Received 10/31/2011
Complaint 200323492 and
Project 2104

ALS Environmental

GC/MS Volatiles

Case Narrative

Colorado Oil & Gas Conservation Commission

Compliant 200323492

Work Order Number: 1110046

1. This report consists of 1 water sample. The sample was received cool and intact by ALS on 10/05/11.

   The sample was free of headspace prior to analysis.

   The sample had a pH < 2 at the time of analysis.

2. The sample was prepared according to SW-846, 3rd Edition procedures.

   The water sample was prepared using purge and trap procedures based on Method 5030C.

3. The sample was analyzed using GC/MS with an RTX-624, RTX-VMS, or equivalent capillary column according to SOP 525 Revision 15 based on SW-846 Method 8260. All positive results were quantitated against the initial calibration standards using the internal standard technique. The identification of positive results was achieved by a comparison of the retention time and mass spectrum of the sample versus the daily calibration standard.

4. All initial calibration criteria were met.

5. All initial calibrations are verified by comparing a second source standard calibration verification (ICV) against the calibration curve. All criteria for initial calibration verification were met.

6. All criteria were met in daily (continuing) calibration verifications (CCV).

7. Methylene chloride, acetone and 2-butanone are common laboratory contaminants. In order to minimize the levels of these compounds detected in the gc/ms analysis, ALS has designated its volatile laboratory as a restricted access area. In addition, the laboratory has been equipped with a dedicated, air intake and exhaust system that operates under positive pressure in order to minimize cross contamination of these compounds. Due to fluctuations in ambient laboratory

conditions, reported sample values for common laboratory contaminants may be due to lab contamination even if the compound in question is not detected in the associated method blank.

All method blank criteria were met.

8. All laboratory control sample and laboratory control sample duplicate recoveries and RPDs were within the acceptance criteria with the following exception:

Spiked Compound	QC Sample	Direction
2,2-Dichloropropane	LCSD	Low

Because of the large number of target analytes reported by this method, the lab allows for sporadic marginal exceedances. No further action was taken.

9. Since a sample from this order number was not the selected quality control (QC) sample, matrix specific QC results are not included in this report.

10. The samples were analyzed within the established holding time.

11. All surrogate recoveries were within acceptance criteria.

12. All internal standard recoveries were within acceptance criteria.

13. Manual integrations are performed when needed to provide consistent and defensible data following the guidelines in SOP 939 Revision 4. The chromatographic data system marks the manual integrations with an m on the quantitation report. Whenever manual integrations are performed, before and after chromatograms of the peak that was manually integrated are included in the report along with the reason why the re-integration was necessary.

The data contained in the following report have been reviewed and approved by the personnel listed below. In addition, ALS certifies that the analyses reported herein are true, complete and correct within the limits of the methods employed.

Emily Hellickson — 24 Oct. 11

Emily Hellickson
Organics Primary Data Reviewer

Date

Organics Final Data Reviewer — 10-24-11

Date

ALS
Data Qualifier Flags
Chromatography and Mass Spectrometry

U or ND:	**This flag indicates that the compound was analyzed for but not detected.**
J:	**This flag indicates an estimated value. This flag is used as follows : (1) when estimating a concentration for tentatively identified compounds (TICs) where a 1:1 response is assumed; (2) when the mass spectral and retention time data indicate the presence of a compound that meets the volatile and semivolatile GC/MS identification criteria, and the result is less than the reporting limit (RL) but greater than the method detection limit (MDL); (3) when the retention time data indicate the presence of a compound that meets the GC identification criteria, and the result is less than the RL but greater than the MDL; and (4) the reported value is estimated.**
B:	**This flag is used when the analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user. This flag shall be used for a tentatively identified compound (TIC) as well as for a positively identified target compound.**
E:	**This flag identifies compounds whose concentration exceeds the upper level of the calibration range.**
A:	**This flag indicates that a tentatively identified compound is a suspected aldol-condensation product.**
X:	**This flag indicates that the analyte was diluted below an accurate quantitation level.**
***:**	**This flag indicates that a spike recovery is equal to or outside the control criteria used.**
+:	**This flag indicates that the relative percent difference (RPD) equals or exceeds the control criteria.**

Chain of Custody

ALS Environmental -- FC

Sample Number(s) Cross-Reference Table

OrderNum: 1110046
Client Name: Colorado Oil & Gas Conservation Commission
Client Project Name: Complaint 200323492
Client Project Number:
Client PO Number: PHA 12-10

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
705323 Dahl	1110046-1		WATER	04-Oct-11	12:31
705323 Dahl	1110046-2		WATER	04-Oct-11	12:31

ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
TF 800-443-1511 PH (970) 490-1511 Fax (970) 490-1522

Chain-of-Custody

Form 202r8

WORKORDER #	1110046
PAGE	1 of 1
DISPOSAL	(By Lab) or Return to Client

PROJECT NAME	Compliant [illegible]	SAMPLER	[illegible] = Contractor
PROJECT No.		SITE ID	
		EDD FORMAT	
		PURCHASE ORDER	
COMPANY NAME	Colo Oil & Gas Cons Comm	BILL TO COMPANY	
SEND REPORT TO	Peter Gintautas	INVOICE ATTN TO	
ADDRESS	PO Box 106	ADDRESS	
CITY / STATE / ZIP	Trinidad CO 81082	CITY / STATE / ZIP	
PHONE	719-846-3091	PHONE	
FAX		FAX	
E-MAIL	peter.gintautas@state.co.us	E-MAIL	

DATE: 4/6/2011
TURNAROUND: 7 Day

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	SVOC incl TICs	TR Metals ICP	TR Metals ICP/MS	TOC	Sulfide	8270 SIM PAH	Dissolved Gases	Dissolved ICP	Dissolved ICP/MS	Anions	Alk (incl HCO3, CO3)	TDS + TSS	pH	[illegible]	SAR calc	Cation-Anion Balance	Filtered [illegible]
(1)	705323 Dahl	W	4/6/11	12:29	3	1		X		(2)														
↓	↓	↓	↓	12:31	1	2			X	X														
↓	↓	↓	↓	↓	1	3					X													
↓	↓	↓	↓	↓	1	4, Zn Ac						X												
↓	↓	↓	↓	↓	7	[illegible]							X	X	X	X	X	X	X	X	X	X	X	

Regular ICP metals + P, S
Regular ICP/MS + Cerium, Lanthanum, Neodymium, Praseodymium, Thorium, Yttrium
"TSS" bottle = entire digest to be filtered on 0.45 micron, with weight of any sediment reported

Time Zone (Circle): EST CST (MST) PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments: Anions: Br, Cl, F, NO3, NO2, SO4; Dissolved = filter and preserve upon receipt

QC PACKAGE (check below)	
	LEVEL I (Standard QC)
	LEVEL II (Std QC + forms)
X	LEVEL IV (Std QC + forms + raw data) w/ [illegible]

	SIGNATURE	PRINTED NAME	DATE	TIME
RELINQUISHED BY	[signature]	Peter Gintautas	4/6/11	16:45
RECEIVED BY	[signature]	Lauren Schmitz	10/5/11	1020
RELINQUISHED BY				
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

CONDITION OF SAMPLE UPON RECEIPT FORM

Client: COGCC Workorder No: 1110046

Project Manager: ARW Initials: LAS Date: 10/5/11

1. Does this project require any **special handling** in addition to standard Paragon procedures?		YES	(NO)
2. Are custody **seals** on **shipping containers** intact?	NONE	(YES)	NO
3. Are Custody seals on **sample containers** intact?	(NONE)	YES	NO
4. Is there a **COC (Chain-of-Custody) present** or other representative documents?		(YES)	NO
5. Are the **COC and bottle labels complete and legible**?		(YES)	NO
6. Is the **COC in agreement** with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		(YES)	NO
7. Were **airbills / shipping documents** present and/or removable?	DROP OFF	(YES)	NO
8. Are all **aqueous samples requiring preservation preserved correctly? (excluding volatiles)**	N/A	(YES)	NO
9. Are all aqueous **non-preserved samples pH 4-9**?	N/A	(YES)	NO
10. Is there **sufficient sample** for the requested analyses?		(YES)	NO
11. Were all samples placed in the **proper containers** for the requested analyses?		(YES)	NO
12. Are all samples within **holding times** for the requested analyses?		(YES)	NO
13. Were all sample containers received **intact**? (not broken or leaking, etc.)		(YES)	NO
14. Are all samples requiring **no** headspace (**VOC, GRO, RSK/MEE, Rx CN/S, radon**) headspace free? **Size of bubble**: ___ < green pea ___ > green pea	N/A	(YES)	NO
15. Do perchlorate LCMS-MS samples **have** headspace? (at least 1/3 of container required)	(N/A)	YES	NO
16. Were samples checked for and free from the presence of **residual chlorine?** (Applicable when PM has indicated samples are from a chlorinated water source; note if field preservation with sodium thiosulfate was not observed.)	(N/A)	YES	NO
17. Were the samples **shipped on ice**?		(YES)	NO
18. Were cooler temperatures measured at 0.1-6.0°C? **IR gun used*:** (#2) #4	RAD ONLY	(YES)	NO

Cooler #: 1

Temperature (°C): 5.2

No. of custody seals on cooler: 1

DOT Survey/ Acceptance Information

External µR/hr reading: 13

Background µR/hr reading: 12

Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? (YES) NO / NA (If no, see Form 008.)

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

If applicable, was the client contacted? YES / NO / (NA) Contact: _____ Date/Time: _____

Project Manager Signature / Date: 10/7/11

*IR Gun #2: Oakton, SN 29922500201-0066 *IR Gun #4: Oakton, SN 2372220101-0002

Form 201r22.xls (6/1/09)

1110046

PETER GINTAUTAS
719-846-3091
COLORADO OIL & GAS CONSERVATIO
213 CORUNDUM RD
TRINIDAD CO 81082

40 LBS

2 OF 2

DWT: 25,13

1020

FOLD HERE

SHIP TO:
AMY WOLF
970-490-1511
ALS LABORATORY GROUP
225 COMMERCE DRIVE
FORT COLLINS CO 80524-2762

CO 805 0-01

UPS NEXT DAY AIR

TRACKING #: 1Z 014 8WR 01 9337 6560

1

5.2°

BILLING: P/P

Reference#1: EPA frac Study

UIS 13.6.08 WNJE90 18.0A 07/2011

Analytical Results

GC/MS Volatiles

Method SW8260_25C

Method Blank

Lab Name: ALS Environmental -- FC

Work Order Number: 1110046

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200323492

Lab ID: VL111011-2MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 11-Oct-11
Date Analyzed: 12-Oct-11

Prep Batch: VL111011-2
QCBatchID: VL111011-2-1
Run ID: VL111011-2A
Cleanup: NONE
Basis: N/A
File Name: B74507

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	MDL	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	0.33	U	
74-87-3	CHLOROMETHANE	1	1	1	0.33	U	
75-01-4	VINYL CHLORIDE	1	1	1	0.33	U	
74-83-9	BROMOMETHANE	1	1	1	0.33	U	
75-00-3	CHLOROETHANE	1	1	1	0.33	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	0.33	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	0.33	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROET	1	1	1	0.33	U	
67-64-1	ACETONE	1	10	10	3.3	U	
74-88-4	IODOMETHANE	1	1	1	0.33	U	
75-15-0	CARBON DISULFIDE	1	1	1	0.33	U	
75-09-2	METHYLENE CHLORIDE	1	1	1	0.35	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	0.33	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	0.42	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	0.33	U	
108-05-4	VINYL ACETATE	1	2	2	0.67	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	0.33	U	
78-93-3	2-BUTANONE	1	10	10	3.3	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	0.33	U	
67-66-3	CHLOROFORM	1	1	1	0.33	U	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	0.33	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	0.33	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	0.33	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	0.33	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	0.33	U	
71-43-2	BENZENE	1	1	1	0.33	U	
79-01-6	TRICHLOROETHENE	1	1	1	0.33	U	
78-87-5	1,2-DICHLOROPROPANE	1	1	1	0.33	U	

Data Package ID: *VL1110046-1*

GC/MS Volatiles

Method SW8260_25C

Method Blank

Lab Name: ALS Environmental -- FC

Work Order Number: 1110046

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200323492

Lab ID: VL111011-2MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 11-Oct-11
Date Analyzed: 12-Oct-11

Prep Batch: VL111011-2
QCBatchID: VL111011-2-1
Run ID: VL111011-2A
Cleanup: NONE
Basis: N/A
File Name: B74507

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	MDL	Result Qualifier	EPA Qualifier
74-95-3	DIBROMOMETHANE	1	1	1	0.33	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	0.33	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	0.33	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	3.3	U	
108-88-3	TOLUENE	1	1	1	0.33	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	0.33	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	0.33	U	
591-78-6	2-HEXANONE	1	10	10	3.3	U	
127-18-4	TETRACHLOROETHENE	1	1	1	0.33	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	0.33	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	0.33	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	0.33	U	
544-10-5	1-CHLOROHEXANE	1	1	1	0.33	U	
108-90-7	CHLOROBENZENE	1	1	1	0.33	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	0.33	U	
100-41-4	ETHYLBENZENE	1	1	1	0.33	U	
136777-61-2	M+P-XYLENE	1	1	1	0.44	U	
95-47-6	O-XYLENE	1	1	1	0.33	U	
100-42-5	STYRENE	1	1	1	0.33	U	
75-25-2	BROMOFORM	1	1	1	0.33	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	0.33	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	0.33	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	0.34	U	
108-86-1	BROMOBENZENE	1	1	1	0.33	U	
103-65-1	N-PROPYLBENZENE	1	1	1	0.33	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	0.33	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	0.33	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	0.33	U	

Data Package ID: *VL1110046-1*

GC/MS Volatiles

Method SW8260_25C

Method Blank

Lab Name: ALS Environmental -- FC

Work Order Number: 1110046

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200323492

Lab ID: VL111011-2MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 11-Oct-11
Date Analyzed: 12-Oct-11

Prep Batch: VL111011-2
QCBatchID: VL111011-2-1
Run ID: VL111011-2A
Cleanup: NONE
Basis: N/A
File Name: B74507

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	DF	Result	Reporting Limit	MDL	Result Qualifier	EPA Qualifier
98-06-6	TERT-BUTYLBENZENE	1	1	1	0.33	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	0.33	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	0.33	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	0.33	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	0.33	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	0.33	U	
104-51-8	N-BUTYLBENZENE	1	1	1	0.33	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	0.33	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	0.67	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	0.33	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	0.33	U	
91-20-3	NAPHTHALENE	1	1	1	0.33	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	0.33	U	

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	23.8		25	95	85 - 115
1868-53-7	DIBROMOFLUOROMETHANE	25		25	100	84 - 118
2037-26-5	TOLUENE-D8	24.7		25	99	85 - 115

Data Package ID: *VL1110046-1*

GC/MS Volatiles

Method SW8260_25

Tentatively Identified Compounds

Lab Name: ALS Environmental -- FC

Work Order Number: 1110046

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200323492

Field ID:

Lab ID: VL111011-2MB

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 11-Oct-11
Date Analyzed: 12-Oct-11

Prep Batch: VL111011-2
QCBatchID: VL111011-2-1
Run ID: VL111011-2A
Cleanup: NONE
Basis: As Received

Sample Aliquot: 10 ml
Final Volume: 10 ml
Clean DF: 1
File Name: B74507

CASNO	Retention Time	Target Analyte	Dilution Factor	Result	Units	Qualifier
		NONE DETECTED	1			U

Data Package ID: *VL1110046-1*

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1110046

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200323492

Field ID: 705323 Dahl
Lab ID: 1110046-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 04-Oct-11
Date Extracted: 11-Oct-11
Date Analyzed: 12-Oct-11
Prep Method: SW5030 Rev C

Prep Batch: VL111011-2
QCBatchID: VL111011-2-1
Run ID: VL111011-2A
Cleanup: NONE
Basis: As Received
File Name: B74510

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	MDL	Result Qualifier	EPA Qualifier
75-71-8	DICHLORODIFLUOROMETHANE	1	1	1	0.33	U	
74-87-3	CHLOROMETHANE	1	1	1	0.33	U	
75-01-4	VINYL CHLORIDE	1	1	1	0.33	U	
74-83-9	BROMOMETHANE	1	1	1	0.33	U	
75-00-3	CHLOROETHANE	1	1	1	0.33	U	
75-69-4	TRICHLOROFLUOROMETHANE	1	1	1	0.33	U	
75-35-4	1,1-DICHLOROETHENE	1	1	1	0.33	U	
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETH	1	1	1	0.33	U	
67-64-1	ACETONE	1	10	10	3.3	U	
74-88-4	IODOMETHANE	1	1	1	0.33	U	
75-15-0	CARBON DISULFIDE	1	1	1	0.33	U	
75-09-2	METHYLENE CHLORIDE	1	1	1	0.35	U	
156-60-5	TRANS-1,2-DICHLOROETHENE	1	1	1	0.33	U	
1634-04-4	METHYL TERTIARY BUTYL ETHER	1	1	1	0.42	U	
75-34-3	1,1-DICHLOROETHANE	1	1	1	0.33	U	
108-05-4	VINYL ACETATE	1	2	2	0.67	U	
156-59-2	CIS-1,2-DICHLOROETHENE	1	1	1	0.33	U	
78-93-3	2-BUTANONE	1	10	10	3.3	U	
74-97-5	BROMOCHLOROMETHANE	1	1	1	0.33	U	
67-66-3	CHLOROFORM	1	0.58	1	0.33	J	
71-55-6	1,1,1-TRICHLOROETHANE	1	1	1	0.33	U	
594-20-7	2,2-DICHLOROPROPANE	1	1	1	0.33	U	
56-23-5	CARBON TETRACHLORIDE	1	1	1	0.33	U	
563-58-6	1,1-DICHLOROPROPENE	1	1	1	0.33	U	
107-06-2	1,2-DICHLOROETHANE	1	1	1	0.33	U	
71-43-2	BENZENE	1	1	1	0.33	U	

Data Package ID: *VL1110046-1*

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1110046

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200323492

Field ID: 705323 Dahl
Lab ID: 1110046-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 04-Oct-11
Date Extracted: 11-Oct-11
Date Analyzed: 12-Oct-11
Prep Method: SW5030 Rev C

Prep Batch: VL111011-2
QCBatchID: VL111011-2-1
Run ID: VL111011-2A
Cleanup: NONE
Basis: As Received
File Name: B74510

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	MDL	Result Qualifier	EPA Qualifier
79-01-6	TRICHLOROETHENE	1	1	1	0.33	U	
78-87-5	1,2-DICHLOROPROPANE	1	1	1	0.33	U	
74-95-3	DIBROMOMETHANE	1	1	1	0.33	U	
75-27-4	BROMODICHLOROMETHANE	1	1	1	0.33	U	
10061-01-5	CIS-1,3-DICHLOROPROPENE	1	1	1	0.33	U	
108-10-1	4-METHYL-2-PENTANONE	1	10	10	3.3	U	
108-88-3	TOLUENE	1	1	1	0.33	U	
10061-02-6	TRANS-1,3-DICHLOROPROPENE	1	1	1	0.33	U	
79-00-5	1,1,2-TRICHLOROETHANE	1	1	1	0.33	U	
591-78-6	2-HEXANONE	1	10	10	3.3	U	
127-18-4	TETRACHLOROETHENE	1	1	1	0.33	U	
142-28-9	1,3-DICHLOROPROPANE	1	1	1	0.33	U	
124-48-1	DIBROMOCHLOROMETHANE	1	1	1	0.33	U	
106-93-4	1,2-DIBROMOETHANE	1	1	1	0.33	U	
544-10-5	1-CHLOROHEXANE	1	1	1	0.33	U	
108-90-7	CHLOROBENZENE	1	1	1	0.33	U	
630-20-6	1,1,1,2-TETRACHLOROETHANE	1	1	1	0.33	U	
100-41-4	ETHYLBENZENE	1	1	1	0.33	U	
136777-61-2	M+P-XYLENE	1	1	1	0.44	U	
95-47-6	O-XYLENE	1	1	1	0.33	U	
100-42-5	STYRENE	1	1	1	0.33	U	
75-25-2	BROMOFORM	1	1	1	0.33	U	
98-82-8	ISOPROPYLBENZENE	1	1	1	0.33	U	
96-18-4	1,2,3-TRICHLOROPROPANE	1	1	1	0.33	U	
79-34-5	1,1,2,2-TETRACHLOROETHANE	1	1	1	0.34	U	
108-86-1	BROMOBENZENE	1	1	1	0.33	U	

Data Package ID: *VL1110046-1*

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1110046

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200323492

Field ID: 705323 Dahl
Lab ID: 1110046-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 04-Oct-11
Date Extracted: 11-Oct-11
Date Analyzed: 12-Oct-11
Prep Method: SW5030 Rev C

Prep Batch: VL111011-2
QCBatchID: VL111011-2-1
Run ID: VL111011-2A
Cleanup: NONE
Basis: As Received
File Name: B74510

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	MDL	Result Qualifier	EPA Qualifier
103-65-1	N-PROPYLBENZENE	1	1	1	0.33	U	
95-49-8	2-CHLOROTOLUENE	1	1	1	0.33	U	
108-67-8	1,3,5-TRIMETHYLBENZENE	1	1	1	0.33	U	
106-43-4	4-CHLOROTOLUENE	1	1	1	0.33	U	
98-06-6	TERT-BUTYLBENZENE	1	1	1	0.33	U	
95-63-6	1,2,4-TRIMETHYLBENZENE	1	1	1	0.33	U	
135-98-8	SEC-BUTYLBENZENE	1	1	1	0.33	U	
541-73-1	1,3-DICHLOROBENZENE	1	1	1	0.33	U	
99-87-6	P-ISOPROPYLTOLUENE	1	1	1	0.33	U	
106-46-7	1,4-DICHLOROBENZENE	1	1	1	0.33	U	
104-51-8	N-BUTYLBENZENE	1	1	1	0.33	U	
95-50-1	1,2-DICHLOROBENZENE	1	1	1	0.33	U	
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	1	2	2	0.67	U	
120-82-1	1,2,4-TRICHLOROBENZENE	1	1	1	0.33	U	
87-68-3	HEXACHLOROBUTADIENE	1	1	1	0.33	U	
91-20-3	NAPHTHALENE	1	1	1	0.33	U	
87-61-6	1,2,3-TRICHLOROBENZENE	1	1	1	0.33	U	

Data Package ID: *VL1110046-1*

GC/MS Volatiles

Method SW8260_25C

Sample Results

Lab Name: ALS Environmental -- FC

Work Order Number: 1110046

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200323492

Field ID: 705323 Dahl
Lab ID: 1110046-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 04-Oct-11
Date Extracted: 11-Oct-11
Date Analyzed: 12-Oct-11
Prep Method: SW5030 Rev C

Prep Batch: VL111011-2
QCBatchID: VL111011-2-1
Run ID: VL111011-2A
Cleanup: NONE
Basis: As Received
File Name: B74510

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Dilution Factor	Result	Reporting Limit	MDL	Result Qualifier	EPA Qualifier

Surrogate Recovery

CASNO	Surrogate Analyte	Result	Flag	Spike Amount	Percent Recovery	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	24.5		25	98	85 - 115
1868-53-7	DIBROMOFLUOROMETHANE	25.1		25	100	84 - 118
2037-26-5	TOLUENE-D8	24.8		25	99	85 - 115

Data Package ID: *VL1110046-1*

GC/MS Volatiles

Method SW8260_25

Tentatively Identified Compounds

Lab Name: ALS Environmental -- FC

Work Order Number: 1110046

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200323492

Field ID: 705323 Dahl
Lab ID: 1110046-1

Sample Matrix: WATER
% Moisture: N/A
Date Collected: 04-Oct-11
Date Extracted: 11-Oct-11
Date Analyzed: 12-Oct-11

Prep Batch: VL111011-2
QCBatchID: VL111011-2-1
Run ID: VL111011-2A
Cleanup: NONE
Basis: As Received

Sample Aliquot: 10 ml
Final Volume: 10 ml
Clean DF: 1
File Name: B74510

CASNO	Retention Time	Target Analyte	Dilution Factor	Result	Units	Qualifier
		NONE DETECTED	1			U

Data Package ID: *VL1110046-1*

Supporting QA/QC Data

Surrogate Summary for GC/MS Volatiles

Method SW8260_25C

Lab Name: ALS Environmental -- FC

Work Order Number: 1110046

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200323492

PrepBatchID: VL111011-2

QC Batch ID: VL111011-2-1

Date Extracted: 10/11/2011

Surrogate Compound	Control Limits Lower	Upper
Dibromofluoromethane	84	118
Toluene-d8	85	115
4-Bromofluorobenzene	85	115
1,2-dichloroethane-d4		

Lab ID	Client Sample ID	Date Collected	Date Received	DBFM % Recovery	BZMED8 % Recovery	BR4FBZ % Recovery	12DCED4 % Recovery
VL111011-2LCS	XXXXXXX	NA	XXXXXXX	100	103	101	
VL111011-2LCSD	XXXXXXX	NA	XXXXXXX	99	101	100	
VL111011-2MB	XXXXXXX	NA	XXXXXXX	100	99	95	
1110046-1	705323 Dahl	10/4/2011	10/5/2011	100	99	98	

Data Package ID: *VL1110046-1*

GC/MS Volatiles

Method SW8260_25C

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Environmental -- FC

Work Order Number: 1110046

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200323492

Lab ID: VL111011-2LCS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 10/11/2011
Date Analyzed: 10/11/2011
Prep Method: SW5030C

Prep Batch: VL111011-2
QCBatchID: VL111011-2-1
Run ID: VL111011-2A
Cleanup: NONE
Basis: N/A
File Name: B74504

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
75-71-8	DICHLORODIFLUOROMETHANE	10	9.09	1		91	63 - 125%
74-87-3	CHLOROMETHANE	10	9.22	1		92	73 - 122%
75-01-4	VINYL CHLORIDE	10	9.36	1		94	72 - 123%
74-83-9	BROMOMETHANE	10	9.34	1		93	68 - 123%
75-00-3	CHLOROETHANE	10	9.32	1		93	74 - 124%
75-69-4	TRICHLOROFLUOROMETHANE	10	9.71	1		97	74 - 124%
75-35-4	1,1-DICHLOROETHENE	10	9.89	1		99	77 - 119%
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHA	10	9.86	1		99	79 - 122%
67-64-1	ACETONE	40	37.8	10		95	62 - 142%
74-88-4	IODOMETHANE	10	9.71	1		97	72 - 126%
75-15-0	CARBON DISULFIDE	10	9.84	1		98	76 - 121%
75-09-2	METHYLENE CHLORIDE	10	10.1	1		101	71 - 130%
156-60-5	TRANS-1,2-DICHLOROETHENE	10	9.71	1		97	82 - 117%
1634-04-4	METHYL TERTIARY BUTYL ETHER	20	19.2	1		96	77 - 119%
75-34-3	1,1-DICHLOROETHANE	10	9.92	1		99	83 - 119%
108-05-4	VINYL ACETATE	10	9.1	2		91	76 - 121%
156-59-2	CIS-1,2-DICHLOROETHENE	10	9.74	1		97	83 - 117%
78-93-3	2-BUTANONE	40	46.4	10		116	70 - 135%
74-97-5	BROMOCHLOROMETHANE	10	10	1		100	83 - 121%
67-66-3	CHLOROFORM	10	9.84	1		98	82 - 119%
71-55-6	1,1,1-TRICHLOROETHANE	10	9.69	1		97	80 - 120%
594-20-7	2,2-DICHLOROPROPANE	10	8.31	1		83	83 - 125%
56-23-5	CARBON TETRACHLORIDE	10	9.65	1		97	77 - 122%
563-58-6	1,1-DICHLOROPROPENE	10	10	1		100	84 - 118%
107-06-2	1,2-DICHLOROETHANE	10	9.68	1		97	74 - 128%
71-43-2	BENZENE	10	9.64	1		96	83 - 117%

Data Package ID: *VL1110046-1*

GC/MS Volatiles

Method SW8260_25C

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Environmental -- FC

Work Order Number: 1110046

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200323492

Lab ID: VL111011-2LCS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 10/11/2011
Date Analyzed: 10/11/2011
Prep Method: SW5030C

Prep Batch: VL111011-2
QCBatchID: VL111011-2-1
Run ID: VL111011-2A
Cleanup: NONE
Basis: N/A
File Name: B74504

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
79-01-6	TRICHLOROETHENE	10	9.86	1		99	83 - 117%
78-87-5	1,2-DICHLOROPROPANE	10	9.94	1		99	84 - 120%
74-95-3	DIBROMOMETHANE	10	9.93	1		99	79 - 122%
75-27-4	BROMODICHLOROMETHANE	10	9.86	1		99	76 - 122%
10061-01-5	CIS-1,3-DICHLOROPROPENE	10	9.6	1		96	81 - 120%
108-10-1	4-METHYL-2-PENTANONE	40	42.5	10		106	73 - 125%
108-88-3	TOLUENE	10	9.93	1		99	82 - 113%
10061-02-6	TRANS-1,3-DICHLOROPROPENE	10	10	1		100	81 - 114%
79-00-5	1,1,2-TRICHLOROETHANE	10	10.1	1		101	78 - 116%
591-78-6	2-HEXANONE	40	42.4	10		106	71 - 124%
127-18-4	TETRACHLOROETHENE	10	10.1	1		101	84 - 117%
142-28-9	1,3-DICHLOROPROPANE	10	10.1	1		101	80 - 115%
124-48-1	DIBROMOCHLOROMETHANE	10	10.2	1		102	82 - 118%
106-93-4	1,2-DIBROMOETHANE	10	9.92	1		99	79 - 114%
544-10-5	1-CHLOROHEXANE	10	10	1		100	80 - 117%
108-90-7	CHLOROBENZENE	10	9.93	1		99	81 - 113%
630-20-6	1,1,1,2-TETRACHLOROETHANE	10	10.1	1		101	78 - 113%
100-41-4	ETHYLBENZENE	10	9.91	1		99	81 - 113%
136777-61-2	M+P-XYLENE	20	19.4	1		97	82 - 115%
95-47-6	O-XYLENE	10	10	1		100	81 - 115%
100-42-5	STYRENE	10	10.1	1		101	78 - 118%
75-25-2	BROMOFORM	10	10.2	1		102	70 - 120%
98-82-8	ISOPROPYLBENZENE	10	9.91	1		99	80 - 113%
96-18-4	1,2,3-TRICHLOROPROPANE	10	10.1	1		101	78 - 117%
79-34-5	1,1,2,2-TETRACHLOROETHANE	10	9.89	1		99	75 - 121%
108-86-1	BROMOBENZENE	10	9.88	1		99	81 - 114%
103-65-1	N-PROPYLBENZENE	10	9.77	1		98	79 - 116%

Data Package ID: *VL1110046-1*

GC/MS Volatiles

Method SW8260_25C

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Environmental -- FC

Work Order Number: 1110046

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200323492

Lab ID: VL111011-2LCS

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 10/11/2011
Date Analyzed: 10/11/2011
Prep Method: SW5030C

Prep Batch: VL111011-2
QCBatchID: VL111011-2-1
Run ID: VL111011-2A
Cleanup: NONE
Basis: N/A
File Name: B74504

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCS Result	Reporting Limit	Result Qualifier	LCS % Rec.	Control Limits
95-49-8	2-CHLOROTOLUENE	10	9.66	1		97	79 - 116%
108-67-8	1,3,5-TRIMETHYLBENZENE	10	9.97	1		100	78 - 116%
106-43-4	4-CHLOROTOLUENE	10	9.6	1		96	78 - 115%
98-06-6	TERT-BUTYLBENZENE	10	9.89	1		99	76 - 120%
95-63-6	1,2,4-TRIMETHYLBENZENE	10	9.68	1		97	80 - 117%
135-98-8	SEC-BUTYLBENZENE	10	9.67	1		97	78 - 115%
541-73-1	1,3-DICHLOROBENZENE	10	9.78	1		98	79 - 115%
99-87-6	P-ISOPROPYLTOLUENE	10	9.72	1		97	77 - 116%
106-46-7	1,4-DICHLOROBENZENE	10	9.59	1		96	82 - 114%
104-51-8	N-BUTYLBENZENE	10	9.47	1		95	79 - 117%
95-50-1	1,2-DICHLOROBENZENE	10	9.83	1		98	82 - 114%
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	10	10.4	2		104	73 - 125%
120-82-1	1,2,4-TRICHLOROBENZENE	10	9.93	1		99	75 - 120%
87-68-3	HEXACHLOROBUTADIENE	10	9.94	1		99	71 - 124%
91-20-3	NAPHTHALENE	10	9.74	1		97	71 - 131%
87-61-6	1,2,3-TRICHLOROBENZENE	10	9.83	1		98	70 - 131%

Data Package ID: *VL1110046-1*

GC/MS Volatiles

Method SW8260_25C

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Environmental -- FC

Work Order Number: 1110046

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200323492

Lab ID: VL111011-2LCSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 10/11/2011
Date Analyzed: 10/11/2011
Prep Method: SW5030C

Prep Batch: VL111011-2
QCBatchID: VL111011-2-1
Run ID: VL111011-2A
Cleanup: NONE
Basis: N/A
File Name: B74505

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
75-71-8	DICHLORODIFLUOROMETHANE	10	9.29	1		93	20	2
74-87-3	CHLOROMETHANE	10	9.37	1		94	20	2
75-01-4	VINYL CHLORIDE	10	9.13	1		91	20	3
74-83-9	BROMOMETHANE	10	9.38	1		94	20	0
75-00-3	CHLOROETHANE	10	9.16	1		92	20	2
75-69-4	TRICHLOROFLUOROMETHANE	10	9.31	1		93	20	4
75-35-4	1,1-DICHLOROETHENE	10	9.65	1		96	20	3
76-13-1	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHA	10	9.92	1		99	20	1
67-64-1	ACETONE	40	36.3	10		91	30	4
74-88-4	IODOMETHANE	10	9.62	1		96	20	1
75-15-0	CARBON DISULFIDE	10	9.9	1		99	20	1
75-09-2	METHYLENE CHLORIDE	10	10	1		100	20	1
156-60-5	TRANS-1,2-DICHLOROETHENE	10	9.53	1		95	20	2
1634-04-4	METHYL TERTIARY BUTYL ETHER	20	18.9	1		95	20	1
75-34-3	1,1-DICHLOROETHANE	10	9.87	1		99	20	0
108-05-4	VINYL ACETATE	10	9.13	2		91	20	0
156-59-2	CIS-1,2-DICHLOROETHENE	10	9.76	1		98	20	0
78-93-3	2-BUTANONE	40	48	10		120	30	3
74-97-5	BROMOCHLOROMETHANE	10	9.9	1		99	20	1
67-66-3	CHLOROFORM	10	9.92	1		99	20	1
71-55-6	1,1,1-TRICHLOROETHANE	10	9.47	1		95	20	2
594-20-7	2,2-DICHLOROPROPANE	10	8.12	1	*	81	20	2
56-23-5	CARBON TETRACHLORIDE	10	9.73	1		97	20	1
563-58-6	1,1-DICHLOROPROPENE	10	9.86	1		99	20	2
107-06-2	1,2-DICHLOROETHANE	10	9.76	1		98	20	1
71-43-2	BENZENE	10	9.7	1		97	20	1
79-01-6	TRICHLOROETHENE	10	9.75	1		98	20	1

Data Package ID: *VL1110046-1*

GC/MS Volatiles

Method SW8260_25C

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Environmental -- FC

Work Order Number: 1110046

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200323492

Lab ID: VL111011-2LCSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 10/11/2011
Date Analyzed: 10/11/2011
Prep Method: SW5030C

Prep Batch: VL111011-2
QCBatchID: VL111011-2-1
Run ID: VL111011-2A
Cleanup: NONE
Basis: N/A
File Name: B74505

