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Automated Report

Technical Report for

Anderson, Mulholland & Associates

BMSMC, Building 5 Area, Humacao, PR

SM04.00.06

SGS Accutest Job Number: FA39345

Sampling Date: 12/06/16

Report to:

Anderson, Mulholland & Associates

HRoyer@amaiconsult.com

ATTN: Haley Royer

Total number of pages in report: 347

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Norm Farmer
Technical Director

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Sample Summary

Anderson, Mulholland & Associates

Job No: FA39345

BMSMC, Building 5 Area, Humacao, PR
Project No: SM04.00.06

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
FA39345-1	12/06/16	12:12	NR	12/07/16	AQ	Ground Water	UP-1
FA39345-1D	12/06/16	12:12	NR	12/07/16	AQ	Water Matrix Spike	UP-1
FA39345-1S	12/06/16	12:12	NR	12/07/16	AQ	Water Dup/MSD	UP-1
FA39345-2	12/06/16	12:48	NR	12/07/16	AQ	Trip Blank Water	TB120616NRA

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client: Anderson, Mulholland & Associates **Job No:** FA39345

Site: BMSMC, Building 5 Area, Humacao, PR **Report Date** 12/28/2016 10:13:08 AM

1 Sample and 1 Trip Blank were collected on 12/06/2016 and were received at SGS Accutest Southeast (SASE) on 12/07/2016 properly preserved, at 3.4 Deg. C and intact. These Samples received an SASE job number of FA39345. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix: AQ **Batch ID:** N: V4B2772

FA39345-2: Analysis performed at SGS Accutest, Dayton, NJ.

Matrix: AQ **Batch ID:** VJ5516

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA39345-1MS, FA39345-1MSD were used as the QC samples indicated.

Blank Spike Recovery(s) for trans-1,2-Dichloroethylene, trans-1,3-Dichloropropene are outside control limits. Recoveries are biased high. Analytes are non-detect in associated sample; therefore data is not adversely affected.

Matrix Spike / Matrix Spike Duplicate Recovery(s) for Tert-Butyl Alcohol are outside control limits. Probable cause is due to matrix interference.

FA39345-1: Confirmation run.

FA39345-2: Internal standard areas outside, no more sample left for reanalysis.

Matrix: AQ **Batch ID:** VJ5519

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) FA39345-1MS, FA39345-1MSD were used as the QC samples indicated.

Blank Spike Recovery(s) for 1,1-Dichloroethane, 1,2,4-Trimethylbenzene, Tert-Butyl Alcohol, trans-1,2-Dichloroethylene, trans-1,3-Dichloropropene are outside control limits. Recoveries are biased high. Analytes are non-detect in associated sample; therefore data is not adversely affected.

Matrix Spike Recovery(s) for 1,1-Dichloroethane, 1,2,4-Trimethylbenzene, Isopropylbenzene, Tert-Butyl Alcohol, trans-1,2-Dichloroethylene are outside control limits. Probable cause is due to matrix interference.

Matrix Spike Duplicate Recovery(s) for Tert-Butyl Alcohol are outside control limits. Probable cause is due to matrix interference.

RPD(s) for MSD for 1,3-Dichlorobenzene are outside control limits for sample FA39345-1MSD. Probable cause is due to sample non-homogeneity.

FA39345-1 for 1,1-Dichloroethane: Associated BS recovery outside control limits.

FA39345-1 for 1,2,4-Trimethylbenzene: Associated BS recovery outside control limits.

FA39345-1 for Tert-Butyl Alcohol: Associated BS recovery outside control limits.

FA39345-1 for trans-1,2-Dichloroethylene: Associated BS recovery outside control limits.

FA39345-1 for trans-1,3-Dichloropropene: Associated BS recovery outside control limits.

SGS Accutest (SASE) certifies that this report meets the project requirements for analytical data produced for the samples as received at SASE and as stated on the COC. SASE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the SASE Quality Manual except as noted above. This report is to be used in its entirety. SASE is not responsible for any assumptions of data quality if partial data packages are used

Narrative prepared by:

Date: December 28, 2016

Lovelie Metzgar, QA Officer (signature on file)

Manual Integration Summary

Lab Sample ID	Analysis Type	File ID	Manual Integrations
FA39345-1MS	MSVOA	J0981590.D	Ethyl Alcohol
FA39345-1MS	MSVOA	J0981651.D	Ethyl Alcohol
FA39345-1MSD	MSVOA	J0981591.D	Ethyl Alcohol
FA39345-1MSD	MSVOA	J0981652.D	Ethyl Alcohol
VJ5512-IC5512	MSVOA	J0981505.D	Carbon Tetrachloride, Dichlorodifluoromethane, Ethyl Alcohol
VJ5512-IC5512	MSVOA	J0981506.D	Carbon Tetrachloride, Ethyl Alcohol
VJ5512-IC5512	MSVOA	J0981507.D	Carbon Tetrachloride, Ethyl Alcohol
VJ5512-IC5512	MSVOA	J0981509.D	Carbon Tetrachloride, Ethyl Alcohol, Trichlorofluoromethane
VJ5512-IC5512	MSVOA	J0981510.D	Carbon Tetrachloride
VJ5512-IC5512	MSVOA	J0981512.D	Acetonitrile, Dichlorodifluoromethane, Ethyl Alcohol, Isobutyl Alcohol, Methyl Bromide
VJ5512-ICV5512	MSVOA	J0981513.D	Carbon Tetrachloride, Ethyl Alcohol
VJ5515-CC5512	MSVOA	J0981567.D	Ethyl Alcohol
VJ5516-BS	MSVOA	J0981568.D	Carbon Tetrachloride
VJ5518-CC5512	MSVOA	J0981629.D	Carbon Tetrachloride, Ethyl Alcohol
VJ5519-BS	MSVOA	J0981630.D	Carbon Tetrachloride, Ethyl Alcohol

15 Manual Integrations were found for FA39345

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	SGS Accutest Southeast	**Job No**	FA39345
Site:	AMANYWP: BMSMC, Building 5 Area, Humacao, PR	**Report Date**	12/22/2016 10:22:46 A

On 12/13/2016, 0 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were received at SGS Accutest at a maximum corrected temperature of 4.4 C. Samples were intact and chemically preserved, unless noted below. A SGS Accutest Job Number of FA39345 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Volatiles by GCMS By Method SW846 8260C

Matrix: AQ **Batch ID:** V4B2772

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC33175-1MS, JC33175-1MSD were used as the QC samples indicated.

SGS Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS Accutest is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS Accutest indicated via signature on the report cover

Summary of Hits

Job Number: FA39345
Account: Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR
Collected: 12/06/16

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
FA39345-1	**UP-1**					
Isopropylbenzene		40.1	1.0	0.33	ug/l	SW846 8260C
FA39345-2	**TB120616NRA**					
No hits reported in this sample.						

Sample Results

Report of Analysis

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Report of Analysis

Client Sample ID:	UP-1		
Lab Sample ID:	FA39345-1	**Date Sampled:**	12/06/16
Matrix:	AQ - Ground Water	**Date Received:**	12/07/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	J0981649.D	1	12/19/16	DP	n/a	n/a	VJ5519
Run #2 [a]	J0981580.D	1	12/16/16	DP	n/a	n/a	VJ5516

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA TCL List (SOM02.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.42	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.46	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.6	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.23	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.30	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.63	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
110-82-7	Cyclohexane	ND	1.0	0.26	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.26	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	0.81	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.27	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.39	ug/l	
75-34-3	1,1-Dichloroethane [b]	ND	1.0	0.26	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.28	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.22	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethylene [b]	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
10061-02-6	trans-1,3-Dichloropropene [b]	ND	1.0	0.25	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.25	ug/l	
76-13-1	Freon 113	ND	1.0	0.32	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
98-82-8	Isopropylbenzene	40.1	1.0	0.33	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	UP-1		
Lab Sample ID:	FA39345-1	**Date Sampled:**	12/06/16
Matrix:	AQ - Ground Water	**Date Received:**	12/07/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, Humacao, PR		

VOA TCL List (SOM02.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
99-87-6	p-Isopropyltoluene	ND	1.0	0.28	ug/l	
79-20-9	Methyl Acetate	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	0.23	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.4	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
75-85-4	Tert-Amyl Alcohol	ND	20	6.0	ug/l	
75-65-0	Tert-Butyl Alcohol [b]	ND	20	9.1	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.33	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.30	ug/l	
109-99-9	Tetrahydrofuran	ND	5.0	1.4	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	0.51	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.37	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene [b]	ND	1.0	0.20	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.31	ug/l	
	m,p-Xylene	ND	2.0	0.30	ug/l	
95-47-6	o-Xylene	ND	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	113%	111%	83-118%
17060-07-0	1,2-Dichloroethane-D4	112%	112%	79-125%
2037-26-5	Toluene-D8	92%	94%	85-112%
460-00-4	4-Bromofluorobenzene	104%	107%	83-118%

(a) Confirmation run.
(b) Associated BS recovery outside control limits.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	TB120616NRA		
Lab Sample ID:	FA39345-2	**Date Sampled:**	12/06/16
Matrix:	AQ - Trip Blank Water	**Date Received:**	12/07/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	J0981581.D	1	12/16/16	DP	n/a	n/a	VJ5516
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA TCL List (SOM02.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.42	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.46	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.6	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.23	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.30	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.63	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
110-82-7	Cyclohexane	ND	1.0	0.26	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.26	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	0.81	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.27	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.39	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.28	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.22	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.25	ug/l	
76-13-1	Freon 113	ND	1.0	0.32	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.33	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TB120616NRA		
Lab Sample ID:	FA39345-2	**Date Sampled:**	12/06/16
Matrix:	AQ - Trip Blank Water	**Date Received:**	12/07/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, Humacao, PR		

VOA TCL List (SOM02.0)

CAS No.	Compound	Result	RL	MDL	Units	Q
99-87-6	p-Isopropyltoluene	ND	1.0	0.28	ug/l	
79-20-9	Methyl Acetate	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	
108-87-2	Methylcyclohexane	ND	1.0	0.23	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.4	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
75-85-4	Tert-Amyl Alcohol	ND	20	6.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	20	9.1	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.33	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.30	ug/l	
109-99-9	Tetrahydrofuran	ND	5.0	1.4	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	0.51	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.37	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.20	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.31	ug/l	
	m,p-Xylene	ND	2.0	0.30	ug/l	
95-47-6	o-Xylene	ND	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	112%		83-118%
17060-07-0	1,2-Dichloroethane-D4	110%		79-125%
2037-26-5	Toluene-D8	103%		85-112%
460-00-4	4-Bromofluorobenzene	100%		83-118%

(a) Internal standard areas outside, no more sample left for reanalysis.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

Client Sample ID:	TB120616NRA		
Lab Sample ID:	FA39345-2	**Date Sampled:**	12/06/16
Matrix:	AQ - Trip Blank Water	**Date Received:**	12/07/16
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	BMSMC, Building 5 Area, Humacao, PR		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	4B67407.D	1	12/16/16	ANJ	n/a	n/a	N:V4B2772
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

CAS No.	Compound	Result	RL	MDL	Units	Q
106-99-0	1,3-Butadiene	ND	5.0	0.17	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		76-120%
17060-07-0	1,2-Dichloroethane-D4	108%		73-122%
2037-26-5	Toluene-D8	100%		84-119%
460-00-4	4-Bromofluorobenzene	108%		78-117%

(a) Analysis performed at SGS Accutest, Dayton, NJ.

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST LABORATORIES

FL

CHAIN OF CUSTODY

FA39345 PAGE 1 OF 1

4405 Vineland Road, Suite C-15, Orlando, Florida 32811
TEL: 407-425-6700 FAX: 407-425-0707
www.accutest.com

FED-EX Tracking # 7778 7321 1835 | Bottle Order Control # | Accutest Quote # | Accutest Job #

Client / Reporting Information

Company Name: Anderson Mulholland & Associates
Street Address: 2700 Westchester Avenue, Suite 417
City / State / Zip: Purchase NY 10577
Project Contact: Terry Taylor | E-mail:
Phone #: 914-251-0400 | Fax #:
Sampler(s) Name(s): | Phone #:

Project Information

Project Name: 4th Q 2016 Groundwater Sampling - Onsite Wells
Street:
City / State: Humacao PR
Project #:
Client Purchase Order #:
Project Manager: Terry Taylor

Billing Information (if different from Report to)
Company Name:
Street Address:
City / State / Zip:
Attention:

Requested Analysis (see TEST CODE sheet)

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	NONE	DI Water	MEOH	EnCORE	VX200TCL20	VMS+1241MB	VMS+BNZCHL	VMS+IPTOLU	VMS+TAA	VMS+TBA	VMS+THF	1,3BUTADIENE				LAB USE ONLY
1	UP-1		12-6-16	1217	NR	GW	3	3							X	X	X	X	X	X	X	X				
1	UP-1 MS		12-6-16	1230	NR	GW	3	3							X	X	X	X	X	X	X	X				
1	UP-1 MSD		12-6-16	1245	NR	GW	3	3							X	X	X	X	X	X	X	X				
2	TB120616NRA		12-6-16	0845		TB	2	2							X	X	X	X	X	X	X	X				

Turnaround Time (Business days)

- [X] Std. 15 Business Days
- [ ] Std. 10 Business Days (by Contract only)
- [ ] 10 Day RUSH
- [ ] 5 Day RUSH
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY

Approved By (Accutest PM): / Date:

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [X] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [ ] EDD Format
- [ ] Other

Commercial "A" = Results Only
Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special instructions

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	12-6-16 1500	1 Fed EX	2 FX		2 12/7/16
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:--	Received By: 5	Custody Seal # 631	Intact / Not intact	Preserved where applicable	On Ice	Cooler Temp. 3.4

FA39345: Chain of Custody
Page 1 of 3

SGS ACCUTEST - ORLANDO SAMPLE RECEIPT CONFIRMATION

SGS ACCUTEST'S JOB NUMBER: FA39345 CLIENT: Andrews PROJECT: 4th Q 2016

DATE/TIME RECEIVED: 12/7/16 1015 {MM/DD/YY 24:00} Mulholland NUMBER OF COOLERS RECEIVED: 1

METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER DELIVERY OTHER:

AIRBILL NUMBERS: 7778 7321 1835

COOLER INFORMATION

- [ ] CUSTODY SEAL NOT PRESENT OR NOT INTACT
- [ ] CHAIN OF CUSTODY NOT RECEIVED (COC)
- [ ] ANALYSIS REQUESTED IS UNCLEAR OR MISSING
- [ ] SAMPLE DATES OR TIMES UNCLEAR OR MISSING
- [ ] TEMPERATURE CRITERIA NOT MET

TEMPERATURE INFORMATION

- [ ] IR THERM ID 1 CORR. FACTOR -0.4
- [ ] OBSERVED TEMPS: 3.8
- [ ] CORRECTED TEMPS: 3.4 (USED FOR LIMS)

TRIP BLANK INFORMATION

- [x] TRIP BLANK PROVIDED
- [ ] TRIP BLANK NOT PROVIDED
- [ ] TRIP BLANK NOT ON COC
- [x] TRIP BLANK INTACT
- [ ] TRIP BLANK NOT INTACT
- [x] RECEIVED WATER TRIP BLANK
- [ ] RECEIVED SOIL TRIP BLANK

SAMPLE INFORMATION

- [ ] INCORRECT NUMBER OF CONTAINERS USED
- [ ] SAMPLE RECEIVED IMPROPERLY PRESERVED
- [ ] INSUFFICIENT VOLUME FOR ANALYSIS
- [ ] DATES/TIMES ON COC DO NOT MATCH SAMPLE LABEL
- [ ] ID'S ON COC DO NOT MATCH LABEL
- [ ] VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)
- [ ] BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED
- [ ] NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED
- [ ] UNCLEAR FILTERING OR COMPOSITING INSTRUCTIONS
- [ ] SAMPLE CONTAINER(S) RECEIVED BROKEN
- [ ] 5035 FIELD KITS NOT RECEIVED WITHIN 48 HOURS
- [ ] BULK VOA SOIL JARS NOT RECEIVED WITHIN 48 HOURS
- [ ] % SOLIDS JAR NOT RECEIVED
- [ ] RESIDUAL CHLORINE PRESENT LOT#
- {APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS}

MISC. INFORMATION

NUMBER OF ENCORES ? 25-GRAM 5-GRAM

NUMBER OF 5035 FIELD KITS ?

NUMBER OF LAB FILTERED METALS ?

TEST STRIP LOT#s pH 0-3 230315 pH 10-12 219813A OTHER (specify)

SUMMARY OF COMMENTS:

TECHNICIAN SIGNATURE/DATE 12/8/16 REVIEWER SIGNATURE/DATE KD 12-8-16

NF 02/16 receipt confirmation 020116.xls

FA39345: Chain of Custody
Page 2 of 3

After printing this label:
CONSIGNEE COPY - PLEASE PLACE IN FRONT OF POUCH
1. Fold the printed page along the horizontal line.
2. Place label in shipping pouch and affix it to your shipment.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account privileges.

Consignee agrees that FedEx Express's liability for any loss, damage or delay of a package or its contents shall be governed by the terms and conditions set forth in the applicable FedEx Service Guide in effect when the shipment was tendered to FedEx Express for transportation, subject to the exceptions and limitations set forth in the FedEx Express Service Guide, including, but not limited to, the following: Unless a higher value is declared in writing prior to shipment, the liability of FedEx Express shall be limited to the lesser of the actual loss of the shipment or $100 USD. In no event shall FedEx Express be liable for any special, incidental or consequential damages, including but not limited to, lost profits, lost sales or business opportunity, whether such loss or damage is caused by FedEx Express's negligence or otherwise. Claims must be filed in writing within 21 days after delivery of the shipment (or, if the shipment was not delivered, within 21 days after the date the package was tendered to FedEx Express). Claims not timely filed will be time barred. Liability for loss or damage to perishable or time sensitive packages, including but not limited to, those containing medicines or medical supplies, shall be limited to the lesser of the actual loss of the shipment or $100 USD. Liability for loss or damage to jewelry, precious metals, negotiable papers, business papers, manuscripts, or other irreplaceable documents or papers is limited to the lesser of the actual loss of the shipment or $100 USD. Liability for loss or damage to fragile or perishable goods is limited to the lesser of the actual loss of the shipment or $100 USD. Liability for loss or damage to electronic data, software, or computer hardware is limited to the lesser of the actual loss of the shipment or $100 USD. Liability for loss or damage to shipments of cash, currency, or other negotiable instruments is limited to the lesser of the actual loss of the shipment or $100 USD. Liability for loss or damage to shipments of firearms or ammunition is limited to the lesser of the actual loss of the shipment or $100 USD. Liability for loss or damage to shipments of tickets is limited to the lesser of the actual loss of the shipment or $100 USD. Liability for loss or damage to shipments of cigarettes is limited to the lesser of the actual loss of the shipment or $100 USD. Liability for loss or damage to shipments of alcohol or tobacco products is limited to the lesser of the actual loss of the shipment or $100 USD. Liability for loss or damage to shipments of pharmaceuticals is limited to the lesser of the actual loss of the shipment or $100 USD. Liability for loss or damage to shipments of human remains is limited to the lesser of the actual loss of the shipment or $100 USD. Liability for loss or damage to shipments of live animals is limited to the lesser of the actual loss of the shipment or $100 USD. Liability for loss or damage to shipments of plants is limited to the lesser of the actual loss of the shipment or $100 USD. Liability for loss or damage to shipments of perishable goods is limited to the lesser of the actual loss of the shipment or $100 USD. Liability for loss or damage to shipments of fragile goods is limited to the lesser of the actual loss of the shipment or $100 USD. Liability for loss or damage to shipments of

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ5516-MB	J0981569.D	1	12/16/16	DP	n/a	n/a	VJ5516

The QC reported here applies to the following samples: **Method:** SW846 8260C

FA39345-2

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.42	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.46	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.6	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.23	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.30	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.63	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
110-82-7	Cyclohexane	ND	1.0	0.26	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.26	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	0.81	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.27	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.39	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.28	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.22	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.25	ug/l	
76-13-1	Freon 113	ND	1.0	0.32	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.33	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.28	ug/l	
79-20-9	Methyl Acetate	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	

Method Blank Summary

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ5516-MB	J0981569.D	1	12/16/16	DP	n/a	n/a	VJ5516

The QC reported here applies to the following samples: **Method:** SW846 8260C

FA39345-2

CAS No.	Compound	Result	RL	MDL	Units	Q
108-87-2	Methylcyclohexane	ND	1.0	0.23	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.4	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
75-85-4	Tert-Amyl Alcohol	ND	20	6.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	20	9.1	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.33	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.30	ug/l	
109-99-9	Tetrahydrofuran	ND	5.0	1.4	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	0.51	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.37	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.20	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.31	ug/l	
	m,p-Xylene	ND	2.0	0.30	ug/l	
95-47-6	o-Xylene	ND	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	99%	83-118%
17060-07-0	1,2-Dichloroethane-D4	101%	79-125%
2037-26-5	Toluene-D8	102%	85-112%
460-00-4	4-Bromofluorobenzene	98%	83-118%

Method Blank Summary

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ5519-MB	J0981631.D	1	12/19/16	DP	n/a	n/a	VJ5519

The QC reported here applies to the following samples: **Method:** SW846 8260C

FA39345-1

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	25	10	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-44-7	Benzyl Chloride	ND	2.0	0.44	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.42	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.24	ug/l	
75-25-2	Bromoform	ND	1.0	0.46	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	2.6	ug/l	
75-15-0	Carbon Disulfide	ND	2.0	0.23	ug/l	
56-23-5	Carbon Tetrachloride	ND	1.0	0.30	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	2.0	0.63	ug/l	
67-66-3	Chloroform	ND	1.0	0.30	ug/l	
110-82-7	Cyclohexane	ND	1.0	0.26	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.26	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	0.81	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.33	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.50	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.27	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.24	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.39	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.26	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.28	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.22	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.31	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.33	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.34	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.26	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.25	ug/l	
76-13-1	Freon 113	ND	1.0	0.32	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.33	ug/l	
99-87-6	p-Isopropyltoluene	ND	1.0	0.28	ug/l	
79-20-9	Methyl Acetate	ND	20	5.0	ug/l	
74-83-9	Methyl Bromide	ND	2.0	0.50	ug/l	
74-87-3	Methyl Chloride	ND	2.0	0.50	ug/l	

Method Blank Summary

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ5519-MB	J0981631.D	1	12/19/16	DP	n/a	n/a	VJ5519

The QC reported here applies to the following samples: **Method:** SW846 8260C

FA39345-1

CAS No.	Compound	Result	RL	MDL	Units	Q
108-87-2	Methylcyclohexane	ND	1.0	0.23	ug/l	
75-09-2	Methylene Chloride	ND	5.0	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	1.4	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
75-85-4	Tert-Amyl Alcohol	ND	20	6.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	20	9.1	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.33	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.30	ug/l	
109-99-9	Tetrahydrofuran	ND	5.0	1.4	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	0.51	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.37	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.50	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	1.0	0.20	ug/l	
75-01-4	Vinyl Chloride	ND	1.0	0.31	ug/l	
	m,p-Xylene	ND	2.0	0.30	ug/l	
95-47-6	o-Xylene	ND	1.0	0.26	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	106%	83-118%
17060-07-0	1,2-Dichloroethane-D4	115%	79-125%
2037-26-5	Toluene-D8	104%	85-112%
460-00-4	4-Bromofluorobenzene	105%	83-118%

Blank Spike Summary

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ5516-BS	J0981568.D	1	12/16/16	DP	n/a	n/a	VJ5516

The QC reported here applies to the following samples: **Method:** SW846 8260C

FA39345-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	137	110	50-147
71-43-2	Benzene	25	28.8	115	81-122
100-44-7	Benzyl Chloride	25	26.6	106	54-122
74-97-5	Bromochloromethane	25	27.7	111	76-123
75-27-4	Bromodichloromethane	25	26.4	106	79-123
75-25-2	Bromoform	25	30.7	123	66-123
78-93-3	2-Butanone (MEK)	125	115	92	56-143
75-15-0	Carbon Disulfide	25	29.2	117	66-148
56-23-5	Carbon Tetrachloride	25	30.9	124	76-136
108-90-7	Chlorobenzene	25	28.6	114	82-124
75-00-3	Chloroethane	25	26.1	104	62-144
67-66-3	Chloroform	25	28.2	113	80-124
110-82-7	Cyclohexane	25	30.4	122	73-138
124-48-1	Dibromochloromethane	25	30.5	122	78-122
96-12-8	1,2-Dibromo-3-chloropropane	25	23.9	96	64-123
106-93-4	1,2-Dibromoethane	25	28.4	114	75-120
75-71-8	Dichlorodifluoromethane	25	25.2	101	42-167
95-50-1	1,2-Dichlorobenzene	25	27.3	109	82-124
541-73-1	1,3-Dichlorobenzene	25	29.2	117	84-125
106-46-7	1,4-Dichlorobenzene	25	26.4	106	78-120
75-34-3	1,1-Dichloroethane	25	30.3	121	81-122
107-06-2	1,2-Dichloroethane	25	27.6	110	75-125
75-35-4	1,1-Dichloroethylene	25	31.6	126	78-137
156-59-2	cis-1,2-Dichloroethylene	25	29.2	117	78-120
156-60-5	trans-1,2-Dichloroethylene	25	33.8	135*	76-127
78-87-5	1,2-Dichloropropane	25	25.8	103	76-124
10061-01-5	cis-1,3-Dichloropropene	25	28.4	114	75-118
10061-02-6	trans-1,3-Dichloropropene	25	30.6	122*	80-120
100-41-4	Ethylbenzene	25	28.4	114	81-121
76-13-1	Freon 113	25	28.0	112	72-134
591-78-6	2-Hexanone	125	121	97	61-129
98-82-8	Isopropylbenzene	25	28.9	116	83-132
99-87-6	p-Isopropyltoluene	25	28.5	114	79-130
79-20-9	Methyl Acetate	125	149	119	65-126
74-83-9	Methyl Bromide	25	26.2	105	59-143
74-87-3	Methyl Chloride	25	23.8	95	50-159

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ5516-BS	J0981568.D	1	12/16/16	DP	n/a	n/a	VJ5516

The QC reported here applies to the following samples: **Method:** SW846 8260C

FA39345-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-87-2	Methylcyclohexane	25	30.4	122	76-129
75-09-2	Methylene Chloride	25	27.8	111	69-135
108-10-1	4-Methyl-2-pentanone (MIBK)	125	120	96	66-122
1634-04-4	Methyl Tert Butyl Ether	25	28.9	116	72-117
100-42-5	Styrene	25	29.1	116	78-119
75-85-4	Tert-Amyl Alcohol	250	213	85	65-124
75-65-0	Tert-Butyl Alcohol	250	315	126	63-129
79-34-5	1,1,2,2-Tetrachloroethane	25	24.8	99	72-120
127-18-4	Tetrachloroethylene	25	33.6	134	76-135
109-99-9	Tetrahydrofuran	25	22.9	92	56-122
108-88-3	Toluene	25	29.4	118	80-120
87-61-6	1,2,3-Trichlorobenzene	25	28.6	114	68-131
120-82-1	1,2,4-Trichlorobenzene	25	27.4	110	73-129
71-55-6	1,1,1-Trichloroethane	25	27.4	110	75-130
79-00-5	1,1,2-Trichloroethane	25	27.4	110	76-119
79-01-6	Trichloroethylene	25	29.4	118	81-126
75-69-4	Trichlorofluoromethane	25	26.3	105	71-156
95-63-6	1,2,4-Trimethylbenzene	25	29.0	116	79-120
75-01-4	Vinyl Chloride	25	28.5	114	69-159
	m,p-Xylene	50	56.2	112	79-126
95-47-6	o-Xylene	25	28.5	114	80-127

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	83-118%
17060-07-0	1,2-Dichloroethane-D4	97%	79-125%
2037-26-5	Toluene-D8	100%	85-112%
460-00-4	4-Bromofluorobenzene	96%	83-118%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ5519-BS	J0981630.D	1	12/19/16	DP	n/a	n/a	VJ5519

The QC reported here applies to the following samples: **Method:** SW846 8260C

FA39345-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	125	130	104	50-147
71-43-2	Benzene	25	28.9	116	81-122
100-44-7	Benzyl Chloride	25	26.4	106	54-122
74-97-5	Bromochloromethane	25	26.5	106	76-123
75-27-4	Bromodichloromethane	25	27.6	110	79-123
75-25-2	Bromoform	25	28.8	115	66-123
78-93-3	2-Butanone (MEK)	125	129	103	56-143
75-15-0	Carbon Disulfide	25	30.9	124	66-148
56-23-5	Carbon Tetrachloride	25	34.0	136	76-136
108-90-7	Chlorobenzene	25	28.4	114	82-124
75-00-3	Chloroethane	25	30.2	121	62-144
67-66-3	Chloroform	25	28.5	114	80-124
110-82-7	Cyclohexane	25	32.9	132	73-138
124-48-1	Dibromochloromethane	25	28.6	114	78-122
96-12-8	1,2-Dibromo-3-chloropropane	25	27.3	109	64-123
106-93-4	1,2-Dibromoethane	25	27.1	108	75-120
75-71-8	Dichlorodifluoromethane	25	26.6	106	42-167
95-50-1	1,2-Dichlorobenzene	25	27.7	111	82-124
541-73-1	1,3-Dichlorobenzene	25	29.0	116	84-125
106-46-7	1,4-Dichlorobenzene	25	27.4	110	78-120
75-34-3	1,1-Dichloroethane	25	30.8	123*	81-122
107-06-2	1,2-Dichloroethane	25	28.1	112	75-125
75-35-4	1,1-Dichloroethylene	25	32.1	128	78-137
156-59-2	cis-1,2-Dichloroethylene	25	27.8	111	78-120
156-60-5	trans-1,2-Dichloroethylene	25	35.0	140*	76-127
78-87-5	1,2-Dichloropropane	25	26.4	106	76-124
10061-01-5	cis-1,3-Dichloropropene	25	28.6	114	75-118
10061-02-6	trans-1,3-Dichloropropene	25	32.0	128*	80-120
100-41-4	Ethylbenzene	25	29.4	118	81-121
76-13-1	Freon 113	25	30.2	121	72-134
591-78-6	2-Hexanone	125	140	112	61-129
98-82-8	Isopropylbenzene	25	28.6	114	83-132
99-87-6	p-Isopropyltoluene	25	31.0	124	79-130
79-20-9	Methyl Acetate	125	136	109	65-126
74-83-9	Methyl Bromide	25	28.9	116	59-143
74-87-3	Methyl Chloride	25	25.8	103	50-159

* = Outside of Control Limits.

Blank Spike Summary

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VJ5519-BS	J0981630.D	1	12/19/16	DP	n/a	n/a	VJ5519

The QC reported here applies to the following samples: **Method:** SW846 8260C

FA39345-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-87-2	Methylcyclohexane	25	31.9	128	76-129
75-09-2	Methylene Chloride	25	28.6	114	69-135
108-10-1	4-Methyl-2-pentanone (MIBK)	125	140	112	66-122
1634-04-4	Methyl Tert Butyl Ether	25	29.0	116	72-117
100-42-5	Styrene	25	28.7	115	78-119
75-85-4	Tert-Amyl Alcohol	250	222	89	65-124
75-65-0	Tert-Butyl Alcohol	250	342	137*	63-129
79-34-5	1,1,2,2-Tetrachloroethane	25	25.5	102	72-120
127-18-4	Tetrachloroethylene	25	29.5	118	76-135
109-99-9	Tetrahydrofuran	25	26.9	108	56-122
108-88-3	Toluene	25	28.7	115	80-120
87-61-6	1,2,3-Trichlorobenzene	25	28.0	112	68-131
120-82-1	1,2,4-Trichlorobenzene	25	26.8	107	73-129
71-55-6	1,1,1-Trichloroethane	25	29.4	118	75-130
79-00-5	1,1,2-Trichloroethane	25	27.0	108	76-119
79-01-6	Trichloroethylene	25	30.1	120	81-126
75-69-4	Trichlorofluoromethane	25	30.3	121	71-156
95-63-6	1,2,4-Trimethylbenzene	25	31.7	127*	79-120
75-01-4	Vinyl Chloride	25	29.9	120	69-159
	m,p-Xylene	50	59.4	119	79-126
95-47-6	o-Xylene	25	27.4	110	80-127

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	103%	83-118%
17060-07-0	1,2-Dichloroethane-D4	101%	79-125%
2037-26-5	Toluene-D8	99%	85-112%
460-00-4	4-Bromofluorobenzene	99%	83-118%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA39345-1MS	J0981590.D	1	12/16/16	DP	n/a	n/a	VJ5516
FA39345-1MSD	J0981591.D	1	12/16/16	DP	n/a	n/a	VJ5516
FA39345-1 [a]	J0981580.D	1	12/16/16	DP	n/a	n/a	VJ5516

The QC reported here applies to the following samples: **Method:** SW846 8260C

FA39345-2

CAS No.	Compound	FA39345-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		125	107	86	125	111	89	4	50-147/21
71-43-2	Benzene	ND		25	26.8	107	25	25.7	103	4	81-122/14
100-44-7	Benzyl Chloride	ND		25	18.1	72	25	17.8	71	2	54-122/18
74-97-5	Bromochloromethane	ND		25	25.1	100	25	24.5	98	2	76-123/14
75-27-4	Bromodichloromethane	ND		25	23.4	94	25	22.5	90	4	79-123/19
75-25-2	Bromoform	ND		25	19.2	77	25	19.2	77	0	66-123/21
78-93-3	2-Butanone (MEK)	ND		125	113	90	125	118	94	4	56-143/18
75-15-0	Carbon Disulfide	ND		25	23.1	92	25	22.1	88	4	66-148/23
56-23-5	Carbon Tetrachloride	ND		25	27.9	112	25	26.0	104	7	76-136/23
108-90-7	Chlorobenzene	0.22	J	25	26.6	106	25	24.9	99	7	82-124/14
75-00-3	Chloroethane	ND		25	31.5	126	25	30.5	122	3	62-144/20
67-66-3	Chloroform	ND		25	26.4	106	25	24.9	100	6	80-124/15
110-82-7	Cyclohexane	ND		25	25.9	104	25	25.7	103	1	73-138/18
124-48-1	Dibromochloromethane	ND		25	21.2	85	25	20.5	82	3	78-122/19
96-12-8	1,2-Dibromo-3-chloropropane	ND		25	22.1	88	25	20.7	83	7	64-123/18
106-93-4	1,2-Dibromoethane	ND		25	22.6	90	25	22.9	92	1	75-120/13
75-71-8	Dichlorodifluoromethane	ND		25	25.4	102	25	25.6	102	1	42-167/19
95-50-1	1,2-Dichlorobenzene	ND		25	25.7	103	25	24.7	99	4	82-124/14
541-73-1	1,3-Dichlorobenzene	ND		25	27.1	108	25	24.7	99	9	84-125/14
106-46-7	1,4-Dichlorobenzene	ND		25	25.6	102	25	23.1	92	10	78-120/15
75-34-3	1,1-Dichloroethane	ND		25	28.0	112	25	27.1	108	3	81-122/15
107-06-2	1,2-Dichloroethane	ND		25	25.9	104	25	25.3	101	2	75-125/14
75-35-4	1,1-Dichloroethylene	ND		25	25.1	100	25	25.4	102	1	78-137/18
156-59-2	cis-1,2-Dichloroethylene	ND		25	23.7	95	25	24.6	98	4	78-120/15
156-60-5	trans-1,2-Dichloroethylene	ND		25	29.0	116	25	27.7	111	5	76-127/17
78-87-5	1,2-Dichloropropane	ND		25	23.5	94	25	23.6	94	0	76-124/14
10061-01-5	cis-1,3-Dichloropropene	ND		25	21.6	86	25	21.0	84	3	75-118/23
10061-02-6	trans-1,3-Dichloropropene	ND		25	24.2	97	25	22.5	90	7	80-120/22
100-41-4	Ethylbenzene	ND		25	25.7	103	25	25.2	101	2	81-121/14
76-13-1	Freon 113	ND		25	25.7	103	25	23.6	94	9	72-134/20
591-78-6	2-Hexanone	ND		125	112	90	125	120	96	7	61-129/18
98-82-8	Isopropylbenzene	39.5		25	70.6	124	25	66.4	108	6	83-132/15
99-87-6	p-Isopropyltoluene	ND		25	26.7	107	25	24.9	100	7	79-130/16
79-20-9	Methyl Acetate	ND		125	116	93	125	118	94	2	65-126/18
74-83-9	Methyl Bromide	ND		25	27.6	110	25	28.3	113	3	59-143/19
74-87-3	Methyl Chloride	ND		25	23.2	93	25	24.4	98	5	50-159/19

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA39345-1MS	J0981590.D	1	12/16/16	DP	n/a	n/a	VJ5516
FA39345-1MSD	J0981591.D	1	12/16/16	DP	n/a	n/a	VJ5516
FA39345-1 [a]	J0981580.D	1	12/16/16	DP	n/a	n/a	VJ5516

The QC reported here applies to the following samples: **Method:** SW846 8260C

FA39345-2

CAS No.	Compound	FA39345-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
108-87-2	Methylcyclohexane	ND		25	26.9	108	25	25.1	100	7	76-129/17
75-09-2	Methylene Chloride	ND		25	23.3	93	25	22.6	90	3	69-135/16
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		125	113	90	125	115	92	2	66-122/16
1634-04-4	Methyl Tert Butyl Ether	ND		25	22.6	90	25	23.0	92	2	72-117/14
100-42-5	Styrene	ND		25	24.7	99	25	23.7	95	4	78-119/23
75-85-4	Tert-Amyl Alcohol	ND		250	186	74	250	204	82	9	65-124/23
75-65-0	Tert-Butyl Alcohol	ND		250	379	152*	250	405	162*	7	63-129/27
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	23.8	95	25	23.1	92	3	72-120/14
127-18-4	Tetrachloroethylene	ND		25	26.2	105	25	25.0	100	5	76-135/16
109-99-9	Tetrahydrofuran	ND		25	20.1	80	25	22.9	92	13	56-122/21
108-88-3	Toluene	ND		25	25.1	100	25	24.0	96	4	80-120/14
87-61-6	1,2,3-Trichlorobenzene	ND		25	24.7	99	25	24.8	99	0	68-131/25
120-82-1	1,2,4-Trichlorobenzene	ND		25	23.4	94	25	23.3	93	0	73-129/20
71-55-6	1,1,1-Trichloroethane	ND		25	25.1	100	25	25.1	100	0	75-130/16
79-00-5	1,1,2-Trichloroethane	ND		25	23.3	93	25	22.6	90	3	76-119/14
79-01-6	Trichloroethylene	ND		25	27.3	109	25	26.9	108	1	81-126/15
75-69-4	Trichlorofluoromethane	ND		25	31.3	125	25	28.1	112	11	71-156/21
95-63-6	1,2,4-Trimethylbenzene	ND		25	27.6	110	25	25.9	104	6	79-120/18
75-01-4	Vinyl Chloride	ND		25	26.0	104	25	27.4	110	5	69-159/18
	m,p-Xylene	ND		50	51.3	103	50	48.9	98	5	79-126/15
95-47-6	o-Xylene	ND		25	23.8	95	25	23.1	92	3	80-127/14

CAS No.	Surrogate Recoveries	MS	MSD	FA39345-1	Limits
1868-53-7	Dibromofluoromethane	105%	109%	111%	83-118%
17060-07-0	1,2-Dichloroethane-D4	102%	106%	112%	79-125%
2037-26-5	Toluene-D8	92%	95%	94%	85-112%
460-00-4	4-Bromofluorobenzene	90%	94%	107%	83-118%

(a) Confirmation run.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA39345-1MS	J0981651.D	1	12/19/16	DP	n/a	n/a	VJ5519
FA39345-1MSD	J0981652.D	1	12/19/16	DP	n/a	n/a	VJ5519
FA39345-1	J0981649.D	1	12/19/16	DP	n/a	n/a	VJ5519

The QC reported here applies to the following samples: **Method:** SW846 8260C

FA39345-1

CAS No.	Compound	FA39345-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		125	116	93	125	110	88	5	50-147/21
71-43-2	Benzene	ND		25	30.2	121	25	27.7	111	9	81-122/14
100-44-7	Benzyl Chloride	ND		25	22.4	90	25	19.9	80	12	54-122/18
74-97-5	Bromochloromethane	ND		25	28.5	114	25	26.7	107	7	76-123/14
75-27-4	Bromodichloromethane	ND		25	27.0	108	25	24.5	98	10	79-123/19
75-25-2	Bromoform	ND		25	21.5	86	25	21.2	85	1	66-123/21
78-93-3	2-Butanone (MEK)	ND		125	126	101	125	124	99	2	56-143/18
75-15-0	Carbon Disulfide	ND		25	28.6	114	25	25.6	102	11	66-148/23
56-23-5	Carbon Tetrachloride	ND		25	32.6	130	25	29.0	116	12	76-136/23
108-90-7	Chlorobenzene	ND		25	29.1	116	25	27.0	108	7	82-124/14
75-00-3	Chloroethane	ND		25	29.6	118	25	27.0	108	9	62-144/20
67-66-3	Chloroform	ND		25	28.9	116	25	26.7	107	8	80-124/15
110-82-7	Cyclohexane	ND		25	31.2	125	25	28.5	114	9	73-138/18
124-48-1	Dibromochloromethane	ND		25	25.2	101	25	22.2	89	13	78-122/19
96-12-8	1,2-Dibromo-3-chloropropane	ND		25	24.7	99	25	23.3	93	6	64-123/18
106-93-4	1,2-Dibromoethane	ND		25	26.4	106	25	26.5	106	0	75-120/13
75-71-8	Dichlorodifluoromethane	ND		25	24.2	97	25	23.8	95	2	42-167/19
95-50-1	1,2-Dichlorobenzene	ND		25	28.6	114	25	25.8	103	10	82-124/14
541-73-1	1,3-Dichlorobenzene	ND		25	30.3	121	25	26.1	104	15*	84-125/14
106-46-7	1,4-Dichlorobenzene	ND		25	28.1	112	25	25.3	101	10	78-120/15
75-34-3	1,1-Dichloroethane	ND		25	31.1	124*	25	29.7	119	5	81-122/15
107-06-2	1,2-Dichloroethane	ND		25	29.8	119	25	26.6	106	11	75-125/14
75-35-4	1,1-Dichloroethylene	ND		25	32.3	129	25	30.3	121	6	78-137/18
156-59-2	cis-1,2-Dichloroethylene	ND		25	27.6	110	25	26.5	106	4	78-120/15
156-60-5	trans-1,2-Dichloroethylene	ND		25	33.1	132*	25	30.4	122	9	76-127/17
78-87-5	1,2-Dichloropropane	ND		25	28.1	112	25	26.6	106	5	76-124/14
10061-01-5	cis-1,3-Dichloropropene	ND		25	25.0	100	25	22.6	90	10	75-118/23
10061-02-6	trans-1,3-Dichloropropene	ND		25	28.4	114	25	25.9	104	9	80-120/22
100-41-4	Ethylbenzene	ND		25	29.5	118	25	27.1	108	8	81-121/14
76-13-1	Freon 113	ND		25	30.7	123	25	28.7	115	7	72-134/20
591-78-6	2-Hexanone	ND		125	131	105	125	133	106	2	61-129/18
98-82-8	Isopropylbenzene	40.1		25	77.6	150*	25	71.1	124	9	83-132/15
99-87-6	p-Isopropyltoluene	ND		25	30.1	120	25	26.6	106	12	79-130/16
79-20-9	Methyl Acetate	ND		125	130	104	125	131	105	1	65-126/18
74-83-9	Methyl Bromide	ND		25	27.1	108	25	25.3	101	7	59-143/19
74-87-3	Methyl Chloride	ND		25	24.0	96	25	22.9	92	5	50-159/19

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
FA39345-1MS	J0981651.D	1	12/19/16	DP	n/a	n/a	VJ5519
FA39345-1MSD	J0981652.D	1	12/19/16	DP	n/a	n/a	VJ5519
FA39345-1	J0981649.D	1	12/19/16	DP	n/a	n/a	VJ5519

The QC reported here applies to the following samples: **Method:** SW846 8260C

FA39345-1

CAS No.	Compound	FA39345-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
108-87-2	Methylcyclohexane	ND		25	31.4	126	25	29.4	118	7	76-129/17
75-09-2	Methylene Chloride	ND		25	27.3	109	25	25.1	100	8	69-135/16
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		125	132	106	125	131	105	1	66-122/16
1634-04-4	Methyl Tert Butyl Ether	ND		25	26.2	105	25	26.1	104	0	72-117/14
100-42-5	Styrene	ND		25	26.7	107	25	24.7	99	8	78-119/23
75-85-4	Tert-Amyl Alcohol	ND		250	237	95	250	229	92	3	65-124/23
75-65-0	Tert-Butyl Alcohol	ND		250	406	162*	250	404	162*	0	63-129/27
79-34-5	1,1,2,2-Tetrachloroethane	ND		25	26.8	107	25	24.9	100	7	72-120/14
127-18-4	Tetrachloroethylene	ND		25	29.2	117	25	28.3	113	3	76-135/16
109-99-9	Tetrahydrofuran	ND		25	24.6	98	25	25.0	100	2	56-122/21
108-88-3	Toluene	ND		25	28.2	113	25	27.0	108	4	80-120/14
87-61-6	1,2,3-Trichlorobenzene	ND		25	28.5	114	25	27.4	110	4	68-131/25
120-82-1	1,2,4-Trichlorobenzene	ND		25	26.4	106	25	24.4	98	8	73-129/20
71-55-6	1,1,1-Trichloroethane	ND		25	29.7	119	25	27.0	108	10	75-130/16
79-00-5	1,1,2-Trichloroethane	ND		25	26.6	106	25	24.6	98	8	76-119/14
79-01-6	Trichloroethylene	ND		25	29.4	118	25	27.9	112	5	81-126/15
75-69-4	Trichlorofluoromethane	ND		25	31.4	126	25	27.7	111	13	71-156/21
95-63-6	1,2,4-Trimethylbenzene	ND		25	30.7	123*	25	27.4	110	11	79-120/18
75-01-4	Vinyl Chloride	ND		25	26.3	105	25	26.1	104	1	69-159/18
	m,p-Xylene	ND		50	56.9	114	50	53.3	107	7	79-126/15
95-47-6	o-Xylene	ND		25	27.5	110	25	25.7	103	7	80-127/14

CAS No.	Surrogate Recoveries	MS	MSD	FA39345-1	Limits
1868-53-7	Dibromofluoromethane	103%	105%	113%	83-118%
17060-07-0	1,2-Dichloroethane-D4	104%	102%	112%	79-125%
2037-26-5	Toluene-D8	97%	100%	92%	85-112%
460-00-4	4-Bromofluorobenzene	98%	98%	104%	83-118%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample: VJ5512-BFB
Lab File ID: J0981503.D
Instrument ID: GCMSJ
Injection Date: 12/14/16
Injection Time: 11:01

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	79352	20.8		Pass
75	30.0 - 60.0% of mass 95	190421	49.9		Pass
95	Base peak, 100% relative abundance	381611	100.0		Pass
96	5.0 - 9.0% of mass 95	26619	6.98		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 100.0% of mass 95	338752	88.8		Pass
175	5.0 - 9.0% of mass 174	24085	6.31	(7.11) [a]	Pass
176	95.0 - 101.0% of mass 174	335317	87.9	(99.0) [a]	Pass
177	5.0 - 9.0% of mass 176	22152	5.80	(6.61) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VJ5512-IC5512	J0981505.D	12/14/16	12:01	01:00	Initial cal 2
VJ5512-IC5512	J0981506.D	12/14/16	12:25	01:24	Initial cal 3
VJ5512-IC5512	J0981507.D	12/14/16	12:49	01:48	Initial cal 4
VJ5512-ICC5512	J0981508.D	12/14/16	13:12	02:11	Initial cal 5
VJ5512-IC5512	J0981509.D	12/14/16	13:36	02:35	Initial cal 6
VJ5512-IC5512	J0981510.D	12/14/16	14:00	02:59	Initial cal 7
VJ5512-IC5512	J0981512.D	12/14/16	14:47	03:46	Initial cal 1
VJ5512-ICV5512	J0981513.D	12/14/16	15:10	04:09	Initial cal verification 5
VJ5512-BS	J0981514.D	12/14/16	15:33	04:32	Blank Spike
VJ5512-MB	J0981515.D	12/14/16	15:57	04:56	Method Blank
ZZZZZZ	J0981516.D	12/14/16	16:21	05:20	(unrelated sample)
ZZZZZZ	J0981517.D	12/14/16	16:44	05:43	(unrelated sample)
FA39221-1	J0981518.D	12/14/16	17:08	06:07	(used for QC only; not part of job FA39345)
ZZZZZZ	J0981519.D	12/14/16	17:31	06:30	(unrelated sample)
ZZZZZZ	J0981520.D	12/14/16	17:54	06:53	(unrelated sample)
ZZZZZZ	J0981521.D	12/14/16	18:18	07:17	(unrelated sample)
ZZZZZZ	J0981522.D	12/14/16	18:41	07:40	(unrelated sample)
FA39223-1	J0981524.D	12/14/16	19:29	08:28	(used for QC only; not part of job FA39345)
ZZZZZZ	J0981525.D	12/14/16	19:53	08:52	(unrelated sample)
ZZZZZZ	J0981526.D	12/14/16	20:16	09:15	(unrelated sample)
ZZZZZZ	J0981527.D	12/14/16	20:40	09:39	(unrelated sample)
ZZZZZZ	J0981528.D	12/14/16	21:04	10:03	(unrelated sample)
ZZZZZZ	J0981529.D	12/14/16	21:27	10:26	(unrelated sample)
FA39221-1MS	J0981530.D	12/14/16	21:51	10:50	Matrix Spike

Instrument Performance Check (BFB)

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample: VJ5512-BFB
Lab File ID: J0981503.D
Instrument ID: GCMSJ
Injection Date: 12/14/16
Injection Time: 11:01

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
FA39221-1MSD	J0981531.D	12/14/16	22:14	11:13	Matrix Spike Duplicate
FA39223-1MS	J0981532.D	12/14/16	22:37	11:36	Matrix Spike
FA39223-1MSD	J0981533.D	12/14/16	23:00	11:59	Matrix Spike Duplicate
VJ5512-ECC5512	J0981534.D	12/14/16	23:24	12:23	Ending cal 5

Instrument Performance Check (BFB)

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample: VJ5513-BFB
Lab File ID: J0981536.D
Instrument ID: GCMSJ
Injection Date: 12/15/16
Injection Time: 08:39

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	29485	19.8		Pass
75	30.0 - 60.0% of mass 95	76200	51.2		Pass
95	Base peak, 100% relative abundance	148699	100.0		Pass
96	5.0 - 9.0% of mass 95	10750	7.23		Pass
173	Less than 2.0% of mass 174	431	0.29	(0.31) [a]	Pass
174	50.0 - 100.0% of mass 95	137989	92.8		Pass
175	5.0 - 9.0% of mass 174	9152	6.15	(6.63) [a]	Pass
176	95.0 - 101.0% of mass 174	132461	89.1	(96.0) [a]	Pass
177	5.0 - 9.0% of mass 176	8533	5.74	(6.44) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VJ5513-CC5512	J0981537.D	12/15/16	09:16	00:37	Continuing cal 5
VJ5512-ICV5512	J0981538.D	12/15/16	09:44	01:05	Initial cal verification 5
VJ5513-BS	J0981539.D	12/15/16	10:07	01:28	Blank Spike
VJ5514-BS	J0981539.D	12/15/16	10:07	01:28	Blank Spike
VJ5514-MB	J0981540.D	12/15/16	10:31	01:52	Method Blank
VJ5513-MB	J0981540.D	12/15/16	10:31	01:52	Method Blank
ZZZZZZ	J0981541.D	12/15/16	11:12	02:33	(unrelated sample)
ZZZZZZ	J0981542.D	12/15/16	11:35	02:56	(unrelated sample)
ZZZZZZ	J0981544.D	12/15/16	12:46	04:07	(unrelated sample)
FA39346-1	J0981545.D	12/15/16	13:11	04:32	(used for QC only; not part of job FA39345)
ZZZZZZ	J0981546.D	12/15/16	13:34	04:55	(unrelated sample)
ZZZZZZ	J0981547.D	12/15/16	13:57	05:18	(unrelated sample)
ZZZZZZ	J0981548.D	12/15/16	14:21	05:42	(unrelated sample)
ZZZZZZ	J0981549.D	12/15/16	14:44	06:05	(unrelated sample)
ZZZZZZ	J0981550.D	12/15/16	15:09	06:30	(unrelated sample)
ZZZZZZ	J0981551.D	12/15/16	15:32	06:53	(unrelated sample)
ZZZZZZ	J0981552.D	12/15/16	15:56	07:17	(unrelated sample)
ZZZZZZ	J0981553.D	12/15/16	16:19	07:40	(unrelated sample)
ZZZZZZ	J0981554.D	12/15/16	16:43	08:04	(unrelated sample)
ZZZZZZ	J0981555.D	12/15/16	17:07	08:28	(unrelated sample)
ZZZZZZ	J0981556.D	12/15/16	17:30	08:51	(unrelated sample)
ZZZZZZ	J0981557.D	12/15/16	17:53	09:14	(unrelated sample)
FA39620-2	J0981558.D	12/15/16	18:16	09:37	(used for QC only; not part of job FA39345)
ZZZZZZ	J0981559.D	12/15/16	18:39	10:00	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample: VJ5513-BFB
Lab File ID: J0981536.D
Instrument ID: GCMSJ
Injection Date: 12/15/16
Injection Time: 08:39

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
FA39620-2MS	J0981560.D	12/15/16	19:03	10:24	Matrix Spike
FA39620-2MSD	J0981561.D	12/15/16	19:26	10:47	Matrix Spike Duplicate
FA39346-1MS	J0981562.D	12/15/16	19:49	11:10	Matrix Spike
FA39346-1MSD	J0981563.D	12/15/16	20:12	11:33	Matrix Spike Duplicate
VJ5513-ECC5512	J0981564.D	12/15/16	20:35	11:56	Ending cal 5

Instrument Performance Check (BFB)

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample: VJ5515-BFB
Lab File ID: J0981565.D
Instrument ID: GCMSJ
Injection Date: 12/16/16
Injection Time: 08:06

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	47126	18.7		Pass
75	30.0 - 60.0% of mass 95	123928	49.3		Pass
95	Base peak, 100% relative abundance	251584	100.0		Pass
96	5.0 - 9.0% of mass 95	17285	6.87		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 100.0% of mass 95	244352	97.1		Pass
175	5.0 - 9.0% of mass 174	18208	7.24	(7.45) [a]	Pass
176	95.0 - 101.0% of mass 174	239616	95.2	(98.1) [a]	Pass
177	5.0 - 9.0% of mass 176	16430	6.53	(6.86) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VJ5515-CC5512	J0981567.D	12/16/16	09:11	01:05	Continuing cal 5
VJ5516-BS	J0981568.D	12/16/16	09:48	01:42	Blank Spike
VJ5515-BS	J0981568.D	12/16/16	09:48	01:42	Blank Spike
VJ5515-MB	J0981569.D	12/16/16	10:12	02:06	Method Blank
VJ5516-MB	J0981569.D	12/16/16	10:12	02:06	Method Blank
ZZZZZZ	J0981570.D	12/16/16	10:54	02:48	(unrelated sample)
FA39343-1	J0981571.D	12/16/16	11:18	03:12	(used for QC only; not part of job FA39345)
ZZZZZZ	J0981572.D	12/16/16	11:41	03:35	(unrelated sample)
ZZZZZZ	J0981573.D	12/16/16	12:05	03:59	(unrelated sample)
ZZZZZZ	J0981574.D	12/16/16	12:28	04:22	(unrelated sample)
ZZZZZZ	J0981575.D	12/16/16	12:51	04:45	(unrelated sample)
ZZZZZZ	J0981576.D	12/16/16	13:15	05:09	(unrelated sample)
ZZZZZZ	J0981577.D	12/16/16	13:39	05:33	(unrelated sample)
ZZZZZZ	J0981578.D	12/16/16	14:03	05:57	(unrelated sample)
FA39345-1	J0981580.D	12/16/16	14:51	06:45	UP-1
FA39345-2	J0981581.D	12/16/16	15:15	07:09	TB120616NRA
ZZZZZZ	J0981582.D	12/16/16	15:39	07:33	(unrelated sample)
ZZZZZZ	J0981583.D	12/16/16	16:02	07:56	(unrelated sample)
ZZZZZZ	J0981584.D	12/16/16	16:26	08:20	(unrelated sample)
ZZZZZZ	J0981585.D	12/16/16	16:49	08:43	(unrelated sample)
ZZZZZZ	J0981586.D	12/16/16	17:13	09:07	(unrelated sample)
ZZZZZZ	J0981587.D	12/16/16	17:37	09:31	(unrelated sample)
ZZZZZZ	J0981588.D	12/16/16	18:01	09:55	(unrelated sample)
ZZZZZZ	J0981589.D	12/16/16	18:24	10:18	(unrelated sample)

Instrument Performance Check (BFB)

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample: VJ5515-BFB
Lab File ID: J0981565.D
Instrument ID: GCMSJ
Injection Date: 12/16/16
Injection Time: 08:06

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
FA39345-1MS	J0981590.D	12/16/16	18:48	10:42	Matrix Spike
FA39345-1MSD	J0981591.D	12/16/16	19:11	11:05	Matrix Spike Duplicate
FA39343-1MS	J0981592.D	12/16/16	19:34	11:28	Matrix Spike
FA39343-1MSD	J0981593.D	12/16/16	19:57	11:51	Matrix Spike Duplicate
VJ5515-ECC5512	J0981594.D	12/16/16	20:21	12:15	Ending cal 5

Instrument Performance Check (BFB)

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample: VJ5518-BFB
Lab File ID: J0981628.D
Instrument ID: GCMSJ
Injection Date: 12/19/16
Injection Time: 09:19

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	30251	21.6		Pass
75	30.0 - 60.0% of mass 95	68363	48.8		Pass
95	Base peak, 100% relative abundance	140155	100.0		Pass
96	5.0 - 9.0% of mass 95	10538	7.52		Pass
173	Less than 2.0% of mass 174	310	0.22	(0.24) [a]	Pass
174	50.0 - 100.0% of mass 95	129264	92.2		Pass
175	5.0 - 9.0% of mass 174	10183	7.27	(7.88) [a]	Pass
176	95.0 - 101.0% of mass 174	125805	89.8	(97.3) [a]	Pass
177	5.0 - 9.0% of mass 176	7622	5.44	(6.06) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
VJ5518-CC5512	J0981629.D	12/19/16	09:44	00:25	Continuing cal 5
VJ5518-BS	J0981630.D	12/19/16	10:22	01:03	Blank Spike
VJ5519-BS	J0981630.D	12/19/16	10:22	01:03	Blank Spike
VJ5518-MB	J0981631.D	12/19/16	10:45	01:26	Method Blank
VJ55189-MB	J0981631.D	12/19/16	10:45	01:26	Method Blank
VJ5519-MB	J0981631.D	12/19/16	10:45	01:26	Method Blank
ZZZZZZ	J0981632.D	12/19/16	11:23	02:04	(unrelated sample)
ZZZZZZ	J0981633.D	12/19/16	11:46	02:27	(unrelated sample)
ZZZZZZ	J0981636.D	12/19/16	12:56	03:37	(unrelated sample)
ZZZZZZ	J0981637.D	12/19/16	13:20	04:01	(unrelated sample)
ZZZZZZ	J0981638.D	12/19/16	13:44	04:25	(unrelated sample)
ZZZZZZ	J0981639.D	12/19/16	14:07	04:48	(unrelated sample)
ZZZZZZ	J0981640.D	12/19/16	14:31	05:12	(unrelated sample)
ZZZZZZ	J0981641.D	12/19/16	14:54	05:35	(unrelated sample)
ZZZZZZ	J0981642.D	12/19/16	15:18	05:59	(unrelated sample)
ZZZZZZ	J0981643.D	12/19/16	15:41	06:22	(unrelated sample)
ZZZZZZ	J0981644.D	12/19/16	16:05	06:46	(unrelated sample)
ZZZZZZ	J0981645.D	12/19/16	16:28	07:09	(unrelated sample)
FA39702-1	J0981646.D	12/19/16	16:51	07:32	(used for QC only; not part of job FA39345)
ZZZZZZ	J0981647.D	12/19/16	17:15	07:56	(unrelated sample)
ZZZZZZ	J0981648.D	12/19/16	17:38	08:19	(unrelated sample)
FA39345-1	J0981649.D	12/19/16	18:02	08:43	UP-1
FA39345-1MS	J0981651.D	12/19/16	18:49	09:30	Matrix Spike
FA39345-1MSD	J0981652.D	12/19/16	19:12	09:53	Matrix Spike Duplicate

Instrument Performance Check (BFB)

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample: VJ5518-BFB
Lab File ID: J0981628.D
Instrument ID: GCMSJ
Injection Date: 12/19/16
Injection Time: 09:19

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
FA39702-1MS	J0981653.D	12/19/16	19:35	10:16	Matrix Spike
FA39702-1MSD	J0981654.D	12/19/16	19:59	10:40	Matrix Spike Duplicate
VJ5518-ECC5512	J0981655.D	12/19/16	20:22	11:03	Ending cal 5

Volatile Internal Standard Area Summary

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Check Std:	VJ5515-CC5512	**Injection Date:**	12/16/16
Lab File ID:	J0981567.D	**Injection Time:**	09:11
Instrument ID:	GCMSJ	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Initial Cal [a]	795634	7.73	636879	10.82	369014	13.19	86306	5.28
Check Std [b]	1118742	7.73	886497	10.82	542359	13.19	121974	5.28
Upper Limit [c]	2237484	8.23	1772994	11.32	1084718	13.69	243948	5.78
Lower Limit [d]	559371	7.23	443249	10.32	271180	12.69	60987	4.78

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VJ5516-BS	1162011	7.73	909493	10.82	537465	13.19	142024	5.28
VJ5515-BS	1162011	7.73	909493	10.82	537465	13.19	142024	5.28
VJ5515-MB	1060620	7.73	772324	10.82	428818	13.19	107281	5.28
VJ5516-MB	1060620	7.73	772324	10.82	428818	13.19	107281	5.28
ZZZZZZ	1053934	7.73	795574	10.82	479185	13.19	90311	5.27
FA39343-1	1049441	7.73	766368	10.82	403020	13.19	80129	5.27
ZZZZZZ	1042465	7.73	856311	10.82	514574	13.19	94274	5.27
ZZZZZZ	1040283	7.73	723119	10.82	421025	13.19	83199	5.27
ZZZZZZ	927011	7.73	704827	10.82	394671	13.19	82292	5.28
ZZZZZZ	914588	7.73	681774	10.82	358146	13.19	68104	5.27
ZZZZZZ	864057	7.73	660703	10.82	365321	13.19	71763	5.27
ZZZZZZ	840565	7.73	656555	10.82	362284	13.19	75469	5.27
ZZZZZZ	759137	7.73	572144	10.82	318351	13.19	65802	5.27
FA39345-1 [e]	638575	7.73	528126	10.82	265981*	13.19	48051*	5.27
FA39345-2 [f]	605642	7.73	452937	10.82	221898*	13.19	50479*	5.28
ZZZZZZ	585114	7.73	425256*	10.82	203958*	13.19	42848*	5.27
ZZZZZZ	542063*	7.73	400328*	10.83	201513*	13.19	43989*	5.28
ZZZZZZ	542654*	7.73	410733*	10.83	204760*	13.19	44564*	5.29
ZZZZZZ	544566*	7.74	418674*	10.82	198427*	13.19	42577*	5.27
ZZZZZZ	579138	7.73	433518*	10.82	227240*	13.19	43077*	5.27
ZZZZZZ	538679*	7.73	408458*	10.83	211205*	13.19	41738*	5.26
ZZZZZZ	528597*	7.73	379240*	10.83	184232*	13.19	41964*	5.27
ZZZZZZ	491977*	7.73	372095*	10.82	189256*	13.19	38889*	5.28
FA39345-1MS	630984	7.73	519665	10.82	294245	13.19	61161	5.28
FA39345-1MSD	691499	7.73	573208	10.82	324676	13.19	69520	5.28
FA39343-1MS	730620	7.73	577288	10.82	325639	13.18	67255	5.28
FA39343-1MSD	732609	7.73	586903	10.82	337914	13.19	68516	5.27
VJ5515-ECC5512	772661	7.73	592818	10.82	350944	13.19	69883	5.28

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4
IS 4 = Tert Butyl Alcohol-D10

Volatile Internal Standard Area Summary

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Check Std:	VJ5515-CC5512	**Injection Date:**	12/16/16
Lab File ID:	J0981567.D	**Injection Time:**	09:11
Instrument ID:	GCMSJ	**Method:**	SW846 8260C

Lab	IS 1		IS 2		IS 3		IS 4	
Sample ID	**AREA**	**RT**	**AREA**	**RT**	**AREA**	**RT**	**AREA**	**RT**

(a) Initial Cal is: VJ5512-ICC5512 J0981508.D 12/14/16 13:12
(b) Check Std Limit = -50 to +100% of initial cal area.
(c) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.
(e) Confirmation run.
(f) Internal standard areas outside, no more sample left for reanalysis.

