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United States Environmental Protection Agency
Region 9 Laboratory

1337 S. 46th Street Building 201
Richmond, CA 94804

Date: 3/5/2014

Subject: Analytical Testing Results - Project R14S39
SDG: 14045A

From: Brenda Bettencourt, Director
EPA Region 9 Laboratory
MTS-2

To: Alana Lee
California Site Cleanup Section 3
SFD-7-3

Attached are the results from the analysis of samples from the **MEW 2014 Manhole Screening Investigation** project. These data have been reviewed in accordance with EPA Region 9 Laboratory policy.

A full documentation package for these data, including raw data and sample custody documentation, is on file at the EPA Region 9 Laboratory. If you would like to request additional review and/or validation of the data, please contact Eugenia McNaughton at the Region 9 Quality Assurance Office.

If you have any questions, please ask for Richard Bauer, the Lab Project Manager at (510)412-2300.

Analyses included in this report:

Volatile Organic Compounds by GC/MS

United States Environmental Protection Agency
Region 9 Laboratory
1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: Alana Lee
Project Number: R14S39
Project: MEW 2014 Manhole Screening Investigation

California Site Cleanup Section 3
75 Hawthorne Street
San Francisco CA, 94105

SDG: 14045A
Reported: 03/05/14 09:08

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
MH11	1402032-01	Air	02/13/14 11:10	02/14/14 10:30
MH12	1402032-02	Air	02/13/14 10:39	02/14/14 10:30
MH13	1402032-03	Air	02/13/14 11:03	02/14/14 10:30
MH14	1402032-04	Air	02/13/14 10:55	02/14/14 10:30
MH15	1402032-05	Air	02/13/14 11:30	02/14/14 10:30
MH16	1402032-06	Air	02/13/14 11:38	02/14/14 10:30
MH17	1402032-07	Air	02/13/14 11:52	02/14/14 10:30
MH18	1402032-08	Air	02/13/14 12:04	02/14/14 10:30
MH19	1402032-09	Air	02/13/14 12:13	02/14/14 10:30
MH20	1402032-10	Air	02/13/14 12:31	02/14/14 10:30
MH21	1402032-11	Air	02/13/14 12:37	02/14/14 10:30
MH22	1402032-12	Air	02/13/14 12:44	02/14/14 10:30

SDG ID 14045A

Work Order(s)

1402032

United States Environmental Protection Agency
Region 9 Laboratory

1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: Alana Lee	**California Site Cleanup Section 3**	**SDG:** 14045A
Project Number: R14S39	**75 Hawthorne Street**	**Reported:** 03/05/14 09:08
Project: MEW 2014 Manhole Screening Investigation	**San Francisco CA, 94105**	

Sample Results

Lab ID: 1402032-01 — **Air - Sampled: 02/13/14 11:10**

Sample ID: MH11

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Volatile Organic Compounds by TO-15									
1,2-Dichlorotetrafluoroethane		ND	U	10	ug/m³ Air	B14B075	02/18/14	02/18/14	TO-15/SOP311
Chloromethane		ND	U	4	"	"	"	"	TO-15/SOP311
Vinyl chloride		ND	U	5	"	"	"	"	TO-15/SOP311
Bromomethane		ND	U	7	"	"	"	"	TO-15/SOP311
Chloroethane		ND	U	5	"	"	"	"	TO-15/SOP311
Trichlorofluoromethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,1,2-Trichloro-1,2,2-trifluoroethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,1-Dichloroethene		ND	U	7	"	"	"	"	TO-15/SOP311
Dichloromethane		6	B1, C1, J, Q3	7	"	"	"	"	TO-15/SOP311
1,1-Dichloroethane		ND	U	8	"	"	"	"	TO-15/SOP311
cis-1,2-Dichloroethene		100		7	"	"	"	"	TO-15/SOP311
Chloroform		200		9	"	"	"	"	TO-15/SOP311
1,1,1-Trichloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
Carbon tetrachloride		ND	U	10	"	"	"	"	TO-15/SOP311
Benzene		ND	U	6	"	"	"	"	TO-15/SOP311
1,2-Dichloroethane		ND	U	8	"	"	"	"	TO-15/SOP311
Trichloroethene	RE1	300		40	"	"	"	02/19/14	TO-15/SOP311
1,2-Dichloropropane		ND	U	9	"	"	"	02/18/14	TO-15/SOP311
cis-1,3-Dichloropropene		ND	U	9	"	"	"	"	TO-15/SOP311
Toluene		ND	U	7	"	"	"	"	TO-15/SOP311
trans-1,3-Dichloropropene		ND	U	9	"	"	"	"	TO-15/SOP311
1,1,2-Trichloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
Tetrachloroethene		200		10	"	"	"	"	TO-15/SOP311
1,2-Dibromoethane (EDB)		ND	U	10	"	"	"	"	TO-15/SOP311
Chlorobenzene		ND	U	9	"	"	"	"	TO-15/SOP311
Ethylbenzene		ND	U	8	"	"	"	"	TO-15/SOP311
m&p-Xylene		ND	U	20	"	"	"	"	TO-15/SOP311
o-Xylene		ND	U	8	"	"	"	"	TO-15/SOP311
Styrene		ND	U	8	"	"	"	"	TO-15/SOP311
1,1,2,2-Tetrachloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,3,5-Trimethylbenzene		ND	U	9	"	"	"	"	TO-15/SOP311
1,2,4-Trimethylbenzene		ND	U	9	"	"	"	"	TO-15/SOP311
1,3-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,4-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2,4-Trichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
Hexachlorobutadiene		ND	U	20	"	"	"	"	TO-15/SOP311

United States Environmental Protection Agency
Region 9 Laboratory

1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: Alana Lee **Project Number:** R14S39 **Project:** MEW 2014 Manhole Screening Investigation	**California Site Cleanup Section 3** **75 Hawthorne Street** **San Francisco CA, 94105**	**SDG:** 14045A **Reported:** 03/05/14 09:08

Sample Results

Lab ID: 1402032-02 — **Air - Sampled: 02/13/14 10:39**

Sample ID: MH12 — **Volatile Organic Compounds by TO-15**

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
1,2-Dichlorotetrafluoroethane		ND	U	10	ug/m³ Air	B14B075	02/18/14	02/18/14	TO-15/SOP311
Chloromethane		ND	U	4	"	"	"	"	TO-15/SOP311
Vinyl chloride		ND	U	5	"	"	"	"	TO-15/SOP311
Bromomethane		ND	U	7	"	"	"	"	TO-15/SOP311
Chloroethane		ND	U	5	"	"	"	"	TO-15/SOP311
Trichlorofluoromethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,1,2-Trichloro-1,2,2-trifluoroethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,1-Dichloroethene		ND	U	7	"	"	"	"	TO-15/SOP311
Dichloromethane		4	B1, C1, J, Q3	6	"	"	"	"	TO-15/SOP311
1,1-Dichloroethane		ND	U	7	"	"	"	"	TO-15/SOP311
cis-1,2-Dichloroethene		20		7	"	"	"	"	TO-15/SOP311
Chloroform		ND	U	9	"	"	"	"	TO-15/SOP311
1,1,1-Trichloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
Carbon tetrachloride		ND	U	10	"	"	"	"	TO-15/SOP311
Benzene		ND	U	6	"	"	"	"	TO-15/SOP311
1,2-Dichloroethane		ND	U	7	"	"	"	"	TO-15/SOP311
Trichloroethene		40		10	"	"	"	"	TO-15/SOP311
1,2-Dichloropropane		ND	U	8	"	"	"	"	TO-15/SOP311
cis-1,3-Dichloropropene		ND	U	8	"	"	"	"	TO-15/SOP311
Toluene		ND	U	7	"	"	"	"	TO-15/SOP311
trans-1,3-Dichloropropene		ND	U	8	"	"	"	"	TO-15/SOP311
1,1,2-Trichloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
Tetrachloroethene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2-Dibromoethane (EDB)		ND	U	10	"	"	"	"	TO-15/SOP311
Chlorobenzene		ND	U	8	"	"	"	"	TO-15/SOP311
Ethylbenzene		ND	U	8	"	"	"	"	TO-15/SOP311
m&p-Xylene		ND	U	20	"	"	"	"	TO-15/SOP311
o-Xylene		ND	U	8	"	"	"	"	TO-15/SOP311
Styrene		ND	U	8	"	"	"	"	TO-15/SOP311
1,1,2,2-Tetrachloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,3,5-Trimethylbenzene		ND	U	9	"	"	"	"	TO-15/SOP311
1,2,4-Trimethylbenzene		ND	U	9	"	"	"	"	TO-15/SOP311
1,3-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,4-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2,4-Trichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
Hexachlorobutadiene		ND	U	20	"	"	"	"	TO-15/SOP311

United States Environmental Protection Agency
Region 9 Laboratory

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Project Manager: Alana Lee	**California Site Cleanup Section 3**	**SDG:** 14045A
Project Number: R14S39	**75 Hawthorne Street**	**Reported:** 03/05/14 09:08
Project: MEW 2014 Manhole Screening Investigation	**San Francisco CA, 94105**	

Sample Results

Lab ID: 1402032-03 — **Air - Sampled: 02/13/14 11:03**

Sample ID: MH13 — **Volatile Organic Compounds by TO-15**

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
1,2-Dichlorotetrafluoroethane		ND	U	10	ug/m³ Air	B14B075	02/18/14	02/18/14	TO-15/SOP311
Chloromethane		ND	U	4	"	"	"	"	TO-15/SOP311
Vinyl chloride		ND	U	5	"	"	"	"	TO-15/SOP311
Bromomethane		ND	U	8	"	"	"	"	TO-15/SOP311
Chloroethane		ND	U	5	"	"	"	"	TO-15/SOP311
Trichlorofluoromethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,1,2-Trichloro-1,2,2-trifluoroethane		ND	U	20	"	"	"	"	TO-15/SOP311
1,1-Dichloroethene		ND	U	8	"	"	"	"	TO-15/SOP311
Dichloromethane		5	C1, J, Q3	7	"	"	"	"	TO-15/SOP311
1,1-Dichloroethane		ND	U	8	"	"	"	"	TO-15/SOP311
cis-1,2-Dichloroethene		ND	U	8	"	"	"	"	TO-15/SOP311
Chloroform		10		10	"	"	"	"	TO-15/SOP311
1,1,1-Trichloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
Carbon tetrachloride		ND	U	10	"	"	"	"	TO-15/SOP311
Benzene		ND	U	7	"	"	"	"	TO-15/SOP311
1,2-Dichloroethane		ND	U	8	"	"	"	"	TO-15/SOP311
Trichloroethene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2-Dichloropropane		ND	U	10	"	"	"	"	TO-15/SOP311
cis-1,3-Dichloropropene		ND	U	9	"	"	"	"	TO-15/SOP311
Toluene		ND	U	8	"	"	"	"	TO-15/SOP311
trans-1,3-Dichloropropene		ND	U	9	"	"	"	"	TO-15/SOP311
1,1,2-Trichloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
Tetrachloroethene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2-Dibromoethane (EDB)		ND	U	20	"	"	"	"	TO-15/SOP311
Chlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
Ethylbenzene		ND	U	9	"	"	"	"	TO-15/SOP311
m&p-Xylene		ND	U	20	"	"	"	"	TO-15/SOP311
o-Xylene		ND	U	9	"	"	"	"	TO-15/SOP311
Styrene		ND	U	9	"	"	"	"	TO-15/SOP311
1,1,2,2-Tetrachloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,3,5-Trimethylbenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2,4-Trimethylbenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,3-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,4-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2,4-Trichlorobenzene		ND	U	20	"	"	"	"	TO-15/SOP311
Hexachlorobutadiene		ND	U	20	"	"	"	"	TO-15/SOP311

United States Environmental Protection Agency
Region 9 Laboratory

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Project Manager:	Alana Lee	**California Site Cleanup Section 3**	**SDG:** 14045A
Project Number:	R14S39	**75 Hawthorne Street**	**Reported:** 03/05/14 09:08
Project:	MEW 2014 Manhole Screening Investigation	**San Francisco CA, 94105**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method

Lab ID: 1402032-03 **Air - Sampled: 02/13/14 11:03**

United States Environmental Protection Agency
Region 9 Laboratory

1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: Alana Lee	**California Site Cleanup Section 3**	**SDG:** 14045A
Project Number: R14S39	**75 Hawthorne Street**	**Reported:** 03/05/14 09:08
Project: MEW 2014 Manhole Screening Investigation	**San Francisco CA, 94105**	

Sample Results

Lab ID: 1402032-04 — **Air - Sampled: 02/13/14 10:55**

Sample ID: MH14

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Volatile Organic Compounds by TO-15									
1,2-Dichlorotetrafluoroethane		ND	U	10	ug/m³ Air	B14B075	02/18/14	02/18/14	TO-15/SOP311
Chloromethane		ND	U	4	"	"	"	"	TO-15/SOP311
Vinyl chloride		6		5	"	"	"	"	TO-15/SOP311
Bromomethane		ND	U	8	"	"	"	"	TO-15/SOP311
Chloroethane		ND	U	5	"	"	"	"	TO-15/SOP311
Trichlorofluoromethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,1,2-Trichloro-1,2,2-trifluoroethane		ND	U	20	"	"	"	"	TO-15/SOP311
1,1-Dichloroethene		ND	U	8	"	"	"	"	TO-15/SOP311
Dichloromethane		6	B1, C1, J, Q3	7	"	"	"	"	TO-15/SOP311
1,1-Dichloroethane		ND	U	8	"	"	"	"	TO-15/SOP311
cis-1,2-Dichloroethene	RE1	700		80	"	"	"	02/18/14	TO-15/SOP311
Chloroform		200		10	"	"	"	02/18/14	TO-15/SOP311
1,1,1-Trichloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
Carbon tetrachloride		ND	U	10	"	"	"	"	TO-15/SOP311
Benzene		ND	U	7	"	"	"	"	TO-15/SOP311
1,2-Dichloroethane		ND	U	8	"	"	"	"	TO-15/SOP311
Trichloroethene	RE1	800		100	"	"	"	02/18/14	TO-15/SOP311
1,2-Dichloropropane		ND	U	9	"	"	"	02/18/14	TO-15/SOP311
cis-1,3-Dichloropropene		ND	U	9	"	"	"	"	TO-15/SOP311
Toluene		ND	U	8	"	"	"	"	TO-15/SOP311
trans-1,3-Dichloropropene		ND	U	9	"	"	"	"	TO-15/SOP311
1,1,2-Trichloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
Tetrachloroethene		200		10	"	"	"	"	TO-15/SOP311
1,2-Dibromoethane (EDB)		ND	U	20	"	"	"	"	TO-15/SOP311
Chlorobenzene		ND	U	9	"	"	"	"	TO-15/SOP311
Ethylbenzene		ND	U	9	"	"	"	"	TO-15/SOP311
m&p-Xylene		ND	U	20	"	"	"	"	TO-15/SOP311
o-Xylene		ND	U	9	"	"	"	"	TO-15/SOP311
Styrene		ND	U	9	"	"	"	"	TO-15/SOP311
1,1,2,2-Tetrachloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,3,5-Trimethylbenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2,4-Trimethylbenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,3-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,4-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2,4-Trichlorobenzene		ND	U	20	"	"	"	"	TO-15/SOP311
Hexachlorobutadiene		ND	U	20	"	"	"	"	TO-15/SOP311

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Project Manager: Alana Lee	**California Site Cleanup Section 3**	**SDG:** 14045A
Project Number: R14S39	**75 Hawthorne Street**	**Reported:** 03/05/14 09:08
Project: MEW 2014 Manhole Screening Investigation	**San Francisco CA, 94105**	

Sample Results

Lab ID: 1402032-05 — **Air - Sampled: 02/13/14 11:30**

Sample ID: MH15 — **Volatile Organic Compounds by TO-15**

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
1,2-Dichlorotetrafluoroethane		ND	U	10	ug/m³ Air	B14B075	02/18/14	02/18/14	TO-15/SOP311
Chloromethane		ND	U	4	"	"	"	"	TO-15/SOP311
Vinyl chloride		ND	U	5	"	"	"	"	TO-15/SOP311
Bromomethane		ND	U	8	"	"	"	"	TO-15/SOP311
Chloroethane		ND	U	5	"	"	"	"	TO-15/SOP311
Trichlorofluoromethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,1,2-Trichloro-1,2,2-trifluoroethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,1-Dichloroethene		ND	U	8	"	"	"	"	TO-15/SOP311
Dichloromethane		5	B1, C1, J, Q3	7	"	"	"	"	TO-15/SOP311
1,1-Dichloroethane		ND	U	8	"	"	"	"	TO-15/SOP311
cis-1,2-Dichloroethene	RE1	200		80	"	"	"	02/19/14	TO-15/SOP311
Chloroform		100		9	"	"	"	02/18/14	TO-15/SOP311
1,1,1-Trichloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
Carbon tetrachloride		ND	U	10	"	"	"	"	TO-15/SOP311
Benzene		ND	U	6	"	"	"	"	TO-15/SOP311
1,2-Dichloroethane		ND	U	8	"	"	"	"	TO-15/SOP311
Trichloroethene		200		10	"	"	"	"	TO-15/SOP311
1,2-Dichloropropane		ND	U	9	"	"	"	"	TO-15/SOP311
cis-1,3-Dichloropropene		ND	U	9	"	"	"	"	TO-15/SOP311
Toluene		ND	U	7	"	"	"	"	TO-15/SOP311
trans-1,3-Dichloropropene		ND	U	9	"	"	"	"	TO-15/SOP311
1,1,2-Trichloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
Tetrachloroethene		60		10	"	"	"	"	TO-15/SOP311
1,2-Dibromoethane (EDB)		ND	U	10	"	"	"	"	TO-15/SOP311
Chlorobenzene		ND	U	9	"	"	"	"	TO-15/SOP311
Ethylbenzene		ND	U	8	"	"	"	"	TO-15/SOP311
m&p-Xylene		ND	U	20	"	"	"	"	TO-15/SOP311
o-Xylene		ND	U	8	"	"	"	"	TO-15/SOP311
Styrene		ND	U	8	"	"	"	"	TO-15/SOP311
1,1,2,2-Tetrachloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,3,5-Trimethylbenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2,4-Trimethylbenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,3-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,4-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2,4-Trichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
Hexachlorobutadiene		ND	U	20	"	"	"	"	TO-15/SOP311

United States Environmental Protection Agency
Region 9 Laboratory

1337 S. 46th Street, Building 201, Richmond, CA 94804
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Project Manager: Alana Lee	**California Site Cleanup Section 3**	**SDG:** 14045A
Project Number: R14S39	**75 Hawthorne Street**	**Reported:** 03/05/14 09:08
Project: MEW 2014 Manhole Screening Investigation	**San Francisco CA, 94105**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1402032-06									**Air - Sampled: 02/13/14 11:38**
Sample ID: MH16									
									Volatile Organic Compounds by TO-15
1,2-Dichlorotetrafluoroethane		ND	U	10	ug/m³ Air	B14B075	02/18/14	02/19/14	TO-15/SOP311
Chloromethane		ND	U	4	"	"	"	"	TO-15/SOP311
Vinyl chloride		ND	U	5	"	"	"	"	TO-15/SOP311
Bromomethane		ND	U	8	"	"	"	"	TO-15/SOP311
Chloroethane		ND	U	5	"	"	"	"	TO-15/SOP311
Trichlorofluoromethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,1,2-Trichloro-1,2,2-trifluoroethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,1-Dichloroethene		ND	U	8	"	"	"	"	TO-15/SOP311
Dichloromethane		5	B1, C1, J, Q3	7	"	"	"	"	TO-15/SOP311
1,1-Dichloroethane		ND	U	8	"	"	"	"	TO-15/SOP311
cis-1,2-Dichloroethene		ND	U	8	"	"	"	"	TO-15/SOP311
Chloroform		ND	U	10	"	"	"	"	TO-15/SOP311
1,1,1-Trichloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
Carbon tetrachloride		ND	U	10	"	"	"	"	TO-15/SOP311
Benzene		ND	U	6	"	"	"	"	TO-15/SOP311
1,2-Dichloroethane		ND	U	8	"	"	"	"	TO-15/SOP311
Trichloroethene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2-Dichloropropane		ND	U	9	"	"	"	"	TO-15/SOP311
cis-1,3-Dichloropropene		ND	U	9	"	"	"	"	TO-15/SOP311
Toluene		ND	U	7	"	"	"	"	TO-15/SOP311
trans-1,3-Dichloropropene		ND	U	9	"	"	"	"	TO-15/SOP311
1,1,2-Trichloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
Tetrachloroethene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2-Dibromoethane (EDB)		ND	U	10	"	"	"	"	TO-15/SOP311
Chlorobenzene		ND	U	9	"	"	"	"	TO-15/SOP311
Ethylbenzene		ND	U	8	"	"	"	"	TO-15/SOP311
m&p-Xylene		ND	U	20	"	"	"	"	TO-15/SOP311
o-Xylene		ND	U	8	"	"	"	"	TO-15/SOP311
Styrene		ND	U	8	"	"	"	"	TO-15/SOP311
1,1,2,2-Tetrachloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,3,5-Trimethylbenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2,4-Trimethylbenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,3-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,4-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2,4-Trichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311

United States Environmental Protection Agency
Region 9 Laboratory

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Project Manager: Alana Lee	**California Site Cleanup Section 3**	**SDG:** 14045A
Project Number: R14S39	**75 Hawthorne Street**	**Reported:** 03/05/14 09:08
Project: MEW 2014 Manhole Screening Investigation	**San Francisco CA, 94105**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1402032-06									**Air - Sampled: 02/13/14 11:38**
Sample ID: MH16									**Volatile Organic Compounds by TO-15**
Hexachlorobutadiene		ND	U	20	ug/m³ Air	B14B075	02/18/14	02/19/14	TO-15/SOP311
Lab ID: 1402032-07									**Air - Sampled: 02/13/14 11:52**
Sample ID: MH17									**Volatile Organic Compounds by TO-15**
1,2-Dichlorotetrafluoroethane		ND	U	10	ug/m³ Air	B14B075	02/18/14	02/19/14	TO-15/SOP311
Chloromethane		ND	U	4	"	"	"	"	TO-15/SOP311
Vinyl chloride		ND	U	5	"	"	"	"	TO-15/SOP311
Bromomethane		ND	U	8	"	"	"	"	TO-15/SOP311
Chloroethane		ND	U	5	"	"	"	"	TO-15/SOP311
Trichlorofluoromethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,1,2-Trichloro-1,2,2-trifluoroethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,1-Dichloroethene		ND	U	8	"	"	"	"	TO-15/SOP311
Dichloromethane		5	B1, C1, J, Q3	7	"	"	"	"	TO-15/SOP311
1,1-Dichloroethane		ND	U	8	"	"	"	"	TO-15/SOP311
cis-1,2-Dichloroethene		50		8	"	"	"	"	TO-15/SOP311
Chloroform		100		9	"	"	"	"	TO-15/SOP311
1,1,1-Trichloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
Carbon tetrachloride		ND	U	10	"	"	"	"	TO-15/SOP311
Benzene		ND	U	6	"	"	"	"	TO-15/SOP311
1,2-Dichloroethane		ND	U	8	"	"	"	"	TO-15/SOP311
Trichloroethene		60		10	"	"	"	"	TO-15/SOP311
1,2-Dichloropropane		ND	U	9	"	"	"	"	TO-15/SOP311
cis-1,3-Dichloropropene		ND	U	9	"	"	"	"	TO-15/SOP311
Toluene		ND	U	7	"	"	"	"	TO-15/SOP311
trans-1,3-Dichloropropene		ND	U	9	"	"	"	"	TO-15/SOP311
1,1,2-Trichloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
Tetrachloroethene		20		10	"	"	"	"	TO-15/SOP311
1,2-Dibromoethane (EDB)		ND	U	10	"	"	"	"	TO-15/SOP311
Chlorobenzene		ND	U	9	"	"	"	"	TO-15/SOP311
Ethylbenzene		ND	U	8	"	"	"	"	TO-15/SOP311
m&p-Xylene		ND	U	20	"	"	"	"	TO-15/SOP311
o-Xylene		ND	U	8	"	"	"	"	TO-15/SOP311
Styrene		ND	U	8	"	"	"	"	TO-15/SOP311
1,1,2,2-Tetrachloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,3,5-Trimethylbenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2,4-Trimethylbenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,3-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,4-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311

United States Environmental Protection Agency
Region 9 Laboratory

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Project Manager: Alana Lee	**California Site Cleanup Section 3**	**SDG:** 14045A
Project Number: R14S39	**75 Hawthorne Street**	**Reported:** 03/05/14 09:08
Project: MEW 2014 Manhole Screening Investigation	**San Francisco CA, 94105**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1402032-07									**Air - Sampled: 02/13/14 11:52**
Sample ID: MH17									
							Volatile Organic Compounds by TO-15		
1,2-Dichlorobenzene		ND	U	10	ug/m³ Air	B14B075	02/18/14	02/19/14	TO-15/SOP311
1,2,4-Trichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
Hexachlorobutadiene		ND	U	20	"	"	"	"	TO-15/SOP311
Lab ID: 1402032-08									**Air - Sampled: 02/13/14 12:04**
Sample ID: MH18									
							Volatile Organic Compounds by TO-15		
1,2-Dichlorotetrafluoroethane		ND	U	10	ug/m³ Air	B14B075	02/18/14	02/19/14	TO-15/SOP311
Chloromethane		ND	U	4	"	"	"	"	TO-15/SOP311
Vinyl chloride		ND	U	5	"	"	"	"	TO-15/SOP311
Bromomethane		ND	U	8	"	"	"	"	TO-15/SOP311
Chloroethane		ND	U	5	"	"	"	"	TO-15/SOP311
Trichlorofluoromethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,1,2-Trichloro-1,2,2-trifluoroethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,1-Dichloroethene		ND	U	8	"	"	"	"	TO-15/SOP311
Dichloromethane		6	B1, J, Q3	7	"	"	"	"	TO-15/SOP311
1,1-Dichloroethane		ND	U	8	"	"	"	"	TO-15/SOP311
cis-1,2-Dichloroethene		100		8	"	"	"	"	TO-15/SOP311
Chloroform	RE1	300		90	"	"	"	02/19/14	TO-15/SOP311
1,1,1-Trichloroethane		ND	U	10	"	"	"	02/19/14	TO-15/SOP311
Carbon tetrachloride		ND	U	10	"	"	"	"	TO-15/SOP311
Benzene		ND	U	6	"	"	"	"	TO-15/SOP311
1,2-Dichloroethane		ND	U	8	"	"	"	"	TO-15/SOP311
Trichloroethene	RE1	700		100	"	"	"	02/19/14	TO-15/SOP311
1,2-Dichloropropane		ND	U	9	"	"	"	02/19/14	TO-15/SOP311
cis-1,3-Dichloropropene		ND	U	9	"	"	"	"	TO-15/SOP311
Toluene		ND	U	7	"	"	"	"	TO-15/SOP311
trans-1,3-Dichloropropene		ND	U	9	"	"	"	"	TO-15/SOP311
1,1,2-Trichloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
Tetrachloroethene	RE1	600		100	"	"	"	02/19/14	TO-15/SOP311
1,2-Dibromoethane (EDB)		ND	U	10	"	"	"	02/19/14	TO-15/SOP311
Chlorobenzene		ND	U	9	"	"	"	"	TO-15/SOP311
Ethylbenzene		ND	U	8	"	"	"	"	TO-15/SOP311
m&p-Xylene		ND	U	20	"	"	"	"	TO-15/SOP311
o-Xylene		ND	U	8	"	"	"	"	TO-15/SOP311
Styrene		ND	U	8	"	"	"	"	TO-15/SOP311
1,1,2,2-Tetrachloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,3,5-Trimethylbenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2,4-Trimethylbenzene		ND	U	10	"	"	"	"	TO-15/SOP311

United States Environmental Protection Agency
Region 9 Laboratory

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Project Manager: Alana Lee	**California Site Cleanup Section 3**	**SDG:** 14045A
Project Number: R14S39	**75 Hawthorne Street**	**Reported:** 03/05/14 09:08
Project: MEW 2014 Manhole Screening Investigation	**San Francisco CA, 94105**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1402032-08									**Air - Sampled: 02/13/14 12:04**
Sample ID: MH18									**Volatile Organic Compounds by TO-15**
1,3-Dichlorobenzene		ND	U	10	ug/m³ Air	B14B075	02/18/14	02/19/14	TO-15/SOP311
1,4-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2,4-Trichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
Hexachlorobutadiene		ND	U	20	"	"	"	"	TO-15/SOP311
Lab ID: 1402032-09									**Air - Sampled: 02/13/14 12:13**
Sample ID: MH19									**Volatile Organic Compounds by TO-15**
1,2-Dichlorotetrafluoroethane		ND	U	10	ug/m³ Air	B14B075	02/18/14	02/19/14	TO-15/SOP311
Chloromethane		ND	U	4	"	"	"	"	TO-15/SOP311
Vinyl chloride		ND	U	5	"	"	"	"	TO-15/SOP311
Bromomethane		ND	U	8	"	"	"	"	TO-15/SOP311
Chloroethane		ND	U	5	"	"	"	"	TO-15/SOP311
Trichlorofluoromethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,1,2-Trichloro-1,2,2-trifluoroethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,1-Dichloroethene		ND	U	8	"	"	"	"	TO-15/SOP311
Dichloromethane		4	B1, C1, J, Q3	7	"	"	"	"	TO-15/SOP311
1,1-Dichloroethane		ND	U	8	"	"	"	"	TO-15/SOP311
cis-1,2-Dichloroethene		5	C1, J	8	"	"	"	"	TO-15/SOP311
Chloroform		ND	U	9	"	"	"	"	TO-15/SOP311
1,1,1-Trichloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
Carbon tetrachloride		ND	U	10	"	"	"	"	TO-15/SOP311
Benzene		ND	U	6	"	"	"	"	TO-15/SOP311
1,2-Dichloroethane		ND	U	8	"	"	"	"	TO-15/SOP311
Trichloroethene		30		10	"	"	"	"	TO-15/SOP311
1,2-Dichloropropane		ND	U	9	"	"	"	"	TO-15/SOP311
cis-1,3-Dichloropropene		ND	U	9	"	"	"	"	TO-15/SOP311
Toluene		ND	U	7	"	"	"	"	TO-15/SOP311
trans-1,3-Dichloropropene		ND	U	9	"	"	"	"	TO-15/SOP311
1,1,2-Trichloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
Tetrachloroethene		7	C1, J	10	"	"	"	"	TO-15/SOP311
1,2-Dibromoethane (EDB)		ND	U	10	"	"	"	"	TO-15/SOP311
Chlorobenzene		ND	U	9	"	"	"	"	TO-15/SOP311
Ethylbenzene		ND	U	8	"	"	"	"	TO-15/SOP311
m&p-Xylene		ND	U	20	"	"	"	"	TO-15/SOP311
o-Xylene		ND	U	8	"	"	"	"	TO-15/SOP311
Styrene		ND	U	8	"	"	"	"	TO-15/SOP311
1,1,2,2-Tetrachloroethane		ND	U	10	"	"	"	"	TO-15/SOP311

United States Environmental Protection Agency
Region 9 Laboratory

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Project Manager: Alana Lee	**California Site Cleanup Section 3**	**SDG:** 14045A
Project Number: R14S39	**75 Hawthorne Street**	**Reported:** 03/05/14 09:08
Project: MEW 2014 Manhole Screening Investigation	**San Francisco CA, 94105**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1402032-09									**Air - Sampled: 02/13/14 12:13**
Sample ID: MH19									
							Volatile Organic Compounds by TO-15		
1,3,5-Trimethylbenzene		ND	U	10	ug/m³ Air	B14B075	02/18/14	02/19/14	TO-15/SOP311
1,2,4-Trimethylbenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,3-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,4-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2,4-Trichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
Hexachlorobutadiene		ND	U	20	"	"	"	"	TO-15/SOP311
Lab ID: 1402032-10									**Air - Sampled: 02/13/14 12:31**
Sample ID: MH20									
							Volatile Organic Compounds by TO-15		
1,2-Dichlorotetrafluoroethane		ND	U	10	ug/m³ Air	B14B075	02/18/14	02/19/14	TO-15/SOP311
Chloromethane		ND	U	4	"	"	"	"	TO-15/SOP311
Vinyl chloride		ND	U	5	"	"	"	"	TO-15/SOP311
Bromomethane		ND	U	7	"	"	"	"	TO-15/SOP311
Chloroethane		ND	U	5	"	"	"	"	TO-15/SOP311
Trichlorofluoromethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,1,2-Trichloro-1,2,2-trifluoroethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,1-Dichloroethene		ND	U	8	"	"	"	"	TO-15/SOP311
Dichloromethane		4	B1, C1, J, Q3	7	"	"	"	"	TO-15/SOP311
1,1-Dichloroethane		ND	U	8	"	"	"	"	TO-15/SOP311
cis-1,2-Dichloroethene		ND	U	8	"	"	"	"	TO-15/SOP311
Chloroform		ND	U	9	"	"	"	"	TO-15/SOP311
1,1,1-Trichloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
Carbon tetrachloride		ND	U	10	"	"	"	"	TO-15/SOP311
Benzene		ND	U	6	"	"	"	"	TO-15/SOP311
1,2-Dichloroethane		ND	U	8	"	"	"	"	TO-15/SOP311
Trichloroethene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2-Dichloropropane		ND	U	9	"	"	"	"	TO-15/SOP311
cis-1,3-Dichloropropene		ND	U	9	"	"	"	"	TO-15/SOP311
Toluene		ND	U	7	"	"	"	"	TO-15/SOP311
trans-1,3-Dichloropropene		ND	U	9	"	"	"	"	TO-15/SOP311
1,1,2-Trichloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
Tetrachloroethene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2-Dibromoethane (EDB)		ND	U	10	"	"	"	"	TO-15/SOP311
Chlorobenzene		ND	U	9	"	"	"	"	TO-15/SOP311
Ethylbenzene		ND	U	8	"	"	"	"	TO-15/SOP311
m&p-Xylene		ND	U	20	"	"	"	"	TO-15/SOP311

United States Environmental Protection Agency
Region 9 Laboratory

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Project Manager: Alana Lee
Project Number: R14S39
Project: MEW 2014 Manhole Screening Investigation

California Site Cleanup Section 3
75 Hawthorne Street
San Francisco CA, 94105

SDG: 14045A
Reported: 03/05/14 09:08

Sample Results

Lab ID: 1402032-10 — **Air - Sampled: 02/13/14 12:31**

Sample ID: MH20 — **Volatile Organic Compounds by TO-15**

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
o-Xylene		ND	U	8	ug/m³ Air	B14B075	02/18/14	02/19/14	TO-15/SOP311
Styrene		ND	U	8	"	"	"	"	TO-15/SOP311
1,1,2,2-Tetrachloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,3,5-Trimethylbenzene		ND	U	9	"	"	"	"	TO-15/SOP311
1,2,4-Trimethylbenzene		ND	U	9	"	"	"	"	TO-15/SOP311
1,3-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,4-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2,4-Trichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
Hexachlorobutadiene		ND	U	20	"	"	"	"	TO-15/SOP311

Lab ID: 1402032-11 — **Air - Sampled: 02/13/14 12:37**

Sample ID: MH21 — **Volatile Organic Compounds by TO-15**

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
1,2-Dichlorotetrafluoroethane		ND	U	10	ug/m³ Air	B14B075	02/18/14	02/19/14	TO-15/SOP311
Chloromethane		ND	U	4	"	"	"	"	TO-15/SOP311
Vinyl chloride		ND	U	5	"	"	"	"	TO-15/SOP311
Bromomethane		ND	U	7	"	"	"	"	TO-15/SOP311
Chloroethane		ND	U	5	"	"	"	"	TO-15/SOP311
Trichlorofluoromethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,1,2-Trichloro-1,2,2-trifluoroethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,1-Dichloroethene		ND	U	8	"	"	"	"	TO-15/SOP311
Dichloromethane		4	B1, C1, J, Q3	7	"	"	"	"	TO-15/SOP311
1,1-Dichloroethane		ND	U	8	"	"	"	"	TO-15/SOP311
cis-1,2-Dichloroethene		ND	U	8	"	"	"	"	TO-15/SOP311
Chloroform		ND	U	9	"	"	"	"	TO-15/SOP311
1,1,1-Trichloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
Carbon tetrachloride		ND	U	10	"	"	"	"	TO-15/SOP311
Benzene		ND	U	6	"	"	"	"	TO-15/SOP311
1,2-Dichloroethane		ND	U	8	"	"	"	"	TO-15/SOP311
Trichloroethene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2-Dichloropropane		ND	U	9	"	"	"	"	TO-15/SOP311
cis-1,3-Dichloropropene		ND	U	9	"	"	"	"	TO-15/SOP311
Toluene		ND	U	7	"	"	"	"	TO-15/SOP311
trans-1,3-Dichloropropene		ND	U	9	"	"	"	"	TO-15/SOP311
1,1,2-Trichloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
Tetrachloroethene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2-Dibromoethane (EDB)		ND	U	10	"	"	"	"	TO-15/SOP311

United States Environmental Protection Agency
Region 9 Laboratory

1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: Alana Lee	**California Site Cleanup Section 3**	**SDG:** 14045A
Project Number: R14S39	**75 Hawthorne Street**	**Reported:** 03/05/14 09:08
Project: MEW 2014 Manhole Screening Investigation	**San Francisco CA, 94105**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1402032-11									**Air - Sampled: 02/13/14 12:37**
Sample ID: MH21									
									Volatile Organic Compounds by TO-15
Chlorobenzene		ND	U	9	ug/m³ Air	B14B075	02/18/14	02/19/14	TO-15/SOP311
Ethylbenzene		ND	U	8	"	"	"	"	TO-15/SOP311
m&p-Xylene		ND	U	20	"	"	"	"	TO-15/SOP311
o-Xylene		ND	U	8	"	"	"	"	TO-15/SOP311
Styrene		ND	U	8	"	"	"	"	TO-15/SOP311
1,1,2,2-Tetrachloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,3,5-Trimethylbenzene		ND	U	9	"	"	"	"	TO-15/SOP311
1,2,4-Trimethylbenzene		ND	U	9	"	"	"	"	TO-15/SOP311
1,3-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,4-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2,4-Trichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
Hexachlorobutadiene		ND	U	20	"	"	"	"	TO-15/SOP311
Lab ID: 1402032-12									**Air - Sampled: 02/13/14 12:44**
Sample ID: MH22									
									Volatile Organic Compounds by TO-15
1,2-Dichlorotetrafluoroethane		ND	U	10	ug/m³ Air	B14B075	02/18/14	02/19/14	TO-15/SOP311
Chloromethane		ND	U	4	"	"	"	"	TO-15/SOP311
Vinyl chloride		ND	U	5	"	"	"	"	TO-15/SOP311
Bromomethane		ND	U	8	"	"	"	"	TO-15/SOP311
Chloroethane		ND	U	5	"	"	"	"	TO-15/SOP311
Trichlorofluoromethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,1,2-Trichloro-1,2,2-trifluoroethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,1-Dichloroethene		ND	U	8	"	"	"	"	TO-15/SOP311
Dichloromethane		4	B1, C1, J, Q3	7	"	"	"	"	TO-15/SOP311
1,1-Dichloroethane		ND	U	8	"	"	"	"	TO-15/SOP311
cis-1,2-Dichloroethene		ND	U	8	"	"	"	"	TO-15/SOP311
Chloroform		ND	U	9	"	"	"	"	TO-15/SOP311
1,1,1-Trichloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
Carbon tetrachloride		ND	U	10	"	"	"	"	TO-15/SOP311
Benzene		ND	U	6	"	"	"	"	TO-15/SOP311
1,2-Dichloroethane		ND	U	8	"	"	"	"	TO-15/SOP311
Trichloroethene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2-Dichloropropane		ND	U	9	"	"	"	"	TO-15/SOP311
cis-1,3-Dichloropropene		ND	U	9	"	"	"	"	TO-15/SOP311
Toluene		ND	U	7	"	"	"	"	TO-15/SOP311
trans-1,3-Dichloropropene		ND	U	9	"	"	"	"	TO-15/SOP311

United States Environmental Protection Agency
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Project Manager: Alana Lee	**California Site Cleanup Section 3**	**SDG:** 14045A
Project Number: R14S39	**75 Hawthorne Street**	**Reported:** 03/05/14 09:08
Project: MEW 2014 Manhole Screening Investigation	**San Francisco CA, 94105**	

Sample Results

Lab ID: 1402032-12 — **Air - Sampled: 02/13/14 12:44**

Sample ID: MH22

Volatile Organic Compounds by TO-15

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
1,1,2-Trichloroethane		ND	U	10	ug/m³ Air	B14B075	02/18/14	02/19/14	TO-15/SOP311
Tetrachloroethene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2-Dibromoethane (EDB)		ND	U	10	"	"	"	"	TO-15/SOP311
Chlorobenzene		ND	U	9	"	"	"	"	TO-15/SOP311
Ethylbenzene		ND	U	8	"	"	"	"	TO-15/SOP311
m&p-Xylene		ND	U	20	"	"	"	"	TO-15/SOP311
o-Xylene		ND	U	8	"	"	"	"	TO-15/SOP311
Styrene		ND	U	8	"	"	"	"	TO-15/SOP311
1,1,2,2-Tetrachloroethane		ND	U	10	"	"	"	"	TO-15/SOP311
1,3,5-Trimethylbenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2,4-Trimethylbenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,3-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,4-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2-Dichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
1,2,4-Trichlorobenzene		ND	U	10	"	"	"	"	TO-15/SOP311
Hexachlorobutadiene		ND	U	20	"	"	"	"	TO-15/SOP311

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Project Number: R14S39	**75 Hawthorne Street**	**Reported:** 03/05/14 09:08
Project: MEW 2014 Manhole Screening Investigation	**San Francisco CA, 94105**	

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B14B075 - - General Air prep - VOCs, Soil Gas										**Prepared & Analyzed: 02/18/14**
										Volatile Organic Compounds by TO-15 - Quality Control
Blank (B14B075-BLK1)										
1,2-Dichlorotetrafluoroethane	ND	U	7	ug/m³ Air						
Chloromethane	ND	U	2.1	"						
Vinyl chloride	ND	U	2.6	"						
Bromomethane	ND	U	3.9	"						
Chloroethane	ND	U	2.6	"						
Trichlorofluoromethane	ND	U	5.6	"						
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	U	7.7	"						
1,1-Dichloroethene	ND	U	4	"						
Dichloromethane	2	C1, J, Q3	3.5	"						
1,1-Dichloroethane	ND	U	4	"						
cis-1,2-Dichloroethene	ND	U	4	"						
Chloroform	ND	U	4.9	"						
1,1,1-Trichloroethane	ND	U	5.5	"						
Carbon tetrachloride	ND	U	6.3	"						
Benzene	ND	U	3.2	"						
1,2-Dichloroethane	ND	U	4	"						
Trichloroethene	ND	U	5.4	"						
1,2-Dichloropropane	ND	U	4.6	"						
cis-1,3-Dichloropropene	ND	U	4.5	"						
Toluene	ND	U	3.8	"						
trans-1,3-Dichloropropene	ND	U	4.5	"						
1,1,2-Trichloroethane	ND	U	5.5	"						
Tetrachloroethene	ND	U	6.8	"						
1,2-Dibromoethane (EDB)	ND	U	7.7	"						
Chlorobenzene	ND	U	4.6	"						
Ethylbenzene	ND	U	4.3	"						
m&p-Xylene	ND	U	8.7	"						
o-Xylene	ND	U	4.3	"						
Styrene	ND	U	4.3	"						
1,1,2,2-Tetrachloroethane	ND	U	6.9	"						
1,3,5-Trimethylbenzene	ND	U	4.9	"						
1,2,4-Trimethylbenzene	ND	U	4.9	"						
1,3-Dichlorobenzene	ND	U	6	"						
1,4-Dichlorobenzene	ND	U	6	"						
1,2-Dichlorobenzene	ND	U	6	"						
1,2,4-Trichlorobenzene	ND	U	7.4	"						
Hexachlorobutadiene	ND	U	11	"						
LCS (B14B075-BS1)										
1,2-Dichlorotetrafluoroethane	64		7	ug/m³ Air	73.3		87	68-147		200
Chloromethane	20		2.1	"	21.7		93	64-141		200

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Project Manager: Alana Lee	**California Site Cleanup Section 3**	**SDG:** 14045A
Project Number: R14S39	**75 Hawthorne Street**	**Reported:** 03/05/14 09:08
Project: MEW 2014 Manhole Screening Investigation	**San Francisco CA, 94105**	

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B14B075 - - General Air prep - VOCs, Soil Gas										**Prepared & Analyzed: 02/18/14**
								Volatile Organic Compounds by TO-15 - Quality Control		
LCS (B14B075-BS1)										
Vinyl chloride	25		2.6	"	26.8		93	65-141		200
Bromomethane	36		3.9	"	40.0		90	71-132		200
Chloroethane	26		2.6	"	27.2		95	70-134		200
Trichlorofluoromethane	65		5.6	"	60.1		107	72-141		200
1,1,2-Trichloro-1,2,2-trifluoroethane	69		7.7	"	74.3		92	68-134		200
1,1-Dichloroethene	38		4	"	38.0		100	81-127		200
Dichloromethane	33		3.5	"	34.0		98	74-116		200
1,1-Dichloroethane	40		4	"	39.2		101	82-123		200
cis-1,2-Dichloroethene	40		4	"	40.0		101	83-126		200
Chloroform	50		4.9	"	49.8		100	81-127		200
1,1,1-Trichloroethane	58		5.5	"	55.1		104	80-131		200
Carbon tetrachloride	69		6.3	"	64.7		106	77-136		200
Benzene	33		3.2	"	32.2		104	77-131		200
1,2-Dichloroethane	47		4	"	39.6		118	70-149		200
Trichloroethene	55		5.4	"	54.2		101	81-125		200
1,2-Dichloropropane	50		4.6	"	47.6		105	74-135		200
cis-1,3-Dichloropropene	49		4.5	"	46.7		105	77-129		200
Toluene	46		3.8	"	38.4		119	79-126		200
trans-1,3-Dichloropropene	63		4.5	"	48.5		130	81-137		200
1,1,2-Trichloroethane	64		5.5	"	56.2		115	76-124		200
Tetrachloroethene	79		6.8	"	67.8		116	80-122		200
1,2-Dibromoethane (EDB)	96		7.7	"	79.1		121	78-124		200
Chlorobenzene	55		4.6	"	47.8		116	76-120		200
Ethylbenzene	54		4.3	"	44.3		121	75-125		200
m&p-Xylene	108		8.7	"	88.5		121	75-128		200
o-Xylene	55		4.3	"	44.7		123	74-128		200
Styrene	52		4.3	"	43.0		121	69-122		200
1,1,2,2-Tetrachloroethane	81		6.9	"	70.0		116	70-130		200
1,3,5-Trimethylbenzene	62		4.9	"	50.6		122	70-134		200
1,2,4-Trimethylbenzene	62		4.9	"	49.6		125	65-129		200
1,3-Dichlorobenzene	74		6	"	59.5		125	62-130		200
1,4-Dichlorobenzene	75		6	"	59.5		127	61-131		200
1,2-Dichlorobenzene	73		6	"	59.5		123	60-130		200
1,2,4-Trichlorobenzene	86		7.4	"	67.5		128	38-128		200
Hexachlorobutadiene	125		11	"	101		124	37-124		200
Duplicate (B14B075-DUP1)		**Source: 1402032-02**								
1,2-Dichlorotetrafluoroethane	ND	U	13	ug/m³ Air		ND				20
Chloromethane	ND	U	3.8	"		ND				20
Vinyl chloride	ND	U	4.7	"		ND				20
Bromomethane	ND	U	7.1	"		ND				20
Chloroethane	ND	U	4.8	"		ND				20

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Project Manager: Alana Lee	**California Site Cleanup Section 3**	**SDG:** 14045A
Project Number: R14S39	**75 Hawthorne Street**	**Reported:** 03/05/14 09:08
Project: MEW 2014 Manhole Screening Investigation	**San Francisco CA, 94105**	

Quality Control

Batch B14B075 - - General Air prep - VOCs, Soil Gas — **Prepared & Analyzed: 02/18/14**

Volatile Organic Compounds by TO-15 - Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Duplicate (B14B075-DUP1)		**Source: 1402032-02**								
Trichlorofluoromethane	ND	U	10	"		ND				20
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	U	14	"		ND				20
1,1-Dichloroethene	ND	U	7.2	"		ND				20
Dichloromethane	4	C1, J	6.4	"		4.1			2	20
1,1-Dichloroethane	ND	U	7.4	"		ND				20
cis-1,2-Dichloroethene	20		7.2	"		20			7	20
Chloroform	ND	U	8.9	"		ND				20
1,1,1-Trichloroethane	ND	U	10	"		ND				20
Carbon tetrachloride	ND	U	12	"		ND				20
Benzene	ND	U	5.8	"		ND				20
1,2-Dichloroethane	ND	U	7.4	"		ND				20
Trichloroethene	40		9.8	"		37			7	20
1,2-Dichloropropane	ND	U	8.5	"		ND				20
cis-1,3-Dichloropropene	ND	U	8.3	"		ND				20
Toluene	ND	U	6.9	"		ND				20
trans-1,3-Dichloropropene	ND	U	8.3	"		ND				20
1,1,2-Trichloroethane	ND	U	10	"		ND				20
Tetrachloroethene	ND	U	12	"		ND				20
1,2-Dibromoethane (EDB)	ND	U	14	"		ND				20
Chlorobenzene	ND	U	8.4	"		ND				20
Ethylbenzene	ND	U	7.9	"		ND				20
m&p-Xylene	ND	U	16	"		ND				20
o-Xylene	ND	U	7.9	"		ND				20
Styrene	ND	U	7.8	"		ND				20
1,1,2,2-Tetrachloroethane	ND	U	13	"		ND				20
1,3,5-Trimethylbenzene	ND	U	9	"		ND				20
1,2,4-Trimethylbenzene	ND	U	9	"		ND				20
1,3-Dichlorobenzene	ND	U	11	"		ND				20
1,4-Dichlorobenzene	ND	U	11	"		ND				20
1,2-Dichlorobenzene	ND	U	11	"		ND				20
1,2,4-Trichlorobenzene	ND	U	14	"		ND				20
Hexachlorobutadiene	ND	U	20	"		ND				20

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Project Number: R14S39	**75 Hawthorne Street**	**Reported:** 03/05/14 09:08
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Qualifiers and Comments

Q3 The quantitation limit standard did not meet recovery criteria for this analyte.

J The reported result for this analyte should be considered an estimated value.

C1 The reported concentration for this analyte is below the quantitation limit.

B1 The concentration of this analyte found in this sample was less than five times the concentration found in the associated method blank.

U Not Detected

NR Not Reported

RE1, RE2, etc: Result is from a sample re-analysis.

ICF International
Environmental Services Assistance Team, Region 9
1337 South 46th Street, Building 201, Richmond, CA 94804-4698
Phone: (510) 412-2300 Fax: (510) 412-2304

DATE: February ~~24~~ 28, 2014

TO: Richard Bauer, Chemistry TM, EPA Region 9, Laboratory Section, MTS-2

FROM: Ziyad Rajabi, Organic Group Leader

SUBJECT: Analytical Results for TDF 10101071

As assigned under EPA Contract No. EP-W-13-029, TDF 10101071, ESAT completed analysis of 12 soil gas samples for the Middlefield-Ellis-Whisman project, Case R14S39, SDG 14045A, Work Order 1402032 for TO 15 following EPA Region 9 Laboratory SOP 311 based on method TO15. The draft analytical report and raw data package are attached.

Work on this TDF is complete. If you have any questions regarding this information please contact me at extension 22390.

EPA Region 9 Laboratory

DATA PACKAGE

Analysis:	**VOCs**
Project Number:	**R14S39**
SDG Number:	**14045A**
Work Order:	**1402032**
ESAT DCN:	**16698**

Contents

- **Review Forms**
- **Tracking Forms**
- ***Sample Preparation***
- **Data**
  -Initial Calibration Data
  -Sample Data
- ***Miscellaneous Data***
- ***Canister Certification Data***

Sections in italics are included as applicable

REVIEW FORMS

General Project Management and ESAT Contractor Oversight Review

Project Number: R14S39

SDG: 14045A

Analysis: TO 15

Number of Pages: 541

Reviewer: Chris Cagurangan

- ☑ Review project notes and requirements (including TDF) and verify that correct analytical procedures and any special instructions were followed. Note any significant deviations or omissions in report narrative or return to contractor for correction.
- ☑ Review project memo field for each work order and include information pertinent to data users in report narrative. (Information important only to chemist reviewing the raw data package should be included in data package, but not in the report narrative).
- ☑ Review chain of custody documentation and verify that information in report corresponds correctly. Verify that any sample shipping or handling issues are properly documented and reported.
- ☑ Review analytical report and QC report and verify that qualifier flags for holding times, sample handling, surrogates, blanks, blank spikes, matrix QC, and calibration range have been appropriately applied.
- ☑ Review LIMS Data Entry table for unaddressed outliers.
- ☑ Verify that all major sections of data package are present.

Comments: 03/04/14

Reviewer Signature _____ Date 03/05/14

G:\USER\ESAT\# LAB DATA Deliverables\R14S39\14045A-TO15-16698.docx

ESAT Region 9 | **ICF International**
Case: R14S39 | **Analysis:** VOCs | **TDF:** 10101071 | **Matrix:** soil gas
DCN: 16698 | **Site:** Middlefield-Ellis-Whisman | **SDG:** 14045A

ESAT REGION 9 DATA PACKAGE TECHNICAL REVIEW GUIDE

Reviewer: Package Prep (P): EM Technical (T): [illegible] Final (F): [illegible]
Date: 2/20/14 Date: 2/28/14 Date: 2/28/14

P T F N/A (indicates that the item is present and reviewed for accuracy and completeness)

Report Section

- ☑ ☑ ☑ ESAT Cover Memo (original)
- ☑ ☐ ☐ TDF included and requirements met (e.g. project analytes, project QLs, special procedures)
- ☑ ☑ ☑ Draft LIMS Report

Data Package Cover

- ☑ ☐ ☑ Case, SDG, Work Order(s), TDF#-DCN [First numbered page in the data package]

Review Forms

- ☑ ☑ ☑ EPA Review Form and Technical Review Guide included and complete.
- ☑ ☑ ☑ ☐ LIMS memo field; include as applicable.
- ☐ ☐ ☐ ☑ Discrepancy form(s) include as applicable
- ☑ ☑ ☑ ☐ Daily folder review forms are complete and reviewed; QC outliers noted
- ☑ ☑ ☐ ☐ Analysis matrix listing all analytical runs is included, as applicable

Tracking Forms

- ☑ ☐ ☑ Work Orders and Chains of Custody forms included and reviewed.
- ☑ ☑ ☑ Preparation and analyses performed within holding times. Qualify and/or explain deviations in memo field
- ☐ ☐ ☐ ☑ Cooler temperatures recorded on COC are within specification. Qualify and/or explain deviations in memo field

Sample Preparation

- ☑ ☑ ☐ ☐ Bench sheets and extraction logs, where applicable
- ☐ ☐ ☐ ☑ Sample cleanup data and records (e.g. GPC logs)
- ☐ ☐ ☐ ☑ Homogenization and Moisture data

Initial Calibration Data

Group ICAL data by instrument and analysis date:

- ☑ ☑ ☐ ☐ All ICALs associated with samples are present, reviewed, and pass SOP criteria. (If failure, discrepancy form must be included)
- ☑ ☑ ☐ ☐ Check for misidentification (e.g. isomers such as dichlorobenzene)

Sample Data

Group data for the following areas in sections by method, instrument, and analysis date.

Continuing Calibrations

- ☑ ☑ ☐ ☐ All CCALs associated with samples are present and meet SOP criteria. If not, discrepancy form included.
- ☑ ☑ ☐ Average RRFs from associated ICAL are correctly transposed to CCAL summary form
- ☑ ☑ ☐ CCAL RRFs and %Ds calculated correctly. Check at least 1 surrogate & 1 target analyte
- ☑ ☐ ☐ Check %Ds and RRFs against SOP criteria

ESAT Region 9
Case: R14S39
DCN: 16698

Analysis: VOCs
Site: Middlefield-Ellis-Whisman

TDF: 10101071

ICF International
Matrix: soil gas
SDG: 14045A

P T F N/A (indicates that the item is present and reviewed for accuracy and completeness)

Quantitation Limit Standards
¤ ✓ ¤ ¤ Percent recoveries of 60-140% met; outliers noted and flagged

Laboratory Control Samples
¤ ✓ ¤ Percent recoveries met. If not, discrepancy form included unless not required because: _____

Method Blanks
✓ ¤ ¤ Present and no target analyte results > ½ QL; if not, flag data as appropriate

~~MS/MSD~~ or Duplicate Data
¤ ¤ ✓ ¤ Percent recoveries and RPDs were met; outliers are noted and flagged. Note significant deviations in LIMS memo field

Sample Data
¤ ¤ ✓ ¤ Bench sheet(s) and injection or run logs present for all samples
¤ ¤ ✓ ¤ Internal standards meet SOP criteria
✓ ✓ ¤ ¤ System Monitoring Compound/Surrogate recoveries met; outliers are noted and flagged
✓ ¤ ¤ All non-detects are reported as ND on the quantitation report and explained for QC samples
✓ ✓ ¤ Quantitation results are correctly calculated. Check at least one surrogate or one target analyte
✓ ✓ ¤ Mass spectral data are present for all target analytes
✓ ✓ ¤ ¤ Check for manual integrations (m) identified on quantitation reports. Verify presence of manual integration data, initialed and dated by a supervisor
✓ ✓ ¤ ¤ Compound concentrations exceeding the upper range of the instrument are reported from the dilution run
¤ ✓ Check for carry-over contamination
✓ ✓ ¤ ¤ Dilutions and reruns appropriate.
¤ ¤ ✓ TICs properly identified; TIC report and data present; proper TIC name used (Organics)
✓ ✓ ¤ ¤ QC outliers are appropriately flagged in LIMS

Miscellaneous Data
¤ ¤ ¤ ✓ Storage blank data present
¤ ¤ ¤ ✓ Other data, as applicable _____

Canister Certification Data (TO 15 only)
¤ ✓ ✓ ¤ Data and supporting QC present

Standards Records
¤ ¤ ✓ ¤ LIMS Standards pdf created and filed as:
I:\PDF\Standard\ R14S39_14045A_VOCSoilGas

For ESAT Files: ESAT Review form (original) and Cover Memo (copy)

WORK ORDER NOTES - 1402032

1402032 - California Site Cleanup Section 3
MEW 2014 Manhole Screening Investigation

Edit Done

Sample Receiving:
COC has shortened sample ID names for first four canisters than what is identified on the labels. Confirmed with Alana Lee via email dated 2/14/14 that the COC is correct with shortened sample ID numbers. Also confirmed with Alana Lee that sample container labeled as MH19, time 12:04 is mislabeled and should be Sample ID MH18, time 12:04. SMS 2/14/14

Organics Daily Folder Preparation/Technical Review Guide

Analysis Method	TO15	**Analyst Initial**	EM	**Reviewer Initial**	ZR	**Batch/ Sequence**	S14A082
Instrument ID	HP5973K	**Date Analyzed**	1/24/14	**Date**	1/28/14	**Chemstation Last Update**	1/24/14 15:09:46
Cases	INITIAL CALIBRATION			**SDGs**	ICAL 14020		

Review each item listed below. As problems are discovered list them in the non-conformance section of the form and provide and explanation in the discussion part of the table.

NA	A	PR	Item Description
	✓	✓	Runlog (Present, legible, peer reviewed)
	✓	✓	Tune/ Degradation Standard
	✓	✓	Initial Calibration (SOP criteria for number of levels, concentration, and %RSD). Manual calculation. Include summary for daily review.
	✓	✓	Continuing Calibration Verification (frequency, recovery, and %D). Manual calculation.
✓			QLS (level, frequency, and recovery) (include Chemstation summary)
✓			Method / Extraction / Storage Blanks (frequency and contamination levels)
✓			Surrogate Recoveries
	✓	✓	IS Areas (SOP criteria met)
✓			LCS (level, frequency, and recovery) (include Chemstation summary)
✓			MS/MSD
✓			Samples (within calibration range, results calculated correctly)
	✓	✓	Manual Integration Verified
✓			Standard Prep Log (all pages present, legible, peer reviewed, legible)
✓			Sample Prep/Extraction (all pages present, legible, peer reviewed)
			Others:

NA = not applicable A = Analyst check PR = Peer Review Check

Non-conformance Report

QC	File ID	Result	QC Limit	High Bias	Low Bias	Flag ND	Flag Hits	Discussion

Organics Daily Folder Preparation/Technical Review Guide

Analysis Method	TO-15	Analyst Initial	EM	Reviewer Initial	[illegible]	Batch/ Sequence	B14B075 S14B088
Instrument ID	HP5973K	Date Analyzed	2/18/13	Date	2/19/14	Chemstation Last Update	Jan 24 15:09:46 2014
Cases	R14S39			SDGs	14045A		

Review each item listed below. As problems are discovered list them in the non-conformance section of the form and provide and explanation in the discussion part of the table.

NA	A	PR	Item Description
	X	✓	Runlog (Present, legible, peer reviewed)
	X	✓	Tune/ Degradation Standard
	X	✓	Initial Calibration (SOP criteria for number of levels, concentration, and %RSD). Manual calculation. Include summary for daily review.
	X	✓	Continuing Calibration Verification (frequency, recovery, and %D). Manual calculation.
	X	✓	QLS (level, frequency, and recovery) (include Chemstation summary)
	X	✓	Method / Extraction / Storage Blanks (frequency and contamination levels)
X			Surrogate Recoveries
	X	✓	IS Areas (SOP criteria met)
	X	✓	LCS (level, frequency, and recovery) (include Chemstation summary)
	X	✓	MS/MSD/Duplicate
	X	✓	Samples (within calibration range, results calculated correctly)
	X	✓	Manual Integration Verified
X			Standard Prep Log (all pages present, legible, peer reviewed, legible)
X			Sample Prep/Extraction (all pages present, legible, peer reviewed)
			Others:

NA = not applicable A = Analyst check PR = Peer Review Check

Non-conformance Report

QC	File ID	Result	QC Limit	High Bias	Low Bias	Flag ND	Flag Hits	Discussion
CRL1	021814K04.d	169.0%	60-140%	X			X	Dichloromethane
BLK	021814K07.d	0.61ppbv	<1/2QL	X			X	Dichloromethane B-flag

USEPA Region 9 Laboratory
Organic Analysis Summary

Case: R13S39
SDG: 14045A
Analysis: TO-15

Analyst: EM
Reviewed by:
Workorder: 1402032

Sample ID						
Instrument:	CAN	Dilution	SAMPLE ID	HP5973K	INSTRUMENT	INSTRUMENT
Analysis Date:		2/18/2014		2/18/2014		
Batch:				B14B075		
1402032-01	1578E	1.89	MH11	200mL RPT TCE OC 50mL RE1 RPT TCE		
1402032--02	1587E	1.83	MH12	200mL RPT 200mL DUP1 RPT		
1402032--03	1582E	2.08	MH13	200mL RPT		
1402032--04	1584E	2.04	MH14	200mL RPT cis-1,2-DCE & TCE OC 20mL RE1 RPT cis-1,2-DCE&TCE		
1402032--05	1555E	1.94	MH15	200mL RPT cis-1,2-DCE OC 20mL RE1 RPT cis-1,2-DCE		
1402032--06	1579E	1.95	MH16	200mL RPT; 20 mL NU		
1402032--07	7338	1.94	MH17	200mL RPT; 20 mL NU		
1402032--08	7244	1.94	MH18	200mL RPT CHCl3, TCE & PCE OC 20mL RE1 RPT CHCl3, TCE & PCE		
1402032--09	7339	1.94	MH19	200mL RPT		
1402032--10	7465	1.93	MH20	200mL RPT		
1402032--11	7354	1.93	MH21	200mL RPT		
1402032--12	7456	1.94	MH22	200mL RPT		
Blank				B14B075-BLK1	-BLK1	-BLK1
Blank Spike				B14B075-BS1	-BS1	-BS1
Duplicate				B14B075-DUP1	-DUP1	
Duplicate						

Definitions

RPT	Report
NU	Not Used
OC	Over calibration
OTT	Out of tune time
nX	Dilution, where n is dilution factor

Loop Method	SPLIT FLOW	SAMPLE SIZE
Loop.CTD	0	1
Loop5.CTD	5	0.67
Loop10.CTD	10	0.5
Loop15.CTD	15	0.4
Loop20.CTD	20	0.33
Loop40.CTD	40	0.2

ICF International

ESAT REGION 9 REVIEW FORM

TDF(S): 10101071

DCN: 16697

Activity Codes(s): 12

preliminary

EPA Task Manager: Richard Bauer

Work Order: 1402032

Case (Project): R14S39

SDG(s): 14045A

Due Date: 03/14/14

Date Sent: 02 / 19 / 14

Description: Analysis of 12 soil gas samples for VOCs for the Middlefield-Ellis-Whisman project

Data Package Prepared By:
Estrellita Manuel

LIMS Status Updated [✓]

Print name	Signature	Date

Print name	Signature	Date

Originals and Revisions require Technical & Final reviews; Preliminary deliverables require Final review.

TECHNICAL/PEER REVIEW BY:
(Comments and corrections on reverse)

Print name	Approved	Date
		[ ]

FINAL REVIEW BY:
(Comments and corrections on reverse)

Print name	Approved	Date
Ziyad Rajabi		2/19/14 [ ] N/

G:\USER\ESAT\# LAB DATA Deliverables\R14S39\14045A-TO15-16697.docx

SAMPLE TRACKING FORMS

WORK ORDER

Printed: 2/14/2014 2:53:45PM

1402032

EPA Region 9 Laboratory

Client: California Site Cleanup Section 3
Project: MEW 2014 Manhole Screening Investigation
Project Number: R14S39

Report To:
California Site Cleanup Section 3
Alana Lee
75 Hawthorne Street
San Francisco, CA 94105
Phone: (415) 972-3141
Fax: (415) 947-3526

Project Contact
California Site Cleanup Section 3
Alana Lee
75 Hawthorne Street
San Francisco, CA 94105
Phone :(415) 972-3141
Fax: (415) 947-3526

Shipping Containers	Description	Temp C	Custody Seals?	Containers Intact?	Labels COC Agree?	Preservation Confirmed?	Received on Ice?	Comments
1 Box	Box	22	No	Yes	Yes	No	No	

Date Due: 03/17/14 15:00 (30 day TAT)
Received By: Susan Sturges
Logged In By: Susan Sturges

SDG: 14045A
Date Received: 02/14/14 10:30
Date Logged In: 02/14/14 12:28

Analysis	Hold Time Expires	Comments
1402032-01 MH11 [Air] Sampled 02/13/14 11:10 Pacific		**Can 1578**
VOCs, Soil Gas	03/15/14	14 day prelim - 28 day final
1402032-02 MH12 [Air] Sampled 02/13/14 10:39 Pacific		**Can 1587**
VOCs, Soil Gas	03/15/14	14 day prelim - 28 day final
1402032-03 MH13 [Air] Sampled 02/13/14 11:03 Pacific		**Can 1582**
VOCs, Soil Gas	03/15/14	14 day prelim - 28 day final
1402032-04 MH14 [Air] Sampled 02/13/14 10:55 Pacific		**Can 1584**
VOCs, Soil Gas	03/15/14	14 day prelim - 28 day final
1402032-05 MH15 [Air] Sampled 02/13/14 11:30 Pacific		**Can 1555**
VOCs, Soil Gas	03/15/14	14 day prelim - 28 day final
1402032-06 MH16 [Air] Sampled 02/13/14 11:38 Pacific		**Can 1579**
VOCs, Soil Gas	03/15/14	14 day prelim - 28 day final
1402032-07 MH17 [Air] Sampled 02/13/14 11:52 Pacific		**Can 7338**
VOCs, Soil Gas	03/15/14	14 day prelim - 28 day final
1402032-08 MH18 [Air] Sampled 02/13/14 12:04 Pacific		**Can 7244**
VOCs, Soil Gas	03/15/14	14 day prelim - 28 day final

WORK ORDER

Printed: 2/14/2014 2:53:45PM

1402032

EPA Region 9 Laboratory

Client: California Site Cleanup Section 3
Project: MEW 2014 Manhole Screening Investigation
Project Number: R14S39

Analysis	Hold Time Expires	Comments

Analysis	Expires	Comments
1402032-09 MH19 [Air] Sampled 02/13/14 12:13 Pacific		**Can 7339**
VOCs, Soil Gas	03/15/14	14 day prelim - 28 day final
1402032-10 MH20 [Air] Sampled 02/13/14 12:31 Pacific		**Can 7465**
VOCs, Soil Gas	03/15/14	14 day prelim - 28 day final
1402032-11 MH21 [Air] Sampled 02/13/14 12:37 Pacific		**Can 7354**
VOCs, Soil Gas	03/15/14	14 day prelim - 28 day final
1402032-12 MH22 [Air] Sampled 02/13/14 12:44 Pacific		**Can 7456**
VOCs, Soil Gas	03/15/14	14 day prelim - 28 day final

Reviewed By

Date

U.S. Environmental Protection Agency	CHAIN OF CUSTODY RECORD	EPA REGION 9 75 Hawthorne Street San Francisco, California 94105
Project / Case Number MEW - M6	Project: **MEW Manhole Sampling - February 2013**	EPA Project Manager contact: Alana Lee, 415-972-3141 Lee.Alana@epa.gov
EPA R9 Laboratory	Samplers: *(Signature)*	Analysis Requested: TO15

Lab ID	Field Sample ID (Location)	Canister ID	Flow Ctrl ID	Comp	Grab	Sample Date	Sample Time	Initial Pressure	Final Pressure	PID reading	COMMENTS
	MH11	1578	N/A		X	2/13/2014	11:10	-30	Ø	300	MH11-SS-E
	MH12	1587			X	2/13/2014	10:39	-30	Ø	Ø	MH12-SD
	MH13	1582			X	2/13/2014	11:03	-30	Ø	Ø	MH13-SD-Sctr
	MH14	1584			X	2/13/2014	10:55	-30	Ø	645	MH14-SD-W
	MH15	1555			X	2/13/2014	11:30	-30	Ø	173	MH15
	MH16	1579			X	2/13/2014	11:38	-30	Ø	Ø	MH16
	MH17	7338			X	2/13/2014	11:52	-30	Ø	50	MH17
	MH18 7244	~~7354~~	2/14/14		X	2/13/2014	12:04	-30	Ø	Ø	MH19(?) ~~-No time on label~~ time is 12:04 on label SLS 2/14/14
	MH19	7339			X	2/13/2014	12:13	-30	Ø	120	MH19 - No time on label
	MH20	7465			X	2/13/2014	12:31	-30	Ø	Ø	MH20
	MH21	7354			X	2/13/2014	12:37	-30	Ø	Ø	MH21
	MH22	7456			X	2/13/2014	12:44	-30		Ø	MH22

Relinquished by: *(Signature)*	Date/Time	Received by: *(Signature)*	Date/Time
Alan Lee	2/13/14 1615		2/13/14 1615

Received for Laboratory by: *(Signature)*	Date/Time	Temp	
	2/14/14 1030	22°C	No seals - hand delivered

SAMPLE PREPARATION

PREPARATION BENCH SHEET

B14B075

EPA Region 9 Laboratory

·inted: 2/19/2014 11:31:00AM

Project: R14S39 - MEW 2014 Manhole Screening Investigation

Matrix: Air **Analysis: VOCs, Soil Gas** **Prepared using: Air - - General Air prep** **(No Surrogate)**

Lab Number	SampleName	Prepared	Initial (mL)	Final (mL)	Spike ID	Source ID	ul Spike	ul Surrogate	Prepared By	Extraction Comments
1402032-01 A	MH11	02/18/14 12:20	200	200					EM	14 day prelim - 28 day final
1402032-01RE1 A	MH11	02/18/14 12:20	50	200					EM	14 day prelim - 28 day final
1402032-02 A	MH12	02/18/14 12:20	200	200					EM	14 day prelim - 28 day final
1402032-03 A	MH13	02/18/14 12:20	200	200					EM	14 day prelim - 28 day final
1402032-04 A	MH14	02/18/14 12:20	200	200					EM	14 day prelim - 28 day final
1402032-04RE1 A	MH14	02/18/14 12:20	20	200					EM	14 day prelim - 28 day final
1402032-05 A	MH15	02/18/14 12:20	200	200					EM	14 day prelim - 28 day final
1402032-05RE1 A	MH15	02/18/14 12:20	20	200					EM	14 day prelim - 28 day final
1402032-06 A	MH16	02/18/14 12:20	200	200					EM	14 day prelim - 28 day final
1402032-07 A	MH17	02/18/14 12:20	200	200					EM	14 day prelim - 28 day final
1402032-08 A	MH18	02/18/14 12:20	200	200					EM	14 day prelim - 28 day final
1402032-08RE1 A	MH18	02/18/14 12:20	20	200					EM	14 day prelim - 28 day final
1402032-09 A	MH19	02/18/14 12:20	200	200					EM	14 day prelim - 28 day final
1402032-10 A	MH20	02/18/14 12:20	200	200					EM	14 day prelim - 28 day final
1402032-11 A	MH21	02/18/14 12:20	200	200					EM	14 day prelim - 28 day final
1402032-12 A	MH22	02/18/14 12:20	200	200					EM	14 day prelim - 28 day final
B14B075-BLK1	Blank	02/18/14 12:20	200	200					EM	
B14B075-BS1	LCS	02/18/14 12:20	200	200	1407087		100000		EM	
B14B075-DUP1	Duplicate	02/18/14 12:20	200	200		1402032-02			EM	

Preparation Reviewed By

2/19/14 Date

SOIL GAS DILUTION LOG

DATE/ INITIAL	TIME	LAB SAMPLE #	CLIENT SAMPLE #	CAN ID	INITIAL PRESSURE (PSI)	INITIAL VOL (mL)	FINAL VOL (mL)	FINAL PRESSURE (PSI)	AMBIENT PRESSURE (PSI)	DILUTION FACTOR
2/18/14 EM	1126	1402032-01	MH11	1578E	14.8	1L	1L	28.1	30.15/14.81	1.89
	1129	-02	MH12	1587E	15.0	1L	1L	27.5	–	1.83
	1132	-03	MH13	2/18/14 EM ~~14~~.1582E	14.8	1L	1L	30.9	–	2.08
	1136	-04	MH14	1584E	14.8	1L	1L	30.3	–	2.04
	1139	-05	MH15	1555E	14.7	1L	1L	28.6	–	1.94
	1142	-06	MH16	1579E	14.7	1L	1L	28.7	–	1.95
	1146	-07	MH17	7338	14.6	1L	1L	28.4	–	1.94
	11:49	-08	MH18	7244	14.8	1L	1L	28.8	–	1.94
	11:55	-09	MH19	7339	14.6	1L	1L	28.4	–	1.94
	11:58	-10	MH20	7465	14.7	1L	1L	28.4	–	1.93
	12:00	-11	MH21	7354	14.6	1L	1L	28.3	–	1.93
	12:02	-12	MH22	7456	14.5	1L	1L	28.2	–	1.94

EM 2/18/14

USEPA REGION 9 LABORATORY

SOIL GAS DILUTION LOG 2-6.xls

Reviewed by: ZR

Date: 2/18/14

Instrument: HP5973K

Analysis Date: 1/24/14

INITIAL CALIBRATION DATA

ANALYSIS SEQUENCE

S14A082

Instrument: HP5973K

Calibration ID: 1401020

Printed: 1/25/2014 4:17:15PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
S14A082-TUN1	QC		1		1311118			
S14A082-CAL1	QC		2		1402074			
S14A082-CAL2	QC		3		1402075			
S14A082-CAL3	QC		4		1402076			
S14A082-CAL4	QC		5		1402077			
S14A082-CAL5	QC		6		1402078			
S14A082-CAL6	QC		7		1402079			
S14A082-SCV1	QC		8		1402080			
B14A053-BS1	QC		9					
B14A053-BLK1	QC		10			1350050		
1401033-19	VOCs, Soil Gas	A	11			1350050	California Site Cleanup Section 2	no TICs
1401033-20	VOCs, Soil Gas	A	12			1350050	California Site Cleanup Section 2	no TICs
S14A082-IBL1	QC		13			1350050		
1401033-16	VOCs, Soil Gas	A	14			1350050	California Site Cleanup Section 2	no TICs
1401033-17	VOCs, Soil Gas	A	15			1350050	California Site Cleanup Section 2	no TICs
1401033-18	VOCs, Soil Gas	A	16			1350050	California Site Cleanup Section 2	no TICs
1401033-21	VOCs, Soil Gas	A	17			1350050	California Site Cleanup Section 2	no TICs
1401033-02RE1	VOCs, Soil Gas	A	18			1350050	California Site Cleanup Section 2	no TICs
1401033-15RE1	VOCs, Soil Gas	A	19			1350050	California Site Cleanup Section 2	no TICs
B14A053-DUP1	QC		20			1350050		
1401033-19RE1	VOCs, Soil Gas	A	21			1350050	California Site Cleanup Section 2	no TICs
1401033-20RE1	VOCs, Soil Gas	A	22			1350050	California Site Cleanup Section 2	no TICs

[illegible] 1/24/14

Samples Loaded By — Date

[illegible] 1/24/14

Data Processed By — Date

----------SEQUENCE TABLE ----------

Sequence Name: C:\Smart\2014\012414KAA.SEQ
Date: 01-25-2014
Time: 12:54:04
Int. Std Volume: 40 cc

Sample Name	Inlet #	Auto Pos	Samp Vol.	Cal Std Vol.	Method	Time
BFB 1311118	3	2	100	40	C:\Smart\TO15.CTD	12:00
10 ppbv 1402036	3	2	100	40	C:\Smart\TO15.CTD	12:00
1 ppbv 1402115	3	3	20	0	C:\Smart\TO15.CTD	12:00
2 ppbv 1402115	3	3	40	0	C:\Smart\TO15.CTD	12:00
5 ppbv 1402115	3	3	100	0	C:\Smart\TO15.CTD	12:00
15 ppbv 1402036	3	2	150	0	C:\Smart\TO15.CTD	12:00
20 ppbv 1402036	3	2	200	0	C:\Smart\TO15.CTD	12:00
10 ppbv SCV	3	4	100	0	C:\Smart\TO15.CTD	12:00
10 ppbv LCS	3	2	100	0	C:\Smart\TO15.CTD	12:00
BLANK CAN 628	3	5	200	0	C:\Smart\TO15.CTD	12:00
1401033-19	3	6	200	0	C:\Smart\TO15.CTD	12:00
1401033-20	3	7	200	0	C:\Smart\TO15.CTD	12:00
IBL1	3	8	200	0	C:\Smart\TO15.CTD	12:00
1401033-16	3	9	200	0	C:\Smart\TO15.CTD	12:00
1401033-17	3	10	200	0	C:\Smart\TO15.CTD	12:00
1401033-18	3	11	200	0	C:\Smart\TO15.CTD	12:00
1401033-21	3	12	200	0	C:\Smart\TO15.CTD	12:00
1401033-02RE1	4	1	50	0	C:\Smart\TO15.CTD	12:00
1401033-15RE1	4	2	20	0	C:\Smart\TO15.CTD	12:00
1401033-15DUP	4	2	20	0	C:\Smart\TO15.CTD	12:00
1401033-19RE1	3	6	20	0	C:\Smart\TO15.CTD	12:00
1401033-20RE1	3	7	20	0	C:\Smart\TO15.CTD	12:00
CAN 633	4	3	200	0	C:\Smart\TO15.CTD	12:00
CAN 635	4	4	200	0	C:\Smart\TO15.CTD	12:00
CAN 646	4	5	200	0	C:\Smart\TO15.CTD	12:00
CAN 647	4	6	200	0	C:\Smart\TO15.CTD	12:00
CAN 868	4	7	200	0	C:\Smart\TO15.CTD	12:00
CAN 869	4	8	200	0	C:\Smart\TO15.CTD	12:00
CAN 874	4	9	200	0	C:\Smart\TO15.CTD	12:00
CAN 900	3	1	200	0	C:\Smart\TO15.CTD	12:00

Injection Log

Directory: C:\msdchem\1\DATA\2014\012414KA

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	32	012414K01.D	1.	S14A082-TUN1	BFB STD 1311118/IS 1328060/10ppbv STD	24 Jan 2014 09:47
2	32	012414K02.D	1.	S14A082-CAL4	10 ppbv 1402036	24 Jan 2014 10:36
3	32	012414K03.D	1.	S14A082-CAL1	10 ppbv 1402036	24 Jan 2014 11:24
4	33	012414K04.D	1.	S14A082-CAL2	2.0 ppbv 1402081	24 Jan 2014 12:10
5	33	012414K05.D	1.	S14A082-CAL3	5.0 ppbv 1402081	24 Jan 2014 12:57
6	32	012414K06.D	1.	S14A082-CAL5	15 ppbv 1402036	24 Jan 2014 13:46
7	32	012414K07.D	1.	S14A082-CAL6	20 ppbv 1402036	24 Jan 2014 14:35
8	34	012414K08.D	1.	S14A082-SCV1	10 ppbv SCV	24 Jan 2014 15:23
9	32	012414K09.D	1.	B14A053-BS1	10 ppbv LCS	24 Jan 2014 16:10
10	35	012414K10.D	1.	B14A053-BLK1	200mL CAN 628	24 Jan 2014 17:22
11	36	012414K11.D	2.2	1401033-19	200mL SVE-03-A Can 1054	24 Jan 2014 18:12
12	37	012414K12.D	2.33	1401033-20	200mL SVE-03-B Can 662	24 Jan 2014 19:02
13	38	012414K13.D	1.	BLK CAN 896	200mL CAN 896	24 Jan 2014 19:52
14	39	012414K14.D	2.3	1401033-16	200mL OSVE-11-A Can 2004	24 Jan 2014 20:42
15	10	012414K15.D	2.38	1401033-17	200mL SVE-01-A Can 1995	24 Jan 2014 21:33
16	11	012414K16.D	2.34	1401033-18	200mL SVE-02-A Can 1098	24 Jan 2014 22:25
17	12	012414K17.D	2.34	1401033-21	200mL SVE-04-A Can 862	24 Jan 2014 23:17
18	41	012414K18.D	3.79	1401033-02RE1	50mL DP-01B-A Can 1985	25 Jan 2014 00:05
19	42	012414K19.D	4.32	1401033-15RE1	20mL OSVE-10-A Can 1097	25 Jan 2014 00:53
20	42	012414K20.D	4.32	B14A053-DUP1	20mL OSVE-10-A Can 1097	25 Jan 2014 01:41
21	36	012414K21.D	2.2	1401033-19RE1	20mL SVE-03-A Can 1054	25 Jan 2014 02:28
22	37	012414K22.D	2.33	1401033-20RE1	20mL SVE-03-B Can 662	25 Jan 2014 03:15
23	43	012414K23.D	1.	BLK CAN 633	BLK CAN 633	25 Jan 2014 04:05
24	44	012414K24.D	1.	BLK CAN 635	BLK CAN 635	25 Jan 2014 04:55
25	45	012414K25.D	1.	BLK CAN 646	BLK CAN 646	25 Jan 2014 05:46
26	46	012414K26.D	1.	BLK CAN 647	BLK CAN 647	25 Jan 2014 06:36
27	47	012414K27.D	1.	BLK CAN 868	BLK CAN 868	25 Jan 2014 07:25
28	48	012414K28.D	1.	BLK CAN 869	BLK CAN 869	25 Jan 2014 08:15
29	49	012414K29.D	1.	BLK CAN 874	BLK CAN 874	25 Jan 2014 09:05
30	31	012414K30.D	1.	BLK CAN 900	BLK CAN 900	25 Jan 2014 09:55

25 Jan 2014 15:19

00018

Response Factor Report HP5973K

Method Path : C:\msdchem\1\METHODS\2014\
Method File : 012414KAA.M
Title : TO15
Last Update : Fri Jan 24 15:09:46 2014
Response Via : Initial Calibration

Calibration Files
1 =012414K03.D 2 =012414K04.D 5 =012414K05.D 10 =012414K02.D 15 =012414K06.D
20 =012414K07.D

		Compound	1	2	5	10	15	20	Avg	%RSD
1)	I	BROMOCHLOROMETHANE	----------ISTD----------							
2)	T	Propene	0.803	0.648	0.607	0.575	0.593	0.587	0.636	13.46
3)	T	Dichlorodifluo...	2.114	1.815	1.700	1.587	1.600	1.535	1.725	12.44
4)	T	1,2-Dichlorote...	2.105	1.795	1.697	1.636	1.709	1.678	1.770	9.72
5)	T	Chloromethane	0.878	0.752	0.713	0.676	0.701	0.692	0.735	10.14
6)	T	Vinyl chloride	0.915	0.775	0.757	0.732	0.751	0.752	0.780	8.63
7)	T	1,3-Butadiene	0.668	0.578	0.562	0.548	0.573	0.575	0.584	7.28
8)	T	Bromomethane	0.687	0.594	0.559	0.531	0.557	0.550	0.580	9.75
9)	T	Chloroethane	0.475	0.416	0.392	0.373	0.389	0.387	0.405	9.03
10)	T	Bromoethene	0.619	0.549	0.520	0.505	0.528	0.525	0.541	7.53
11)	T	Trichlorofluor...	1.758	1.515	1.449	1.373	1.438	1.420	1.492	9.25
12)	T	1,1,2-Trichlor...	1.201	1.068	1.006	0.986	1.001	1.006	1.045	7.83
13)	T	1,1-Dichloroet...	1.312	1.137	1.119	1.084	1.134	1.134	1.153	6.96
14)	T	Acetone	1.139	1.082	1.000	0.975	1.001	0.984	1.030	6.35
15)	T	Carbon disulfide	1.932	1.705	1.624	1.571	1.633	1.613	1.680	7.79
16)	T	2-Propanol	1.135	1.047	1.013	1.020	1.057	1.052	1.054	4.13
17)	T	Allyl chloride	0.910	0.838	0.831	0.817	0.859	0.849	0.851	3.83
18)	T	Dichloromethane	1.364	1.080	0.928	0.858	0.868	0.857	0.992	20.26
19)	T	tert-Butyl met...	1.754	1.701	1.681	1.640	1.741	1.735	1.708	2.53
20)	T	trans-1,2-Dich...	1.022	0.952	0.929	0.890	0.932	0.917	0.940	4.79
21)	T	Hexane	1.227	1.130	1.130	1.097	1.158	1.144	1.148	3.81
22)	T	1,1-Dichloroet...	1.585	1.418	1.356	1.293	1.356	1.345	1.392	7.36
23)	T	Vinyl acetate	1.523	1.446	1.495	1.507	1.605	1.602	1.530	4.11
24)	T	cis-1,2-Dichlo...	1.128	1.020	0.999	0.968	1.013	1.008	1.023	5.34
25)	T	2-Butanone (MEK)	1.134	1.316	1.344	1.430	1.356	1.350	1.322	7.51
26)	T	Ethyl acetate	1.912	1.815	1.734	1.575	1.807	1.788	1.772	6.34
27)	T	Tetrahydrofuran	0.950	0.898	0.888	0.866	0.907	0.892	0.900	3.11
28)	T	Chloroform	1.563	1.437	1.370	1.314	1.387	1.366	1.406	6.14
29)	T	Cyclohexane	1.233	1.173	1.152	1.112	1.176	1.167	1.169	3.37
30)	T	1,1,1-Trichlor...	1.535	1.408	1.372	1.300	1.382	1.370	1.394	5.55
31)	T	Carbon tetrach...	1.472	1.387	1.307	1.264	1.342	1.341	1.352	5.30
32)	I	1,4-DIFLUOROBENZENE	----------ISTD----------							
33)	T	Benzene	0.977	0.894	0.859	0.821	0.862	0.848	0.877	6.21
34)	T	2,2,4-Trimethy...	1.406	1.330	1.342	1.304	1.378	1.362	1.354	2.68
35)	T	1,2-Dichloroet...	0.394	0.359	0.350	0.333	0.348	0.341	0.354	5.97
36)	T	Heptane	0.538	0.498	0.507	0.495	0.519	0.515	0.512	3.09
37)	T	Trichloroethene	0.370	0.342	0.326	0.313	0.331	0.327	0.335	5.87
38)	T	1,2-Dichloropr...	0.376	0.344	0.330	0.314	0.328	0.322	0.336	6.49
39)	T	1,4-Dioxane	0.144	0.145	0.159	0.164	0.175	0.173	0.160	8.25
40)	T	Bromodichlorom...	0.597	0.547	0.534	0.512	0.539	0.530	0.543	5.31
41)	T	cis-1,3-Dichlo...	0.496	0.469	0.462	0.451	0.477	0.472	0.471	3.24
42)	T	4-Methyl-2-pen...	0.641	0.655	0.665	0.651	0.685	0.678	0.663	2.55
43)	I	CHLOROBENZENE-d5	----------ISTD----------							
44)	T	Toluene	1.148	1.094	1.059	1.017	1.103	1.087	1.085	4.06
45)	T	trans-1,3-Dich...	0.482	0.453	0.451	0.451	0.484	0.481	0.467	3.59
46)	T	1,1,2-Trichlor...	0.388	0.370	0.353	0.330	0.356	0.352	0.358	5.37
47)	T	Tetrachloroethene	0.549	0.514	0.485	0.459	0.506	0.503	0.503	5.95
48)	T	2-Hexanone	0.620	0.639	0.653	0.652	0.711	0.699	0.662	5.32
49)	T	Chlorodibromom...	0.583	0.550	0.532	0.506	0.554	0.551	0.546	4.66
50)	T	1,2-Dibromoeth...	0.523	0.508	0.492	0.467	0.504	0.497	0.499	3.81
51)	T	Chlorobenzene	0.898	0.839	0.797	0.764	0.823	0.812	0.822	5.48
52)	T	Ethylbenzene	1.491	1.425	1.390	1.350	1.460	1.453	1.428	3.59
53)	T	m&p-Xylene	1.078	1.060	1.057	1.041	1.151	1.155	1.090	4.57
54)	T	o-Xylene	1.071	1.066	1.045	1.024	1.124	1.126	1.076	3.86
55)	T	Styrene	0.837	0.841	0.848	0.844	0.939	0.936	0.874	5.64
56)	T	Bromoform	0.571	0.555	0.553	0.544	0.610	0.614	0.575	5.27

Method Path : C:\msdchem\1\METHODS\2014\
Method File : 012414KAA.M
Title : TO15

57)	T	1,1,2,2-Tetrac...	0.890	0.869	0.829	0.797	0.862	0.850	0.849	3.85
58)	T	4-Ethyltoluene	1.338	1.361	1.354	1.336	1.478	1.480	1.391	4.94
59)	T	1,3,5-Trimethy...	1.195	1.187	1.185	1.195	1.314	1.322	1.233	5.35
60)	T	1,2,4-Trimethy...	1.168	1.207	1.187	1.198	1.330	1.334	1.237	6.02
61)	T	1,3-Dichlorobe...	0.848	0.839	0.806	0.810	0.911	0.909	0.854	5.44
62)	T	1,4-Dichlorobe...	0.801	0.809	0.796	0.807	0.899	0.899	0.835	5.93
63)	T	Benzyl chloride	0.876	0.887	0.907	0.908	1.003	1.002	0.930	6.13
64)	T	1,2-Dichlorobe...	0.837	0.820	0.796	0.786	0.875	0.874	0.831	4.59
65)	T	1,2,4-Trichlor...	0.770	0.777	0.752	0.795	0.914	0.914	0.820	9.02
66)	T	Hexachlorobuta...	0.680	0.741	0.705	0.663	0.745	0.724	0.710	4.67

(#) = Out of Range

CALIBRATION AREA REPORT

Instrument Name: HP5973K
Sample Name: S14A082-SCV1
Misc Info: 10 ppbv SCV
Date Acquired: 1/24/2014 15:23
QLast Update: Fri Jan 24 15:09:46 2014
Operator: EM

#	Name	L1	L2	L3	L4	L5	L6
1)	BROMOCHLOROMETHANE	844512	843979	847034	907783	873689	911927
2)	Propene	32971	53251	125098	253988	378273	521044
3)	Dichlorodifluoromethane	83591	143479	337174	674855	982163	1311139
4)	1,2-Dichlorotetrafluoroethane	84866	144608	343159	709115	1069478	1461016
5)	Chloromethane	35417	60578	144204	292845	438705	602652
6)	Vinyl chloride	36893	62473	152977	317201	470123	654934
7)	1,3-Butadiene	26154	45222	110454	230720	348356	485924
8)	Bromomethane	27172	46993	110794	225784	341889	469401
9)	Chloroethane	18767	32860	77796	158635	238793	330445
10)	Bromoethene	24475	43403	103074	214707	323876	448331
11)	Trichlorofluoromethane	72235	124411	298488	606557	916992	1259854
12)	1,1,2-Trichloro-1,2,2-trifluoroethane	44745	79492	187827	394929	578642	808648
13)	1,1-Dichloroethene	48366	83773	206774	429541	648849	902427
14)	Acetone	46348	87996	204201	426489	632190	864417
15)	Carbon disulfide	75653	133493	318891	661500	992772	1364032
16)	2-Propanol	41412	76302	185395	400022	598175	828250
17)	Allyl chloride	35308	64937	161627	340721	517098	711272
18)	Dichloromethane	51334	81247	175110	347070	506602	696167
19)	tert-Butyl methyl ether (MTBE)	73406	142326	352726	737662	1130461	1567538
20)	trans-1,2-Dichloroethene	37296	69398	169959	348954	527298	722563
21)	Hexane	48045	88418	221897	462024	703961	967172
22)	1,1-Dichloroethane	59035	105590	253260	517542	783926	1081986
23)	Vinyl acetate	58462	110965	287755	621919	956208	1328447
24)	cis-1,2-Dichloroethene	43754	79028	194328	403683	609845	844394
25)	2-Butanone (MEK)	45298	105068	269141	613689	840266	1163614
26)	Ethyl acetate	76351	144837	347326	676154	1119941	1541832
27)	Tetrahydrofuran	37581	70986	176186	368304	556891	761754
28)	Chloroform	61214	112487	269115	553333	842796	1155436
29)	Cyclohexane	49238	93632	230630	477116	728479	1005839
30)	1,1,1-Trichloroethane	59517	109126	266803	542056	831542	1147239
31)	Carbon tetrachloride	58213	109611	259188	537139	823891	1145137
32)	1,4-DIFLUOROBENZENE	2213579	2231980	2220261	2392845	2308725	2423118
33)	Benzene	99281	183307	437938	901781	1370061	1886512
34)	2,2,4-Trimethylpentane	148626	283449	711155	1489662	2277985	3149645
35)	1,2-Dichloroethane	38814	71391	172879	355533	536286	736558
36)	Heptane	56839	106032	268444	565457	857656	1190463
37)	Trichloroethene	37660	70113	166240	344388	526029	727641
38)	1,2-Dichloropropane	38931	71811	171415	352373	532292	731003
39)	1,4-Dioxane	15411	31244	84888	189208	292181	403750
40)	Bromodichloromethane	63661	117714	285717	590251	899780	1236698
41)	cis-1,3-Dichloropropene	51425	98040	240347	505029	774212	1071037
42)	4-Methyl-2-pentanone (MIBK)	67718	139529	352535	743712	1132547	1568954

43)	CHLOROBENZENE-d5	2058015	2067465	2069734	2251153	2127333	2238196
44)	Toluene	109521	209790	508200	1061291	1631953	2256642
45)	trans-1,3-Dichloropropene	48237	91159	227087	493938	751524	1046946
46)	1,1,2-Trichloroethane	37352	71737	171031	348352	531621	738604
47)	Tetrachloroethene	51397	96554	228261	470251	734383	1023965
48)	2-Hexanone	59765	123664	316540	686900	1062014	1464517
49)	Chlorodibromomethane	56756	107602	260438	539101	835554	1165618
50)	1,2-Dibromoethane (EDB)	50446	98328	238487	491961	753861	1041669
51)	Chlorobenzene	87411	163993	390072	813598	1242123	1717998
52)	Ethylbenzene	142343	273214	667267	1409640	2160928	3015746
53)	m&p-Xylene	205795	406492	1014125	2173327	3405371	4793848
54)	o-Xylene	103174	206436	506388	1079607	1680188	2359839
55)	Styrene	79090	159665	402796	872583	1375493	1924268
56)	Bromoform	55065	107532	267829	574011	911785	1286997
57)	1,1,2,2-Tetrachloroethane	84935	166640	397895	832089	1275411	1764245
58)	4-Ethyltoluene	131500	268734	669029	1435763	2252147	3162118
59)	1,3,5-Trimethylbenzene	115211	229792	574314	1260166	1962983	2771126
60)	1,2,4-Trimethylbenzene	110351	229159	564225	1238531	1948345	2742334
61)	1,3-Dichlorobenzene	78554	156071	375525	820841	1309046	1830560
62)	1,4-Dichlorobenzene	74227	150567	370759	817897	1291451	1810189
63)	Benzyl chloride	84388	171775	439427	957301	1498122	2099717
64)	1,2-Dichlorobenzene	77492	152588	370835	796007	1257420	1760927
65)	1,2,4-Trichlorobenzene	65557	132867	321862	740327	1206652	1692540
66)	Hexachlorobutadiene	60424	132278	315206	644849	1026859	1400097

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\2014\012414KA\012414K01.D
Tune Time : 24 Jan 2014 9:47

Daily Calibration File : C:\msdchem\1\DATA\2014\012414KA\012414K02.D

File	Sample	Surrogate Recovery %	Internal Standard Responses		
			907783	2392850	2251150
012414K02.D					
	S14A082-CAL4		907783	2392845	2251153
012414K03.D					
	S14A082-CAL1		844512	2213579	2058015
012414K04.D					
	S14A082-CAL2		843979	2231980	2067465
012414K05.D					
	S14A082-CAL3		847034	2220261	2069734
012414K06.D					
	S14A082-CAL5		873689	2308725	2127333
012414K07.D					
	S14A082-CAL6		911927	2423118	2238196
012414K08.D					
	S14A082-SCV1		910394	2416906	2206787
012414K09,D					
	B14A053-BS1		922460	2474350	2288282
012414K10.D					
	B14A053-BLK1		901677	2425208	2167573
012414K11.D					
	1401033-19		871748	2347536	2126943
012414K12.D					
	1401033-20		847771	2303389	2075902
012414K13.D					
	S14A082-IBL1		829137	2239091	2019404
012414K14.D					
	1401033-16		813698	2139500	1928544
012414K15.D					
	1401033-17		823278	2182106	1958791
012414K16.D					
	1401033-18		808333	2118716	1886474
012414K17.D					
	1401033-21		810515	2142600	1937016
012414K18.D					
	1401033-02RE1		802484	2138710	1896001
012414K19.D					
	1401033-15RE1		775392	2031872	1824425
012414K20.D					
	B14A053-DUP1		775603	2052119	1836092

012414K21.D				
	1401033-19	770260	2057524	1837216
012414K22.D				
	1401033-20	755389	1999460	1783328
012414K23.D				
	BLK CAN 633	773181	2050704	1847340
012414K24.D				
	BLK CAN 635	771897	2051913	1842298
012414K25.D				
	BLK CAN 646	759593	2003627	1794557
012414K26.D				
	BLK CAN 647	751022	1983755	1774421
012414K27.D				
	BLK CAN 868	749626	1974891	1762619
012414K28.D				
	BLK CAN 869	749541	1987045	1782720
012414K29.D				
	BLK CAN 874	743325	1940487	1740710
012414K30.D				
	BLK CAN 900	746731	1959117	1751050

(fails) - fails 24hr time check * - fails criteria

Created: Sat Jan 25 14:46:18 2014 HP5973K

RT DUPLICATE REPORT

Instrument Name: HP5973K
Sample Name: S14A082-CAL4
Misc Info: 10 ppbv 1402036
Date Acquired: 1/24/2014 10:36
QLast Update: Thu Jan 23 17:30:00 2014
Operator: EM

#	Name	RT	CONC	Qion	
1)	BROMOCHLOROMETHANE	15.444	22.000	49.1	15.049
2)	Propene	4.372	10.222	41.2	
3)	Dichlorodifluoromethane	4.463	9.709	85	
4)	1,2-Dichlorotetrafluoroethane	4.816	9.979	85.1	
5)	Chloromethane	5.011	10.168	50.1	
6)	Vinyl chloride	5.333	10.170	62.1	
7)	1,3-Butadiene	5.437	9.929	54.2	
8)	Bromomethane	6.368	9.480	94	
9)	Chloroethane	6.696	9.624	64.1	
10)	Bromoethene	7.262	9.721	106	
11)	Trichlorofluoromethane	7.408	10.039	101	
12)	1,1,2-Trichloro-1,2,2-trifluoroethane	9.227	9.279	151	
13)	1,1-Dichloroethene	9.306	9.409	61.1	
14)	Acetone	9.829	10.355	43.1	
15)	Carbon disulfide	10.024	9.833	76	
16)	2-Propanol	10.444	9.488	45.2	
17)	Allyl chloride	10.851	10.128	41.2	
18)	Dichloromethane	11.387	8.773	49.1	
19)	tert-Butyl methyl ether (MTBE)	12.086	10.936	73.2	
20)	trans-1,2-Dichloroethene	12.111	9.251	61.1	
21)	Hexane	12.719	10.132	57.2	
22)	1,1-Dichloroethane	13.455	9.282	63.1	
23)	Vinyl acetate	13.595	10.320	43.1	
24)	cis-1,2-Dichloroethene	14.903	9.869	61.1	
25)	2-Butanone (MEK)	15.000	11.459	43.1	
26)	Ethyl acetate	15.049	9.759	43.1	
27)	Tetrahydrofuran	15.450	10.350	42.2	
28)	Chloroform	15.602	9.650	83	
29)	Cyclohexane	15.834	10.171	56.2	
30)	1,1,1-Trichloroethane	15.882	9.557	97	
31)	Carbon tetrachloride	16.138	9.773	117	
32)	1,4-DIFLUOROBENZENE	17.452	22.000	114.1	16.977
33)	Benzene	16.631	10.926	78.1	16.594
34)	2,2,4-Trimethylpentane	16.594	11.757	57.2	
35)	1,2-Dichloroethane	16.831	10.663	62.1	
36)	Heptane	16.977	11.963	43.2	
37)	Trichloroethene	17.866	10.883	130	
38)	1,2-Dichloropropane	18.364	11.255	63.1	
39)	1,4-Dioxane	18.559	12.482	88.1	
40)	Bromodichloromethane	18.827	11.497	83	
41)	cis-1,3-Dichloropropene	19.593	11.425	75.1	
42)	4-Methyl-2-pentanone (MIBK)	19.831	12.293	43.1	

43)	CHLOROBENZENE-d5	22.355	22.000	117.1	21.686
44)	Toluene	20.074	15.606	91.1	
45)	trans-1,3-Dichloropropene	20.542	16.793	75.1	
46)	1,1,2-Trichloroethane	20.847	15.473	97	
47)	Tetrachloroethene	20.932	14.798	165.9	
48)	2-Hexanone	21.187	17.158	43.1	
49)	Chlorodibromomethane	21.455	15.696	129	
50)	1,2-Dibromoethane (EDB)	21.686	15.591	107	
51)	Chlorobenzene	22.404	15.511	112.1	
52)	Ethylbenzene	22.495	15.734	91.1	
53)	m&p-Xylene	22.678	31.698	91.1	
54)	o-Xylene	23.323	16.046	91.1	
55)	Styrene	23.359	15.952	104.1	
56)	Bromoform	23.730	15.516	172.9	
57)	1,1,2,2-Tetrachloroethane	24.430	15.628	83	
58)	4-Ethyltoluene	24.673	16.456	105.1	
59)	1,3,5-Trimethylbenzene	24.764	16.370	105.1	
60)	1,2,4-Trimethylbenzene	25.367	15.954	105.1	
61)	1,3-Dichlorobenzene	25.902	15.252	146	
62)	1,4-Dichlorobenzene	26.048	15.600	146	
63)	Benzyl chloride	26.255	16.246	91.1	0.000
64)	1,2-Dichlorobenzene	26.650	15.322	146	0.000
65)	1,2,4-Trichlorobenzene	29.108	14.589	180	0.000
66)	Hexachlorobutadiene	29.248	14.889	224.9	0.000

CHEMSTATION CONCENTRATION REPORT

Instrument Name: HP5973K
Sample Name: S14A082-SCV1
Misc Info: 10 ppbv SCV
Date Acquired: 1/24/2014 15:23
QLast Update: Fri Jan 24 15:09:46 201
Operator: EM

#	Name	L1	L2	L3	L4	L5	L6
1)	BROMOCHLOROMETHANE	22.00	22.00	22.00	22.00	22.00	22.00
2)	Propene	1.070	2.14	5.35	10.70	16.05	21.40
3)	Dichlorodifluoromethane	1.03	2.06	5.15	10.30	15.45	20.60
4)	1,2-Dichlorotetrafluoroethane	1.05	2.10	5.25	10.50	15.75	21.00
5)	Chloromethane	1.05	2.10	5.25	10.50	15.75	21.00
6)	Vinyl chloride	1.05	2.10	5.25	10.50	15.75	21.00
7)	1,3-Butadiene	1.02	2.04	5.10	10.20	15.30	20.40
8)	Bromomethane	1.03	2.06	5.15	10.30	15.45	20.60
9)	Chloroethane	1.03	2.06	5.15	10.30	15.45	20.60
10)	Bromoethene	1.03	2.06	5.15	10.30	15.45	20.60
11)	Trichlorofluoromethane	1.07	2.14	5.35	10.70	16.05	21.40
12)	1,1,2-Trichloro-1,2,2-trifluoroethane	0.97	1.94	4.85	9.70	14.55	19.40
13)	1,1-Dichloroethene	0.96	1.92	4.80	9.60	14.40	19.20
14)	Acetone	1.06	2.12	5.30	10.60	15.90	21.20
15)	Carbon disulfide	1.02	2.04	5.10	10.20	15.30	20.40
16)	2-Propanol	0.95	1.90	4.75	9.50	14.25	19.00
17)	Allyl chloride	1.01	2.02	5.05	10.10	15.15	20.20
18)	Dichloromethane	0.98	1.96	4.90	9.80	14.70	19.60
19)	tert-Butyl methyl ether (MTBE)	1.09	2.18	5.45	10.90	16.35	21.80
20)	trans-1,2-Dichloroethene	0.95	1.90	4.75	9.50	14.25	19.00
21)	Hexane	1.02	2.04	5.10	10.20	15.30	20.40
22)	1,1-Dichloroethane	0.97	1.94	4.85	9.70	14.55	19.40
23)	Vinyl acetate	1.00	2.00	5.00	10.00	15.00	20.00
24)	cis-1,2-Dichloroethene	1.01	2.02	5.05	10.10	15.15	20.20
25)	2-Butanone (MEK)	1.04	2.08	5.20	10.40	15.60	20.80
26)	Ethyl acetate	1.04	2.08	5.20	10.40	15.60	20.80
27)	Tetrahydrofuran	1.03	2.06	5.15	10.30	15.45	20.60
28)	Chloroform	1.02	2.04	5.10	10.20	15.30	20.40
29)	Cyclohexane	1.04	2.08	5.20	10.40	15.60	20.80
30)	1,1,1-Trichloroethane	1.01	2.02	5.05	10.10	15.15	20.20
31)	Carbon tetrachloride	1.03	2.06	5.15	10.30	15.45	20.60
32)	1,4-DIFLUOROBENZENE	22.00	22.00	22.00	22.00	22.00	22.00
33)	Benzene	1.01	2.02	5.05	10.10	15.15	20.20
34)	2,2,4-Trimethylpentane	1.05	2.10	5.25	10.50	15.75	21.00
35)	1,2-Dichloroethane	0.98	1.96	4.90	9.80	14.70	19.60
36)	Heptane	1.05	2.10	5.25	10.50	15.75	21.00
37)	Trichloroethene	1.01	2.02	5.05	10.10	15.15	20.20
38)	1,2-Dichloropropane	1.03	2.06	5.15	10.30	15.45	20.60
39)	1,4-Dioxane	1.06	2.12	5.30	10.60	15.90	21.20
40)	Bromodichloromethane	1.06	2.12	5.30	10.60	15.90	21.20
41)	cis-1,3-Dichloropropene	1.03	2.06	5.15	10.30	15.45	20.60
42)	4-Methyl-2-pentanone (MIBK)	1.05	2.10	5.25	10.50	15.75	21.00

43)	CHLOROBENZENE-d5	22.00	22.00	22.00	22.00	22.00	22.00
44)	Toluene	1.02	2.04	5.10	10.20	15.30	20.40
45)	trans-1,3-Dichloropropene	1.07	2.14	5.35	10.70	16.05	21.40
46)	1,1,2-Trichloroethane	1.03	2.06	5.15	10.30	15.45	20.60
47)	Tetrachloroethene	1.00	2.00	5.00	10.00	15.00	20.00
48)	2-Hexanone	1.03	2.06	5.15	10.30	15.45	20.60
49)	Chlorodibromomethane	1.04	2.08	5.20	10.40	15.60	20.80
50)	1,2-Dibromoethane (EDB)	1.03	2.06	5.15	10.30	15.45	20.60
51)	Chlorobenzene	1.04	2.08	5.20	10.40	15.60	20.80
52)	Ethylbenzene	1.02	2.04	5.10	10.20	15.30	20.40
53)	m&p-Xylene	2.04	4.08	10.20	20.40	30.60	40.80
54)	o-Xylene	1.03	2.06	5.15	10.30	15.45	20.60
55)	Styrene	1.01	2.02	5.05	10.10	15.15	20.20
56)	Bromoform	1.03	2.06	5.15	10.30	15.45	20.60
57)	1,1,2,2-Tetrachloroethane	1.02	2.04	5.10	10.20	15.30	20.40
58)	4-Ethyltoluene	1.05	2.10	5.25	10.50	15.75	21.00
59)	1,3,5-Trimethylbenzene	1.03	2.06	5.15	10.30	15.45	20.60
60)	1,2,4-Trimethylbenzene	1.01	2.02	5.05	10.10	15.15	20.20
61)	1,3-Dichlorobenzene	0.99	1.98	4.95	9.90	14.85	19.80
62)	1,4-Dichlorobenzene	0.99	1.98	4.95	9.90	14.85	19.80
63)	Benzyl chloride	1.03	2.06	5.15	10.30	15.45	20.60
64)	1,2-Dichlorobenzene	0.99	1.98	4.95	9.90	14.85	19.80
65)	1,2,4-Trichlorobenzene	0.91	1.82	4.55	9.10	13.65	18.20
66)	Hexachlorobutadiene	0.95	1.90	4.75	9.50	14.25	19.00

CHEMSTATION VS LIMS CONCENTRATION REPORT

Instrument Name: HP5973K
Sample Name: S14A082-SCV1
Misc Info: 10 ppbv SCV
Date Acquired: 1/24/2014 15:23
QLast Update: Fri Jan 24 15:09:46 20
Operator: EM

#	Name	L1	L2	L3	L4	L5	L6
		1	2	5	10	15	20
1)	BROMOCHLOROMETHANE						
2)	Propene	OK	OK	OK	OK	OK	OK
3)	Dichlorodifluoromethane	OK	OK	OK	OK	OK	OK
4)	1,2-Dichlorotetrafluoroethane	OK	OK	OK	OK	OK	OK
5)	Chloromethane	OK	OK	OK	OK	OK	OK
6)	Vinyl chloride	OK	OK	OK	OK	OK	OK
7)	1,3-Butadiene	OK	OK	OK	OK	OK	OK
8)	Bromomethane	OK	OK	OK	OK	OK	OK
9)	Chloroethane	OK	OK	OK	OK	OK	OK
10)	Bromoethene	OK	OK	OK	OK	OK	OK
11)	Trichlorofluoromethane	OK	OK	OK	OK	OK	OK
12)	1,1,2-Trichloro-1,2,2-trifluoroethane	OK	OK	OK	OK	OK	OK
13)	1,1-Dichloroethene	OK	OK	OK	OK	OK	OK
14)	Acetone	OK	OK	OK	OK	OK	OK
15)	Carbon disulfide	OK	OK	OK	OK	OK	OK
16)	2-Propanol	OK	OK	OK	OK	OK	OK
17)	Allyl chloride	OK	OK	OK	OK	OK	OK
18)	Dichloromethane	OK	OK	OK	OK	OK	OK
19)	tert-Butyl methyl ether (MTBE)	OK	OK	OK	OK	OK	OK
20)	trans-1,2-Dichloroethene	OK	OK	OK	OK	OK	OK
21)	Hexane	OK	OK	OK	OK	OK	OK
22)	1,1-Dichloroethane	OK	OK	OK	OK	OK	OK
23)	Vinyl acetate	OK	OK	OK	OK	OK	OK
24)	cis-1,2-Dichloroethene	OK	OK	OK	OK	OK	OK
25)	2-Butanone (MEK)	OK	OK	OK	OK	OK	OK
26)	Ethyl acetate	OK	OK	OK	OK	OK	OK
27)	Tetrahydrofuran	OK	OK	OK	OK	OK	OK
28)	Chloroform	OK	OK	OK	OK	OK	OK
29)	Cyclohexane	OK	OK	OK	OK	OK	OK
30)	1,1,1-Trichloroethane	OK	OK	OK	OK	OK	OK
31)	Carbon tetrachloride	OK	OK	OK	OK	OK	OK
32)	1,4-DIFLUOROBENZENE						
33)	Benzene	OK	OK	OK	OK	OK	OK
34)	2,2,4-Trimethylpentane	OK	OK	OK	OK	OK	OK
35)	1,2-Dichloroethane	OK	OK	OK	OK	OK	OK
36)	Heptane	OK	OK	OK	OK	OK	OK
37)	Trichloroethene	OK	OK	OK	OK	OK	OK
38)	1,2-Dichloropropane	OK	OK	OK	OK	OK	OK
39)	1,4-Dioxane	OK	OK	OK	OK	OK	OK
40)	Bromodichloromethane	OK	OK	OK	OK	OK	OK
41)	cis-1,3-Dichloropropene	OK	OK	OK	OK	OK	OK
42)	4-Methyl-2-pentanone (MIBK)	OK	OK	OK	OK	OK	OK
43)	CHLOROBENZENE-d5						

44)	Toluene	OK	OK	OK	OK	OK	OK
45)	trans-1,3-Dichloropropene	OK	OK	OK	OK	OK	OK
46)	1,1,2-Trichloroethane	OK	OK	OK	OK	OK	OK
47)	Tetrachloroethene	OK	OK	OK	OK	OK	OK
48)	2-Hexanone	OK	OK	OK	OK	OK	OK
49)	Chlorodibromomethane	OK	OK	OK	OK	OK	OK
50)	1,2-Dibromoethane (EDB)	OK	OK	OK	OK	OK	OK
51)	Chlorobenzene	OK	OK	OK	OK	OK	OK
52)	Ethylbenzene	OK	OK	OK	OK	OK	OK
53)	m&p-Xylene	OK	OK	OK	OK	OK	OK
54)	o-Xylene	OK	OK	OK	OK	OK	OK
55)	Styrene	OK	OK	OK	OK	OK	OK
56)	Bromoform	OK	OK	OK	OK	OK	OK
57)	1,1,2,2-Tetrachloroethane	OK	OK	OK	OK	OK	OK
58)	4-Ethyltoluene	OK	OK	OK	OK	OK	OK
59)	1,3,5-Trimethylbenzene	OK	OK	OK	OK	OK	OK
60)	1,2,4-Trimethylbenzene	OK	OK	OK	OK	OK	OK
61)	1,3-Dichlorobenzene	OK	OK	OK	OK	OK	OK
62)	1,4-Dichlorobenzene	OK	OK	OK	OK	OK	OK
63)	Benzyl chloride	OK	OK	OK	OK	OK	OK
64)	1,2-Dichlorobenzene	OK	OK	OK	OK	OK	OK
65)	1,2,4-Trichlorobenzene	OK	OK	OK	OK	OK	OK
66)	Hexachlorobutadiene	OK	OK	OK	OK	OK	OK

LIMS CONCENTRATION REPORT

Instrument Name: HP5973K
Sample Name: S14A082-SCV1
Misc Info: 10 ppbv SCV
Date Acquired: 1/24/2014 15:23
QLast Update: Fri Jan 24 15:09:46 20
Operator: EM

#	Name	Amount	L1	L2	L3	L4	L5	L6
			1	2	5	10	15	20
1)	BROMOCHLOROMETHANE	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
2)	Propene	0.0214	1.070	2.14	5.35	10.7	16.05	21.4
3)	Dichlorodifluoromethane	0.0206	1.03	2.06	5.15	10.3	15.45	20.6
4)	1,2-Dichlorotetrafluoroethane	0.021	1.05	2.1	5.25	10.5	15.75	21
5)	Chloromethane	0.021	1.05	2.1	5.25	10.5	15.75	21
6)	Vinyl chloride	0.021	1.05	2.1	5.25	10.5	15.75	21
7)	1,3-Butadiene	0.0204	1.02	2.04	5.1	10.2	15.3	20.4
8)	Bromomethane	0.0206	1.03	2.06	5.15	10.3	15.45	20.6
9)	Chloroethane	0.0206	1.03	2.06	5.15	10.3	15.45	20.6
10)	Bromoethene	0.0206	1.03	2.06	5.15	10.3	15.45	20.6
11)	Trichlorofluoromethane	0.0214	1.07	2.14	5.35	10.7	16.05	21.4
12)	1,1,2-Trichloro-1,2,2-trifluoroethane	0.0194	0.97	1.94	4.85	9.7	14.55	19.4
13)	1,1-Dichloroethene	0.0192	0.96	1.92	4.8	9.6	14.4	19.2
14)	Acetone	0.0212	1.06	2.12	5.3	10.6	15.9	21.2
15)	Carbon disulfide	0.0204	1.02	2.04	5.1	10.2	15.3	20.4
16)	2-Propanol	0.019	0.95	1.9	4.75	9.5	14.25	19
17)	Allyl chloride	0.0202	1.01	2.02	5.05	10.1	15.15	20.2
18)	Dichloromethane	0.0196	0.98	1.96	4.9	9.8	14.7	19.6
19)	tert-Butyl methyl ether (MTBE)	0.0218	1.09	2.18	5.45	10.9	16.35	21.8
20)	trans-1,2-Dichloroethene	0.019	0.95	1.9	4.75	9.5	14.25	19
21)	Hexane	0.0204	1.02	2.04	5.1	10.2	15.3	20.4
22)	1,1-Dichloroethane	0.0194	0.97	1.94	4.85	9.7	14.55	19.4
23)	Vinyl acetate	0.02	1	2	5	10	15	20
24)	cis-1,2-Dichloroethene	0.0202	1.01	2.02	5.05	10.1	15.15	20.2
25)	2-Butanone (MEK)	0.0208	1.04	2.08	5.2	10.4	15.6	20.8
26)	Ethyl acetate	0.0208	1.04	2.08	5.2	10.4	15.6	20.8
27)	Tetrahydrofuran	0.0206	1.03	2.06	5.15	10.3	15.45	20.6
28)	Chloroform	0.0204	1.02	2.04	5.1	10.2	15.3	20.4
29)	Cyclohexane	0.0208	1.04	2.08	5.2	10.4	15.6	20.8
30)	1,1,1-Trichloroethane	0.0202	1.01	2.02	5.05	10.1	15.15	20.2
31)	Carbon tetrachloride	0.0206	1.03	2.06	5.15	10.3	15.45	20.6
32)	1,4-DIFLUOROBENZENE	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
33)	Benzene	0.0202	1.01	2.02	5.05	10.1	15.15	20.2
34)	2,2,4-Trimethylpentane	0.021	1.05	2.1	5.25	10.5	15.75	21
35)	1,2-Dichloroethane	0.0196	0.98	1.96	4.9	9.8	14.7	19.6
36)	Heptane	0.021	1.05	2.1	5.25	10.5	15.75	21
37)	Trichloroethene	0.0202	1.01	2.02	5.05	10.1	15.15	20.2
38)	1,2-Dichloropropane	0.0206	1.03	2.06	5.15	10.3	15.45	20.6
39)	1,4-Dioxane	0.0212	1.06	2.12	5.3	10.6	15.9	21.2
40)	Bromodichloromethane	0.0212	1.06	2.12	5.3	10.6	15.9	21.2
41)	cis-1,3-Dichloropropene	0.0206	1.03	2.06	5.15	10.3	15.45	20.6
42)	4-Methyl-2-pentanone (MIBK)	0.021	1.05	2.1	5.25	10.5	15.75	21
43)	CHLOROBENZENE-d5	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
44)	Toluene	0.0204	1.02	2.04	5.1	10.2	15.3	20.4
45)	trans-1,3-Dichloropropene	0.0214	1.07	2.14	5.35	10.7	16.05	21.4
46)	1,1,2-Trichloroethane	0.0206	1.03	2.06	5.15	10.3	15.45	20.6
47)	Tetrachloroethene	0.02	1	2	5	10	15	20
48)	2-Hexanone	0.0206	1.03	2.06	5.15	10.3	15.45	20.6
49)	Chlorodibromomethane	0.0208	1.04	2.08	5.2	10.4	15.6	20.8

50)	1,2-Dibromoethane (EDB)	0.0206	1.03	2.06	5.15	10.3	15.45	20.6
51)	Chlorobenzene	0.0208	1.04	2.08	5.2	10.4	15.6	20.8
52)	Ethylbenzene	0.0204	1.02	2.04	5.1	10.2	15.3	20.4
53)	m&p-Xylene	0.0408	2.04	4.08	10.2	20.4	30.6	40.8
54)	o-Xylene	0.0206	1.03	2.06	5.15	10.3	15.45	20.6
55)	Styrene	0.0202	1.01	2.02	5.05	10.1	15.15	20.2
56)	Bromoform	0.0206	1.03	2.06	5.15	10.3	15.45	20.6
57)	1,1,2,2-Tetrachloroethane	0.0204	1.02	2.04	5.1	10.2	15.3	20.4
58)	4-Ethyltoluene	0.021	1.05	2.1	5.25	10.5	15.75	21
59)	1,3,5-Trimethylbenzene	0.0206	1.03	2.06	5.15	10.3	15.45	20.6
60)	1,2,4-Trimethylbenzene	0.0202	1.01	2.02	5.05	10.1	15.15	20.2
61)	1,3-Dichlorobenzene	0.0198	0.99	1.98	4.95	9.9	14.85	19.8
62)	1,4-Dichlorobenzene	0.0198	0.99	1.98	4.95	9.9	14.85	19.8
63)	Benzyl chloride	0.0206	1.03	2.06	5.15	10.3	15.45	20.6
64)	1,2-Dichlorobenzene	0.0198	0.99	1.98	4.95	9.9	14.85	19.8
65)	1,2,4-Trichlorobenzene	0.0182	0.91	1.82	4.55	9.1	13.65	18.2
66)	Hexachlorobutadiene	0.019	0.95	1.9	4.75	9.5	14.25	19

5973N

Sat Jan 25 13:00:53 2014
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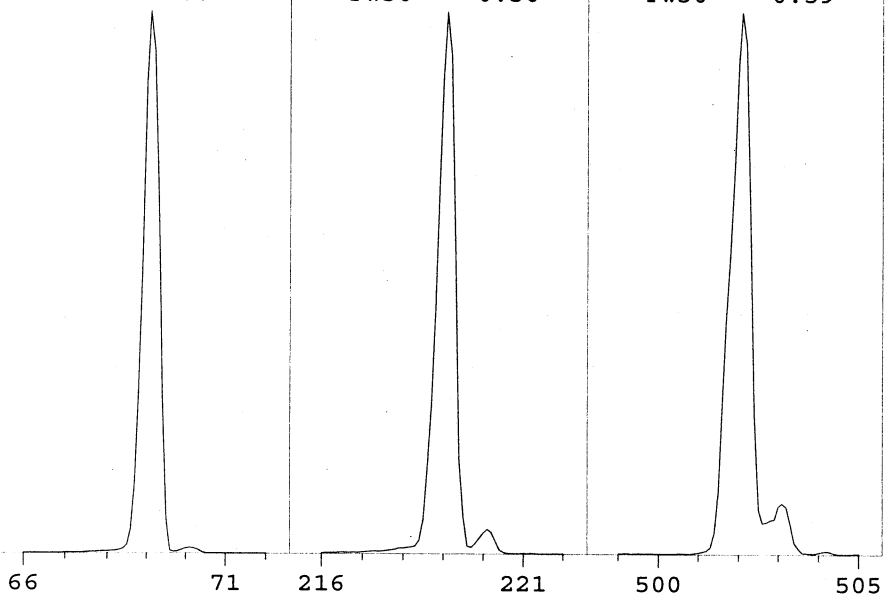
Instrument: HP5973K
US03960556

Mass	69.10	Mass	219.10	Mass	502.10
Ab	357932	Ab	145983	Ab	14353
Pw50	0.47	Pw50	0.50	Pw50	0.59

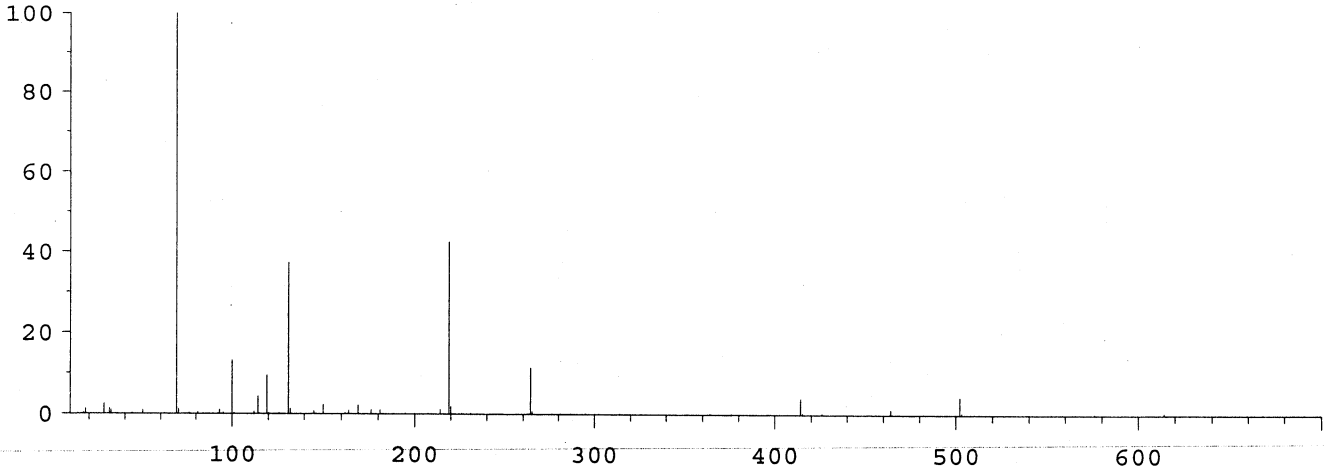


Ion Pol	Pos	MassGain	99
		MassOffs	-8
Emission	34.6	AmuGain	2003
EIEnrgy	69.9	AmuOffs	125
Filament	1	Wid219	-0.016
		DC Pol	Pos
Repeller	32.97		
IonFcus	86.4	HEDEnab	On
EntLens	16.5	EMVolts	1482
EntOffs	19.07		
		Samples	8
PFTBA	Open	Averages	3
		Stepsize	0.10

Temperatures and Pressures:

MS Source	230	TurboSpd	100
MS Quad	150		

Scan: 10.00 - 700.00 Samples: 8 Thresh: 100 Step: 0.10
92 peaks Base: 69.10 Abundance: 278016



Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.10	278016	100.00	70.10	3183	1.14
219.10	118400	42.59	220.10	5271	4.45
502.10	11905	4.28	503.10	1071	9.00

Air/Water Check: H20~1.19% N2~2.45% O2~0.96% CO2~0.20% N2/H2O~206.21%

Column Flow: Front: 1.499 Back: 0 ml/min. Interface Temp: 260

Ramp Criteria:
Ion Focus Maximum 90 volts using ion 502; EM Gain 53697
Repeller Maximum 35 volts using ion 219; Gain Factor 0.54

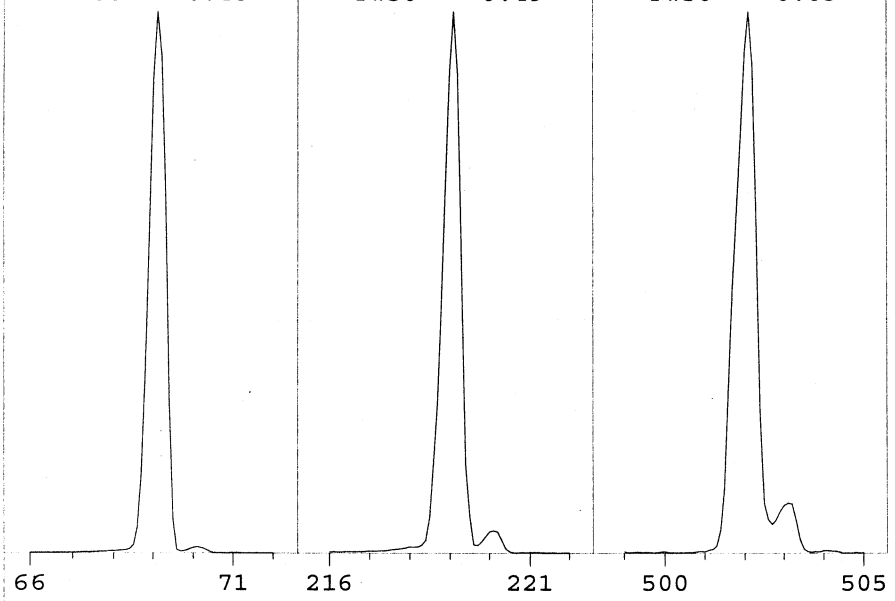
MassGain Values(Samples): 99(3) 99(2) 99(1) 99(0) 99(FS)

TARGET MASS:	50	69	131	219	414	502	800
Amu Offset:	125.0	125.0	125.0	125.0	125.0	125.0	125.0
Entrance Lens Offset:	19.1	19.1	19.1	19.1	19.1	19.1	19.1

5973N

Sat Jan 25 13:04:50 2014 Instrument: HP5973K
C:\MSDCHEM\1\5973N\atune.u US03960556

Mass	69.10	Mass	219.10	Mass	502.10
Ab	338445	Ab	138578	Ab	13468
Pw50	0.48	Pw50	0.49	Pw50	0.63

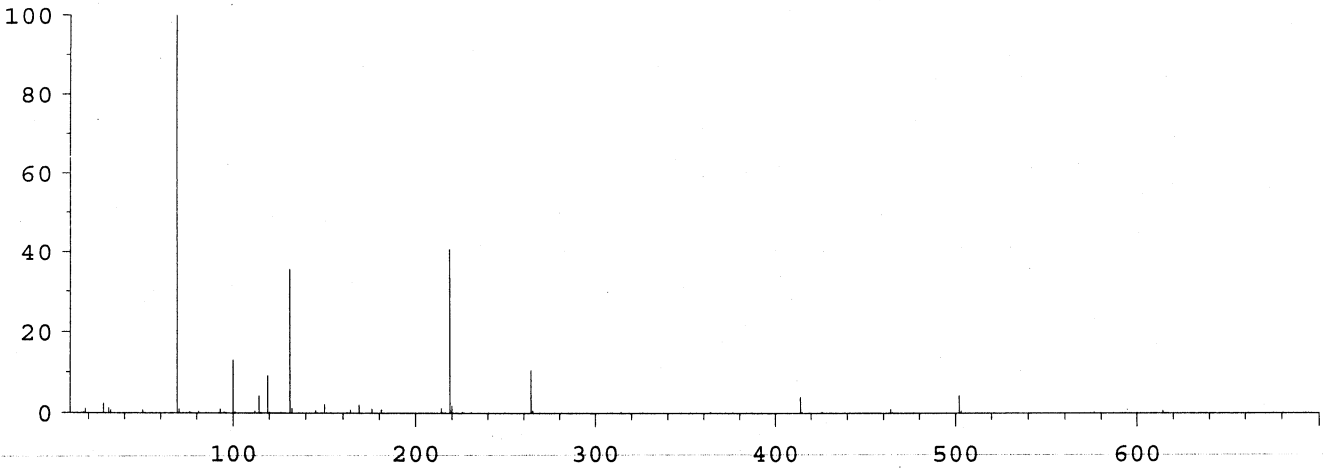


Ion Pol	Pos	MassGain	99
		MassOffs	-8
Emission	34.6	AmuGain	2003
EIEnrgy	69.9	AmuOffs	125
Filament	1	Wid219	-0.016
		DC Pol	Pos
Repeller	32.97		
IonFcus	86.4	HEDEnab	On
EntLens	16.5	EMVolts	1482
EntOffs	19.07		
		Samples	8
PFTBA	Open	Averages	3
		Stepsize	0.10

Temperatures and Pressures:

MS Source	230	TurboSpd	100
MS Quad	150		

Scan: 10.00 - 700.00 Samples: 8 Thresh: 100 Step: 0.10
95 peaks Base: 69.10 Abundance: 274624



Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.10	274624	100.00	70.10	2967	1.08
219.10	111888	40.74	220.10	4799	4.29
502.10	11935	4.35	503.10	1339	11.22

Air/Water Check: H20~1.08% N2~2.31% O2~0.73% CO2~0.10% N2/H2O~213.52%

Column Flow: Front: 1.499 Back: 0 ml/min. Interface Temp: 260

Ramp Criteria:
Ion Focus Maximum 90 volts using ion 502; EM Gain 51440
Repeller Maximum 35 volts using ion 219; Gain Factor 0.51

MassGain Values(Samples): 99(3) 99(2) 99(1) 99(0) 99(FS)

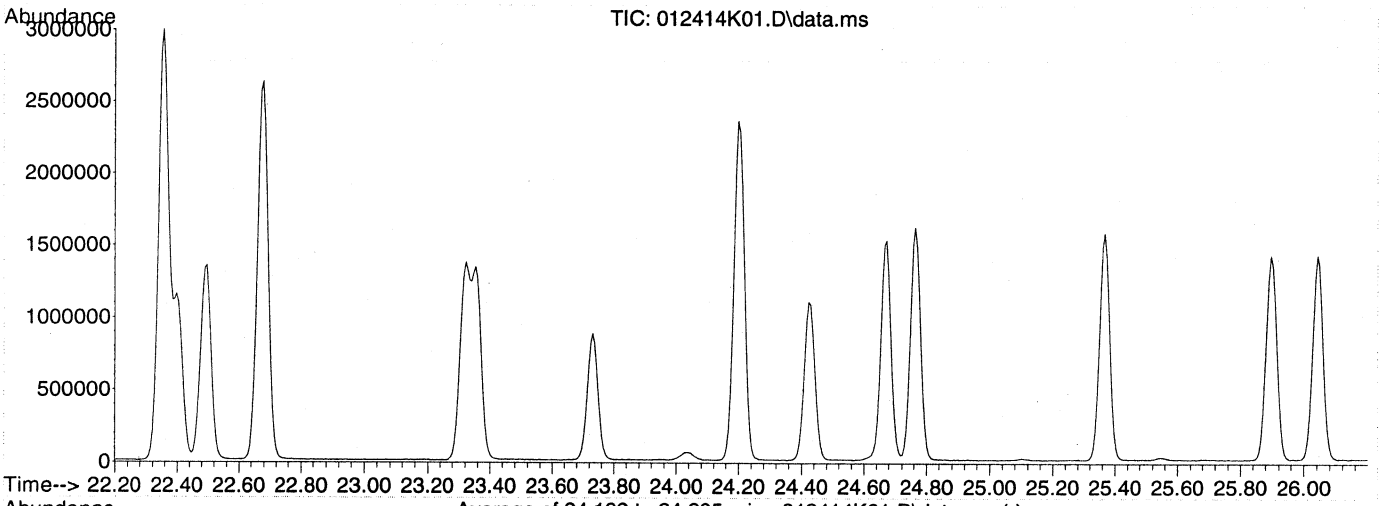
TARGET MASS:	50	69	131	219	414	502	800
Amu Offset:	125.0	125.0	125.0	125.0	125.0	125.0	125.0
Entrance Lens Offset:	19.1	19.1	19.1	19.1	19.1	19.1	19.1

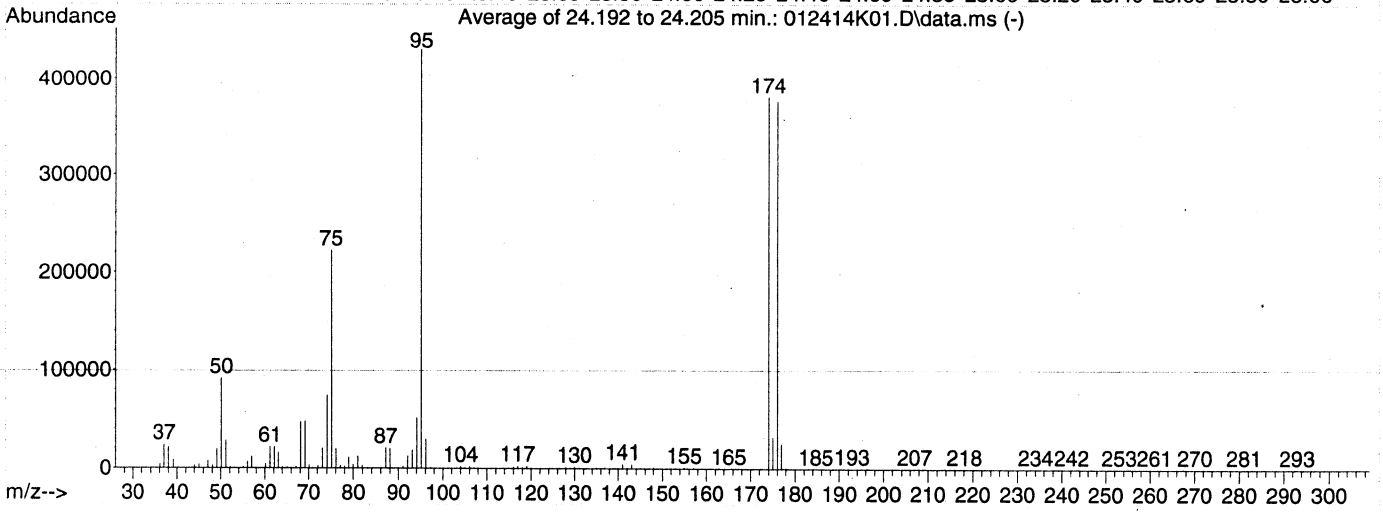
BFB

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K01.D
Acq On : 24 Jan 2014 9:47
Operator : EM
Sample : S14A082-TUN1
Misc : BFB STD 1311118/IS 1328060/10ppbv STD
ALS Vial : 32 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\2014\012414KAA.M
Title : TO15
Last Update : Thu Jan 23 17:30:00 2014





AutoFind: Scans 3388, 3389, 3390; Background Corrected with Scan 3375

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	21.3	91648	PASS
75	95	30	66	51.6	222143	PASS
95	95	100	100	100.0	430848	PASS
96	95	5	9	6.8	29219	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	88.5	381461	PASS
175	174	4	9	8.4	31944	PASS
176	174	93	101	98.8	376829	PASS
177	176	5	9	6.6	25044	PASS

Average of 24.192 to 24.205 min.: 012414K01.D\data.ms
S14A082-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	4223	49.10	19035	59.00	39	69.10	47400
37.05	23782	50.10	91648	59.15	33	70.10	3550
38.05	21138	51.10	27999	60.10	4546	71.00	126
39.10	8181	52.10	1046	61.10	21289	72.10	2524
40.15	315	53.00	55	62.10	21237	73.10	19683
42.20	40	53.40	27	63.05	15647	74.10	74524
44.10	2638	54.15	132	64.05	1343	75.05	222143
45.10	4088	55.10	1273	65.15	705	76.10	19003
46.10	293	56.10	6654	66.20	80	77.10	2850
47.05	7656	57.05	11836	67.10	1329	78.00	2145
48.10	2998	58.00	537	68.10	46658	79.00	11217

Average of 24.192 to 24.205 min.: 012414K01.D\data.ms
S14A082-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
80.00	3725	92.10	12167	104.00	1822	116.00	1464
81.00	12052	93.10	18286	104.95	632	116.95	2508
81.95	2860	94.05	50993	106.00	1648	118.05	1549
83.05	357	95.10	430848	107.05	402	119.00	2043
84.20	64	96.10	29219	107.80	23	120.00	38
85.05	19	97.10	787	107.95	28	120.95	14
86.15	594	98.10	73	109.90	263	121.95	128
87.10	20437	99.10	37	111.00	386	122.95	171
88.05	19724	100.20	13	112.00	180	123.95	246
89.60	86	101.20	52	113.00	320	124.90	86
91.05	1714	103.00	254	114.90	513	125.90	6

Average of 24.192 to 24.205 min.: 012414K01.D\data.ms
S14A082-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
126.20	90	136.00	132	143.80	120	152.00	214
127.05	106	137.00	761	144.00	248	153.00	306
127.95	1291	137.80	13	144.95	441	154.00	337
129.00	690	137.95	36	145.95	586	154.95	1031
129.95	1504	138.75	104	146.90	360	156.00	136
131.00	559	139.10	21	147.95	1000	156.20	62
132.05	85	139.85	354	148.95	301	157.00	777
132.30	28	141.00	4490	149.95	444	158.15	138
133.15	157	142.00	383	150.80	18	158.90	400
133.90	73	142.20	194	151.00	33	159.95	80
134.95	764	143.00	4408	151.20	32	161.00	398

Average of 24.192 to 24.205 min.: 012414K01.D\data.ms
S14A082-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
161.90	12	168.75	49	178.95	19	192.05	105
162.00	14	169.30	85	180.40	14	192.90	149
162.90	46	170.40	90	180.90	5	194.00	12
165.00	48	170.70	116	182.70	12	195.00	63
165.60	29	170.95	42	183.20	11	196.20	11
165.85	32	172.20	615	184.70	13	196.50	24
166.40	13	174.00	381461	187.90	14	196.85	24
166.60	13	174.95	31944	188.85	31	198.70	8
166.90	13	176.00	376829	189.30	8	199.50	7
167.20	40	177.00	25044	189.90	23	202.05	23
168.00	27	177.95	688	191.00	102	202.65	4

Average of 24.192 to 24.205 min.: 012414K01.D\data.ms
S14A082-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
204.10	18	211.40	8	219.95	19	227.20	15
204.70	8	212.00	8	220.80	12	229.20	12
205.20	27	212.50	10	222.80	20	230.70	8
205.70	10	213.60	11	223.05	31	232.80	18
206.15	43	214.90	15	223.40	14	234.10	53
207.00	117	215.40	14	224.00	22	234.70	14
208.05	88	216.00	15	224.20	22	234.90	10
208.80	44	217.20	38	224.80	11	236.00	10
209.05	78	218.10	42	225.10	11	236.40	8

209.80	12	218.40	9	226.20	8	238.15	27
210.30	17	219.10	25	226.90	15	238.80	23

Average of 24.192 to 24.205 min.: 012414K01.D\data.ms
S14A082-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
239.20	42	247.30	30	256.40	13	266.00	7
240.00	25	248.30	10	257.10	13	266.30	17
240.90	8	248.95	61	257.70	9	267.20	132
241.30	7	249.70	8	258.10	13	267.50	26
242.20	16	250.60	16	258.55	22	268.10	55
243.90	8	250.95	36	260.05	148	269.05	243
244.50	10	252.00	38	260.80	31	270.10	263
244.70	10	253.00	190	261.05	56	272.10	14
245.10	7	254.10	52	261.60	23	272.35	65
246.00	16	254.90	47	262.20	16	272.90	49
246.85	52	255.00	46	263.00	21	273.60	10

Average of 24.192 to 24.205 min.: 012414K01.D\data.ms
S14A082-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
275.00	8	291.10	31				
275.80	7	292.95	48				
279.00	10	293.30	9				
280.00	9	294.20	12				
281.10	68	294.70	12				
283.05	16	295.10	12				
285.00	33	298.90	17				
286.00	7						
286.30	7						
287.80	9						
290.05	16						

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL4
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:46:40 2014
Quant Title : TO15
QLast Update : Thu Jan 23 17:30:00 2014
Response via : Initial Calibration

DataAcq Meth:012314KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	BROMOCHLOROMETHANE	1.000	1.000	0.0	100	0.00
2	T	Propene	0.636	0.575	9.6	100	0.00
3	T	Dichlorodifluoromethane	1.725	1.587	8.0	100	0.00
4	T	1,2-Dichlorotetrafluoroetha	1.770	1.636	7.6	100	0.00
5	T	Chloromethane	0.735	0.676	8.0	100	0.00
6	T	Vinyl chloride	0.780	0.732	6.2	100	0.00
7	T	1,3-Butadiene	0.584	0.548	6.2	100	0.00
8	T	Bromomethane	0.580	0.531	8.4	100	0.00
9	T	Chloroethane	0.405	0.373	7.9	100	0.00
10	T	Bromoethene	0.541	0.505	6.7	100	0.00
11	T	Trichlorofluoromethane	1.492	1.373	8.0	100	0.00
12	T	1,1,2-Trichloro-1,2,2-trifl	1.045	0.986	5.6	100	0.00
13	T	1,1-Dichloroethene	1.153	1.084	6.0	100	0.00
14	T	Acetone	1.030	0.975	5.3	100	0.00
15	T	Carbon disulfide	1.680	1.571	6.5	100	0.00
16	T	2-Propanol	1.054	1.020	3.2	100	0.00
17	T	Allyl chloride	0.851	0.817	4.0	100	0.00
18	T	Dichloromethane	0.992	0.858	13.5	100	0.00
19	T	tert-Butyl methyl ether (MT	1.708	1.640	4.0	100	0.00
20	T	trans-1,2-Dichloroethene	0.940	0.890	5.3	100	0.00
21	T	Hexane	1.148	1.097	4.4	100	0.00
22	T	1,1-Dichloroethane	1.392	1.293	7.1	100	0.00
23	T	Vinyl acetate	1.530	1.507	1.5	100	0.00
24	T	cis-1,2-Dichloroethene	1.023	0.968	5.4	100	0.00
25	T	2-Butanone (MEK)	1.322	1.430	-8.2	100	0.00
26	T	Ethyl acetate	1.772	1.575	11.1	100	0.00
27	T	Tetrahydrofuran	0.900	0.866	3.8	100	0.00
28	T	Chloroform	1.406	1.314	6.5	100	0.00
29	T	Cyclohexane	1.169	1.112	4.9	100	0.00
30	T	1,1,1-Trichloroethane	1.394	1.300	6.7	100	0.00
31	T	Carbon tetrachloride	1.352	1.264	6.5	100	0.00
32	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	100	0.00
33	T	Benzene	0.877	0.821	6.4	100	0.00
34	T	2,2,4-Trimethylpentane	1.354	1.304	3.7	100	0.00
35	T	1,2-Dichloroethane	0.354	0.333	5.9	100	0.00
36	T	Heptane	0.512	0.495	3.3	100	0.00
37	T	Trichloroethene	0.335	0.313	6.6	100	0.00
38	T	1,2-Dichloropropane	0.336	0.314	6.5	100	0.00
39	T	1,4-Dioxane	0.160	0.164	-2.5	100	0.00
40	T	Bromodichloromethane	0.543	0.512	5.7	100	0.00
41	T	cis-1,3-Dichloropropene	0.471	0.451	4.2	100	0.00
42	T	4-Methyl-2-pentanone (MIBK)	0.663	0.651	1.8	100	0.00
43	I	CHLOROBENZENE-d5	1.000	1.000	0.0	100	0.00
44	T	Toluene	1.085	1.017	6.3	100	0.00
45	T	trans-1,3-Dichloropropene	0.467	0.451	3.4	100	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL4
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:46:40 2014
Quant Title : TO15
QLast Update : Thu Jan 23 17:30:00 2014
Response via : Initial Calibration

DataAcq Meth:012314KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
46	T	1,1,2-Trichloroethane	0.358	0.330	7.8	100	0.00
47	T	Tetrachloroethene	0.503	0.459	8.7	100	0.00
48	T	2-Hexanone	0.662	0.652	1.5	100	0.00
49	T	Chlorodibromomethane	0.546	0.506	7.3	100	0.00
50	T	1,2-Dibromoethane (EDB)	0.499	0.467	6.4	100	0.00
51	T	Chlorobenzene	0.822	0.764	7.1	100	0.00
52	T	Ethylbenzene	1.428	1.350	5.5	100	0.00
53	T	m&p-Xylene	1.090	1.041	4.5	100	0.00
54	T	o-Xylene	1.076	1.024	4.8	100	0.00
55	T	Styrene	0.874	0.844	3.4	100	0.00
56	T	Bromoform	0.575	0.544	5.4	100	0.00
57	T	1,1,2,2-Tetrachloroethane	0.849	0.797	6.1	100	0.00
58	T	4-Ethyltoluene	1.391	1.336	4.0	100	0.00
59	T	1,3,5-Trimethylbenzene	1.233	1.195	3.1	100	0.00
60	T	1,2,4-Trimethylbenzene	1.237	1.198	3.2	100	0.00
61	T	1,3-Dichlorobenzene	0.854	0.810	5.2	100	0.00
62	T	1,4-Dichlorobenzene	0.835	0.807	3.4	100	0.00
63	T	Benzyl chloride	0.930	0.908	2.4	100	0.00
64	T	1,2-Dichlorobenzene	0.831	0.786	5.4	100	0.00
65	T	1,2,4-Trichlorobenzene	0.820	0.795	3.0	100	0.00
66	T	Hexachlorobutadiene	0.710	0.663	6.6	100	0.00

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

$$\%Dev_{HCB} = \frac{0.710 - 0.663}{0.710} \times 100 = 6.6\%$$

$$RF_{HCB} = \frac{644849\ (22)}{2251153\ (9.58)} = 0.663$$

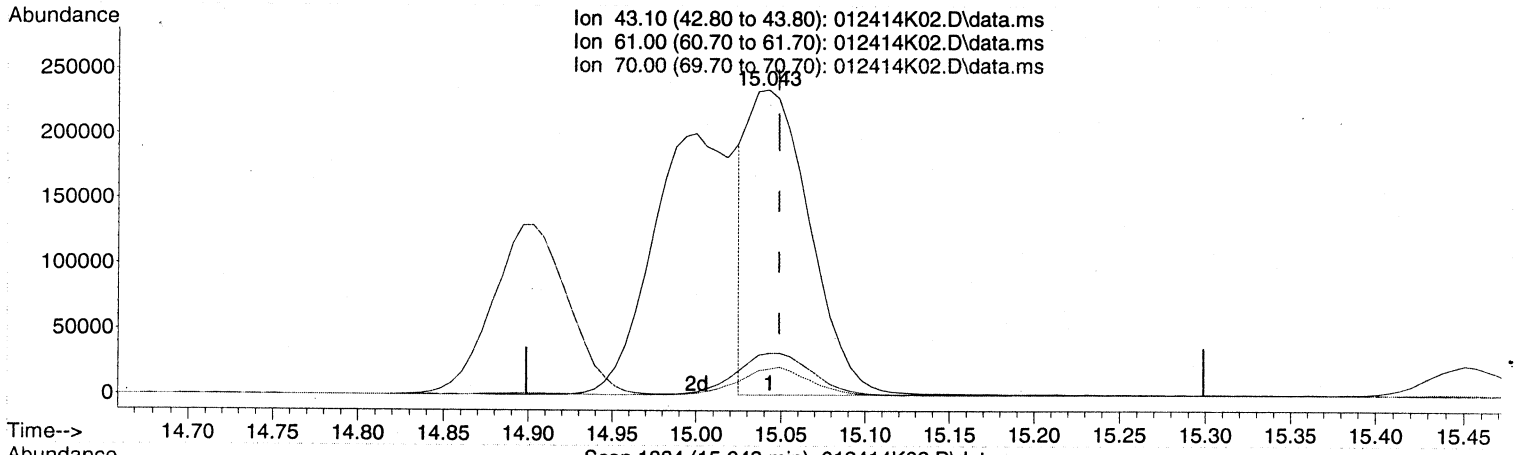
em 1/25/14

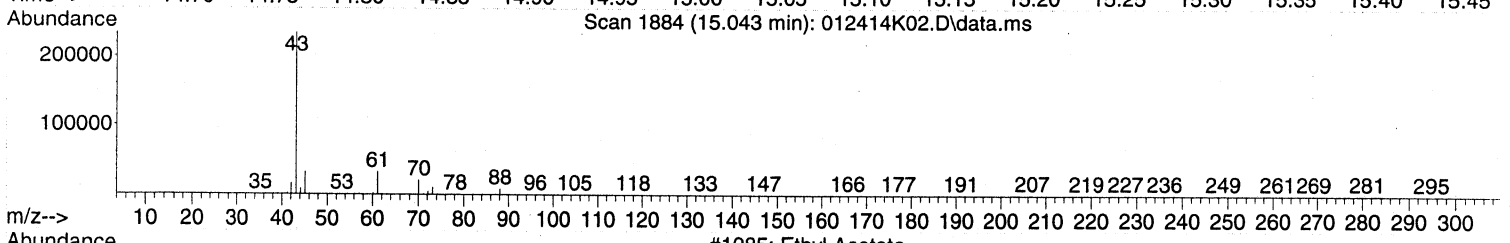
Quantitation Report (Qedit)

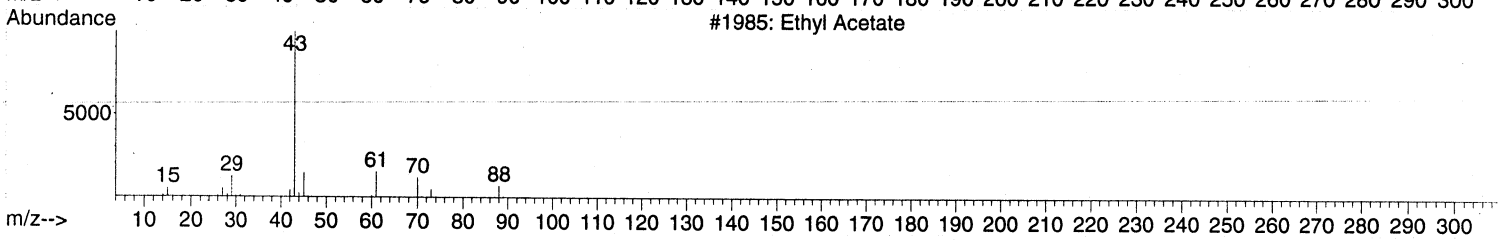
Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Instrument: HP5973K
Operator : EM
Sample : S14A082-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:46:13 2014
Quant Title : TO15
QLast Update : Thu Jan 23 17:30:00 2014
Response via : Initial Calibration

DataAcq Meth:012314KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M







TIC: 012414K02.D\data.ms

(26) Ethyl acetate (T)

15.043min (-0.006) 8.71 ppbv

response 603445

Ion	Exp%	Act%
43.10	100	100
61.00	0.00	16.58#
70.00	0.00	10.44#
0.00	0.00	0.00

MANUAL INTEGRATION VERIFICATION

☑ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☑ Improper Baseline

☐ Other: _____

☐ After Manual Integration

Manual integration(s) performed by:

Analyst: _____ Date: _____

Manual integration(s) reviewed by:

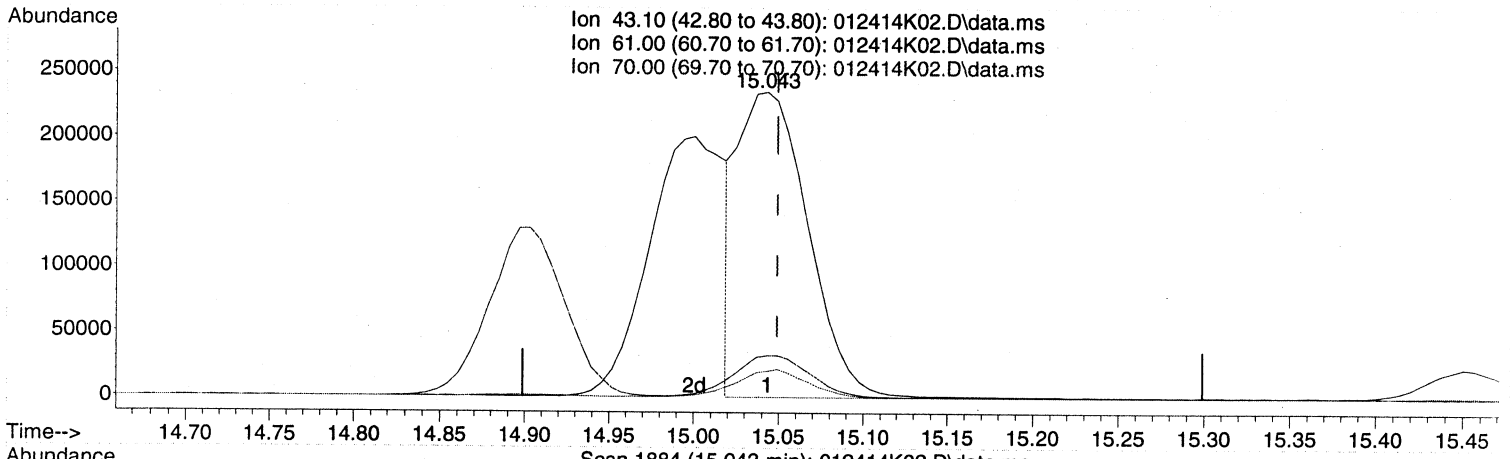
Reviewer: _____ Date: _____

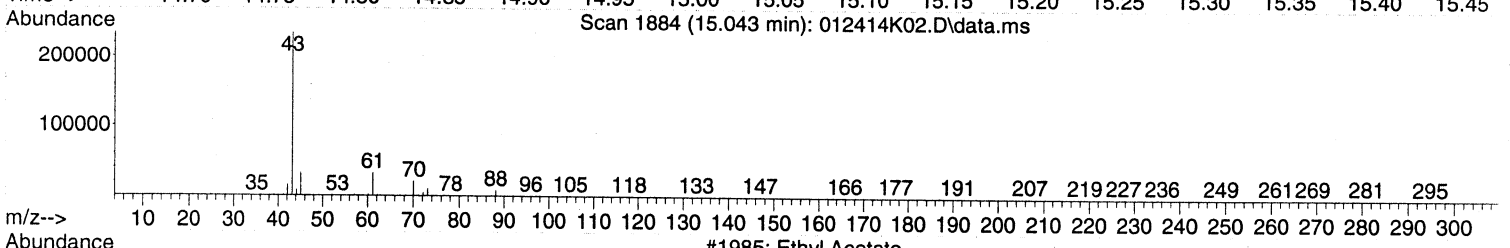
Quantitation Report (Qedit)

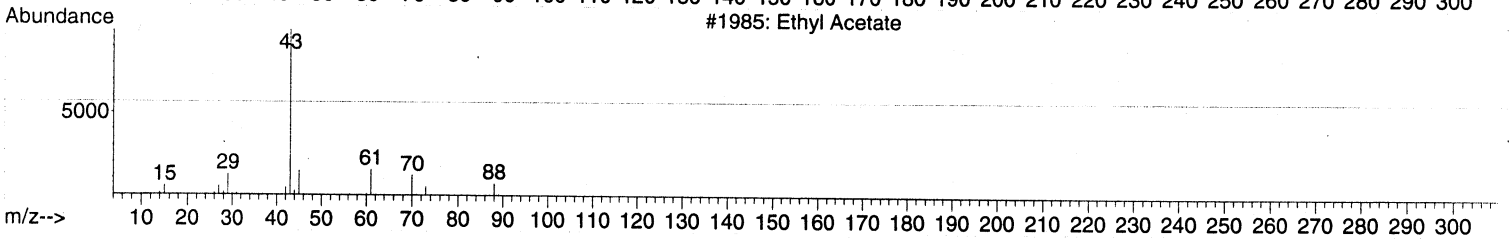
Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Instrument: HP5973K
Operator : EM
Sample : S14A082-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:46:13 2014
Quant Title : TO15
QLast Update : Thu Jan 23 17:30:00 2014
Response via : Initial Calibration

DataAcq Meth:012314KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M







TIC: 012414K02.D\data.ms

(26) Ethyl acetate (T)

15.043min (-0.006) 9.76 ppbv m

response 676154

Ion	Exp%	Act%
43.10	100	100
61.00	0.00	14.80#
70.00	0.00	9.32
0.00	0.00	0.00

MANUAL INTEGRATION VERIFICATION

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EM Date: 1/24/14

Manual integration(s) reviewed by:

Reviewer: JL Date: 1/25/14

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Instrument: HP5973K
Operator : EM
Sample : S14A082-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Rec NT
em 1/24/14

Quant Time: Jan 24 12:46:13 2014
Quant Title : TO15
QLast Update : Thu Jan 23 17:30:00 2014
Response via : Initial Calibration

DataAcq Meth:012314KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards								
1)	BROMOCHLOROMETHANE	15.438	49	907783	22.00	ppbv		0.00
32)	1,4-DIFLUOROBENZENE	17.446	114	2392845	22.00	ppbv		0.00
43)	CHLOROBENZENE-d5	22.355	117	2251153	22.00	ppbv		0.00
Target Compounds								Qvalue
2)	Propene	4.366	41	253988	10.22	ppbv		98
3)	Dichlorodifluoromethane	4.464	85	674855	9.71	ppbv		99
4)	1,2-Dichlorotetrafluor...	4.810	85	709115	9.98	ppbv		99
5)	Chloromethane	5.011	50	292845	10.17	ppbv		99
6)	Vinyl chloride	5.333	62	317201	10.17	ppbv		98
7)	1,3-Butadiene	5.431	54	230720	9.93	ppbv		98
8)	Bromomethane	6.362	94	225784	9.48	ppbv		99
9)	Chloroethane	6.690	64	158635	9.62	ppbv		99
10)	Bromoethene	7.268	106	214707	9.72	ppbv		100
11)	Trichlorofluoromethane	7.402	101	606557	10.04	ppbv		100
12)	1,1,2-Trichloro-1,2,2-...	9.215	151	394929	9.28	ppbv		96
13)	1,1-Dichloroethene	9.294	61	429541	9.41	ppbv		100
14)	Acetone	9.823	43	426489	10.35	ppbv		100
15)	Carbon disulfide	10.018	76	661500	9.83	ppbv		99
16)	2-Propanol	10.444	45	400022	9.49	ppbv		100
17)	Allyl chloride	10.845	41	340721	10.13	ppbv		98
18)	Dichloromethane	11.387	49	347070	8.77	ppbv		98
19)	tert-Butyl methyl ethe...	12.074	73	737662	10.94	ppbv		100
20)	trans-1,2-Dichloroethene	12.098	61	348954	9.25	ppbv		98
21)	Hexane	12.713	57	462024	10.13	ppbv		99
22)	1,1-Dichloroethane	13.449	63	517542	9.28	ppbv		99
23)	Vinyl acetate	13.595	43	621919	10.32	ppbv		99
24)	cis-1,2-Dichloroethene	14.897	61	403683	9.87	ppbv		99
25)	2-Butanone (MEK)	15.000	43	613689	11.46	ppbv		97
26)	Ethyl acetate	15.043	43	603445	8.71	ppbv	#	100
27)	Tetrahydrofuran	15.451	42	368304	10.35	ppbv		99
28)	Chloroform	15.603	83	553333	9.65	ppbv		99
29)	Cyclohexane	15.834	56	477116	10.17	ppbv		98
30)	1,1,1-Trichloroethane	15.882	97	542056	9.56	ppbv		99
31)	Carbon tetrachloride	16.138	117	537139	9.77	ppbv		100
33)	Benzene	16.631	78	901781	10.93	ppbv		100
34)	2,2,4-Trimethylpentane	16.594	57	1489662	11.76	ppbv		100
35)	1,2-Dichloroethane	16.825	62	355533	10.66	ppbv		100
36)	Heptane	16.971	43	565457	11.96	ppbv		99
37)	Trichloroethene	17.860	130	344388	10.88	ppbv		99
38)	1,2-Dichloropropane	18.365	63	352373	11.25	ppbv		100
39)	1,4-Dioxane	18.559	88	189208	12.48	ppbv		98
40)	Bromodichloromethane	18.827	83	590251	11.50	ppbv		99
41)	cis-1,3-Dichloropropene	19.593	75	505029	11.43	ppbv		99
42)	4-Methyl-2-pentanone (...	19.831	43	743712	12.29	ppbv		99
44)	Toluene	20.074	91	1061291	15.61	ppbv		100
45)	trans-1,3-Dichloropropene	20.542	75	493938	16.79	ppbv		99
46)	1,1,2-Trichloroethane	20.847	97	348352	15.47	ppbv		99
47)	Tetrachloroethene	20.926	166	470251	14.80	ppbv		100
48)	2-Hexanone	21.181	43	686900	17.16	ppbv		99

: 00042

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Instrument: HP5973K
Operator : EM
Sample : S14A082-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:46:13 2014
Quant Title : TO15
QLast Update : Thu Jan 23 17:30:00 2014
Response via : Initial Calibration

DataAcq Meth:012314KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49)	Chlorodibromomethane	21.455	129	539101	15.70	ppbv	100
50)	1,2-Dibromoethane (EDB)	21.680	107	491961	15.59	ppbv	100
51)	Chlorobenzene	22.398	112	813598	15.51	ppbv	99
52)	Ethylbenzene	22.495	91	1409640	15.73	ppbv	100
53)	m&p-Xylene	22.678	91	2173327	31.70	ppbv	100
54)	o-Xylene	23.317	91	1079607	16.05	ppbv	100
55)	Styrene	23.359	104	872583	15.95	ppbv	100
56)	Bromoform	23.730	173	574011	15.52	ppbv	99
57)	1,1,2,2-Tetrachloroethane	24.424	83	832089	15.63	ppbv	100
58)	4-Ethyltoluene	24.673	105	1435763	16.46	ppbv	100
59)	1,3,5-Trimethylbenzene	24.764	105	1260166	16.37	ppbv	99
60)	1,2,4-Trimethylbenzene	25.367	105	1238531	15.95	ppbv	100
61)	1,3-Dichlorobenzene	25.896	146	820841	15.25	ppbv	100
62)	1,4-Dichlorobenzene	26.042	146	817897	15.60	ppbv	99
63)	Benzyl chloride	26.255	91	957301	16.25	ppbv	99
64)	1,2-Dichlorobenzene	26.650	146	796007	15.32	ppbv	100
65)	1,2,4-Trichlorobenzene	29.108	180	740327	14.59	ppbv	99
66)	Hexachlorobutadiene	29.248	225	644849	14.89	ppbv	100

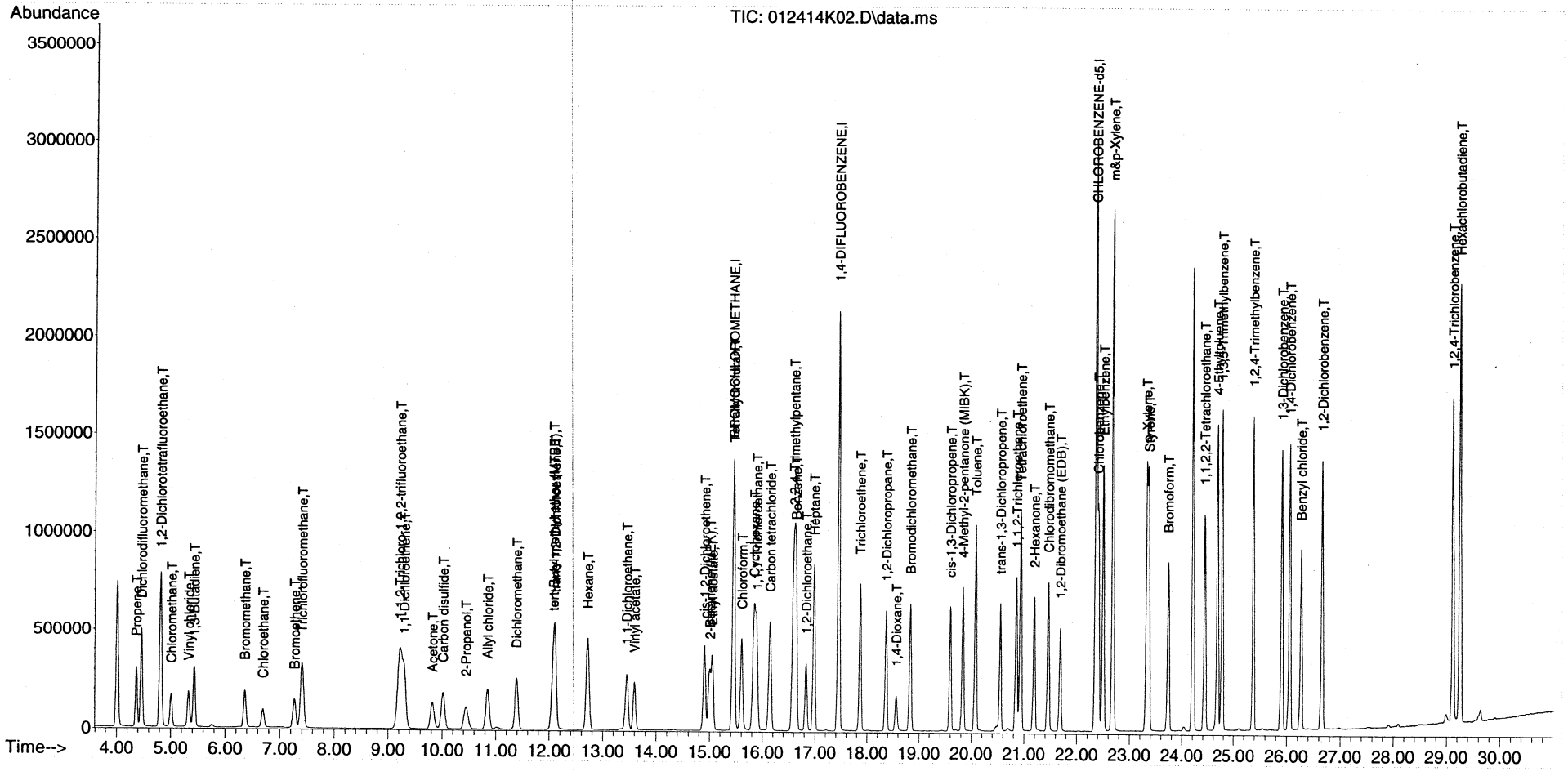
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Instrument: HP5973K
Operator : EM
Sample : S14A082-CCV1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:46:13 2014
Quant Title : TO15
QLast Update : Thu Jan 23 17:30:00 2014
Response via : Initial Calibration

DataAcq Meth:012314KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL4
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:46:40 2014
Quant Title : TO15
QLast Update : Thu Jan 23 17:30:00 2014
Response via : Initial Calibration

DataAcq Meth:012314KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other: _____
☑ After Manual Integration
Manual integration(s) performed by
Analyst: EM Date: 1/24/14
Manual integration(s) reviewed by:
Reviewer: [illegible] Date: 1/28/14

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.438	49	907783	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2392845	22.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.355	117	2251153	22.00	ppbv	0.00
Target Compounds						Qvalue
2) Propene	4.366	41	253988	10.22	ppbv	98
3) Dichlorodifluoromethane	4.464	85	674855	9.71	ppbv	99
4) 1,2-Dichlorotetrafluor...	4.810	85	709115	9.98	ppbv	99
5) Chloromethane	5.011	50	292845	10.17	ppbv	99
6) Vinyl chloride	5.333	62	317201	10.17	ppbv	98
7) 1,3-Butadiene	5.431	54	230720	9.93	ppbv	98
8) Bromomethane	6.362	94	225784	9.48	ppbv	99
9) Chloroethane	6.690	64	158635	9.62	ppbv	99
10) Bromoethene	7.268	106	214707	9.72	ppbv	100
11) Trichlorofluoromethane	7.402	101	606557	10.04	ppbv	100
12) 1,1,2-Trichloro-1,2,2-...	9.215	151	394929	9.28	ppbv	96
13) 1,1-Dichloroethene	9.294	61	429541	9.41	ppbv	100
14) Acetone	9.823	43	426489	10.35	ppbv	100
15) Carbon disulfide	10.018	76	661500	9.83	ppbv	99
16) 2-Propanol	10.444	45	400022	9.49	ppbv	100
17) Allyl chloride	10.845	41	340721	10.13	ppbv	98
18) Dichloromethane	11.387	49	347070	8.77	ppbv	98
19) tert-Butyl methyl ethe...	12.074	73	737662	10.94	ppbv	100
20) trans-1,2-Dichloroethene	12.098	61	348954	9.25	ppbv	98
21) Hexane	12.713	57	462024	10.13	ppbv	99
22) 1,1-Dichloroethane	13.449	63	517542	9.28	ppbv	99
23) Vinyl acetate	13.595	43	621919	10.32	ppbv	99
24) cis-1,2-Dichloroethene	14.897	61	403683	9.87	ppbv	99
25) 2-Butanone (MEK)	15.000	43	613689	11.46	ppbv	97
26) Ethyl acetate	15.043	43	676154m	9.76	ppbv	
27) Tetrahydrofuran	15.451	42	368304	10.35	ppbv	99
28) Chloroform	15.603	83	553333	9.65	ppbv	99
29) Cyclohexane	15.834	56	477116	10.17	ppbv	98
30) 1,1,1-Trichloroethane	15.882	97	542056	9.56	ppbv	99
31) Carbon tetrachloride	16.138	117	537139	9.77	ppbv	100
33) Benzene	16.631	78	901781	10.93	ppbv	100
34) 2,2,4-Trimethylpentane	16.594	57	1489662	11.76	ppbv	100
35) 1,2-Dichloroethane	16.825	62	355533	10.66	ppbv	100
36) Heptane	16.971	43	565457	11.96	ppbv	99
37) Trichloroethene	17.860	130	344388	10.88	ppbv	99
38) 1,2-Dichloropropane	18.365	63	352373	11.25	ppbv	100
39) 1,4-Dioxane	18.559	88	189208	12.48	ppbv	98
40) Bromodichloromethane	18.827	83	590251	11.50	ppbv	99
41) cis-1,3-Dichloropropene	19.593	75	505029	11.43	ppbv	99
42) 4-Methyl-2-pentanone (...	19.831	43	743712	12.29	ppbv	99
44) Toluene	20.074	91	1061291	15.61	ppbv	100
45) trans-1,3-Dichloropropene	20.542	75	493938	16.79	ppbv	99
46) 1,1,2-Trichloroethane	20.847	97	348352	15.47	ppbv	99
47) Tetrachloroethene	20.926	166	470251	14.80	ppbv	100
48) 2-Hexanone	21.181	43	686900	17.16	ppbv	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL4
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:46:40 2014
Quant Title : TO15
QLast Update : Thu Jan 23 17:30:00 2014
Response via : Initial Calibration

DataAcq Meth:012314KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49)	Chlorodibromomethane	21.455	129	539101	15.70	ppbv	100
50)	1,2-Dibromoethane (EDB)	21.680	107	491961	15.59	ppbv	100
51)	Chlorobenzene	22.398	112	813598	15.51	ppbv	99
52)	Ethylbenzene	22.495	91	1409640	15.73	ppbv	100
53)	m&p-Xylene	22.678	91	2173327	31.70	ppbv	100
54)	o-Xylene	23.317	91	1079607	16.05	ppbv	100
55)	Styrene	23.359	104	872583	15.95	ppbv	100
56)	Bromoform	23.730	173	574011	15.52	ppbv	99
57)	1,1,2,2-Tetrachloroethane	24.424	83	832089	15.63	ppbv	100
58)	4-Ethyltoluene	24.673	105	1435763	16.46	ppbv	100
59)	1,3,5-Trimethylbenzene	24.764	105	1260166	16.37	ppbv	99
60)	1,2,4-Trimethylbenzene	25.367	105	1238531	15.95	ppbv	100
61)	1,3-Dichlorobenzene	25.896	146	820841	15.25	ppbv	100
62)	1,4-Dichlorobenzene	26.042	146	817897	15.60	ppbv	99
63)	Benzyl chloride	26.255	91	957301	16.25	ppbv	99
64)	1,2-Dichlorobenzene	26.650	146	796007	15.32	ppbv	100
65)	1,2,4-Trichlorobenzene	29.108	180	740327	14.59	ppbv	99
66)	Hexachlorobutadiene	29.248	225	644849	14.89	ppbv	100

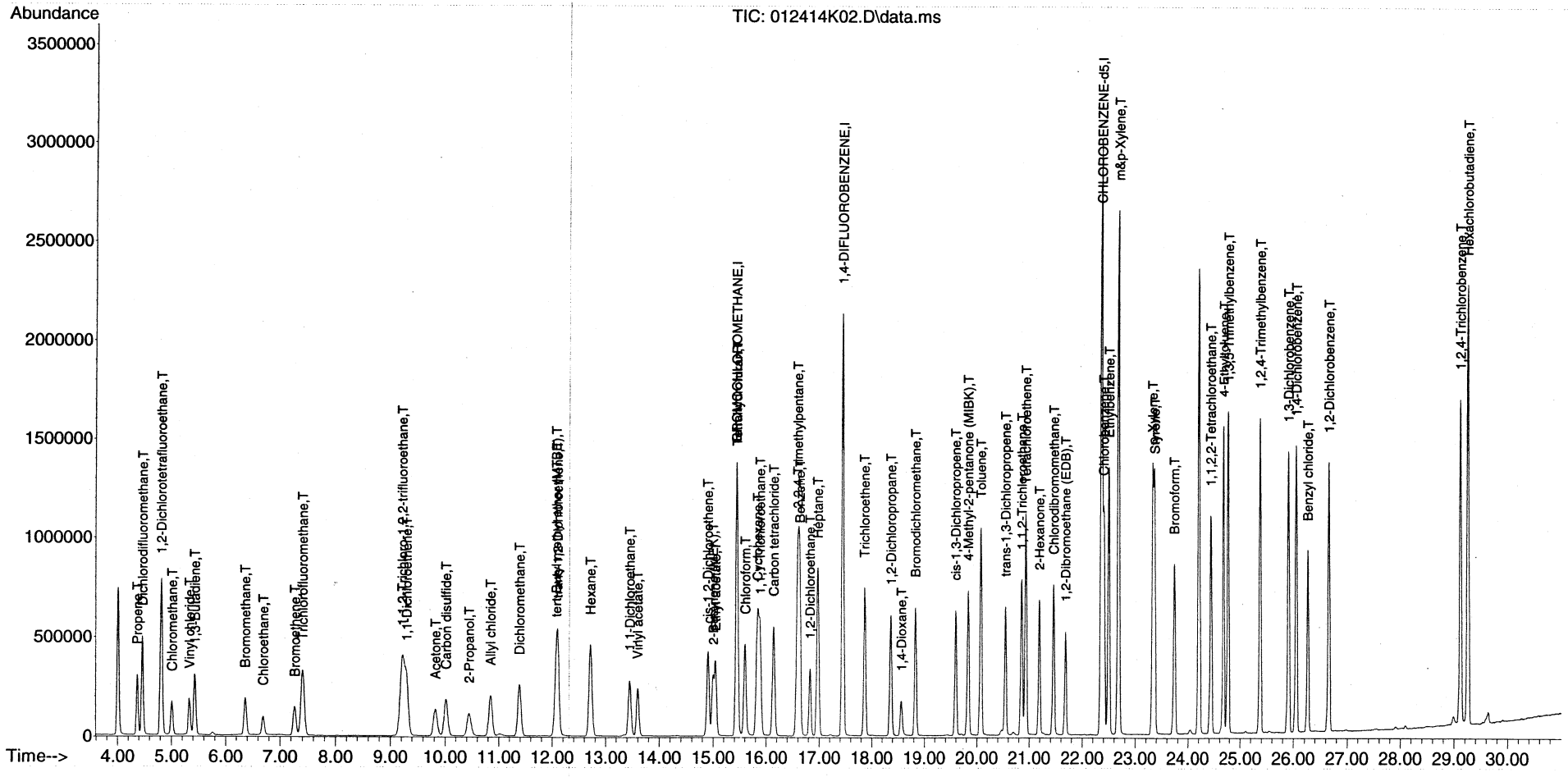
(#) = qualifier out of range (m) = manual integration (+) = signals summed

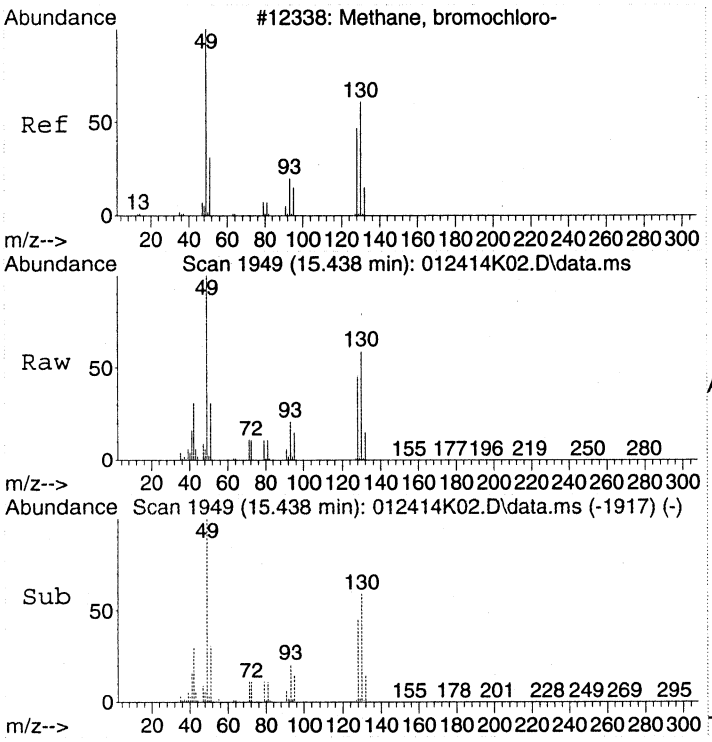
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL4
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:46:40 2014
Quant Title : TO15
QLast Update : Thu Jan 23 17:30:00 2014
Response via : Initial Calibration

DataAcq Meth:012314KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

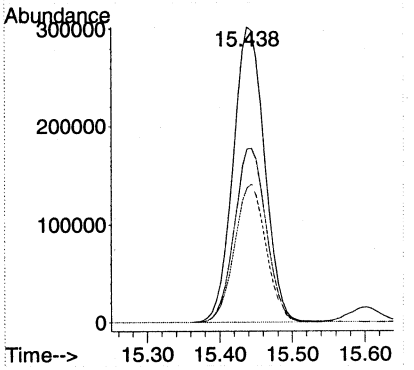


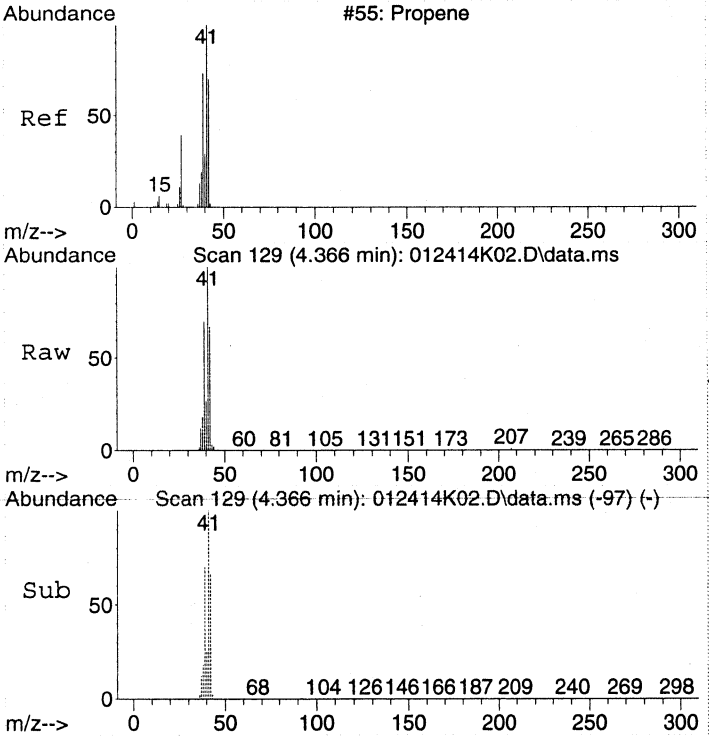


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 49 Resp: 907783

Ion	Ratio	Lower	Upper
49	100		
130	59.6	42.2	82.2
128	46.9	29.2	69.2

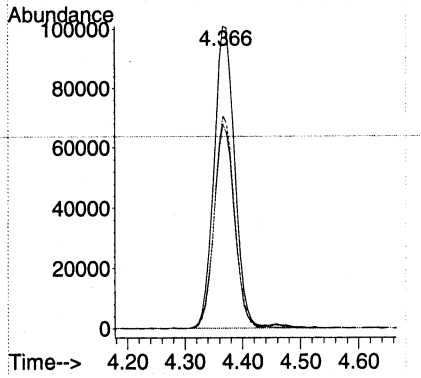


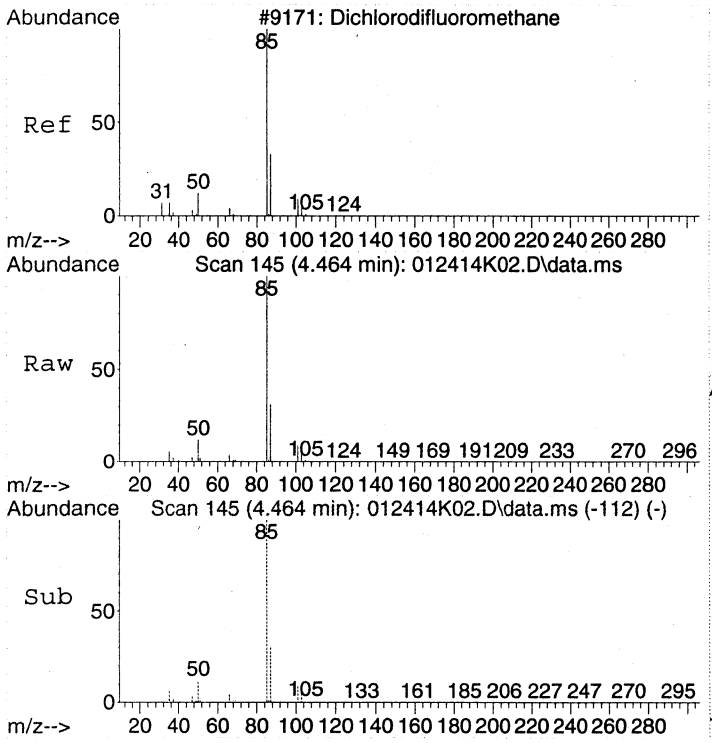


#2
Propene
Concen: 10.22 ppbv
RT: 4.366 min Scan# 129
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 41 Resp: 253988

Ion	Ratio	Lower	Upper
41	100		
42	66.8	46.1	86.1
39	68.3	46.5	86.5

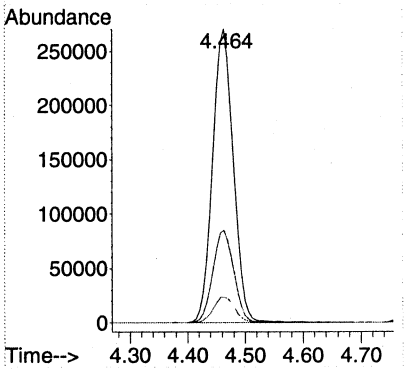


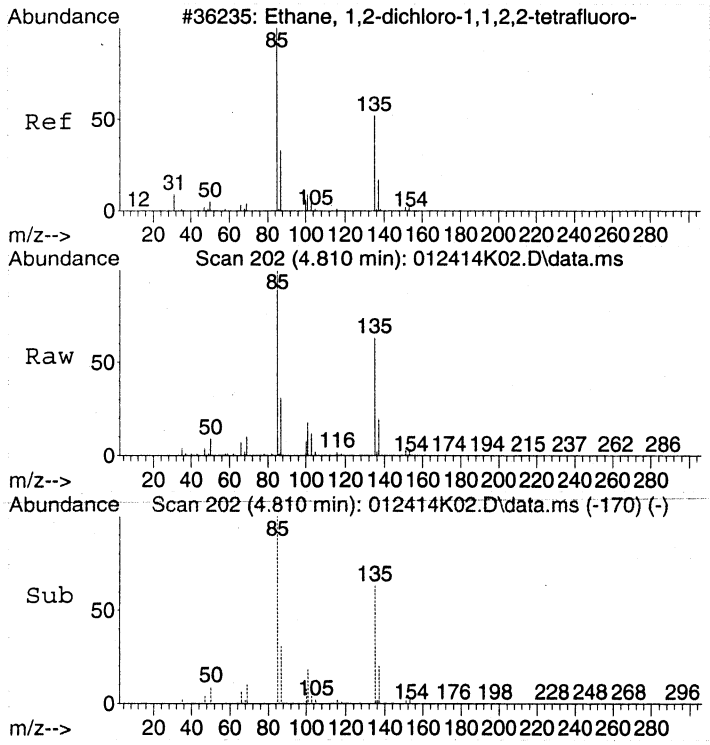


#3
Dichlorodifluoromethane
Concen: 9.71 ppbv
RT: 4.464 min Scan# 145
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 85 Resp: 674855

Ion	Ratio	Lower	Upper
85	100		
87	31.9	11.5	51.5
101	9.2	0.0	28.7

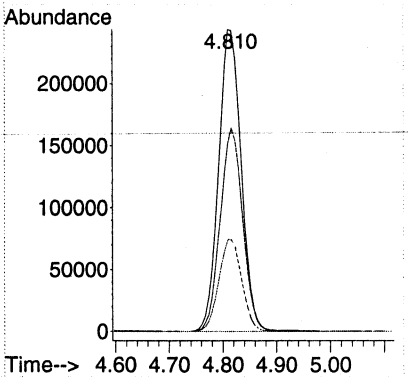


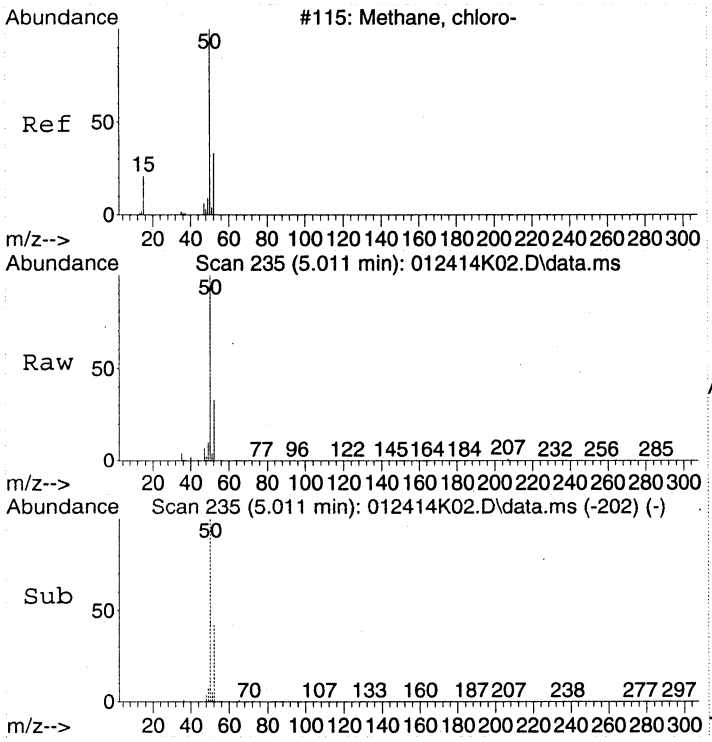


#4
1,2-Dichlorotetrafluoroethane
Concen: 9.98 ppbv
RT: 4.810 min Scan# 202
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 85 Resp: 709115

Ion	Ratio	Lower	Upper
85	100		
135	67.5	48.3	88.3
87	31.1	11.3	51.3

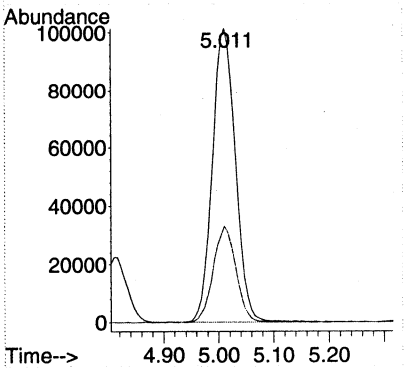


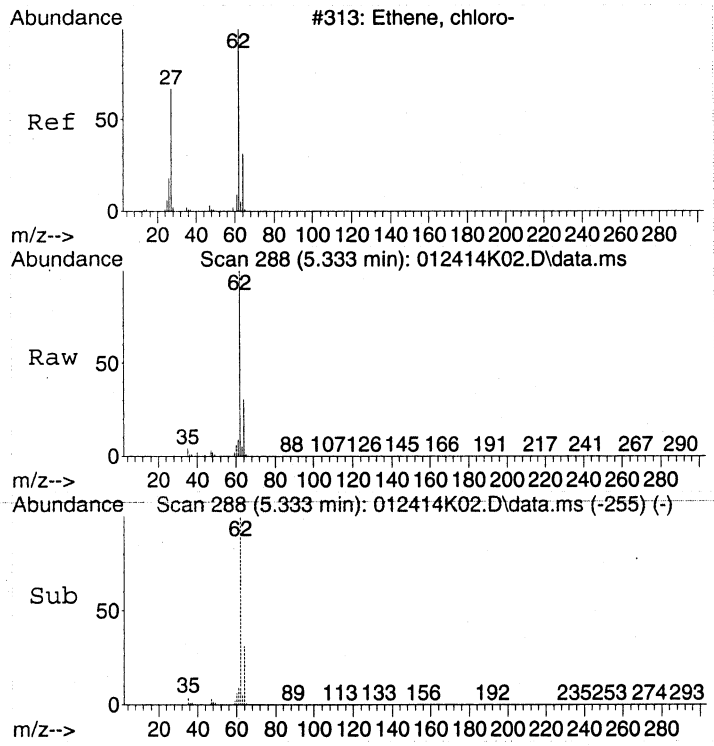


#5
Chloromethane
Concen: 10.17 ppbv
RT: 5.011 min Scan# 235
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 50 Resp: 292845

Ion	Ratio	Lower	Upper
50	100		
52	32.7	12.1	52.1

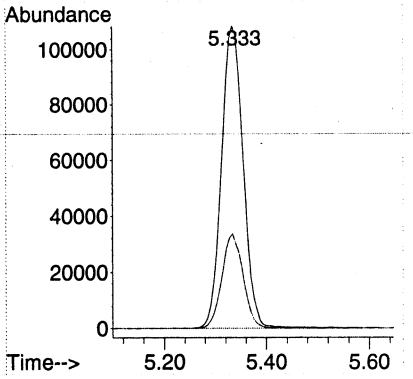


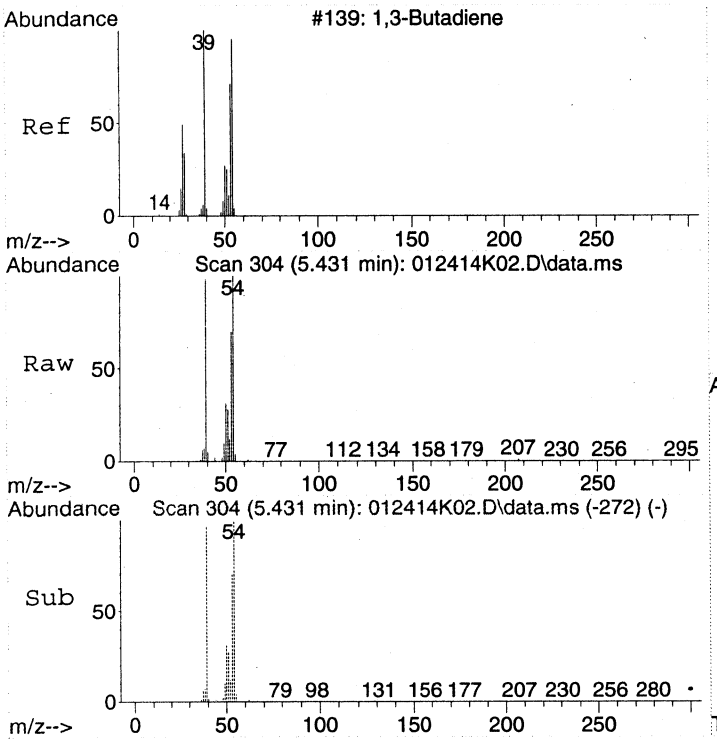


#6
Vinyl chloride
Concen: 10.17 ppbv
RT: 5.333 min Scan# 288
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 62 Resp: 317201

Ion	Ratio	Lower	Upper
62	100		
64	30.8	11.6	51.6

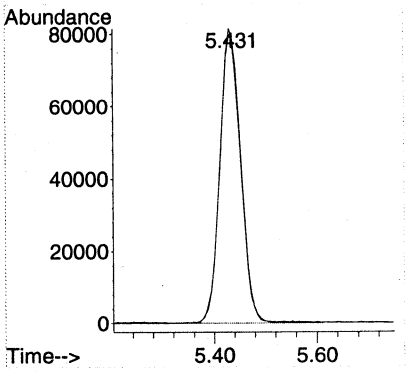


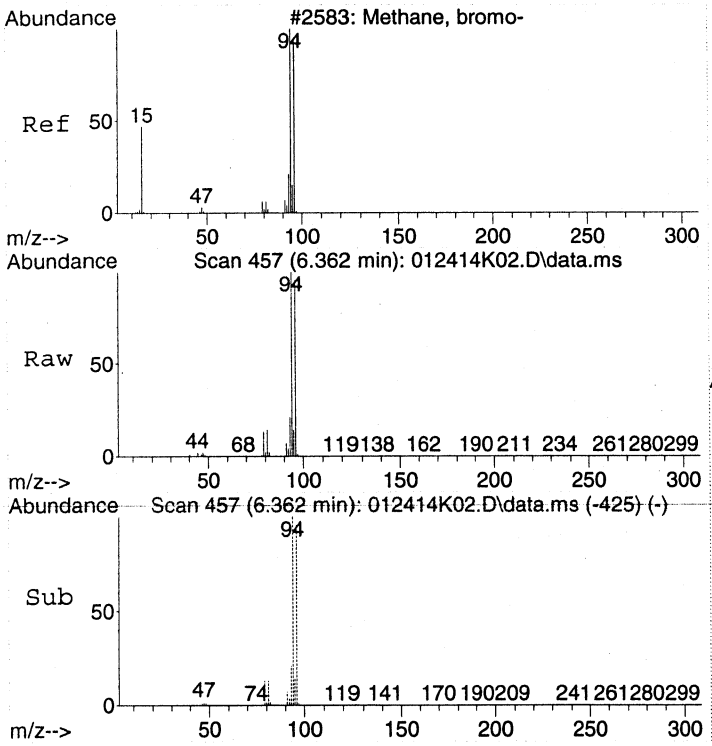


#7
1,3-Butadiene
Concen: 9.93 ppbv
RT: 5.431 min Scan# 304
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 54 Resp: 230720

Ion	Ratio	Lower	Upper
54	100		
39	97.5	75.2	115.2

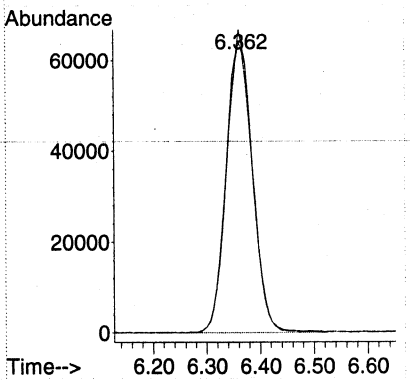


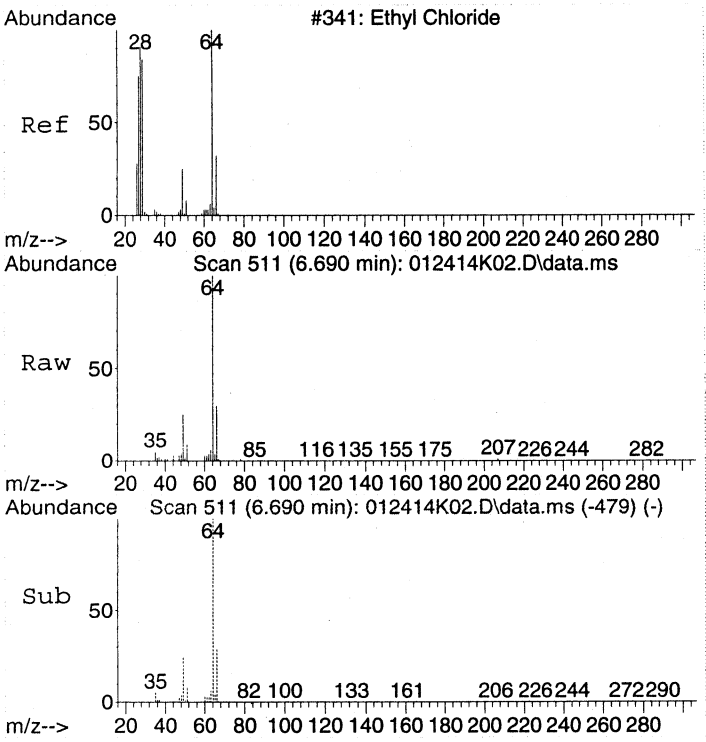


#8
Bromomethane
Concen: 9.48 ppbv
RT: 6.362 min Scan# 457
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 94 Resp: 225784

Ion	Ratio	Lower	Upper
94	100		
96	96.0	74.6	114.6

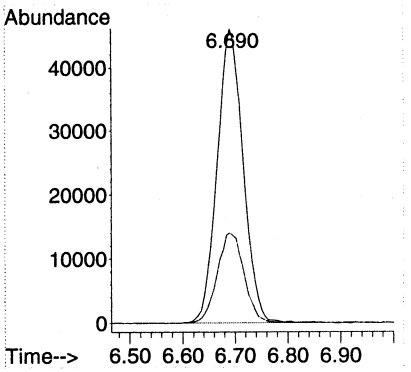


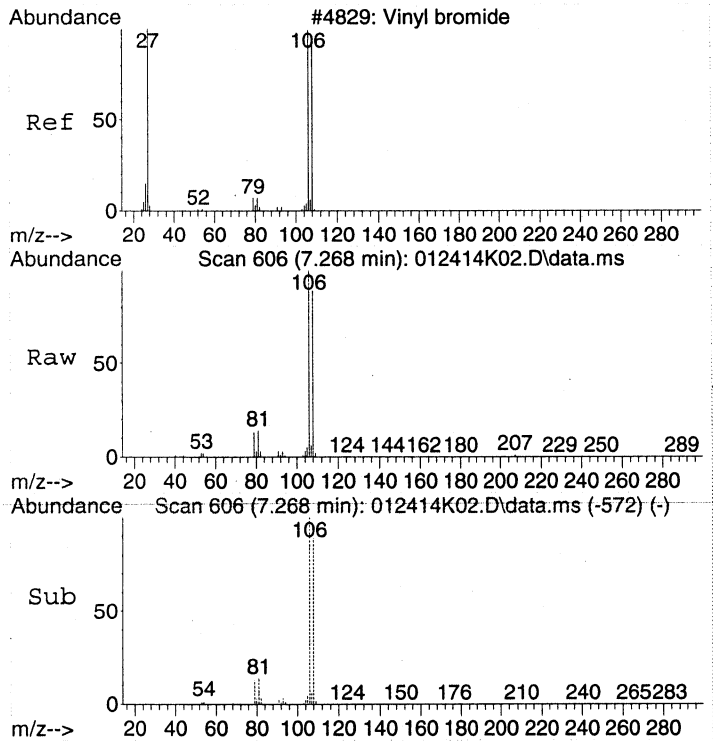


#9
Chloroethane
Concen: 9.62 ppbv
RT: 6.690 min Scan# 511
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 64 Resp: 158635

Ion	Ratio	Lower	Upper
64	100		
66	31.9	11.6	51.6

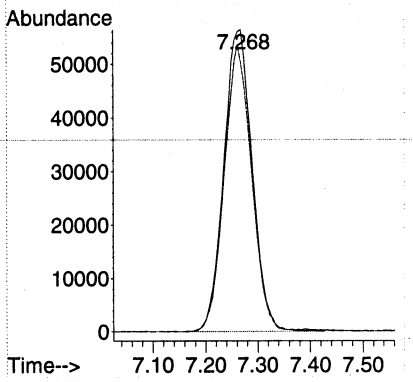




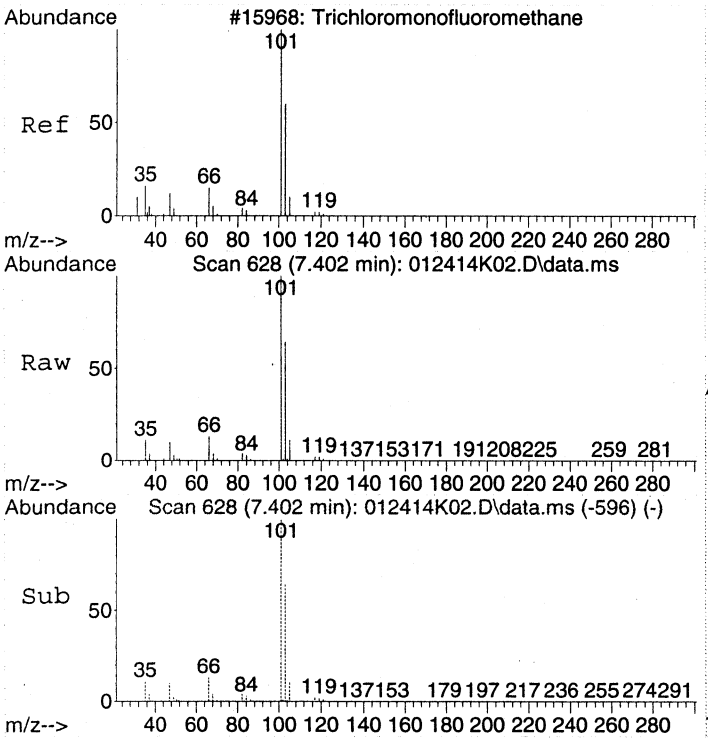
#10
Bromoethene
Concen: 9.72 ppbv
RT: 7.268 min Scan# 606
Delta R.T. 0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:106 Resp: 214707

Ion	Ratio	Lower	Upper
106	100		
108	91.2	0.0	210.8



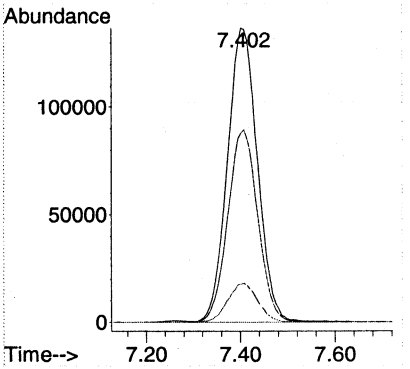
00052

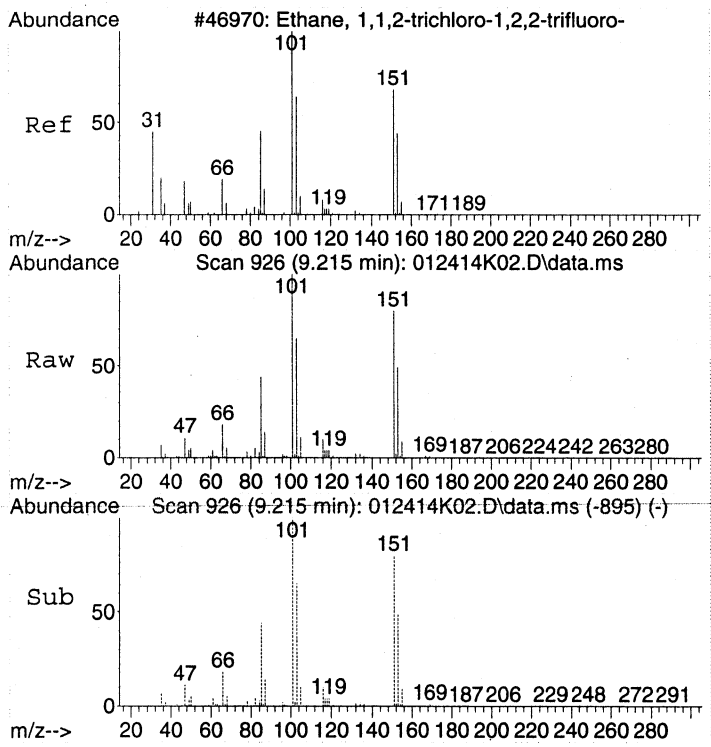


#11
Trichlorofluoromethane
Concen: 10.04 ppbv
RT: 7.402 min Scan# 628
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:101 Resp: 606557

Ion	Ratio	Lower	Upper
101	100		
103	64.7	44.4	84.4
66	13.4	0.0	33.2

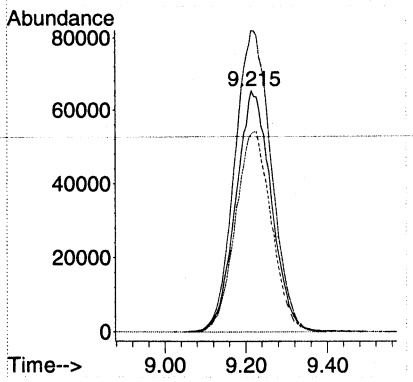


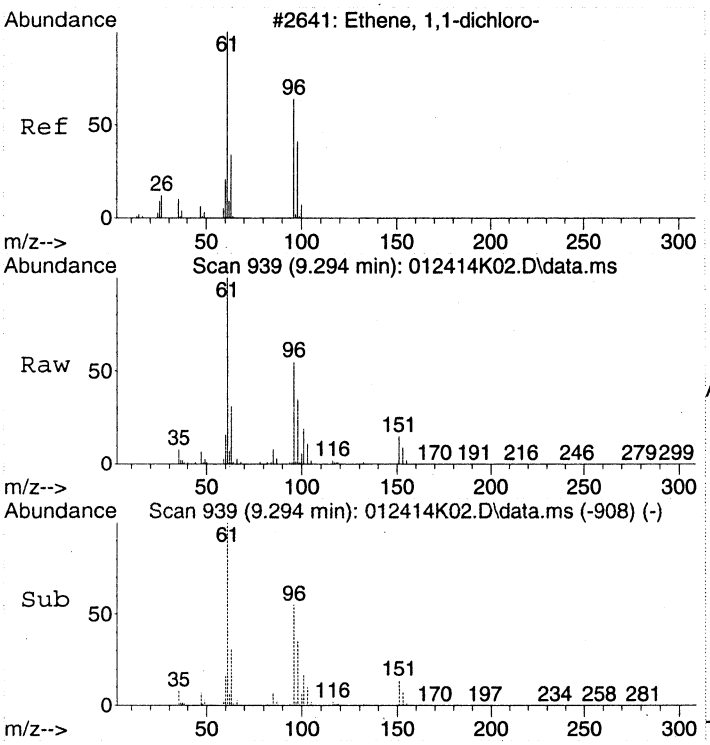


#12
1,1,2-Trichloro-1,2,2-trifluoroethane
Concen: 9.28 ppbv
RT: 9.215 min Scan# 926
Delta R.T. -0.012 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:151 Resp: 394929

Ion	Ratio	Lower	Upper
151	100		
101	129.4	104.2	144.2
103	84.1	61.9	101.9

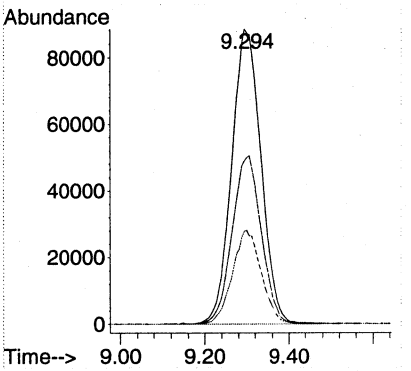


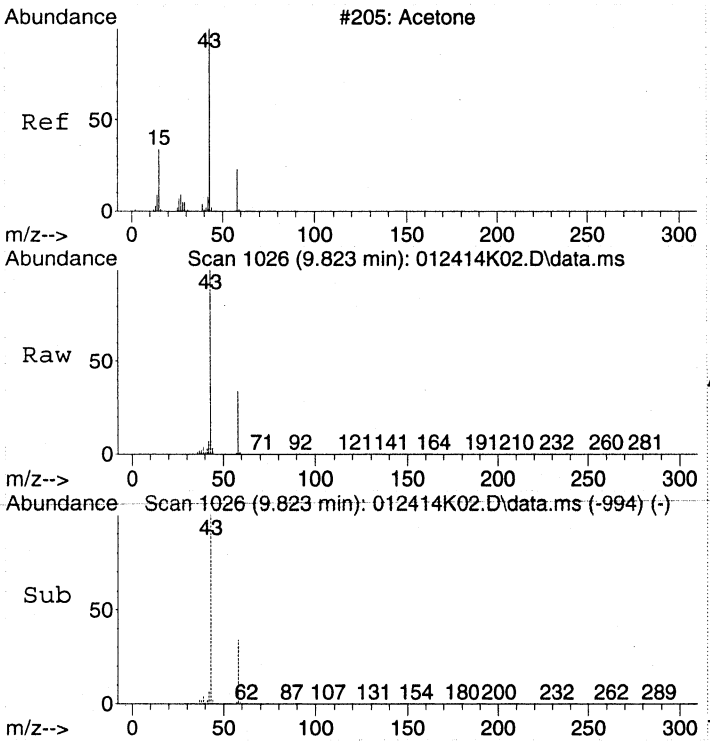


#13
1,1-Dichloroethene
Concen: 9.41 ppbv
RT: 9.294 min Scan# 939
Delta R.T. -0.012 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 61 Resp: 429541

Ion	Ratio	Lower	Upper
61	100		
96	56.5	36.9	76.9
63	31.3	11.4	51.4

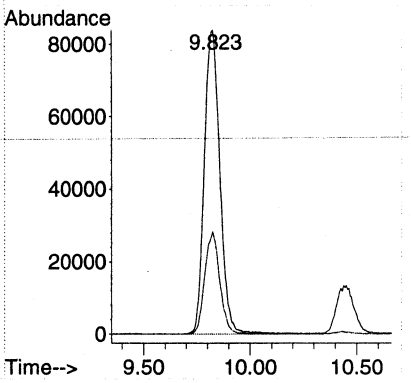


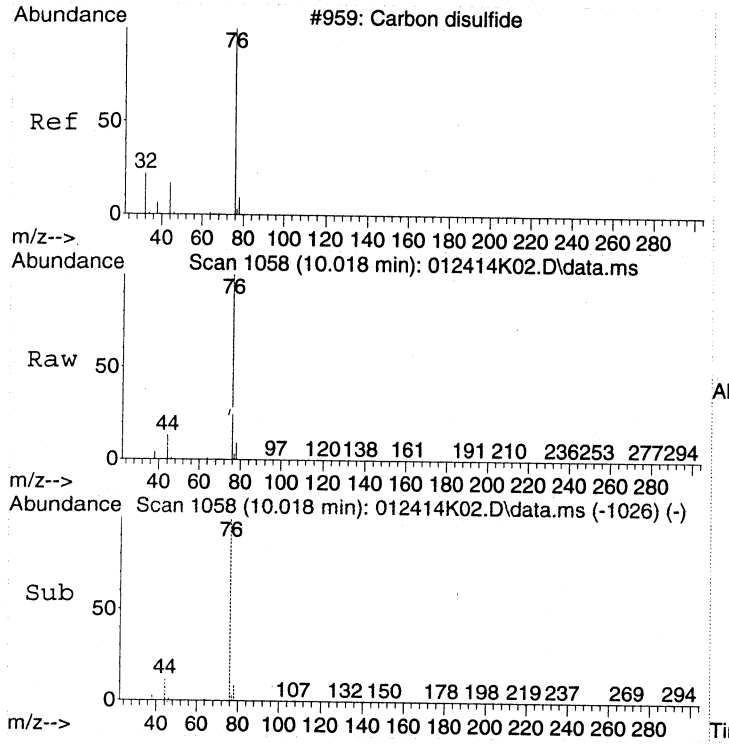


#14
Acetone
Concen: 10.35 ppbv
RT: 9.823 min Scan# 1026
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 43 Resp: 426489

Ion	Ratio	Lower	Upper
43	100		
58	32.5	12.6	52.6

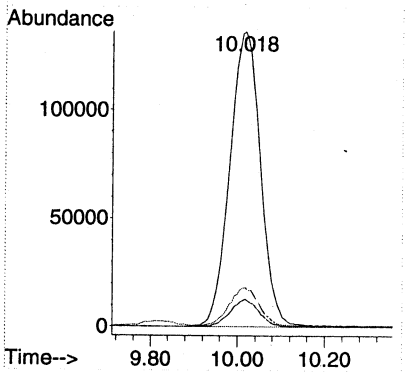


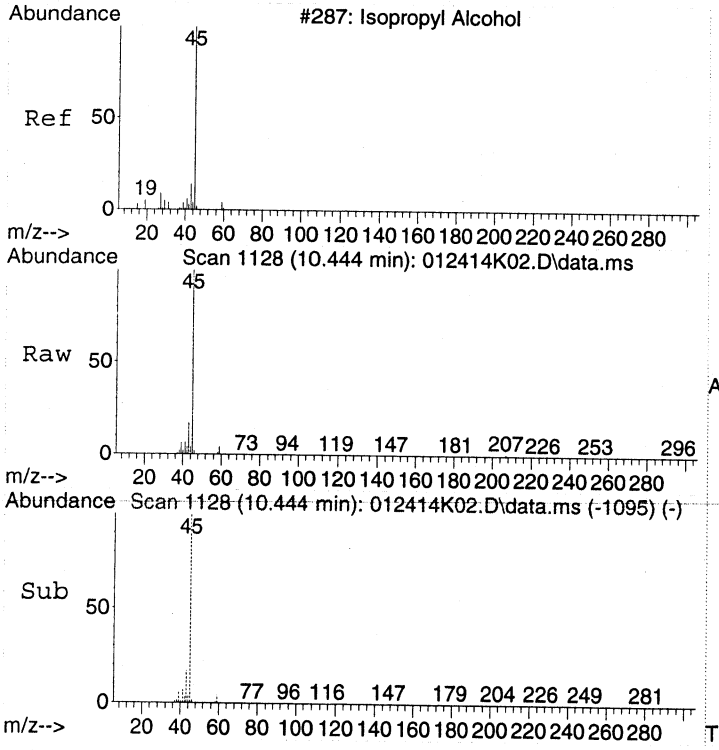


#15
Carbon disulfide
Concen: 9.83 ppbv
RT: 10.018 min Scan# 1058
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 76 Resp: 661500

Ion	Ratio	Lower	Upper
76	100		
78	8.7	0.0	28.9
44	12.7	0.0	32.3

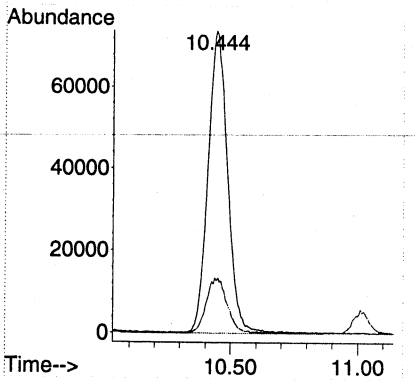


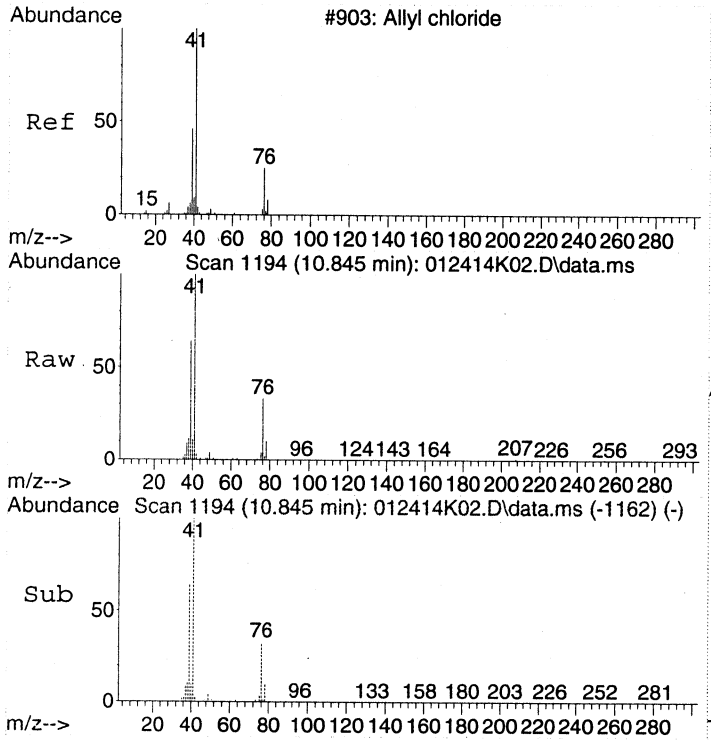


#16
2-Propanol
Concen: 9.49 ppbv
RT: 10.444 min Scan# 1128
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 45 Resp: 400022

Ion	Ratio	Lower	Upper
45	100		
43	19.1	0.0	39.2

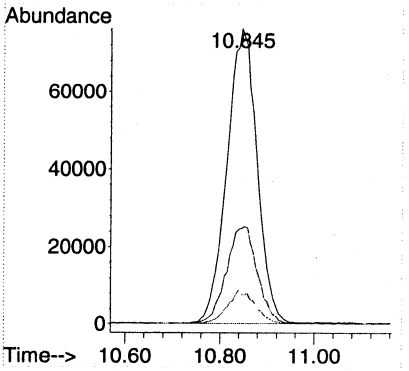


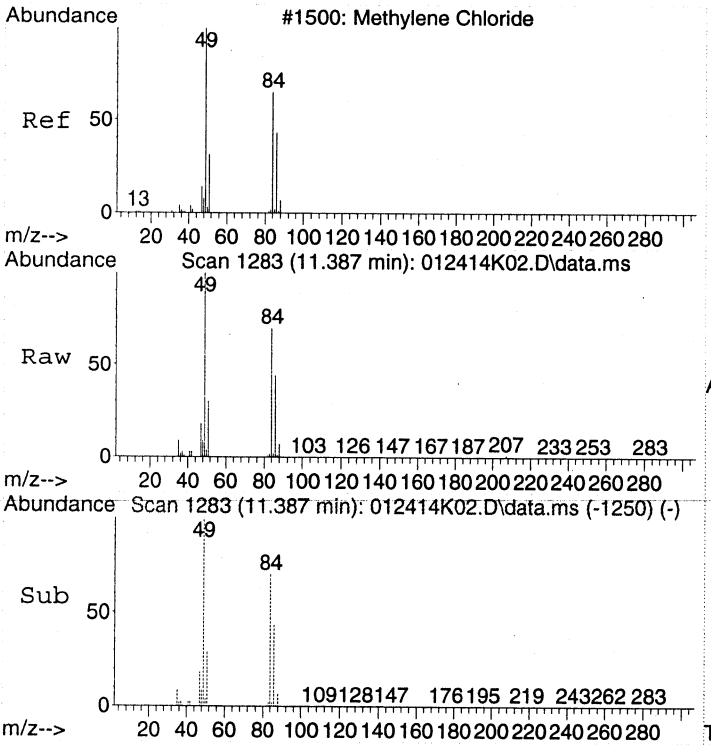


#17
Allyl chloride
Concen: 10.13 ppbv
RT: 10.845 min Scan# 1194
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 41 Resp: 340721

Ion	Ratio	Lower	Upper
41	100		
76	33.9	14.9	54.9
78	10.6	0.0	31.0

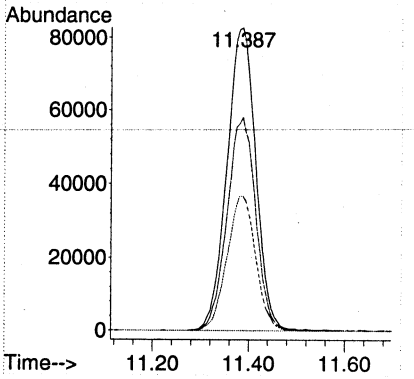


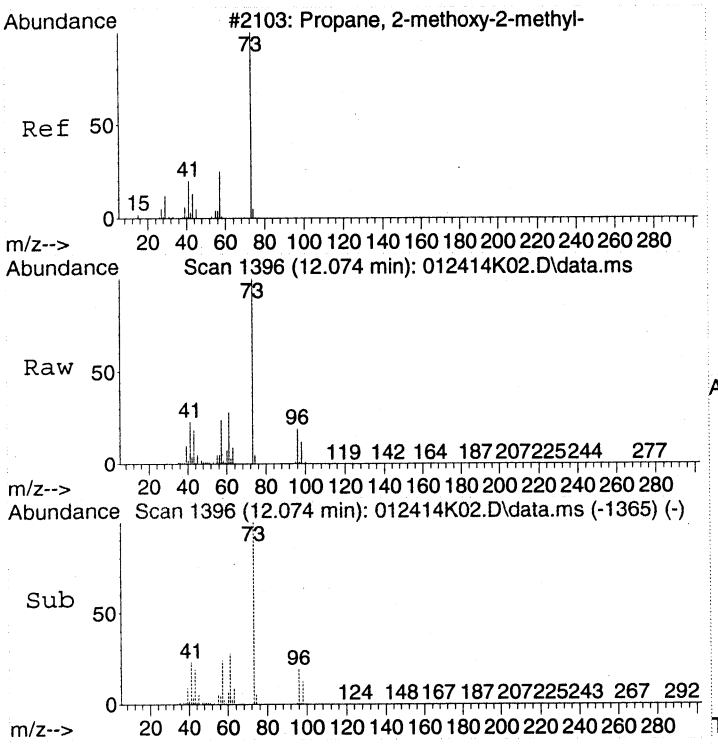


#18
Dichloromethane
Concen: 8.77 ppbv
RT: 11.387 min Scan# 1283
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 49 Resp: 347070

Ion	Ratio	Lower	Upper
49	100		
84	70.0	51.8	91.8
86	44.4	25.1	65.1

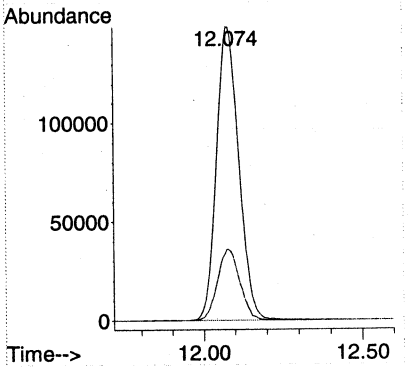


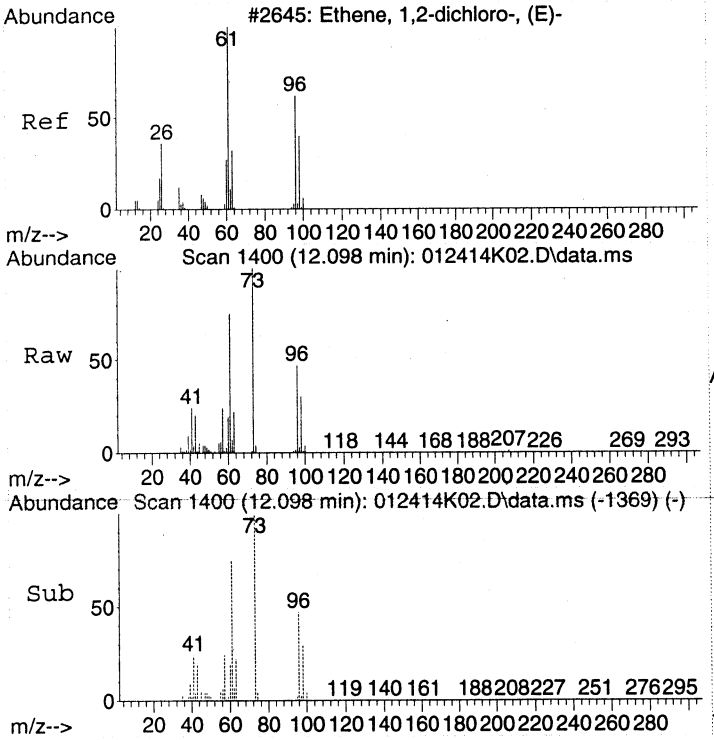


#19
tert-Butyl methyl ether (MTBE)
Concen: 10.94 ppbv
RT: 12.074 min Scan# 1396
Delta R.T. -0.012 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 73 Resp: 737662

Ion	Ratio	Lower	Upper
73	100		
57	24.4	4.2	44.2

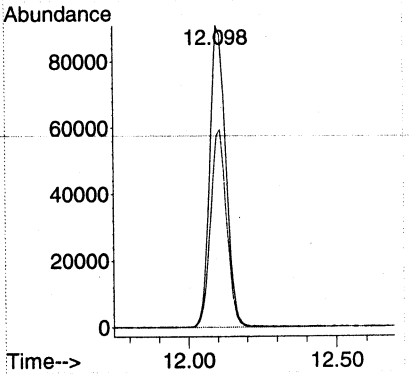


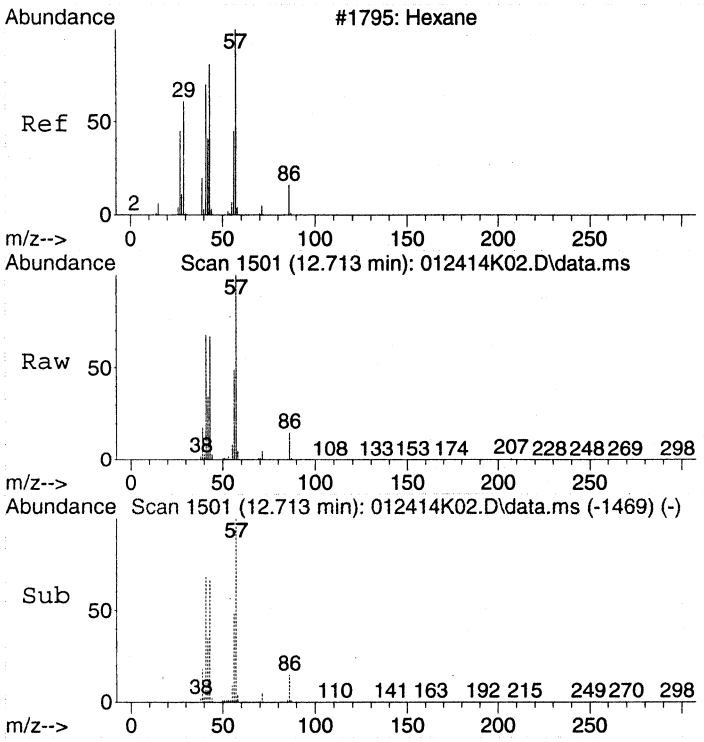


#20
trans-1,2-Dichloroethene
Concen: 9.25 ppbv
RT: 12.098 min Scan# 1400
Delta R.T. -0.012 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 61 Resp: 348954

Ion	Ratio	Lower	Upper
61	100		
96	65.4	46.8	86.8

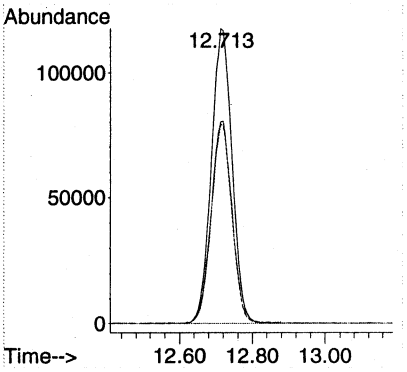


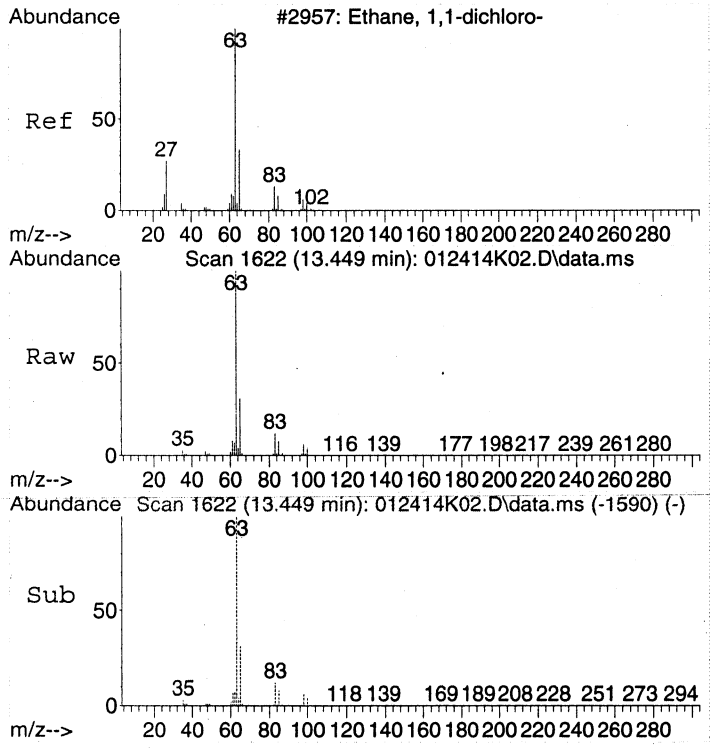


#21
Hexane
Concen: 10.13 ppbv
RT: 12.713 min Scan# 1501
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 57 Resp: 462024

Ion	Ratio	Lower	Upper
57	100		
41	69.3	48.5	88.5
43	66.6	45.6	85.6

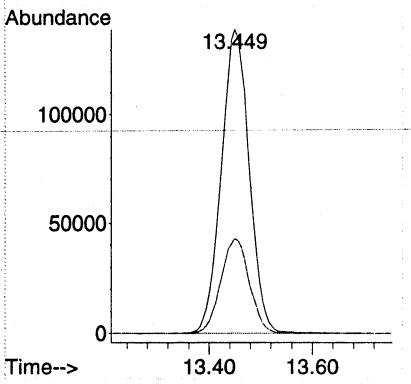


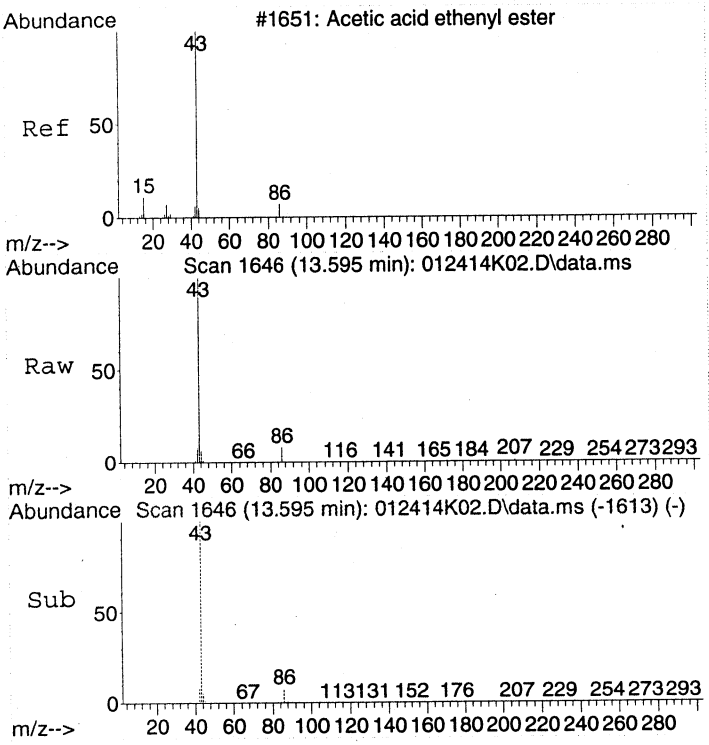


#22
1,1-Dichloroethane
Concen: 9.28 ppbv
RT: 13.449 min Scan# 1622
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 63 Resp: 517542

Ion	Ratio	Lower	Upper
63	100		
65	31.7	11.2	51.2

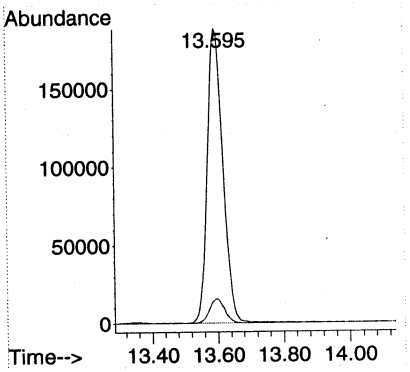


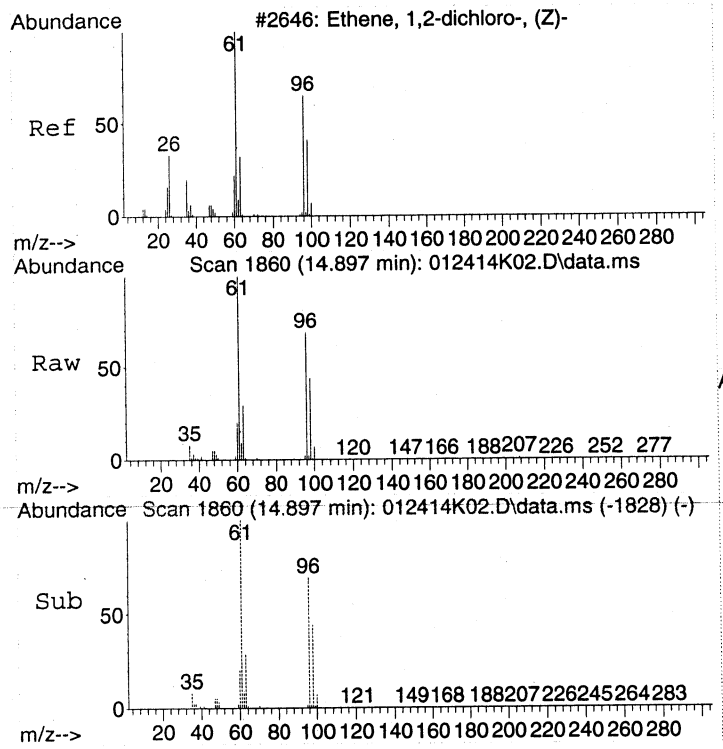


#23
Vinyl acetate
Concen: 10.32 ppbv
RT: 13.595 min Scan# 1646
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 43 Resp: 621919

Ion	Ratio	Lower	Upper
43	100		
86	8.3	0.0	28.5

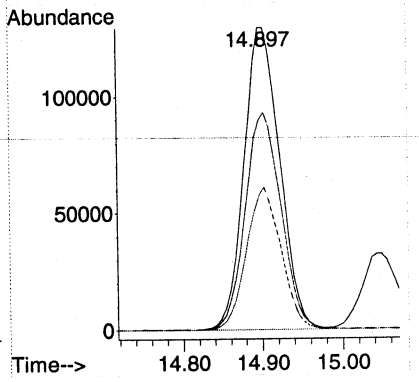


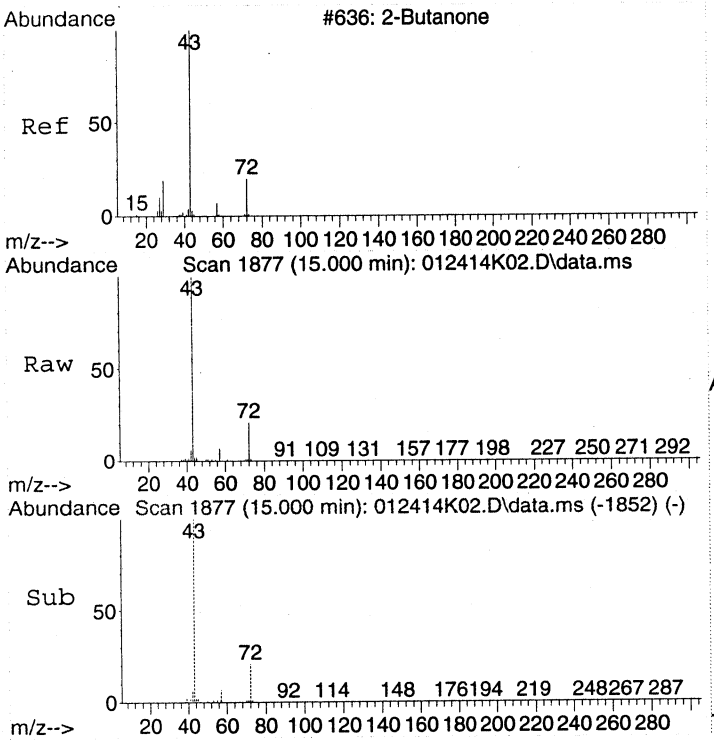


#24
cis-1,2-Dichloroethene
Concen: 9.87 ppbv
RT: 14.897 min Scan# 1860
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 61 Resp: 403683

Ion	Ratio	Lower	Upper
61	100		
96	71.7	52.5	92.5
98	45.4	26.3	66.3

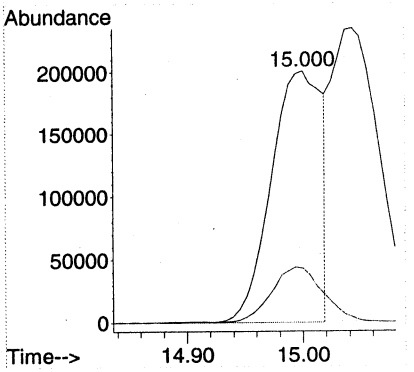


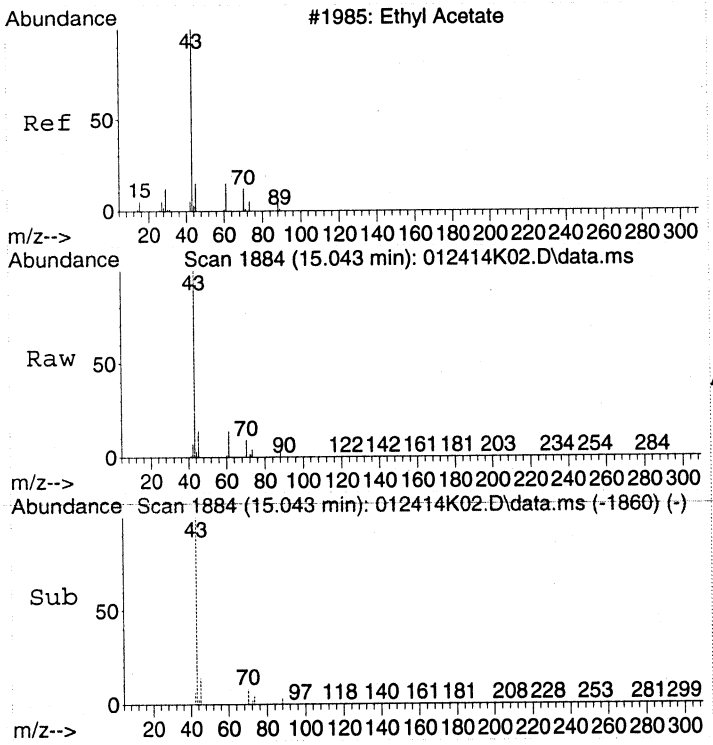


#25
2-Butanone (MEK)
Concen: 11.46 ppbv
RT: 15.000 min Scan# 1877
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 43 Resp: 613689

Ion	Ratio	Lower	Upper
43	100		
72	21.1	12.6	32.6

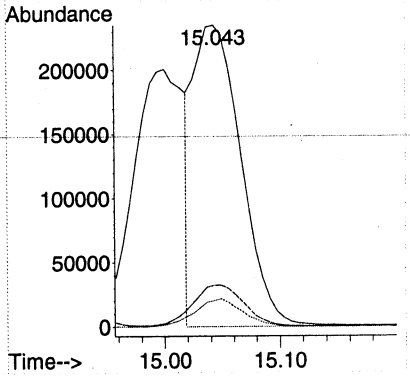


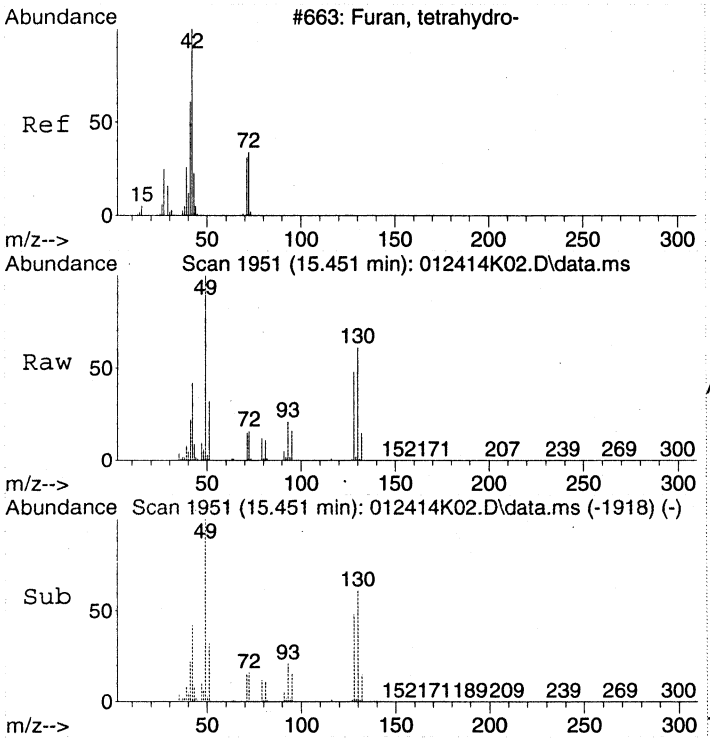


#26
Ethyl acetate
Concen: 9.76 ppbv m
RT: 15.043 min Scan# 1884
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 43 Resp: 676154

Ion	Ratio	Lower	Upper
43	100		
61	14.8	0.0	10.0#
70	9.3	0.0	10.0

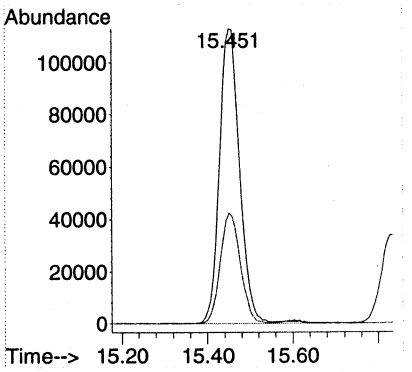


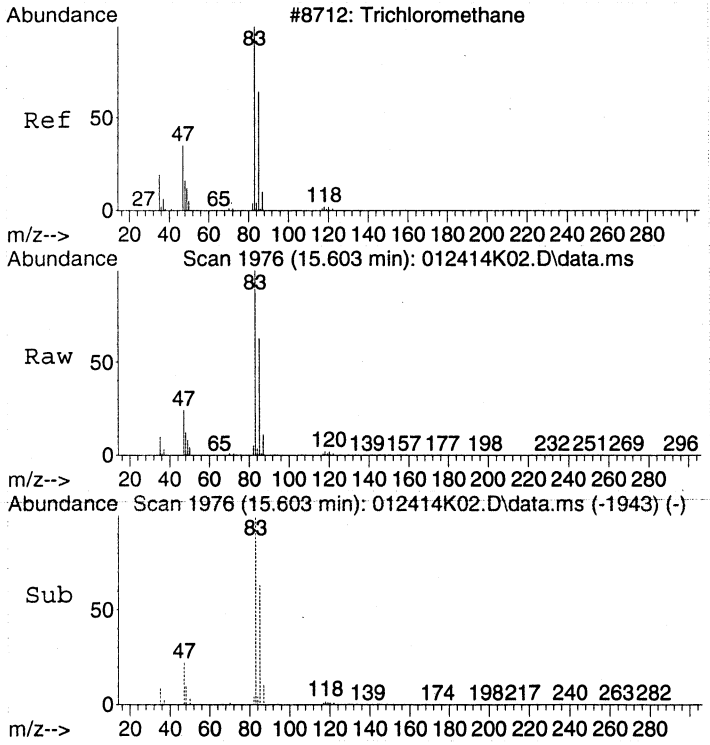


#27
Tetrahydrofuran
Concen: 10.35 ppbv
RT: 15.451 min Scan# 1951
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 42 Resp: 368304