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
78-87-5	1,2-DICHLOROPROPANE	10	10	1		100	20	1
74-95-3	DIBROMOMETHANE	10	9.53	1		95	20	4
75-27-4	BROMODICHLOROMETHANE	10	9.57	1		96	20	3
10061-01-5	CIS-1,3-DICHLOROPROPENE	10	9.46	1		95	20	2
108-10-1	4-METHYL-2-PENTANONE	40	42.1	10		105	30	1
108-88-3	TOLUENE	10	9.81	1		98	20	1
10061-02-6	TRANS-1,3-DICHLOROPROPENE	10	10.1	1		101	20	0
79-00-5	1,1,2-TRICHLOROETHANE	10	9.78	1		98	20	3
591-78-6	2-HEXANONE	40	42.4	10		106	30	0
127-18-4	TETRACHLOROETHENE	10	10.1	1		101	20	0
142-28-9	1,3-DICHLOROPROPANE	10	9.88	1		99	20	3
124-48-1	DIBROMOCHLOROMETHANE	10	9.92	1		99	20	2
106-93-4	1,2-DIBROMOETHANE	10	9.82	1		98	20	1
544-10-5	1-CHLOROHEXANE	10	10.1	1		101	20	1
108-90-7	CHLOROBENZENE	10	10	1		100	20	1
630-20-6	1,1,1,2-TETRACHLOROETHANE	10	9.91	1		99	20	2
100-41-4	ETHYLBENZENE	10	9.86	1		99	20	0
136777-61-2	M+P-XYLENE	20	19.9	1		100	20	3
95-47-6	O-XYLENE	10	9.78	1		98	20	2
100-42-5	STYRENE	10	10.1	1		101	20	0
75-25-2	BROMOFORM	10	9.98	1		100	20	3
98-82-8	ISOPROPYLBENZENE	10	9.86	1		99	20	0
96-18-4	1,2,3-TRICHLOROPROPANE	10	10.3	1		103	20	2
79-34-5	1,1,2,2-TETRACHLOROETHANE	10	9.84	1		98	20	0
108-86-1	BROMOBENZENE	10	9.99	1		100	20	1
103-65-1	N-PROPYLBENZENE	10	9.92	1		99	20	2
95-49-8	2-CHLOROTOLUENE	10	9.83	1		98	20	2

Data Package ID: *VL1110046-1*

GC/MS Volatiles

Method SW8260_25C

Laboratory Control Sample and Laboratory Control Sample Duplicate

Lab Name: ALS Environmental -- FC

Work Order Number: 1110046

Client Name: Colorado Oil & Gas Conservation Commission

ClientProject ID: Complaint 200323492

Lab ID: VL111011-2LCSD

Sample Matrix: WATER
% Moisture: N/A
Date Collected: N/A
Date Extracted: 10/11/2011
Date Analyzed: 10/11/2011
Prep Method: SW5030C

Prep Batch: VL111011-2
QCBatchID: VL111011-2-1
Run ID: VL111011-2A
Cleanup: NONE
Basis: N/A
File Name: B74505

Sample Aliquot: 10 ml
Final Volume: 10 ml
Result Units: UG/L
Clean DF: 1

CASNO	Target Analyte	Spike Added	LCSD Result	Reporting Limit	Result Qualifier	LCSD % Rec.	RPD Limit	RPD
108-67-8	1,3,5-TRIMETHYLBENZENE	10	9.96	1		100	20	0
106-43-4	4-CHLOROTOLUENE	10	9.5	1		95	20	1
98-06-6	TERT-BUTYLBENZENE	10	9.74	1		97	20	2
95-63-6	1,2,4-TRIMETHYLBENZENE	10	9.86	1		99	20	2
135-98-8	SEC-BUTYLBENZENE	10	9.88	1		99	20	2
541-73-1	1,3-DICHLOROBENZENE	10	9.78	1		98	20	0
99-87-6	P-ISOPROPYLTOLUENE	10	9.71	1		97	20	0
106-46-7	1,4-DICHLOROBENZENE	10	9.63	1		96	20	0
104-51-8	N-BUTYLBENZENE	10	9.65	1		96	20	2
95-50-1	1,2-DICHLOROBENZENE	10	9.79	1		98	20	0
96-12-8	1,2-DIBROMO-3-CHLOROPROPANE	10	10.7	2		107	20	3
120-82-1	1,2,4-TRICHLOROBENZENE	10	10.1	1		101	20	2
87-68-3	HEXACHLOROBUTADIENE	10	10.3	1		103	20	4
91-20-3	NAPHTHALENE	10	9.67	1		97	20	1
87-61-6	1,2,3-TRICHLOROBENZENE	10	9.92	1		99	20	1

Surrogate Recovery LCS/LCSD

CASNO	Target Analyte	Spike Added	LCS % Rec.	LCS Flag	LCSD % Rec.	LCSD Flag	Control Limits
460-00-4	4-BROMOFLUOROBENZENE	25	101		100		85 - 115
1868-53-7	DIBROMOFLUOROMETHANE	25	100		99		84 - 118
2037-26-5	TOLUENE-D8	25	103		101		85 - 115

Data Package ID: *VL1110046-1*

Prep Batch ID: VL111011-2

Start Date: 10/11/11
Start Time: 17:05
Prep Analyst: Steven D. White

End Date: 10/12/11
End Time:

Concentration Method: NONE
Extract Method: SW5030C
Initial Volume Units: ml
Final Volume Units: ml

Batch Created By: sdw
Date Created: 10/11/11
Time Created: 17:31
Validated By: sdw
Date Validated: 10/12/11
Time Validated: 12:49

Comments:

10ml UN-Heated Purge Waters; insufficient sample provided for MS/MSD

QC Batch ID: VL111011-2-1

Lab ID	QC Type	Field ID	Matrix	Date Collected	Initial Wt/Vol	Final Wt/Vol	Cleanup Method	Cleanup DF	Order Number
VL111011-2	MB	XXXXXX	WATER	XXXXXX	10	10	NONE	1	1110029
VL111011-2	LCS	XXXXXX	WATER	XXXXXX	10	10	NONE	1	1110029
VL111011-2	LCSD	XXXXXX	WATER	XXXXXX	10	10	NONE	1	1110029
1110029-49	SMP	XXXXXX	WATER	XXXXXX	10	10	NONE	1	1110029
1110029-50	SMP	XXXXXX	WATER	XXXXXX	10	10	NONE	1	1110029
1110046-1	SMP	705323 Dahl	WATER	10/4/2011	10	10	NONE	1	1110046
1110079-1	SMP	XXXXXX	WATER	XXXXXX	10	10	NONE	1	1110079
1110079-2	SMP	XXXXXX	WATER	XXXXXX	10	10	NONE	1	1110079

QC Types

CAR	Carrier reference sample	DUP	Laboratory Duplicate
LCS	Laboratory Control Sample	LCSD	Laboratory Control Sample Duplicate
MB	Method Blank	MS	Laboratory Matrix Spike
MSD	Laboratory Matrix Spike Duplicate	REP	Sample replicate
RVS	Reporting Level Verification Standar	SMP	Field Sample
SYS	Sample Yield Spike		

5A

Volatile Organic GC/MS Tuning And Mass Calibration--Bromofluorobenzene (BFB)

Lab Name: ALS Environmental -- FC
Work Order Number: 1110046
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200323492

BFB Injection Date: 10/11/2011
BFB Injection Time: 17:05
Instrument ID: HPV2
Reported on: Friday, October 21, 2011

Level: Low **Column:** CAP **FileID:** B74486

m/e	Ion Abundance Criteria SW8260_25C	% Relative Abundance
50	15.0 - 40.0 percent of mass 95	15.2
75	30.0 - 60.0 percent of mass 95	40
95	Base peak, 100 percent of relative abundance	100
96	5.0 - 9.0 percent of mass 95	6.8
173	Less than 2.0 percent of mass 174	0
174	Greater than 50.0 percent of mass 95	88
175	5.0 - 9.0 percent of mass 174	6.8
176	Greater than 95.0 percent < 101.0 percent of mass 174	95.5
177	5.0 - 9.0 percent of mass 176	6.3

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS/MSD, BLANKS, AND STANDARDS:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	QC BatchID
XXXXXXX	VOC_0.25ppb_ICAL_CSTD	B74488	10/11/2011	17:46	VL111011-2A
XXXXXXX	VOC_0.50ppb_ICAL_CSTD	B74489	10/11/2011	18:08	VL111011-2A
XXXXXXX	VL111011-2RVS	B74490	10/11/2011	18:30	VL111011-2-3
XXXXXXX	VOC_1.0ppb_ICAL_CSTD	B74490	10/11/2011	18:30	VL111011-2A
XXXXXXX	VOC_2.0ppb_ICAL_CSTD	B74491	10/11/2011	18:52	VL111011-2A
XXXXXXX	VOC_4.0ppb_ICAL_CSTD	B74492	10/11/2011	19:13	VL111011-2A
XXXXXXX	CCV1CCV	B74494	10/11/2011	19:57	VL111011-2A
XXXXXXX	VOC_10ppb_ICAL_CSTD	B74494	10/11/2011	19:57	VL111011-2A
XXXXXXX	VOC_20ppb_ICAL_CSTD	B74496	10/11/2011	20:40	VL111011-2A
XXXXXXX	VOC_40ppb_ICAL_CSTD	B74498	10/11/2011	21:23	VL111011-2A
XXXXXXX	VOC_60ppb_ICAL_CSTD	B74500	10/11/2011	22:06	VL111011-2A
XXXXXXX	VL111011-2ICV	B74503	10/11/2011	23:11	VL111011-2A
XXXXXXX	VL111011-2LCS	B74504	10/11/2011	23:33	VL111011-2-2
XXXXXXX	VL111011-2LCS	B74504	10/11/2011	23:33	VL111011-2-1
XXXXXXX	VL111011-2LCSD	B74505	10/11/2011	23:55	VL111011-2-1
XXXXXXX	VL111011-2LCSD	B74505	10/11/2011	23:55	VL111011-2-2
XXXXXXX	VL111011-2MB	B74507	10/12/2011	0:38	VL111011-2-1

Data Package ID: *VL1110046-1*

5A

Volatile Organic GC/MS Tuning And Mass Calibration--Bromofluorobenzene (BFB)

Lab Name: ALS Environmental -- FC
Work Order Number: 1110046
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200323492

BFB Injection Date: 10/11/2011
BFB Injection Time: 17:05
Instrument ID: HPV2
Reported on: Friday, October 21, 2011

Level: Low **Column:** CAP **FileID:** B74486

m/e	Ion Abundance Criteria SW8260_25C	% Relative Abundance
50	15.0 - 40.0 percent of mass 95	15.2
75	30.0 - 60.0 percent of mass 95	40
95	Base peak, 100 percent of relative abundance	100
96	5.0 - 9.0 percent of mass 95	6.8
173	Less than 2.0 percent of mass 174	0
174	Greater than 50.0 percent of mass 95	88
175	5.0 - 9.0 percent of mass 174	6.8
176	Greater than 95.0 percent < 101.0 percent of mass 174	95.5
177	5.0 - 9.0 percent of mass 176	6.3

THIS TUNE APPLIES TO THE FOLLOWING SAMPLES, MS/MSD, BLANKS, AND STANDARDS:

Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	QC BatchID
XXXXXXX	VL111011-2MB	B74507	10/12/2011	0:38	VL111011-2-2
XXXXXXX	1110029-49	B74508	10/12/2011	0:59	VL111011-2-1
XXXXXXX	1110029-50	B74509	10/12/2011	1:21	VL111011-2-1
705323 Dahl	1110046-1	B74510	10/12/2011	1:43	VL111011-2-1
XXXXXXX	1110066-1	B74511	10/12/2011	2:04	VL111011-2-2
XXXXXXX	1110066-2	B74512	10/12/2011	2:26	VL111011-2-2
XXXXXXX	1110079-1	B74515	10/12/2011	3:31	VL111011-2-1
XXXXXXX	1110079-2	B74516	10/12/2011	3:53	VL111011-2-1

Data Package ID: *VL1110046-1*

Calibration ID: 101111W
Instrument ID: HPV2
Calibration Date: 10/11/2011

ALS Environmental -- FC

Initial Calibration Report

Analyte	FileName:	B74488.D	B74489.D	B74490.D	B74491.D	B74492.D	B74494.D	B74496.D	B74498.D	B74500.D	AvgRF	%RSD		Curve Type	Higher Order Equation Corr	Quad Term	Linear Term	Const Term
	Cal LVL ID:	0.25	0.5	1	2	4	10	20	40	60								
fluorobenzene													ISTD	AvgRF				
dichlorodifluoromethane		0.6032	0.6865	0.6609	0.6768	0.6616	0.6211	0.6704	0.6511		0.6540	4.33		AvgRF				
chloromethane		0.5058	0.5236	0.4825	0.5004	0.4723	0.4400	0.4624	0.4436		0.4788	6.25		AvgRF				
vinyl chloride		0.4583	0.4349	0.4014	0.4290	0.4176	0.3855	0.4253	0.4088		0.4201	5.30		AvgRF				
bromomethane		0.3693	0.3676	0.3904	0.3689	0.3607	0.3431	0.3627	0.3533		0.3645	3.77		AvgRF				
chloroethane		0.2258	0.2084	0.2344	0.2091	0.2099	0.2019	0.2111	0.2105		0.2133	5.23		AvgRF				
trichlorofluoromethane		0.5636	0.6227	0.6308	0.6559	0.6107	0.6175	0.6596	0.6452		0.6257	4.92		AvgRF				
diethyl ether		0.2248	0.2442	0.2483	0.2443	0.2386	0.2309	0.2386	0.2449		0.2393	3.32		AvgRF				
ethanol																		
acrolein			0.0142	0.0199	0.0197	0.0181	0.0190	0.0200	0.0206		0.0188	11.62		AvgRF				
1,1,2-trichloro-1,2,2-trifluoroethane		0.4257	0.4514	0.4771	0.4721	0.4699	0.4394	0.4475	0.4578		0.4551	3.88		AvgRF				
1,1-dichloroethene		0.4199	0.4509	0.4356	0.4431	0.4195	0.4056	0.4225	0.4329		0.4288	3.41		AvgRF				
acetone				0.0322	0.0246	0.0211	0.0218	0.0207	0.0242		0.0241	17.74		AvgRF				
iodomethane		0.9582	0.9666	0.9720	0.9774	0.9611	0.9266	0.9527	0.9758		0.9613	1.71		AvgRF				
carbon disulfide		1.2701	1.2976	1.2524	1.2871	1.2975	1.2469	1.2969	1.3424		1.2864	2.36		AvgRF				
allyl chloride		0.3032	0.2588	0.3108	0.2982	0.2736	0.2628	0.2670	0.2936		0.2860	6.67		AvgRF				
acetonitrile																		
methylene chloride			0.5657	0.5292	0.5000	0.4669	0.4371	0.4455	0.4536		0.4854	9.90		AvgRF				
methyl acetate				0.0515	0.0662	0.0859	0.0733	0.0839	0.0907		0.0752	19.53		linear	0.9957		0.090781	-0.00570
tert-butanol			0.0067	0.0076	0.0069	0.0047	0.0039	0.0037	0.0044		0.0054	29.43		quadratic	0.9953	0.000013	0.002584	0.024265
methyl tertiary butyl ether		0.5916	0.6444	0.6287	0.6382	0.6199	0.6016	0.5885	0.5851	0.6003	0.6109	3.66		AvgRF				
trans-1,2-dichloroethene			0.4913	0.4781	0.4735	0.4810	0.4486	0.4356	0.4473	0.4655	0.4651	4.18		AvgRF				
acrylonitrile				0.0028	0.0271	0.0239	0.0324	0.0329	0.0401	0.0424	0.0288	45.81		linear	0.9960		0.042836	-0.03364
isopropyl ether			1.1049	1.0738	1.1384	1.0879	1.1025	1.0784	1.0870	1.1218	1.0993	2.02		AvgRF				
vinyl acetate			0.0599	0.1475	0.1895	0.1958	0.2458	0.2649	0.2946	0.3132	0.2139	39.13		linear	0.9975		0.313143	-0.01694
1,1-dichloroethane			0.7184	0.7405	0.7402	0.7269	0.7366	0.7163	0.7247	0.7332	0.7296	1.30		AvgRF				
chloroprene			0.5122	0.5783	0.5747	0.5285	0.5431	0.5274	0.5422	0.5505	0.5446	4.22		AvgRF				
ethyl tert-butyl ether			0.8701	0.8631	0.9058	0.8854	0.8689	0.8456	0.8601	0.8789	0.8722	2.08		AvgRF				
2,2-dichloropropane			0.5310	0.4630	0.4742	0.4748	0.4516	0.4251	0.4137	0.4108	0.4555	8.76		AvgRF				
cyclohexane		0.4859	0.5468	0.5467	0.5387	0.5116	0.5162	0.4861	0.5036	0.5112	0.5166	4.60		AvgRF				
2-butanone				0.0086	0.0217	0.0122	0.0333	0.0359	0.0363	0.0425	0.0272	48.15		quadratic	0.9980	0.001286	0.030182	-0.00362
cis-1,2-dichloroethene			0.4944	0.5027	0.5097	0.5032	0.4921	0.4706	0.4891	0.4915	0.4942	2.41		AvgRF				
propionitrile																		
methacrylonitrile						0.0235	0.0344	0.0407	0.0469	0.0501	0.0391	27.08		linear	0.9982		0.052272	-0.00697
bromochloromethane			0.1804	0.2030	0.2075	0.2077	0.2048	0.1998	0.2017	0.2061	0.2014	4.43		AvgRF				
chloroform			0.7840	0.8308	0.8291	0.8212	0.8286	0.7956	0.8046	0.8116	0.8132	2.13		AvgRF				
dibromofluoromethane		0.3281	0.3274	0.3296	0.3328	0.3296	0.3218	0.3226	0.3175	0.3080	0.3239	2.54	SUR	AvgRF				
1,1,1-trichloroethane			0.5564	0.5973	0.5904	0.6001	0.5939	0.5702	0.5668	0.5790	0.5816	2.79		AvgRF				
carbon tetrachloride			0.4983	0.5543	0.5579	0.5385	0.5376	0.5385	0.5329	0.5453	0.5379	3.38		AvgRF				
1,1-dichloropropene			0.5420	0.5797	0.5538	0.5667	0.5533	0.5372	0.5447	0.5504	0.5535	2.51		AvgRF				
1,2-dichloroethane-d4		0.2096	0.1997	0.2072	0.2056	0.1951	0.1932	0.1968	0.1895	0.1862	0.1981	4.07	SUR	AvgRF				
isobutyl alcohol																		
tert-amyl methyl ether			0.1176	0.1384	0.1436	0.1557	0.1498	0.1514	0.1538	0.1533	0.1454	8.70		AvgRF				
benzene			1.6107	1.6158	1.6019	1.5508	1.5211	1.4888	1.5131	1.5330	1.5544	3.15		AvgRF				
1,2-dichloroethane			0.3097	0.3596	0.3391	0.3522	0.3434	0.3336	0.3265	0.3273	0.3364	4.69		AvgRF				
methyl cyclohexane			0.4447	0.4425	0.4384	0.4304	0.4321	0.4039	0.4176	0.4293	0.4299	3.15		AvgRF				
trichloroethene			0.4475	0.4437	0.4736	0.4517	0.4561	0.4410	0.4518	0.4543	0.4525	2.21		AvgRF				
n-butanol																		
1,2-dichloropropane			0.3316	0.3351	0.3518	0.3571	0.3525	0.3427	0.3497	0.3563	0.3471	2.77		AvgRF				
methyl methacrylate					0.0741	0.0959	0.0927	0.0969	0.1015	0.1038	0.0941	11.26		AvgRF				
1,4-dioxane																		
dibromomethane			0.1997	0.2071	0.2077	0.2150	0.2113	0.2092	0.2073	0.2129	0.2088	2.23		AvgRF				
bromodichloromethane			0.5036	0.5035	0.5051	0.5236	0.5241	0.5217	0.5152	0.5288	0.5157	2.00		AvgRF				
2-chloroethyl vinyl ether					0.0903	0.1047	0.1127	0.1112	0.1186	0.1235	0.1102	10.60		AvgRF				
cis-1,3-dichloropropene			0.5523	0.5276	0.5288	0.5448	0.5555	0.5351	0.5364	0.5454	0.5407	1.92		AvgRF				
chlorobenzene-d5													ISTD	AvgRF				
toluene-d8		2.2396	2.2940	2.3063	2.2918	2.2918	2.3187	2.3138	2.3099	2.3363	2.3002	1.17	SUR	AvgRF				
toluene			4.0437	3.9519	3.8859	4.0521	3.9816	3.7236	3.8657	3.9615	3.9332	2.73		AvgRF				
4-methyl-2-pentanone				0.2213	0.2504	0.2746	0.2936	0.2865	0.2905	0.3184	0.2765	11.51		AvgRF				
ethyl methacrylate				0.4202	0.4575	0.4832	0.5805	0.5637	0.5664	0.6092	0.5258	13.60		AvgRF				
trans-1,3-dichloropropene			0.8271	0.9307	0.9554	0.9992	1.0563	1.0193	1.0282	1.0701	0.9858	8.07		AvgRF				
1,1,2-trichloroethane			0.5593	0.5797	0.5254	0.5493	0.5567	0.5310	0.5335	0.5475	0.5478	3.25		AvgRF				
tetrachloroethene		0.8417	0.8449	0.9208	0.8712	0.8644	0.8851	0.8526	0.8522	0.8975	0.8700	3.06		AvgRF				
2-hexanone				0.0674	0.0707	0.0809	0.0886	0.0868	0.1001		0.0824	14.70		AvgRF				
1,3-dichloropropane			0.9695	0.9278	0.9359	0.9649	0.9723	0.9212	0.9013	0.9618	0.9443	2.80		AvgRF				
dibromochloromethane			0.7949	0.7740	0.7572	0.8190	0.8768	0.8598	0.8691	0.9151	0.8332	6.66		AvgRF				

Operator: sdw-sop525r15 Notes: UN-Heated Purge

GMW 10/14/11

Calibration ID: 101111W
Instrument ID: HPV2
Calibration Date: 10/11/2011

ALS Environmental -- FC

Initial Calibration Report

Analyte	FileName: B74488.D B74489.D B74490.D B74491.D B74492.D B74494.D B74496.D B74498.D B74500.D Cal LVL ID: 0.25 0.5 1 2 4 10 20 40 60	AvgRF	%RSD	Curve Type	Higher Order Equation Corr Quad Term Linear Term Const Term
1,2-dibromoethane	0.6074 0.6228 0.5754 0.6209 0.6392 0.6157 0.6200 0.6511	0.6191	3.62	AvgRF	
1-chlorohexane	1.3939 1.4105 1.3754 1.4327 1.4484 1.3638 1.3931 1.4516	1.4087	2.34	AvgRF	
chlorobenzene	2.5453 2.4955 2.4821 2.5083 2.5480 2.4060 2.4296 2.5295	2.4930	2.09	AvgRF	
ethylbenzene	4.5993 4.3919 4.1396 4.4360 4.3422 4.0735 4.1239 4.2487	4.2944	4.21	AvgRF	
1,1,1,2-tetrachloroethane	0.8176 0.8926 0.8396 0.9181 0.9118 0.8531 0.8675 0.8896	0.8738	4.06	AvgRF	
m+p-xylene	1.5596 1.5264 1.5575 1.5310 1.5927 1.6029 1.4590 1.4645 1.4650	1.5287	3.61	AvgRF	
o-xylene	1.5281 1.5880 1.4910 1.5553 1.5742 1.4799 1.4721 1.4838	1.5216	3.03	AvgRF	
styrene	2.3733 2.3378 2.4051 2.4800 2.5441 2.4177 2.4317 2.4697	2.4324	2.67	AvgRF	
bromoform	0.3602 0.3808 0.3927 0.4114 0.4397 0.4388 0.4454 0.4777	0.4183	9.32	AvgRF	
isopropylbenzene	3.8172 3.8985 3.6576 3.7761 3.7355 3.6224 3.5977 3.6965	3.7252	2.75	AvgRF	
4-bromofluorobenzene	0.6949 0.7055 0.7101 0.6827 0.6969 0.6996 0.7001 0.7019 0.6968	0.6987	1.09 SUR	AvgRF	
1,4-dichlorobenzene-d4			ISTD	AvgRF	
1,1,2,2-tetrachloroethane	0.6525 0.7368 0.7251 0.8004 0.7280 0.7103 0.6831 0.7210	0.7198	5.95	AvgRF	
trans-1,4-dichloro-2-butene	0.0804 0.1062 0.1256 0.1233 0.1255 0.1219 0.1314	0.1163	15.17	AvgRF	
n-propylbenzene	5.8345 6.0348 5.7338 6.0346 5.6727 5.4652 5.4248 5.4719	5.7090	4.32	AvgRF	
1,2,3-trichloropropane	0.1388 0.1525 0.1635 0.1600 0.1601 0.1559 0.1581 0.1625	0.1564	5.08	AvgRF	
bromobenzene	1.2103 1.2234 1.2143 1.2810 1.1787 1.1419 1.1022 1.1091	1.1826	5.22	AvgRF	
1,3,5-trimethylbenzene	3.5939 3.6206 3.5747 3.7399 3.5269 3.3746 3.3325 3.3647	3.5162	4.13	AvgRF	
2-chlorotoluene	1.2554 1.1965 1.1013 1.1941 1.1140 1.0593 1.0352 1.0531	1.1261	7.13	AvgRF	
4-chlorotoluene	1.1885 1.1591 1.1260 1.1443 1.1123 1.0549 1.0246 1.0902	1.1125	4.89	AvgRF	
tert-butylbenzene	0.7147 0.7312 0.6995 0.7353 0.6855 0.6548 0.6568 0.6760	0.6942	4.51	AvgRF	
1,2,4-trimethylbenzene	3.3840 3.4118 3.3616 3.4971 3.4132 3.2074 3.2283 3.3767	3.3600	2.89	AvgRF	
sec-butylbenzene	4.9673 4.9060 4.8086 4.8698 4.7465 4.4400 4.6097 4.6721	4.7525	3.65	AvgRF	
p-isopropyltoluene	3.5790 3.7942 3.6547 3.7738 3.5673 3.3964 3.4234 3.5426	3.5914	4.05	AvgRF	
1,3-dichlorobenzene	2.2199 2.3573 2.1730 2.2833 2.1614 2.0731 2.0684 2.1444	2.1851	4.55	AvgRF	
1,4-dichlorobenzene	2.2767 2.1982 2.0857 2.1863 2.0571 2.0047 1.9931 2.0416	2.1054	4.88	AvgRF	
n-butylbenzene	3.8223 4.0349 3.8036 3.9600 3.7658 3.6130 3.6502 3.8003	3.8063	3.71	AvgRF	
1,2-dichlorobenzene	1.8580 1.9729 1.7585 1.9257 1.7674 1.7136 1.7171 1.7719	1.8129	5.31	AvgRF	
hexachloroethane	0.5556 0.5880 0.5811 0.6186 0.6132 0.6457 0.6282 0.6594	0.6112	5.67	AvgRF	
1,2-dibromo-3-chloropropane	0.0610 0.0976 0.0896 0.0913 0.0908 0.0886 0.0916	0.0872	13.68	AvgRF	
1,2,4-trichlorobenzene	1.0179 1.0358 0.9821 1.0364 1.0099 0.9589 0.9599 0.9443	0.9929	3.71	AvgRF	
hexachlorobutadiene	0.4809 0.5453 0.5482 0.5626 0.5635 0.5280 0.5344 0.5429	0.5382	4.87	AvgRF	
naphthalene	1.0953 1.0655 1.0165 1.0478 1.0053 0.9903 0.9814 0.9370	1.0173	4.98	AvgRF	
1,2,3-trichlorobenzene	0.5563 0.5773 0.5930 0.5780 0.5783 0.5688 0.5620 0.5286	0.5678	3.42	AvgRF	

Average RSD = 6.98

Concentration Multipliers

2X - cyclohexane
2X - m,p-xylene
2X - methyl-t-butyl-ether
4X - 2-butanone
4X - 2-hexanone
4X - 4-methyl-2-pentanone
4X - acetone
10X - acetonitrile
10X - acrolein
10X - acrylonitrile
10X - propionitrile
20X - isobutyl alcohol
20X - 1,4-dioxane
20X - ethanol
50X - n-butanol
50X - tert-butanol

Operator: sdw-sop525r15 Notes: UN-Heated Purge

ALS Environmental -- FC

Initial Calibration Verification

Lab Sample ID:	VL111011-2ICV	**Calibration ID:**	101111W
Analysis Date:	10/11/2011	**Instrument ID:**	HPV2
File Name:	B74503	**Calibration Date:**	10/11/2011

	Analyte	AvgRF	CCRF	Expected Conc.	Found Conc.	%Dev. or % Drift	%Diff (Area)	RT Dev.	Curve Type
1) ISTD	fluorobenzene						3.1	-0.002	AvgRF
2)	dichlorodifluoromethane	0.6540	0.6330			-3.2		-0.003	AvgRF
3)	chloromethane	0.4788	0.4612			-3.7		0.005	AvgRF
4)	vinyl chloride	0.4201	0.4035			-4.0		-0.005	AvgRF
5)	bromomethane	0.3645	0.3521			-3.4		0.000	AvgRF
6)	chloroethane	0.2133	0.2038			-4.5		0.000	AvgRF
7)	trichlorofluoromethane	0.6257	0.6317			1.0		-0.001	AvgRF
8)	diethyl ether	0.2393	0.2506			4.7		0.001	AvgRF
9)	ethanol							0.005	
10)	acrolein	0.0188	0.0185			-1.9		-0.003	AvgRF
11)	1,1,2-trichloro-1,2,2-trifluoroethane	0.4551	0.4646			2.1		0.003	AvgRF
12)	1,1-dichloroethene	0.4288	0.4311			0.5		0.003	AvgRF
13)	acetone	0.0241	0.0246			2.2		0.004	AvgRF
14)	iodomethane	0.9613	0.9725			1.2		0.000	AvgRF
15)	carbon disulfide	1.2864	1.3199			2.6		0.002	AvgRF
16)	allyl chloride	0.2860	0.2699			-5.6		-0.002	AvgRF
17)	acetonitrile							-0.002	
18)	methylene chloride	0.4854	0.4791			-1.3		0.000	AvgRF
19)	methyl acetate			10.000	10.08	0.8		-0.004	linear
20)	tert-butanol			500.000	811.20	62.2		0.002	quadratic
21)	methyl tertiary butyl ether	0.6109	0.6012			-1.6		-0.003	AvgRF
22)	trans-1,2-dichloroethene	0.4651	0.4692			0.9		0.005	AvgRF
23)	acrylonitrile			100.000	98.77	-1.2		0.001	linear
24)	isopropyl ether	1.0993	1.1274			2.6		0.003	AvgRF
25)	vinyl acetate			10.000	8.89	-11.1		-0.003	linear
26)	1,1-dichloroethane	0.7296	0.7540			3.3		0.003	AvgRF
27)	chloroprene	0.5446	0.5466			0.4		0.000	AvgRF
28)	ethyl tert-butyl ether	0.8722	0.8774			0.6		0.002	AvgRF
29)	2,2-dichloropropane	0.4555	0.3904			-14.3		0.004	AvgRF
30)	cyclohexane	0.5166	0.5262			1.9		0.003	AvgRF
31)	2-butanone			40.000	42.33	5.8		0.004	quadratic
32)	cis-1,2-dichloroethene	0.4942	0.5055			2.3		0.002	AvgRF
33)	propionitrile							0.005	
34)	methacrylonitrile			10.000	10.82	8.2		0.001	linear
35)	bromochloromethane	0.2014	0.2074			3.0		-0.001	AvgRF
36)	chloroform	0.8132	0.8307			2.1		0.001	AvgRF
38)	1,1,1-trichloroethane	0.5816	0.5889			1.2		0.003	AvgRF
39)	carbon tetrachloride	0.5379	0.5490			2.1		-0.001	AvgRF
40)	1,1-dichloropropene	0.5535	0.5658			2.2		0.003	AvgRF
42)	isobutyl alcohol							0.004	
43)	tert-amyl methyl ether	0.1454	0.1528			5.1		0.004	AvgRF
44)	benzene	1.5544	1.5761			1.4		-0.002	AvgRF
45)	1,2-dichloroethane	0.3364	0.3391			0.8		0.004	AvgRF
46)	methyl cyclohexane	0.4299	0.4353			1.3		-0.003	AvgRF
47)	trichloroethene	0.4525	0.4731			4.6		0.001	AvgRF
48)	n-butanol							0.003	
49)	1,2-dichloropropane	0.3471	0.3668			5.7		-0.001	AvgRF
50)	methyl methacrylate	0.0941	0.0978			3.9		0.003	AvgRF
51)	1,4-dioxane							-0.002	
52)	dibromomethane	0.2088	0.2194			5.1		0.004	AvgRF
53)	bromodichloromethane	0.5157	0.5232			1.5		0.000	AvgRF
54)	2-chloroethyl vinyl ether	0.1102	0.1096			-0.5		-0.002	AvgRF
55)	cis-1,3-dichloropropene	0.5407	0.5358			-0.9		0.004	AvgRF
56) ISTD	chlorobenzene-d5						4.6	0.005	AvgRF
58)	toluene	3.9332	4.0285			2.4		0.005	AvgRF
59)	4-methyl-2-pentanone	0.2765	0.2954			6.8		0.001	AvgRF
60)	ethyl methacrylate	0.5258	0.5908			12.4		-0.003	AvgRF
61)	trans-1,3-dichloropropene	0.9858	1.0609			7.6		-0.005	AvgRF
62)	1,1,2-trichloroethane	0.5478	0.5613			2.5		-0.003	AvgRF
63)	tetrachloroethene	0.8700	0.8946			2.8		-0.002	AvgRF
64)	2-hexanone	0.0824	0.0886			7.6		-0.004	AvgRF
65)	1,3-dichloropropane	0.9443	0.9793			3.7		-0.002	AvgRF
66)	dibromochloromethane	0.8332	0.8576			2.9		-0.004	AvgRF

Operator: sdw-sop525r15

cw 10/14/11

ALS Environmental -- FC

Initial Calibration Verification

Lab Sample ID: VL111011-2ICV	**Calibration ID:** 101111W
Analysis Date: 10/11/2011	**Instrument ID:** HPV2
File Name: B74503	**Calibration Date:** 10/11/2011

		Analyte	AvgRF	CCRF	Expected Conc.	Found Conc.	%Dev. or % Drift	%Diff (Area)	RT Dev.	Curve Type
67)		1,2-dibromoethane	0.6191	0.6325			2.2		0.000	AvgRF
68)		1-chlorohexane	1.4087	1.4500			2.9		0.003	AvgRF
69)		chlorobenzene	2.4930	2.5972			4.2		-0.001	AvgRF
70)		ethylbenzene	4.2944	4.3851			2.1		0.001	AvgRF
71)		1,1,1,2-tetrachloroethane	0.8738	0.9187			5.1		0.005	AvgRF
72)		m+p-xylene	1.5287	1.5930			4.2		0.003	AvgRF
73)		o-xylene	1.5216	1.5728			3.4		-0.005	AvgRF
74)		styrene	2.4324	2.5855			6.3		0.003	AvgRF
75)		bromoform	0.4183	0.4421			5.7		-0.004	AvgRF
76)		isopropylbenzene	3.7252	3.8021			2.1		0.000	AvgRF
78)	ISTD	1,4-dichlorobenzene-d4						0.4	-0.003	AvgRF
79)		1,1,2,2-tetrachloroethane	0.7198	0.7553			4.9		0.002	AvgRF
80)		trans-1,4-dichloro-2-butene	0.1163	0.1278			9.8		0.000	AvgRF
81)		n-propylbenzene	5.7090	5.9297			3.9		-0.002	AvgRF
82)		1,2,3-trichloropropane	0.1564	0.1647			5.3		-0.002	AvgRF
83)		bromobenzene	1.1826	1.2287			3.9		0.002	AvgRF
84)		1,3,5-trimethylbenzene	3.5162	3.6598			4.1		0.001	AvgRF
85)		2-chlorotoluene	1.1261	1.1392			1.2		0.005	AvgRF
86)		4-chlorotoluene	1.1125	1.1349			2.0		0.005	AvgRF
87)		tert-butylbenzene	0.6942	0.7136			2.8		-0.003	AvgRF
88)		1,2,4-trimethylbenzene	3.3600	3.4603			3.0		0.005	AvgRF
89)		sec-butylbenzene	4.7525	4.9343			3.8		0.001	AvgRF
90)		p-isopropyltoluene	3.5914	3.7333			3.9		0.003	AvgRF
91)		1,3-dichlorobenzene	2.1851	2.2810			4.4		0.003	AvgRF
92)		1,4-dichlorobenzene	2.1054	2.1607			2.6		-0.005	AvgRF
93)		n-butylbenzene	3.8063	3.8930			2.3		-0.002	AvgRF
94)		1,2-dichlorobenzene	1.8129	1.8805			3.7		-0.002	AvgRF
95)		hexachloroethane	0.6112	0.6258			2.4		0.002	AvgRF
96)		1,2-dibromo-3-chloropropane	0.0872	0.0945			8.3		0.003	AvgRF
97)		1,2,4-trichlorobenzene	0.9929	1.0265			3.4		0.004	AvgRF
98)		hexachlorobutadiene	0.5382	0.5653			5.0		0.000	AvgRF
99)		naphthalene	1.0173	1.0429			2.5		0.004	AvgRF
10		1,2,3-trichlorobenzene	0.5678	0.5976			5.3		-0.001	AvgRF

Operator: sdw-sop525r15

SMW 10/14/11

8A

Volatile Internal Standard Area Summary

Lab Name: ALS Environmental -- FC
Work Order Number: 1110046
Client Name: Colorado Oil & Gas Conservation Commission
ClientProject ID: Complaint 200323492

Date Analyzed: 10/11/2011
Time Analyzed: 19:57
Reported on: Friday, October 21, 2011

Instrument ID: HPV2
Lab File ID: B74494

	IS1		IS2		IS3		IS4		IS5		IS6	
	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT	Area	RT
12 Hour STD	1223733	8.92	476002	12.05	433370	14.04						
Upper Limit	2447466	9.42	952004	12.6	866740	14.5						
Lower Limit	611866.5	8.42	238001	11.6	216685	13.5						
Lab Sample ID												
VL111011-2LCS	1307416	8.92	509812	12.05	460745	14.04						
VL111011-2LCSD	1285996	8.92	500402	12.05	441870	14.04						
VL111011-2MB	1304785	8.92	524273	12.05	450509	14.04						
1110029-49	1260363	8.92	496184	12.05	439622	14.04						
1110029-50	1209900	8.92	484829	12.05	420386	14.04						
1110046-1	1232162	8.92	498048	12.05	429734	14.04						
1110079-1	1164974	8.92	468862	12.05	418469	14.04						
1110079-2	1167550	8.92	461079	12.05	407710	14.04						

Shaded values exceed established area count limits.