Volatile Internal Standard Area Summary

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Check Std:	VJ5518-CC5512	**Injection Date:**	12/19/16
Lab File ID:	J0981629.D	**Injection Time:**	09:44
Instrument ID:	GCMSJ	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
Initial Cal [a]	795634	7.73	636879	10.82	369014	13.19	86306	5.28
Check Std [b]	720718	7.73	563062	10.82	340705	13.19	74859	5.27
Upper Limit [c]	1441436	8.23	1126124	11.32	681410	13.69	149718	5.77
Lower Limit [d]	360359	7.23	281531	10.32	170353	12.69	37430	4.77

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT
VJ5518-BS	745246	7.73	583223	10.82	322852	13.19	78151	5.27
VJ5519-BS	745246	7.73	583223	10.82	322852	13.19	78151	5.27
VJ5519-MB	651357	7.73	483689	10.82	242245	13.19	59901	5.27
VJ5518-MB	651357	7.73	483689	10.82	242245	13.19	59901	5.27
VJ55189-MB	651357	7.73	483689	10.82	242245	13.19	59901	5.27
ZZZZZZ	605819	7.73	446547	10.82	239154	13.19	53282	5.27
ZZZZZZ	599589	7.73	458388	10.82	230910	13.19	46820	5.28
ZZZZZZ	500000	7.73	374842	10.83	188341	13.19	35113*	5.28
ZZZZZZ	501648	7.74	368083	10.82	194322	13.19	42494	5.30
ZZZZZZ	511562	7.73	379528	10.82	223922	13.19	43806	5.27
ZZZZZZ	521044	7.73	372540	10.82	205071	13.19	33884*	5.29
ZZZZZZ	488053	7.74	358141	10.82	175387	13.19	36441*	5.28
ZZZZZZ	487200	7.73	368778	10.83	173030	13.19	33126*	5.28
ZZZZZZ	471155	7.73	343436	10.82	179772	13.19	32477*	5.27
ZZZZZZ	515318	7.73	392970	10.82	256800	13.19	38414	5.28
ZZZZZZ	536257	7.73	420637	10.82	229089	13.19	42783	5.27
ZZZZZZ	528519	7.73	381901	10.82	198247	13.19	42204	5.27
FA39702-1	526788	7.73	427787	10.82	227038	13.19	37942	5.28
ZZZZZZ	587984	7.73	478766	10.82	272553	13.19	43038	5.27
ZZZZZZ	611523	7.73	448213	10.82	236348	13.19	54336	5.27
FA39345-1	558330	7.73	463068	10.82	237462	13.19	45162	5.27
FA39345-1MS	608041	7.73	496055	10.82	277589	13.19	60565	5.28
FA39345-1MSD	690215	7.73	542852	10.82	318239	13.19	69491	5.28
FA39702-1MS	706623	7.73	560625	10.82	319177	13.18	75128	5.28
FA39702-1MSD	753674	7.73	610105	10.82	346659	13.19	85283	5.28
VJ5518-ECC5512	920717	7.73	725446	10.82	418328	13.19	92377	5.27

IS 1 = Fluorobenzene
IS 2 = Chlorobenzene-D5
IS 3 = 1,4-Dichlorobenzene-d4
IS 4 = Tert Butyl Alcohol-D10

(a) Initial Cal is: VJ5512-ICC5512 J0981508.D 12/14/16 13:12

Volatile Internal Standard Area Summary

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Check Std:	VJ5518-CC5512	**Injection Date:**	12/19/16
Lab File ID:	J0981629.D	**Injection Time:**	09:44
Instrument ID:	GCMSJ	**Method:**	SW846 8260C

Lab	**IS 1**		**IS 2**		**IS 3**		**IS 4**	
Sample ID	**AREA**	**RT**	**AREA**	**RT**	**AREA**	**RT**	**AREA**	**RT**

(b) Check Std Limit = -50 to +100% of initial cal area.
(c) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(d) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
FA39345-1	J0981649.D	113	112	92	104
FA39345-1	J0981580.D	111	112	94	107
FA39345-2	J0981581.D	112	110	103	100
FA39345-1MS	J0981590.D	105	102	92	90
FA39345-1MS	J0981651.D	103	104	97	98
FA39345-1MSD	J0981591.D	109	106	95	94
FA39345-1MSD	J0981652.D	105	102	100	98
VJ5516-BS	J0981568.D	101	97	100	96
VJ5516-MB	J0981569.D	99	101	102	98
VJ5519-BS	J0981630.D	103	101	99	99
VJ5519-MB	J0981631.D	106	115	104	105

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	83-118%
S2 = 1,2-Dichloroethane-D4	79-125%
S3 = Toluene-D8	85-112%
S4 = 4-Bromofluorobenzene	83-118%

Initial Calibration Summary

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR
Sample: VJ5512-ICC5512
Lab FileID: J0981508.D

Response Factor Report MSVOA6

```
Method       : C:\msdchem\1\methods\MSJ121416.M (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Calibration Files
1   =J0981512.D  2   =J0981505.D  3   =J0981506.D  4   =J0981507.D
5   =J0981508.D  6   =J0981509.D  7   =J0981510.D

   Compound             1     2     3     4     5     6     7     Avg   %RSD
-------------------------------------------------------------------------------

1) I   Fluorobenzene         ----------------ISTD---------------------
2)  Dichlorodifluorom 0.543 0.590 0.508 0.448 0.530 0.487 0.500 0.515   8.74
3)P Chloromethane     0.878 0.874 0.699 0.665 0.780 0.713 0.721 0.762  11.22
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9981
              Response Ratio = 0.00000 + 0.73729 *A + -0.00909 *A^2

4)C Vinyl Chloride    0.725 0.721 0.613 0.539 0.650 0.562 0.580 0.627  11.88
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9963
              Response Ratio = 0.00000 + 0.60390 *A + -0.01415 *A^2

5)  1,3-Butadiene     0.639 0.518 0.596 0.524 0.571 0.537 0.503 0.555   8.79
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9991
              Response Ratio = 0.00000 + 0.59123 *A + -0.04290 *A^2

6)  Bromomethane      0.570 0.453 0.409 0.351 0.399 0.355 0.351 0.413  19.20
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9980
              Response Ratio = 0.00000 + 0.39269 *A + -0.02150 *A^2

7)  Chloroethane      0.494 0.379 0.313 0.272 0.314 0.257 0.208 0.320  29.31
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9949
              Response Ratio = 0.00000 + 0.35446 *A + -0.07254 *A^2

8)  Trichlorofluorome 0.930 1.154 0.837 0.809 0.923 0.828 0.822 0.900  13.55
9)  Ethyl Ether       0.616 0.444 0.446 0.457 0.437 0.442 0.442 0.469  13.80
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9999
              Response Ratio = 0.00000 + 0.44449 *A + -0.00120 *A^2

10)  1,2-Dichlorotrifl 0.590 0.573 0.582 0.547 0.539 0.536 0.494 0.551   6.00
11)C 1,1-Dichloroethen 0.755 0.662 0.641 0.655 0.671 0.682 0.630 0.671   6.13
12)  Freon 113        0.628 0.502 0.482 0.460 0.455 0.441 0.411 0.483  14.59
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
              Response Ratio = 0.00000 + 0.48940 *A + -0.03841 *A^2

13)  Carbon Disulfide  1.496 1.369 1.429 1.351 1.431 1.426 1.327 1.404   4.15
14)  Iodomethane      0.917 0.700 0.750 0.753 0.831 0.813 0.770 0.791   8.89
15)  Allyl chloride   0.687 0.671 0.733 0.778 0.795 0.778 0.734 0.739   6.44
16)  Methylene Chlorid 1.785 1.192 0.972 0.782 0.784 0.744 0.702 0.995  38.99
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9991
              Response Ratio = 0.00000 + 0.84930 *A + -0.07419 *A^2

17)  Acetone          0.045 0.035 0.040 0.041 0.041 0.041 0.041 0.041   7.47
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
              Response Ratio = 0.00000 + 0.04126 *A + -0.00004 *A^2

18)  Methyl acetate   0.076 0.057 0.063 0.068 0.069 0.068 0.071 0.067   8.95
19)  trans-1,2-Dichlor 0.645 0.624 0.631 0.619 0.625 0.618 0.595 0.622   2.41
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20)  Hexane            0.532 0.508 0.499 0.485 0.474 0.472 0.427 0.485   6.81
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9992
              Response Ratio = 0.00000 + 0.52268 *A + -0.04592 *A^2

21)  Methyl Tert Butyl 1.402 1.131 1.208 1.264 1.294 1.310 1.294 1.272   6.68
22)  Acetonitrile      0.035 0.032 0.035 0.033 0.035 0.037 0.035 0.035   4.94
23)  Di-isopropyl ethe 1.653 1.410 1.573 1.689 1.770 1.750 1.686 1.647   7.47
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9995
              Response Ratio = 0.00000 + 1.78475 *A + -0.04470 *A^2

24)  Chloroprene       0.588 0.629 0.659 0.744 0.747 0.781 0.740 0.698  10.36
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9990
              Response Ratio = 0.00000 + 0.77159 *A + -0.01198 *A^2

25)P 1,1-Dichloroethan 0.931 0.849 0.828 0.838 0.848 0.845 0.807 0.849   4.57
26)  Acrylonitrile     0.190 0.187 0.210 0.186 0.191 0.185 0.187 0.191   4.70
27)  ETBE              1.427 1.396 1.451 1.529 1.591 1.610 1.601 1.515   5.93
28)  Vinyl acetate     0.900 1.168 1.279 1.162 1.146 1.007 0.832 1.071  15.13
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
              Response Ratio = 0.00000 + 1.30070 *A + -0.04544 *A^2

29)  cis-1,2-Dichloroe 0.553 0.444 0.484 0.512 0.532 0.541 0.517 0.512   7.25
30)  2,2-Dichloropropa 0.688 0.612 0.592 0.595 0.622 0.627 0.597 0.619   5.39
31)  Bromochloromethan 0.341 0.251 0.234 0.243 0.272 0.261 0.252 0.265  13.44
32)  Cyclohexane       0.798 0.732 0.801 0.812 0.847 0.874 0.822 0.812   5.48
33)C Chloroform        1.041 0.839 0.896 0.845 0.864 0.850 0.804 0.877   8.80
34)  Ethyl acetate     0.454 0.431 0.524 0.453 0.458 0.440 0.417 0.454   7.52
35)  Tetrahydrofuran   0.129 0.137 0.155 0.118 0.140 0.139 0.139 0.137   8.31
36)S Dibromofluorometh 0.276 0.276 0.276 0.265 0.270 0.270 0.256 0.270   2.75
37)  Carbon Tetrachlor 0.651 0.559 0.649 0.601 0.634 0.646 0.590 0.619   5.80
38)  1,1,1-Trichloroet 0.786 0.737 0.686 0.692 0.717 0.723 0.677 0.717   5.20
39)  2-Butanone        0.210 0.185 0.194 0.198 0.192 0.193 0.193 0.195   3.94
40)  1,1-Dichloroprope 0.591 0.522 0.566 0.606 0.598 0.615 0.592 0.584   5.40
41)  tert-Butyl Format 0.309 0.336 0.365 0.374 0.371             0.351   7.95
            ---- Linear regr., Force(0,0) ----  Coefficient =  0.9999
              Response Ratio = 0.00000 + 0.37100 *A

42)  Propionitrile     0.064 0.067 0.069 0.069 0.067 0.068 0.067 0.067   2.84
43)  Methacrylonitrile 0.340 0.291 0.291 0.291 0.284 0.262 0.226 0.284  12.26
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9995
              Response Ratio = 0.00000 + 0.32430 *A + -0.00486 *A^2

44)  Benzene           2.086 1.816 1.845 1.792 1.784 1.788 1.700 1.830   6.62
45)  TAME              1.222 1.112 1.202 1.256 1.319 1.353 1.356 1.260   7.10
46)S 1,2-Dichloroethan 0.324 0.328 0.321 0.333 0.327 0.314 0.323 0.325   1.82
47)  1,2-Dichloroethan 0.910 0.647 0.659 0.673 0.655 0.656 0.660 0.694  13.75
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9999
              Response Ratio = 0.00000 + 0.65821 *A + 0.00040 *A^2

48)  Trichloroethene   0.460 0.461 0.450 0.447 0.455 0.456 0.447 0.454   1.30
49)  Methylcyclohexane 0.800 0.752 0.741 0.780 0.823 0.847 0.787 0.790   4.73
50)  Dibromomethane    0.320 0.273 0.275 0.283 0.295 0.300 0.295 0.292   5.61
51)C 1,2-Dichloropropa 0.530 0.452 0.467 0.511 0.492 0.500 0.499 0.493   5.33
52)  Bromodichlorometh 0.651 0.584 0.563 0.578 0.585 0.600 0.604 0.595   4.73
53)  Methyl methacryla 0.236 0.246 0.318 0.364 0.389 0.404 0.408 0.338  21.53
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9995
              Response Ratio = 0.00000 + 0.36672 *A + 0.02173 *A^2

54)  2-Chloroethyl vin 0.198 0.235 0.280 0.302 0.308 0.303 0.301 0.275  15.38
            ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
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                Response Ratio = 0.00000 + 0.30505 *A + -0.00039 *A^2

55)  cis-1,3-Dichlorop 0.601 0.613 0.703 0.681 0.728 0.731 0.741 0.685   8.37
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
                Response Ratio = 0.00000 + 0.69809 *A + 0.02186 *A^2


56) I   Chlorobenzene-d5      ----------------ISTD--------------------
57)S Toluene-d8        1.235 1.221 1.218 1.211 1.213 1.217 1.193 1.215   1.05
58)C Toluene           3.038 2.274 2.388 2.373 2.373 2.318 2.199 2.423  11.52
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
                Response Ratio = 0.00000 + 2.49151 *A + -0.14247 *A^2

59)  2-Nitropropane    0.150 0.109 0.123 0.138 0.143 0.146 0.150 0.137  11.26
60)  4-Methyl-2-pentan 0.541 0.549 0.580 0.599 0.597 0.563 0.526 0.565   5.01
61)  trans-1,3-Dichlor 0.685 0.616 0.731 0.752 0.805 0.819 0.845 0.750  10.79
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
                Response Ratio = 0.00000 + 0.75203 *A + 0.04688 *A^2

62)  Tetrachloroethene 0.733 0.655 0.641 0.670 0.611 0.693 0.660 0.666   5.82
63)  Ethyl methacrylat 0.476 0.500 0.527 0.700 0.712 0.748 0.782 0.635  20.33
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9996
                Response Ratio = 0.00000 + 0.65464 *A + 0.06449 *A^2

64)  1,1,2-Trichloroet 0.601 0.449 0.469 0.453 0.453 0.451 0.459 0.477  11.59
65)  Dibromochlorometh 0.551 0.510 0.552 0.552 0.597 0.610 0.625 0.571   7.15
66)  1,3-Dichloropropa 0.995 0.858 0.887 0.933 0.954 0.936 0.936 0.928   4.79
67)  1,2-Dibromoethane 0.647 0.514 0.514 0.547 0.564 0.557 0.568 0.559   8.02
68)  2-hexanone        0.361 0.368 0.400 0.423 0.419 0.409 0.397 0.397   6.06
69)  1-Chlorohexane    0.569 0.597 0.655 0.772 0.784 0.824 0.807 0.716  14.79
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
                Response Ratio = 0.00000 + 0.77815 *A + 0.01780 *A^2

70)C Ethylbenzene      2.912 2.502 2.697 2.665 2.620 2.609 2.389 2.628   6.22
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
                Response Ratio = 0.00000 + 2.84830 *A + -0.22031 *A^2

71)P Chlorobenzene     2.016 1.689 1.699 1.659 1.609 1.626 1.609 1.701   8.44
72)  1,1,1,2-Tetrachlo 0.625 0.541 0.565 0.627 0.619 0.622 0.637 0.605   6.06
73)  m,p-Xylene        1.941 1.931 1.984 2.049 2.019 1.876 1.607 1.915   7.72
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9991
                Response Ratio = 0.00000 + 2.29762 *A + -0.16882 *A^2

74)  o-Xylene          1.882 1.664 1.927 2.122 2.175 2.161 2.042 1.996   9.27
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9994
                Response Ratio = 0.00000 + 2.24387 *A + -0.09356 *A^2

75)  Styrene           1.292 1.289 1.638 1.701 1.714 1.751 1.733 1.588  13.00
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
                Response Ratio = 0.00000 + 1.70789 *A + 0.01570 *A^2

76)P Bromoform         0.300 0.282 0.334 0.360 0.386 0.404 0.432 0.357  15.37
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9999
                Response Ratio = 0.00000 + 0.34290 *A + 0.04430 *A^2

77)  Isopropylbenzene  2.269 2.132 2.368 2.615 2.688 2.701 2.457 2.462   8.89
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9984
                Response Ratio = 0.00000 + 2.85923 *A + -0.18587 *A^2
```

Initial Calibration Summary

Job Number: FA39345 **Sample:** VJ5512-ICC5512
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** J0981508.D
Project: BMSMC, Building 5 Area, Humacao, PR

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 78) I   1,4-Dichlorobenzene-d ----------------ISTD---------------------
 79)S 4-Bromofluorobenz 0.800 0.823 0.799 0.764 0.800 0.793 0.800 0.797   2.17
 80)  cis-1,4-Dichloro- 0.271 0.240 0.254 0.290 0.307 0.322 0.338 0.289  12.46
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9999
               Response Ratio = 0.00000 + 0.27931 *A + 0.02986 *A^2

 81)  n-Propylbenzene   5.430 4.936 5.440 5.370 5.420 5.288 4.705 5.227   5.55
 82)  Bromobenzene      1.782 1.389 1.407 1.317 1.344 1.320 1.353 1.416  11.65
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9998
               Response Ratio = 0.00000 + 1.31114 *A + 0.01868 *A^2

 83)P 1,1,2,2-Tetrachlo 1.619 1.342 1.307 1.280 1.292 1.263 1.279 1.340   9.37
 84)  1,3,5-Trimethylbe 3.593 3.617 3.960 4.059 4.145 4.220 3.856 3.921   6.28
 85)  2-Chlorotoluene   4.084 3.692 4.061 3.746 3.817 3.713 3.505 3.802   5.46
 86)  trans-1,4-Dichlor 0.128 0.277 0.327 0.300 0.341 0.374 0.381 0.304  28.31
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9990
               Response Ratio = 0.00000 + 0.31410 *A + 0.03503 *A^2

 87)  1,2,3-Trichloropr 0.398 0.354 0.357 0.360 0.350 0.352 0.361 0.362   4.54
 88)  Cyclohexanone     0.037 0.042 0.048 0.047 0.050 0.054 0.055 0.048  13.31
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9993
               Response Ratio = 0.00000 + 0.04810 *A + 0.00070 *A^2

 89)  4-Chlorotoluene   3.569 3.137 3.350 3.509 3.482 3.539 3.307 3.413   4.56
 90)  a-Methyl Styrene  1.551 1.779 2.063 2.349 2.343 2.392 2.360 2.120  15.86
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9997
               Response Ratio = 0.00000 + 2.33905 *A + 0.01556 *A^2

 91)  tert-Butylbenzene 1.780 2.074 2.216 2.265 2.295 2.451 2.291 2.196   9.79
 92)  1,2,4-Trimethylbe 3.665 3.985 4.227 4.168 4.171 4.177 3.790 4.026   5.48
 93)  Pentachloroethane 0.777 0.755 0.792 0.788 0.837 0.789 0.850 0.798   4.22
 94)  sec-Butylbenzene  4.752 4.765 4.998 5.195 5.242 5.234 4.628 4.974   5.20
 95)  4-Isopropyltoluen 3.144 3.733 4.067 4.352 4.439 4.397 4.027 4.022  11.48
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9990
               Response Ratio = 0.00000 + 4.72274 *A + -0.32787 *A^2

 96)  1,3-Dichlorobenze 2.862 2.454 2.523 2.413 2.470 2.465 2.416 2.515   6.26
 97)  1,4-Dichlorobenze 3.326 2.638 2.655 2.519 2.545 2.495 2.441 2.660  11.41
 98)  n-Butylbenzene    2.407 2.104 2.270 2.492 2.655 2.730 2.572 2.462   8.93
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9986
               Response Ratio = 0.00000 + 2.70091 *A + -0.04938 *A^2

 99)  Benzyl Chloride   0.374 0.330 0.393 0.438 0.488 0.512 0.548 0.440  18.02
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9997
               Response Ratio = 0.00000 + 0.42440 *A + 0.06198 *A^2

100)  1,2-Dichlorobenze 2.761 2.370 2.560 2.389 2.453 2.439 2.380 2.479   5.66
101)  1,2-Dibromo-3-Chl 0.330 0.181 0.198 0.187 0.214 0.224 0.234 0.224  22.53
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9995
               Response Ratio = 0.00000 + 0.19165 *A + 0.02174 *A^2

102)  Hexachlorobutadie 1.139 0.750 0.848 0.888 0.948 1.037 1.016 0.947  13.74
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9986
               Response Ratio = 0.00000 + 0.92575 *A + 0.05097 *A^2

103)  1,2,4-Trichlorobe 1.792 1.434 1.617 1.764 1.971 1.990 1.932 1.786  11.42
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9988
               Response Ratio = 0.00000 + 1.91621 *A + 0.01640 *A^2

104)  Naphthalene       2.530 2.416 2.849 3.419 3.618 3.664 3.443 3.134  16.75
```

Initial Calibration Summary

Job Number: FA39345 **Sample:** VJ5512-ICC5512
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** J0981508.D
Project: BMSMC, Building 5 Area, Humacao, PR

```
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9985
               Response Ratio = 0.00000 + 3.67478 *A + -0.09615 *A^2

105)  1,2,3-Trichlorobe 1.839 1.455 1.646 1.663 1.822 1.838 1.820 1.726   8.43

106) I   Tert Butyl Alcohol-d1 ----------------ISTD---------------------
107)  Ethanol           0.568 0.369 0.265 0.275 0.249 0.228 0.212 0.309  40.30
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9992
               Response Ratio = 0.00000 + 0.27926 *A + -0.00855 *A^2

108)  acrolein          3.179 4.613 3.702 3.999 3.982 3.928 3.745 3.878  11.07
109)  Tert Butyl Alcoho 2.644 1.837 1.958 1.849 1.841 1.861 1.897 1.984  14.82
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9999
               Response Ratio = 0.00000 + 1.81625 *A + 0.01938 *A^2

110)  tert Amyl alcohol 1.533 1.372 1.553 1.664 1.674 1.746 1.813 1.622   9.13
111)  Isobutyl alcohol  0.813 0.615 0.774 0.815 0.755 0.769 0.727 0.753   9.05
112)  1,4-Dioxane       0.306 0.183 0.245 0.210 0.222 0.209 0.205 0.226  17.73
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9994
               Response Ratio = 0.00000 + 0.22393 *A + -0.00243 *A^2

113)  3,3-Dimethyl-1-bu 1.289 1.602 1.817 2.016 1.884 1.972 1.814 1.771  14.17
             ---- Quadratic regr., Force(0,0) ----  Coefficient =  0.9985
               Response Ratio = 0.00000 + 2.05801 *A + -0.01123 *A^2

 ---------------------------------------------------------------------------
 (#) = Out of Range

           MSJ121416.M        Thu Dec 15 10:34:34 2016
```

6.7.1

6

Initial Calibration Verification

Job Number: FA39345 **Sample:** VJ5512-ICV5512
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** J0981513.D
Project: BMSMC, Building 5 Area, Humacao, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\data\121416\J0981513.D          Vial: 10
Acq On    : 14 Dec 2016   3:10 pm                     Operator: darshnap
Sample    : icv5512-5                                 Inst    : MSVOA6
Misc      : MS35779,vj5512,,,,,                       Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\msdchem\1\methods\MSJ121416.M (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Thu Dec 15 08:23:27 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	139	0.00	7.73
2		Dichlorodifluoromethane	0.515	0.444	13.8	117	0.00	2.65
			Amount	Calc.	%Drift			
3	P	Chloromethane	40.000	33.872	15.3	111	0.00	2.87
4	C	Vinyl Chloride	40.000	37.722	5.7	120	0.00	3.01
5		1,3-Butadiene	40.000	0.841	97.9#	3	-0.02	2.99
6		Bromomethane	40.000	38.305	4.2	126	-0.01	3.43
7		Chloroethane	40.000	36.327	9.2	122	0.00	3.58
			AvgRF	CCRF	%Dev			
8		Trichlorofluoromethane	0.900	0.792	12.0	120	0.00	3.80
			Amount	Calc.	%Drift			
9		Ethyl Ether	40.000	36.207	9.5	128	0.00	4.10
			AvgRF	CCRF	%Dev			
10		1,2-Dichlorotrifluoroetha	0.551	0.528	4.2	137	0.00	4.33
11	C	1,1-Dichloroethene	0.671	0.634	5.5	132	0.00	4.37
			Amount	Calc.	%Drift			
12		Freon 113	40.000	34.375	14.1	122	0.00	4.43
			AvgRF	CCRF	%Dev			
13		Carbon Disulfide	1.404	1.254	10.7	122	0.00	4.45
14		Iodomethane	0.791	0.716	9.5	120	0.00	4.56
15		Allyl chloride	0.739	0.672	9.1	118	0.00	4.90
			Amount	Calc.	%Drift			
16		Methylene Chloride	40.000	35.133	12.2	125	0.00	5.03
17		Acetone	200.000	178.776	10.6	126	0.00	5.05
			AvgRF	CCRF	%Dev			
18		Methyl acetate	0.067	0.067	0.0	135	0.00	5.17
19		trans-1,2-Dichloroethene	0.622	0.654	-5.1	146	0.00	5.21
			Amount	Calc.	%Drift			
20		Hexane	40.000	37.048	7.4	133	0.00	5.28
			AvgRF	CCRF	%Dev			
21		Methyl Tert Butyl Ether	1.272	1.191	6.4	128	0.00	5.31
22		Acetonitrile	0.035	0.031	11.4	124	0.00	5.57

Initial Calibration Verification

Job Number: FA39345 **Sample:** VJ5512-ICV5512
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** J0981513.D
Project: BMSMC, Building 5 Area, Humacao, PR

			Amount	Calc.	%Drift			
23		Di-isopropyl ether	40.000	36.547	8.6	126	0.00	5.69
24		Chloroprene	40.000	34.293	14.3	122	0.00	5.85
			AvgRF	CCRF	%Dev			
25	P	1,1-Dichloroethane	0.849	0.821	3.3	135	0.00	5.88
26		Acrylonitrile	0.191	0.174	8.9	127	0.00	5.91
27		ETBE	1.515	1.461	3.6	128	0.00	6.09
			Amount	Calc.	%Drift			
28		Vinyl acetate	200.000	170.889	14.6	119	0.00	6.08
			AvgRF	CCRF	%Dev			
29		cis-1,2-Dichloroethene	0.512	0.489	4.5	128	0.00	6.45
30		2,2-Dichloropropane	0.619	0.604	2.4	135	0.00	6.58
31		Bromochloromethane	0.265	0.243	8.3	124	0.00	6.66
32		Cyclohexane	0.812	0.793	2.3	131	0.00	6.71
33	C	Chloroform	0.877	0.780	11.1	126	0.00	6.72
34		Ethyl acetate	0.454	0.395	13.0	120	0.00	6.78
35		Tetrahydrofuran	0.137	0.126	8.0	126	0.00	6.89
36	S	Dibromofluoromethane	0.270	0.261	3.3	135	0.00	6.91
37		Carbon Tetrachloride	0.619	0.567	8.4	125	0.00	6.91
38		1,1,1-Trichloroethane	0.717	0.628	12.4	122	0.00	6.97
39		2-Butanone	0.195	0.179	8.2	130	0.00	7.00
40		1,1-Dichloropropene	0.584	0.546	6.5	127	0.00	7.08
			Amount	Calc.	%Drift			
41		tert-Butyl Formate	400.000	254.320	36.4#	89	0.00	7.16
			AvgRF	CCRF	%Dev			
42		Propionitrile	0.067	0.067	0.0	139	0.00	7.31
			Amount	Calc.	%Drift			
43		Methacrylonitrile	400.000	361.358	9.7	128	0.00	7.34
			AvgRF	CCRF	%Dev			
44		Benzene	1.830	1.761	3.8	138	0.00	7.33
45		TAME	1.260	1.231	2.3	130	0.00	7.41
46	S	1,2-Dichloroethane-d4	0.325	0.315	3.1	134	0.00	7.46
			Amount	Calc.	%Drift			
47		1,2-Dichloroethane	40.000	38.755	3.1	136	0.00	7.52
			AvgRF	CCRF	%Dev			
48		Trichloroethene	0.454	0.436	4.0	134	0.00	7.91
49		Methylcyclohexane	0.790	0.772	2.3	131	0.00	7.93
50		Dibromomethane	0.292	0.283	3.1	134	0.00	8.34
51	C	1,2-Dichloropropane	0.493	0.477	3.2	135	0.00	8.43
52		Bromodichloromethane	0.595	0.582	2.2	139	0.00	8.47
			Amount	Calc.	%Drift			
53		Methyl methacrylate	40.000	39.609	1.0	136	0.00	8.57
54		2-Chloroethyl vinyl ether	200.000	200.198	-0.1	138	0.00	8.99
55		cis-1,3-Dichloropropene	40.000	39.759	0.6	136	0.00	9.09
			AvgRF	CCRF	%Dev			
56	I	Chlorobenzene-d5	1.000	1.000	0.0	135	0.00	10.82
57	S	Toluene-d8	1.215	1.235	-1.6	137	0.00	9.28

Initial Calibration Verification

Job Number: FA39345 **Sample:** VJ5512-ICV5512
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** J0981513.D
Project: BMSMC, Building 5 Area, Humacao, PR

			Amount	Calc.	%Drift			
58	C	Toluene	40.000	38.397	4.0	130	0.00	9.33
			AvgRF	CCRF	%Dev			
59		2-Nitropropane	0.137	0.134	2.2	126	0.00	9.54
60		4-Methyl-2-pentanone	0.565	0.526	6.9	119	0.00	9.66
			Amount	Calc.	%Drift			
61		trans-1,3-Dichloropropene	40.000	42.520	-6.3	141	0.00	9.71
			AvgRF	CCRF	%Dev			
62		Tetrachloroethene	0.666	0.643	3.5	142	0.00	9.74
			Amount	Calc.	%Drift			
63		Ethyl methacrylate	40.000	40.979	-2.4	137	0.00	9.82
			AvgRF	CCRF	%Dev			
64		1,1,2-Trichloroethane	0.477	0.461	3.4	137	0.00	9.88
65		Dibromochloromethane	0.571	0.597	-4.6	135	0.00	10.08
66		1,3-Dichloropropane	0.928	0.887	4.4	125	0.00	10.16
67		1,2-Dibromoethane	0.559	0.555	0.7	132	0.00	10.34
68		2-hexanone	0.397	0.373	6.0	120	0.00	10.47
			Amount	Calc.	%Drift			
69		1-Chlorohexane	40.000	38.806	3.0	132	0.00	10.78
70	C	Ethylbenzene	40.000	38.572	3.6	133	0.00	10.84
			AvgRF	CCRF	%Dev			
71	P	Chlorobenzene	1.701	1.643	3.4	138	0.00	10.84
72		1,1,1,2-Tetrachloroethane	0.605	0.631	-4.3	137	0.00	10.89
			Amount	Calc.	%Drift			
73		m,p-Xylene	80.000	78.045	2.4	132	0.00	10.98
74		o-Xylene	40.000	39.712	0.7	133	0.00	11.42
75		Styrene	40.000	40.388	-1.0	137	0.00	11.46
76	P	Bromoform	40.000	41.236	-3.1	137	0.00	11.52
77		Isopropylbenzene	40.000	39.436	1.4	134	0.00	11.72
			AvgRF	CCRF	%Dev			
78	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	134	0.00	13.19
79	S	4-Bromofluorobenzene	0.797	0.799	-0.3	134	0.00	12.03
			Amount	Calc.	%Drift			
80		cis-1,4-Dichloro-2-butene	40.000	47.764	-19.4	160	0.00	12.07
			AvgRF	CCRF	%Dev			
81		n-Propylbenzene	5.227	5.425	-3.8	134	0.00	12.14
			Amount	Calc.	%Drift			
82		Bromobenzene	40.000	40.088	-0.2	133	0.00	12.16
			AvgRF	CCRF	%Dev			
83	P	1,1,2,2-Tetrachloroethane	1.340	1.216	9.3	126	0.00	12.20
84		1,3,5-Trimethylbenzene	3.921	4.041	-3.1	131	0.00	12.32
85		2-Chlorotoluene	3.802	3.710	2.4	130	0.00	12.33
			Amount	Calc.	%Drift			
86		trans-1,4-Dichloro-2-Bute	40.000	38.538	3.7	129	0.00	12.38

		AvgRF	CCRF	%Dev			
87	1,2,3-Trichloropropane	0.362	0.347	4.1	133	0.00	12.36
		Amount	Calc.	%Drift			
88	Cyclohexanone	200.000	165.573	17.2	111	0.00	12.43
		AvgRF	CCRF	%Dev			
89	4-Chlorotoluene	3.413	3.458	-1.3	133	0.00	12.50
		Amount	Calc.	%Drift			
90	a-Methyl Styrene	40.000	0.485	98.8#	2	0.08	12.67
		AvgRF	CCRF	%Dev			
91	tert-Butylbenzene	2.196	2.255	-2.7	132	0.00	12.66
92	1,2,4-Trimethylbenzene	4.026	4.078	-1.3	131	0.00	12.73
93	Pentachloroethane	0.798	0.857	-7.4	137	0.00	12.72
94	sec-Butylbenzene	4.974	5.233	-5.2	134	0.00	12.85
		Amount	Calc.	%Drift			
95	4-Isopropyltoluene	40.000	38.914	2.7	131	0.00	12.98
		AvgRF	CCRF	%Dev			
96	1,3-Dichlorobenzene	2.515	2.474	1.6	134	0.00	13.12
97	1,4-Dichlorobenzene	2.660	2.457	7.6	130	0.00	13.20
		Amount	Calc.	%Drift			
98	n-Butylbenzene	40.000	39.055	2.4	131	0.00	13.42
99	Benzyl Chloride	40.000	38.336	4.2	124	0.00	13.43
		AvgRF	CCRF	%Dev			
100	1,2-Dichlorobenzene	2.479	2.354	5.0	129	0.00	13.63
		Amount	Calc.	%Drift			
101	1,2-Dibromo-3-Chloropropa	40.000	38.827	2.9	127	0.00	14.36
102	Hexachlorobutadiene	40.000	39.045	2.4	133	0.00	14.91
103	1,2,4-Trichlorobenzene	40.000	38.526	3.7	126	0.00	14.95
104	Naphthalene	40.000	40.732	-1.8	136	0.00	15.24
		AvgRF	CCRF	%Dev			
105	1,2,3-Trichlorobenzene	1.726	1.749	-1.3	129	0.00	15.41
106 I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	130	0.00	5.28
		Amount	Calc.	%Drift			
107	Ethanol	800.000	805.921	-0.7	133	0.00	4.27
		AvgRF	CCRF	%Dev			
108	acrolein	3.878	3.555	8.3	116	0.00	4.74
		Amount	Calc.	%Drift			
109	Tert Butyl Alcohol	400.000	479.360	-19.8	157	0.00	5.36
		AvgRF	CCRF	%Dev			
110	tert Amyl alcohol	1.622	1.454	10.4	113	0.00	7.56
111	Isobutyl alcohol	0.753	0.774	-2.8	133	0.00	7.43
		Amount	Calc.	%Drift			
112	1,4-Dioxane	800.000	832.689	-4.1	132	0.00	8.65
113	3,3-Dimethyl-1-butanol	2000.000	1829.929	8.5	125	0.00	10.41

Initial Calibration Verification

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample: VJ5512-ICV5512
Lab FileID: J0981513.D

```
-----------------------------------------------------------------------------
-----------------------------------------------------------------------------

   (#) = Out of Range                SPCC's out = 0  CCC's out = 0
    J0981508.D MSJ121416.M       Thu Dec 15 10:34:23 2016
```

Initial Calibration Verification

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR
Sample: VJ5512-ICV5512
Lab FileID: J0981538.D

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\data\121516\J0981538.D          Vial: 1
Acq On    : 15 Dec 2016   9:44 am                    Operator: darshnap
Sample    : icv5512-5                                Inst    : MSVOA6
Misc      : MS35797,vj5512,,,,,                      Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\msdchem\1\methods\MSJ121416.M (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Thu Dec 15 08:23:27 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Fluorobenzene	1.000	1.000	0.0	107	0.00	7.73
2	Dichlorodifluoromethane		NA				
	----------	Amount	Calc.	%Drift	----------		
3 P	Chloromethane		NA				
4 C	Vinyl Chloride		NA				
5	1,3-Butadiene		NA				
6	Bromomethane		NA				
7	Chloroethane		NA				
	----------	AvgRF	CCRF	%Dev	----------		
8	Trichlorofluoromethane		NA				
	----------	Amount	Calc.	%Drift	----------		
9	Ethyl Ether		NA				
	----------	AvgRF	CCRF	%Dev	----------		
10	1,2-Dichlorotrifluoroetha		NA				
11 C	1,1-Dichloroethene		NA				
	----------	Amount	Calc.	%Drift	----------		
12	Freon 113		NA				
	----------	AvgRF	CCRF	%Dev	----------		
13	Carbon Disulfide		NA				
14	Iodomethane		NA				
15	Allyl chloride		NA				
	----------	Amount	Calc.	%Drift	----------		
16	Methylene Chloride		NA				
17	Acetone		NA				
	----------	AvgRF	CCRF	%Dev	----------		
18	Methyl acetate		NA				
19	trans-1,2-Dichloroethene		NA				
	----------	Amount	Calc.	%Drift	----------		
20	Hexane		NA				
	----------	AvgRF	CCRF	%Dev	----------		
21	Methyl Tert Butyl Ether		NA				
22	Acetonitrile		NA				

Initial Calibration Verification

Job Number: FA39345 **Sample:** VJ5512-ICV5512
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** J0981538.D
Project: BMSMC, Building 5 Area, Humacao, PR

			Amount	Calc.	%Drift			
23		Di-isopropyl ether		NA				
24		Chloroprene		NA				
			AvgRF	CCRF	%Dev			
25	P	1,1-Dichloroethane		NA				
26		Acrylonitrile		NA				
27		ETBE		NA				
			Amount	Calc.	%Drift			
28		Vinyl acetate		NA				
			AvgRF	CCRF	%Dev			
29		cis-1,2-Dichloroethene		NA				
30		2,2-Dichloropropane		NA				
31		Bromochloromethane		NA				
32		Cyclohexane		NA				
33	C	Chloroform		NA				
34		Ethyl acetate		NA				
35		Tetrahydrofuran		NA				
36	S	Dibromofluoromethane	0.270	0.268	0.7	106	0.00	6.91
37		Carbon Tetrachloride		NA				
38		1,1,1-Trichloroethane		NA				
39		2-Butanone		NA				
40		1,1-Dichloropropene		NA				
			Amount	Calc.	%Drift			
41		tert-Butyl Formate	400.000	375.618	6.1	101	0.00	7.16
			AvgRF	CCRF	%Dev			
42		Propionitrile		NA				
			Amount	Calc.	%Drift			
43		Methacrylonitrile		NA				
			AvgRF	CCRF	%Dev			
44		Benzene		NA				
45		TAME		NA				
46	S	1,2-Dichloroethane-d4	0.325	0.327	-0.6	107	0.00	7.45
			Amount	Calc.	%Drift			
47		1,2-Dichloroethane		NA				
			AvgRF	CCRF	%Dev			
48		Trichloroethene		NA				
49		Methylcyclohexane		NA				
50		Dibromomethane	0.292	0.000	100.0#	0#	0.00	8.34
51	C	1,2-Dichloropropane	0.493	0.000	100.0#	0#	0.00	8.43
52		Bromodichloromethane		NA				
			Amount	Calc.	%Drift			
53		Methyl methacrylate		NA				
54		2-Chloroethyl vinyl ether		NA				
55		cis-1,3-Dichloropropene		NA				
			AvgRF	CCRF	%Dev			
56	I	Chlorobenzene-d5	1.000	1.000	0.0	104	0.00	10.82
57	S	Toluene-d8	1.215	1.194	1.7	102	0.00	9.28

Initial Calibration Verification

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample: VJ5512-ICV5512
Lab FileID: J0981538.D

			Amount	Calc.	%Drift			
58	C	Toluene		NA				
			AvgRF	CCRF	%Dev			
59		2-Nitropropane		NA				
60		4-Methyl-2-pentanone		NA				
			Amount	Calc.	%Drift			
61		trans-1,3-Dichloropropene		NA				
			AvgRF	CCRF	%Dev			
62		Tetrachloroethene		NA				
			Amount	Calc.	%Drift			
63		Ethyl methacrylate		NA				
			AvgRF	CCRF	%Dev			
64		1,1,2-Trichloroethane		NA				
65		Dibromochloromethane		NA				
66		1,3-Dichloropropane		NA				
67		1,2-Dibromoethane		NA				
68		2-hexanone		NA				
			Amount	Calc.	%Drift			
69		1-Chlorohexane		NA				
70	C	Ethylbenzene		NA				
			AvgRF	CCRF	%Dev			
71	P	Chlorobenzene		NA				
72		1,1,1,2-Tetrachloroethane		NA				
			Amount	Calc.	%Drift			
73		m,p-Xylene		NA				
74		o-Xylene		NA				
75		Styrene		NA				
76	P	Bromoform		NA				
77		Isopropylbenzene		NA				
			AvgRF	CCRF	%Dev			
78	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	89	0.00	13.19
79	S	4-Bromofluorobenzene	0.797	0.843	-5.8	94	0.00	12.03
			Amount	Calc.	%Drift			
80		cis-1,4-Dichloro-2-butene		NA				
			AvgRF	CCRF	%Dev			
81		n-Propylbenzene		NA				
			Amount	Calc.	%Drift			
82		Bromobenzene		NA				
			AvgRF	CCRF	%Dev			
83	P	1,1,2,2-Tetrachloroethane		NA				
84		1,3,5-Trimethylbenzene		NA				
85		2-Chlorotoluene		NA				
			Amount	Calc.	%Drift			
86		trans-1,4-Dichloro-2-Bute		NA				

		----------	AvgRF	CCRF	%Dev	----------	
87	1,2,3-Trichloropropane			----------NA----------			
		----------	Amount	Calc.	%Drift	----------	
88	Cyclohexanone			----------NA----------			
		----------	AvgRF	CCRF	%Dev	----------	
89	4-Chlorotoluene			----------NA----------			
		----------	Amount	Calc.	%Drift	----------	
90	a-Methyl Styrene			----------NA----------			
		----------	AvgRF	CCRF	%Dev	----------	
91	tert-Butylbenzene			----------NA----------			
92	1,2,4-Trimethylbenzene			----------NA----------			
93	Pentachloroethane			----------NA----------			
94	sec-Butylbenzene			----------NA----------			
		----------	Amount	Calc.	%Drift	----------	
95	4-Isopropyltoluene			----------NA----------			
		----------	AvgRF	CCRF	%Dev	----------	
96	1,3-Dichlorobenzene			----------NA----------			
97	1,4-Dichlorobenzene			----------NA----------			
		----------	Amount	Calc.	%Drift	----------	
98	n-Butylbenzene			----------NA----------			
99	Benzyl Chloride			----------NA----------			
		----------	AvgRF	CCRF	%Dev	----------	
100	1,2-Dichlorobenzene			----------NA----------			
		----------	Amount	Calc.	%Drift	----------	
101	1,2-Dibromo-3-Chloropropa			----------NA----------			
102	Hexachlorobutadiene			----------NA----------			
103	1,2,4-Trichlorobenzene			----------NA----------			
104	Naphthalene			----------NA----------			
		----------	AvgRF	CCRF	%Dev	----------	
105	1,2,3-Trichlorobenzene			----------NA----------			
106 I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	91	0.00	5.28
		----------	Amount	Calc.	%Drift	----------	
107	Ethanol			----------NA----------			
		----------	AvgRF	CCRF	%Dev	----------	
108	acrolein			----------NA----------			
		----------	Amount	Calc.	%Drift	----------	
109	Tert Butyl Alcohol			----------NA----------			
		----------	AvgRF	CCRF	%Dev	----------	
110	tert Amyl alcohol			----------NA----------			
111	Isobutyl alcohol			----------NA----------			
		----------	Amount	Calc.	%Drift	----------	
112	1,4-Dioxane			----------NA----------			
113	3,3-Dimethyl-1-butanol			----------NA----------			

Initial Calibration Verification

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample: VJ5512-ICV5512
Lab FileID: J0981538.D

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   (#) = Out of Range                SPCC's out = 3  CCC's out = 6
    J0981508.D MSJ121416.M       Thu Dec 15 10:32:00 2016
```

Continuing Calibration Summary

Job Number: FA39345 **Sample:** VJ5515-CC5512
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** J0981567.D
Project: BMSMC, Building 5 Area, Humacao, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\data\121616\J0981567.D          Vial: 1
Acq On    : 16 Dec 2016   9:11 am                    Operator: darshnap
Sample    : cc5512-5                                 Inst    : MSVOA6
Misc      : MS35805,vj5515,,,,,                      Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\msdchem\1\methods\MSJ121416.M (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Thu Dec 15 08:23:27 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	141	0.00	7.73
2		Dichlorodifluoromethane	0.515	0.494	4.1	131	0.00	2.66
			Amount	Calc.	%Drift			
3	P	Chloromethane	40.000	37.964	5.1	125	0.01	2.88
4	C	Vinyl Chloride	40.000	44.412	-11.0	142	0.00	3.02
5		1,3-Butadiene	40.000	44.538	-11.3	152	0.00	3.02
6		Bromomethane	40.000	44.281	-10.7	146	0.00	3.44
7		Chloroethane	40.000	40.203	-0.5	133	0.00	3.59
			AvgRF	CCRF	%Dev			
8		Trichlorofluoromethane	0.900	0.896	0.4	136	0.00	3.79
			Amount	Calc.	%Drift			
9		Ethyl Ether	40.000	45.890	-14.7	164	0.00	4.11
			AvgRF	CCRF	%Dev			
10		1,2-Dichlorotrifluoroetha	0.551	0.622	-12.9	162	0.00	4.33
11	C	1,1-Dichloroethene	0.671	0.772	-15.1	162	0.00	4.38
			Amount	Calc.	%Drift			
12		Freon 113	40.000	46.984	-17.5	164	0.00	4.44
			AvgRF	CCRF	%Dev			
13		Carbon Disulfide	1.404	1.581	-12.6	155	0.00	4.45
14		Iodomethane	0.791	0.919	-16.2	155	0.00	4.57
15		Allyl chloride	0.739	0.807	-9.2	143	0.00	4.90
			Amount	Calc.	%Drift			
16		Methylene Chloride	40.000	44.866	-12.2	157	0.00	5.03
17		Acetone	200.000	210.992	-5.5	150	0.00	5.05
			AvgRF	CCRF	%Dev			
18		Methyl acetate	0.067	0.079	-17.9	161	0.00	5.17
19		trans-1,2-Dichloroethene	0.622	0.713	-14.6	161	0.00	5.21
			Amount	Calc.	%Drift			
20		Hexane	40.000	44.334	-10.8	158	0.01	5.28
			AvgRF	CCRF	%Dev			
21		Methyl Tert Butyl Ether	1.272	1.468	-15.4	159	0.00	5.31
22		Acetonitrile	0.035	0.037	-5.7	149	0.00	5.57

Continuing Calibration Summary

Job Number: FA39345 **Sample:** VJ5515-CC5512
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** J0981567.D
Project: BMSMC, Building 5 Area, Humacao, PR

			Amount	Calc.	%Drift			
23		Di-isopropyl ether	40.000	42.499	-6.2	147	0.00	5.70
24		Chloroprene	40.000	41.789	-4.5	150	0.00	5.85
			AvgRF	CCRF	%Dev			
25	P	1,1-Dichloroethane	0.849	0.943	-11.1	157	0.00	5.88
26		Acrylonitrile	0.191	0.202	-5.8	149	0.00	5.91
27		ETBE	1.515	1.772	-17.0	157	0.00	6.09
			Amount	Calc.	%Drift			
28		Vinyl acetate	200.000	193.877	3.1	134	0.00	6.08
			AvgRF	CCRF	%Dev			
29		cis-1,2-Dichloroethene	0.512	0.617	-20.5#	163	0.00	6.45
30		2,2-Dichloropropane	0.619	0.752	-21.5#	170	0.00	6.58
31		Bromochloromethane	0.265	0.297	-12.1	154	0.00	6.66
32		Cyclohexane	0.812	1.007	-24.0#	167	0.00	6.71
33	C	Chloroform	0.877	0.976	-11.3	159	0.00	6.72
34		Ethyl acetate	0.454	0.454	0.0	139	0.00	6.78
35		Tetrahydrofuran	0.137	0.142	-3.6	143	0.00	6.90
36	S	Dibromofluoromethane	0.270	0.283	-4.8	148	0.00	6.91
37		Carbon Tetrachloride	0.619	0.766	-23.7#	170	0.00	6.91
38		1,1,1-Trichloroethane	0.717	0.840	-17.2	165	0.00	6.97
39		2-Butanone	0.195	0.186	4.6	136	0.00	7.00
40		1,1-Dichloropropene	0.584	0.699	-19.7	164	0.00	7.08
			Amount	Calc.	%Drift			
41		tert-Butyl Formate	400.000	448.570	-12.1	158	0.00	7.17
			AvgRF	CCRF	%Dev			
42		Propionitrile	0.067	0.069	-3.0	144	0.00	7.31
			Amount	Calc.	%Drift			
43		Methacrylonitrile	400.000	366.668	8.3	131	0.00	7.34
			AvgRF	CCRF	%Dev			
44		Benzene	1.830	2.021	-10.4	159	0.00	7.33
45		TAME	1.260	1.432	-13.7	153	0.00	7.41
46	S	1,2-Dichloroethane-d4	0.325	0.323	0.6	139	0.00	7.46
			Amount	Calc.	%Drift			
47		1,2-Dichloroethane	40.000	43.166	-7.9	152	0.00	7.53
			AvgRF	CCRF	%Dev			
48		Trichloroethene	0.454	0.492	-8.4	152	0.00	7.91
49		Methylcyclohexane	0.790	0.910	-15.2	155	0.00	7.93
50		Dibromomethane	0.292	0.313	-7.2	149	0.00	8.34
51	C	1,2-Dichloropropane	0.493	0.527	-6.9	151	0.00	8.43
52		Bromodichloromethane	0.595	0.625	-5.0	150	0.00	8.47
			Amount	Calc.	%Drift			
53		Methyl methacrylate	40.000	38.563	3.6	134	0.00	8.57
54		2-Chloroethyl vinyl ether	200.000	208.299	-4.1	144	0.00	8.99
55		cis-1,3-Dichloropropene	40.000	44.219	-10.5	153	0.00	9.09
			AvgRF	CCRF	%Dev			
56	I	Chlorobenzene-d5	1.000	1.000	0.0	139	0.00	10.82
57	S	Toluene-d8	1.215	1.213	0.2	139	0.00	9.28

Continuing Calibration Summary

Job Number: FA39345 **Sample:** VJ5515-CC5512
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** J0981567.D
Project: BMSMC, Building 5 Area, Humacao, PR

			Amount	Calc.	%Drift			
58	C	Toluene	40.000	43.610	-9.0	151	0.00	9.33

			AvgRF	CCRF	%Dev			
59		2-Nitropropane	0.137	0.150	-9.5	146	0.00	9.54
60		4-Methyl-2-pentanone	0.565	0.539	4.6	126	0.00	9.65

			Amount	Calc.	%Drift			
61		trans-1,3-Dichloropropene	40.000	44.304	-10.8	152	0.00	9.71

			AvgRF	CCRF	%Dev			
62		Tetrachloroethene	0.666	0.756	-13.5	172	0.00	9.73

			Amount	Calc.	%Drift			
63		Ethyl methacrylate	40.000	41.441	-3.6	143	0.00	9.82

			AvgRF	CCRF	%Dev			
64		1,1,2-Trichloroethane	0.477	0.476	0.2	146	0.00	9.88
65		Dibromochloromethane	0.571	0.639	-11.9	149	0.00	10.08
66		1,3-Dichloropropane	0.928	0.974	-5.0	142	0.00	10.16
67		1,2-Dibromoethane	0.559	0.587	-5.0	145	0.00	10.34
68		2-hexanone	0.397	0.373	6.0	124	0.00	10.47

			Amount	Calc.	%Drift			
69		1-Chlorohexane	40.000	44.216	-10.5	156	0.00	10.77
70	C	Ethylbenzene	40.000	41.690	-4.2	148	0.00	10.84

			AvgRF	CCRF	%Dev			
71	P	Chlorobenzene	1.701	1.770	-4.1	153	0.00	10.84
72		1,1,1,2-Tetrachloroethane	0.605	0.660	-9.1	148	0.00	10.89

			Amount	Calc.	%Drift			
73		m,p-Xylene	80.000	81.583	-2.0	142	0.00	10.98
74		o-Xylene	40.000	42.475	-6.2	147	0.00	11.42
75		Styrene	40.000	44.116	-10.3	154	0.00	11.46
76	P	Bromoform	40.000	45.859	-14.6	159	0.00	11.53
77		Isopropylbenzene	40.000	44.280	-10.7	154	0.00	11.72

			AvgRF	CCRF	%Dev			
78	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	147	0.00	13.19
79	S	4-Bromofluorobenzene	0.797	0.761	4.5	140	0.00	12.03

			Amount	Calc.	%Drift			
80		cis-1,4-Dichloro-2-butene	40.000	42.031	-5.1	153	0.00	12.06

			AvgRF	CCRF	%Dev			
81		n-Propylbenzene	5.227	5.719	-9.4	155	0.00	12.14

			Amount	Calc.	%Drift			
82		Bromobenzene	40.000	43.855	-9.6	159	0.00	12.16

			AvgRF	CCRF	%Dev			
83	P	1,1,2,2-Tetrachloroethane	1.340	1.332	0.6	151	0.00	12.20
84		1,3,5-Trimethylbenzene	3.921	4.530	-15.5	161	0.00	12.32
85		2-Chlorotoluene	3.802	3.992	-5.0	154	0.00	12.33

			Amount	Calc.	%Drift			
86		trans-1,4-Dichloro-2-Bute	40.000	42.992	-7.5	159	0.00	12.38

Continuing Calibration Summary

Job Number: FA39345 **Sample:** VJ5515-CC5512
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** J0981567.D
Project: BMSMC, Building 5 Area, Humacao, PR

			AvgRF	CCRF	%Dev			
87	1,2,3-Trichloropropane		0.362	0.383	-5.8	161	0.00	12.36
			Amount	Calc.	%Drift			
88	Cyclohexanone		200.000	183.651	8.2	136	0.00	12.43
			AvgRF	CCRF	%Dev			
89	4-Chlorotoluene		3.413	3.732	-9.3	158	0.00	12.50
			Amount	Calc.	%Drift			
90	a-Methyl Styrene		40.000	41.937	-4.8	155	0.00	12.59
			AvgRF	CCRF	%Dev			
91	tert-Butylbenzene		2.196	2.536	-15.5	162	0.00	12.66
92	1,2,4-Trimethylbenzene		4.026	4.542	-12.8	160	0.00	12.73
93	Pentachloroethane		0.798	0.942	-18.0	165	0.00	12.72
94	sec-Butylbenzene		4.974	5.664	-13.9	159	0.00	12.85
			Amount	Calc.	%Drift			
95	4-Isopropyltoluene		40.000	43.525	-8.8	160	0.00	12.98
			AvgRF	CCRF	%Dev			
96	1,3-Dichlorobenzene		2.515	2.673	-6.3	159	0.00	13.12
97	1,4-Dichlorobenzene		2.660	2.725	-2.4	157	0.00	13.20
			Amount	Calc.	%Drift			
98	n-Butylbenzene		40.000	42.919	-7.3	158	0.00	13.42
99	Benzyl Chloride		40.000	45.444	-13.6	164	0.00	13.43
			AvgRF	CCRF	%Dev			
100	1,2-Dichlorobenzene		2.479	2.611	-5.3	156	0.00	13.63
			Amount	Calc.	%Drift			
101	1,2-Dibromo-3-Chloropropa		40.000	41.487	-3.7	150	0.00	14.36
102	Hexachlorobutadiene		40.000	47.657	-19.1	180	0.00	14.91
103	1,2,4-Trichlorobenzene		40.000	42.953	-7.4	155	0.00	14.95
104	Naphthalene		40.000	40.113	-0.3	147	0.00	15.24
			AvgRF	CCRF	%Dev			
105	1,2,3-Trichlorobenzene		1.726	1.886	-9.3	152	0.00	15.41
106	I Tert Butyl Alcohol-d10		1.000	1.000	0.0	141	0.00	5.28
			Amount	Calc.	%Drift			
107	Ethanol		800.000	784.636	1.9	141	0.03	4.30
			AvgRF	CCRF	%Dev			
108	acrolein		3.878	4.031	-3.9	143	0.01	4.74
			Amount	Calc.	%Drift			
109	Tert Butyl Alcohol		400.000	441.478	-10.4	157	0.00	5.37
			AvgRF	CCRF	%Dev			
110	tert Amyl alcohol		1.622	1.780	-9.7	150	0.00	7.56
111	Isobutyl alcohol		0.753	0.728	3.3	136	0.00	7.43
			Amount	Calc.	%Drift			
112	1,4-Dioxane		800.000	826.950	-3.4	142	0.00	8.65
113	3,3-Dimethyl-1-butanol		2000.000	1871.981	6.4	139	0.00	10.41

Continuing Calibration Summary

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample: VJ5515-CC5512
Lab FileID: J0981567.D

```
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   (#) = Out of Range                SPCC's out = 0  CCC's out = 0
    J0981508.D MSJ121416.M       Fri Dec 16 10:08:50 2016
```

Continuing Calibration Summary

Job Number: FA39345 **Sample:** VJ5515-ECC5512
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** J0981594.D
Project: BMSMC, Building 5 Area, Humacao, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\data\121616\J0981594.D          Vial: 23
Acq On    : 16 Dec 2016   8:21 pm                    Operator: darshnap
Sample    : ecc5512-5                                Inst    : MSVOA6
Misc      : MS35802,vj5515,,,,,                      Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\msdchem\1\methods\MSJ121416.M (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Thu Dec 15 08:23:27 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  50%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	97	0.00	7.73
2		Dichlorodifluoromethane	0.515	0.509	1.2	93	0.00	2.65
			Amount	Calc.	%Drift			
3	P	Chloromethane	40.000	39.258	1.9	89	0.00	2.87
4	C	Vinyl Chloride	40.000	42.924	-7.3	95	0.00	3.02
5		1,3-Butadiene	40.000	42.901	-7.3	101	0.00	3.02
6		Bromomethane	40.000	43.253	-8.1	98	0.00	3.44
7		Chloroethane	40.000	44.655	-11.6	100	0.00	3.59
			AvgRF	CCRF	%Dev			
8		Trichlorofluoromethane	0.900	0.977	-8.6	103	0.01	3.80
			Amount	Calc.	%Drift			
9		Ethyl Ether	40.000	42.513	-6.3	105	0.00	4.10
			AvgRF	CCRF	%Dev			
10		1,2-Dichlorotrifluoroetha	0.551	0.594	-7.8	107	0.00	4.33
11	C	1,1-Dichloroethene	0.671	0.719	-7.2	104	0.00	4.38
			Amount	Calc.	%Drift			
12		Freon 113	40.000	44.189	-10.5	107	0.00	4.44
			AvgRF	CCRF	%Dev			
13		Carbon Disulfide	1.404	1.441	-2.6	98	0.00	4.45
14		Iodomethane	0.791	0.810	-2.4	95	0.00	4.57
15		Allyl chloride	0.739	0.790	-6.9	97	0.00	4.91
			Amount	Calc.	%Drift			
16		Methylene Chloride	40.000	39.503	1.2	97	0.00	5.03
17		Acetone	200.000	205.298	-2.6	101	0.00	5.05
			AvgRF	CCRF	%Dev			
18		Methyl acetate	0.067	0.072	-7.5	102	0.00	5.17
19		trans-1,2-Dichloroethene	0.622	0.655	-5.3	102	0.00	5.21
			Amount	Calc.	%Drift			
20		Hexane	40.000	41.741	-4.4	103	0.00	5.28
			AvgRF	CCRF	%Dev			
21		Methyl Tert Butyl Ether	1.272	1.308	-2.8	98	0.00	5.31
22		Acetonitrile	0.035	0.032	8.6	89	0.00	5.57

Continuing Calibration Summary

Job Number: FA39345 **Sample:** VJ5515-ECC5512
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** J0981594.D
Project: BMSMC, Building 5 Area, Humacao, PR

			Amount	Calc.	%Drift			
23		Di-isopropyl ether	40.000	40.624	-1.6	97	0.00	5.69
24		Chloroprene	40.000	42.241	-5.6	105	0.00	5.85

			AvgRF	CCRF	%Dev			
25	P	1,1-Dichloroethane	0.849	0.879	-3.5	101	0.00	5.88
26		Acrylonitrile	0.191	0.179	6.3	91	0.00	5.91
27		ETBE	1.515	1.553	-2.5	95	0.00	6.09

			Amount	Calc.	%Drift			
28		Vinyl acetate	200.000	167.509	16.2	81	0.00	6.08

			AvgRF	CCRF	%Dev			
29		cis-1,2-Dichloroethene	0.512	0.541	-5.7	99	0.00	6.45
30		2,2-Dichloropropane	0.619	0.599	3.2	93	0.00	6.58
31		Bromochloromethane	0.265	0.274	-3.4	98	0.00	6.66
32		Cyclohexane	0.812	0.891	-9.7	102	0.00	6.71
33	C	Chloroform	0.877	0.896	-2.2	101	0.00	6.72
34		Ethyl acetate	0.454	0.423	6.8	90	0.00	6.78
35		Tetrahydrofuran	0.137	0.129	5.8	90	0.00	6.90
36	S	Dibromofluoromethane	0.270	0.267	1.1	96	0.00	6.91
37		Carbon Tetrachloride	0.619	0.677	-9.4	104	0.00	6.91
38		1,1,1-Trichloroethane	0.717	0.777	-8.4	105	0.00	6.97
39		2-Butanone	0.195	0.187	4.1	94	0.00	7.00
40		1,1-Dichloropropene	0.584	0.638	-9.2	104	0.00	7.08

			Amount	Calc.	%Drift			
41		tert-Butyl Formate	400.000	370.942	7.3	90	0.00	7.17

			AvgRF	CCRF	%Dev			
42		Propionitrile	0.067	0.065	3.0	94	0.00	7.31

			Amount	Calc.	%Drift			
43		Methacrylonitrile	400.000	372.098	7.0	92	0.00	7.34

			AvgRF	CCRF	%Dev			
44		Benzene	1.830	1.902	-3.9	104	0.00	7.33
45		TAME	1.260	1.319	-4.7	97	0.00	7.41
46	S	1,2-Dichloroethane-d4	0.325	0.318	2.2	94	0.00	7.46

			Amount	Calc.	%Drift			
47		1,2-Dichloroethane	40.000	41.266	-3.2	101	0.00	7.53

			AvgRF	CCRF	%Dev			
48		Trichloroethene	0.454	0.481	-5.9	103	0.00	7.92
49		Methylcyclohexane	0.790	0.878	-11.1	104	0.00	7.93
50		Dibromomethane	0.292	0.289	1.0	95	0.00	8.34
51	C	1,2-Dichloropropane	0.493	0.496	-0.6	98	0.00	8.43
52		Bromodichloromethane	0.595	0.607	-2.0	101	0.00	8.47

			Amount	Calc.	%Drift			
53		Methyl methacrylate	40.000	35.596	11.0	85	0.00	8.57
54		2-Chloroethyl vinyl ether	200.000	196.059	2.0	94	0.00	8.99
55		cis-1,3-Dichloropropene	40.000	40.362	-0.9	96	0.00	9.09

			AvgRF	CCRF	%Dev			
56	I	Chlorobenzene-d5	1.000	1.000	0.0	93	0.00	10.82
57	S	Toluene-d8	1.215	1.252	-3.0	96	0.00	9.28

Continuing Calibration Summary

Job Number: FA39345 **Sample:** VJ5515-ECC5512
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** J0981594.D
Project: BMSMC, Building 5 Area, Humacao, PR

			Amount	Calc.	%Drift			
58	C	Toluene	40.000	44.229	-10.6	103	0.00	9.33
			AvgRF	CCRF	%Dev			
59		2-Nitropropane	0.137	0.151	-10.2	98	0.00	9.54
60		4-Methyl-2-pentanone	0.565	0.614	-8.7	96	0.00	9.66
			Amount	Calc.	%Drift			
61		trans-1,3-Dichloropropene	40.000	43.426	-8.6	100	0.00	9.71
			AvgRF	CCRF	%Dev			
62		Tetrachloroethene	0.666	0.942	-41.4	144	0.00	9.73
			Amount	Calc.	%Drift			
63		Ethyl methacrylate	40.000	41.981	-5.0	97	0.00	9.82
			AvgRF	CCRF	%Dev			
64		1,1,2-Trichloroethane	0.477	0.476	0.2	98	0.00	9.88
65		Dibromochloromethane	0.571	0.651	-14.0	102	0.00	10.08
66		1,3-Dichloropropane	0.928	0.973	-4.8	95	0.00	10.16
67		1,2-Dibromoethane	0.559	0.579	-3.6	96	0.00	10.34
68		2-hexanone	0.397	0.457	-15.1	101	0.00	10.47
			Amount	Calc.	%Drift			
69		1-Chlorohexane	40.000	44.678	-11.7	105	0.00	10.78
70	C	Ethylbenzene	40.000	44.957	-12.4	106	0.00	10.84
			AvgRF	CCRF	%Dev			
71	P	Chlorobenzene	1.701	1.756	-3.2	102	0.00	10.84
72		1,1,1,2-Tetrachloroethane	0.605	0.671	-10.9	101	0.00	10.89
			Amount	Calc.	%Drift			
73		m,p-Xylene	80.000	90.169	-12.7	104	0.00	10.98
74		o-Xylene	40.000	44.094	-10.2	102	0.00	11.42
75		Styrene	40.000	43.556	-8.9	102	0.00	11.46
76	P	Bromoform	40.000	44.435	-11.1	102	0.00	11.53
77		Isopropylbenzene	40.000	44.913	-12.3	105	0.00	11.72
			AvgRF	CCRF	%Dev			
78	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	95	0.00	13.19
79	S	4-Bromofluorobenzene	0.797	0.758	4.9	90	0.00	12.03
			Amount	Calc.	%Drift			
80		cis-1,4-Dichloro-2-butene	40.000	40.946	-2.4	96	0.00	12.06
			AvgRF	CCRF	%Dev			
81		n-Propylbenzene	5.227	5.911	-13.1	104	0.00	12.14
			Amount	Calc.	%Drift			
82		Bromobenzene	40.000	42.207	-5.5	99	0.00	12.16
			AvgRF	CCRF	%Dev			
83	P	1,1,2,2-Tetrachloroethane	1.340	1.283	4.3	94	0.00	12.20
84		1,3,5-Trimethylbenzene	3.921	4.430	-13.0	102	0.00	12.32
85		2-Chlorotoluene	3.802	3.967	-4.3	99	0.00	12.33
			Amount	Calc.	%Drift			
86		trans-1,4-Dichloro-2-Bute	40.000	39.955	0.1	95	0.00	12.38

Continuing Calibration Summary

Job Number: FA39345 **Sample:** VJ5515-ECC5512
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** J0981594.D
Project: BMSMC, Building 5 Area, Humacao, PR

			AvgRF	CCRF	%Dev			
87	1,2,3-Trichloropropane		0.362	0.372	-2.8	101	0.00	12.36
			Amount	Calc.	%Drift			
88	Cyclohexanone		200.000	180.967	9.5	87	0.00	12.42
			AvgRF	CCRF	%Dev			
89	4-Chlorotoluene		3.413	3.703	-8.5	101	0.00	12.50
			Amount	Calc.	%Drift			
90	a-Methyl Styrene		40.000	39.657	0.9	95	0.00	12.59
			AvgRF	CCRF	%Dev			
91	tert-Butylbenzene		2.196	2.421	-10.2	100	0.00	12.66
92	1,2,4-Trimethylbenzene		4.026	4.390	-9.0	100	0.00	12.73
93	Pentachloroethane		0.798	0.504	36.8	57	0.00	12.72
94	sec-Butylbenzene		4.974	5.659	-13.8	103	0.00	12.85
			Amount	Calc.	%Drift			
95	4-Isopropyltoluene		40.000	43.153	-7.9	103	0.00	12.98
			AvgRF	CCRF	%Dev			
96	1,3-Dichlorobenzene		2.515	2.656	-5.6	102	0.00	13.12
97	1,4-Dichlorobenzene		2.660	2.698	-1.4	101	0.00	13.20
			Amount	Calc.	%Drift			
98	n-Butylbenzene		40.000	41.359	-3.4	99	0.00	13.42
99	Benzyl Chloride		40.000	36.934	7.7	85	0.00	13.43
			AvgRF	CCRF	%Dev			
100	1,2-Dichlorobenzene		2.479	2.577	-4.0	100	0.00	13.63
			Amount	Calc.	%Drift			
101	1,2-Dibromo-3-Chloropropa		40.000	37.207	7.0	86	0.00	14.36
102	Hexachlorobutadiene		40.000	43.389	-8.5	106	0.00	14.91
103	1,2,4-Trichlorobenzene		40.000	41.542	-3.9	97	0.00	14.95
104	Naphthalene		40.000	40.279	-0.7	95	0.00	15.24
			AvgRF	CCRF	%Dev			
105	1,2,3-Trichlorobenzene		1.726	1.879	-8.9	98	0.00	15.41
106	I Tert Butyl Alcohol-d10		1.000	1.000	0.0	81	0.00	5.28
			Amount	Calc.	%Drift			
107	Ethanol		800.000	844.801	-5.6	86	0.00	4.27
			AvgRF	CCRF	%Dev			
108	acrolein		3.878	4.577	-18.0	93	0.00	4.74
			Amount	Calc.	%Drift			
109	Tert Butyl Alcohol		400.000	479.863	-20.0	98	0.00	5.36
			AvgRF	CCRF	%Dev			
110	tert Amyl alcohol		1.622	1.796	-10.7	87	0.00	7.55
111	Isobutyl alcohol		0.753	0.857	-13.8	92	0.00	7.43
			Amount	Calc.	%Drift			
112	1,4-Dioxane		800.000	892.629	-11.6	88	0.00	8.65
113	3,3-Dimethyl-1-butanol		2000.000	2182.209	-9.1	92	0.00	10.41

Continuing Calibration Summary

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample: VJ5515-ECC5512
Lab FileID: J0981594.D