Ion	Ratio	Lower	Upper
42	100		
72	38.4	18.7	58.7

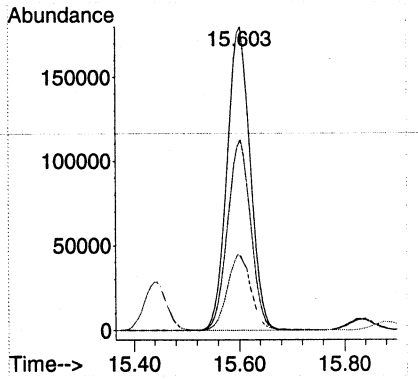


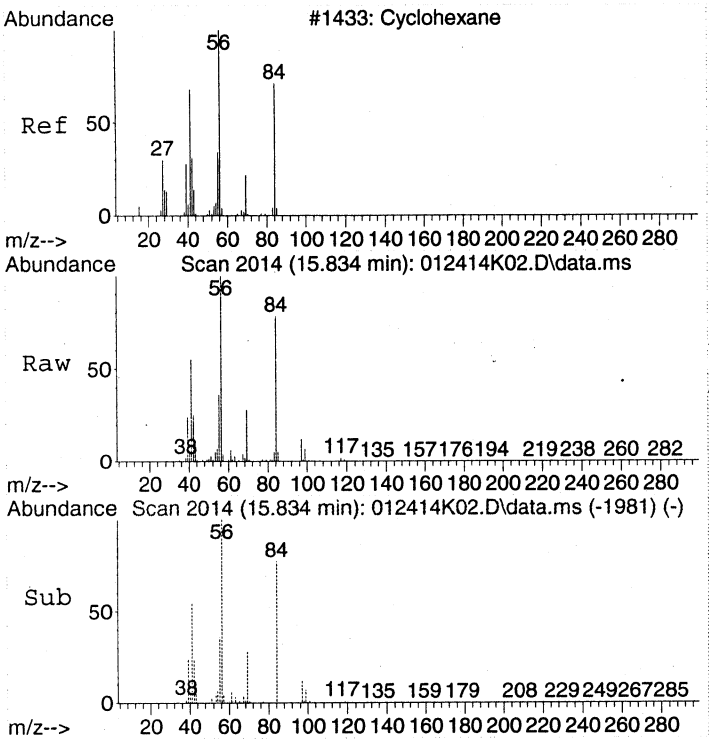


#28
Chloroform
Concen: 9.65 ppbv
RT: 15.603 min Scan# 1976
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 83 Resp: 553333

Ion	Ratio	Lower	Upper
83	100		
85	62.7	43.4	83.4
47	25.3	4.7	44.7

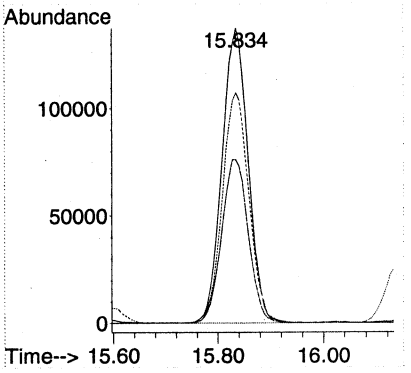


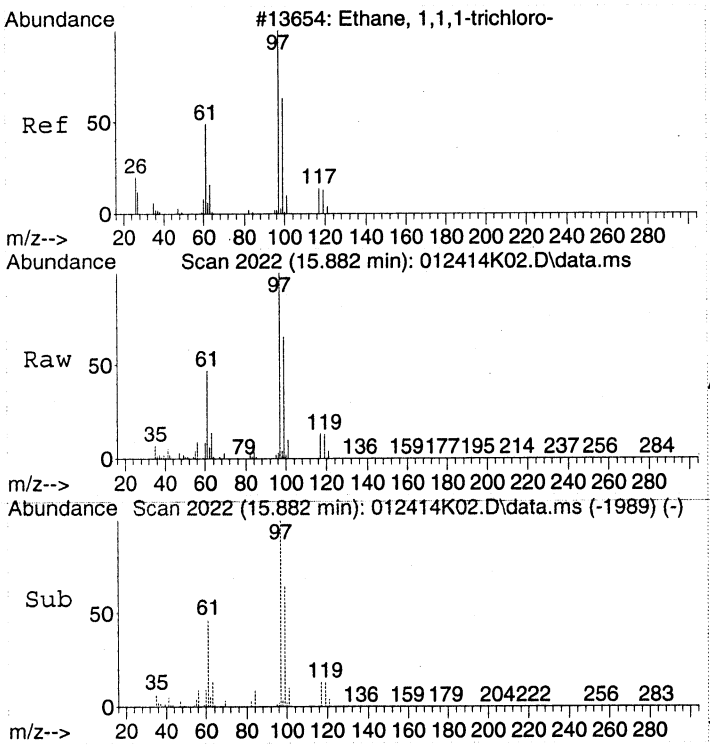


#29
Cyclohexane
Concen: 10.17 ppbv
RT: 15.834 min Scan# 2014
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 56 Resp: 477116

Ion	Ratio	Lower	Upper
56	100		
41	56.3	34.9	74.9
84	79.5	60.7	100.7

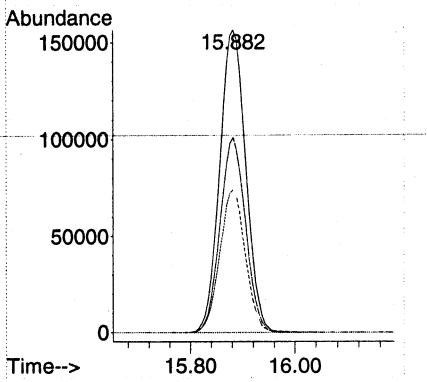


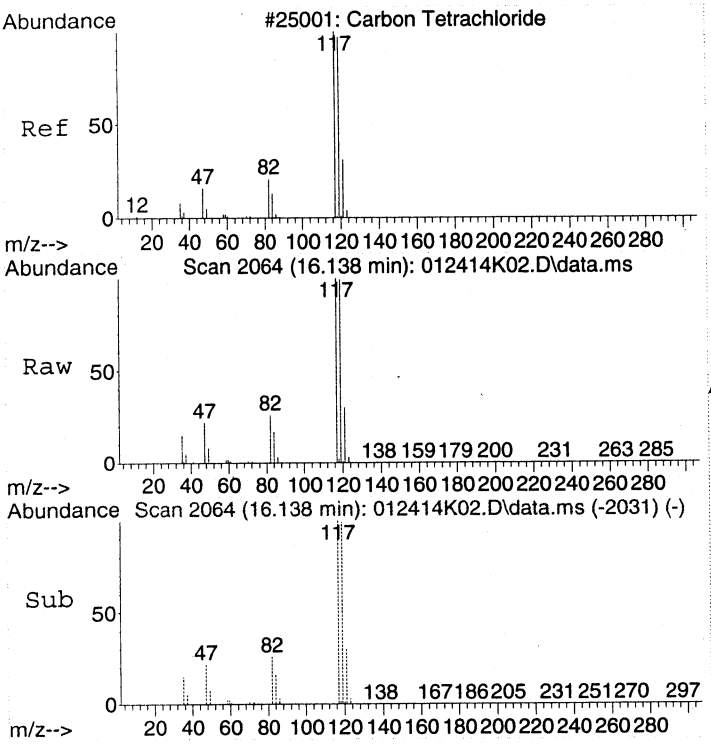


#30
1,1,1-Trichloroethane
Concen: 9.56 ppbv
RT: 15.882 min Scan# 2022
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 97 Resp: 542056

Ion	Ratio	Lower	Upper
97	100		
99	63.2	43.4	83.4
61	46.6	25.9	65.9

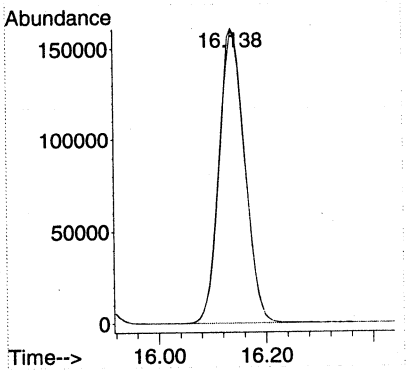


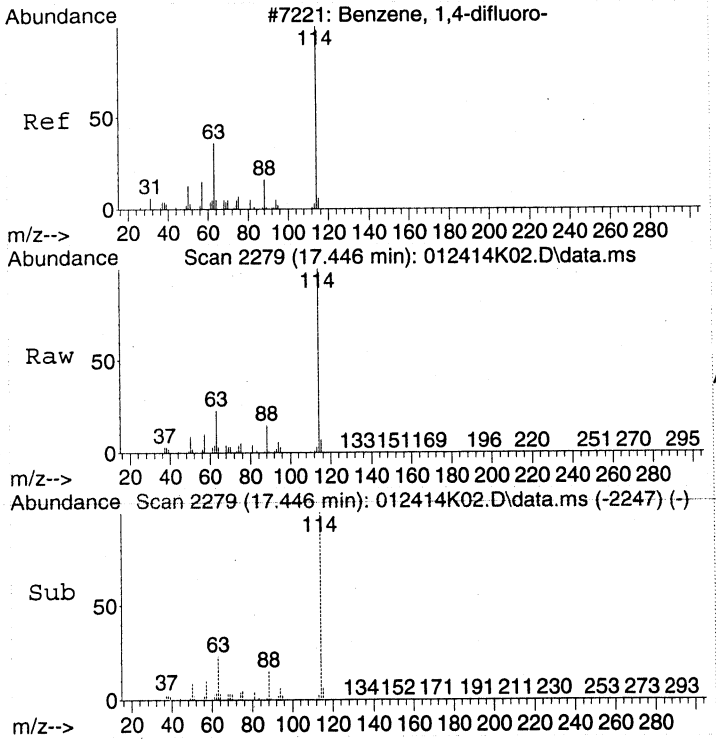


#31
Carbon tetrachloride
Concen: 9.77 ppbv
RT: 16.138 min Scan# 2064
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:117 Resp: 537139

Ion	Ratio	Lower	Upper
117	100		
119	97.3	76.9	116.9

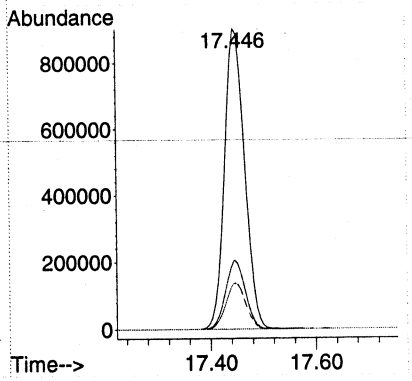


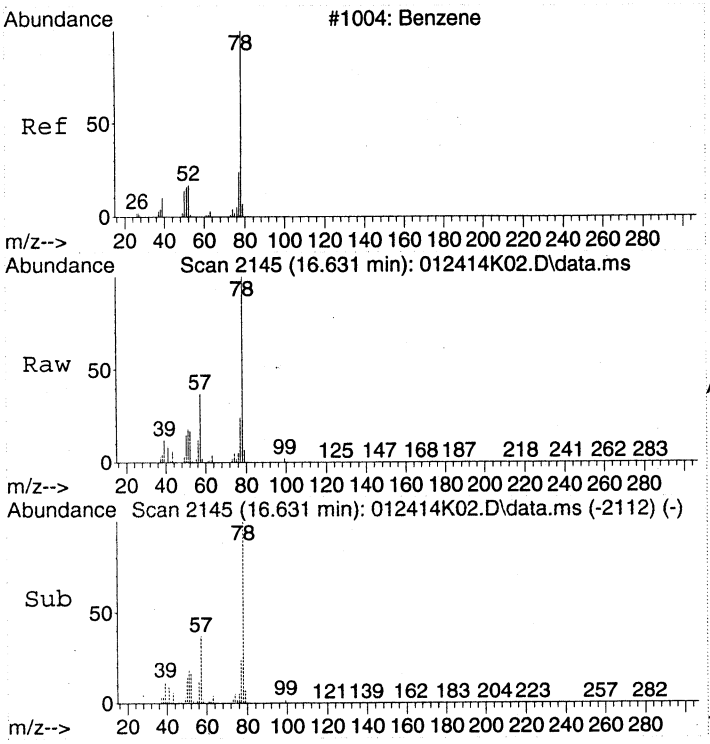


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:114 Resp: 2392845

Ion	Ratio	Lower	Upper
114	100		
63	22.3	1.9	41.9
88	15.2	0.0	35.1

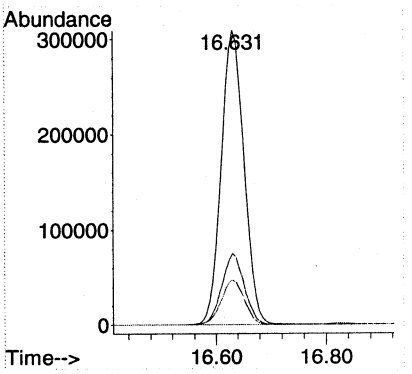


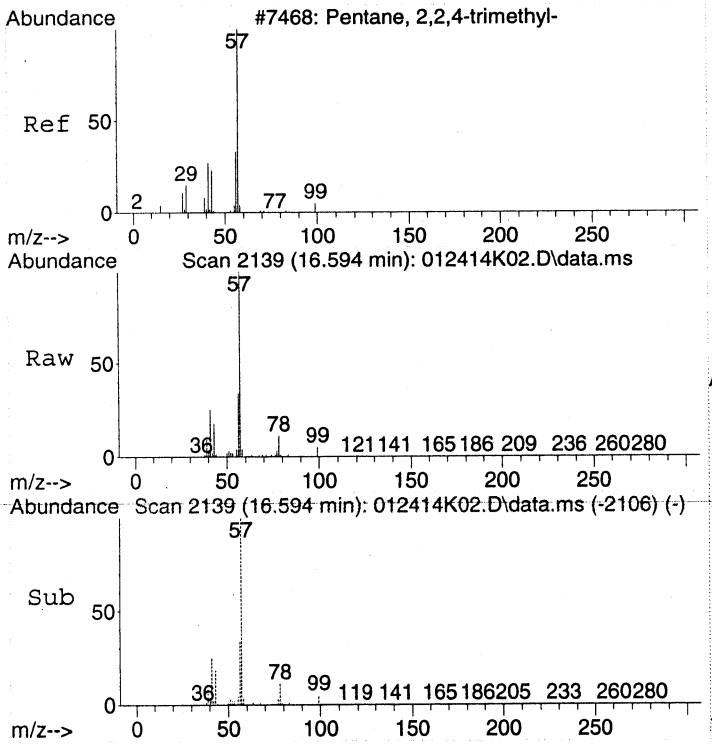


#33
Benzene
Concen: 10.93 ppbv
RT: 16.631 min Scan# 2145
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 78 Resp: 901781

Ion	Ratio	Lower	Upper
78	100		
77	24.2	4.2	44.2
50	15.8	0.0	35.7

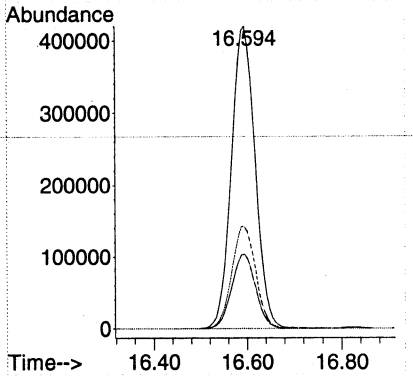


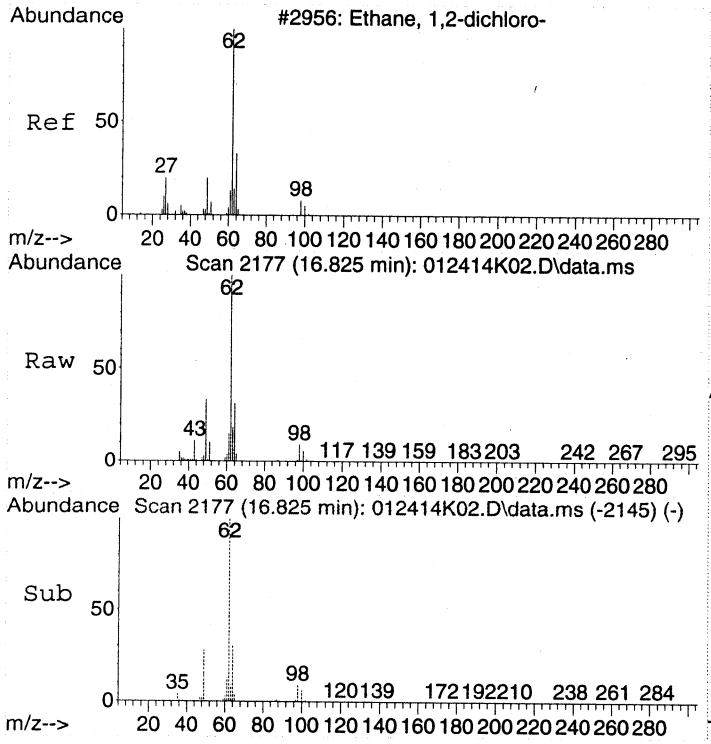


#34
2,2,4-Trimethylpentane
Concen: 11.76 ppbv
RT: 16.594 min Scan# 2139
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 57 Resp: 1489662

Ion	Ratio	Lower	Upper
57	100		
41	24.9	4.8	44.8
56	34.3	14.0	54.0

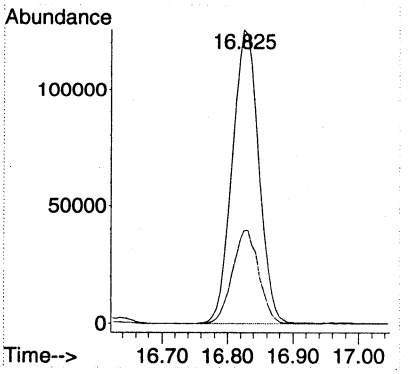


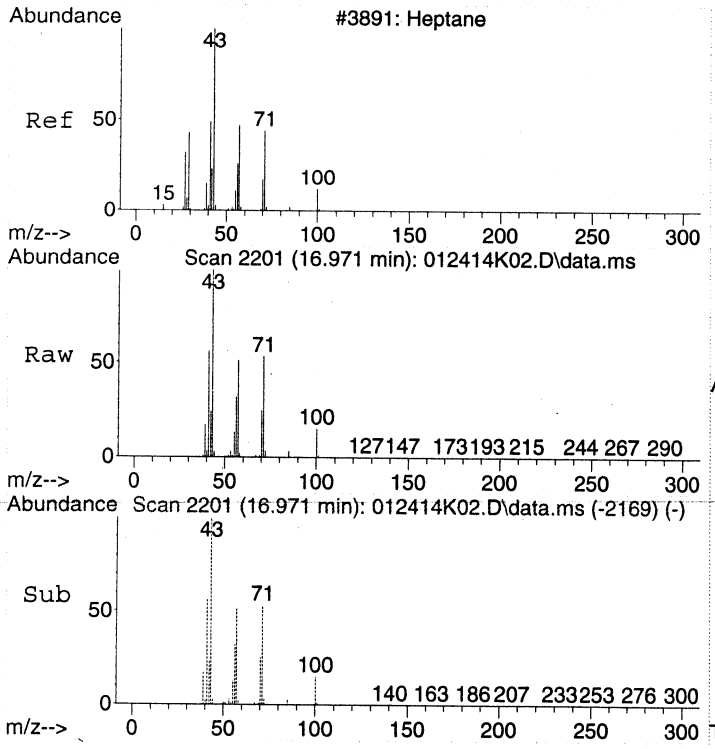


#35
1,2-Dichloroethane
Concen: 10.66 ppbv
RT: 16.825 min Scan# 2177
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 62 Resp: 355533

Ion	Ratio	Lower	Upper
62	100		
64	31.5	11.7	51.7

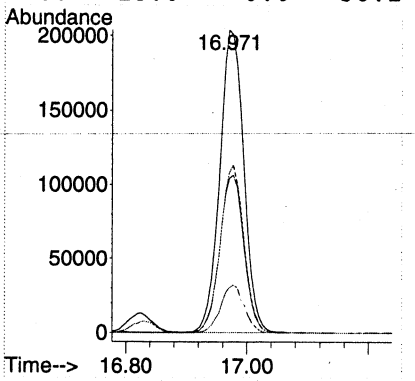


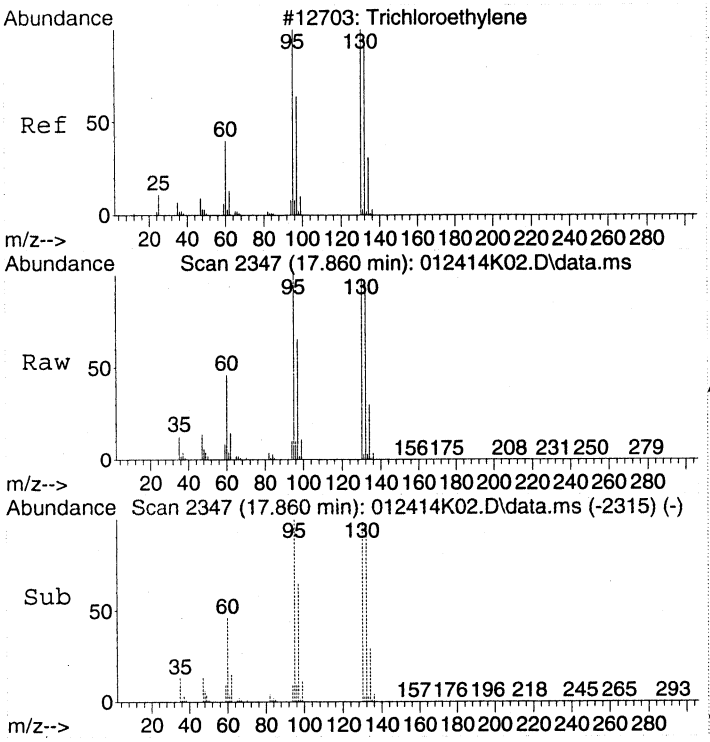


#36
Heptane
Concen: 11.96 ppbv
RT: 16.971 min Scan# 2201
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 43 Resp: 565457

Ion	Ratio	Lower	Upper
43	100		
57	52.5	33.1	73.1
71	54.4	35.7	75.7
100	15.6	0.0	36.1

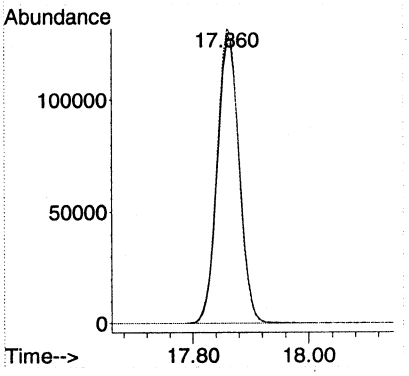


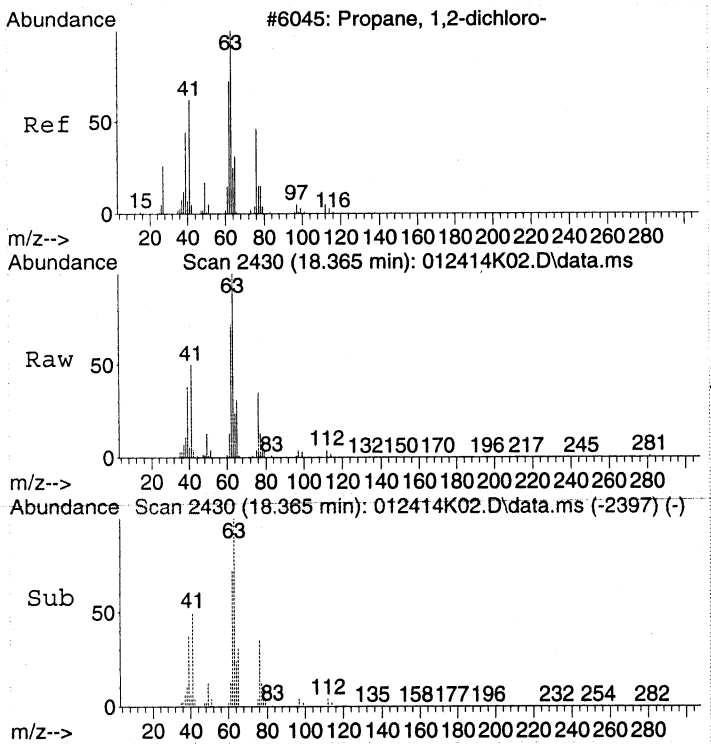


#37
Trichloroethene
Concen: 10.88 ppbv
RT: 17.860 min Scan# 2347
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:130 Resp: 344388

Ion	Ratio	Lower	Upper
130	100		
132	98.9	78.5	118.5
95	102.3	80.9	120.9

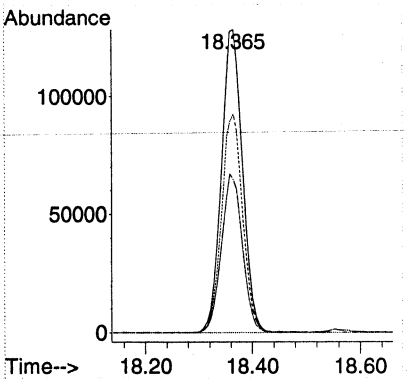


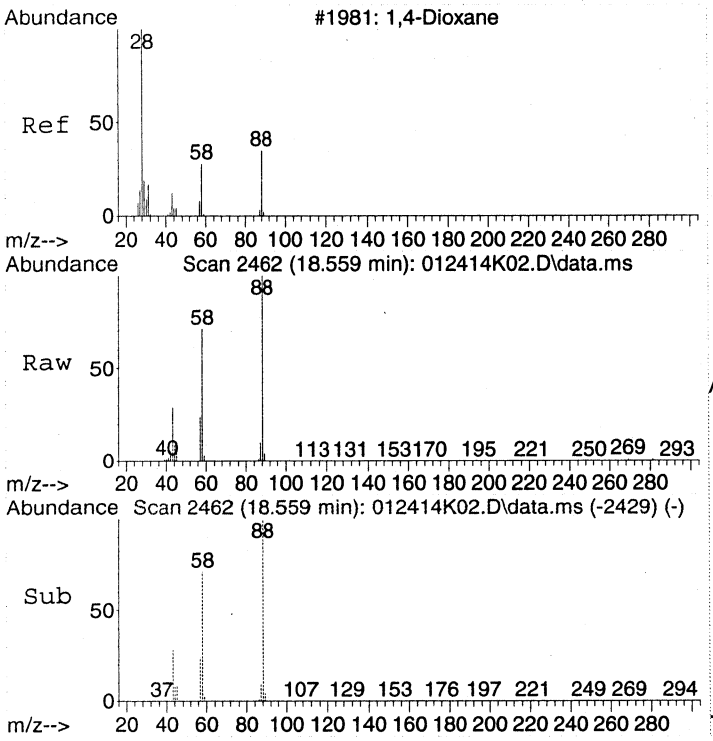


#38
1,2-Dichloropropane
Concen: 11.25 ppbv
RT: 18.365 min Scan# 2430
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 63 Resp: 352373

Ion	Ratio	Lower	Upper
63	100		
41	52.0	31.8	71.8
62	72.3	52.2	92.2

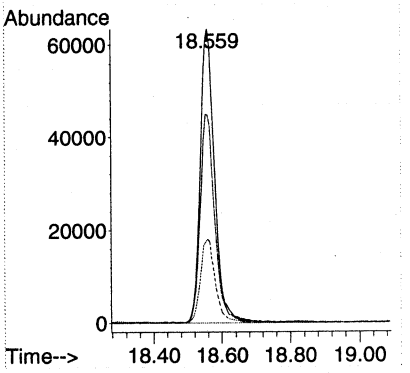


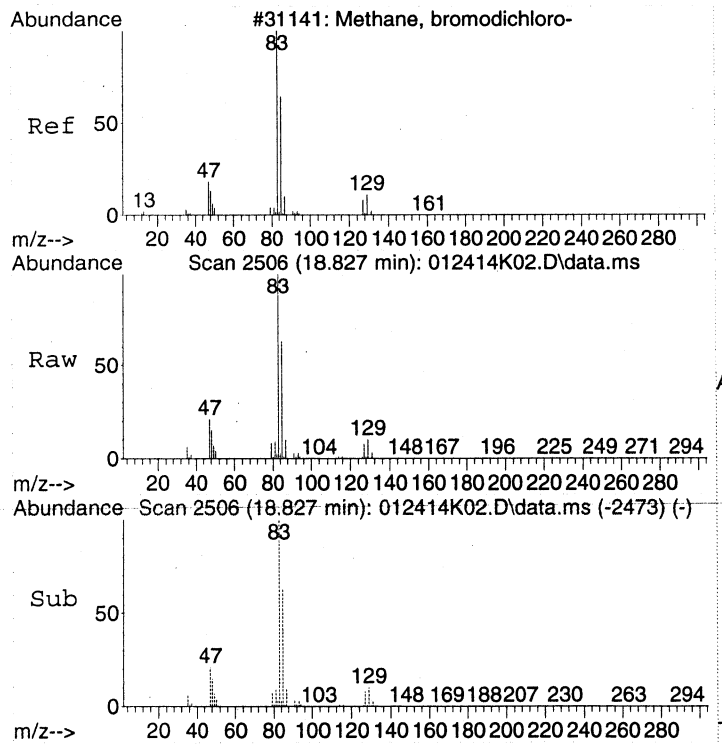


#39
1,4-Dioxane
Concen: 12.48 ppbv
RT: 18.559 min Scan# 2462
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 88 Resp: 189208

Ion	Ratio	Lower	Upper
88	100		
58	71.8	49.8	89.8
43	28.7	7.9	47.9

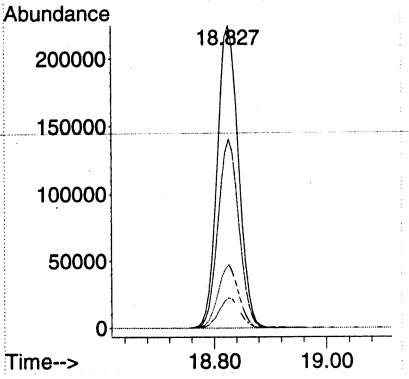


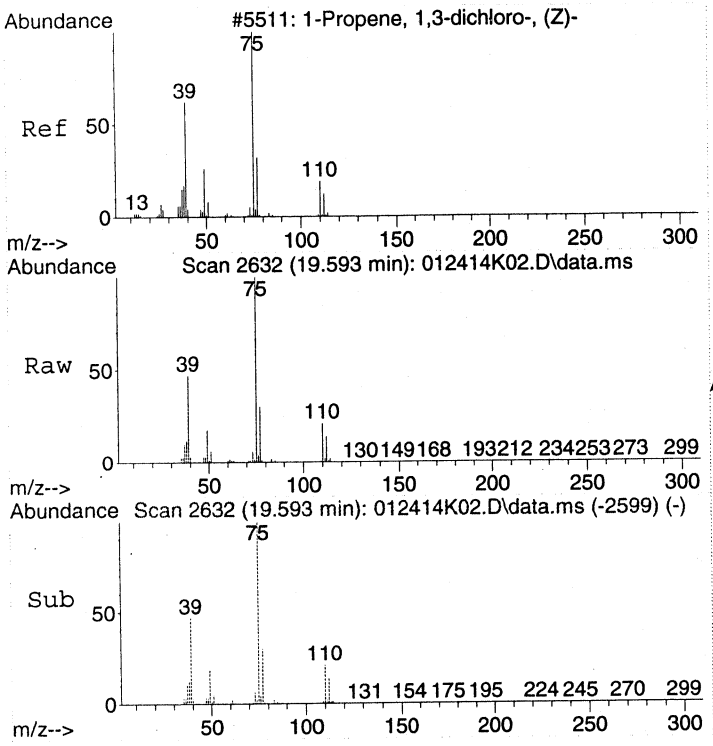


#40
Bromodichloromethane
Concen: 11.50 ppbv
RT: 18.827 min Scan# 2506
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 83 Resp: 590251

Ion	Ratio	Lower	Upper
83	100		
85	61.8	42.4	82.4
47	20.4	0.2	40.2
129	9.9	0.0	30.1

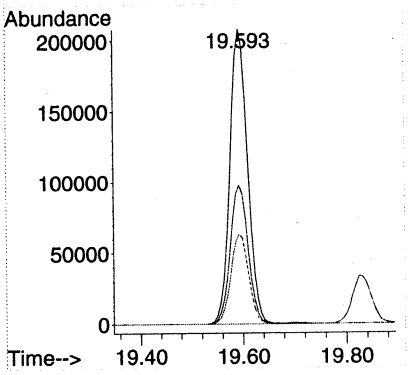


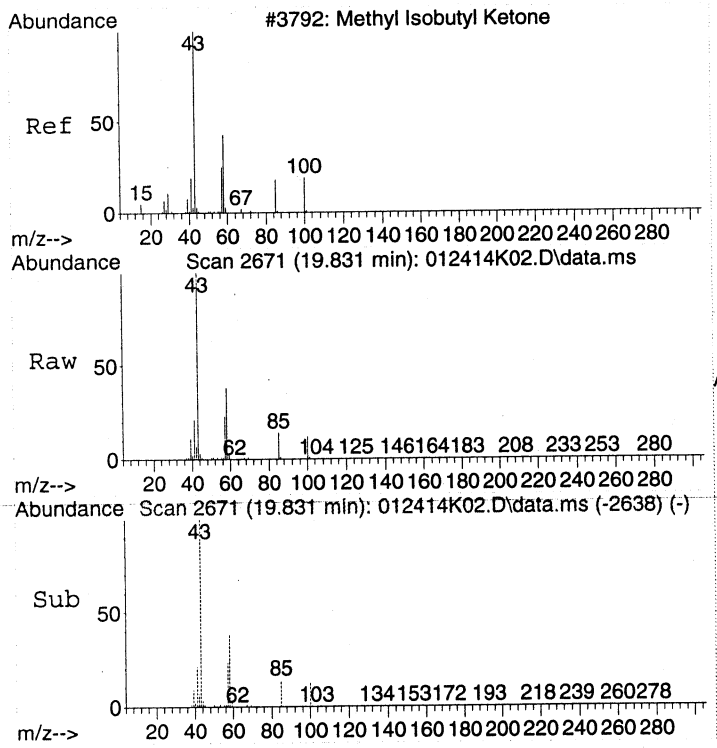


#41
cis-1,3-Dichloropropene
Concen: 11.43 ppbv
RT: 19.593 min Scan# 2632
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 75 Resp: 505029

Ion	Ratio	Lower	Upper
75	100		
39	48.0	26.8	66.8
77	30.6	11.1	51.1

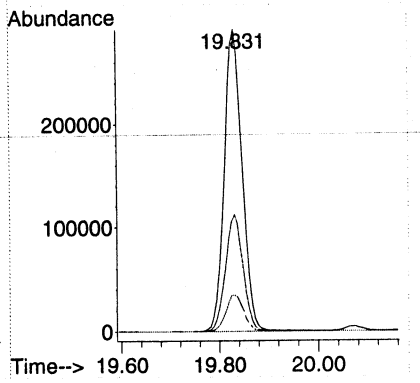


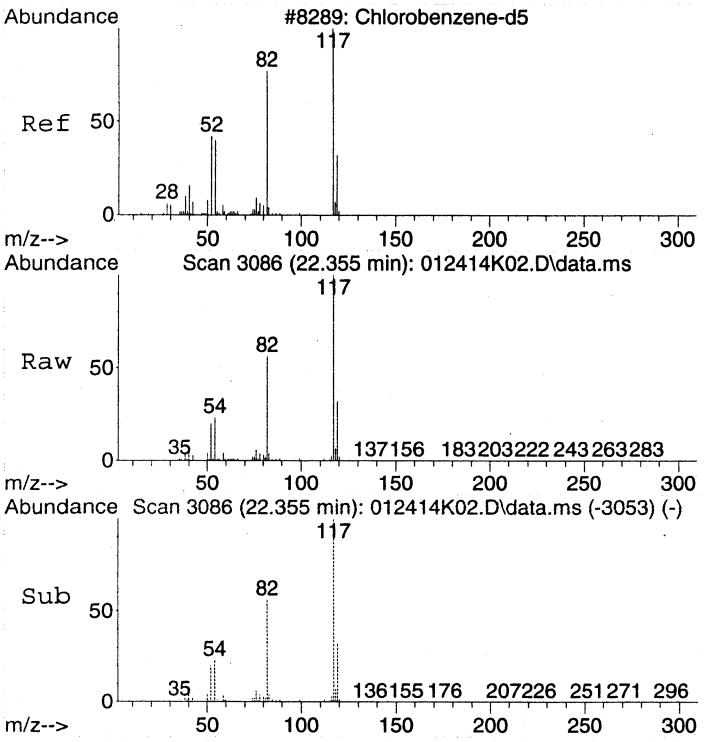


#42
4-Methyl-2-pentanone (MIBK)
Concen: 12.29 ppbv
RT: 19.831 min Scan# 2671
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 43 Resp: 743712

Ion	Ratio	Lower	Upper
43	100		
58	38.3	19.1	59.1
100	12.1	0.0	32.8

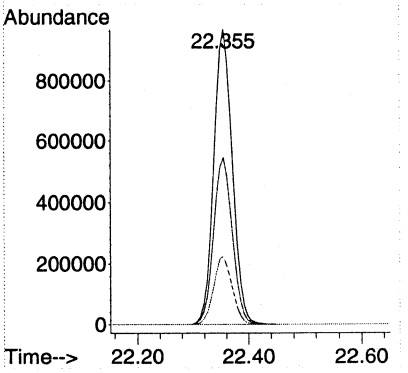


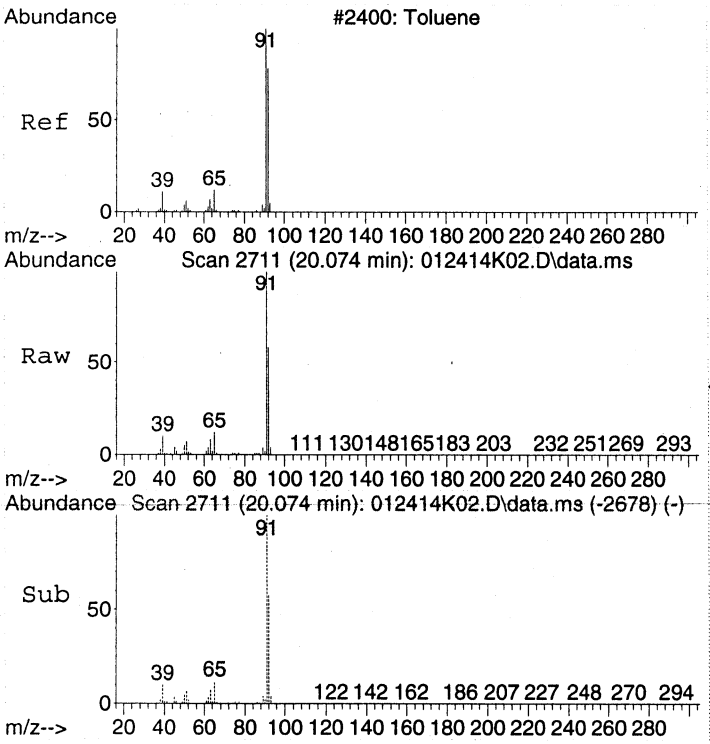


#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:117 Resp: 2251153

Ion	Ratio	Lower	Upper
117	100		
82	57.1	36.4	76.4
54	23.3	2.6	42.6

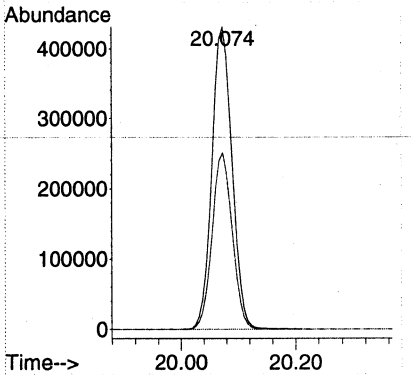


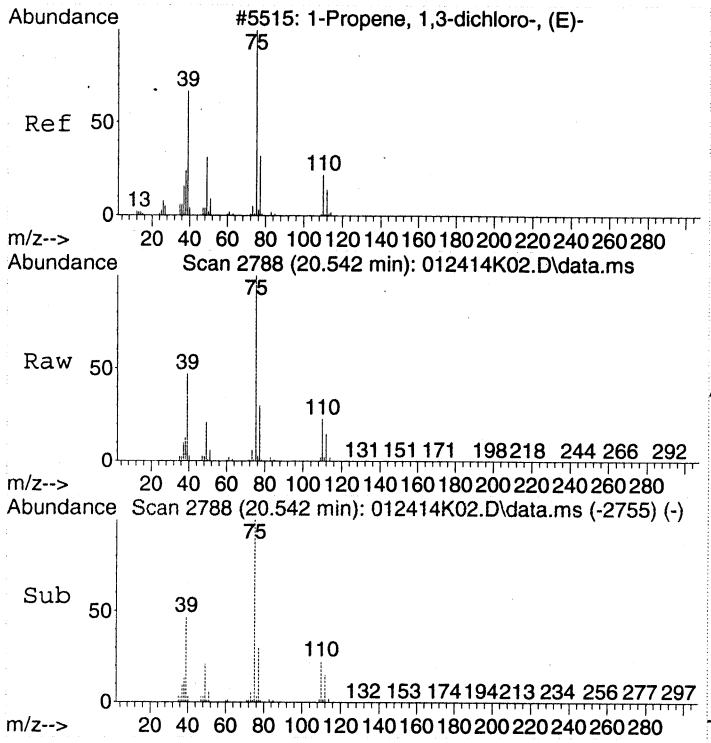


#44
Toluene
Concen: 15.61 ppbv
RT: 20.074 min Scan# 2711
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 91 Resp: 1061291

Ion	Ratio	Lower	Upper
91	100		
92	58.2	38.1	78.1

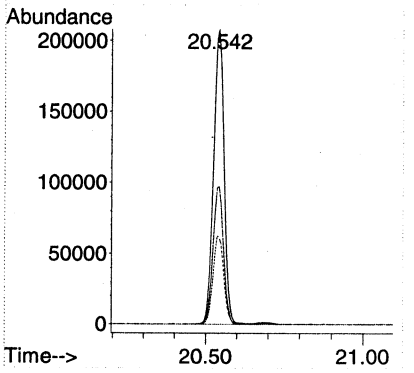


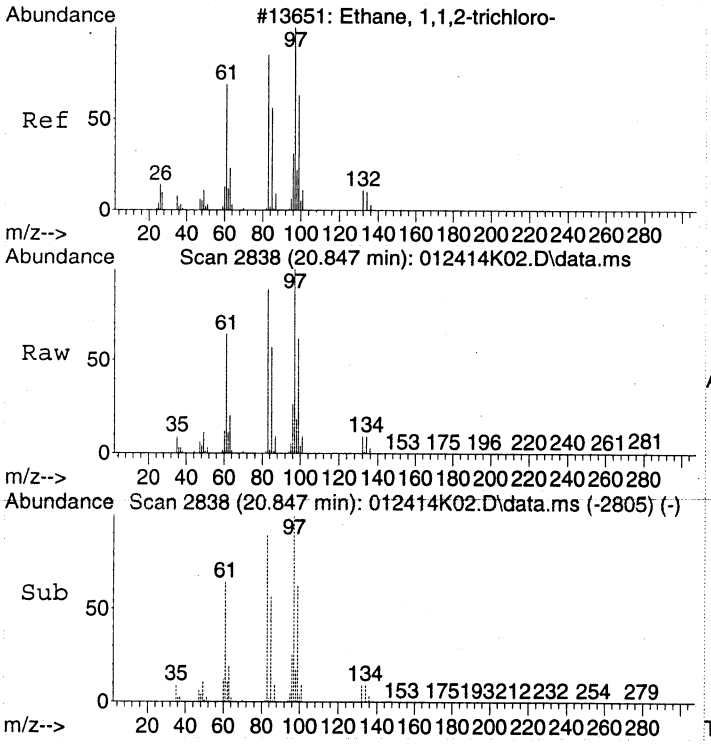


#45
trans-1,3-Dichloropropene
Concen: 16.79 ppbv
RT: 20.542 min Scan# 2788
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 75 Resp: 493938

Ion	Ratio	Lower	Upper
75	100		
39	46.3	25.7	65.7
77	30.4	11.1	51.1

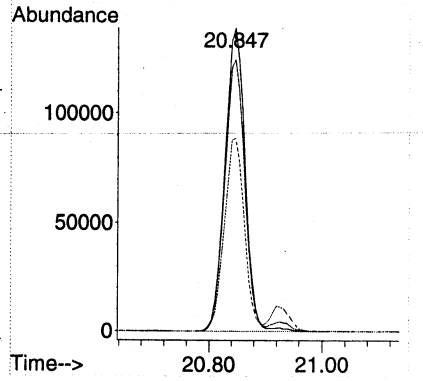


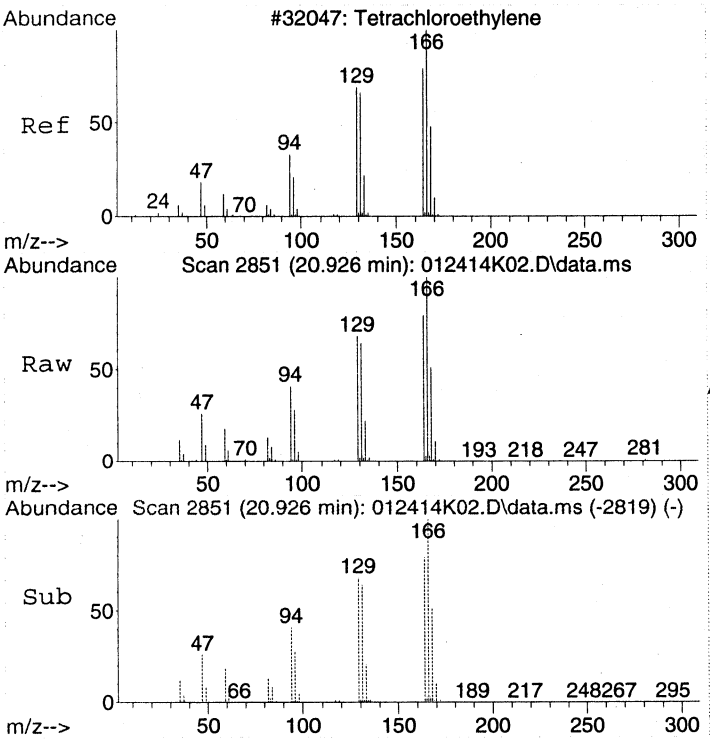


#46
1,1,2-Trichloroethane
Concen: 15.47 ppbv
RT: 20.847 min Scan# 2838
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 97 Resp: 348352

Ion	Ratio	Lower	Upper
97	100		
83	92.1	70.6	110.6
61	63.4	42.5	82.5

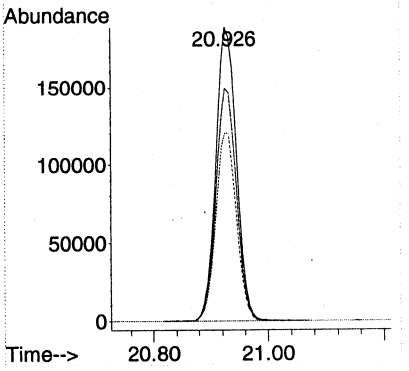


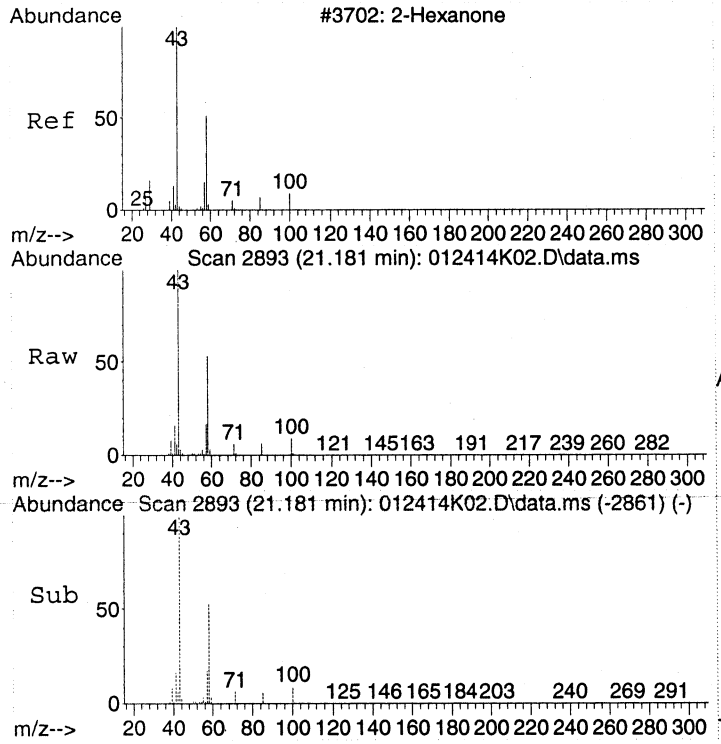


#47
Tetrachloroethene
Concen: 14.80 ppbv
RT: 20.926 min Scan# 2851
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:166 Resp: 470251

Ion	Ratio	Lower	Upper
166	100		
164	79.4	59.7	99.7
131	64.3	44.0	84.0

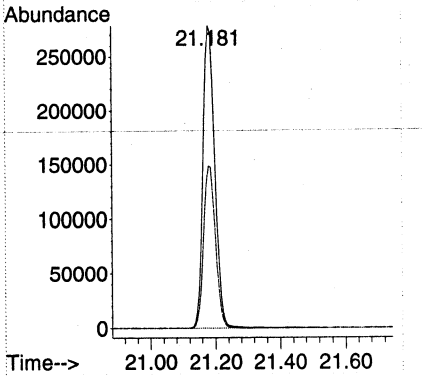


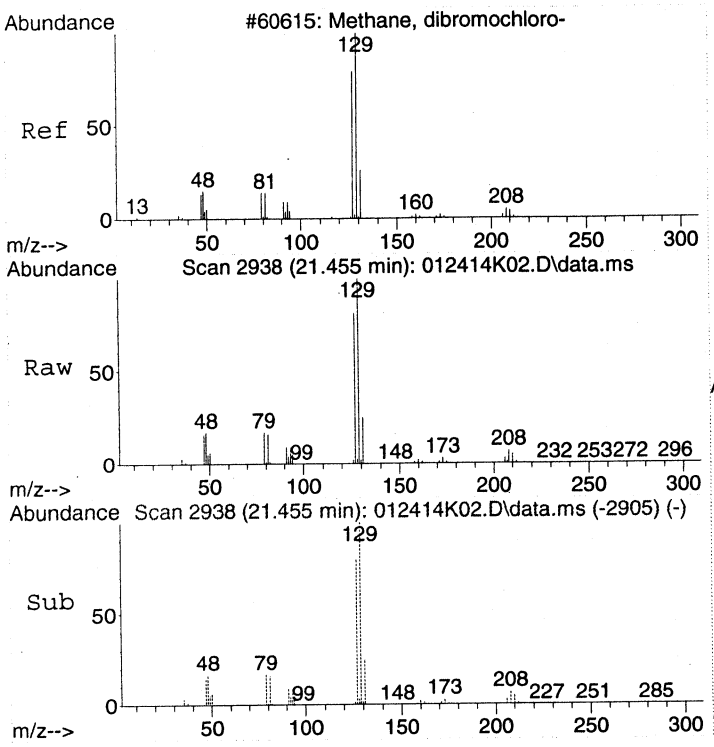


#48
2-Hexanone
Concen: 17.16 ppbv
RT: 21.181 min Scan# 2893
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 43 Resp: 686900

Ion	Ratio	Lower	Upper
43	100		
58	53.6	34.6	74.6

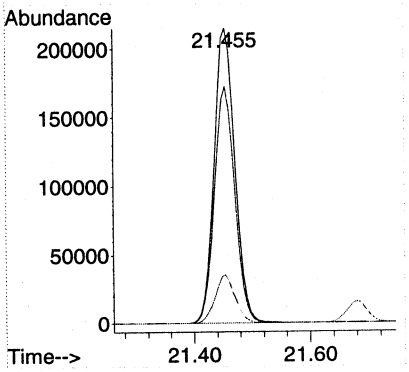


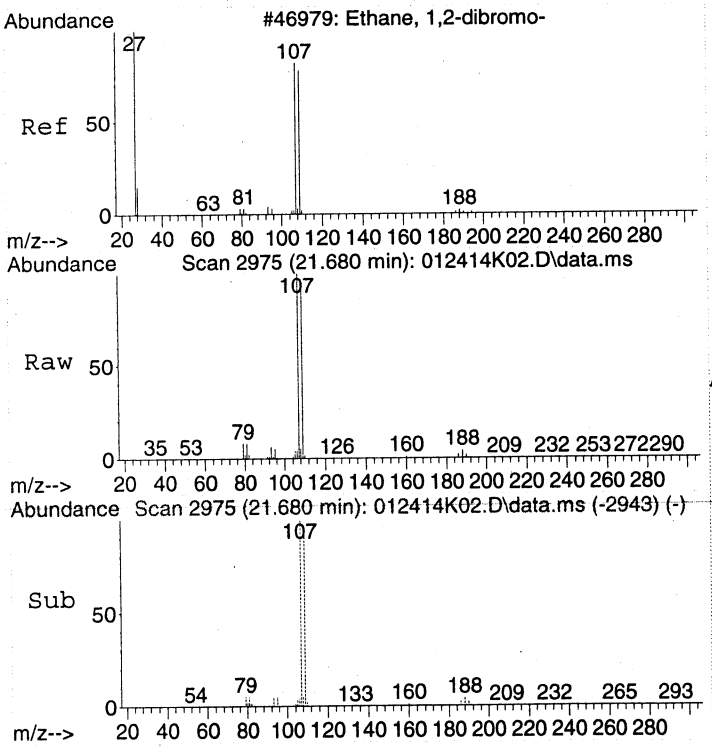


#49
Chlorodibromomethane
Concen: 15.70 ppbv
RT: 21.455 min Scan# 2938
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:129 Resp: 539101

Ion	Ratio	Lower	Upper
129	100		
127	79.2	59.6	99.6
79	15.9	0.0	35.7

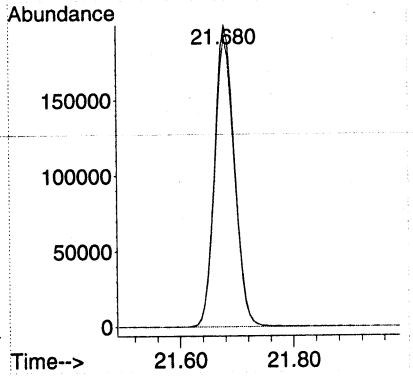




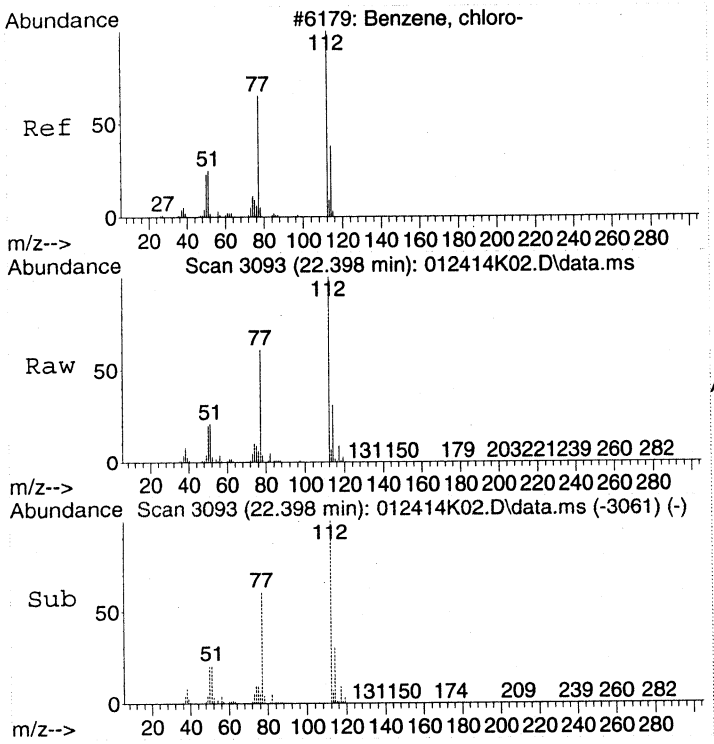
#50
1,2-Dibromoethane (EDB)
Concen: 15.59 ppbv
RT: 21.680 min Scan# 2975
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:107 Resp: 491961

Ion	Ratio	Lower	Upper
107	100		
109	94.5	74.2	114.2



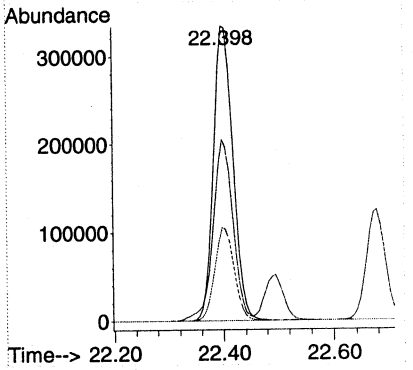
00072

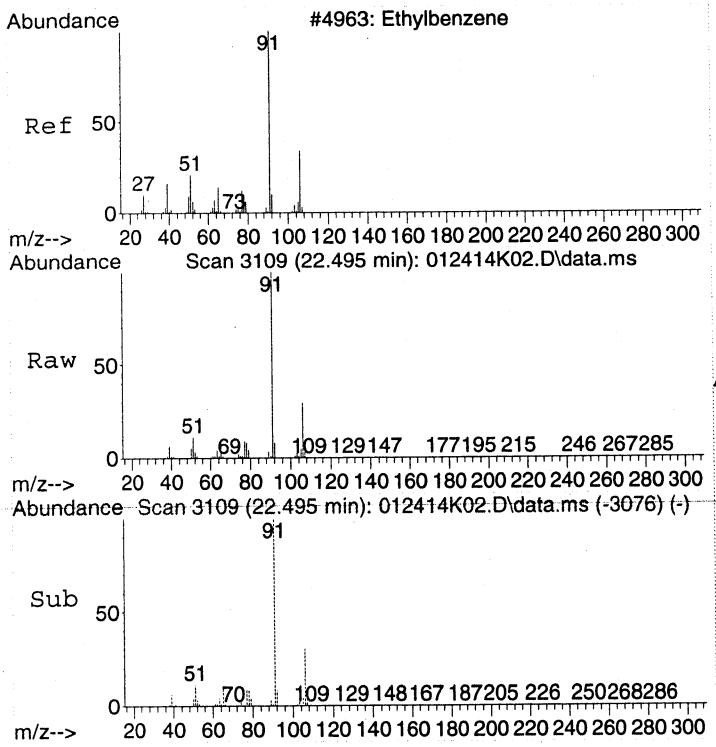


#51
Chlorobenzene
Concen: 15.51 ppbv
RT: 22.398 min Scan# 3093
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:112 Resp: 813598

Ion	Ratio	Lower	Upper
112	100		
77	62.6	42.0	82.0
114	31.3	11.3	51.3

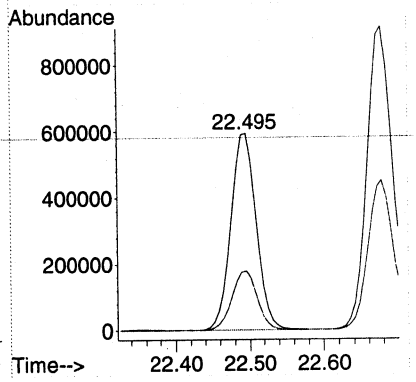


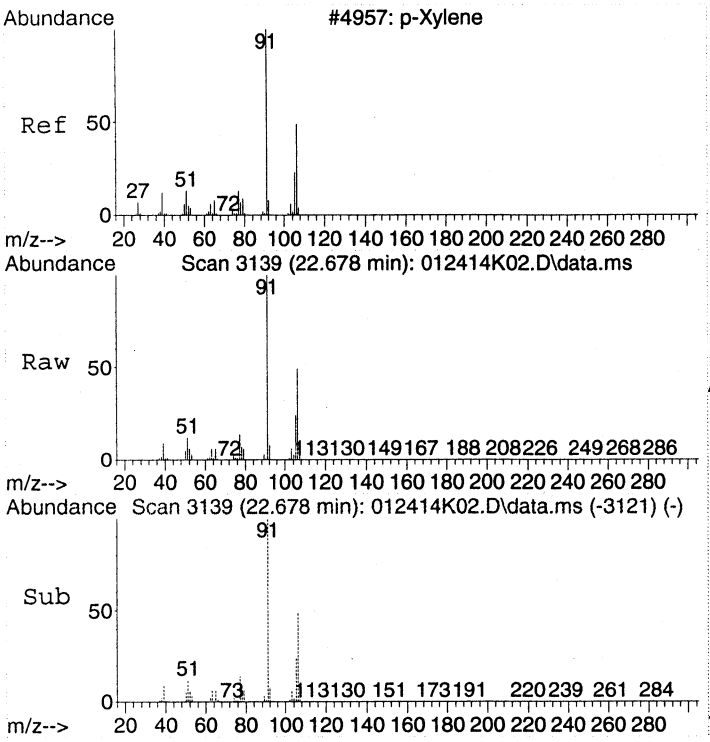


#52
Ethylbenzene
Concen: 15.73 ppbv
RT: 22.495 min Scan# 3109
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 91 Resp: 1409640

Ion	Ratio	Lower	Upper
91	100		
106	30.0	10.0	50.0

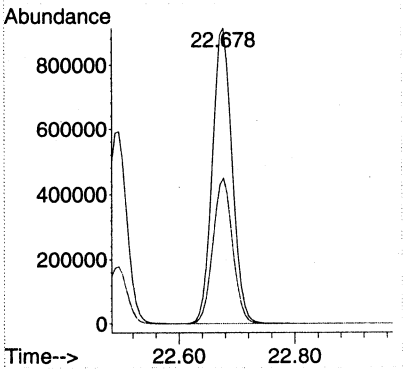


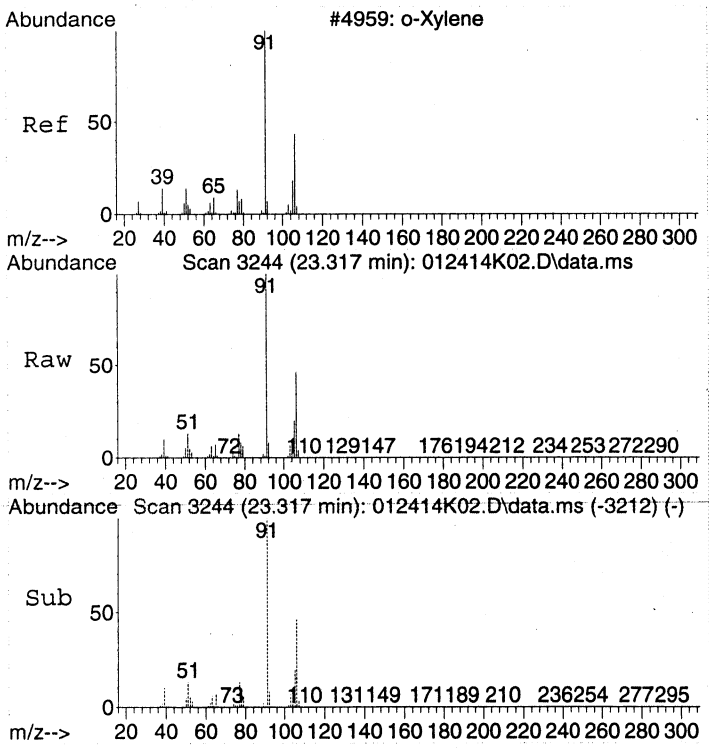


#53
m&p-Xylene
Concen: 31.70 ppbv
RT: 22.678 min Scan# 3139
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 91 Resp: 2173327

Ion	Ratio	Lower	Upper
91	100		
106	49.3	29.4	69.4

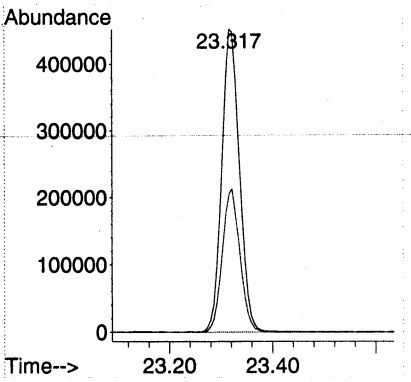


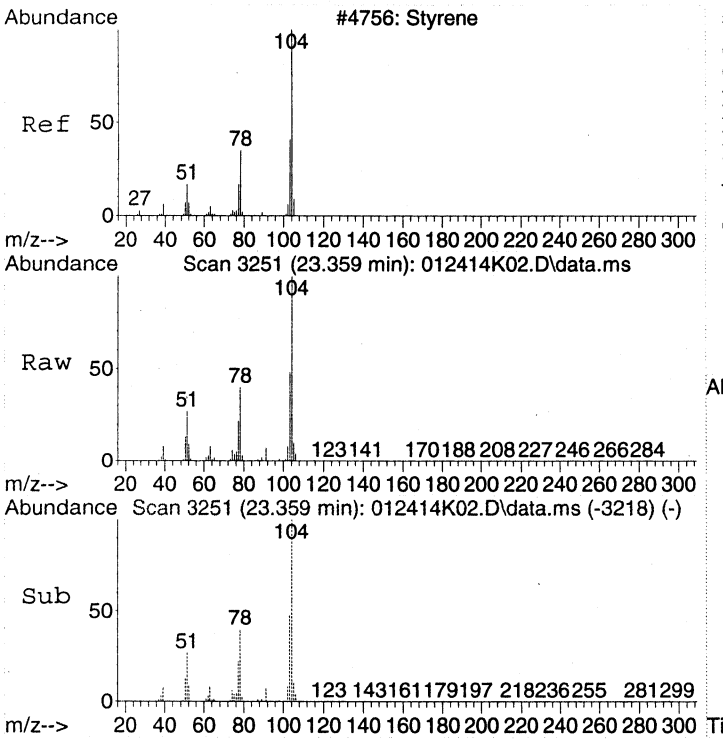


#54
o-Xylene
Concen: 16.05 ppbv
RT: 23.317 min Scan# 3244
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 91 Resp: 1079607

Ion	Ratio	Lower	Upper
91	100		
106	46.9	27.0	67.0

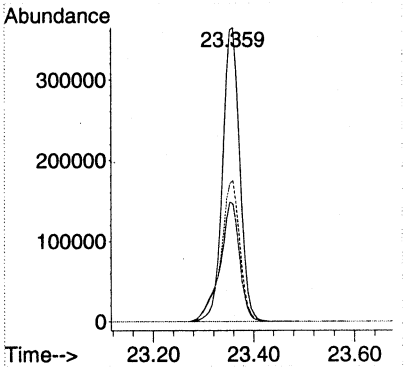


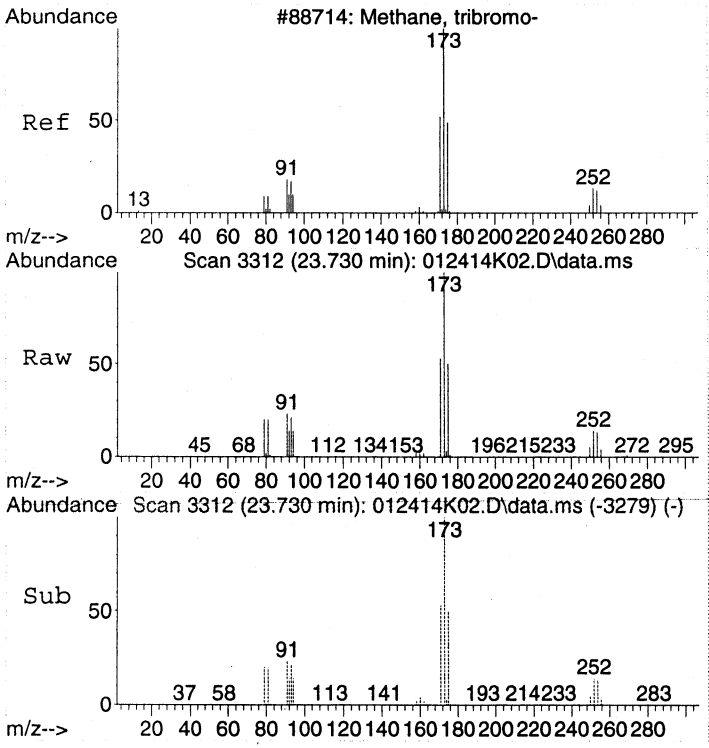


#55
Styrene
Concen: 15.95 ppbv
RT: 23.359 min Scan# 3251
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:104 Resp: 872583

Ion	Ratio	Lower	Upper
104	100		
78	46.8	26.5	66.5
103	53.8	33.7	73.7

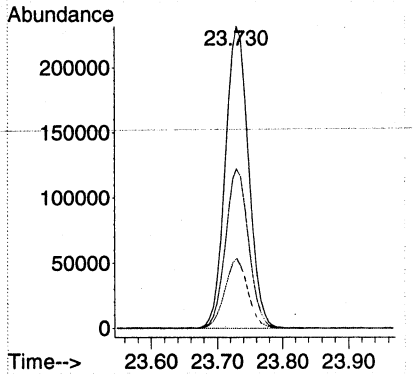


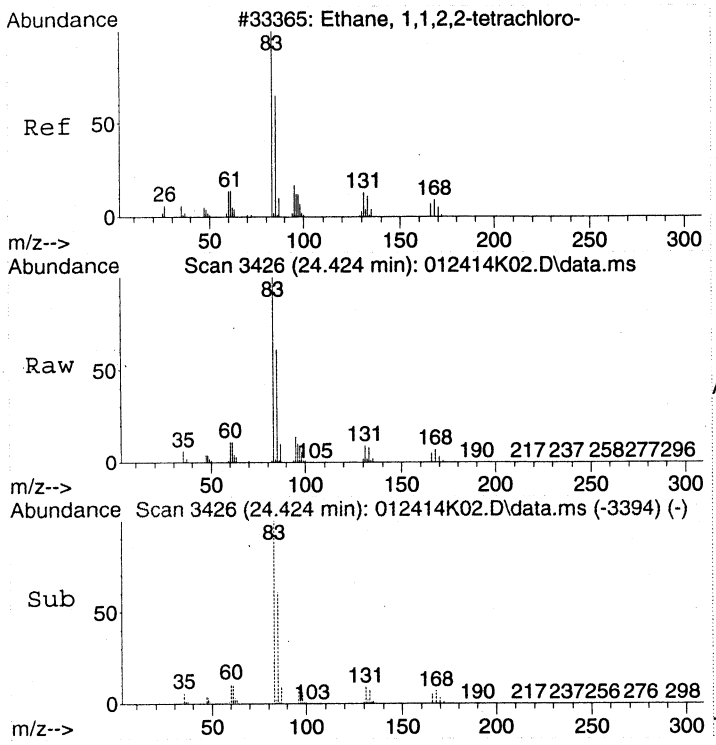


#56
Bromoform
Concen: 15.52 ppbv
RT: 23.730 min Scan# 3312
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:173 Resp: 574011

Ion	Ratio	Lower	Upper
173	100		
171	52.4	33.0	73.0
91	22.3	2.0	42.0

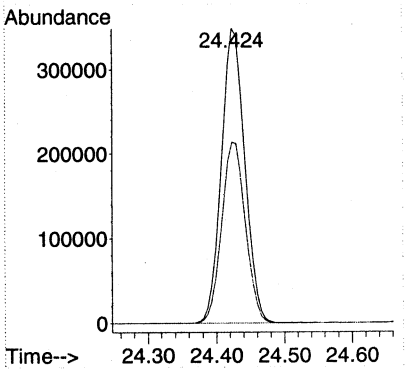


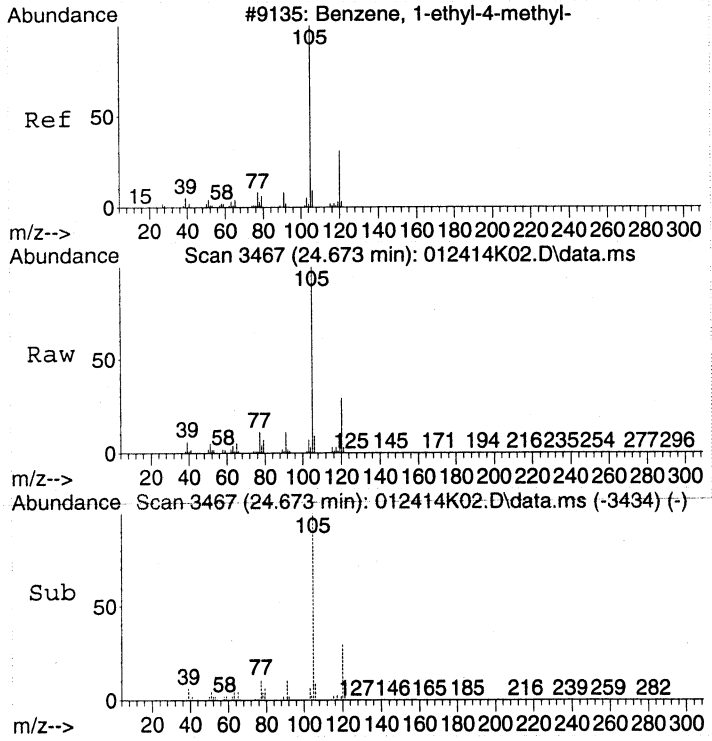


#57
1,1,2,2-Tetrachloroethane
Concen: 15.63 ppbv
RT: 24.424 min Scan# 3426
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 83 Resp: 832089

Ion	Ratio	Lower	Upper
83	100		
85	62.3	42.3	82.3

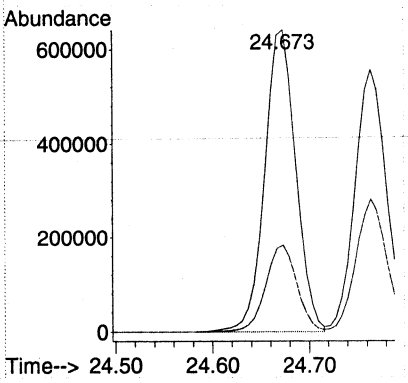


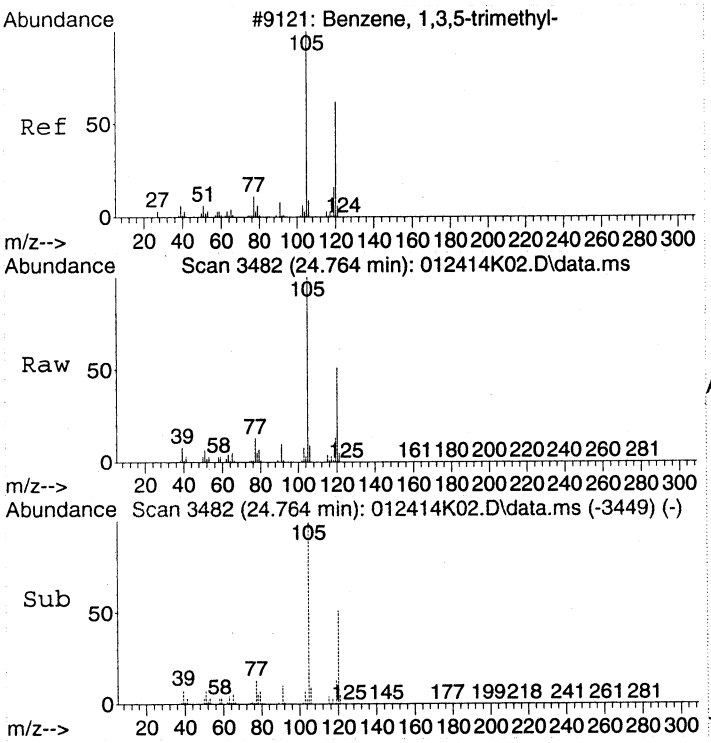


#58
4-Ethyltoluene
Concen: 16.46 ppbv
RT: 24.673 min Scan# 3467
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:105 Resp: 1435763

Ion	Ratio	Lower	Upper
105	100		
120	28.8	8.9	48.9

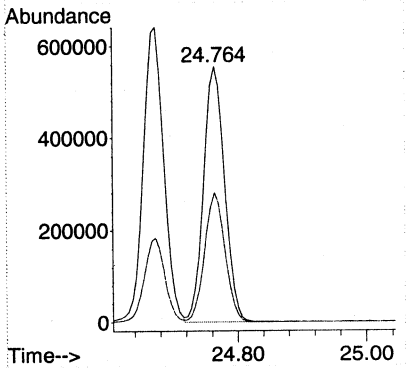


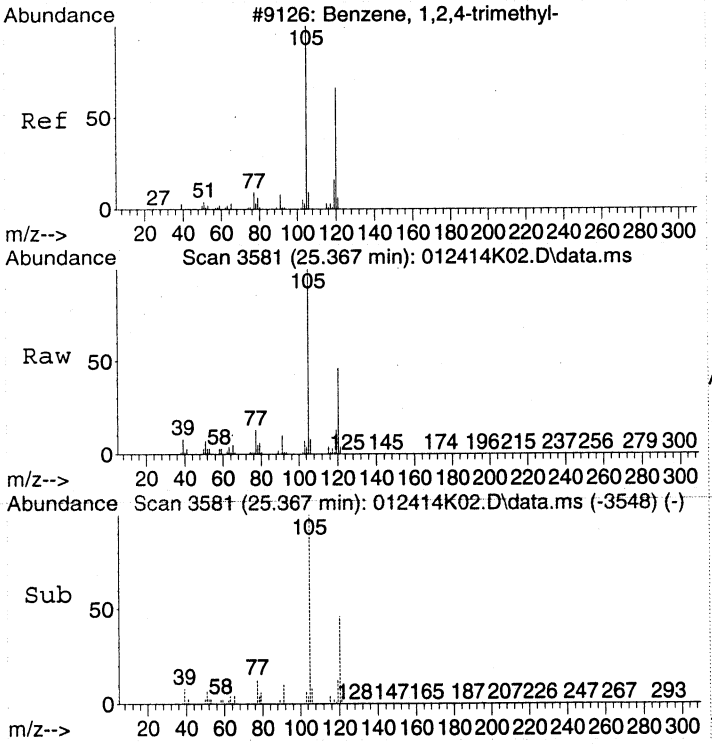


#59
1,3,5-Trimethylbenzene
Concen: 16.37 ppbv
RT: 24.764 min Scan# 3482
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:105 Resp: 1260166

Ion	Ratio	Lower	Upper
105	100		
120	49.6	30.3	70.3

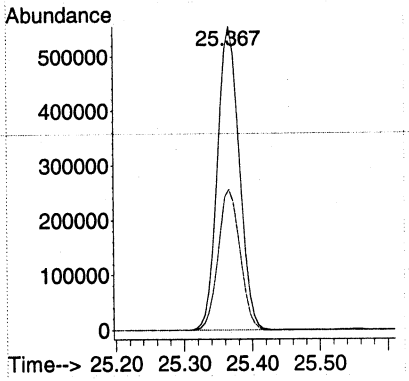


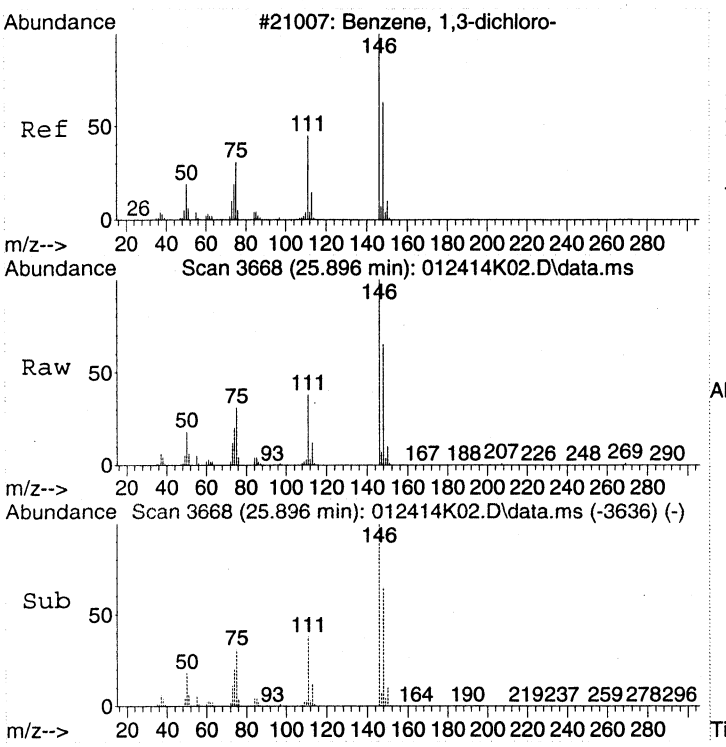


#60
1,2,4-Trimethylbenzene
Concen: 15.95 ppbv
RT: 25.367 min Scan# 3581
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:105 Resp: 1238531

Ion	Ratio	Lower	Upper
105	100		
120	46.4	26.3	66.3

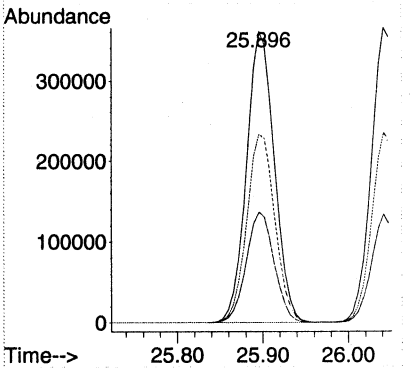


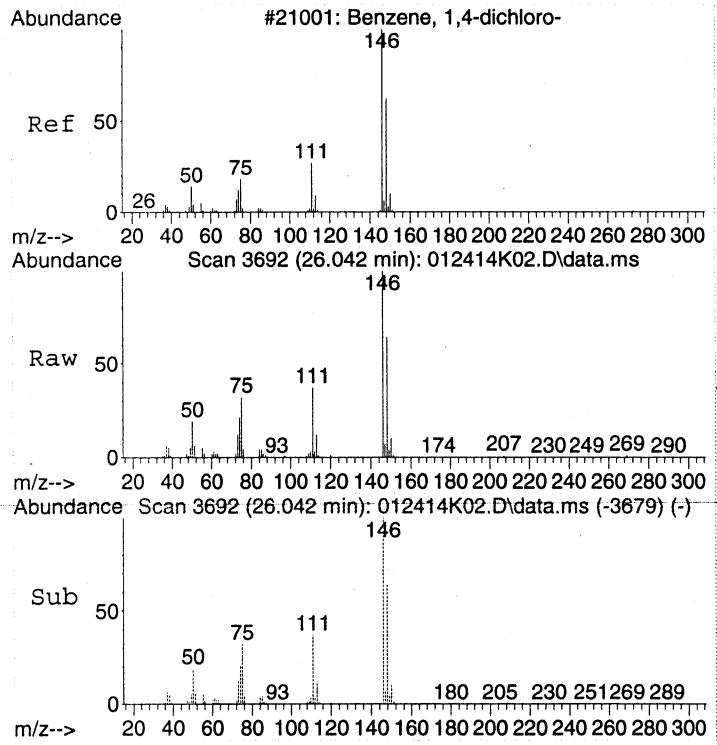


#61
1,3-Dichlorobenzene
Concen: 15.25 ppbv
RT: 25.896 min Scan# 3668
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:146 Resp: 820841

Ion	Ratio	Lower	Upper
146	100		
111	38.1	17.6	57.6
148	65.4	45.2	85.2

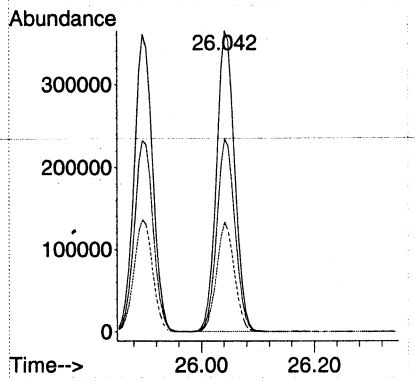


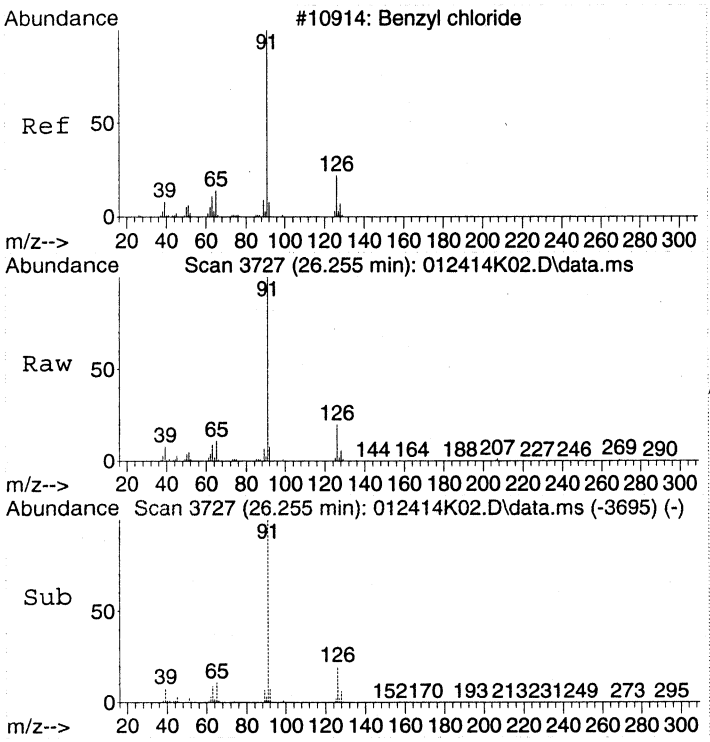


#62
1,4-Dichlorobenzene
Concen: 15.60 ppbv
RT: 26.042 min Scan# 3692
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:146 Resp: 817897

Ion	Ratio	Lower	Upper
146	100		
148	64.2	45.1	85.1
111	35.8	16.2	56.2

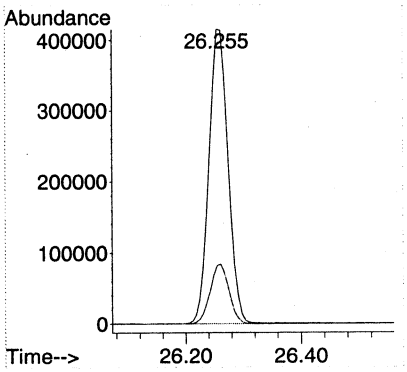


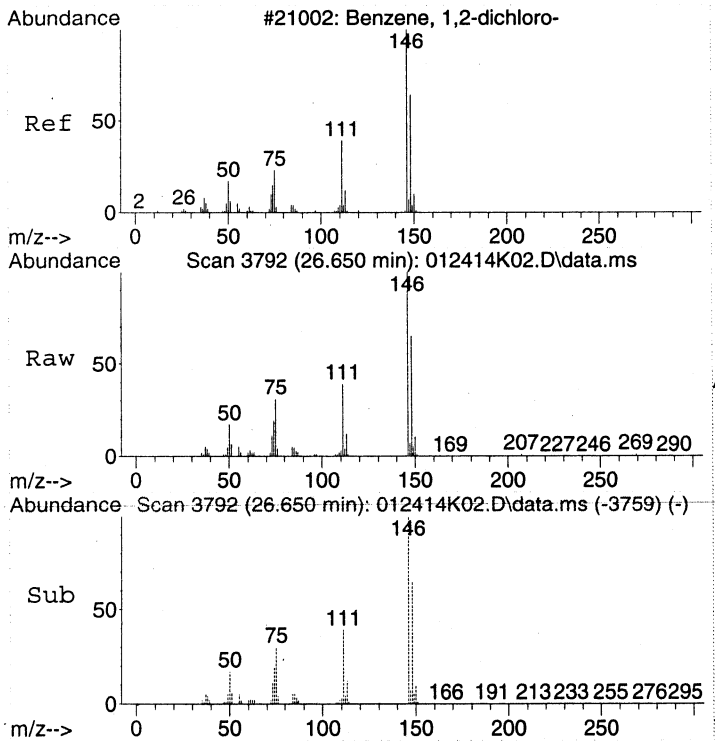


#63
Benzyl chloride
Concen: 16.25 ppbv
RT: 26.255 min Scan# 3727
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion: 91 Resp: 957301

Ion	Ratio	Lower	Upper
91	100		
126	20.1	0.6	40.6

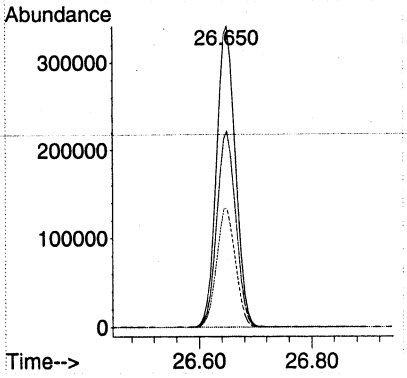


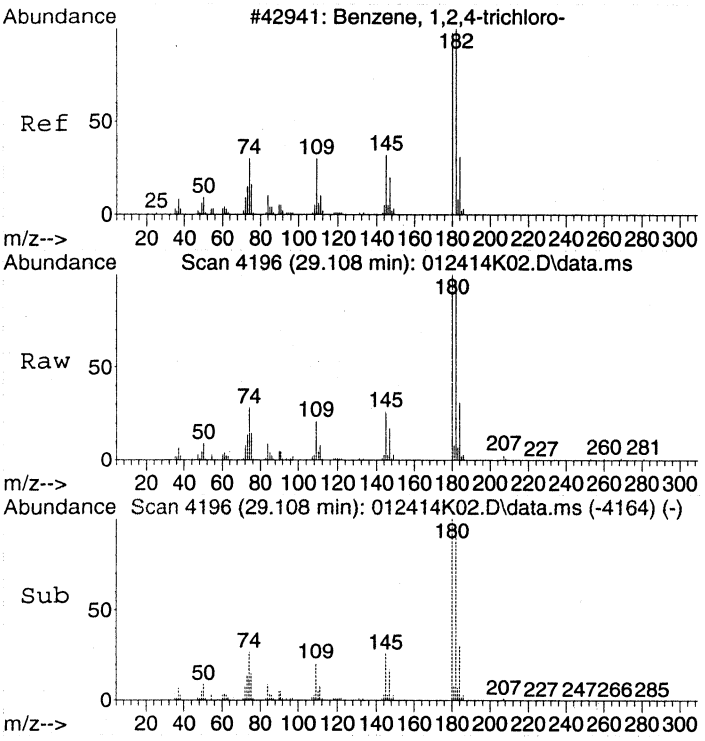


#64
1,2-Dichlorobenzene
Concen: 15.32 ppbv
RT: 26.650 min Scan# 3792
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:146 Resp: 796007

Ion	Ratio	Lower	Upper
146	100		
148	64.7	44.6	84.6
111	39.1	18.9	58.9

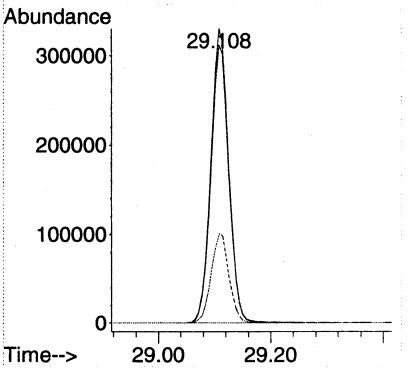


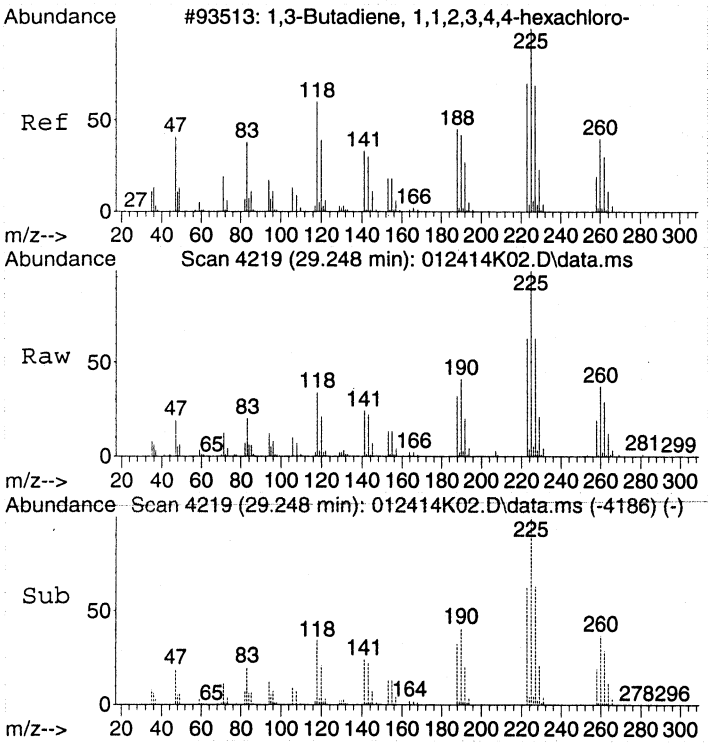


#65
1,2,4-Trichlorobenzene
Concen: 14.59 ppbv
RT: 29.108 min Scan# 4196
Delta R.T. -0.006 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:180 Resp: 740327

Ion	Ratio	Lower	Upper
180	100		
182	94.9	75.3	115.3
184	30.7	11.1	51.1

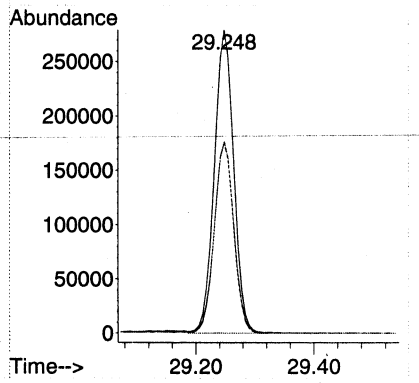




#66
Hexachlorobutadiene
Concen: 14.89 ppbv
RT: 29.248 min Scan# 4219
Delta R.T. 0.000 min
Lab File: 012414K02.D
Acq: 24 Jan 2014 10:36

Tgt Ion:225 Resp: 644849

Ion	Ratio	Lower	Upper
225	100		
227	63.6	43.7	83.7
223	62.9	43.3	83.3



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Operator : EM
Sample : S14A082-CAL4
Misc : 10 ppbv 1402036
ALS Vial : 32 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\msdchem\1\METHODS\2014\012414KAA.M
Title : TO15

Signal : TIC: 012414K02.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	4.366	118	129	137	rBV	303020	746275	10.04%	0.554%
2	4.464	137	145	158	rVB	495189	1275047	17.15%	0.947%
3	4.816	190	203	218	rBV2	784826	2302605	30.98%	1.711%
4	5.011	223	235	249	rVB	166836	483141	6.50%	0.359%
5	5.333	279	288	296	rBV	178030	506193	6.81%	0.376%
6	5.431	296	304	319	rVB	305162	859903	11.57%	0.639%
7	6.362	445	457	471	rVB	184713	609134	8.19%	0.453%
8	6.690	498	511	525	rBV2	93931	327063	4.40%	0.243%
9	7.262	590	605	615	rBV2	144731	543240	7.31%	0.404%
10	7.402	615	628	649	rVB	328053	1449712	19.50%	1.077%
11	9.227	901	928	934	rBV2	407205	2301131	30.96%	1.710%
12	9.823	1006	1026	1041	rBV	133824	662314	8.91%	0.492%
13	10.018	1043	1058	1082	rVB	182551	873260	11.75%	0.649%
14	10.444	1106	1128	1150	rBV2	112917	621611	8.36%	0.462%
15	10.845	1179	1194	1213	rBV2	200227	897903	12.08%	0.667%
16	11.387	1262	1283	1302	rBV	256482	1080391	14.53%	0.803%
17	12.098	1376	1400	1416	rBV3	541740	2654686	35.71%	1.972%
18	12.713	1484	1501	1517	rBV	459891	1825162	24.55%	1.356%
19	13.449	1609	1622	1635	rBV	272050	998716	13.44%	0.742%
20	13.595	1635	1646	1661	rVB	234909	766256	10.31%	0.569%
21	14.903	1847	1861	1869	rBV	426092	1335154	17.96%	0.992%
22	15.000	1869	1877	1880	rVV	305933	922735	12.41%	0.686%
23	15.043	1881	1884	1899	rVB2	374824	965161	12.98%	0.717%
24	15.444	1937	1950	1964	rBV2	1375983	4286467	57.66%	3.185%
25	15.603	1964	1976	1992	rVB	457472	1451583	19.53%	1.079%
26	15.840	1998	2015	2036	rBV3	642089	3706064	49.86%	2.754%
27	16.138	2051	2064	2081	rVB	549078	1805213	24.28%	1.341%
28	16.612	2124	2142	2164	rBV2	1055847	5165546	69.49%	3.838%
29	16.825	2166	2177	2190	rVV	334357	952623	12.82%	0.708%
30	16.977	2190	2202	2216	rVB	842953	2360943	31.76%	1.754%
31	17.446	2267	2279	2294	rBV	2133096	5630607	75.75%	4.183%
32	17.860	2334	2347	2360	rBV	745982	2002538	26.94%	1.488%
33	18.365	2418	2430	2442	rBV	605993	1666259	22.42%	1.238%
34	18.559	2452	2462	2478	rBV	171656	509532	6.85%	0.379%
35	18.827	2495	2506	2520	rBV	643186	1669381	22.46%	1.240%
36	19.593	2622	2632	2643	rBV	628287	1536745	20.67%	1.142%
37	19.831	2660	2671	2683	rBV	725717	1842455	24.79%	1.369%
38	20.074	2701	2711	2722	rBV	1041785	2549348	34.30%	1.894%

LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Operator : EM
Sample : S14A082-CAL4
Misc : 10 ppbv 1402036
ALS Vial : 32 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\msdchem\1\METHODS\2014\012414KAA.M
Title : TO15

39	20.542	2779	2788	2802	rVV	644880	1542726	20.75%	1.146%
40	20.847	2827	2838	2844	rBV	779472	1927135	25.92%	1.432%
41	20.926	2844	2851	2864	rVB	1111590	2746883	36.95%	2.041%
42	21.181	2881	2893	2904	rBV	678018	1680436	22.61%	1.249%
43	21.455	2927	2938	2956	rVB	755100	1884208	25.35%	1.400%
44	21.680	2965	2975	2995	rVB	519378	1277272	17.18%	0.949%
45	22.355	3075	3086	3091	rBV	2988848	7433552	100.00%	5.523%
46	22.495	3101	3109	3120	rVB	1342307	3183088	42.82%	2.365%
47	22.678	3128	3139	3156	rVB	2650759	6299331	84.74%	4.680%
48	23.323	3233	3245	3247	rBV	1368420	2963186	39.86%	2.202%
49	23.730	3302	3312	3324	rVB	852467	2115853	28.46%	1.572%
50	24.199	3379	3389	3404	rBV	2352625	5432003	73.07%	4.036%
51	24.424	3416	3426	3438	rBV	1093639	2628850	35.36%	1.953%
52	24.673	3453	3467	3474	rBV	1546893	3490102	46.95%	2.593%
53	24.764	3474	3482	3496	rVB	1620989	3663489	49.28%	2.722%
54	25.367	3571	3581	3593	rBV	1588175	3557374	47.86%	2.643%
55	25.896	3658	3668	3681	rBV	1417011	3250525	43.73%	2.415%
56	26.042	3683	3692	3708	rVB	1445577	3228783	43.44%	2.399%
57	26.261	3718	3728	3740	rBV	912479	2104798	28.31%	1.564%
58	26.650	3782	3792	3802	rBV	1354767	3162611	42.55%	2.350%
59	29.108	4187	4196	4209	rVV	1635905	3701591	49.80%	2.750%
60	29.248	4210	4219	4230	rVB	2221406	5175609	69.62%	3.845%

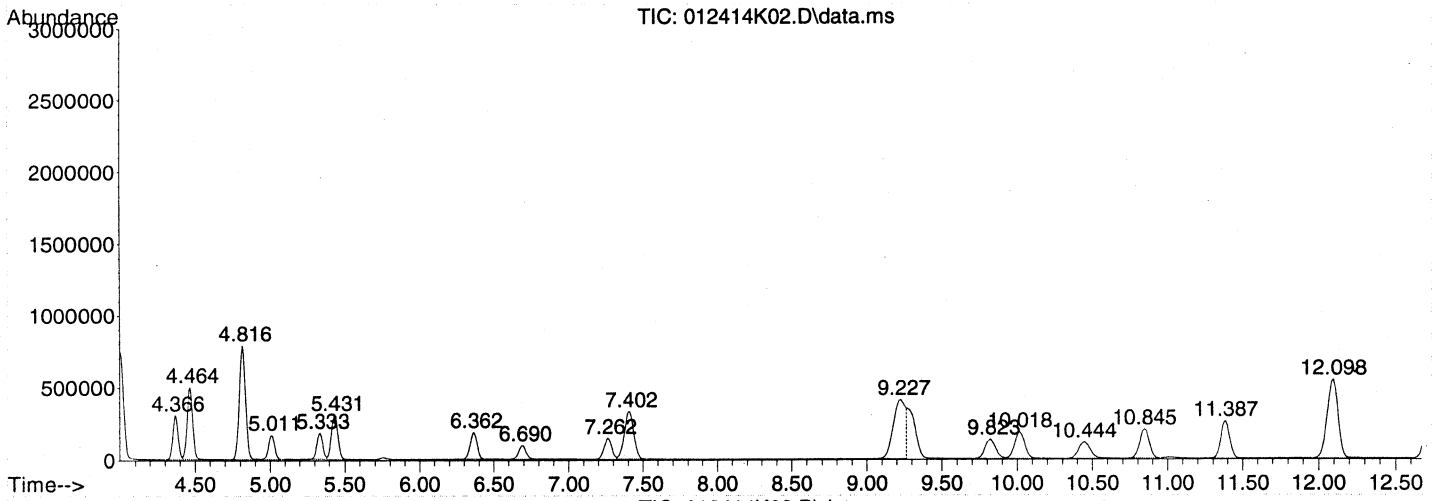
Sum of corrected areas: 134591502

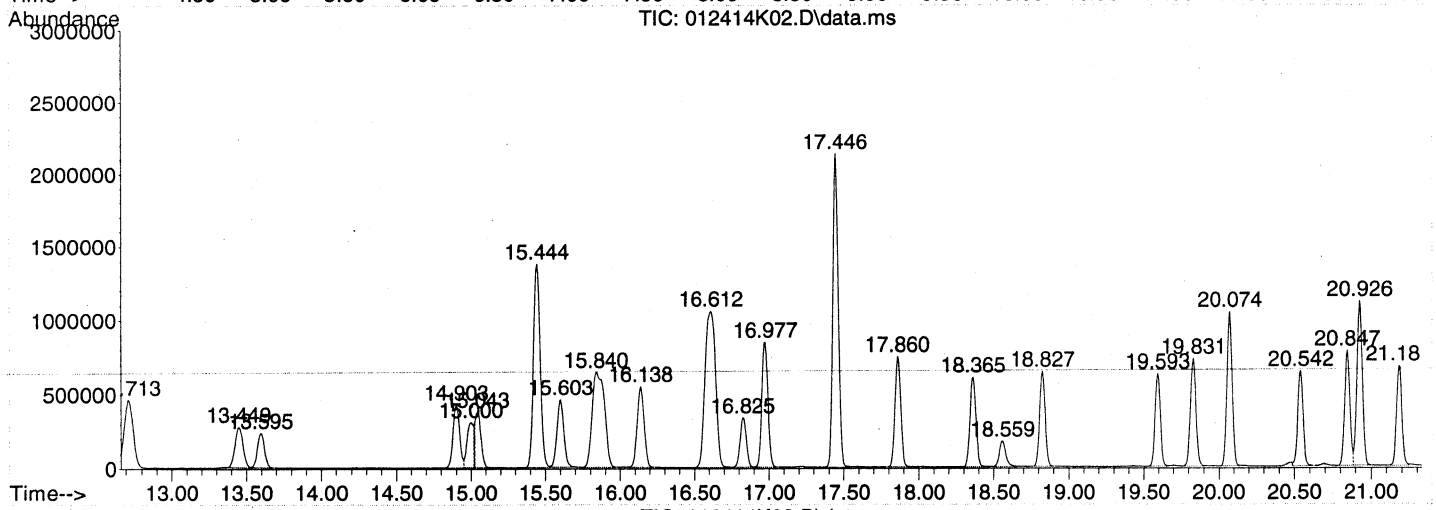
LSC Report - Integrated Chromatogram

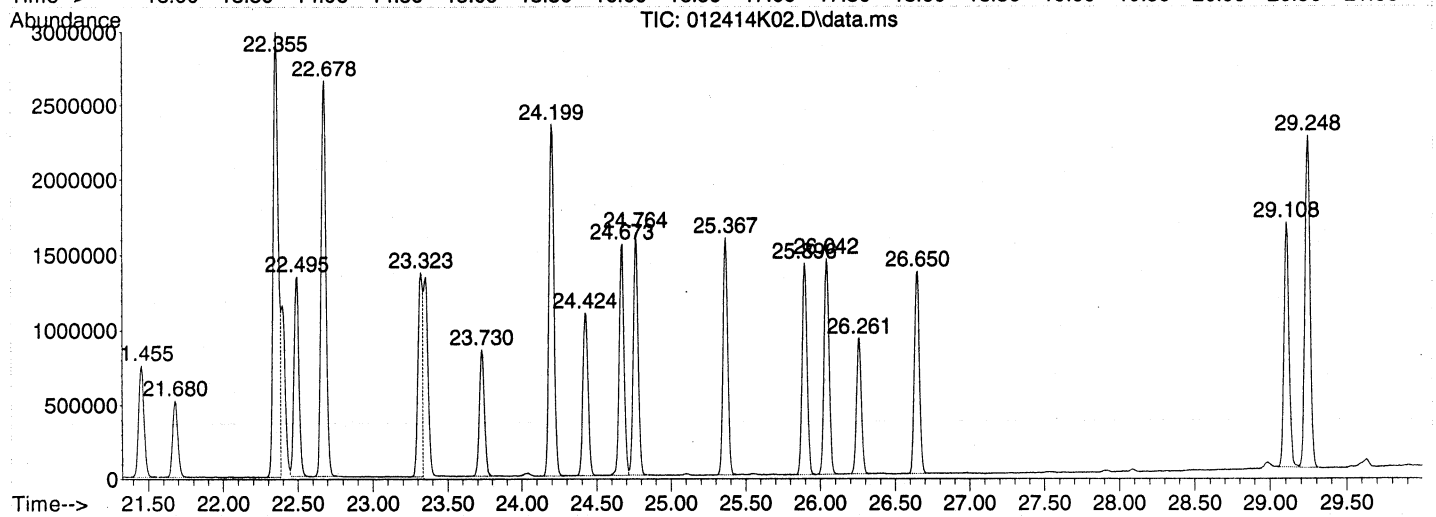
Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Operator : EM
Sample : S14A082-CAL4
Misc : 10 ppbv 1402036
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Operator : EM
Sample : S14A082-CAL4
Misc : 10 ppbv 1402036
ALS Vial : 32 Sample Multiplier: 1

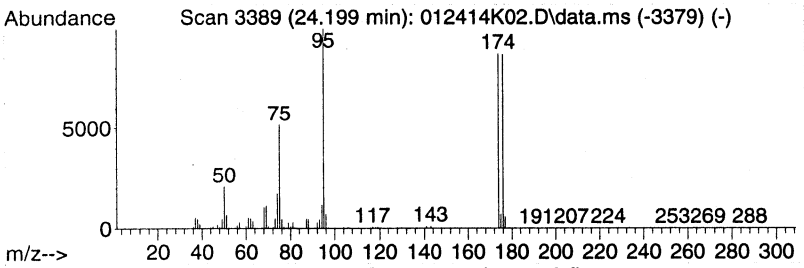
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M
Quant Title : TO15

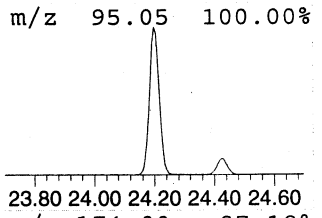
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

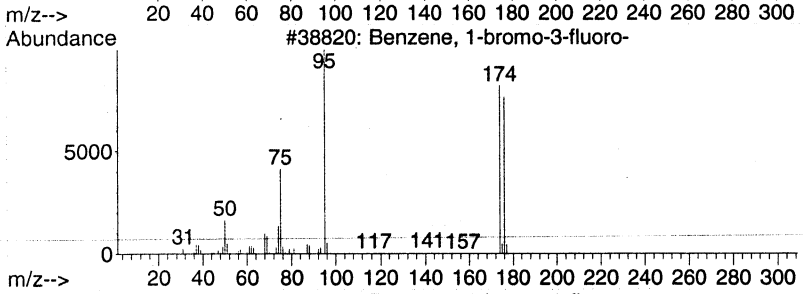
****
Peak Number 1 Benzene, 1-bromo-3-fluoro- Concentration Rank 1

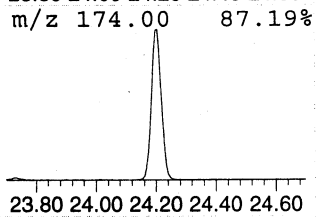
R.T.	EstConc	Area	Relative to ISTD	R.T.
24.199	16.08 ppbv	5432000	CHLOROBENZENE-d5	22.355

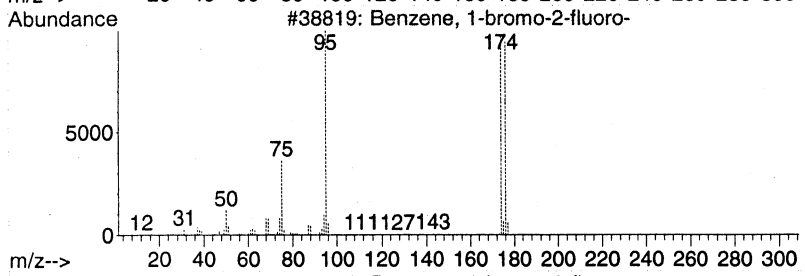
Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Benzene, 1-bromo-3-fluoro-	174	C6H4BrF	001073-06-9	98
2	Benzene, 1-bromo-2-fluoro-	174	C6H4BrF	001072-85-1	94
3	Benzene, 1-bromo-2-fluoro-	174	C6H4BrF	001072-85-1	94
4	p-Bromofluorobenzene	174	C6H4BrF	000460-00-4	93
5	Benzene, 1-bromo-3-fluoro-	174	C6H4BrF	001073-06-9	93

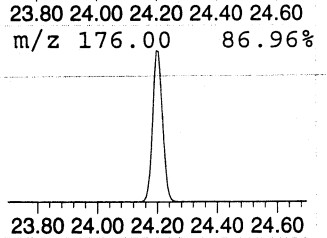


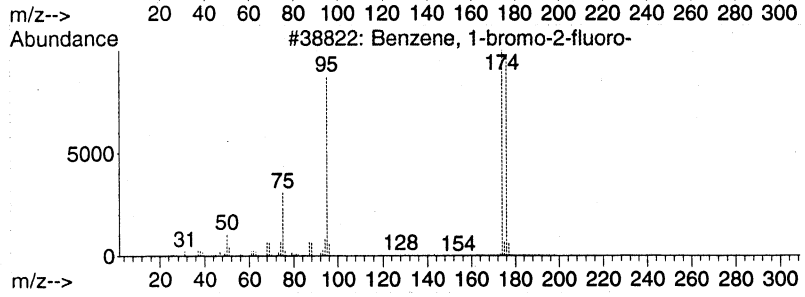


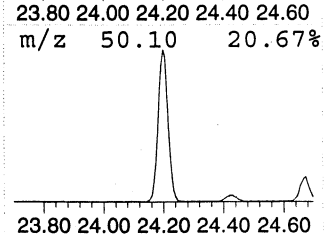












Tentatively Identified Compound (LSC) summary

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K02.D
Acq On : 24 Jan 2014 10:36
Operator : EM
Sample : S14A082-CAL4
Misc : 10 ppbv 1402036
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc	
Benzene, 1-brom...	24.199	16.1	ppbv	5432000	3	22.355	7433550	22.0	BFB

Quantitation Report (QT Reviewed)

MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) Performed
Peak integrated due to being
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other:
☑ After Manual Integration
Manual integration(s) performed by
Analyst: EM Date: 1/28/14
Manual integration(s) reviewed by:
Reviewer: [illegible] Date: 1/28/14

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K03.D
Acq On : 24 Jan 2014 11:24
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:48:57 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:47:00 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) BROMOCHLOROMETHANE	15.438	49	844512	22.00 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2213579	22.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.355	117	2058015	22.00 ppbv	0.00
Target Compounds					Qvalue
2) Propene	4.366	41	32971	1.44 ppbv	97
3) Dichlorodifluoromethane	4.463	85	83591	1.31 ppbv	100
4) 1,2-Dichlorotetrafluor...	4.810	85	84866	1.30 ppbv	99
5) Chloromethane	5.011	50	35417	1.33 ppbv	96
6) Vinyl chloride	5.333	62	36893	1.28 ppbv	97
7) 1,3-Butadiene	5.437	54	26154	1.22 ppbv	100
8) Bromomethane	6.362	94	27172	1.24 ppbv	100
9) Chloroethane	6.690	64	18767	1.24 ppbv	98
10) Bromoethene	7.262	106	24475	1.21 ppbv	99
11) Trichlorofluoromethane	7.402	101	72235	1.30 ppbv	98
12) 1,1,2-Trichloro-1,2,2-...	9.233	151	44745	1.14 ppbv #	32
13) 1,1-Dichloroethene	9.300	61	48366	1.15 ppbv	98
14) Acetone	9.860	43	46348	1.21 ppbv	98
15) Carbon disulfide	10.024	76	75653	1.22 ppbv	97
16) 2-Propanol	10.504	45	41412	1.06 ppbv	90
17) Allyl chloride	10.845	41	35308	1.13 ppbv	98
18) Dichloromethane	11.387	49	51334	1.40 ppbv	98
19) tert-Butyl methyl ethe...	12.117	73	73406	1.18 ppbv	100
20) trans-1,2-Dichloroethene	12.104	61	37296	1.07 ppbv	91
21) Hexane	12.707	57	48045	1.14 ppbv	98
22) 1,1-Dichloroethane	13.443	63	59035	1.15 ppbv	99
23) Vinyl acetate	13.601	43	58462	1.05 ppbv	99
24) cis-1,2-Dichloroethene	14.903	61	43754	1.16 ppbv	100
25) 2-Butanone (MEK)	15.018	43	45298	0.91 ppbv	90
26) Ethyl acetate	15.061	43	76351m	1.19 ppbv	
27) Tetrahydrofuran	15.487	42	37581	1.14 ppbv	99
28) Chloroform	15.596	83	61214	1.16 ppbv	96
29) Cyclohexane	15.834	56	49238	1.14 ppbv	97
30) 1,1,1-Trichloroethane	15.876	97	59517	1.14 ppbv	99
31) Carbon tetrachloride	16.138	117	58213	1.15 ppbv	99
33) Benzene	16.631	78	99281	1.29 ppbv	99
34) 2,2,4-Trimethylpentane	16.594	57	148626	1.26 ppbv	98
35) 1,2-Dichloroethane	16.825	62	38814	1.25 ppbv	99
36) Heptane	16.971	43	56839	1.28 ppbv	98
37) Trichloroethene	17.866	130	37660	1.28 ppbv	99
38) 1,2-Dichloropropane	18.358	63	38931	1.33 ppbv	98
39) 1,4-Dioxane	18.589	88	15411	1.09 ppbv	96
40) Bromodichloromethane	18.827	83	63661	1.33 ppbv	99
41) cis-1,3-Dichloropropene	19.593	75	51425	1.25 ppbv	98
42) 4-Methyl-2-pentanone (...	19.849	43	67718	1.19 ppbv	100
44) Toluene	20.074	91	109521	1.64 ppbv	100
45) trans-1,3-Dichloropropene	20.536	75	48237	1.66 ppbv	97
46) 1,1,2-Trichloroethane	20.840	97	37352	1.69 ppbv	97
47) Tetrachloroethene	20.926	166	51397	1.65 ppbv	99
48) 2-Hexanone	21.199	43	59765	1.50 ppbv	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K03.D
Acq On : 24 Jan 2014 11:24
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:48:57 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:47:00 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Chlorodibromomethane	21.455	129	56756	1.69	ppbv	99
50) 1,2-Dibromoethane (EDB)	21.680	107	50446	1.63	ppbv	93
51) Chlorobenzene	22.398	112	87411	1.70	ppbv	85
52) Ethylbenzene	22.489	91	142343	1.61	ppbv	99
53) m&p-Xylene	22.678	91	205795	3.05	ppbv	99
54) o-Xylene	23.316	91	103174	1.56	ppbv	97
55) Styrene	23.359	104	79090	1.47	ppbv	99
56) Bromoform	23.730	173	55065	1.52	ppbv	99
57) 1,1,2,2-Tetrachloroethane	24.424	83	84935	1.62	ppbv	99
58) 4-Ethyltoluene	24.673	105	131500	1.53	ppbv	99
59) 1,3,5-Trimethylbenzene	24.764	105	115211	1.52	ppbv	99
60) 1,2,4-Trimethylbenzene	25.367	105	110351	1.44	ppbv	98
61) 1,3-Dichlorobenzene	25.896	146	78554	1.49	ppbv	99
62) 1,4-Dichlorobenzene	26.048	146	74227	1.44	ppbv	98
63) Benzyl chloride	26.261	91	84388	1.45	ppbv	99
64) 1,2-Dichlorobenzene	26.650	146	77492	1.52	ppbv	98
65) 1,2,4-Trichlorobenzene	29.108	180	65557	1.31	ppbv	99
66) Hexachlorobutadiene	29.248	225	60424	1.41	ppbv	93

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

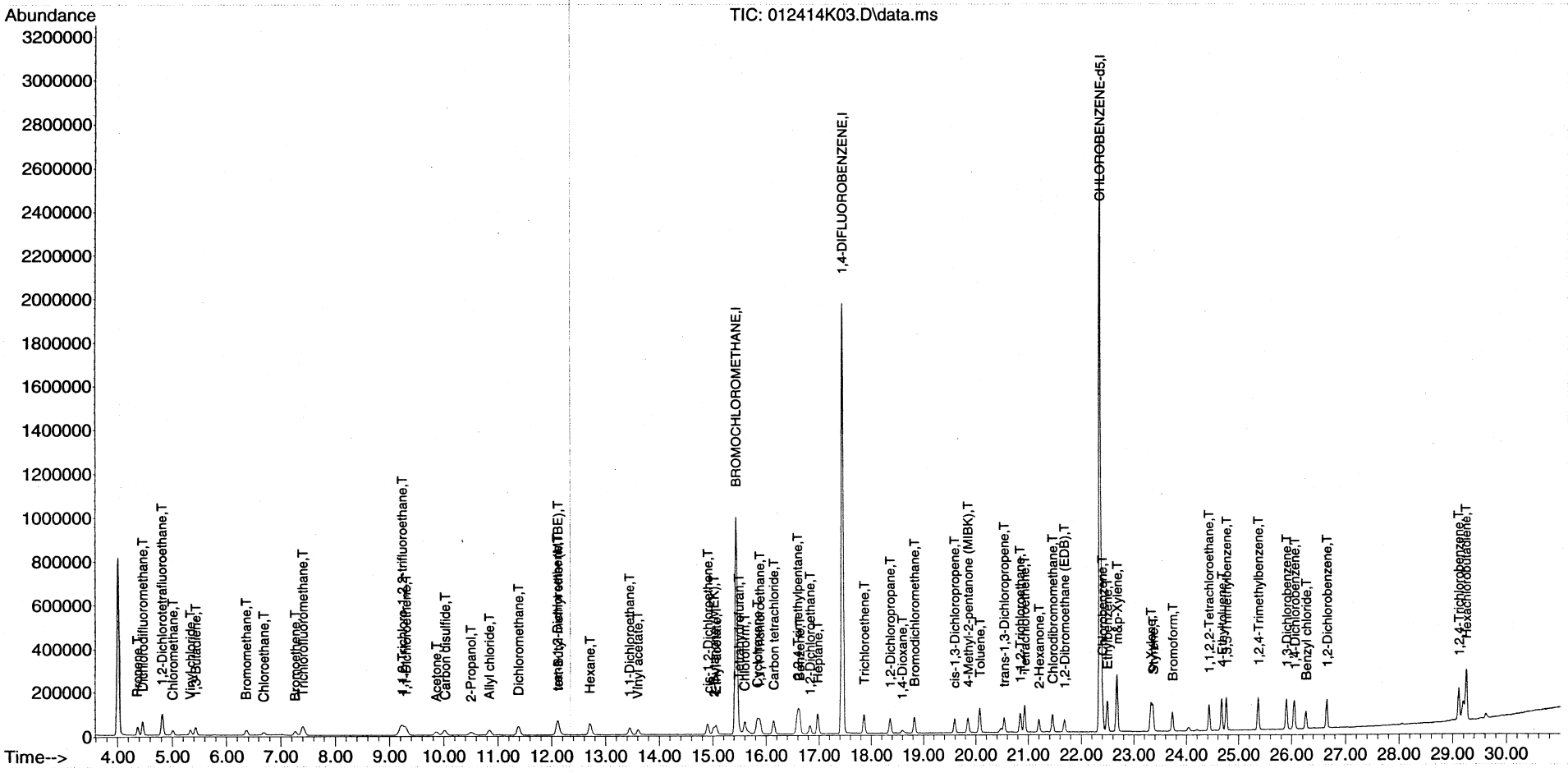
000087

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K03.D
Acq On : 24 Jan 2014 11:24
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:48:57 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:47:00 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

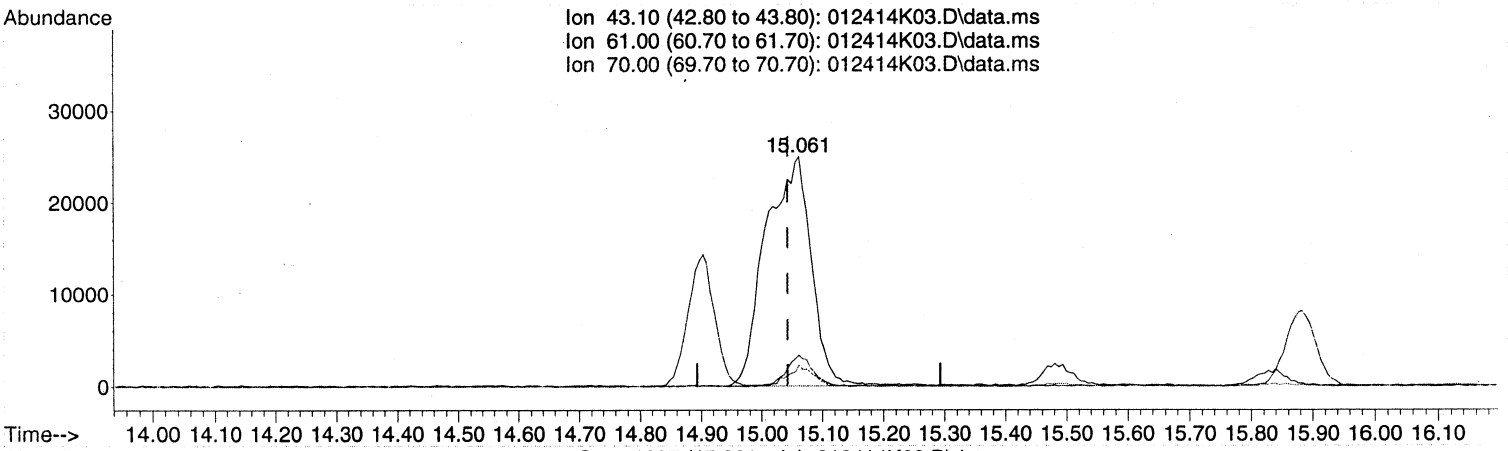


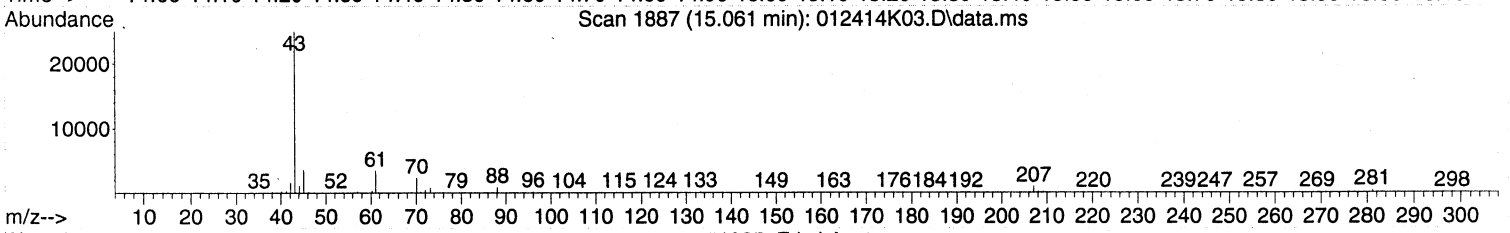
Quantitation Report (Qedit)

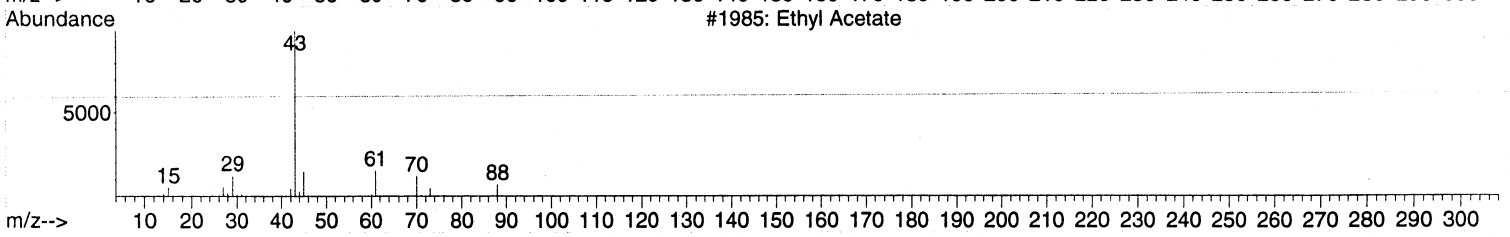
Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K03.D
Acq On : 24 Jan 2014 11:24
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:47:08 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:47:00 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M







TIC: 012414K03.D\data.ms

(26) Ethyl acetate (T)

15.061min (+0.018) 2.01 ppbv

response 128561

Ion	Exp%	Act%
43.10	100	100
61.00	14.80	7.53
70.00	9.30	5.16
0.00	0.00	0.00

MANUAL INTEGRATION VERIFICATION

☑ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☑ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☐ After Manual Integration

Manual integration(s) performed by:

Analyst: _____ Date: _____

Manual integration(s) reviewed by:

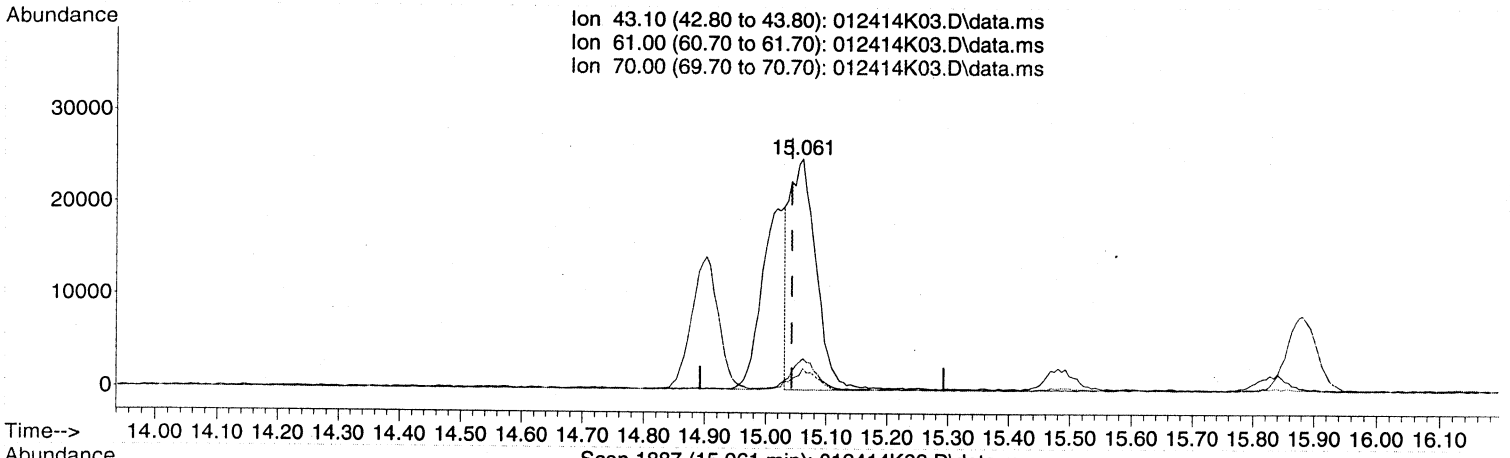
Reviewer: _____ Date: _____

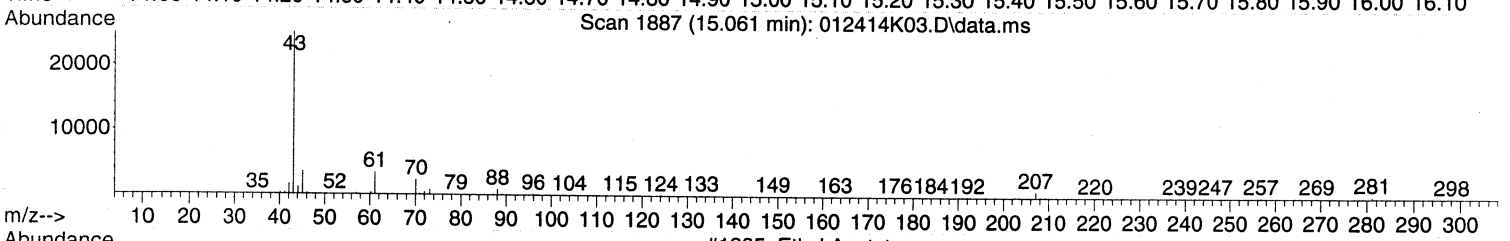
Quantitation Report (Qedit)

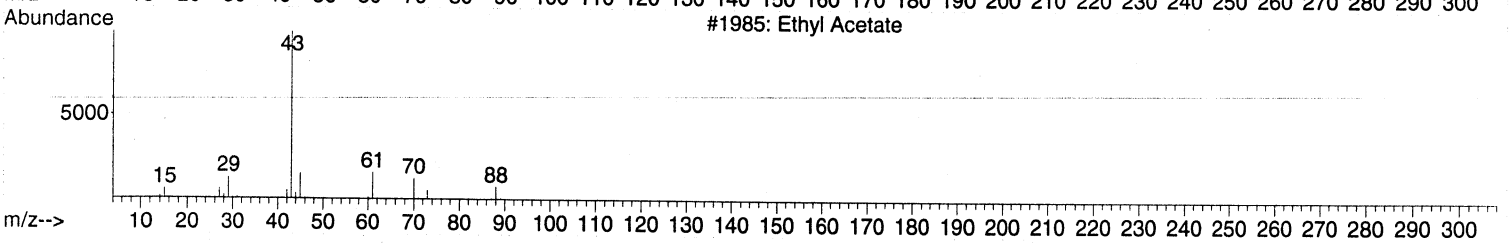
Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K03.D
Acq On : 24 Jan 2014 11:24
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:47:08 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:47:00 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M







TIC: 012414K03.D\data.ms

(26) Ethyl acetate (T)

15.061min (+0.018) 1.19 ppbv m

response 76351

Ion	Exp%	Act%
43.10	100	100
61.00	14.80	12.68
70.00	9.30	8.68
0.00	0.00	0.00

MANUAL INTEGRATION VERIFICATION

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: [illegible] Date: 1/27/14

Manual integration(s) reviewed by:

Reviewer: [illegible] Date: 1/28/14

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K03.D
Acq On : 24 Jan 2014 11:24
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Rel MT
lm 1/25/14

Quant Time: Jan 24 12:47:08 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:47:00 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.438	49	844512	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2213579	22.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.355	117	2058015	22.00	ppbv	0.00
Target Compounds						Qvalue
2) Propene	4.366	41	32971	1.44	ppbv	97
3) Dichlorodifluoromethane	4.463	85	83591	1.31	ppbv	100
4) 1,2-Dichlorotetrafluor...	4.810	85	84866	1.30	ppbv	99
5) Chloromethane	5.011	50	35417	1.33	ppbv	96
6) Vinyl chloride	5.333	62	36893	1.28	ppbv	97
7) 1,3-Butadiene	5.437	54	26154	1.22	ppbv	100
8) Bromomethane	6.362	94	27172	1.24	ppbv	100
9) Chloroethane	6.690	64	18767	1.24	ppbv	98
10) Bromoethene	7.262	106	24475	1.21	ppbv	99
11) Trichlorofluoromethane	7.402	101	72235	1.30	ppbv	98
12) 1,1,2-Trichloro-1,2,2-...	9.233	151	44745	1.14	ppbv #	32
13) 1,1-Dichloroethene	9.300	61	48366	1.15	ppbv	98
14) Acetone	9.860	43	46348	1.21	ppbv	98
15) Carbon disulfide	10.024	76	75653	1.22	ppbv	97
16) 2-Propanol	10.504	45	41412	1.06	ppbv	90
17) Allyl chloride	10.845	41	35308	1.13	ppbv	98
18) Dichloromethane	11.387	49	51334	1.40	ppbv	98
19) tert-Butyl methyl ethe...	12.117	73	73406	1.18	ppbv	100
20) trans-1,2-Dichloroethene	12.104	61	37296	1.07	ppbv	91
21) Hexane	12.707	57	48045	1.14	ppbv	98
22) 1,1-Dichloroethane	13.443	63	59035	1.15	ppbv	99
23) Vinyl acetate	13.601	43	58462	1.05	ppbv	99
24) cis-1,2-Dichloroethene	14.903	61	43754	1.16	ppbv	100
25) 2-Butanone (MEK)	15.018	43	45298	0.91	ppbv	90
26) Ethyl acetate	15.061	43	128561	2.01	ppbv	85
27) Tetrahydrofuran	15.487	42	37581	1.14	ppbv	99
28) Chloroform	15.596	83	61214	1.16	ppbv	96
29) Cyclohexane	15.834	56	49238	1.14	ppbv	97
30) 1,1,1-Trichloroethane	15.876	97	59517	1.14	ppbv	99
31) Carbon tetrachloride	16.138	117	58213	1.15	ppbv	99
33) Benzene	16.631	78	99281	1.29	ppbv	99
34) 2,2,4-Trimethylpentane	16.594	57	148626	1.26	ppbv	98
35) 1,2-Dichloroethane	16.825	62	38814	1.25	ppbv	99
36) Heptane	16.971	43	56839	1.28	ppbv	98
37) Trichloroethene	17.866	130	37660	1.28	ppbv	99
38) 1,2-Dichloropropane	18.358	63	38931	1.33	ppbv	98
39) 1,4-Dioxane	18.589	88	15411	1.09	ppbv	96
40) Bromodichloromethane	18.827	83	63661	1.33	ppbv	99
41) cis-1,3-Dichloropropene	19.593	75	51425	1.25	ppbv	98
42) 4-Methyl-2-pentanone (...	19.849	43	67718	1.19	ppbv	100
44) Toluene	20.074	91	109521	1.64	ppbv	100
45) trans-1,3-Dichloropropene	20.536	75	48237	1.66	ppbv	97
46) 1,1,2-Trichloroethane	20.840	97	37352	1.69	ppbv	97
47) Tetrachloroethene	20.926	166	51397	1.65	ppbv	99
48) 2-Hexanone	21.199	43	59765	1.50	ppbv	97

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K03.D
Acq On : 24 Jan 2014 11:24
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:47:08 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:47:00 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorodibromomethane	21.455	129	56756	1.69 ppbv	99
50) 1,2-Dibromoethane (EDB)	21.680	107	50446	1.63 ppbv	93
51) Chlorobenzene	22.398	112	87411	1.70 ppbv	85
52) Ethylbenzene	22.489	91	142343	1.61 ppbv	99
53) m&p-Xylene	22.678	91	205795	3.05 ppbv	99
54) o-Xylene	23.316	91	103174	1.56 ppbv	97
55) Styrene	23.359	104	79090	1.47 ppbv	99
56) Bromoform	23.730	173	55065	1.52 ppbv	99
57) 1,1,2,2-Tetrachloroethane	24.424	83	84935	1.62 ppbv	99
58) 4-Ethyltoluene	24.673	105	131500	1.53 ppbv	99
59) 1,3,5-Trimethylbenzene	24.764	105	115211	1.52 ppbv	99
60) 1,2,4-Trimethylbenzene	25.367	105	110351	1.44 ppbv	98
61) 1,3-Dichlorobenzene	25.896	146	78554	1.49 ppbv	99
62) 1,4-Dichlorobenzene	26.048	146	74227	1.44 ppbv	98
63) Benzyl chloride	26.261	91	84388	1.45 ppbv	99
64) 1,2-Dichlorobenzene	26.650	146	77492	1.52 ppbv	98
65) 1,2,4-Trichlorobenzene	29.108	180	65557	1.31 ppbv	99
66) Hexachlorobutadiene	29.248	225	60424	1.41 ppbv	93

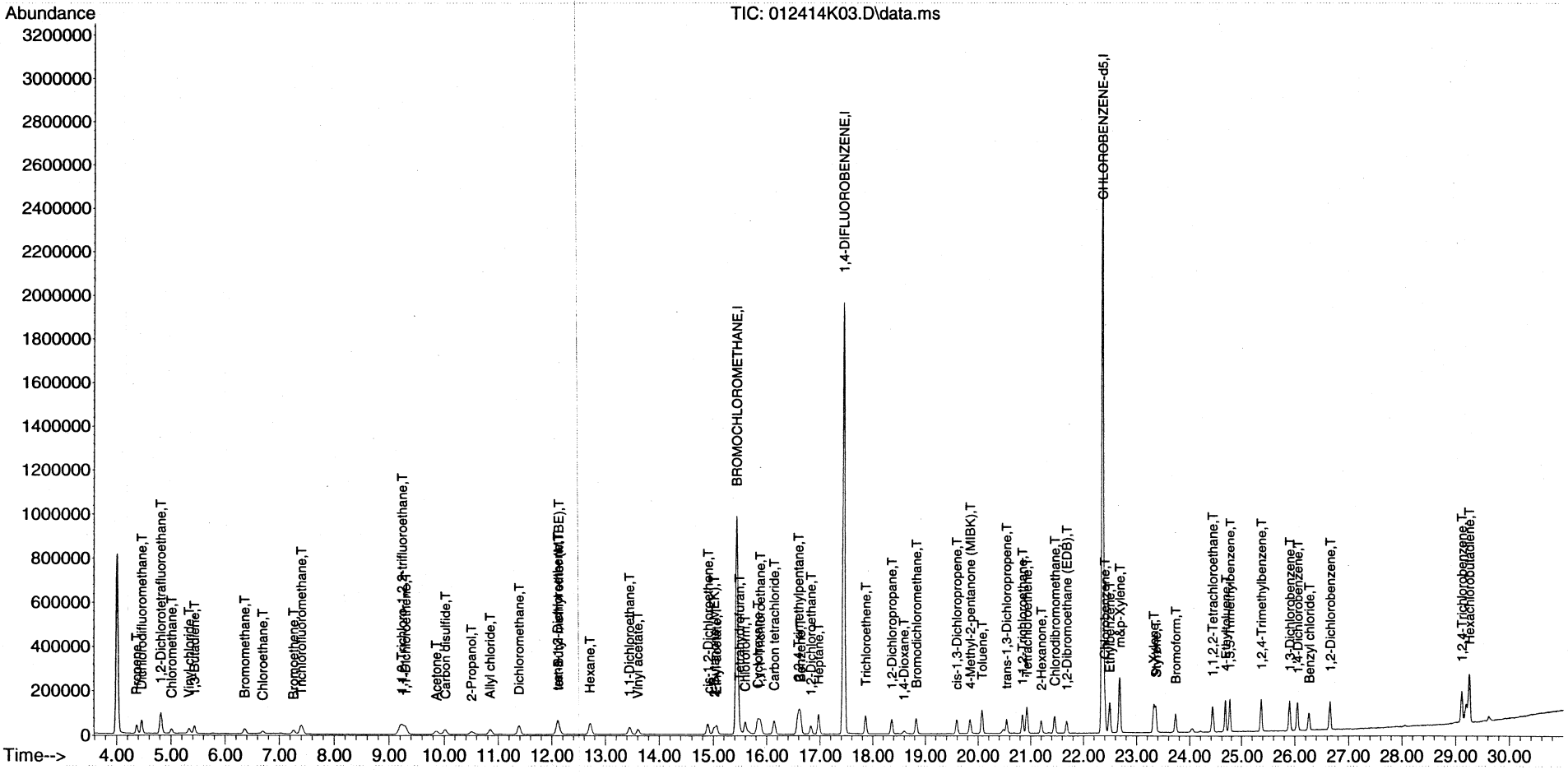
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K03.D
Acq On : 24 Jan 2014 11:24
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL1
Misc : 10 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 12:47:08 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:47:00 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K04.D
Acq On : 24 Jan 2014 12:10
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL2
Misc : 2.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 12:49:44 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:49:22 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

MANUAL INTEGRATION VERIFICATION

☐ Before Manual Integration(s) (not used)

Peak integrated due to being

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by

Analyst: EM Date: 1/25/14

Manual integration(s) reviewed by:

Reviewer: JL Date: 1/28/14

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.438	49	843979	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2231980	22.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.355	117	2067465	22.00	ppbv	0.00
Target Compounds						Qvalue
2) Propene	4.372	41	53251	2.26	ppbv	99
3) Dichlorodifluoromethane	4.464	85	143479	2.19	ppbv	100
4) 1,2-Dichlorotetrafluor...	4.816	85	144608	2.15	ppbv	98
5) Chloromethane	5.011	50	60578	2.22	ppbv	99
6) Vinyl chloride	5.333	62	62473	2.12	ppbv	97
7) 1,3-Butadiene	5.431	54	45222	2.07	ppbv	98
8) Bromomethane	6.362	94	46993	2.13	ppbv	99
9) Chloroethane	6.696	64	32860	2.13	ppbv	100
10) Bromoethene	7.268	106	43403	2.11	ppbv	97
11) Trichlorofluoromethane	7.402	101	124411	2.20	ppbv	99
12) 1,1,2-Trichloro-1,2,2-...	9.221	151	79492	2.00	ppbv	98
13) 1,1-Dichloroethene	9.306	61	83773	1.95	ppbv	98
14) Acetone	9.848	43	87996	2.30	ppbv	99
15) Carbon disulfide	10.018	76	133493	2.11	ppbv	92
16) 2-Propanol	10.486	45	76302	1.95	ppbv	92
17) Allyl chloride	10.845	41	64937	2.06	ppbv	96
18) Dichloromethane	11.381	49	81247	2.19	ppbv	99
19) tert-Butyl methyl ethe...	12.098	73	142326	2.25	ppbv	99
20) trans-1,2-Dichloroethene	12.105	61	69398	1.97	ppbv	99
21) Hexane	12.719	57	88418	2.06	ppbv	97
22) 1,1-Dichloroethane	13.455	63	105590	2.02	ppbv	99
23) Vinyl acetate	13.607	43	110965	1.96	ppbv	100
24) cis-1,2-Dichloroethene	14.903	61	79028	2.06	ppbv	99
25) 2-Butanone (MEK)	15.012	43	105068	2.11	ppbv	95
26) Ethyl acetate	15.049	43	144837m	2.25	ppbv	
27) Tetrahydrofuran	15.475	42	70986	2.12	ppbv	100
28) Chloroform	15.603	83	112487	2.11	ppbv	99
29) Cyclohexane	15.834	56	93632	2.13	ppbv	100
30) 1,1,1-Trichloroethane	15.889	97	109126	2.07	ppbv	100
31) Carbon tetrachloride	16.138	117	109611	2.15	ppbv	99
33) Benzene	16.631	78	183307	2.25	ppbv	100
34) 2,2,4-Trimethylpentane	16.594	57	283449	2.27	ppbv	99
35) 1,2-Dichloroethane	16.831	62	71391	2.17	ppbv	100
36) Heptane	16.977	43	106032	2.26	ppbv	97
37) Trichloroethene	17.866	130	70113	2.25	ppbv	99
38) 1,2-Dichloropropane	18.365	63	71811	2.32	ppbv	99
39) 1,4-Dioxane	18.584	88	31244	2.16	ppbv	97
40) Bromodichloromethane	18.827	83	117714	2.34	ppbv	99
41) cis-1,3-Dichloropropene	19.593	75	98040	2.25	ppbv	99
42) 4-Methyl-2-pentanone (...	19.843	43	139529	2.38	ppbv	99
44) Toluene	20.074	91	209790	2.75	ppbv	99
45) trans-1,3-Dichloropropene	20.542	75	91159	2.76	ppbv	97
46) 1,1,2-Trichloroethane	20.847	97	71737	2.86	ppbv	98
47) Tetrachloroethene	20.926	166	96554	2.73	ppbv	99
48) 2-Hexanone	21.193	43	123664	2.78	ppbv	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K04.D
Acq On : 24 Jan 2014 12:10
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL2
Misc : 2.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 12:49:44 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:49:22 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Chlorodibromomethane	21.455	129	107602	2.80	ppbv	100
50) 1,2-Dibromoethane (EDB)	21.680	107	98328	2.81	ppbv	99
51) Chlorobenzene	22.404	112	163993	2.81	ppbv	93
52) Ethylbenzene	22.495	91	273214	2.73	ppbv	99
53) m&p-Xylene	22.678	91	406492	5.34	ppbv	99
54) o-Xylene	23.317	91	206436	2.75	ppbv	100
55) Styrene	23.359	104	159665	2.63	ppbv	100
56) Bromoform	23.730	173	107532	2.65	ppbv	98
57) 1,1,2,2-Tetrachloroethane	24.424	83	166640	2.80	ppbv	100
58) 4-Ethyltoluene	24.673	105	268734	2.78	ppbv	99
59) 1,3,5-Trimethylbenzene	24.764	105	229792	2.68	ppbv	98
60) 1,2,4-Trimethylbenzene	25.367	105	229159	2.67	ppbv	100
61) 1,3-Dichlorobenzene	25.896	146	156071	2.62	ppbv	100
62) 1,4-Dichlorobenzene	26.042	146	150567	2.60	ppbv	99
63) Benzyl chloride	26.255	91	171775	2.66	ppbv	98
64) 1,2-Dichlorobenzene	26.650	146	152588	2.64	ppbv	100
65) 1,2,4-Trichlorobenzene	29.108	180	132867	2.37	ppbv	100
66) Hexachlorobutadiene	29.248	225	132278	2.77	ppbv	98

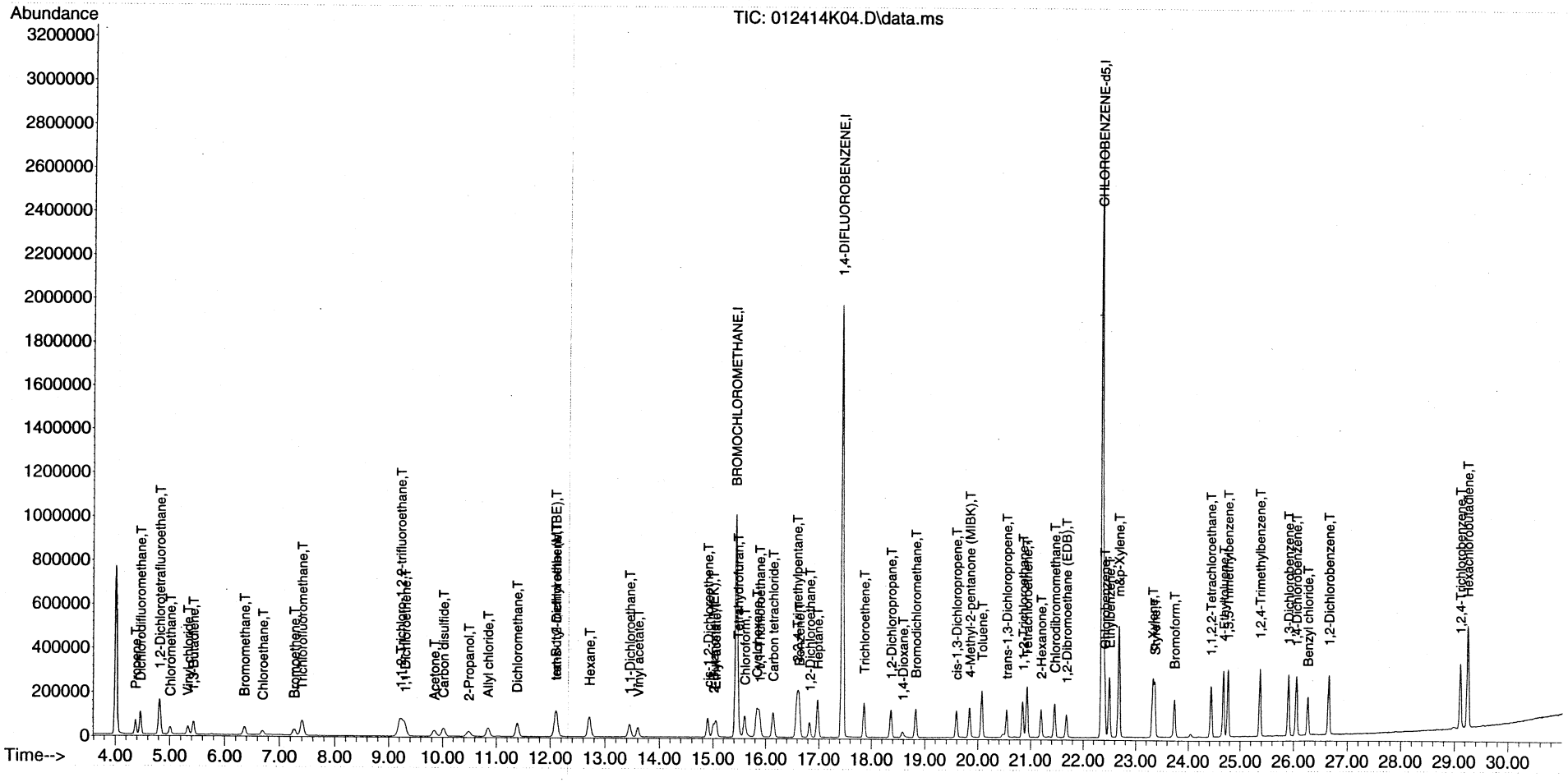
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K04.D
Acq On : 24 Jan 2014 12:10
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL2
Misc : 2.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 12:49:44 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:49:22 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

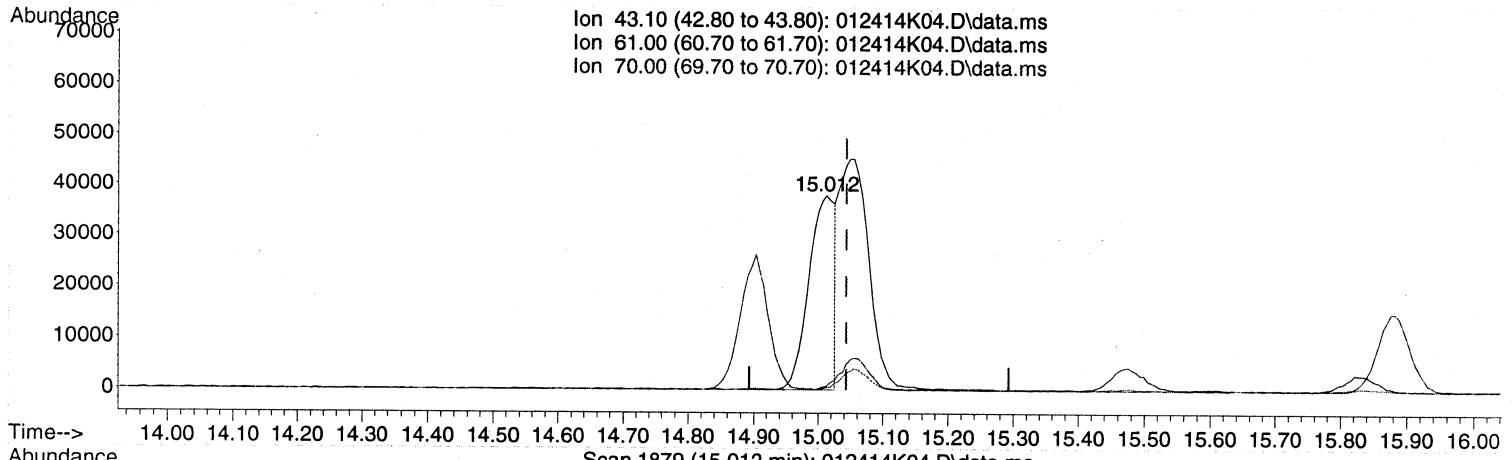


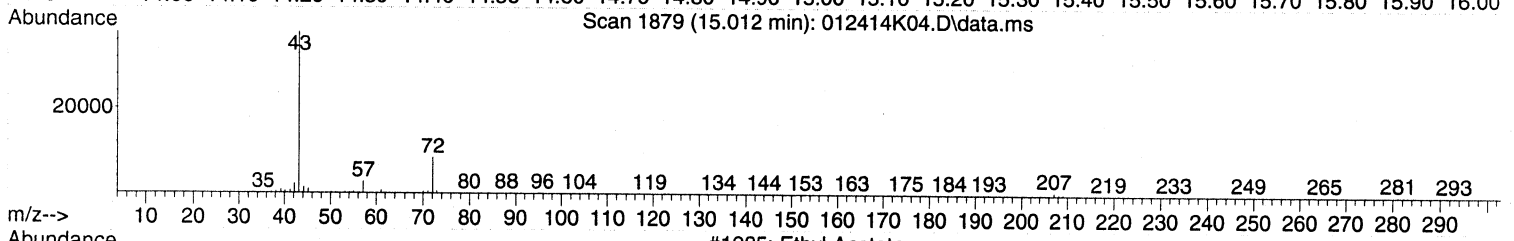
Quantitation Report (Qedit)

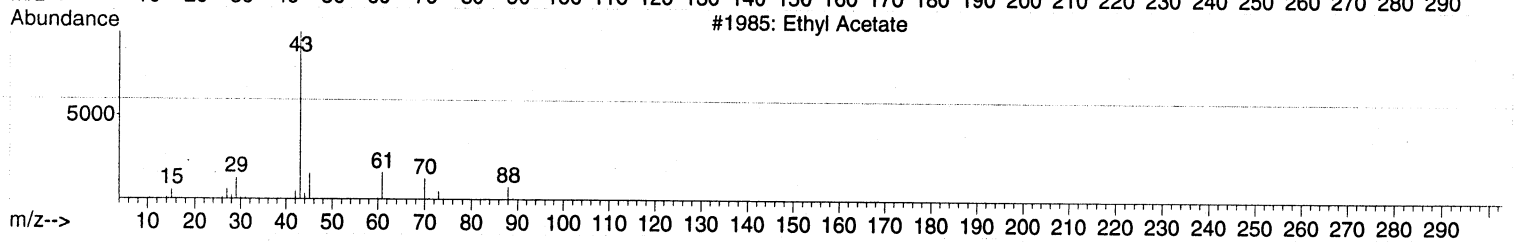
Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K04.D
Acq On : 24 Jan 2014 12:10
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL2
Misc : 2.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 12:49:30 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:49:22 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M







TIC: 012414K04.D\data.ms

(26) Ethyl acetate (T)

15.012min (-0.030) 1.63 ppbv

response 105039

Ion	Exp%	Act%
43.10	100	100
61.00	14.80	0.00#
70.00	9.30	0.00
0.00	0.00	0.00

MANUAL INTEGRATION VERIFICATION

☑ Before Manual Integration(s) (not used)

Peak integrated due to being

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☑ Other: RT off

☐ After Manual Integration

Manual integration(s) performed by

Analyst: _____ Date: _____

Manual integration(s) reviewed by:

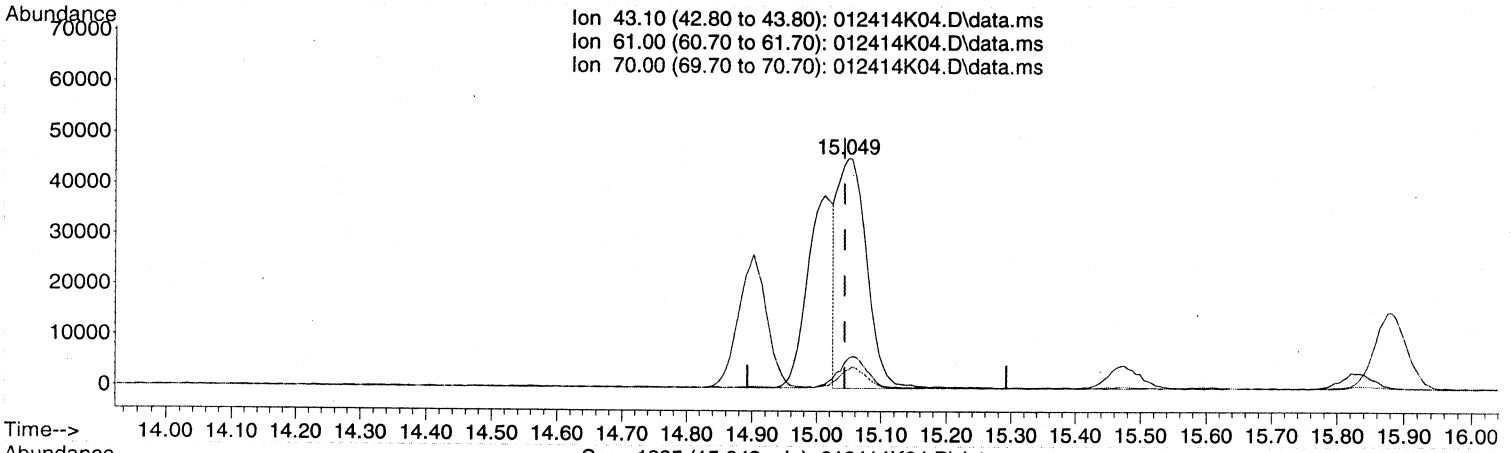
Reviewer: _____ Date: _____

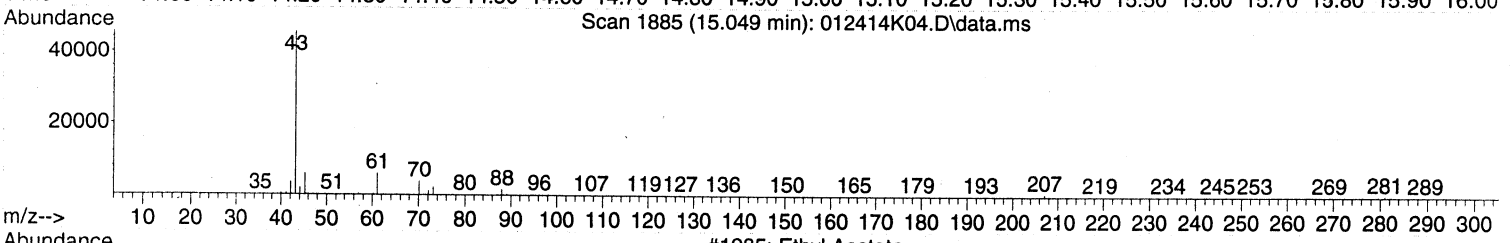
Quantitation Report (Qedit)

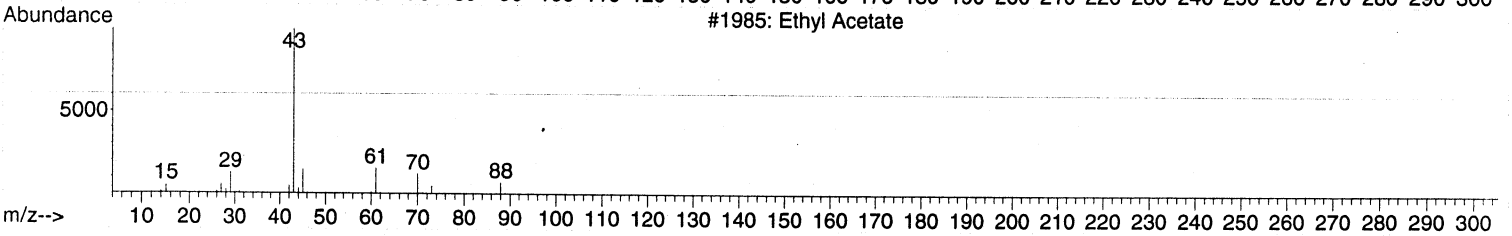
Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K04.D
Acq On : 24 Jan 2014 12:10
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL2
Misc : 2.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 12:49:30 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:49:22 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M







TIC: 012414K04.D\data.ms

(26) Ethyl acetate (T)

15.049min (+0.006) 2.25 ppbv m

response 144837

Ion	Exp%	Act%
43.10	100	100
61.00	14.80	0.00#
70.00	9.30	0.00
0.00	0.00	0.00

MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other:
☑ After Manual Integration
Manual integration(s) performed by:
Analyst: EM Date: 1/28/14
Manual integration(s) reviewed by:
Reviewer: AR Date: 1/28/14

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K04.D
Acq On : 24 Jan 2014 12:10
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL2
Misc : 2.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 12:49:30 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:49:22 2014
Response via : Initial Calibration

All RI
em 1/25/14

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.438	49	843979	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2231980	22.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.355	117	2067465	22.00	ppbv	0.00
Target Compounds						Qvalue
2) Propene	4.372	41	53251	2.26	ppbv	99
3) Dichlorodifluoromethane	4.464	85	143479	2.19	ppbv	100
4) 1,2-Dichlorotetrafluor...	4.816	85	144608	2.15	ppbv	98
5) Chloromethane	5.011	50	60578	2.22	ppbv	99
6) Vinyl chloride	5.333	62	62473	2.12	ppbv	97
7) 1,3-Butadiene	5.431	54	45222	2.07	ppbv	98
8) Bromomethane	6.362	94	46993	2.13	ppbv	99
9) Chloroethane	6.696	64	32860	2.13	ppbv	100
10) Bromoethene	7.268	106	43403	2.11	ppbv	97
11) Trichlorofluoromethane	7.402	101	124411	2.20	ppbv	99
12) 1,1,2-Trichloro-1,2,2-...	9.221	151	79492	2.00	ppbv	98
13) 1,1-Dichloroethene	9.306	61	83773	1.95	ppbv	98
14) Acetone	9.848	43	87996	2.30	ppbv	99
15) Carbon disulfide	10.018	76	133493	2.11	ppbv	92
16) 2-Propanol	10.486	45	76302	1.95	ppbv	92
17) Allyl chloride	10.845	41	64937	2.06	ppbv	96
18) Dichloromethane	11.381	49	81247	2.19	ppbv	99
19) tert-Butyl methyl ethe...	12.098	73	142326	2.25	ppbv	99
20) trans-1,2-Dichloroethene	12.105	61	69398	1.97	ppbv	99
21) Hexane	12.719	57	88418	2.06	ppbv	97
22) 1,1-Dichloroethane	13.455	63	105590	2.02	ppbv	99
23) Vinyl acetate	13.607	43	110965	1.96	ppbv	100
24) cis-1,2-Dichloroethene	14.903	61	79028	2.06	ppbv	99
25) 2-Butanone (MEK)	15.012	43	105068	2.11	ppbv	95
26) Ethyl acetate	15.012	43	105039	1.63	ppbv #	68
27) Tetrahydrofuran	15.475	42	70986	2.12	ppbv	100
28) Chloroform	15.603	83	112487	2.11	ppbv	99
29) Cyclohexane	15.834	56	93632	2.13	ppbv	100
30) 1,1,1-Trichloroethane	15.889	97	109126	2.07	ppbv	100
31) Carbon tetrachloride	16.138	117	109611	2.15	ppbv	99
33) Benzene	16.631	78	183307	2.25	ppbv	100
34) 2,2,4-Trimethylpentane	16.594	57	283449	2.27	ppbv	99
35) 1,2-Dichloroethane	16.831	62	71391	2.17	ppbv	100
36) Heptane	16.977	43	106032	2.26	ppbv	97
37) Trichloroethene	17.866	130	70113	2.25	ppbv	99
38) 1,2-Dichloropropane	18.365	63	71811	2.32	ppbv	99
39) 1,4-Dioxane	18.584	88	31244	2.16	ppbv	97
40) Bromodichloromethane	18.827	83	117714	2.34	ppbv	99
41) cis-1,3-Dichloropropene	19.593	75	98040	2.25	ppbv	99
42) 4-Methyl-2-pentanone (...	19.843	43	139529	2.38	ppbv	99
44) Toluene	20.074	91	209790	2.75	ppbv	99
45) trans-1,3-Dichloropropene	20.542	75	91159	2.76	ppbv	97
46) 1,1,2-Trichloroethane	20.847	97	71737	2.86	ppbv	98
47) Tetrachloroethene	20.926	166	96554	2.73	ppbv	99
48) 2-Hexanone	21.193	43	123664	2.78	ppbv	100

00099

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K04.D
Acq On : 24 Jan 2014 12:10
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL2
Misc : 2.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 12:49:30 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:49:22 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Chlorodibromomethane	21.455	129	107602	2.80	ppbv	100
50) 1,2-Dibromoethane (EDB)	21.680	107	98328	2.81	ppbv	99
51) Chlorobenzene	22.404	112	163993	2.81	ppbv	93
52) Ethylbenzene	22.495	91	273214	2.73	ppbv	99
53) m&p-Xylene	22.678	91	406492	5.34	ppbv	99
54) o-Xylene	23.317	91	206436	2.75	ppbv	100
55) Styrene	23.359	104	159665	2.63	ppbv	100
56) Bromoform	23.730	173	107532	2.65	ppbv	98
57) 1,1,2,2-Tetrachloroethane	24.424	83	166640	2.80	ppbv	100
58) 4-Ethyltoluene	24.673	105	268734	2.78	ppbv	99
59) 1,3,5-Trimethylbenzene	24.764	105	229792	2.68	ppbv	98
60) 1,2,4-Trimethylbenzene	25.367	105	229159	2.67	ppbv	100
61) 1,3-Dichlorobenzene	25.896	146	156071	2.62	ppbv	100
62) 1,4-Dichlorobenzene	26.042	146	150567	2.60	ppbv	99
63) Benzyl chloride	26.255	91	171775	2.66	ppbv	98
64) 1,2-Dichlorobenzene	26.650	146	152588	2.64	ppbv	100
65) 1,2,4-Trichlorobenzene	29.108	180	132867	2.37	ppbv	100
66) Hexachlorobutadiene	29.248	225	132278	2.77	ppbv	98

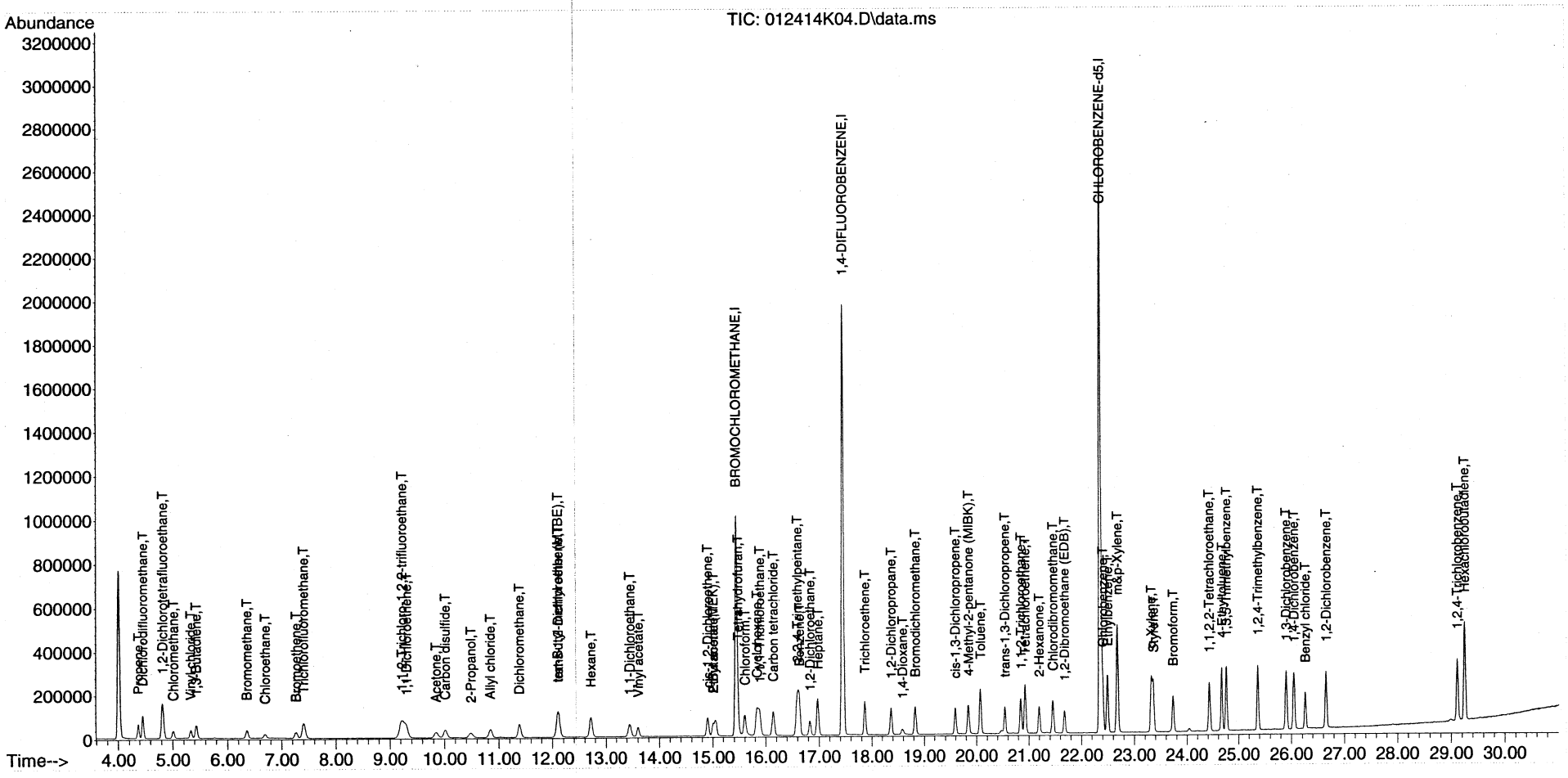
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K04.D
Acq On : 24 Jan 2014 12:10
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL2
Misc : 2.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 12:49:30 2014
Quant Title : TO15
QLast Update : Fri Jan 24 12:49:22 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K05.D
Acq On : 24 Jan 2014 12:57
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL3
Misc : 5.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 14:48:38 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:47:54 2014
Response via : Initial Calibration

MANUAL INTEGRATION VERIFICATION

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: lm Date: 1/25/14

Manual integration(s) reviewed by:

Reviewer: JL Date: 1/28/14

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.438	49	847034	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2220261	22.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.355	117	2069734	22.00	ppbv	0.00
Target Compounds						Qvalue
2) Propene	4.372	41	125098	4.81	ppbv	98
3) Dichlorodifluoromethane	4.464	85	337174	4.76	ppbv	100
4) 1,2-Dichlorotetrafluor...	4.810	85	343159	4.83	ppbv	98
5) Chloromethane	5.011	50	144204	4.87	ppbv	100
6) Vinyl chloride	5.333	62	152977	4.92	ppbv	100
7) 1,3-Butadiene	5.431	54	110454	4.80	ppbv	100
8) Bromomethane	6.362	94	110794	4.76	ppbv	99
9) Chloroethane	6.696	64	77796	4.80	ppbv	99
10) Bromoethene	7.262	106	103074	4.80	ppbv	100
11) Trichlorofluoromethane	7.402	101	298488	5.01	ppbv	99
12) 1,1,2-Trichloro-1,2,2-...	9.215	151	187827	4.50	ppbv	100
13) 1,1-Dichloroethene	9.306	61	206774	4.56	ppbv	100
14) Acetone	9.823	43	204201	4.98	ppbv	99
15) Carbon disulfide	10.018	76	318891	4.77	ppbv	99
16) 2-Propanol	10.456	45	185395	4.51	ppbv	97
17) Allyl chloride	10.839	41	161627	4.91	ppbv	100
18) Dichloromethane	11.381	49	175110	4.13	ppbv	99
19) tert-Butyl methyl ethe...	12.086	73	352726	5.39	ppbv	99
20) trans-1,2-Dichloroethene	12.111	61	169959	4.62	ppbv	100
21) Hexane	12.719	57	221897	5.01	ppbv	99
22) 1,1-Dichloroethane	13.449	63	253260	4.59	ppbv	100
23) Vinyl acetate	13.601	43	287755	5.01	ppbv	99
24) cis-1,2-Dichloroethene	14.903	61	194328	4.86	ppbv	99
25) 2-Butanone (MEK)	15.000	43	269141	5.40	ppbv	96
26) Ethyl acetate	15.049	43	347326m	5.10	ppbv	
27) Tetrahydrofuran	15.463	42	176186	5.06	ppbv	100
28) Chloroform	15.596	83	269115	4.86	ppbv	99
29) Cyclohexane	15.834	56	230630	5.11	ppbv	100
30) 1,1,1-Trichloroethane	15.882	97	266803	4.90	ppbv	99
31) Carbon tetrachloride	16.144	117	259188	4.90	ppbv	99
33) Benzene	16.631	78	437938	4.84	ppbv	100
34) 2,2,4-Trimethylpentane	16.594	57	711155	5.23	ppbv	100
35) 1,2-Dichloroethane	16.831	62	172879	4.73	ppbv	100
36) Heptane	16.977	43	268444	5.21	ppbv	99
37) Trichloroethene	17.866	130	166240	4.82	ppbv	99
38) 1,2-Dichloropropane	18.358	63	171415	4.93	ppbv	100
39) 1,4-Dioxane	18.565	88	84888	5.56	ppbv	99
40) Bromodichloromethane	18.827	83	285717	5.13	ppbv	100
41) cis-1,3-Dichloropropene	19.593	75	240347	5.05	ppbv	100
42) 4-Methyl-2-pentanone (...	19.831	43	352535	5.38	ppbv	100
44) Toluene	20.074	91	508200	4.97	ppbv	99
45) trans-1,3-Dichloropropene	20.542	75	227087	5.22	ppbv	98
46) 1,1,2-Trichloroethane	20.847	97	171031	5.01	ppbv	99
47) Tetrachloroethene	20.926	166	228261	4.78	ppbv	100
48) 2-Hexanone	21.187	43	316540	5.28	ppbv	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K05.D
Acq On : 24 Jan 2014 12:57
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL3
Misc : 5.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 14:48:38 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:47:54 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49)	Chlorodibromomethane	21.455	129	260438	5.06	ppbv	99
50)	1,2-Dibromoethane (EDB)	21.680	107	238487	5.08	ppbv	99
51)	Chlorobenzene	22.404	112	390072	4.97	ppbv	98
52)	Ethylbenzene	22.489	91	667267	4.99	ppbv	99
53)	m&p-Xylene	22.678	91	1014125	10.17	ppbv	100
54)	o-Xylene	23.323	91	506388	5.11	ppbv	100
55)	Styrene	23.359	104	402796	5.09	ppbv	99
56)	Bromoform	23.730	173	267829	5.11	ppbv	99
57)	1,1,2,2-Tetrachloroethane	24.424	83	397895	4.96	ppbv	99
58)	4-Ethyltoluene	24.673	105	669029	5.29	ppbv	100
59)	1,3,5-Trimethylbenzene	24.764	105	574314	5.12	ppbv	99
60)	1,2,4-Trimethylbenzene	25.367	105	564225	5.04	ppbv	99
61)	1,3-Dichlorobenzene	25.896	146	375525	4.80	ppbv	99
62)	1,4-Dichlorobenzene	26.042	146	370759	4.89	ppbv	100
63)	Benzyl chloride	26.261	91	439427	5.25	ppbv	100
64)	1,2-Dichlorobenzene	26.650	146	370835	4.84	ppbv	100
65)	1,2,4-Trichlorobenzene	29.108	180	321862	4.38	ppbv	99
66)	Hexachlorobutadiene	29.248	225	315206	4.82	ppbv	99

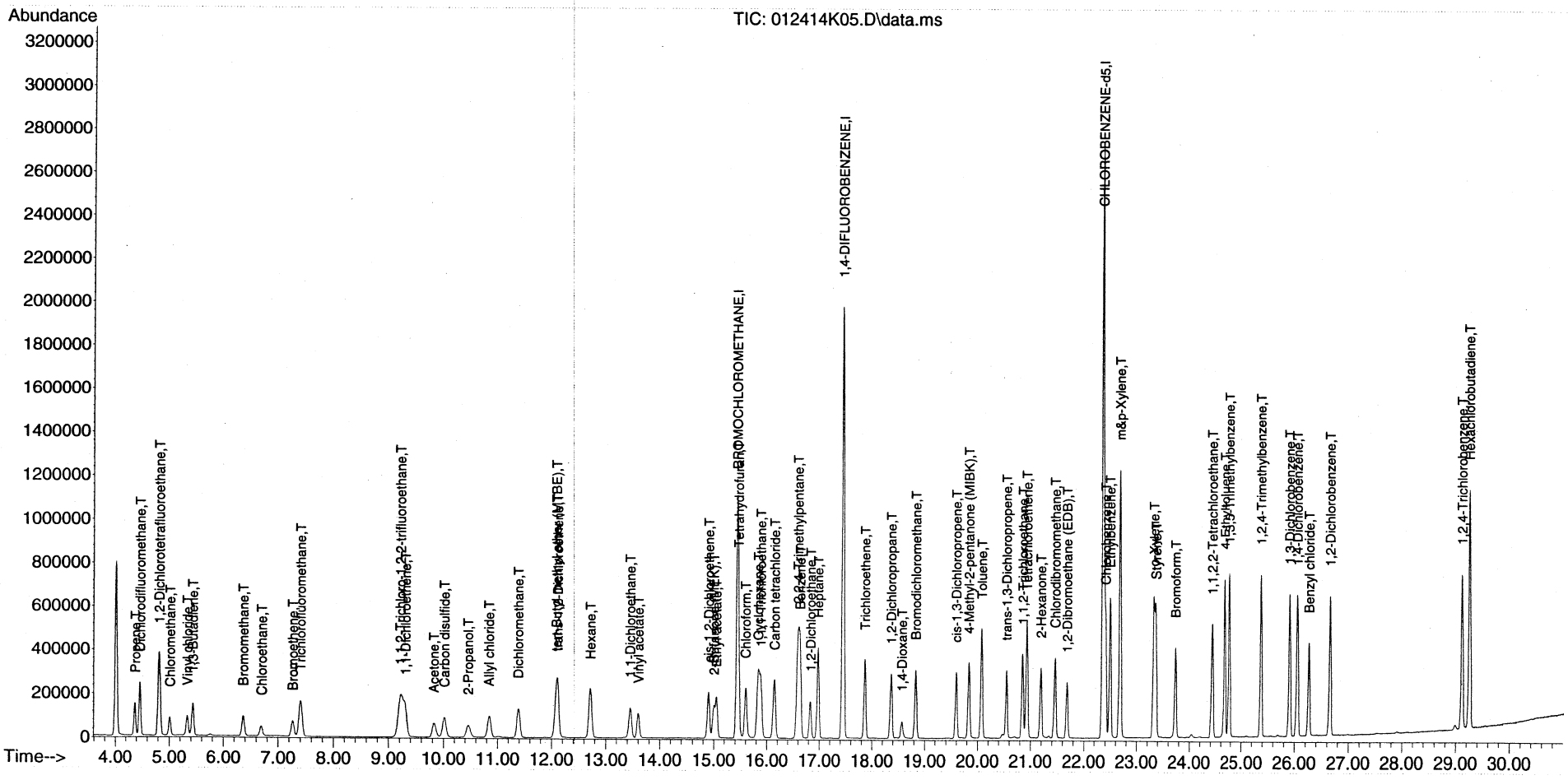
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K05.D
Acq On : 24 Jan 2014 12:57
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL3
Misc : 5.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 14:48:38 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:47:54 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

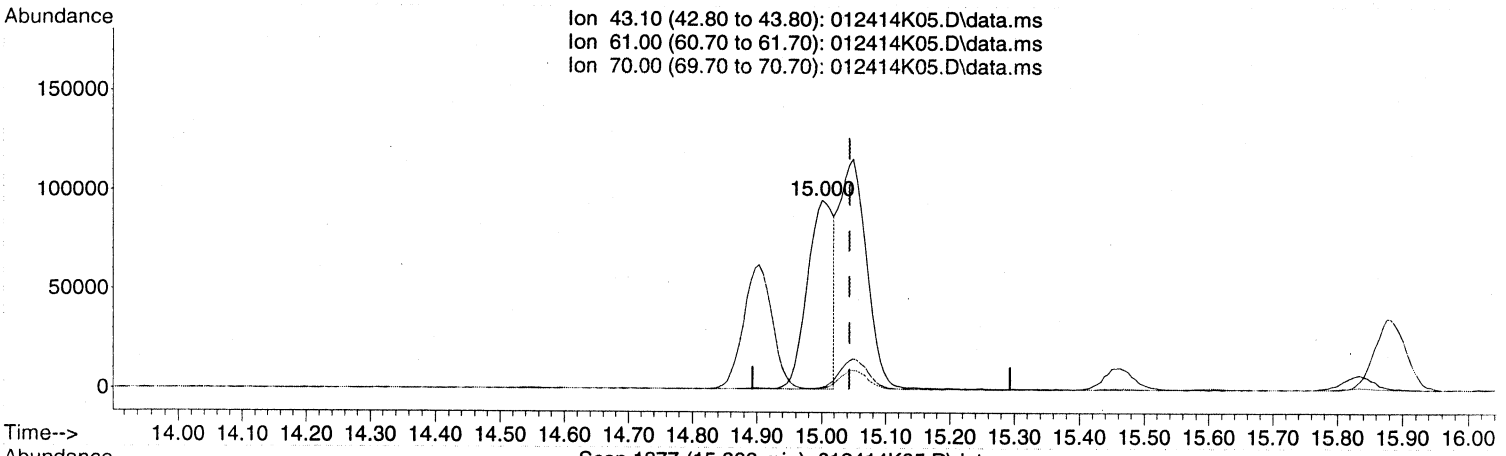


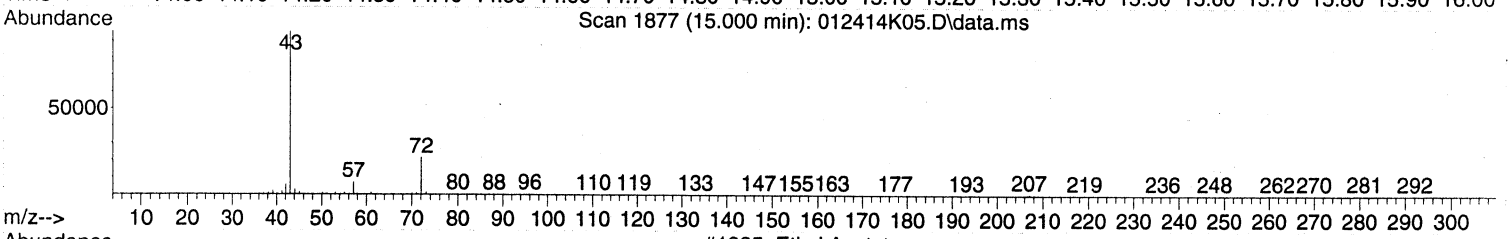
Quantitation Report (Qedit)

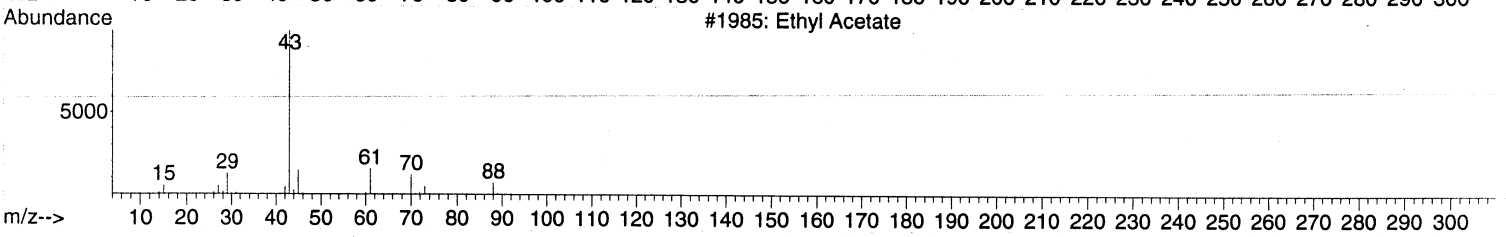
Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K05.D
Acq On : 24 Jan 2014 12:57
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL3
Misc : 5.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 14:48:21 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:47:54 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M







TIC: 012414K05.D\data.ms

(26) Ethyl acetate (T)

15.000min (-0.043) 3.96 ppbv

response 269141

Ion	Exp%	Act%
43.10	100	100
61.00	14.80	0.00#
70.00	9.30	0.00
0.00	0.00	0.00

MANUAL INTEGRATION VERIFICATION

☑ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☑ Other: RT off

☐ After Manual Integration

Manual integration(s) performed by

Analyst: _____ Date: _____

Manual integration(s) reviewed by:

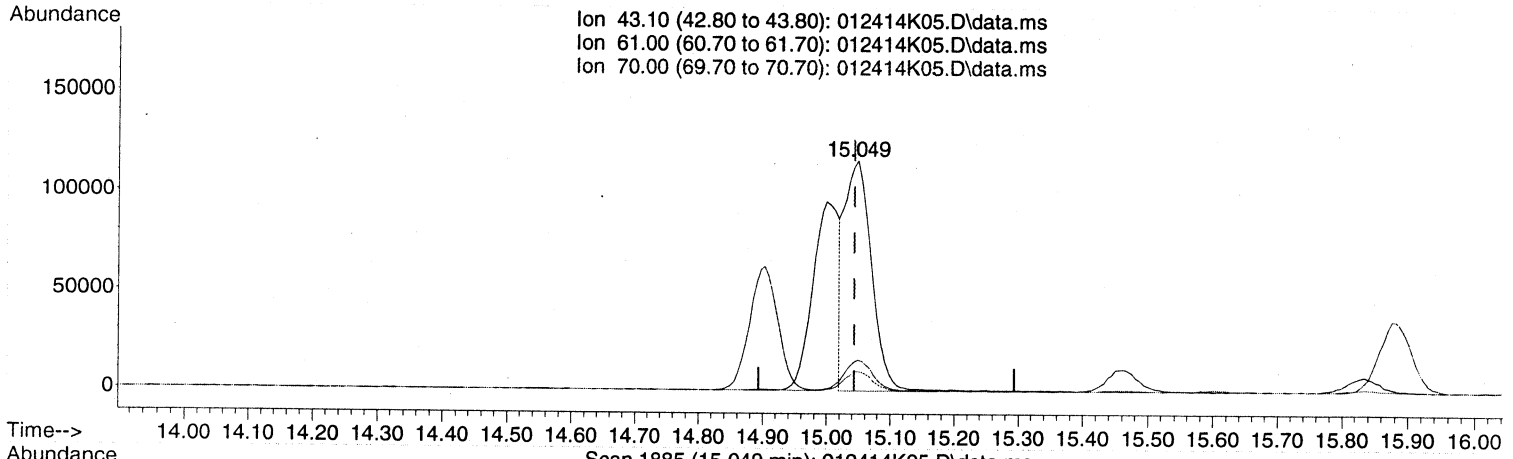
Reviewer: _____ Date: _____

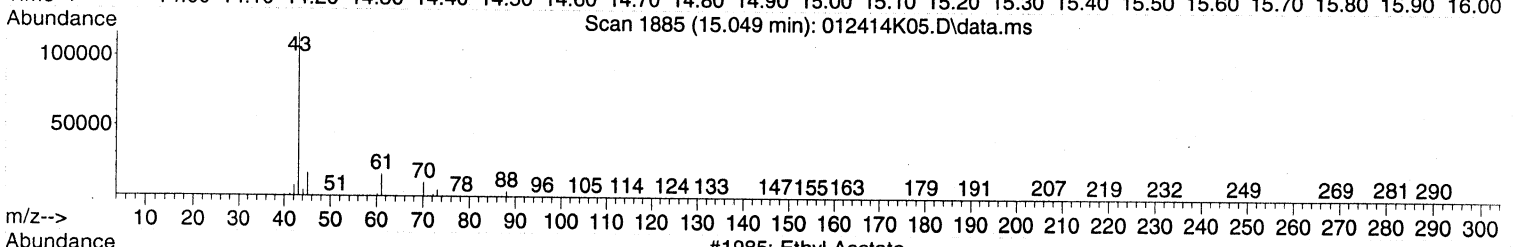
Quantitation Report (Qedit)

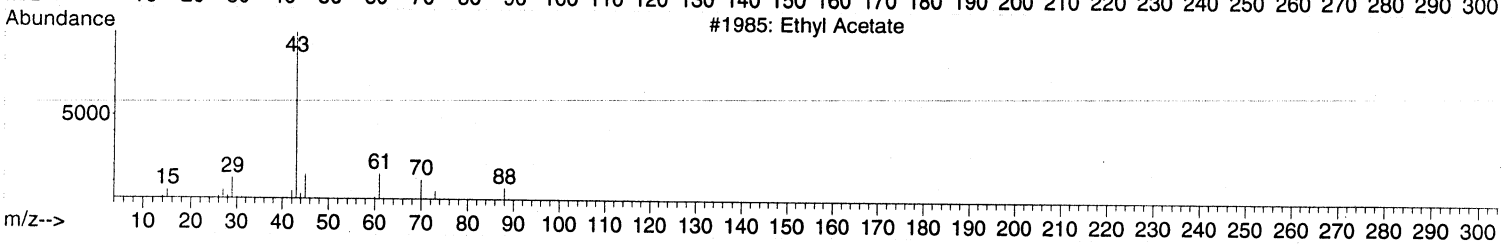
Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K05.D
Acq On : 24 Jan 2014 12:57
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL3
Misc : 5.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 14:48:21 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:47:54 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M







TIC: 012414K05.D\data.ms

(26) Ethyl acetate (T)

15.049min (+0.006) 5.10 ppbv m

response 347326

Ion	Exp%	Act%
43.10	100	100
61.00	14.80	0.00#
70.00	9.30	0.00
0.00	0.00	0.00

MANUAL INTEGRATION VERIFICATION

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EM Date: 1/25/14

Manual integration(s) reviewed by:

Reviewer: JL Date: 1/28/14

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K05.D
Acq On : 24 Jan 2014 12:57
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL3
Misc : 5.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 14:48:21 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:47:54 2014
Response via : Initial Calibration

All MI
em 1/25/14

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) BROMOCHLOROMETHANE	15.438	49	847034	22.00	ppbv		0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2220261	22.00	ppbv		0.00
43) CHLOROBENZENE-d5	22.355	117	2069734	22.00	ppbv		0.00
Target Compounds							Qvalue
2) Propene	4.372	41	125098	4.81	ppbv		98
3) Dichlorodifluoromethane	4.464	85	337174	4.76	ppbv		100
4) 1,2-Dichlorotetrafluor...	4.810	85	343159	4.83	ppbv		98
5) Chloromethane	5.011	50	144204	4.87	ppbv		100
6) Vinyl chloride	5.333	62	152977	4.92	ppbv		100
7) 1,3-Butadiene	5.431	54	110454	4.80	ppbv		100
8) Bromomethane	6.362	94	110794	4.76	ppbv		99
9) Chloroethane	6.696	64	77796	4.80	ppbv		99
10) Bromoethene	7.262	106	103074	4.80	ppbv		100
11) Trichlorofluoromethane	7.402	101	298488	5.01	ppbv		99
12) 1,1,2-Trichloro-1,2,2-...	9.215	151	187827	4.50	ppbv		100
13) 1,1-Dichloroethene	9.306	61	206774	4.56	ppbv		100
14) Acetone	9.823	43	204201	4.98	ppbv		99
15) Carbon disulfide	10.018	76	318891	4.77	ppbv		99
16) 2-Propanol	10.456	45	185395	4.51	ppbv		97
17) Allyl chloride	10.839	41	161627	4.91	ppbv		100
18) Dichloromethane	11.381	49	175110	4.13	ppbv		99
19) tert-Butyl methyl ethe...	12.086	73	352726	5.39	ppbv		99
20) trans-1,2-Dichloroethene	12.111	61	169959	4.62	ppbv		100
21) Hexane	12.719	57	221897	5.01	ppbv		99
22) 1,1-Dichloroethane	13.449	63	253260	4.59	ppbv		100
23) Vinyl acetate	13.601	43	287755	5.01	ppbv		99
24) cis-1,2-Dichloroethene	14.903	61	194328	4.86	ppbv		99
25) 2-Butanone (MEK)	15.000	43	269141	5.40	ppbv		96
26) Ethyl acetate	15.000	43	269141	3.96	ppbv	#	68
27) Tetrahydrofuran	15.463	42	176186	5.06	ppbv		100
28) Chloroform	15.596	83	269115	4.86	ppbv		99
29) Cyclohexane	15.834	56	230630	5.11	ppbv		100
30) 1,1,1-Trichloroethane	15.882	97	266803	4.90	ppbv		99
31) Carbon tetrachloride	16.144	117	259188	4.90	ppbv		99
33) Benzene	16.631	78	437938	4.84	ppbv		100
34) 2,2,4-Trimethylpentane	16.594	57	711155	5.23	ppbv		100
35) 1,2-Dichloroethane	16.831	62	172879	4.73	ppbv		100
36) Heptane	16.977	43	268444	5.21	ppbv		99
37) Trichloroethene	17.866	130	166240	4.82	ppbv		99
38) 1,2-Dichloropropane	18.358	63	171415	4.93	ppbv		100
39) 1,4-Dioxane	18.565	88	84888	5.56	ppbv		99
40) Bromodichloromethane	18.827	83	285717	5.13	ppbv		100
41) cis-1,3-Dichloropropene	19.593	75	240347	5.05	ppbv		100
42) 4-Methyl-2-pentanone (...	19.831	43	352535	5.38	ppbv		100
44) Toluene	20.074	91	508200	4.97	ppbv		99
45) trans-1,3-Dichloropropene	20.542	75	227087	5.22	ppbv		98
46) 1,1,2-Trichloroethane	20.847	97	171031	5.01	ppbv		99
47) Tetrachloroethene	20.926	166	228261	4.78	ppbv		100
48) 2-Hexanone	21.187	43	316540	5.28	ppbv		99

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K05.D
Acq On : 24 Jan 2014 12:57
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL3
Misc : 5.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 14:48:21 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:47:54 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49)	Chlorodibromomethane	21.455	129	260438	5.06	ppbv	99
50)	1,2-Dibromoethane (EDB)	21.680	107	238487	5.08	ppbv	99
51)	Chlorobenzene	22.404	112	390072	4.97	ppbv	98
52)	Ethylbenzene	22.489	91	667267	4.99	ppbv	99
53)	m&p-Xylene	22.678	91	1014125	10.17	ppbv	100
54)	o-Xylene	23.323	91	506388	5.11	ppbv	100
55)	Styrene	23.359	104	402796	5.09	ppbv	99
56)	Bromoform	23.730	173	267829	5.11	ppbv	99
57)	1,1,2,2-Tetrachloroethane	24.424	83	397895	4.96	ppbv	99
58)	4-Ethyltoluene	24.673	105	669029	5.29	ppbv	100
59)	1,3,5-Trimethylbenzene	24.764	105	574314	5.12	ppbv	99
60)	1,2,4-Trimethylbenzene	25.367	105	564225	5.04	ppbv	99
61)	1,3-Dichlorobenzene	25.896	146	375525	4.80	ppbv	99
62)	1,4-Dichlorobenzene	26.042	146	370759	4.89	ppbv	100
63)	Benzyl chloride	26.261	91	439427	5.25	ppbv	100
64)	1,2-Dichlorobenzene	26.650	146	370835	4.84	ppbv	100
65)	1,2,4-Trichlorobenzene	29.108	180	321862	4.38	ppbv	99
66)	Hexachlorobutadiene	29.248	225	315206	4.82	ppbv	99

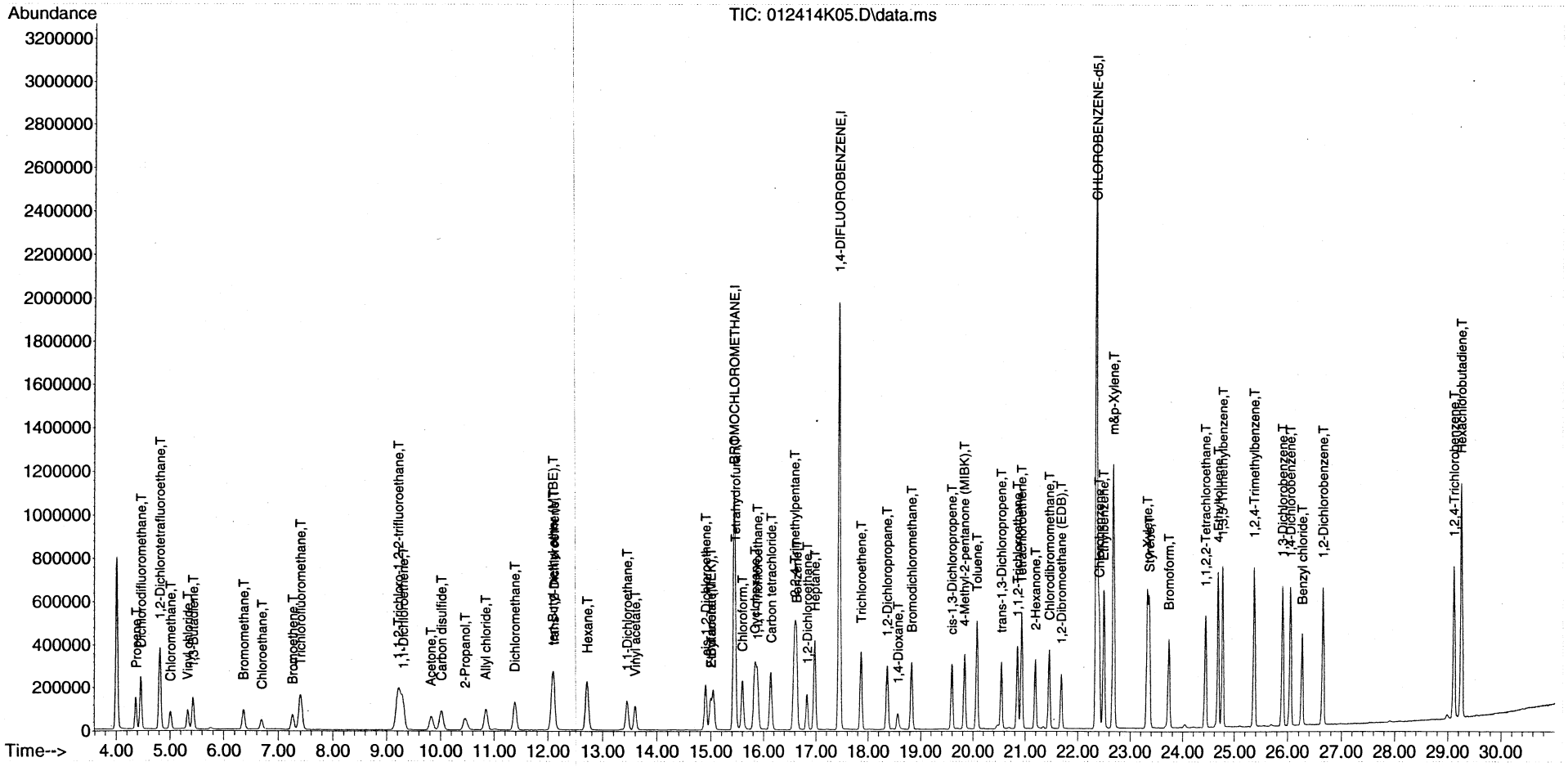
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K05.D
Acq On : 24 Jan 2014 12:57
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL3
Misc : 5.0 ppbv 1402081
ALS Vial : 33
Multiplier: 1

Quant Time: Jan 24 14:48:21 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:47:54 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K07.D
Acq On : 24 Jan 2014 14:35
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL6
Misc : 20 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 15:09:35 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:02:20 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

MANUAL INTEGRATION VERIFICATION

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by

Analyst: EM Date: 1/25/14

Manual integration(s) reviewed by:

Reviewer: [illegible] Date: 1/28/14

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.444	49	911927	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.452	114	2423118	22.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.355	117	2238196	22.00	ppbv	0.00
Target Compounds						Qvalue
2) Propene	4.372	41	521044	19.77	ppbv	100
3) Dichlorodifluoromethane	4.463	85	1311139	18.33	ppbv	100
4) 1,2-Dichlorotetrafluor...	4.816	85	1461016	19.91	ppbv	99
5) Chloromethane	5.011	50	602652	19.77	ppbv	100
6) Vinyl chloride	5.333	62	654934	20.24	ppbv	99
7) 1,3-Butadiene	5.437	54	485924	20.07	ppbv	100
8) Bromomethane	6.362	94	469401	19.54	ppbv	99
9) Chloroethane	6.690	64	330445	19.67	ppbv	99
10) Bromoethene	7.262	106	448331	20.00	ppbv	99
11) Trichlorofluoromethane	7.408	101	1259854	20.37	ppbv	99
12) 1,1,2-Trichloro-1,2,2-...	9.215	151	808648	18.67	ppbv	98
13) 1,1-Dichloroethene	9.300	61	902427	18.88	ppbv	100
14) Acetone	9.817	43	864417	20.25	ppbv	99
15) Carbon disulfide	10.018	76	1364032	19.59	ppbv	100
16) 2-Propanol	10.438	45	828250	18.96	ppbv	98
17) Allyl chloride	10.845	41	711272	20.17	ppbv	100
18) Dichloromethane	11.387	49	696167	16.92	ppbv	99
19) tert-Butyl methyl ethe...	12.074	73	1567538	22.13	ppbv	99
20) trans-1,2-Dichloroethene	12.111	61	722563	18.54	ppbv	99
21) Hexane	12.719	57	967172	20.33	ppbv	99
22) 1,1-Dichloroethane	13.449	63	1081986	18.75	ppbv	99
23) Vinyl acetate	13.595	43	1328447	20.95	ppbv	99
24) cis-1,2-Dichloroethene	14.903	61	844394	19.92	ppbv	99
25) 2-Butanone (MEK)	14.994	43	1163614	21.24	ppbv	94
26) Ethyl acetate	15.043	43	1541832m	21.89	ppbv	
27) Tetrahydrofuran	15.450	42	761754	20.41	ppbv	100
28) Chloroform	15.602	83	1155436	19.82	ppbv	100
29) Cyclohexane	15.834	56	1005839	20.76	ppbv	99
30) 1,1,1-Trichloroethane	15.882	97	1147239	19.85	ppbv	99
31) Carbon tetrachloride	16.144	117	1145137	20.43	ppbv	100
33) Benzene	16.631	78	1886512	19.54	ppbv	100
34) 2,2,4-Trimethylpentane	16.594	57	3149645	21.12	ppbv	99
35) 1,2-Dichloroethane	16.831	62	736558	18.89	ppbv	100
36) Heptane	16.977	43	1190463	21.12	ppbv	99
37) Trichloroethene	17.866	130	727641	19.72	ppbv	99
38) 1,2-Dichloropropane	18.364	63	731003	19.78	ppbv	100
39) 1,4-Dioxane	18.553	88	403750	22.90	ppbv	99
40) Bromodichloromethane	18.827	83	1236698	20.67	ppbv	100
41) cis-1,3-Dichloropropene	19.593	75	1071037	20.63	ppbv	99
42) 4-Methyl-2-pentanone (...	19.831	43	1568954	21.50	ppbv	99
44) Toluene	20.074	91	2256642	20.45	ppbv	100
45) trans-1,3-Dichloropropene	20.542	75	1046946	22.04	ppbv	100
46) 1,1,2-Trichloroethane	20.847	97	738604	20.26	ppbv	99
47) Tetrachloroethene	20.932	166	1023965	20.02	ppbv	100
48) 2-Hexanone	21.181	43	1464517	21.74	ppbv	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K07.D
Acq On : 24 Jan 2014 14:35
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL6
Misc : 20 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 15:09:35 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:02:20 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49)	Chlorodibromomethane	21.455	129	1165618	20.98	ppbv	99
50)	1,2-Dibromoethane (EDB)	21.680	107	1041669	20.54	ppbv	99
51)	Chlorobenzene	22.404	112	1717998	20.54	ppbv	98
52)	Ethylbenzene	22.495	91	3015746	20.75	ppbv	100
53)	m&p-Xylene	22.678	91	4793848	43.21	ppbv	100
54)	o-Xylene	23.323	91	2359839	21.56	ppbv	100
55)	Styrene	23.359	104	1924268	21.64	ppbv	100
56)	Bromoform	23.736	173	1286997	22.01	ppbv	99
57)	1,1,2,2-Tetrachloroethane	24.430	83	1764245	20.41	ppbv	100
58)	4-Ethyltoluene	24.673	105	3162118	22.34	ppbv	100
59)	1,3,5-Trimethylbenzene	24.764	105	2771126	22.09	ppbv	100
60)	1,2,4-Trimethylbenzene	25.367	105	2742334	21.79	ppbv	100
61)	1,3-Dichlorobenzene	25.902	146	1830560	21.07	ppbv	99
62)	1,4-Dichlorobenzene	26.048	146	1810189	21.30	ppbv	99
63)	Benzyl chloride	26.261	91	2099717	22.18	ppbv	100
64)	1,2-Dichlorobenzene	26.650	146	1760927	20.82	ppbv	100
65)	1,2,4-Trichlorobenzene	29.114	180	1692540	20.28	ppbv	100
66)	Hexachlorobutadiene	29.254	225	1400097	19.39	ppbv	100

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

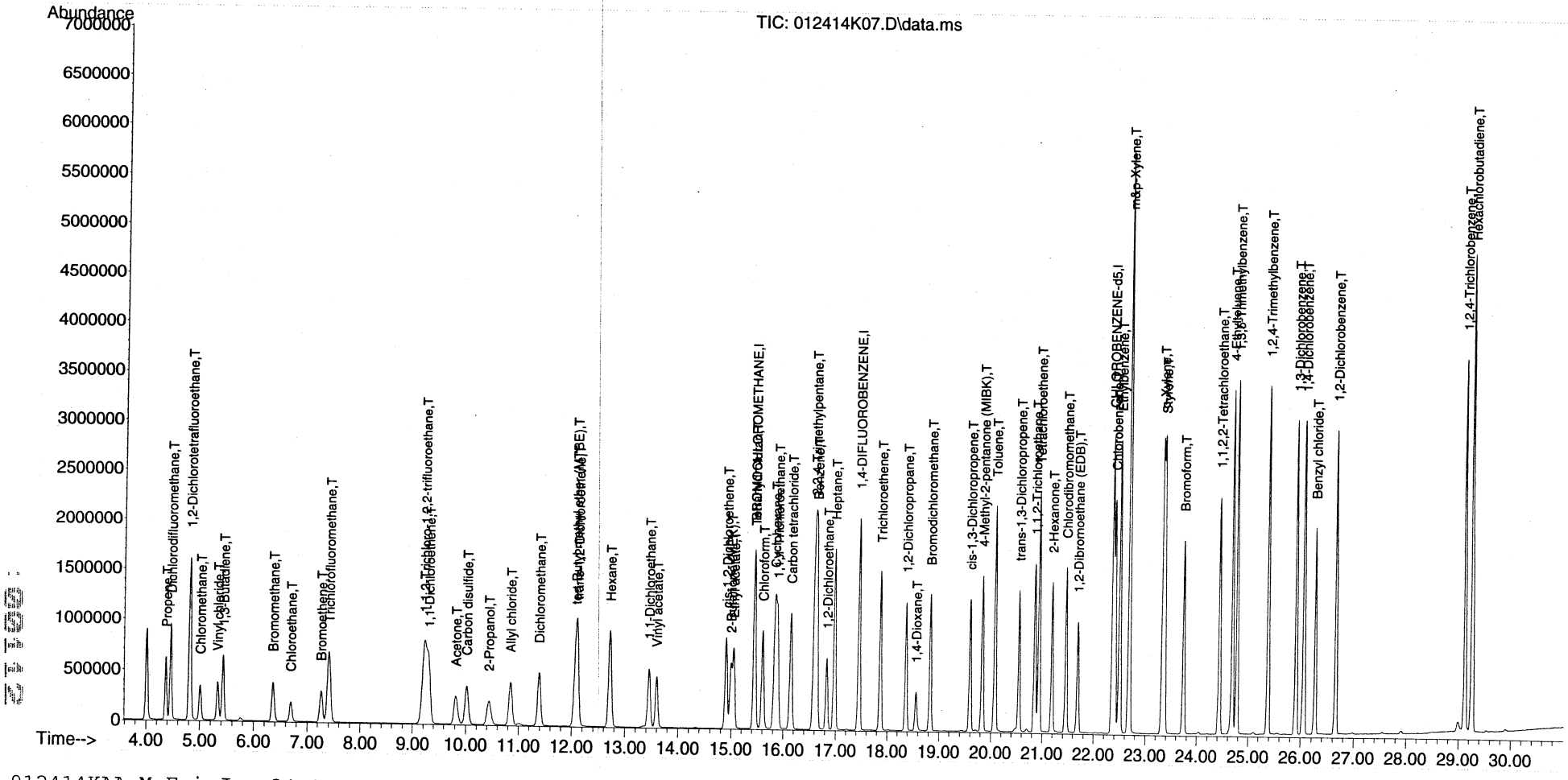
00111

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K07.D
Acq On : 24 Jan 2014 14:35
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL6
Misc : 20 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 15:09:35 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:02:20 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

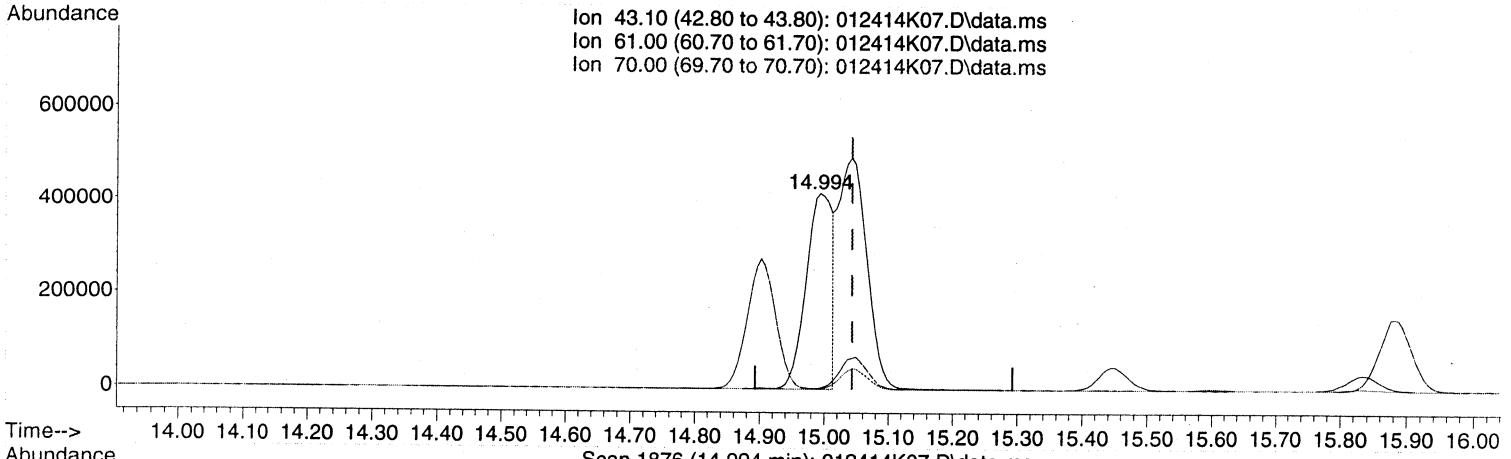


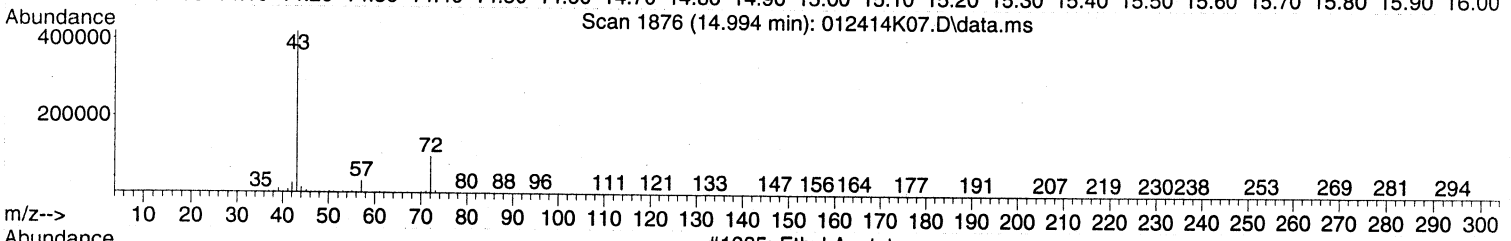
Quantitation Report (Qedit)

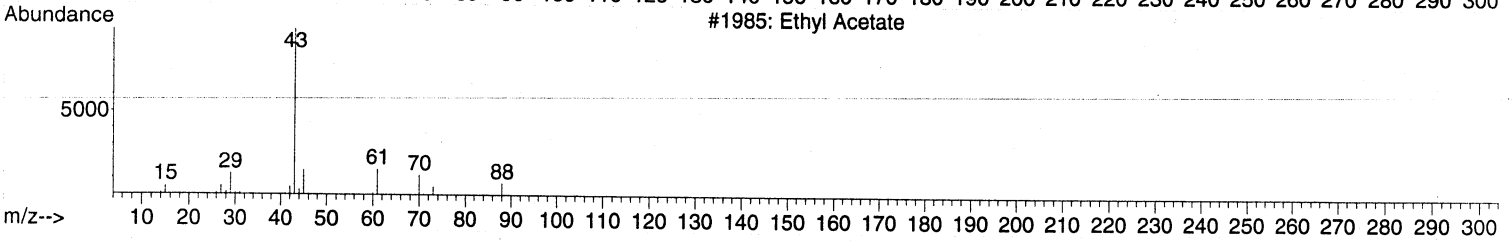
Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K07.D
Acq On : 24 Jan 2014 14:35
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL6
Misc : 20 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 15:09:21 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:02:20 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M







TIC: 012414K07.D\data.ms

(26) Ethyl acetate (T)

14.994min (-0.049) 16.52 ppbv

response 1163539

Ion	Exp%	Act%
43.10	100	100
61.00	14.80	0.00#
70.00	9.30	0.00
0.00	0.00	0.00

MANUAL INTEGRATION VERIFICATION

☑ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☑ Other: RT off

☐ After Manual Integration

Manual integration(s) performed by:

Analyst: _____ Date: _____

Manual integration(s) reviewed by:

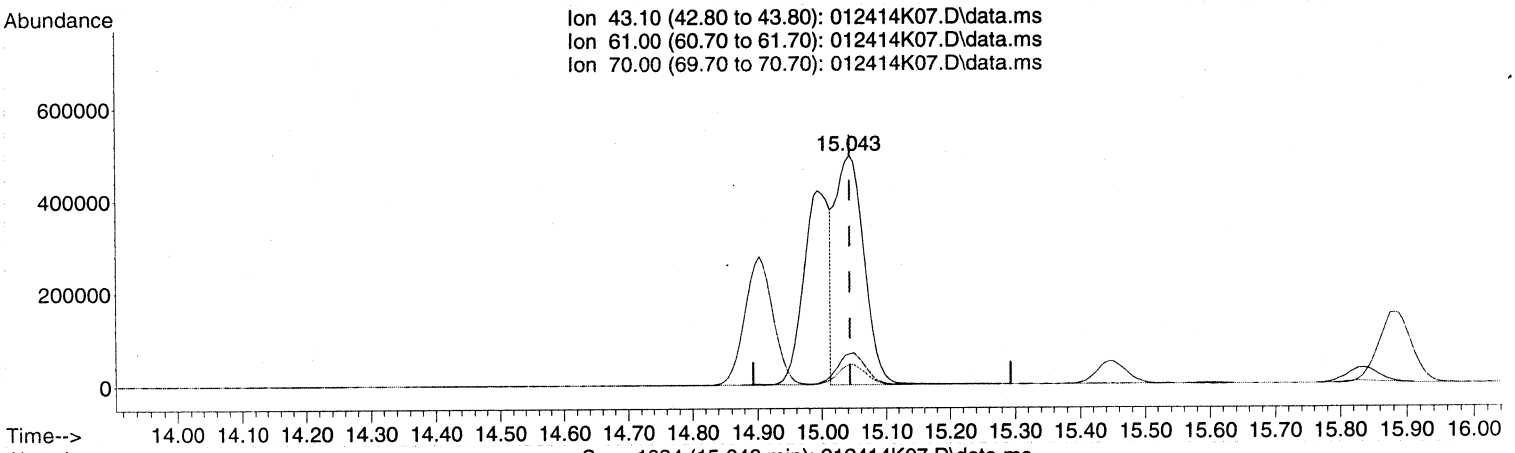
Reviewer: _____ Date: _____

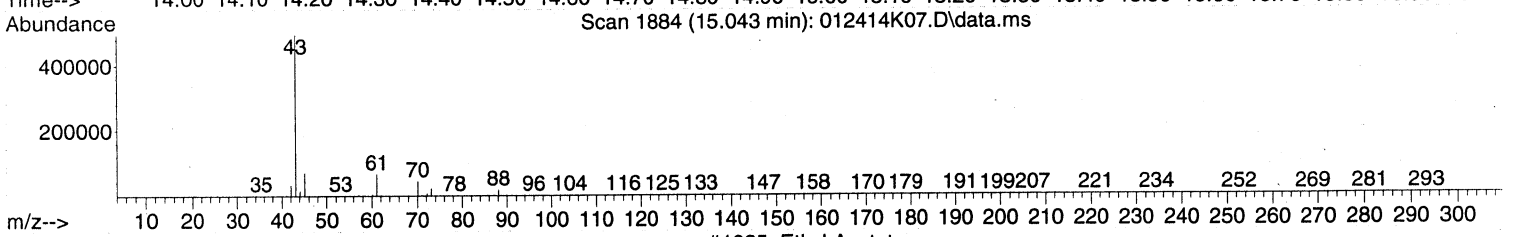
Quantitation Report (Qedit)

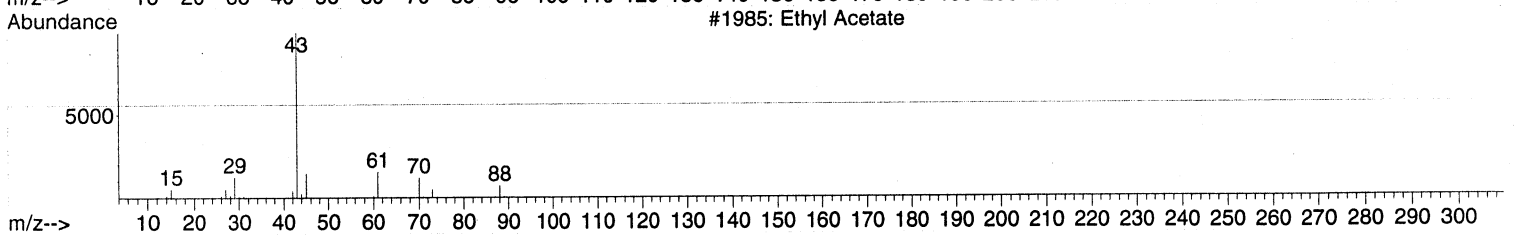
Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K07.D
Acq On : 24 Jan 2014 14:35
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL6
Misc : 20 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 15:09:21 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:02:20 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M







TIC: 012414K07.D\data.ms

(26) Ethyl acetate (T)

15.043min (-0.000) 21.89 ppbv m

response 1541832

Ion	Exp%	Act%
43.10	100	100
61.00	14.80	0.00#
70.00	9.30	0.00
0.00	0.00	0.00

MANUAL INTEGRATION VERIFICATION

☐ Before Manual Integration(s) (not used)

Peak integrated due to being

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by

Analyst: EM Date: 1/27/14

Manual integration(s) reviewed by:

Reviewer: [illegible] Date: 1/28/14

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K07.D
Acq On : 24 Jan 2014 14:35
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL6
Misc : 20 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 15:09:21 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:02:20 2014
Response via : Initial Calibration

Rel MT
em 1/25/14

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.444	49	911927	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.452	114	2423118	22.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.355	117	2238196	22.00	ppbv	0.00
Target Compounds						Qvalue
2) Propene	4.372	41	521044	19.77	ppbv	100
3) Dichlorodifluoromethane	4.463	85	1311139	18.33	ppbv	100
4) 1,2-Dichlorotetrafluor...	4.816	85	1461016	19.91	ppbv	99
5) Chloromethane	5.011	50	602652	19.77	ppbv	100
6) Vinyl chloride	5.333	62	654934	20.24	ppbv	99
7) 1,3-Butadiene	5.437	54	485924	20.07	ppbv	100
8) Bromomethane	6.362	94	469401	19.54	ppbv	99
9) Chloroethane	6.690	64	330445	19.67	ppbv	99
10) Bromoethene	7.262	106	448331	20.00	ppbv	99
11) Trichlorofluoromethane	7.408	101	1259854	20.37	ppbv	99
12) 1,1,2-Trichloro-1,2,2-...	9.215	151	808648	18.67	ppbv	98
13) 1,1-Dichloroethene	9.300	61	902427	18.88	ppbv	100
14) Acetone	9.817	43	864417	20.25	ppbv	99
15) Carbon disulfide	10.018	76	1364032	19.59	ppbv	100
16) 2-Propanol	10.438	45	828250	18.96	ppbv	98
17) Allyl chloride	10.845	41	711272	20.17	ppbv	100
18) Dichloromethane	11.387	49	696167	16.92	ppbv	99
19) tert-Butyl methyl ethe...	12.074	73	1567538	22.13	ppbv	99
20) trans-1,2-Dichloroethene	12.111	61	722563	18.54	ppbv	99
21) Hexane	12.719	57	967172	20.33	ppbv	99
22) 1,1-Dichloroethane	13.449	63	1081986	18.75	ppbv	99
23) Vinyl acetate	13.595	43	1328447	20.95	ppbv	99
24) cis-1,2-Dichloroethene	14.903	61	844394	19.92	ppbv	99
25) 2-Butanone (MEK)	14.994	43	1163614	21.24	ppbv	94
26) Ethyl acetate	14.994	43	1163539	16.52	ppbv #	68
27) Tetrahydrofuran	15.450	42	761754	20.41	ppbv	100
28) Chloroform	15.602	83	1155436	19.82	ppbv	100
29) Cyclohexane	15.834	56	1005839	20.76	ppbv	99
30) 1,1,1-Trichloroethane	15.882	97	1147239	19.85	ppbv	99
31) Carbon tetrachloride	16.144	117	1145137	20.43	ppbv	100
33) Benzene	16.631	78	1886512	19.54	ppbv	100
34) 2,2,4-Trimethylpentane	16.594	57	3149645	21.12	ppbv	99
35) 1,2-Dichloroethane	16.831	62	736558	18.89	ppbv	100
36) Heptane	16.977	43	1190463	21.12	ppbv	99
37) Trichloroethene	17.866	130	727641	19.72	ppbv	99
38) 1,2-Dichloropropane	18.364	63	731003	19.78	ppbv	100
39) 1,4-Dioxane	18.553	88	403750	22.90	ppbv	99
40) Bromodichloromethane	18.827	83	1236698	20.67	ppbv	100
41) cis-1,3-Dichloropropene	19.593	75	1071037	20.63	ppbv	99
42) 4-Methyl-2-pentanone (...	19.831	43	1568954	21.50	ppbv	99
44) Toluene	20.074	91	2256642	20.45	ppbv	100
45) trans-1,3-Dichloropropene	20.542	75	1046946	22.04	ppbv	100
46) 1,1,2-Trichloroethane	20.847	97	738604	20.26	ppbv	99
47) Tetrachloroethene	20.932	166	1023965	20.02	ppbv	100
48) 2-Hexanone	21.181	43	1464517	21.74	ppbv	100

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K07.D
Acq On : 24 Jan 2014 14:35
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL6
Misc : 20 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 15:09:21 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:02:20 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49)	Chlorodibromomethane	21.455	129	1165618	20.98	ppbv	99
50)	1,2-Dibromoethane (EDB)	21.680	107	1041669	20.54	ppbv	99
51)	Chlorobenzene	22.404	112	1717998	20.54	ppbv	98
52)	Ethylbenzene	22.495	91	3015746	20.75	ppbv	100
53)	m&p-Xylene	22.678	91	4793848	43.21	ppbv	100
54)	o-Xylene	23.323	91	2359839	21.56	ppbv	100
55)	Styrene	23.359	104	1924268	21.64	ppbv	100
56)	Bromoform	23.736	173	1286997	22.01	ppbv	99
57)	1,1,2,2-Tetrachloroethane	24.430	83	1764245	20.41	ppbv	100
58)	4-Ethyltoluene	24.673	105	3162118	22.34	ppbv	100
59)	1,3,5-Trimethylbenzene	24.764	105	2771126	22.09	ppbv	100
60)	1,2,4-Trimethylbenzene	25.367	105	2742334	21.79	ppbv	100
61)	1,3-Dichlorobenzene	25.902	146	1830560	21.07	ppbv	99
62)	1,4-Dichlorobenzene	26.048	146	1810189	21.30	ppbv	99
63)	Benzyl chloride	26.261	91	2099717	22.18	ppbv	100
64)	1,2-Dichlorobenzene	26.650	146	1760927	20.82	ppbv	100
65)	1,2,4-Trichlorobenzene	29.114	180	1692540	20.28	ppbv	100
66)	Hexachlorobutadiene	29.254	225	1400097	19.39	ppbv	100

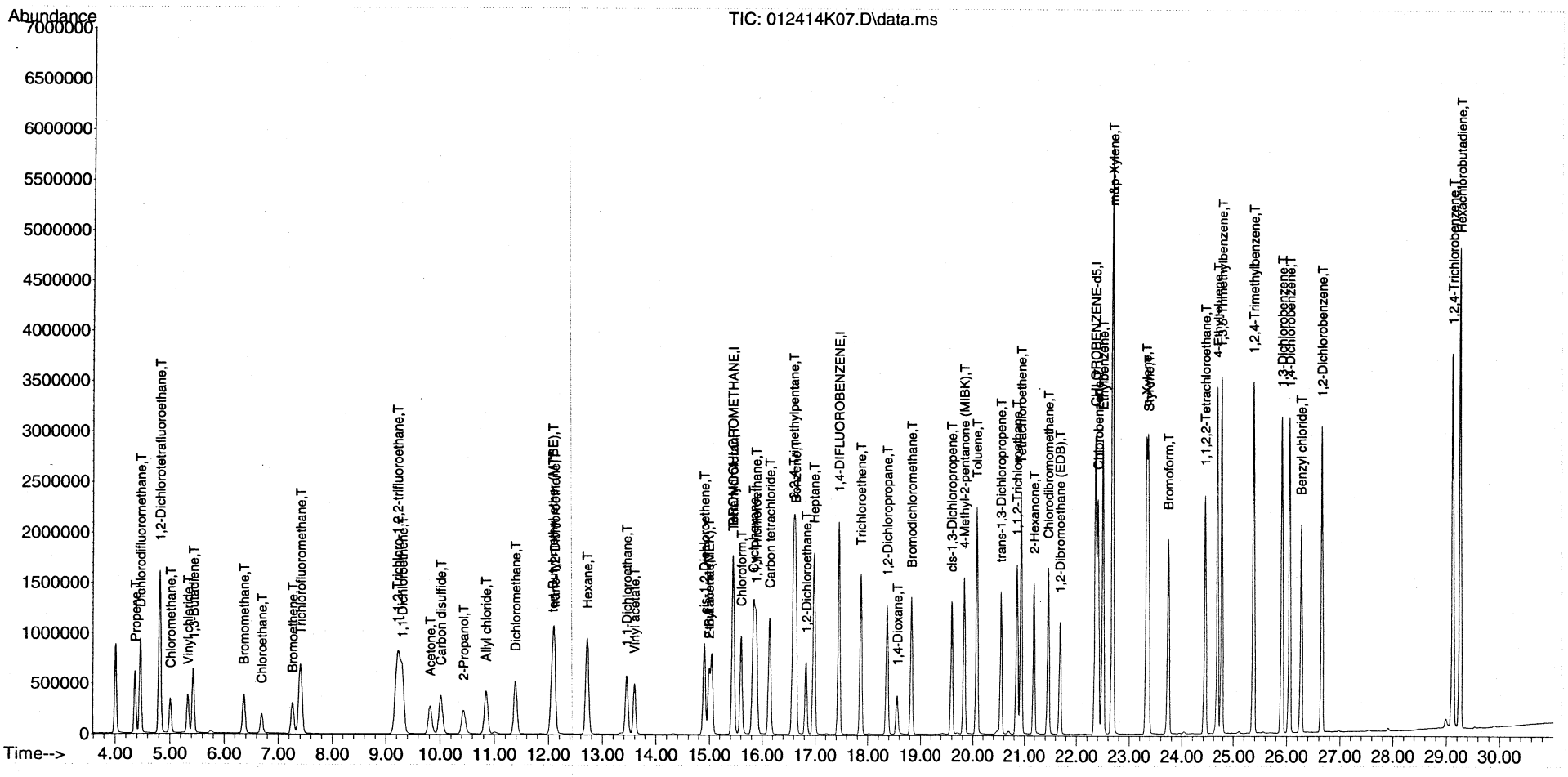
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K07.D
Acq On : 24 Jan 2014 14:35
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL6
Misc : 20 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 15:09:21 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:02:20 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K06.D
Acq On : 24 Jan 2014 13:46
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL5
Misc : 15 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 14:49:33 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:48:53 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other: _____
☑ After Manual Integration
Manual integration(s) performed by
Analyst: EM Date: 1/27/14
Manual integration(s) reviewed by:
Reviewer: [illegible] Date: 1/28/14

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) BROMOCHLOROMETHANE	15.444	49	873689	22.00 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.452	114	2308725	22.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.355	117	2127333	22.00 ppbv	0.00
Target Compounds					Qvalue
2) Propene	4.372	41	378273	14.47 ppbv	99
3) Dichlorodifluoromethane	4.463	85	982163	13.71 ppbv	99
4) 1,2-Dichlorotetrafluor...	4.816	85	1069478	14.89 ppbv	99
5) Chloromethane	5.011	50	438705	14.64 ppbv	99
6) Vinyl chloride	5.333	62	470123	14.90 ppbv	99
7) 1,3-Butadiene	5.437	54	348356	14.89 ppbv	100
8) Bromomethane	6.361	94	341889	14.52 ppbv	99
9) Chloroethane	6.690	64	238793	14.53 ppbv	100
10) Bromoethene	7.262	106	323876	14.88 ppbv	100
11) Trichlorofluoromethane	7.408	101	916992	15.15 ppbv	99
12) 1,1,2-Trichloro-1,2,2-...	9.227	151	578642	13.68 ppbv	99
13) 1,1-Dichloroethene	9.300	61	648849	14.05 ppbv	100
14) Acetone	9.817	43	632190	15.18 ppbv	100
15) Carbon disulfide	10.018	76	992772	14.64 ppbv	99
16) 2-Propanol	10.437	45	598175	14.29 ppbv	99
17) Allyl chloride	10.851	41	517098	15.33 ppbv	100
18) Dichloromethane	11.386	49	506602	12.06 ppbv	99
19) tert-Butyl methyl ethe...	12.080	73	1130461	16.80 ppbv	99
20) trans-1,2-Dichloroethene	12.104	61	527298	14.00 ppbv	100
21) Hexane	12.719	57	703961	15.47 ppbv	99
22) 1,1-Dichloroethane	13.455	63	783926	13.97 ppbv	99
23) Vinyl acetate	13.595	43	956208	16.13 ppbv	100
24) cis-1,2-Dichloroethene	14.903	61	609845	14.93 ppbv	98
25) 2-Butanone (MEK)	15.000	43	840266	16.20 ppbv	94
26) Ethyl acetate	15.043	43	1119941m	16.03 ppbv	
27) Tetrahydrofuran	15.450	42	556891	15.57 ppbv	100
28) Chloroform	15.602	83	842796	14.93 ppbv	100
29) Cyclohexane	15.834	56	728479	15.71 ppbv	99
30) 1,1,1-Trichloroethane	15.882	97	831542	14.92 ppbv	99
31) Carbon tetrachloride	16.138	117	823891	15.29 ppbv	99
33) Benzene	16.630	78	1370061	14.71 ppbv	100
34) 2,2,4-Trimethylpentane	16.594	57	2277985	16.13 ppbv	99
35) 1,2-Dichloroethane	16.831	62	536286	14.24 ppbv	100
36) Heptane	16.977	43	857656	16.05 ppbv	99
37) Trichloroethene	17.865	130	526029	14.83 ppbv	99
38) 1,2-Dichloropropane	18.364	63	532292	14.88 ppbv	100
39) 1,4-Dioxane	18.553	88	292181	18.18 ppbv	100
40) Bromodichloromethane	18.827	83	899780	15.66 ppbv	100
41) cis-1,3-Dichloropropene	19.593	75	774212	15.71 ppbv	99
42) 4-Methyl-2-pentanone (...	19.830	43	1132547	16.53 ppbv	100
44) Toluene	20.074	91	1631953	15.64 ppbv	100
45) trans-1,3-Dichloropropene	20.542	75	751524	16.92 ppbv	100
46) 1,1,2-Trichloroethane	20.846	97	531621	15.26 ppbv	100
47) Tetrachloroethene	20.932	166	734383	15.13 ppbv	100
48) 2-Hexanone	21.181	43	1062014	17.14 ppbv	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K06.D
Acq On : 24 Jan 2014 13:46
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL5
Misc : 15 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 14:49:33 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:48:53 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Chlorodibromomethane	21.455	129	835554	15.91	ppbv	100
50) 1,2-Dibromoethane (EDB)	21.680	107	753861	15.67	ppbv	100
51) Chlorobenzene	22.404	112	1242123	15.58	ppbv	99
52) Ethylbenzene	22.495	91	2160928	15.80	ppbv	100
53) m&p-Xylene	22.678	91	3405371	33.25	ppbv	100
54) o-Xylene	23.322	91	1680188	16.53	ppbv	100
55) Styrene	23.359	104	1375493	16.89	ppbv	100
56) Bromoform	23.730	173	911785	16.96	ppbv	99
57) 1,1,2,2-Tetrachloroethane	24.430	83	1275411	15.59	ppbv	100
58) 4-Ethyltoluene	24.673	105	2252147	17.28	ppbv	100
59) 1,3,5-Trimethylbenzene	24.764	105	1962983	17.05	ppbv	99
60) 1,2,4-Trimethylbenzene	25.366	105	1948345	16.93	ppbv	100
61) 1,3-Dichlorobenzene	25.902	146	1309046	16.40	ppbv	99
62) 1,4-Dichlorobenzene	26.048	146	1291451	16.62	ppbv	99
63) Benzyl chloride	26.261	91	1498122	17.32	ppbv	100
64) 1,2-Dichlorobenzene	26.650	146	1257420	16.06	ppbv	100
65) 1,2,4-Trichlorobenzene	29.114	180	1206652	16.14	ppbv	100
66) Hexachlorobutadiene	29.248	225	1026859	15.23	ppbv	100

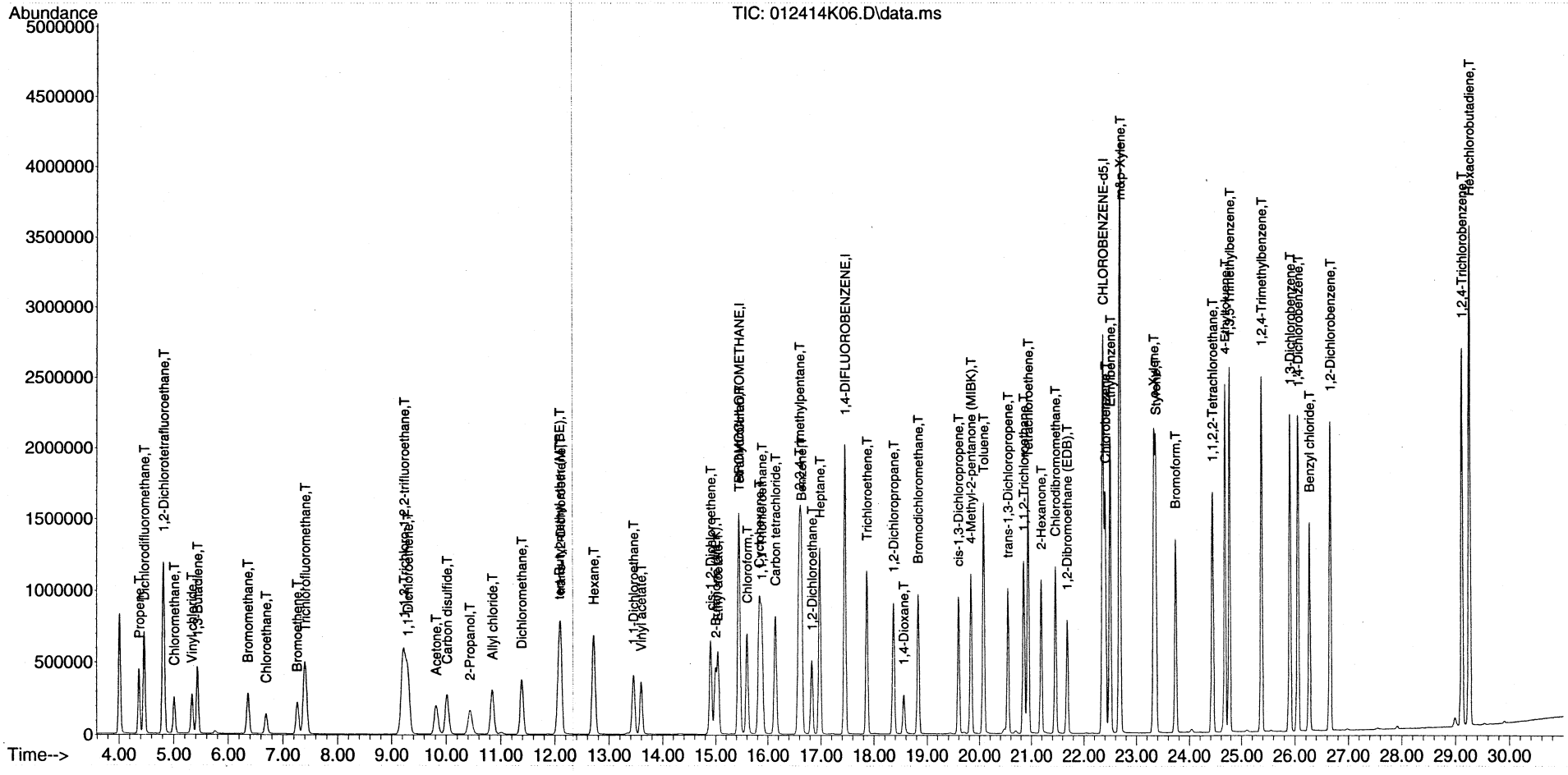
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K06.D
Acq On : 24 Jan 2014 13:46
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL5
Misc : 15 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 14:49:33 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:48:53 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

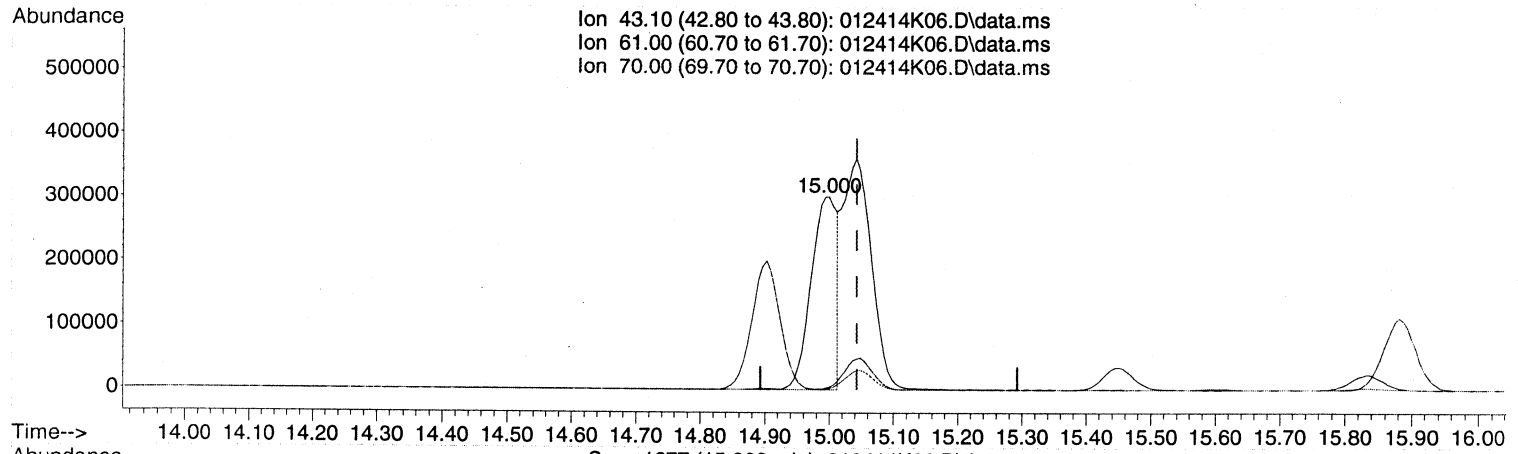


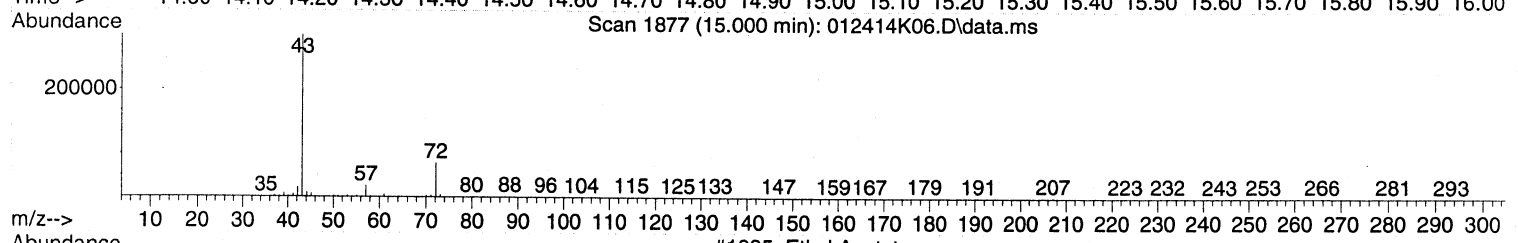
Quantitation Report (Qedit)

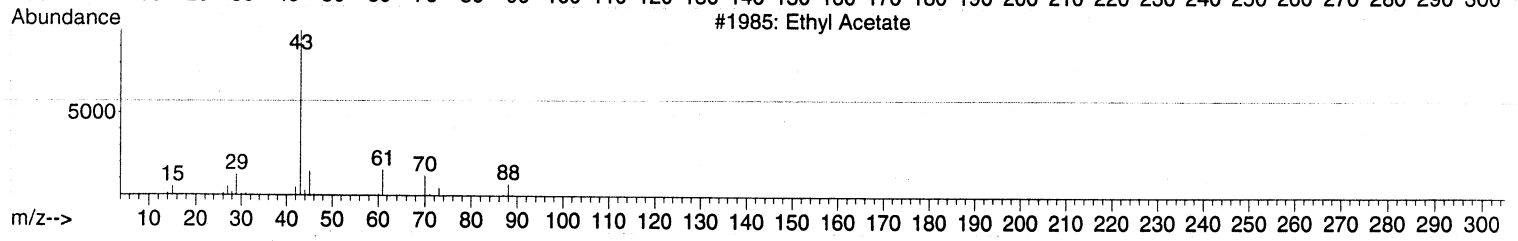
Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K06.D
Acq On : 24 Jan 2014 13:46
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL5
Misc : 15 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 14:49:02 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:48:53 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M







TIC: 012414K06.D\data.ms

(26) Ethyl acetate (T)

15.000min (-0.043) 12.03 ppbv

response 840149

Ion	Exp%	Act%
43.10	100	100
61.00	14.80	0.00#
70.00	9.30	0.00
0.00	0.00	0.00

MANUAL INTEGRATION VERIFICATION

☑ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☑ Other: RT off

☐ After Manual Integration

Manual integration(s) performed by.