LIMS Version: 6.537

Upper Limit = + 100 percent of internal standard area.
Lower Limit = - 50 percent of internal standard area.

Supporting Raw Data

GCMS Volatile Instrument Run Log - HPV2
ALS Laboratory Group - Fort Collins, CO

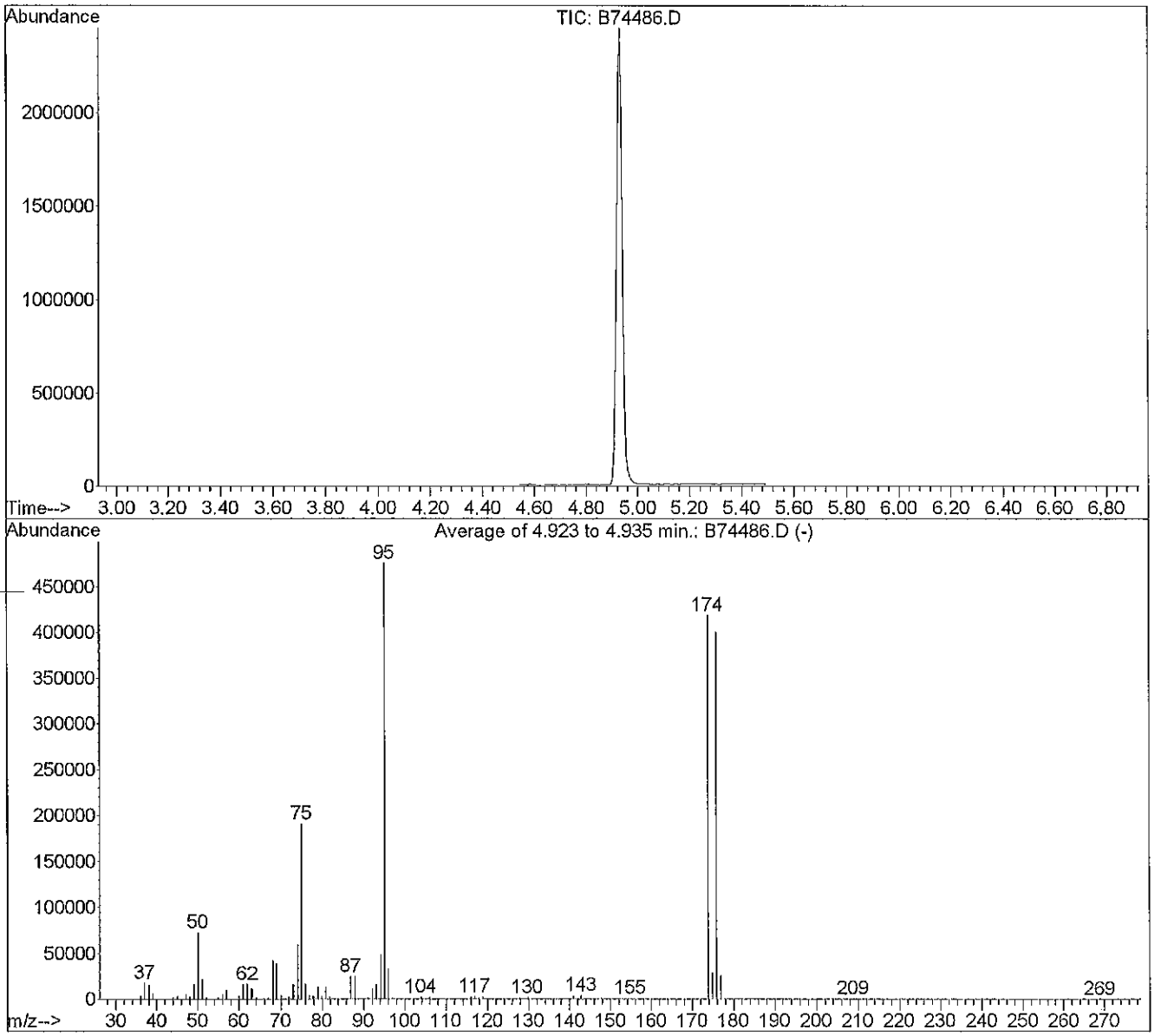
BFB – ST110922-8
A – ST110922-3
B – ST111011-1
C – ST111011-2
D – ST110803-2
E – ST110930-4

Sequence Name: C:\HPCHEM\1\SEQUENCE\101111.S
Comment: HPV2: 10mL UN-Heated Purge - Serial Number 3188A03493
Data Path: C:\HPchem\1\DATA\101111\
Operator:sdw-sop525r15 Analysis Date: 10-11-11 sdw
Istd\Surr ID's (1.0uL): ST110922-2 Standard ID's:
Logbook Number: 3094 purge time: 8.0 min. desorb time & temp.: 1.0 min. @ 190 C

Vial	DataFile	Method	Sample Name	Dil.	Samp. Amt.	RA?	pH<2?	HS?	Comment
1	B74482	101111W	Blank	1X	10mls	NO	NA	NA	
2	B74483	101111W	Blank						
3	B74484	101111W	Blank						
4	B74485	101111W	Blank						
100	B74486	BFB	BFB-TUNE-1		1µL				BFB injected @ 1705
6	B74487	101111W	Blank		10mls				
7	B74488	101111W	VOC_0.25ppb_ICA						5mL to 100mls C
8	B74489	101111W	VOC_0.50ppb_ICA						50mls
9	B74490	101111W	VOC_1.0ppb_ICAL						10mL
10	B74491	101111W	VOC_2.0ppb_ICAL						20mL
11	B74492	101111W	VOC_4.0ppb_ICAL						4mL to 100mls A,B
12	B74493	101111W	Blank						
13	B74494	101111W	VOC_10ppb_ICAL_						5mL to 50mls
14	B74495	101111W	Blank						
15	B74496	101111W	VOC_20ppb_ICAL_						10mL to 50mls
16	B74497	101111W	Blank						
17	B74498	101111W	VOC_40ppb_ICAL_						20mL to 50mls
18	B74499	101111W	Blank						
19	B74500	101111W	VOC_60ppb_ICAL_						30mL to 50mls
20	B74501	101111W	Blank						
21	B74502	101111W	Blank						
22	B74503	101111W	VL111011-2ICV						5mL to 50mls D,E (10µL)
23	B74504	101111W	VL111011-2LCS						
24	B74505	101111W	VL111011-2LCSD						
25	B74506	101111W	Blank						
26	B74507	101111W	VL111011-2MB						All<mDL
27	B74508	101111W	1110029-49				YES	NONE	All<RL
28	B74509	101111W	1110029-50						
29	B74510	101111W	1110046-1						
30	B74511	101111W	1110066-1						
31	B74512	101111W	1110066-2			YES			Acetone > ICAL
32	B74513	101111W	1110068-3						compound nickname not in curve
33	B74514	101111W	1110068-4						All<RL
34	B74515	101111W	1110079-1			NO			
35	B74516	101111W	1110079-2				pH<5		
36	B74517	101111W	Blank				NA	NA	All<mDL
37	B74518	101111W	Blank						desorb @ 0436

Calibration Raw Data

Data File : C:\HPCHEM\1\DATA\101111\B74486.D Vial: 100
Acq On : 11 Oct 2011 17:05 Operator: sdw-sop525r15
Sample : BFB-TUNE-1 Inst : CSS Instr
Misc : 1uL BFB/Surrogate Spike Multiplr: 1.00
MS Integration Params: ettics.p
Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)



AutoFind: Scans 64, 65, 66; Background Corrected with Scan 57

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.2	72157	PASS
75	95	30	60	40.0	190357	PASS
95	95	100	100	100.0	475733	PASS
96	95	5	9	6.8	32549	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	88.0	418773	PASS
175	174	5	9	6.8	28595	PASS
176	174	95	101	95.5	400043	PASS
177	176	5	9	6.3	25339	PASS

10/14/11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101111\B74488.D Vial: 7
Acq On : 11 Oct 2011 17:46 Operator: sdw-sop525r15
Sample : VOC_0.25ppb_ICAL_CSTD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 12:05 2011 Quant Results File: 101111W.RES

Quant Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 12:00:50 2011
Response via : Initial Calibration
DataAcq Meth : 101111W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.92	96	1196244	25.00	ppb	0.00
56) Chlorobenzene-d5	12.05	82	480711	25.00	ppb	0.00
78) 1,4-Dichlorobenzene-d4	14.04	152	418914	25.00	ppb	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	8.13	113	392485	25.36	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 101.44%			
41) 1,2-dichloroethane-d4	8.60	65	250696	26.64	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 106.56%			
57) Toluene-d8	10.62	98	1076600	24.26	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 97.04%			
77) 4-Bromofluorobenzene	13.09	176	334030	24.84	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 99.36%			
Target Compounds						Qvalue
21) Methyl-t-butyl-ether	6.26	73	14154	0.48	ppb	# 88
30) Cyclohexane	8.16	84	11626	0.47	ppb	89
63) Tetrachloroethene	11.22	164	4046	0.24	ppb	90
72) m,p-Xylene	12.23	106	14994	0.51	ppb	98

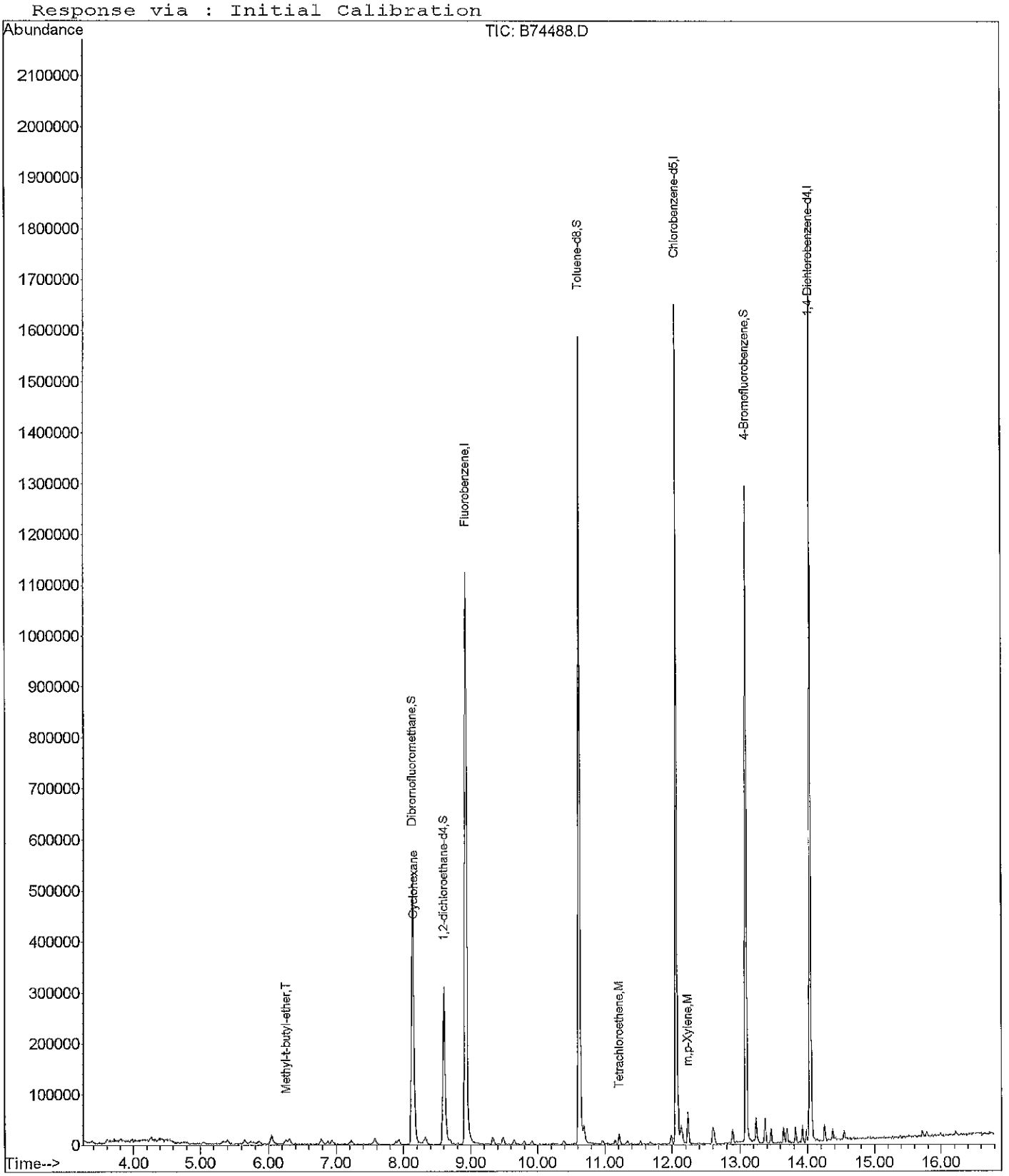
QAV 10/14/11

(#) = qualifier out of range (m) = manual integration
B74488.D 101111W.M Wed Oct 12 12:05:25 2011 Page 1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\101111\B74488.D Vial: 7
Acq On : 11 Oct 2011 17:46 Operator: sdw-sop525r15
Sample : VOC_0.25ppb_ICAL_CSTD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 12:05 2011 Quant Results File: 101111W.RES

Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 12:00:50 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101111\B74489.D Vial: 8
Acq On : 11 Oct 2011 18:08 Operator: sdw-sop525i15
Sample : VOC_0.50ppb_ICAL_CSTD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 11:59 2011 Quant Results File: 101111W.RES

Quant Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 11:58:11 2011
Response via : Initial Calibration
DataAcq Meth : 101111W

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	8.93	96	1186670	25.00	ppb		0.01
56) Chlorobenzene-d5	12.07	82	467668	25.00	ppb		0.02
78) 1,4-Dichlorobenzene-d4	14.05	152	415760	25.00	ppb		0.02
System Monitoring Compounds							
37) Dibromofluoromethane	8.14	113	388524	25.35	ppb		0.01
Spiked Amount 25.000	Range 85 - 115		Recovery = 101.40%				
41) 1,2-dichloroethane-d4	8.61	65	236931	25.43	ppb		0.01
Spiked Amount 25.000	Range 85 - 115		Recovery = 101.72%				
57) Toluene-d8	10.64	98	1072811	24.83	ppb		0.02
Spiked Amount 25.000	Range 85 - 115		Recovery = 99.32%				
77) 4-Bromofluorobenzene	13.10	176	329959	25.26	ppb		0.02
Spiked Amount 25.000	Range 85 - 115		Recovery = 101.04%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.37	85	14316	0.46	ppb		92
3) Chloromethane	3.61	50	12004	0.53	ppb		95
4) Vinyl chloride	3.80	62	10878	0.55	ppb		96
5) Bromomethane	4.27	96	8764	0.51	ppb		99
6) Chloroethane	4.40	64	5358	0.53	ppb	#	78
7) Trichlorofluoromethane	4.74	101	13374	0.44	ppb		87
8) Diethyl Ether	5.05	59	5336	0.47	ppb	#	65
9) Ethanol	0.00	46	0	N.D.			
10) Acrolein	5.38	56	2647m	2.97	ppb		
11) 1,1,2-Trichloro-1,2,2-trif	5.34	101	10103	0.46	ppb		93
12) 1,1-Dichloroethene	5.40	96	9966	0.49	ppb		94
13) Acetone	5.56	43	1514	1.19	ppb		45
14) Iodomethane	5.65	142	22742	0.50	ppb		83
15) Carbon Disulfide	5.74	76	30144	0.49	ppb	#	87
16) Allyl chloride	5.86	76	7197m	0.53	ppb		
17) Acetonitrile	0.00	41	0	N.D.	d		
18) Methylene chloride	6.04	84	17197	0.75	ppb		91
19) Methyl Acetate	0.00	43	0	N.D.			
20) tert-Butanol	6.12	59	5823	22.58	ppb		100
21) Methyl-t-butyl-ether	6.26	73	30589	1.06	ppb	#	86
22) trans-1,2-Dichloroethene	6.32	96	11661	0.53	ppb		84
23) Acrylonitrile	0.00	53	0	N.D.			
24) Isopropyl ether	6.78	45	26222	0.50	ppb	#	96
25) Vinyl Acetate	6.90	43	1421	0.13	ppb	#	75
26) 1,1-Dichloroethane	6.87	63	17050	0.49	ppb		90
27) Chloroprene	6.94	53	12156	0.47	ppb	#	95
28) Ethyl tert-butyl ether	7.22	59	20651	0.50	ppb	#	92
29) 2,2-Dichloropropane	7.55	77	12603	0.60	ppb	#	51
30) Cyclohexane	8.15	84	26049	1.06	ppb		94
31) 2-Butanone	0.00	43	0	N.D.			
32) cis-1,2-Dichloroethene	7.59	96	11734	0.50	ppb		81
33) Propionitrile	0.00	54	0	N.D.			
34) Methacrylonitrile	0.00	67	0	N.D.			
35) Bromochloromethane	7.88	128	4281	0.44	ppb		86
36) Chloroform	7.93	83	18608	0.48	ppb		91
38) 1,1,1-Trichloroethane	8.15	97	13205	0.48	ppb		97
39) Carbon tetrachloride	8.32	117	11826	0.46	ppb		84
40) 1,1-Dichloropropene	8.34	75	12864	0.49	ppb		93
42) Isobutyl alcohol	8.66	43	4551	23.74	ppb	#	27
43) tert-Amyl methyl ether	8.63	87	2790	0.39	ppb	#	22

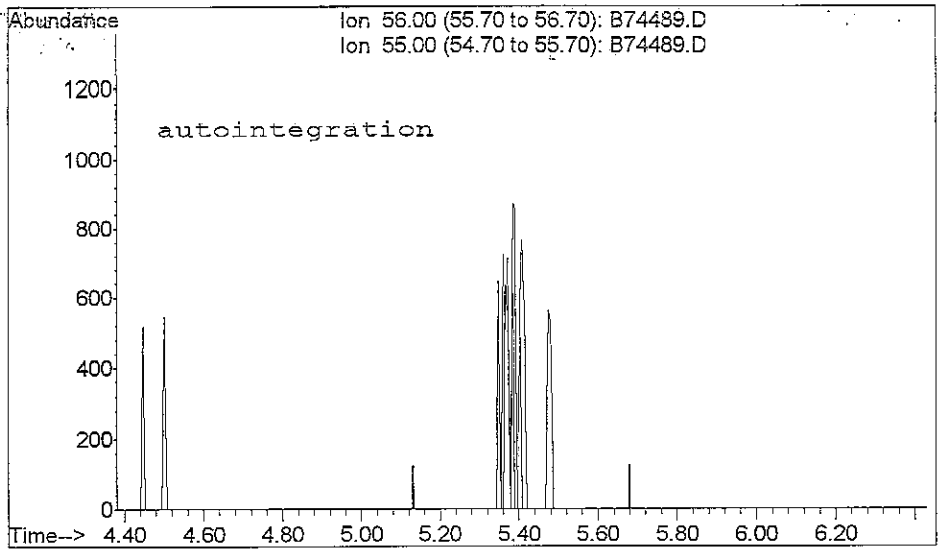
(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\101111\B74489.D Vial: 8
Acq On : 11 Oct 2011 18:08 Operator: sdw-sop525r15
Sample : VOC_0.50ppb_ICAL_CSTD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 11:59 2011 Quant Results File: 101111W.RES

Quant Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 11:58:11 2011
Response via : Initial Calibration
DataAcq Meth : 101111W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
44)	Benzene	8.60	78	38227	0.52 ppb		96
45)	1,2-Dichloroethane	8.71	62	7350	0.46 ppb	#	85
46)	Methyl Cyclohexane	9.49	55	10555	0.52 ppb	#	78
47)	Trichloroethene	9.34	130	10620	0.49 ppb		83
48)	n-Butanol	0.00	56	0	N.D. d		
49)	1,2-Dichloropropane	9.66	63	7870	0.47 ppb	#	94
50)	Methyl methacrylate	9.50	69	1143	0.29 ppb	#	46
51)	1,4-Dioxane	0.00	88	0	N.D.		
52)	Dibromomethane	9.81	93	4739	0.48 ppb		90
53)	Bromodichloromethane	9.93	83	11953	0.49 ppb	#	90
54)	2-Chloroethyl vinyl ether	10.23	63	1430	0.29 ppb	#	45
55)	cis-1,3-Dichloropropene	10.40	75	13108	0.51 ppb		96
58)	Toluene	10.71	91	37822	0.52 ppb		99
59)	4-Methyl-2-Pentanone	10.55	43	7700	1.49 ppb	#	48
60)	Ethyl methacrylate	10.97	69	2050	0.21 ppb	#	60
61)	trans-1,3-Dichloropropene	10.97	75	7736	0.41 ppb		93
62)	1,1,2-Trichloroethane	11.16	83	5231	0.51 ppb		94
63)	Tetrachloroethene	11.22	164	7903	0.48 ppb		88
64)	2-Hexanone	0.00	58	0	N.D.		
65)	1,3-Dichloropropane	11.35	76	9068	0.52 ppb		94
66)	Dibromochloromethane	11.54	129	7435	0.47 ppb		93
67)	1,2-Dibromoethane	11.69	107	5681	0.49 ppb		97
68)	1-Chlorohexane	12.00	91	13038	0.49 ppb		94
69)	Chlorobenzene	12.10	112	23807	0.51 ppb		92
70)	Ethylbenzene	12.14	91	43019	0.54 ppb		96
71)	1,1,1,2-Tetrachloroethane	12.17	131	7647	0.46 ppb		97
72)	m,p-Xylene	12.25	106	28554	1.00 ppb		100
73)	o-Xylene	12.61	106	14293	0.50 ppb		100
74)	Styrene	12.64	104	22198	0.49 ppb		94
75)	Bromoform	12.85	173	3369	0.42 ppb	#	85
76)	Isopropylbenzene	12.91	105	35704	0.51 ppb		99
79)	1,1,2,2-Tetrachloroethane	13.22	83	5426	0.45 ppb	#	85
80)	trans-1,4-Dichloro-2-buten	0.00	53	0	N.D.		
81)	n-Propylbenzene	13.25	91	48515	0.51 ppb		97
82)	1,2,3-Trichloropropane	13.29	110	1154	0.44 ppb		58
83)	Bromobenzene	13.25	156	10064	0.51 ppb		90
84)	1,3,5-Trimethylbenzene	13.39	105	29884	0.51 ppb		92
85)	2-Chlorotoluene	13.38	126	10439	0.57 ppb		84
86)	4-Chlorotoluene	13.48	126	9883	0.54 ppb		85
87)	tert-Butylbenzene	13.66	134	5943	0.52 ppb		88
88)	1,2,4-Trimethylbenzene	13.71	105	28139	0.50 ppb		99
89)	sec-Butylbenzene	13.84	105	41304	0.53 ppb		100
90)	p-Isopropyltoluene	13.94	119	29760	0.50 ppb		98
91)	1,3-Dichlorobenzene	14.00	146	18459	0.51 ppb	#	90
92)	1,4-Dichlorobenzene	14.07	146	18931	0.55 ppb	#	91
93)	n-Butylbenzene	14.27	91	31783	0.50 ppb		99
94)	1,2-Dichlorobenzene	14.39	146	15450	0.51 ppb		96
95)	Hexachloroethane	14.56	201	4620	0.45 ppb	#	89
96)	1,2-Dibromo-3-chloropropan	0.00	157	0	N.D.		
97)	1,2,4-Trichlorobenzene	15.73	180	8464	0.51 ppb		89
98)	Hexachlorobutadiene	15.80	225	3999	0.44 ppb		86
99)	Naphthalene	16.01	128	9108	0.54 ppb		96
100)	1,2,3-Trichlorobenzene	16.24	180	4626	0.49 ppb		86

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



TIC: B74489.D

(10) Acrolein (T)
5.33min 0.00ppb
response 0

Ion	Exp%	Act%
56.00	100	0.00
55.00	70.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Reason for manual re-integration?

[X] missed peak assignment

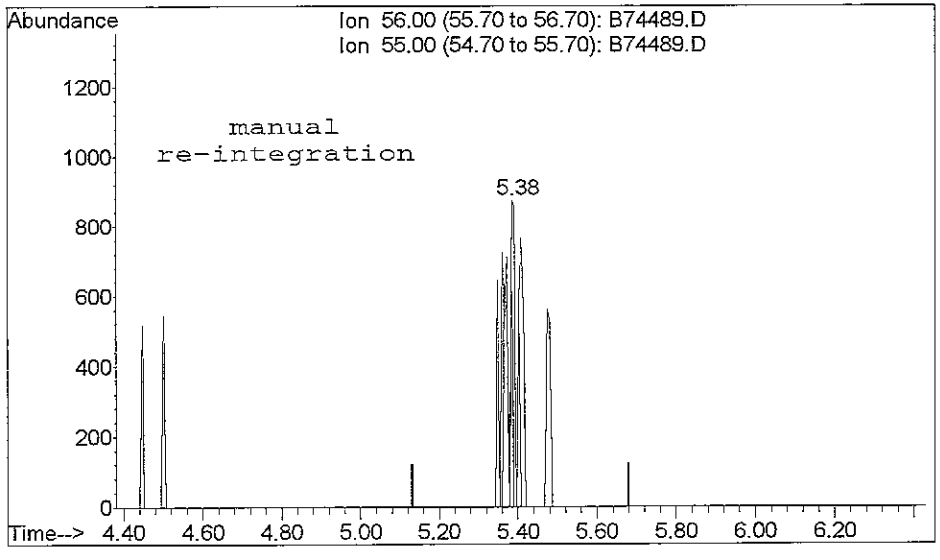
[] peak saturation (detector shutdown)

[] over-integrated peak's area

[] under-integrated peak's area

[] other (_____)

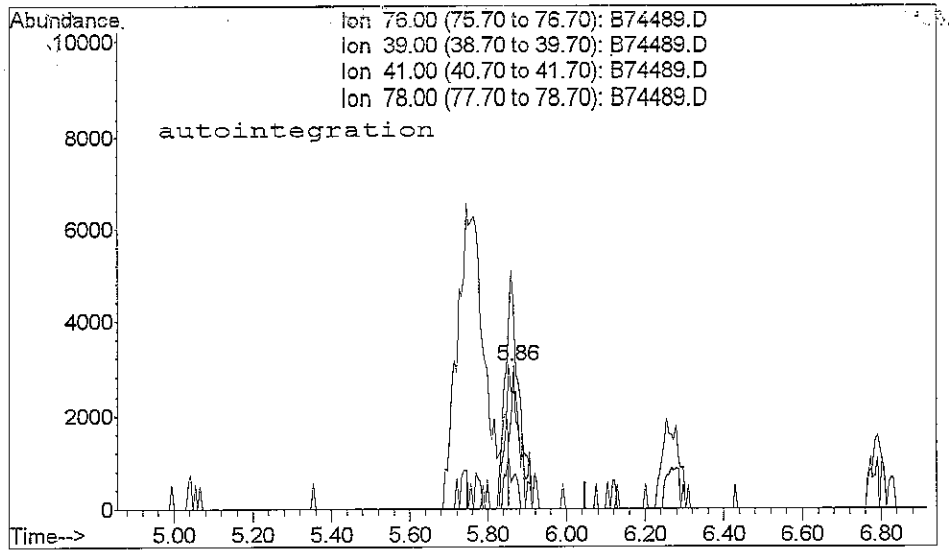
initials: ____ date: 10 / 14 / 11



TIC: B74489.D

(10) Acrolein (T)
5.38min 2.97ppb m
response 2647

Ion	Exp%	Act%
56.00	100	100
55.00	70.70	70.14
0.00	0.00	0.00
0.00	0.00	0.00



TIC: B74489.D

(16) Allyl chloride
5.86min 0.33ppb
response 4394

Ion	Exp%	Act%
76.00	100	100
39.00	118.00	81.76#
41.00	177.20	116.00#
78.00	27.40	23.12

Reason for manual re-integration?

[] missed peak assignment

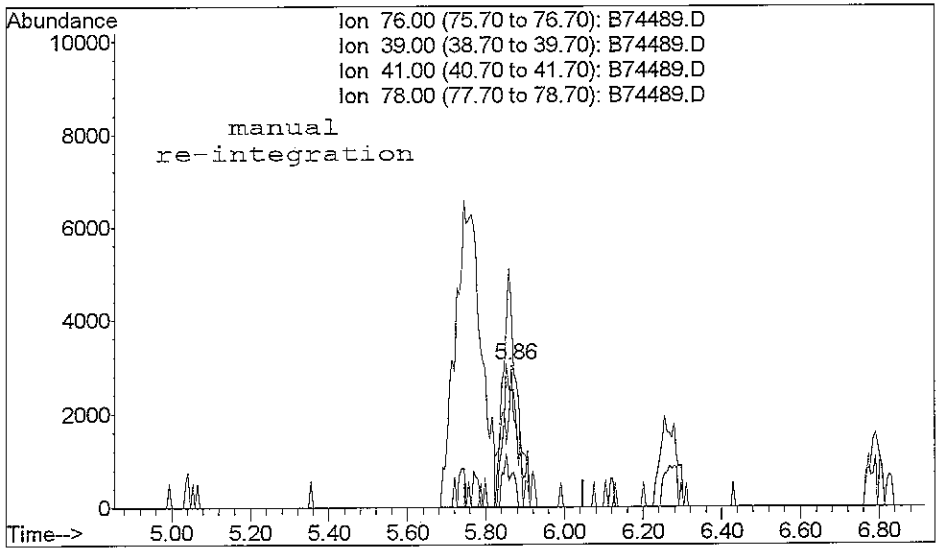
[] peak saturation (detector shutdown)

[] over-integrated peak's area

[X] under-integrated peak's area

[] other (_____)

initials: gw date: 10 / 14 / 11



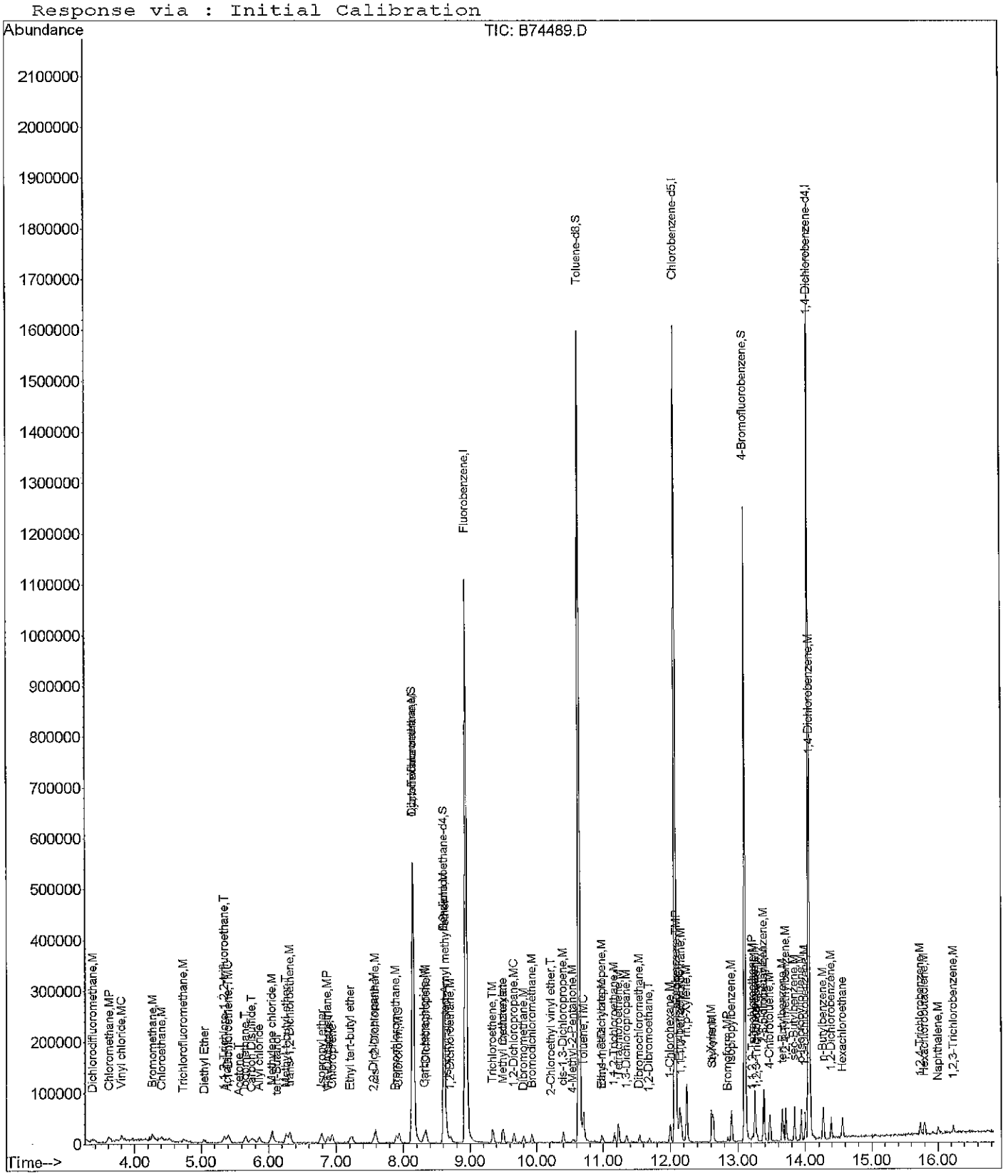
TIC: B74489.D

(16) Allyl chloride
5.86min 0.53ppb m
response 7197

Ion	Exp%	Act%
76.00	100	100
39.00	118.00	81.76#
41.00	177.20	141.56#
78.00	27.40	23.12

Data File : C:\HPCHEM\1\DATA\101111\B74489.D Vial: 8
Acq On : 11 Oct 2011 18:08 Operator: sdw sop525r15
Sample : VOC_0.50ppb_ICAL_CSTD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 11:59 2011 Quant Results File: 101111W.RES

Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 11:58:11 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101111\B74490.D Vial: 9
Acq On : 11 Oct 2011 18:30 Operator: sdw-sop525r15
Sample : VOC_1.0ppb_ICAL_CSTD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 11:56 2011 Quant Results File: 101111W.RES

Quant Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 11:54:23 2011
Response via : Initial Calibration
DataAcq Meth : 101111W