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   (#) = Out of Range                SPCC's out = 0  CCC's out = 0
    J0981508.D MSJ121416.M       Mon Dec 19 11:17:11 2016
```

Continuing Calibration Summary

Job Number: FA39345 **Sample:** VJ5518-CC5512
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** J0981629.D
Project: BMSMC, Building 5 Area, Humacao, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\data\121916\J0981629.D          Vial: 1
Acq On    : 19 Dec 2016   9:44 am                    Operator: darshnap
Sample    : cc5512-5                                 Inst    : MSVOA6
Misc      : MS35831,vj5518,,,,,                      Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\msdchem\1\methods\MSJ121416.M (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Thu Dec 15 08:23:27 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	91	0.00	7.73
2		Dichlorodifluoromethane	0.515	0.490	4.9	84	0.00	2.65
		----------	Amount	Calc.	%Drift		----------	
3	P	Chloromethane	40.000	36.606	8.5	78	0.00	2.87
4	C	Vinyl Chloride	40.000	39.962	0.1	83	-0.01	3.00
5		1,3-Butadiene	40.000	40.173	-0.4	89	0.00	3.00
6		Bromomethane	40.000	42.384	-6.0	90	0.00	3.44
7		Chloroethane	40.000	41.769	-4.4	88	0.00	3.57
		----------	AvgRF	CCRF	%Dev		----------	
8		Trichlorofluoromethane	0.900	0.977	-8.6	96	0.00	3.79
		----------	Amount	Calc.	%Drift		----------	
9		Ethyl Ether	40.000	42.234	-5.6	97	0.00	4.10
		----------	AvgRF	CCRF	%Dev		----------	
10		1,2-Dichlorotrifluoroetha	0.551	0.585	-6.2	98	0.00	4.32
11	C	1,1-Dichloroethene	0.671	0.675	-0.6	91	0.00	4.37
		----------	Amount	Calc.	%Drift		----------	
12		Freon 113	40.000	44.815	-12.0	101	0.00	4.44
		----------	AvgRF	CCRF	%Dev		----------	
13		Carbon Disulfide	1.404	1.415	-0.8	90	0.00	4.44
14		Iodomethane	0.791	0.838	-5.9	91	0.00	4.56
15		Allyl chloride	0.739	0.840	-13.7	96	0.00	4.90
		----------	Amount	Calc.	%Drift		----------	
16		Methylene Chloride	40.000	43.377	-8.4	98	0.00	5.02
17		Acetone	200.000	177.641	11.2	81	-0.01	5.04
		----------	AvgRF	CCRF	%Dev		----------	
18		Methyl acetate	0.067	0.073	-9.0	95	0.00	5.17
19		trans-1,2-Dichloroethene	0.622	0.665	-6.9	96	0.00	5.21
		----------	Amount	Calc.	%Drift		----------	
20		Hexane	40.000	41.927	-4.8	97	0.00	5.27
		----------	AvgRF	CCRF	%Dev		----------	
21		Methyl Tert Butyl Ether	1.272	1.382	-8.6	97	0.00	5.31
22		Acetonitrile	0.035	0.033	5.7	86	0.00	5.56

Continuing Calibration Summary

Job Number: FA39345 **Sample:** VJ5518-CC5512
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** J0981629.D
Project: BMSMC, Building 5 Area, Humacao, PR

			Amount	Calc.	%Drift			
23		Di-isopropyl ether	40.000	41.204	-3.0	92	0.00	5.68
24		Chloroprene	40.000	39.726	0.7	92	-0.01	5.84
			AvgRF	CCRF	%Dev			
25	P	1,1-Dichloroethane	0.849	0.926	-9.1	99	0.00	5.87
26		Acrylonitrile	0.191	0.185	3.1	88	0.00	5.90
27		ETBE	1.515	1.641	-8.3	93	0.00	6.09
			Amount	Calc.	%Drift			
28		Vinyl acetate	200.000	201.219	-0.6	89	0.00	6.08
			AvgRF	CCRF	%Dev			
29		cis-1,2-Dichloroethene	0.512	0.545	-6.4	93	0.00	6.45
30		2,2-Dichloropropane	0.619	0.709	-14.5	103	0.00	6.58
31		Bromochloromethane	0.265	0.277	-4.5	92	0.00	6.66
32		Cyclohexane	0.812	0.916	-12.8	98	0.00	6.71
33	C	Chloroform	0.877	0.925	-5.5	97	0.00	6.71
34		Ethyl acetate	0.454	0.442	2.6	87	0.00	6.78
35		Tetrahydrofuran	0.137	0.136	0.7	88	0.00	6.90
36	S	Dibromofluoromethane	0.270	0.282	-4.4	95	0.00	6.90
37		Carbon Tetrachloride	0.619	0.714	-15.3	102	0.00	6.91
38		1,1,1-Trichloroethane	0.717	0.802	-11.9	101	0.00	6.96
39		2-Butanone	0.195	0.184	5.6	87	0.00	6.99
40		1,1-Dichloropropene	0.584	0.657	-12.5	99	0.00	7.08
			Amount	Calc.	%Drift			
41		tert-Butyl Formate	400.000	418.508	-4.6	95	0.00	7.16
			AvgRF	CCRF	%Dev			
42		Propionitrile	0.067	0.068	-1.5	92	0.00	7.30
			Amount	Calc.	%Drift			
43		Methacrylonitrile	400.000	405.863	-1.5	92	0.00	7.33
			AvgRF	CCRF	%Dev			
44		Benzene	1.830	1.922	-5.0	98	0.00	7.33
45		TAME	1.260	1.384	-9.8	95	0.00	7.40
46	S	1,2-Dichloroethane-d4	0.325	0.337	-3.7	93	0.00	7.45
			Amount	Calc.	%Drift			
47		1,2-Dichloroethane	40.000	43.465	-8.7	99	0.00	7.52
			AvgRF	CCRF	%Dev			
48		Trichloroethene	0.454	0.509	-12.1	101	0.00	7.91
49		Methylcyclohexane	0.790	0.892	-12.9	98	0.00	7.93
50		Dibromomethane	0.292	0.314	-7.5	96	0.00	8.33
51	C	1,2-Dichloropropane	0.493	0.521	-5.7	96	0.00	8.42
52		Bromodichloromethane	0.595	0.660	-10.9	102	0.00	8.47
			Amount	Calc.	%Drift			
53		Methyl methacrylate	40.000	38.222	4.4	85	0.00	8.57
54		2-Chloroethyl vinyl ether	200.000	203.592	-1.8	91	0.00	8.99
55		cis-1,3-Dichloropropene	40.000	43.213	-8.0	96	0.00	9.09
			AvgRF	CCRF	%Dev			
56	I	Chlorobenzene-d5	1.000	1.000	0.0	88	0.00	10.82
57	S	Toluene-d8	1.215	1.187	2.3	87	0.00	9.28

Continuing Calibration Summary

Job Number: FA39345 **Sample:** VJ5518-CC5512
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** J0981629.D
Project: BMSMC, Building 5 Area, Humacao, PR

			Amount	Calc.	%Drift			
58	C	Toluene	40.000	43.993	-10.0	97	0.00	9.33

			AvgRF	CCRF	%Dev			
59		2-Nitropropane	0.137	0.158	-15.3	97	0.00	9.53
60		4-Methyl-2-pentanone	0.565	0.592	-4.8	88	0.00	9.65

			Amount	Calc.	%Drift			
61		trans-1,3-Dichloropropene	40.000	45.178	-12.9	99	0.00	9.71

			AvgRF	CCRF	%Dev			
62		Tetrachloroethene	0.666	0.741	-11.3	107	0.00	9.73

			Amount	Calc.	%Drift			
63		Ethyl methacrylate	40.000	40.400	-1.0	89	0.00	9.82

			AvgRF	CCRF	%Dev			
64		1,1,2-Trichloroethane	0.477	0.508	-6.5	99	0.00	9.88
65		Dibromochloromethane	0.571	0.653	-14.4	97	0.00	10.08
66		1,3-Dichloropropane	0.928	1.021	-10.0	95	0.00	10.16
67		1,2-Dibromoethane	0.559	0.612	-9.5	96	0.00	10.34
68		2-hexanone	0.397	0.448	-12.8	95	0.00	10.47

			Amount	Calc.	%Drift			
69		1-Chlorohexane	40.000	45.047	-12.6	101	0.00	10.77
70	C	Ethylbenzene	40.000	44.887	-12.2	100	0.00	10.84

			AvgRF	CCRF	%Dev			
71	P	Chlorobenzene	1.701	1.814	-6.6	100	0.00	10.84
72		1,1,1,2-Tetrachloroethane	0.605	0.699	-15.5	100	0.00	10.89

			Amount	Calc.	%Drift			
73		m,p-Xylene	80.000	90.696	-13.4	99	0.00	10.98
74		o-Xylene	40.000	44.235	-10.6	97	0.00	11.42
75		Styrene	40.000	45.167	-12.9	100	0.00	11.46
76	P	Bromoform	40.000	45.601	-14.0	100	0.00	11.52
77		Isopropylbenzene	40.000	45.112	-12.8	100	0.00	11.72

			AvgRF	CCRF	%Dev			
78	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	92	0.00	13.19
79	S	4-Bromofluorobenzene	0.797	0.751	5.8	87	0.00	12.03

			Amount	Calc.	%Drift			
80		cis-1,4-Dichloro-2-butene	40.000	42.046	-5.1	96	0.00	12.07

			AvgRF	CCRF	%Dev			
81		n-Propylbenzene	5.227	5.841	-11.7	99	0.00	12.14

			Amount	Calc.	%Drift			
82		Bromobenzene	40.000	42.667	-6.7	97	0.00	12.16

			AvgRF	CCRF	%Dev			
83	P	1,1,2,2-Tetrachloroethane	1.340	1.333	0.5	95	0.00	12.20
84		1,3,5-Trimethylbenzene	3.921	4.445	-13.4	99	0.00	12.32
85		2-Chlorotoluene	3.802	4.027	-5.9	97	0.00	12.33

			Amount	Calc.	%Drift			
86		trans-1,4-Dichloro-2-Bute	40.000	42.466	-6.2	99	0.00	12.38

Continuing Calibration Summary

Job Number: FA39345 **Sample:** VJ5518-CC5512
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** J0981629.D
Project: BMSMC, Building 5 Area, Humacao, PR

		----------	AvgRF	CCRF	%Dev	----------		
87		1,2,3-Trichloropropane	0.362	0.374	-3.3	99	0.00	12.36
		----------	Amount	Calc.	%Drift	----------		
88		Cyclohexanone	200.000	158.358	20.8#	73	0.00	12.43
		----------	AvgRF	CCRF	%Dev	----------		
89		4-Chlorotoluene	3.413	3.782	-10.8	100	0.00	12.50
		----------	Amount	Calc.	%Drift	----------		
90		a-Methyl Styrene	40.000	41.189	-3.0	95	0.00	12.59
		----------	AvgRF	CCRF	%Dev	----------		
91		tert-Butylbenzene	2.196	2.486	-13.2	100	0.00	12.66
92		1,2,4-Trimethylbenzene	4.026	4.460	-10.8	99	0.00	12.73
93		Pentachloroethane	0.798	0.905	-13.4	100	0.00	12.72
94		sec-Butylbenzene	4.974	5.738	-15.4	101	0.00	12.85
		----------	Amount	Calc.	%Drift	----------		
95		4-Isopropyltoluene	40.000	43.429	-8.6	100	0.00	12.98
		----------	AvgRF	CCRF	%Dev	----------		
96		1,3-Dichlorobenzene	2.515	2.748	-9.3	103	0.00	13.12
97		1,4-Dichlorobenzene	2.660	2.788	-4.8	101	0.00	13.20
		----------	Amount	Calc.	%Drift	----------		
98		n-Butylbenzene	40.000	43.610	-9.0	101	0.00	13.41
99		Benzyl Chloride	40.000	47.299	-18.2	108	0.00	13.43
		----------	AvgRF	CCRF	%Dev	----------		
100		1,2-Dichlorobenzene	2.479	2.640	-6.5	99	0.00	13.63
		----------	Amount	Calc.	%Drift	----------		
101		1,2-Dibromo-3-Chloropropa	40.000	42.396	-6.0	96	0.00	14.36
102		Hexachlorobutadiene	40.000	44.986	-12.5	106	0.00	14.91
103		1,2,4-Trichlorobenzene	40.000	41.647	-4.1	94	0.00	14.95
104		Naphthalene	40.000	40.706	-1.8	93	0.00	15.24
		----------	AvgRF	CCRF	%Dev	----------		
105		1,2,3-Trichlorobenzene	1.726	1.894	-9.7	96	0.00	15.41
106	I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	87	-0.01	5.27
		----------	Amount	Calc.	%Drift	----------		
107		Ethanol	800.000	744.081	7.0	82	0.00	4.26
		----------	AvgRF	CCRF	%Dev	----------		
108		acrolein	3.878	4.147	-6.9	90	0.00	4.73
		----------	Amount	Calc.	%Drift	----------		
109		Tert Butyl Alcohol	400.000	436.962	-9.2	95	0.00	5.35
		----------	AvgRF	CCRF	%Dev	----------		
110		tert Amyl alcohol	1.622	1.830	-12.8	95	0.00	7.55
111		Isobutyl alcohol	0.753	0.807	-7.2	93	0.00	7.43
		----------	Amount	Calc.	%Drift	----------		
112		1,4-Dioxane	800.000	805.401	-0.7	85	0.00	8.64
113		3,3-Dimethyl-1-butanol	2000.000	1963.164	1.8	89	0.00	10.41

Continuing Calibration Summary

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample: VJ5518-CC5512
Lab FileID: J0981629.D

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   (#) = Out of Range                SPCC's out = 0  CCC's out = 0
    J0981508.D MSJ121416.M       Mon Dec 19 10:57:25 2016
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Continuing Calibration Summary

Job Number: FA39345 **Sample:** VJ5518-ECC5512
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** J0981655.D
Project: BMSMC, Building 5 Area, Humacao, PR

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\data\121916\J0981655.D          Vial: 22
Acq On    : 19 Dec 2016   8:22 pm                    Operator: darshnap
Sample    : ecc5512-5                                Inst    : MSVOA6
Misc      : MS35837,vj5518,,,,,                      Multiplr: 1.00
MS Integration Params: RTEINT.P

Method       : C:\msdchem\1\methods\MSJ121416.M (RTE Integrator)
Title        : SW-846 Method 5030B/8260B & EPA 624
Last Update  : Thu Dec 15 08:23:27 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.000  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  50%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Fluorobenzene	1.000	1.000	0.0	116	0.00	7.73
2		Dichlorodifluoromethane	0.515	0.525	-1.9	115	0.00	2.65
			Amount	Calc.	%Drift			
3	P	Chloromethane	40.000	42.300	-5.7	114	0.00	2.87
4	C	Vinyl Chloride	40.000	46.947	-17.4	123	-0.01	3.00
5		1,3-Butadiene	40.000	46.661	-16.7	130	0.00	3.01
6		Bromomethane	40.000	44.301	-10.8	120	-0.01	3.43
7		Chloroethane	40.000	48.544	-21.4	127	0.00	3.58
			AvgRF	CCRF	%Dev			
8		Trichlorofluoromethane	0.900	1.001	-11.2	126	0.00	3.79
			Amount	Calc.	%Drift			
9		Ethyl Ether	40.000	39.050	2.4	115	0.00	4.10
			AvgRF	CCRF	%Dev			
10		1,2-Dichlorotrifluoroetha	0.551	0.558	-1.3	120	-0.01	4.31
11	C	1,1-Dichloroethene	0.671	0.642	4.3	111	0.00	4.37
			Amount	Calc.	%Drift			
12		Freon 113	40.000	38.616	3.5	113	0.00	4.44
			AvgRF	CCRF	%Dev			
13		Carbon Disulfide	1.404	1.226	12.7	99	0.00	4.45
14		Iodomethane	0.791	0.756	4.4	105	0.00	4.56
15		Allyl chloride	0.739	0.812	-9.9	118	0.00	4.90
			Amount	Calc.	%Drift			
16		Methylene Chloride	40.000	37.878	5.3	111	0.00	5.02
17		Acetone	200.000	178.141	10.9	104	0.00	5.05
			AvgRF	CCRF	%Dev			
18		Methyl acetate	0.067	0.068	-1.5	114	0.00	5.17
19		trans-1,2-Dichloroethene	0.622	0.620	0.3	115	0.00	5.21
			Amount	Calc.	%Drift			
20		Hexane	40.000	35.521	11.2	106	0.00	5.28
			AvgRF	CCRF	%Dev			
21		Methyl Tert Butyl Ether	1.272	1.302	-2.4	116	0.00	5.31
22		Acetonitrile	0.035	0.030	14.3	101	0.00	5.56

Continuing Calibration Summary

Job Number: FA39345 **Sample:** VJ5518-ECC5512
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** J0981655.D
Project: BMSMC, Building 5 Area, Humacao, PR

			Amount	Calc.	%Drift			
23		Di-isopropyl ether	40.000	40.245	-0.6	115	0.00	5.69
24		Chloroprene	40.000	43.757	-9.4	129	0.00	5.85
			AvgRF	CCRF	%Dev			
25	P	1,1-Dichloroethane	0.849	0.863	-1.6	118	0.00	5.88
26		Acrylonitrile	0.191	0.182	4.7	110	0.00	5.90
27		ETBE	1.515	1.616	-6.7	118	0.00	6.09
			Amount	Calc.	%Drift			
28		Vinyl acetate	200.000	185.183	7.4	106	0.00	6.08
			AvgRF	CCRF	%Dev			
29		cis-1,2-Dichloroethene	0.512	0.522	-2.0	114	0.00	6.45
30		2,2-Dichloropropane	0.619	0.619	0.0	115	0.00	6.58
31		Bromochloromethane	0.265	0.263	0.8	112	0.00	6.66
32		Cyclohexane	0.812	0.857	-5.5	117	0.00	6.71
33	C	Chloroform	0.877	0.877	0.0	118	0.00	6.72
34		Ethyl acetate	0.454	0.425	6.4	107	0.00	6.78
35		Tetrahydrofuran	0.137	0.136	0.7	113	0.00	6.90
36	S	Dibromofluoromethane	0.270	0.266	1.5	114	0.00	6.91
37		Carbon Tetrachloride	0.619	0.663	-7.1	121	0.00	6.91
38		1,1,1-Trichloroethane	0.717	0.742	-3.5	120	0.00	6.97
39		2-Butanone	0.195	0.186	4.6	112	0.00	7.00
40		1,1-Dichloropropene	0.584	0.629	-7.7	122	0.00	7.08
			Amount	Calc.	%Drift			
41		tert-Butyl Formate	400.000	419.904	-5.0	121	0.00	7.16
			AvgRF	CCRF	%Dev			
42		Propionitrile	0.067	0.069	-3.0	119	0.00	7.31
			Amount	Calc.	%Drift			
43		Methacrylonitrile	400.000	393.547	1.6	115	0.00	7.33
			AvgRF	CCRF	%Dev			
44		Benzene	1.830	1.875	-2.5	122	0.00	7.33
45		TAME	1.260	1.391	-10.4	122	0.00	7.41
46	S	1,2-Dichloroethane-d4	0.325	0.331	-1.8	117	0.00	7.46
			Amount	Calc.	%Drift			
47		1,2-Dichloroethane	40.000	41.743	-4.4	121	0.00	7.52
			AvgRF	CCRF	%Dev			
48		Trichloroethene	0.454	0.484	-6.6	123	0.00	7.92
49		Methylcyclohexane	0.790	0.870	-10.1	122	0.00	7.93
50		Dibromomethane	0.292	0.309	-5.8	121	0.00	8.34
51	C	1,2-Dichloropropane	0.493	0.531	-7.7	125	0.00	8.43
52		Bromodichloromethane	0.595	0.663	-11.4	131	0.00	8.47
			Amount	Calc.	%Drift			
53		Methyl methacrylate	40.000	41.866	-4.7	120	0.00	8.57
54		2-Chloroethyl vinyl ether	200.000	207.473	-3.7	118	0.00	8.99
55		cis-1,3-Dichloropropene	40.000	44.358	-10.9	127	0.00	9.09
			AvgRF	CCRF	%Dev			
56	I	Chlorobenzene-d5	1.000	1.000	0.0	114	0.00	10.82
57	S	Toluene-d8	1.215	1.225	-0.8	115	0.00	9.28

Continuing Calibration Summary

Job Number: FA39345 **Sample:** VJ5518-ECC5512
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** J0981655.D
Project: BMSMC, Building 5 Area, Humacao, PR

			Amount	Calc.	%Drift			
58	C	Toluene	40.000	42.601	-6.5	121	0.00	9.33

			AvgRF	CCRF	%Dev			
59		2-Nitropropane	0.137	0.155	-13.1	123	0.00	9.53
60		4-Methyl-2-pentanone	0.565	0.623	-10.3	119	0.00	9.65

			Amount	Calc.	%Drift			
61		trans-1,3-Dichloropropene	40.000	44.557	-11.4	125	0.00	9.71

			AvgRF	CCRF	%Dev			
62		Tetrachloroethene	0.666	0.752	-12.9	140	0.00	9.73

			Amount	Calc.	%Drift			
63		Ethyl methacrylate	40.000	44.122	-10.3	126	0.00	9.82

			AvgRF	CCRF	%Dev			
64		1,1,2-Trichloroethane	0.477	0.493	-3.4	124	0.00	9.88
65		Dibromochloromethane	0.571	0.650	-13.8	124	0.00	10.08
66		1,3-Dichloropropane	0.928	1.020	-9.9	122	0.00	10.16
67		1,2-Dibromoethane	0.559	0.618	-10.6	125	0.00	10.34
68		2-hexanone	0.397	0.441	-11.1	120	0.00	10.47

			Amount	Calc.	%Drift			
69		1-Chlorohexane	40.000	44.362	-10.9	128	0.00	10.78
70	C	Ethylbenzene	40.000	44.416	-11.0	128	0.00	10.84

			AvgRF	CCRF	%Dev			
71	P	Chlorobenzene	1.701	1.785	-4.9	126	0.00	10.84
72		1,1,1,2-Tetrachloroethane	0.605	0.695	-14.9	128	0.00	10.90

			Amount	Calc.	%Drift			
73		m,p-Xylene	80.000	87.978	-10.0	124	0.00	10.98
74		o-Xylene	40.000	43.682	-9.2	124	0.00	11.42
75		Styrene	40.000	44.019	-10.0	126	0.00	11.46
76	P	Bromoform	40.000	45.706	-14.3	129	0.00	11.52
77		Isopropylbenzene	40.000	44.086	-10.2	126	0.00	11.72

			AvgRF	CCRF	%Dev			
78	I	1,4-Dichlorobenzene-d4	1.000	1.000	0.0	113	0.00	13.19
79	S	4-Bromofluorobenzene	0.797	0.798	-0.1	113	0.00	12.03

			Amount	Calc.	%Drift			
80		cis-1,4-Dichloro-2-butene	40.000	40.839	-2.1	114	0.00	12.06

			AvgRF	CCRF	%Dev			
81		n-Propylbenzene	5.227	5.947	-13.8	124	0.00	12.14

			Amount	Calc.	%Drift			
82		Bromobenzene	40.000	42.580	-6.4	119	0.00	12.16

			AvgRF	CCRF	%Dev			
83	P	1,1,2,2-Tetrachloroethane	1.340	1.328	0.9	116	0.00	12.20
84		1,3,5-Trimethylbenzene	3.921	4.783	-22.0	131	0.00	12.32
85		2-Chlorotoluene	3.802	4.264	-12.2	127	0.00	12.33

			Amount	Calc.	%Drift			
86		trans-1,4-Dichloro-2-Bute	40.000	42.865	-7.2	122	0.00	12.38

Continuing Calibration Summary

Job Number: FA39345 **Sample:** VJ5518-ECC5512
Account: AMANYWP Anderson, Mulholland & Associates **Lab FileID:** J0981655.D
Project: BMSMC, Building 5 Area, Humacao, PR

		AvgRF	CCRF	%Dev			
87	1,2,3-Trichloropropane	0.362	0.397	-9.7	129	0.00	12.36
		Amount	Calc.	%Drift			
88	Cyclohexanone	200.000	138.483	30.8	78	0.00	12.42
		AvgRF	CCRF	%Dev			
89	4-Chlorotoluene	3.413	3.925	-15.0	128	0.00	12.49
		Amount	Calc.	%Drift			
90	a-Methyl Styrene	40.000	43.759	-9.4	125	0.00	12.59
		AvgRF	CCRF	%Dev			
91	tert-Butylbenzene	2.196	2.685	-22.3	133	0.00	12.66
92	1,2,4-Trimethylbenzene	4.026	4.557	-13.2	124	0.00	12.73
93	Pentachloroethane	0.798	0.853	-6.9	116	0.00	12.72
94	sec-Butylbenzene	4.974	5.876	-18.1	127	0.00	12.85
		Amount	Calc.	%Drift			
95	4-Isopropyltoluene	40.000	45.521	-13.8	129	0.00	12.98
		AvgRF	CCRF	%Dev			
96	1,3-Dichlorobenzene	2.515	2.686	-6.8	123	0.00	13.12
97	1,4-Dichlorobenzene	2.660	2.689	-1.1	120	0.00	13.20
		Amount	Calc.	%Drift			
98	n-Butylbenzene	40.000	42.382	-6.0	120	0.00	13.41
99	Benzyl Chloride	40.000	38.734	3.2	106	0.00	13.43
		AvgRF	CCRF	%Dev			
100	1,2-Dichlorobenzene	2.479	2.630	-6.1	122	0.00	13.63
		Amount	Calc.	%Drift			
101	1,2-Dibromo-3-Chloropropa	40.000	42.835	-7.1	120	0.00	14.36
102	Hexachlorobutadiene	40.000	49.211	-23.0	144	0.00	14.91
103	1,2,4-Trichlorobenzene	40.000	43.292	-8.2	120	0.00	14.96
104	Naphthalene	40.000	41.760	-4.4	118	0.00	15.24
		AvgRF	CCRF	%Dev			
105	1,2,3-Trichlorobenzene	1.726	2.006	-16.2	125	0.00	15.41
106 I	Tert Butyl Alcohol-d10	1.000	1.000	0.0	107	0.00	5.27
		Amount	Calc.	%Drift			
107	Ethanol	800.000	734.258	8.2	100	0.00	4.27
		AvgRF	CCRF	%Dev			
108	acrolein	3.878	4.166	-7.4	112	0.00	4.73
		Amount	Calc.	%Drift			
109	Tert Butyl Alcohol	400.000	425.746	-6.4	114	0.00	5.35
		AvgRF	CCRF	%Dev			
110	tert Amyl alcohol	1.622	1.697	-4.6	109	0.00	7.55
111	Isobutyl alcohol	0.753	0.823	-9.3	117	0.00	7.43
		Amount	Calc.	%Drift			
112	1,4-Dioxane	800.000	786.491	1.7	103	0.00	8.64
113	3,3-Dimethyl-1-butanol	2000.000	2043.054	-2.2	114	0.00	10.41

Continuing Calibration Summary

Job Number: FA39345
Account: AMANYWP Anderson, Mulholland & Associates
Project: BMSMC, Building 5 Area, Humacao, PR

Sample: VJ5518-ECC5512
Lab FileID: J0981655.D

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-----------------------------------------------------------------------------

   (#) = Out of Range                SPCC's out = 0  CCC's out = 0
    J0981508.D MSJ121416.M       Tue Dec 20 10:45:15 2016
```

GC/MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981649.D
Acq On : 19 Dec 2016 6:02 pm
Operator : darshnap
Sample : fa39345-1 ma Inst : MSVOA6
Misc : MS35813,vj5519,,,,,
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 20 09:39:16 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

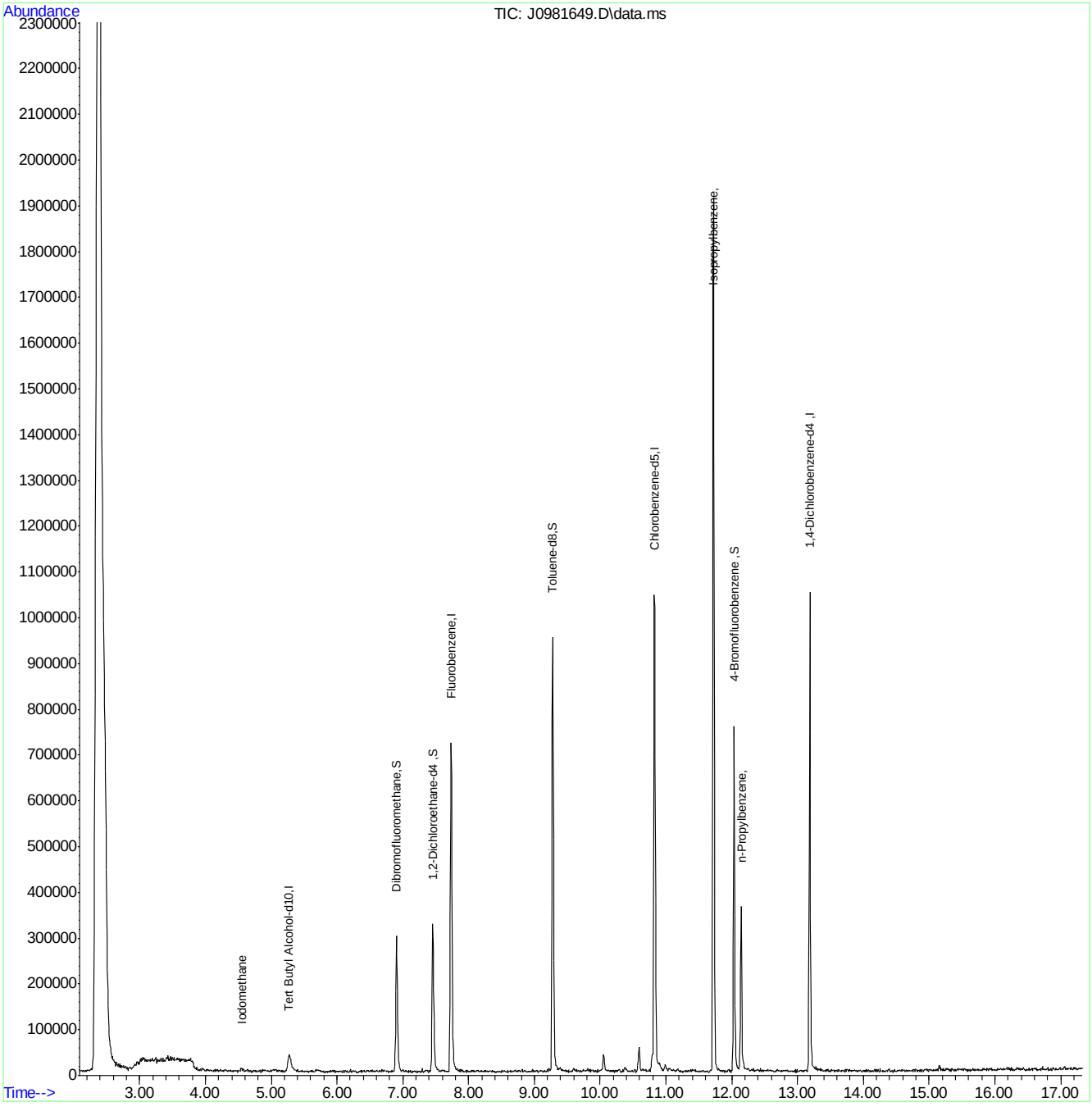
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.734	96	558330	50.00	ug/L	0.00
56) Chlorobenzene-d5	10.824	117	463068	50.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	13.186	152	237462	50.00	ug/L	0.00
106) Tert Butyl Alcohol-d10	5.272	65	45162	250.00	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	6.905	113	169663	56.33	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 112.66%			
46) 1,2-Dichloroethane-d4	7.458	65	202324	55.83	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 111.66%			
57) Toluene-d8	9.279	98	516836	45.91	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 91.82%			
79) 4-Bromofluorobenzene	12.035	95	197355	52.13	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 104.26%			
Target Compounds						Qvalue
14) Iodomethane	4.555	142	8694	0.98	ug/L	93
77) Isopropylbenzene	11.723	105	1007015	40.12	ug/L	96
81) n-Propylbenzene	12.146	91	237682	9.57	ug/L	97

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

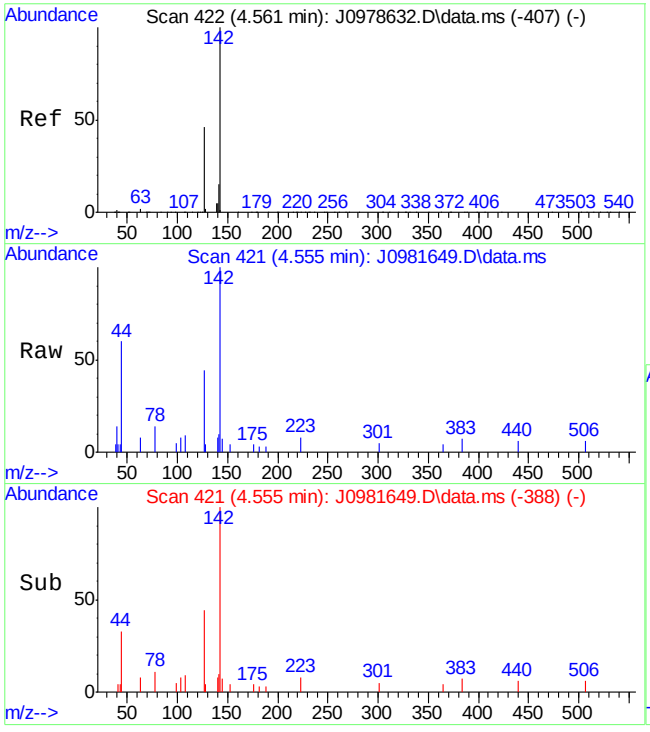
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981649.D
Acq On : 19 Dec 2016 6:02 pm
Operator : darshnap
Sample : fa39345-1 ma Inst : MSVOA6
Misc : MS35813,vj5519,,,,,
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 20 09:39:16 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration



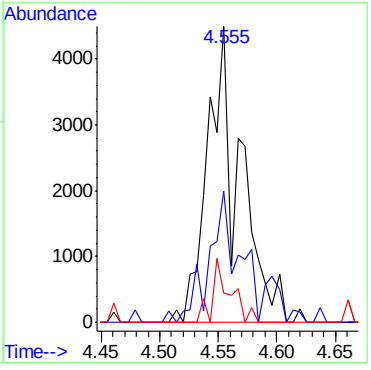
MSJ121416.M Tue Dec 20 10:39:46 2016 Page: 2

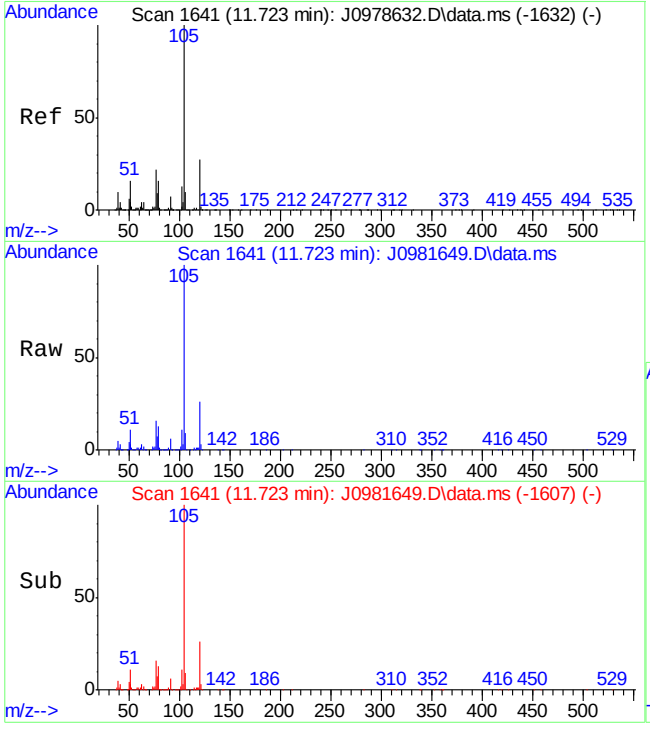


#14
Iodomethane
Concen: 0.98 ug/L
RT: 4.555 min Scan# 421
Delta R.T. -0.006 min
Lab File: J0981649.D
Acq: 19 Dec 2016 6:02 pm

Tgt Ion:142 Resp: 8694

Ion	Ratio	Lower	Upper
142	100		
127	44.5	20.4	60.4
141	10.0	0.0	33.7

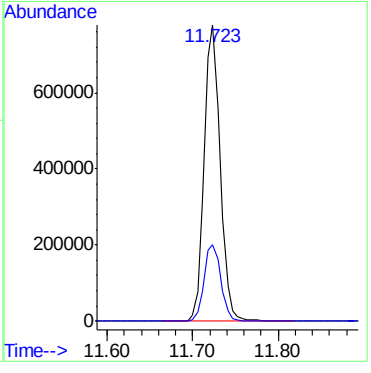


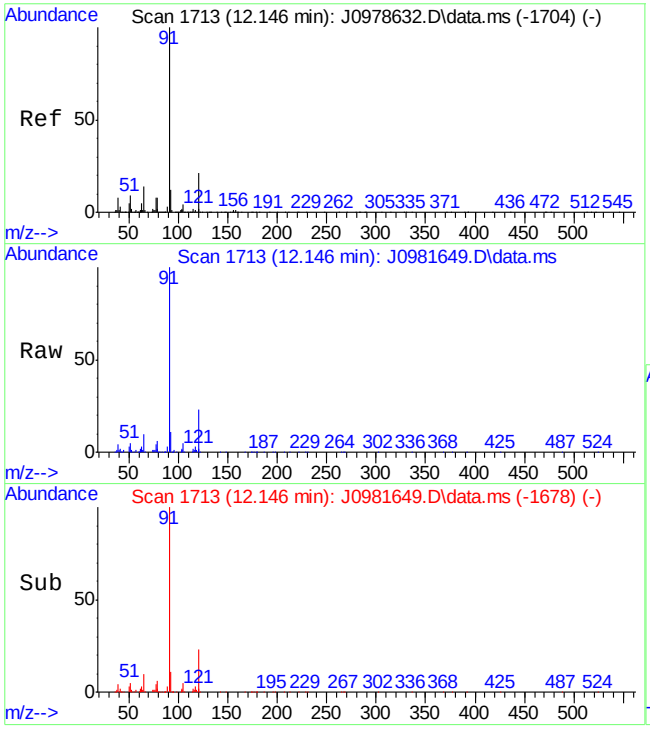


#77
Isopropylbenzene
Concen: 40.12 ug/L
RT: 11.723 min Scan# 1641
Delta R.T. 0.000 min
Lab File: J0981649.D
Acq: 19 Dec 2016 6:02 pm

Tgt Ion:105 Resp: 1007015

Ion	Ratio	Lower	Upper
105	100		
120	25.8	0.0	57.8

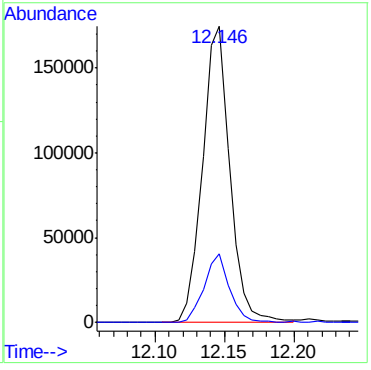




#81
n-Propylbenzene
Concen: 9.57 ug/L
RT: 12.146 min Scan# 1713
Delta R.T. 0.005 min
Lab File: J0981649.D
Acq: 19 Dec 2016 6:02 pm

Tgt Ion: 91 Resp: 237682

Ion	Ratio	Lower	Upper
91	100		
120	23.3	0.0	54.8



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981580.D
Acq On : 16 Dec 2016 2:51 pm
Operator : darshnap
Sample : fa39345-1 ma Inst : MSVOA6
Misc : MS35813,vj5516,,,,,
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 17 10:08:22 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.734	96	638575	50.00	ug/L	0.00
56) Chlorobenzene-d5	10.824	117	528126	50.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	13.186	152	265981	50.00	ug/L	0.00
106) Tert Butyl Alcohol-d10	5.272	65	48051	250.00	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	6.905	113	191092	55.47	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 110.94%			
46) 1,2-Dichloroethane-d4	7.458	65	231945	55.96	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 111.92%			
57) Toluene-d8	9.279	98	600640	46.78	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 93.56%			
79) 4-Bromofluorobenzene	12.035	95	225805	53.25	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 106.50%			
Target Compounds						Qvalue
14) Iodomethane	4.567	142	6550	0.65	ug/L	78
71) Chlorobenzene	10.842	112	3928	0.22	ug/L #	60
77) Isopropylbenzene	11.723	105	1132419	39.53	ug/L	100
81) n-Propylbenzene	12.140	91	266938	9.60	ug/L	99

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

7.1.2

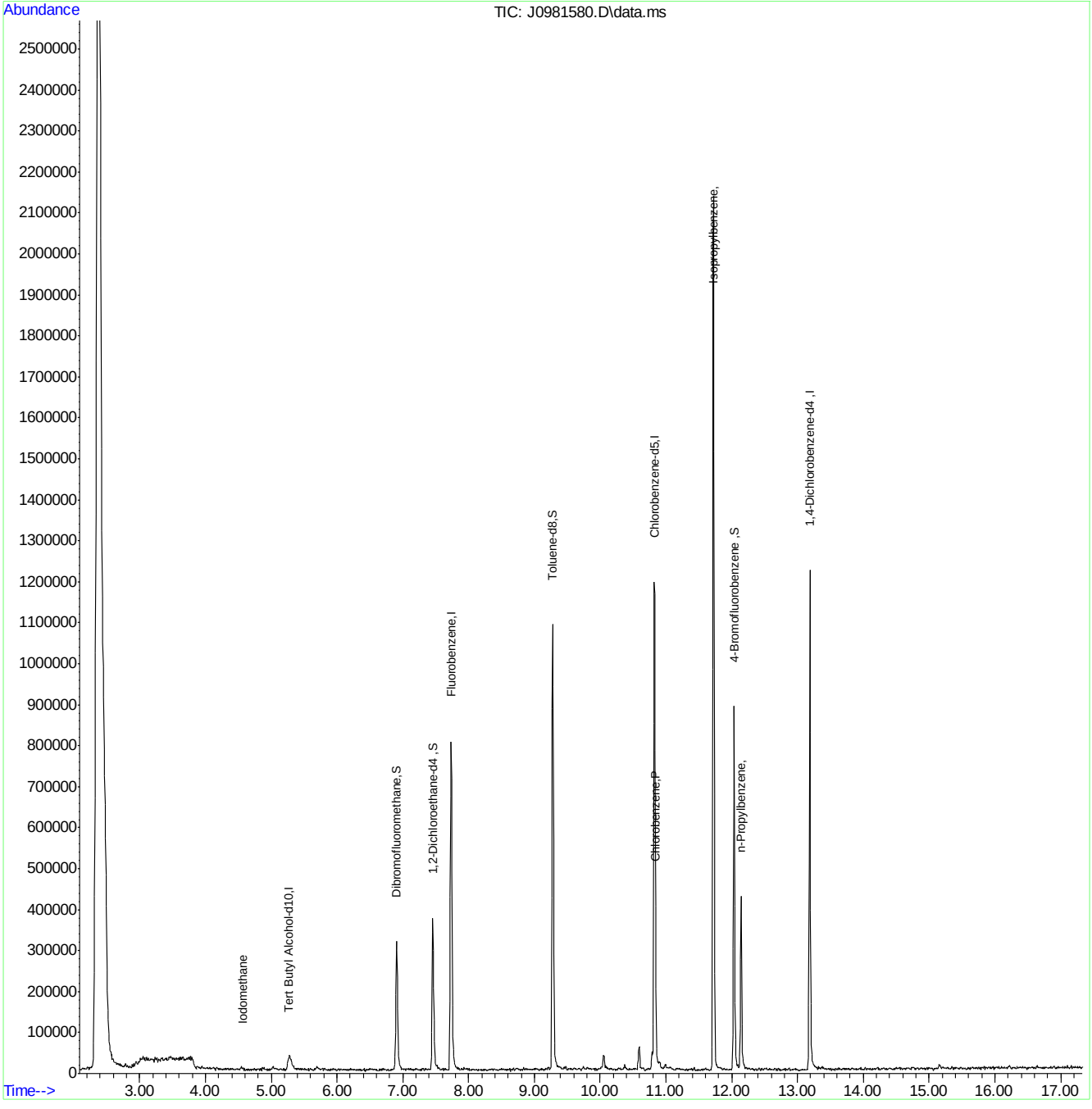
7

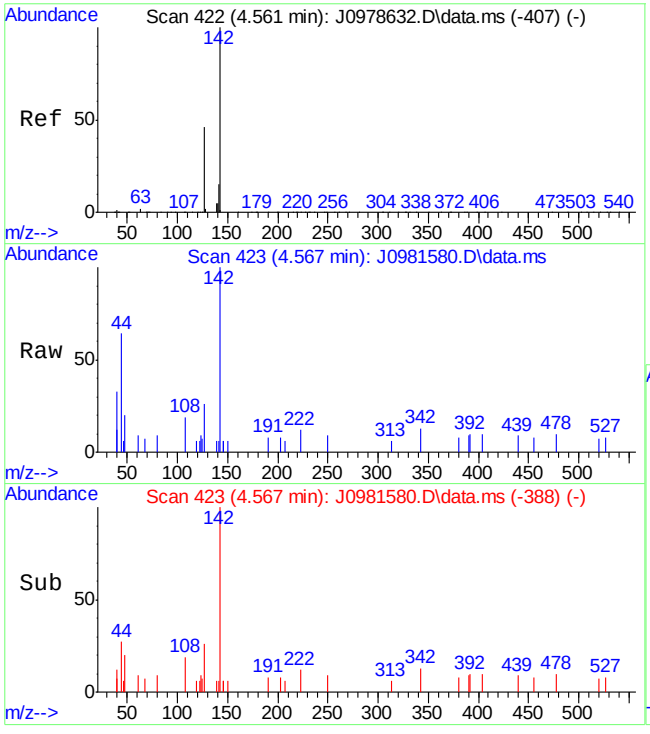
SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981580.D
Acq On : 16 Dec 2016 2:51 pm
Operator : darshnap
Sample : fa39345-1 ma Inst : MSVOA6
Misc : MS35813,vj5516,,,,,
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 17 10:08:22 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

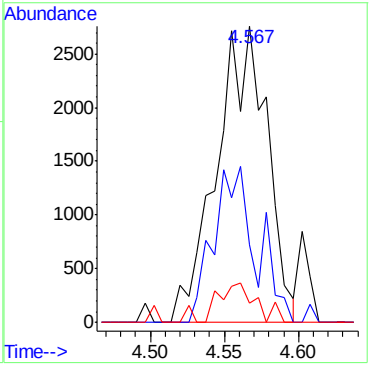


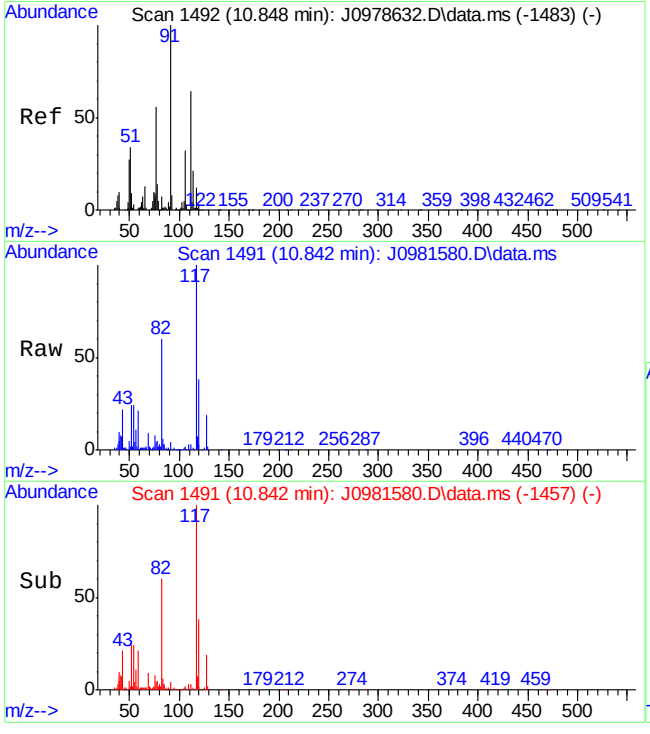


#14
Iodomethane
Concen: 0.65 ug/L
RT: 4.567 min Scan# 423
Delta R.T. 0.006 min
Lab File: J0981580.D
Acq: 16 Dec 2016 2:51 pm

Tgt Ion:142 Resp: 6550

Ion	Ratio	Lower	Upper
142	100		
127	26.1	20.4	60.4
141	6.3	0.0	33.7

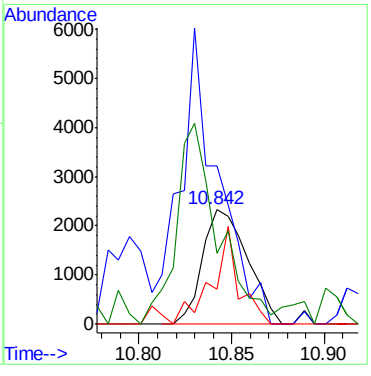


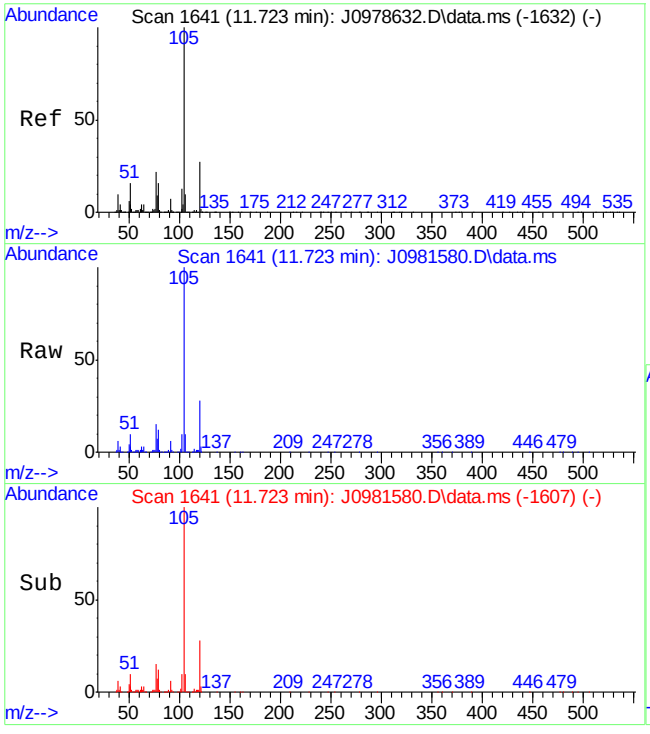


#71
Chlorobenzene
Concen: 0.22 ug/L
RT: 10.842 min Scan# 1491
Delta R.T. -0.000 min
Lab File: J0981580.D
Acq: 16 Dec 2016 2:51 pm

Tgt Ion:112 Resp: 3928

Ion	Ratio	Lower	Upper
112	100		
77	137.9	44.9	104.9#
114	30.0	3.4	63.4
51	44.4	10.8	70.8

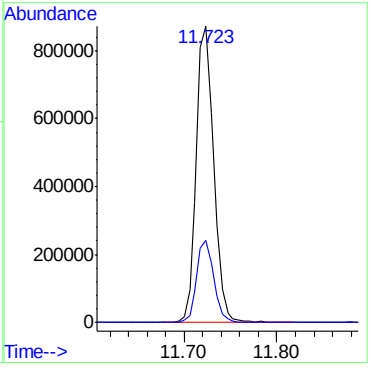


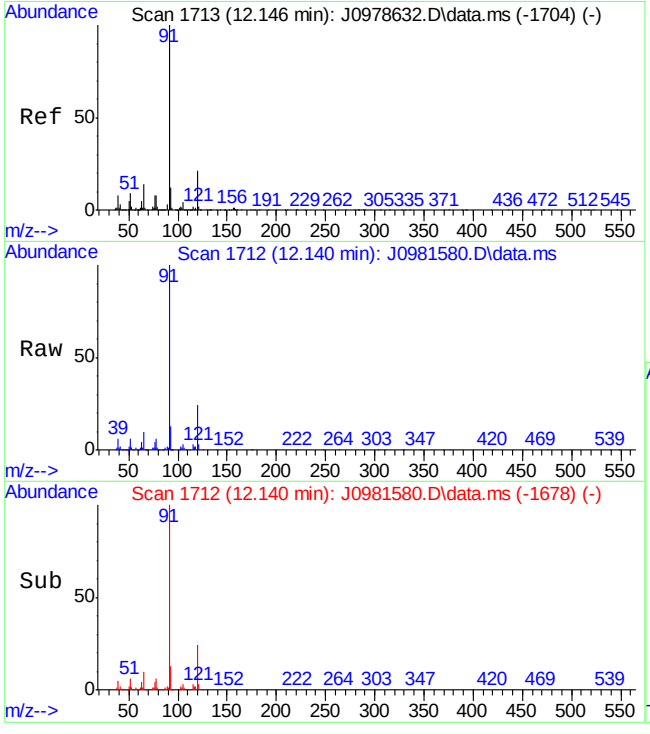


#77
Isopropylbenzene
Concen: 39.53 ug/L
RT: 11.723 min Scan# 1641
Delta R.T. 0.000 min
Lab File: J0981580.D
Acq: 16 Dec 2016 2:51 pm

Tgt Ion:105 Resp: 1132419

Ion	Ratio	Lower	Upper
105	100		
120	27.8	0.0	57.8

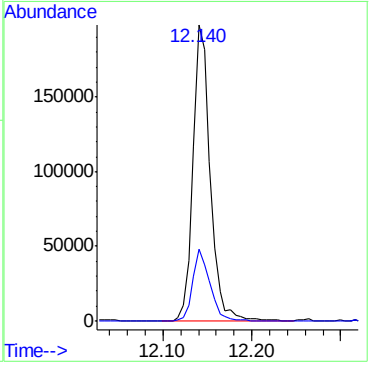




#81
n-Propylbenzene
Concen: 9.60 ug/L
RT: 12.140 min Scan# 1712
Delta R.T. -0.001 min
Lab File: J0981580.D
Acq: 16 Dec 2016 2:51 pm

Tgt Ion: 91 Resp: 266938

Ion	Ratio	Lower	Upper
91	100		
120	24.1	0.0	54.8



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981581.D
Acq On : 16 Dec 2016 3:15 pm
Operator : darshnap
Sample : fa39345-2 ma Inst : MSVOA6
Misc : MS35813,vj5516,,,,,
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 17 10:08:59 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.734	96	605642	50.00	ug/L	0.00
56) Chlorobenzene-d5	10.824	117	452937	50.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	13.186	152	221898	50.00	ug/L	0.00
106) Tert Butyl Alcohol-d10	5.278	65	50479	250.00	ug/L	# 0.00
System Monitoring Compounds						
36) Dibromofluoromethane	6.905	113	182964	56.00	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 112.00%			
46) 1,2-Dichloroethane-d4	7.452	65	217024	55.20	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 110.40%			
57) Toluene-d8	9.279	98	566994	51.49	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 102.98%			
79) 4-Bromofluorobenzene	12.035	95	176088	49.78	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 99.56%			

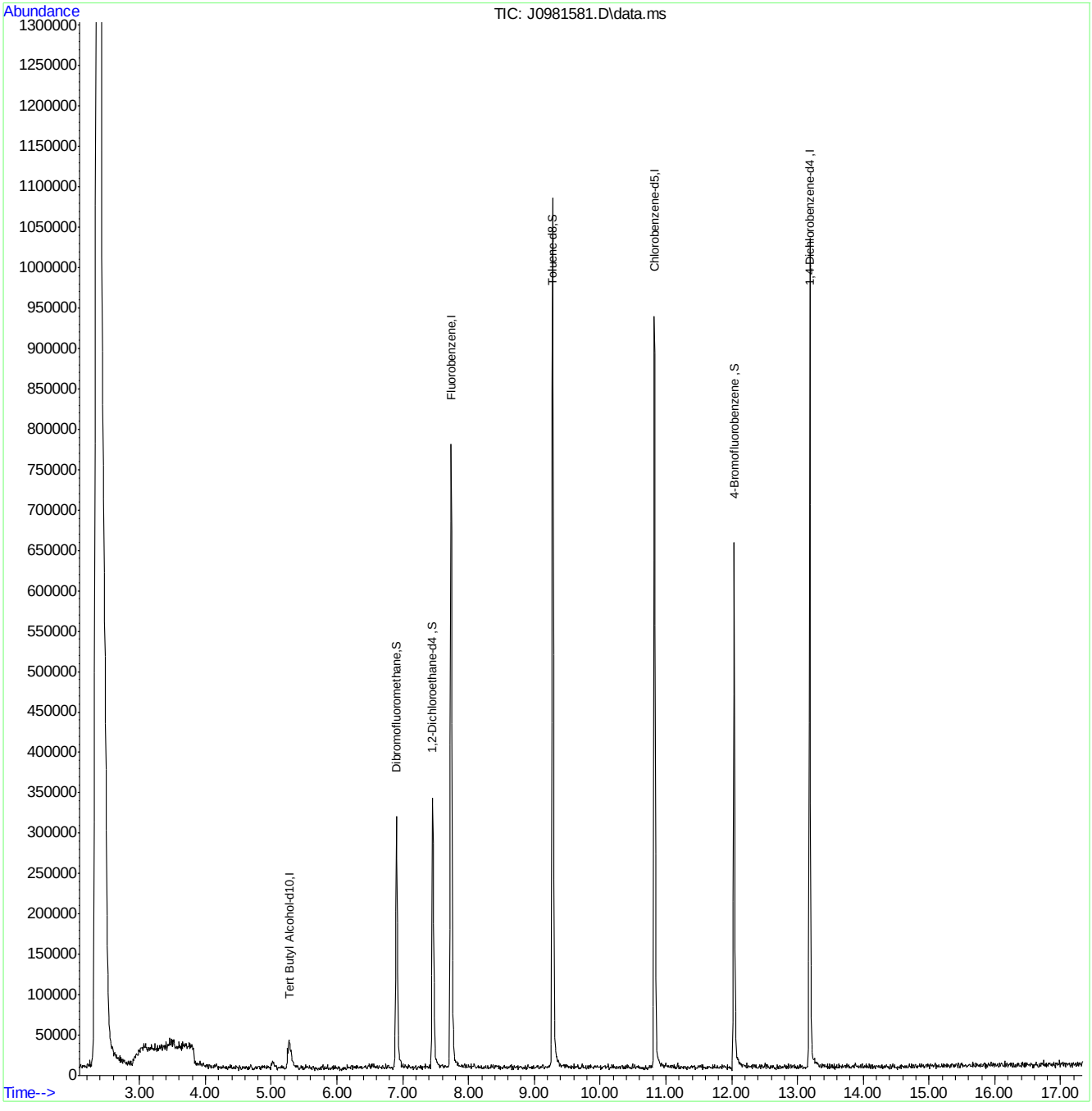
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981581.D
Acq On : 16 Dec 2016 3:15 pm
Operator : darshnap
Sample : fa39345-2 ma Inst : MSVOA6
Misc : MS35813,vj5516,,,,,
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 17 10:08:59 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981569.D
Acq On : 16 Dec 2016 10:12 am
Operator : darshnap
Sample : mb Inst : MSVOA6
Misc : MS35805,vj5515,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 16 14:04:58 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.734	96	1060620	50.00	ug/L	0.00
56) Chlorobenzene-d5	10.824	117	772324	50.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	13.186	152	428818	50.00	ug/L	0.00
106) Tert Butyl Alcohol-d10	5.284	65	107281	250.00	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	6.905	113	283450	49.54	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 99.08%			
46) 1,2-Dichloroethane-d4	7.458	65	346691	50.36	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 100.72%			
57) Toluene-d8	9.279	98	961110	51.19	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 102.38%			
79) 4-Bromofluorobenzene	12.035	95	334333	48.91	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 97.82%			

Target Compounds Qvalue

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

7.2.1

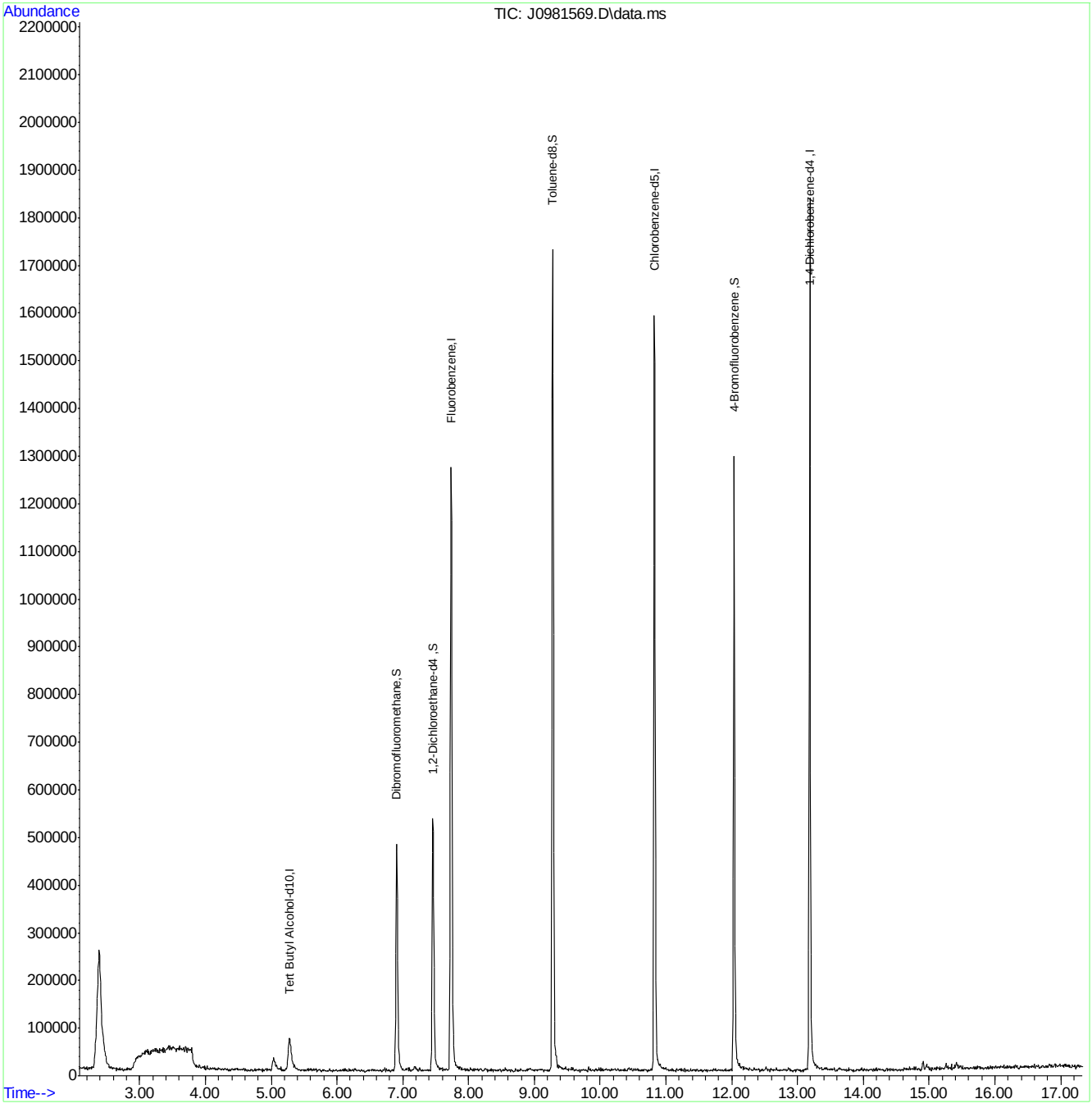
7

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981569.D
Acq On : 16 Dec 2016 10:12 am
Operator : darshnap
Sample : mb Inst : MSVOA6
Misc : MS35805,vj5515,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 16 14:04:58 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration



MSJ121416.M Fri Dec 16 14:10:49 2016 Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981631.D
Acq On : 19 Dec 2016 10:45 am
Operator : darshnap
Sample : mb ma Inst : MSVOA6
Misc : MS35813,vj55189,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 19 14:19:25 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.734	96	651357	50.00	ug/L	0.00
56) Chlorobenzene-d5	10.825	117	483689	50.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	13.186	152	242245	50.00	ug/L	0.00
106) Tert Butyl Alcohol-d10	5.266	65	59901	250.00	ug/L	-0.01
System Monitoring Compounds						
36) Dibromofluoromethane	6.905	113	186356	53.04	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 106.08%			
46) 1,2-Dichloroethane-d4	7.458	65	243028	57.48	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 114.96%			
57) Toluene-d8	9.279	98	612428	52.08	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 104.16%			
79) 4-Bromofluorobenzene	12.035	95	202531	52.44	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 104.88%			
Target Compounds						Qvalue

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

7.2.2

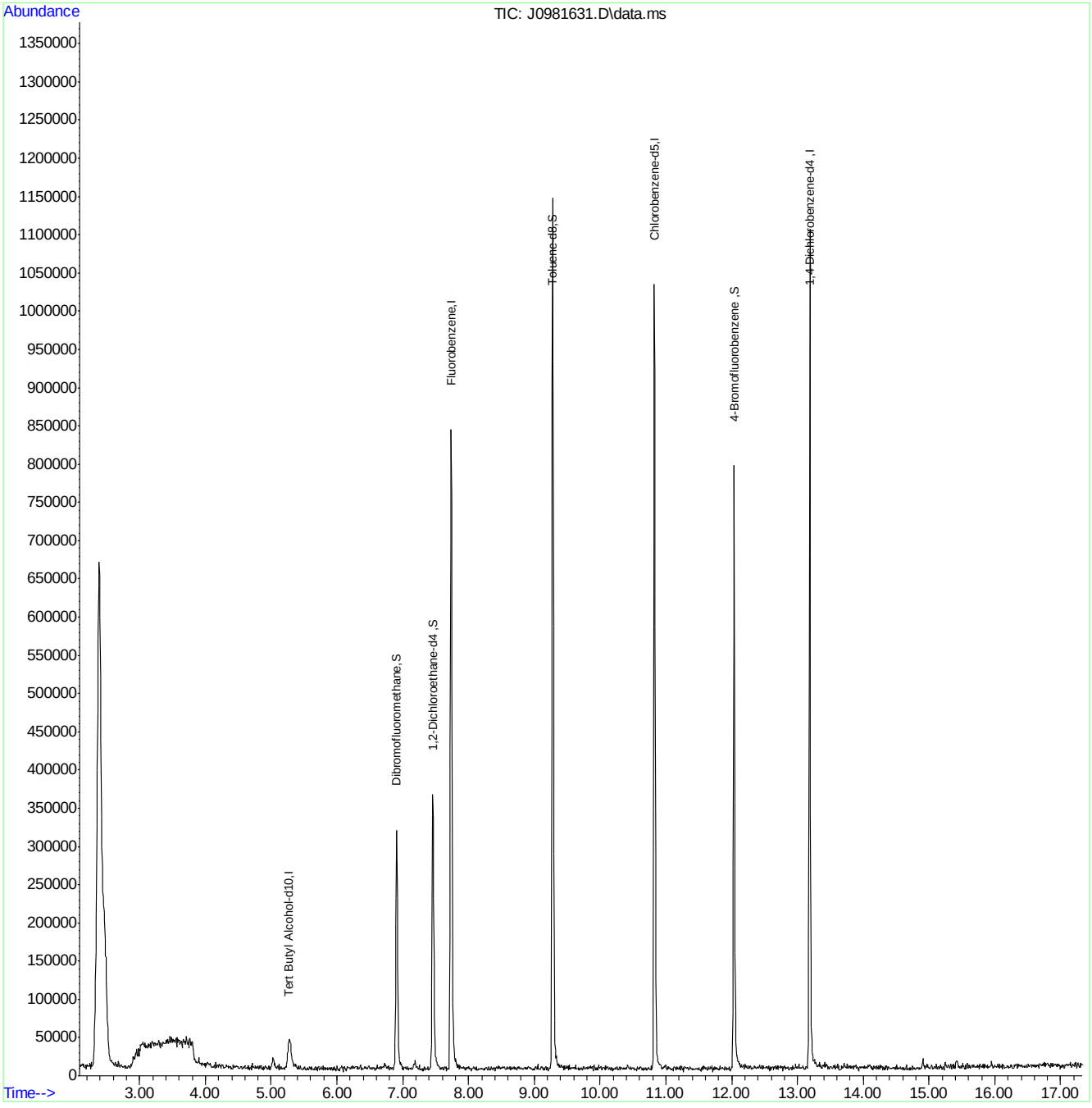
7

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981631.D
Acq On : 19 Dec 2016 10:45 am
Operator : darshnap
Sample : mb ma Inst : MSVOA6
Misc : MS35813,vj55189,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 19 14:19:25 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration



MSJ121416.M Tue Dec 20 10:46:46 2016 Page: 2

Manual Integrations APPROVED (compounds with "m" flag)
Juan Garcia
12/19/16 13:01

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981568.D
Acq On : 16 Dec 2016 9:48 am
Operator : darshnap
Sample : bs Inst : MSVOA6
Misc : MS35805,vj5515,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 16 10:08:02 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.734	96	1162011	50.00	ug/L	0.00
56) Chlorobenzene-d5	10.824	117	909493	50.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	13.186	152	537465	50.00	ug/L	0.00
106) Tert Butyl Alcohol-d10	5.278	65	142024	250.00	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	6.905	113	316426	50.48	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 100.96%			
46) 1,2-Dichloroethane-d4	7.458	65	366701	48.62	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 97.24%			
57) Toluene-d8	9.279	98	1107047	50.07	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 100.14%			
79) 4-Bromofluorobenzene	12.035	95	410451	47.90	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 95.80%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.651	85	301250	25.16	ug/L	100
3) Chloromethane	2.869	50	405727	23.82	ug/L	95
4) Vinyl Chloride	3.010	62	394631	28.50	ug/L	98
5) 1,3-Butadiene	2.992	54	6518	0.47	ug/L	81
6) Bromomethane	3.427	94	232352	26.21	ug/L	98
7) Chloroethane	3.580	64	192225	26.13	ug/L	91
8) Trichlorofluoromethane	3.791	101	551017	26.33	ug/L	97
9) Ethyl Ether	4.097	59	288407	27.96	ug/L	89
10) 1,2-Dichlorotrifluoroe...	4.326	67	416152	32.48	ug/L	89
11) 1,1-Dichloroethene	4.373	61	493472	31.65	ug/L	97
12) Freon 113	4.438	101	304325	27.99	ug/L	96
13) Carbon Disulfide	4.449	76	952631	29.19	ug/L	97
14) Iodomethane	4.561	142	530167	28.86	ug/L	97
15) Allyl chloride	4.902	41	447118	26.02	ug/L	98
16) Methylene Chloride	5.019	49	522498	27.82	ug/L	93
17) Acetone	5.049	58	130801	136.76	ug/L	96
18) Methyl acetate	5.166	74	232935	148.68	ug/L #	71
19) trans-1,2-Dichloroethene	5.201	61	489579	33.85	ug/L	97
20) Hexane	5.272	56	342508	29.75	ug/L	94
21) Methyl Tert Butyl Ether	5.313	73	854220	28.90	ug/L	93
22) Acetonitrile	5.566	40	175476	218.77	ug/L	94
23) Di-isopropyl ether	5.689	45	1102560	26.95	ug/L	98
24) Chloroprene	5.848	53	445897	25.06	ug/L	97
25) 1,1-Dichloroethane	5.871	63	598971	30.34	ug/L	99
26) Acrylonitrile	5.901	53	479995	108.27	ug/L	99
27) ETBE	6.089	59	958052	27.21	ug/L	95
28) Vinyl acetate	6.083	43	2713827	96.25	ug/L	98
29) cis-1,2-Dichloroethene	6.453	96	347083	29.18	ug/L	89
30) 2,2-Dichloropropane	6.576	77	445005	30.95	ug/L	91
31) Bromochloromethane	6.664	128	170290	27.67	ug/L #	81
32) Cyclohexane	6.706	56	574206	30.42	ug/L	94
33) Chloroform	6.711	83	574508	28.19	ug/L	98
34) Ethyl acetate	6.782	43	1030892	97.75	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981568.D
Acq On : 16 Dec 2016 9:48 am
Operator : darshnap
Sample : bs Inst : MSVOA6
Misc : MS35805,vj5515,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 16 10:08:02 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
35) Tetrahydrofuran	6.899	42	72589	22.87 ug/L	89
37) Carbon Tetrachloride	6.905	117	444176m	30.90 ug/L	
38) 1,1,1-Trichloroethane	6.964	97	456874	27.42 ug/L	99
39) 2-Butanone	6.999	43	522233	115.31 ug/L	96
40) 1,1-Dichloropropene	7.082	75	394001	29.01 ug/L	96
41) tert-Butyl Formate	7.164	59	1337481	155.12 ug/L	98
42) Propionitrile	7.305	54	388470	248.69 ug/L	88
43) Methacrylonitrile	7.334	41	1489803	211.01 ug/L	97
44) Benzene	7.334	78	1224895	28.80 ug/L	85
45) TAME	7.411	73	792064	27.05 ug/L	99
47) 1,2-Dichloroethane	7.522	62	422666	27.62 ug/L	93
48) Trichloroethene	7.910	95	309900	29.40 ug/L	89
49) Methylcyclohexane	7.934	83	558440	30.41 ug/L	94
50) Dibromomethane	8.339	93	180508	26.63 ug/L	98
51) 1,2-Dichloropropane	8.427	63	294941	25.75 ug/L	97
52) Bromodichloromethane	8.474	83	365596	26.44 ug/L	92
53) Methyl methacrylate	8.568	41	190704	21.81 ug/L	94
54) 2-Chloroethyl vinyl ether	8.985	63	886795	125.49 ug/L	95
55) cis-1,3-Dichloropropene	9.091	75	469094	28.41 ug/L	95
58) Toluene	9.332	91	1288956	29.43 ug/L	96
59) 2-Nitropropane	9.532	41	323281	129.53 ug/L	98
60) 4-Methyl-2-pentanone	9.649	43	1234759	120.18 ug/L	97
61) trans-1,3-Dichloropropene	9.714	75	433904	30.56 ug/L	96
62) Tetrachloroethene	9.731	166	407369	33.63 ug/L	96
63) Ethyl methacrylate	9.820	69	310665	24.87 ug/L	90
64) 1,1,2-Trichloroethane	9.878	83	237412	27.39 ug/L	97
65) Dibromochloromethane	10.078	129	316360	30.47 ug/L	96
66) 1,3-Dichloropropane	10.160	76	455723	26.98 ug/L	99
67) 1,2-Dibromoethane	10.343	107	289224	28.45 ug/L	91
68) 2-hexanone	10.466	43	871942	120.76 ug/L	95
69) 1-Chlorohexane	10.771	91	432436	30.14 ug/L	91
70) Ethylbenzene	10.842	91	1406968	28.40 ug/L	99
71) Chlorobenzene	10.842	112	886055	28.64 ug/L	93
72) 1,1,1,2-Tetrachloroethane	10.895	131	331592	30.11 ug/L	96
73) m,p-Xylene	10.977	91	2156335	56.24 ug/L	97
74) o-Xylene	11.418	91	1135171	28.49 ug/L	98
75) Styrene	11.465	104	907433	29.05 ug/L	98
76) Bromoform	11.529	173	206356	30.66 ug/L	97
77) Isopropylbenzene	11.723	105	1447482	28.92 ug/L	99
80) cis-1,4-Dichloro-2-butene	12.064	53	84551	26.64 ug/L	88
81) n-Propylbenzene	12.140	91	1708780	30.41 ug/L	96
82) Bromobenzene	12.164	156	398498	28.05 ug/L	97
83) 1,1,2,2-Tetrachloroethane	12.199	83	356727	24.76 ug/L	99
84) 1,3,5-Trimethylbenzene	12.323	105	1268503	30.09 ug/L	99
85) 2-Chlorotoluene	12.328	91	1159356	28.36 ug/L	99
86) trans-1,4-Dichloro-2-B...	12.381	53	94586	26.45 ug/L	86
87) 1,2,3-Trichloropropane	12.364	110	107072	27.53 ug/L	82
88) Cyclohexanone	12.428	55	47030	88.67 ug/L	88
89) 4-Chlorotoluene	12.499	91	1016622	27.71 ug/L	98
91) tert-Butylbenzene	12.663	91	701064	29.70 ug/L	97

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981568.D
Acq On : 16 Dec 2016 9:48 am
Operator : darshnap
Sample : bs Inst : MSVOA6
Misc : MS35805,vj5515,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 16 10:08:02 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
92) 1,2,4-Trimethylbenzene	12.734	105	1255612	29.01 ug/L	97
93) Pentachloroethane	12.716	167	216097	25.19 ug/L	96
94) sec-Butylbenzene	12.846	105	1681001	31.44 ug/L	98
95) 4-Isopropyltoluene	12.981	119	1389096	28.49 ug/L	94
96) 1,3-Dichlorobenzene	13.116	146	788577	29.17 ug/L	95
97) 1,4-Dichlorobenzene	13.198	146	754750	26.40 ug/L	96
98) n-Butylbenzene	13.415	92	785510	27.33 ug/L	97
99) Benzyl Chloride	13.427	126	130894	26.62 ug/L #	86
100) 1,2-Dichlorobenzene	13.627	146	726649	27.27 ug/L	98
101) 1,2-Dibromo-3-Chloropr...	14.361	75	51982	23.93 ug/L	96
102) Hexachlorobutadiene	14.908	225	335991	32.59 ug/L	98
103) 1,2,4-Trichlorobenzene	14.955	180	567813	27.44 ug/L	98
104) Naphthalene	15.237	128	1071734	27.53 ug/L	100
105) 1,2,3-Trichlorobenzene	15.407	180	530040	28.57 ug/L	96
107) Ethanol	4.285	45	62245	413.28 ug/L	98
108) acrolein	4.737	56	232613	105.58 ug/L	93
109) Tert Butyl Alcohol	5.360	59	329288	314.91 ug/L	97
110) tert Amyl alcohol	7.546	59	196013	212.70 ug/L	94
111) Isobutyl alcohol	7.428	42	173154	404.90 ug/L	95
112) 1,4-Dioxane	8.650	88	54748	438.72 ug/L	87
113) 3,3-Dimethyl-1-butanol	10.413	57	1120417	979.25 ug/L	95

