Aug 2009 12:35 pm
Operator : LM/CC
Sample : 25ng TO-15 LCS STD
Misc : S20-08140906/08240912
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 31 13:44:46 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.51	118	986019	25.843	ng	97
81) 2-Ethyltoluene	24.56	105	2116290	23.319	ng	99
82) 1,2,4-Trimethylbenzene	24.83	105	1793612	24.186	ng	99
83) n-Decane	24.94	57	1046603	23.638	ng	97
84) Benzyl Chloride	25.00	91	1772880	24.146	ng	98
85) 1,3-Dichlorobenzene	25.03	146	974052	24.302	ng	100
86) 1,4-Dichlorobenzene	25.11	146	992398	23.774	ng	100
87) sec-Butylbenzene	25.17	105	2412996	23.821	ng	99
88) 4-Isopropyltoluene (p-...	25.35	119	2141221	23.452	ng	99
89) 1,2,3-Trimethylbenzene	25.36	105	1829346	23.534	ng	99
90) 1,2-Dichlorobenzene	25.53	146	903340	24.149	ng	98
91) d-Limonene	25.53	68	763126	25.777	ng	100
92) 1,2-Dibromo-3-Chloropr...	26.06	157	354321	27.072	ng	94
93) n-Undecane	26.46	57	1140995	24.823	ng	98
94) 1,2,4-Trichlorobenzene	27.59	180	699178	26.537	ng	99
95) Naphthalene	27.73	128	2519439	24.582	ng	100
96) n-Dodecane	27.70	57	1180166	22.524	ng	98
97) Hexachlorobutadiene	28.15	225	395333	24.957	ng	99
98) Cyclohexanone	22.30	55	688792	22.401	ng	96
99) tert-Butylbenzene	24.83	119	1716855	23.905	ng	100
100) n-Butylbenzene	25.86	91	2050868	24.833	ng	100

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

COLUMBIA ANALYTICAL SERVICES, INC.

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **Lab Control Sample** CAS Project ID: P0902985
Client Project ID: **16512** CAS Sample ID: P090903-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Liliana Marghitoiu Date Analyzed: 9/03/09
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: NA Liter(s)
Test Notes:

CAS #	Compound	Spike Amount ng	Result ng	% Recovery	CAS Acceptance Limits	Data Qualifier
115-07-1	Propene	26.3	**18.9**	**72**	58-134	
75-71-8	Dichlorodifluoromethane (CFC 12)	26.0	**17.7**	**68**	61-118	
74-87-3	Chloromethane	25.0	**20.3**	**81**	46-132	
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane (CFC 114)	26.0	**19.6**	**75**	65-122	
75-01-4	Vinyl Chloride	25.3	**19.1**	**75**	57-132	
106-99-0	1,3-Butadiene	26.8	**20.4**	**76**	66-161	
74-83-9	Bromomethane	25.8	**23.5**	**91**	67-130	
75-00-3	Chloroethane	25.5	**20.3**	**80**	68-123	
64-17-5	Ethanol	130	**107**	**82**	50-155	
75-05-8	Acetonitrile	26.0	**19.5**	**75**	48-148	
107-02-8	Acrolein	26.3	**22.4**	**85**	67-138	
67-64-1	Acetone	132	**98.7**	**75**	59-121	
75-69-4	Trichlorofluoromethane	26.3	**20.3**	**77**	67-132	
67-63-0	2-Propanol (Isopropyl Alcohol)	48.0	**39.0**	**81**	54-126	
107-13-1	Acrylonitrile	25.8	**22.7**	**88**	65-134	
75-35-4	1,1-Dichloroethene	27.5	**22.2**	**81**	70-123	
75-09-2	Methylene Chloride	26.8	**20.4**	**76**	66-121	
107-05-1	3-Chloro-1-propene (Allyl Chloride)	27.0	**22.2**	**82**	63-149	
76-13-1	Trichlorotrifluoroethane	27.5	**22.5**	**82**	69-126	
75-15-0	Carbon Disulfide	26.0	**21.0**	**81**	66-115	
156-60-5	trans-1,2-Dichloroethene	25.5	**21.9**	**86**	69-125	
75-34-3	1,1-Dichloroethane	26.5	**21.7**	**82**	72-130	
1634-04-4	Methyl tert-Butyl Ether	26.3	**21.1**	**80**	72-132	
108-05-4	Vinyl Acetate	126	**121**	**96**	73-158	
78-93-3	2-Butanone (MEK)	26.8	**23.6**	**88**	68-126	

Verified By: _____ Date: 9/10/09

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: P0902985
CAS Sample ID: P090903-LCS

Test Code: EPA TO-15
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13
Analyst: Liliana Marghitoiu
Sampling Media: 6.0 L Summa Canister
Test Notes:

Date Collected: NA
Date Received: NA
Date Analyzed: 9/03/09
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	**22.6**	**84**	69-124	
141-78-6	Ethyl Acetate	52.0	**45.5**	**88**	65-126	
110-54-3	n-Hexane	26.0	**20.3**	**78**	63-125	
67-66-3	Chloroform	27.5	**21.8**	**79**	68-126	
109-99-9	Tetrahydrofuran (THF)	26.5	**20.8**	**78**	65-124	
107-06-2	1,2-Dichloroethane	26.3	**21.4**	**81**	61-129	
71-55-6	1,1,1-Trichloroethane	26.0	**21.3**	**82**	69-127	
71-43-2	Benzene	25.8	**20.6**	**80**	68-122	
56-23-5	Carbon Tetrachloride	26.3	**22.4**	**85**	68-137	
110-82-7	Cyclohexane	51.8	**42.3**	**82**	68-121	
78-87-5	1,2-Dichloropropane	26.0	**21.9**	**84**	69-128	
75-27-4	Bromodichloromethane	26.3	**22.3**	**85**	71-131	
79-01-6	Trichloroethene	25.8	**22.3**	**86**	72-122	
123-91-1	1,4-Dioxane	26.0	**22.7**	**87**	73-127	
80-62-6	Methyl Methacrylate	52.8	**48.2**	**91**	80-133	
142-82-5	n-Heptane	25.8	**21.3**	**83**	69-126	
10061-01-5	cis-1,3-Dichloropropene	24.5	**21.2**	**87**	73-122	
108-10-1	4-Methyl-2-pentanone	26.8	**23.0**	**86**	67-122	
10061-02-6	trans-1,3-Dichloropropene	27.0	**23.6**	**87**	75-131	
79-00-5	1,1,2-Trichloroethane	26.0	**21.4**	**82**	76-125	
108-88-3	Toluene	26.8	**22.5**	**84**	74-119	
591-78-6	2-Hexanone	27.0	**22.5**	**83**	64-118	
124-48-1	Dibromochloromethane	28.3	**24.5**	**87**	79-129	
106-93-4	1,2-Dibromoethane	26.3	**22.9**	**87**	79-125	
123-86-4	n-Butyl Acetate	27.5	**22.7**	**83**	70-136	

Verified By: _____ Date: 9/10/09

COLUMBIA ANALYTICAL SERVICES, INC.

LABORATORY CONTROL SAMPLE SUMMARY

Client: **Environmental Health & Engineering, Inc.**
Client Sample ID: **Lab Control Sample** CAS Project ID: P0902985
Client Project ID: **16512** CAS Sample ID: P090903-LCS

Test Code: EPA TO-15 Date Collected: NA
Instrument ID: Tekmar AUTOCAN/Agilent 5975Binert/6890N/MS13 Date Received: NA
Analyst: Liliana Marghitoiu Date Analyzed: 9/03/09
Sampling Media: 6.0 L Summa Canister Volume(s) Analyzed: NA Liter(s)
Test Notes:

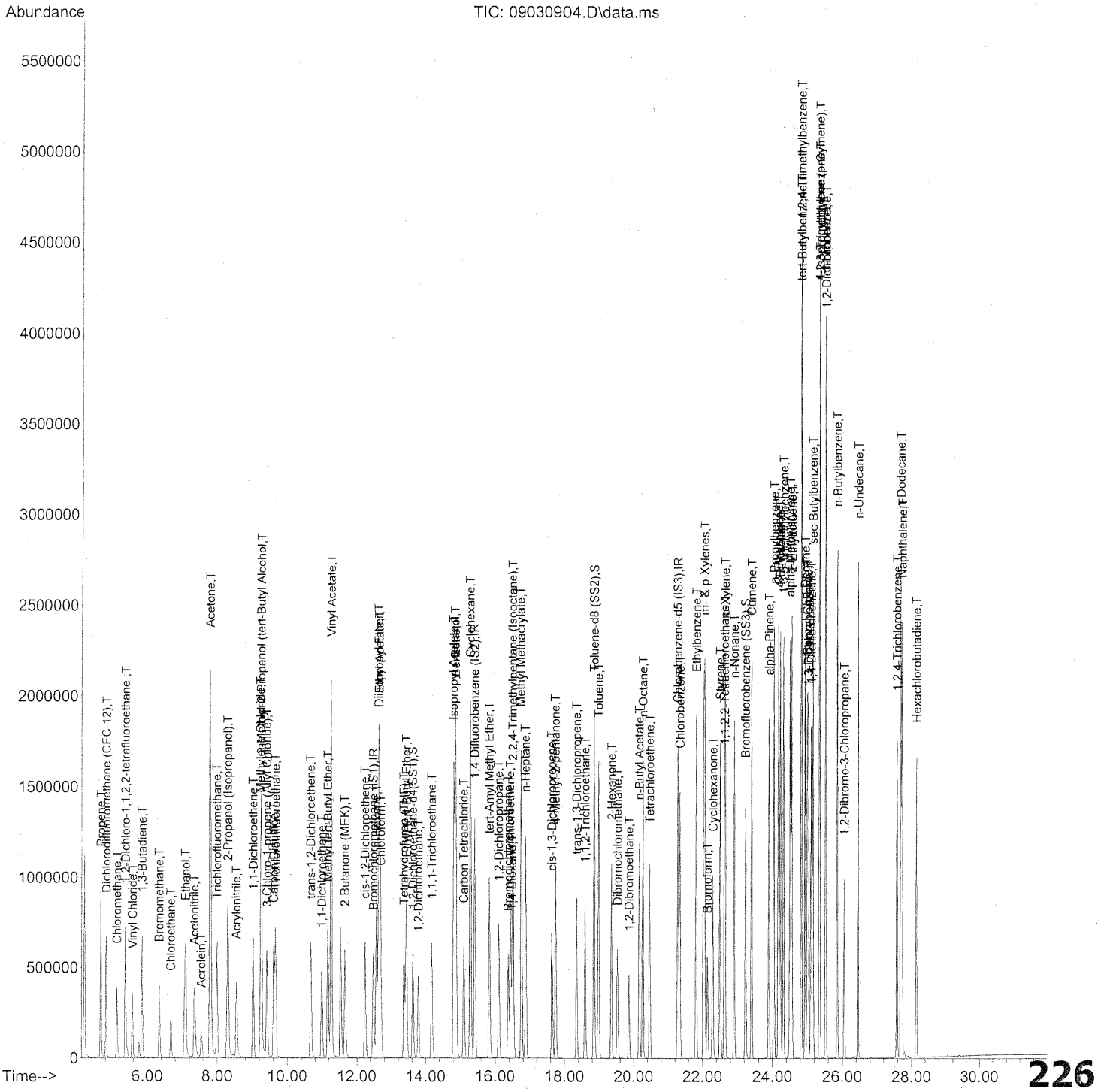
CAS #	Compound	Spike Amount ng	Result ng	% Recovery	CAS Acceptance Limits	Data Qualifier
111-65-9	n-Octane	26.3	**22.0**	**84**	75-126	
127-18-4	Tetrachloroethene	25.3	**21.8**	**86**	72-125	
108-90-7	Chlorobenzene	26.5	**22.7**	**86**	74-121	
100-41-4	Ethylbenzene	26.3	**22.5**	**86**	76-120	
179601-23-1	m,p-Xylenes	51.5	**44.1**	**86**	75-120	
75-25-2	Bromoform	26.5	**22.6**	**85**	76-143	
100-42-5	Styrene	26.3	**23.6**	**90**	78-124	
95-47-6	o-Xylene	26.0	**22.8**	**88**	76-121	
111-84-2	n-Nonane	25.8	**21.5**	**83**	69-129	
79-34-5	1,1,2,2-Tetrachloroethane	27.0	**23.1**	**86**	77-126	
98-82-8	Cumene	25.3	**21.9**	**87**	78-125	
80-56-8	alpha-Pinene	24.8	**21.2**	**85**	78-125	
103-65-1	n-Propylbenzene	25.3	**21.7**	**86**	80-127	
622-96-8	4-Ethyltoluene	26.3	**22.7**	**86**	75-123	
108-67-8	1,3,5-Trimethylbenzene	26.5	**23.5**	**89**	76-124	
95-63-6	1,2,4-Trimethylbenzene	25.5	**23.0**	**90**	76-123	
100-44-7	Benzyl Chloride	26.8	**22.9**	**85**	80-137	
541-73-1	1,3-Dichlorobenzene	26.0	**23.2**	**89**	74-125	
106-46-7	1,4-Dichlorobenzene	26.3	**22.8**	**87**	74-126	
95-50-1	1,2-Dichlorobenzene	25.8	**23.2**	**90**	75-124	
5989-27-5	d-Limonene	26.5	**24.4**	**92**	66-129	
96-12-8	1,2-Dibromo-3-chloropropane	27.0	**25.9**	**96**	79-144	
120-82-1	1,2,4-Trichlorobenzene	27.3	**25.2**	**92**	70-139	
91-20-3	Naphthalene	25.0	**23.4**	**94**	69-141	
87-68-3	Hexachlorobutadiene	26.8	**23.5**	**88**	68-138	

Verified By: _____ Date: 9/10/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030904.D
Acq On : 3 Sep 2009 10:56 am
Operator : LM/CC
Sample : 25ng TO-15 LCS STD
Misc : S20-08140906/S20-08240912
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 03 11:58:51 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030904.D
Acq On : 3 Sep 2009 10:56 am
Operator : LM/CC
Sample : 25ng TO-15 LCS STD
Misc : S20-08140906/S20-08240912
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 03 11:58:51 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

CC 9/4/09
LM 9/4/09

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.48	130	302984	25.000	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	15.43	114	1518112	25.000	ng		-0.01
56) Chlorobenzene-d5 (IS3)	21.29	82	716447	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.63	65	590469	24.593	ng		-0.02
Spiked Amount 25.000			Recovery =	98.36%			
57) Toluene-d8 (SS2)	18.85	98	1637220	25.570	ng		0.00
Spiked Amount 25.000			Recovery =	102.28%			
73) Bromofluorobenzene (SS3)	23.23	174	450748	24.460	ng		0.00
Spiked Amount 25.000			Recovery =	97.84%			
Target Compounds							Qvalue
2) Propene	4.66	42	413749	18.879	ng		100
3) Dichlorodifluoromethan...	4.82	85	680900	17.745	ng		99
4) Chloromethane	5.14	50	524873	20.349	ng		98
5) 1,2-Dichloro-1,1,2,2-t...	5.38	135	309809	19.550	ng		99
6) Vinyl Chloride	5.58	62	461184	19.061	ng		99
7) 1,3-Butadiene	5.86	54	367522	20.369	ng		98
8) Bromomethane	6.34	94	351992	23.537	ng		98
9) Chloroethane	6.68	64	269142	20.320	ng		99
10) Ethanol	7.10	45	1447974	106.547	ng		100
11) Acetonitrile	7.35	41	736038	19.499	ng		99
12) Acrolein	7.55	56	232240	22.381	ng		97
13) Acetone	7.81	58	1387026	98.690	ng		98
14) Trichlorofluoromethane	8.00	101	687987	20.343	ng		98
15) 2-Propanol (Isopropanol)	8.31	45	1824287	39.045	ng		99
16) Acrylonitrile	8.55	53	525525	22.652	ng		98
17) 1,1-Dichloroethene	9.02	96	364043	22.190	ng		93
18) 2-Methyl-2-Propanol (t...	9.26	59	1954604	41.777	ng		99
19) Methylene Chloride	9.24	84	363007	20.364	ng		96
20) 3-Chloro-1-propene (Al...	9.42	41	616323	22.216	ng		97
21) Trichlorotrifluoroethane	9.67	151	301949	22.547	ng		96
22) Carbon Disulfide	9.62	76	1332948	21.017	ng		98
23) trans-1,2-Dichloroethene	10.68	61	559194	21.929	ng		93
24) 1,1-Dichloroethane	10.99	63	691944	21.695	ng		100
25) Methyl tert-Butyl Ether	11.17	73	1063192	21.104	ng		98
26) Vinyl Acetate	11.27	86	426030	120.961	ng		98
27) 2-Butanone (MEK)	11.66	72	267492	23.563	ng		98
28) cis-1,2-Dichloroethene	12.24	61	549193	22.644	ng		92
29) Diisopropyl Ether	12.64	87	375678	22.663	ng	#	41
30) Ethyl Acetate	12.66	61	277329	45.460	ng		98
31) n-Hexane	12.58	57	617517	20.320	ng		98

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030904.D
Acq On : 3 Sep 2009 10:56 am
Operator : LM/CC
Sample : 25ng TO-15 LCS STD
Misc : S20-08140906/S20-08240912
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 03 11:58:51 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.70	83	654190	21.838	ng		98
34) Tetrahydrofuran (THF)	13.37	72	256184	20.808	ng		96
35) Ethyl tert-Butyl Ether	13.44	87	421840	20.743	ng		95
36) 1,2-Dichloroethane	13.79	62	538572	21.429	ng		98
38) 1,1,1-Trichloroethane	14.18	97	596559	21.257	ng		99
39) Isopropyl Acetate	14.81	61	500488	43.341	ng	#	71
40) 1-Butanol	14.87	56	819914	43.391	ng	#	1
41) Benzene	14.88	78	1467608	20.565	ng		100
42) Carbon Tetrachloride	15.11	117	536480	22.393	ng		100
43) Cyclohexane	15.30	84	1113154	42.322	ng		95
44) tert-Amyl Methyl Ether	15.84	73	1087135	20.567	ng		98
45) 1,2-Dichloropropane	16.11	63	386159	21.899	ng		99
46) Bromodichloromethane	16.37	83	524892	22.319	ng		99
47) Trichloroethene	16.44	130	387816	22.275	ng		99
48) 1,4-Dioxane	16.49	88	311513	22.712	ng		92
49) 2,2,4-Trimethylpentane...	16.52	57	1687340	20.776	ng		98
50) Methyl Methacrylate	16.76	100	318495	48.150	ng		93
51) n-Heptane	16.88	71	394790	21.343	ng		97
52) cis-1,3-Dichloropropene	17.65	75	613220	21.167	ng		100
53) 4-Methyl-2-pentanone	17.75	58	374492	22.976	ng		100
54) trans-1,3-Dichloropropene	18.36	75	647224	23.586	ng		100
55) 1,1,2-Trichloroethane	18.60	97	356398	21.432	ng		99
58) Toluene	18.98	91	1554901	22.547	ng		99
59) 2-Hexanone	19.36	43	949211	22.522	ng		97
60) Dibromochloromethane	19.53	129	425196	24.525	ng		99
61) 1,2-Dibromoethane	19.86	107	415094	22.919	ng		99
62) n-Butyl Acetate	20.17	43	1096609	22.680	ng		99
63) n-Octane	20.28	57	349304	22.010	ng		97
64) Tetrachloroethene	20.47	166	380551	21.794	ng		99
65) Chlorobenzene	21.34	112	1004106	22.698	ng		100
66) Ethylbenzene	21.82	91	1775629	22.512	ng		100
67) m- & p-Xylenes	22.06	91	2769754	44.109	ng		99
68) Bromoform	22.15	173	339032	22.585	ng		99
69) Styrene	22.51	104	1089810	23.571	ng		98
70) o-Xylene	22.65	91	1437291	22.788	ng		99
71) n-Nonane	22.91	43	816323	21.537	ng		97
72) 1,1,2,2-Tetrachloroethane	22.63	83	667151	23.071	ng		97
74) Cumene	23.41	105	1747237	21.856	ng		98
75) alpha-Pinene	23.90	93	880204	21.227	ng		98
76) n-Propylbenzene	24.05	91	2207978	21.743	ng		99
77) 3-Ethyltoluene	24.17	105	1756946	22.974	ng		99
78) 4-Ethyltoluene	24.23	105	1715739	22.732	ng		98
79) 1,3,5-Trimethylbenzene	24.32	105	1474604	23.472	ng		100

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030904.D
Acq On : 3 Sep 2009 10:56 am
Operator : LM/CC
Sample : 25ng TO-15 LCS STD
Misc : S20-08140906/S20-08240912
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Sep 03 11:58:51 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.51	118	809782	24.544	ng	99
81) 2-Ethyltoluene	24.56	105	1739197	22.162	ng	99
82) 1,2,4-Trimethylbenzene	24.83	105	1471822	22.951	ng	98
83) n-Decane	24.94	57	856931	22.382	ng	97
84) Benzyl Chloride	25.00	91	1454707	22.912	ng	98
85) 1,3-Dichlorobenzene	25.03	146	803868	23.193	ng	99
86) 1,4-Dichlorobenzene	25.11	146	821967	22.772	ng	99
87) sec-Butylbenzene	25.16	105	1993377	22.757	ng	99
88) 4-Isopropyltoluene (p-...	25.35	119	1763804	22.340	ng	99
89) 1,2,3-Trimethylbenzene	25.35	105	1507873	22.434	ng	99
90) 1,2-Dichlorobenzene	25.53	146	751582	23.235	ng	99
91) d-Limonene	25.53	68	624969	24.413	ng	99
92) 1,2-Dibromo-3-Chloropr...	26.06	157	292958	25.886	ng	93
93) n-Undecane	26.46	57	934887	23.521	ng	98
94) 1,2,4-Trichlorobenzene	27.58	180	574732	25.227	ng	99
95) Naphthalene	27.73	128	2070677	23.364	ng	100
96) n-Dodecane	27.69	57	950846	20.987	ng	98
97) Hexachlorobutadiene	28.15	225	322008	23.508	ng	99
98) Cyclohexanone	22.30	55	553436	20.815	ng	96
99) tert-Butylbenzene	24.83	119	1414600	22.778	ng	99
100) n-Butylbenzene	25.86	91	1697018	23.763	ng	100

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

INITIAL CALIBRATION STANDARDS

Response Factor Report GCMS13

Method : J:\MS13\METHODS\R13082709.M (RTE Integrator)
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

Calibration Files
0.1 =08270906.D 0.2 =08270907.D 0.5 =08270908.D 1.0 =08270909.D 5.0 =08270910.D
25 =08270911.D 50 =08270912.D 100 =08270913.D = =

		Compound	0.1	0.2	0.5	1.0	5.0	25	50	100	Avg	%RSD
1)	IR	Bromochloromethan	----------	----------	----------	ISTD	----------	----------	----------	----------		
2)	T	Propene	2.228	1.768	1.709	1.601	1.972	1.929	1.517	1.744	1.808	12.55
3)	T	Dichlorodifluorom	3.863	3.277	3.356	3.114	3.233	3.191	2.448	2.845	3.166	12.86
4)	T	Chloromethane	2.259	2.110	2.206	2.148	2.122	2.355	1.885	1.942	2.128	7.31
5)	T	1,2-Dichloro-1,1,	1.431	1.358	1.272	1.297	1.345	1.383	1.097	1.277	1.308	7.73
6)	T	Vinyl Chloride	2.051	1.971	1.941	1.934	2.071	2.173	1.758	2.071	1.996	6.27
7)	T	1,3-Butadiene	1.682	1.372	1.440	1.385	1.522	1.671	1.310	1.529	1.489	9.22
8)	T	Bromomethane	1.136	1.099	1.319	1.185	1.374	1.461	1.050	1.247	1.234	11.56
9)	T	Chloroethane	1.107	1.073	1.099	1.012	1.155	1.210	0.956	1.132	1.093	7.33
10)	T	Ethanol	1.132	1.170	1.171	1.069	1.162	1.228	0.959	1.079	1.121	7.46
11)	T	Acetonitrile	3.731	3.312	3.106	2.811	3.118	3.268	2.579	2.992	3.115	11.10
12)	T	Acrolein			0.782	0.792	0.892	0.983	0.784	0.904	0.856	9.69
13)	T	Acetone	1.540	1.354	1.207	1.077	1.126	1.152	0.876	0.945	1.160	18.42
14)	T	Trichlorofluorome	2.816	2.659	2.984	2.708	2.943	3.075	2.401	2.738	2.791	7.67
15)	T	2-Propanol (Isopr		4.562	4.691	4.193	3.525	4.031	2.841	3.143	3.855	18.31
16)	T	Acrylonitrile	1.679	1.661	1.830	1.855	2.096	2.283	1.820	2.090	1.914	11.50
17)	T	1,1-Dichloroethen	1.421	1.308	1.395	1.299	1.374	1.477	1.183	1.372	1.354	6.64
18)	T	2-Methyl-2-Propan	4.111	3.917	3.922	3.742	4.000	4.357	2.975		3.860	11.26
19)	T	Methylene Chlorid	1.613	1.543	1.556	1.402	1.474	1.542	1.220	1.418	1.471	8.46
20)	T	3-Chloro-1-propen	2.522	2.248	2.221	2.068	2.365	2.545	2.033	2.310	2.289	8.19
21)	T	Trichlorotrifluor	1.027	1.089	1.228	1.078	1.116	1.231	0.985	1.088	1.105	7.87
22)	T	Carbon Disulfide	5.517	5.028	5.376	5.032	5.437	5.803	4.554	5.118	5.233	7.31
23)	T	trans-1,2-Dichlor	1.970	1.770	2.149	2.072	2.273	2.449	1.946	2.204	2.104	10.07
24)	T	1,1-Dichloroethan	2.902	2.459	2.655	2.507	2.698	2.900	2.319	2.614	2.632	7.77
25)	T	Methyl tert-Butyl	4.565	3.987	4.180	3.793	4.176	4.615	3.722	4.216	4.157	7.77
26)	T	Vinyl Acetate	0.281	0.271	0.307	0.277	0.301	0.350	0.265	0.273	0.291	9.72
27)	T	2-Butanone (MEK)	1.034	0.821	0.921	0.891	1.025	1.124	0.885	0.793	0.937	12.17
28)	T	cis-1,2-Dichloroe	1.967	1.808	2.117	1.898	2.118	2.271	1.796	2.034	2.001	8.27
29)	T	Diisopropyl Ether	1.277	1.282	1.446	1.333	1.450	1.568	1.225	1.362	1.368	8.30

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(#) Out of Range ### Number of calibration levels exceeded format ###

MM 8/28/09
CC 8/28/09

Method : J:\MS13\METHODS\R13082709.M (RTE Integrator)
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

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25 =08270911.D 50 =08270912.D 100 =08270913.D = =

		Compound	0.1	0.2	0.5	1.0	5.0	25	50	100	Avg	%RSD
30)	T	Ethyl Acetate	0.448	0.403	0.525	0.494	0.567	0.608	0.467	0.515	0.503	13.03
31)	T	n-Hexane	2.821	2.572	2.527	2.400	2.518	2.688	2.123	2.411	2.508	8.31
32)	T	Chloroform	2.621	2.291	2.596	2.424	2.599	2.746	2.131	2.366	2.472	8.25
33)	S	1,2-Dichloroethan	2.001	2.011	1.998	2.007	1.974	2.005	1.950	1.903	1.981	1.91
34)	T	Tetrahydrofuran (			1.244	1.004	0.993	1.078	0.838	0.938	1.016	13.53
35)	T	Ethyl tert-Butyl	1.586	1.658	1.745	1.622	1.714	1.875	1.503	1.720	1.678	6.72
36)	T	1,2-Dichloroethan	2.363	1.999	2.075	1.989	2.111	2.276	1.787	1.991	2.074	8.71
37)	IR	1,4-Difluorobenze	----------				ISTD	----------				
38)	T	1,1,1-Trichloroet	0.480	0.446	0.490	0.442	0.477	0.509	0.407	0.446	0.462	7.09
39)	T	Isopropyl Acetate	0.195	0.173	0.194	0.181	0.203	0.217	0.170	0.188	0.190	8.12
40)	T	1-Butanol	0.346	0.331	0.296	0.270	0.311	0.349	0.278	0.309	0.311	9.41
41)	T	Benzene	1.365	1.233	1.256	1.121	1.199	1.222	0.957	1.049	1.175	10.90
42)	T	Carbon Tetrachlor	0.393	0.351	0.407	0.375	0.414	0.447	0.361	0.408	0.395	7.94
43)	T	Cyclohexane	0.460	0.428	0.451	0.413	0.447	0.477	0.376	0.412	0.433	7.42
44)	T	tert-Amyl Methyl	1.007	0.839	0.936	0.847	0.884	0.919	0.722	0.809	0.870	9.98
45)	T	1,2-Dichloropropa	0.281	0.276	0.295	0.284	0.309	0.323	0.260	0.295	0.290	6.85
46)	T	Bromodichlorometh	0.398	0.337	0.396	0.363	0.412	0.443	0.354	0.396	0.387	8.87
47)	T	Trichloroethene	0.275	0.288	0.284	0.265	0.297	0.323	0.262	0.299	0.287	6.94
48)	T	1,4-Dioxane	0.184	0.214	0.247	0.219	0.248	0.264	0.211	0.221	0.226	11.32
49)	T	2,2,4-Trimethylpe	1.457	1.313	1.417	1.291	1.396	1.451	1.138	1.236	1.337	8.46
50)	T	Methyl Methacryla	0.100	0.092	0.106	0.103	0.120	0.130	0.105	0.116	0.109	11.14
51)	T	n-Heptane	0.288	0.283	0.326	0.302	0.326	0.340	0.271	0.301	0.305	7.92
52)	T	cis-1,3-Dichlorop	0.447	0.427	0.497	0.448	0.507	0.549	0.443	0.499	0.477	8.79
53)	T	4-Methyl-2-pentan	0.263	0.241	0.264	0.255	0.286	0.311	0.248	0.279	0.268	8.46
54)	T	trans-1,3-Dichlor	0.410	0.423	0.459	0.422	0.486	0.522	0.419	0.473	0.452	8.83
55)	T	1,1,2-Trichloroet	0.291	0.264	0.282	0.250	0.286	0.299	0.243	0.274	0.274	7.27
56)	IR	Chlorobenzene-d5	----------				ISTD	----------				
57)	S	Toluene-d8 (SS2)	2.226	2.230	2.222	2.230	2.212	2.233	2.240	2.281	2.234	0.92

(#) = Out of Range ### Number of calibration levels exceeded format ###

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		Compound	0.1	0.2	0.5	1.0	5.0	25	50	100	Avg	%RSD
58)	T	Toluene	2.610	2.363	2.446	2.293	2.488	2.606	2.090	2.354	2.406	7.15
59)	T	2-Hexanone	1.630	1.345	1.430	1.385	1.501	1.658	1.320	1.497	1.471	8.51
60)	T	Dibromochlorometh	0.553	0.552	0.627	0.552	0.620	0.700	0.571	0.666	0.605	9.44
61)	T	1,2-Dibromoethane	0.592	0.587	0.644	0.603	0.656	0.720	0.582	0.671	0.632	7.80
62)	T	n-Butyl Acetate	1.687	1.542	1.665	1.576	1.732	1.914	1.554	1.826	1.687	7.90
63)	T	n-Octane	0.626	0.513	0.579	0.531	0.562	0.598	0.478	0.542	0.554	8.61
64)	T	Tetrachloroethene	0.592	0.582	0.624	0.569	0.632	0.675	0.553	0.648	0.609	6.89
65)	T	Chlorobenzene	1.621	1.513	1.607	1.436	1.576	1.689	1.360	1.548	1.544	6.87
66)	T	Ethylbenzene	2.899	2.579	2.862	2.627	2.891	3.056	2.418	2.686	2.752	7.61
67)	T	m- & p-Xylenes	2.271	2.106	2.268	2.112	2.295	2.438	1.915	2.123	2.191	7.29
68)	T	Bromoform	0.492	0.457	0.478	0.478	0.541	0.620	0.515	0.610	0.524	11.78
69)	T	Styrene	1.632	1.460	1.546	1.485	1.715	1.865	1.499	1.706	1.613	8.77
70)	T	o-Xylene	2.198	2.015	2.279	2.160	2.341	2.481	1.953	2.181	2.201	7.71
71)	T	n-Nonane	1.410	1.318	1.387	1.274	1.384	1.428	1.123	1.258	1.323	7.72
72)	T	1,1,2,2-Tetrachlo	1.015	0.938	1.067	0.934	1.062	1.136	0.904	1.017	1.009	7.87
73)	S	Bromofluorobenzen	0.637	0.641	0.642	0.642	0.643	0.647	0.642	0.650	0.643	0.59
74)	T	Cumene	2.874	2.641	2.834	2.706	2.929	3.119	2.483	2.729	2.790	6.96
75)	T	alpha-Pinene	1.526	1.380	1.459	1.356	1.496	1.609	1.296	1.454	1.447	6.95
76)	T	n-Propylbenzene	3.766	3.311	3.648	3.441	3.793	3.970	3.101	3.318	3.543	8.37
77)	T	3-Ethyltoluene	2.849	2.433	2.664	2.535	2.797	2.980	2.418	2.673	2.669	7.52
78)	T	4-Ethyltoluene	2.815	2.470	2.714	2.522	2.799	2.947	2.302	2.499	2.634	8.26
79)	T	1,3,5-Trimethylbe	2.236	2.054	2.162	2.148	2.315	2.470	1.966	2.186	2.192	7.05
80)	T	alpha-Methylstyre	0.955	0.981	1.127	1.071	1.260	1.400	1.133	1.282	1.151	13.37
81)	T	2-Ethyltoluene	2.851	2.561	2.758	2.688	2.892	3.058	2.430	2.668	2.738	7.21
82)	T	1,2,4-Trimethylbe	2.268	2.059	2.284	2.180	2.409	2.549	1.998	2.154	2.238	8.09
83)	T	n-Decane	1.368	1.216	1.412	1.358	1.437	1.477	1.154	1.267	1.336	8.47
84)	T	Benzyl Chloride	2.330	2.000	2.201	2.076	2.360	2.541	2.008	2.208	2.215	8.52
85)	T	1,3-Dichlorobenze	1.322	1.095	1.217	1.161	1.231	1.342	1.086	1.220	1.209	7.75
86)	T	1,4-Dichlorobenze	1.282	1.153	1.287	1.189	1.295	1.421	1.147	1.303	1.260	7.30
87)	T	sec-Butylbenzene	3.081	2.880	3.153	3.010	3.269	3.448	2.715	2.896	3.057	7.66