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	8.92	96	1185695	25.00	ppb		0.00
56) Chlorobenzene-d5	12.05	82	468676	25.00	ppb		0.00
78) 1,4-Dichlorobenzene-d4	14.04	152	414256	25.00	ppb		0.00
System Monitoring Compounds							
37) Dibromofluoromethane	8.13	113	390750	25.61	ppb		0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 102.44%				
41) 1,2-dichloroethane-d4	8.60	65	245624	26.64	ppb		0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 106.56%				
57) Toluene-d8	10.62	98	1080885	24.96	ppb		0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 99.84%				
77) 4-Bromofluorobenzene	13.09	176	332814	25.49	ppb		0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 101.96%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.37	85	32559	1.04	ppb		89
3) Chloromethane	3.61	50	24831	1.12	ppb	#	83
4) Vinyl chloride	3.80	62	20626	1.06	ppb		93
5) Bromomethane	4.27	96	17428	1.01	ppb		98
6) Chloroethane	4.40	64	9648	0.96	ppb	#	82
7) Trichlorofluoromethane	4.76	101	29535m	0.98	ppb		
8) Diethyl Ether	5.04	59	11581	1.01	ppb		88
9) Ethanol	0.00	46	0	N.D.			
10) Acrolein	5.37	56	6730m	7.25	ppb		
11) 1,1,2-Trichloro-1,2,2-trif	5.35	101	21409	0.98	ppb		86
12) 1,1-Dichloroethene	5.40	96	21385	1.06	ppb		98
13) Acetone	5.57	43	8255m	7.22	ppb		
14) Iodomethane	5.65	142	45842	1.01	ppb		98
15) Carbon Disulfide	5.76	76	61542	1.01	ppb	#	90
16) Allyl chloride	5.85	76	12276	0.90	ppb		90
17) Acetonitrile	0.00	41	0	N.D.	d		
18) Methylene chloride	6.05	84	26831	1.20	ppb		93
19) Methyl Acetate	0.00	43	0	N.D.			
20) tert-Butanol	6.09	59	15785m	63.66	ppb		
21) Methyl-t-butyl-ether	6.27	73	59631	2.08	ppb		97
22) trans-1,2-Dichloroethene	6.31	96	22675	1.04	ppb		87
23) Acrylonitrile	6.47	53	1334	0.85	ppb	#	59
24) Isopropyl ether	6.78	45	50929	0.97	ppb		95
25) Vinyl Acetate	6.90	43	6994	0.59	ppb	#	75
26) 1,1-Dichloroethane	6.87	63	35118	1.01	ppb		98
27) Chloroprene	6.93	53	27426	1.06	ppb		94
28) Ethyl tert-butyl ether	7.22	59	40934	0.99	ppb	#	90
29) 2,2-Dichloropropane	7.56	77	21957	1.05	ppb		97
30) Cyclohexane	8.15	84	51862	2.14	ppb		94
31) 2-Butanone	7.65	43	1631	1.13	ppb	#	58
32) cis-1,2-Dichloroethene	7.58	96	23843	1.02	ppb		98
33) Propionitrile	0.00	54	0	N.D.			
34) Methacrylonitrile	0.00	67	0	N.D.			
35) Bromochloromethane	7.88	128	9626	0.99	ppb		76
36) Chloroform	7.93	83	39402	1.02	ppb		99
38) 1,1,1-Trichloroethane	8.14	97	28329	1.02	ppb		88
39) Carbon tetrachloride	8.30	117	26287	1.02	ppb		91
40) 1,1-Dichloropropene	8.33	75	27493	1.05	ppb		91
42) Isobutyl alcohol	8.63	43	10643	78.98	ppb	#	55
43) tert-Amyl methyl ether	8.63	87	6565	0.92	ppb		76

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

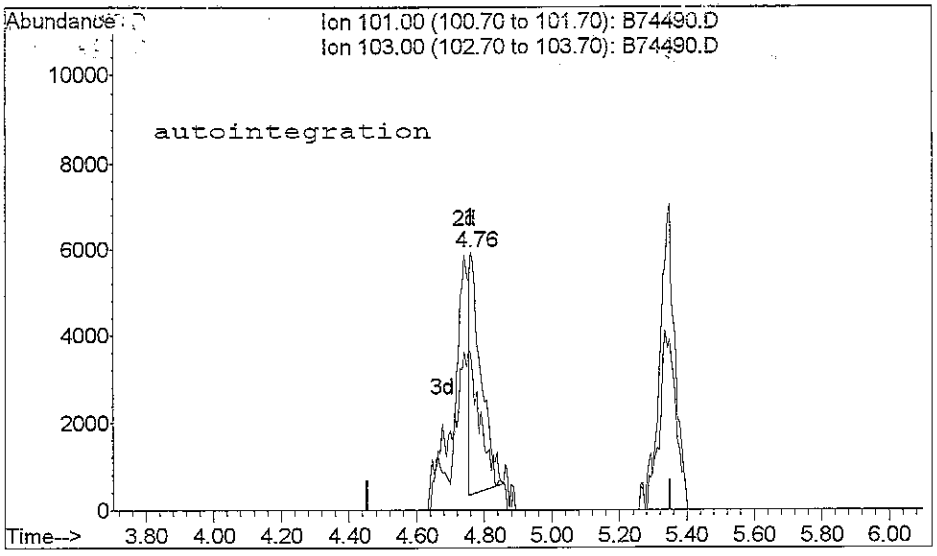
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101111\B74490.D Vial: 9
Acq On : 11 Oct 2011 18:30 Operator: sdw-sop525r15
Sample : VOC_1.0ppb_ICAL_CSTD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 11:56 2011 Quant Results File: 101111W.RES

Quant Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 11:54:23 2011
Response via : Initial Calibration
DataAcq Meth : 101111W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
44)	Benzene	8.59	78	76633	1.05 ppb		97
45)	1,2-Dichloroethane	8.70	62	17055	1.07 ppb		97
46)	Methyl Cyclohexane	9.48	55	20985	1.04 ppb		96
47)	Trichloroethene	9.33	130	21046	0.98 ppb		95
48)	n-Butanol	9.49	56	6343	No Calib		
49)	1,2-Dichloropropane	9.64	63	15892	0.95 ppb	#	96
50)	Methyl methacrylate	9.71	69	1054	0.24 ppb	#	10
51)	1,4-Dioxane	0.00	88	0	N.D.		
52)	Dibromomethane	9.79	93	9820	0.98 ppb		96
53)	Bromodichloromethane	9.91	83	23880	0.97 ppb		98
54)	2-Chloroethyl vinyl ether	10.21	63	3179	0.61 ppb	#	75
55)	cis-1,3-Dichloropropene	10.39	75	25023	0.98 ppb		98
58)	Toluene	10.69	91	74086	1.01 ppb		94
59)	4-Methyl-2-Pentanone	10.53	43	16597	3.10 ppb	#	97
60)	Ethyl methacrylate	10.95	69	7878	0.77 ppb	#	90
61)	trans-1,3-Dichloropropene	10.96	75	17448	0.91 ppb		85
62)	1,1,2-Trichloroethane	11.15	83	10868	1.07 ppb		83
63)	Tetrachloroethene	11.21	164	17263	1.06 ppb		92
64)	2-Hexanone	11.40	58	1600	1.04 ppb	#	14
65)	1,3-Dichloropropane	11.33	76	17393	0.98 ppb		82
66)	Dibromochloromethane	11.53	129	14510	0.91 ppb		97
67)	1,2-Dibromoethane	11.68	107	11676	1.00 ppb		89
68)	1-Chlorohexane	11.98	91	26443	1.00 ppb		95
69)	Chlorobenzene	12.08	112	46784	1.00 ppb		97
70)	Ethylbenzene	12.13	91	82335	1.04 ppb		96
71)	1,1,1,2-Tetrachloroethane	12.15	131	16733	1.01 ppb		96
72)	m,p-Xylene	12.23	106	58398	2.05 ppb		95
73)	o-Xylene	12.60	106	29771	1.05 ppb		91
74)	Styrene	12.62	104	43827	0.95 ppb		96
75)	Bromoform	12.84	173	7139	0.88 ppb	#	82
76)	Isopropylbenzene	12.89	105	73085	1.06 ppb		97
79)	1,1,2,2-Tetrachloroethane	13.21	83	12209	1.01 ppb	#	94
80)	trans-1,4-Dichloro-2-buten	13.26	53	1333	0.66 ppb	#	14
81)	n-Propylbenzene	13.24	91	99998	1.07 ppb		99
82)	1,2,3-Trichloropropane	13.27	110	2527	0.95 ppb		83
83)	Bromobenzene	13.24	156	20272	1.04 ppb		93
84)	1,3,5-Trimethylbenzene	13.38	105	59994	1.04 ppb		95
85)	2-Chlorotoluene	13.36	126	19826	1.09 ppb		92
86)	4-Chlorotoluene	13.46	126	19206	1.06 ppb		89
87)	tert-Butylbenzene	13.65	134	12116	1.07 ppb		97
88)	1,2,4-Trimethylbenzene	13.70	105	56535	1.02 ppb		95
89)	sec-Butylbenzene	13.83	105	81293	1.05 ppb		96
90)	p-Isopropyltoluene	13.92	119	62870	1.07 ppb		96
91)	1,3-Dichlorobenzene	13.99	146	39061	1.10 ppb		97
92)	1,4-Dichlorobenzene	14.06	146	36424	1.07 ppb		94
93)	n-Butylbenzene	14.25	91	66859	1.07 ppb		98
94)	1,2-Dichlorobenzene	14.37	146	32692	1.11 ppb		98
95)	Hexachloroethane	14.54	201	9743	0.94 ppb	#	92
96)	1,2-Dibromo-3-chloropropan	15.03	157	1010	0.67 ppb		93
97)	1,2,4-Trichlorobenzene	15.72	180	17164	1.06 ppb		93
98)	Hexachlorobutadiene	15.78	225	9036	1.00 ppb		91
99)	Naphthalene	15.99	128	17655	1.07 ppb		95
100)	1,2,3-Trichlorobenzene	16.22	180	9566	1.02 ppb		90

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



TIC: B74490.D

(7) Trichlorofluoromethane (M)
4.76min 0.43ppb
response 12905

Ion	Exp%	Act%
101.00	100	100
103.00	63.50	54.98
0.00	0.00	0.00
0.00	0.00	0.00

Reason for manual re-integration?

[] missed peak assignment

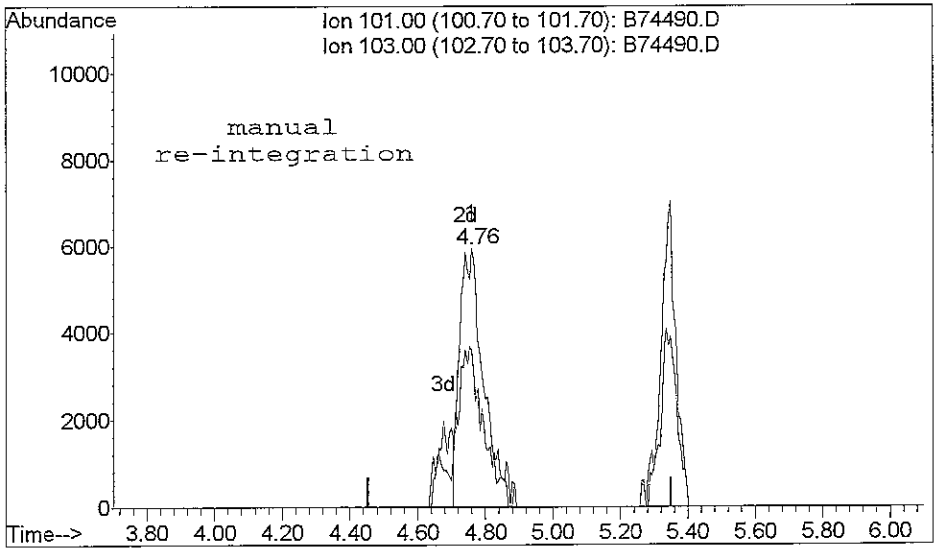
[] peak saturation (detector shutdown)

[] over-integrated peak's area

[X] under-integrated peak's area

[] other (_____)

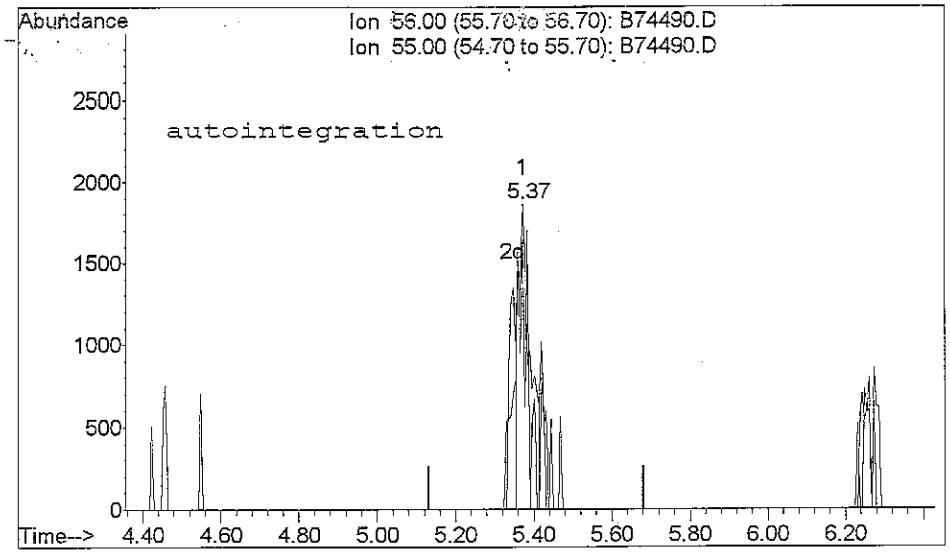
initials: GW date: 10 / 14 / 11



TIC: B74490.D

(7) Trichlorofluoromethane (M)
4.76min 0.98ppb m
response 29535

Ion	Exp%	Act%
101.00	100	100
103.00	63.50	60.31
0.00	0.00	0.00
0.00	0.00	0.00



TIC: B74490.D

(10) Acrolein (T)
5.37min 4.28ppb
response 3971

Ion	Exp%	Act%
56.00	100	100
55.00	70.70	133.14#
0.00	0.00	0.00
0.00	0.00	0.00

Reason for manual re-integration?

[] missed peak assignment

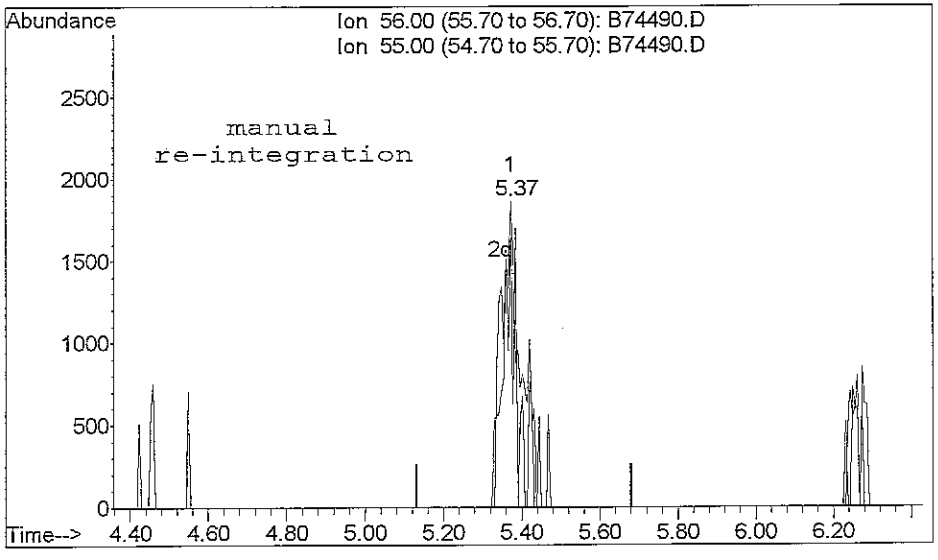
[] peak saturation (detector shutdown)

[] over-integrated peak's area

[X] under-integrated peak's area

[] other (_____)

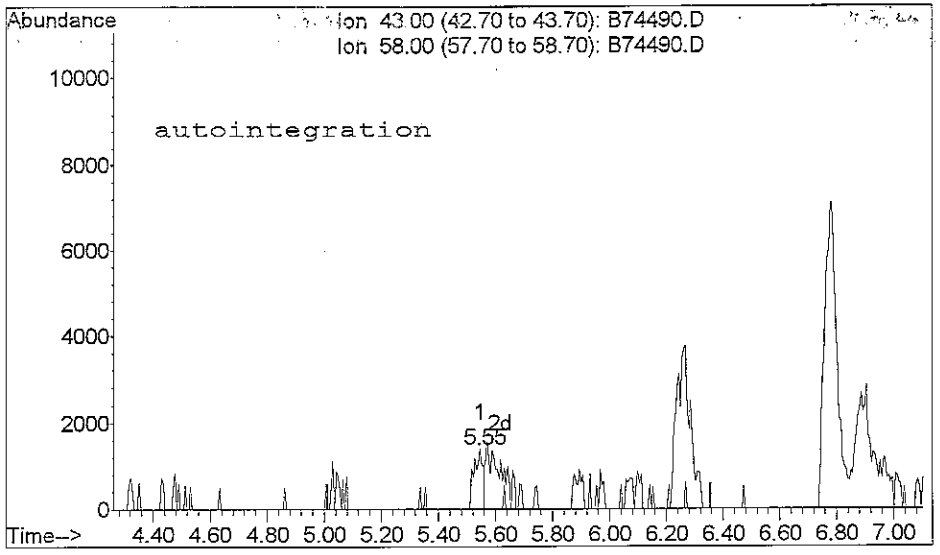
initials: aw date: 10 / 14 / 11



TIC: B74490.D

(10) Acrolein (T)
5.37min 7.25ppb m
response 6730

Ion	Exp%	Act%
56.00	100	100
55.00	70.70	88.05
0.00	0.00	0.00
0.00	0.00	0.00



TIC: B74490.D

(13) Acetone (T)
5.55min 2.63ppb
response 3005

Ion	Exp%	Act%
43.00	100	100
58.00	29.80	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Reason for manual re-integration?

[] missed peak assignment

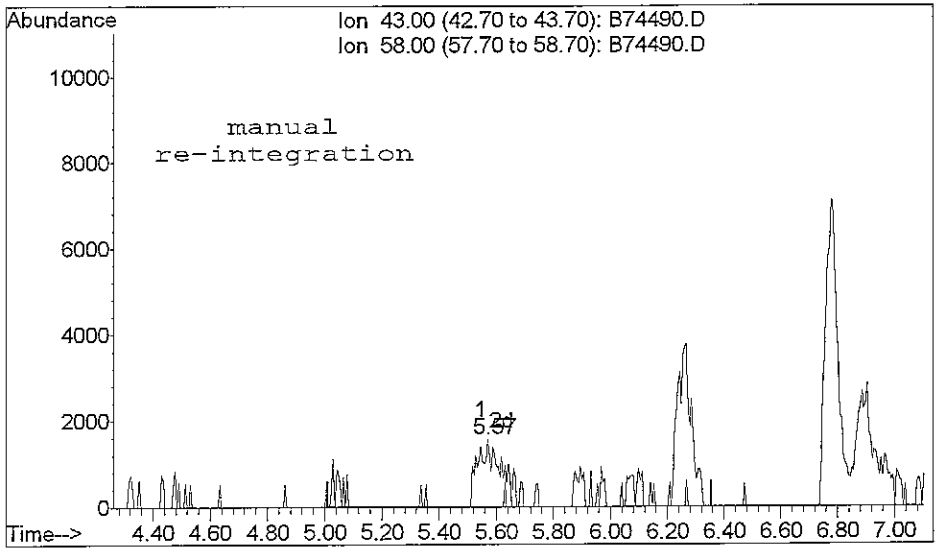
[] peak saturation (detector shutdown)

[] over-integrated peak's area

[X] under-integrated peak's area

[] other (_____)

initials: gw date: 10/14/11

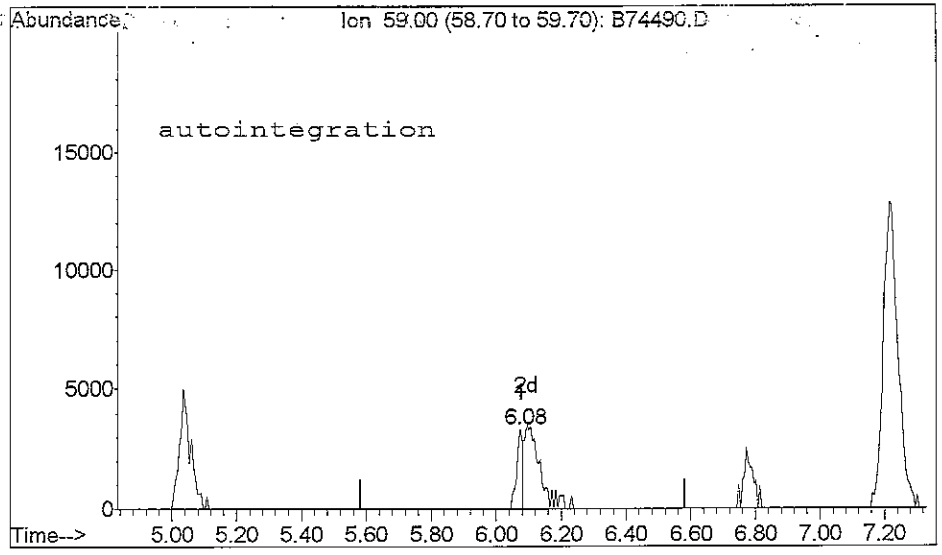


TIC: B74490.D

(13) Acetone (T)
5.57min 7.22ppb m
response 8255

Ion	Exp%	Act%
43.00	100	100
58.00	29.80	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Not used



TIC: B74490.D

(20) tert-Butanol
6.08min 16.96ppb
response 4204

Ion	Exp%	Act%
59.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Reason for manual re-integration?

[] missed peak assignment

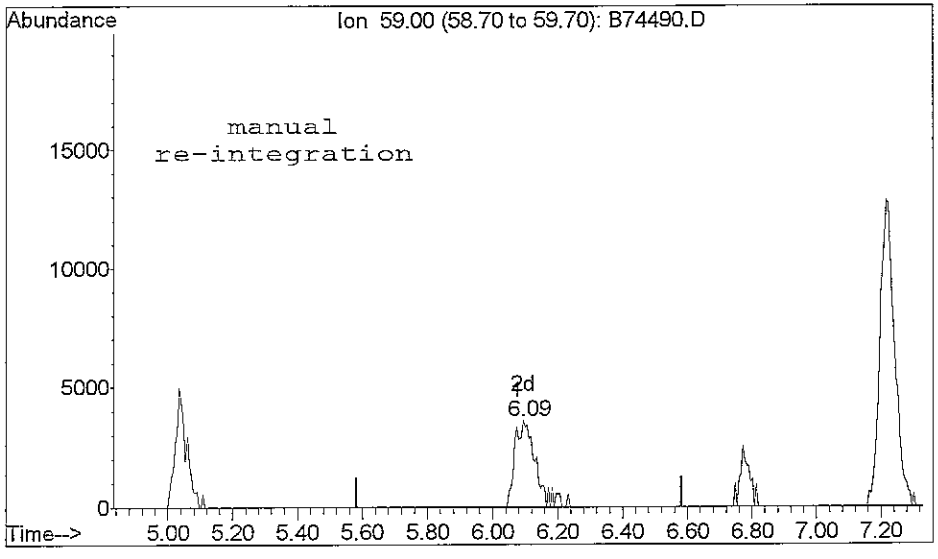
[] peak saturation (detector shutdown)

[] over-integrated peak's area

[X] under-integrated peak's area

[] other (_____)

initials: gw date: 10 / 14 / 11



TIC: B74490.D

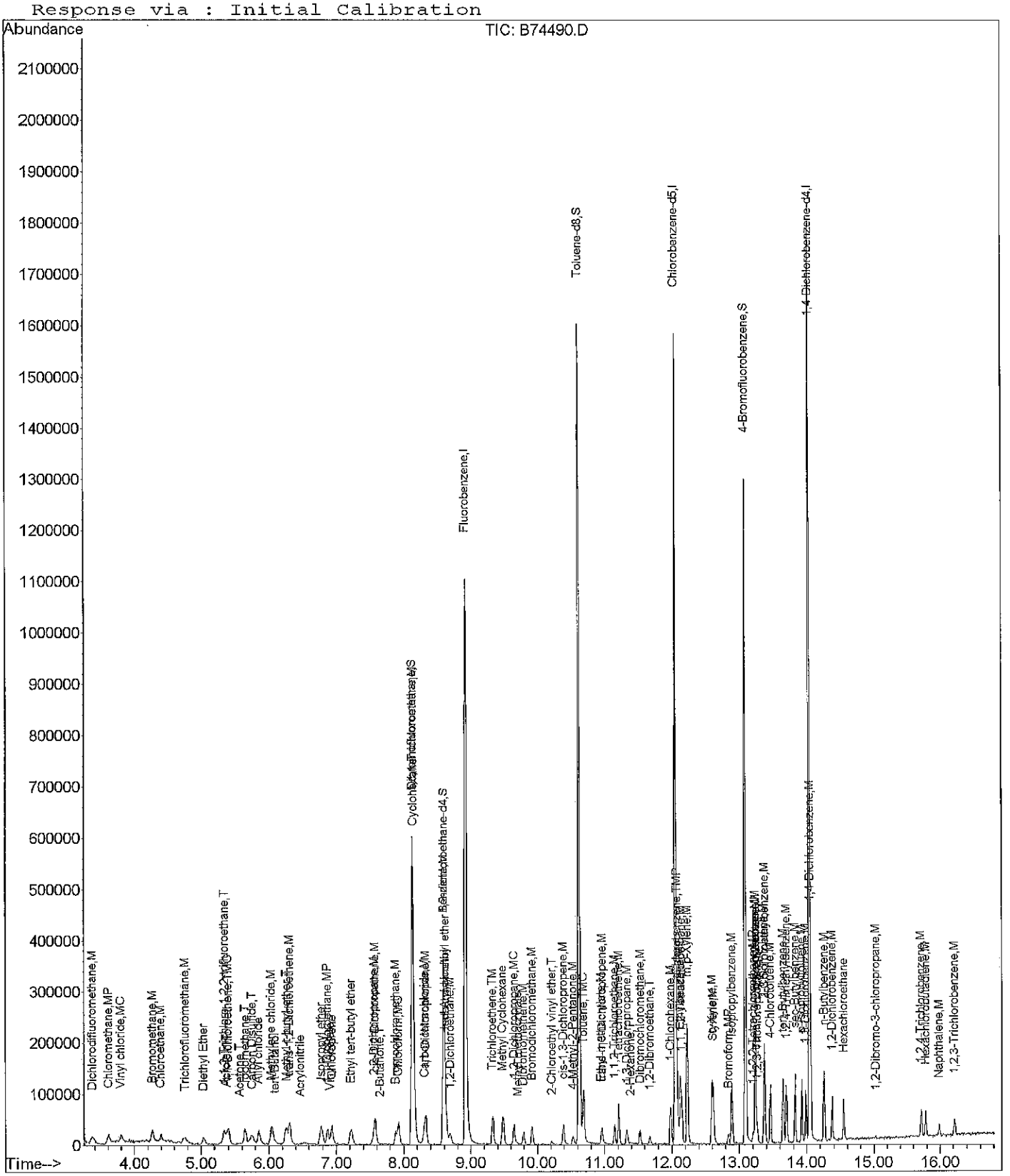
(20) tert-Butanol
6.09min 63.66ppb m
response 15785

Ion	Exp%	Act%
59.00	100	100
0.00	0.00	0.00
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report

Data File : C:\HPCHEM\1\DATA\101111\B74490.D Vial: 9
Acq On : 11 Oct 2011 18:30 Operator: sdw-sop525r15
Sample : VOC_1.0ppb_ICAL_CSTD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 11:56 2011 Quant Results File: 101111W.RES

Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 11:57:23 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101111\B74491.D Vial: 10
Acq On : 11 Oct 2011 18:52 Operator: sdw-sop525r15
Sample : VOC_2.0ppb_ICAL_CSTD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 11:53 2011 Quant Results File: 101111W.RES

Quant Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 11:50:17 2011
Response via : Initial Calibration
DataAcq Meth : 101111W

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	8.92	96	1178951	25.00	ppb		0.00
56) Chlorobenzene-d5	12.05	82	479006	25.00	ppb		0.00
78) 1,4-Dichlorobenzene-d4	14.04	152	416708	25.00	ppb		0.00
System Monitoring Compounds							
37) Dibromofluoromethane	8.13	113	392302	26.04	ppb		0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 104.16%				
41) 1,2-dichloroethane-d4	8.60	65	242417	26.75	ppb		0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 107.00%				
57) Toluene-d8	10.62	98	1097778	24.76	ppb		0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 99.04%				
77) 4-Bromofluorobenzene	13.09	176	327021	24.42	ppb		0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 97.68%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.37	85	62334	2.01	ppb		96
3) Chloromethane	3.61	50	45503	2.08	ppb		95
4) Vinyl chloride	3.81	62	37860	1.94	ppb		88
5) Bromomethane	4.27	96	36820	2.18	ppb		90
6) Chloroethane	4.40	64	22111	2.25	ppb		87
7) Trichlorofluoromethane	4.76	101	59495	1.98	ppb		83
8) Diethyl Ether	5.04	59	23417	2.07	ppb		97
9) Ethanol	0.00	46	0	N.D.			
10) Acrolein	5.35	56	18757m	20.39	ppb		
11) 1,1,2-Trichloro-1,2,2-trif	5.34	101	45001	2.09	ppb		92
12) 1,1-Dichloroethene	5.41	96	41088	2.05	ppb		87
13) Acetone	5.54	43	12142m	11.45	ppb		
14) Iodomethane	5.65	142	91672	2.03	ppb		96
15) Carbon Disulfide	5.75	76	118123	1.94	ppb		97
16) Allyl chloride	5.85	76	29311	2.20	ppb		93
17) Acetonitrile	0.00	41	0	N.D.	d		
18) Methylene chloride	6.05	84	49912	2.30	ppb		96
19) Methyl Acetate	5.88	43	4853	1.29	ppb	#	80
20) tert-Butanol	6.09	59	36053	161.14	ppb		100
21) Methyl-t-butyl-ether	6.26	73	120379	4.26	ppb		98
22) trans-1,2-Dichloroethene	6.30	96	44663	2.08	ppb		94
23) Acrylonitrile	6.49	53	25584m	15.81	ppb		
24) Isopropyl ether	6.77	45	107371	2.08	ppb		98
25) Vinyl Acetate	6.88	43	17876	1.44	ppb		91
26) 1,1-Dichloroethane	6.88	63	69816	2.03	ppb		96
27) Chloroprene	6.93	53	54208	2.14	ppb		96
28) Ethyl tert-butyl ether	7.22	59	85429	2.09	ppb	#	90
29) 2,2-Dichloropropane	7.55	77	44721	2.18	ppb		96
30) Cyclohexane	8.15	84	101625	4.26	ppb		96
31) 2-Butanone	7.64	43	8190	5.42	ppb	#	58
32) cis-1,2-Dichloroethene	7.57	96	48075	2.08	ppb		94
33) Propionitrile	0.00	54	0	N.D.			
34) Methacrylonitrile	0.00	67	0	N.D.			
35) Bromochloromethane	7.88	128	19573	2.03	ppb		94
36) Chloroform	7.93	83	78202	2.04	ppb		98
38) 1,1,1-Trichloroethane	8.15	97	55686	2.03	ppb		91
39) Carbon tetrachloride	8.30	117	52616	2.07	ppb		91
40) 1,1-Dichloropropene	8.33	75	52231	2.01	ppb		93
42) Isobutyl alcohol	8.62	43	23157	514.61	ppb	#	52
43) tert-Amyl methyl ether	8.62	87	13544	1.88	ppb		93

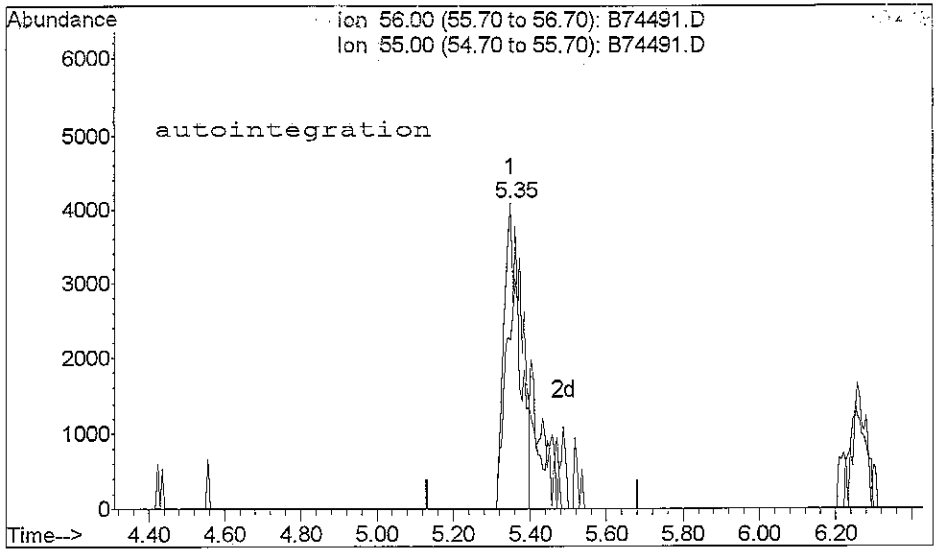
(#) = qualifier out of range (m) = manual integration

Data File : C:\HPCHEM\1\DATA\101111\B74491.D Vial: 10
Acq On : 11 Oct 2011 18:52 Operator: sdw-sop525r15
Sample : VOC_2.0ppb_ICAL_CSTD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 11:53 2011 Quant Results File: 101111W.RES

Quant Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 11:50:17 2011
Response via : Initial Calibration
DataAcq Meth : 101111W

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	Benzene	8.59	78	151081	2.11	ppb		99
45)	1,2-Dichloroethane	8.70	62	31980	2.01	ppb		98
46)	Methyl Cyclohexane	9.48	55	41349	2.07	ppb		96
47)	Trichloroethene	9.33	130	44669	2.10	ppb		99
48)	n-Butanol	0.00	56	0	N.D.	d		
49)	1,2-Dichloropropane	9.65	63	33181	2.00	ppb		98
50)	Methyl methacrylate	9.69	69	6985	1.51	ppb	#	34
51)	1,4-Dioxane	0.00	88	0	N.D.			
52)	Dibromomethane	9.79	93	19587	1.97	ppb		93
53)	Bromodichloromethane	9.92	83	47639	1.93	ppb		98
54)	2-Chloroethyl vinyl ether	10.20	63	8514	1.58	ppb		89
55)	cis-1,3-Dichloropropene	10.39	75	49872	1.95	ppb		95
58)	Toluene	10.69	91	148908	1.98	ppb		98
59)	4-Methyl-2-Pentanone	10.53	43	38375	6.84	ppb	#	93
60)	Ethyl methacrylate	10.95	69	17530	1.63	ppb	#	96
61)	trans-1,3-Dichloropropene	10.96	75	36610	1.85	ppb		90
62)	1,1,2-Trichloroethane	11.15	83	20133	1.93	ppb		99
63)	Tetrachloroethene	11.21	164	33384	2.00	ppb		95
64)	2-Hexanone	11.37	58	10334m	6.31	ppb		
65)	1,3-Dichloropropane	11.33	76	35863	1.98	ppb		98
66)	Dibromochloromethane	11.53	129	29017	1.74	ppb		98
67)	1,2-Dibromoethane	11.67	107	22048	1.83	ppb		95
68)	1-Chlorohexane	11.98	91	52705	1.94	ppb		96
69)	Chlorobenzene	12.08	112	95116	2.00	ppb		94
70)	Ethylbenzene	12.13	91	158633	1.95	ppb		99
71)	1,1,1,2-Tetrachloroethane	12.14	131	32174	1.89	ppb		98
72)	m,p-Xylene	12.23	106	117341	4.04	ppb		99
73)	o-Xylene	12.60	106	57135	1.97	ppb		95
74)	Styrene	12.62	104	92166	1.95	ppb		95
75)	Bromoform	12.84	173	15047	1.77	ppb		95
76)	Isopropylbenzene	12.89	105	140162	1.98	ppb		99
79)	1,1,2,2-Tetrachloroethane	13.20	83	24173	1.99	ppb	#	94
80)	trans-1,4-Dichloro-2-buten	13.26	53	3540	1.69	ppb	#	78
81)	n-Propylbenzene	13.24	91	191146	2.04	ppb		98
82)	1,2,3-Trichloropropane	13.27	110	5449	2.05	ppb		96
83)	Bromobenzene	13.23	156	40481	2.09	ppb		94
84)	1,3,5-Trimethylbenzene	13.38	105	119168	2.06	ppb		100
85)	2-Chlorotoluene	13.36	126	36713	2.02	ppb		98
86)	4-Chlorotoluene	13.46	126	37537	2.08	ppb		92
87)	tert-Butylbenzene	13.65	134	23319	2.05	ppb		90
88)	1,2,4-Trimethylbenzene	13.70	105	112063	2.01	ppb		99
89)	sec-Butylbenzene	13.82	105	160303	2.06	ppb		100
90)	p-Isopropyltoluene	13.92	119	121837	2.06	ppb		99
91)	1,3-Dichlorobenzene	13.98	146	72440	2.03	ppb		97
92)	1,4-Dichlorobenzene	14.06	146	69531	2.03	ppb		96
93)	n-Butylbenzene	14.25	91	126798	2.02	ppb		99
94)	1,2-Dichlorobenzene	14.37	146	58556	1.97	ppb		94
95)	Hexachloroethane	14.54	201	19373	1.84	ppb	#	92
96)	1,2-Dibromo-3-chloropropan	15.02	157	3252	2.16	ppb		93
97)	1,2,4-Trichlorobenzene	15.71	180	32741	2.00	ppb		99
98)	Hexachlorobutadiene	15.78	225	18275	2.01	ppb		96
99)	Naphthalene	15.99	128	33855	2.05	ppb		97
100)	1,2,3-Trichlorobenzene	16.22	180	19767	2.11	ppb		86

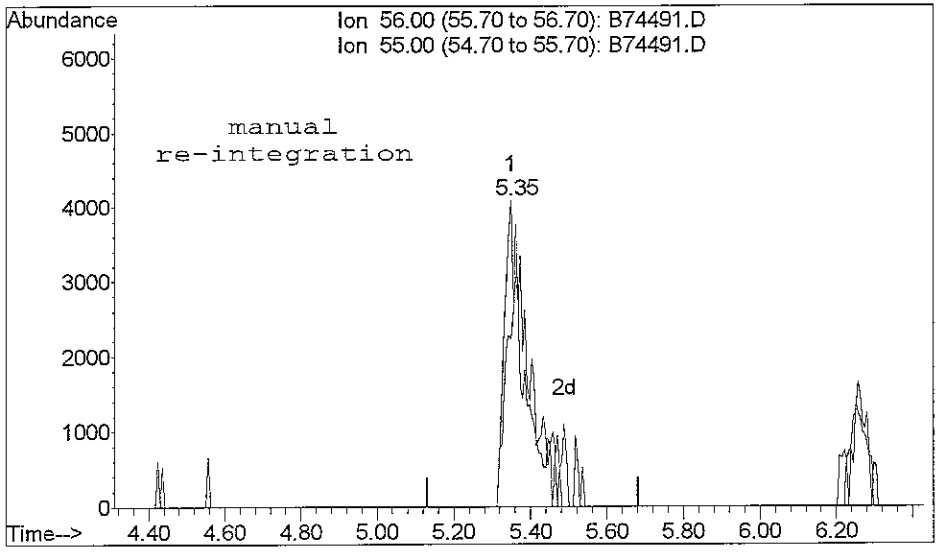
(#) = qualifier out of range (m) = manual integration



TIC: B74491.D

(10) Acrolein (T)
5.35min 13.92ppb
response 12800

Ion	Exp%	Act%
56.00	100	100
55.00	70.70	54.63
0.00	0.00	0.00
0.00	0.00	0.00



Reason for manual re-integration?