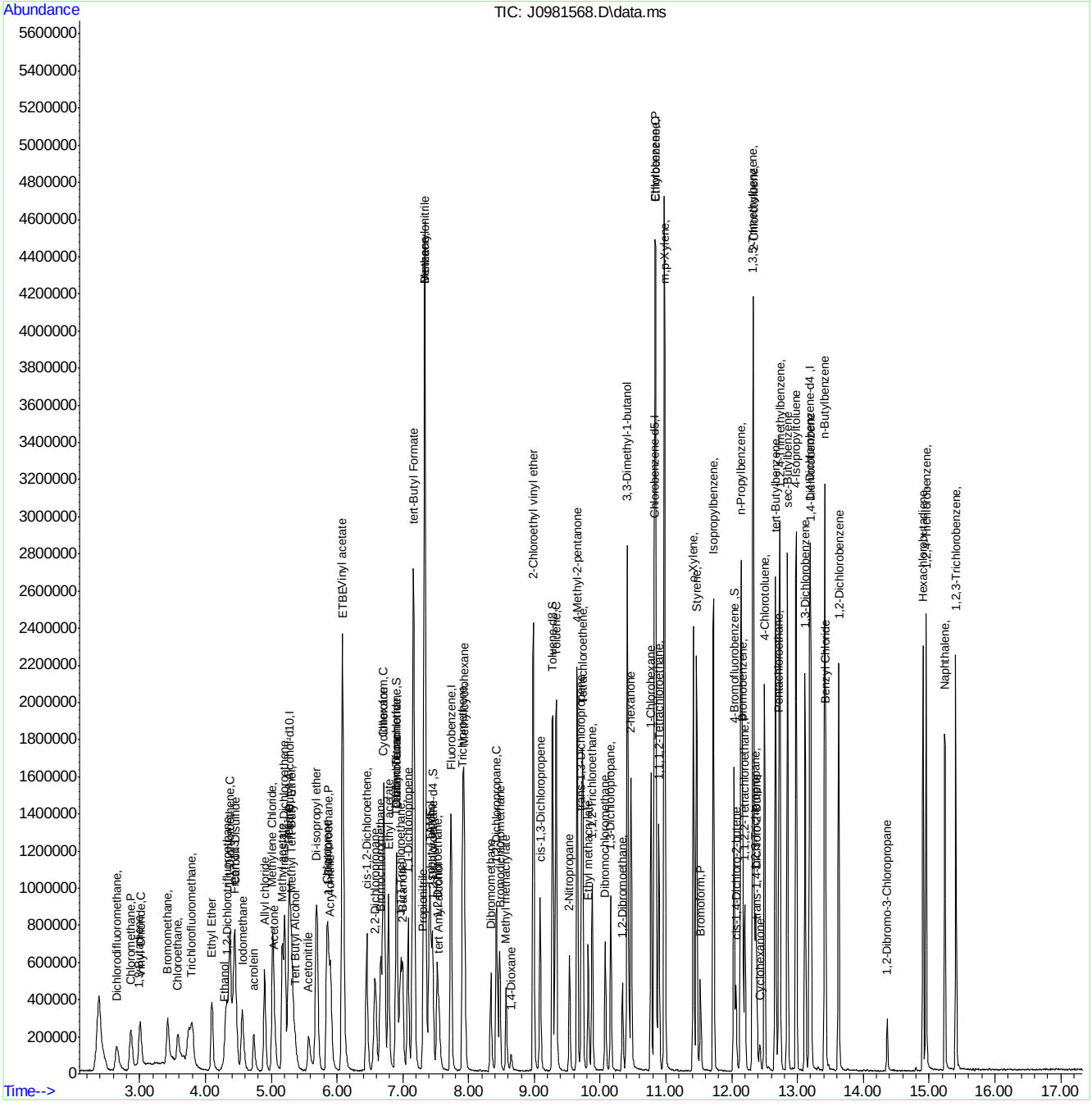
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981568.D
Acq On : 16 Dec 2016 9:48 am
Operator : darshnap
Sample : bs Inst : MSVOA6
Misc : MS35805,vj5515,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 16 10:08:02 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration



SGS ACCUTEST FA39345

Manual Integration Approval Summary

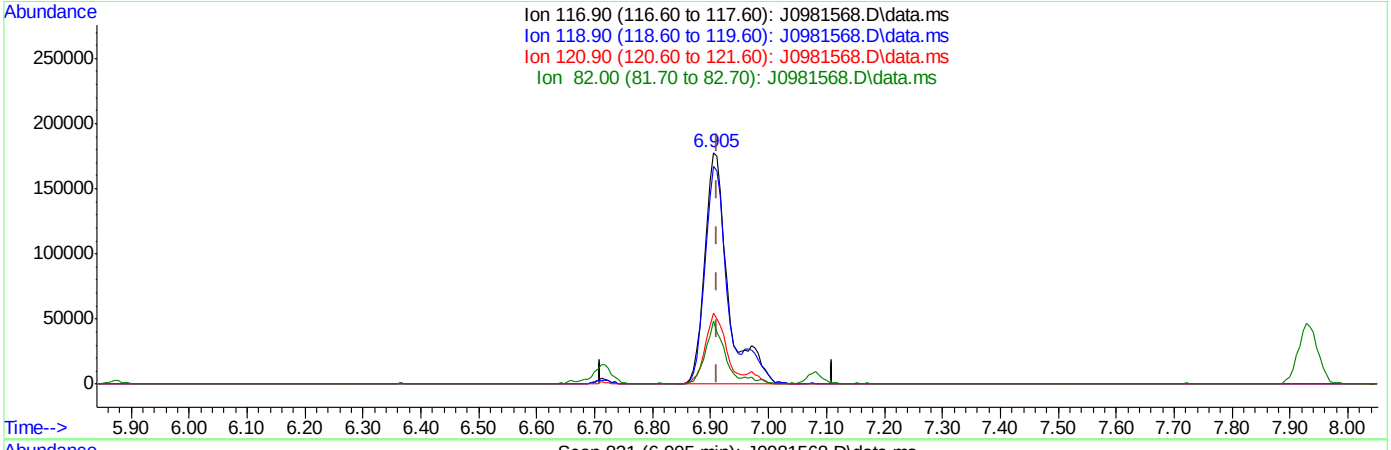
Sample Number:	VJ5516-BS	**Method:**	SW846 8260C
Lab FileID:	J0981568.D	**Analyst approved:**	12/19/16 11:34 Darshna Patel
Injection Time:	12/16/16 09:48	**Supervisor approved:**	12/19/16 13:01 Juan Garcia

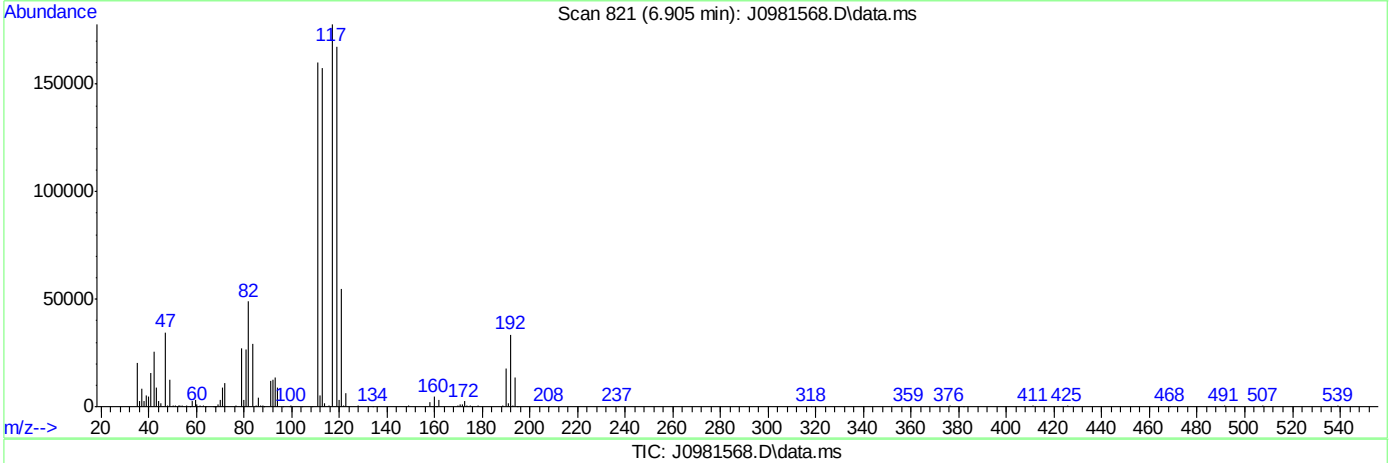
Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		6.91	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981568.D
Acq On : 16 Dec 2016 9:48 am
Operator : darshnap
Sample : bs Inst : MSVOA6
Misc : MS35805,vj5515,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 16 10:06:56 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981568.D\data.ms

(37) Carbon Tetrachloride ( )

6.905min (-0.006) 35.22ug/L

response 506419

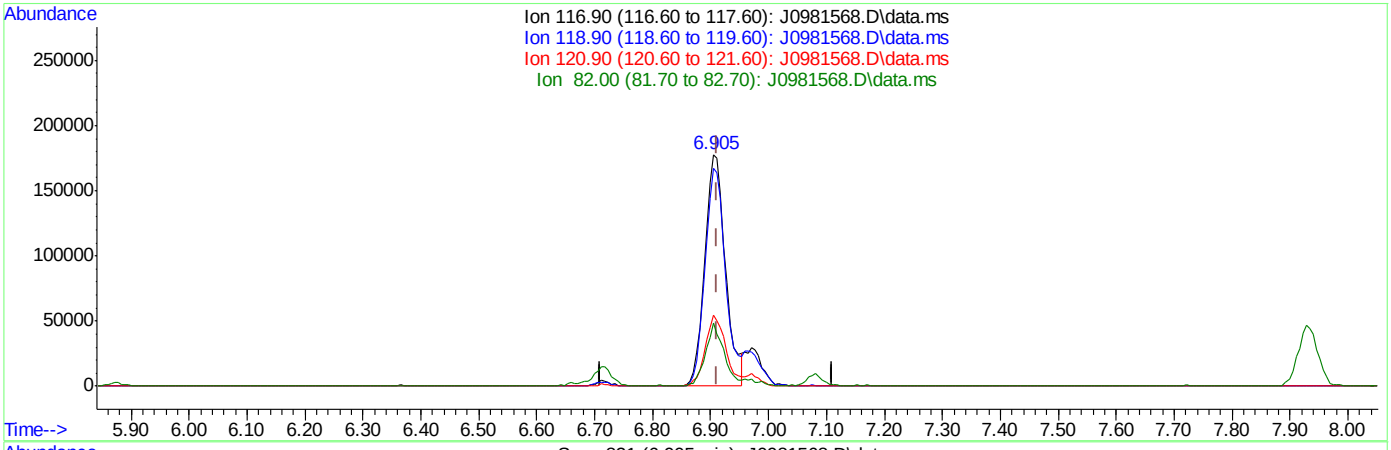
Ion	Exp%	Act%
116.90	100	100
118.90	96.60	94.28
120.90	30.20	30.74
82.00	25.90	27.52

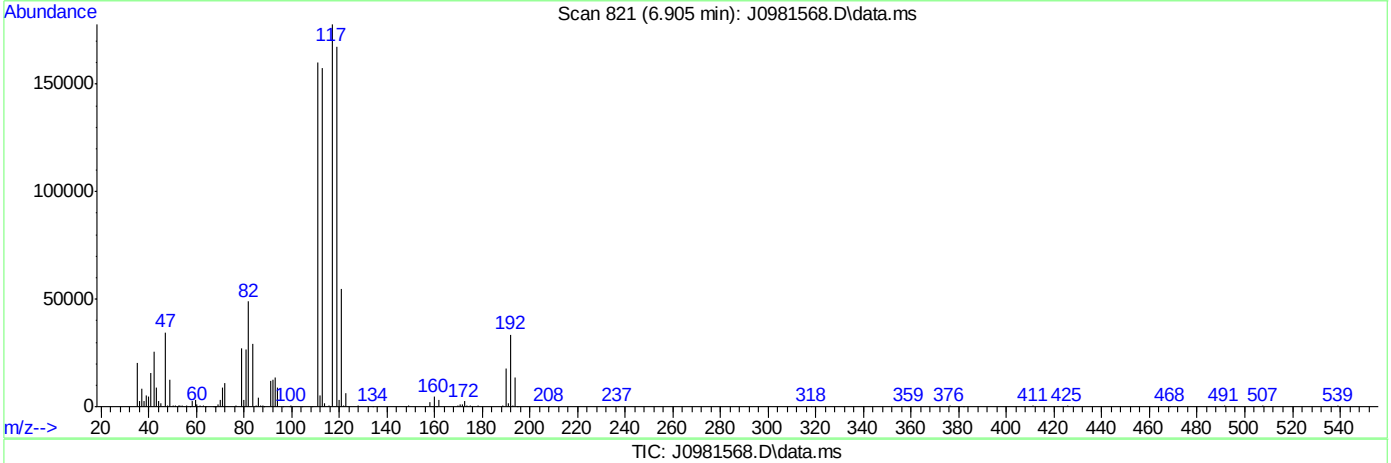
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981568.D
Acq On : 16 Dec 2016 9:48 am
Operator : darshnap
Sample : bs Inst : MSVOA6
Misc : MS35805,vj5515,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 16 10:06:56 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981568.D\data.ms

(37) Carbon Tetrachloride ( )

6.905min (-0.006) 30.90ug/L m

response 444176

Ion	Exp%	Act%
116.90	100	100
118.90	96.60	94.28
120.90	30.20	30.74
82.00	25.90	27.52

SGS ACCUTEST FA39345

Manual Integrations APPROVED (compounds with "m" flag)
Juan Garcia
12/20/16 12:39

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981630.D
Acq On : 19 Dec 2016 10:22 am
Operator : darshnap
Sample : bs ma Inst : MSVOA6
Misc : MS35813,vj5519,,,,,
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 19 10:56:56 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.734	96	745246	50.00	ug/L	0.00
56) Chlorobenzene-d5	10.824	117	583223	50.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	13.186	152	322852	50.00	ug/L	0.00
106) Tert Butyl Alcohol-d10	5.272	65	78151	250.00	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	6.905	113	207810	51.69	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 103.38%			
46) 1,2-Dichloroethane-d4	7.458	65	244444	50.53	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 101.06%			
57) Toluene-d8	9.279	98	699349	49.33	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 98.66%			
79) 4-Bromofluorobenzene	12.035	95	255802	49.70	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 99.40%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.669	85	204582	26.65	ug/L	99
3) Chloromethane	2.869	50	281293	25.76	ug/L	95
4) Vinyl Chloride	3.010	62	265270	29.89	ug/L	93
6) Bromomethane	3.433	94	163735	28.89	ug/L	93
7) Chloroethane	3.586	64	139874	30.21	ug/L	94
8) Trichlorofluoromethane	3.797	101	406159	30.26	ug/L	96
9) Ethyl Ether	4.097	59	187949	28.41	ug/L	86
10) 1,2-Dichlorotrifluoroe...	4.332	67	262850	31.99	ug/L	94
11) 1,1-Dichloroethene	4.379	61	320731	32.07	ug/L	95
12) Freon 113	4.426	101	209857	30.20	ug/L	86
13) Carbon Disulfide	4.455	76	647674	30.95	ug/L	98
14) Iodomethane	4.567	142	343739	29.17	ug/L	98
15) Allyl chloride	4.902	41	337421	30.62	ug/L	98
16) Methylene Chloride	5.025	49	344008	28.61	ug/L	94
17) Acetone	5.049	58	79524	129.63	ug/L #	82
18) Methyl acetate	5.166	74	136303	135.65	ug/L	99
19) trans-1,2-Dichloroethene	5.207	61	324830	35.02	ug/L	92
20) Hexane	5.278	56	235800	32.08	ug/L	94
21) Methyl Tert Butyl Ether	5.307	73	550232	29.03	ug/L	93
22) Acetonitrile	5.572	40	123237	239.57	ug/L	97
23) Di-isopropyl ether	5.695	45	700178	26.68	ug/L	95
24) Chloroprene	5.848	53	306148	26.84	ug/L	96
25) 1,1-Dichloroethane	5.871	63	389446	30.76	ug/L	100
26) Acrylonitrile	5.901	53	348198	122.47	ug/L	97
27) ETBE	6.094	59	614672	27.22	ug/L	97
28) Vinyl acetate	6.083	43	2139752	120.52	ug/L	99
29) cis-1,2-Dichloroethene	6.453	96	211708	27.76	ug/L	91
30) 2,2-Dichloropropane	6.582	77	303891	32.95	ug/L	98
31) Bromochloromethane	6.664	128	104556	26.49	ug/L	89
32) Cyclohexane	6.711	56	398343	32.90	ug/L	96
33) Chloroform	6.711	83	372544	28.50	ug/L	96
34) Ethyl acetate	6.782	43	824315	121.87	ug/L	99
35) Tetrahydrofuran	6.894	42	54680	26.86	ug/L	88

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981630.D
Acq On : 19 Dec 2016 10:22 am
Operator : darshnap
Sample : bs ma Inst : MSVOA6
Misc : MS35813,vj5519,,,,,
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 19 10:56:56 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37)	Carbon Tetrachloride	6.911	117	313571m	34.01	ug/L		
38)	1,1,1-Trichloroethane	6.970	97	313965	29.38	ug/L		95
39)	2-Butanone	6.999	43	375812	129.38	ug/L		98
40)	1,1-Dichloropropene	7.082	75	258878	29.72	ug/L		95
41)	tert-Butyl Formate	7.164	59	805963	145.75	ug/L		97
42)	Propionitrile	7.305	54	267350	266.87	ug/L		88
43)	Methacrylonitrile	7.334	41	1118503	250.14	ug/L		99
44)	Benzene	7.334	78	788911	28.92	ug/L		92
45)	TAME	7.411	73	507217	27.01	ug/L		93
47)	1,2-Dichloroethane	7.522	62	275404	28.06	ug/L		98
48)	Trichloroethene	7.910	95	203494	30.10	ug/L		96
49)	Methylcyclohexane	7.934	83	375330	31.87	ug/L		97
50)	Dibromomethane	8.339	93	118974	27.36	ug/L		91
51)	1,2-Dichloropropane	8.427	63	193728	26.37	ug/L		93
52)	Bromodichloromethane	8.468	83	245207	27.65	ug/L		98
53)	Methyl methacrylate	8.568	41	137699	24.48	ug/L		98
54)	2-Chloroethyl vinyl ether	8.985	63	602278	132.92	ug/L		96
55)	cis-1,3-Dichloropropene	9.085	75	302618	28.57	ug/L		96
58)	Toluene	9.332	91	806700	28.70	ug/L		97
59)	2-Nitropropane	9.532	41	230689	144.14	ug/L		94
60)	4-Methyl-2-pentanone	9.649	43	922022	139.94	ug/L		98
61)	trans-1,3-Dichloropropene	9.714	75	292168	32.03	ug/L		97
62)	Tetrachloroethene	9.737	166	229485	29.54	ug/L		98
63)	Ethyl methacrylate	9.820	69	205530	25.62	ug/L		99
64)	1,1,2-Trichloroethane	9.878	83	150195	27.02	ug/L		95
65)	Dibromochloromethane	10.078	129	190167	28.56	ug/L		93
66)	1,3-Dichloropropane	10.160	76	282373	26.07	ug/L		91
67)	1,2-Dibromoethane	10.342	107	176830	27.12	ug/L		90
68)	2-hexanone	10.466	43	648492	140.06	ug/L		98
69)	1-Chlorohexane	10.777	91	271703	29.54	ug/L		98
70)	Ethylbenzene	10.842	91	932765	29.41	ug/L		98
71)	Chlorobenzene	10.842	112	563771	28.41	ug/L		98
72)	1,1,1,2-Tetrachloroethane	10.895	131	217168	30.76	ug/L		98
73)	m,p-Xylene	10.977	91	1453400	59.42	ug/L		97
74)	o-Xylene	11.418	91	700544	27.39	ug/L		95
75)	Styrene	11.465	104	575647	28.74	ug/L		95
76)	Bromoform	11.529	173	123861	28.82	ug/L		94
77)	Isopropylbenzene	11.723	105	919385	28.63	ug/L		99
80)	cis-1,4-Dichloro-2-butene	12.070	53	65250	33.74	ug/L		92
81)	n-Propylbenzene	12.140	91	1106949	32.80	ug/L		99
82)	Bromobenzene	12.164	156	252889	29.62	ug/L		90
83)	1,1,2,2-Tetrachloroethane	12.199	83	220336	25.46	ug/L		85
84)	1,3,5-Trimethylbenzene	12.323	105	803446	31.73	ug/L		98
85)	2-Chlorotoluene	12.328	91	756279	30.80	ug/L		96
86)	trans-1,4-Dichloro-2-B...	12.381	53	61534	28.53	ug/L	#	87
87)	1,2,3-Trichloropropane	12.364	110	67151	28.75	ug/L		90
88)	Cyclohexanone	12.428	55	33135	103.56	ug/L		94
89)	4-Chlorotoluene	12.499	91	691708	31.38	ug/L		94
90)	a-Methyl Styrene	12.657	118	3790	0.25	ug/L	#	1
91)	tert-Butylbenzene	12.663	91	466306	32.88	ug/L		95

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981630.D
Acq On : 19 Dec 2016 10:22 am
Operator : darshnap
Sample : bs ma Inst : MSVOA6
Misc : MS35813,vj5519,,,,,
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 19 10:56:56 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 1,2,4-Trimethylbenzene	12.734	105	823855	31.69	ug/L	97
93) Pentachloroethane	12.716	167	158822	30.82	ug/L	93
94) sec-Butylbenzene	12.845	105	1099481	34.24	ug/L	97
95) 4-Isopropyltoluene	12.981	119	905582	31.03	ug/L	99
96) 1,3-Dichlorobenzene	13.116	146	471027	29.01	ug/L	96
97) 1,4-Dichlorobenzene	13.198	146	469909	27.36	ug/L	97
98) n-Butylbenzene	13.410	92	505448	29.30	ug/L	95
99) Benzyl Chloride	13.427	126	77785	26.36	ug/L	97
100) 1,2-Dichlorobenzene	13.627	146	442988	27.68	ug/L	97
101) 1,2-Dibromo-3-Chloropr...	14.361	75	35876	27.30	ug/L	90
102) Hexachlorobutadiene	14.908	225	182992	29.65	ug/L	93
103) 1,2,4-Trichlorobenzene	14.955	180	333253	26.81	ug/L	97
104) Naphthalene	15.237	128	630840	26.97	ug/L	97
105) 1,2,3-Trichlorobenzene	15.407	180	312183	28.01	ug/L	95
107) Ethanol	4.267	45	42205m	516.09	ug/L	
108) acrolein	4.737	56	148994	122.90	ug/L	90
109) Tert Butyl Alcohol	5.360	59	197035	342.04	ug/L	90
110) tert Amyl alcohol	7.552	59	112616	222.08	ug/L	96
111) Isobutyl alcohol	7.434	42	130422	554.23	ug/L #	82
112) 1,4-Dioxane	8.650	88	32726	477.41	ug/L	94
113) 3,3-Dimethyl-1-butanol	10.413	57	714366	1138.70	ug/L	96

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

7.3.2

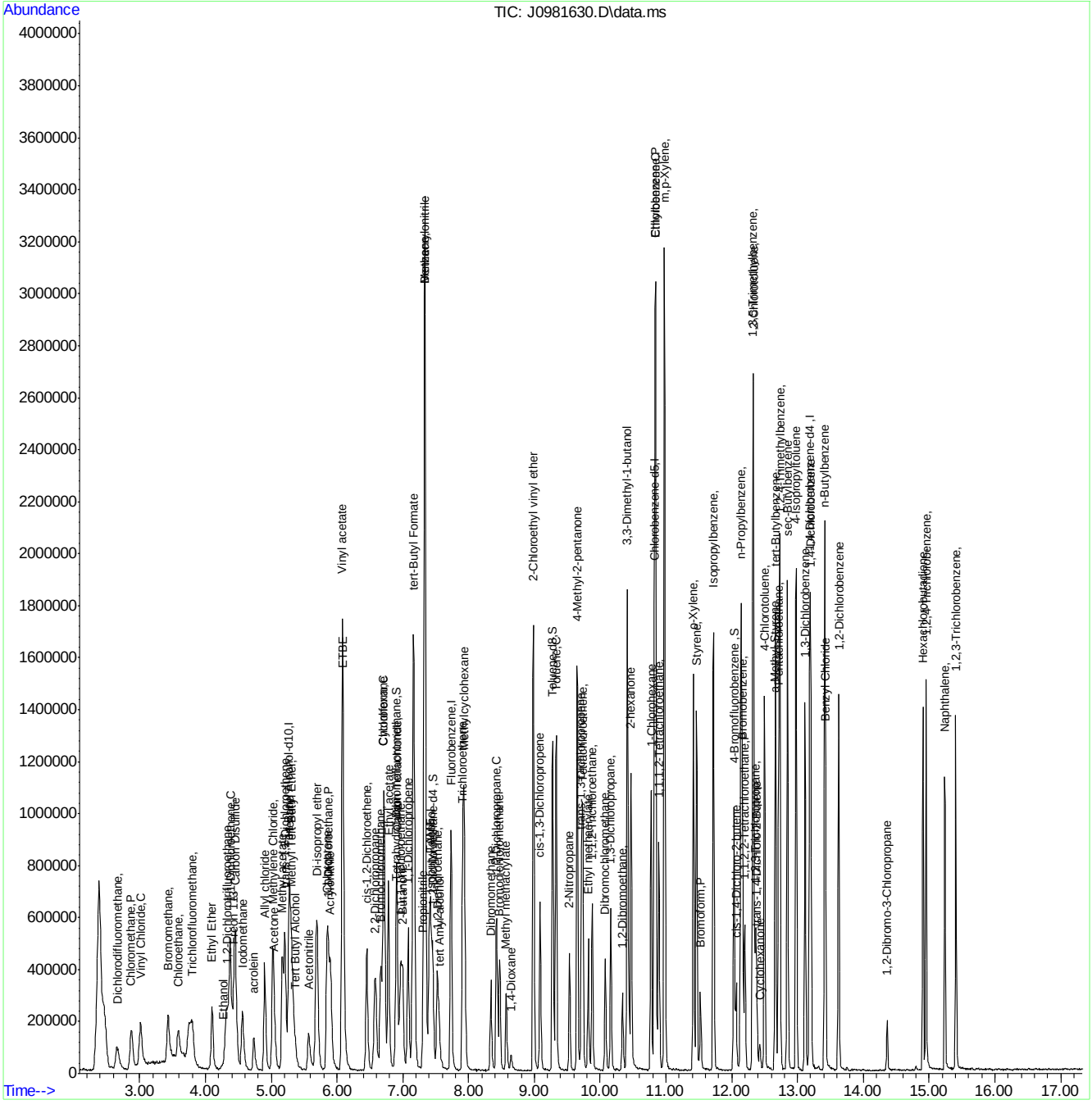
7

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981630.D
Acq On : 19 Dec 2016 10:22 am
Operator : darshnap
Sample : bs ma Inst : MSVOA6
Misc : MS35813,vj5519,,,,,
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 19 10:56:56 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration



SGS ACCUTEST FA39345

Manual Integration Approval Summary

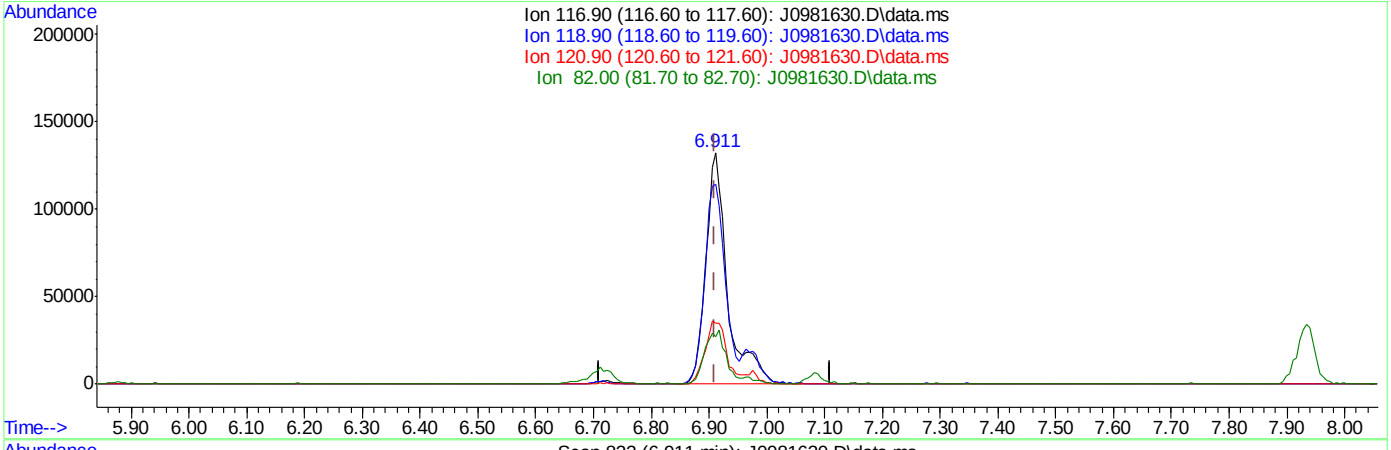
Sample Number:	VJ5519-BS	**Method:**	SW846 8260C
Lab FileID:	J0981630.D	**Analyst approved:**	12/20/16 12:03 Darshna Patel
Injection Time:	12/19/16 10:22	**Supervisor approved:**	12/20/16 12:39 Juan Garcia

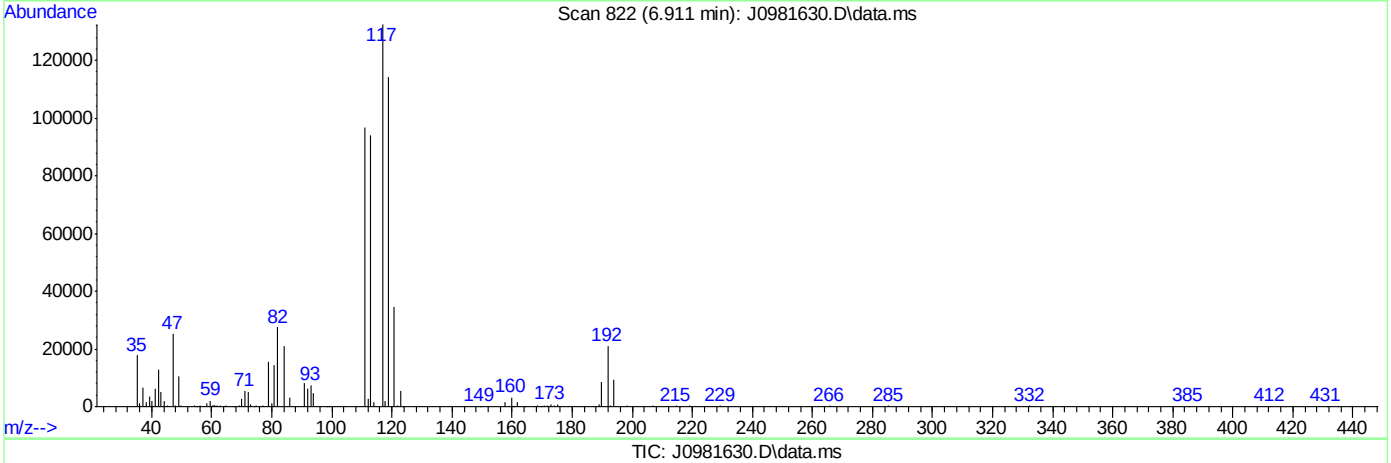
Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Alcohol	64-17-5		4.27	Poor instrument integration
Carbon Tetrachloride	56-23-5		6.91	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981630.D
Acq On : 19 Dec 2016 10:22 am
Operator : darshnap
Sample : bs Inst : MSVOA6
Misc : MS35831,vj5518,,,,,
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 19 10:56:28 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981630.D\data.ms

(37) Carbon Tetrachloride ( )

6.911min (+0.000) 37.94ug/L

response 349808

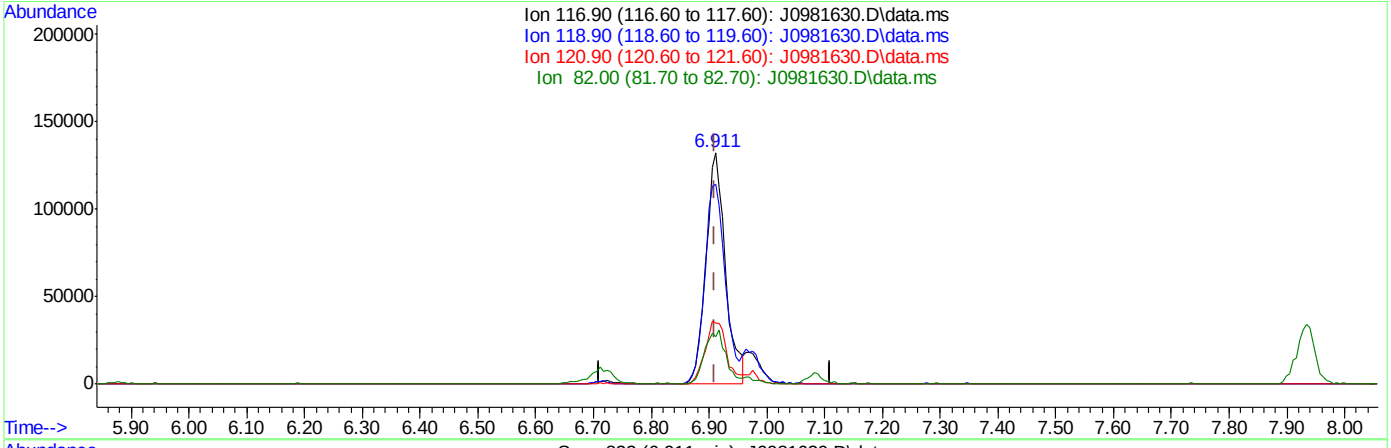
Ion	Exp%	Act%
116.90	100	100
118.90	96.60	86.27
120.90	30.20	26.18
82.00	25.90	20.49

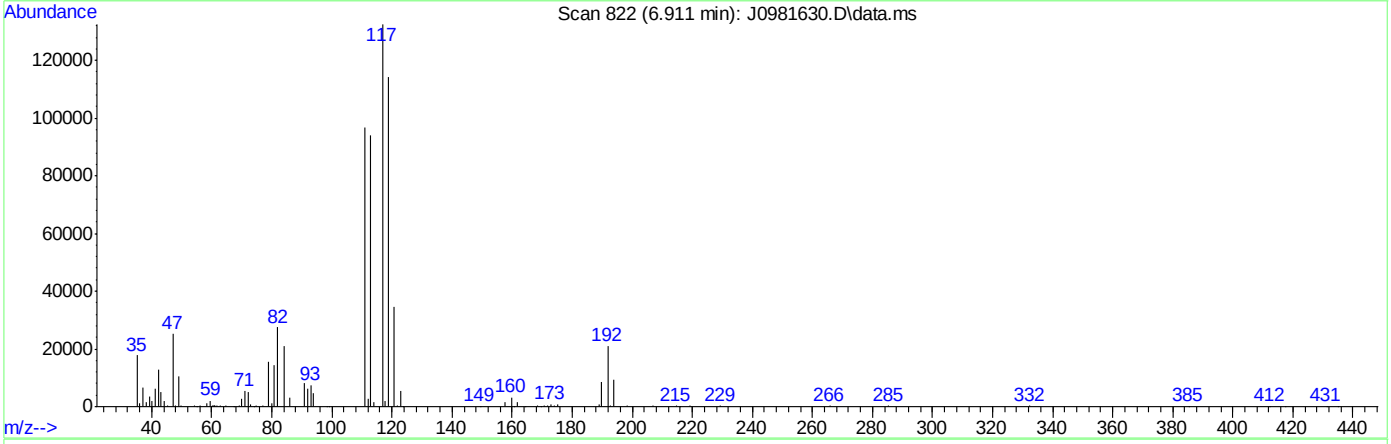
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981630.D
Acq On : 19 Dec 2016 10:22 am
Operator : darshnap
Sample : bs Inst : MSVOA6
Misc : MS35831,vj5518,,,,,
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 19 10:56:28 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981630.D\data.ms

(37) Carbon Tetrachloride ( )

6.911min (+0.000) 34.01ug/L m

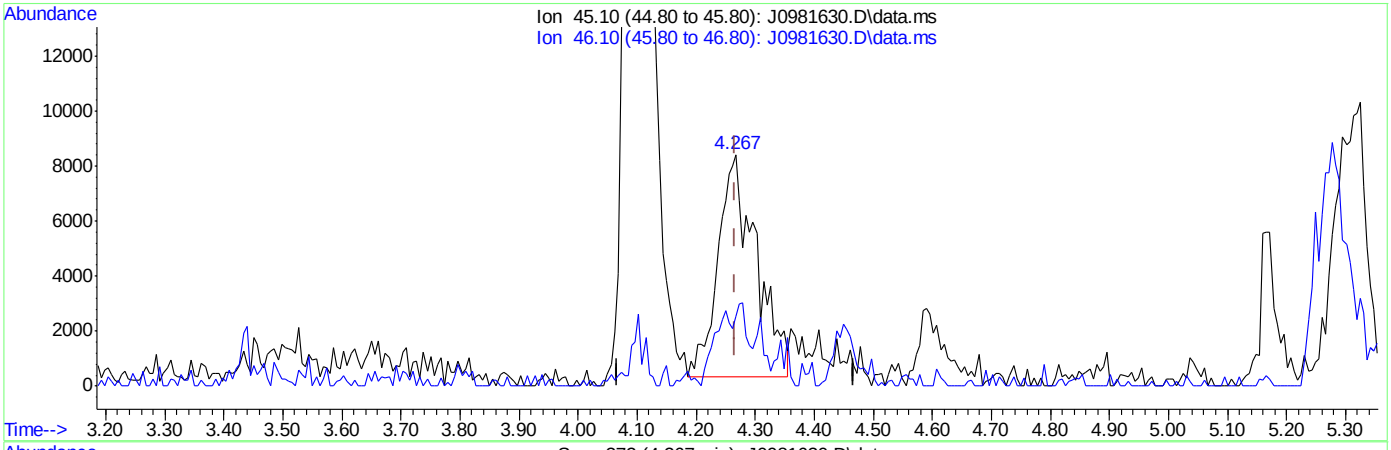
response 313571

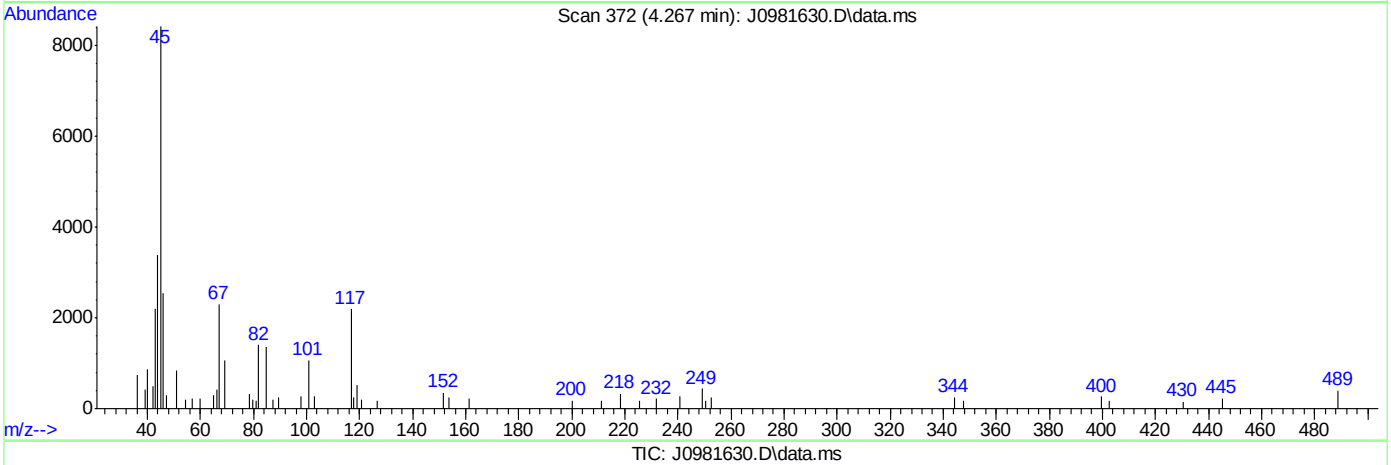
Ion	Exp%	Act%
116.90	100	100
118.90	96.60	86.27
120.90	30.20	26.18
82.00	25.90	20.71

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981630.D
Acq On : 19 Dec 2016 10:22 am
Operator : darshnap
Sample : bs Inst : MSVOA6
Misc : MS35831,vj5518,,,,,
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 19 10:56:28 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981630.D\data.ms

(107) Ethanol

4.267min (+0.000) 439.29ug/L

response 36285

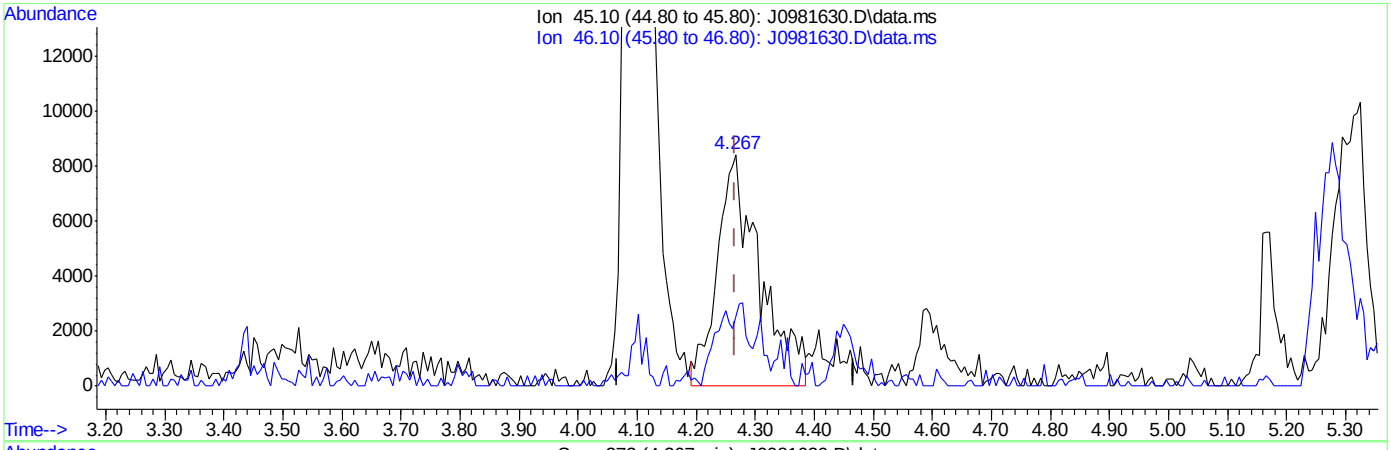
Ion	Exp%	Act%
45.10	100	100
46.10	28.70	24.44
0.00	0.00	0.00
0.00	0.00	0.00

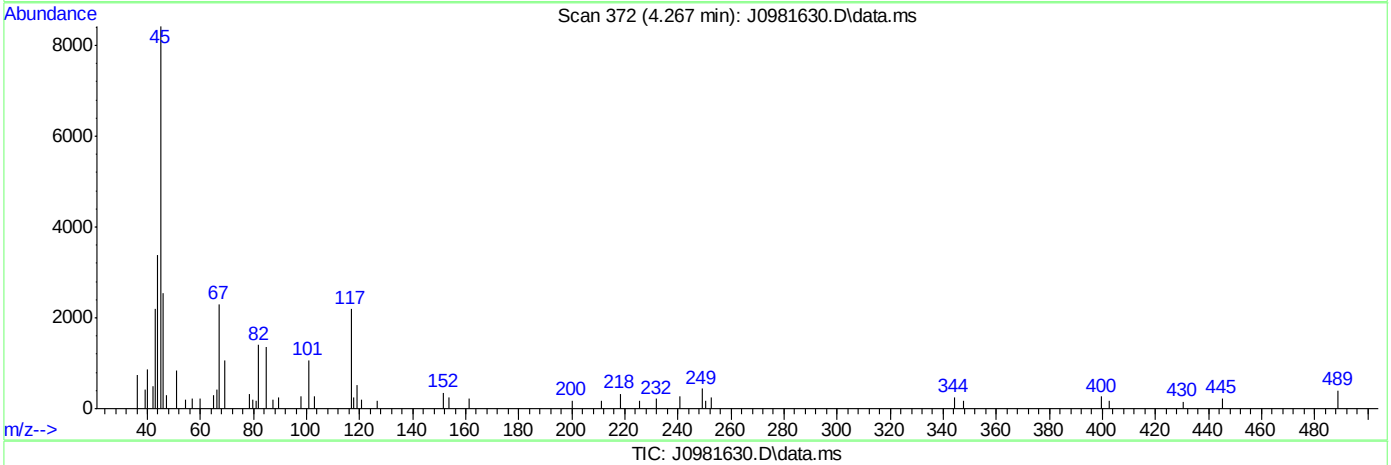
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981630.D
Acq On : 19 Dec 2016 10:22 am
Operator : darshnap
Sample : bs Inst : MSVOA6
Misc : MS35831,vj5518,,,,,
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 19 10:56:28 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981630.D\data.ms

(107) Ethanol

4.267min (+0.000) 516.09ug/L m

response 42205

Ion	Exp%	Act%
45.10	100	100
46.10	28.70	30.17
0.00	0.00	0.00
0.00	0.00	0.00

SGS ACCUTEST FA39345

Manual Integrations APPROVED (compounds with "m" flag)
Juan Garcia
12/20/16 12:54

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981590.D
Acq On : 16 Dec 2016 6:48 pm
Operator : darshnap
Sample : fa39345-1ms ma Inst : MSVOA6
Misc : MS35802,vj5516,,,,,
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 17 10:16:10 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.734	96	630984	50.00	ug/L	0.00
56) Chlorobenzene-d5	10.824	117	519665	50.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	13.186	152	294245	50.00	ug/L	0.00
106) Tert Butyl Alcohol-d10	5.284	65	61161	250.00	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	6.905	113	178107	52.33	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 104.66%			
46) 1,2-Dichloroethane-d4	7.458	65	207964	50.77	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 101.54%			
57) Toluene-d8	9.279	98	583592	46.20	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 92.40%			
79) 4-Bromofluorobenzene	12.035	95	210407	44.85	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 89.70%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.663	85	165025	25.39	ug/L	94
3) Chloromethane	2.869	50	215065	23.25	ug/L	98
4) Vinyl Chloride	3.004	62	195382	25.95	ug/L	99
5) 1,3-Butadiene	3.004	54	13769	1.85	ug/L #	82
6) Bromomethane	3.427	94	132732	27.62	ug/L	96
7) Chloroethane	3.592	64	122713	31.49	ug/L	89
8) Trichlorofluoromethane	3.791	101	355464	31.28	ug/L	99
9) Ethyl Ether	4.109	59	133459	23.82	ug/L	88
10) 1,2-Dichlorotrifluoroe...	4.320	67	200044	28.75	ug/L	93
11) 1,1-Dichloroethene	4.373	61	212335	25.08	ug/L	96
12) Freon 113	4.449	101	152266	25.69	ug/L	92
13) Carbon Disulfide	4.455	76	408608	23.06	ug/L	99
14) Iodomethane	4.561	142	231857	23.24	ug/L	96
15) Allyl chloride	4.908	41	212212	22.74	ug/L	97
16) Methylene Chloride	5.031	49	239283	23.27	ug/L	98
17) Acetone	5.055	58	55464	106.74	ug/L #	76
18) Methyl acetate	5.172	74	98841	116.18	ug/L #	74
19) trans-1,2-Dichloroethene	5.213	61	227687	28.99	ug/L	96
20) Hexane	5.272	56	163105	25.91	ug/L	92
21) Methyl Tert Butyl Ether	5.307	73	362795	22.60	ug/L	96
22) Acetonitrile	5.577	40	88818	203.92	ug/L	88
23) Di-isopropyl ether	5.695	45	468038	21.00	ug/L	89
24) Chloroprene	5.854	53	216118	22.35	ug/L	97
25) 1,1-Dichloroethane	5.877	63	300414	28.03	ug/L	98
26) Acrylonitrile	5.907	53	245169	101.85	ug/L	97
27) ETBE	6.089	59	428096	22.39	ug/L	95
28) Vinyl acetate	6.083	43	1522090	99.67	ug/L	99
29) cis-1,2-Dichloroethene	6.459	96	153318	23.74	ug/L	95
30) 2,2-Dichloropropane	6.588	77	181587	23.25	ug/L	99
31) Bromochloromethane	6.664	128	83844	25.09	ug/L	87
32) Cyclohexane	6.711	56	265594	25.91	ug/L	93
33) Chloroform	6.711	83	292608	26.44	ug/L	93
34) Ethyl acetate	6.782	43	588323	102.73	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981590.D
Acq On : 16 Dec 2016 6:48 pm
Operator : darshnap
Sample : fa39345-1ms ma Inst : MSVOA6
Misc : MS35802,vj5516,,,,,
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 17 10:16:10 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35)	Tetrahydrofuran	6.905	42	34672	20.12	ug/L		86
37)	Carbon Tetrachloride	6.911	117	217471	27.86	ug/L		94
38)	1,1,1-Trichloroethane	6.970	97	227287	25.12	ug/L		92
39)	2-Butanone	6.999	43	277274	112.74	ug/L		94
40)	1,1-Dichloropropene	7.082	75	183483	24.88	ug/L		95
41)	tert-Butyl Formate	7.164	59	82259	17.57	ug/L	#	72
42)	Propionitrile	7.311	54	199472	235.17	ug/L		97
43)	Methacrylonitrile	7.340	41	812355	211.95	ug/L		98
44)	Benzene	7.334	78	620066	26.85	ug/L		90
45)	TAME	7.411	73	345516	21.73	ug/L		91
47)	1,2-Dichloroethane	7.522	62	215183	25.90	ug/L		97
48)	Trichloroethene	7.916	95	156374	27.32	ug/L		93
49)	Methylcyclohexane	7.934	83	268216	26.90	ug/L		99
50)	Dibromomethane	8.339	93	91495	24.85	ug/L		96
51)	1,2-Dichloropropane	8.427	63	146365	23.53	ug/L		90
52)	Bromodichloromethane	8.474	83	175589	23.38	ug/L		89
53)	Methyl methacrylate	8.574	41	85243	18.03	ug/L		91
55)	cis-1,3-Dichloropropene	9.091	75	193061	21.62	ug/L		94
58)	Toluene	9.332	91	630297	25.06	ug/L		92
59)	2-Nitropropane	9.532	41	154521	108.35	ug/L		96
60)	4-Methyl-2-pentanone	9.655	43	662524	112.85	ug/L		98
61)	trans-1,3-Dichloropropene	9.714	75	194598	24.17	ug/L		96
62)	Tetrachloroethene	9.732	166	181127	26.17	ug/L		94
63)	Ethyl methacrylate	9.820	69	133899	18.97	ug/L		97
64)	1,1,2-Trichloroethane	9.878	83	115569	23.34	ug/L		93
65)	Dibromochloromethane	10.078	129	125759	21.20	ug/L		96
66)	1,3-Dichloropropane	10.160	76	218231	22.61	ug/L		96
67)	1,2-Dibromoethane	10.343	107	131336	22.61	ug/L		98
68)	2-hexanone	10.466	43	460340	111.58	ug/L		99
69)	1-Chlorohexane	10.777	91	201951	24.69	ug/L		97
70)	Ethylbenzene	10.842	91	731394	25.73	ug/L		100
71)	Chlorobenzene	10.842	112	470148	26.59	ug/L		95
72)	1,1,1,2-Tetrachloroethane	10.895	131	168649	26.81	ug/L		98
73)	m,p-Xylene	10.977	91	1132771	51.30	ug/L		99
74)	o-Xylene	11.418	91	543484	23.78	ug/L		96
75)	Styrene	11.465	104	440427	24.70	ug/L		97
76)	Bromoform	11.524	173	71713	19.17	ug/L		97
77)	Isopropylbenzene	11.723	105	1904343	70.56	ug/L		98
80)	cis-1,4-Dichloro-2-butene	12.064	53	37327	21.70	ug/L		97
81)	n-Propylbenzene	12.141	91	1170403	38.05	ug/L		97
82)	Bromobenzene	12.164	156	213627	27.47	ug/L		99
83)	1,1,2,2-Tetrachloroethane	12.199	83	187591	23.78	ug/L		96
84)	1,3,5-Trimethylbenzene	12.323	105	633665	27.46	ug/L		96
85)	2-Chlorotoluene	12.329	91	603280	26.96	ug/L		99
86)	trans-1,4-Dichloro-2-B...	12.381	53	41032	21.20	ug/L		91
87)	1,2,3-Trichloropropane	12.364	110	56426	26.50	ug/L		91
88)	Cyclohexanone	12.428	55	19857	68.77	ug/L		82
89)	4-Chlorotoluene	12.499	91	538012	26.78	ug/L		96
90)	a-Methyl Styrene	12.663	118	7659	0.56	ug/L	#	1
91)	tert-Butylbenzene	12.663	91	363844	28.15	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981590.D
Acq On : 16 Dec 2016 6:48 pm
Operator : darshnap
Sample : fa39345-1ms ma Inst : MSVOA6
Misc : MS35802,vj5516,,,,,
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 17 10:16:10 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 1,2,4-Trimethylbenzene	12.734	105	652886	27.56	ug/L	98
93) Pentachloroethane	12.716	167	127570	27.16	ug/L	96
94) sec-Butylbenzene	12.846	105	870991	29.76	ug/L	99
95) 4-Isopropyltoluene	12.981	119	714657	26.70	ug/L	99
96) 1,3-Dichlorobenzene	13.116	146	401712	27.14	ug/L	95
97) 1,4-Dichlorobenzene	13.198	146	400820	25.61	ug/L	99
98) n-Butylbenzene	13.410	92	383186	24.32	ug/L	99
99) Benzyl Chloride	13.427	126	47570	18.09	ug/L #	69
100) 1,2-Dichlorobenzene	13.627	146	374636	25.68	ug/L	97
101) 1,2-Dibromo-3-Chloropr...	14.361	75	26160	22.09	ug/L	85
102) Hexachlorobutadiene	14.908	225	150845	26.89	ug/L	89
103) 1,2,4-Trichlorobenzene	14.955	180	265210	23.42	ug/L	99
104) Naphthalene	15.237	128	515551	24.14	ug/L	99
105) 1,2,3-Trichlorobenzene	15.407	180	250527	24.66	ug/L	98
107) Ethanol	4.267	45	27731m	428.39	ug/L	
108) acrolein	4.737	56	76902	81.05	ug/L	93
109) Tert Butyl Alcohol	5.354	59	171230	379.23	ug/L	84
110) tert Amyl alcohol	7.552	59	73718	185.75	ug/L	83
111) Isobutyl alcohol	7.434	42	94853	515.05	ug/L #	84
112) 1,4-Dioxane	8.650	88	22858	425.10	ug/L	86
113) 3,3-Dimethyl-1-butanol	10.413	57	566605	1154.46	ug/L	97

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

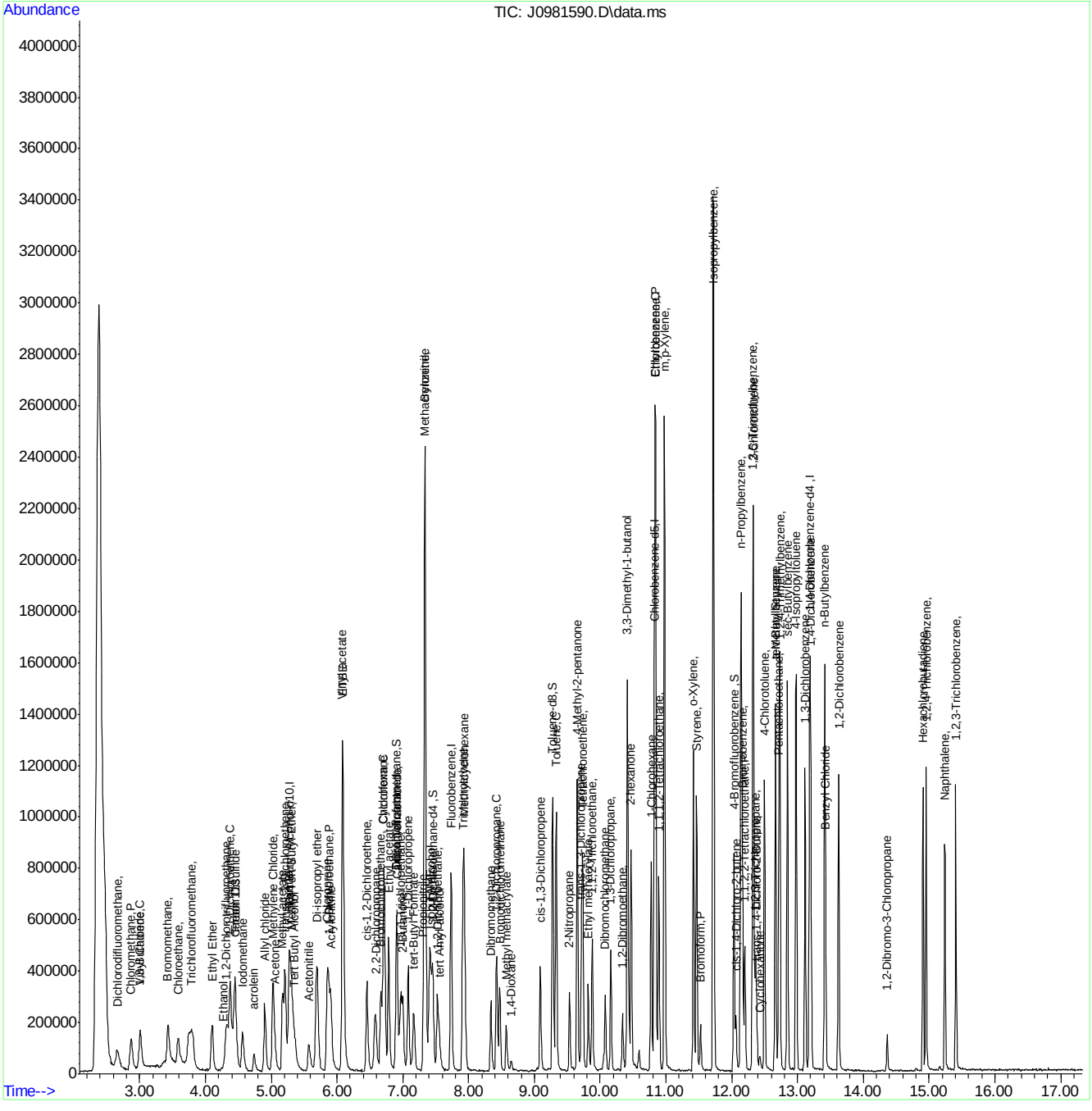
7.4.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981590.D
Acq On : 16 Dec 2016 6:48 pm
Operator : darshnap
Sample : fa39345-1ms ma Inst : MSVOA6
Misc : MS35802,vj5516,,,,,
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 17 10:16:10 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration



Manual Integration Approval Summary

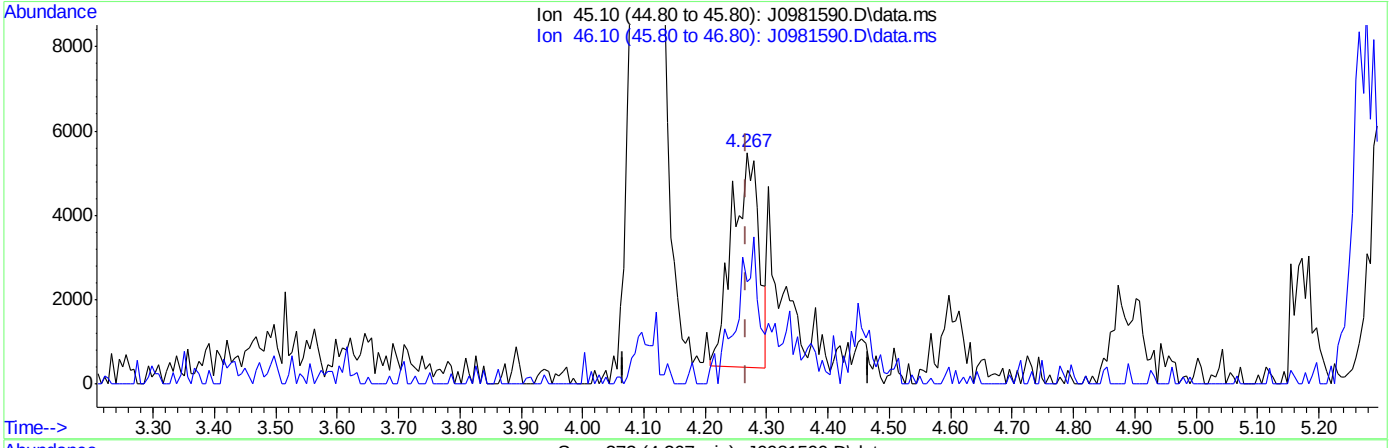
Sample Number:	FA39345-1MS	**Method:**	SW846 8260C
Lab FileID:	J0981590.D	**Analyst approved:**	12/19/16 11:43 Darshna Patel
Injection Time:	12/16/16 18:48	**Supervisor approved:**	12/20/16 12:54 Juan Garcia

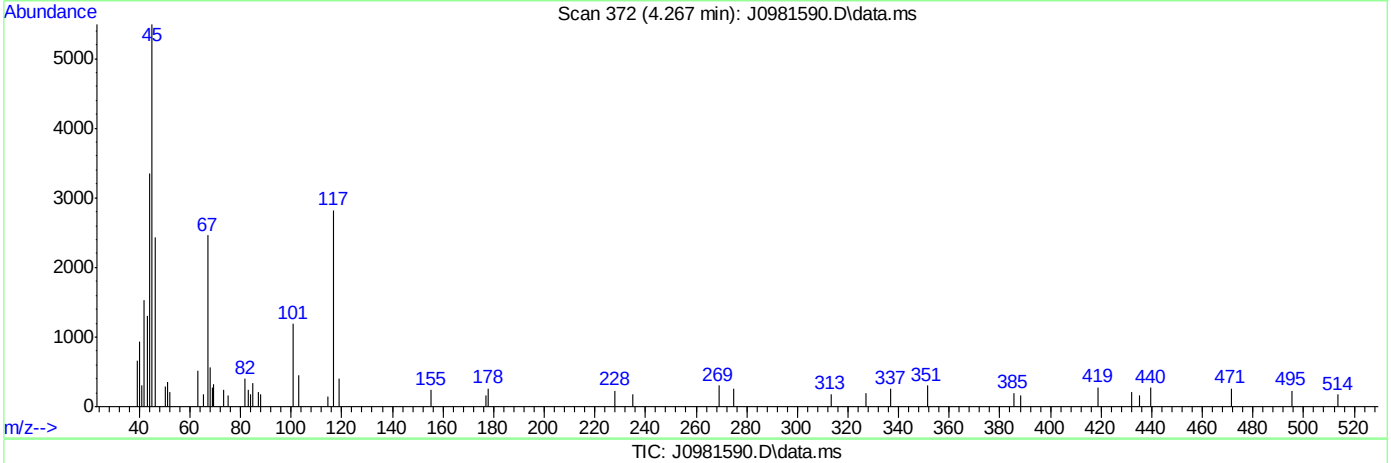
Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Alcohol	64-17-5		4.27	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981590.D
Acq On : 16 Dec 2016 6:48 pm
Operator : darshnap
Sample : fa39345-1ms ma Inst : MSVOA6
Misc : MS35802,vj5516,,,,,
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 17 10:05:32 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981590.D\data.ms

(107) Ethanol

4.267min (+0.000) 229.35ug/L

response 15229

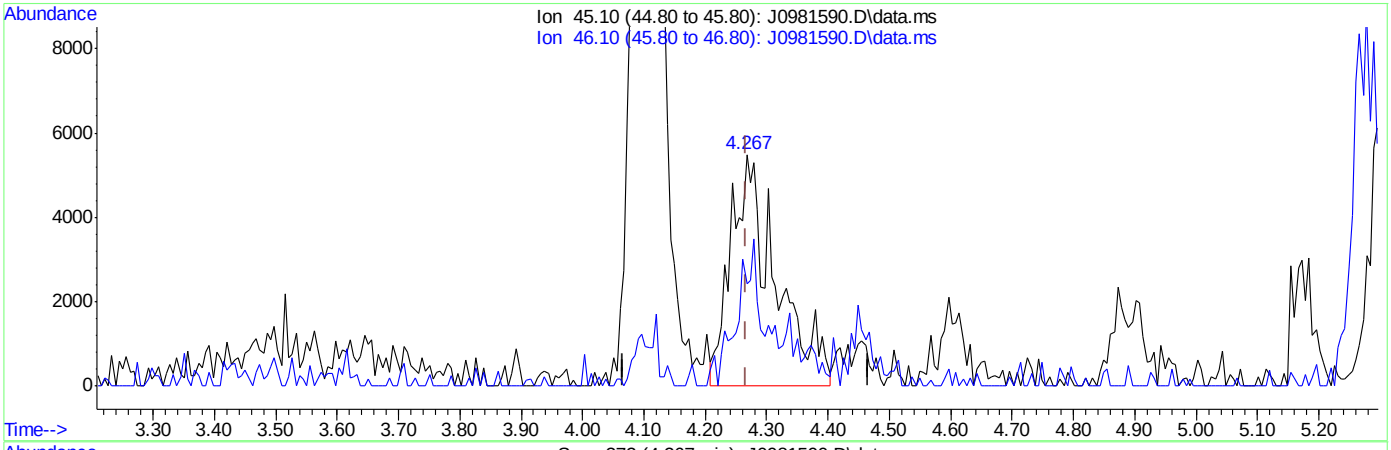
Ion	Exp%	Act%
45.10	100	100
46.10	28.70	41.83
0.00	0.00	0.00
0.00	0.00	0.00

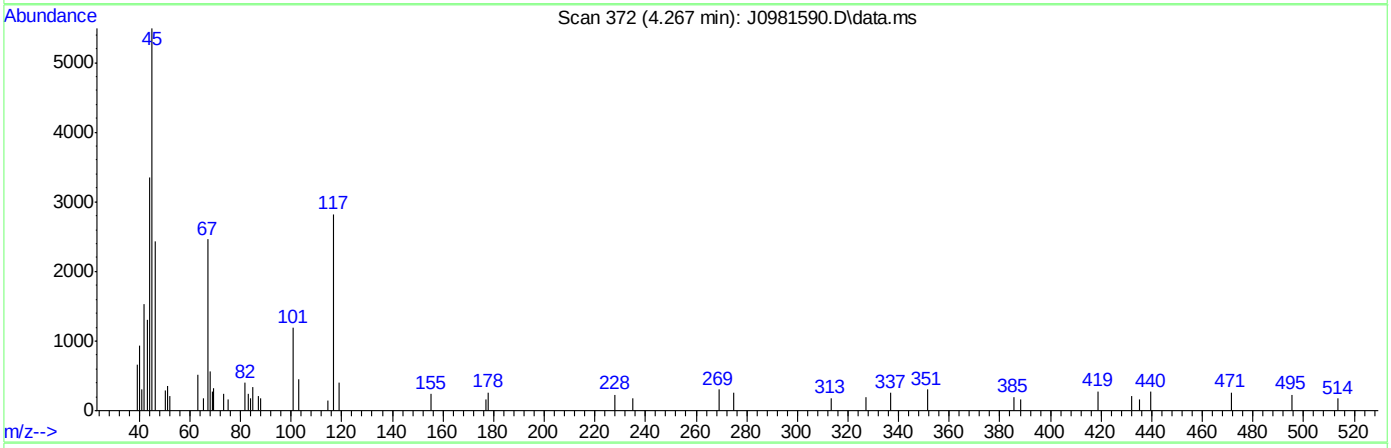
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981590.D
Acq On : 16 Dec 2016 6:48 pm
Operator : darshnap
Sample : fa39345-1ms ma Inst : MSVOA6
Misc : MS35802,vj5516,,,,,
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 17 10:05:32 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981590.D\data.ms

(107) Ethanol

4.267min (+0.000) 428.39ug/L m

response 27731

Ion	Exp%	Act%
45.10	100	100
46.10	28.70	44.35
0.00	0.00	0.00
0.00	0.00	0.00

SGS ACCUTEST FA39345

Manual Integrations APPROVED (compounds with "m" flag)
Juan Garcia
12/20/16 12:54