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		Compound	0.1	0.2	0.5	1.0	5.0	25	50	100	Avg	%RSD
88)	T	4-Isopropyltoluen	2.670	2.592	2.879	2.705	3.020	3.160	2.464	2.549	2.755	8.82
89)	T	1,2,3-Trimethylbe	2.424	2.299	2.431	2.277	2.495	2.594	2.045	2.198	2.345	7.51
90)	T	1,2-Dichlorobenze	1.100	1.053	1.174	1.102	1.220	1.287	1.010	1.085	1.129	8.10
91)	T	d-Limonene	0.748	0.829	0.885	0.865	0.986	1.066	0.844	0.923	0.893	11.02
92)	T	1,2-Dibromo-3-Chl	0.324	0.298	0.364	0.362	0.437	0.499	0.407	0.469	0.395	17.81
93)	T	n-Undecane	1.330	1.231	1.458	1.398	1.548	1.573	1.230	1.327	1.387	9.50
94)	T	1,2,4-Trichlorobe	0.701	0.595	0.804	0.760	0.877	0.957	0.772	0.892	0.795	14.51
95)	T	Naphthalene	2.936	2.620	3.084	2.996	3.377	3.682	2.924	3.122	3.093	10.34
96)	T	n-Dodecane	1.462	1.440	1.731	1.633	1.792	1.746	1.375	1.469	1.581	10.31
97)	T	Hexachlorobutadie	0.458	0.435	0.473	0.453	0.508	0.534	0.445	0.518	0.478	7.80
98)	T	Cyclohexanone	1.009	0.855	0.876	0.835	0.946	1.067	0.855	0.979	0.928	9.17
99)	T	tert-Butylbenzene	2.140	2.013	2.273	2.146	2.325	2.453	1.922	2.065	2.167	8.06
100)	T	n-Butylbenzene	2.355	2.233	2.625	2.46	2.744	2.867	2.244	2.407	2.492	9.31

(#) Out of Range ### Number of calibration levels exceeded format ###

Primary Source Standards Concentrations
(Working & Initial Calibration)

4ng/L Std. ID: S20-08240906
20ng/L Std. ID: S20-07310904
200ng/L Std. ID: S20-08240903
Dilution Factors: 5 50 250

Compounds	Source Std. mg/m³	Primary Working Standards 200ng/L	20ng/L	4ng/L	Working STD Conc.(ng/L):	ICAL Concentrations (Primary Source) 4	4	20	20	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
Propene	1.07	214	21.4	4.28		0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
Dichlorodifluoromethane	1.05	210	21.0	4.20		0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
Chloromethane	1.00	200	20.0	4.00		0.100	0.200	0.500	1.00	5.00	25.0	50.0	100
Freon-114	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
Vinyl Chloride	1.01	202	20.2	4.04		0.101	0.202	0.505	1.01	5.05	25.3	50.5	101
1,3-Butadiene	1.20	240	24.0	4.80		0.120	0.240	0.600	1.20	6.00	30.0	60.0	120
Bromomethane	1.02	204	20.4	4.08		0.102	0.204	0.510	1.02	5.10	25.5	51.0	102
Chloroethane	1.01	202	20.2	4.04		0.101	0.202	0.505	1.01	5.05	25.3	50.5	101
Ethanol	5.20	1040	104	20.8		0.520	1.040	2.60	5.20	26.0	130	260	520
Acetonitrile	1.05	210	21.0	4.20		0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
Acrolein	1.08	216	21.6	4.32		0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
Acetone	5.50	1100	110	22.0		0.550	1.100	2.75	5.50	27.5	138	275	550
Trichlorofluoromethane	1.05	210	21.0	4.20		0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
Isopropanol	1.89	378	37.8	7.56		0.189	0.378	0.945	1.89	9.45	47.3	94.5	189
Acrylonitrile	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
1,1-Dichloroethene	1.10	220	22.0	4.40		0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
tert-Butanol	2.02	404	40.4	8.08		0.202	0.404	1.01	2.02	10.1	50.5	101	202
Methylene Chloride	1.07	214	21.4	4.28		0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
Allyl Chloride	1.08	216	21.6	4.32		0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
Trichlorotrifluoroethane	1.10	220	22.0	4.40		0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
Carbon Disulfide	1.07	214	21.4	4.28		0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
trans-1,2-Dichloroethene	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
1,1-Dichloroethane	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
Methyl tert-Butyl Ether	1.09	218	21.8	4.36		0.109	0.218	0.545	1.09	5.45	27.3	54.5	109
Vinyl Acetate	5.02	1004	100	20.1		0.502	1.004	2.51	5.02	25.1	126	251	502
2-Butanone	1.10	220	22.0	4.40		0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
cis-1,2-Dichloroethene	1.09	218	21.8	4.36		0.109	0.218	0.545	1.09	5.45	27.3	54.5	109
Diisopropyl Ether	1.07	214	21.4	4.28		0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
Ethyl Acetate	2.13	426	42.6	8.52		0.213	0.426	1.07	2.13	10.7	53.3	107	213
n-Hexane	1.09	218	21.8	4.36		0.109	0.218	0.545	1.09	5.45	27.3	54.5	109
Chloroform	1.07	214	21.4	4.28		0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
Tetrahydrofuran	1.10	220	22.0	4.40		0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
Ethyl tert-Butyl Ether	1.03	206	20.6	4.12		0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
1,2-Dichloroethane	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
1,1,1-Trichloroethane	1.05	210	21.0	4.20		0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
Isopropyl Acetate	2.09	418	41.8	8.36		0.209	0.418	1.05	2.09	10.5	52.3	105	209
1-Butanol	2.07	414	41.4	8.28		0.207	0.414	1.04	2.07	10.4	51.8	104	207
Benzene	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
Carbon Tetrachloride	1.08	216	21.6	4.32		0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
Cyclohexane	2.15	430	43.0	8.60		0.215	0.430	1.08	2.15	10.8	53.8	108	215
tert-Amyl Methyl Ether	1.04	208	20.8	4.16		0.104	0.208	0.520	1.04	5.20	26.0	52.0	104
1,2-Dichloropropane	1.05	210	21.0	4.20		0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
Bromodichloromethane	1.08	216	21.6	4.32		0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
Trichloroethene	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
1,4-Dioxane	1.07	214	21.4	4.28		0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
Isooctane	1.04	208	20.8	4.16		0.104	0.208	0.520	1.04	5.20	26.0	52.0	104
Methyl Methacrylate	2.13	426	42.6	8.52		0.213	0.426	1.07	2.13	10.7	53.3	107	213
n-Heptane	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
cis-1,3-Dichloropropene	0.99	198	19.8	3.96		0.099	0.198	0.495	0.990	4.95	24.8	49.5	99.0
4-Methyl-2-pentanone	1.10	220	22.0	4.40		0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
trans-1,3-Dichloropropene	1.10	220	22.0	4.40		0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
1,1,2-Trichloroethane	1.05	210	21.0	4.20		0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
Toluene	1.08	216	21.6	4.32		0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
2-Hexanone	1.10	220	22.0	4.40		0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
Dibromochloromethane	1.15	230	23.0	4.60		0.115	0.230	0.575	1.15	5.75	28.8	57.5	115
1,2-Dibromoethane	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
n-Butyl Acetate	1.10	220	22.0	4.40		0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
n-Octane	1.07	214	21.4	4.28		0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
Tetrachloroethene	1.02	204	20.4	4.08		0.102	0.204	0.510	1.02	5.10	25.5	51.0	102
Chlorobenzene	1.08	216	21.6	4.32		0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
Ethylbenzene	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
m-&p-Xylene	2.08	416	41.6	8.32		0.208	0.416	1.04	2.08	10.4	52.0	104	208

VM 8/28/09
CC 8/28/09

Primary Source Standards Concentrations
(Working & Initial Calibration)

4ng/L Std. ID: S20-08240906
20ng/L Std. ID:
200ng/L Std. ID:
Dilution Factors: 5 50 250

Compounds	Source Std. mg/m³	Primary Working Standards 200ng/L	20ng/L	4ng/L	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
Bromoform	1.03	206	20.6	4.12		0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
Styrene	1.07	214	21.4	4.28		0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
o-Xylene	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
n-Nonane	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
1,1,2,2-Tetrachloroethane	1.07	214	21.4	4.28		0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
Cumene	1.03	206	20.6	4.12		0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
alpha-Pinene	1.01	202	20.2	4.04		0.101	0.202	0.505	1.01	5.05	25.3	50.5	101
n-Propylbenzene	1.03	206	20.6	4.12		0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
3-Ethyltoluene	1.09	218	21.8	4.36		0.109	0.218	0.545	1.09	5.45	27.3	54.5	109
4-Ethyltoluene	1.09	218	21.8	4.36		0.109	0.218	0.545	1.09	5.45	27.3	54.5	109
1,3,5-Trimethylbenzene	1.09	218	21.8	4.36		0.109	0.218	0.545	1.09	5.45	27.3	54.5	109
alpha-Methylstyrene	1.07	214	21.4	4.28		0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
2-Ethyltoluene	1.05	210	21.0	4.20		0.105	0.210	0.525	1.05	5.25	26.3	52.5	105
1,2,4-Trimethylbenzene	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
n-Decane	1.08	216	21.6	4.32		0.108	0.216	0.540	1.08	5.40	27.0	54.0	108
Benzyl Chloride	1.10	220	22.0	4.40		0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
1,3-Dichlorobenzene	1.09	218	21.8	4.36		0.109	0.218	0.545	1.09	5.45	27.3	54.5	109
1,4-Dichlorobenzene	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
sec-Butylbenzene	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
p-Isopropyltoluene	1.03	206	20.6	4.12		0.103	0.206	0.515	1.03	5.15	25.8	51.5	103
1,2,3-Trimethylbenzene	1.07	214	21.4	4.28		0.107	0.214	0.535	1.07	5.35	26.8	53.5	107
1,2-Dichlorobenzene	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
d-Limonene	1.09	218	21.8	4.36		0.109	0.218	0.545	1.09	5.45	27.3	54.5	109
chloropropane	1.10	220	22.0	4.40		0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
n-Undecane	1.09	218	21.8	4.36		0.109	0.218	0.545	1.09	5.45	27.3	54.5	109
1,2,4-Trichlorobenzene	1.12	224	22.4	4.48		0.112	0.224	0.560	1.12	5.60	28.0	56.0	112
Naphthalene	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
n-Dodecane	0.99	198	19.8	3.96		0.099	0.198	0.495	0.990	4.95	24.8	49.5	99.0
Hexachloro-1,3-butadiene	1.10	220	22.0	4.40		0.110	0.220	0.550	1.10	5.50	27.5	55.0	110
Methacrylonitrile	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
Cyclohexanone	0.98	196	19.6	3.92		0.098	0.196	0.490	0.980	4.90	24.5	49.0	98.0
tert-Butylbenzene	1.06	212	21.2	4.24		0.106	0.212	0.530	1.06	5.30	26.5	53.0	106
n-Butylbenzene	1.09	218	21.8	4.36		0.109	0.218	0.545	1.09	5.45	27.3	54.5	109

*Enter Information in the Solid Shaded Areas ONLY.

VM 8/31/09

CC
8-31-09

Calibration Status Report GCMS13

Method Path : J:\MS13\METHODS\
Method File : R13082709.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Fri Aug 28 06:02:46 2009
Response Via : Initial Calibration

#	ID	Conc	ISTD Conc	Path\File
1	0.1	0	25	J:\MS13\DATA\2009_08\27\08270906.D
2	0.2	0	25	J:\MS13\DATA\2009_08\27\08270907.D
3	0.5	1	25	J:\MS13\DATA\2009_08\27\08270908.D
4	1.0	1	25	J:\MS13\DATA\2009_08\27\08270909.D
5	5.0	5	25	J:\MS13\DATA\2009_08\27\08270910.D
6	25	27	25	J:\MS13\DATA\2009_08\27\08270911.D
7	50	54	25	J:\MS13\DATA\2009_08\27\08270912.D
8	100	107	25	J:\MS13\DATA\2009_08\27\08270913.D

#	ID	Update Time	Quant Time	Acquisition Time
1	0.1	Aug 28 05:59 2009	Aug 27 20:42 2009	27 Aug 2009 15:31
2	0.2	Aug 28 06:00 2009	Aug 27 20:45 2009	27 Aug 2009 16:11
3	0.5	Aug 28 06:00 2009	Aug 28 05:44 2009	27 Aug 2009 16:52
4	1.0	Aug 28 06:00 2009	Aug 28 05:46 2009	27 Aug 2009 17:32
5	5.0	Aug 28 06:01 2009	Aug 28 05:49 2009	27 Aug 2009 18:13
6	25	Aug 28 06:01 2009	Aug 28 05:51 2009	27 Aug 2009 18:53
7	50	Aug 28 06:01 2009	Aug 28 05:54 2009	27 Aug 2009 19:34
8	100	Aug 28 06:02 2009	Aug 28 05:57 2009	27 Aug 2009 20:14

R13082709.M Fri Aug 28 06:14:23 2009

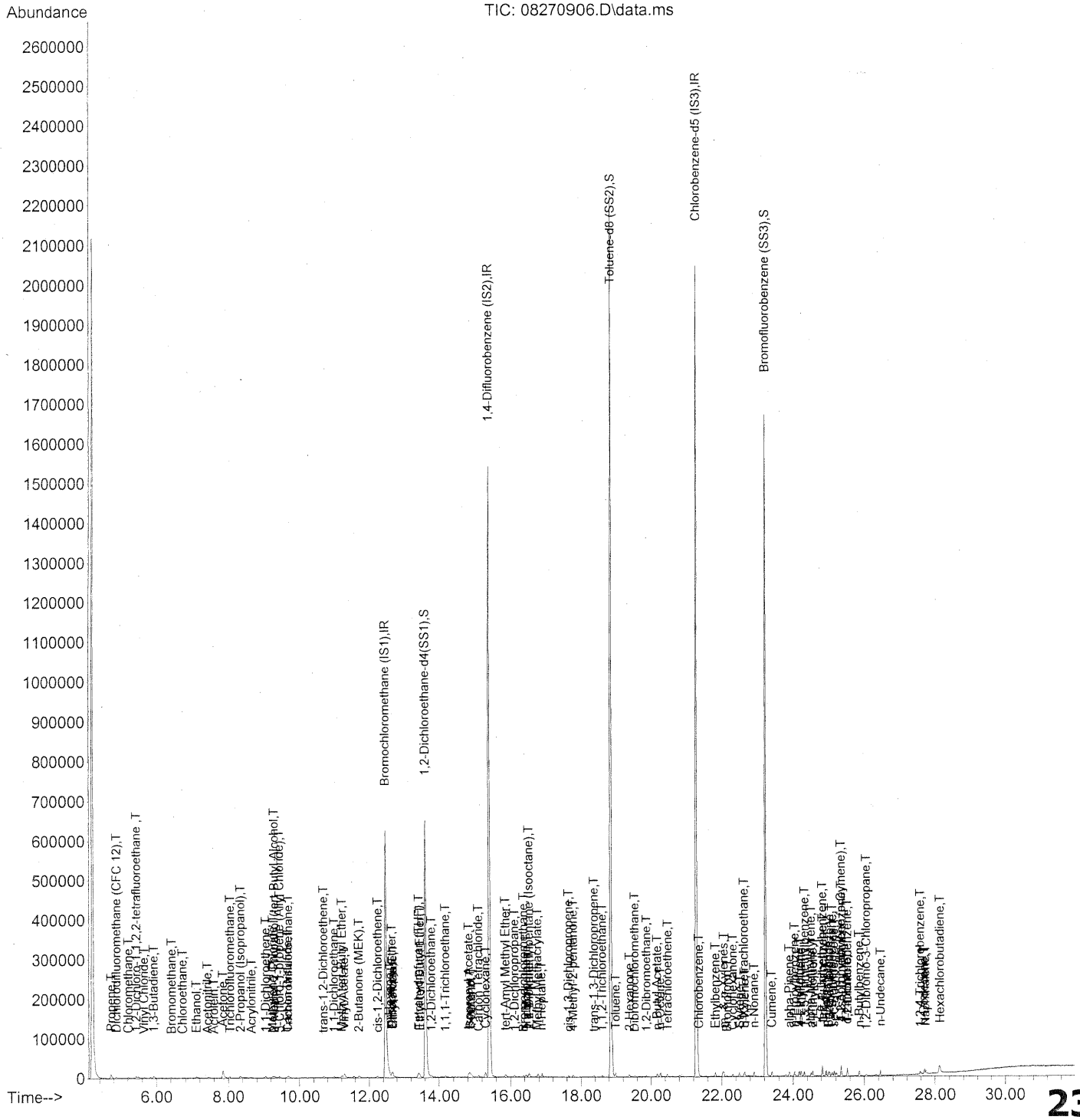
MS 8/28/09

CC 8/28/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270906.D
Acq On : 27 Aug 2009 15:31
Operator : WA/CC
Sample : 0.1ng TO-15 ICAL
Misc : S20-08140906/S20-08240906
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 27 20:42:53 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270906.D
Acq On : 27 Aug 2009 15:31
Operator : WA/CC
Sample : 0.1ng TO-15 ICAL
Misc : S20-08140906/S20-08240906
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 27 20:42:53 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration

VM 8/28/09
CC 8/28/09

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.47	130	345606	25.000	ng		-0.01
37) 1,4-Difluorobenzene (IS2)	15.41	114	1747755	25.000	ng		-0.01
56) Chlorobenzene-d5 (IS3)	21.28	82	850515	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.62	65	691489	23.020	ng		-0.01
Spiked Amount 25.000			Recovery =	92.08%			✓
57) Toluene-d8 (SS2)	18.85	98	1893630	25.481	ng		0.00
Spiked Amount 25.000			Recovery =	101.92%			✓
73) Bromofluorobenzene (SS3)	23.23	174	541883	27.650	ng		0.00
Spiked Amount 25.000			Recovery =	110.60%			✓
Target Compounds							Qvalue
2) Propene	4.72	42	3295	0.139	ng		98
3) Dichlorodifluoromethan...	4.88	85	5608	0.145	ng	#	88
4) Chloromethane	5.21	50	3123	0.120	ng		74
5) 1,2-Dichloro-1,1,2,2-t...	5.43	135	2097	0.133	ng		73
6) Vinyl Chloride	5.65	62	2864	0.114	ng	#	49
7) 1,3-Butadiene	5.92	54	2790	0.156	ng		90
8) Bromomethane	6.42	94	1602	0.105	ng	#	59
9) Chloroethane	6.72	64	1545	0.106	ng		76
10) Ethanol	7.10	45	8140	0.541	ng	#	66
11) Acetonitrile	7.42	41	5415	0.123	ng	#	25
12) Acrolein	7.59	56	602	0.053	ng	#	54
13) Acetone	7.85	58	11708	0.825	ng		95
14) Trichlorofluoromethane	8.05	101	4087	0.117	ng		98
15) 2-Propanol (Isopropanol)	8.34	45	14347	0.257	ng		80
16) Acrylonitrile	8.65	53	2460	0.096	ng	#	9
17) 1,1-Dichloroethene	9.05	96	2161	0.133	ng	#	84
18) 2-Methyl-2-Propanol (t...	9.29	59	11481m	0.232	ng		
19) Methylene Chloride	9.25	84	2386	0.125	ng		97
20) 3-Chloro-1-propene (Al...	9.43	41	3765	0.103	ng		84
21) Trichlorotrifluoroethane	9.68	151	1561	0.123	ng	#	1
22) Carbon Disulfide	9.66	76	8161	0.122	ng		84
23) trans-1,2-Dichloroethene	10.68	61	2887	0.100	ng		78
24) 1,1-Dichloroethane	10.98	63	4252	0.122	ng		89
25) Methyl tert-Butyl Ether	11.20	73	6878	0.128	ng		93
26) Vinyl Acetate	11.27	86	1953	0.677	ng	#	30
27) 2-Butanone (MEK)	11.70	72	1572	0.123	ng	#	87
28) cis-1,2-Dichloroethene	12.24	61	2964	0.111	ng		80
29) Diisopropyl Ether	12.66	87	1889	0.110	ng	#	6
30) Ethyl Acetate	12.69	61	1319	0.198	ng		97
31) n-Hexane	12.58	57	4251	0.125	ng		76

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270906.D
Acq On : 27 Aug 2009 15:31
Operator : WA/CC
Sample : 0.1ng TO-15 ICAL
Misc : S20-08140906/S20-08240906
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 27 20:42:53 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.68	83	3877	0.129	ng		93
34) Tetrahydrofuran (THF)	13.42	72	4140	0.303	ng	#	86
35) Ethyl tert-Butyl Ether	13.46	87	2258	0.102	ng	#	76
36) 1,2-Dichloroethane	13.78	62	3463	0.126	ng		87
38) 1,1,1-Trichloroethane	14.17	97	3520	0.119	ng		82
39) Isopropyl Acetate	14.83	61	2853	0.220	ng	#	58
40) 1-Butanol	14.91	56	5004	0.221	ng	#	39
41) Benzene	14.87	78	10112	0.132	ng		94
42) Carbon Tetrachloride	15.10	117	2971	0.121	ng		85
43) Cyclohexane	15.30	84	6910	0.246	ng		95
44) tert-Amyl Methyl Ether	15.86	73	7323	0.127	ng		94
45) 1,2-Dichloropropane	16.11	63	2060	0.107	ng		93
46) Bromodichloromethane	16.37	83	3004	0.119	ng		93
47) Trichloroethene	16.44	130	2040	0.118	ng		97
48) 1,4-Dioxane	16.52	88	1375	0.094	ng		79
49) 2,2,4-Trimethylpentane...	16.52	57	10591	0.117	ng		96
50) Methyl Methacrylate	16.76	100	1493	0.211	ng		93
51) n-Heptane	16.87	71	2136	0.104	ng		83
52) cis-1,3-Dichloropropene	17.65	75	3093	0.097	ng		99
53) 4-Methyl-2-pentanone	17.77	58	2022	0.109	ng		87
54) trans-1,3-Dichloropropene	18.36	75	3156	0.104	ng		91
55) 1,1,2-Trichloroethane	18.59	97	2137	0.127	ng		86
58) Toluene	18.98	91	9590	0.131	ng		98
59) 2-Hexanone	19.38	43	6099	0.126	ng		87
60) Dibromochloromethane	19.52	129	2164	0.125	ng		98
61) 1,2-Dibromoethane	19.86	107	2135	0.117	ng		97
62) n-Butyl Acetate	20.17	43	6315	0.110	ng	#	82
63) n-Octane	20.26	57	2279	0.129	ng		94
64) Tetrachloroethene	20.47	166	2055	0.122	ng		96
65) Chlorobenzene	21.35	112	5957	0.132	ng		97
66) Ethylbenzene	21.82	91	10455	0.125	ng		100
67) m- & p-Xylenes	22.05	91	16072	0.238	ng		99
68) Bromoform	22.14	173	1723	0.120	ng		71
69) Styrene	22.51	104	5939	0.122	ng		95
70) o-Xylene	22.65	91	7925	0.117	ng		93
71) n-Nonane	22.91	43	5083	0.113	ng	#	77
72) 1,1,2,2-Tetrachloroethane	22.62	83	3696	0.123	ng		98
74) Cumene	23.40	105	10070	0.118	ng		99
75) alpha-Pinene	23.90	93	5243	0.120	ng		80
76) n-Propylbenzene	24.05	91	13198	0.123	ng		94
77) 3-Ethyltoluene	24.17	105	10566	0.129	ng		98
78) 4-Ethyltoluene	24.22	105	10439	0.132	ng		99
79) 1,3,5-Trimethylbenzene	24.32	105	8293	0.124	ng		98

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270906.D
Acq On : 27 Aug 2009 15:31
Operator : WA/CC
Sample : 0.1ng TO-15 ICAL
Misc : S20-08140906/S20-08240906
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 27 20:42:53 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration

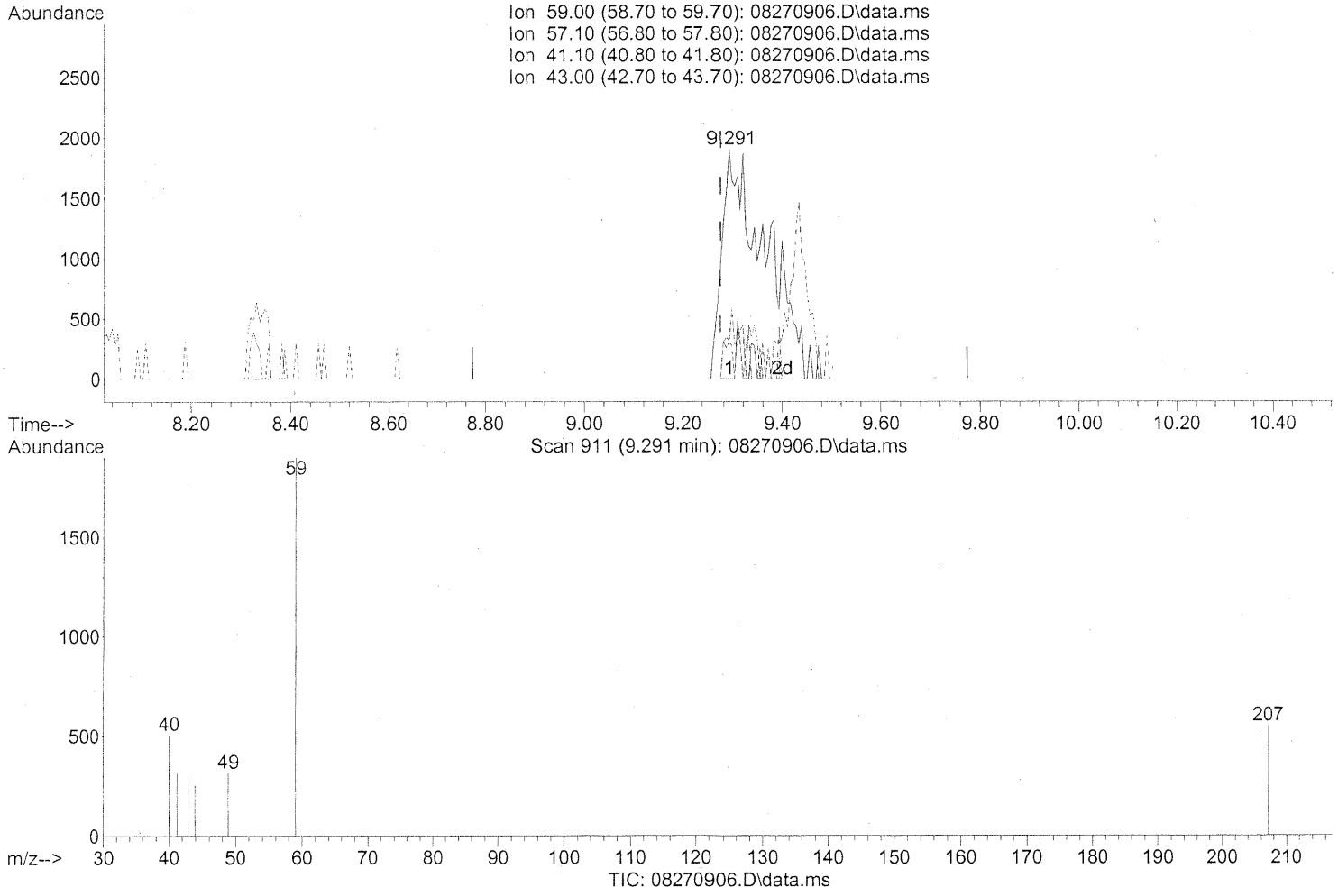
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.50	118	3476	0.097	ng		94
81) 2-Ethyltoluene	24.56	105	10184	0.124	ng		94
82) 1,2,4-Trimethylbenzene	24.82	105	8179	0.120	ng		97
83) n-Decane	24.93	57	5026	0.113	ng		95
84) Benzyl Chloride	25.00	91	8718	0.137	ng		96
85) 1,3-Dichlorobenzene	25.03	146	4903	0.142	ng		95
86) 1,4-Dichlorobenzene	25.10	146	4624	0.126	ng		96
87) sec-Butylbenzene	25.15	105	11109	0.121	ng		97
88) 4-Isopropyltoluene (p-...	25.35	119	9355	0.114	ng		96
89) 1,2,3-Trimethylbenzene	25.35	105	8824	0.127	ng		99
90) 1,2-Dichlorobenzene	25.53	146	3966	0.121	ng		94
91) d-Limonene	25.52	68	2775	0.096	ng		82
92) 1,2-Dibromo-3-Chloropr...	26.06	157	1212	0.108	ng	#	70
93) n-Undecane	26.46	57	4933	0.105	ng		95
94) 1,2,4-Trichlorobenzene	27.58	180	2671	0.119	ng		95
95) Naphthalene	27.73	128	10587	0.114	ng		98
96) n-Dodecane	27.69	57	4925	0.090	ng		94
97) Hexachlorobutadiene	28.14	225	1714	0.120	ng		88
98) Cyclohexanone	22.32	55	3365	0.111	ng		96
99) tert-Butylbenzene	24.83	119	7717	0.117	ng		96
100) n-Butylbenzene	25.86	91	8734	0.115	ng		99

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

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270906.D
Acq On : 27 Aug 2009 15:31
Operator : WA/CC
Sample : 0.1ng TO-15 ICAL
Misc : S20-08140906/S20-08240906
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 27 20:40:49 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration



(18) 2-Methyl-2-Propanol (tert-Butyl Alcohol (T)

SP

9.291min (+0.017) 0.20ng

response 9815

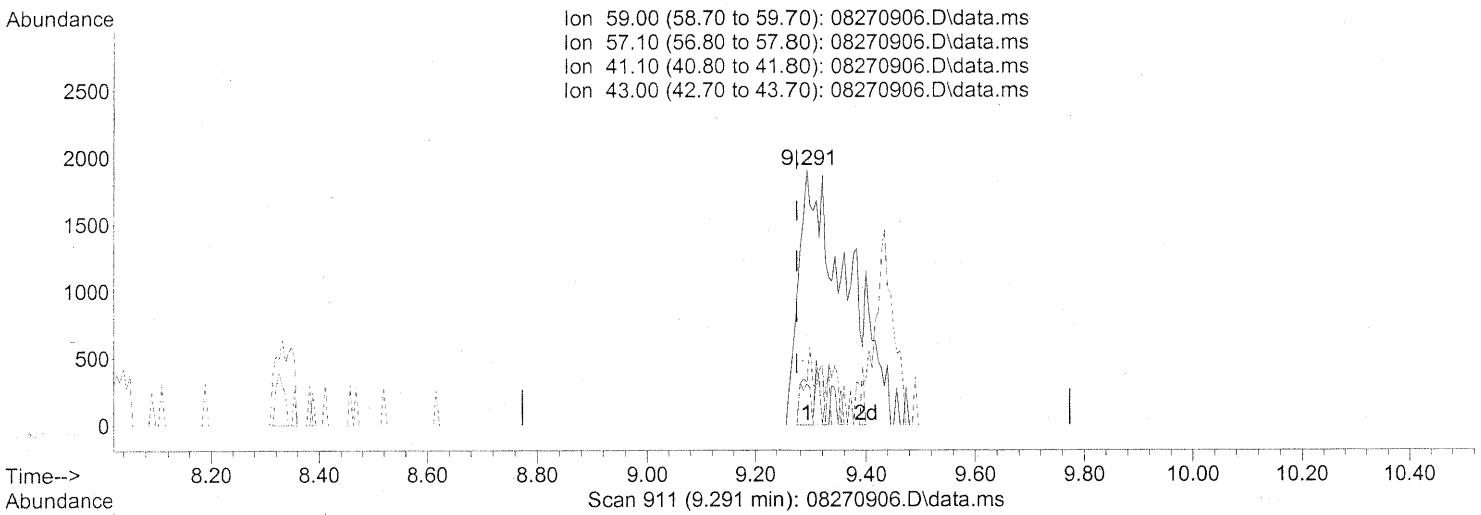
Ion	Exp%	Act%
59.00	100	100
57.10	10.20	2.84
41.10	20.40	10.37
43.00	14.90	2.64