[] missed peak assignment

[] peak saturation (detector shutdown)

[] over-integrated peak's area

[X] under-integrated peak's area

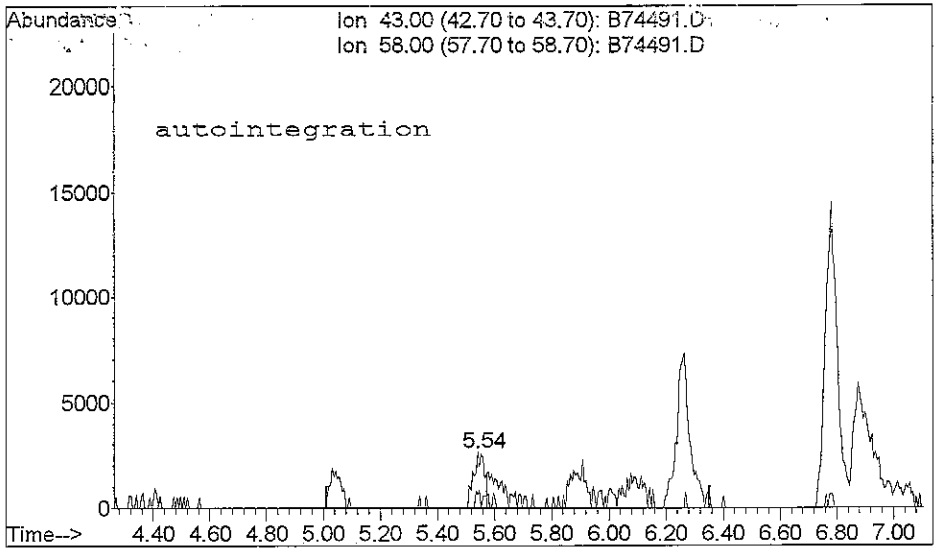
[] other (_____)

initials: cw date: 10 / 14 / 11

TIC: B74491.D

(10) Acrolein (T)
5.35min 20.39ppb m
response 18757

Ion	Exp%	Act%
56.00	100	100
55.00	70.70	54.63
0.00	0.00	0.00
0.00	0.00	0.00



TIC: B74491.D

(13) Acetone (T)
5.54min 6.56ppb
response 6957

Ion	Exp%	Act%
43.00	100	100
58.00	29.80	24.52
0.00	0.00	0.00
0.00	0.00	0.00

Reason for manual re-integration?

[] missed peak assignment

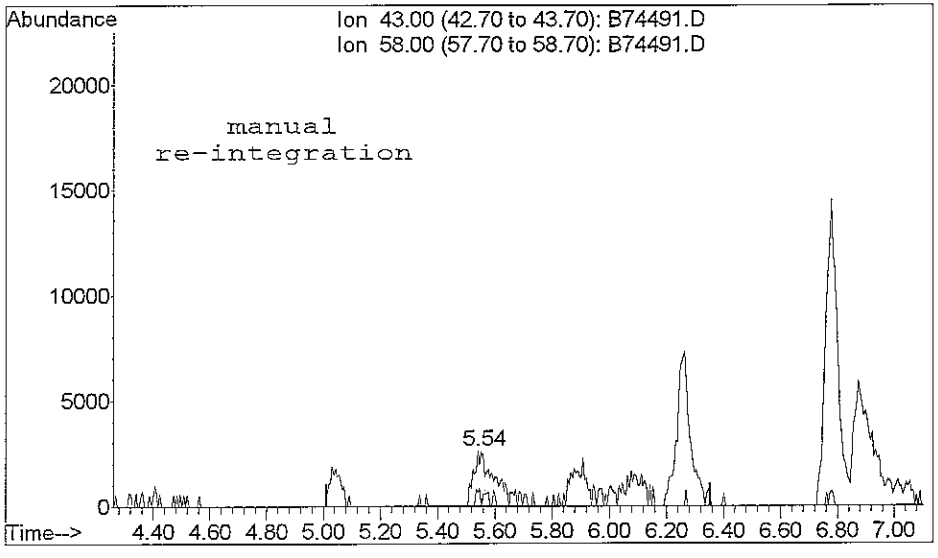
[] peak saturation (detector shutdown)

[] over-integrated peak's area

[X] under-integrated peak's area

[] other (_____)

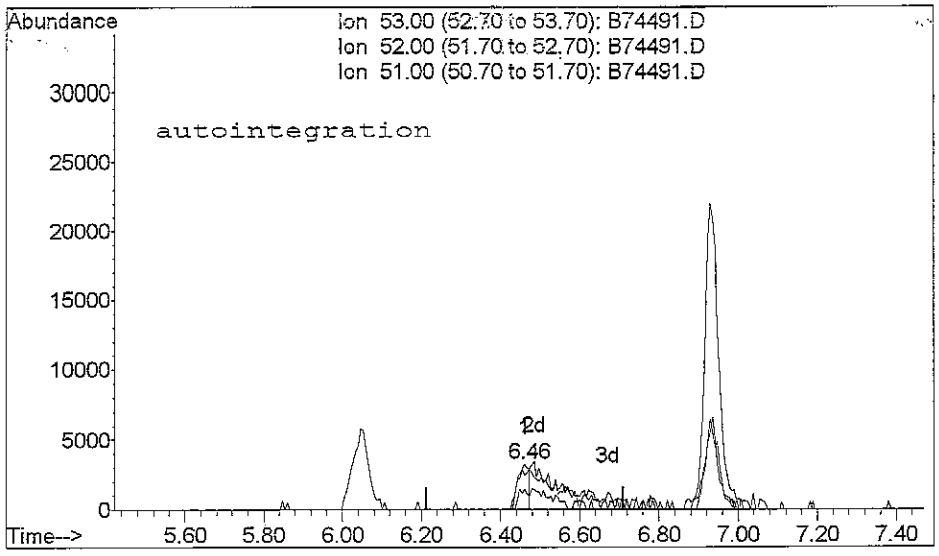
initials: CW date: 10 / 14 / 11



TIC: B74491.D

(13) Acetone (T)
5.54min 11.45ppb m
response 12142

Ion	Exp%	Act%
43.00	100	100
58.00	29.80	24.52
0.00	0.00	0.00
0.00	0.00	0.00



TIC: B74491.D

(23) Acrylonitrile
6.46min 4.04ppb
response 6546

Ion	Exp%	Act%
53.00	100	100
52.00	85.20	62.10
51.00	37.90	38.27
0.00	0.00	0.00

Reason for manual re-integration?

[] missed peak assignment

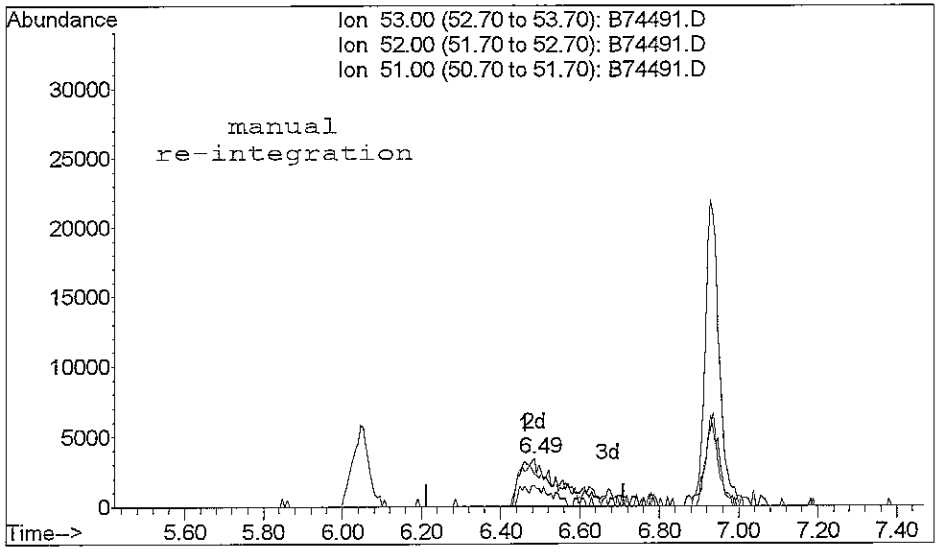
[] peak saturation (detector shutdown)

[] over-integrated peak's area

[X] under-integrated peak's area

[] other (_____)

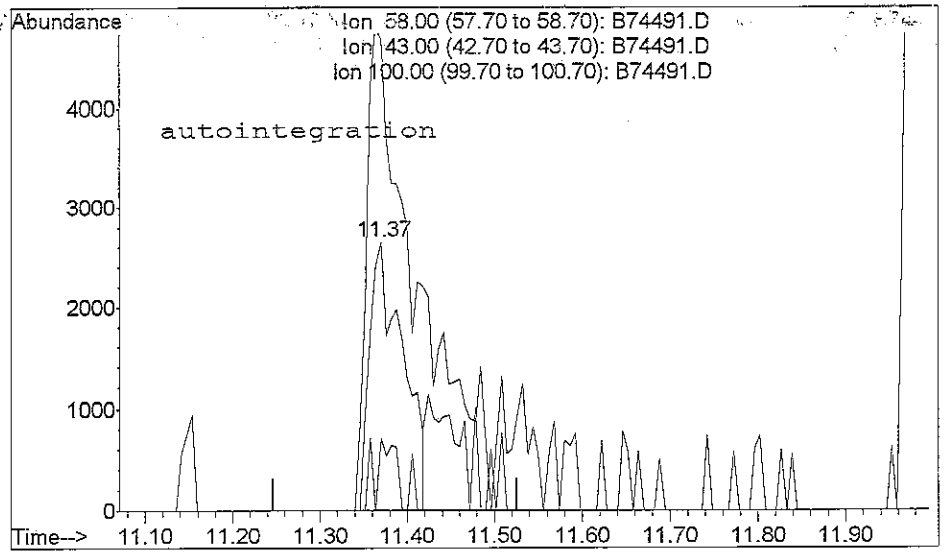
initials: ____ date: 10 / 14 / 11



TIC: B74491.D

(23) Acrylonitrile
6.49min 15.81ppb m
response 25584

Ion	Exp%	Act%
53.00	100	100
52.00	85.20	15.89#
51.00	37.90	9.79#
0.00	0.00	0.00



TIC: B74491.D

(64) 2-Hexanone (T)
11.37min 4.26ppb
response 6967

Ion	Exp%	Act%
58.00	100	100
43.00	185.60	175.50
100.00	20.80	26.95
0.00	0.00	0.00

Reason for manual re-integration?

[] missed peak assignment

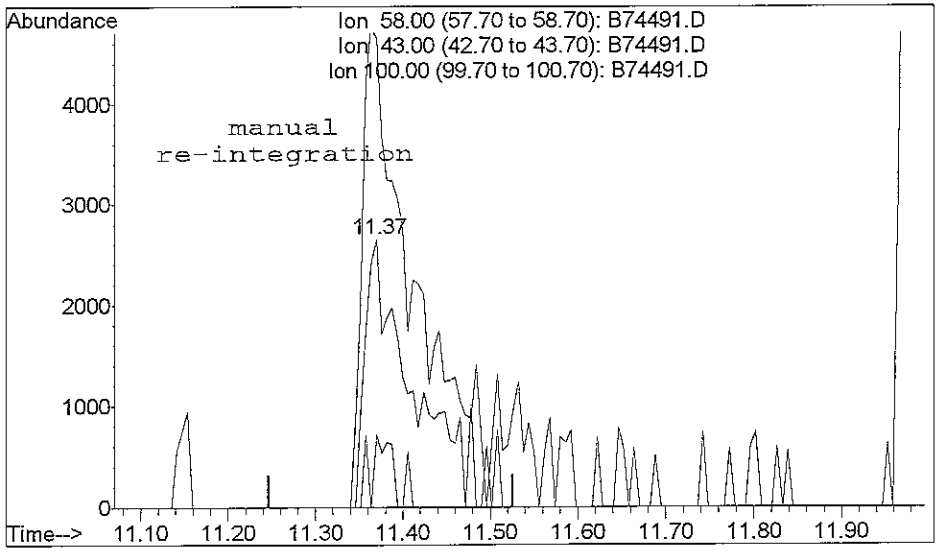
[] peak saturation (detector shutdown)

[] over-integrated peak's area

[X] under-integrated peak's area

[] other (_____)

initials: gaw date: 10 / 14 / 11



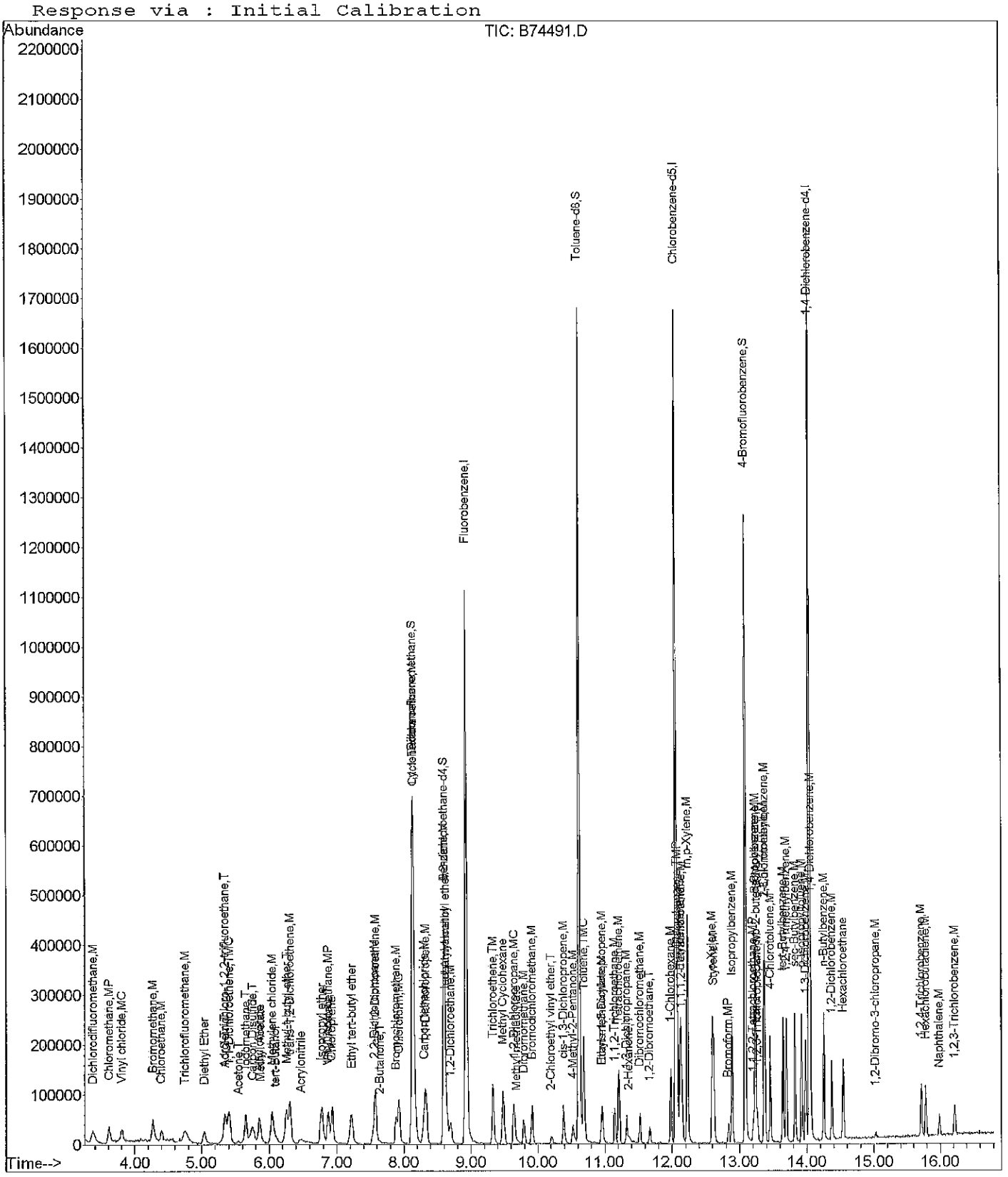
TIC: B74491.D

(64) 2-Hexanone (T)
11.37min 6.31ppb m
response 10334

Ion	Exp%	Act%
58.00	100	100
43.00	185.60	175.50
100.00	20.80	26.95
0.00	0.00	0.00

Data File : C:\HPCHEM\1\DATA\101111\B74491.D Vial: 10
Acq On : 11 Oct 2011 18:52 Operator: sdw-sop525r15
Sample : VOC_2.0ppb_ICAL_CSTD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 11:53 2011 Quant Results File: 101111W.RES

Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 11:50:17 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101111\B74492.D Vial: 11
Acq On : 11 Oct 2011 19:13 Operator: sdw-sop525r15
Sample : VOC_4.0ppb_ICAL_CSTD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 11:49 2011 Quant Results File: 101111W.RES

Quant Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 11:46:28 2011
Response via : Initial Calibration
DataAcq Meth : 101111W

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	8.92	96	1213972	25.00	ppb		0.00
56) Chlorobenzene-d5	12.05	82	484559	25.00	ppb		0.00
78) 1,4-Dichlorobenzene-d4	14.04	152	420376	25.00	ppb		0.00
System Monitoring Compounds							
37) Dibromofluoromethane	8.13	113	400087	25.99	ppb		0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 103.96%				
41) 1,2-dichloroethane-d4	8.60	65	236862	25.48	ppb		0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 101.92%				
57) Toluene-d8	10.62	98	1110534	24.70	ppb		0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 98.80%				
77) 4-Bromofluorobenzene	13.09	176	337678	24.90	ppb		0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 99.60%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.36	85	131454	4.16	ppb		100
3) Chloromethane	3.62	50	97193	4.40	ppb		97
4) Vinyl chloride	3.80	62	83335	4.19	ppb		99
5) Bromomethane	4.28	96	71654	4.16	ppb		99
6) Chloroethane	4.40	64	40607	4.01	ppb		95
7) Trichlorofluoromethane	4.75	101	127392	4.14	ppb		98
8) Diethyl Ether	5.04	59	47458	4.10	ppb		96
9) Ethanol	0.00	46	0	N.D.			
10) Acrolein	5.35	56	38351m	40.61	ppb		
11) 1,1,2-Trichloro-1,2,2-trif	5.34	101	91695	4.16	ppb		98
12) 1,1-Dichloroethene	5.41	96	86063	4.22	ppb		98
13) Acetone	5.54	43	19127m	17.95	ppb		
14) Iodomethane	5.65	142	189850	4.10	ppb		98
15) Carbon Disulfide	5.74	76	250006	3.97	ppb		99
16) Allyl chloride	5.85	76	57920	4.27	ppb		87
17) Acetonitrile	0.00	41	0	N.D.	d		
18) Methylene chloride	6.05	84	97113	4.44	ppb		98
19) Methyl Acetate	5.88	43	12859	3.17	ppb	#	82
20) tert-Butanol	6.09	59	67203	329.47	ppb		100
21) Methyl-t-butyl-ether	6.26	73	240818	8.35	ppb		98
22) trans-1,2-Dichloroethene	6.31	96	93430	4.28	ppb		89
23) Acrylonitrile	6.45	53	46375	25.86	ppb		82
24) Isopropyl ether	6.77	45	211316	3.97	ppb		96
25) Vinyl Acetate	6.86	43	38029	2.80	ppb	#	89
26) 1,1-Dichloroethane	6.87	63	141192	4.00	ppb		98
27) Chloroprene	6.93	53	102656	3.91	ppb		94
28) Ethyl tert-butyl ether	7.22	59	171968	4.10	ppb		96
29) 2,2-Dichloropropane	7.55	77	92226	4.47	ppb		97
30) Cyclohexane	8.14	84	198761	8.12	ppb		97
31) 2-Butanone	7.63	43	9492	5.28	ppb	#	93
32) cis-1,2-Dichloroethene	7.57	96	97749	4.14	ppb		95
33) Propionitrile	7.88	54	1091	3.92	ppb	#	65
34) Methacrylonitrile	7.93	67	4572	2.19	ppb		99
35) Bromochloromethane	7.88	128	40349	4.09	ppb		96
36) Chloroform	7.93	83	159500	4.05	ppb		96
38) 1,1,1-Trichloroethane	8.15	97	116567	4.16	ppb		96
39) Carbon tetrachloride	8.30	117	104593	4.00	ppb		97
40) 1,1-Dichloropropene	8.33	75	110079	4.15	ppb		97
42) Isobutyl alcohol	8.50	43	2217	43.48	ppb	#	83
43) tert-Amyl methyl ether	8.63	87	30244	4.10	ppb		92

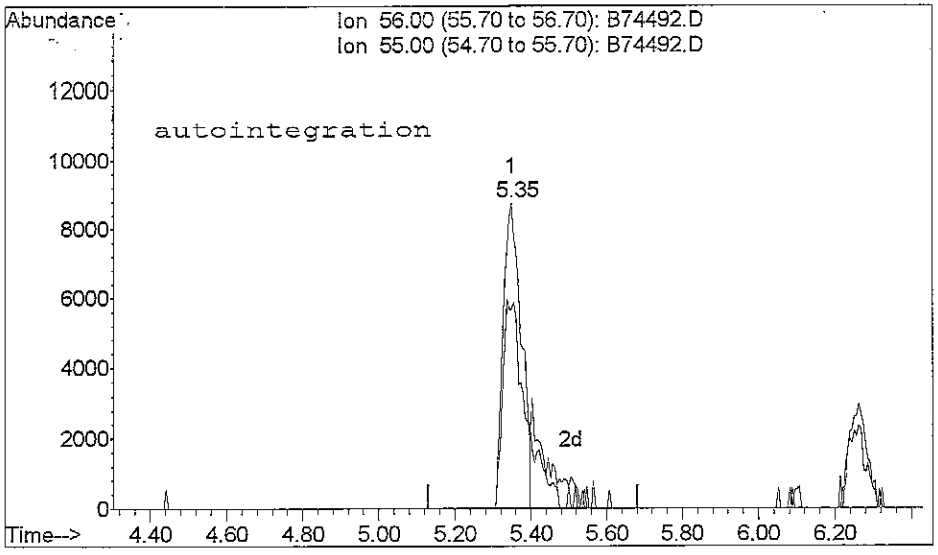
(#) = qualifier out of range (m) = manual integration
B74492.D 101111W.M Wed Oct 12 11:50:09 2011 10/14/11 Page 1

Data File : C:\HPCHEM\1\DATA\101111\B74492.D Vial: 11
Acq On : 11 Oct 2011 19:13 Operator: sdw-sop525r15
Sample : VOC_4.0ppb_ICAL_CSTD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 11:49 2011 Quant Results File: 101111W.RES

Quant Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 11:46:28 2011
Response via : Initial Calibration
DataAcq Meth : 101111W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
44)	Benzene	8.59	78	301222	4.10 ppb		99
45)	1,2-Dichloroethane	8.69	62	68409	4.23 ppb		98
46)	Methyl Cyclohexane	9.48	55	83607	4.09 ppb		99
47)	Trichloroethene	9.33	130	87736	4.01 ppb		98
48)	n-Butanol	0.00	56	0	N.D. d		
49)	1,2-Dichloropropane	9.65	63	69355	4.08 ppb		81
50)	Methyl methacrylate	9.67	69	18618	3.88 ppb	#	55
51)	1,4-Dioxane	0.00	88	0	N.D.		
52)	Dibromomethane	9.78	93	41753	4.09 ppb		86
53)	Bromodichloromethane	9.91	83	101699	4.01 ppb		98
54)	2-Chloroethyl vinyl ether	10.20	63	20339	3.59 ppb		94
55)	cis-1,3-Dichloropropene	10.38	75	105818	4.01 ppb		95
58)	Toluene	10.69	91	314158	4.17 ppb		99
59)	4-Methyl-2-Pentanone	10.52	43	85171	14.78 ppb		96
60)	Ethyl methacrylate	10.94	69	37462	3.33 ppb		96
61)	trans-1,3-Dichloropropene	10.96	75	77469	3.83 ppb		99
62)	1,1,2-Trichloroethane	11.15	83	42584	4.05 ppb		96
63)	Tetrachloroethene	11.21	164	67017	3.97 ppb		93
64)	2-Hexanone	11.36	58	21923	12.69 ppb		77
65)	1,3-Dichloropropane	11.33	76	74812	4.11 ppb		99
66)	Dibromochloromethane	11.53	129	63495	3.72 ppb		89
67)	1,2-Dibromoethane	11.67	107	48141	3.93 ppb		96
68)	1-Chlorohexane	11.98	91	111074	4.05 ppb		98
69)	Chlorobenzene	12.08	112	194465	4.05 ppb		96
70)	Ethylbenzene	12.13	91	343924	4.23 ppb		99
71)	1,1,1,2-Tetrachloroethane	12.15	131	71182	4.17 ppb		97
72)	m,p-Xylene	12.23	106	246955	8.51 ppb		98
73)	o-Xylene	12.60	106	120579	4.14 ppb		95
74)	Styrene	12.62	104	192274	4.02 ppb		96
75)	Bromoform	12.84	173	31892	3.65 ppb		96
76)	Isopropylbenzene	12.89	105	292760	4.12 ppb		99
79)	1,1,2,2-Tetrachloroethane	13.20	83	53832	4.50 ppb		98
80)	trans-1,4-Dichloro-2-buten	13.26	53	8450	4.00 ppb	#	52
81)	n-Propylbenzene	13.24	91	405887	4.38 ppb		99
82)	1,2,3-Trichloropropane	13.27	110	10763	4.02 ppb		89
83)	Bromobenzene	13.23	156	86162	4.52 ppb		91
84)	1,3,5-Trimethylbenzene	13.38	105	251549	4.40 ppb		98
85)	2-Chlorotoluene	13.36	126	80318	4.48 ppb		97
86)	4-Chlorotoluene	13.46	126	76966	4.28 ppb		93
87)	tert-Butylbenzene	13.65	134	49458	4.40 ppb		94
88)	1,2,4-Trimethylbenzene	13.69	105	235214	4.23 ppb		97
89)	sec-Butylbenzene	13.82	105	327544	4.22 ppb		98
90)	p-Isopropyltoluene	13.92	119	253825	4.33 ppb		99
91)	1,3-Dichlorobenzene	13.98	146	153577	4.32 ppb		98
92)	1,4-Dichlorobenzene	14.06	146	147048	4.32 ppb		96
93)	n-Butylbenzene	14.25	91	266353	4.27 ppb		96
94)	1,2-Dichlorobenzene	14.37	146	129521	4.41 ppb		98
95)	Hexachloroethane	14.54	201	41604	3.89 ppb	#	94
96)	1,2-Dibromo-3-chloropropan	15.02	157	6026	3.96 ppb		88
97)	1,2,4-Trichlorobenzene	15.71	180	69711	4.28 ppb		96
98)	Hexachlorobutadiene	15.78	225	37838	4.15 ppb		96
99)	Naphthalene	15.98	128	70474	4.28 ppb		94
100)	1,2,3-Trichlorobenzene	16.22	180	38875	4.13 ppb		94

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



TIC: B74492.D

(10) Acrolein (T)
5.35min 30.60ppb
response 28897

Ion	Exp%	Act%
56.00	100	100
55.00	70.70	64.66
0.00	0.00	0.00
0.00	0.00	0.00

Reason for manual re-integration?

[] missed peak assignment

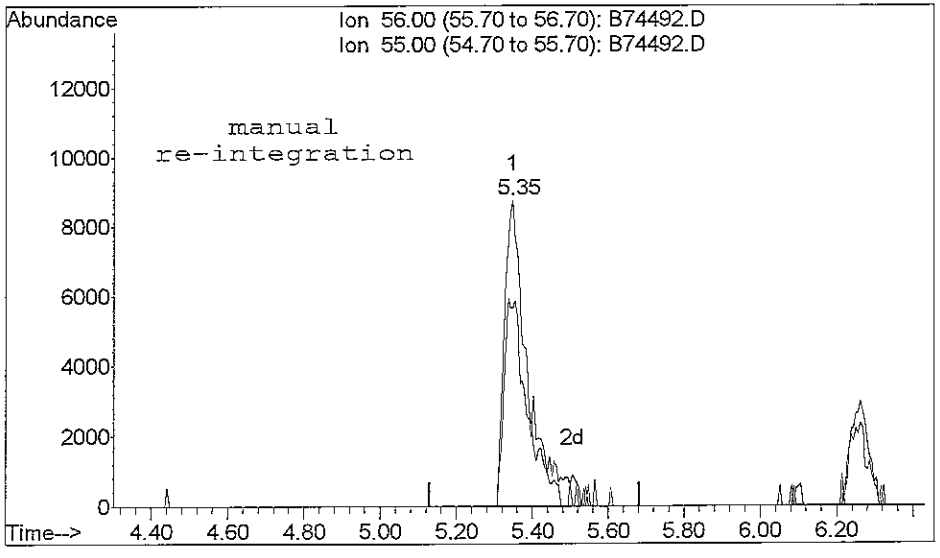
[] peak saturation (detector shutdown)

[] over-integrated peak's area

[X] under-integrated peak's area

[] other (_____)

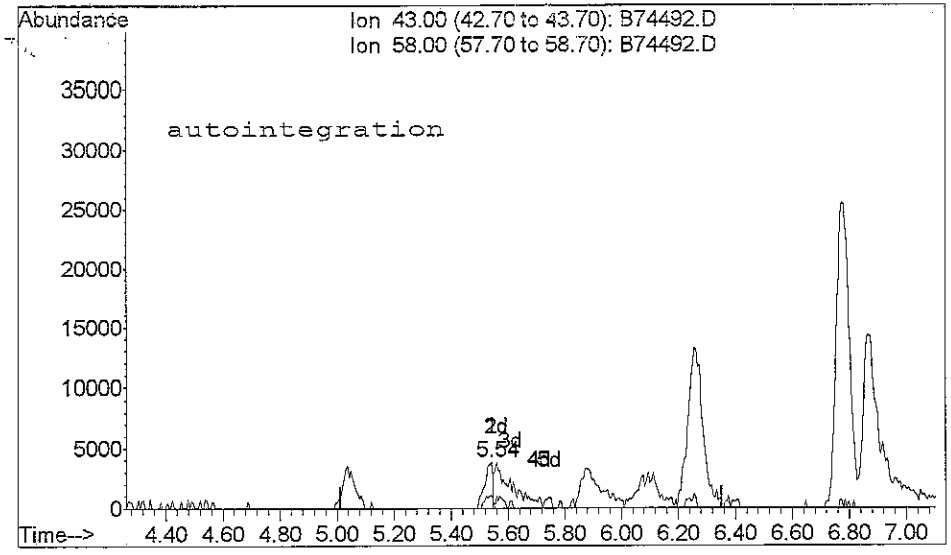
initials: ____ date: 10 / 14 / 4



TIC: B74492.D

(10) Acrolein (T)
5.35min 40.61ppb m
response 38351

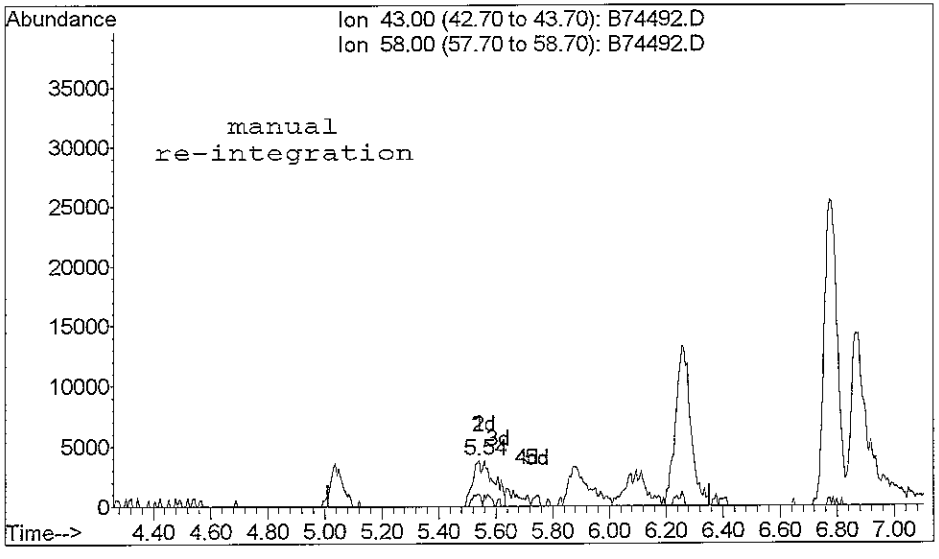
Ion	Exp%	Act%
56.00	100	100
55.00	70.70	64.66
0.00	0.00	0.00
0.00	0.00	0.00



TIC: B74492.D

(13) Acetone (T)
5.54min 7.29ppb
response 7768

Ion	Exp%	Act%
43.00	100	100
58.00	29.80	26.88
0.00	0.00	0.00
0.00	0.00	0.00



Reason for manual re-integration?