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981591.D
Acq On : 16 Dec 2016 7:11 pm
Operator : darshnap
Sample : fa39345-1msd ma Inst : MSVOA6
Misc : MS35802,vj5516,,,,,
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 17 10:17:01 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.734	96	691499	50.00	ug/L	0.00
56) Chlorobenzene-d5	10.824	117	573208	50.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	13.186	152	324676	50.00	ug/L	0.00
106) Tert Butyl Alcohol-d10	5.284	65	69520	250.00	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	6.905	113	202535	54.30	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 108.60%			
46) 1,2-Dichloroethane-d4	7.458	65	238742	53.19	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 106.38%			
57) Toluene-d8	9.279	98	663054	47.58	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 95.16%			
79) 4-Bromofluorobenzene	12.035	95	242892	46.93	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 93.86%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.651	85	182707	25.65	ug/L	92
3) Chloromethane	2.863	50	247563	24.43	ug/L	90
4) Vinyl Chloride	3.004	62	226192	27.44	ug/L	95
5) 1,3-Butadiene	3.004	54	26542	3.26	ug/L	90
6) Bromomethane	3.433	94	148819	28.28	ug/L	97
7) Chloroethane	3.586	64	130920	30.52	ug/L	95
8) Trichlorofluoromethane	3.768	101	349990	28.10	ug/L	90
9) Ethyl Ether	4.103	59	148213	24.14	ug/L	87
10) 1,2-Dichlorotrifluoroe...	4.320	67	214640	28.15	ug/L	93
11) 1,1-Dichloroethene	4.373	61	235888	25.42	ug/L	98
12) Freon 113	4.432	101	154106	23.65	ug/L	86
13) Carbon Disulfide	4.449	76	428772	22.08	ug/L	99
14) Iodomethane	4.561	142	251070	22.96	ug/L	96
15) Allyl chloride	4.902	41	212922	20.82	ug/L	86
16) Methylene Chloride	5.025	49	255469	22.65	ug/L	95
17) Acetone	5.049	58	63187	110.97	ug/L #	59
18) Methyl acetate	5.172	74	110422	118.44	ug/L	98
19) trans-1,2-Dichloroethene	5.207	61	238540	27.71	ug/L	92
20) Hexane	5.284	56	148417	21.33	ug/L	92
21) Methyl Tert Butyl Ether	5.313	73	404172	22.98	ug/L	94
22) Acetonitrile	5.572	40	107329	224.86	ug/L	94
23) Di-isopropyl ether	5.695	45	530346	21.72	ug/L	93
24) Chloroprene	5.854	53	237004	22.37	ug/L	92
25) 1,1-Dichloroethane	5.871	63	317800	27.05	ug/L	98
26) Acrylonitrile	5.912	53	289921	109.90	ug/L	97
27) ETBE	6.089	59	481486	22.98	ug/L	99
28) Vinyl acetate	6.083	43	1675617	100.16	ug/L	99
29) cis-1,2-Dichloroethene	6.453	96	174051	24.59	ug/L	94
30) 2,2-Dichloropropane	6.582	77	203066	23.73	ug/L	100
31) Bromochloromethane	6.664	128	89596	24.47	ug/L	88
32) Cyclohexane	6.711	56	289097	25.73	ug/L	91
33) Chloroform	6.717	83	302505	24.94	ug/L	97
34) Ethyl acetate	6.782	43	660168	105.19	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981591.D
Acq On : 16 Dec 2016 7:11 pm
Operator : darshnap
Sample : fa39345-1msd ma Inst : MSVOA6
Misc : MS35802,vj5516,,,,,
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 17 10:17:01 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35)	Tetrahydrofuran	6.894	42	43252	22.90	ug/L		96
37)	Carbon Tetrachloride	6.905	117	222659	26.03	ug/L		95
38)	1,1,1-Trichloroethane	6.970	97	248933	25.11	ug/L		93
39)	2-Butanone	6.999	43	319329	118.48	ug/L		96
40)	1,1-Dichloropropene	7.082	75	202862	25.10	ug/L		93
41)	tert-Butyl Formate	7.164	59	77429	15.09	ug/L	#	65
42)	Propionitrile	7.311	54	226560	243.73	ug/L		98
43)	Methacrylonitrile	7.334	41	910883	217.23	ug/L		97
44)	Benzene	7.334	78	649530	25.66	ug/L		91
45)	TAME	7.411	73	398047	22.84	ug/L		95
47)	1,2-Dichloroethane	7.528	62	230407	25.30	ug/L		98
48)	Trichloroethene	7.910	95	168879	26.92	ug/L		93
49)	Methylcyclohexane	7.934	83	273886	25.06	ug/L		99
50)	Dibromomethane	8.339	93	96822	24.00	ug/L		93
51)	1,2-Dichloropropane	8.427	63	160707	23.58	ug/L		99
52)	Bromodichloromethane	8.474	83	185546	22.55	ug/L		92
53)	Methyl methacrylate	8.574	41	101679	19.59	ug/L		91
55)	cis-1,3-Dichloropropene	9.091	75	205321	20.99	ug/L		94
58)	Toluene	9.332	91	667708	24.04	ug/L		96
59)	2-Nitropropane	9.538	41	181882	115.63	ug/L		96
60)	4-Methyl-2-pentanone	9.649	43	747502	115.43	ug/L		99
61)	trans-1,3-Dichloropropene	9.714	75	199546	22.51	ug/L		98
62)	Tetrachloroethene	9.737	166	191242	25.05	ug/L		97
63)	Ethyl methacrylate	9.820	69	152417	19.56	ug/L		97
64)	1,1,2-Trichloroethane	9.878	83	123464	22.60	ug/L		91
65)	Dibromochloromethane	10.078	129	133956	20.47	ug/L		95
66)	1,3-Dichloropropane	10.160	76	236072	22.18	ug/L		95
67)	1,2-Dibromoethane	10.337	107	146831	22.91	ug/L		95
68)	2-hexanone	10.466	43	545745	119.93	ug/L		96
69)	1-Chlorohexane	10.772	91	211785	23.49	ug/L		95
70)	Ethylbenzene	10.842	91	790504	25.19	ug/L		99
71)	Chlorobenzene	10.842	112	485517	24.90	ug/L		93
72)	1,1,1,2-Tetrachloroethane	10.895	131	182502	26.30	ug/L		96
73)	m,p-Xylene	10.977	91	1195835	48.92	ug/L		97
74)	o-Xylene	11.418	91	583370	23.12	ug/L		97
75)	Styrene	11.465	104	466176	23.71	ug/L		97
76)	Bromoform	11.529	173	79112	19.18	ug/L		97
77)	Isopropylbenzene	11.723	105	1987507	66.36	ug/L		99
80)	cis-1,4-Dichloro-2-butene	12.064	53	40957	21.59	ug/L		93
81)	n-Propylbenzene	12.140	91	1235060	36.39	ug/L		98
82)	Bromobenzene	12.164	156	227476	26.52	ug/L		94
83)	1,1,2,2-Tetrachloroethane	12.199	83	201436	23.14	ug/L		89
84)	1,3,5-Trimethylbenzene	12.323	105	655634	25.75	ug/L		99
85)	2-Chlorotoluene	12.329	91	643269	26.05	ug/L		97
86)	trans-1,4-Dichloro-2-B...	12.381	53	38459	18.12	ug/L		92
87)	1,2,3-Trichloropropane	12.358	110	57682	24.56	ug/L		91
88)	Cyclohexanone	12.428	55	23003	72.13	ug/L		95
89)	4-Chlorotoluene	12.499	91	584493	26.37	ug/L		95
90)	a-Methyl Styrene	12.669	118	4796	0.32	ug/L	#	1
91)	tert-Butylbenzene	12.663	91	379619	26.62	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981591.D
Acq On : 16 Dec 2016 7:11 pm
Operator : darshnap
Sample : fa39345-1msd ma Inst : MSVOA6
Misc : MS35802,vj5516,,,,,
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 17 10:17:01 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92)	1,2,4-Trimethylbenzene	12.734	105	675916	25.85	ug/L	99
93)	Pentachloroethane	12.716	167	129403	24.97	ug/L	97
94)	sec-Butylbenzene	12.846	105	922018	28.55	ug/L	100
95)	4-Isopropyltoluene	12.981	119	737605	24.91	ug/L	100
96)	1,3-Dichlorobenzene	13.116	146	403029	24.68	ug/L	98
97)	1,4-Dichlorobenzene	13.198	146	398559	23.07	ug/L	97
98)	n-Butylbenzene	13.416	92	418851	24.09	ug/L	98
99)	Benzyl Chloride	13.427	126	51650	17.82	ug/L #	94
100)	1,2-Dichlorobenzene	13.627	146	397719	24.71	ug/L	97
101)	1,2-Dibromo-3-Chloropr...	14.367	75	27023	20.74	ug/L	86
102)	Hexachlorobutadiene	14.908	225	155349	25.15	ug/L	88
103)	1,2,4-Trichlorobenzene	14.955	180	291605	23.34	ug/L	99
104)	Naphthalene	15.237	128	562502	23.87	ug/L	98
105)	1,2,3-Trichlorobenzene	15.407	180	277840	24.79	ug/L	97
107)	Ethanol	4.279	45	30190m	409.29	ug/L	
108)	acrolein	4.737	56	90168	83.61	ug/L	98
109)	Tert Butyl Alcohol	5.348	59	207990	404.82	ug/L	95
110)	tert Amyl alcohol	7.558	59	91971	203.88	ug/L	89
111)	Isobutyl alcohol	7.434	42	99862	477.05	ug/L	95
112)	1,4-Dioxane	8.650	88	28383	465.20	ug/L	88
113)	3,3-Dimethyl-1-butanol	10.413	57	687412	1234.41	ug/L	96

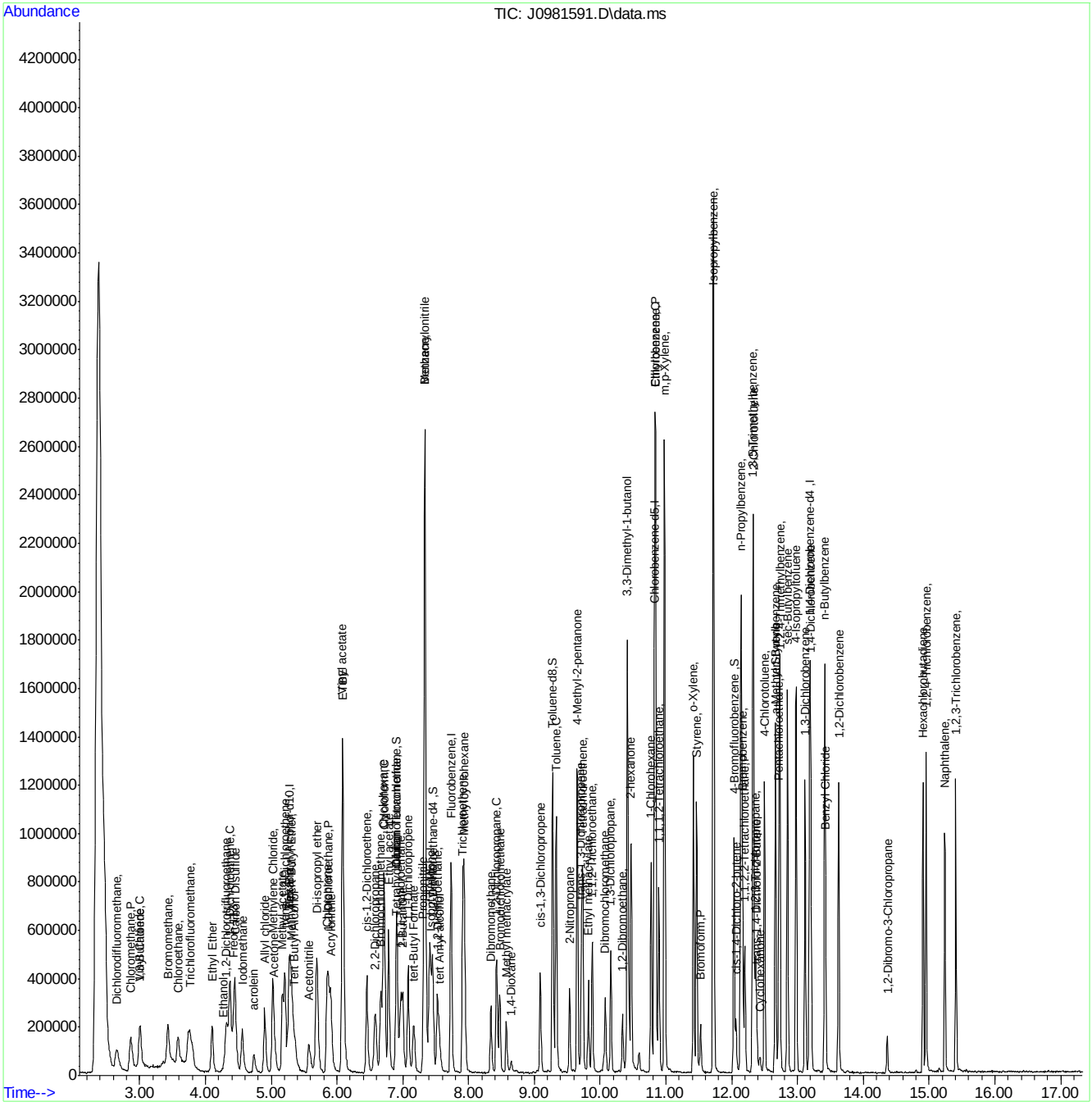
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981591.D
Acq On : 16 Dec 2016 7:11 pm
Operator : darshnap
Sample : fa39345-1msd ma Inst : MSVOA6
Misc : MS35802,vj5516,,,,,
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 17 10:17:01 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration



SGS ACCUTEST FA39345

Manual Integration Approval Summary

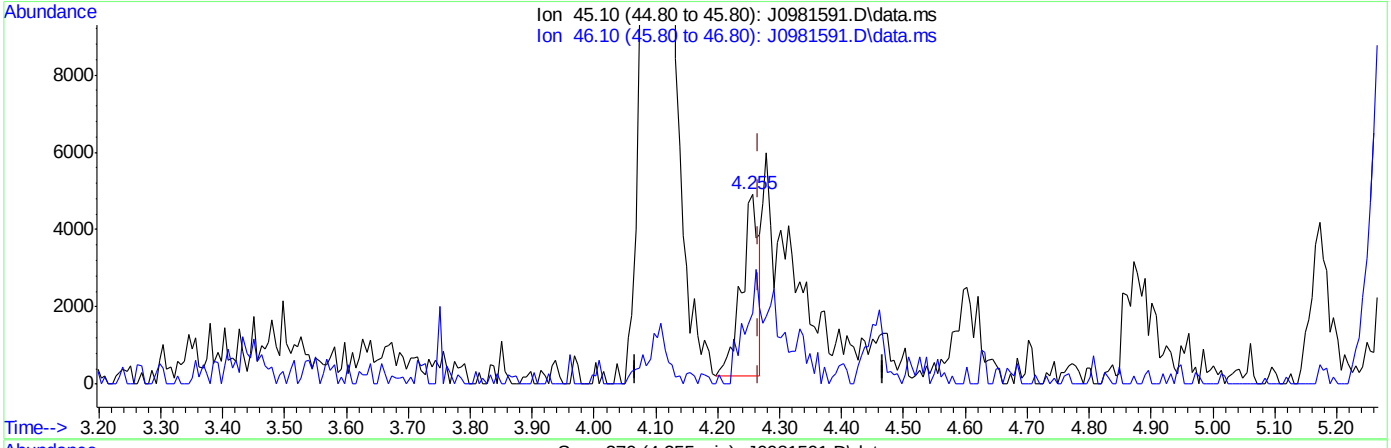
Sample Number:	FA39345-1MSD	**Method:**	SW846 8260C
Lab FileID:	J0981591.D	**Analyst approved:**	12/19/16 11:43 Darshna Patel
Injection Time:	12/16/16 19:11	**Supervisor approved:**	12/20/16 12:54 Juan Garcia

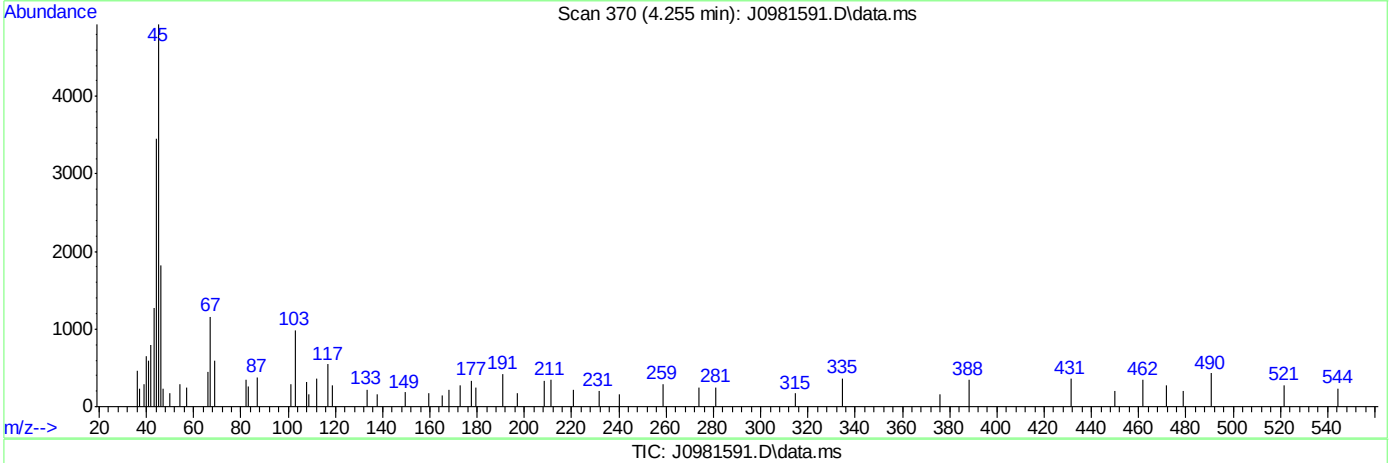
Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Alcohol	64-17-5		4.28	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981591.D
Acq On : 16 Dec 2016 7:11 pm
Operator : darshnap
Sample : fa39345-1msd ma Inst : MSVOA6
Misc : MS35802,vj5516,,,,,
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 17 10:05:35 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981591.D\data.ms

(107) Ethanol

4.255min (-0.012) 117.20ug/L

response 8971

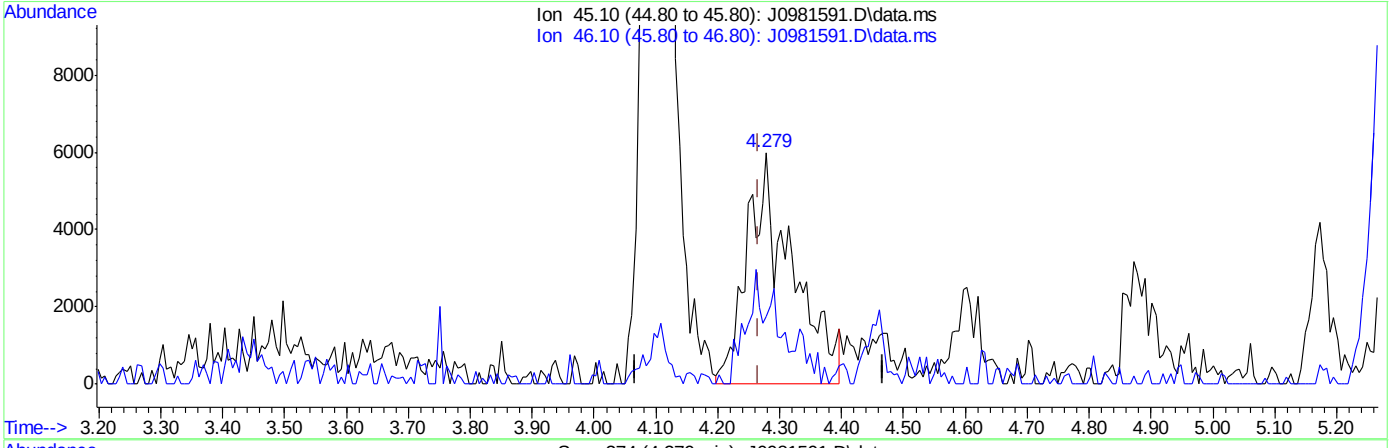
Ion	Exp%	Act%
45.10	100	100
46.10	28.70	38.67
0.00	0.00	0.00
0.00	0.00	0.00

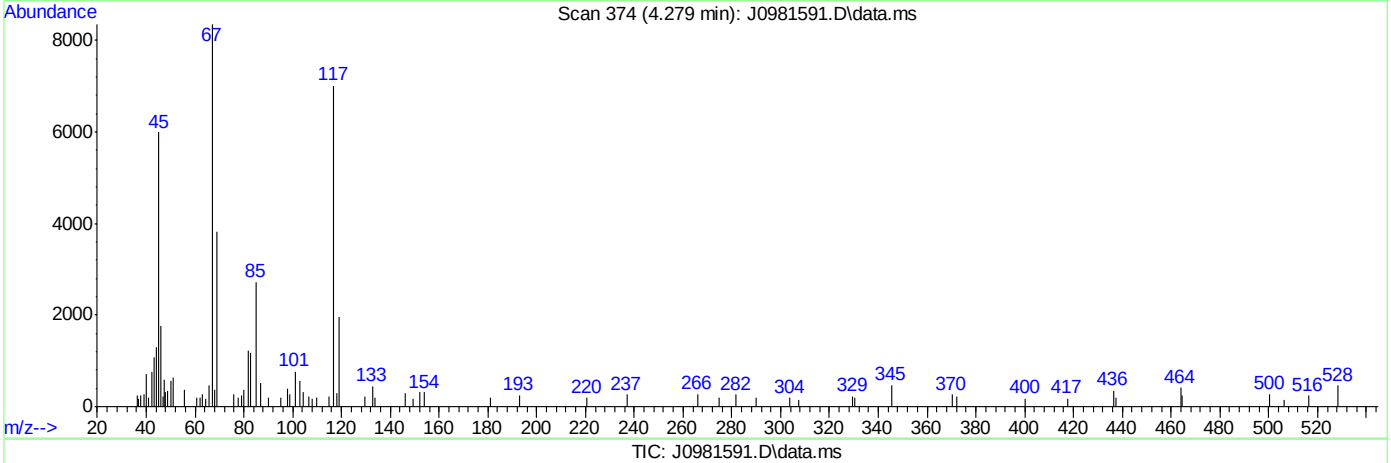
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981591.D
Acq On : 16 Dec 2016 7:11 pm
Operator : darshnap
Sample : fa39345-1msd ma Inst : MSVOA6
Misc : MS35802,vj5516,,,,,
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 17 10:05:35 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981591.D\data.ms

(107) Ethanol

4.279min (+0.012) 409.29ug/L m

response 30190

Ion	Exp%	Act%
45.10	100	100
46.10	28.70	29.24
0.00	0.00	0.00
0.00	0.00	0.00

SGS ACCUTEST FA39345

Manual Integrations APPROVED (compounds with "m" flag)
Juan Garcia
12/20/16 14:50

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981651.D
Acq On : 19 Dec 2016 6:49 pm
Operator : darshnap
Sample : fa39345-1ms ma Inst : MSVOA6
Misc : MS35813,vj5519,,,,,
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 20 09:40:37 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.734	96	608041	50.00	ug/L	0.00
56) Chlorobenzene-d5	10.824	117	496055	50.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	13.186	152	277589	50.00	ug/L	0.00
106) Tert Butyl Alcohol-d10	5.278	65	60565	250.00	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	6.905	113	169564	51.70	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 103.40%			
46) 1,2-Dichloroethane-d4	7.458	65	204286	51.76	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 103.52%			
57) Toluene-d8	9.279	98	582462	48.30	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 96.60%			
79) 4-Bromofluorobenzene	12.035	95	217135	49.07	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 98.14%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.663	85	151580	24.20	ug/L	87
3) Chloromethane	2.869	50	213653	23.97	ug/L	98
4) Vinyl Chloride	3.010	62	190834	26.31	ug/L	86
5) 1,3-Butadiene	3.010	54	13427	1.87	ug/L #	74
6) Bromomethane	3.433	94	125473	27.08	ug/L	89
7) Chloroethane	3.586	64	111996	29.56	ug/L	97
8) Trichlorofluoromethane	3.780	101	344327	31.45	ug/L	99
9) Ethyl Ether	4.103	59	150298	27.85	ug/L #	83
10) 1,2-Dichlorotrifluoroe...	4.332	67	223132	33.28	ug/L	94
11) 1,1-Dichloroethene	4.373	61	263899	32.35	ug/L	96
12) Freon 113	4.438	101	173652	30.65	ug/L	93
13) Carbon Disulfide	4.449	76	489069	28.64	ug/L	96
14) Iodomethane	4.567	142	273374	28.44	ug/L	97
15) Allyl chloride	4.902	41	247941	27.57	ug/L	95
16) Methylene Chloride	5.025	49	268386	27.29	ug/L	93
17) Acetone	5.043	58	58190	116.23	ug/L	96
18) Methyl acetate	5.178	74	106608	130.04	ug/L #	81
19) trans-1,2-Dichloroethene	5.207	61	250888	33.15	ug/L	95
20) Hexane	5.278	56	180068	29.90	ug/L	95
21) Methyl Tert Butyl Ether	5.307	73	404662	26.16	ug/L	94
22) Acetonitrile	5.560	40	107891	257.06	ug/L #	86
23) Di-isopropyl ether	5.695	45	553694	25.85	ug/L	94
24) Chloroprene	5.854	53	252952	27.19	ug/L	95
25) 1,1-Dichloroethane	5.877	63	320962	31.07	ug/L	94
26) Acrylonitrile	5.907	53	258570	111.47	ug/L	95
27) ETBE	6.095	59	488597	26.52	ug/L	97
28) Vinyl acetate	6.083	43	1659277	113.98	ug/L	98
29) cis-1,2-Dichloroethene	6.453	96	171610	27.58	ug/L	94
30) 2,2-Dichloropropane	6.582	77	214409	28.49	ug/L	90
31) Bromochloromethane	6.664	128	91832	28.52	ug/L	93
32) Cyclohexane	6.711	56	308313	31.21	ug/L	96
33) Chloroform	6.717	83	307954	28.87	ug/L	98
34) Ethyl acetate	6.788	43	646382	117.13	ug/L	96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981651.D
Acq On : 19 Dec 2016 6:49 pm
Operator : darshnap
Sample : fa39345-1ms ma Inst : MSVOA6
Misc : MS35813,vj5519,,,,,
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 20 09:40:37 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
35) Tetrahydrofuran	6.905	42	40816	24.57 ug/L	84
37) Carbon Tetrachloride	6.911	117	245486	32.63 ug/L	98
38) 1,1,1-Trichloroethane	6.970	97	258569	29.66 ug/L	96
39) 2-Butanone	6.999	43	298976	126.16 ug/L	98
40) 1,1-Dichloropropene	7.082	75	209649	29.50 ug/L	95
41) tert-Butyl Formate	7.170	59	41532	9.21 ug/L #	82
42) Propionitrile	7.311	54	220127	269.31 ug/L	94
43) Methacrylonitrile	7.334	41	949988	261.35 ug/L	98
44) Benzene	7.334	78	671788	30.19 ug/L	87
45) TAME	7.411	73	400013	26.10 ug/L	96
47) 1,2-Dichloroethane	7.522	62	238615	29.80 ug/L	95
48) Trichloroethene	7.916	95	162338	29.43 ug/L	93
49) Methylcyclohexane	7.934	83	301474	31.37 ug/L	98
50) Dibromomethane	8.339	93	99767	28.12 ug/L	95
51) 1,2-Dichloropropane	8.427	63	168210	28.07 ug/L	93
52) Bromodichloromethane	8.474	83	195321	26.99 ug/L	97
53) Methyl methacrylate	8.574	41	104408	22.80 ug/L	96
55) cis-1,3-Dichloropropene	9.091	75	215603	25.01 ug/L	95
58) Toluene	9.332	91	675410	28.24 ug/L	97
59) 2-Nitropropane	9.532	41	178172	130.89 ug/L	98
60) 4-Methyl-2-pentanone	9.655	43	739999	132.05 ug/L	99
61) trans-1,3-Dichloropropene	9.714	75	219366	28.40 ug/L	91
62) Tetrachloroethene	9.737	166	192947	29.20 ug/L	98
63) Ethyl methacrylate	9.820	69	160263	23.58 ug/L	92
64) 1,1,2-Trichloroethane	9.878	83	125942	26.64 ug/L	95
65) Dibromochloromethane	10.078	129	142647	25.19 ug/L	91
66) 1,3-Dichloropropane	10.160	76	237597	25.79 ug/L	93
67) 1,2-Dibromoethane	10.343	107	146375	26.40 ug/L	98
68) 2-hexanone	10.472	43	515494	130.90 ug/L	98
69) 1-Chlorohexane	10.777	91	227012	29.02 ug/L	96
70) Ethylbenzene	10.842	91	795675	29.50 ug/L	98
71) Chlorobenzene	10.842	112	490599	29.07 ug/L	98
72) 1,1,1,2-Tetrachloroethane	10.895	131	186295	31.02 ug/L	94
73) m,p-Xylene	10.977	91	1188574	56.90 ug/L	98
74) o-Xylene	11.418	91	597148	27.45 ug/L	100
75) Styrene	11.465	104	455430	26.75 ug/L	99
76) Bromoform	11.529	173	77300	21.53 ug/L	93
77) Isopropylbenzene	11.723	105	1979721	77.62 ug/L	100
80) cis-1,4-Dichloro-2-butene	12.070	53	46871	28.49 ug/L	92
81) n-Propylbenzene	12.140	91	1250615	43.10 ug/L	100
82) Bromobenzene	12.164	156	221475	30.17 ug/L	89
83) 1,1,2,2-Tetrachloroethane	12.199	83	199756	26.84 ug/L	98
84) 1,3,5-Trimethylbenzene	12.323	105	664786	30.54 ug/L	95
85) 2-Chlorotoluene	12.329	91	649664	30.77 ug/L	99
86) trans-1,4-Dichloro-2-B...	12.381	53	46809	25.40 ug/L #	85
87) 1,2,3-Trichloropropane	12.364	110	52831	26.31 ug/L	91
88) Cyclohexanone	12.423	55	22092	80.82 ug/L	89
89) 4-Chlorotoluene	12.499	91	582752	30.75 ug/L	97
90) a-Methyl Styrene	12.728	118	6630	0.51 ug/L #	1
91) tert-Butylbenzene	12.663	91	378996	31.08 ug/L	97

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981651.D
Acq On : 19 Dec 2016 6:49 pm
Operator : darshnap
Sample : fa39345-1ms ma Inst : MSVOA6
Misc : MS35813,vj5519,,,,,
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 20 09:40:37 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
92)	1,2,4-Trimethylbenzene	12.734	105	685491	30.67	ug/L		97
93)	Pentachloroethane	12.716	167	149069	33.64	ug/L		95
94)	sec-Butylbenzene	12.846	105	929979	33.68	ug/L		97
95)	4-Isopropyltoluene	12.981	119	755070	30.05	ug/L		98
96)	1,3-Dichlorobenzene	13.116	146	422375	30.25	ug/L		97
97)	1,4-Dichlorobenzene	13.198	146	414881	28.09	ug/L		96
98)	n-Butylbenzene	13.416	92	419596	28.27	ug/L		99
99)	Benzyl Chloride	13.427	126	56266	22.41	ug/L	#	87
100)	1,2-Dichlorobenzene	13.627	146	394075	28.63	ug/L		99
101)	1,2-Dibromo-3-Chloropr...	14.361	75	27743	24.69	ug/L	#	74
102)	Hexachlorobutadiene	14.908	225	159257	30.00	ug/L		93
103)	1,2,4-Trichlorobenzene	14.955	180	282166	26.40	ug/L		97
104)	Naphthalene	15.237	128	563335	28.02	ug/L		98
105)	1,2,3-Trichlorobenzene	15.407	180	272913	28.48	ug/L		99
107)	Ethanol	4.279	45	32689m	515.78	ug/L		
108)	acrolein	4.737	56	80210	85.37	ug/L		90
109)	Tert Butyl Alcohol	5.348	59	181610	405.72	ug/L		93
110)	tert Amyl alcohol	7.558	59	93237	237.25	ug/L		94
111)	Isobutyl alcohol	7.434	42	111271	610.15	ug/L		96
112)	1,4-Dioxane	8.656	88	26524	499.78	ug/L		93
113)	3,3-Dimethyl-1-butanol	10.413	57	539738	1109.43	ug/L		97

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

7.4.3

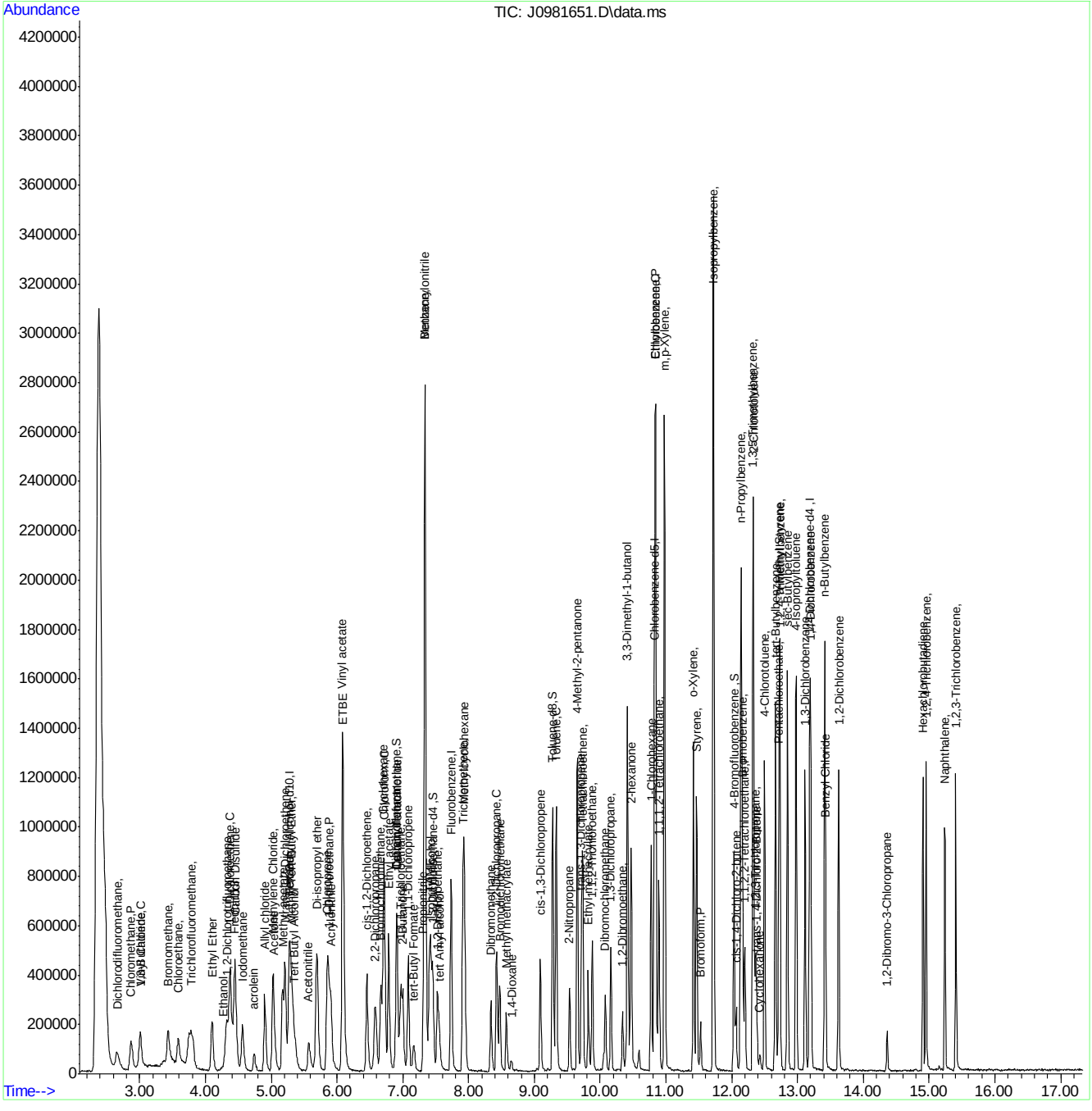
7

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981651.D
Acq On : 19 Dec 2016 6:49 pm
Operator : darshnap
Sample : fa39345-1ms ma Inst : MSVOA6
Misc : MS35813,vj5519,,,,,
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 20 09:40:37 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration



SGS ACCUTEST FA39345

Manual Integration Approval Summary

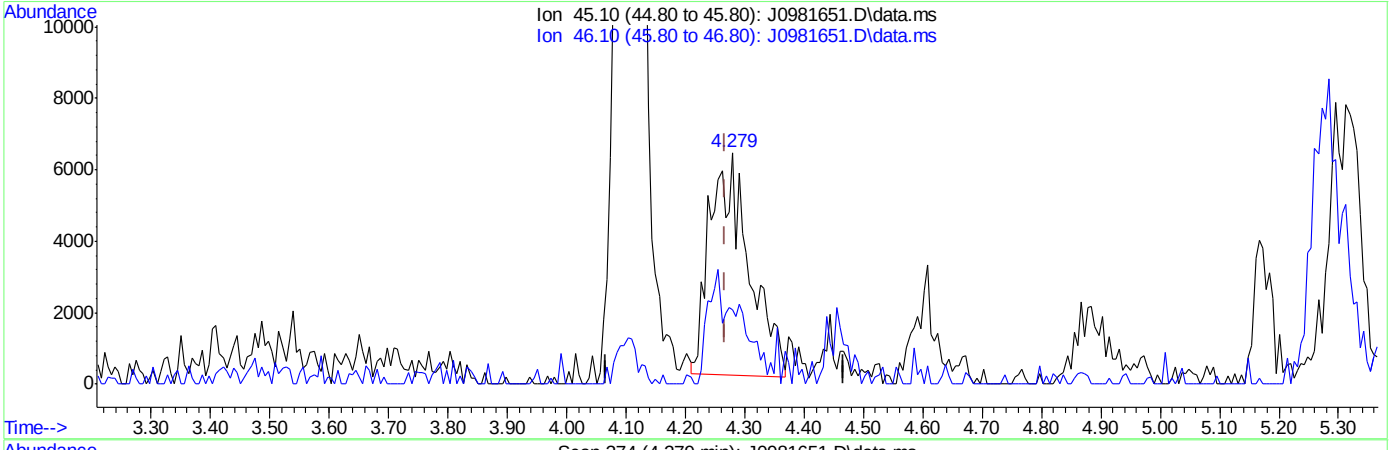
Sample Number:	FA39345-1MS	**Method:**	SW846 8260C
Lab FileID:	J0981651.D	**Analyst approved:**	12/20/16 12:03 Darshna Patel
Injection Time:	12/19/16 18:49	**Supervisor approved:**	12/20/16 14:50 Juan Garcia

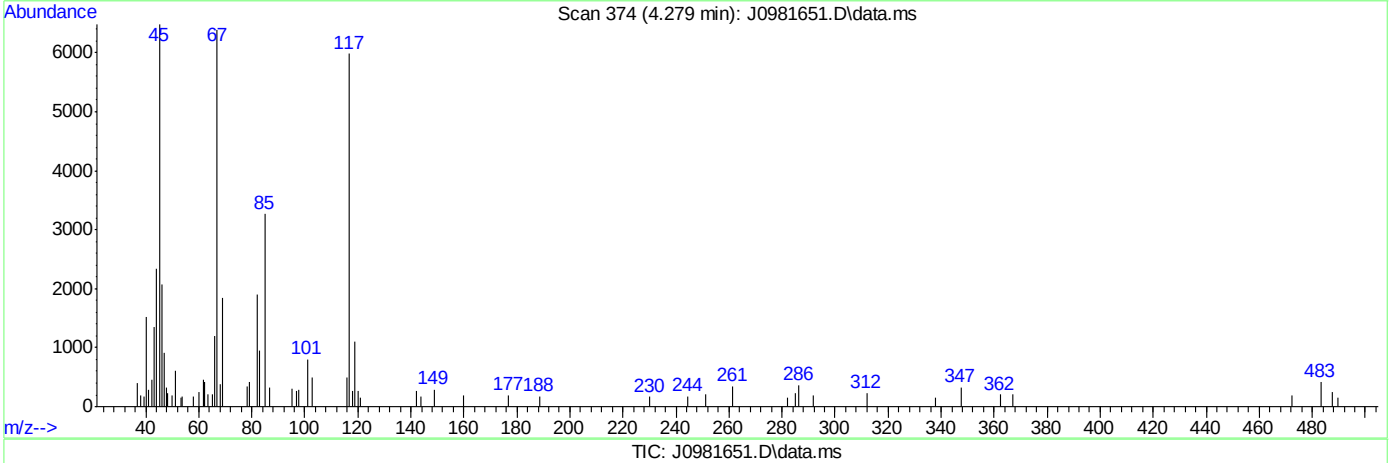
Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Alcohol	64-17-5		4.28	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981651.D
Acq On : 19 Dec 2016 6:49 pm
Operator : darshnap
Sample : fa39345-1ms ma Inst : MSVOA6
Misc : MS35813,vj5519,,,,,
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 20 08:39:18 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981651.D\data.ms

(107) Ethanol

4.279min (+0.012) 444.56ug/L

response 28438

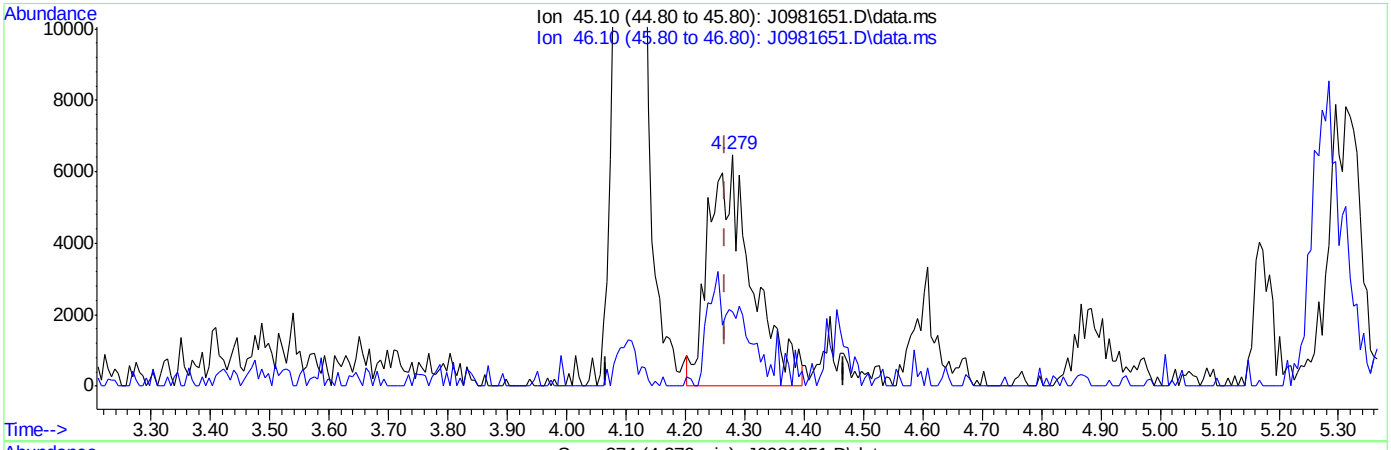
Ion	Exp%	Act%
45.10	100	100
46.10	28.70	30.82
0.00	0.00	0.00
0.00	0.00	0.00

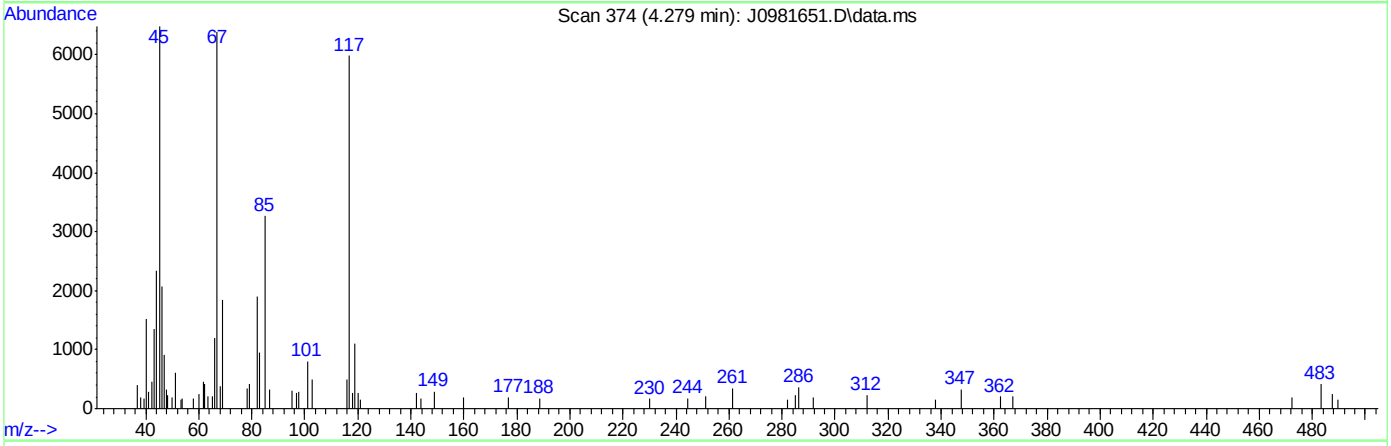
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981651.D
Acq On : 19 Dec 2016 6:49 pm
Operator : darshnap
Sample : fa39345-1ms ma Inst : MSVOA6
Misc : MS35813,vj5519,,,,,
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 20 08:39:18 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981651.D\data.ms

(107) Ethanol

4.279min (+0.012) 515.78ug/L m

response 32689

Ion	Exp%	Act%
45.10	100	100
46.10	28.70	31.87
0.00	0.00	0.00
0.00	0.00	0.00

SGS ACCUTEST FA39345

Manual Integrations APPROVED (compounds with "m" flag)
Juan Garcia
12/20/16 14:50

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981652.D
Acq On : 19 Dec 2016 7:12 pm
Operator : darshnap
Sample : fa39345-1msd ma Inst : MSVOA6
Misc : MS35813,vj5519,,,,,
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 20 09:41:11 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.734	96	690215	50.00	ug/L	0.00
56) Chlorobenzene-d5	10.824	117	542852	50.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	13.186	152	318239	50.00	ug/L	0.00
106) Tert Butyl Alcohol-d10	5.284	65	69491	250.00	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	6.905	113	194906	52.35	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 104.70%			
46) 1,2-Dichloroethane-d4	7.458	65	228303	50.96	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 101.92%			
57) Toluene-d8	9.279	98	659959	50.01	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 100.02%			
79) 4-Bromofluorobenzene	12.035	95	247935	48.87	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 97.74%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.657	85	169375	23.82	ug/L	98
3) Chloromethane	2.875	50	231348	22.86	ug/L	99
4) Vinyl Chloride	3.010	62	214560	26.06	ug/L	84
5) 1,3-Butadiene	3.004	54	27142	3.34	ug/L	92
6) Bromomethane	3.433	94	133343	25.30	ug/L	89
7) Chloroethane	3.586	64	117540	27.01	ug/L	91
8) Trichlorofluoromethane	3.797	101	343960	27.67	ug/L	98
9) Ethyl Ether	4.109	59	165094	26.95	ug/L	86
10) 1,2-Dichlorotrifluoroe...	4.338	67	220987	29.03	ug/L	92
11) 1,1-Dichloroethene	4.379	61	280213	30.26	ug/L	97
12) Freon 113	4.443	101	184952	28.67	ug/L	94
13) Carbon Disulfide	4.455	76	496131	25.59	ug/L	98
14) Iodomethane	4.567	142	293053	26.85	ug/L	96
15) Allyl chloride	4.908	41	249208	24.42	ug/L	92
16) Methylene Chloride	5.025	49	281121	25.08	ug/L	96
17) Acetone	5.049	58	62568	110.08	ug/L #	78
18) Methyl acetate	5.178	74	121773	130.85	ug/L #	82
19) trans-1,2-Dichloroethene	5.213	61	260909	30.37	ug/L	94
20) Hexane	5.278	56	194341	28.35	ug/L	98
21) Methyl Tert Butyl Ether	5.313	73	459068	26.15	ug/L	95
22) Acetonitrile	5.577	40	111187	233.38	ug/L	88
23) Di-isopropyl ether	5.695	45	599246	24.63	ug/L	91
24) Chloroprene	5.854	53	266153	25.18	ug/L	95
25) 1,1-Dichloroethane	5.877	63	348174	29.69	ug/L	92
26) Acrylonitrile	5.906	53	293480	111.45	ug/L	95
27) ETBE	6.094	59	515931	24.67	ug/L	97
28) Vinyl acetate	6.089	43	1772157	106.64	ug/L	98
29) cis-1,2-Dichloroethene	6.459	96	187450	26.54	ug/L	97
30) 2,2-Dichloropropane	6.582	77	228471	26.75	ug/L	95
31) Bromochloromethane	6.664	128	97609	26.70	ug/L	98
32) Cyclohexane	6.711	56	319163	28.46	ug/L	96
33) Chloroform	6.717	83	323037	26.68	ug/L	99
34) Ethyl acetate	6.782	43	700266	111.79	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981652.D
Acq On : 19 Dec 2016 7:12 pm
Operator : darshnap
Sample : fa39345-1msd ma Inst : MSVOA6
Misc : MS35813,vj5519,,,,,
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 20 09:41:11 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) Tetrahydrofuran	6.899	42	47067	24.96	ug/L	88
37) Carbon Tetrachloride	6.917	117	247548	28.99	ug/L	97
38) 1,1,1-Trichloroethane	6.970	97	267105	26.99	ug/L	98
39) 2-Butanone	7.005	43	333670	124.03	ug/L	99
40) 1,1-Dichloropropene	7.082	75	222974	27.64	ug/L	97
41) tert-Butyl Formate	7.170	59	36124	7.05	ug/L	86
42) Propionitrile	7.311	54	247431	266.68	ug/L	94
43) Methacrylonitrile	7.340	41	1026206	247.60	ug/L	96
44) Benzene	7.334	78	699260	27.68	ug/L	91
45) TAME	7.411	73	430109	24.73	ug/L	94
47) 1,2-Dichloroethane	7.528	62	242017	26.63	ug/L	98
48) Trichloroethene	7.916	95	174905	27.93	ug/L	93
49) Methylcyclohexane	7.934	83	320392	29.37	ug/L	96
50) Dibromomethane	8.339	93	105722	26.26	ug/L	98
51) 1,2-Dichloropropane	8.427	63	180810	26.58	ug/L	94
52) Bromodichloromethane	8.474	83	201268	24.50	ug/L	98
53) Methyl methacrylate	8.574	41	114977	22.13	ug/L	97
55) cis-1,3-Dichloropropene	9.091	75	221080	22.62	ug/L	96
58) Toluene	9.332	91	707851	27.00	ug/L	94
59) 2-Nitropropane	9.532	41	199389	133.85	ug/L	95
60) 4-Methyl-2-pentanone	9.649	43	802506	130.86	ug/L	100
61) trans-1,3-Dichloropropene	9.714	75	218117	25.88	ug/L	95
62) Tetrachloroethene	9.737	166	204845	28.33	ug/L	98
63) Ethyl methacrylate	9.820	69	178647	24.00	ug/L	96
64) 1,1,2-Trichloroethane	9.884	83	127467	24.64	ug/L	97
65) Dibromochloromethane	10.084	129	137632	22.21	ug/L	99
66) 1,3-Dichloropropane	10.160	76	250927	24.89	ug/L	89
67) 1,2-Dibromoethane	10.343	107	160972	26.53	ug/L	97
68) 2-hexanone	10.466	43	572494	132.84	ug/L	99
69) 1-Chlorohexane	10.777	91	230575	26.96	ug/L	93
70) Ethylbenzene	10.842	91	803627	27.13	ug/L	95
71) Chlorobenzene	10.842	112	499450	27.04	ug/L	96
72) 1,1,1,2-Tetrachloroethane	10.895	131	184763	28.11	ug/L	98
73) m,p-Xylene	10.977	91	1226023	53.33	ug/L	99
74) o-Xylene	11.418	91	613570	25.74	ug/L	98
75) Styrene	11.465	104	460271	24.71	ug/L	98
76) Bromoform	11.524	173	83296	21.21	ug/L	95
77) Isopropylbenzene	11.723	105	2004338	71.15	ug/L	99
80) cis-1,4-Dichloro-2-butene	12.070	53	48217	25.71	ug/L	93
81) n-Propylbenzene	12.140	91	1302481	39.15	ug/L	96
82) Bromobenzene	12.164	156	230331	27.39	ug/L	95
83) 1,1,2,2-Tetrachloroethane	12.199	83	212347	24.89	ug/L	94
84) 1,3,5-Trimethylbenzene	12.323	105	679943	27.24	ug/L	98
85) 2-Chlorotoluene	12.328	91	663246	27.41	ug/L	94
86) trans-1,4-Dichloro-2-B...	12.381	53	50720	24.08	ug/L	95
87) 1,2,3-Trichloropropane	12.358	110	58447	25.38	ug/L	94
88) Cyclohexanone	12.428	55	23130	73.96	ug/L	87
89) 4-Chlorotoluene	12.499	91	604649	27.83	ug/L	94
90) a-Methyl Styrene	12.663	118	10901	0.73	ug/L #	1
91) tert-Butylbenzene	12.663	91	391821	28.03	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981652.D
Acq On : 19 Dec 2016 7:12 pm
Operator : darshnap
Sample : fa39345-1msd ma Inst : MSVOA6
Misc : MS35813,vj5519,,,,,
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 20 09:41:11 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) 1,2,4-Trimethylbenzene	12.734	105	701667	27.38	ug/L	97
93) Pentachloroethane	12.716	167	135227	26.62	ug/L	89
94) sec-Butylbenzene	12.846	105	951798	30.07	ug/L	99
95) 4-Isopropyltoluene	12.981	119	771284	26.64	ug/L	100
96) 1,3-Dichlorobenzene	13.116	146	418381	26.14	ug/L	97
97) 1,4-Dichlorobenzene	13.198	146	429168	25.35	ug/L	95
98) n-Butylbenzene	13.415	92	423399	24.86	ug/L	97
99) Benzyl Chloride	13.427	126	56834	19.89	ug/L	97
100) 1,2-Dichlorobenzene	13.627	146	406706	25.78	ug/L	97
101) 1,2-Dibromo-3-Chloropr...	14.367	75	29924	23.30	ug/L	86
102) Hexachlorobutadiene	14.908	225	172973	28.46	ug/L	95
103) 1,2,4-Trichlorobenzene	14.955	180	298546	24.38	ug/L	92
104) Naphthalene	15.237	128	621080	26.93	ug/L	96
105) 1,2,3-Trichlorobenzene	15.407	180	301316	27.43	ug/L	94
107) Ethanol	4.250	45	38926m	536.77	ug/L	
108) acrolein	4.737	56	96526	89.54	ug/L	97
109) Tert Butyl Alcohol	5.354	59	207427	403.90	ug/L	99
110) tert Amyl alcohol	7.558	59	103444	229.41	ug/L	90
111) Isobutyl alcohol	7.434	42	117404	561.09	ug/L #	81
112) 1,4-Dioxane	8.650	88	32423	533.25	ug/L	96
113) 3,3-Dimethyl-1-butanol	10.413	57	654520	1174.25	ug/L	97

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

7.4.4

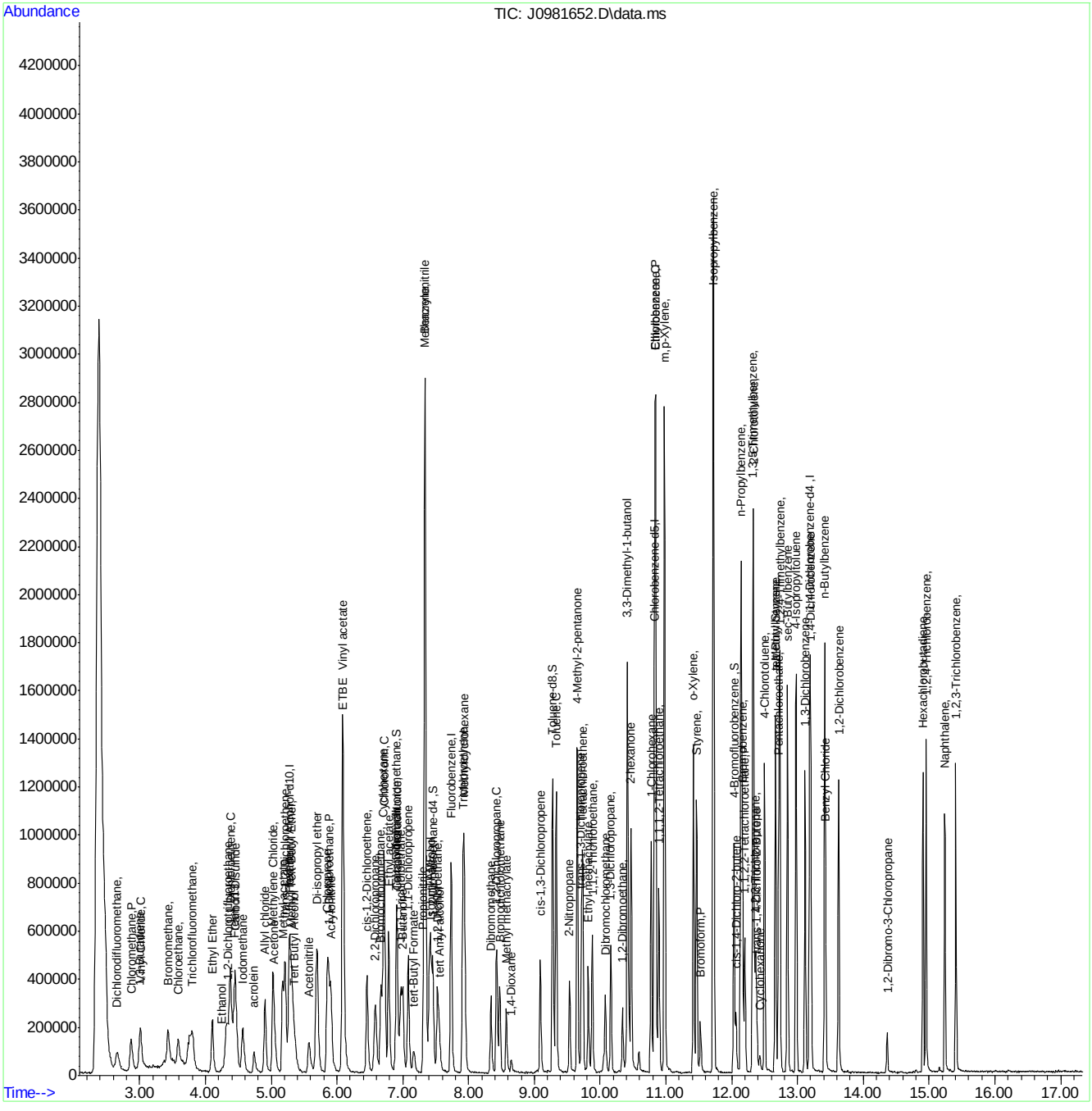
7

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981652.D
Acq On : 19 Dec 2016 7:12 pm
Operator : darshnap
Sample : fa39345-1msd ma Inst : MSVOA6
Misc : MS35813,vj5519,,,,,
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 20 09:41:11 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration



MSJ121416.M Tue Dec 20 10:38:38 2016 Page: 4

Manual Integration Approval Summary

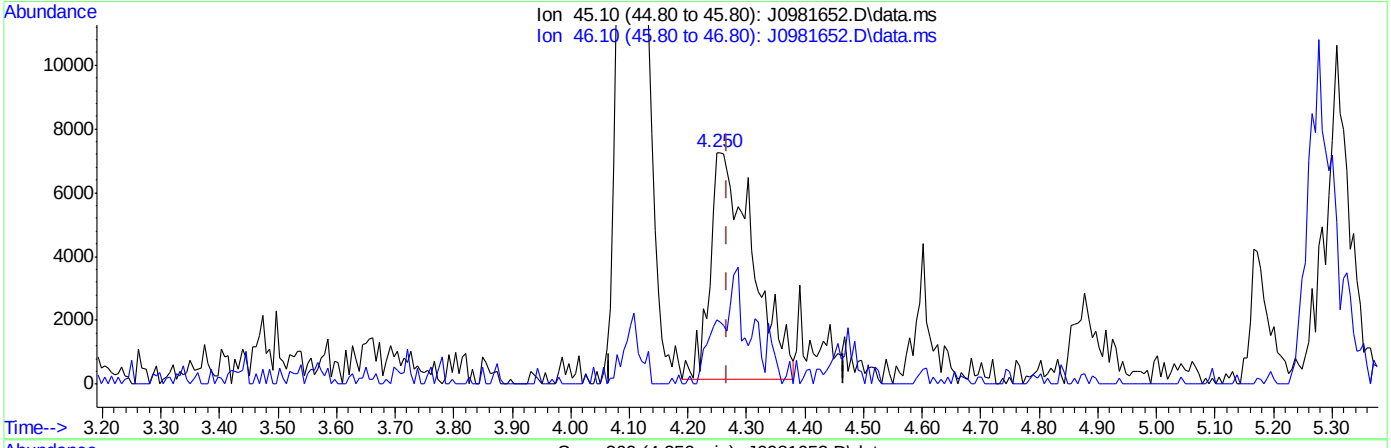
Sample Number:	FA39345-1MSD	**Method:**	SW846 8260C
Lab FileID:	J0981652.D	**Analyst approved:**	12/20/16 12:03 Darshna Patel
Injection Time:	12/19/16 19:12	**Supervisor approved:**	12/20/16 14:50 Juan Garcia

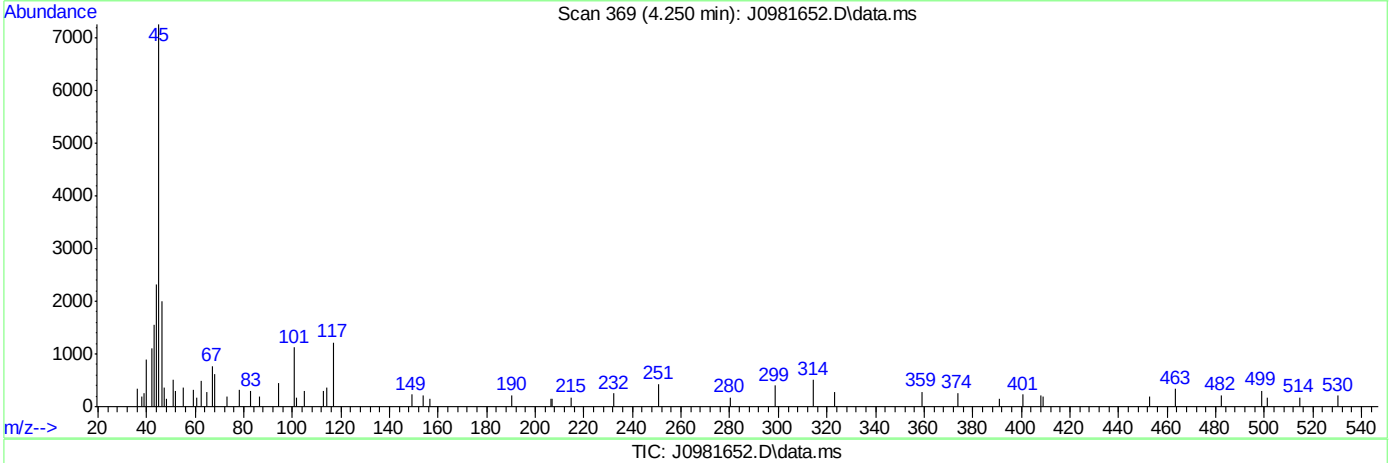
Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Alcohol	64-17-5		4.25	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981652.D
Acq On : 19 Dec 2016 7:12 pm
Operator : darshnap
Sample : fa39345-1msd ma Inst : MSVOA6
Misc : MS35813,vj5519,,,,,
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 20 08:39:21 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981652.D\data.ms

(107) Ethanol

4.250min (-0.017) 492.32ug/L

response 35911

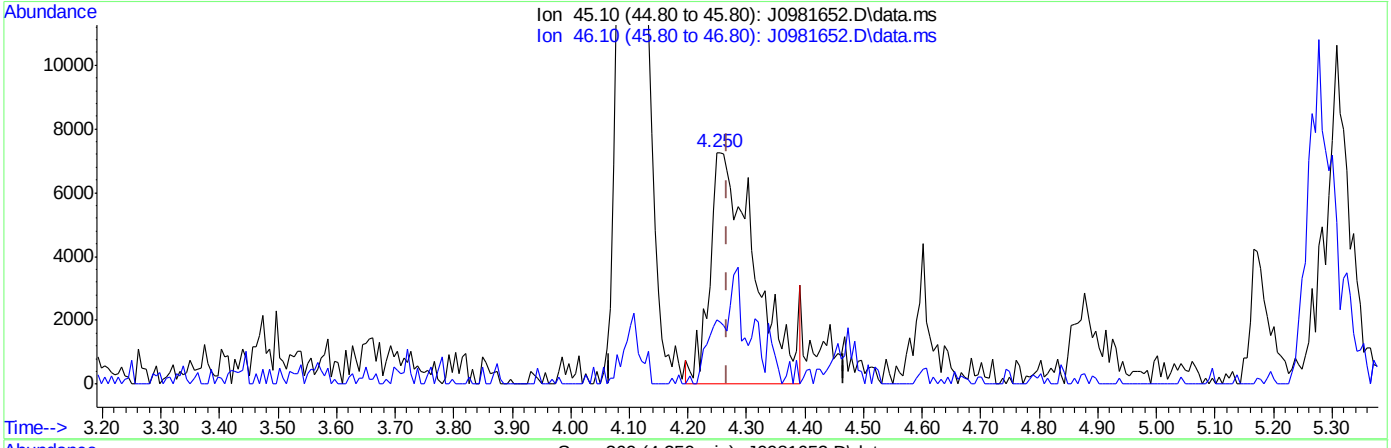
Ion	Exp%	Act%
45.10	100	100
46.10	28.70	28.33
0.00	0.00	0.00
0.00	0.00	0.00

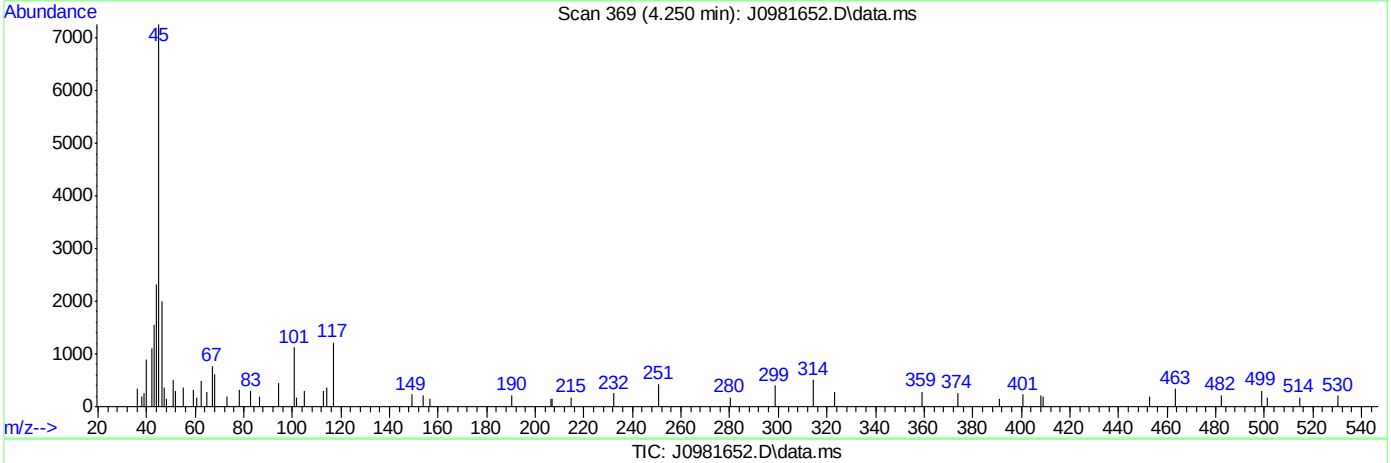
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981652.D
Acq On : 19 Dec 2016 7:12 pm
Operator : darshnap
Sample : fa39345-1msd ma Inst : MSVOA6
Misc : MS35813,vj5519,,,,,
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 20 08:39:21 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981652.D\data.ms

(107) Ethanol

4.250min (-0.017) 536.77ug/L m

response 38926

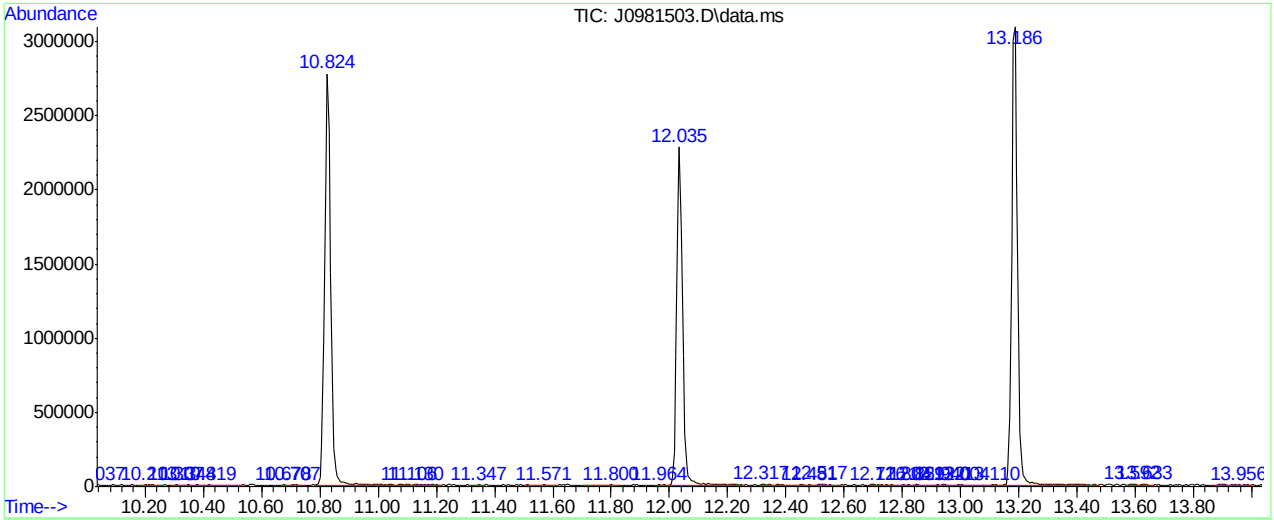
Ion	Exp%	Act%
45.10	100	100
46.10	28.70	27.70
0.00	0.00	0.00
0.00	0.00	0.00

SGS ACCUTEST FA39345

Methods: SW-846 8260B

Data File : C:\msdchem\1\data\121416\J0981503.D Vial: 1
Acq On : 14 Dec 2016 11:01 am Operator: darshnap
Sample : bfb Inst : MSVOA6
Misc : MS35779,vj5512,,,,, Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\MSJ121416.M (RTE Integrator)
Title : SW-846 Method 5030B/8260B & EPA 624



AutoFind: Scans 1693, 1694, 1695; Background Corrected with Scan 1685

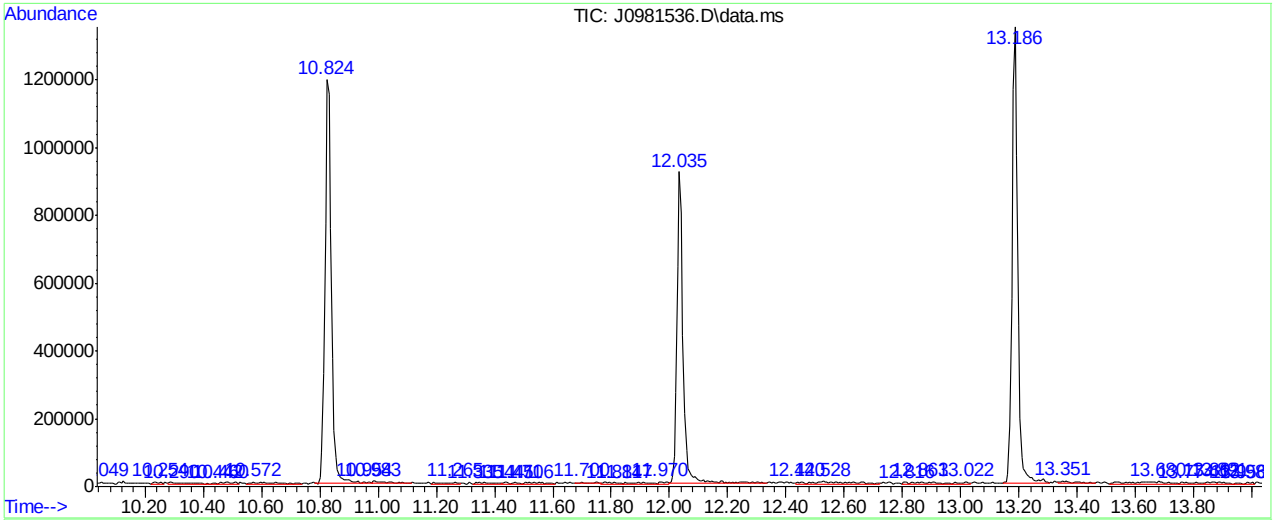
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.8	79352	PASS
75	95	30	60	49.9	190421	PASS
95	95	100	100	100.0	381611	PASS
96	95	5	9	7.0	26619	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	88.8	338752	PASS
175	174	5	9	7.1	24085	PASS
176	174	95	101	99.0	335317	PASS
177	176	5	9	6.6	22152	PASS

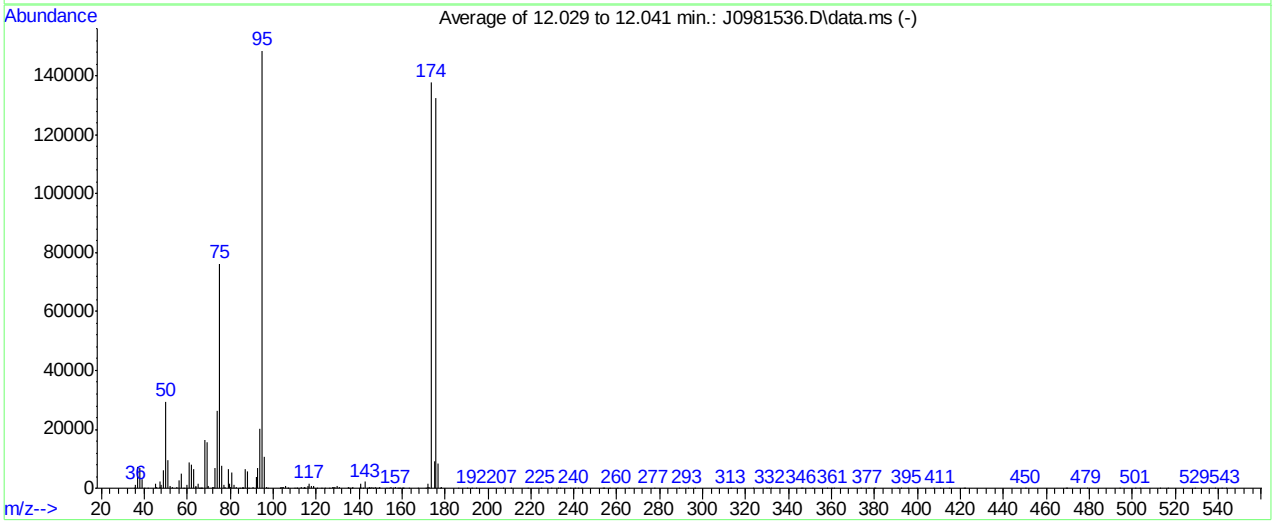
J0981503.D MSJ121416.M Thu Dec 15 10:36:27 2016