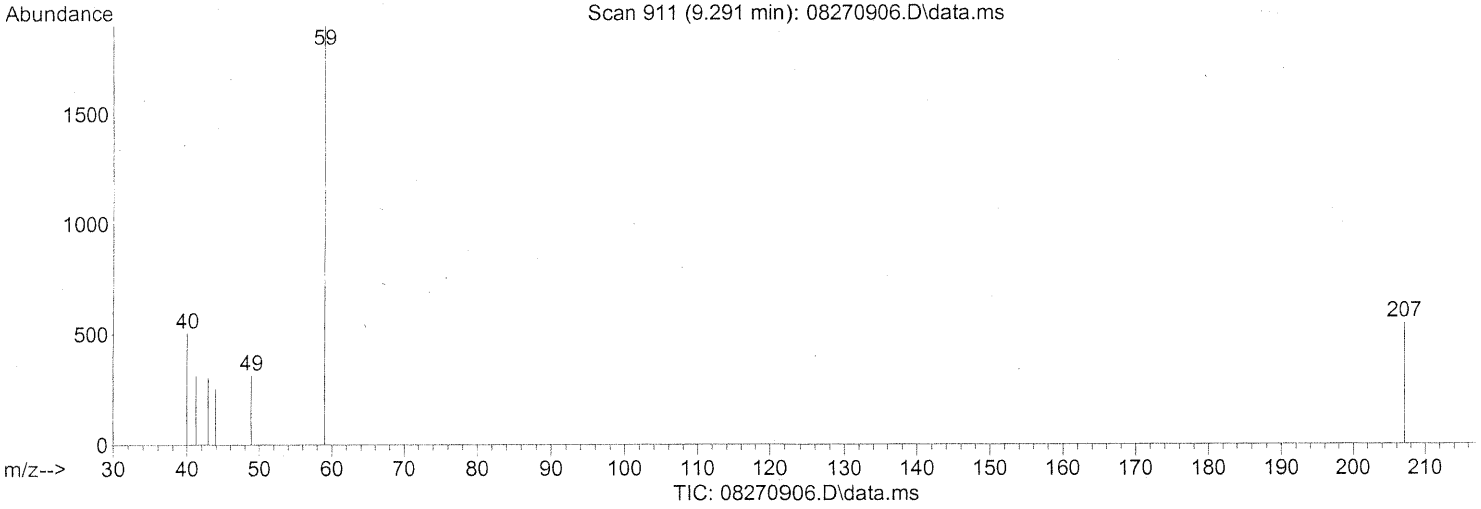
242

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270906.D
Acq On : 27 Aug 2009 15:31
Operator : WA/CC
Sample : 0.1ng TO-15 ICAL
Misc : S20-08140906/S20-08240906
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 27 20:40:49 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration





TIC: 08270906.D\data.ms

(18) 2-Methyl-2-Propanol (tert-Butyl Alcohol (T)

9.291min (+0.017) 0.23ng m

response 11481

Ion	Exp%	Act%
59.00	100	100
57.10	10.20	2.43
41.10	20.40	8.87
43.00	14.90	2.26

SP → IC
LM 8/28/09

CC 8/28/09

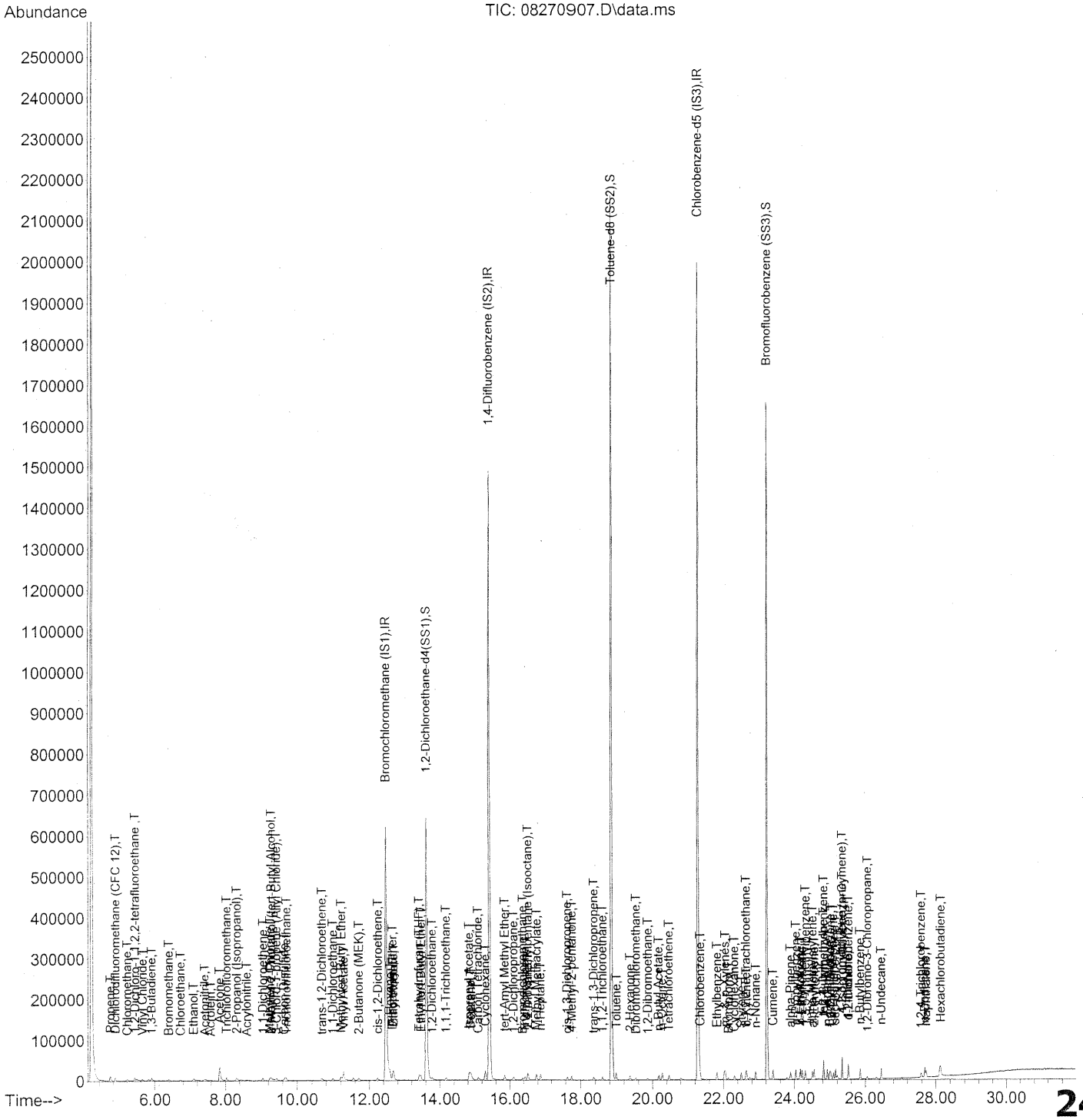
R 8/31/09

243

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270907.D
Acq On : 27 Aug 2009 16:11
Operator : WA/CC
Sample : 0.2ng TO-15 ICAL
Misc : S20-08140906/S20-08240906
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 27 20:45:29 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270907.D
Acq On : 27 Aug 2009 16:11
Operator : WA/CC
Sample : 0.2ng TO-15 ICAL
Misc : S20-08140906/S20-08240906
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 27 20:45:29 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration

VM 8/28/09
CC 8/28/09

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.47	130	340975	25.000	ng		-0.01
37) 1,4-Difluorobenzene (IS2)	15.41	114	1701721	25.000	ng		-0.01
56) Chlorobenzene-d5 (IS3)	21.28	82	833637	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.62	65	685827	23.141	ng		-0.01
Spiked Amount 25.000			Recovery =	92.56%			✓
57) Toluene-d8 (SS2)	18.85	98	1859118	25.523	ng		0.00 ✓
Spiked Amount 25.000			Recovery =	102.08%			
73) Bromofluorobenzene (SS3)	23.23	174	534463	27.823	ng		0.00 ✓
Spiked Amount 25.000			Recovery =	111.28%			
Target Compounds							Qvalue
2) Propene	4.72	42	5160	0.221	ng		95
3) Dichlorodifluoromethan...	4.87	85	9386	0.245	ng		94
4) Chloromethane	5.20	50	5755	0.224	ng		93
5) 1,2-Dichloro-1,1,2,2-t...	5.43	135	3928	0.253	ng		90
6) Vinyl Chloride	5.64	62	5431	0.220	ng		91
7) 1,3-Butadiene	5.90	54	4492	0.254	ng		93
8) Bromomethane	6.39	94	3059	0.204	ng		82
9) Chloroethane	6.73	64	2955	0.206	ng		81
10) Ethanol	7.10	45	16601	1.119	ng		91
11) Acetonitrile	7.42	41	9487	0.218	ng	#	27
12) Acrolein	7.59	56	1475	0.131	ng		92
13) Acetone	7.84	58	20320	1.452	ng		88
14) Trichlorofluoromethane	8.03	101	7617	0.220	ng		100
15) 2-Propanol (Isopropanol)	8.32	45	23522	0.428	ng		83
16) Acrylonitrile	8.60	53	4804	0.190	ng		98
17) 1,1-Dichloroethene	9.05	96	3926	0.245	ng	#	84
18) 2-Methyl-2-Propanol (t...	9.29	59	21583	0.442	ng		89
19) Methylene Chloride	9.25	84	4504	0.240	ng		99
20) 3-Chloro-1-propene (Al...	9.43	41	6623	0.183	ng		87
21) Trichlorotrifluoroethane	9.70	151	3267	0.260	ng		94
22) Carbon Disulfide	9.64	76	14675	0.221	ng		89
23) trans-1,2-Dichloroethene	10.68	61	5119	0.180	ng	#	69
24) 1,1-Dichloroethane	10.98	63	7110	0.206	ng		96
25) Methyl tert-Butyl Ether	11.21	73	11856	0.224	ng		99
26) Vinyl Acetate	11.28	86	3710	1.303	ng	#	58
27) 2-Butanone (MEK)	11.71	72	2463	0.195	ng	#	47
28) cis-1,2-Dichloroethene	12.24	61	5377	0.203	ng	#	75
29) Diisopropyl Ether	12.65	87	3742	0.221	ng	#	19
30) Ethyl Acetate	12.68	61	2340	0.355	ng		87
31) n-Hexane	12.58	57	7647	0.227	ng		93

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270907.D
Acq On : 27 Aug 2009 16:11
Operator : WA/CC
Sample : 0.2ng TO-15 ICAL
Misc : S20-08140906/S20-08240906
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 27 20:45:29 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.68	83	6687	0.226	ng		98
34) Tetrahydrofuran (THF)	13.40	72	5125	0.381	ng		98
35) Ethyl tert-Butyl Ether	13.46	87	4658	0.213	ng		95
36) 1,2-Dichloroethane	13.78	62	5779	0.213	ng		91
38) 1,1,1-Trichloroethane	14.17	97	6372	0.221	ng		98
39) Isopropyl Acetate	14.83	61	4936	0.391	ng	#	55
40) 1-Butanol	14.89	56	9325	0.422	ng	#	45
41) Benzene	14.87	78	17799	0.238	ng		98
42) Carbon Tetrachloride	15.09	117	5161	0.216	ng		96
43) Cyclohexane	15.29	84	12537	0.457	ng		95
44) tert-Amyl Methyl Ether	15.85	73	11885	0.212	ng		96
45) 1,2-Dichloropropane	16.10	63	3944	0.210	ng		91
46) Bromodichloromethane	16.37	83	4951	0.201	ng		100
47) Trichloroethene	16.44	130	4154	0.246	ng		97
48) 1,4-Dioxane	16.53	88	3119	0.218	ng		94
49) 2,2,4-Trimethylpentane...	16.52	57	18593	0.211	ng		99
50) Methyl Methacrylate	16.77	100	2677	0.389	ng		90
51) n-Heptane	16.88	71	4079	0.203	ng		96
52) cis-1,3-Dichloropropene	17.64	75	5760	0.185	ng		98
53) 4-Methyl-2-pentanone	17.76	58	3609	0.201	ng		99
54) trans-1,3-Dichloropropene	18.35	75	6333	0.214	ng		96
55) 1,1,2-Trichloroethane	18.59	97	3778	0.230	ng		92
58) Toluene	18.98	91	17023	0.238	ng		98
59) 2-Hexanone	19.37	43	9868	0.207	ng		99
60) Dibromochloromethane	19.53	129	4235	0.250	ng		95
61) 1,2-Dibromoethane	19.86	107	4153	0.231	ng		100
62) n-Butyl Acetate	20.17	43	11310	0.202	ng		89
63) n-Octane	20.26	57	3664	0.212	ng		97
64) Tetrachloroethene	20.46	166	3957	0.239	ng		96
65) Chlorobenzene	21.34	112	10897	0.246	ng		98
66) Ethylbenzene	21.82	91	18233	0.223	ng		97
67) m- & p-Xylenes	22.05	91	29210	0.441	ng		97
68) Bromoform	22.15	173	3138	0.223	ng		95
69) Styrene	22.51	104	10416	0.218	ng		98
70) o-Xylene	22.65	91	14247	0.215	ng		99
71) n-Nonane	22.91	43	9314	0.211	ng		93
72) 1,1,2,2-Tetrachloroethane	22.63	83	6695	0.227	ng		94
74) Cumene	23.40	105	18142	0.216	ng		99
75) alpha-Pinene	23.90	93	9293	0.216	ng		89
76) n-Propylbenzene	24.05	91	22743	0.216	ng		97
77) 3-Ethyltoluene	24.17	105	17686	0.221	ng		98
78) 4-Ethyltoluene	24.22	105	17956	0.231	ng		93
79) 1,3,5-Trimethylbenzene	24.31	105	14932	0.228	ng		94

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270907.D
Acq On : 27 Aug 2009 16:11
Operator : WA/CC
Sample : 0.2ng TO-15 ICAL
Misc : S20-08140906/S20-08240906
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 27 20:45:29 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration

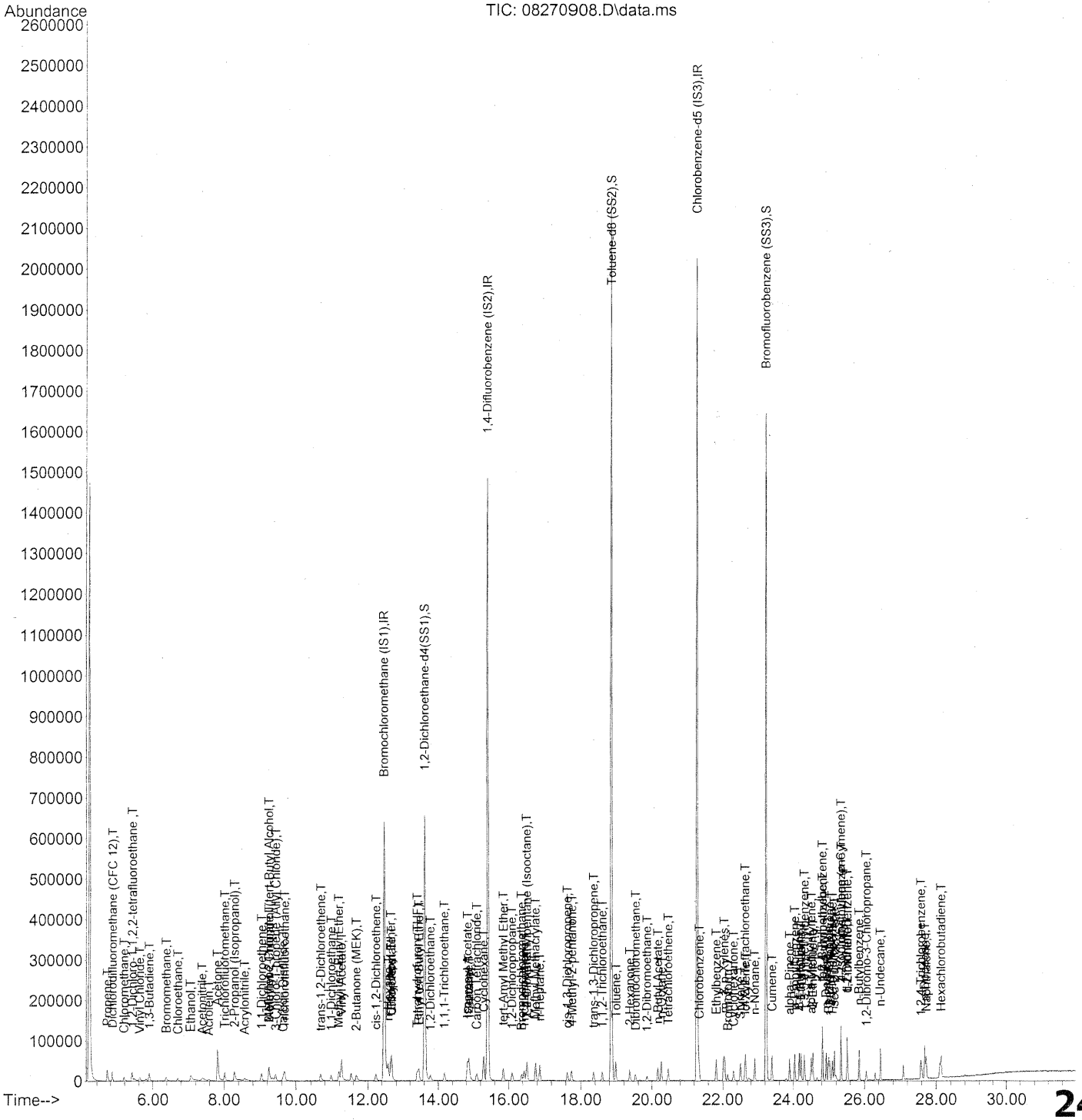
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
80) alpha-Methylstyrene	24.51	118	7003	0.200	ng		99
81) 2-Ethyltoluene	24.56	105	17935	0.222	ng		97
82) 1,2,4-Trimethylbenzene	24.82	105	14553	0.218	ng		100
83) n-Decane	24.93	57	8758	0.202	ng		94
84) Benzyl Chloride	25.00	91	14670	0.234	ng		96
85) 1,3-Dichlorobenzene	25.02	146	7963	0.236	ng		96
86) 1,4-Dichlorobenzene	25.10	146	8150	0.226	ng		93
87) sec-Butylbenzene	25.15	105	20362	0.226	ng		96
88) 4-Isopropyltoluene (p-...	25.35	119	17804	0.221	ng		95
89) 1,2,3-Trimethylbenzene	25.35	105	16408	0.241	ng		94
90) 1,2-Dichlorobenzene	25.53	146	7447	0.232	ng		99
91) d-Limonene	25.53	68	6028	0.212	ng		92
92) 1,2-Dibromo-3-Chloropr...	26.06	157	2189	0.199	ng	#	82
93) n-Undecane	26.45	57	8949	0.194	ng		98
94) 1,2,4-Trichlorobenzene	27.58	180	4448	0.202	ng		91
95) Naphthalene	27.73	128	18518	0.204	ng		98
96) n-Dodecane	27.69	57	9509	0.177	ng		97
97) Hexachlorobutadiene	28.14	225	3188	0.228	ng		99
98) Cyclohexanone	22.31	55	5589	0.188	ng		94
99) tert-Butylbenzene	24.82	119	14229	0.220	ng		97
100) n-Butylbenzene	25.86	91	16229	0.218	ng		98

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

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270908.D
Acq On : 27 Aug 2009 16:52
Operator : WA/CC
Sample : 0.5ng TO-15 ICAL
Misc : S20-08140906/S20-07310904
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:44:03 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270908.D
Acq On : 27 Aug 2009 16:52
Operator : WA/CC
Sample : 0.5ng TO-15 ICAL
Misc : S20-08140906/S20-07310904
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:44:03 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration

VM 8/28/09
CC 8/28/09

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.47	130	345051	25.000	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	15.41	114	1706332	25.000	ng		-0.01
56) Chlorobenzene-d5 (IS3)	21.28	82	833135	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.61	65	689482	22.990	ng		-0.02
Spiked Amount 25.000			Recovery =	91.96%			✓
57) Toluene-d8 (SS2)	18.85	98	1851026	25.427	ng		0.00
Spiked Amount 25.000			Recovery =	101.72%			✓
73) Bromofluorobenzene (SS3)	23.23	174	534967	27.866	ng		0.00
Spiked Amount 25.000			Recovery =	111.48%			✓
Target Compounds							Qvalue
2) Propene	4.70	42	12619	0.533	ng		97
3) Dichlorodifluoromethan...	4.86	85	24316	0.628	ng		99
4) Chloromethane	5.18	50	15225	0.586	ng		99
5) 1,2-Dichloro-1,1,2,2-t...	5.42	135	9302	0.592	ng		97
6) Vinyl Chloride	5.62	62	13528	0.542	ng		96
7) 1,3-Butadiene	5.90	54	11921	0.666	ng		94
8) Bromomethane	6.38	94	9283	0.610	ng		97
9) Chloroethane	6.71	64	7657	0.527	ng		98
10) Ethanol	7.06	45	42023m	2.800	ng		
11) Acetonitrile	7.39	41	22509	0.512	ng		98
12) Acrolein	7.58	56	5829	0.510	ng		89
13) Acetone	7.82	58	45815	3.235	ng		96
14) Trichlorofluoromethane	8.02	101	21625	0.618	ng		92
15) 2-Propanol (Isopropanol)	8.29	45	61189	1.100	ng		90
16) Acrylonitrile	8.57	53	13383	0.523	ng		91
17) 1,1-Dichloroethene	9.04	96	10592	0.652	ng		88
18) 2-Methyl-2-Propanol (t...	9.24	59	54672	1.107	ng		92
19) Methylene Chloride	9.24	84	11486	0.604	ng		94
20) 3-Chloro-1-propene (Al...	9.43	41	16557	0.452	ng		93
21) Trichlorotrifluoroethane	9.68	151	9319	0.733	ng	#	83
22) Carbon Disulfide	9.63	76	39699	0.592	ng		98
23) trans-1,2-Dichloroethene	10.68	61	15719	0.547	ng		90
24) 1,1-Dichloroethane	10.98	63	19419	0.557	ng		99
25) Methyl tert-Butyl Ether	11.19	73	31441	0.587	ng		99
26) Vinyl Acetate	11.27	86	10642	3.693	ng	#	86
27) 2-Butanone (MEK)	11.68	72	6992	0.547	ng	#	81
28) cis-1,2-Dichloroethene	12.23	61	15924	0.595	ng		93
29) Diisopropyl Ether	12.65	87	10676	0.624	ng	#	23
30) Ethyl Acetate	12.67	61	7755	1.164	ng		93
31) n-Hexane	12.58	57	19007	0.558	ng		88

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270908.D
Acq On : 27 Aug 2009 16:52
Operator : WA/CC
Sample : 0.5ng TO-15 ICAL
Misc : S20-08140906/S20-07310904
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:44:03 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.68	83	19170	0.639	ng		99
34) Tetrahydrofuran (THF)	13.40	72	9447	0.693	ng		94
35) Ethyl tert-Butyl Ether	13.45	87	12406	0.560	ng		98
36) 1,2-Dichloroethane	13.78	62	15180	0.554	ng		100
38) 1,1,1-Trichloroethane	14.17	97	17572	0.607	ng		98
39) Isopropyl Acetate	14.83	61	13901	1.098	ng	#	68
40) 1-Butanol	14.88	56	21001	0.948	ng	#	1
41) Benzene	14.87	78	45429	0.606	ng		98
42) Carbon Tetrachloride	15.09	117	15004	0.628	ng		99
43) Cyclohexane	15.29	84	33280	1.211	ng		94
44) tert-Amyl Methyl Ether	15.85	73	33208	0.589	ng		97
45) 1,2-Dichloropropane	16.09	63	10583	0.562	ng		98
46) Bromodichloromethane	16.37	83	14579	0.590	ng		95
47) Trichloroethene	16.44	130	10279	0.607	ng		99
48) 1,4-Dioxane	16.51	88	9005	0.628	ng		98
49) 2,2,4-Trimethylpentane...	16.51	57	50304	0.569	ng		99
50) Methyl Methacrylate	16.76	100	7723	1.118	ng		98
51) n-Heptane	16.88	71	11807	0.586	ng		96
52) cis-1,3-Dichloropropene	17.65	75	16791	0.538	ng		99
53) 4-Methyl-2-pentanone	17.76	58	9904	0.549	ng		93
54) trans-1,3-Dichloropropene	18.36	75	17249	0.581	ng		98
55) 1,1,2-Trichloroethane	18.59	97	10107	0.614	ng		97
58) Toluene	18.98	91	44023	0.615	ng		97
59) 2-Hexanone	19.36	43	26209	0.551	ng		100
60) Dibromochloromethane	19.53	129	12008	0.709	ng		97
61) 1,2-Dibromoethane	19.86	107	11379	0.634	ng		96
62) n-Butyl Acetate	20.17	43	30526	0.544	ng		94
63) n-Octane	20.28	57	10325	0.597	ng		99
64) Tetrachloroethene	20.46	166	10600	0.640	ng		99
65) Chlorobenzene	21.34	112	28918	0.653	ng		100
66) Ethylbenzene	21.82	91	50554	0.618	ng		99
67) m- & p-Xylenes	22.04	91	78614	1.188	ng		99
68) Bromoform	22.14	173	8209	0.584	ng		99
69) Styrene	22.50	104	27564	0.576	ng		98
70) o-Xylene	22.65	91	40245	0.607	ng		99
71) n-Nonane	22.91	43	24499	0.556	ng		99
72) 1,1,2,2-Tetrachloroethane	22.63	83	19021	0.646	ng		96
74) Cumene	23.41	105	48639	0.580	ng		99
75) alpha-Pinene	23.90	93	24559	0.572	ng		99
76) n-Propylbenzene	24.05	91	62613	0.594	ng		98
77) 3-Ethyltoluene	24.17	105	48379	0.604	ng		100
78) 4-Ethyltoluene	24.23	105	49300	0.635	ng		98
79) 1,3,5-Trimethylbenzene	24.31	105	39271	0.600	ng		98

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270908.D
Acq On : 27 Aug 2009 16:52
Operator : WA/CC
Sample : 0.5ng TO-15 ICAL
Misc : S20-08140906/S20-07310904
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:44:03 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration

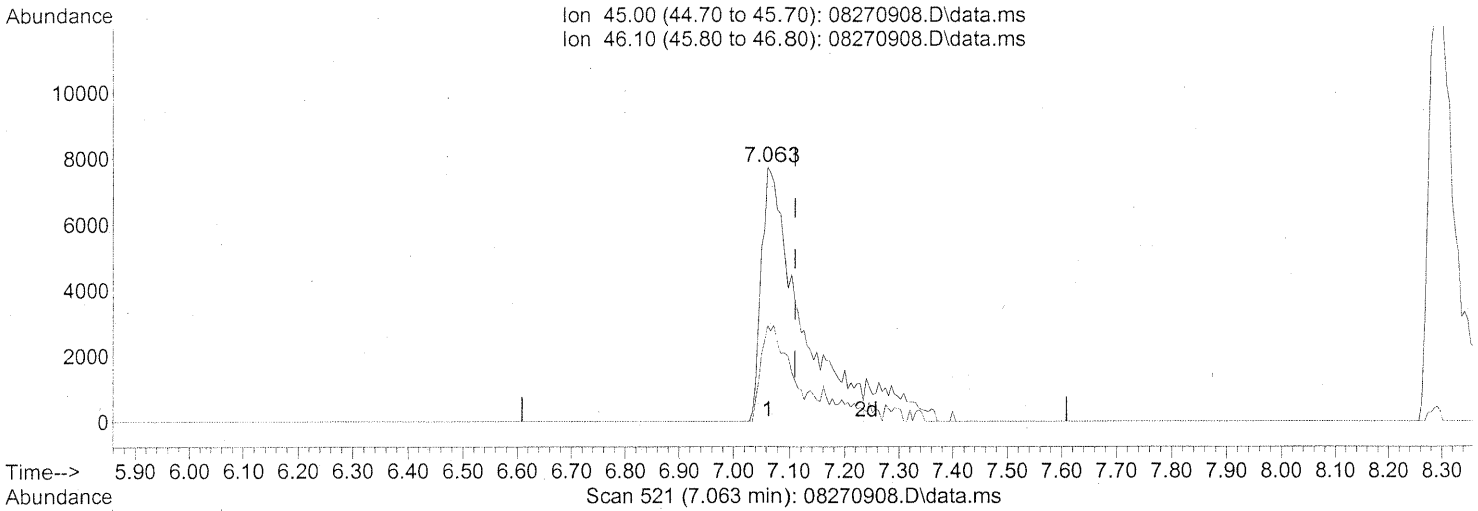
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.51	118	20092	0.573	ng	95
81) 2-Ethyltoluene	24.55	105	48257	0.598	ng	98
82) 1,2,4-Trimethylbenzene	24.82	105	40343	0.605	ng	95
83) n-Decane	24.93	57	25406	0.586	ng	99
84) Benzyl Chloride	25.00	91	40338	0.645	ng	96
85) 1,3-Dichlorobenzene	25.02	146	22095	0.654	ng	98
86) 1,4-Dichlorobenzene	25.10	146	22724	0.631	ng	94
87) sec-Butylbenzene	25.16	105	55697	0.618	ng	98
88) 4-Isopropyltoluene (p-...	25.35	119	49417	0.615	ng	97
89) 1,2,3-Trimethylbenzene	25.35	105	43348	0.638	ng	99
90) 1,2-Dichlorobenzene	25.52	146	20727	0.647	ng	100
91) d-Limonene	25.53	68	16073	0.566	ng	94
92) 1,2-Dibromo-3-Chloropr...	26.06	157	6665	0.605	ng	83
93) n-Undecane	26.45	57	26484	0.574	ng	98
94) 1,2,4-Trichlorobenzene	27.59	180	15009	0.682	ng	98
95) Naphthalene	27.73	128	54474	0.601	ng	98
96) n-Dodecane	27.69	57	28561	0.533	ng	99
97) Hexachlorobutadiene	28.14	225	8673	0.619	ng	98
98) Cyclohexanone	22.30	55	14301	0.482	ng	97
99) tert-Butylbenzene	24.82	119	40141	0.621	ng	100
100) n-Butylbenzene	25.86	91	47669	0.641	ng	98

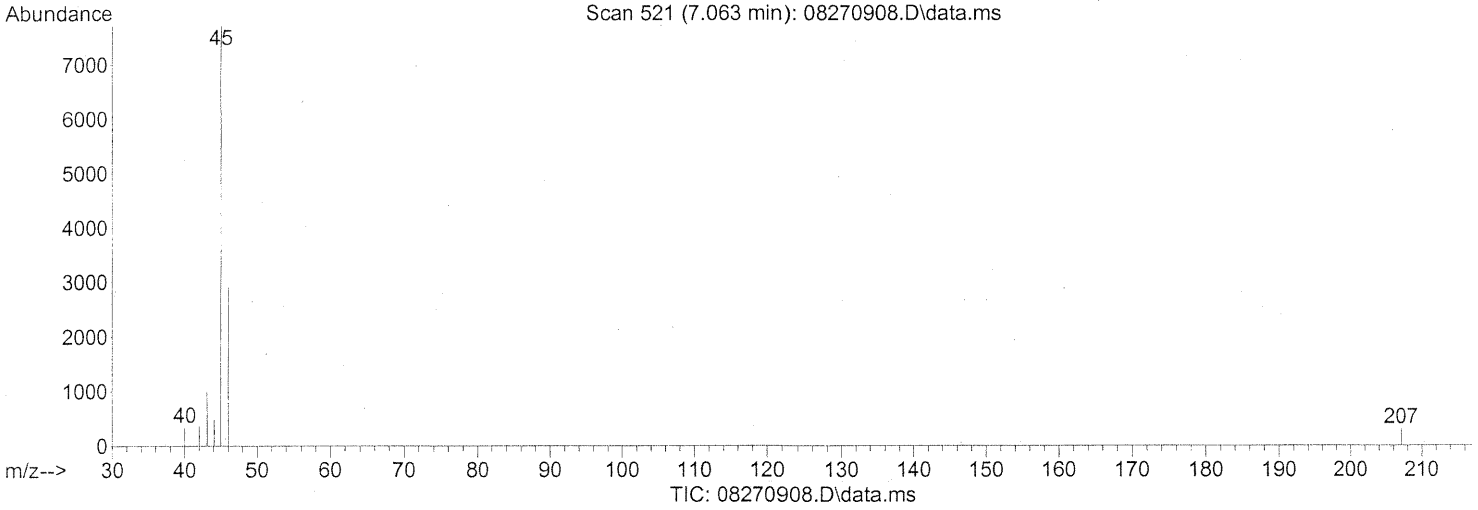
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270908.D
Acq On : 27 Aug 2009 16:52
Operator : WA/CC
Sample : 0.5ng TO-15 ICAL
Misc : S20-08140906/S20-07310904
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:43:23 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration





TIC: 08270908.D\data.ms

(10) Ethanol (T)

7.063min (-0.046) 2.42ng

response 36361

PT

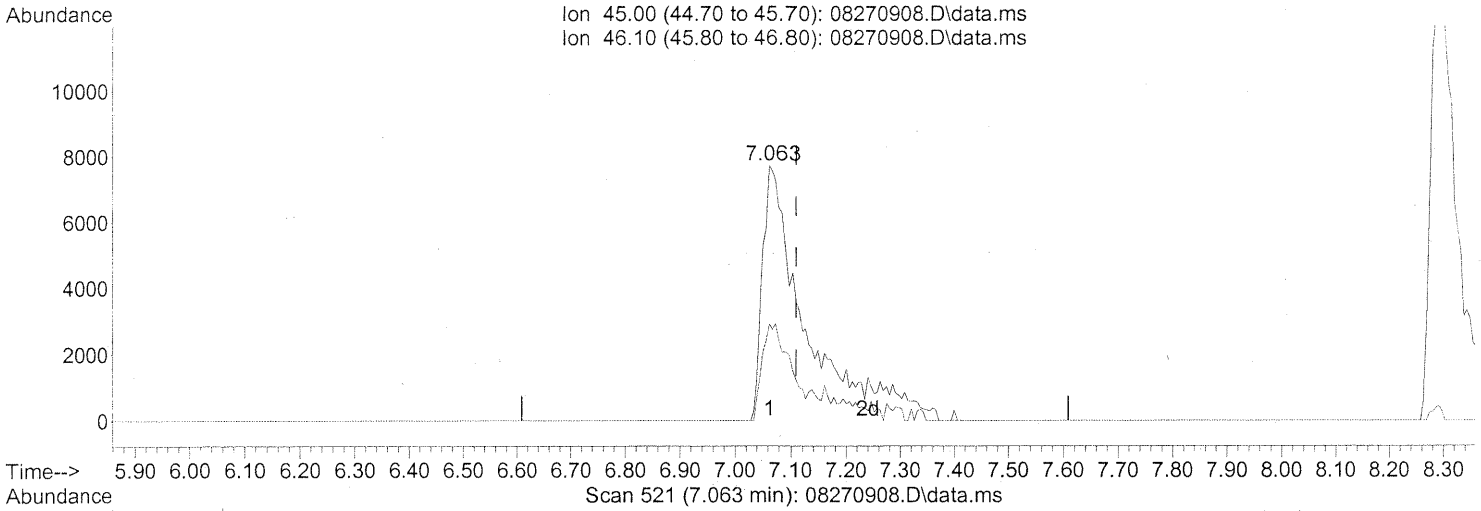
Ion	Exp%	Act%
45.00	100	100
46.10	38.20	30.77
0.00	0.00	0.00
0.00	0.00	0.00