Analyst: _____ Date: _____

Manual integration(s) reviewed by:

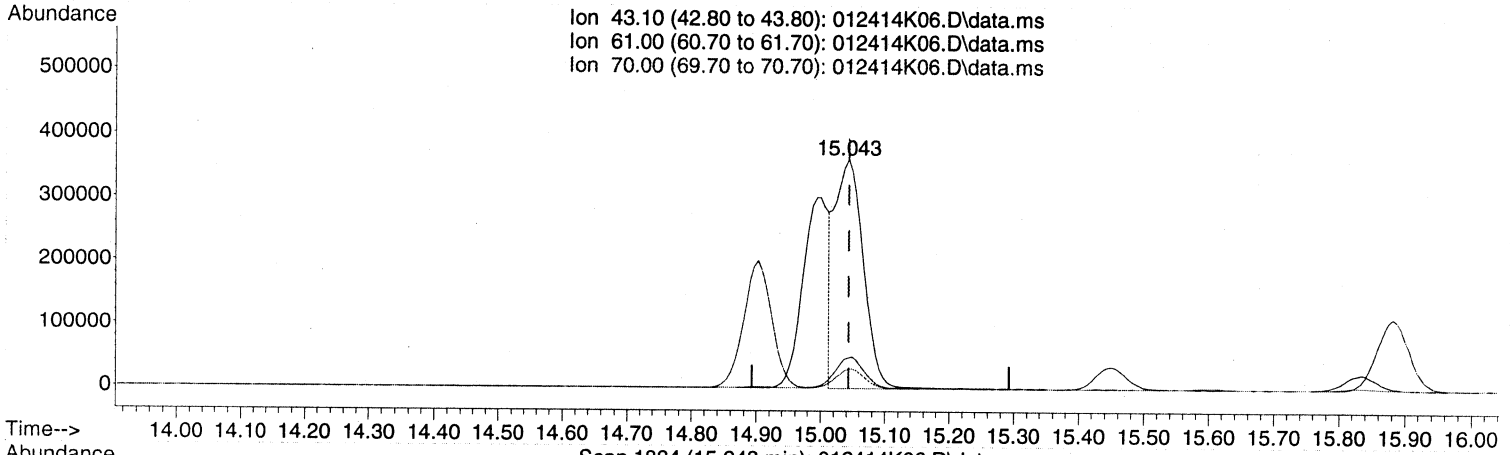
Reviewer: _____ Date: _____

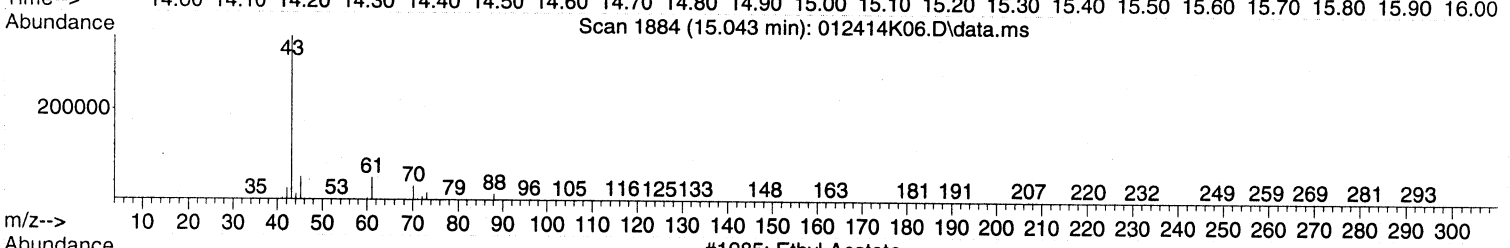
Quantitation Report (Qedit)

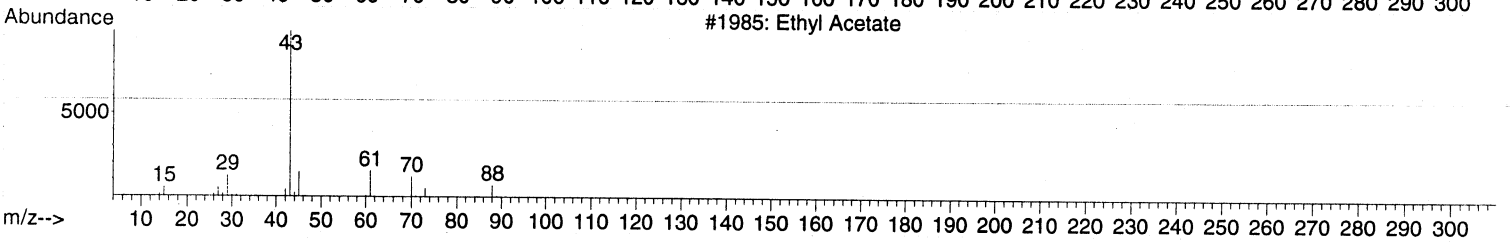
Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K06.D
Acq On : 24 Jan 2014 13:46
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL5
Misc : 15 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 14:49:02 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:48:53 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M







TIC: 012414K06.D\data.ms

(26) Ethyl acetate (T)

15.043min (-0.000) 16.03 ppbv m

response 1119941

Ion	Exp%	Act%
43.10	100	100
61.00	14.80	0.00#
70.00	9.30	0.00
0.00	0.00	0.00

MANUAL INTEGRATION VERIFICATION

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other:

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EM Date: 1/28/14

Manual integration(s) reviewed by;

Reviewer: [illegible] Date: 1/28/14

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K06.D
Acq On : 24 Jan 2014 13:46
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL5
Misc : 15 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 14:49:02 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:48:53 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

All NT
Em 1/28/14

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.444	49	873689	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.452	114	2308725	22.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.355	117	2127333	22.00	ppbv	0.00
Target Compounds						Qvalue
2) Propene	4.372	41	378273	14.47	ppbv	99
3) Dichlorodifluoromethane	4.463	85	982163	13.71	ppbv	99
4) 1,2-Dichlorotetrafluor...	4.816	85	1069478	14.89	ppbv	99
5) Chloromethane	5.011	50	438705	14.64	ppbv	99
6) Vinyl chloride	5.333	62	470123	14.90	ppbv	99
7) 1,3-Butadiene	5.437	54	348356	14.89	ppbv	100
8) Bromomethane	6.361	94	341889	14.52	ppbv	99
9) Chloroethane	6.690	64	238793	14.53	ppbv	100
10) Bromoethene	7.262	106	323876	14.88	ppbv	100
11) Trichlorofluoromethane	7.408	101	916992	15.15	ppbv	99
12) 1,1,2-Trichloro-1,2,2-...	9.227	151	578642	13.68	ppbv	99
13) 1,1-Dichloroethene	9.300	61	648849	14.05	ppbv	100
14) Acetone	9.817	43	632190	15.18	ppbv	100
15) Carbon disulfide	10.018	76	992772	14.64	ppbv	99
16) 2-Propanol	10.437	45	598175	14.29	ppbv	99
17) Allyl chloride	10.851	41	517098	15.33	ppbv	100
18) Dichloromethane	11.386	49	506602	12.06	ppbv	99
19) tert-Butyl methyl ethe...	12.080	73	1130461	16.80	ppbv	99
20) trans-1,2-Dichloroethene	12.104	61	527298	14.00	ppbv	100
21) Hexane	12.719	57	703961	15.47	ppbv	99
22) 1,1-Dichloroethane	13.455	63	783926	13.97	ppbv	99
23) Vinyl acetate	13.595	43	956208	16.13	ppbv	100
24) cis-1,2-Dichloroethene	14.903	61	609845	14.93	ppbv	98
25) 2-Butanone (MEK)	15.000	43	840266	16.20	ppbv	94
26) Ethyl acetate	15.000	43	840149	12.03	ppbv #	68
27) Tetrahydrofuran	15.450	42	556891	15.57	ppbv	100
28) Chloroform	15.602	83	842796	14.93	ppbv	100
29) Cyclohexane	15.834	56	728479	15.71	ppbv	99
30) 1,1,1-Trichloroethane	15.882	97	831542	14.92	ppbv	99
31) Carbon tetrachloride	16.138	117	823891	15.29	ppbv	99
33) Benzene	16.630	78	1370061	14.71	ppbv	100
34) 2,2,4-Trimethylpentane	16.594	57	2277985	16.13	ppbv	99
35) 1,2-Dichloroethane	16.831	62	536286	14.24	ppbv	100
36) Heptane	16.977	43	857656	16.05	ppbv	99
37) Trichloroethene	17.865	130	526029	14.83	ppbv	99
38) 1,2-Dichloropropane	18.364	63	532292	14.88	ppbv	100
39) 1,4-Dioxane	18.553	88	292181	18.18	ppbv	100
40) Bromodichloromethane	18.827	83	899780	15.66	ppbv	100
41) cis-1,3-Dichloropropene	19.593	75	774212	15.71	ppbv	99
42) 4-Methyl-2-pentanone (...	19.830	43	1132547	16.53	ppbv	100
44) Toluene	20.074	91	1631953	15.64	ppbv	100
45) trans-1,3-Dichloropropene	20.542	75	751524	16.92	ppbv	100
46) 1,1,2-Trichloroethane	20.846	97	531621	15.26	ppbv	100
47) Tetrachloroethene	20.932	166	734383	15.13	ppbv	100
48) 2-Hexanone	21.181	43	1062014	17.14	ppbv	100

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K06.D
Acq On : 24 Jan 2014 13:46
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL5
Misc : 15 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 14:49:02 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:48:53 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorodibromomethane	21.455	129	835554	15.91 ppbv	100
50) 1,2-Dibromoethane (EDB)	21.680	107	753861	15.67 ppbv	100
51) Chlorobenzene	22.404	112	1242123	15.58 ppbv	99
52) Ethylbenzene	22.495	91	2160928	15.80 ppbv	100
53) m&p-Xylene	22.678	91	3405371	33.25 ppbv	100
54) o-Xylene	23.322	91	1680188	16.53 ppbv	100
55) Styrene	23.359	104	1375493	16.89 ppbv	100
56) Bromoform	23.730	173	911785	16.96 ppbv	99
57) 1,1,2,2-Tetrachloroethane	24.430	83	1275411	15.59 ppbv	100
58) 4-Ethyltoluene	24.673	105	2252147	17.28 ppbv	100
59) 1,3,5-Trimethylbenzene	24.764	105	1962983	17.05 ppbv	99
60) 1,2,4-Trimethylbenzene	25.366	105	1948345	16.93 ppbv	100
61) 1,3-Dichlorobenzene	25.902	146	1309046	16.40 ppbv	99
62) 1,4-Dichlorobenzene	26.048	146	1291451	16.62 ppbv	99
63) Benzyl chloride	26.261	91	1498122	17.32 ppbv	100
64) 1,2-Dichlorobenzene	26.650	146	1257420	16.06 ppbv	100
65) 1,2,4-Trichlorobenzene	29.114	180	1206652	16.14 ppbv	100
66) Hexachlorobutadiene	29.248	225	1026859	15.23 ppbv	100

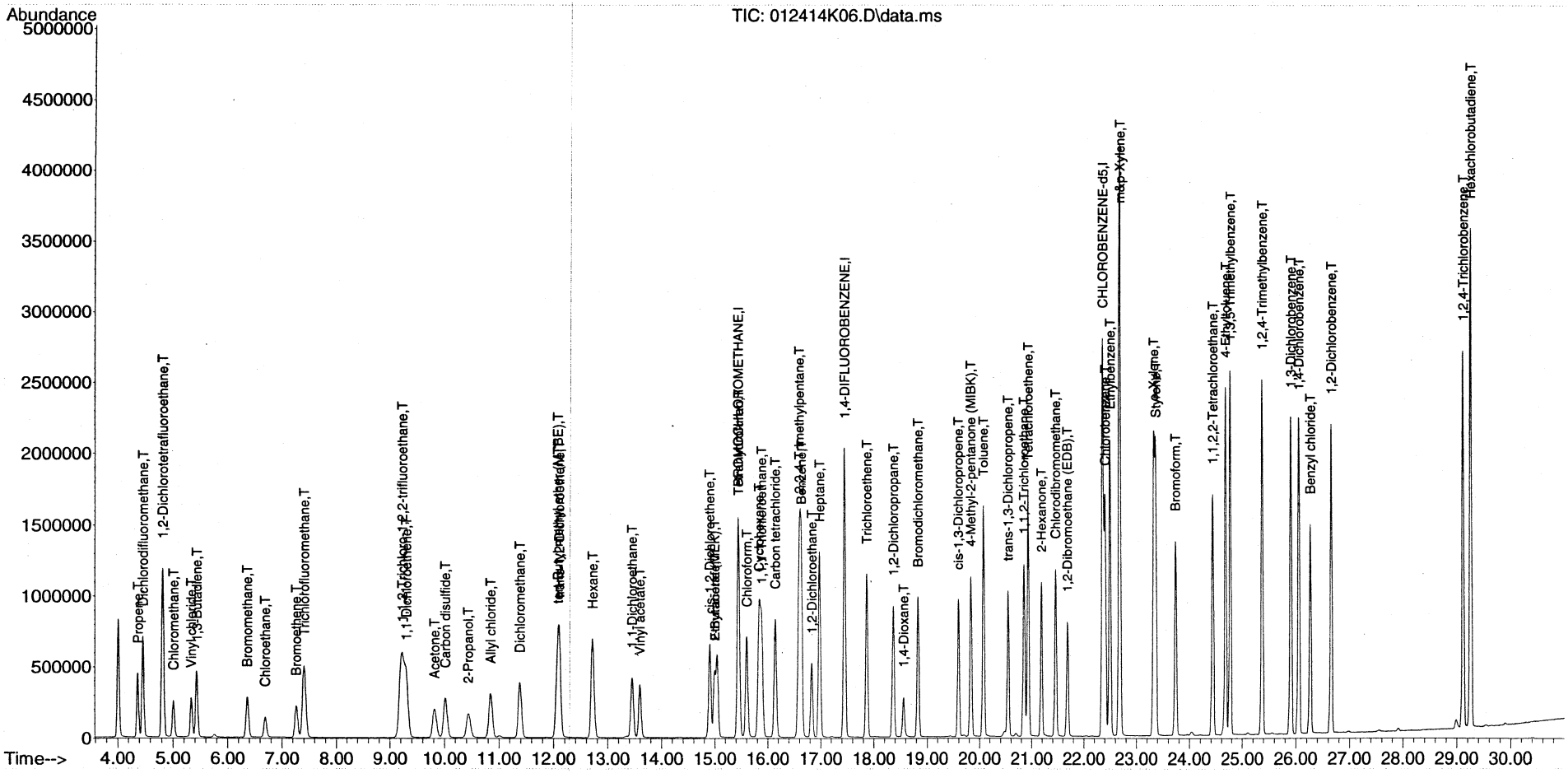
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K06.D
Acq On : 24 Jan 2014 13:46
Instrument: HP5973K
Operator : EM
Sample : S14A082-CAL5
Misc : 15 ppbv 1402036
ALS Vial : 32
Multiplier: 1

Quant Time: Jan 24 14:49:02 2014
Quant Title : TO15
QLast Update : Fri Jan 24 14:48:53 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M



SCV REPORT

Instrument Name: HP5973K
Sample Name: S14A082-SCV1
Misc Info: 10 ppbv SCV
Date Acquired: 1/24/2014 15:23
QLast Update: Fri Jan 24 15:09:46 2014
Operator: EM

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	BROMOCHLOROMETHANE	15.44	#N/A	22.00	#N/A	70.0	130.0	#N/A
2)	Propene	4.37	11.00	10.50	95%	70.0	130.0	pass
3)	Dichlorodifluoromethane	4.46	11.00	9.81	89%	70.0	130.0	pass
4)	1,2-Dichlorotetrafluoroethane	4.82	11.00	9.82	89%	70.0	130.0	pass
5)	Chloromethane	5.01	11.00	10.71	97%	70.0	130.0	pass
6)	Vinyl chloride	5.33	12.00	10.54	88%	70.0	130.0	pass
7)	1,3-Butadiene	5.43	22.00	20.06	91%	70.0	130.0	pass
8)	Bromomethane	6.36	11.00	10.18	93%	70.0	130.0	pass
9)	Chloroethane	6.69	11.00	10.08	92%	70.0	130.0	pass
10)	Bromoethene	7.26	11.00	10.00	91%	70.0	130.0	pass
11)	Trichlorofluoromethane	7.41	11.00	10.01	91%	70.0	130.0	pass
12)	1,1,2-Trichloro-1,2,2-trifluoroethane	9.22	11.00	9.74	89%	70.0	130.0	pass
13)	1,1-Dichloroethene	9.30	11.00	9.70	88%	70.0	130.0	pass
14)	Acetone	9.82	11.00	9.66	88%	70.0	130.0	pass
15)	Carbon disulfide	10.02	11.00	12.19	111%	70.0	130.0	pass
16)	2-Propanol	10.45	10.00	9.46	95%	70.0	130.0	pass
17)	Allyl chloride	10.85	22.00	22.58	103%	70.0	130.0	pass
18)	Dichloromethane	11.39	11.00	9.42	86%	70.0	130.0	pass
19)	tert-Butyl methyl ether (MTBE)	12.08	11.00	10.62	97%	70.0	130.0	pass
20)	trans-1,2-Dichloroethene	12.10	11.00	10.51	96%	70.0	130.0	pass
21)	Hexane	12.71	11.00	10.00	91%	70.0	130.0	pass
22)	1,1-Dichloroethane	13.45	12.00	9.47	79%	70.0	130.0	pass
23)	Vinyl acetate	13.60	11.00	11.88	108%	70.0	130.0	pass
24)	cis-1,2-Dichloroethene	14.90	11.00	9.42	86%	70.0	130.0	pass
25)	2-Butanone (MEK)	15.00	11.00	9.92	90%	70.0	130.0	pass
26)	Ethyl acetate	15.04	11.00	8.54	78%	70.0	130.0	pass
27)	Tetrahydrofuran	15.45	11.00	9.75	89%	70.0	130.0	pass
28)	Chloroform	15.60	11.00	9.77	89%	70.0	130.0	pass
29)	Cyclohexane	15.83	11.00	10.05	91%	70.0	130.0	pass
30)	1,1,1-Trichloroethane	15.88	11.00	9.92	90%	70.0	130.0	pass
31)	Carbon tetrachloride	16.14	11.00	10.05	91%	70.0	130.0	pass
32)	1,4-DIFLUOROBENZENE	17.45	#N/A	22.00	#N/A	70.0	130.0	#N/A
33)	Benzene	16.63	11.00	9.76	89%	70.0	130.0	pass
34)	2,2,4-Trimethylpentane	16.59	11.00	10.18	93%	70.0	130.0	pass
35)	1,2-Dichloroethane	16.83	11.00	9.57	87%	70.0	130.0	pass
36)	Heptane	16.98	11.00	10.15	92%	70.0	130.0	pass
37)	Trichloroethene	17.87	11.00	9.73	88%	70.0	130.0	pass
38)	1,2-Dichloropropane	18.36	11.00	9.85	90%	70.0	130.0	pass
39)	1,4-Dioxane	18.56	9.50	8.73	92%	70.0	130.0	pass
40)	Bromodichloromethane	18.83	11.00	9.95	90%	70.0	130.0	pass
41)	cis-1,3-Dichloropropene	19.59	11.00	10.37	94%	70.0	130.0	pass
42)	4-Methyl-2-pentanone (MIBK)	19.83	11.00	9.92	90%	70.0	130.0	pass
43)	CHLOROBENZENE-d5	22.36	#N/A	22.00	#N/A	70.0	130.0	#N/A
44)	Toluene	20.07	11.00	9.99	91%	70.0	130.0	pass
45)	trans-1,3-Dichloropropene	20.54	11.00	10.27	93%	70.0	130.0	pass
46)	1,1,2-Trichloroethane	20.85	11.00	9.90	90%	70.0	130.0	pass
47)	Tetrachloroethene	20.93	11.00	9.65	88%	70.0	130.0	pass

48)	2-Hexanone	21.19	11.00	10.10	92%	70.0	130.0	pass
49)	Chlorodibromomethane	21.45	11.00	9.79	89%	70.0	130.0	pass
50)	1,2-Dibromoethane (EDB)	21.68	10.00	9.90	99%	70.0	130.0	pass
51)	Chlorobenzene	22.40	11.00	10.00	91%	70.0	130.0	pass
52)	Ethylbenzene	22.50	11.00	9.94	90%	70.0	130.0	pass
53)	m&p-Xylene	22.68	22.00	19.75	90%	70.0	130.0	pass
54)	o-Xylene	23.32	10.00	9.85	98%	70.0	130.0	pass
55)	Styrene	23.36	11.00	9.77	89%	70.0	130.0	pass
56)	Bromoform	23.73	11.00	9.90	90%	70.0	130.0	pass
57)	1,1,2,2-Tetrachloroethane	24.43	10.00	9.29	93%	70.0	130.0	pass
58)	4-Ethyltoluene	24.67	21.00	22.31	106%	70.0	130.0	pass
59)	1,3,5-Trimethylbenzene	24.76	11.00	9.94	90%	70.0	130.0	pass
60)	1,2,4-Trimethylbenzene	25.37	11.00	9.67	88%	70.0	130.0	pass
61)	1,3-Dichlorobenzene	25.90	10.00	9.44	94%	70.0	130.0	pass
62)	1,4-Dichlorobenzene	26.05	11.00	9.62	87%	70.0	130.0	pass
63)	Benzyl chloride	26.26	11.00	12.13	110%	70.0	130.0	pass
64)	1,2-Dichlorobenzene	26.65	11.00	9.16	83%	70.0	130.0	pass
65)	1,2,4-Trichlorobenzene	29.11	9.90	7.42	75%	70.0	130.0	pass
66)	Hexachlorobutadiene	29.25	10.00	8.05	80%	70.0	130.0	pass

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K08.D
Acq On : 24 Jan 2014 15:23
Instrument: HP5973K
Operator : EM
Sample : S14A082-SCV1
Misc : 10 ppbv SCV
ALS Vial : 34
Multiplier: 1

Quant Time: Jan 24 16:10:41 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.438	49	910394	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.452	114	2416906	22.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.355	117	2206787	22.00	ppbv	0.00
Target Compounds						Qvalue
2) Propene	4.366	41	276320	10.50	ppbv	99
3) Dichlorodifluoromethane	4.464	85	700280	9.81	ppbv	99
4) 1,2-Dichlorotetrafluor...	4.816	85	719246	9.82	ppbv	99
5) Chloromethane	5.011	50	326033	10.71	ppbv	100
6) Vinyl chloride	5.333	62	340305	10.54	ppbv	99
7) 1,3-Butadiene	5.431	54	484713	20.06	ppbv	99
8) Bromomethane	6.362	94	244140	10.18	ppbv	99
9) Chloroethane	6.690	64	169115	10.08	ppbv	100
10) Bromoethene	7.262	106	223828	10.00	ppbv	99
11) Trichlorofluoromethane	7.408	101	618106	10.01	ppbv	99
12) 1,1,2-Trichloro-1,2,2-...	9.221	151	421011	9.74	ppbv	99
13) 1,1-Dichloroethene	9.300	61	463140	9.70	ppbv	100
14) Acetone	9.817	43	411810	9.66	ppbv	100
15) Carbon disulfide	10.018	76	847590	12.19	ppbv	99
16) 2-Propanol	10.450	45	412613	9.46	ppbv	98
17) Allyl chloride	10.845	41	795129	22.58	ppbv	100
18) Dichloromethane	11.387	49	386940	9.42	ppbv	100
19) tert-Butyl methyl ethe...	12.080	73	750895	10.62	ppbv	100
20) trans-1,2-Dichloroethene	12.105	61	409129	10.51	ppbv	99
21) Hexane	12.713	57	475022	10.00	ppbv	100
22) 1,1-Dichloroethane	13.449	63	545893	9.47	ppbv	100
23) Vinyl acetate	13.595	43	751909	11.88	ppbv	100
24) cis-1,2-Dichloroethene	14.903	61	398644	9.42	ppbv	100
25) 2-Butanone (MEK)	15.000	43	542470	9.92	ppbv	92
26) Ethyl acetate	15.043	43	626003	8.54	ppbv	97
27) Tetrahydrofuran	15.450	42	363352	9.75	ppbv	99
28) Chloroform	15.603	83	568743	9.77	ppbv	99
29) Cyclohexane	15.834	56	485830	10.05	ppbv	99
30) 1,1,1-Trichloroethane	15.882	97	572258	9.92	ppbv	99
31) Carbon tetrachloride	16.138	117	562422	10.05	ppbv	100
33) Benzene	16.631	78	940108	9.76	ppbv	100
34) 2,2,4-Trimethylpentane	16.594	57	1513768	10.18	ppbv	99
35) 1,2-Dichloroethane	16.831	62	372209	9.57	ppbv	100
36) Heptane	16.977	43	570472	10.15	ppbv	99
37) Trichloroethene	17.866	130	358118	9.73	ppbv	99
38) 1,2-Dichloropropane	18.365	63	363204	9.85	ppbv	100
39) 1,4-Dioxane	18.559	88	153489	8.73	ppbv	99
40) Bromodichloromethane	18.827	83	593639	9.95	ppbv	100
41) cis-1,3-Dichloropropene	19.593	75	536760	10.37	ppbv	99
42) 4-Methyl-2-pentanone (...	19.831	43	721702	9.92	ppbv	100
44) Toluene	20.074	91	1086499	9.99	ppbv	100
45) trans-1,3-Dichloropropene	20.542	75	481230	10.27	ppbv	99
46) 1,1,2-Trichloroethane	20.847	97	355695	9.90	ppbv	99
47) Tetrachloroethene	20.932	166	486607	9.65	ppbv	100
48) 2-Hexanone	21.187	43	670900	10.10	ppbv	100

Conc #2
Propene
$= \frac{276320(22)}{910394(0.636)}$
$= 11.50$ ppbv
em 1/25/14

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K08.D
Acq On : 24 Jan 2014 15:23
Instrument: HP5973K
Operator : EM
Sample : S14A082-SCV1
Misc : 10 ppbv SCV
ALS Vial : 34
Multiplier: 1

Quant Time: Jan 24 16:10:41 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) Chlorodibromomethane	21.455	129	536432	9.79	ppbv	100
50) 1,2-Dibromoethane (EDB)	21.680	107	495127	9.90	ppbv	100
51) Chlorobenzene	22.404	112	825183	10.00	ppbv	99
52) Ethylbenzene	22.495	91	1423509	9.94	ppbv	100
53) m&p-Xylene	22.678	91	2160590	19.75	ppbv	100
54) o-Xylene	23.323	91	1063080	9.85	ppbv	100
55) Styrene	23.359	104	856589	9.77	ppbv	100
56) Bromoform	23.730	173	570746	9.90	ppbv	100
57) 1,1,2,2-Tetrachloroethane	24.430	83	791983	9.29	ppbv	100
58) 4-Ethyltoluene	24.673	105	3113820	22.31	ppbv	100
59) 1,3,5-Trimethylbenzene	24.764	105	1230064	9.94	ppbv	100
60) 1,2,4-Trimethylbenzene	25.367	105	1200729	9.67	ppbv	100
61) 1,3-Dichlorobenzene	25.902	146	808177	9.44	ppbv	99
62) 1,4-Dichlorobenzene	26.048	146	805899	9.62	ppbv	100
63) Benzyl chloride	26.261	91	1131948	12.13	ppbv	100
64) 1,2-Dichlorobenzene	26.650	146	764054	9.16	ppbv	100
65) 1,2,4-Trichlorobenzene	29.114	180	610597	7.42	ppbv	100
66) Hexachlorobutadiene	29.254	225	572725	8.05	ppbv	99

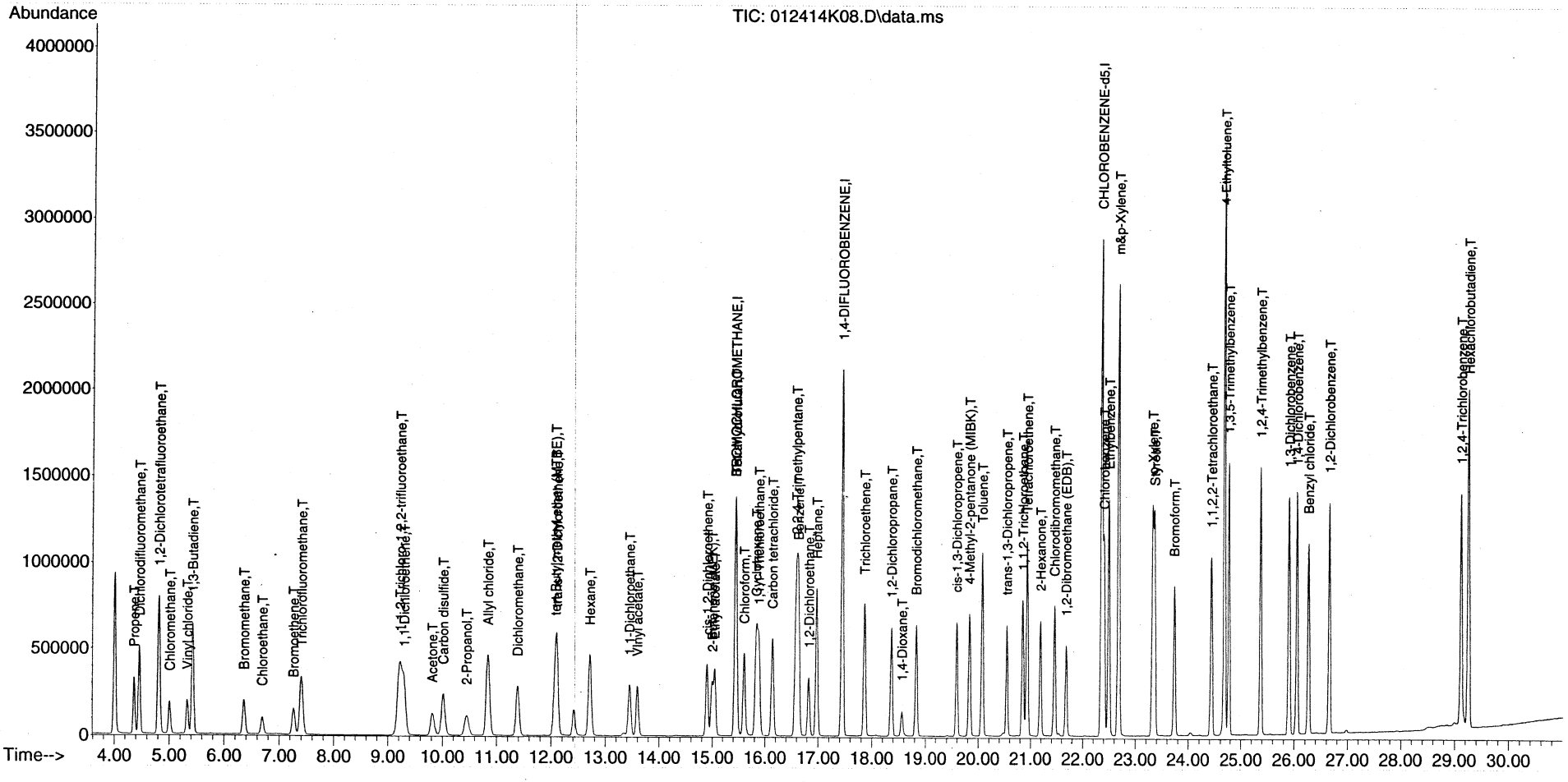
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\012414KA\
Data File : 012414K08.D
Acq On : 24 Jan 2014 15:23
Instrument: HP5973K
Operator : EM
Sample : S14A082-SCV1
Misc : 10 ppbv SCV
ALS Vial : 34
Multiplier: 1

Quant Time: Jan 24 16:10:41 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:012414KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\012414KAA.M



SDG: 14045A

Instrument: HP5973K

Analysis Date: 2/18/14

SAMPLE DATA

ANALYSIS SEQUENCE

S14B088

Instrument: HP5973K

Calibration ID: 1402005

Printed: 2/19/2014 1:56:56PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
S14B088-TUN1	QC		1		1311118			
S14B088-CCV1	QC		2		1407144			
B14B075-BS1	QC		3					
S14B088-CRL1	QC		4		1407145			
B14B075-BLK1	QC		5			1350050		
1402032-01	VOCs, Soil Gas	A	6			1350050	California Site Cleanup Section 3	14 day prelim - 28 day final
1402032-01RE1	VOCs, Soil Gas	A	7			1350050	California Site Cleanup Section 3	14 day prelim - 28 day final
1402032-02	VOCs, Soil Gas	A	8			1350050	California Site Cleanup Section 3	14 day prelim - 28 day final
B14B075-DUP1	QC		9			1350050		
1402032-03	VOCs, Soil Gas	A	10			1350050	California Site Cleanup Section 3	14 day prelim - 28 day final
1402032-04	VOCs, Soil Gas	A	11			1350050	California Site Cleanup Section 3	14 day prelim - 28 day final
1402032-04RE1	VOCs, Soil Gas	A	12			1350050	California Site Cleanup Section 3	14 day prelim - 28 day final
1402032-05	VOCs, Soil Gas	A	13			1350050	California Site Cleanup Section 3	14 day prelim - 28 day final
1402032-05RE1	VOCs, Soil Gas	A	14			1350050	California Site Cleanup Section 3	14 day prelim - 28 day final
1402032-06	VOCs, Soil Gas	A	15			1350050	California Site Cleanup Section 3	14 day prelim - 28 day final
1402032-07	VOCs, Soil Gas	A	16			1350050	California Site Cleanup Section 3	14 day prelim - 28 day final
1402032-08	VOCs, Soil Gas	A	17			1350050	California Site Cleanup Section 3	14 day prelim - 28 day final
1402032-08RE1	VOCs, Soil Gas	A	18			1350050	California Site Cleanup Section 3	14 day prelim - 28 day final
1402032-09	VOCs, Soil Gas	A	19			1350050	California Site Cleanup Section 3	14 day prelim - 28 day final
1402032-10	VOCs, Soil Gas	A	20			1350050	California Site Cleanup Section 3	14 day prelim - 28 day final
1402032-11	VOCs, Soil Gas	A	21			1350050	California Site Cleanup Section 3	14 day prelim - 28 day final
1402032-12	VOCs, Soil Gas	A	22			1350050	California Site Cleanup Section 3	14 day prelim - 28 day final

Samples Loaded By Date

Data Processed By Date

----------SEQUENCE TABLE ----------

Sequence Name: C:\Smart\2014\021814KAA.SEQ
Date: 02-19-2014
Time: 09:54:44
Int. Std Volume: 40 cc

Sample Name	Inlet #	Auto Pos	Samp Vol.	Cal Std Vol.	Method	Time
BFB 1311118	3	2	100	40	C:\Smart\TO15.CTD	12:00
10 ppbv 1407087	3	2	100	40	C:\Smart\TO15.CTD	12:00
10 ppbv 1407087	3	2	100	0	C:\Smart\TO15.CTD	12:00
1 ppbv 2X	3	3	40	0	C:\Smart\TO15.CTD	12:00
BLANK CAN 1965	3	5	200	0	C:\Smart\TO15.CTD	12:00
BLANK CAN 1094	3	6	200	0	C:\Smart\TO15.CTD	12:00
BLANK CAN 132	4	9	200	0	C:\Smart\TO15.CTD	12:00
1402032-01	3	6	200	0	C:\Smart\TO15.CTD	12:00
1402032-02	3	7	200	0	C:\Smart\TO15.CTD	12:00
1402032-02DUP	3	7	200	0	C:\Smart\TO15.CTD	12:00
1402032-03	3	8	200	0	C:\Smart\TO15.CTD	12:00
1402032-04	3	9	200	0	C:\Smart\TO15.CTD	12:00
1402032-04RE1	3	9	20	0	C:\Smart\TO15.CTD	12:00
IBL1	3	10	200	0	C:\Smart\TO15.CTD	12:00
1402032-05	3	11	200	0	C:\Smart\TO15.CTD	12:00
1402032-05RE1	3	11	20	0	C:\Smart\TO15.CTD	12:00
1402032-06	3	12	200	0	C:\Smart\TO15.CTD	12:00
1402032-06RE1	3	12	20	0	C:\Smart\TO15.CTD	12:00
1402032-07	4	1	200	0	C:\Smart\TO15.CTD	12:00
1402032-07RE1	4	1	20	0	C:\Smart\TO15.CTD	12:00
1402032-08	4	2	200	0	C:\Smart\TO15.CTD	12:00
IBL2	4	3	200	0	C:\Smart\TO15.CTD	12:00
1402032-09	4	4	200	0	C:\Smart\TO15.CTD	12:00
1402032-10	4	5	200	0	C:\Smart\TO15.CTD	12:00
1402032-11	4	6	200	0	C:\Smart\TO15.CTD	12:00
1402032-12	4	7	200	0	C:\Smart\TO15.CTD	12:00
IBL	4	8	200	0	C:\Smart\TO15.CTD	12:00
1402032-08RE1	4	2	20	0	C:\Smart\TO15.CTD	12:00
1402032-01RE1	3	6	50	0	C:\Smart\TO15.CTD	12:00

Injection Log

Directory: C:\msdchem\1\DATA\2014\021814KA

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	32	021814K01.D	1.	S14B088-TUN1	BFB STD 1311118/IS 1350050/10ppbv STD	18 Feb 2014 12:20
2	32	021814K02.D	1.	S14B088-CCV1	10 ppbv 1407087	18 Feb 2014 13:08
3	32	021814K03.D	1.	B14B075-BS1	10 ppbv 1407087	18 Feb 2014 13:54
4	33	021814K04.D	1.	S14B088-CRL1	1.0 ppbv 1407088	18 Feb 2014 14:40
5	35	021814K05.D	1.	CAN 1965	CAN 1965	18 Feb 2014 15:29
6	36	021814K06.D	1.	CAN 1094	CAN 1094	18 Feb 2014 16:18
7	49	021814K07.D	1.	B14B075-BLK1	200mL CAN 132	18 Feb 2014 17:06
8	36	021814K08.D	1.89	1402032-01	200mL MH11	18 Feb 2014 17:55
9	37	021814K09.D	1.83	1402032-02	200mL MH12	18 Feb 2014 18:44
10	37	021814K10.D	1.83	B14B075-DUP1	200mL MH12dup	18 Feb 2014 19:33
11	38	021814K11.D	2.08	1402032-03	200mL MH13	18 Feb 2014 20:22
12	39	021814K12.D	2.04	1402032-04	200mL MH14	18 Feb 2014 21:10
13	39	021814K13.D	2.04	1402032-04RE1	20mL MH14	18 Feb 2014 21:55
14	10	021814K14.D	1.	IBL1	IBL	18 Feb 2014 22:44
15	11	021814K15.D	1.94	1402032-05	200mL MH15	18 Feb 2014 23:33
16	11	021814K16.D	1.94	1402032-05RE1	20mL MH15	19 Feb 2014 00:18
17	12	021814K17.D	1.95	1402032-06	200mL MH16	19 Feb 2014 01:07
18	12	021814K18.D	1.95	1402032-06RE1	20mL MH16	19 Feb 2014 01:52
19	41	021814K19.D	1.94	1402032-07	200mL MH17	19 Feb 2014 02:41
20	41	021814K20.D	1.94	1402032-07RE1	20mL MH17	19 Feb 2014 03:26
21	42	021814K21.D	1.94	1402032-08	200mL MH18	19 Feb 2014 04:14
22	43	021814K22.D	1.	IBL2	IBL	19 Feb 2014 05:03
23	44	021814K23.D	1.94	1402032-09	200mL MH19	19 Feb 2014 05:52
24	45	021814K24.D	1.93	1402032-10	200mL MH20	19 Feb 2014 06:41
25	46	021814K25.D	1.93	1402032-11	200mL MH21	19 Feb 2014 07:29
26	47	021814K26.D	1.94	1402032-12	200mL MH22	19 Feb 2014 08:18
27	48	021814K27.D	1.	IBL3	IBL	19 Feb 2014 09:07
28	42	021814K28.D	1.94	1402032-08RE1	20mL MH18	19 Feb 2014 09:52
29	36	021814K29.D	1.89	1402032-01RE1	50mL MH11	19 Feb 2014 10:38

Response Factor Report HP5973K

Method Path : C:\msdchem\1\METHODS\2014\
Method File : 021814KAA.M
Title : TO15
Last Update : Fri Jan 24 15:09:46 2014
Response Via : Initial Calibration

Calibration Files
1 =012414K03.D 2 =012414K04.D 5 =012414K05.D 10 =012414K02.D 15 =012414K06.D
20 =012414K07.D

		Compound	1	2	5	10	15	20	Avg	%RSD
1)	I	BROMOCHLOROMETHANE	----------ISTD----------							
2)	T	Propene	0.803	0.648	0.607	0.575	0.593	0.587	0.636	13.46
3)	T	Dichlorodifluo...	2.114	1.815	1.700	1.587	1.600	1.535	1.725	12.44
4)	T	1,2-Dichlorote...	2.105	1.795	1.697	1.636	1.709	1.678	1.770	9.72
5)	T	Chloromethane	0.878	0.752	0.713	0.676	0.701	0.692	0.735	10.14
6)	T	Vinyl chloride	0.915	0.775	0.757	0.732	0.751	0.752	0.780	8.63
7)	T	1,3-Butadiene	0.668	0.578	0.562	0.548	0.573	0.575	0.584	7.28
8)	T	Bromomethane	0.687	0.594	0.559	0.531	0.557	0.550	0.580	9.75
9)	T	Chloroethane	0.475	0.416	0.392	0.373	0.389	0.387	0.405	9.03
10)	T	Bromoethene	0.619	0.549	0.520	0.505	0.528	0.525	0.541	7.53
11)	T	Trichlorofluor...	1.758	1.515	1.449	1.373	1.438	1.420	1.492	9.25
12)	T	1,1,2-Trichlor...	1.201	1.068	1.006	0.986	1.001	1.006	1.045	7.83
13)	T	1,1-Dichloroet...	1.312	1.137	1.119	1.084	1.134	1.134	1.153	6.96
14)	T	Acetone	1.139	1.082	1.000	0.975	1.001	0.984	1.030	6.35
15)	T	Carbon disulfide	1.932	1.705	1.624	1.571	1.633	1.613	1.680	7.79
16)	T	2-Propanol	1.135	1.047	1.013	1.020	1.057	1.052	1.054	4.13
17)	T	Allyl chloride	0.910	0.838	0.831	0.817	0.859	0.849	0.851	3.83
18)	T	Dichloromethane	1.364	1.080	0.928	0.858	0.868	0.857	0.992	20.26
19)	T	tert-Butyl met...	1.754	1.701	1.681	1.640	1.741	1.735	1.708	2.53
20)	T	trans-1,2-Dich...	1.022	0.952	0.929	0.890	0.932	0.917	0.940	4.79
21)	T	Hexane	1.227	1.130	1.130	1.097	1.158	1.144	1.148	3.81
22)	T	1,1-Dichloroet...	1.585	1.418	1.356	1.293	1.356	1.345	1.392	7.36
23)	T	Vinyl acetate	1.523	1.446	1.495	1.507	1.605	1.602	1.530	4.11
24)	T	cis-1,2-Dichlo...	1.128	1.020	0.999	0.968	1.013	1.008	1.023	5.34
25)	T	2-Butanone (MEK)	1.134	1.316	1.344	1.430	1.356	1.350	1.322	7.51
26)	T	Ethyl acetate	1.912	1.815	1.734	1.575	1.807	1.788	1.772	6.34
27)	T	Tetrahydrofuran	0.950	0.898	0.888	0.866	0.907	0.892	0.900	3.11
28)	T	Chloroform	1.563	1.437	1.370	1.314	1.387	1.366	1.406	6.14
29)	T	Cyclohexane	1.233	1.173	1.152	1.112	1.176	1.167	1.169	3.37
30)	T	1,1,1-Trichlor...	1.535	1.408	1.372	1.300	1.382	1.370	1.394	5.55
31)	T	Carbon tetrach...	1.472	1.387	1.307	1.264	1.342	1.341	1.352	5.30
32)	I	1,4-DIFLUOROBENZENE	----------ISTD----------							
33)	T	Benzene	0.977	0.894	0.859	0.821	0.862	0.848	0.877	6.21
34)	T	2,2,4-Trimethy...	1.406	1.330	1.342	1.304	1.378	1.362	1.354	2.68
35)	T	1,2-Dichloroet...	0.394	0.359	0.350	0.333	0.348	0.341	0.354	5.97
36)	T	Heptane	0.538	0.498	0.507	0.495	0.519	0.515	0.512	3.09
37)	T	Trichloroethene	0.370	0.342	0.326	0.313	0.331	0.327	0.335	5.87
38)	T	1,2-Dichloropr...	0.376	0.344	0.330	0.314	0.328	0.322	0.336	6.49
39)	T	1,4-Dioxane	0.144	0.145	0.159	0.164	0.175	0.173	0.160	8.25
40)	T	Bromodichlorom...	0.597	0.547	0.534	0.512	0.539	0.530	0.543	5.31
41)	T	cis-1,3-Dichlo...	0.496	0.469	0.462	0.451	0.477	0.472	0.471	3.24
42)	T	4-Methyl-2-pen...	0.641	0.655	0.665	0.651	0.685	0.678	0.663	2.55
43)	I	CHLOROBENZENE-d5	----------ISTD----------							
44)	T	Toluene	1.148	1.094	1.059	1.017	1.103	1.087	1.085	4.06
45)	T	trans-1,3-Dich...	0.482	0.453	0.451	0.451	0.484	0.481	0.467	3.59
46)	T	1,1,2-Trichlor...	0.388	0.370	0.353	0.330	0.356	0.352	0.358	5.37
47)	T	Tetrachloroethene	0.549	0.514	0.485	0.459	0.506	0.503	0.503	5.95
48)	T	2-Hexanone	0.620	0.639	0.653	0.652	0.711	0.699	0.662	5.32
49)	T	Chlorodibromom...	0.583	0.550	0.532	0.506	0.554	0.551	0.546	4.66
50)	T	1,2-Dibromoeth...	0.523	0.508	0.492	0.467	0.504	0.497	0.499	3.81
51)	T	Chlorobenzene	0.898	0.839	0.797	0.764	0.823	0.812	0.822	5.48
52)	T	Ethylbenzene	1.491	1.425	1.390	1.350	1.460	1.453	1.428	3.59
53)	T	m&p-Xylene	1.078	1.060	1.057	1.041	1.151	1.155	1.090	4.57
54)	T	o-Xylene	1.071	1.066	1.045	1.024	1.124	1.126	1.076	3.86
55)	T	Styrene	0.837	0.841	0.848	0.844	0.939	0.936	0.874	5.64
56)	T	Bromoform	0.571	0.555	0.553	0.544	0.610	0.614	0.575	5.27

Method Path : C:\msdchem\1\METHODS\2014\
Method File : 021814KAA.M
Title : TO15

57)	T	1,1,2,2-Tetrac...	0.890	0.869	0.829	0.797	0.862	0.850	0.849	3.85
58)	T	4-Ethyltoluene	1.338	1.361	1.354	1.336	1.478	1.480	1.391	4.94
59)	T	1,3,5-Trimethy...	1.195	1.187	1.185	1.195	1.314	1.322	1.233	5.35
60)	T	1,2,4-Trimethy...	1.168	1.207	1.187	1.198	1.330	1.334	1.237	6.02
61)	T	1,3-Dichlorobe...	0.848	0.839	0.806	0.810	0.911	0.909	0.854	5.44
62)	T	1,4-Dichlorobe...	0.801	0.809	0.796	0.807	0.899	0.899	0.835	5.93
63)	T	Benzyl chloride	0.876	0.887	0.907	0.908	1.003	1.002	0.930	6.13
64)	T	1,2-Dichlorobe...	0.837	0.820	0.796	0.786	0.875	0.874	0.831	4.59
65)	T	1,2,4-Trichlor...	0.770	0.777	0.752	0.795	0.914	0.914	0.820	9.02
66)	T	Hexachlorobuta...	0.680	0.741	0.705	0.663	0.745	0.724	0.710	4.67

(#) = Out of Range

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\2014\021814KA\021814K01.D
Tune Time : 18 Feb 2014 12:20

Daily Calibration File : C:\msdchem\1\DATA\2014\021814KA\021814K02.D

File	Sample	Surrogate Recovery %		Internal Standard Responses	
		868809	2209720	1757900	
021814K02.D	S14B088-CCV1	868809	2209716	1757895	
021814K03.D	B14B075-BS1	815288	2030617	1637215	
021814K04.D	S14B088-CRL1	817703	2033728	1666291	
021814K05.D	CAN 1965	819367	2037429	1691868	DCM NU
021814K06.D	CAN 1094	842214	2079798	1732097	DCM NU
021814K07.D	B14B075-BLK	824767	2011236	1676561	DCM B-flag
021814K08.D	1402032-01	830054	2000994	1679555	
021814K09.D	1402032-02	828891	2005832	1690610	
021814K10.D	B14B075-DUP1	805327	1913005	1608148	
021814K11.D	1402032-03	834879	2032473	1726409	
021814K12.D	1402032-04	844043	2030310	1716163	
021814K13.D	1402032-04RE1	849314	2042476	1737438	
021814K14.D	IBL1	829612	2019007	1727751	
021814K15.D	1402032-05	833431	2018815	1716456	
021814K16.D	1402032-05RE1	831122	2014628	1715404	
021814K17.D	1402032-06	825843	2029280	1729098	
021814K18.D	1402032-06RE1	821675	2013171	1714018	NU
021814K19.D	1402032-07	820504	1997817	1703327	
021814K20.D	1402032-07RE1	820075	1970880	1673112	NU

021814K21.D				
	1402032-08	814310	1942352	1642525
021814K22.D				
	IBL2	814299	1981242	1693357
021814K23.D				
	1402032-09	798461	1926284	1632770
021814K24.D				
	1402032-10	832311	2007977	1705234
021814K25.D				
	1402032-11	802801	1926945	1646876
021814K26.D				
	1402032-12	800687	1954599	1674778
021814K27.D				
	IBL3	799072	1914869	1631770
021814K28.D				
	1402032-08RE1	789675	1900128	1611750
021814K29.D				
	1402032-01RE1	797685	1930033	1631990

(fails) - fails 24hr time check * - fails criteria

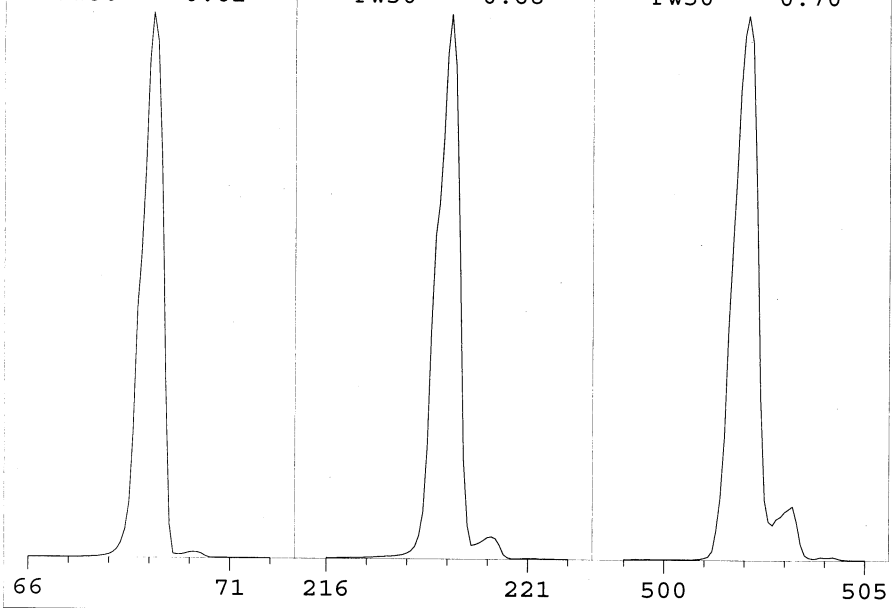
Created: Wed Feb 19 11:11:58 2014 HP5973K

5973N

Tue Feb 18 11:23:22 2014
C:\msdchem\1\5973N\BFB021814KA.u

Instrument: HP5973K
US03960556

Mass	69.10	Mass	219.10	Mass	502.10
Ab	369178	Ab	179574	Ab	20940
Pw50	0.62	Pw50	0.68	Pw50	0.70

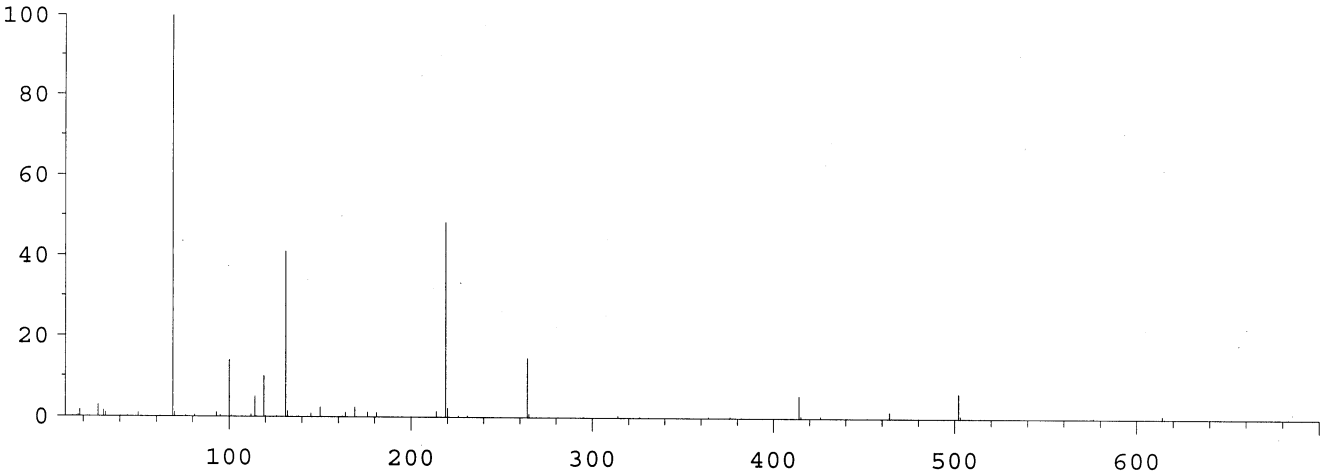


Ion Pol	Pos	MassGain	99
		MassOffs	-8
Emission	34.6	AmuGain	2003
EIEnrgy	69.9	AmuOffs	125
Filament	1	Wid219	-0.016
		DC Pol	Pos
Repeller	32.97		
IonFcus	86.4	HEDEnab	On
EntLens	16.5	EMVolts	1482
EntOffs	19.07		
		Samples	8
PFTBA	Open	Averages	3
		Stepsize	0.10

Temperatures and Pressures:

MS Source	230	TurboSpd	100
MS Quad	150		

Scan: 10.00 - 700.00 Samples: 8 Thresh: 100 Step: 0.10
101 peaks Base: 69.10 Abundance: 301760



Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.10	301760	100.00	70.10	3250	1.08
219.10	145792	48.31	220.00	6680	4.58
502.10	18312	6.07	503.10	1736	9.48

Air/Water Check: H20~1.60% N2~2.86% O2~1.01% CO2~0.20% N2/H2O~178.27%

Column Flow: Front: 1.499 Back: 0 ml/min. Interface Temp: 260

Ramp Criteria:
Ion Focus Maximum 90 volts using ion 502; EM Gain 49633
Repeller Maximum 35 volts using ion 219; Gain Factor 0.50

MassGain Values(Samples): 99(3) 99(2) 99(1) 99(0) 99(FS)

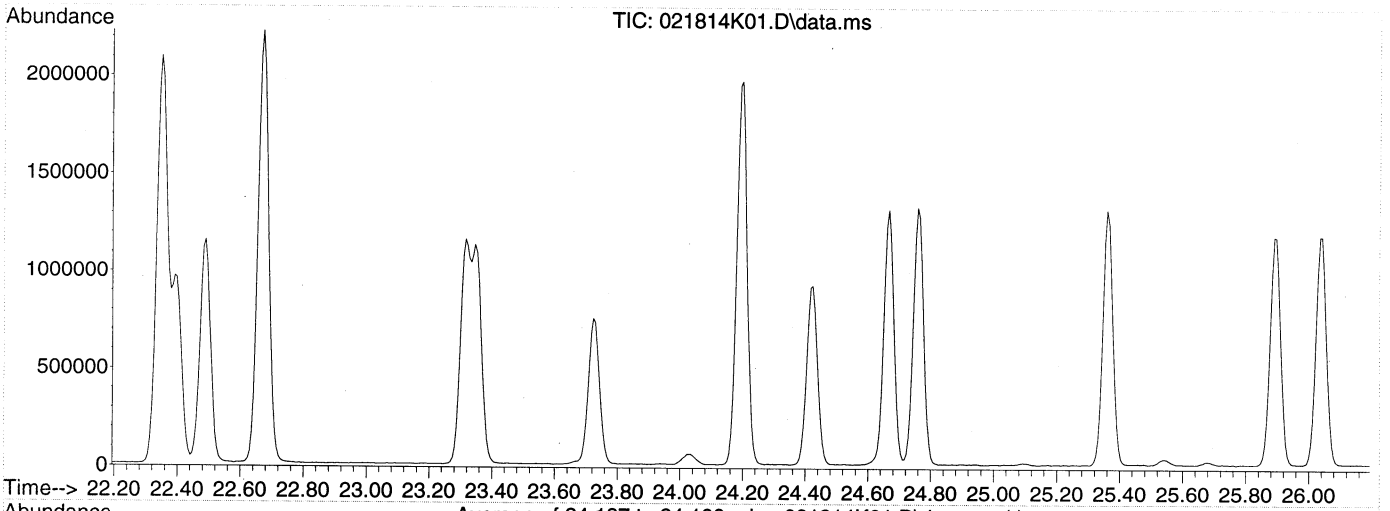
TARGET MASS:	50	69	131	219	414	502	800
Amu Offset:	125.0	125.0	125.0	125.0	125.0	125.0	125.0
Entrance Lens Offset:	19.1	19.1	19.1	19.1	19.1	19.1	19.1

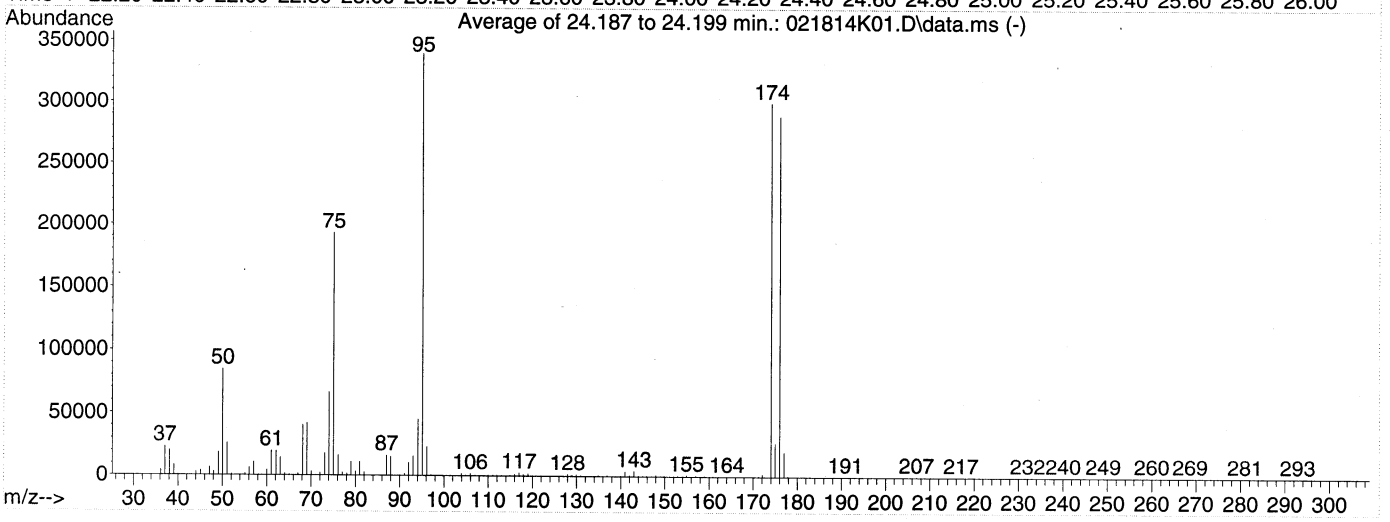
BFB

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K01.D
Acq On : 18 Feb 2014 12:20
Operator : EM
Sample : S14B088-TUN1
Misc : BFB STD 1311118/IS 1350050/10ppbv STD
ALS Vial : 32 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\2014\021814KAA.M
Title : TO15
Last Update : Fri Jan 24 15:09:46 2014





AutoFind: Scans 3387, 3388, 3389; Background Corrected with Scan 3376

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	24.9	84526	PASS
75	95	30	66	56.7	192732	PASS
95	95	100	100	100.0	339861	PASS
96	95	5	9	6.8	23219	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	88.3	300139	PASS
175	174	4	9	8.9	26576	PASS
176	174	93	101	96.3	289149	PASS
177	176	5	9	6.8	19742	PASS

Average of 24.187 to 24.199 min.: 021814K01.D\data.ms
S14B088-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.20	45	46.00	88	56.05	6292	67.00	1351
36.10	4222	46.20	241	57.10	11029	68.10	40333
37.10	22936	47.10	6647	58.15	452	69.05	41699
38.10	20188	48.05	2929	58.95	133	70.10	3306
39.10	8099	49.10	18529	60.05	4151	71.00	170
40.05	452	50.05	84526	61.05	19799	72.05	2286
41.15	49	51.10	25964	62.10	19387	73.10	17865
42.10	134	52.10	1002	63.05	14650	74.05	66497
43.10	37	53.05	175	64.05	1344	75.05	192732
44.05	2623	54.05	79	65.10	633	76.10	16730
45.10	3665	55.10	1327	66.05	164	77.05	2401

Average of 24.187 to 24.199 min.: 021814K01.D\data.ms
S14B088-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
78.05	1643	88.00	15288	98.15	86	108.35	73
79.00	11134	89.65	44	99.15	30	109.10	75
80.00	3317	90.05	21	99.55	30	110.00	322
81.00	11182	91.05	1541	100.50	23	111.05	400
82.00	2618	92.05	10429	101.40	41	111.95	275
83.10	217	93.05	15942	103.05	207	113.05	331
84.05	42	94.10	45160	103.95	1680	114.00	13
84.50	10	95.10	339861	104.90	513	114.90	501
85.10	14	96.10	23219	105.95	1690	115.95	1174
85.90	162	97.05	666	107.00	443	117.00	2556
87.00	16230	97.85	46	107.90	61	117.95	1288

Average of 24.187 to 24.199 min.: 021814K01.D\data.ms
S14B088-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
119.00	1758	126.10	34	134.90	655	145.00	438
119.70	40	126.70	48	136.00	137	145.85	510
120.00	81	126.95	140	136.95	661	146.95	244
120.60	9	127.95	1341	137.90	15	147.95	791
120.80	26	129.00	654	138.15	38	148.95	280
121.10	6	129.90	1289	138.80	182	149.80	83
122.00	18	130.95	510	139.95	347	149.95	328
123.05	72	131.85	15	140.95	3870	151.10	59
124.05	267	132.95	69	141.95	627	152.00	223
124.95	76	133.95	3	143.00	4294	152.90	280
125.85	74	134.20	114	144.00	303	153.85	191

Average of 24.187 to 24.199 min.: 021814K01.D\data.ms
S14B088-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
154.10	80	164.80	60	172.05	1595	187.70	14
154.90	935	165.15	17	174.00	300139	187.90	15
156.00	169	165.50	23	175.00	26576	188.35	22
157.00	603	166.30	51	175.95	289149	188.90	15
158.10	59	166.95	54	177.00	19742	189.20	8
158.95	377	167.70	18	177.85	529	190.95	195
160.00	49	168.35	54	178.90	19	191.80	46
160.90	459	169.05	28	180.85	24	193.10	58
162.10	32	169.60	75	181.10	7	194.85	45
162.50	15	170.30	189	184.20	13	196.80	23
164.05	91	171.15	291	187.00	11	197.80	8

Average of 24.187 to 24.199 min.: 021814K01.D\data.ms
S14B088-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
200.90	12	212.70	9	221.70	8	235.20	13
201.80	10	214.10	9	222.30	9	235.50	13
203.40	19	215.10	8	223.80	13	236.20	11
203.70	19	217.05	48	224.30	7	237.00	8
203.90	16	218.00	15	225.10	8	237.50	13
204.90	0	218.40	11	225.60	9	238.00	11
206.00	56	218.80	27	225.90	8	239.55	25
207.00	526	219.10	20	230.60	12	239.80	17
207.95	140	219.80	24	232.10	189	240.10	19

208.90	135	220.00	14	232.85	66	240.70	12
210.10	46	220.90	16	234.30	9	241.20	11

Average of 24.187 to 24.199 min.: 021814K01.D\data.ms
S14B088-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
242.00	8	253.80	56	261.05	36	271.70	15
243.70	7	254.10	72	261.90	36	273.50	7
244.70	8	255.00	46	262.40	13	274.30	8
246.95	12	255.20	24	265.50	8	274.60	12
247.95	2	255.50	9	266.30	18	274.85	25
248.30	11	255.90	7	266.80	47	276.80	8
249.15	82	256.10	18	268.30	12	279.00	13
250.10	56	256.60	8	268.70	57	279.40	9
250.90	78	257.10	12	269.05	4	281.00	117
251.90	19	259.00	15	270.50	10	282.15	67
252.95	54	260.05	222	270.85	57	283.05	43

Average of 24.187 to 24.199 min.: 021814K01.D\data.ms
S14B088-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
284.00	17	296.00	8				
284.80	11	296.30	7				
286.20	11	299.00	7				
287.80	10						
288.60	9						
289.00	7						
290.80	10						
291.80	12						
292.85	20						
293.50	9						
294.00	11						

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K02.D
Acq On : 18 Feb 2014 13:08
Instrument: HP5973K
Operator : EM
Sample : S14B088-CCV1
Misc : 10 ppbv 1407087
ALS Vial : 32
Multiplier: 1

Quant Time: Feb 18 14:15:17 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	BROMOCHLOROMETHANE	1.000	1.000	0.0	96	0.00
2	T	Propene	0.636	0.566	11.0	94	0.00
3	T	Dichlorodifluoromethane	1.725	1.588	7.9	96	0.00
4	T	1,2-Dichlorotetrafluoroetha	1.770	1.455	17.8	85	0.00
5	T	Chloromethane	0.735	0.642	12.7	91	0.00
6	T	Vinyl chloride	0.780	0.678	13.1	89	0.00
7	T	1,3-Butadiene	0.584	0.524	10.3	91	0.00
8	T	Bromomethane	0.580	0.487	16.0	88	0.00
9	T	Chloroethane	0.405	0.354	12.6	91	0.00
10	T	Bromoethene	0.541	0.463	14.4	88	0.00
11	T	Trichlorofluoromethane	1.492	1.467	1.7	102	0.00
12	T	1,1,2-Trichloro-1,2,2-trifl	1.045	0.938	10.2	91	0.00
13	T	1,1-Dichloroethene	1.153	1.044	9.5	92	0.00
14	T	Acetone	1.030	1.038	-0.8	102	0.00
15	T	Carbon disulfide	1.680	1.443	14.1	88	0.00
16	T	2-Propanol	1.054	1.040	1.3	98	0.00
17	T	Allyl chloride	0.851	0.839	1.4	98	0.00
18	T	Dichloromethane	0.992	0.902	9.1	101	0.00
19	T	tert-Butyl methyl ether (MT	1.708	1.578	7.6	92	0.00
20	T	trans-1,2-Dichloroethene	0.940	0.842	10.4	91	0.00
21	T	Hexane	1.148	1.053	8.3	92	0.00
22	T	1,1-Dichloroethane	1.392	1.272	8.6	94	0.00
23	T	Vinyl acetate	1.530	1.568	-2.5	100	0.00
24	T	cis-1,2-Dichloroethene	1.023	0.927	9.4	92	0.00
25	T	2-Butanone (MEK)	1.322	1.345	-1.7	90	0.00
26	T	Ethyl acetate	1.772	1.751	1.2	106	0.00
27	T	Tetrahydrofuran	0.900	0.872	3.1	96	0.00
28	T	Chloroform	1.406	1.266	10.0	92	0.00
29	T	Cyclohexane	1.169	1.085	7.2	93	0.00
30	T	1,1,1-Trichloroethane	1.394	1.309	6.1	96	0.00
31	T	Carbon tetrachloride	1.352	1.303	3.6	99	0.00
32	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	92	0.00
33	T	Benzene	0.877	0.806	8.1	91	0.00
34	T	2,2,4-Trimethylpentane	1.354	1.301	3.9	92	0.00
35	T	1,2-Dichloroethane	0.354	0.369	-4.2	102	0.00
36	T	Heptane	0.512	0.519	-1.4	97	0.00
37	T	Trichloroethene	0.335	0.305	9.0	90	0.00
38	T	1,2-Dichloropropane	0.336	0.312	7.1	92	0.00
39	T	1,4-Dioxane	0.160	0.156	2.5	88	0.00
40	T	Bromodichloromethane	0.543	0.513	5.5	93	0.00
41	T	cis-1,3-Dichloropropene	0.471	0.435	7.6	89	0.00
42	T	4-Methyl-2-pentanone (MIBK)	0.663	0.700	-5.6	99	0.00
43	I	CHLOROBENZENE-d5	1.000	1.000	0.0	78	0.00
44	T	Toluene	1.085	1.154	-6.4	89	0.00
45	T	trans-1,3-Dichloropropene	0.467	0.529	-13.3	92	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K02.D
Acq On : 18 Feb 2014 13:08
Instrument: HP5973K
Operator : EM
Sample : S14B088-CCV1
Misc : 10 ppbv 1407087
ALS Vial : 32
Multiplier: 1

Quant Time: Feb 18 14:15:17 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
46	T	1,1,2-Trichloroethane	0.358	0.367	-2.5	87	0.00
47	T	Tetrachloroethene	0.503	0.531	-5.6	90	0.00
48	T	2-Hexanone	0.662	0.838	-26.6	100	0.00
49	T	Chlorodibromomethane	0.546	0.613	-12.3	95	0.00
50	T	1,2-Dibromoethane (EDB)	0.499	0.543	-8.8	91	0.00
51	T	Chlorobenzene	0.822	0.849	-3.3	87	0.00
52	T	Ethylbenzene	1.428	1.542	-8.0	89	0.00
53	T	m&p-Xylene	1.090	1.184	-8.6	89	0.00
54	T	o-Xylene	1.076	1.182	-9.9	90	0.00
55	T	Styrene	0.874	0.938	-7.3	87	0.00
56	T	Bromoform	0.575	0.659	-14.6	94	0.00
57	T	1,1,2,2-Tetrachloroethane	0.849	0.881	-3.8	86	0.00
58	T	4-Ethyltoluene	1.391	1.547	-11.2	90	0.00
59	T	1,3,5-Trimethylbenzene	1.233	1.335	-8.3	87	0.00
60	T	1,2,4-Trimethylbenzene	1.237	1.376	-11.2	90	0.00
61	T	1,3-Dichlorobenzene	0.854	0.950	-11.2	92	0.00
62	T	1,4-Dichlorobenzene	0.835	0.947	-13.4	92	0.00
63	T	Benzyl chloride	0.930	1.172	-26.0	101	0.00
64	T	1,2-Dichlorobenzene	0.831	0.909	-9.4	90	0.00
65	T	1,2,4-Trichlorobenzene	0.820	0.934	-13.9	92	0.00
66	T	Hexachlorobutadiene	0.710	0.773	-8.9	91	0.00

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K02.D
Acq On : 18 Feb 2014 13:08
Instrument: HP5973K
Operator : EM
Sample : S14B088-CCV1
Misc : 10 ppbv 1407087
ALS Vial : 32
Multiplier: 1

Quant Time: Feb 18 14:15:17 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

MANUAL INTEGRATION VERIFICATION

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: Em Date: 2/19/14

Manual integration(s) reviewed by:

Reviewer: [illegible] Date: 2/19/14

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.438	49	868809	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2209716	22.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.349	117	1757895	22.00	ppbv	0.00
Target Compounds						Qvalue
2) Propene	4.372	41	239198	9.53	ppbv	98
3) Dichlorodifluoromethane	4.464	85	645905	9.48	ppbv	99
4) 1,2-Dichlorotetrafluor...	4.810	85	603312	8.63	ppbv	99
5) Chloromethane	5.011	50	266237	9.17	ppbv	100
6) Vinyl chloride	5.333	62	281368	9.13	ppbv	98
7) 1,3-Butadiene	5.431	54	210978	9.15	ppbv	90
8) Bromomethane	6.362	94	197942	8.65	ppbv	97
9) Chloroethane	6.690	64	143999	9.00	ppbv	100
10) Bromoethene	7.262	106	188277	8.81	ppbv	97
11) Trichlorofluoromethane	7.408	101	619998	10.52	ppbv	98
12) 1,1,2-Trichloro-1,2,2-...	9.215	151	359374	8.71	ppbv	98
13) 1,1-Dichloroethene	9.300	61	395807	8.69	ppbv	96
14) Acetone	9.817	43	434680	10.69	ppbv	94
15) Carbon disulfide	10.012	76	581250	8.76	ppbv	97
16) 2-Propanol	10.444	45	390258	9.38	ppbv	98
17) Allyl chloride	10.839	41	334902	9.97	ppbv	94
18) Dichloromethane	11.381	49	349241	8.91	ppbv	93
19) tert-Butyl methyl ethe...	12.074	73	679615	10.07	ppbv	100
20) trans-1,2-Dichloroethene	12.105	61	316065	8.51	ppbv	96
21) Hexane	12.713	57	424188	9.36	ppbv	94
22) 1,1-Dichloroethane	13.449	63	487242	8.86	ppbv	98
23) Vinyl acetate	13.595	43	619289	10.25	ppbv	98
24) cis-1,2-Dichloroethene	14.897	61	369663	9.15	ppbv	95
25) 2-Butanone (MEK)	14.994	43	552424	10.58	ppbv	99
26) Ethyl acetate	15.043	43	719300m	10.28	ppbv	
27) Tetrahydrofuran	15.457	42	354982	9.98	ppbv	94
28) Chloroform	15.596	83	509974	9.18	ppbv	97
29) Cyclohexane	15.828	56	445872	9.66	ppbv	95
30) 1,1,1-Trichloroethane	15.882	97	522331	9.49	ppbv	98
31) Carbon tetrachloride	16.138	117	529975	9.93	ppbv	99
33) Benzene	16.631	78	817775	9.29	ppbv	98
34) 2,2,4-Trimethylpentane	16.588	57	1372790	10.10	ppbv	98
35) 1,2-Dichloroethane	16.825	62	363530	10.22	ppbv	100
36) Heptane	16.971	43	547260	10.65	ppbv	96
37) Trichloroethene	17.860	130	309173	9.19	ppbv	98
38) 1,2-Dichloropropane	18.358	63	323084	9.58	ppbv	94
39) 1,4-Dioxane	18.559	88	166586	10.36	ppbv	94
40) Bromodichloromethane	18.821	83	546838	10.02	ppbv	97
41) cis-1,3-Dichloropropene	19.593	75	450602	9.52	ppbv	92
42) 4-Methyl-2-pentanone (...	19.831	43	738699	11.10	ppbv	95
44) Toluene	20.074	91	941152	10.86	ppbv	99
45) trans-1,3-Dichloropropene	20.536	75	452681	12.13	ppbv	92
46) 1,1,2-Trichloroethane	20.841	97	302140	10.55	ppbv	94
47) Tetrachloroethene	20.926	166	424123	10.56	ppbv	99
48) 2-Hexanone	21.181	43	690157	13.04	ppbv	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K02.D
Acq On : 18 Feb 2014 13:08
Instrument: HP5973K
Operator : EM
Sample : S14B088-CCV1
Misc : 10 ppbv 1407087
ALS Vial : 32
Multiplier: 1

Quant Time: Feb 18 14:15:17 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49)	Chlorodibromomethane	21.449	129	509587	11.68	ppbv	98
50)	1,2-Dibromoethane (EDB)	21.680	107	446759	11.21	ppbv	98
51)	Chlorobenzene	22.398	112	705589	10.74	ppbv	96
52)	Ethylbenzene	22.489	91	1256891	11.01	ppbv	100
53)	m&p-Xylene	22.672	91	1929705	22.15	ppbv	100
54)	o-Xylene	23.317	91	973128	11.32	ppbv	100
55)	Styrene	23.353	104	757252	10.84	ppbv	97
56)	Bromoform	23.730	173	542191	11.81	ppbv	98
57)	1,1,2,2-Tetrachloroethane	24.424	83	718589	10.59	ppbv	98
58)	4-Ethyltoluene	24.667	105	1298492	11.68	ppbv	100
59)	1,3,5-Trimethylbenzene	24.764	105	1099208	11.16	ppbv	99
60)	1,2,4-Trimethylbenzene	25.361	105	1110906	11.24	ppbv	99
61)	1,3-Dichlorobenzene	25.896	146	751315	11.01	ppbv	99
62)	1,4-Dichlorobenzene	26.042	146	749034	11.22	ppbv	100
63)	Benzyl chloride	26.255	91	965063	12.98	ppbv	98
64)	1,2-Dichlorobenzene	26.644	146	719557	10.83	ppbv	99
65)	1,2,4-Trichlorobenzene	29.108	180	679473	10.37	ppbv	100
66)	Hexachlorobutadiene	29.248	225	586769	10.35	ppbv	99

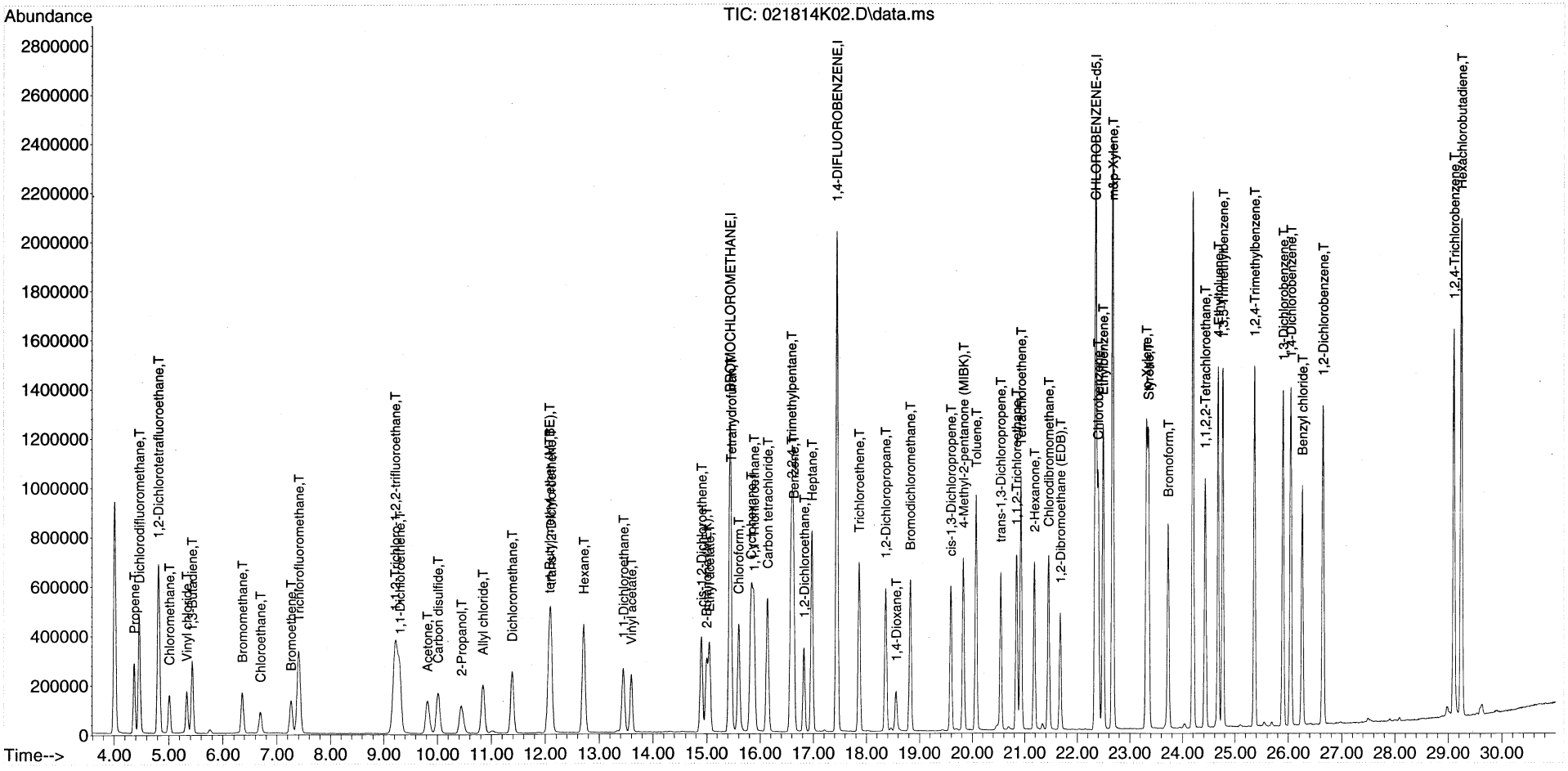
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K02.D
Acq On : 18 Feb 2014 13:08
Instrument: HP5973K
Operator : EM
Sample : S14B088-CCV1
Misc : 10 ppbv 1407087
ALS Vial : 32
Multiplier: 1

Quant Time: Feb 18 14:15:17 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

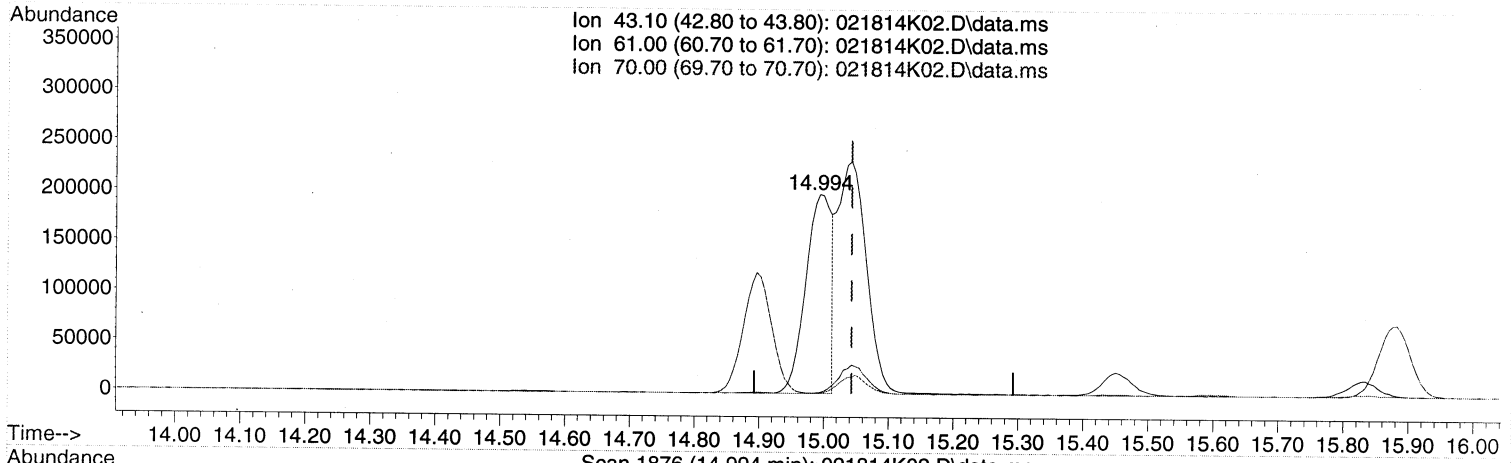


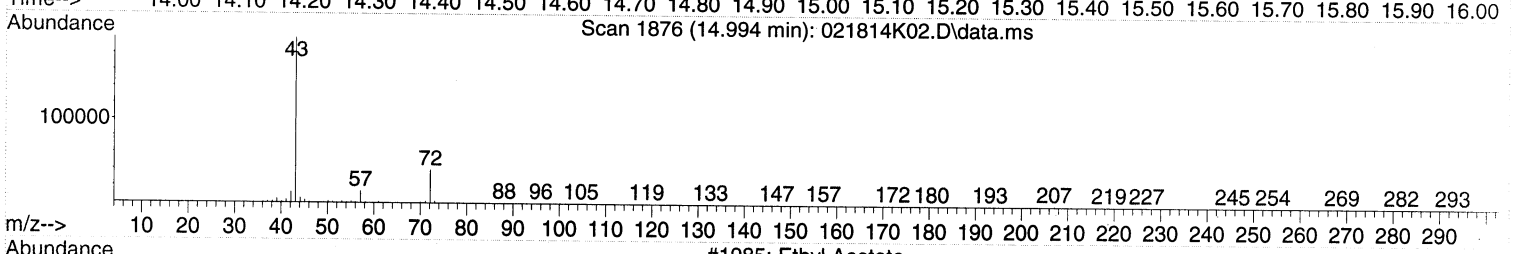
Quantitation Report (Qedit)

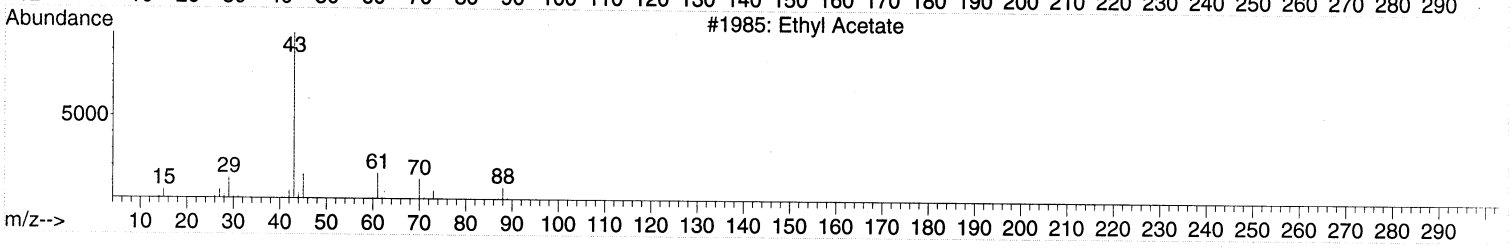
Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K02.D
Acq On : 18 Feb 2014 13:08
Instrument: HP5973K
Operator : EM
Sample : S14B088-CCV1
Misc : 10 ppbv 1407087
ALS Vial : 32
Multiplier: 1

Quant Time: Feb 18 14:14:59 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M







TIC: 021814K02.D\data.ms

(26) Ethyl acetate (T)

14.994min (-0.049) 7.89 ppbv

response 552424

Ion	Exp%	Act%
43.10	100	100
61.00	14.80	0.00#
70.00	9.30	0.00
0.00	0.00	0.00

MANUAL INTEGRATION VERIFICATION

☑ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☑ Other: RT shift

☐ After Manual Integration

Manual integration(s) performed by:

Analyst: _____ Date: _____

Manual integration(s) reviewed by:

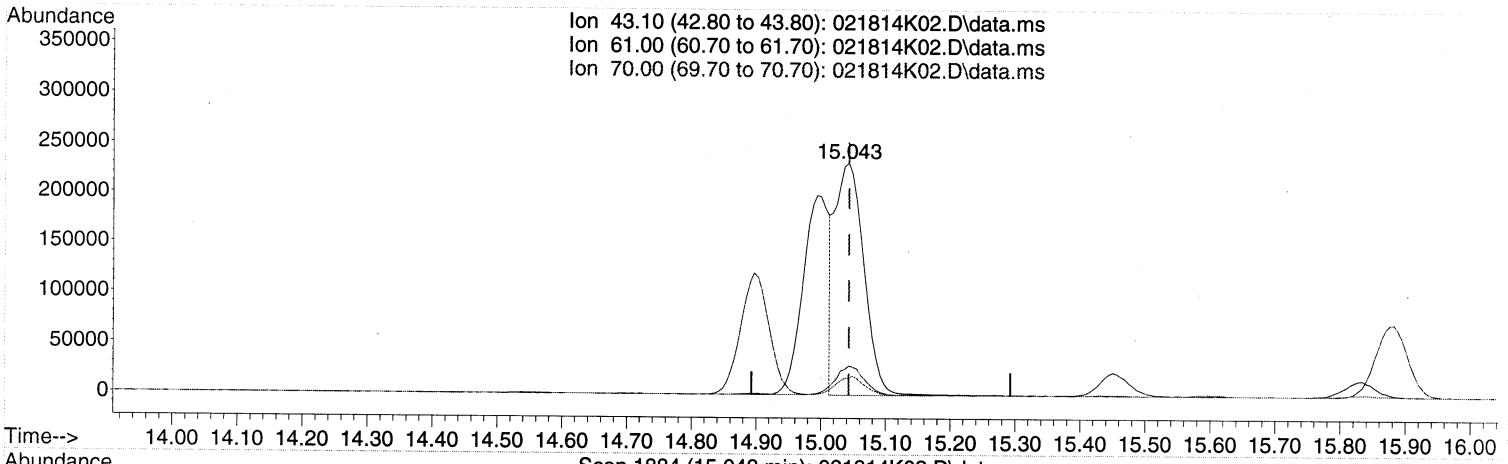
Reviewer: _____ Date: _____

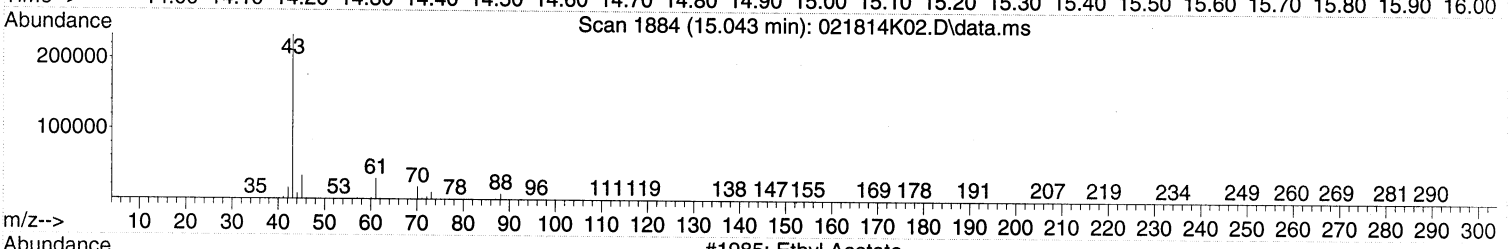
Quantitation Report (Qedit)

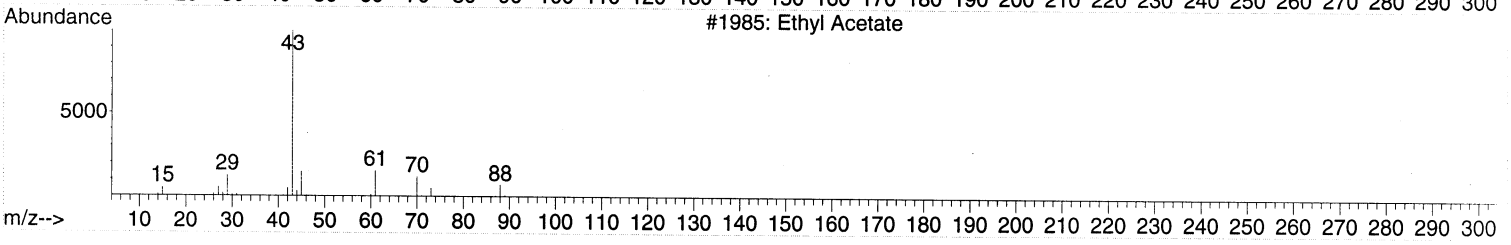
Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K02.D
Acq On : 18 Feb 2014 13:08
Instrument: HP5973K
Operator : EM
Sample : S14B088-CCV1
Misc : 10 ppbv 1407087
ALS Vial : 32
Multiplier: 1

Quant Time: Feb 18 14:14:59 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M







TIC: 021814K02.D\data.ms

(26) Ethyl acetate (T)

15.043min (-0.000) 10.28 ppbv m

response 719300

Ion	Exp%	Act%
43.10	100	100
61.00	14.80	0.00#
70.00	9.30	0.00
0.00	0.00	0.00

MANUAL INTEGRATION VERIFICATION

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EM Date: 2/19/14

Manual integration(s) reviewed by:

Reviewer: JR Date: 2.19.14

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K02.D
Acq On : 18 Feb 2014 13:08
Instrument: HP5973K
Operator : EM
Sample : S14B088-CCV1
Misc : 10 ppbv 1407087
ALS Vial : 32
Multiplier: 1

Quant Time: Feb 18 14:14:59 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

See MI
em 2/19/14

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) BROMOCHLOROMETHANE	15.438	49	868809	22.00 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2209716	22.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.349	117	1757895	22.00 ppbv	0.00
Target Compounds					Qvalue
2) Propene	4.372	41	239198	9.53 ppbv	98
3) Dichlorodifluoromethane	4.464	85	645905	9.48 ppbv	99
4) 1,2-Dichlorotetrafluor...	4.810	85	603312	8.63 ppbv	99
5) Chloromethane	5.011	50	266237	9.17 ppbv	100
6) Vinyl chloride	5.333	62	281368	9.13 ppbv	98
7) 1,3-Butadiene	5.431	54	210978	9.15 ppbv	90
8) Bromomethane	6.362	94	197942	8.65 ppbv	97
9) Chloroethane	6.690	64	143999	9.00 ppbv	100
10) Bromoethene	7.262	106	188277	8.81 ppbv	97
11) Trichlorofluoromethane	7.408	101	619998	10.52 ppbv	98
12) 1,1,2-Trichloro-1,2,2-...	9.215	151	359374	8.71 ppbv	98
13) 1,1-Dichloroethene	9.300	61	395807	8.69 ppbv	96
14) Acetone	9.817	43	434680	10.69 ppbv	94
15) Carbon disulfide	10.012	76	581250	8.76 ppbv	97
16) 2-Propanol	10.444	45	390258	9.38 ppbv	98
17) Allyl chloride	10.839	41	334902	9.97 ppbv	94
18) Dichloromethane	11.381	49	349241	8.91 ppbv	93
19) tert-Butyl methyl ethe...	12.074	73	679615	10.07 ppbv	100
20) trans-1,2-Dichloroethene	12.105	61	316065	8.51 ppbv	96
21) Hexane	12.713	57	424188	9.36 ppbv	94
22) 1,1-Dichloroethane	13.449	63	487242	8.86 ppbv	98
23) Vinyl acetate	13.595	43	619289	10.25 ppbv	98
24) cis-1,2-Dichloroethene	14.897	61	369663	9.15 ppbv	95
25) 2-Butanone (MEK)	14.994	43	552424	10.58 ppbv	99
26) Ethyl acetate	14.994	43	552424	7.89 ppbv #	68
27) Tetrahydrofuran	15.457	42	354982	9.98 ppbv	94
28) Chloroform	15.596	83	509974	9.18 ppbv	97
29) Cyclohexane	15.828	56	445872	9.66 ppbv	95
30) 1,1,1-Trichloroethane	15.882	97	522331	9.49 ppbv	98
31) Carbon tetrachloride	16.138	117	529975	9.93 ppbv	99
33) Benzene	16.631	78	817775	9.29 ppbv	98
34) 2,2,4-Trimethylpentane	16.588	57	1372790	10.10 ppbv	98
35) 1,2-Dichloroethane	16.825	62	363530	10.22 ppbv	100
36) Heptane	16.971	43	547260	10.65 ppbv	96
37) Trichloroethene	17.860	130	309173	9.19 ppbv	98
38) 1,2-Dichloropropane	18.358	63	323084	9.58 ppbv	94
39) 1,4-Dioxane	18.559	88	166586	10.36 ppbv	94
40) Bromodichloromethane	18.821	83	546838	10.02 ppbv	97
41) cis-1,3-Dichloropropene	19.593	75	450602	9.52 ppbv	92
42) 4-Methyl-2-pentanone (...	19.831	43	738699	11.10 ppbv	95
44) Toluene	20.074	91	941152	10.86 ppbv	99
45) trans-1,3-Dichloropropene	20.536	75	452681	12.13 ppbv	92
46) 1,1,2-Trichloroethane	20.841	97	302140	10.55 ppbv	94
47) Tetrachloroethene	20.926	166	424123	10.56 ppbv	99
48) 2-Hexanone	21.181	43	690157	13.04 ppbv	95

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K02.D
Acq On : 18 Feb 2014 13:08
Instrument: HP5973K
Operator : EM
Sample : S14B088-CCV1
Misc : 10 ppbv 1407087
ALS Vial : 32
Multiplier: 1

Quant Time: Feb 18 14:14:59 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorodibromomethane	21.449	129	509587	11.68 ppbv	98
50) 1,2-Dibromoethane (EDB)	21.680	107	446759	11.21 ppbv	98
51) Chlorobenzene	22.398	112	705589	10.74 ppbv	96
52) Ethylbenzene	22.489	91	1256891	11.01 ppbv	100
53) m&p-Xylene	22.672	91	1929705	22.15 ppbv	100
54) o-Xylene	23.317	91	973128	11.32 ppbv	100
55) Styrene	23.353	104	757252	10.84 ppbv	97
56) Bromoform	23.730	173	542191	11.81 ppbv	98
57) 1,1,2,2-Tetrachloroethane	24.424	83	718589	10.59 ppbv	98
58) 4-Ethyltoluene	24.667	105	1298492	11.68 ppbv	100
59) 1,3,5-Trimethylbenzene	24.764	105	1099208	11.16 ppbv	99
60) 1,2,4-Trimethylbenzene	25.361	105	1110906	11.24 ppbv	99
61) 1,3-Dichlorobenzene	25.896	146	751315	11.01 ppbv	99
62) 1,4-Dichlorobenzene	26.042	146	749034	11.22 ppbv	100
63) Benzyl chloride	26.255	91	965063	12.98 ppbv	98
64) 1,2-Dichlorobenzene	26.644	146	719557	10.83 ppbv	99
65) 1,2,4-Trichlorobenzene	29.108	180	679473	10.37 ppbv	100
66) Hexachlorobutadiene	29.248	225	586769	10.35 ppbv	99

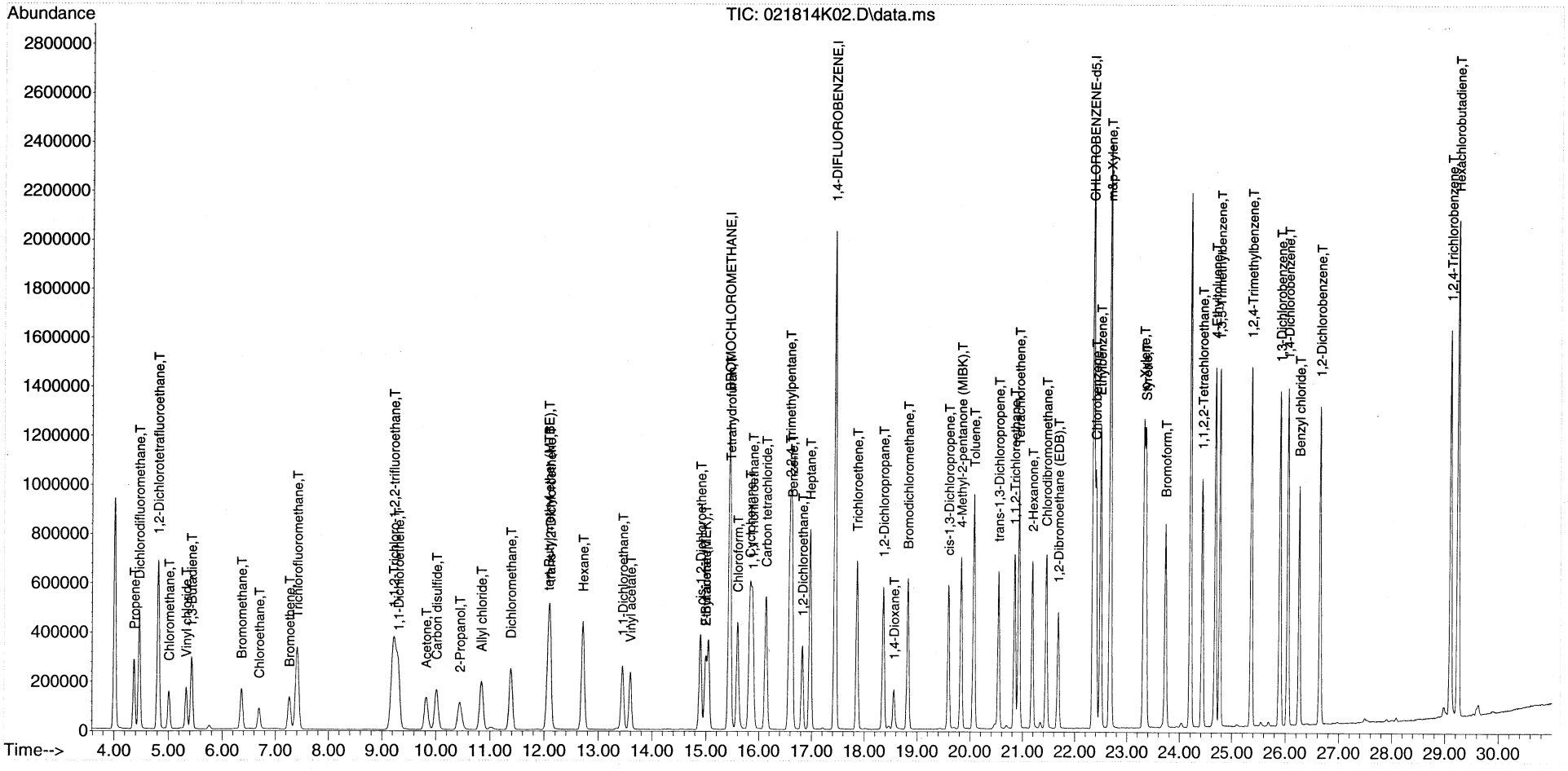
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K02.D
Acq On : 18 Feb 2014 13:08
Instrument: HP5973K
Operator : EM
Sample : S14B088-CCV1
Misc : 10 ppbv 1407087
ALS Vial : 32
Multiplier: 1

Quant Time: Feb 18 14:14:59 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M



LCS REPORT

Instrument Name: HP5973K
Sample Name: B14B075-BS1
Misc Info: 10 ppbv 1407087
Date Acquired: 2/18/2014 13:54
QLast Update: Fri Jan 24 15:09:46 2014
Operator: EM

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	BROMOCHLOROMETHANE	15.44	#N/A	22.00	#N/A	70.0	130.0	#N/A
2)	Propene	4.37	10.30	9.98	97%	56.0	155.0	pass
3)	Dichlorodifluoromethane	4.46	10.30	10.03	97%	67.0	141.0	pass
4)	1,2-Dichlorotetrafluoroethane	4.82	10.50	9.14	87%	68.0	147.0	pass
5)	Chloromethane	5.01	10.50	9.75	93%	64.0	141.0	pass
6)	Vinyl chloride	5.33	10.50	9.79	93%	65.0	141.0	pass
7)	1,3-Butadiene	5.43	10.00	9.74	97%	61.0	154.0	pass
8)	Bromomethane	6.36	10.30	9.25	90%	71.0	132.0	pass
9)	Chloroethane	6.69	10.30	9.75	95%	70.0	134.0	pass
10)	Bromoethene	7.26	10.40	9.53	92%	71.0	146.0	pass
11)	Trichlorofluoromethane	7.41	10.70	11.49	107%	72.0	141.0	pass
12)	1,1,2-Trichloro-1,2,2-trifluoroethane	9.21	9.70	8.95	92%	68.0	134.0	pass
13)	1,1-Dichloroethene	9.30	9.60	9.64	100%	81.0	127.0	pass
14)	Acetone	9.82	10.50	11.63	111%	77.0	150.0	pass
15)	Carbon disulfide	10.01	10.50	9.50	90%	75.0	138.0	pass
16)	2-Propanol	10.45	10.60	10.32	97%	71.0	142.0	pass
17)	Allyl chloride	10.85	10.70	11.08	104%	84.0	143.0	pass
18)	Dichloromethane	11.38	9.80	9.61	98%	74.0	116.0	pass
19)	tert-Butyl methyl ether (MTBE)	12.07	10.70	11.32	106%	79.0	131.0	pass
20)	trans-1,2-Dichloroethene	12.10	10.20	9.53	93%	82.0	136.0	pass
21)	Hexane	12.71	10.30	10.35	100%	78.0	139.0	pass
22)	1,1-Dichloroethane	13.45	9.70	9.83	101%	82.0	123.0	pass
23)	Vinyl acetate	13.60	10.60	11.46	108%	70.0	139.0	pass
24)	cis-1,2-Dichloroethene	14.90	10.10	10.17	101%	83.0	126.0	pass
25)	2-Butanone (MEK)	15.00	10.50	13.15	125%	76.0	138.0	pass
26)	Ethyl acetate	15.04	10.40	10.57	102%	83.0	136.0	pass
27)	Tetrahydrofuran	15.45	10.30	11.11	108%	74.0	132.0	pass
28)	Chloroform	15.60	10.20	10.16	100%	81.0	127.0	pass
29)	Cyclohexane	15.83	10.50	10.69	102%	77.0	139.0	pass
30)	1,1,1-Trichloroethane	15.88	10.10	10.55	105%	80.0	131.0	pass
31)	Carbon tetrachloride	16.14	10.30	10.96	106%	77.0	136.0	pass
32)	1,4-DIFLUOROBENZENE	17.45	#N/A	22.00	#N/A	70.0	130.0	#N/A
33)	Benzene	16.63	10.10	10.48	104%	77.0	131.0	pass
34)	2,2,4-Trimethylpentane	16.59	10.50	11.48	109%	68.0	152.0	pass
35)	1,2-Dichloroethane	16.83	9.80	11.61	119%	70.0	149.0	pass
36)	Heptane	16.97	10.50	12.24	117%	62.0	159.0	pass
37)	Trichloroethene	17.86	10.10	10.17	101%	81.0	125.0	pass
38)	1,2-Dichloropropane	18.36	10.30	10.82	105%	74.0	135.0	pass
39)	1,4-Dioxane	18.56	10.50	11.77	112%	67.0	134.0	pass
40)	Bromodichloromethane	18.83	10.40	11.48	110%	69.0	150.0	pass
41)	cis-1,3-Dichloropropene	19.59	10.30	10.81	105%	77.0	129.0	pass
42)	4-Methyl-2-pentanone (MIBK)	19.83	10.50	12.73	121%	59.0	147.0	pass
43)	CHLOROBENZENE-d5	22.36	#N/A	22.00	#N/A	70.0	130.0	#N/A
44)	Toluene	20.07	10.20	12.17	119%	79.0	126.0	pass
45)	trans-1,3-Dichloropropene	20.54	10.70	13.86	130%	81.0	137.0	pass
46)	1,1,2-Trichloroethane	20.84	10.30	11.80	115%	76.0	124.0	pass
47)	Tetrachloroethene	20.93	10.00	11.62	116%	80.0	122.0	pass

48)	2-Hexanone	21.18	10.40	14.80	142%	55.0	149.0	pass	
49)	Chlorodibromomethane	21.45	10.40	13.04	125%	76.0	145.0	pass	
50)	1,2-Dibromoethane (EDB)	21.68	10.30	12.48	121%	78.0	124.0	pass	
51)	Chlorobenzene	22.40	10.40	12.04	116%	76.0	120.0	pass	
52)	Ethylbenzene	22.49	10.20	12.34	121%	75.0	125.0	pass	
53)	m&p-Xylene	22.67	20.40	24.78	121%	75.0	128.0	pass	
54)	o-Xylene	23.32	10.30	12.71	123%	74.0	128.0	pass	
55)	Styrene	23.35	10.10	12.21	121%	69.0	122.0	pass	
56)	Bromoform	23.73	10.30	13.22	128%	72.0	142.0	pass	
57)	1,1,2,2-Tetrachloroethane	24.42	10.20	11.81	116%	70.0	130.0	pass	
58)	4-Ethyltoluene	24.67	10.40	12.96	125%	69.0	138.0	pass	
59)	1,3,5-Trimethylbenzene	24.76	10.30	12.58	122%	70.0	134.0	pass	
60)	1,2,4-Trimethylbenzene	25.37	10.10	12.58	125%	65.0	129.0	pass	
61)	1,3-Dichlorobenzene	25.90	9.90	12.33	125%	62.0	130.0	pass	
62)	1,4-Dichlorobenzene	26.04	9.90	12.54	127%	61.0	131.0	pass	
63)	Benzyl chloride	26.25	10.40	14.75	142%	61.0	153.0	pass	
64)	1,2-Dichlorobenzene	26.65	9.90	12.15	123%	60.0	130.0	pass	
65)	1,2,4-Trichlorobenzene	29.11	9.10	11.66	✓ 128%	38.0	128.0 ✓	~~FAIL~~ pass	em 7/18/14
66)	Hexachlorobutadiene	29.25	9.50	11.74	124%	37.0	124.0	pass	

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K03.D
Acq On : 18 Feb 2014 13:54
Instrument: HP5973K
Operator : EM
Sample : B14B075-BS1
Misc : 10 ppbv 1407087
ALS Vial : 32
Multiplier: 1

Quant Time: Feb 18 14:33:12 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

MANUAL INTEGRATION VERIFICATION

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EM Date: 2/19/14

Manual integration(s) reviewed by:

Reviewer: JR Date: 2-19-14

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.438	49	815288	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2030617	22.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.355	117	1637215	22.00	ppbv	0.00
Target Compounds						Qvalue
2) Propene	4.372	41	235034	9.98	ppbv	97
3) Dichlorodifluoromethane	4.464	85	641202	10.03	ppbv	100
4) 1,2-Dichlorotetrafluor...	4.816	85	599264	9.14	ppbv	99
5) Chloromethane	5.011	50	265791	9.75	ppbv	99
6) Vinyl chloride	5.333	62	283036	9.79	ppbv	100
7) 1,3-Butadiene	5.431	54	210704	9.74	ppbv	90
8) Bromomethane	6.362	94	198737	9.25	ppbv	97
9) Chloroethane	6.690	64	146456	9.75	ppbv	98
10) Bromoethene	7.262	106	191049	9.53	ppbv	97
11) Trichlorofluoromethane	7.408	101	635382	11.49	ppbv	98
12) 1,1,2-Trichloro-1,2,2-...	9.215	151	346593	8.95	ppbv	99
13) 1,1-Dichloroethene	9.300	61	412203	9.64	ppbv	96
14) Acetone	9.823	43	443958	11.63	ppbv	94
15) Carbon disulfide	10.012	76	591163	9.50	ppbv	96
16) 2-Propanol	10.450	45	403185	10.32	ppbv	98
17) Allyl chloride	10.845	41	349333	11.08	ppbv	93
18) Dichloromethane	11.381	49	353604	9.61	ppbv	93
19) tert-Butyl methyl ethe...	12.074	73	716588	11.32	ppbv	100
20) trans-1,2-Dichloroethene	12.105	61	332202	9.53	ppbv	94
21) Hexane	12.713	57	440026	10.35	ppbv	94
22) 1,1-Dichloroethane	13.449	63	507397	9.83	ppbv	98
23) Vinyl acetate	13.595	43	649672	11.46	ppbv	98
24) cis-1,2-Dichloroethene	14.897	61	385334	10.17	ppbv	95
25) 2-Butanone (MEK)	15.000	43	644215	13.15	ppbv	96
26) Ethyl acetate	15.043	43	693996m	10.57	ppbv	
27) Tetrahydrofuran	15.451	42	370881	11.11	ppbv	94
28) Chloroform	15.597	83	529693	10.16	ppbv	97
29) Cyclohexane	15.834	56	463087	10.69	ppbv	95
30) 1,1,1-Trichloroethane	15.882	97	545439	10.55	ppbv	98
31) Carbon tetrachloride	16.138	117	549330	10.96	ppbv	98
33) Benzene	16.631	78	847722	10.48	ppbv	98
34) 2,2,4-Trimethylpentane	16.588	57	1433820	11.48	ppbv	98
35) 1,2-Dichloroethane	16.825	62	379508	11.61	ppbv	99
36) Heptane	16.971	43	578206	12.24	ppbv	95
37) Trichloroethene	17.860	130	314427	10.17	ppbv	98
38) 1,2-Dichloropropane	18.358	63	335028	10.82	ppbv	94
39) 1,4-Dioxane	18.559	88	173898	11.77	ppbv	93
40) Bromodichloromethane	18.827	83	575698	11.48	ppbv	97
41) cis-1,3-Dichloropropene	19.593	75	470403	10.81	ppbv	91
42) 4-Methyl-2-pentanone (...	19.831	43	778365	12.73	ppbv	96
44) Toluene	20.074	91	982521	12.17	ppbv	99
45) trans-1,3-Dichloropropene	20.536	75	481843	13.86	ppbv	93
46) 1,1,2-Trichloroethane	20.841	97	314627	11.80	ppbv	94
47) Tetrachloroethene	20.926	166	434913	11.62	ppbv	98
48) 2-Hexanone	21.181	43	729457	14.80	ppbv	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K03.D
Acq On : 18 Feb 2014 13:54
Instrument: HP5973K
Operator : EM
Sample : B14B075-BS1
Misc : 10 ppbv 1407087
ALS Vial : 32
Multiplier: 1

Quant Time: Feb 18 14:33:12 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49)	Chlorodibromomethane	21.455	129	529938	13.04	ppbv	98
50)	1,2-Dibromoethane (EDB)	21.680	107	463119	12.48	ppbv	99
51)	Chlorobenzene	22.398	112	736797	12.04	ppbv	97
52)	Ethylbenzene	22.489	91	1311842	12.34	ppbv	99
53)	m&p-Xylene	22.672	91	2010853	24.78	ppbv	100
54)	o-Xylene	23.317	91	1018143	12.71	ppbv	99
55)	Styrene	23.353	104	794315	12.21	ppbv	97
56)	Bromoform	23.730	173	565539	13.22	ppbv	99
57)	1,1,2,2-Tetrachloroethane	24.424	83	746887	11.81	ppbv	98
58)	4-Ethyltoluene	24.667	105	1341490	12.96	ppbv	100
59)	1,3,5-Trimethylbenzene	24.764	105	1154208	12.58	ppbv	99
60)	1,2,4-Trimethylbenzene	25.367	105	1158010	12.58	ppbv	99
61)	1,3-Dichlorobenzene	25.896	146	783367	12.33	ppbv	99
62)	1,4-Dichlorobenzene	26.042	146	779301	12.54	ppbv	99
63)	Benzyl chloride	26.255	91	1021327	14.75	ppbv	98
64)	1,2-Dichlorobenzene	26.650	146	751695	12.15	ppbv	99
65)	1,2,4-Trichlorobenzene	29.108	180	711746	11.66	ppbv	100
66)	Hexachlorobutadiene	29.248	225	619908	11.74	ppbv	99

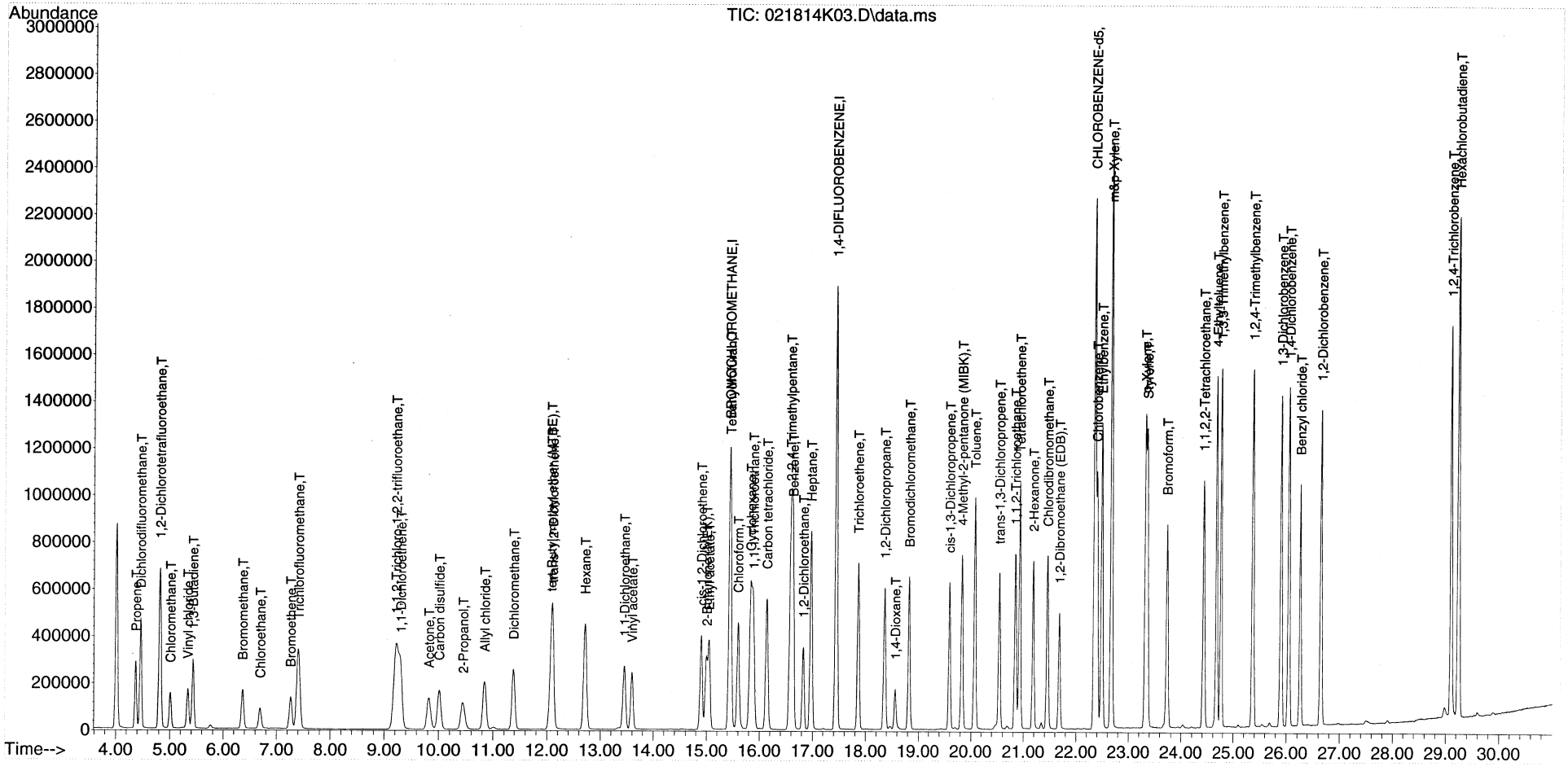
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K03.D
Acq On : 18 Feb 2014 13:54
Instrument: HP5973K
Operator : EM
Sample : B14B075-BS1
Misc : 10 ppbv 1407087
ALS Vial : 32
Multiplier: 1

Quant Time: Feb 18 14:33:12 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

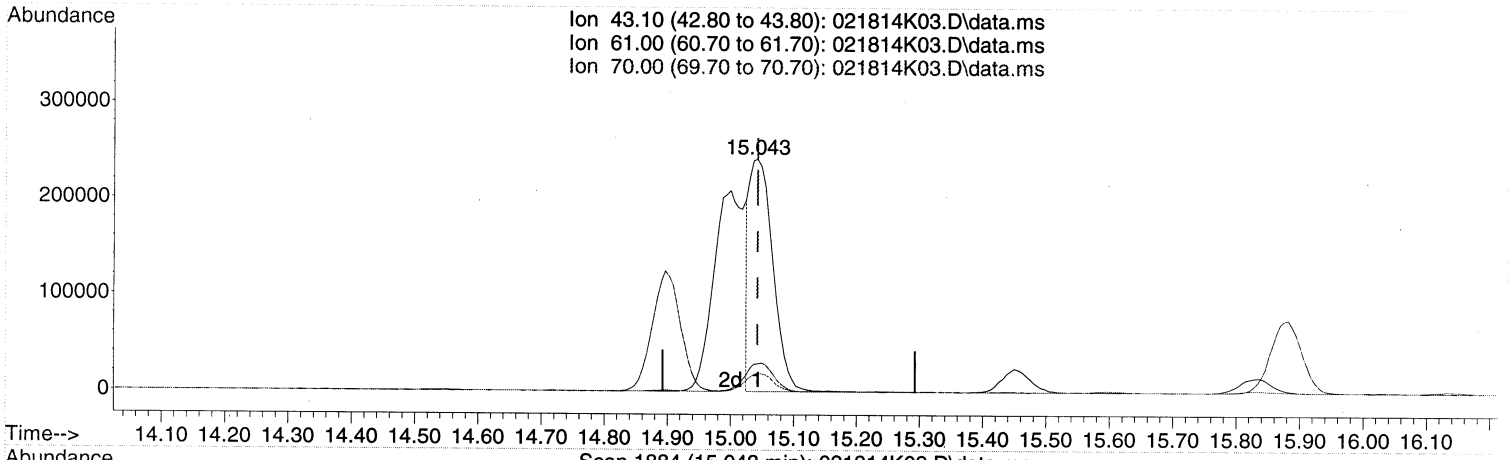


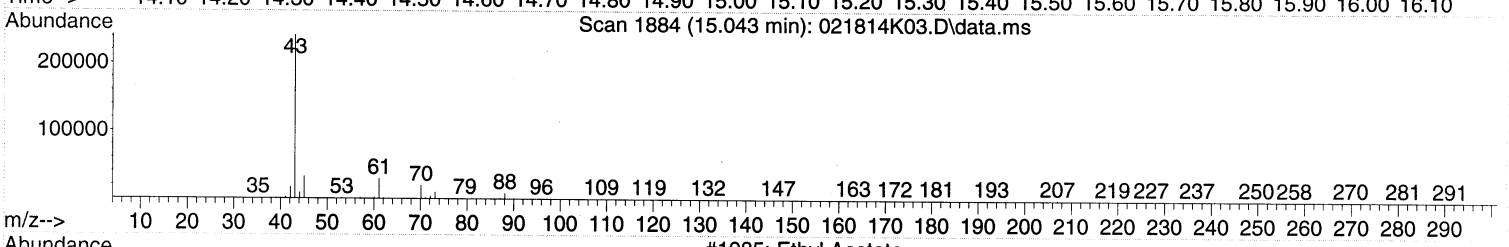
Quantitation Report (Qedit)

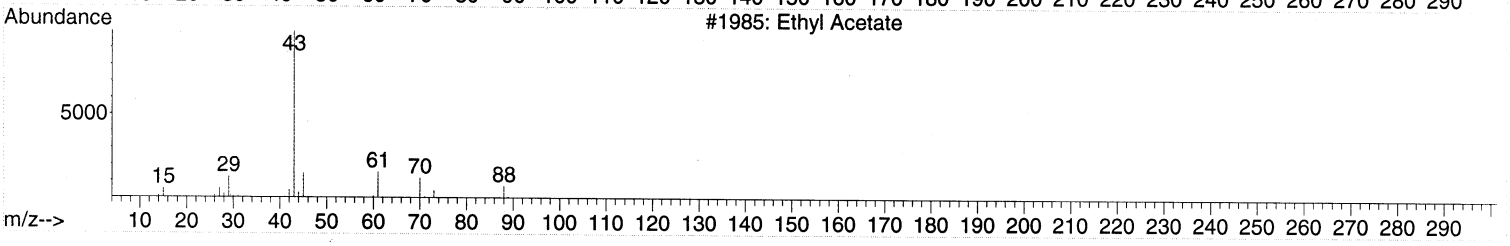
Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K03.D
Acq On : 18 Feb 2014 13:54
Instrument: HP5973K
Operator : EM
Sample : B14B075-BS1
Misc : 10 ppbv 1407087
ALS Vial : 32
Multiplier: 1

Quant Time: Feb 18 14:32:49 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M







TIC: 021814K03.D\data.ms

(26) Ethyl acetate (T)

15.043min (0.000) 9.43 ppbv

response 619544

Ion	Exp%	Act%
43.10	100	100
61.00	14.80	14.97
70.00	9.30	9.58
0.00	0.00	0.00

MANUAL INTEGRATION VERIFICATION

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☐ After Manual Integration

Manual integration(s) performed by:

Analyst: _____ Date: _____

Manual integration(s) reviewed by:

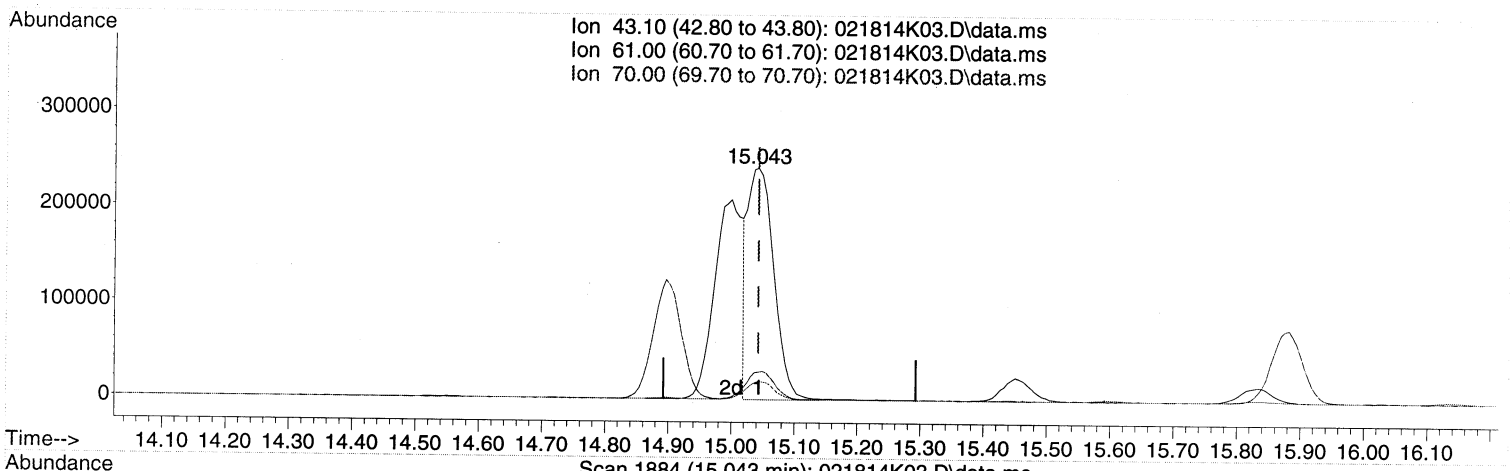
Reviewer: _____ Date: _____

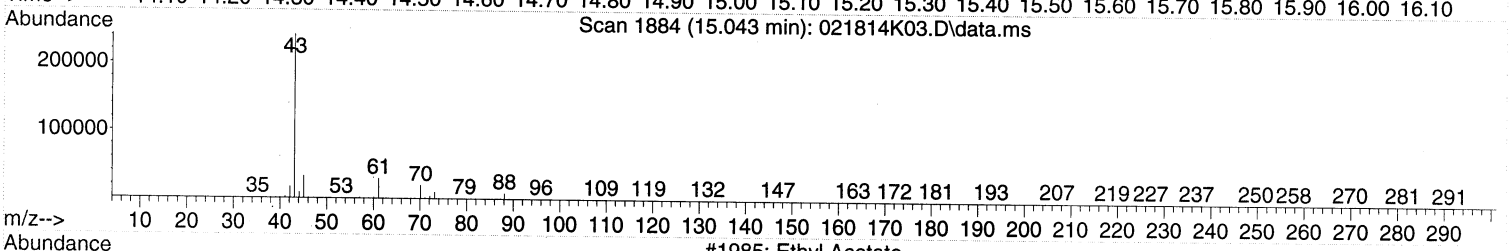
Quantitation Report (Qedit)

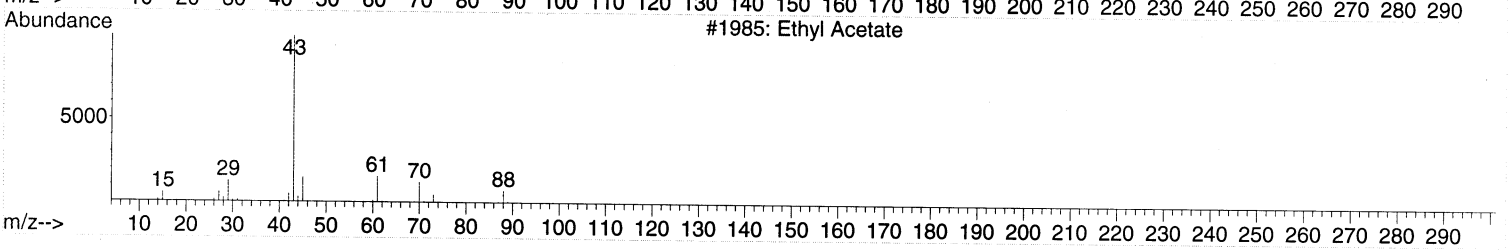
Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K03.D
Acq On : 18 Feb 2014 13:54
Instrument: HP5973K
Operator : EM
Sample : B14B075-BS1
Misc : 10 ppbv 1407087
ALS Vial : 32
Multiplier: 1

Quant Time: Feb 18 14:32:49 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M







TIC: 021814K03.D\data.ms

(26) Ethyl acetate (T)

15.043min (0.000) 10.57 ppbv m

response 693996

Ion	Exp%	Act%
43.10	100	100
61.00	14.80	13.37
70.00	9.30	8.55
0.00	0.00	0.00

MANUAL INTEGRATION VERIFICATION

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: lm Date: 2/19/14

Manual integration(s) reviewed by:

Reviewer: JR Date: 2-19-14

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K03.D
Acq On : 18 Feb 2014 13:54
Instrument: HP5973K
Operator : EM
Sample : B14B075-BS1
Misc : 10 ppbv 1407087
ALS Vial : 32
Multiplier: 1

Rec MT
em 2/18/14

Quant Time: Feb 18 14:32:49 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.438	49	815288	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2030617	22.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.355	117	1637215	22.00	ppbv	0.00
Target Compounds						Qvalue
2) Propene	4.372	41	235034	9.98	ppbv	97
3) Dichlorodifluoromethane	4.464	85	641202	10.03	ppbv	100
4) 1,2-Dichlorotetrafluor...	4.816	85	599264	9.14	ppbv	99
5) Chloromethane	5.011	50	265791	9.75	ppbv	99
6) Vinyl chloride	5.333	62	283036	9.79	ppbv	100
7) 1,3-Butadiene	5.431	54	210704	9.74	ppbv	90
8) Bromomethane	6.362	94	198737	9.25	ppbv	97
9) Chloroethane	6.690	64	146456	9.75	ppbv	98
10) Bromoethene	7.262	106	191049	9.53	ppbv	97
11) Trichlorofluoromethane	7.408	101	635382	11.49	ppbv	98
12) 1,1,2-Trichloro-1,2,2-...	9.215	151	346593	8.95	ppbv	99
13) 1,1-Dichloroethene	9.300	61	412203	9.64	ppbv	96
14) Acetone	9.823	43	443958	11.63	ppbv	94
15) Carbon disulfide	10.012	76	591163	9.50	ppbv	96
16) 2-Propanol	10.450	45	403185	10.32	ppbv	98
17) Allyl chloride	10.845	41	349333	11.08	ppbv	93
18) Dichloromethane	11.381	49	353604	9.61	ppbv	93
19) tert-Butyl methyl ethe...	12.074	73	716588	11.32	ppbv	100
20) trans-1,2-Dichloroethene	12.105	61	332202	9.53	ppbv	94
21) Hexane	12.713	57	440026	10.35	ppbv	94
22) 1,1-Dichloroethane	13.449	63	507397	9.83	ppbv	98
23) Vinyl acetate	13.595	43	649672	11.46	ppbv	98
24) cis-1,2-Dichloroethene	14.897	61	385334	10.17	ppbv	95
25) 2-Butanone (MEK)	15.000	43	644215	13.15	ppbv	96
26) Ethyl acetate	15.043	43	619544	9.43	ppbv	99
27) Tetrahydrofuran	15.451	42	370881	11.11	ppbv	94
28) Chloroform	15.597	83	529693	10.16	ppbv	97
29) Cyclohexane	15.834	56	463087	10.69	ppbv	95
30) 1,1,1-Trichloroethane	15.882	97	545439	10.55	ppbv	98
31) Carbon tetrachloride	16.138	117	549330	10.96	ppbv	98
33) Benzene	16.631	78	847722	10.48	ppbv	98
34) 2,2,4-Trimethylpentane	16.588	57	1433820	11.48	ppbv	98
35) 1,2-Dichloroethane	16.825	62	379508	11.61	ppbv	99
36) Heptane	16.971	43	578206	12.24	ppbv	95
37) Trichloroethene	17.860	130	314427	10.17	ppbv	98
38) 1,2-Dichloropropane	18.358	63	335028	10.82	ppbv	94
39) 1,4-Dioxane	18.559	88	173898	11.77	ppbv	93
40) Bromodichloromethane	18.827	83	575698	11.48	ppbv	97
41) cis-1,3-Dichloropropene	19.593	75	470403	10.81	ppbv	91
42) 4-Methyl-2-pentanone (...	19.831	43	778365	12.73	ppbv	96
44) Toluene	20.074	91	982521	12.17	ppbv	99
45) trans-1,3-Dichloropropene	20.536	75	481843	13.86	ppbv	93
46) 1,1,2-Trichloroethane	20.841	97	314627	11.80	ppbv	94
47) Tetrachloroethene	20.926	166	434913	11.62	ppbv	98
48) 2-Hexanone	21.181	43	729457	14.80	ppbv	94

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K03.D
Acq On : 18 Feb 2014 13:54
Instrument: HP5973K
Operator : EM
Sample : B14B075-BS1
Misc : 10 ppbv 1407087
ALS Vial : 32
Multiplier: 1

Quant Time: Feb 18 14:32:49 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorodibromomethane	21.455	129	529938	13.04 ppbv	98
50) 1,2-Dibromoethane (EDB)	21.680	107	463119	12.48 ppbv	99
51) Chlorobenzene	22.398	112	736797	12.04 ppbv	97
52) Ethylbenzene	22.489	91	1311842	12.34 ppbv	99
53) m&p-Xylene	22.672	91	2010853	24.78 ppbv	100
54) o-Xylene	23.317	91	1018143	12.71 ppbv	99
55) Styrene	23.353	104	794315	12.21 ppbv	97
56) Bromoform	23.730	173	565539	13.22 ppbv	99
57) 1,1,2,2-Tetrachloroethane	24.424	83	746887	11.81 ppbv	98
58) 4-Ethyltoluene	24.667	105	1341490	12.96 ppbv	100
59) 1,3,5-Trimethylbenzene	24.764	105	1154208	12.58 ppbv	99
60) 1,2,4-Trimethylbenzene	25.367	105	1158010	12.58 ppbv	99
61) 1,3-Dichlorobenzene	25.896	146	783367	12.33 ppbv	99
62) 1,4-Dichlorobenzene	26.042	146	779301	12.54 ppbv	99
63) Benzyl chloride	26.255	91	1021327	14.75 ppbv	98
64) 1,2-Dichlorobenzene	26.650	146	751695	12.15 ppbv	99
65) 1,2,4-Trichlorobenzene	29.108	180	711746	11.66 ppbv	100
66) Hexachlorobutadiene	29.248	225	619908	11.74 ppbv	99

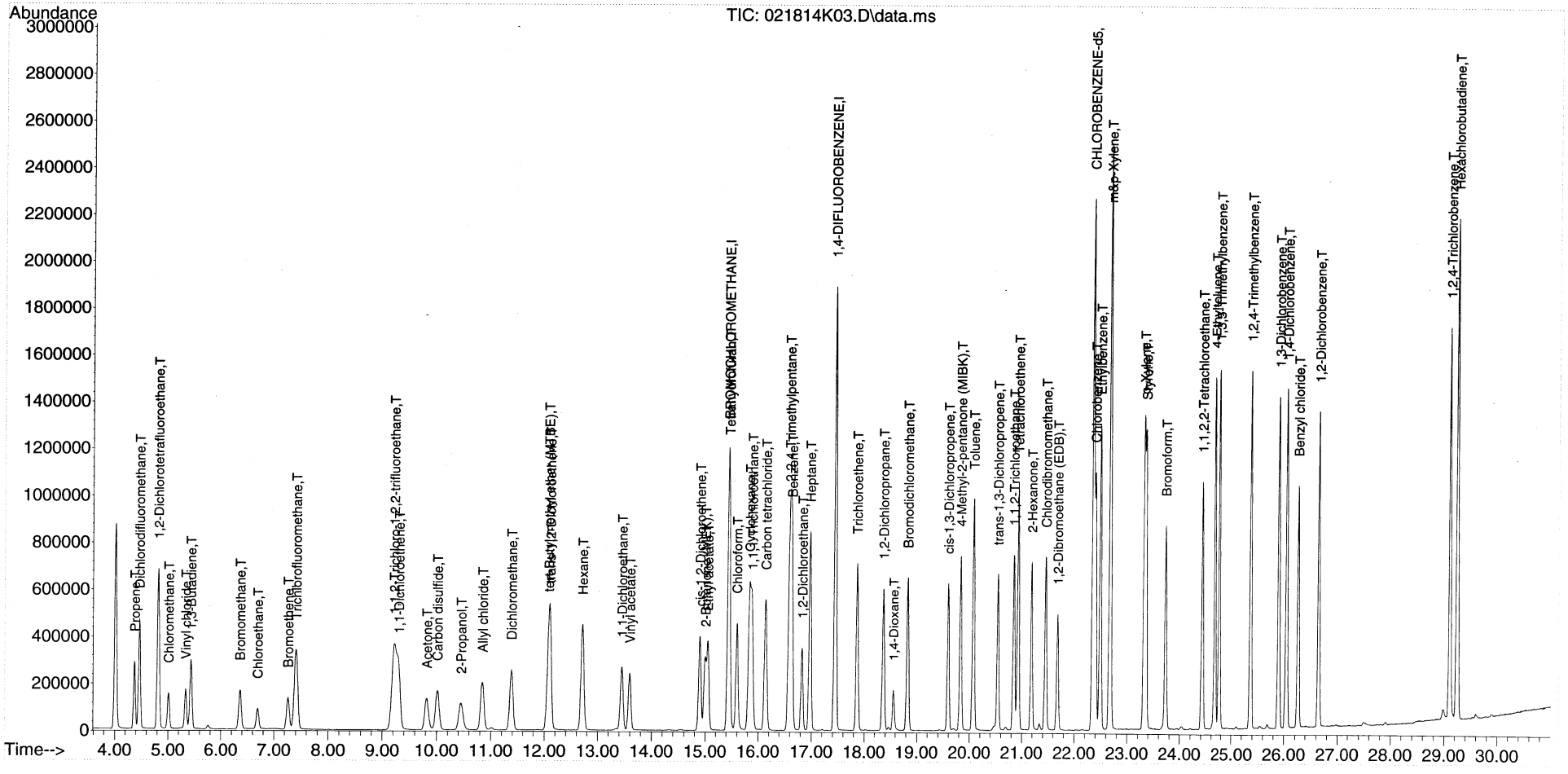
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K03.D
Acq On : 18 Feb 2014 13:54
Instrument: HP5973K
Operator : EM
Sample : B14B075-BS1
Misc : 10 ppbv 1407087
ALS Vial : 32
Multiplier: 1

Quant Time: Feb 18 14:32:49 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M



QLS REPORT

1 out (high)
em [illegible]

Instrument Name: HP5973K
Sample Name: S14B088-CRL1
Misc Info: 1.0 ppbv 1407088
Date Acquired: 2/18/2014 14:40
QLast Update: Fri Jan 24 15:09:46 2014
Operator: EM

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	BROMOCHLOROMETHANE	15.44	22.00	22.00	100%	60.0	140.0	pass
2)	Propene	4.37	1.07	1.19	111%	60.0	140.0	pass
3)	Dichlorodifluoromethane	4.46	1.03	1.12	109%	60.0	140.0	pass
4)	1,2-Dichlorotetrafluoroethane	4.82	1.05	1.02	98%	60.0	140.0	pass
5)	Chloromethane	5.01	1.05	1.09	103%	60.0	140.0	pass
6)	Vinyl chloride	5.33	1.05	1.08	103%	60.0	140.0	pass
7)	1,3-Butadiene	5.44	1.02	1.07	105%	60.0	140.0	pass
8)	Bromomethane	6.36	1.03	1.11	108%	60.0	140.0	pass
9)	Chloroethane	6.69	1.03	1.17	113%	60.0	140.0	pass
10)	Bromoethene	7.27	1.03	1.06	103%	60.0	140.0	pass
11)	Trichlorofluoromethane	7.41	1.07	1.31	123%	60.0	140.0	pass
12)	1,1,2-Trichloro-1,2,2-trifluoroethane	9.21	0.97	1.03	106%	60.0	140.0	pass
13)	1,1-Dichloroethene	9.31	0.96	1.05	109%	60.0	140.0	pass
14)	Acetone	9.87	1.06	1.33	126%	60.0	140.0	pass
15)	Carbon disulfide	10.01	1.02	1.09	107%	60.0	140.0	pass
16)	2-Propanol	10.50	0.95	1.06	111%	60.0	140.0	pass
17)	Allyl chloride	10.84	1.01	1.16	115%	60.0	140.0	pass
18)	Dichloromethane	11.37	0.98	1.66	169%	60.0	140.0	FAIL
19)	tert-Butyl methyl ether (MTBE)	12.12	1.09	1.18	108%	60.0	140.0	pass
20)	trans-1,2-Dichloroethene	12.10	0.95	1.03	108%	60.0	140.0	pass
21)	Hexane	12.71	1.02	1.07	105%	60.0	140.0	pass
22)	1,1-Dichloroethane	13.45	0.97	1.10	113%	60.0	140.0	pass
23)	Vinyl acetate	13.61	1.00	1.11	111%	60.0	140.0	pass
24)	cis-1,2-Dichloroethene	14.89	1.01	1.13	112%	60.0	140.0	pass
25)	2-Butanone (MEK)	15.03	1.04	1.24	119%	60.0	140.0	pass
26)	Ethyl acetate	15.05	1.04	1.20	115%	60.0	140.0	pass
27)	Tetrahydrofuran	15.49	1.03	1.21	117%	60.0	140.0	pass
28)	Chloroform	15.60	1.02	1.16	113%	60.0	140.0	pass
29)	Cyclohexane	15.83	1.04	1.14	110%	60.0	140.0	pass
30)	1,1,1-Trichloroethane	15.88	1.01	1.18	117%	60.0	140.0	pass
31)	Carbon tetrachloride	16.14	1.03	1.26	122%	60.0	140.0	pass
32)	1,4-DIFLUOROBENZENE	17.45	22.00	22.00	100%	60.0	140.0	pass
33)	Benzene	16.63	1.01	1.14	113%	60.0	140.0	pass
34)	2,2,4-Trimethylpentane	16.59	1.05	1.19	113%	60.0	140.0	pass
35)	1,2-Dichloroethane	16.83	0.98	1.32	135%	60.0	140.0	pass
36)	Heptane	16.97	1.05	1.24	118%	60.0	140.0	pass
37)	Trichloroethene	17.87	1.01	1.13	112%	60.0	140.0	pass
38)	1,2-Dichloropropane	18.36	1.03	1.18	114%	60.0	140.0	pass
39)	1,4-Dioxane	18.60	1.06	1.19	112%	60.0	140.0	pass
40)	Bromodichloromethane	18.82	1.06	1.27	120%	60.0	140.0	pass
41)	cis-1,3-Dichloropropene	19.59	1.03	1.12	109%	60.0	140.0	pass
42)	4-Methyl-2-pentanone (MIBK)	19.84	1.05	1.30	123%	60.0	140.0	pass
43)	CHLOROBENZENE-d5	22.35	22.00	22.00	100%	60.0	140.0	pass
44)	Toluene	20.07	1.02	1.30	128%	60.0	140.0	pass
45)	trans-1,3-Dichloropropene	20.54	1.07	1.35	126%	60.0	140.0	pass

46)	1,1,2-Trichloroethane	20.85	1.03	1.28	124%	60.0	140.0	pass
47)	Tetrachloroethene	20.93	1.00	1.27	127%	60.0	140.0	pass
48)	2-Hexanone	21.20	1.03	1.44	140%	60.0	140.0	pass
49)	Chlorodibromomethane	21.45	1.04	1.39	134%	60.0	140.0	pass
50)	1,2-Dibromoethane (EDB)	21.68	1.03	1.30	126%	60.0	140.0	pass
51)	Chlorobenzene	22.40	1.04	1.33	128%	60.0	140.0	pass
52)	Ethylbenzene	22.49	1.02	1.28	126%	60.0	140.0	pass
53)	m&p-Xylene	22.67	2.04	2.53	124%	60.0	140.0	pass
54)	o-Xylene	23.32	1.03	1.30	126%	60.0	140.0	pass
55)	Styrene	23.35	1.01	1.16	115%	60.0	140.0	pass
56)	Bromoform	23.73	1.03	1.30	127%	60.0	140.0	pass
57)	1,1,2,2-Tetrachloroethane	24.42	1.02	1.26	123%	60.0	140.0	pass
58)	4-Ethyltoluene	24.67	1.05	1.27	121%	60.0	140.0	pass
59)	1,3,5-Trimethylbenzene	24.76	1.03	1.24	120%	60.0	140.0	pass
60)	1,2,4-Trimethylbenzene	25.37	1.01	1.22	121%	60.0	140.0	pass
61)	1,3-Dichlorobenzene	25.90	0.99	1.21	122%	60.0	140.0	pass
62)	1,4-Dichlorobenzene	26.04	0.99	1.18	120%	60.0	140.0	pass
63)	Benzyl chloride	26.25	1.03	1.32	128%	60.0	140.0	pass
64)	1,2-Dichlorobenzene	26.65	0.99	1.23	125%	60.0	140.0	pass
65)	1,2,4-Trichlorobenzene	29.11	0.91	1.04	115%	60.0	140.0	pass
66)	Hexachlorobutadiene	29.24	0.95	1.26	132%	60.0	140.0	pass

Quantitation Report (Qt Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K04.D
Acq On : 18 Feb 2014 14:40
Instrument: HP5973K
Operator : EM
Sample : S14B088-CRL1
Misc : 1.0 ppbv 1407088
ALS Vial : 33
Multiplier: 1

Quant Time: Feb 18 15:08:53 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

MANUAL INTEGRATION VERIFICATION

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EM Date: 2/19/14

Manual integration(s) reviewed by:

Reviewer: JR Date: 2-19-14

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.438	49	817703	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2033728	22.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.349	117	1666291	22.00	ppbv	0.00
Target Compounds						Qvalue
2) Propene	4.366	41	28163	1.19	ppbv	95
3) Dichlorodifluoromethane	4.463	85	71964	1.12	ppbv	99
4) 1,2-Dichlorotetrafluor...	4.816	85	67427	1.02	ppbv	98
5) Chloromethane	5.011	50	29691	1.09	ppbv	100
6) Vinyl chloride	5.333	62	31374	1.08	ppbv	99
7) 1,3-Butadiene	5.437	54	23244	1.07	ppbv	91
8) Bromomethane	6.361	94	23889	1.11	ppbv	95
9) Chloroethane	6.690	64	17605	1.17	ppbv	99
10) Bromoethene	7.268	106	21381	1.06	ppbv	94
11) Trichlorofluoromethane	7.408	101	72918	1.31	ppbv	96
12) 1,1,2-Trichloro-1,2,2-...	9.215	151	39856	1.03	ppbv #	83
13) 1,1-Dichloroethene	9.306	61	45010	1.05	ppbv	96
14) Acetone	9.866	43	51023	1.33	ppbv	96
15) Carbon disulfide	10.012	76	68222	1.09	ppbv	94
16) 2-Propanol	10.498	45	41479	1.06	ppbv	88
17) Allyl chloride	10.839	41	36834	1.16	ppbv	91
18) Dichloromethane	11.374	49	61250	1.66	ppbv	94
19) tert-Butyl methyl ethe...	12.117	73	74662	1.18	ppbv	100
20) trans-1,2-Dichloroethene	12.104	61	36031	1.03	ppbv	100
21) Hexane	12.713	57	45743	1.07	ppbv	92
22) 1,1-Dichloroethane	13.449	63	56797	1.10	ppbv	97
23) Vinyl acetate	13.607	43	63224	1.11	ppbv	99
24) cis-1,2-Dichloroethene	14.891	61	42902	1.13	ppbv	93
25) 2-Butanone (MEK)	15.031	43	60730m	1.24	ppbv	
26) Ethyl acetate	15.055	43	78744m	1.20	ppbv	
27) Tetrahydrofuran	15.487	42	40509	1.21	ppbv	93
28) Chloroform	15.596	83	60474	1.16	ppbv	95
29) Cyclohexane	15.827	56	49584	1.14	ppbv	94
30) 1,1,1-Trichloroethane	15.882	97	61240	1.18	ppbv	98
31) Carbon tetrachloride	16.138	117	63311	1.26	ppbv	98
33) Benzene	16.631	78	92607	1.14	ppbv	96
34) 2,2,4-Trimethylpentane	16.588	57	149002	1.19	ppbv	97
35) 1,2-Dichloroethane	16.825	62	43157	1.32	ppbv	99
36) Heptane	16.971	43	58615	1.24	ppbv	97
37) Trichloroethene	17.865	130	35117	1.13	ppbv	99
38) 1,2-Dichloropropane	18.364	63	36460	1.18	ppbv	93
39) 1,4-Dioxane	18.596	88	17568	1.19	ppbv	92
40) Bromodichloromethane	18.821	83	63639	1.27	ppbv	96
41) cis-1,3-Dichloropropene	19.593	75	48809	1.12	ppbv	88
42) 4-Methyl-2-pentanone (...	19.843	43	79354	1.30	ppbv	95
44) Toluene	20.068	91	107169	1.30	ppbv	99
45) trans-1,3-Dichloropropene	20.542	75	47593	1.35	ppbv	86
46) 1,1,2-Trichloroethane	20.846	97	34789	1.28	ppbv	92
47) Tetrachloroethene	20.926	166	48290	1.27	ppbv	96
48) 2-Hexanone	21.199	43	72216	1.44	ppbv	91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K04.D
Acq On : 18 Feb 2014 14:40
Instrument: HP5973K
Operator : EM
Sample : S14B088-CRL1
Misc : 1.0 ppbv 1407088
ALS Vial : 33
Multiplier: 1

Quant Time: Feb 18 15:08:53 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
49)	Chlorodibromomethane	21.449	129	57473	1.39 ppbv	98
50)	1,2-Dibromoethane (EDB)	21.680	107	49112	1.30 ppbv	98
51)	Chlorobenzene	22.398	112	82803	1.33 ppbv #	79
52)	Ethylbenzene	22.489	91	138886	1.28 ppbv	99
53)	m&p-Xylene	22.672	91	209053	2.53 ppbv	100
54)	o-Xylene	23.316	91	106129	1.30 ppbv	98
55)	Styrene	23.353	104	76984	1.16 ppbv	96
56)	Bromoform	23.730	173	56743	1.30 ppbv	98
57)	1,1,2,2-Tetrachloroethane	24.424	83	81041	1.26 ppbv	96
58)	4-Ethyltoluene	24.667	105	133741	1.27 ppbv	99
59)	1,3,5-Trimethylbenzene	24.764	105	115711	1.24 ppbv	99
60)	1,2,4-Trimethylbenzene	25.367	105	114547	1.22 ppbv	99
61)	1,3-Dichlorobenzene	25.896	146	78346	1.21 ppbv	99
62)	1,4-Dichlorobenzene	26.042	146	74928	1.18 ppbv	98
63)	Benzyl chloride	26.255	91	93196	1.32 ppbv	98
64)	1,2-Dichlorobenzene	26.650	146	77734	1.23 ppbv	97
65)	1,2,4-Trichlorobenzene	29.108	180	64877	1.04 ppbv	100
66)	Hexachlorobutadiene	29.248	225	67478	1.26 ppbv	99

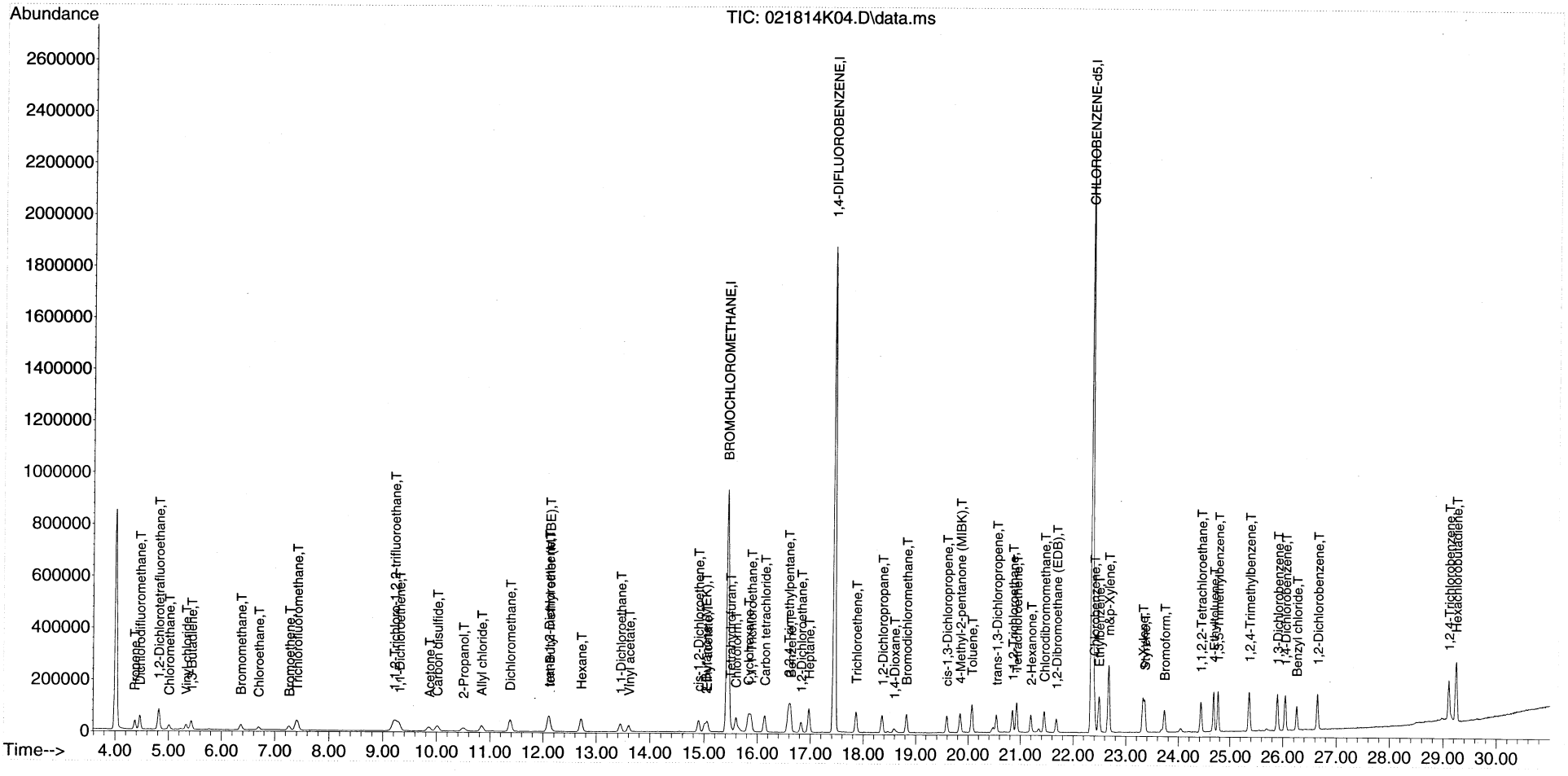
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K04.D
Acq On : 18 Feb 2014 14:40
Instrument: HP5973K
Operator : EM
Sample : S14B088-CRL1
Misc : 1.0 ppbv 1407088
ALS Vial : 33
Multiplier: 1

Quant Time: Feb 18 15:08:53 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

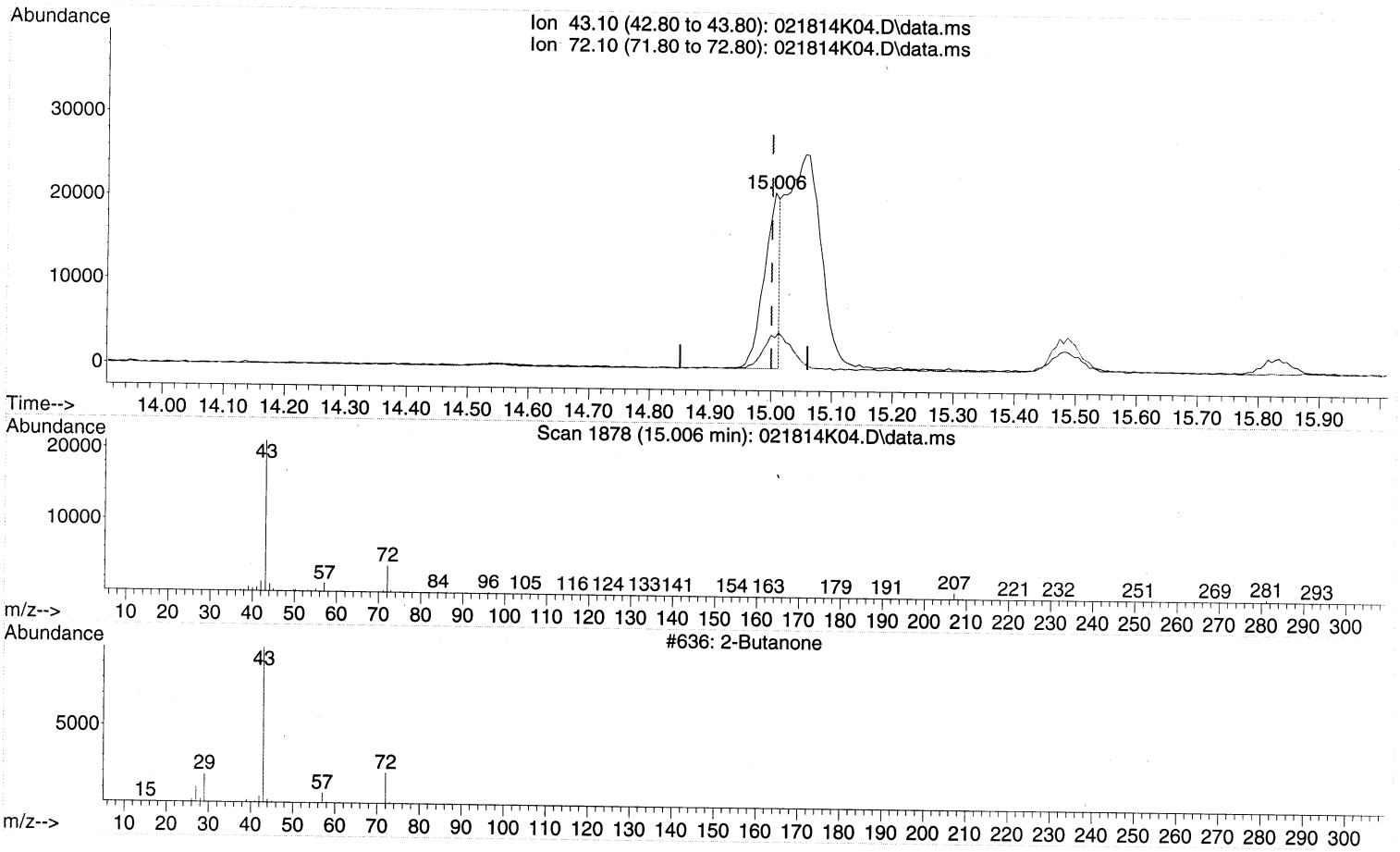


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K04.D
Acq On : 18 Feb 2014 14:40
Instrument: HP5973K
Operator : EM
Sample : S14B088-CRL1
Misc : 1.0 ppbv 1407088
ALS Vial : 33
Multiplier: 1

Quant Time: Feb 18 15:08:16 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M



TIC: 021814K04.D\data.ms

(25) 2-Butanone (MEK) (T)

15.006min (+0.006) 0.77 ppbv

response 37665

Ion	Exp%	Act%
43.10	100	100
72.10	21.10	32.04#
0.00	0.00	0.00
0.00	0.00	0.00

MANUAL INTEGRATION VERIFICATION

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☐ After Manual Integration

Manual integration(s) performed by:

Analyst: _____ Date: _____

Manual integration(s) reviewed by:

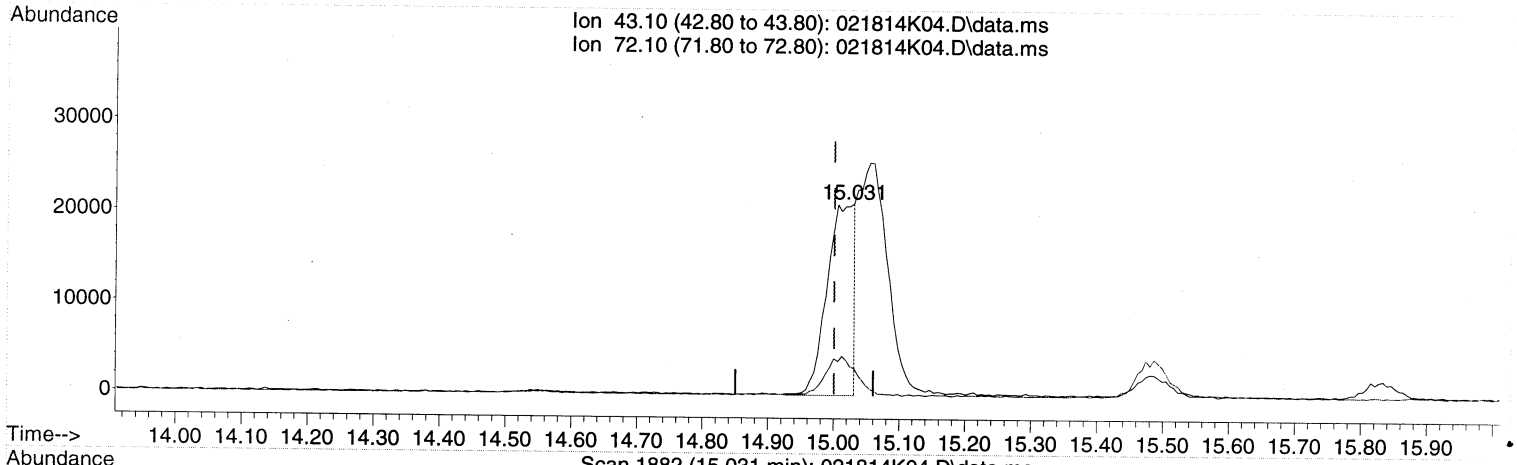
Reviewer: _____ Date: _____

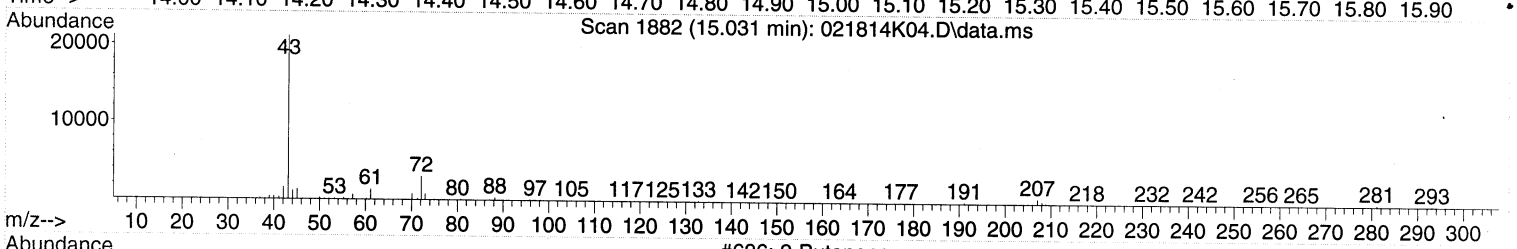
Quantitation Report (Qedit)

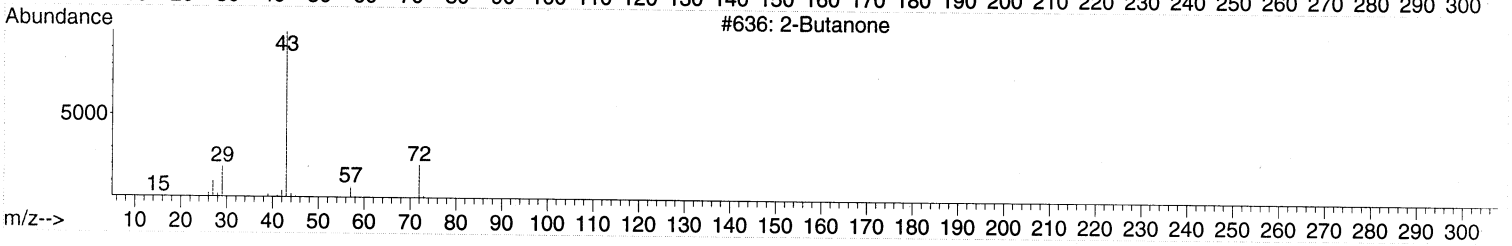
Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K04.D
Acq On : 18 Feb 2014 14:40
Instrument: HP5973K
Operator : EM
Sample : S14B088-CRL1
Misc : 1.0 ppbv 1407088
ALS Vial : 33
Multiplier: 1

Quant Time: Feb 18 15:08:16 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M







TIC: 021814K04.D\data.ms

(25) 2-Butanone (MEK) (T)

15.031min (+0.030) 1.24 ppbv m

response 60730

Ion	Exp%	Act%
43.10	100	100
72.10	21.10	19.87
0.00	0.00	0.00
0.00	0.00	0.00

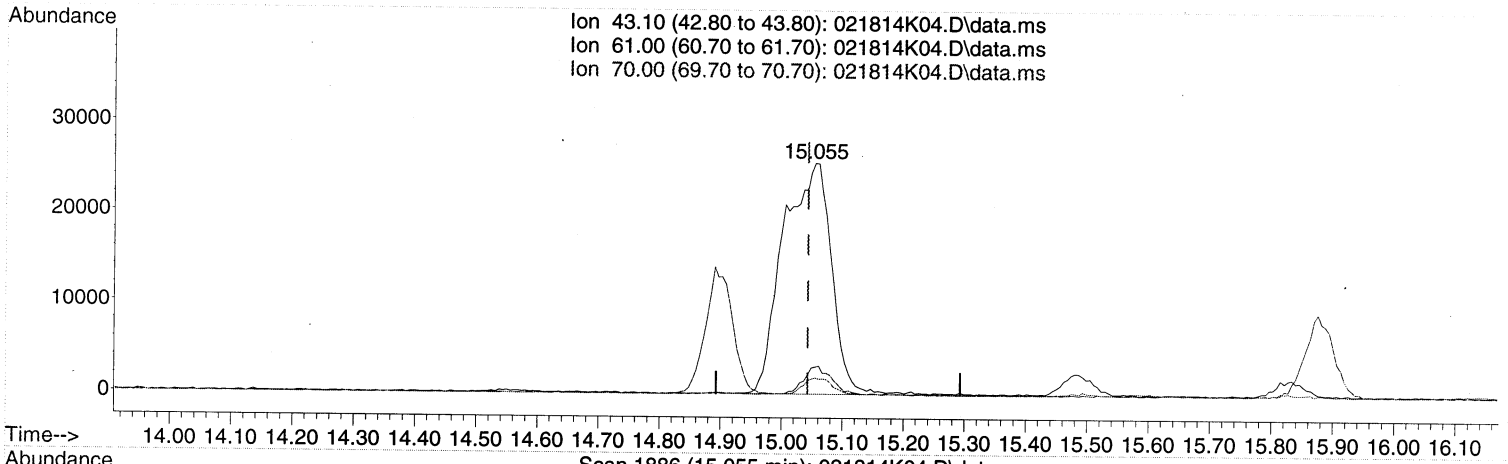
MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other:
☑ After Manual Integration
Manual integration(s) performed by:
Analyst: EM Date: 2/19/14
Manual integration(s) reviewed by:
Reviewer: AR Date: 2-19-14

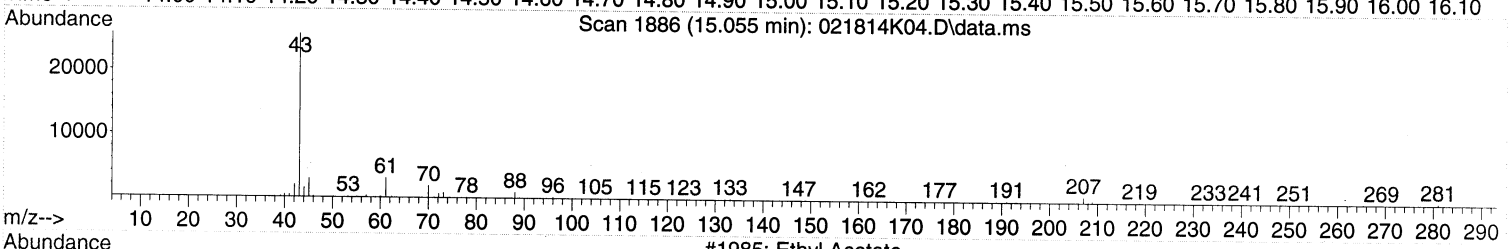
Quantitation Report (Qedit)

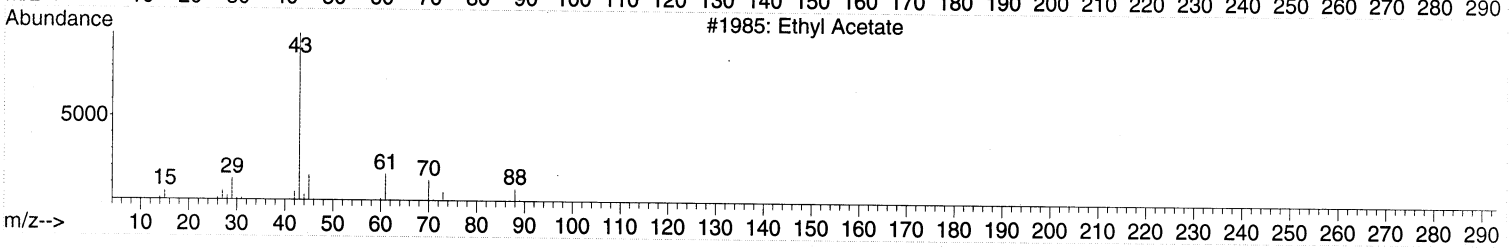
Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K04.D
Acq On : 18 Feb 2014 14:40
Instrument: HP5973K
Operator : EM
Sample : S14B088-CRL1
Misc : 1.0 ppbv 1407088
ALS Vial : 33
Multiplier: 1

Quant Time: Feb 18 15:08:16 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M







(26) Ethyl acetate (T)

15.055min (+0.012) 2.11 ppbv

response 139232

Ion	Exp%	Act%
43.10	100	100
61.00	14.80	6.88
70.00	9.30	4.33
0.00	0.00	0.00

TIC: 021814K04.D\data.ms

MANUAL INTEGRATION VERIFICATION

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☑ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☐ After Manual Integration

Manual integration(s) performed by:

Analyst: _____ Date: _____

Manual integration(s) reviewed by:

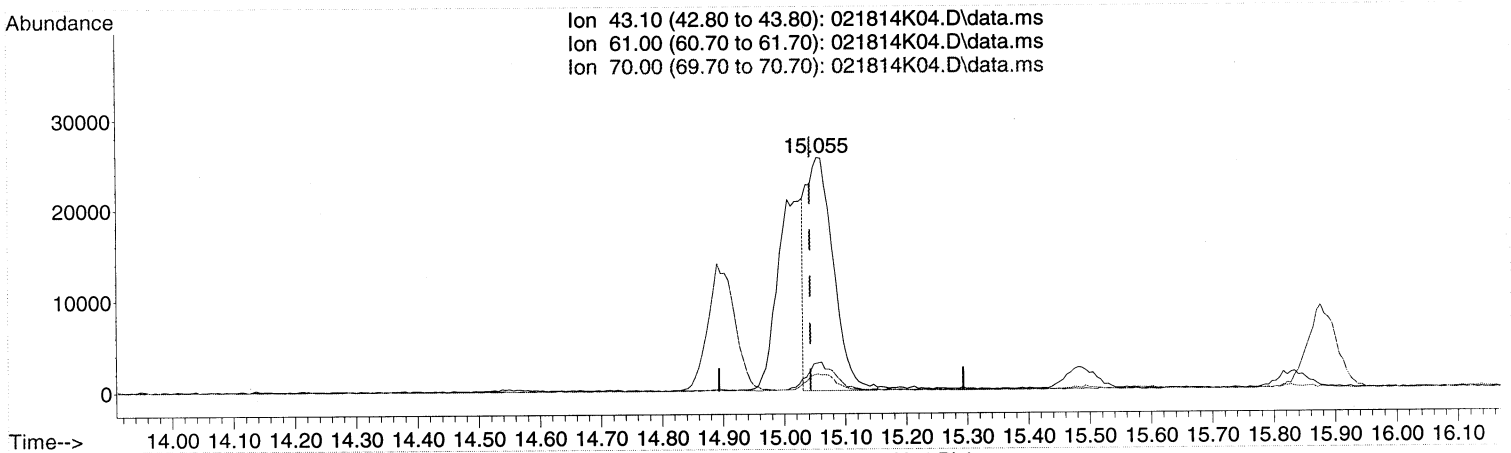
Reviewer: _____ Date: _____

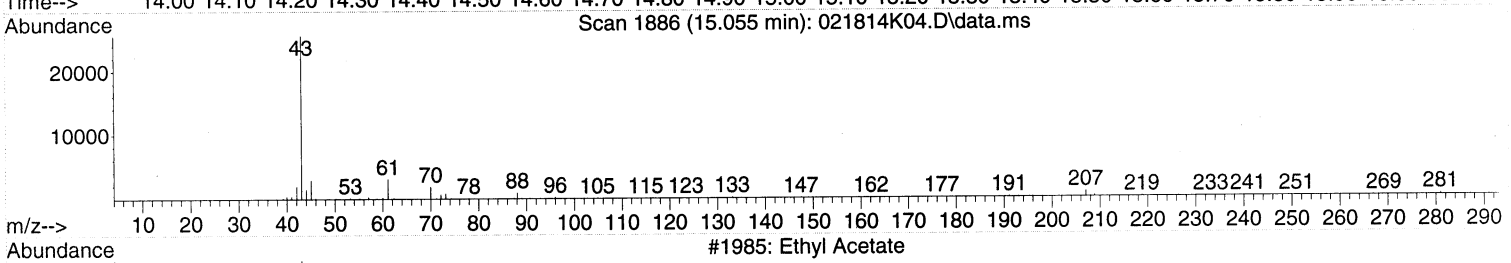
Quantitation Report (Qedit)

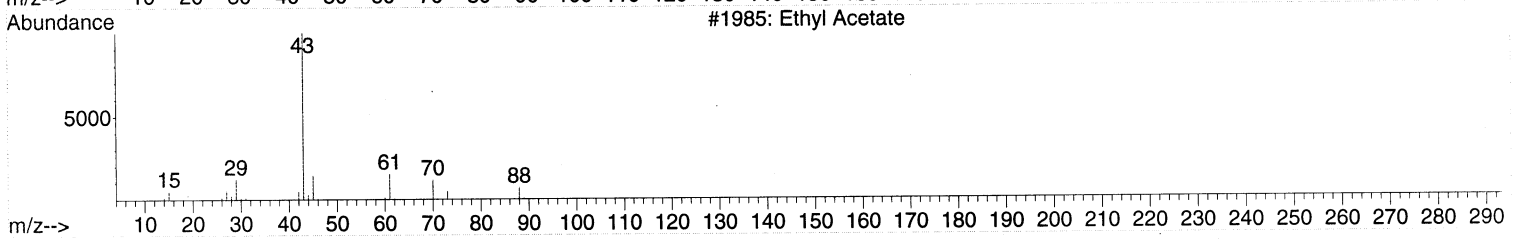
Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K04.D
Acq On : 18 Feb 2014 14:40
Instrument: HP5973K
Operator : EM
Sample : S14B088-CRL1
Misc : 1.0 ppbv 1407088
ALS Vial : 33
Multiplier: 1

Quant Time: Feb 18 15:08:16 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M







TIC: 021814K04.D\data.ms

(26) Ethyl acetate (T)

15.055min (+0.012) 1.20 ppbv m

response 78744

Ion	Exp%	Act%
43.10	100	100
61.00	14.80	12.16
70.00	9.30	7.66
0.00	0.00	0.00

MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other:
☑ After Manual Integration
Manual integration(s) performed by:
Analyst: EM Date: 2/19/14
Manual integration(s) reviewed by:
Reviewer: [illegible] Date: 2-19-14

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K04.D
Acq On : 18 Feb 2014 14:40
Instrument: HP5973K
Operator : EM
Sample : S14B088-CRL1
Misc : 1.0 ppbv 1407088
ALS Vial : 33
Multiplier: 1

Quant Time: Feb 18 15:08:16 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

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em 2/19/14

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.438	49	817703	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2033728	22.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.349	117	1666291	22.00	ppbv	0.00
Target Compounds						Qvalue
2) Propene	4.366	41	28163	1.19	ppbv	95
3) Dichlorodifluoromethane	4.463	85	71964	1.12	ppbv	99
4) 1,2-Dichlorotetrafluor...	4.816	85	67427	1.02	ppbv	98
5) Chloromethane	5.011	50	29691	1.09	ppbv	100
6) Vinyl chloride	5.333	62	31374	1.08	ppbv	99
7) 1,3-Butadiene	5.437	54	23244	1.07	ppbv	91
8) Bromomethane	6.361	94	23889	1.11	ppbv	95
9) Chloroethane	6.690	64	17605	1.17	ppbv	99
10) Bromoethene	7.268	106	21381	1.06	ppbv	94
11) Trichlorofluoromethane	7.408	101	72918	1.31	ppbv	96
12) 1,1,2-Trichloro-1,2,2-...	9.215	151	39856	1.03	ppbv #	83
13) 1,1-Dichloroethene	9.306	61	45010	1.05	ppbv	96
14) Acetone	9.866	43	51023	1.33	ppbv	96
15) Carbon disulfide	10.012	76	68222	1.09	ppbv	94
16) 2-Propanol	10.498	45	41479	1.06	ppbv	88
17) Allyl chloride	10.839	41	36834	1.16	ppbv	91
18) Dichloromethane	11.374	49	61250	1.66	ppbv	94
19) tert-Butyl methyl ethe...	12.117	73	74662	1.18	ppbv	100
20) trans-1,2-Dichloroethene	12.104	61	36031	1.03	ppbv	100
21) Hexane	12.713	57	45743	1.07	ppbv	92
22) 1,1-Dichloroethane	13.449	63	56797	1.10	ppbv	97
23) Vinyl acetate	13.607	43	63224	1.11	ppbv	99
24) cis-1,2-Dichloroethene	14.891	61	42902	1.13	ppbv	93
25) 2-Butanone (MEK)	15.006	43	37665	0.77	ppbv #	77
26) Ethyl acetate	15.055	43	139232	2.11	ppbv	83
27) Tetrahydrofuran	15.487	42	40509	1.21	ppbv	93
28) Chloroform	15.596	83	60474	1.16	ppbv	95
29) Cyclohexane	15.827	56	49584	1.14	ppbv	94
30) 1,1,1-Trichloroethane	15.882	97	61240	1.18	ppbv	98
31) Carbon tetrachloride	16.138	117	63311	1.26	ppbv	98
33) Benzene	16.631	78	92607	1.14	ppbv	96
34) 2,2,4-Trimethylpentane	16.588	57	149002	1.19	ppbv	97
35) 1,2-Dichloroethane	16.825	62	43157	1.32	ppbv	99
36) Heptane	16.971	43	58615	1.24	ppbv	97
37) Trichloroethene	17.865	130	35117	1.13	ppbv	99
38) 1,2-Dichloropropane	18.364	63	36460	1.18	ppbv	93
39) 1,4-Dioxane	18.596	88	17568	1.19	ppbv	92
40) Bromodichloromethane	18.821	83	63639	1.27	ppbv	96
41) cis-1,3-Dichloropropene	19.593	75	48809	1.12	ppbv	88
42) 4-Methyl-2-pentanone (...	19.843	43	79354	1.30	ppbv	95
44) Toluene	20.068	91	107169	1.30	ppbv	99
45) trans-1,3-Dichloropropene	20.542	75	47593	1.35	ppbv	86
46) 1,1,2-Trichloroethane	20.846	97	34789	1.28	ppbv	92
47) Tetrachloroethene	20.926	166	48290	1.27	ppbv	96
48) 2-Hexanone	21.199	43	72216	1.44	ppbv	91

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K04.D
Acq On : 18 Feb 2014 14:40
Instrument: HP5973K
Operator : EM
Sample : S14B088-CRL1
Misc : 1.0 ppbv 1407088
ALS Vial : 33
Multiplier: 1

Quant Time: Feb 18 15:08:16 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

	Compound	R.T.	QIon	Response	Conc Units		Dev(Min)
49)	Chlorodibromomethane	21.449	129	57473	1.39 ppbv		98
50)	1,2-Dibromoethane (EDB)	21.680	107	49112	1.30 ppbv		98
51)	Chlorobenzene	22.398	112	82803	1.33 ppbv	#	79
52)	Ethylbenzene	22.489	91	138886	1.28 ppbv		99
53)	m&p-Xylene	22.672	91	209053	2.53 ppbv		100
54)	o-Xylene	23.316	91	106129	1.30 ppbv		98
55)	Styrene	23.353	104	76984	1.16 ppbv		96
56)	Bromoform	23.730	173	56743	1.30 ppbv		98
57)	1,1,2,2-Tetrachloroethane	24.424	83	81041	1.26 ppbv		96
58)	4-Ethyltoluene	24.667	105	133741	1.27 ppbv		99
59)	1,3,5-Trimethylbenzene	24.764	105	115711	1.24 ppbv		99
60)	1,2,4-Trimethylbenzene	25.367	105	114547	1.22 ppbv		99
61)	1,3-Dichlorobenzene	25.896	146	78346	1.21 ppbv		99
62)	1,4-Dichlorobenzene	26.042	146	74928	1.18 ppbv		98
63)	Benzyl chloride	26.255	91	93196	1.32 ppbv		98
64)	1,2-Dichlorobenzene	26.650	146	77734	1.23 ppbv		97
65)	1,2,4-Trichlorobenzene	29.108	180	64877	1.04 ppbv		100
66)	Hexachlorobutadiene	29.248	225	67478	1.26 ppbv		99

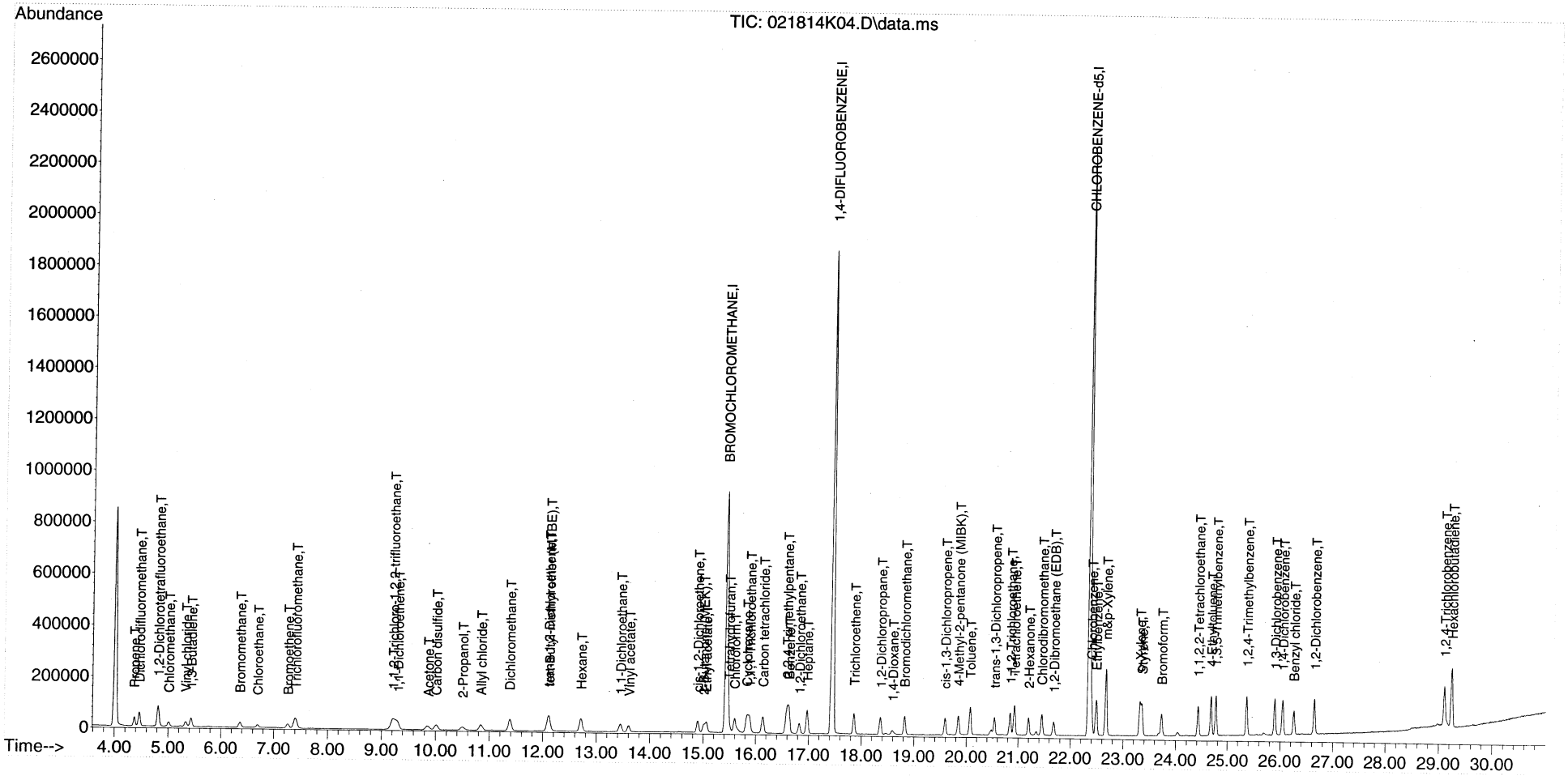
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K04.D
Acq On : 18 Feb 2014 14:40
Instrument: HP5973K
Operator : EM
Sample : S14B088-CRL1
Misc : 1.0 ppbv 1407088
ALS Vial : 33
Multiplier: 1

Quant Time: Feb 18 15:08:16 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K05.D
Acq On : 18 Feb 2014 15:29
Instrument: HP5973K
Operator : EM
Sample : CAN 1965
Misc : CAN 1965
ALS Vial : 35
Multiplier: 1

Quant Time: Feb 18 16:24:17 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

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Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) BROMOCHLOROMETHANE	15.438	49	819367	22.00 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2037429	22.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.349	117	1691868	22.00 ppbv	0.00
Target Compounds					Qvalue
18) Dichloromethane	11.368	49	26131	0.71 ppbv	92

BHLg

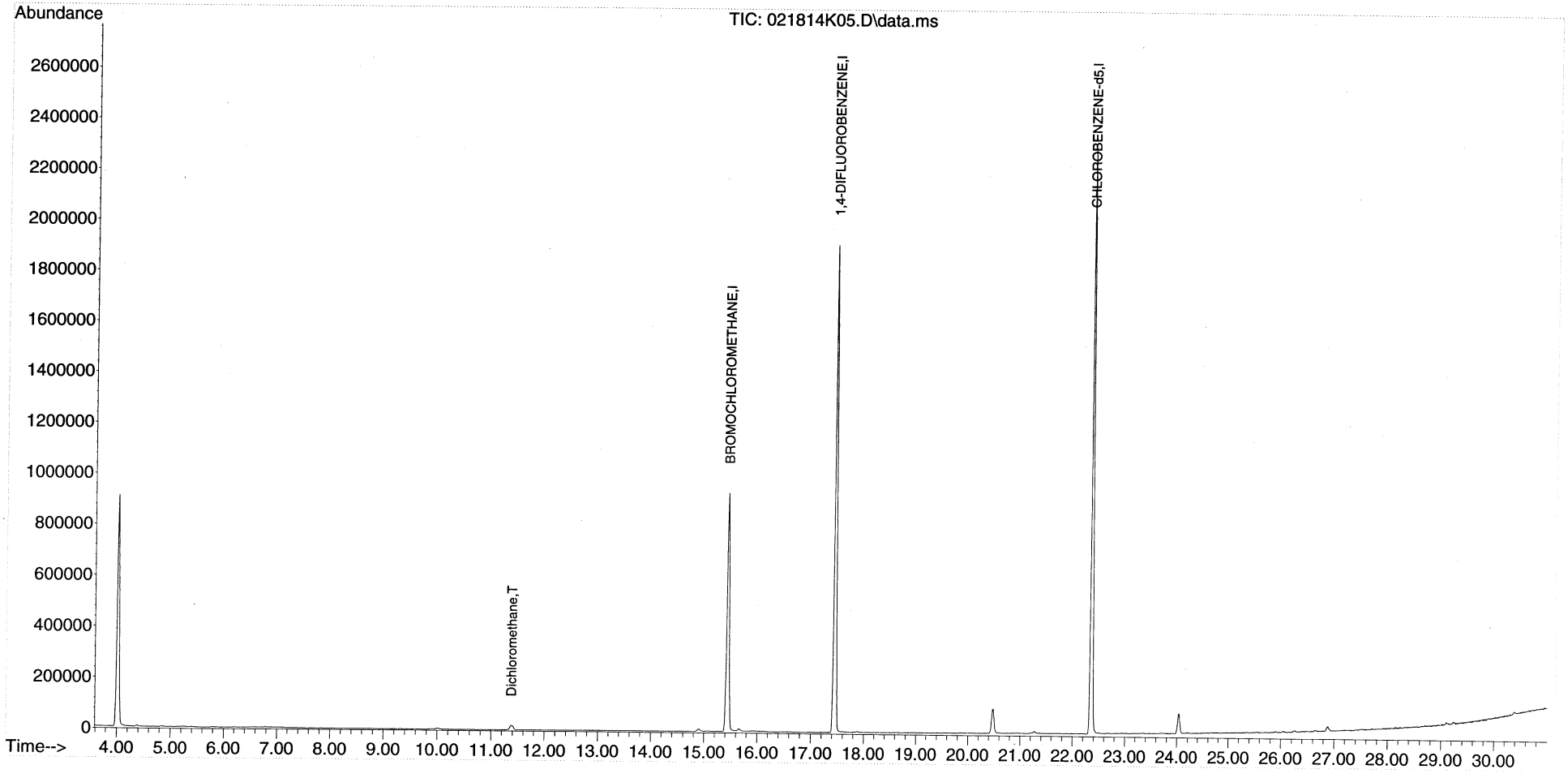
(#) = qualifier out of range (m) = manual integration (+) = signals summed

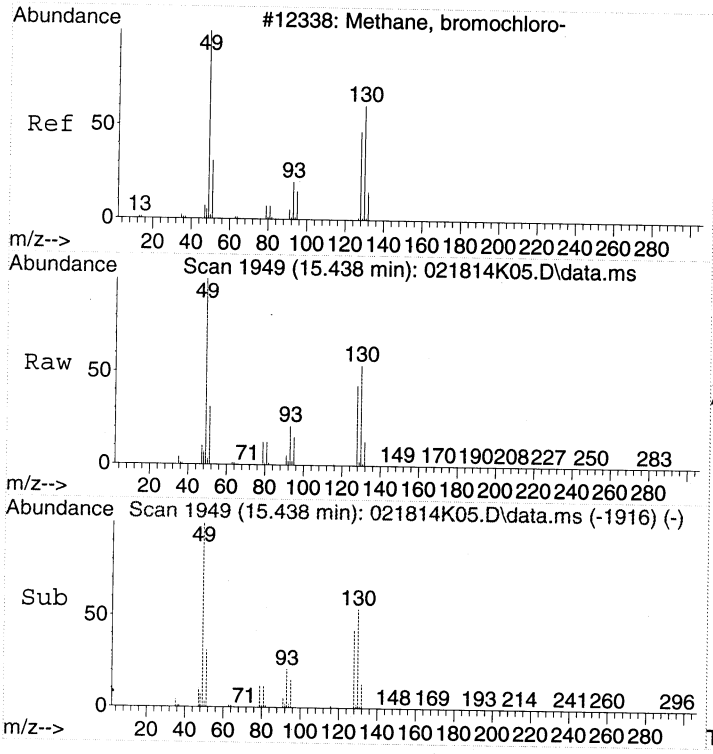
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K05.D
Acq On : 18 Feb 2014 15:29
Instrument: HP5973K
Operator : EM
Sample : CAN 1965
Misc : CAN 1965
ALS Vial : 35
Multiplier: 1

Quant Time: Feb 18 16:24:17 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

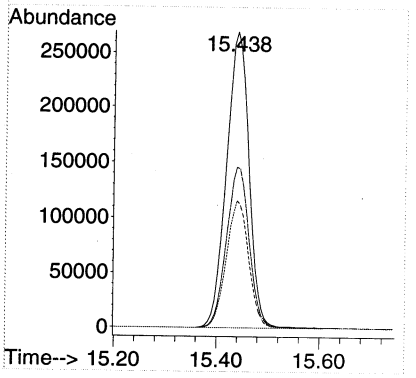


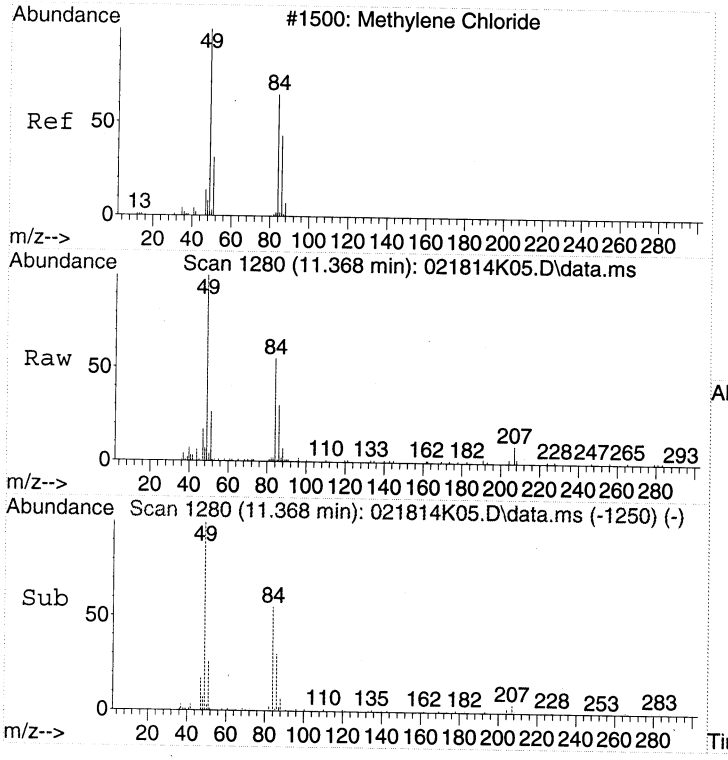


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 021814K05.D
Acq: 18 Feb 2014 15:29

Tgt Ion: 49 Resp: 819367

Ion	Ratio	Lower	Upper
49	100		
130	54.8	39.6	79.6
128	42.9	26.9	66.9

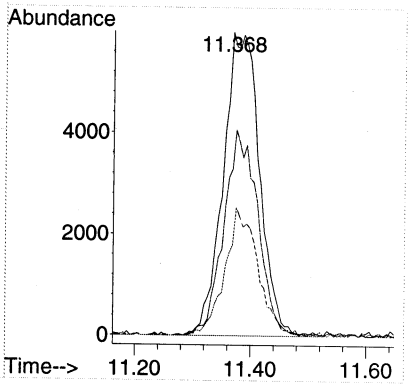


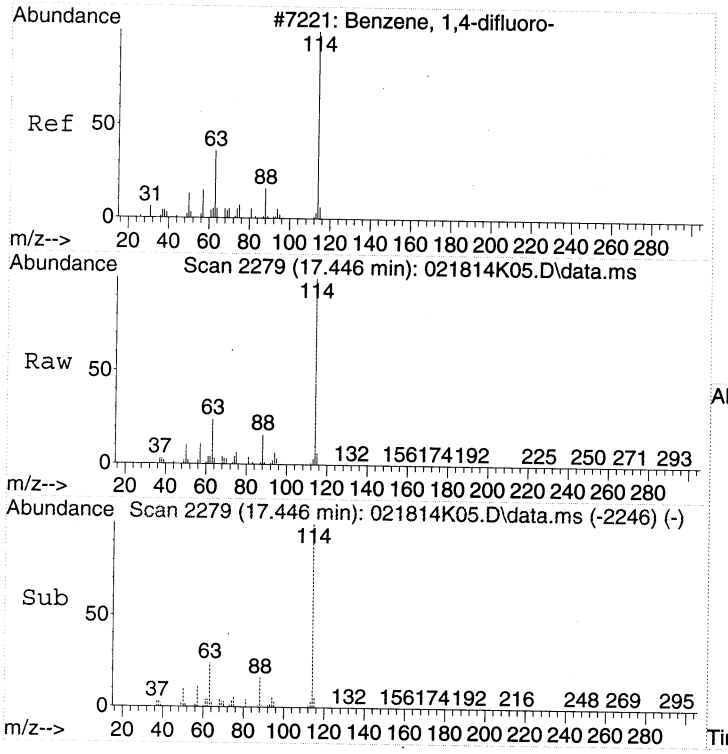


#18
Dichloromethane
Concen: 0.71 ppbv
RT: 11.368 min Scan# 1280
Delta R.T. -0.018 min
Lab File: 021814K05.D
Acq: 18 Feb 2014 15:29

Tgt Ion: 49 Resp: 26131

Ion	Ratio	Lower	Upper
49	100		
84	63.7	50.0	90.0
86	38.4	24.4	64.4

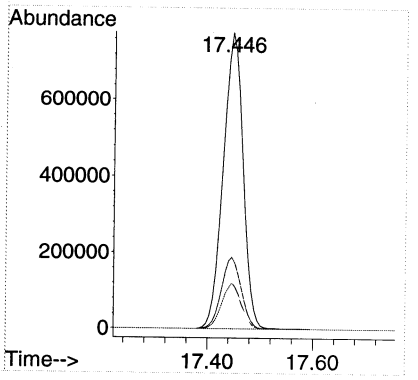


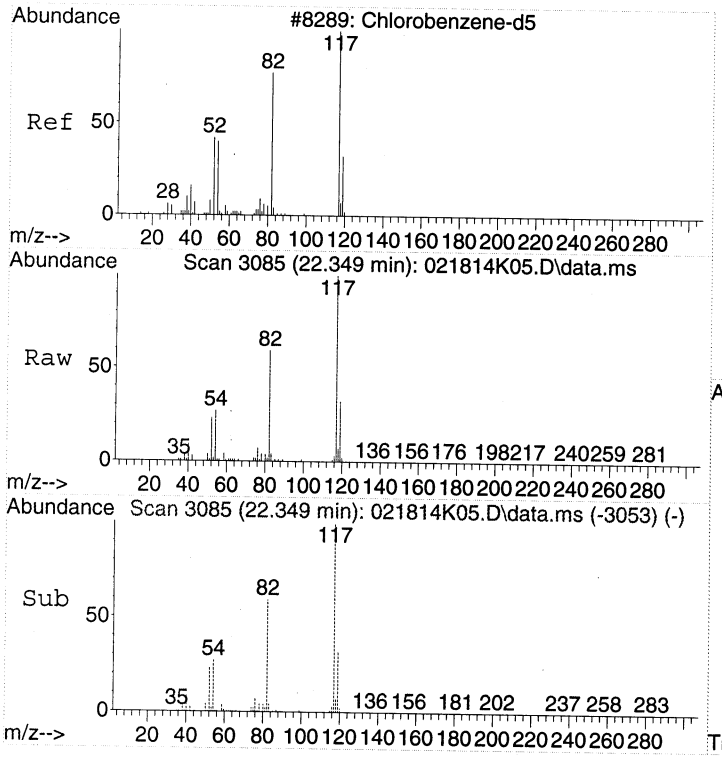


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 021814K05.D
Acq: 18 Feb 2014 15:29

Tgt Ion:114 Resp: 2037429

Ion	Ratio	Lower	Upper
114	100		
63	24.4	2.3	42.3
88	15.3	0.0	35.2

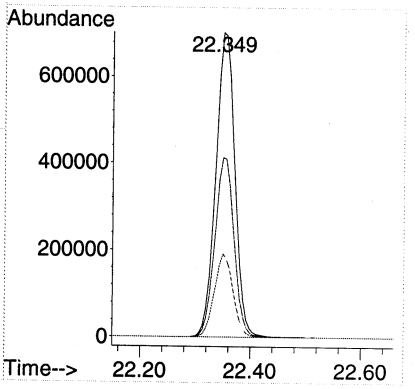




#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.349 min Scan# 3085
Delta R.T. -0.006 min
Lab File: 021814K05.D
Acq: 18 Feb 2014 15:29

Tgt Ion:117 Resp: 1691868

Ion	Ratio	Lower	Upper
117	100		
82	59.2	37.1	77.1
54	26.7	3.3	43.3



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K06.D
Acq On : 18 Feb 2014 16:18
Instrument: HP5973K
Operator : EM
Sample : CAN 1094
Misc : CAN 1094
ALS Vial : 36
Multiplier: 1

NM

Quant Time: Feb 19 12:09:14 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) BROMOCHLOROMETHANE	15.438	49	842214	22.00 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2079798	22.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.355	117	1732097	22.00 ppbv	0.00
Target Compounds					Qvalue
18) Dichloromethane	11.380	49	25264	0.66 ppbv	94

BHez

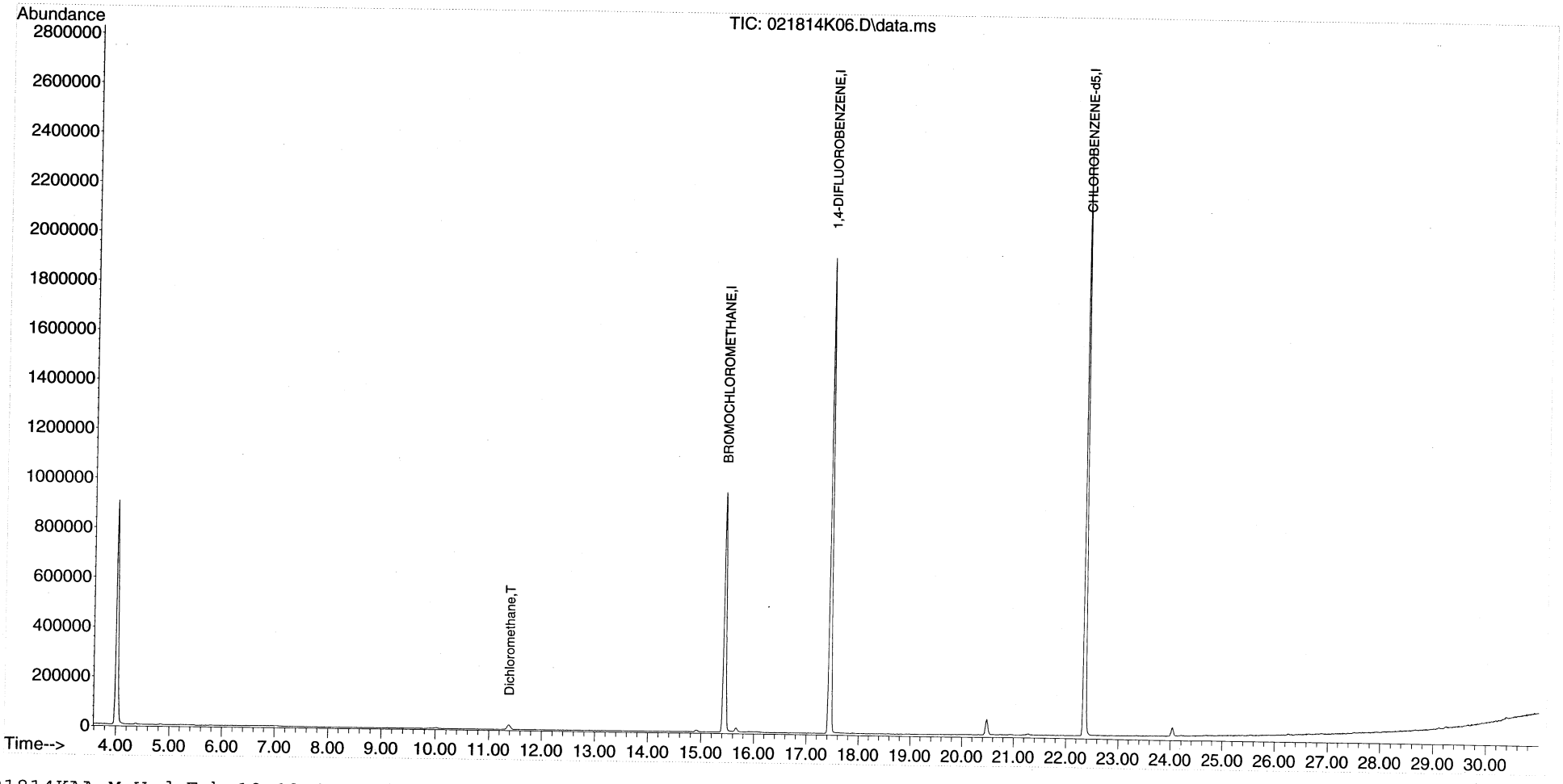
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K06.D
Acq On : 18 Feb 2014 16:18
Instrument: HP5973K
Operator : EM
Sample : CAN 1094
Misc : CAN 1094
ALS Vial : 36
Multiplier: 1

Quant Time: Feb 19 12:09:14 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K07.D
Acq On : 18 Feb 2014 17:06
Instrument: HP5973K
Operator : EM
Sample : B14B075-BLK1
Misc : 200mL CAN 132
ALS Vial : 49
Multiplier: 1

Quant Time: Feb 18 17:54:17 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) BROMOCHLOROMETHANE	15.438	49	824767	22.00 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2011236	22.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.355	117	1676561	22.00 ppbv	0.00
Target Compounds					Qvalue
18) Dichloromethane	11.387	49	22608	0.61 ppbv	94

B flag
em 2/18/14

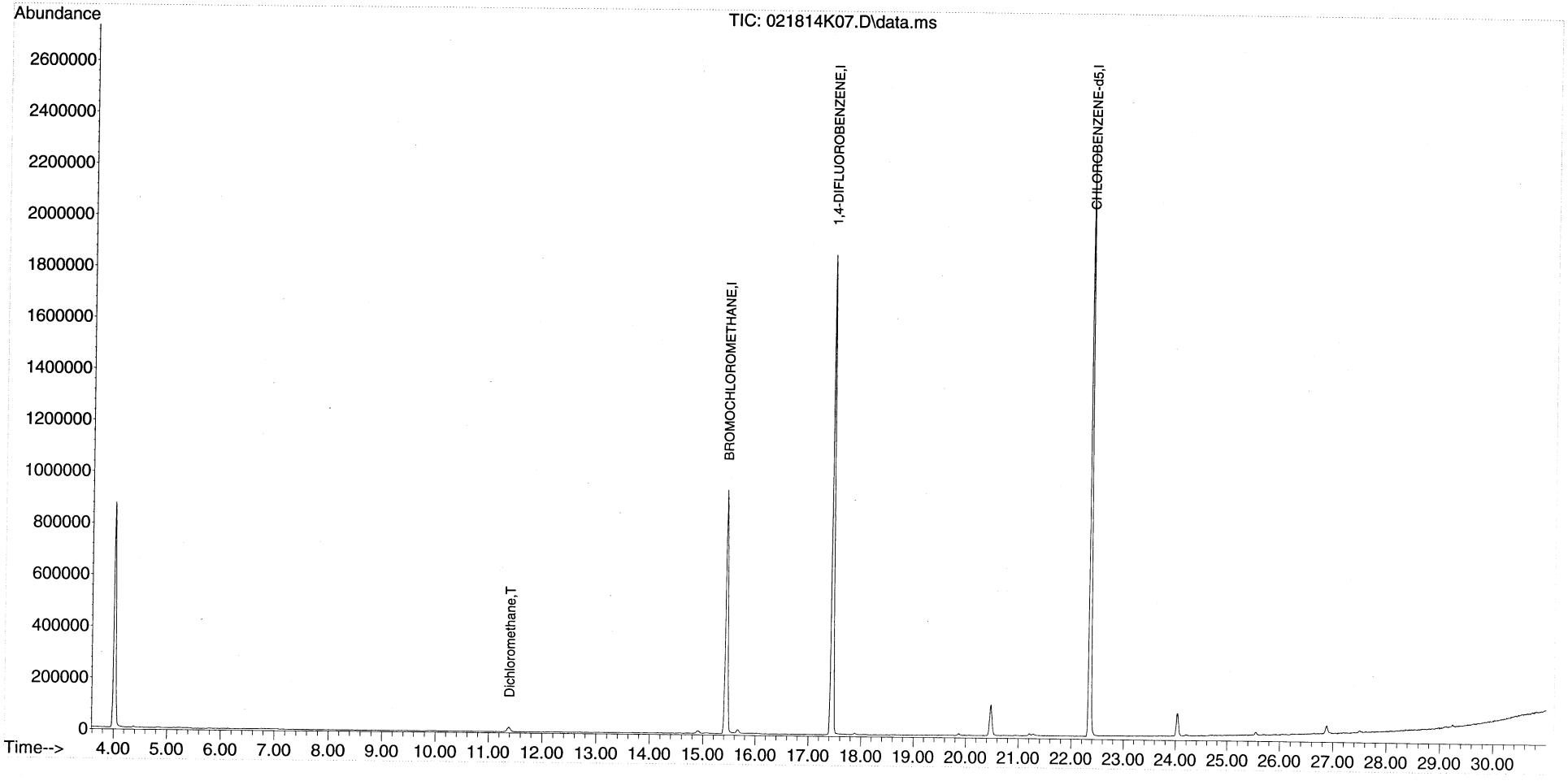
(#) = qualifier out of range (m) = manual integration (+) = signals summed

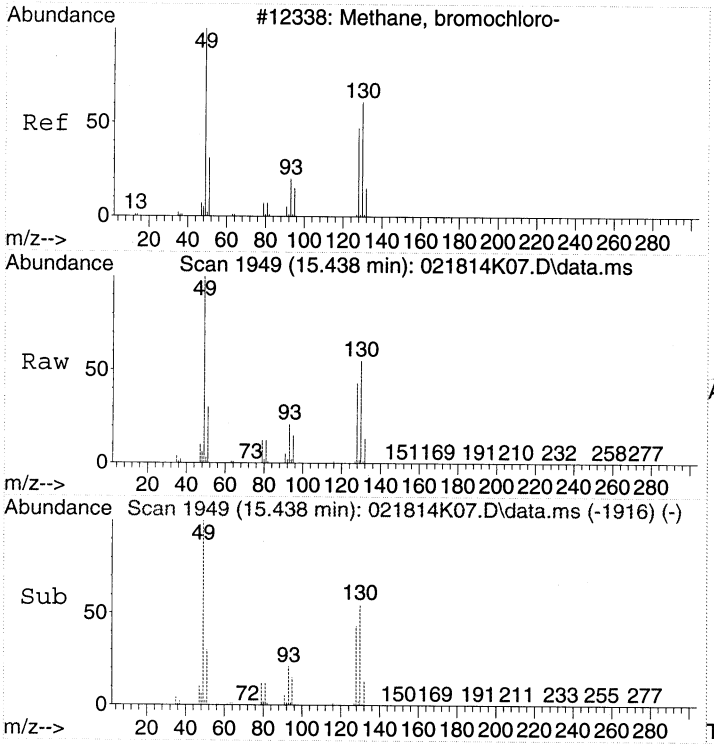
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K07.D
Acq On : 18 Feb 2014 17:06
Instrument: HP5973K
Operator : EM
Sample : B14B075-BLK1
Misc : 200mL CAN 132
ALS Vial : 49
Multiplier: 1

Quant Time: Feb 18 17:54:17 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

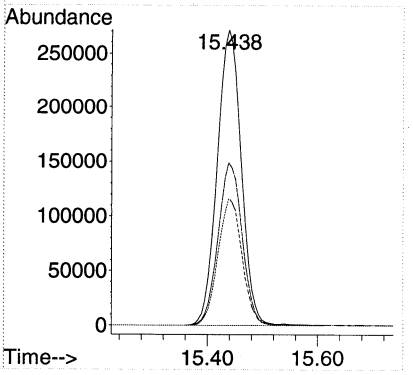


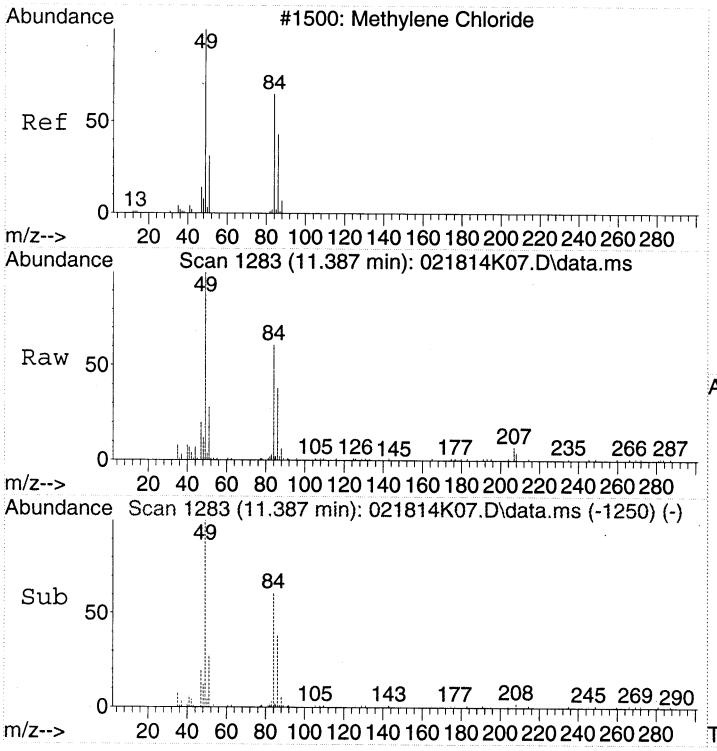


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 021814K07.D
Acq: 18 Feb 2014 17:06

Tgt Ion: 49 Resp: 824767

Ion	Ratio	Lower	Upper
49	100		
130	55.0	39.6	79.6
128	42.8	26.9	66.9

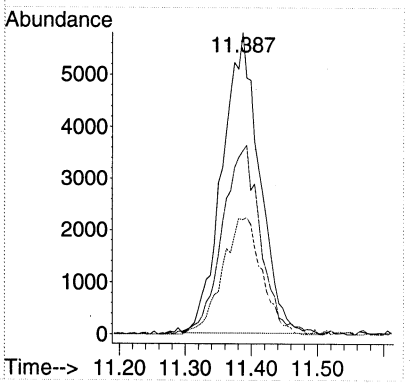


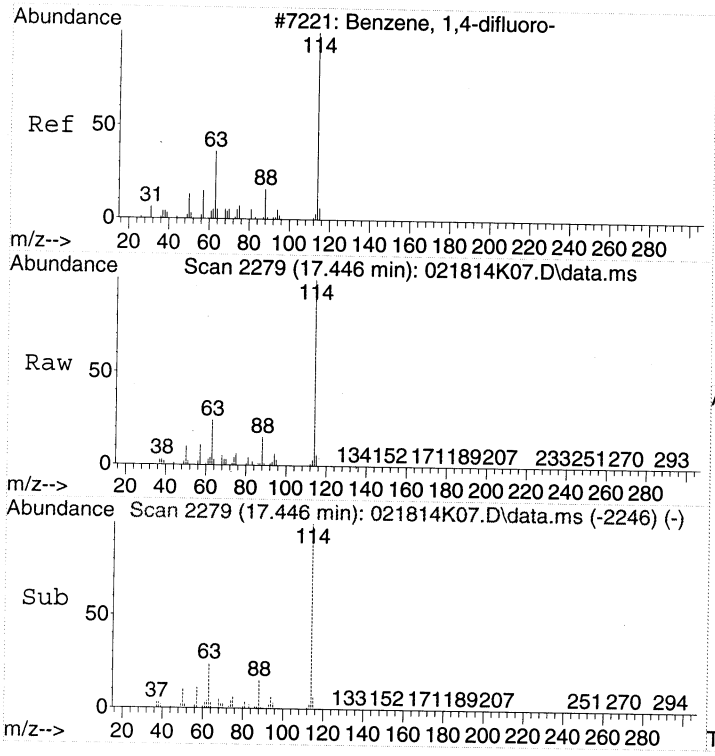


#18
Dichloromethane
Concen: 0.61 ppbv
RT: 11.387 min Scan# 1283
Delta R.T. -0.000 min
Lab File: 021814K07.D
Acq: 18 Feb 2014 17:06

Tgt Ion: 49 Resp: 22608

Ion	Ratio	Lower	Upper
49	100		
84	64.5	50.0	90.0
86	41.0	24.4	64.4

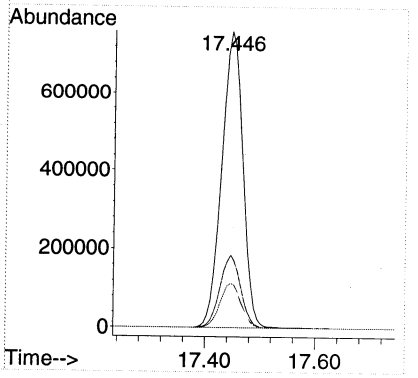


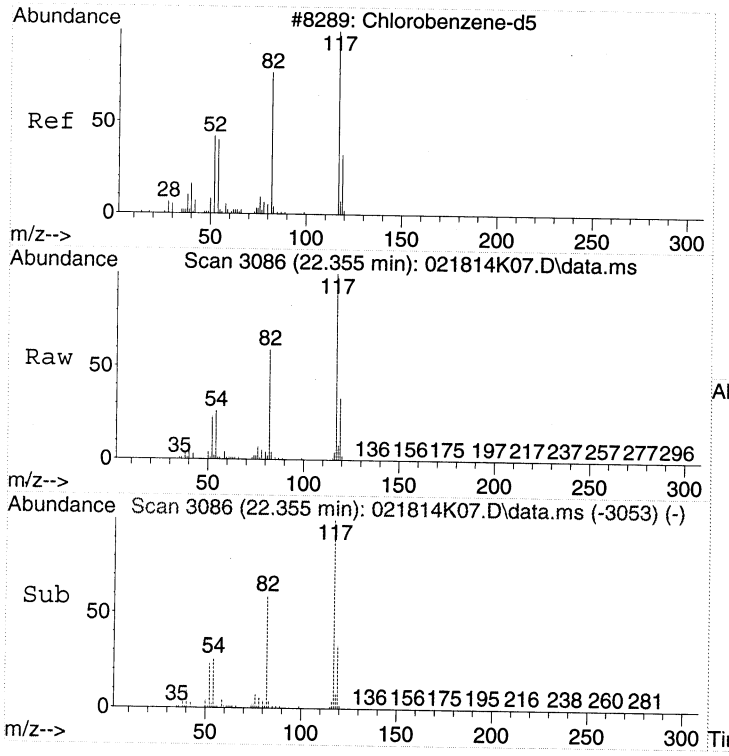


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 021814K07.D
Acq: 18 Feb 2014 17:06

Tgt Ion:114 Resp: 2011236

Ion	Ratio	Lower	Upper
114	100		
63	23.9	2.3	42.3
88	14.9	0.0	35.2

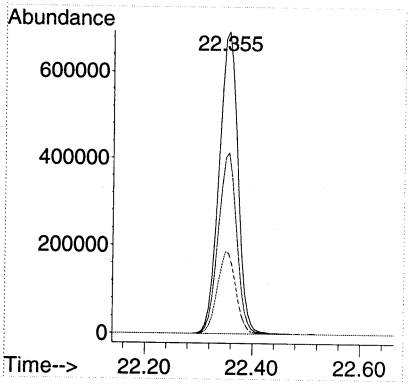




#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 021814K07.D
Acq: 18 Feb 2014 17:06

Tgt Ion:117 Resp: 1676561

Ion	Ratio	Lower	Upper
117	100		
82	58.8	37.1	77.1
54	26.6	3.3	43.3



00183

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K06.D
Acq On : 18 Feb 2014 16:18
Instrument: HP5973K
Operator : EM
Sample : CAN 1094
Misc : CAN 1094
ALS Vial : 36
Multiplier: 1

Quant Time: Feb 18 17:54:35 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) BROMOCHLOROMETHANE	15.438	49	842214	22.00 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2079798	22.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.355	117	1732097	22.00 ppbv	0.00
Target Compounds					Qvalue
18) Dichloromethane	11.380	49	25264	0.66 ppbv	94

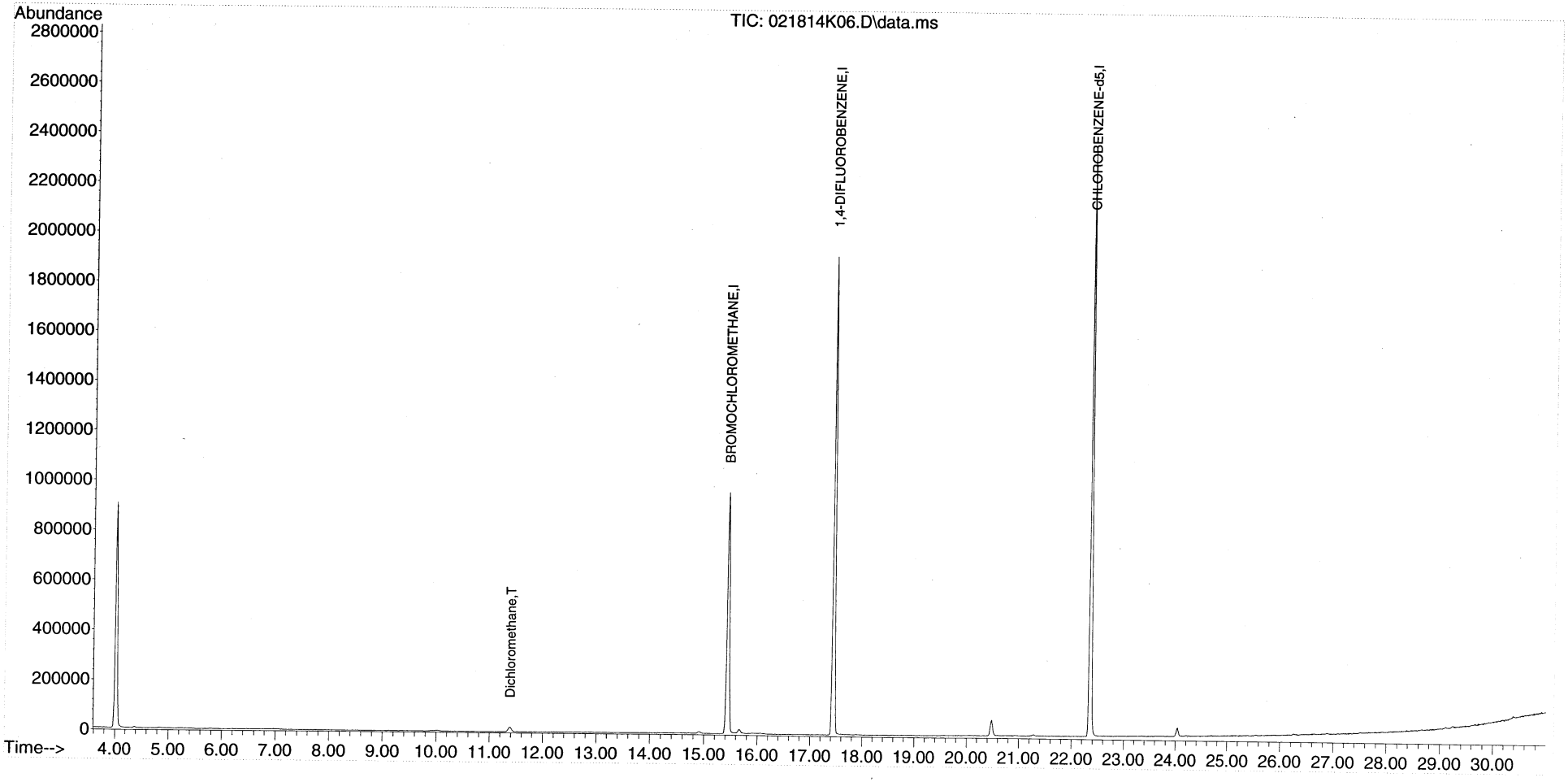
(#) = qualifier out of range (m) = manual integration (+) = signals summed

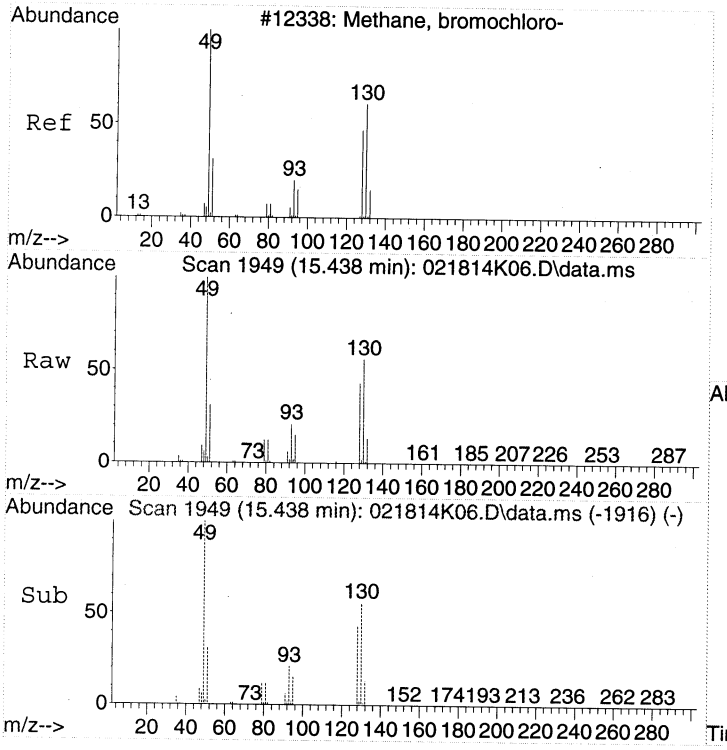
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K06.D
Acq On : 18 Feb 2014 16:18
Instrument: HP5973K
Operator : EM
Sample : CAN 1094
Misc : CAN 1094
ALS Vial : 36
Multiplier: 1

Quant Time: Feb 18 17:54:35 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

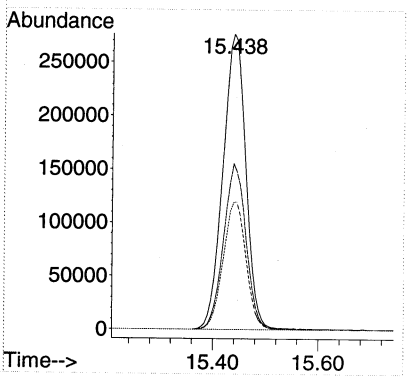


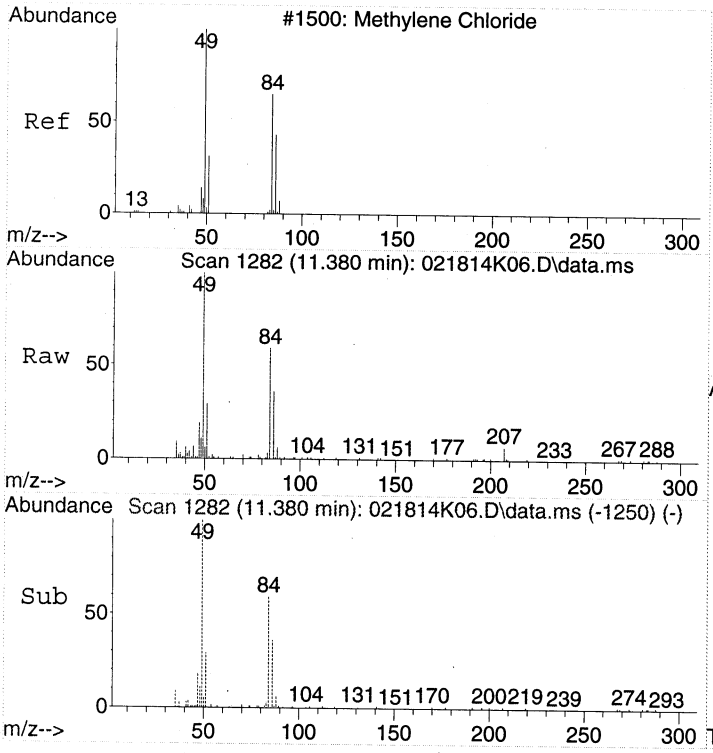


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 021814K06.D
Acq: 18 Feb 2014 16:18

Tgt Ion: 49 Resp: 842214

Ion	Ratio	Lower	Upper
49	100		
130	55.1	39.6	79.6
128	43.1	26.9	66.9

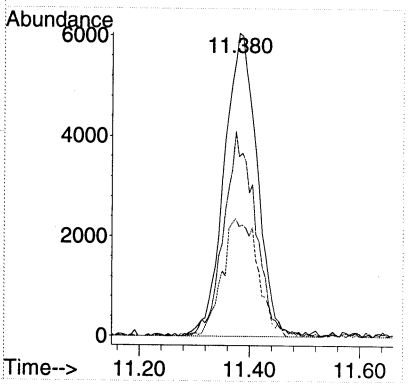


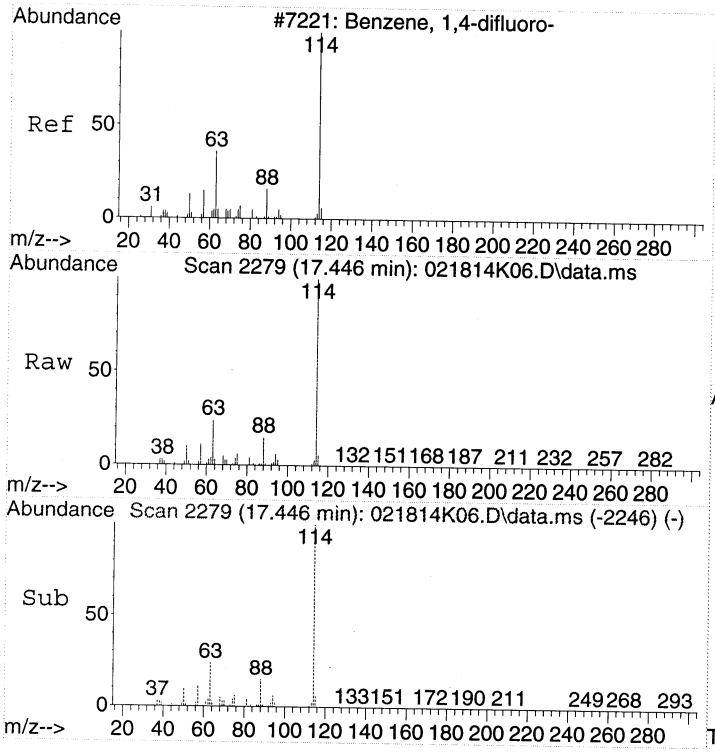


#18
Dichloromethane
Concen: 0.66 ppbv
RT: 11.380 min Scan# 1282
Delta R.T. -0.006 min
Lab File: 021814K06.D
Acq: 18 Feb 2014 16:18

Tgt Ion: 49 Resp: 25264

Ion	Ratio	Lower	Upper
49	100		
84	64.5	50.0	90.0
86	41.9	24.4	64.4

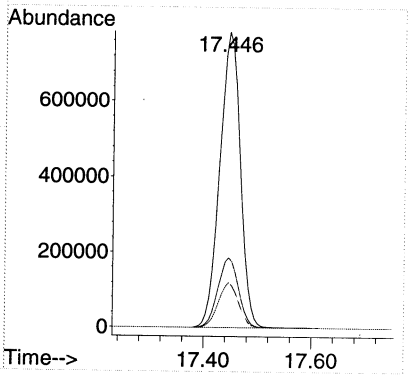


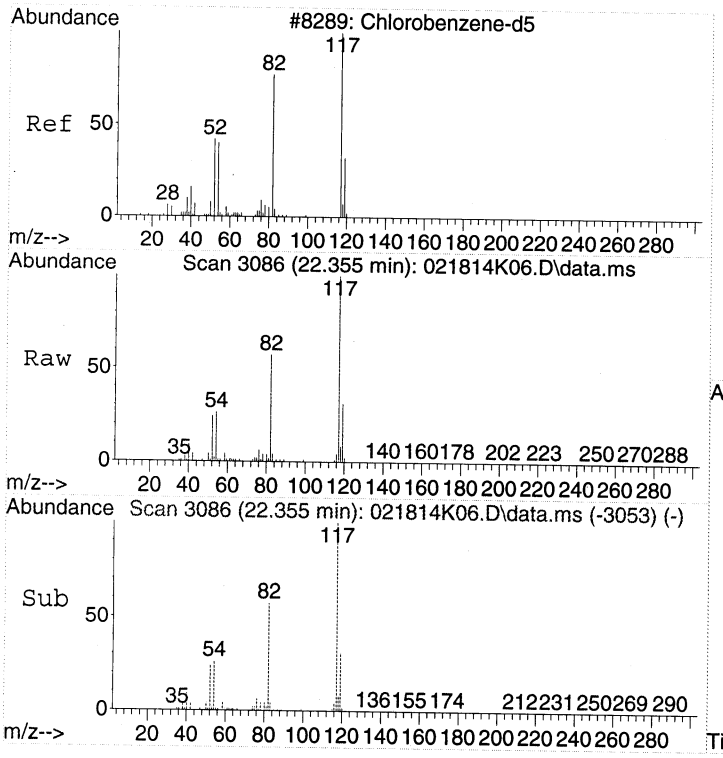


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 021814K06.D
Acq: 18 Feb 2014 16:18

Tgt Ion:114 Resp: 2079798

Ion	Ratio	Lower	Upper
114	100		
63	23.9	2.3	42.3
88	15.0	0.0	35.2

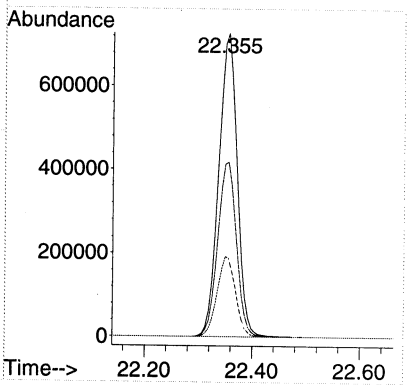




#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 021814K06.D
Acq: 18 Feb 2014 16:18

Tgt Ion:117 Resp: 1732097

Ion	Ratio	Lower	Upper
117	100		
82	58.6	37.1	77.1
54	26.5	3.3	43.3



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K08.D
Acq On : 18 Feb 2014 17:55
Instrument: HP5973K
Operator : EM
Sample : 1402032-01
Misc : 200mL MH11
ALS Vial : 36
Multiplier: 1.89

Quant Time: Feb 18 18:48:12 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.438	49	830054	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2000994	22.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.349	117	1679555	22.00	ppbv	0.00
Target Compounds						Qvalue
2) Propene	4.372	41	23742	0.99	ppbv	79
14) Acetone	9.860	43	85223	2.19	ppbv	100
16) 2-Propanol	10.541	45	25169	0.63	ppbv	92
18) Dichloromethane	11.387	49	36399	0.97	ppbv	93
20) trans-1,2-Dichloroethene	12.111	61	51468	1.45	ppbv	96
24) cis-1,2-Dichloroethene	14.897	61	771814	20.00	ppbv	94
28) Chloroform	15.596	83	881976	16.62	ppbv	97
37) Trichloroethene	17.860	130	948116	31.12	ppbv E	99
40) Bromodichloromethane	18.821	83	47706	0.97	ppbv	97
47) Tetrachloroethene	20.926	166	735262	19.15	ppbv	98

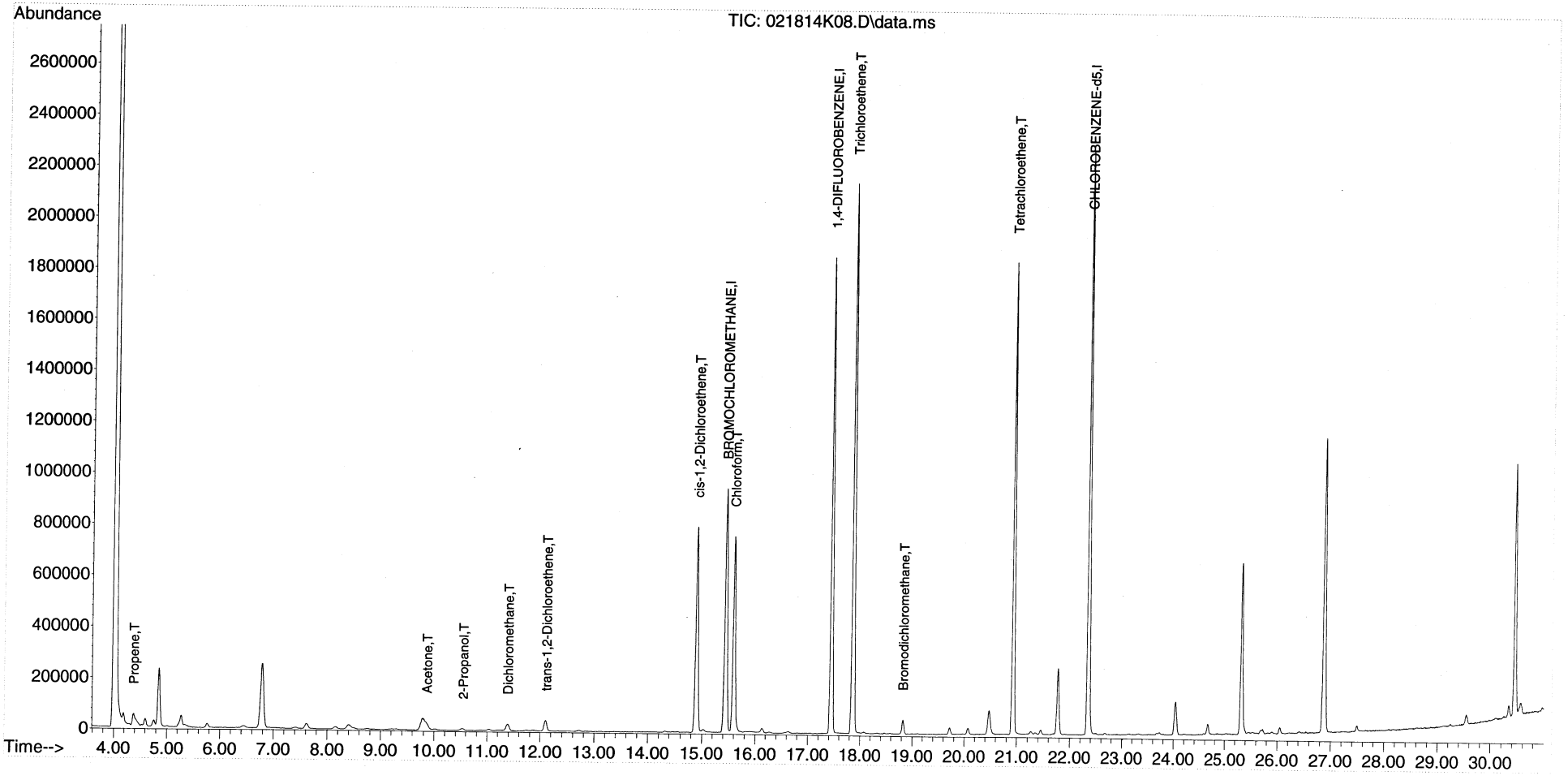
(#) = qualifier out of range (m) = manual integration (+) = signals summed

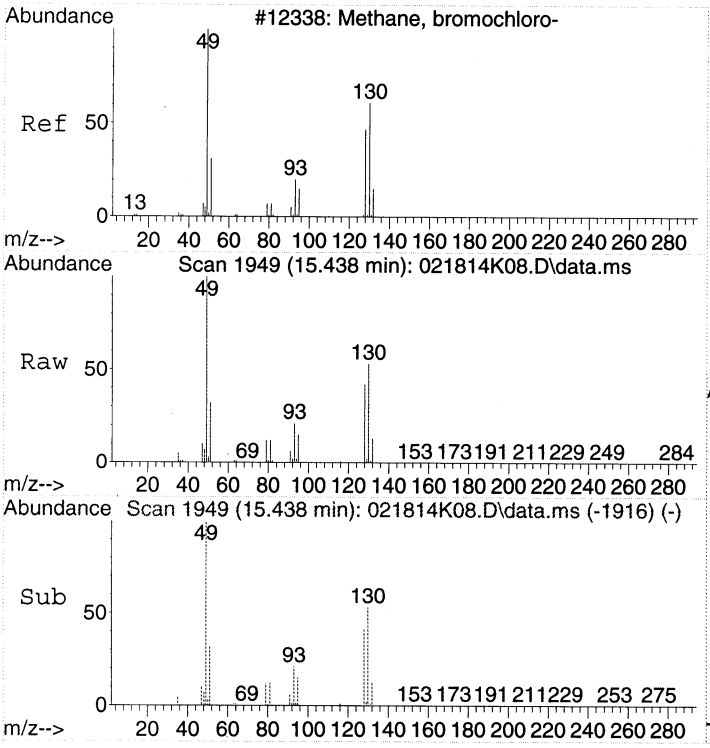
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K08.D
Acq On : 18 Feb 2014 17:55
Instrument: HP5973K
Operator : EM
Sample : 1402032-01
Misc : 200mL MH11
ALS Vial : 36
Multiplier: 1.89

Quant Time: Feb 18 18:48:12 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

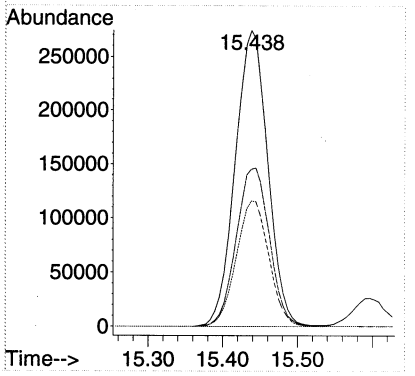


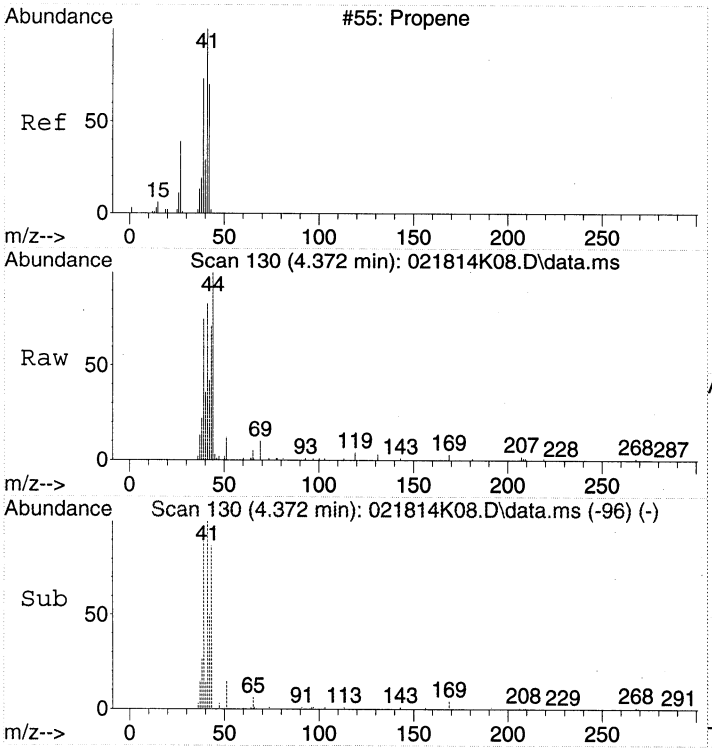


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 021814K08.D
Acq: 18 Feb 2014 17:55

Tgt Ion: 49 Resp: 830054

Ion	Ratio	Lower	Upper
49	100		
130	54.7	39.6	79.6
128	42.5	26.9	66.9

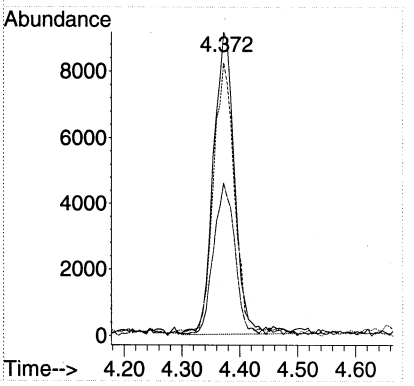


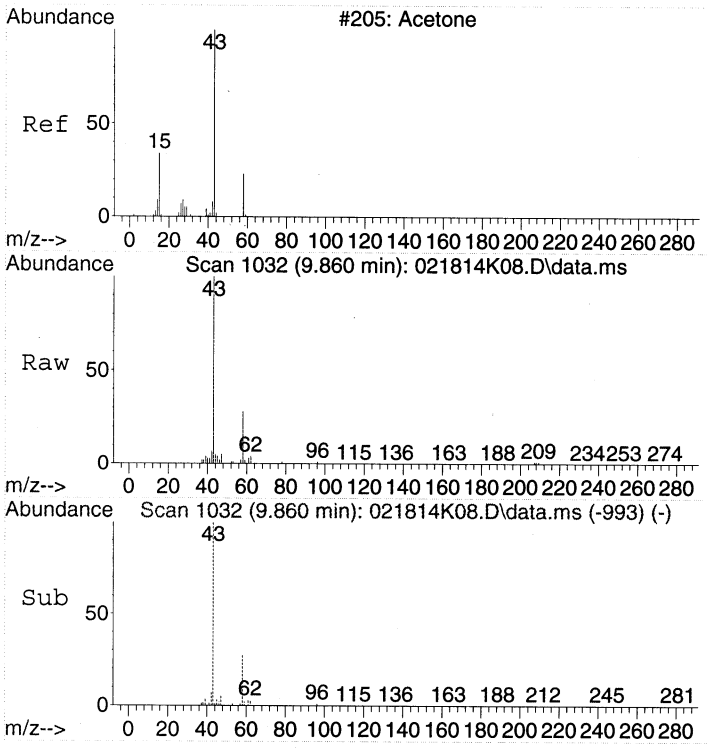


#2
Propene
Concen: 0.99 ppbv
RT: 4.372 min Scan# 130
Delta R.T. 0.006 min
Lab File: 021814K08.D
Acq: 18 Feb 2014 17:55

Tgt Ion: 41 Resp: 23742

Ion	Ratio	Lower	Upper
41	100		
42	49.0	46.8	86.8
39	84.9	48.3	88.3

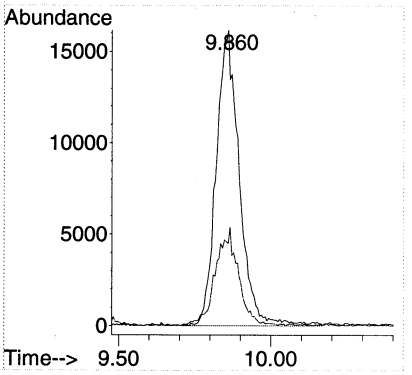


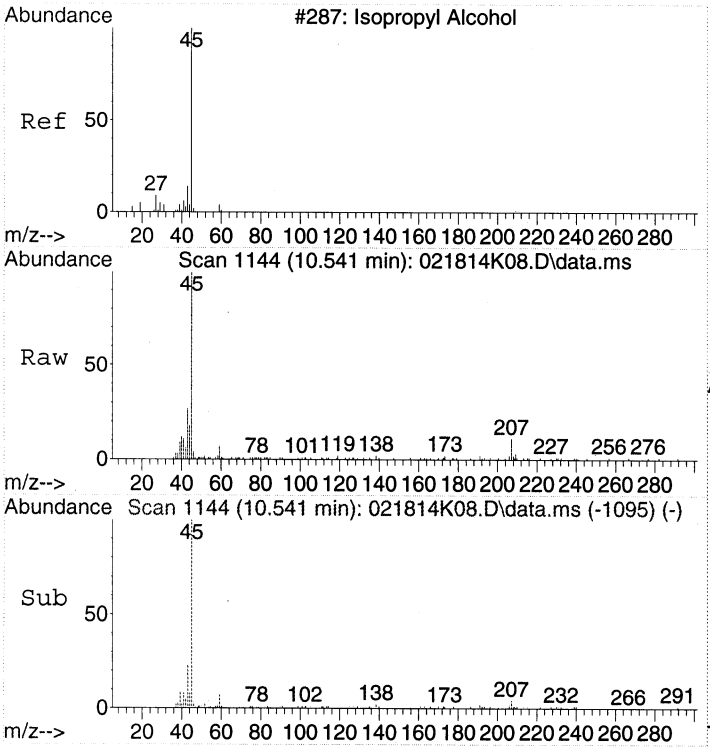


#14
Acetone
Concen: 2.19 ppbv
RT: 9.860 min Scan# 1032
Delta R.T. 0.036 min
Lab File: 021814K08.D
Acq: 18 Feb 2014 17:55