Methods: SW-846 8260B

```
Data File : C:\msdchem\1\data\121516\J0981536.D          Vial: 1
Acq On    : 15 Dec 2016   8:39 am                    Operator: darshnap
Sample    : bfb                                      Inst    : MSVOA6
Misc      : MS35797,vj5513,,,,,                      Multiplr: 1.00
MS Integration Params: RTEINT.P

Method    : C:\msdchem\1\methods\MSJ121416.M (RTE Integrator)
Title     : SW-846 Method 5030B/8260B & EPA 624
```





AutoFind: Scans 1693, 1694, 1695; Background Corrected with Scan 1685

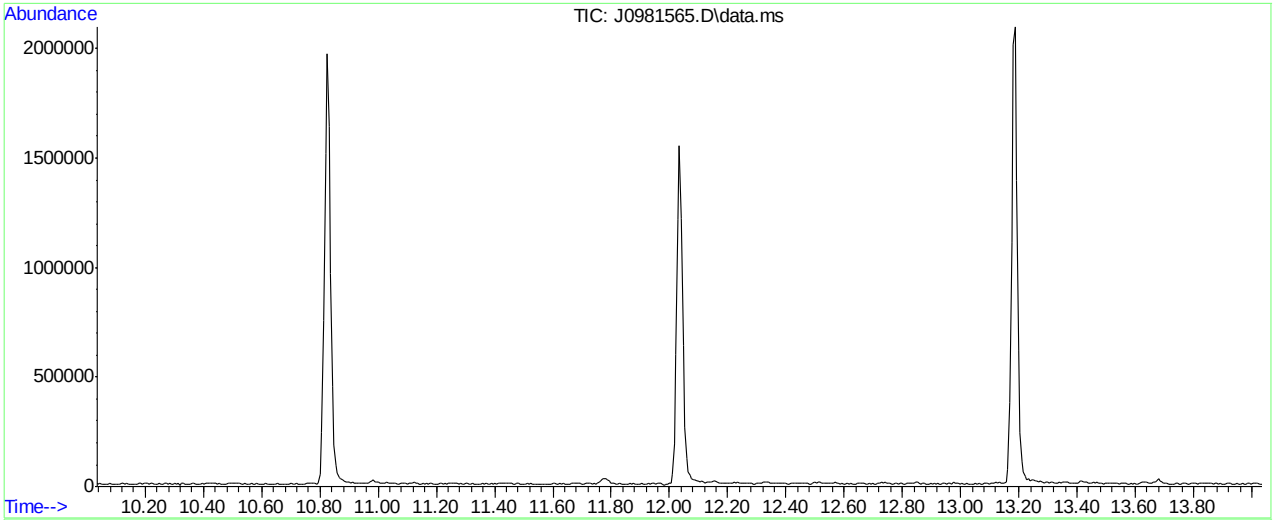
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.8	29485	PASS
75	95	30	60	51.2	76200	PASS
95	95	100	100	100.0	148699	PASS
96	95	5	9	7.2	10750	PASS
173	174	0.00	2	0.3	431	PASS
174	95	50	100	92.8	137989	PASS
175	174	5	9	6.6	9152	PASS
176	174	95	101	96.0	132461	PASS
177	176	5	9	6.4	8533	PASS

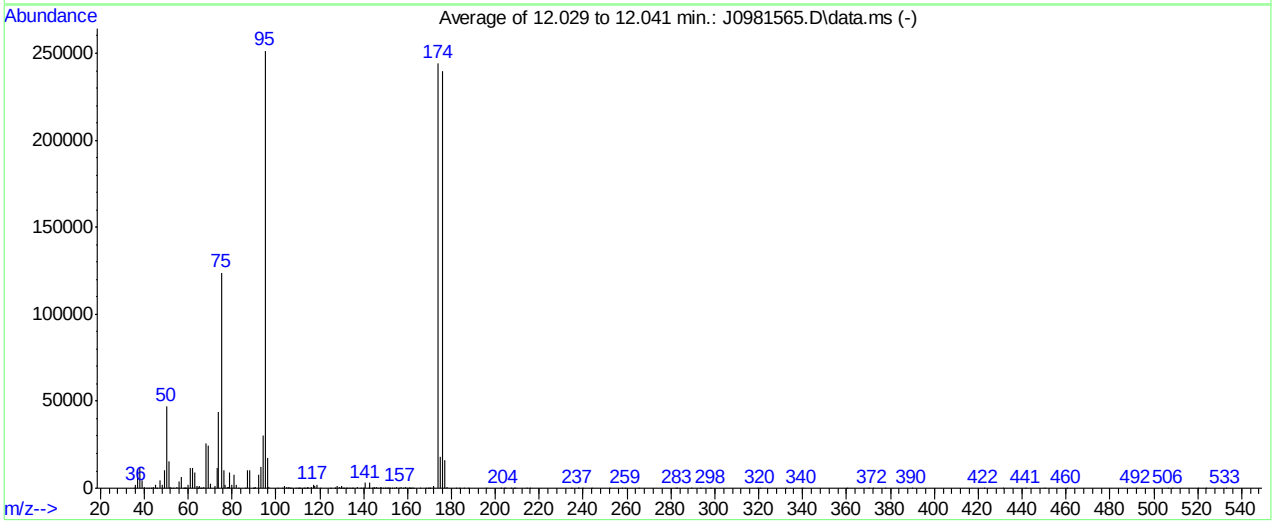
J0981536.D MSJ121416.M Fri Dec 16 09:42:59 2016

Methods: SW-846 8260B

Data File : C:\msdchem\1\data\121616\J0981565.D Vial: 1
Acq On : 16 Dec 2016 8:06 am Operator: darshnap
Sample : bfb Inst : MSVOA6
Misc : MS35465,vj5515,,,,, Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\MSJ121416.M (RTE Integrator)
Title : SW-846 Method 5030B/8260B & EPA 624





AutoFind: Scans 1693, 1694, 1695; Background Corrected with Scan 1686

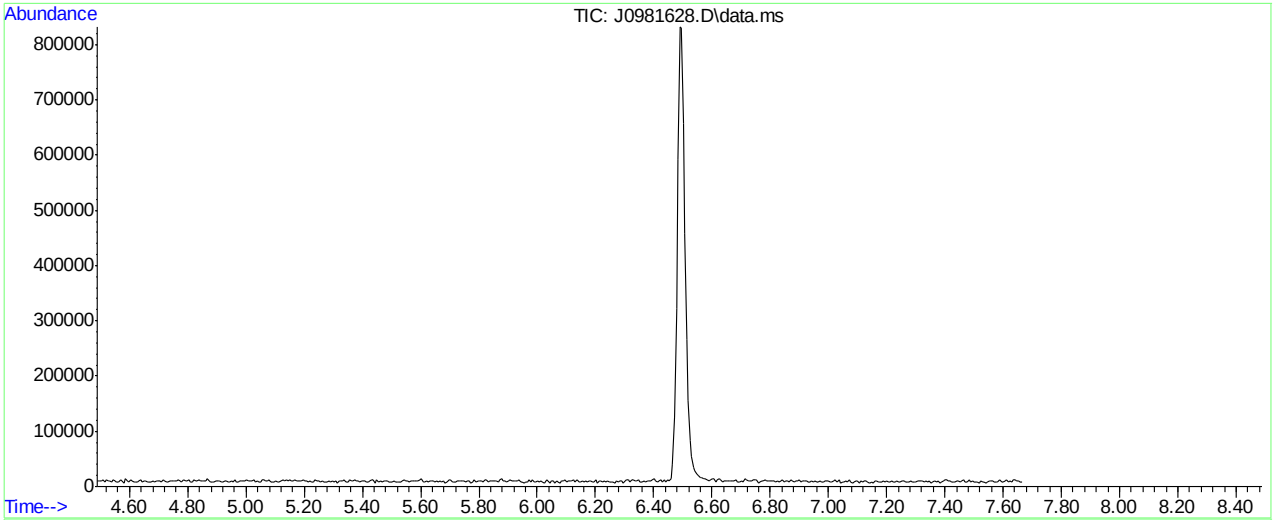
Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.7	47126	PASS
75	95	30	60	49.3	123928	PASS
95	95	100	100	100.0	251584	PASS
96	95	5	9	6.9	17285	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	100	97.1	244352	PASS
175	174	5	9	7.5	18208	PASS
176	174	95	101	98.1	239616	PASS
177	176	5	9	6.9	16430	PASS

J0981565.D MSJ121416.M Fri Dec 16 10:09:04 2016

Methods: SW-846 8260B

Data File : C:\msdchem\1\data\121916\J0981628.D Vial: 1
Acq On : 19 Dec 2016 9:19 am Operator: darshnap
Sample : bfb Inst : MSVOA6
Misc : MS35831,vj5518,,,,, Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\msdchem\1\methods\MSJ121416.M (RTE Integrator)
Title : SW-846 Method 5030B/8260B & EPA 624



AutoFind: Scans 579, 580, 581; Background Corrected with Scan 572

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.6	30251	PASS
75	95	30	60	48.8	68363	PASS
95	95	100	100	100.0	140155	PASS
96	95	5	9	7.5	10538	PASS
173	174	0.00	2	0.2	310	PASS
174	95	50	100	92.2	129264	PASS
175	174	5	9	7.9	10183	PASS
176	174	95	101	97.3	125805	PASS
177	176	5	9	6.1	7622	PASS

J0981628.D MSJ121416.M Mon Dec 19 10:57:39 2016

Manual Integrations APPROVED (compounds with "m" flag)
Juan Garcia
12/15/16 12:04

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981505.D
Acq On : 14 Dec 2016 12:01 pm
Operator : darshnap
Sample : ic5512-2 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 14 13:33:11 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.734	96	690591	50.00	ug/L	0.00
56) Chlorobenzene-d5	10.824	117	546246	50.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	13.186	152	294402	50.00	ug/L	0.00
106) Tert Butyl Alcohol-d10	5.272	65	63588	250.00	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	6.905	113	190729	51.81	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 103.62%			
46) 1,2-Dichloroethane-d4	7.458	65	226388	53.32	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 106.64%			
57) Toluene-d8	9.279	98	666785	49.91	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 99.82%			
79) 4-Bromofluorobenzene	12.035	95	242428	52.57	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 105.14%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.657	85	40735m	5.78	ug/L	
3) Chloromethane	2.863	50	60367	6.62	ug/L	89
4) Vinyl Chloride	2.998	62	49808	6.86	ug/L	92
5) 1,3-Butadiene	3.004	54	35765	4.97	ug/L	93
6) Bromomethane	3.427	94	31254	6.35	ug/L	88
7) Chloroethane	3.586	64	26190	5.94	ug/L	95
8) Trichlorofluoromethane	3.750	101	79698	7.67	ug/L	78
9) Ethyl Ether	4.109	59	30694	5.66	ug/L	92
10) 1,2-Dichlorotrifluoroe...	4.326	67	39539	6.15	ug/L	89
11) 1,1-Dichloroethene	4.367	61	45750	5.75	ug/L	98
12) Freon 113	4.438	101	34646	6.25	ug/L	88
13) Carbon Disulfide	4.449	76	94548	5.32	ug/L	96
14) Iodomethane	4.561	142	48369	5.01	ug/L	99
15) Allyl chloride	4.902	41	46330	5.51	ug/L	92
16) Methylene Chloride	5.019	49	82316	8.62	ug/L	91
17) Acetone	5.043	58	12152	24.96	ug/L #	54
18) Methyl acetate	5.172	74	19655	24.27	ug/L #	40
19) trans-1,2-Dichloroethene	5.207	61	43059	5.87	ug/L	88
20) Hexane	5.272	56	35091	6.26	ug/L #	81
21) Methyl Tert Butyl Ether	5.307	73	78097	5.20	ug/L	94
22) Acetonitrile	5.583	40	22024	62.40	ug/L #	65
23) Di-isopropyl ether	5.689	45	97364	4.44	ug/L	97
24) Chloroprene	5.854	53	43447	5.20	ug/L	87
25) 1,1-Dichloroethane	5.877	63	58617	5.75	ug/L	95
26) Acrylonitrile	5.912	53	64498	28.82	ug/L	82
27) ETBE	6.089	59	96386	4.83	ug/L	92
28) Vinyl acetate	6.089	43	403298	28.60	ug/L	99
29) cis-1,2-Dichloroethene	6.453	96	30670	4.86	ug/L	92
30) 2,2-Dichloropropane	6.576	77	42248	5.71	ug/L	89
31) Bromochloromethane	6.670	128	17308	5.37	ug/L #	87
32) Cyclohexane	6.706	56	50560	4.90	ug/L #	87
33) Chloroform	6.717	83	57952	5.60	ug/L	96
34) Ethyl acetate	6.788	43	148839	29.68	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981505.D
Acq On : 14 Dec 2016 12:01 pm
Operator : darshnap
Sample : ic5512-2 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 14 13:33:11 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
35) Tetrahydrofuran	6.899	42	9457	6.12 ug/L	76
37) Carbon Tetrachloride	6.905	117	38570m	5.35 ug/L	
38) 1,1,1-Trichloroethane	6.970	97	50882	6.01 ug/L	94
39) 2-Butanone	7.005	43	63722	29.73 ug/L	98
40) 1,1-Dichloropropene	7.087	75	36021	5.34 ug/L	89
41) tert-Butyl Formate	7.164	59	232002	49.24 ug/L #	81
42) Propionitrile	7.317	54	45937	60.17 ug/L	75
43) Methacrylonitrile	7.340	41	200671	56.84 ug/L	97
44) Benzene	7.334	78	125434	5.69 ug/L	97
45) TAME	7.411	73	76797	5.05 ug/L	87
47) 1,2-Dichloroethane	7.534	62	44702	5.82 ug/L	91
48) Trichloroethene	7.916	95	31821	5.79 ug/L	92
49) Methylcyclohexane	7.934	83	51955	5.66 ug/L	92
50) Dibromomethane	8.339	93	18867	5.62 ug/L	76
51) 1,2-Dichloropropane	8.427	63	31193	5.38 ug/L	85
52) Bromodichloromethane	8.474	83	40299	5.77 ug/L	96
53) Methyl methacrylate	8.580	41	16979	3.84 ug/L	88
54) 2-Chloroethyl vinyl ether	8.991	63	81038	21.94 ug/L	95
55) cis-1,3-Dichloropropene	9.085	75	42317	4.81 ug/L	91
58) Toluene	9.338	91	124226	5.19 ug/L	89
59) 2-Nitropropane	9.538	41	29903	25.19 ug/L	98
60) 4-Methyl-2-pentanone	9.655	43	149836	30.98 ug/L	95
61) trans-1,3-Dichloropropene	9.720	75	33651	4.48 ug/L	85
62) Tetrachloroethene	9.737	166	35780	5.96 ug/L	94
63) Ethyl methacrylate	9.825	69	27294	4.00 ug/L	89
64) 1,1,2-Trichloroethane	9.878	83	24505	5.78 ug/L	91
65) Dibromochloromethane	10.084	129	27846	5.29 ug/L	85
66) 1,3-Dichloropropane	10.166	76	46863	5.40 ug/L	95
67) 1,2-Dibromoethane	10.342	107	28102	5.60 ug/L	95
68) 2-hexanone	10.472	43	100607	26.41 ug/L	94
69) 1-Chlorohexane	10.777	91	32631	4.54 ug/L	88
70) Ethylbenzene	10.842	91	136694	4.97 ug/L	99
71) Chlorobenzene	10.848	112	92279	5.56 ug/L	86
72) 1,1,1,2-Tetrachloroethane	10.895	131	29573	5.10 ug/L	92
73) m,p-Xylene	10.977	91	210961	9.87 ug/L	94
74) o-Xylene	11.418	91	90882	4.22 ug/L	95
75) Styrene	11.471	104	70405	3.96 ug/L	95
76) Bromoform	11.523	173	15391	4.34 ug/L	89
77) Isopropylbenzene	11.723	105	116444	4.23 ug/L	96
80) cis-1,4-Dichloro-2-butene	12.076	53	7079	6.03 ug/L #	60
81) n-Propylbenzene	12.140	91	145326	4.76 ug/L	97
82) Bromobenzene	12.164	156	40880	5.81 ug/L	96
83) 1,1,2,2-Tetrachloroethane	12.199	83	39519	5.68 ug/L	87
84) 1,3,5-Trimethylbenzene	12.323	105	106493	4.63 ug/L	98
85) 2-Chlorotoluene	12.334	91	108681	5.73 ug/L	96
86) trans-1,4-Dichloro-2-B...	12.381	53	8141	4.85 ug/L #	66
87) 1,2,3-Trichloropropane	12.364	110	10428	5.35 ug/L	65
88) Cyclohexanone	12.428	55	6206	30.20 ug/L	88
89) 4-Chlorotoluene	12.499	91	92364	5.42 ug/L	95
90) a-Methyl Styrene	12.587	118	52372	4.30 ug/L	94

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981505.D
Acq On : 14 Dec 2016 12:01 pm
Operator : darshnap
Sample : ic5512-2 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 14 13:33:11 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91) tert-Butylbenzene	12.669	91	61064	5.67	ug/L	96
92) 1,2,4-Trimethylbenzene	12.734	105	117329	5.01	ug/L	95
93) Pentachloroethane	12.716	167	22236	5.35	ug/L	94
94) sec-Butylbenzene	12.851	105	140295	4.89	ug/L	93
95) 4-Isopropyltoluene	12.981	119	109895	4.62	ug/L	97
96) 1,3-Dichlorobenzene	13.116	146	72259	5.87	ug/L	92
97) 1,4-Dichlorobenzene	13.198	146	77675	5.83	ug/L	96
98) n-Butylbenzene	13.415	92	61952	4.64	ug/L	96
99) Benzyl Chloride	13.427	126	9704	4.09	ug/L #	96
100) 1,2-Dichlorobenzene	13.627	146	69775	5.11	ug/L	92
101) 1,2-Dibromo-3-Chloropr...	14.367	75	5329	5.75	ug/L #	83
102) Hexachlorobutadiene	14.908	225	22089	4.71	ug/L	81
103) 1,2,4-Trichlorobenzene	14.955	180	42227	4.72	ug/L	93
104) Naphthalene	15.243	128	71117	3.70	ug/L	92
105) 1,2,3-Trichlorobenzene	15.413	180	42840	5.03	ug/L	96
107) Ethanol	4.285	45	9391m	146.86	ug/L	
108) acrolein	4.737	56	29333	32.22	ug/L	92
109) Tert Butyl Alcohol	5.360	59	23360	50.27	ug/L	83
110) tert Amyl alcohol	7.557	59	17450	46.17	ug/L #	85
111) Isobutyl alcohol	7.434	42	15643	87.23	ug/L #	88
112) 1,4-Dioxane	8.650	88	4664	89.72	ug/L	90
113) 3,3-Dimethyl-1-butanol	10.413	57	101869	208.77	ug/L	90

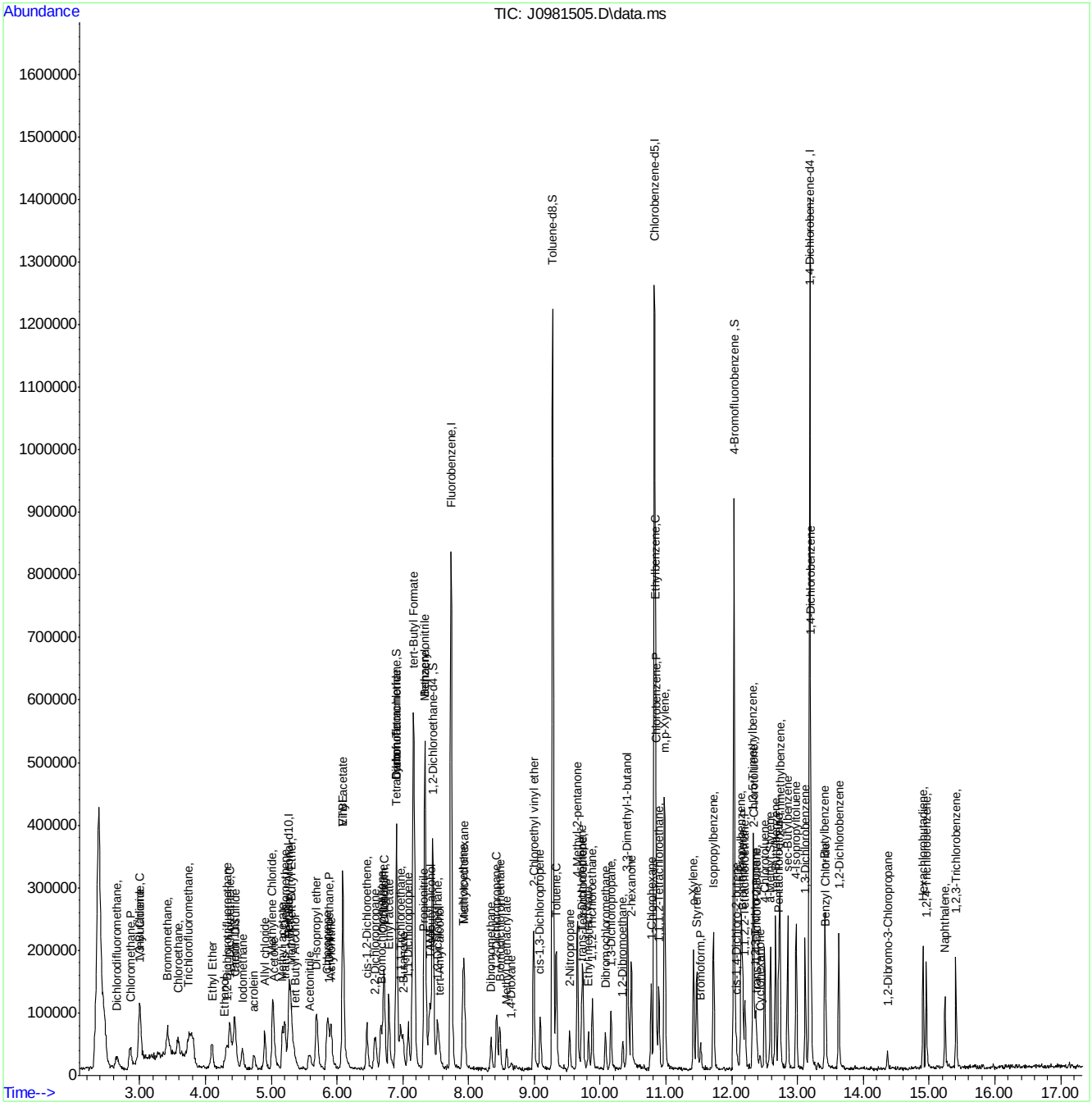
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981505.D
Acq On : 14 Dec 2016 12:01 pm
Operator : darshnap
Sample : ic5512-2 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 14 13:33:11 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration


Abundance
TIC: J0981505.D\data.ms
Time-->
Toluene-d8,S
Chlorobenzene-d5,I
Fluorobenzene,I
4-Bromofluorobenzene ,S
1,4-Dichlorobenzene-d4 ,I
Ethylbenzene,C
Chlorobenzene,P
m,p-Xylene,
1,2-Dichloroethane-d4 ,S
tert-Butyl Formate
Methanol
Methanethiol
Propionitrile
Methyl Acetate
Ethyl Acetate
Tetrahydrofuran
Dichlorodifluoromethane,
Chloromethane,P
Vinyl Chloride,C
Bromomethane,
Chloroethane,
Trichlorofluoromethane,
Ethyl Ether
Iodomethane
acrolein
Allyl chloride
Acetonitrile
Isopropyl ether
cis-1,2-Dichloroethene,
Methylene Chloride
Methyl Acrylate
Methyl Methacrylate
Methyl Tert Butyl Ether
Tert Butyl Alcohol
Ethyl Tert Butyl Ether
Tert-Amyl Methyl Ether
Tert-Amyl Alcohol
Tetrachloroethane,S
Ethanol
Methyl Ethyl Ketone
Methyl Acrylate
Methyl Methacrylate
Methyl Tert Butyl Ether
Tert Butyl Alcohol
Ethyl Tert Butyl Ether
Tert-Amyl Methyl Ether
Tert-Amyl Alcohol
Ethanol
Methyl Ethyl Ketone
Methyl Acrylate
Methyl Methacrylate
Methyl Tert Butyl Ether
Tert Butyl Alcohol
Ethyl Tert Butyl Ether
Tert-Amyl Methyl Ether
Tert-Amyl Alcoh

Manual Integration Approval Summary

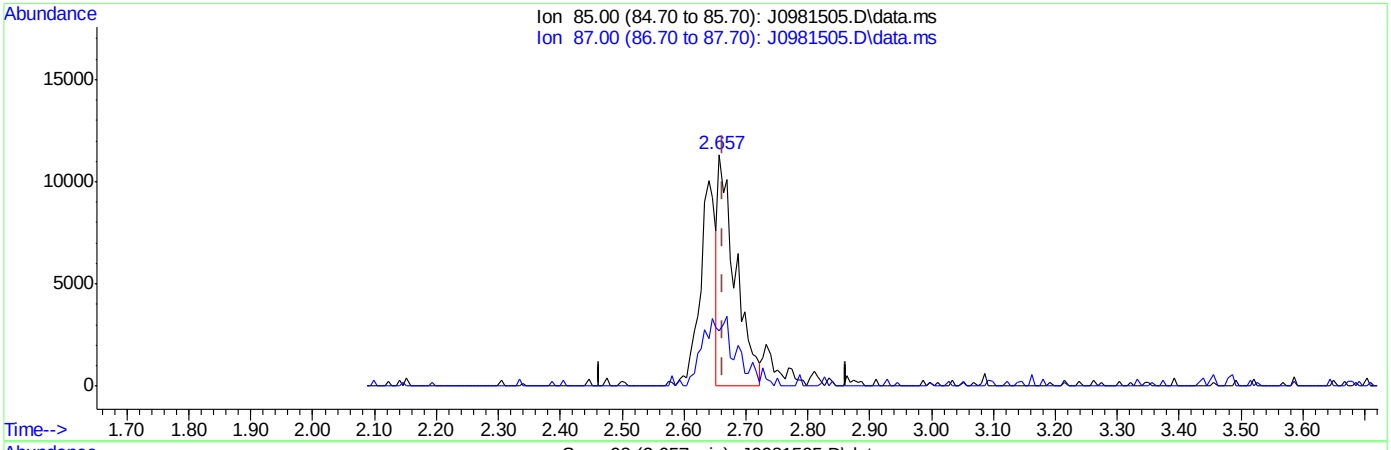
Sample Number:	VJ5512-IC5512	**Method:**	SW846 8260B
Lab FileID:	J0981505.D	**Analyst approved:**	12/15/16 10:38 Darshna Patel
Injection Time:	12/14/16 12:01	**Supervisor approved:**	12/15/16 12:04 Juan Garcia

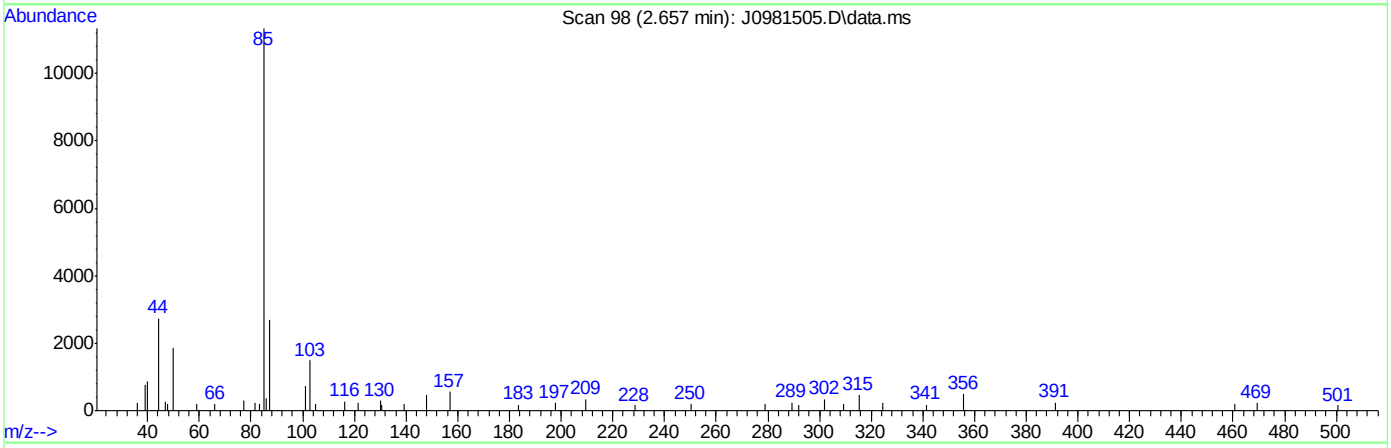
Parameter	CAS	Sig#	R.T. (min.)	Reason
Dichlorodifluoromethane	75-71-8		2.66	Poor instrument integration
Ethyl Alcohol	64-17-5		4.28	Poor instrument integration
Carbon Tetrachloride	56-23-5		6.91	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981505.D
Acq On : 14 Dec 2016 12:01 pm
Operator : darshnap
Sample : ic5512-2 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 14 12:26:48 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981505.D\data.ms

(2) Dichlorodifluoromethane ( )

2.657min (-0.006) 3.07ug/L

response 21678

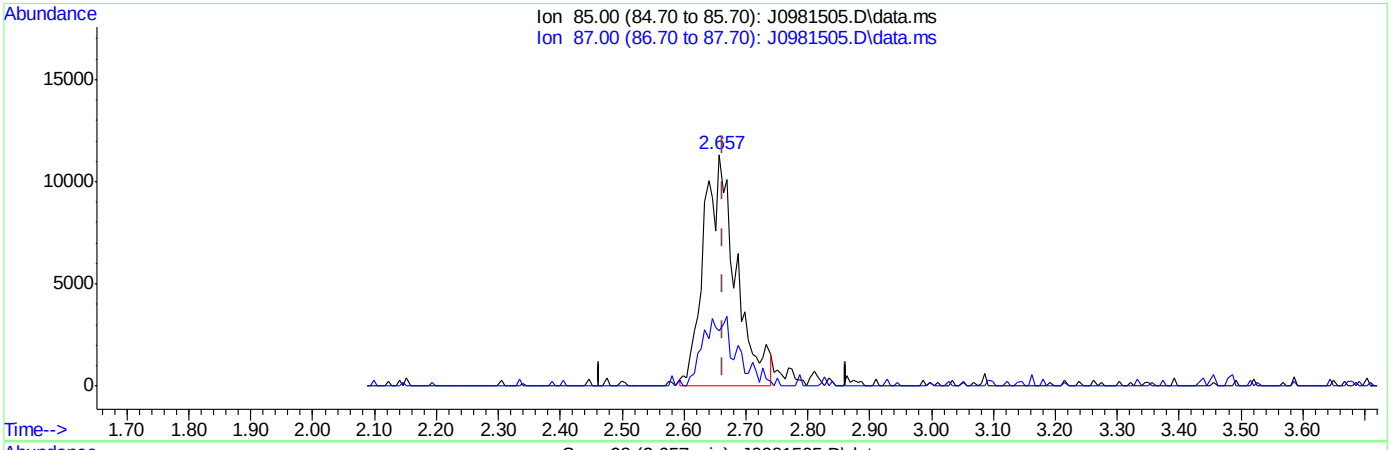
Ion	Exp%	Act%
85.00	100	100
87.00	33.90	24.68
0.00	0.00	0.00
0.00	0.00	0.00

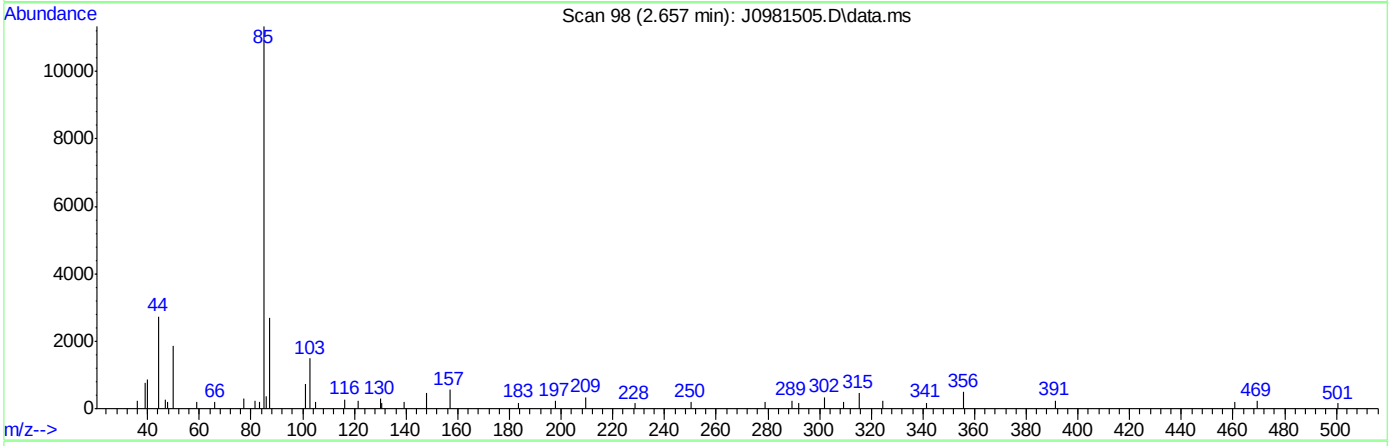
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981505.D
Acq On : 14 Dec 2016 12:01 pm
Operator : darshnap
Sample : ic5512-2 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 14 12:26:48 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981505.D\data.ms

(2) Dichlorodifluoromethane ( )

2.657min (-0.006) 5.78ug/L m

response 40735

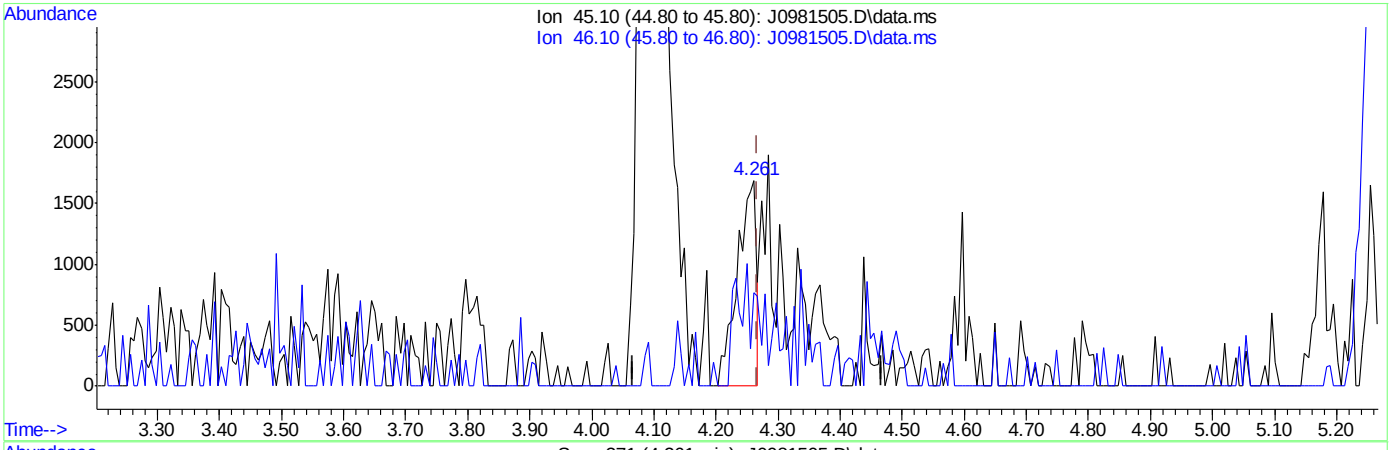
Ion	Exp%	Act%
85.00	100	100
87.00	33.90	23.85
0.00	0.00	0.00
0.00	0.00	0.00

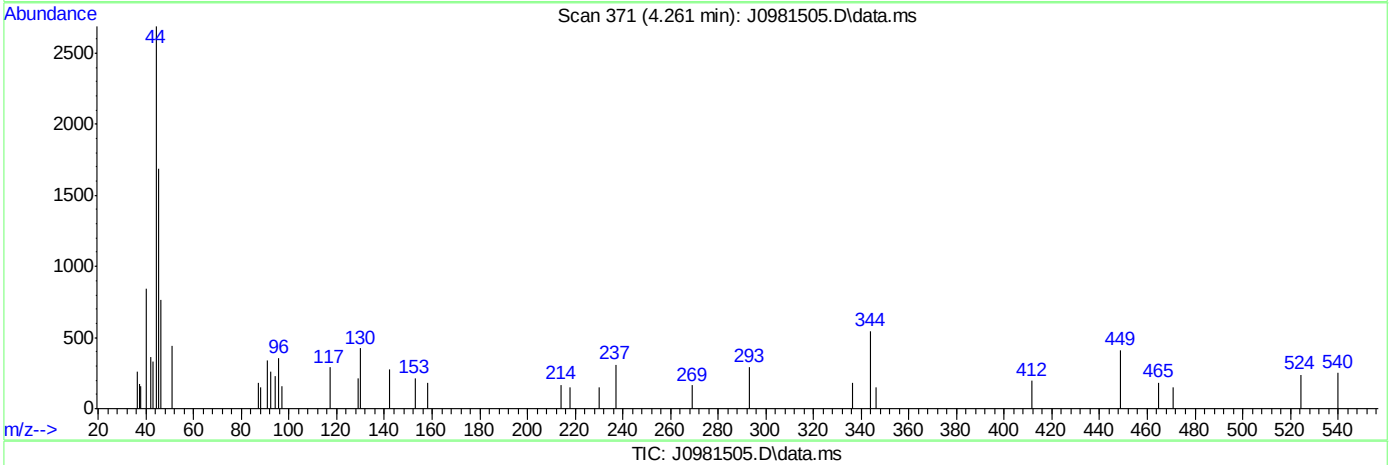
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981505.D
Acq On : 14 Dec 2016 12:01 pm
Operator : darshnap
Sample : ic5512-2 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 14 12:26:48 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981505.D\data.ms

(107) Ethanol

4.261min (-0.006) 56.27ug/L

response 3639

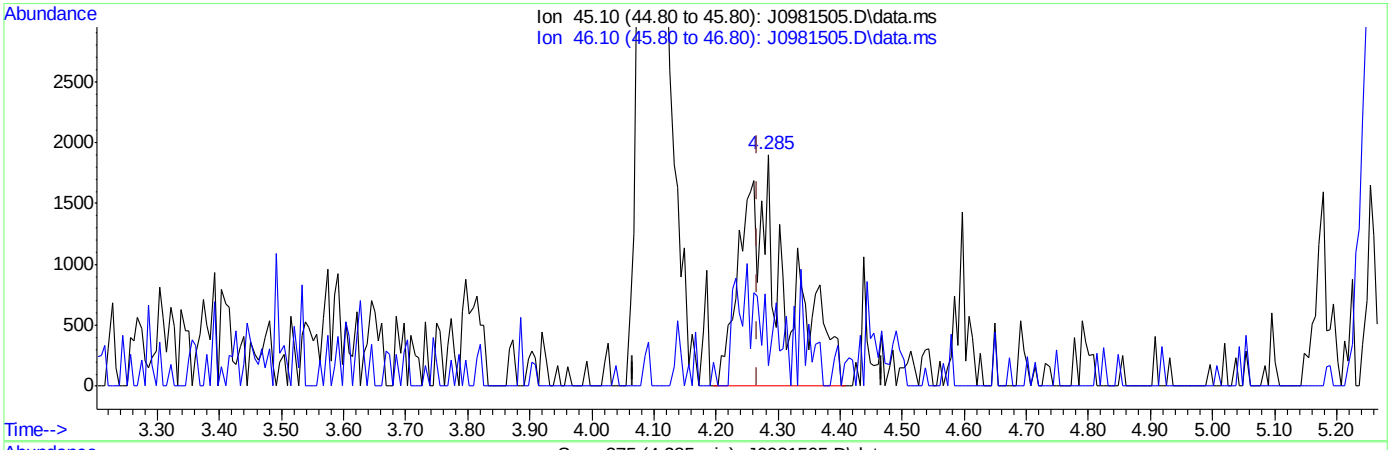
Ion	Exp%	Act%
45.10	100	100
46.10	29.70	45.30
0.00	0.00	0.00
0.00	0.00	0.00

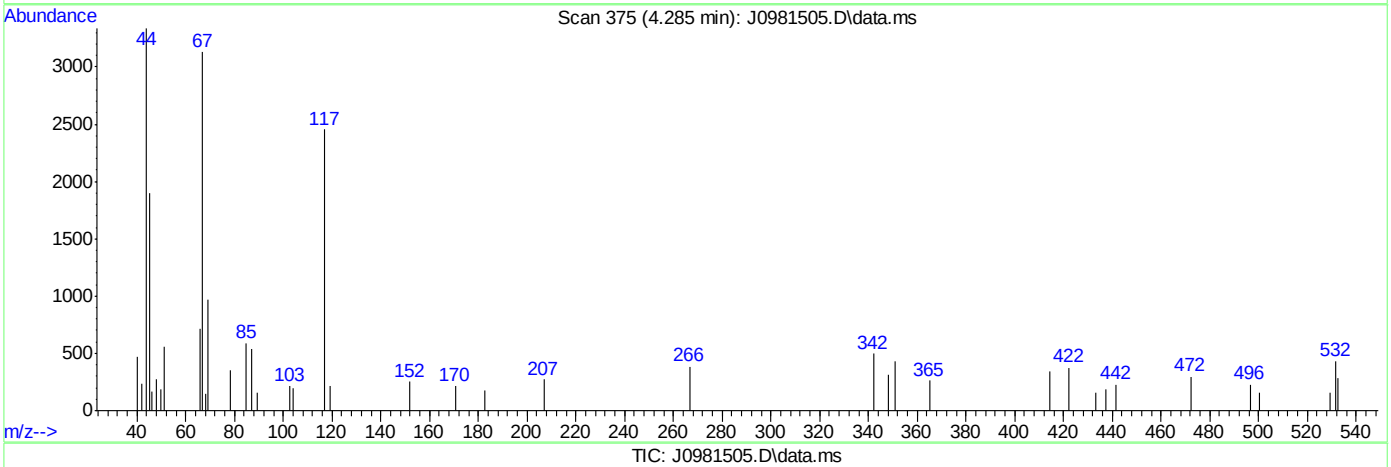
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981505.D
Acq On : 14 Dec 2016 12:01 pm
Operator : darshnap
Sample : ic5512-2 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 14 12:26:48 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981505.D\data.ms

(107) Ethanol

4.285min (+0.018) 146.86ug/L m

response 9391

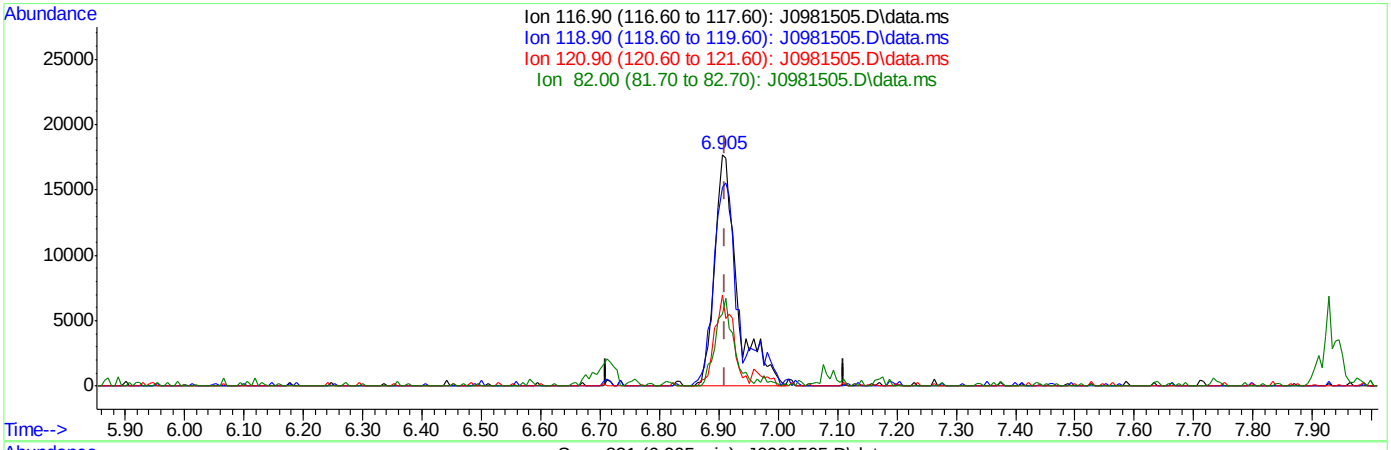
Ion	Exp%	Act%
45.10	100	100
46.10	29.70	8.68#
0.00	0.00	0.00
0.00	0.00	0.00

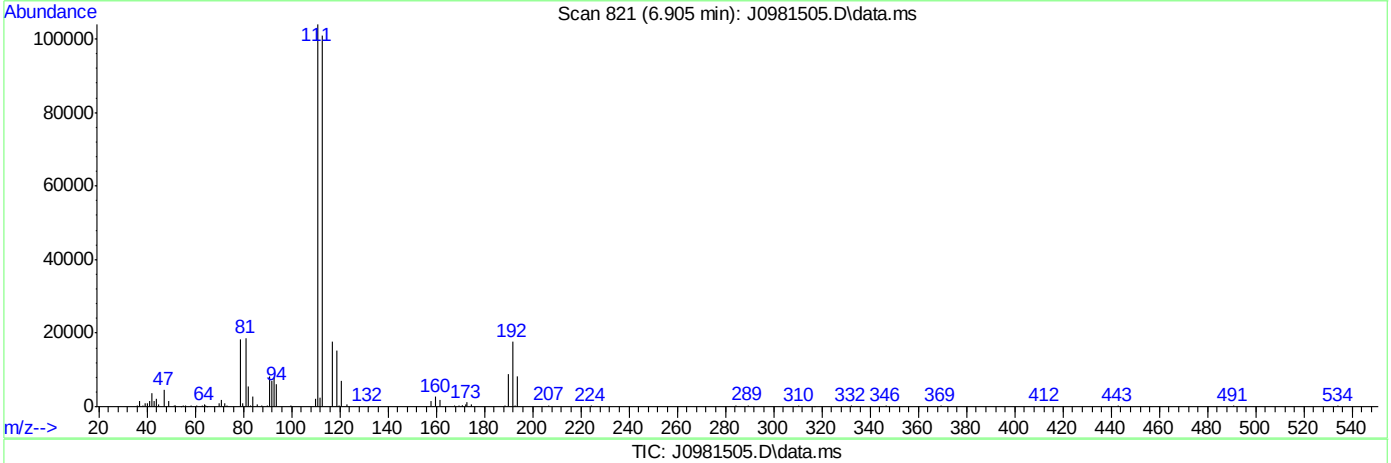
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981505.D
Acq On : 14 Dec 2016 12:01 pm
Operator : darshnap
Sample : ic5512-2 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 14 12:26:48 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





(37) Carbon Tetrachloride ( )

6.905min (-0.006) 6.50ug/L

response 46838

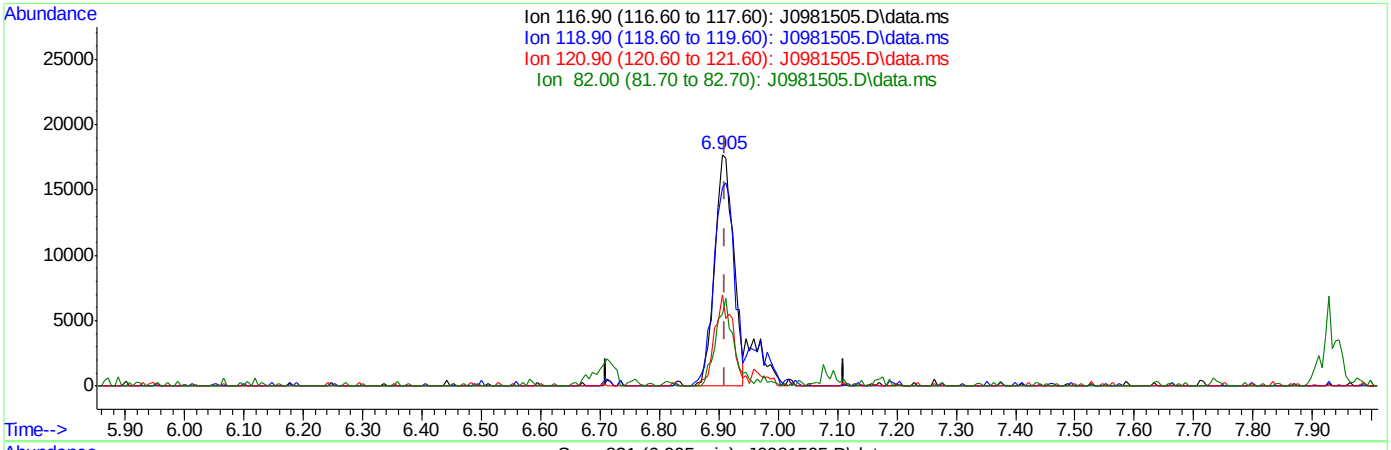
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	85.86
120.90	29.40	39.39
82.00	25.10	31.29

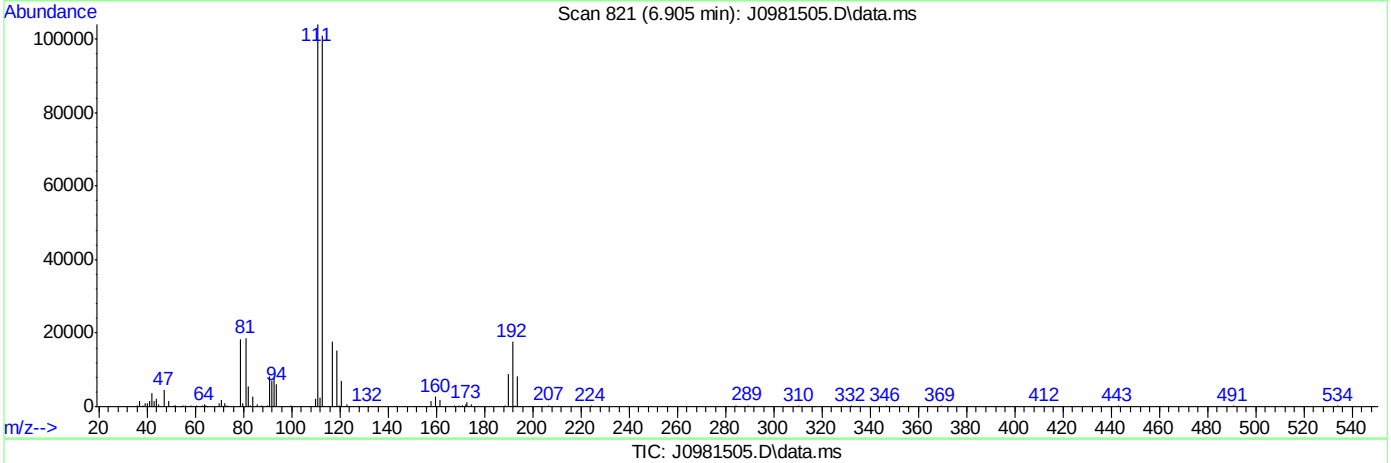
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981505.D
Acq On : 14 Dec 2016 12:01 pm
Operator : darshnap
Sample : ic5512-2 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 14 12:26:48 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





(37) Carbon Tetrachloride ( )

6.905min (-0.006) 5.35ug/L m

response 38570

Ion	Exp%	Act%
116.90	100	100
118.90	99.30	85.86
120.90	29.40	39.39
82.00	25.10	31.29

SGS ACCUTEST FA39345

Manual Integrations APPROVED (compounds with "m" flag)
Juan Garcia
12/15/16 12:04

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981506.D
Acq On : 14 Dec 2016 12:25 pm
Operator : darshnap
Sample : ic5512-3 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 14 13:35:40 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.734	96	713839	50.00	ug/L	0.00
56) Chlorobenzene-d5	10.825	117	563913	50.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	13.186	152	313119	50.00	ug/L	0.00
106) Tert Butyl Alcohol-d10	5.272	65	68610	250.00	ug/L	# 0.00
System Monitoring Compounds						
36) Dibromofluoromethane	6.905	113	196951	51.76	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 103.52%			
46) 1,2-Dichloroethane-d4	7.458	65	229408	52.27	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 104.54%			
57) Toluene-d8	9.279	98	687089	49.82	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 99.64%			
79) 4-Bromofluorobenzene	12.035	95	250276	51.03	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 102.06%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.669	85	72472	9.94	ug/L	91
3) Chloromethane	2.863	50	99833	10.63	ug/L	91
4) Vinyl Chloride	3.004	62	87523	11.64	ug/L	92
5) 1,3-Butadiene	3.010	54	85098	11.55	ug/L	92
6) Bromomethane	3.439	94	58344	11.59	ug/L	91
7) Chloroethane	3.586	64	44742	9.99	ug/L	95
8) Trichlorofluoromethane	3.780	101	119482	11.13	ug/L	95
9) Ethyl Ether	4.103	59	63645	11.35	ug/L #	87
10) 1,2-Dichlorotrifluoroe...	4.332	67	83038	12.50	ug/L	86
11) 1,1-Dichloroethene	4.379	61	91461	11.12	ug/L	90
12) Freon 113	4.444	101	68767	12.00	ug/L	87
13) Carbon Disulfide	4.455	76	204075	11.11	ug/L	98
14) Iodomethane	4.567	142	107094	10.74	ug/L	97
15) Allyl chloride	4.902	41	104705	12.05	ug/L	94
16) Methylene Chloride	5.031	49	138829	14.22	ug/L	98
17) Acetone	5.055	58	28300	56.37	ug/L	92
18) Methyl acetate	5.178	74	44908	53.64	ug/L #	81
19) trans-1,2-Dichloroethene	5.213	61	90029	11.87	ug/L	88
20) Hexane	5.284	56	71226	12.35	ug/L #	83
21) Methyl Tert Butyl Ether	5.313	73	172478	11.12	ug/L	90
22) Acetonitrile	5.572	40	49926	136.05	ug/L #	79
23) Di-isopropyl ether	5.695	45	224557	9.97	ug/L	86
24) Chloroprene	5.854	53	94071	10.86	ug/L	95
25) 1,1-Dichloroethane	5.883	63	118248	11.22	ug/L	86
26) Acrylonitrile	5.913	53	150182	64.92	ug/L	93
27) ETBE	6.095	59	207199	10.09	ug/L	95
28) Vinyl acetate	6.089	43	913104	64.36	ug/L	97
29) cis-1,2-Dichloroethene	6.459	96	69142	10.61	ug/L	90
30) 2,2-Dichloropropane	6.582	77	84458	11.05	ug/L	91
31) Bromochloromethane	6.676	128	33468	10.04	ug/L #	76
32) Cyclohexane	6.717	56	114286	10.74	ug/L	91
33) Chloroform	6.717	83	127916	11.95	ug/L	88
34) Ethyl acetate	6.782	43	373937	72.14	ug/L	98

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981506.D
Acq On : 14 Dec 2016 12:25 pm
Operator : darshnap
Sample : ic5512-3 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 14 13:35:40 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
35) Tetrahydrofuran	6.900	42	22130	13.91 ug/L #	71
37) Carbon Tetrachloride	6.917	117	92668m	12.44 ug/L	
38) 1,1,1-Trichloroethane	6.976	97	97955	11.19 ug/L	87
39) 2-Butanone	7.005	43	138581	62.56 ug/L	98
40) 1,1-Dichloropropene	7.088	75	80837	11.60 ug/L	97
41) tert-Butyl Formate	7.170	59	520951	108.28 ug/L #	82
42) Propionitrile	7.311	54	98866	125.28 ug/L	94
43) Methacrylonitrile	7.340	41	415543	116.10 ug/L	95
44) Benzene	7.334	78	263367	11.56 ug/L	97
45) TAME	7.417	73	171593	10.92 ug/L	93
47) 1,2-Dichloroethane	7.528	62	94015	11.85 ug/L	98
48) Trichloroethene	7.916	95	64188	11.29 ug/L	87
49) Methylcyclohexane	7.940	83	105852	11.16 ug/L	95
50) Dibromomethane	8.339	93	39301	11.33 ug/L	90
51) 1,2-Dichloropropane	8.433	63	66649	11.13 ug/L	96
52) Bromodichloromethane	8.474	83	80429	11.13 ug/L	88
53) Methyl methacrylate	8.574	41	45467	9.95 ug/L	85
54) 2-Chloroethyl vinyl ether	8.985	63	200178	52.89 ug/L	92
55) cis-1,3-Dichloropropene	9.091	75	100370	11.06 ug/L	95
58) Toluene	9.332	91	269305	11.02 ug/L	95
59) 2-Nitropropane	9.538	41	69407	56.63 ug/L	99
60) 4-Methyl-2-pentanone	9.655	43	327249	65.54 ug/L	96
61) trans-1,3-Dichloropropene	9.720	75	82400	10.66 ug/L	93
62) Tetrachloroethene	9.738	166	72302	11.67 ug/L	90
63) Ethyl methacrylate	9.820	69	59445	8.43 ug/L #	79
64) 1,1,2-Trichloroethane	9.884	83	52869	12.08 ug/L	92
65) Dibromochloromethane	10.078	129	62223	11.45 ug/L	88
66) 1,3-Dichloropropane	10.166	76	100051	11.17 ug/L	94
67) 1,2-Dibromoethane	10.343	107	57996	11.20 ug/L	100
68) 2-hexanone	10.472	43	225742	58.02 ug/L	97
69) 1-Chlorohexane	10.778	91	73839	9.93 ug/L	86
70) Ethylbenzene	10.842	91	304219	10.87 ug/L	100
71) Chlorobenzene	10.842	112	191638	11.28 ug/L	97
72) 1,1,1,2-Tetrachloroethane	10.889	131	63740	10.64 ug/L	95
73) m,p-Xylene	10.977	91	447533	20.68 ug/L	96
74) o-Xylene	11.418	91	217330	9.86 ug/L	99
75) Styrene	11.471	104	184788	10.16 ug/L	96
76) Bromoform	11.530	173	37645	10.28 ug/L	91
77) Isopropylbenzene	11.723	105	267094	9.51 ug/L	97
80) cis-1,4-Dichloro-2-butene	12.070	53	15920	12.45 ug/L #	78
81) n-Propylbenzene	12.141	91	340664	10.68 ug/L	96
82) Bromobenzene	12.164	156	88095	11.77 ug/L	89
83) 1,1,2,2-Tetrachloroethane	12.199	83	81877	11.19 ug/L	99
84) 1,3,5-Trimethylbenzene	12.323	105	248012	10.27 ug/L	99
85) 2-Chlorotoluene	12.335	91	254328	12.61 ug/L	99
86) trans-1,4-Dichloro-2-B...	12.382	53	20473	11.56 ug/L #	88
87) 1,2,3-Trichloropropane	12.364	110	22362	10.91 ug/L	86
88) Cyclohexanone	12.429	55	14948	69.06 ug/L	96
89) 4-Chlorotoluene	12.499	91	209816	11.57 ug/L	99
90) a-Methyl Styrene	12.587	118	129220	10.01 ug/L	99

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981506.D
Acq On : 14 Dec 2016 12:25 pm
Operator : darshnap
Sample : ic5512-3 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 14 13:35:40 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
91) tert-Butylbenzene	12.664	91	138793	12.12 ug/L	96
92) 1,2,4-Trimethylbenzene	12.734	105	264722	10.80 ug/L	98
93) Pentachloroethane	12.716	167	49588	11.22 ug/L	94
94) sec-Butylbenzene	12.852	105	312996	10.41 ug/L	97
95) 4-Isopropyltoluene	12.981	119	254666	10.20 ug/L	98
96) 1,3-Dichlorobenzene	13.116	146	158017	12.06 ug/L	96
97) 1,4-Dichlorobenzene	13.204	146	166275	11.73 ug/L	97
98) n-Butylbenzene	13.416	92	142170	10.08 ug/L	94
99) Benzyl Chloride	13.433	126	24630	9.75 ug/L #	73
100) 1,2-Dichlorobenzene	13.627	146	160338	11.17 ug/L	99
101) 1,2-Dibromo-3-Chloropr...	14.362	75	12418	12.59 ug/L	91
102) Hexachlorobutadiene	14.908	225	53126	10.65 ug/L	91
103) 1,2,4-Trichlorobenzene	14.955	180	101261	10.63 ug/L	98
104) Naphthalene	15.243	128	178430	8.81 ug/L	98
105) 1,2,3-Trichlorobenzene	15.407	180	103090	11.38 ug/L	89
107) Ethanol	4.261	45	14527m	212.30 ug/L	
108) acrolein	4.743	56	50794	51.72 ug/L	94
109) Tert Butyl Alcohol	5.360	59	53723	108.13 ug/L	90
110) tert Amyl alcohol	7.564	59	42617	104.51 ug/L	86
111) Isobutyl alcohol	7.434	42	42501	219.64 ug/L	92
112) 1,4-Dioxane	8.651	88	13427	242.45 ug/L	84
113) 3,3-Dimethyl-1-butanol	10.413	57	249385	479.07 ug/L	96

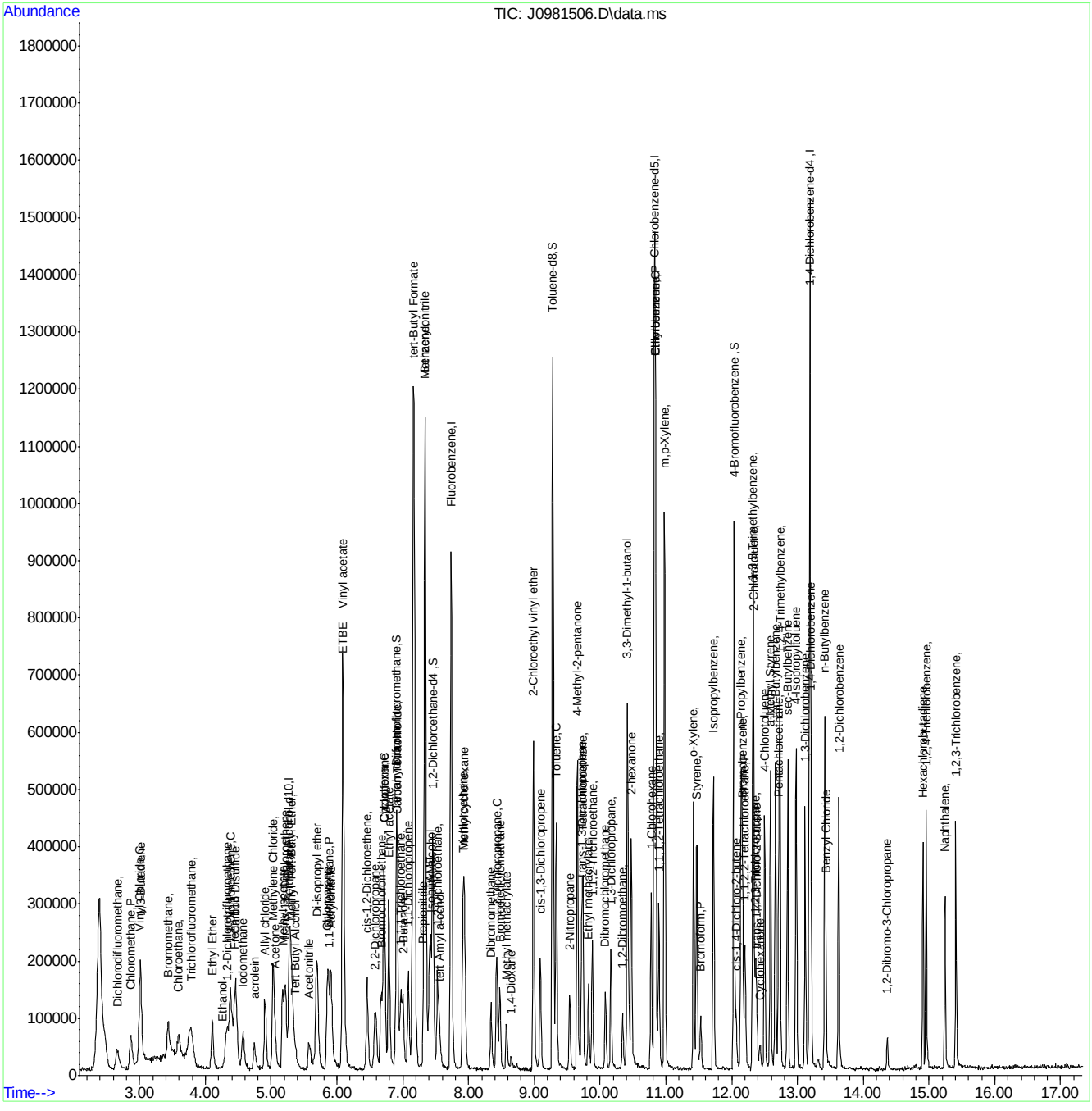
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981506.D
Acq On : 14 Dec 2016 12:25 pm
Operator : darshnap
Sample : ic5512-3 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 14 13:35:40 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration



SGS ACCUTEST FA39345

Manual Integration Approval Summary

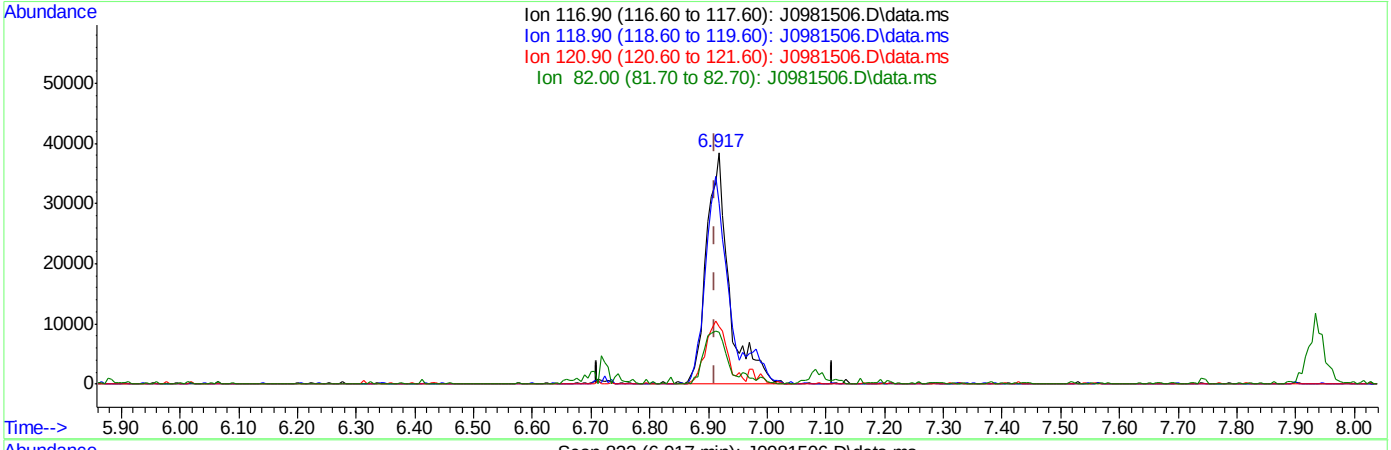
Sample Number:	VJ5512-IC5512	**Method:**	SW846 8260B
Lab FileID:	J0981506.D	**Analyst approved:**	12/15/16 10:38 Darshna Patel
Injection Time:	12/14/16 12:25	**Supervisor approved:**	12/15/16 12:04 Juan Garcia

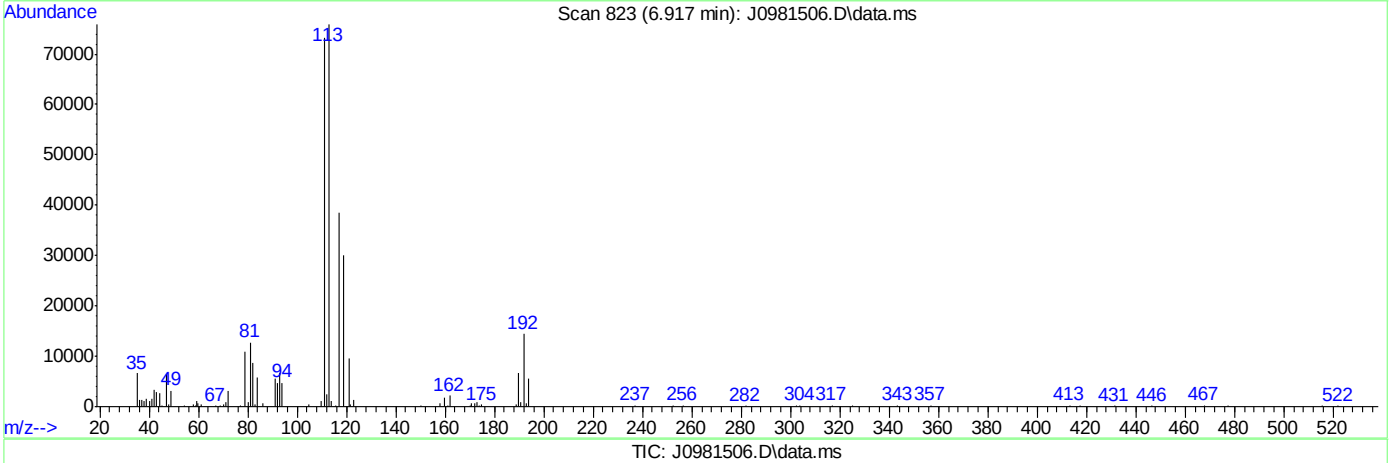
Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Alcohol	64-17-5		4.26	Poor instrument integration
Carbon Tetrachloride	56-23-5		6.92	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981506.D
Acq On : 14 Dec 2016 12:25 pm
Operator : darshnap
Sample : ic5512-3 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 14 13:34:57 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981506.D\data.ms

(37) Carbon Tetrachloride ( )

6.917min (+0.006) 13.68ug/L

response 101885

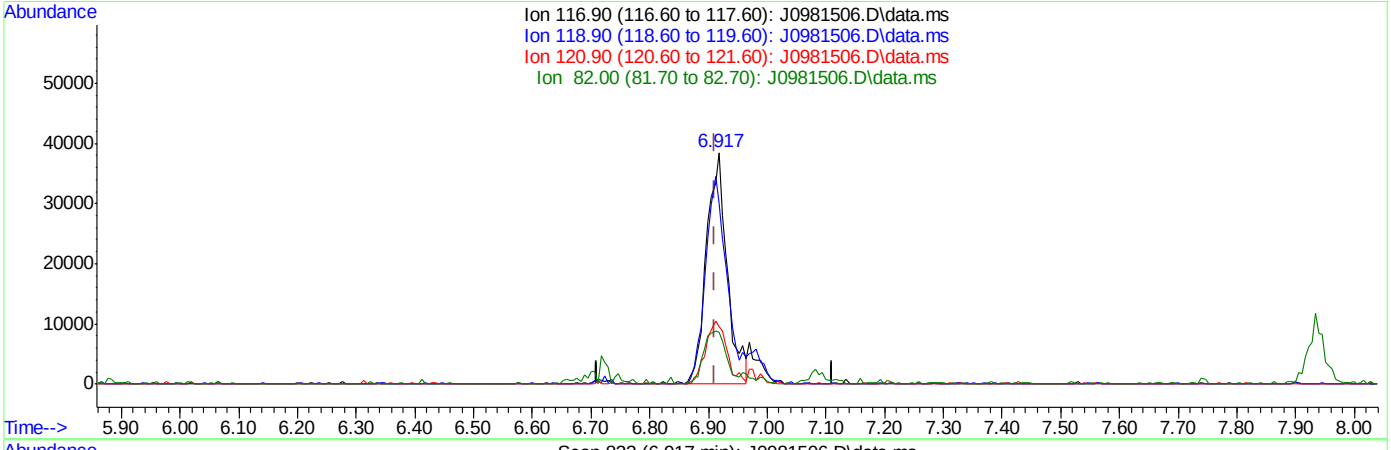
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	78.09
120.90	29.40	25.09
82.00	25.10	22.66