[] missed peak assignment

[] peak saturation (detector shutdown)

[] over-integrated peak's area

[X] under-integrated peak's area

[] other (_____)

initials: aw date: 10 / 14 / 11

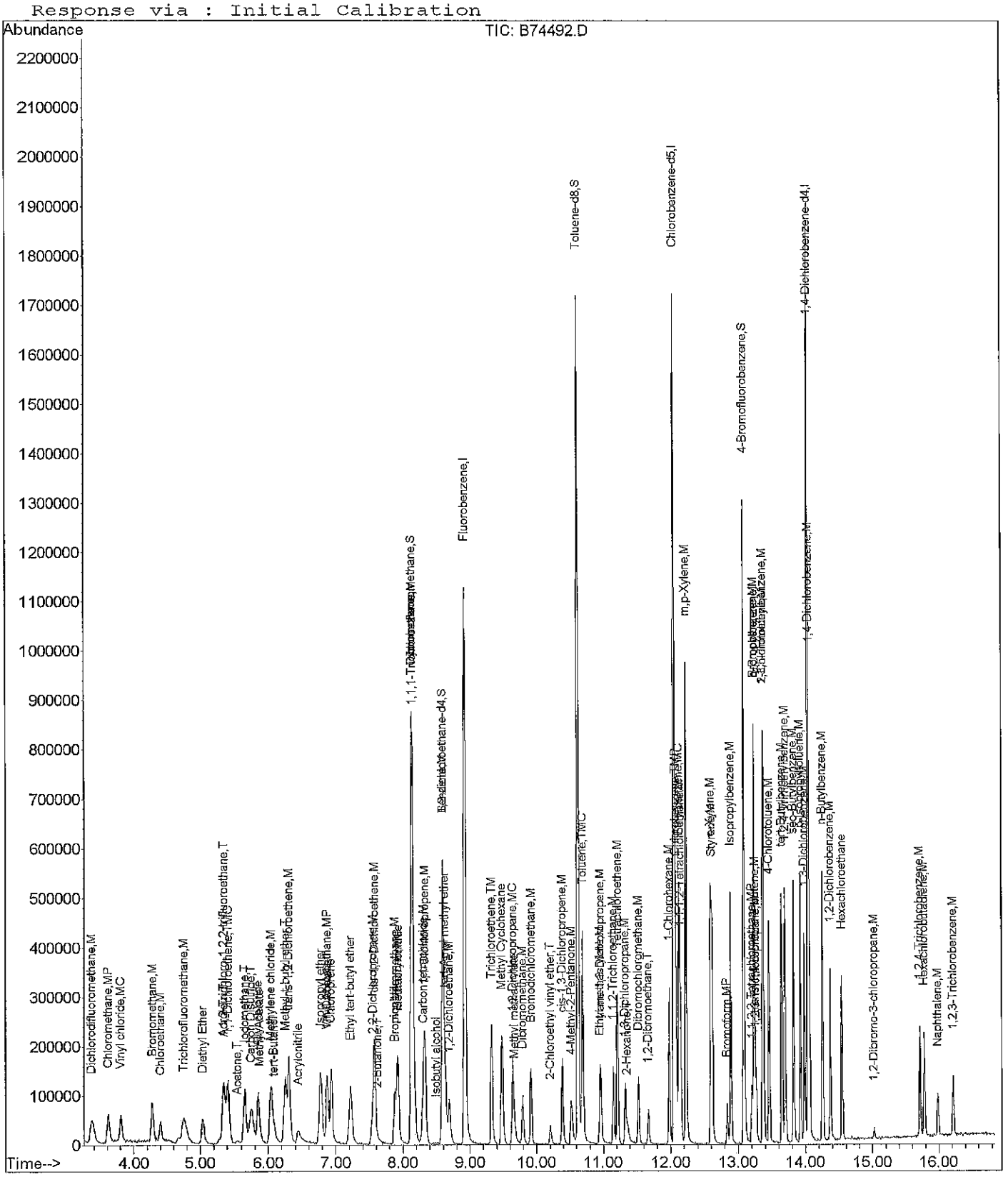
TIC: B74492.D

(13) Acetone (T)
5.54min 17.95ppb m
response 19127

Ion	Exp%	Act%
43.00	100	100
58.00	29.80	26.88
0.00	0.00	0.00
0.00	0.00	0.00

Data File : C:\HPCHEM\1\DATA\101111\B74492.D Vial: 11
Acq On : 11 Oct 2011 19:13 Operator: sdw sop525r15
Sample : VOC_4.0ppb_ICAL_CSTD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 11:49 2011 Quant Results File: 101111W.RES

Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 11:46:28 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101111\B74494.D Vial: 13
Acq On : 11 Oct 2011 19:57 Operator: sdw-sop525r15
Sample : VOC_10ppb_ICAL_CSTD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 11:45 2011 Quant Results File: 101111W.RES

Quant Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 11:42:50 2011
Response via : Initial Calibration
DataAcq Meth : 101111W

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	8.92	96	1223733	25.00	ppb		0.00
56) Chlorobenzene-d5	12.05	82	476002	25.00	ppb		0.00
78) 1,4-Dichlorobenzene-d4	14.04	152	433370	25.00	ppb		0.00
System Monitoring Compounds							
37) Dibromofluoromethane	8.13	113	393788	25.51	ppb		0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 102.04%				
41) 1,2-dichloroethane-d4	8.60	65	236478	25.31	ppb		0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 101.24%				
57) Toluene-d8	10.62	98	1103716	24.99	ppb		0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 99.96%				
77) 4-Bromofluorobenzene	13.09	176	333029	25.00	ppb		0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 100.00%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	3.37	85	323925	10.22	ppb		99
3) Chloromethane	3.62	50	231185	10.53	ppb		95
4) Vinyl chloride	3.81	62	204399	10.27	ppb		96
5) Bromomethane	4.28	96	176545	10.22	ppb		97
6) Chloroethane	4.40	64	102741	10.10	ppb		96
7) Trichlorofluoromethane	4.75	101	298955	9.53	ppb		93
8) Diethyl Ether	5.03	59	116803	10.02	ppb		96
9) Ethanol	5.03	46	2346	186.10	ppb	#	1
10) Acrolein	5.34	56	88682	91.09	ppb		98
11) 1,1,2-Trichloro-1,2,2-trif	5.34	101	230024	10.48	ppb		97
12) 1,1-Dichloroethene	5.41	96	205357	9.98	ppb		98
13) Acetone	5.53	43	41320	37.97	ppb		92
14) Iodomethane	5.65	142	470430	10.10	ppb		99
15) Carbon Disulfide	5.75	76	635128	10.02	ppb		100
16) Allyl chloride	5.85	76	133942	9.73	ppb		86
17) Acetonitrile	0.00	41	0	N.D.	d		
18) Methylene chloride	6.04	84	228550	10.48	ppb		96
19) Methyl Acetate	5.86	43	42067	10.40	ppb		97
20) tert-Butanol	6.08	59	116219	590.93	ppb		100
21) Methyl-t-butyl-ether	6.25	73	588981	20.35	ppb		99
22) trans-1,2-Dichloroethene	6.31	96	219569	9.98	ppb		97
23) Acrylonitrile	6.42	53	158674	84.32	ppb		98
24) Isopropyl ether	6.78	45	539646	10.06	ppb		98
25) Vinyl Acetate	6.86	43	120310	8.45	ppb		99
26) 1,1-Dichloroethane	6.87	63	360584	10.16	ppb		98
27) Chloroprene	6.93	53	265853	10.06	ppb		100
28) Ethyl tert-butyl ether	7.22	59	425324	10.09	ppb		98
29) 2,2-Dichloropropane	7.55	77	221069	10.84	ppb		91
30) Cyclohexane	8.15	84	505350	20.64	ppb		98
31) 2-Butanone	7.61	43	65169	34.82	ppb		88
32) cis-1,2-Dichloroethene	7.58	96	240866	10.17	ppb		96
33) Propionitrile	7.85	54	13777	42.03	ppb		95
34) Methacrylonitrile	7.92	67	16815	7.49	ppb		97
35) Bromochloromethane	7.88	128	100224	10.11	ppb		93
36) Chloroform	7.92	83	405571	10.31	ppb		96
38) 1,1,1-Trichloroethane	8.15	97	290725	10.39	ppb		97
39) Carbon tetrachloride	8.30	117	263133	9.98	ppb		98
40) 1,1-Dichloropropene	8.33	75	270831	10.17	ppb		99
42) Isobutyl alcohol	8.47	43	10129m	196.09	ppb		
43) tert-Amyl methyl ether	8.63	87	73228	9.79	ppb		94

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

SDW 10/14/11

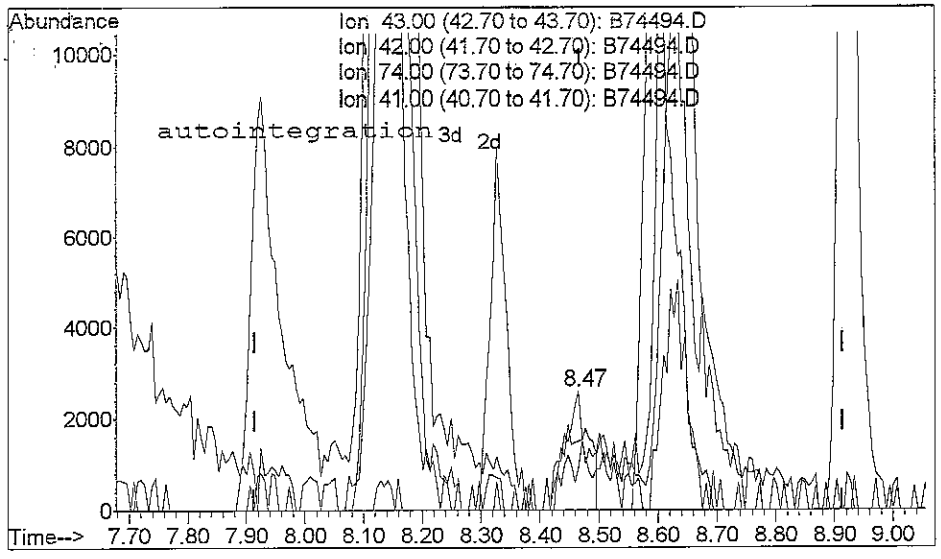
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101111\B74494.D Vial: 13
Acq On : 11 Oct 2011 19:57 Operator: sdw sep525r15
Sample : VOC_10ppb_ICAL_CSTD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 11:45 2011 Quant Results File: 101111W.RES

Quant Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 11:42:50 2011
Response via : Initial Calibration
DataAcq Meth : 101111W

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	Benzene	8.59	78	744589	10.06	ppb		99
45)	1,2-Dichloroethane	8.69	62	168073	10.43	ppb		96
46)	Methyl Cyclohexane	9.48	55	211507	10.36	ppb		98
47)	Trichloroethene	9.32	130	223257	10.16	ppb		96
48)	n-Butanol	0.00	56	0	N.D.	d		
49)	1,2-Dichloropropane	9.64	63	172524	10.08	ppb		96
50)	Methyl methacrylate	9.67	69	45371	9.20	ppb	#	59
51)	1,4-Dioxane	9.78	88	1646	136.70	ppb	#	43
52)	Dibromomethane	9.79	93	103413	10.07	ppb		96
53)	Bromodichloromethane	9.91	83	256522	10.04	ppb		100
54)	2-Chloroethyl vinyl ether	10.20	63	55187	9.57	ppb		97
55)	cis-1,3-Dichloropropene	10.38	75	271901	10.31	ppb		98
58)	Toluene	10.69	91	758100	10.34	ppb		98
59)	4-Methyl-2-Pentanone	10.51	43	223609	39.35	ppb		98
60)	Ethyl methacrylate	10.94	69	110524	10.01	ppb		98
61)	trans-1,3-Dichloropropene	10.96	75	201116	10.16	ppb		98
62)	1,1,2-Trichloroethane	11.15	83	105998	10.36	ppb		97
63)	Tetrachloroethene	11.21	164	168520	10.20	ppb		96
64)	2-Hexanone	11.35	58	61627	35.24	ppb		93
65)	1,3-Dichloropropane	11.33	76	185130	10.48	ppb		99
66)	Dibromochloromethane	11.52	129	166947	9.95	ppb		99
67)	1,2-Dibromoethane	11.67	107	121702	10.16	ppb		99
68)	1-Chlorohexane	11.98	91	275780	10.33	ppb		98
69)	Chlorobenzene	12.08	112	485144	10.38	ppb		95
70)	Ethylbenzene	12.12	91	826759	10.47	ppb		100
71)	1,1,1,2-Tetrachloroethane	12.15	131	173611	10.48	ppb		99
72)	m,p-Xylene	12.23	106	610368	21.91	ppb		99
73)	o-Xylene	12.60	106	299726	10.65	ppb		98
74)	Styrene	12.62	104	484405	10.43	ppb		99
75)	Bromoform	12.84	173	83717	9.69	ppb		99
76)	Isopropylbenzene	12.89	105	711233	10.27	ppb		99
79)	1,1,2,2-Tetrachloroethane	13.21	83	126367	10.34	ppb		99
80)	trans-1,4-Dichloro-2-buten	13.26	53	21371	9.76	ppb	#	71
81)	n-Propylbenzene	13.24	91	983345	10.40	ppb		99
82)	1,2,3-Trichloropropane	13.27	110	27746	10.08	ppb		79
83)	Bromobenzene	13.24	156	204326	10.55	ppb		99
84)	1,3,5-Trimethylbenzene	13.37	105	611726	10.51	ppb		99
85)	2-Chlorotoluene	13.37	126	193103	10.62	ppb		97
86)	4-Chlorotoluene	13.46	126	192809	10.53	ppb		100
87)	tert-Butylbenzene	13.65	134	118826	10.35	ppb		96
88)	1,2,4-Trimethylbenzene	13.70	105	591668	10.44	ppb		100
89)	sec-Butylbenzene	13.82	105	822804	10.38	ppb		97
90)	p-Isopropyltoluene	13.93	119	618376	10.33	ppb		97
91)	1,3-Dichlorobenzene	13.99	146	374675	10.32	ppb		99
92)	1,4-Dichlorobenzene	14.06	146	356593	10.22	ppb		98
93)	n-Butylbenzene	14.25	91	652800	10.21	ppb		99
94)	1,2-Dichlorobenzene	14.37	146	309839	10.31	ppb		98
95)	Hexachloroethane	14.55	201	106300	9.52	ppb		95
96)	1,2-Dibromo-3-chloropropan	15.03	157	15834	10.11	ppb		96
97)	1,2,4-Trichlorobenzene	15.72	180	175070	10.59	ppb		99
98)	Hexachlorobutadiene	15.78	225	97680	10.53	ppb		99
99)	Naphthalene	15.99	128	174275	10.37	ppb		99
100)	1,2,3-Trichlorobenzene	16.22	180	100248	10.46	ppb		98

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



TIC: B74494.D

(42) Isobutyl alcohol
8.47min 143.38ppb
response 7406

Ion	Exp%	Act%
43.00	100	100
42.00	51.00	35.39#
74.00	11.70	0.00#
41.00	62.00	30.87#

Reason for manual re-integration?

[] missed peak assignment

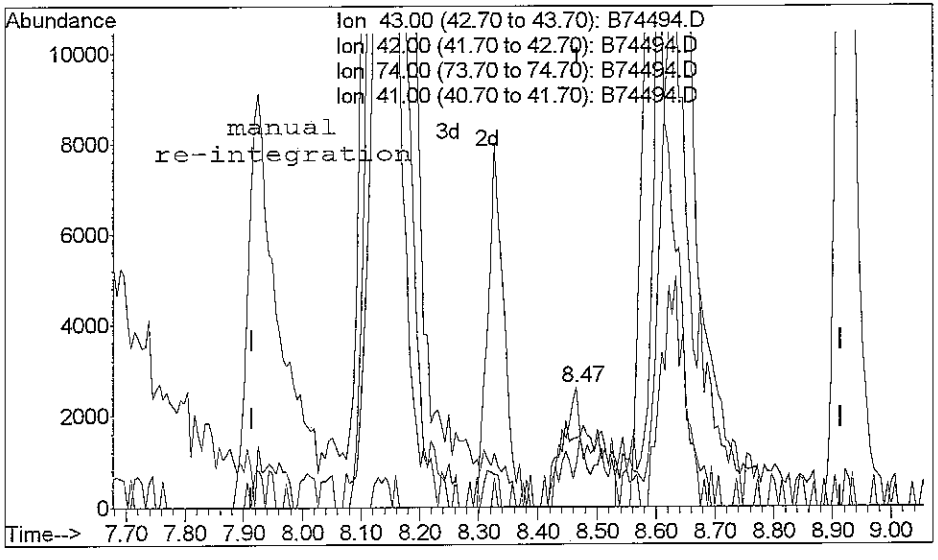
[] peak saturation (detector shutdown)

[] over-integrated peak's area

[X] under-integrated peak's area

[] other (_____)

initials: _____ date: 10 / 14 / 11



TIC: B74494.D

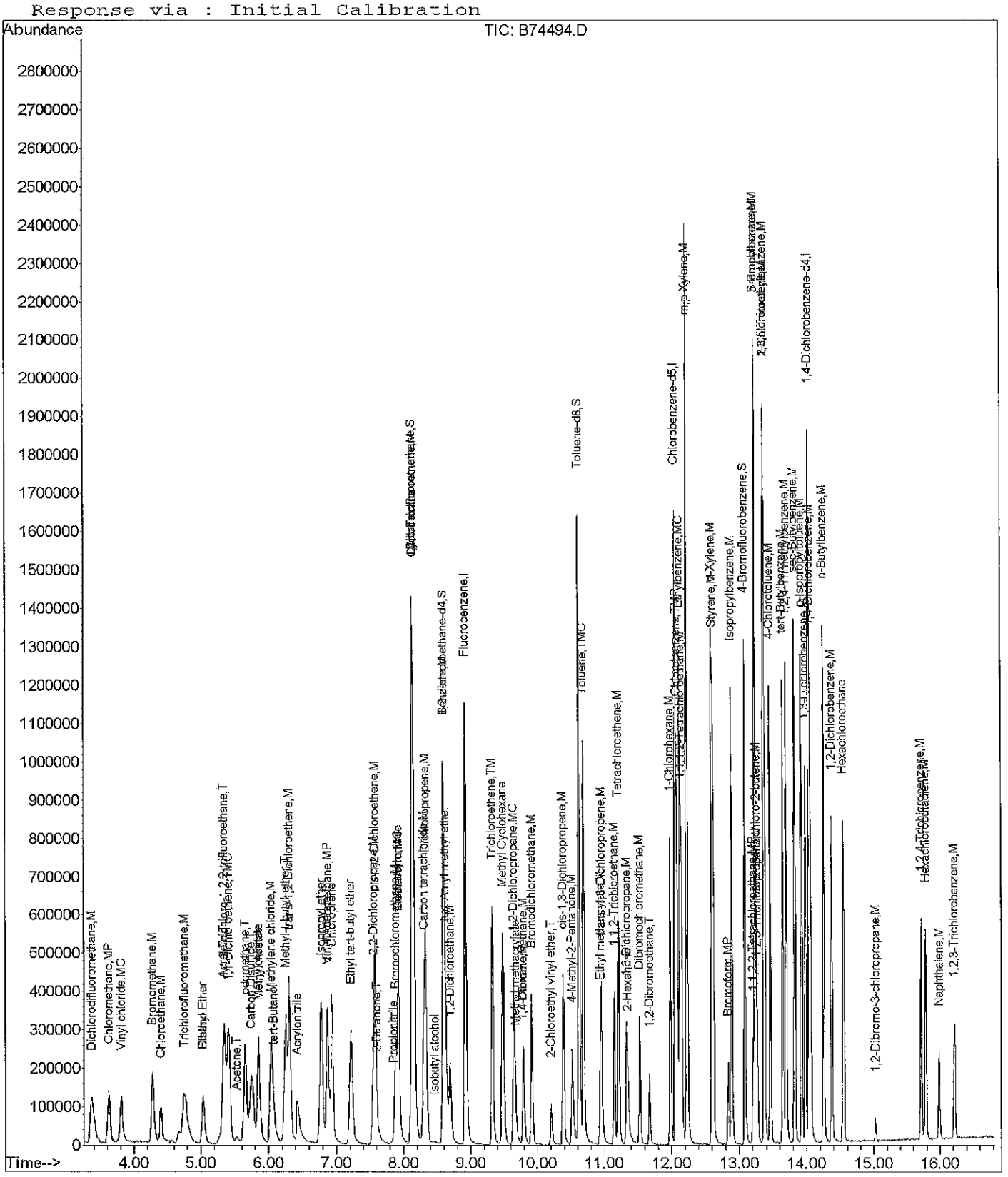
(42) Isobutyl alcohol
8.47min 196.09ppb m
response 10129

Ion	Exp%	Act%
43.00	100	100
42.00	51.00	35.39#
74.00	11.70	0.00#
41.00	62.00	57.22

Quantitation Report

Data File : C:\HPCHEM\1\DATA\101111\B74494.D Vial: 13
Acq On : 11 Oct 2011 19:57 Operator: sdw-sop525r15
Sample : VOC_10ppb_ICAL_CSTD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 11:45 2011 Quant Results File: 101111W.RES

Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 11:42:50 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101111\B74496.D Vial: 15
Acq On : 11 Oct 2011 20:40 Operator: sdw-sop525r15
Sample : VOC_20ppb_ICAL_CSTD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 11:41 2011 Quant Results File: 101111W.RES

Quant Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 11:38:41 2011
Response via : Initial Calibration
DataAcq Meth : 101111W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.92	96	1265763	25.00	ppb	0.00
56) Chlorobenzene-d5	12.05	82	504027	25.00	ppb	0.00
78) 1,4-Dichlorobenzene-d4	14.04	152	450040	25.00	ppb	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	8.14	113	408395	25.87	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 103.48%			
41) 1,2-dichloroethane-d4	8.59	65	249156	26.19	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 104.76%			
57) Toluene-d8	10.62	98	1166227	24.90	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 99.60%			
77) 4-Bromofluorobenzene	13.09	176	352873	25.03	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 100.12%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.36	85	628969	18.80	ppb	100
3) Chloromethane	3.63	50	445534	19.42	ppb	99
4) Vinyl chloride	3.82	62	390354	18.49	ppb	98
5) Bromomethane	4.28	96	347408	19.17	ppb	96
6) Chloroethane	4.40	64	204431	19.16	ppb	98
7) Trichlorofluoromethane	4.75	101	625305	18.93	ppb	96
8) Diethyl Ether	5.04	59	233850	19.11	ppb	96
9) Ethanol	5.04	46	4437	316.66	ppb	87
10) Acrolein	5.34	56	192779	187.42	ppb	99
11) 1,1,2-Trichloro-1,2,2-trif	5.35	101	444917	19.41	ppb	98
12) 1,1-Dichloroethene	5.41	96	410705	18.97	ppb	91
13) Acetone	5.52	43	88323	77.73	ppb	98
14) Iodomethane	5.65	142	938313	19.22	ppb	98
15) Carbon Disulfide	5.75	76	1262663	18.90	ppb	99
16) Allyl chloride	5.85	76	266116	18.11	ppb	99
17) Acetonitrile	0.00	41	0	N.D.	d	
18) Methylene chloride	6.05	84	442597	19.44	ppb	98
19) Methyl Acetate	5.86	43	74207	16.79	ppb	93
20) tert-Butanol	6.08	59	198497	964.08	ppb	100
21) Methyl-t-butyl-ether	6.25	73	1191854	39.72	ppb	99
22) trans-1,2-Dichloroethene	6.31	96	441100	19.09	ppb	97
23) Acrylonitrile	6.42	53	332707	159.36	ppb	95
24) Isopropyl ether	6.78	45	1091953	19.53	ppb	100
25) Vinyl Acetate	6.85	43	268243	17.43	ppb	97
26) 1,1-Dichloroethane	6.87	63	725376	19.65	ppb	99
27) Chloroprene	6.93	53	534009	19.31	ppb	97
28) Ethyl tert-butyl ether	7.22	59	856299	19.45	ppb	99
29) 2,2-Dichloropropane	7.55	77	430470	20.62	ppb	99
30) Cyclohexane	8.14	84	984540	38.32	ppb	98
31) 2-Butanone	7.61	43	145308	72.83	ppb	90
32) cis-1,2-Dichloroethene	7.57	96	476526	19.20	ppb	99
33) Propionitrile	7.81	54	44805	113.00	ppb	98
34) Methacrylonitrile	7.91	67	41209	16.79	ppb	95
35) Bromochloromethane	7.88	128	202335	19.60	ppb	97
36) Chloroform	7.93	83	805667	19.69	ppb	97
38) 1,1,1-Trichloroethane	8.14	97	577348	19.92	ppb	98
39) Carbon tetrachloride	8.30	117	545296	19.98	ppb	96
40) 1,1-Dichloropropene	8.33	75	543926	19.62	ppb	99
42) Isobutyl alcohol	8.44	43	18937m	335.34	ppb	
43) tert-Amyl methyl ether	8.63	87	153334	19.73	ppb	98

(#) = qualifier out of range (m) = manual integration
B74496.D 101111W.M Wed Oct 12 11:42:21 2011

sdw 10/14/11

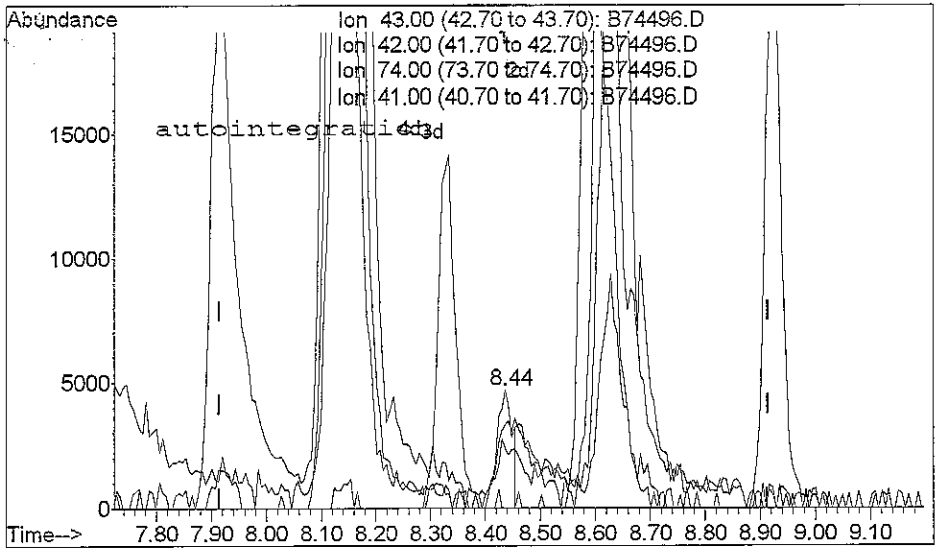
Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101111\B74496.D Vial: 15
Acq On : 11 Oct 2011 20:40 Operater: sdw-sop525r15
Sample : VOC_20ppb_ICAL_CSTD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 11:41 2011 Quant Results File: 101111W.RES

Quant Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 11:38:41 2011
Response via : Initial Calibration
DataAcq Meth : 101111W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
44)	Benzene	8.59	78	1507597	19.55 ppb		99
45)	1,2-Dichloroethane	8.69	62	337966	20.42 ppb		97
46)	Methyl Cyclohexane	9.48	55	408970	19.08 ppb		98
47)	Trichloroethene	9.33	130	446565	19.47 ppb		97
48)	n-Butanol	0.00	56	0	N.D. d		
49)	1,2-Dichloropropane	9.64	63	347020	19.42 ppb		97
50)	Methyl methacrylate	9.67	69	98115	18.89 ppb	#	63
51)	1,4-Dioxane	9.78	88	2607	169.03 ppb	#	43
52)	Dibromomethane	9.79	93	211859	19.92 ppb		98
53)	Bromodichloromethane	9.91	83	528261	19.99 ppb		99
54)	2-Chloroethyl vinyl ether	10.20	63	112591	18.37 ppb		95
55)	cis-1,3-Dichloropropene	10.38	75	541827	19.78 ppb		96
58)	Toluene	10.69	91	1501421	19.03 ppb		99
59)	4-Methyl-2-Pentanone	10.51	43	462099	75.28 ppb		99
60)	Ethyl methacrylate	10.94	69	227297	19.18 ppb		98
61)	trans-1,3-Dichloropropene	10.96	75	411020	19.43 ppb		99
62)	1,1,2-Trichloroethane	11.15	83	214099	19.65 ppb		99
63)	Tetrachloroethene	11.21	164	343780	19.49 ppb		99
64)	2-Hexanone	11.34	58	142931	75.87 ppb		94
65)	1,3-Dichloropropane	11.33	76	371433	19.78 ppb		99
66)	Dibromochloromethane	11.52	129	346670	19.27 ppb		99
67)	1,2-Dibromoethane	11.67	107	248250	19.37 ppb		99
68)	1-Chlorohexane	11.98	91	549894	19.18 ppb		100
69)	Chlorobenzene	12.08	112	970164	19.41 ppb		98
70)	Ethylbenzene	12.13	91	1642517	19.46 ppb		100
71)	1,1,1,2-Tetrachloroethane	12.15	131	343979	19.42 ppb		99
72)	m,p-Xylene	12.23	106	1176598	39.84 ppb		98
73)	o-Xylene	12.59	106	596745	20.03 ppb		99
74)	Styrene	12.62	104	974863	19.73 ppb		98
75)	Bromoform	12.84	173	176916	19.01 ppb		96
76)	Isopropylbenzene	12.89	105	1460640	19.86 ppb		99
79)	1,1,2,2-Tetrachloroethane	13.20	83	255741	20.24 ppb		97
80)	trans-1,4-Dichloro-2-buten	13.25	53	45189	19.82 ppb		82
81)	n-Propylbenzene	13.24	91	1967650	20.06 ppb		98
82)	1,2,3-Trichloropropane	13.27	110	56134	19.45 ppb		65
83)	Bromobenzene	13.23	156	411130	20.66 ppb		96
84)	1,3,5-Trimethylbenzene	13.37	105	1214960	20.16 ppb		99
85)	2-Chlorotoluene	13.36	126	381399	20.29 ppb		96
86)	4-Chlorotoluene	13.46	126	379784	19.95 ppb		91
87)	tert-Butylbenzene	13.65	134	235754	19.65 ppb		94
88)	1,2,4-Trimethylbenzene	13.69	105	1154755	19.42 ppb		99
89)	sec-Butylbenzene	13.83	105	1598538	19.13 ppb		98
90)	p-Isopropyltoluene	13.93	119	1222818	19.50 ppb		99
91)	1,3-Dichlorobenzene	13.98	146	746365	19.68 ppb		99
92)	1,4-Dichlorobenzene	14.06	146	721761	19.87 ppb		98
93)	n-Butylbenzene	14.25	91	1300789	19.40 ppb		99
94)	1,2-Dichlorobenzene	14.37	146	616948	19.65 ppb		98
95)	Hexachloroethane	14.54	201	232483	20.06 ppb		96
96)	1,2-Dibromo-3-chloropropan	15.02	157	32692	20.15 ppb		92
97)	1,2,4-Trichlorobenzene	15.72	180	344532	20.10 ppb		97
98)	Hexachlorobutadiene	15.78	225	190098	19.60 ppb		98
99)	Naphthalene	15.99	128	356548	20.65 ppb		99
100)	1,2,3-Trichlorobenzene	16.22	180	204778	20.86 ppb		96

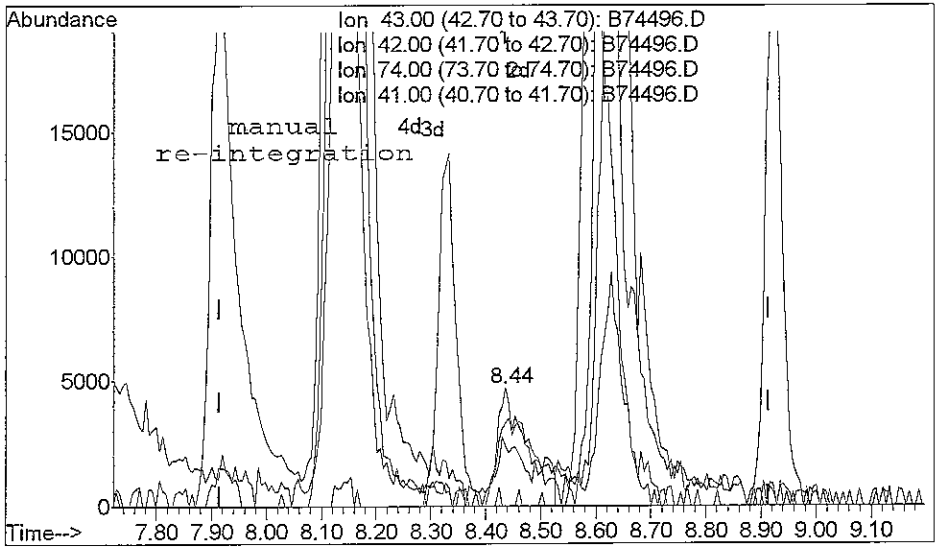
(#) = qualifier out of range (m) = manual integration



TIC: B74496.D

(42) Isobutyl alcohol
8.44min 168.90ppb
response 9538

Ion	Exp%	Act%
43.00	100	100
42.00	51.00	51.06
74.00	11.70	0.00#
41.00	62.00	55.26



Reason for manual re-integration?