Tgt Ion: 43 Resp: 85223

Ion	Ratio	Lower	Upper
43	100		
58	32.5	12.5	52.5

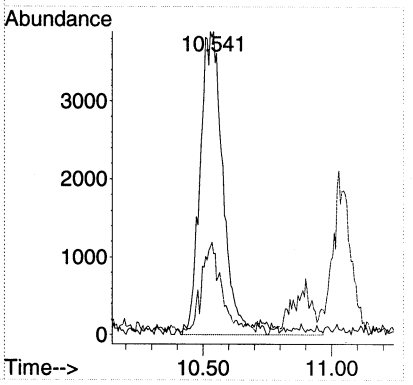


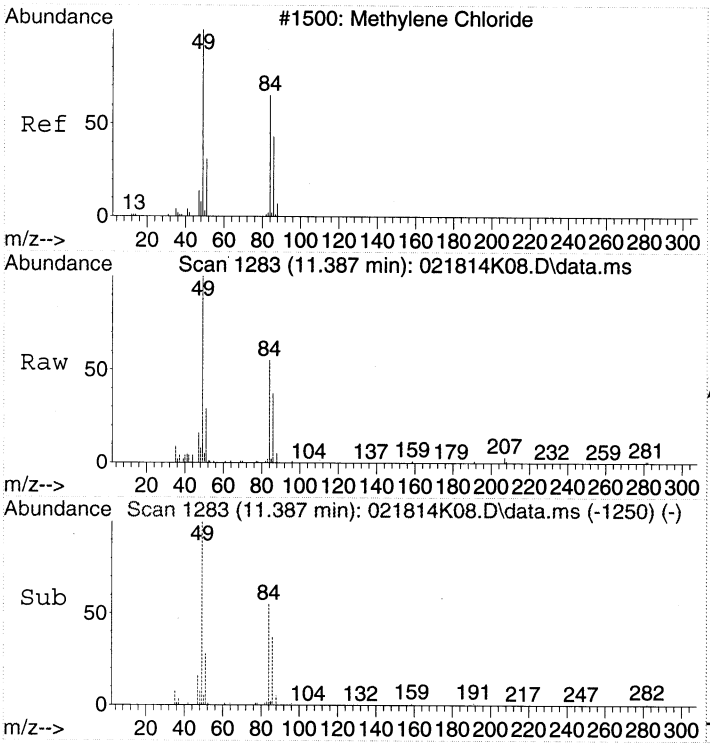


#16
2-Propanol
Concen: 0.63 ppbv
RT: 10.541 min Scan# 1144
Delta R.T. 0.097 min
Lab File: 021814K08.D
Acq: 18 Feb 2014 17:55

Tgt Ion: 45 Resp: 25169

Ion	Ratio	Lower	Upper
45	100		
43	22.7	0.0	39.1

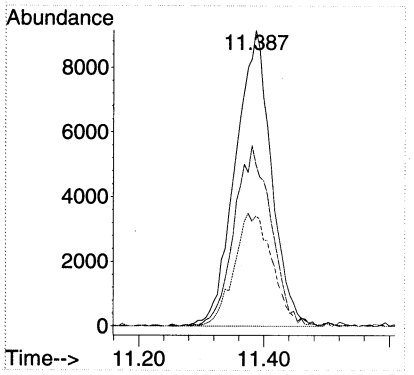


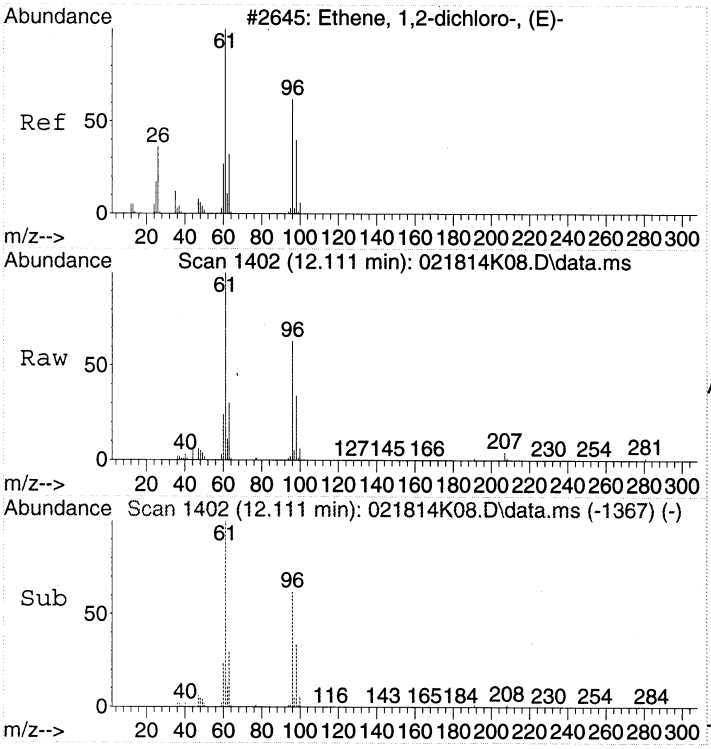


#18
Dichloromethane
Concen: 0.97 ppbv
RT: 11.387 min Scan# 1283
Delta R.T. -0.000 min
Lab File: 021814K08.D
Acq: 18 Feb 2014 17:55

Tgt Ion: 49 Resp: 36399

Ion	Ratio	Lower	Upper
49	100		
84	62.9	50.0	90.0
86	40.7	24.4	64.4

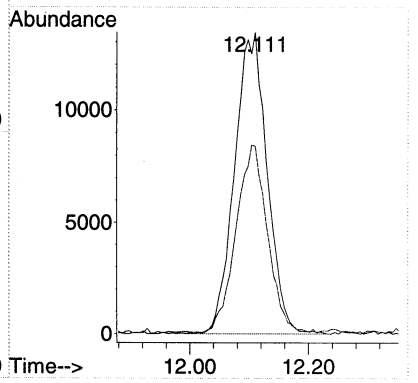


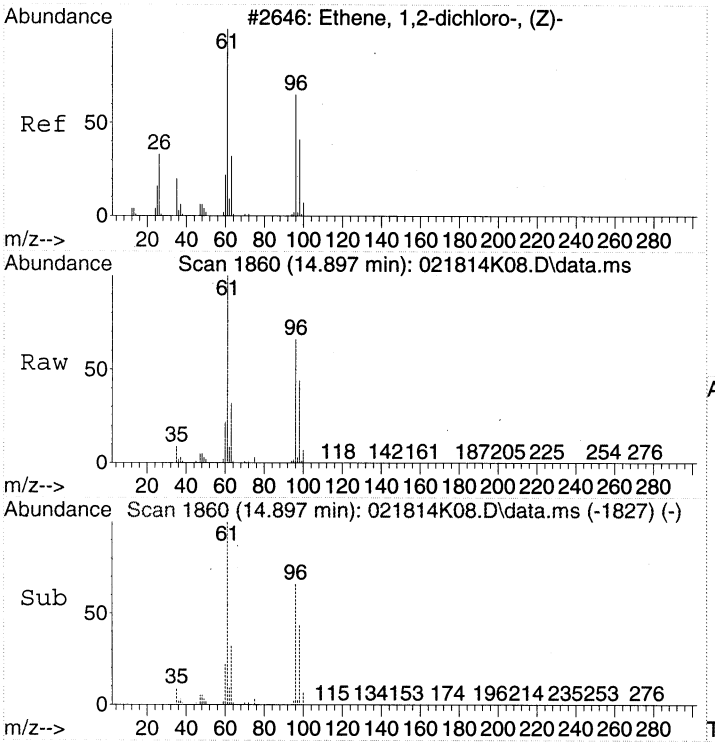


#20
trans-1,2-Dichloroethene
Concen: 1.45 ppbv
RT: 12.111 min Scan# 1402
Delta R.T. 0.012 min
Lab File: 021814K08.D
Acq: 18 Feb 2014 17:55

Tgt Ion: 61 Resp: 51468

Ion	Ratio	Lower	Upper
61	100		
96	62.4	45.4	85.4

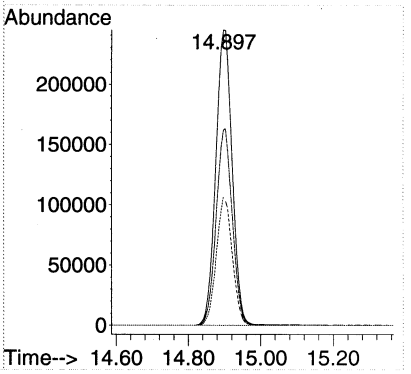


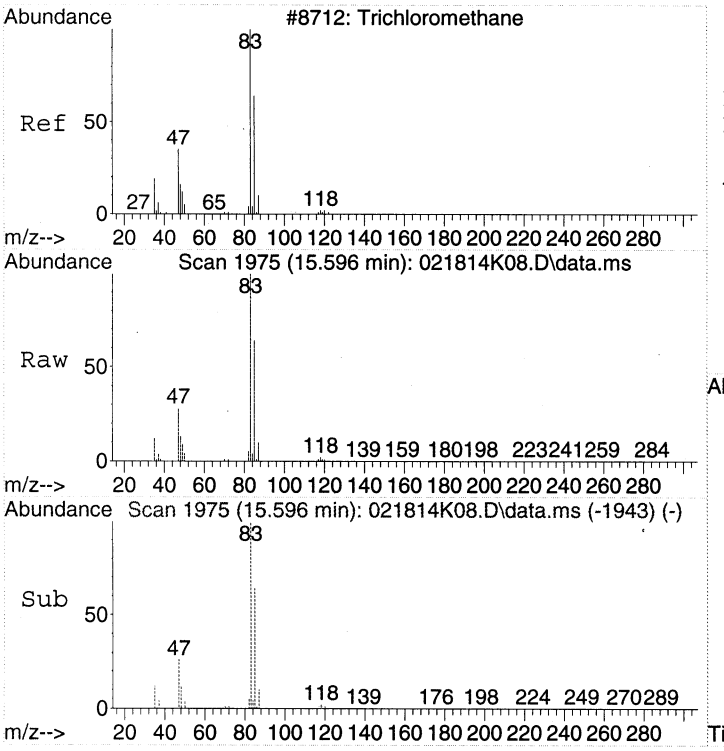


#24
cis-1,2-Dichloroethene
Concen: 20.00 ppbv
RT: 14.897 min Scan# 1860
Delta R.T. -0.000 min
Lab File: 021814K08.D
Acq: 18 Feb 2014 17:55

Tgt Ion: 61 Resp: 771814

Ion	Ratio	Lower	Upper
61	100		
96	66.0	51.7	91.7
98	42.5	25.4	65.4

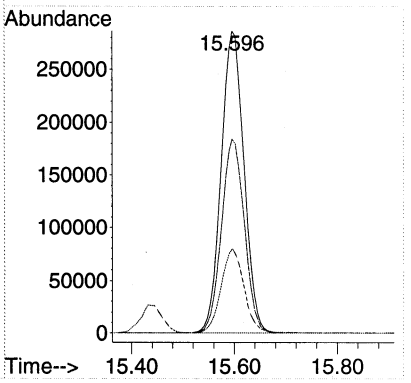


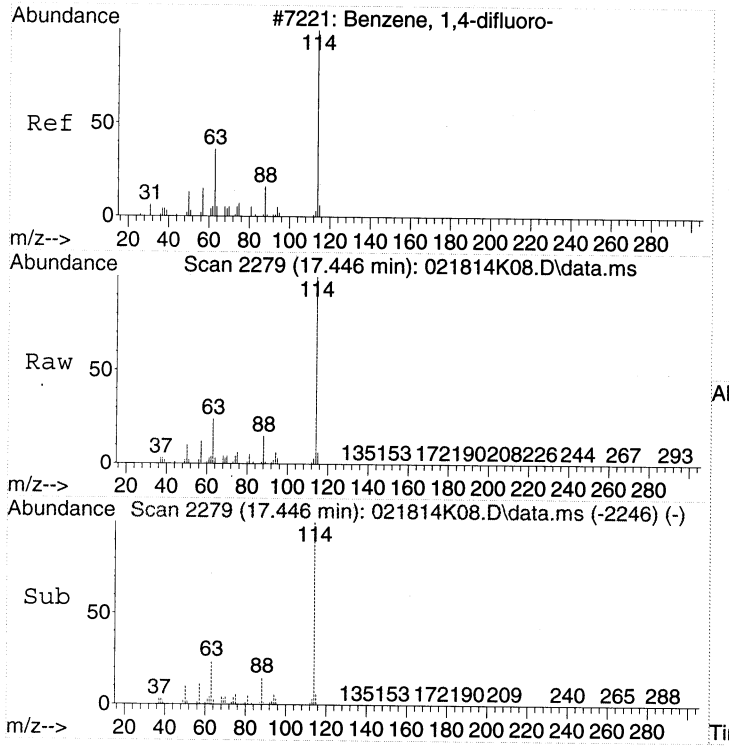


#28
Chloroform
Concen: 16.62 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 021814K08.D
Acq: 18 Feb 2014 17:55

Tgt Ion: 83 Resp: 881976

Ion	Ratio	Lower	Upper
83	100		
85	64.6	42.7	82.7
47	28.1	5.3	45.3

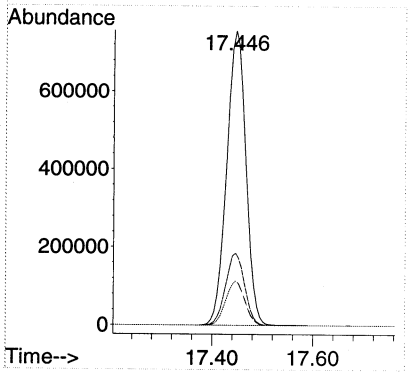


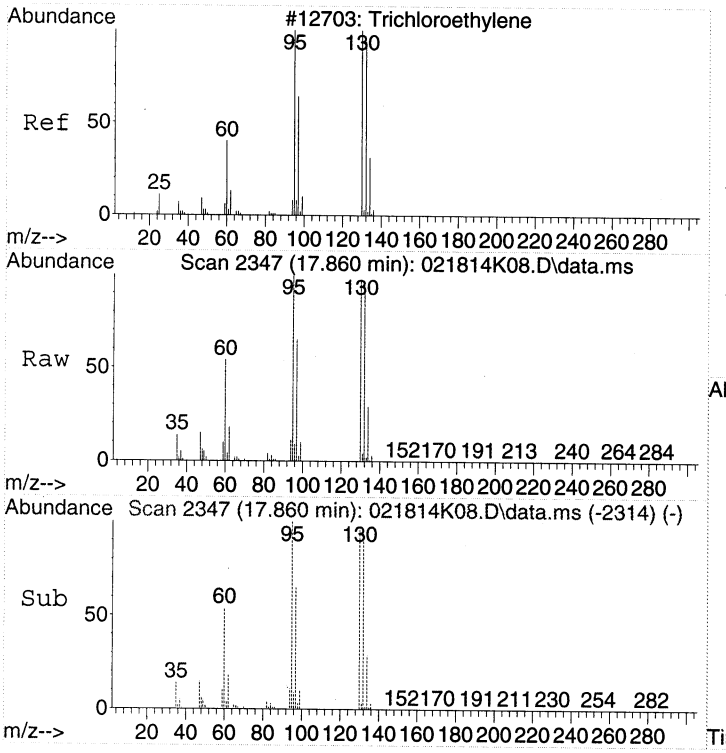


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 021814K08.D
Acq: 18 Feb 2014 17:55

Tgt Ion:114 Resp: 2000994

Ion	Ratio	Lower	Upper
114	100		
63	24.3	2.3	42.3
88	15.0	0.0	35.2

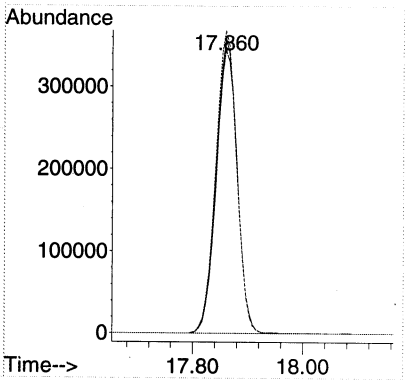


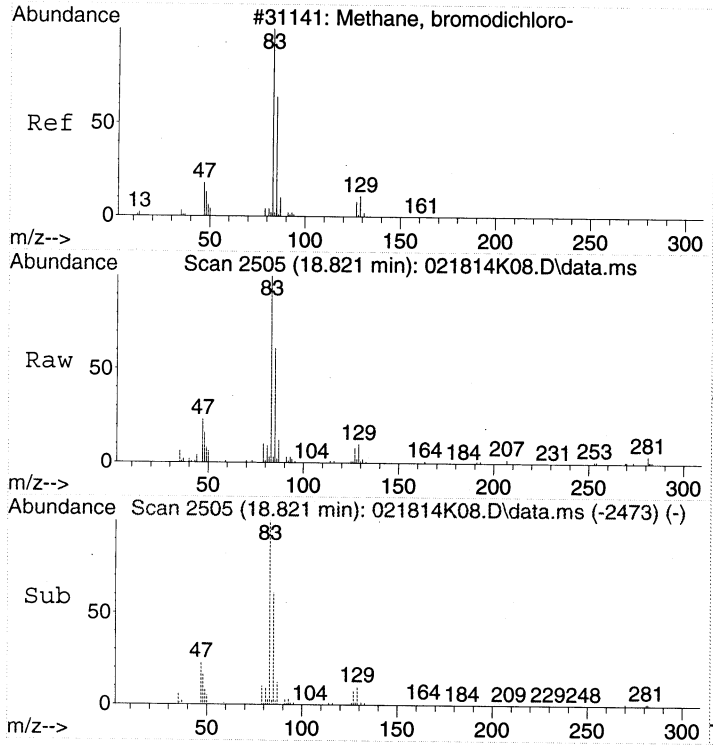


#37
Trichloroethene
Concen: 31.12 ppbv
RT: 17.860 min Scan# 2347
Delta R.T. -0.000 min
Lab File: 021814K08.D
Acq: 18 Feb 2014 17:55

Tgt Ion:130 Resp: 948116

Ion	Ratio	Lower	Upper
130	100		
132	96.4	78.9	118.9
95	102.7	82.3	122.3

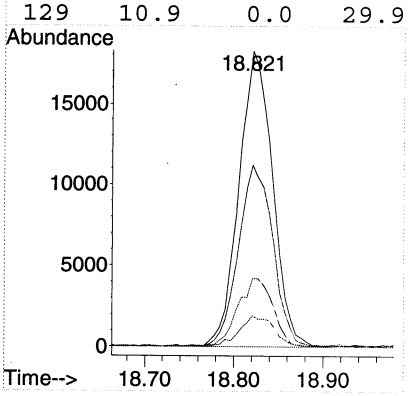


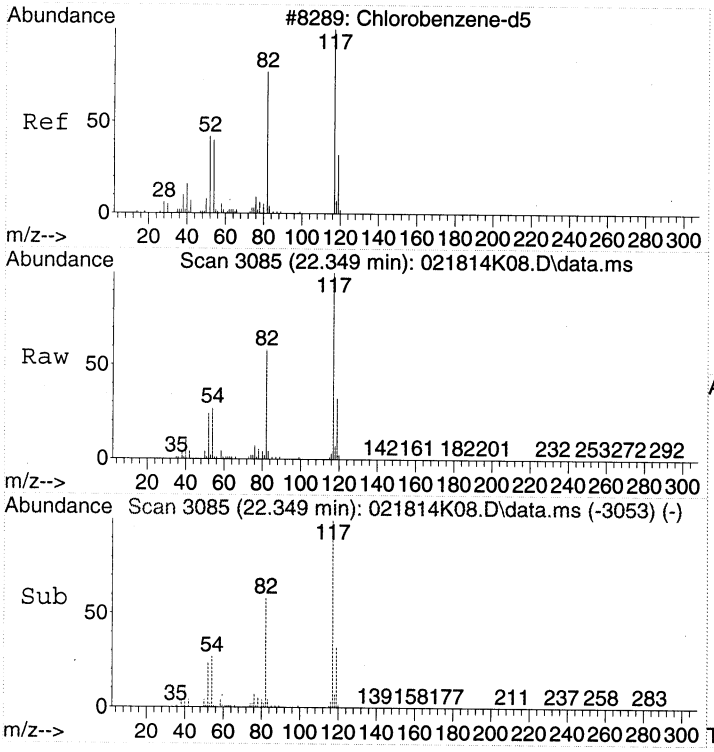


#40
Bromodichloromethane
Concen: 0.97 ppbv
RT: 18.821 min Scan# 2505
Delta R.T. -0.006 min
Lab File: 021814K08.D
Acq: 18 Feb 2014 17:55

Tgt Ion: 83 Resp: 47706

Ion	Ratio	Lower	Upper
83	100		
85	63.7	41.8	81.8
47	23.4	0.4	40.4
129	10.9	0.0	29.9

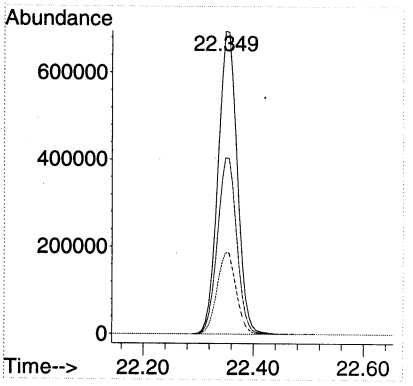


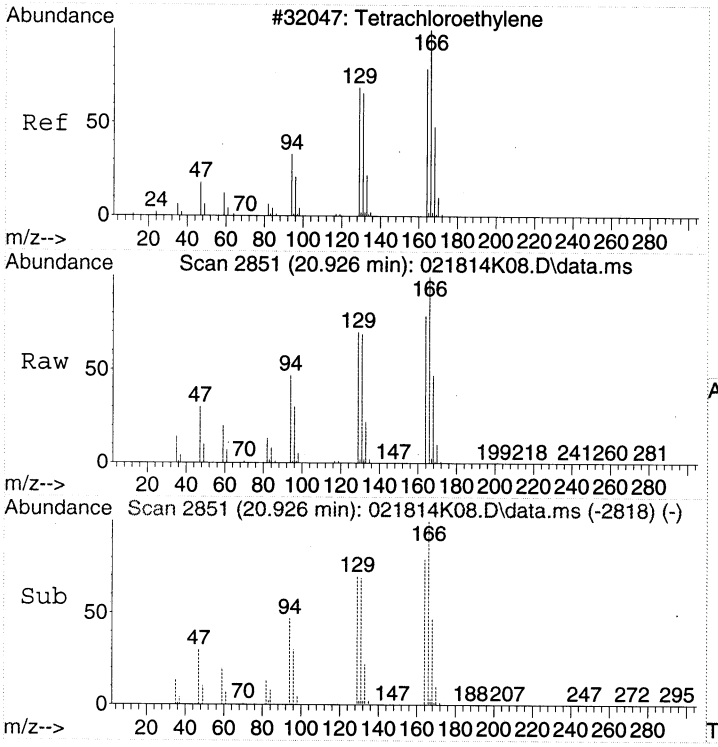


#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.349 min Scan# 3085
Delta R.T. -0.006 min
Lab File: 021814K08.D
Acq: 18 Feb 2014 17:55

Tgt Ion:117 Resp: 1679555

Ion	Ratio	Lower	Upper
117	100		
82	58.6	37.1	77.1
54	27.1	3.3	43.3

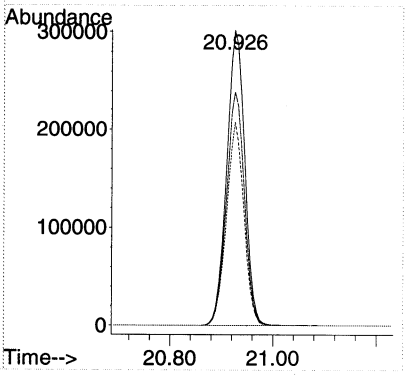




#47
Tetrachloroethene
Concen: 19.15 ppbv
RT: 20.926 min Scan# 2851
Delta R.T. -0.000 min
Lab File: 021814K08.D
Acq: 18 Feb 2014 17:55

Tgt Ion:166 Resp: 735262

Ion	Ratio	Lower	Upper
166	100		
164	79.0	59.4	99.4
131	66.7	44.3	84.3



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K09.D
Acq On : 18 Feb 2014 18:44
Instrument: HP5973K
Operator : EM
Sample : 1402032-02
Misc : 200mL MH12
ALS Vial : 37
Multiplier: 1.83

Quant Time: Feb 18 19:12:13 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) BROMOCHLOROMETHANE	15.438	49	828891	22.00 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2005832	22.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.355	117	1690610	22.00 ppbv	0.00
Target Compounds					Qvalue
2) Propene	4.378	41	12700	0.53 ppbv #	73
14) Acetone	9.878	43	46994	1.21 ppbv	92
18) Dichloromethane	11.387	49	24038	0.64 ppbv	94
24) cis-1,2-Dichloroethene	14.897	61	104339	2.71 ppbv	94
37) Trichloroethene	17.859	130	115822	3.79 ppbv	98

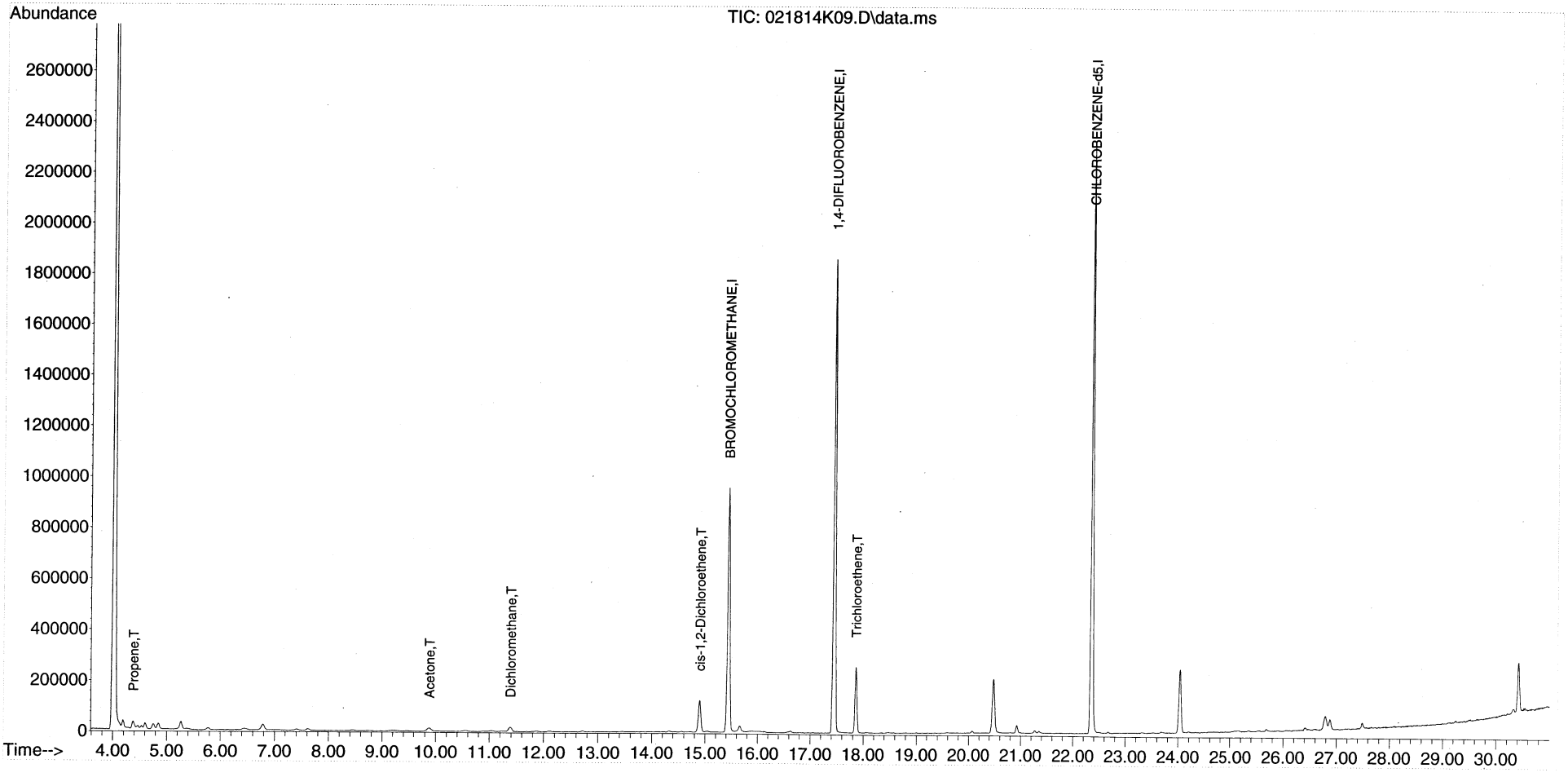
(#) = qualifier out of range (m) = manual integration (+) = signals summed

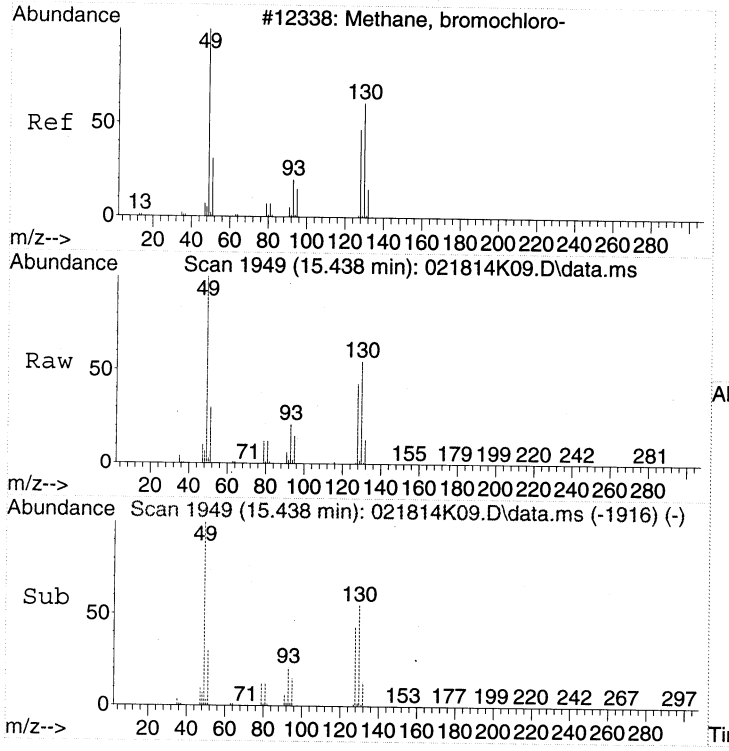
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K09.D
Acq On : 18 Feb 2014 18:44
Instrument: HP5973K
Operator : EM
Sample : 1402032-02
Misc : 200mL MH12
ALS Vial : 37
Multiplier: 1.83

Quant Time: Feb 18 19:12:13 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

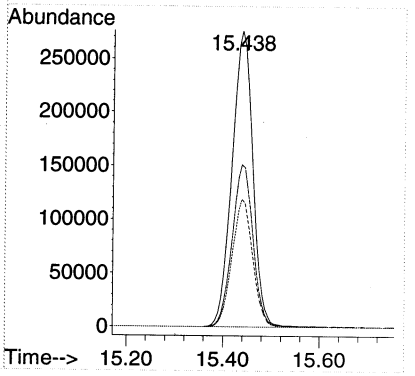


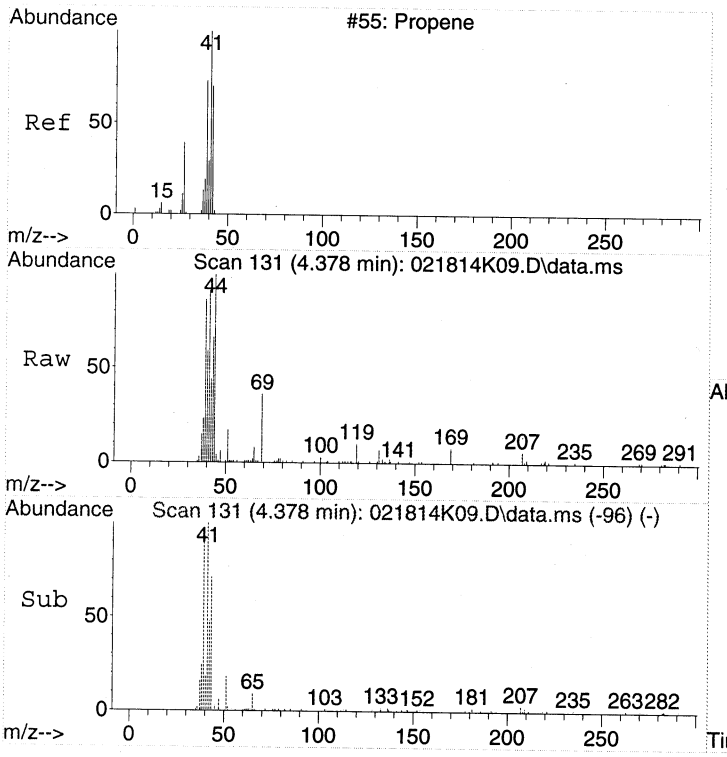


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 021814K09.D
Acq: 18 Feb 2014 18:44

Tgt Ion: 49 Resp: 828891

Ion	Ratio	Lower	Upper
49	100		
130	54.8	39.6	79.6
128	42.8	26.9	66.9

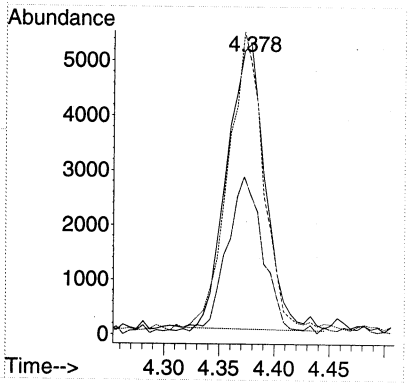


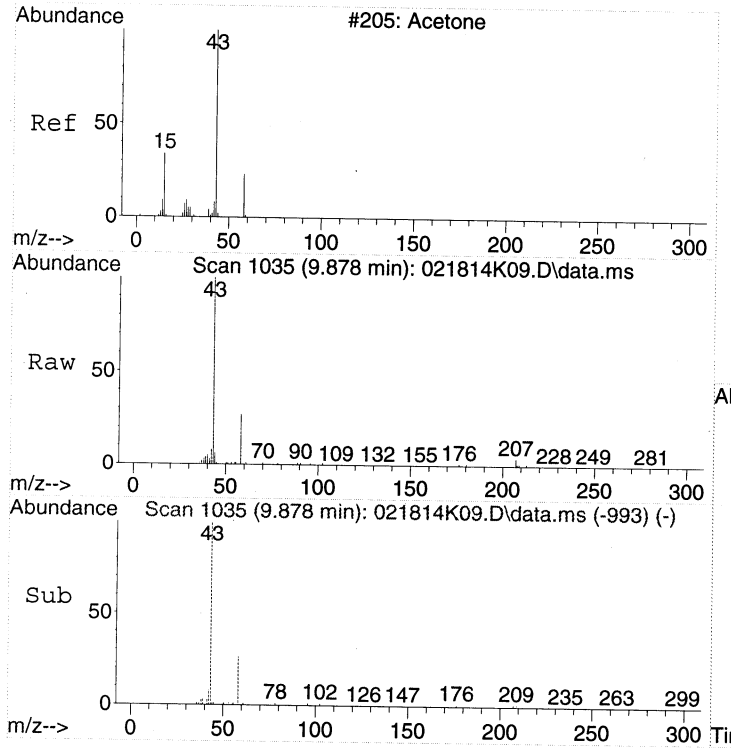


#2
Propene
Concen: 0.53 ppbv
RT: 4.378 min Scan# 131
Delta R.T. 0.012 min
Lab File: 021814K09.D
Acq: 18 Feb 2014 18:44

Tgt Ion: 41 Resp: 12700

Ion	Ratio	Lower	Upper
41	100		
42	55.4	46.8	86.8
39	100.4	48.3	88.3#

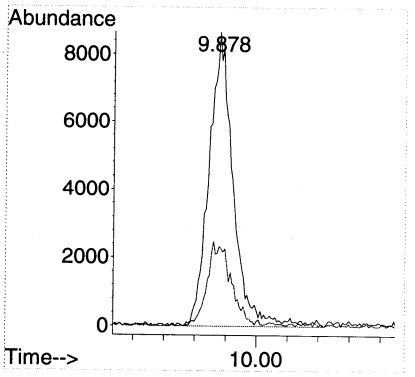


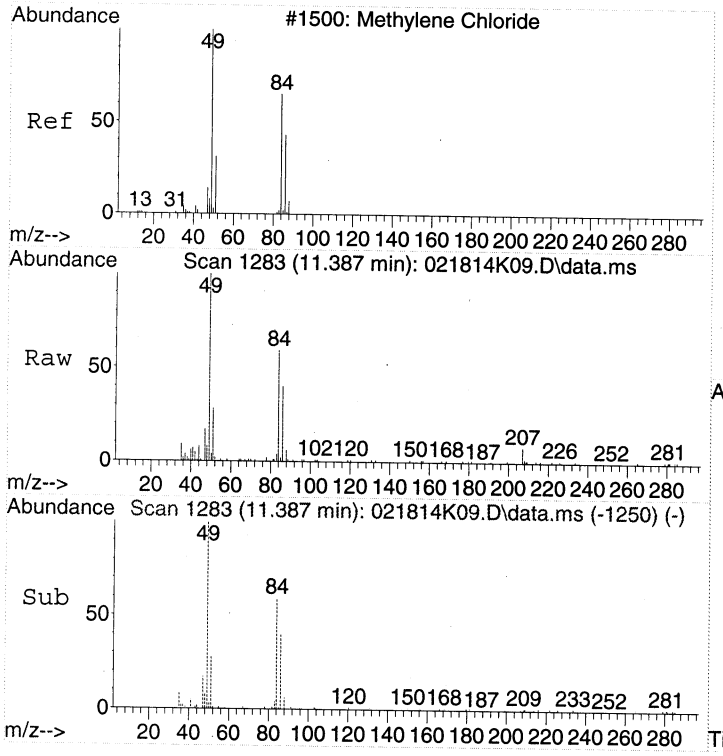


#14
Acetone
Concen: 1.21 ppbv
RT: 9.878 min Scan# 1035
Delta R.T. 0.055 min
Lab File: 021814K09.D
Acq: 18 Feb 2014 18:44

Tgt Ion: 43 Resp: 46994

Ion	Ratio	Lower	Upper
43	100		
58	27.9	12.5	52.5

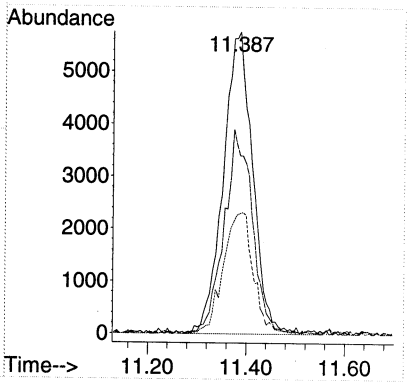


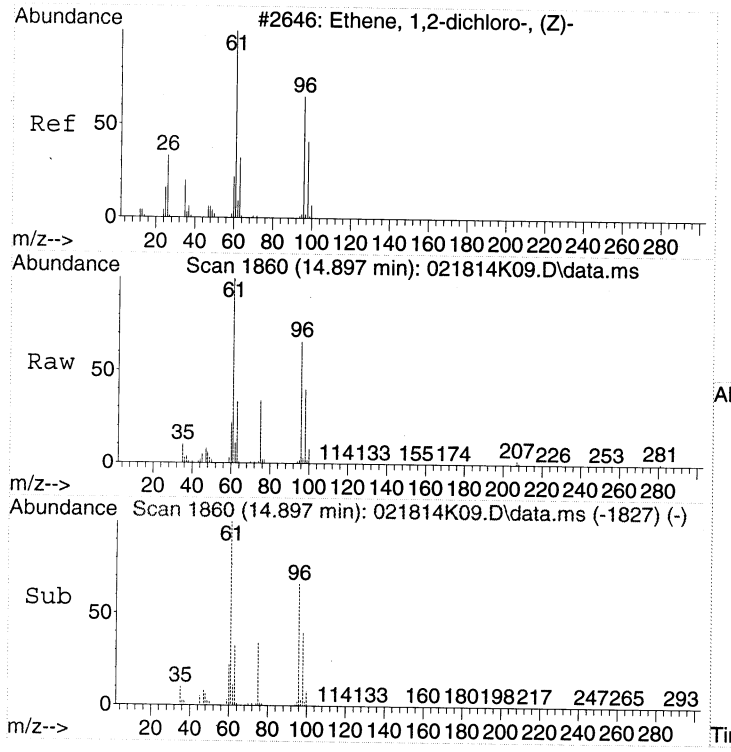


#18
Dichloromethane
Concen: 0.64 ppbv
RT: 11.387 min Scan# 1283
Delta R.T. -0.000 min
Lab File: 021814K09.D
Acq: 18 Feb 2014 18:44

Tgt Ion: 49 Resp: 24038

Ion	Ratio	Lower	Upper
49	100		
84	65.0	50.0	90.0
86	40.8	24.4	64.4

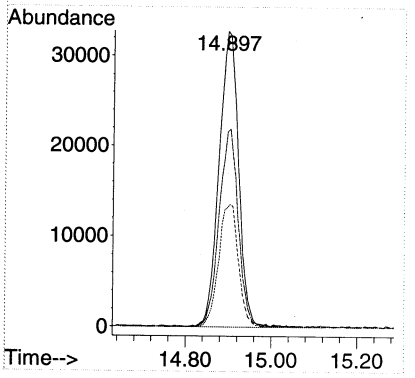


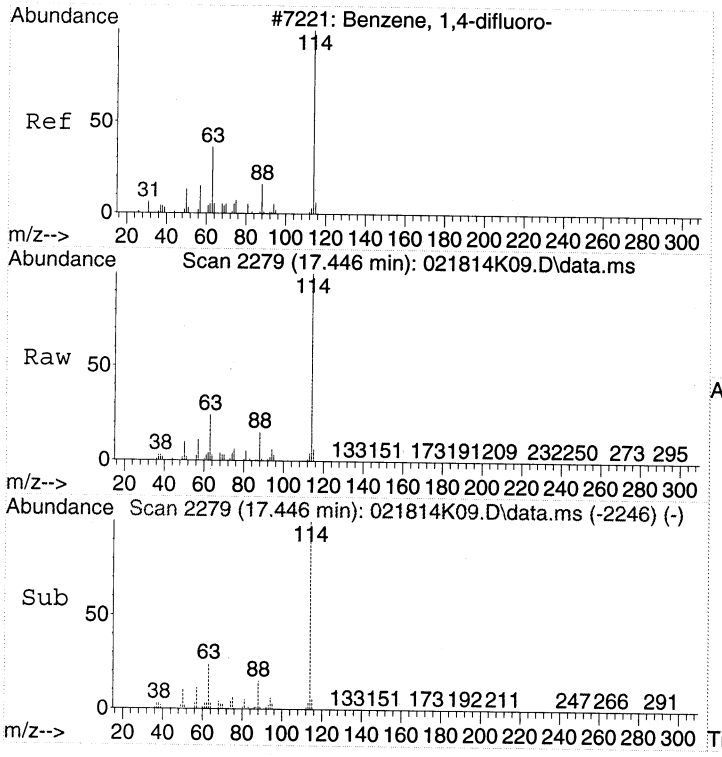


#24
cis-1,2-Dichloroethene
Concen: 2.71 ppbv
RT: 14.897 min Scan# 1860
Delta R.T. -0.000 min
Lab File: 021814K09.D
Acq: 18 Feb 2014 18:44

Tgt Ion: 61 Resp: 104339

Ion	Ratio	Lower	Upper
61	100		
96	66.6	51.7	91.7
98	41.7	25.4	65.4

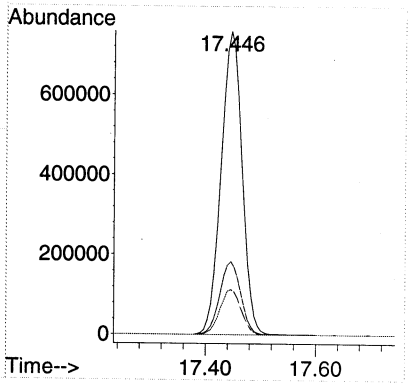


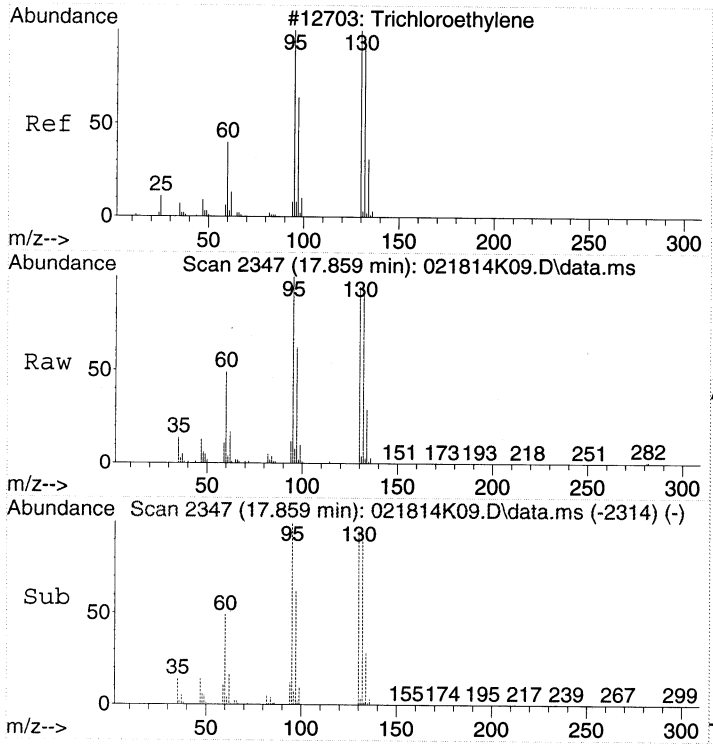


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 021814K09.D
Acq: 18 Feb 2014 18:44

Tgt Ion:114 Resp: 2005832

Ion	Ratio	Lower	Upper
114	100		
63	24.1	2.3	42.3
88	15.0	0.0	35.2

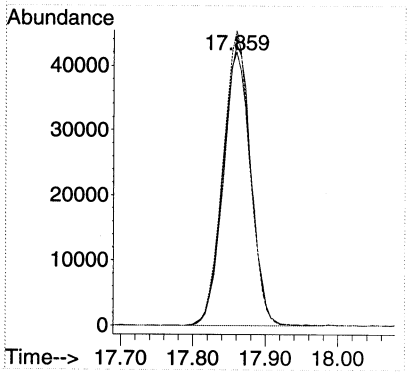


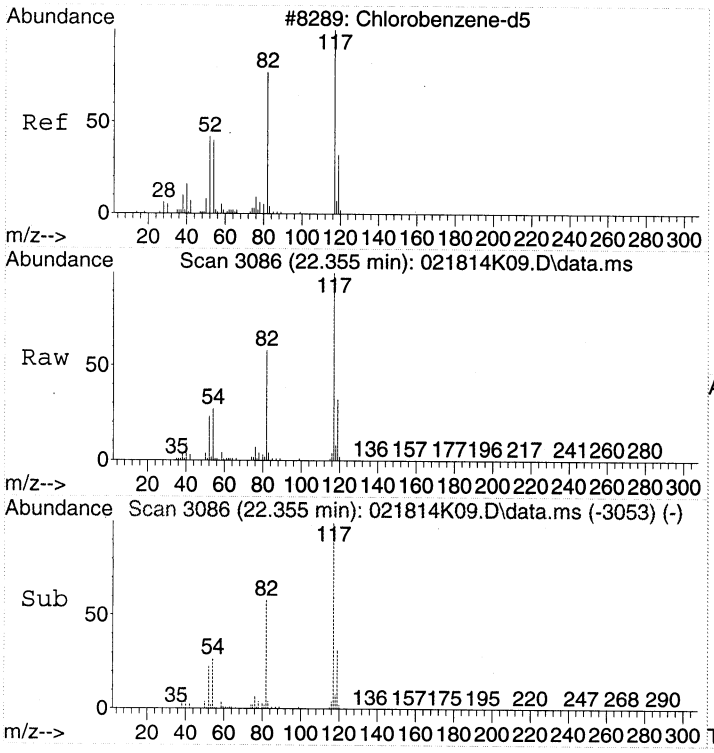


#37
Trichloroethene
Concen: 3.79 ppbv
RT: 17.859 min Scan# 2347
Delta R.T. -0.000 min
Lab File: 021814K09.D
Acq: 18 Feb 2014 18:44

Tgt Ion:130 Resp: 115822

Ion	Ratio	Lower	Upper
130	100		
132	95.8	78.9	118.9
95	101.6	82.3	122.3

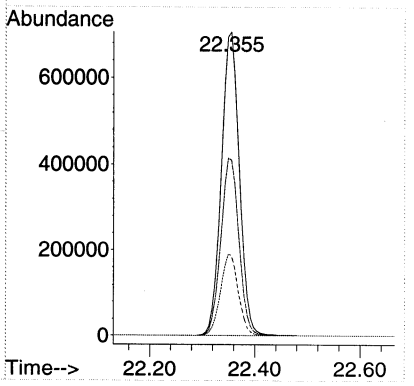




#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.355 min Scan# 3086
Delta R.T. -0.000 min
Lab File: 021814K09.D
Acq: 18 Feb 2014 18:44

Tgt Ion:117 Resp: 1690610

Ion	Ratio	Lower	Upper
117	100		
82	59.1	37.1	77.1
54	27.0	3.3	43.3



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K10.D
Acq On : 18 Feb 2014 19:33
Instrument: HP5973K
Operator : EM
Sample : B14B075-DUP1
Misc : 200mL MH12dup
ALS Vial : 37
Multiplier: 1.83

Quant Time: Feb 19 09:30:01 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) BROMOCHLOROMETHANE	15.438	49	805327	22.00 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	1913005	22.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.349	117	1608148	22.00 ppbv	0.00
Target Compounds					Qvalue
2) Propene	4.372	41	13548	0.58 ppbv #	74
14) Acetone	9.878	43	45804	1.21 ppbv	94
18) Dichloromethane	11.381	49	23610	0.65 ppbv #	44
24) cis-1,2-Dichloroethene	14.903	61	108794	2.91 ppbv	92
37) Trichloroethene	17.860	130	117927	4.05 ppbv	98

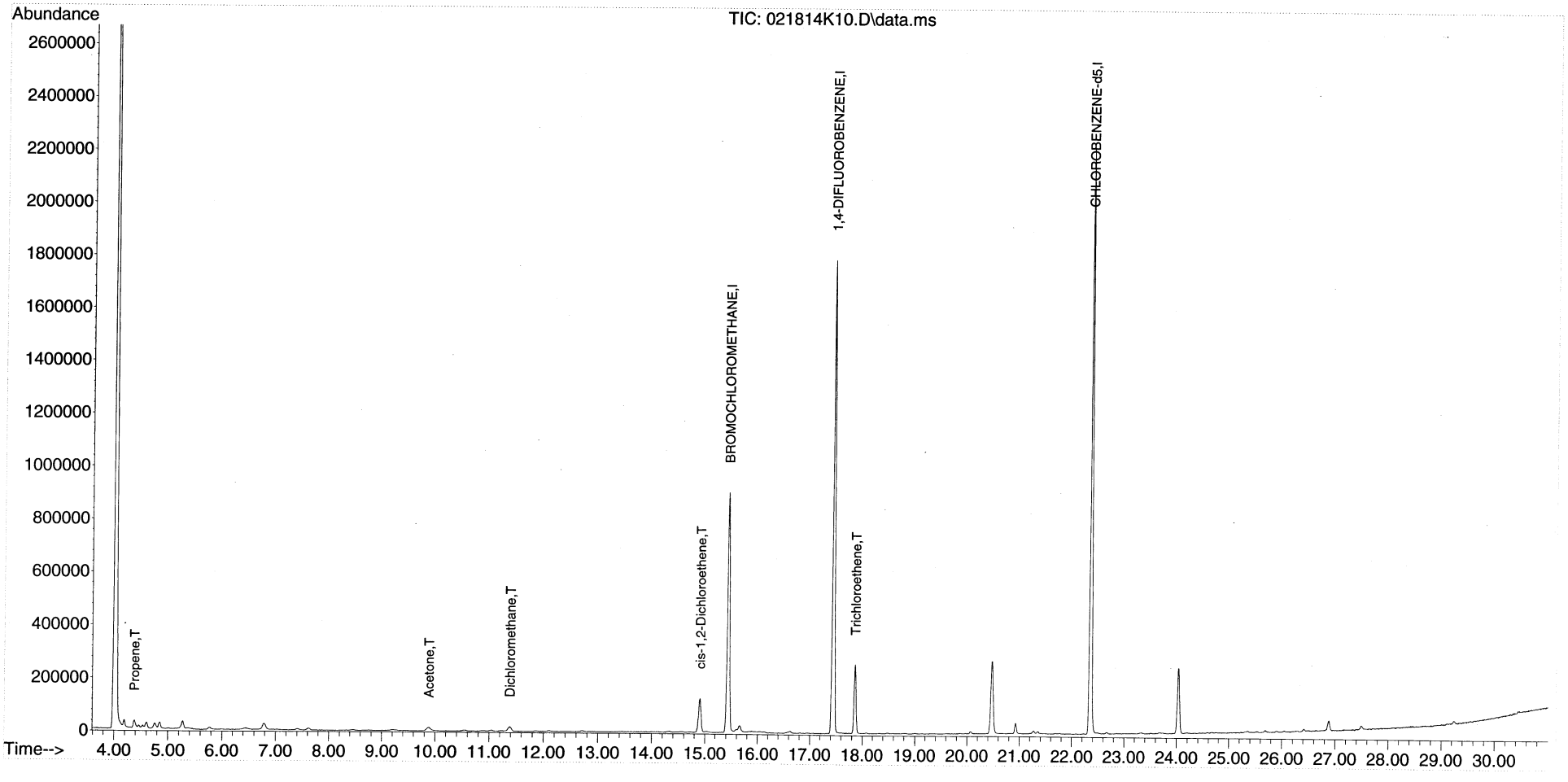
(#) = qualifier out of range (m) = manual integration (+) = signals summed

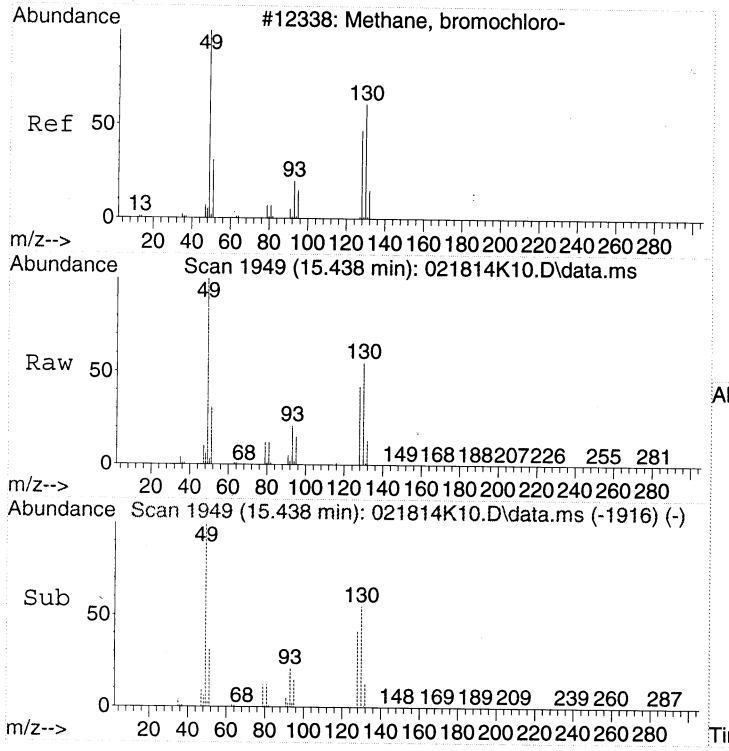
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K10.D
Acq On : 18 Feb 2014 19:33
Instrument: HP5973K
Operator : EM
Sample : B14B075-DUP1
Misc : 200mL MH12dup
ALS Vial : 37
Multiplier: 1.83

Quant Time: Feb 19 09:30:01 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

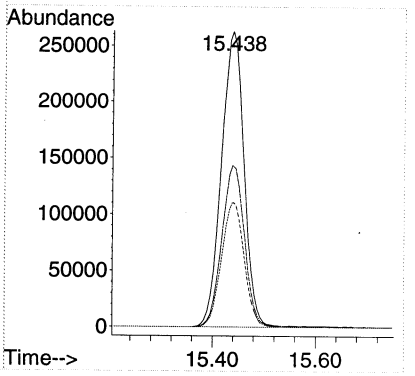


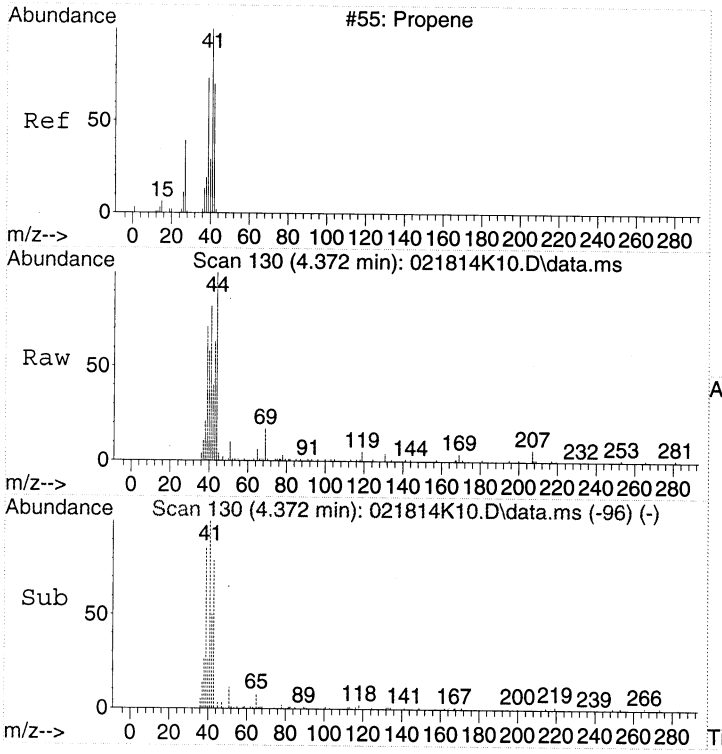


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 021814K10.D
Acq: 18 Feb 2014 19:33

Tgt Ion: 49 Resp: 805327

Ion	Ratio	Lower	Upper
49	100		
130	54.6	39.6	79.6
128	42.1	26.9	66.9

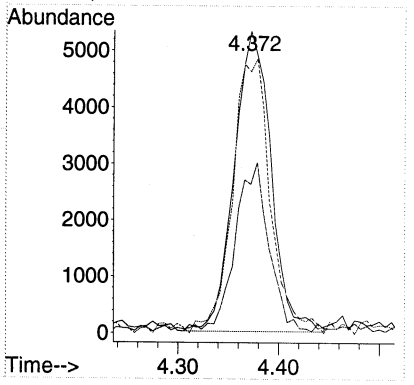


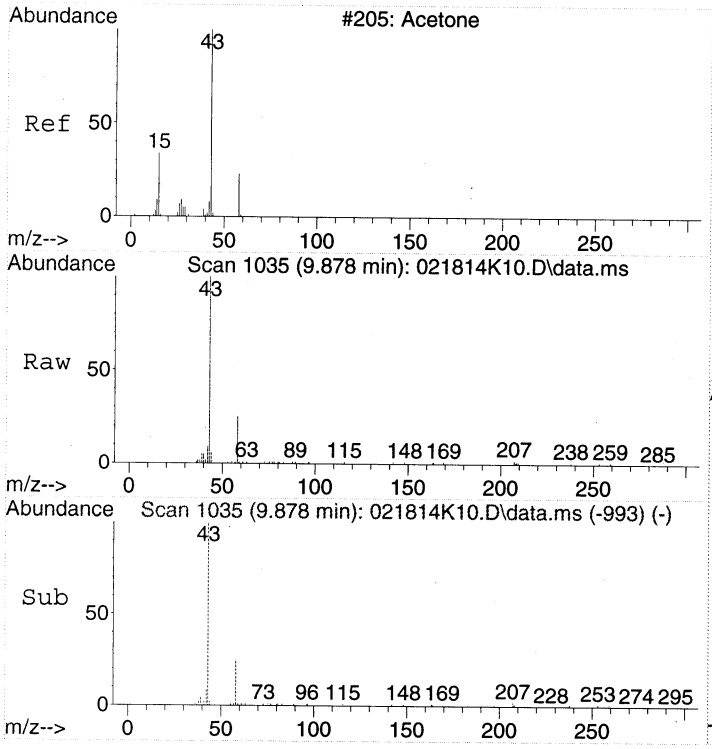


#2
Propene
Concen: 0.58 ppbv
RT: 4.372 min Scan# 130
Delta R.T. 0.006 min
Lab File: 021814K10.D
Acq: 18 Feb 2014 19:33

Tgt Ion: 41 Resp: 13548

Ion	Ratio	Lower	Upper
41	100		
42	50.7	46.8	86.8
39	94.2	48.3	88.3#

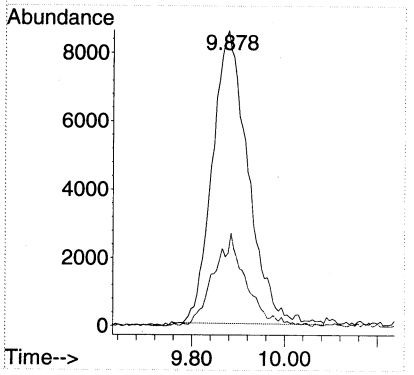


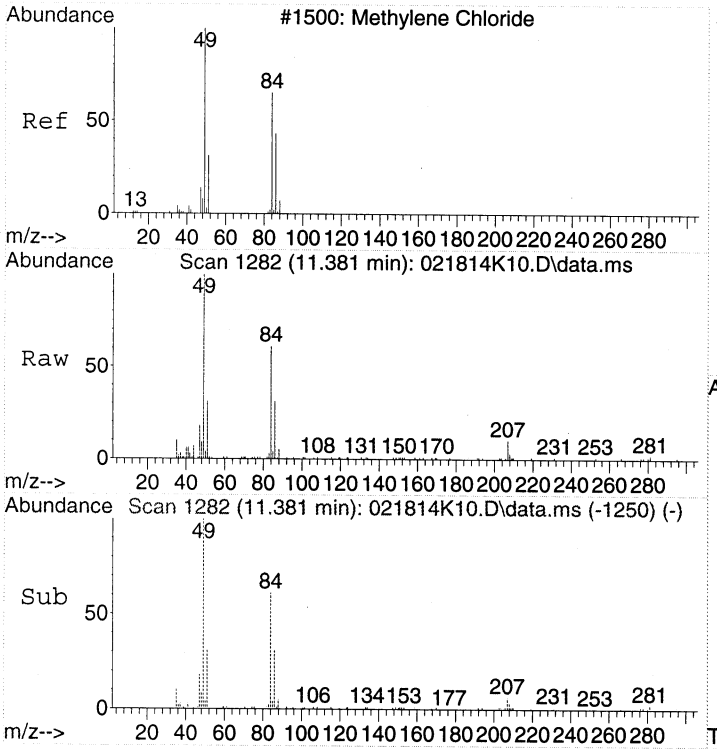


#14
Acetone
Concen: 1.21 ppbv
RT: 9.878 min Scan# 1035
Delta R.T. 0.055 min
Lab File: 021814K10.D
Acq: 18 Feb 2014 19:33

Tgt Ion: 43 Resp: 45804

Ion	Ratio	Lower	Upper
43	100		
58	29.2	12.5	52.5

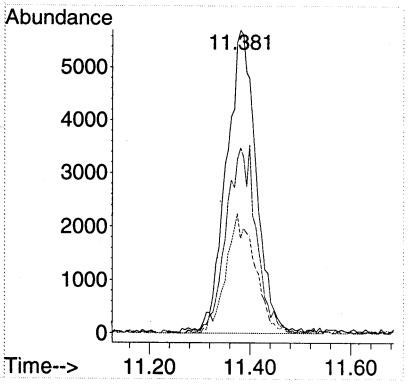


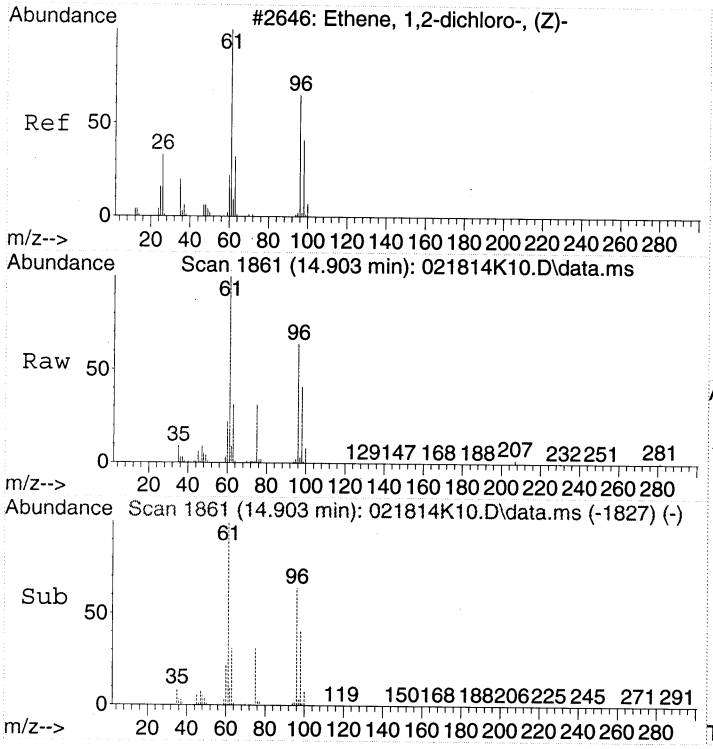


#18
Dichloromethane
Concen: 0.65 ppbv
RT: 11.381 min Scan# 1282
Delta R.T. -0.006 min
Lab File: 021814K10.D
Acq: 18 Feb 2014 19:33

Tgt Ion: 49 Resp: 23610

Ion	Ratio	Lower	Upper
49	100		
84	0.0	50.0	90.0#
86	38.2	24.4	64.4

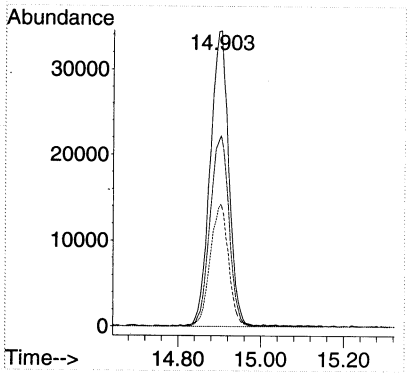


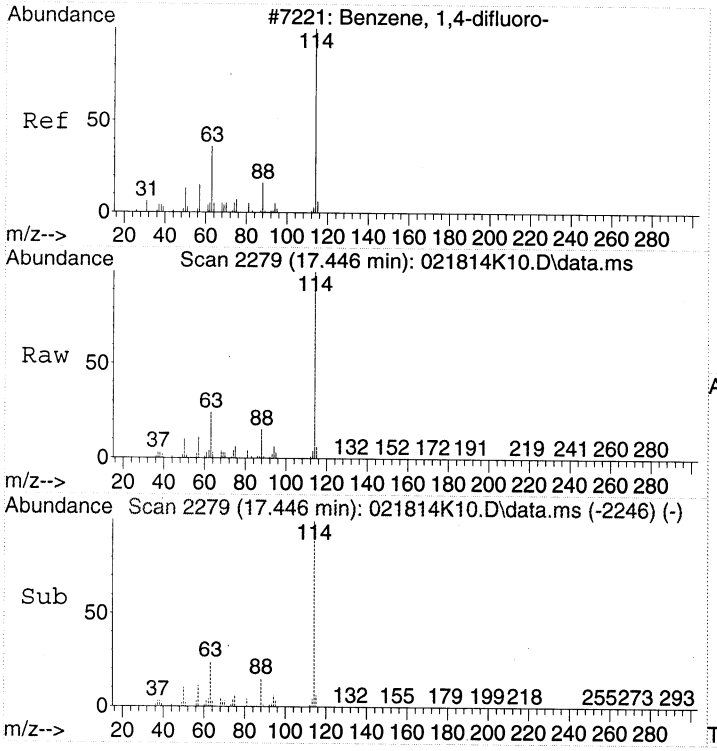


#24
cis-1,2-Dichloroethene
Concen: 2.91 ppbv
RT: 14.903 min Scan# 1861
Delta R.T. 0.006 min
Lab File: 021814K10.D
Acq: 18 Feb 2014 19:33

Tgt Ion: 61 Resp: 108794

Ion	Ratio	Lower	Upper
61	100		
96	65.3	51.7	91.7
98	40.2	25.4	65.4

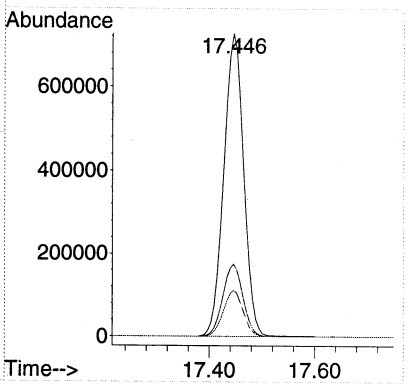


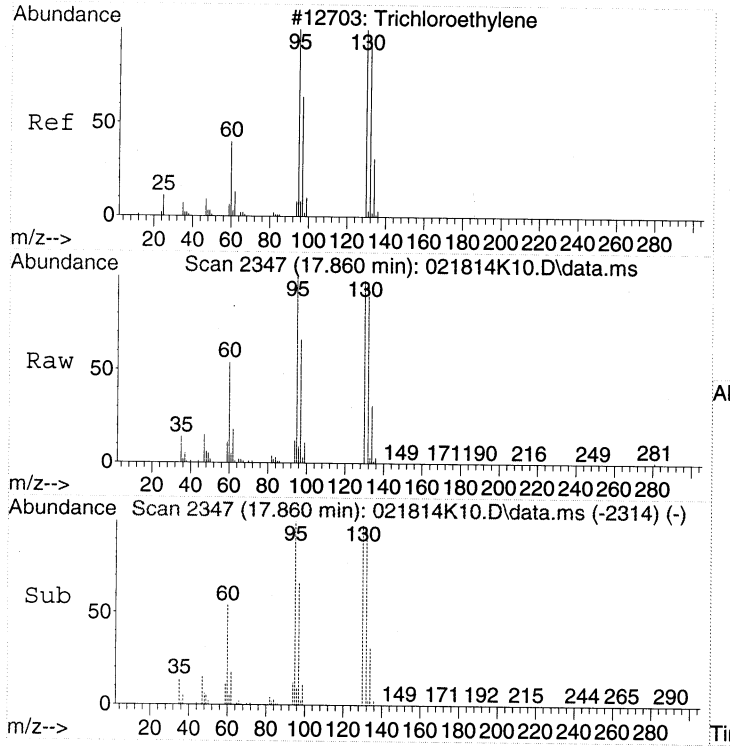


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 021814K10.D
Acq: 18 Feb 2014 19:33

Tgt Ion:114 Resp: 1913005

Ion	Ratio	Lower	Upper
114	100		
63	24.1	2.3	42.3
88	15.1	0.0	35.2

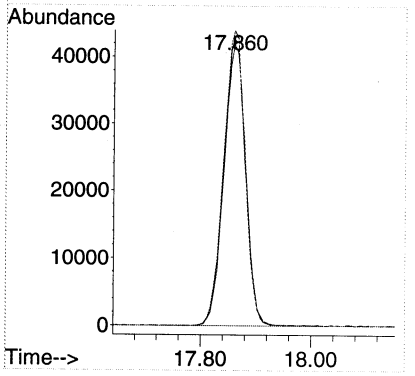


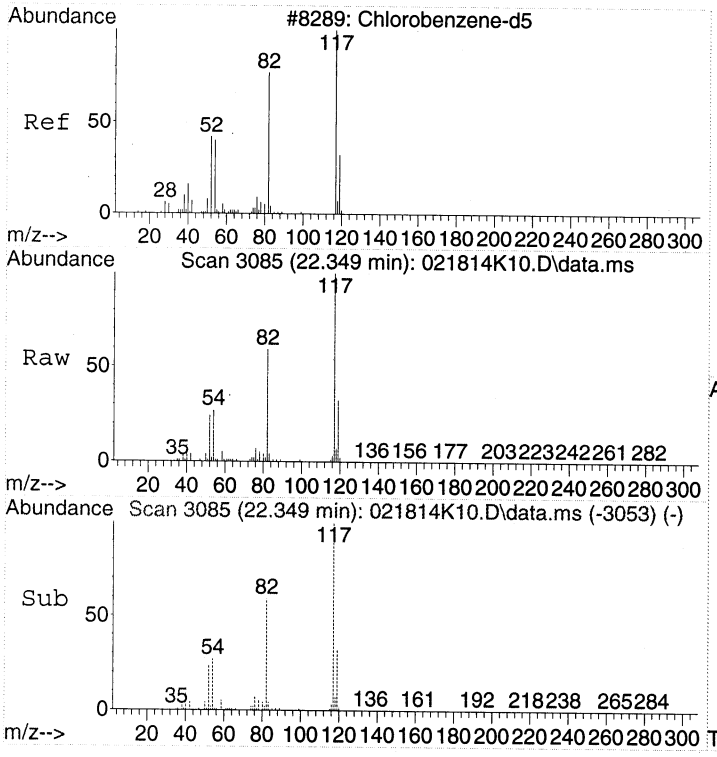


#37
Trichloroethene
Concen: 4.05 ppbv
RT: 17.860 min Scan# 2347
Delta R.T. -0.000 min
Lab File: 021814K10.D
Acq: 18 Feb 2014 19:33

Tgt Ion:130 Resp: 117927

Ion	Ratio	Lower	Upper
130	100		
132	96.4	78.9	118.9
95	100.6	82.3	122.3

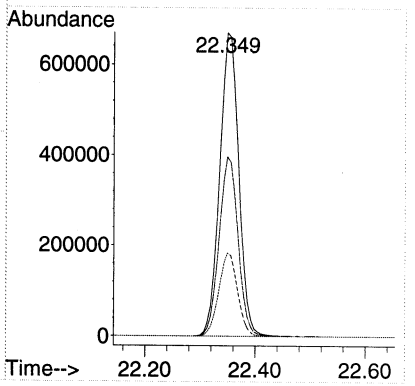




#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.349 min Scan# 3085
Delta R.T. -0.006 min
Lab File: 021814K10.D
Acq: 18 Feb 2014 19:33

Tgt Ion:117 Resp: 1608148

Ion	Ratio	Lower	Upper
117	100		
82	59.0	37.1	77.1
54	27.2	3.3	43.3



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K11.D
Acq On : 18 Feb 2014 20:22
Instrument: HP5973K
Operator : EM
Sample : 1402032-03
Misc : 200mL MH13
ALS Vial : 38
Multiplier: 2.08

Quant Time: Feb 19 09:30:08 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.438	49	834879	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2032473	22.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.349	117	1726409	22.00	ppbv	0.00
Target Compounds						Qvalue
14) Acetone	9.890	43	26067	0.67	ppbv	96
18) Dichloromethane	11.374	49	24927	0.66	ppbv	93
28) Chloroform	15.596	83	63717	1.19	ppbv	96

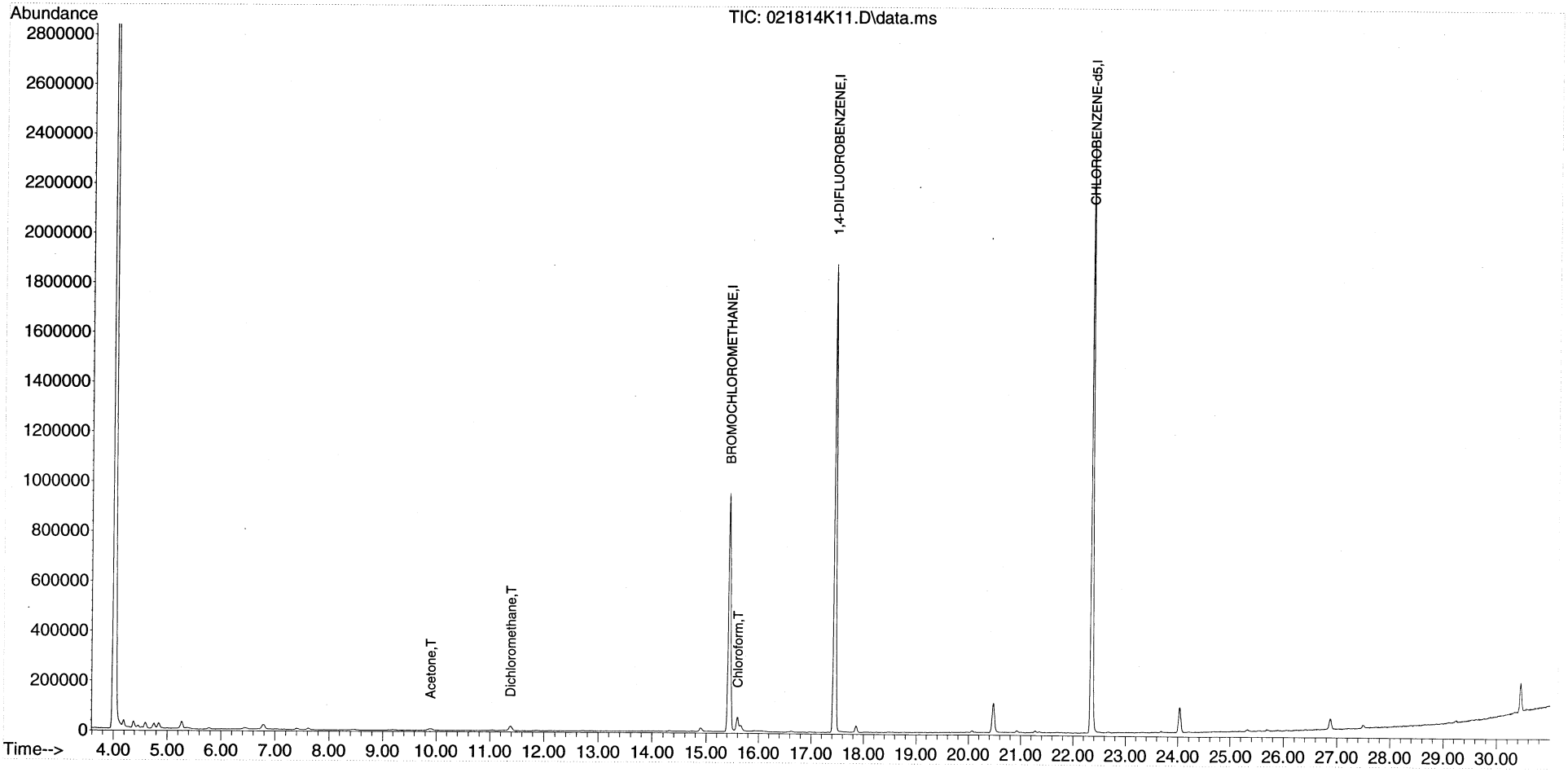
(#) = qualifier out of range (m) = manual integration (+) = signals summed

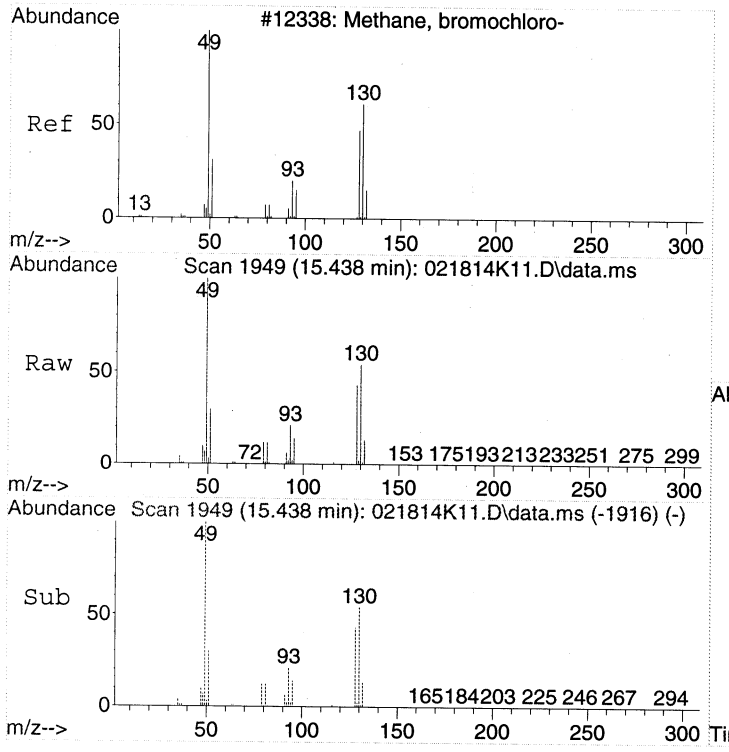
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K11.D
Acq On : 18 Feb 2014 20:22
Instrument: HP5973K
Operator : EM
Sample : 1402032-03
Misc : 200mL MH13
ALS Vial : 38
Multiplier: 2.08

Quant Time: Feb 19 09:30:08 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

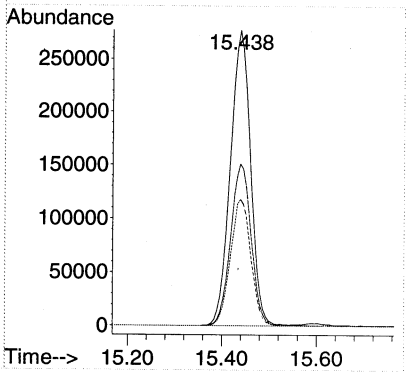


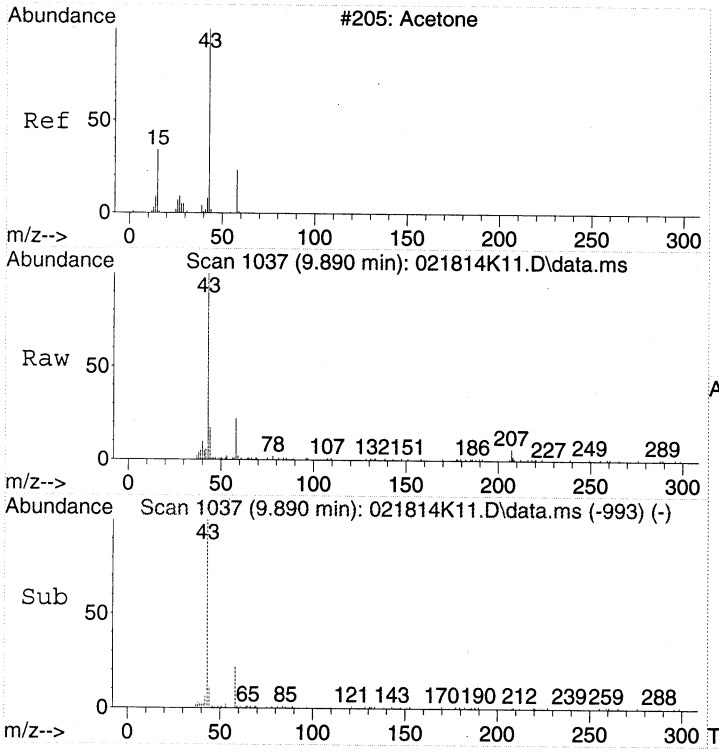


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 021814K11.D
Acq: 18 Feb 2014 20:22

Tgt Ion: 49 Resp: 834879

Ion	Ratio	Lower	Upper
49	100		
130	55.1	39.6	79.6
128	43.0	26.9	66.9

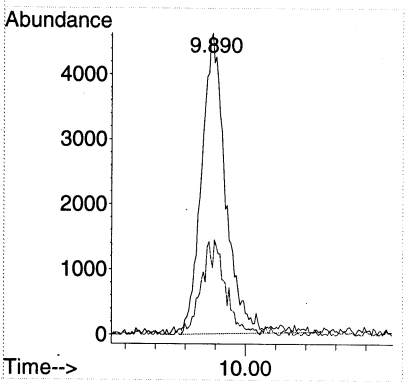


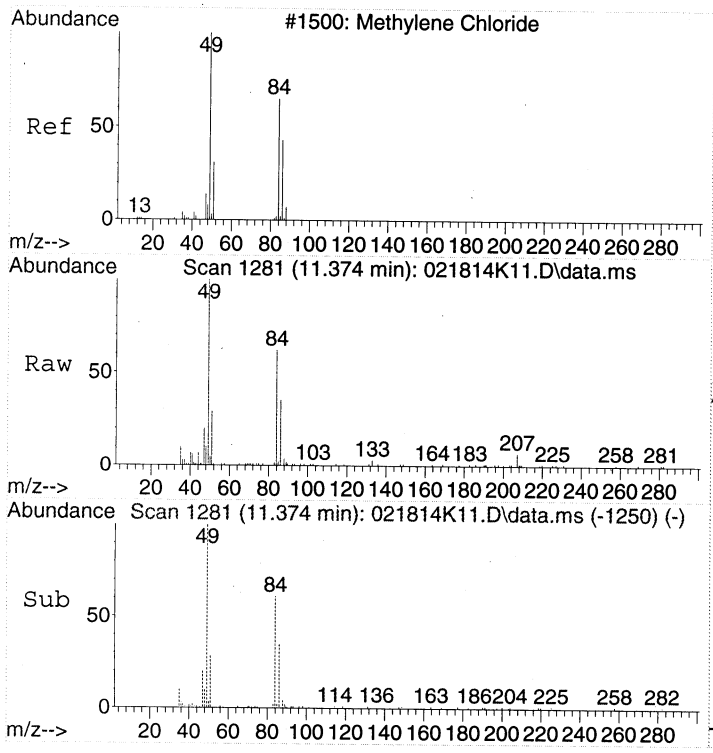


#14
Acetone
Concen: 0.67 ppbv
RT: 9.890 min Scan# 1037
Delta R.T. 0.067 min
Lab File: 021814K11.D
Acq: 18 Feb 2014 20:22

Tgt Ion: 43 Resp: 26067

Ion	Ratio	Lower	Upper
43	100		
58	30.1	12.5	52.5

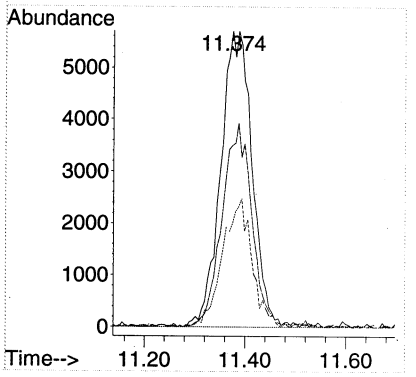


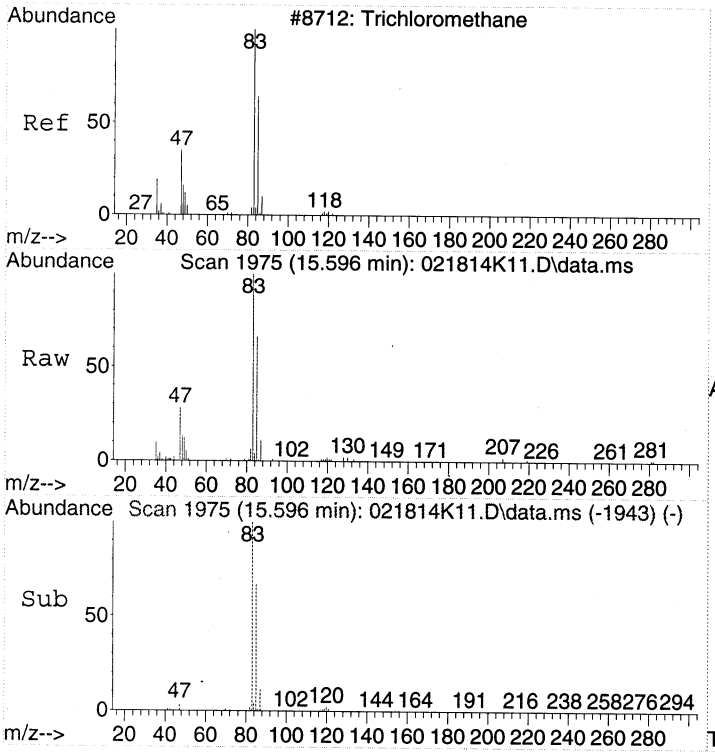


#18
Dichloromethane
Concen: 0.66 ppbv
RT: 11.374 min Scan# 1281
Delta R.T. -0.012 min
Lab File: 021814K11.D
Acq: 18 Feb 2014 20:22

Tgt Ion: 49 Resp: 24927

Ion	Ratio	Lower	Upper
49	100		
84	64.2	50.0	90.0
86	40.3	24.4	64.4

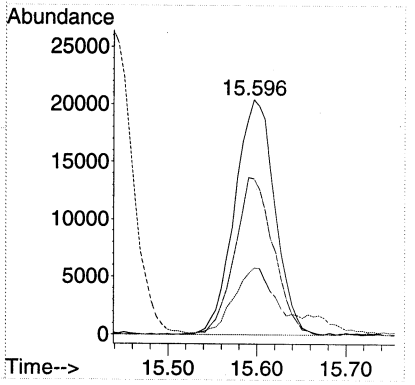


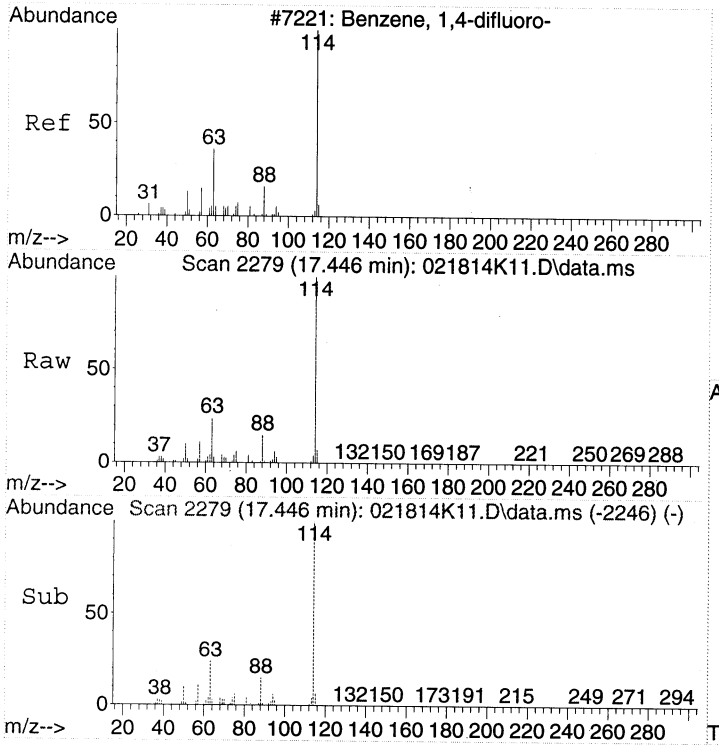


#28
Chloroform
Concen: 1.19 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 021814K11.D
Acq: 18 Feb 2014 20:22

Tgt Ion: 83 Resp: 63717

Ion	Ratio	Lower	Upper
83	100		
85	64.6	42.7	82.7
47	29.3	5.3	45.3

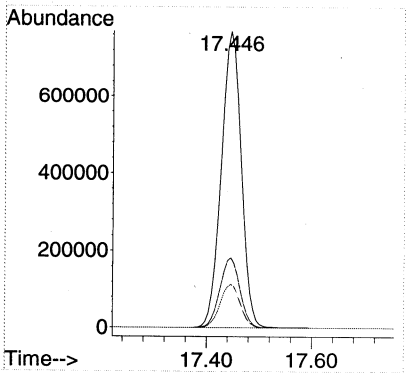


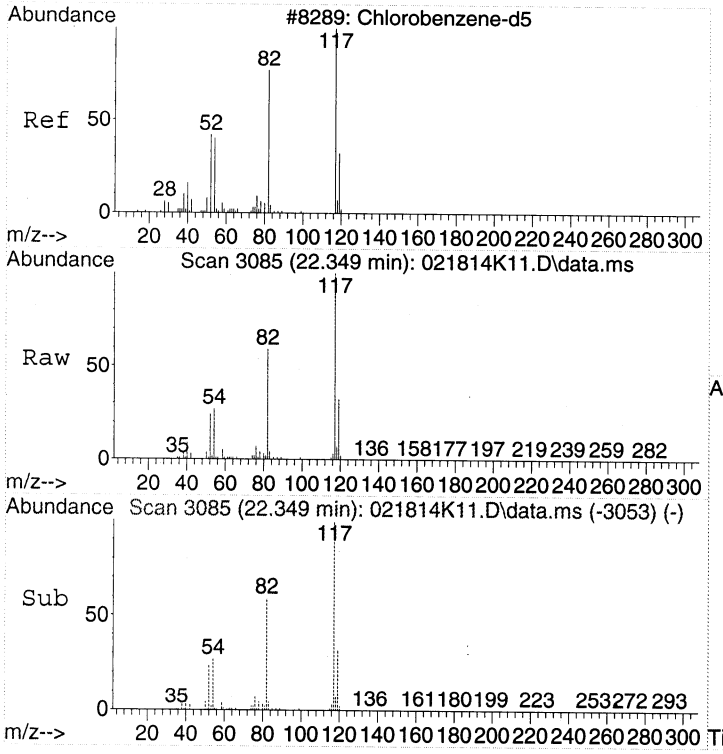


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 021814K11.D
Acq: 18 Feb 2014 20:22

Tgt Ion:114 Resp: 2032473

Ion	Ratio	Lower	Upper
114	100		
63	23.8	2.3	42.3
88	14.8	0.0	35.2

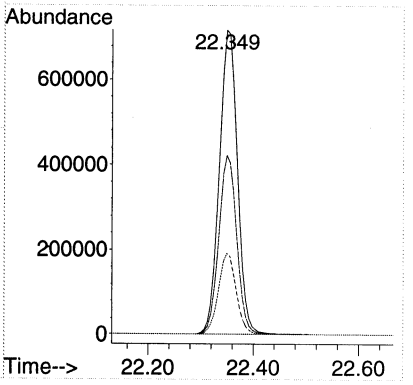




#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.349 min Scan# 3085
Delta R.T. -0.006 min
Lab File: 021814K11.D
Acq: 18 Feb 2014 20:22

Tgt Ion:117 Resp: 1726409

Ion	Ratio	Lower	Upper
117	100		
82	58.4	37.1	77.1
54	26.4	3.3	43.3



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K12.D
Acq On : 18 Feb 2014 21:10
Instrument: HP5973K
Operator : EM
Sample : 1402032-04
Misc : 200mL MH14
ALS Vial : 39
Multiplier: 2.04

Quant Time: Feb 19 09:30:13 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) BROMOCHLOROMETHANE	15.438	49	844043	22.00	ppbv		0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2030310	22.00	ppbv		0.00
43) CHLOROBENZENE-d5	22.349	117	1716163	22.00	ppbv		0.00
Target Compounds							Qvalue
2) Propene	4.372	41	19599	0.80	ppbv	#	75
6) Vinyl chloride	5.339	62	34970	1.17	ppbv		99
14) Acetone	9.853	43	181709	4.60	ppbv		99
16) 2-Propanol	10.517	45	75572	1.87	ppbv		91
18) Dichloromethane	11.380	49	33440	0.88	ppbv		95
20) trans-1,2-Dichloroethene	12.098	61	86805	2.41	ppbv		95
24) cis-1,2-Dichloroethene	14.897	61	3393656	86.48	ppbv	E	93
28) Chloroform	15.596	83	990416	18.36	ppbv		97
37) Trichloroethene	17.859	130	1971307	63.77	ppbv	E	99
40) Bromodichloromethane	18.821	83	50920	1.02	ppbv		95
47) Tetrachloroethene	20.926	166	502582	12.81	ppbv		99

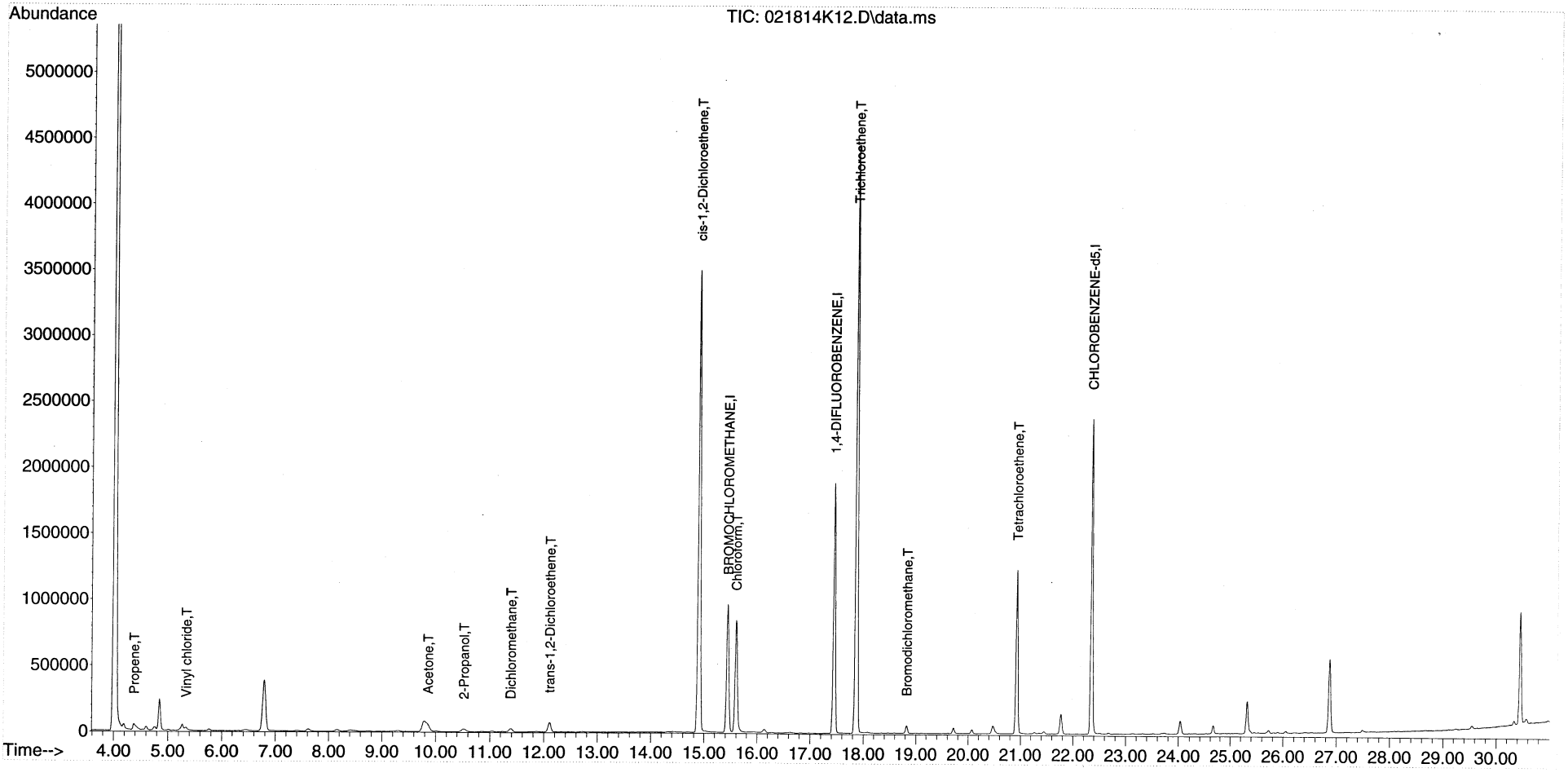
(#) = qualifier out of range (m) = manual integration (+) = signals summed

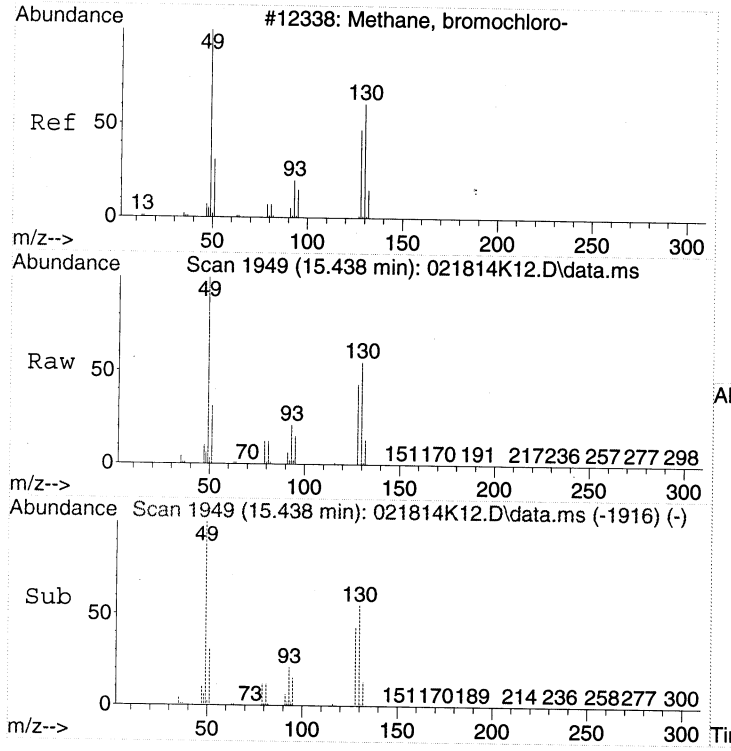
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K12.D
Acq On : 18 Feb 2014 21:10
Instrument: HP5973K
Operator : EM
Sample : 1402032-04
Misc : 200mL MH14
ALS Vial : 39
Multiplier: 2.04

Quant Time: Feb 19 09:30:13 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

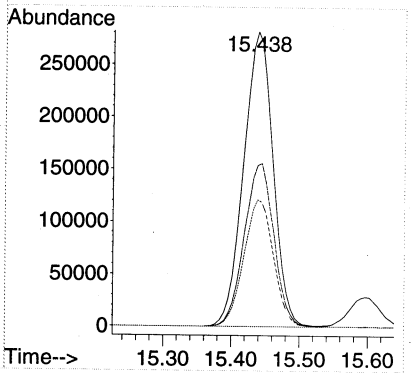


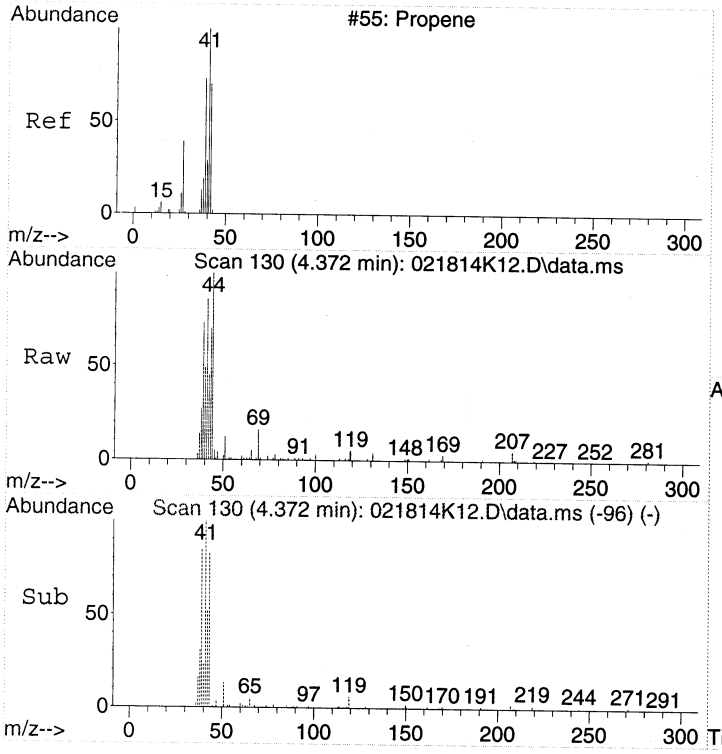


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 021814K12.D
Acq: 18 Feb 2014 21:10

Tgt Ion: 49 Resp: 844043

Ion	Ratio	Lower	Upper
49	100		
130	55.8	39.6	79.6
128	43.3	26.9	66.9

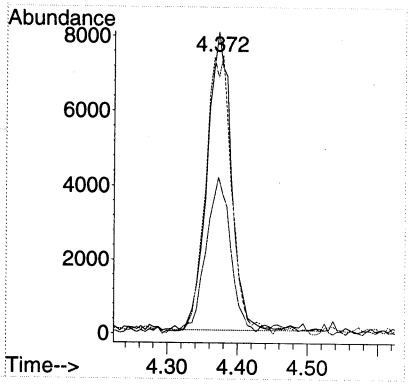


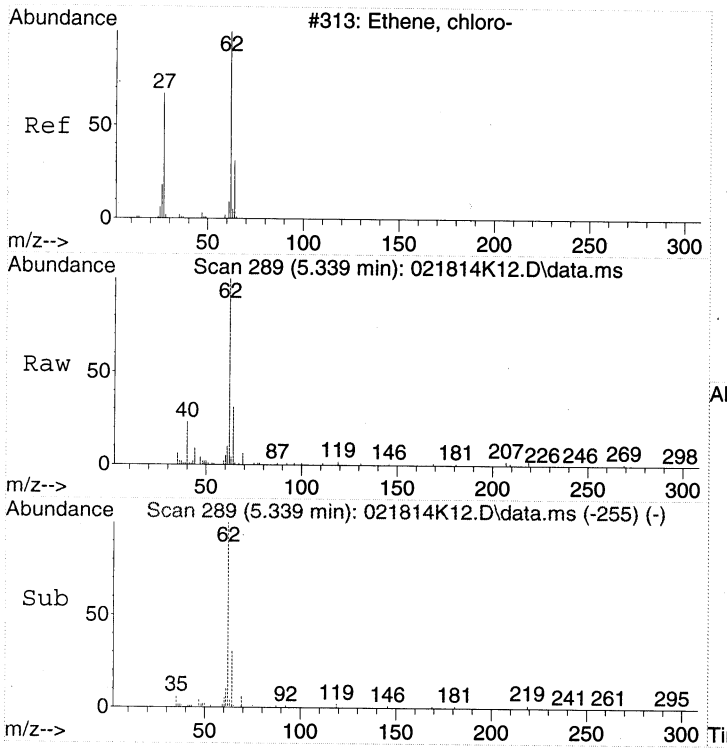


#2
Propene
Concen: 0.80 ppbv
RT: 4.372 min Scan# 130
Delta R.T. 0.006 min
Lab File: 021814K12.D
Acq: 18 Feb 2014 21:10

Tgt Ion: 41 Resp: 19599

Ion	Ratio	Lower	Upper
41	100		
42	58.7	46.8	86.8
39	101.1	48.3	88.3#

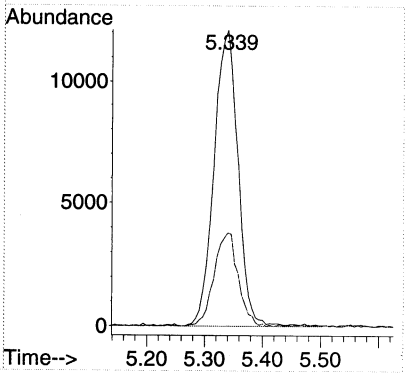


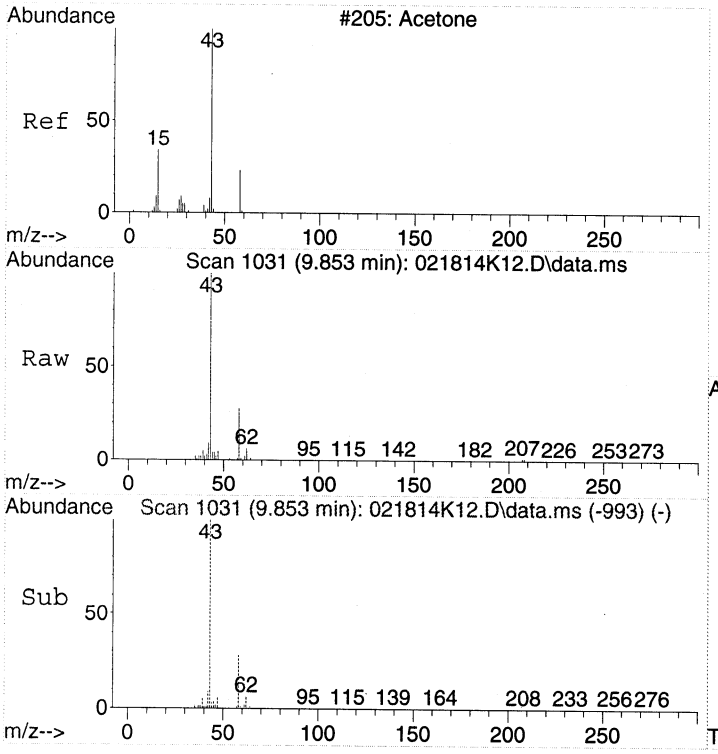


#6
Vinyl chloride
Concen: 1.17 ppbv
RT: 5.339 min Scan# 289
Delta R.T. 0.006 min
Lab File: 021814K12.D
Acq: 18 Feb 2014 21:10

Tgt Ion: 62 Resp: 34970

Ion	Ratio	Lower	Upper
62	100		
64	31.5	10.8	50.8

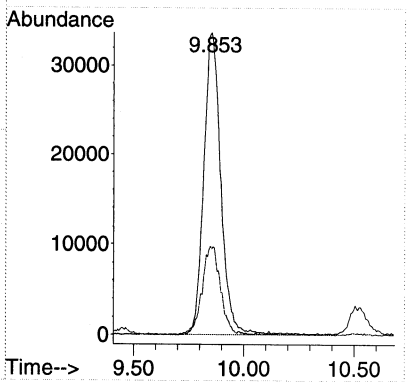


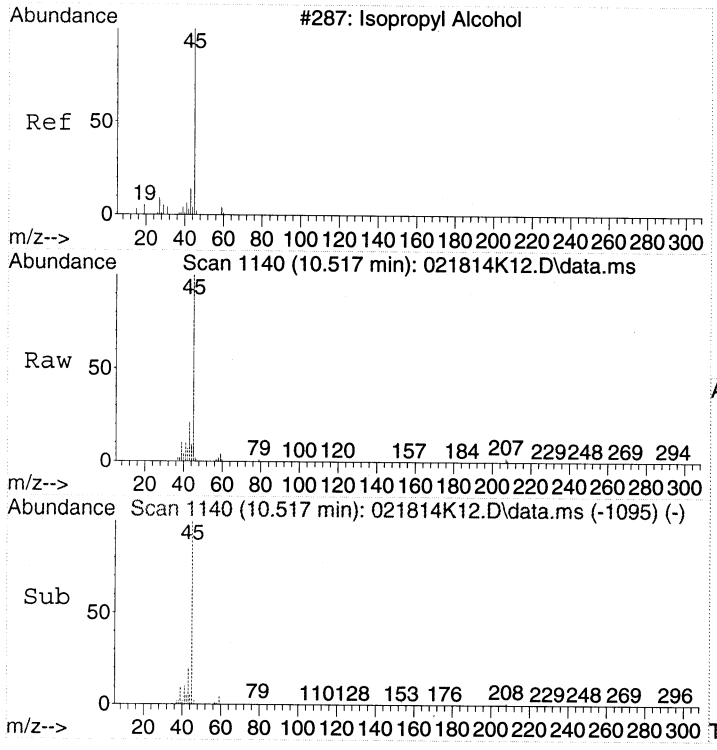


#14
Acetone
Concen: 4.60 ppbv
RT: 9.853 min Scan# 1031
Delta R.T. 0.030 min
Lab File: 021814K12.D
Acq: 18 Feb 2014 21:10

Tgt Ion: 43 Resp: 181709

Ion	Ratio	Lower	Upper
43	100		
58	32.1	12.5	52.5

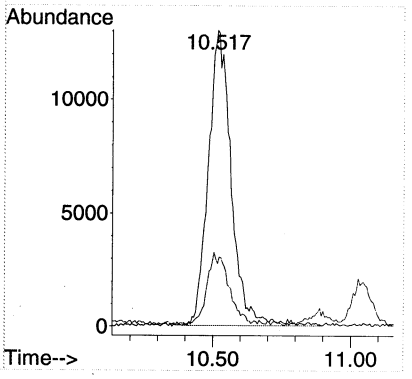


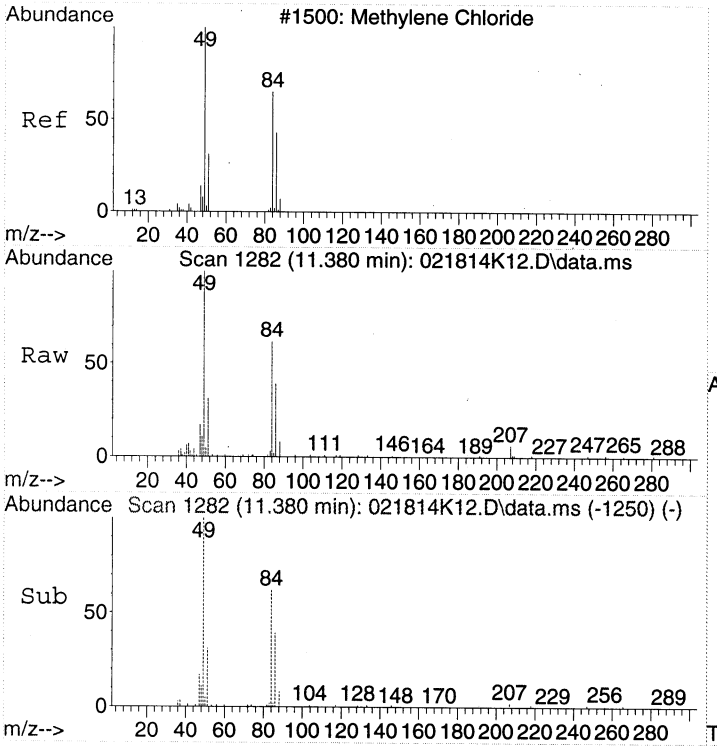


#16
2-Propanol
Concen: 1.87 ppbv
RT: 10.517 min Scan# 1140
Delta R.T. 0.073 min
Lab File: 021814K12.D
Acq: 18 Feb 2014 21:10

Tgt Ion: 45 Resp: 75572

Ion	Ratio	Lower	Upper
45	100		
43	23.4	0.0	39.1

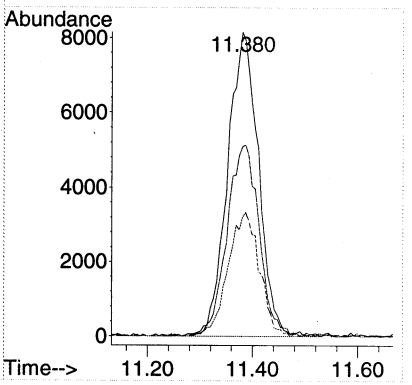


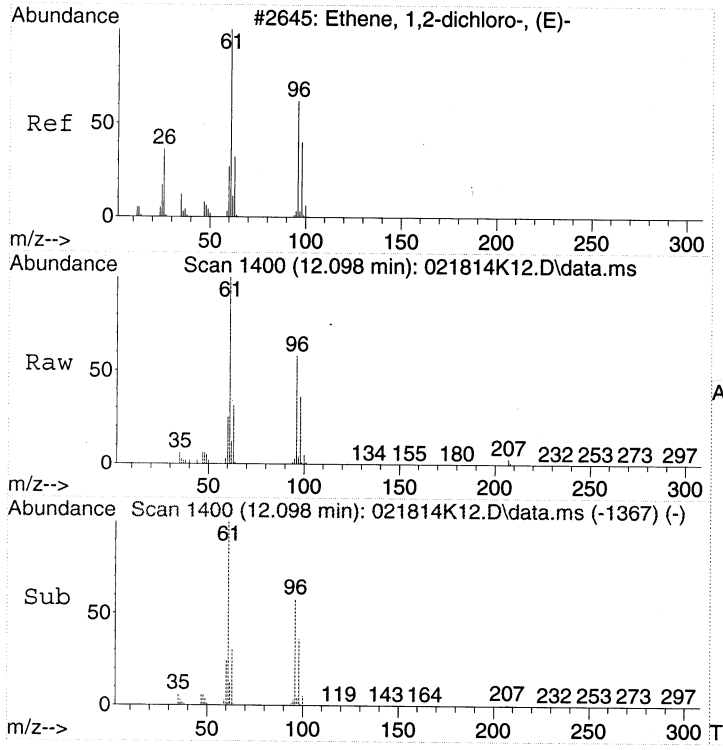


#18
Dichloromethane
Concen: 0.88 ppbv
RT: 11.380 min Scan# 1282
Delta R.T. -0.006 min
Lab File: 021814K12.D
Acq: 18 Feb 2014 21:10

Tgt Ion: 49 Resp: 33440

Ion	Ratio	Lower	Upper
49	100		
84	65.2	50.0	90.0
86	41.5	24.4	64.4

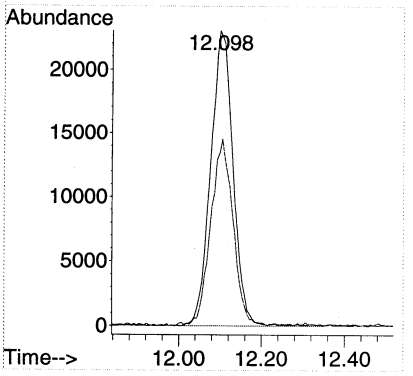


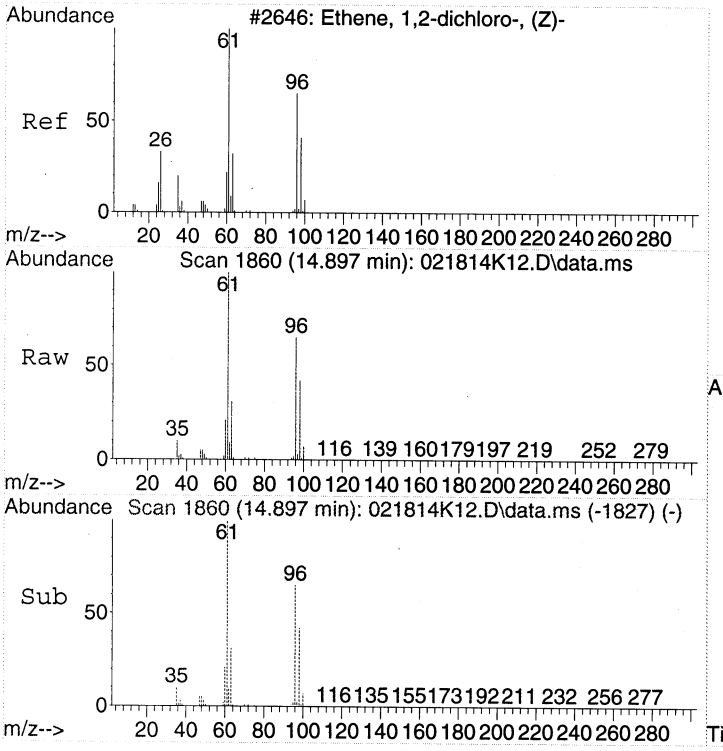


#20
trans-1,2-Dichloroethene
Concen: 2.41 ppbv
RT: 12.098 min Scan# 1400
Delta R.T. -0.000 min
Lab File: 021814K12.D
Acq: 18 Feb 2014 21:10

Tgt Ion: 61 Resp: 86805

Ion	Ratio	Lower	Upper
61	100		
96	61.8	45.4	85.4

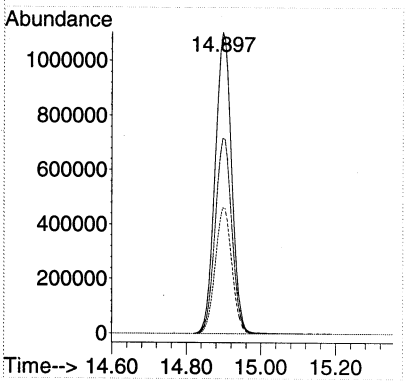


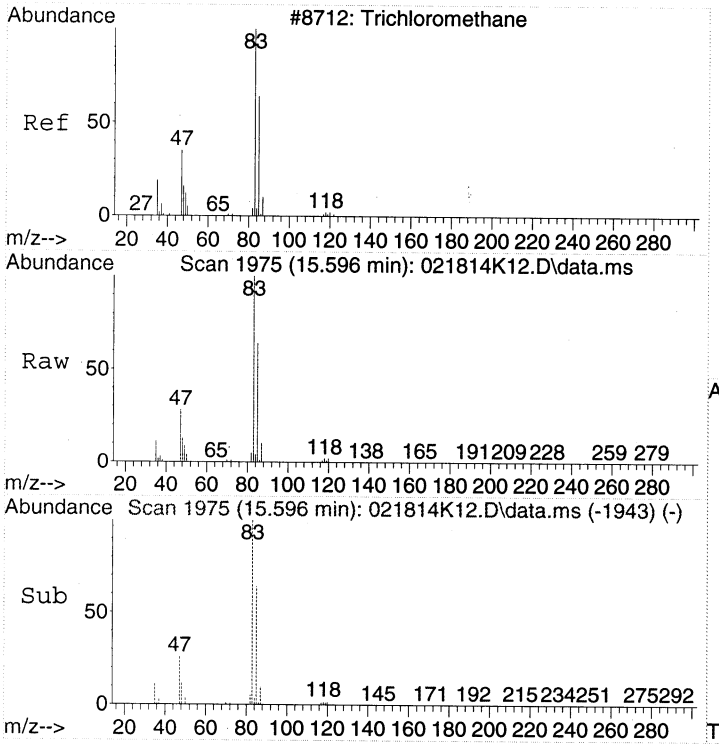


#24
cis-1,2-Dichloroethene
Concen: 86.48 ppbv
RT: 14.897 min Scan# 1860
Delta R.T. -0.000 min
Lab File: 021814K12.D
Acq: 18 Feb 2014 21:10

Tgt Ion: 61 Resp: 3393656

Ion	Ratio	Lower	Upper
61	100		
96	65.4	51.7	91.7
98	42.1	25.4	65.4

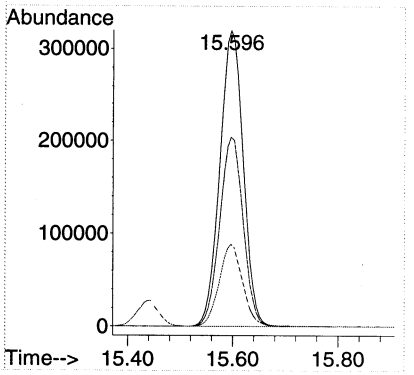


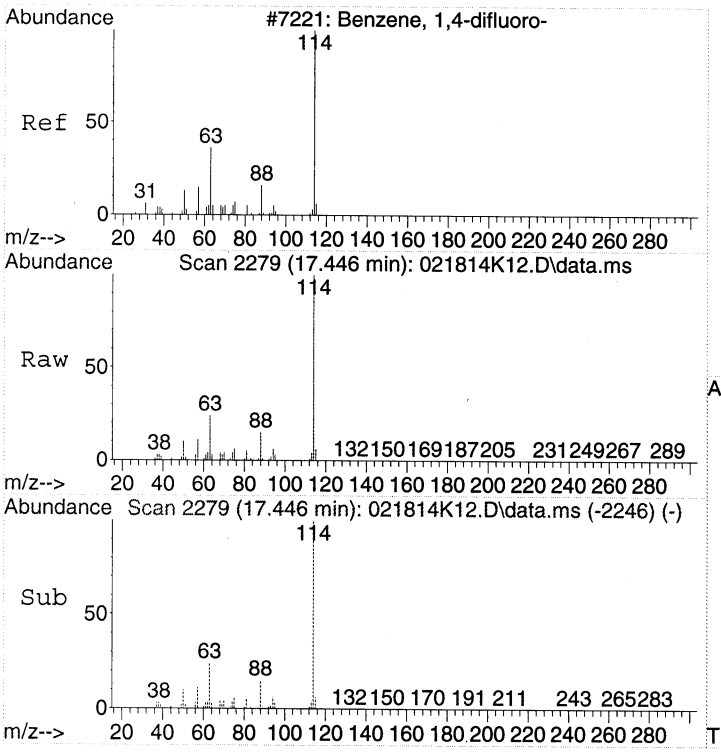


#28
Chloroform
Concen: 18.36 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 021814K12.D
Acq: 18 Feb 2014 21:10

Tgt Ion: 83 Resp: 990416

Ion	Ratio	Lower	Upper
83	100		
85	64.1	42.7	82.7
47	27.8	5.3	45.3

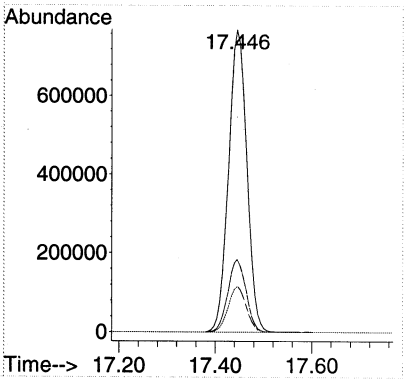


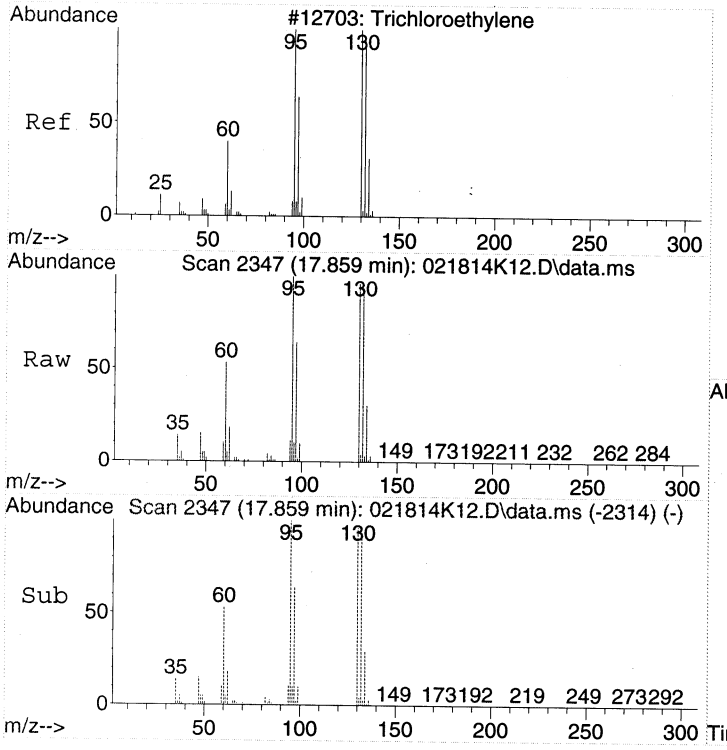


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 021814K12.D
Acq: 18 Feb 2014 21:10

Tgt Ion:114 Resp: 2030310

Ion	Ratio	Lower	Upper
114	100		
63	23.9	2.3	42.3
88	15.0	0.0	35.2

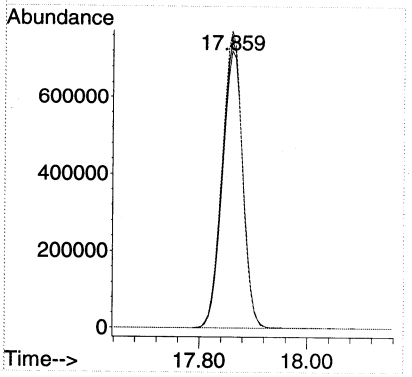


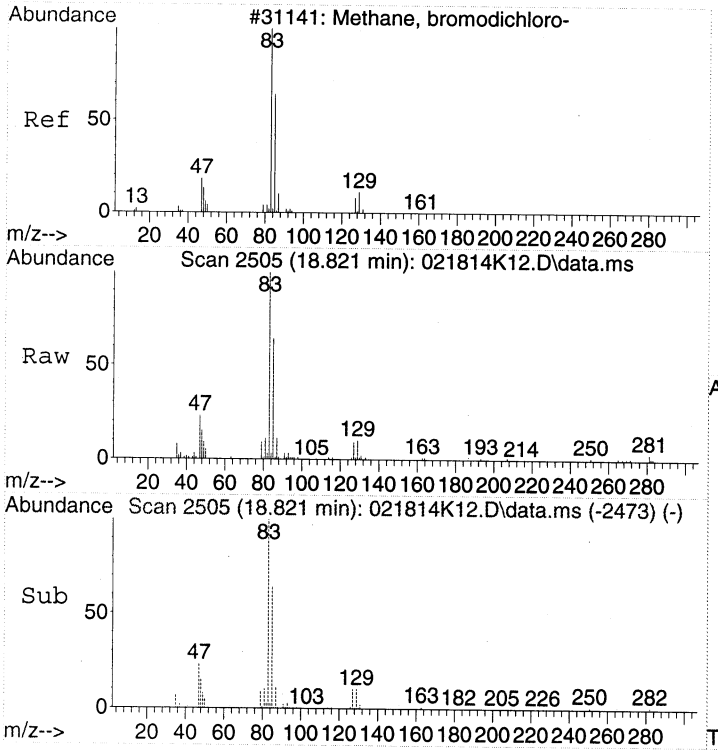


#37
Trichloroethene
Concen: 63.77 ppbv
RT: 17.859 min Scan# 2347
Delta R.T. -0.000 min
Lab File: 021814K12.D
Acq: 18 Feb 2014 21:10

Tgt Ion:130 Resp: 1971307

Ion	Ratio	Lower	Upper
130	100		
132	96.8	78.9	118.9
95	102.6	82.3	122.3

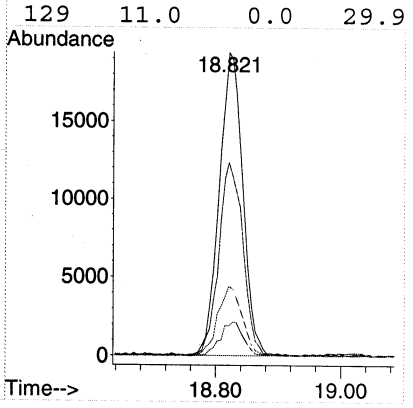


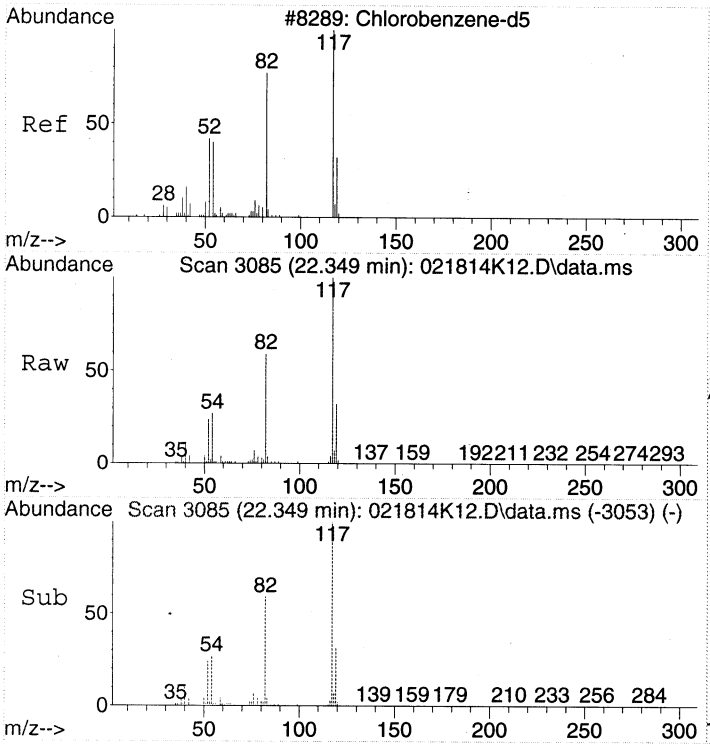


#40
Bromodichloromethane
Concen: 1.02 ppbv
RT: 18.821 min Scan# 2505
Delta R.T. -0.006 min
Lab File: 021814K12.D
Acq: 18 Feb 2014 21:10

Tgt Ion: 83 Resp: 50920

Ion	Ratio	Lower	Upper
83	100		
85	65.2	41.8	81.8
47	24.0	0.4	40.4
129	11.0	0.0	29.9

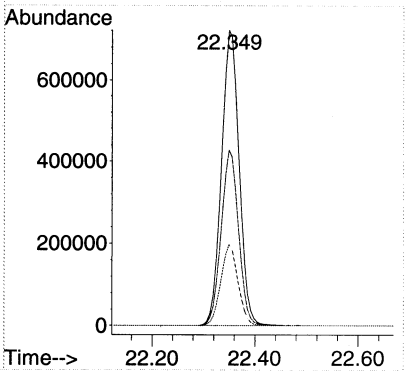


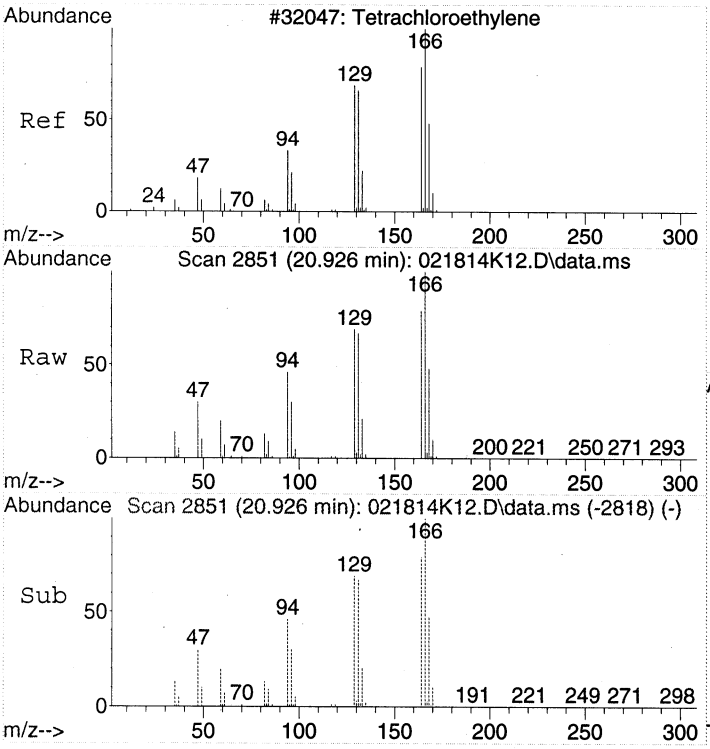


#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.349 min Scan# 3085
Delta R.T. -0.006 min
Lab File: 021814K12.D
Acq: 18 Feb 2014 21:10

Tgt Ion:117 Resp: 1716163

Ion	Ratio	Lower	Upper
117	100		
82	58.5	37.1	77.1
54	26.8	3.3	43.3

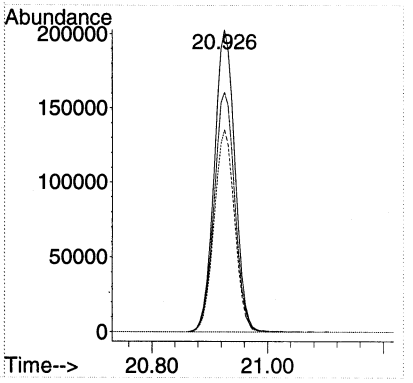




#47
Tetrachloroethene
Concen: 12.81 ppbv
RT: 20.926 min Scan# 2851
Delta R.T. -0.000 min
Lab File: 021814K12.D
Acq: 18 Feb 2014 21:10

Tgt Ion:166 Resp: 502582

Ion	Ratio	Lower	Upper
166	100		
164	79.5	59.4	99.4
131	66.2	44.3	84.3



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K13.D
Acq On : 18 Feb 2014 21:55
Instrument: HP5973K
Operator : EM
Sample : 1402032-04RE1
Misc : 20mL MH14
ALS Vial : 39
Multiplier: 2.04

Quant Time: Feb 19 09:30:20 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) BROMOCHLOROMETHANE	15.438	49	849314	22.00 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2042476	22.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.349	117	1737438	22.00 ppbv	0.00
Target Compounds					Qvalue
14) Acetone	9.896	43	21144	0.53 ppbv	94
18) Dichloromethane	11.381	49	20984	0.55 ppbv	95
24) cis-1,2-Dichloroethene	14.897	61	359085	9.09 ppbv	96
28) Chloroform	15.596	83	110458	2.03 ppbv	94
37) Trichloroethene	17.860	130	217239	6.99 ppbv	98
47) Tetrachloroethene	20.926	166	57465	1.45 ppbv	99

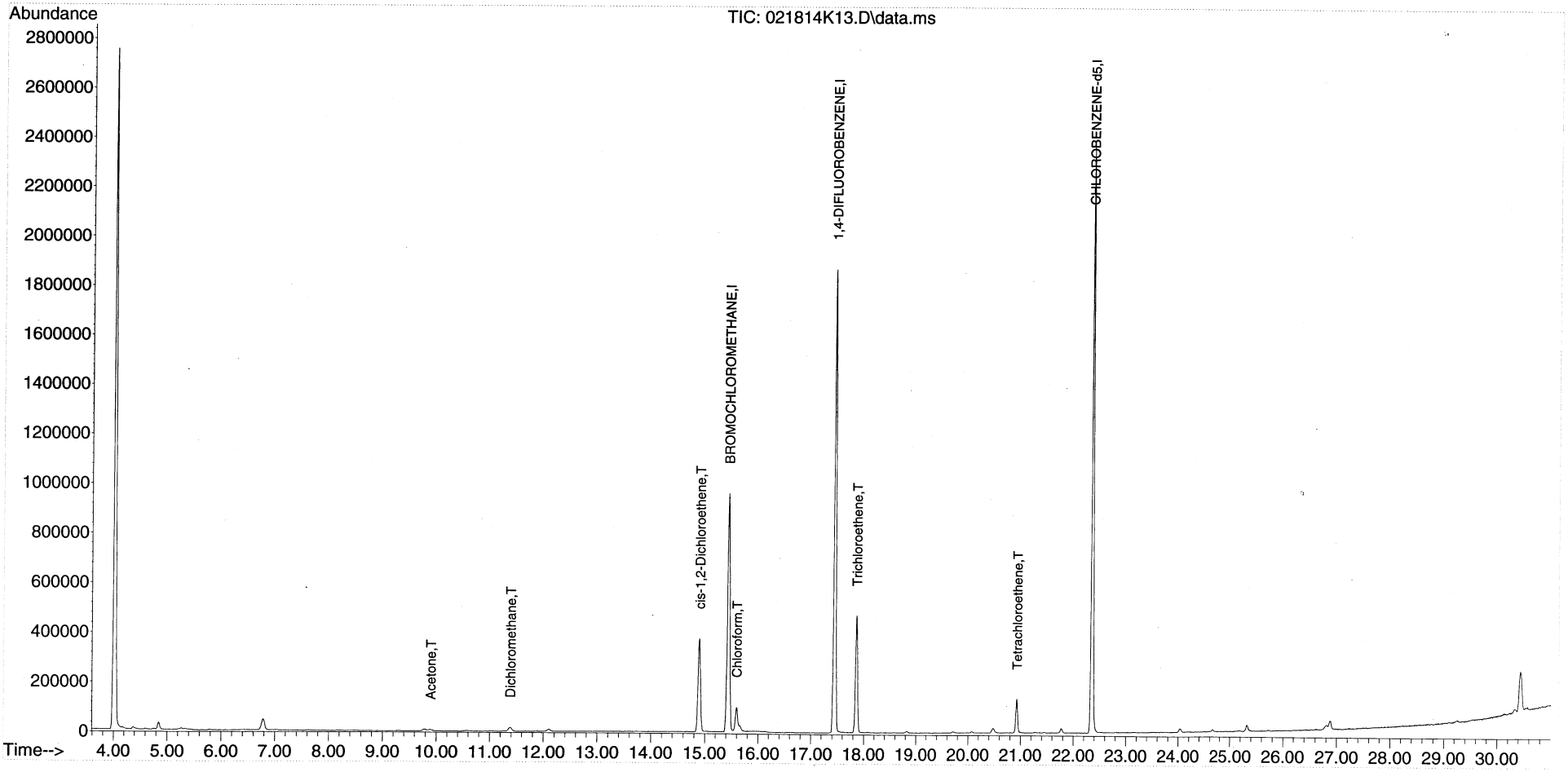
(#) = qualifier out of range (m) = manual integration (+) = signals summed

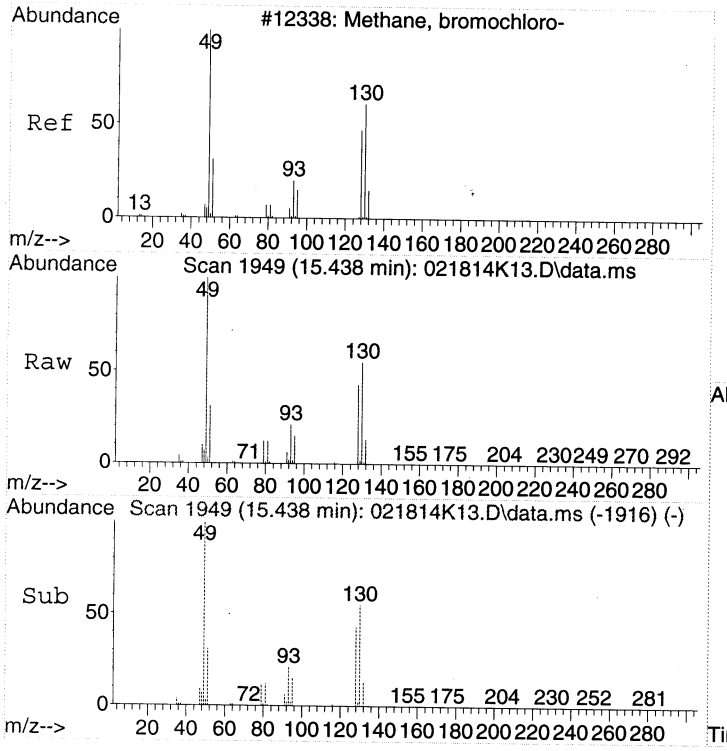
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K13.D
Acq On : 18 Feb 2014 21:55
Instrument: HP5973K
Operator : EM
Sample : 1402032-04RE1
Misc : 20mL MH14
ALS Vial : 39
Multiplier: 2.04

Quant Time: Feb 19 09:30:20 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

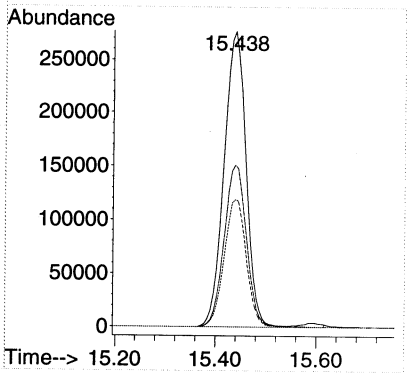


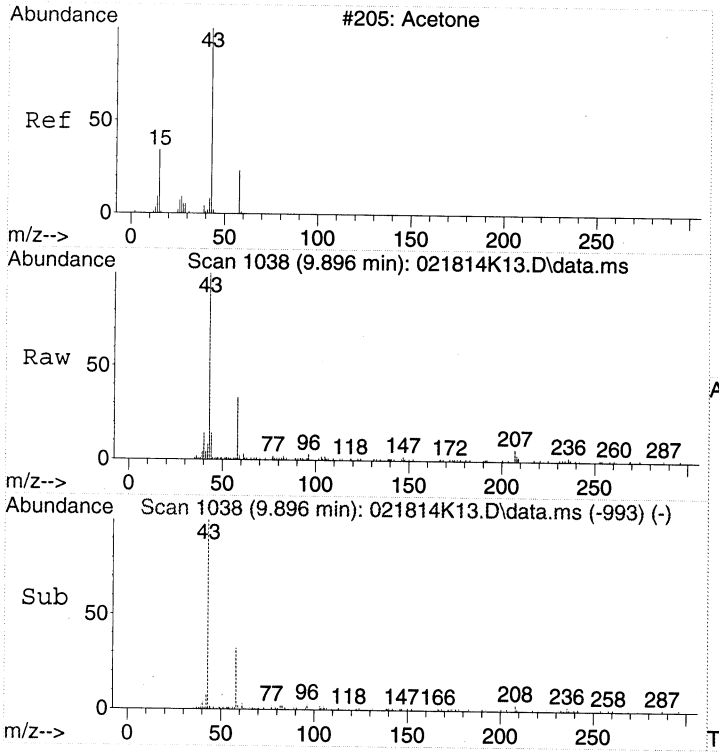


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 021814K13.D
Acq: 18 Feb 2014 21:55

Tgt Ion: 49 Resp: 849314

Ion	Ratio	Lower	Upper
49	100		
130	54.8	39.6	79.6
128	43.0	26.9	66.9

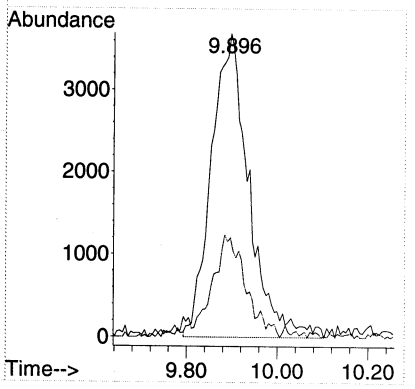


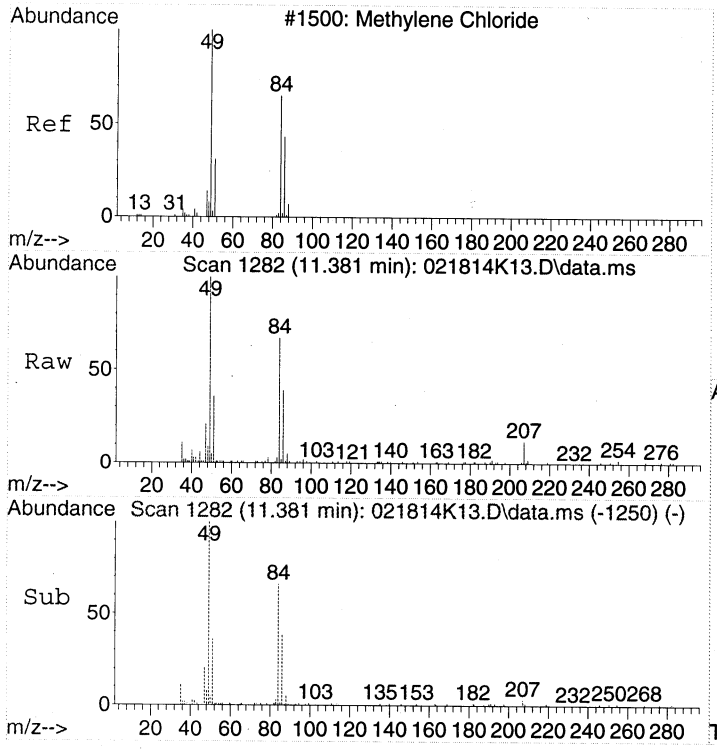


#14
Acetone
Concen: 0.53 ppbv
RT: 9.896 min Scan# 1038
Delta R.T. 0.073 min
Lab File: 021814K13.D
Acq: 18 Feb 2014 21:55

Tgt Ion: 43 Resp: 21144

Ion	Ratio	Lower	Upper
43	100		
58	29.4	12.5	52.5

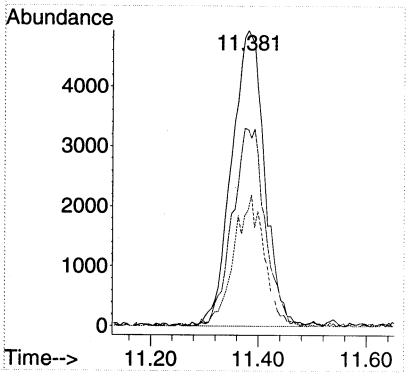


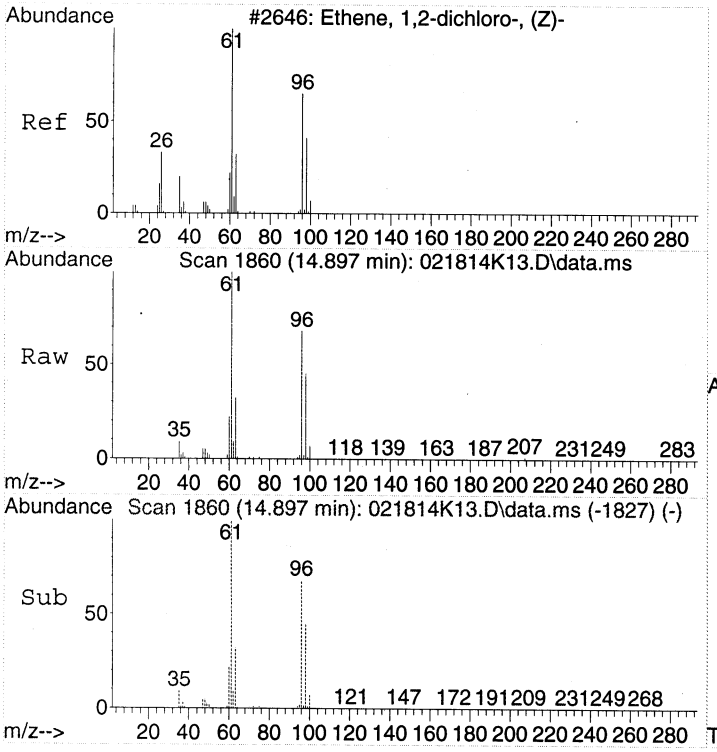


#18
Dichloromethane
Concen: 0.55 ppbv
RT: 11.381 min Scan# 1282
Delta R.T. -0.006 min
Lab File: 021814K13.D
Acq: 18 Feb 2014 21:55

Tgt Ion: 49 Resp: 20984

Ion	Ratio	Lower	Upper
49	100		
84	66.1	50.0	90.0
86	40.8	24.4	64.4

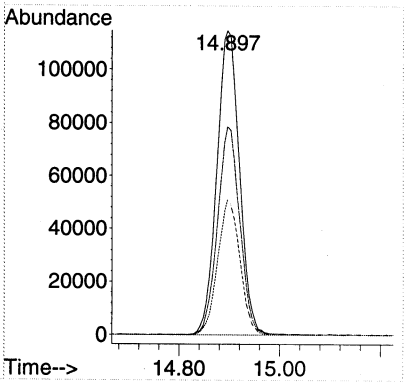


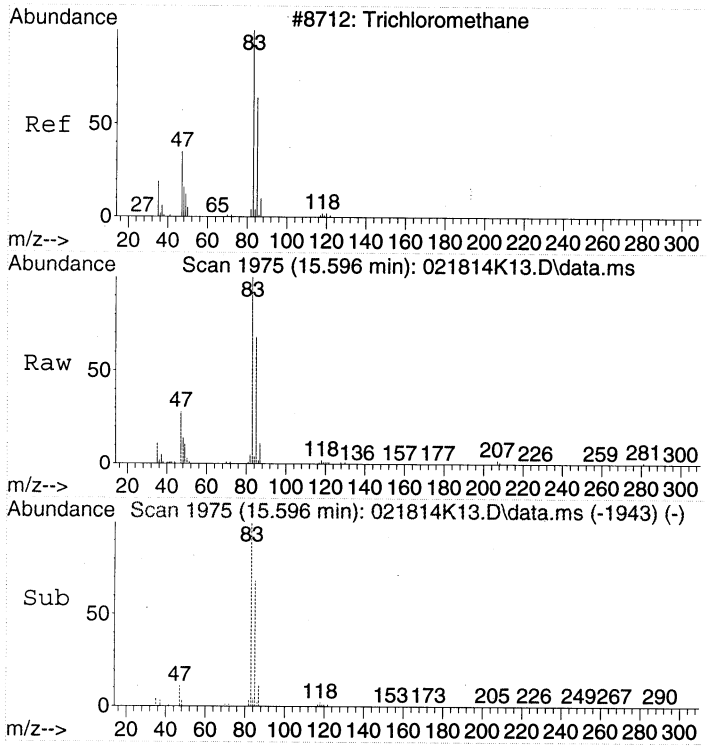


#24
cis-1,2-Dichloroethene
Concen: 9.09 ppbv
RT: 14.897 min Scan# 1860
Delta R.T. -0.000 min
Lab File: 021814K13.D
Acq: 18 Feb 2014 21:55

Tgt Ion: 61 Resp: 359085

Ion	Ratio	Lower	Upper
61	100		
96	67.3	51.7	91.7
98	43.7	25.4	65.4

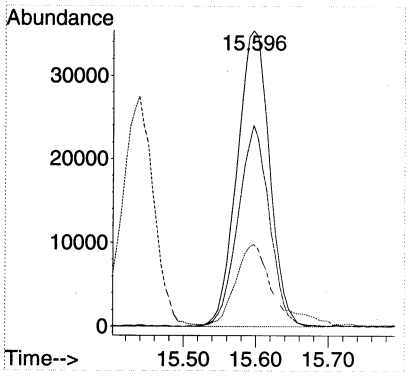


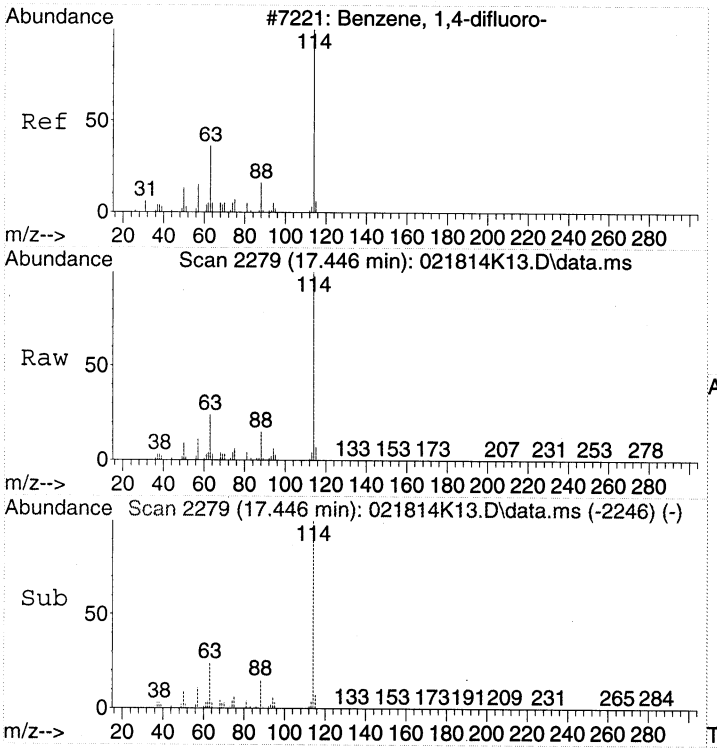


#28
Chloroform
Concen: 2.03 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 021814K13.D
Acq: 18 Feb 2014 21:55

Tgt Ion: 83 Resp: 110458

Ion	Ratio	Lower	Upper
83	100		
85	65.6	42.7	82.7
47	30.9	5.3	45.3

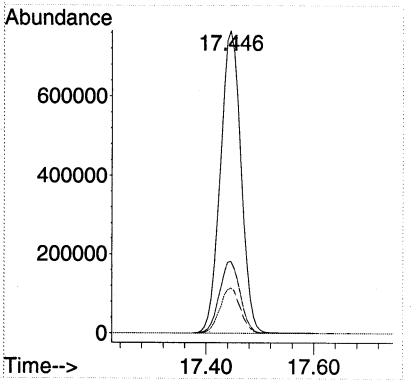


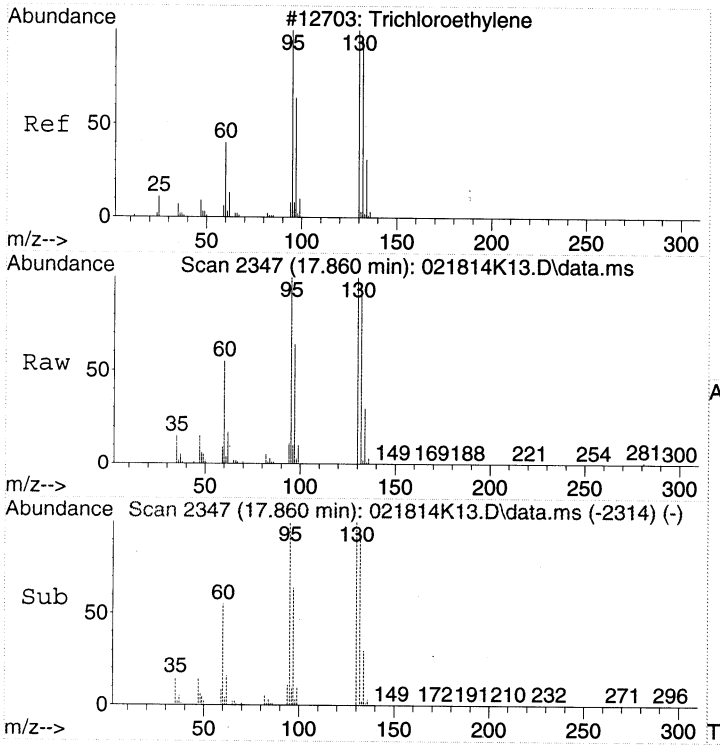


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 021814K13.D
Acq: 18 Feb 2014 21:55

Tgt Ion:114 Resp: 2042476

Ion	Ratio	Lower	Upper
114	100		
63	23.8	2.3	42.3
88	14.8	0.0	35.2

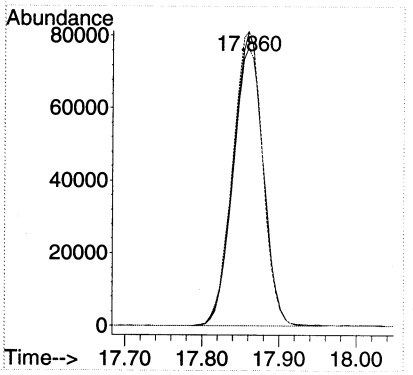


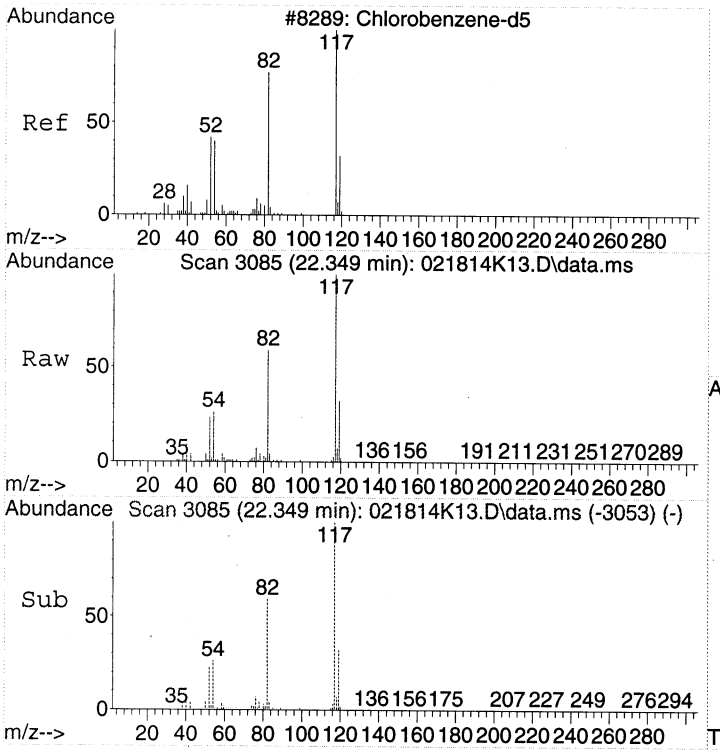


#37
Trichloroethene
Concen: 6.99 ppbv
RT: 17.860 min Scan# 2347
Delta R.T. -0.000 min
Lab File: 021814K13.D
Acq: 18 Feb 2014 21:55

Tgt Ion:130 Resp: 217239

Ion	Ratio	Lower	Upper
130	100		
132	96.4	78.9	118.9
95	101.3	82.3	122.3

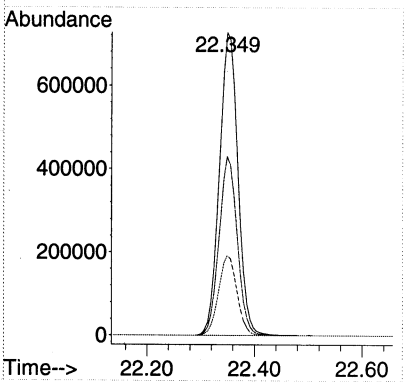


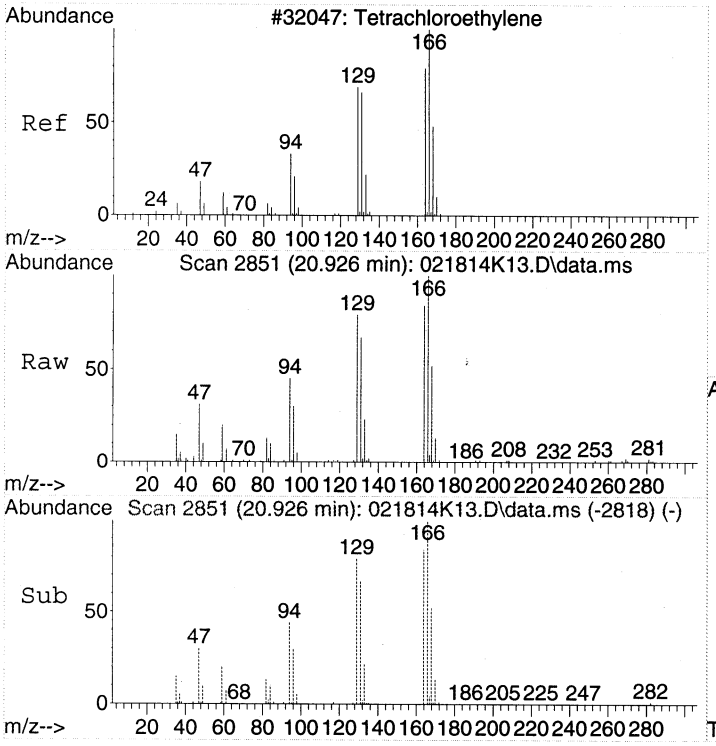


#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.349 min Scan# 3085
Delta R.T. -0.006 min
Lab File: 021814K13.D
Acq: 18 Feb 2014 21:55

Tgt Ion:117 Resp: 1737438

Ion	Ratio	Lower	Upper
117	100		
82	58.3	37.1	77.1
54	26.4	3.3	43.3

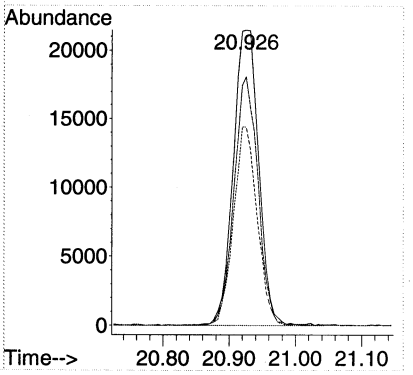




#47
Tetrachloroethene
Concen: 1.45 ppbv
RT: 20.926 min Scan# 2851
Delta R.T. -0.000 min
Lab File: 021814K13.D
Acq: 18 Feb 2014 21:55

Tgt Ion:166 Resp: 57465

Ion	Ratio	Lower	Upper
166	100		
164	79.1	59.4	99.4
131	62.6	44.3	84.3



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K14.D
Acq On : 18 Feb 2014 22:44
Instrument: HP5973K
Operator : EM
Sample : IBL1
Misc : IBL
ALS Vial : 10
Multiplier: 1

Quant Time: Feb 19 09:30:26 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) BROMOCHLOROMETHANE	15.438	49	829612	22.00 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2019007	22.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.349	117	1727751	22.00 ppbv	0.00
Target Compounds					Qvalue
18) Dichloromethane	11.380	49	20068	0.54 ppbv	96

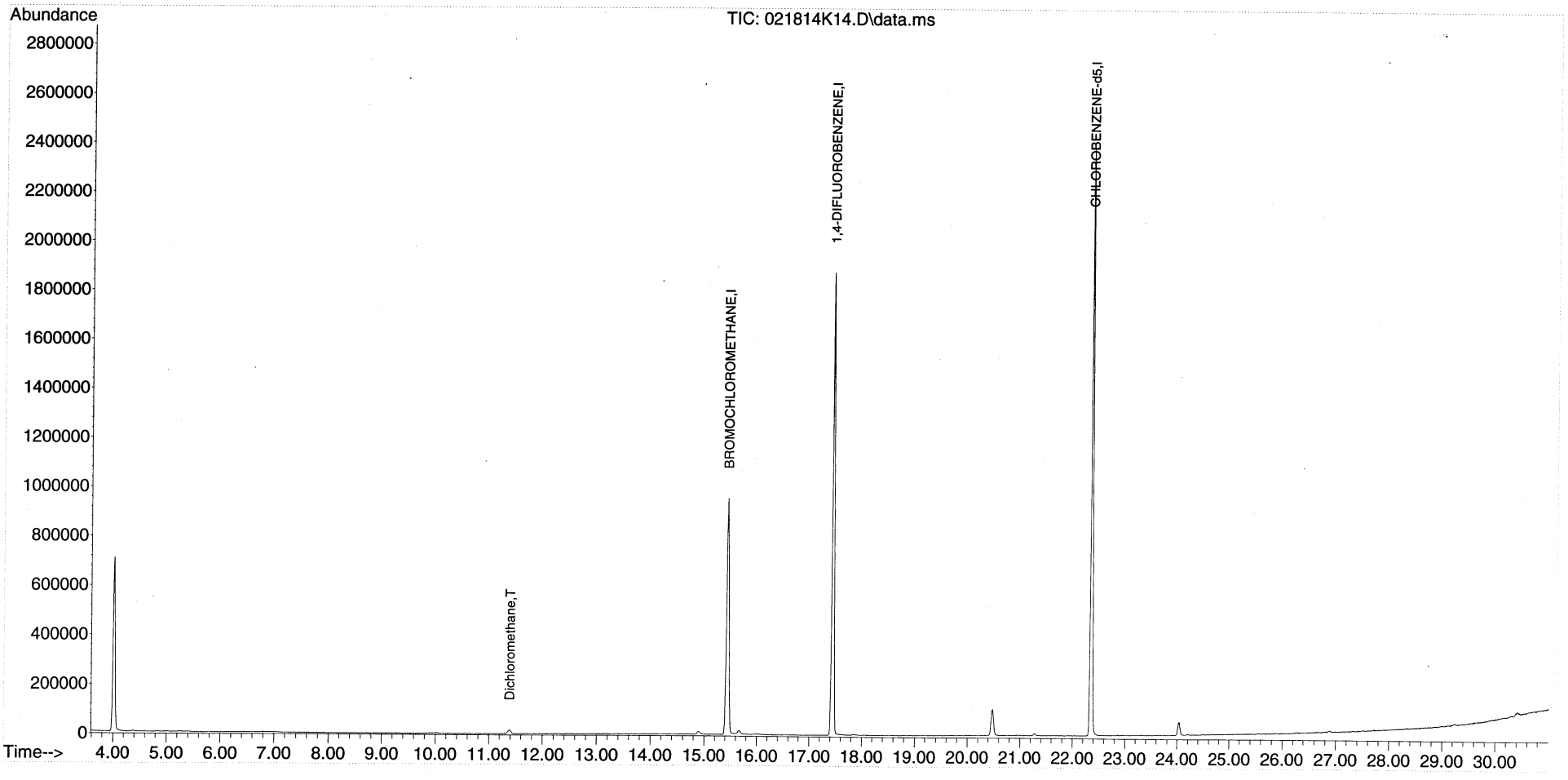
(#) = qualifier out of range (m) = manual integration (+) = signals summed

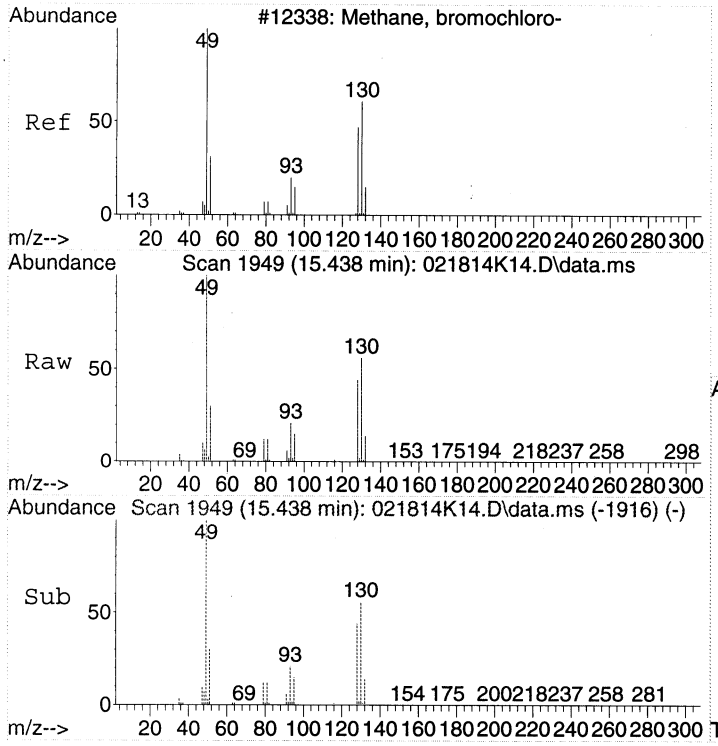
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K14.D
Acq On : 18 Feb 2014 22:44
Instrument: HP5973K
Operator : EM
Sample : IBL1
Misc : IBL
ALS Vial : 10
Multiplier: 1

Quant Time: Feb 19 09:30:26 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

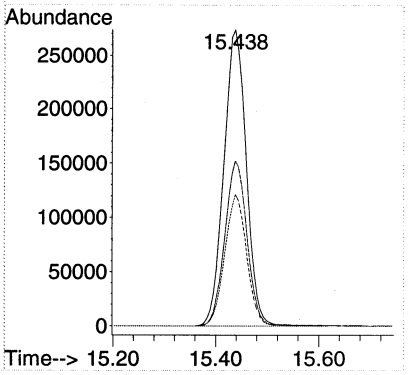


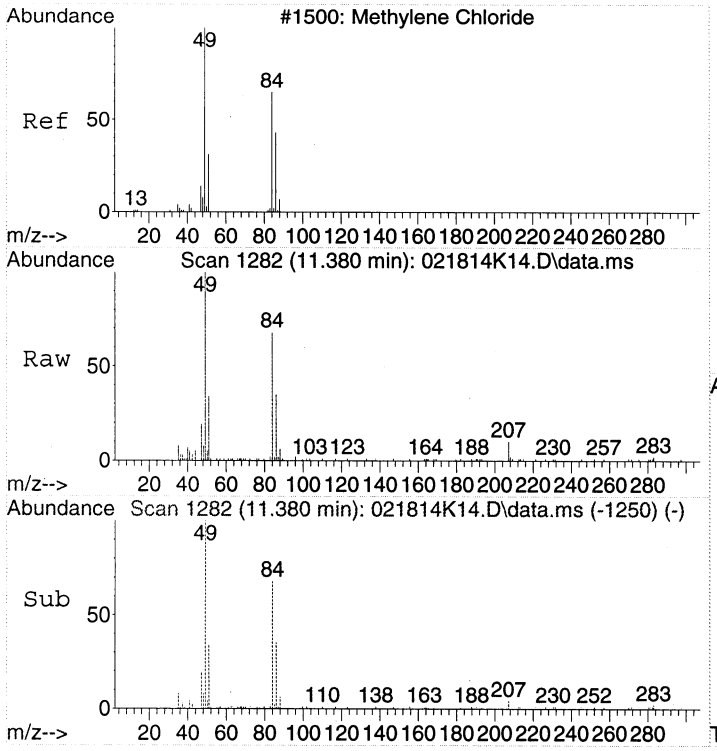


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 021814K14.D
Acq: 18 Feb 2014 22:44

Tgt Ion: 49 Resp: 829612

Ion	Ratio	Lower	Upper
49	100		
130	55.1	39.6	79.6
128	43.3	26.9	66.9

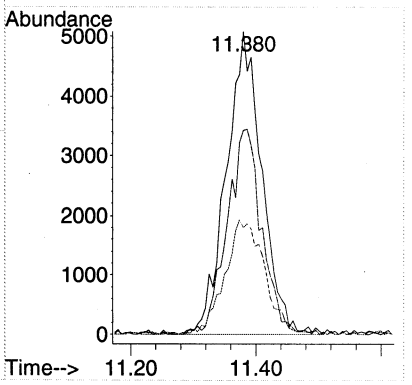


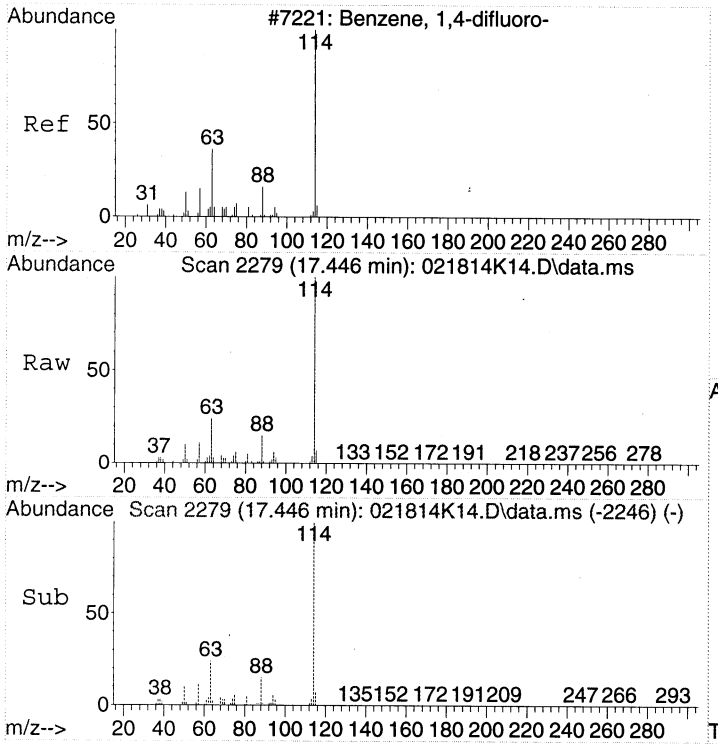


#18
Dichloromethane
Concen: 0.54 ppbv
RT: 11.380 min Scan# 1282
Delta R.T. -0.006 min
Lab File: 021814K14.D
Acq: 18 Feb 2014 22:44

Tgt Ion: 49 Resp: 20068

Ion	Ratio	Lower	Upper
49	100		
84	66.5	50.0	90.0
86	42.0	24.4	64.4

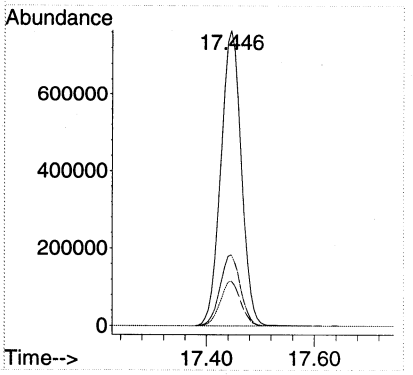


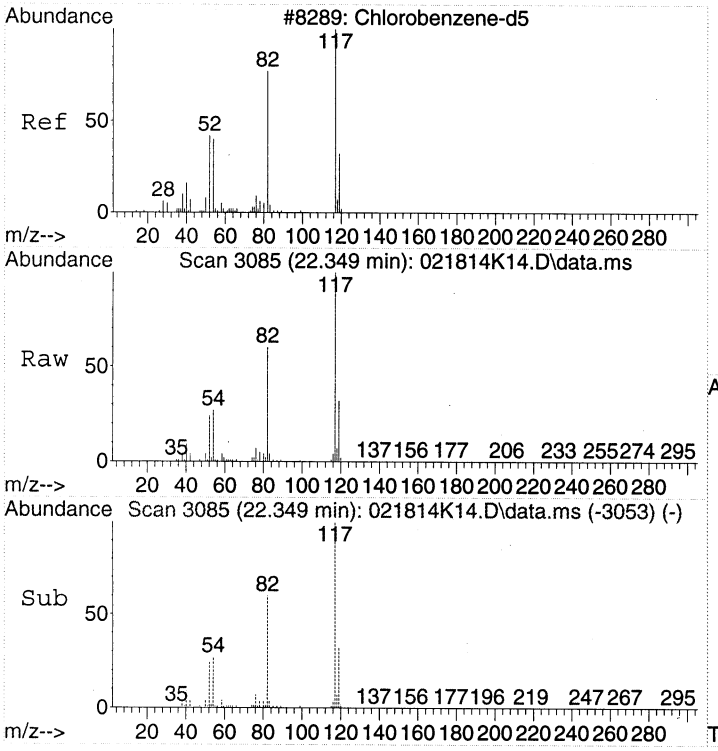


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 021814K14.D
Acq: 18 Feb 2014 22:44

Tgt Ion:114 Resp: 2019007

Ion	Ratio	Lower	Upper
114	100		
63	23.8	2.3	42.3
88	14.9	0.0	35.2

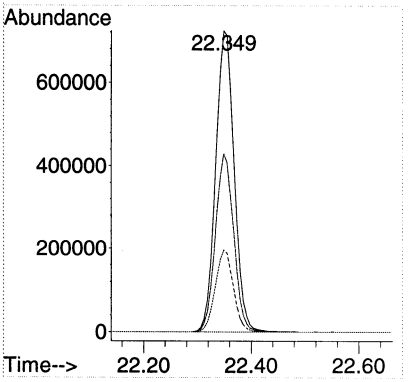




#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.349 min Scan# 3085
Delta R.T. -0.006 min
Lab File: 021814K14.D
Acq: 18 Feb 2014 22:44

Tgt Ion:117 Resp: 1727751

Ion	Ratio	Lower	Upper
117	100		
82	58.6	37.1	77.1
54	26.6	3.3	43.3



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K15.D
Acq On : 18 Feb 2014 23:33
Instrument: HP5973K
Operator : EM
Sample : 1402032-05
Misc : 200mL MH15
ALS Vial : 11
Multiplier: 1.94

Quant Time: Feb 19 09:30:30 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.438	49	833431	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2018815	22.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.349	117	1716456	22.00	ppbv	0.00
Target Compounds						Qvalue
2) Propene	4.372	41	22203	0.92	ppbv #	74
14) Acetone	9.878	43	52027	1.33	ppbv	98
16) 2-Propanol	10.547	45	26970	0.68	ppbv	87
18) Dichloromethane	11.386	49	28520	0.76	ppbv	96
20) trans-1,2-Dichloroethene	12.110	61	25584	0.72	ppbv	95
24) cis-1,2-Dichloroethene	14.897	61	792817	20.46	ppbv CV	95
28) Chloroform	15.596	83	594176	11.15	ppbv	96
37) Trichloroethene	17.859	130	582879	18.96	ppbv	98
40) Bromodichloromethane	18.827	83	34013	0.68	ppbv	96
47) Tetrachloroethene	20.925	166	178780	4.56	ppbv	99

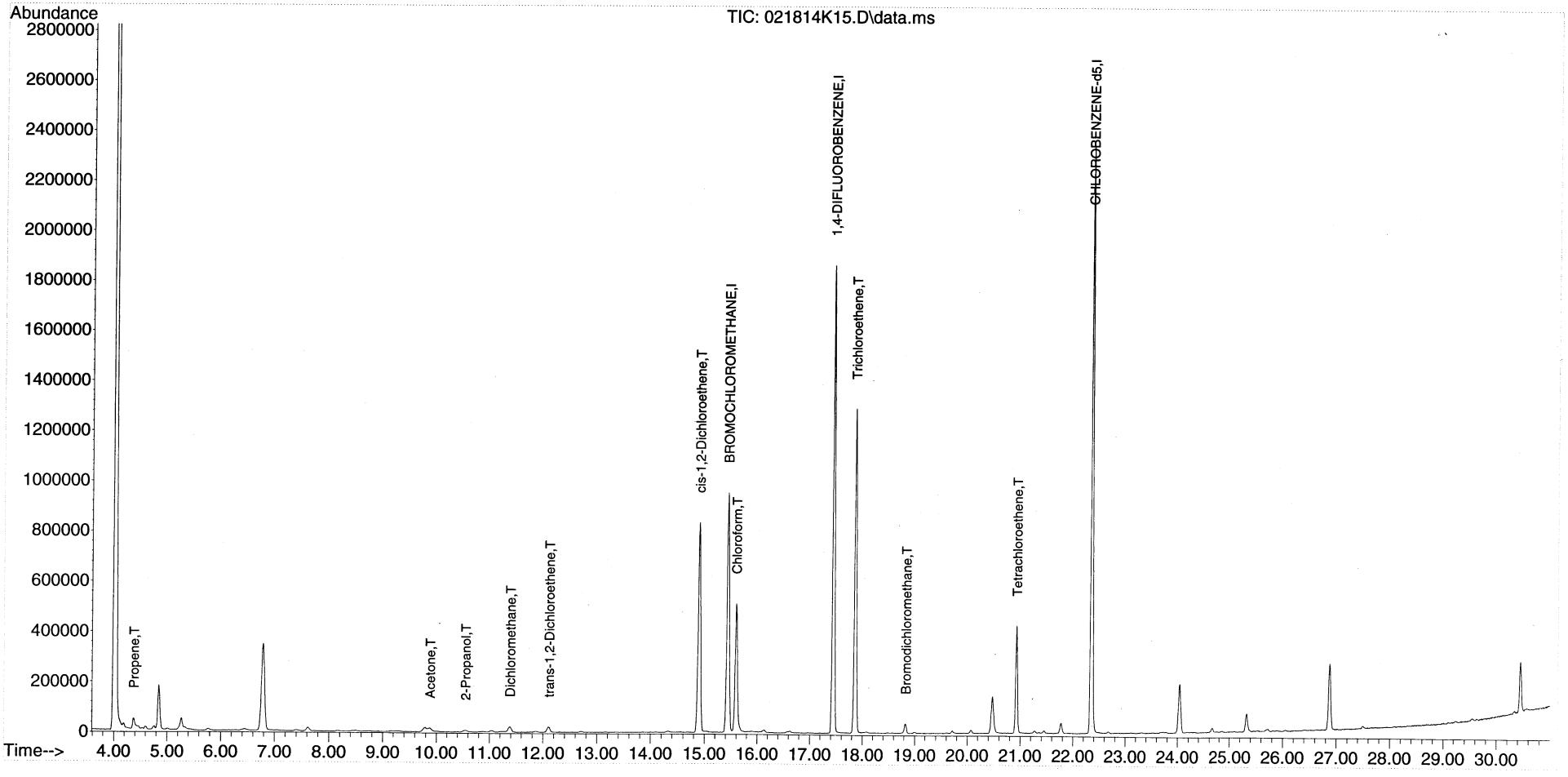
(#) = qualifier out of range (m) = manual integration (+) = signals summed

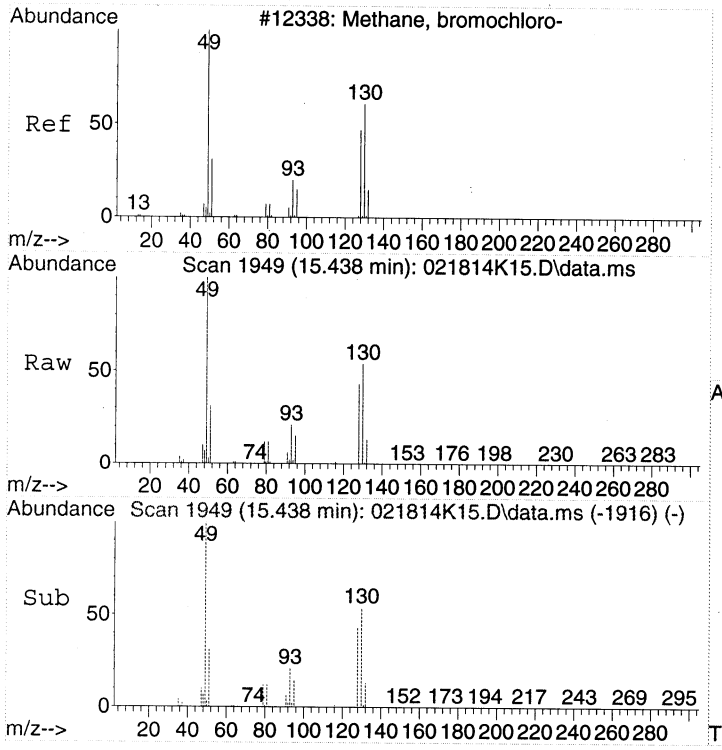
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K15.D
Acq On : 18 Feb 2014 23:33
Instrument: HP5973K
Operator : EM
Sample : 1402032-05
Misc : 200mL MH15
ALS Vial : 11
Multiplier: 1.94

Quant Time: Feb 19 09:30:30 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

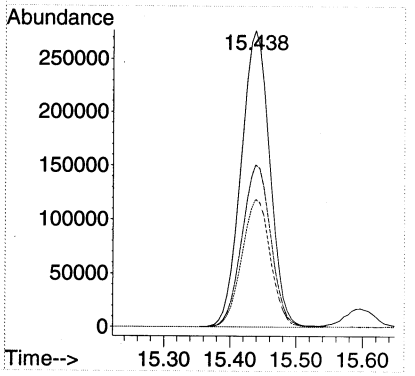


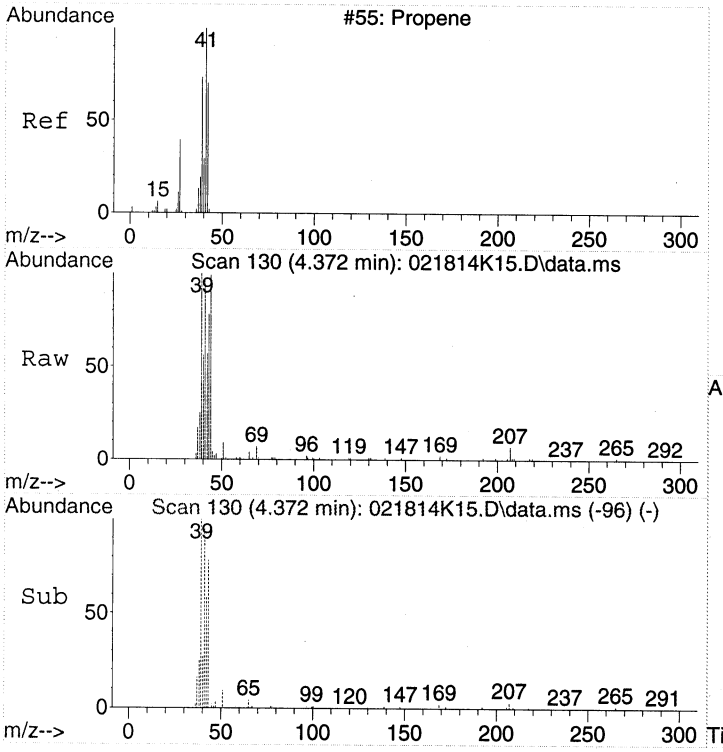


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 021814K15.D
Acq: 18 Feb 2014 23:33

Tgt Ion: 49 Resp: 833431

Ion	Ratio	Lower	Upper
49	100		
130	55.1	39.6	79.6
128	43.2	26.9	66.9

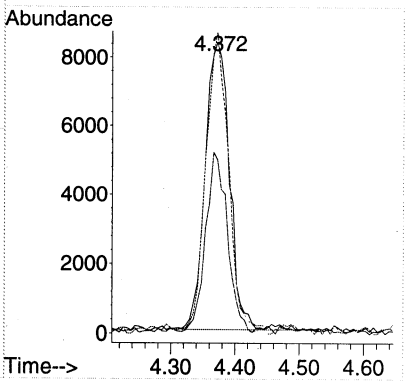


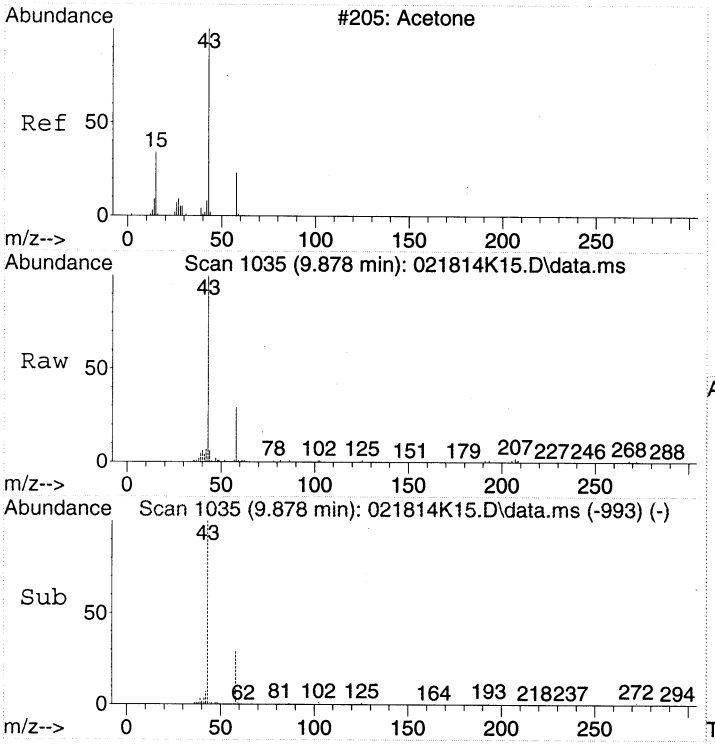


#2
Propene
Concen: 0.92 ppbv
RT: 4.372 min Scan# 130
Delta R.T. 0.006 min
Lab File: 021814K15.D
Acq: 18 Feb 2014 23:33

Tgt Ion: 41 Resp: 22203

Ion	Ratio	Lower	Upper
41	100		
42	54.9	46.8	86.8
39	97.6	48.3	88.3#

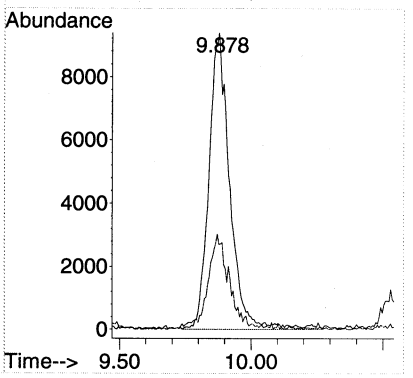


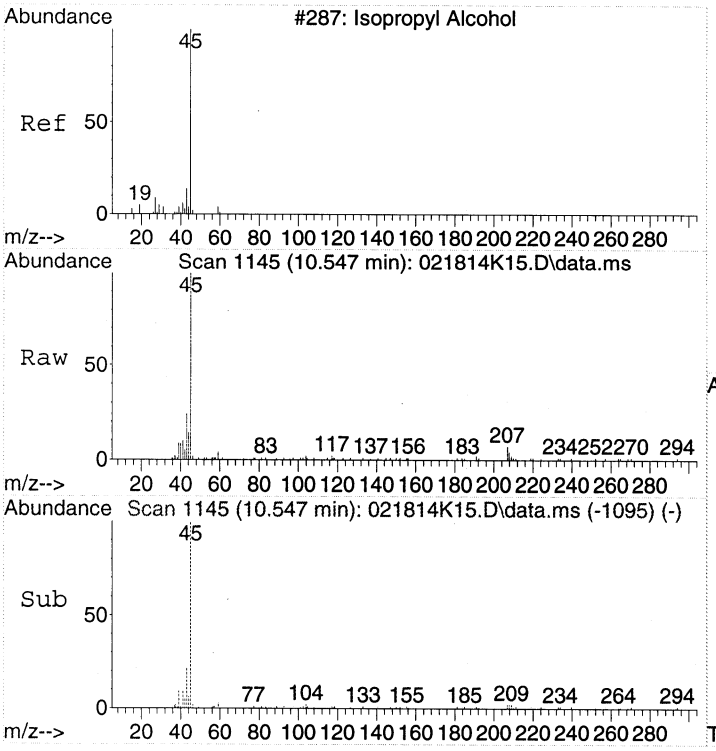


#14
Acetone
Concen: 1.33 ppbv
RT: 9.878 min Scan# 1035
Delta R.T. 0.055 min
Lab File: 021814K15.D
Acq: 18 Feb 2014 23:33

Tgt Ion: 43 Resp: 52027

Ion	Ratio	Lower	Upper
43	100		
58	31.4	12.5	52.5

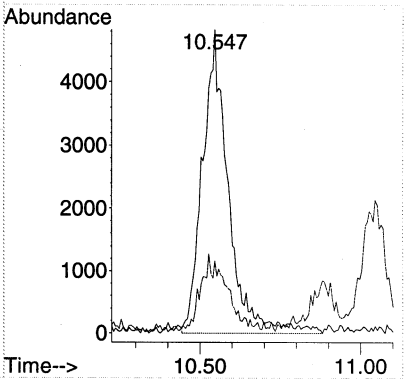


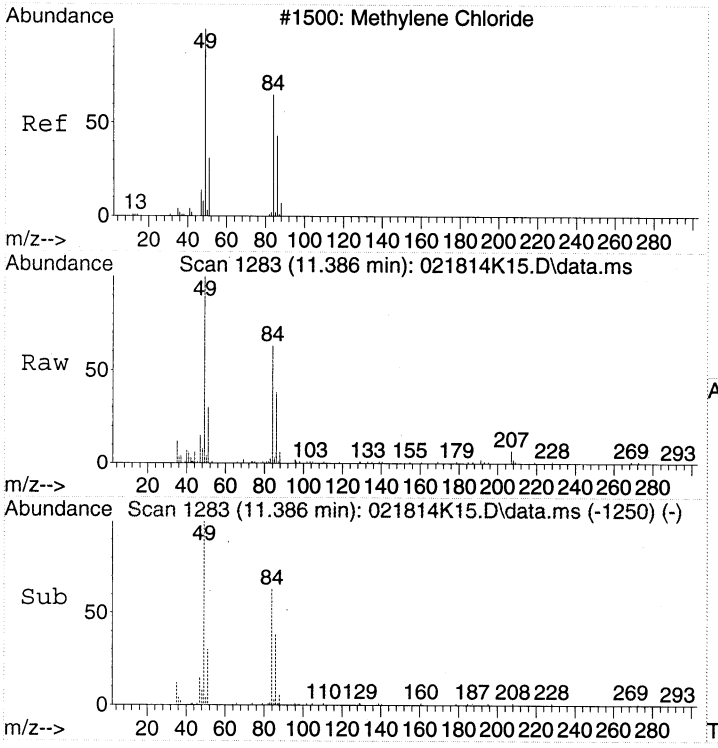


#16
2-Propanol
Concen: 0.68 ppbv
RT: 10.547 min Scan# 1145
Delta R.T. 0.103 min
Lab File: 021814K15.D
Acq: 18 Feb 2014 23:33

Tgt Ion: 45 Resp: 26970

Ion	Ratio	Lower	Upper
45	100		
43	25.2	0.0	39.1

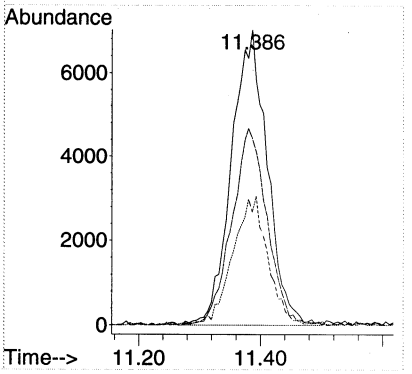


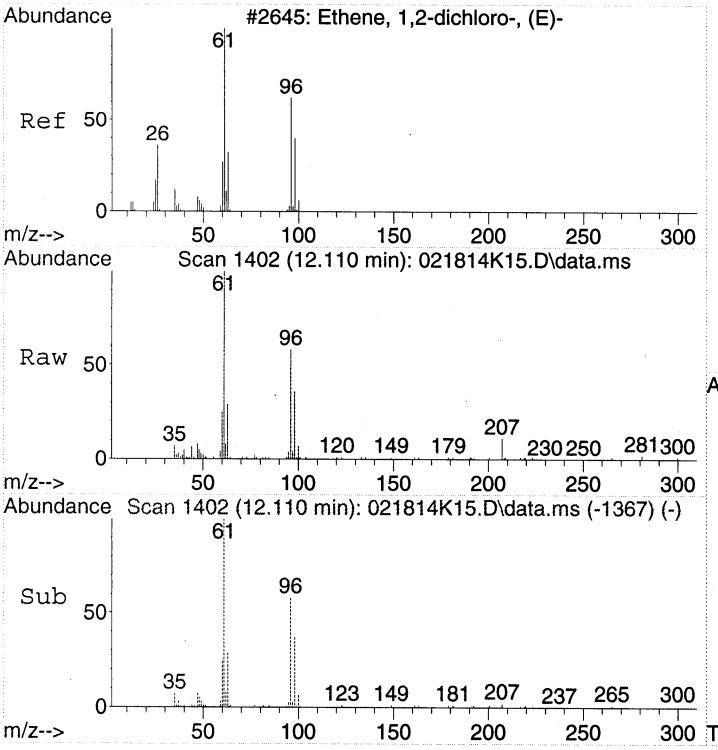


#18
Dichloromethane
Concen: 0.76 ppbv
RT: 11.386 min Scan# 1283
Delta R.T. -0.000 min
Lab File: 021814K15.D
Acq: 18 Feb 2014 23:33

Tgt Ion: 49 Resp: 28520

Ion	Ratio	Lower	Upper
49	100		
84	65.7	50.0	90.0
86	42.8	24.4	64.4

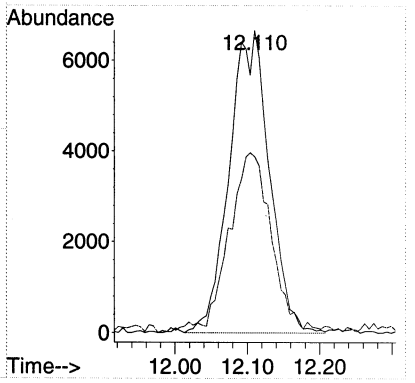


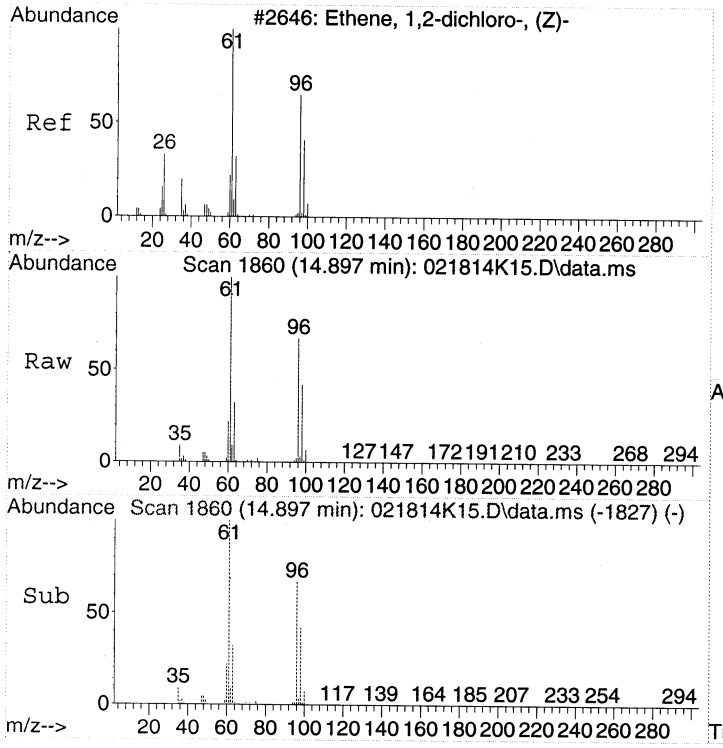


#20
trans-1,2-Dichloroethene
Concen: 0.72 ppbv
RT: 12.110 min Scan# 1402
Delta R.T. 0.012 min
Lab File: 021814K15.D
Acq: 18 Feb 2014 23:33

Tgt Ion: 61 Resp: 25584

Ion	Ratio	Lower	Upper
61	100		
96	61.4	45.4	85.4

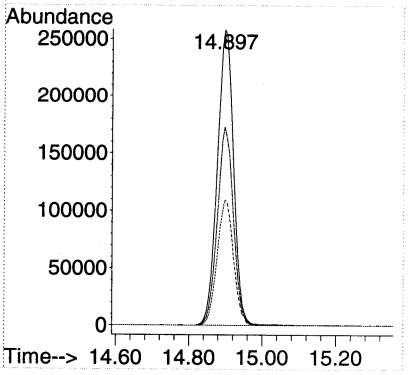


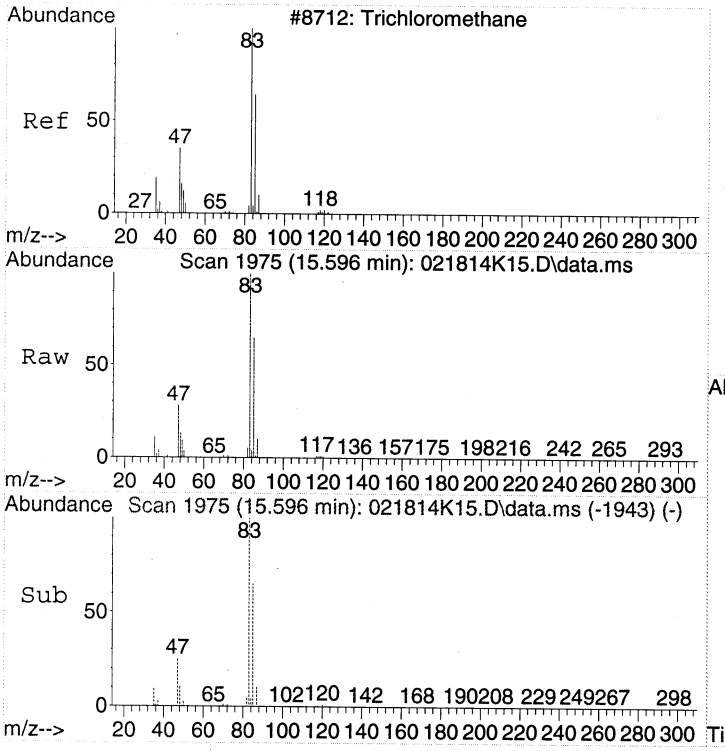


#24
cis-1,2-Dichloroethene
Concen: 20.46 ppbv
RT: 14.897 min Scan# 1860
Delta R.T. -0.000 min
Lab File: 021814K15.D
Acq: 18 Feb 2014 23:33

Tgt Ion: 61 Resp: 792817

Ion	Ratio	Lower	Upper
61	100		
96	66.5	51.7	91.7
98	42.8	25.4	65.4

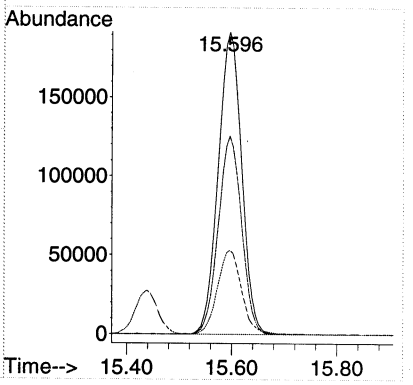


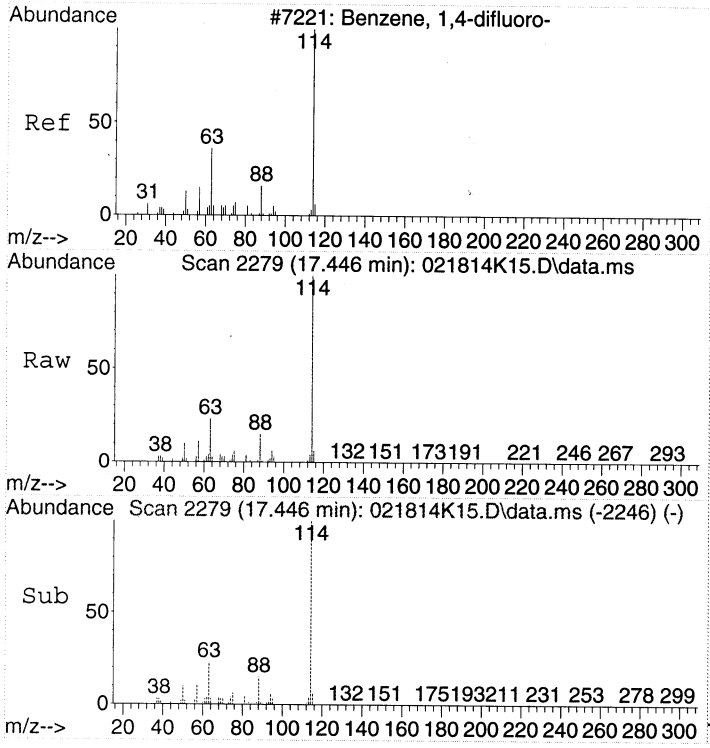


#28
Chloroform
Concen: 11.15 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 021814K15.D
Acq: 18 Feb 2014 23:33

Tgt Ion: 83 Resp: 594176

Ion	Ratio	Lower	Upper
83	100		
85	65.3	42.7	82.7
47	28.3	5.3	45.3

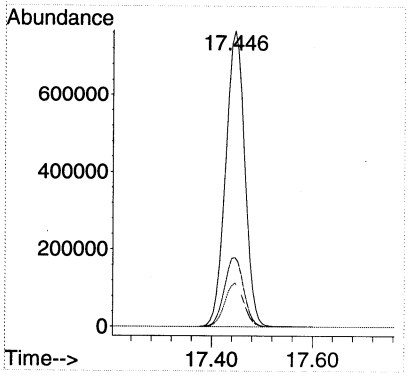


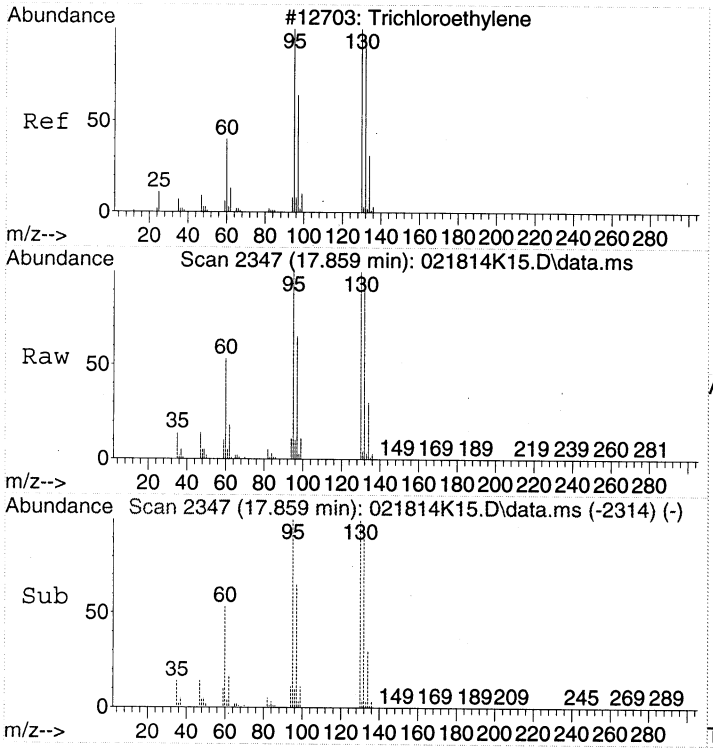


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 021814K15.D
Acq: 18 Feb 2014 23:33

Tgt Ion:114 Resp: 2018815

Ion	Ratio	Lower	Upper
114	100		
63	23.8	2.3	42.3
88	14.8	0.0	35.2

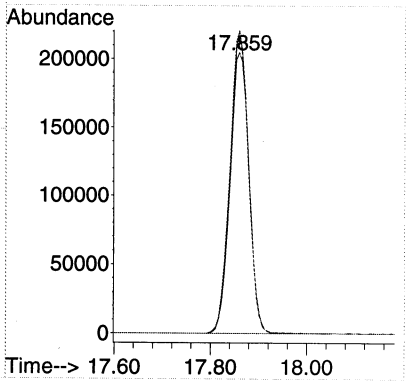


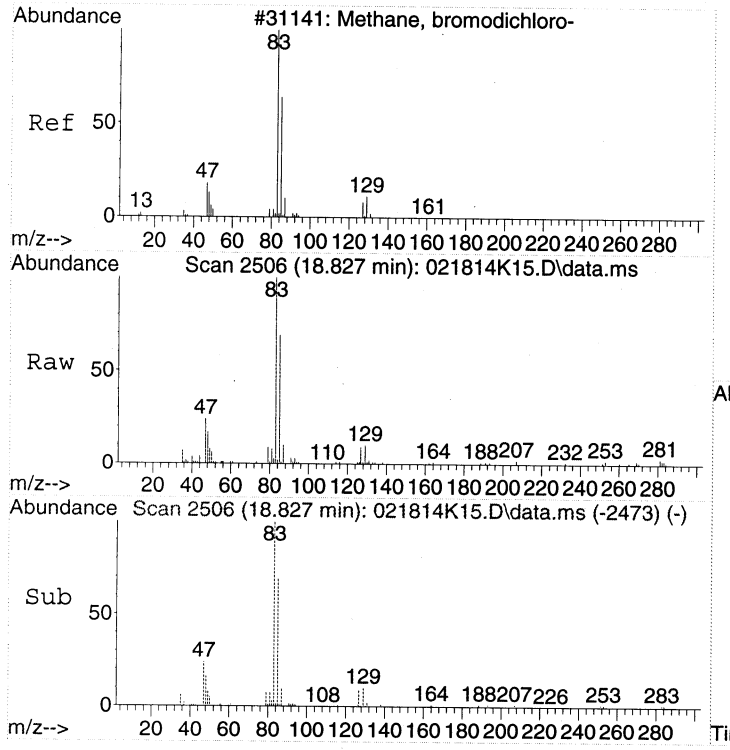


#37
Trichloroethene
Concen: 18.96 ppbv
RT: 17.859 min Scan# 2347
Delta R.T. -0.000 min
Lab File: 021814K15.D
Acq: 18 Feb 2014 23:33

Tgt Ion:130 Resp: 582879

Ion	Ratio	Lower	Upper
130	100		
132	95.8	78.9	118.9
95	101.0	82.3	122.3

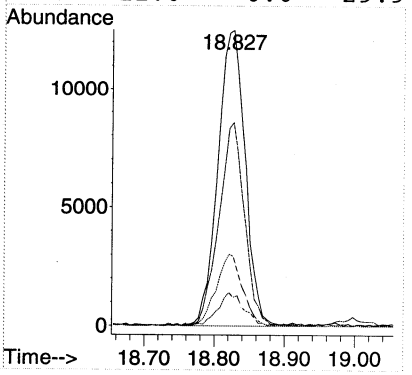


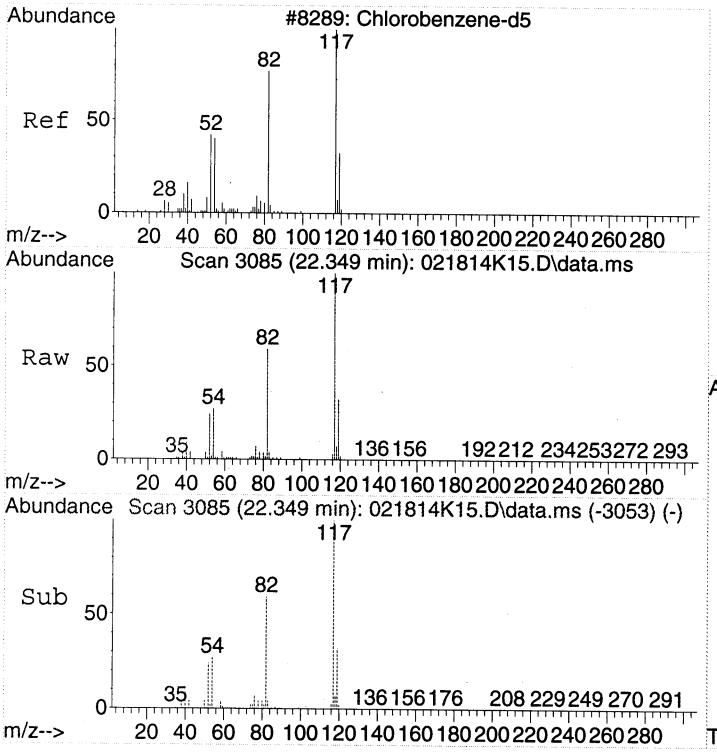


#40
Bromodichloromethane
Concen: 0.68 ppbv
RT: 18.827 min Scan# 2506
Delta R.T. -0.000 min
Lab File: 021814K15.D
Acq: 18 Feb 2014 23:33

Tgt Ion: 83 Resp: 34013

Ion	Ratio	Lower	Upper
83	100		
85	64.4	41.8	81.8
47	23.1	0.4	40.4
129	11.0	0.0	29.9

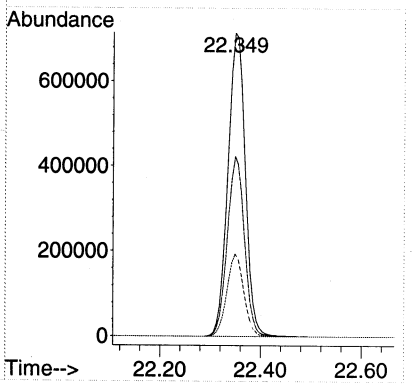


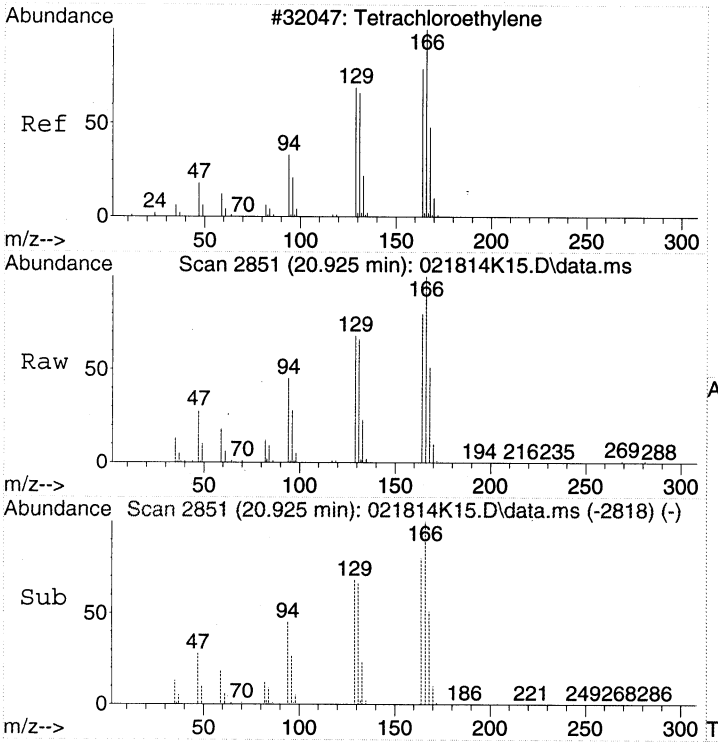


#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.349 min Scan# 3085
Delta R.T. -0.006 min
Lab File: 021814K15.D
Acq: 18 Feb 2014 23:33

Tgt Ion:117 Resp: 1716456

Ion	Ratio	Lower	Upper
117	100		
82	58.5	37.1	77.1
54	26.5	3.3	43.3

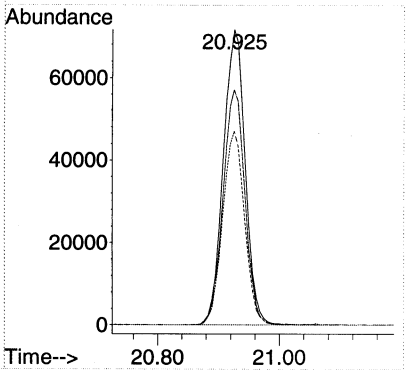




#47
Tetrachloroethene
Concen: 4.56 ppbv
RT: 20.925 min Scan# 2851
Delta R.T. -0.000 min
Lab File: 021814K15.D
Acq: 18 Feb 2014 23:33

Tgt Ion:166 Resp: 178780

Ion	Ratio	Lower	Upper
166	100		
164	79.7	59.4	99.4
131	65.7	44.3	84.3



: 002H1

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K16.D
Acq On : 19 Feb 2014 00:18
Instrument: HP5973K
Operator : EM
Sample : 1402032-05RE1
Misc : 20mL MH15
ALS Vial : 11
Multiplier: 1.94

Quant Time: Feb 19 09:30:36 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.438	49	831122	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2014628	22.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.349	117	1715404	22.00	ppbv	0.00
Target Compounds						Qvalue
18) Dichloromethane	11.380	49	20057	0.53	ppbv	91
24) cis-1,2-Dichloroethene	14.897	61	84393	2.18	ppbv	97
28) Chloroform	15.596	83	67458	1.27	ppbv	97
37) Trichloroethene	17.859	130	64133	2.09	ppbv	98
47) Tetrachloroethene	20.926	166	20391	0.52	ppbv	99

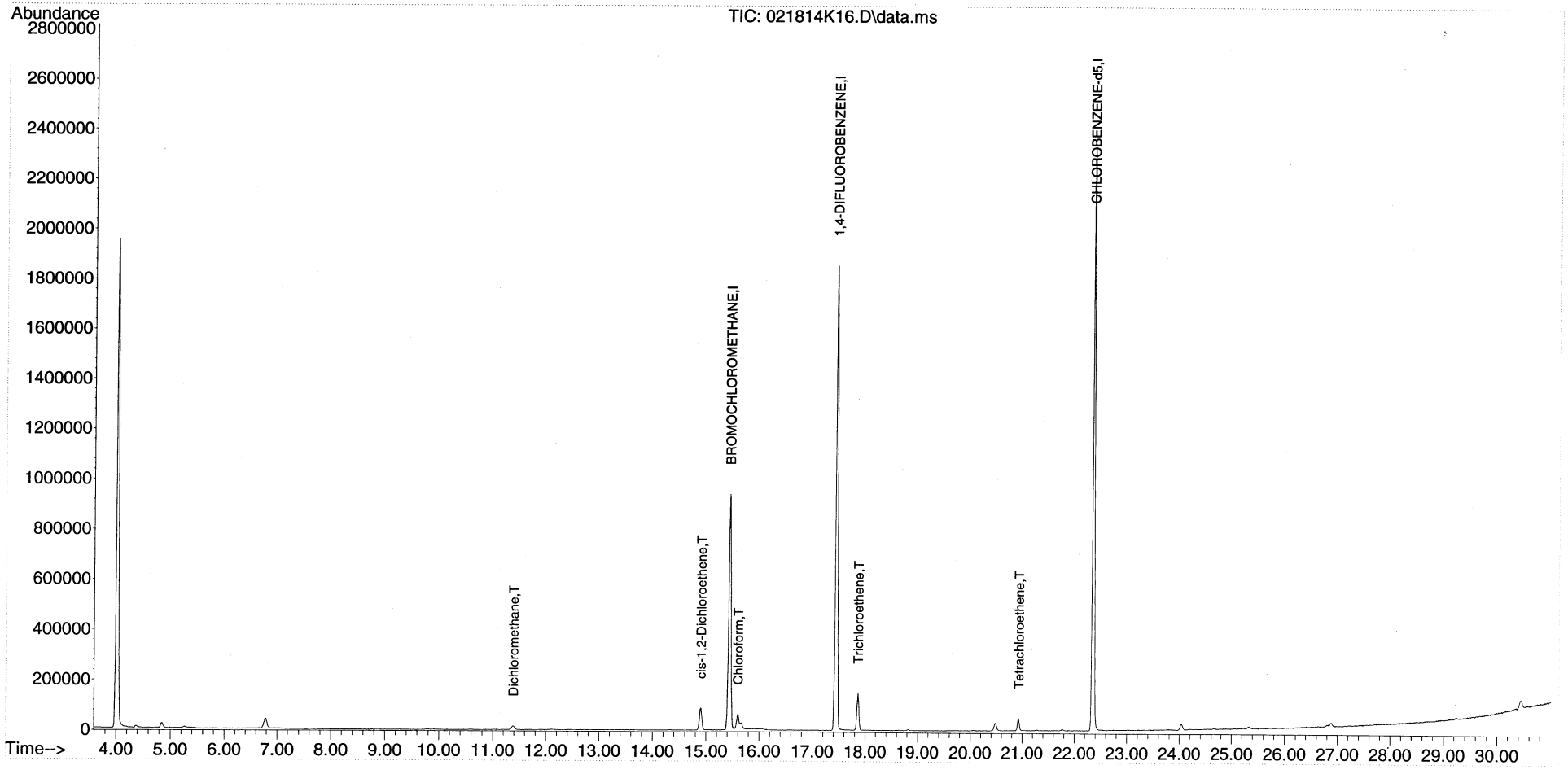
(#) = qualifier out of range (m) = manual integration (+) = signals summed

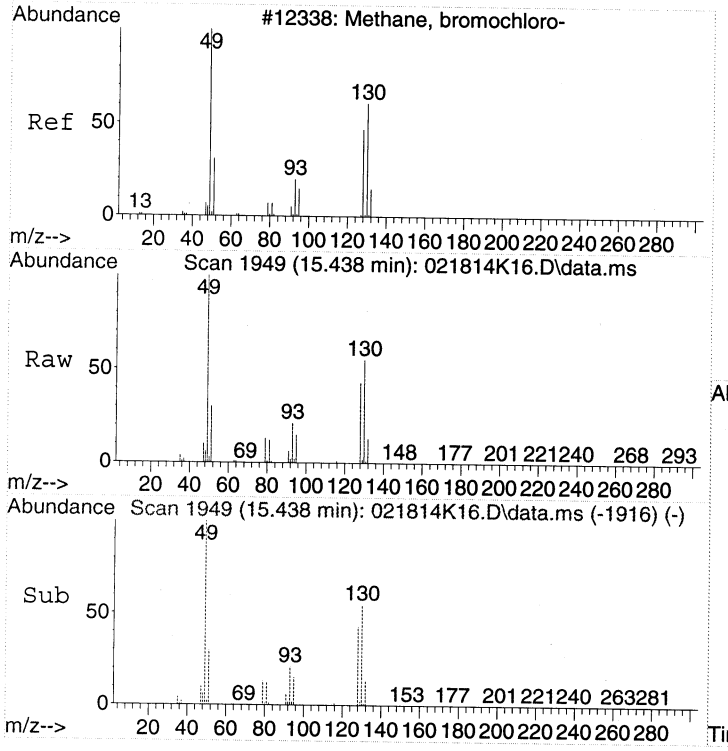
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K16.D
Acq On : 19 Feb 2014 00:18
Instrument: HP5973K
Operator : EM
Sample : 1402032-05RE1
Misc : 20mL MH15
ALS Vial : 11
Multiplier: 1.94

Quant Time: Feb 19 09:30:36 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

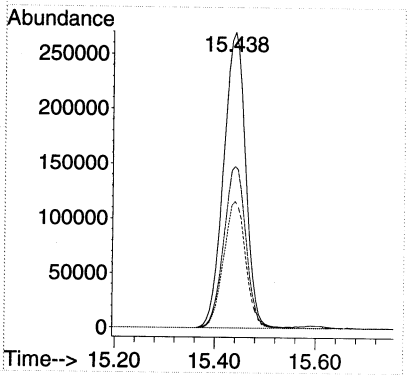


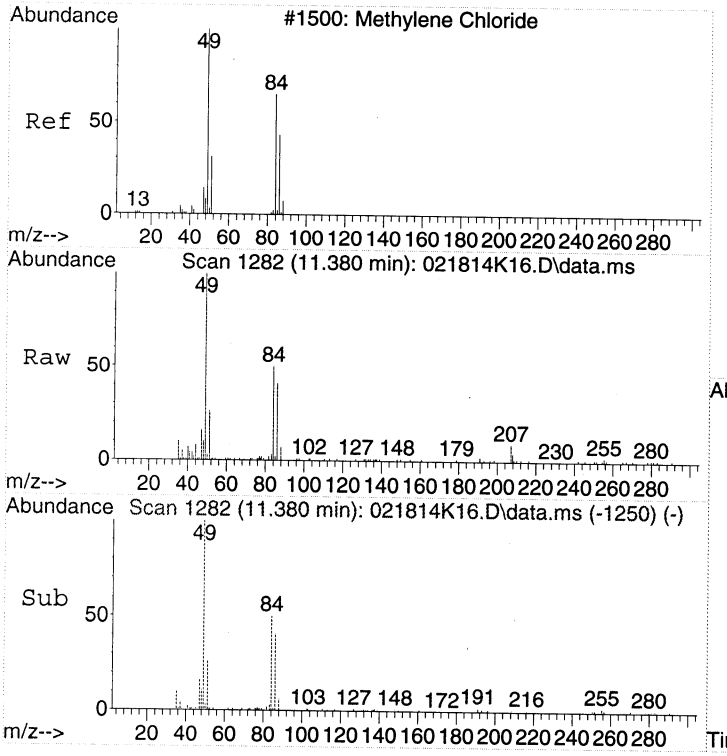


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 021814K16.D
Acq: 19 Feb 2014 00:18

Tgt Ion: 49 Resp: 831122

Ion	Ratio	Lower	Upper
49	100		
130	54.8	39.6	79.6
128	42.9	26.9	66.9

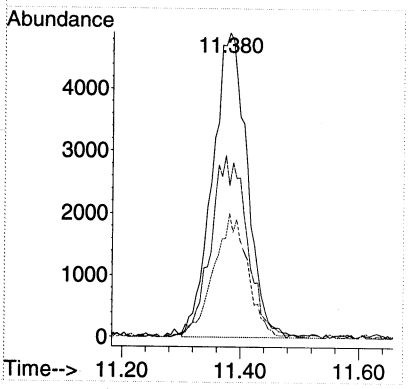


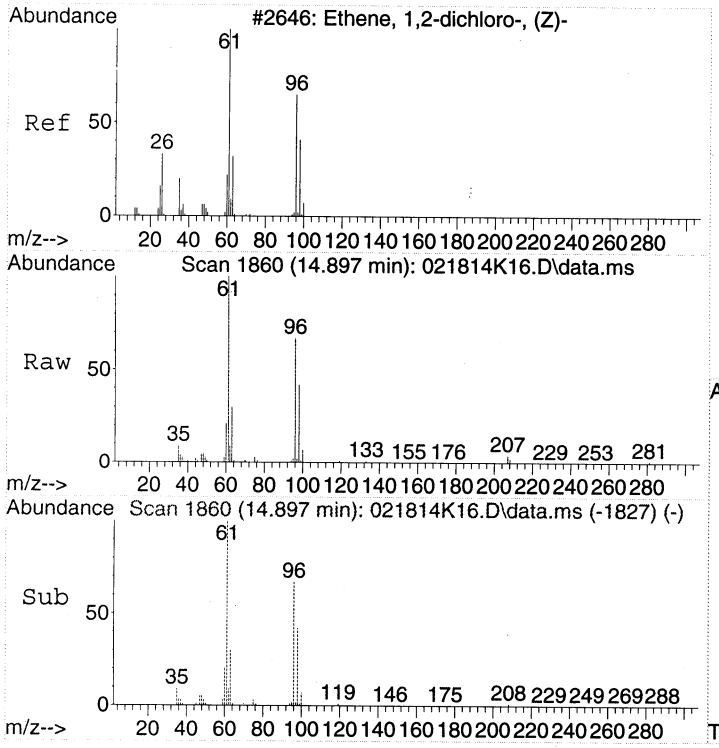


#18
Dichloromethane
Concen: 0.53 ppbv
RT: 11.380 min Scan# 1282
Delta R.T. -0.006 min
Lab File: 021814K16.D
Acq: 19 Feb 2014 00:18

Tgt Ion: 49 Resp: 20057

Ion	Ratio	Lower	Upper
49	100		
84	62.2	50.0	90.0
86	39.9	24.4	64.4

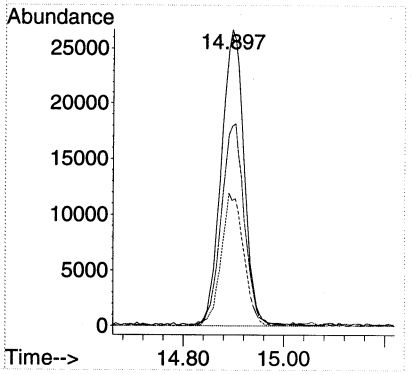


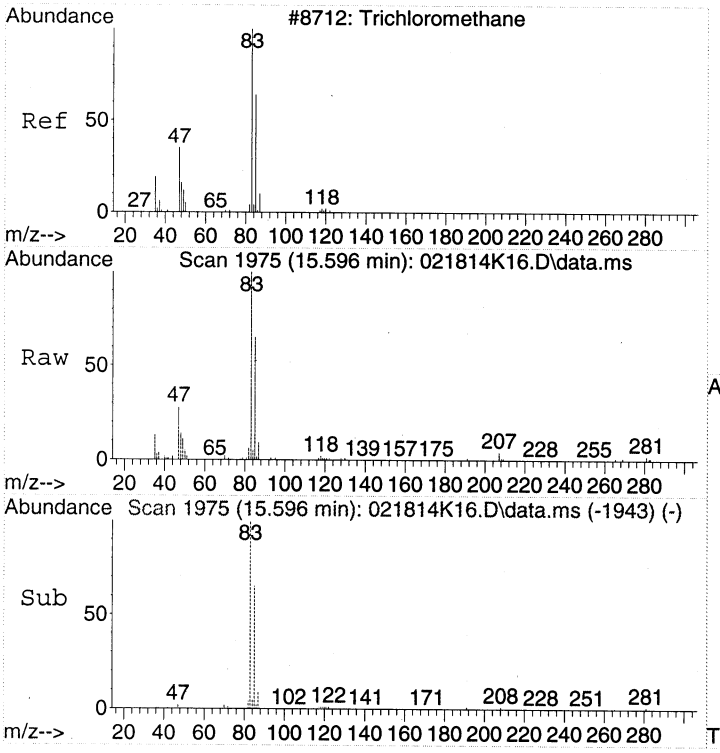


#24
cis-1,2-Dichloroethene
Concen: 2.18 ppbv
RT: 14.897 min Scan# 1860
Delta R.T. -0.000 min
Lab File: 021814K16.D
Acq: 19 Feb 2014 00:18

Tgt Ion: 61 Resp: 84393

Ion	Ratio	Lower	Upper
61	100		
96	69.3	51.7	91.7
98	43.6	25.4	65.4

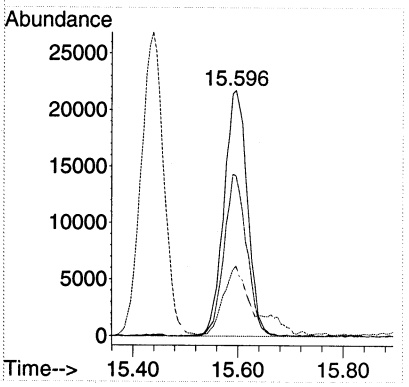


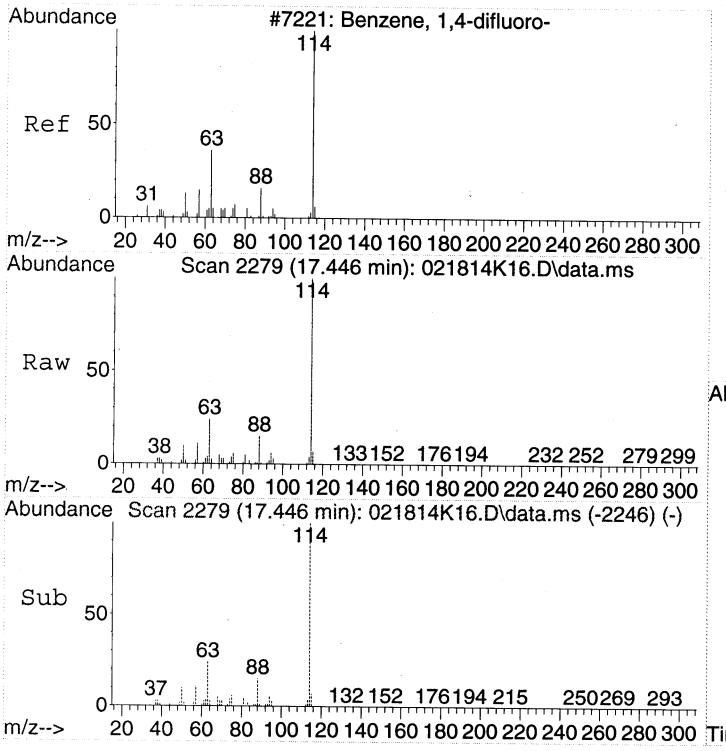


#28
Chloroform
Concen: 1.27 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 021814K16.D
Acq: 19 Feb 2014 00:18

Tgt Ion: 83 Resp: 67458

Ion	Ratio	Lower	Upper
83	100		
85	63.7	42.7	82.7
47	29.7	5.3	45.3

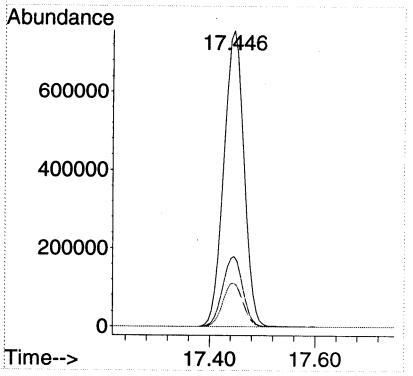


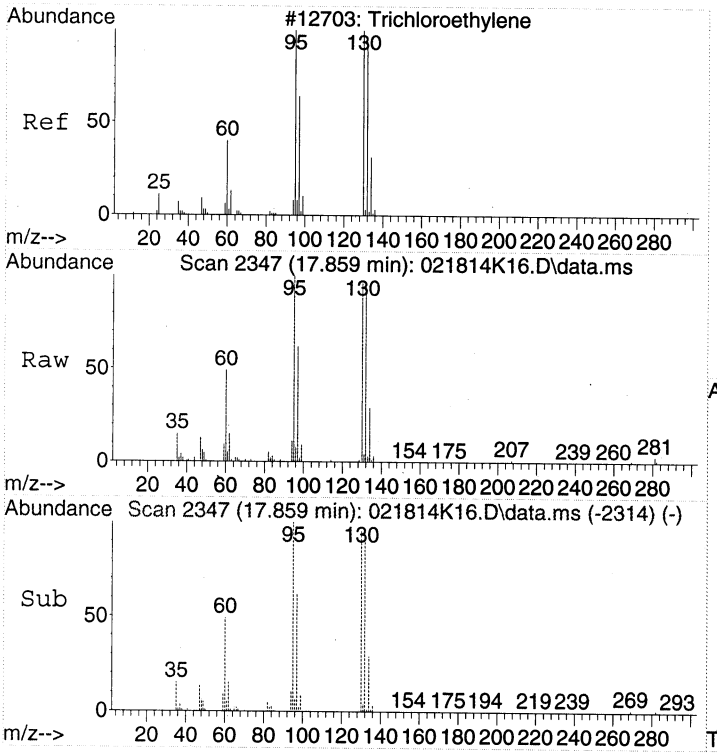


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 021814K16.D
Acq: 19 Feb 2014 00:18

Tgt Ion:114 Resp: 2014628

Ion	Ratio	Lower	Upper
114	100		
63	23.8	2.3	42.3
88	14.9	0.0	35.2

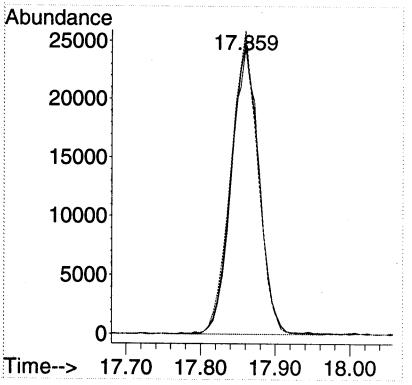


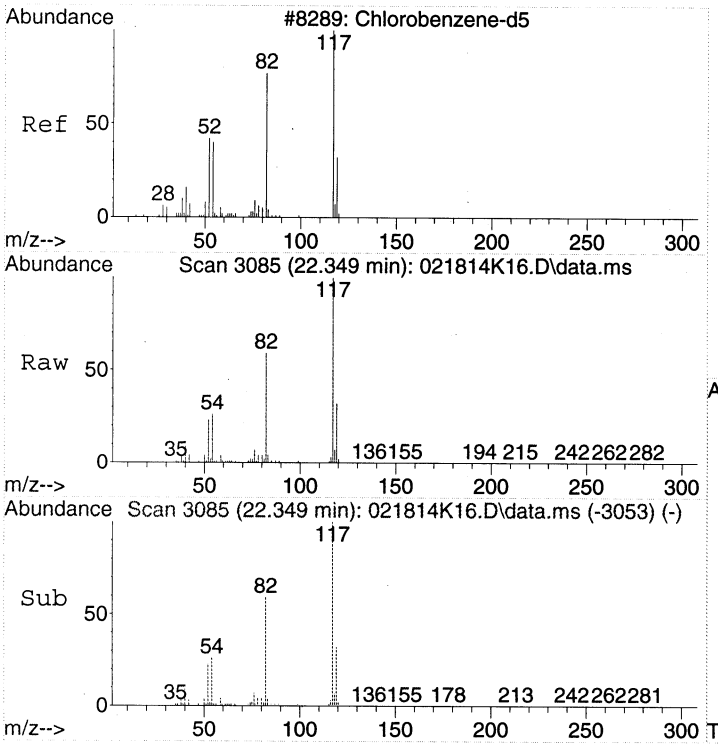


#37
Trichloroethene
Concen: 2.09 ppbv
RT: 17.859 min Scan# 2347
Delta R.T. -0.000 min
Lab File: 021814K16.D
Acq: 19 Feb 2014 00:18

Tgt Ion:130 Resp: 64133

Ion	Ratio	Lower	Upper
130	100		
132	96.5	78.9	118.9
95	101.0	82.3	122.3

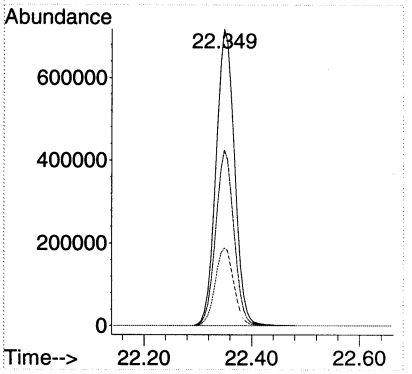


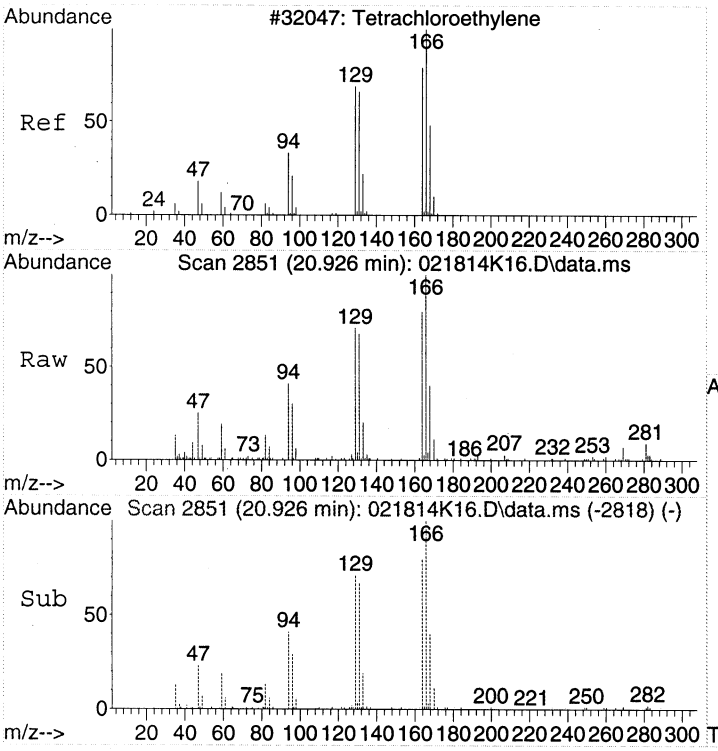


#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.349 min Scan# 3085
Delta R.T. -0.006 min
Lab File: 021814K16.D
Acq: 19 Feb 2014 00:18

Tgt Ion:117 Resp: 1715404

Ion	Ratio	Lower	Upper
117	100		
82	58.3	37.1	77.1
54	26.6	3.3	43.3

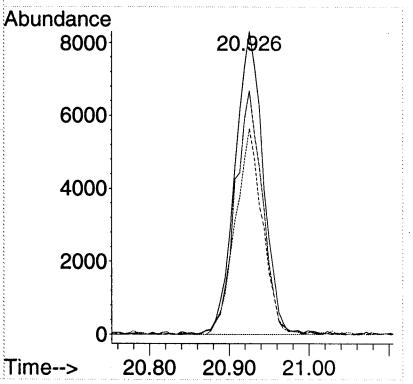




#47
Tetrachloroethene
Concen: 0.52 ppbv
RT: 20.926 min Scan# 2851
Delta R.T. -0.000 min
Lab File: 021814K16.D
Acq: 19 Feb 2014 00:18

Tgt Ion:166 Resp: 20391

Ion	Ratio	Lower	Upper
166	100		
164	78.3	59.4	99.4
131	65.5	44.3	84.3



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K17.D
Acq On : 19 Feb 2014 1:07
Instrument: HP5973K
Operator : EM
Sample : 1402032-06
Misc : 200mL MH16
ALS Vial : 12
Multiplier: 1.95

Quant Time: Feb 19 09:30:41 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.438	49	825843	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2029280	22.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.349	117	1729098	22.00	ppbv	0.00
Target Compounds						Qvalue
2) Propene	4.372	41	18545	0.78	ppbv #	73
14) Acetone	9.866	43	58019	1.50	ppbv	98
18) Dichloromethane	11.374	49	25221	0.68	ppbv	92

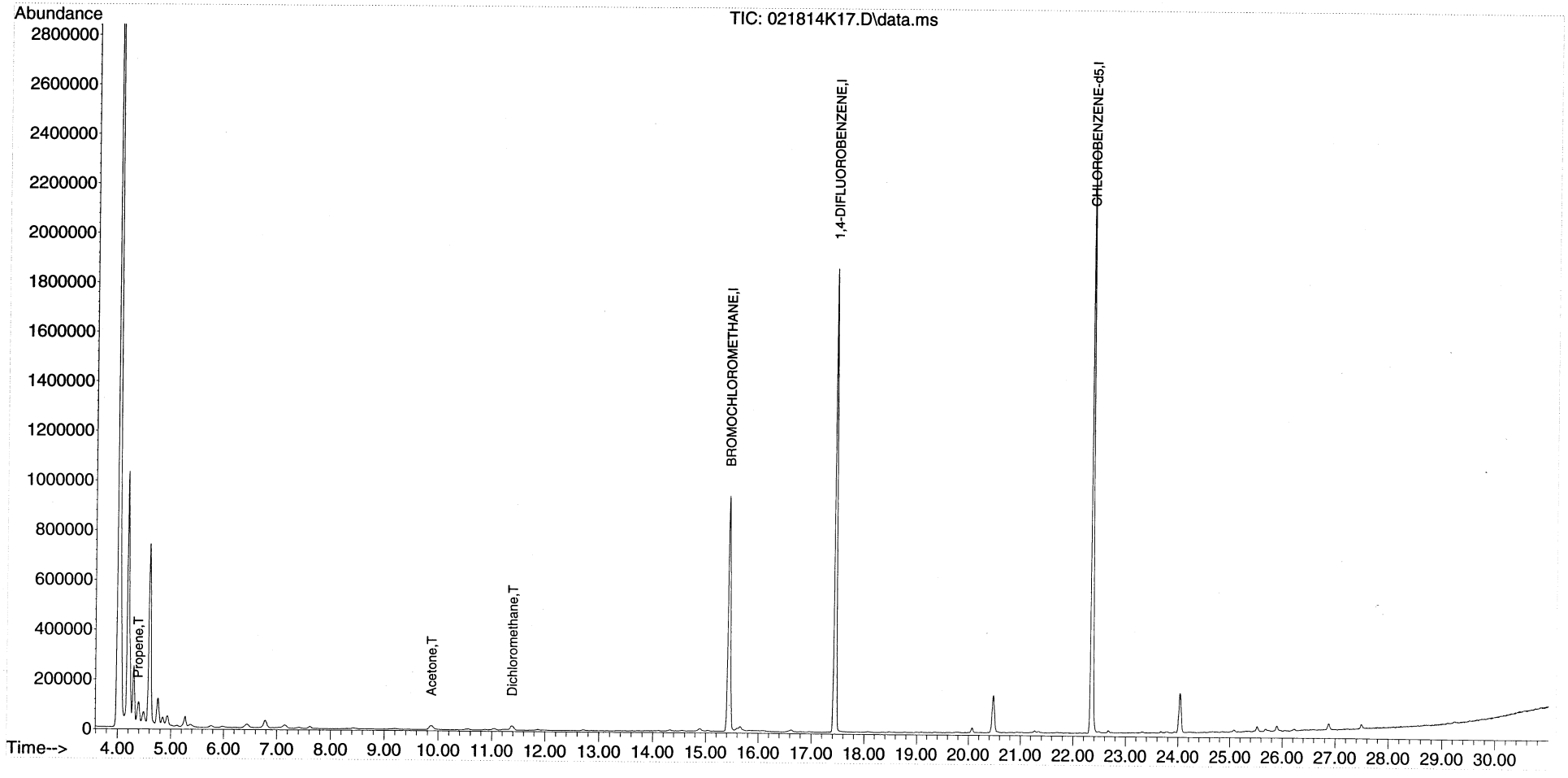
(#) = qualifier out of range (m) = manual integration (+) = signals summed

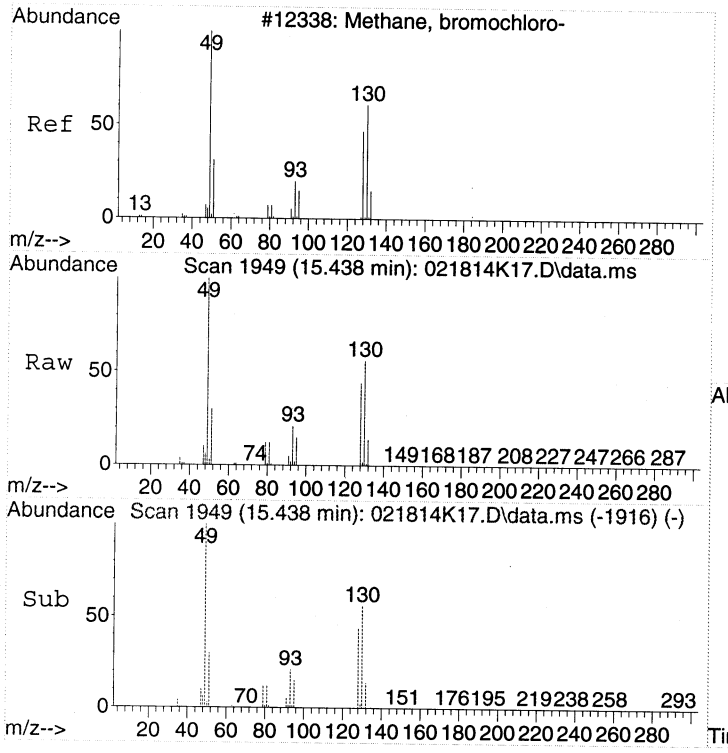
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K17.D
Acq On : 19 Feb 2014 1:07
Instrument: HP5973K
Operator : EM
Sample : 1402032-06
Misc : 200mL MH16
ALS Vial : 12
Multiplier: 1.95

Quant Time: Feb 19 09:30:41 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