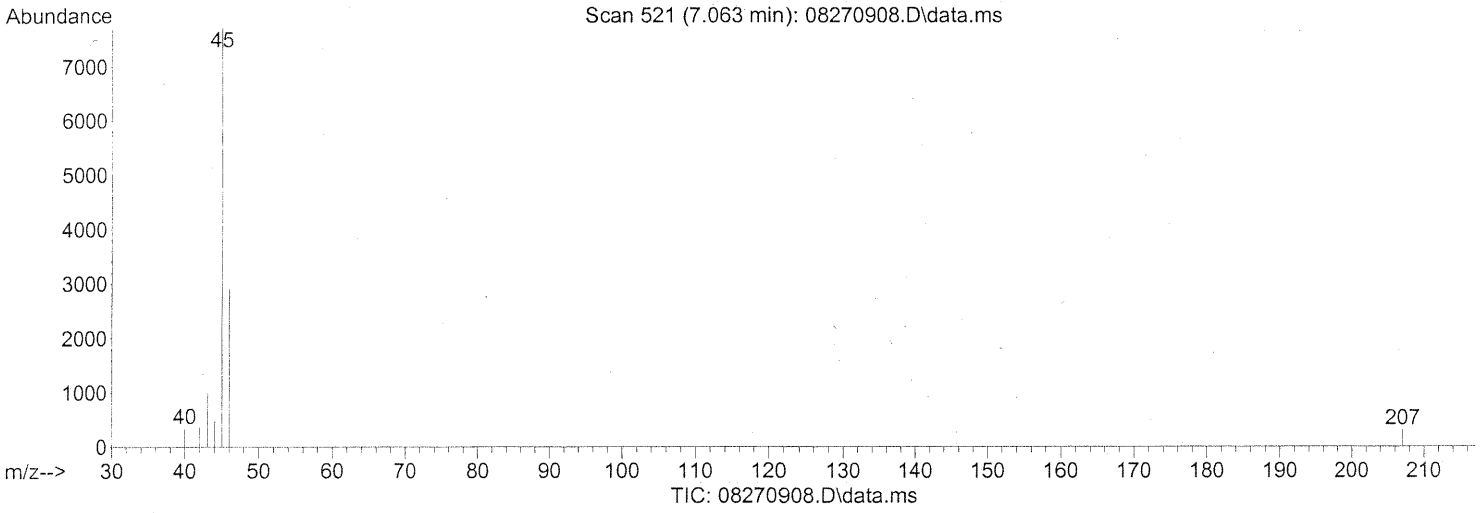
252

Quantitation Report (Qedit)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270908.D
Acq On : 27 Aug 2009 16:52
Operator : WA/CC
Sample : 0.5ng TO-15 ICAL
Misc : S20-08140906/S20-07310904
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:43:23 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration





TIC: 08270908.D\data.ms

(10) Ethanol (T)

7.063min (-0.046) 2.80ng m

response 42023

Ion	Exp%	Act%
45.00	100	100
46.10	38.20	26.62
0.00	0.00	0.00
0.00	0.00	0.00

PT->IC
M 8/28/09

CC
8/28/09

8/31/09

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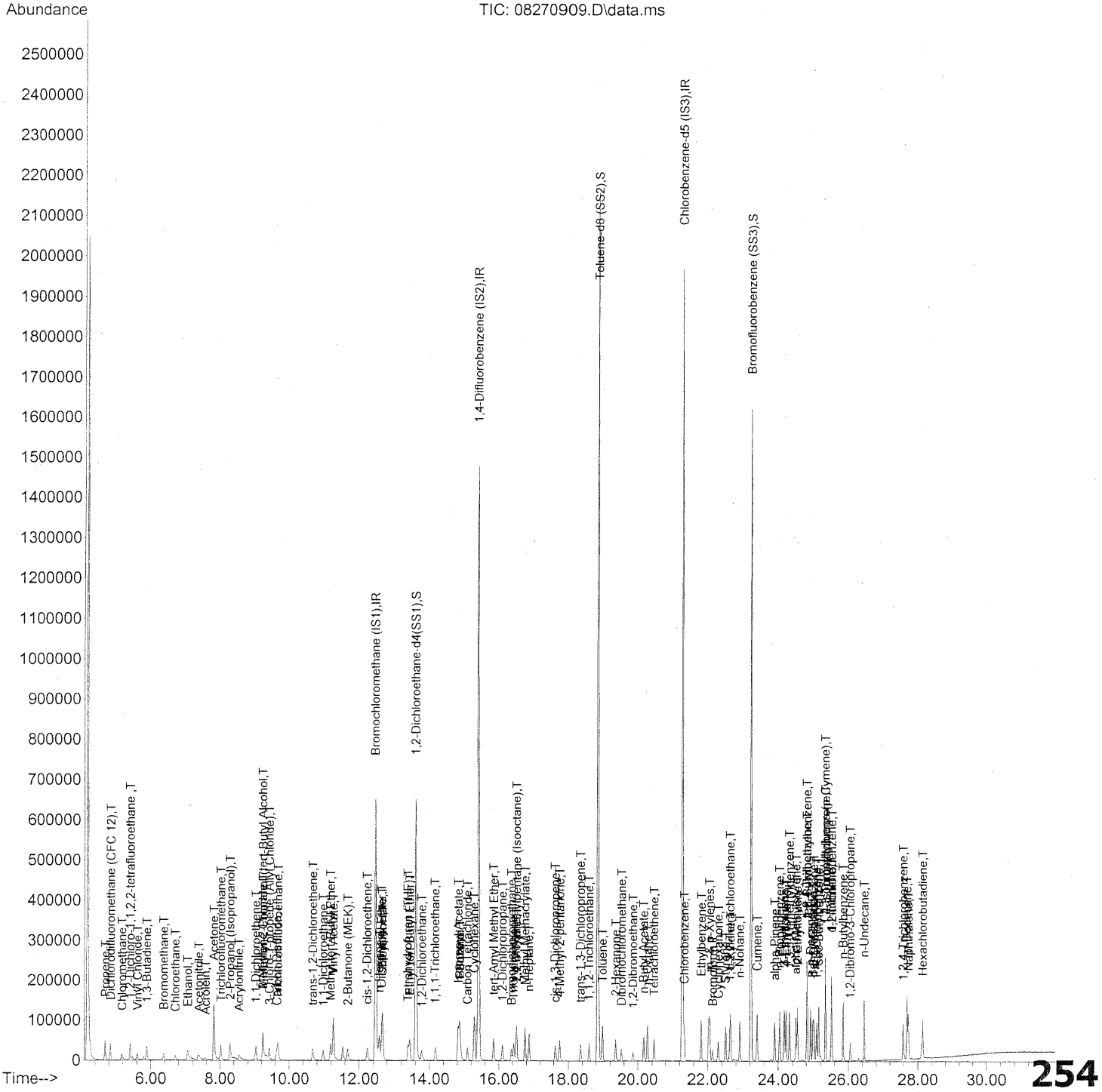
Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270909.D
Acq On : 27 Aug 2009 17:32
Operator : WA/CC
Sample : 1.0ng TO-15 ICAL
Misc : S20-08140906/S20-07310904
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:46:43 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270909.D
Acq On : 27 Aug 2009 17:32
Operator : WA/CC
Sample : 1.0ng TO-15 ICAL
Misc : S20-08140906/S20-07310904
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:46:43 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration

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CC
8/28/09

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.47	130	338113	25.000	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	15.41	114	1695008	25.000	ng		-0.02
56) Chlorobenzene-d5 (IS3)	21.28	82	819143	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.62	65	678685	23.094	ng		-0.02
Spiked Amount 25.000			Recovery =	92.36%			
57) Toluene-d8 (SS2)	18.85	98	1826536	25.519	ng		0.00
Spiked Amount 25.000			Recovery =	102.08%			
73) Bromofluorobenzene (SS3)	23.23	174	525776	27.855	ng		0.00
Spiked Amount 25.000			Recovery =	111.44%			
Target Compounds							Qvalue
2) Propene	4.69	42	23167	0.998	ng		98
3) Dichlorodifluoromethan...	4.85	85	44225	1.166	ng		100
4) Chloromethane	5.17	50	29046	1.140	ng		96
5) 1,2-Dichloro-1,1,2,2-t...	5.41	135	18594	1.207	ng		99
6) Vinyl Chloride	5.61	62	26423	1.079	ng		96
7) 1,3-Butadiene	5.89	54	22473	1.281	ng		100
8) Bromomethane	6.37	94	16348	1.097	ng		95
9) Chloroethane	6.70	64	13821	0.971	ng		96
10) Ethanol	7.06	45	75189	5.112	ng		99
11) Acetonitrile	7.38	41	39923	0.927	ng		98
12) Acrolein	7.57	56	11566	1.033	ng		86
13) Acetone	7.81	58	80124	5.774	ng		99
14) Trichlorofluoromethane	8.02	101	38449	1.121	ng		97
15) 2-Propanol (Isopropanol)	8.29	45	107175	1.965	ng		98
16) Acrylonitrile	8.55	53	26590	1.060	ng		96
17) 1,1-Dichloroethene	9.03	96	19322	1.214	ng		89
18) 2-Methyl-2-Propanol (t...	9.24	59	102219	2.112	ng		94
19) Methylene Chloride	9.24	84	20286	1.089	ng		96
20) 3-Chloro-1-propene (Al...	9.42	41	30207	0.841	ng		99
21) Trichlorotrifluoroethane	9.67	151	16030	1.286	ng		93
22) Carbon Disulfide	9.64	76	72815	1.108	ng		100
23) trans-1,2-Dichloroethene	10.67	61	29706	1.055	ng		91
24) 1,1-Dichloroethane	10.98	63	35945	1.052	ng		98
25) Methyl tert-Butyl Ether	11.19	73	55919	1.065	ng		99
26) Vinyl Acetate	11.26	86	18783	6.651	ng	#	68
27) 2-Butanone (MEK)	11.68	72	13258	1.058	ng	#	86
28) cis-1,2-Dichloroethene	12.23	61	27982	1.067	ng		87
29) Diisopropyl Ether	12.64	87	19284	1.150	ng	#	22
30) Ethyl Acetate	12.66	61	14245	2.182	ng		100
31) n-Hexane	12.58	57	35385	1.060	ng		98

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270909.D
Acq On : 27 Aug 2009 17:32
Operator : WA/CC
Sample : 1.0ng TO-15 ICAL
Misc : S20-08140906/S20-07310904
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:46:43 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.67	83	35077	1.193	ng		98
34) Tetrahydrofuran (THF)	13.39	72	14938	1.118	ng		99
35) Ethyl tert-Butyl Ether	13.44	87	22600	1.042	ng		98
36) 1,2-Dichloroethane	13.79	62	28509	1.061	ng		98
38) 1,1,1-Trichloroethane	14.16	97	31494	1.095	ng		98
39) Isopropyl Acetate	14.83	61	25625	2.038	ng	#	68
40) 1-Butanol	14.88	56	37926	1.724	ng	#	1
41) Benzene	14.87	78	80573	1.081	ng		100
42) Carbon Tetrachloride	15.09	117	27461	1.156	ng		99
43) Cyclohexane	15.29	84	60257	2.208	ng		97
44) tert-Amyl Methyl Ether	15.85	73	59739	1.067	ng		97
45) 1,2-Dichloropropane	16.10	63	20251	1.082	ng		94
46) Bromodichloromethane	16.37	83	26601	1.083	ng		97
47) Trichloroethene	16.43	130	19053	1.134	ng		98
48) 1,4-Dioxane	16.51	88	15853	1.113	ng		88
49) 2,2,4-Trimethylpentane...	16.52	57	91059	1.037	ng		100
50) Methyl Methacrylate	16.76	100	14852	2.165	ng		99
51) n-Heptane	16.87	71	21673	1.084	ng		96
52) cis-1,3-Dichloropropene	17.64	75	30063	0.969	ng		97
53) 4-Methyl-2-pentanone	17.76	58	19029	1.062	ng		96
54) trans-1,3-Dichloropropene	18.35	75	31487	1.068	ng		99
55) 1,1,2-Trichloroethane	18.59	97	17826	1.089	ng		99
58) Toluene	18.98	91	81135	1.153	ng		100
59) 2-Hexanone	19.36	43	49906	1.067	ng		99
60) Dibromochloromethane	19.53	129	20786	1.249	ng		99
61) 1,2-Dibromoethane	19.86	107	20935	1.186	ng		99
62) n-Butyl Acetate	20.17	43	56818	1.031	ng		97
63) n-Octane	20.28	57	18601	1.094	ng		97
64) Tetrachloroethene	20.46	166	19016	1.168	ng		98
65) Chlorobenzene	21.34	112	50799	1.167	ng		99
66) Ethylbenzene	21.82	91	91245	1.135	ng		99
67) m- & p-Xylenes	22.05	91	143956	2.213	ng		98
68) Bromoform	22.14	173	16140	1.168	ng		99
69) Styrene	22.50	104	52062	1.107	ng		99
70) o-Xylene	22.65	91	75012	1.150	ng		98
71) n-Nonane	22.91	43	44250	1.021	ng		96
72) 1,1,2,2-Tetrachloroethane	22.63	83	32737	1.131	ng		92
74) Cumene	23.41	105	91337	1.109	ng		100
75) alpha-Pinene	23.90	93	44882	1.063	ng		99
76) n-Propylbenzene	24.04	91	116128	1.121	ng		99
77) 3-Ethyltoluene	24.17	105	90541	1.150	ng		99
78) 4-Ethyltoluene	24.22	105	90088	1.181	ng		96
79) 1,3,5-Trimethylbenzene	24.31	105	76723	1.192	ng		1[illegible]

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270909.D
Acq On : 27 Aug 2009 17:32
Operator : WA/CC
Sample : 1.0ng TO-15 ICAL
Misc : S20-08140906/S20-07310904
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:46:43 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration

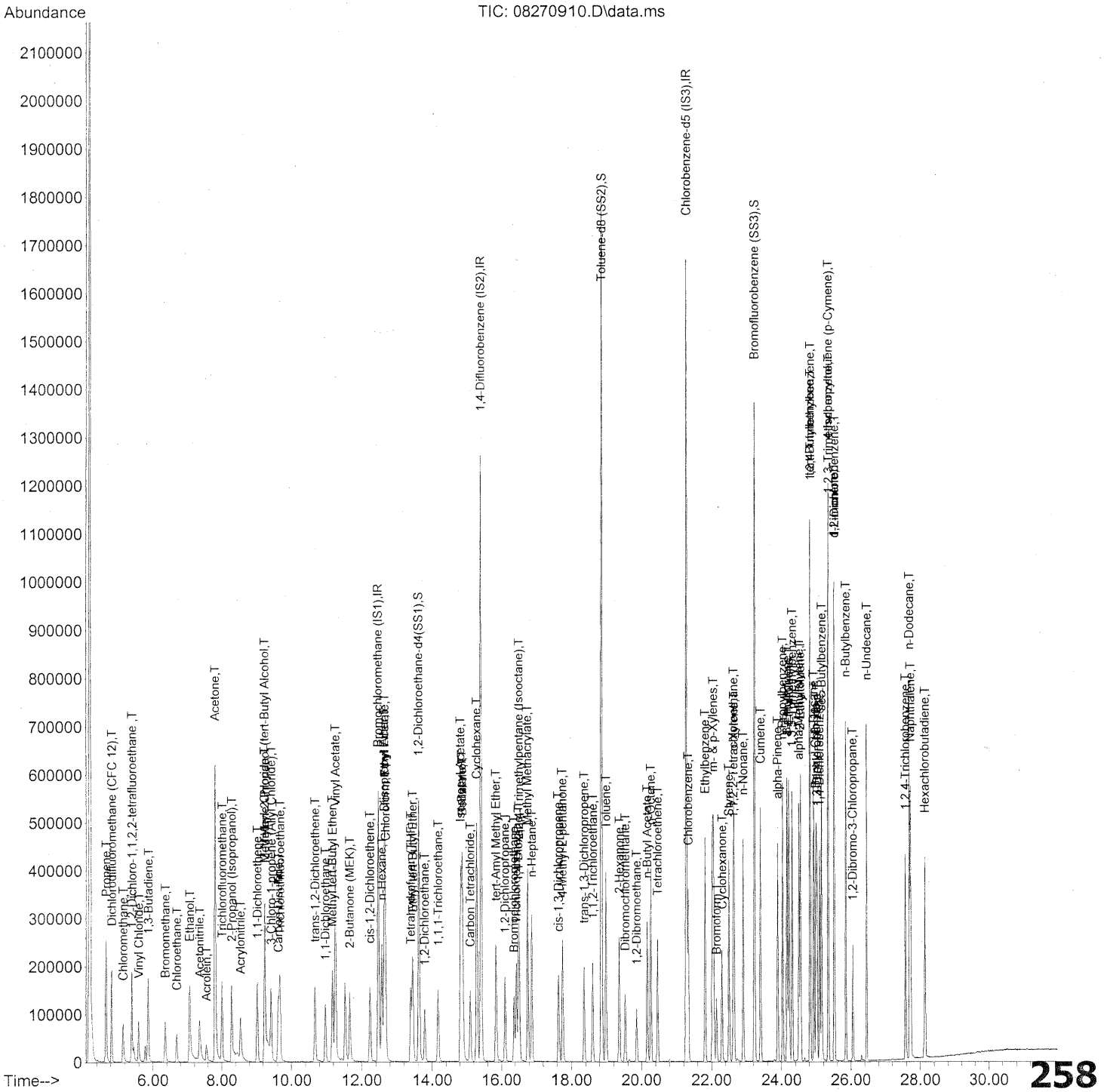
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.51	118	37555	1.090	ng	97
81) 2-Ethyltoluene	24.55	105	92466	1.165	ng	100
82) 1,2,4-Trimethylbenzene	24.82	105	75715	1.154	ng	98
83) n-Decane	24.93	57	48044	1.126	ng	99
84) Benzyl Chloride	24.99	91	74822	1.216	ng	99
85) 1,3-Dichlorobenzene	25.02	146	41470	1.249	ng	97
86) 1,4-Dichlorobenzene	25.10	146	41289	1.166	ng	99
87) sec-Butylbenzene	25.15	105	104559	1.180	ng	99
88) 4-Isopropyltoluene (p-...	25.35	119	91307	1.155	ng	98
89) 1,2,3-Trimethylbenzene	25.35	105	79842	1.194	ng	99
90) 1,2-Dichlorobenzene	25.53	146	38264	1.215	ng	99
91) d-Limonene	25.53	68	30898	1.107	ng	98
92) 1,2-Dibromo-3-Chloropr...	26.06	157	13048	1.205	ng	95
93) n-Undecane	26.46	57	49930	1.100	ng	98
94) 1,2,4-Trichlorobenzene	27.58	180	27886	1.288	ng	99
95) Naphthalene	27.73	128	104048	1.168	ng	99
96) n-Dodecane	27.69	57	52970	1.005	ng	98
97) Hexachlorobutadiene	28.14	225	16329	1.186	ng	97
98) Cyclohexanone	22.30	55	26821	0.920	ng	97
99) tert-Butylbenzene	24.82	119	74545	1.174	ng	98
100) n-Butylbenzene	25.86	91	87925	1.203	ng	99

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

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270910.D
Acq On : 27 Aug 2009 18:13
Operator : WA/CC
Sample : 5.0ng TO-15 ICAL
Misc : S20-08140906/S20-07310904
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:49:17 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270910.D
Acq On : 27 Aug 2009 18:13
Operator : WA/CC
Sample : 5.0ng TO-15 ICAL
Misc : S20-08140906/S20-07310904
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:49:17 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.47	130	285134	25.000	ng		-0.01
37) 1,4-Difluorobenzene (IS2)	15.41	114	1419665	25.000	ng		-0.01
56) Chlorobenzene-d5 (IS3)	21.28	82	696006	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.62	65	562841	22.711	ng		-0.01
Spiked Amount 25.000			Recovery =	90.84%			
57) Toluene-d8 (SS2)	18.85	98	1539663	25.317	ng		0.00
Spiked Amount 25.000			Recovery =	101.28%			
73) Bromofluorobenzene (SS3)	23.23	174	447453	27.900	ng		0.00
Spiked Amount 25.000			Recovery =	111.60%			
Target Compounds							Qvalue
2) Propene	4.67	42	120348	6.151	ng		97
3) Dichlorodifluoromethan...	4.84	85	193597	6.054	ng		100
4) Chloromethane	5.16	50	121026	5.633	ng		100
5) 1,2-Dichloro-1,1,2,2-t...	5.40	135	81300	6.257	ng		98
6) Vinyl Chloride	5.59	62	119297	5.779	ng		99
7) 1,3-Butadiene	5.87	54	104125	7.037	ng		98
8) Bromomethane	6.35	94	79946	6.362	ng		97
9) Chloroethane	6.69	64	66514	5.543	ng		100
10) Ethanol	7.06	45	344709	27.793	ng		100
11) Acetonitrile	7.35	41	186705	5.140	ng		98
12) Acrolein	7.55	56	54908	5.816	ng		99
13) Acetone	7.81	58	353050	30.169	ng		99
14) Trichlorofluoromethane	8.01	101	176237	6.095	ng		98
15) 2-Propanol (Isopropanol)	8.29	45	379930	8.262	ng		94
16) Acrylonitrile	8.54	53	126729	5.993	ng		97
17) 1,1-Dichloroethene	9.03	96	86179	6.419	ng		93
18) 2-Methyl-2-Propanol (t...	9.24	59	460734	11.287	ng		99
19) Methylene Chloride	9.23	84	89945	5.723	ng		94
20) 3-Chloro-1-propene (Al...	9.42	41	145675	4.808	ng		98
21) Trichlorotrifluoroethane	9.68	151	69998	6.658	ng		99
22) Carbon Disulfide	9.63	76	331741	5.987	ng		99
23) trans-1,2-Dichloroethene	10.67	61	137375	5.783	ng		93
24) 1,1-Dichloroethane	10.98	63	163088	5.661	ng		100
25) Methyl tert-Butyl Ether	11.18	73	259596	5.863	ng		98
26) Vinyl Acetate	11.27	86	86141	36.171	ng	#	92
27) 2-Butanone (MEK)	11.66	72	64271	6.083	ng		98
28) cis-1,2-Dichloroethene	12.23	61	131673	5.955	ng		92
29) Diisopropyl Ether	12.64	87	88485	6.258	ng	#	23
30) Ethyl Acetate	12.66	61	69155	12.564	ng		97
31) n-Hexane	12.58	57	156515	5.559	ng		1[illegible]

8/28/09

CC 8/28/09

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270910.D
Acq On : 27 Aug 2009 18:13
Operator : WA/CC
Sample : 5.0ng TO-15 ICAL
Misc : S20-08140906/S20-07310904
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:49:17 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.68	83	158573	6.397	ng		98
34) Tetrahydrofuran (THF)	13.39	72	62284	5.530	ng		96
35) Ethyl tert-Butyl Ether	13.44	87	100668	5.503	ng		97
36) 1,2-Dichloroethane	13.79	62	127632	5.633	ng		98
38) 1,1,1-Trichloroethane	14.17	97	142224	5.906	ng		98
39) Isopropyl Acetate	14.82	61	120873	11.478	ng	#	72
40) 1-Butanol	14.86	56	183717	9.971	ng	#	1
41) Benzene	14.87	78	360870	5.782	ng		99
42) Carbon Tetrachloride	15.10	117	126837	6.376	ng		98
43) Cyclohexane	15.29	84	273998	11.985	ng		96
44) tert-Amyl Methyl Ether	15.84	73	261147	5.571	ng		99
45) 1,2-Dichloropropane	16.10	63	92071	5.873	ng		99
46) Bromodichloromethane	16.37	83	126412	6.146	ng		100
47) Trichloroethene	16.44	130	89343	6.346	ng		99
48) 1,4-Dioxane	16.50	88	75297	6.312	ng		92
49) 2,2,4-Trimethylpentane...	16.52	57	412337	5.608	ng		99
50) Methyl Methacrylate	16.76	100	72721	12.656	ng		97
51) n-Heptane	16.88	71	98223	5.864	ng		96
52) cis-1,3-Dichloropropene	17.65	75	142422	5.482	ng		100
53) 4-Methyl-2-pentanone	17.75	58	89269	5.951	ng		99
54) trans-1,3-Dichloropropene	18.36	75	151819	6.146	ng		99
55) 1,1,2-Trichloroethane	18.60	97	85346	6.228	ng		100
58) Toluene	18.98	91	374000	6.257	ng		100
59) 2-Hexanone	19.36	43	229766	5.781	ng		98
60) Dibromochloromethane	19.53	129	99312	7.023	ng		98
61) 1,2-Dibromoethane	19.86	107	96822	6.458	ng		100
62) n-Butyl Acetate	20.17	43	265155	5.660	ng		98
63) n-Octane	20.27	57	83701	5.793	ng		96
64) Tetrachloroethene	20.46	166	89713	6.486	ng		99
65) Chlorobenzene	21.34	112	236912	6.407	ng		99
66) Ethylbenzene	21.82	91	426544	6.243	ng		98
67) m- & p-Xylenes	22.05	91	664427	12.022	ng		100
68) Bromoform	22.14	173	77570	6.606	ng		99
69) Styrene	22.50	104	255399	6.393	ng		98
70) o-Xylene	22.65	91	345400	6.233	ng		99
71) n-Nonane	22.91	43	204226	5.547	ng		97
72) 1,1,2,2-Tetrachloroethane	22.63	83	158108	6.429	ng		98
74) Cumene	23.41	105	419995	6.000	ng		99
75) alpha-Pinene	23.90	93	210281	5.861	ng		99
76) n-Propylbenzene	24.04	91	543860	6.181	ng		99
77) 3-Ethyltoluene	24.17	105	424375	6.344	ng		98
78) 4-Ethyltoluene	24.22	105	424689	6.552	ng		100
79) 1,3,5-Trimethylbenzene	24.31	105	351291	6.426	ng		99

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270910.D
Acq On : 27 Aug 2009 18:13
Operator : WA/CC
Sample : 5.0ng TO-15 ICAL
Misc : S20-08140906/S20-07310904
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:49:17 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration

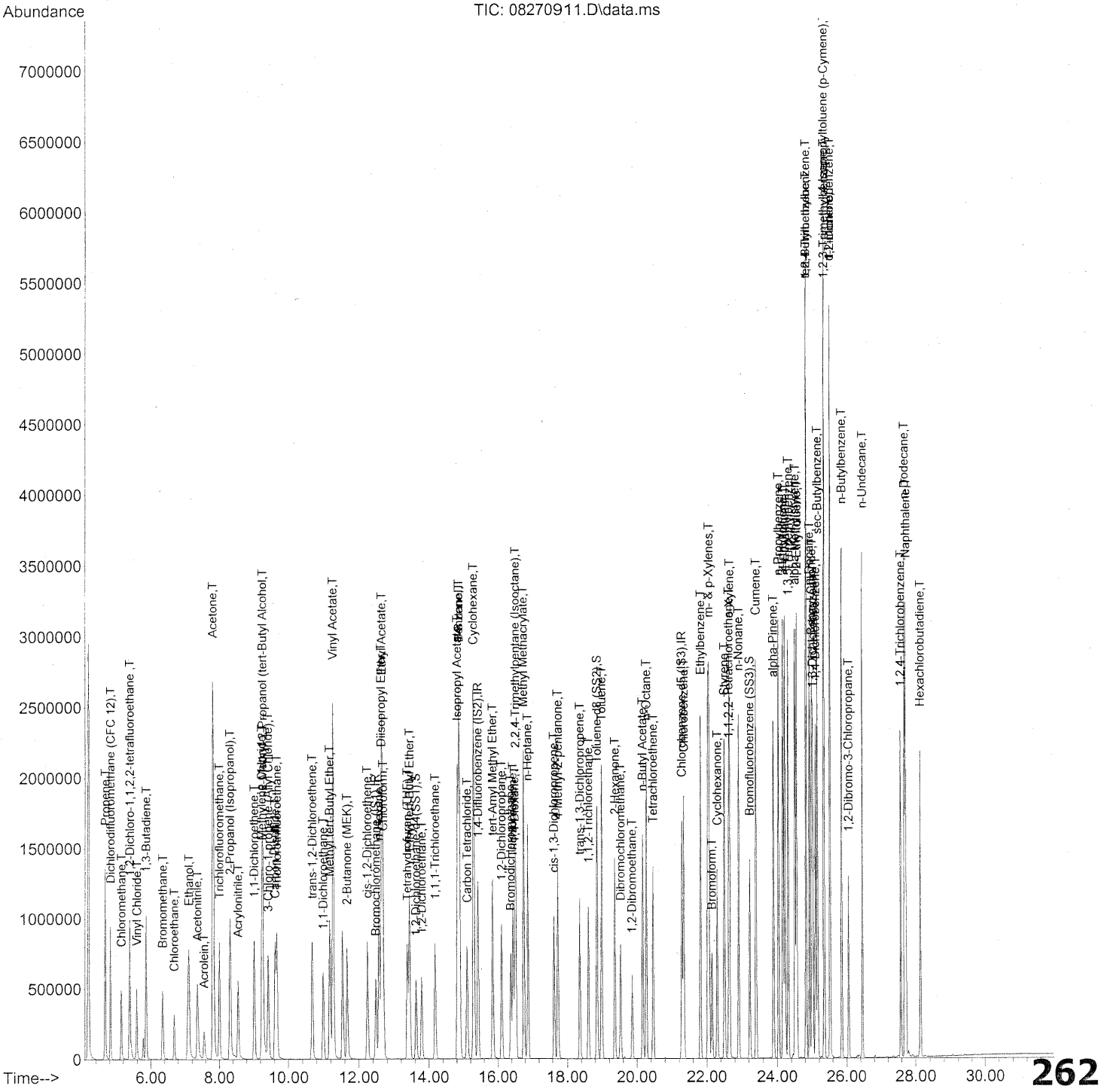
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.51	118	187722	6.414	ng	98
81) 2-Ethyltoluene	24.55	105	422733	6.266	ng	100
82) 1,2,4-Trimethylbenzene	24.83	105	355483	6.376	ng	98
83) n-Decane	24.93	57	216013	5.959	ng	97
84) Benzyl Chloride	24.99	91	361430	6.916	ng	100
85) 1,3-Dichlorobenzene	25.02	146	186769	6.619	ng	99
86) 1,4-Dichlorobenzene	25.10	146	191016	6.349	ng	100
87) sec-Butylbenzene	25.16	105	482316	6.404	ng	98
88) 4-Isopropyltoluene (p-...	25.35	119	433059	6.448	ng	99
89) 1,2,3-Trimethylbenzene	25.35	105	371622	6.543	ng	100
90) 1,2-Dichlorobenzene	25.53	146	179979	6.728	ng	99
91) d-Limonene	25.53	68	149598	6.310	ng	100
92) 1,2-Dibromo-3-Chloropr...	26.06	157	66848	7.265	ng	97
93) n-Undecane	26.46	57	234884	6.091	ng	99
94) 1,2,4-Trichlorobenzene	27.58	180	136765	7.435	ng	99
95) Naphthalene	27.72	128	498226	6.580	ng	99
96) n-Dodecane	27.69	57	246891	5.511	ng	98
97) Hexachlorobutadiene	28.14	225	77742	6.645	ng	99
98) Cyclohexanone	22.30	55	129078	5.213	ng	97
99) tert-Butylbenzene	24.82	119	343094	6.358	ng	99
100) n-Butylbenzene	25.86	91	416303	6.704	ng	99

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

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270911.D
Acq On : 27 Aug 2009 18:53
Operator : WA/CC
Sample : 25ng TO-15 ICAL
Misc : S20-08140906/S20-08240903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:51:53 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270911.D
Acq On : 27 Aug 2009 18:53
Operator : WA/CC
Sample : 25ng TO-15 ICAL
Misc : S20-08140906/S20-08240903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:51:53 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration

VM 8/28/09
CC 8/28/09

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.48	130	284501	25.000	ng		0.00
37) 1,4-Difluorobenzene (IS2)	15.43	114	1447280	25.000	ng		0.00
56) Chlorobenzene-d5 (IS3)	21.29	82	702211	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.63	65	570397	23.067	ng		0.00
Spiked Amount 25.000			Recovery =	92.28%			
57) Toluene-d8 (SS2)	18.85	98	1567824	25.552	ng		0.00
Spiked Amount 25.000			Recovery =	102.20%			
73) Bromofluorobenzene (SS3)	23.23	174	454480	28.088	ng		0.00
Spiked Amount 25.000			Recovery =	112.36%			
Target Compounds							Qvalue
2) Propene	4.66	42	588172	30.127	ng		99
3) Dichlorodifluoromethan...	4.82	85	955071	29.931	ng		99
4) Chloromethane	5.14	50	669890	31.246	ng		99
5) 1,2-Dichloro-1,1,2,2-t...	5.39	135	417184	32.179	ng		99
6) Vinyl Chloride	5.59	62	625558	30.370	ng		98
7) 1,3-Butadiene	5.86	54	570533	38.645	ng		99
8) Bromomethane	6.35	94	424003	33.816	ng		97
9) Chloroethane	6.69	64	348508	29.110	ng		98
10) Ethanol	7.11	45	1816351	146.775	ng		99
11) Acetonitrile	7.36	41	978031	26.986	ng		99
12) Acrolein	7.55	56	301988	32.058	ng		99
13) Acetone	7.82	58	1809667	154.985	ng		97
14) Trichlorofluoromethane	8.01	101	920207	31.898	ng		97
15) 2-Propanol (Isopropanol)	8.32	45	2169597	47.283	ng		100
16) Acrylonitrile	8.55	53	688506	32.634	ng		98
17) 1,1-Dichloroethene	9.02	96	462130	34.499	ng		93
18) 2-Methyl-2-Propanol (t...	9.27	59	2503952	61.479	ng		99
19) Methylene Chloride	9.25	84	470180	29.985	ng		96
20) 3-Chloro-1-propene (Al...	9.43	41	781914	25.867	ng		98
21) Trichlorotrifluoroethane	9.67	151	385242	36.727	ng		96
22) Carbon Disulfide	9.62	76	1769730	32.011	ng		99
23) trans-1,2-Dichloroethene	10.68	61	738419	31.154	ng		94
24) 1,1-Dichloroethane	10.99	63	874410	30.422	ng		99
25) Methyl tert-Butyl Ether	11.18	73	1433827	32.454	ng		98
26) Vinyl Acetate	11.27	86	502228	211.357	ng		99
27) 2-Butanone (MEK)	11.67	72	351618	33.352	ng		96
28) cis-1,2-Dichloroethene	12.24	61	705526	31.978	ng		91
29) Diisopropyl Ether	12.64	87	478190	33.893	ng	#	21
30) Ethyl Acetate	12.67	61	368666	67.126	ng		98
31) n-Hexane	12.58	57	835198	29.727	ng		97

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270911.D
Acq On : 27 Aug 2009 18:53
Operator : WA/CC
Sample : 25ng TO-15 ICAL
Misc : S20-08140906/S20-08240903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:51:53 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.70	83	837403	33.855	ng		97
34) Tetrahydrofuran (THF)	13.38	72	337216	30.007	ng		95
35) Ethyl tert-Butyl Ether	13.45	87	550620	30.168	ng		95
36) 1,2-Dichloroethane	13.80	62	686367	30.362	ng		99
38) 1,1,1-Trichloroethane	14.18	97	775212	31.576	ng		99
39) Isopropyl Acetate	14.83	61	655653	61.070	ng	#	74
40) 1-Butanol	14.88	56	1045668	55.670	ng	#	63
41) Benzene	14.88	78	1874167	29.454	ng		100
42) Carbon Tetrachloride	15.11	117	698778	34.456	ng		100
43) Cyclohexane	15.30	84	1485423	63.735	ng		95
44) tert-Amyl Methyl Ether	15.85	73	1383659	28.956	ng		98
45) 1,2-Dichloropropane	16.11	63	492324	30.807	ng		99
46) Bromodichloromethane	16.37	83	692441	33.022	ng		99
47) Trichloroethene	16.44	130	495591	34.531	ng		99
48) 1,4-Dioxane	16.50	88	409598	33.682	ng		93
49) 2,2,4-Trimethylpentane...	16.52	57	2183614	29.134	ng		99
50) Methyl Methacrylate	16.76	100	401830	68.598	ng		95
51) n-Heptane	16.88	71	521007	30.509	ng		97
52) cis-1,3-Dichloropropene	17.65	75	788158	29.758	ng		100
53) 4-Methyl-2-pentanone	17.76	58	495183	32.380	ng		99
54) trans-1,3-Dichloropropene	18.36	75	830905	32.995	ng		100
55) 1,1,2-Trichloroethane	18.60	97	455804	32.625	ng		99
58) Toluene	18.98	91	1976690	32.780	ng		100
59) 2-Hexanone	19.36	43	1280900	31.943	ng		97
60) Dibromochloromethane	19.53	129	565906	39.665	ng		100
61) 1,2-Dibromoethane	19.86	107	536115	35.443	ng		99
62) n-Butyl Acetate	20.17	43	1478795	31.288	ng		99
63) n-Octane	20.28	57	450511	30.902	ng		98
64) Tetrachloroethene	20.46	166	483543	34.652	ng		100
65) Chlorobenzene	21.34	112	1280692	34.328	ng		100
66) Ethylbenzene	21.82	91	2274865	33.001	ng		100
67) m- & p-Xylenes	22.06	91	3561506	63.869	ng		100
68) Bromoform	22.15	173	449129	37.913	ng		99
69) Styrene	22.51	104	1403684	34.827	ng		99
70) o-Xylene	22.65	91	1846441	33.026	ng		98
71) n-Nonane	22.91	43	1062700	28.607	ng		97
72) 1,1,2,2-Tetrachloroethane	22.63	83	855281	34.471	ng		99
74) Cumene	23.41	105	2260423	32.007	ng		98
75) alpha-Pinene	23.90	93	1143364	31.584	ng		99
76) n-Propylbenzene	24.05	91	2876713	32.403	ng		99
77) 3-Ethyltoluene	24.17	105	2284898	33.854	ng		99
78) 4-Ethyltoluene	24.23	105	2259500	34.550	ng		98
79) 1,3,5-Trimethylbenzene	24.32	105	1894001	34.339	ng		99

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270911.D
Acq On : 27 Aug 2009 18:53
Operator : WA/CC
Sample : 25ng TO-15 ICAL
Misc : S20-08140906/S20-08240903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:51:53 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration

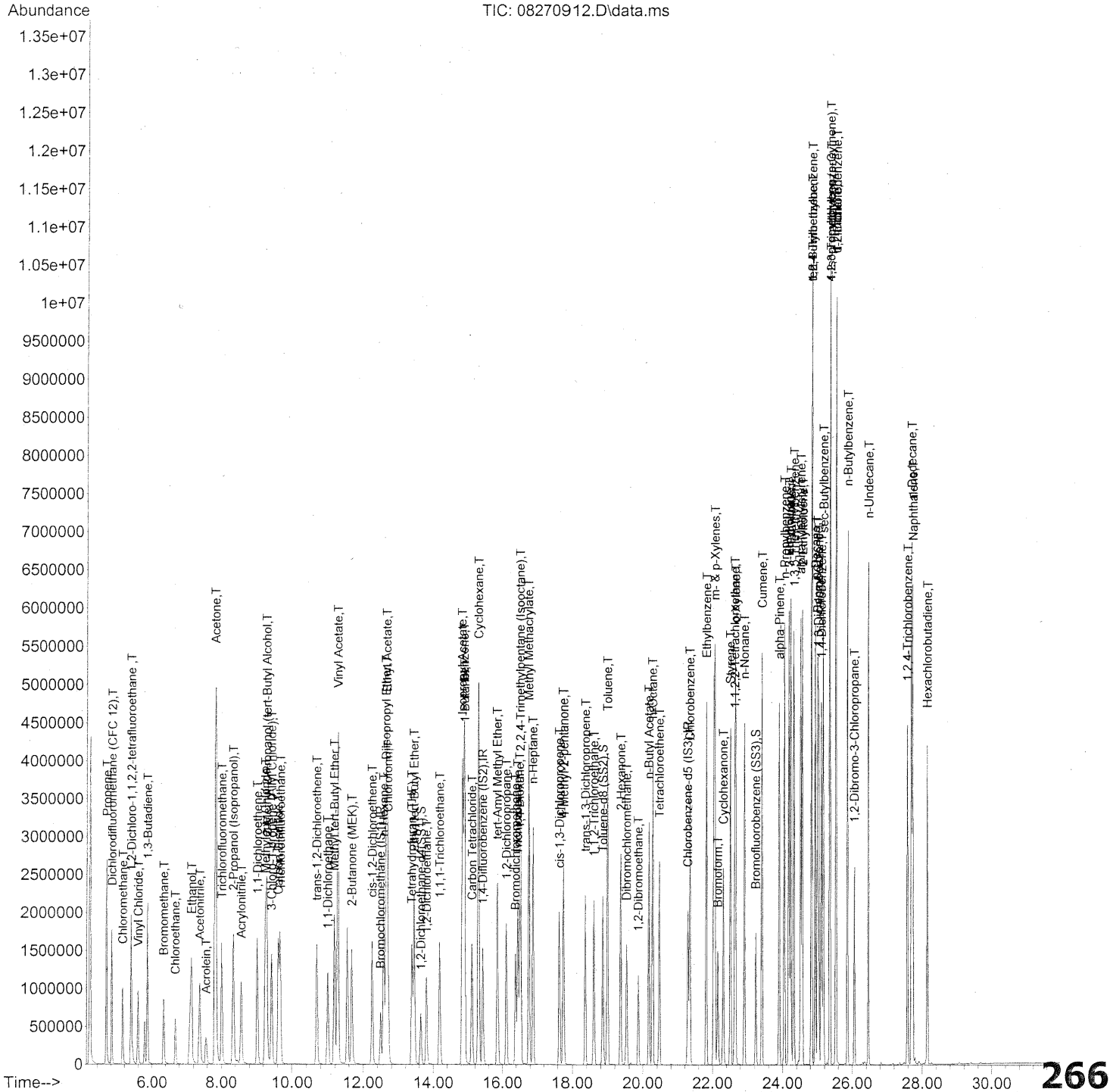
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.51	118	1054165	35.698	ng	99
81) 2-Ethyltoluene	24.56	105	2259196	33.194	ng	99
82) 1,2,4-Trimethylbenzene	24.83	105	1897450	33.733	ng	98
83) n-Decane	24.93	57	1120197	30.630	ng	97
84) Benzyl Chloride	25.00	91	1962770	37.225	ng	99
85) 1,3-Dichlorobenzene	25.03	146	1029308	36.157	ng	99
86) 1,4-Dichlorobenzene	25.11	146	1057372	34.835	ng	99
87) sec-Butylbenzene	25.16	105	2566383	33.774	ng	99
88) 4-Isopropyltoluene (p-...	25.35	119	2290126	33.799	ng	99
89) 1,2,3-Trimethylbenzene	25.35	105	1952841	34.080	ng	99
90) 1,2-Dichlorobenzene	25.53	146	957838	35.488	ng	99
91) d-Limonene	25.53	68	817753	34.188	ng	99
92) 1,2-Dibromo-3-Chloropr...	26.06	157	385331	41.509	ng	93
93) n-Undecane	26.46	57	1206152	31.000	ng	98
94) 1,2,4-Trichlorobenzene	27.58	180	752993	40.576	ng	99
95) Naphthalene	27.73	128	2740834	35.879	ng	100
96) n-Dodecane	27.69	57	1216284	26.908	ng	98
97) Hexachlorobutadiene	28.14	225	412785	34.972	ng	99
98) Cyclohexanone	22.30	55	734000	29.379	ng	97
99) tert-Butylbenzene	24.83	119	1825773	33.538	ng	99
100) n-Butylbenzene	25.86	91	2198104	35.084	ng	99

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

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270912.D
Acq On : 27 Aug 2009 19:34
Operator : WA/CC
Sample : 50ng TO-15 ICAL
Misc : S20-08140906/S20-08240903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:54:59 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270912.D
Acq On : 27 Aug 2009 19:34
Operator : WA/CC
Sample : 50ng TO-15 ICAL
Misc : S20-08140906/S20-08240903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:54:59 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration

MM 8/28/09
CC 8/28/09

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.50	130	355771	25.000	ng		0.01
37) 1,4-Difluorobenzene (IS2)	15.43	114	1781908	25.000	ng		0.00
56) Chlorobenzene-d5 (IS3)	21.29	82	859804	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.64	65	693583	22.430	ng		0.01
Spiked Amount 25.000			Recovery = 89.72%				
57) Toluene-d8 (SS2)	18.85	98	1926052	25.637	ng		0.00
Spiked Amount 25.000			Recovery = 102.56%				
73) Bromofluorobenzene (SS3)	23.23	174	552218	27.873	ng		0.00
Spiked Amount 25.000			Recovery = 111.48%				
Target Compounds							Qvalue
2) Propene	4.66	42	1154843	47.303	ng		98
3) Dichlorodifluoromethan...	4.82	85	1829151	45.840	ng		99
4) Chloromethane	5.14	50	1341013	50.020	ng		99
5) 1,2-Dichloro-1,1,2,2-t...	5.39	135	827543	51.045	ng		100
6) Vinyl Chloride	5.59	62	1263606	49.058	ng		99
7) 1,3-Butadiene	5.86	54	1118893	60.607	ng		98
8) Bromomethane	6.35	94	762302	48.617	ng		97
9) Chloroethane	6.69	64	687395	45.915	ng		99
10) Ethanol	7.14	45	3546941	229.202	ng		99
11) Acetonitrile	7.38	41	1926551	42.509	ng		99
12) Acrolein	7.57	56	602852	51.177	ng		98
13) Acetone	7.83	58	3428848	234.829	ng		95
14) Trichlorofluoromethane	8.01	101	1794190	49.734	ng		98
15) 2-Propanol (Isopropanol)	8.34	45	3820480	66.582	ng		100
16) Acrylonitrile	8.57	53	1373006	52.042	ng		98
17) 1,1-Dichloroethene	9.03	96	925646	55.259	ng		91
18) 2-Methyl-2-Propanol (t...	9.30	59	4275643	83.949	ng		99
19) Methylene Chloride	9.26	84	928469	47.349	ng		96
20) 3-Chloro-1-propene (Al...	9.43	41	1562507	41.336	ng		97
21) Trichlorotrifluoroethane	9.68	151	770821	58.765	ng		96
22) Carbon Disulfide	9.62	76	3467083	50.150	ng		99
23) trans-1,2-Dichloroethene	10.69	61	1467929	49.525	ng		93
24) 1,1-Dichloroethane	11.00	63	1749311	48.669	ng		99
25) Methyl tert-Butyl Ether	11.18	73	2886625	52.249	ng		98
26) Vinyl Acetate	11.29	86	946195	318.427	ng	#	92
27) 2-Butanone (MEK)	11.68	72	693027	52.566	ng		94
28) cis-1,2-Dichloroethene	12.26	61	1393226	50.498	ng		91
29) Diisopropyl Ether	12.65	87	932693	52.864	ng	#	21
30) Ethyl Acetate	12.68	61	711553	103.604	ng		98
31) n-Hexane	12.58	57	1646711	46.870	ng		96

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270912.D
Acq On : 27 Aug 2009 19:34
Operator : WA/CC
Sample : 50ng TO-15 ICAL
Misc : S20-08140906/S20-08240903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:54:59 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.70	83	1622626	52.459	ng		97
34) Tetrahydrofuran (THF)	13.38	72	655734	46.661	ng		95
35) Ethyl tert-Butyl Ether	13.46	87	1101754	48.271	ng		94
36) 1,2-Dichloroethane	13.80	62	1347810	47.678	ng		99
38) 1,1,1-Trichloroethane	14.19	97	1521512	50.336	ng		98
39) Isopropyl Acetate	14.83	61	1272599	96.274	ng	#	74
40) 1-Butanol	14.90	56	2061538	89.143	ng		67
41) Benzene	14.88	78	3615292	46.147	ng		100
42) Carbon Tetrachloride	15.11	117	1389295	55.640	ng		99
43) Cyclohexane	15.31	84	2895546	100.908	ng		95
44) tert-Amyl Methyl Ether	15.85	73	2676182	45.487	ng		98
45) 1,2-Dichloropropane	16.12	63	971117	49.355	ng		99
46) Bromodichloromethane	16.38	83	1360838	52.710	ng		100
47) Trichloroethene	16.45	130	991208	56.095	ng		98
48) 1,4-Dioxane	16.51	88	803541	53.668	ng		94
49) 2,2,4-Trimethylpentane...	16.53	57	4218183	45.711	ng		99
50) Methyl Methacrylate	16.77	100	798155	110.668	ng		93
51) n-Heptane	16.89	71	1023757	48.691	ng		97
52) cis-1,3-Dichloropropene	17.65	75	1562664	47.920	ng		100
53) 4-Methyl-2-pentanone	17.76	58	973944	51.726	ng		100
54) trans-1,3-Dichloropropene	18.36	75	1641324	52.936	ng		100
55) 1,1,2-Trichloroethane	18.60	97	908507	52.817	ng		100
58) Toluene	18.99	91	3881275	52.567	ng		99
59) 2-Hexanone	19.37	43	2497284	50.862	ng		97
60) Dibromochloromethane	19.53	129	1128262	64.586	ng		100
61) 1,2-Dibromoethane	19.86	107	1060533	57.262	ng		99
62) n-Butyl Acetate	20.17	43	2940183	50.805	ng		99
63) n-Octane	20.28	57	880352	49.319	ng		98
64) Tetrachloroethene	20.47	166	970560	56.805	ng		100
65) Chlorobenzene	21.34	112	2525081	55.277	ng		100
66) Ethylbenzene	21.82	91	4407676	52.222	ng		100
67) m- & p-Xylenes	22.06	91	6851193	100.345	ng		98
68) Bromoform	22.15	173	911971	62.873	ng		99
69) Styrene	22.51	104	2758753	55.902	ng		99
70) o-Xylene	22.66	91	3559961	52.004	ng		98
71) n-Nonane	22.91	43	2047046	45.004	ng		97
72) 1,1,2,2-Tetrachloroethane	22.64	83	1662923	54.738	ng		98
74) Cumene	23.41	105	4397891	50.859	ng		98
75) alpha-Pinene	23.90	93	2250302	50.768	ng		98
76) n-Propylbenzene	24.05	91	5492507	50.528	ng		99
77) 3-Ethyltoluene	24.18	105	4532255	54.843	ng		99
78) 4-Ethyltoluene	24.23	105	4315743	53.896	ng		98
79) 1,3,5-Trimethylbenzene	24.32	105	3684738	54.561	ng		99

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270912.D
Acq On : 27 Aug 2009 19:34
Operator : WA/CC
Sample : 50ng TO-15 ICAL
Misc : S20-08140906/S20-08240903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:54:59 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration

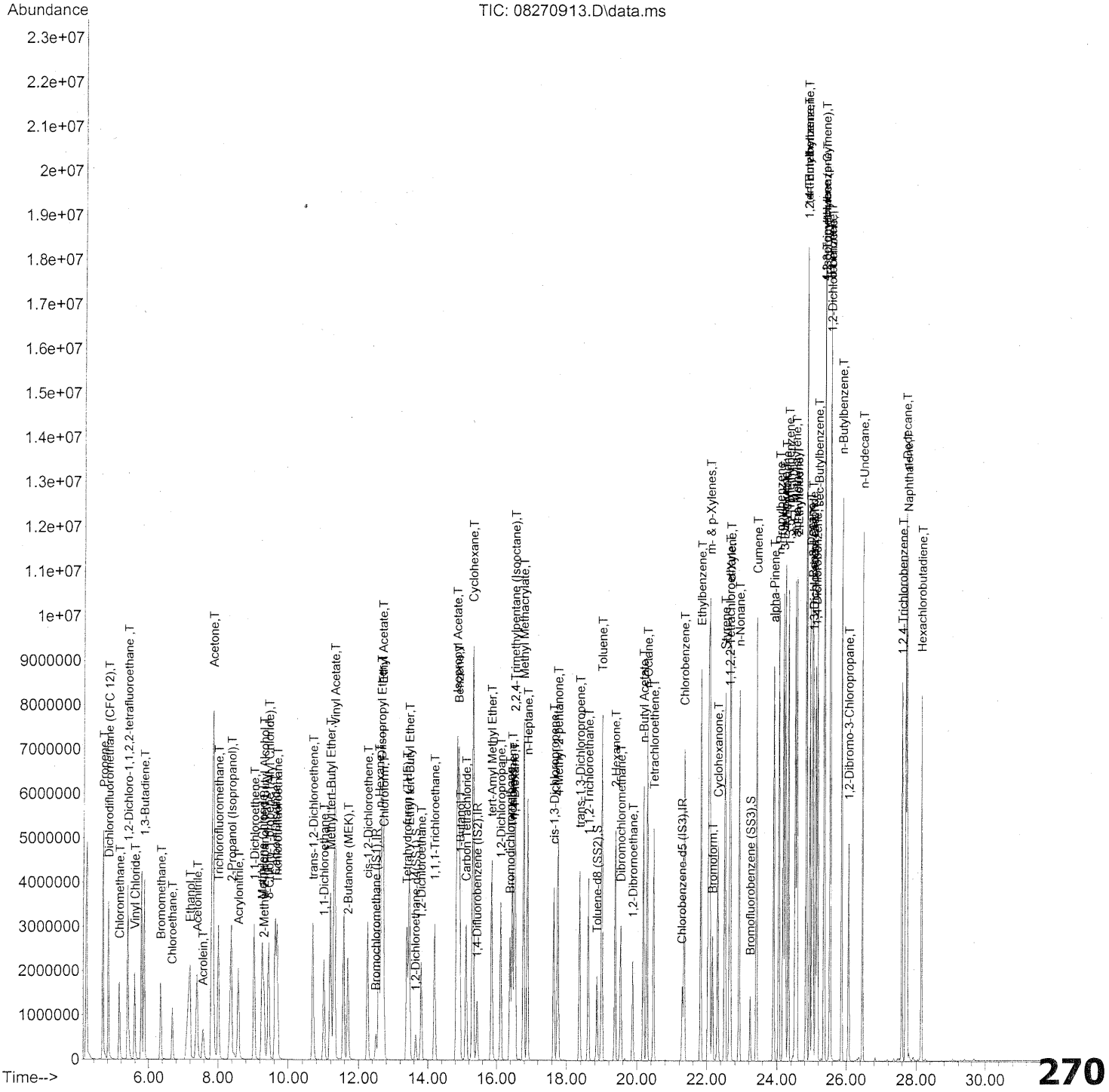
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.51	118	2084287	57.646	ng	97
81) 2-Ethyltoluene	24.57	105	4387733	52.651	ng	99
82) 1,2,4-Trimethylbenzene	24.83	105	3642429	52.887	ng	98
83) n-Decane	24.94	57	2143395	47.866	ng	97
84) Benzyl Chloride	25.01	91	3798215	58.832	ng	98
85) 1,3-Dichlorobenzene	25.03	146	2036482	58.425	ng	99
86) 1,4-Dichlorobenzene	25.11	146	2091516	56.275	ng	99
87) sec-Butylbenzene	25.17	105	4948380	53.186	ng	99
88) 4-Isopropyltoluene (p-...	25.35	119	4364256	52.604	ng	99
89) 1,2,3-Trimethylbenzene	25.36	105	3761867	53.617	ng	99
90) 1,2-Dichlorobenzene	25.53	146	1840676	55.698	ng	99
91) d-Limonene	25.53	68	1581281	53.991	ng	99
92) 1,2-Dibromo-3-Chloropr...	26.06	157	769261	67.679	ng	92
93) n-Undecane	26.46	57	2305390	48.392	ng	98
94) 1,2,4-Trichlorobenzene	27.59	180	1487407	65.460	ng	99
95) Naphthalene	27.73	128	5330264	56.987	ng	99
96) n-Dodecane	27.70	57	2340297	42.285	ng	98
97) Hexachlorobutadiene	28.15	225	841080	58.197	ng	98
98) Cyclohexanone	22.30	55	1440848	47.101	ng	97
99) tert-Butylbenzene	24.83	119	3502642	52.547	ng	99
100) n-Butylbenzene	25.86	91	4206554	54.834	ng	99

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

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270913.D
Acq On : 27 Aug 2009 20:14
Operator : WA/CC
Sample : 100ng TO-15 ICAL
Misc : S20-08140906/S20-08240903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:57:18 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270913.D
Acq On : 27 Aug 2009 20:14
Operator : WA/CC
Sample : 100ng TO-15 ICAL
Misc : S20-08140906/S20-08240903
ALS Vial : 4 Sample Multiplier: 1

MM 8/28/09
CC
8/28/09

Quant Time: Aug 28 05:57:18 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.50	130	311663	25.000	ng		0.02
37) 1,4-Difluorobenzene (IS2)	15.44	114	1553790	25.000	ng		0.01
56) Chlorobenzene-d5 (IS3)	21.29	82	732694	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.65	65	593115	21.895	ng		0.02
Spiked Amount 25.000			Recovery =	87.60%			
57) Toluene-d8 (SS2)	18.86	98	1671107	26.102	ng		0.01
Spiked Amount 25.000			Recovery =	104.40%			
73) Bromofluorobenzene (SS3)	23.24	174	475967	28.192	ng		0.00
Spiked Amount 25.000			Recovery =	112.76%			
Target Compounds							Qvalue
2) Propene	4.66	42	2326189	108.766	ng		97
3) Dichlorodifluoromethan...	4.82	85	3724697	106.555	ng		99
4) Chloromethane	5.14	50	2420894	103.079	ng		98
5) 1,2-Dichloro-1,1,2,2-t...	5.39	135	1687479	118.819	ng		100
6) Vinyl Chloride	5.59	62	2607530	115.561	ng		99
7) 1,3-Butadiene	5.86	54	2287066	141.415	ng		96
8) Bromomethane	6.35	94	1585108	115.400	ng		98
9) Chloroethane	6.69	64	1424960	108.651	ng		99
10) Ethanol	7.20	45	6995067	515.990	ng		99
11) Acetonitrile	7.41	41	3916806	98.656	ng		99
12) Acrolein	7.58	56	1217708	118.004	ng		99
13) Acetone	7.86	58	6477329	506.390	ng		90
14) Trichlorofluoromethane	8.01	101	3583787	113.401	ng		98
15) 2-Propanol (Isopropanol)	8.39	45	7406478	147.344	ng		99
16) Acrylonitrile	8.59	53	2762119	119.510	ng		98
17) 1,1-Dichloroethene	9.03	96	1882094	128.259	ng		90
18) 2-Methyl-2-Propanol (t...	9.31	59	2734607	61.291	ng		96
19) Methylene Chloride	9.27	84	1891533	110.115	ng		95
20) 3-Chloro-1-propene (Al...	9.45	41	3110625	93.937	ng		96
21) Trichlorotrifluoroethane	9.68	151	1491940	129.838	ng		96
22) Carbon Disulfide	9.63	76	6827544	112.735	ng		98
23) trans-1,2-Dichloroethene	10.70	61	2912051	112.152	ng		93
24) 1,1-Dichloroethane	11.00	63	3453731	109.687	ng		99
25) Methyl tert-Butyl Ether	11.19	73	5728923	118.372	ng		100
26) Vinyl Acetate	11.31	86	1706291	655.492	ng	#	83
27) 2-Butanone (MEK)	11.69	72	1087900	94.196	ng		95
28) cis-1,2-Dichloroethene	12.26	61	2763573	114.342	ng		92
29) Diisopropyl Ether	12.66	87	1816274	117.515	ng	#	20
30) Ethyl Acetate	12.69	61	1367245	227.249	ng		98
31) n-Hexane	12.59	57	3275520	106.426	ng		98

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270913.D
Acq On : 27 Aug 2009 20:14
Operator : WA/CC
Sample : 100ng TO-15 ICAL
Misc : S20-08140906/S20-08240903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 28 05:57:18 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.72	83	3156196	116.480	ng		97
34) Tetrahydrofuran (THF)	13.39	72	1286760	104.522	ng		95
35) Ethyl tert-Butyl Ether	13.46	87	2208988	110.480	ng		93
36) 1,2-Dichloroethane	13.81	62	2630401	106.218	ng		99
38) 1,1,1-Trichloroethane	14.19	97	2912642	110.506	ng		98
39) Isopropyl Acetate	14.84	61	2447890	212.375	ng	#	77
40) 1-Butanol	14.93	56	3972016	196.969	ng	#	1
41) Benzene	14.89	78	6912771	101.192	ng		99
42) Carbon Tetrachloride	15.12	117	2738691	125.785	ng		100
43) Cyclohexane	15.31	84	5510317	220.224	ng		96
44) tert-Amyl Methyl Ether	15.86	73	5226701	101.881	ng		98
45) 1,2-Dichloropropane	16.12	63	1925723	112.240	ng		99
46) Bromodichloromethane	16.39	83	2658280	118.081	ng		100
47) Trichloroethene	16.45	130	1969977	127.853	ng		99
48) 1,4-Dioxane	16.51	88	1471701	112.724	ng		92
49) 2,2,4-Trimethylpentane...	16.53	57	7987495	99.265	ng		99
50) Methyl Methacrylate	16.79	100	1531447	243.517	ng		92
51) n-Heptane	16.90	71	1983249	108.174	ng		97
52) cis-1,3-Dichloropropene	17.66	75	3069992	107.965	ng		99
53) 4-Methyl-2-pentanone	17.77	58	1907807	116.200	ng		99
54) trans-1,3-Dichloropropene	18.37	75	3237084	119.731	ng		100
55) 1,1,2-Trichloroethane	18.61	97	1791350	119.431	ng		100
58) Toluene	19.00	91	7452062	118.439	ng		98
59) 2-Hexanone	19.38	43	4826121	115.346	ng		97
60) Dibromochloromethane	19.54	129	2243667	150.717	ng		100
61) 1,2-Dibromoethane	19.88	107	2084762	132.093	ng		99
62) n-Butyl Acetate	20.18	43	5887161	119.376	ng		99
63) n-Octane	20.29	57	1700212	111.773	ng		98
64) Tetrachloroethene	20.48	166	1936105	132.976	ng		100
65) Chlorobenzene	21.35	112	4900652	125.893	ng		99
66) Ethylbenzene	21.83	91	8343663	116.005	ng		98
67) m- & p-Xylenes	22.08	91	12943022	222.454	ng		98
68) Bromoform	22.16	173	1840619	148.910	ng		100
69) Styrene	22.51	104	5350057	127.219	ng		99
70) o-Xylene	22.66	91	6776973	116.172	ng		98
71) n-Nonane	22.92	43	3907701	100.814	ng		97
72) 1,1,2,2-Tetrachloroethane	22.64	83	3188416	123.160	ng		98
74) Cumene	23.42	105	8239238	111.812	ng		97
75) alpha-Pinene	23.90	93	4304829	113.968	ng		99
76) n-Propylbenzene	24.05	91	10014810	108.114	ng		97
77) 3-Ethyltoluene	24.18	105	8539072	121.254	ng		97
78) 4-Ethyltoluene	24.24	105	7983793	116.999	ng		96
79) 1,3,5-Trimethylbenzene	24.33	105	6981938	121.318	ng		97

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270913.D
Acq On : 27 Aug 2009 20:14
Operator : WA/CC
Sample : 100ng TO-15 ICAL
Misc : S20-08140906/S20-08240903
ALS Vial : 4 Sample Multiplier: 1

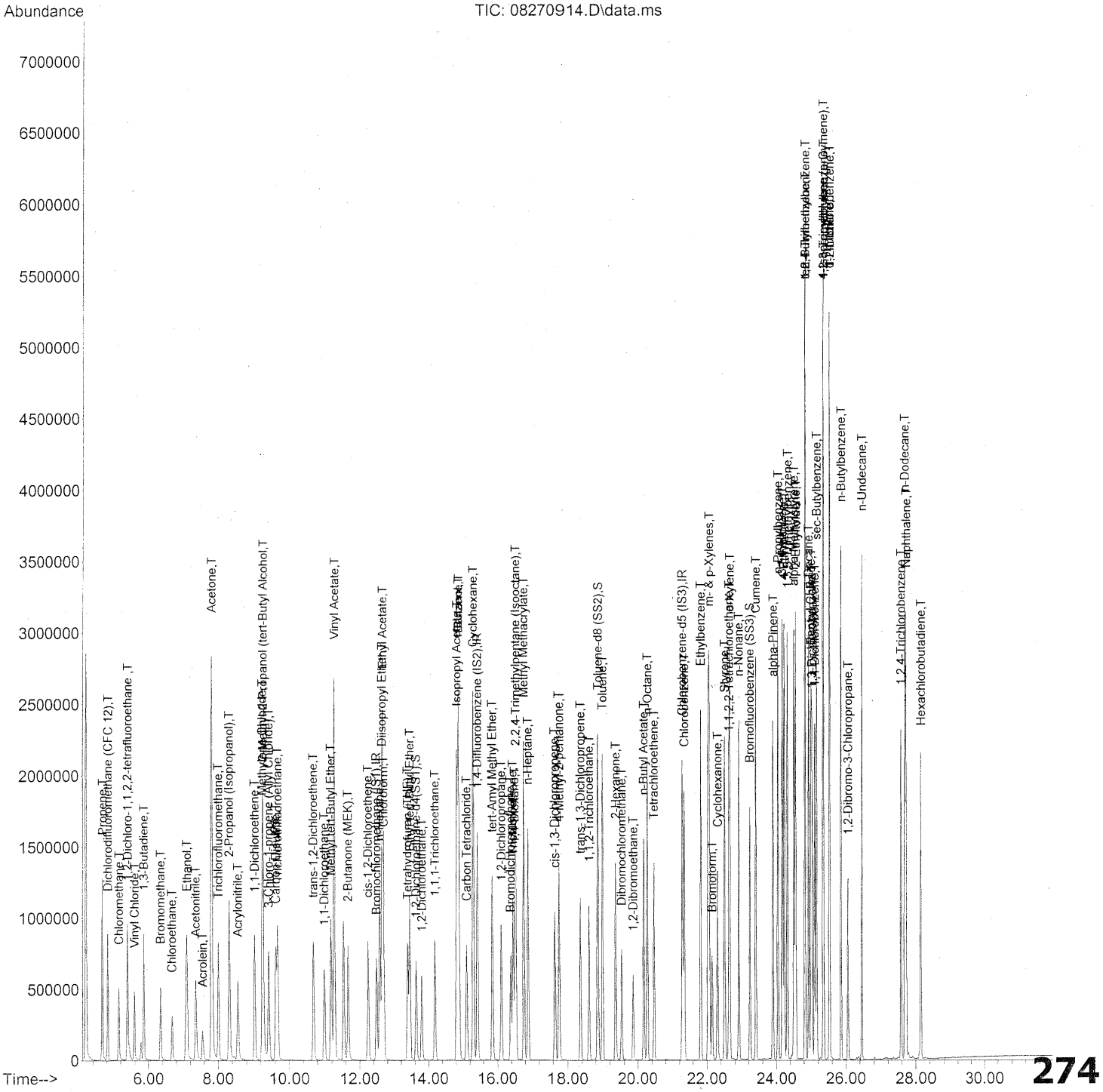
Quant Time: Aug 28 05:57:18 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Thu Aug 27 20:40:00 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.52	118	4021141	130.507	ng	96
81) 2-Ethyltoluene	24.57	105	8211566	115.630	ng	97
82) 1,2,4-Trimethylbenzene	24.85	105	6692639	114.032	ng	99
83) n-Decane	24.94	57	4009152	105.064	ng	97
84) Benzyl Chloride	25.01	91	7118793	129.396	ng	97
85) 1,3-Dichlorobenzene	25.04	146	3898330	131.243	ng	100
86) 1,4-Dichlorobenzene	25.12	146	4048576	127.830	ng	100
87) sec-Butylbenzene	25.17	105	8997095	113.478	ng	96
88) 4-Isopropyltoluene (p-...	25.36	119	7694114	108.829	ng	97
89) 1,2,3-Trimethylbenzene	25.37	105	6891760	115.267	ng	100
90) 1,2-Dichlorobenzene	25.54	146	3370540	119.685	ng	99
91) d-Limonene	25.53	68	2947196	118.087	ng	99
92) 1,2-Dibromo-3-Chloropr...	26.07	157	1512954	156.201	ng	91
93) n-Undecane	26.46	57	4239249	104.422	ng	98
94) 1,2,4-Trichlorobenzene	27.59	180	2929211	151.276	ng	99
95) Naphthalene	27.74	128	9699377	121.689	ng	97
96) n-Dodecane	27.70	57	4261114	90.347	ng	97
97) Hexachlorobutadiene	28.15	225	1670676	135.654	ng	100
98) Cyclohexanone	22.32	55	2812159	107.877	ng	96
99) tert-Butylbenzene	24.84	119	6415247	112.939	ng	100
100) n-Butylbenzene	25.87	91	7689787	117.629	ng	97