[] missed peak assignment

[] peak saturation (detector shutdown)

[] over-integrated peak's area

[X] under-integrated peak's area

[] other (_____)

initials: ____ date: 10 / 14 / 11

TIC: B74496.D

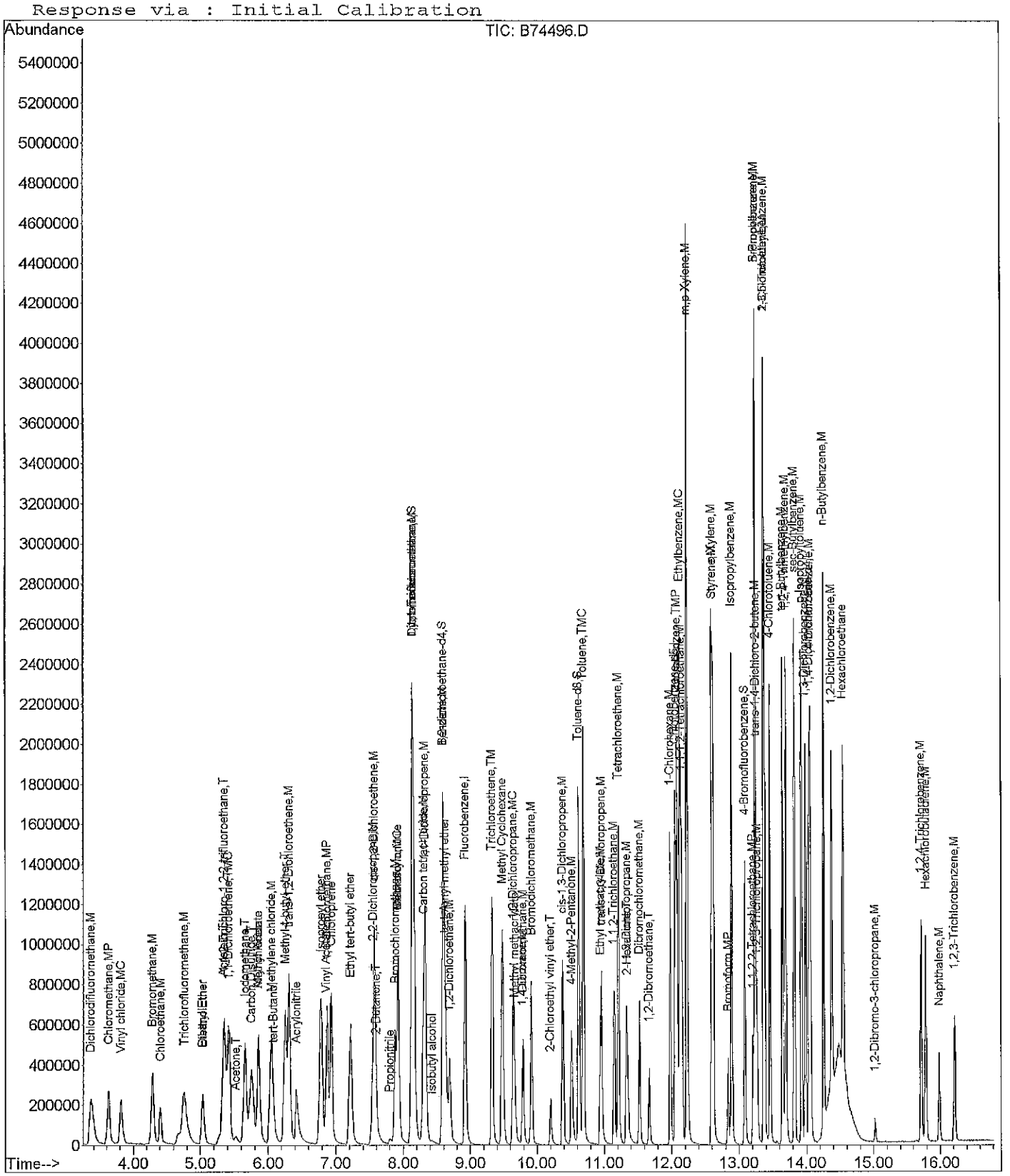
(42) Isobutyl alcohol
8.44min 335.34ppb m
response 18937

Ion	Exp%	Act%
43.00	100	100
42.00	51.00	51.06
74.00	11.70	0.00#
41.00	62.00	70.40

Quantitation Report

Data File : C:\HPCHEM\1\DATA\101111\B74496.D Vial: 15
Acq On : 11 Oct 2011 20:40 Operator: sdw sop525r15
Sample : VOC_20ppb_ICAL_CSTD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 11:41 2011 Quant Results File: 101111W.RES

Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 11:38:41 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101111\B74498.D Vial: 17
Acq On : 11 Oct 2011 21:23 Operator: sdw-sop525r15
Sample : VOC_40ppb_ICAL_CSTD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 11:43 2011 Quant Results File: 101111W.RES

Quant Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 11:35:38 2011
Response via : Initial Calibration
DataAcq Meth : 101111W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.93	96	1272743	25.00	ppb	0.00
56) Chlorobenzene-d5	12.06	82	501943	25.00	ppb	0.00
78) 1,4-Dichlorobenzene-d4	14.04	152	443712	25.00	ppb	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	8.14	113	404155	25.94	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 103.76%			
41) 1,2-dichloroethane-d4	8.60	65	241198	25.44	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 101.76%			
57) Toluene-d8	10.62	98	1159447	24.72	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 98.88%			
77) 4-Bromofluorobenzene	13.09	176	352311	25.18	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 100.72%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.37	85	1365120	41.19	ppb	98
3) Chloromethane	3.64	50	941594	41.69	ppb	99
4) Vinyl chloride	3.82	62	866159	41.62	ppb	100
5) Bromomethane	4.30	96	738544	41.06	ppb	98
6) Chloroethane	4.40	64	429842	40.11	ppb	99
7) Trichlorofluoromethane	4.75	101	1343207	40.89	ppb	98
8) Diethyl Ether	5.04	59	485784	38.96	ppb	96
9) Ethanol	5.02	46	9362	568.22	ppb	82
10) Acrolein	5.34	56	407440	388.07	ppb	95
11) 1,1,2-Trichloro-1,2,2-trif	5.35	101	911367	39.10	ppb	99
12) 1,1-Dichloroethene	5.42	96	860461	39.05	ppb	98
13) Acetone	5.52	43	168691	137.08	ppb	96
14) Iodomethane	5.66	142	1940142	39.06	ppb	100
15) Carbon Disulfide	5.76	76	2641077	38.65	ppb	99
16) Allyl chloride	5.85	76	584403	39.10	ppb	99
17) Acetonitrile	0.00	41	0	N.D.	d	
18) Methylene chloride	6.05	84	907255	39.29	ppb	98
19) Methyl Acetate	5.86	43	170947	37.04	ppb	97
20) tert-Butanol	6.08	59	378440	1683.19	ppb	100
21) Methyl-t-butyl-ether	6.26	73	2382855	77.97	ppb	100
22) trans-1,2-Dichloroethene	6.31	96	910798	38.43	ppb	95
23) Acrylonitrile	6.41	53	816877	378.82	ppb	99
24) Isopropyl ether	6.78	45	2213550	38.76	ppb	99
25) Vinyl Acetate	6.85	43	599880	37.63	ppb	99
26) 1,1-Dichloroethane	6.87	63	1475769	39.54	ppb	99
27) Chloroprene	6.93	53	1104051	39.39	ppb	98
28) Ethyl tert-butyl ether	7.22	59	1751428	39.14	ppb	99
29) 2,2-Dichloropropane	7.56	77	842489	40.28	ppb	97
30) Cyclohexane	8.14	84	2050936	78.80	ppb	99
31) 2-Butanone	7.60	43	295880	136.77	ppb	98
32) cis-1,2-Dichloroethene	7.58	96	995984	39.80	ppb	99
33) Propionitrile	7.79	54	136076	297.62	ppb	99
34) Methacrylonitrile	7.91	67	95498	37.46	ppb	99
35) Bromochloromethane	7.88	128	410728	39.14	ppb	98
36) Chloroform	7.93	83	1638515	39.66	ppb	98
38) 1,1,1-Trichloroethane	8.15	97	1152158	39.09	ppb	99
39) Carbon tetrachloride	8.31	117	1085220	39.09	ppb	97
40) 1,1-Dichloropropene	8.33	75	1109294	39.59	ppb	98
42) Isobutyl alcohol	8.43	43	36778	544.13	ppb	91
43) tert-Amyl methyl ether	8.63	87	313148	40.13	ppb	96

(#) = qualifier out of range (m) = manual integration
B74498.D 101111W.M Wed Oct 12 11:43:24 2011 Page 1

gmr 10/14/11

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101111\B74498.D Vial: 17
Acq On : 11 Oct 2011 21:23 Operator: sdw-sop525r15
Sample : VOC_40ppb_ICAL_CSTD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 11:43 2011 Quant Results File: 101111W.RES

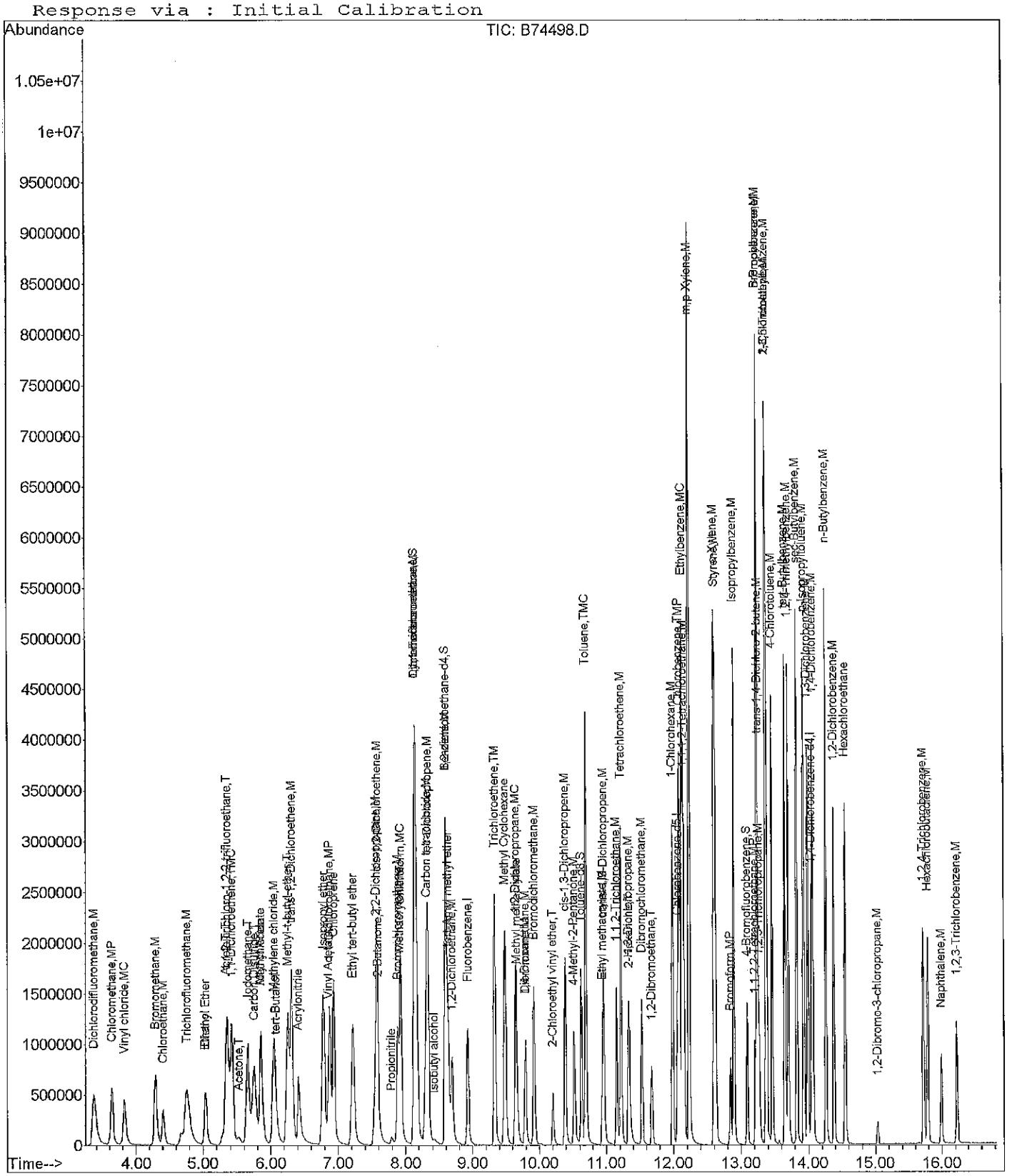
Quant Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 11:35:38 2011
Response via : Initial Calibration
DataAcq Meth : 101111W

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
44)	Benzene	8.60	78	3081357	39.48	ppb		100
45)	1,2-Dichloroethane	8.69	62	664907	39.90	ppb		98
46)	Methyl Cyclohexane	9.48	55	850322	38.90	ppb		99
47)	Trichloroethene	9.33	130	919985	39.78	ppb		98
48)	n-Butanol	0.00	56	0	N.D.	d		
49)	1,2-Dichloropropane	9.65	63	712088	39.26	ppb		96
50)	Methyl methacrylate	9.67	69	206601	39.11	ppb	#	77
51)	1,4-Dioxane	9.79	88	12273	782.92	ppb	#	85
52)	Dibromomethane	9.79	93	422087	38.94	ppb		96
53)	Bromodichloromethane	9.92	83	1049241	38.98	ppb		100
54)	2-Chloroethyl vinyl ether	10.20	63	241602	38.44	ppb		99
55)	cis-1,3-Dichloropropene	10.39	75	1092328	39.34	ppb		98
58)	Toluene	10.70	91	3104580	39.03	ppb		100
59)	4-Methyl-2-Pentanone	10.52	43	933262	145.97	ppb		98
60)	Ethyl methacrylate	10.94	69	454897	37.19	ppb		97
61)	trans-1,3-Dichloropropene	10.97	75	825753	38.43	ppb		97
62)	1,1,2-Trichloroethane	11.15	83	428421	38.97	ppb		100
63)	Tetrachloroethene	11.22	164	684372	37.98	ppb		98
64)	2-Hexanone	11.35	58	278948	138.86	ppb		97
65)	1,3-Dichloropropane	11.33	76	723865	37.48	ppb		100
66)	Dibromochloromethane	11.53	129	697986	37.99	ppb		100
67)	1,2-Dibromoethane	11.67	107	497910	38.09	ppb		99
68)	1-Chlorohexane	11.99	91	1118811	38.39	ppb		98
69)	Chlorobenzene	12.09	112	1951227	38.42	ppb		98
70)	Ethylbenzene	12.13	91	3311972	38.83	ppb		100
71)	1,1,1,2-Tetrachloroethane	12.16	131	696724	39.00	ppb		99
72)	m,p-Xylene	12.23	106	2352337	79.97	ppb		97
73)	o-Xylene	12.60	106	1182261	39.68	ppb		99
74)	Styrene	12.62	104	1952893	39.38	ppb		97
75)	Bromoform	12.85	173	357744	37.30	ppb		96
76)	Isopropylbenzene	12.89	105	2889368	38.93	ppb		99
79)	1,1,2,2-Tetrachloroethane	13.21	83	484980	37.90	ppb		100
80)	trans-1,4-Dichloro-2-buten	13.26	53	86541	37.10	ppb		77
81)	n-Propylbenzene	13.24	91	3851271	39.66	ppb		100
82)	1,2,3-Trichloropropane	13.27	110	112228	38.90	ppb		77
83)	Bromobenzene	13.24	156	782470	39.75	ppb		95
84)	1,3,5-Trimethylbenzene	13.38	105	2365902	39.62	ppb		99
85)	2-Chlorotoluene	13.37	126	734917	39.32	ppb		98
86)	4-Chlorotoluene	13.47	126	727394	37.59	ppb		97
87)	tert-Butylbenzene	13.65	134	466270	38.86	ppb		94
88)	1,2,4-Trimethylbenzene	13.70	105	2291920	38.24	ppb		98
89)	sec-Butylbenzene	13.83	105	3272596	39.47	ppb		99
90)	p-Isopropyltoluene	13.93	119	2430381	38.65	ppb		99
91)	1,3-Dichlorobenzene	13.99	146	1468462	38.58	ppb		99
92)	1,4-Dichlorobenzene	14.07	146	1414945	39.05	ppb		98
93)	n-Butylbenzene	14.26	91	2591418	38.42	ppb		99
94)	1,2-Dichlorobenzene	14.38	146	1219053	38.76	ppb		99
95)	Hexachloroethane	14.55	201	445974	38.11	ppb		98
96)	1,2-Dibromo-3-chloropropan	15.03	157	62918	38.69	ppb		94
97)	1,2,4-Trichlorobenzene	15.72	180	681505	40.66	ppb		100
98)	Hexachlorobutadiene	15.79	225	379356	39.37	ppb		97
99)	Naphthalene	15.99	128	696702	41.89	ppb		99
100)	1,2,3-Trichlorobenzene	16.22	180	398965	42.52	ppb		95

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

Data File : C:\HPCHEM\1\DATA\101111\B74498.D Vial: 17
Acq On : 11 Oct 2011 21:23 Operator: sdw sop525r15
Sample : VOC_40ppb_ICAL_CSTD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 11:43 2011 Quant Results File: 101111W.RES

Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 11:42:50 2011
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101111\B74500.D Vial: 19
Acq On : 11 Oct 2011 22:06 Operator: sdw sop525r15
Sample : VOC_60ppb_ICAL_CSTD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 11:38 2011 Quant Results File: 101111W.RES

Quant Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 11:35:04 2011
Response via : Initial Calibration
DataAcq Meth : 101111W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.92	96	1344378	25.00	ppb	0.00
56) Chlorobenzene-d5	12.05	82	518763	25.00	ppb	0.00
78) 1,4-Dichlorobenzene-d4	14.04	152	455790	25.00	ppb	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	8.13	113	411365	25.00	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 100.00%			
41) 1,2-dichloroethane-d4	8.60	65	250370	25.00	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 100.00%			
57) Toluene-d8	10.62	98	1212010	25.00	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 100.00%			
77) 4-Bromofluorobenzene	13.09	176	361476	25.00	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 100.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.37	85	2100678	60.00	ppb	100
3) Chloromethane	3.64	50	1431412	60.00	ppb	100
4) Vinyl chloride	3.83	62	1318983	60.00	ppb	100
5) Bromomethane	4.30	96	1140023	60.00	ppb	100
6) Chloroethane	4.41	64	679179	60.00	ppb	100
7) Trichlorofluoromethane	4.75	101	2081747	60.00	ppb	100
8) Diethyl Ether	5.04	59	790276	60.00	ppb	100
9) Ethanol	5.04	46	20884	1200.00	ppb	100
10) Acrolein	5.33	56	665397	600.00	ppb	100
11) 1,1,2-Trichloro-1,2,2-trif	5.35	101	1477147	60.00	ppb	100
12) 1,1-Dichloroethene	5.42	96	1396596	60.00	ppb	100
13) Acetone	5.52	43	311975	240.00	ppb	100
14) Iodomethane	5.66	142	3148276	60.00	ppb	100
15) Carbon Disulfide	5.76	76	4331103	60.00	ppb	100
16) Allyl chloride	5.85	76	947298	60.00	ppb	100
17) Acetonitrile	6.00	41	105665	600.00	ppb	100
18) Methylene chloride	6.05	84	1463600	60.00	ppb	100
19) Methyl Acetate	5.85	43	292520	60.00	ppb	100
20) tert-Butanol	6.08	59	712469	3000.00	ppb	100
21) Methyl-t-butyl-ether	6.26	73	3873867	120.00	ppb	100
22) trans-1,2-Dichloroethene	6.31	96	1501960	60.00	ppb	100
23) Acrylonitrile	6.41	53	1366637	600.00	ppb	100
24) Isopropyl ether	6.77	45	3619383	60.00	ppb	100
25) Vinyl Acetate	6.84	43	1010448	60.00	ppb	100
26) 1,1-Dichloroethane	6.87	63	2365595	60.00	ppb	100
27) Chloroprene	6.93	53	1776191	60.00	ppb	100
28) Ethyl tert-butyl ether	7.22	59	2835630	60.00	ppb	100
29) 2,2-Dichloropropane	7.55	77	1325590	60.00	ppb	100
30) Cyclohexane	8.14	84	3298884	120.00	ppb	100
31) 2-Butanone	7.59	43	548419	240.00	ppb	100
32) cis-1,2-Dichloroethene	7.57	96	1585950	60.00	ppb	100
33) Propionitrile	7.78	54	289766	600.00	ppb	100
34) Methacrylonitrile	7.91	67	161583	60.00	ppb	100
35) Bromochloromethane	7.88	128	665037	60.00	ppb	100
36) Chloroform	7.93	83	2618531	60.00	ppb	100
38) 1,1,1-Trichloroethane	8.14	97	1868148	60.00	ppb	100
39) Carbon tetrachloride	8.30	117	1759310	60.00	ppb	100
40) 1,1-Dichloropropene	8.33	75	1775751	60.00	ppb	100
42) Isobutyl alcohol	8.41	43	85674	1200.00	ppb	100
43) tert-Amyl methyl ether	8.63	87	494509	60.00	ppb	100

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

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\101111\B74500.D Vial: 19
Acq On : 11 Oct 2011 22:06 Operator: sdw-sop525r15
Sample : VOC_60ppb_ICAL_CSTD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 11:38 2011 Quant Results File: 101111W.RES

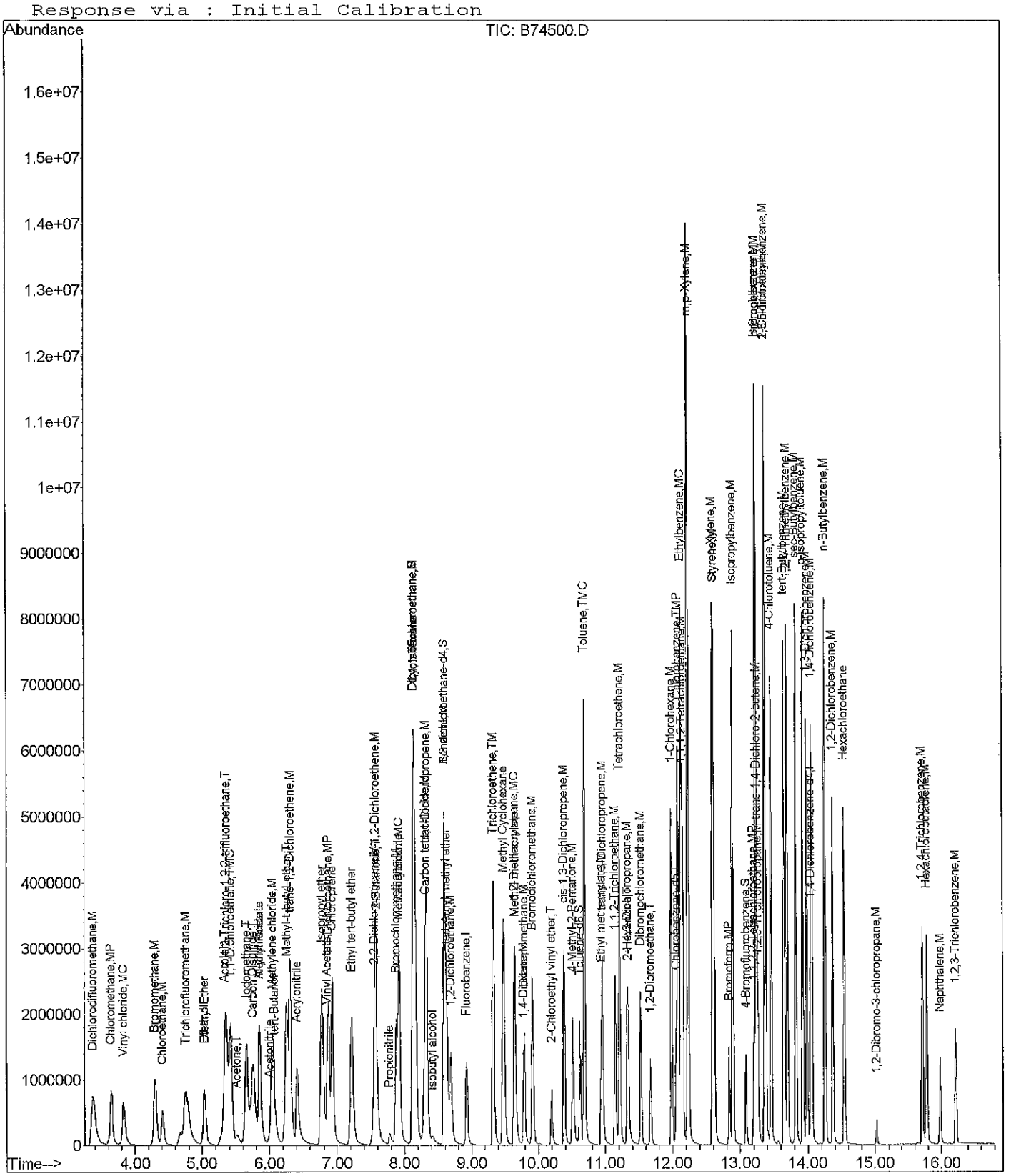
Quant Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 11:35:04 2011
Response via : Initial Calibration
DataAcq Meth : 101111W

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
44)	Benzene	8.59	78	4946090	60.00	ppb	100
45)	1,2-Dichloroethane	8.69	62	1056044	60.00	ppb	100
46)	Methyl Cyclohexane	9.48	55	1385253	60.00	ppb	100
47)	Trichloroethene	9.33	130	1465828	60.00	ppb	100
48)	n-Butanol	0.00	56	0	N.D.	d	
49)	1,2-Dichloropropane	9.64	63	1149623	60.00	ppb	100
50)	Methyl methacrylate	9.66	69	334798	60.00	ppb	100
51)	1,4-Dioxane	9.77	88	19870	1200.00	ppb	100
52)	Dibromomethane	9.78	93	687000	60.00	ppb	100
53)	Bromodichloromethane	9.91	83	1706050	60.00	ppb	100
54)	2-Chloroethyl vinyl ether	10.20	63	398373	60.00	ppb	100
55)	cis-1,3-Dichloropropene	10.38	75	1759872	60.00	ppb	100
58)	Toluene	10.69	91	4932148	60.00	ppb	100
59)	4-Methyl-2-Pentanone	10.51	43	1585835	240.00	ppb	100
60)	Ethyl methacrylate	10.94	69	758466	60.00	ppb	100
61)	trans-1,3-Dichloropropene	10.95	75	1332358	60.00	ppb	100
62)	1,1,2-Trichloroethane	11.15	83	681670	60.00	ppb	100
63)	Tetrachloroethene	11.21	164	1117448	60.00	ppb	100
64)	2-Hexanone	11.35	58	498295	240.00	ppb	100
65)	1,3-Dichloropropane	11.33	76	1197493	60.00	ppb	100
66)	Dibromochloromethane	11.53	129	1139386	60.00	ppb	100
67)	1,2-Dibromoethane	11.67	107	810636	60.00	ppb	100
68)	1-Chlorohexane	11.98	91	1807245	60.00	ppb	100
69)	Chlorobenzene	12.08	112	3149332	60.00	ppb	100
70)	Ethylbenzene	12.13	91	5289743	60.00	ppb	100
71)	1,1,1,2-Tetrachloroethane	12.15	131	1107888	60.00	ppb	100
72)	m,p-Xylene	12.23	106	3647900	120.00	ppb	100
73)	o-Xylene	12.59	106	1847393	60.00	ppb	100
74)	Styrene	12.61	104	3074877	60.00	ppb	100
75)	Bromoform	12.84	173	594792	60.00	ppb	100
76)	Isopropylbenzene	12.89	105	4602256	60.00	ppb	100
79)	1,1,2,2-Tetrachloroethane	13.20	83	788646	60.00	ppb	100
80)	trans-1,4-Dichloro-2-buten	13.26	53	143759	60.00	ppb	100
81)	n-Propylbenzene	13.24	91	5985677	60.00	ppb	100
82)	1,2,3-Trichloropropane	13.27	110	177810	60.00	ppb	100
83)	Bromobenzene	13.23	156	1213246	60.00	ppb	100
84)	1,3,5-Trimethylbenzene	13.38	105	3680618	60.00	ppb	100
85)	2-Chlorotoluene	13.36	126	1151959	60.00	ppb	100
86)	4-Chlorotoluene	13.45	126	1192518	60.00	ppb	100
87)	tert-Butylbenzene	13.65	134	739496	60.00	ppb	100
88)	1,2,4-Trimethylbenzene	13.69	105	3693783	60.00	ppb	100
89)	sec-Butylbenzene	13.82	105	5110829	60.00	ppb	100
90)	p-Isopropyltoluene	13.92	119	3875185	60.00	ppb	100
91)	1,3-Dichlorobenzene	13.98	146	2345759	60.00	ppb	100
92)	1,4-Dichlorobenzene	14.05	146	2233320	60.00	ppb	100
93)	n-Butylbenzene	14.25	91	4157097	60.00	ppb	100
94)	1,2-Dichlorobenzene	14.37	146	1938223	60.00	ppb	100
95)	Hexachloroethane	14.54	201	721285	60.00	ppb	100
96)	1,2-Dibromo-3-chloropropan	15.02	157	100236	60.00	ppb	100
97)	1,2,4-Trichlorobenzene	15.71	180	1033010	60.00	ppb	100
98)	Hexachlorobutadiene	15.78	225	593924	60.00	ppb	100
99)	Naphthalene	15.98	128	1024982	60.00	ppb	100
100)	1,2,3-Trichlorobenzene	16.22	180	578238	60.00	ppb	100

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

Data File : C:\HPCHEM\1\DATA\101111\B74500.D Vial: 19
Acq On : 11 Oct 2011 22:06 Operator: sdw sop525r15
Sample : VOC_60ppb_ICAL_CSTD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 11:38 2011 Quant Results File: 101111W.RES

Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 11:38:10 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\101111\B74503.D Vial: 22
Acq On : 11 Oct 2011 23:11 Operator: sdw-sop525r15
Sample : VL111011-2ICV Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 12:14 2011 Quant Results File: 101111W.RES

Quant Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 12:14:11 2011
Response via : Initial Calibration
DataAcq Meth : 101111W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	8.92	96	1262192	25.00 ppb	0.00
56) Chlorobenzene-d5	12.05	82	498583	25.00 ppb	0.00
78) 1,4-Dichlorobenzene-d4	14.04	152	434957	25.00 ppb	0.00
System Monitoring Compounds					
37) Dibromofluoromethane	8.13	113	400889	24.51 ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery =	98.04%	
41) 1,2-dichloroethane-d4	8.59	65	241782	24.17 ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery =	96.68%	
57) Toluene-d8	10.62	98	1143514	24.93 ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery =	99.72%	
77) 4-Bromofluorobenzene	13.08	176	341541	24.51 ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery =	98.04%	
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.37	85	319598	9.68 ppb	98
3) Chloromethane	3.62	50	232850	9.63 ppb	97
4) Vinyl chloride	3.81	62	203695	9.60 ppb	99
5) Bromomethane	4.28	96	177754	9.66 ppb	100
6) Chloroethane	4.40	64	102874	9.55 ppb	90
7) Trichlorofluoromethane	4.75	101	318927	10.10 ppb	93
8) Diethyl Ether	5.03	59	126514	10.47 ppb	93
9) Ethanol	5.02	46	2093	No Calib #	
10) Acrolein	5.34	56	93153	98.14 ppb	95
11) 1,1,2-Trichloro-1,2,2-trif	5.34	101	234564	10.21 ppb	97
12) 1,1-Dichloroethene	5.40	96	217656	10.05 ppb	99
13) Acetone	5.52	43	49721	40.87 ppb	83
14) Iodomethane	5.65	142	491005	10.12 ppb	97
15) Carbon Disulfide	5.75	76	666362	10.26 ppb	99
16) Allyl chloride	5.85	76	136252	9.44 ppb	92
17) Acetonitrile	5.97	41	1460	No Calib #	
18) Methylene chloride	6.04	84	241889	9.87 ppb	98
19) Methyl Acetate	5.87	43	38999	10.08 ppb #	91
20) tert-Butanol	6.08	59	153901	811.20 ppb	100
21) Methyl-t-butyl-ether	6.26	73	607051	19.68 ppb	98
22) trans-1,2-Dichloroethene	6.30	96	236899	10.09 ppb	96
23) Acrylonitrile	6.43	53	171136	98.77 ppb	93
24) Isopropyl ether	6.77	45	569216	10.26 ppb	97
25) Vinyl Acetate	6.86	43	119244	8.89 ppb	95
26) 1,1-Dichloroethane	6.86	63	380675	10.33 ppb	98
27) Chloroprene	6.93	53	275981	10.04 ppb	96
28) Ethyl tert-butyl ether	7.21	59	442996	10.06 ppb	98
29) 2,2-Dichloropropane	7.55	77	197092	8.57 ppb	95
30) Cyclohexane	8.14	84	531365	20.37 ppb	97
31) 2-Butanone	7.61	43	64584	42.33 ppb	97
32) cis-1,2-Dichloroethene	7.57	96	255208	10.23 ppb	97
33) Propionitrile	7.82	54	5729	No Calib #	
34) Methacrylonitrile	7.92	67	19758	10.82 ppb	91
35) Bromochloromethane	7.88	128	104736	10.30 ppb	98
36) Chloroform	7.92	83	419377	10.21 ppb	96
38) 1,1,1-Trichloroethane	8.14	97	297316	10.12 ppb	99
39) Carbon tetrachloride	8.30	117	277193	10.21 ppb	98
40) 1,1-Dichloropropene	8.32	75	285669	10.22 ppb	97
42) Isobutyl alcohol	8.44	43	13528	No Calib #	
43) tert-Amyl methyl ether	8.62	87	77137	10.51 ppb	92

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

SDW 10/14/11

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\101111\B74503.D Vial: 22
Acq On : 11 Oct 2011 23:11 Operator: sdw-sop525r15
Sample : VL111011-2ICV Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 12:14 2011 Quant Results File: 101111W.RES

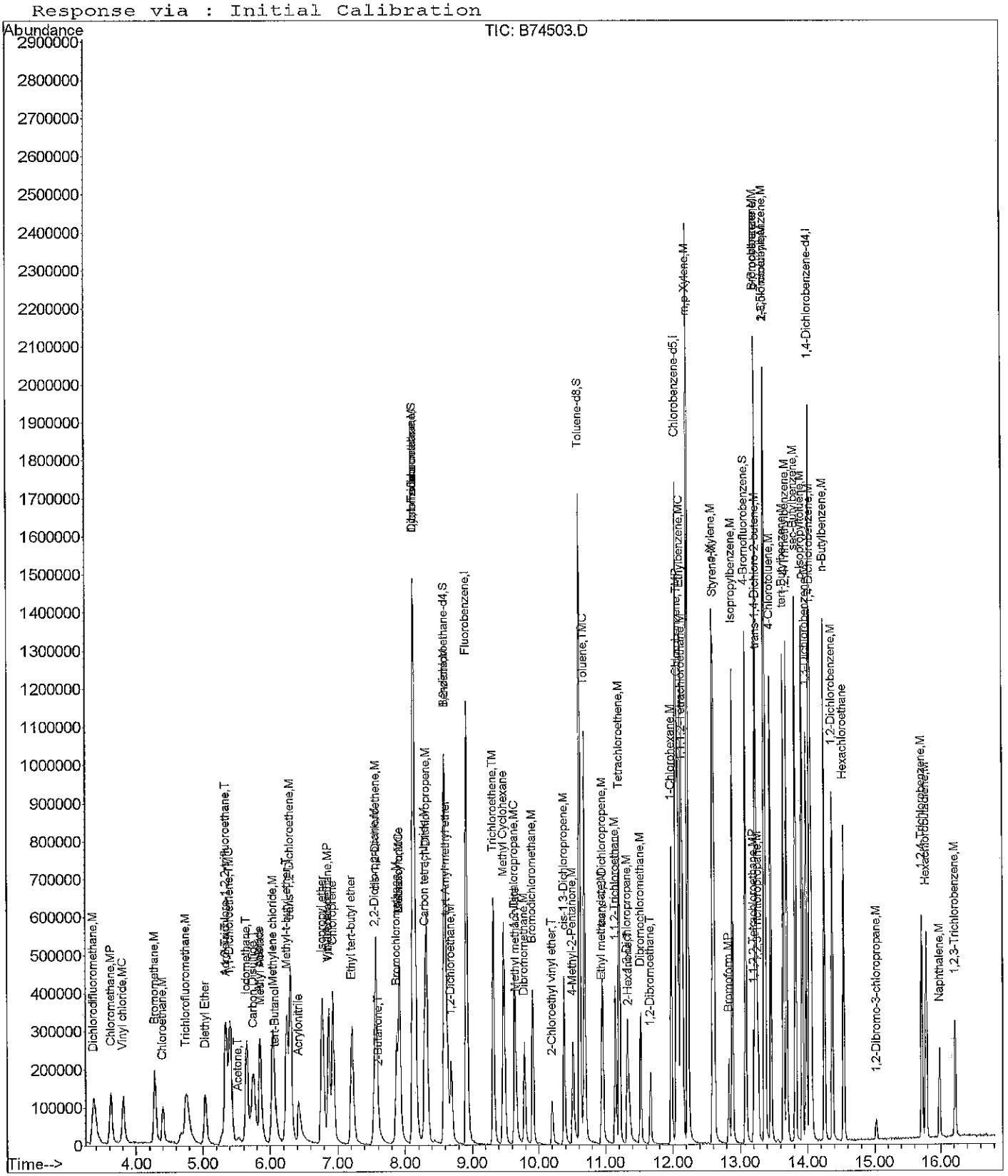
Quant Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 12:14:11 2011
Response via : Initial Calibration
DataAcq Meth : 101111W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
44)	Benzene	8.59	78	795740	10.14 ppb		99
45)	1,2-Dichloroethane	8.68	62	171184	10.08 ppb		98
46)	Methyl Cyclohexane	9.48	55	219762	10.13 ppb		97
47)	Trichloroethene	9.32	130	238875	10.46 ppb		97
48)	n-Butanol	9.48	56	70083	No Calib		
49)	1,2-Dichloropropane	9.64	63	185209	10.57 ppb		96
50)	Methyl methacrylate	9.66	69	49357	10.39 ppb	#	75
51)	1,4-Dioxane	9.78	88	3868	No Calib	#	
52)	Dibromomethane	9.78	93	110779	10.51 ppb		97
53)	Bromodichloromethane	9.91	83	264166	10.15 ppb		100
54)	2-Chloroethyl vinyl ether	10.20	63	55329	9.95 ppb		96
55)	cis-1,3-Dichloropropene	10.38	75	270528	9.91 ppb		98
58)	Toluene	10.68	91	803409	10.24 ppb		99
59)	4-Methyl-2-Pentanone	10.51	43	235648	42.74 ppb		96
60)	Ethyl methacrylate	10.94	69	117834	11.24 ppb	#	95
61)	trans-1,3-Dichloropropene	10.96	75	211583	10.76 ppb		98
62)	1,1,2-Trichloroethane	11.15	83	111951	10.25 ppb		94
63)	Tetrachloroethene	11.21	164	178406	10.28 ppb		95
64)	2-Hexanone	11.35	58	70719	43.02 ppb		96
65)	1,3-Dichloropropane	11.33	76	195301	10.37 ppb		96
66)	Dibromochloromethane	11.53	129	171029	10.29 ppb		96
67)	1,2-Dibromoethane	11.67	107	126134	10.22 ppb		99
68)	1-Chlorohexane	11.98	91	289186	10.29 ppb		97
69)	Chlorobenzene	12.08	112	517966	10.42 ppb		98
70)	Ethylbenzene	12.12	91	874537	10.21 ppb		99
71)	1,1,1,2-Tetrachloroethane	12.14	131	183227	10.51 ppb		98
72)	m,p-Xylene	12.22	106	635379	20.84 ppb		99
73)	o-Xylene	12.60	106	313669	10.34 ppb		99
74)	Styrene	12.61	104	515636	10.63 ppb		100
75)	Bromoform	12.84	173	88171	10.57 ppb		98
76)	Isopropylbenzene	12.89	105	758267	10.21 ppb		99
79)	1,1,2,2-Tetrachloroethane	13.20	83	131413	10.49 ppb		98
80)	trans-1,4-Dichloro-2-buten	13.25	53	22234	10.98 ppb	#	59
81)	n-Propylbenzene	13.24	91	1031671	10.39 ppb		99
82)	1,2,3-Trichloropropane	13.27	110	28650	10.53 ppb		86
83)	Bromobenzene	13.23	156	213769	10.39 ppb		98
84)	1,3,5-Trimethylbenzene	13.37	105	636744	10.41 ppb		98
85)	2-Chlorotoluene	13.36	126	198199	10.12 ppb		100
86)	4-Chlorotoluene	13.45	126	197461	10.20 ppb		99
87)	tert-Butylbenzene	13.65	134	124146	10.28 ppb		97
88)	1,2,4-Trimethylbenzene	13.69	105	602031	10.30 ppb		98
89)	sec-Butylbenzene	13.82	105	858486	10.38 ppb		99
90)	p-Isopropyltoluene	13.92	119	649524	10.39 ppb		99
91)	1,3-Dichlorobenzene	13.98	146	396847	10.44 ppb		99
92)	1,4-Dichlorobenzene	14.06	146	375919	10.26 ppb		99
93)	n-Butylbenzene	14.25	91	677315	10.23 ppb		99
94)	1,2-Dichlorobenzene	14.37	146	327175	10.37 ppb		98
95)	Hexachloroethane	14.54	201	108872	10.24 ppb		94
96)	1,2-Dibromo-3-chloropropan	15.02	157	16433	10.83 ppb		82
97)	1,2,4-Trichlorobenzene	15.71	180	178597	10.34 ppb		97
98)	Hexachlorobutadiene	15.78	225	98347	10.50 ppb		98
99)	Naphthalene	15.98	128	181452	10.25 ppb		98
100)	1,2,3-Trichlorobenzene	16.22	180	103976	10.53 ppb		96

(#) = qualifier out of range (m) = manual integration
B74503.D 101111W.M Wed Oct 12 12:14:58 2011 Page 2