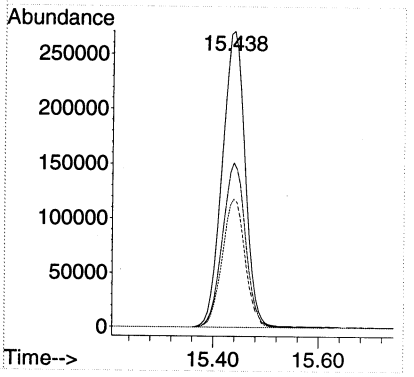


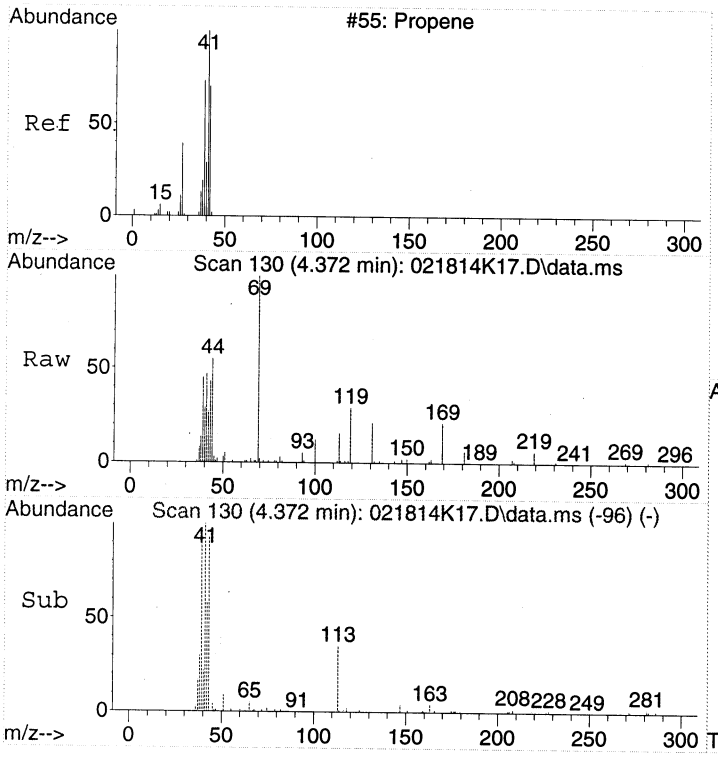


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 021814K17.D
Acq: 19 Feb 2014 1:07

Tgt Ion: 49 Resp: 825843

Ion	Ratio	Lower	Upper
49	100		
130	55.9	39.6	79.6
128	43.3	26.9	66.9

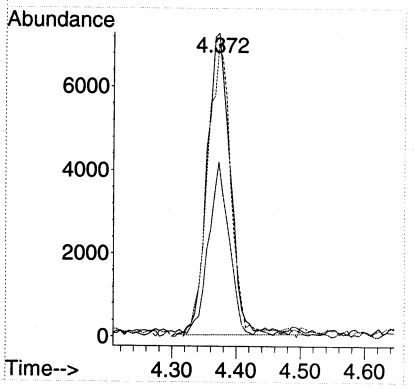


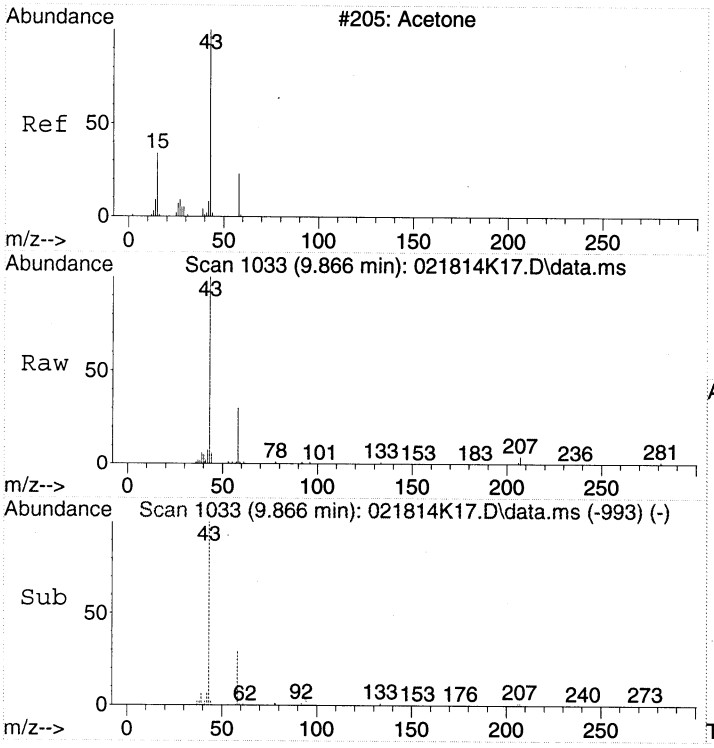


#2
Propene
Concen: 0.78 ppbv
RT: 4.372 min Scan# 130
Delta R.T. 0.006 min
Lab File: 021814K17.D
Acq: 19 Feb 2014 1:07

Tgt Ion: 41 Resp: 18545

Ion	Ratio	Lower	Upper
41	100		
42	51.8	46.8	86.8
39	97.0	48.3	88.3#

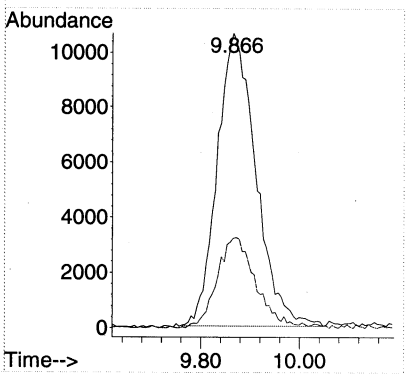


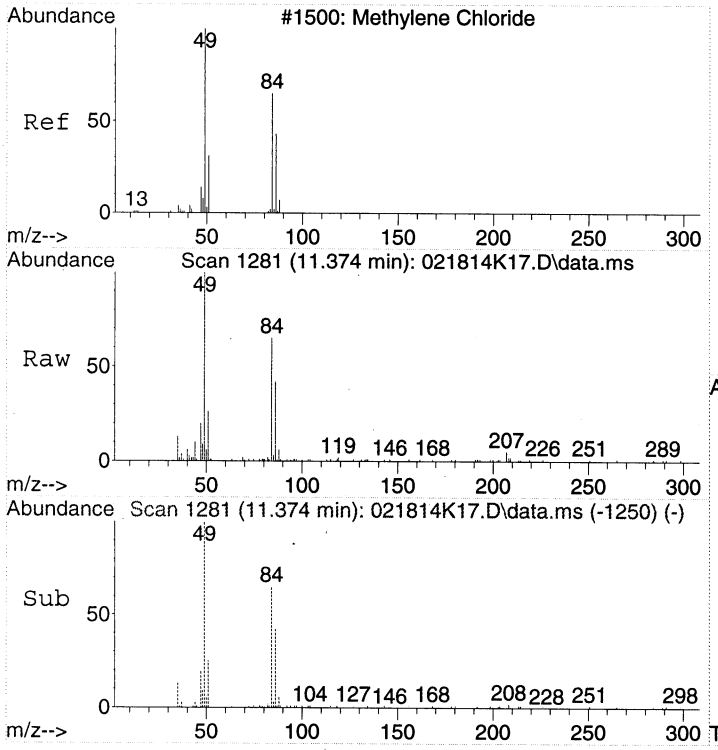


#14
Acetone
Concen: 1.50 ppbv
RT: 9.866 min Scan# 1033
Delta R.T. 0.042 min
Lab File: 021814K17.D
Acq: 19 Feb 2014 1:07

Tgt Ion: 43 Resp: 58019

Ion	Ratio	Lower	Upper
43	100		
58	31.2	12.5	52.5

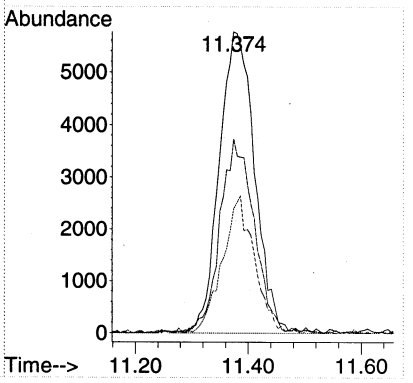


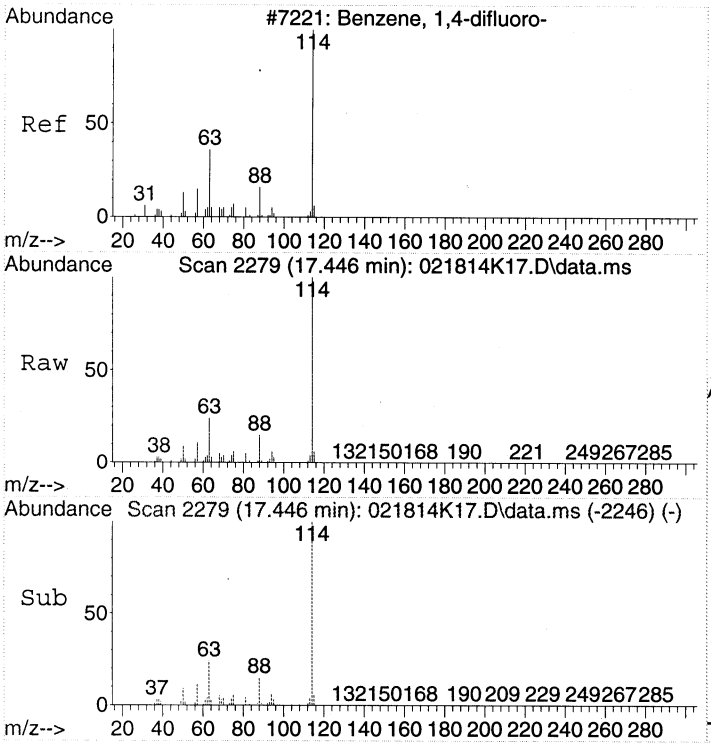


#18
Dichloromethane
Concen: 0.68 ppbv
RT: 11.374 min Scan# 1281
Delta R.T. -0.012 min
Lab File: 021814K17.D
Acq: 19 Feb 2014 1:07

Tgt Ion: 49 Resp: 25221

Ion	Ratio	Lower	Upper
49	100		
84	62.4	50.0	90.0
86	41.1	24.4	64.4

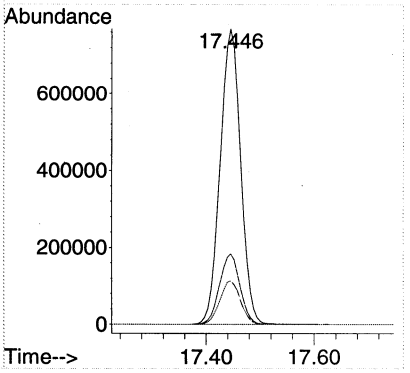


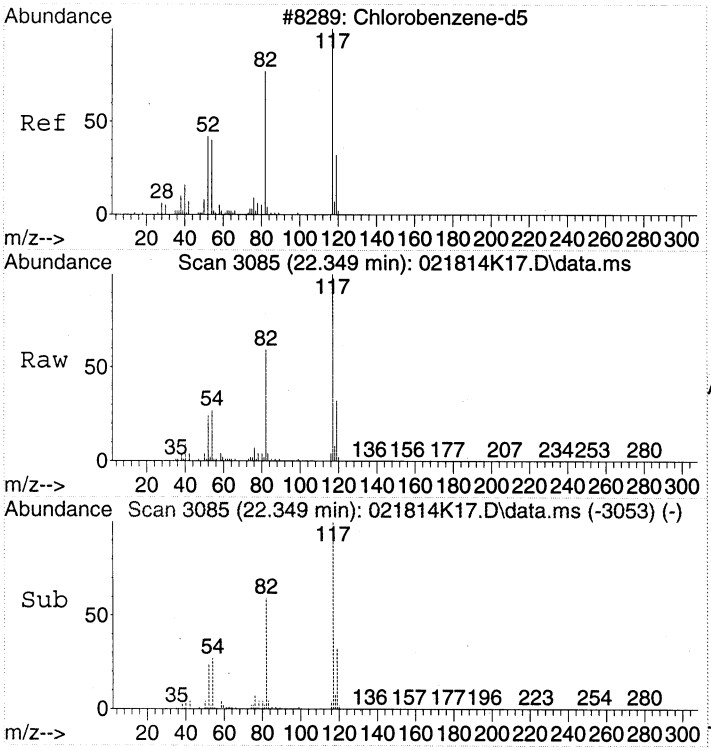


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 021814K17.D
Acq: 19 Feb 2014 1:07

Tgt Ion:114 Resp: 2029280

Ion	Ratio	Lower	Upper
114	100		
63	23.8	2.3	42.3
88	14.8	0.0	35.2

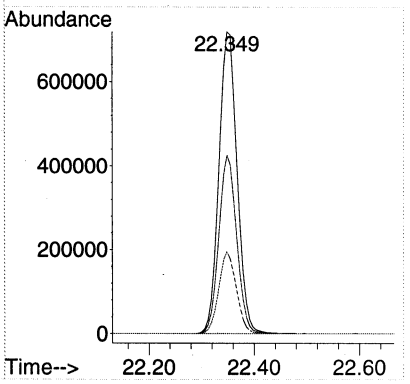




#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.349 min Scan# 3085
Delta R.T. -0.006 min
Lab File: 021814K17.D
Acq: 19 Feb 2014 1:07

Tgt Ion:117 Resp: 1729098

Ion	Ratio	Lower	Upper
117	100		
82	58.2	37.1	77.1
54	26.4	3.3	43.3



00252

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K18.D
Acq On : 19 Feb 2014 1:52
Instrument: HP5973K
Operator : EM
Sample : 1402032-06RE1
Misc : 20mL MH16
ALS Vial : 12
Multiplier: 1.95

Nil

Em 2/19/14

Quant Time: Feb 19 09:30:46 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.438	49	821675	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2013171	22.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.349	117	1714018	22.00	ppbv	0.00
Target Compounds						Qvalue
18) Dichloromethane	11.380	49	18587	0.50	ppbv	94

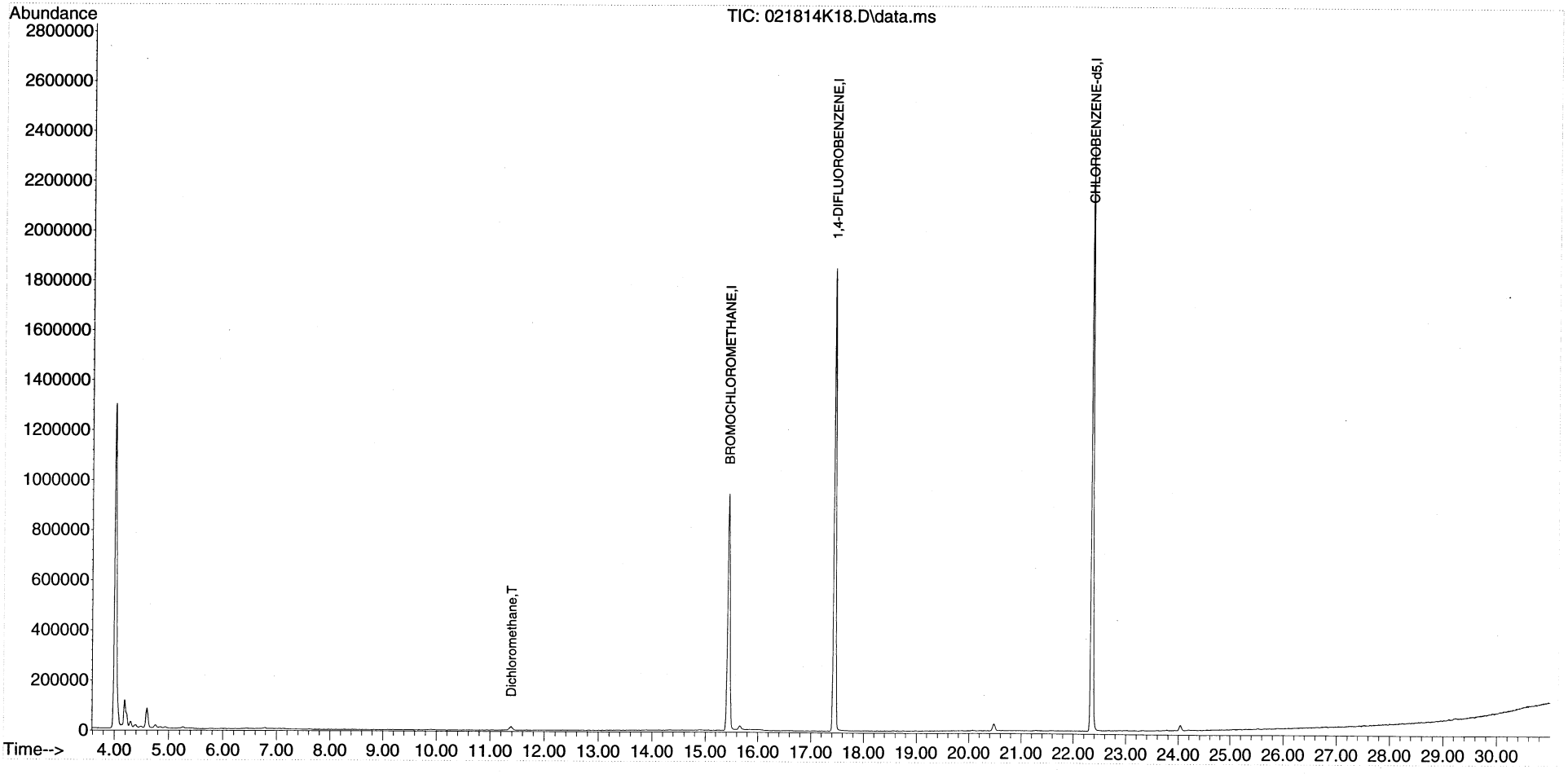
(#) = qualifier out of range (m) = manual integration (+) = signals summed

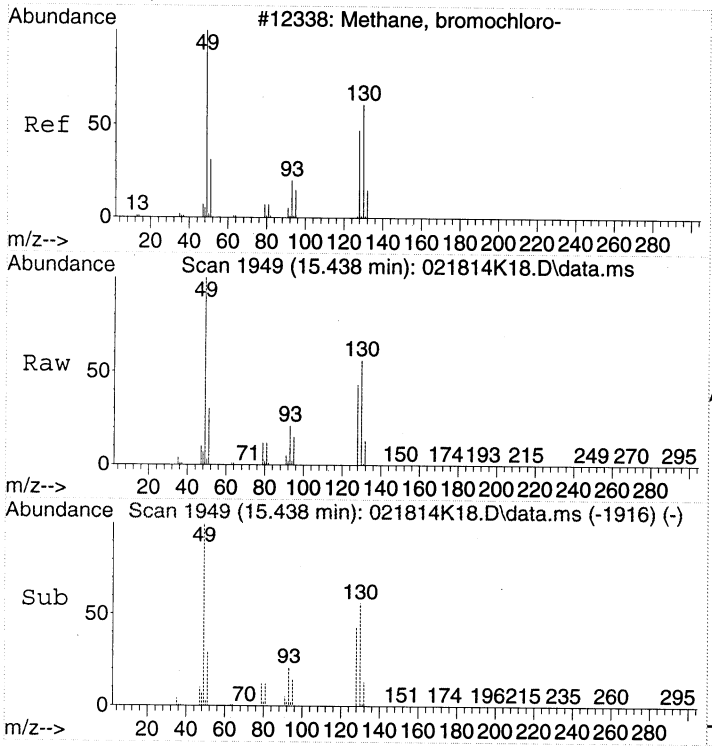
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K18.D
Acq On : 19 Feb 2014 1:52
Instrument: HP5973K
Operator : EM
Sample : 1402032-06RE1
Misc : 20mL MH16
ALS Vial : 12
Multiplier: 1.95

Quant Time: Feb 19 09:30:46 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

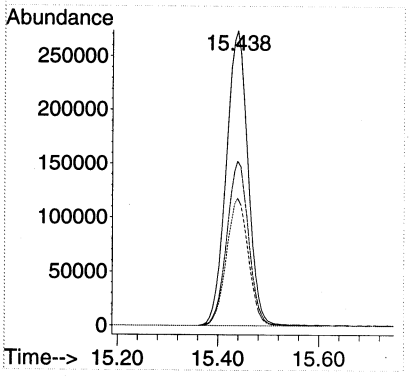


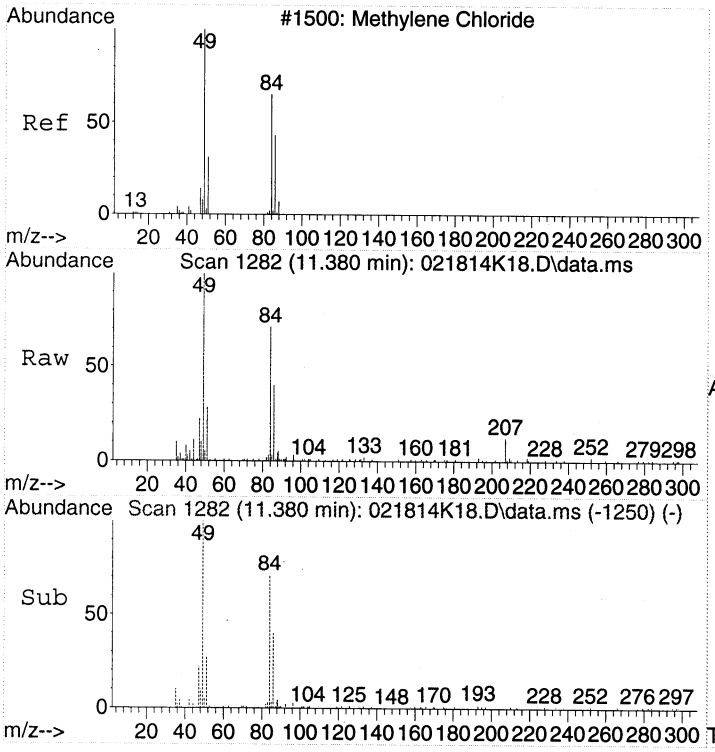


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 021814K18.D
Acq: 19 Feb 2014 1:52

Tgt Ion: 49 Resp: 821675

Ion	Ratio	Lower	Upper
49	100		
130	55.5	39.6	79.6
128	43.3	26.9	66.9

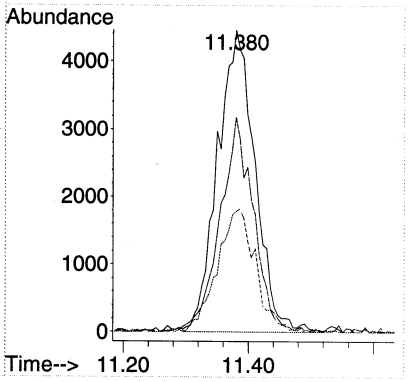


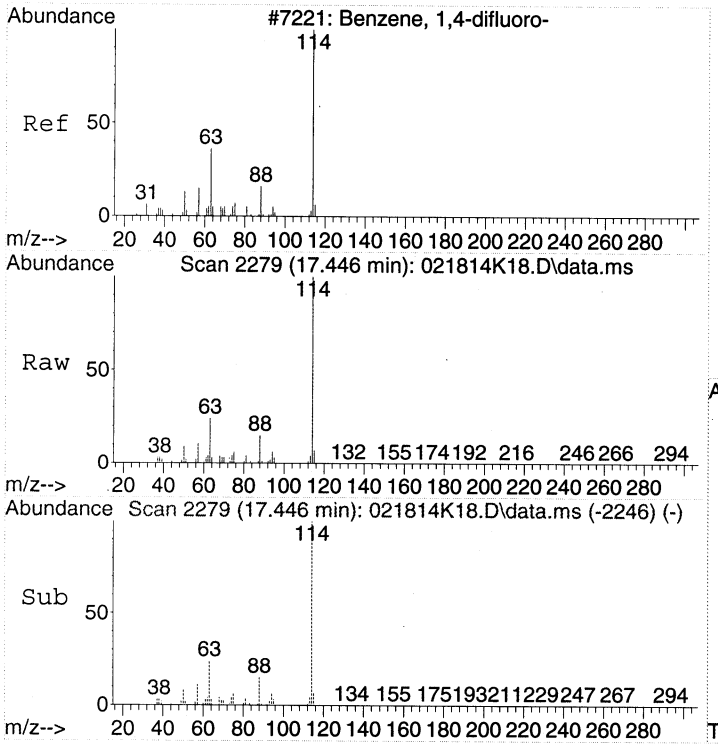


#18
Dichloromethane
Concen: 0.50 ppbv
RT: 11.380 min Scan# 1282
Delta R.T. -0.006 min
Lab File: 021814K18.D
Acq: 19 Feb 2014 1:52

Tgt Ion: 49 Resp: 18587

Ion	Ratio	Lower	Upper
49	100		
84	64.0	50.0	90.0
86	41.3	24.4	64.4

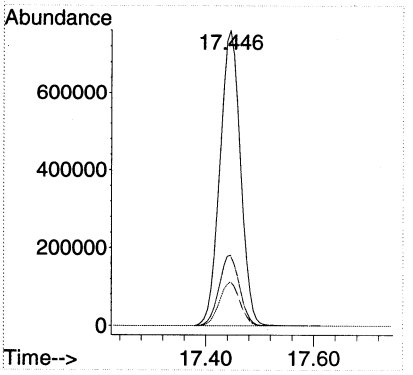


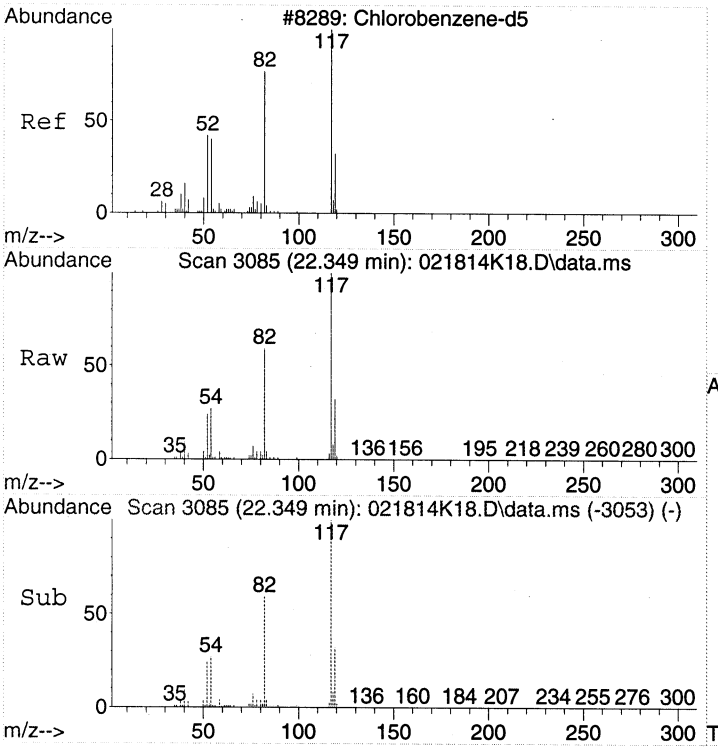


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 021814K18.D
Acq: 19 Feb 2014 1:52

Tgt Ion:114 Resp: 2013171

Ion	Ratio	Lower	Upper
114	100		
63	23.8	2.3	42.3
88	14.7	0.0	35.2

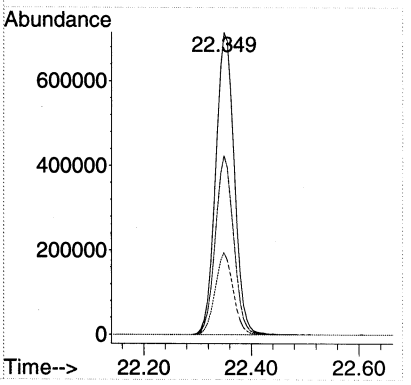




#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.349 min Scan# 3085
Delta R.T. -0.006 min
Lab File: 021814K18.D
Acq: 19 Feb 2014 1:52

Tgt Ion:117 Resp: 1714018

Ion	Ratio	Lower	Upper
117	100		
82	58.3	37.1	77.1
54	26.5	3.3	43.3



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K19.D
Acq On : 19 Feb 2014 2:41
Instrument: HP5973K
Operator : EM
Sample : 1402032-07
Misc : 200mL MH17
ALS Vial : 41
Multiplier: 1.94

Quant Time: Feb 19 09:30:50 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) BROMOCHLOROMETHANE	15.438	49	820504	22.00 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	1997817	22.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.349	117	1703327	22.00 ppbv	0.00
Target Compounds					Qvalue
2) Propene	4.372	41	28521	1.20 ppbv #	80
14) Acetone	9.878	43	42890	1.12 ppbv	98
18) Dichloromethane	11.387	49	27390	0.74 ppbv	94
24) cis-1,2-Dichloroethene	14.897	61	230155	6.03 ppbv	88
28) Chloroform	15.596	83	786225	14.99 ppbv	97
37) Trichloroethene	17.859	130	181819	5.98 ppbv	97
40) Bromodichloromethane	18.821	83	41960	0.85 ppbv	95
45) trans-1,3-Dichloropropene	20.463	75	58235	1.61 ppbv #	43
47) Tetrachloroethene	20.926	166	51517	1.32 ppbv	99

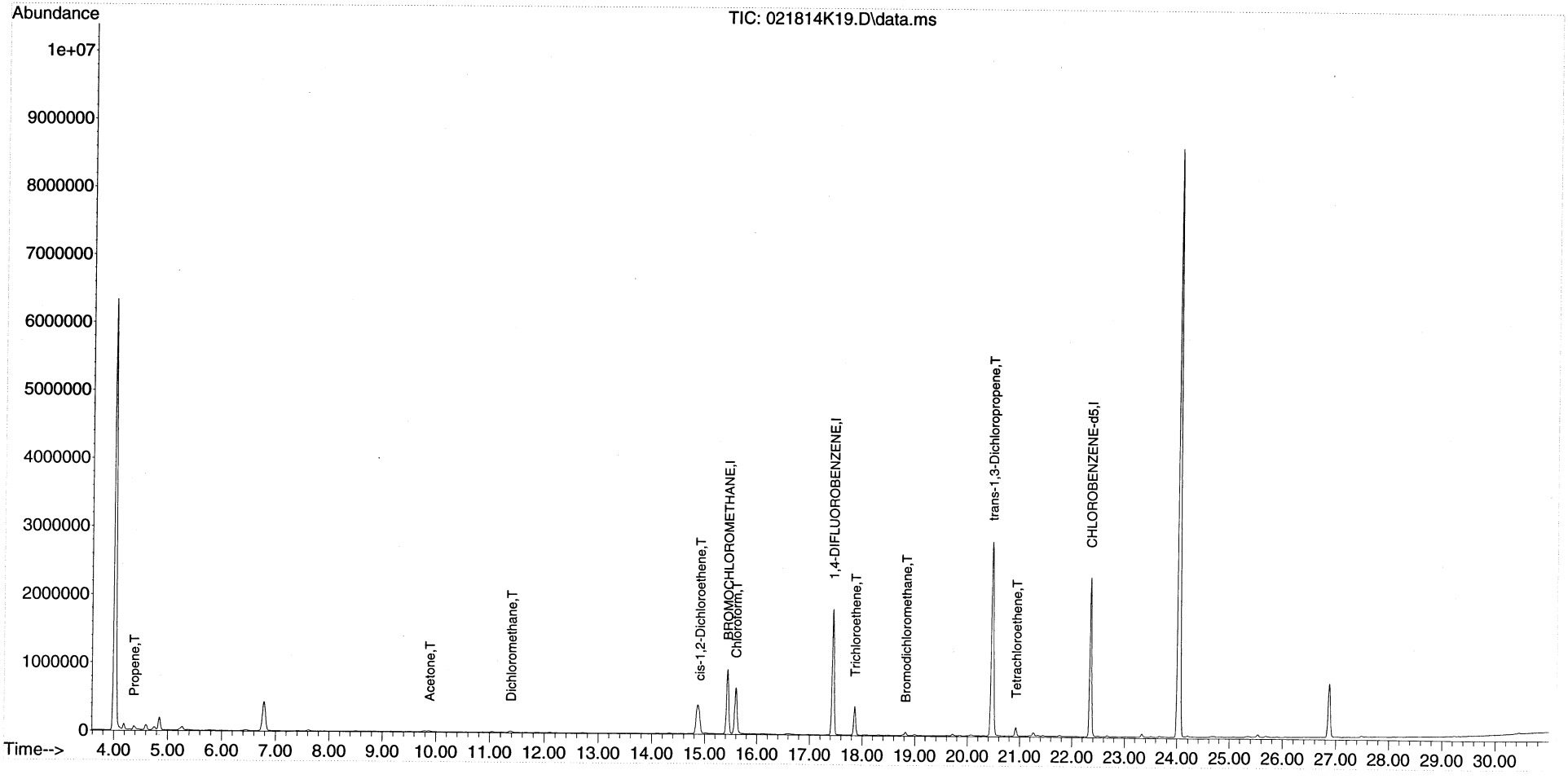
(#) = qualifier out of range (m) = manual integration (+) = signals summed

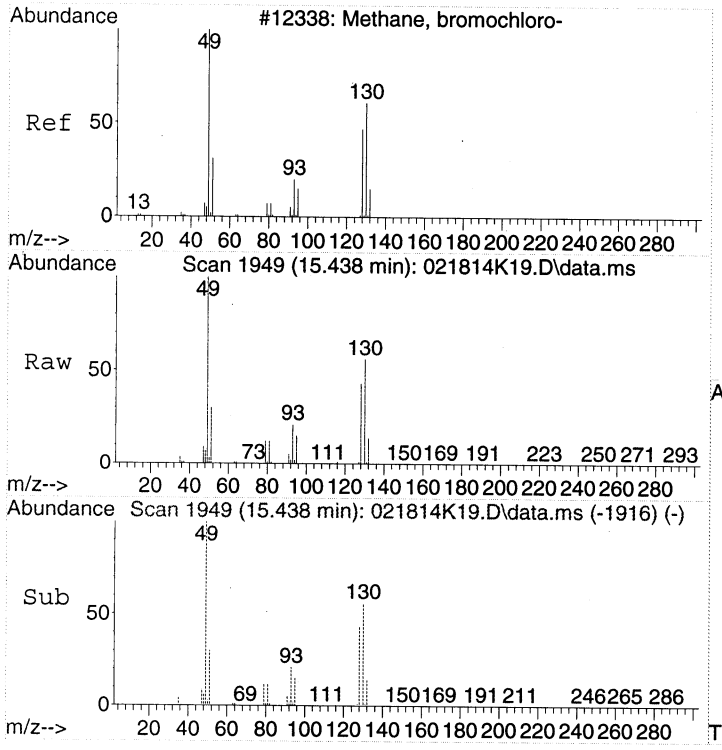
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K19.D
Acq On : 19 Feb 2014 2:41
Instrument: HP5973K
Operator : EM
Sample : 1402032-07
Misc : 200mL MH17
ALS Vial : 41
Multiplier: 1.94

Quant Time: Feb 19 09:30:50 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

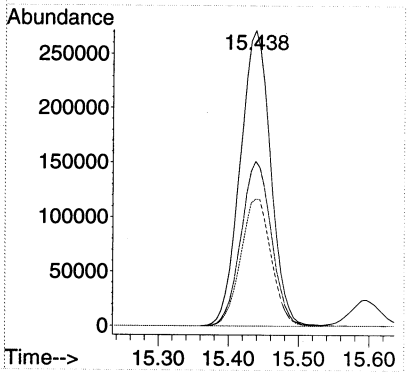


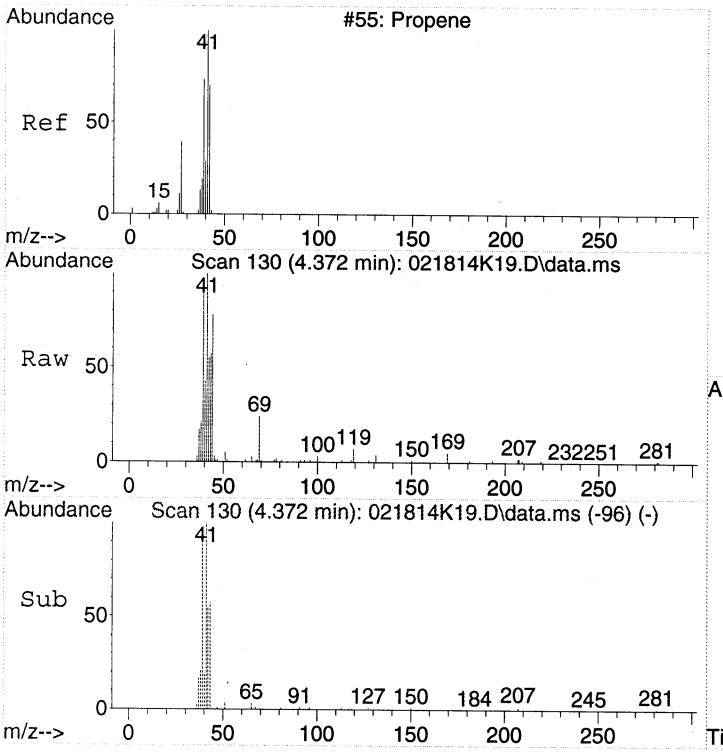


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 021814K19.D
Acq: 19 Feb 2014 2:41

Tgt Ion: 49 Resp: 820504

Ion	Ratio	Lower	Upper
49	100		
130	55.7	39.6	79.6
128	43.3	26.9	66.9

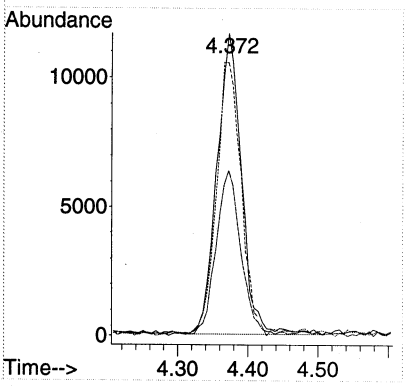


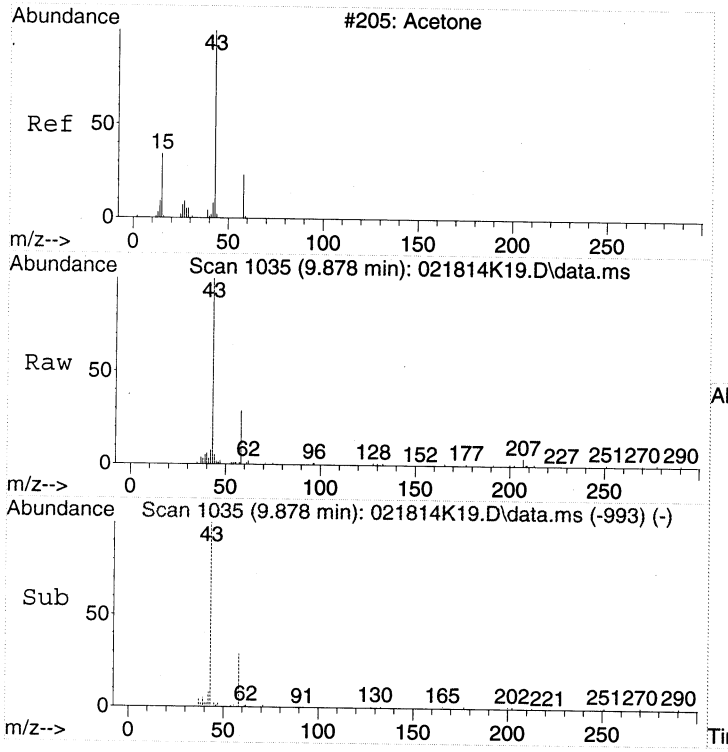


#2
Propene
Concen: 1.20 ppbv
RT: 4.372 min Scan# 130
Delta R.T. 0.006 min
Lab File: 021814K19.D
Acq: 19 Feb 2014 2:41

Tgt Ion: 41 Resp: 28521

Ion	Ratio	Lower	Upper
41	100		
42	58.2	46.8	86.8
39	91.5	48.3	88.3#

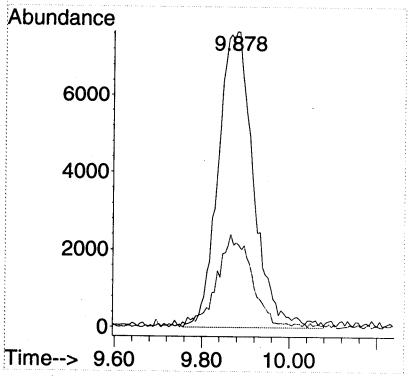


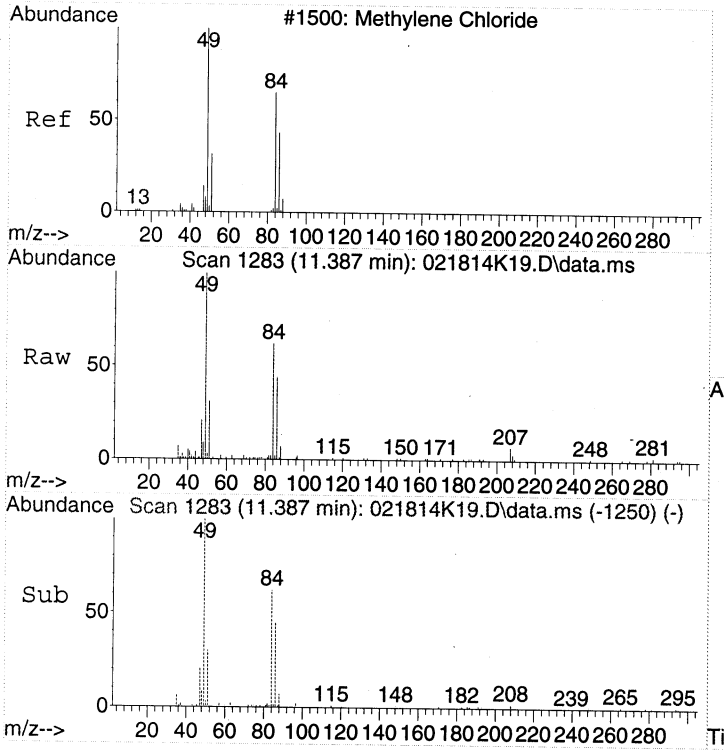


#14
Acetone
Concen: 1.12 ppbv
RT: 9.878 min Scan# 1035
Delta R.T. 0.055 min
Lab File: 021814K19.D
Acq: 19 Feb 2014 2:41

Tgt Ion: 43 Resp: 42890

Ion	Ratio	Lower	Upper
43	100		
58	31.6	12.5	52.5

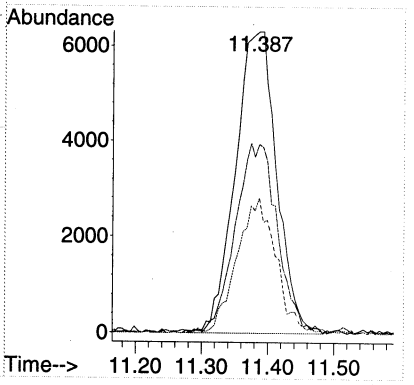


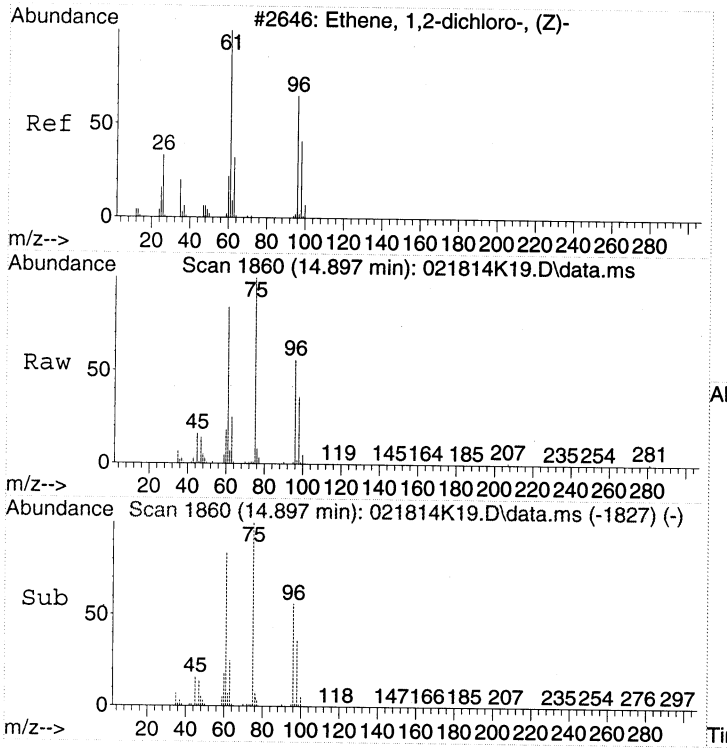


#18
Dichloromethane
Concen: 0.74 ppbv
RT: 11.387 min Scan# 1283
Delta R.T. -0.000 min
Lab File: 021814K19.D
Acq: 19 Feb 2014 2:41

Tgt Ion: 49 Resp: 27390

Ion	Ratio	Lower	Upper
49	100		
84	63.9	50.0	90.0
86	41.7	24.4	64.4

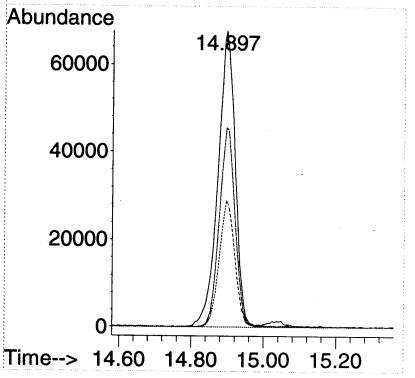


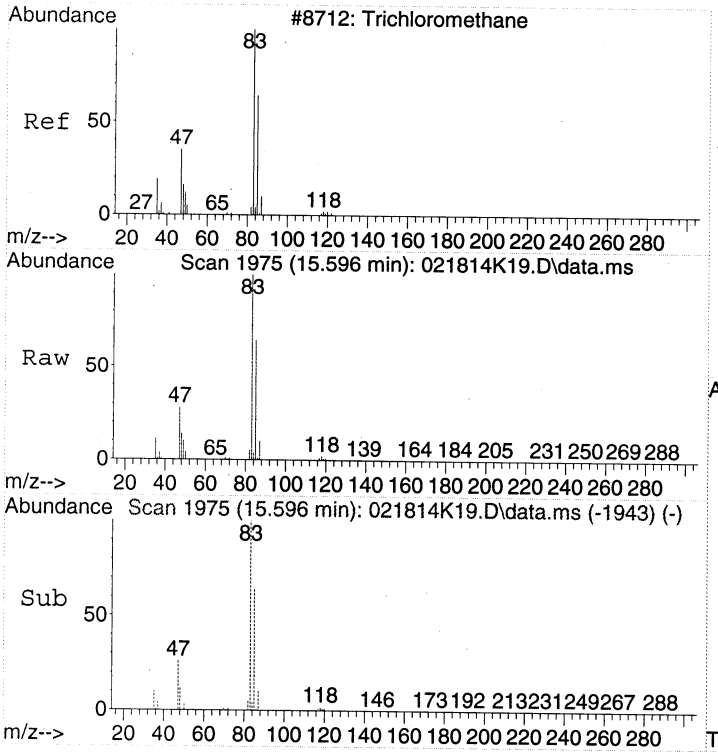


#24
cis-1,2-Dichloroethene
Concen: 6.03 ppbv
RT: 14.897 min Scan# 1860
Delta R.T. -0.000 min
Lab File: 021814K19.D
Acq: 19 Feb 2014 2:41

Tgt Ion: 61 Resp: 230155

Ion	Ratio	Lower	Upper
61	100		
96	60.7	51.7	91.7
98	38.1	25.4	65.4

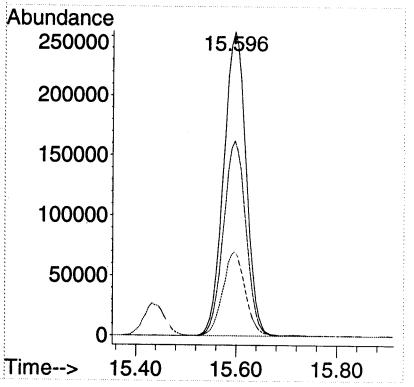


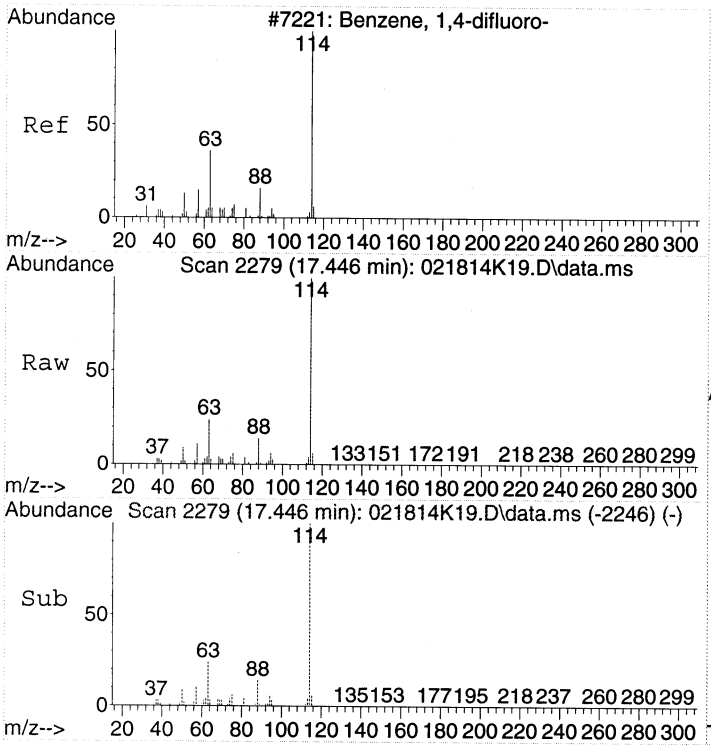


#28
Chloroform
Concen: 14.99 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 021814K19.D
Acq: 19 Feb 2014 2:41

Tgt Ion: 83 Resp: 786225

Ion	Ratio	Lower	Upper
83	100		
85	64.5	42.7	82.7
47	27.7	5.3	45.3

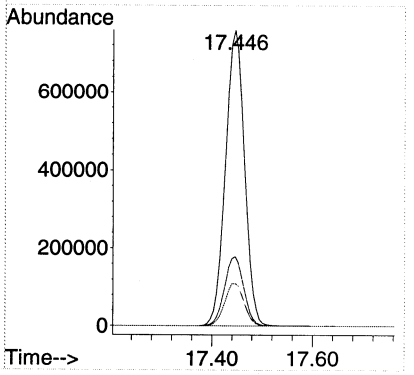


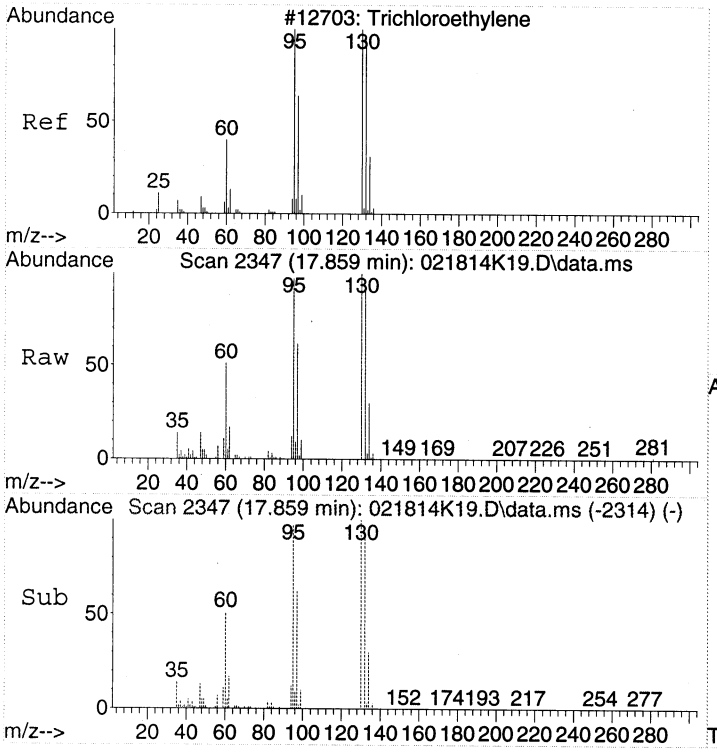


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 021814K19.D
Acq: 19 Feb 2014 2:41

Tgt Ion:114 Resp: 1997817

Ion	Ratio	Lower	Upper
114	100		
63	23.8	2.3	42.3
88	14.8	0.0	35.2

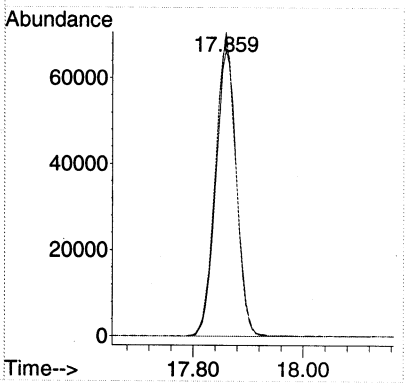


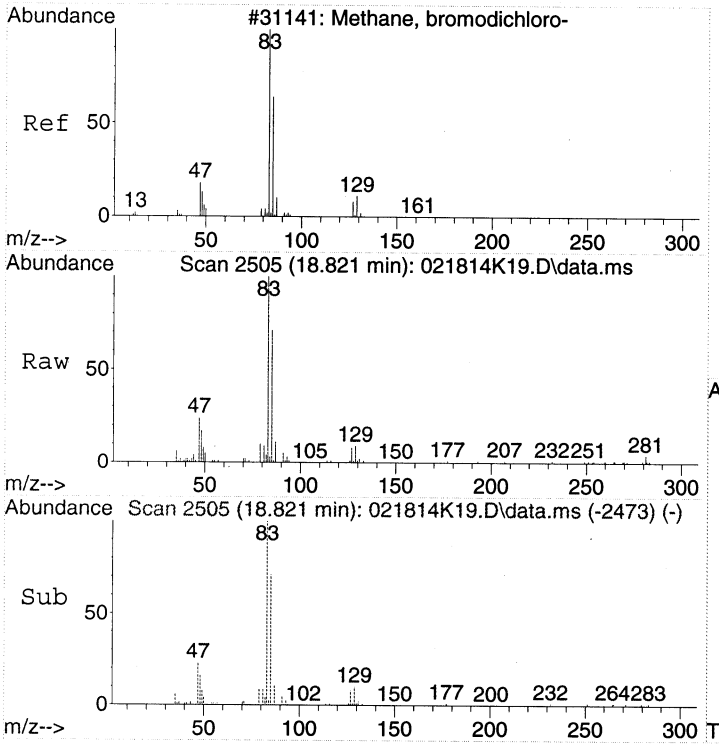


#37
Trichloroethene
Concen: 5.98 ppbv
RT: 17.859 min Scan# 2347
Delta R.T. -0.000 min
Lab File: 021814K19.D
Acq: 19 Feb 2014 2:41

Tgt Ion:130 Resp: 181819

Ion	Ratio	Lower	Upper
130	100		
132	95.5	78.9	118.9
95	99.7	82.3	122.3

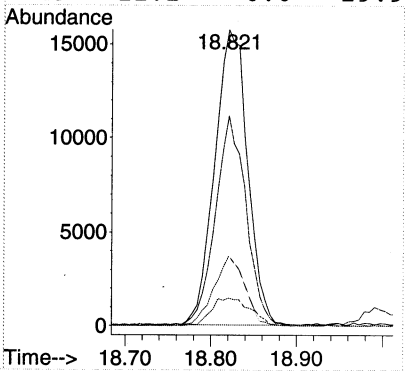


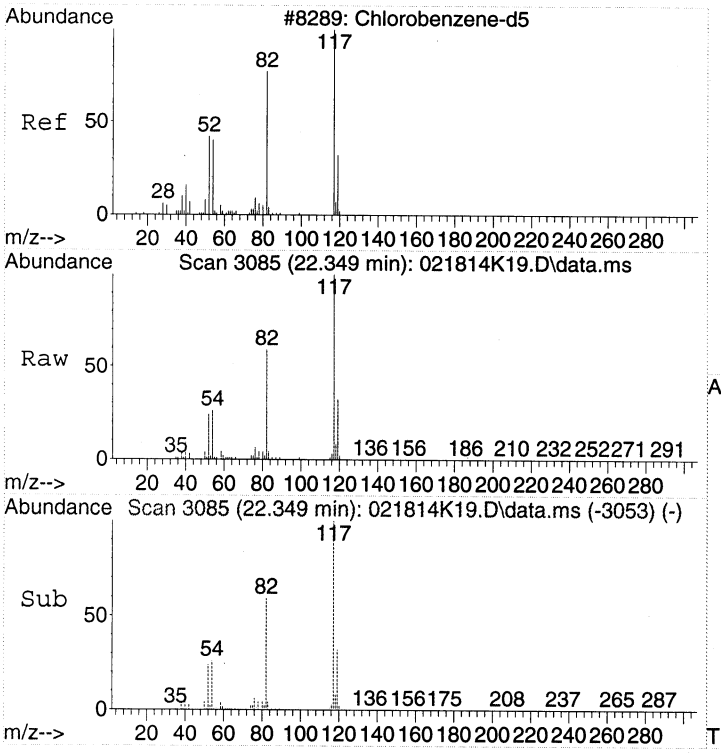


#40
Bromodichloromethane
Concen: 0.85 ppbv
RT: 18.821 min Scan# 2505
Delta R.T. -0.006 min
Lab File: 021814K19.D
Acq: 19 Feb 2014 2:41

Tgt Ion: 83 Resp: 41960

Ion	Ratio	Lower	Upper
83	100		
85	66.2	41.8	81.8
47	22.6	0.4	40.4
129	11.1	0.0	29.9

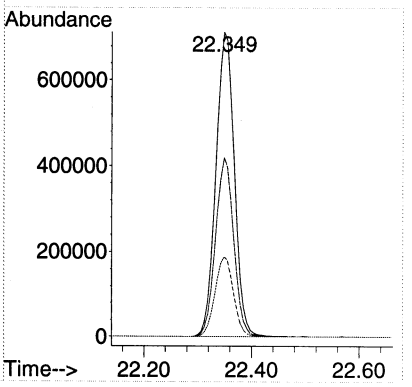


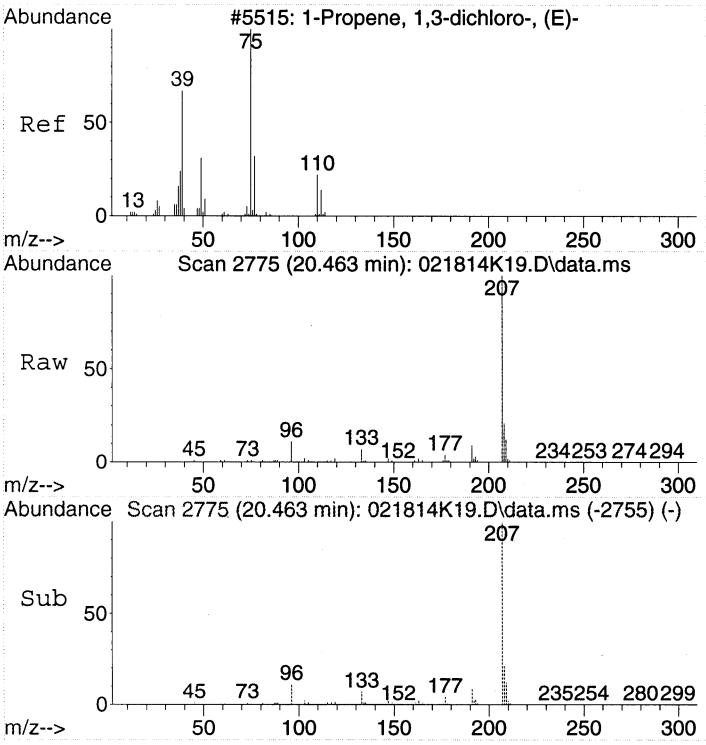


#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.349 min Scan# 3085
Delta R.T. -0.006 min
Lab File: 021814K19.D
Acq: 19 Feb 2014 2:41

Tgt Ion:117 Resp: 1703327

Ion	Ratio	Lower	Upper
117	100		
82	58.2	37.1	77.1
54	26.5	3.3	43.3

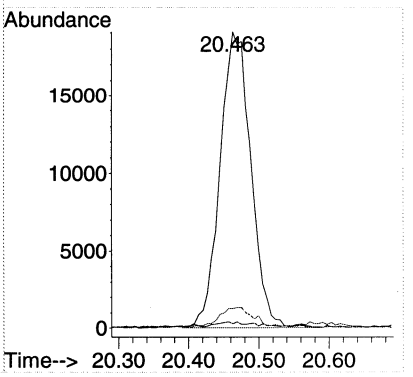


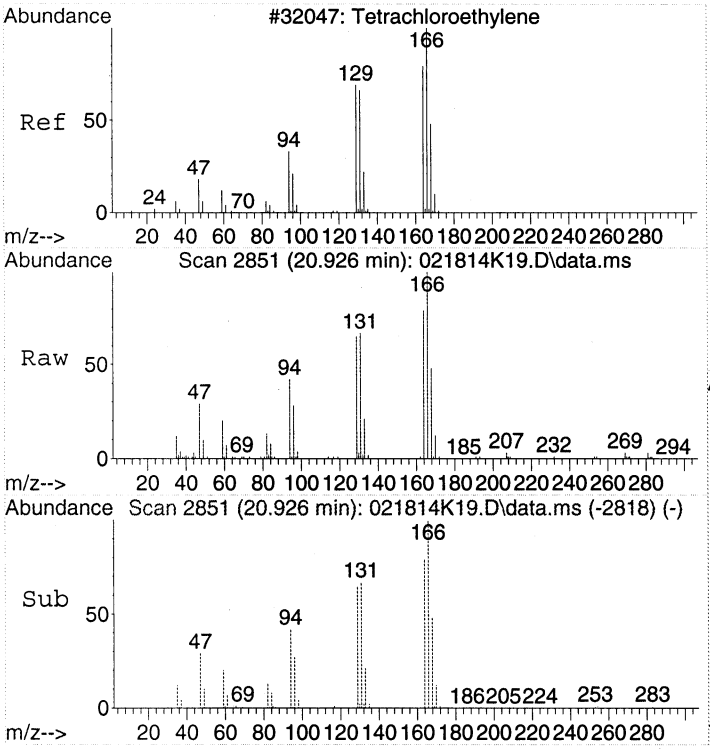


#45
trans-1,3-Dichloropropene
Concen: 1.61 ppbv
RT: 20.463 min Scan# 2775
Delta R.T. -0.079 min
Lab File: 021814K19.D
Acq: 19 Feb 2014 2:41

Tgt Ion: 75 Resp: 58235

Ion	Ratio	Lower	Upper
75	100		
39	2.2	26.3	66.3#
77	7.7	10.4	50.4#

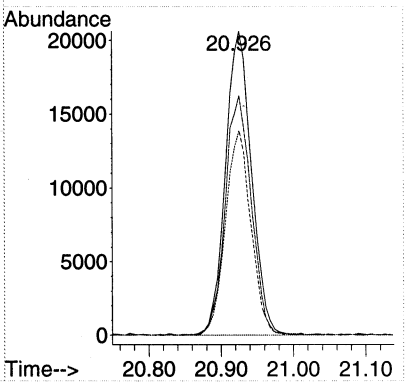




#47
Tetrachloroethene
Concen: 1.32 ppbv
RT: 20.926 min Scan# 2851
Delta R.T. -0.000 min
Lab File: 021814K19.D
Acq: 19 Feb 2014 2:41

Tgt Ion:166 Resp: 51517

Ion	Ratio	Lower	Upper
166	100		
164	79.5	59.4	99.4
131	65.8	44.3	84.3



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K20.D
Acq On : 19 Feb 2014 3:26
Instrument: HP5973K
Operator : EM
Sample : 1402032-07RE1
Misc : 20mL MH17
ALS Vial : 41
Multiplier: 1.94

NW
lm 2/19/14

Quant Time: Feb 19 09:30:56 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) BROMOCHLOROMETHANE	15.438	49	820075	22.00 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	1970880	22.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.349	117	1673112	22.00 ppbv	0.00
Target Compounds					Qvalue
18) Dichloromethane	11.374	49	18489	0.50 ppbv	95
24) cis-1,2-Dichloroethene	14.897	61	27790	0.73 ppbv	90
28) Chloroform	15.596	83	102005	1.95 ppbv	95
37) Trichloroethene	17.853	130	23382	0.78 ppbv	95

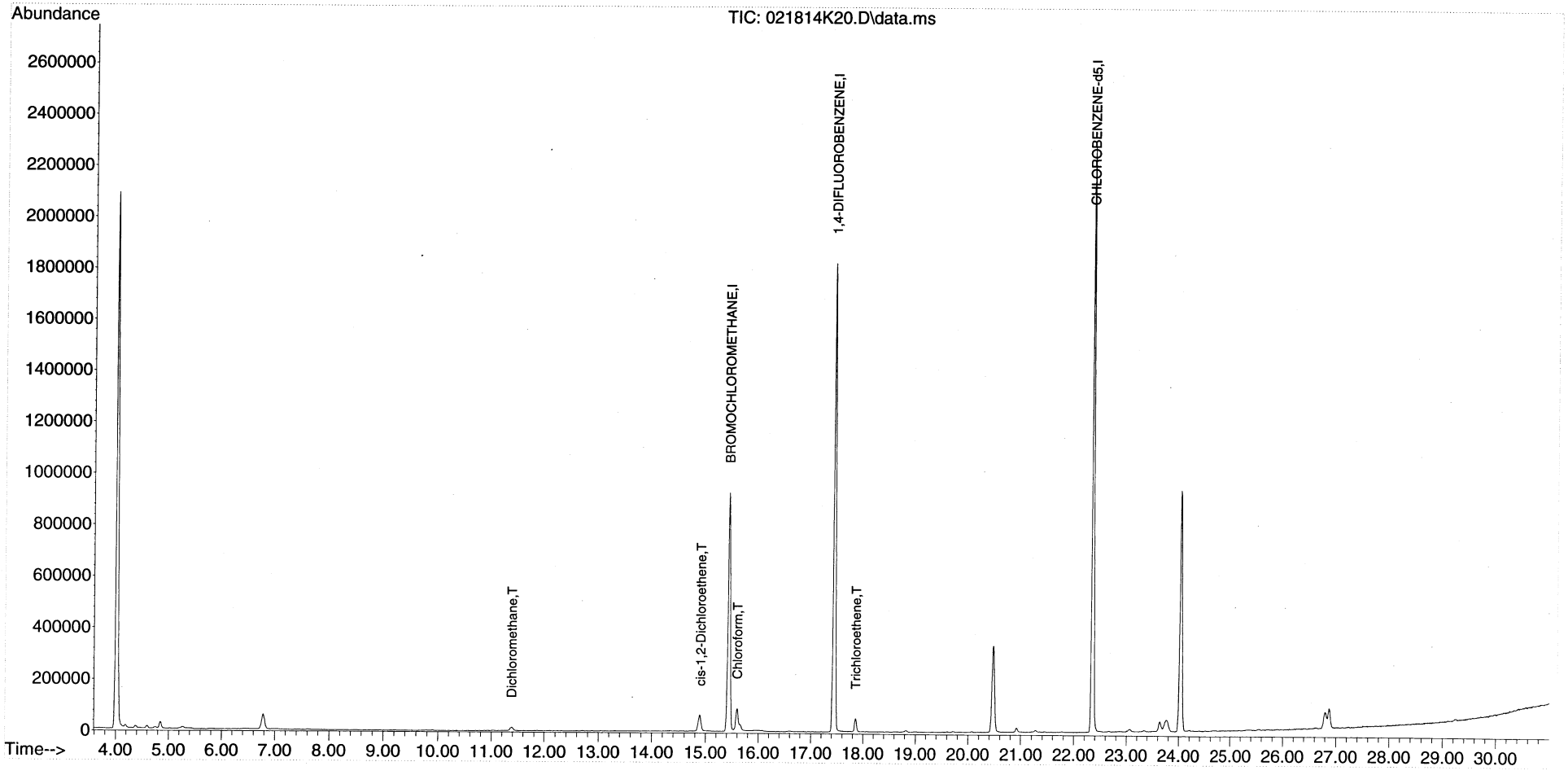
(#) = qualifier out of range (m) = manual integration (+) = signals summed

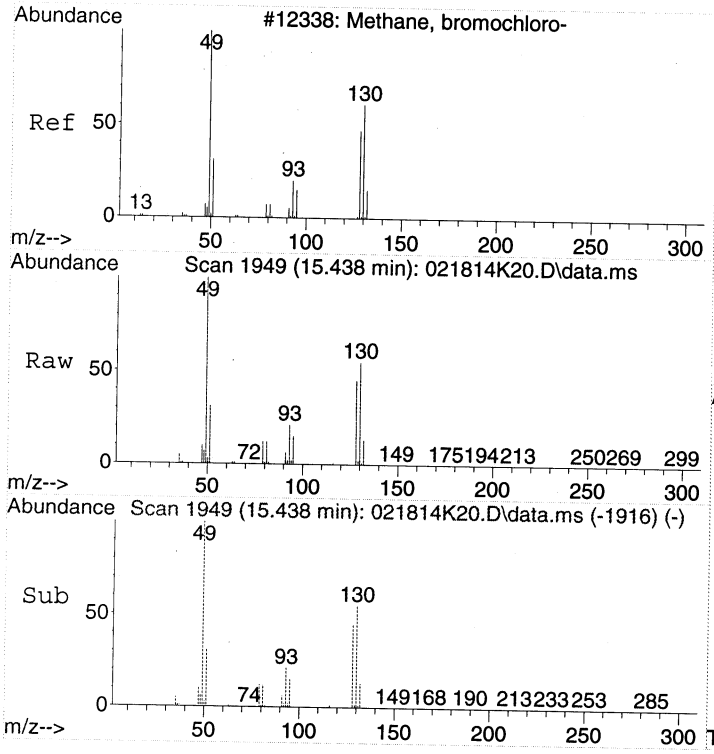
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K20.D
Acq On : 19 Feb 2014 3:26
Instrument: HP5973K
Operator : EM
Sample : 1402032-07RE1
Misc : 20mL MH17
ALS Vial : 41
Multiplier: 1.94

Quant Time: Feb 19 09:30:56 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

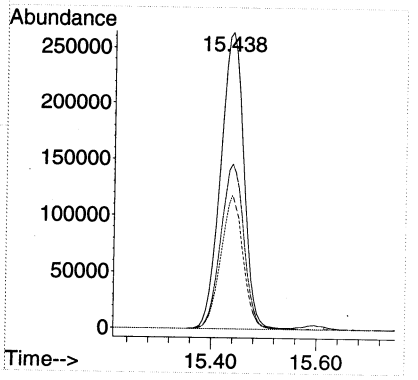


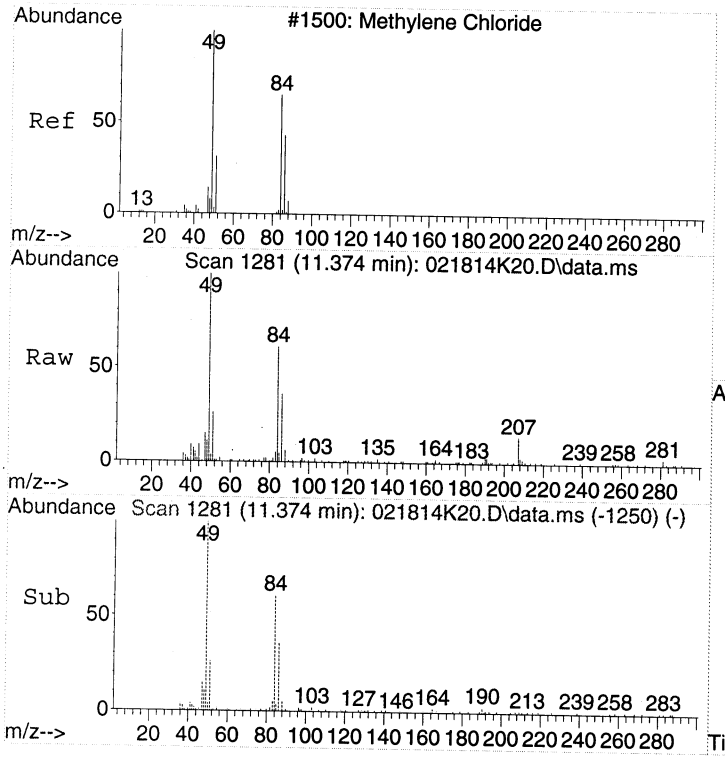


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 021814K20.D
Acq: 19 Feb 2014 3:26

Tgt Ion: 49 Resp: 820075

Ion	Ratio	Lower	Upper
49	100		
130	54.6	39.6	79.6
128	42.5	26.9	66.9

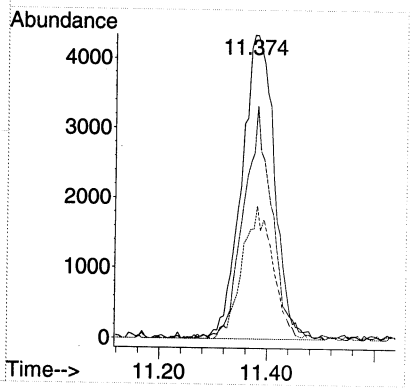


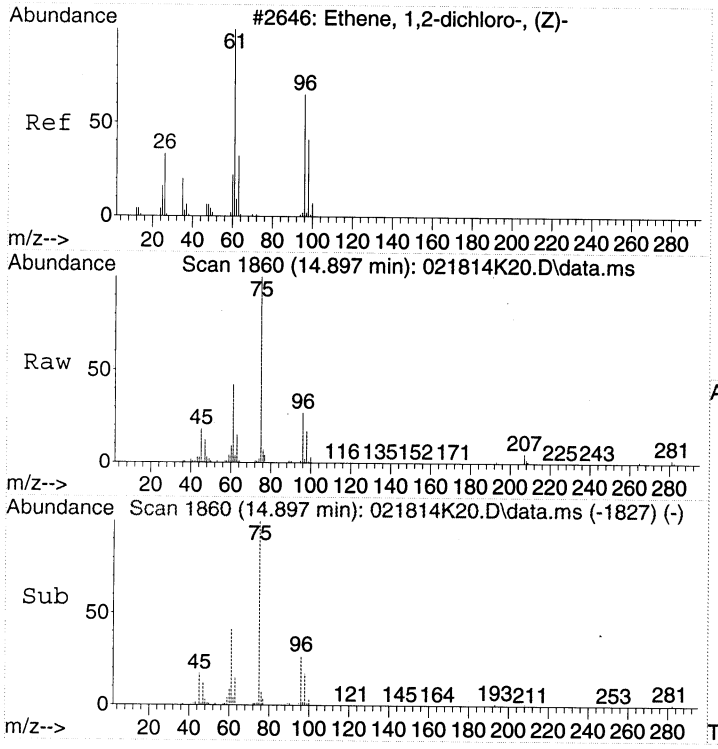


#18
Dichloromethane
Concen: 0.50 ppbv
RT: 11.374 min Scan# 1281
Delta R.T. -0.012 min
Lab File: 021814K20.D
Acq: 19 Feb 2014 3:26

Tgt Ion: 49 Resp: 18489

Ion	Ratio	Lower	Upper
49	100		
84	66.1	50.0	90.0
86	40.7	24.4	64.4

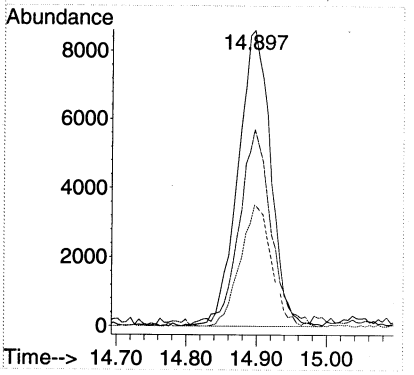


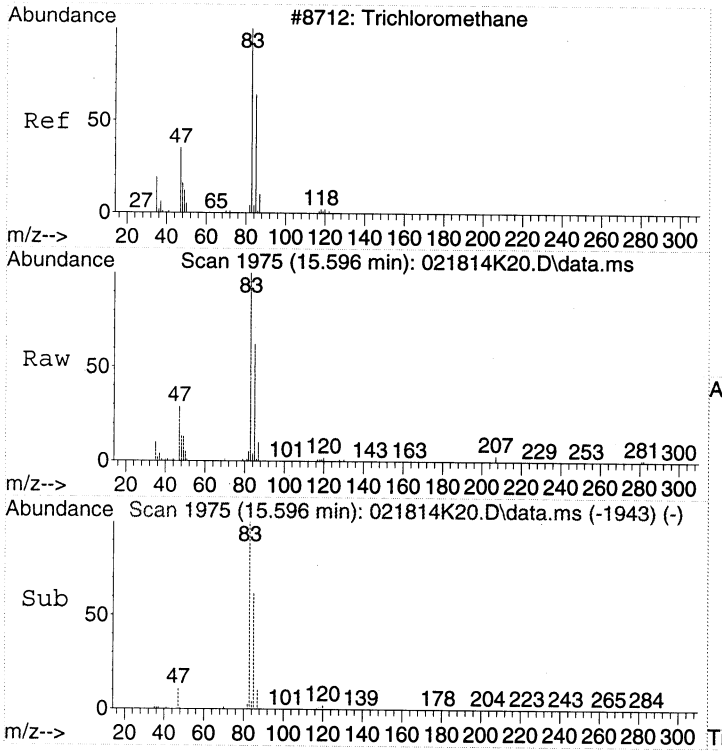


#24
cis-1,2-Dichloroethene
Concen: 0.73 ppbv
RT: 14.897 min Scan# 1860
Delta R.T. -0.000 min
Lab File: 021814K20.D
Acq: 19 Feb 2014 3:26

Tgt Ion: 61 Resp: 27790

Ion	Ratio	Lower	Upper
61	100		
96	63.9	51.7	91.7
98	39.0	25.4	65.4

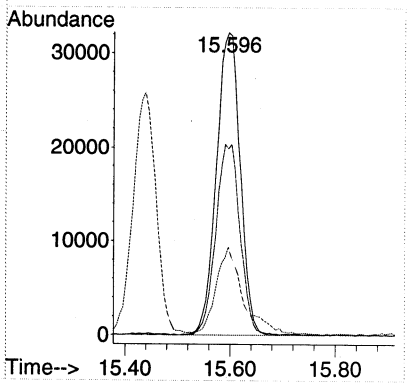


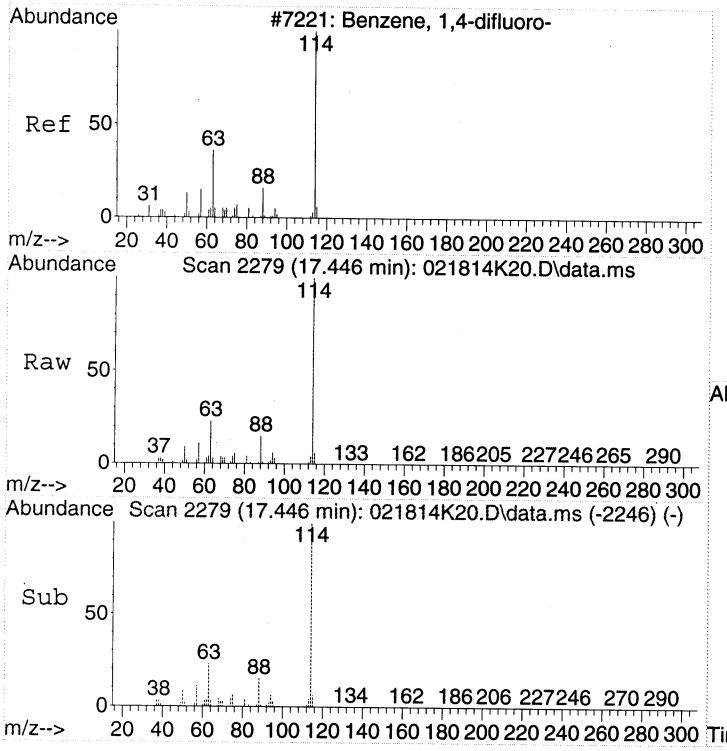


#28
Chloroform
Concen: 1.95 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 021814K20.D
Acq: 19 Feb 2014 3:26

Tgt Ion: 83 Resp: 102005

Ion	Ratio	Lower	Upper
83	100		
85	64.5	42.7	82.7
47	31.3	5.3	45.3

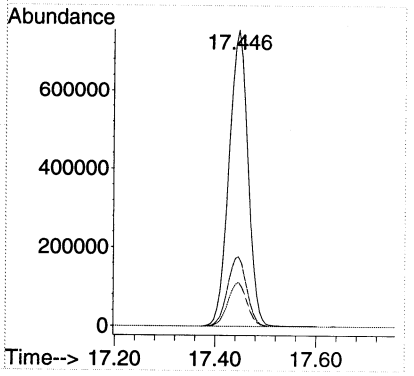


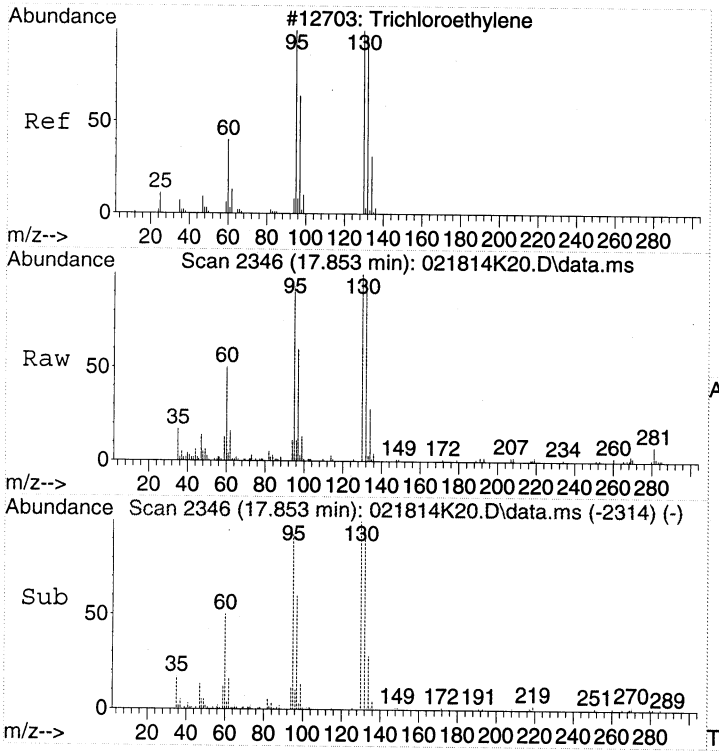


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 021814K20.D
Acq: 19 Feb 2014 3:26

Tgt Ion:114 Resp: 1970880

Ion	Ratio	Lower	Upper
114	100		
63	23.8	2.3	42.3
88	14.8	0.0	35.2

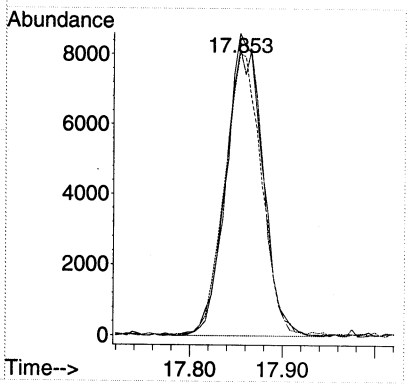


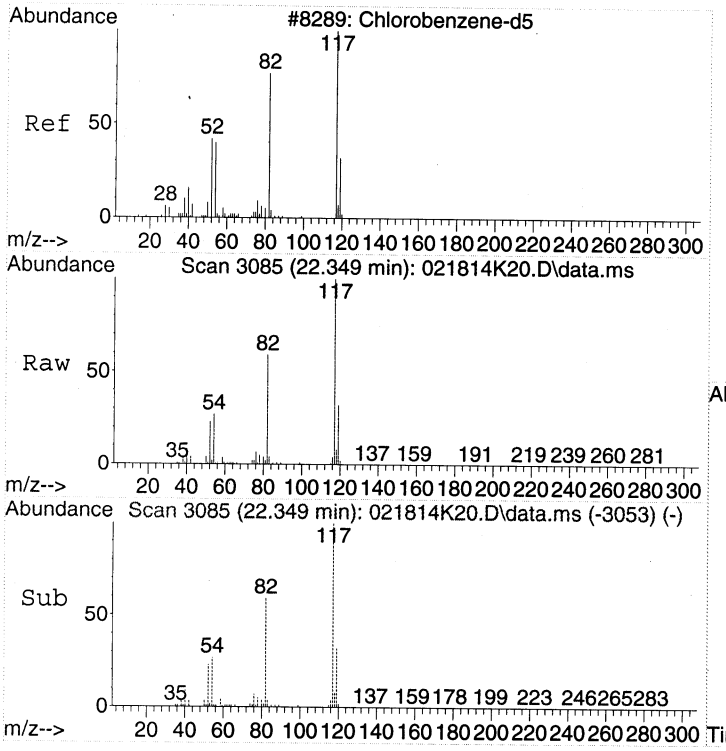


#37
Trichloroethene
Concen: 0.78 ppbv
RT: 17.853 min Scan# 2346
Delta R.T. -0.006 min
Lab File: 021814K20.D
Acq: 19 Feb 2014 3:26

Tgt Ion:130 Resp: 23382

Ion	Ratio	Lower	Upper
130	100		
132	97.2	78.9	118.9
95	94.7	82.3	122.3

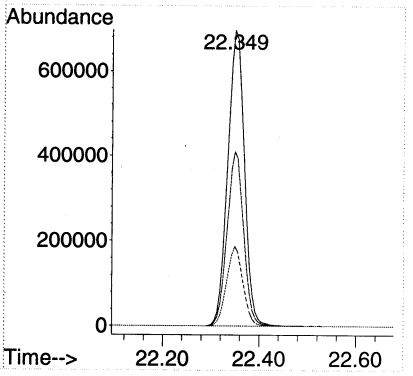




#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.349 min Scan# 3085
Delta R.T. -0.006 min
Lab File: 021814K20.D
Acq: 19 Feb 2014 3:26

Tgt Ion:117 Resp: 1673112

Ion	Ratio	Lower	Upper
117	100		
82	58.2	37.1	77.1
54	26.4	3.3	43.3



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K21.D
Acq On : 19 Feb 2014 4:14
Instrument: HP5973K
Operator : EM
Sample : 1402032-08
Misc : 200mL MH18
ALS Vial : 42
Multiplier: 1.94

Quant Time: Feb 19 09:31:01 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.438	49	814310	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	1942352	22.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.349	117	1642525	22.00	ppbv	0.00
Target Compounds						Qvalue
2) Propene	4.372	41	26368	1.12	ppbv #	76
14) Acetone	9.860	43	53176	1.39	ppbv	97
18) Dichloromethane	11.380	49	35086	0.96	ppbv	93
20) trans-1,2-Dichloroethene	12.104	61	56628	1.63	ppbv	95
24) cis-1,2-Dichloroethene	14.897	61	671223	17.73	ppbv	93
28) Chloroform	15.596	83	1441903	27.70	ppbv E	97
37) Trichloroethene	17.859	130	1600674	54.12	ppbv E	98
40) Bromodichloromethane	18.821	83	66025	1.38	ppbv	95
45) trans-1,3-Dichloropropene	20.469	75	26449	0.76	ppbv #	42
47) Tetrachloroethene	20.926	166	1431691	38.14	ppbv E	99

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

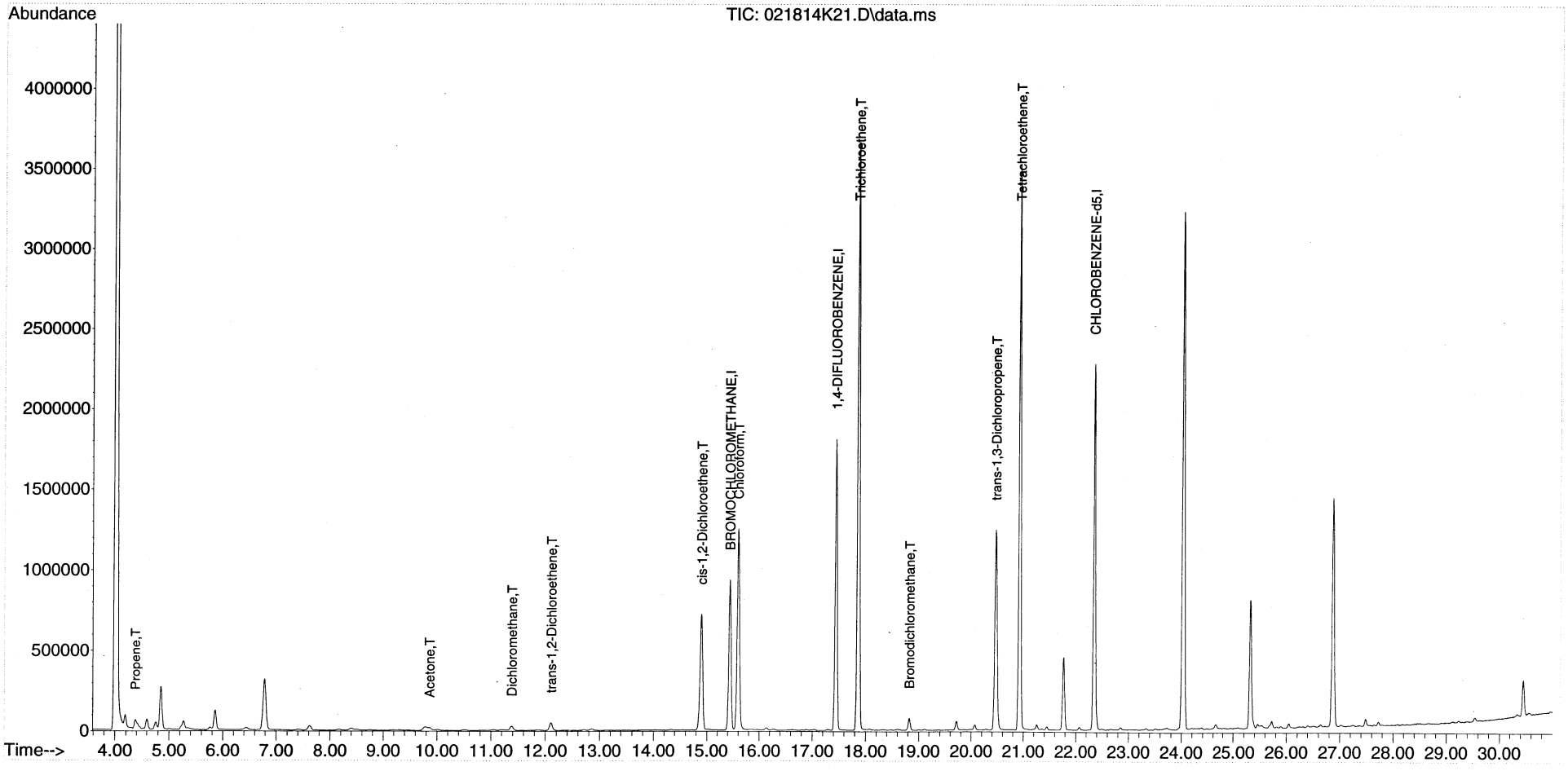
00271

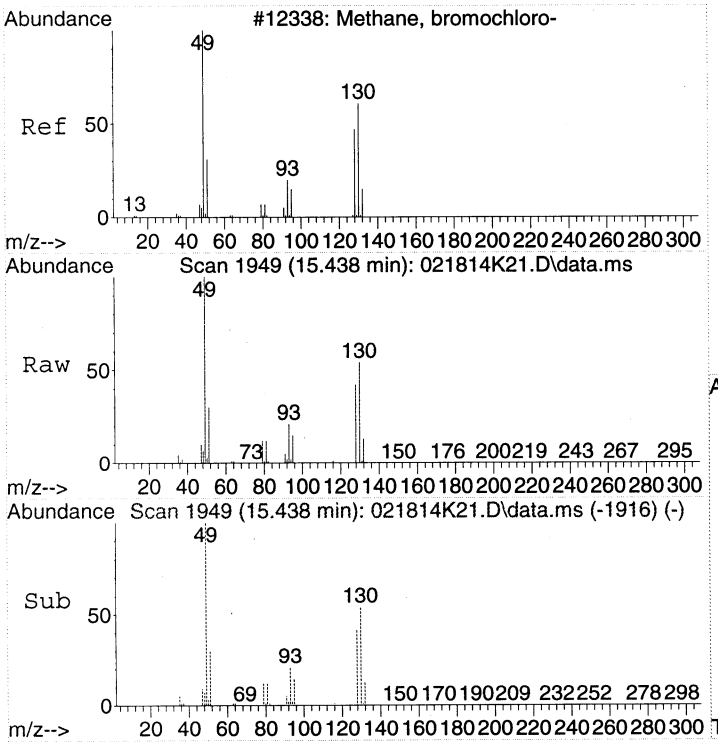
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K21.D
Acq On : 19 Feb 2014 4:14
Instrument: HP5973K
Operator : EM
Sample : 1402032-08
Misc : 200mL MH18
ALS Vial : 42
Multiplier: 1.94

Quant Time: Feb 19 09:31:01 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

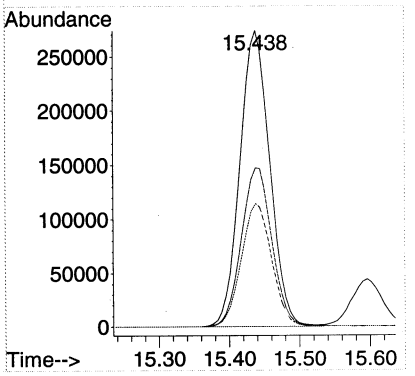


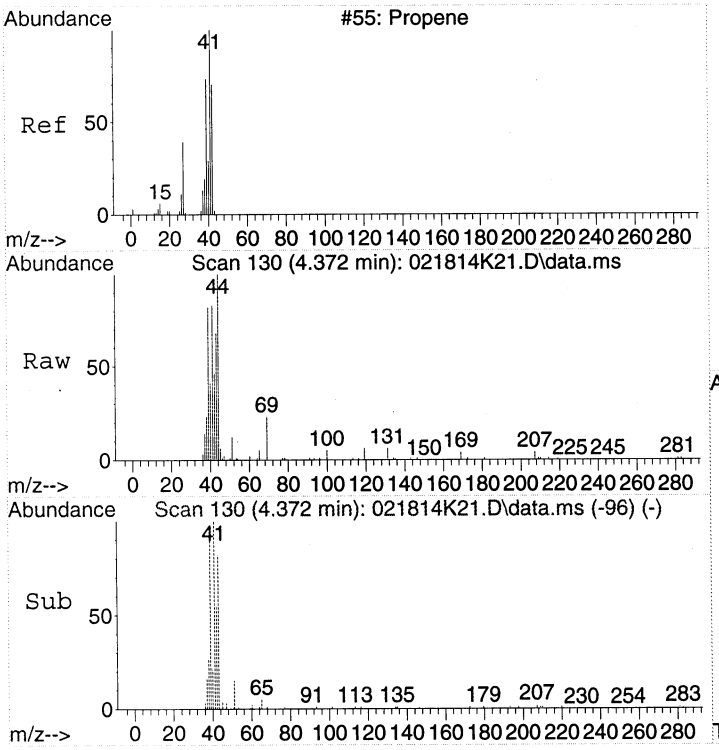


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 021814K21.D
Acq: 19 Feb 2014 4:14

Tgt Ion: 49 Resp: 814310

Ion	Ratio	Lower	Upper
49	100		
130	54.9	39.6	79.6
128	42.4	26.9	66.9

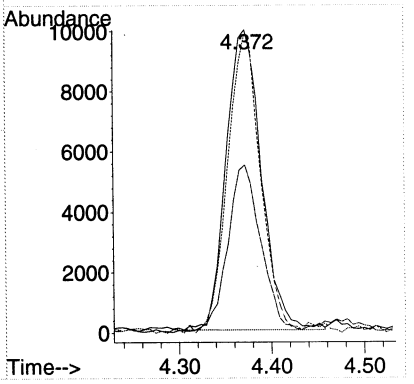


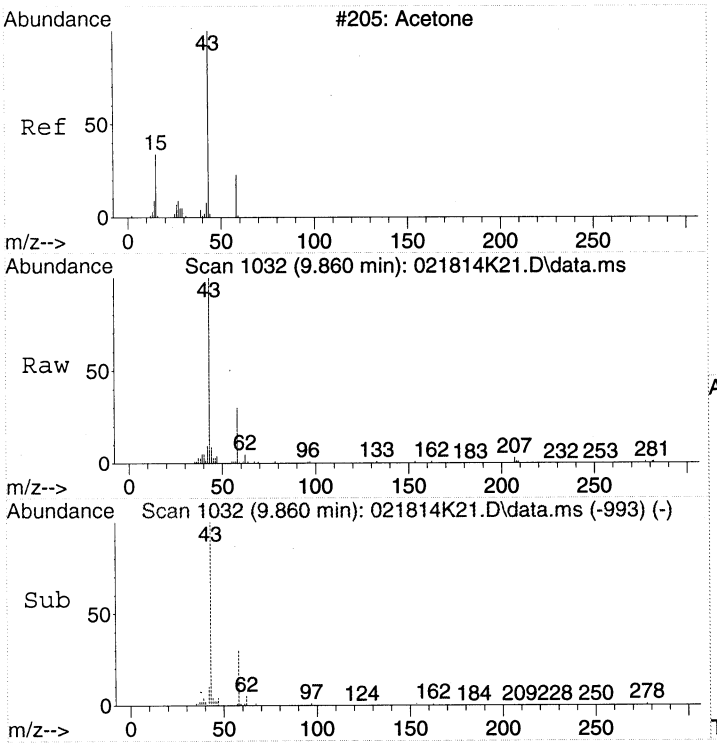


#2
Propene
Concen: 1.12 ppbv
RT: 4.372 min Scan# 130
Delta R.T. 0.006 min
Lab File: 021814K21.D
Acq: 19 Feb 2014 4:14

Tgt Ion: 41 Resp: 26368

Ion	Ratio	Lower	Upper
41	100		
42	53.0	46.8	86.8
39	93.7	48.3	88.3#

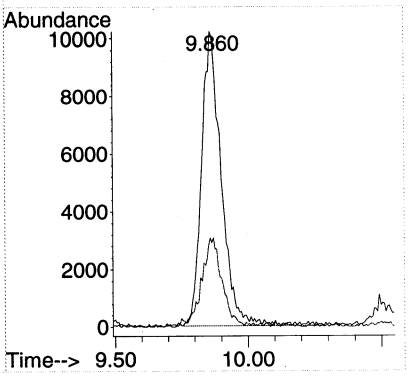


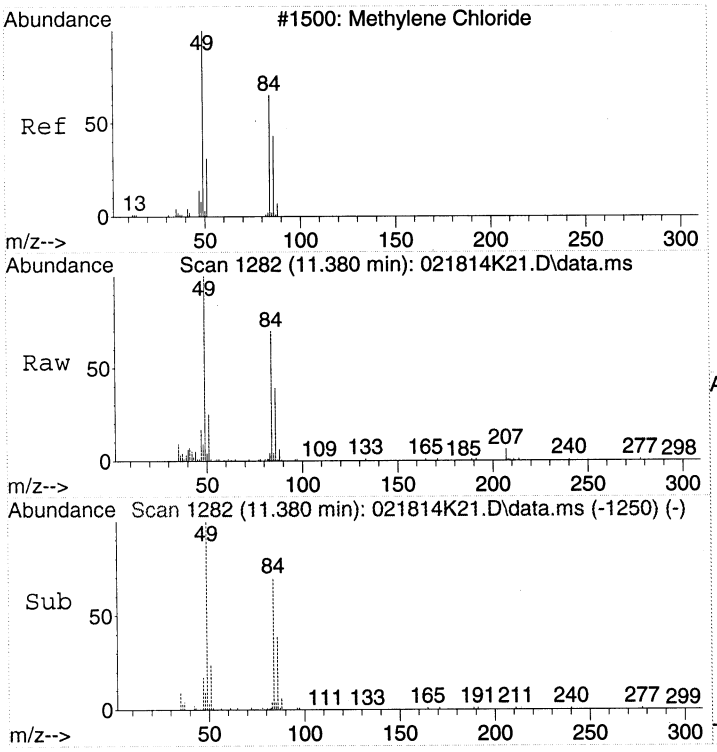


#14
Acetone
Concen: 1.39 ppbv
RT: 9.860 min Scan# 1032
Delta R.T. 0.036 min
Lab File: 021814K21.D
Acq: 19 Feb 2014 4:14

Tgt Ion: 43 Resp: 53176

Ion	Ratio	Lower	Upper
43	100		
58	31.1	12.5	52.5

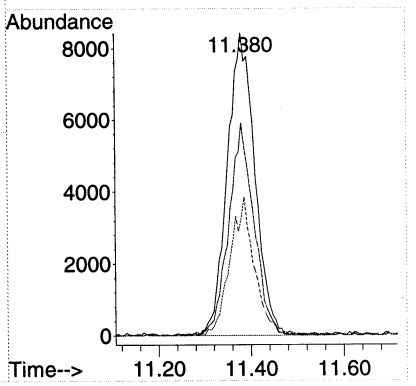


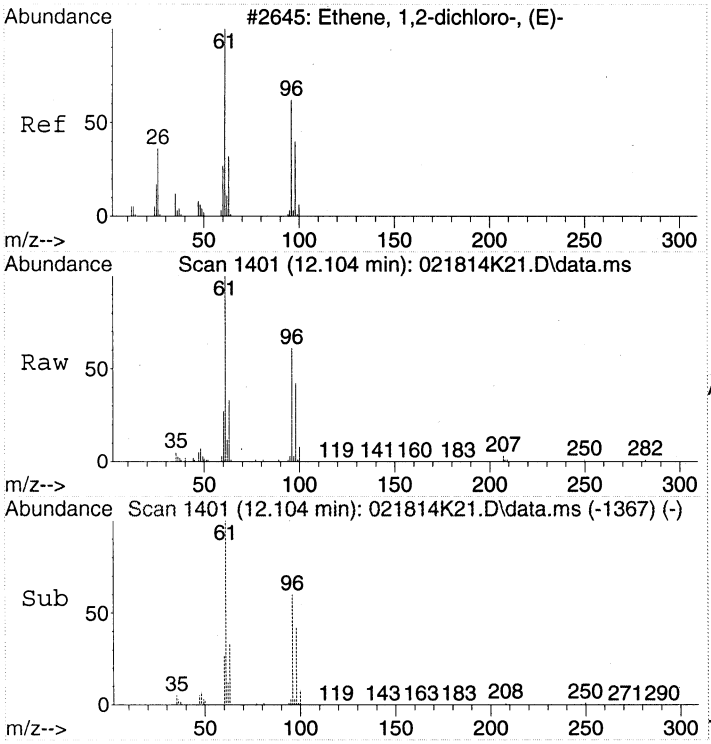


#18
Dichloromethane
Concen: 0.96 ppbv
RT: 11.380 min Scan# 1282
Delta R.T. -0.006 min
Lab File: 021814K21.D
Acq: 19 Feb 2014 4:14

Tgt Ion: 49 Resp: 35086

Ion	Ratio	Lower	Upper
49	100		
84	64.1	50.0	90.0
86	40.2	24.4	64.4

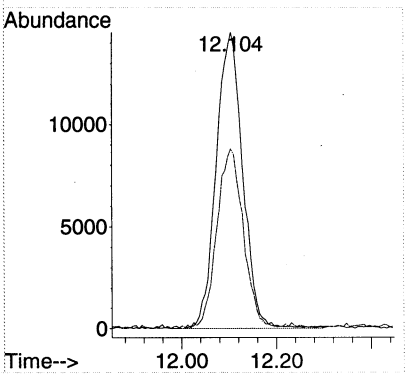


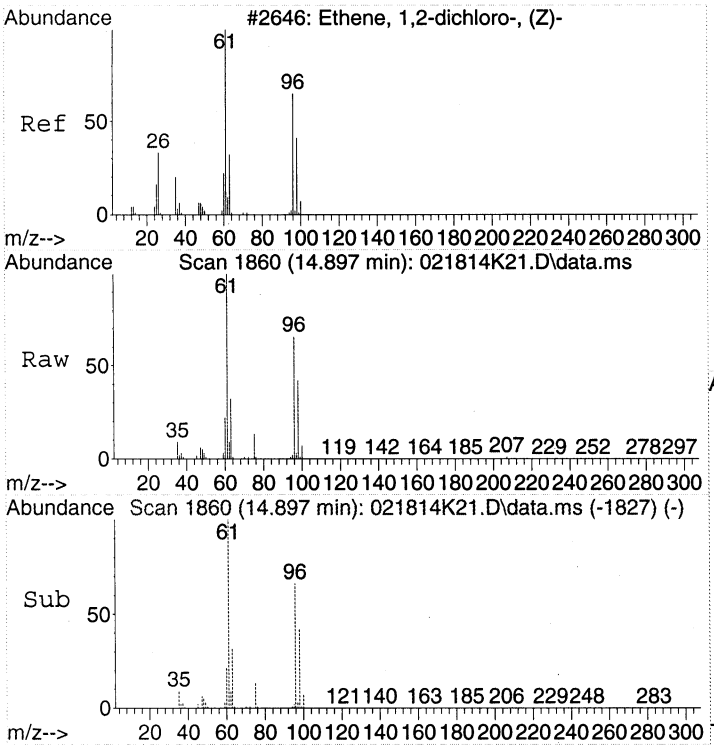


#20
trans-1,2-Dichloroethene
Concen: 1.63 ppbv
RT: 12.104 min Scan# 1401
Delta R.T. 0.006 min
Lab File: 021814K21.D
Acq: 19 Feb 2014 4:14

Tgt Ion: 61 Resp: 56628

Ion	Ratio	Lower	Upper
61	100		
96	61.2	45.4	85.4

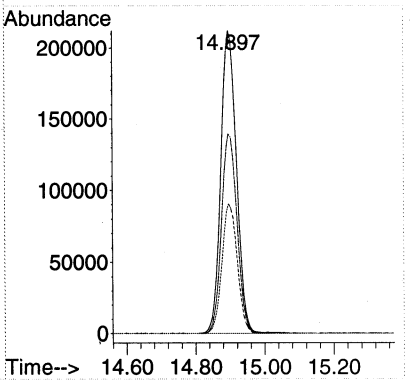


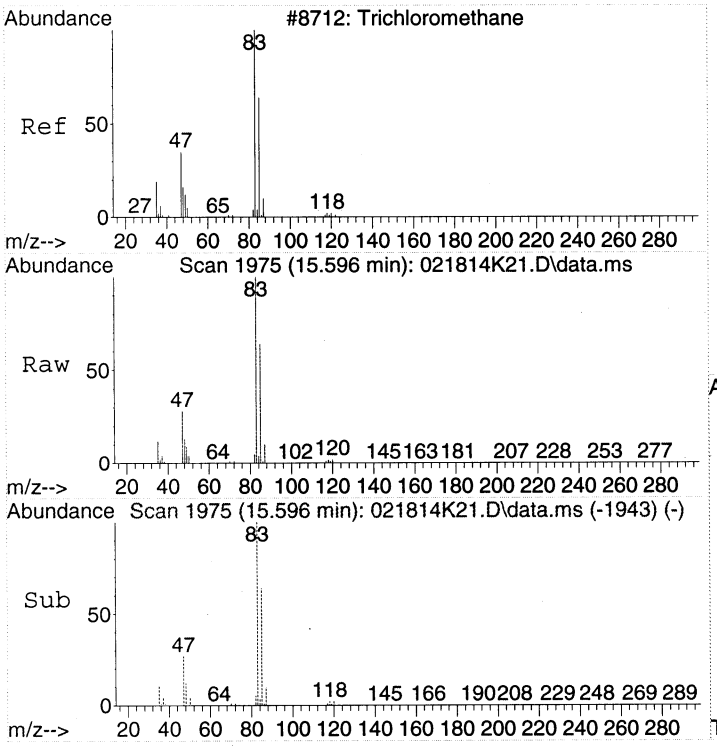


#24
cis-1,2-Dichloroethene
Concen: 17.73 ppbv
RT: 14.897 min Scan# 1860
Delta R.T. -0.000 min
Lab File: 021814K21.D
Acq: 19 Feb 2014 4:14

Tgt Ion: 61 Resp: 671223

Ion	Ratio	Lower	Upper
61	100		
96	65.5	51.7	91.7
98	42.0	25.4	65.4

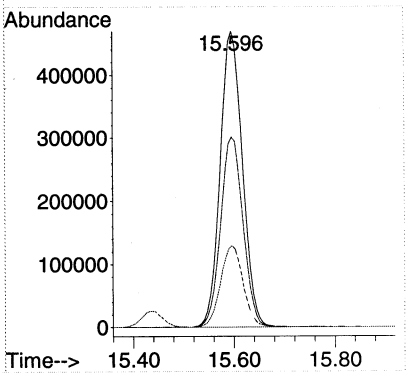


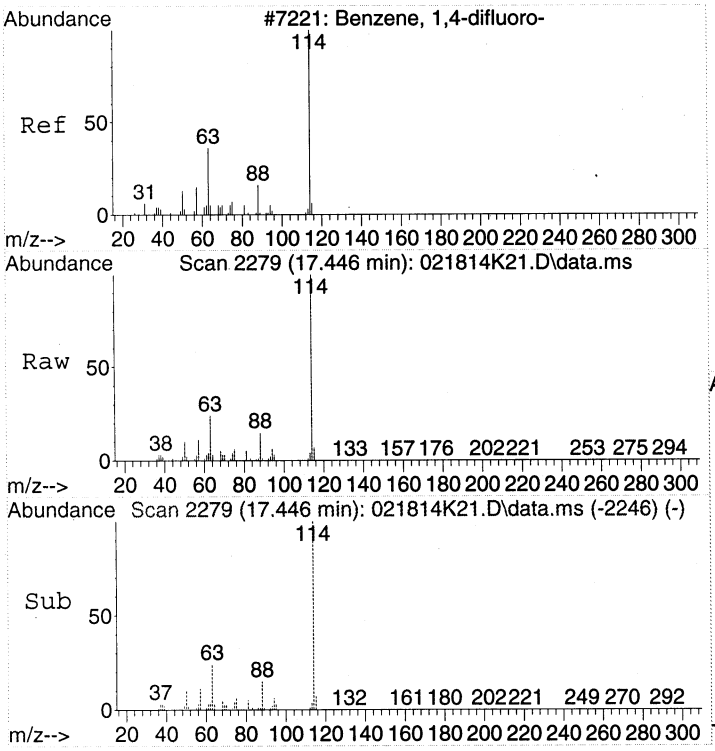


#28
Chloroform
Concen: 27.70 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 021814K21.D
Acq: 19 Feb 2014 4:14

Tgt Ion: 83 Resp: 1441903

Ion	Ratio	Lower	Upper
83	100		
85	64.7	42.7	82.7
47	28.0	5.3	45.3

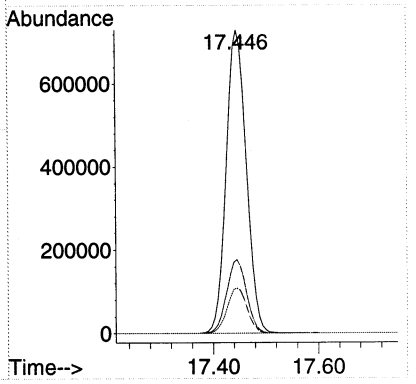


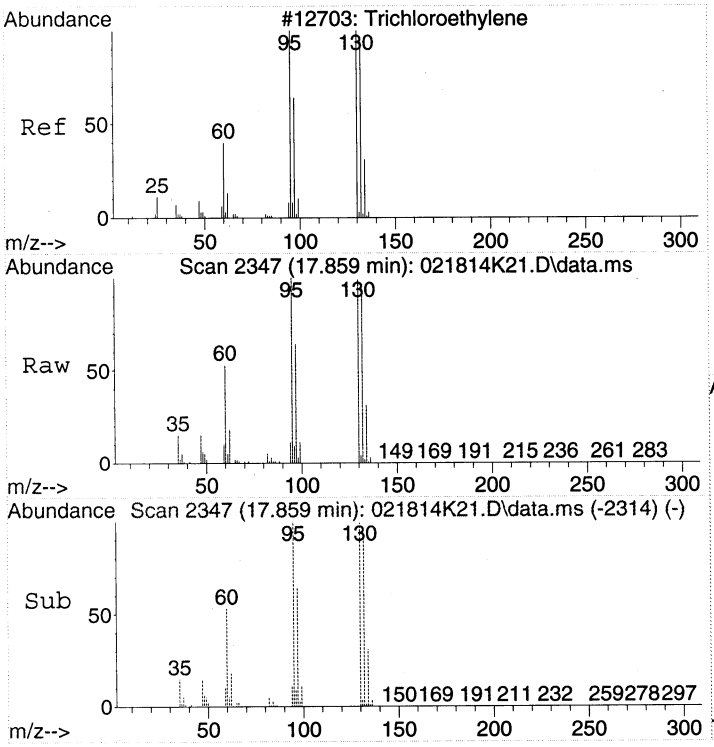


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 021814K21.D
Acq: 19 Feb 2014 4:14

Tgt Ion:114 Resp: 1942352

Ion	Ratio	Lower	Upper
114	100		
63	24.0	2.3	42.3
88	14.9	0.0	35.2

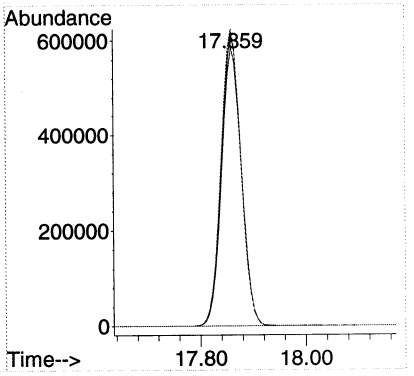


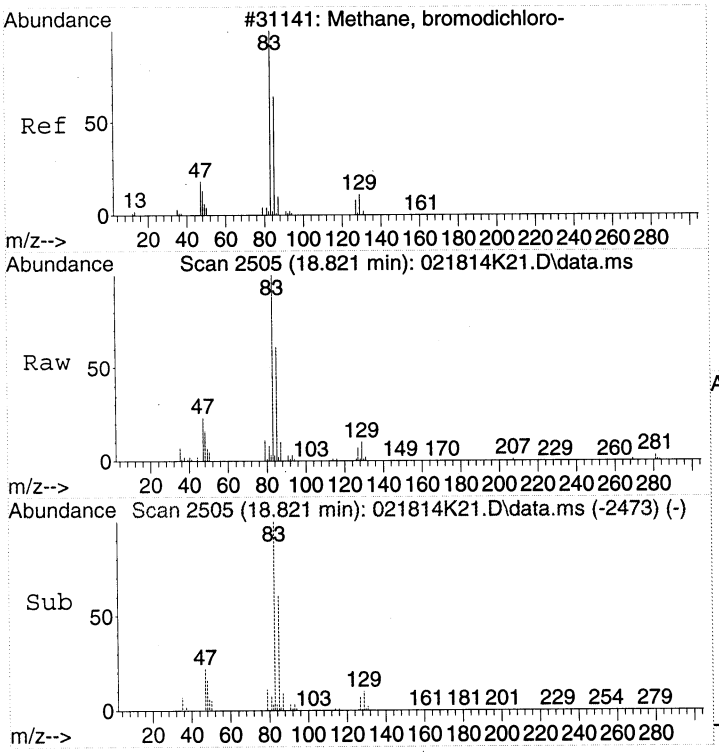


#37
Trichloroethene
Concen: 54.12 ppbv
RT: 17.859 min Scan# 2347
Delta R.T. -0.000 min
Lab File: 021814K21.D
Acq: 19 Feb 2014 4:14

Tgt Ion:130 Resp: 1600674

Ion	Ratio	Lower	Upper
130	100		
132	96.0	78.9	118.9
95	101.9	82.3	122.3

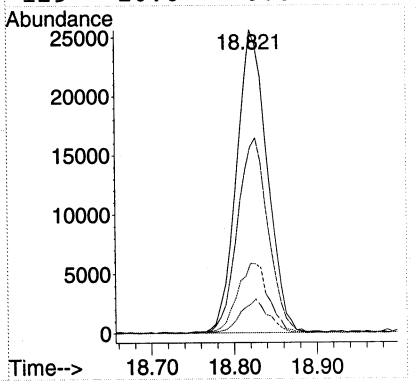




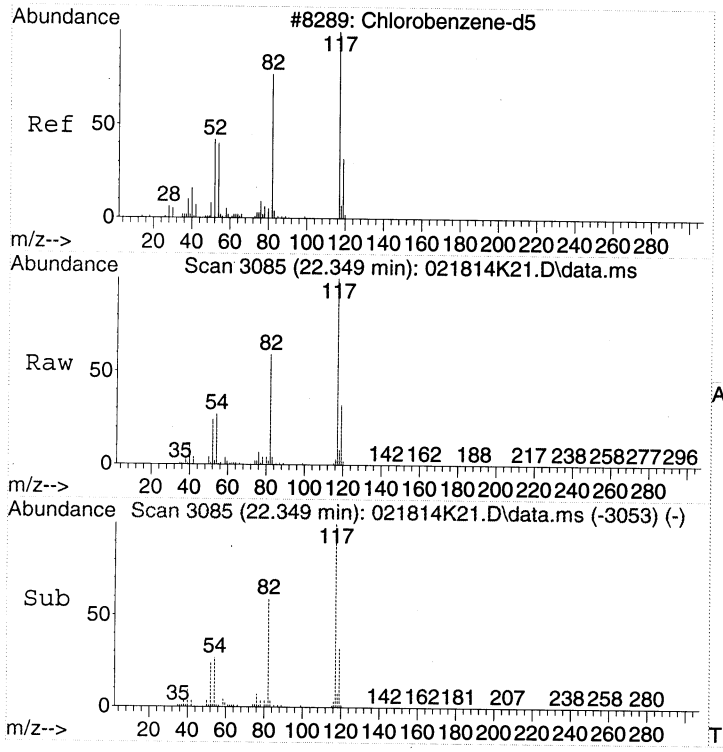
#40
Bromodichloromethane
Concen: 1.38 ppbv
RT: 18.821 min Scan# 2505
Delta R.T. -0.006 min
Lab File: 021814K21.D
Acq: 19 Feb 2014 4:14

Tgt Ion: 83 Resp: 66025

Ion	Ratio	Lower	Upper
83	100		
85	65.2	41.8	81.8
47	23.5	0.4	40.4
129	10.6	0.0	29.9



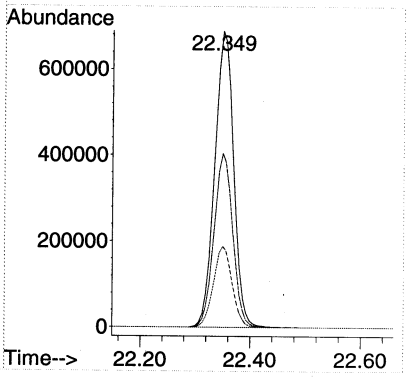
00277

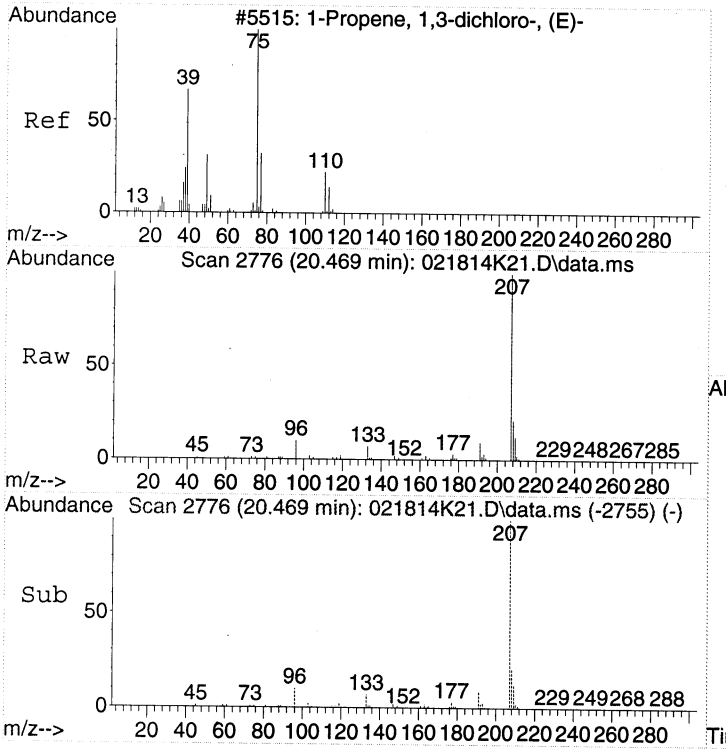


#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.349 min Scan# 3085
Delta R.T. -0.006 min
Lab File: 021814K21.D
Acq: 19 Feb 2014 4:14

Tgt Ion:117 Resp: 1642525

Ion	Ratio	Lower	Upper
117	100		
82	58.4	37.1	77.1
54	27.1	3.3	43.3

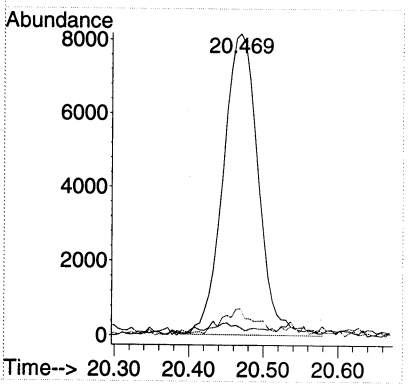


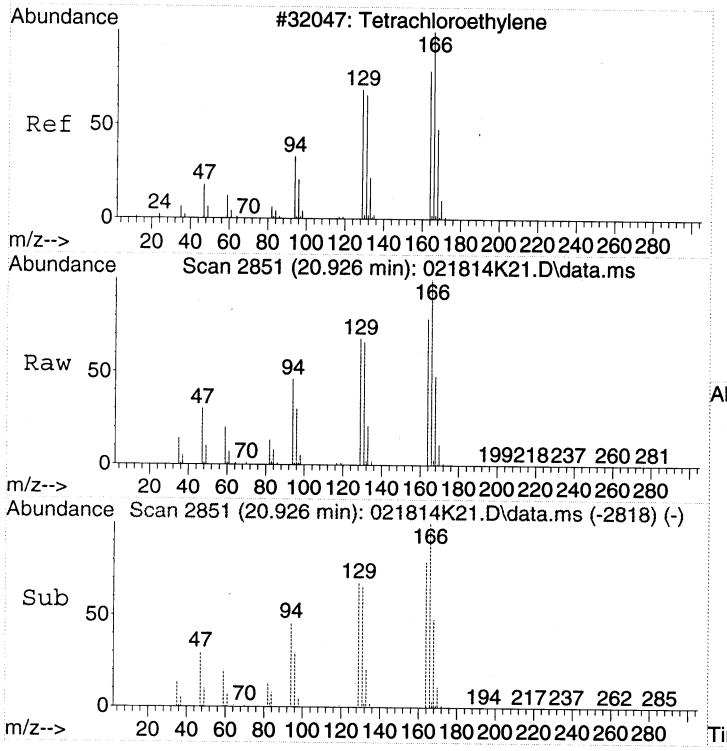


#45
trans-1,3-Dichloropropene
Concen: 0.76 ppbv
RT: 20.469 min Scan# 2776
Delta R.T. -0.073 min
Lab File: 021814K21.D
Acq: 19 Feb 2014 4:14

Tgt Ion: 75 Resp: 26449

Ion	Ratio	Lower	Upper
75	100		
39	0.0	26.3	66.3#
77	8.9	10.4	50.4#

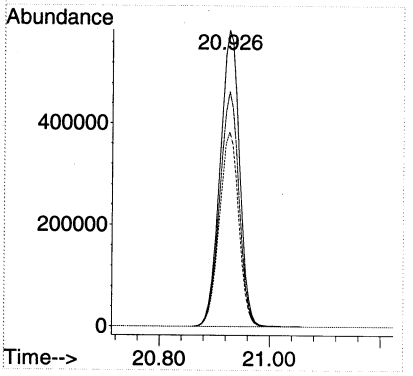




#47
Tetrachloroethene
Concen: 38.14 ppbv
RT: 20.926 min Scan# 2851
Delta R.T. -0.000 min
Lab File: 021814K21.D
Acq: 19 Feb 2014 4:14

Tgt Ion:166 Resp: 1431691

Ion	Ratio	Lower	Upper
166	100		
164	78.6	59.4	99.4
131	65.3	44.3	84.3



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K22.D
Acq On : 19 Feb 2014 5:03
Instrument: HP5973K
Operator : EM
Sample : IBL2
Misc : IBL
ALS Vial : 43
Multiplier: 1

Quant Time: Feb 19 09:31:07 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) BROMOCHLOROMETHANE	15.438	49	814299	22.00 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	1981242	22.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.349	117	1693357	22.00 ppbv	0.00
Target Compounds					Qvalue
18) Dichloromethane	11.386	49	18815	0.51 ppbv	95

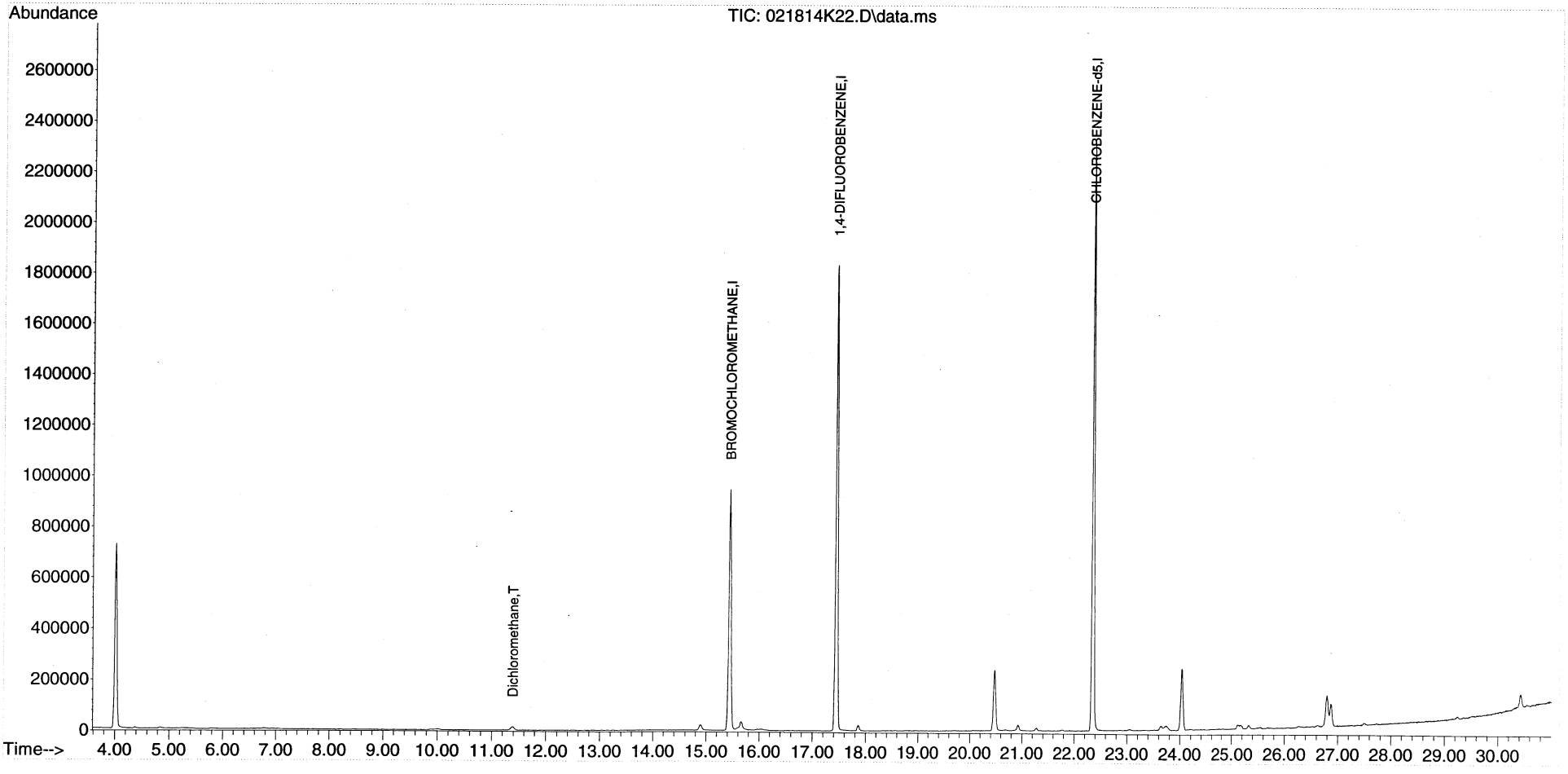
(#) = qualifier out of range (m) = manual integration (+) = signals summed

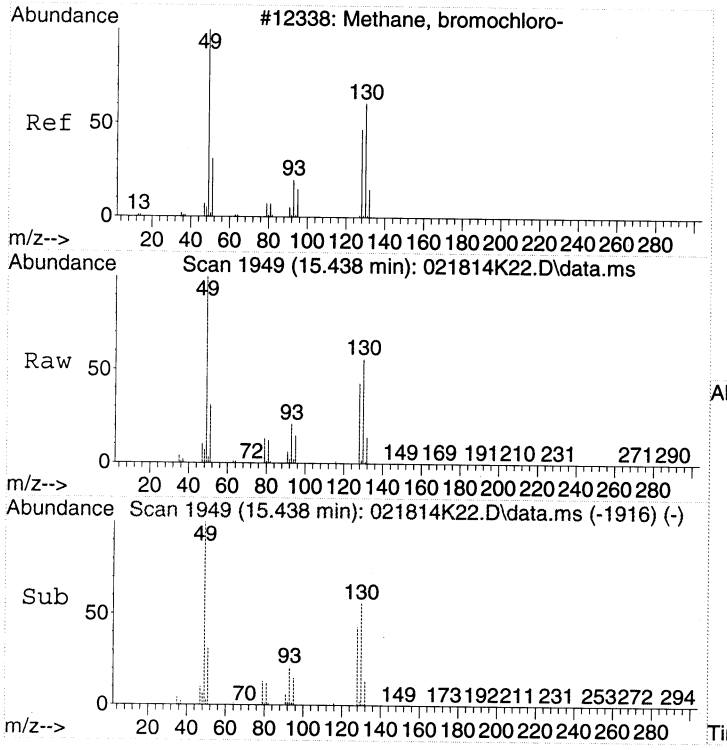
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K22.D
Acq On : 19 Feb 2014 5:03
Instrument: HP5973K
Operator : EM
Sample : IBL2
Misc : IBL
ALS Vial : 43
Multiplier: 1

Quant Time: Feb 19 09:31:07 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

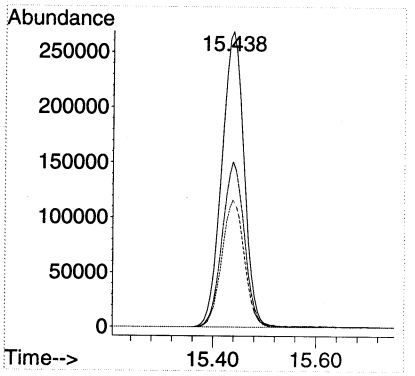


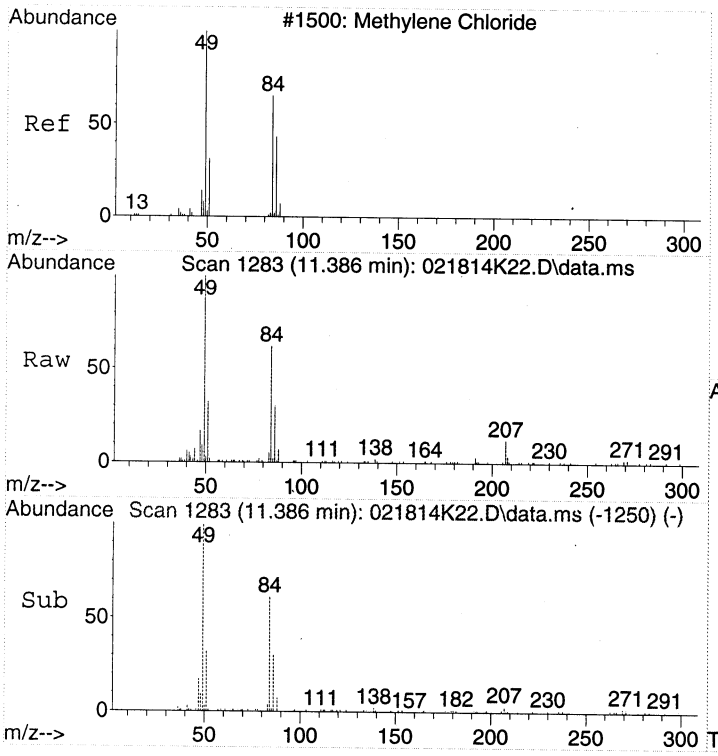


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 021814K22.D
Acq: 19 Feb 2014 5:03

Tgt Ion: 49 Resp: 814299

Ion	Ratio	Lower	Upper
49	100		
130	55.5	39.6	79.6
128	43.3	26.9	66.9

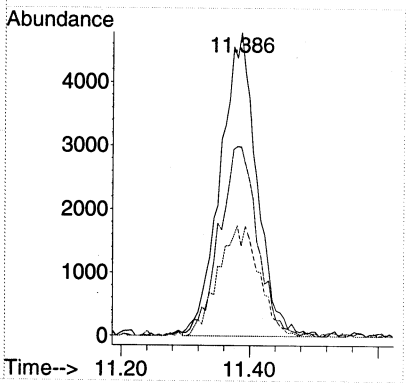


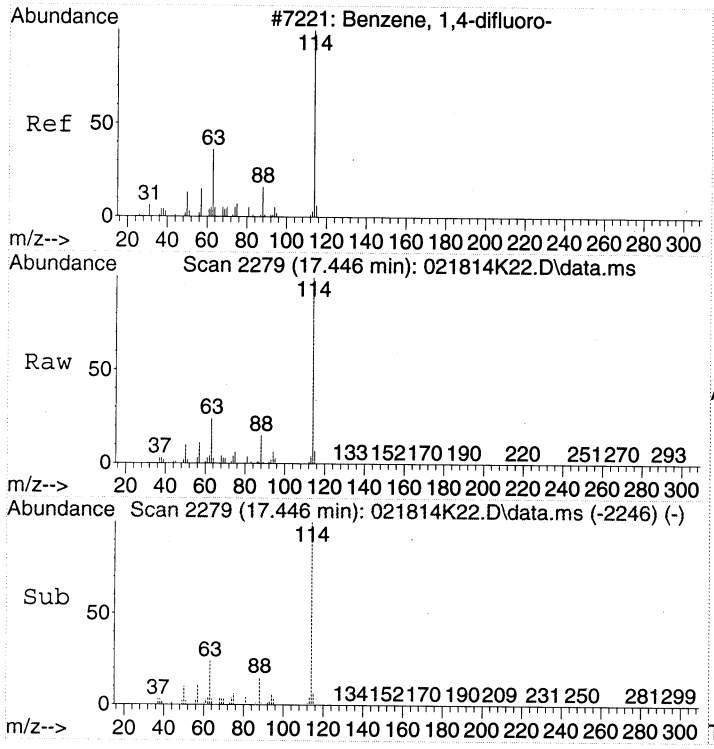


#18
Dichloromethane
Concen: 0.51 ppbv
RT: 11.386 min Scan# 1283
Delta R.T. -0.000 min
Lab File: 021814K22.D
Acq: 19 Feb 2014 5:03

Tgt Ion: 49 Resp: 18815

Ion	Ratio	Lower	Upper
49	100		
84	65.9	50.0	90.0
86	40.8	24.4	64.4

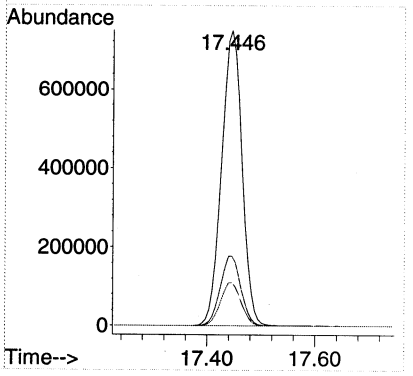


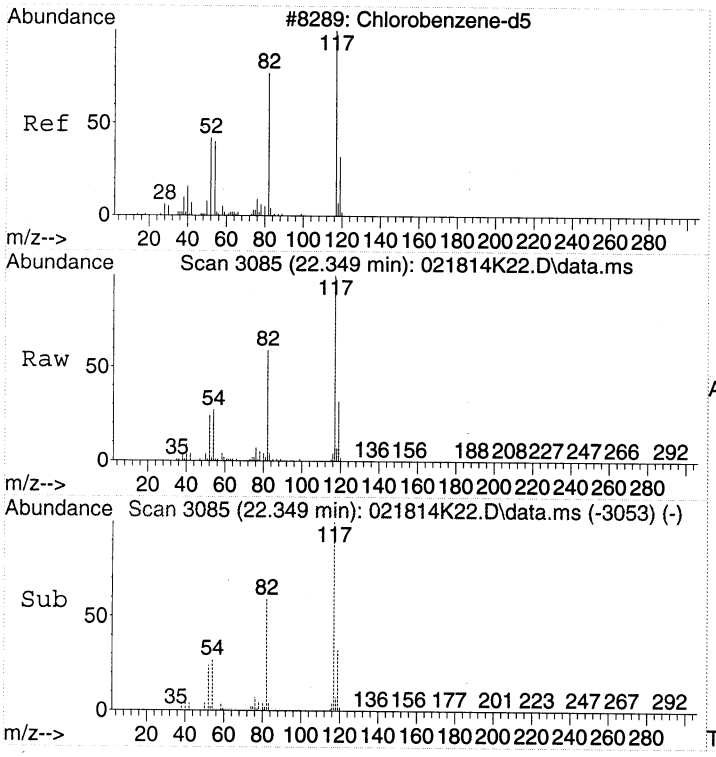


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 021814K22.D
Acq: 19 Feb 2014 5:03

Tgt Ion:114 Resp: 1981242

Ion	Ratio	Lower	Upper
114	100		
63	24.0	2.3	42.3
88	14.8	0.0	35.2

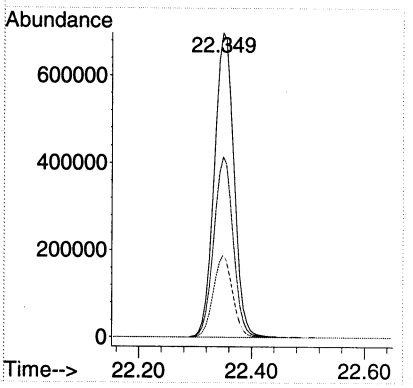




#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.349 min Scan# 3085
Delta R.T. -0.006 min
Lab File: 021814K22.D
Acq: 19 Feb 2014 5:03

Tgt Ion:117 Resp: 1693357

Ion	Ratio	Lower	Upper
117	100		
82	58.6	37.1	77.1
54	26.6	3.3	43.3



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K23.D
Acq On : 19 Feb 2014 5:52
Instrument: HP5973K
Operator : EM
Sample : 1402032-09
Misc : 200mL MH19
ALS Vial : 44
Multiplier: 1.94

Quant Time: Feb 19 09:31:11 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) BROMOCHLOROMETHANE	15.438	49	798461	22.00 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	1926284	22.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.349	117	1632770	22.00 ppbv	0.00
Target Compounds					Qvalue
2) Propene	4.372	41	20747	0.90 ppbv #	79
14) Acetone	9.872	43	44441	1.19 ppbv	93
18) Dichloromethane	11.386	49	22456	0.62 ppbv	91
24) cis-1,2-Dichloroethene	14.903	61	24677	0.66 ppbv	91
37) Trichloroethene	17.859	130	85665	2.92 ppbv	99
47) Tetrachloroethene	20.925	166	21366	0.57 ppbv	97

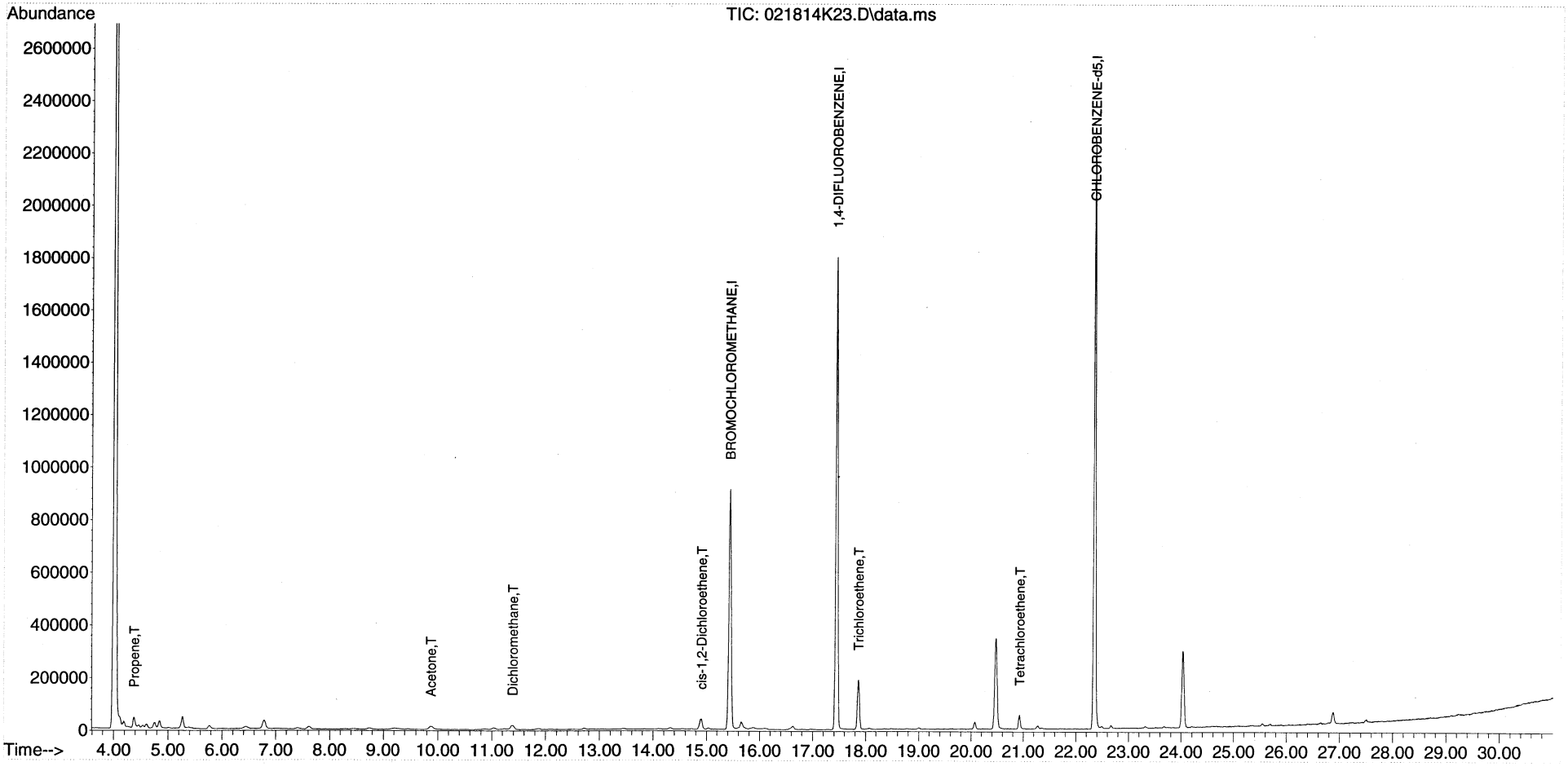
(#) = qualifier out of range (m) = manual integration (+) = signals summed

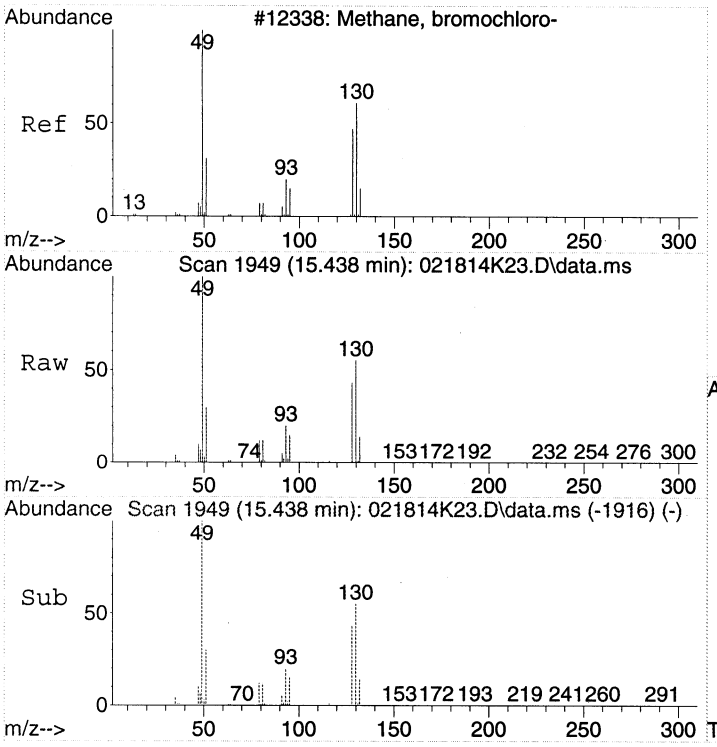
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K23.D
Acq On : 19 Feb 2014 5:52
Instrument: HP5973K
Operator : EM
Sample : 1402032-09
Misc : 200mL MH19
ALS Vial : 44
Multiplier: 1.94

Quant Time: Feb 19 09:31:11 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

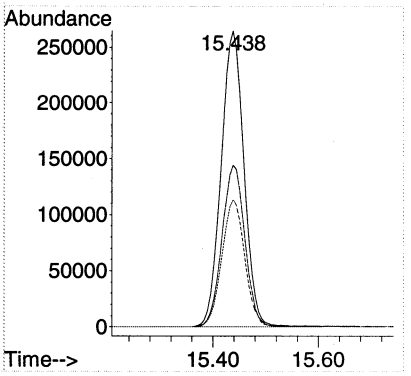


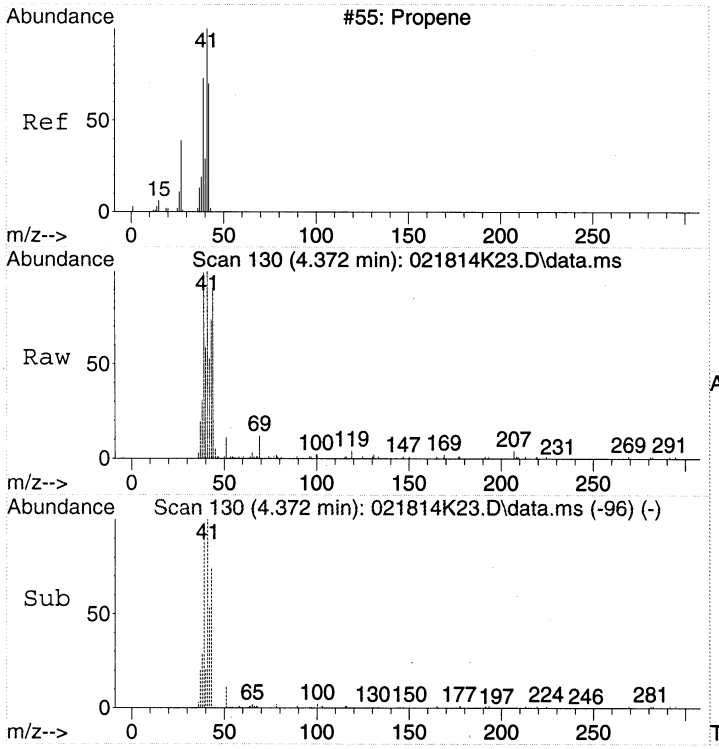


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 021814K23.D
Acq: 19 Feb 2014 5:52

Tgt Ion: 49 Resp: 798461

Ion	Ratio	Lower	Upper
49	100		
130	54.8	39.6	79.6
128	42.9	26.9	66.9

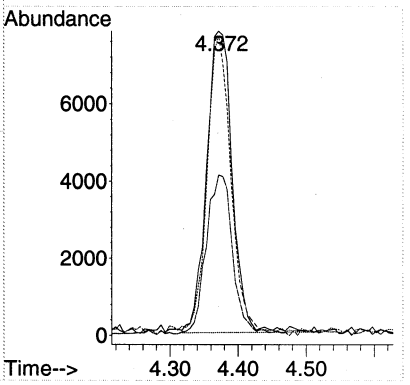


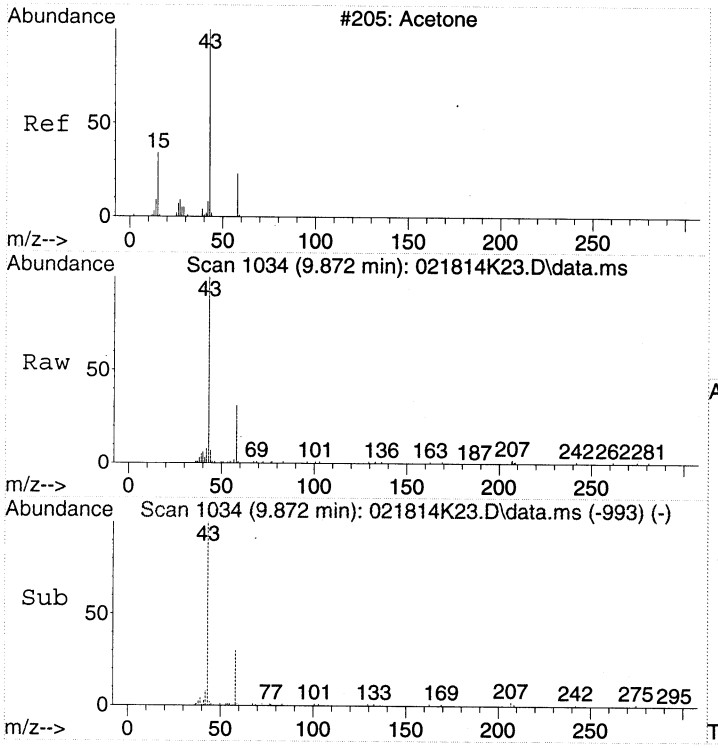


#2
Propene
Concen: 0.90 ppbv
RT: 4.372 min Scan# 130
Delta R.T. 0.006 min
Lab File: 021814K23.D
Acq: 19 Feb 2014 5:52

Tgt Ion: 41 Resp: 20747

Ion	Ratio	Lower	Upper
41	100		
42	55.5	46.8	86.8
39	90.6	48.3	88.3#

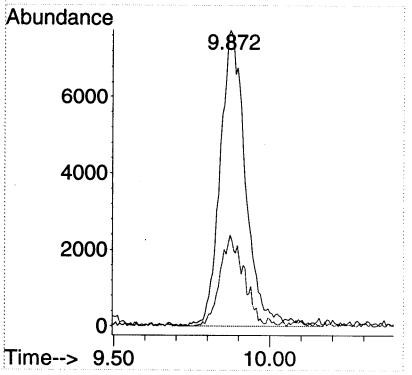


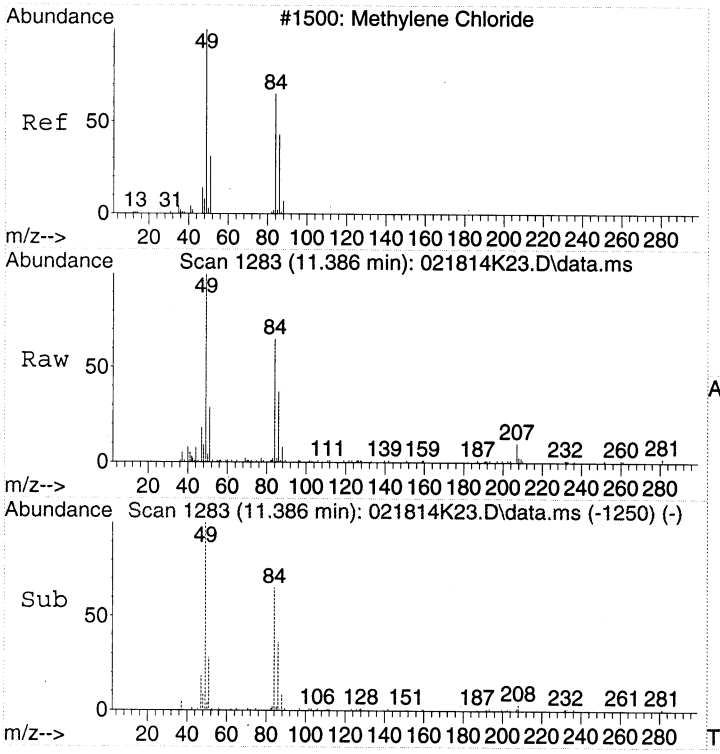


#14
Acetone
Concen: 1.19 ppbv
RT: 9.872 min Scan# 1034
Delta R.T. 0.048 min
Lab File: 021814K23.D
Acq: 19 Feb 2014 5:52

Tgt Ion: 43 Resp: 44441

Ion	Ratio	Lower	Upper
43	100		
58	28.6	12.5	52.5

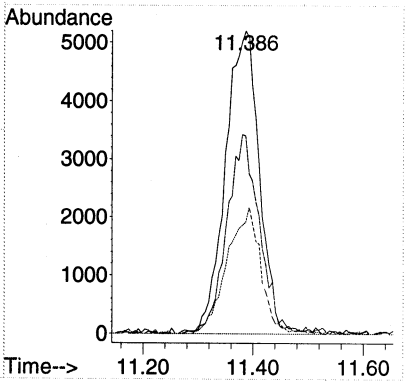


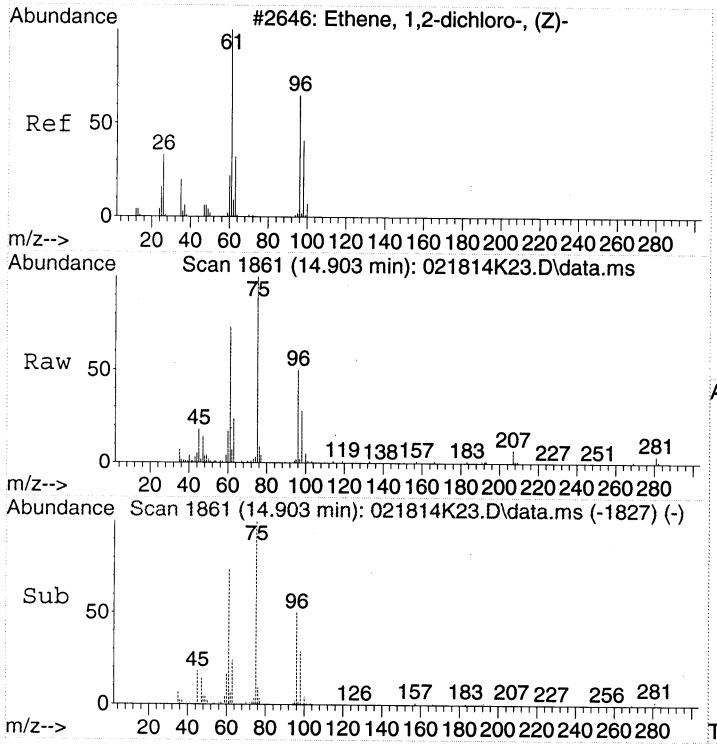


#18
Dichloromethane
Concen: 0.62 ppbv
RT: 11.386 min Scan# 1283
Delta R.T. -0.000 min
Lab File: 021814K23.D
Acq: 19 Feb 2014 5:52

Tgt Ion: 49 Resp: 22456

Ion	Ratio	Lower	Upper
49	100		
84	61.7	50.0	90.0
86	40.3	24.4	64.4

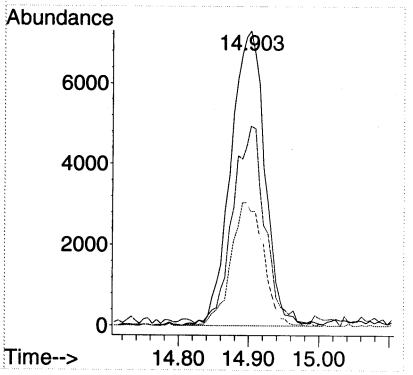


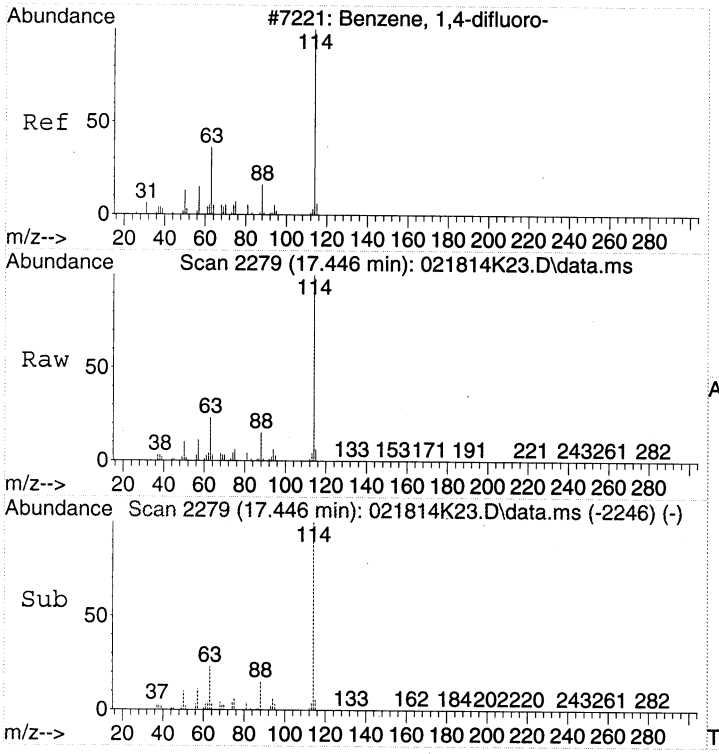


#24
cis-1,2-Dichloroethene
Concen: 0.66 ppbv
RT: 14.903 min Scan# 1861
Delta R.T. 0.006 min
Lab File: 021814K23.D
Acq: 19 Feb 2014 5:52

Tgt Ion: 61 Resp: 24677

Ion	Ratio	Lower	Upper
61	100		
96	63.4	51.7	91.7
98	39.9	25.4	65.4

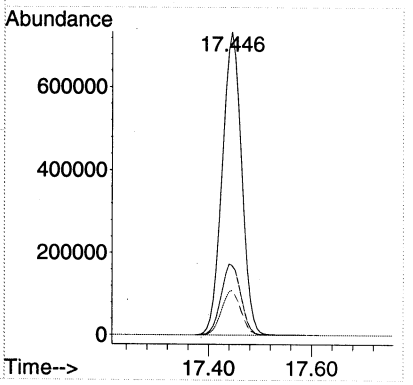


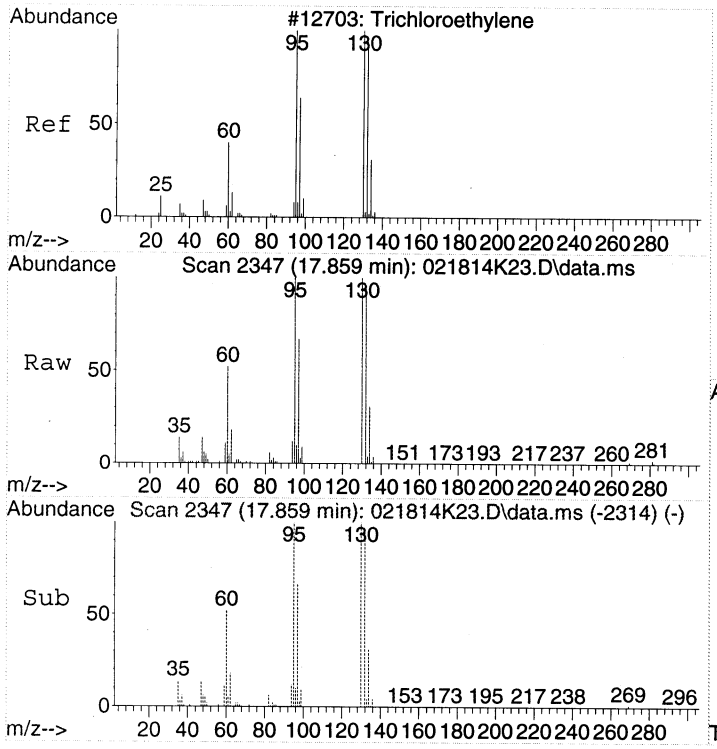


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 021814K23.D
Acq: 19 Feb 2014 5:52

Tgt Ion:114 Resp: 1926284

Ion	Ratio	Lower	Upper
114	100		
63	24.0	2.3	42.3
88	14.8	0.0	35.2

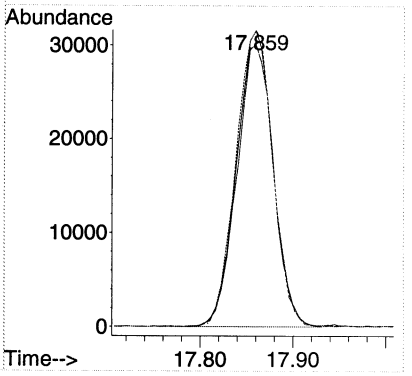


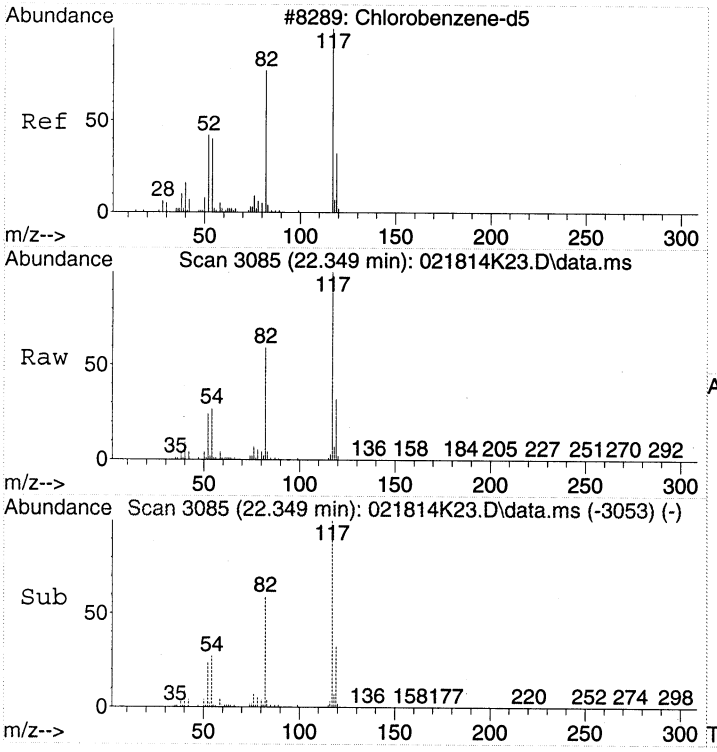


#37
Trichloroethene
Concen: 2.92 ppbv
RT: 17.859 min Scan# 2347
Delta R.T. -0.000 min
Lab File: 021814K23.D
Acq: 19 Feb 2014 5:52

Tgt Ion:130 Resp: 85665

Ion	Ratio	Lower	Upper
130	100		
132	96.8	78.9	118.9
95	102.3	82.3	122.3

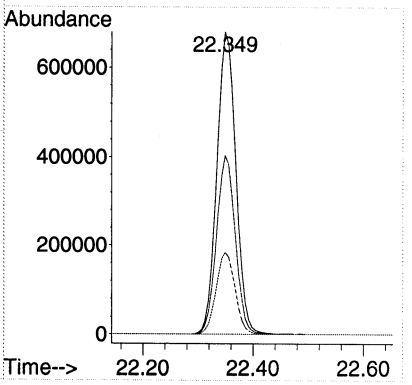


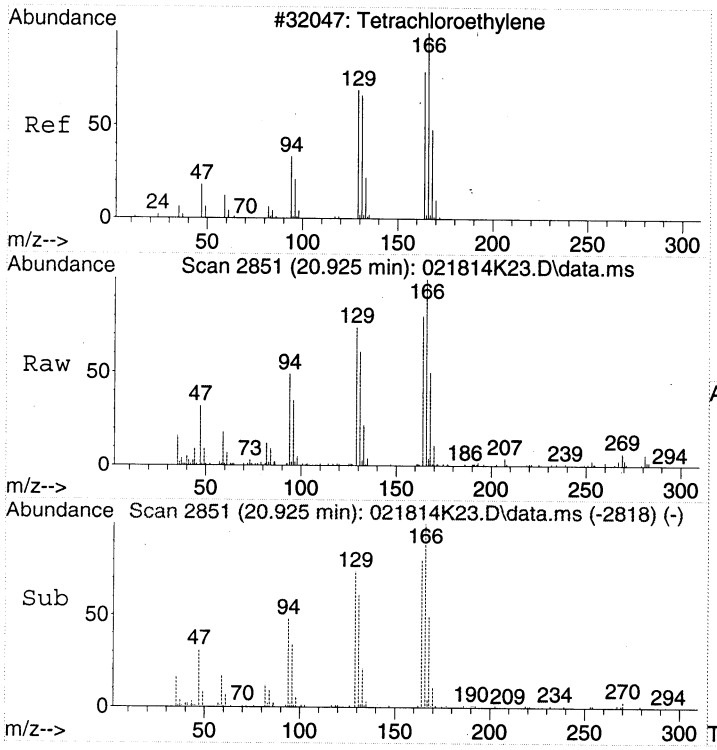


#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.349 min Scan# 3085
Delta R.T. -0.006 min
Lab File: 021814K23.D
Acq: 19 Feb 2014 5:52

Tgt Ion:117 Resp: 1632770

Ion	Ratio	Lower	Upper
117	100		
82	58.7	37.1	77.1
54	27.0	3.3	43.3

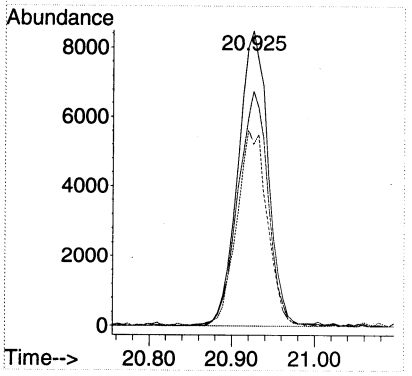




#47
Tetrachloroethene
Concen: 0.57 ppbv
RT: 20.925 min Scan# 2851
Delta R.T. -0.000 min
Lab File: 021814K23.D
Acq: 19 Feb 2014 5:52

Tgt Ion:166 Resp: 21366

Ion	Ratio	Lower	Upper
166	100		
164	80.6	59.4	99.4
131	67.4	44.3	84.3



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K24.D
Acq On : 19 Feb 2014 6:41
Instrument: HP5973K
Operator : EM
Sample : 1402032-10
Misc : 200mL.MH20
ALS Vial : 45
Multiplier: 1.93

Quant Time: Feb 19 09:31:16 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.438	49	832311	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	2007977	22.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.349	117	1705234	22.00	ppbv	0.00
Target Compounds						Qvalue
2) Propene	4.372	41	12651	0.53	ppbv #	69
14) Acetone	9.884	43	35919	0.92	ppbv	95
18) Dichloromethane	11.381	49	24705	0.66	ppbv	91

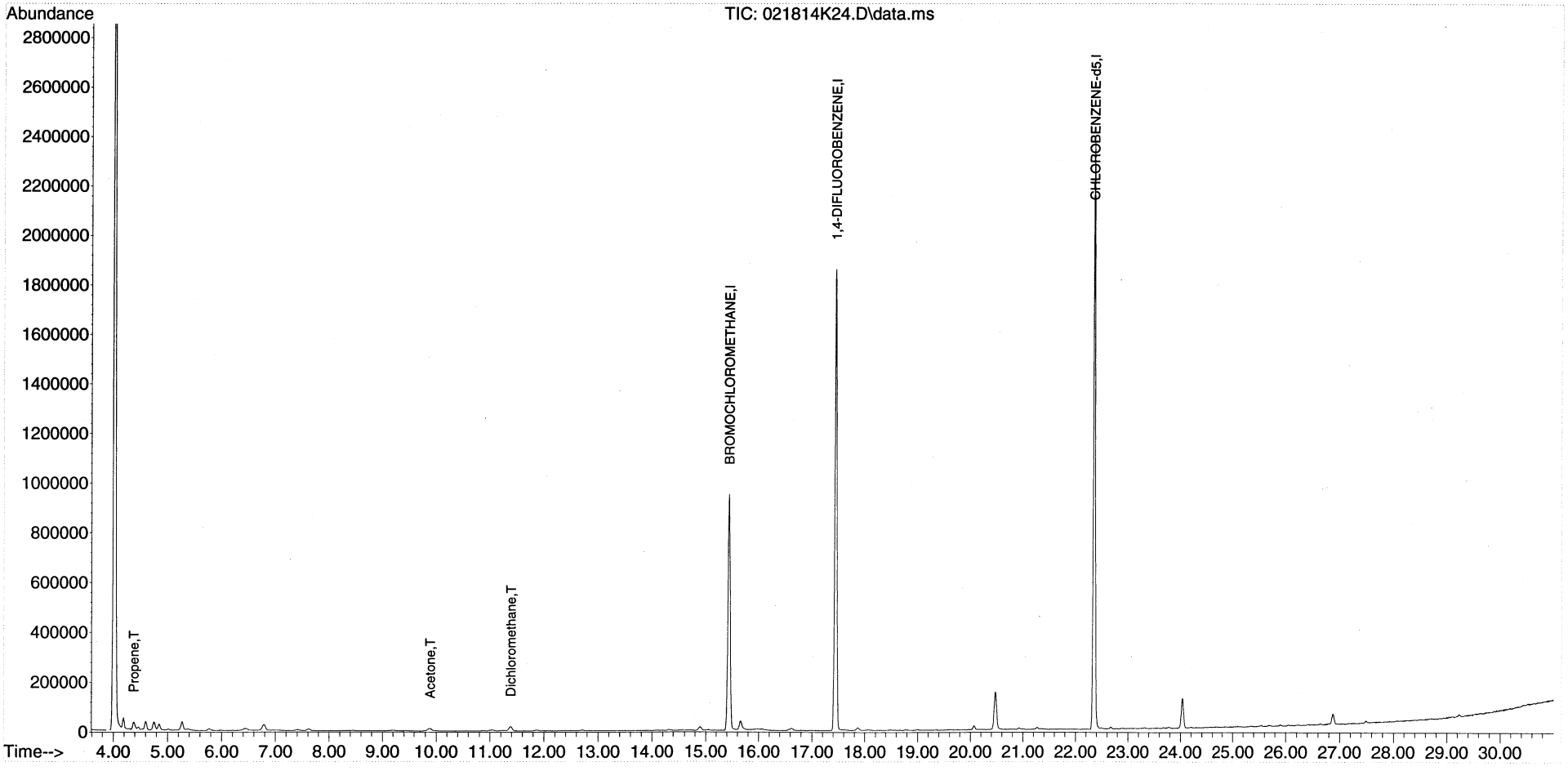
(#) = qualifier out of range (m) = manual integration (+) = signals summed

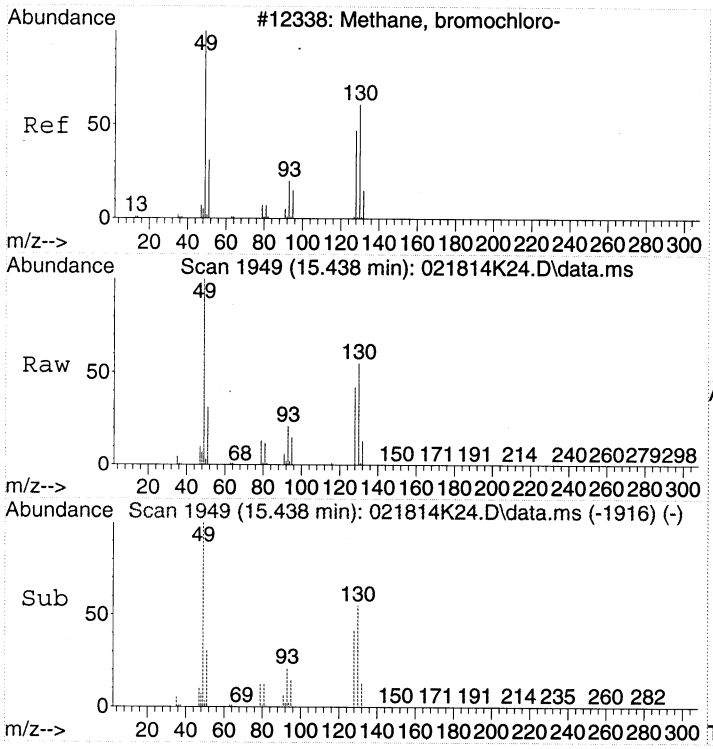
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K24.D
Acq On : 19 Feb 2014 6:41
Instrument: HP5973K
Operator : EM
Sample : 1402032-10
Misc : 200mL MH20
ALS Vial : 45
Multiplier: 1.93

Quant Time: Feb 19 09:31:16 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

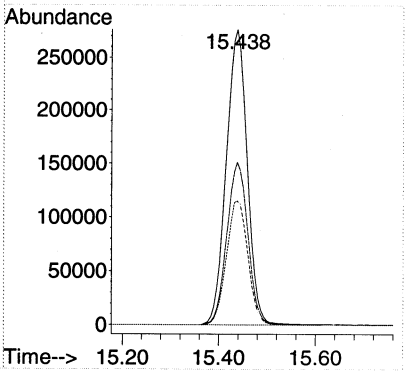


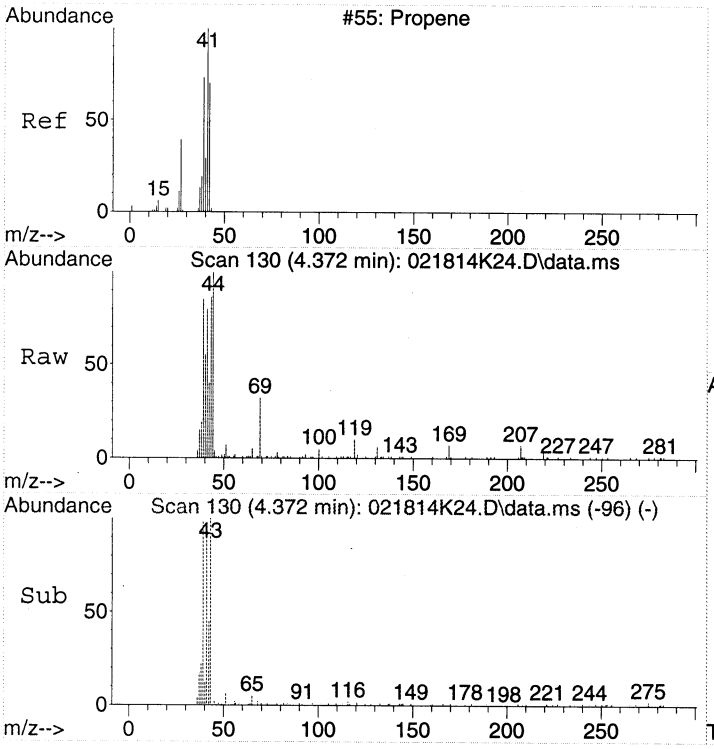


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 021814K24.D
Acq: 19 Feb 2014 6:41

Tgt Ion: 49 Resp: 832311

Ion	Ratio	Lower	Upper
49	100		
130	55.1	39.6	79.6
128	42.8	26.9	66.9

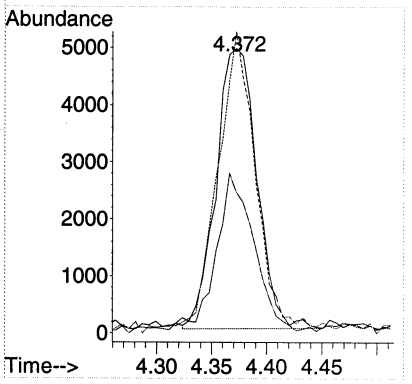


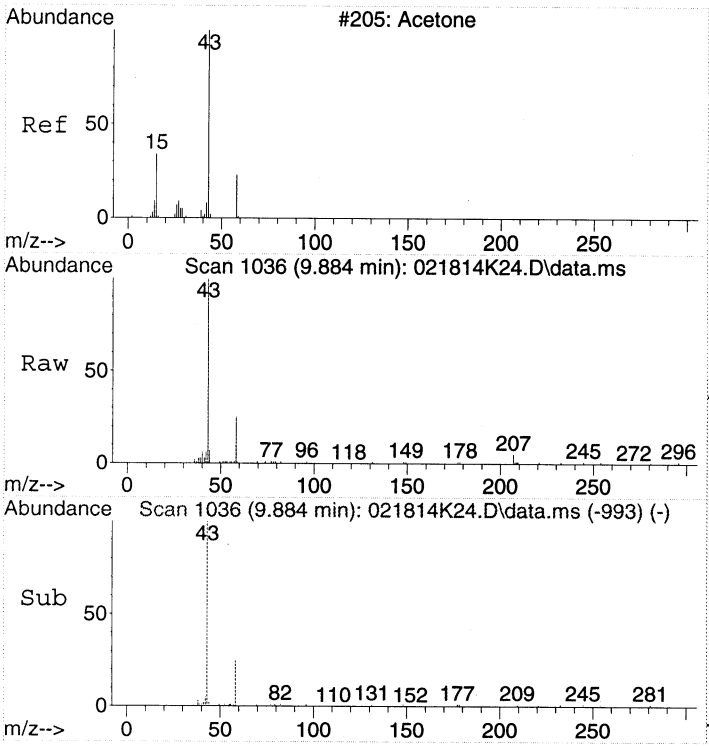


#2
Propene
Concen: 0.53 ppbv
RT: 4.372 min Scan# 130
Delta R.T. 0.006 min
Lab File: 021814K24.D
Acq: 19 Feb 2014 6:41

Tgt Ion: 41 Resp: 12651

Ion	Ratio	Lower	Upper
41	100		
42	52.6	46.8	86.8
39	103.2	48.3	88.3#

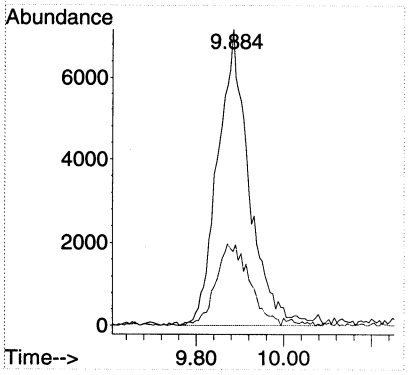


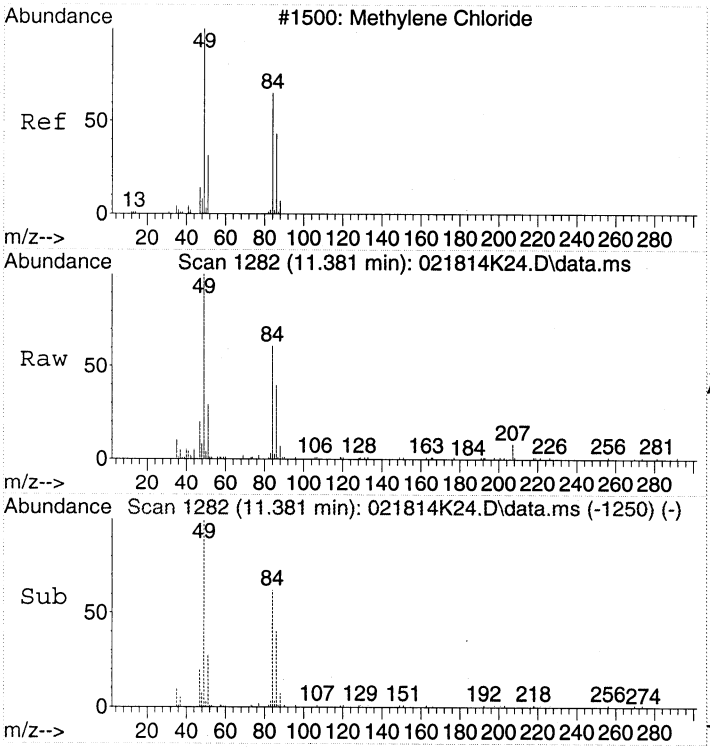


#14
Acetone
Concen: 0.92 ppbv
RT: 9.884 min Scan# 1036
Delta R.T. 0.061 min
Lab File: 021814K24.D
Acq: 19 Feb 2014 6:41

Tgt Ion: 43 Resp: 35919

Ion	Ratio	Lower	Upper
43	100		
58	29.6	12.5	52.5

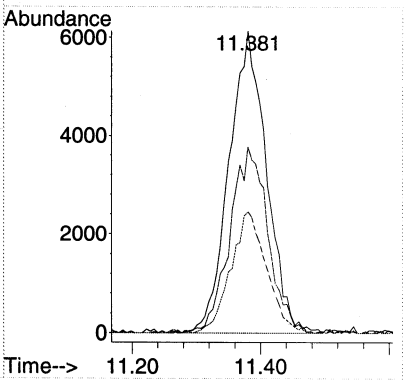


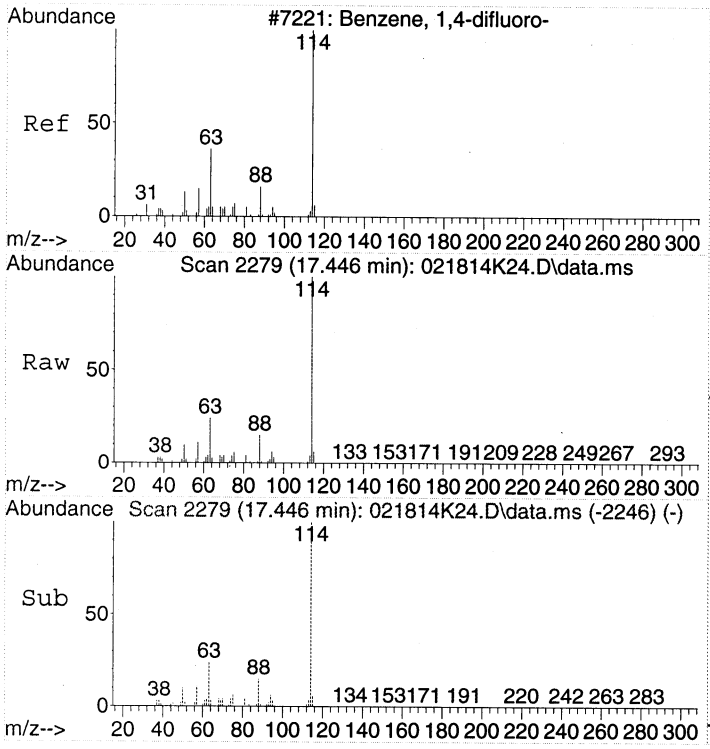


#18
Dichloromethane
Concen: 0.66 ppbv
RT: 11.381 min Scan# 1282
Delta R.T. -0.006 min
Lab File: 021814K24.D
Acq: 19 Feb 2014 6:41

Tgt Ion: 49 Resp: 24705

Ion	Ratio	Lower	Upper
49	100		
84	62.4	50.0	90.0
86	38.3	24.4	64.4

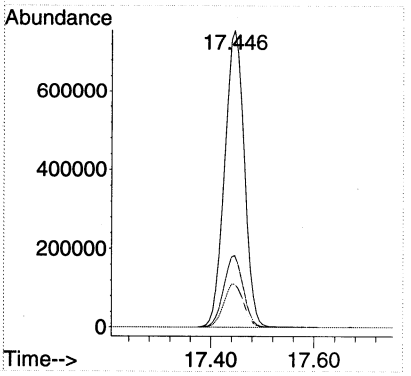


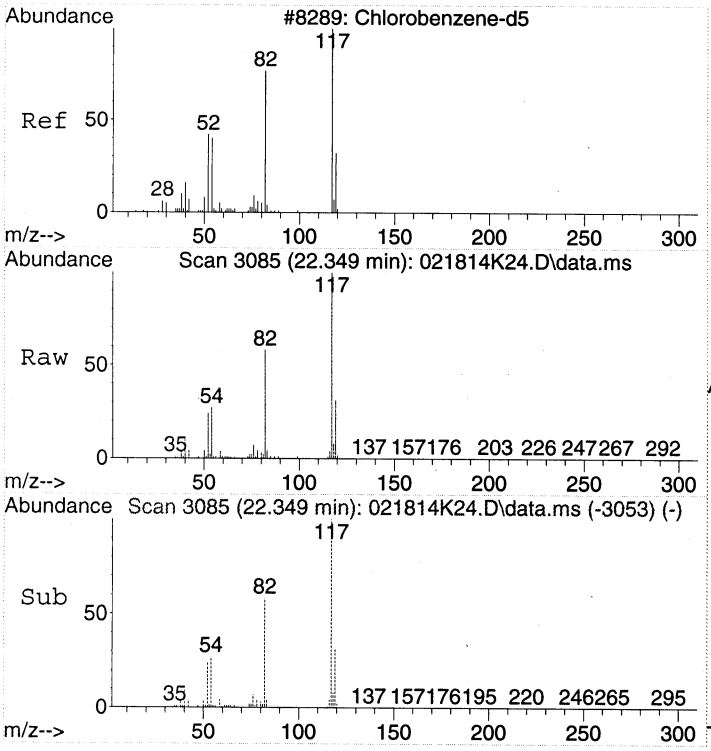


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 021814K24.D
Acq: 19 Feb 2014 6:41

Tgt Ion:114 Resp: 2007977

Ion	Ratio	Lower	Upper
114	100		
63	24.1	2.3	42.3
88	14.9	0.0	35.2

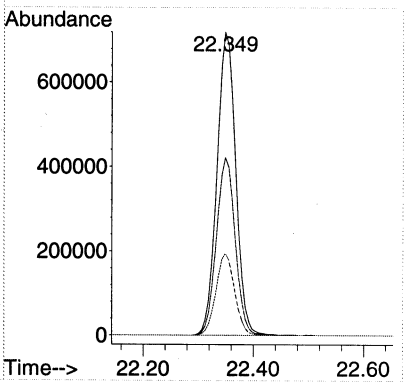




#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.349 min Scan# 3085
Delta R.T. -0.006 min
Lab File: 021814K24.D
Acq: 19 Feb 2014 6:41

Tgt Ion:117 Resp: 1705234

Ion	Ratio	Lower	Upper
117	100		
82	58.8	37.1	77.1
54	27.0	3.3	43.3



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K25.D
Acq On : 19 Feb 2014 7:29
Instrument: HP5973K
Operator : EM
Sample : 1402032-11
Misc : 200mL MH21
ALS Vial : 46
Multiplier: 1.93

Quant Time: Feb 19 09:31:21 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) BROMOCHLOROMETHANE	15.438	49	802801	22.00 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	1926945	22.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.349	117	1646876	22.00 ppbv	0.00
Target Compounds					Qvalue
2) Propene	4.372	41	13660	0.59 ppbv #	72
14) Acetone	9.890	43	29797	0.79 ppbv	95
18) Dichloromethane	11.380	49	23940	0.66 ppbv	93

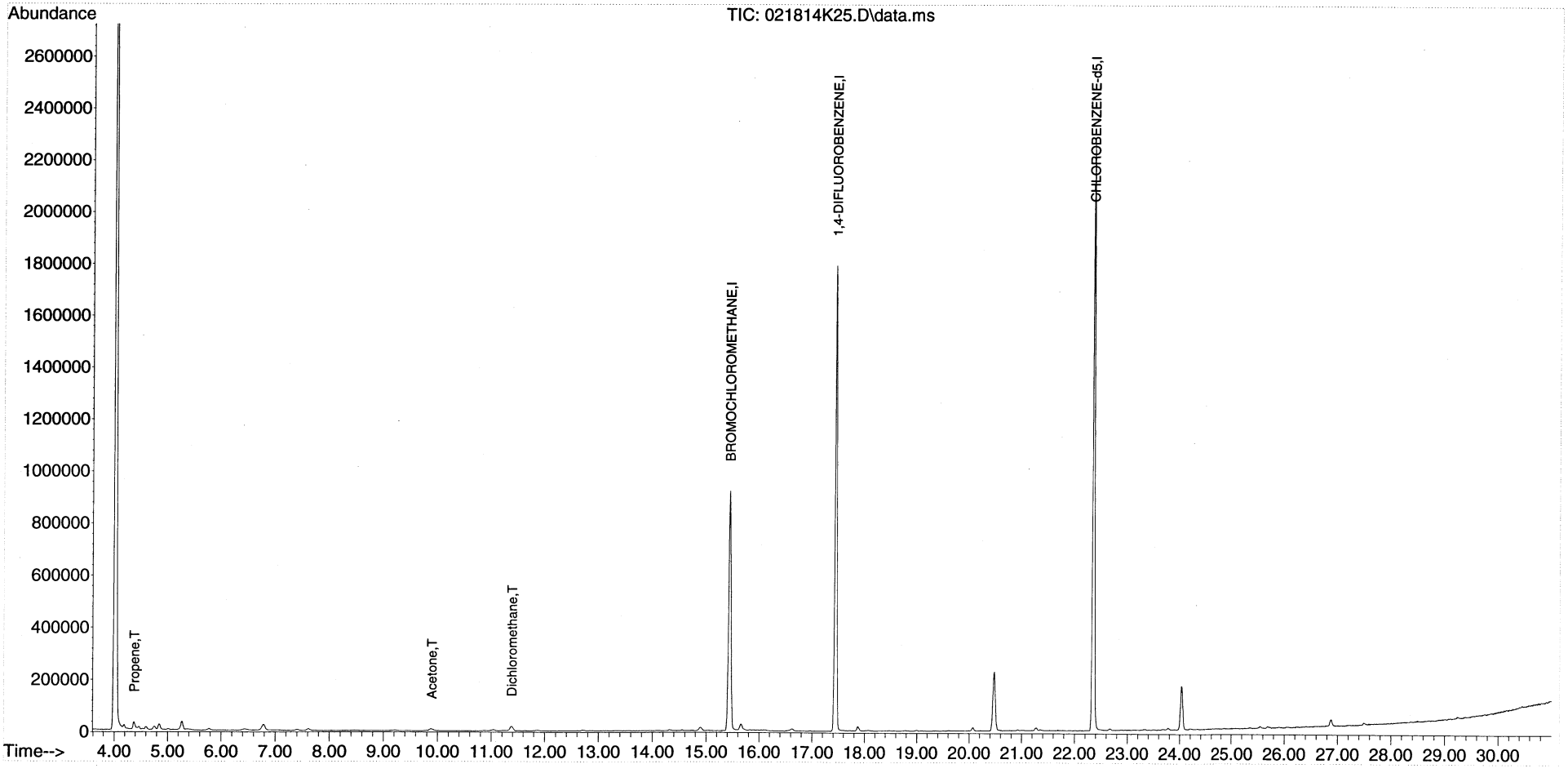
(#) = qualifier out of range (m) = manual integration (+) = signals summed

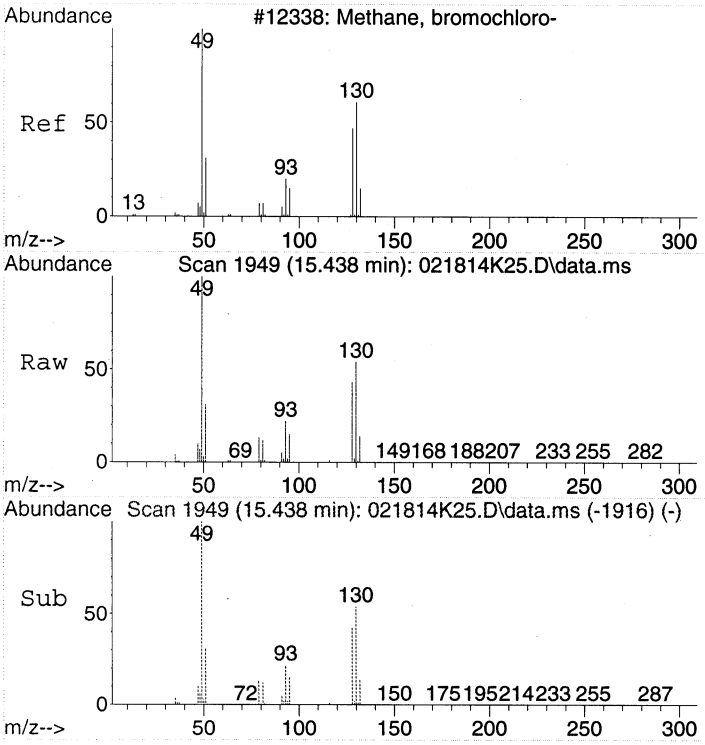
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K25.D
Acq On : 19 Feb 2014 7:29
Instrument: HP5973K
Operator : EM
Sample : 1402032-11
Misc : 200mL MH21
ALS Vial : 46
Multiplier: 1.93

Quant Time: Feb 19 09:31:21 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

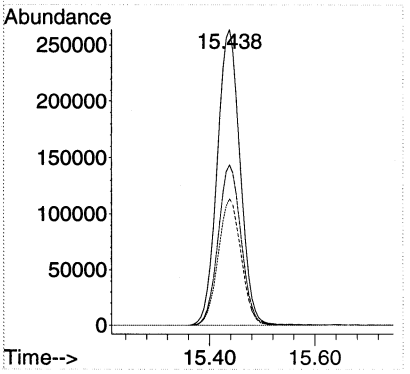


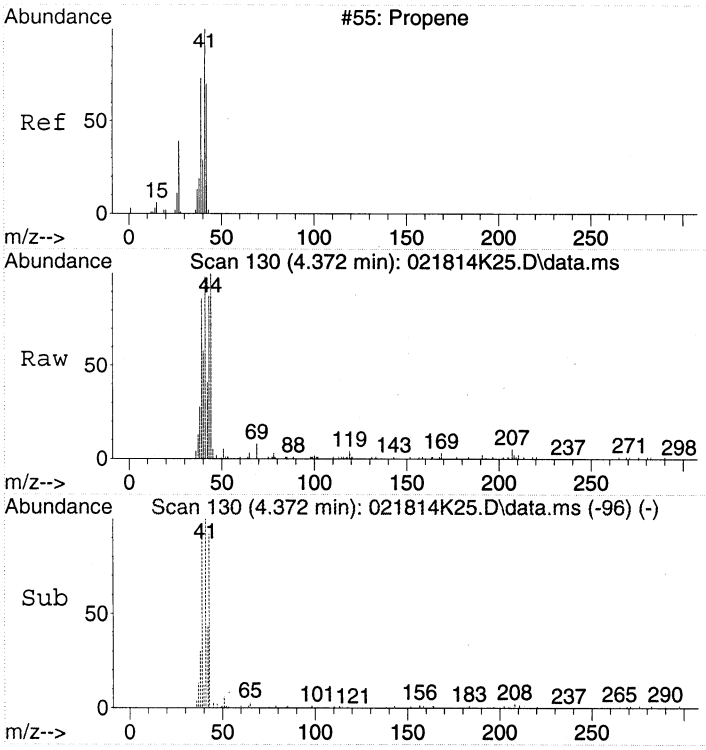


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 021814K25.D
Acq: 19 Feb 2014 7:29

Tgt Ion: 49 Resp: 802801

Ion	Ratio	Lower	Upper
49	100		
130	54.6	39.6	79.6
128	43.0	26.9	66.9

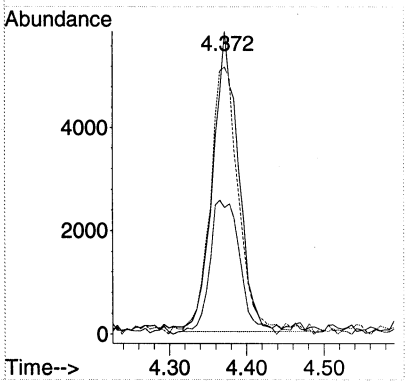


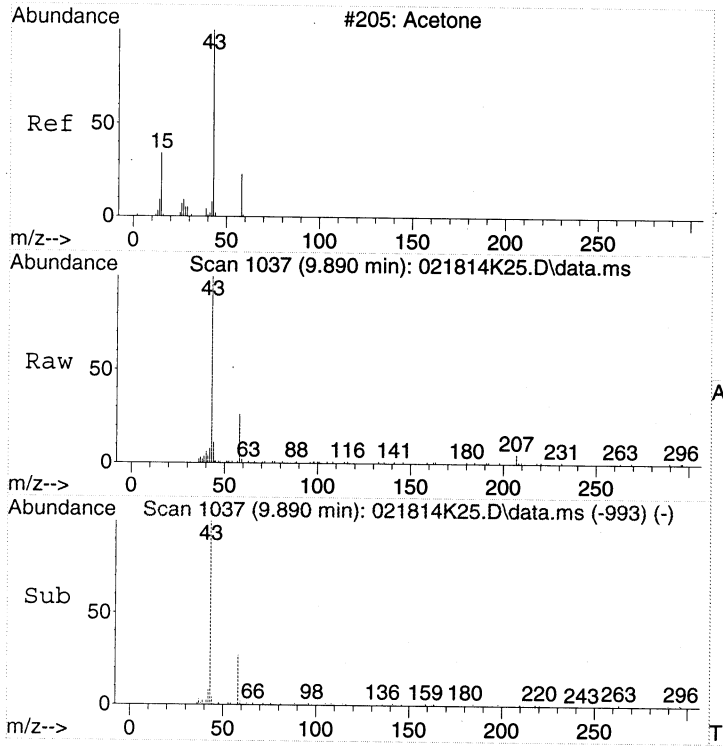


#2
Propene
Concen: 0.59 ppbv
RT: 4.372 min Scan# 130
Delta R.T. 0.006 min
Lab File: 021814K25.D
Acq: 19 Feb 2014 7:29

Tgt Ion: 41 Resp: 13660

Ion	Ratio	Lower	Upper
41	100		
42	51.9	46.8	86.8
39	98.6	48.3	88.3#

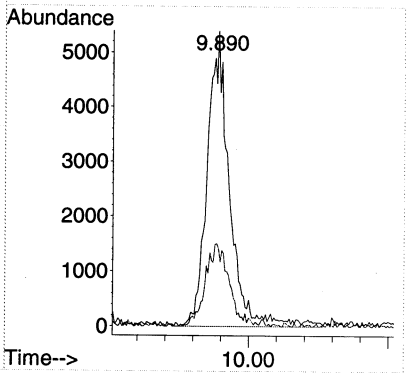


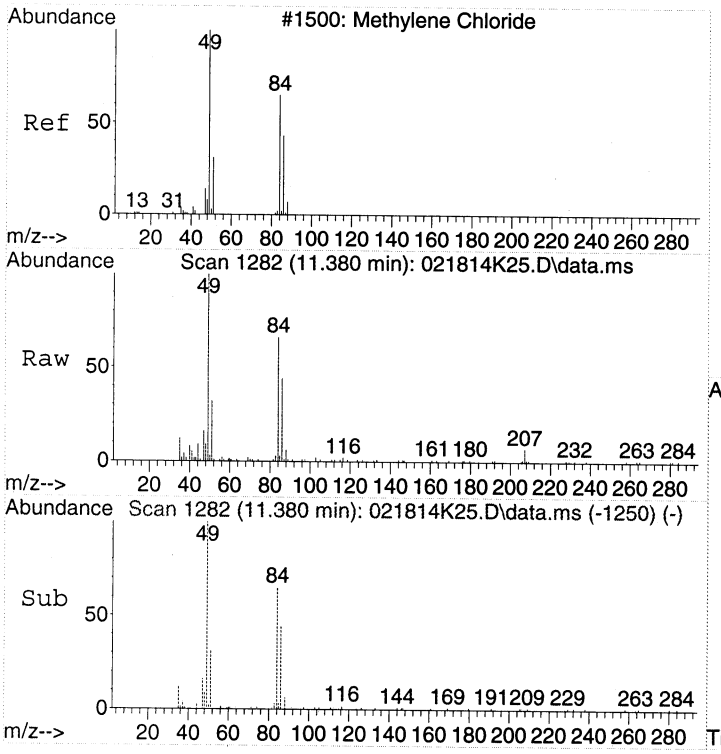


#14
Acetone
Concen: 0.79 ppbv
RT: 9.890 min Scan# 1037
Delta R.T. 0.067 min
Lab File: 021814K25.D
Acq: 19 Feb 2014 7:29

Tgt Ion: 43 Resp: 29797

Ion	Ratio	Lower	Upper
43	100		
58	29.9	12.5	52.5

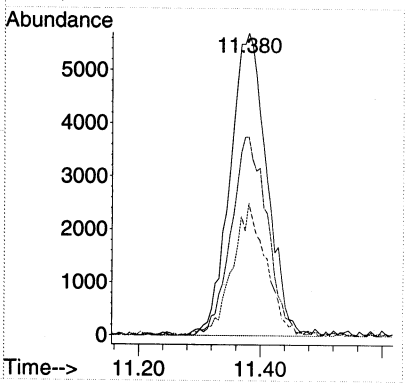


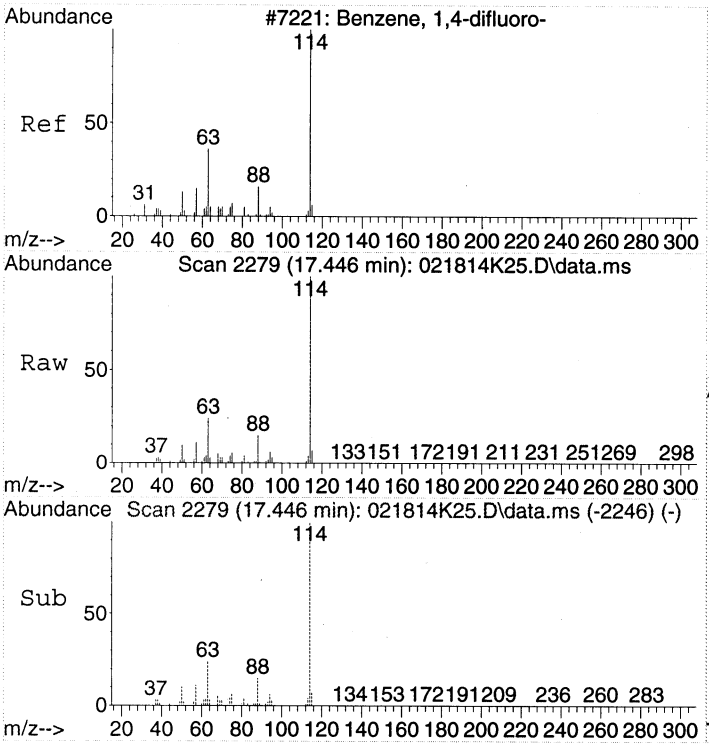


#18
Dichloromethane
Concen: 0.66 ppbv
RT: 11.380 min Scan# 1282
Delta R.T. -0.006 min
Lab File: 021814K25.D
Acq: 19 Feb 2014 7:29

Tgt Ion: 49 Resp: 23940

Ion	Ratio	Lower	Upper
49	100		
84	64.4	50.0	90.0
86	40.4	24.4	64.4

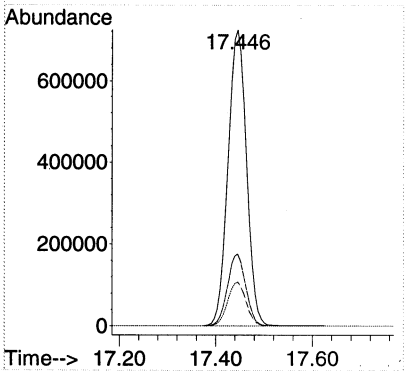


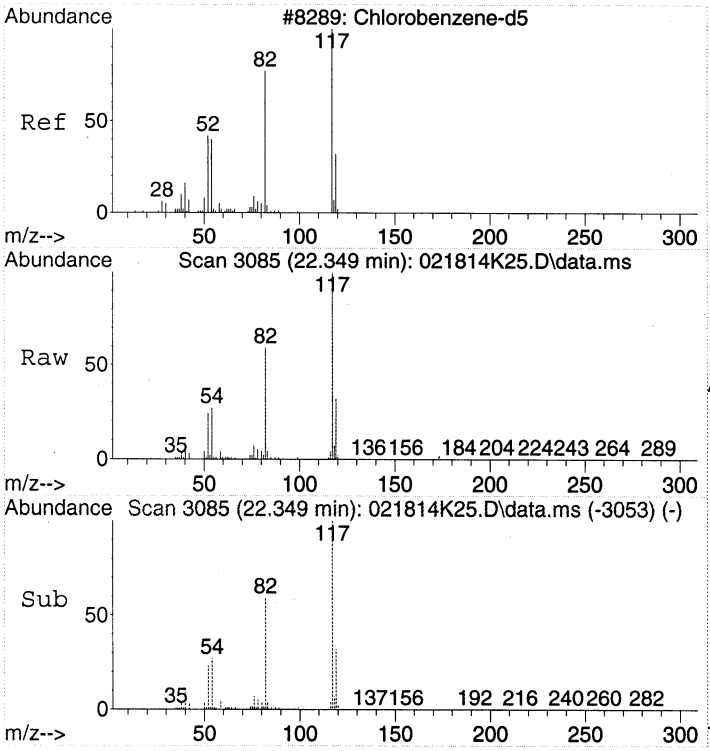


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 021814K25.D
Acq: 19 Feb 2014 7:29

Tgt Ion:114 Resp: 1926945

Ion	Ratio	Lower	Upper
114	100		
63	24.0	2.3	42.3
88	14.9	0.0	35.2

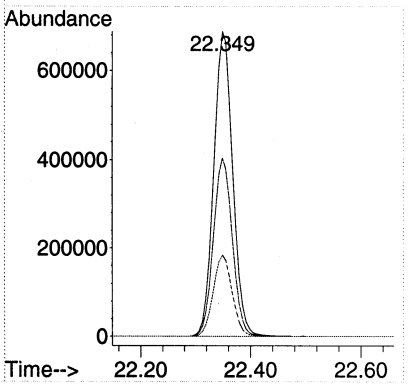




#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.349 min Scan# 3085
Delta R.T. -0.006 min
Lab File: 021814K25.D
Acq: 19 Feb 2014 7:29

Tgt Ion:117 Resp: 1646876

Ion	Ratio	Lower	Upper
117	100		
82	58.9	37.1	77.1
54	26.8	3.3	43.3



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K26.D
Acq On : 19 Feb 2014 8:18
Instrument: HP5973K
Operator : EM
Sample : 1402032-12
Misc : 200mL MH22
ALS Vial : 47
Multiplier: 1.94

Quant Time: Feb 19 09:31:26 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) BROMOCHLOROMETHANE	15.438	49	800687	22.00 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	1954599	22.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.349	117	1674778	22.00 ppbv	0.00
Target Compounds					Qvalue
14) Acetone	9.878	43	49025	1.31 ppbv	95
18) Dichloromethane	11.386	49	22984	0.64 ppbv	91

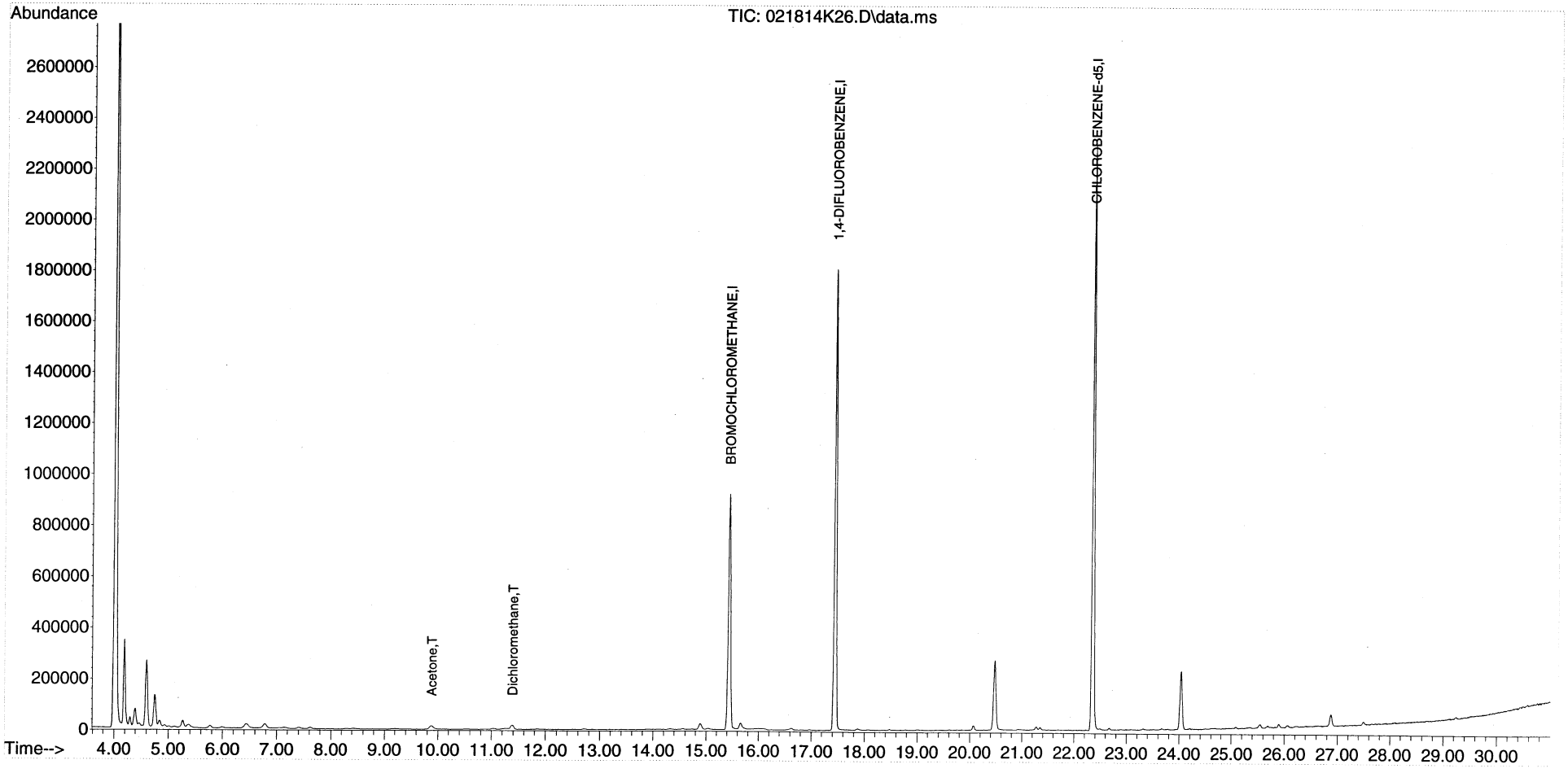
(#) = qualifier out of range (m) = manual integration (+) = signals summed

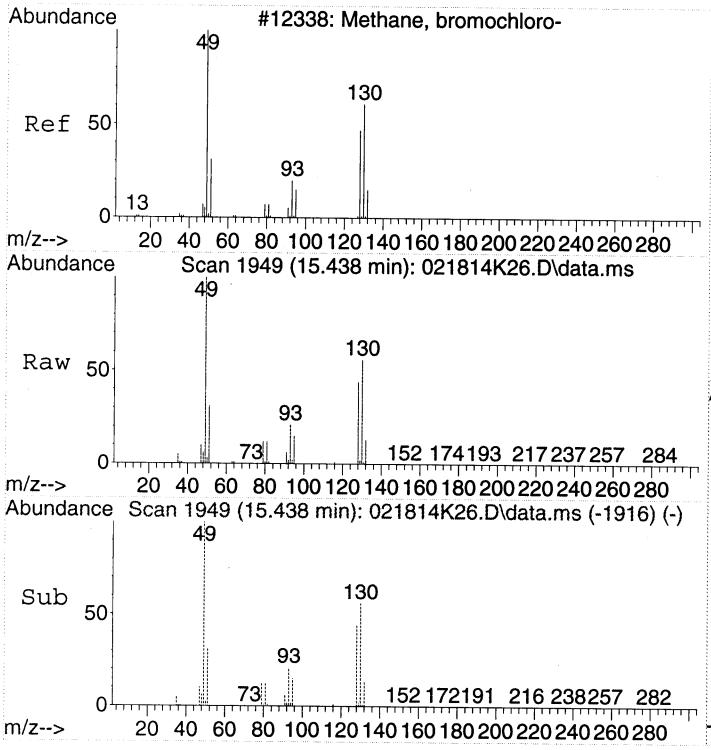
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K26.D
Acq On : 19 Feb 2014 8:18
Instrument: HP5973K
Operator : EM
Sample : 1402032-12
Misc : 200mL MH22
ALS Vial : 47
Multiplier: 1.94

Quant Time: Feb 19 09:31:26 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

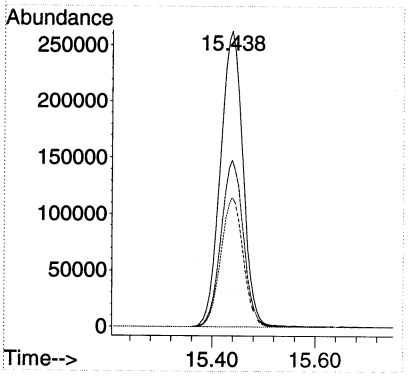


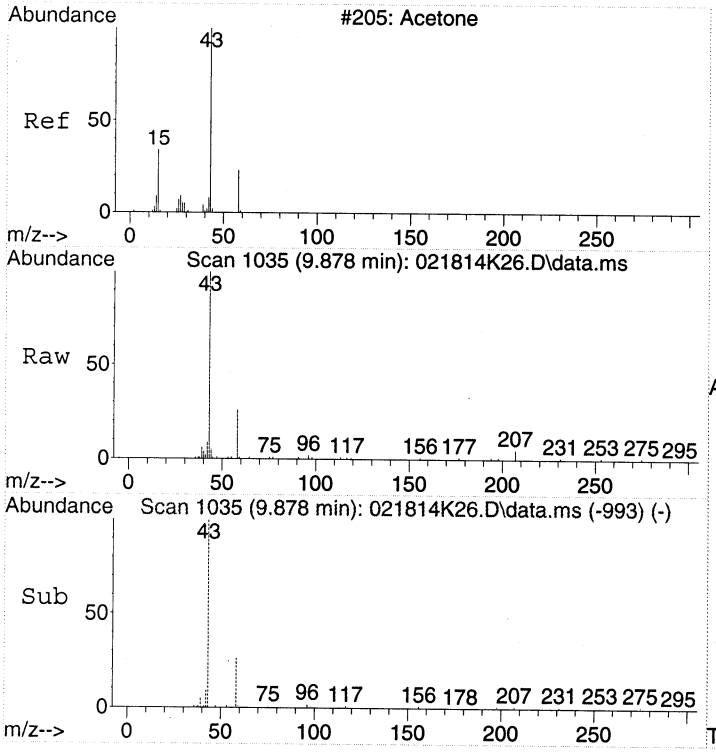


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 021814K26.D
Acq: 19 Feb 2014 8:18

Tgt Ion: 49 Resp: 800687

Ion	Ratio	Lower	Upper
49	100		
130	55.9	39.6	79.6
128	43.3	26.9	66.9

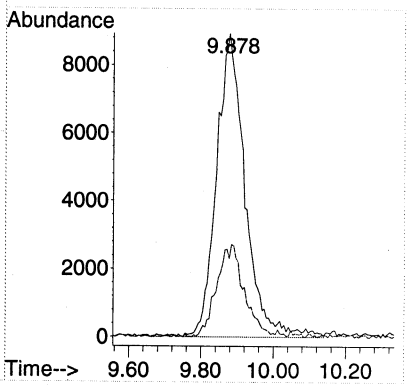


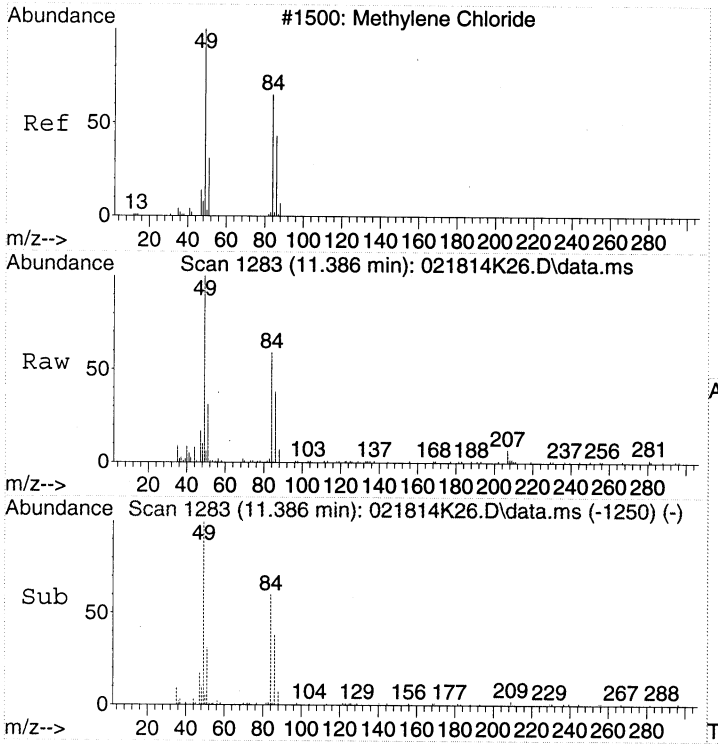


#14
Acetone
Concen: 1.31 ppbv
RT: 9.878 min Scan# 1035
Delta R.T. 0.055 min
Lab File: 021814K26.D
Acq: 19 Feb 2014 8:18

Tgt Ion: 43 Resp: 49025

Ion	Ratio	Lower	Upper
43	100		
58	29.6	12.5	52.5

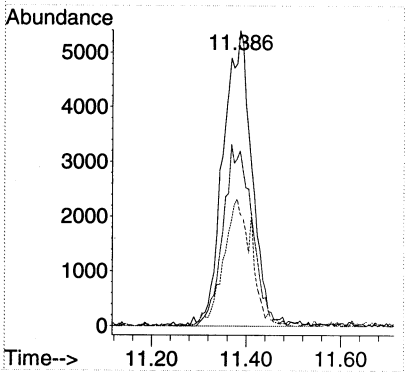


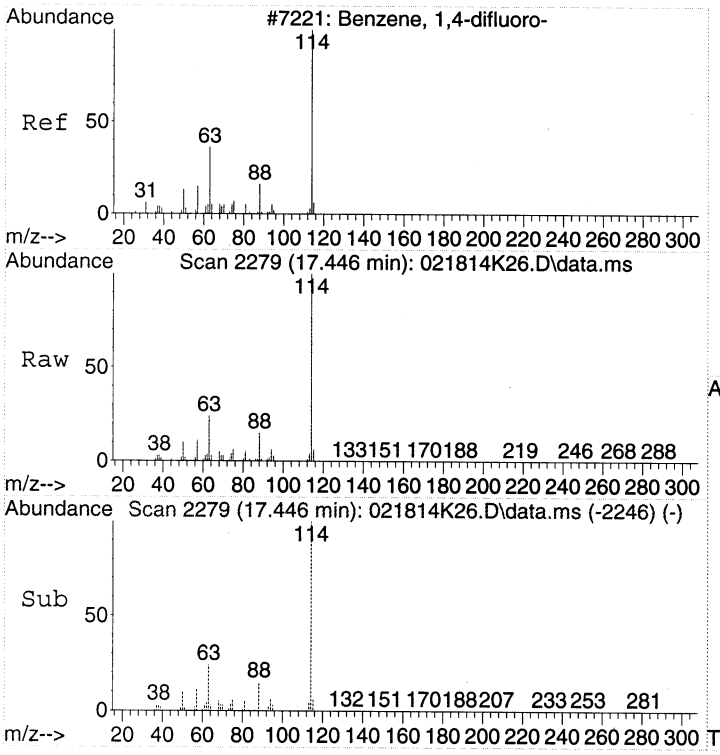


#18
Dichloromethane
Concen: 0.64 ppbv
RT: 11.386 min Scan# 1283
Delta R.T. -0.000 min
Lab File: 021814K26.D
Acq: 19 Feb 2014 8:18

Tgt Ion: 49 Resp: 22984

Ion	Ratio	Lower	Upper
49	100		
84	61.1	50.0	90.0
86	40.5	24.4	64.4

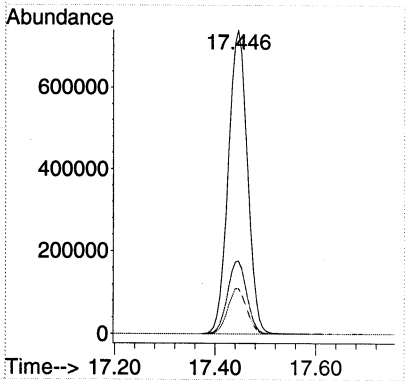


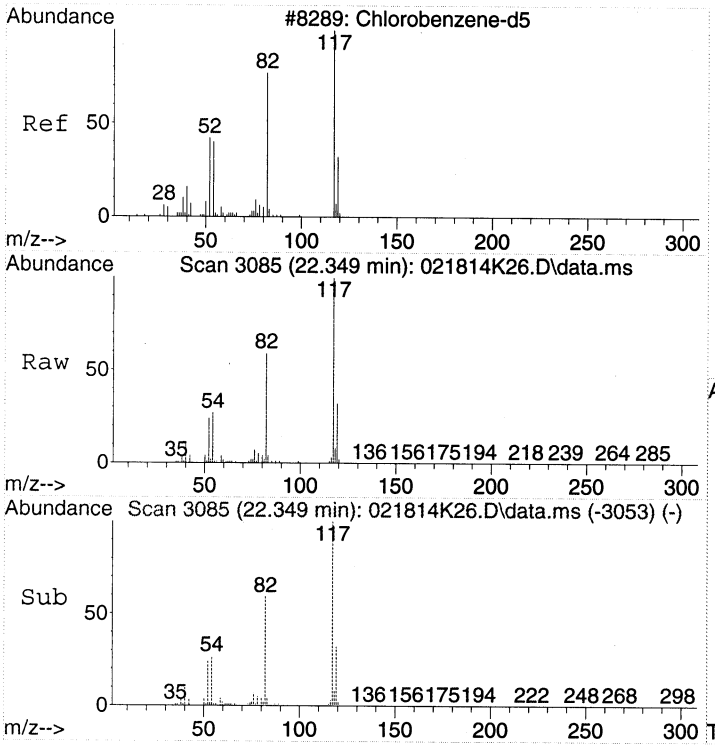


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 021814K26.D
Acq: 19 Feb 2014 8:18

Tgt Ion:114 Resp: 1954599

Ion	Ratio	Lower	Upper
114	100		
63	24.0	2.3	42.3
88	14.8	0.0	35.2

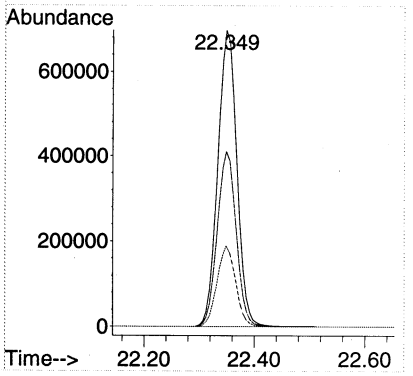




#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.349 min Scan# 3085
Delta R.T. -0.006 min
Lab File: 021814K26.D
Acq: 19 Feb 2014 8:18

Tgt Ion:117 Resp: 1674778

Ion	Ratio	Lower	Upper
117	100		
82	58.5	37.1	77.1
54	26.7	3.3	43.3



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K27.D
Acq On : 19 Feb 2014 9:07
Instrument: HP5973K
Operator : EM
Sample : IBL3
Misc : IBL
ALS Vial : 48
Multiplier: 1

Quant Time: Feb 19 09:47:23 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.438	49	799072	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	1914869	22.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.349	117	1631770	22.00	ppbv	0.00
Target Compounds						Qvalue
18) Dichloromethane	11.381	49	18039	0.50	ppbv	95

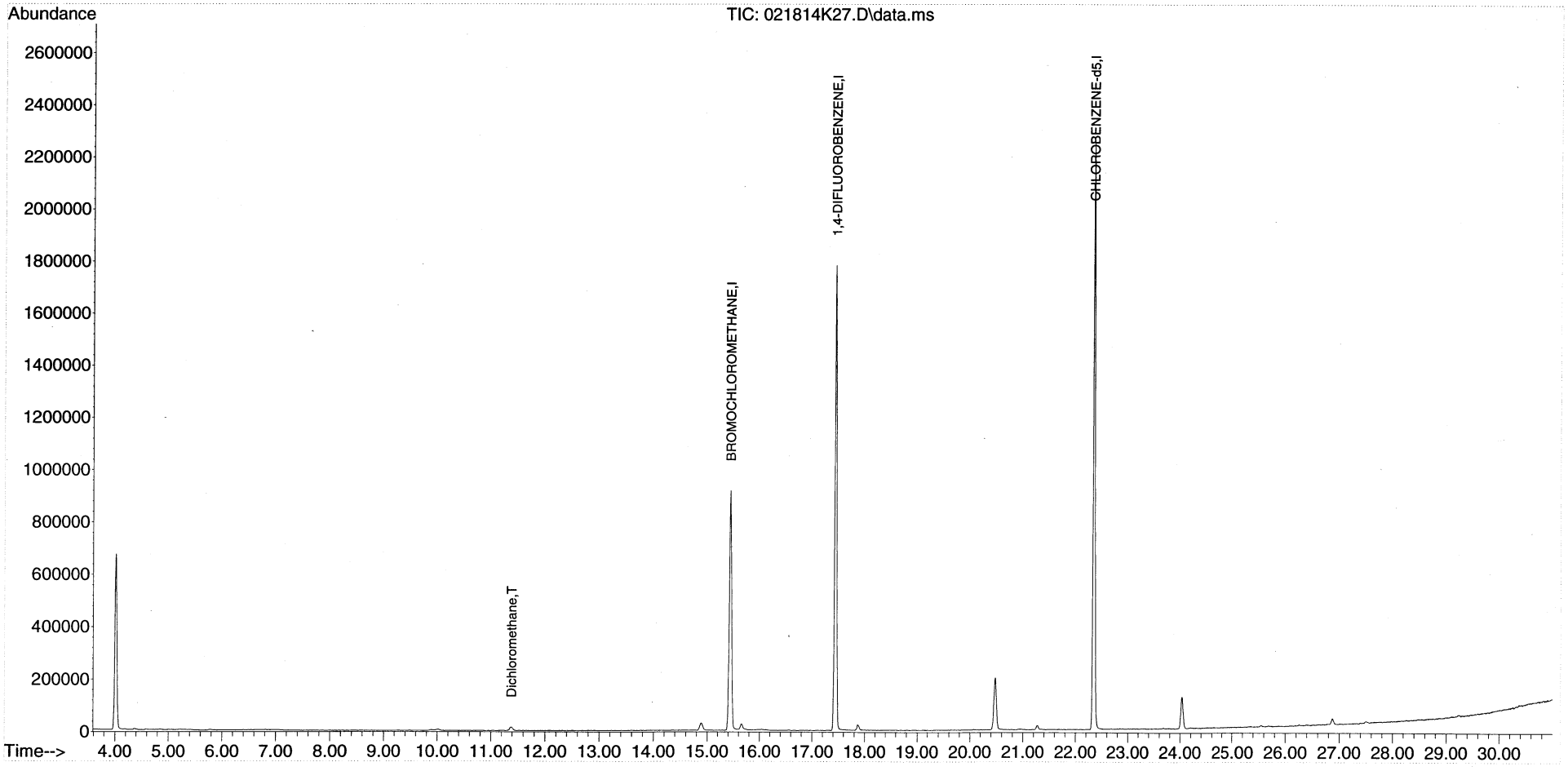
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K27.D
Acq On : 19 Feb 2014 9:07
Instrument: HP5973K
Operator : EM
Sample : IBL3
Misc : IBL
ALS Vial : 48
Multiplier: 1

Quant Time: Feb 19 09:47:23 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K28.D
Acq On : 19 Feb 2014 9:52
Instrument: HP5973K
Operator : EM
Sample : 1402032-08RE1
Misc : 20mL MH18
ALS Vial : 42
Multiplier: 1.94

Quant Time: Feb 19 10:46:40 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.438	49	789675	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	1900128	22.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.349	117	1611750	22.00	ppbv	0.00
Target Compounds						Qvalue
18) Dichloromethane	11.381	49	19436	0.55	ppbv	92
24) cis-1,2-Dichloroethene	14.903	61	76867	2.09	ppbv	92
28) Chloroform	15.596	83	173253	3.43	ppbv	95
37) Trichloroethene	17.860	130	185460	6.41	ppbv	97
47) Tetrachloroethene	20.926	166	164287	4.46	ppbv	98

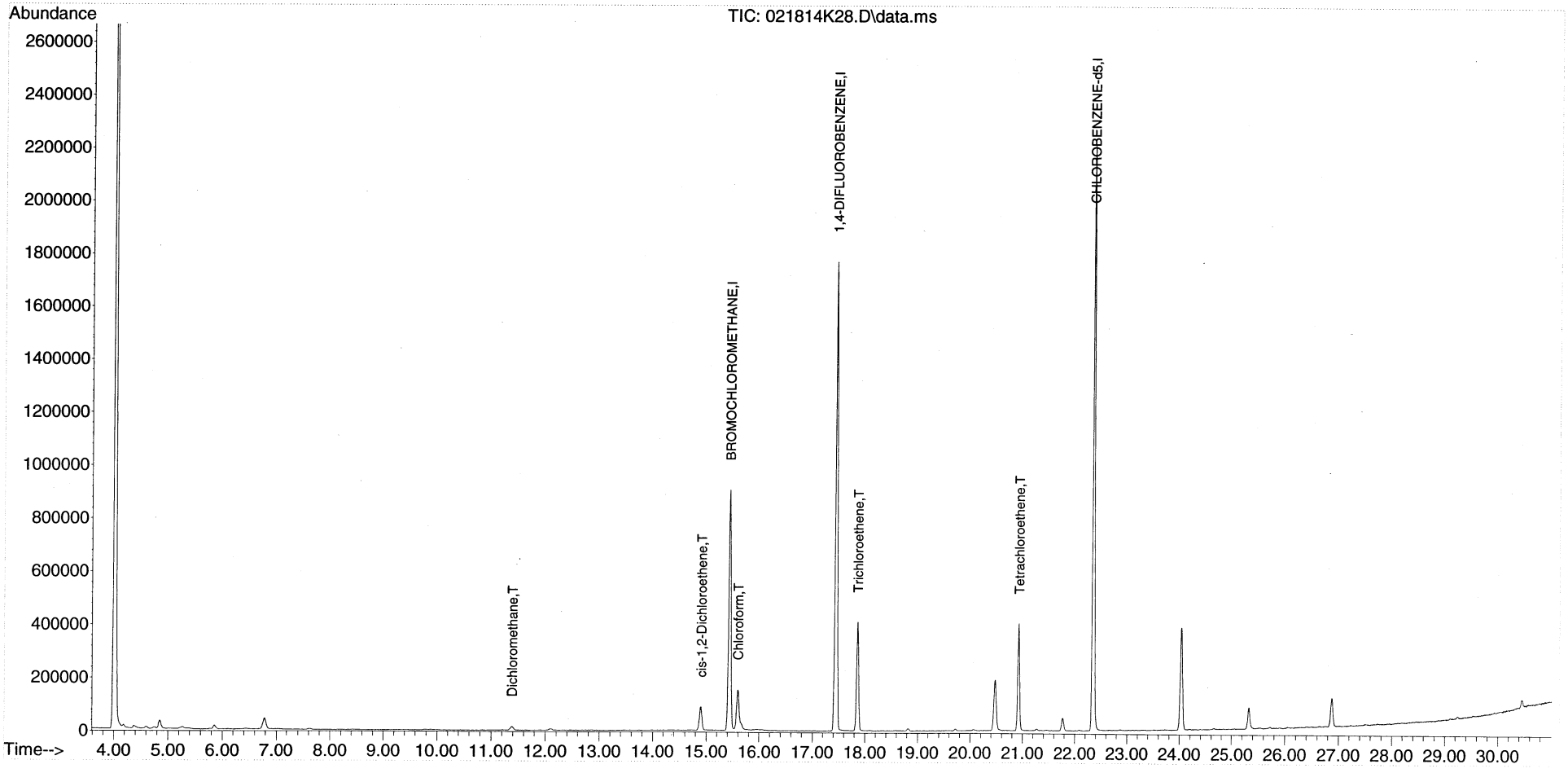
(#) = qualifier out of range (m) = manual integration (+) = signals summed

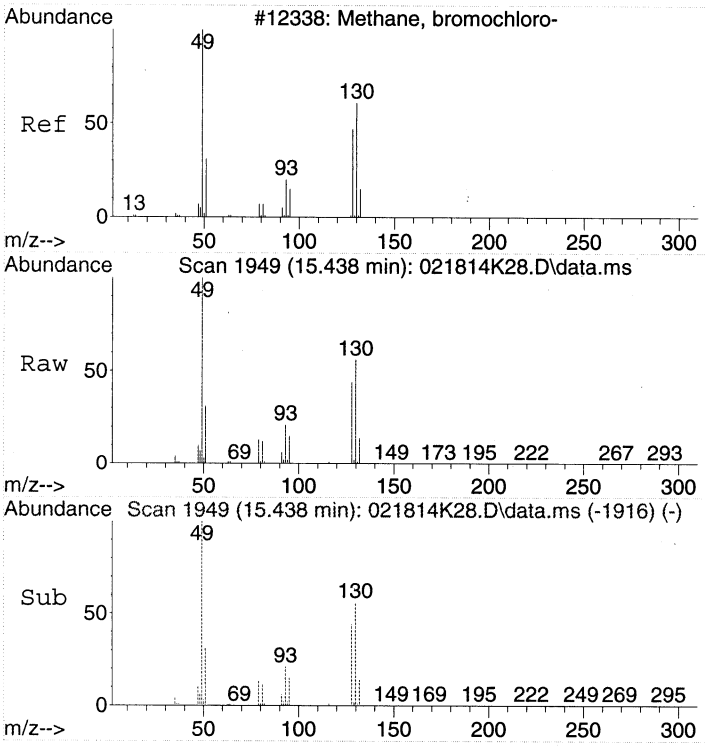
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K28.D
Acq On : 19 Feb 2014 9:52
Instrument: HP5973K
Operator : EM
Sample : 1402032-08RE1
Misc : 20mL MH18
ALS Vial : 42
Multiplier: 1.94

Quant Time: Feb 19 10:46:40 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

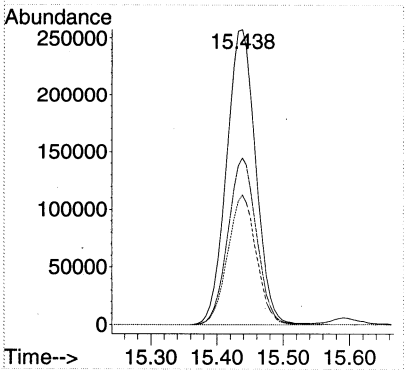


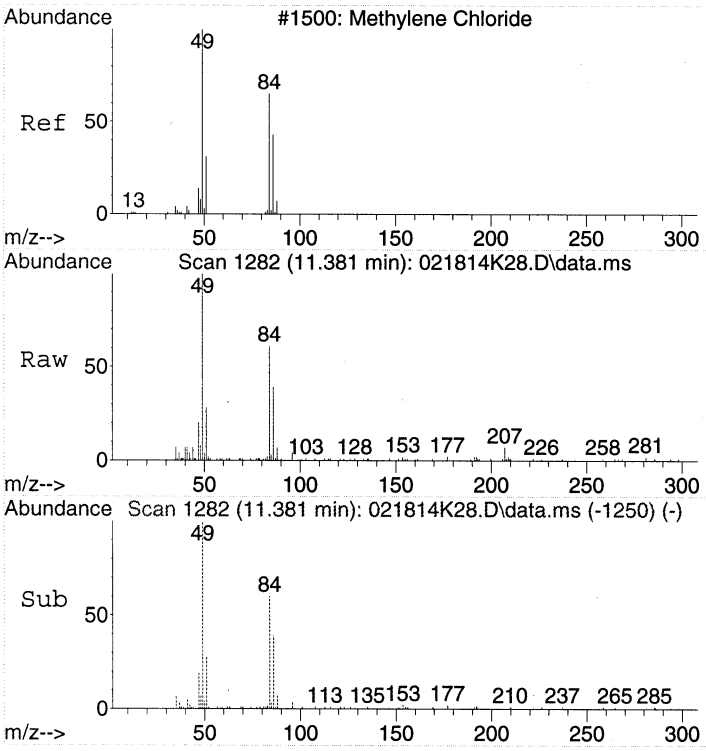


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 021814K28.D
Acq: 19 Feb 2014 9:52

Tgt Ion: 49 Resp: 789675

Ion	Ratio	Lower	Upper
49	100		
130	55.1	39.6	79.6
128	42.9	26.9	66.9

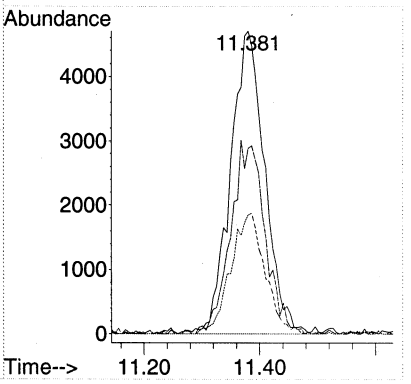


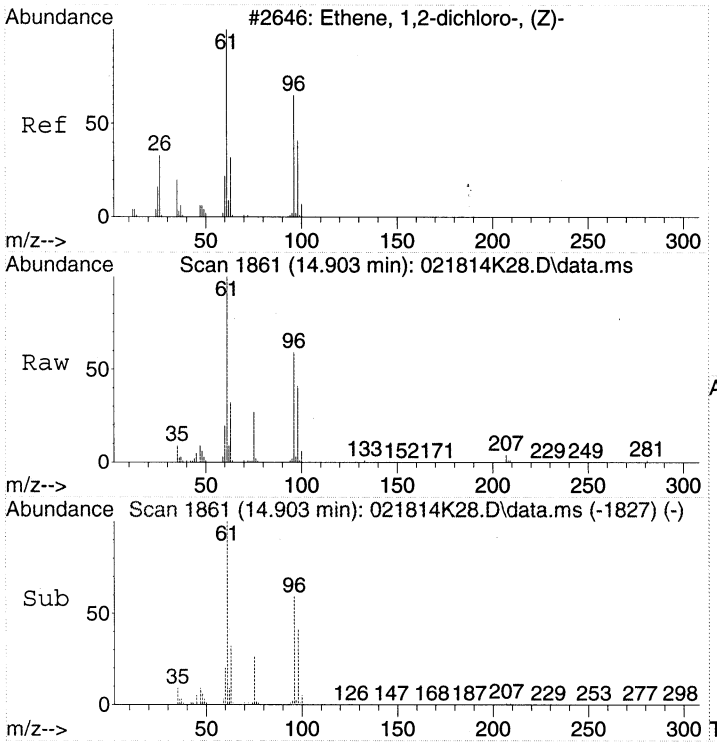


#18
Dichloromethane
Concen: 0.55 ppbv
RT: 11.381 min Scan# 1282
Delta R.T. -0.006 min
Lab File: 021814K28.D
Acq: 19 Feb 2014 9:52

Tgt Ion: 49 Resp: 19436

Ion	Ratio	Lower	Upper
49	100		
84	63.4	50.0	90.0
86	39.6	24.4	64.4

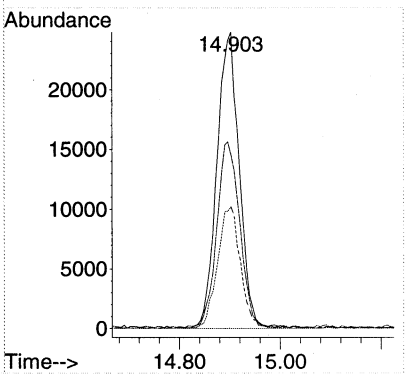


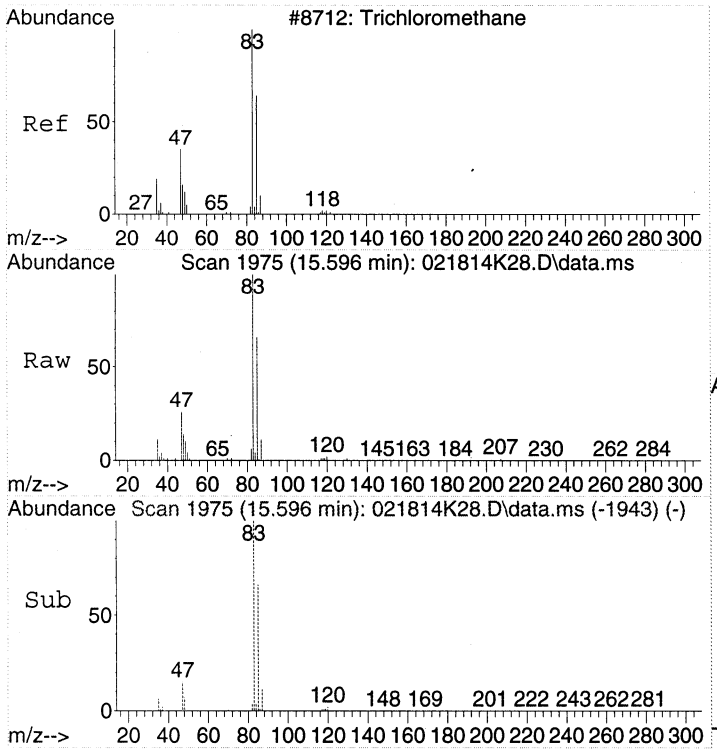


#24
cis-1,2-Dichloroethene
Concen: 2.09 ppbv
RT: 14.903 min Scan# 1861
Delta R.T. 0.006 min
Lab File: 021814K28.D
Acq: 19 Feb 2014 9:52

Tgt Ion: 61 Resp: 76867

Ion	Ratio	Lower	Upper
61	100		
96	64.3	51.7	91.7
98	41.9	25.4	65.4

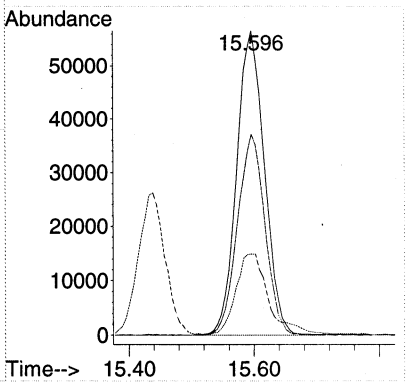


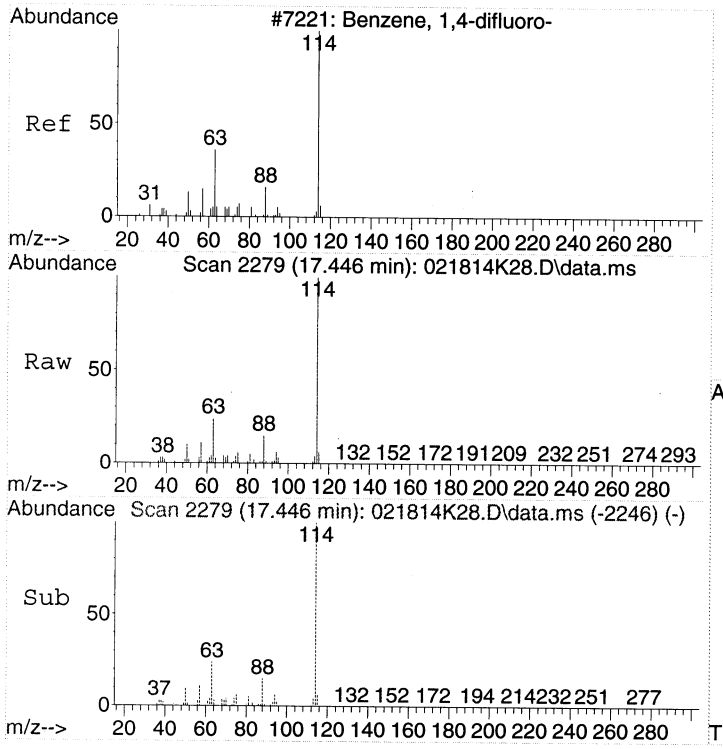


#28
Chloroform
Concen: 3.43 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 021814K28.D
Acq: 19 Feb 2014 9:52

Tgt Ion: 83 Resp: 173253

Ion	Ratio	Lower	Upper
83	100		
85	65.2	42.7	82.7
47	30.5	5.3	45.3

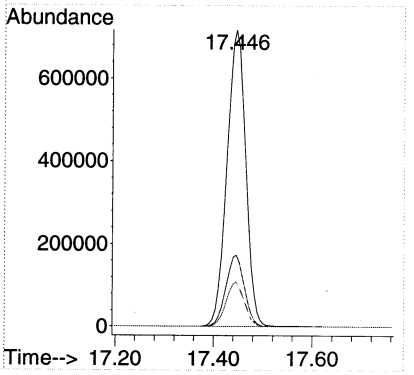


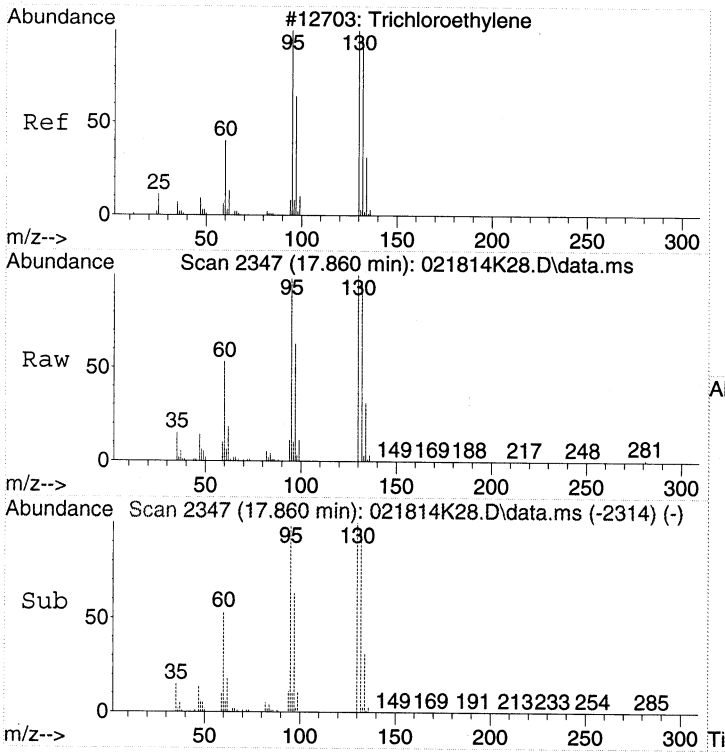


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 021814K28.D
Acq: 19 Feb 2014 9:52

Tgt Ion:114 Resp: 1900128

Ion	Ratio	Lower	Upper
114	100		
63	23.9	2.3	42.3
88	14.9	0.0	35.2

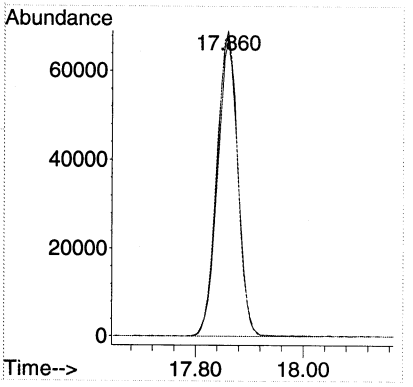


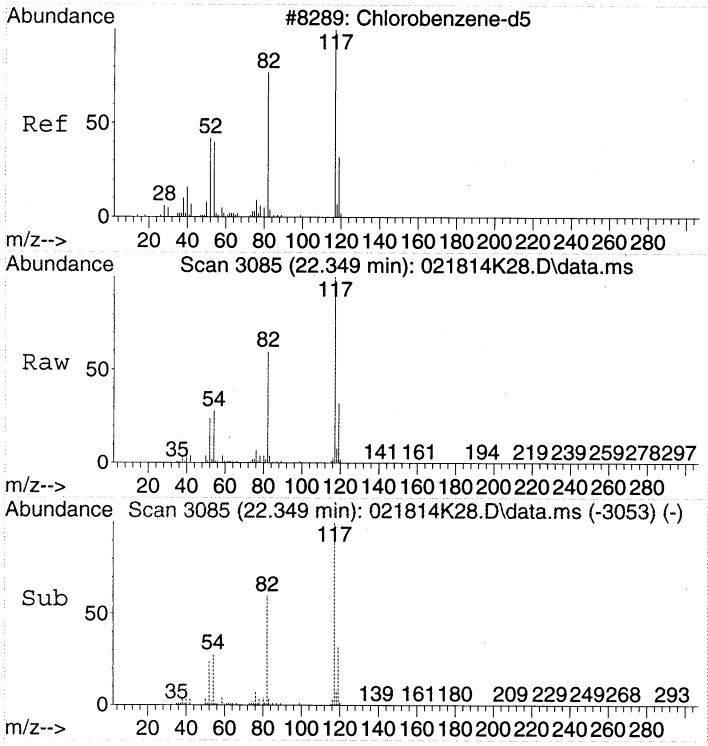


#37
Trichloroethene
Concen: 6.41 ppbv
RT: 17.860 min Scan# 2347
Delta R.T. -0.000 min
Lab File: 021814K28.D
Acq: 19 Feb 2014 9:52

Tgt Ion:130 Resp: 185460

Ion	Ratio	Lower	Upper
130	100		
132	94.8	78.9	118.9
95	100.6	82.3	122.3

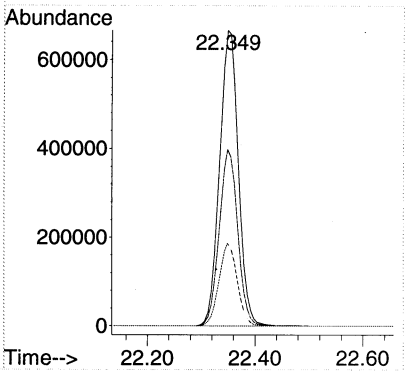


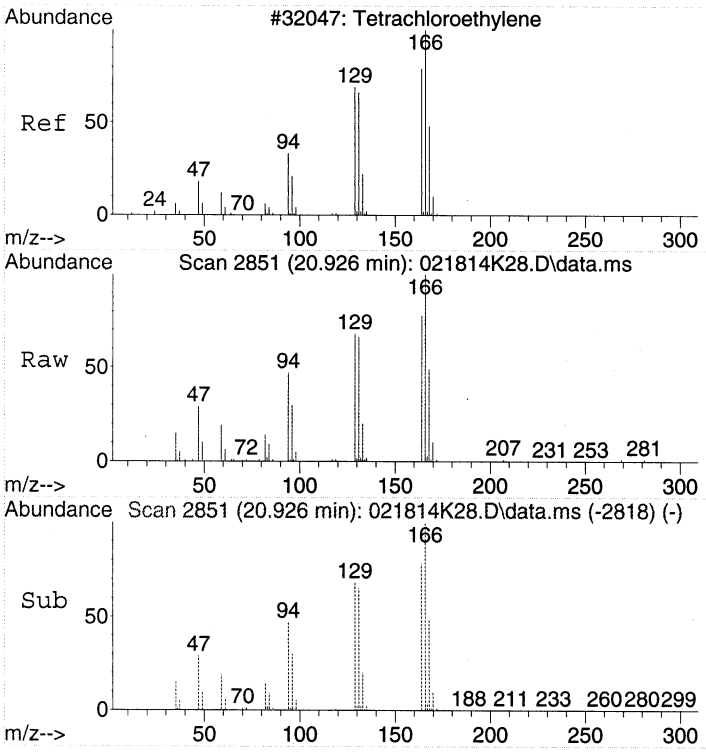


#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.349 min Scan# 3085
Delta R.T. -0.006 min
Lab File: 021814K28.D
Acq: 19 Feb 2014 9:52

Tgt Ion:117 Resp: 1611750

Ion	Ratio	Lower	Upper
117	100		
82	59.0	37.1	77.1
54	27.3	3.3	43.3

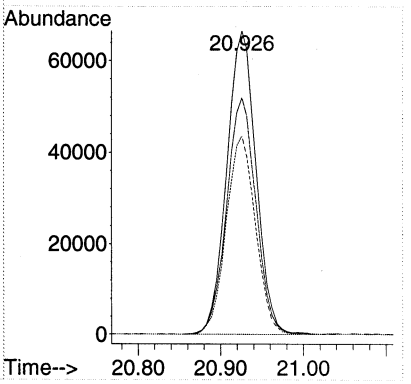




#47
Tetrachloroethene
Concen: 4.46 ppbv
RT: 20.926 min Scan# 2851
Delta R.T. -0.000 min
Lab File: 021814K28.D
Acq: 19 Feb 2014 9:52

Tgt Ion:166 Resp: 164287

Ion	Ratio	Lower	Upper
166	100		
164	78.1	59.4	99.4
131	65.9	44.3	84.3



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K29.D
Acq On : 19 Feb 2014 10:38
Instrument: HP5973K
Operator : EM
Sample : 1402032-01RE1
Misc : 50mL MH11
ALS Vial : 36
Multiplier: 1.89

Quant Time: Feb 19 11:10:33 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.438	49	797685	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.446	114	1930033	22.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.349	117	1631990	22.00	ppbv	0.00
Target Compounds						Qvalue
14) Acetone	9.884	43	23376	0.63	ppbv	96
18) Dichloromethane	11.387	49	20901	0.58	ppbv	92
24) cis-1,2-Dichloroethene	14.897	61	178770	4.82	ppbv	94
28) Chloroform	15.596	83	213706	4.19	ppbv	96
37) Trichloroethene	17.860	130	227949	7.76	ppbv	97
47) Tetrachloroethene	20.926	166	173740	4.66	ppbv	99

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

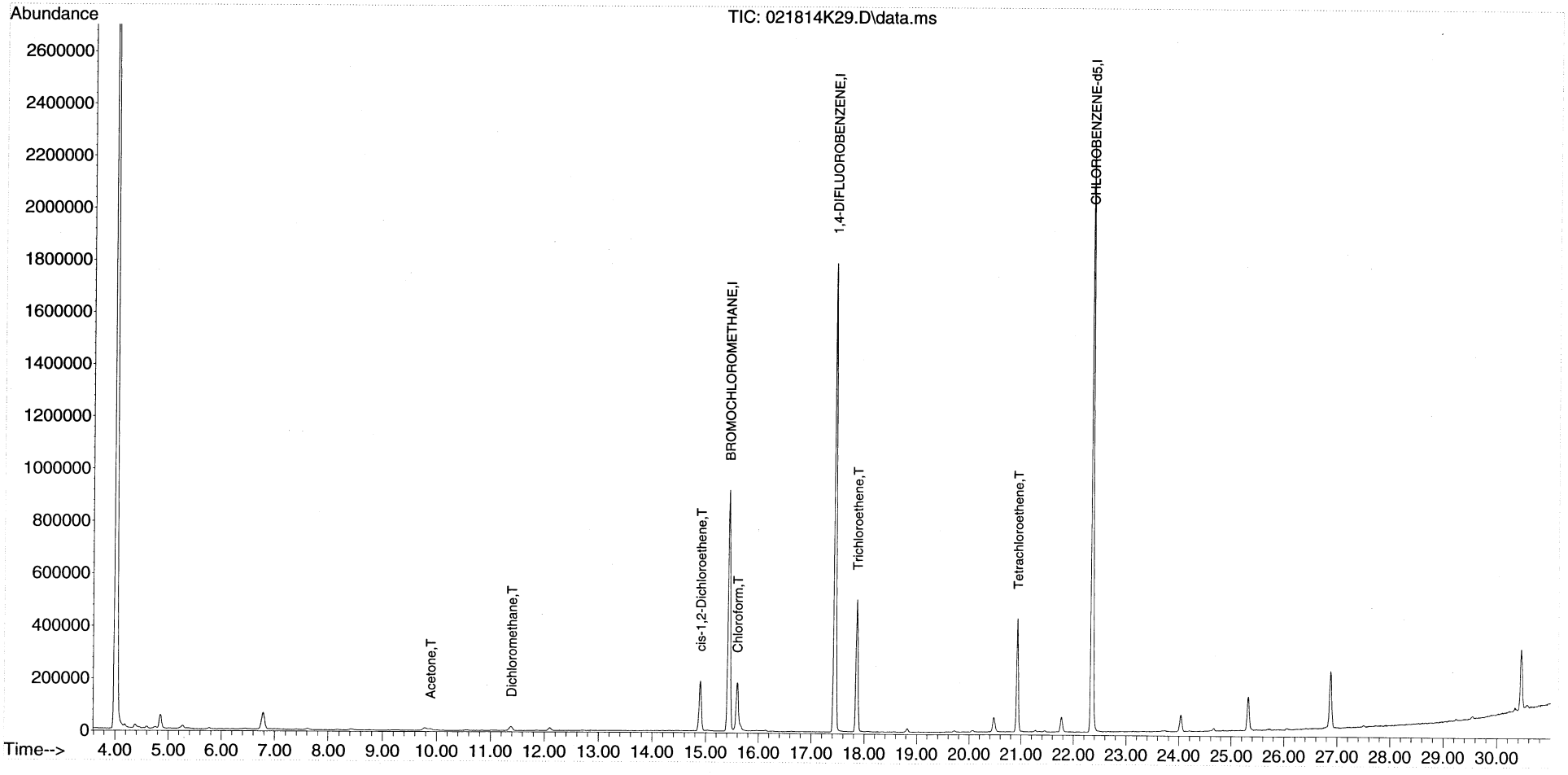
00313

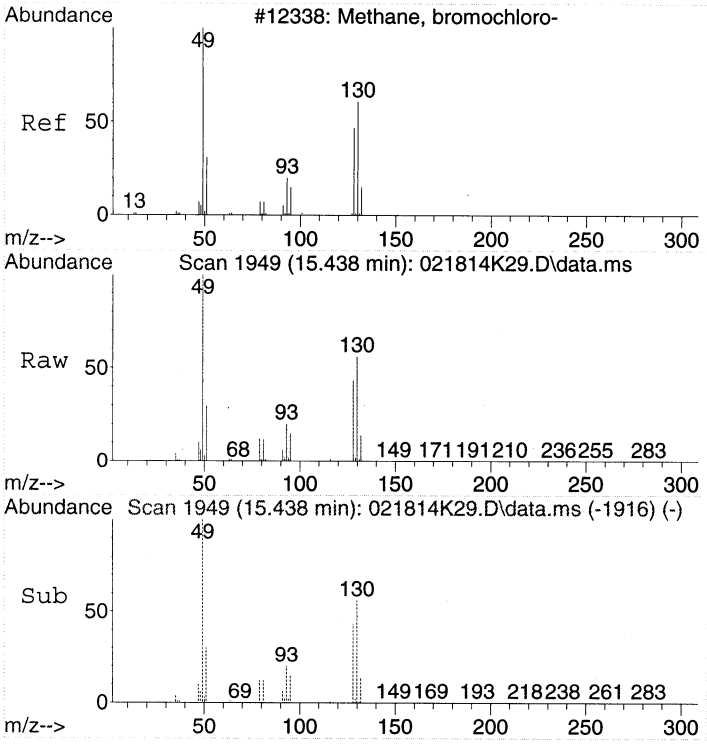
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2014\021814KA\
Data File : 021814K29.D
Acq On : 19 Feb 2014 10:38
Instrument: HP5973K
Operator : EM
Sample : 1402032-01RE1
Misc : 50mL MH11
ALS Vial : 36
Multiplier: 1.89

Quant Time: Feb 19 11:10:33 2014
Quant Title : TO15
QLast Update : Fri Jan 24 15:09:46 2014
Response via : Initial Calibration

DataAcq Meth:021814KAA.M
Quant Method : C:\msdchem\1\METHODS\2014\021814KAA.M

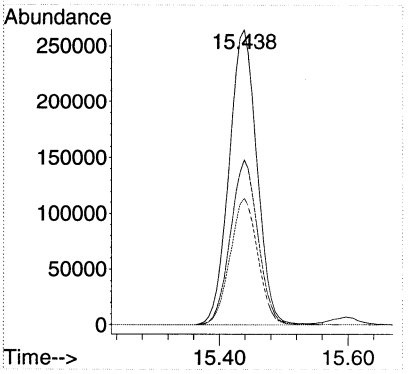


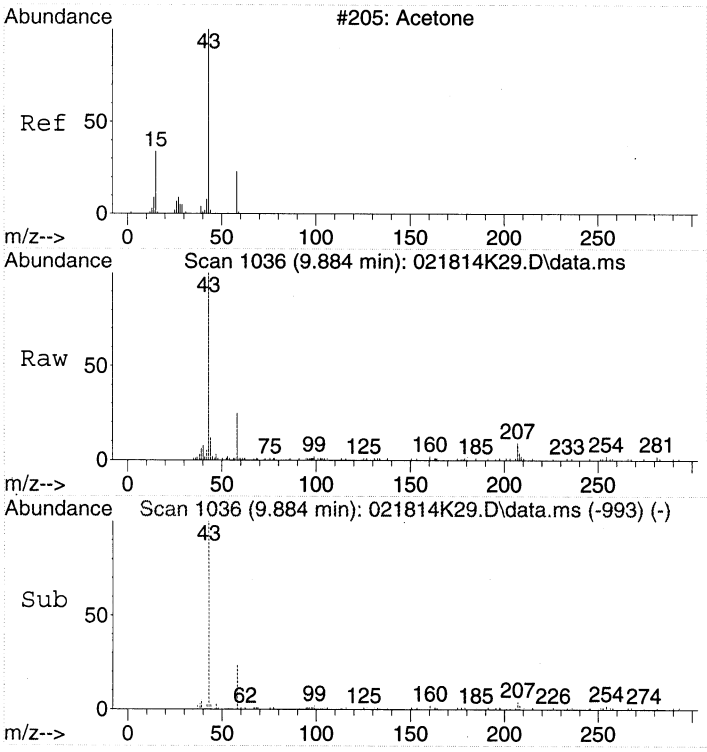


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.438 min Scan# 1949
Delta R.T. 0.000 min
Lab File: 021814K29.D
Acq: 19 Feb 2014 10:38

Tgt Ion: 49 Resp: 797685

Ion	Ratio	Lower	Upper
49	100		
130	55.3	39.6	79.6
128	42.9	26.9	66.9

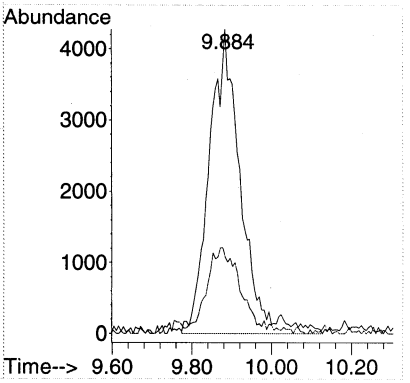


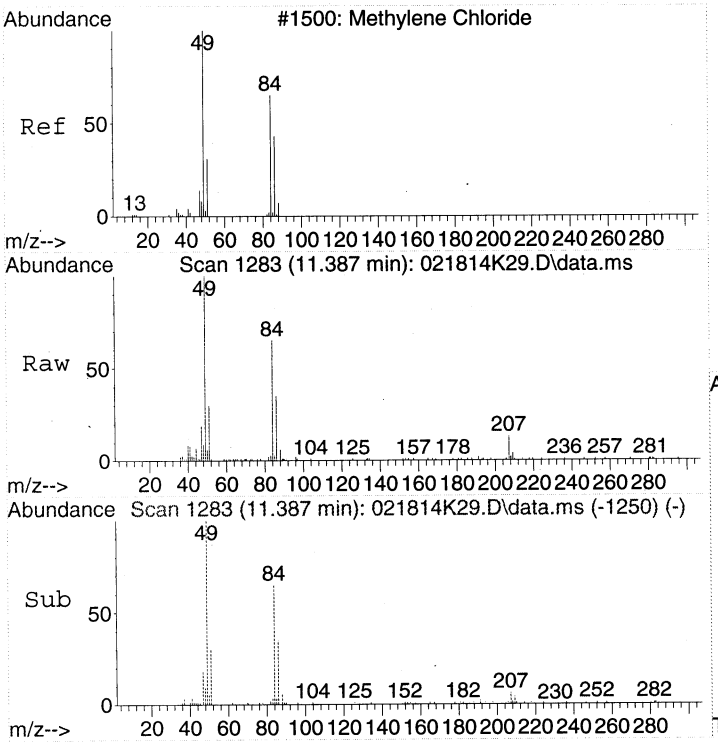


#14
Acetone
Concen: 0.63 ppbv
RT: 9.884 min Scan# 1036
Delta R.T. 0.061 min
Lab File: 021814K29.D
Acq: 19 Feb 2014 10:38

Tgt Ion: 43 Resp: 23376

Ion	Ratio	Lower	Upper
43	100		
58	30.2	12.5	52.5

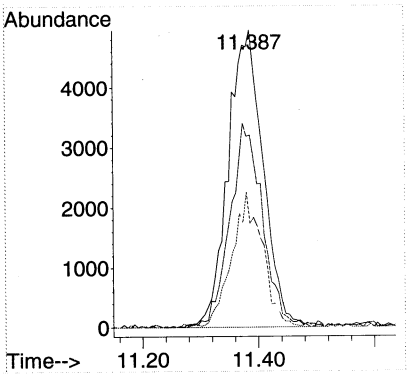


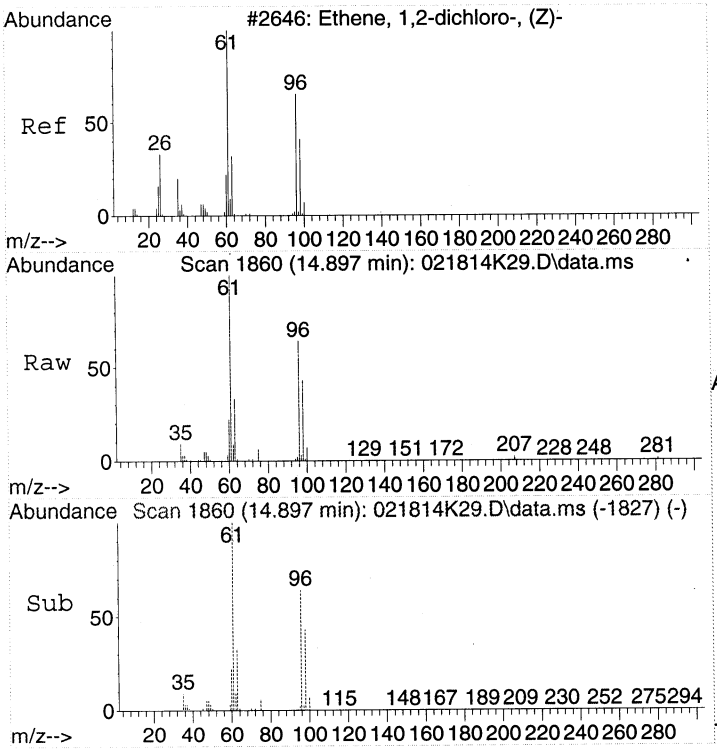


#18
Dichloromethane
Concen: 0.58 ppbv
RT: 11.387 min Scan# 1283
Delta R.T. -0.000 min
Lab File: 021814K29.D
Acq: 19 Feb 2014 10:38

Tgt Ion: 49 Resp: 20901

Ion	Ratio	Lower	Upper
49	100		
84	63.7	50.0	90.0
86	38.6	24.4	64.4

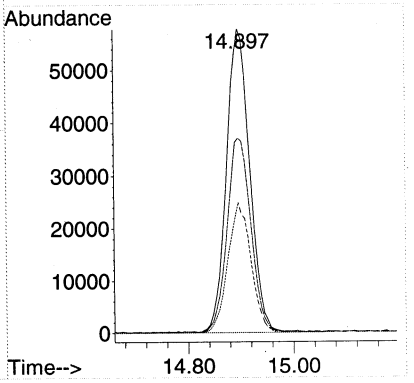


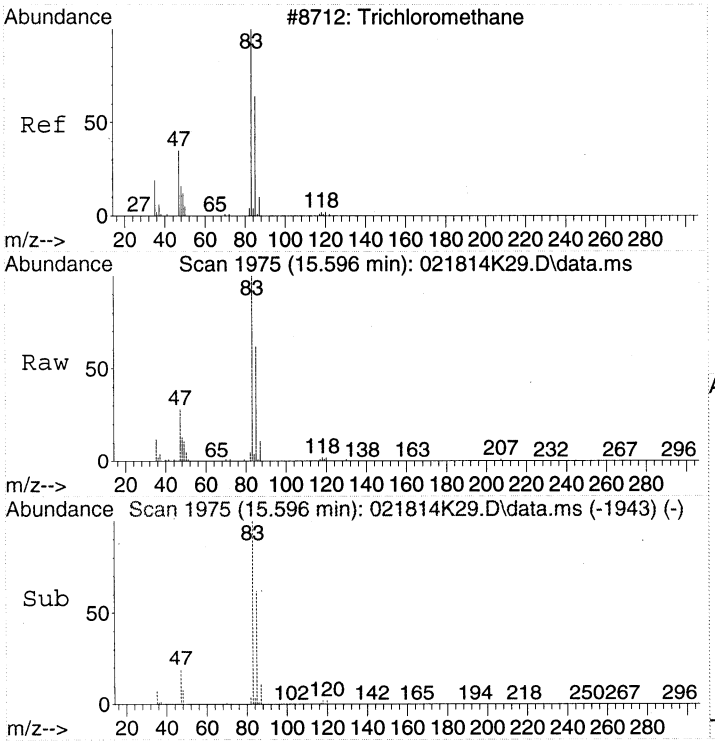


#24
cis-1,2-Dichloroethene
Concen: 4.82 ppbv
RT: 14.897 min Scan# 1860
Delta R.T. -0.000 min
Lab File: 021814K29.D
Acq: 19 Feb 2014 10:38

Tgt Ion: 61 Resp: 178770

Ion	Ratio	Lower	Upper
61	100		
96	65.6	51.7	91.7
98	42.7	25.4	65.4

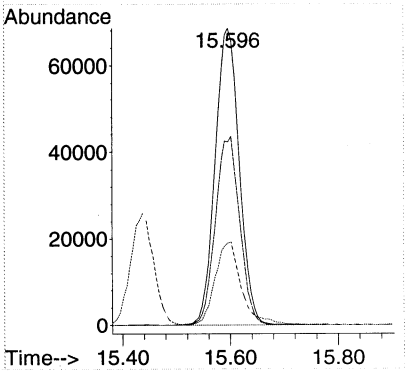


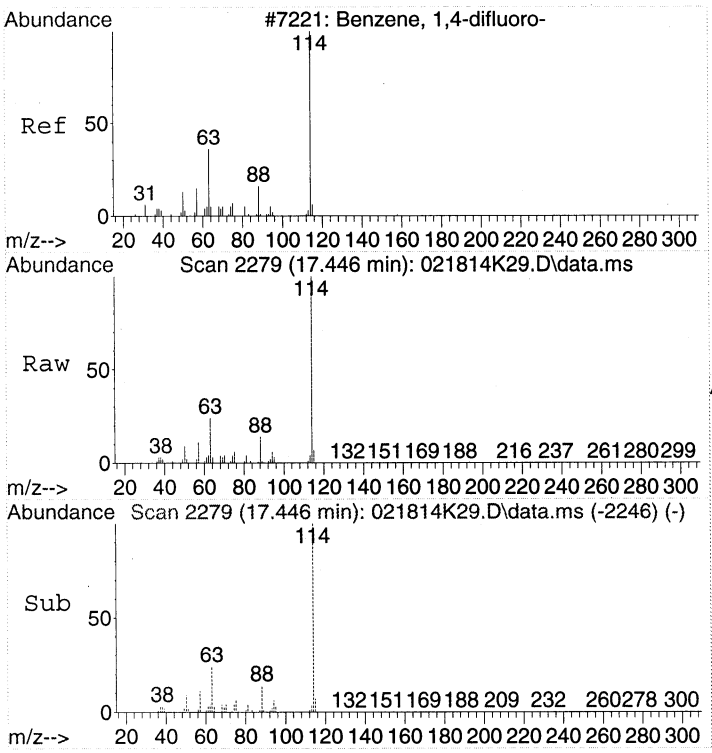


#28
Chloroform
Concen: 4.19 ppbv
RT: 15.596 min Scan# 1975
Delta R.T. -0.006 min
Lab File: 021814K29.D
Acq: 19 Feb 2014 10:38

Tgt Ion: 83 Resp: 213706

Ion	Ratio	Lower	Upper
83	100		
85	64.1	42.7	82.7
47	30.2	5.3	45.3

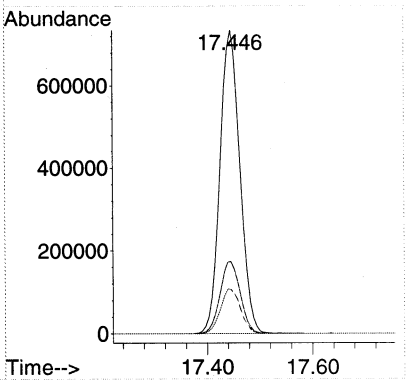


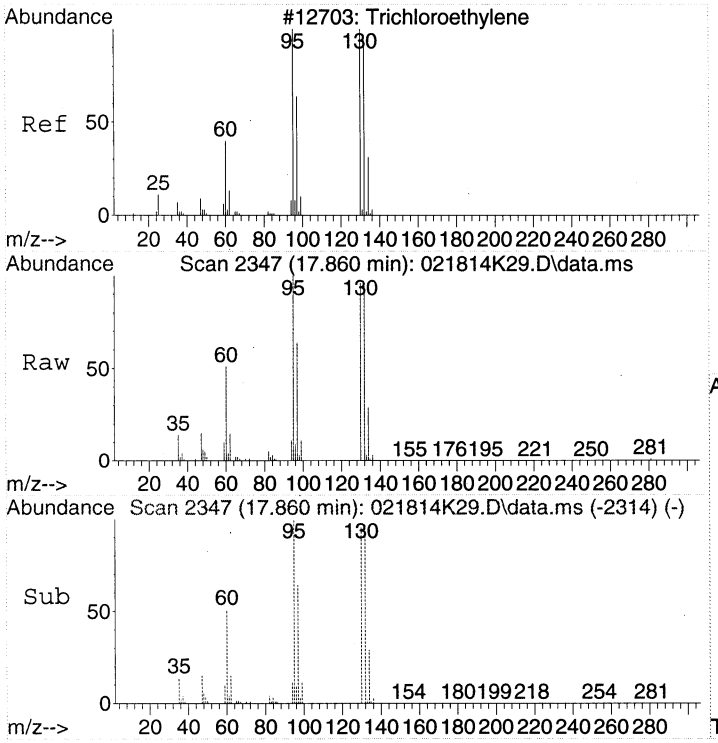


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.446 min Scan# 2279
Delta R.T. -0.000 min
Lab File: 021814K29.D
Acq: 19 Feb 2014 10:38

Tgt Ion:114 Resp: 1930033

Ion	Ratio	Lower	Upper
114	100		
63	24.0	2.3	42.3
88	14.9	0.0	35.2

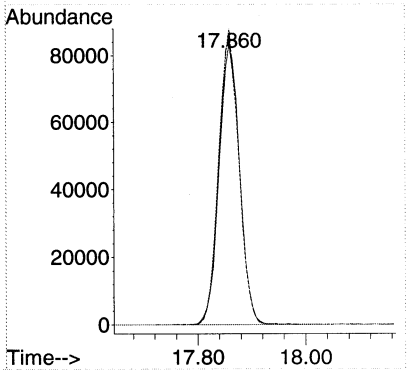


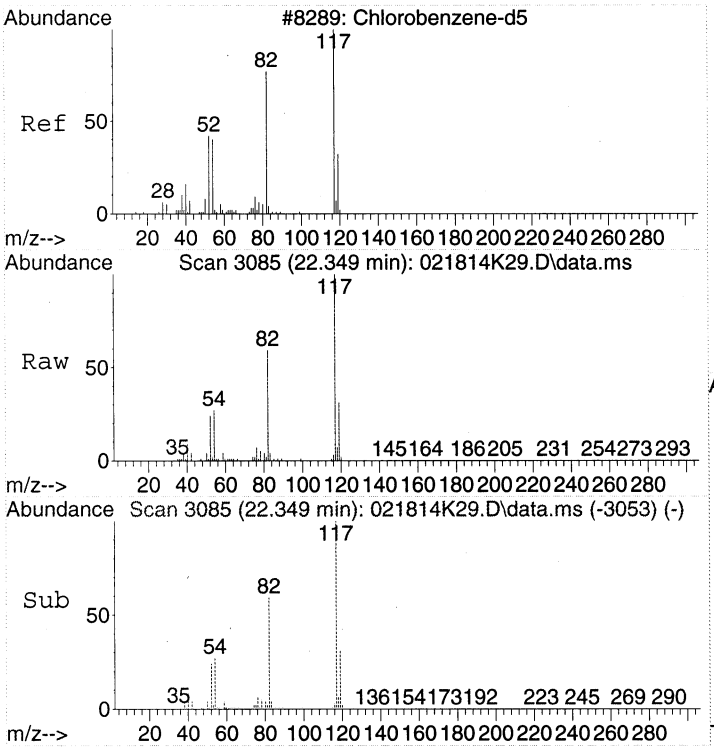


#37
Trichloroethene
Concen: 7.76 ppbv
RT: 17.860 min Scan# 2347
Delta R.T. -0.000 min
Lab File: 021814K29.D
Acq: 19 Feb 2014 10:38

Tgt Ion:130 Resp: 227949

Ion	Ratio	Lower	Upper
130	100		
132	95.5	78.9	118.9
95	99.6	82.3	122.3

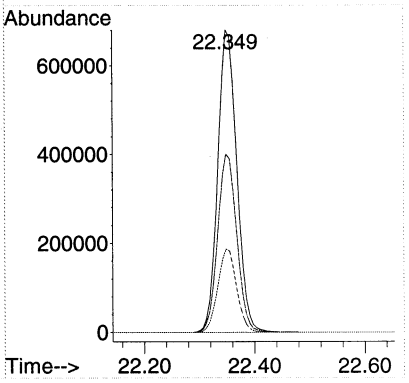


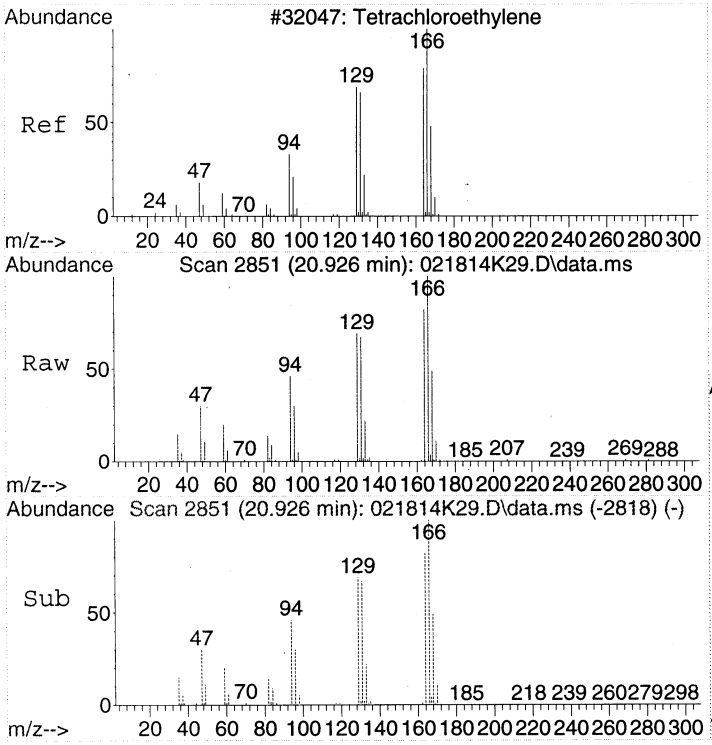


#43
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.349 min Scan# 3085
Delta R.T. -0.006 min
Lab File: 021814K29.D
Acq: 19 Feb 2014 10:38

Tgt Ion:117 Resp: 1631990

Ion	Ratio	Lower	Upper
117	100		
82	59.2	37.1	77.1
54	27.3	3.3	43.3

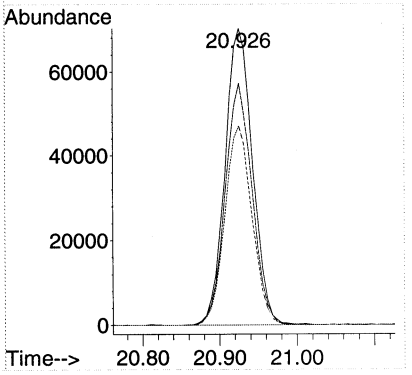




#47
Tetrachloroethene
Concen: 4.66 ppbv
RT: 20.926 min Scan# 2851
Delta R.T. -0.000 min
Lab File: 021814K29.D
Acq: 19 Feb 2014 10:38

Tgt Ion:166 Resp: 173740

Ion	Ratio	Lower	Upper
166	100		
164	79.6	59.4	99.4
131	66.6	44.3	84.3



CANISTER

CERTIFICATION

DATA

EPA Region 9 Laboratory
Canister Certification Status

Canister	Type	Status	Cert. Date	Cert. File
1555E	1L	Certified Clean	9/5/2013	090513K20.d
1578E	1L	Certified Clean	10/8/2013	100813M19.D
1579E	1L	Certified Clean	11/8/2013	110813M10.D
1582E	1L	Certified Clean	11/8/2013	110813M11.D
1584E	1L	Certified Clean	10/8/2013	100813M06.D
1587E	1L	Certified Clean	9/5/2013	090513K21.d
7244	1L	Certified Clean	10/9/2013	100913M13.D
7338	1L	Certified Clean	10/9/2013	100913M14.D
7339	1L	Certified Clean	10/9/2013	100913M15.D
7354	1L	Certified Clean	10/9/2013	100913M16.D
7456	1L	Certified Clean	10/9/2013	100913M17.D
7465	1L	Certified Clean	10/9/2013	100913M18.D

Organics Daily Folder Preparation/Technical Review Guide

Analysis Method	TO-15	**Analyst Initial**	EM	**Reviewer Initial**	SL	**Batch/ Sequence**	B131025 S13F019
Instrument ID	HR5973K	**Date Analyzed**	9/5/13	**Date**	9/17/13	**Chemstation Last Update**	8/28/13 11:07:04
Cases	R13588			**SDGs**	13233A , 13233B, BLK CERTIFICATION		

Review each item listed below. As problems are discovered list them in the non-conformance section of the form and provide and explanation in the discussion part of the table.