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

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270914.D
Acq On : 27 Aug 2009 20:55
Operator : WA/CC
Sample : 25ng TO-15 ICV
Misc : S20-08140906/S20-08240912
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 28 06:10:39 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270914.D
Acq On : 27 Aug 2009 20:55
Operator : WA/CC
Sample : 25ng TO-15 ICV
Misc : S20-08140906/S20-08240912
ALS Vial : 13 Sample Multiplier: 1

MM 8/28/09
CC 8/28/09

Quant Time: Aug 28 06:10:39 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.48	130	364302	25.000	ng		-0.02
37) 1,4-Difluorobenzene (IS2)	15.43	114	1834071	25.000	ng		-0.01
56) Chlorobenzene-d5 (IS3)	21.29	82	881559	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.63	65	703826	24.380	ng		-0.02
Spiked Amount 25.000			Recovery =	97.52%			
57) Toluene-d8 (SS2)	18.85	98	1980062	25.133	ng		0.00
Spiked Amount 25.000			Recovery =	100.52%			
73) Bromofluorobenzene (SS3)	23.23	174	574418	25.333	ng		0.00
Spiked Amount 25.000			Recovery =	101.32%			
Target Compounds							Qvalue
2) Propene	4.66	42	558232	21.184	ng		99
3) Dichlorodifluoromethan...	4.83	85	906131	19.640	ng		99
4) Chloromethane	5.14	50	696859	22.470	ng		99
5) 1,2-Dichloro-1,1,2,2-t...	5.39	135	416752	21.872	ng		100
6) Vinyl Chloride	5.59	62	636166	21.868	ng		99
7) 1,3-Butadiene	5.86	54	508308	23.430	ng		98
8) Bromomethane	6.35	94	454619	25.282	ng		98
9) Chloroethane	6.68	64	354543	22.263	ng		98
10) Ethanol	7.10	45	1896077	116.037	ng		100
11) Acetonitrile	7.36	41	972767	21.433	ng		98
12) Acrolein	7.55	56	304856	24.434	ng		98
13) Acetone	7.81	58	1814954	107.402	ng		96
14) Trichlorofluoromethane	8.01	101	892864	21.957	ng		98
15) 2-Propanol (Isopropanol)	8.31	45	2279239	40.571	ng		100
16) Acrylonitrile	8.55	53	688583	24.684	ng		98
17) 1,1-Dichloroethene	9.03	96	481988	24.435	ng		90
18) 2-Methyl-2-Propanol (t...	9.27	59	2577274	45.814	ng		99
19) Methylene Chloride	9.25	84	478398	22.320	ng		95
20) 3-Chloro-1-propene (Al...	9.42	41	801415	24.025	ng		97
21) Trichlorotrifluoroethane	9.67	151	407404	25.301	ng		94
22) Carbon Disulfide	9.62	76	1736171	22.767	ng		98
23) trans-1,2-Dichloroethene	10.68	61	727009	23.711	ng		92
24) 1,1-Dichloroethane	10.99	63	891842	23.256	ng		100
25) Methyl tert-Butyl Ether	11.18	73	1422449	23.483	ng		100
26) Vinyl Acetate	11.28	86	529835	125.114	ng		98
27) 2-Butanone (MEK)	11.67	72	350226	25.658	ng		96
28) cis-1,2-Dichloroethene	12.24	61	711709	24.405	ng		91
29) Diisopropyl Ether	12.64	87	487987	24.483	ng	#	20
30) Ethyl Acetate	12.67	61	362042	49.357	ng		95
31) n-Hexane	12.58	57	817863	22.383	ng		92

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270914.D
Acq On : 27 Aug 2009 20:55
Operator : WA/CC
Sample : 25ng TO-15 ICV
Misc : S20-08140906/S20-08240912
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 28 06:10:39 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.70	83	845298	23.468	ng		97
34) Tetrahydrofuran (THF)	13.38	72	337115	22.773	ng		95
35) Ethyl tert-Butyl Ether	13.45	87	554493	22.676	ng		94
36) 1,2-Dichloroethane	13.80	62	691810	22.893	ng		99
38) 1,1,1-Trichloroethane	14.18	97	775866	22.884	ng		97
39) Isopropyl Acetate	14.83	61	661174	47.393	ng	#	71
40) 1-Butanol	14.87	56	1067569	46.764	ng	#	1
41) Benzene	14.88	78	1924768	22.324	ng		100
42) Carbon Tetrachloride	15.11	117	700366	24.197	ng		100
43) Cyclohexane	15.30	84	1466800	46.160	ng		95
44) tert-Amyl Methyl Ether	15.85	73	1394562	21.838	ng		98
45) 1,2-Dichloropropane	16.11	63	499496	23.446	ng		98
46) Bromodichloromethane	16.37	83	675550	23.777	ng		100
47) Trichloroethene	16.44	130	510996	24.294	ng		98
48) 1,4-Dioxane	16.50	88	408888	24.676	ng		94
49) 2,2,4-Trimethylpentane...	16.52	57	2191198	22.332	ng		99
50) Methyl Methacrylate	16.76	100	416978	52.179	ng		92
51) n-Heptane	16.88	71	517122	23.141	ng		97
52) cis-1,3-Dichloropropene	17.65	75	796707	22.763	ng		100
53) 4-Methyl-2-pentanone	17.76	58	485301	24.646	ng		99
54) trans-1,3-Dichloropropene	18.36	75	837725	25.269	ng		99
55) 1,1,2-Trichloroethane	18.60	97	460889	22.941	ng		99
58) Toluene	18.98	91	2023334	23.845	ng		99
59) 2-Hexanone	19.36	43	1243953	23.987	ng		97
60) Dibromochloromethane	19.53	129	554007	25.970	ng		99
61) 1,2-Dibromoethane	19.86	107	543305	24.380	ng		99
62) n-Butyl Acetate	20.17	43	1455122	24.458	ng		99
63) n-Octane	20.28	57	451615	23.127	ng		96
64) Tetrachloroethene	20.46	166	499063	23.228	ng		100
65) Chlorobenzene	21.34	112	1303802	23.953	ng		100
66) Ethylbenzene	21.82	91	2304825	23.748	ng		99
67) m- & p-Xylenes	22.06	91	3591413	46.481	ng		99
68) Bromoform	22.15	173	444206	24.049	ng		100
69) Styrene	22.51	104	1413368	24.843	ng		99
70) o-Xylene	22.65	91	1856316	23.919	ng		98
71) n-Nonane	22.91	43	1056471	22.652	ng		97
72) 1,1,2,2-Tetrachloroethane	22.63	83	854190	24.007	ng		97
74) Cumene	23.41	105	2272739	23.105	ng		99
75) alpha-Pinene	23.90	93	1136434	22.273	ng		99
76) n-Propylbenzene	24.05	91	2856293	22.859	ng		99
77) 3-Ethyltoluene	24.17	105	2281470	24.245	ng		99
78) 4-Ethyltoluene	24.23	105	2214131	23.841	ng		98
79) 1,3,5-Trimethylbenzene	24.32	105	1909328	24.700	ng		99

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270914.D
Acq On : 27 Aug 2009 20:55
Operator : WA/CC
Sample : 25ng TO-15 ICV
Misc : S20-08140906/S20-08240912
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 28 06:10:39 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.51	118	1053314	25.946	ng	96
81) 2-Ethyltoluene	24.56	105	2253391	23.336	ng	99
82) 1,2,4-Trimethylbenzene	24.83	105	1903607	24.125	ng	98
83) n-Decane	24.93	57	1110988	23.583	ng	97
84) Benzyl Chloride	25.00	91	1882684	24.099	ng	98
85) 1,3-Dichlorobenzene	25.03	146	1042475	24.444	ng	99
86) 1,4-Dichlorobenzene	25.11	146	1061279	23.895	ng	99
87) sec-Butylbenzene	25.16	105	2551013	23.669	ng	99
88) 4-Isopropyltoluene (p-...	25.35	119	2281213	23.482	ng	100
89) 1,2,3-Trimethylbenzene	25.35	105	1936617	23.416	ng	99
90) 1,2-Dichlorobenzene	25.53	146	967026	24.296	ng	99
91) d-Limonene	25.53	68	801027	25.430	ng	99
92) 1,2-Dibromo-3-Chloropr...	26.06	157	379682	27.265	ng	92
93) n-Undecane	26.46	57	1199529	24.527	ng	98
94) 1,2,4-Trichlorobenzene	27.58	180	753771	26.888	ng	99
95) Naphthalene	27.73	128	2723374	24.973	ng	100
96) n-Dodecane	27.69	57	1252730	22.471	ng	97
97) Hexachlorobutadiene	28.15	225	422597	25.073	ng	100
98) Cyclohexanone	22.30	55	730222	22.320	ng	97
99) tert-Butylbenzene	24.83	119	1819030	23.804	ng	99
100) n-Butylbenzene	25.86	91	2158740	24.566	ng	100

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

INITIAL CALIBRATION VERIFICATION CHECK SHEET

Data File Name: 08270914.D
Data File Path: J:\MS13\DATA\2009_08\27\
Operator: WA/CC
Date Acquired: 8/27/2009 20:55
Acq. Method File: TO15.M
Name: 25ng TO-15 ICV
Misc Info: S20-08140906/S20-08240912
Instrument Name: GCMS13

#	Compound	Ret. Time	Amt. (ng)	Spike Amt.(ng)	% Rec.	Lower Limit	Upper Limit	* OR Fail
2)	Propene	4.66	21.2	26.3	80.6	70	130	*
3)	Dichlorodifluoromethane (CFC	4.83	19.6	26.0	75.4	70	130	*
4)	Chloromethane	5.14	22.5	25.0	90.0	70	130	*
5)	1,2-Dichloro-1,1,2,2-tetrafluoro(	5.39	21.9	26.0	84.2	70	130	*
6)	Vinyl Chloride	5.59	21.9	25.3	86.6	70	130	*
7)	1,3-Butadiene	5.86	23.4	26.8	87.3	70	130	*
8)	Bromomethane	6.35	25.3	25.8	98.1	70	130	*
9)	Chloroethane	6.68	22.3	25.5	87.5	70	130	*
10)	Ethanol	7.10	116.0	130.0	89.2	70	130	*
11)	Acetonitrile	7.36	21.4	26.0	82.3	70	130	*
12)	Acrolein	7.55	24.4	26.3	92.8	70	130	*
13)	Acetone	7.81	107.4	132.0	81.4	70	130	*
14)	Trichlorofluoromethane	8.01	22.0	26.3	83.7	70	130	*
15)	2-Propanol (Isopropanol)	8.31	40.6	48.0	84.6	70	130	*
16)	Acrylonitrile	8.55	24.7	25.8	95.7	70	130	*
17)	1,1-Dichloroethene	9.03	24.4	27.5	88.7	70	130	*
18)	2-Methyl-2-Propanol (tert-Butyl Al	9.27	45.8	50.0	91.6	70	130	*
19)	Methylene Chloride	9.25	22.3	26.8	83.2	70	130	*
20)	3-Chloro-1-propene (Allyl Chlor	9.42	24.0	27.0	88.9	70	130	*
21)	Trichlorotrifluoroethane	9.67	25.3	27.5	92.0	70	130	*
22)	Carbon Disulfide	9.62	22.8	26.0	87.7	70	130	*
23)	trans-1,2-Dichloroethene	10.68	23.7	25.5	92.9	70	130	*
24)	1,1-Dichloroethane	10.99	23.3	26.5	87.9	70	130	*
25)	Methyl tert-Butyl Ether	11.18	23.5	26.3	89.4	70	130	*
26)	Vinyl Acetate	11.28	125.1	126.0	99.3	70	130	*
27)	2-Butanone (MEK)	11.67	25.7	26.8	95.9	70	130	*
28)	cis-1,2-Dichloroethene	12.24	24.4	27.0	90.4	70	130	*
29)	Diisopropyl Ether	12.64	24.5	26.5	92.5	70	130	*
30)	Ethyl Acetate	12.67	49.4	52.0	95.0	70	130	*
31)	n-Hexane	12.58	22.4	26.0	86.2	70	130	*
32)	Chloroform	12.70	23.5	27.5	85.5	70	130	*
34)	Tetrahydrofuran (THF)	13.38	22.8	26.5	86.0	70	130	*
35)	Ethyl tert-Butyl Ether	13.45	22.7	25.5	89.0	70	130	*
36)	1,2-Dichloroethane	13.80	22.9	26.3	87.1	70	130	*
38)	1,1,1-Trichloroethane	14.18	22.9	26.0	88.1	70	130	*
39)	Isopropyl Acetate	14.83	47.4	52.3	90.6	70	130	*
40)	1-Butanol	14.87	46.8	52.8	88.6	70	130	*
41)	Benzene	14.88	22.3	25.8	86.4	70	130	*
42)	Carbon Tetrachloride	15.11	24.2	26.3	92.0	70	130	*
43)	Cyclohexane	15.30	46.2	51.8	89.2	70	130	*
44)	tert-Amyl Methyl Ether	15.85	21.8	25.5	85.5	70	130	*
45)	1,2-Dichloropropane	16.11	23.4	26.0	90.0	70	130	*
46)	Bromodichloromethane	16.37	23.8	26.3	90.5	70	130	*
47)	Trichloroethene	16.44	24.3	25.8	94.2	70	130	*
48)	1,4-Dioxane	16.50	24.7	26.0	95.0	70	130	*
49)	2,2,4-Trimethylpentane (Isooctan	16.52	22.3	25.8	86.4	70	130	*
50)	Methyl Methacrylate	16.76	52.2	52.8	98.9	70	130	*

LM 8/28/09
CC 8/28/09

INITIAL CALIBRATION VERIFICATION CHECK SHEET

Data File Name: 08270914.D
Data File Path: J:\MS13\DATA\2009_08\27\
Operator: WA/CC
Date Acquired: 8/27/2009 20:55
Acq. Method File: TO15.M
Name: 25ng TO-15 ICV
Misc Info: S20-08140906/S20-08240912
Instrument Name: GCMS13

#	Compound	Ret. Time	Amt. (ng)	Spike Amt.(ng)	% Rec.	Lower Limit	Upper Limit	* OR Fail
51)	n-Heptane	16.88	23.1	25.8	89.5	70	130	*
52)	cis-1,3-Dichloropropene	17.65	22.8	24.5	93.1	70	130	*
53)	4-Methyl-2-pentanone	17.76	24.6	26.8	91.8	70	130	*
54)	trans-1,3-Dichloropropene	18.36	25.3	27.0	93.7	70	130	*
55)	1,1,2-Trichloroethane	18.60	22.9	26.0	88.1	70	130	*
58)	Toluene	18.98	23.8	26.8	88.8	70	130	*
59)	2-Hexanone	19.36	24.0	27.0	88.9	70	130	*
60)	Dibromochloromethane	19.53	26.0	28.3	91.9	70	130	*
61)	1,2-Dibromoethane	19.86	24.4	26.3	92.8	70	130	*
62)	n-Butyl Acetate	20.17	24.5	27.5	89.1	70	130	*
63)	n-Octane	20.28	23.1	26.3	87.8	70	130	*
64)	Tetrachloroethene	20.46	23.2	25.3	91.7	70	130	*
65)	Chlorobenzene	21.34	24.0	26.5	90.6	70	130	*
66)	Ethylbenzene	21.82	23.7	26.3	90.1	70	130	*
67)	m- & p-Xylenes	22.06	46.5	51.5	90.3	70	130	*
68)	Bromoform	22.15	24.0	26.5	90.6	70	130	*
69)	Styrene	22.51	24.8	26.3	94.3	70	130	*
70)	o-Xylene	22.65	23.9	26.0	91.9	70	130	*
71)	n-Nonane	22.91	22.7	25.8	88.0	70	130	*
72)	1,1,2,2-Tetrachloroethane	22.63	24.0	27.0	88.9	70	130	*
74)	Cumene	23.41	23.1	25.3	91.3	70	130	*
75)	alpha-Pinene	23.90	22.3	24.8	89.9	70	130	*
76)	n-Propylbenzene	24.05	22.9	25.3	90.5	70	130	*
77)	3-Ethyltoluene	24.17	24.2	26.3	92.0	70	130	*
78)	4-Ethyltoluene	24.23	23.8	26.3	90.5	70	130	*
79)	1,3,5-Trimethylbenzene	24.32	24.7	26.5	93.2	70	130	*
80)	alpha-Methylstyrene	24.51	25.9	26.0	99.6	70	130	*
81)	2-Ethyltoluene	24.56	23.3	26.0	89.6	70	130	*
82)	1,2,4-Trimethylbenzene	24.83	24.1	25.5	94.5	70	130	*
83)	n-Decane	24.93	23.6	26.3	89.7	70	130	*
84)	Benzyl Chloride	25.00	24.1	26.8	89.9	70	130	*
85)	1,3-Dichlorobenzene	25.03	24.4	26.0	93.8	70	130	*
86)	1,4-Dichlorobenzene	25.11	23.9	26.3	90.9	70	130	*
87)	sec-Butylbenzene	25.16	23.7	25.8	91.9	70	130	*
88)	4-Isopropyltoluene (p-Cymene)	25.35	23.5	25.0	94.0	70	130	*
89)	1,2,3-Trimethylbenzene	25.35	23.4	26.0	90.0	70	130	*
90)	1,2-Dichlorobenzene	25.53	24.3	25.8	94.2	70	130	*
91)	d-Limonene	25.53	25.4	26.5	95.8	70	130	*
92)	1,2-Dibromo-3-Chloropropane	26.06	27.3	27.0	101.1	70	130	*
93)	n-Undecane	26.46	24.5	26.3	93.2	70	130	*
94)	1,2,4-Trichlorobenzene	27.58	26.9	27.3	98.5	70	130	*
95)	Naphthalene	27.73	25.0	25.0	100.0	70	130	*
96)	n-Dodecane	27.69	22.5	24.3	92.6	70	130	*
97)	Hexachlorobutadiene	28.15	25.1	26.8	93.7	70	130	*
98)	Cyclohexanone	22.30	22.3	24.8	89.9	70	130	*
99)	tert-Butylbenzene	24.83	23.8	26.5	89.8	70	130	*
100)	n-Butylbenzene	25.86	24.6	26.5	92.8	70	130	*

* Denotes Passing Criterion

CONTINUING CALIBRATION STANDARDS

Evaluate Continuing Calibration Report

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310901.D
Acq On : 31 Aug 2009 9:24 am
Operator : LM/CC
Sample : 25ng TO-15 CCV STD
Misc : S20-08140906/S20-08240903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 31 09:55:34 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

LM 9/2/09
CC 9-1-09

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	173	-0.02
2	T	Propene	1.716	1.430	16.7	139	0.00
3	T	Dichlorodifluoromethane (CF	2.804	2.483	11.4	148	0.00
4	T	Chloromethane	1.884	1.919	-1.9	152	0.00
5	T	1,2-Dichloro-1,1,2,2-tetraf	1.139	1.054	7.5	154	0.00
6	T	Vinyl Chloride	1.810	1.661	8.2	140	0.00
7	T	1,3-Butadiene	1.297	1.268	2.2	146	0.00
8	T	Bromomethane	1.102	1.059	3.9	142	0.00
9	T	Chloroethane	1.052	0.968	8.0	143	-0.01
10	T	Ethanol	1.087	0.999	8.1	154	-0.12
11	T	Acetonitrile	3.185	2.626	17.6	140	-0.05
12	T	Acrolein	0.828	0.790	4.6	146	-0.03
13	T	Acetone	1.026	0.932	9.2	147	-0.06
14	T	Trichlorofluoromethane	2.535	2.481	2.1	153	0.00
15	T	2-Propanol (Isopropanol)	4.032	3.618	10.3	150	-0.10
16	T	Acrylonitrile	1.854	1.841	0.7	141	-0.04
17	T	1,1-Dichloroethene	1.177	1.207	-2.5	154	-0.01
18	T	2-Methyl-2-Propanol (tert-B	3.579	3.582	-0.1	147	-0.09
19	T	Methylene Chloride	1.378	1.226	11.0	149	-0.02
20	T	3-Chloro-1-propene (Allyl C	2.656	2.094	21.2	136	-0.02
21	T	Trichlorotrifluoroethane	0.922	1.006	-9.1	164	0.00
22	T	Carbon Disulfide	4.858	4.688	3.5	153	0.00
23	T	trans-1,2-Dichloroethene	2.083	1.967	5.6	140	-0.02
24	T	1,1-Dichloroethane	2.526	2.390	5.4	145	-0.02
25	T	Methyl tert-Butyl Ether	3.882	3.689	5.0	147	-0.05
26	T	Vinyl Acetate	0.209	0.310	-48.3#	242#	-0.03
27	T	2-Butanone (MEK)	0.926	0.918	0.9	148	-0.06
28	T	cis-1,2-Dichloroethene	1.939	1.837	5.3	142	-0.02
29	T	Diisopropyl Ether	1.240	1.294	-4.4	157	-0.04
30	T	Ethyl Acetate	0.483	0.492	-1.9	152	-0.05
31	T	n-Hexane	2.469	2.159	12.6	143	0.00
32	T	Chloroform	2.174	2.203	-1.3	157	-0.02
33	S	1,2-Dichloroethane-d4(SS1)	2.173	1.955	10.0	157	-0.02
34	T	Tetrahydrofuran (THF)	0.988	0.867	12.2	147	-0.06
35	T	Ethyl tert-Butyl Ether	1.604	1.537	4.2	152	-0.04
36	T	1,2-Dichloroethane	1.986	1.846	7.0	143	-0.02
37	IR	1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	169	-0.01
38	T	1,1,1-Trichloroethane	0.424	0.420	0.9	151	-0.01

Evaluate Continuing Calibration Report

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310901.D
Acq On : 31 Aug 2009 9:24 am
Operator : LM/CC
Sample : 25ng TO-15 CCV STD
Misc : S20-08140906/S20-08240903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 31 09:55:34 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

LM 9/2/09

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	0.185	0.176	4.9	144	-0.05
40	T	1-Butanol	0.324	0.289	10.8	147	-0.10
41	T	Benzene	1.099	1.015	7.6	150	-0.02
42	T	Carbon Tetrachloride	0.350	0.370	-5.7	153	-0.01
43	T	Cyclohexane	0.403	0.390	3.2	149	-0.01
44	T	tert-Amyl Methyl Ether	0.825	0.779	5.6	146	-0.05
45	T	1,2-Dichloropropane	0.276	0.267	3.3	144	-0.02
46	T	Bromodichloromethane	0.362	0.362	0.0	150	-0.02
47	T	Trichloroethene	0.248	0.267	-7.7	159	-0.02
48	T	1,4-Dioxane	0.210	0.216	-2.9	155	-0.05
49	T	2,2,4-Trimethylpentane (Iso	1.295	1.205	6.9	142	-0.01
50	T	Methyl Methacrylate	0.101	0.108	-6.9	154	-0.04
51	T	n-Heptane	0.295	0.284	3.7	146	-0.02
52	T	cis-1,3-Dichloropropene	0.458	0.449	2.0	146	-0.01
53	T	4-Methyl-2-pentanone	0.264	0.256	3.0	143	-0.04
54	T	trans-1,3-Dichloropropene	0.435	0.430	1.1	148	-0.02
55	T	1,1,2-Trichloroethane	0.241	0.248	-2.9	155	-0.02
56	IR	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	155	0.00
57	S	Toluene-d8 (SS2)	2.184	2.316	-6.0	165	0.00
58	T	Toluene	2.147	2.266	-5.5	151	-0.01
59	T	2-Hexanone	1.428	1.418	0.7	139	-0.05
60	T	Dibromochloromethane	0.508	0.607	-19.5	158	0.00
61	T	1,2-Dibromoethane	0.539	0.622	-15.4	156	-0.02
62	T	n-Butyl Acetate	1.683	1.644	2.3	139	-0.03
63	T	n-Octane	0.519	0.520	-0.2	141	-0.01
64	T	Tetrachloroethene	0.497	0.592	-19.1	161	-0.01
65	T	Chlorobenzene	1.328	1.461	-10.0	156	0.00
66	T	Ethylbenzene	2.454	2.643	-7.7	152	-0.01
67	T	m- & p-Xylenes	1.985	2.103	-5.9	152	-0.02
68	T	Bromoform	0.422	0.546	-29.4	163	-0.01
69	T	Styrene	1.435	1.611	-12.3	153	-0.01
70	T	o-Xylene	1.990	2.131	-7.1	153	-0.02
71	T	n-Nonane	1.323	1.238	6.4	137	0.00
72	T	1,1,2,2-Tetrachloroethane	0.883	0.986	-11.7	156	-0.02
73	S	Bromofluorobenzene (SS3)	0.576	0.629	-9.2	168	0.00
74	T	Cumene	2.514	2.707	-7.7	154	-0.01
75	T	alpha-Pinene	1.289	1.393	-8.1	151	-0.01
76	T	n-Propylbenzene	3.161	3.435	-8.7	153	0.00

CC 9-1-09

Evaluate Continuing Calibration Report

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310901.D
Acq On : 31 Aug 2009 9:24 am
Operator : LM/CC
Sample : 25ng TO-15 CCV STD
Misc : S20-08140906/S20-08240903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 31 09:55:34 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

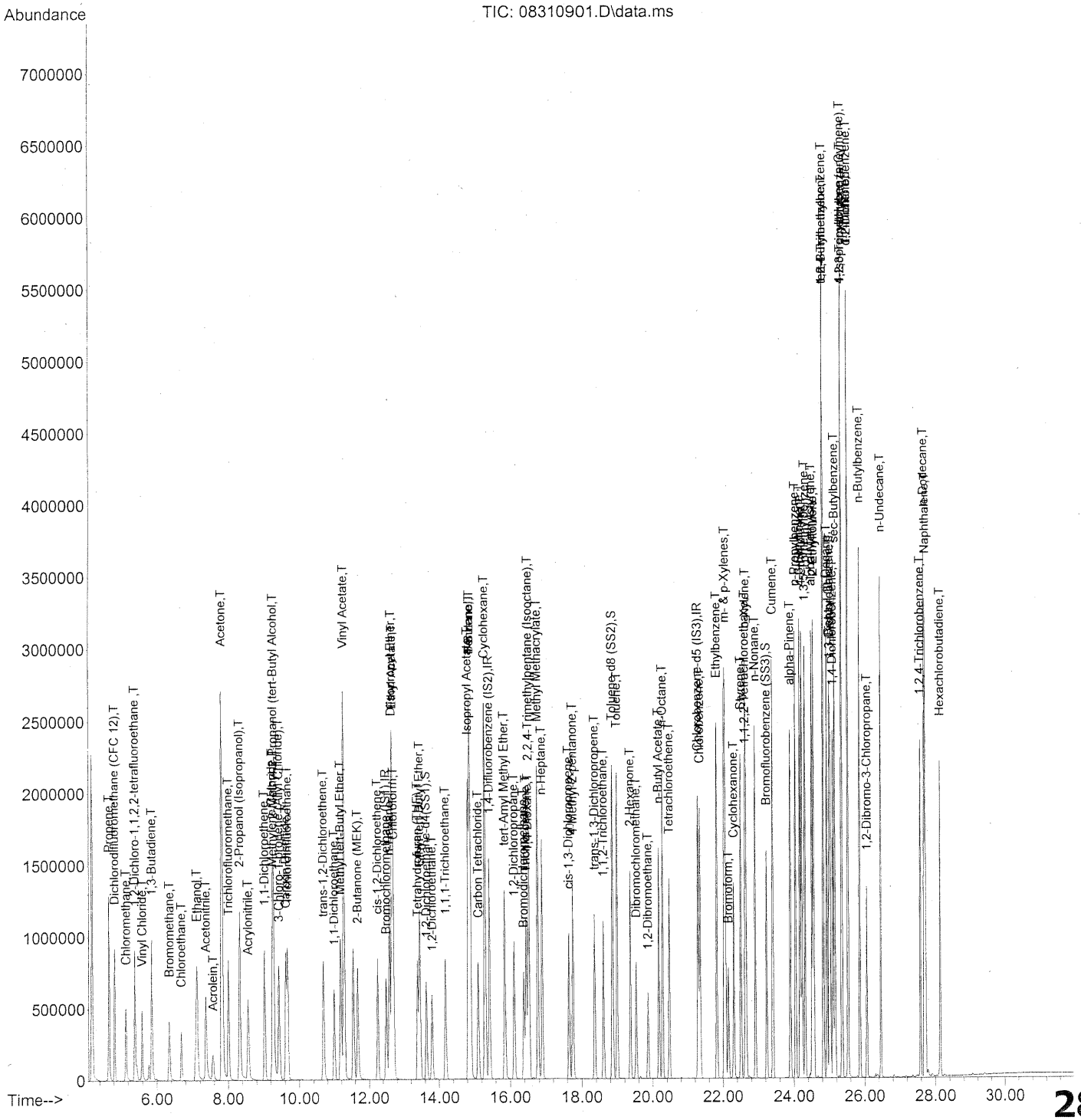
Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
77	T	3-Ethyltoluene	2.403	2.609	-8.6	156	-0.01
78	T	4-Ethyltoluene	2.328	2.556	-9.8	154	-0.02
79	T	1,3,5-Trimethylbenzene	1.964	2.138	-8.9	154	-0.01
80	T	alpha-Methylstyrene	1.051	1.221	-16.2	157	-0.02
81	T	2-Ethyltoluene	2.423	2.671	-10.2	155	-0.01
82	T	1,2,4-Trimethylbenzene	2.003	2.230	-11.3	156	-0.02
83	T	n-Decane	1.302	1.272	2.3	140	-0.01
84	T	Benzyl Chloride	1.877	2.208	-17.6	156	-0.02
85	T	1,3-Dichlorobenzene	1.013	1.180	-16.5	162	-0.02
86	T	1,4-Dichlorobenzene	1.081	1.243	-15.0	162	-0.02
87	T	sec-Butylbenzene	2.705	3.008	-11.2	156	-0.01
88	T	4-Isopropyltoluene (p-Cymen	2.412	2.750	-14.0	157	-0.01
89	T	1,2,3-Trimethylbenzene	2.040	2.254	-10.5	155	-0.01
90	T	1,2-Dichlorobenzene	0.961	1.129	-17.5	160	-0.02
91	T	d-Limonene	0.852	0.926	-8.7	151	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.330	0.428	-29.7	163	0.00
93	T	n-Undecane	1.385	1.351	2.5	141	0.00
94	T	1,2,4-Trichlorobenzene	0.661	0.818	-23.8	162	-0.01
95	T	Naphthalene	2.720	3.200	-17.6	163	-0.01
96	T	n-Dodecane	1.609	1.483	7.8	138	0.00
97	T	Hexachlorobutadiene	0.420	0.464	-10.5	159	0.00
98	T	Cyclohexanone	0.889	0.929	-4.5	148	-0.05
99	T	tert-Butylbenzene	1.938	2.137	-10.3	157	-0.01
100	T	n-Butylbenzene	2.231	2.477	-11.0	153	-0.01

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

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310901.D
Acq On : 31 Aug 2009 9:24 am
Operator : LM/CC
Sample : 25ng TO-15 CCV STD
Misc : S20-08140906/S20-08240903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 31 09:55:34 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310901.D
Acq On : 31 Aug 2009 9:24 am
Operator : LM/CC
Sample : 25ng TO-15 CCV STD
Misc : S20-08140906/S20-08240903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 31 09:55:34 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