Data File : C:\HPCHEM\1\DATA\101111\B74503.D Vial: 22
Acq On : 11 Oct 2011 23:11 Operator: sdw-sop525r15
Sample : VL111011-2ICV Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 12:14 2011 Quant Results File: 101111W.RES

Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 12:14:11 2011
Response via : Initial Calibration



Sample Raw Data

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\101111\B74507.D Vial: 26
Acq On : 12 Oct 2011 00:38 Operator: sdw-sop525r15
Sample : VL111011-2MB Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 12:19 2011 Quant Results File: 101111W.RES

Quant Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 12:14:11 2011
Response via : Initial Calibration
DataAcq Meth : 101111W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.92	96	1304785	25.00	ppb	0.00
56) Chlorobenzene-d5	12.05	82	524273	25.00	ppb	0.00
78) 1,4-Dichlorobenzene-d4	14.04	152	450509	25.00	ppb	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	8.13	113	422195	24.97	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery =	99.88%		
41) 1,2-dichloroethane-d4	8.59	65	257152	24.87	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery =	99.48%		
57) Toluene-d8	10.62	98	1191505	24.70	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery =	98.80%		
77) 4-Bromofluorobenzene	13.08	176	348891	23.81	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery =	95.24%		

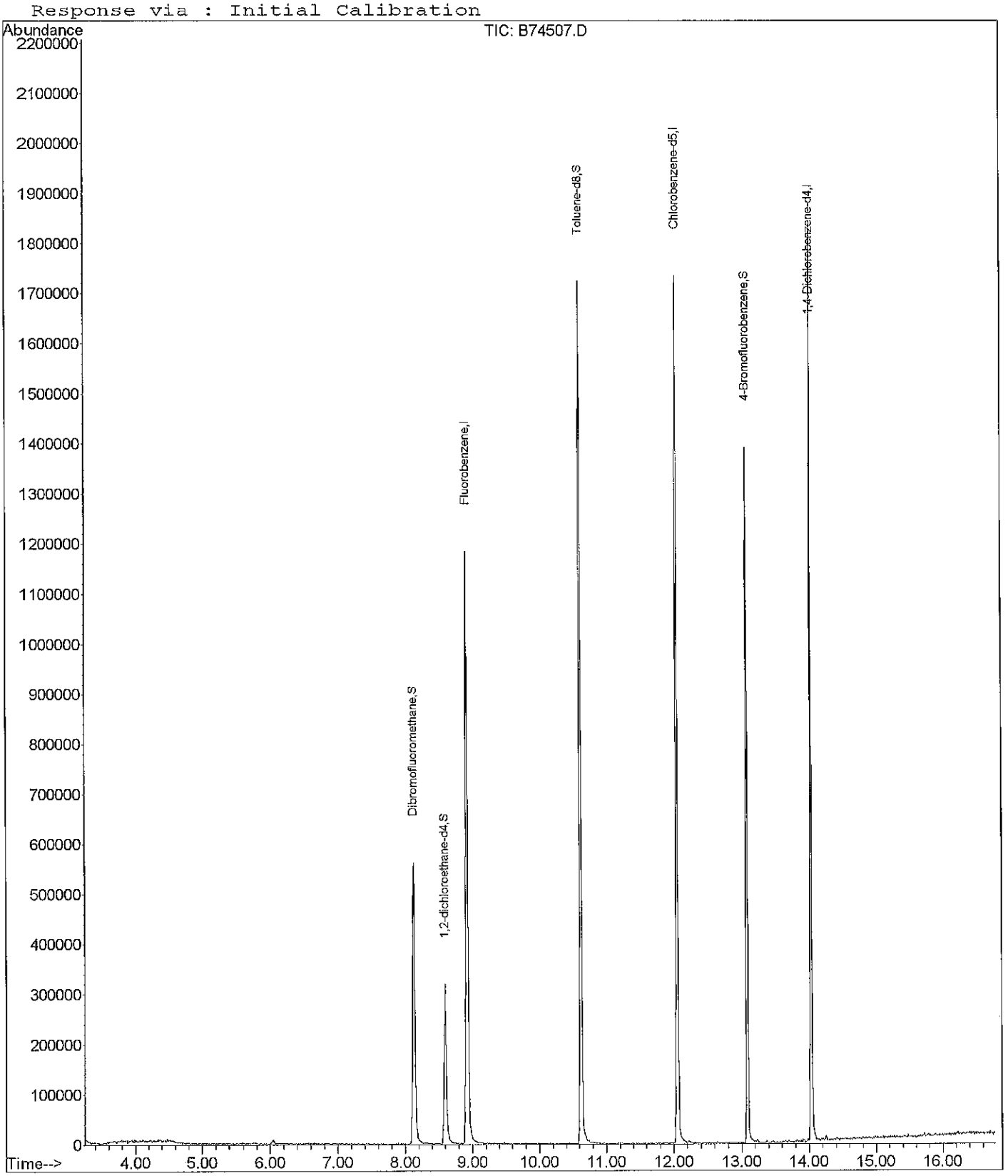
Target Compounds Qvalue

(#) = qualifier out of range (m) = manual integration
B74507.D 101111W.M Wed Oct 12 12:19:22 2011 SDW 10/14/11 Page 7

Quantitation Report

Data File : C:\HPCHEM\1\DATA\101111\B74507.D Vial: 26
Acq On : 12 Oct 2011 00:38 Operator: sdw-sop525r15
Sample : VL111011-2MB Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 12:19 2011 Quant Results File: 101111W.RES

Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 12:14:11 2011
Response via : Initial Calibration



Tentatively Identified Compound (LSC) summary

Operator ID: sdw-sop525r15 Date Acquired: 12 Oct 2011 00:38
Data File: C:\HPCHEM\1\DATA\101111\B74507.D
Name: VL111011-2MB
Misc: UN-Heated Purge
Method: C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title: GC/MS Volatiles (S.O.P. 525)
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

B74507.D 101111W.M Wed Oct 12 12:45:33 2011

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\101111\B74510.D Vial: 29
Acq On : 12 Oct 2011 1:43 Operator: sdw-sop525r15
Sample : 1110046-1 Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 12:19 2011 Quant Results File: 101111W.RES

Quant Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 12:14:11 2011
Response via : Initial Calibration
DataAcq Meth : 101111W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.92	96	1232162	25.00	ppb	0.00
56) Chlorobenzene-d5	12.05	82	498048	25.00	ppb	0.00
78) 1,4-Dichlorobenzene-d4	14.04	152	429734	25.00	ppb	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	8.13	113	400033	25.06	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery =	100.24%		
41) 1,2-dichloroethane-d4	8.59	65	244796	25.07	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery =	100.28%		
57) Toluene-d8	10.62	98	1134983	24.77	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery =	99.08%		
77) 4-Bromofluorobenzene	13.08	176	341410	24.53	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery =	98.12%		
Target Compounds						Qvalue
36) Chloroform	7.91	83	23080	0.58	ppb	98

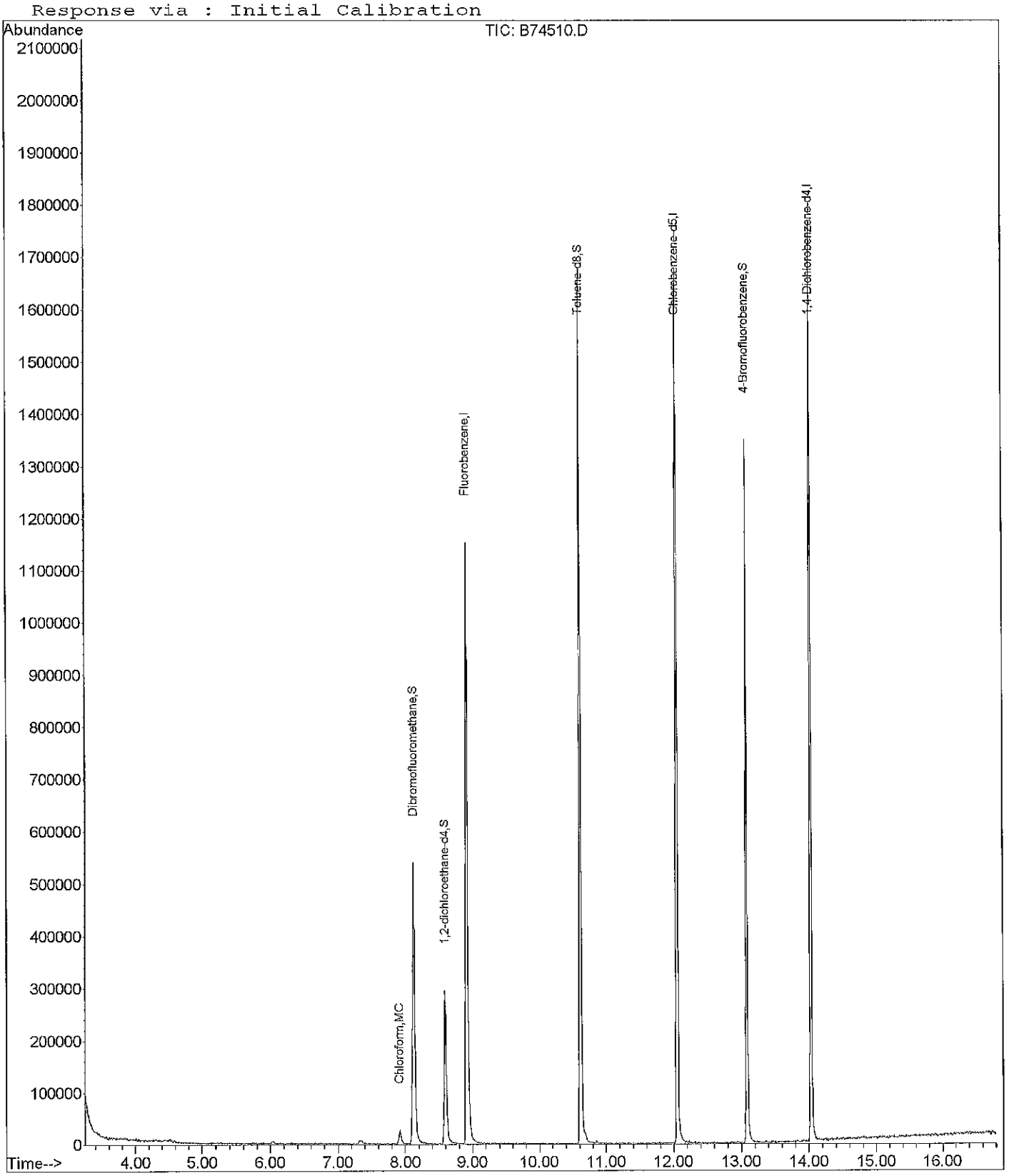
(#) = qualifier out of range (m) = manual integration
B74510.D 101111W.M Wed Oct 12 12:19:39 2011 Page 1

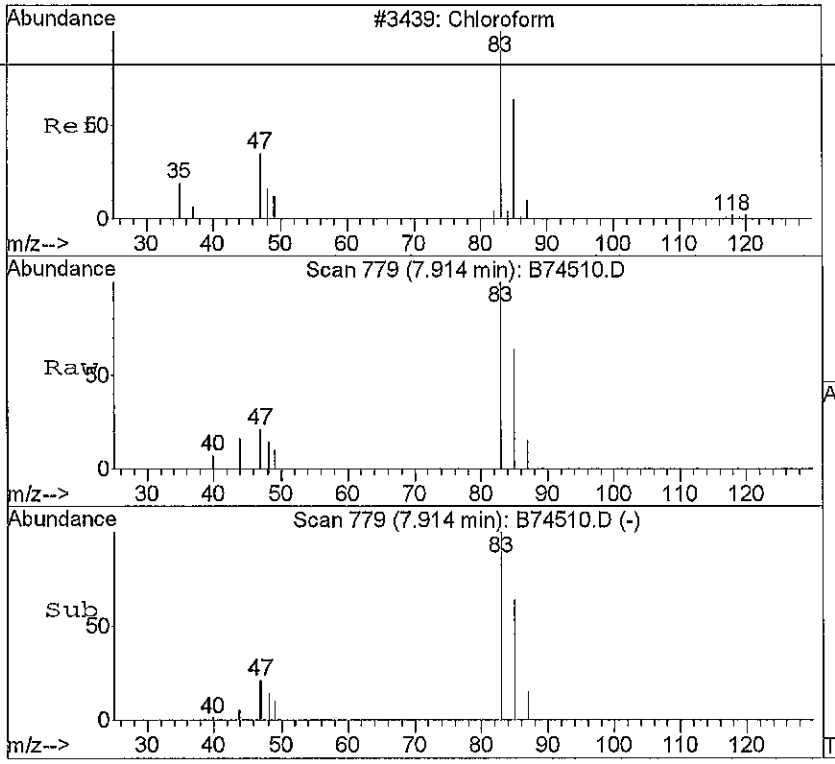
GW 10/14/11

Quantitation Report

Data File : C:\HPCHEM\1\DATA\101111\B74510.D Vial: 29
Acq On : 12 Oct 2011 1:43 Operator: sdw-sop525r15
Sample : 1110046-1 Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 12:19 2011 Quant Results File: 101111W.RES

Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 12:14:11 2011
Response via : Initial Calibration

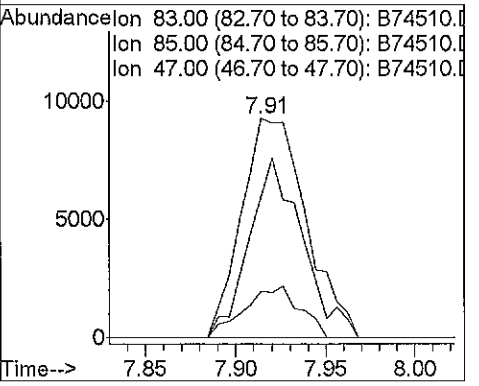




#36
Chloroform
Concen: 0.58 ppb
RT: 7.91 min Scan# 779
Delta R.T. -0.01 min
Lab File: B74510.D
Acq: 12 Oct 2011 1:43

Tgt Ion: 83 Resp: 23080

Ion	Ratio	Lower	Upper
83	100		
85	64.0	39.1	91.3
47	21.1	12.1	28.3



Tentatively Identified Compound (LSC) summary

Operator ID: sdw-sop525r15 Date Acquired: 12 Oct 2011 1:43
Data File: C:\HPCHEM\1\DATA\101111\B74510.D
Name: 1110046-1
Misc: UN-Heated Purge
Method: C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title: GC/MS Volatiles (S.O.P. 525)
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

B74510.D 101111W.M Wed Oct 12 12:45:49 2011

Raw Data Quality Control Samples

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\101111\B74504.D Vial: 23
Acq On : 11 Oct 2011 23:33 Operator: sdw-sop525r15
Sample : VL111011-2LCS Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 12:15 2011 Quant Results File: 101111W.RES

Quant Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 12:14:11 2011
Response via : Initial Calibration
DataAcq Meth : 101111W

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) Fluorobenzene	8.92	96	1307416	25.00 ppb	0.00
56) Chlorobenzene-d5	12.05	82	509812	25.00 ppb	0.00
78) 1,4-Dichlorobenzene-d4	14.04	152	460745	25.00 ppb	0.00
System Monitoring Compounds					
37) Dibromofluoromethane	8.13	113	424868	25.08 ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 100.32%		
41) 1,2-dichloroethane-d4	8.59	65	250467	24.18 ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 96.72%		
57) Toluene-d8	10.62	98	1212868	25.86 ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 103.44%		
77) 4-Bromofluorobenzene	13.09	176	359310	25.22 ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery = 100.88%		
Target Compounds					Qvalue
2) Dichlorodifluoromethane	3.35	85	310889	9.09 ppb	96
3) Chloromethane	3.62	50	230911	9.22 ppb	97
4) Vinyl chloride	3.81	62	205751	9.36 ppb	98
5) Bromomethane	4.28	96	178119	9.34 ppb	96
6) Chloroethane	4.40	64	103990	9.32 ppb	94
7) Trichlorofluoromethane	4.75	101	317612	9.71 ppb	95
8) Diethyl Ether	5.04	59	122635	9.80 ppb	98
9) Ethanol	5.04	46	1553	No Calib #	
10) Acrolein	5.34	56	95779	97.41 ppb	97
11) 1,1,2-Trichloro-1,2,2-trif	5.34	101	234717	9.86 ppb	98
12) 1,1-Dichloroethene	5.41	96	221829	9.89 ppb	99
13) Acetone	5.53	43	47675	37.83 ppb	90
14) Iodomethane	5.65	142	488156	9.71 ppb	98
15) Carbon Disulfide	5.75	76	661705	9.84 ppb	99
16) Allyl chloride	5.85	76	134710	9.01 ppb	93
17) Acetonitrile	6.08	41	61180	No Calib #	
18) Methylene chloride	6.04	84	255700	10.07 ppb	96
19) Methyl Acetate	5.87	43	47650	11.61 ppb #	84
20) tert-Butanol	6.08	59	224821	1156.91 ppb	100
21) Methyl-t-butyl-ether	6.25	73	613101	19.19 ppb	99
22) trans-1,2-Dichloroethene	6.30	96	236231	9.71 ppb	96
23) Acrylonitrile	6.42	53	155111	88.88 ppb	99
24) Isopropyl ether	6.77	45	563942	9.81 ppb	99
25) Vinyl Acetate	6.86	43	126796	9.10 ppb	95
26) 1,1-Dichloroethane	6.87	63	378317	9.92 ppb	98
27) Chloroprene	6.93	53	274621	9.64 ppb	98
28) Ethyl tert-butyl ether	7.21	59	449856	9.86 ppb	97
29) 2,2-Dichloropropane	7.55	77	197939	8.31 ppb	99
30) Cyclohexane	8.14	84	531619	19.68 ppb	99
31) 2-Butanone	7.61	43	74363	46.44 ppb #	81
32) cis-1,2-Dichloroethene	7.57	96	251617	9.74 ppb	99
33) Propionitrile	7.84	54	14208	No Calib	
34) Methacrylonitrile	7.91	67	13037	8.11 ppb	97
35) Bromochloromethane	7.88	128	105647	10.03 ppb	92
36) Chloroform	7.92	83	418416	9.84 ppb	97
38) 1,1,1-Trichloroethane	8.14	97	294733	9.69 ppb	98
39) Carbon tetrachloride	8.31	117	271488	9.65 ppb	98
40) 1,1-Dichloropropene	8.33	75	289908	10.02 ppb	99
42) Isobutyl alcohol	8.44	43	13695	No Calib #	
43) tert-Amyl methyl ether	8.63	87	80511	10.59 ppb	97

(#) = qualifier out of range (m) = manual integration
B74504.D 101111W.M Wed Oct 12 12:15:03 2011

SMW 10/14/11

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\101111\B74504.D Vial: 23
Acq On : 11 Oct 2011 23:33 Operator: sdw-sop525r15
Sample : VL111011-2LCS Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 12:15 2011 Quant Results File: 101111W.RES

Quant Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 12:14:11 2011
Response via : Initial Calibration
DataAcq Meth : 101111W

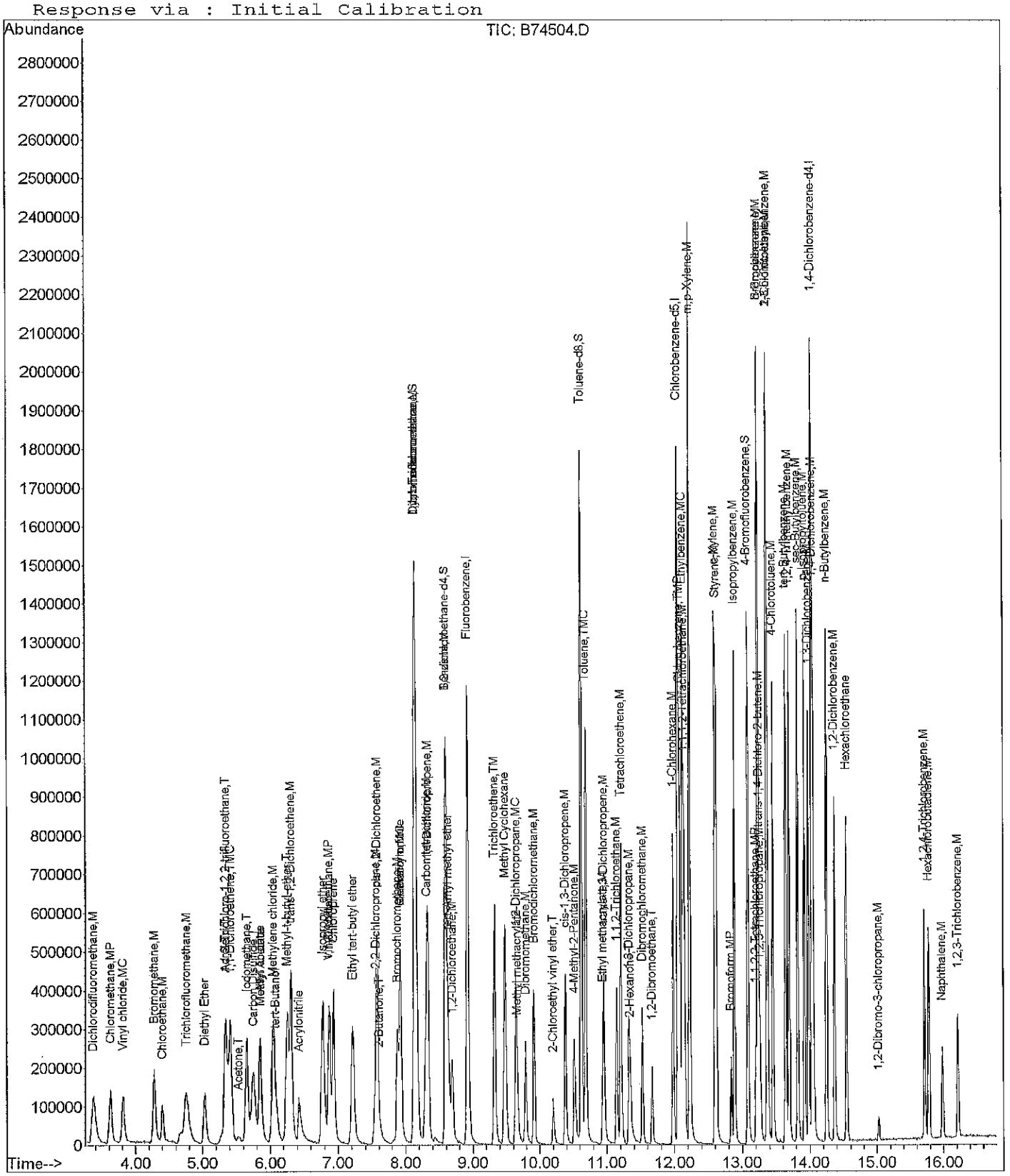
	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
44)	Benzene	8.59	78	783381	9.64 ppb		99
45)	1,2-Dichloroethane	8.69	62	170285	9.68 ppb		96
46)	Methyl Cyclohexane	9.48	55	217360	9.67 ppb		96
47)	Trichloroethene	9.32	130	233369	9.86 ppb		98
48)	n-Butanol	9.48	56	70171	No Calib		
49)	1,2-Dichloropropane	9.65	63	180479	9.94 ppb		91
50)	Methyl methacrylate	9.67	69	50885	10.34 ppb	#	57
51)	1,4-Dioxane	9.77	88	2536	No Calib	#	
52)	Dibromomethane	9.79	93	108354	9.93 ppb		96
53)	Bromodichloromethane	9.91	83	265814	9.86 ppb		99
54)	2-Chloroethyl vinyl ether	10.20	63	56850	9.87 ppb		97
55)	cis-1,3-Dichloropropene	10.38	75	271577	9.60 ppb		97
58)	Toluene	10.68	91	796282	9.93 ppb		100
59)	4-Methyl-2-Pentanone	10.52	43	239575	42.49 ppb		98
60)	Ethyl methacrylate	10.94	69	116773	10.89 ppb		98
61)	trans-1,3-Dichloropropene	10.96	75	201761	10.04 ppb		97
62)	1,1,2-Trichloroethane	11.15	83	113090	10.12 ppb		98
63)	Tetrachloroethene	11.21	164	179375	10.11 ppb		96
64)	2-Hexanone	11.35	58	71266	42.40 ppb		95
65)	1,3-Dichloropropane	11.33	76	195018	10.13 ppb		95
66)	Dibromochloromethane	11.53	129	172822	10.17 ppb		99
67)	1,2-Dibromoethane	11.67	107	125280	9.92 ppb		93
68)	1-Chlorohexane	11.98	91	287172	10.00 ppb		98
69)	Chlorobenzene	12.08	112	504816	9.93 ppb		97
70)	Ethylbenzene	12.12	91	867544	9.91 ppb		98
71)	1,1,1,2-Tetrachloroethane	12.14	131	179639	10.08 ppb		98
72)	m,p-Xylene	12.23	106	604643	19.40 ppb		98
73)	o-Xylene	12.60	106	310474	10.01 ppb		98
74)	Styrene	12.61	104	502177	10.12 ppb		100
75)	Bromoform	12.84	173	87393	10.24 ppb		97
76)	Isopropylbenzene	12.89	105	752743	9.91 ppb		98
79)	1,1,2,2-Tetrachloroethane	13.20	83	131188	9.89 ppb		100
80)	trans-1,4-Dichloro-2-buten	13.26	53	22828	10.65 ppb		91
81)	n-Propylbenzene	13.24	91	1028000	9.77 ppb		98
82)	1,2,3-Trichloropropane	13.27	110	29183	10.12 ppb		87
83)	Bromobenzene	13.23	156	215271	9.88 ppb		95
84)	1,3,5-Trimethylbenzene	13.38	105	646144	9.97 ppb		98
85)	2-Chlorotoluene	13.36	126	200488	9.66 ppb		93
86)	4-Chlorotoluene	13.45	126	196857	9.60 ppb		97
87)	tert-Butylbenzene	13.65	134	126501	9.89 ppb		97
88)	1,2,4-Trimethylbenzene	13.69	105	599625	9.68 ppb		98
89)	sec-Butylbenzene	13.82	105	847251	9.67 ppb		99
90)	p-Isopropyltoluene	13.92	119	643533	9.72 ppb		98
91)	1,3-Dichlorobenzene	13.98	146	393858	9.78 ppb		100
92)	1,4-Dichlorobenzene	14.06	146	372270	9.59 ppb		99
93)	n-Butylbenzene	14.25	91	664045	9.47 ppb		99
94)	1,2-Dichlorobenzene	14.37	146	328428	9.83 ppb		99
95)	Hexachloroethane	14.54	201	110571	9.82 ppb		95
96)	1,2-Dibromo-3-chloropropan	15.02	157	16737	10.41 ppb		95
97)	1,2,4-Trichlorobenzene	15.71	180	181630	9.93 ppb		97
98)	Hexachlorobutadiene	15.79	225	98598	9.94 ppb		99
99)	Naphthalene	15.98	128	182675	9.74 ppb		99
100)	1,2,3-Trichlorobenzene	16.22	180	102872	9.83 ppb		99

(#) = qualifier out of range (m) = manual integration
B74504.D 101111W.M Wed Oct 12 12:15:03 2011 Page 2

Quantitation Report

Data File : C:\HPCHEM\1\DATA\101111\B74504.D Vial: 23
Acq On : 11 Oct 2011 23:33 Operator: sdw-sop525r15
Sample : VL111011-2LCS Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 12:15 2011 Quant Results File: 101111W.RES

Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 12:14:11 2011
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\101111\B74505.D Vial: 24
Acq On : 11 Oct 2011 23:55 Operator: sdw-sop525r15
Sample : VL111011-2LCSD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 12:15 2011 Quant Results File: 101111W.RES

Quant Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 12:14:11 2011
Response via : Initial Calibration
DataAcq Meth : 101111W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	8.92	96	1285996	25.00	ppb	0.00
56) Chlorobenzene-d5	12.05	82	500402	25.00	ppb	0.00
78) 1,4-Dichlorobenzene-d4	14.04	152	441870	25.00	ppb	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	8.13	113	412447	24.75	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery =	99.00%		
41) 1,2-dichloroethane-d4	8.59	65	245908	24.13	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery =	96.52%		
57) Toluene-d8	10.62	98	1165184	25.31	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery =	101.24%		
77) 4-Bromofluorobenzene	13.09	176	348983	24.95	ppb	0.00
Spiked Amount 25.000	Range 85 - 115		Recovery =	99.80%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	3.37	85	312417	9.29	ppb	98
3) Chloromethane	3.62	50	230719	9.37	ppb	100
4) Vinyl chloride	3.81	62	197266	9.13	ppb	97
5) Bromomethane	4.28	96	175936	9.38	ppb	98
6) Chloroethane	4.40	64	100471	9.16	ppb	99
7) Trichlorofluoromethane	4.75	101	299570	9.31	ppb	99
8) Diethyl Ether	5.04	59	122196	9.93	ppb	98
9) Ethanol	5.02	46	2852	No Calib	#	
10) Acrolein	5.34	56	96592	99.88	ppb	95
11) 1,1,2-Trichloro-1,2,2-trif	5.34	101	232160	9.92	ppb	98
12) 1,1-Dichloroethene	5.41	96	212745	9.65	ppb	98
13) Acetone	5.53	43	45045	36.34	ppb	88
14) Iodomethane	5.65	142	475761	9.62	ppb	99
15) Carbon Disulfide	5.74	76	655095	9.90	ppb	99
16) Allyl chloride	5.85	76	133107	9.05	ppb	95
17) Acetonitrile	6.08	41	55525	No Calib	#	
18) Methylene chloride	6.05	84	249774	10.00	ppb	97
19) Methyl Acetate	5.87	43	39661	10.06	ppb	93
20) tert-Butanol	6.08	59	221974	1161.18	ppb	100
21) Methyl-t-butyl-ether	6.26	73	594538	18.92	ppb	98
22) trans-1,2-Dichloroethene	6.31	96	228033	9.53	ppb	95
23) Acrylonitrile	6.42	53	165110	94.57	ppb	94
24) Isopropyl ether	6.77	45	557191	9.85	ppb	99
25) Vinyl Acetate	6.86	43	125321	9.13	ppb	95
26) 1,1-Dichloroethane	6.87	63	370465	9.87	ppb	98
27) Chloroprene	6.93	53	267644	9.55	ppb	98
28) Ethyl tert-butyl ether	7.22	59	428293	9.55	ppb	97
29) 2,2-Dichloropropane	7.55	77	190189	8.12	ppb	97
30) Cyclohexane	8.14	84	513752	19.33	ppb	95
31) 2-Butanone	7.61	43	76041	48.05	ppb	98
32) cis-1,2-Dichloroethene	7.57	96	248201	9.76	ppb	99
33) Propionitrile	7.84	54	12182	No Calib	#	
34) Methacrylonitrile	7.91	67	16981	9.65	ppb	98
35) Bromochloromethane	7.88	128	102579	9.90	ppb	93
36) Chloroform	7.92	83	414957	9.92	ppb	99
38) 1,1,1-Trichloroethane	8.14	97	283398	9.47	ppb	99
39) Carbon tetrachloride	8.30	117	269226	9.73	ppb	97
40) 1,1-Dichloropropene	8.33	75	280821	9.86	ppb	100
42) Isobutyl alcohol	8.44	43	8940	No Calib	#	
43) tert-Amyl methyl ether	8.63	87	77595	10.37	ppb	94

(#) = qualifier out of range (m) = manual integration
B74505.D 101111W.M Wed Oct 12 12:15:08 2011 sdw 10/14/11 Page 1

Quantitation Report (Not Reviewed)

Data File : C:\HPCHEM\1\DATA\101111\B74505.D Vial: 24
Acq On : 11 Oct 2011 23:55 Operator: sdw-sop525r15
Sample : VL111011-2LCSD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 12:15 2011 Quant Results File: 101111W.RES

Quant Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 12:14:11 2011
Response via : Initial Calibration
DataAcq Meth : 101111W

	Compound	R.T.	QIon	Response	Conc Unit		Qvalue
44)	Benzene	8.59	78	775662	9.70 ppb		99
45)	1,2-Dichloroethane	8.69	62	168858	9.76 ppb		97
46)	Methyl Cyclohexane	9.48	55	213664	9.66 ppb		99
47)	Trichloroethene	9.33	130	226957	9.75 ppb		99
48)	n-Butanol	9.48	56	66326	No Calib		
49)	1,2-Dichloropropane	9.64	63	178953	10.02 ppb		98
50)	Methyl methacrylate	9.66	69	46921	9.69 ppb	#	79
51)	1,4-Dioxane	9.77	88	4614	No Calib	#	
52)	Dibromomethane	9.79	93	102387	9.53 ppb		92
53)	Bromodichloromethane	9.91	83	253750	9.57 ppb		99
54)	2-Chloroethyl vinyl ether	10.20	63	58036	10.24 ppb		97
55)	cis-1,3-Dichloropropene	10.38	75	263033	9.46 ppb		98
58)	Toluene	10.69	91	772087	9.81 ppb		99
59)	4-Methyl-2-Pentanone	10.52	43	233148	42.13 ppb		98
60)	Ethyl methacrylate	10.94	69	107432	10.21 ppb		98
61)	trans-1,3-Dichloropropene	10.95	75	198872	10.08 ppb		99
62)	1,1,2-Trichloroethane	11.15	83	107251	9.78 ppb		97
63)	Tetrachloroethene	11.21	164	176253	10.12 ppb		97
64)	2-Hexanone	11.35	58	69888	42.36 ppb		91
65)	1,3-Dichloropropane	11.33	76	186674	9.88 ppb		96
66)	Dibromochloromethane	11.52	129	165472	9.92 ppb		97
67)	1,2-Dibromoethane	11.67	107	121707	9.82 ppb		98
68)	1-Chlorohexane	11.98	91	283795	10.07 ppb		97
69)	Chlorobenzene	12.08	112	499896	10.02 ppb		98
70)	Ethylbenzene	12.13	91	847315	9.86 ppb		100
71)	1,1,1,2-Tetrachloroethane	12.15	131	173368	9.91 ppb		99
72)	m,p-Xylene	12.23	106	610201	19.94 ppb		97
73)	o-Xylene	12.59	106	297748	9.78 ppb		98
74)	Styrene	12.61	104	492911	10.12 ppb		99
75)	Bromoform	12.83	173	83572	9.98 ppb		96
76)	Isopropylbenzene	12.89	105	735428	9.86 ppb		99
79)	1,1,2,2-Tetrachloroethane	13.20	83	125188	9.84 ppb		98
80)	trans-1,4-Dichloro-2-buten	13.26	53	21376	10.40 ppb	#	84
81)	n-Propylbenzene	13.24	91	1001009	9.92 ppb		98
82)	1,2,3-Trichloropropane	13.27	110	28538	10.32 ppb		98
83)	Bromobenzene	13.23	156	208861	9.99 ppb		97
84)	1,3,5-Trimethylbenzene	13.38	105	618861	9.96 ppb		99
85)	2-Chlorotoluene	13.36	126	195581	9.83 ppb		98
86)	4-Chlorotoluene	13.45	126	186725	9.50 ppb		99
87)	tert-Butylbenzene	13.65	134	119502	9.74 ppb		97
88)	1,2,4-Trimethylbenzene	13.69	105	585313	9.86 ppb		100
89)	sec-Butylbenzene	13.82	105	829785	9.88 ppb		99
90)	p-Isopropyltoluene	13.92	119	616097	9.71 ppb		99
91)	1,3-Dichlorobenzene	13.98	146	377546	9.78 ppb		98
92)	1,4-Dichlorobenzene	14.05	146	358362	9.63 ppb		98
93)	n-Butylbenzene	14.25	91	648923	9.65 ppb		99
94)	1,2-Dichlorobenzene	14.37	146	313587	9.79 ppb		99
95)	Hexachloroethane	14.54	201	109305	10.12 ppb		96
96)	1,2-Dibromo-3-chloropropan	15.02	157	16546	10.73 ppb		87
97)	1,2,4-Trichlorobenzene	15.71	180	177783	10.13 ppb		97
98)	Hexachlorobutadiene	15.78	225	98406	10.34 ppb		98
99)	Naphthalene	15.99	128	173819	9.67 ppb		99
100)	1,2,3-Trichlorobenzene	16.22	180	99544	9.92 ppb		96

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

Quantitation Report

Data File : C:\HPCHEM\1\DATA\101111\B74505.D Vial: 24
Acq On : 11 Oct 2011 23:55 Operator: sdw-sop525r15
Sample : VL111011-2LCSD Inst : CSS Instr
Misc : UN-Heated Purge Multiplr: 1.00
MS Integration Params: ettics.p
Quant Time: Oct 12 12:15 2011 Quant Results File: 101111W.RES

Method : C:\HPCHEM\1\METHODS\101111W.M (RTE Integrator)
Title : GC/MS Volatiles (S.O.P. 525)
Last Update : Wed Oct 12 12:14:11 2011
Response via : Initial Calibration