NA	A	PR	Item Description
	✓	✓	Runlog (Present, legible, peer reviewed)
	✓	✓	Tune/ Degradation Standard
	✓	✓	Initial Calibration (SOP criteria for number of levels, concentration, and %RSD). Manual calculation. Include summary for daily review.
	✓	✓	Continuing Calibration Verification (frequency, recovery, and %D). Manual calculation.
	✓	✓	QLS (level, frequency, and recovery) (include Chemstation summary)
	✓	✓	Method / Extraction / Storage Blanks (frequency and contamination levels)
✓			Surrogate Recoveries
	✓	✓	IS Areas (SOP criteria met)
	✓	✓	LCS (level, frequency, and recovery) (include Chemstation summary)
✓			MS/MSD
	✓	✓	Samples (within calibration range, results calculated correctly)
	✓	✓	Manual Integration Verified
✓			Standard Prep Log (all pages present, legible, peer reviewed, legible)
✓			Sample Prep/Extraction (all pages present, legible, peer reviewed)
			Others:

NA = not applicable A = Analyst check PR = Peer Review Check

Non-conformance Report

QC	File ID	Result	QC Limit	High Bias	Low Bias	Flag ND	Flag Hits	Discussion
CCV	090513K02	35.1	±30.0%		✓	✓	✓	Hexachlorbutadiene

ANALYSIS SEQUENCE

S13I019

strument: HP5973K

ılibration ID: 1308013

Printed: 9/12/2013 3:56:20PM

.b Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
3I019-TUN1	QC		1		1305020			
3I019-CCV1	QC		2		1335072			
13I025-BS1	QC		3					
3I019-CRL1	QC		4		1335069			
13I025-BLK1	QC		5			1328060		
508031-06RE1	VOCs, Soil Gas	A	6			1328060	California Site Cleanup Section 1	Full list
508031-09RE1	VOCs, Soil Gas	A	7			1328060	California Site Cleanup Section 1	Full list
508031-10RE2	VOCs, Soil Gas	A	8			1328060	California Site Cleanup Section 1	Full list
508030-02RE2	VOCs, Soil Gas	A	9			1328060	California Site Cleanup Section 1	Full list
508030-05RE2	VOCs, Soil Gas	A	10			1328060	California Site Cleanup Section 1	Full list
508030-06RE2	VOCs, Soil Gas	A	11			1328060	California Site Cleanup Section 1	Full list

[illegible] 9/5/13

amples Loaded By Date

[illegible] 9/5/13

Data Processed By Date

----------SEQUENCE TABLE ----------

Sequence Name: C:\Smart\2013\090513KAA.SEQ
Date: 09-06-2013
Time: 10:16:06
Int. Std Volume: 40 cc

Sample Name	Inlet #	Auto Pos	Samp Vol.	Cal Std Vol.	Method	Time
BFB 13305020	3	2	100	40	C:\Smart\TO15.CTD	12:00
10ppbv 1335007	3	2	100	40	C:\Smart\TO15.CTD	12:00
10ppbv 1335007	3	2	100	0	C:\Smart\TO15.CTD	12:00
1.0ppbv 1335007	3	2	10	0	C:\Smart\TO15.CTD	12:00
Blank Can 636	3	5	200	0	C:\Smart\TO15.CTD	12:00
1308031-06RE2	3	6	20	0	C:\Smart\TO15.CTD	12:00
IBL	3	7	200	0	C:\Smart\TO15.CTD	12:00
1308031-09RE2	3	8	20	0	C:\Smart\TO15.CTD	12:00
IBL	3	9	200	0	C:\Smart\TO15.CTD	12:00
1308031-10RE2	3	10	20	0	C:\Smart\TO15.CTD	12:00
IBL	3	11	200	0	C:\Smart\TO15.CTD	12:00
1308030-02RE2	3	12	20	0	C:\Smart\TO15.CTD	12:00
IBL	4	1	200	0	C:\Smart\TO15.CTD	12:00
1308030-05RE2	4	2	20	0	C:\Smart\TO15.CTD	12:00
IBL	4	3	200	0	C:\Smart\TO15.CTD	12:00
1308030-06RE2	4	4	20	0	C:\Smart\TO15.CTD	12:00
IBL	4	5	200	0	C:\Smart\TO15.CTD	12:00
Blank Can 658	4	6	200	0	C:\Smart\TO15.CTD	12:00
Blank Can 670	4	7	200	0	C:\Smart\TO15.CTD	12:00
Blank Can 1555E	4	8	200	0	C:\Smart\TO15.CTD	12:00
Blank Can 1587E	4	9	200	0	C:\Smart\TO15.CTD	12:00
Blank Can 860	3	3	200	0	C:\Smart\TO15.CTD	12:00
Blank Can 862	3	4	200	0	C:\Smart\TO15.CTD	12:00
Blank Can 863	3	5	200	0	C:\Smart\TO15.CTD	12:00

Injection Log

Directory: C:\msdchem\1\DATA\2013\090513KA

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	32	090513K01.D	1.	S13I019-TUN1	BFB 1305020/IS 1328060/10ppbv STD	5 Sep 2013 14:05
2	32	090513K02.D	1.	S13I019-CCV1	10 ppbv 1335007	5 Sep 2013 14:55
3	32	090513K03.D	1.	B13I025-BS1	10 ppbv 1335007	5 Sep 2013 15:44
4	32	090513K04.D	1.	S13I019-CRL1	1.0 ppbv 1335007	5 Sep 2013 16:31
5	35	090513K05.D	1.	B13I025-BLK1	Blank Can 636	5 Sep 2013 17:22
6	36	090513K06.D	2.94	1308031-06RE1	20mL 13-EPASV-SB41-5-01-26 can 1994	5 Sep 2013 18:09
7	37	090513K07.D	1.	IBL	BLANK	5 Sep 2013 19:00
8	38	090513K08.D	2.82	1308031-09RE1	20mL 13-EPASV-SB37-5-01-29 can 1988	5 Sep 2013 19:47
9	39	090513K09.D	1.	IBL	BLANK	5 Sep 2013 20:38
10	10	090513K10.D	5.85	1308031-10RE2	20mL 13-EPASV-SB37-20-01-30 can 877	5 Sep 2013 21:25
11	11	090513K11.D	1.	IBL	BLANK	5 Sep 2013 22:20
12	12	090513K12.D	5.59	1308030-02RE2	20mL 13-EPASV-DRCVP6-05-01-002 can 1975	5 Sep 2013 23:07
13	41	090513K13.D	1.	IBL	BLANK	5 Sep 2013 23:58
14	42	090513K14.D	5.87	1308030-05RE2	20mL 13-EPASV-DRCVP9-05-01-005 can 865	6 Sep 2013 00:45
15	43	090513K15.D	1.	IBL	BLANK	6 Sep 2013 01:35
16	44	090513K16.D	5.55	1308030-06RE2	20mL 13-EPASV-DRCVP11-05-01-006 can 632	6 Sep 2013 02:22
17	45	090513K17.D	1.	IBL	BLANK	6 Sep 2013 03:13
18	46	090513K18.D	1.	BLANK CAN 658	BLANK CAN 658	6 Sep 2013 04:04
19	47	090513K19.D	1.	BLANK CAN 670	BLANK CAN 670	6 Sep 2013 04:55
20	48	090513K20.D	1.	BLANK CAN 1555E	BLANK CAN 1555E	6 Sep 2013 05:45
21	49	090513K21.D	1.	BLANK CAN 1587E	BLANK CAN 1587E	6 Sep 2013 06:36
22	33	090513K22.D	1.	BLANK CAN 860	BLANK CAN 860	6 Sep 2013 07:27
23	34	090513K23.D	1.	BLANK CAN 862 NU - Bake & KK	BLANK CAN 862	6 Sep 2013 08:18
24	35	090513K24.D	1.	BLANK CAN 863	BLANK CAN 863	6 Sep 2013 09:09

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\2013\090513KA\090513K01.D
Tune Time : 5 Sep 2013 14:05

Daily Calibration File : C:\msdchem\1\DATA\2013\090513KA\090513K02.D

File	Sample	Surrogate Recovery %	Internal Standard Responses		
			869468	2633940	2481720
090513K02.D	S13I019-CCV1	869468	2633942	2481718	
090513K03.D	B13I025-BS1	854217	2587847	2446959	
090513K04.D	S13I019-CRL1	829472	2446344	2263408	
090513K05.D	B13I025-BLK1	791936	2411800	2310686	
090513K06.D	1308031-06RE2	773701	2319162	2179614	
090513K07.D	IBL	745577	2168470	2022393	
090513K08.D	1308031-09RE2	733326	2150458	2035255	
090513K09.D	IBL	714893	2035368	1921375	
090513K10.D	1308031-10RE2	725500	2160878	2001076	
090513K11.D	IBL	712839	2068828	1943478	
090513K12.D	1308030-02RE2	698628	2017031	1898606	
090513K13.D	IBL	685891	1926479	1815493	
090513K14.D	1308030-05RE2	693677	1974595	1851194	
090513K15.D	IBL	696486	2048936	1945273	
090513K16.D	1308030-06RE2	672985	1926598	1823080	
090513K17.D	IBL	687467	1975158	1852362	
090513K18.D	BLANK CAN 658	651847	1812675	1738633	
090513K19.D	BLANK CAN 670	672038	1904754	1785571	
090513K20.D					

090513K21.D

BLANK CAN 1587E	656382	1813949	1682573

090513K22.D

BLANK CAN 860	649546	1847976	1722787

090513K23.D

BLANK CAN 862	646835	1834870	1721971

090513K24.D

BLANK CAN 863	658989	1885946	1744925

(fails) - fails 24hr time check * - fails criteria

Created: Fri Sep 06 10:35:10 2013 HP5973K

Response Factor Report HP5973K

Method Path : C:\msdchem\1\METHODS\2013\
Method File : 090513KAA.M
Title : TO15
Last Update : Wed Aug 28 11:07:04 2013
Response Via : Initial Calibration

Calibration Files
1 =082713K08.D 2 =082713K09.D 5 =082713K10.D 10 =082713K11.D 15 =082713K12.D
20 =082713K13.D

		Compound	1	2	5	10	15	20	Avg	%RSD
1)	I	BROMOCHLOROMETHANE	ISTD							
2)	T	Propene	0.725	0.574	0.466	0.573	0.551	0.568	0.576	14.49
3)	T	Dichlorodifluo...	2.702	2.137	1.778	2.387	2.239	2.272	2.253	13.44
4)	T	1,2-Dichlorote...	2.687	2.257	1.876	2.470	2.448	2.556	2.382	11.98
5)	T	Chloromethane	0.827	0.650	0.518	0.679	0.688	0.693	0.676	14.62
6)	T	Vinyl chloride	0.873	0.743	0.630	0.810	0.804	0.796	0.776	10.69
7)	T	1,3-Butadiene	0.712	0.581	0.510	0.619	0.611	0.625	0.610	10.75
8)	T	Bromomethane	0.939	0.779	0.645	0.827	0.809	0.813	0.802	11.81
9)	T	Chloroethane	0.487	0.404	0.334	0.425	0.416	0.420	0.414	11.87
10)	T	Bromoethene	0.809	0.705	0.591	0.732	0.706	0.709	0.708	9.86
11)	T	Trichlorofluor...	2.428	1.987	1.681	2.208	2.101	2.146	2.092	11.88
12)	T	1,1,2-Trichlor...	1.570	1.303	1.100	1.411	1.332	1.351	1.345	11.37
13)	T	1,1-Dichloroet...	1.143	0.958	0.816	1.140	1.148	1.152	1.059	13.32
14)	T	Acetone	1.043	0.947	0.799	1.034	1.032	1.034	0.982	9.79
15)	T	Carbon disulfide	2.330	1.881	1.494	1.820	1.740	1.746	1.835	15.03
16)	T	2-Propanol	0.822	0.756	0.659	0.923	0.960	0.970	0.848	14.74
17)	T	Allyl chloride	0.769	0.660	0.598	0.787	0.809	0.817	0.740	12.15
18)	T	Dichloromethane	1.067	0.836	0.672	0.859	0.839	0.833	0.851	14.80
19)	T	tert-Butyl met...	1.699	1.515	1.343	1.797	1.813	1.878	1.674	12.28
20)	T	trans-1,2-Dich...	0.991	0.898	0.760	0.970	0.960	0.966	0.924	9.34
21)	T	Hexane	1.020	0.893	0.818	1.069	1.072	1.103	0.996	11.48
22)	T	1,1-Dichloroet...	1.486	1.225	1.019	1.335	1.336	1.358	1.293	12.21
23)	T	Vinyl acetate	1.252	1.140	1.093	1.602	1.645	1.662	1.399	19.00
24)	T	cis-1,2-Dichlo...	0.938	0.800	0.677	1.008	1.005	1.022	0.908	15.42
25)	T	2-Butanone (MEK)	1.558	1.109	0.976	1.359	1.404	1.417	1.304	16.66
26)	T	Ethyl acetate	1.387	1.495	1.328	1.572	1.460	1.596	1.473	7.06
27)	T	Tetrahydrofuran	0.865	0.764	0.672	0.813	0.827	0.829	0.795	8.60
28)	T	Chloroform	1.850	1.453	1.212	1.652	1.614	1.653	1.572	13.80
29)	T	Cyclohexane	1.088	0.966	0.872	1.093	1.105	1.131	1.043	9.71
30)	T	1,1,1-Trichlor...	1.893	1.565	1.304	1.825	1.800	1.849	1.706	13.37
31)	T	Carbon tetrach...	2.020	1.652	1.423	1.989	1.964	2.018	1.844	13.52
32)	I	1,4-DIFLUOROBENZENE	ISTD							
33)	T	Benzene	0.744	0.624	0.508	0.723	0.727	0.724	0.675	13.68
34)	T	2,2,4-Trimethy...	0.989	0.872	0.795	1.003	1.022	1.035	0.953	10.14
35)	T	1,2-Dichloroet...	0.346	0.296	0.249	0.320	0.332	0.327	0.311	11.22
36)	T	Heptane	0.329	0.332	0.297	0.357	0.376	0.372	0.344	8.78
37)	T	Trichloroethene	0.364	0.290	0.250	0.340	0.347	0.361	0.325	13.98
38)	T	1,2-Dichloropr...	0.259	0.236	0.190	0.262	0.264	0.267	0.246	12.13
39)	T	2,3-dichloro-1...	0.429	0.387	0.367	0.362	0.374	0.382	0.384	6.33
40)	T	1,4-Dioxane	0.149	0.135	0.122	0.149	0.151	0.150	0.143	8.25
41)	T	Bromodichlorom...	0.561	0.491	0.416	0.517	0.529	0.534	0.508	9.98
42)	T	cis-1,3-Dichlo...	0.367	0.320	0.281	0.382	0.399	0.403	0.359	13.48
43)	T	4-Methyl-2-pen...	0.504	0.463	0.410	0.496	0.514	0.504	0.482	8.16
44)	I	CHLOROBENZENE-d5	ISTD							
45)	T	Toluene	0.961	0.830	0.720	1.000	1.019	1.026	0.926	13.39
46)	T	trans-1,3-Dich...	0.415	0.349	0.303	0.426	0.446	0.454	0.399	15.01
47)	T	1,1,2-Trichlor...	0.364	0.301	0.261	0.340	0.352	0.352	0.328	12.00
48)	T	Tetrachloroethene	0.622	0.515	0.431	0.573	0.602	0.621	0.561	13.42
49)	T	1,3-Dichloropr...	0.563	0.505	0.464	0.459	0.471	0.470	0.489	8.14
50)	T	2-Hexanone	0.518	0.475	0.435	0.532	0.552	0.544	0.509	8.97
51)	T	Chlorodibromom...	0.724	0.619	0.541	0.659	0.695	0.718	0.659	10.65
52)	T	1,2-Dibromoeth...	0.573	0.471	0.401	0.541	0.568	0.577	0.522	13.66
53)	T	Chlorobenzene	0.947	0.798	0.675	0.856	0.871	0.867	0.835	11.00
54)	T	Ethylbenzene	1.345	1.191	1.028	1.305	1.342	1.383	1.266	10.58
55)	T	m&p-Xylene	1.049	0.926	0.840	1.077	1.140	1.203	1.039	13.01
56)	T	o-Xylene	1.056	0.936	0.831	1.091	1.128	1.185	1.038	12.63

00827

Method Path : C:\msdchem\1\METHODS\2013\
Method File : 090513KAA.M
Title : TO15

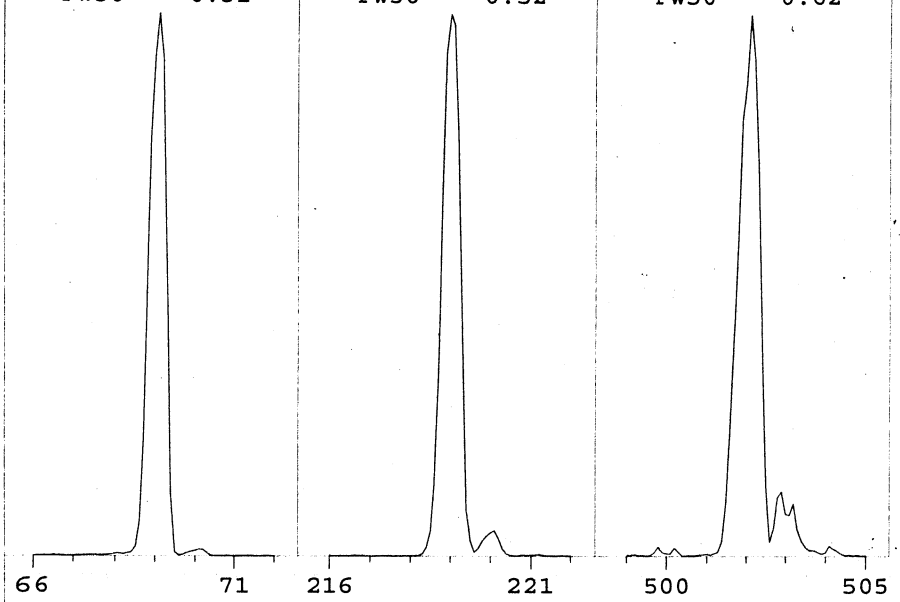
57)	T	Styrene	0.908	0.790	0.737	0.937	0.995	1.034	0.900	12.88
58)	T	Bromoform	0.785	0.670	0.618	0.833	0.884	0.939	0.788	15.76
59)	T	1,1,2,2-Tetrac...	0.927	0.776	0.676	0.832	0.871	0.897	0.830	11.03
60)	T	1,2,3-Trichlor...	0.816	0.693	0.614	0.614	0.636	0.648	0.670	11.51
61)	T	4-Ethyltoluene	1.546	1.443	1.310	1.504	1.574	1.673	1.508	8.19
62)	T	1,3,5-Trimethy...	1.327	1.179	1.101	1.349	1.431	1.512	1.316	11.67
63)	T	1,2,4-Trimethy...	1.364	1.209	1.127	1.360	1.446	1.542	1.341	11.34
64)	T	1,3-Dichlorobe...	1.192	1.000	0.924	1.146	1.213	1.297	1.129	12.43
65)	T	1,4-Dichlorobe...	1.140	0.983	0.929	1.141	1.219	1.305	1.120	12.62
66)	T	Benzyl chloride	1.072	1.041	0.931	1.121	1.187	1.246	1.100	10.14
67)	T	1,2-Dichlorobe...	1.103	0.983	0.862	1.059	1.128	1.207	1.057	11.48
68)	T	1,2-Dibromo-3-...	0.645	0.567	0.535	0.579	0.628	0.670	0.604	8.58
69)	T	1,2,4-Trichlor...	1.248	1.040	0.924	0.933	1.045	1.157	1.058	11.96
70)	T	Hexachlorobuta...	1.335	1.202	1.107	0.867	0.935	0.988	1.072	16.41

(#) = Out of Range

5973N

Thu Sep 05 13:30:39 2013 Instrument: HP5973K
C:\msdchem\1\5973N\BFB090513KA.u US03960556

Mass	69.10	Mass	219.00	Mass	502.10
Ab	315301	Ab	135012	Ab	8033
Pw50	0.51	Pw50	0.52	Pw50	0.62

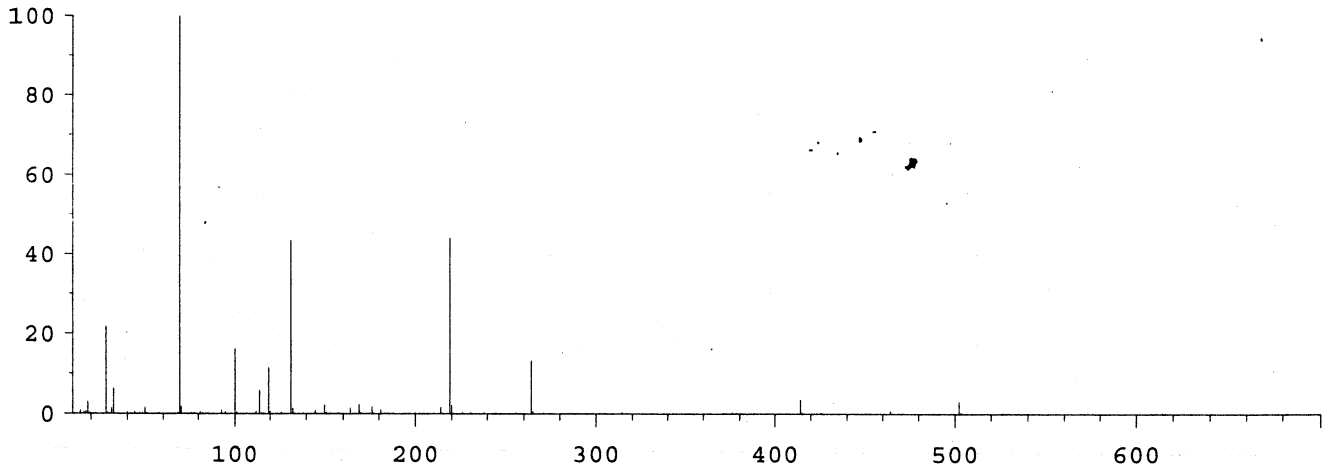


Ion Pol	Pos	MassGain	109
		MassOffs	-9
Emission	34.6	AmuGain	1987
EIEnrgy	69.9	AmuOffs	124
Filament	1	Wid219	-0.019
		DC Pol	Pos
Repeller	19.90		
IonFcus	63.6	HEDEnab	On
EntLens	9.5	EMVolts	2000
EntOffs	14.31		
		Samples	8
PFTBA	Open	Averages	3
		Stepsize	0.10

Temperatures and Pressures:

MS Source	230	TurboSpd	100
MS Quad	150		

Scan: 10.00 - 700.00 Samples: 8 Thresh: 100 Step: 0.10
289 peaks Base: 69.10 Abundance: 250816



Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.10	250816	100.00	70.00	4203	1.68
219.00	110680	44.13	220.00	5159	4.66
502.10	7498	2.99	503.10	950	12.67

Air/Water Check: H2O~3.00% N2~21.85% O2~6.31% CO2~0.56% N2/H2O~728.54%

Column Flow: Front: 1.499 Back: 0 ml/min. Interface Temp: 260

Ramp Criteria:
Ion Focus Maximum 90 volts using ion 502; EM Gain 584806
Repeller Maximum 20 volts using ion 219; Gain Factor 5.85

MassGain Values(Samples): 107(3) 108(2) 112(1) 106(0) 109(FS)

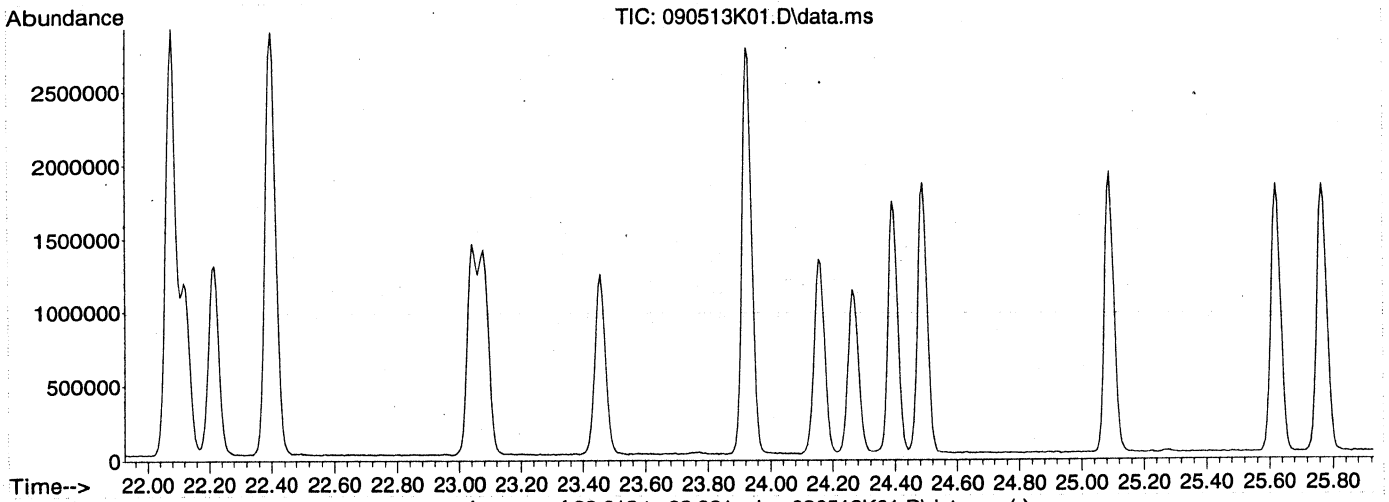
TARGET MASS:	50	69	131	219	414	502	800
Amu Offset:	124.0	124.0	124.0	124.0	124.0	124.0	124.0
Entrance Lens Offset:	14.3	14.3	14.3	14.3	14.3	14.3	14.3

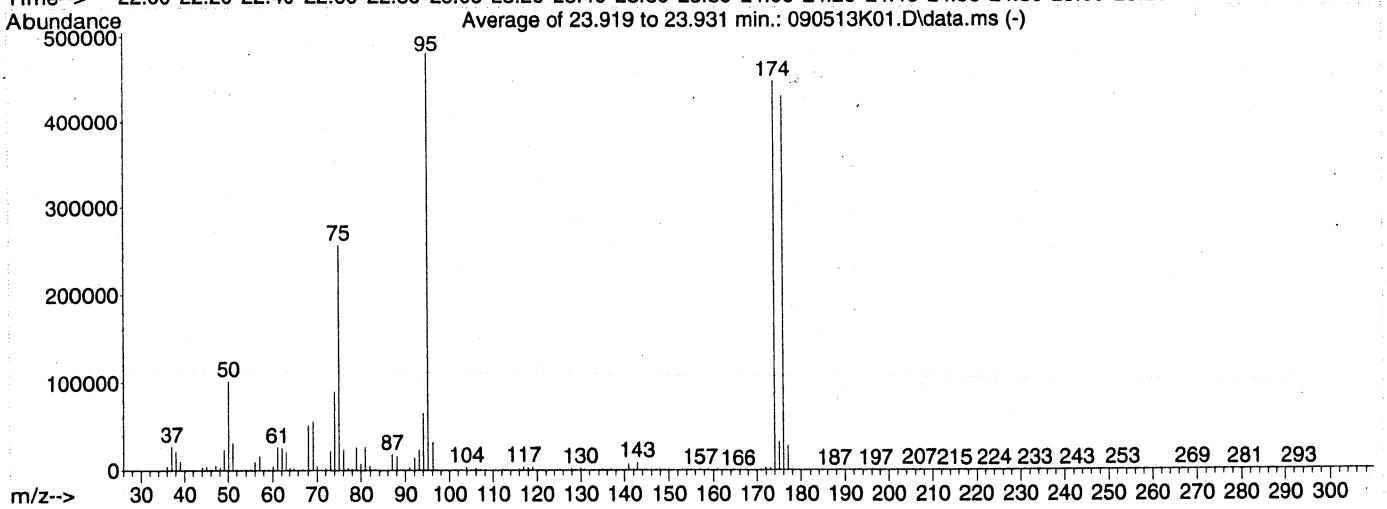
BFB

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K01.D
Acq On : 5 Sep 2013 14:05
Operator : EM
Sample : S13I019-TUN1
Misc : BFB 1305020/IS 1328060/10ppbv STD
ALS Vial : 32 Sample Multiplier: 1

Integration File: rteint.p

Method : C:\msdchem\1\METHODS\2013\090513KAA.M
Title : TO15
Last Update : Wed Aug 28 11:07:04 2013





AutoFind: Scans 3343, 3344, 3345; Background Corrected with Scan 3330

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	21.2	101846	PASS
75	95	30	66	53.3	256552	PASS
95	95	100	100	100.0	481351	PASS
96	95	5	9	6.6	31920	PASS
173	174	0.00	2	0.5	2210	PASS
174	95	50	120	93.0	447644	PASS
175	174	4	9	7.1	31757	PASS
176	174	93	101	96.0	429909	PASS
177	176	5	9	6.5	27816	PASS

Average of 23.919 to 23.931 min.: 090513K01.D\data.ms
S13I019-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	4162	47.10	5432	57.80	253	66.15	483
37.10	27128	48.10	3457	58.00	173	66.80	288
38.10	21417	49.05	23699	58.15	536	67.00	561
39.10	9607	50.10	101846	58.70	136	67.20	456
40.80	183	51.10	31276	59.20	210	68.10	51231
41.05	61	52.10	1081	60.10	4393	69.10	55088
43.25	351	52.80	375	61.05	25959	70.05	4494
44.05	3650	54.15	274	62.10	25347	71.05	227
45.00	4590	55.00	1510	63.10	20360	72.05	2400
45.90	80	56.05	9410	64.05	2542	73.10	21596
46.15	488	57.10	16173	65.05	2123	74.05	89612

Average of 23.919 to 23.931 min.: 090513K01.D\data.ms
S13I019-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
75.05	256552	86.10	972	96.10	31920	101.70	17
76.05	23064	87.00	18202	96.90	365	102.10	62
77.15	2703	88.05	15878	97.10	637	102.85	244
78.05	1404	89.25	130	98.35	91	103.10	263
78.95	25947	89.60	32	99.40	82	103.95	3474
79.95	7325	89.95	1	99.70	26	105.05	951
80.95	26366	90.95	2946	99.90	14	106.00	2825
81.95	5299	92.10	14532	100.15	69	106.95	690
83.05	1063	93.10	23459	100.40	8	107.75	87
84.00	105	94.05	64914	101.20	13	108.20	45
84.60	9	95.05	481351	101.40	52	109.95	639

Average of 23.919 to 23.931 min.: 090513K01.D\data.ms
S13I019-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
110.70	230	120.00	134	126.00	58	134.90	1605
111.00	270	120.30	19	126.85	308	136.05	186
112.05	588	120.70	105	127.95	1848	136.95	1369
112.90	599	121.30	66	128.90	867	138.35	75
114.00	135	121.70	16	129.95	2489	138.80	76
114.85	563	122.05	5	130.90	938	139.05	354
115.90	1870	122.45	136	132.20	95	139.40	105
116.95	3890	122.95	291	132.50	18	139.70	137
117.95	2696	124.00	431	133.00	72	140.20	269
119.00	3457	124.85	266	133.70	135	140.90	7301
119.80	26	125.50	36	134.30	68	142.05	1195

Average of 23.919 to 23.931 min.: 090513K01.D\data.ms
S13I019-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
142.90	8756	151.20	55	159.90	110	167.20	67
143.95	476	152.05	208	160.95	920	167.65	97
144.85	92	152.95	417	163.30	32	169.55	96
145.05	523	153.80	35	163.80	13	170.60	70
145.95	1251	154.05	85	164.10	15	170.90	461
147.00	531	155.00	1182	164.40	20	171.95	2673
147.30	76	156.00	47	164.60	87	173.00	2210
147.95	1375	157.05	1323	165.15	6	174.00	447644
148.90	462	157.80	26	165.70	13	175.00	31757
149.80	150	158.90	895	166.15	29	176.00	429909
150.10	279	159.70	31	166.40	37	177.00	27816

Average of 23.919 to 23.931 min.: 090513K01.D\data.ms
S13I019-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
178.00	716	188.05	110	196.30	24	202.85	36
179.20	46	188.70	83	196.95	232	203.65	19
179.60	126	188.90	8	197.40	52	205.45	107
180.05	28	189.75	36	198.35	166	207.00	993
181.25	85	191.00	141	198.80	53	208.00	125
181.80	53	191.65	68	199.15	25	209.00	516
182.00	96	192.10	93	200.20	80	209.85	76
183.05	78	192.85	177	200.80	48	210.30	14
183.70	28	193.10	24	201.80	44	210.85	112

184.75	71	193.50	117	202.00	36	211.45	98
187.55	181	195.95	51	202.20	39	212.35	168

Average of 23.919 to 23.931 min.: 090513K01.D\data.ms
S13I019-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
212.90	55	221.05	12	227.90	48	235.00	33
213.25	116	221.40	17	228.50	90	236.85	22
213.70	50	221.80	12	229.60	48	238.05	57
215.00	75	222.50	38	229.90	15	238.75	16
216.80	82	223.20	44	230.20	42	239.00	16
217.10	47	223.40	108	230.70	34	239.55	48
217.70	72	223.80	113	231.45	72	239.80	45
218.10	72	224.00	115	232.30	92	240.60	75
218.90	33	225.90	21	233.20	152	240.80	52
219.20	97	226.50	19	233.70	87	241.10	46
220.55	93	227.50	50	234.40	23	241.30	8

Average of 23.919 to 23.931 min.: 090513K01.D\data.ms
S13I019-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
242.80	113	249.60	20	255.90	73	264.60	46
243.40	63	249.90	184	256.60	37	264.90	26
244.50	21	250.70	115	258.70	21	266.20	126
245.30	48	250.90	40	259.05	0	266.90	25
245.60	44	251.65	51	260.15	127	267.25	88
246.00	44	252.00	35	260.80	242	267.70	10
246.90	177	252.30	27	261.70	85	267.95	21
247.50	63	253.15	574	262.40	12	269.00	694
248.20	69	254.10	186	263.00	15	270.20	30
248.90	98	254.50	22	264.00	24	270.85	13
249.10	85	255.10	46	264.30	13	271.10	120

Average of 23.919 to 23.931 min.: 090513K01.D\data.ms
S13I019-TUN1
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
271.95	90	278.80	13	285.10	51	292.50	9
272.20	36	279.65	20	285.90	43	293.05	158
272.80	54	279.90	15	286.30	25	293.95	80
273.75	43	280.10	98	286.50	16	294.65	38
274.50	46	280.75	257	286.95	74	295.80	12
275.00	85	281.10	17	287.20	24	296.40	55
276.15	25	281.60	49	287.90	56	297.30	73
276.95	42	281.80	189	288.40	148	298.80	58
277.50	38	282.80	22	289.40	22	299.20	45
277.70	12	283.05	138	290.35	37	299.50	21
278.30	18	283.55	48	290.70	48		

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K02.D
Acq On : 5 Sep 2013 14:55
Instrument: HP5973K
Operator : EM
Sample : S13I019-CCV1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

1 out

em 9/6/13

Quant Time: Sep 05 16:09:31 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	BROMOCHLOROMETHANE	1.000	1.000	0.0	88	0.00
2	T	Propene	0.576	0.482	16.3	74	0.00
3	T	Dichlorodifluoromethane	2.253	2.033	9.8	75	0.00
4	T	1,2-Dichlorotetrafluoroetha	2.382	2.066	13.3	73	0.00
5	T	Chloromethane	0.676	0.590	12.7	76	0.00
6	T	Vinyl chloride	0.776	0.686	11.6	74	0.00
7	T	1,3-Butadiene	0.610	0.530	13.1	75	0.00
8	T	Bromomethane	0.802	0.707	11.8	75	0.00
9	T	Chloroethane	0.414	0.384	7.2	79	0.00
10	T	Bromoethene	0.708	0.550	22.3	66	0.00
11	T	Trichlorofluoromethane	2.092	1.889	9.7	75	-0.01
12	T	1,1,2-Trichloro-1,2,2-trifl	1.345	1.073	20.2	67	0.00
13	T	1,1-Dichloroethene	1.059	0.940	11.2	72	0.00
14	T	Acetone	0.982	0.942	4.1	80	0.00
15	T	Carbon disulfide	1.835	1.472	19.8	71	0.00
16	T	2-Propanol	0.848	0.737	13.1	70	0.00
17	T	Allyl chloride	0.740	0.659	10.9	73	0.00
18	T	Dichloromethane	0.851	0.755	11.3	77	0.00
19	T	tert-Butyl methyl ether (MT	1.674	1.435	14.3	70	0.00
20	T	trans-1,2-Dichloroethene	0.924	0.836	9.5	76	0.00
21	T	Hexane	0.996	0.864	13.3	71	-0.01
22	T	1,1-Dichloroethane	1.293	1.129	12.7	74	0.00
23	T	Vinyl acetate	1.399	1.319	5.7	72	0.00
24	T	cis-1,2-Dichloroethene	0.908	0.826	9.0	72	0.00
25	T	2-Butanone (MEK)	1.304	1.029	21.1	66	-0.01
26	T	Ethyl acetate	1.473	1.292	12.3	72	0.00
27	T	Tetrahydrofuran	0.795	0.730	8.2	79	0.00
28	T	Chloroform	1.572	1.399	11.0	74	0.00
29	T	Cyclohexane	1.043	0.920	11.8	74	0.00
30	T	1,1,1-Trichloroethane	1.706	1.564	8.3	75	0.00
31	T	Carbon tetrachloride	1.844	1.739	5.7	77	0.00
32	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	77	0.00
33	T	Benzene	0.675	0.676	-0.1	72	0.00
34	T	2,2,4-Trimethylpentane	0.953	0.954	-0.1	73	0.00
35	T	1,2-Dichloroethane	0.311	0.339	-9.0	82	0.00
36	T	Heptane	0.344	0.360	-4.7	78	0.00
37	T	Trichloroethene	0.325	0.292	10.2	66	0.00
38	T	1,2-Dichloropropane	0.246	0.246	0.0	73	0.00
39	T	2,3-dichloro-1-propene	0.384	0.355	7.6	76	0.00
40	T	1,4-Dioxane	0.143	0.133	7.0	69	0.00
41	T	Bromodichloromethane	0.508	0.510	-0.4	76	0.00
42	T	cis-1,3-Dichloropropene	0.359	0.360	-0.3	73	0.00
43	T	4-Methyl-2-pentanone (MIBK)	0.482	0.499	-3.5	78	0.00
44	I	CHLOROBENZENE-d5	1.000	1.000	0.0	80	0.00
45	T	Toluene	0.926	0.857	7.5	69	0.00

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K02.D
Acq On : 5 Sep 2013 14:55
Instrument: HP5973K
Operator : EM
Sample : S13I019-CCV1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 16:09:31 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
46	T	trans-1,3-Dichloropropene	0.399	0.394	1.3	74	0.00
47	T	1,1,2-Trichloroethane	0.328	0.299	8.8	71	0.00
48	T	Tetrachloroethene	0.561	0.468	16.6	65	0.00
49	T	1,3-Dichloropropane	0.489	0.421	13.9	73	0.00
50	T	2-Hexanone	0.509	0.511	-0.4	77	0.00
51	T	Chlorodibromomethane	0.659	0.588	10.8	71	0.00
52	T	1,2-Dibromoethane (EDB)	0.522	0.472	9.6	70	0.00
53	T	Chlorobenzene	0.835	0.733	12.2	69	0.00
54	T	Ethylbenzene	1.266	1.180	6.8	72	0.00
55	T	m&p-Xylene	1.039	0.995	4.2	74	0.00
56	T	o-Xylene	1.038	0.993	4.3	73	0.00
57	T	Styrene	0.900	0.834	7.3	71	0.00
58	T	Bromoform	0.788	0.701	11.0	67	0.00
59	T	1,1,2,2-Tetrachloroethane	0.830	0.767	7.6	74	0.00
60	T	1,2,3-Trichloropropane	0.670	0.584	12.8	76	0.00
61	T	4-Ethyltoluene	1.508	1.363	9.6	73	0.00
62	T	1,3,5-Trimethylbenzene	1.316	1.239	5.9	74	0.00
63	T	1,2,4-Trimethylbenzene	1.341	1.234	8.0	73	0.00
64	T	1,3-Dichlorobenzene	1.129	0.960	15.0	67	0.00
65	T	1,4-Dichlorobenzene	1.120	0.958	14.5	67	0.00
66	T	Benzyl chloride	1.100	0.990	10.0	71	0.00
67	T	1,2-Dichlorobenzene	1.057	0.890	15.8	67	0.00
68	T	1,2-Dibromo-3-chloropropane	0.604	0.453	25.0	63	0.00
69	T	1,2,4-Trichlorobenzene	1.058	0.745	29.6	64	0.00
70	T	Hexachlorobutadiene	1.072	0.696	35.1#	64	0.00

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

#70 % Dev #70 HCB $= \frac{1.072 - 0.696}{1.072} \times 100 = 35.1\%$ ✓

#70 $CCRF = \frac{808742\ (22)}{2481718\ (10.3)} = 0.696$ ✓

EM 9/6/13

00334

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K02.D
Acq On : 5 Sep 2013 14:55
Instrument: HP5973K
Operator : EM
Sample : S13I019-CCV1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 16:09:31 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.104	49	869468	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.142	114	2633942	22.00	ppbv	0.00
44) CHLOROBENZENE-d5	22.076	117	2481718	22.00	ppbv	0.00
Target Compounds						Qvalue
2) Propene	4.086	41	204008	8.96	ppbv	97
3) Dichlorodifluoromethane	4.178	85	811834	9.12	ppbv	99
4) 1,2-Dichlorotetrafluor...	4.512	85	849341	9.02	ppbv	93
5) Chloromethane	4.701	50	240129	8.99	ppbv	97
6) Vinyl chloride	5.011	62	284694	9.28	ppbv	99
7) 1,3-Butadiene	5.108	54	213666	8.87	ppbv	90
8) Bromomethane	5.991	94	290853	9.18	ppbv	99
9) Chloroethane	6.313	64	157976	9.65	ppbv	99
10) Bromoethene	6.860	106	223952	8.00	ppbv	96
11) Trichlorofluoromethane	6.988	101	784153	9.48	ppbv	99
12) 1,1,2-Trichloro-1,2,2-...	8.734	151	394525	7.42	ppbv	91
13) 1,1-Dichloroethene	8.807	61	349356	8.34	ppbv	86
14) Acetone	9.312	43	394545	10.17	ppbv	93
15) Carbon disulfide	9.507	76	593495	8.18	ppbv	94
16) 2-Propanol	9.969	45	276663	8.25	ppbv	90
17) Allyl chloride	10.359	41	262989	8.99	ppbv	94
18) Dichloromethane	10.924	49	286520	8.52	ppbv	87
19) tert-Butyl methyl ethe...	11.666	73	618496	9.35	ppbv	96
20) trans-1,2-Dichloroethene	11.679	61	314042	8.60	ppbv	91
21) Hexane	12.305	57	348189	8.85	ppbv	89
22) 1,1-Dichloroethane	13.066	63	437421	8.56	ppbv	99
23) Vinyl acetate	13.224	43	521475	9.43	ppbv	97
24) cis-1,2-Dichloroethene	14.556	61	329902	9.19	ppbv	91
25) 2-Butanone (MEK)	14.660	43	422880	8.21	ppbv	98
26) Ethyl acetate	14.714	43	530972	9.12	ppbv	99
27) Tetrahydrofuran	15.134	42	297132	9.46	ppbv	86
28) Chloroform	15.274	83	558447	8.99	ppbv	97
29) Cyclohexane	15.499	56	378121	9.18	ppbv	92
30) 1,1,1-Trichloroethane	15.542	97	618374	9.17	ppbv	97
31) Carbon tetrachloride	15.809	117	687527	9.43	ppbv	99
33) Benzene	16.308	78	833943	10.32	ppbv	97
34) 2,2,4-Trimethylpentane	16.272	57	1199256	10.51	ppbv	96
35) 1,2-Dichloroethane	16.515	62	405457	10.87	ppbv	98
36) Heptane	16.661	43	452396	10.99	ppbv	97
37) Trichloroethene	17.561	130	360754	9.26	ppbv	96
38) 1,2-Dichloropropane	18.060	63	312648	10.59	ppbv	91
39) 2,3-dichloro-1-propene	18.139	75	441711	9.62	ppbv	93
40) 1,4-Dioxane	18.273	88	169280	9.90	ppbv	96
41) Bromodichloromethane	18.535	83	646943	10.64	ppbv	99
42) cis-1,3-Dichloropropene	19.314	75	444114	10.34	ppbv	92
43) 4-Methyl-2-pentanone (...	19.551	43	627497	10.87	ppbv	94
45) Toluene	19.788	91	1005229	9.62	ppbv	100
46) trans-1,3-Dichloropropene	20.263	75	489445	10.88	ppbv	93
47) 1,1,2-Trichloroethane	20.567	97	364894	9.86	ppbv	95
48) Tetrachloroethene	20.646	166	549170	8.68	ppbv	96

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K02.D
Acq On : 5 Sep 2013 14:55
Instrument: HP5973K
Operator : EM
Sample : S13I019-CCV1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 16:09:31 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 1,3-Dichloropropane	20.853	76	488967	8.87	ppbv	92
50) 2-Hexanone	20.907	43	593876	10.34	ppbv	93
51) Chlorodibromomethane	21.181	129	690492	9.28	ppbv	98
52) 1,2-Dibromoethane (EDB)	21.400	107	569624	9.68	ppbv	99
53) Chlorobenzene	22.124	112	876431	9.30	ppbv	96
54) Ethylbenzene	22.215	91	1398079	9.79	ppbv	98
55) m&p-Xylene	22.398	91	2379300	20.30	ppbv	97
56) o-Xylene	23.043	91	1199138	10.24	ppbv	95
57) Styrene	23.079	104	978106	9.63	ppbv	98
58) Bromoform	23.456	173	815028	9.17	ppbv	98
59) 1,1,2,2-Tetrachloroethane	24.156	83	917692	9.80	ppbv	99
60) 1,2,3-Trichloropropane	24.266	75	639211	8.45	ppbv	97
61) 4-Ethyltoluene	24.399	105	1615151	9.49	ppbv	97
62) 1,3,5-Trimethylbenzene	24.491	105	1454372	9.79	ppbv	97
63) 1,2,4-Trimethylbenzene	25.093	105	1489242	9.84	ppbv	97
64) 1,3-Dichlorobenzene	25.622	146	1115646	8.76	ppbv	98
65) 1,4-Dichlorobenzene	25.768	146	1124342	8.90	ppbv	98
66) Benzyl chloride	25.987	91	1151078	9.28	ppbv	99
67) 1,2-Dichlorobenzene	26.377	146	1044841	8.76	ppbv	98
68) 1,2-Dibromo-3-chloropr...	27.612	157	459855	6.75	ppbv #	82
69) 1,2,4-Trichlorobenzene	28.834	180	857978	7.19	ppbv	100
70) Hexachlorobutadiene	28.974	225	808742	6.69	ppbv	100

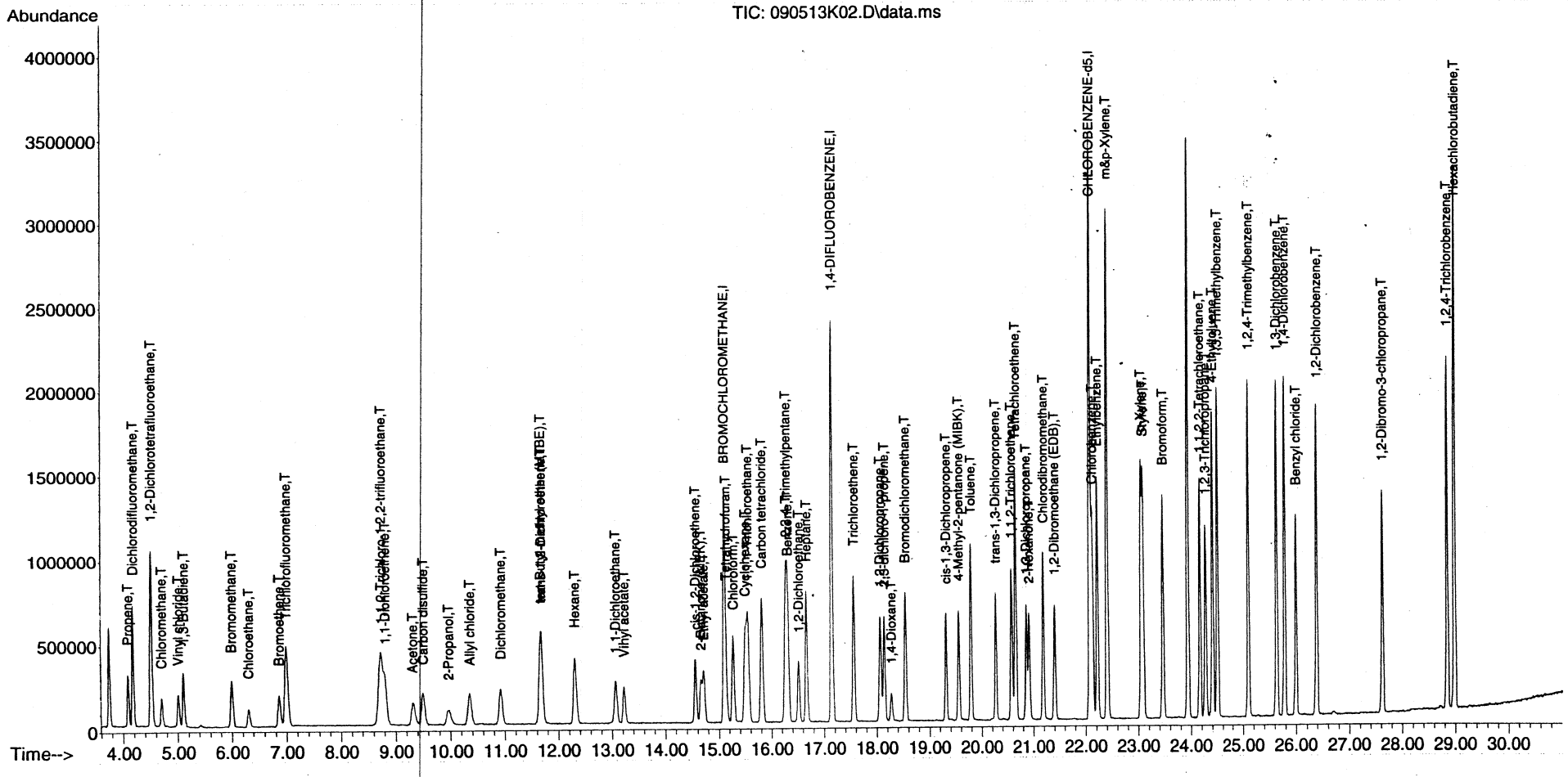
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K02.D
Acq On : 5 Sep 2013 14:55
Instrument: HP5973K
Operator : EM
Sample : S13I019-CCV1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 16:09:31 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M



LCS REPORT

Instrument Name: HP5973K
Sample Name: B13I025-BS1
Misc Info: 10 ppbv 1335007
Date Acquired: 9/5/2013 15:44
QLast Update: Wed Aug 28 11:07:04 2013
Operator: EM

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	BROMOCHLOROMETHANE	15.10	#N/A	22.00	#N/A	70.0	130.0	#N/A
2)	Propene	4.09	10.70	9.39	88%	56.0	155.0	pass
3)	Dichlorodifluoromethane	4.18	10.10	9.79	97%	67.0	141.0	pass
4)	1,2-Dichlorotetrafluoroethane	4.51	10.40	9.76	94%	68.0	147.0	pass
5)	Chloromethane	4.70	10.30	9.31	90%	64.0	141.0	pass
6)	Vinyl chloride	5.00	10.50	9.86	94%	65.0	141.0	pass
7)	1,3-Butadiene	5.10	10.20	9.49	93%	61.0	154.0	pass
8)	Bromomethane	6.00	10.40	9.77	94%	71.0	132.0	pass
9)	Chloroethane	6.31	10.40	9.88	95%	70.0	134.0	pass
10)	Bromoethene	6.86	10.30	8.16	79%	71.0	146.0	pass
11)	Trichlorofluoromethane	6.99	10.50	9.96	95%	72.0	141.0	pass
12)	1,1,2-Trichloro-1,2,2-trifluoroethane	8.73	9.30	7.76	83%	68.0	134.0	pass
13)	1,1-Dichloroethene	8.82	9.40	8.97	95%	81.0	127.0	pass
14)	Acetone	9.31	10.60	10.51	99%	77.0	150.0	pass
15)	Carbon disulfide	9.49	10.20	8.62	85%	75.0	138.0	pass
16)	2-Propanol	9.97	9.50	8.91	94%	71.0	142.0	pass
17)	Allyl chloride	10.36	10.10	9.76	97%	84.0	143.0	pass
18)	Dichloromethane	10.92	9.60	9.16	95%	74.0	116.0	pass
19)	tert-Butyl methyl ether (MTBE)	11.66	10.90	10.21	94%	79.0	131.0	pass
20)	trans-1,2-Dichloroethene	11.68	9.50	9.09	96%	82.0	136.0	pass
21)	Hexane	12.31	10.20	9.62	94%	78.0	139.0	pass
22)	1,1-Dichloroethane	13.07	9.80	9.30	95%	82.0	123.0	pass
23)	Vinyl acetate	13.22	10.00	10.00	100%	70.0	139.0	pass
24)	cis-1,2-Dichloroethene	14.55	10.10	9.81	97%	83.0	126.0	pass
25)	2-Butanone (MEK)	14.67	10.40	9.77	94%	76.0	138.0	pass
26)	Ethyl acetate	14.71	10.40	10.53	101%	83.0	136.0	pass
27)	Tetrahydrofuran	15.13	10.30	9.67	94%	74.0	132.0	pass
28)	Chloroform	15.27	10.10	9.73	96%	81.0	127.0	pass
29)	Cyclohexane	15.49	10.40	9.53	92%	77.0	139.0	pass
30)	1,1,1-Trichloroethane	15.55	10.00	9.93	99%	80.0	131.0	pass
31)	Carbon tetrachloride	15.81	10.00	9.99	100%	77.0	136.0	pass
32)	1,4-DIFLUOROBENZENE	17.14	#N/A	22.00	#N/A	70.0	130.0	#N/A
33)	Benzene	16.31	10.30	10.80	105%	77.0	131.0	pass
34)	2,2,4-Trimethylpentane	16.27	10.50	11.06	105%	68.0	152.0	pass
35)	1,2-Dichloroethane	16.51	10.00	11.34	113%	70.0	149.0	pass
36)	Heptane	16.66	10.50	11.41	109%	62.0	159.0	pass
37)	Trichloroethene	17.56	10.30	9.98	97%	81.0	125.0	pass
38)	1,2-Dichloropropane	18.06	10.60	11.42	108%	74.0	135.0	pass
40)	1,4-Dioxane	18.27	10.60	10.47	99%	67.0	134.0	pass
41)	Bromodichloromethane	18.53	10.60	11.30	107%	69.0	150.0	pass
42)	cis-1,3-Dichloropropene	19.31	10.30	11.08	108%	77.0	129.0	pass
43)	4-Methyl-2-pentanone (MIBK)	19.55	10.50	11.52	110%	59.0	147.0	pass
44)	CHLOROBENZENE-d5	22.08	#N/A	22.00	#N/A	70.0	130.0	#N/A
45)	Toluene	19.79	10.40	10.28	99%	79.0	126.0	pass
46)	trans-1,3-Dichloropropene	20.26	11.00	11.71	106%	81.0	137.0	pass
47)	1,1,2-Trichloroethane	20.57	10.80	10.39	96%	76.0	124.0	pass
48)	Tetrachloroethene	20.65	10.40	9.10	88%	80.0	122.0	pass

50)	2-Hexanone	20.91	10.30	10.82	105%	55.0	149.0	pass
51)	Chlorodibromomethane	21.18	10.40	9.73	94%	76.0	145.0	pass
52)	1,2-Dibromoethane (EDB)	21.40	10.70	10.41	97%	78.0	124.0	pass
53)	Chlorobenzene	22.12	10.60	9.98	94%	76.0	120.0	pass
54)	Ethylbenzene	22.22	10.50	10.49	100%	75.0	125.0	pass
55)	m&p-Xylene	22.40	21.20	21.96	104%	75.0	128.0	pass
56)	o-Xylene	23.04	10.70	10.93	102%	74.0	128.0	pass
57)	Styrene	23.09	10.40	10.31	99%	69.0	122.0	pass
58)	Bromoform	23.46	10.30	9.96	97%	72.0	142.0	pass
59)	1,1,2,2-Tetrachloroethane	24.16	10.60	10.08	95%	70.0	130.0	pass
61)	4-Ethyltoluene	24.40	10.50	9.80	93%	69.0	138.0	pass
62)	1,3,5-Trimethylbenzene	24.49	10.40	10.35	100%	70.0	134.0	pass
63)	1,2,4-Trimethylbenzene	25.09	10.70	10.40	97%	65.0	129.0	pass
64)	1,3-Dichlorobenzene	25.62	10.30	9.20	89%	62.0	130.0	pass
65)	1,4-Dichlorobenzene	25.77	10.40	9.33	90%	61.0	131.0	pass
66)	Benzyl chloride	25.99	10.30	9.87	96%	61.0	153.0	pass
67)	1,2-Dichlorobenzene	26.37	10.40	9.23	89%	60.0	130.0	pass
68)	1,2-Dibromo-3-chloropropane	27.62	9.00	7.21	80%	46.0	113.0	pass
69)	1,2,4-Trichlorobenzene	28.83	10.20	7.62	75%	38.0	128.0	pass
70)	Hexachlorobutadiene	28.97	10.30	7.56	73%	37.0	124.0	pass

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K03.D
Acq On : 5 Sep 2013 15:44
Instrument: HP5973K
Operator : EM
Sample : B13I025-BS1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 16:38:57 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

MANUAL INTEGRATION VERIFICATION

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:
Analyst: EM Date: 9/6/13
Manual integration(s) reviewed by:
Reviewer: JR Date: 9-14-13

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.104	49	854217	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.142	114	2587847	22.00	ppbv	0.00
44) CHLOROBENZENE-d5	22.075	117	2446959	22.00	ppbv	0.00
Target Compounds						Qvalue
2) Propene	4.086	41	210006	9.39	ppbv	98
3) Dichlorodifluoromethane	4.178	85	856418	9.79	ppbv	100
4) 1,2-Dichlorotetrafluor...	4.512	85	902357	9.76	ppbv	94
5) Chloromethane	4.701	50	244263	9.31	ppbv	99
6) Vinyl chloride	5.005	62	297053	9.86	ppbv	99
7) 1,3-Butadiene	5.102	54	~~224677~~	~~9.49~~	~~ppbv~~	89
8) Bromomethane	5.997	94	304269	9.77	ppbv	100
9) Chloroethane	6.307	64	159022	9.88	ppbv	98
10) Bromoethene	6.860	106	224406	8.16	ppbv	97
11) Trichlorofluoromethane	6.994	101	809004	9.96	ppbv	99
12) 1,1,2-Trichloro-1,2,2-...	8.734	151	404897	7.76	ppbv	92
13) 1,1-Dichloroethene	8.819	61	369191	8.97	ppbv	93
14) Acetone	9.312	43	400447	10.51	ppbv	95
15) Carbon disulfide	9.495	76	614339	8.62	ppbv	93
16) 2-Propanol	9.969	45	293568	8.91	ppbv	93
17) Allyl chloride	10.359	41	280390	9.76	ppbv	94
18) Dichloromethane	10.924	49	302782	9.16	ppbv	87
19) tert-Butyl methyl ethe...	11.660	73	663426	10.21	ppbv	98
20) trans-1,2-Dichloroethene	11.679	61	326158	9.09	ppbv	91
21) Hexane	12.305	57	371809	9.62	ppbv	93
22) 1,1-Dichloroethane	13.072	63	467149	9.30	ppbv	98
23) Vinyl acetate	13.218	43	543476	10.00	ppbv	98
24) cis-1,2-Dichloroethene	14.550	61	345803	9.81	ppbv	91
25) 2-Butanone (MEK)	14.666	43	494488	9.77	ppbv	93
26) Ethyl acetate	14.708	43	602274m	10.53	ppbv	
27) Tetrahydrofuran	15.128	42	298634	9.67	ppbv	91
28) Chloroform	15.274	83	594339	9.73	ppbv	98
29) Cyclohexane	15.493	56	385962	9.53	ppbv	92
30) 1,1,1-Trichloroethane	~~15.548~~	~~97~~	~~657621~~	~~9.93~~	~~ppbv~~	~~99~~
31) Carbon tetrachloride	15.809	117	715166	9.99	ppbv	99
33) Benzene	16.308	78	857610	10.80	ppbv	98
34) 2,2,4-Trimethylpentane	16.272	57	1239090	11.06	ppbv	97
35) 1,2-Dichloroethane	16.509	62	415598	11.34	ppbv	100
36) Heptane	16.661	43	461469	11.41	ppbv	96
37) Trichloroethene	17.561	130	381724	9.98	ppbv	96
38) 1,2-Dichloropropane	18.060	63	331057	11.42	ppbv	93
39) 2,3-dichloro-1-propene	18.139	75	452559	10.03	ppbv	92
40) 1,4-Dioxane	18.273	88	175895	10.47	ppbv	94
41) Bromodichloromethane	18.535	83	675132	11.30	ppbv	98
42) cis-1,3-Dichloropropene	19.307	75	467481	11.08	ppbv	91
43) 4-Methyl-2-pentanone (...	19.551	43	653431	11.52	ppbv	94
45) Toluene	19.788	91	1059287	10.28	ppbv	98
46) trans-1,3-Dichloropropene	20.263	75	519452	11.71	ppbv	94
47) 1,1,2-Trichloroethane	20.567	97	379473	10.39	ppbv	94
48) Tetrachloroethene	20.646	166	567619	9.10	ppbv	96

Conc Vinyl Chloride

$= \frac{297053(22)}{854217(0.776)}$

$= 9.86$ ppbv

EM 9/6/13

090513KAA.M Thu Sep 05 16:39:07 2013 HP5973K

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K03.D
Acq On : 5 Sep 2013 15:44
Instrument: HP5973K
Operator : EM
Sample : B13I025-BS1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 16:38:57 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
49)	1,3-Dichloropropane	20.853	76	501098	9.22	ppbv		91
50)	2-Hexanone	20.914	43	613078	10.82	ppbv		93
51)	Chlorodibromomethane	21.181	129	713576	9.73	ppbv		97
52)	1,2-Dibromoethane (EDB)	21.400	107	604322	10.41	ppbv		98
53)	Chlorobenzene	22.124	112	927649	9.98	ppbv		97
54)	Ethylbenzene	22.215	91	1476622	10.49	ppbv		97
55)	m&p-Xylene	22.398	91	2538611	21.96	ppbv		96
56)	o-Xylene	23.043	91	1261305	10.93	ppbv		96
57)	Styrene	23.085	104	1032588	10.31	ppbv		97
58)	Bromoform	23.456	173	873197	9.96	ppbv		98
59)	1,1,2,2-Tetrachloroethane	24.162	83	930603	10.08	ppbv		99
60)	1,2,3-Trichloropropane	24.266	75	647249	8.68	ppbv		98
61)	4-Ethyltoluene	24.399	105	1643729	9.80	ppbv		98
62)	1,3,5-Trimethylbenzene	24.491	105	1515292	10.35	ppbv		96
63)	1,2,4-Trimethylbenzene	25.093	105	1552064	10.40	ppbv		96
64)	1,3-Dichlorobenzene	25.622	146	1154475	9.20	ppbv		98
65)	1,4-Dichlorobenzene	25.774	146	1162186	9.33	ppbv		98
66)	Benzyl chloride	25.987	91	1206705	9.87	ppbv		98
67)	1,2-Dichlorobenzene	26.377	146	1084996	9.23	ppbv		98
68)	1,2-Dibromo-3-chloropr...	27.612	157	484411	7.21	ppbv	#	85
69)	1,2,4-Trichlorobenzene	28.834	180	897031	7.62	ppbv		99
70)	Hexachlorobutadiene	28.974	225	901803	7.56	ppbv		99

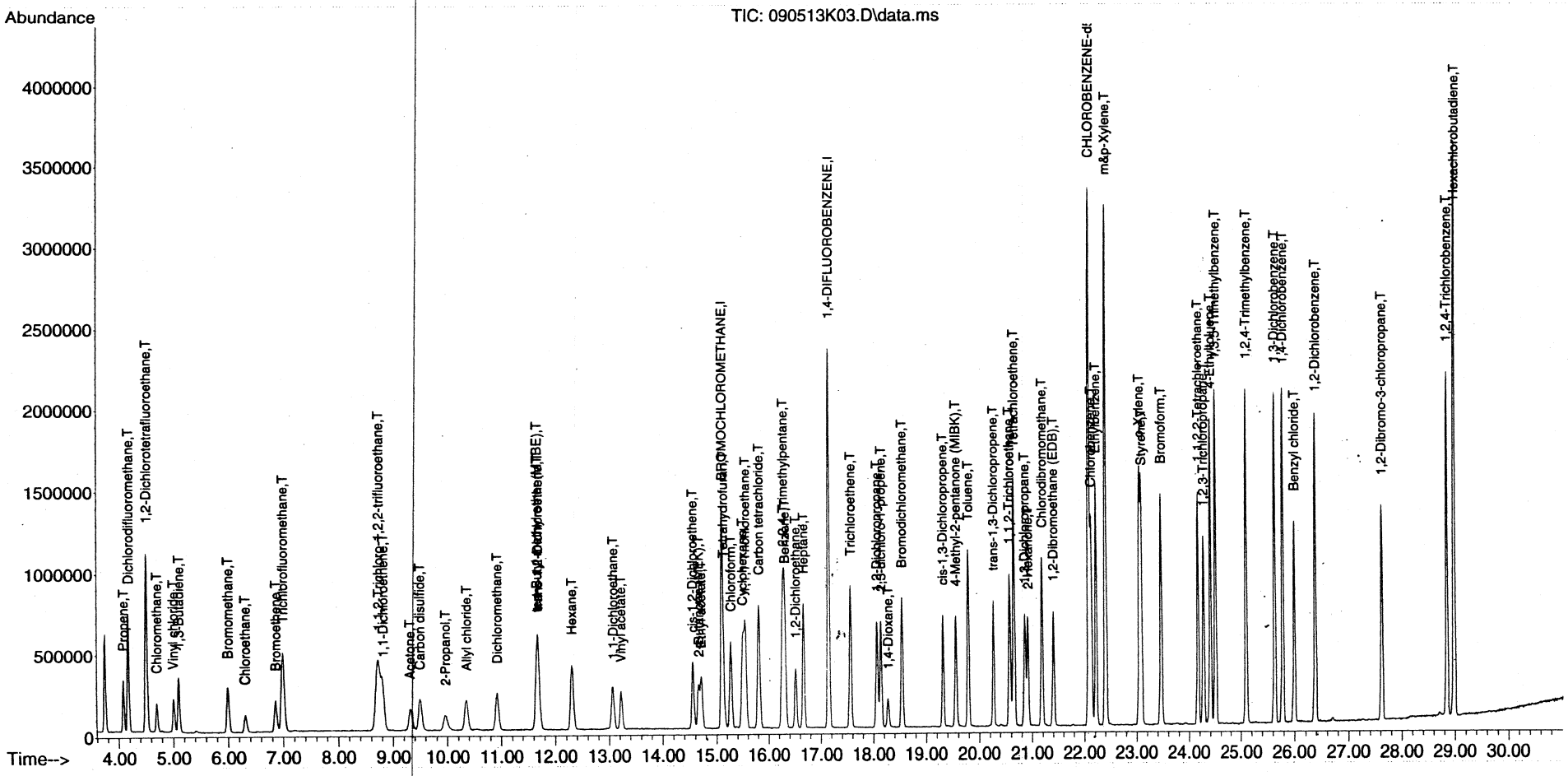
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K03.D
Acq On : 5 Sep 2013 15:44
Instrument: HP5973K
Operator : EM
Sample : B13I025-BS1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 16:38:57 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

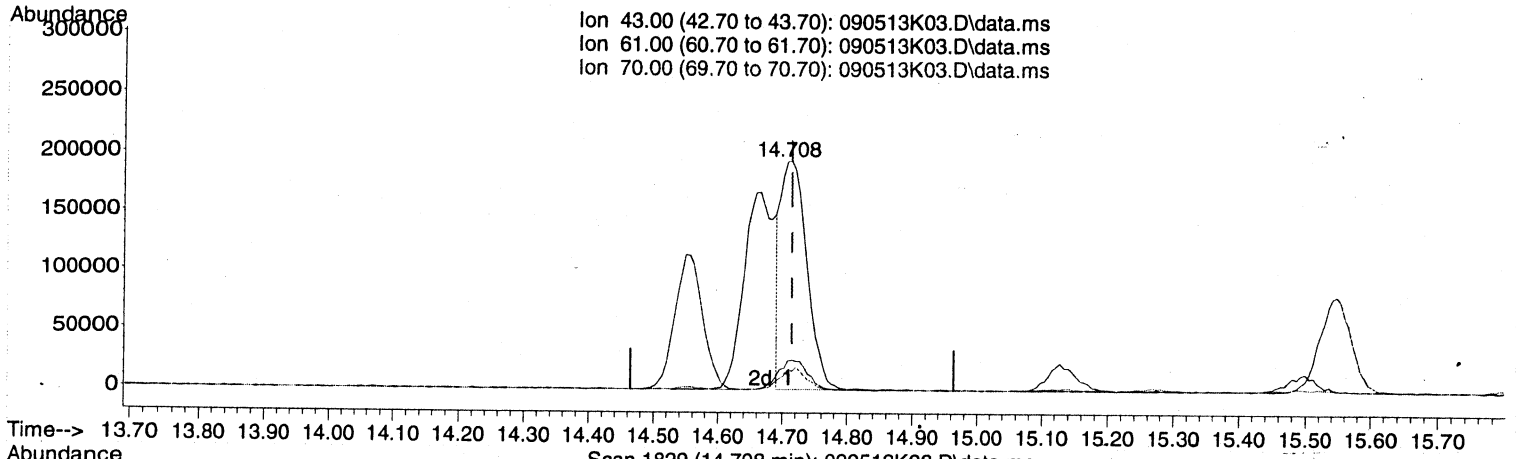


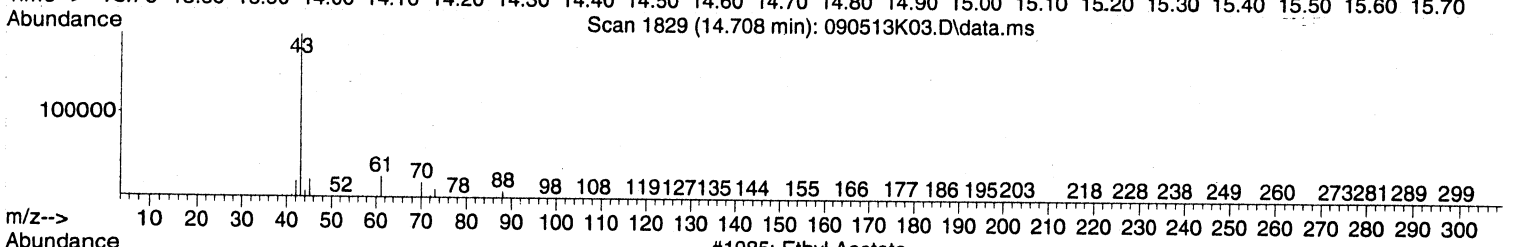
Quantitation Report (Qedit)

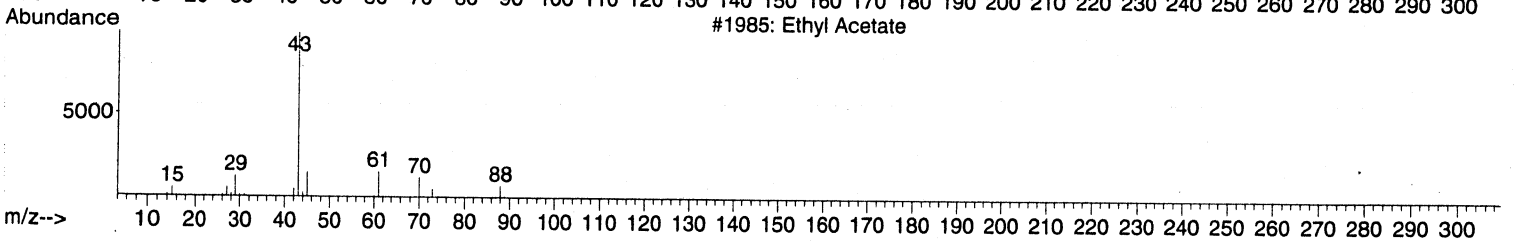
Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K03.D
Acq On : 5 Sep 2013 15:44
Instrument: HP5973K
Operator : EM
Sample : B13I025-BS1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 16:38:17 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M







TIC: 090513K03.D\data.ms

(26) Ethyl acetate (T)

14.708min (-0.006) 9.51 ppbv

response 543805

Ion	Exp%	Act%
43.00	100	100
61.00	13.60	14.67
70.00	9.90	9.84
0.00	0.00	0.00

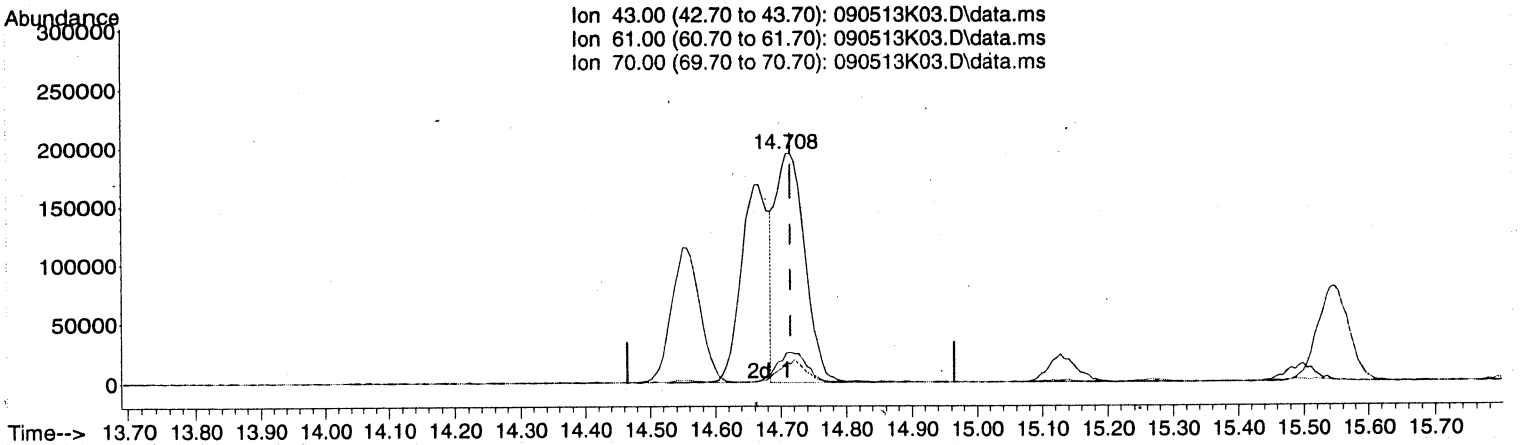
MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☑ Cropped ☐ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: _____ Date: _____

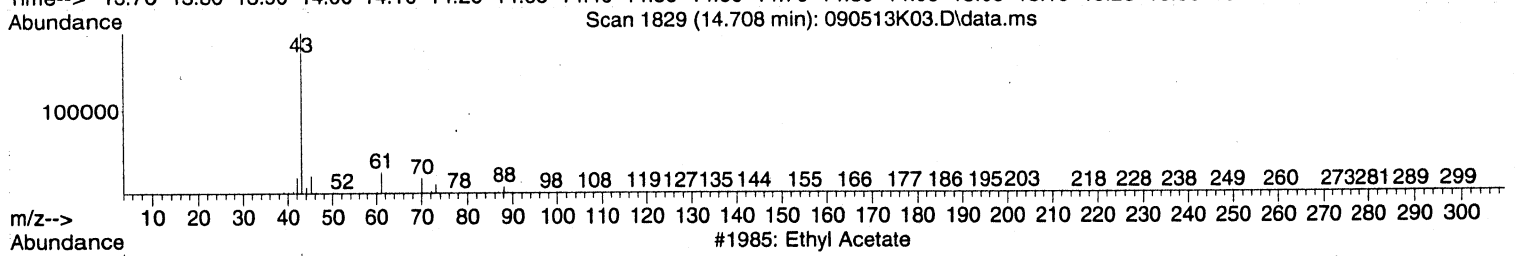
Quantitation Report (Qedit)

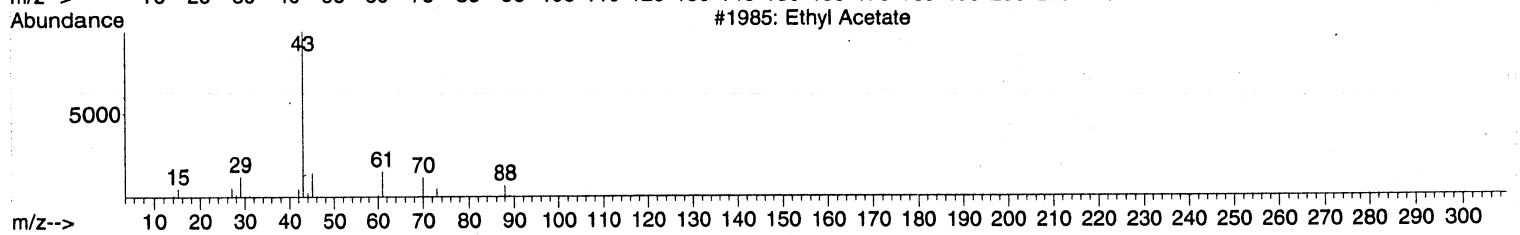
Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K03.D
Acq On : 5 Sep 2013 15:44
Instrument: HP5973K
Operator : EM
Sample : B13I025-BS1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 16:38:17 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M







TIC: 090513K03.D\data.ms

(26) Ethyl acetate (T)

14.708min (-0.006) 10.53 ppbv m

response 602274

Ion	Exp%	Act%
43.00	100	100
61.00	13.60	13.25
70.00	9.90	8.88
0.00	0.00	0.00

MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other:
☑ After Manual Integration
Manual integration(s) performed by:
Analyst: EM Date: 9/6/13
Manual integration(s) reviewed by:
Reviewer: JL Date: 9-19-13

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K03.D
Acq On : 5 Sep 2013 15:44
Instrument: HP5973K
Operator : EM
Sample : B13I025-BS1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Before MI

Quant Time: Sep 05 16:38:17 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

em 9/6/13

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.104	49	854217	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.142	114	2587847	22.00	ppbv	0.00
44) CHLOROBENZENE-d5	22.075	117	2446959	22.00	ppbv	0.00
Target Compounds						Qvalue
2) Propene	4.086	41	210006	9.39	ppbv	98
3) Dichlorodifluoromethane	4.178	85	856418	9.79	ppbv	100
4) 1,2-Dichlorotetrafluor...	4.512	85	902357	9.76	ppbv	94
5) Chloromethane	4.701	50	244263	9.31	ppbv	99
6) Vinyl chloride	5.005	62	297053	9.86	ppbv	99
7) 1,3-Butadiene	5.102	54	224677	9.49	ppbv	89
8) Bromomethane	5.997	94	304269	9.77	ppbv	100
9) Chloroethane	6.307	64	159022	9.88	ppbv	98
10) Bromoethene	6.860	106	224406	8.16	ppbv	97
11) Trichlorofluoromethane	6.994	101	809004	9.96	ppbv	99
12) 1,1,2-Trichloro-1,2,2-...	8.734	151	404897	7.76	ppbv	92
13) 1,1-Dichloroethene	8.819	61	369191	8.97	ppbv	93
14) Acetone	9.312	43	400447	10.51	ppbv	95
15) Carbon disulfide	9.495	76	614339	8.62	ppbv	93
16) 2-Propanol	9.969	45	293568	8.91	ppbv	93
17) Allyl chloride	10.359	41	280390	9.76	ppbv	94
18) Dichloromethane	10.924	49	302782	9.16	ppbv	87
19) tert-Butyl methyl ethe...	11.660	73	663426	10.21	ppbv	98
20) trans-1,2-Dichloroethene	11.679	61	326158	9.09	ppbv	91
21) Hexane	12.305	57	371809	9.62	ppbv	93
22) 1,1-Dichloroethane	13.072	63	467149	9.30	ppbv	98
23) Vinyl acetate	13.218	43	543476	10.00	ppbv	98
24) cis-1,2-Dichloroethene	14.550	61	345803	9.81	ppbv	91
25) 2-Butanone (MEK)	14.666	43	494488	9.77	ppbv	93
26) Ethyl acetate	14.708	43	543805	9.51	ppbv	98
27) Tetrahydrofuran	15.128	42	298634	9.67	ppbv	91
28) Chloroform	15.274	83	594339	9.73	ppbv	98
29) Cyclohexane	15.493	56	385962	9.53	ppbv	92
~~30) 1,1,1-Trichloroethane~~	~~15.548~~	~~97~~	~~657621~~	~~9.93~~	~~ppbv~~	~~99~~
31) Carbon tetrachloride	15.809	117	715166	9.99	ppbv	99
33) Benzene	16.308	78	857610	10.80	ppbv	98
34) 2,2,4-Trimethylpentane	16.272	57	1239090	11.06	ppbv	97
35) 1,2-Dichloroethane	16.509	62	415598	11.34	ppbv	100
36) Heptane	16.661	43	461469	11.41	ppbv	96
37) Trichloroethene	17.561	130	381724	9.98	ppbv	96
38) 1,2-Dichloropropane	18.060	63	331057	11.42	ppbv	93
39) 2,3-dichloro-1-propene	18.139	75	452559	10.03	ppbv	92
40) 1,4-Dioxane	18.273	88	175895	10.47	ppbv	94
41) Bromodichloromethane	18.535	83	675132	11.30	ppbv	98
42) cis-1,3-Dichloropropene	19.307	75	467481	11.08	ppbv	91
43) 4-Methyl-2-pentanone (...	19.551	43	653431	11.52	ppbv	94
45) Toluene	19.788	91	1059287	10.28	ppbv	98
46) trans-1,3-Dichloropropene	20.263	75	519452	11.71	ppbv	94
47) 1,1,2-Trichloroethane	20.567	97	379473	10.39	ppbv	94
48) Tetrachloroethene	20.646	166	567619	9.10	ppbv	96

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K03.D
Acq On : 5 Sep 2013 15:44
Instrument: HP5973K
Operator : EM
Sample : B13I025-BS1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 16:38:17 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
49) 1,3-Dichloropropane	20.853	76	501098	9.22	ppbv	91
50) 2-Hexanone	20.914	43	613078	10.82	ppbv	93
51) Chlorodibromomethane	21.181	129	713576	9.73	ppbv	97
52) 1,2-Dibromoethane (EDB)	21.400	107	604322	10.41	ppbv	98
53) Chlorobenzene	22.124	112	927649	9.98	ppbv	97
54) Ethylbenzene	22.215	91	1476622	10.49	ppbv	97
55) m&p-Xylene	22.398	91	2538611	21.96	ppbv	96
56) o-Xylene	23.043	91	1261305	10.93	ppbv	96
57) Styrene	23.085	104	1032588	10.31	ppbv	97
58) Bromoform	23.456	173	873197	9.96	ppbv	98
59) 1,1,2,2-Tetrachloroethane	24.162	83	930603	10.08	ppbv	99
60) 1,2,3-Trichloropropane	24.266	75	647249	8.68	ppbv	98
61) 4-Ethyltoluene	24.399	105	1643729	9.80	ppbv	98
62) 1,3,5-Trimethylbenzene	24.491	105	1515292	10.35	ppbv	96
63) 1,2,4-Trimethylbenzene	25.093	105	1552064	10.40	ppbv	96
64) 1,3-Dichlorobenzene	25.622	146	1154475	9.20	ppbv	98
65) 1,4-Dichlorobenzene	25.774	146	1162186	9.33	ppbv	98
66) Benzyl chloride	25.987	91	1206705	9.87	ppbv	98
67) 1,2-Dichlorobenzene	26.377	146	1084996	9.23	ppbv	98
68) 1,2-Dibromo-3-chloropr...	27.612	157	484411	7.21	ppbv #	85
69) 1,2,4-Trichlorobenzene	28.834	180	897031	7.62	ppbv	99
70) Hexachlorobutadiene	28.974	225	901803	7.56	ppbv	99

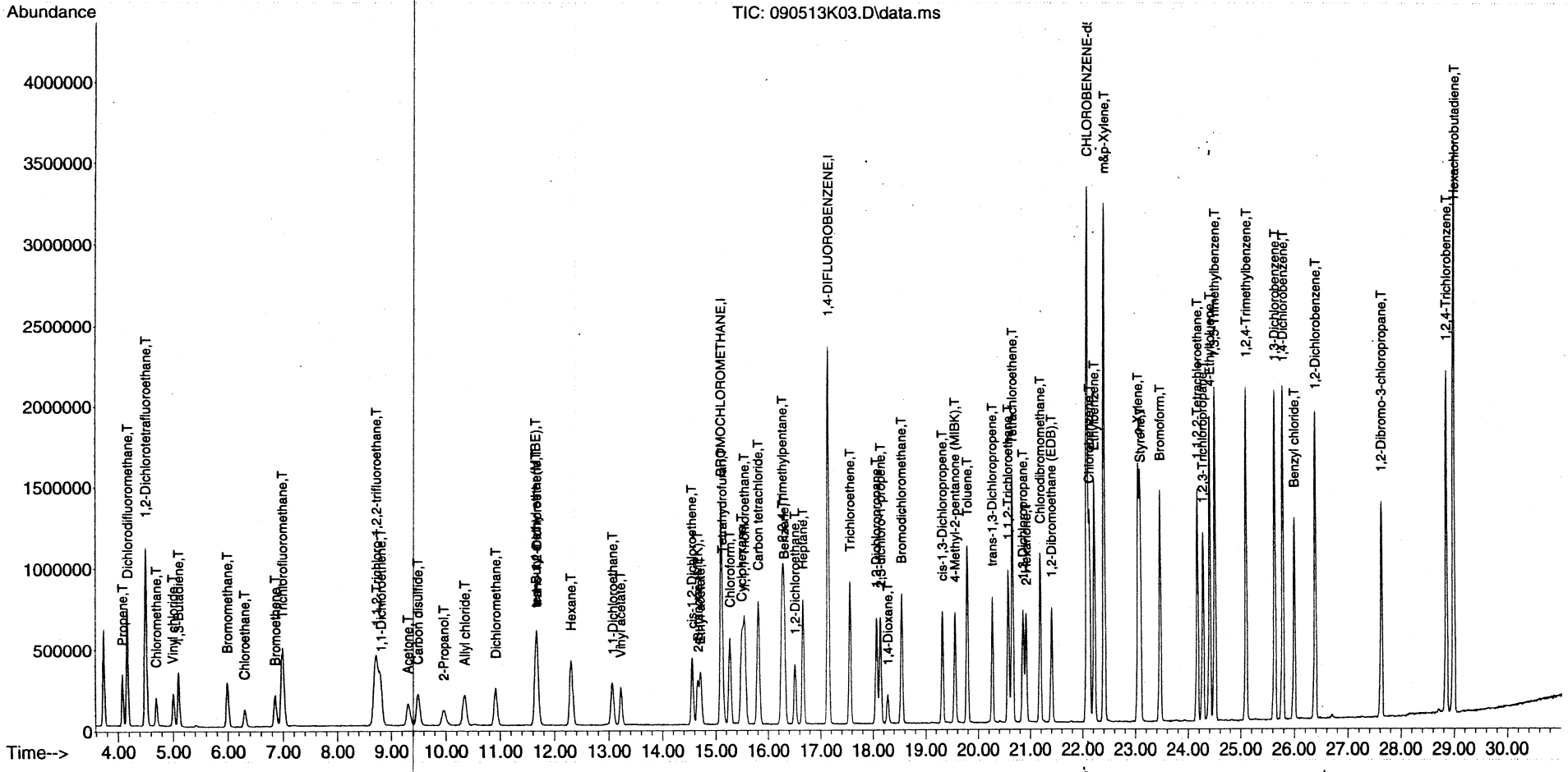
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K03.D
Acq On : 5 Sep 2013 15:44
Instrument: HP5973K
Operator : EM
Sample : B13I025-BS1
Misc : 10 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 16:38:17 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M



QLS REPORT

Instrument Name: HP5973K
Sample Name: S13I019-CRL3
Misc Info: 1.0 ppbv 1335007
Date Acquired: 9/5/2013 16:31
QLast Update: Wed Aug 28 11:07:04 201:
Operator: EM

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS	TYPE
2)	Propene	4.09	1.07	1.13	105%	60.0	140.0	pass	Subset
3)	Dichlorodifluoromethane	4.17	1.01	1.07	106%	60.0	140.0	pass	Primary
4)	1,2-Dichlorotetrafluoroethane	4.51	1.04	1.06	102%	60.0	140.0	pass	Primary
5)	Chloromethane	4.69	1.03	1.12	109%	60.0	140.0	pass	Primary
6)	Vinyl chloride	5.00	1.05	1.08	103%	60.0	140.0	pass	Primary
7)	1,3-Butadiene	5.10	1.02	1.05	103%	60.0	140.0	pass	Subset
8)	Bromomethane	6.00	1.04	1.15	110%	60.0	140.0	pass	Primary
9)	Chloroethane	6.31	1.04	1.13	109%	60.0	140.0	pass	Primary
10)	Bromoethene	6.86	1.03	0.86	83%	60.0	140.0	pass	Subset
11)	Trichlorofluoromethane	6.99	1.05	1.10	105%	60.0	140.0	pass	Primary
12)	1,1,2-Trichloro-1,2,2-trifluoroethane	8.72	0.93	0.86	92%	60.0	140.0	pass	Primary
13)	1,1-Dichloroethene	8.81	0.94	0.84	89%	60.0	140.0	pass	Primary
14)	Acetone	9.35	1.06	1.17	110%	60.0	140.0	pass	Subset
15)	Carbon disulfide	9.50	1.02	1.02	100%	60.0	140.0	pass	Subset
16)	2-Propanol	10.02	0.95	0.71	75%	60.0	140.0	pass	Subset
17)	Allyl chloride	10.35	1.01	0.91	90%	60.0	140.0	pass	Subset
18)	Dichloromethane	10.92	0.96	1.13	118%	60.0	140.0	pass	Primary
19)	tert-Butyl methyl ether (MTBE)	11.70	1.09	0.83	76%	60.0	140.0	pass	Subset
20)	trans-1,2-Dichloroethene	11.68	0.95	0.91	95%	60.0	140.0	pass	Subset
21)	Hexane	12.31	1.02	0.82	81%	60.0	140.0	pass	Subset
22)	1,1-Dichloroethane	13.06	0.98	1.03	105%	60.0	140.0	pass	Primary
23)	Vinyl acetate	13.23	1.00	0.69	69%	60.0	140.0	pass	Subset
24)	cis-1,2-Dichloroethene	14.55	1.01	0.95	94%	60.0	140.0	pass	Primary
25)	2-Butanone (MEK)	14.69	1.04	0.96	92%	60.0	140.0	pass	Subset
26)	Ethyl acetate	14.74	1.04	0.84	81%	60.0	140.0	pass	Subset
27)	Tetrahydrofuran	15.17	1.03	0.94	91%	60.0	140.0	pass	Subset
28)	Chloroform	15.27	1.01	1.04	103%	60.0	140.0	pass	Primary
29)	Cyclohexane	15.50	1.04	0.92	88%	60.0	140.0	pass	Subset
30)	1,1,1-Trichloroethane	15.55	1.00	1.01	101%	60.0	140.0	pass	Primary
31)	Carbon tetrachloride	15.80	1.00	1.05	105%	60.0	140.0	pass	Primary
33)	Benzene	16.31	1.03	1.11	108%	60.0	140.0	pass	Primary
34)	2,2,4-Trimethylpentane	16.27	1.05	0.97	92%	60.0	140.0	pass	Subset
35)	1,2-Dichloroethane	16.51	1.00	1.27	127%	60.0	140.0	pass	Primary
36)	Heptane	16.67	1.05	0.99	95%	60.0	140.0	pass	Subset
37)	Trichloroethene	17.56	1.03	1.01	98%	60.0	140.0	pass	Primary
38)	1,2-Dichloropropane	18.06	1.06	1.26	119%	60.0	140.0	pass	Primary
39)	2,3-dichloro-1-propene	18.13	1.04	0.88	84%	60.0	140.0	pass	Additional
40)	1,4-Dioxane	18.30	1.06	0.87	82%	60.0	140.0	pass	Subset
41)	Bromodichloromethane	18.54	1.06	1.16	109%	60.0	140.0	pass	Subset
42)	cis-1,3-Dichloropropene	19.31	1.03	1.00	97%	60.0	140.0	pass	Primary
43)	4-Methyl-2-pentanone (MIBK)	19.56	1.05	1.02	97%	60.0	140.0	pass	Subset
45)	Toluene	19.79	1.04	0.97	93%	60.0	140.0	pass	Primary
46)	trans-1,3-Dichloropropene	20.27	1.10	1.06	96%	60.0	140.0	pass	Primary
47)	1,1,2-Trichloroethane	20.57	1.08	1.16	107%	60.0	140.0	pass	Primary
48)	Tetrachloroethene	20.65	1.04	0.95	91%	60.0	140.0	pass	Primary
49)	1,3-Dichloropropane	20.86	1.03	0.95	92%	60.0	140.0	pass	Additional
50)	2-Hexanone	20.93	1.03	0.91	89%	60.0	140.0	pass	Subset
51)	Chlorodibromomethane	21.18	1.04	0.98	94%	60.0	140.0	pass	Subset
52)	1,2-Dibromoethane (EDB)	21.39	1.07	1.05	99%	60.0	140.0	pass	Primary
53)	Chlorobenzene	22.12	1.06	0.98	93%	60.0	140.0	pass	Primary

54)	Ethylbenzene	22.22	1.05	0.97	93%	60.0	140.0	pass	Primary
55)	m&p-Xylene	22.40	2.12	1.87	88%	60.0	140.0	pass	Primary
56)	o-Xylene	23.04	1.07	0.89	83%	60.0	140.0	pass	Primary
57)	Styrene	23.08	1.04	0.88	84%	60.0	140.0	pass	Primary
58)	Bromoform	23.46	1.03	0.84	82%	60.0	140.0	pass	Subset
59)	1,1,2,2-Tetrachloroethane	24.16	1.06	1.02	96%	60.0	140.0	pass	Primary
60)	1,2,3-Trichloropropane	24.27	0.97	0.91	94%	60.0	140.0	pass	Additional
61)	4-Ethyltoluene	24.39	1.05	0.77	73%	60.0	140.0	pass	Subset
62)	1,3,5-Trimethylbenzene	24.49	1.04	0.83	80%	60.0	140.0	pass	Primary
63)	1,2,4-Trimethylbenzene	25.09	1.07	0.74	69%	60.0	140.0	pass	Primary
64)	1,3-Dichlorobenzene	25.62	1.03	0.79	76%	60.0	140.0	pass	Primary
65)	1,4-Dichlorobenzene	25.77	1.04	0.74	71%	60.0	140.0	pass	Primary
66)	Benzyl chloride	25.98	1.03	0.74	71%	60.0	140.0	pass	Subset
67)	1,2-Dichlorobenzene	26.37	1.04	0.76	73%	60.0	140.0	pass	Primary
68)	1,2-Dibromo-3-chloropropane	27.61	0.90	0.60	67%	60.0	140.0	pass	Additional
69)	1,2,4-Trichlorobenzene	28.84	1.02	0.71	70%	60.0	140.0	pass	Primary
70)	Hexachlorobutadiene	28.98	1.03	0.64	62%	60.0	140.0	pass	Primary

Quantitation Report (QT Reviewed)

MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other:
☑ After Manual Integration
Manual integration(s) performed by:
Analyst: [illegible] Date: 9/10/13
Manual integration(s) reviewed by:
Reviewer: [illegible] Date: 9-19-13

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K04.D
Acq On : 5 Sep 2013 16:31
Instrument: HP5973K
Operator : EM
Sample : S13I019-CRL1
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 17:09:24 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)	Qvalue
Internal Standards							
1) BROMOCHLOROMETHANE	15.104	49	829472	22.00	ppbv	# 0.00	
32) 1,4-DIFLUOROBENZENE	17.142	114	2446344	22.00	ppbv	0.00	
44) CHLOROBENZENE-d5	22.075	117	2263408	22.00	ppbv	0.00	
Target Compounds							
2) Propene	4.086	41	24499	1.13	ppbv		100
3) Dichlorodifluoromethane	4.171	85	90749	1.07	ppbv		99
4) 1,2-Dichlorotetrafluor...	4.512	85	95530	1.06	ppbv		88
5) Chloromethane	4.695	50	28501	1.12	ppbv		99
6) Vinyl chloride	5.005	62	31716	1.08	ppbv		97
7) 1,3-Butadiene	5.102	54	24130	1.05	ppbv		86
8) Bromomethane	5.996	94	34631	1.15	ppbv		99
9) Chloroethane	6.313	64	17703	1.13	ppbv		96
10) Bromoethene	6.860	106	22975	0.86	ppbv		94
11) Trichlorofluoromethane	6.994	101	86598	1.10	ppbv		97
12) 1,1,2-Trichloro-1,2,2-...	8.722	151	43469	0.86	ppbv	#	77
13) 1,1-Dichloroethene	8.813	61	33361	0.84	ppbv		95
14) Acetone	9.348	43	43182	1.17	ppbv	#	43
15) Carbon disulfide	9.501	76	70689	1.02	ppbv		93
16) 2-Propanol	10.018	45	22795m	0.71	ppbv		
17) Allyl chloride	10.352	41	25507	0.91	ppbv		84
18) Dichloromethane	10.924	49	36381	1.13	ppbv	#	81
19) tert-Butyl methyl ethe...	11.703	73	52577	0.83	ppbv		98
20) trans-1,2-Dichloroethene	11.679	61	31604	0.91	ppbv		89
21) Hexane	12.305	57	30955	0.82	ppbv		89
22) 1,1-Dichloroethane	13.059	63	50137	1.03	ppbv		99
23) Vinyl acetate	13.230	43	36248	0.69	ppbv		92
24) cis-1,2-Dichloroethene	14.550	61	32623	0.95	ppbv		93
25) 2-Butanone (MEK)	14.690	43	47152	0.96	ppbv	#	51
26) Ethyl acetate	14.739	43	46593m	0.84	ppbv		
27) Tetrahydrofuran	15.170	42	28091	0.94	ppbv		92
28) Chloroform	15.268	83	61716	1.04	ppbv		94
29) Cyclohexane	15.499	56	36130	0.92	ppbv		85
30) 1,1,1-Trichloroethane	15.548	97	65051	1.01	ppbv		96
31) Carbon tetrachloride	15.803	117	72744	1.05	ppbv		93
33) Benzene	16.308	78	83428	1.11	ppbv		95
34) 2,2,4-Trimethylpentane	16.272	57	102691	0.97	ppbv		93
35) 1,2-Dichloroethane	16.509	62	44157	1.27	ppbv		97
36) Heptane	16.667	43	38033	0.99	ppbv		93
37) Trichloroethene	17.561	130	36496	1.01	ppbv		97
38) 1,2-Dichloropropane	18.060	63	34504	1.26	ppbv		89
39) 2,3-dichloro-1-propene	18.127	75	37403	0.88	ppbv		88
40) 1,4-Dioxane	18.304	88	13789	0.87	ppbv		84
41) Bromodichloromethane	18.541	83	65511	1.16	ppbv		93
42) cis-1,3-Dichloropropene	19.313	75	39967	1.00	ppbv		86
43) 4-Methyl-2-pentanone (...	19.563	43	54835	1.02	ppbv		98
45) Toluene	19.788	91	92534	0.97	ppbv		100
46) trans-1,3-Dichloropropene	20.269	75	43510	1.06	ppbv		88
47) 1,1,2-Trichloroethane	20.567	97	39010	1.16	ppbv		93
48) Tetrachloroethene	20.646	166	54593	0.95	ppbv		93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K04.D
Acq On : 5 Sep 2013 16:31
Instrument: HP5973K
Operator : EM
Sample : S13I019-CRL1
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 17:09:24 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

	Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
49)	1,3-Dichloropropane	20.859	76	47731	0.95 ppbv	88
50)	2-Hexanone	20.926	43	47916	0.91 ppbv	97
51)	Chlorodibromomethane	21.181	129	66446	0.98 ppbv	97
52)	1,2-Dibromoethane (EDB)	21.394	107	56621	1.05 ppbv	99
53)	Chlorobenzene	22.118	112	84502	0.98 ppbv #	67
54)	Ethylbenzene	22.215	91	126741	0.97 ppbv	98
55)	m&p-Xylene	22.398	91	199727	1.87 ppbv	98
56)	o-Xylene	23.043	91	94781	0.89 ppbv	100
57)	Styrene	23.079	104	81153	0.88 ppbv	95
58)	Bromoform	23.462	173	68199	0.84 ppbv	94
59)	1,1,2,2-Tetrachloroethane	24.156	83	87062	1.02 ppbv	99
60)	1,2,3-Trichloropropane	24.272	75	62654	0.91 ppbv	94
61)	4-Ethyltoluene	24.393	105	119134	0.77 ppbv	99
62)	1,3,5-Trimethylbenzene	24.491	105	112451	0.83 ppbv	97
63)	1,2,4-Trimethylbenzene	25.093	105	102602	0.74 ppbv	97
64)	1,3-Dichlorobenzene	25.622	146	91362	0.79 ppbv	95
65)	1,4-Dichlorobenzene	25.768	146	84858	0.74 ppbv	98
66)	Benzyl chloride	25.987	91	83292	0.74 ppbv	96
67)	1,2-Dichlorobenzene	26.376	146	83031	0.76 ppbv	97
68)	1,2-Dibromo-3-chloropr...	27.617	157	37448	0.60 ppbv #	70
69)	1,2,4-Trichlorobenzene	28.834	180	77504	0.71 ppbv	98
70)	Hexachlorobutadiene	28.974	225	70349	0.64 ppbv	95

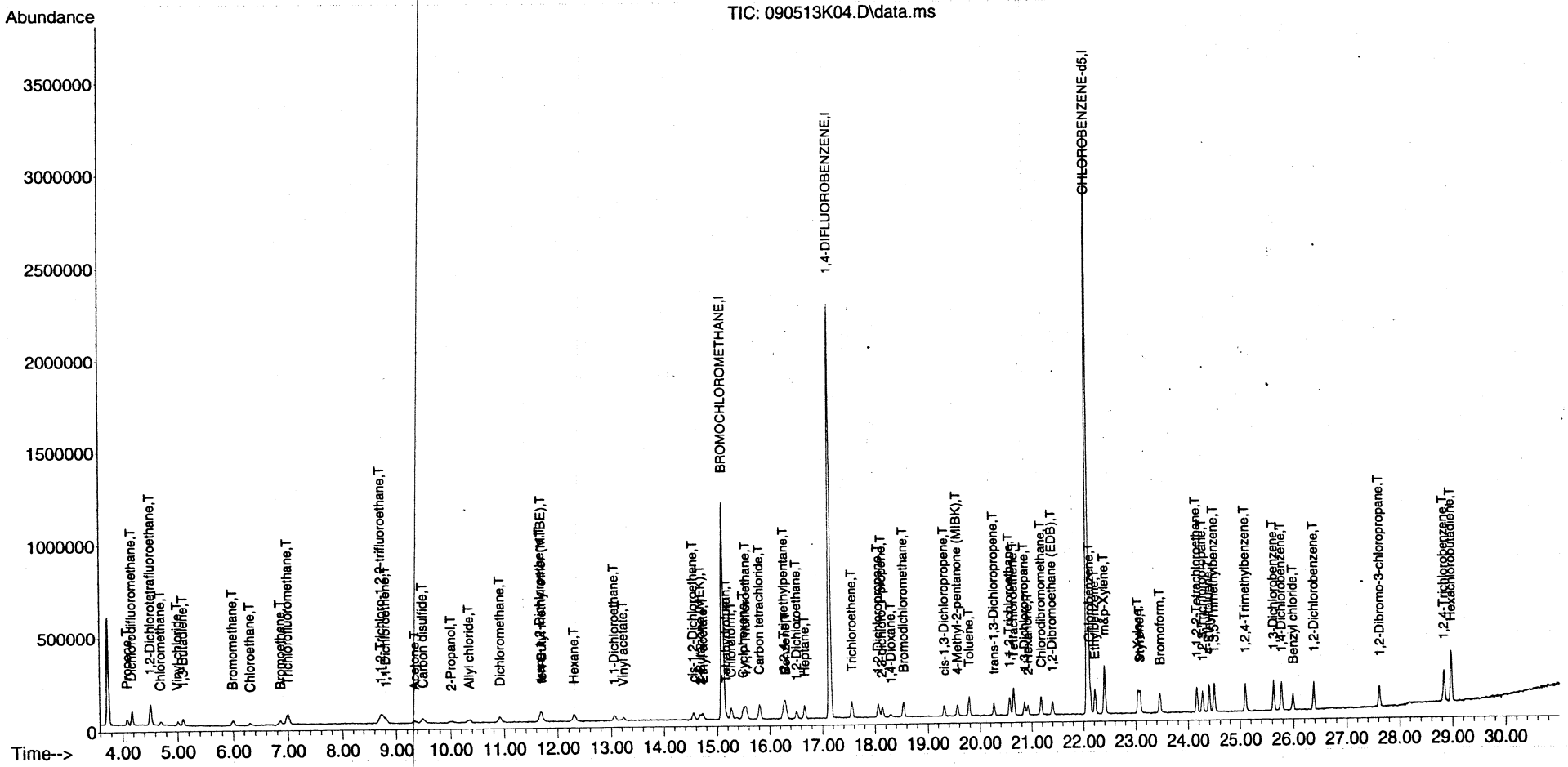
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K04.D
Acq On : 5 Sep 2013 16:31
Instrument: HP5973K
Operator : EM
Sample : S13I019-CRL1
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 17:09:24 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

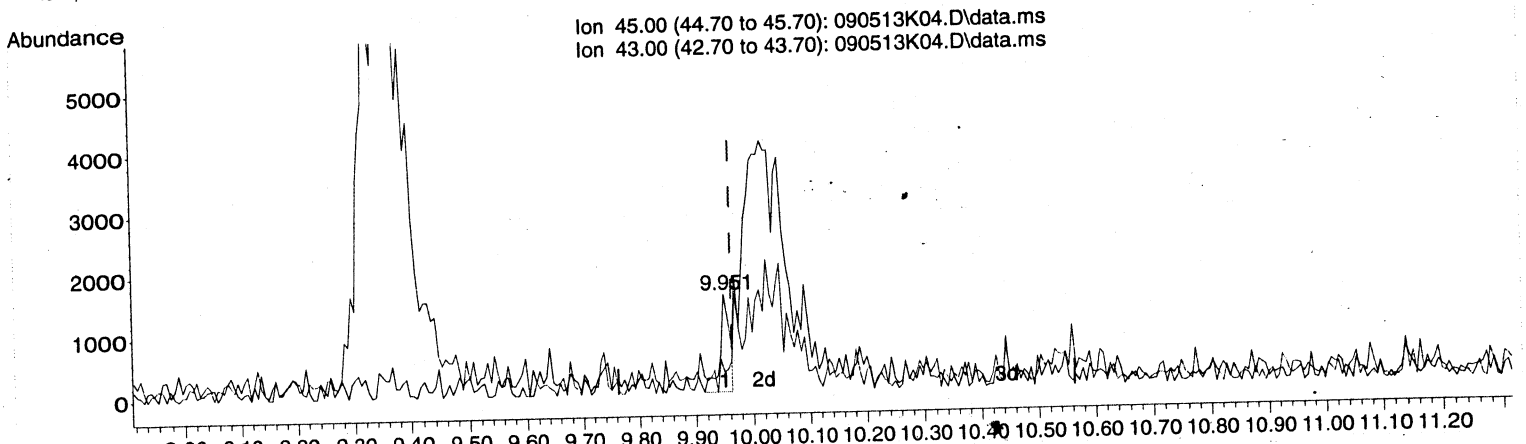


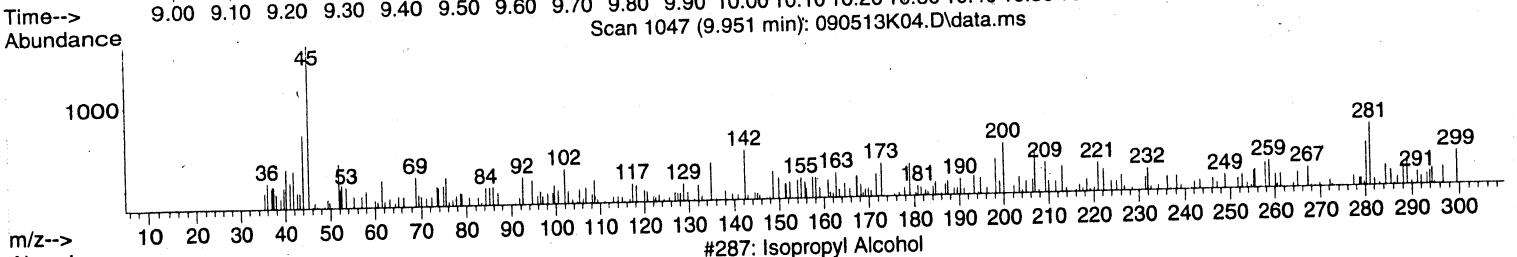
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K04.D
Acq On : 5 Sep 2013 16:31
Instrument: HP5973K
Operator : EM
Sample : S13I019-CRL3 | EM 9/5/13
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

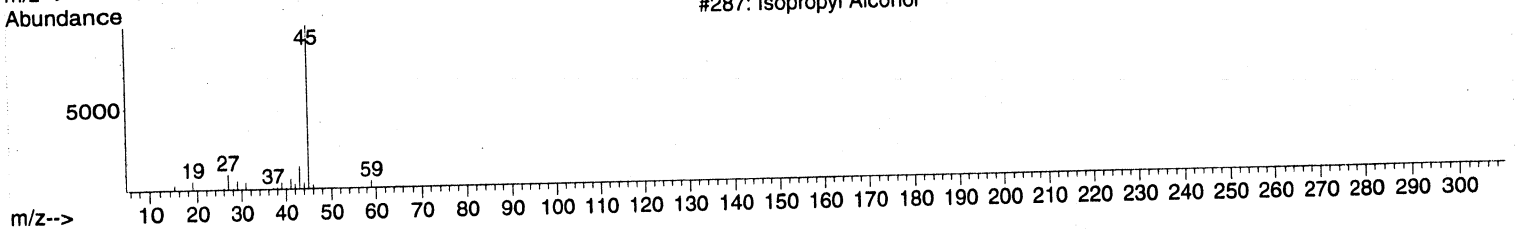
Quant Time: Sep 05 17:08:22 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M





#287: Isopropyl Alcohol



TIC: 090513K04.D\data.ms

(16) 2-Propanol (T)

9.951min (-0.012) 0.06 ppbv

response 1856

Ion	Exp%	Act%
45.00	100	100
43.00	24.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being
☑ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: _____ Date: _____

090513KAA.M Thu Sep 05 17:08:46 2013 HP5973K

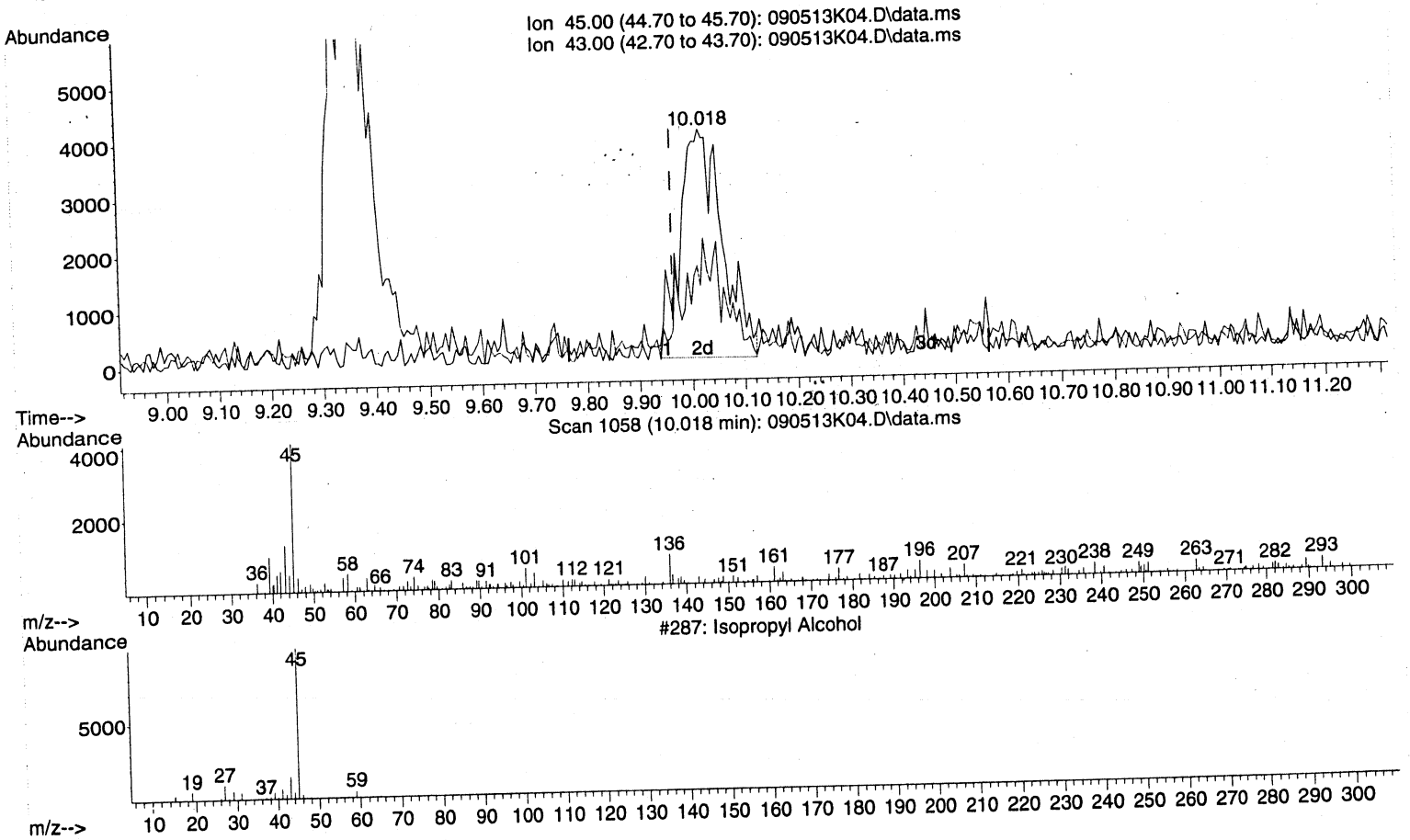
00353

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K04.D
Acq On : 5 Sep 2013 16:31
Instrument: HP5973K
Operator : EM
Sample : S13I019-CRL1 / lm 9/5/13
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 17:08:22 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M



TIC: 090513K04.D\data.ms

(16) 2-Propanol (T)

10.018min (+0.055) 0.71 ppbv m

response 22795

Ion	Exp%	Act%
45.00	100	100
43.00	24.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

MANUAL INTEGRATION VERIFICATION

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: lm Date: 9/6/13

Manual integration(s) reviewed by:

Reviewer: [illegible] Date: 09/9/13

090513KAA.M Thu Sep 05 17:09:14 2013 HP5973K

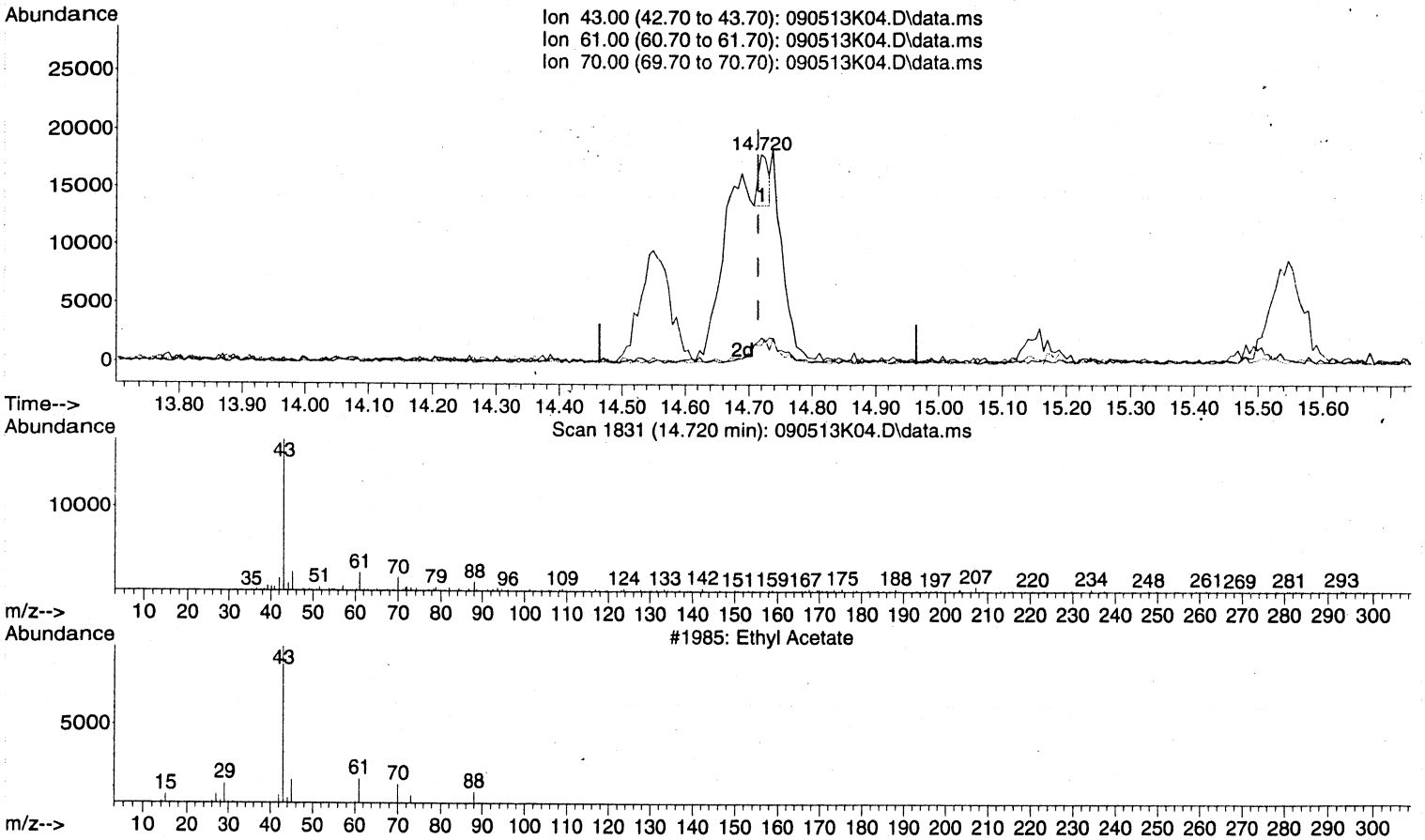
000351

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K04.D
Acq On : 5 Sep 2013 16:31
Instrument: HP5973K
Operator : EM
Sample : S13I019-CRL3/1 em 9/5/13
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 17:08:22 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M



TIC: 090513K04.D\data.ms

(26) Ethyl acetate (T)

14.720min (+0.006) 0.09 ppbv

response 5039

Ion	Exp%	Act%
43.00	100	100
61.00	13.60	70.35#
70.00	9.90	0.00
0.00	0.00	0.00

MANUAL INTEGRATION VERIFICATION
☑ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☑ Cropped ☐ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: _____ Date: _____

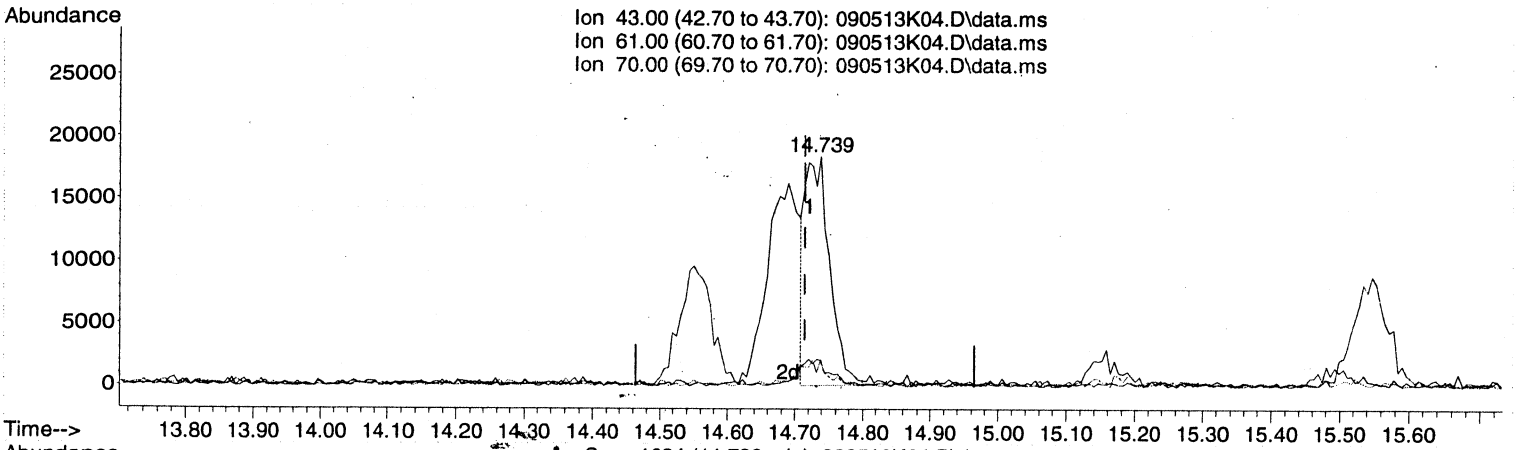
00355

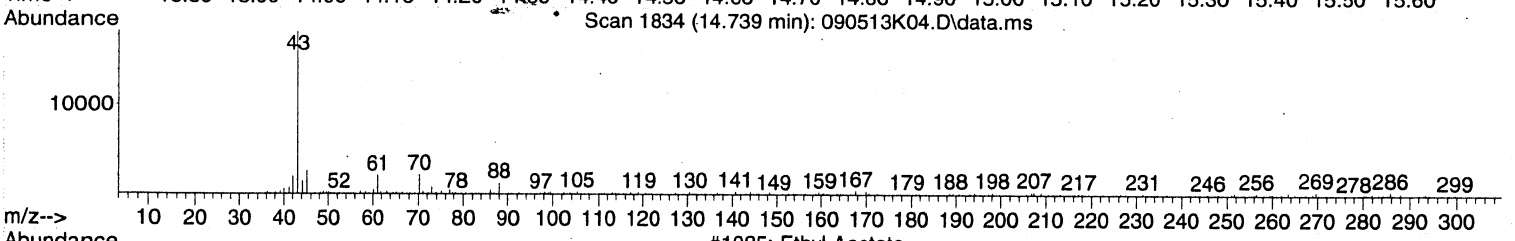
Quantitation Report (Qedit)

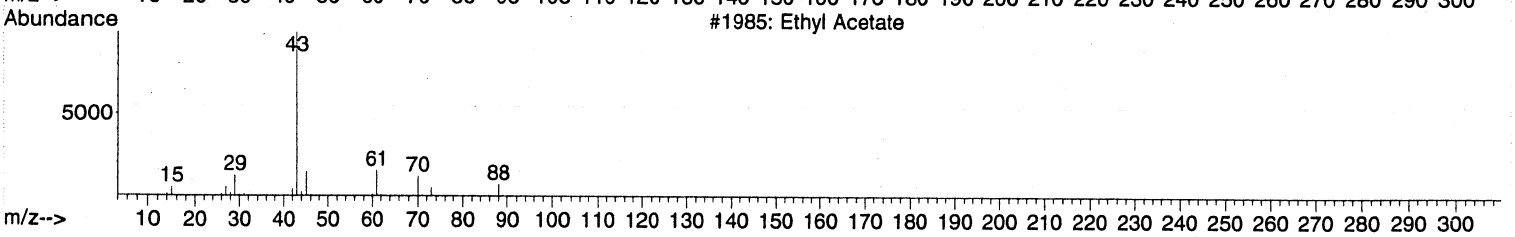
Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K04.D
Acq On : 5 Sep 2013 16:31
Instrument: HP5973K
Operator : EM
Sample : S13I019-CRL3 / em 9/5/13
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 17:08:22 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M







TIC: 090513K04.D\data.ms

(26) Ethyl acetate (T)

14.739min (+0.024) 0.84 ppbv m

response 46593

Ion	Exp%	Act%
43.00	100	100
61.00	13.60	7.61
70.00	9.90	0.00
0.00	0.00	0.00

MANUAL INTEGRATION VERIFICATION

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: EM Date: 9/6/13

Manual integration(s) reviewed by:

Reviewer: JR Date: 9-19-13

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K04.D
Acq On : 5 Sep 2013 16:31
Instrument: HP5973K
Operator : EM
Sample : S13I019-CRL3 em 9/5/13
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 17:08:22 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

See NIT
em 9/6/13

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards								
1)	BROMOCHLOROMETHANE	15.104	49	829472	22.00	ppbv	#	0.00
32)	1,4-DIFLUOROBENZENE	17.142	114	2446344	22.00	ppbv		0.00
44)	CHLOROBENZENE-d5	22.075	117	2263408	22.00	ppbv		0.00
Target Compounds								Qvalue
2)	Propene	4.086	41	24499	1.13	ppbv		100
3)	Dichlorodifluoromethane	4.171	85	90749	1.07	ppbv		99
4)	1,2-Dichlorotetrafluor...	4.512	85	95530	1.06	ppbv		88
5)	Chloromethane	4.695	50	28501	1.12	ppbv		99
6)	Vinyl chloride	5.005	62	31716	1.08	ppbv		97
7)	1,3-Butadiene	5.102	54	24130	1.05	ppbv		86
8)	Bromomethane	5.996	94	34631	1.15	ppbv		99
9)	Chloroethane	6.313	64	17703	1.13	ppbv		96
10)	Bromoethene	6.860	106	22975	0.86	ppbv		94
11)	Trichlorofluoromethane	6.994	101	86598	1.10	ppbv		97
12)	1,1,2-Trichloro-1,2,2-...	8.722	151	43469	0.86	ppbv	#	77
13)	1,1-Dichloroethene	8.813	61	33361	0.84	ppbv		95
14)	Acetone	9.348	43	43182	1.17	ppbv	#	43
15)	Carbon disulfide	9.501	76	70689	1.02	ppbv		93
17)	Allyl chloride	10.352	41	25507	0.91	ppbv		84
18)	Dichloromethane	10.924	49	36381	1.13	ppbv	#	81
19)	tert-Butyl methyl ethe...	11.703	73	52577	0.83	ppbv		98
20)	trans-1,2-Dichloroethene	11.679	61	31604	0.91	ppbv		89
21)	Hexane	12.305	57	30955	0.82	ppbv		89
22)	1,1-Dichloroethane	13.059	63	50137	1.03	ppbv		99
23)	Vinyl acetate	13.230	43	36248	0.69	ppbv		92
24)	cis-1,2-Dichloroethene	14.550	61	32623	0.95	ppbv		93
25)	2-Butanone (MEK)	14.690	43	47152	0.96	ppbv	#	51
27)	Tetrahydrofuran	15.170	42	28091	0.94	ppbv		92
28)	Chloroform	15.268	83	61716	1.04	ppbv		94
29)	Cyclohexane	15.499	56	36130	0.92	ppbv		85
30)	1,1,1-Trichloroethane	15.548	97	65051	1.01	ppbv		96
31)	Carbon tetrachloride	15.803	117	72744	1.05	ppbv		93
~~33)~~	~~Benzene~~	~~16.308~~	~~78~~	~~83428~~	~~1.11~~	~~ppbv~~		~~95~~
34)	2,2,4-Trimethylpentane	16.272	57	102691	0.97	ppbv		93
35)	1,2-Dichloroethane	16.509	62	44157	1.27	ppbv		97
36)	Heptane	16.667	43	38033	0.99	ppbv		93
37)	Trichloroethene	17.561	130	36496	1.01	ppbv		97
38)	1,2-Dichloropropane	18.060	63	34504	1.26	ppbv		89
39)	2,3-dichloro-1-propene	18.127	75	37403	0.88	ppbv		88
40)	1,4-Dioxane	18.304	88	13789	0.87	ppbv		84
41)	Bromodichloromethane	18.541	83	65511	1.16	ppbv		93
42)	cis-1,3-Dichloropropene	19.313	75	39967	1.00	ppbv		86
43)	4-Methyl-2-pentanone (...	19.563	43	54835	1.02	ppbv		98
45)	Toluene	19.788	91	92534	0.97	ppbv		100
46)	trans-1,3-Dichloropropene	20.269	75	43510	1.06	ppbv		88
47)	1,1,2-Trichloroethane	20.567	97	39010	1.16	ppbv		93
48)	Tetrachloroethene	20.646	166	54593	0.95	ppbv		93
49)	1,3-Dichloropropane	20.859	76	47731	0.95	ppbv		88
50)	2-Hexanone	20.926	43	47916	0.91	ppbv		97

00057

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K04.D
Acq On : 5 Sep 2013 16:31
Instrument: HP5973K
Operator : EM
Sample : S13I019-CRL3 / em 9/5/13
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 17:08:22 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
51)	Chlorodibromomethane	21.181	129	66446	0.98	ppbv		97
52)	1,2-Dibromoethane (EDB)	21.394	107	56621	1.05	ppbv		99
53)	Chlorobenzene	22.118	112	84502	0.98	ppbv	#	67
54)	Ethylbenzene	22.215	91	126741	0.97	ppbv		98
55)	m&p-Xylene	22.398	91	199727	1.87	ppbv		98
56)	o-Xylene	23.043	91	94781	0.89	ppbv		100
57)	Styrene	23.079	104	81153	0.88	ppbv		95
58)	Bromoform	23.462	173	68199	0.84	ppbv		94
59)	1,1,2,2-Tetrachloroethane	24.156	83	87062	1.02	ppbv		99
60)	1,2,3-Trichloropropane	24.272	75	62654	0.91	ppbv		94
61)	4-Ethyltoluene	24.393	105	119134	0.77	ppbv		99
62)	1,3,5-Trimethylbenzene	24.491	105	112451	0.83	ppbv		97
63)	1,2,4-Trimethylbenzene	25.093	105	102602	0.74	ppbv		97
64)	1,3-Dichlorobenzene	25.622	146	91362	0.79	ppbv		95
65)	1,4-Dichlorobenzene	25.768	146	84858	0.74	ppbv		98
66)	Benzyl chloride	25.987	91	83292	0.74	ppbv		96
67)	1,2-Dichlorobenzene	26.376	146	83031	0.76	ppbv		97
68)	1,2-Dibromo-3-chloropr...	27.617	157	37448	0.60	ppbv	#	70
69)	1,2,4-Trichlorobenzene	28.834	180	77504	0.71	ppbv		98
70)	Hexachlorobutadiene	28.974	225	70349	0.64	ppbv		95

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

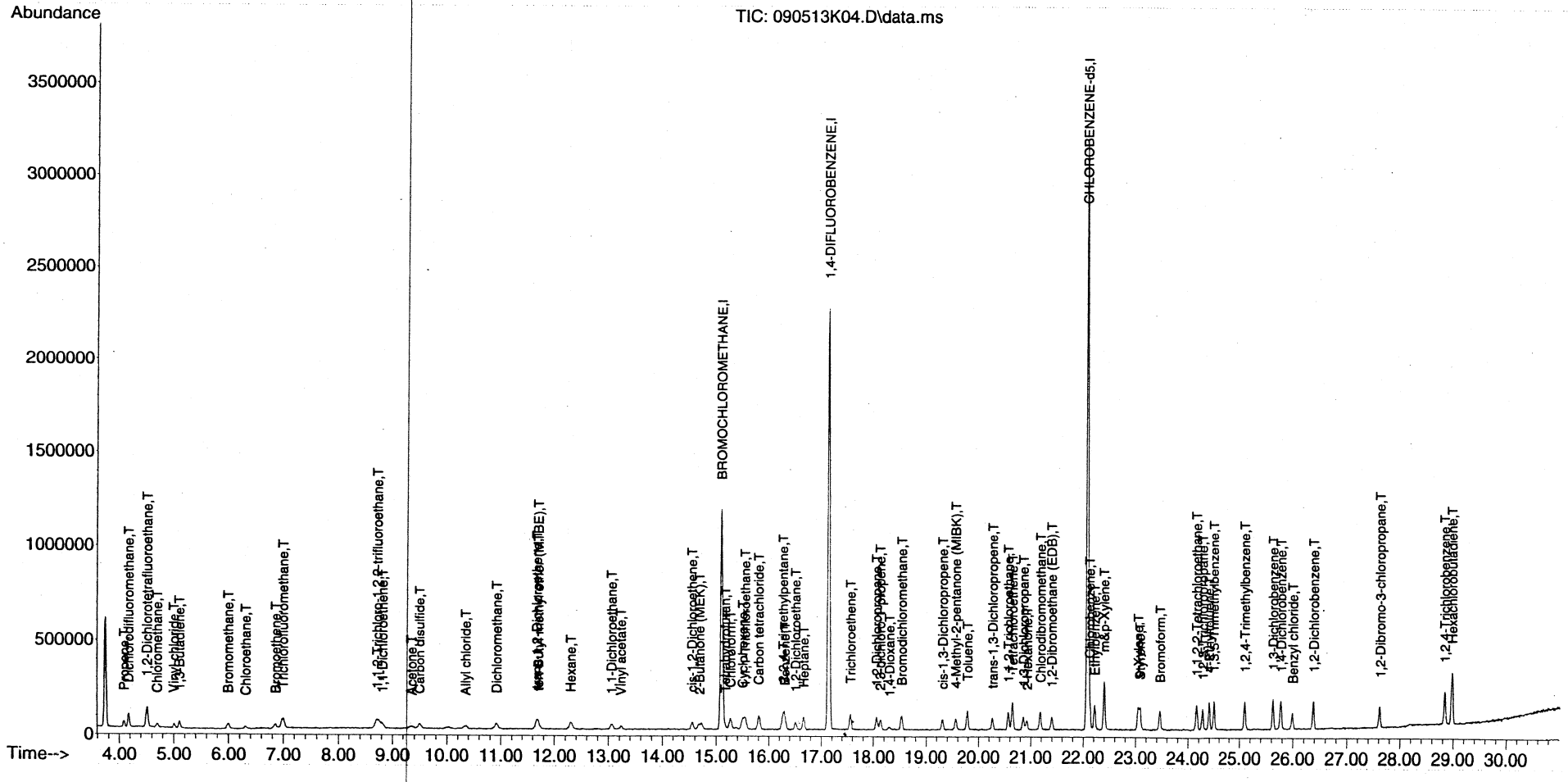
00358

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K04.D
Acq On : 5 Sep 2013 16:31
Instrument: HP5973K
Operator : EM
Sample : S13I019-CRL3 / i em 9/5/13
Misc : 1.0 ppbv 1335007
ALS Vial : 32
Multiplier: 1

Quant Time: Sep 05 17:08:22 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M



Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K05.D
Acq On : 5 Sep 2013 17:22
Instrument: HP5973K
Operator : EM
Sample : B13I025-BLK1
Misc : Blank Can 636
ALS Vial : 35
Multiplier: 1

Quant Time: Sep 06 10:24:43 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) BROMOCHLOROMETHANE	15.103	49	791936	22.00	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.141	114	2411800	22.00	ppbv	0.00
44) CHLOROBENZENE-d5	22.075	117	2310686	22.00	ppbv	0.00

Target Compounds	Qvalue

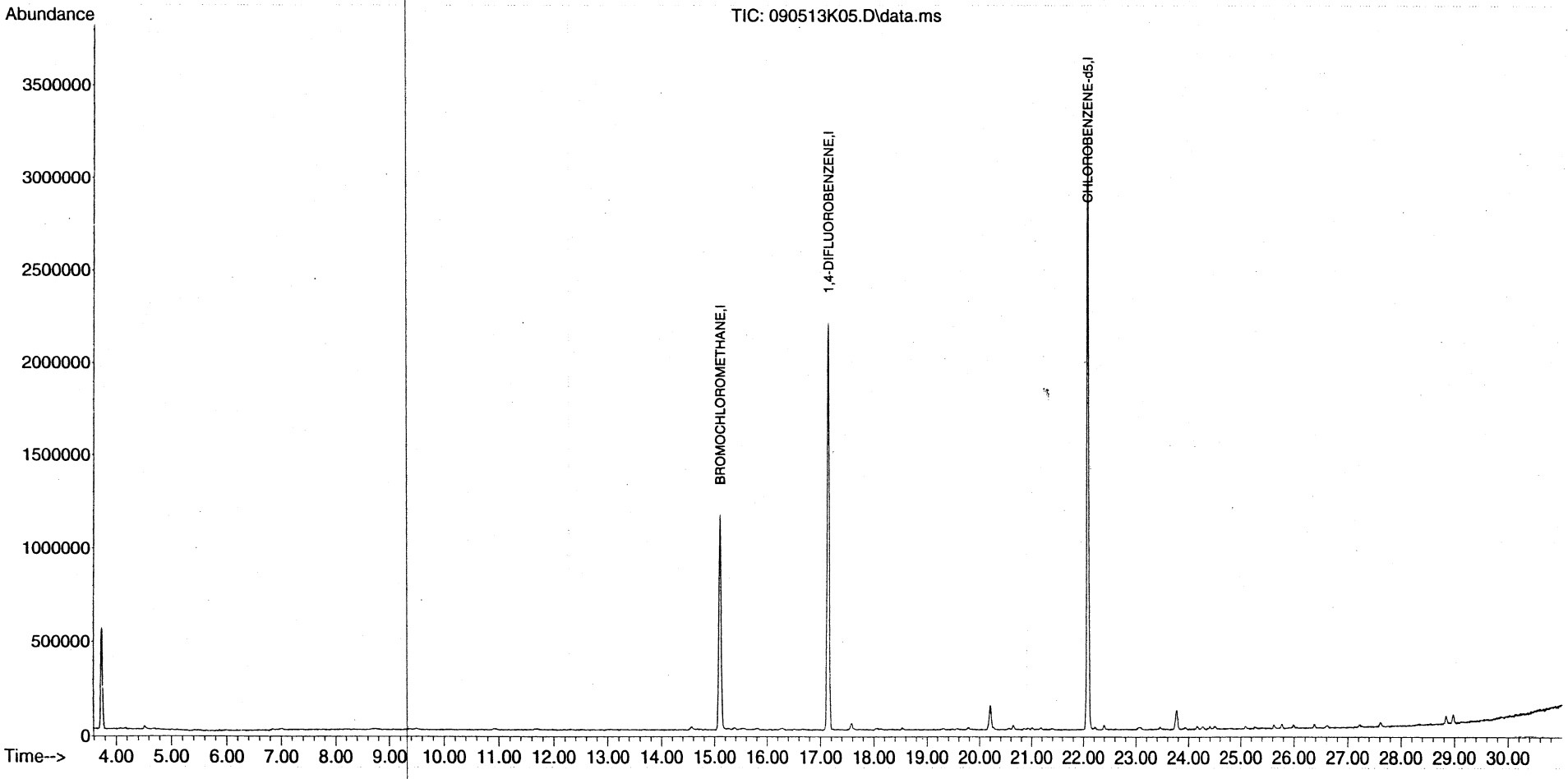
(#) = qualifier out of range (m) = manual integration (+) = signals summed

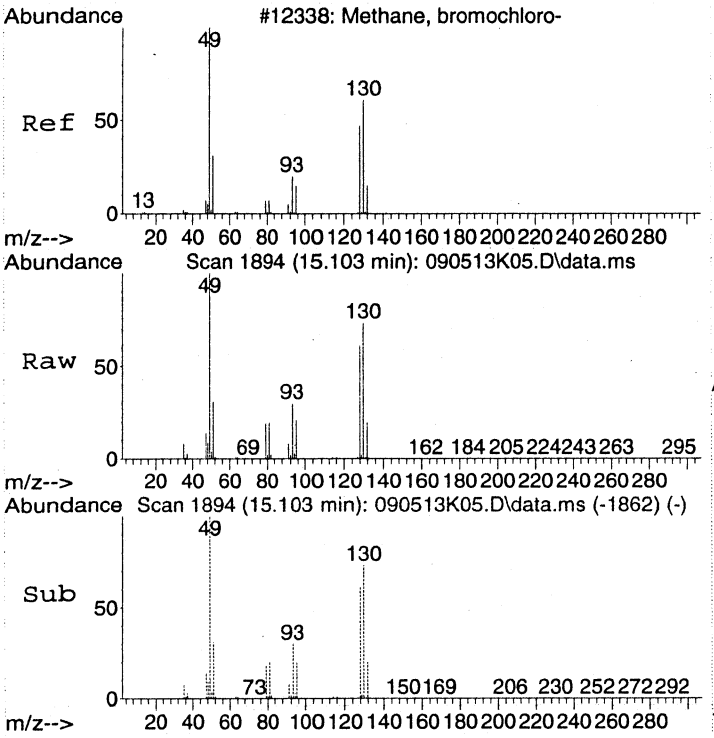
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K05.D
Acq On : 5 Sep 2013 17:22
Instrument: HP5973K
Operator : EM
Sample : B13I025-BLK1
Misc : Blank Can 636
ALS Vial : 35
Multiplier: 1

Quant Time: Sep 06 10:24:43 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

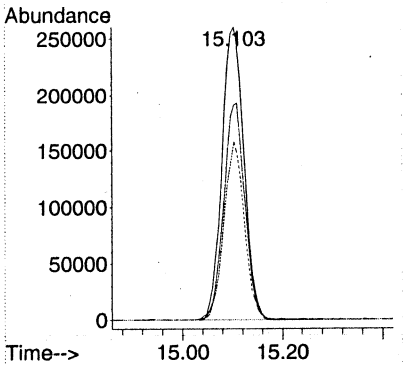


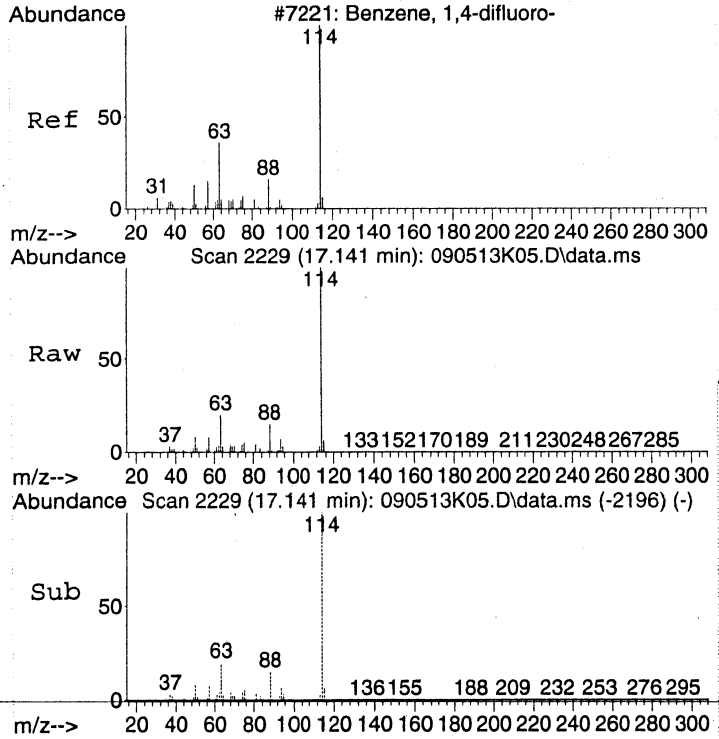


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.103 min Scan# 1894
Delta R.T. -0.007 min
Lab File: 090513K05.D
Acq: 5 Sep 2013 17:22

Tgt Ion: 49 Resp: 791936

Ion	Ratio	Lower	Upper
49	100		
130	71.5	70.5	110.5
128	56.4	50.6	90.6

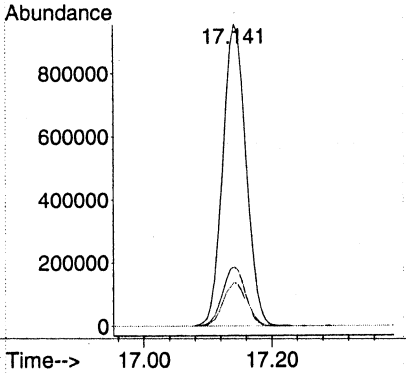


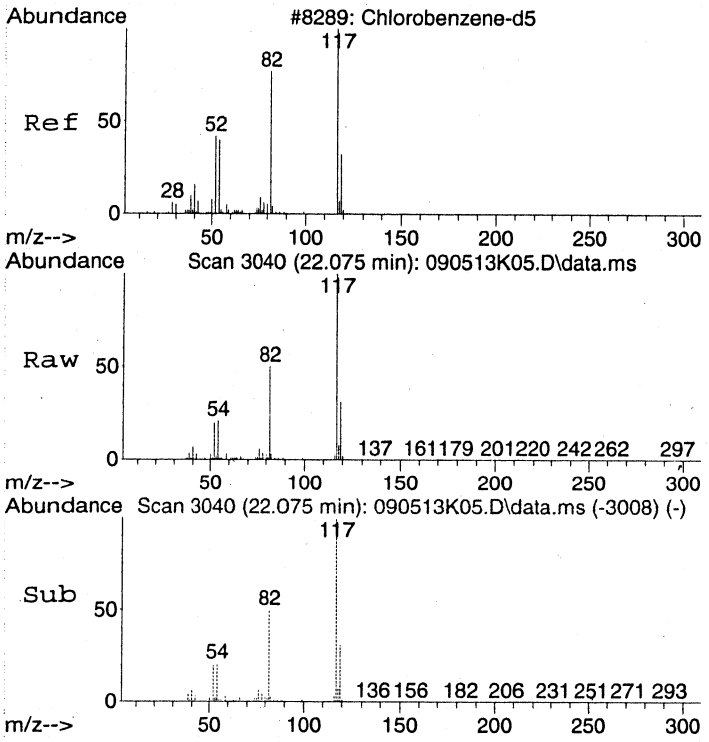


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.141 min Scan# 2229
Delta R.T. 0.000 min
Lab File: 090513K05.D
Acq: 5 Sep 2013 17:22

Tgt Ion:114 Resp: 2411800

Ion	Ratio	Lower	Upper
114	100		
63	19.6	0.0	37.0
88	14.3	0.0	33.1

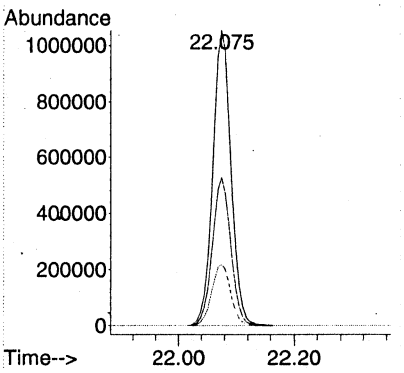




#44
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.075 min Scan# 3040
Delta R.T. -0.006 min
Lab File: 090513K05.D
Acq: 5 Sep 2013 17:22

Tgt Ion:117 Resp: 2310686

Ion	Ratio	Lower	Upper
117	100		
82	50.6	26.5	66.5
54	21.8	0.0	38.1



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K05.D
Acq On : 5 Sep 2013 17:22
Operator : EM
Sample : B13I025-BLK1
Misc : Blank Can 636
ALS Vial : 35 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\msdchem\1\METHODS\2013\090513KAA.M
Title : TO15

Signal : TIC: 090513K05.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	15.103	1881	1894	1907	rBV2	1156726	3397019	47.83%	19.869%
2	17.141	2215	2229	2241	rBV	2190380	5584749	78.64%	32.665%
3	17.579	2293	2301	2306	rBV6	36240	99809	1.41%	0.584%
4	20.201	2720	2732	2740	rBV	128888	392714	5.53%	2.297%
5	22.075	3030	3040	3056	rVB	3151967	7101880	100.00%	41.538%
6	23.773	3309	3319	3329	rVB3	102866	316889	4.46%	1.853%
7	28.834	4146	4151	4158	rVB8	39434	88618	1.25%	0.518%
8	28.974	4167	4174	4181	rBV8	48973	115538	1.63%	0.676%

Sum of corrected areas: 17097216

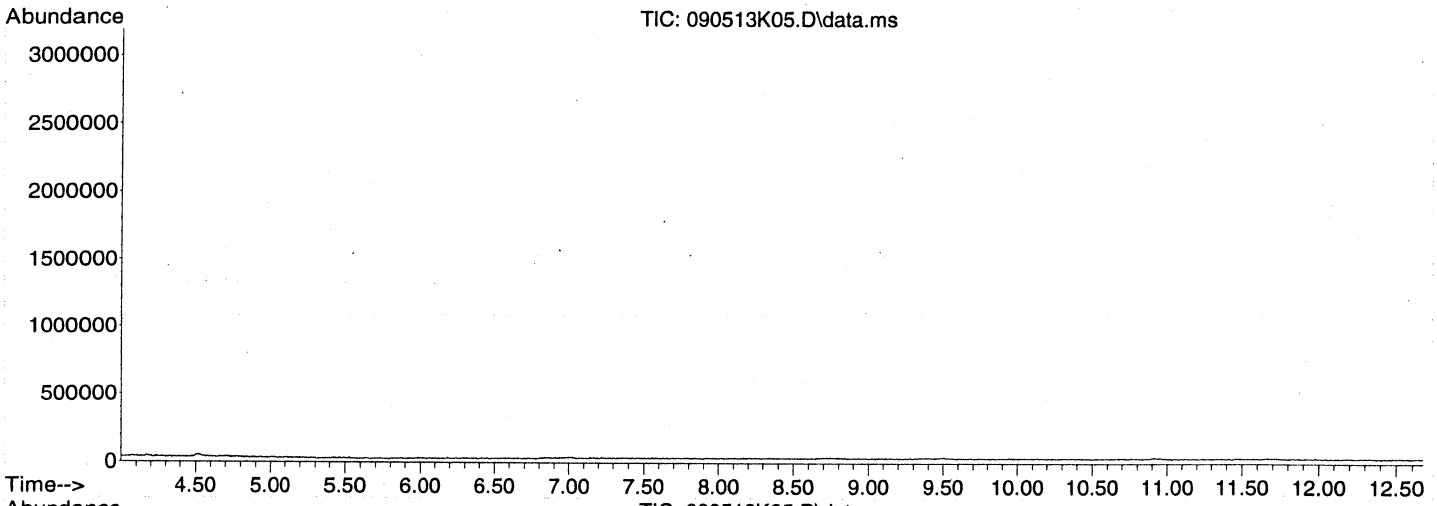
00364

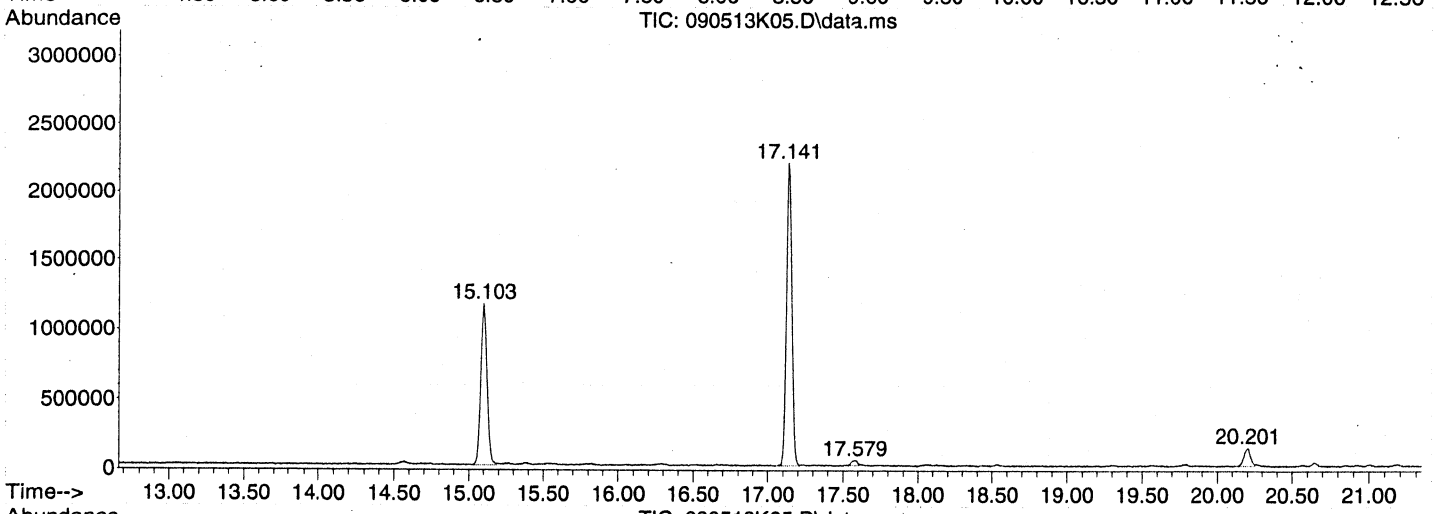
LSC Report - Integrated Chromatogram

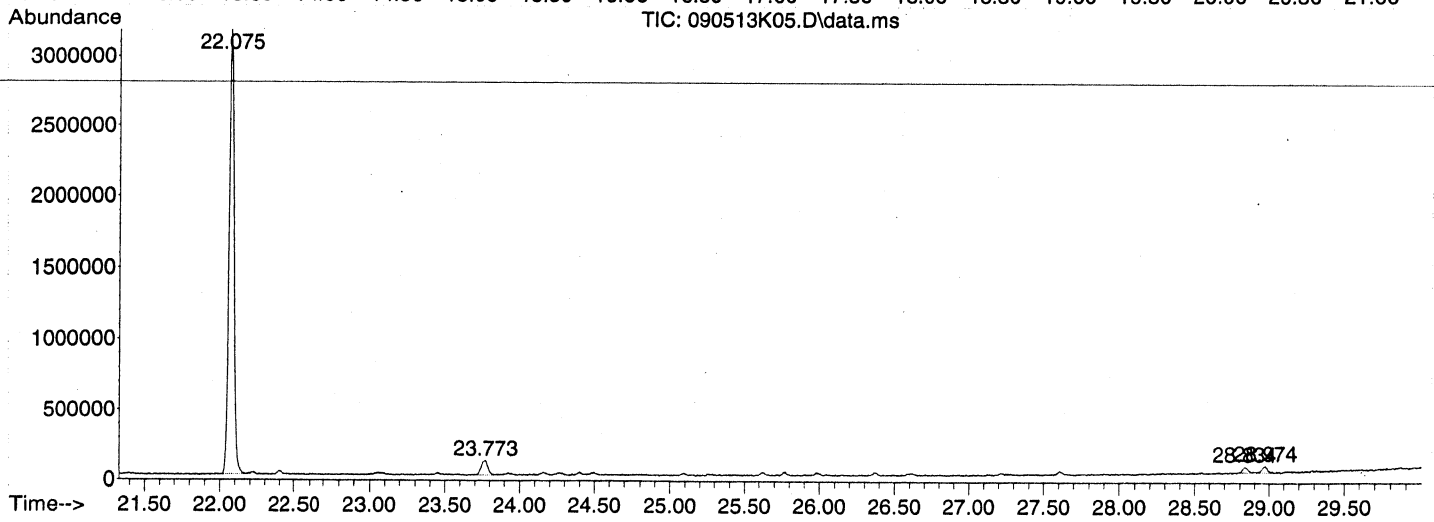
Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K05.D
Acq On : 5 Sep 2013 17:22
Operator : EM
Sample : B13I025-BLK1
Misc : Blank Can 636
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K05.D
Acq On : 5 Sep 2013 17:22
Operator : EM
Sample : B13I025-BLK1
Misc : Blank Can 636
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

```
Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K05.D
Acq On    :  5 Sep 2013  17:22
Operator  : EM
Sample    : B13I025-BLK1
Misc      : Blank Can 636
ALS Vial  : 35   Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M
Quant Title  : TO15

TIC Library    : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

                                                  |--Internal Standard---|
TIC Top Hit name      RT  EstConc Units Response |#    RT     Resp  Conc|
-----------------------------------------------------------------------------
```

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K20.D
Acq On : 6 Sep 2013 5:45
Instrument: HP5973K
Operator : EM
Sample : BLANK CAN 1555E
Misc : BLANK CAN 1555E
ALS Vial : 48
Multiplier: 1

Quant Time: Sep 06 10:29:34 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) BROMOCHLOROMETHANE	15.104	49	667795	22.00 ppbv	# 0.00
32) 1,4-DIFLUOROBENZENE	17.142	114	1965962	22.00 ppbv	0.00
44) CHLOROBENZENE-d5	22.075	117	1858319	22.00 ppbv	0.00

Target Compounds Qvalue

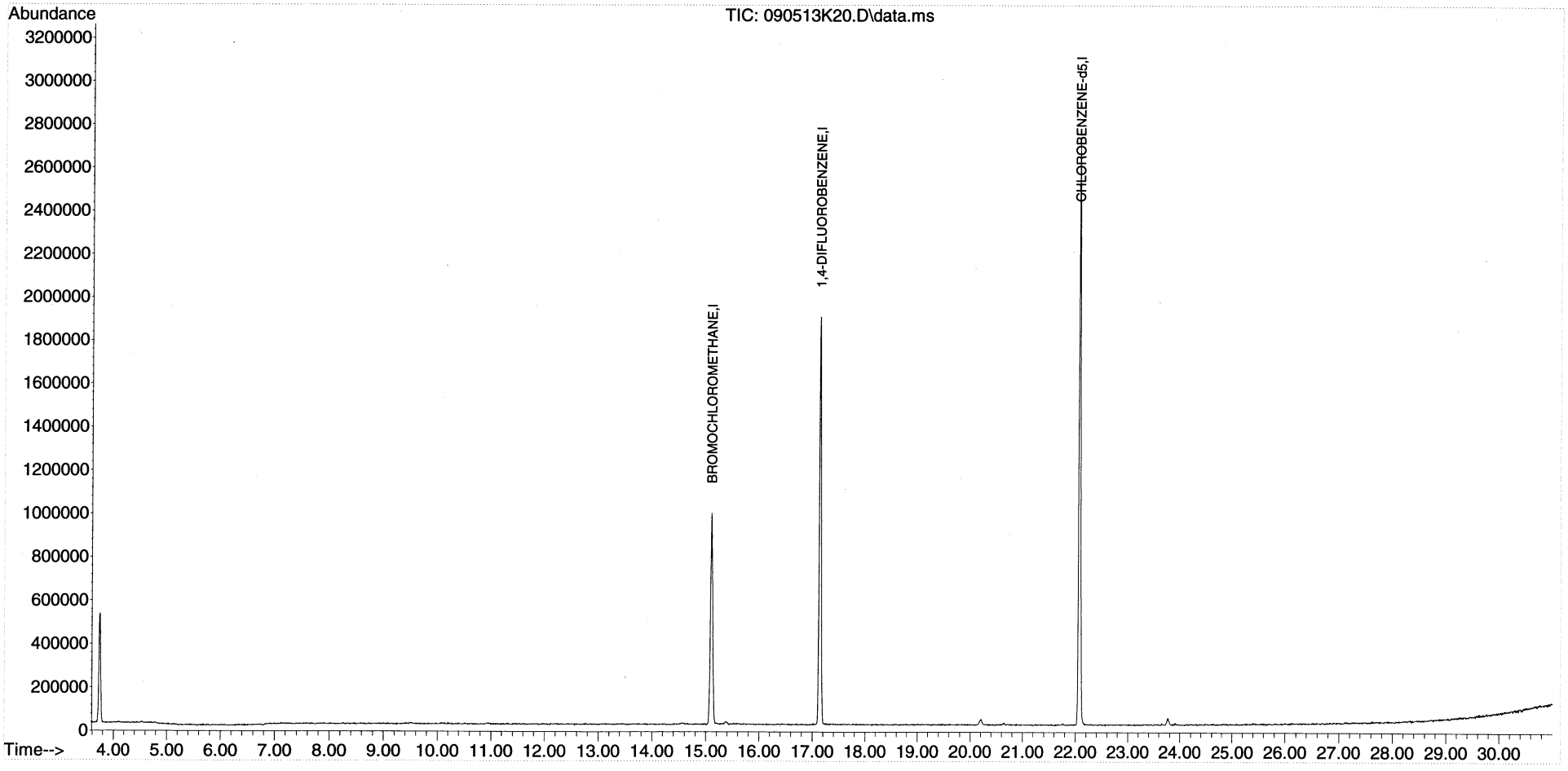
(#) = qualifier out of range (m) = manual integration (+) = signals summed

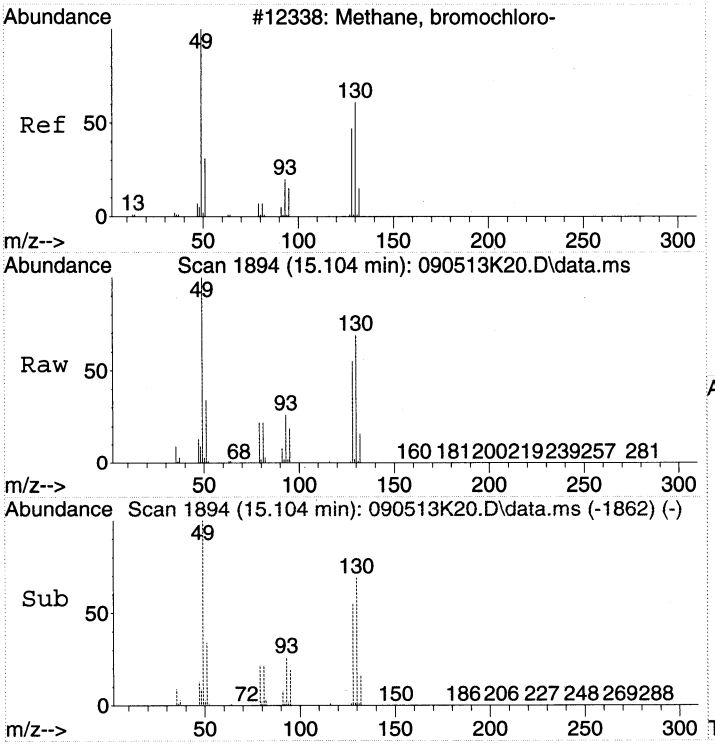
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K20.D
Acq On : 6 Sep 2013 5:45
Instrument: HP5973K
Operator : EM
Sample : BLANK CAN 1555E
Misc : BLANK CAN 1555E
ALS Vial : 48
Multiplier: 1

Quant Time: Sep 06 10:29:34 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

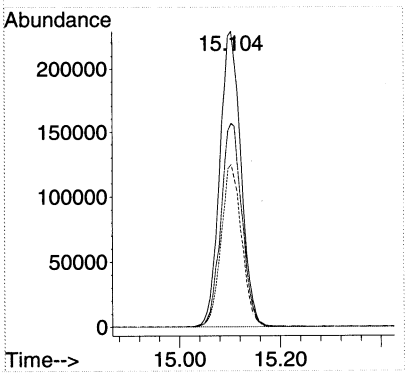


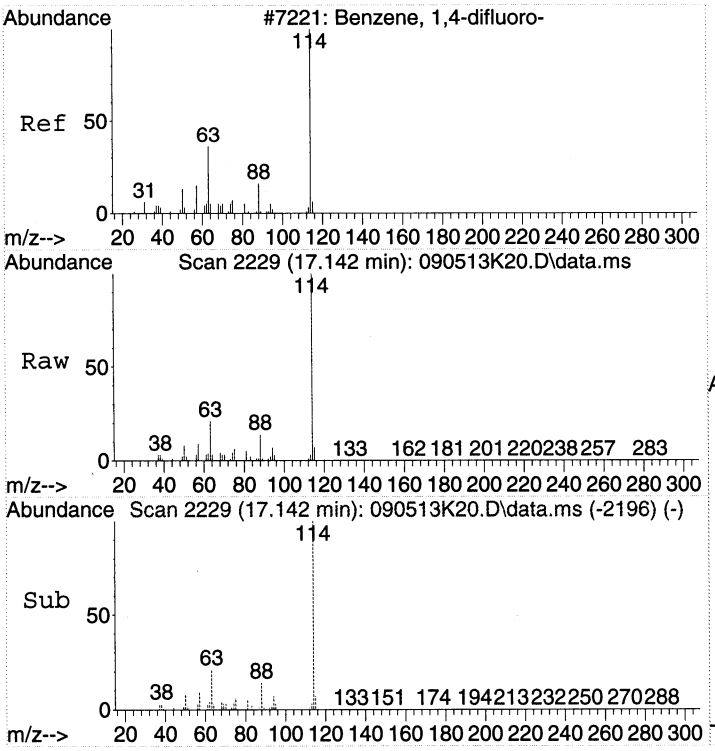


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.104 min Scan# 1894
Delta R.T. -0.006 min
Lab File: 090513K20.D
Acq: 6 Sep 2013 5:45

Tgt Ion: 49 Resp: 667795

Ion	Ratio	Lower	Upper
49	100		
130	68.2	70.5	110.5#
128	52.8	50.6	90.6

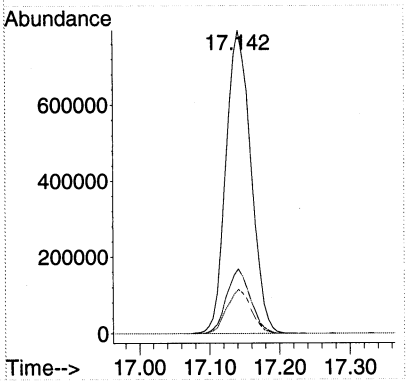


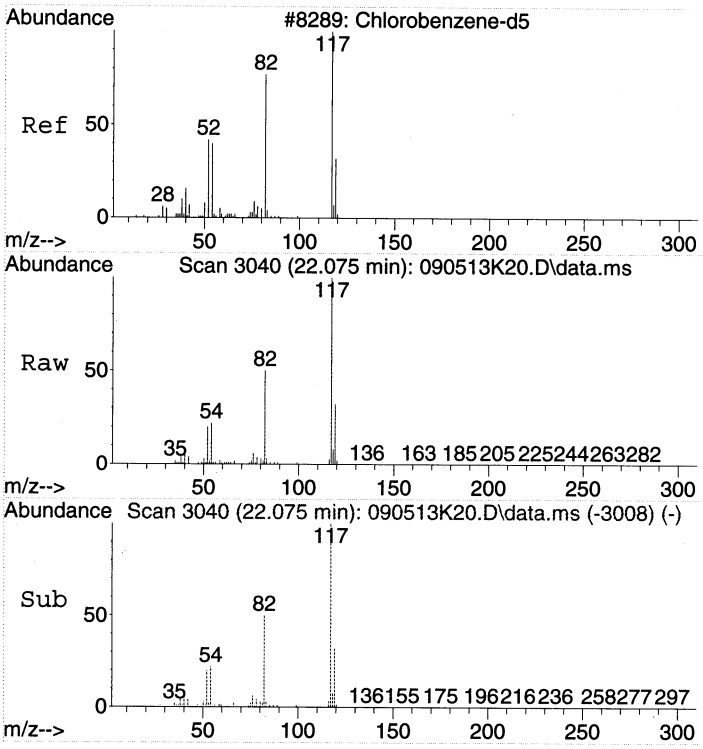


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.142 min Scan# 2229
Delta R.T. 0.000 min
Lab File: 090513K20.D
Acq: 6 Sep 2013 5:45

Tgt Ion:114 Resp: 1965962

Ion	Ratio	Lower	Upper
114	100		
63	20.4	0.0	37.0
88	14.3	0.0	33.1

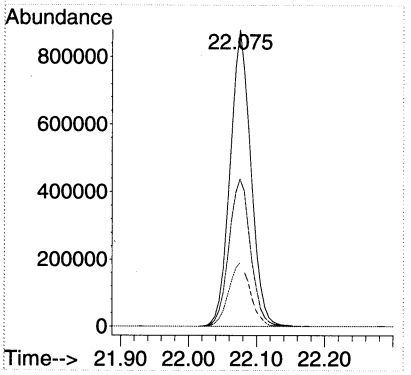




#44
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.075 min Scan# 3040
Delta R.T. -0.006 min
Lab File: 090513K20.D
Acq: 6 Sep 2013 5:45

Tgt Ion:117 Resp: 1858319

Ion	Ratio	Lower	Upper
117	100		
82	51.9	26.5	66.5
54	22.7	0.0	38.1



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K20.D
Acq On : 6 Sep 2013 5:45
Operator : EM
Sample : BLANK CAN 1555E
Misc : BLANK CAN 1555E
ALS Vial : 48 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\msdchem\1\METHODS\2013\090513KAA.M
Title : TO15

Signal : TIC: 090513K20.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	15.104	1880	1894	1906	rBV	976341	2819990	48.06%	21.010%
2	17.142	2218	2229	2243	rBV	1878834	4639744	79.07%	34.567%
3	22.075	3030	3040	3056	rVB	2686574	5867787	100.00%	43.717%
4	23.767	3309	3318	3327	rBV2	32546	94782	1.62%	0.706%

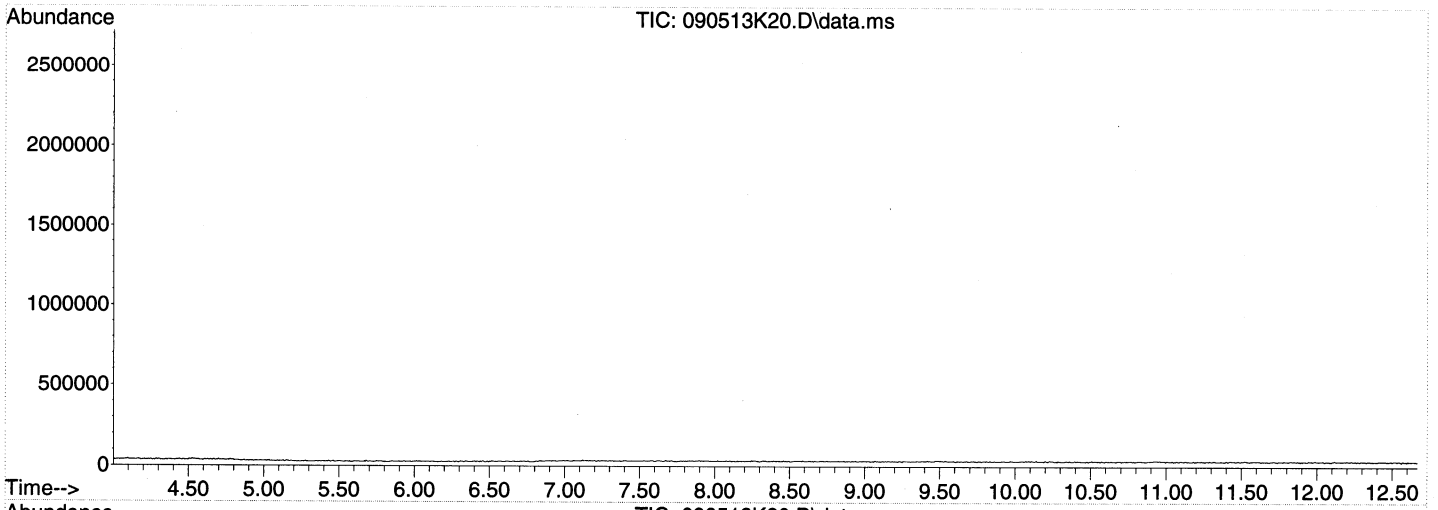
Sum of corrected areas: 13422303

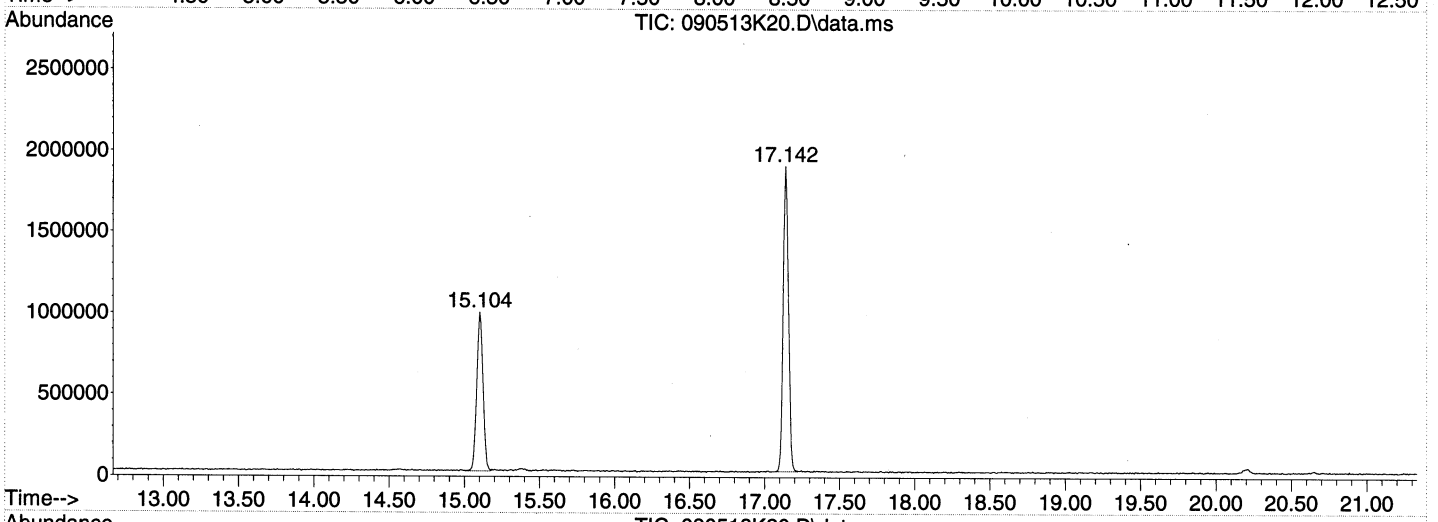
LSC Report - Integrated Chromatogram

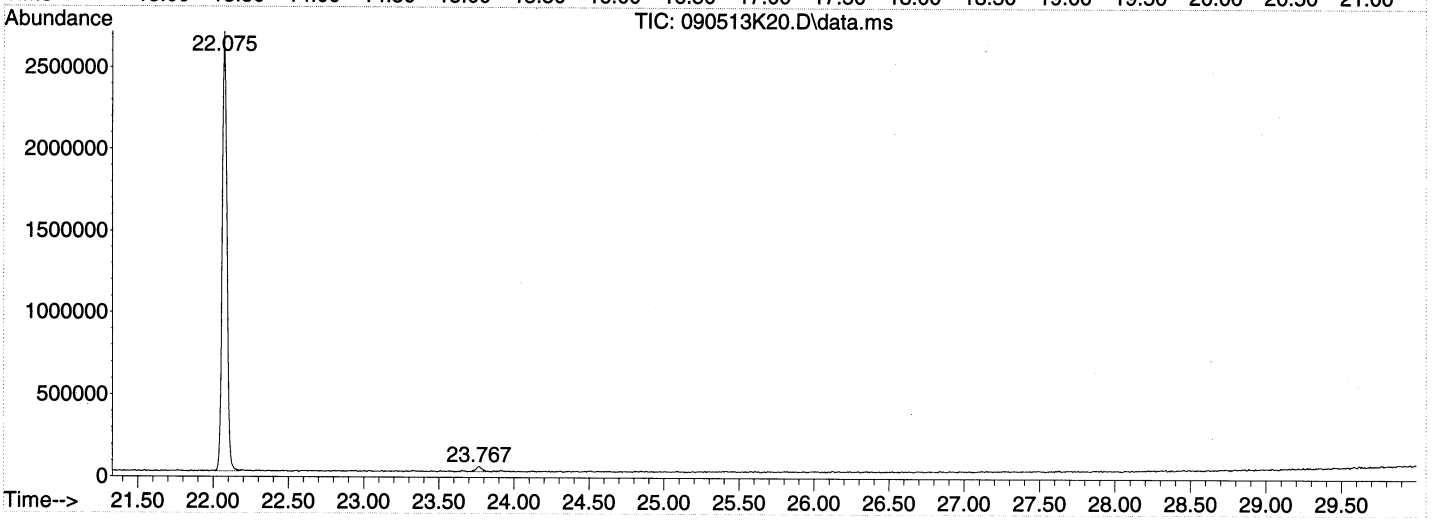
Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K20.D
Acq On : 6 Sep 2013 5:45
Operator : EM
Sample : BLANK CAN 1555E
Misc : BLANK CAN 1555E
ALS Vial : 48 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K20.D
Acq On : 6 Sep 2013 5:45
Operator : EM
Sample : BLANK CAN 1555E
Misc : BLANK CAN 1555E
ALS Vial : 48 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

```
Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K20.D
Acq On    :  6 Sep 2013   5:45
Operator  : EM
Sample    : BLANK CAN 1555E
Misc      : BLANK CAN 1555E
ALS Vial  : 48   Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M
Quant Title  : TO15

TIC Library    : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

                                                  |--Internal Standard---|
TIC Top Hit name      RT  EstConc Units Response |#    RT     Resp  Conc|
-----------------------------------------------------------------------------
```

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K21.D
Acq On : 6 Sep 2013 6:36
Instrument: HP5973K
Operator : EM
Sample : BLANK CAN 1587E
Misc : BLANK CAN 1587E
ALS Vial : 49
Multiplier: 1

Quant Time: Sep 06 10:29:43 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) BROMOCHLOROMETHANE	15.104	49	656382	22.00 ppbv	# 0.00
32) 1,4-DIFLUOROBENZENE	17.142	114	1813949	22.00 ppbv	0.00
44) CHLOROBENZENE-d5	22.075	117	1682573	22.00 ppbv	0.00

Target Compounds Qvalue

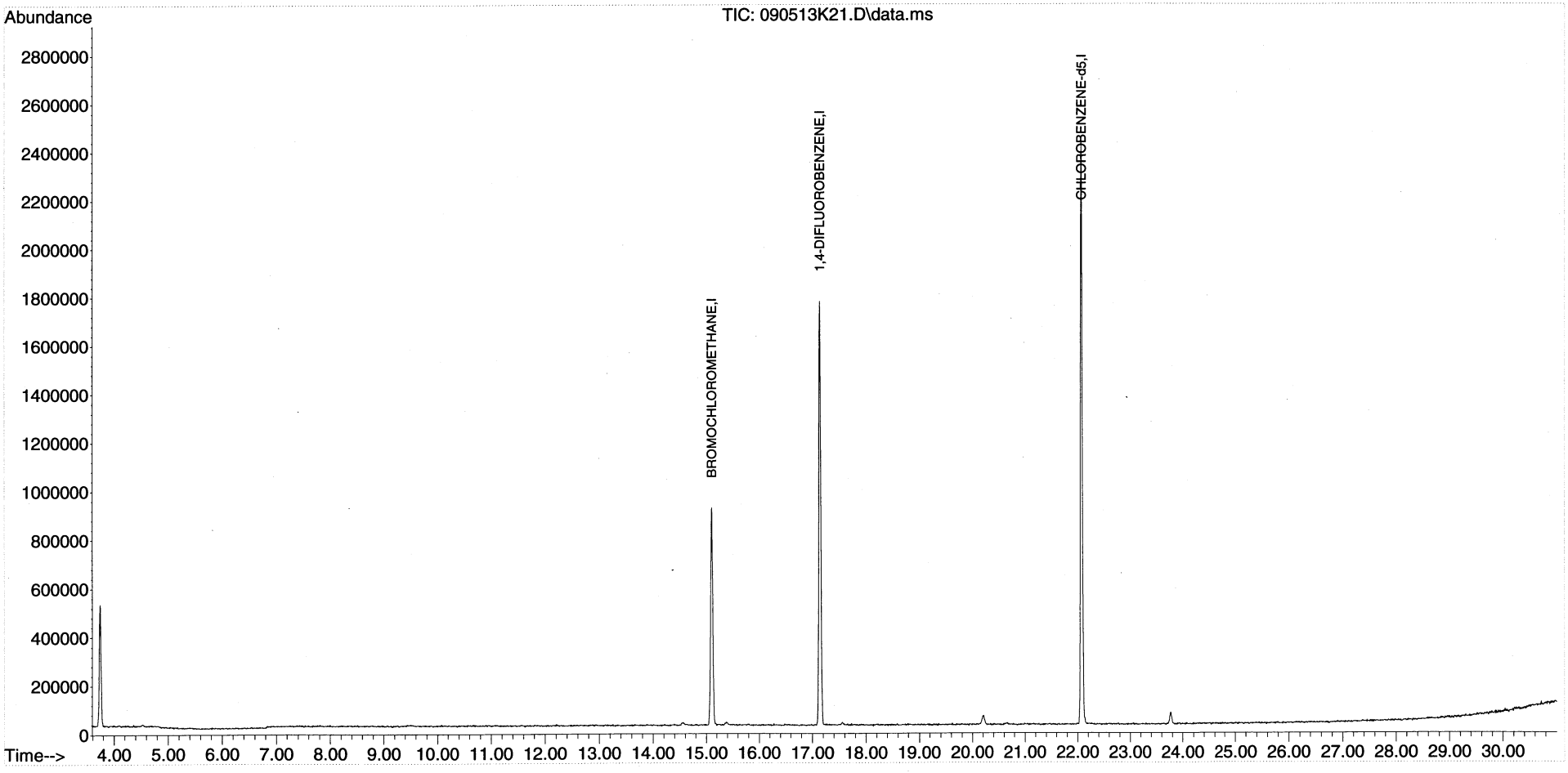
(#) = qualifier out of range (m) = manual integration (+) = signals summed

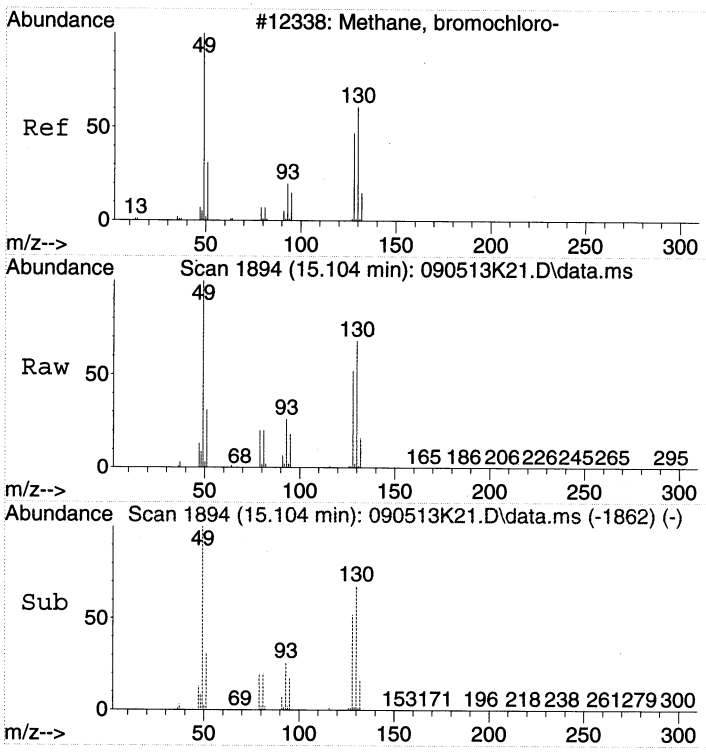
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K21.D
Acq On : 6 Sep 2013 6:36
Instrument: HP5973K
Operator : EM
Sample : BLANK CAN 1587E
Misc : BLANK CAN 1587E
ALS Vial : 49
Multiplier: 1

Quant Time: Sep 06 10:29:43 2013
Quant Title : TO15
QLast Update : Wed Aug 28 11:07:04 2013
Response via : Initial Calibration

DataAcq Meth:090513KAA.M
Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M

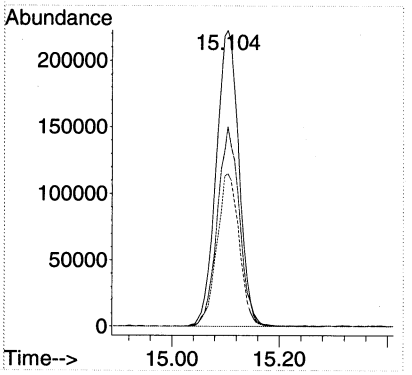


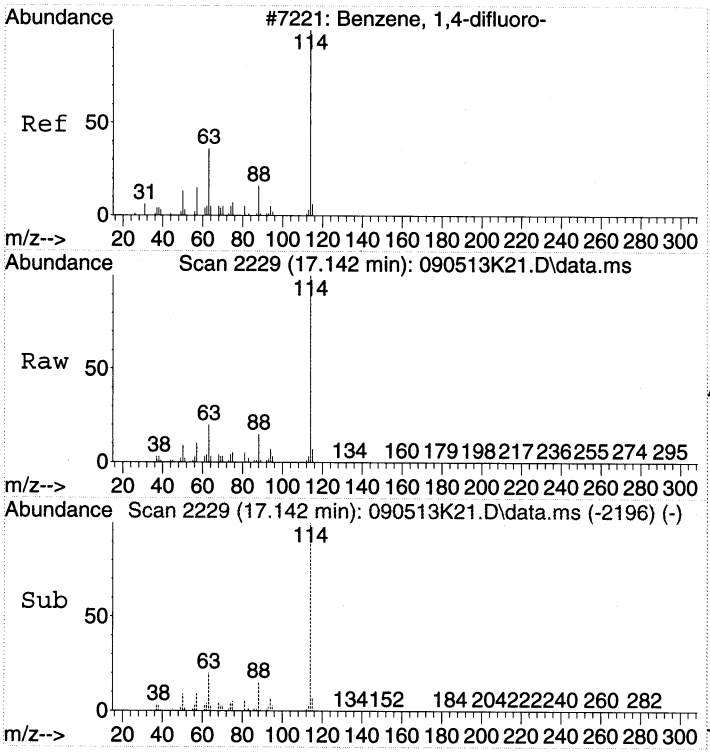


#1
BROMOCHLOROMETHANE
Concen: 22.00 ppbv
RT: 15.104 min Scan# 1894
Delta R.T. -0.006 min
Lab File: 090513K21.D
Acq: 6 Sep 2013 6:36

Tgt Ion: 49 Resp: 656382

Ion	Ratio	Lower	Upper
49	100		
130	64.9	70.5	110.5#
128	50.5	50.6	90.6#

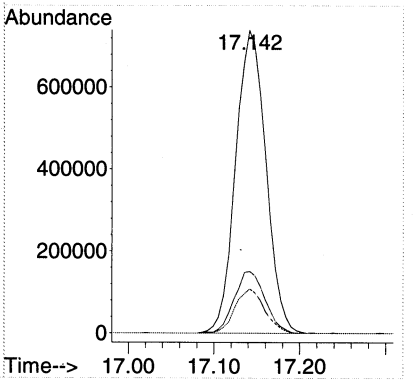


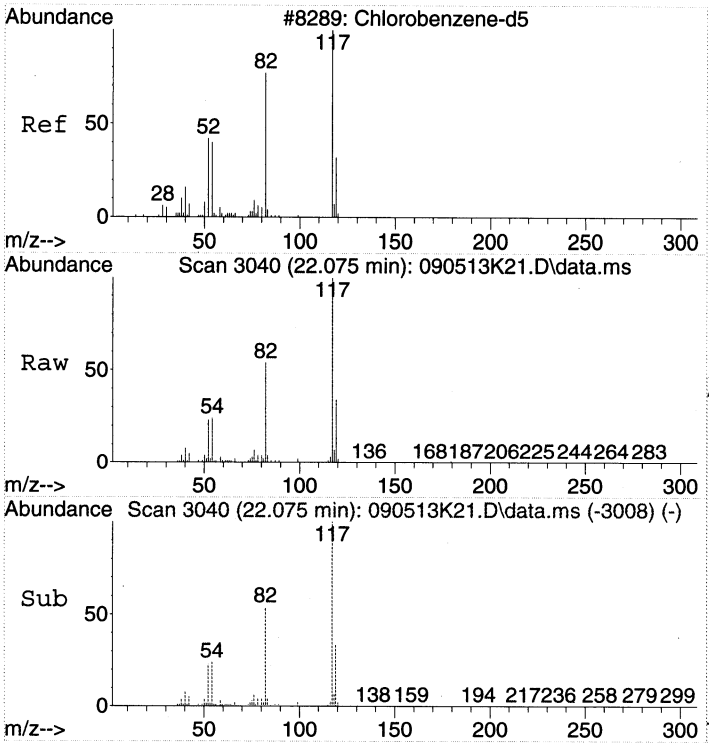


#32
1,4-DIFLUOROBENZENE
Concen: 22.00 ppbv
RT: 17.142 min Scan# 2229
Delta R.T. 0.000 min
Lab File: 090513K21.D
Acq: 6 Sep 2013 6:36

Tgt Ion:114 Resp: 1813949

Ion	Ratio	Lower	Upper
114	100		
63	20.7	0.0	37.0
88	14.3	0.0	33.1

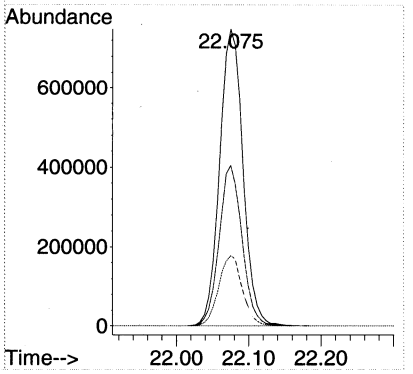




#44
CHLOROBENZENE-d5
Concen: 22.00 ppbv
RT: 22.075 min Scan# 3040
Delta R.T. -0.006 min
Lab File: 090513K21.D
Acq: 6 Sep 2013 6:36

Tgt Ion:117 Resp: 1682573

Ion	Ratio	Lower	Upper
117	100		
82	53.2	26.5	66.5
54	24.3	0.0	38.1



LSC Area Percent Report

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K21.D
Acq On : 6 Sep 2013 6:36
Operator : EM
Sample : BLANK CAN 1587E
Misc : BLANK CAN 1587E
ALS Vial : 49 Sample Multiplier: 1

Integration Parameters: rteint.p
Integrator: RTE
Smoothing : OFF Filtering: 5
Sampling : 1 Min Area: 1 % of largest Peak
Start Thrs: 0.2 Max Peaks: 100
Stop Thrs : 0 Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\msdchem\1\METHODS\2013\090513KAA.M
Title : TO15

Signal : TIC: 090513K21.D\data.ms

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	15.104	1883	1894	1905	rBV2	894074	2616460	48.30%	20.880%
2	17.142	2218	2229	2242	rBV	1747979	4365155	80.58%	34.834%
3	22.075	3031	3040	3053	rBV	2402674	5416897	100.00%	43.228%
4	23.767	3309	3318	3326	rBV2	49174	132624	2.45%	1.058%

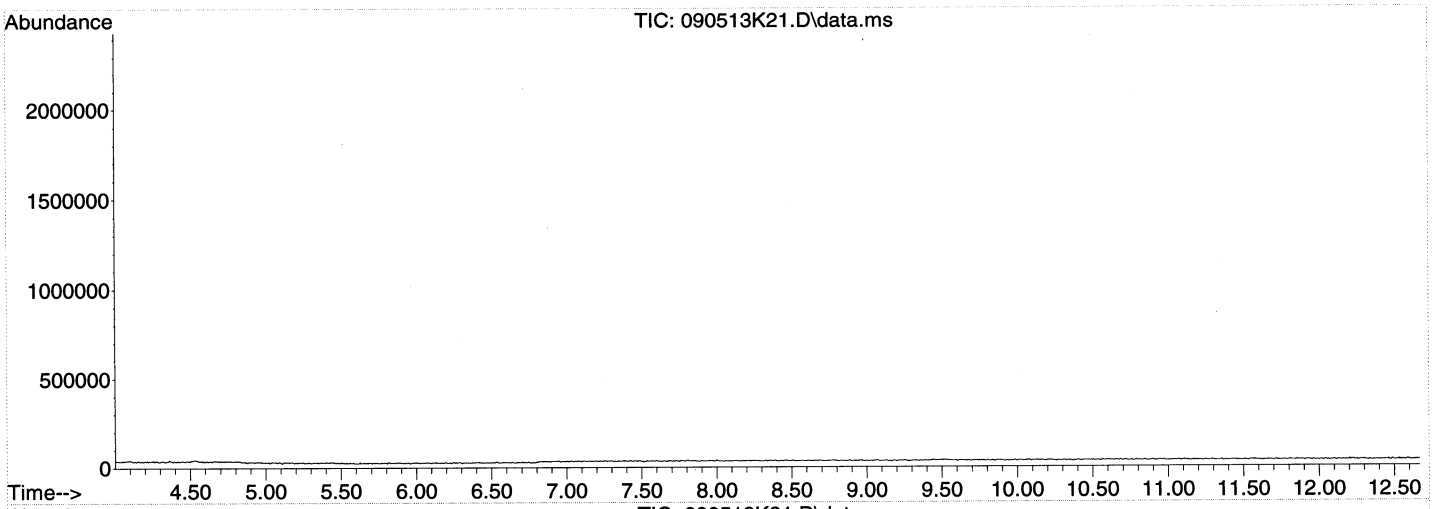
Sum of corrected areas: 12531136

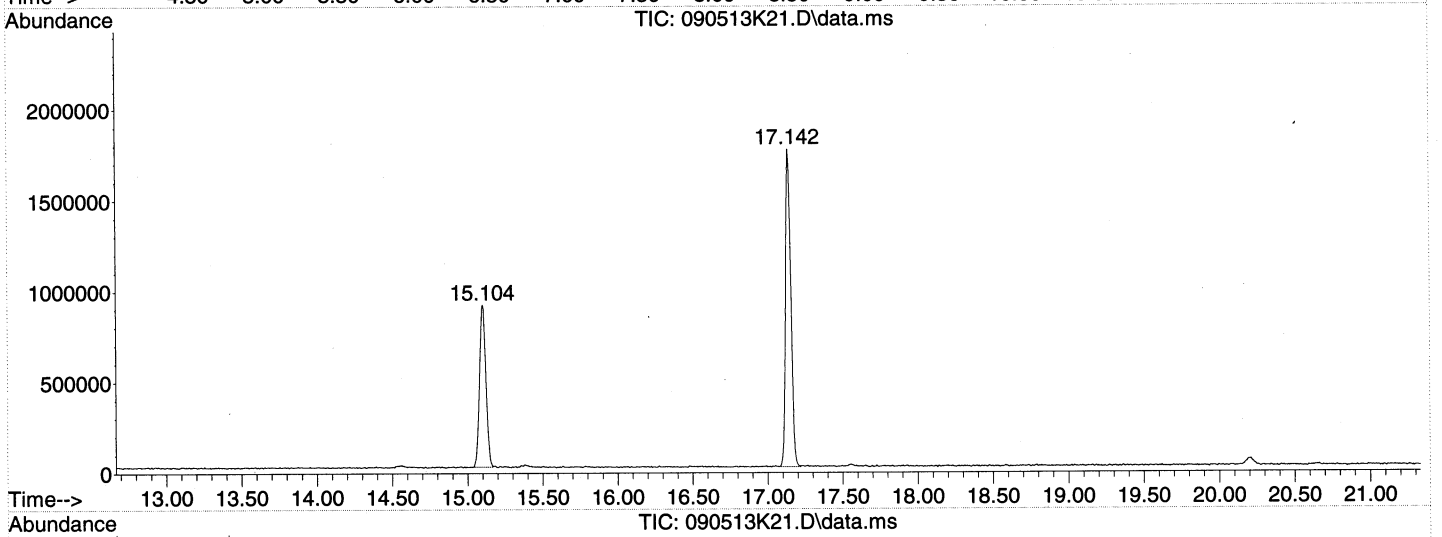
LSC Report - Integrated Chromatogram

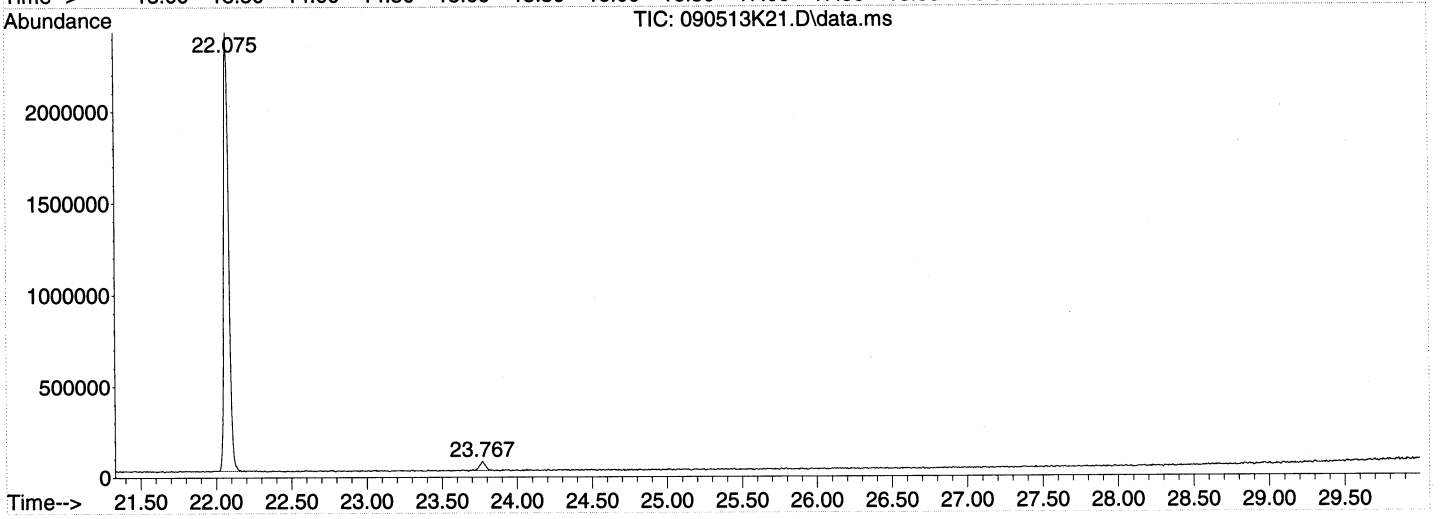
Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K21.D
Acq On : 6 Sep 2013 6:36
Operator : EM
Sample : BLANK CAN 1587E
Misc : BLANK CAN 1587E
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K21.D
Acq On : 6 Sep 2013 6:36
Operator : EM
Sample : BLANK CAN 1587E
Misc : BLANK CAN 1587E
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

No Library Search Compounds Detected
****

Tentatively Identified Compound (LSC) summary

Data Path : C:\msdchem\1\DATA\2013\090513KA\
Data File : 090513K21.D
Acq On : 6 Sep 2013 6:36
Operator : EM
Sample : BLANK CAN 1587E
Misc : BLANK CAN 1587E
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\2013\090513KAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

Organics Daily Folder Preparation/Technical Review Guide

Analysis Method	TO-15	**Analyst Initial**	EM	**Reviewer Initial**	ZL	**Batch/ Sequence**	B13J036 S13J031
Instrument ID	HP5973M	**Date Analyzed**	10/8/13	**Date**	10/10/13	**Chemstation Last Update**	10/8/13 16:43:21
Cases	R13SA6, R13SA7, R13SB6 R14S03			**SDGs**	13266C, 13266D, 13277A, 13277A, BLANK CERTIFICATION		

Review each item listed below. As problems are discovered list them in the non-conformance section of the form and provide and explanation in the discussion part of the table.