LM 9/2/09

CC 9-1-09

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane (IS1)	12.49	130	359899	25.000	ng	-0.01
37) 1,4-Difluorobenzene (IS2)	15.43	114	1781949	25.000	ng	0.00
56) Chlorobenzene-d5 (IS3)	21.29	82	819484	25.000	ng	0.00
System Monitoring Compounds						
33) 1,2-Dichloroethane-d4(...	13.64	65	703623	24.671	ng	-0.01
Spiked Amount 25.000			Recovery =	98.68%		
57) Toluene-d8 (SS2)	18.86	98	1898099	25.917	ng	0.00
Spiked Amount 25.000			Recovery =	103.68%		
73) Bromofluorobenzene (SS3)	23.24	174	515643	24.464	ng	0.00
Spiked Amount 25.000			Recovery =	97.84%		
Target Compounds						Qvalue
2) Propene	4.66	42	551849	21.198	ng	99
3) Dichlorodifluoromethan...	4.83	85	940017	20.624	ng	99
4) Chloromethane	5.14	50	690649	22.542	ng	99
5) 1,2-Dichloro-1,1,2,2-t...	5.39	135	402188	21.366	ng	99
6) Vinyl Chloride	5.59	62	604788	21.044	ng	99
7) 1,3-Butadiene	5.86	54	547737	25.556	ng	99
8) Bromomethane	6.35	94	388869	21.890	ng	97
9) Chloroethane	6.69	64	352743	22.421	ng	98
10) Ethanol	7.11	45	1869619	115.817	ng	99
11) Acetonitrile	7.37	41	994254	22.174	ng	98
12) Acrolein	7.57	56	306988	24.906	ng	98
13) Acetone	7.82	58	1850773	110.862	ng	98
14) Trichlorofluoromethane	8.01	101	939479	23.386	ng	99
15) 2-Propanol (Isopropanol)	8.33	45	2463832	44.393	ng	100
16) Acrylonitrile	8.56	53	702139	25.478	ng	97
17) 1,1-Dichloroethene	9.03	96	477938	24.526	ng	92
18) 2-Methyl-2-Propanol (t...	9.29	59	2604060	46.857	ng	99
19) Methylene Chloride	9.25	84	473013	22.339	ng	96
20) 3-Chloro-1-propene (Al...	9.43	41	813771	24.694	ng	98
21) Trichlorotrifluoroethane	9.68	151	398292	25.038	ng	96
22) Carbon Disulfide	9.63	76	1808713	24.009	ng	99
23) trans-1,2-Dichloroethene	10.68	61	750587	24.780	ng	94
24) 1,1-Dichloroethane	10.99	63	911760	24.067	ng	100
25) Methyl tert-Butyl Ether	11.18	73	1449987	24.231	ng	100
26) Vinyl Acetate	11.28	86	561405	134.190	ng	98
27) 2-Butanone (MEK)	11.67	72	363438	26.951	ng	96
28) cis-1,2-Dichloroethene	12.25	61	721961	25.060	ng	92
29) Diisopropyl Ether	12.66	87	499218	25.353	ng #	20
30) Ethyl Acetate	12.68	61	377411	52.082	ng	99
31) n-Hexane	12.59	57	848415	23.503	ng	98

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310901.D
Acq On : 31 Aug 2009 9:24 am
Operator : LM/CC
Sample : 25ng TO-15 CCV STD
Misc : S20-08140906/S20-08240903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 31 09:55:34 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.70	83	850048	23.889	ng		97
34) Tetrahydrofuran (THF)	13.39	72	343286	23.474	ng		95
35) Ethyl tert-Butyl Ether	13.46	87	570733	23.626	ng		94
36) 1,2-Dichloroethane	13.80	62	704094	23.584	ng		99
38) 1,1,1-Trichloroethane	14.19	97	786704	23.882	ng		98
39) Isopropyl Acetate	14.83	61	656773	48.454	ng	#	73
40) 1-Butanol	14.88	56	1066266	48.074	ng	#	1
41) Benzene	14.88	78	1916983	22.884	ng		99
42) Carbon Tetrachloride	15.11	117	712601	25.340	ng		100
43) Cyclohexane	15.31	84	1494967	48.423	ng		95
44) tert-Amyl Methyl Ether	15.85	73	1442774	23.253	ng		98
45) 1,2-Dichloropropane	16.12	63	500008	24.157	ng		99
46) Bromodichloromethane	16.38	83	696953	25.248	ng		100
47) Trichloroethene	16.45	130	504182	24.671	ng		98
48) 1,4-Dioxane	16.51	88	412351	25.613	ng		91
49) 2,2,4-Trimethylpentane...	16.53	57	2232830	23.422	ng		99
50) Methyl Methacrylate	16.77	100	411140	52.954	ng		94
51) n-Heptane	16.89	71	535505	24.664	ng		97
52) cis-1,3-Dichloropropene	17.65	75	793273	23.328	ng		100
53) 4-Methyl-2-pentanone	17.76	58	500921	26.183	ng		100
54) trans-1,3-Dichloropropene	18.36	75	842292	26.150	ng		100
55) 1,1,2-Trichloroethane	18.60	97	464199	23.781	ng		99
58) Toluene	18.99	91	2005764	25.428	ng		99
59) 2-Hexanone	19.36	43	1278567	26.522	ng		97
60) Dibromochloromethane	19.54	129	573485	28.919	ng		100
61) 1,2-Dibromoethane	19.86	107	540455	26.089	ng		99
62) n-Butyl Acetate	20.17	43	1481815	26.793	ng		99
63) n-Octane	20.28	57	456380	25.141	ng		97
64) Tetrachloroethene	20.47	166	494449	24.756	ng		100
65) Chlorobenzene	21.35	112	1292885	25.551	ng		100
66) Ethylbenzene	21.82	91	2295958	25.449	ng		99
67) m- & p-Xylenes	22.06	91	3585280	49.917	ng		99
68) Bromoform	22.16	173	462049	26.910	ng		99
69) Styrene	22.51	104	1414820	26.753	ng		99
70) o-Xylene	22.66	91	1851095	25.658	ng		98
71) n-Nonane	22.92	43	1075060	24.797	ng		98
72) 1,1,2,2-Tetrachloroethane	22.63	83	866099	26.185	ng		98
74) Cumene	23.41	105	2288989	25.033	ng		99
75) alpha-Pinene	23.90	93	1155617	24.365	ng		98
76) n-Propylbenzene	24.05	91	2904902	25.009	ng		99
77) 3-Ethyltoluene	24.18	105	2334932	26.693	ng		99
78) 4-Ethyltoluene	24.23	105	2287137	26.493	ng		98
79) 1,3,5-Trimethylbenzene	24.33	105	1913540	26.629	ng		98

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310901.D
Acq On : 31 Aug 2009 9:24 am
Operator : LM/CC
Sample : 25ng TO-15 CCV STD
Misc : S20-08140906/S20-08240903
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Aug 31 09:55:34 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.51	118	1072894	28.430	ng	96
81) 2-Ethyltoluene	24.57	105	2302742	25.654	ng	99
82) 1,2,4-Trimethylbenzene	24.83	105	1936683	26.403	ng	99
83) n-Decane	24.94	57	1125423	25.699	ng	96
84) Benzyl Chloride	25.01	91	1990620	27.411	ng	98
85) 1,3-Dichlorobenzene	25.03	146	1055832	26.633	ng	99
86) 1,4-Dichlorobenzene	25.11	146	1079847	26.155	ng	99
87) sec-Butylbenzene	25.17	105	2612893	26.079	ng	99
88) 4-Isopropyltoluene (p-...	25.35	119	2325538	25.752	ng	99
89) 1,2,3-Trimethylbenzene	25.36	105	1979858	25.752	ng	99
90) 1,2-Dichlorobenzene	25.53	146	980900	26.512	ng	100
91) d-Limonene	25.53	68	828795	28.305	ng	99
92) 1,2-Dibromo-3-Chloropr...	26.07	157	386091	29.825	ng	94
93) n-Undecane	26.46	57	1208940	26.592	ng	98
94) 1,2,4-Trichlorobenzene	27.59	180	751000	28.819	ng	99
95) Naphthalene	27.73	128	2779766	27.421	ng	100
96) n-Dodecane	27.70	57	1205172	23.256	ng	98
97) Hexachlorobutadiene	28.15	225	418299	26.698	ng	100
98) Cyclohexanone	22.30	55	746414	24.543	ng	97
99) tert-Butylbenzene	24.83	119	1856326	26.133	ng	99
100) n-Butylbenzene	25.86	91	2216266	27.132	ng	100

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

CC
9-1-09

Evaluate Continuing Calibration Report

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030902.D
Acq On : 3 Sep 2009 8:03 am
Operator : LM/CC
Sample : 25ng TO-15 CCV STD
Misc : S20-08140906/S20-08240903
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 03 08:35:03 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

CC 9-4-09

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	86	-0.01
2	T	Propene	1.808	1.761	2.6	79	0.00
3	T	Dichlorodifluoromethane (CF	3.166	2.922	7.7	79	0.00
4	T	Chloromethane	2.128	2.226	-4.6	82	0.00
5	T	1,2-Dichloro-1,1,2,2-tetraf	1.308	1.274	2.6	79	0.00
6	T	Vinyl Chloride	1.996	1.988	0.4	79	0.00
7	T	1,3-Butadiene	1.489	1.527	-2.6	79	0.00
8	T	Bromomethane	1.234	1.419	-15.0	84	0.00
9	T	Chloroethane	1.093	1.131	-3.5	81	0.00
10	T	Ethanol	1.121	1.178	-5.1	83	-0.10
11	T	Acetonitrile	3.115	3.090	0.8	82	-0.05
12	T	Acrolein	0.856	0.920	-7.5	81	-0.02
13	T	Acetone	1.160	1.112	4.1	83	-0.05
14	T	Trichlorofluoromethane	2.791	2.915	-4.4	82	0.00
15	T	2-Propanol (Isopropanol)	3.855	3.839	0.4	82	-0.07
16	T	Acrylonitrile	1.914	2.189	-14.4	83	-0.03
17	T	1,1-Dichloroethene	1.354	1.401	-3.5	82	0.00
18	T	2-Methyl-2-Propanol (tert-B	3.860	4.192	-8.6	83	-0.05
19	T	Methylene Chloride	1.471	1.450	1.4	81	-0.02
20	T	3-Chloro-1-propene (Allyl C	2.289	2.448	-6.9	83	-0.02
21	T	Trichlorotrifluoroethane	1.105	1.197	-8.3	84	-0.01
22	T	Carbon Disulfide	5.233	5.457	-4.3	81	0.00
23	T	trans-1,2-Dichloroethene	2.104	2.329	-10.7	82	-0.01
24	T	1,1-Dichloroethane	2.632	2.817	-7.0	84	-0.02
25	T	Methyl tert-Butyl Ether	4.157	4.383	-5.4	82	-0.02
26	T	Vinyl Acetate	0.291	0.360	-23.7	89	-0.03
27	T	2-Butanone (MEK)	0.937	1.076	-14.8	83	-0.03
28	T	cis-1,2-Dichloroethene	2.001	2.185	-9.2	83	-0.02
29	T	Diisopropyl Ether	1.368	1.534	-12.1	84	-0.01
30	T	Ethyl Acetate	0.503	0.581	-15.5	83	-0.03
31	T	n-Hexane	2.508	2.531	-0.9	81	-0.01
32	T	Chloroform	2.472	2.648	-7.1	83	-0.02
33	S	1,2-Dichloroethane-d4(SS1)	1.981	1.975	0.3	85	-0.02
34	T	Tetrahydrofuran (THF)	1.016	1.033	-1.7	83	-0.02
35	T	Ethyl tert-Butyl Ether	1.678	1.795	-7.0	83	-0.02
36	T	1,2-Dichloroethane	2.074	2.188	-5.5	83	-0.01
37	IR	1,4-Difluorobenzene (IS2)	1.000	1.000	0.0	86	-0.01
38	T	1,1,1-Trichloroethane	0.462	0.487	-5.4	82	-0.01

LM 9/4/09

Evaluate Continuing Calibration Report

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030902.D
Acq On : 3 Sep 2009 8:03 am
Operator : LM/CC
Sample : 25ng TO-15 CCV STD
Misc : S20-08140906/S20-08240903
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 03 08:35:03 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 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	0.190	0.205	-7.9	82	-0.02
40	T	1-Butanol	0.311	0.335	-7.7	83	-0.07
41	T	Benzene	1.175	1.185	-0.9	84	-0.02
42	T	Carbon Tetrachloride	0.395	0.426	-7.8	82	-0.01
43	T	Cyclohexane	0.433	0.457	-5.5	83	-0.01
44	T	tert-Amyl Methyl Ether	0.870	0.878	-0.9	82	-0.02
45	T	1,2-Dichloropropane	0.290	0.312	-7.6	83	-0.02
46	T	Bromodichloromethane	0.387	0.424	-9.6	82	-0.02
47	T	Trichloroethene	0.287	0.310	-8.0	83	-0.01
48	T	1,4-Dioxane	0.226	0.255	-12.8	83	-0.02
49	T	2,2,4-Trimethylpentane (Iso	1.337	1.400	-4.7	83	-0.01
50	T	Methyl Methacrylate	0.109	0.126	-15.6	84	-0.02
51	T	n-Heptane	0.305	0.327	-7.2	83	-0.02
52	T	cis-1,3-Dichloropropene	0.477	0.526	-10.3	83	-0.01
53	T	4-Methyl-2-pentanone	0.268	0.297	-10.8	82	-0.02
54	T	trans-1,3-Dichloropropene	0.452	0.496	-9.7	82	-0.01
55	T	1,1,2-Trichloroethane	0.274	0.288	-5.1	83	-0.01
56	IR	Chlorobenzene-d5 (IS3)	1.000	1.000	0.0	82	0.00
57	S	Toluene-d8 (SS2)	2.234	2.291	-2.6	84	0.00
58	T	Toluene	2.406	2.653	-10.3	83	-0.01
59	T	2-Hexanone	1.471	1.648	-12.0	82	-0.02
60	T	Dibromochloromethane	0.605	0.705	-16.5	83	0.00
61	T	1,2-Dibromoethane	0.632	0.720	-13.9	82	-0.01
62	T	n-Butyl Acetate	1.687	1.917	-13.6	82	-0.01
63	T	n-Octane	0.554	0.607	-9.6	83	-0.01
64	T	Tetrachloroethene	0.609	0.687	-12.8	83	0.00
65	T	Chlorobenzene	1.544	1.715	-11.1	83	0.00
66	T	Ethylbenzene	2.752	3.065	-11.4	82	0.00
67	T	m- & p-Xylenes	2.191	2.459	-12.2	83	-0.02
68	T	Bromoform	0.524	0.637	-21.6	84	-0.01
69	T	Styrene	1.613	1.883	-16.7	83	0.00
70	T	o-Xylene	2.201	2.495	-13.4	83	-0.01
71	T	n-Nonane	1.323	1.437	-8.6	83	0.00
72	T	1,1,2,2-Tetrachloroethane	1.009	1.145	-13.5	83	-0.01
73	S	Bromofluorobenzene (SS3)	0.643	0.626	2.6	79	0.00
74	T	Cumene	2.790	3.175	-13.8	84	-0.01
75	T	alpha-Pinene	1.447	1.623	-12.2	83	0.00
76	T	n-Propylbenzene	3.543	4.012	-13.2	83	0.00

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030902.D
Acq On : 3 Sep 2009 8:03 am
Operator : LM/CC
Sample : 25ng TO-15 CCV STD
Misc : S20-08140906/S20-08240903
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 03 08:35:03 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 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%

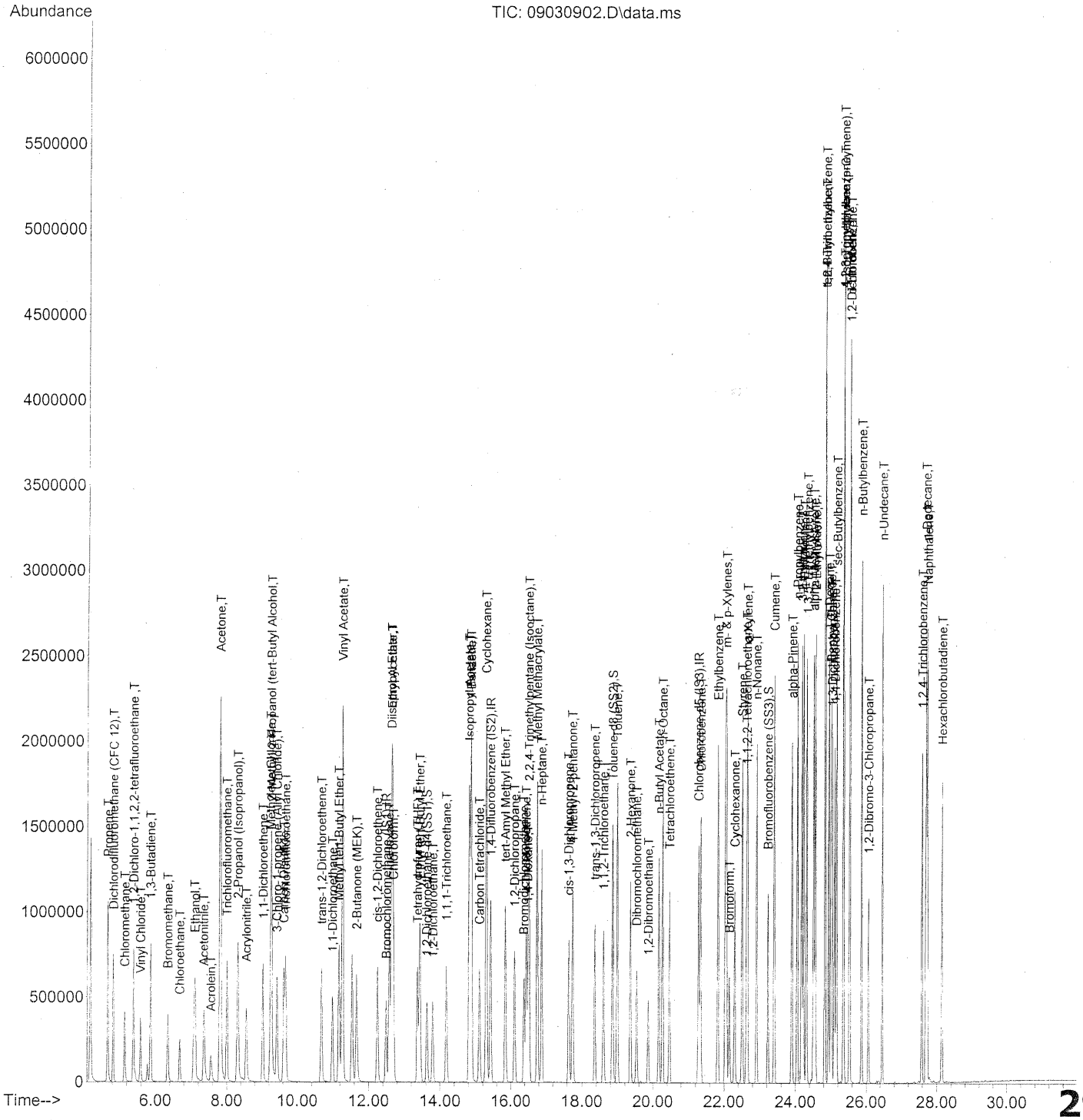
		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
77	T	3-Ethyltoluene	2.669	3.028	-13.5	83	-0.01
78	T	4-Ethyltoluene	2.634	3.012	-14.4	84	-0.01
79	T	1,3,5-Trimethylbenzene	2.192	2.488	-13.5	83	0.00
80	T	alpha-Methylstyrene	1.151	1.419	-23.3	83	-0.01
81	T	2-Ethyltoluene	2.738	3.102	-13.3	83	-0.01
82	T	1,2,4-Trimethylbenzene	2.238	2.585	-15.5	83	-0.02
83	T	n-Decane	1.336	1.479	-10.7	82	0.00
84	T	Benzyl Chloride	2.215	2.545	-14.9	82	-0.01
85	T	1,3-Dichlorobenzene	1.209	1.376	-13.8	84	-0.01
86	T	1,4-Dichlorobenzene	1.260	1.437	-14.0	83	-0.01
87	T	sec-Butylbenzene	3.057	3.505	-14.7	83	-0.01
88	T	4-Isopropyltoluene (p-Cymen	2.755	3.211	-16.6	83	0.00
89	T	1,2,3-Trimethylbenzene	2.345	2.623	-11.9	83	-0.01
90	T	1,2-Dichlorobenzene	1.129	1.312	-16.2	84	-0.01
91	T	d-Limonene	0.893	1.076	-20.5	83	0.00
92	T	1,2-Dibromo-3-Chloropropane	0.395	0.502	-27.1	83	0.00
93	T	n-Undecane	1.387	1.575	-13.6	82	0.00
94	T	1,2,4-Trichlorobenzene	0.795	0.963	-21.1	83	-0.01
95	T	Naphthalene	3.093	3.722	-20.3	83	0.00
96	T	n-Dodecane	1.581	1.726	-9.2	81	0.00
97	T	Hexachlorobutadiene	0.478	0.541	-13.2	83	0.00
98	T	Cyclohexanone	0.928	1.075	-15.8	83	-0.02
99	T	tert-Butylbenzene	2.167	2.499	-15.3	84	-0.01
100	T	n-Butylbenzene	2.492	2.918	-17.1	83	0.00

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

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030902.D
Acq On : 3 Sep 2009 8:03 am
Operator : LM/CC
Sample : 25ng TO-15 CCV STD
Misc : S20-08140906/S20-08240903
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 03 08:35:03 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030902.D
Acq On : 3 Sep 2009 8:03 am
Operator : LM/CC
Sample : 25ng TO-15 CCV STD
Misc : S20-08140906/S20-08240903
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 03 08:35:03 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

M 9/14/09 CC 9.4.09

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Bromochloromethane (IS1)	12.49	130	245573	25.000	ng		-0.01
37) 1,4-Difluorobenzene (IS2)	15.43	114	1248008	25.000	ng		-0.01
56) Chlorobenzene-d5 (IS3)	21.29	82	575998	25.000	ng		0.00
System Monitoring Compounds							
33) 1,2-Dichloroethane-d4(...	13.63	65	485020	24.923	ng		-0.02
Spiked Amount 25.000			Recovery =	99.68%			
57) Toluene-d8 (SS2)	18.85	98	1319850	25.640	ng		0.00
Spiked Amount 25.000			Recovery =	102.56%			
73) Bromofluorobenzene (SS3)	23.23	174	360462	24.331	ng		0.00
Spiked Amount 25.000			Recovery =	97.32%			
Target Compounds							Qvalue
2) Propene	4.66	42	463655	26.102	ng		98
3) Dichlorodifluoromethan...	4.82	85	754948	24.275	ng		100
4) Chloromethane	5.14	50	546732	26.152	ng		98
5) 1,2-Dichloro-1,1,2,2-t...	5.39	135	331638	25.820	ng		100
6) Vinyl Chloride	5.58	62	493975	25.190	ng		99
7) 1,3-Butadiene	5.86	54	450075	30.776	ng		99
8) Bromomethane	6.35	94	355368	29.318	ng		97
9) Chloroethane	6.69	64	281034	26.179	ng		98
10) Ethanol	7.10	45	1504875	136.622	ng		99
11) Acetonitrile	7.35	41	798184	26.089	ng		98
12) Acrolein	7.55	56	244019	29.014	ng		99
13) Acetone	7.81	58	1507037	132.298	ng		97
14) Trichlorofluoromethane	8.01	101	753086	27.474	ng		98
15) 2-Propanol (Isopropanol)	8.32	45	1783755	47.102	ng		99
16) Acrylonitrile	8.55	53	569835	30.303	ng		99
17) 1,1-Dichloroethene	9.03	96	378564	28.470	ng		92
18) 2-Methyl-2-Propanol (t...	9.27	59	2079404	54.835	ng		99
19) Methylene Chloride	9.25	84	381726	26.421	ng		96
20) 3-Chloro-1-propene (Al...	9.43	41	649143	28.869	ng		98
21) Trichlorotrifluoroethane	9.67	151	323304	29.785	ng		94
22) Carbon Disulfide	9.62	76	1436462	27.944	ng		99
23) trans-1,2-Dichloroethene	10.68	61	606311	29.335	ng		93
24) 1,1-Dichloroethane	10.99	63	733288	28.367	ng		100
25) Methyl tert-Butyl Ether	11.17	73	1175272	28.783	ng		98
26) Vinyl Acetate	11.27	86	445226	155.964	ng		98
27) 2-Butanone (MEK)	11.66	72	290750	31.599	ng		98
28) cis-1,2-Dichloroethene	12.24	61	585976	29.808	ng		92
29) Diisopropyl Ether	12.64	87	403724	30.049	ng	#	19
30) Ethyl Acetate	12.66	61	304154	61.513	ng		98
31) n-Hexane	12.58	57	678698	27.554	ng		97

Quantitation Report (QT Reviewed)

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030902.D
Acq On : 3 Sep 2009 8:03 am
Operator : LM/CC
Sample : 25ng TO-15 CCV STD
Misc : S20-08140906/S20-08240903
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 03 08:35:03 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
32) Chloroform	12.70	83	697085	28.711	ng		97
34) Tetrahydrofuran (THF)	13.38	72	278944	27.954	ng		96
35) Ethyl tert-Butyl Ether	13.44	87	455025	27.605	ng		94
36) 1,2-Dichloroethane	13.80	62	569627	27.963	ng		99
38) 1,1,1-Trichloroethane	14.18	97	639501	27.719	ng		98
39) Isopropyl Acetate	14.82	61	536138	56.477	ng	#	72
40) 1-Butanol	14.87	56	866283	55.767	ng	#	1
41) Benzene	14.88	78	1567690	26.721	ng		100
42) Carbon Tetrachloride	15.11	117	573789	29.133	ng		99
43) Cyclohexane	15.30	84	1227862	56.786	ng		95
44) tert-Amyl Methyl Ether	15.84	73	1139991	26.234	ng		98
45) 1,2-Dichloropropane	16.11	63	409184	28.226	ng		99
46) Bromodichloromethane	16.37	83	570861	29.527	ng		99
47) Trichloroethene	16.44	130	409768	28.629	ng		100
48) 1,4-Dioxane	16.49	88	341371	30.276	ng		93
49) 2,2,4-Trimethylpentane...	16.52	57	1817507	27.222	ng		98
50) Methyl Methacrylate	16.76	100	335651	61.727	ng		94
51) n-Heptane	16.88	71	432678	28.454	ng		97
52) cis-1,3-Dichloropropene	17.65	75	651453	27.354	ng		100
53) 4-Methyl-2-pentanone	17.75	58	407538	30.415	ng		99
54) trans-1,3-Dichloropropene	18.36	75	680944	30.185	ng		100
55) 1,1,2-Trichloroethane	18.60	97	378608	27.695	ng		100
58) Toluene	18.98	91	1650190	29.764	ng		99
59) 2-Hexanone	19.36	43	1044084	30.813	ng		97
60) Dibromochloromethane	19.53	129	467725	33.556	ng		100
61) 1,2-Dibromoethane	19.86	107	439310	30.171	ng		99
62) n-Butyl Acetate	20.17	43	1214721	31.248	ng		98
63) n-Octane	20.28	57	374610	29.360	ng		98
64) Tetrachloroethene	20.47	166	403757	28.761	ng		100
65) Chlorobenzene	21.34	112	1066700	29.993	ng		100
66) Ethylbenzene	21.82	91	1871637	29.515	ng		99
67) m- & p-Xylenes	22.05	91	2945630	58.348	ng		99
68) Bromoform	22.15	173	378561	31.368	ng		100
69) Styrene	22.51	104	1162428	31.272	ng		99
70) o-Xylene	22.65	91	1523490	30.044	ng		98
71) n-Nonane	22.91	43	877414	28.793	ng		97
72) 1,1,2,2-Tetrachloroethane	22.63	83	706906	30.407	ng		98
74) Cumene	23.41	105	1887481	29.368	ng		98
75) alpha-Pinene	23.90	93	946291	28.385	ng		98
76) n-Propylbenzene	24.05	91	2384631	29.208	ng		99
77) 3-Ethyltoluene	24.17	105	1904290	30.972	ng		99
78) 4-Ethyltoluene	24.23	105	1894303	31.218	ng		98
79) 1,3,5-Trimethylbenzene	24.32	105	1564727	30.980	ng		9

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030902.D
Acq On : 3 Sep 2009 8:03 am
Operator : LM/CC
Sample : 25ng TO-15 CCV STD
Misc : S20-08140906/S20-08240903
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Sep 03 08:35:03 2009
Quant Method : J:\MS13\METHODS\R13082709.M
Quant Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
QLast Update : Fri Aug 28 06:02:46 2009
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
80) alpha-Methylstyrene	24.51	118	876364	33.039	ng	100
81) 2-Ethyltoluene	24.56	105	1879444	29.789	ng	99
82) 1,2,4-Trimethylbenzene	24.83	105	1578559	30.618	ng	98
83) n-Decane	24.94	57	920293	29.898	ng	97
84) Benzyl Chloride	25.00	91	1612478	31.590	ng	98
85) 1,3-Dichlorobenzene	25.03	146	865430	31.058	ng	99
86) 1,4-Dichlorobenzene	25.11	146	877116	30.225	ng	99
87) sec-Butylbenzene	25.16	105	2139795	30.385	ng	99
88) 4-Isopropyltoluene (p-...	25.35	119	1908579	30.068	ng	99
89) 1,2,3-Trimethylbenzene	25.35	105	1619694	29.973	ng	98
90) 1,2-Dichlorobenzene	25.53	146	801334	30.814	ng	100
91) d-Limonene	25.53	68	676927	32.891	ng	100
92) 1,2-Dibromo-3-Chloropr...	26.06	157	318327	34.986	ng	93
93) n-Undecane	26.46	57	990610	31.000	ng	99
94) 1,2,4-Trichlorobenzene	27.58	180	621382	33.925	ng	99
95) Naphthalene	27.73	128	2272409	31.892	ng	100
96) n-Dodecane	27.69	57	986420	27.081	ng	98
97) Hexachlorobutadiene	28.15	225	342580	31.108	ng	100
98) Cyclohexanone	22.30	55	606991	28.395	ng	97
99) tert-Butylbenzene	24.83	119	1525498	30.554	ng	99
100) n-Butylbenzene	25.86	91	1835291	31.965	ng	100

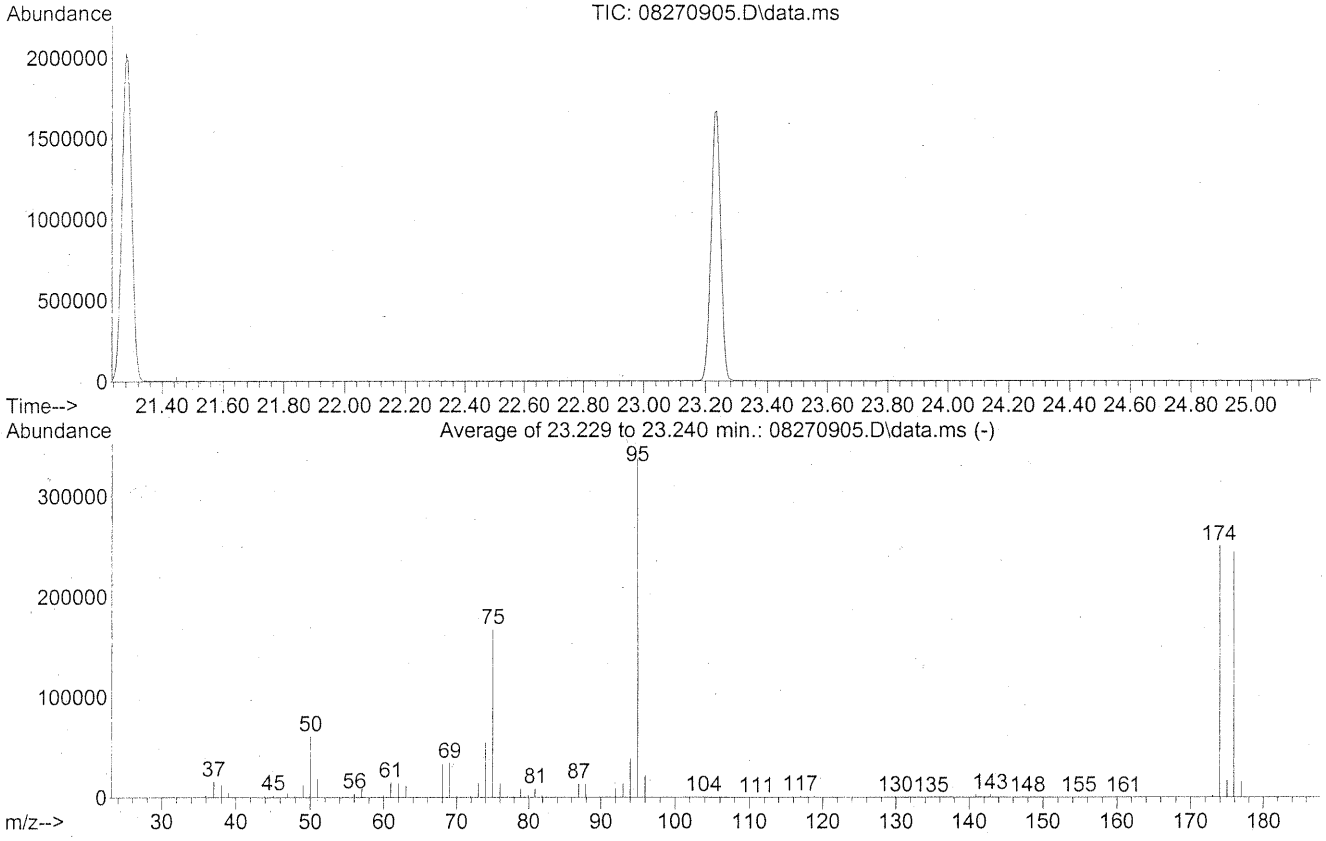
(#) = qualifier out of range (m) = manual integration (+) = signals summed