NA	A	PR	Item Description
	✓	✓	Runlog (Present, legible, peer reviewed)
	✓	✓	Tune/ Degradation Standard
	✓	✓	Initial Calibration (SOP criteria for number of levels, concentration, and %RSD). Manual calculation. Include summary for daily review.
	✓	✓	Continuing Calibration Verification (frequency, recovery, and %D). Manual calculation.
	✓	✓	QLS (level, frequency, and recovery) (include Chemstation summary)
	✓	✓	Method / Extraction / Storage Blanks (frequency and contamination levels)
✓			Surrogate Recoveries
	✓	✓	IS Areas (SOP criteria met)
	✓	✓	LCS (level, frequency, and recovery) (include Chemstation summary)
	✓	✓	~~MS/MSD~~ DUPLICATE
	✓	✓	Samples (within calibration range, results calculated correctly)
✓			Manual Integration Verified
✓			Standard Prep Log (all pages present, legible, peer reviewed, legible)
✓			Sample Prep/Extraction (all pages present, legible, peer reviewed)
			Others:

NA = not applicable A = Analyst check PR = Peer Review Check

Non-conformance Report

QC	File ID	Result	QC Limit	High Bias	Low Bias	Flag ND	Flag Hits	Discussion
CRL	100813M05	142%	60-140%	✓			✓	1,2-Dichlorotetrafluoroethane
↓	↓	143%	↓	✓			✓	Dichloromethane

ANALYSIS SEQUENCE

S13J031

Instrument: AG5973M

Calibration ID: 1308004

Printed: 10/9/2013 3:58:17PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
S13J031-TUN1	QC		1		1305020			
S13J031-CCV1	QC		2		1341042			
B13J036-BS1	QC		3					
S13J031-CRL1	QC		4		1341059			
B13J036-BLK1	QC		5					
1310008-02	VOCs, Soil Gas	A	6				California Site Cleanup Section 2	one week preliminary results
1310008-01	VOCs, Soil Gas	A	7				California Site Cleanup Section 2	one week preliminary results
1310008-01RE1	VOCs, Soil Gas	A	8				California Site Cleanup Section 2	one week preliminary results
B13J036-DUP1	QC		9					
1309114-01	VOCs, Soil Gas	A	10				California Site Cleanup Section 3	16 compounds only
1309120-01RE1	VOCs, Soil Gas	A	11				California Site Cleanup Section 3	16 compounds only
1309113-02	VOCs, Soil Gas	A	12				California Site Cleanup Section 3	16 compounds only
1309114-02RE1	VOCs, Soil Gas	A	13				California Site Cleanup Section 3	16 compounds only
B13J036-DUP2	QC		14					
1309114-02RE2	VOCs, Soil Gas	A	15				California Site Cleanup Section 3	16 compounds only
1309114-03RE1	VOCs, Soil Gas	A	16				California Site Cleanup Section 3	16 compounds only
B13J036-DUP3	QC		17					
1309113-01	VOCs, Soil Gas	A	18				California Site Cleanup Section 3	16 compounds only
B13J036-DUP4	QC		19					

[illegible] 10/8/13

Samples Loaded By Date

[illegible] 10/9/13

Data Processed By Date

----------SEQUENCE TABLE ----------

Sequence Name: C:\Smart\2013\100813MAAA .SEQ
Date: 10-09-2013
Time: 10:50:53
Int. Std Volume: 50 cc

Sample Name	Inlet #	Auto Pos	Samp Vol.	Cal Std Vol.	Method	Time
BFB 1305020	3	3	100	40	C:\Smart\TO15.CTD	12:00
10ppbv 1341042	3	3	100	40	C:\Smart\TO15.CTD	12:00
10ppbv 1341042	3	3	100	0	C:\Smart\TO15.CTD	12:00
1.0ppbv 1341043	3	3	10	0	C:\Smart\TO15.CTD	12:00
1.0ppbv 1341043	3	3	20	0	C:\Smart\TO15.CTD	12:00
Blank Can 1584E	3	4	200	0	C:\Smart\TO15.CTD	12:00
1310008-02	3	5	200	0	C:\Smart\TO15.CTD	12:00
1310008-01	3	6	200	0	C:\Smart\TO15.CTD	12:00
1310008-01RE1	3	6	20	0	C:\Smart\TO15.CTD	12:00
1310008-01DUP	3	6	20	0	C:\Smart\TO15.CTD	12:00
1309114-01	3	7	200	0	C:\Smart\TO15.CTD	12:00
1309120-01RE1	3	8	200	0	C:\Smart\TO15.CTD	12:00
1309113-02	3	9	200	0	C:\Smart\TO15.CTD	12:00
1309113-01RE1	3	10	20	0	C:\Smart\TO15.CTD	12:00
1309113-01DUP	3	10	20	0	C:\Smart\TO15.CTD	12:00
IBL	3	11	200	0	C:\Smart\TO15.CTD	12:00
1309114-02RE1	3	12	50	0	C:\Smart\TO15.CTD	12:00
1309114-02DUP	3	12	50	0	C:\Smart\TO15.CTD	12:00
IBL	4	1	200	0	C:\Smart\TO15.CTD	12:00
1309114-02RE2	4	2	100	0	C:\Smart\TO15.CTD	12:00
1309114-03RE1	4	3	100	0	C:\Smart\TO15.CTD	12:00
1309114-03DUP	4	3	100	0	C:\Smart\TO15.CTD	12:00
BLANK CAN 1059	4	4	200	0	C:\Smart\TO15.CTD	12:00
BLANK CAN 1100	4	5	200	0	C:\Smart\TO15.CTD	12:00
BLANK CAN 1107	4	6	200	0	C:\Smart\TO15.CTD	12:00
BLANK CAN 1113	4	7	200	0	C:\Smart\TO15.CTD	12:00
BLANK CAN 1118	4	8	200	0	C:\Smart\TO15.CTD	12:00
BLANK CAN 1120	4	9	200	0	C:\Smart\TO15.CTD	12:00
1309113-01	3	10	200	0	C:\Smart\TO15.CTD	12:00
1309113-01DUP	3	10	200	0	C:\Smart\TO15.CTD	12:00

Injection Log

Directory: C:\MSDChem\1\2013\Data\100813

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	33	100813M01.D	1.	S13J031-TUN1	BFB 1305026/IS 1311120/1340061	8 Oct 2013 10:56
2	33	100813M02.D	1.	S13J031-CCV1	10ppbv 1341042	8 Oct 2013 11:44
3	33	100813M03.D	1.	B13J036-BS1	10ppbv 1341042	8 Oct 2013 12:30
4	33	100813M04.D	1.	S13J031-CRL1	1.0ppbv 1341043	8 Oct 2013 13:17
5	33	100813M05.D	1.	S13J031-CRL1	1.0ppbv 1341059	8 Oct 2013 14:19
6	34	100813M06.D	1.	B13J036-BLK1	Blank Can 1584E	8 Oct 2013 15:10
7	35	100813M07.D	2.51	1310008-02	200mL SVE Stack-1001 can 1061	8 Oct 2013 15:59
8	36	100813M08.D	2.56	1310008-01	200mL SVE Pre GAC-1001 can 1087	8 Oct 2013 16:47
9	36	100813M09.D	2.56	1310008-01RE1	20mL SVE Pre GAC-1001 can 1087	8 Oct 2013 17:34
10	36	100813M10.D	2.56	B13J036-DUP1	20mL SVE Pre GAC-1001 can 1087	8 Oct 2013 18:19
11	37	100813M11.D	1.	1309114-01	200mL 59383 can 860	8 Oct 2013 19:08
12	38	100813M12.D	2.31	1309120-01RE1	200mL EPA-B10-Tunnel Path can 862	8 Oct 2013 19:57
13	39	100813M13.D	2.04	1309113-02	200mL SG33-3.2-092613 can 1102	8 Oct 2013 20:47
14	10	100813M14.D	2.07	1309113-01RE1	20mL SG29-3.1-092613 can 898	8 Oct 2013 21:33
15	10	100813M15.D	2.07	1309113-01DUP	20mL SG29-3.1-092613 can 898	8 Oct 2013 22:18
16	11	100813M16.D	1.	Blank Can 859	Blank Can 859	8 Oct 2013 23:07
17	12	100813M17.D	4.97	1309114-02RE1	50mL 59379 can 881	8 Oct 2013 23:53
18	12	100813M18.D	4.97	B13J036-DUP2	50mL 59379 can 881	9 Oct 2013 00:38
19	41	100813M19.D	1.	Blank Can 1578E	Blank Can 1578E	9 Oct 2013 01:27
20	42	100813M20.D	381.94	1309114-02RE2	100mL 10mL of can 881 into 2002	9 Oct 2013 02:13
21	43	100813M21.D	183.2	1309114-03RE1	100mL 10mL of can 1097 into 1995	9 Oct 2013 03:00
22	43	100813M22.D	183.2	B13J036-DUP3	100mL 10mL of can 1097 into 1995	9 Oct 2013 03:50
23	44	100813M23.D	1.	BLANK CAN 1059	BLANK CAN 1059	9 Oct 2013 04:38
~~24~~	~~45~~	~~100813M24.D~~	~~1.~~	~~BLANK CAN 1100~~	~~BLANK CAN 1100~~	9 Oct 2013 05:27
25	46	100813M25.D	1.	BLANK CAN 1107	BLANK CAN 1107	9 Oct 2013 06:16
26	47	100813M26.D	1.	BLANK CAN 1113	BLANK CAN 1113	9 Oct 2013 07:04
27	48	100813M27.D	1.	BLANK CAN 1118	BLANK CAN 1118	9 Oct 2013 07:55
28	49	100813M28.D	1.	BLANK CAN 1120	BLANK CAN 1120	9 Oct 2013 08:43
29	10	100813M29.D	2.07	1309113-01	200mL SG29-3.1-092613 can 898	9 Oct 2013 10:23
30	10	100813M30.D	2.07	B13J036-DUP4	200mL SG29-3.1-092613 can 898	9 Oct 2013 11:13

GC/MS QA-QC Check Report

Tune File : C:\MSDCHEM\1\2013\DATA\100813\100813M01.D
Tune Time : 8 Oct 2013 10:56 am

Daily Calibration File : C:\MSDChem\1\2013\Data\100813\100813M02.D

File	Sample	Surrogate Recovery %	Internal Standard Responses		
		908323	4472930	4041090	
100813M02.D	S13J031-CCV1	908323	4472929	4041087	
100813M03.D	B13J036-BS1	920195	4541624	3855676	
100813M04.D	S13J031-CRL1	935015	4594137	3848557	NU
100813M05.D	S13J031-CRL1	835343	4206727	3635618	
100813M06.D	B13J036-BLK1	877998	4288630	3600969	can 1584E
100813M07.D	1310008-02	862746	4162515	3484987	
100813M08.D	1310008-01	857930	4141801	3433610	
100813M09.D	1310008-01RE1	898053	4542398	3683848	
100813M10.D	B13J036-DUP1	845441	4199569	3485315	
100813M11.D	1309114-01	858558	4169629	3460586	
100813M12.D	1309120-01RE1	884470	4244431	3622922	
100813M13.D	1309113-02	848340	4032540	3352914	
100813M14.D	1309113-01RE1	839391	4049608	3496754	NU
100813M15.D	1309113-01DUP	795730	3833769	3231978	NU
100813M16.D	IBL	801895	3814330	3250496	
100813M17.D	1309114-02RE1	814238	3781974	3174158	
100813M18.D	1309114-02DUP	827961	3866142	3225877	
100813M19.D	BLANK CAN 1578E	814537	3864019	3209221	
100813M20.D	1309114-02RE2	769180	3590053	3016996	

100813M21.D					
	1309114-03RE1	795735	3784187	3217196	
100813M22.D					
	1309114-03DUP	775374	3699725	3157860	
100813M23.D					
	BLANK CAN 1059	788808	3703840	3100870	
100813M24.D					
	BLANK CAN 1100	778149	3665028	3059130	
100813M25.D					
	BLANK CAN 1107	761700	3542299	2993800	
100813M26.D					
	BLANK CAN 1113	757138	3502307	2982641	
100813M27.D					
	BLANK CAN 1118	744150	3462459	2877109	
100813M28.D					
	BLANK CAN 1120	741586	3421009	2914202	
100813M29.D					
	1309113-01	779136	3535394	3026872	
100813M30.D					
(fails)	1309113-01DUP	783861	3619035	3205733	Use CCV as BFB

(fails) - fails 24hr time check * - fails criteria

Created: Wed Oct 09 12:14:01 2013 Morpheus

Response Factor Report Morpheus

Method Path : C:\MSDCHEM\1\2013\METHOD\
Method File : 100813MAA.M
Title : TO15
Last Update : Tue Oct 08 16:43:21 2013
Response Via : Initial Calibration

Calibration Files
1 =091913M02.D 2 =091913M03.D 5 =091913M04.D
10 =091913M05.D 15 =091913M06.D 20 =091913M07.D

		Compound	1	2	5	10	15	20	Avg	%RSD
1)	I	BROMOCHLOROMETHANE	----------ISTD----------							
2)	T	Propene	0.518	0.462	0.436	0.431	0.432	0.437	0.453	7.51
3)	T	Dichlorodifluorom	2.711	2.486	2.260	2.075	1.887	1.724	2.190	16.91
4)	T	1,2-Dichlorotetra	2.467	2.426	2.283	1.887	1.491	1.232	1.964	26.30
5)	T	Chloromethane	0.604	0.548	0.547	0.552	0.550	0.559	0.560	3.92
6)	T	Vinyl chloride	0.802	0.717	0.662	0.659	0.662	0.679	0.697	8.05
7)	T	1,3-Butadiene	0.613	0.516	0.489	0.485	0.486	0.494	0.514	9.73
8)	T	Bromomethane	0.868	0.769	0.706	0.696	0.695	0.698	0.739	9.40
9)	T	Chloroethane	0.454	0.400	0.364	0.355	0.344	0.348	0.378	11.26
10)	T	Bromoethene	0.974	0.873	0.792	0.789	0.789	0.797	0.836	8.99
11)	T	Trichlorofluorome	3.038	2.841	2.699	2.670	2.631	2.626	2.751	5.85
12)	T	1,1,2-Trichloro-1	2.295	2.118	2.003	2.002	1.997	2.026	2.074	5.66
13)	T	1,1-Dichloroethen	1.608	1.453	1.334	1.315	1.288	1.290	1.381	9.18
14)	T	Acetone	1.309	1.119	1.074	1.068	1.035	1.055	1.110	9.12
15)	T	Carbon disulfide	2.325	2.111	1.926	1.895	1.883	1.907	2.008	8.81
16)	T	2-Propanol	1.343	0.990	0.968	1.018	1.005	1.034	1.059	13.29
17)	T	Allyl chloride	1.005	0.885	0.810	0.801	0.794	0.791	0.848	9.99
18)	T	Dichloromethane	1.146	0.962	0.820	0.782	0.759	0.751	0.870	17.93
19)	T	tert-Butyl methyl	2.238	2.250	2.336	2.380	2.362	2.413	2.330	3.06
20)	T	trans-1,2-Dichlor	1.400	1.230	1.111	1.096	1.076	1.076	1.165	11.06
21)	T	Hexane	1.392	1.263	1.147	1.135	1.132	1.139	1.201	8.81
22)	T	1,1-Dichloroethan	1.881	1.683	1.536	1.498	1.481	1.487	1.594	9.99
23)	T	Vinyl acetate	1.779	1.633	1.565	1.575	1.568	1.581	1.617	5.15
24)	T	cis-1,2-Dichloroe	1.478	1.309	1.194	1.172	1.141	1.152	1.241	10.57
25)	T	2-Butanone (MEK)	1.160	1.058	1.289	1.310	1.296	1.310	1.237	8.47
26)	T	Ethyl acetate	1.370	1.570	1.462	1.483	1.444	1.506	1.472	4.52
27)	T	Tetrahydrofuran	0.697	0.644	0.701	0.717	0.692	0.719	0.695	3.92
28)	T	Chloroform	2.490	2.257	2.041	1.986	1.956	1.962	2.115	10.17
29)	T	Cyclohexane	1.358	1.231	1.158	1.148	1.151	1.155	1.200	6.96
30)	T	1,1,1-Trichloroet	2.794	2.569	2.371	2.346	2.314	2.318	2.452	7.86
31)	T	Carbon tetrachlor	3.124	2.888	2.683	2.669	2.643	2.649	2.776	6.98
32)	I	1,4-DIFLUOROBENZENE	----------ISTD----------							
33)	T	Benzene	0.706	0.639	0.587	0.573	0.558	0.557	0.603	9.76
34)	T	2,2,4-Trimethylpe	0.892	0.820	0.764	0.750	0.739	0.733	0.783	7.88
35)	T	1,2-Dichloroethan	0.346	0.316	0.288	0.283	0.272	0.265	0.295	10.32
36)	T	Heptane	0.306	0.281	0.261	0.256	0.251	0.247	0.267	8.38
37)	T	Trichloroethene	0.401	0.362	0.334	0.326	0.323	0.324	0.345	8.99
38)	T	1,2-Dichloropropa	0.216	0.203	0.186	0.180	0.177	0.177	0.190	8.51
39)	T	1,4-Dioxane	0.131	0.102	0.101	0.104	0.102	0.105	0.107	10.81
40)	T	Bromodichlorometh	0.505	0.466	0.437	0.433	0.423	0.420	0.447	7.33
41)	T	cis-1,3-Dichlorop	0.381	0.348	0.333	0.329	0.324	0.323	0.340	6.54
42)	T	4-Methyl-2-pentan	0.298	0.261	0.304	0.309	0.306	0.310	0.298	6.18
43)	I	CHLOROBENZENE-d5	----------ISTD----------							
44)	T	Toluene	0.984	0.959	0.897	0.895	0.884	0.887	0.918	4.65
45)	T	trans-1,3-Dichlor	0.431	0.423	0.396	0.396	0.388	0.390	0.404	4.55
46)	T	1,1,2-Trichloroet	0.321	0.318	0.297	0.292	0.289	0.289	0.301	4.85
47)	T	Tetrachloroethene	0.632	0.627	0.584	0.585	0.579	0.586	0.599	3.95
48)	T	2-Hexanone	0.360	0.303	0.330	0.344	0.340	0.346	0.337	5.74
49)	T	Chlorodibromometh	0.638	0.644	0.620	0.624	0.617	0.624	0.628	1.72
50)	T	1,2-Dibromoethane	0.519	0.508	0.475	0.476	0.469	0.473	0.487	4.39
51)	T	Chlorobenzene	0.822	0.832	0.808	0.804	0.795	0.800	0.810	1.77
52)	T	Ethylbenzene	1.168	1.242	1.236	1.246	1.232	1.235	1.227	2.36
53)	T	m&p-Xylene	0.879	0.961	0.983	1.003	0.983	0.977	0.964	4.56
54)	T	o-Xylene	0.849	0.945	0.990	1.024	1.015	1.021	0.974	6.99
55)	T	Styrene	0.652	0.754	0.804	0.846	0.846	0.855	0.793	9.95
56)	T	Bromoform	0.604	0.663	0.710	0.757	0.759	0.768	0.710	9.24

Response Factor Report Morpheus

Method Path : C:\MSDCHEM\1\2013\METHOD\
Method File : 100813MAA.M
Title : TO15
Last Update : Tue Oct 08 16:43:21 2013
Response Via : Initial Calibration

Calibration Files
1 =091913M02.D 2 =091913M03.D 5 =091913M04.D
10 =091913M05.D 15 =091913M06.D 20 =091913M07.D

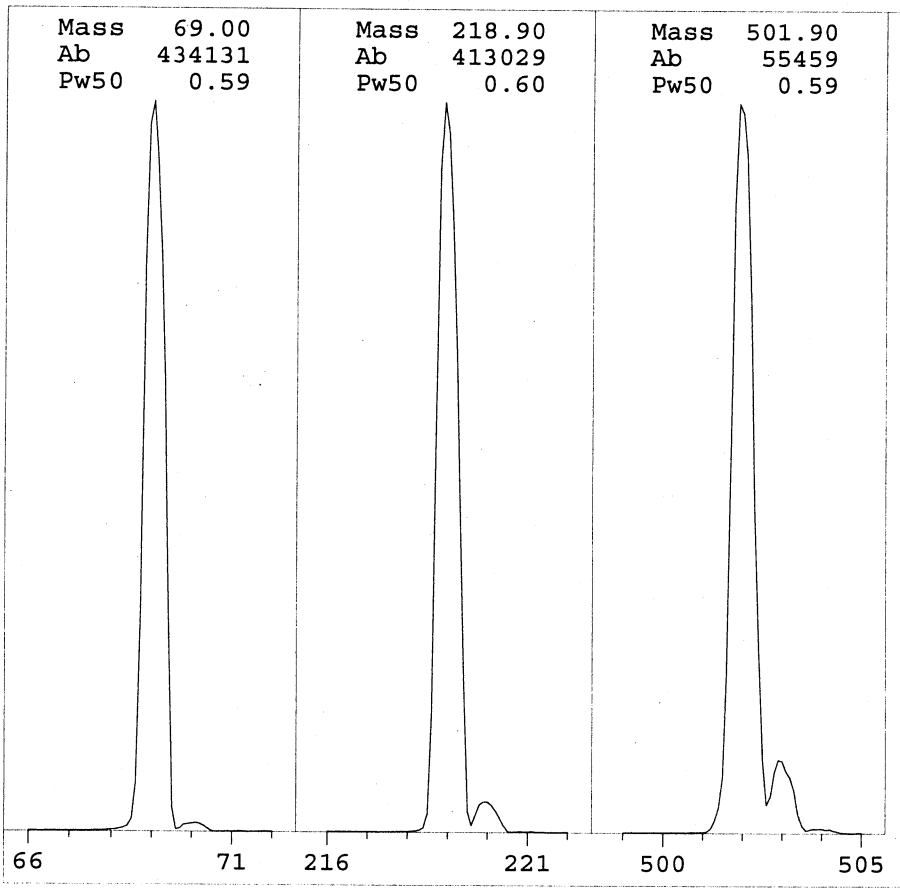
		Compound	1	2	5	10	15	20	Avg	%RSD
57)	T	1,1,2,2-Tetrachlo	0.478	0.540	0.593	0.621	0.619	0.635	0.581	10.46
58)	T	1,2,3-Trichloropr	0.177	0.370	0.367	0.382	0.366	0.350	0.336	23.32
59)	T	4-Ethyltoluene	1.036	1.230	1.374	1.468	1.471	1.499	1.346	13.47
60)	T	1,3,5-Trimethylbe	0.926	1.115	1.255	1.339	1.333	1.351	1.220	13.84
61)	T	1,2,4-Trimethylbe	0.883	1.055	1.213	1.304	1.302	1.318	1.179	14.91
62)	T	1,3-Dichlorobenze	0.712	0.841	0.964	1.044	1.044	1.061	0.945	14.87
63)	T	1,4-Dichlorobenze	0.697	0.838	0.958	1.033	1.038	1.055	0.937	15.19
64)	T	Benzyl chloride	0.704	0.804	0.941	1.024	1.018	1.040	0.922	14.97
65)	T	1,2-Dichlorobenze	0.680	0.760	0.879	0.961	0.960	0.977	0.869	14.17
66)	T	1,2,4-Trichlorobe	0.916	0.843	0.884	0.964	0.948	0.954	0.918	5.13
67)	T	Hexachlorobutadie	1.069	0.975	0.981	1.068	1.046	1.027	1.028	4.03
68)		Naphthalene	0.051	0.080	0.103	0.153	0.217	0.359	0.160	70.76 NA

(#) = Out of Range

00391

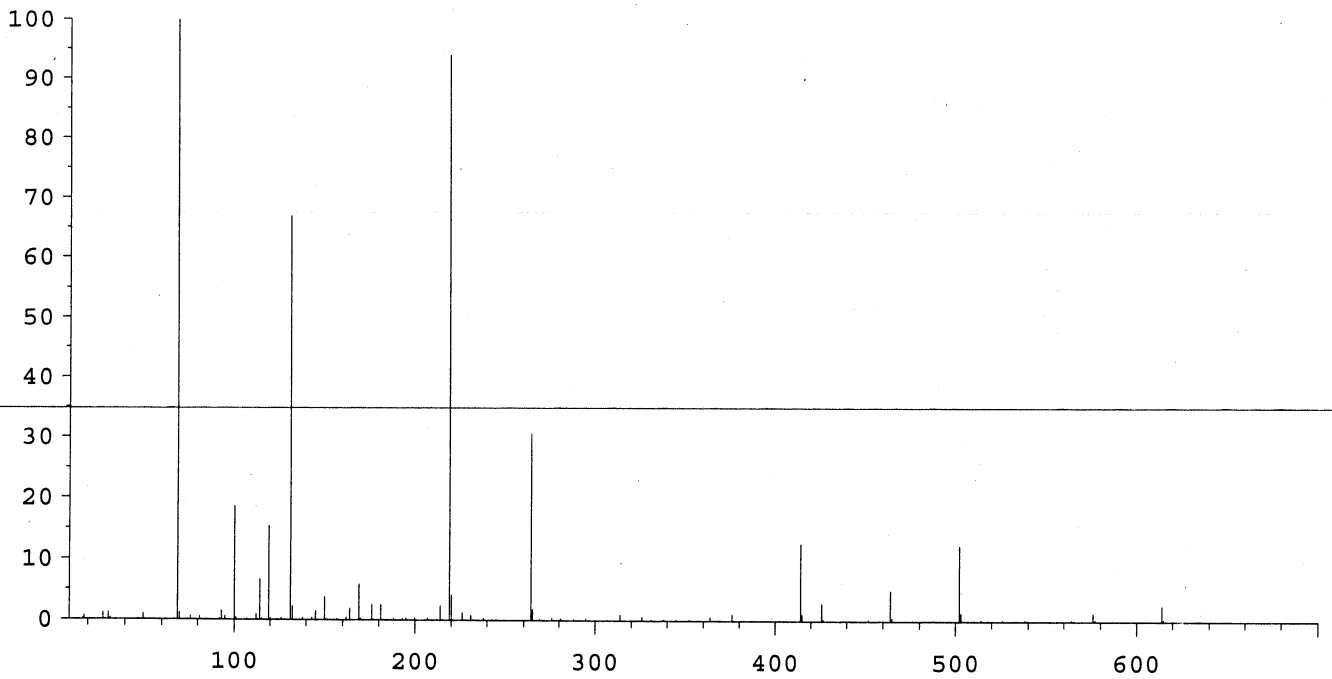
Tue Oct 08 10:10:20 2013
C:\MSDCHEM\1\5973N\BFB100813.U

Instrument: Morpheus



Ion Pol	POS	MassGain	321
		MassOffs	-10
Emission	34.6	AmuGain	2331
ElEnrgy	69.9	AmuOffs	126
Filament	1	Wid219	-0.028
		DC Pol	POS
Repeller	21.91		
IonFcus	90.2	HEDEnab	ON
EntLens	23.0	EMVolts	1153
EntOffs	17.57		
		Samples	8
PFTBA	OPEN	Averages	3
		Stepsize	0.10
Zones:			
MS Source	230	TurboSpd	100
MS Quad	150		

Scan: 10.00 - 700.00 Samples: 8 Thresh: 100 Step: 0.10
165 peaks Base: 69.00 Abundance: 382656



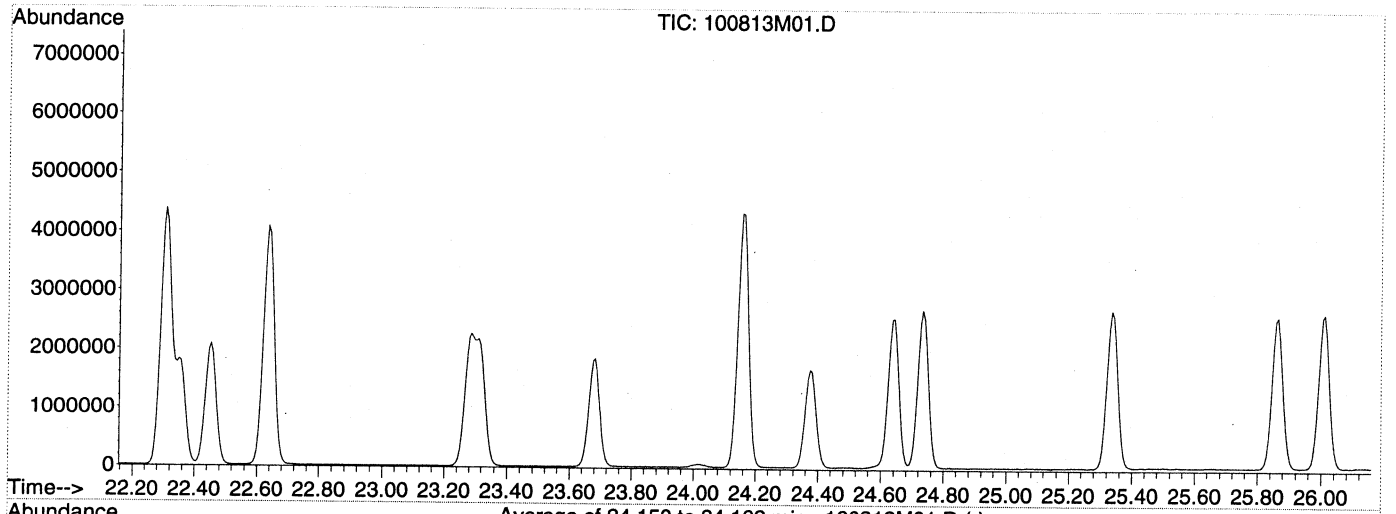
Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	382656	100.00	70.00	4211	1.10
219.00	360000	94.08	220.00	15699	4.36
502.00	47472	12.41	503.00	5251	11.06

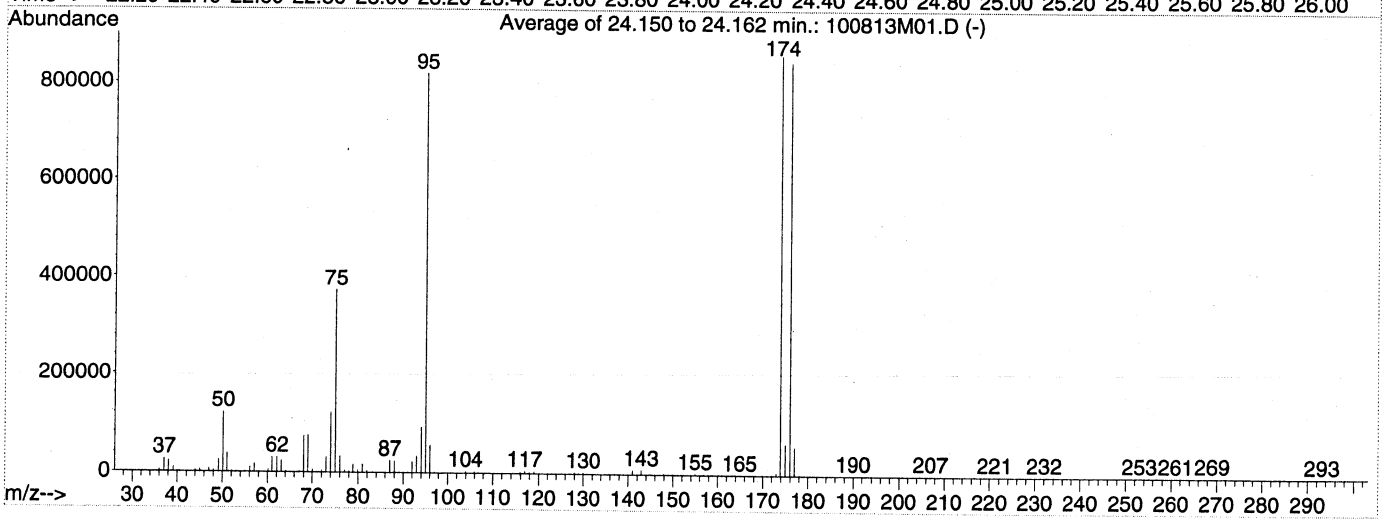
BFB

Data Path : C:\MSDChem\1\2013\Data\100813\
Data File : 100813M01.D
Acq On : 8 Oct 2013 10:56 am
Operator : EM
Sample : S13J031-TUN1
Misc : BFB 1305026/IS 1311120/1340061
ALS Vial : 33 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\2013\METHOD\100813MAA.M
Title : TO15
Last Update : Tue Oct 08 16:43:21 2013





AutoFind: Scans 3380, 3381, 3382; Background Corrected with Scan 3365

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	14.7	120332	PASS
75	95	30	66	45.4	372025	PASS
95	95	100	100	100.0	818709	PASS
96	95	5	9	6.6	54185	PASS
173	174	0.00	2	0.6	4803	PASS
174	95	50	120	104.9	858794	PASS
175	174	4	9	7.1	61168	PASS
176	174	93	101	98.4	844928	PASS
177	176	5	9	6.6	55772	PASS

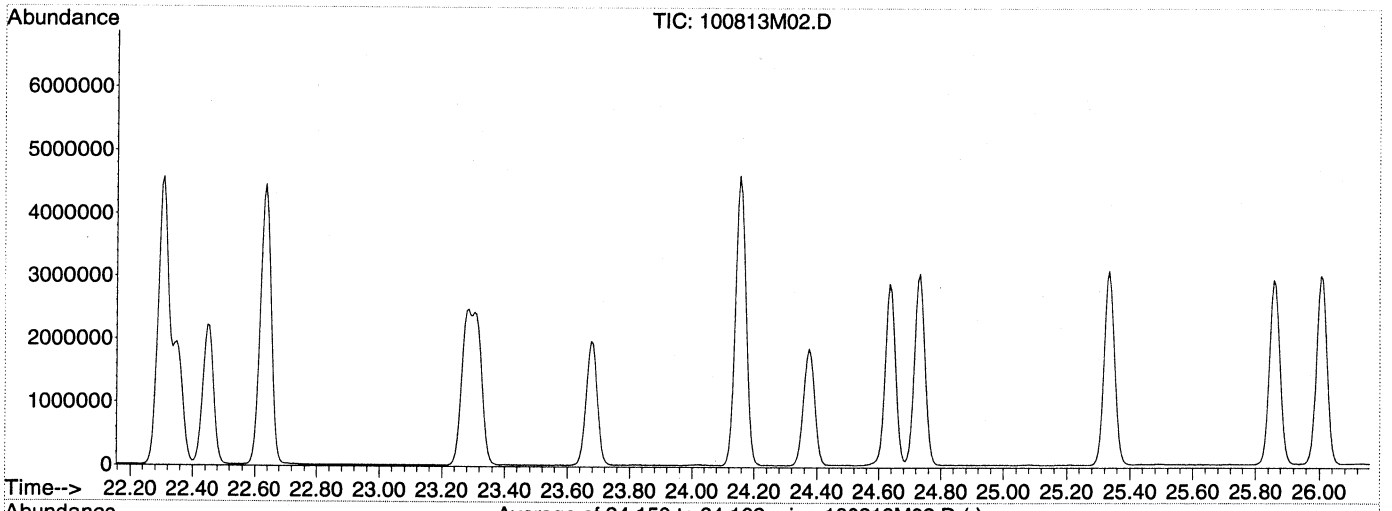
BFB

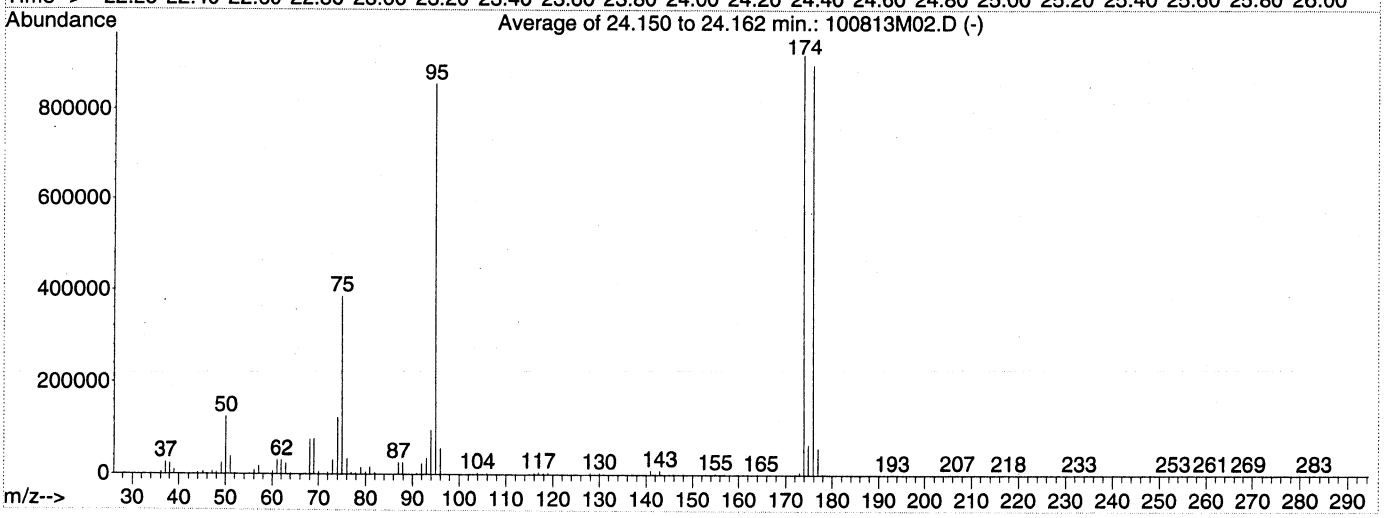
Data Path : C:\MSDCHEM\1\2013\DATA\100813\
Data File : 100813M02.D
Acq On : 8 Oct 2013 11:44 am
Operator : EM
Sample : S13J031-CCV1
Misc : 10ppbv 1341042
ALS Vial : 33 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\2013\METHOD\100813MAA.M
Title : TO15
Last Update : Tue Oct 08 16:43:21 2013

Used as BFB for last sple
EM 10/10/13





AutoFind: Scans 3380, 3381, 3382; Background Corrected with Scan 3367

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	14.6	125005	PASS
75	95	30	66	45.1	386693	PASS
95	95	100	100	100.0	857322	PASS
96	95	5	9	6.7	57181	PASS
173	174	0.00	2	0.6	5225	PASS
174	95	50	120	107.6	922709	PASS
175	174	4	9	7.1	65224	PASS
176	174	93	101	97.4	899050	PASS
177	176	5	9	6.5	58620	PASS

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\2013\Data\100813\
Data File : 100813M02.D
Acq On : 8 Oct 2013 11:44 am
Operator : EM
Sample : S13J031-CCV1
Misc : 10ppbv 1341042
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 08 17:31:34 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100813MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	BROMOCHLOROMETHANE	1.000	1.000	0.0	102	0.00
2	T	Propene	0.453	0.430	5.1	101	0.00
3	T	Dichlorodifluoromethane	2.190	2.218	-1.3	109	0.00
4	T	1,2-Dichlorotetrafluoroetha	1.964	2.044	-4.1	110	0.00
5	T	Chloromethane	0.560	0.552	1.4	101	0.00
6	T	Vinyl chloride	0.697	0.659	5.5	102	0.00
7	T	1,3-Butadiene	0.514	0.481	6.4	101	0.00
8	T	Bromomethane	0.739	0.690	6.6	101	0.00
9	T	Chloroethane	0.378	0.343	9.3	98	0.00
10	T	Bromoethene	0.836	0.774	7.4	100	0.00
11	T	Trichlorofluoromethane	2.751	2.708	1.6	103	0.00
12	T	1,1,2-Trichloro-1,2,2-trifl	2.074	1.980	4.5	100	0.00
13	T	1,1-Dichloroethene	1.381	1.297	6.1	100	0.00
14	T	Acetone	1.110	1.029	7.3	98	0.00
15	T	Carbon disulfide	2.008	1.838	8.5	99	0.00
16	T	2-Propanol	1.059	0.982	7.3	98	0.00
17	T	Allyl chloride	0.848	0.770	9.2	98	0.00
18	T	Dichloromethane	0.870	0.761	12.5	99	0.00
19	T	tert-Butyl methyl ether (MT	2.330	2.270	2.6	97	0.00
20	T	trans-1,2-Dichloroethene	1.165	1.068	8.3	99	0.00
21	T	Hexane	1.201	1.082	9.9	97	0.00
22	T	1,1-Dichloroethane	1.594	1.454	8.8	99	0.00
23	T	Vinyl acetate	1.617	1.480	8.5	95	0.00
24	T	cis-1,2-Dichloroethene	1.241	1.130	8.9	98	0.00
25	T	2-Butanone (MEK)	1.237	1.252	-1.2	97	0.00
26	T	Ethyl acetate	1.472	1.380	6.3	95	0.00
27	T	Tetrahydrofuran	0.695	0.656	5.6	93	0.00
28	T	Chloroform	2.115	1.950	7.8	100	0.00
29	T	Cyclohexane	1.200	1.084	9.7	96	0.00
30	T	1,1,1-Trichloroethane	2.452	2.313	5.7	100	0.00
31	T	Carbon tetrachloride	2.776	2.656	4.3	101	0.00
32	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	98	0.00
33	T	Benzene	0.603	0.559	7.3	96	0.00
34	T	2,2,4-Trimethylpentane	0.783	0.736	6.0	96	0.00
35	T	1,2-Dichloroethane	0.295	0.293	0.7	102	0.00
36	T	Heptane	0.267	0.252	5.6	97	0.00
37	T	Trichloroethene	0.345	0.321	7.0	97	0.00
38	T	1,2-Dichloropropane	0.190	0.177	6.8	97	0.00
39	T	1,4-Dioxane	0.107	0.107	0.0	101	0.00
40	T	Bromodichloromethane	0.447	0.440	1.6	100	0.00
41	T	cis-1,3-Dichloropropene	0.340	0.324	4.7	97	0.00
42	T	4-Methyl-2-pentanone (MIBK)	0.298	0.309	-3.7	98	0.00
43	I	CHLOROBENZENE-d5	1.000	1.000	0.0	101	0.00
44	T	Toluene	0.918	0.846	7.8	95	0.00
45	T	trans-1,3-Dichloropropene	0.404	0.384	5.0	98	0.00
46	T	1,1,2-Trichloroethane	0.301	0.277	8.0	96	0.00
47	T	Tetrachloroethene	0.599	0.557	7.0	96	0.00
48	T	2-Hexanone	0.337	0.341	-1.2	100	0.00
49	T	Chlorodibromomethane	0.628	0.608	3.2	98	0.00

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\2013\Data\100813\
Data File : 100813M02.D
Acq On : 8 Oct 2013 11:44 am
Operator : EM
Sample : S13J031-CCV1
Misc : 10ppbv 1341042
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 08 17:31:34 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100813MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
50	T	1,2-Dibromoethane (EDB)	0.487	0.456	6.4	97	0.00	
51	T	Chlorobenzene	0.810	0.762	5.9	96	0.00	
52	T	Ethylbenzene	1.227	1.190	3.0	96	0.00	
53	T	m&p-Xylene	0.964	0.961	0.3	97	0.00	
54	T	o-Xylene	0.974	0.981	-0.7	97	0.00	
55	T	Styrene	0.793	0.807	-1.8	96	0.00	
56	T	Bromoform	0.710	0.728	-2.5	97	0.00	
57	T	1,1,2,2-Tetrachloroethane	0.581	0.601	-3.4	98	0.00	
58	T	1,2,3-Trichloropropane	0.336	0.002	~~99.4#~~	1#	0.00	NOT Analyzed
59	T	4-Ethyltoluene	1.346	1.393	-3.5	96	0.00	
60	T	1,3,5-Trimethylbenzene	1.220	1.285	-5.3	97	0.00	
61	T	1,2,4-Trimethylbenzene	1.179	1.257	-6.6	97	0.00	
62	T	1,3-Dichlorobenzene	0.945	1.007	-6.6	97	0.00	
63	T	1,4-Dichlorobenzene	0.937	1.009	-7.7	98	0.00	
64	T	Benzyl chloride	0.922	0.957	-3.8	94	0.00	
65	T	1,2-Dichlorobenzene	0.869	0.934	-7.5	98	0.00	
66	T	1,2,4-Trichlorobenzene	0.918	0.950	-3.5	99	0.00	
67	T	Hexachlorobutadiene	1.028	1.046 ✓	-1.8 ✓	99	0.00	
68		Naphthalene	0.160	0.024	85.0#	16#	0.00	NA em 10/10/13

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

% Dev #67 HCB = $\frac{1.028 - 1.046}{1.028} \times 100 = 1.8\%$ ✓

RF #67 HCB = $\frac{2093069\ (20.8)}{4041087\ (10.3)} =$

1.046 ✓

em 10/10/13

00396

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\100813\
Data File : 100813M02.D
Acq On : 8 Oct 2013 11:44 am
Operator : EM
Sample : S13J031-CCV1
Misc : 10ppbv 1341042
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 08 17:30:23 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100813MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	15.33	49	908323	18.80	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.37	114	4472929	20.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.31	117	4041087	20.80	ppbv	0.00

Target Compounds						Qvalue
2) Propene	4.14	41	222402	10.17	ppbv	99
3) Dichlorodifluoromethane	4.23	85	1082613	10.23	ppbv	99
4) 1,2-Dichlorotetrafluoroeth	4.59	85	1027456	10.83	ppbv	100
5) Chloromethane	4.78	50	274543	10.15	ppbv	98
6) Vinyl chloride	5.11	62	334496	9.94	ppbv	100
7) 1,3-Butadiene	5.21	54	237148	9.56	ppbv	100
8) Bromomethane	6.13	94	346725	9.72	ppbv	99
9) Chloroethane	6.46	64	172509	9.46	ppbv	99
10) Bromoethene	7.04	106	385278	9.54	ppbv	100
11) Trichlorofluoromethane	7.19	101	1374099	10.34	ppbv	100
12) 1,1,2-Trichloro-1,2,2-trif	9.01	151	889870	8.88	ppbv	99
13) 1,1-Dichloroethene	9.07	61	589356	8.83	ppbv	98
14) Acetone	9.57	43	527128	9.83	ppbv	98
15) Carbon disulfide	9.79	76	905914	9.34	ppbv	100
16) 2-Propanol	10.17	45	450907	8.81	ppbv	99
17) Allyl chloride	10.64	41	376038	9.18	ppbv	99
18) Dichloromethane	11.19	49	352906	8.40	ppbv	99
19) tert-Butyl methyl ether (M	11.92	73	1195955	10.62	ppbv	100
20) trans-1,2-Dichloroethene	11.95	61	490240	8.71	ppbv	99
21) Hexane	12.60	57	533305	9.19	ppbv	99
22) 1,1-Dichloroethane	13.32	63	688524	8.94	ppbv	100
23) Vinyl acetate	13.48	43	714903	9.15	ppbv	99
24) cis-1,2-Dichloroethene	14.79	61	551409	9.20	ppbv	99
25) 2-Butanone (MEK)	14.88	43	629144	10.53	ppbv	99
26) Ethyl acetate	14.95	43	693781	9.75	ppbv	99
27) Tetrahydrofuran	15.35	42	326616	9.73	ppbv	100
28) Chloroform	15.50	83	951735	9.31	ppbv	100
29) Cyclohexane	15.75	56	544980	9.40	ppbv	99
30) 1,1,1-Trichloroethane	15.80	97	1117619	9.43	ppbv	100
31) Carbon tetrachloride	16.06	117	1283807	9.57	ppbv	99
33) Benzene	16.55	78	1288611	9.55	ppbv	99
34) 2,2,4-Trimethylpentane	16.53	57	1729331	9.88	ppbv	99
35) 1,2-Dichloroethane	16.74	62	655184	9.92	ppbv	100
36) Heptane	16.92	43	591860	9.91	ppbv	99
37) Trichloroethene	17.79	130	739252	9.58	ppbv	100
38) 1,2-Dichloropropane	18.29	63	419449	9.88	ppbv	98
39) 1,4-Dioxane	18.47	88	253084	10.54	ppbv	98
40) Bromodichloromethane	18.75	83	1042305	10.42	ppbv	100
41) cis-1,3-Dichloropropene	19.53	75	746693	9.83	ppbv	99
42) 4-Methyl-2-pentanone (MIBK	19.76	43	726116	10.90	ppbv	99
44) Toluene	20.02	91	1710550	9.59	ppbv	100
45) trans-1,3-Dichloropropene	20.48	75	820715	10.46	ppbv	99
46) 1,1,2-Trichloroethane	20.79	97	581220	9.94	ppbv	98
47) Tetrachloroethene	20.88	166	1126018	9.68	ppbv	99
48) 2-Hexanone	21.12	43	682515	10.42	ppbv	99
49) Chlorodibromomethane	21.39	129	1229635	10.08	ppbv	100
50) 1,2-Dibromoethane (EDB)	21.63	107	947660	10.02	ppbv	100
51) Chlorobenzene	22.35	112	1570186	9.98	ppbv	99
52) Ethylbenzene	22.45	91	2428599	10.19	ppbv	99
53) m&p-Xylene	22.64	91	3957341	21.12	ppbv	99

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\100813\
Data File : 100813M02.D
Acq On : 8 Oct 2013 11:44 am
Operator : EM
Sample : S13J031-CCV1
Misc : 10ppbv 1341042
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 08 17:30:23 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100813MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

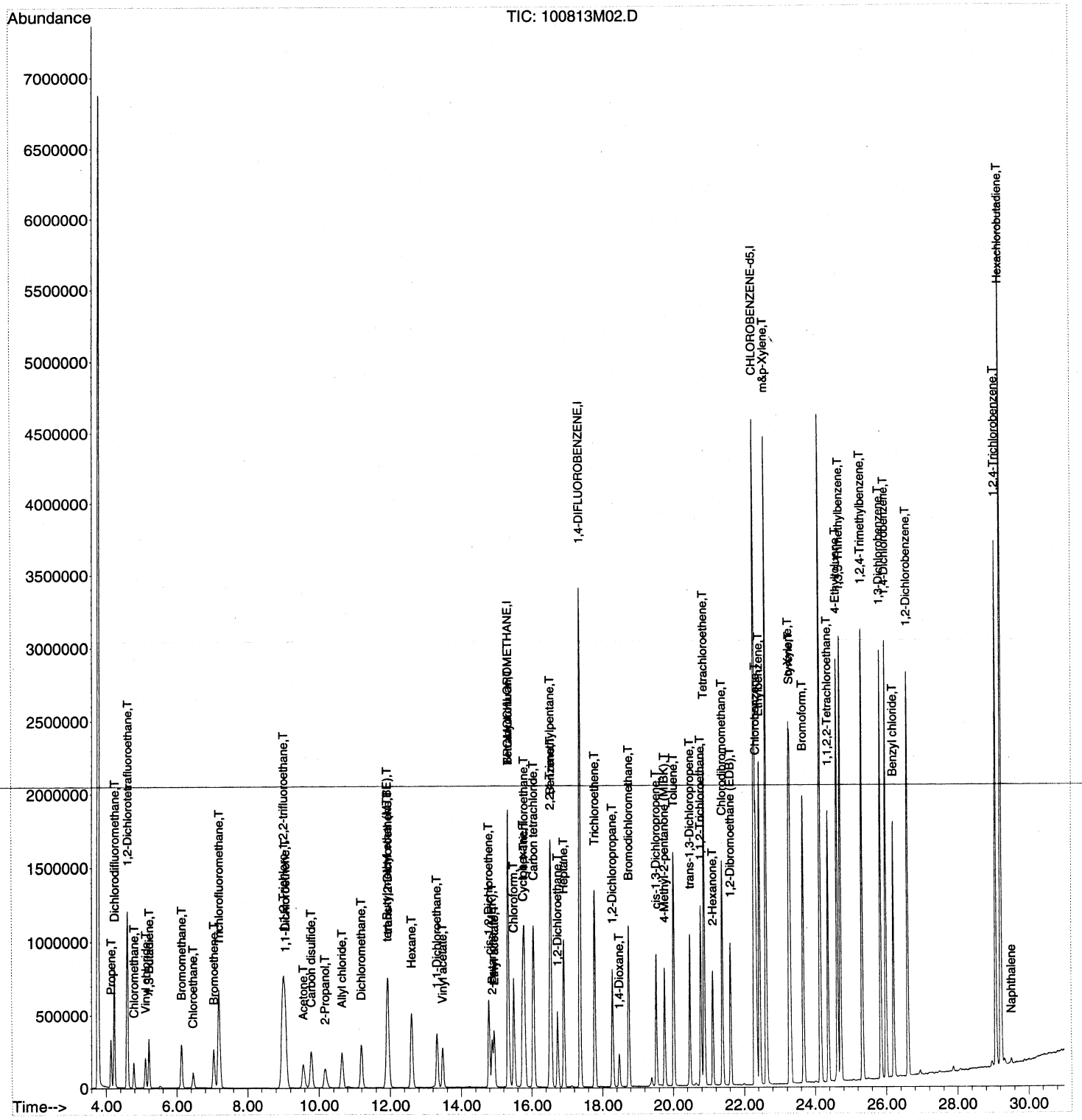
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
54) o-Xylene	23.28	91	2040232	10.78	ppbv	99
55) Styrene	23.31	104	1630851	10.59	ppbv	99
56) Bromoform	23.68	173	1457127	10.56	ppbv	99
57) 1,1,2,2-Tetrachloroethane	24.37	83	1238193	10.97	ppbv	100
59) 4-Ethyltoluene	24.64	105	2842216	10.87	ppbv	99
60) 1,3,5-Trimethylbenzene	24.73	105	2597126	10.96	ppbv	99
61) 1,2,4-Trimethylbenzene	25.34	105	2614192	11.41	ppbv	99
62) 1,3-Dichlorobenzene	25.86	146	2015591	10.98	ppbv	99
63) 1,4-Dichlorobenzene	26.01	146	2038606	11.20	ppbv	100
64) Benzyl chloride	26.22	91	1915063	10.70	ppbv	99
65) 1,2-Dichlorobenzene	26.61	146	1886939	11.17	ppbv	100
66) 1,2,4-Trichlorobenzene	29.09	180	1883610	10.56	ppbv	100
67) Hexachlorobutadiene	29.24	225	2093069	10.48	ppbv	100
68) Naphthalene	29.51	128	42471	1.36	ppbv	95

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\100813\
Data File : 100813M02.D
Acq On : 8 Oct 2013 11:44 am
Operator : EM
Sample : S13J031-CCV1
Misc : 10ppbv 1341042
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 08 17:30:23 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100813MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration



LCS REPORT

Instrument Name: Morpheus
Sample Name: B13J036-BS1
Misc Info: 10ppbv 1341042
Date Acquired: 10/8/2013 12:30
QLast Update: Tue Oct 08 16:43:21 2013
Operator: EM

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	BROMOCHLOROMETHANE	15.35	#N/A	18.80	#N/A	70.0	130.0	#N/A
2)	Propene	4.14	10.70	9.95	93%	56.0	155.0	pass
3)	Dichlorodifluoromethane	4.24	10.10	9.44	93%	67.0	141.0	pass
4)	1,2-Dichlorotetrafluoroethane	4.60	10.40	9.90	95%	68.0	147.0	pass
5)	Chloromethane	4.79	10.30	9.84	96%	64.0	141.0	pass
6)	Vinyl chloride	5.11	10.50	9.73	93%	65.0	141.0	pass
7)	1,3-Butadiene	5.22	10.20	9.33	92%	61.0	154.0	pass
8)	Bromomethane	6.14	10.40	9.57	92%	71.0	132.0	pass
9)	Chloroethane	6.48	10.40	9.38	90%	70.0	134.0	pass
10)	Bromoethene	7.05	10.30	9.35	91%	71.0	146.0	pass
11)	Trichlorofluoromethane	7.20	10.50	10.03	95%	72.0	141.0	pass
12)	1,1,2-Trichloro-1,2,2-trifluoroethane	9.03	9.30	8.54	92%	68.0	134.0	pass
13)	1,1-Dichloroethene	9.09	9.40	8.50	90%	81.0	127.0	pass
14)	Acetone	9.59	10.60	9.65	91%	77.0	150.0	pass
15)	Carbon disulfide	9.80	10.20	9.13	90%	75.0	138.0	pass
16)	2-Propanol	10.21	9.50	8.38	88%	71.0	142.0	pass
17)	Allyl chloride	10.67	10.10	8.90	88%	84.0	143.0	pass
18)	Dichloromethane	11.21	9.60	8.15	85%	74.0	116.0	pass
19)	tert-Butyl methyl ether (MTBE)	11.95	10.90	10.58	97%	79.0	131.0	pass
20)	trans-1,2-Dichloroethene	11.96	9.50	8.43	89%	82.0	136.0	pass
21)	Hexane	12.62	10.20	8.93	88%	78.0	139.0	pass
22)	1,1-Dichloroethane	13.33	9.80	8.76	89%	82.0	123.0	pass
23)	Vinyl acetate	13.49	10.00	8.96	90%	70.0	139.0	pass
24)	cis-1,2-Dichloroethene	14.80	10.10	9.02	89%	83.0	126.0	pass
25)	2-Butanone (MEK)	14.90	10.40	10.47	101%	76.0	138.0	pass
26)	Ethyl acetate	14.96	10.40	9.73	94%	83.0	136.0	pass
27)	Tetrahydrofuran	15.36	10.30	9.77	95%	74.0	132.0	pass
28)	Chloroform	15.51	10.10	9.03	89%	81.0	127.0	pass
29)	Cyclohexane	15.77	10.40	9.26	89%	77.0	139.0	pass
30)	1,1,1-Trichloroethane	15.80	10.00	9.20	92%	80.0	131.0	pass
31)	Carbon tetrachloride	16.07	10.00	9.29	93%	77.0	136.0	pass
32)	1,4-DIFLUOROBENZENE	17.38	#N/A	20.00	#N/A	70.0	130.0	#N/A
33)	Benzene	16.56	10.30	9.35	91%	77.0	131.0	pass
34)	2,2,4-Trimethylpentane	16.54	10.50	9.63	92%	68.0	152.0	pass
35)	1,2-Dichloroethane	16.75	10.00	9.46	95%	70.0	149.0	pass
36)	Heptane	16.93	10.50	9.62	92%	62.0	159.0	pass
37)	Trichloroethene	17.80	10.30	9.38	91%	81.0	125.0	pass
38)	1,2-Dichloropropane	18.30	10.60	9.72	92%	74.0	135.0	pass
40)	Bromodichloromethane	18.76	10.60	10.16	96%	69.0	150.0	pass
41)	cis-1,3-Dichloropropene	19.54	10.30	9.64	94%	77.0	129.0	pass
42)	4-Methyl-2-pentanone (MIBK)	19.77	10.50	10.85	103%	59.0	147.0	pass
43)	CHLOROBENZENE-d5	22.31	#N/A	20.80	#N/A	70.0	130.0	#N/A
44)	Toluene	20.03	10.40	10.04	97%	79.0	126.0	pass
45)	trans-1,3-Dichloropropene	20.48	11.00	10.90	99%	81.0	137.0	pass
46)	1,1,2-Trichloroethane	20.79	10.80	10.46	97%	76.0	124.0	pass
47)	Tetrachloroethene	20.88	10.40	10.10	97%	80.0	122.0	pass
48)	2-Hexanone	21.12	10.30	10.96	106%	55.0	149.0	pass

50)	1,2-Dibromoethane (EDB)	21.63	10.70	10.55	99%	78.0	124.0	pass
51)	Chlorobenzene	22.36	10.60	10.46	99%	76.0	120.0	pass
52)	Ethylbenzene	22.45	10.50	10.65	101%	75.0	125.0	pass
53)	m&p-Xylene	22.64	21.20	22.08	104%	75.0	128.0	pass
54)	o-Xylene	23.28	10.70	11.26	105%	74.0	128.0	pass
55)	Styrene	23.32	10.40	11.06	106%	69.0	122.0	pass
56)	Bromoform	23.68	10.30	11.10	108%	72.0	142.0	pass
57)	1,1,2,2-Tetrachloroethane	24.37	10.60	11.47	108%	70.0	130.0	pass
59)	4-Ethyltoluene	24.64	10.50	11.27	107%	69.0	138.0	pass
61)	1,2,4-Trimethylbenzene	25.34	10.70	11.88	111%	65.0	129.0	pass
62)	1,3-Dichlorobenzene	25.86	10.30	11.46	111%	62.0	130.0	pass
63)	1,4-Dichlorobenzene	26.01	10.40	11.70	112%	61.0	131.0	pass
64)	Benzyl chloride	26.22	10.30	11.18	109%	61.0	153.0	pass
65)	1,2-Dichlorobenzene	26.61	10.40	11.63	112%	60.0	130.0	pass
66)	1,2,4-Trichlorobenzene	29.09	10.20	11.07	109%	38.0	128.0	pass
67)	Hexachlorobutadiene	29.24	10.30	10.87	106%	37.0	124.0	pass

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\100813\
Data File : 100813M03.D
Acq On : 8 Oct 2013 12:30 pm
Operator : EM
Sample : B13J036-BS1
Misc : 10ppbv 1341042
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 08 17:31:49 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100813MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	15.35	49	920195	18.80	ppbv	0.01
32) 1,4-DIFLUOROBENZENE	17.38	114	4541624	20.00	ppbv	0.01
43) CHLOROBENZENE-d5	22.31	117	3855676	20.80	ppbv	0.00

Target Compounds						Qvalue
2) Propene	4.14	41	220329	9.95	ppbv	100
3) Dichlorodifluoromethane	4.24	85	1011610	9.44	ppbv	100
4) 1,2-Dichlorotetrafluoroeth	4.60	85	952195	9.90	ppbv	99
5) Chloromethane	4.79	50	269699	9.84	ppbv	98
6) Vinyl chloride	5.11	62	331962	9.73	ppbv	99
7) 1,3-Butadiene	5.22	54	234656	9.33	ppbv	100
8) Bromomethane	6.14	94	345814	9.57	ppbv	99
9) Chloroethane	6.48	64	173346	9.38	ppbv	99
10) Bromoethene	7.05	106	382523	9.35	ppbv	100
11) Trichlorofluoromethane	7.20	101	1349913	10.03	ppbv	99
12) 1,1,2-Trichloro-1,2,2-trif	9.03	151	866551	8.54	ppbv	99
13) 1,1-Dichloroethene	9.09	61	575051	8.50	ppbv	99
14) Acetone	9.59	43	524616	9.65	ppbv	99
15) Carbon disulfide	9.80	76	897597	9.13	ppbv	100
16) 2-Propanol	10.21	45	434384	8.38	ppbv	100
17) Allyl chloride	10.67	41	369405	8.90	ppbv	100
18) Dichloromethane	11.21	49	346913	8.15	ppbv	99
19) tert-Butyl methyl ether (M	11.95	73	1206222	10.58	ppbv	100
20) trans-1,2-Dichloroethene	11.96	61	480790	8.43	ppbv	99
21) Hexane	12.62	57	524792	8.93	ppbv	99
22) 1,1-Dichloroethane	13.33	63	684001	8.76	ppbv	99
23) Vinyl acetate	13.49	43	709255	8.96	ppbv	99
24) cis-1,2-Dichloroethene	14.80	61	547693	9.02	ppbv	99
25) 2-Butanone (MEK)	14.90	43	634009	10.47	ppbv	99
26) Ethyl acetate	14.96	43	700987	9.73	ppbv	100
27) Tetrahydrofuran	15.36	42	332212	9.77	ppbv	100
28) Chloroform	15.51	83	934950	9.03	ppbv	100
29) Cyclohexane	15.77	56	544243	9.26	ppbv	99
30) 1,1,1-Trichloroethane	15.80	97	1103671	9.20	ppbv	99
31) Carbon tetrachloride	16.07	117	1262200	9.29	ppbv	100
33) Benzene	16.56	78	1280683	9.35	ppbv	100
34) 2,2,4-Trimethylpentane	16.54	57	1711791	9.63	ppbv	100
35) 1,2-Dichloroethane	16.75	62	634507	9.46	ppbv	100
36) Heptane	16.93	43	583250	9.62	ppbv	100
37) Trichloroethene	17.80	130	734566	9.38	ppbv	100
38) 1,2-Dichloropropane	18.30	63	418668	9.72	ppbv	99
39) 1,4-Dioxane	18.48	88	247985	10.17	ppbv	99
40) Bromodichloromethane	18.76	83	1031956	10.16	ppbv	100
41) cis-1,3-Dichloropropene	19.54	75	743640	9.64	ppbv	99
42) 4-Methyl-2-pentanone (MIBK	19.77	43	734030	10.85	ppbv	99
44) Toluene	20.03	91	1707567	10.04	ppbv	99
45) trans-1,3-Dichloropropene	20.48	75	816378	10.90	ppbv	99
46) 1,1,2-Trichloroethane	20.79	97	583532	10.46	ppbv	99
47) Tetrachloroethene	20.88	166	1121394	10.10	ppbv	99
48) 2-Hexanone	21.12	43	685326	10.96	ppbv	99
49) Chlorodibromomethane	21.40	129	1224939	10.53	ppbv	99
50) 1,2-Dibromoethane (EDB)	21.63	107	952053	10.55	ppbv	99
51) Chlorobenzene	22.36	112	1570446	10.46	ppbv	99
52) Ethylbenzene	22.45	91	2420869	10.65	ppbv	100
53) m&p-Xylene	22.64	91	3946278	22.08	ppbv	99

: 00102

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\100813\
Data File : 100813M03.D
Acq On : 8 Oct 2013 12:30 pm
Operator : EM
Sample : B13J036-BS1
Misc : 10ppbv 1341042
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 08 17:31:49 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100813MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

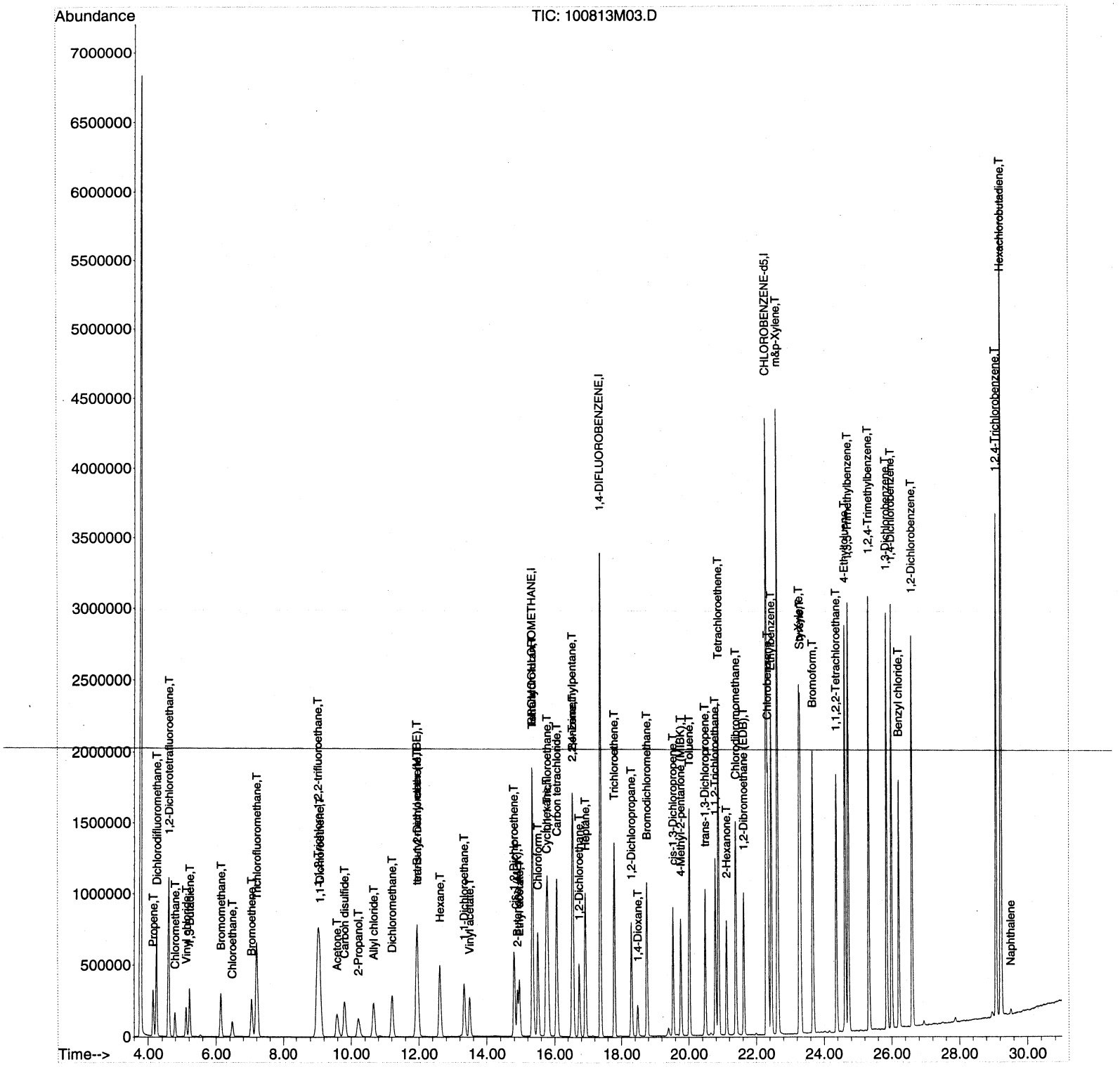
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
54) o-Xylene	23.28	91	2032292	11.26 ppbv	99
55) Styrene	23.32	104	1625119	11.06 ppbv	99
56) Bromoform	23.68	173	1460851	11.10 ppbv	100
57) 1,1,2,2-Tetrachloroethane	24.37	83	1235354	11.47 ppbv	100
59) 4-Ethyltoluene	24.64	105	2813843	11.27 ppbv	100
60) 1,3,5-Trimethylbenzene	24.73	105	2568883	11.36 ppbv	99
61) 1,2,4-Trimethylbenzene	25.34	105	2595939	11.88 ppbv	99
62) 1,3-Dichlorobenzene	25.86	146	2006766	11.46 ppbv	99
63) 1,4-Dichlorobenzene	26.01	146	2030608	11.70 ppbv	100
64) Benzyl chloride	26.22	91	1909561	11.18 ppbv	99
65) 1,2-Dichlorobenzene	26.61	146	1874991	11.63 ppbv	99
66) 1,2,4-Trichlorobenzene	29.09	180	1883887	11.07 ppbv	100
67) Hexachlorobutadiene	29.24	225	2070549	10.87 ppbv	100
68) Naphthalene	29.51	128	39759	1.34 ppbv	97

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\100813\
Data File : 100813M03.D
Acq On : 8 Oct 2013 12:30 pm
Operator : EM
Sample : B13J036-BS1
Misc : 10ppbv 1341042
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 08 17:31:49 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100813MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration



QLS REPORT

2 out
Em 10/8/13

Instrument Name: Morpheus
Sample Name: S13J031-CRL1
Misc Info: 1.0ppbv 1341059
Date Acquired: 10/8/2013 14:19
QLast Update: Tue Oct 08 16:43:21 2013
Operator: EM

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS	TYPE
2)	Propene	4.13	1.07	1.29	120%	60.0	140.0	pass	Subset
3)	Dichlorodifluoromethane	4.23	1.01	1.40	138%	60.0	140.0	pass	Primary
4)	1,2-Dichlorotetrafluoroethane	4.59	1.04	1.48	142%	60.0	140.0	FAIL	Primary
5)	Chloromethane	4.77	1.03	1.19	116%	60.0	140.0	pass	Primary
6)	Vinyl chloride	5.10	1.05	1.23	117%	60.0	140.0	pass	Primary
7)	1,3-Butadiene	5.21	1.02	1.27	125%	60.0	140.0	pass	Subset
8)	Bromomethane	6.12	1.04	1.30	125%	60.0	140.0	pass	Primary
9)	Chloroethane	6.46	1.04	1.35	130%	60.0	140.0	pass	Primary
10)	Bromoethene	7.04	1.03	1.31	127%	60.0	140.0	pass	Subset
11)	Trichlorofluoromethane	7.18	1.05	1.32	126%	60.0	140.0	pass	Primary
12)	1,1,2-Trichloro-1,2,2-trifluoroethane	9.00	0.93	1.09	117%	60.0	140.0	pass	Primary
13)	1,1-Dichloroethene	9.07	0.94	1.21	129%	60.0	140.0	pass	Primary
14)	Acetone	9.57	1.06	1.39	131%	60.0	140.0	pass	Subset
15)	Carbon disulfide	9.78	1.02	1.26	123%	60.0	140.0	pass	Subset
16)	2-Propanol	10.19	0.95	1.02	107%	60.0	140.0	pass	Subset
17)	Allyl chloride	10.64	1.01	1.23	121%	60.0	140.0	pass	Subset
18)	Dichloromethane	11.19	0.96	1.38	143%	60.0	140.0	FAIL	Primary
19)	tert-Butyl methyl ether (MTBE)	11.93	1.09	1.11	102%	60.0	140.0	pass	Subset
20)	trans-1,2-Dichloroethene	11.95	0.95	1.19	126%	60.0	140.0	pass	Subset
21)	Hexane	12.60	1.02	1.23	121%	60.0	140.0	pass	Subset
22)	1,1-Dichloroethane	13.31	0.98	1.26	129%	60.0	140.0	pass	Primary
23)	Vinyl acetate	13.47	1.00	1.08	108%	60.0	140.0	pass	Subset
24)	cis-1,2-Dichloroethene	14.79	1.01	1.28	127%	60.0	140.0	pass	Primary
25)	2-Butanone (MEK)	14.88	1.04	0.98	94%	60.0	140.0	pass	Subset
26)	Ethyl acetate	14.95	1.04	0.92	88%	60.0	140.0	pass	Subset
27)	Tetrahydrofuran	15.36	1.03	0.94	91%	60.0	140.0	pass	Subset
28)	Chloroform	15.49	1.01	1.32	130%	60.0	140.0	pass	Primary
29)	Cyclohexane	15.75	1.04	1.22	118%	60.0	140.0	pass	Subset
30)	1,1,1-Trichloroethane	15.79	1.00	1.27	127%	60.0	140.0	pass	Primary
31)	Carbon tetrachloride	16.05	1.00	1.28	127%	60.0	140.0	pass	Primary
33)	Benzene	16.55	1.03	1.32	128%	60.0	140.0	pass	Primary
34)	2,2,4-Trimethylpentane	16.53	1.05	1.29	123%	60.0	140.0	pass	Subset
35)	1,2-Dichloroethane	16.73	1.00	1.34	134%	60.0	140.0	pass	Primary
36)	Heptane	16.92	1.05	1.31	125%	60.0	140.0	pass	Subset
37)	Trichloroethene	17.79	1.03	1.32	128%	60.0	140.0	pass	Primary
38)	1,2-Dichloropropane	18.29	1.06	1.37	129%	60.0	140.0	pass	Primary
39)	1,4-Dioxane	18.48	1.06	1.12	106%	60.0	140.0	pass	Subset
40)	Bromodichloromethane	18.75	1.06	1.33	126%	60.0	140.0	pass	Subset
41)	cis-1,3-Dichloropropene	19.53	1.03	1.26	122%	60.0	140.0	pass	Primary
42)	4-Methyl-2-pentanone (MIBK)	19.76	1.05	0.90	86%	60.0	140.0	pass	Subset
43)	CHLOROBENZENE-d5	22.30	20.80	20.80	100%	60.0	140.0	pass	Subset
45)	trans-1,3-Dichloropropene	20.48	1.10	1.39	126%	60.0	140.0	pass	Primary
46)	1,1,2-Trichloroethane	20.78	1.08	1.35	125%	60.0	140.0	pass	Primary
47)	Tetrachloroethene	20.88	1.04	1.30	125%	60.0	140.0	pass	Primary
48)	2-Hexanone	21.11	1.03	1.02	99%	60.0	140.0	pass	Subset
49)	Chlorodibromomethane	21.39	1.04	1.23	118%	60.0	140.0	pass	Subset
50)	1,2-Dibromoethane (EDB)	21.62	1.07	1.32	123%	60.0	140.0	pass	Primary
51)	Chlorobenzene	22.35	1.06	1.26	119%	60.0	140.0	pass	Primary
52)	Ethylbenzene	22.45	1.05	1.20	114%	60.0	140.0	pass	Primary
53)	m&p-Xylene	22.63	2.12	2.33	110%	60.0	140.0	pass	Primary

54)	o-Xylene	23.28	1.07	1.10	103%	60.0	140.0	pass	Primary
55)	Styrene	23.31	1.04	1.00	97%	60.0	140.0	pass	Primary
56)	Bromoform	23.68	1.03	1.01	98%	60.0	140.0	pass	Subset
57)	1,1,2,2-Tetrachloroethane	24.37	1.06	0.93	87%	60.0	140.0	pass	Primary
59)	4-Ethyltoluene	24.64	1.05	0.85	81%	60.0	140.0	pass	Subset
60)	1,3,5-Trimethylbenzene	24.73	1.04	0.85	82%	60.0	140.0	pass	Primary
61)	1,2,4-Trimethylbenzene	25.34	1.07	0.84	78%	60.0	140.0	pass	Primary
62)	1,3-Dichlorobenzene	25.86	1.03	0.82	80%	60.0	140.0	pass	Primary
63)	1,4-Dichlorobenzene	26.01	1.04	0.85	81%	60.0	140.0	pass	Subset
64)	Benzyl chloride	26.22	1.03	0.76	74%	60.0	140.0	pass	Primary
65)	1,2-Dichlorobenzene	26.61	1.04	0.83	80%	60.0	140.0	pass	Primary
66)	1,2,4-Trichlorobenzene	29.09	1.02	0.95	94%	60.0	140.0	pass	Primary
67)	Hexachlorobutadiene	29.24	1.03	1.06	103%	60.0	140.0	pass	Primary

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\100813\
Data File : 100813M05.D
Acq On : 8 Oct 2013 2:19 pm
Operator : EM
Sample : S13J031-CRL1
Misc : 1.0ppbv 1341059
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 08 17:33:08 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100813MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) BROMOCHLOROMETHANE	15.33	49	835343	18.80	ppbv		0.00
32) 1,4-DIFLUOROBENZENE	17.37	114	4206727	20.00	ppbv		0.00
43) CHLOROBENZENE-d5	22.30	117	3635618	20.80	ppbv		0.00

Target Compounds							Qvalue
2) Propene	4.13	41	25881	1.29	ppbv		99
3) Dichlorodifluoromethane	4.23	85	136182	1.40	ppbv		99
4) 1,2-Dichlorotetrafluoroeth	4.59	85	128778	1.48	ppbv		98
5) Chloromethane	4.77	50	29683	1.19	ppbv		97
6) Vinyl chloride	5.10	62	38055	1.23	ppbv		99
7) 1,3-Butadiene	5.21	54	29001	1.27	ppbv		100
8) Bromomethane	6.12	94	42517	1.30	ppbv		99
9) Chloroethane	6.46	64	22652	1.35	ppbv		98
10) Bromoethene	7.04	106	48743	1.31	ppbv		100
11) Trichlorofluoromethane	7.18	101	161208	1.32	ppbv		100
12) 1,1,2-Trichloro-1,2,2-trif	9.00	151	100311	1.09	ppbv		99
13) 1,1-Dichloroethene	9.07	61	74198	1.21	ppbv		99
14) Acetone	9.57	43	68741	1.39	ppbv		97
15) Carbon disulfide	9.78	76	112101	1.26	ppbv	#	80
16) 2-Propanol	10.19	45	48076	1.02	ppbv		93
17) Allyl chloride	10.64	41	46155	1.23	ppbv		96
18) Dichloromethane	11.19	49	53156	1.38	ppbv		99
19) tert-Butyl methyl ether (M	11.93	73	114796	1.11	ppbv		100
20) trans-1,2-Dichloroethene	11.95	61	61808	1.19	ppbv		100
21) Hexane	12.60	57	65864	1.23	ppbv		96
22) 1,1-Dichloroethane	13.31	63	89603	1.26	ppbv		99
23) Vinyl acetate	13.47	43	77509	1.08	ppbv		100
24) cis-1,2-Dichloroethene	14.79	61	70652	1.28	ppbv		99
25) 2-Butanone (MEK)	14.88	43	53940	0.98	ppbv		95
26) Ethyl acetate	14.95	43	59951	0.92	ppbv		95
27) Tetrahydrofuran	15.36	42	28924	0.94	ppbv		95
28) Chloroform	15.49	83	123889	1.32	ppbv		99
29) Cyclohexane	15.75	56	65289	1.22	ppbv		98
30) 1,1,1-Trichloroethane	15.79	97	138276	1.27	ppbv		100
31) Carbon tetrachloride	16.05	117	157282	1.28	ppbv		100
33) Benzene	16.55	78	167618	1.32	ppbv		99
34) 2,2,4-Trimethylpentane	16.53	57	213164	1.29	ppbv		99
35) 1,2-Dichloroethane	16.73	62	83511	1.34	ppbv		99
36) Heptane	16.92	43	73728	1.31	ppbv		99
37) Trichloroethene	17.79	130	95738	1.32	ppbv		97
38) 1,2-Dichloropropane	18.29	63	54519	1.37	ppbv		98
39) 1,4-Dioxane	18.48	88	25284	1.12	ppbv		96
40) Bromodichloromethane	18.75	83	125310	1.33	ppbv		99
41) cis-1,3-Dichloropropene	19.53	75	90005	1.26	ppbv		98
42) 4-Methyl-2-pentanone (MIBK	19.76	43	56647	0.90	ppbv		98
44) Toluene	20.02	91	205961	1.28	ppbv		100
45) trans-1,3-Dichloropropene	20.48	75	98003	1.39	ppbv		99
46) 1,1,2-Trichloroethane	20.78	97	71097	1.35	ppbv		96
47) Tetrachloroethene	20.88	166	135697	1.30	ppbv		99
48) 2-Hexanone	21.11	43	60068	1.02	ppbv		100
49) Chlorodibromomethane	21.39	129	134803	1.23	ppbv		99
50) 1,2-Dibromoethane (EDB)	21.62	107	111932	1.32	ppbv		98
51) Chlorobenzene	22.35	112	179095	1.26	ppbv		87
52) Ethylbenzene	22.45	91	257090	1.20	ppbv		99
53) m&p-Xylene	22.63	91	393035	2.33	ppbv		99

00107

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\100813\
Data File : 100813M05.D
Acq On : 8 Oct 2013 2:19 pm
Operator : EM
Sample : S13J031-CRL1
Misc : 1.0ppbv 1341059
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 08 17:33:08 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100813MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

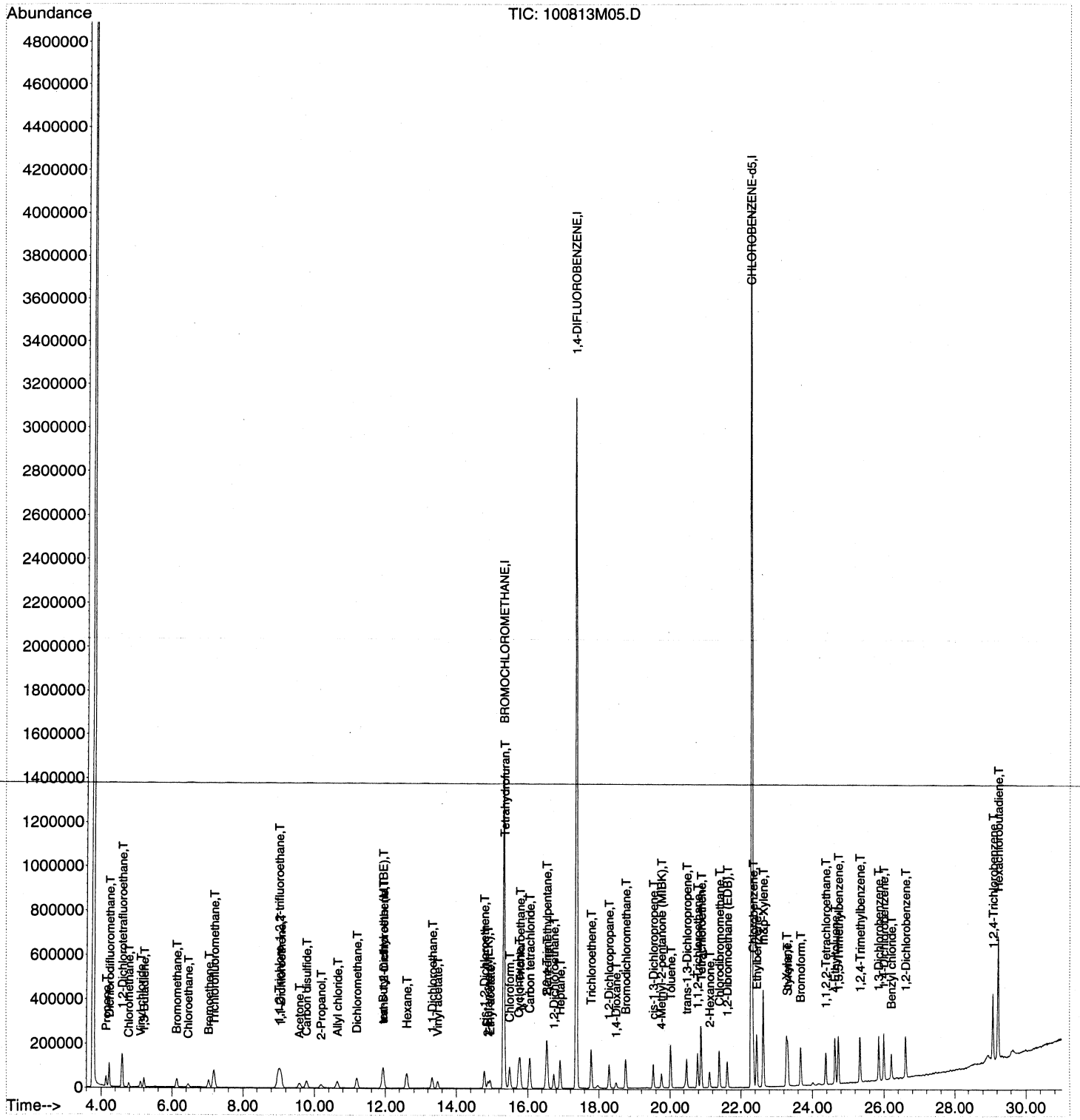
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
54) o-Xylene	23.28	91	187649	1.10	ppbv	99
55) Styrene	23.31	104	139124	1.00	ppbv	98
56) Bromoform	23.68	173	125349	1.01	ppbv	99
57) 1,1,2,2-Tetrachloroethane	24.37	83	94177	0.93	ppbv	100
59) 4-Ethyltoluene	24.64	105	200835	0.85	ppbv	98
60) 1,3,5-Trimethylbenzene	24.73	105	180851	0.85	ppbv	96
61) 1,2,4-Trimethylbenzene	25.34	105	172778	0.84	ppbv	98
62) 1,3-Dichlorobenzene	25.86	146	135993	0.82	ppbv	99
63) 1,4-Dichlorobenzene	26.01	146	138332	0.85	ppbv	99
64) Benzyl chloride	26.22	91	122725	0.76	ppbv	99
65) 1,2-Dichlorobenzene	26.61	146	126282	0.83	ppbv	100
66) 1,2,4-Trichlorobenzene	29.09	180	153231	0.95	ppbv	99
67) Hexachlorobutadiene	29.24	225	190151	1.06	ppbv	99

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\100813\
Data File : 100813M05.D
Acq On : 8 Oct 2013 2:19 pm
Operator : EM
Sample : S13J031-CRL1
Misc : 1.0ppbv 1341059
ALS Vial : 33 Sample Multiplier: 1

Quant Time: Oct 08 17:33:08 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100813MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\100813\
Data File : 100813M06.D
Acq On : 8 Oct 2013 3:10 pm
Operator : EM
Sample : B13J036-BLK1
Misc : Blank Can 1584E
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Oct 08 17:34:27 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100813MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	15.33	49	877998	18.80 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.37	114	4288630	20.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.31	117	3600969	20.80 ppbv	0.00

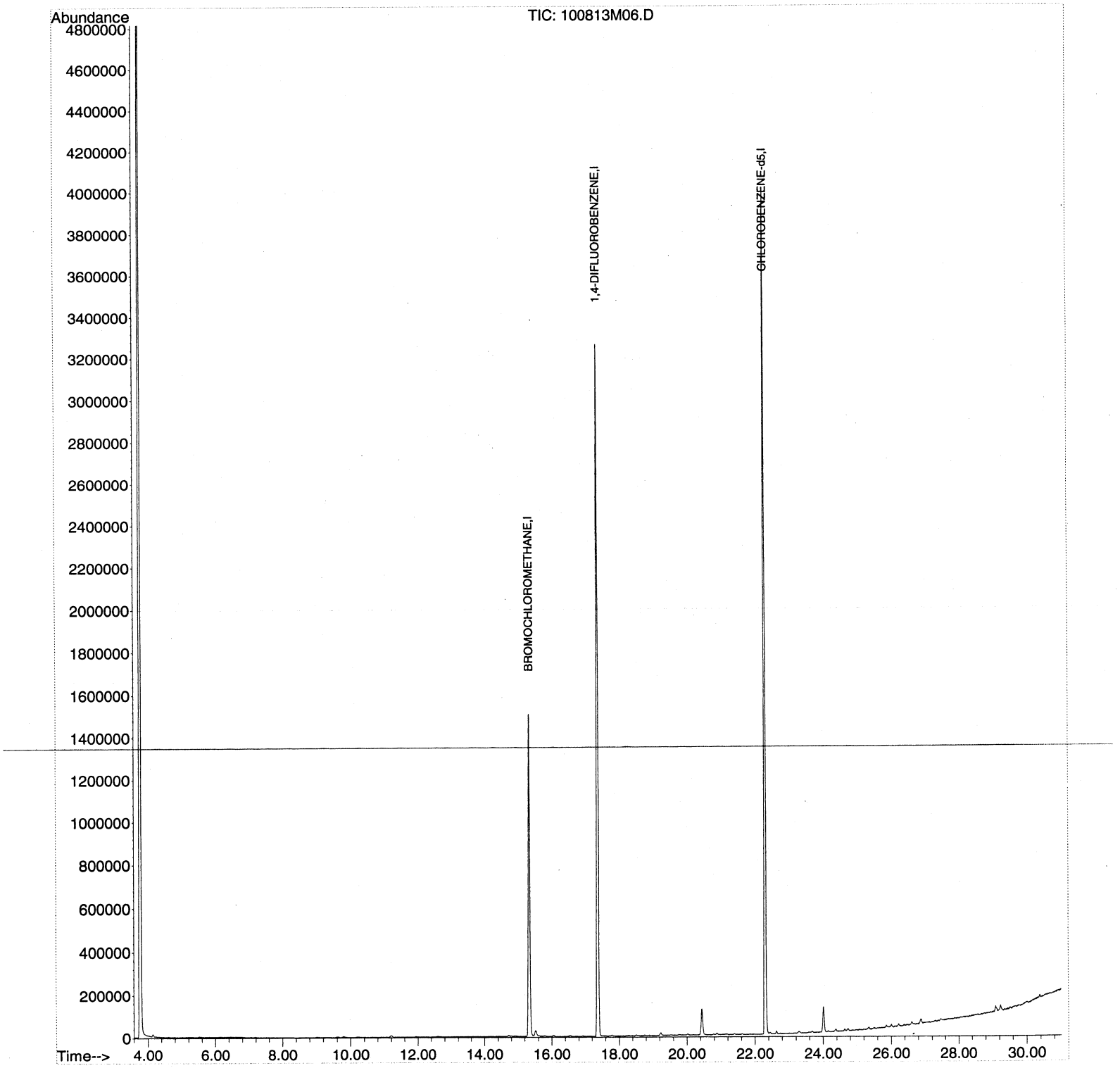
Target Compounds	Qvalue

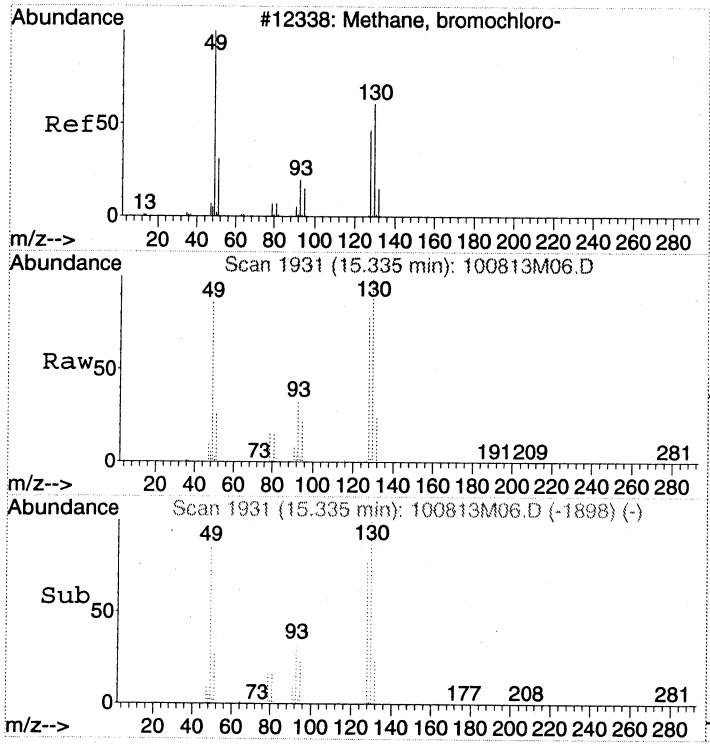
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\100813\
Data File : 100813M06.D
Acq On : 8 Oct 2013 3:10 pm
Operator : EM
Sample : B13J036-BLK1
Misc : Blank Can 1584E
ALS Vial : 34 Sample Multiplier: 1

Quant Time: Oct 08 17:34:27 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100813MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

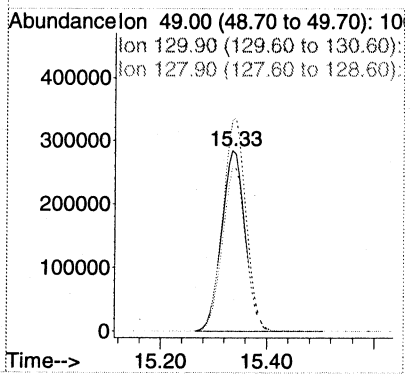


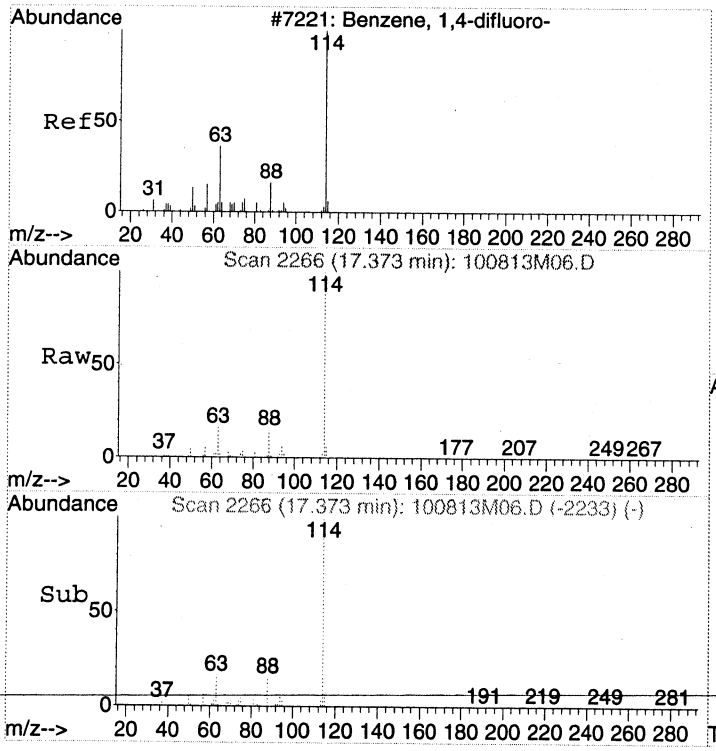


#1
BROMOCHLOROMETHANE
Concen: 18.80 ppbv
RT: 15.33 min Scan# 1931
Delta R.T. 0.00 min
Lab File: 100813M06.D
Acq: 8 Oct 2013 3:10 pm

Tgt Ion: 49 Resp: 877998

Ion	Ratio	Lower	Upper
49	100		
130	117.4	97.9	137.9
128	90.1	70.6	110.6

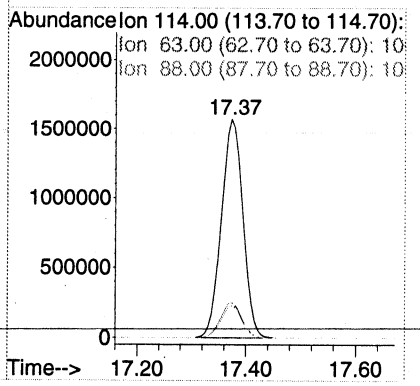


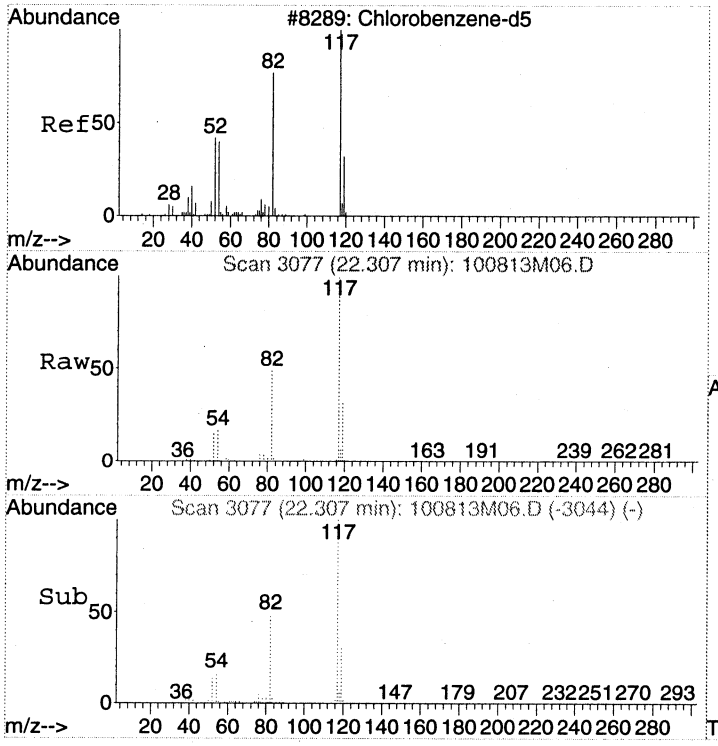


#32
1,4-DIFLUOROBENZENE
Concen: 20.00 ppbv
RT: 17.37 min Scan# 2266
Delta R.T. 0.00 min
Lab File: 100813M06.D
Acq: 8 Oct 2013 3:10 pm

Tgt Ion:114 Resp: 4288630

Ion	Ratio	Lower	Upper
114	100		
63	16.1	0.0	35.8
88	14.6	0.0	34.6

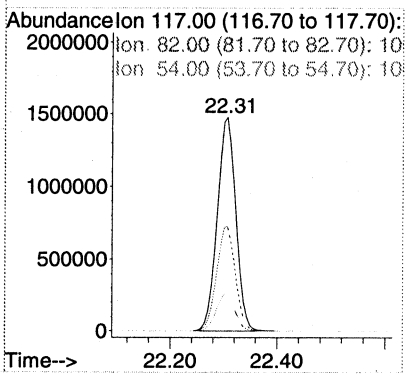




#43
CHLOROBENZENE-d5
Concen: 20.80 ppbv
RT: 22.31 min Scan# 3077
Delta R.T. 0.00 min
Lab File: 100813M06.D
Acq: 8 Oct 2013 3:10 pm

Tgt Ion:117 Resp: 3600969

Ion	Ratio	Lower	Upper
117	100		
82	49.7	28.9	68.9
54	17.8	0.0	36.9



Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\100813\
Data File : 100813M19.D
Acq On : 9 Oct 2013 1:27 am
Operator : EM
Sample : Blank Can 1578E
Misc : Blank Can 1578E
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Oct 09 15:35:27 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100813MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	15.33	49	814537	18.80	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.37	114	3864019	20.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.31	117	3209221	20.80	ppbv	0.00

Target Compounds	Qvalue

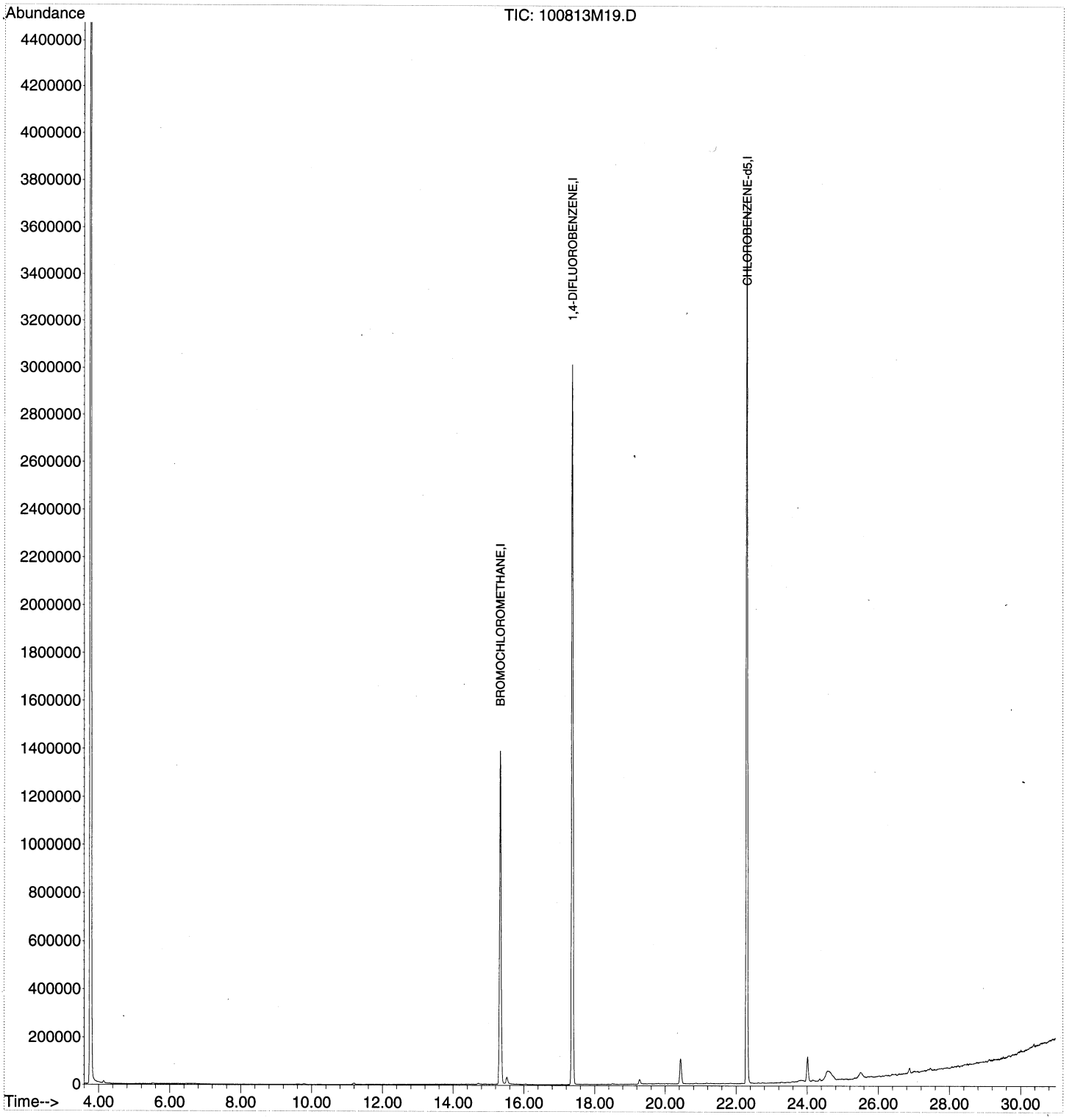
(#) = qualifier out of range (m) = manual integration (+) = signals summed

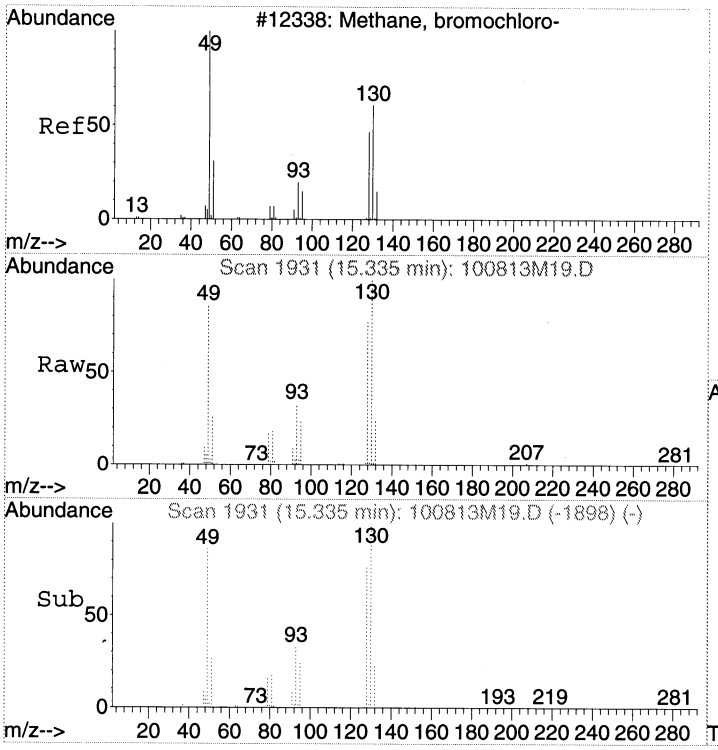
00014

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\100813\
Data File : 100813M19.D
Acq On : 9 Oct 2013 1:27 am
Operator : EM
Sample : Blank Can 1578E
Misc : Blank Can 1578E
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Oct 09 15:35:27 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100813MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

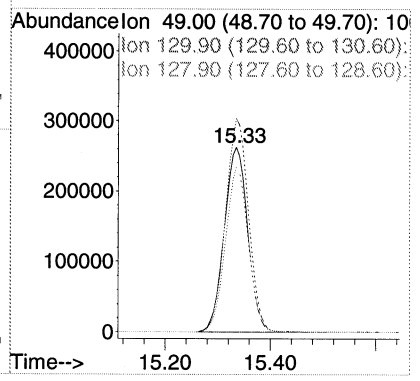


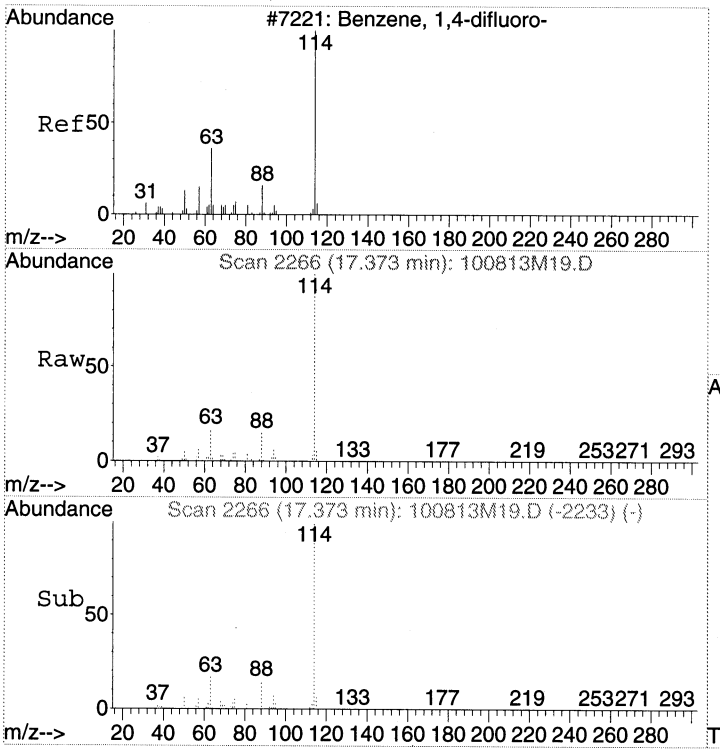


#1
BROMOCHLOROMETHANE
Concen: 18.80 ppbv
RT: 15.33 min Scan# 1931
Delta R.T. 0.00 min
Lab File: 100813M19.D
Acq: 9 Oct 2013 1:27 am

Tgt Ion: 49 Resp: 814537

Ion	Ratio	Lower	Upper
49	100		
130	113.5	97.9	137.9
128	87.1	70.6	110.6

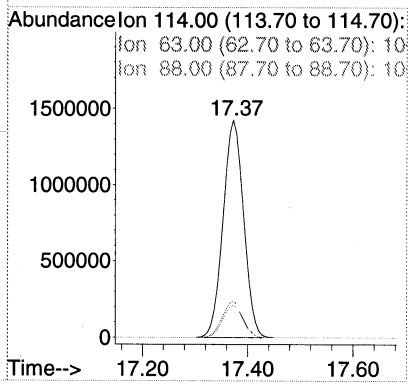


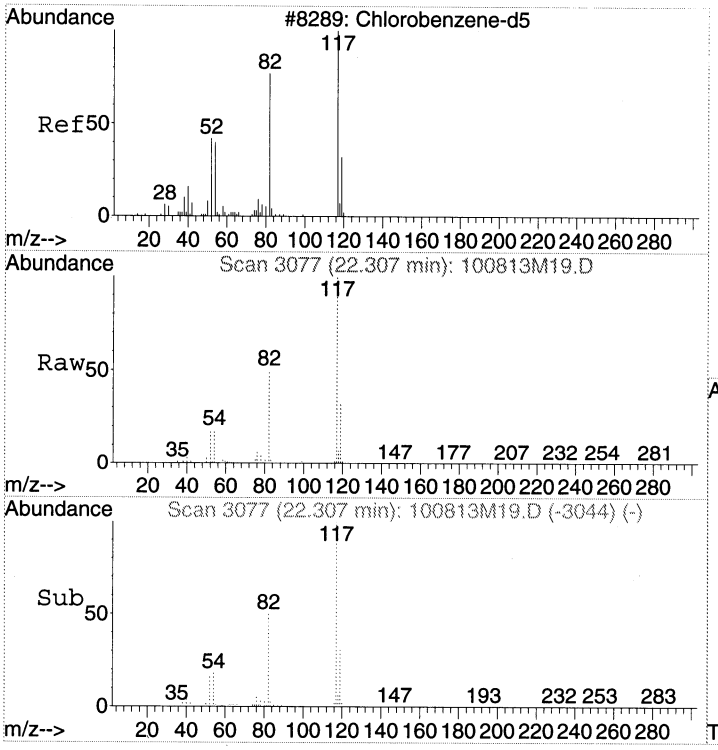


#32
1,4-DIFLUOROBENZENE
Concen: 20.00 ppbv
RT: 17.37 min Scan# 2266
Delta R.T. 0.00 min
Lab File: 100813M19.D
Acq: 9 Oct 2013 1:27 am

Tgt Ion:114 Resp: 3864019

Ion	Ratio	Lower	Upper
114	100		
63	16.7	0.0	35.8
88	14.8	0.0	34.6

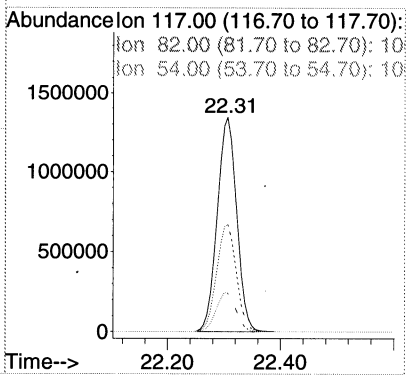




#43
CHLOROBENZENE-d5
Concen: 20.80 ppbv
RT: 22.31 min Scan# 3077
Delta R.T. 0.00 min
Lab File: 100813M19.D
Acq: 9 Oct 2013 1:27 am

Tgt Ion:117 Resp: 3209221

Ion	Ratio	Lower	Upper
117	100		
82	50.7	28.9	68.9
54	18.8	0.0	36.9



LSC Area Percent Report

Data Path : C:\MSDChem\1\2013\Data\100813\
Data File : 100813M19.D
Acq On : 9 Oct 2013 1:27 am
Operator : EM
Sample : Blank Can 1578E
Misc : Blank Can 1578E
ALS Vial : 41 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON Filtering: 5
Sampling : 1 Min Area: 3 % of largest Peak
Start Thrs: 0.01 Max Peaks: 100
Stop Thrs : 0.1 Peak Location: TOP

If leading or trailing edge < 1 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\2013\METHOD\100813MAA.M
Title : TO15

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	15.335	1917	1931	1950	rBV	1388679	4268346	47.38%	19.239%
2	17.373	2253	2266	2286	rBV	3014649	8238228	91.45%	37.132%
3	20.439	2758	2770	2782	rBV	105429	345122	3.83%	1.556%
4	22.307	3066	3077	3093	rBV	3718539	9008394	100.00%	40.603%
5	24.016	3348	3358	3371	rBV	104212	326169	3.62%	1.470%

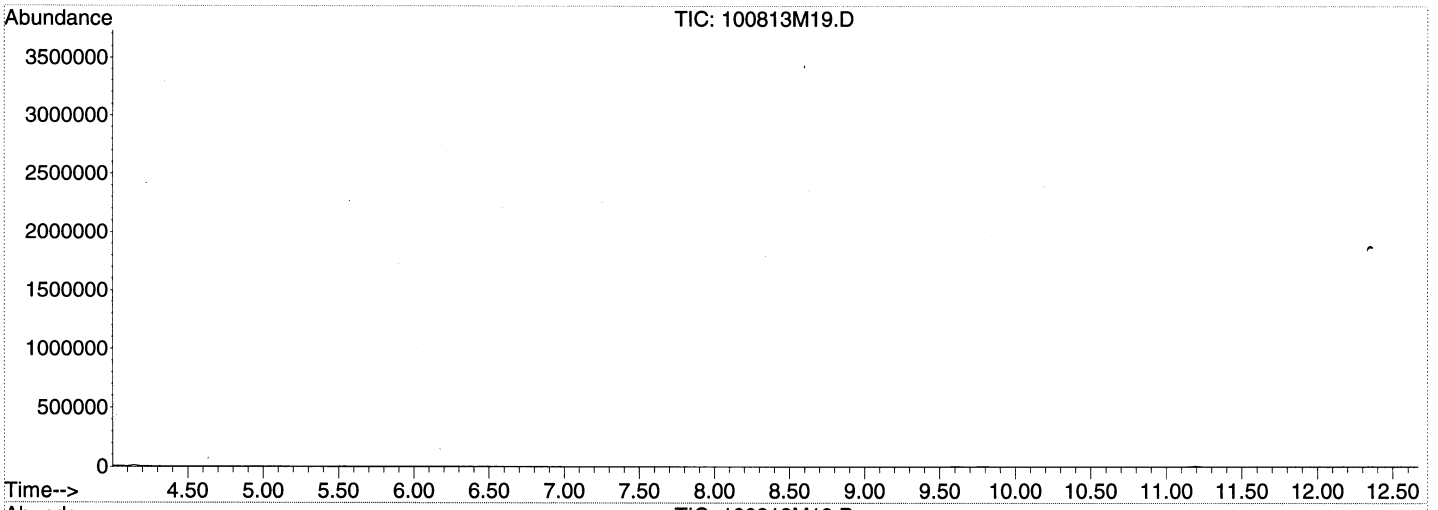
Sum of corrected areas: 22186259

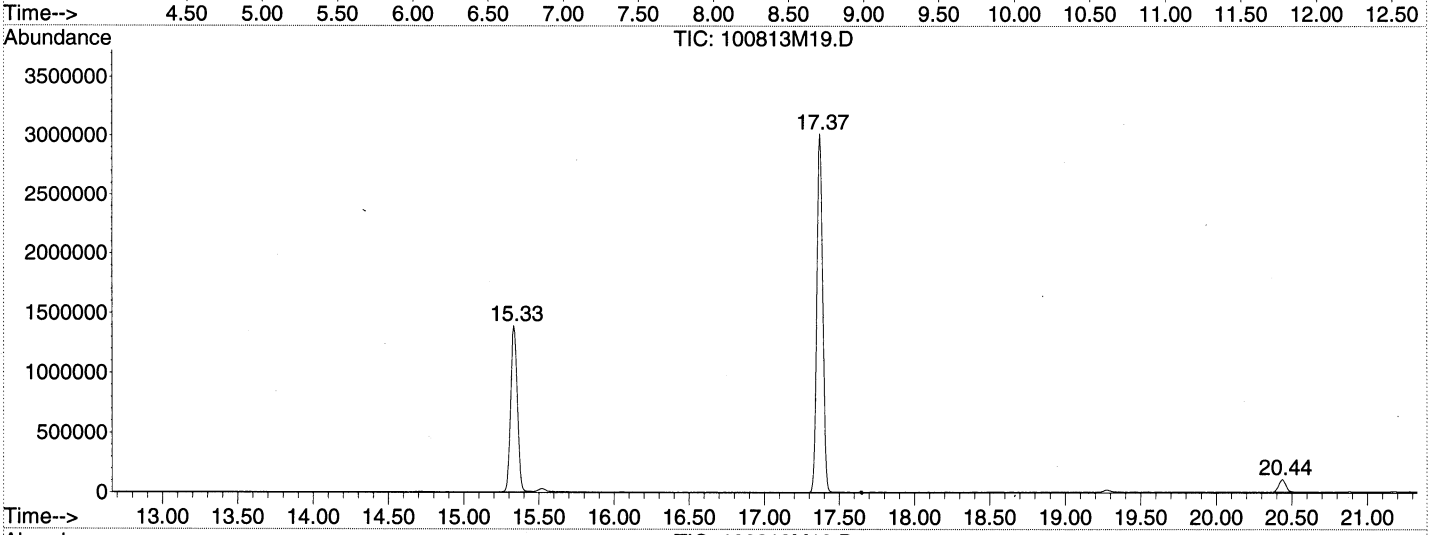
LSC Report - Integrated Chromatogram

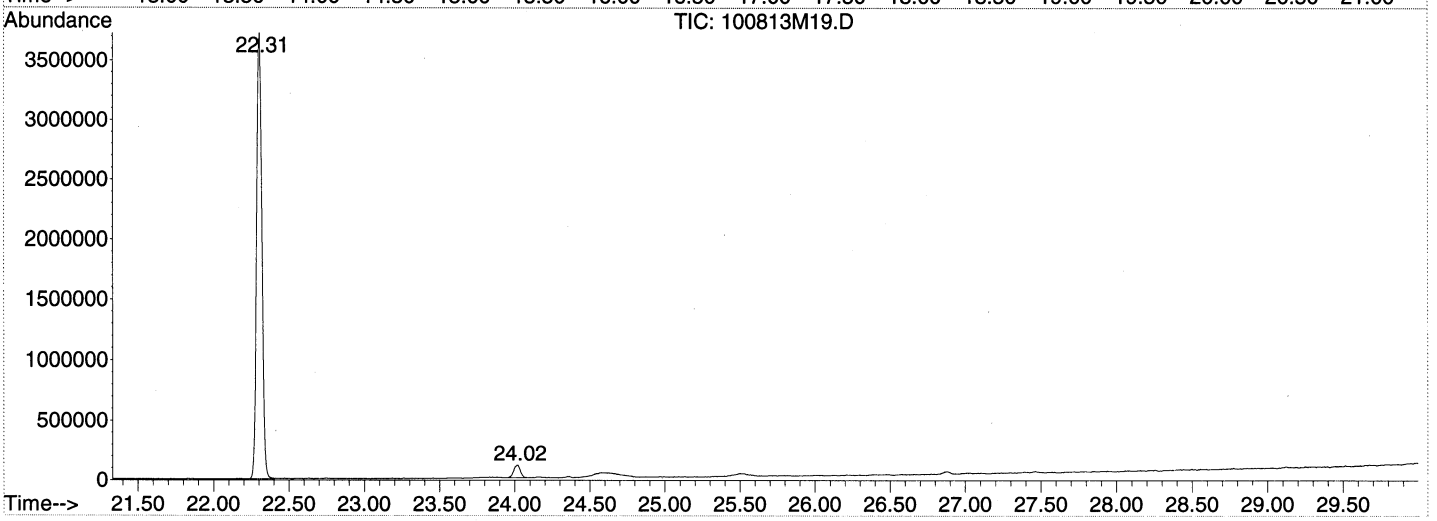
Data Path : C:\MSDChem\1\2013\Data\100813\
Data File : 100813M19.D
Acq On : 9 Oct 2013 1:27 am
Operator : EM
Sample : Blank Can 1578E
Misc : Blank Can 1578E
ALS Vial : 41 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\2013\METHOD\100813MAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P







Tentatively Identified Compound (LSC) summary

Data Path : C:\MSDChem\1\2013\Data\100813\\
Data File : 100813M19.D
Acq On : 9 Oct 2013 1:27 amm
Operator : EMM
Sample : Blank Can 1578EE
Misc : Blank Can 1578EE
ALS Vial : 41 Sample Multiplier: 11

Quant Method : C:\MSDCHEM\1\2013\METHOD\100813MAA.MM
Quant Title : TO155

TIC Library : C:\DATABASE\NIST02.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

No Library Search Compounds Detected
****

Organics Daily Folder Preparation/Technical Review Guide

Analysis Method	TO-15	**Analyst Initial**	EM	**Reviewer Initial**	JR	**Batch/ Sequence**	NA NA
Instrument ID	AG5973 M	**Date Analyzed**	10/9/13	**Date**	10/6/13	**Chemstation Last Update**	10/8/13 16:43:21
Cases				**SDGs**	BLANK CERTIFICATION		

Review each item listed below. As problems are discovered list them in the non-conformance section of the form and provide and explanation in the discussion part of the table.

NA	A	PR	Item Description
	✓	✓	Runlog (Present, legible, peer reviewed)
	✓	✓	Tune/ Degradation Standard
	✓	✓	Initial Calibration (SOP criteria for number of levels, concentration, and %RSD). Manual calculation. Include summary for daily review.
	✓	✓	Continuing Calibration Verification (frequency, recovery, and %D). Manual calculation.
	✓	✓	QLS (level, frequency, and recovery) (include Chemstation summary)
	✓	✓	Method / Extraction / Storage Blanks (frequency and contamination levels)
✓		✓	Surrogate Recoveries
	✓	✓	IS Areas (SOP criteria met)
	✓	✓	LCS (level, frequency, and recovery) (include Chemstation summary)
✓			MS/MSD
✓			Samples (within calibration range, results calculated correctly)
✓			Manual Integration Verified
✓			Standard Prep Log (all pages present, legible, peer reviewed, legible)
✓			Sample Prep/Extraction (all pages present, legible, peer reviewed)
			Others:

NA = not applicable A = Analyst check PR = Peer Review Check

Non-conformance Report

QC	File ID	Result	QC Limit	High Bias	Low Bias	Flag ND	Flag Hits	Discussion
BLK	100913 M09	>1/2RL	<1/2RL					Rerun blanks
↓	↓ M10	↓	↓					↓
	M11							
↓	↓ M20	↓	↓					↓

Clean Canister: 6L: 400 mL:

G:\USER\ESAT\1 Organic Group\daily review_TO-15.doc

----------SEQUENCE TABLE ----------

Sequence Name: C:\Smart\2013\100913MAAA .SEQ
Date: 10-10-2013
Time: 09:37:41
Int. Std Volume: 50 cc

Sample Name	Inlet #	Auto Pos	Samp Vol.	Cal Std Vol.	Method	Time
BFB 1305020	3	2	100	40	C:\Smart\TO15.CTD	12:00
10ppbv 1341042	3	2	100	40	C:\Smart\TO15.CTD	12:00
10ppbv 1341042	3	2	100	0	C:\Smart\TO15.CTD	12:00
1.0ppbv 1341043	3	3	20	0	C:\Smart\TO15.CTD	12:00
Blank Can 1973	3	4	200	0	C:\Smart\TO15.CTD	12:00
Blank Can 1981	3	5	200	0	C:\Smart\TO15.CTD	12:00
Blank Can 1982	3	6	200	0	C:\Smart\TO15.CTD	12:00
Blank Can 1984	3	7	200	0	C:\Smart\TO15.CTD	12:00
Blank Can 1986	3	8	200	0	C:\Smart\TO15.CTD	12:00
Blank Can 1988	3	9	200	0	C:\Smart\TO15.CTD	12:00
Blank Can 1994	3	10	200	0	C:\Smart\TO15.CTD	12:00
Blank Can 2004	3	11	200	0	C:\Smart\TO15.CTD	12:00
Blank Can 7244	3	12	200	0	C:\Smart\TO15.CTD	12:00
Blank Can 7338	4	1	200	0	C:\Smart\TO15.CTD	12:00
Blank Can 7339	4	2	200	0	C:\Smart\TO15.CTD	12:00
Blank Can 7354	4	3	200	0	C:\Smart\TO15.CTD	12:00
Blank Can 7456	4	4	200	0	C:\Smart\TO15.CTD	12:00
Blank Can 7465	4	5	200	0	C:\Smart\TO15.CTD	12:00
Blank Can 7468	4	6	200	0	C:\Smart\TO15.CTD	12:00
Blank Can 7483	4	7	200	0	C:\Smart\TO15.CTD	12:00
Blank Can 1580E	4	8	200	0	C:\Smart\TO15.CTD	12:00
Blank Can 1581E	4	9	200	0	C:\Smart\TO15.CTD	12:00
Blank Can 1583E	3	4	200	0	C:\Smart\TO15.CTD	12:00
Blank Can 1554E	3	5	200	0	C:\Smart\TO15.CTD	12:00

Injection Log

Directory: C:\MSDChem\1\2013\Data\100913

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	32	100913M01.D	1.	S13J0XX-TUN1	BFB 1305020/IS 1311120/1341042	9 Oct 2013 13:45
2	31	100913M02.D	1.	S13J0XX-CCV1	10ppbv 1341042	9 Oct 2013 14:32
3	31	100913M03.D	1.	B13J0XX-BS1	10ppbv 1341042	9 Oct 2013 15:19
4	32	100913M04.D	1.	S13J0XX-CRL1	1.0ppbv 1341043	9 Oct 2013 16:03
5	34	100913M05.D	1.	BLANK CAN 1973	BLANK CAN 1973	9 Oct 2013 16:52
6	35	100913M06.D	1.	BLANK CAN 1981	BLANK CAN 1981	9 Oct 2013 17:40
7	36	100913M07.D	1.	BLANK CAN 1982	BLANK CAN 1982	9 Oct 2013 18:29
8	37	100913M08.D	1.	BLANK CAN 1984	BLANK CAN 1984	9 Oct 2013 19:18
9	38	100913M09.D	1.	BLANK CAN 1986 Bake & RR	BLANK CAN 1986	9 Oct 2013 20:07
10	39	100913M10.D	1.	BLANK CAN 1988 Bake & RR	BLANK CAN 1988	9 Oct 2013 20:56
11	10	100913M11.D	1.	BLANK CAN 1994 Bake & RR	BLANK CAN 1994	9 Oct 2013 21:45
12	11	100913M12.D	1.	BLANK CAN 2004	BLANK CAN 2004	9 Oct 2013 22:34
13	12	100913M13.D	1.	BLANK CAN 7244	BLANK CAN 7244	9 Oct 2013 23:23
14	41	100913M14.D	1.	BLANK CAN 7338	BLANK CAN 7338	10 Oct 2013 00:12
15	42	100913M15.D	1.	BLANK CAN 7339	BLANK CAN 7339	10 Oct 2013 01:00
16	43	100913M16.D	1.	BLANK CAN 7354	BLANK CAN 7354	10 Oct 2013 01:49
17	44	100913M17.D	1.	BLANK CAN 7456	BLANK CAN 7456	10 Oct 2013 02:37
18	45	100913M18.D	1.	BLANK CAN 7465	BLANK CAN 7465	10 Oct 2013 03:26
19	46	100913M19.D	1.	BLANK CAN 7468	BLANK CAN 7468	10 Oct 2013 04:19
20	47	100913M20.D	1.	BLANK CAN 7483 Bake & RR	BLANK CAN 7483	10 Oct 2013 05:07
21	48	100913M21.D	1.	BLANK CAN 1580E	BLANK CAN 1580E	10 Oct 2013 05:56
22	49	100913M22.D	1.	BLANK CAN 1581E	BLANK CAN 1581E	10 Oct 2013 06:45
23	34	100913M23.D	1.	BLANK CAN 1583E	BLANK CAN 1583E	10 Oct 2013 07:33
24	35	100913M24.D	1.	BLANK CAN 1554E	BLANK CAN 1554E	10 Oct 2013 08:22

GC/MS QA-QC Check Report

Tune File : C:\MSDCHEM\1\2013\DATA\100913\100913M01.D
Tune Time : 9 Oct 2013 1:45 pm

Daily Calibration File : C:\MSDChem\1\2013\Data\100913\100913M02.D

File	Sample	Surrogate Recovery %	Internal Standard Responses			
			907003	4326930	3783030	
100913M02.D	S13J0XX-CCV1	907003	4326925	3783025		
100913M03.D	B13J0XX-BS1	996940	4769778	4130082		
100913M04.D	S13J0XX-CRL1	1014673	4854863	3980378		
100913M05.D	BLANK CAN 1973	1013540	4872040	4105563		
100913M06.D	BLANK CAN 1981	970745	4585396	3796619		
100913M07.D	BLANK CAN 1982	991354	4679254	3975478		
100913M08.D	BLANK CAN 1984	945161	4379416	3695664		
100913M09.D	BLANK CAN 1986	902866	4180584	3486263	RR	
100913M10.D	BLANK CAN 1988	891384	4145391	3476041	RR	
100913M11.D	BLANK CAN 1994	912944	4215098	3533116	RR	
100913M12.D	BLANK CAN 2004	895292	4096765	3412455		
100913M13.D	BLANK CAN 7244	901065	4117481	3547483		
100913M14.D	BLANK CAN 7338	922350	4174971	3507901		
100913M15.D	BLANK CAN 7339	900993	4084502	3442271		
100913M16.D	BLANK CAN 7354	886481	4045966	3377610		
100913M17.D	BLANK CAN 7456	876376	4016280	3355587		
100913M18.D	BLANK CAN 7465	897374	4070050	3431496		
100913M19.D	BLANK CAN 7468	840012	3872890	3308984		
100913M20.D	BLANK CAN 7483	876847	4003863	3325424	RR	

```
-----------------------------------------------------------------------
100913M21.D
         BLANK CAN 1580E         917558    4172401    3495806
-----------------------------------------------------------------------
100913M22.D
         BLANK CAN 1581E         885007    3992318    3364349
-----------------------------------------------------------------------
100913M23.D
         BLANK CAN 1583E         892474    4064384    3472514
-----------------------------------------------------------------------
100913M24.D
         BLANK CAN 1554E         876153    3953663    3358518
-----------------------------------------------------------------------
(fails) - fails 24hr time check   * - fails criteria

    Created: Wed Oct 16 12:24:59 2013  Morpheus
```

Response Factor Report Morpheus

Method Path : C:\MSDCHEM\1\2013\METHOD\
Method File : 100913MAA.M
Title : TO15
Last Update : Tue Oct 08 16:43:21 2013
Response Via : Initial Calibration

Calibration Files
1 =091913M02.D 2 =091913M03.D 5 =091913M04.D
10 =091913M05.D 15 =091913M06.D 20 =091913M07.D

		Compound	1	2	5	10	15	20	Avg	%RSD
1)	I	BROMOCHLOROMETHANE	----------ISTD----------							
2)	T	Propene	0.518	0.462	0.436	0.431	0.432	0.437	0.453	7.51
3)	T	Dichlorodifluorom	2.711	2.486	2.260	2.075	1.887	1.724	2.190	16.91
4)	T	1,2-Dichlorotetra	2.467	2.426	2.283	1.887	1.491	1.232	1.964	26.30
5)	T	Chloromethane	0.604	0.548	0.547	0.552	0.550	0.559	0.560	3.92
6)	T	Vinyl chloride	0.802	0.717	0.662	0.659	0.662	0.679	0.697	8.05
7)	T	1,3-Butadiene	0.613	0.516	0.489	0.485	0.486	0.494	0.514	9.73
8)	T	Bromomethane	0.868	0.769	0.706	0.696	0.695	0.698	0.739	9.40
9)	T	Chloroethane	0.454	0.400	0.364	0.355	0.344	0.348	0.378	11.26
10)	T	Bromoethene	0.974	0.873	0.792	0.789	0.789	0.797	0.836	8.99
11)	T	Trichlorofluorome	3.038	2.841	2.699	2.670	2.631	2.626	2.751	5.85
12)	T	1,1,2-Trichloro-1	2.295	2.118	2.003	2.002	1.997	2.026	2.074	5.66
13)	T	1,1-Dichloroethen	1.608	1.453	1.334	1.315	1.288	1.290	1.381	9.18
14)	T	Acetone	1.309	1.119	1.074	1.068	1.035	1.055	1.110	9.12
15)	T	Carbon disulfide	2.325	2.111	1.926	1.895	1.883	1.907	2.008	8.81
16)	T	2-Propanol	1.343	0.990	0.968	1.018	1.005	1.034	1.059	13.29
17)	T	Allyl chloride	1.005	0.885	0.810	0.801	0.794	0.791	0.848	9.99
18)	T	Dichloromethane	1.146	0.962	0.820	0.782	0.759	0.751	0.870	17.93
19)	T	tert-Butyl methyl	2.238	2.250	2.336	2.380	2.362	2.413	2.330	3.06
20)	T	trans-1,2-Dichlor	1.400	1.230	1.111	1.096	1.076	1.076	1.165	11.06
21)	T	Hexane	1.392	1.263	1.147	1.135	1.132	1.139	1.201	8.81
22)	T	1,1-Dichloroethan	1.881	1.683	1.536	1.498	1.481	1.487	1.594	9.99
23)	T	Vinyl acetate	1.779	1.633	1.565	1.575	1.568	1.581	1.617	5.15
24)	T	cis-1,2-Dichloroe	1.478	1.309	1.194	1.172	1.141	1.152	1.241	10.57
25)	T	2-Butanone (MEK)	1.160	1.058	1.289	1.310	1.296	1.310	1.237	8.47
26)	T	Ethyl acetate	1.370	1.570	1.462	1.483	1.444	1.506	1.472	4.52
27)	T	Tetrahydrofuran	0.697	0.644	0.701	0.717	0.692	0.719	0.695	3.92
28)	T	Chloroform	2.490	2.257	2.041	1.986	1.956	1.962	2.115	10.17
29)	T	Cyclohexane	1.358	1.231	1.158	1.148	1.151	1.155	1.200	6.96
30)	T	1,1,1-Trichloroet	2.794	2.569	2.371	2.346	2.314	2.318	2.452	7.86
31)	T	Carbon tetrachlor	3.124	2.888	2.683	2.669	2.643	2.649	2.776	6.98
32)	I	1,4-DIFLUOROBENZENE	----------ISTD----------							
33)	T	Benzene	0.706	0.639	0.587	0.573	0.558	0.557	0.603	9.76
34)	T	2,2,4-Trimethylpe	0.892	0.820	0.764	0.750	0.739	0.733	0.783	7.88
35)	T	1,2-Dichloroethan	0.346	0.316	0.288	0.283	0.272	0.265	0.295	10.32
36)	T	Heptane	0.306	0.281	0.261	0.256	0.251	0.247	0.267	8.38
37)	T	Trichloroethene	0.401	0.362	0.334	0.326	0.323	0.324	0.345	8.99
38)	T	1,2-Dichloropropa	0.216	0.203	0.186	0.180	0.177	0.177	0.190	8.51
39)	T	1,4-Dioxane	0.131	0.102	0.101	0.104	0.102	0.105	0.107	10.81
40)	T	Bromodichlorometh	0.505	0.466	0.437	0.433	0.423	0.420	0.447	7.33
41)	T	cis-1,3-Dichlorop	0.381	0.348	0.333	0.329	0.324	0.323	0.340	6.54
42)	T	4-Methyl-2-pentan	0.298	0.261	0.304	0.309	0.306	0.310	0.298	6.18
43)	I	CHLOROBENZENE-d5	----------ISTD----------							
44)	T	Toluene	0.984	0.959	0.897	0.895	0.884	0.887	0.918	4.65
45)	T	trans-1,3-Dichlor	0.431	0.423	0.396	0.396	0.388	0.390	0.404	4.55
46)	T	1,1,2-Trichloroet	0.321	0.318	0.297	0.292	0.289	0.289	0.301	4.85
47)	T	Tetrachloroethene	0.632	0.627	0.584	0.585	0.579	0.586	0.599	3.95
48)	T	2-Hexanone	0.360	0.303	0.330	0.344	0.340	0.346	0.337	5.74
49)	T	Chlorodibromometh	0.638	0.644	0.620	0.624	0.617	0.624	0.628	1.72
50)	T	1,2-Dibromoethane	0.519	0.508	0.475	0.476	0.469	0.473	0.487	4.39
51)	T	Chlorobenzene	0.822	0.832	0.808	0.804	0.795	0.800	0.810	1.77
52)	T	Ethylbenzene	1.168	1.242	1.236	1.246	1.232	1.235	1.227	2.36
53)	T	m&p-Xylene	0.879	0.961	0.983	1.003	0.983	0.977	0.964	4.56
54)	T	o-Xylene	0.849	0.945	0.990	1.024	1.015	1.021	0.974	6.99
55)	T	Styrene	0.652	0.754	0.804	0.846	0.846	0.855	0.793	9.95
56)	T	Bromoform	0.604	0.663	0.710	0.757	0.759	0.768	0.710	9.24

Response Factor Report Morpheus

Method Path : C:\MSDCHEM\1\2013\METHOD\
Method File : 100913MAA.M
Title : TO15
Last Update : Tue Oct 08 16:43:21 2013
Response Via : Initial Calibration

Calibration Files
1 =091913M02.D 2 =091913M03.D 5 =091913M04.D
10 =091913M05.D 15 =091913M06.D 20 =091913M07.D

		Compound	1	2	5	10	15	20	Avg	%RSD	
57)	T	1,1,2,2-Tetrachlo	0.478	0.540	0.593	0.621	0.619	0.635	0.581	10.46	
58)	T	1,2,3-Trichloropr	0.177	0.370	0.367	0.382	0.366	0.350	0.336	23.32	
59)	T	4-Ethyltoluene	1.036	1.230	1.374	1.468	1.471	1.499	1.346	13.47	
60)	T	1,3,5-Trimethylbe	0.926	1.115	1.255	1.339	1.333	1.351	1.220	13.84	
61)	T	1,2,4-Trimethylbe	0.883	1.055	1.213	1.304	1.302	1.318	1.179	14.91	
62)	T	1,3-Dichlorobenze	0.712	0.841	0.964	1.044	1.044	1.061	0.945	14.87	
63)	T	1,4-Dichlorobenze	0.697	0.838	0.958	1.033	1.038	1.055	0.937	15.19	
64)	T	Benzyl chloride	0.704	0.804	0.941	1.024	1.018	1.040	0.922	14.97	
65)	T	1,2-Dichlorobenze	0.680	0.760	0.879	0.961	0.960	0.977	0.869	14.17	
66)	T	1,2,4-Trichlorobe	0.916	0.843	0.884	0.964	0.948	0.954	0.918	5.13	
67)	T	Hexachlorobutadie	1.069	0.975	0.981	1.068	1.046	1.027	1.028	4.03	
68)		~~Naphthalene~~	~~0.051~~	~~0.080~~	~~0.103~~	~~0.153~~	~~0.217~~	~~0.359~~	~~0.160~~	~~70.76~~	NOT INCLUDED

(#) = Out of Range

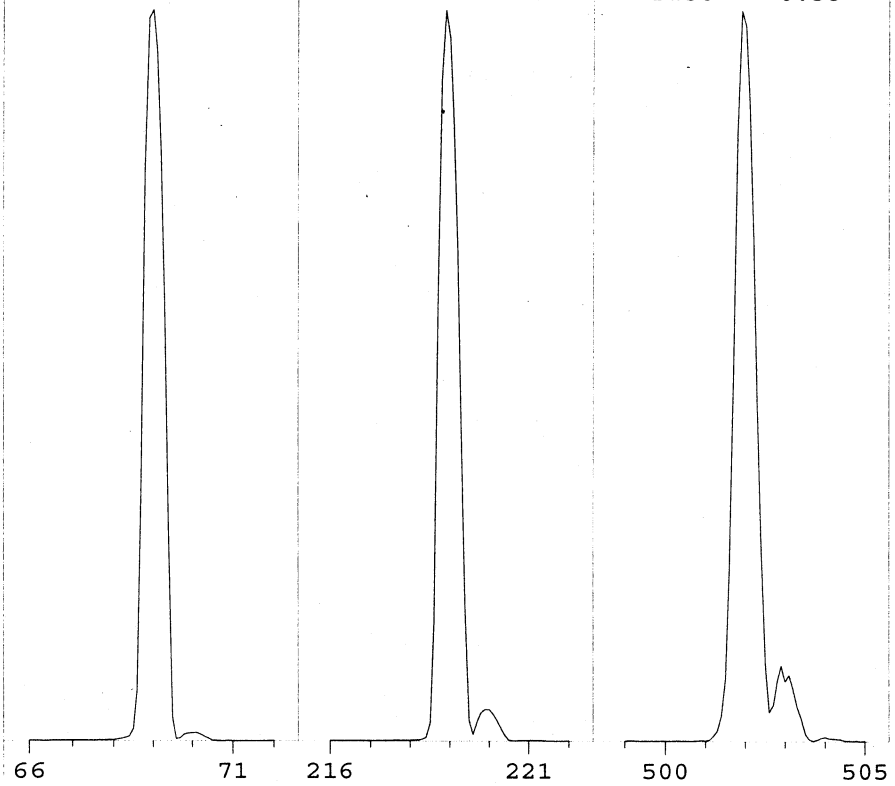
em 10/9/13

00427

Wed Oct 09 12:39:42 2013
C:\MSDCHEM\1\5973N\BFB100913.U

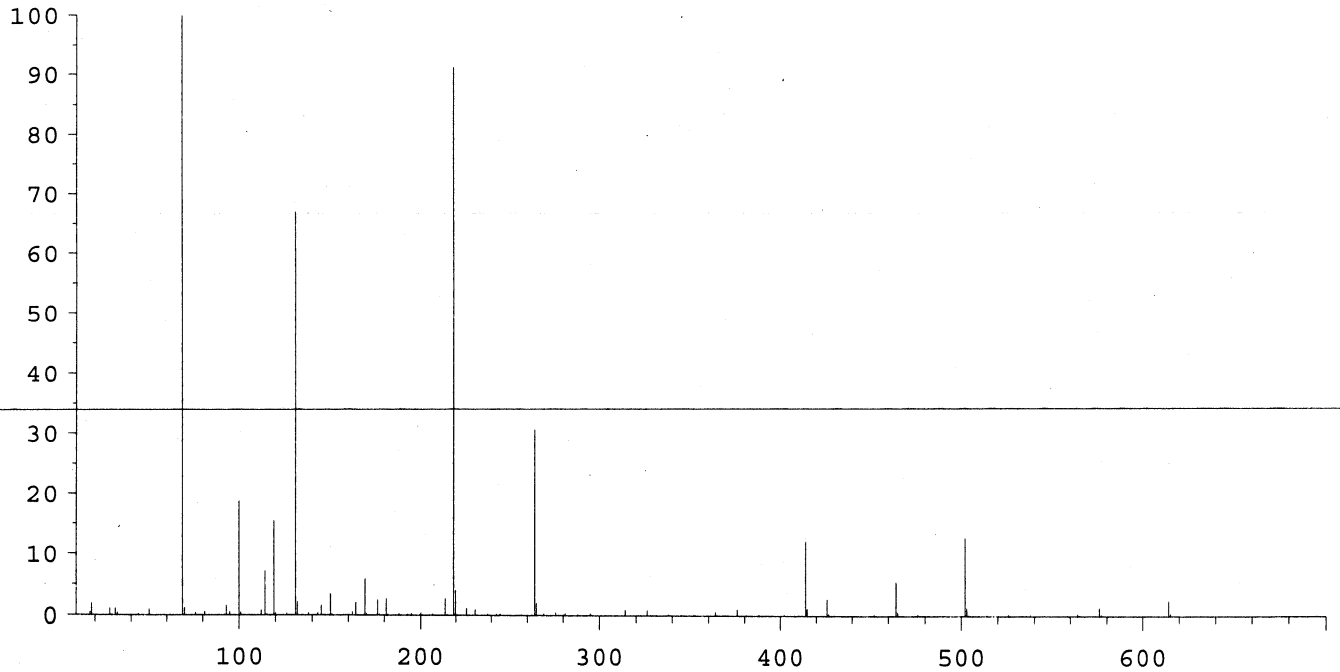
Instrument: Morpheus

Mass	69.00	Mass	218.90	Mass	501.90
Ab	450740	Ab	416976	Ab	58307
Pw50	0.60	Pw50	0.60	Pw50	0.58



Ion Pol	POS	MassGain	321
		MassOffs	-10
Emission	34.6	AmuGain	2331
ElEnrgy	69.9	AmuOffs	126
Filament	1	Wid219	-0.028
		DC Pol	POS
Repeller	21.91		
IonFcus	90.2	HEDEnab	ON
EntLens	23.0	EMVolts	1153
EntOffs	17.57		
		Samples	8
PFTBA	OPEN	Averages	3
		Stepsize	0.10
Zones:			
MS Source	230	TurboSpd	100
MS Quad	150		

Scan: 10.00 - 700.00 Samples: 8 Thresh: 100 Step: 0.10
174 peaks Base: 69.00 Abundance: 369664



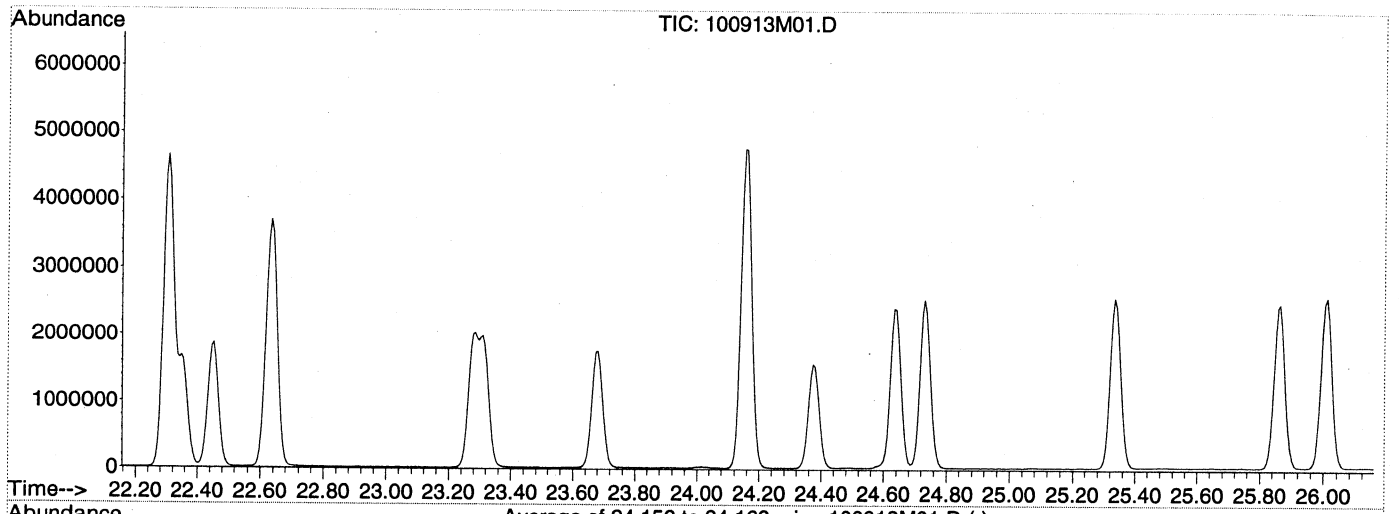
Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	369664	100.00	70.00	4328	1.17
218.90	337216	91.22	219.90	14884	4.41
502.00	47080	12.74	503.00	4569	9.70

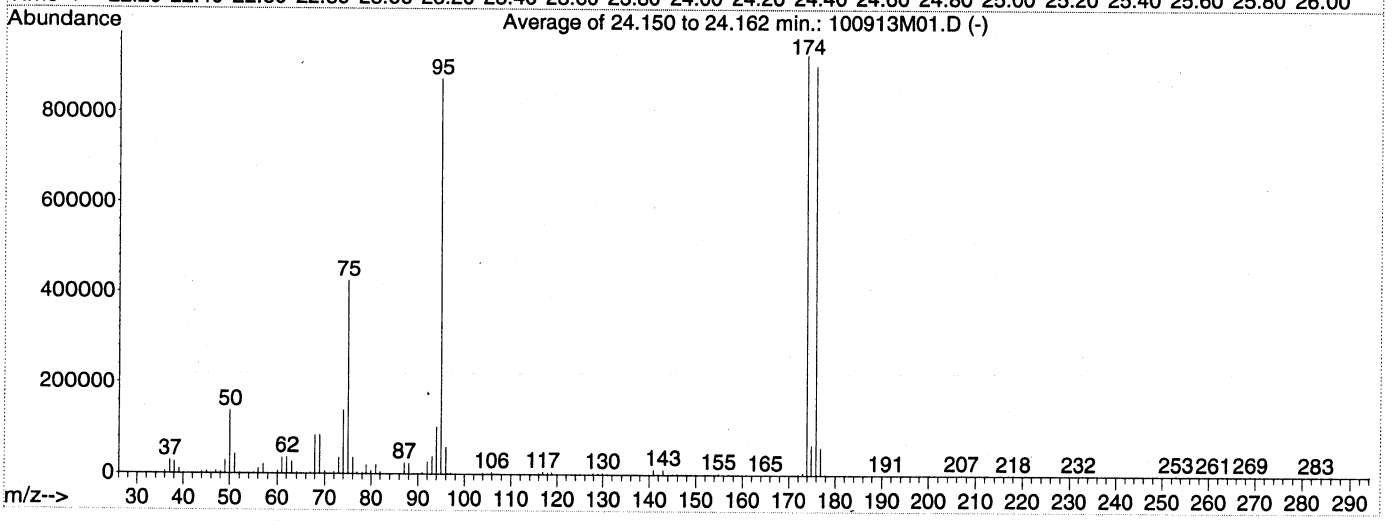
BFB

Data Path : C:\MSDChem\1\2013\Data\100913\
Data File : 100913M01.D
Acq On : 9 Oct 2013 1:45 pm
Operator : EM
Sample : S13J0XX-TUN1
Misc : BFB 1305020/IS 1311120/1341042
ALS Vial : 32 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Title : TO15
Last Update : Tue Oct 08 16:43:21 2013





AutoFind: Scans 3380, 3381, 3382; Background Corrected with Scan 3365

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	15.8	137821	PASS
75	95	30	66	48.6	425194	PASS
95	95	100	100	100.0	874730	PASS
96	95	5	9	6.8	59192	PASS
173	174	0.00	2	0.6	5378	PASS
174	95	50	120	106.3	930133	PASS
175	174	4	9	7.0	65480	PASS
176	174	93	101	97.3	905178	PASS
177	176	5	9	6.6	59630	PASS

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\2013\Data\100913\
Data File : 100913M02.D
Acq On : 9 Oct 2013 2:32 pm
Operator : EM
Sample : S13J0XX-CCV1
Misc : 10ppbv 1341042
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 09 15:25:21 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)
1	I	BROMOCHLOROMETHANE	1.000	1.000	0.0	101	0.00
2	T	Propene	0.453	0.451	0.4	106	0.00
3	T	Dichlorodifluoromethane	2.190	2.498	-14.1	122	0.00
4	T	1,2-Dichlorotetrafluoroetha	1.964	2.281	-16.1	123	0.00
5	T	Chloromethane	0.560	0.569	-1.6	104	0.00
6	T	Vinyl chloride	0.697	0.679	2.6	105	0.00
7	T	1,3-Butadiene	0.514	0.498	3.1	104	0.00
8	T	Bromomethane	0.739	0.712	3.7	104	0.00
9	T	Chloroethane	0.378	0.357	5.6	102	0.00
10	T	Bromoethene	0.836	0.769	8.0	99	0.00
11	T	Trichlorofluoromethane	2.751	2.941	-6.9	112	0.00
12	T	1,1,2-Trichloro-1,2,2-trifl	2.074	1.982	4.4	100	0.00
13	T	1,1-Dichloroethene	1.381	1.321	4.3	102	0.00
14	T	Acetone	1.110	1.111	-0.1	105	0.00
15	T	Carbon disulfide	2.008	1.805	10.1	97	0.00
16	T	2-Propanol	1.059	0.987	6.8	98	0.00
17	T	Allyl chloride	0.848	0.755	11.0	96	0.00
18	T	Dichloromethane	0.870	0.770	11.5	100	0.00
19	T	tert-Butyl methyl ether (MT	2.330	2.275	2.4	97	0.00
20	T	trans-1,2-Dichloroethene	1.165	1.071	8.1	99	0.00
21	T	Hexane	1.201	1.025	14.7	92	0.00
22	T	1,1-Dichloroethane	1.594	1.447	9.2	98	0.00
23	T	Vinyl acetate	1.617	1.470	9.1	95	0.00
24	T	cis-1,2-Dichloroethene	1.241	1.125	9.3	97	0.00
25	T	2-Butanone (MEK)	1.237	1.169	5.5	91	0.00
26	T	Ethyl acetate	1.472	1.418	3.7	97	0.00
27	T	Tetrahydrofuran	0.695	0.658	5.3	93	0.00
28	T	Chloroform	2.115	1.994	5.7	102	0.00
29	T	Cyclohexane	1.200	1.044	13.0	92	0.00
30	T	1,1,1-Trichloroethane	2.452	2.419	1.3	105	0.00
31	T	Carbon tetrachloride	2.776	2.790	-0.5	106	0.00
32	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	95	0.00
33	T	Benzene	0.603	0.554	8.1	92	0.00
34	T	2,2,4-Trimethylpentane	0.783	0.726	7.3	92	0.00
35	T	1,2-Dichloroethane	0.295	0.319	-8.1	107	0.00
36	T	Heptane	0.267	0.252	5.6	94	0.00
37	T	Trichloroethene	0.345	0.320	7.2	93	0.00
38	T	1,2-Dichloropropane	0.190	0.177	6.8	93	0.00
39	T	1,4-Dioxane	0.107	0.117	-9.3	107	0.00
40	T	Bromodichloromethane	0.447	0.462	-3.4	102	0.00
41	T	cis-1,3-Dichloropropene	0.340	0.325	4.4	94	0.00
42	T	4-Methyl-2-pentanone (MIBK)	0.298	0.337	-13.1	104	0.00
43	I	CHLOROBENZENE-d5	1.000	1.000	0.0	94	0.00
44	T	Toluene	0.918	0.865	5.8	91	0.00
45	T	trans-1,3-Dichloropropene	0.404	0.408	-1.0	97	0.00
46	T	1,1,2-Trichloroethane	0.301	0.286	5.0	92	0.00
47	T	Tetrachloroethene	0.599	0.585	2.3	94	0.00
48	T	2-Hexanone	0.337	0.396	-17.5	109	0.00
49	T	Chlorodibromomethane	0.628	0.657	-4.6	99	0.00

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\2013\Data\100913\
Data File : 100913M02.D
Acq On : 9 Oct 2013 2:32 pm
Operator : EM
Sample : S13J0XX-CCV1
Misc : 10ppbv 1341042
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 09 15:25:21 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
50	T	1,2-Dibromoethane (EDB)	0.487	0.483	0.8	96	0.00	
51	T	Chlorobenzene	0.810	0.790	2.5	93	0.00	
52	T	Ethylbenzene	1.227	1.256	-2.4	95	0.00	
53	T	m&p-Xylene	0.964	1.024	-6.2	96	0.00	
54	T	o-Xylene	0.974	1.050	-7.8	97	0.00	
55	T	Styrene	0.793	0.844	-6.4	94	0.00	
56	T	Bromoform	0.710	0.810	-14.1	101	0.00	
57	T	1,1,2,2-Tetrachloroethane	0.581	0.658	-13.3	100	0.00	
58	T	1,2,3-Trichloropropane	0.336	0.002	~~-99.4#~~	~~0#~~	~~0.00~~	Not included
59	T	4-Ethyltoluene	1.346	1.509	-12.1	97	0.00	
60	T	1,3,5-Trimethylbenzene	1.220	1.393	-14.2	98	0.00	
61	T	1,2,4-Trimethylbenzene	1.179	1.366	-15.9	99	0.00	
62	T	1,3-Dichlorobenzene	0.945	1.092	-15.6	99	0.00	
63	T	1,4-Dichlorobenzene	0.937	1.087	-16.0	99	0.00	
64	T	Benzyl chloride	0.922	1.091	-18.3	101	0.00	
65	T	1,2-Dichlorobenzene	0.869	1.024	-17.8	101	0.00	
66	T	1,2,4-Trichlorobenzene	0.918	1.095	-19.3	107	0.00	
67	T	Hexachlorobutadiene	1.028	1.246	-21.2	110	0.00	
68		Naphthalene	0.160	0.026	~~-83.8#~~	~~16#~~	~~0.00~~	not included

em 10/9/13

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

% Dev #67 HCB $= \frac{1.028 - 1.246}{1.028} \times 100 = 21.2\%$ ✓

RF #67 HCB $= \frac{2354143\ (20.8)}{3783025\ (10.3)} = 1.246$ ✓

em 10/9/13

00491

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\100913\
Data File : 100913M02.D
Acq On : 9 Oct 2013 2:32 pm
Operator : EM
Sample : S13J0XX-CCV1
Misc : 10ppbv 1341042
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 09 15:25:21 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	15.34	49	907003	18.80	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.37	114	4326925	20.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.31	117	3783025	20.80	ppbv	0.00

Target Compounds						Qvalue
2) Propene	4.14	41	232886	10.67	ppbv	97
3) Dichlorodifluoromethane	4.23	85	1217746	11.52	ppbv	100
4) 1,2-Dichlorotetrafluoroeth	4.59	85	1144643	12.08	ppbv	99
5) Chloromethane	4.78	50	282676	10.46	ppbv	98
6) Vinyl chloride	5.11	62	344008	10.23	ppbv	99
7) 1,3-Butadiene	5.21	54	245159	9.89	ppbv	96
8) Bromomethane	6.13	94	357106	10.02	ppbv	100
9) Chloroethane	6.46	64	179322	9.84	ppbv	100
10) Bromoethene	7.04	106	382419	9.49	ppbv	100
11) Trichlorofluoromethane	7.19	101	1489945	11.23	ppbv	100
12) 1,1,2-Trichloro-1,2,2-trif	9.01	151	889397	8.89	ppbv	99
13) 1,1-Dichloroethene	9.08	61	599400	8.99	ppbv	97
14) Acetone	9.57	43	568256	10.61	ppbv	95
15) Carbon disulfide	9.79	76	888701	9.18	ppbv	98
16) 2-Propanol	10.18	45	452562	8.85	ppbv	94
17) Allyl chloride	10.65	41	367872	9.00	ppbv	98
18) Dichloromethane	11.19	49	356898	8.50	ppbv	96
19) tert-Butyl methyl ether (M	11.92	73	1196557	10.65	ppbv	99
20) trans-1,2-Dichloroethene	11.95	61	490920	8.74	ppbv	97
21) Hexane	12.61	57	504681	8.71	ppbv	94
22) 1,1-Dichloroethane	13.32	63	684153	8.89	ppbv	99
23) Vinyl acetate	13.48	43	709208	9.09	ppbv	98
24) cis-1,2-Dichloroethene	14.79	61	548212	9.16	ppbv	96
25) 2-Butanone (MEK)	14.88	43	586792	9.83	ppbv	98
26) Ethyl acetate	14.95	43	711645	10.02	ppbv	97
27) Tetrahydrofuran	15.35	42	327148	9.76	ppbv	98
28) Chloroform	15.50	83	972079	9.53	ppbv	99
29) Cyclohexane	15.75	56	524111	9.05	ppbv	96
30) 1,1,1-Trichloroethane	15.80	97	1167170	9.87	ppbv	100
31) Carbon tetrachloride	16.06	117	1346202	10.05	ppbv	100
33) Benzene	16.55	78	1235456	9.47	ppbv	98
34) 2,2,4-Trimethylpentane	16.53	57	1648868	9.74	ppbv	97
35) 1,2-Dichloroethane	16.74	62	690577	10.81	ppbv	99
36) Heptane	16.92	43	571688	9.90	ppbv	98
37) Trichloroethene	17.79	130	712708	9.55	ppbv	98
38) 1,2-Dichloropropane	18.29	63	405195	9.87	ppbv	94
39) 1,4-Dioxane	18.47	88	268873	11.57	ppbv	96
40) Bromodichloromethane	18.75	83	1060317	10.95	ppbv	100
41) cis-1,3-Dichloropropene	19.53	75	724036	9.85	ppbv	95
42) 4-Methyl-2-pentanone (MIBK	19.76	43	766704	11.90	ppbv	97
44) Toluene	20.02	91	1637390	9.81	ppbv	99
45) trans-1,3-Dichloropropene	20.48	75	816013	11.11	ppbv	96
46) 1,1,2-Trichloroethane	20.79	97	561980	10.27	ppbv	95
47) Tetrachloroethene	20.88	166	1106944	10.16	ppbv	99
48) 2-Hexanone	21.12	43	742177	12.10	ppbv	95
49) Chlorodibromomethane	21.39	129	1243205	10.89	ppbv	99
50) 1,2-Dibromoethane (EDB)	21.63	107	940304	10.62	ppbv	100
51) Chlorobenzene	22.36	112	1524225	10.35	ppbv	98
52) Ethylbenzene	22.45	91	2399565	10.76	ppbv	98
53) m&p-Xylene	22.64	91	3949738	22.52	ppbv	97

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\100913\
Data File : 100913M02.D
Acq On : 9 Oct 2013 2:32 pm
Operator : EM
Sample : S13J0XX-CCV1
Misc : 10ppbv 1341042
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 09 15:25:21 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

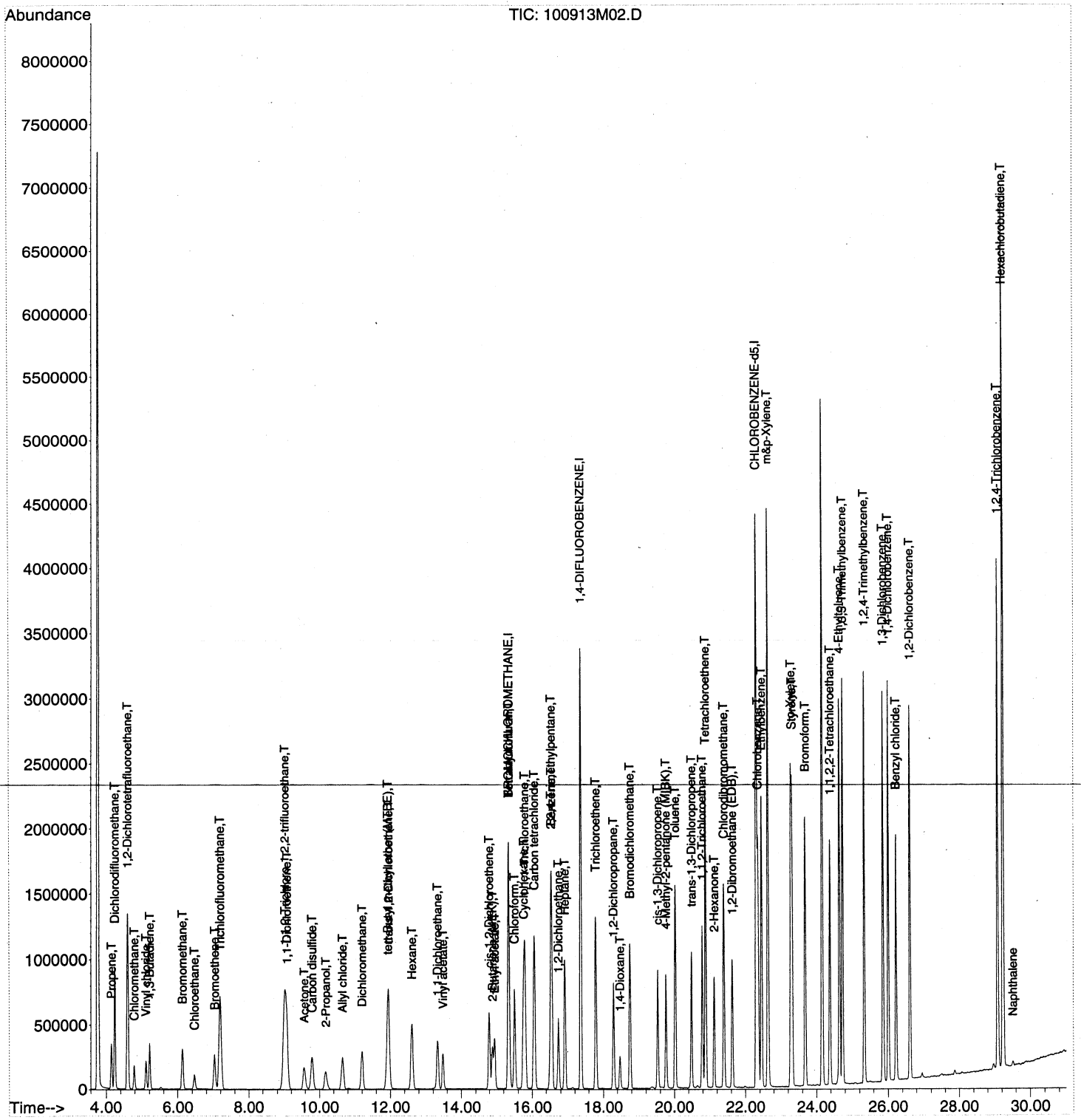
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
54) o-Xylene	23.28	91	2044201	11.54	ppbv	97
55) Styrene	23.32	104	1596565	11.07	ppbv	97
56) Bromoform	23.68	173	1517212	11.75	ppbv	99
57) 1,1,2,2-Tetrachloroethane	24.37	83	1268281	12.00	ppbv	99
59) 4-Ethyltoluene	24.64	105	2883127	11.77	ppbv	98
60) 1,3,5-Trimethylbenzene	24.73	105	2635731	11.88	ppbv	97
61) 1,2,4-Trimethylbenzene	25.34	105	2658908	12.40	ppbv	98
62) 1,3-Dichlorobenzene	25.87	146	2046458	11.91	ppbv	99
63) 1,4-Dichlorobenzene	26.01	146	2056790	12.08	ppbv	100
64) Benzyl chloride	26.22	91	2043963	12.19	ppbv	98
65) 1,2-Dichlorobenzene	26.61	146	1936960	12.25	ppbv	100
66) 1,2,4-Trichlorobenzene	29.09	180	2032453	12.17	ppbv	100
67) Hexachlorobutadiene	29.24	225	2334143	12.49	ppbv	100
68) Naphthalene	29.51	128	41882	1.44	ppbv	95

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\100913\
Data File : 100913M02.D
Acq On : 9 Oct 2013 2:32 pm
Operator : EM
Sample : S13J0XX-CCV1
Misc : 10ppbv 1341042
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 09 15:25:21 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration



LCS REPORT

Instrument Name: Morpheus
Sample Name: B13J0XX-BS1
Misc Info: 10ppbv 1341042
Date Acquired: 10/9/2013 15:19
QLast Update: Tue Oct 08 16:43:21 2013
Operator: EM

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	BROMOCHLOROMETHANE	15.33	#N/A	18.80	#N/A	70.0	130.0	#N/A
2)	Propene	4.14	10.70	10.60	99%	56.0	155.0	pass
3)	Dichlorodifluoromethane	4.23	10.10	10.40	103%	67.0	141.0	pass
4)	1,2-Dichlorotetrafluoroethane	4.59	10.40	10.85	104%	68.0	147.0	pass
5)	Chloromethane	4.78	10.30	10.57	103%	64.0	141.0	pass
6)	Vinyl chloride	5.11	10.50	10.35	99%	65.0	141.0	pass
7)	1,3-Butadiene	5.21	10.20	9.86	97%	61.0	154.0	pass
8)	Bromomethane	6.14	10.40	9.96	96%	71.0	132.0	pass
9)	Chloroethane	6.46	10.40	9.73	94%	70.0	134.0	pass
10)	Bromoethene	7.04	10.30	9.59	93%	71.0	146.0	pass
11)	Trichlorofluoromethane	7.19	10.50	10.80	103%	72.0	141.0	pass
12)	1,1,2-Trichloro-1,2,2-trifluoroethane	9.01	9.30	8.73	94%	68.0	134.0	pass
13)	1,1-Dichloroethene	9.08	9.40	8.85	94%	81.0	127.0	pass
14)	Acetone	9.57	10.60	9.88	93%	77.0	150.0	pass
15)	Carbon disulfide	9.79	10.20	9.19	90%	75.0	138.0	pass
16)	2-Propanol	10.17	9.50	8.53	90%	71.0	142.0	pass
17)	Allyl chloride	10.65	10.10	8.99	89%	84.0	143.0	pass
18)	Dichloromethane	11.20	9.60	8.35	87%	74.0	116.0	pass
19)	tert-Butyl methyl ether (MTBE)	11.92	10.90	10.47	96%	79.0	131.0	pass
20)	trans-1,2-Dichloroethene	11.96	9.50	8.60	91%	82.0	136.0	pass
21)	Hexane	12.60	10.20	8.91	87%	78.0	139.0	pass
22)	1,1-Dichloroethane	13.33	9.80	8.80	90%	82.0	123.0	pass
23)	Vinyl acetate	13.48	10.00	8.95	90%	70.0	139.0	pass
24)	cis-1,2-Dichloroethene	14.79	10.10	9.03	89%	83.0	126.0	pass
25)	2-Butanone (MEK)	14.88	10.40	10.06	97%	76.0	138.0	pass
26)	Ethyl acetate	14.95	10.40	9.72	94%	83.0	136.0	pass
27)	Tetrahydrofuran	15.35	10.30	9.39	91%	74.0	132.0	pass
28)	Chloroform	15.51	10.10	9.33	92%	81.0	127.0	pass
29)	Cyclohexane	15.75	10.40	9.14	88%	77.0	139.0	pass
30)	1,1,1-Trichloroethane	15.80	10.00	9.57	96%	80.0	131.0	pass
31)	Carbon tetrachloride	16.06	10.00	9.75	97%	77.0	136.0	pass
32)	1,4-DIFLUOROBENZENE	17.38	#N/A	20.00	#N/A	70.0	130.0	#N/A
33)	Benzene	16.55	10.30	9.51	92%	77.0	131.0	pass
34)	2,2,4-Trimethylpentane	16.53	10.50	9.82	93%	68.0	152.0	pass
35)	1,2-Dichloroethane	16.74	10.00	10.31	103%	70.0	149.0	pass
36)	Heptane	16.92	10.50	9.87	94%	62.0	159.0	pass
37)	Trichloroethene	17.79	10.30	9.53	92%	81.0	125.0	pass
38)	1,2-Dichloropropane	18.29	10.60	9.77	92%	74.0	135.0	pass
40)	Bromodichloromethane	18.75	10.60	10.61	100%	69.0	150.0	pass
41)	cis-1,3-Dichloropropene	19.53	10.30	9.80	95%	77.0	129.0	pass
42)	4-Methyl-2-pentanone (MIBK)	19.76	10.50	11.38	108%	59.0	147.0	pass
43)	CHLOROBENZENE-d5	22.31	#N/A	20.80	#N/A	70.0	130.0	#N/A
44)	Toluene	20.02	10.40	9.91	95%	79.0	126.0	pass
45)	trans-1,3-Dichloropropene	20.48	11.00	10.99	100%	81.0	137.0	pass
46)	1,1,2-Trichloroethane	20.79	10.80	10.39	96%	76.0	124.0	pass
47)	Tetrachloroethene	20.88	10.40	10.18	98%	80.0	122.0	pass
48)	2-Hexanone	21.12	10.30	11.72	114%	55.0	149.0	pass

50)	1,2-Dibromoethane (EDB)	21.63	10.70	10.62	99%	78.0	124.0	pass
51)	Chlorobenzene	22.36	10.60	10.45	99%	76.0	120.0	pass
52)	Ethylbenzene	22.45	10.50	10.69	102%	75.0	125.0	pass
53)	m&p-Xylene	22.64	21.20	22.30	105%	75.0	128.0	pass
54)	o-Xylene	23.28	10.70	11.41	107%	74.0	128.0	pass
55)	Styrene	23.32	10.40	11.01	106%	69.0	122.0	pass
56)	Bromoform	23.68	10.30	11.43	111%	72.0	142.0	pass
57)	1,1,2,2-Tetrachloroethane	24.38	10.60	11.54	109%	70.0	130.0	pass
59)	4-Ethyltoluene	24.64	10.50	11.58	110%	69.0	138.0	pass
61)	1,2,4-Trimethylbenzene	25.34	10.70	12.16	114%	65.0	129.0	pass
62)	1,3-Dichlorobenzene	25.87	10.30	11.71	114%	62.0	130.0	pass
63)	1,4-Dichlorobenzene	26.01	10.40	11.91	115%	61.0	131.0	pass
64)	Benzyl chloride	26.22	10.30	11.82	115%	61.0	153.0	pass
65)	1,2-Dichlorobenzene	26.61	10.40	11.87	114%	60.0	130.0	pass
66)	1,2,4-Trichlorobenzene	29.09	10.20	11.47	112%	38.0	128.0	pass
67)	Hexachlorobutadiene	29.24	10.30	11.75	114%	37.0	124.0	pass

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\100913\
Data File : 100913M03.D
Acq On : 9 Oct 2013 3:19 pm
Operator : EM
Sample : B13J0XX-BS1
Misc : 10ppbv 1341042
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 09 18:24:58 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	15.33	49	996940	18.80 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.38	114	4769778	20.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.31	117	4130082	20.80 ppbv	0.00

Conc. #2 Propen

Target Compounds					Qvalue
2) Propene	4.14	41	254444	10.60 ppbv	99
3) Dichlorodifluoromethane	4.23	85	1207677	10.40 ppbv	99
4) 1,2-Dichlorotetrafluoroeth	4.59	85	1129933	10.85 ppbv	99
5) Chloromethane	4.78	50	313911	10.57 ppbv	99
6) Vinyl chloride	5.11	62	382521	10.35 ppbv	100
7) 1,3-Butadiene	5.21	54	268700	9.86 ppbv	98
8) Bromomethane	6.14	94	390277	9.96 ppbv	99
9) Chloroethane	6.46	64	194862	9.73 ppbv	99
10) Bromoethene	7.04	106	424813	9.59 ppbv	99
11) Trichlorofluoromethane	7.19	101	1575273	10.80 ppbv	100
12) 1,1,2-Trichloro-1,2,2-trif	9.01	151	959575	8.73 ppbv	99
13) 1,1-Dichloroethene	9.08	61	648397	8.85 ppbv	97
14) Acetone	9.57	43	581424	9.88 ppbv	96
15) Carbon disulfide	9.79	76	977950	9.19 ppbv	99
16) 2-Propanol	10.17	45	479375	8.53 ppbv	97
17) Allyl chloride	10.65	41	404317	8.99 ppbv	99
18) Dichloromethane	11.20	49	385271	8.35 ppbv	98
19) tert-Butyl methyl ether (M	11.92	73	1293578	10.47 ppbv	99
20) trans-1,2-Dichloroethene	11.96	61	531253	8.60 ppbv	98
21) Hexane	12.60	57	567683	8.91 ppbv	97
22) 1,1-Dichloroethane	13.33	63	743891	8.80 ppbv	99
23) Vinyl acetate	13.48	43	767442	8.95 ppbv	98
24) cis-1,2-Dichloroethene	14.79	61	594087	9.03 ppbv	97
25) 2-Butanone (MEK)	14.88	43	659893	10.06 ppbv	98
26) Ethyl acetate	14.95	43	759282	9.72 ppbv	99
27) Tetrahydrofuran	15.35	42	346003	9.39 ppbv	100
28) Chloroform	15.51	83	1046182	9.33 ppbv	99
29) Cyclohexane	15.75	56	581842	9.14 ppbv	98
30) 1,1,1-Trichloroethane	15.80	97	1244005	9.57 ppbv	100
31) Carbon tetrachloride	16.06	117	1434908	9.75 ppbv	100
33) Benzene	16.55	78	1368065	9.51 ppbv	99
34) 2,2,4-Trimethylpentane	16.53	57	1832785	9.82 ppbv	98
35) 1,2-Dichloroethane	16.74	62	726142	10.31 ppbv	100
36) Heptane	16.92	43	628331	9.87 ppbv	99
37) Trichloroethene	17.79	130	783726	9.53 ppbv	99
38) 1,2-Dichloropropane	18.29	63	442204	9.77 ppbv	97
39) 1,4-Dioxane	18.48	88	293969	11.48 ppbv	98
40) Bromodichloromethane	18.75	83	1132560	10.61 ppbv	100
41) cis-1,3-Dichloropropene	19.53	75	793891	9.80 ppbv	97
42) 4-Methyl-2-pentanone (MIBK	19.76	43	808489	11.38 ppbv	98
44) Toluene	20.02	91	1806070	9.91 ppbv	99
45) trans-1,3-Dichloropropene	20.48	75	881374	10.99 ppbv	98
46) 1,1,2-Trichloroethane	20.79	97	620962	10.39 ppbv	95
47) Tetrachloroethene	20.88	166	1210670	10.18 ppbv	99
48) 2-Hexanone	21.12	43	785084	11.72 ppbv	97
49) Chlorodibromomethane	21.39	129	1339096	10.74 ppbv	99
50) 1,2-Dibromoethane (EDB)	21.63	107	1026022	10.62 ppbv	100
51) Chlorobenzene	22.36	112	1679966	10.45 ppbv	99
52) Ethylbenzene	22.45	91	2602669	10.69 ppbv	99
53) m&p-Xylene	22.64	91	4270076	22.30 ppbv	98

$= \frac{254444 (18.8}{996940 (0.453} = 10.59$ ppbv

Em 10/9/

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\100913\
Data File : 100913M03.D
Acq On : 9 Oct 2013 3:19 pm
Operator : EM
Sample : B13J0XX-BS1
Misc : 10ppbv 1341042
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 09 18:24:58 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
54) o-Xylene	23.28	91	2206993	11.41 ppbv	98
55) Styrene	23.32	104	1732512	11.01 ppbv	98
56) Bromoform	23.68	173	1611130	11.43 ppbv	99
57) 1,1,2,2-Tetrachloroethane	24.38	83	1330884	11.54 ppbv	99
59) 4-Ethyltoluene	24.64	105	3094561	11.58 ppbv	99
60) 1,3,5-Trimethylbenzene	24.73	105	2806760	11.59 ppbv	98
61) 1,2,4-Trimethylbenzene	25.34	105	2846813	12.16 ppbv	98
62) 1,3-Dichlorobenzene	25.87	146	2195689	11.71 ppbv	100
63) 1,4-Dichlorobenzene	26.01	146	2215533	11.91 ppbv	100
64) Benzyl chloride	26.22	91	2162984	11.82 ppbv	98
65) 1,2-Dichlorobenzene	26.61	146	2049814	11.87 ppbv	99
66) 1,2,4-Trichlorobenzene	29.09	180	2090355	11.47 ppbv	100
67) Hexachlorobutadiene	29.24	225	2396638	11.75 ppbv	99
68) Naphthalene	29.52	128	41315	1.30 ppbv #	93

not included
em 10/9/13

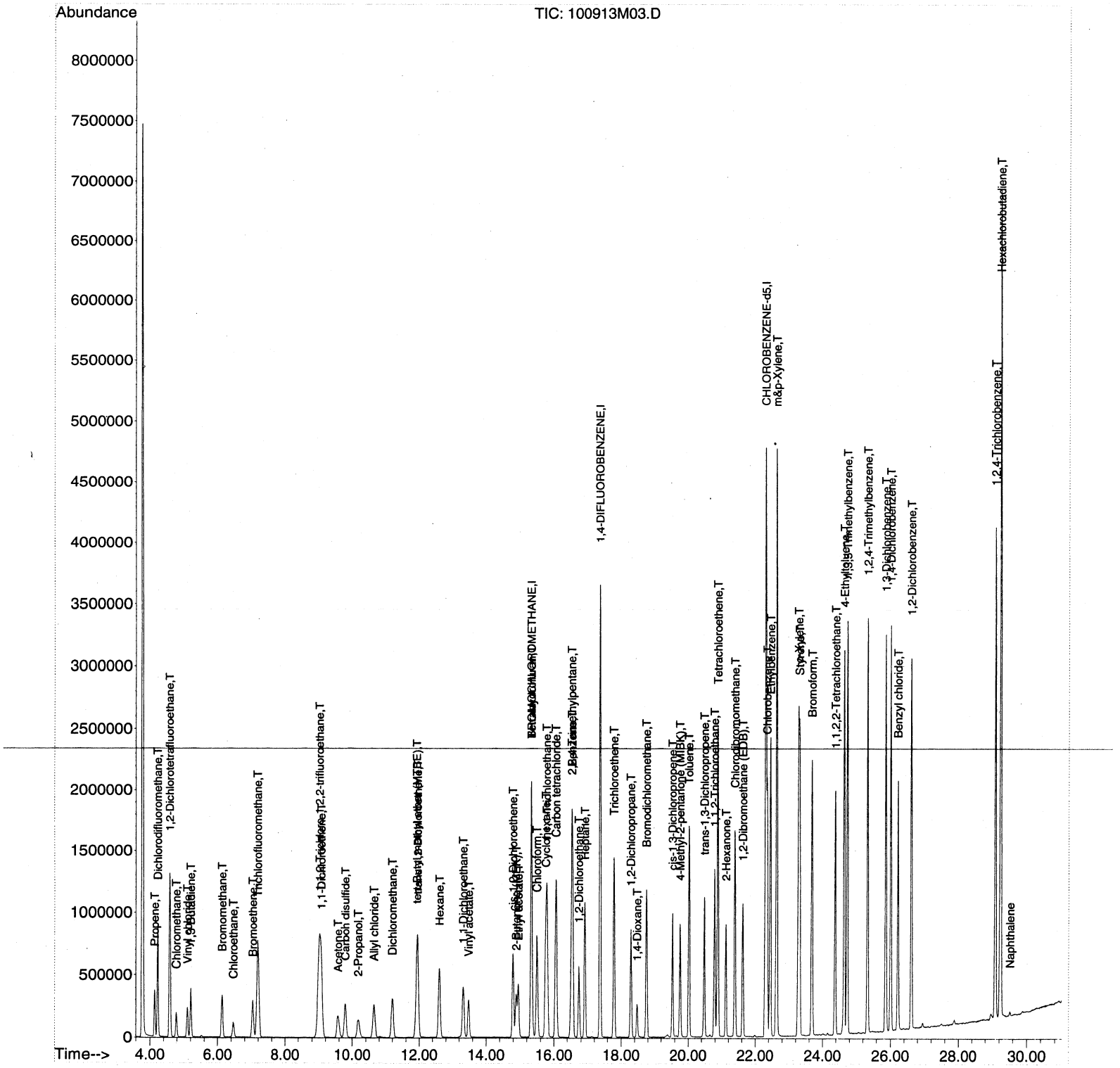
(#) = qualifier out of range (m) = manual integration (+) = signals summed

00138

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\100913\
Data File : 100913M03.D
Acq On : 9 Oct 2013 3:19 pm
Operator : EM
Sample : B13J0XX-BS1
Misc : 10ppbv 1341042
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Oct 09 18:24:58 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration



Sample Name: S13J0XX-CRL1
Misc Info: 1.0ppbv 1341043
Date Acquired: 10/9/2013 16:03
QLast Update: Tue Oct 08 16:43:21 2013
Operator: EM

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS	TYPE
2)	Propene	4.14	1.07	1.08	101%	60.0	140.0	pass	Subset
3)	Dichlorodifluoromethane	4.23	1.01	1.06	105%	60.0	140.0	pass	Primary
4)	1,2-Dichlorotetrafluoroethane	4.59	1.04	1.20	116%	60.0	140.0	pass	Primary
5)	Chloromethane	4.78	1.03	1.00	97%	60.0	140.0	pass	Primary
6)	Vinyl chloride	5.11	1.05	1.00	95%	60.0	140.0	pass	Primary
7)	1,3-Butadiene	5.21	1.02	0.96	94%	60.0	140.0	pass	Subset
8)	Bromomethane	6.13	1.04	1.00	96%	60.0	140.0	pass	Primary
9)	Chloroethane	6.47	1.04	0.98	94%	60.0	140.0	pass	Primary
10)	Bromoethene	7.04	1.03	0.93	90%	60.0	140.0	pass	Subset
11)	Trichlorofluoromethane	7.18	1.05	1.00	95%	60.0	140.0	pass	Primary
12)	1,1,2-Trichloro-1,2,2-trifluoroethane	9.01	0.93	0.82	88%	60.0	140.0	pass	Primary
13)	1,1-Dichloroethene	9.08	0.94	0.84	90%	60.0	140.0	pass	Primary
14)	Acetone	9.59	1.06	1.02	96%	60.0	140.0	pass	Subset
15)	Carbon disulfide	9.79	1.02	0.90	88%	60.0	140.0	pass	Subset
16)	2-Propanol	10.19	0.95	0.69	73%	60.0	140.0	pass	Subset
17)	Allyl chloride	10.64	1.01	0.86	85%	60.0	140.0	pass	Subset
18)	Dichloromethane	11.20	0.96	1.01	105%	60.0	140.0	pass	Primary
19)	tert-Butyl methyl ether (MTBE)	11.93	1.09	0.84	77%	60.0	140.0	pass	Subset
20)	trans-1,2-Dichloroethene	11.95	0.95	0.85	89%	60.0	140.0	pass	Subset
21)	Hexane	12.61	1.02	0.81	80%	60.0	140.0	pass	Subset
22)	1,1-Dichloroethane	13.32	0.98	0.86	88%	60.0	140.0	pass	Primary
23)	Vinyl acetate	13.48	1.00	0.72	72%	60.0	140.0	pass	Subset
24)	cis-1,2-Dichloroethene	14.79	1.01	0.86	85%	60.0	140.0	pass	Primary
25)	2-Butanone (MEK)	14.89	1.04	0.79	76%	60.0	140.0	pass	Subset
26)	Ethyl acetate	14.95	1.04	0.72	69%	60.0	140.0	pass	Subset
27)	Tetrahydrofuran	15.36	1.03	0.80	77%	60.0	140.0	pass	Subset
28)	Chloroform	15.50	1.01	0.91	90%	60.0	140.0	pass	Primary
29)	Cyclohexane	15.75	1.04	0.85	81%	60.0	140.0	pass	Subset
30)	1,1,1-Trichloroethane	15.80	1.00	0.90	90%	60.0	140.0	pass	Primary
31)	Carbon tetrachloride	16.06	1.00	0.88	88%	60.0	140.0	pass	Primary
33)	Benzene	16.55	1.03	0.93	90%	60.0	140.0	pass	Primary
34)	2,2,4-Trimethylpentane	16.53	1.05	0.88	84%	60.0	140.0	pass	Subset
35)	1,2-Dichloroethane	16.74	1.00	0.97	97%	60.0	140.0	pass	Primary
36)	Heptane	16.92	1.05	0.88	84%	60.0	140.0	pass	Subset
37)	Trichloroethene	17.79	1.03	0.90	87%	60.0	140.0	pass	Primary
38)	1,2-Dichloropropane	18.29	1.06	0.96	91%	60.0	140.0	pass	Primary
39)	1,4-Dioxane	18.49	1.06	0.79	75%	60.0	140.0	pass	Subset
40)	Bromodichloromethane	18.75	1.06	0.96	91%	60.0	140.0	pass	Subset
41)	cis-1,3-Dichloropropene	19.53	1.03	0.88	85%	60.0	140.0	pass	Primary
42)	4-Methyl-2-pentanone (MIBK)	19.76	1.05	0.83	79%	60.0	140.0	pass	Subset
43)	CHLOROBENZENE-d5	22.31	20.80	20.80	100%	60.0	140.0	pass	Subset
45)	trans-1,3-Dichloropropene	20.48	1.10	1.00	91%	60.0	140.0	pass	Primary
46)	1,1,2-Trichloroethane	20.79	1.08	1.02	94%	60.0	140.0	pass	Primary
47)	Tetrachloroethene	20.88	1.04	0.96	93%	60.0	140.0	pass	Primary
48)	2-Hexanone	21.12	1.03	0.88	85%	60.0	140.0	pass	Subset
49)	Chlorodibromomethane	21.39	1.04	0.92	88%	60.0	140.0	pass	Subset
50)	1,2-Dibromoethane (EDB)	21.63	1.07	0.98	91%	60.0	140.0	pass	Primary
51)	Chlorobenzene	22.36	1.06	0.96	91%	60.0	140.0	pass	Primary
52)	Ethylbenzene	22.45	1.05	0.90	86%	60.0	140.0	pass	Primary
53)	m&p-Xylene	22.63	2.12	1.81	85%	60.0	140.0	pass	Primary
54)	o-Xylene	23.28	1.07	0.89	83%	60.0	140.0	pass	Primary
55)	Styrene	23.32	1.04	0.79	76%	60.0	140.0	pass	Primary
56)	Bromoform	23.68	1.03	0.80	78%	60.0	140.0	pass	Subset

57)	1,1,2,2-Tetrachloroethane	24.37	1.06	0.89	84%	60.0	140.0	pass	Primary
58)	~~1,2,3-Trichloropropane~~	~~24.48~~	~~0.95~~	~~0.01~~	~~1%~~	~~60.0~~	~~140.0~~	~~FAIL~~	~~Subset~~ not incl.
59)	4-Ethyltoluene	24.64	1.05	0.82	78%	60.0	140.0	pass	Subset
60)	1,3,5-Trimethylbenzene	24.73	1.04	0.83	79%	60.0	140.0	pass	Primary -em 10/9/13
61)	1,2,4-Trimethylbenzene	25.34	1.07	0.85	79%	60.0	140.0	pass	Primary
62)	1,3-Dichlorobenzene	25.86	1.03	0.86	83%	60.0	140.0	pass	Primary
63)	1,4-Dichlorobenzene	26.01	1.04	0.86	83%	60.0	140.0	pass	Subset

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\100913\
Data File : 100913M04.D
Acq On : 9 Oct 2013 4:03 pm
Operator : EM
Sample : S13J0XX-CRL1
Misc : 1.0ppbv 1341043
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Oct 09 16:35:24 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) BROMOCHLOROMETHANE	15.33	49	1014673	18.80	ppbv		0.00
32) 1,4-DIFLUOROBENZENE	17.37	114	4854863	20.00	ppbv		0.00
43) CHLOROBENZENE-d5	22.31	117	3980378	20.80	ppbv		0.00

Target Compounds							Qvalue
2) Propene	4.14	41	26463	1.08	ppbv		96
3) Dichlorodifluoromethane	4.23	85	125063	1.06	ppbv		99
4) 1,2-Dichlorotetrafluoroeth	4.59	85	127692	1.20	ppbv		99
5) Chloromethane	4.78	50	30078	1.00	ppbv		94
6) Vinyl chloride	5.11	62	37694	1.00	ppbv		99
7) 1,3-Butadiene	5.21	54	26729	0.96	ppbv		99
8) Bromomethane	6.13	94	39714	1.00	ppbv		99
9) Chloroethane	6.47	64	19926	0.98	ppbv		95
10) Bromoethene	7.04	106	41776	0.93	ppbv		100
11) Trichlorofluoromethane	7.18	101	147801	1.00	ppbv		99
12) 1,1,2-Trichloro-1,2,2-trif	9.01	151	91453	0.82	ppbv		100
13) 1,1-Dichloroethene	9.08	61	62883	0.84	ppbv		99
14) Acetone	9.59	43	61291	1.02	ppbv		99
15) Carbon disulfide	9.79	76	97446	0.90	ppbv		94
16) 2-Propanol	10.19	45	39659	0.69	ppbv		84
17) Allyl chloride	10.64	41	39209	0.86	ppbv		96
18) Dichloromethane	11.20	49	47377	1.01	ppbv		99
19) tert-Butyl methyl ether (M	11.93	73	106240	0.84	ppbv		99
20) trans-1,2-Dichloroethene	11.95	61	53136	0.85	ppbv		100
21) Hexane	12.61	57	52718	0.81	ppbv		94
22) 1,1-Dichloroethane	13.32	63	74115	0.86	ppbv		100
23) Vinyl acetate	13.48	43	62635	0.72	ppbv		98
24) cis-1,2-Dichloroethene	14.79	61	57528	0.86	ppbv		98
25) 2-Butanone (MEK)	14.89	43	52806	0.79	ppbv		99
26) Ethyl acetate	14.95	43	57232	0.72	ppbv		96
27) Tetrahydrofuran	15.36	42	29935	0.80	ppbv		99
28) Chloroform	15.50	83	103989	0.91	ppbv		99
29) Cyclohexane	15.75	56	54841	0.85	ppbv		96
30) 1,1,1-Trichloroethane	15.80	97	119511	0.90	ppbv		99
31) Carbon tetrachloride	16.06	117	132532	0.88	ppbv		98
33) Benzene	16.55	78	135958	0.93	ppbv		98
34) 2,2,4-Trimethylpentane	16.53	57	167928	0.88	ppbv		97
35) 1,2-Dichloroethane	16.74	62	69523	0.97	ppbv		99
36) Heptane	16.92	43	56994	0.88	ppbv		97
37) Trichloroethene	17.79	130	75250	0.90	ppbv		99
38) 1,2-Dichloropropane	18.29	63	44351	0.96	ppbv		94
39) 1,4-Dioxane	18.49	88	20716	0.79	ppbv		97
40) Bromodichloromethane	18.75	83	104558	0.96	ppbv		98
41) cis-1,3-Dichloropropene	19.53	75	72525	0.88	ppbv		84
42) 4-Methyl-2-pentanone (MIBK	19.76	43	59719	0.83	ppbv		96
44) Toluene	20.02	91	162082	0.92	ppbv		100
45) trans-1,3-Dichloropropene	20.48	75	77588	1.00	ppbv		96
46) 1,1,2-Trichloroethane	20.79	97	58550	1.02	ppbv		98
47) Tetrachloroethene	20.88	166	110342	0.96	ppbv		99
48) 2-Hexanone	21.12	43	56673	0.88	ppbv		97
49) Chlorodibromomethane	21.39	129	110015	0.92	ppbv		99
50) 1,2-Dibromoethane (EDB)	21.63	107	90886	0.98	ppbv		98
51) Chlorobenzene	22.36	112	149409	0.96	ppbv	#	80
52) Ethylbenzene	22.45	91	211627	0.90	ppbv		99
53) m&p-Xylene	22.63	91	333730	1.81	ppbv		98

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\100913\
Data File : 100913M04.D
Acq On : 9 Oct 2013 4:03 pm
Operator : EM
Sample : S13J0XX-CRL1
Misc : 1.0ppbv 1341043
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Oct 09 16:35:24 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

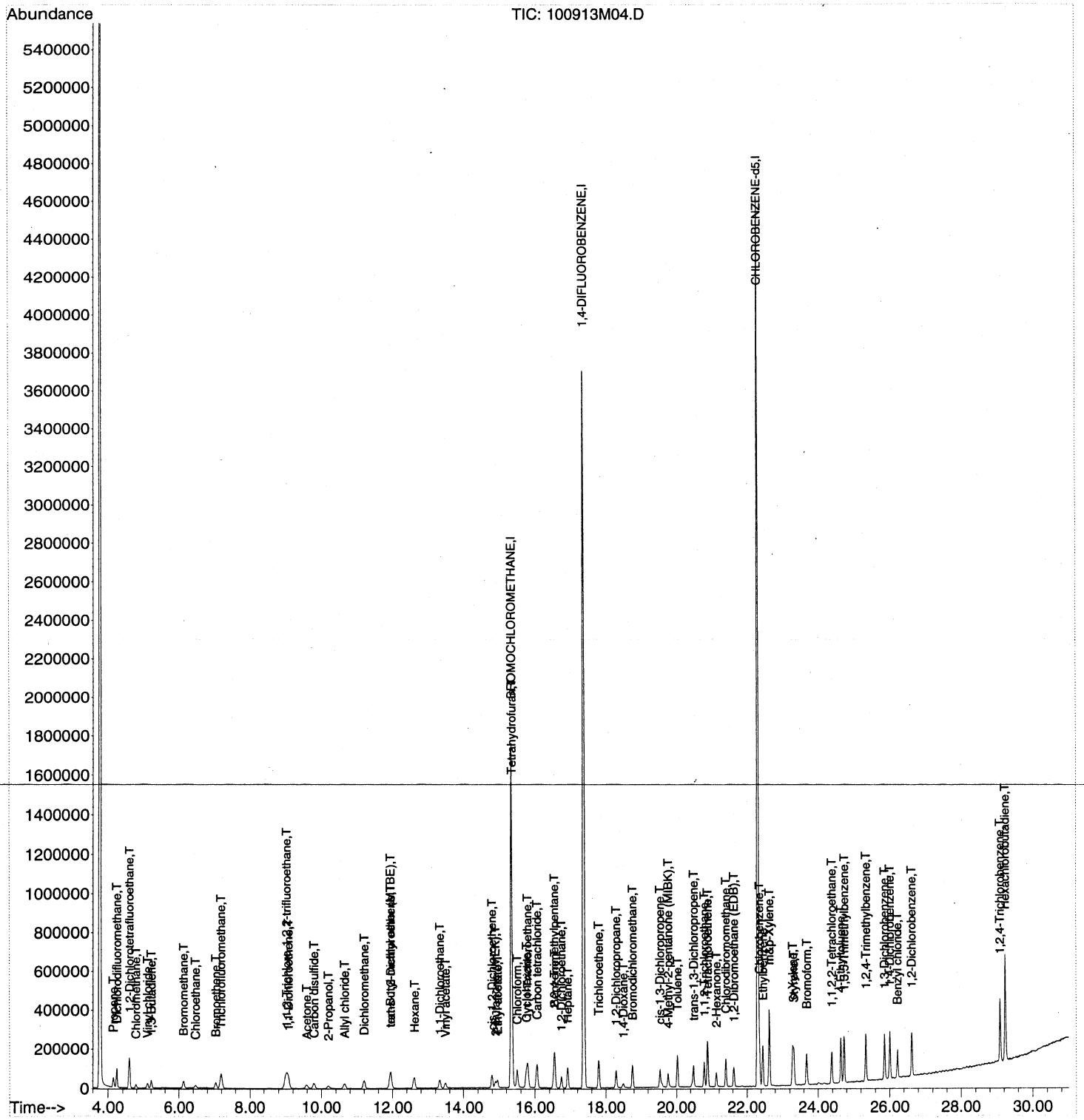
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
54) o-Xylene	23.28	91	166541	0.89 ppbv	96
55) Styrene	23.32	104	120508	0.79 ppbv	94
56) Bromoform	23.68	173	108679	0.80 ppbv	98
57) 1,1,2,2-Tetrachloroethane	24.37	83	98536	0.89 ppbv	97
59) 4-Ethyltoluene	24.64	105	211505	0.82 ppbv	99
60) 1,3,5-Trimethylbenzene	24.73	105	192582	0.83 ppbv	98
61) 1,2,4-Trimethylbenzene	25.34	105	191834	0.85 ppbv	97
62) 1,3-Dichlorobenzene	25.86	146	155060	0.86 ppbv	99
63) 1,4-Dichlorobenzene	26.01	146	154457	0.86 ppbv	99
64) Benzyl chloride	26.22	91	147836	0.84 ppbv	97
65) 1,2-Dichlorobenzene	26.61	146	144345	0.87 ppbv	98
66) 1,2,4-Trichlorobenzene	29.09	180	159868	0.91 ppbv	98
67) Hexachlorobutadiene	29.24	225	182659	0.93 ppbv	99

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\100913\
Data File : 100913M04.D
Acq On : 9 Oct 2013 4:03 pm
Operator : EM
Sample : S13J0XX-CRL1
Misc : 1.0ppbv 1341043
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Oct 09 16:35:24 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M13.D
Acq On : 9 Oct 2013 11:23 pm
Operator : EM
Sample : BLANK CAN 7244
Misc : BLANK CAN 7244
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 10 09:39:01 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	15.33	49	901065	18.80 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.37	114	4117481	20.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.31	117	3547483	20.80 ppbv	0.00

Target Compounds					Qvalue
45) ~~trans-1,3-Dichloropropene~~	~~20.44~~	~~75~~	~~42434~~	~~0.62 ppbv~~	~~# 49~~

Column bleed
EM 10/11/13

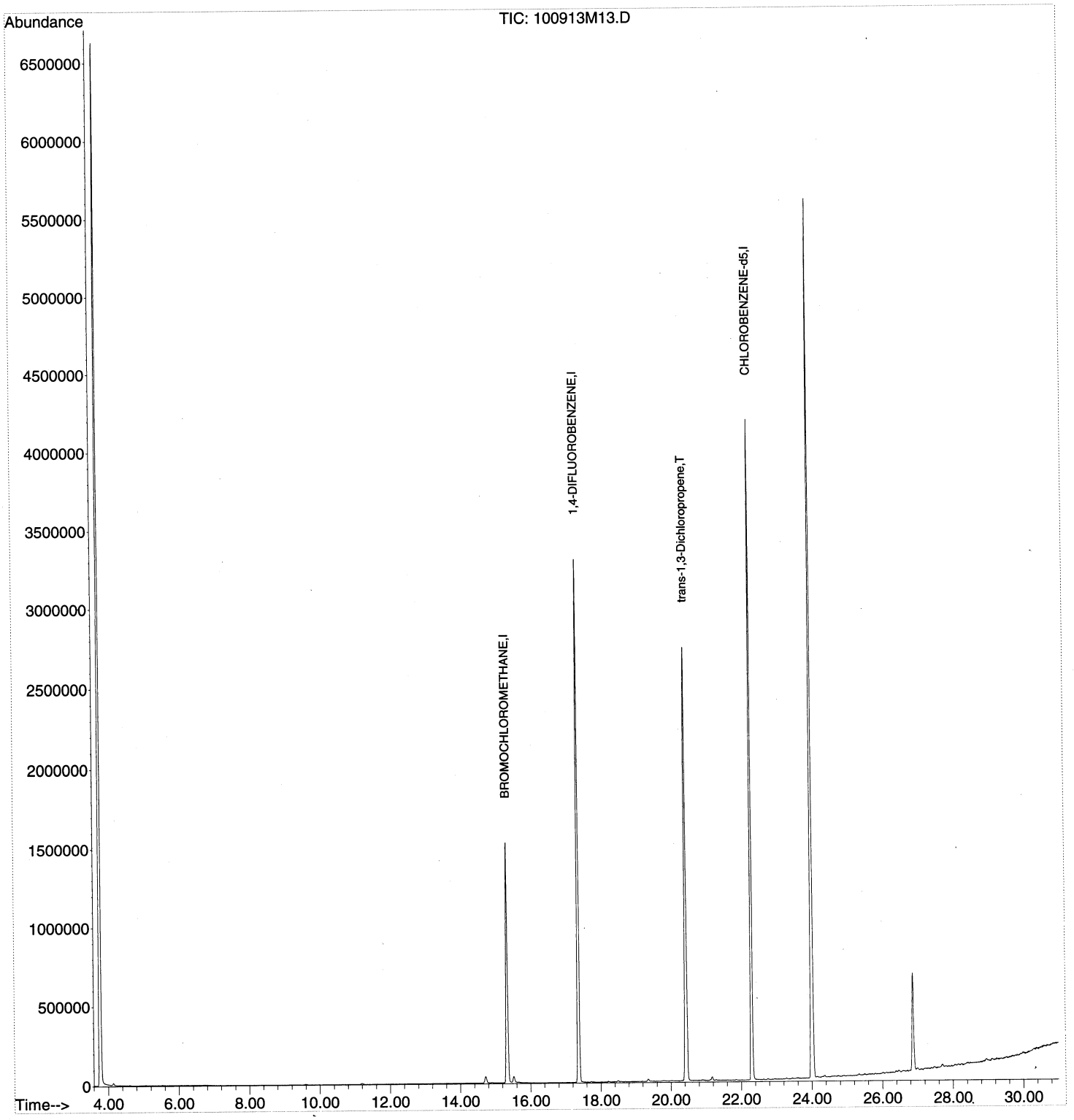
(#) = qualifier out of range (m) = manual integration (+) = signals summed

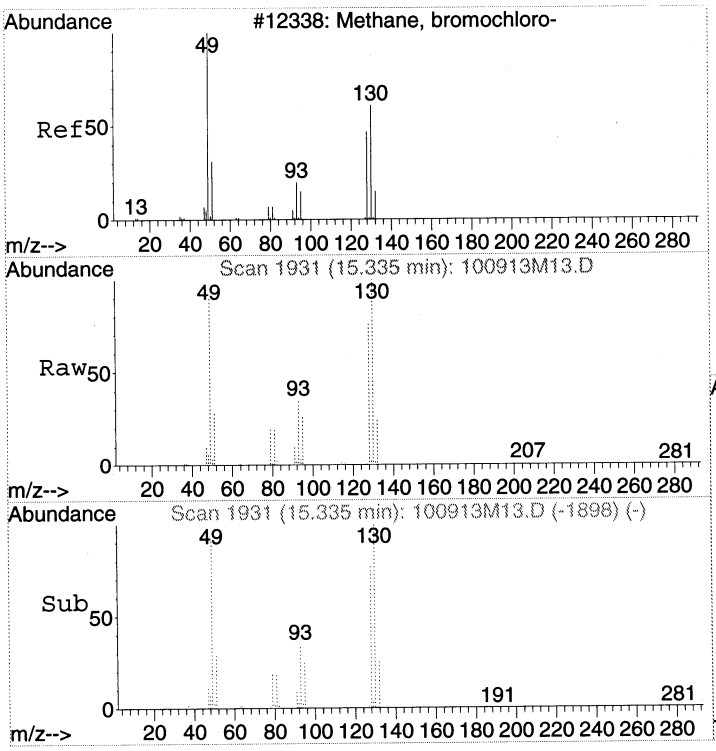
00115

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M13.D
Acq On : 9 Oct 2013 11:23 pm
Operator : EM
Sample : BLANK CAN 7244
Misc : BLANK CAN 7244
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Oct 10 09:39:01 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

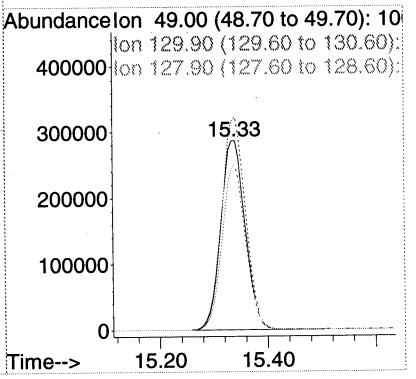


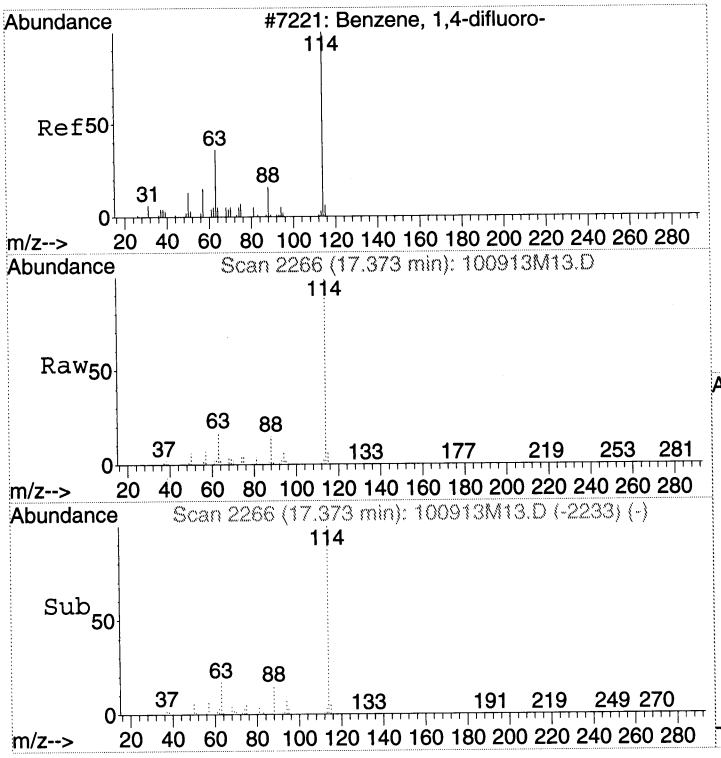


#1
BROMOCHLOROMETHANE
Concen: 18.80 ppbv
RT: 15.33 min Scan# 1931
Delta R.T. 0.00 min
Lab File: 100913M13.D
Acq: 9 Oct 2013 11:23 pm

Tgt Ion: 49 Resp: 901065

Ion	Ratio	Lower	Upper
49	100		
130	109.2	97.9	137.9
128	84.5	70.6	110.6

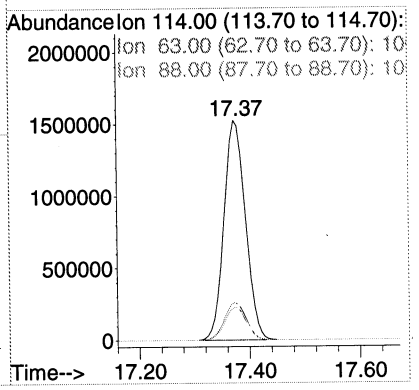


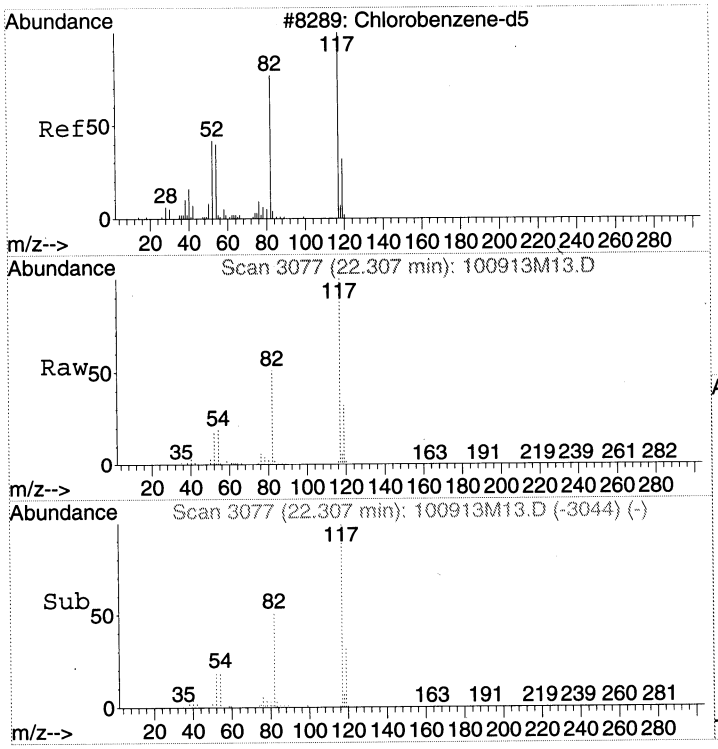


#32
1,4-DIFLUOROBENZENE
Concen: 20.00 ppbv
RT: 17.37 min Scan# 2266
Delta R.T. 0.00 min
Lab File: 100913M13.D
Acq: 9 Oct 2013 11:23 pm

Tgt Ion:114 Resp: 4117481

Ion	Ratio	Lower	Upper
114	100		
63	17.4	0.0	35.8
88	15.1	0.0	34.6

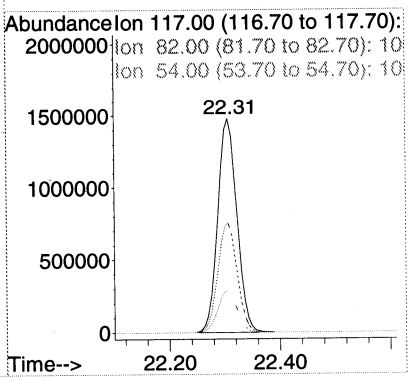


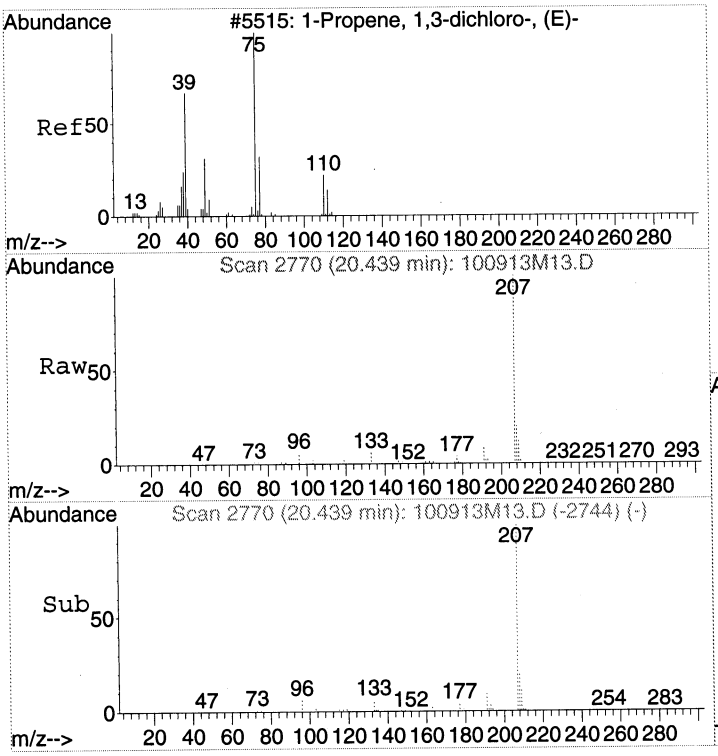


#43
CHLOROBENZENE-d5
Concen: 20.80 ppbv
RT: 22.31 min Scan# 3077
Delta R.T. 0.00 min
Lab File: 100913M13.D
Acq: 9 Oct 2013 11:23 pm

Tgt Ion:117 Resp: 3547483

Ion	Ratio	Lower	Upper
117	100		
82	51.7	28.9	68.9
54	19.8	0.0	36.9

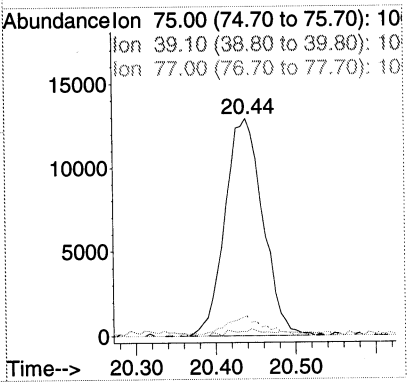




#45
trans-1,3-Dichloropropene
Concen: 0.62 ppbv
RT: 20.44 min Scan# 2770
Delta R.T. -0.04 min
Lab File: 100913M13.D
Acq: 9 Oct 2013 11:23 pm

Tgt Ion: 75 Resp: 42434

Ion	Ratio	Lower	Upper
75	100		
39	4.1	20.1	60.1#
77	7.9	11.5	51.5#



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M13.D
Acq On : 9 Oct 2013 11:23 pm
Operator : EM
Sample : BLANK CAN 7244
Misc : BLANK CAN 7244
ALS Vial : 12 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Title : TO15

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	15.341	1917	1932	1949	rBV	1521611	4677310	28.59%	9.225%
2	17.373	2253	2266	2280	rBV	3300341	8977597	54.88%	17.706%
3	20.439	2754	2770	2789	rBV	2730986	8676681	53.04%	17.112%
4	22.307	3066	3077	3093	rBV	4175298	10148998	62.04%	20.016%
5	24.016	3344	3358	3373	rBV	5580725	16358382	100.00%	32.262%
6	26.875	3817	3828	3840	rBV2	612196	1865135	11.40%	3.678%

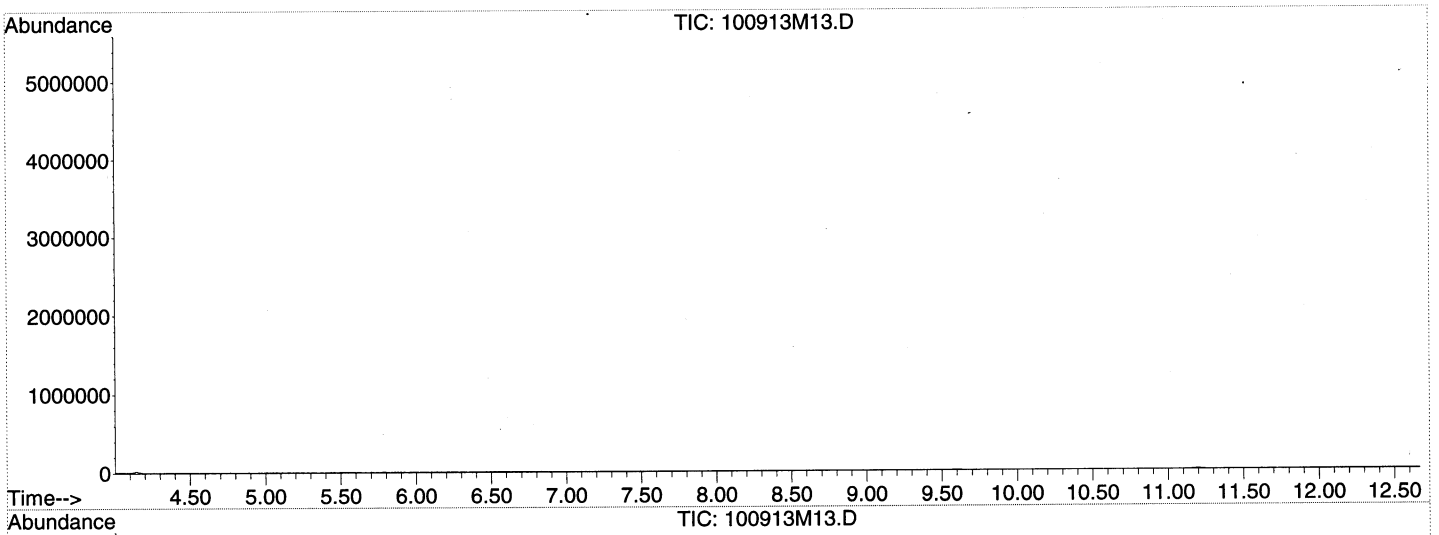
Sum of corrected areas: 50704103

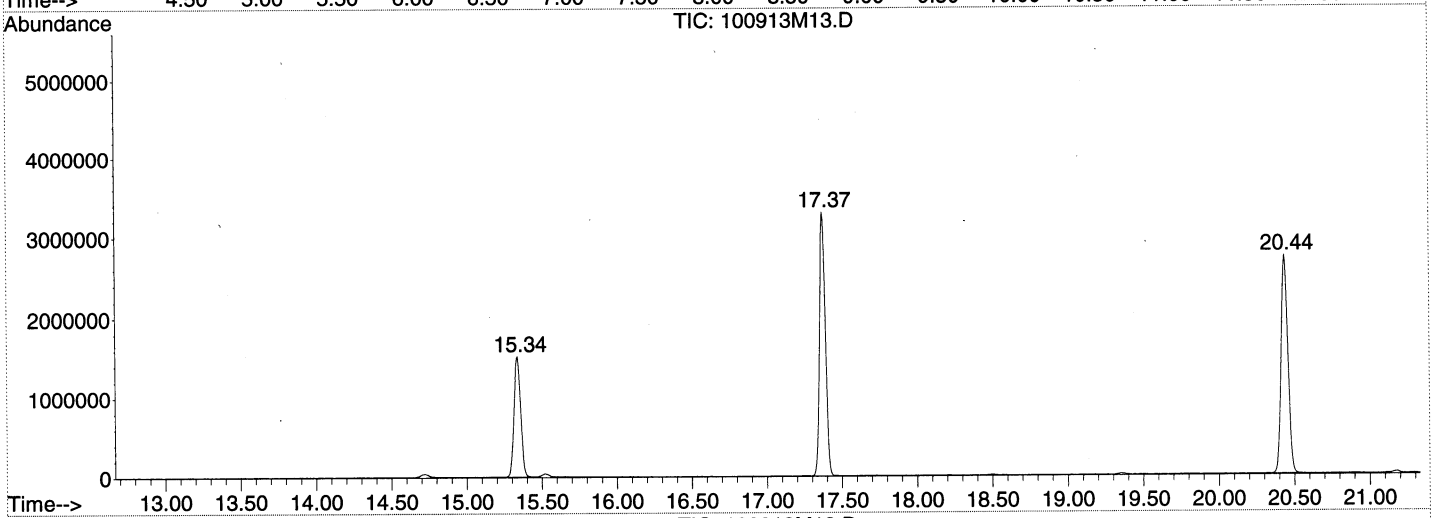
LSC Report - Integrated Chromatogram

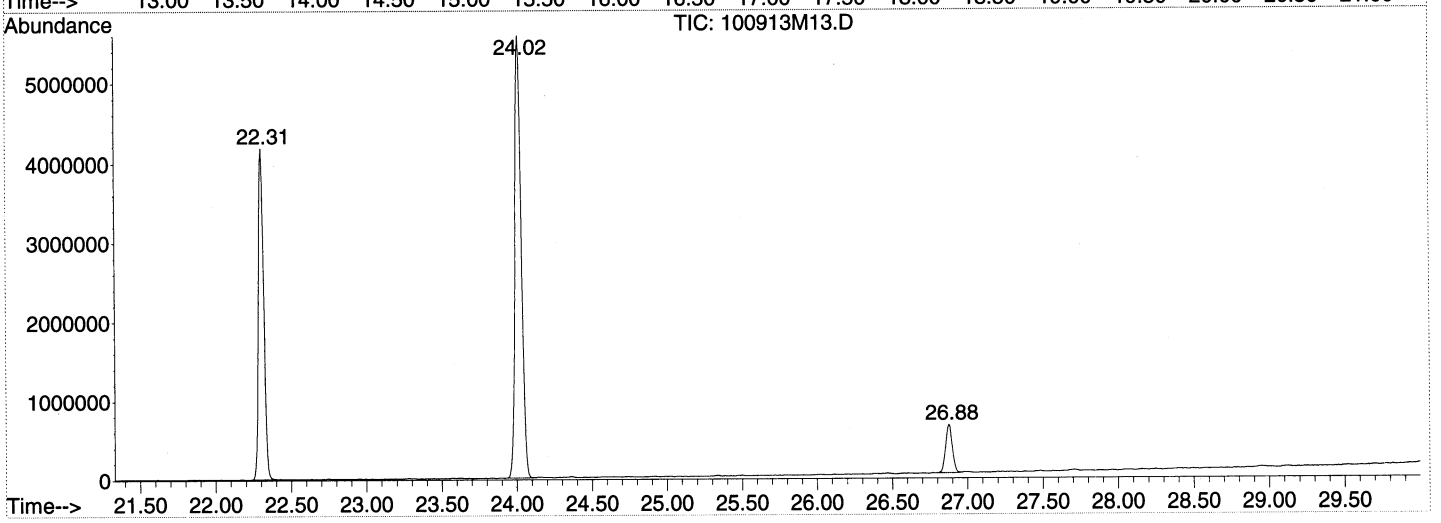
Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M13.D
Acq On : 9 Oct 2013 11:23 pm
Operator : EM
Sample : BLANK CAN 7244
Misc : BLANK CAN 7244
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M13.D
Acq On : 9 Oct 2013 11:23 pm
Operator : EM
Sample : BLANK CAN 7244
Misc : BLANK CAN 7244
ALS Vial : 12 Sample Multiplier: 1

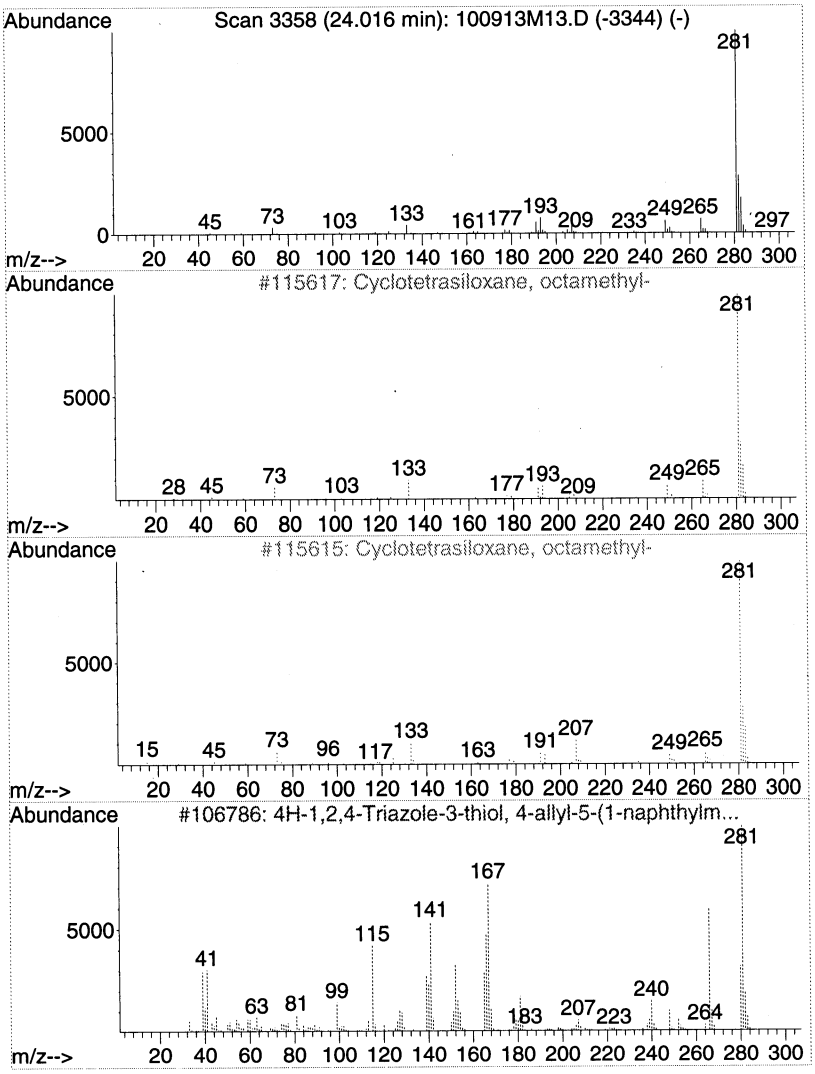
Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15

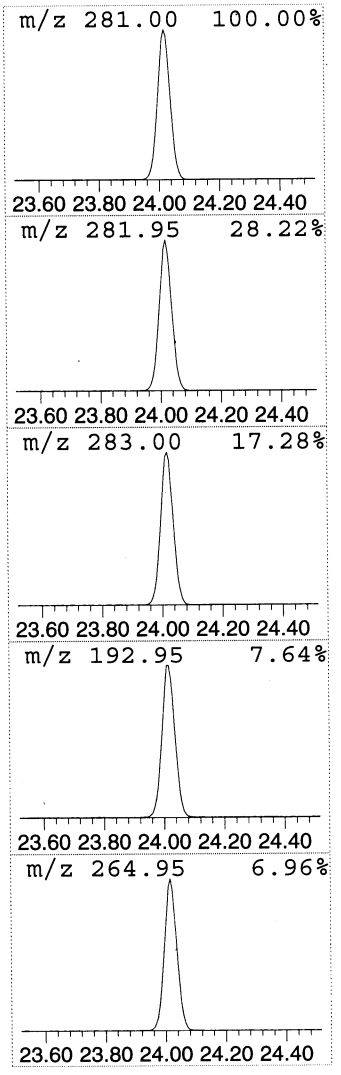
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 1 Cyclotetrasiloxane, octamet... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
24.02	33.53 ppbv	16358400	CHLOROBENZENE-d5	22.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	91
2	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	78
3	4H-1,2,4-Triazole-3-thiol, 4-all...	281	C16H15N3S	031803-13-1	53
4	5H-Naphtho[2,3-c]carbazole, 5-me...	281	C21H15N	100025-44-3	50
5	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	49





00451

Library Search Compound Report

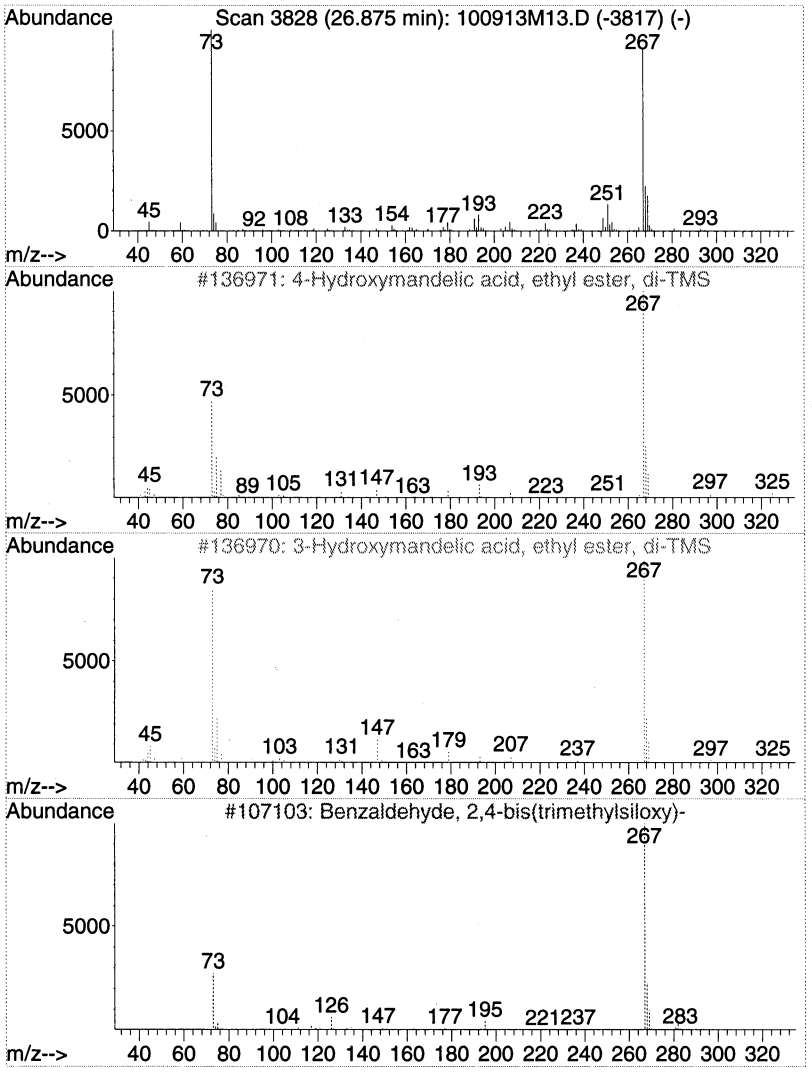
```
Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M13.D
Acq On    :  9 Oct 2013  11:23 pm
Operator  : EM
Sample    : BLANK CAN 7244
Misc      : BLANK CAN 7244
ALS Vial  : 12   Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title  : TO15

TIC Library    : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P
```

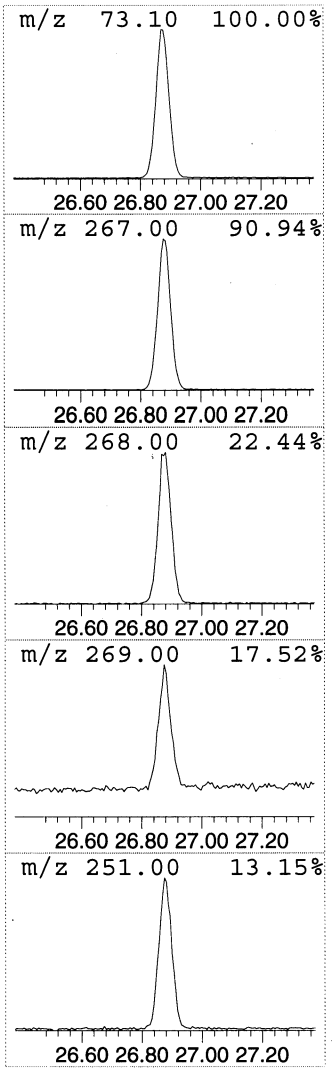
****

Peak Number 2 4-Hydroxymandelic acid, eth... Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
26.88	3.82 ppbv	1865140	CHLOROBENZENE-d5	22.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	4-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-53-3	72
2	3-Hydroxymandelic acid, ethyl es...	340	C16H28O4Si2	1000071-88-9	72
3	Benzaldehyde, 2,4-bis(trimethyls...	282	C13H22O3Si2	033617-38-8	56
4	p-Trimethylsilyloxyphenyl-(trime...	398	C18H34O4Si3	1000079-05-1	50
5	p-Trimethylsilyloxyphenyl-bis(tr...	370	C17H34O3Si3	1000079-08-1	50





Tentatively Identified Compound (LSC) summary

Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M13.D
Acq On : 9 Oct 2013 11:23 pm
Operator : EM
Sample : BLANK CAN 7244
Misc : BLANK CAN 7244
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
Cyclotetrasiloxan...	24.02	33.5	ppbv	16358400	3	22.31	10149000	20.8
4-Hydroxymandelic...	26.88	3.8	ppbv	1865140	3	22.31	10149000	20.8

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M14.D
Acq On : 10 Oct 2013 12:12 am
Operator : EM
Sample : BLANK CAN 7338
Misc : BLANK CAN 7338
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Oct 10 09:39:12 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	15.33	49	922350	18.80 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.37	114	4174971	20.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.31	117	3507901	20.80 ppbv	0.00

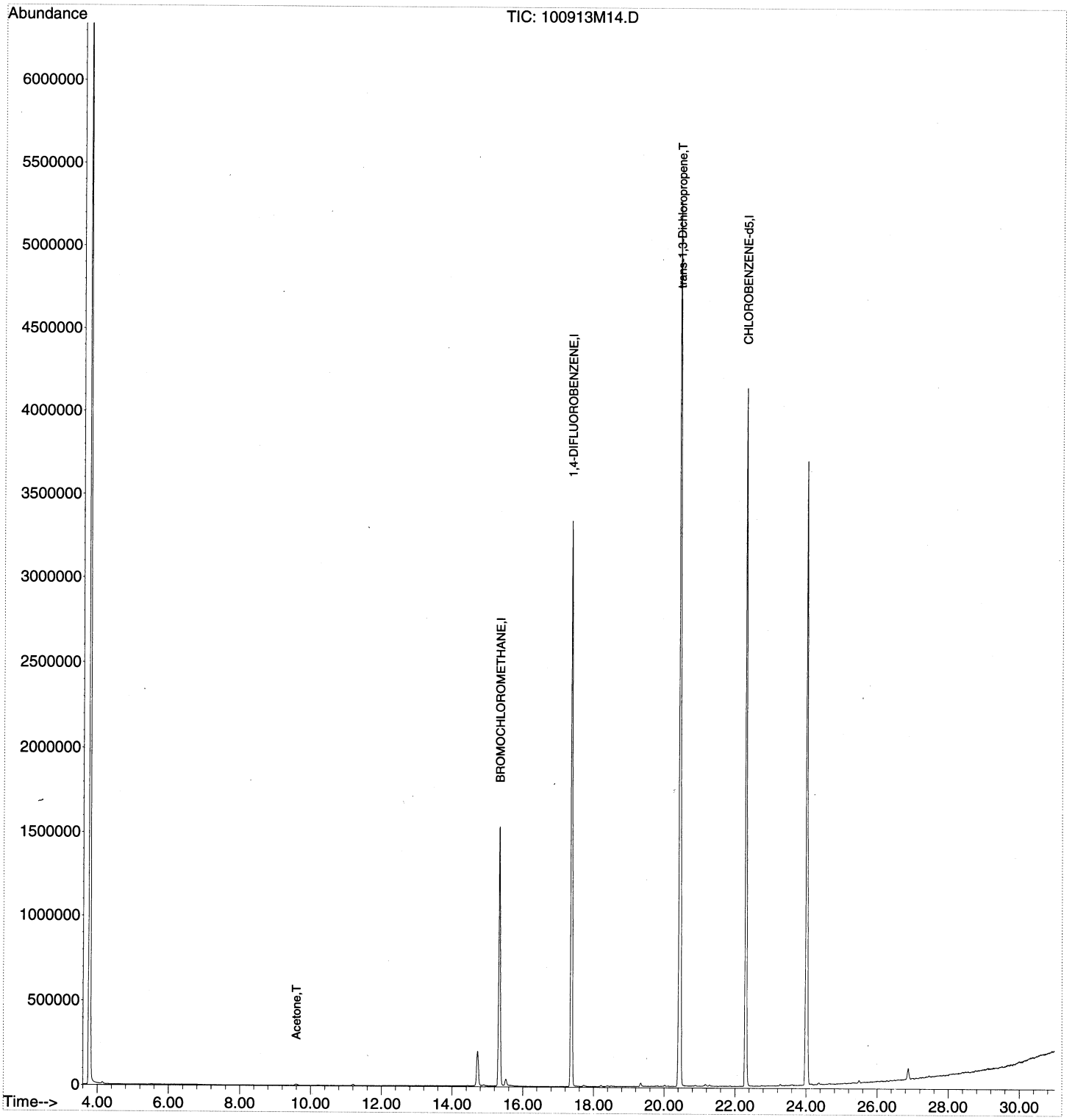
Target Compounds					Qvalue	
14) Acetone	9.60	43	26899	0.49 ppbv	97	not target
~~45) trans-1,3-Dichloropropene~~	~~20.43~~	~~75~~	~~78789~~	~~1.16 ppbv #~~	~~45~~	~~em 10/9/13~~

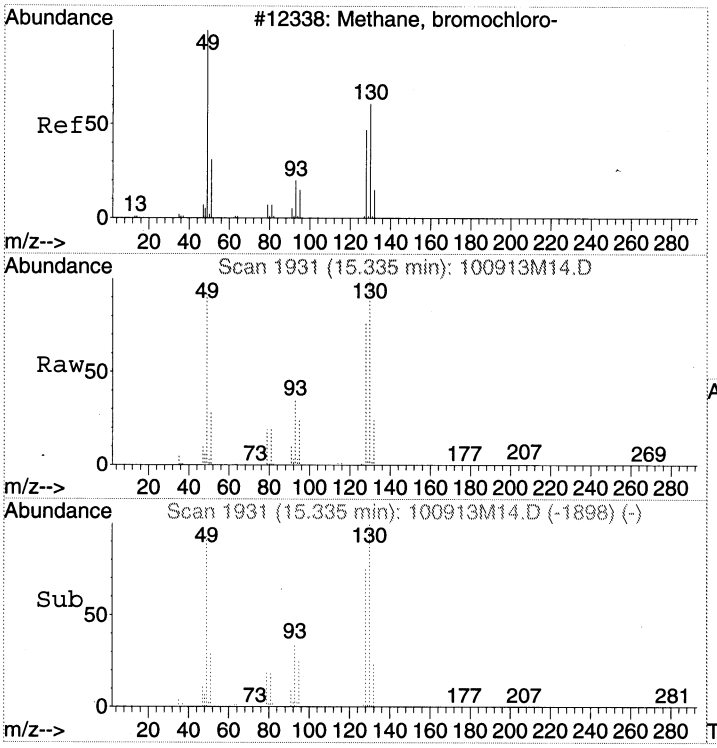
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M14.D
Acq On : 10 Oct 2013 12:12 am
Operator : EM
Sample : BLANK CAN 7338
Misc : BLANK CAN 7338
ALS Vial : 41 Sample Multiplier: 1

Quant Time: Oct 10 09:39:12 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

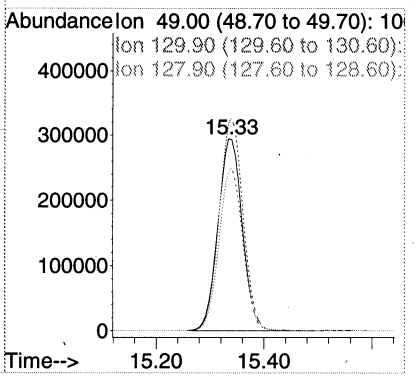


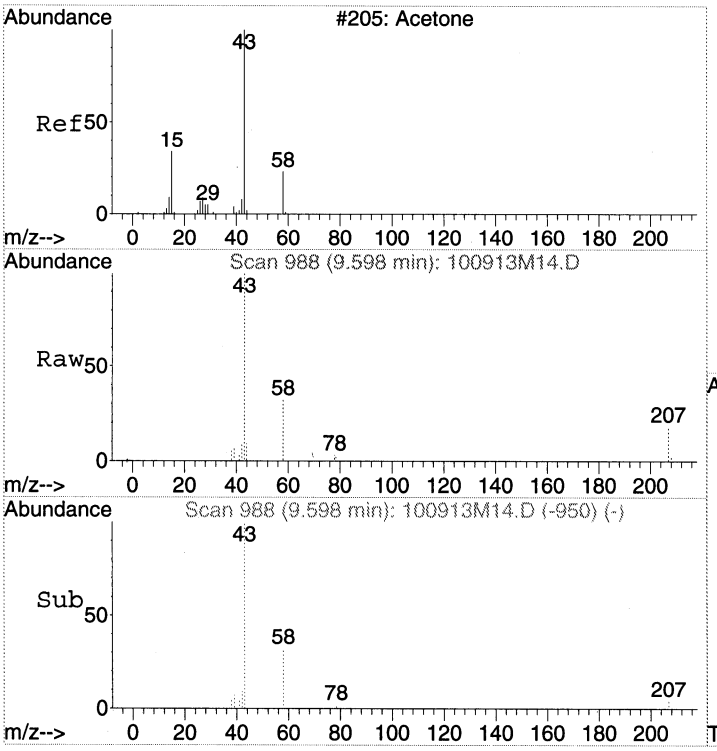


#1
BROMOCHLOROMETHANE
Concen: 18.80 ppbv
RT: 15.33 min Scan# 1931
Delta R.T. -0.00 min
Lab File: 100913M14.D
Acq: 10 Oct 2013 12:12 am

Tgt Ion: 49 Resp: 922350

Ion	Ratio	Lower	Upper
49	100		
130	108.9	97.9	137.9
128	83.6	70.6	110.6

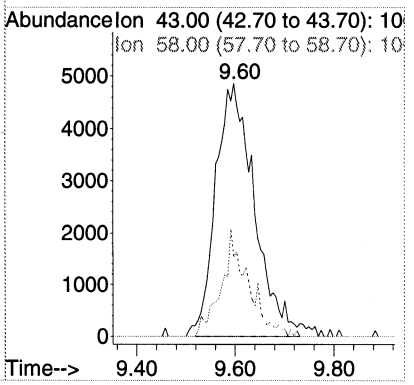


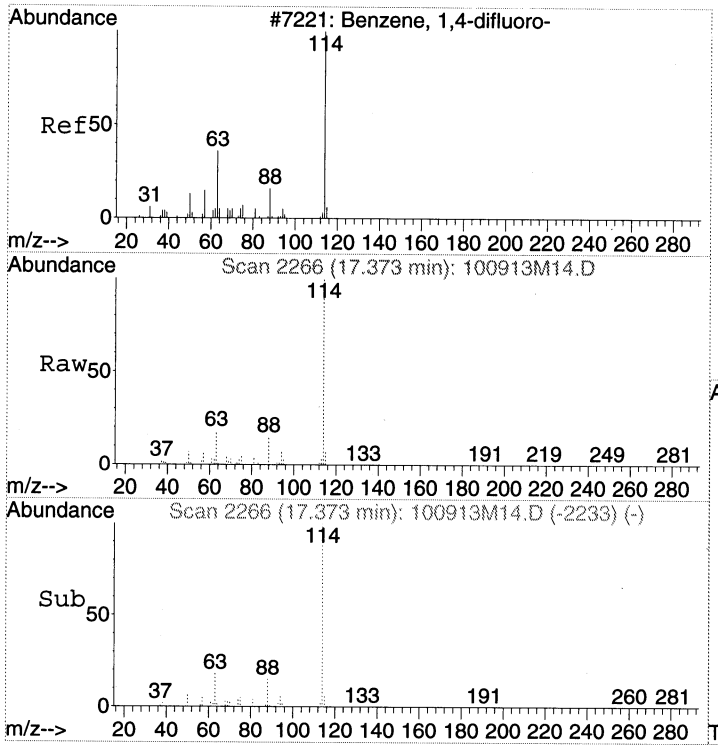


#14
Acetone
Concen: 0.49 ppbv
RT: 9.60 min Scan# 988
Delta R.T. 0.03 min
Lab File: 100913M14.D
Acq: 10 Oct 2013 12:12 am

Tgt Ion: 43 Resp: 26899

Ion	Ratio	Lower	Upper
43	100		
58	29.1	11.0	51.0

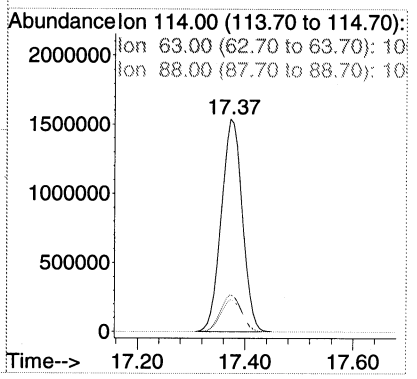


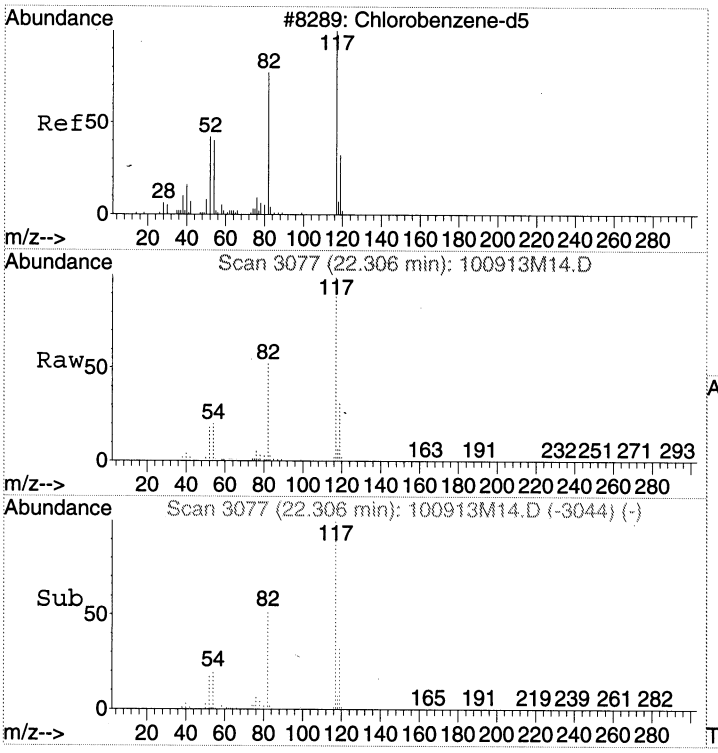


#32
1,4-DIFLUOROBENZENE
Concen: 20.00 ppbv
RT: 17.37 min Scan# 2266
Delta R.T. -0.00 min
Lab File: 100913M14.D
Acq: 10 Oct 2013 12:12 am

Tgt Ion:114 Resp: 4174971

Ion	Ratio	Lower	Upper
114	100		
63	17.5	0.0	35.8
88	15.1	0.0	34.6

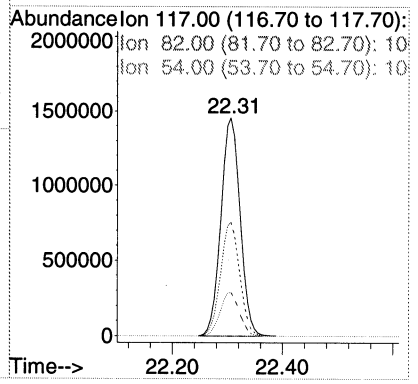


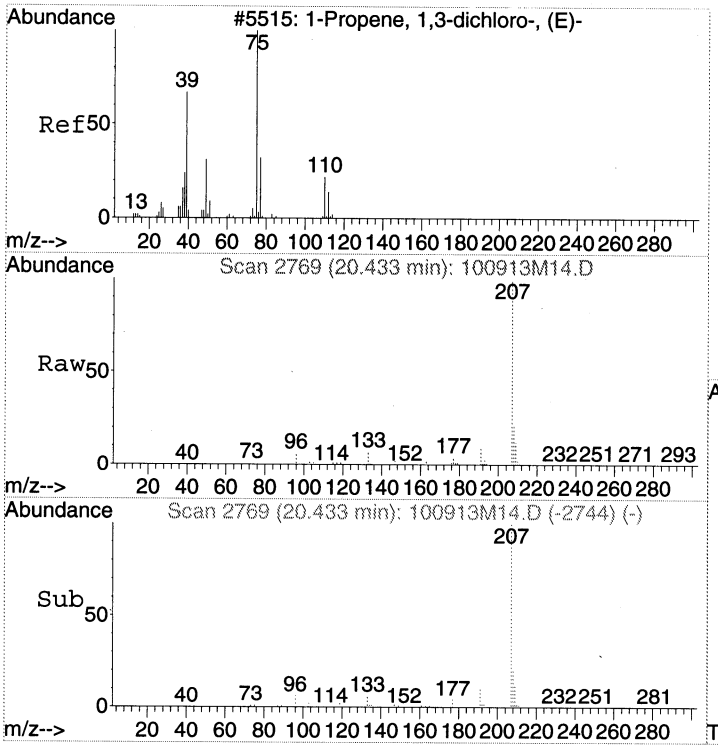


#43
CHLOROBENZENE-d5
Concen: 20.80 ppbv
RT: 22.31 min Scan# 3077
Delta R.T. -0.00 min
Lab File: 100913M14.D
Acq: 10 Oct 2013 12:12 am

Tgt Ion:117 Resp: 3507901

Ion	Ratio	Lower	Upper
117	100		
82	51.8	28.9	68.9
54	20.0	0.0	36.9

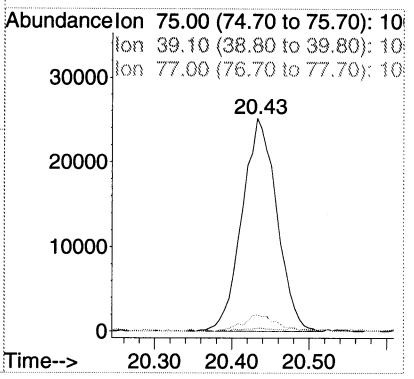




#45
trans-1,3-Dichloropropene
Concen: 1.16 ppbv
RT: 20.43 min Scan# 2769
Delta R.T. -0.05 min
Lab File: 100913M14.D
Acq: 10 Oct 2013 12:12 am

Tgt Ion: 75 Resp: 78789

Ion	Ratio	Lower	Upper
75	100		
39	0.0	20.1	60.1#
77	8.0	11.5	51.5#



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M14.D
Acq On : 10 Oct 2013 12:12 am
Operator : EM
Sample : BLANK CAN 7338
Misc : BLANK CAN 7338
ALS Vial : 41 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Title : TO15

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	14.720	1814	1830	1846	rBV	206651	751933	4.55%	1.437%
2	15.341	1917	1932	1950	rBV	1537684	4771117	28.90%	9.115%
3	17.373	2253	2266	2284	rBV	3346040	9132840	55.32%	17.449%
4	20.439	2755	2770	2790	rBV	5276624	16509192	100.00%	31.542%
5	22.306	3066	3077	3092	rBV	4145093	10069463	60.99%	19.238%
6	24.016	3345	3358	3373	rBV	3693168	10906606	66.06%	20.838%
7	26.881	3821	3829	3840	rVB3	63822	199685	1.21%	0.382%

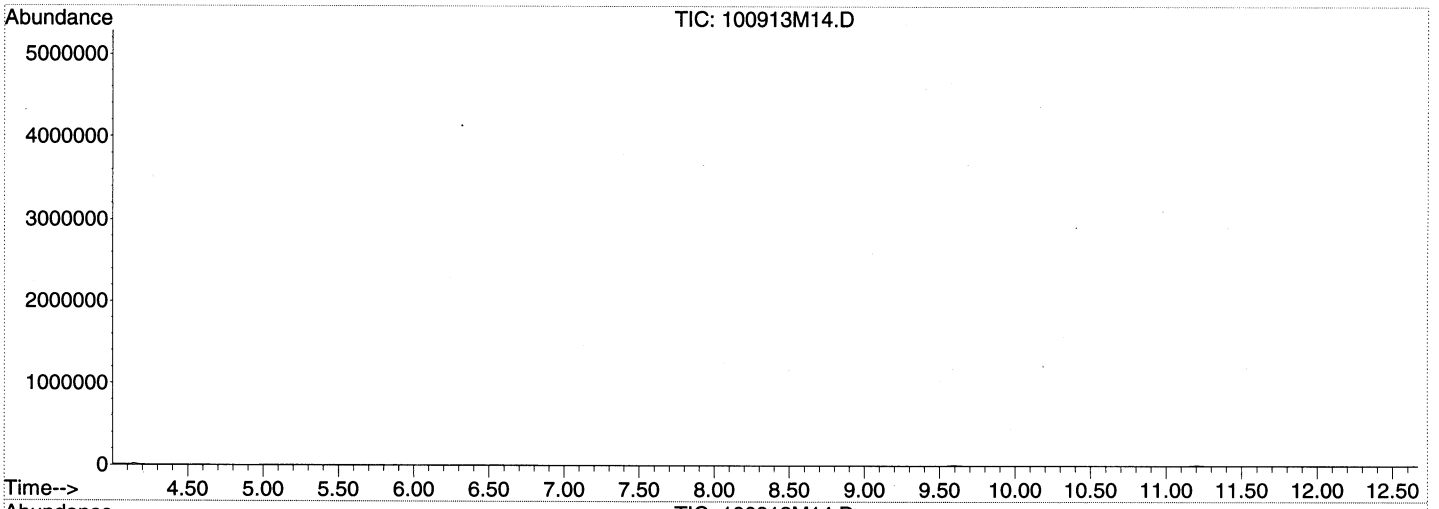
Sum of corrected areas: 52340836

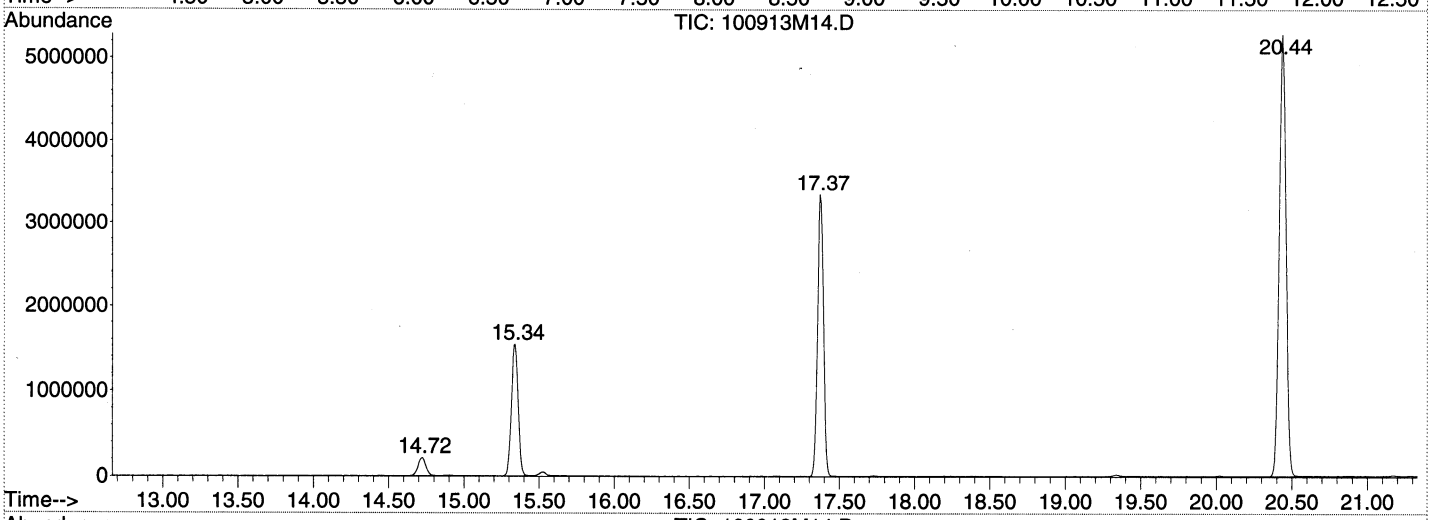
LSC Report - Integrated Chromatogram

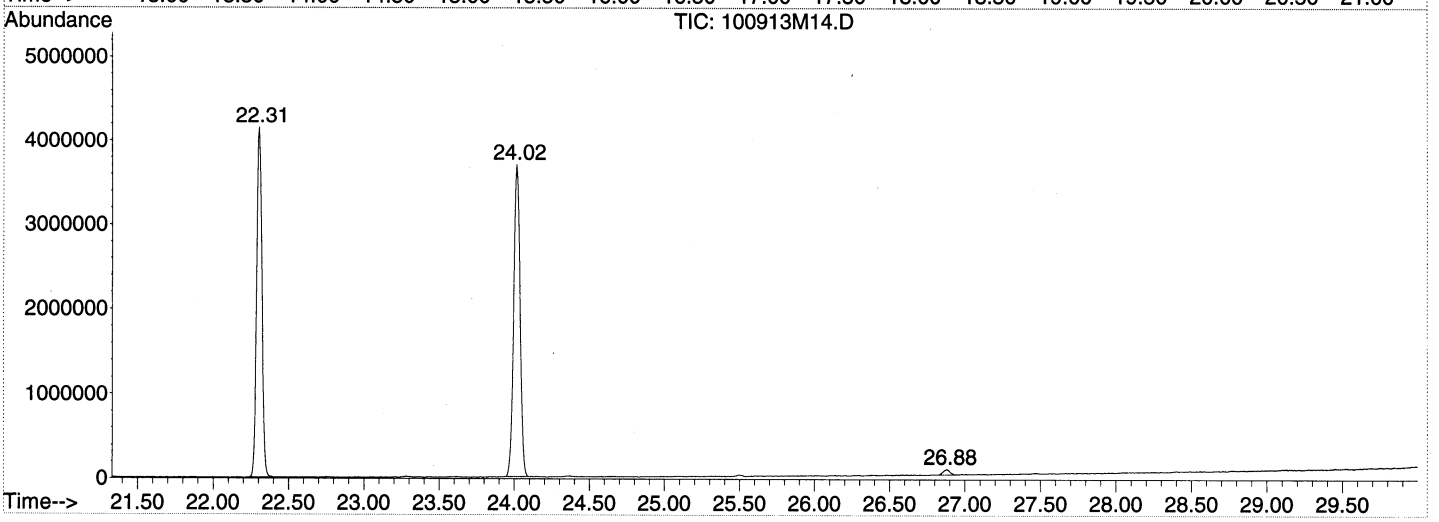
Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M14.D
Acq On : 10 Oct 2013 12:12 am
Operator : EM
Sample : BLANK CAN 7338
Misc : BLANK CAN 7338
ALS Vial : 41 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P







Library Search Compound Report

Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M14.D
Acq On : 10 Oct 2013 12:12 am
Operator : EM
Sample : BLANK CAN 7338
Misc : BLANK CAN 7338
ALS Vial : 41 Sample Multiplier: 1

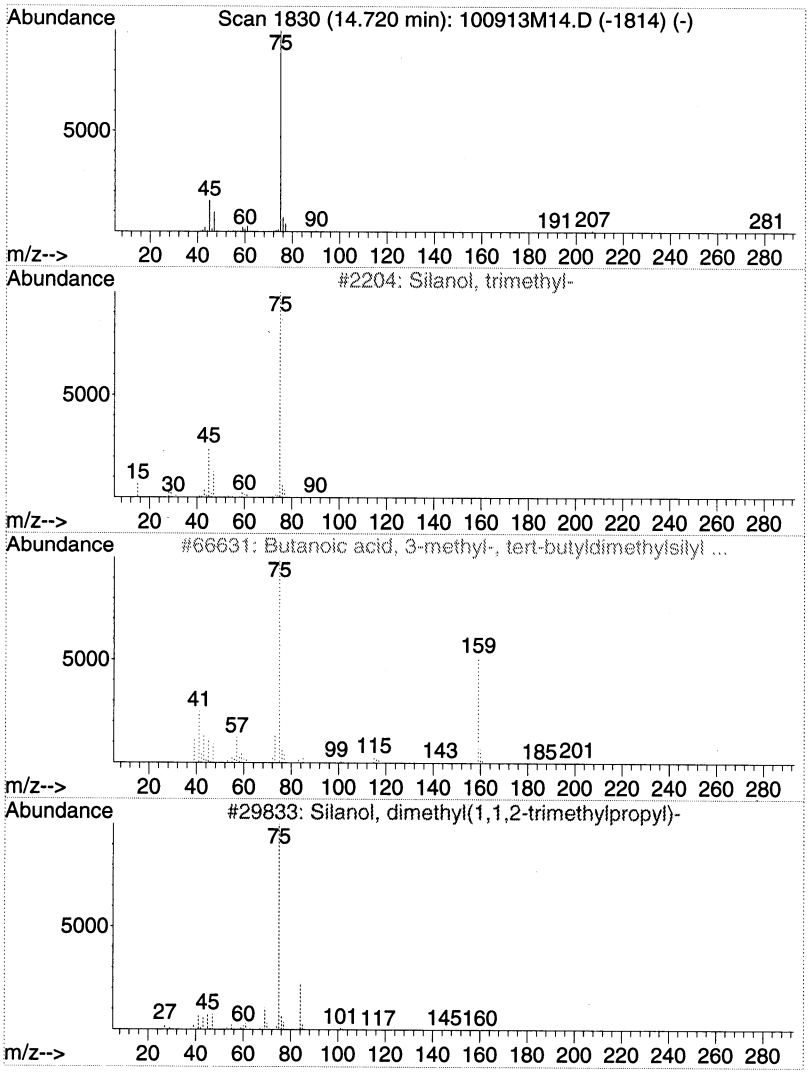
Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15