BFB TUNING & MASS CALIBRATIONS

Data Path : J:\MS13\DATA\2009_08\27\
Data File : 08270905.D
Acq On : 27 Aug 2009 14:50
Operator : WA/CC
Sample : 25ng BFB
Misc : S20-08140906
ALS Vial : 4 Sample Multiplier: 1

Integration File: RTEINT.P

Method : J:\MS13\METHODS\R13082709.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Thu Aug 27 20:40:00 2009



AutoFind: Scans 3351, 3352, 3353; Background Corrected with Scan 3340

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	18.3	61821	PASS
75	95	30	66	49.9	168149	PASS
95	95	100	100	100.0	336960	PASS
96	95	5	9	6.5	21936	PASS
173	174	0.00	2	1.0	2440	PASS
174	95	50	120	74.4	250560	PASS
175	174	4	9	6.9	17332	PASS
176	174	93	101	97.7	244779	PASS
177	176	5	9	6.5	15927	PASS

VM 8/28/09
CC 8/28/09

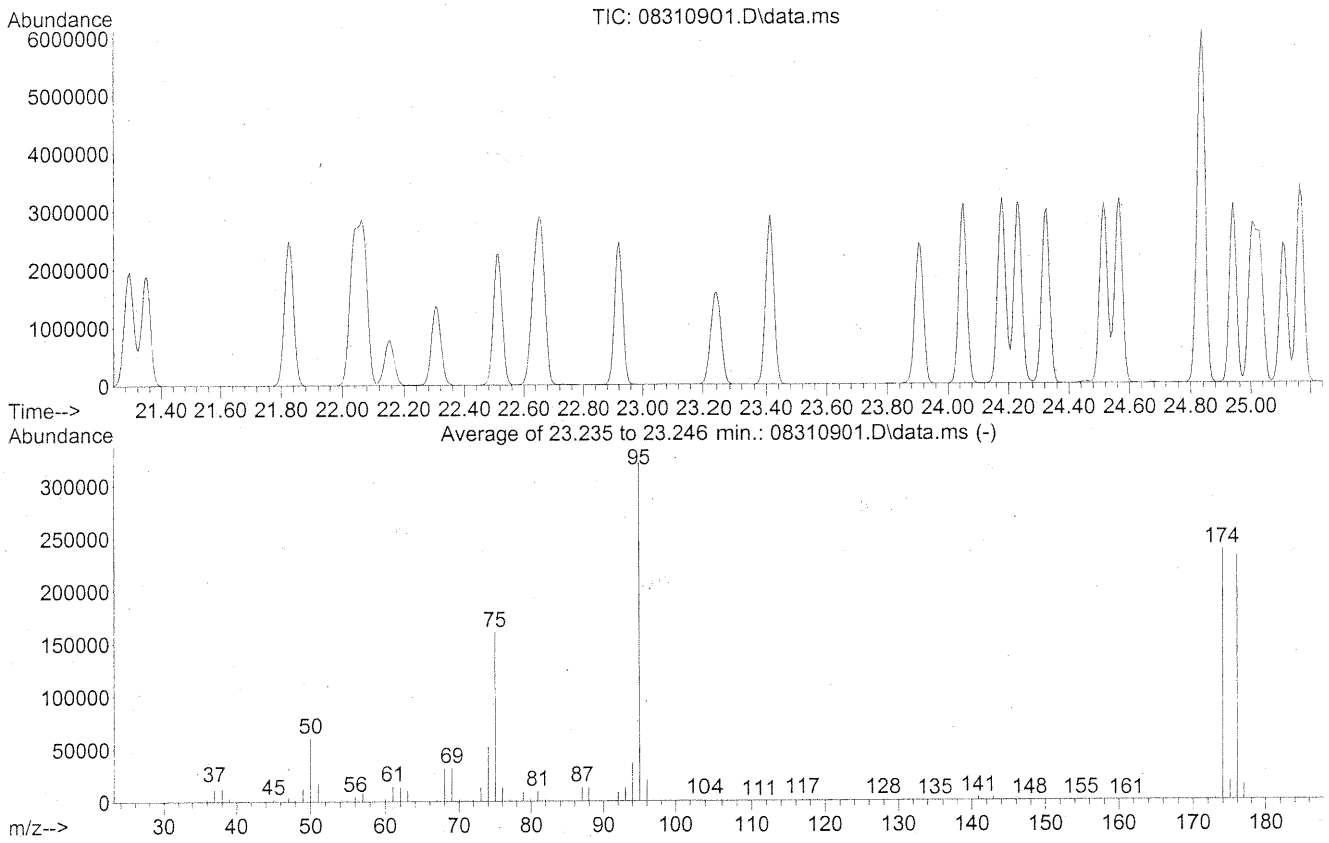
295

Data Path : J:\MS13\DATA\2009_08\31\
Data File : 08310901.D
Acq On : 31 Aug 2009 9:24 am
Operator : LM/CC
Sample : 25ng TO-15 CCV STD
Misc : S20-08140906/S20-08240903
ALS Vial : 4 Sample Multiplier: 1

Integration File: RTEINT.P

Method : J:\MS13\METHODS\R13080609.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Thu Aug 06 17:14:07 2009

LM 9/2/09
CC 9-1-09



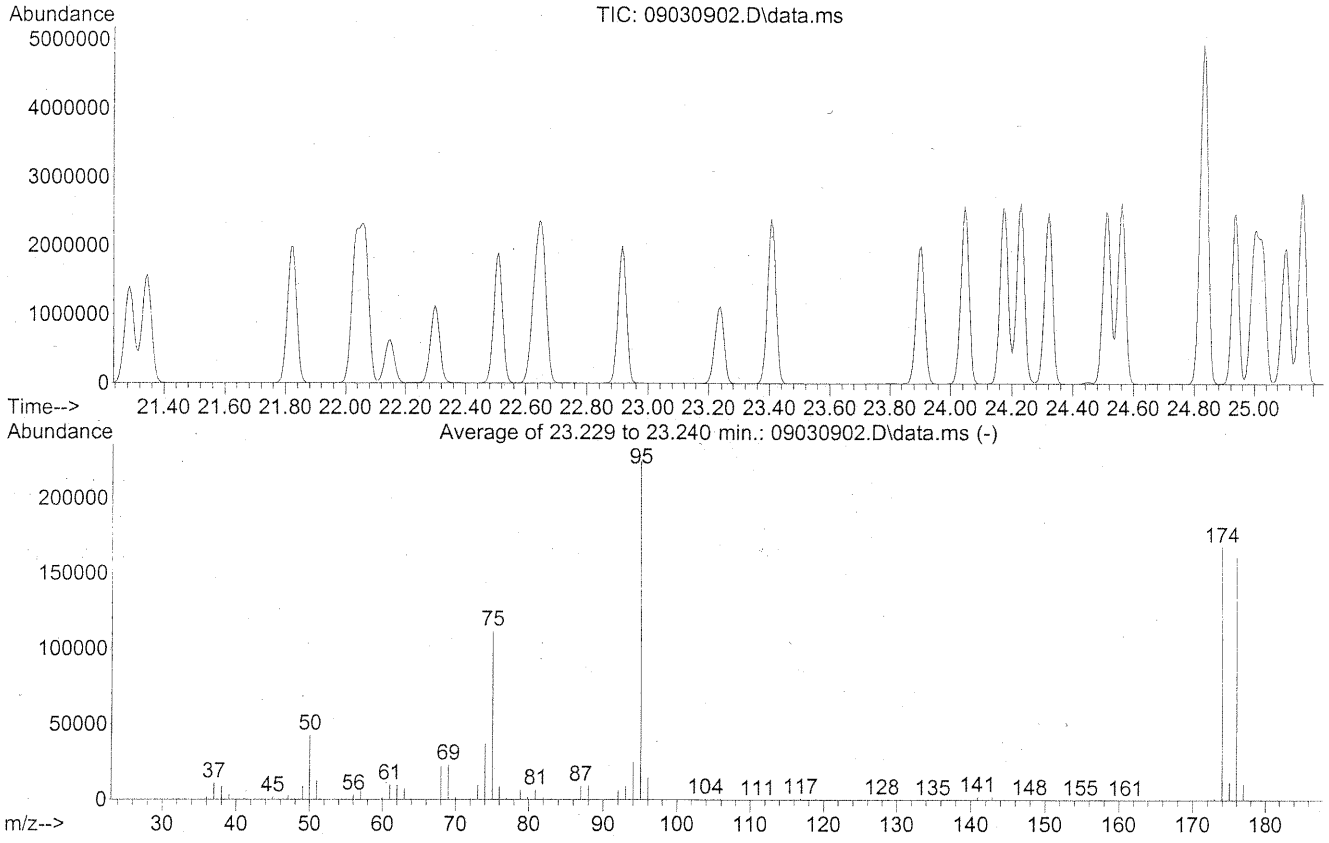
AutoFind: Scans 3352, 3353, 3354; Background Corrected with Scan 3341

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	18.9	60736	PASS
75	95	30	66	50.0	160896	PASS
95	95	100	100	100.0	321749	PASS
96	95	5	9	6.4	20464	PASS
173	174	0.00	2	0.9	2113	PASS
174	95	50	120	73.9	237909	PASS
175	174	4	9	7.5	17925	PASS
176	174	93	101	97.5	231893	PASS
177	176	5	9	6.4	14904	PASS

Data Path : J:\MS13\DATA\2009_09\03\
Data File : 09030902.D
Acq On : 3 Sep 2009 8:03 am
Operator : LM/CC
Sample : 25ng TO-15 CCV STD
Misc : S20-08140906/S20-08240903
ALS Vial : 5 Sample Multiplier: 1

Integration File: RTEINT.P

Method : J:\MS13\METHODS\R13082709.M
Title : EPA TO-15 per SOP VOA-TO15 (CASS TO-15/GC-MS)
Last Update : Fri Aug 28 06:02:46 2009



AutoFind: Scans 3351, 3352, 3353; Background Corrected with Scan 3341

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	19.0	42768	PASS
75	95	30	66	49.8	112013	PASS
95	95	100	100	100.0	224768	PASS
96	95	5	9	6.7	15047	PASS
173	174	0.00	2	0.9	1516	PASS
174	95	50	120	74.9	168341	PASS
175	174	4	9	7.2	12177	PASS
176	174	93	101	96.0	161621	PASS
177	176	5	9	6.9	11076	PASS

MP 9/4/09 9/4/09

RUN LOGS

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
1	08/26/09 10:15	08260902.D	5ng TO-15 CCV STD	S20-08140906/S20-07310904	WA/CC	9	Passed (EM=1424)
2	08/26/09 11:30	08260903.D	TO-15 Method Blank (1000ml)	S20-08140906	WA/CC	4	Passed
3	08/26/09 12:23	08260904.D	P0902949-001 dil (25mL)	[redacted]	WA/CC	7	
4	08/26/09 13:03	08260905.D	25ng TO-15 LCS STD	S20-08140906/S20-08240912	WA/CC	13	case file
5	08/26/09 13:43	08260906.D	P0902876-001 dil (200mL)	[redacted]	WA/CC	8	
6	08/26/09 14:42	08260907.D	P0902949-006 (0.25mL)	[redacted]	WA/CC	12	
7	08/26/09 15:22	08260908.D	System		WA/CC	16	
8	08/26/09 16:02	08260909.D	25ng TO-15 LCS STD	S20-08140906/S20-08240912	WA/CC	13	case file
9	08/26/09 16:43	08260910.D	P0902949-005 (20mL)	[redacted]	WA/CC	15	
10	08/26/09 17:25	08260911.D	P0902876-007 (1000mL)	[redacted]	WA/CC	1	
11	08/26/09 18:05	08260912.D	P0902949-005 dup (20mL)	[redacted]	WA/CC	15	Passed
12	08/26/09 18:47	08260913.D	P0902876-008 (1000mL)	[redacted]	WA/CC	2	
13	08/26/09 19:28	08260914.D	P0902876-009 (1000mL)	[redacted]	WA/CC	3	
14	08/26/09 20:09	08260915.D	P0902876-010 (1000mL)	[redacted]	WA/CC	5	
15	08/26/09 20:51	08260916.D	P0902876-011 (1000mL)	[redacted]	WA/CC	6	
16	08/26/09 21:32	08260917.D	System		WA/CC	16	
17	08/26/09 22:13	08260918.D	P0902876-004 dil (200mL)	[redacted]	WA/CC	12	
18	08/26/09 22:53	08260919.D	P0902876-005 dil (200mL)	[redacted]	WA/CC	14	
19	08/26/09 23:34	08260920.D	P0902949-001 (250mL)	[redacted]	WA/CC	7	
20	08/27/09 0:16	08260921.D	P0902949-003 (1000mL)	[redacted]	WA/CC	10	
21	08/27/09 0:58	08260922.D	P0902949-004 (1000mL)	[redacted]	WA/CC	11	
22	08/27/09 1:38	08260923.D	25ng TO-15 LCS STD	S20-08140906/S20-08240912	WA/CC	13	Passed
23	08/27/09 4:32	08260924.D	Blank		WA/CC	4	
24	08/27/09 6:39	08260925.D	P0902876-009 (1000mL)	[redacted]	WA/CC	3	
25	08/27/09 7:25	08260926.D	P0902949-002 (200mL)	[redacted]	WA/CC	8	8/27

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
1	08/27/09 11:46	08270902.D	200ng/L STD Check	S20-08140906/S20-08240903	WA/CC	4	
2	08/27/09 13:01	08270903.D	4ng/L STD Check	S20-08140906/S20-08240906	WA/CC	14	
3	08/27/09 14:10	08270904.D	0.1ng STD Check (EM=1459)	S20-08140906/S20-08240906	WA/CC	14	
4	08/27/09 14:50	08270905.D	25ng BFB	S20-08140906	WA/CC	4	Passed
5	08/27/09 15:31	08270906.D	0.1ng TO-15 ICAL	S20-08140906/S20-08240906	WA/CC	14	ICAL OK all
6	08/27/09 16:11	08270907.D	0.2ng TO-15 ICAL	S20-08140906/S20-08240906	WA/CC	14	compounds
7	08/27/09 16:52	08270908.D	0.5ng TO-15 ICAL	S20-08140906/S20-07310904	WA/CC	4	0.1ng->100ng
8	08/27/09 17:32	08270909.D	1.0ng TO-15 ICAL	S20-08140906/S20-07310904	WA/CC	4	except: Acrolein,
9	08/27/09 18:13	08270910.D	5.0ng TO-15 ICAL	S20-08140906/S20-07310904	WA/CC	4	THF(0.5->100ng);
10	08/27/09 18:53	08270911.D	25ng TO-15 ICAL	S20-08140906/S20-08240903	WA/CC	4	IPA (0.2->100ng)
11	08/27/09 19:34	08270912.D	50ng TO-15 ICAL	S20-08140906/S20-08240903	WA/CC	4	TBA(0.1->50ng)
12	08/27/09 20:14	08270913.D	100ng TO-15 ICAL	S20-08140906/S20-08240903	WA/CC	4	
13	08/27/09 20:55	08270914.D	25ng TO-15 ICV	S20-08140906/S20-08240912	WA/CC	13	Passed all

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	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
1	08/28/09 7:11	08280901.D	25ng TO-15 CCV STD	S20-08140906/S20-08240903	WA/CC	4	Passed
2	08/28/09 7:52	08280902.D	25ng TO-15 ACF STD	S20-08140906/S20-07220901 (check STD ID?????)	WA/CC	6	Passed ARCADIS
3	08/28/09 9:05	08280903.D	TO-15 Method Blank (1000mL)	S20-08140906	WA/CC	4	Passed
4	08/28/09 10:17	08280904.D	25ng TO-15 LCS STD	S20-08140906/S20-08240912	WA/CC	13	*Passed*
5	08/28/09 11:30	08280905.D	P0902913-005 (200ml)	[redacted]	LM/CC	11	Case File run High
6	08/28/09 12:12	08280906.D	P0902913-001 (1000ml)		LM/CC	9	Case File Dup Fail
7	08/28/09 12:54	08280907.D	P0902913-003 (1000ml)		LM/CC	10	
8	08/28/09 13:34	08280908.D	P0902913-007 (400ml)		LM/CC	12	
9	08/28/09 14:15	08280909.D	P0902913-005 (500ml)		LM/CC	11	
10	08/28/09 14:55	08280910.D	P0902913-001 (1000ml)		LM/CC	9	
11	08/28/09 15:36	08280911.D	P0903008 (6ml)		LM/CC	4	
12	08/28/09 16:19	08280912.D	P0903008-001 dil (1ml)		LM/CC	4	
13	08/28/09 17:06	08280913.D	P0903009-001 (12ml)		LM/CC	4	
14	08/28/09 18:39	08280914.D	P0902913-001 dup (1000ml)		LM/CC	9	
15	08/28/09 19:19	08280915.D	P0902913-007 dil (50ml)		LM/CC	12	
16	08/28/09 20:01	08280916.D	P0902913-002 (1000ml)		LM/CC	1	
17	08/28/09 20:43	08280917.D	P0902913-004 (1000ml)		LM/CC	2	
18	08/28/09 21:23	08280918.D	P0902913-006 (400ml)		LM/CC	3	
19	08/28/09 22:03	08280919.D	P0902913-008 (70ml)		LM/CC	5	
20	08/28/09 22:44	08280920.D	P0902913-009 (15ml)		LM/CC	7	
21	08/28/09 23:25	08280921.D	P0902913-010 (25ml)		LM/CC	8	
22	08/29/09 0:05	08280922.D	P0902913-011 (50ml)		LM/CC	10	
23	08/29/09 0:46	08280923.D	P0902913-012 (70ml)		LM/CC	11	
24	08/29/09 1:26	08280924.D	P0902913-012 dup (70ml)		LM/CC	11	
25	08/29/09 2:07	08280925.D	25ng TO-15 LCS STD	S20-08140906/S20-08240912	LM/CC	13	

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
	08/31/09 9:24	08310901.D	25ng TO-15 CCV STD	S20-08140906/S20-08240903	LM/CC	4	Passed
1	08/31/09 10:26	08310902.D	25ng TO-15 CCV ACF STD	S20-08140906/S20-07220901	LM/CC	6	Passed
2	08/31/09 11:40	08310903.D	TO-15 Method Blank (1000ml)	S20-08140906	LM/CC	4	
3	08/31/09 12:35	08310904.D	25ng TO-15 LCS STD	S20-08140906/08240912	LM/CC	13	
4	08/31/09 14:19	08310905.D	25ng TO-15 LCSD STD	S20-08140906/08240912	LM/CC	13	
5	08/31/09 15:37	08310906.D	P0902947-003 (15ml)	[redacted]	LM/CC	4	
6	08/31/09 16:46	08310907.D	P0902947-003 (20ml)		LM/CC	1	
7	08/31/09 18:28	08310908.D	P0902947-003dil (10ml)		LM/CC	4	
8	08/31/09 19:08	08310909.D	P0902947-001 (400ml)		LM/CC	2	
9	08/31/09 19:48	08310910.D	P0902947-002 (150ml)		LM/CC	3	
10	08/31/09 20:29	08310911.D	P0902947-002dup (150ml)		LM/CC	3	
11	08/31/09 21:09	08310912.D	P0902947-004 (250ml)		LM/CC	5	
12	08/31/09 21:50	08310913.D	P0902947-005 (400ml)		LM/CC	7	
13	08/31/09 22:30	08310914.D	P0902947-006 (400ml)		LM/CC	8	
14	08/31/09 23:11	08310915.D	P0902947-007 (400ml)		LM/CC	9	

Had to manually enter CC 9-1-09

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cont. next page →

15	08/31/09 23:51	08310916.D	P0902947-010 (400ml)	[redacted]	LM/CC	10	
16	09/01/09 0:31	08310917.D	P0902947-008 (30ml)	[redacted]	LM/CC	11	
17	09/01/09 1:12	08310918.D	P0902947-008dup (30ml)	[redacted]	LM/CC	11	
18	09/01/09 1:52	08310919.D	P0902947-009 (50ml)	[redacted]	LM/CC	12	
19	09/01/09 2:33	08310920.D	P0902985-001 (300ml)	EH&E 103572	LM/CC	13	
20	09/01/09 3:13	08310921.D	P0902985-002 (300ml) DIL	EH&E 103573	LM/CC	14	
21	09/01/09 3:55	08310922.D	P0902985-003 (1000ml)	EH&E 103574	LM/CC	15	
22	09/01/09 4:36	08310923.D	P0902985-004 (300ml) DIL	EH&E 103575	LM/CC	16	
23	09/01/09 5:16	08310924.D	Blank (100ml)		LM/CC	4	

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
	~~08/31/09 9:24~~	~~08310901.D~~	~~25ng TO-15 CCV STD~~	~~S20-08140906/S20-08240903~~	~~LM/CC~~	~~4~~	
1	09/01/09 6:53	09010902.D	25ng TO-15 CCV STD	S20-08140906/S20-08240903	LM/CC	4	Passed
2	09/01/09 7:33	09010903.D	25ng TO-15 CCV ACF STD	S20-08140906/S20-07220901	LM/CC	6	Passed ARCADIS
3	09/01/09 8:13	09010904.D	25ng TO-15 CCV ACF STD	S20-08140906/S20-07220901	LM/CC	1	not used
4	09/01/09 8:55	09010905.D	Method Blank (1000ml)	S20-08140906	LM/CC	1	*Fail*
5	09/01/09 10:33	09010906.D	Method Blank (1000ml)	S20-08140906	LM/CC	4	Pass
6	09/01/09 11:37	09010907.D	25ng TO-15 LCS	S20-08140906/S20-08240912	LM/CC	1	Passed
7	09/01/09 13:05	09010908.D	25ng TO-15 LCSD STD	S20-08140906/S20-08240912	LM/CC	1	Passed
8	09/01/09 13:45	09010909.D	P0902947-009 dil (25ml)	[redacted]	LM/CC	12	
9	09/01/09 14:26	09010910.D	P0902913-013 (60ml)	[redacted]	LM/CC	5	
10	09/01/09 15:19	09010911.D	P0902913-013dup (60ml)	[redacted]	LM/CC	5	Passed
11	09/01/09 15:59	09010912.D	P0902948-001 (35ml)	[redacted]	LM/CC	9	
12	09/01/09 16:40	09010913.D	P0902948-001dil (25ml)	[redacted]	LM/CC	10	
13	09/01/09 18:25	09010914.D	P0902913-009 (1000ml)	[redacted]	LM/CC	2	
14	09/01/09 19:07	09010915.D	P0902913-010 (1000ml)	[redacted]	LM/CC	3	
15	09/01/09 19:49	09010916.D	P0902913-014 (1000ml)	[redacted]	LM/CC	7	
16	09/01/09 20:31	09010917.D	P0902913-011 (1000ml)	[redacted]	LM/CC	1	
17	09/01/09 21:13	09010918.D	P0902948-002 (1000ml)	[redacted]	LM/CC	5	
18	09/01/09 21:55	09010919.D	P0902948-003 (1000ml)	[redacted]	LM/CC	8	
19	09/01/09 22:37	09010920.D	P0902948-004 (1000ml)	[redacted]	LM/CC	9	
20	09/01/09 23:19	09010921.D	P0902948-005 (1000ml)	[redacted]	LM/CC	10	
21	09/02/09 0:01	09010922.D	P0902948-006 (1000ml)	[redacted]	LM/CC	11	
22	09/02/09 0:43	09010923.D	P0902948-007 (1000ml)	[redacted]	LM/CC	12	
23	09/02/09 1:25	09010924.D	CAS CAN QC2 #3691	AC01004 (1000ml)	LM/CC	13	

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
1	09/02/09 7:48	09020902.D	25ng TO-15 CCV STD	S20-08140906/S20-08240903	LM/CC	4	
2	09/02/09 8:58	09020903.D	25ng TO-15 CCV STD	S20-08140906/S20-08240903	LM/CC	4	Passed
3	09/02/09 10:17	09020904.D	0.5ng MRL Check STD	S20-08140906/S20-09010905	LM/CC	4	not used
4	09/02/09 10:59	09020905.D	CAS CAN QC C3S 3694	AC00622 (1000ml)	LM/CC	4	*Passed*
5	09/02/09 11:43	09020906.D	TO-15 Method Blank (1000ml)	S20-08140906	LM/CC	4	Passed
6	09/02/09 12:23	09020907.D	25ng TO-15 LCS STD	S20-08140906/S20-08240912	LM/CC	1	Passed
7	09/02/09 13:03	09020908.D	25ng TO-15 LCSD STD	S20-08140906/S20-08240912	LM/CC	1	Passed
8	09/02/09 14:18	09020909.D	P0902973-001 (0.2ml)	[redacted]	LM/CC	4	*Case File Ran High*
9	09/02/09 15:07	09020910.D	P0902973-001 (0.5ml)	[redacted]	LM/CC	4	
10	09/02/09 15:52	09020911.D	P0902973-001dup (0.5ml)	[redacted]	LM/CC	4	Passed
11	09/02/09 16:55	09020912.D	P0903078-001 (100ml)	[redacted]	LM/CC	2	
12	09/02/09 18:00	09020913.D	P0903078-001 dil (50ml)	[redacted]	LM/CC	2	
13	09/02/09 18:40	09020914.D	P0904348-001 (100ml)	[redacted]	LM/CC	3	
14	09/02/09 19:21	09020915.D	P0904348-001 dil (25ml)	[redacted]	LM/CC	3	
15	09/02/09 20:01	09020916.D	P0904349-001 (100ml)	[redacted]	LM/CC	5	
16	09/02/09 20:41	09020917.D	P0904349-001 dil (25ml)	[redacted]	LM/CC	5	
17	09/02/09 21:23	09020918.D	P0902993-001 (1000ml)	[redacted]	LM/CC	7	
18	09/02/09 22:05	09020919.D	P0902993-002 (1000ml)	[redacted]	LM/CC	8	
19	09/02/09 22:47	09020920.D	P0902993-003 (1000ml)	[redacted]	LM/CC	9	
20	09/02/09 23:29	09020921.D	P0902993-004 (1000ml)	[redacted]	LM/CC	10	
21	09/03/09 0:11	09020922.D	P0902993-005 (1000ml)	[redacted]	LM/CC	11	
22	09/03/09 0:53	09020923.D	P0902993-006 (1000ml)	[redacted]	LM/CC	12	
23	09/03/09 1:35	09020924.D	P0902993-007 (1000ml)	[redacted]	LM/CC	13	

From 12 bias Low

CC 9-3-09

	Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
1	09/03/09 8:03	09030902.D	25ng TO-15 CCV STD	S20-08140906/S20-08240903	LM/CC	5	Passed
2	09/03/09 9:57	09030903.D	TO-15 Method Blank (1000ml)	S20-08140906 QC tank lot#14-103489922-1	LM/CC	4	Passed
3	09/03/09 10:56	09030904.D	25ng TO-15 LCS STD	S20-08140906/S20-08240912	LM/CC	1	Passed
4	09/03/09 11:36	09030905.D	25ng TO-15 LCSD STD	S20-08140906/S20-08240912	LM/CC	1	*Passed*
5	09/03/09 12:54	09030906.D	P0902876-008 (1000ml)	[redacted]	LM/CC	1	ran conf.
6	09/03/09 13:34	09030907.D	P0903110-001 (35ml)	[redacted]	LM/CC	15	
7	09/03/09 14:33	09030908.D	P0903110-003 (0.5ml)	[redacted]	LM/CC	4	case file
8	09/03/09 15:14	09030909.D	P0903110-003 (2ml)	[redacted]	LM/CC	4	
9	09/03/09 15:55	09030910.D	P0903110-003dup (2ml)	[redacted]	LM/CC	4	Passed
10	09/03/09 16:53	09030911.D	P0902973-002 (0.8ml)	[redacted]	LM/CC	4	
11	09/03/09 18:15	09030912.D	P0903106-005 (100ml)	[redacted]	LM/CC	3	
12	09/03/09 18:55	09030913.D	P0903106-006 (100ml)	[redacted]	LM/CC	5	
13	09/03/09 19:36	09030914.D	P0903110-002 (50ml)	[redacted]	LM/CC	2	
14	09/03/09 20:16	09030915.D	Blank (100ml)		LM/CC	4	
15	09/03/09 20:58	09030916.D	P0902721-007 (1000ml)	[redacted]	LM/CC	7	ran conf.
16	09/03/09 21:40	09030917.D	P0902721-009 (1000ml)	[redacted]	LM/CC	8	ran conf.
17	09/03/09 22:22	09030918.D	P0902721-010 (1000ml)	[redacted]	LM/CC	9	ran conf.

Cont. CC 9-4-09

18	09/03/09 23:04	09030919.D	P0903021-001 (1000ml)	[redacted]	LM/CC	13	
19	09/03/09 23:46	09030920.D	P0903021-002 (1000ml)	[redacted]	LM/CC	14	
20	09/04/09 0:28	09030921.D	P0903021-003 (1000ml)	[redacted]	LM/CC	15	
21	09/04/09 1:10	09030922.D	P0903021-004 (1000ml)	[redacted]	LM/CC	16	
22	09/04/09 1:52	09030923.D	P0903021-005 (1000ml)	[redacted]	LM/CC	1	
23	09/04/09 2:33	09030924.D	P0902985-001 (600ml)	EH&E 103572	LM/CC	10	
25	09/04/09 3:13	09030925.D	P0902985-002 (600ml)	EH&E 103573	LM/CC	11	
26	09/04/09 3:55	09030926.D	P0902985-004 (1000ml)	EH&E 103575	LM/CC	12	

CC 9-04

Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
09/04/09 8:52	09040901.D	25ng TO-15 CCV STD	S20-08140906/S20-08240903	LM/CC	4	Passed ← Hand entered
09/04/09 9:47	09040902.D	CAS CAN QC C3 3729J	1SC00505 (400ml)	LM/CC	2	Passed
09/04/09 10:53	09040903.D	TO-15 Method Blank (1000ml)	S20-08140906	LM/CC	4	Passed
09/04/09 11:51	09040904.D	25ng TO-15 LCS STD	S20-08140906/S20-08240912	LM/CC	2	Passed
09/04/09 12:32	09040905.D	25ng TO-15 LCSD STD	S20-08140906/S20-08240912	LM/CC	2	Passed
09/04/09 13:13	09040906.D	P0903135-002 (2.0ml)	[redacted]	LM/CC	4	Case File ran high
09/04/09 13:53	09040907.D	P0903135-003 (50ml)	[redacted]	LM/CC	3	
09/04/09 14:34	09040908.D	P0903135-004 (5.0ml)	[redacted]	LM/CC	4	Case File ran high
09/04/09 15:34	09040909.D	P0903135-006 (50ml)	[redacted]	LM/CC	8	
09/04/09 16:14	09040910.D	P0903135-007 (100ml)	[redacted]	LM/CC	9	
09/04/09 16:55	09040911.D	P0903135-009 (25ml)	[redacted]	LM/CC	10	
09/04/09 18:19	09040912.D	P0903135-009 (50ml)	[redacted]	LM/CC	10	
09/04/09 19:00	09040913.D	P0903135-010 (50ml)	[redacted]	LM/CC	11	
09/04/09 19:40	09040914.D	P0903135-011 (100ml)	[redacted]	LM/CC	12	
09/04/09 20:20	09040915.D	P0903135-011dil (25ml)	[redacted]	LM/CC	12	
09/04/09 21:01	09040916.D	P0903135-002 (20ml)	[redacted]	LM/CC	5	
09/04/09 21:41	09040917.D	P0903135-002dup (20ml)	[redacted]	LM/CC	5	Passed
09/04/09 22:22	09040918.D	P0903135-004 (20ml)	[redacted]	LM/CC	7	
09/04/09 23:04	09040919.D	P0903022-001 (1000ml)	[redacted]	LM/CC	1	
09/04/09 23:46	09040920.D	P0903022-001dup (1000ml)	[redacted]	LM/CC	1	Case File not used - RPD did not Pass
09/05/09 0:28	09040921.D	P0903022-002 (1000ml)	[redacted]	LM/CC	2	
09/05/09 1:10	09040922.D	P0903022-003 (1000ml)	[redacted]	LM/CC	3	
09/05/09 1:52	09040923.D	P0903022-004 (1000ml)	[redacted]	LM/CC	6	
09/05/09 2:33	09040924.D	P0903022-005 (1000ml)	[redacted]	LM/CC	8	

CC 9-09

Date/Time	File Name	Sample ID	Misc Info	Operator	Vial	Comment
09/08/09 9:18	09080901.D	blank (100ml)	S20-08140906	LM/CC	4	
09/08/09 10:15	09080902.D	25ng TO-15 CCV STD	S20-08140906/S20-08240903	LM/CC	4	Passed
09/08/09 11:34	09080903.D	TO-15 Method Blank(1000ml)	S20-08140906	LM/CC	4	Passed
09/08/09 12:30	09080904.D	25ng TO-15 LCS STD	S20-08140906/S20-08240912	LM/CC	5	Passed
09/08/09 13:10	09080905.D	25ng TO-15 LCSD STD	S20-08140906/S20-08240912	LM/CC	5	*Passed* RPD Failed for Freon 114
09/08/09 14:33	09080906.D	CAS CAN QC C3 3738 (1000ml)	AC00601	LM/CC	12	Passed
09/08/09 15:13	09080907.D	P0902973-003 (3.5ml)	[redacted]	LM/CC	4	
09/08/09 15:53	09080908.D	P0902973-004 (5ml)	[redacted]	LM/CC	4	