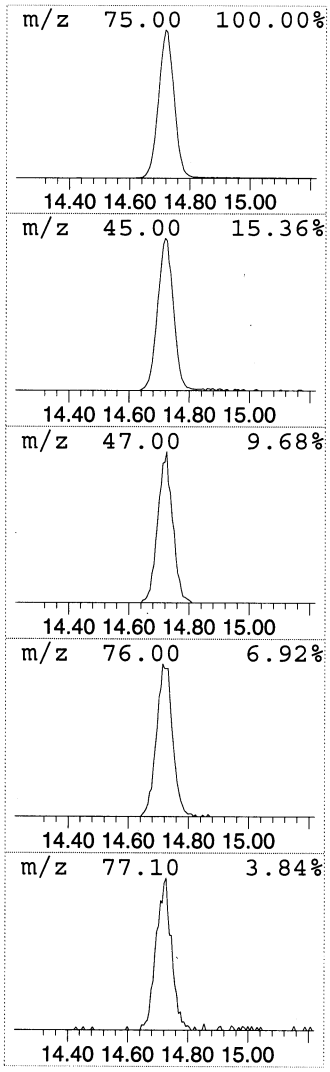
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 1 Silanol, trimethyl- Concentration Rank 2

R.T.	EstConc	Area	Relative to ISTD	R.T.
14.72	2.96 ppbv	751933	BROMOCHLOROMETHANE	15.33

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Silanol, trimethyl-	90	C3H10OSi	001066-40-6	90
2	Butanoic acid, 3-methyl-, tert-b...	216	C11H24O2Si	111864-22-3	83
3	Silanol, dimethyl(1,1,2-trimethy...	160	C8H20OSi	055644-10-5	78
4	Pentanoic acid, tert-butyldimeth...	216	C11H24O2Si	104256-46-4	74
5	tert-Butyldimethylsilanol	132	C6H16OSi	018173-64-3	74





: 00161

Library Search Compound Report

Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M14.D
Acq On : 10 Oct 2013 12:12 am
Operator : EM
Sample : BLANK CAN 7338
Misc : BLANK CAN 7338
ALS Vial : 41 Sample Multiplier: 1

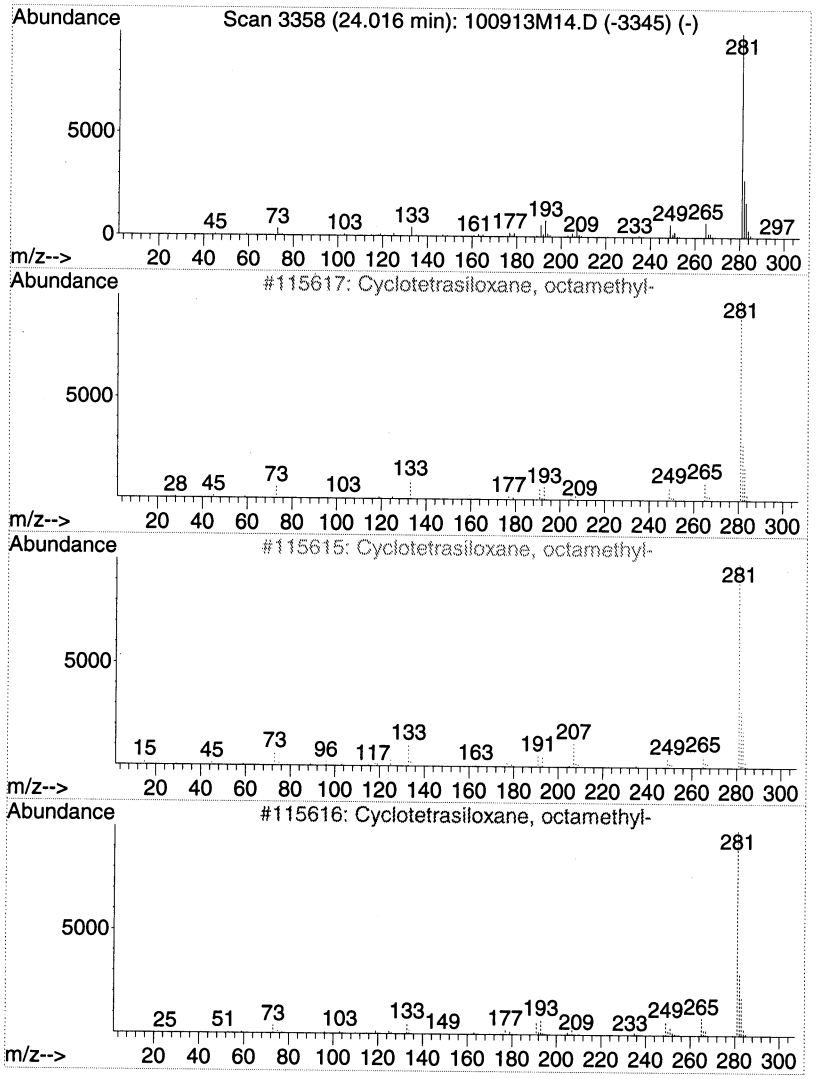
Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15

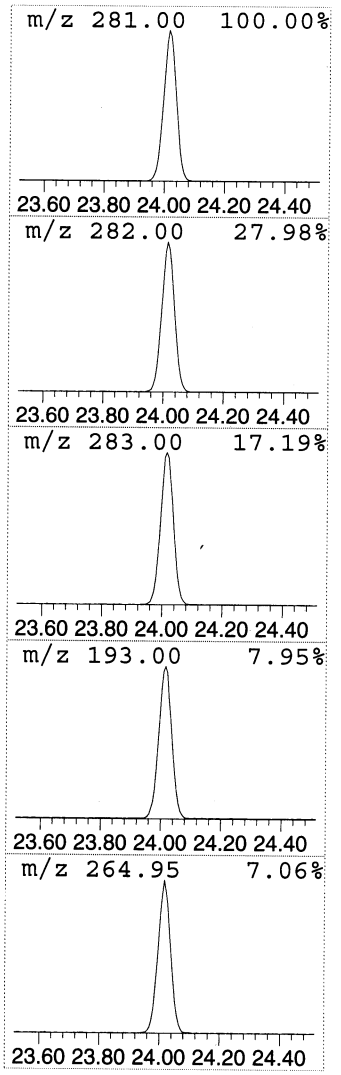
TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

****
Peak Number 2 Cyclotetrasiloxane, octamet... Concentration Rank 1

R.T.	EstConc	Area	Relative to ISTD	R.T.
24.02	22.53 ppbv	10906600	CHLOROBENZENE-d5	22.31

Hit# of 5	Tentative ID	MW	MolForm	CAS#	Qual
1	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	91
2	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	78
3	Cyclotetrasiloxane, octamethyl-	296	C8H24O4Si4	000556-67-2	53
4	4H-1,2,4-Triazole-3-thiol, 4-all...	281	C16H15N3S	031803-13-1	53
5	5H-Naphtho[2,3-c]carbazole, 5-me...	281	C21H15N	100025-44-3	50





Tentatively Identified Compound (LSC) summary

Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M14.D
Acq On : 10 Oct 2013 12:12 am
Operator : EM
Sample : BLANK CAN 7338
Misc : BLANK CAN 7338
ALS Vial : 41 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc
Silanol, trimethyl-	14.72	3.0	ppbv	751933	1	15.33	4771120	18.8
Cyclotetrasiloxan...	24.02	22.5	ppbv	10906600	3	22.31	10069500	20.8

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M15.D
Acq On : 10 Oct 2013 1:00 am
Operator : EM
Sample : BLANK CAN 7339
Misc : BLANK CAN 7339
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Oct 10 09:39:23 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	15.33	49	900993	18.80 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.37	114	4084502	20.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.31	117	3442271	20.80 ppbv	0.00

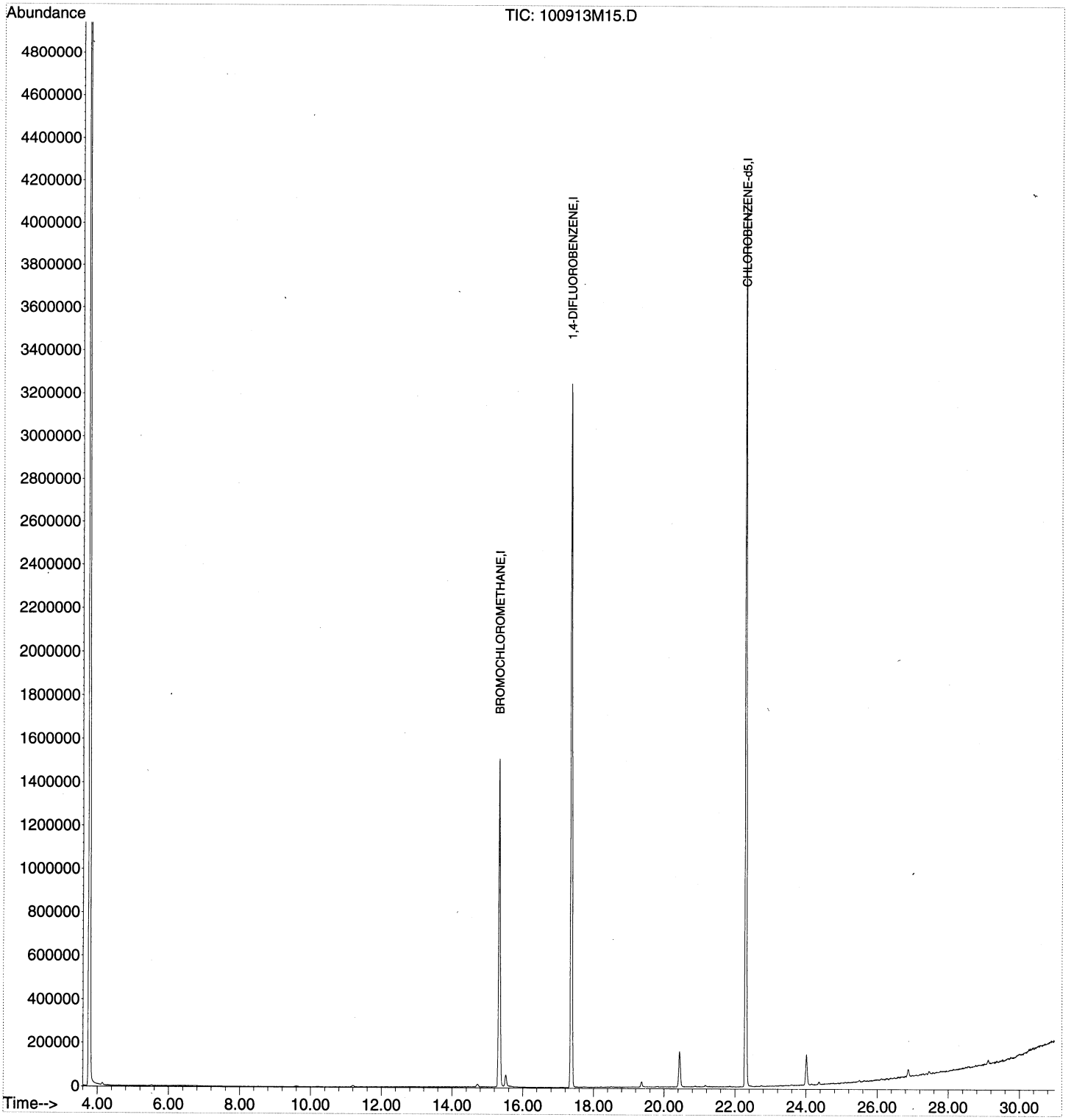
Target Compounds	Qvalue

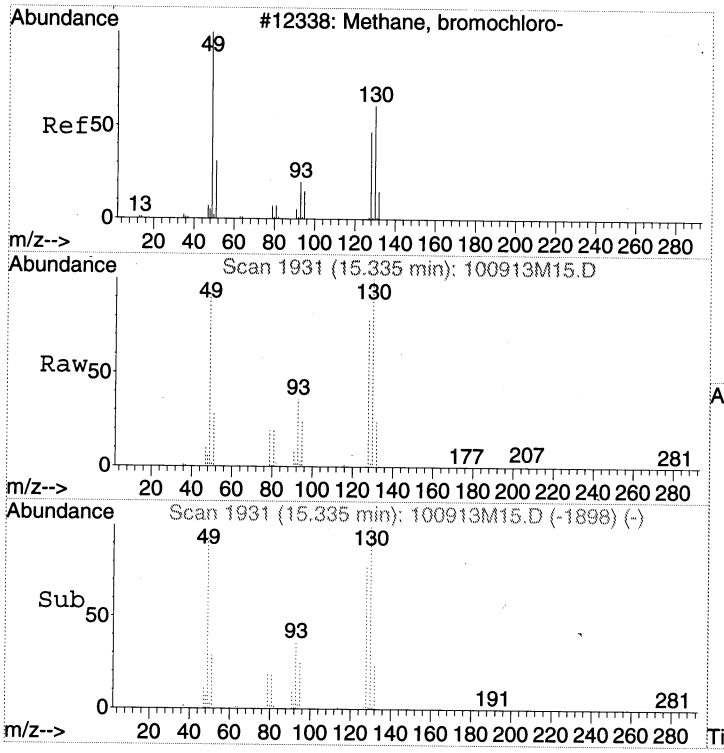
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M15.D
Acq On : 10 Oct 2013 1:00 am
Operator : EM
Sample : BLANK CAN 7339
Misc : BLANK CAN 7339
ALS Vial : 42 Sample Multiplier: 1

Quant Time: Oct 10 09:39:23 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

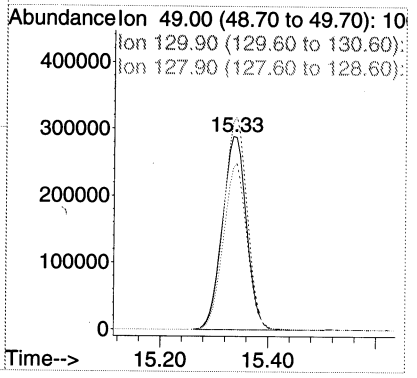


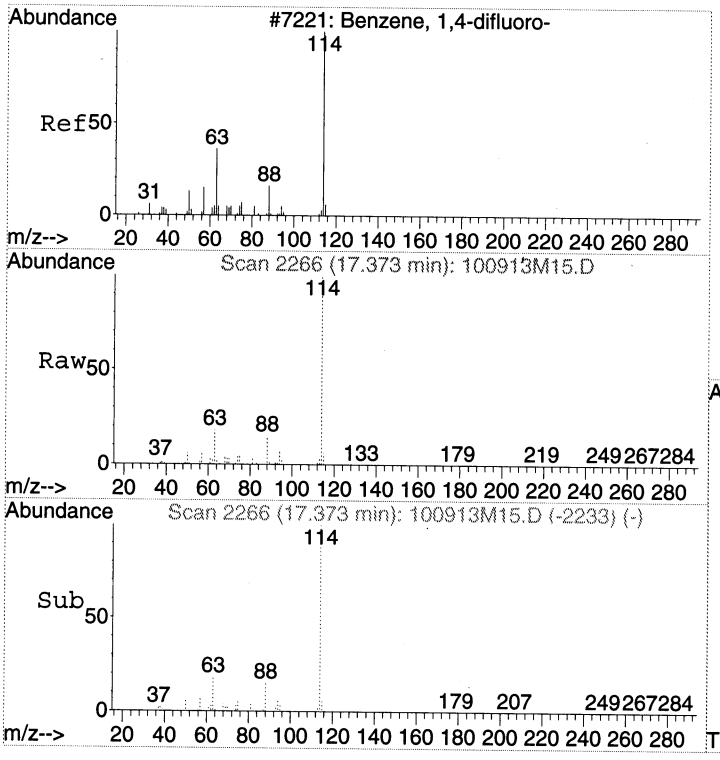


#1
BROMOCHLOROMETHANE
Concen: 18.80 ppbv
RT: 15.33 min Scan# 1931
Delta R.T. -0.00 min
Lab File: 100913M15.D
Acq: 10 Oct 2013 1:00 am

Tgt Ion: 49 Resp: 900993

Ion	Ratio	Lower	Upper
49	100		
130	107.7	97.9	137.9
128	83.4	70.6	110.6

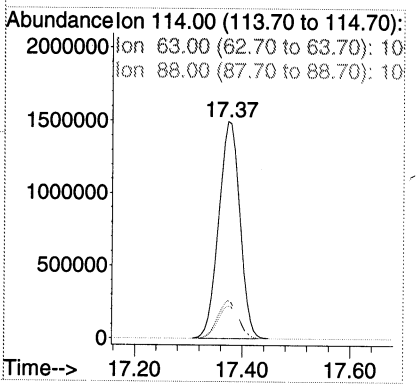


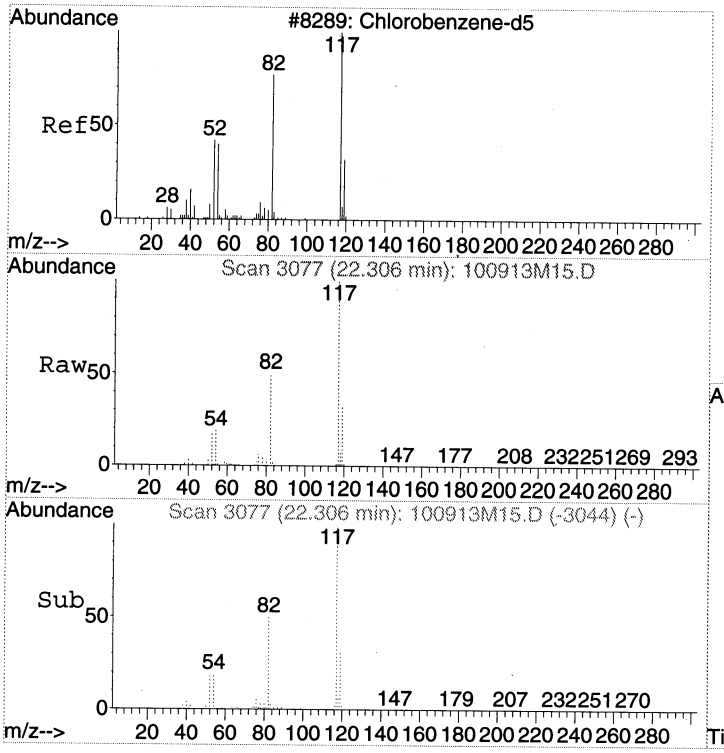


#32
1,4-DIFLUOROBENZENE
Concen: 20.00 ppbv
RT: 17.37 min Scan# 2266
Delta R.T. -0.00 min
Lab File: 100913M15.D
Acq: 10 Oct 2013 1:00 am

Tgt Ion:114 Resp: 4084502

Ion	Ratio	Lower	Upper
114	100		
63	17.3	0.0	35.8
88	15.0	0.0	34.6

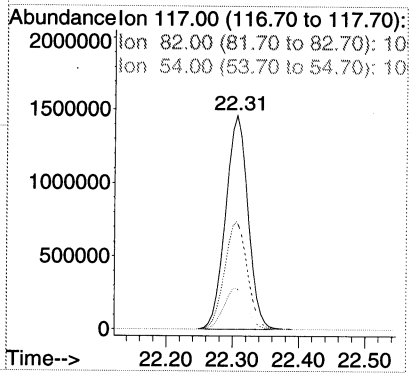




#43
CHLOROBENZENE-d5
Concen: 20.80 ppbv
RT: 22.31 min Scan# 3077
Delta R.T. -0.00 min
Lab File: 100913M15.D
Acq: 10 Oct 2013 1:00 am

Tgt Ion:117 Resp: 3442271

Ion	Ratio	Lower	Upper
117	100		
82	51.4	28.9	68.9
54	20.1	0.0	36.9



: 00467

LSC Area Percent Report

Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M15.D
Acq On : 10 Oct 2013 1:00 am
Operator : EM
Sample : BLANK CAN 7339
Misc : BLANK CAN 7339
ALS Vial : 42 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Title : TO15

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	15.341	1915	1932	1946	rBV	1508297	4627164	46.93%	18.885%
2	15.523	1952	1962	1975	rBV	50222	160286	1.63%	0.654%
3	17.373	2252	2266	2283	rBV	3246741	8910312	90.38%	36.366%
4	20.439	2758	2770	2784	rBV2	160411	526326	5.34%	2.148%
5	22.306	3066	3077	3091	rBV	4107464	9858777	100.00%	40.238%
6	24.016	3348	3358	3370	rVB	136630	418578	4.25%	1.708%

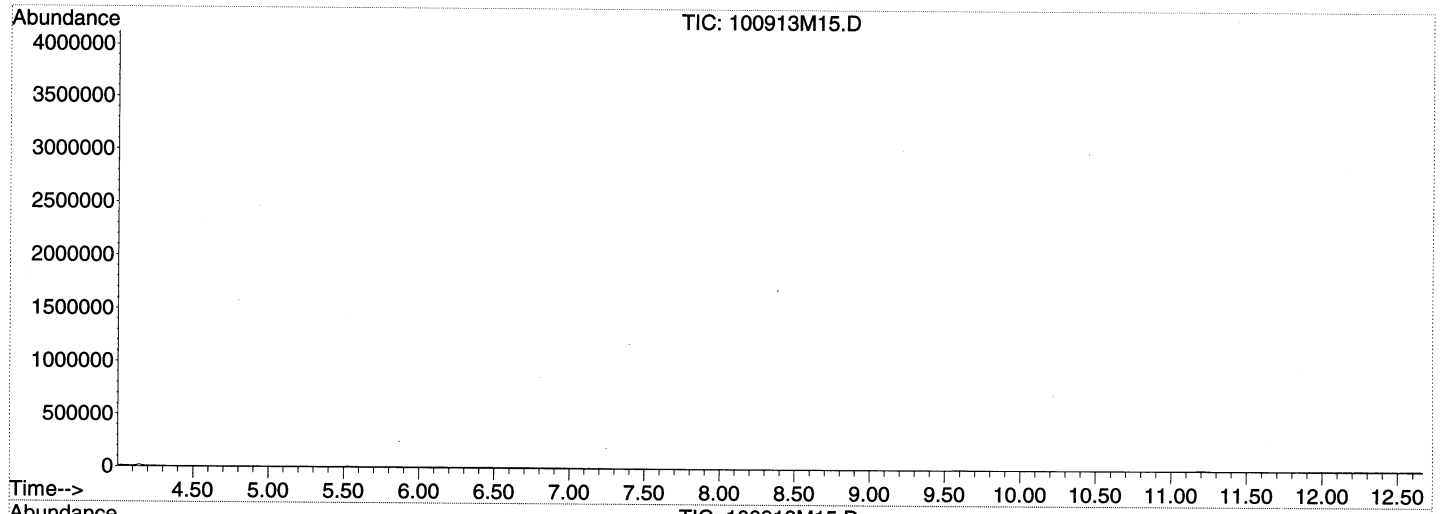
Sum of corrected areas: 24501443

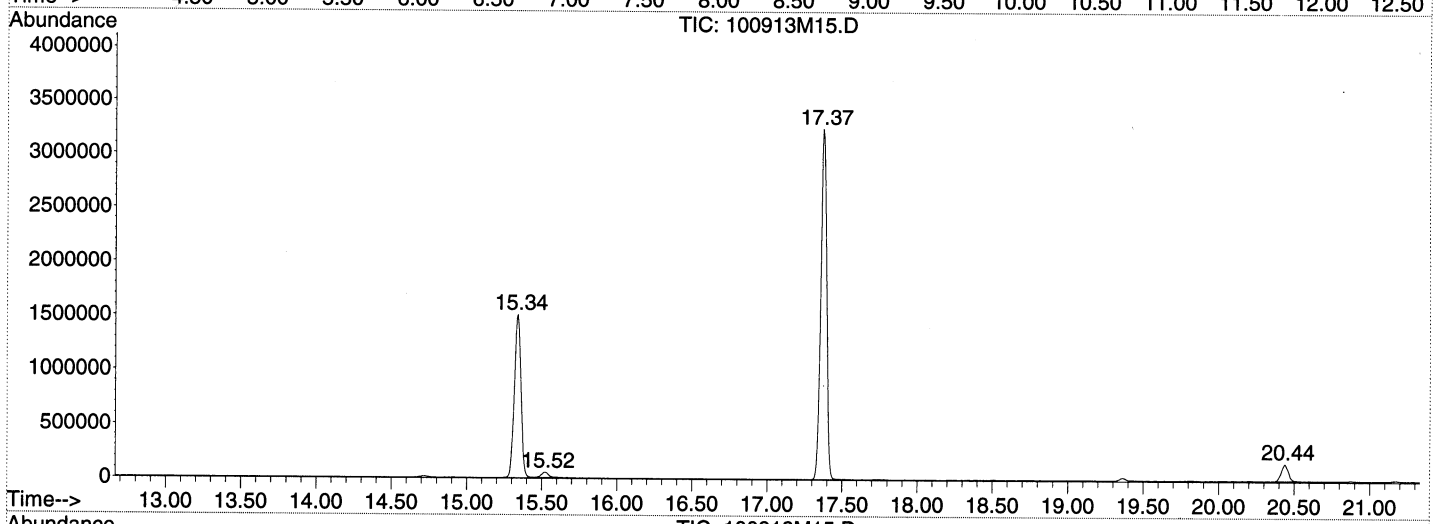
LSC Report - Integrated Chromatogram

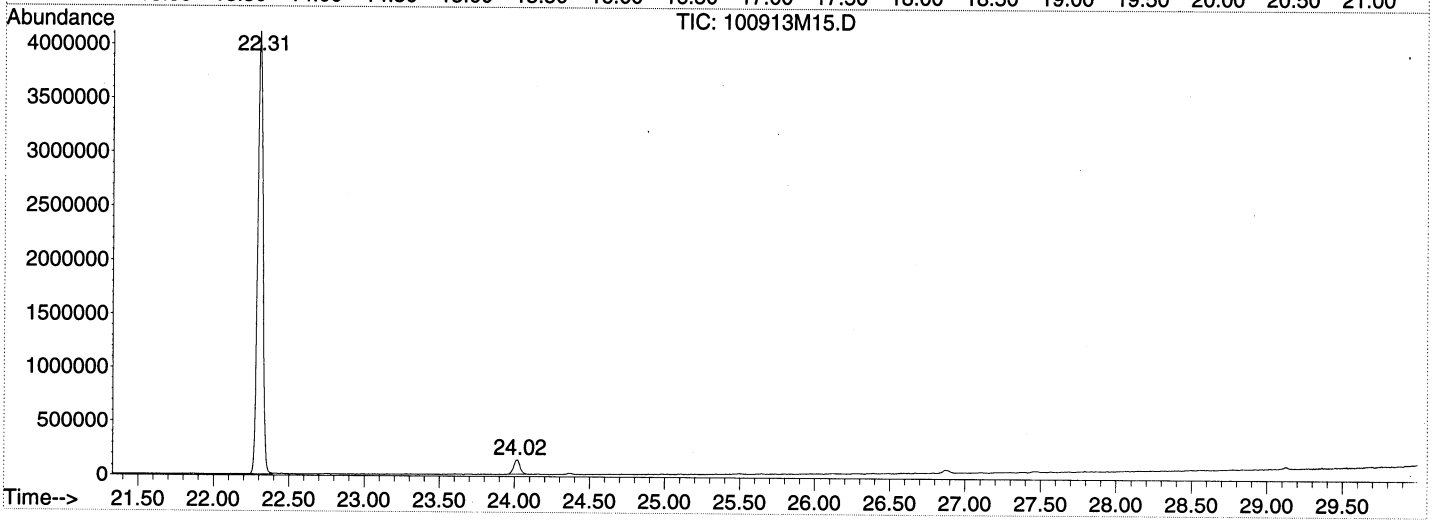
Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M15.D
Acq On : 10 Oct 2013 1:00 am
Operator : EM
Sample : BLANK CAN 7339
Misc : BLANK CAN 7339
ALS Vial : 42 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P







Tentatively Identified Compound (LSC) summary

Data Path : C:\MSDCHEM\1\2013\DATA\100913\\
Data File : 100913M15.D
Acq On : 10 Oct 2013 1:00 amm
Operator : EMM
Sample : BLANK CAN 73399
Misc : BLANK CAN 73399
ALS Vial : 42 Sample Multiplier: 11

Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.MM
Quant Title : TO155

TIC Library : C:\DATABASE\NIST02.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

No Library Search Compounds Detected
****

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M16.D
Acq On : 10 Oct 2013 1:49 am
Operator : EM
Sample : BLANK CAN 7354
Misc : BLANK CAN 7354
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Oct 10 09:39:29 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	15.34	49	886481	18.80 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.37	114	4045966	20.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.31	117	3377610	20.80 ppbv	0.00

Target Compounds	Qvalue

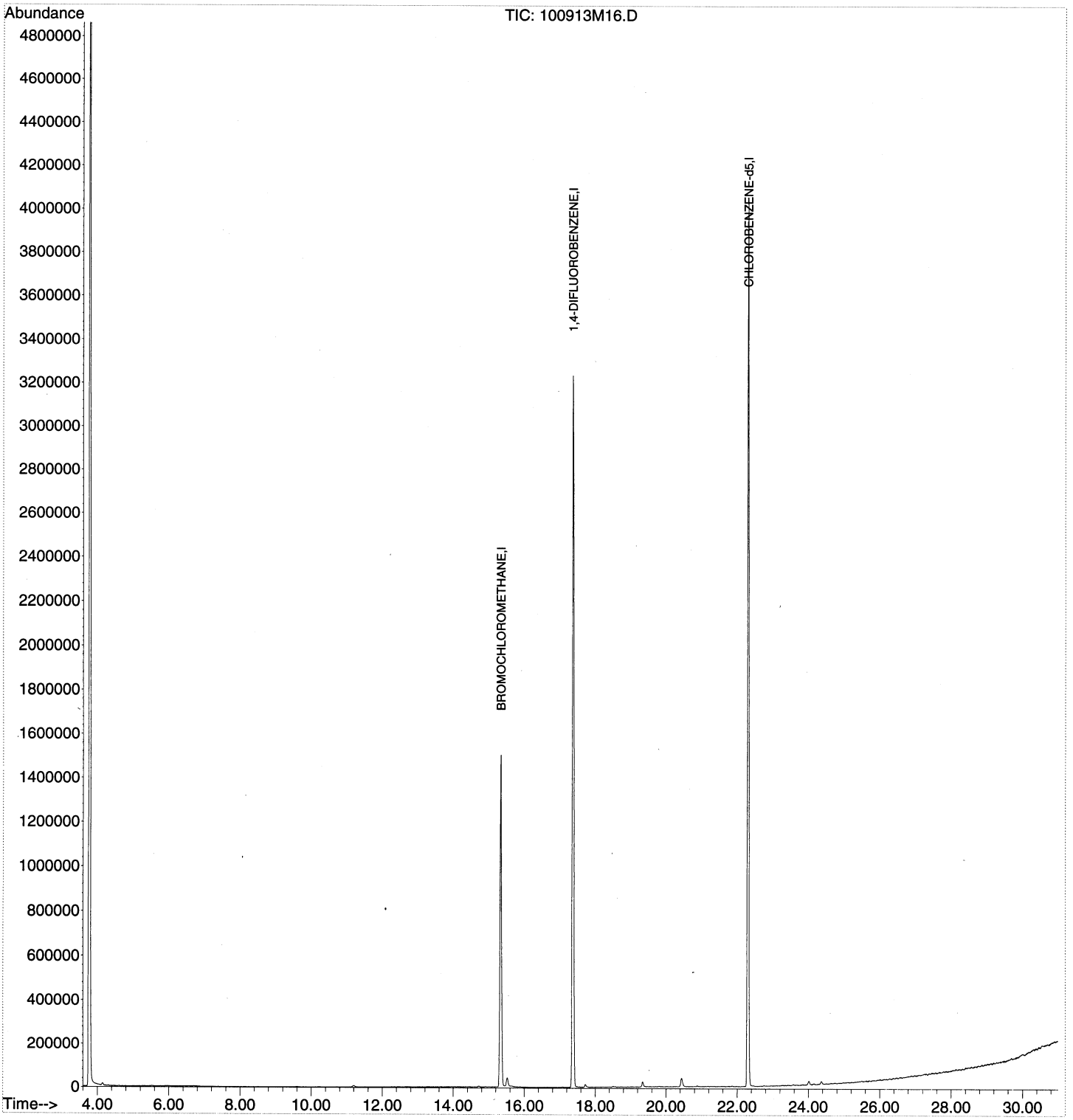
(#) = qualifier out of range (m) = manual integration (+) = signals summed

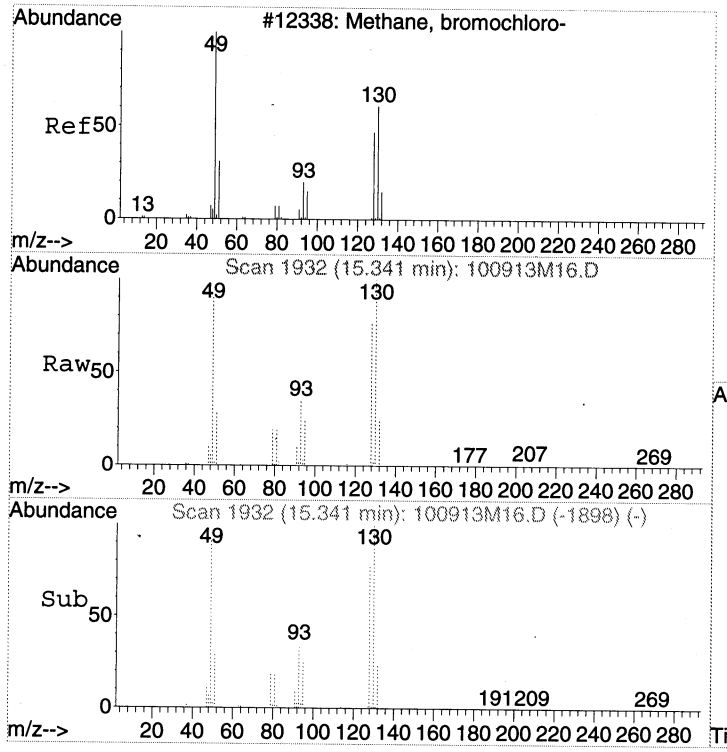
00171

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M16.D
Acq On : 10 Oct 2013 1:49 am
Operator : EM
Sample : BLANK CAN 7354
Misc : BLANK CAN 7354
ALS Vial : 43 Sample Multiplier: 1

Quant Time: Oct 10 09:39:29 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

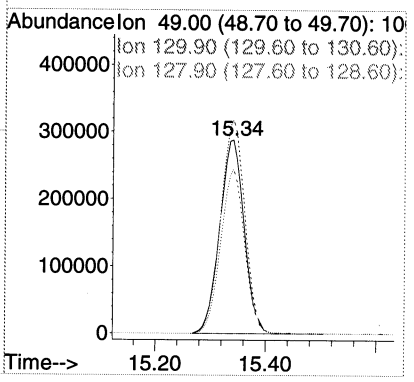


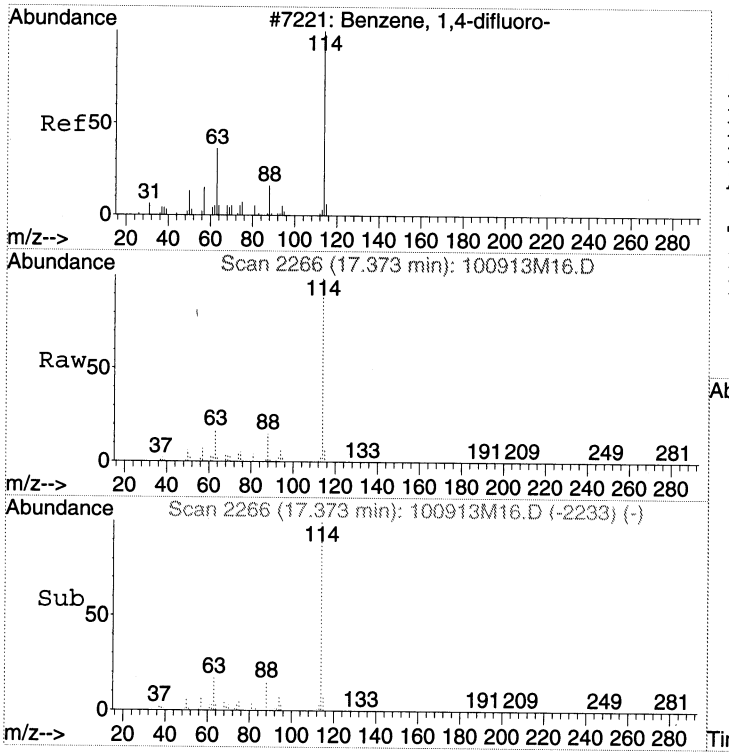


#1
BROMOCHLOROMETHANE
Concen: 18.80 ppbv
RT: 15.34 min Scan# 1932
Delta R.T. 0.01 min
Lab File: 100913M16.D
Acq: 10 Oct 2013 1:49 am

Tgt Ion: 49 Resp: 886481

Ion	Ratio	Lower	Upper
49	100		
130	109.2	97.9	137.9
128	83.5	70.6	110.6

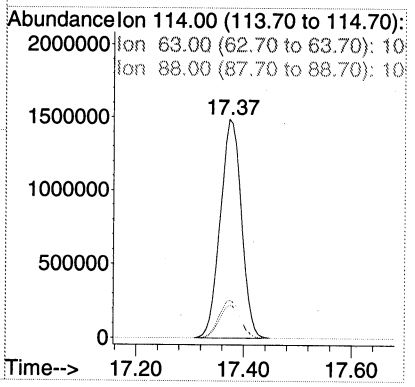


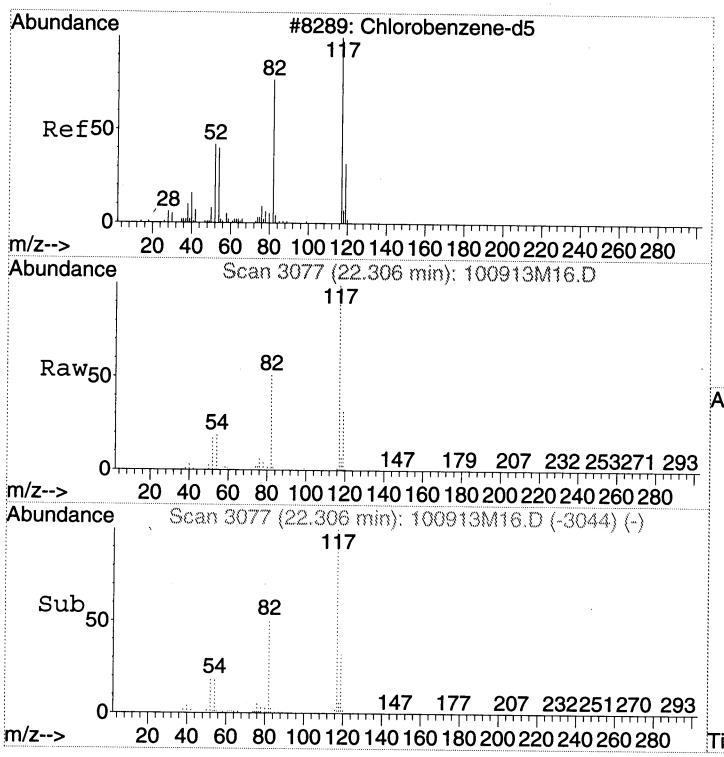


#32
1,4-DIFLUOROBENZENE
Concen: 20.00 ppbv
RT: 17.37 min Scan# 2266
Delta R.T. -0.00 min
Lab File: 100913M16.D
Acq: 10 Oct 2013 1:49 am

Tgt Ion:114 Resp: 4045966

Ion	Ratio	Lower	Upper
114	100		
63	17.5	0.0	35.8
88	15.0	0.0	34.6

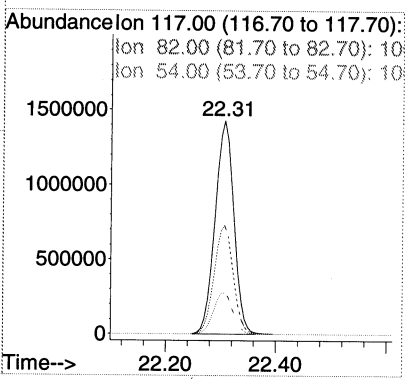




#43
CHLOROBENZENE-d5
Concen: 20.80 ppbv
RT: 22.31 min Scan# 3077
Delta R.T. -0.00 min
Lab File: 100913M16.D
Acq: 10 Oct 2013 1:49 am

Tgt Ion:117 Resp: 3377610

Ion	Ratio	Lower	Upper
117	100		
82	51.9	28.9	68.9
54	20.1	0.0	36.9



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M16.D
Acq On : 10 Oct 2013 1:49 am
Operator : EM
Sample : BLANK CAN 7354
Misc : BLANK CAN 7354
ALS Vial : 43 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Title : TO15

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	15.341	1918	1932	1950	rBV	1501536	4602894	47.41%	19.630%
2	15.523	1953	1962	1976	rVB	38478	130624	1.35%	0.557%
3	17.373	2254	2266	2284	rBV	3233303	8861678	91.28%	37.793%
4	20.445	2760	2771	2787	rVB	38464	145125	1.49%	0.619%
5	22.306	3065	3077	3092	rBV	4040645	9707785	100.00%	41.401%

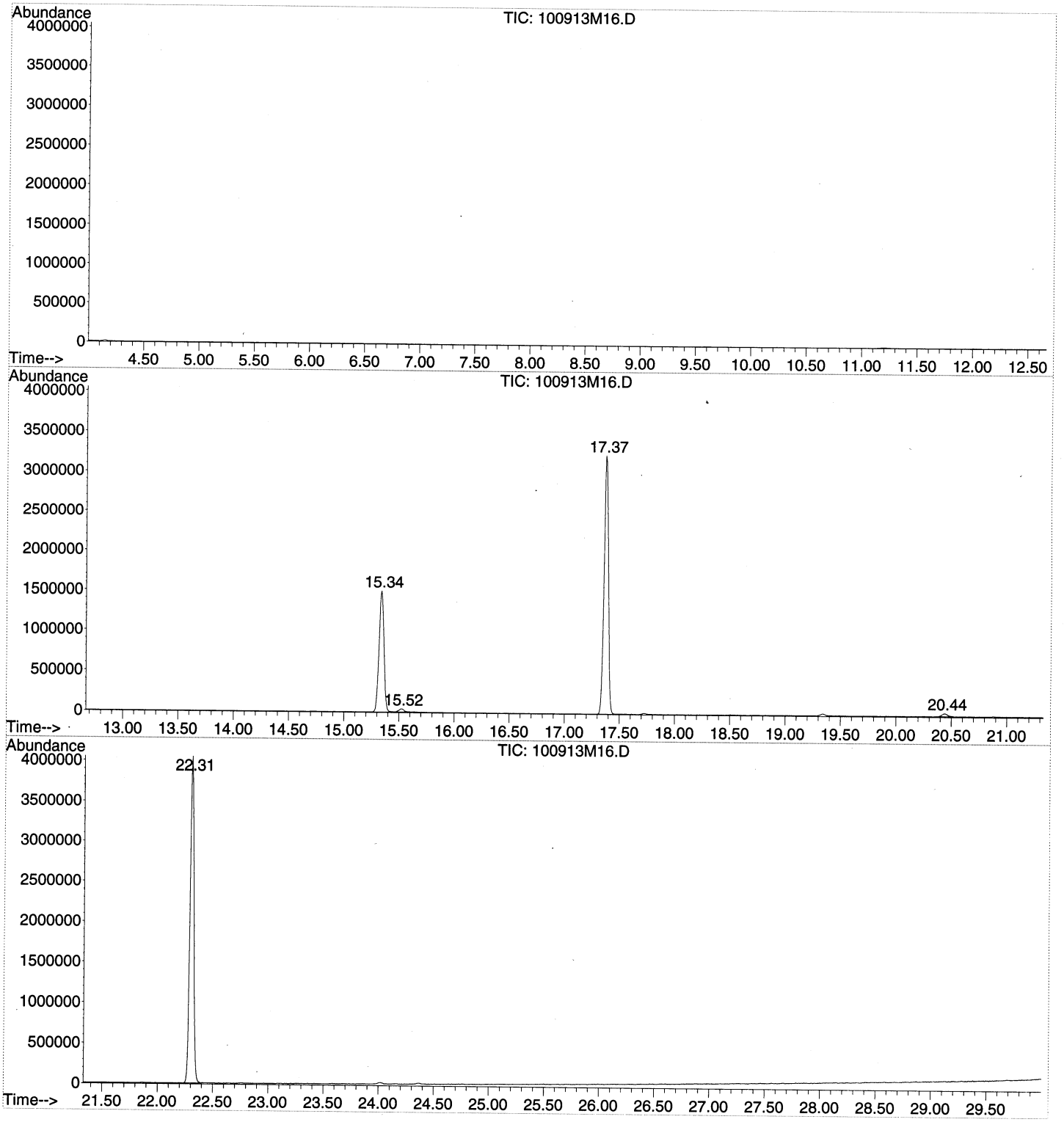
Sum of corrected areas: 23448106

LSC Report - Integrated Chromatogram

Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M16.D
Acq On : 10 Oct 2013 1:49 am
Operator : EM
Sample : BLANK CAN 7354
Misc : BLANK CAN 7354
ALS Vial : 43 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Tentatively Identified Compound (LSC) summary

Data Path : C:\MSDCHEM\1\2013\DATA\100913\\
Data File : 100913M16.D
Acq On : 10 Oct 2013 1:49 amm
Operator : EMM
Sample : BLANK CAN 73544
Misc : BLANK CAN 73544
ALS Vial : 43 Sample Multiplier: 11

Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.MM
Quant Title : TO155

TIC Library : C:\DATABASE\NIST02.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

No Library Search Compounds Detected
****

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M17.D
Acq On : 10 Oct 2013 2:37 am
Operator : EM
Sample : BLANK CAN 7456
Misc : BLANK CAN 7456
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Oct 10 09:39:35 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	15.34	49	876376	18.80 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.37	114	4016280	20.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.31	117	3355587	20.80 ppbv	0.00

Target Compounds	Qvalue

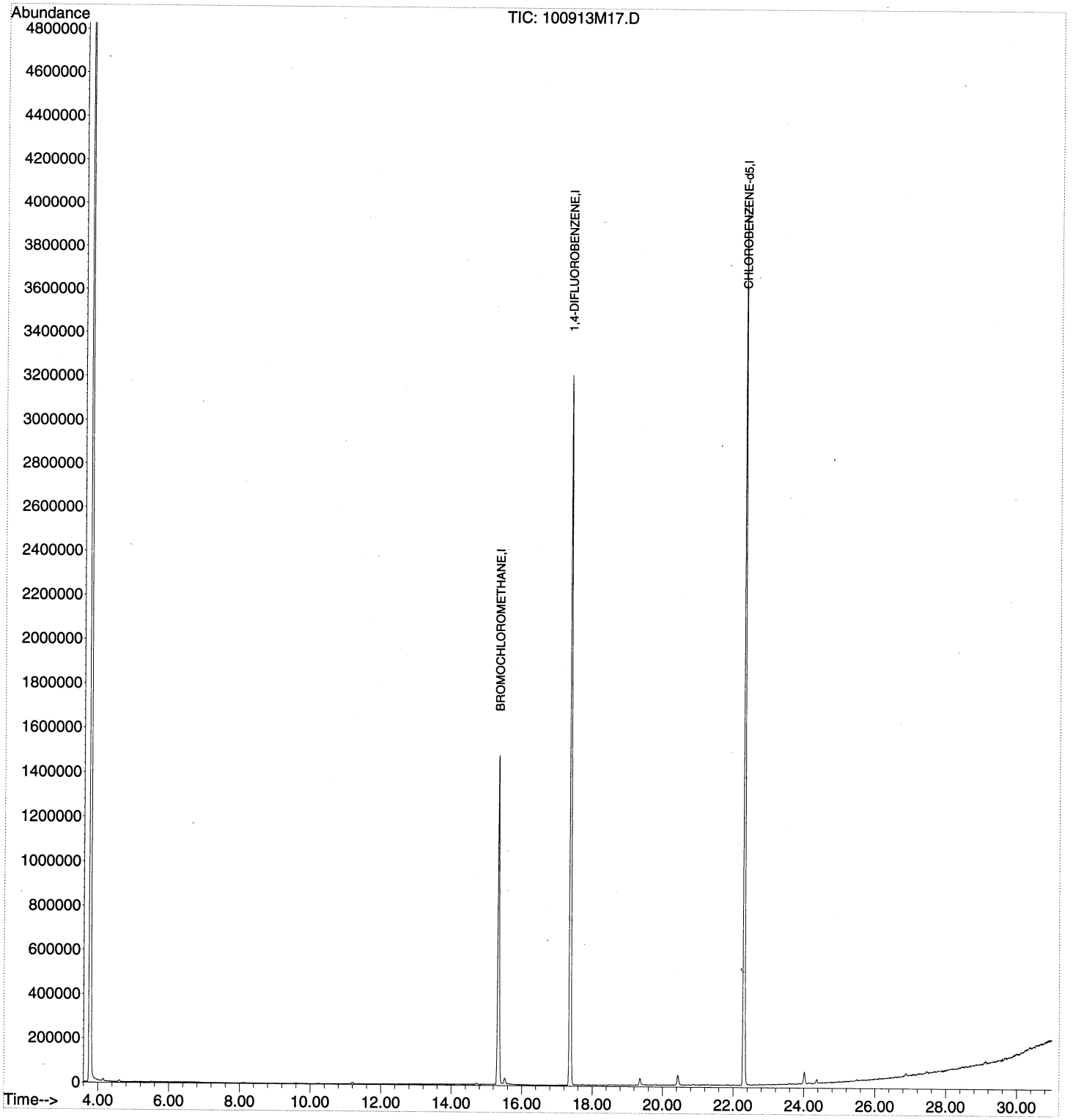
(#) = qualifier out of range (m) = manual integration (+) = signals summed

00178

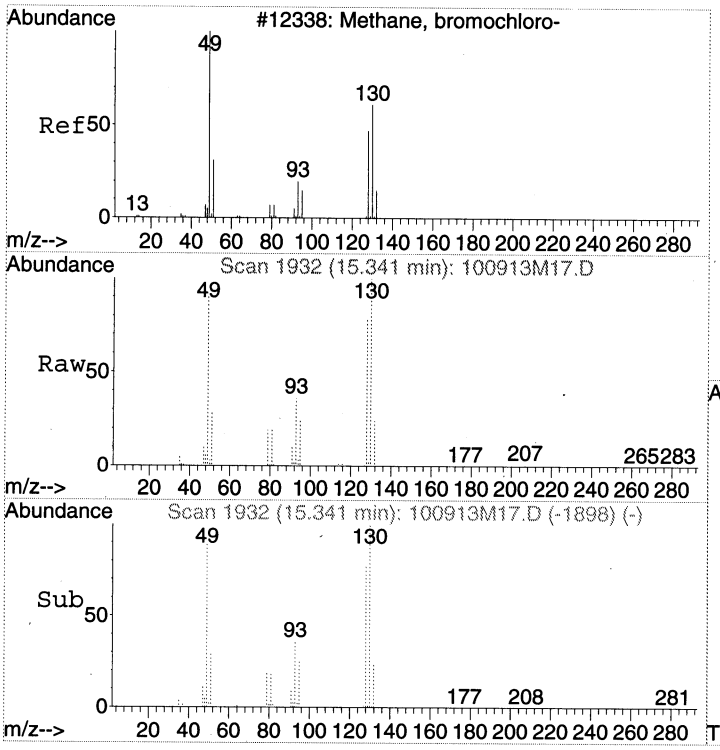
Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M17.D
Acq On : 10 Oct 2013 2:37 am
Operator : EM
Sample : BLANK CAN 7456
Misc : BLANK CAN 7456
ALS Vial : 44 Sample Multiplier: 1

Quant Time: Oct 10 09:39:35 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration



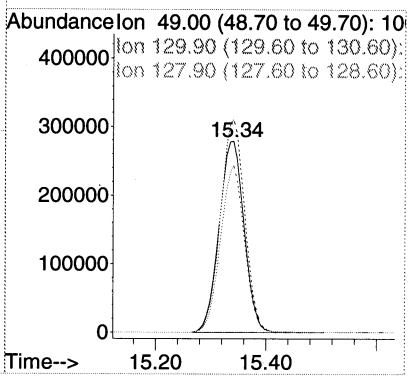
: 00479

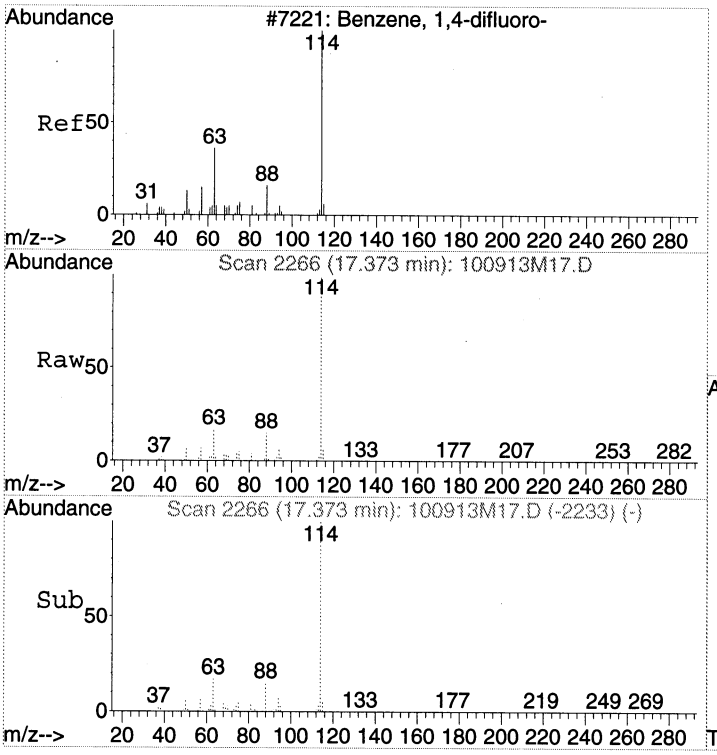


#1
BROMOCHLOROMETHANE
Concen: 18.80 ppbv
RT: 15.34 min Scan# 1932
Delta R.T. 0.01 min
Lab File: 100913M17.D
Acq: 10 Oct 2013 2:37 am

Tgt Ion: 49 Resp: 876376

Ion	Ratio	Lower	Upper
49	100		
130	108.7	97.9	137.9
128	84.0	70.6	110.6

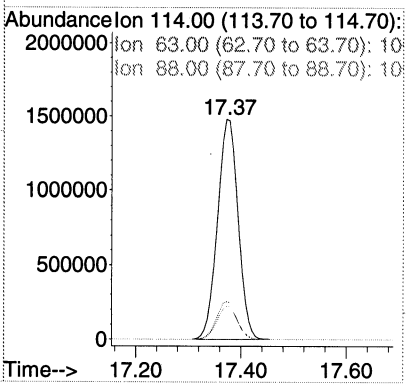


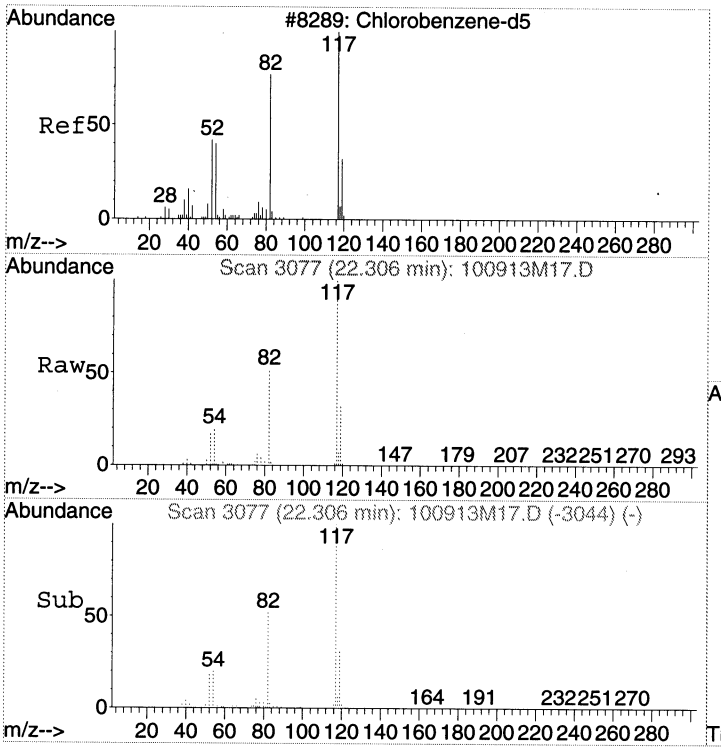


#32
1,4-DIFLUOROBENZENE
Concen: 20.00 ppbv
RT: 17.37 min Scan# 2266
Delta R.T. -0.00 min
Lab File: 100913M17.D
Acq: 10 Oct 2013 2:37 am

Tgt Ion:114 Resp: 4016280

Ion	Ratio	Lower	Upper
114	100		
63	17.4	0.0	35.8
88	14.9	0.0	34.6

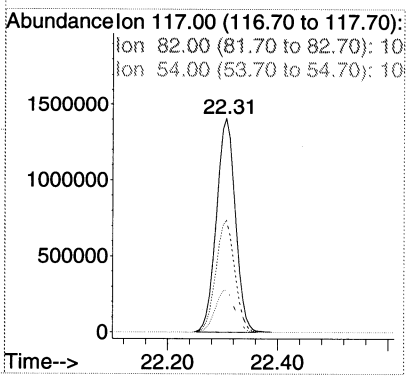




#43
CHLOROBENZENE-d5
Concen: 20.80 ppbv
RT: 22.31 min Scan# 3077
Delta R.T. -0.00 min
Lab File: 100913M17.D
Acq: 10 Oct 2013 2:37 am

Tgt Ion:117 Resp: 3355587

Ion	Ratio	Lower	Upper
117	100		
82	52.2	28.9	68.9
54	20.2	0.0	36.9



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M17.D
Acq On : 10 Oct 2013 2:37 am
Operator : EM
Sample : BLANK CAN 7456
Misc : BLANK CAN 7456
ALS Vial : 44 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Title : TO15

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	15.341	1918	1932	1946	rBV	1480256	4565893	47.15%	19.557%
2	17.373	2253	2266	2282	rBV	3212166	8766364	90.53%	37.549%
3	20.439	2759	2770	2781	rBV2	44196	150667	1.56%	0.645%
4	22.306	3066	3077	3095	rBV	4012742	9683479	100.00%	41.477%
5	24.016	3347	3358	3368	rBV2	55539	180105	1.86%	0.771%

Sum of corrected areas: 23346508

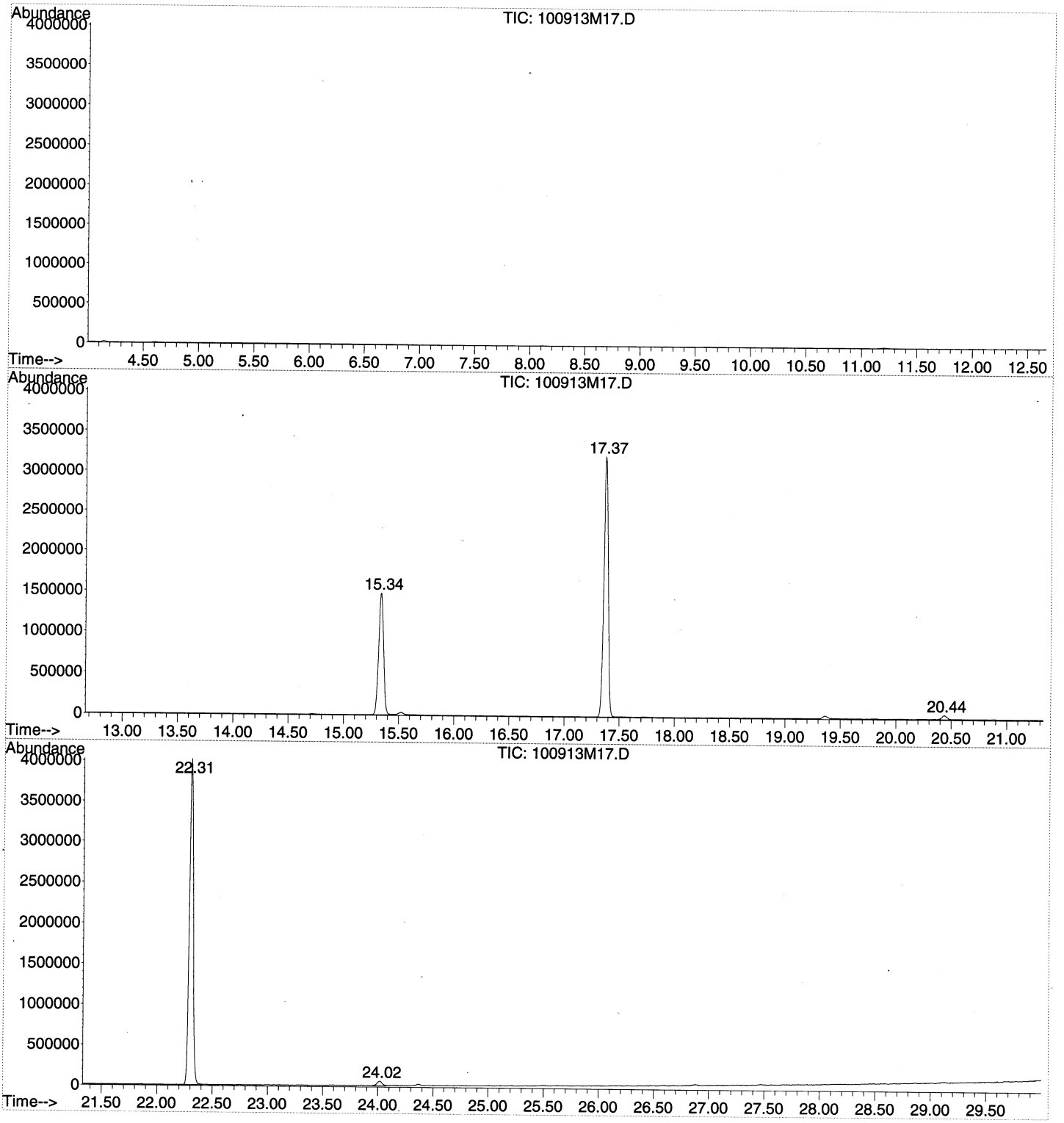
00482

LSC Report - Integrated Chromatogram

Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M17.D
Acq On : 10 Oct 2013 2:37 am
Operator : EM
Sample : BLANK CAN 7456
Misc : BLANK CAN 7456
ALS Vial : 44 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Tentatively Identified Compound (LSC) summary

Data Path : C:\MSDCHEM\1\2013\DATA\100913\\
Data File : 100913M17.D
Acq On : 10 Oct 2013 2:37 amm
Operator : EMM
Sample : BLANK CAN 74566
Misc : BLANK CAN 74566
ALS Vial : 44 Sample Multiplier: 11

Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.MM
Quant Title : TO155

TIC Library : C:\DATABASE\NIST02.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

No Library Search Compounds Detected
****

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M18.D
Acq On : 10 Oct 2013 3:26 am
Operator : EM
Sample : BLANK CAN 7465
Misc : BLANK CAN 7465
ALS Vial : 45 Sample Multiplier: 1

Quant Time: Oct 10 09:39:41 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	15.34	49	897374	18.80	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.37	114	4070050	20.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.31	117	3431496	20.80	ppbv	0.00

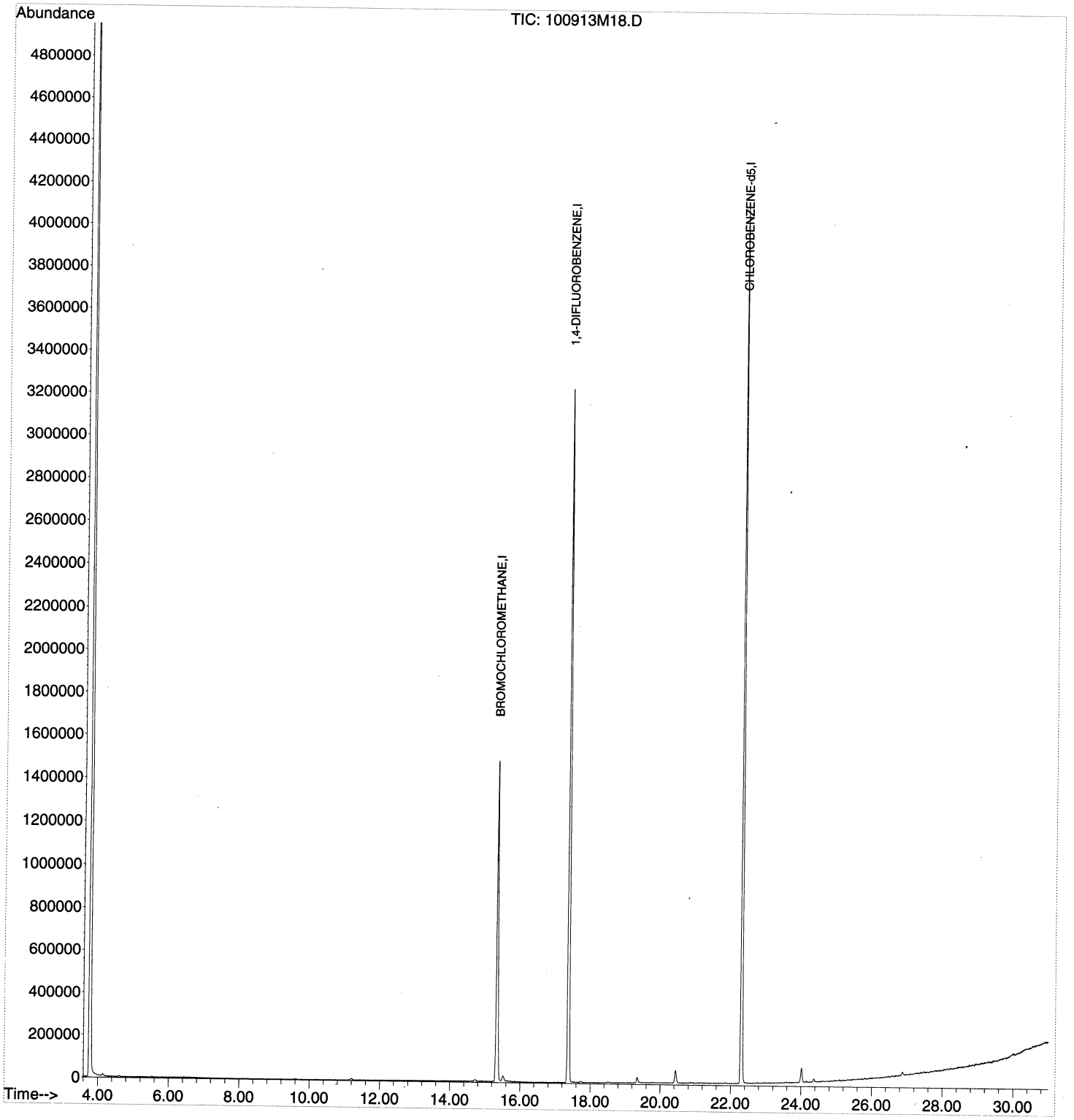
Target Compounds	Qvalue

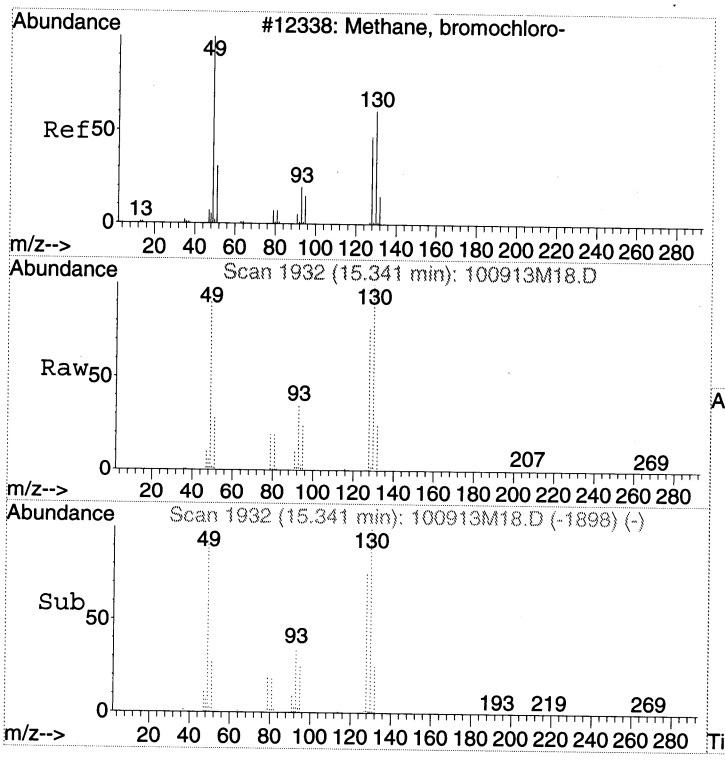
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M18.D
Acq On : 10 Oct 2013 3:26 am
Operator : EM
Sample : BLANK CAN 7465
Misc : BLANK CAN 7465
ALS Vial : 45 Sample Multiplier: 1

Quant Time: Oct 10 09:39:41 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

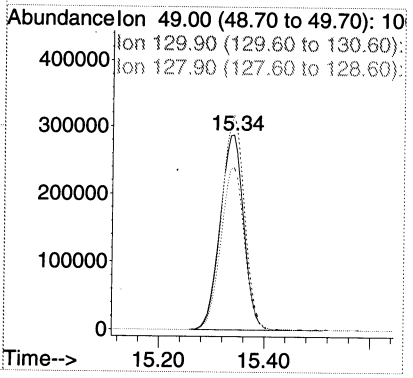


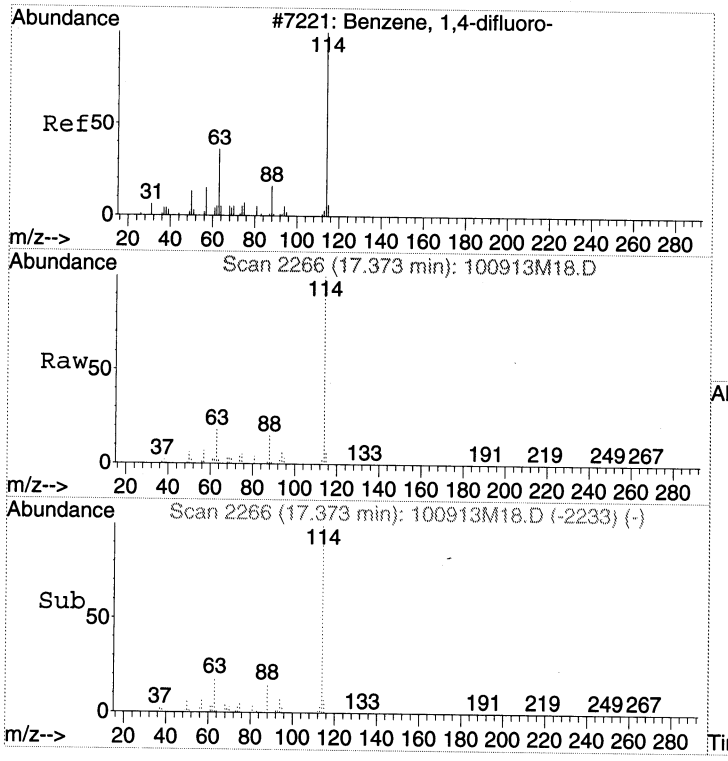


#1
BROMOCHLOROMETHANE
Concen: 18.80 ppbv
RT: 15.34 min Scan# 1932
Delta R.T. 0.01 min
Lab File: 100913M18.D
Acq: 10 Oct 2013 3:26 am

Tgt Ion: 49 Resp: 897374

Ion	Ratio	Lower	Upper
49	100		
130	107.8	97.9	137.9
128	83.0	70.6	110.6

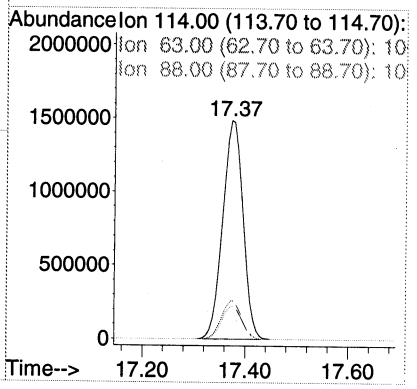


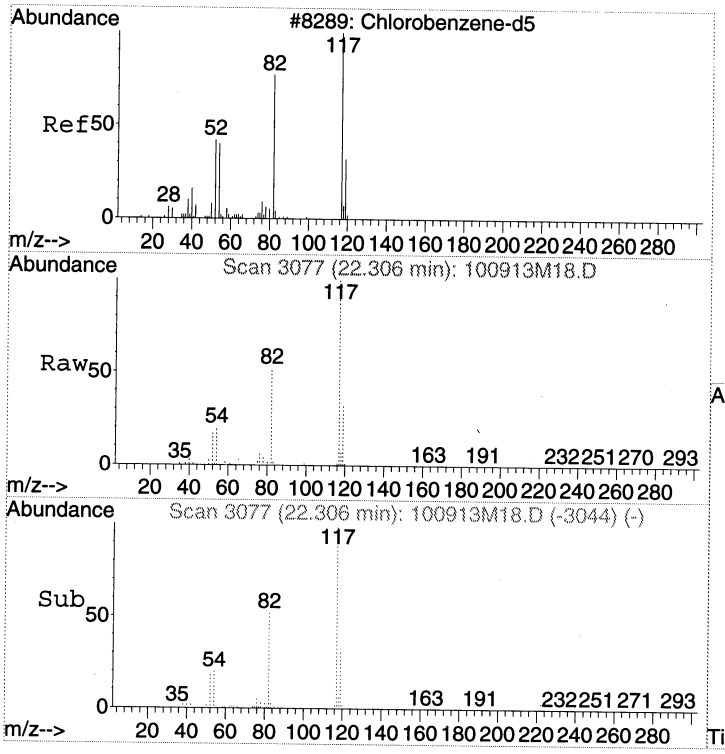


#32
1,4-DIFLUOROBENZENE
Concen: 20.00 ppbv
RT: 17.37 min Scan# 2266
Delta R.T. -0.00 min
Lab File: 100913M18.D
Acq: 10 Oct 2013 3:26 am

Tgt Ion:114 Resp: 4070050

Ion	Ratio	Lower	Upper
114	100		
63	17.5	0.0	35.8
88	15.1	0.0	34.6

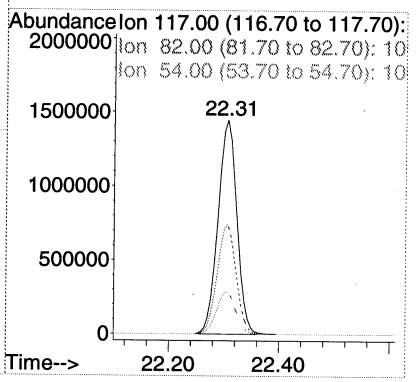




#43
CHLOROBENZENE-d5
Concen: 20.80 ppbv
RT: 22.31 min Scan# 3077
Delta R.T. -0.00 min
Lab File: 100913M18.D
Acq: 10 Oct 2013 3:26 am

Tgt Ion:117 Resp: 3431496

Ion	Ratio	Lower	Upper
117	100		
82	51.8	28.9	68.9
54	20.3	0.0	36.9



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M18.D
Acq On : 10 Oct 2013 3:26 am
Operator : EM
Sample : BLANK CAN 7465
Misc : BLANK CAN 7465
ALS Vial : 45 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Title : TO15

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	15.341	1919	1932	1951	rBV	1492418	4635319	46.84%	19.448%
2	17.373	2252	2266	2281	rBV	3235314	8911608	90.06%	37.390%
3	20.439	2758	2770	2784	rVB	57343	192777	1.95%	0.809%
4	22.306	3065	3077	3095	rBV	4120109	9895259	100.00%	41.517%
5	24.016	3348	3358	3368	rBV3	66114	199061	2.01%	0.835%

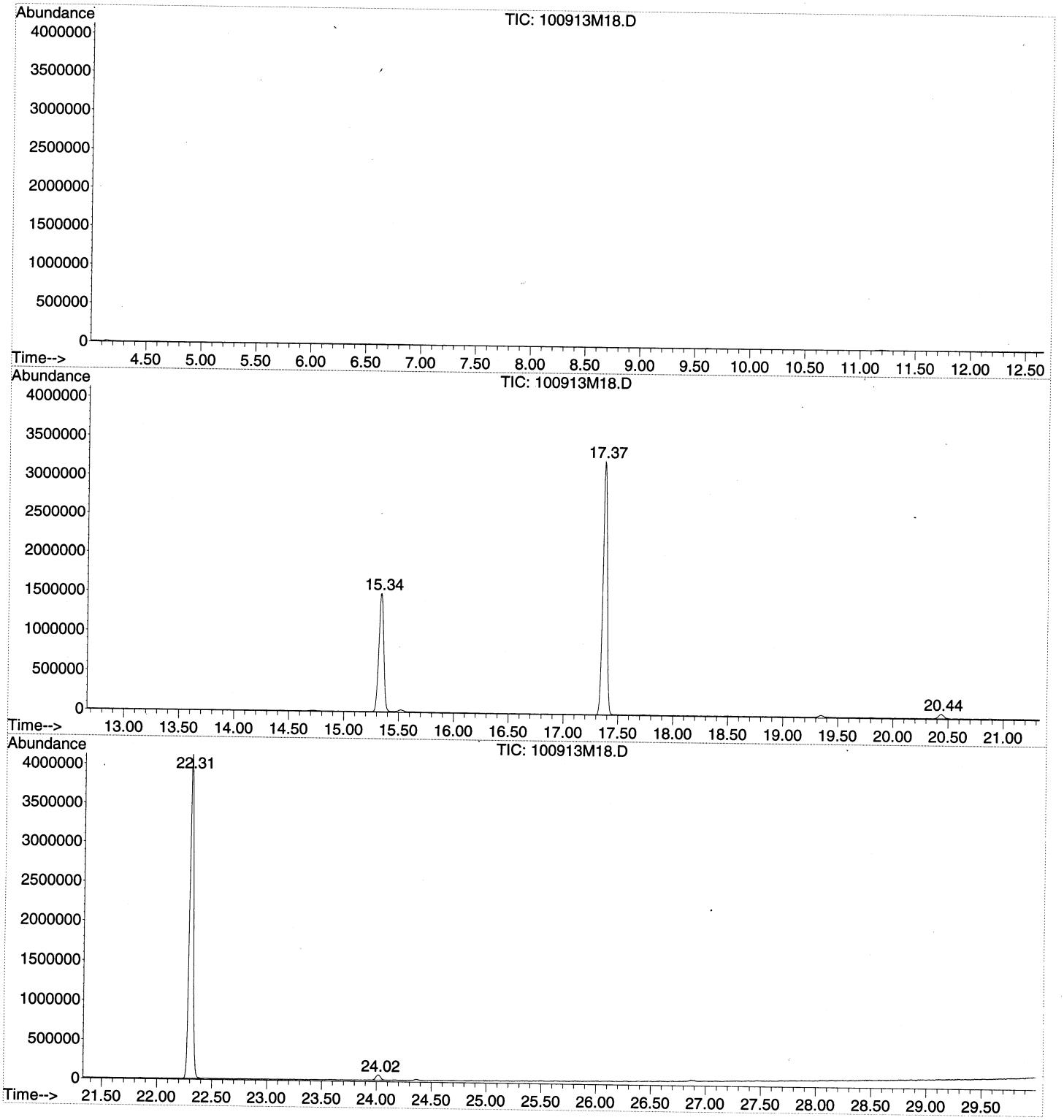
Sum of corrected areas: 23834024

LSC Report - Integrated Chromatogram

Data Path : C:\MSDCHEM\1\2013\DATA\100913\
Data File : 100913M18.D
Acq On : 10 Oct 2013 3:26 am
Operator : EM
Sample : BLANK CAN 7465
Misc : BLANK CAN 7465
ALS Vial : 45 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P



Tentatively Identified Compound (LSC) summary

```
Data Path : C:\MSDCHEM\1\2013\DATA\100913\\
Data File : 100913M18.D
Acq On    : 10 Oct 2013   3:26 amm
Operator  : EMM
Sample    : BLANK CAN 74655
Misc      : BLANK CAN 74655
ALS Vial  : 45   Sample Multiplier: 11

Quant Method : C:\MSDCHEM\1\2013\METHOD\100913MAA.MM
Quant Title  : TO155

TIC Library    : C:\DATABASE\NIST02.LL
TIC Integration Parameters: LSCINT.PP

                                                  |--Internal Standard---|
TIC Top Hit name      RT  EstConc Units Response |#    RT     Resp  Conc|
-------------------------------------------------------------------------
```

No Library Search Compounds Detected
****

Organics Daily Folder Preparation/Technical Review Guide

Analysis Method	TO15	**Analyst Initial**	EM	**Reviewer Initial**	[illegible]	**Batch/ Sequence**	B13K066 S13K057
Instrument ID	HP5973M	**Date Analyzed**	11/8/13	**Date**	11/13/13	**Chemstation Last Update**	10/8/13 10:48:21
Cases	R14503			**SDGs**	13312A, BLK CERTIFICATION		

Review each item listed below. As problems are discovered list them in the non-conformance section of the form and provide and explanation in the discussion part of the table.

NA	A	PR	Item Description
	✓	✓	Runlog (Present, legible, peer reviewed)
	✓	✓	Tune/ Degradation Standard
	✓	✓	Initial Calibration (SOP criteria for number of levels, concentration, and %RSD). Manual calculation. Include summary for daily review.
	✓	✓	Continuing Calibration Verification (frequency, recovery, and %D). Manual calculation.
	✓	✓	QLS (level, frequency, and recovery) (include Chemstation summary)
	✓	✓	Method / Extraction / Storage Blanks (frequency and contamination levels)
✓			Surrogate Recoveries
	✓	✓	IS Areas (SOP criteria met)
	✓	✓	LCS (level, frequency, and recovery) (include Chemstation summary)
	✓	✓	~~MS/MSD~~ DUPLICATE
	✓	✓	Samples (within calibration range, results calculated correctly)
	✓	✓	Manual Integration Verified
✓			Standard Prep Log (all pages present, legible, peer reviewed, legible)
✓			Sample Prep/Extraction (all pages present, legible, peer reviewed)
			Others:

NA = not applicable A = Analyst check PR = Peer Review Check

Non-conformance Report

QC	File ID	Result	QC Limit	High Bias	Low Bias	Flag ND	Flag Hits	Discussion
BLK	110813M05.d	0.57	< 1/2QL				✓	Acetone - B flag
IS	110813M08	>140%	60-140%					IS1 & IS2 high - for PCE only
IS	↓ M09	>140%	60-140%					IS1 high - for PCE only
IS	110813M20	>140%	60-140%					IS1 high - Rerun 1594E BLK

EPA Region 9 Laboratory
Canister Certification Status

Canister	Type	Status	Cert. Date	Cert. File
1579E	1L	Certified Clean	11/8/2013	110813M10.D
1582E	1L	Certified Clean	11/8/2013	110813M11.D
1585E	1L	Certified Clean	11/8/2013	110813M12.D
1586E	1L	Certified Clean	11/8/2013	110813M13.D
1588E	1L	Certified Clean	11/8/2013	110813M14.D
1589E	1L	Certified Clean	11/8/2013	110813M15.D
1590E	1L	Certified Clean	11/8/2013	110813M16.D
1591E	1L	Certified Clean	11/8/2013	110813M17.D
1592E	1L	Certified Clean	11/8/2013	110813M18.D
1593E	1L	Certified Clean	11/8/2013	110813M19.D
7247	1L	Certified Clean	11/8/2013	110813M21.D
7250	1L	Certified Clean	11/8/2013	110813M22.D
7251	1L	Certified Clean	11/8/2013	110813M23.D
7335	1L	Certified Clean	11/8/2013	110813M24.D
7336	1L	Certified Clean	11/8/2013	110813M25.D
7340	1L	Certified Clean	11/8/2013	110813M26.D
7341	1L	Certified Clean	11/8/2013	110813M27.D
7458	1L	Certified Clean	11/8/2013	110813M28.D

ANALYSIS SEQUENCE

S13K054

Instrument: AG5973M

Calibration ID: 1310010

Printed: 11/12/2013 12:15:33PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
S13K054-TUN1	QC		1		1305020			
S13K054-CCV1	QC		2		1345119			
B13K066-BS1	QC		3					
S13K054-CRL1	QC		4		1345120			
B13K066-BLK1	QC		5			1311120		
1311026-01	VOCs, Soil Gas	A	6			1311120	California Site Cleanup Section 2	one week preliminary results
1311026-01RE1	VOCs, Soil Gas	A	7			1311120	California Site Cleanup Section 2	one week preliminary results
B13K066-DUP1	QC		8			1311120		
1311026-02	VOCs, Soil Gas	A	9			1311120	California Site Cleanup Section 2	one week preliminary results

Samples Loaded By — Date 11/8/13

Data Processed By — Date 11/8/13

----------SEQUENCE TABLE ----------

Sequence Name: C:\Smart\2013\110813MAAA .SEQ
Date: 11-12-2013
Time: 11:30:04
Int. Std Volume: 50 cc

Sample Name	Inlet #	Auto Samp Pos	Cal Vol.	Std Vol.	Method	Time
BFB 1305020	4	9	100	40	C:\Smart\TO15.CTD	12:00
10ppbv 1345091	4	9	100	40	C:\Smart\TO15.CTD	12:00
10ppbv 1345091	4	9	100	0	C:\Smart\TO15.CTD	12:00
1.0ppbv 1345091	4	9	10	0	C:\Smart\TO15.CTD	12:00
Can 1577E	4	6	200	0	C:\Smart\TO15.CTD	12:00
1311026-02	4	7	200	0	C:\Smart\TO15.CTD	12:00
1311026-01	4	8	200	0	C:\Smart\TO15.CTD	12:00
1311026-01RE1	4	8	20	0	C:\Smart\TO15.CTD	12:00
1311026-01DUP	4	8	20	0	C:\Smart\TO15.CTD	12:00
Can 1579E	3	1	200	0	C:\Smart\TO15.CTD	12:00
Can 1582E	3	2	200	0	C:\Smart\TO15.CTD	12:00
Can 1585E	3	3	200	0	C:\Smart\TO15.CTD	12:00
Can 1586E	3	4	200	0	C:\Smart\TO15.CTD	12:00
Can 1588E	3	5	200	0	C:\Smart\TO15.CTD	12:00
Can 1589E	3	6	200	0	C:\Smart\TO15.CTD	12:00
Can 1590E	3	7	200	0	C:\Smart\TO15.CTD	12:00
Can 1591E	3	8	200	0	C:\Smart\TO15.CTD	12:00
Can 1592E	3	9	200	0	C:\Smart\TO15.CTD	12:00
Can 1593E	3	10	200	0	C:\Smart\TO15.CTD	12:00
Can 1594E	3	11	200	0	C:\Smart\TO15.CTD	12:00
Can 7247	3	12	200	0	C:\Smart\TO15.CTD	12:00
Can 7250	4	1	200	0	C:\Smart\TO15.CTD	12:00
Can 7251	4	2	200	0	C:\Smart\TO15.CTD	12:00
Can 7335	4	3	200	0	C:\Smart\TO15.CTD	12:00
Can 7336	4	4	200	0	C:\Smart\TO15.CTD	12:00
Can 7340	4	5	200	0	C:\Smart\TO15.CTD	12:00
Can 7341	4	6	200	0	C:\Smart\TO15.CTD	12:00
Can 7458	4	7	200	0	C:\Smart\TO15.CTD	12:00

Injection Log

Directory: C:\MSDChem\1\2013\Data\110813TO15

Line	Vial	FileName	Multiplier	SampleName	Misc Info	Injected
1	49	110813M01.D	1.	S13K054-CCV1 / TUN 1	BFB 1305020/IS 1311120/1345091	8 Nov 2013 12:49
2	49	110813M02.D	1.	B13K066-BS1	10ppbv 1345091	8 Nov 2013 13:37
3	49	110813M03.D	1.	B13K066-BS1 — NU	10ppbv 1345091	8 Nov 2013 14:24
4	49	110813M04.D	1.	S13K054-CRL1	1.0ppbv 1345091	8 Nov 2013 15:09
5	46	110813M05.D	1.	B13K066-BLK1	200mL Can 1577E	8 Nov 2013 15:59
6	47	110813M06.D	2.34	1311026-02	200mL SVE Stack-1101 Can 878	8 Nov 2013 16:48
7	48	110813M07.D	2.68	1311026-01	200mL SVE Pre GAC-1101 Can 669	8 Nov 2013 17:37
8	48	110813M08.D	2.68	1311026-01RE1	20mL SVE Pre GAC-1101 Can 669	8 Nov 2013 18:22
9	48	110813M09.D	2.68	B13K066-DUP1	20mL SVE Pre GAC-1101 Can 669	8 Nov 2013 19:08
10	31	110813M10.D	1.	Can 1579E	200mL Can 1579E	8 Nov 2013 19:57
11	32	110813M11.D	1.	Can 1582E	200mL Can 1582E	8 Nov 2013 20:46
12	33	110813M12.D	1.	Can 1585E	200mL Can 1585E	8 Nov 2013 21:35
13	34	110813M13.D	1.	Can 1586E	200mL Can 1586E	8 Nov 2013 22:24
14	35	110813M14.D	1.	Can 1588E	200mL Can 1588E	8 Nov 2013 23:13
15	36	110813M15.D	1.	Can 1589E	200mL Can 1589E	9 Nov 2013 00:01
16	37	110813M16.D	1.	Can 1590E	200mL Can 1590E	9 Nov 2013 00:50
17	38	110813M17.D	1.	Can 1591E	200mL Can 1591E	9 Nov 2013 01:39
18	39	110813M18.D	1.	Can 1592E	200mL Can 1592E	9 Nov 2013 02:28
19	10	110813M19.D	1.	Can 1593E	200mL Can 1593E	9 Nov 2013 03:17
20	11	110813M20.D	1.	Can 1594E — RR IS ↑	200mL Can 1594E	9 Nov 2013 04:06
21	12	110813M21.D	1.	Can 7247	200mL Can 7247	9 Nov 2013 04:55
22	41	110813M22.D	1.	Can 7250	200mL Can 7250	9 Nov 2013 05:43
23	42	110813M23.D	1.	Can 7251	200mL Can 7251	9 Nov 2013 06:32
24	43	110813M24.D	1.	Can 7335	200mL Can 7335	9 Nov 2013 07:21
25	44	110813M25.D	1.	Can 7336	200mL Can 7336	9 Nov 2013 08:10
~~26~~	~~45~~	~~110813M26.D~~	~~1.~~	~~Can 7340~~	~~200mL Can 7340~~	~~9 Nov 2013 08:59~~
27	46	110813M27.D	1.	Can 7341	200mL Can 7341	9 Nov 2013 09:49
28	47	110813M28.D	1.	Can 7458	200mL Can 7458	9 Nov 2013 10:38

12 Nov 2013 11:37

00195

GC/MS QA-QC Check Report

Tune File : C:\MSDCHEM\1\2013\DATA\110813TO15\110813M01.D
Tune Time : 8 Nov 2013 12:49 pm

Daily Calibration File : C:\MSDCHEM\1\2013\DATA\110813TO15\110813M01.D

File	Sample	Surrogate Recovery %		Internal Standard Responses	
		725936	3096590	2966300	
110813M01.D	S13K054-CCV1	725936	3096591	2966302	
110813M02.D	B13K066-BS1	840740	3573140	3370440	
110813M03.D	B13K066-BS1	980111	3763101	3251407	NU Failed
110813M04.D	S13K054-CRL1	1005165	3870191	3223541	
110813M05.D	B13K066-BLK1	880600	3823743	3267677	Can 1577E
110813M06.D	1311026-02	854450	3713975	3152339	
110813M07.D	1311026-01	913850	3901956	3265147	
110813M08.D	1311026-01RE1	1424027*	5237558*	3835573	IS1 & IS2 failed High
110813M09.D	B13K066-DUP1	1043820*	4071816	3232332	IS1 failed high
110813M10.D	Can 1579E	920625	4015622	3320795	
110813M11.D	Can 1582E	891867	3901152	3302651	
110813M12.D	Can 1585E	896441	3929586	3323826	
110813M13.D	Can 1586E	883873	3855182	3294499	
110813M14.D	Can 1588E	886090	3898902	3298450	
110813M15.D	Can 1589E	894214	3909215	3302501	
110813M16.D	Can 1590E	904629	3964284	3381842	
110813M17.D	Can 1591E	921110	3995087	3410021	
110813M18.D	Can 1592E	919743	4017717	3404920	
110813M19.D	Can 1593E	952702	4028025	3461861	

110813M20.D					
	Can 1594E	1033781*	4249612	3547808	RR
110813M21.D					
	Can 7247	948770	4110733	3468240	
110813M22.D					
	Can 7250	991678	4162951	3508288	
110813M23.D					
	Can 7251	962084	4161901	3489418	
110813M24.D					
	Can 7335	994016	4187443	3526334	
110813M25.D					
	Can 7336	964121	4156854	3518777	
110813M26.D					
	Can 7340	986603	4186548	3602351	
110813M27.D					
	Can 7341	964236	4179982	3541297	
110813M28.D					
	Can 7458	975900	4197938	3534057	

(fails) - fails 24hr time check * - fails criteria

Created: Tue Nov 12 12:27:55 2013 Morpheus

Response Factor Report Morpheus

Method Path : C:\MSDCHEM\1\2013\METHOD\
Method File : 110813TMAA.M
Title : TO15
Last Update : Tue Oct 08 16:43:21 2013
Response Via : Initial Calibration

Calibration Files
1 =091913M02.D 2 =091913M03.D 5 =091913M04.D
10 =091913M05.D 15 =091913M06.D 20 =091913M07.D

		Compound	1	2	5	10	15	20	Avg	%RSD
1)	I	BROMOCHLOROMETHANE	----------ISTD----------							
2)	T	Propene	0.518	0.462	0.436	0.431	0.432	0.437	0.453	7.51
3)	T	Dichlorodifluorom	2.711	2.486	2.260	2.075	1.887	1.724	2.190	16.91
4)	T	1,2-Dichlorotetra	2.467	2.426	2.283	1.887	1.491	1.232	1.964	26.30
5)	T	Chloromethane	0.604	0.548	0.547	0.552	0.550	0.559	0.560	3.92
6)	T	Vinyl chloride	0.802	0.717	0.662	0.659	0.662	0.679	0.697	8.05
7)	T	1,3-Butadiene	0.613	0.516	0.489	0.485	0.486	0.494	0.514	9.73
8)	T	Bromomethane	0.868	0.769	0.706	0.696	0.695	0.698	0.739	9.40
9)	T	Chloroethane	0.454	0.400	0.364	0.355	0.344	0.348	0.378	11.26
10)	T	Bromoethene	0.974	0.873	0.792	0.789	0.789	0.797	0.836	8.99
11)	T	Trichlorofluorome	3.038	2.841	2.699	2.670	2.631	2.626	2.751	5.85
12)	T	1,1,2-Trichloro-1	2.295	2.118	2.003	2.002	1.997	2.026	2.074	5.66
13)	T	1,1-Dichloroethen	1.608	1.453	1.334	1.315	1.288	1.290	1.381	9.18
14)	T	Acetone	1.309	1.119	1.074	1.068	1.035	1.055	1.110	9.12
15)	T	Carbon disulfide	2.325	2.111	1.926	1.895	1.883	1.907	2.008	8.81
16)	T	2-Propanol	1.343	0.990	0.968	1.018	1.005	1.034	1.059	13.29
17)	T	Allyl chloride	1.005	0.885	0.810	0.801	0.794	0.791	0.848	9.99
18)	T	Dichloromethane	1.146	0.962	0.820	0.782	0.759	0.751	0.870	17.93
19)	T	tert-Butyl methyl	2.238	2.250	2.336	2.380	2.362	2.413	2.330	3.06
20)	T	trans-1,2-Dichlor	1.400	1.230	1.111	1.096	1.076	1.076	1.165	11.06
21)	T	Hexane	1.392	1.263	1.147	1.135	1.132	1.139	1.201	8.81
22)	T	1,1-Dichloroethan	1.881	1.683	1.536	1.498	1.481	1.487	1.594	9.99
23)	T	Vinyl acetate	1.779	1.633	1.565	1.575	1.568	1.581	1.617	5.15
24)	T	cis-1,2-Dichloroe	1.478	1.309	1.194	1.172	1.141	1.152	1.241	10.57
25)	T	2-Butanone (MEK)	1.160	1.058	1.289	1.310	1.296	1.310	1.237	8.47
26)	T	Ethyl acetate	1.370	1.570	1.462	1.483	1.444	1.506	1.472	4.52
27)	T	Tetrahydrofuran	0.697	0.644	0.701	0.717	0.692	0.719	0.695	3.92
28)	T	Chloroform	2.490	2.257	2.041	1.986	1.956	1.962	2.115	10.17
29)	T	Cyclohexane	1.358	1.231	1.158	1.148	1.151	1.155	1.200	6.96
30)	T	1,1,1-Trichloroet	2.794	2.569	2.371	2.346	2.314	2.318	2.452	7.86
31)	T	Carbon tetrachlor	3.124	2.888	2.683	2.669	2.643	2.649	2.776	6.98
32)	I	1,4-DIFLUOROBENZENE	----------ISTD----------							
33)	T	Benzene	0.706	0.639	0.587	0.573	0.558	0.557	0.603	9.76
34)	T	2,2,4-Trimethylpe	0.892	0.820	0.764	0.750	0.739	0.733	0.783	7.88
35)	T	1,2-Dichloroethan	0.346	0.316	0.288	0.283	0.272	0.265	0.295	10.32
36)	T	Heptane	0.306	0.281	0.261	0.256	0.251	0.247	0.267	8.38
37)	T	Trichloroethene	0.401	0.362	0.334	0.326	0.323	0.324	0.345	8.99
38)	T	1,2-Dichloropropa	0.216	0.203	0.186	0.180	0.177	0.177	0.190	8.51
39)	T	1,4-Dioxane	0.131	0.102	0.101	0.104	0.102	0.105	0.107	10.81
40)	T	Bromodichlorometh	0.505	0.466	0.437	0.433	0.423	0.420	0.447	7.33
41)	T	cis-1,3-Dichlorop	0.381	0.348	0.333	0.329	0.324	0.323	0.340	6.54
42)	T	4-Methyl-2-pentan	0.298	0.261	0.304	0.309	0.306	0.310	0.298	6.18
43)	I	CHLOROBENZENE-d5	----------ISTD----------							
44)	T	Toluene	0.984	0.959	0.897	0.895	0.884	0.887	0.918	4.65
45)	T	trans-1,3-Dichlor	0.431	0.423	0.396	0.396	0.388	0.390	0.404	4.55
46)	T	1,1,2-Trichloroet	0.321	0.318	0.297	0.292	0.289	0.289	0.301	4.85
47)	T	Tetrachloroethene	0.632	0.627	0.584	0.585	0.579	0.586	0.599	3.95
48)	T	2-Hexanone	0.360	0.303	0.330	0.344	0.340	0.346	0.337	5.74
49)	T	Chlorodibromometh	0.638	0.644	0.620	0.624	0.617	0.624	0.628	1.72
50)	T	1,2-Dibromoethane	0.519	0.508	0.475	0.476	0.469	0.473	0.487	4.39
51)	T	Chlorobenzene	0.822	0.832	0.808	0.804	0.795	0.800	0.810	1.77
52)	T	Ethylbenzene	1.168	1.242	1.236	1.246	1.232	1.235	1.227	2.36
53)	T	m&p-Xylene	0.879	0.961	0.983	1.003	0.983	0.977	0.964	4.56
54)	T	o-Xylene	0.849	0.945	0.990	1.024	1.015	1.021	0.974	6.99
55)	T	Styrene	0.652	0.754	0.804	0.846	0.846	0.855	0.793	9.95
56)	T	Bromoform	0.604	0.663	0.710	0.757	0.759	0.768	0.710	9.24

Response Factor Report Morpheus

Method Path : C:\MSDCHEM\1\2013\METHOD\
Method File : 110813TMAA.M
Title : TO15
Last Update : Tue Oct 08 16:43:21 2013
Response Via : Initial Calibration

Calibration Files
1 =091913M02.D 2 =091913M03.D 5 =091913M04.D
10 =091913M05.D 15 =091913M06.D 20 =091913M07.D

		Compound	1	2	5	10	15	20	Avg	%RSD
57)	T	1,1,2,2-Tetrachlo	0.478	0.540	0.593	0.621	0.619	0.635	0.581	10.46
58)	T	1,2,3-Trichloropr	0.177	0.370	0.367	0.382	0.366	0.350	0.336	23.32
59)	T	4-Ethyltoluene	1.036	1.230	1.374	1.468	1.471	1.499	1.346	13.47
60)	T	1,3,5-Trimethylbe	0.926	1.115	1.255	1.339	1.333	1.351	1.220	13.84
61)	T	1,2,4-Trimethylbe	0.883	1.055	1.213	1.304	1.302	1.318	1.179	14.91
62)	T	1,3-Dichlorobenze	0.712	0.841	0.964	1.044	1.044	1.061	0.945	14.87
63)	T	1,4-Dichlorobenze	0.697	0.838	0.958	1.033	1.038	1.055	0.937	15.19
64)	T	Benzyl chloride	0.704	0.804	0.941	1.024	1.018	1.040	0.922	14.97
65)	T	1,2-Dichlorobenze	0.680	0.760	0.879	0.961	0.960	0.977	0.869	14.17
66)	T	1,2,4-Trichlorobe	0.916	0.843	0.884	0.964	0.948	0.954	0.918	5.13
67)	T	Hexachlorobutadie	1.069	0.975	0.981	1.068	1.046	1.027	1.028	4.03
68)		Naphthalene	0.051	0.080	0.103	0.153	0.217	0.359	0.160	70.76

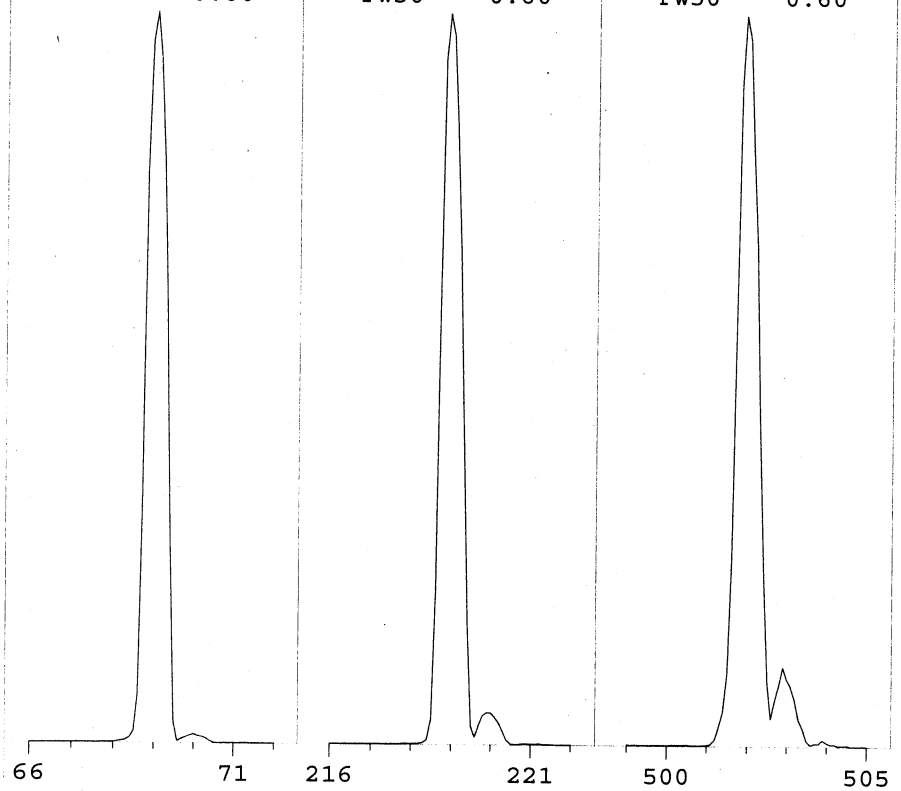
(#) = Out of Range

5973

Fri Nov 08 12:28:20 2013
C:\MSDCHEM\1\5973N\BFB110813.U

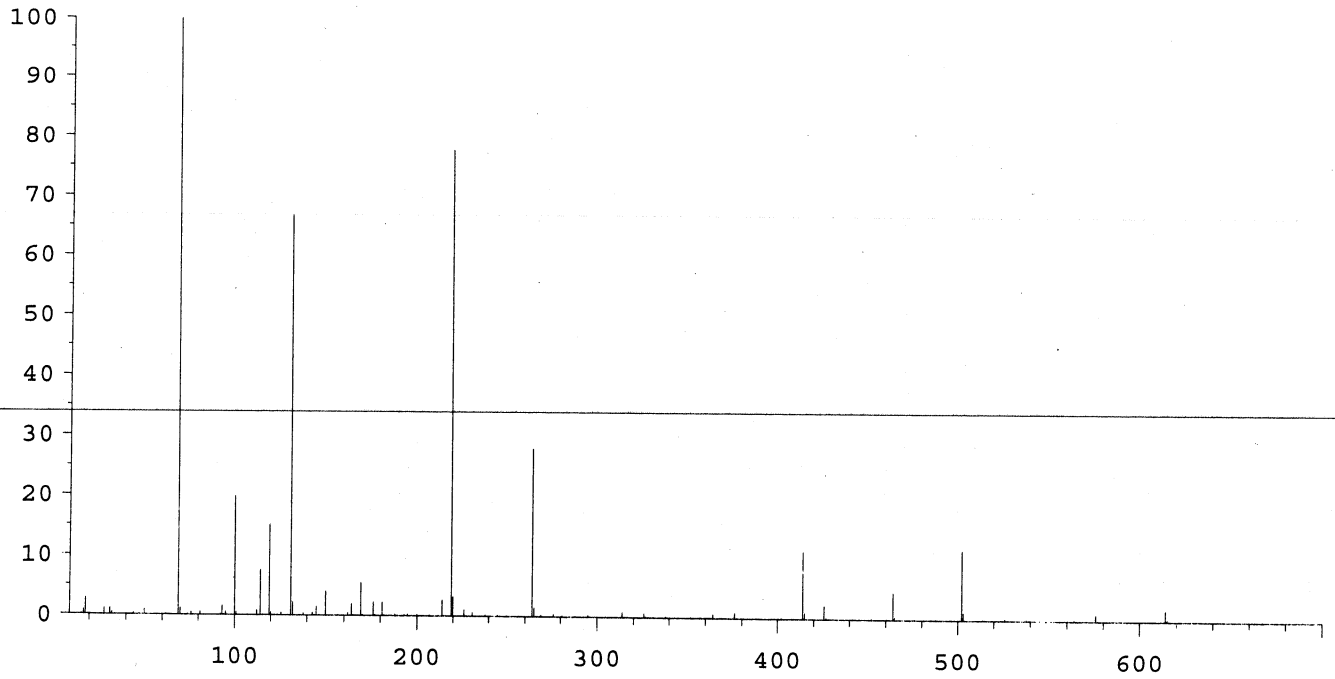
Instrument: Morpheus

Mass	69.00	Mass	218.90	Mass	501.90
Ab	439542	Ab	346997	Ab	48237
Pw50	0.60	Pw50	0.60	Pw50	0.60



Ion Pol	POS	MassGain	321
		MassOffs	-10
Emission	34.6	AmuGain	2331
ElEnrgy	69.9	AmuOffs	126
Filament	1	Wid219	-0.028
		DC Pol	POS
Repeller	21.91		
IonFcus	90.2	HEDEnab	ON
EntLens	23.0	EMVolts	1153
EntOffs	17.57		
		Samples	8
PFTBA	OPEN	Averages	3
		Stepsize	0.10
Zones:			
MS Source	230	TurboSpd	100
MS Quad	150		

Scan: 10.00 - 700.00 Samples: 8 Thresh: 100 Step: 0.10
157 peaks Base: 69.00 Abundance: 363584



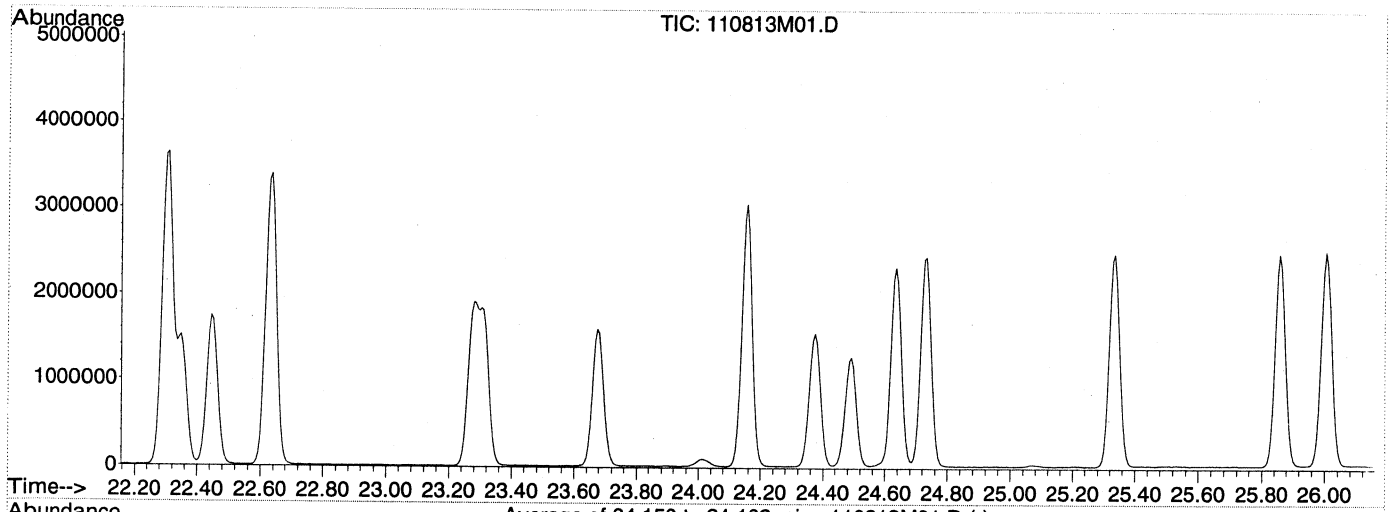
Mass	Abund	Rel Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	363584	100.00	70.00	4314	1.19
219.00	282944	77.82	219.90	12134	4.29
502.00	41856	11.51	503.00	4383	10.47

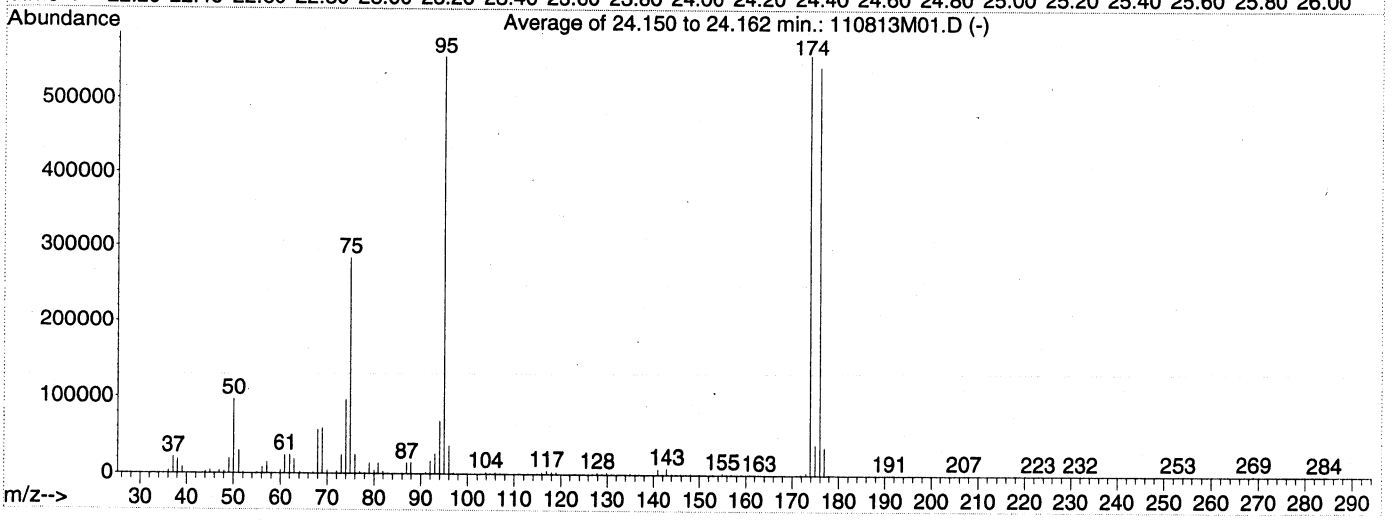
BFB

Data Path : C:\MSDChem\1\2013\Data\110813TO15\
Data File : 110813M01.D
Acq On : 8 Nov 2013 12:49 pm
Operator : EM
Sample : S13K054-TUN1
Misc : BFB 1305020/IS 1311120/1345091
ALS Vial : 49 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Title : TO15
Last Update : Tue Oct 08 16:43:21 2013





AutoFind: Scans 3380, 3381, 3382; Background Corrected with Scan 3367

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	17.4	96623	PASS
75	95	30	66	51.0	283761	PASS
95	95	100	100	100.0	556778	PASS
96	95	5	9	6.5	36269	PASS
173	174	0.00	2	0.6	3259	PASS
174	95	50	120	100.6	560106	PASS
175	174	4	9	7.0	39112	PASS
176	174	93	101	97.1	543893	PASS
177	176	5	9	6.5	35488	PASS

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\2013\Data\110813TO15\
Data File : 110813M01.D
Acq On : 8 Nov 2013 12:49 pm
Operator : EM
Sample : S13K054-CCV1
Misc : BFB 1305020/IS 1311120/1345091
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Nov 08 16:45:47 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
1	I	BROMOCHLOROMETHANE	1.000	1.000	0.0	81	0.00	
2	T	Propene	0.453	0.380	16.1	72	0.00	
3	T	Dichlorodifluoromethane	2.190	2.107	3.8	82	0.00	
4	T	1,2-Dichlorotetrafluoroetha	1.964	1.393	29.1	60#	0.00	ok
5	T	Chloromethane	0.560	0.487	13.0	72	0.00	
6	T	Vinyl chloride	0.697	0.571	18.1	70	0.00	
7	T	1,3-Butadiene	0.514	0.409	20.4	68	0.00	
8	T	Bromomethane	0.739	0.615	16.8	72	0.00	
9	T	Chloroethane	0.378	0.312	17.5	71	0.00	
10	T	Bromoethene	0.836	0.596	28.7	61	0.00	
11	T	Trichlorofluoromethane	2.751	2.902	-5.5	88	0.00	
12	T	1,1,2-Trichloro-1,2,2-trifl	2.074	1.654	20.3	67	0.00	
13	T	1,1-Dichloroethene	1.381	1.278	7.5	79	0.00	
14	T	Acetone	1.110	1.041	6.2	79	0.00	
15	T	Carbon disulfide	2.008	1.478	26.4	63	0.00	
16	T	2-Propanol	1.059	0.800	24.5	64	0.00	
17	T	Allyl chloride	0.848	0.678	20.0	69	0.00	
18	T	Dichloromethane	0.870	0.755	13.2	78	0.00	
19	T	tert-Butyl methyl ether (MT	2.330	1.899	18.5	65	0.00	
20	T	trans-1,2-Dichloroethene	1.165	0.957	17.9	71	0.00	
21	T	Hexane	1.201	0.886	26.2	63	0.00	
22	T	1,1-Dichloroethane	1.594	1.312	17.7	71	0.00	
23	T	Vinyl acetate	1.617	1.294	20.0	67	0.00	
24	T	cis-1,2-Dichloroethene	1.241	1.046	15.7	72	0.00	
25	T	2-Butanone (MEK)	1.237	1.102	10.9	68	0.00	
26	T	Ethyl acetate	1.472	1.241	15.7	68	0.00	
27	T	Tetrahydrofuran	0.695	0.597	14.1	68	-0.01	
28	T	Chloroform	2.115	1.924	9.0	79	0.00	
29	T	Cyclohexane	1.200	0.941	21.6	67	0.00	
30	T	1,1,1-Trichloroethane	2.452	2.384	2.8	83	0.00	
31	T	Carbon tetrachloride	2.776	2.759	0.6	84	0.00	
32	I	1,4-DIFLUOROBENZENE	1.000	1.000	0.0	68	0.00	
33	T	Benzene	0.603	0.540	10.4	64	0.00	
34	T	2,2,4-Trimethylpentane	0.783	0.732	6.5	66	0.00	
35	T	1,2-Dichloroethane	0.295	0.370	-25.4	89	0.00	
36	T	Heptane	0.267	0.266	0.4	71	0.00	
37	T	Trichloroethene	0.345	0.299	13.3	62	0.00	
38	T	1,2-Dichloropropane	0.190	0.188	1.1	71	0.00	
39	T	1,4-Dioxane	0.107	0.096	10.3	63	0.00	
40	T	Bromodichloromethane	0.447	0.510	-14.1	80	0.00	
41	T	cis-1,3-Dichloropropene	0.340	0.343	-0.9	71	0.00	
42	T	4-Methyl-2-pentanone (MIBK)	0.298	0.380	-27.5	84	0.00	
43	I	CHLOROBENZENE-d5	1.000	1.000	0.0	74	0.00	
44	T	Toluene	0.918	0.793	13.6	66	0.00	
45	T	trans-1,3-Dichloropropene	0.404	0.407	-0.7	76	0.00	
46	T	1,1,2-Trichloroethane	0.301	0.271	10.0	69	0.00	
47	T	Tetrachloroethene	0.599	0.520	13.2	66	0.00	
48	T	2-Hexanone	0.337	0.410	-21.7	88	0.00	
49	T	Chlorodibromomethane	0.628	0.635	-1.1	75	0.00	

Evaluate Continuing Calibration Report

Data Path : C:\MSDChem\1\2013\Data\110813TO15\
Data File : 110813M01.D
Acq On : 8 Nov 2013 12:49 pm
Operator : EM
Sample : S13K054-CCV1
Misc : BFB 1305020/IS 1311120/1345091
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Nov 08 16:45:47 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.33min
Max. RRF Dev : 30% Max. Rel. Area : 140%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	
50	T	1,2-Dibromoethane (EDB)	0.487	0.463	4.9	72	0.00	
51	T	Chlorobenzene	0.810	0.725	10.5	67	0.00	
52	T	Ethylbenzene	1.227	1.197	2.4	71	0.00	
53	T	m&p-Xylene	0.964	0.976	-1.2	72	0.00	
54	T	o-Xylene	0.974	0.999	-2.6	72	0.00	
55	T	Styrene	0.793	0.772	2.6	67	0.00	
56	T	Bromoform	0.710	0.755	-6.3	74	0.00	
57	T	1,1,2,2-Tetrachloroethane	0.581	0.647	-11.4	77	0.00	
58	T	~~1,2,3-Trichloropropane~~	~~0.336~~	~~0.563~~	~~-67.6#~~	~~109~~	~~0.00~~	Em 11/8/13
59	T	4-Ethyltoluene	1.346	1.455	-8.1	73	0.00	
60	T	1,3,5-Trimethylbenzene	1.220	1.363	-11.7	75	0.00	
61	T	1,2,4-Trimethylbenzene	1.179	1.339	-13.6	76	0.00	
62	T	1,3-Dichlorobenzene	0.945	1.052	-11.3	75	0.00	
63	T	1,4-Dichlorobenzene	0.937	1.052	-12.3	75	0.00	
64	T	Benzyl chloride	0.922	1.050	-13.9	76	0.00	
65	T	1,2-Dichlorobenzene	0.869	1.004	-15.5	77	0.00	
66	T	1,2,4-Trichlorobenzene	0.918	0.977	-6.4	75	0.00	
67	T	Hexachlorobutadiene	1.028	1.127 ✓	-9.6 ✓	78	0.00	
68		~~Naphthalene~~	~~0.160~~	~~0.019~~	~~88.1#~~	~~9#~~	~~0.00~~	Em 11/8/13

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

$$\%\ Dev_{\#67\ HCB} = \frac{1.028 - 1.127}{1.028} \times 100 = 9.6\% \checkmark$$

$$RF_{\#67\ HCB} = \frac{1655589\ (20.8)}{2966302\ (10.3)} = 1.127 \checkmark$$

Em 11/8/13

: 00503

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\110813TO15\
Data File : 110813M01.D
Acq On : 8 Nov 2013 12:49 pm
Operator : EM
Sample : S13K054-CCV1 /TUN
Misc : BFB 1305020/IS 1311120/1345091
ALS Vial : 49 Sample Multiplier: 1

TUN/CCV

Quant Time: Nov 08 16:45:47 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	15.33	49	725936	18.80	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.37	114	3096591	20.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.31	117	2966302	20.80	ppbv	0.00

Target Compounds						Qvalue
2) Propene	4.14	41	157184	8.99	ppbv	95
3) Dichlorodifluoromethane	4.23	85	821753	9.72	ppbv	100
4) 1,2-Dichlorotetrafluoroeth	4.59	85	559609	7.38	ppbv	99
5) Chloromethane	4.78	50	193660	8.95	ppbv	99
6) Vinyl chloride	5.11	62	231714	8.61	ppbv	99
7) 1,3-Butadiene	5.21	54	161083	8.12	ppbv	84
8) Bromomethane	6.13	94	247119	8.66	ppbv	99
9) Chloroethane	6.47	64	125364	8.60	ppbv	100
10) Bromoethene	7.04	106	237031	7.35	ppbv	99
11) Trichlorofluoromethane	7.19	101	1176962	11.08	ppbv	99
12) 1,1,2-Trichloro-1,2,2-trif	9.01	151	593989	7.42	ppbv	91
13) 1,1-Dichloroethene	9.08	61	463880	8.70	ppbv	88
14) Acetone	9.56	43	426384	9.95	ppbv	88
15) Carbon disulfide	9.79	76	582327	7.51	ppbv	92
16) 2-Propanol	10.17	45	293529	7.18	ppbv	81
17) Allyl chloride	10.65	41	264657	8.09	ppbv	91
18) Dichloromethane	11.20	49	280029	8.34	ppbv	85
19) tert-Butyl methyl ether (M	11.92	73	799456	8.89	ppbv	99
20) trans-1,2-Dichloroethene	11.95	61	351226	7.81	ppbv	86
21) Hexane	12.60	57	349006	7.52	ppbv	86
22) 1,1-Dichloroethane	13.33	63	496623	8.07	ppbv	99
23) Vinyl acetate	13.47	43	499774	8.01	ppbv	94
24) cis-1,2-Dichloroethene	14.79	61	408017	8.52	ppbv	86
25) 2-Butanone (MEK)	14.88	43	442583	9.26	ppbv	93
26) Ethyl acetate	14.94	43	498564	8.77	ppbv	95
27) Tetrahydrofuran	15.34	42	237375	8.85	ppbv	91
28) Chloroform	15.50	83	750505	9.19	ppbv	97
29) Cyclohexane	15.75	56	378007	8.16	ppbv	90
30) 1,1,1-Trichloroethane	15.80	97	920730	9.72	ppbv	98
31) Carbon tetrachloride	16.06	117	1065633	9.94	ppbv	100
33) Benzene	16.55	78	862034	9.23	ppbv	95
34) 2,2,4-Trimethylpentane	16.53	57	1190796	9.82	ppbv	94
35) 1,2-Dichloroethane	16.74	62	573741	12.55	ppbv	100
36) Heptane	16.92	43	432180	10.45	ppbv	92
37) Trichloroethene	17.79	130	476681	8.93	ppbv	94
38) 1,2-Dichloropropane	18.29	63	307958	10.48	ppbv	87
39) 1,4-Dioxane	18.47	88	158326	9.52	ppbv	88
40) Bromodichloromethane	18.75	83	836659	12.08	ppbv	99
41) cis-1,3-Dichloropropene	19.53	75	546365	10.39	ppbv	87
42) 4-Methyl-2-pentanone (MIBK	19.76	43	618684	13.41	ppbv	92
44) Toluene	20.02	91	1176769	8.99	ppbv	98
45) trans-1,3-Dichloropropene	20.48	75	639238	11.10	ppbv	92
46) 1,1,2-Trichloroethane	20.78	97	417476	9.73	ppbv	90
47) Tetrachloroethene	20.88	166	770933	9.03	ppbv	97
48) 2-Hexanone	21.11	43	603051	12.54	ppbv	91
49) Chlorodibromomethane	21.39	129	942146	10.52	ppbv	98
50) 1,2-Dibromoethane (EDB)	21.62	107	706170	10.17	ppbv	100
51) Chlorobenzene	22.35	112	1095508	9.48	ppbv	94
52) Ethylbenzene	22.45	91	1793220	10.25	ppbv	96
53) m&p-Xylene	22.64	91	2950383	21.45	ppbv	95

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\110813TO15\
Data File : 110813M01.D
Acq On : 8 Nov 2013 12:49 pm
Operator : EM
Sample : S13K054-CCV1
Misc : BFB 1305020/IS 1311120/1345091
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Nov 08 16:45:47 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

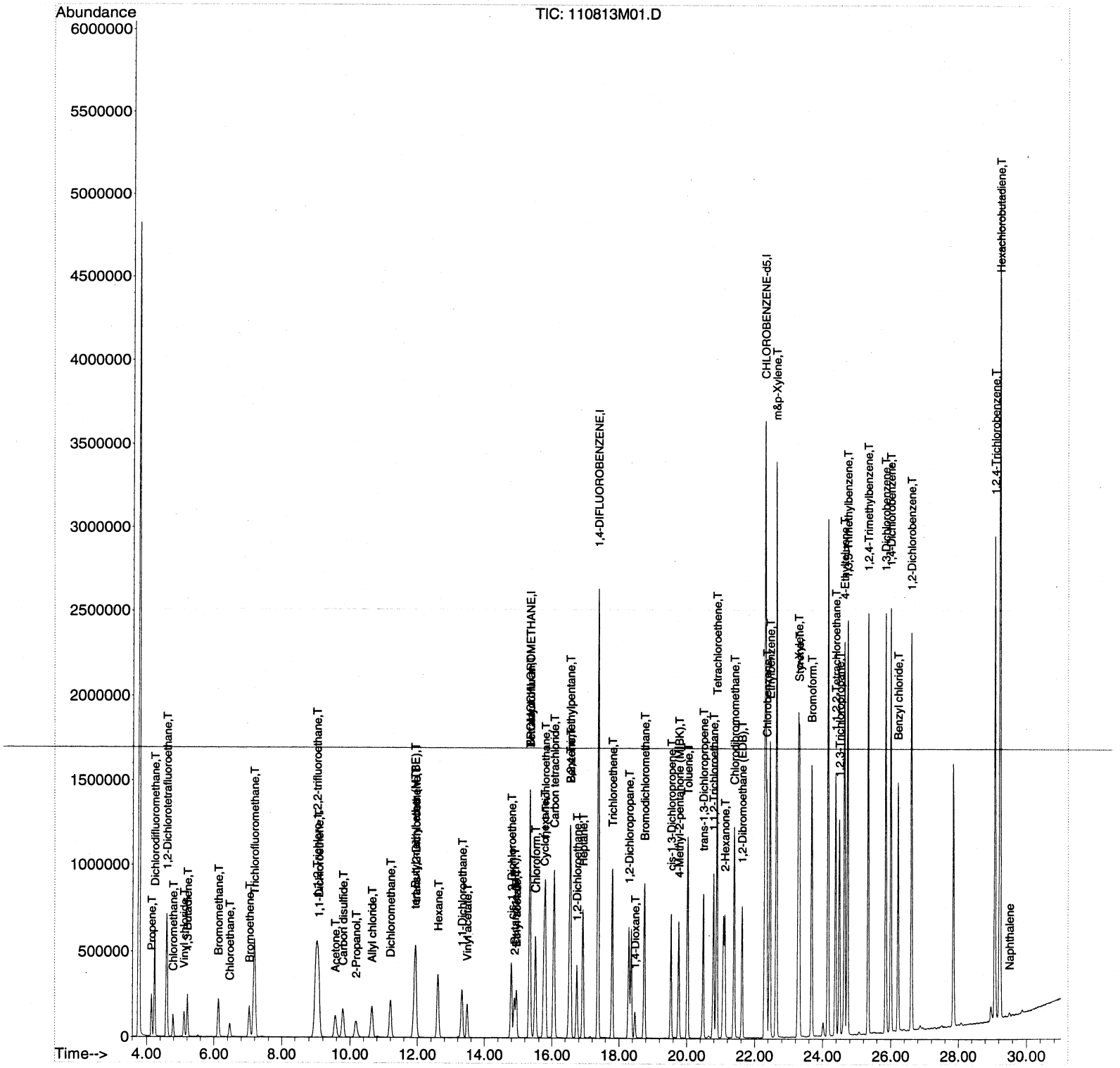
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
54) o-Xylene	23.28	91	1525408	10.98 ppbv	95
55) Styrene	23.31	104	1144641	10.12 ppbv	94
56) Bromoform	23.68	173	1108834	10.95 ppbv	98
57) 1,1,2,2-Tetrachloroethane	24.38	83	978765	11.81 ppbv	100
58) 1,2,3-Trichloropropane	24.49	75	762500	15.93 ppbv #	94
59) 4-Ethyltoluene	24.64	105	2179340	11.35 ppbv	97
60) 1,3,5-Trimethylbenzene	24.73	105	2022646	11.63 ppbv	95
61) 1,2,4-Trimethylbenzene	25.34	105	2043575	12.15 ppbv	96
62) 1,3-Dichlorobenzene	25.86	146	1545789	11.48 ppbv	98
63) 1,4-Dichlorobenzene	26.01	146	1560317	11.68 ppbv	99
64) Benzyl chloride	26.22	91	1542693	11.74 ppbv	95
65) 1,2-Dichlorobenzene	26.61	146	1490007	12.02 ppbv	99
66) 1,2,4-Trichlorobenzene	29.09	180	1422059	10.86 ppbv	100
67) Hexachlorobutadiene	29.24	225	1655589	11.30 ppbv	100
68) Naphthalene	29.52	128	24203	1.06 ppbv	100

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\110813TO15\
Data File : 110813M01.D
Acq On : 8 Nov 2013 12:49 pm
Operator : EM
Sample : S13K054-CCV1
Misc : BFB 1305020/IS 1311120/1345091
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Nov 08 16:45:47 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration



LCS REPORT

Instrument Name: Morpheus
Sample Name: B13K066-BS1
Misc Info: 10ppbv 1345091
Date Acquired: 11/8/2013 13:37
QLast Update: Tue Oct 08 16:43:21 2013
Operator: EM

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	BROMOCHLOROMETHANE	15.33	#N/A	18.80	#N/A	70.0	130.0	#N/A
2)	Propene	4.14	10.70	11.17	104%	56.0	155.0	pass
3)	Dichlorodifluoromethane	4.23	10.30	10.40	101%	67.0	141.0	pass
4)	1,2-Dichlorotetrafluoroethane	4.59	10.50	8.86	84%	68.0	147.0	pass
5)	Chloromethane	4.78	10.50	11.42	109%	64.0	141.0	pass
6)	Vinyl chloride	5.10	10.50	10.62	101%	65.0	141.0	pass
7)	1,3-Butadiene	5.21	10.20	9.92	97%	61.0	154.0	pass
8)	Bromomethane	6.13	10.30	9.90	96%	71.0	132.0	pass
9)	Chloroethane	6.47	10.30	10.03	97%	70.0	134.0	pass
10)	Bromoethene	7.04	10.30	8.73	85%	71.0	146.0	pass
11)	Trichlorofluoromethane	7.19	10.70	11.39	106%	72.0	141.0	pass
12)	1,1,2-Trichloro-1,2,2-trifluoroethane	9.01	9.70	8.37	86%	68.0	134.0	pass
13)	1,1-Dichloroethene	9.07	9.60	9.66	101%	81.0	127.0	pass
14)	Acetone	9.56	10.60	11.11	105%	77.0	150.0	pass
15)	Carbon disulfide	9.79	10.20	8.82	86%	75.0	138.0	pass
16)	2-Propanol	10.18	9.50	8.80	93%	71.0	142.0	pass
17)	Allyl chloride	10.64	10.10	9.25	92%	84.0	143.0	pass
18)	Dichloromethane	11.20	9.80	9.23	94%	74.0	116.0	pass
19)	tert-Butyl methyl ether (MTBE)	11.92	10.90	10.27	94%	79.0	131.0	pass
20)	trans-1,2-Dichloroethene	11.95	9.50	8.52	90%	82.0	136.0	pass
21)	Hexane	12.60	10.20	8.60	84%	78.0	139.0	pass
22)	1,1-Dichloroethane	13.32	9.70	8.92	92%	82.0	123.0	pass
23)	Vinyl acetate	13.47	10.00	8.97	90%	70.0	139.0	pass
24)	cis-1,2-Dichloroethene	14.79	10.10	9.12	90%	83.0	126.0	pass
25)	2-Butanone (MEK)	14.88	10.40	10.29	99%	76.0	138.0	pass
26)	Ethyl acetate	14.95	10.40	9.87	95%	83.0	136.0	pass
27)	Tetrahydrofuran	15.35	10.30	9.86	96%	74.0	132.0	pass
28)	Chloroform	15.50	10.20	9.37	92%	81.0	127.0	pass
29)	Cyclohexane	15.75	10.40	8.78	84%	77.0	139.0	pass
30)	1,1,1-Trichloroethane	15.80	10.10	9.71	96%	80.0	131.0	pass
31)	Carbon tetrachloride	16.06	10.30	9.73	95%	77.0	136.0	pass
32)	1,4-DIFLUOROBENZENE	17.37	#N/A	20.00	#N/A	70.0	130.0	#N/A
33)	Benzene	16.55	10.10	9.92	98%	77.0	131.0	pass
34)	2,2,4-Trimethylpentane	16.53	10.50	10.55	100%	68.0	152.0	pass
35)	1,2-Dichloroethane	16.74	9.80	12.24	125%	70.0	149.0	pass
36)	Heptane	16.92	10.50	11.03	105%	62.0	159.0	pass
37)	Trichloroethene	17.79	10.10	9.47	94%	81.0	125.0	pass
38)	1,2-Dichloropropane	18.29	10.30	10.89	106%	74.0	135.0	pass
40)	Bromodichloromethane	18.75	10.60	11.79	111%	69.0	150.0	pass
41)	cis-1,3-Dichloropropene	19.53	10.30	10.82	105%	77.0	129.0	pass
42)	4-Methyl-2-pentanone (MIBK)	19.76	10.50	13.02	124%	59.0	147.0	pass
43)	CHLOROBENZENE-d5	22.31	#N/A	20.80	#N/A	70.0	130.0	#N/A
44)	Toluene	20.02	10.20	9.38	92%	79.0	126.0	pass
45)	trans-1,3-Dichloropropene	20.48	10.70	11.37	106%	81.0	137.0	pass
46)	1,1,2-Trichloroethane	20.79	10.30	9.77	95%	76.0	124.0	pass
47)	Tetrachloroethene	20.88	10.00	9.12	91%	80.0	122.0	pass
48)	2-Hexanone	21.12	10.30	12.38	120%	55.0	149.0	pass

50)	1,2-Dibromoethane (EDB)	21.63	10.30	10.10	98%	78.0	124.0	pass
51)	Chlorobenzene	22.35	10.40	9.60	92%	76.0	120.0	pass
52)	Ethylbenzene	22.45	10.20	10.32	101%	75.0	125.0	pass
53)	m&p-Xylene	22.64	20.40	21.56	106%	75.0	128.0	pass
54)	o-Xylene	23.28	10.30	11.01	107%	74.0	128.0	pass
55)	Styrene	23.32	10.10	10.37	103%	69.0	122.0	pass
56)	Bromoform	23.68	10.30	10.64	103%	72.0	142.0	pass
57)	1,1,2,2-Tetrachloroethane	24.38	10.20	11.78	115%	70.0	130.0	pass
58)	1,2,3-Trichloropropane	24.49	#N/A	15.63	#N/A	67.0	131.0	#N/A
59)	4-Ethyltoluene	24.64	10.50	11.09	106%	69.0	138.0	pass
61)	1,2,4-Trimethylbenzene	25.34	10.10	11.90	118%	65.0	129.0	pass
62)	1,3-Dichlorobenzene	25.86	9.90	11.20	113%	62.0	130.0	pass
63)	1,4-Dichlorobenzene	26.01	9.90	11.40	115%	61.0	131.0	pass
64)	Benzyl chloride	26.22	10.30	11.48	111%	61.0	153.0	pass
65)	1,2-Dichlorobenzene	26.61	9.90	11.65	118%	60.0	130.0	pass
66)	1,2,4-Trichlorobenzene	29.09	9.10	11.08	122%	38.0	128.0	pass
67)	Hexachlorobutadiene	29.24	9.50	11.57	122%	37.0	124.0	pass

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\110813TO15\
Data File : 110813M02.D
Acq On : 8 Nov 2013 1:37 pm
Operator : EM
Sample : B13K066-BS1
Misc : 10ppbv 1345091
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Nov 08 16:39:07 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	15.33	49	840740	18.80	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.37	114	3573140	20.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.31	117	3370440	20.80	ppbv	0.00

Target Compounds						Qvalue
2) Propene	4.14	41	226036	11.17	ppbv	97
3) Dichlorodifluoromethane	4.23	85	1018455	10.40	ppbv	100
4) 1,2-Dichlorotetrafluoroeth	4.59	85	778646	8.86	ppbv	97
5) Chloromethane	4.78	50	285991	11.42	ppbv	98
6) Vinyl chloride	5.10	62	331049	10.62	ppbv	99
7) 1,3-Butadiene	5.21	54	227960	9.92	ppbv	92
8) Bromomethane	6.13	94	327037	9.90	ppbv	100
9) Chloroethane	6.47	64	169379	10.03	ppbv	99
10) Bromoethene	7.04	106	326150	8.73	ppbv	100
11) Trichlorofluoromethane	7.19	101	1400709	11.39	ppbv	99
12) 1,1,2-Trichloro-1,2,2-trif	9.01	151	776365	8.37	ppbv	92
13) 1,1-Dichloroethene	9.07	61	596873	9.66	ppbv	92
14) Acetone	9.56	43	551673	11.11	ppbv	92
15) Carbon disulfide	9.79	76	791808	8.82	ppbv	95
16) 2-Propanol	10.18	45	416849	8.80	ppbv	90
17) Allyl chloride	10.64	41	350467	9.25	ppbv	93
18) Dichloromethane	11.20	49	359101	9.23	ppbv	88
19) tert-Butyl methyl ether (M	11.92	73	1070365	10.27	ppbv	100
20) trans-1,2-Dichloroethene	11.95	61	443879	8.52	ppbv	90
21) Hexane	12.60	57	461784	8.60	ppbv	91
22) 1,1-Dichloroethane	13.32	63	635924	8.92	ppbv	99
23) Vinyl acetate	13.47	43	648229	8.97	ppbv	95
24) cis-1,2-Dichloroethene	14.79	61	505910	9.12	ppbv	91
25) 2-Butanone (MEK)	14.88	43	569301	10.29	ppbv	95
26) Ethyl acetate	14.95	43	650192	9.87	ppbv	97
27) Tetrahydrofuran	15.35	42	306296	9.86	ppbv	93
28) Chloroform	15.50	83	886804	9.37	ppbv	98
29) Cyclohexane	15.75	56	471236	8.78	ppbv	92
30) 1,1,1-Trichloroethane	15.80	97	1064976	9.71	ppbv	98
31) Carbon tetrachloride	16.06	117	1208545	9.73	ppbv	100
33) Benzene	16.55	78	1068922	9.92	ppbv	97
34) 2,2,4-Trimethylpentane	16.53	57	1474875	10.55	ppbv	96
35) 1,2-Dichloroethane	16.74	62	645867	12.24	ppbv	99
36) Heptane	16.92	43	525991	11.03	ppbv	93
37) Trichloroethene	17.79	130	583606	9.47	ppbv	96
38) 1,2-Dichloropropane	18.29	63	369188	10.89	ppbv	91
39) 1,4-Dioxane	18.47	88	191576	9.98	ppbv	91
40) Bromodichloromethane	18.75	83	942714	11.79	ppbv	99
41) cis-1,3-Dichloropropene	19.53	75	656469	10.82	ppbv	91
42) 4-Methyl-2-pentanone (MIBK	19.76	43	692946	13.02	ppbv	93
44) Toluene	20.02	91	1395751	9.38	ppbv	99
45) trans-1,3-Dichloropropene	20.48	75	744070	11.37	ppbv	94
46) 1,1,2-Trichloroethane	20.79	97	476320	9.77	ppbv	91
47) Tetrachloroethene	20.88	166	885335	9.12	ppbv	97
48) 2-Hexanone	21.12	43	676758	12.38	ppbv	93
49) Chlorodibromomethane	21.39	129	1037870	10.20	ppbv	99
50) 1,2-Dibromoethane (EDB)	21.63	107	796392	10.10	ppbv	100
51) Chlorobenzene	22.35	112	1260627	9.60	ppbv	95
52) Ethylbenzene	22.45	91	2051149	10.32	ppbv	97
53) m&p-Xylene	22.64	91	3368708	21.56	ppbv	96

00588

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\110813TO15\
Data File : 110813M02.D
Acq On : 8 Nov 2013 1:37 pm
Operator : EM
Sample : B13K066-BS1
Misc : 10ppbv 1345091
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Nov 08 16:39:07 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
54) o-Xylene	23.28	91	1737265	11.01 ppbv	95
55) Styrene	23.32	104	1332223	10.37 ppbv	96
56) Bromoform	23.68	173	1224237	10.64 ppbv	98
57) 1,1,2,2-Tetrachloroethane	24.38	83	1108927	11.78 ppbv	99
58) 1,2,3-Trichloropropane	24.49	75	850358	15.63 ppbv #	93
59) 4-Ethyltoluene	24.64	105	2420529	11.09 ppbv	98
60) 1,3,5-Trimethylbenzene	24.73	105	2253671	11.40 ppbv	96
61) 1,2,4-Trimethylbenzene	25.34	105	2274011	11.90 ppbv	96
62) 1,3-Dichlorobenzene	25.86	146	1714676	11.20 ppbv	98
63) 1,4-Dichlorobenzene	26.01	146	1730343	11.40 ppbv	99
64) Benzyl chloride	26.22	91	1714695	11.48 ppbv	96
65) 1,2-Dichlorobenzene	26.61	146	1640686	11.65 ppbv	99
66) 1,2,4-Trichlorobenzene	29.09	180	1648300	11.08 ppbv	100
67) Hexachlorobutadiene	29.24	225	1926974	11.57 ppbv	100
68) Naphthalene	29.51	128	28774	1.11 ppbv #	94

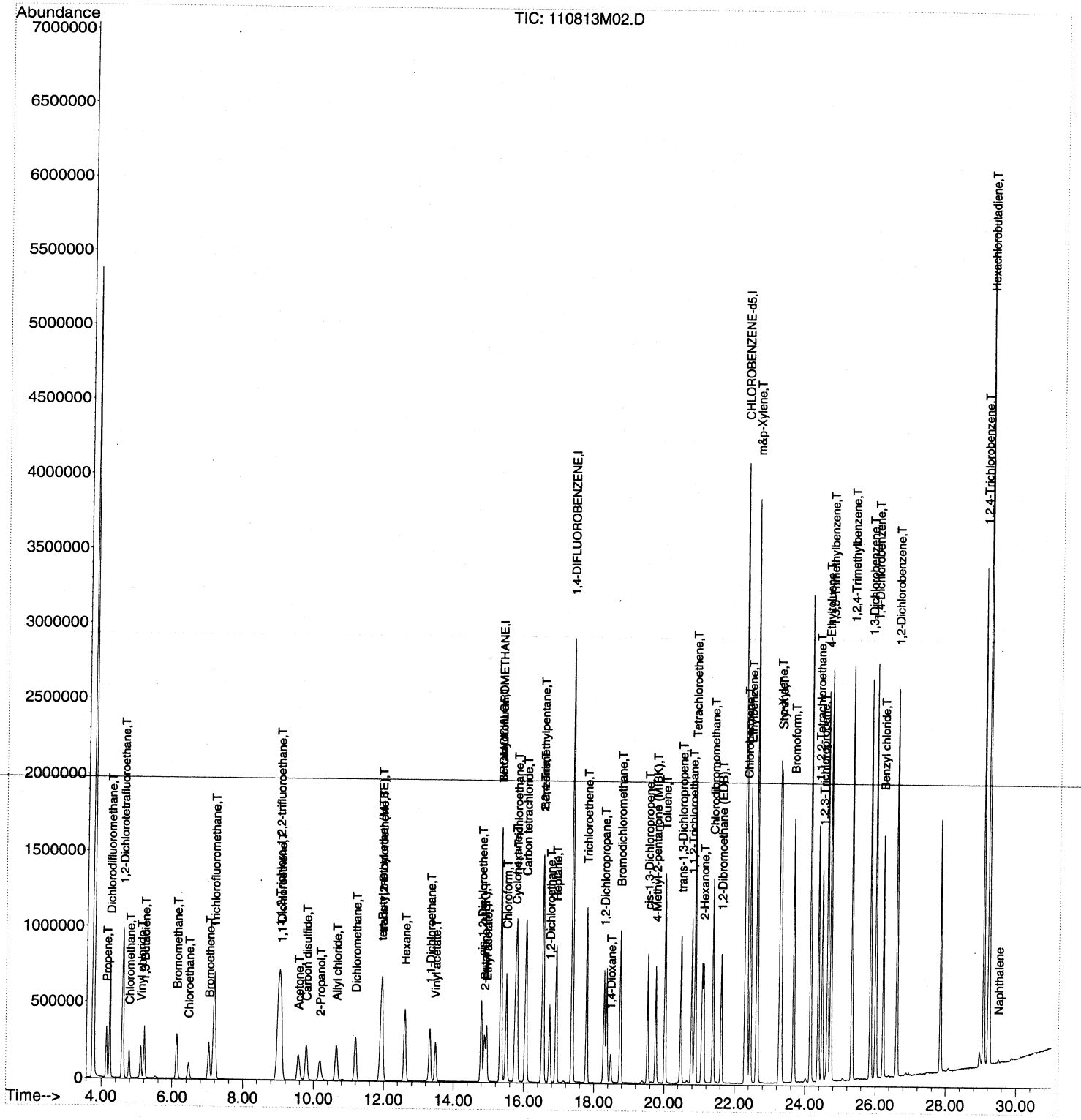
(#) = qualifier out of range (m) = manual integration (+) = signals summed

00510

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\110813TO15\
Data File : 110813M02.D
Acq On : 8 Nov 2013 1:37 pm
Operator : EM
Sample : B13K066-BS1
Misc : 10ppbv 1345091
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Nov 08 16:39:07 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration



LCS REPORT

Nil

7 out

em 11/8/13

Instrument Name: Morpheus
Sample Name: B13K066-BS1
Misc Info: 10ppbv 1345091
Date Acquired: 11/8/2013 14:24
QLast Update: Tue Oct 08 16:43:21 2013
Operator: EM

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS
1)	BROMOCHLOROMETHANE	15.33	#N/A	18.80	#N/A	70.0	130.0	#N/A
2)	Propene	4.14	10.70	10.52	98%	56.0	155.0	pass
3)	Dichlorodifluoromethane	4.23	10.30	9.34	91%	67.0	141.0	pass
4)	1,2-Dichlorotetrafluoroethane	4.59	10.50	9.09	87%	68.0	147.0	pass
5)	Chloromethane	4.78	10.50	15.80	150%	64.0	141.0	FAIL
6)	Vinyl chloride	5.10	10.50	14.36	137%	65.0	141.0	pass
7)	1,3-Butadiene	5.21	10.20	13.83	136%	61.0	154.0	pass
8)	Bromomethane	6.13	10.30	12.35	120%	71.0	132.0	pass
9)	Chloroethane	6.46	10.30	13.69	133%	70.0	134.0	pass
10)	Bromoethene	7.04	10.30	10.60	103%	71.0	146.0	pass
11)	Trichlorofluoromethane	7.19	10.70	12.13	113%	72.0	141.0	pass
12)	1,1,2-Trichloro-1,2,2-trifluoroethane	9.01	9.70	8.99	93%	68.0	134.0	pass
13)	1,1-Dichloroethene	9.07	9.60	11.80	123%	81.0	127.0	pass
14)	Acetone	9.56	10.60	13.81	130%	77.0	150.0	pass
15)	Carbon disulfide	9.79	10.20	11.36	111%	75.0	138.0	pass
16)	2-Propanol	10.17	9.50	11.34	119%	71.0	142.0	pass
17)	Allyl chloride	10.65	10.10	13.17	130%	84.0	143.0	pass
18)	Dichloromethane	11.19	9.80	12.31	126%	74.0	116.0	FAIL
19)	tert-Butyl methyl ether (MTBE)	11.92	10.90	12.14	111%	79.0	131.0	pass
20)	trans-1,2-Dichloroethene	11.95	9.50	10.57	111%	82.0	136.0	pass
21)	Hexane	12.60	10.20	11.88	116%	78.0	139.0	pass
22)	1,1-Dichloroethane	13.32	9.70	10.94	113%	82.0	123.0	pass
23)	Vinyl acetate	13.48	10.00	12.07	121%	70.0	139.0	pass
24)	cis-1,2-Dichloroethene	14.79	10.10	10.86	107%	83.0	126.0	pass
25)	2-Butanone (MEK)	14.88	10.40	13.14	126%	76.0	138.0	pass
26)	Ethyl acetate	14.95	10.40	12.17	117%	83.0	136.0	pass
27)	Tetrahydrofuran	15.35	10.30	10.40	101%	74.0	132.0	pass
28)	Chloroform	15.50	10.20	8.99	88%	81.0	127.0	pass
29)	Cyclohexane	15.75	10.40	8.95	86%	77.0	139.0	pass
30)	1,1,1-Trichloroethane	15.80	10.10	9.10	90%	80.0	131.0	pass
31)	Carbon tetrachloride	16.06	10.30	9.10	88%	77.0	136.0	pass
32)	1,4-DIFLUOROBENZENE	17.37	#N/A	20.00	#N/A	70.0	130.0	#N/A
33)	Benzene	16.55	10.10	10.88	108%	77.0	131.0	pass
34)	2,2,4-Trimethylpentane	16.53	10.50	11.89	113%	68.0	152.0	pass
35)	1,2-Dichloroethane	16.74	9.80	12.95	132%	70.0	149.0	pass
36)	Heptane	16.92	10.50	12.52	119%	62.0	159.0	pass
37)	Trichloroethene	17.79	10.10	9.87	98%	81.0	125.0	pass
38)	1,2-Dichloropropane	18.29	10.30	12.25	119%	74.0	135.0	pass
40)	Bromodichloromethane	18.75	10.60	12.44	117%	69.0	150.0	pass
41)	cis-1,3-Dichloropropene	19.53	10.30	11.82	115%	77.0	129.0	pass
42)	4-Methyl-2-pentanone (MIBK)	19.76	10.50	14.08	134%	59.0	147.0	pass
43)	CHLOROBENZENE-d5	22.31	#N/A	20.80	#N/A	70.0	130.0	#N/A
44)	Toluene	20.02	10.20	10.95	107%	79.0	126.0	pass
45)	trans-1,3-Dichloropropene	20.48	10.70	13.27	124%	81.0	137.0	pass
46)	1,1,2-Trichloroethane	20.79	10.30	11.34	110%	76.0	124.0	pass
47)	Tetrachloroethene	20.88	10.00	10.26	103%	80.0	122.0	pass
48)	2-Hexanone	21.12	10.30	14.02	136%	55.0	149.0	pass

50)	1,2-Dibromoethane (EDB)	21.63	10.30	11.54	112%	78.0	124.0	pass
51)	Chlorobenzene	22.35	10.40	11.06	106%	76.0	120.0	pass
52)	Ethylbenzene	22.45	10.20	11.85	116%	75.0	125.0	pass
53)	m&p-Xylene	22.63	20.40	24.64	121%	75.0	128.0	pass
54)	o-Xylene	23.28	10.30	12.61	122%	74.0	128.0	pass
55)	Styrene	23.31	10.10	11.88	118%	69.0	122.0	pass
56)	Bromoform	23.68	10.30	11.86	115%	72.0	142.0	~~pass~~
57)	1,1,2,2-Tetrachloroethane	24.37	10.20	13.36	131%	70.0	130.0	FAIL
58)	1,2,3-Trichloropropane	24.49	#N/A	17.59	#N/A	67.0	131.0	#N/A
59)	4-Ethyltoluene	24.64	10.50	12.47	119%	69.0	138.0	~~pass~~
61)	1,2,4-Trimethylbenzene	25.34	10.10	13.40	133%	65.0	129.0	FAIL
62)	1,3-Dichlorobenzene	25.86	9.90	12.64	128%	62.0	130.0	pass
63)	1,4-Dichlorobenzene	26.01	9.90	12.84	130%	61.0	131.0	pass
64)	Benzyl chloride	26.22	10.30	13.64	132%	61.0	153.0	pass
65)	1,2-Dichlorobenzene	26.61	9.90	13.87	140%	60.0	130.0	FAIL
66)	1,2,4-Trichlorobenzene	29.09	9.10	12.75	140%	38.0	128.0	FAIL
67)	Hexachlorobutadiene	29.24	9.50	12.71	134%	37.0	124.0	FAIL

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\110813TO15\
Data File : 110813M03.D
Acq On : 8 Nov 2013 2:24 pm
Operator : EM
Sample : B13K066-BS1
Misc : 10ppbv 1345091
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Nov 08 15:11:00 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	15.33	49	980111	18.80	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.37	114	3763101	20.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.31	117	3251407	20.80	ppbv	0.00

Target Compounds						Qvalue
2) Propene	4.14	41	248284	10.52	ppbv	98
3) Dichlorodifluoromethane	4.23	85	1067130	9.34	ppbv	100
4) 1,2-Dichlorotetrafluoroeth	4.59	85	930827	9.09	ppbv	98
5) Chloromethane	4.78	50	461330	15.80	ppbv	99
6) Vinyl chloride	5.10	62	521810	14.36	ppbv	99
7) 1,3-Butadiene	5.21	54	370475	13.83	ppbv	99
8) Bromomethane	6.13	94	475474	12.35	ppbv	100
9) Chloroethane	6.46	64	269541	13.69	ppbv	98
10) Bromoethene	7.04	106	461947	10.60	ppbv	98
11) Trichlorofluoromethane	7.19	101	1739484	12.13	ppbv	99
12) 1,1,2-Trichloro-1,2,2-trif	9.01	151	971869	8.99	ppbv	84
13) 1,1-Dichloroethene	9.07	61	850049	11.80	ppbv	92
14) Acetone	9.56	43	799503	13.81	ppbv	97
15) Carbon disulfide	9.79	76	1188577	11.36	ppbv	97
16) 2-Propanol	10.17	45	626434	11.34	ppbv	99
17) Allyl chloride	10.65	41	582043	13.17	ppbv	88
18) Dichloromethane	11.19	49	558230	12.31	ppbv	83
19) tert-Butyl methyl ether (M	11.92	73	1474630	12.14	ppbv	95
20) trans-1,2-Dichloroethene	11.95	61	641756	10.57	ppbv	85
21) Hexane	12.60	57	744099	11.88	ppbv	93
22) 1,1-Dichloroethane	13.32	63	909062	10.94	ppbv	100
23) Vinyl acetate	13.48	43	1017440	12.07	ppbv	91
24) cis-1,2-Dichloroethene	14.79	61	702193	10.86	ppbv	84
25) 2-Butanone (MEK)	14.88	43	847636	13.14	ppbv	91
26) Ethyl acetate	14.95	43	934169	12.17	ppbv	95
27) Tetrahydrofuran	15.35	42	376607	10.40	ppbv	88
28) Chloroform	15.50	83	991388	8.99	ppbv	98
29) Cyclohexane	15.75	56	560038	8.95	ppbv	91
30) 1,1,1-Trichloroethane	15.80	97	1162977	9.10	ppbv	98
31) Carbon tetrachloride	16.06	117	1317367	9.10	ppbv	100
33) Benzene	16.55	78	1235417	10.88	ppbv	97
34) 2,2,4-Trimethylpentane	16.53	57	1751971	11.89	ppbv	97
35) 1,2-Dichloroethane	16.74	62	719328	12.95	ppbv	100
36) Heptane	16.92	43	628842	12.52	ppbv	92
37) Trichloroethene	17.79	130	640849	9.87	ppbv	95
38) 1,2-Dichloropropane	18.29	63	437350	12.25	ppbv	93
39) 1,4-Dioxane	18.48	88	209051	10.34	ppbv	89
40) Bromodichloromethane	18.75	83	1047059	12.44	ppbv	99
41) cis-1,3-Dichloropropene	19.53	75	755628	11.82	ppbv	92
42) 4-Methyl-2-pentanone (MIBK	19.76	43	789071	14.08	ppbv	93
44) Toluene	20.02	91	1571132	10.95	ppbv	99
45) trans-1,3-Dichloropropene	20.48	75	837945	13.27	ppbv	94
46) 1,1,2-Trichloroethane	20.79	97	533570	11.34	ppbv	90
47) Tetrachloroethene	20.88	166	960703	10.26	ppbv	98
48) 2-Hexanone	21.12	43	739201	14.02	ppbv	94
49) Chlorodibromomethane	21.39	129	1121748	11.43	ppbv	99
50) 1,2-Dibromoethane (EDB)	21.63	107	878143	11.54	ppbv	100
51) Chlorobenzene	22.35	112	1400552	11.06	ppbv	95
52) Ethylbenzene	22.45	91	2271880	11.85	ppbv	97
53) m&p-Xylene	22.63	91	3714151	24.64	ppbv	96

00514

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\110813TO15\
Data File : 110813M03.D
Acq On : 8 Nov 2013 2:24 pm
Operator : EM
Sample : B13K066-BS1
Misc : 10ppbv 1345091
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Nov 08 15:11:00 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

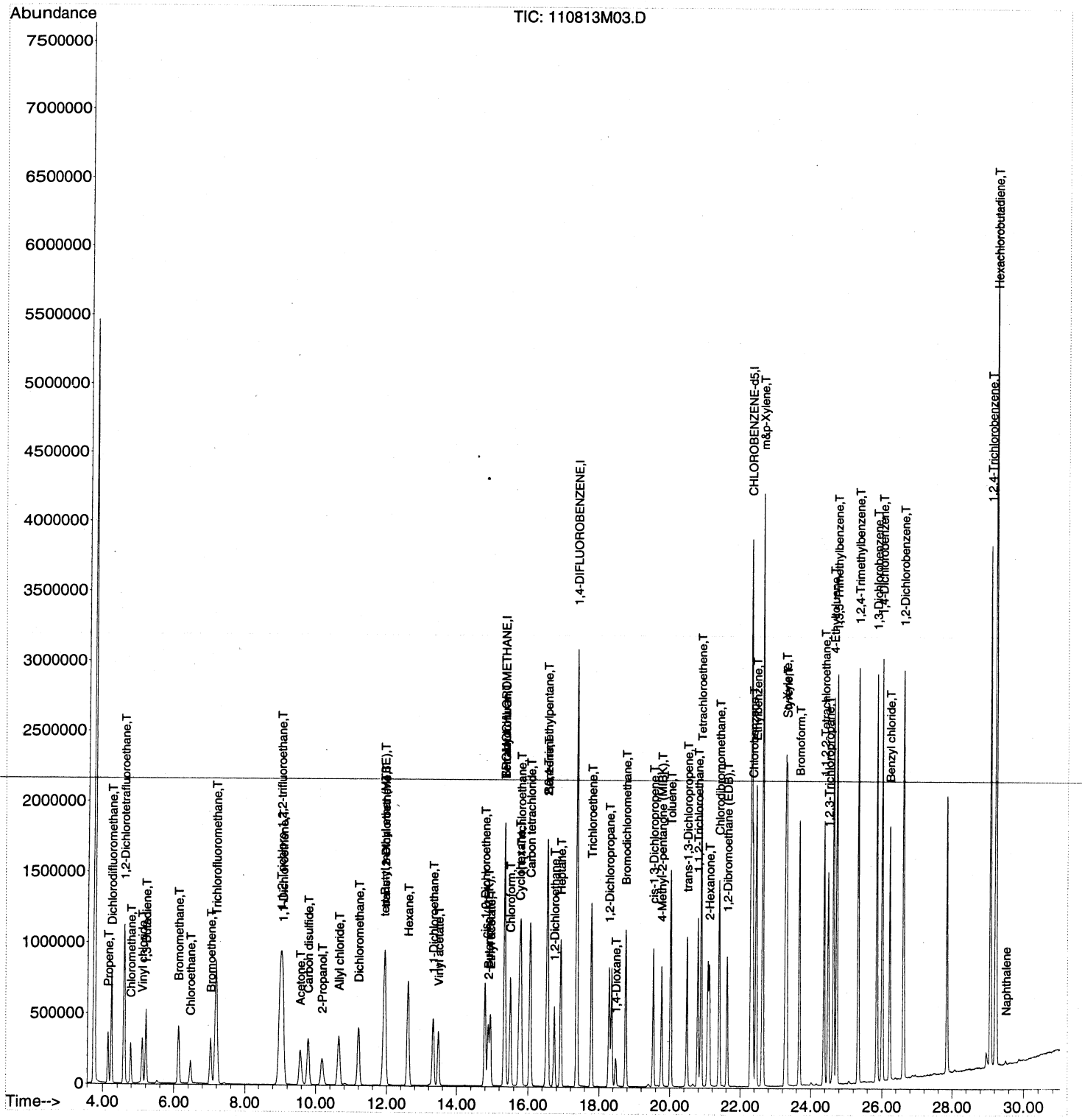
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
54) o-Xylene	23.28	91	1920314	12.61 ppbv	96
55) Styrene	23.31	104	1472719	11.88 ppbv	96
56) Bromoform	23.68	173	1316259	11.86 ppbv	98
57) 1,1,2,2-Tetrachloroethane	24.37	83	1213122	13.36 ppbv	100
58) 1,2,3-Trichloropropane	24.49	75	923015	17.59 ppbv #	93
59) 4-Ethyltoluene	24.64	105	2624234	12.47 ppbv	98
60) 1,3,5-Trimethylbenzene	24.73	105	2422488	12.71 ppbv	97
61) 1,2,4-Trimethylbenzene	25.34	105	2470705	13.40 ppbv	96
62) 1,3-Dichlorobenzene	25.86	146	1865989	12.64 ppbv	99
63) 1,4-Dichlorobenzene	26.01	146	1879045	12.84 ppbv	98
64) Benzyl chloride	26.22	91	1965014	13.64 ppbv	96
65) 1,2-Dichlorobenzene	26.61	146	1885318	13.87 ppbv	98
66) 1,2,4-Trichlorobenzene	29.09	180	1829698	12.75 ppbv	100
67) Hexachlorobutadiene	29.24	225	2040975	12.71 ppbv	100
68) Naphthalene	29.51	128	30853	1.23 ppbv	98

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\110813TO15\
Data File : 110813M03.D
Acq On : 8 Nov 2013 2:24 pm
Operator : EM
Sample : B13K066-BS1
Misc : 10ppbv 1345091
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Nov 08 15:11:00 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration



QLS REPORT

Instrument Name: Morpheus
Sample Name: S13K054-CRL1
Misc Info: 1.0ppbv 1345091
Date Acquired: 11/8/2013 15:09
QLast Update: Tue Oct 08 16:43:21 2013
Operator: EM

#	Name	Ret Time	Amount	Concentration	%R	QC	LIMIT	STATUS	TYPE
2)	Propene	4.14	1.07	1.00	93%	60.0	140.0	pass	Subset
3)	Dichlorodifluoromethane	4.23	1.01	1.01	100%	60.0	140.0	pass	Primary
4)	1,2-Dichlorotetrafluoroethane	4.59	1.04	1.11	107%	60.0	140.0	pass	Primary
5)	Chloromethane	4.78	1.03	1.33	129%	60.0	140.0	pass	Primary
6)	Vinyl chloride	5.10	1.05	1.23	118%	60.0	140.0	pass	Primary
7)	1,3-Butadiene	5.21	1.02	1.19	117%	60.0	140.0	pass	Subset
8)	Bromomethane	6.13	1.04	1.05	101%	60.0	140.0	pass	Primary
9)	Chloroethane	6.46	1.04	1.19	115%	60.0	140.0	pass	Primary
10)	Bromoethene	7.04	1.03	0.90	88%	60.0	140.0	pass	Subset
11)	Trichlorofluoromethane	7.19	1.05	0.95	90%	60.0	140.0	pass	Primary
12)	1,1,2-Trichloro-1,2,2-trifluoroethane	9.02	0.93	0.70	76%	60.0	140.0	pass	Primary
13)	1,1-Dichloroethene	9.08	0.94	0.96	102%	60.0	140.0	pass	Primary
14)	Acetone	9.59	1.06	1.01	95%	60.0	140.0	pass	Subset
15)	Carbon disulfide	9.79	1.02	0.93	92%	60.0	140.0	pass	Subset
16)	2-Propanol	10.19	0.95	0.77	81%	60.0	140.0	pass	Subset
17)	Allyl chloride	10.65	1.01	1.04	103%	60.0	140.0	pass	Subset
18)	Dichloromethane	11.19	0.96	1.29	134%	60.0	140.0	pass	Primary
19)	tert-Butyl methyl ether (MTBE)	11.94	1.09	0.71	65%	60.0	140.0	pass	Subset
20)	trans-1,2-Dichloroethene	11.95	0.95	0.85	89%	60.0	140.0	pass	Subset
21)	Hexane	12.60	1.02	0.83	82%	60.0	140.0	pass	Subset
22)	1,1-Dichloroethane	13.33	0.98	0.85	87%	60.0	140.0	pass	Primary
23)	Vinyl acetate	13.48	1.00	0.72	72%	60.0	140.0	pass	Subset
24)	cis-1,2-Dichloroethene	14.79	1.01	0.78	78%	60.0	140.0	pass	Primary
25)	2-Butanone (MEK)	14.89	1.04	0.71	68%	60.0	140.0	pass	Subset
26)	Ethyl acetate	14.95	1.04	0.66	63%	60.0	140.0	pass	Subset
27)	Tetrahydrofuran	15.36	1.03	0.66	64%	60.0	140.0	pass	Subset
28)	Chloroform	15.50	1.01	0.77	76%	60.0	140.0	pass	Primary
29)	Cyclohexane	15.75	1.04	0.70	67%	60.0	140.0	pass	Subset
30)	1,1,1-Trichloroethane	15.80	1.00	0.75	75%	60.0	140.0	pass	Primary
31)	Carbon tetrachloride	16.06	1.00	0.71	71%	60.0	140.0	pass	Primary
33)	Benzene	16.55	1.03	0.92	90%	60.0	140.0	pass	Primary
34)	2,2,4-Trimethylpentane	16.53	1.05	0.89	85%	60.0	140.0	pass	Subset
35)	1,2-Dichloroethane	16.73	1.00	1.05	105%	60.0	140.0	pass	Primary
36)	Heptane	16.92	1.05	0.91	87%	60.0	140.0	pass	Subset
37)	Trichloroethene	17.79	1.03	0.82	80%	60.0	140.0	pass	Primary
38)	1,2-Dichloropropane	18.29	1.06	0.99	93%	60.0	140.0	pass	Primary
39)	1,4-Dioxane	18.48	1.06	0.65	61%	60.0	140.0	pass	Subset
40)	Bromodichloromethane	18.75	1.06	0.94	89%	60.0	140.0	pass	Subset
41)	cis-1,3-Dichloropropene	19.53	1.03	0.89	86%	60.0	140.0	pass	Primary
42)	4-Methyl-2-pentanone (MIBK)	19.76	1.05	0.79	75%	60.0	140.0	pass	Subset
43)	CHLOROBENZENE-d5	22.31	20.80	20.80	100%	60.0	140.0	pass	Subset
45)	trans-1,3-Dichloropropene	20.48	1.10	0.97	88%	60.0	140.0	pass	Primary
46)	1,1,2-Trichloroethane	20.79	1.08	0.89	83%	60.0	140.0	pass	Primary
47)	Tetrachloroethene	20.88	1.04	0.81	78%	60.0	140.0	pass	Primary
48)	2-Hexanone	21.12	1.03	0.85	82%	60.0	140.0	pass	Subset
49)	Chlorodibromomethane	21.39	1.04	0.78	75%	60.0	140.0	pass	Subset
50)	1,2-Dibromoethane (EDB)	21.62	1.07	0.88	83%	60.0	140.0	pass	Primary
51)	Chlorobenzene	22.36	1.06	0.80	75%	60.0	140.0	pass	Primary
52)	Ethylbenzene	22.45	1.05	0.78	74%	60.0	140.0	pass	Primary
53)	m&p-Xylene	22.64	2.12	1.50	71%	60.0	140.0	pass	Primary

54)	o-Xylene	23.28	1.07	0.73	68%	60.0	140.0	pass	Primary
55)	Styrene	23.31	1.04	0.64	61%	60.0	140.0	pass	Primary
56)	Bromoform	23.68	1.03	0.64	62%	60.0	140.0	pass	Subset
57)	1,1,2,2-Tetrachloroethane	24.37	1.06	0.77	73%	60.0	140.0	pass	Primary
58)	1,2,3-Trichloropropane	24.49	0.95	1.07	113%	60.0	140.0	pass	Subset
59)	4-Ethyltoluene	24.64	1.05	0.67	63%	60.0	140.0	pass	Subset
60)	1,3,5-Trimethylbenzene	24.73	1.04	0.67	65%	60.0	140.0	pass	Primary
61)	1,2,4-Trimethylbenzene	25.34	1.07	0.68	63%	60.0	140.0	pass	Primary
62)	1,3-Dichlorobenzene	25.86	1.03	0.68	66%	60.0	140.0	pass	Primary
63)	1,4-Dichlorobenzene	26.01	1.04	0.68	66%	60.0	140.0	pass	Subset
64)	Benzyl chloride	26.22	1.03	0.67	65%	60.0	140.0	pass	Primary
65)	1,2-Dichlorobenzene	26.61	1.04	0.70	67%	60.0	140.0	pass	Primary
66)	1,2,4-Trichlorobenzene	29.09	1.02	0.73	71%	60.0	140.0	pass	Primary
67)	Hexachlorobutadiene	29.24	1.03	0.73	71%	60.0	140.0	pass	Primary

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\110813TO15\
Data File : 110813M04.D
Acq On : 8 Nov 2013 3:09 pm
Operator : EM
Sample : S13K054-CRL1
Misc : 1.0ppbv 1345091
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Nov 08 15:41:49 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) BROMOCHLOROMETHANE	15.33	49	1005165	18.80	ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.37	114	3870191	20.00	ppbv	0.00
43) CHLOROBENZENE-d5	22.31	117	3223541	20.80	ppbv	0.00

Target Compounds						Qvalue
2) Propene	4.14	41	24117	1.00	ppbv	94
3) Dichlorodifluoromethane	4.23	85	118760	1.01	ppbv	99
4) 1,2-Dichlorotetrafluoroeth	4.59	85	117009	1.11	ppbv	98
5) Chloromethane	4.78	50	39706	1.33	ppbv	95
6) Vinyl chloride	5.10	62	45981	1.23	ppbv	97
7) 1,3-Butadiene	5.21	54	32681	1.19	ppbv	97
8) Bromomethane	6.13	94	41652	1.05	ppbv	99
9) Chloroethane	6.46	64	24118	1.19	ppbv	97
10) Bromoethene	7.04	106	40322	0.90	ppbv	97
11) Trichlorofluoromethane	7.19	101	139403	0.95	ppbv	98
12) 1,1,2-Trichloro-1,2,2-trif	9.02	151	77987	0.70	ppbv	84
13) 1,1-Dichloroethene	9.08	61	70667	0.96	ppbv	92
14) Acetone	9.59	43	59985	1.01	ppbv	99
15) Carbon disulfide	9.79	76	100342	0.93	ppbv	94
16) 2-Propanol	10.19	45	43755	0.77	ppbv	81
17) Allyl chloride	10.65	41	47215	1.04	ppbv	87
18) Dichloromethane	11.19	49	59975	1.29	ppbv	81
19) tert-Butyl methyl ether (M	11.94	73	87954	0.71	ppbv	94
20) trans-1,2-Dichloroethene	11.95	61	52844	0.85	ppbv	91
21) Hexane	12.60	57	53494	0.83	ppbv	87
22) 1,1-Dichloroethane	13.33	63	72674	0.85	ppbv	100
23) Vinyl acetate	13.48	43	62043	0.72	ppbv	92
24) cis-1,2-Dichloroethene	14.79	61	52032	0.78	ppbv	90
25) 2-Butanone (MEK)	14.89	43	46842	0.71	ppbv	90
26) Ethyl acetate	14.95	43	51851	0.66	ppbv	92
27) Tetrahydrofuran	15.36	42	24528	0.66	ppbv	89
28) Chloroform	15.50	83	87176	0.77	ppbv	97
29) Cyclohexane	15.75	56	44827	0.70	ppbv	86
30) 1,1,1-Trichloroethane	15.80	97	98634	0.75	ppbv	97
31) Carbon tetrachloride	16.06	117	105451	0.71	ppbv	99
33) Benzene	16.55	78	107916	0.92	ppbv	97
34) 2,2,4-Trimethylpentane	16.53	57	134703	0.89	ppbv	94
35) 1,2-Dichloroethane	16.73	62	60113	1.05	ppbv	99
36) Heptane	16.92	43	47208	0.91	ppbv	94
37) Trichloroethene	17.79	130	54720	0.82	ppbv	95
38) 1,2-Dichloropropane	18.29	63	36203	0.99	ppbv	92
39) 1,4-Dioxane	18.48	88	13470	0.65	ppbv	84
40) Bromodichloromethane	18.75	83	81568	0.94	ppbv	98
41) cis-1,3-Dichloropropene	19.53	75	58262	0.89	ppbv #	70
42) 4-Methyl-2-pentanone (MIBK	19.76	43	45405	0.79	ppbv	92
44) Toluene	20.02	91	120080	0.84	ppbv	99
45) trans-1,3-Dichloropropene	20.48	75	60653	0.97	ppbv	94
46) 1,1,2-Trichloroethane	20.79	97	41619	0.89	ppbv	91
47) Tetrachloroethene	20.88	166	74812	0.81	ppbv	97
48) 2-Hexanone	21.12	43	44299	0.85	ppbv	92
49) Chlorodibromomethane	21.39	129	75696	0.78	ppbv	96
50) 1,2-Dibromoethane (EDB)	21.62	107	66599	0.88	ppbv	100
51) Chlorobenzene	22.36	112	100099	0.80	ppbv #	71
52) Ethylbenzene	22.45	91	148215	0.78	ppbv	97
53) m&p-Xylene	22.64	91	224897	1.50	ppbv	97

00519

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\110813TO15\
Data File : 110813M04.D
Acq On : 8 Nov 2013 3:09 pm
Operator : EM
Sample : S13K054-CRL1
Misc : 1.0ppbv 1345091
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Nov 08 15:41:49 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

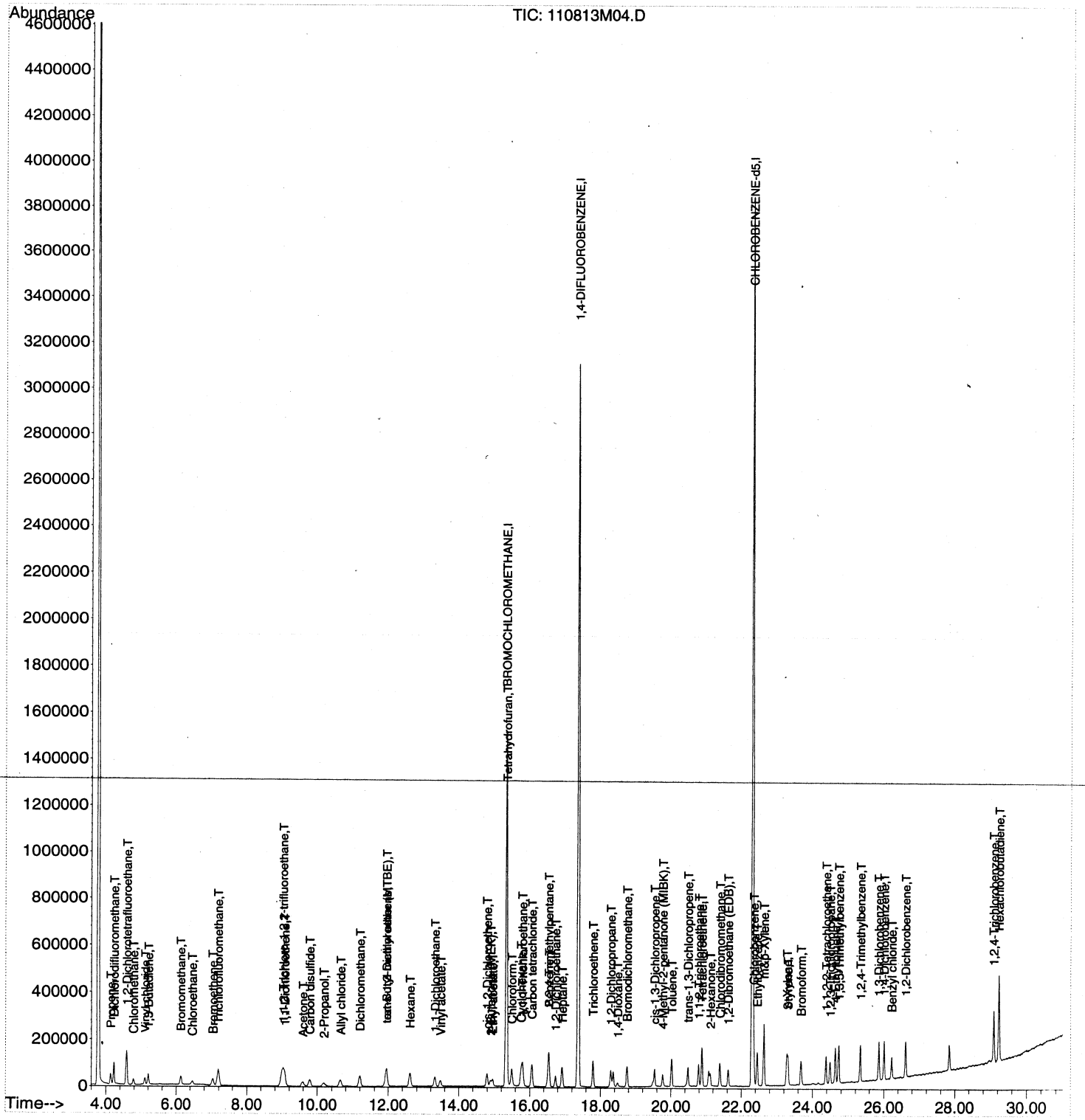
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
54) o-Xylene	23.28	91	110541	0.73 ppbv	95
55) Styrene	23.31	104	78347	0.64 ppbv	93
56) Bromoform	23.68	173	70024	0.64 ppbv	98
57) 1,1,2,2-Tetrachloroethane	24.37	83	69731	0.77 ppbv	100
58) 1,2,3-Trichloropropane	24.49	75	55777	1.07 ppbv #	94
59) 4-Ethyltoluene	24.64	105	138988	0.67 ppbv	97
60) 1,3,5-Trimethylbenzene	24.73	105	127428	0.67 ppbv	96
61) 1,2,4-Trimethylbenzene	25.34	105	123993	0.68 ppbv	96
62) 1,3-Dichlorobenzene	25.86	146	100039	0.68 ppbv	97
63) 1,4-Dichlorobenzene	26.01	146	99115	0.68 ppbv	96
64) Benzyl chloride	26.22	91	95212	0.67 ppbv	96
65) 1,2-Dichlorobenzene	26.61	146	93708	0.70 ppbv	98
66) 1,2,4-Trichlorobenzene	29.09	180	103483	0.73 ppbv	99
67) Hexachlorobutadiene	29.24	225	116629	0.73 ppbv	98

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

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\110813TO15\
Data File : 110813M04.D
Acq On : 8 Nov 2013 3:09 pm
Operator : EM
Sample : S13K054-CRL1
Misc : 1.0ppbv 1345091
ALS Vial : 49 Sample Multiplier: 1

Quant Time: Nov 08 15:41:49 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\110813TO15\
Data File : 110813M05.D
Acq On : 8 Nov 2013 3:59 pm
Operator : EM
Sample : B13K066-BLK1
Misc : 200mL Can 1577E
ALS Vial : 46 Sample Multiplier: 1

Quant Time: Nov 08 16:47:40 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	15.34	49	880600	18.80 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.37	114	3823743	20.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.31	117	3267677	20.80 ppbv	0.00

Target Compounds					Qvalue
14) Acetone	9.57	43	29451	0.57 ppbv	96

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

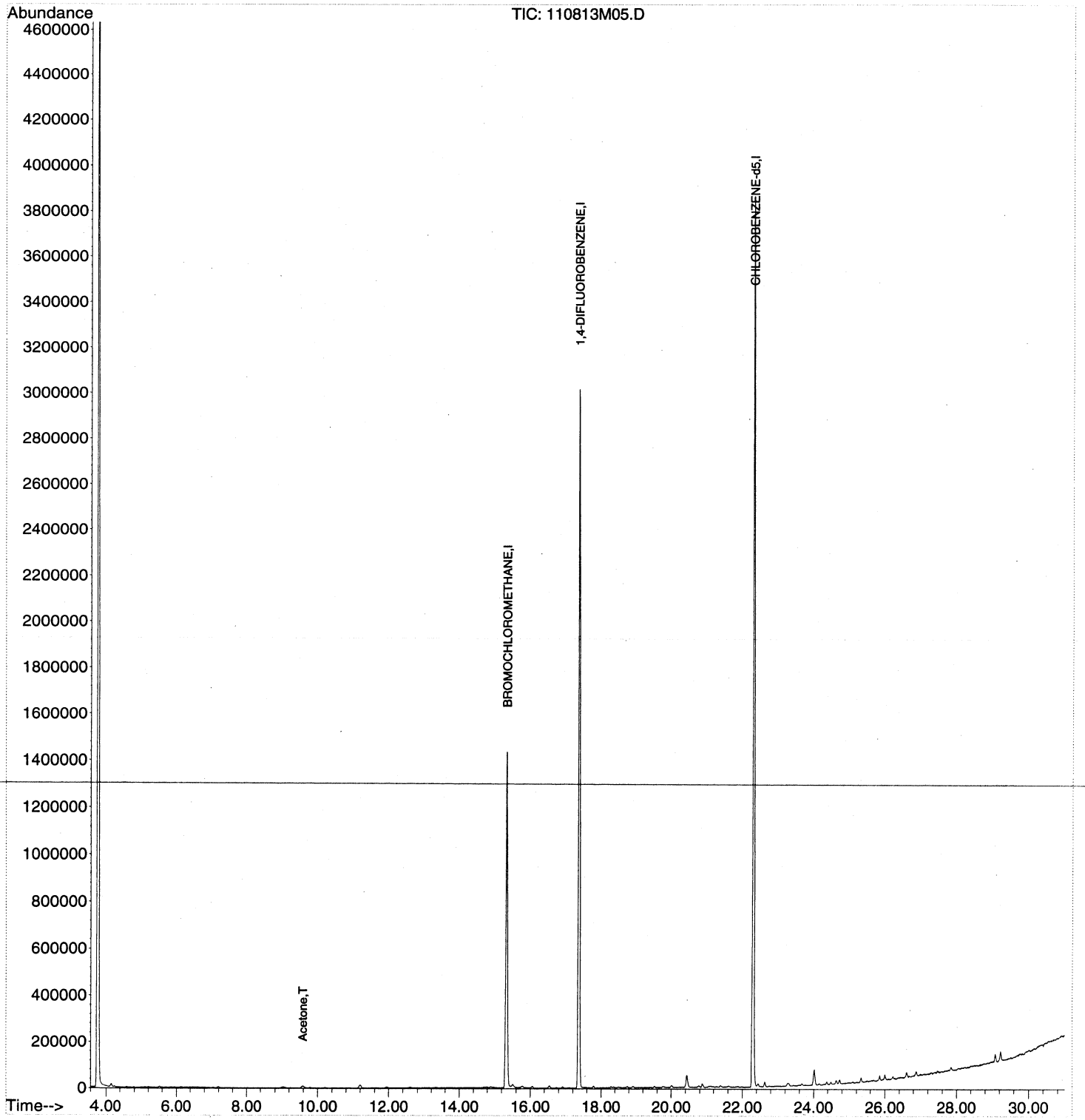
B-flag - non target for Modesto
EM 11/8/13

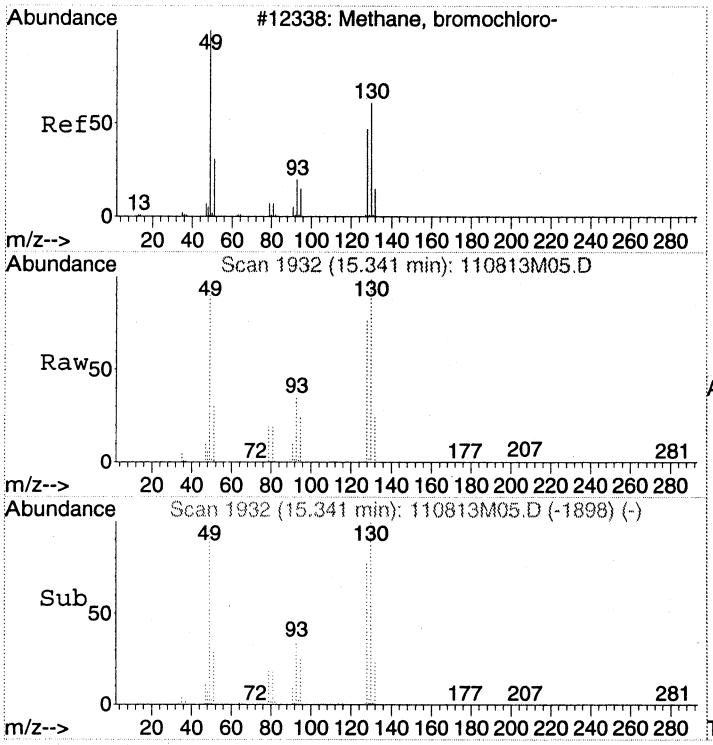
00522

Quantitation Report (Not Reviewed)

Data Path : C:\MSDChem\1\2013\Data\110813TO15\
Data File : 110813M05.D
Acq On : 8 Nov 2013 3:59 pm
Operator : EM
Sample : B13K066-BLK1
Misc : 200mL Can 1577E
ALS Vial : 46 Sample Multiplier: 1

Quant Time: Nov 08 16:47:40 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

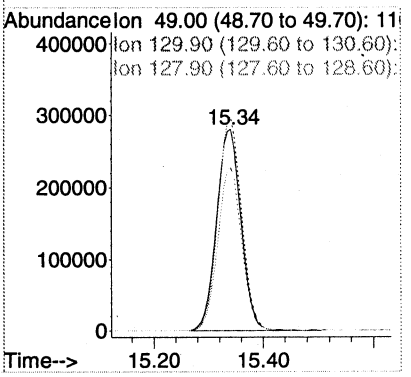


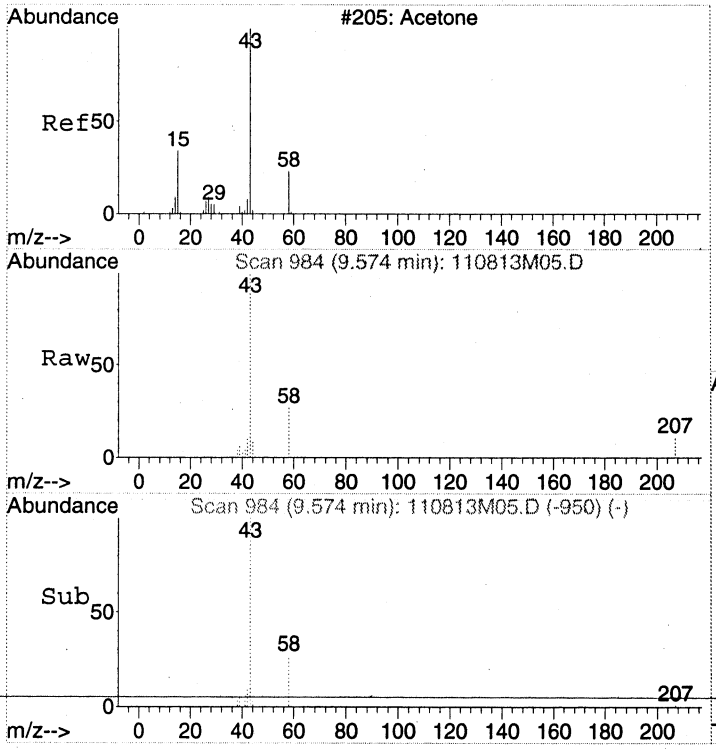


#1
BROMOCHLOROMETHANE
Concen: 18.80 ppbv
RT: 15.34 min Scan# 1932
Delta R.T. 0.01 min
Lab File: 110813M05.D
Acq: 8 Nov 2013 3:59 pm

Tgt Ion: 49 Resp: 880600

Ion	Ratio	Lower	Upper
49	100		
130	103.4	97.9	137.9
128	79.6	70.6	110.6

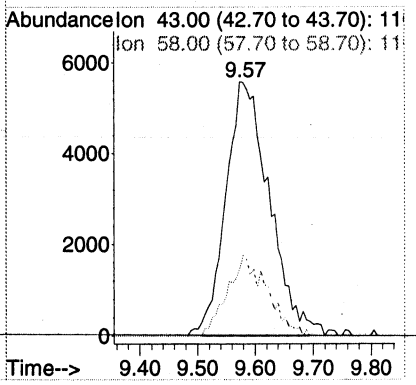


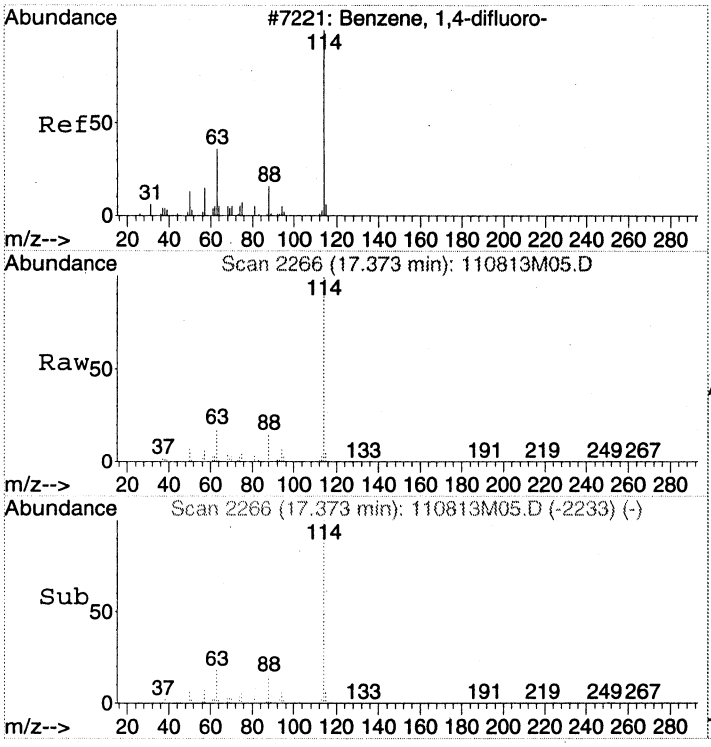


#14
Acetone
Concen: 0.57 ppbv
RT: 9.57 min Scan# 984
Delta R.T. 0.01 min
Lab File: 110813M05.D
Acq: 8 Nov 2013 3:59 pm

Tgt Ion: 43 Resp: 29451

Ion	Ratio	Lower	Upper
43	100		
58	28.7	11.0	51.0

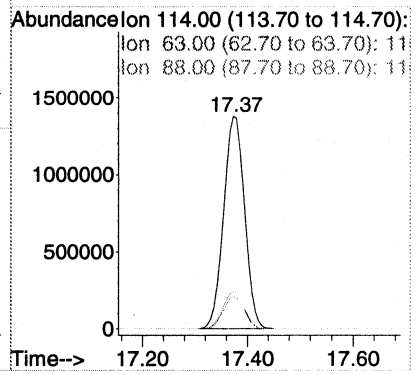


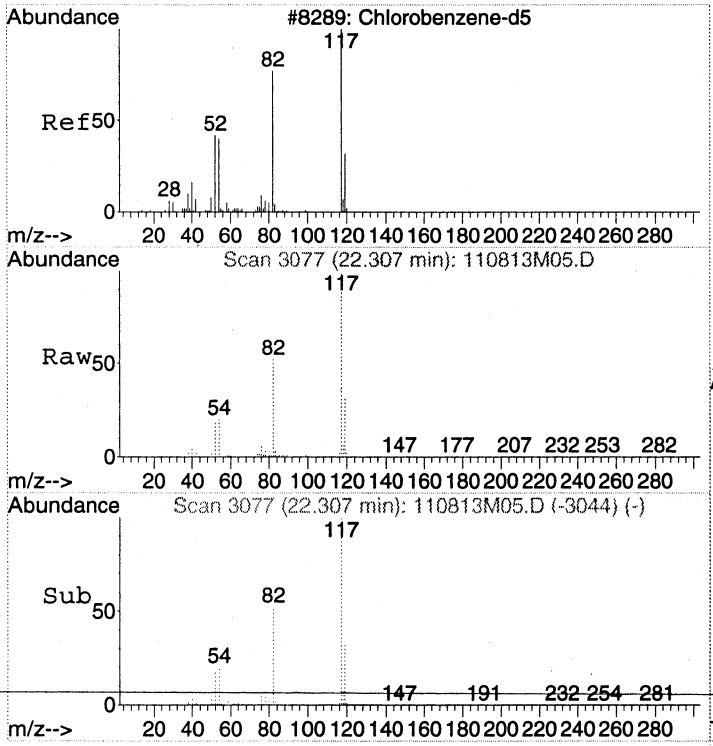


#32
1,4-DIFLUOROBENZENE
Concen: 20.00 ppbv
RT: 17.37 min Scan# 2266
Delta R.T. 0.00 min
Lab File: 110813M05.D
Acq: 8 Nov 2013 3:59 pm

Tgt Ion:114 Resp: 3823743

Ion	Ratio	Lower	Upper
114	100		
63	17.7	0.0	35.8
88	15.0	0.0	34.6

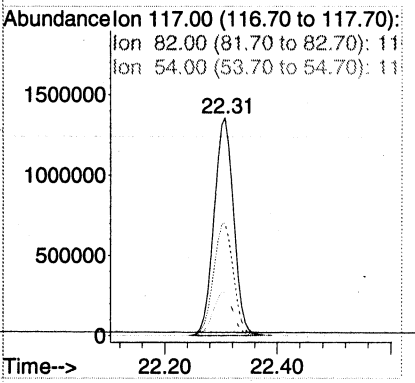




#43
CHLOROBENZENE-d5
Concen: 20.80 ppbv
RT: 22.31 min Scan# 3077
Delta R.T. 0.00 min
Lab File: 110813M05.D
Acq: 8 Nov 2013 3:59 pm

Tgt Ion:117 Resp: 3267677

Ion	Ratio	Lower	Upper
117	100		
82	52.5	28.9	68.9
54	20.5	0.0	36.9



LSC Area Percent Report

Data Path : C:\MSDChem\1\2013\Data\110813TO15\
Data File : 110813M05.D
Acq On : 8 Nov 2013 3:59 pm
Operator : EM
Sample : B13K066-BLK1
Misc : 200mL Can 1577E
ALS Vial : 46 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : ON
Sampling : 1
Start Thrs: 0.01
Stop Thrs : 0.1

Filtering: 5
Min Area: 3 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 1 prefer < Baseline drop else tangent >
Peak separation: 10

Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Title : TO15

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	15.341	1918	1932	1949	rBV	1431190	4416759	46.67%	19.497%
2	17.373	2253	2266	2281	rBV	3013068	8378473	88.53%	36.985%
3	20.439	2757	2770	2787	rBV2	50783	191582	2.02%	0.846%
4	22.307	3065	3077	3091	rBV	3851555	9464012	100.00%	41.776%
5	24.016	3349	3358	3368	rBV	65579	203150	2.15%	0.897%

Sum of corrected areas: 22653976

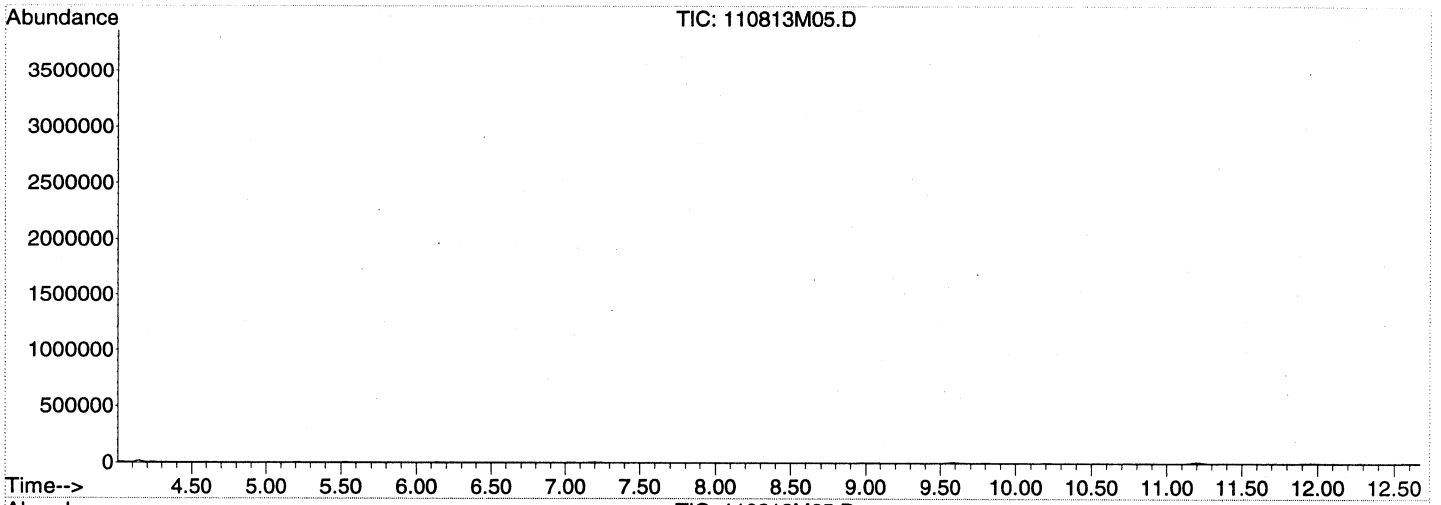
00528

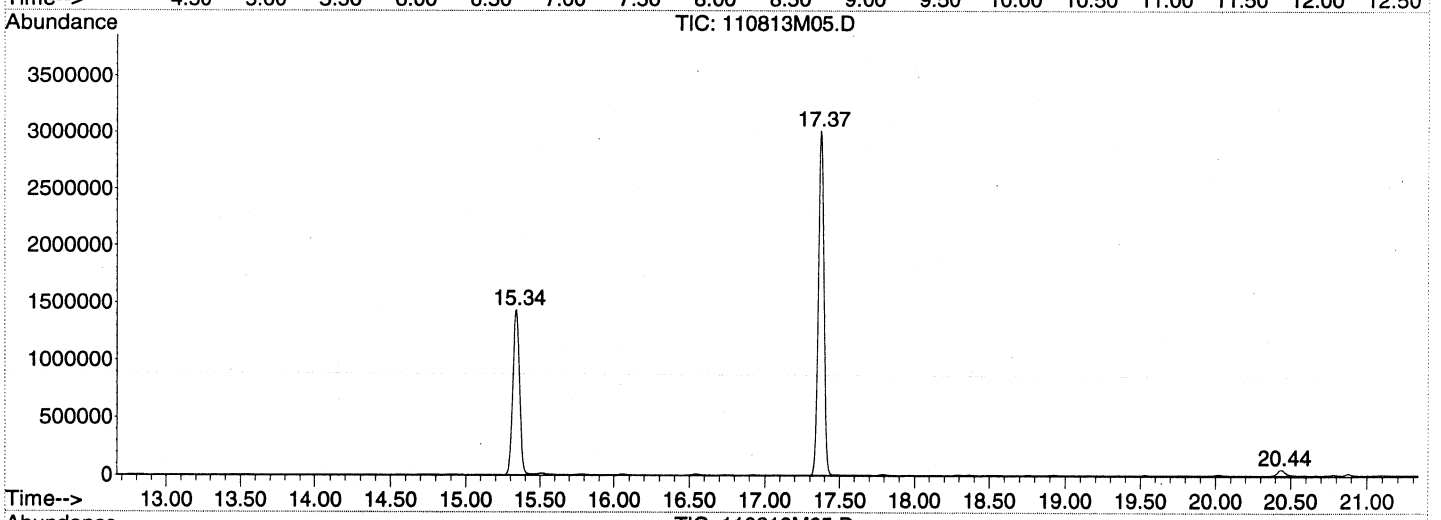
LSC Report - Integrated Chromatogram

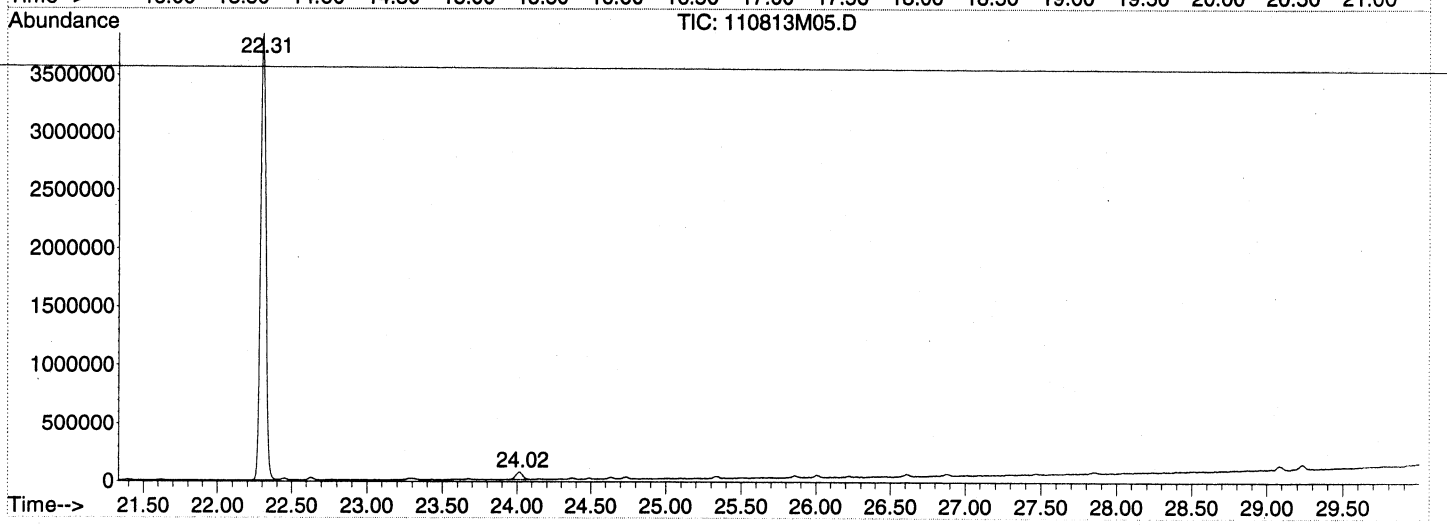
Data Path : C:\MSDChem\1\2013\Data\110813TO15\
Data File : 110813M05.D
Acq On : 8 Nov 2013 3:59 pm
Operator : EM
Sample : B13K066-BLK1
Misc : 200mL Can 1577E
ALS Vial : 46 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P







Tentatively Identified Compound (LSC) summary

Data Path : C:\MSDChem\1\2013\Data\110813TO15\\
Data File : 110813M05.D
Acq On : 8 Nov 2013 3:59 pmm
Operator : EMM
Sample : B13K066-BLK11
Misc : 200mL Can 1577EE
ALS Vial : 46 Sample Multiplier: 11

Quant Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.MM
Quant Title : TO155

TIC Library : C:\DATABASE\NIST02.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

No Library Search Compounds Detected
****

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\2013\DATA\110813TO15\
Data File : 110813M10.D
Acq On : 8 Nov 2013 7:57 pm
Operator : EM
Sample : Can 1579E
Misc : 200mL Can 1579E
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Nov 12 11:38:05 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	15.33	49	920625	18.80 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.37	114	4015622	20.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.31	117	3320795	20.80 ppbv	0.00

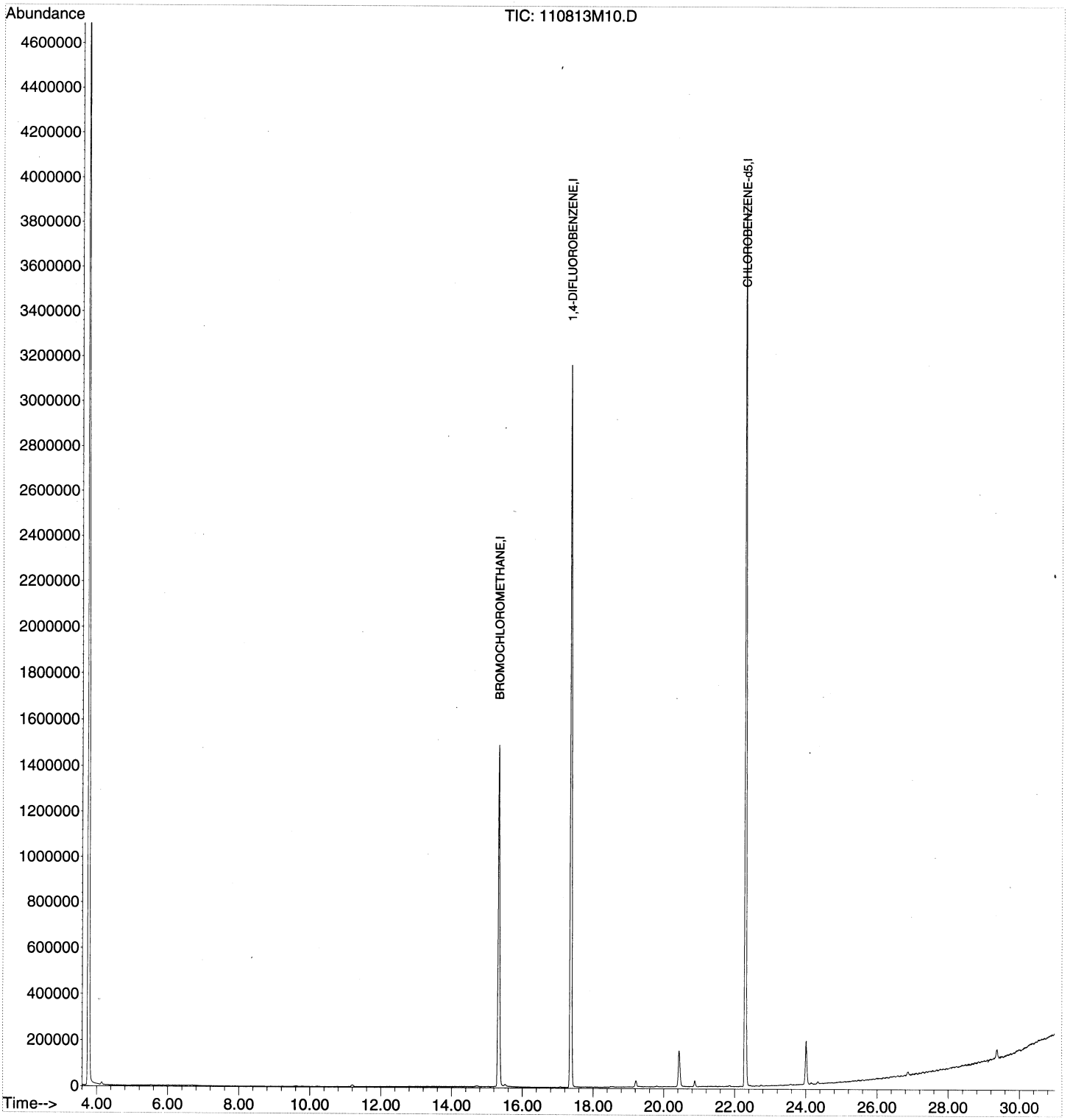
Target Compounds	Qvalue

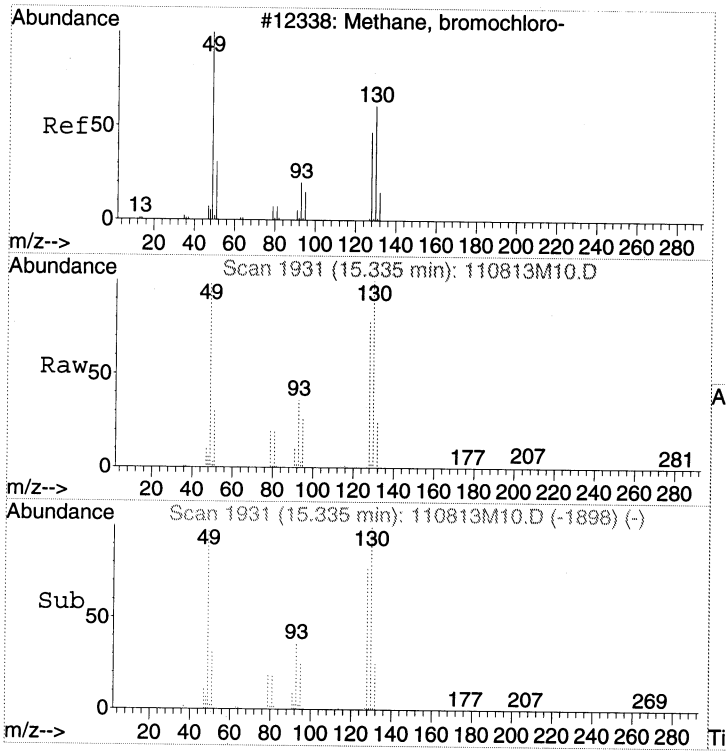
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\2013\DATA\110813TO15\
Data File : 110813M10.D
Acq On : 8 Nov 2013 7:57 pm
Operator : EM
Sample : Can 1579E
Misc : 200mL Can 1579E
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Nov 12 11:38:05 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

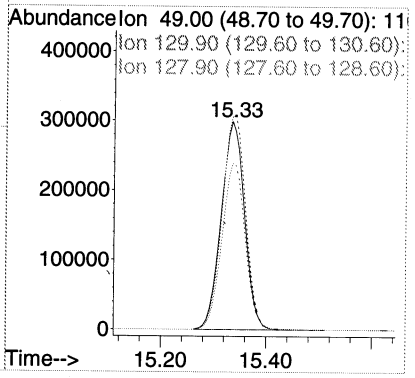


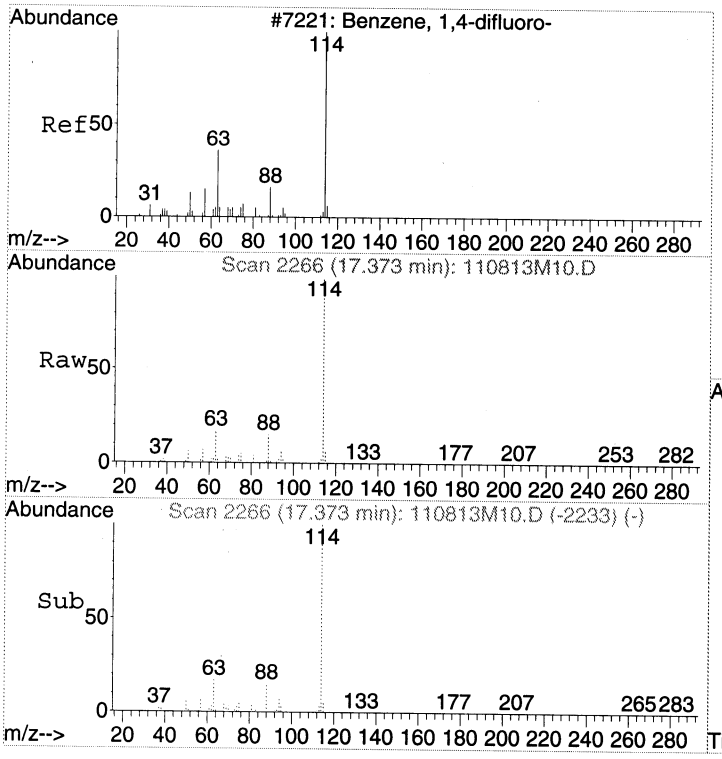


#1
BROMOCHLOROMETHANE
Concen: 18.80 ppbv
RT: 15.33 min Scan# 1931
Delta R.T. 0.00 min
Lab File: 110813M10.D
Acq: 8 Nov 2013 7:57 pm

Tgt Ion: 49 Resp: 920625

Ion	Ratio	Lower	Upper
49	100		
130	104.0	97.9	137.9
128	79.8	70.6	110.6

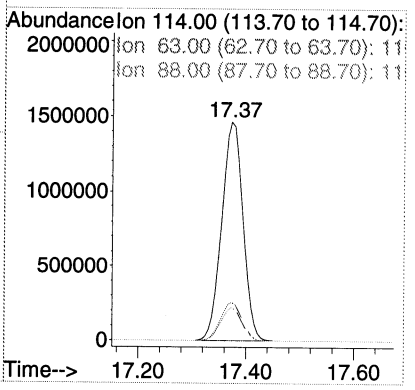




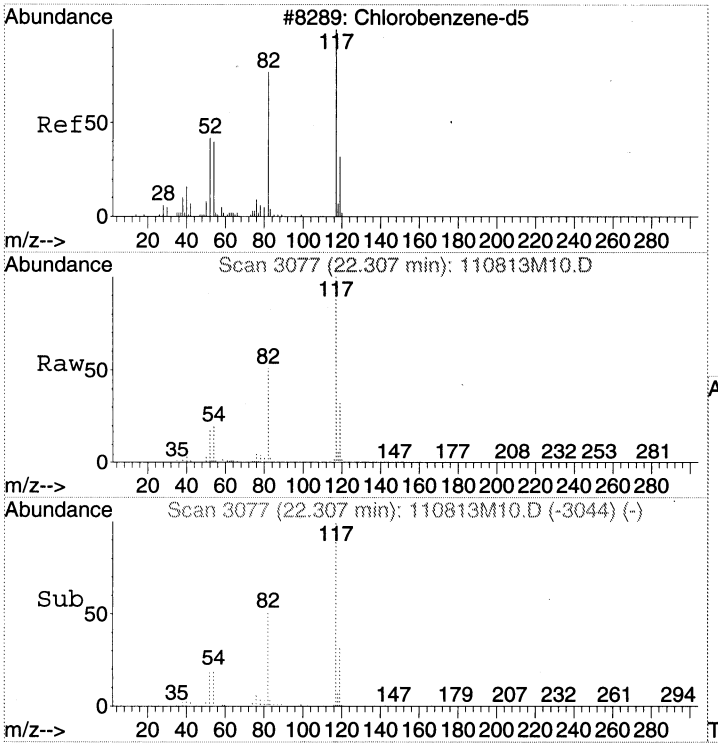
#32
1,4-DIFLUOROBENZENE
Concen: 20.00 ppbv
RT: 17.37 min Scan# 2266
Delta R.T. 0.00 min
Lab File: 110813M10.D
Acq: 8 Nov 2013 7:57 pm

Tgt Ion:114 Resp: 4015622

Ion	Ratio	Lower	Upper
114	100		
63	17.5	0.0	35.8
88	15.1	0.0	34.6



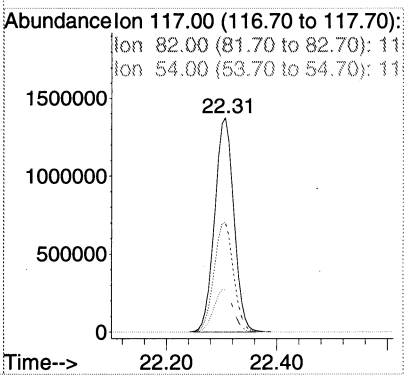
00531



#43
CHLOROBENZENE-d5
Concen: 20.80 ppbv
RT: 22.31 min Scan# 3077
Delta R.T. 0.00 min
Lab File: 110813M10.D
Acq: 8 Nov 2013 7:57 pm

Tgt Ion:117 Resp: 3320795

Ion	Ratio	Lower	Upper
117	100		
82	52.0	28.9	68.9
54	20.2	0.0	36.9



00532

LSC Area Percent Report

Data Path : C:\MSDCHEM\1\2013\DATA\110813TO15\
Data File : 110813M10.D
Acq On : 8 Nov 2013 7:57 pm
Operator : EM
Sample : Can 1579E
Misc : 200mL Can 1579E
ALS Vial : 31 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Title : TO15

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	15.335	1918	1931	1946	rBV	1489850	4595048	48.23%	19.171%
2	17.373	2254	2266	2281	rBV	3164034	8725477	91.58%	36.404%
3	20.439	2757	2770	2785	rBV2	156909	539954	5.67%	2.253%
4	22.307	3065	3077	3091	rBV	3894986	9528188	100.00%	39.753%
5	24.016	3347	3358	3372	rVB	187762	579990	6.09%	2.420%

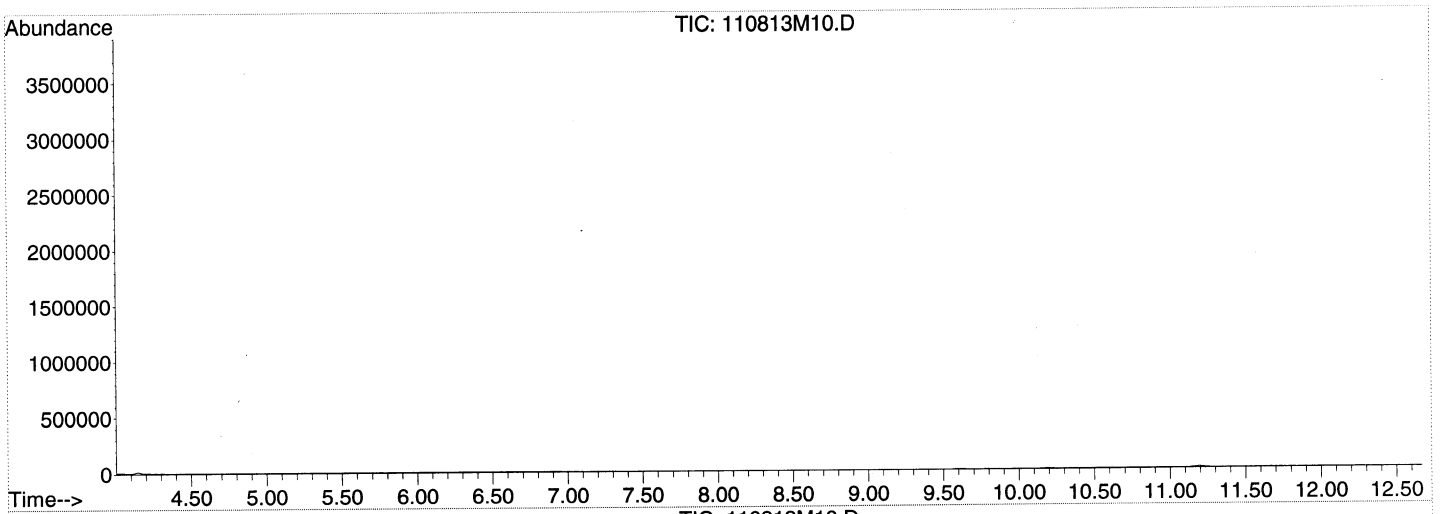
Sum of corrected areas: 23968657

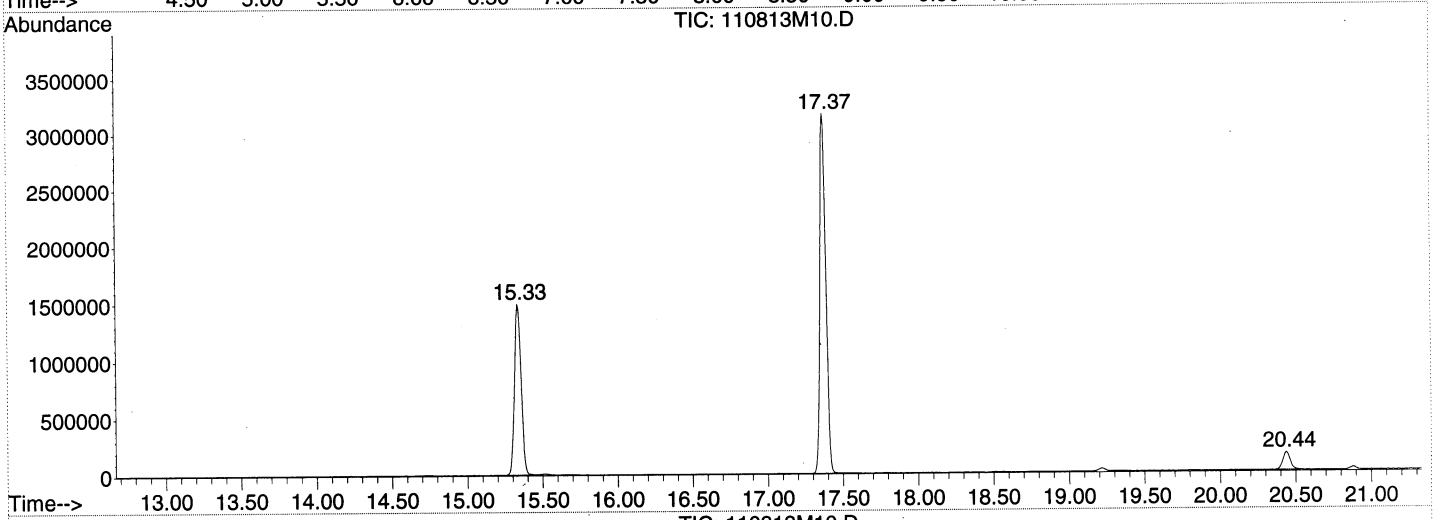
LSC Report - Integrated Chromatogram

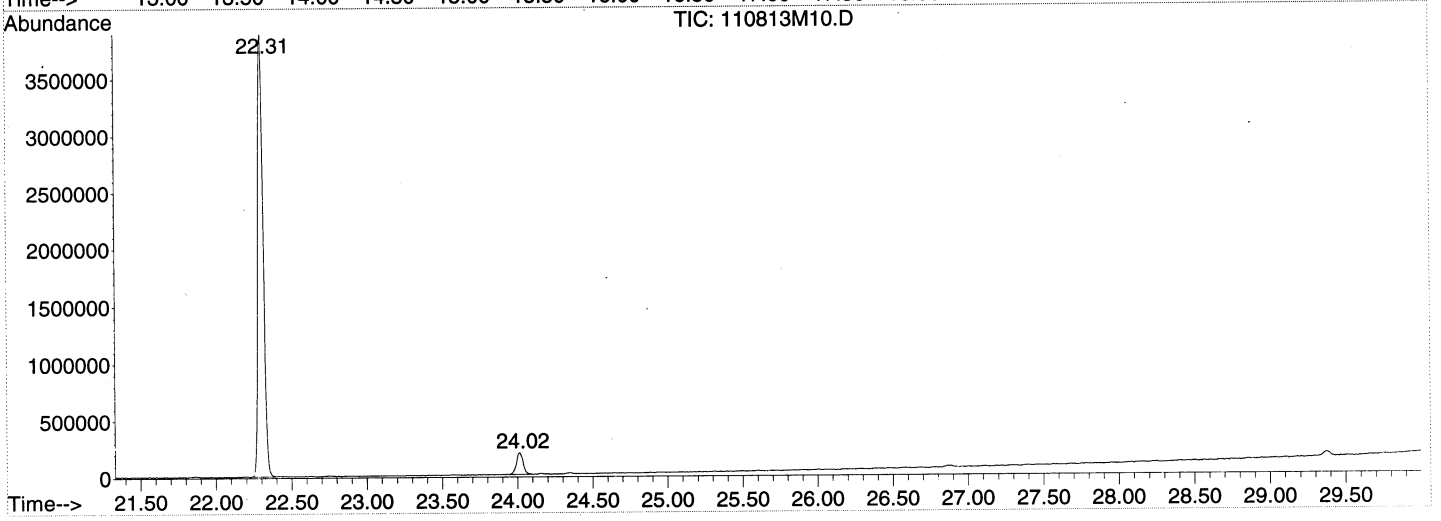
Data Path : C:\MSDCHEM\1\2013\DATA\110813TO15\
Data File : 110813M10.D
Acq On : 8 Nov 2013 7:57 pm
Operator : EM
Sample : Can 1579E
Misc : 200mL Can 1579E
ALS Vial : 31 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P







Tentatively Identified Compound (LSC) summary

Data Path : C:\MSDCHEM\1\2013\DATA\110813TO15\\
Data File : 110813M10.D
Acq On : 8 Nov 2013 7:57 pmm
Operator : EMM
Sample : Can 1579EE
Misc : 200mL Can 1579EE
ALS Vial : 31 Sample Multiplier: 11

Quant Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.MM
Quant Title : TO155

TIC Library : C:\DATABASE\NIST02.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

No Library Search Compounds Detected
****

Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\2013\DATA\110813TO15\
Data File : 110813M11.D
Acq On : 8 Nov 2013 8:46 pm
Operator : EM
Sample : Can 1582E
Misc : 200mL Can 1582E
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Nov 12 11:38:10 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) BROMOCHLOROMETHANE	15.33	49	891867	18.80 ppbv	0.00
32) 1,4-DIFLUOROBENZENE	17.37	114	3901152	20.00 ppbv	0.00
43) CHLOROBENZENE-d5	22.31	117	3302651	20.80 ppbv	0.00

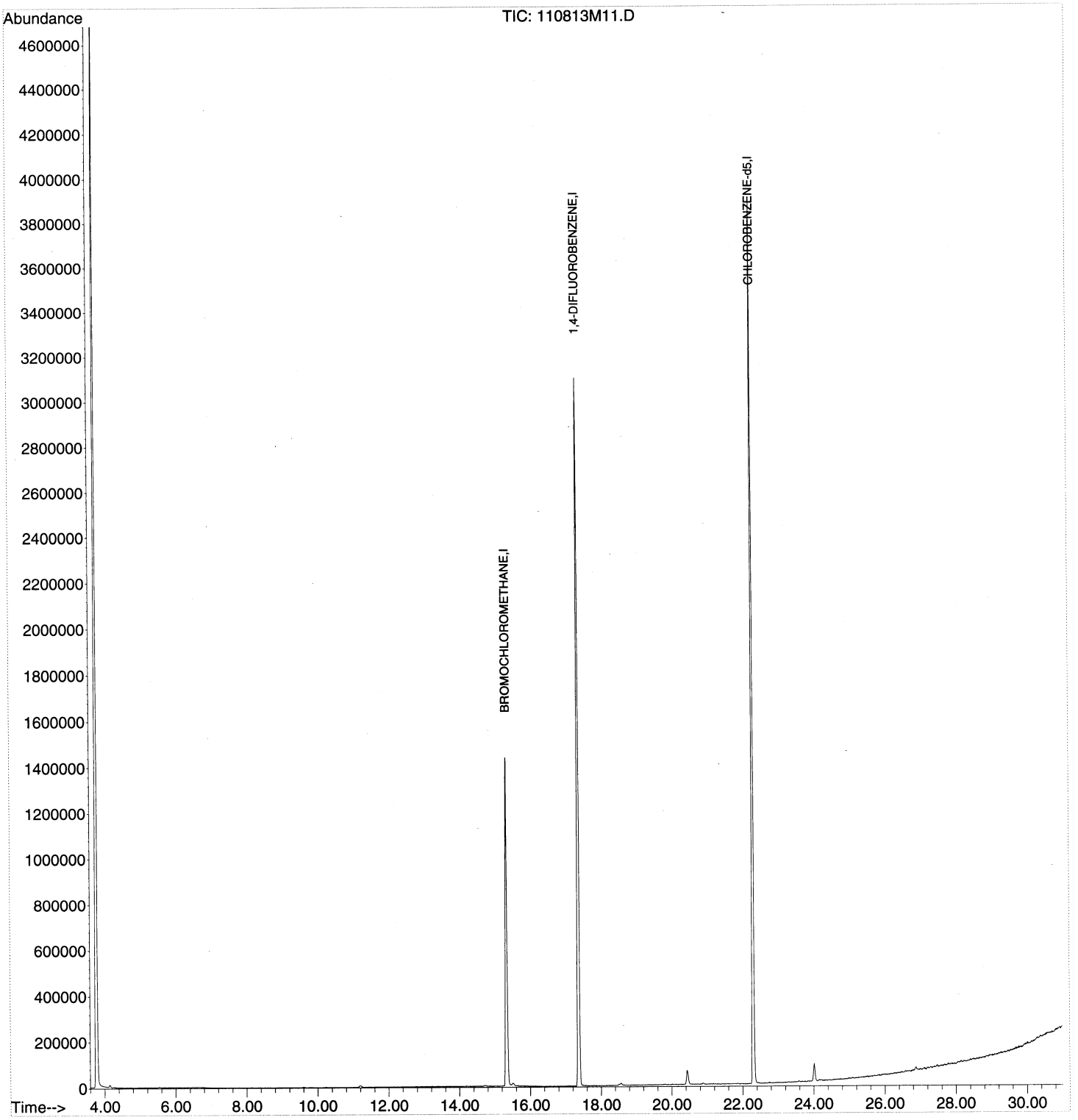
Target Compounds	Qvalue

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

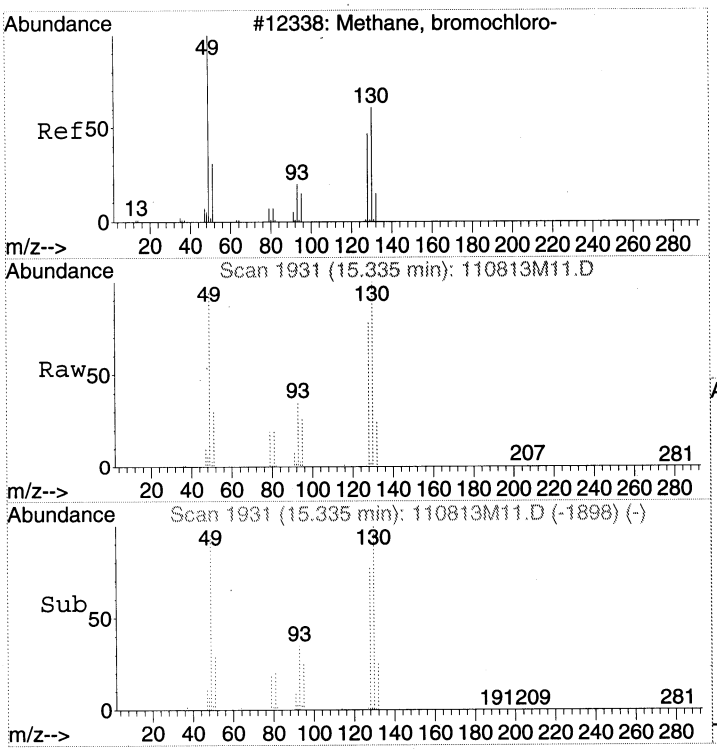
Quantitation Report (Not Reviewed)

Data Path : C:\MSDCHEM\1\2013\DATA\110813TO15\
Data File : 110813M11.D
Acq On : 8 Nov 2013 8:46 pm
Operator : EM
Sample : Can 1582E
Misc : 200mL Can 1582E
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Nov 12 11:38:10 2013
Quant Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Quant Title : TO15
QLast Update : Tue Oct 08 16:43:21 2013
Response via : Initial Calibration



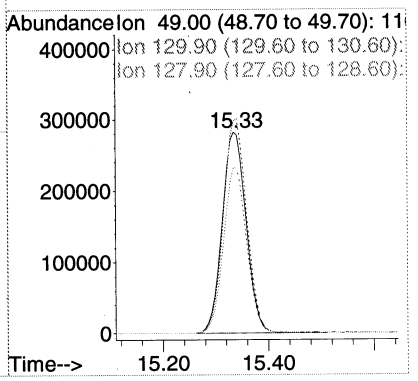
00536

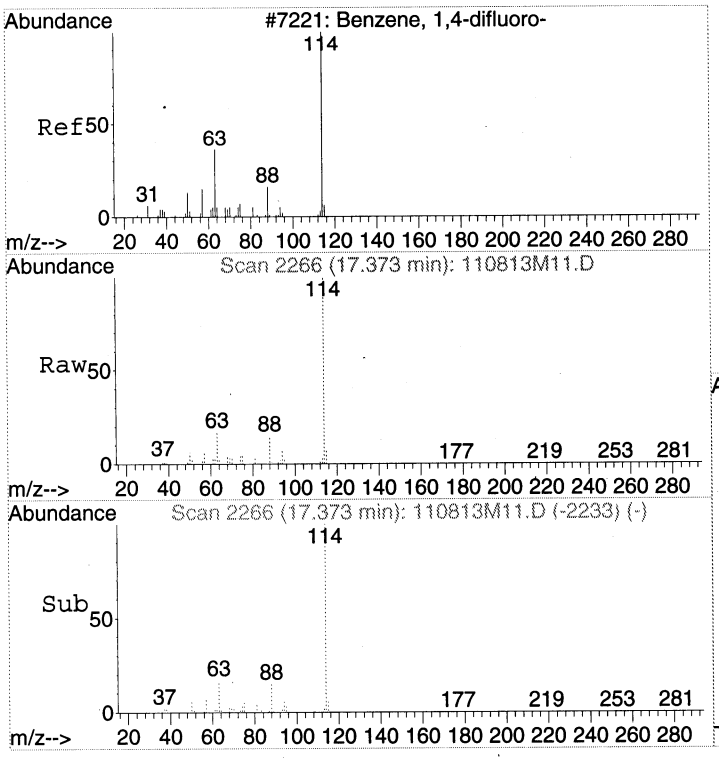


#1
BROMOCHLOROMETHANE
Concen: 18.80 ppbv
RT: 15.33 min Scan# 1931
Delta R.T. 0.00 min
Lab File: 110813M11.D
Acq: 8 Nov 2013 8:46 pm

Tgt Ion: 49 Resp: 891867

Ion	Ratio	Lower	Upper
49	100		
130	103.9	97.9	137.9
128	80.1	70.6	110.6

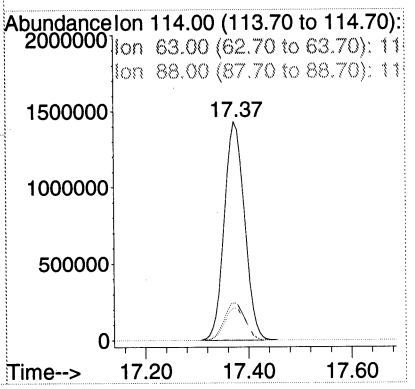


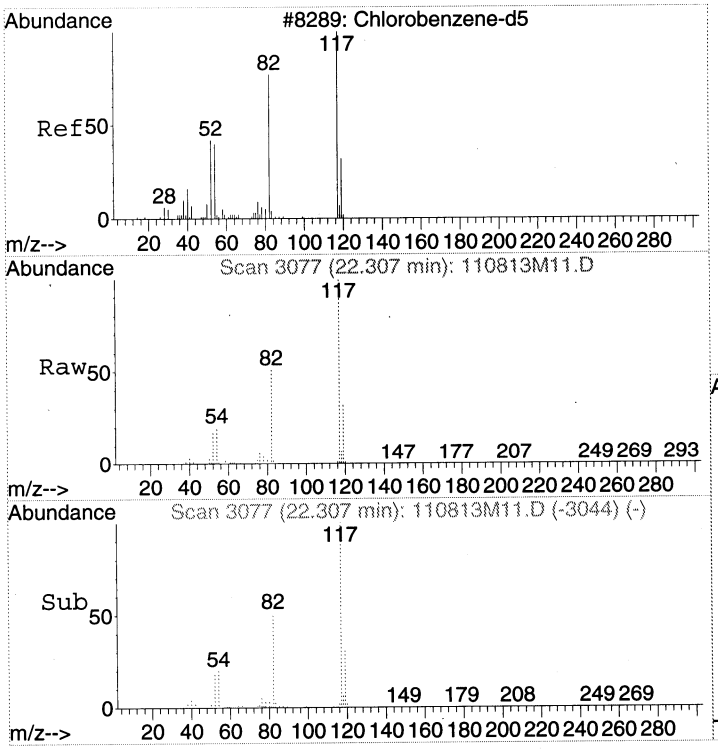


#32
1,4-DIFLUOROBENZENE
Concen: 20.00 ppbv
RT: 17.37 min Scan# 2266
Delta R.T. 0.00 min
Lab File: 110813M11.D
Acq: 8 Nov 2013 8:46 pm

Tgt Ion:114 Resp: 3901152

Ion	Ratio	Lower	Upper
114	100		
63	17.6	0.0	35.8
88	15.0	0.0	34.6

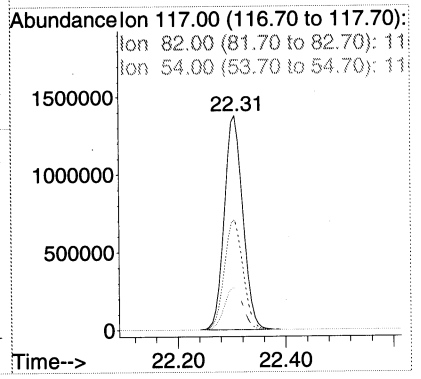




#43
CHLOROBENZENE-d5
Concen: 20.80 ppbv
RT: 22.31 min Scan# 3077
Delta R.T. 0.00 min
Lab File: 110813M11.D
Acq: 8 Nov 2013 8:46 pm

Tgt Ion:117 Resp: 3302651

Ion	Ratio	Lower	Upper
117	100		
82	52.0	28.9	68.9
54	20.3	0.0	36.9



LSC Area Percent Report

Data Path : C:\MSDCHEM\1\2013\DATA\110813TO15\
Data File : 110813M11.D
Acq On : 8 Nov 2013 8:46 pm
Operator : EM
Sample : Can 1582E
Misc : 200mL Can 1582E
ALS Vial : 32 Sample Multiplier: 1

Integration Parameters: RTEINT.P
Integrator: RTE
Smoothing : OFF
Sampling : 1
Start Thrs: 0.2
Stop Thrs : 0

Filtering: 5
Min Area: 1 % of largest Peak
Max Peaks: 100
Peak Location: TOP

If leading or trailing edge < 100 prefer < Baseline drop else tangent >
Peak separation: 5

Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Title : TO15

Signal : TIC

peak #	R.T. min	first scan	max scan	last scan	PK TY	peak height	corr. area	corr. % max.	% of total
1	15.341	1918	1932	1947	rBV	1432479	4476714	47.24%	19.554%
2	17.373	2253	2266	2283	rBV	3096324	8501667	89.70%	37.134%
3	20.433	2760	2769	2786	rVB	60278	206597	2.18%	0.902%
4	22.307	3065	3077	3095	rBV	3890767	9477414	100.00%	41.396%
5	24.016	3349	3358	3370	rVB2	74782	231918	2.45%	1.013%

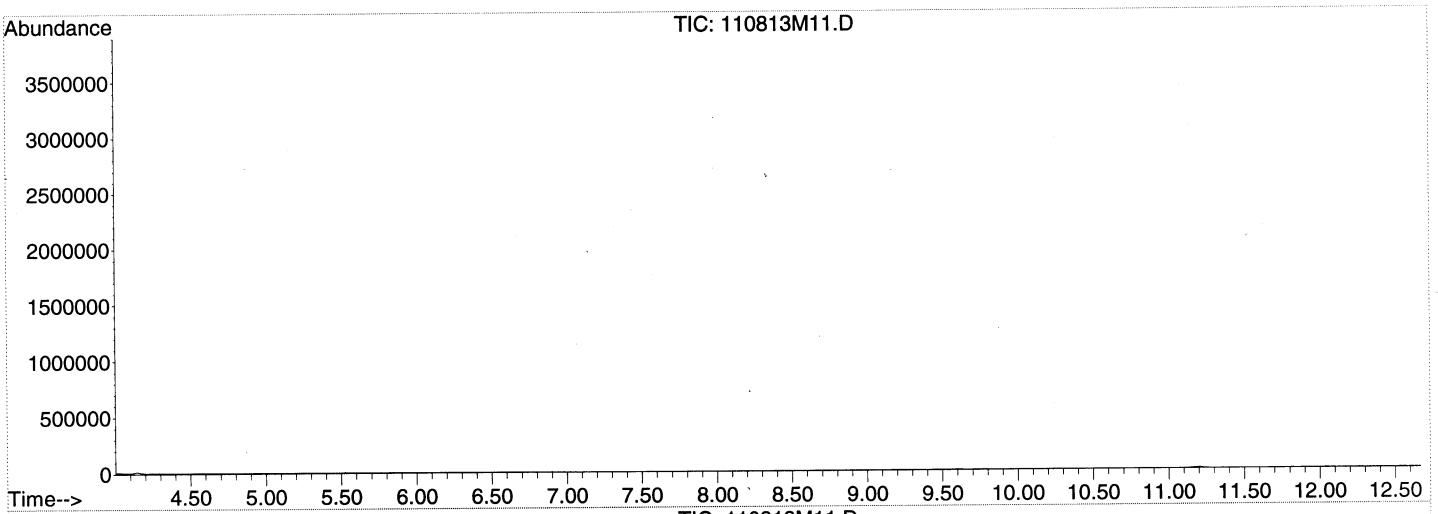
Sum of corrected areas: 22894310

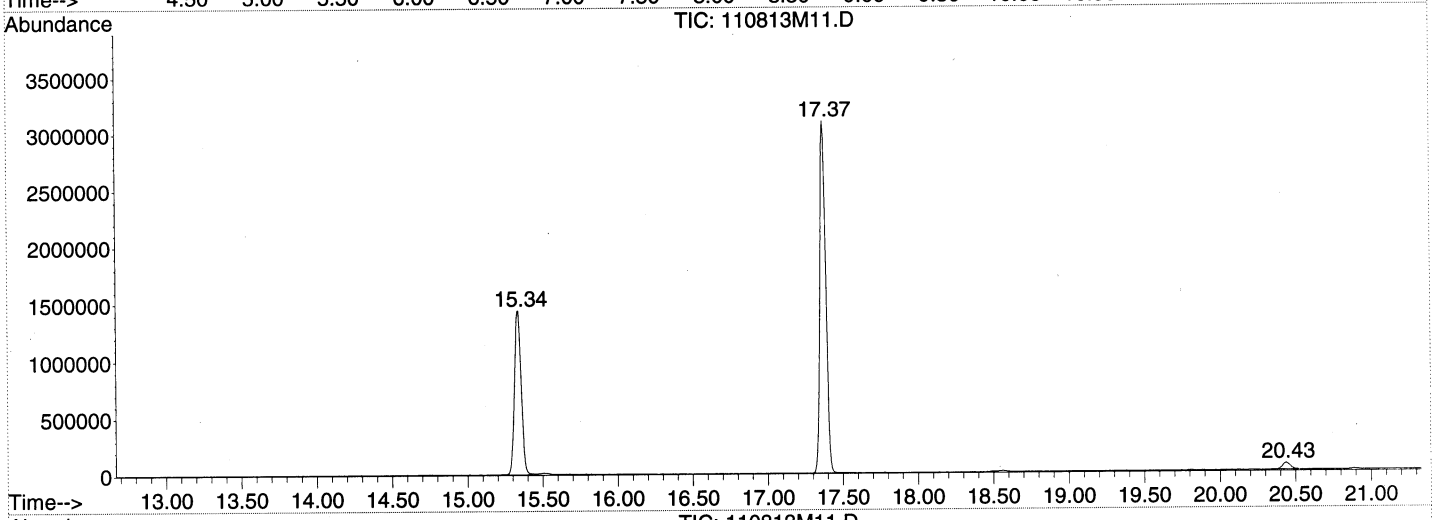
LSC Report - Integrated Chromatogram

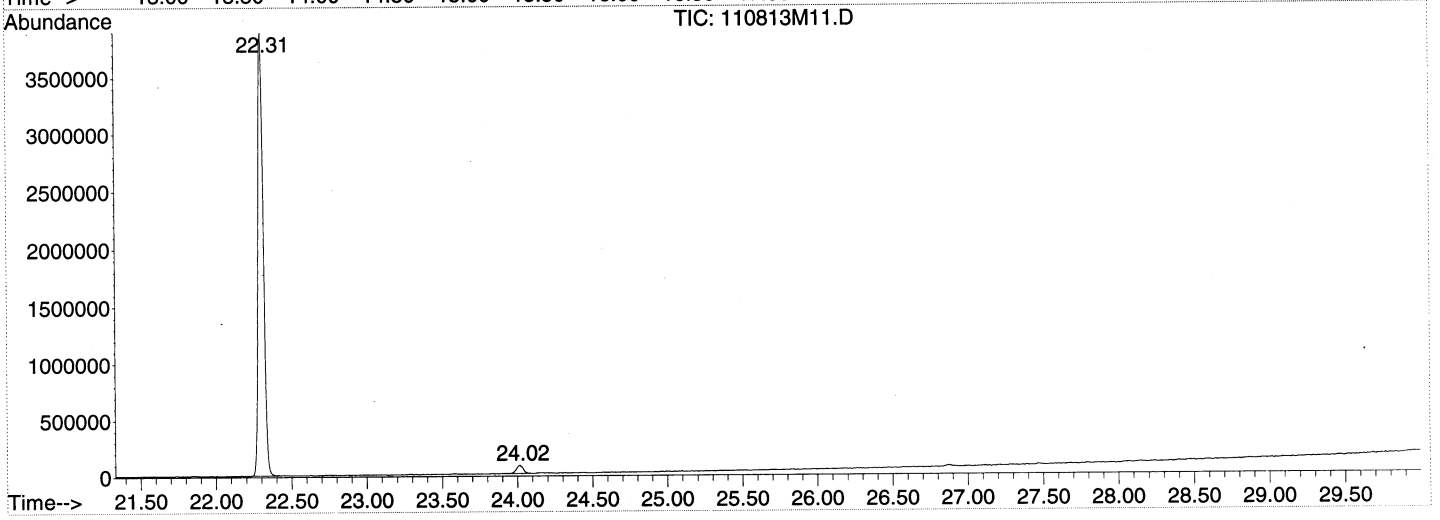
Data Path : C:\MSDCHEM\1\2013\DATA\110813TO15\
Data File : 110813M11.D
Acq On : 8 Nov 2013 8:46 pm
Operator : EM
Sample : Can 1582E
Misc : 200mL Can 1582E
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.M
Quant Title : TO15

TIC Library : C:\DATABASE\NIST02.L
TIC Integration Parameters: LSCINT.P







Tentatively Identified Compound (LSC) summary

Data Path : C:\MSDCHEM\1\2013\DATA\110813TO15\\
Data File : 110813M11.D
Acq On : 8 Nov 2013 8:46 pmm
Operator : EMM
Sample : Can 1582EE
Misc : 200mL Can 1582EE
ALS Vial : 32 Sample Multiplier: 11

Quant Method : C:\MSDCHEM\1\2013\METHOD\110813TMAA.MM
Quant Title : TO155

TIC Library : C:\DATABASE\NIST02.LL
TIC Integration Parameters: LSCINT.PP

TIC Top Hit name	RT	EstConc	Units	Response	Internal Standard #	RT	Resp	Conc

No Library Search Compounds Detected
****