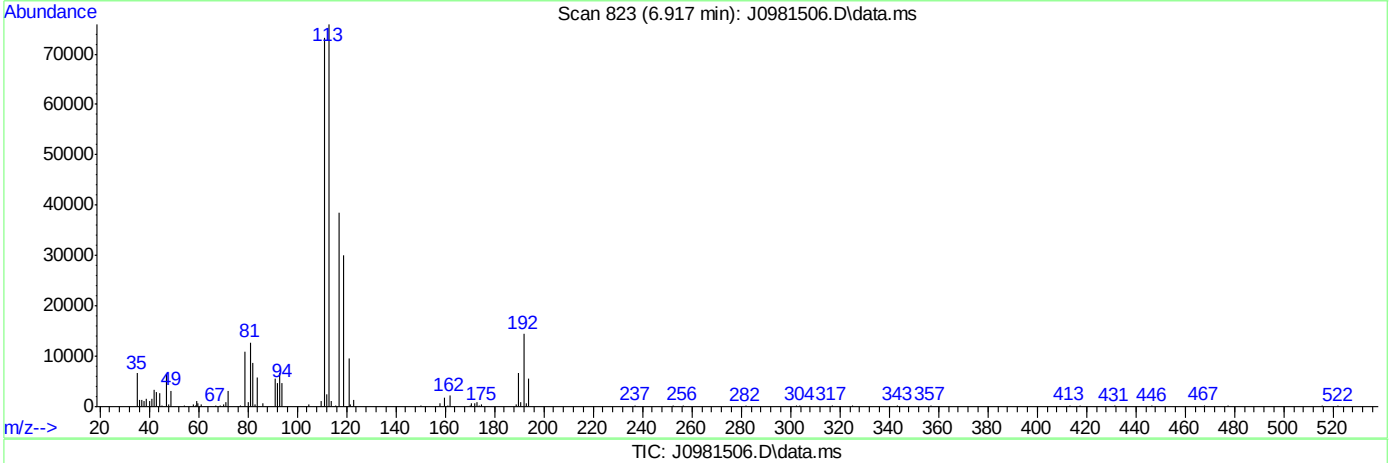
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981506.D
Acq On : 14 Dec 2016 12:25 pm
Operator : darshnap
Sample : ic5512-3 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 14 13:34:57 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981506.D\data.ms

(37) Carbon Tetrachloride ( )

6.917min (+0.006) 12.44ug/L m

response 92668

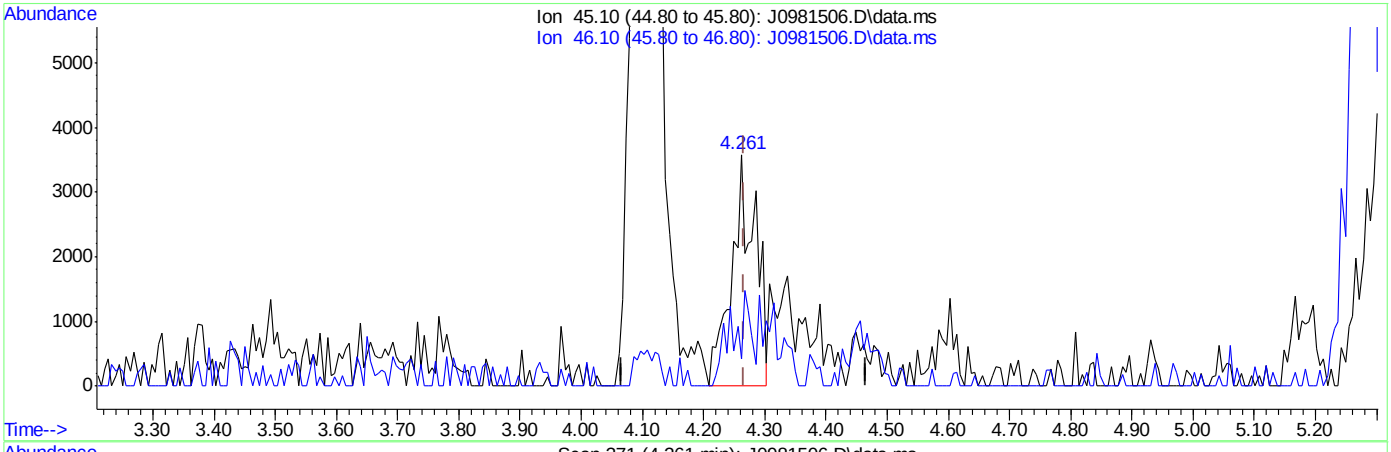
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	78.09
120.90	29.40	25.09
82.00	25.10	22.66

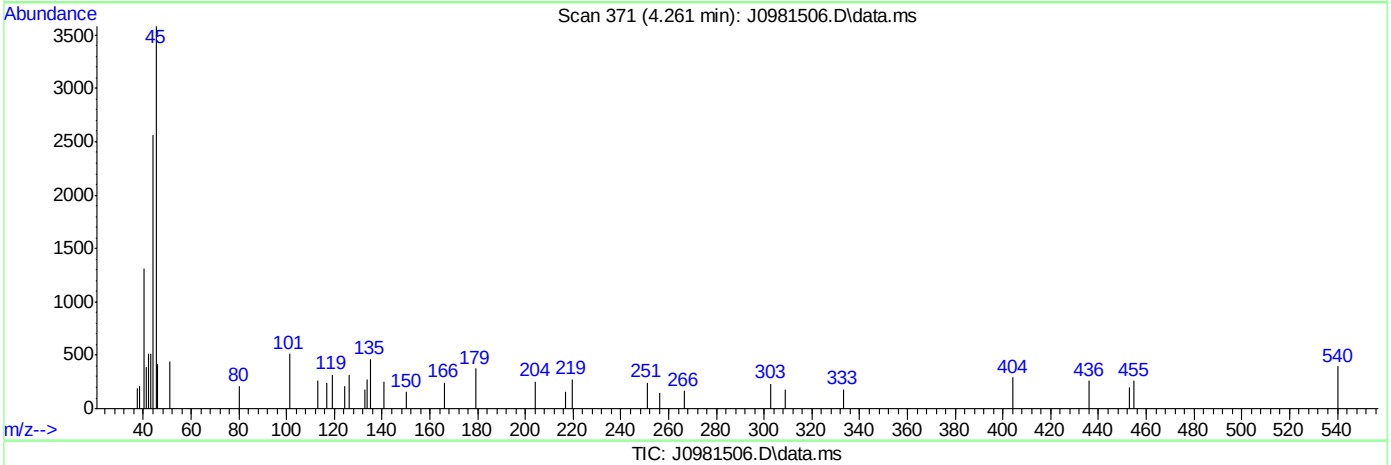
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981506.D
Acq On : 14 Dec 2016 12:25 pm
Operator : darshnap
Sample : ic5512-3 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 14 13:34:57 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981506.D\data.ms

(107) Ethanol

4.261min (-0.006) 138.50ug/L

response 9566

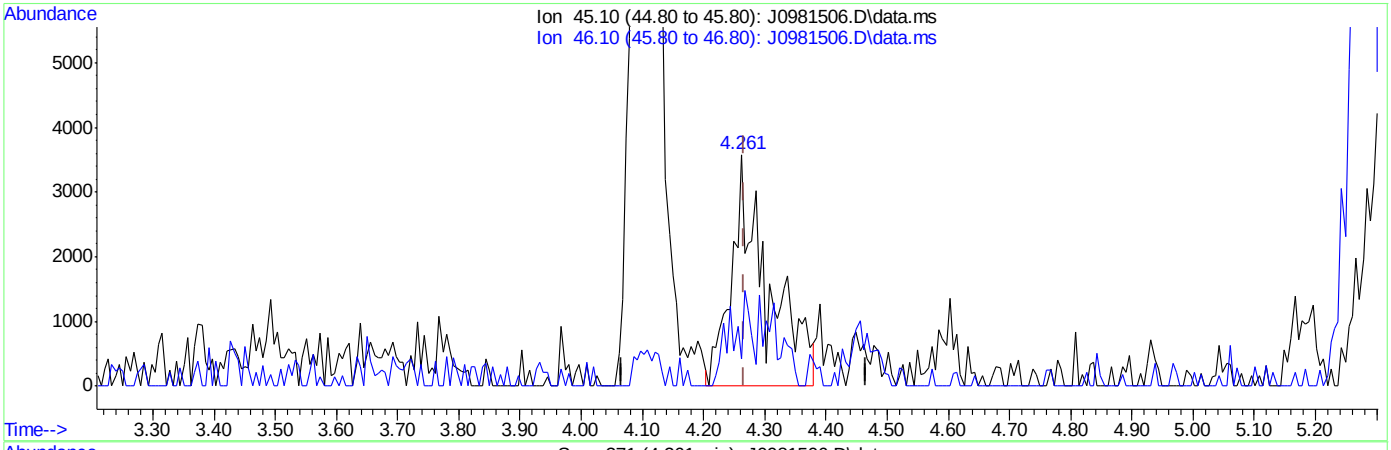
Ion	Exp%	Act%
45.10	100	100
46.10	29.70	11.64
0.00	0.00	0.00
0.00	0.00	0.00

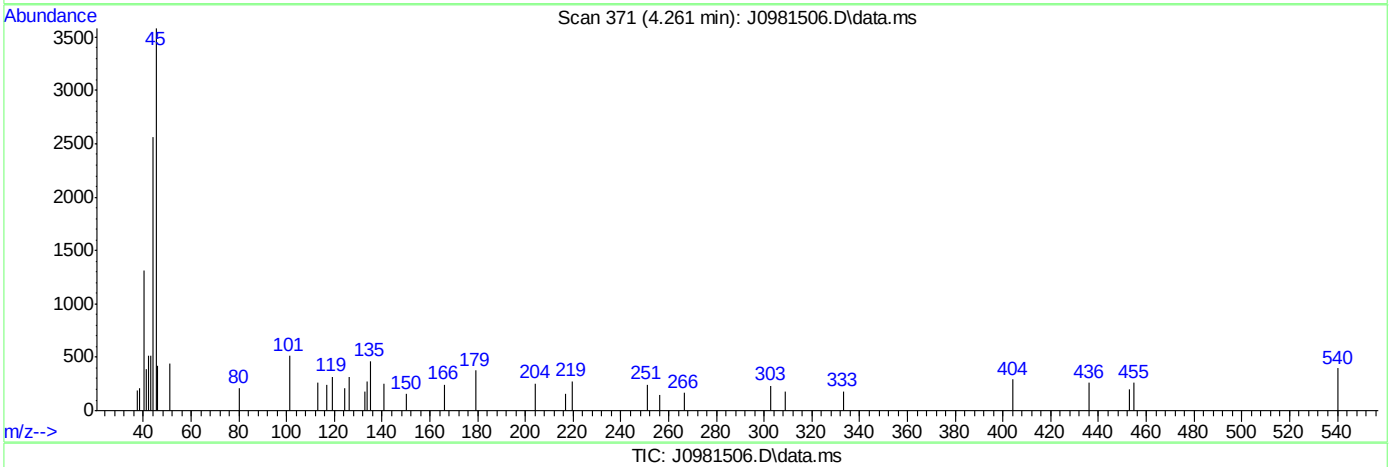
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981506.D
Acq On : 14 Dec 2016 12:25 pm
Operator : darshnap
Sample : ic5512-3 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 14 13:34:57 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981506.D\data.ms

(107) Ethanol

4.261min (-0.006) 212.30ug/L m

response 14527

Ion	Exp%	Act%
45.10	100	100
46.10	29.70	11.64
0.00	0.00	0.00
0.00	0.00	0.00

SGS ACCUTEST FA39345

Manual Integrations APPROVED (compounds with "m" flag)
Juan Garcia
12/15/16 12:04

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981507.D
Acq On : 14 Dec 2016 12:49 pm
Operator : darshnap
Sample : ic5512-4 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 14 13:36:10 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.740	96	749105	50.00	ug/L	0.00
56) Chlorobenzene-d5	10.824	117	588083	50.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	13.186	152	340232	50.00	ug/L	0.00
106) Tert Butyl Alcohol-d10	5.284	65	74428	250.00	ug/L	0.01
System Monitoring Compounds						
36) Dibromofluoromethane	6.905	113	198377	49.68	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 99.36%			
46) 1,2-Dichloroethane-d4	7.464	65	249806	54.24	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 108.48%			
57) Toluene-d8	9.279	98	712358	49.53	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 99.06%			
79) 4-Bromofluorobenzene	12.035	95	260094	48.81	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 97.62%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.663	85	167804	21.93	ug/L	99
3) Chloromethane	2.875	50	249111	25.70	ug/L	96
4) Vinyl Chloride	3.016	62	201961	25.49	ug/L	96
5) 1,3-Butadiene	3.016	54	196427	26.00	ug/L	87
6) Bromomethane	3.433	94	131319	25.56	ug/L	96
7) Chloroethane	3.592	64	102022	23.05	ug/L	89
8) Trichlorofluoromethane	3.803	101	302976	26.89	ug/L	99
9) Ethyl Ether	4.109	59	171299	29.11	ug/L	93
10) 1,2-Dichlorotrifluoroe...	4.332	67	204721	29.37	ug/L	94
11) 1,1-Dichloroethene	4.385	61	245333	28.42	ug/L	94
12) Freon 113	4.438	101	172251	28.65	ug/L	91
13) Carbon Disulfide	4.461	76	505966	26.25	ug/L	99
14) Iodomethane	4.573	142	282117	26.95	ug/L	99
15) Allyl chloride	4.908	41	291554	31.99	ug/L	94
16) Methylene Chloride	5.025	49	292959	29.49	ug/L	96
17) Acetone	5.055	58	77363	147.88	ug/L	88
18) Methyl acetate	5.178	74	127790	145.46	ug/L #	79
19) trans-1,2-Dichloroethene	5.213	61	231974	29.14	ug/L	98
20) Hexane	5.284	56	181548	30.45	ug/L	94
21) Methyl Tert Butyl Ether	5.313	73	473487	29.09	ug/L	94
22) Acetonitrile	5.572	40	123452	316.01	ug/L	96
23) Di-isopropyl ether	5.695	45	632454	27.37	ug/L	93
24) Chloroprene	5.854	53	278835	30.41	ug/L	93
25) 1,1-Dichloroethane	5.883	63	313985	28.40	ug/L	99
26) Acrylonitrile	5.907	53	347500	143.15	ug/L	89
27) ETBE	6.095	59	572618	26.96	ug/L	97
28) Vinyl acetate	6.089	43	2175768	157.29	ug/L	99
29) cis-1,2-Dichloroethene	6.459	96	191790	28.03	ug/L	96
30) 2,2-Dichloropropane	6.588	77	222774	27.77	ug/L	98
31) Bromochloromethane	6.670	128	90885	25.99	ug/L	89
32) Cyclohexane	6.711	56	304260	27.48	ug/L	96
33) Chloroform	6.723	83	316513	28.18	ug/L	92
34) Ethyl acetate	6.788	43	847764	155.85	ug/L	99

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981507.D
Acq On : 14 Dec 2016 12:49 pm
Operator : darshnap
Sample : ic5512-4 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 14 13:36:10 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
35) Tetrahydrofuran	6.899	42	44151	26.57 ug/L	97
37) Carbon Tetrachloride	6.917	117	225024m	28.79 ug/L	
38) 1,1,1-Trichloroethane	6.976	97	259238	28.21 ug/L	94
39) 2-Butanone	7.005	43	370048	159.19 ug/L	98
40) 1,1-Dichloropropene	7.082	75	227042	31.04 ug/L	92
41) tert-Butyl Formate	7.170	59	1399261	287.89 ug/L	91
42) Propionitrile	7.311	54	259363	313.18 ug/L	93
43) Methacrylonitrile	7.340	41	1091735	310.68 ug/L	98
44) Benzene	7.334	78	671200	28.08 ug/L	92
45) TAME	7.411	73	470428	28.52 ug/L	92
47) 1,2-Dichloroethane	7.528	62	252045	30.26 ug/L	95
48) Trichloroethene	7.916	95	167433	28.07 ug/L	96
49) Methylcyclohexane	7.939	83	292162	29.36 ug/L	97
50) Dibromomethane	8.339	93	105890	29.08 ug/L	95
51) 1,2-Dichloropropane	8.427	63	191231	30.43 ug/L	97
52) Bromodichloromethane	8.474	83	216636	28.57 ug/L	91
53) Methyl methacrylate	8.574	41	136189	28.43 ug/L	94
54) 2-Chloroethyl vinyl ether	8.985	63	565470	146.21 ug/L	97
55) cis-1,3-Dichloropropene	9.091	75	254973	26.97 ug/L	97
58) Toluene	9.332	91	697631	28.22 ug/L	99
59) 2-Nitropropane	9.538	41	202396	158.35 ug/L	93
60) 4-Methyl-2-pentanone	9.655	43	880953	169.19 ug/L	98
61) trans-1,3-Dichloropropene	9.714	75	221147	27.60 ug/L	96
62) Tetrachloroethene	9.737	166	196979	30.49 ug/L	96
63) Ethyl methacrylate	9.820	69	205876	27.87 ug/L	96
64) 1,1,2-Trichloroethane	9.884	83	133285	29.21 ug/L	92
65) Dibromochloromethane	10.078	129	162190	28.62 ug/L	96
66) 1,3-Dichloropropane	10.166	76	274215	29.35 ug/L	98
67) 1,2-Dibromoethane	10.343	107	160964	29.80 ug/L	98
68) 2-hexanone	10.472	43	622625	158.95 ug/L	100
69) 1-Chlorohexane	10.777	91	226948	29.18 ug/L	97
70) Ethylbenzene	10.842	91	783614	28.04 ug/L	99
71) Chlorobenzene	10.842	112	487741	28.22 ug/L	97
72) 1,1,1,2-Tetrachloroethane	10.895	131	184297	29.50 ug/L	98
73) m,p-Xylene	10.977	91	1205115	57.12 ug/L	97
74) o-Xylene	11.418	91	623938	27.92 ug/L	98
75) Styrene	11.465	104	500102	26.99 ug/L	97
76) Bromoform	11.529	173	105951	27.72 ug/L	95
77) Isopropylbenzene	11.723	105	769026	27.42 ug/L	98
80) cis-1,4-Dichloro-2-butene	12.070	53	49345	32.92 ug/L	95
81) n-Propylbenzene	12.141	91	913440	27.85 ug/L	97
82) Bromobenzene	12.164	156	224039	27.56 ug/L	96
83) 1,1,2,2-Tetrachloroethane	12.199	83	217789	28.31 ug/L	98
84) 1,3,5-Trimethylbenzene	12.323	105	690460	27.35 ug/L	98
85) 2-Chlorotoluene	12.334	91	637247	29.08 ug/L	99
86) trans-1,4-Dichloro-2-B...	12.381	53	50959	26.95 ug/L	91
87) 1,2,3-Trichloropropane	12.358	110	61300	28.42 ug/L	95
88) Cyclohexanone	12.428	55	39898	174.17 ug/L	86
89) 4-Chlorotoluene	12.499	91	596979	30.30 ug/L	100
90) a-Methyl Styrene	12.587	118	399660	28.87 ug/L	99

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981507.D
Acq On : 14 Dec 2016 12:49 pm
Operator : darshnap
Sample : ic5512-4 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 14 13:36:10 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
91) tert-Butylbenzene	12.663	91	385373	30.96 ug/L	96
92) 1,2,4-Trimethylbenzene	12.734	105	708979	27.88 ug/L	99
93) Pentachloroethane	12.716	167	133987	27.91 ug/L	96
94) sec-Butylbenzene	12.851	105	883777	28.39 ug/L	100
95) 4-Isopropyltoluene	12.981	119	740319	28.41 ug/L	99
96) 1,3-Dichlorobenzene	13.116	146	410456	28.84 ug/L	97
97) 1,4-Dichlorobenzene	13.198	146	428575	27.82 ug/L	97
98) n-Butylbenzene	13.416	92	423928	28.24 ug/L	99
99) Benzyl Chloride	13.427	126	74440	26.98 ug/L #	83
100) 1,2-Dichlorobenzene	13.627	146	406485	26.96 ug/L	97
101) 1,2-Dibromo-3-Chloropr...	14.361	75	31819	29.70 ug/L	96
102) Hexachlorobutadiene	14.908	225	151050	27.88 ug/L	95
103) 1,2,4-Trichlorobenzene	14.955	180	300088	29.00 ug/L	96
104) Naphthalene	15.243	128	581681	27.41 ug/L	97
105) 1,2,3-Trichlorobenzene	15.407	180	282941	28.75 ug/L	94
107) Ethanol	4.261	45	40867m	577.31 ug/L	
108) acrolein	4.743	56	148833	139.69 ug/L	92
109) Tert Butyl Alcohol	5.360	59	137650	261.68 ug/L	96
110) tert Amyl alcohol	7.558	59	123865	280.00 ug/L	84
111) Isobutyl alcohol	7.434	42	121323	577.97 ug/L	96
112) 1,4-Dioxane	8.656	88	31202	532.29 ug/L	87
113) 3,3-Dimethyl-1-butanol	10.413	57	750415	1381.47 ug/L	97

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

7.6.3

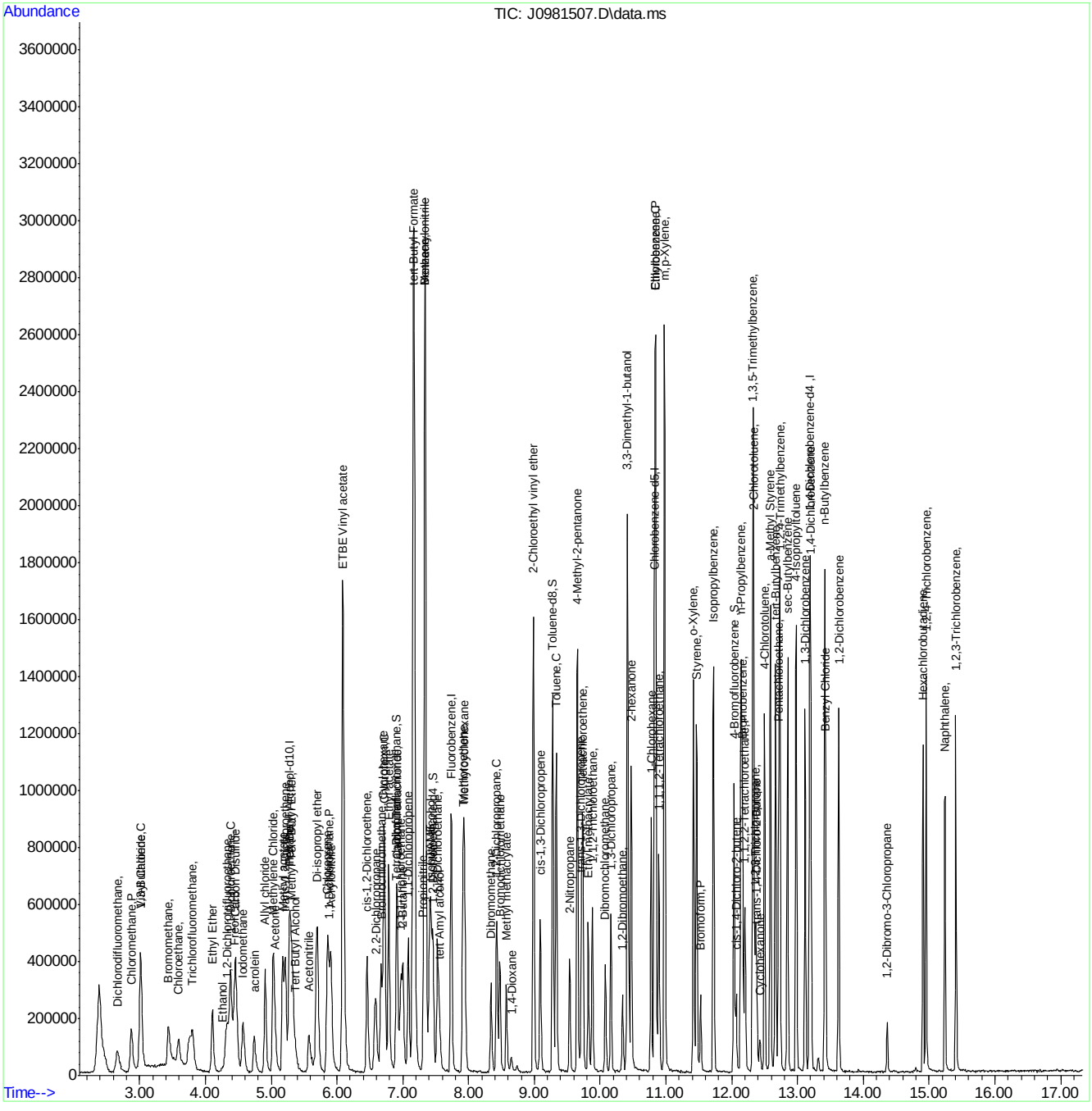
7

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981507.D
Acq On : 14 Dec 2016 12:49 pm
Operator : darshnap
Sample : ic5512-4 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 14 13:36:10 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration



SGS ACCUTEST FA39345

Manual Integration Approval Summary

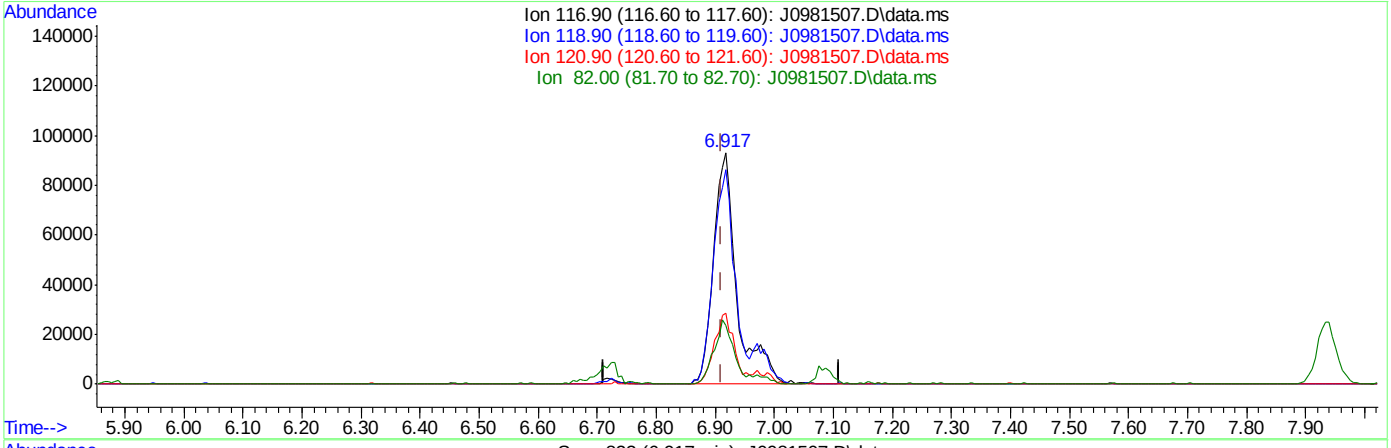
Sample Number:	VJ5512-IC5512	**Method:**	SW846 8260B
Lab FileID:	J0981507.D	**Analyst approved:**	12/15/16 10:38 Darshna Patel
Injection Time:	12/14/16 12:49	**Supervisor approved:**	12/15/16 12:04 Juan Garcia

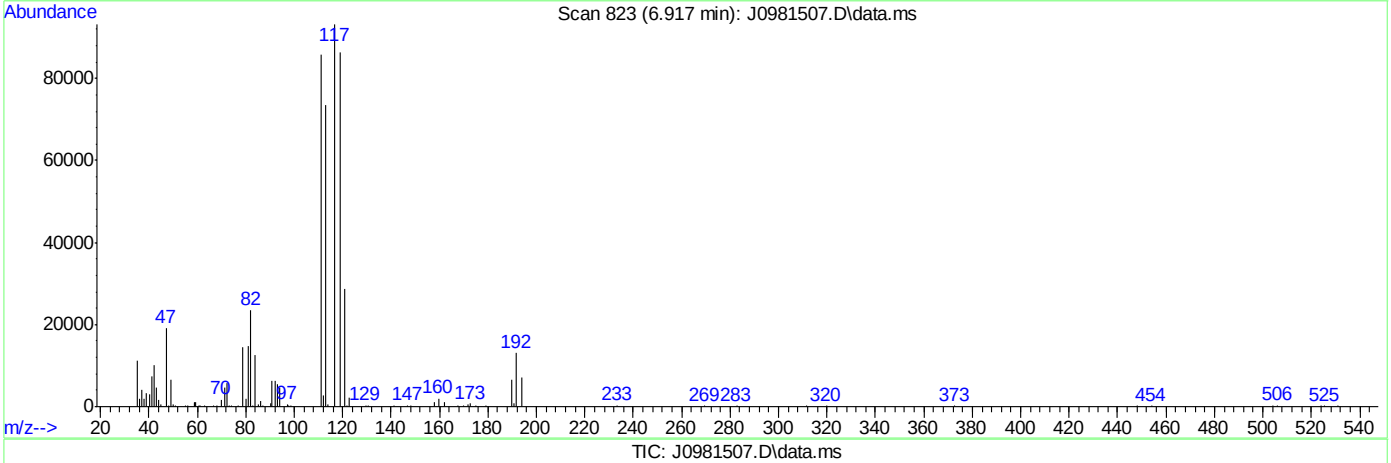
Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Alcohol	64-17-5		4.26	Poor instrument integration
Carbon Tetrachloride	56-23-5		6.92	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981507.D
Acq On : 14 Dec 2016 12:49 pm
Operator : darshnap
Sample : ic5512-4 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 14 13:35:00 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981507.D\data.ms

(37) Carbon Tetrachloride ( )

6.917min (+0.006) 32.65ug/L

response 255135

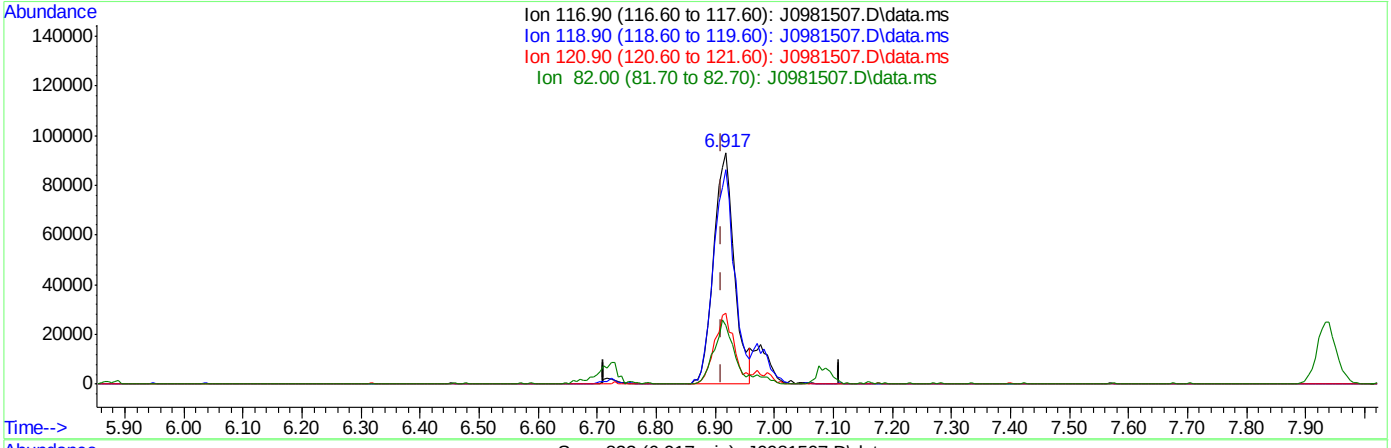
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	92.69
120.90	29.40	30.87
82.00	25.10	25.34

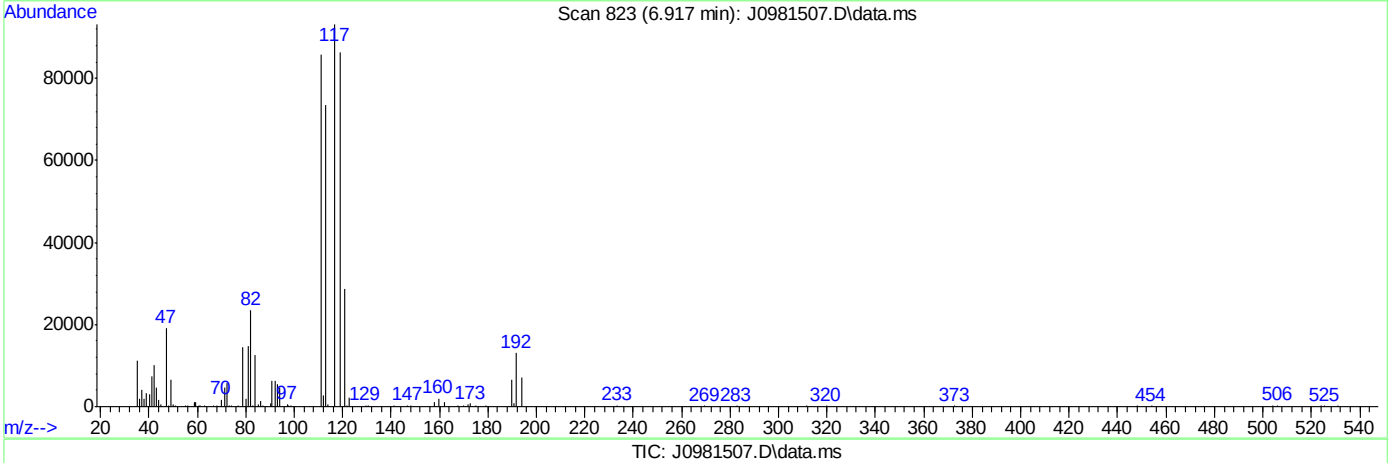
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981507.D
Acq On : 14 Dec 2016 12:49 pm
Operator : darshnap
Sample : ic5512-4 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 14 13:35:00 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981507.D\data.ms

(37) Carbon Tetrachloride ( )

6.917min (+0.006) 28.79ug/L m

response 225024

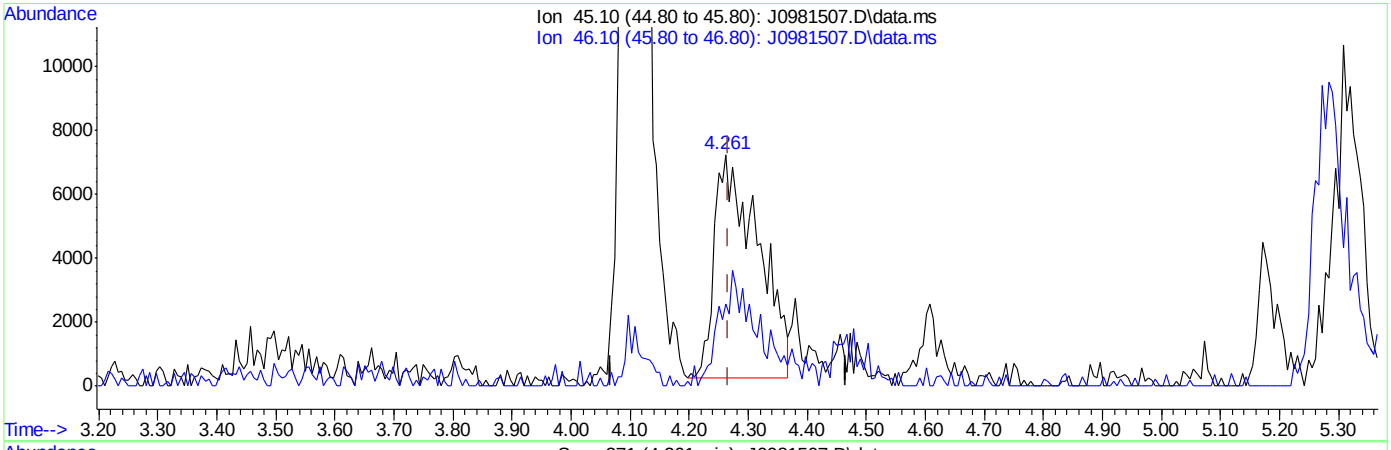
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	92.69
120.90	29.40	30.87
82.00	25.10	25.34

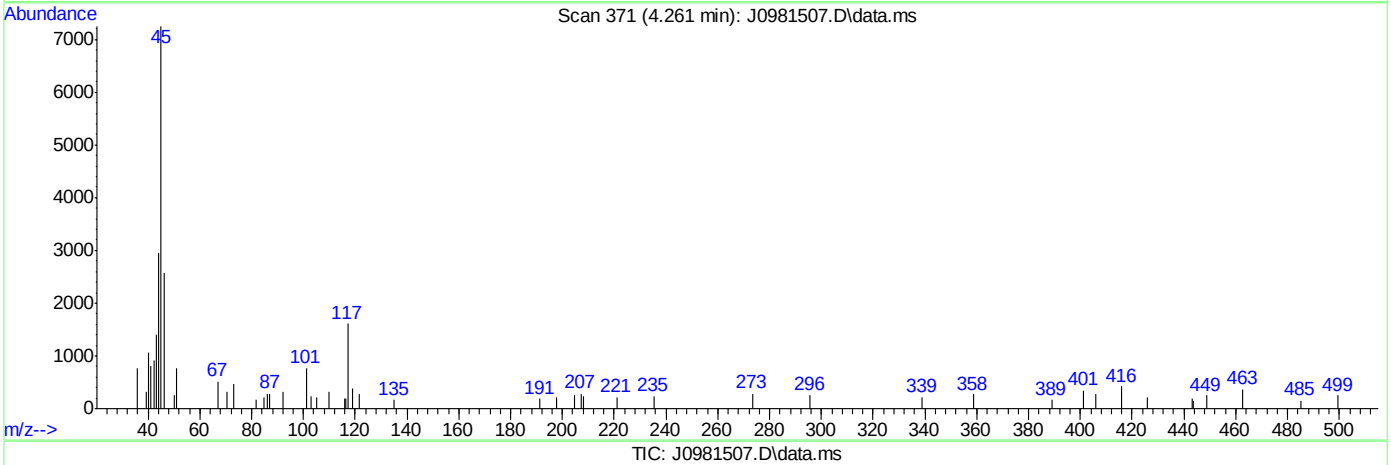
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981507.D
Acq On : 14 Dec 2016 12:49 pm
Operator : darshnap
Sample : ic5512-4 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 14 13:35:00 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981507.D\data.ms

(107) Ethanol

4.261min (-0.006) 498.40ug/L

response 35652

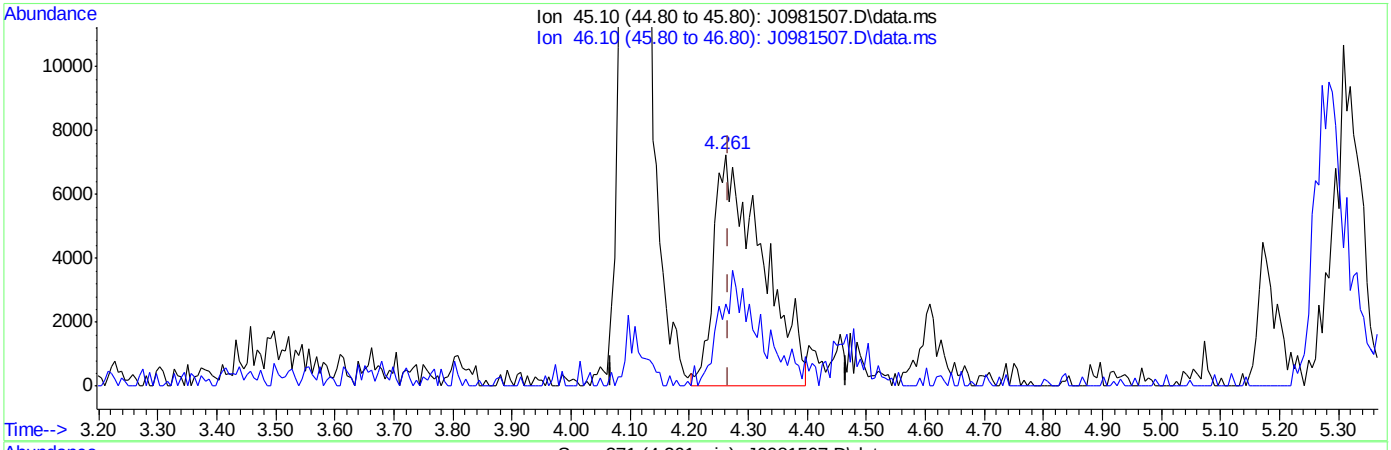
Ion	Exp%	Act%
45.10	100	100
46.10	29.70	34.41
0.00	0.00	0.00
0.00	0.00	0.00

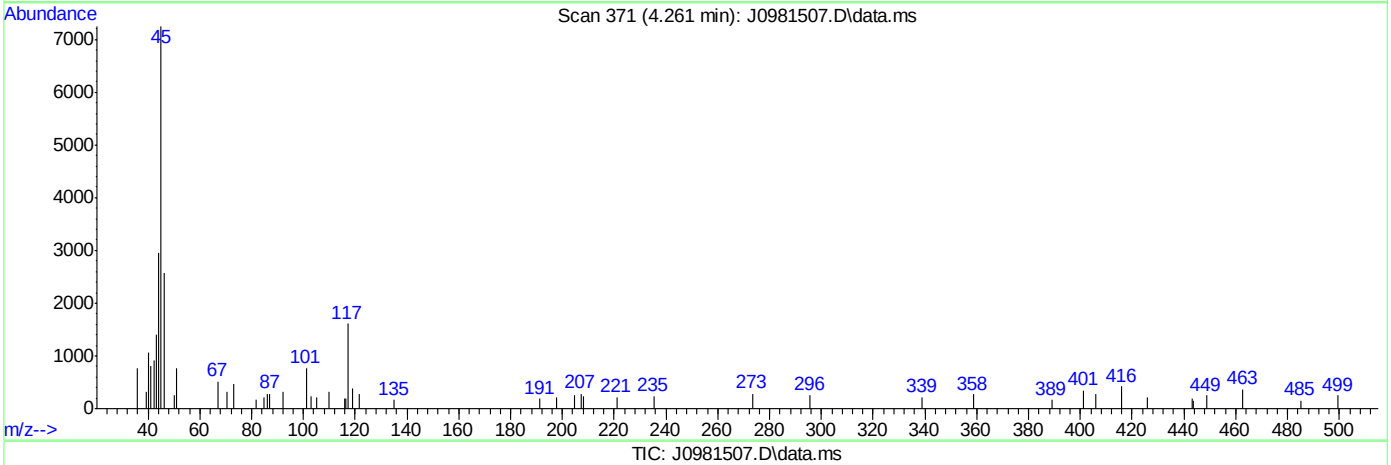
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981507.D
Acq On : 14 Dec 2016 12:49 pm
Operator : darshnap
Sample : ic5512-4 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 14 13:35:00 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981507.D\data.ms

(107) Ethanol

4.261min (-0.006) 577.31ug/L m

response 40867

Ion	Exp%	Act%
45.10	100	100
46.10	29.70	35.44
0.00	0.00	0.00
0.00	0.00	0.00

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981508.D
Acq On : 14 Dec 2016 1:12 pm
Operator : darshnap
Sample : icc5512-5 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 14 13:35:03 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.734	96	795634	50.00	ug/L	0.00
56) Chlorobenzene-d5	10.824	117	636879	50.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	13.186	152	369014	50.00	ug/L	0.00
106) Tert Butyl Alcohol-d10	5.278	65	86306	250.00	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	6.905	113	214447	50.56	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 101.12%			
46) 1,2-Dichloroethane-d4	7.458	65	260216	53.20	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 106.40%			
57) Toluene-d8	9.279	98	772420	49.59	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 99.18%			
79) 4-Bromofluorobenzene	12.035	95	295109	51.06	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 102.12%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.652	85	337162	41.49	ug/L	96
3) Chloromethane	2.869	50	496553	49.55	ug/L	95
4) Vinyl Chloride	3.016	62	413547	48.78	ug/L	100
5) 1,3-Butadiene	3.010	54	363624	46.90	ug/L	96
6) Bromomethane	3.439	94	254215	48.85	ug/L	99
7) Chloroethane	3.580	64	200176	48.30	ug/L	93
8) Trichlorofluoromethane	3.791	101	587311	49.07	ug/L	99
9) Ethyl Ether	4.103	59	278334	44.53	ug/L	91
10) 1,2-Dichlorotrifluoroe...	4.326	67	342905	46.32	ug/L	91
11) 1,1-Dichloroethene	4.373	61	427196	46.60	ug/L	96
12) Freon 113	4.438	101	289777	45.38	ug/L	96
13) Carbon Disulfide	4.449	76	910983	44.49	ug/L	99
14) Iodomethane	4.561	142	528957	47.57	ug/L	95
15) Allyl chloride	4.902	41	505740	52.24	ug/L	95
16) Methylene Chloride	5.025	49	499210	49.34	ug/L	98
17) Acetone	5.049	58	129346	234.35	ug/L #	84
18) Methyl acetate	5.172	74	219177	234.89	ug/L #	77
19) trans-1,2-Dichloroethene	5.207	61	397734	47.04	ug/L	98
20) Hexane	5.272	56	302017	48.40	ug/L #	93
21) Methyl Tert Butyl Ether	5.307	73	823576	47.64	ug/L	95
22) Acetonitrile	5.566	40	219941	521.60	ug/L #	87
23) Di-isopropyl ether	5.689	45	1126923	47.14	ug/L	98
24) Chloroprene	5.854	53	475401	48.41	ug/L	98
25) 1,1-Dichloroethane	5.877	63	539479	45.94	ug/L	97
26) Acrylonitrile	5.907	53	608130	235.86	ug/L	94
27) ETBE	6.095	59	1012881	45.66	ug/L	99
28) Vinyl acetate	6.083	43	3648770	274.88	ug/L	99
29) cis-1,2-Dichloroethene	6.453	96	338340	46.56	ug/L	97
30) 2,2-Dichloropropane	6.582	77	395776	46.45	ug/L	99
31) Bromochloromethane	6.665	128	173051	46.59	ug/L	84
32) Cyclohexane	6.712	56	539249	46.31	ug/L	97
33) Chloroform	6.717	83	549645	46.07	ug/L	91
34) Ethyl acetate	6.782	43	1458310	252.41	ug/L	99

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981508.D
Acq On : 14 Dec 2016 1:12 pm
Operator : darshnap
Sample : icc5512-5 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 14 13:35:03 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
35) Tetrahydrofuran	6.900	42	88903	50.88 ug/L	92
37) Carbon Tetrachloride	6.911	117	403736	48.65 ug/L	98
38) 1,1,1-Trichloroethane	6.970	97	456583	46.78 ug/L	96
39) 2-Butanone	6.999	43	612149	247.93 ug/L	98
40) 1,1-Dichloropropene	7.082	75	380726	49.01 ug/L	98
41) tert-Butyl Formate	7.164	59	2361140	476.86 ug/L	95
42) Propionitrile	7.311	54	428588	487.26 ug/L	90
43) Methacrylonitrile	7.334	41	1810038	524.73 ug/L	98
44) Benzene	7.334	78	1135333	44.72 ug/L	91
45) TAME	7.411	73	839715	47.93 ug/L	96
47) 1,2-Dichloroethane	7.522	62	417217	47.17 ug/L	97
48) Trichloroethene	7.916	95	289707	45.73 ug/L	94
49) Methylcyclohexane	7.934	83	523858	49.56 ug/L	96
50) Dibromomethane	8.339	93	187970	48.61 ug/L	96
51) 1,2-Dichloropropane	8.427	63	312852	46.87 ug/L	98
52) Bromodichloromethane	8.474	83	372303	46.23 ug/L	96
53) Methyl methacrylate	8.568	41	247329	48.67 ug/L	95
54) 2-Chloroethyl vinyl ether	8.985	63	978767	245.28 ug/L	97
55) cis-1,3-Dichloropropene	9.091	75	463163	46.51 ug/L	95
58) Toluene	9.332	91	1209202	46.73 ug/L	99
59) 2-Nitropropane	9.538	41	364841	263.57 ug/L	96
60) 4-Methyl-2-pentanone	9.655	43	1519810	269.52 ug/L	96
61) trans-1,3-Dichloropropene	9.714	75	410018	47.59 ug/L	98
62) Tetrachloroethene	9.737	166	311230	44.48 ug/L	97
63) Ethyl methacrylate	9.820	69	362665	45.15 ug/L	94
64) 1,1,2-Trichloroethane	9.879	83	230941	46.73 ug/L	96
65) Dibromochloromethane	10.078	129	304022	49.54 ug/L	99
66) 1,3-Dichloropropane	10.161	76	486147	48.05 ug/L	96
67) 1,2-Dibromoethane	10.343	107	287399	49.13 ug/L	95
68) 2-hexanone	10.466	43	1068147	261.30 ug/L	97
69) 1-Chlorohexane	10.772	91	399678	47.30 ug/L	94
70) Ethylbenzene	10.842	91	1335010	46.26 ug/L	100
71) Chlorobenzene	10.842	112	819860	44.91 ug/L	99
72) 1,1,1,2-Tetrachloroethane	10.895	131	315584	46.64 ug/L	99
73) m,p-Xylene	10.977	91	2057869	97.63 ug/L	98
74) o-Xylene	11.418	91	1108244	47.24 ug/L	99
75) Styrene	11.465	104	873091	44.62 ug/L	97
76) Bromoform	11.524	173	196648	47.44 ug/L	96
77) Isopropylbenzene	11.723	105	1369574	47.41 ug/L	100
80) cis-1,4-Dichloro-2-butene	12.064	53	90748	52.24 ug/L	88
81) n-Propylbenzene	12.141	91	1599992	48.23 ug/L	98
82) Bromobenzene	12.164	156	396675	44.98 ug/L	96
83) 1,1,2,2-Tetrachloroethane	12.199	83	381508	47.54 ug/L	96
84) 1,3,5-Trimethylbenzene	12.323	105	1223755	46.83 ug/L	99
85) 2-Chlorotoluene	12.335	91	1126760	47.41 ug/L	100
86) trans-1,4-Dichloro-2-B...	12.382	53	100797	50.50 ug/L	88
87) 1,2,3-Trichloropropane	12.364	110	103319	45.64 ug/L	92
88) Cyclohexanone	12.429	55	74287	309.66 ug/L	91
89) 4-Chlorotoluene	12.499	91	1027955	48.10 ug/L	98
90) a-Methyl Styrene	12.587	118	691677	46.66 ug/L	99

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981508.D
Acq On : 14 Dec 2016 1:12 pm
Operator : darshnap
Sample : icc5512-5 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 14 13:35:03 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91) tert-Butylbenzene	12.664	91	677602	50.19	ug/L	95
92) 1,2,4-Trimethylbenzene	12.734	105	1231205	47.19	ug/L	97
93) Pentachloroethane	12.716	167	247205	47.48	ug/L	94
94) sec-Butylbenzene	12.846	105	1547462	48.51	ug/L	99
95) 4-Isopropyltoluene	12.981	119	1310367	48.58	ug/L	96
96) 1,3-Dichlorobenzene	13.116	146	729213	47.24	ug/L	98
97) 1,4-Dichlorobenzene	13.204	146	751247	44.96	ug/L	96
98) n-Butylbenzene	13.416	92	783720	49.34	ug/L	99
99) Benzyl Chloride	13.427	126	144178	47.89	ug/L #	83
100) 1,2-Dichlorobenzene	13.627	146	724190	46.22	ug/L	98
101) 1,2-Dibromo-3-Chloropr...	14.362	75	63030	54.24	ug/L	91
102) Hexachlorobutadiene	14.908	225	279992	47.65	ug/L	98
103) 1,2,4-Trichlorobenzene	14.955	180	581829	51.84	ug/L	99
104) Naphthalene	15.237	128	1068067	48.44	ug/L	99
105) 1,2,3-Trichlorobenzene	15.407	180	537821	50.39	ug/L	99
107) Ethanol	4.267	45	68677	870.67	ug/L	98
108) acrolein	4.731	56	274936	222.53	ug/L	100
109) Tert Butyl Alcohol	5.360	59	254227	428.24	ug/L	92
110) tert Amyl alcohol	7.552	59	231097	450.50	ug/L	93
111) Isobutyl alcohol	7.434	42	208639	857.15	ug/L	93
112) 1,4-Dioxane	8.651	88	61252	933.24	ug/L	93
113) 3,3-Dimethyl-1-butanol	10.413	57	1300730	2135.65	ug/L	98

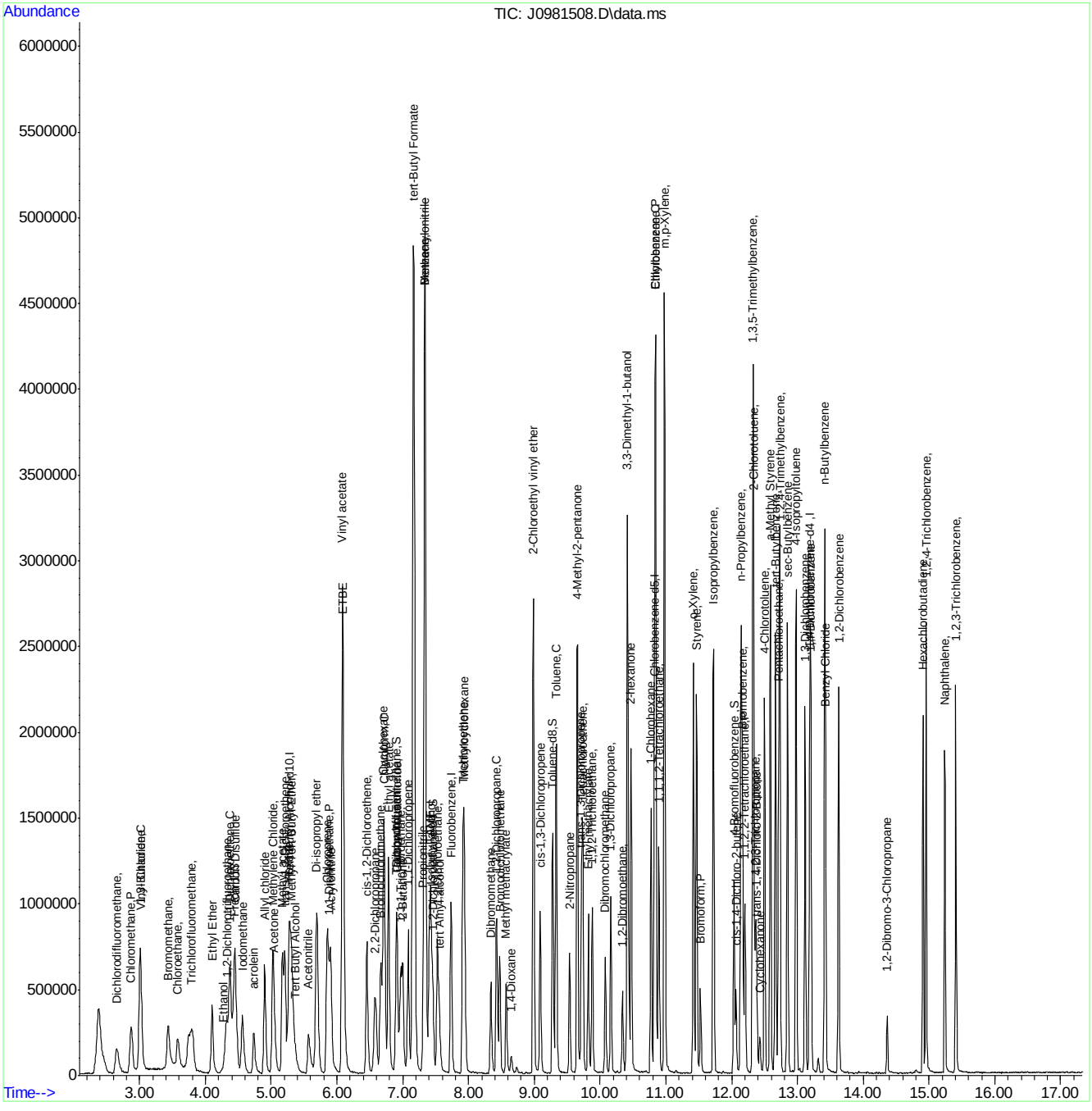
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981508.D
Acq On : 14 Dec 2016 1:12 pm
Operator : darshnap
Sample : icc5512-5 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 14 13:35:03 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration



SGS ACCUTEST FA39345

Manual Integrations APPROVED (compounds with "m" flag)
Juan Garcia
12/15/16 12:04

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981509.D
Acq On : 14 Dec 2016 1:36 pm
Operator : darshnap
Sample : ic5512-6 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 14 14:48:30 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.734	96	905023	50.00	ug/L	0.00
56) Chlorobenzene-d5	10.824	117	719360	50.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	13.186	152	416153	50.00	ug/L	0.00
106) Tert Butyl Alcohol-d10	5.278	65	97791	250.00	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	6.911	113	244421	50.67	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 101.34%			
46) 1,2-Dichloroethane-d4	7.458	65	284569	51.15	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 102.30%			
57) Toluene-d8	9.279	98	875818	49.78	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 99.56%			
79) 4-Bromofluorobenzene	12.035	95	330056	50.64	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 101.28%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.652	85	617062	66.76	ug/L	95
3) Chloromethane	2.881	50	903793	82.38	ug/L	100
4) Vinyl Chloride	3.022	62	712609	73.35	ug/L	98
5) 1,3-Butadiene	3.016	54	679771	81.86	ug/L	95
6) Bromomethane	3.445	94	449297	81.46	ug/L	91
7) Chloroethane	3.580	64	325287	86.80	ug/L	94
8) Trichlorofluoromethane	3.797	101	1049677m	77.10	ug/L	
9) Ethyl Ether	4.109	59	560506	78.84	ug/L	96
10) 1,2-Dichlorotrifluoroe...	4.332	67	678985	80.63	ug/L	99
11) 1,1-Dichloroethene	4.379	61	863882	82.85	ug/L	97
12) Freon 113	4.444	101	558504	76.89	ug/L	96
13) Carbon Disulfide	4.455	76	1806331	77.56	ug/L	99
14) Iodomethane	4.567	142	1029634	81.41	ug/L	94
15) Allyl chloride	4.902	41	985706	89.51	ug/L	94
16) Methylene Chloride	5.025	49	942625	89.74	ug/L	97
17) Acetone	5.055	58	262465	424.34	ug/L	92
18) Methyl acetate	5.178	74	432908	407.87	ug/L	96
19) trans-1,2-Dichloroethene	5.207	61	782978	81.41	ug/L	96
20) Hexane	5.284	56	597673	87.02	ug/L #	89
21) Methyl Tert Butyl Ether	5.313	73	1659983	84.41	ug/L	99
22) Acetonitrile	5.578	40	471731	951.67	ug/L #	86
23) Di-isopropyl ether	5.695	45	2217518	86.05	ug/L	98
24) Chloroprene	5.854	53	989037	86.99	ug/L	97
25) 1,1-Dichloroethane	5.877	63	1070243	80.13	ug/L	97
26) Acrylonitrile	5.907	53	1169727	398.85	ug/L	92
27) ETBE	6.100	59	2039955	83.71	ug/L	99
28) Vinyl acetate	6.089	43	6379791	598.24	ug/L	95
29) cis-1,2-Dichloroethene	6.453	96	685266	82.91	ug/L	99
30) 2,2-Dichloropropane	6.588	77	794157	81.94	ug/L	100
31) Bromochloromethane	6.665	128	331239	78.41	ug/L	89
32) Cyclohexane	6.717	56	1107561	85.36	ug/L	98
33) Chloroform	6.717	83	1077475	79.40	ug/L	94
34) Ethyl acetate	6.788	43	2788114	424.25	ug/L	98

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981509.D
Acq On : 14 Dec 2016 1:36 pm
Operator : darshnap
Sample : ic5512-6 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 14 14:48:30 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) Tetrahydrofuran	6.900	42	175927	89.94	ug/L	94
37) Carbon Tetrachloride	6.911	117	818363m	86.75	ug/L	
38) 1,1,1-Trichloroethane	6.970	97	916669	82.57	ug/L	93
39) 2-Butanone	7.005	43	1222730	435.37	ug/L	99
40) 1,1-Dichloropropene	7.082	75	779015	88.16	ug/L	96
41) tert-Butyl Formate	7.170	59	4911338	984.70	ug/L	99
42) Propionitrile	7.317	54	860201	859.75	ug/L	81
43) Methacrylonitrile	7.340	41	3314684	1065.41	ug/L	96
44) Benzene	7.334	78	2265575	78.46	ug/L	97
45) TAME	7.417	73	1714161	86.02	ug/L	93
47) 1,2-Dichloroethane	7.528	62	831321	82.62	ug/L	96
48) Trichloroethene	7.916	95	577423	80.13	ug/L	96
49) Methylcyclohexane	7.934	83	1073798	89.31	ug/L	98
50) Dibromomethane	8.339	93	380082	86.41	ug/L	91
51) 1,2-Dichloropropane	8.427	63	634090	83.51	ug/L	96
52) Bromodichloromethane	8.474	83	759830	82.95	ug/L	96
53) Methyl methacrylate	8.568	41	511860	88.74	ug/L	95
54) 2-Chloroethyl vinyl ether	8.985	63	1919495	450.28	ug/L	98
55) cis-1,3-Dichloropropene	9.091	75	926539	83.12	ug/L	98
58) Toluene	9.332	91	2334012	86.21	ug/L	98
59) 2-Nitropropane	9.538	41	737643	471.80	ug/L	99
60) 4-Methyl-2-pentanone	9.655	43	2834444	445.02	ug/L	96
61) trans-1,3-Dichloropropene	9.714	75	825202	86.02	ug/L	98
62) Tetrachloroethene	9.737	166	698198	88.34	ug/L	97
63) Ethyl methacrylate	9.820	69	753700	82.34	ug/L	94
64) 1,1,2-Trichloroethane	9.884	83	454603	81.45	ug/L	98
65) Dibromochloromethane	10.078	129	614429	88.63	ug/L	97
66) 1,3-Dichloropropane	10.161	76	943063	82.52	ug/L	99
67) 1,2-Dibromoethane	10.343	107	561035	84.92	ug/L	98
68) 2-hexanone	10.466	43	2058209	486.04	ug/L	96
69) 1-Chlorohexane	10.777	91	829828	86.36	ug/L	98
70) Ethylbenzene	10.842	91	2627325	91.84	ug/L	96
71) Chlorobenzene	10.842	112	1637607	84.46	ug/L	98
72) 1,1,1,2-Tetrachloroethane	10.895	131	626582	81.99	ug/L	97
73) m,p-Xylene	10.977	91	3779043	203.26	ug/L	93
74) o-Xylene	11.418	91	2175925	88.04	ug/L	100
75) Styrene	11.465	104	1763059	84.72	ug/L	95
76) Bromoform	11.530	173	406502	86.59	ug/L	96
77) Isopropylbenzene	11.723	105	2720648	95.10	ug/L	98
80) cis-1,4-Dichloro-2-butene	12.070	53	187776	86.14	ug/L	90
81) n-Propylbenzene	12.141	91	3080580	101.47	ug/L	98
82) Bromobenzene	12.164	156	768901	77.32	ug/L	99
83) 1,1,2,2-Tetrachloroethane	12.199	83	735673	88.87	ug/L	98
84) 1,3,5-Trimethylbenzene	12.323	105	2458343	94.45	ug/L	96
85) 2-Chlorotoluene	12.329	91	2163287	80.72	ug/L	97
86) trans-1,4-Dichloro-2-B...	12.381	53	218033	103.23	ug/L	94
87) 1,2,3-Trichloropropane	12.364	110	204817	87.29	ug/L	97
88) Cyclohexanone	12.428	55	158734	643.16	ug/L	87
89) 4-Chlorotoluene	12.499	91	2061632	85.54	ug/L	100
90) a-Methyl Styrene	12.587	118	1393763	85.79	ug/L	98

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981509.D
Acq On : 14 Dec 2016 1:36 pm
Operator : darshnap
Sample : ic5512-6 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 14 14:48:30 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
91)	tert-Butylbenzene	12.664	91	1428162	93.80	ug/L		98
92)	1,2,4-Trimethylbenzene	12.734	105	2433404	96.93	ug/L		97
93)	Pentachloroethane	12.716	167	459395	78.24	ug/L		94
94)	sec-Butylbenzene	12.852	105	3049349	99.51	ug/L		99
95)	4-Isopropyltoluene	12.981	119	2561497	94.50	ug/L		99
96)	1,3-Dichlorobenzene	13.116	146	1436107	82.49	ug/L		96
97)	1,4-Dichlorobenzene	13.198	146	1453708	77.14	ug/L		93
98)	n-Butylbenzene	13.416	92	1590762	93.71	ug/L		94
99)	Benzyl Chloride	13.427	126	298163	86.84	ug/L	#	91
100)	1,2-Dichlorobenzene	13.627	146	1420895	89.01	ug/L		98
101)	1,2-Dibromo-3-Chloropr...	14.362	75	130552	99.62	ug/L		96
102)	Hexachlorobutadiene	14.908	225	604305	91.19	ug/L		98
103)	1,2,4-Trichlorobenzene	14.955	180	1159162	91.59	ug/L		97
104)	Naphthalene	15.237	128	2134411	95.13	ug/L		99
105)	1,2,3-Trichlorobenzene	15.407	180	1070641	88.95	ug/L		96
107)	Ethanol	4.279	45	125014m	1542.37	ug/L		
108)	acrolein	4.737	56	537804	384.17	ug/L		99
109)	Tert Butyl Alcohol	5.360	59	509616	808.27	ug/L		95
110)	tert Amyl alcohol	7.558	59	478092	822.54	ug/L		95
111)	Isobutyl alcohol	7.440	42	421385	1527.85	ug/L	#	86
112)	1,4-Dioxane	8.650	88	114363	1641.10	ug/L		89
113)	3,3-Dimethyl-1-butanol	10.419	57	2700169	4349.48	ug/L		95

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

7.6.5

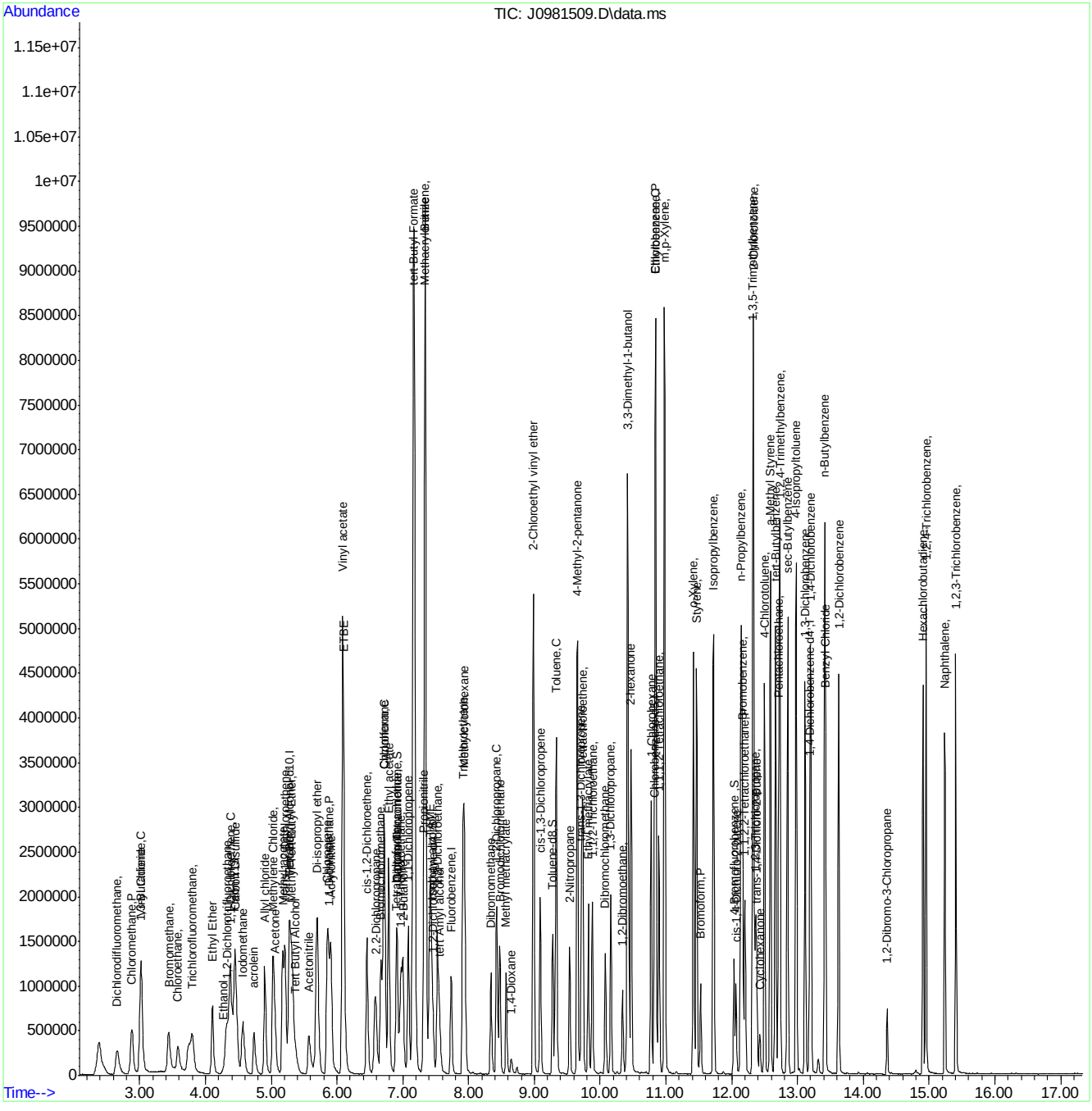
7

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981509.D
Acq On : 14 Dec 2016 1:36 pm
Operator : darshnap
Sample : ic5512-6 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 14 14:48:30 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration



SGS ACCUTEST FA39345

Manual Integration Approval Summary

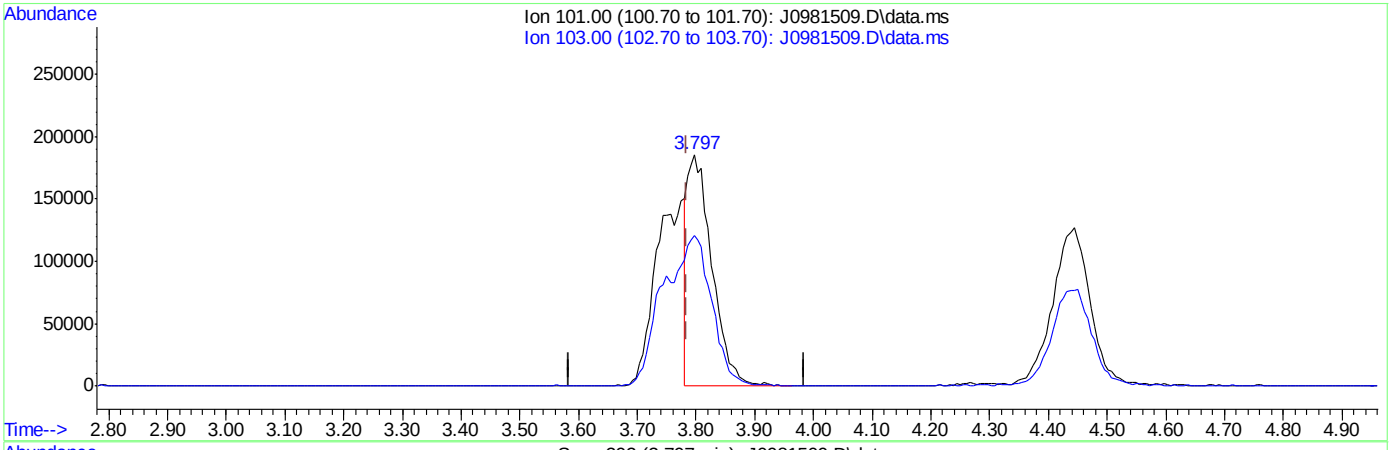
Sample Number:	VJ5512-IC5512	**Method:**	SW846 8260B
Lab FileID:	J0981509.D	**Analyst approved:**	12/15/16 10:38 Darshna Patel
Injection Time:	12/14/16 13:36	**Supervisor approved:**	12/15/16 12:04 Juan Garcia

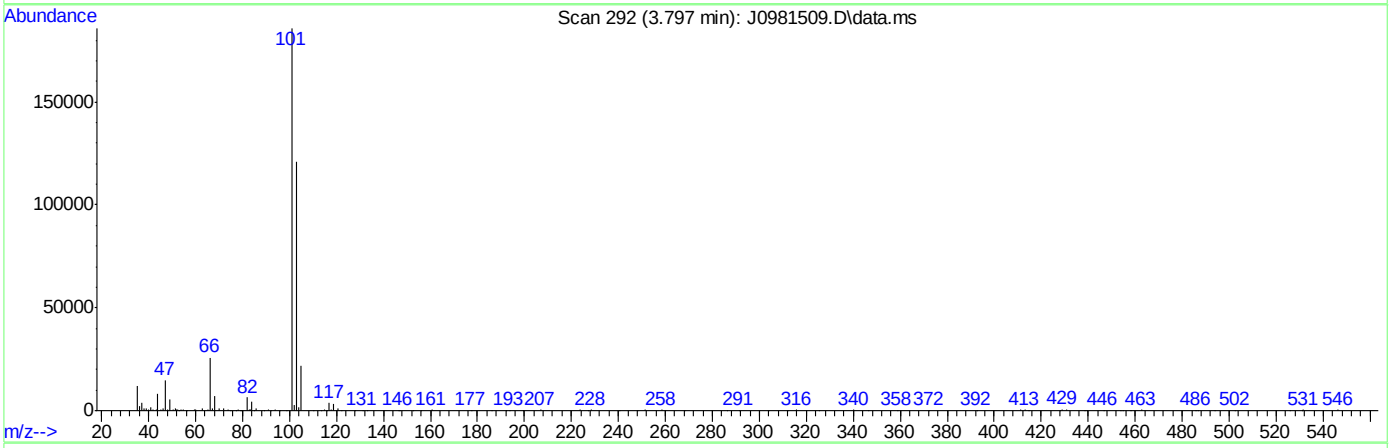
Parameter	CAS	Sig#	R.T. (min.)	Reason
Trichlorofluoromethane	75-69-4		3.80	Split peak
Ethyl Alcohol	64-17-5		4.28	Poor instrument integration
Carbon Tetrachloride	56-23-5		6.91	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981509.D
Acq On : 14 Dec 2016 1:36 pm
Operator : darshnap
Sample : ic5512-6 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 14 14:47:17 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981509.D\data.ms

(8) Trichlorofluoromethane ( )

3.797min (+0.012) 39.63ug/L

response 539498

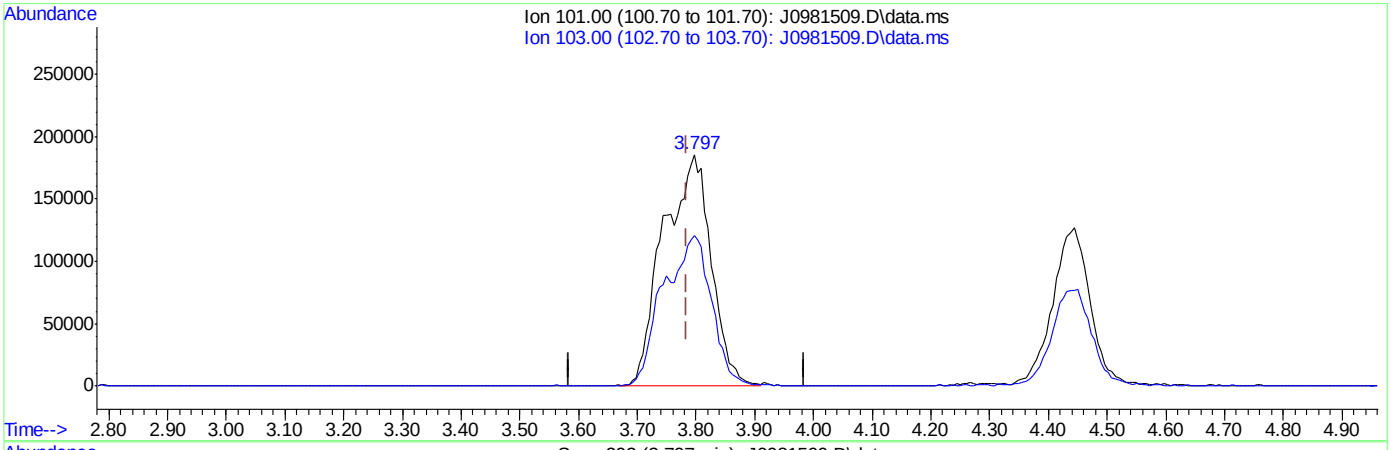
Ion	Exp%	Act%
101.00	100	100
103.00	62.50	65.00
0.00	0.00	0.00
0.00	0.00	0.00

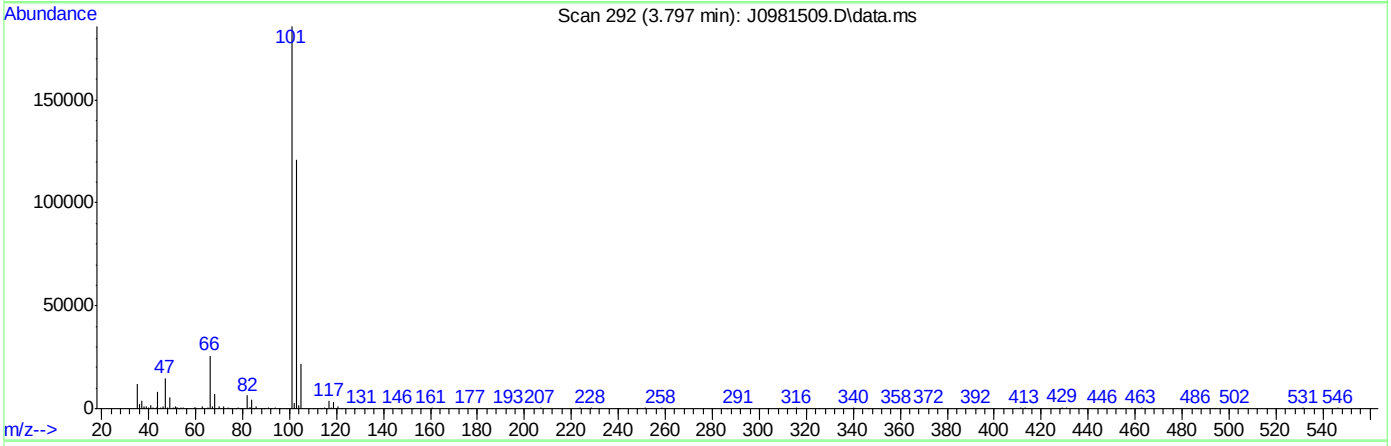
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981509.D
Acq On : 14 Dec 2016 1:36 pm
Operator : darshnap
Sample : ic5512-6 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 14 14:47:17 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981509.D\data.ms

(8) Trichlorofluoromethane ( )

3.797min (+0.012) 77.10ug/L m

response 1049677

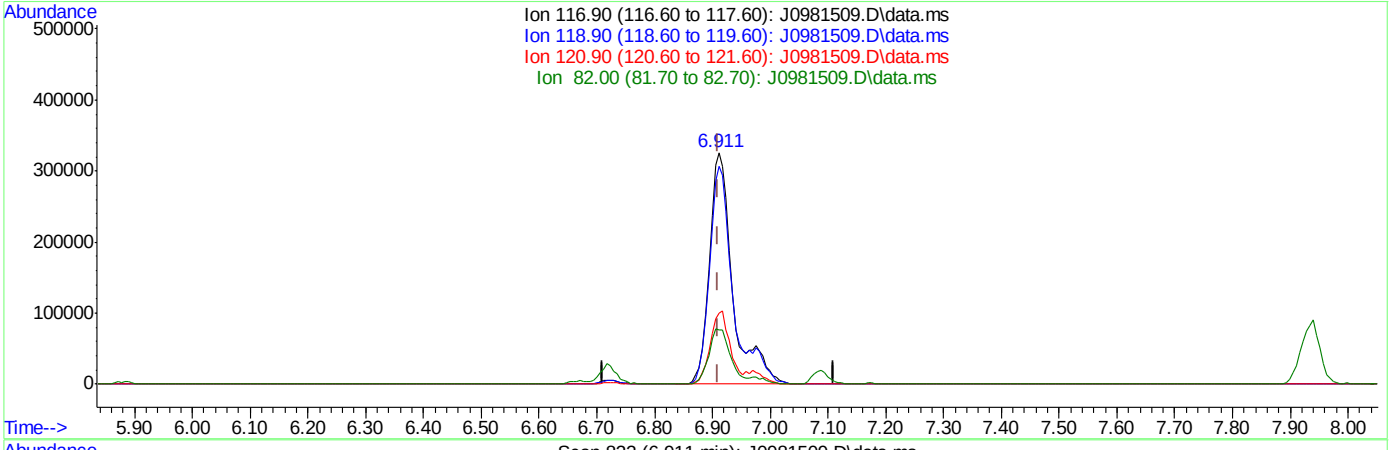
Ion	Exp%	Act%
101.00	100	100
103.00	62.50	65.05
0.00	0.00	0.00
0.00	0.00	0.00

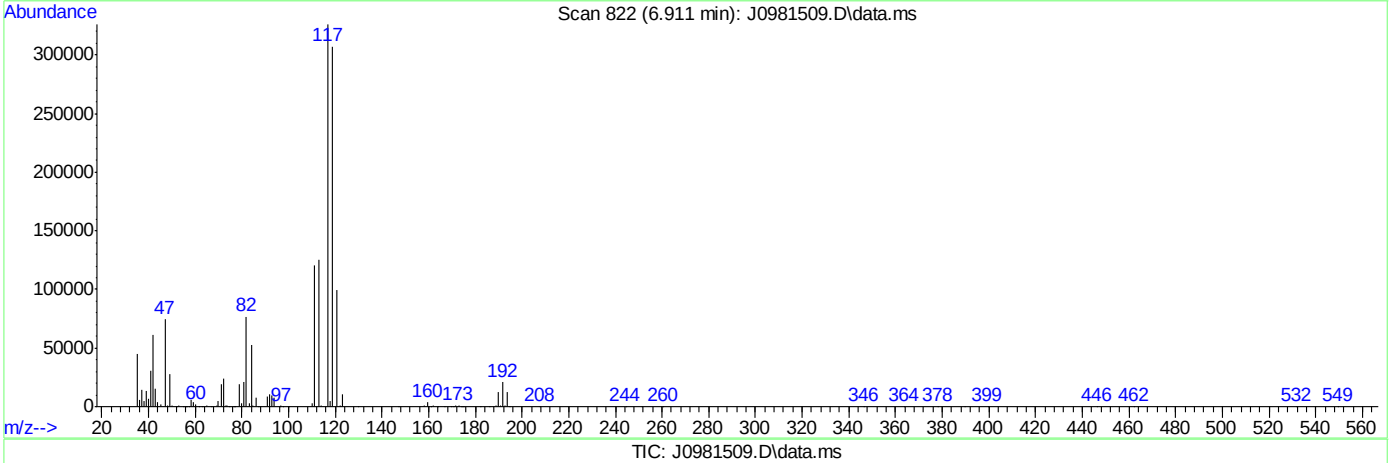
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981509.D
Acq On : 14 Dec 2016 1:36 pm
Operator : darshnap
Sample : ic5512-6 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 14 14:47:17 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981509.D\data.ms

(37) Carbon Tetrachloride ( )

6.911min (+0.000) 98.55ug/L

response 929429

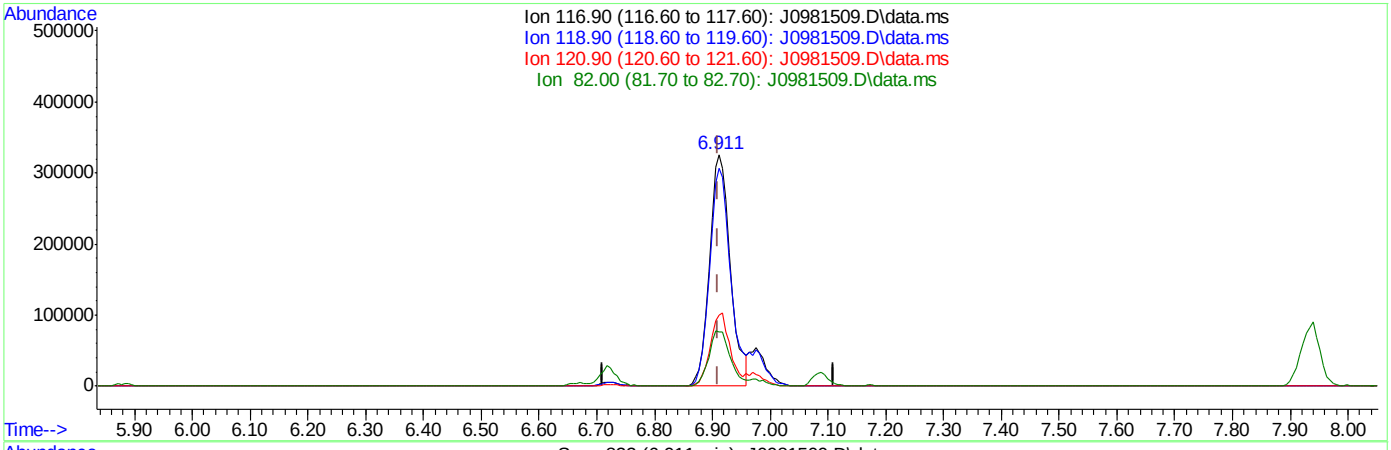
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	94.03
120.90	29.40	30.64
82.00	25.10	23.43

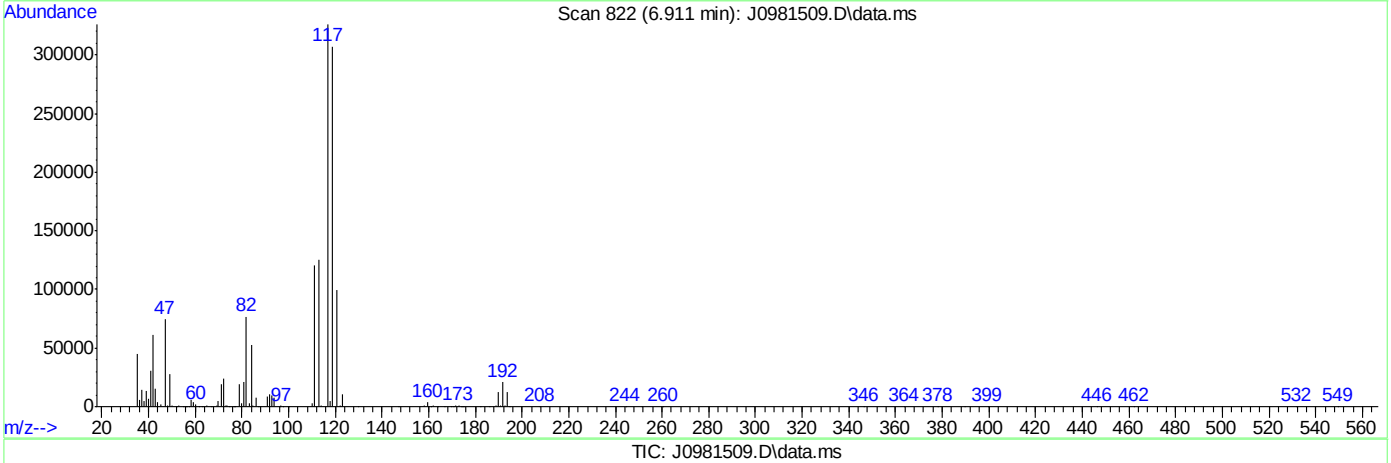
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981509.D
Acq On : 14 Dec 2016 1:36 pm
Operator : darshnap
Sample : ic5512-6 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 14 14:47:17 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981509.D\data.ms

(37) Carbon Tetrachloride ( )

6.911min (+0.000) 86.75ug/L m

response 818363

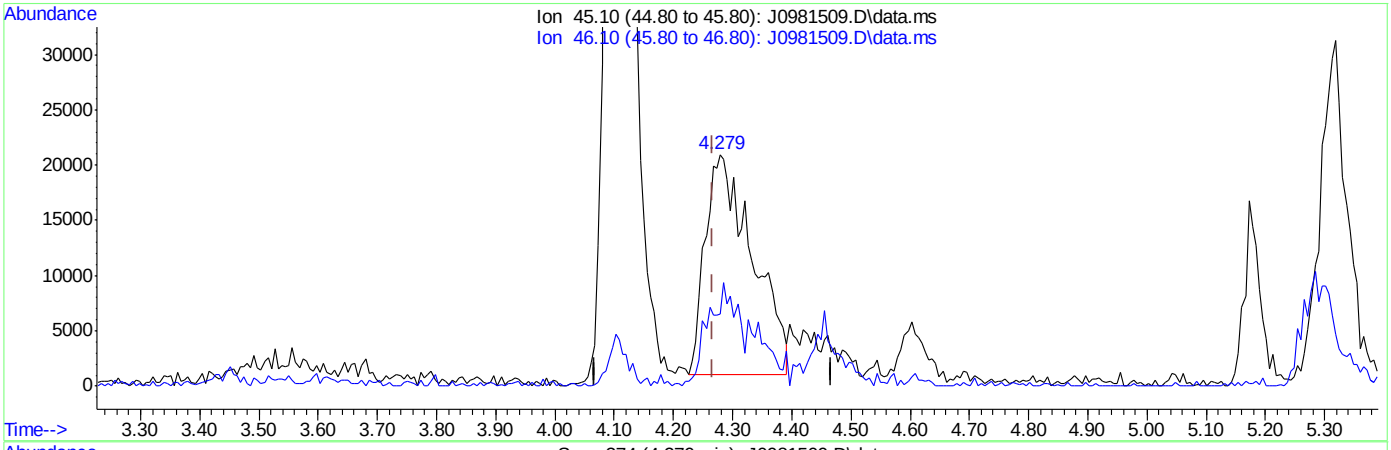
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	94.03
120.90	29.40	30.64
82.00	25.10	23.55

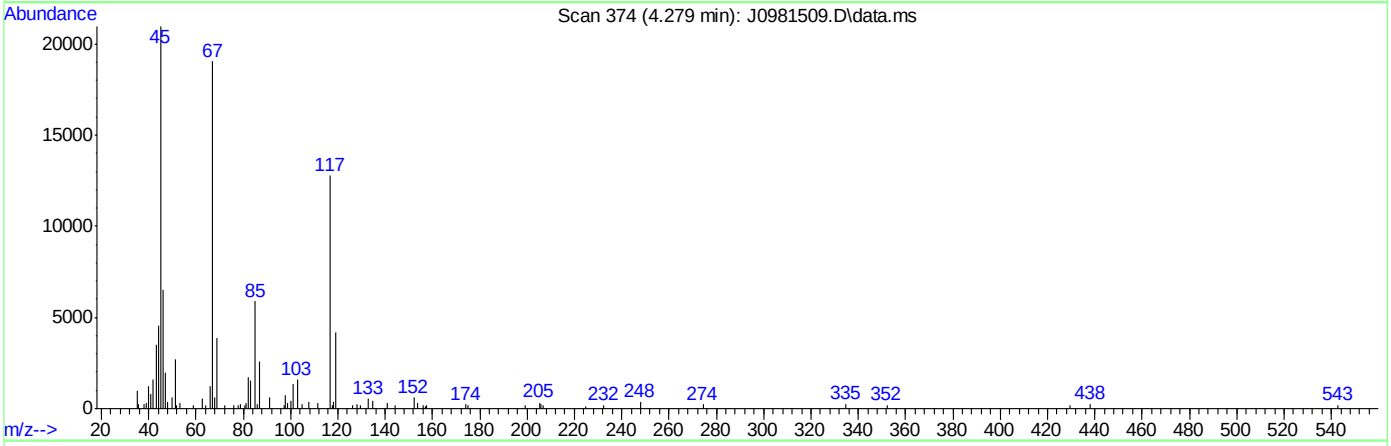
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981509.D
Acq On : 14 Dec 2016 1:36 pm
Operator : darshnap
Sample : ic5512-6 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 14 14:47:17 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981509.D\data.ms

(107) Ethanol

4.279min (+0.012) 1296.34ug/L

response 109024

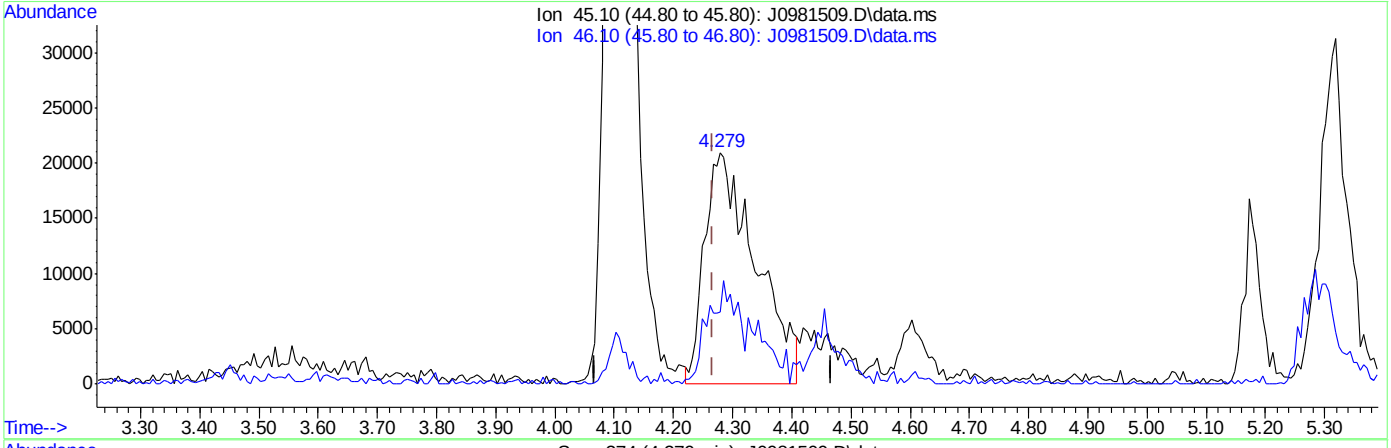
Ion	Exp%	Act%
45.10	100	100
46.10	29.70	30.74
0.00	0.00	0.00
0.00	0.00	0.00

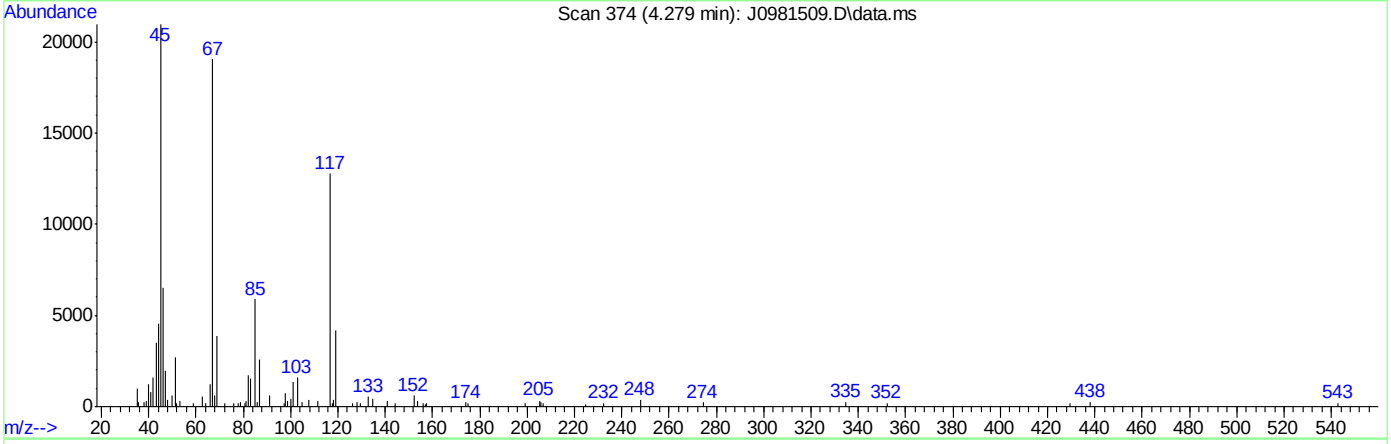
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981509.D
Acq On : 14 Dec 2016 1:36 pm
Operator : darshnap
Sample : ic5512-6 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 14 14:47:17 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981509.D\data.ms

(107) Ethanol

4.279min (+0.012) 1542.37ug/L m

response 125014

Ion	Exp%	Act%
45.10	100	100
46.10	29.70	31.24
0.00	0.00	0.00
0.00	0.00	0.00

SGS ACCUTEST FA39345

Manual Integrations APPROVED (compounds with "m" flag)
Juan Garcia
12/15/16 12:04

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981510.D
Acq On : 14 Dec 2016 2:00 pm
Operator : darshnap
Sample : ic5512-7 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 14 14:48:55 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.734	96	1077810	50.00	ug/L	0.00
56) Chlorobenzene-d5	10.824	117	838044	50.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	13.186	152	484284	50.00	ug/L	0.00
106) Tert Butyl Alcohol-d10	5.278	65	121734	250.00	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	6.905	113	275829	48.01	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 96.02%			
46) 1,2-Dichloroethane-d4	7.458	65	348531	52.60	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 105.20%			
57) Toluene-d8	9.279	98	999423	48.76	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 97.52%			
79) 4-Bromofluorobenzene	12.035	95	387317	51.06	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 102.12%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.652	85	1078032	97.94	ug/L	95
3) Chloromethane	2.875	50	1553853	125.32	ug/L	98
4) Vinyl Chloride	3.022	62	1250805	107.02	ug/L	99
5) 1,3-Butadiene	3.010	54	1085109	117.01	ug/L	99
6) Bromomethane	3.433	94	757393	129.12	ug/L	97
7) Chloroethane	3.568	64	447623	Below Cal		92
8) Trichlorofluoromethane	3.791	101	1772980	109.36	ug/L	95
9) Ethyl Ether	4.103	59	953677	112.64	ug/L	95
10) 1,2-Dichlorotrifluoroe...	4.332	67	1064906	106.19	ug/L	96
11) 1,1-Dichloroethene	4.373	61	1357914	109.35	ug/L	98
12) Freon 113	4.432	101	886370	102.47	ug/L	95
13) Carbon Disulfide	4.449	76	2860071	103.11	ug/L	99
14) Iodomethane	4.567	142	1659459	110.17	ug/L	93
15) Allyl chloride	4.896	41	1582480	120.67	ug/L	93
16) Methylene Chloride	5.019	49	1513380	135.76	ug/L	97
17) Acetone	5.049	58	439132	604.78	ug/L	90
18) Methyl acetate	5.172	74	760691	601.79	ug/L	97
19) trans-1,2-Dichloroethene	5.207	61	1283356	112.04	ug/L	96
20) Hexane	5.272	56	921002	115.44	ug/L	96
21) Methyl Tert Butyl Ether	5.313	73	2788851	119.08	ug/L	96
22) Acetonitrile	5.566	40	750467	1243.91	ug/L	95
23) Di-isopropyl ether	5.695	45	3633865	125.42	ug/L	97
24) Chloroprene	5.848	53	1595628	116.30	ug/L	97
25) 1,1-Dichloroethane	5.877	63	1740130	109.39	ug/L	94
26) Acrylonitrile	5.907	53	2011315	575.86	ug/L	94
27) ETBE	6.095	59	3450535	123.45	ug/L	96
28) Vinyl acetate	6.083	43	8962962	Below Cal		85
29) cis-1,2-Dichloroethene	6.453	96	1113702	113.15	ug/L	97
30) 2,2-Dichloropropane	6.576	77	1286651	111.48	ug/L	97
31) Bromochloromethane	6.665	128	543092	107.94	ug/L	88
32) Cyclohexane	6.706	56	1771719	116.62	ug/L	98
33) Chloroform	6.717	83	1734115	107.30	ug/L	96
34) Ethyl acetate	6.782	43	4495005	574.33	ug/L	94

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981510.D
Acq On : 14 Dec 2016 2:00 pm
Operator : darshnap
Sample : ic5512-7 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 14 14:48:55 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
35) Tetrahydrofuran	6.894	42	299724	130.89 ug/L	92
37) Carbon Tetrachloride	6.905	117	1272819m	113.35 ug/L	
38) 1,1,1-Trichloroethane	6.970	97	1459025	110.35 ug/L	96
39) 2-Butanone	6.999	43	2076559	620.86 ug/L	97
40) 1,1-Dichloropropene	7.082	75	1275961	121.25 ug/L	95
41) tert-Butyl Formate	7.170	59	7404794	1389.94 ug/L	95
42) Propionitrile	7.317	54	1433998	1203.48 ug/L #	69
43) Methacrylonitrile	7.340	41	4862153	Below Cal	90
44) Benzene	7.334	78	3664798	106.57 ug/L	97
45) TAME	7.411	73	2923152	123.18 ug/L	98
47) 1,2-Dichloroethane	7.528	62	1422447	118.71 ug/L	96
48) Trichloroethene	7.910	95	962879	112.20 ug/L	94
49) Methylcyclohexane	7.934	83	1697030	118.52 ug/L	98
50) Dibromomethane	8.339	93	635939	121.40 ug/L	97
51) 1,2-Dichloropropane	8.427	63	1076206	119.01 ug/L	98
52) Bromodichloromethane	8.474	83	1302433	119.39 ug/L	99
53) Methyl methacrylate	8.568	41	879139	128.25 ug/L	96
54) 2-Chloroethyl vinyl ether	8.985	63	3240595	690.81 ug/L	97
55) cis-1,3-Dichloropropene	9.091	75	1596462	122.38 ug/L	96
58) Toluene	9.332	91	3685610	127.45 ug/L	97
59) 2-Nitropropane	9.532	41	1259779	691.64 ug/L	96
60) 4-Methyl-2-pentanone	9.649	43	4406810	593.91 ug/L	88
61) trans-1,3-Dichloropropene	9.714	75	1415684	128.73 ug/L	98
62) Tetrachloroethene	9.732	166	1105393	120.05 ug/L	98
63) Ethyl methacrylate	9.820	69	1310756	121.80 ug/L	97
64) 1,1,2-Trichloroethane	9.879	83	769882	118.40 ug/L	96
65) Dibromochloromethane	10.078	129	1047328	129.68 ug/L	97
66) 1,3-Dichloropropane	10.161	76	1569549	117.88 ug/L	97
67) 1,2-Dibromoethane	10.337	107	952077	123.69 ug/L	95
68) 2-hexanone	10.466	43	3330879	758.07 ug/L	87
69) 1-Chlorohexane	10.777	91	1353393	120.19 ug/L	96
70) Ethylbenzene	10.842	91	4003609	141.79 ug/L	87
71) Chlorobenzene	10.842	112	2696725	128.45 ug/L	97
72) 1,1,1,2-Tetrachloroethane	10.895	131	1068015	119.96 ug/L	97
73) m,p-Xylene	10.977	91	5386196	Below Cal	78
74) o-Xylene	11.418	91	3421815	127.81 ug/L	92
75) Styrene	11.465	104	2904612	128.49 ug/L	92
76) Bromoform	11.530	173	723320	131.83 ug/L	95
77) Isopropylbenzene	11.723	105	4117639	144.65 ug/L	89
80) cis-1,4-Dichloro-2-butene	12.064	53	327832	118.00 ug/L	93
81) n-Propylbenzene	12.141	91	4556778	Below Cal	88
82) Bromobenzene	12.164	156	1310806	113.27 ug/L	98
83) 1,1,2,2-Tetrachloroethane	12.199	83	1238595	148.60 ug/L	98
84) 1,3,5-Trimethylbenzene	12.323	105	3734597	142.08 ug/L	87
85) 2-Chlorotoluene	12.329	91	3394366	108.84 ug/L	96
86) trans-1,4-Dichloro-2-B...	12.381	53	368914	161.95 ug/L	98
87) 1,2,3-Trichloropropane	12.364	110	349993	146.54 ug/L	96
88) Cyclohexanone	12.429	55	264785	1041.63 ug/L	91
89) 4-Chlorotoluene	12.499	91	3203025	114.20 ug/L	92
90) a-Methyl Styrene	12.587	118	2286053	124.47 ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981510.D
Acq On : 14 Dec 2016 2:00 pm
Operator : darshnap
Sample : ic5512-7 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 14 14:48:55 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91) tert-Butylbenzene	12.664	91	2218904	125.23	ug/L	96
92) 1,2,4-Trimethylbenzene	12.734	105	3671166	162.67	ug/L	88
93) Pentachloroethane	12.716	167	823501	120.52	ug/L	97
94) sec-Butylbenzene	12.852	105	4482308	155.13	ug/L	87
95) 4-Isopropyltoluene	12.981	119	3900192	141.21	ug/L	91
96) 1,3-Dichlorobenzene	13.116	146	2340030	115.50	ug/L	94
97) 1,4-Dichlorobenzene	13.204	146	2363801	107.79	ug/L	94
98) n-Butylbenzene	13.416	92	2491292	132.54	ug/L	85
99) Benzyl Chloride	13.427	126	530354	131.08	ug/L #	66
100) 1,2-Dichlorobenzene	13.627	146	2305136	143.77	ug/L	96
101) 1,2-Dibromo-3-Chloropr...	14.362	75	227033	148.87	ug/L	98
102) Hexachlorobutadiene	14.908	225	984233	127.63	ug/L	100
103) 1,2,4-Trichlorobenzene	14.955	180	1871203	127.05	ug/L	95
104) Naphthalene	15.237	128	3334887	144.05	ug/L	95
105) 1,2,3-Trichlorobenzene	15.407	180	1762579	125.84	ug/L	97
107) Ethanol	4.273	45	206357	2321.80	ug/L	88
108) acrolein	4.731	56	911708	523.16	ug/L	96
109) Tert Butyl Alcohol	5.366	59	923726	1284.55	ug/L	91
110) tert Amyl alcohol	7.558	59	883011	1220.39	ug/L	96
111) Isobutyl alcohol	7.434	42	708200	2062.74	ug/L	90
112) 1,4-Dioxane	8.645	88	199385	2503.17	ug/L	83
113) 3,3-Dimethyl-1-butanol	10.419	57	4417439	6361.62	ug/L	88

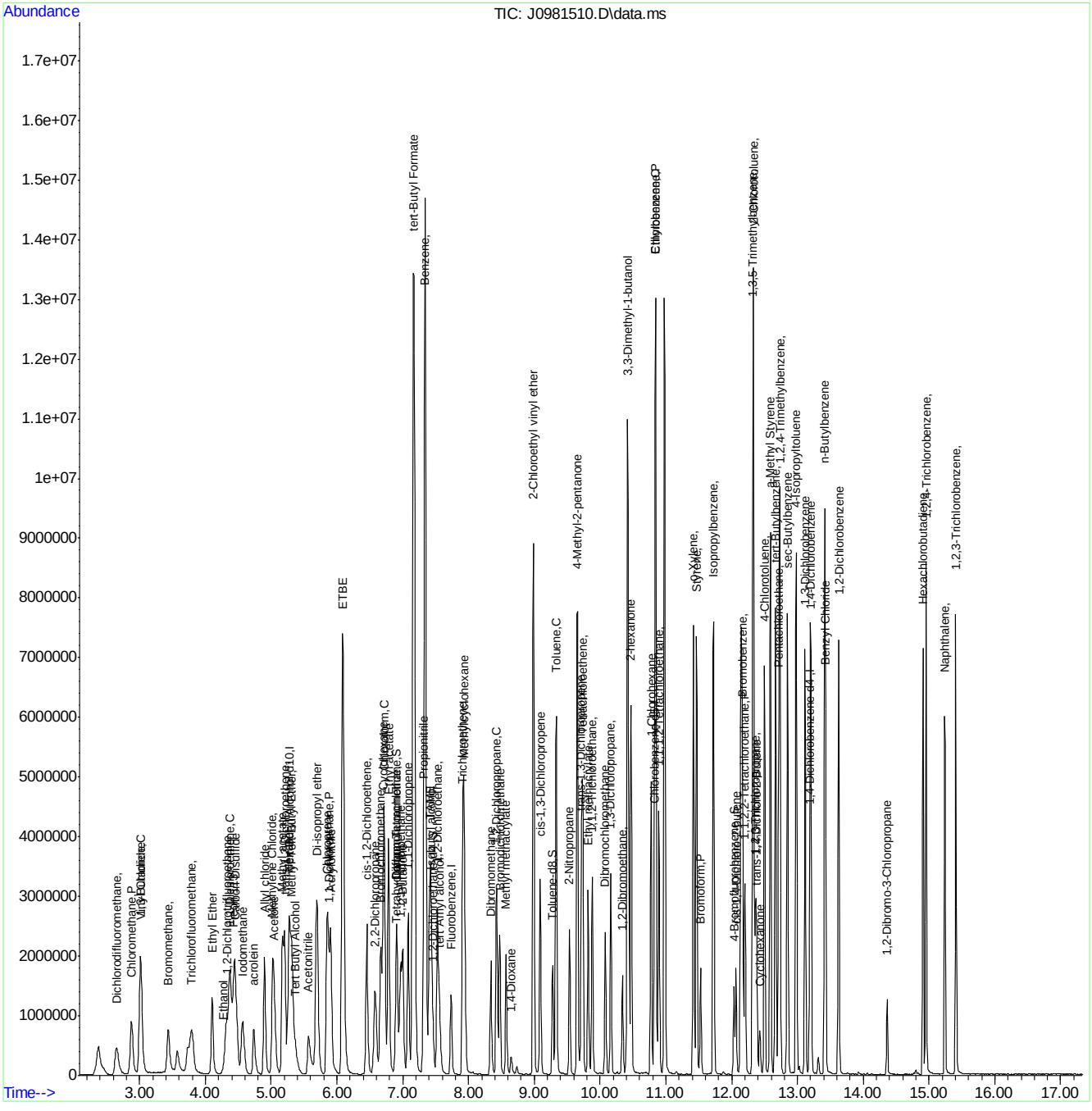
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981510.D
Acq On : 14 Dec 2016 2:00 pm
Operator : darshnap
Sample : ic5512-7 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 14 14:48:55 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration



SGS ACCUTEST FA39345

Manual Integration Approval Summary

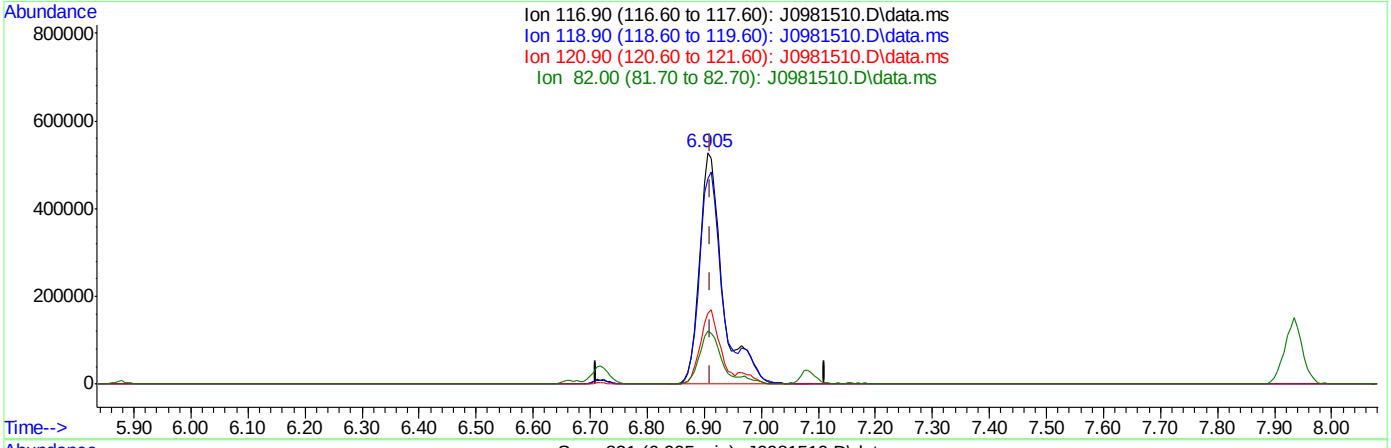
Sample Number:	VJ5512-IC5512	**Method:**	SW846 8260B
Lab FileID:	J0981510.D	**Analyst approved:**	12/15/16 10:38 Darshna Patel
Injection Time:	12/14/16 14:00	**Supervisor approved:**	12/15/16 12:04 Juan Garcia

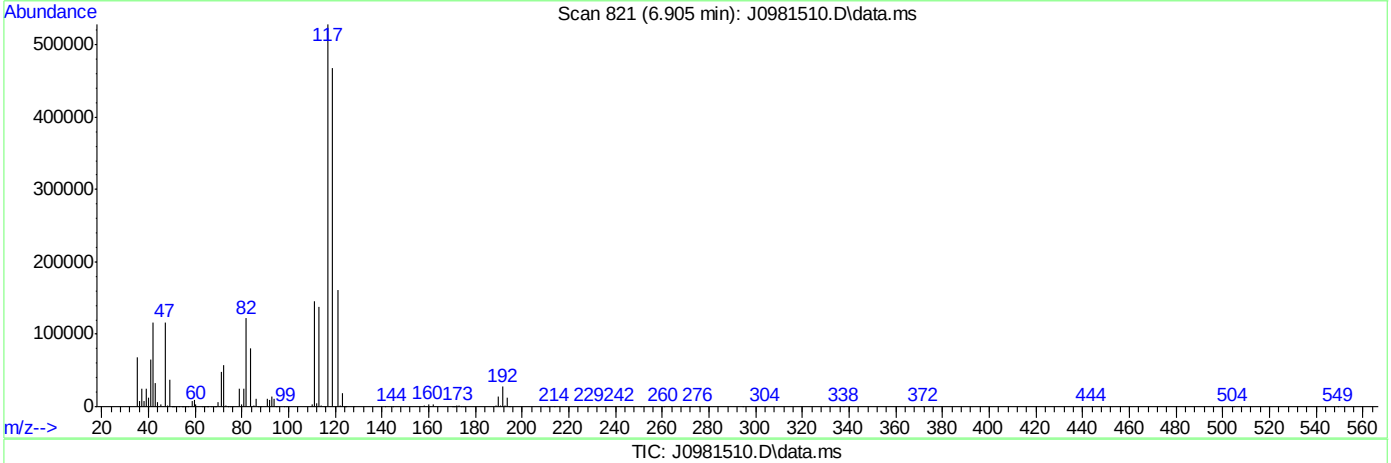
Parameter	CAS	Sig#	R.T. (min.)	Reason
Carbon Tetrachloride	56-23-5		6.91	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981510.D
Acq On : 14 Dec 2016 2:00 pm
Operator : darshnap
Sample : ic5512-7 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 14 14:47:19 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981510.D\data.ms

(37) Carbon Tetrachloride ( )

6.905min (-0.006) 132.53ug/L

response 1487678

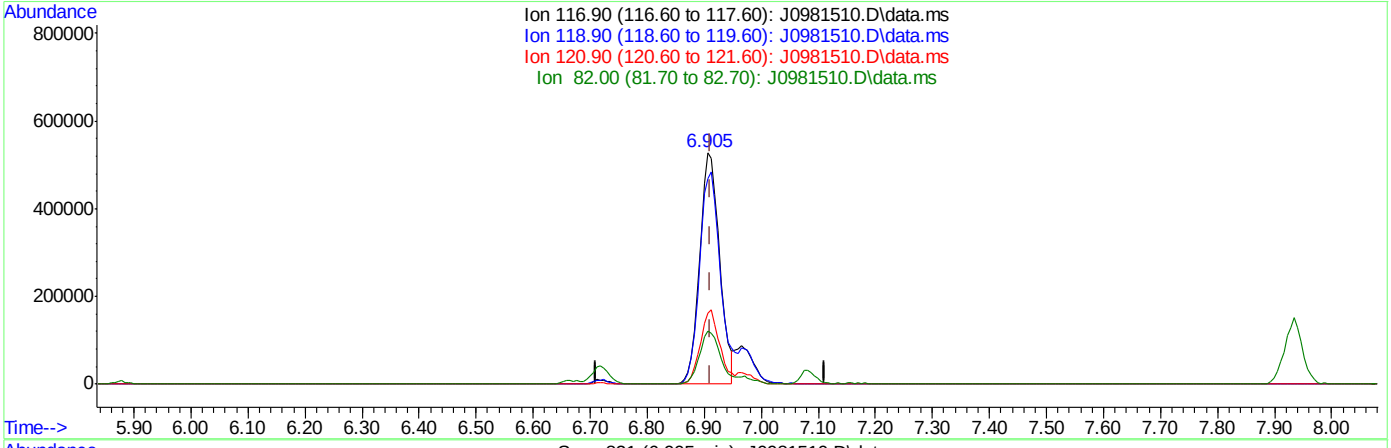
Ion	Exp%	Act%
116.90	100	100
118.90	99.30	88.68
120.90	29.40	30.64
82.00	25.10	23.11

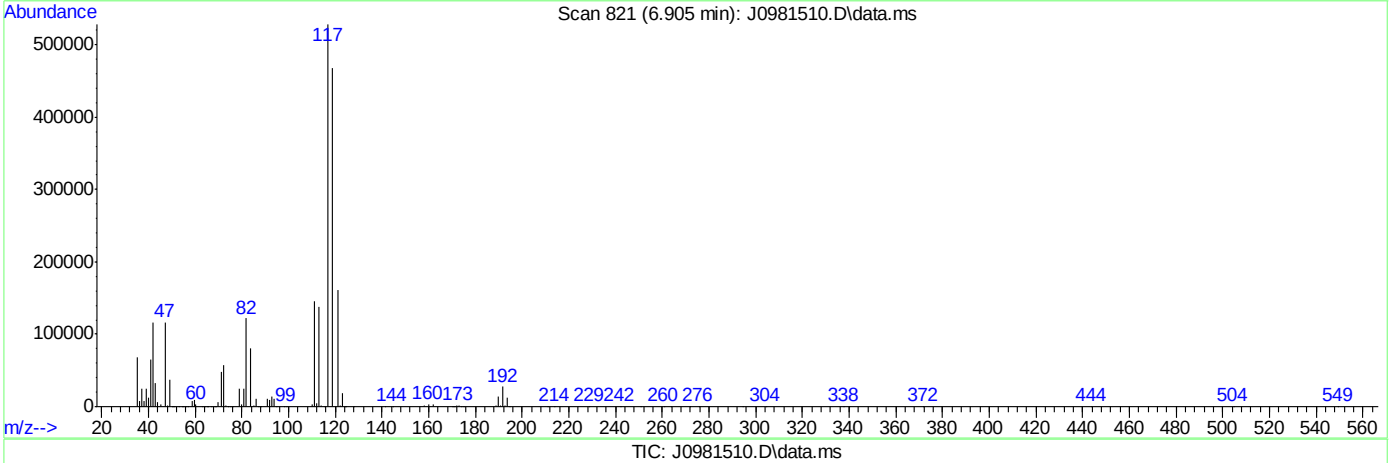
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981510.D
Acq On : 14 Dec 2016 2:00 pm
Operator : darshnap
Sample : ic5512-7 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 14 14:47:19 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981510.D\data.ms

(37) Carbon Tetrachloride ( )

6.905min (-0.006) 113.35ug/L m

response 1272819

Ion	Exp%	Act%
116.90	100	100
118.90	99.30	88.68
120.90	29.40	30.64
82.00	25.10	23.14

SGS ACCUTEST FA39345

J0981512.D

Manual Integrations APPROVED (compounds with "m" flag)

Juan Garcia
12/15/16 12:04

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981512.D
Acq On : 14 Dec 2016 2:47 pm
Operator : darshnap
Sample : ic5512-1 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 14 15:06:53 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.734	96	1039637	50.00	ug/L	0.00
56) Chlorobenzene-d5	10.824	117	775432	50.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	13.186	152	422215	50.00	ug/L	0.00
106) Tert Butyl Alcohol-d10	5.266	65	105237	250.00	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	6.905	113	286528	51.70	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 103.40%			
46) 1,2-Dichloroethane-d4	7.458	65	337243	52.76	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 105.52%			
57) Toluene-d8	9.279	98	957706	50.50	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 101.00%			
79) 4-Bromofluorobenzene	12.035	95	337706	51.07	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 102.14%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.687	85	11299m	1.06	ug/L	
3) Chloromethane	2.845	50	18265	1.32	ug/L	83
4) Vinyl Chloride	2.998	62	15081	1.38	ug/L	68
5) 1,3-Butadiene	2.998	54	13285	1.22	ug/L #	79
6) Bromomethane	3.427	94	11859m	1.59	ug/L	
7) Chloroethane	3.586	64	10266	1.52	ug/L	86
8) Trichlorofluoromethane	3.762	101	19328	1.24	ug/L	64
9) Ethyl Ether	4.091	59	12798	1.57	ug/L #	75
10) 1,2-Dichlorotrifluoroe...	4.314	67	12270	1.27	ug/L	83
11) 1,1-Dichloroethene	4.379	61	15703	1.31	ug/L	94
12) Freon 113	4.414	101	13067	1.57	ug/L #	75
13) Carbon Disulfide	4.455	76	31115	1.16	ug/L	90
14) Iodomethane	4.555	142	19062	1.31	ug/L	93
15) Allyl chloride	4.908	41	14276	1.13	ug/L #	77
16) Methylene Chloride	5.019	49	37119	2.55	ug/L	93
17) Acetone	5.066	58	4729	6.44	ug/L #	16
18) Methyl acetate	5.184	74	7906	6.48	ug/L #	44
19) trans-1,2-Dichloroethene	5.207	61	13411	1.21	ug/L	85
20) Hexane	5.272	56	11060	1.31	ug/L #	37
21) Methyl Tert Butyl Ether	5.307	73	29145	1.29	ug/L	85
22) Acetonitrile	5.595	40	7313m	13.82	ug/L	
23) Di-isopropyl ether	5.689	45	34361	1.04	ug/L	95
24) Chloroprene	5.848	53	12235	0.97	ug/L	84
25) 1,1-Dichloroethane	5.883	63	19361	1.26	ug/L	87
26) Acrylonitrile	5.918	53	19775	5.87	ug/L	79
27) ETBE	6.094	59	29674	0.98	ug/L	81
28) Vinyl acetate	6.094	43	93567	4.33	ug/L	95
29) cis-1,2-Dichloroethene	6.453	96	11491	1.21	ug/L	94
30) 2,2-Dichloropropane	6.582	77	14301	1.28	ug/L	84
31) Bromochloromethane	6.676	128	7083	1.46	ug/L #	58
32) Cyclohexane	6.705	56	16593	1.07	ug/L #	77
33) Chloroform	6.717	83	21640	1.39	ug/L	97
34) Ethyl acetate	6.794	43	47160	6.25	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981512.D
Acq On : 14 Dec 2016 2:47 pm
Operator : darshnap
Sample : ic5512-1 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 14 15:06:53 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) Tetrahydrofuran	6.888	42	2675	1.15	ug/L	#	68
37) Carbon Tetrachloride	6.917	117	13543	1.25	ug/L		80
38) 1,1,1-Trichloroethane	6.970	97	16336	1.28	ug/L		92
39) 2-Butanone	7.017	43	21818	6.76	ug/L		90
40) 1,1-Dichloropropene	7.082	75	12297	1.21	ug/L		83
41) tert-Butyl Formate	7.158	59	64207	8.98	ug/L	#	75
42) Propionitrile	7.311	54	13251	11.53	ug/L		87
43) Methacrylonitrile	7.340	41	70781	13.13	ug/L		98
44) Benzene	7.340	78	43366	1.31	ug/L		96
45) TAME	7.411	73	25415	1.11	ug/L		91
47) 1,2-Dichloroethane	7.528	62	18926	1.64	ug/L		81
48) Trichloroethene	7.916	95	9567	1.16	ug/L		90
49) Methylcyclohexane	7.939	83	16635	1.20	ug/L		89
50) Dibromomethane	8.339	93	6662	1.32	ug/L		80
51) 1,2-Dichloropropane	8.427	63	11012	1.26	ug/L		85
52) Bromodichloromethane	8.480	83	13537	1.29	ug/L		85
53) Methyl methacrylate	8.603	41	4905	0.74	ug/L	#	76
54) 2-Chloroethyl vinyl ether	8.997	63	20622	3.69	ug/L	#	82
55) cis-1,3-Dichloropropene	9.091	75	12490	0.94	ug/L		83
58) Toluene	9.338	91	47110	1.38	ug/L		84
59) 2-Nitropropane	9.543	41	11648	6.91	ug/L		92
60) 4-Methyl-2-pentanone	9.655	43	41916	6.11	ug/L		94
61) trans-1,3-Dichloropropene	9.726	75	10621	1.00	ug/L	#	68
62) Tetrachloroethene	9.737	166	11361	1.33	ug/L		83
63) Ethyl methacrylate	9.825	69	7377	0.76	ug/L	#	74
64) 1,1,2-Trichloroethane	9.878	83	9319	1.55	ug/L		97
65) Dibromochloromethane	10.084	129	8541	1.14	ug/L		88
66) 1,3-Dichloropropane	10.166	76	15427	1.25	ug/L	#	76
67) 1,2-Dibromoethane	10.348	107	10040	1.41	ug/L		69
68) 2-hexanone	10.478	43	27986	5.14	ug/L		74
69) 1-Chlorohexane	10.777	91	8826	0.86	ug/L		90
70) Ethylbenzene	10.842	91	45166	1.15	ug/L		96
71) Chlorobenzene	10.842	112	31265	1.32	ug/L		89
72) 1,1,1,2-Tetrachloroethane	10.895	131	9699	1.18	ug/L	#	71
73) m,p-Xylene	10.983	91	60203	1.96	ug/L		94
74) o-Xylene	11.424	91	29185	0.95	ug/L		89
75) Styrene	11.471	104	20034	0.79	ug/L		81
76) Bromoform	11.541	173	4651	0.92	ug/L		85
77) Isopropylbenzene	11.729	105	35192	0.89	ug/L		86
80) cis-1,4-Dichloro-2-butene	12.082	53	2289	1.39	ug/L	#	38
81) n-Propylbenzene	12.146	91	45853	1.03	ug/L		84
82) Bromobenzene	12.164	156	15049	1.49	ug/L		80
83) 1,1,2,2-Tetrachloroethane	12.205	83	13674	1.36	ug/L		86
84) 1,3,5-Trimethylbenzene	12.323	105	30340	0.91	ug/L		99
85) 2-Chlorotoluene	12.334	91	34485	1.27	ug/L		93
86) trans-1,4-Dichloro-2-B...	12.375	53	1083	0.45	ug/L	#	1
87) 1,2,3-Trichloropropane	12.375	110	3359	1.19	ug/L	#	72
88) Cyclohexanone	12.422	55	1574	5.31	ug/L	#	67
89) 4-Chlorotoluene	12.505	91	30135	1.23	ug/L		87
90) a-Methyl Styrene	12.587	118	13094	0.75	ug/L		92

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981512.D
Acq On : 14 Dec 2016 2:47 pm
Operator : darshnap
Sample : ic5512-1 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 14 15:06:53 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
91)	tert-Butylbenzene	12.669	91	15027	0.97	ug/L		92
92)	1,2,4-Trimethylbenzene	12.734	105	30949	0.91	ug/L		93
93)	Pentachloroethane	12.722	167	6557	1.10	ug/L	#	82
94)	sec-Butylbenzene	12.845	105	40131	0.97	ug/L		86
95)	4-Isopropyltoluene	12.981	119	26550	0.77	ug/L		94
96)	1,3-Dichlorobenzene	13.122	146	24166	1.37	ug/L		89
97)	1,4-Dichlorobenzene	13.204	146	28089	1.47	ug/L		87
98)	n-Butylbenzene	13.415	92	20326	1.06	ug/L	#	74
99)	Benzyl Chloride	13.427	126	3158	0.93	ug/L	#	53
100)	1,2-Dichlorobenzene	13.633	146	23314	1.18	ug/L		87
101)	1,2-Dibromo-3-Chloropr...	14.361	75	2785	2.09	ug/L		87
102)	Hexachlorobutadiene	14.908	225	9615	1.43	ug/L		80
103)	1,2,4-Trichlorobenzene	14.961	180	15132	1.18	ug/L		87
104)	Naphthalene	15.249	128	21367	0.77	ug/L		77
105)	1,2,3-Trichlorobenzene	15.413	180	15533	1.27	ug/L		81
107)	Ethanol	4.273	45	4778m	44.57	ug/L		
108)	acrolein	4.749	56	6691	4.44	ug/L		85
109)	Tert Butyl Alcohol	5.372	59	11129	14.39	ug/L	#	46
110)	tert Amyl alcohol	7.546	59	6454	10.32	ug/L	#	59
111)	Isobutyl alcohol	7.434	42	6844m	23.06	ug/L		
112)	1,4-Dioxane	8.662	88	2576	29.79	ug/L	#	59
113)	3,3-Dimethyl-1-butanol	10.413	57	27140	33.36	ug/L	#	87

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

7.6.7

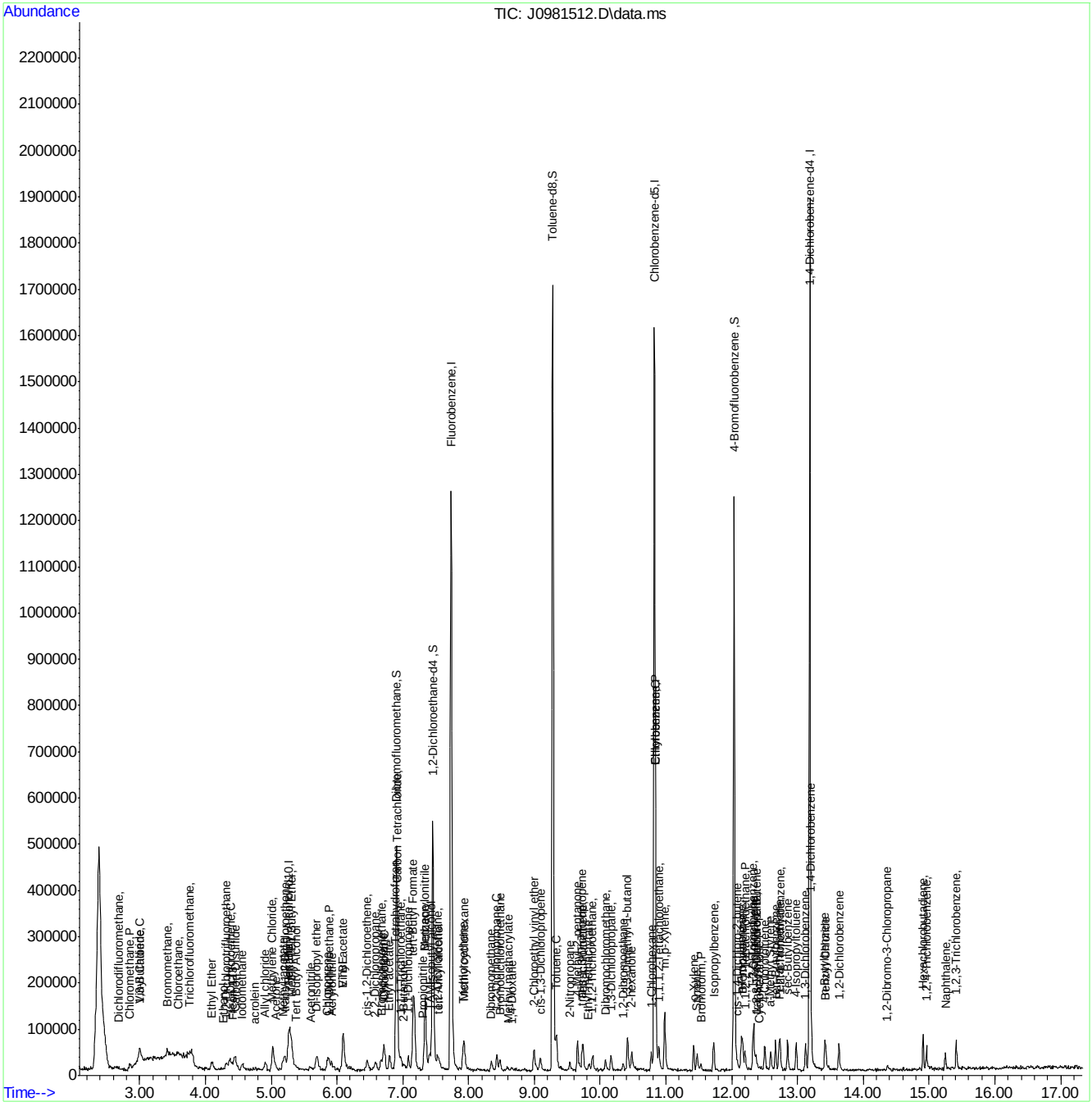
7

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981512.D
Acq On : 14 Dec 2016 2:47 pm
Operator : darshnap
Sample : ic5512-1 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 14 15:06:53 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration



SGS ACCUTEST FA39345

Manual Integration Approval Summary

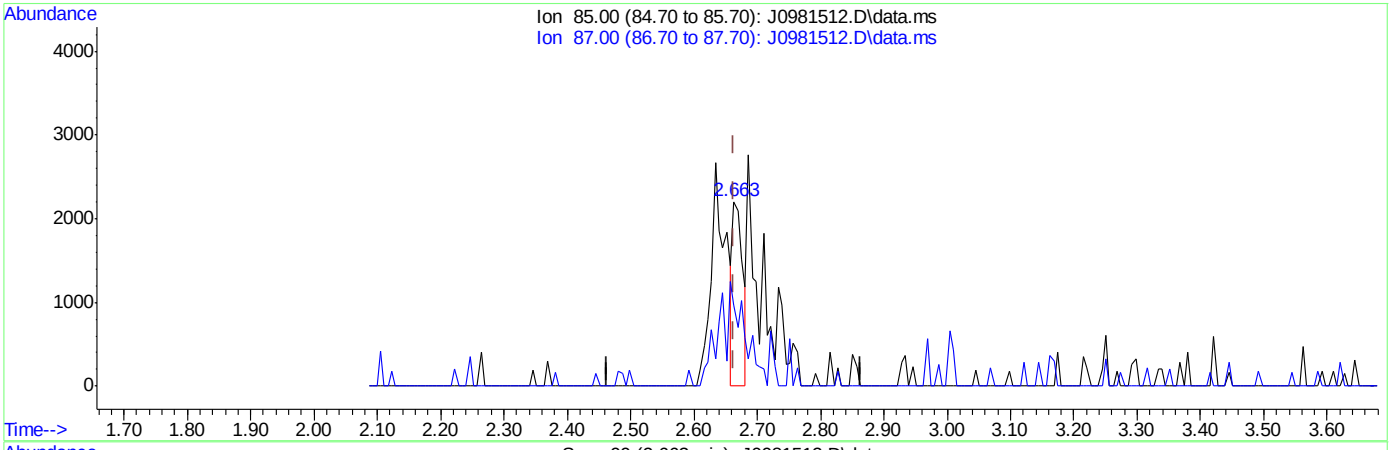
Sample Number:	VJ5512-IC5512	**Method:**	SW846 8260B
Lab FileID:	J0981512.D	**Analyst approved:**	12/15/16 10:38 Darshna Patel
Injection Time:	12/14/16 14:47	**Supervisor approved:**	12/15/16 12:04 Juan Garcia

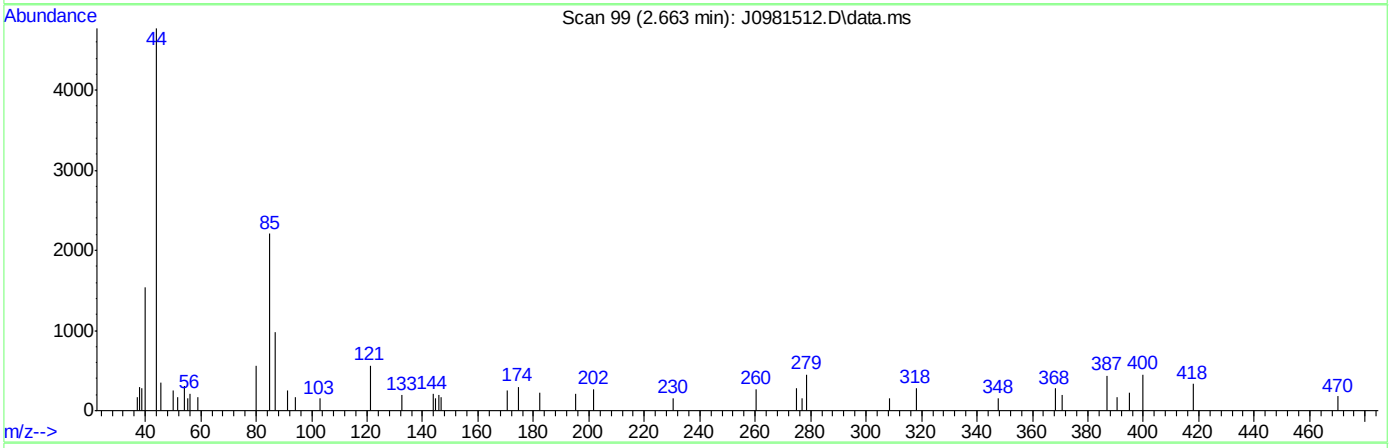
Parameter	CAS	Sig#	R.T. (min.)	Reason
Dichlorodifluoromethane	75-71-8		2.69	Split peak
Methyl Bromide	74-83-9		3.43	Poor instrument integration
Ethyl Alcohol	64-17-5		4.27	Poor instrument integration
Acetonitrile	75-05-8		5.60	Poor instrument integration
Isobutyl Alcohol	78-83-1		7.43	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981512.D
Acq On : 14 Dec 2016 2:47 pm
Operator : darshnap
Sample : ic5512-1 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 14 15:05:15 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981512.D\data.ms

(2) Dichlorodifluoromethane ( )

2.663min (+0.000) 0.23ug/L

response 2464

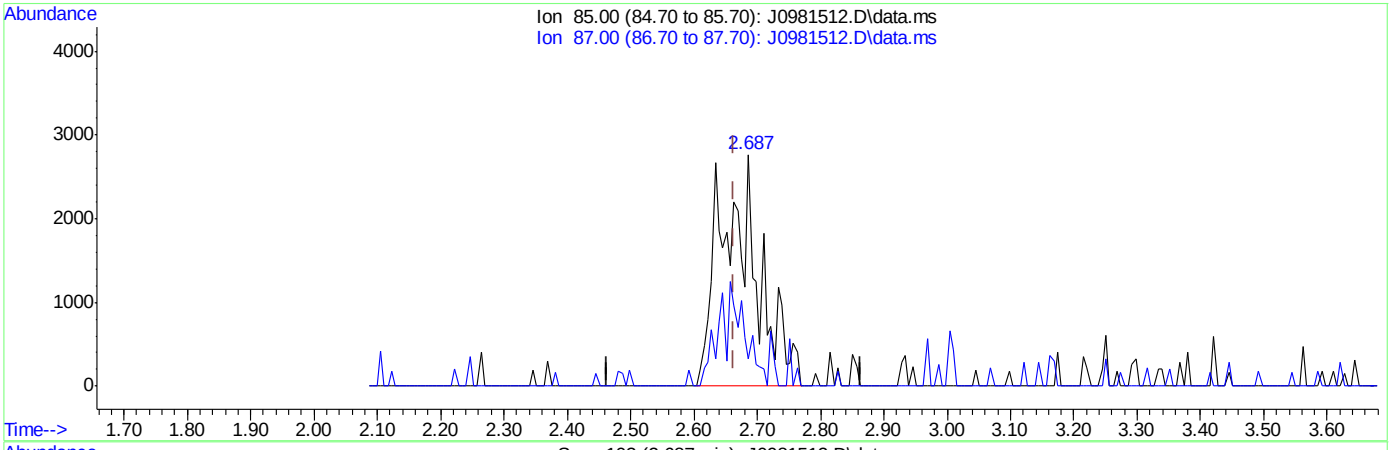
Ion	Exp%	Act%
85.00	100	100
87.00	33.90	39.06
0.00	0.00	0.00
0.00	0.00	0.00

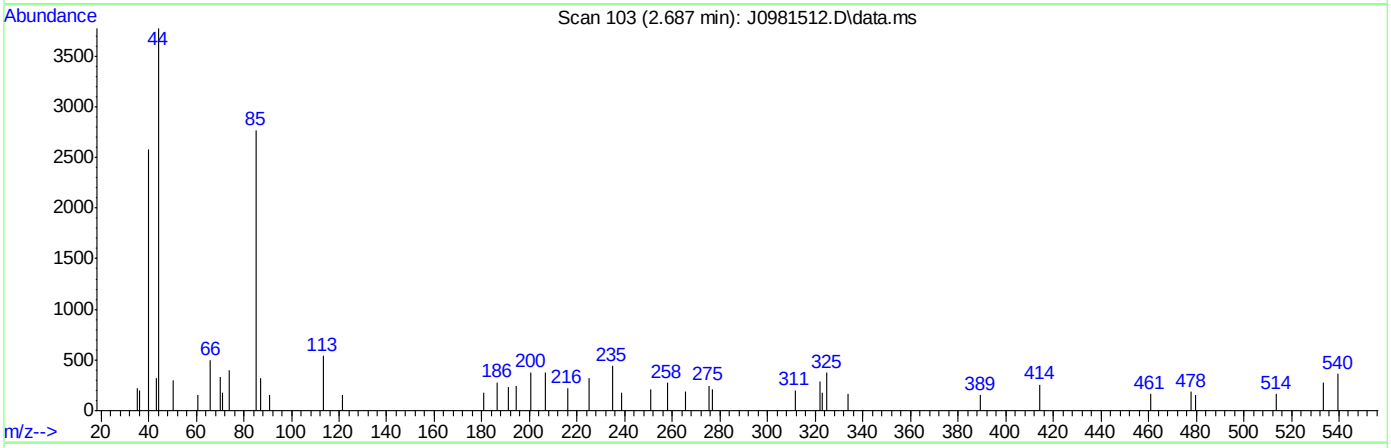
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981512.D
Acq On : 14 Dec 2016 2:47 pm
Operator : darshnap
Sample : ic5512-1 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 14 15:05:15 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981512.D\data.ms

(2) Dichlorodifluoromethane ( )

2.687min (+0.024) 1.06ug/L m

response 11299

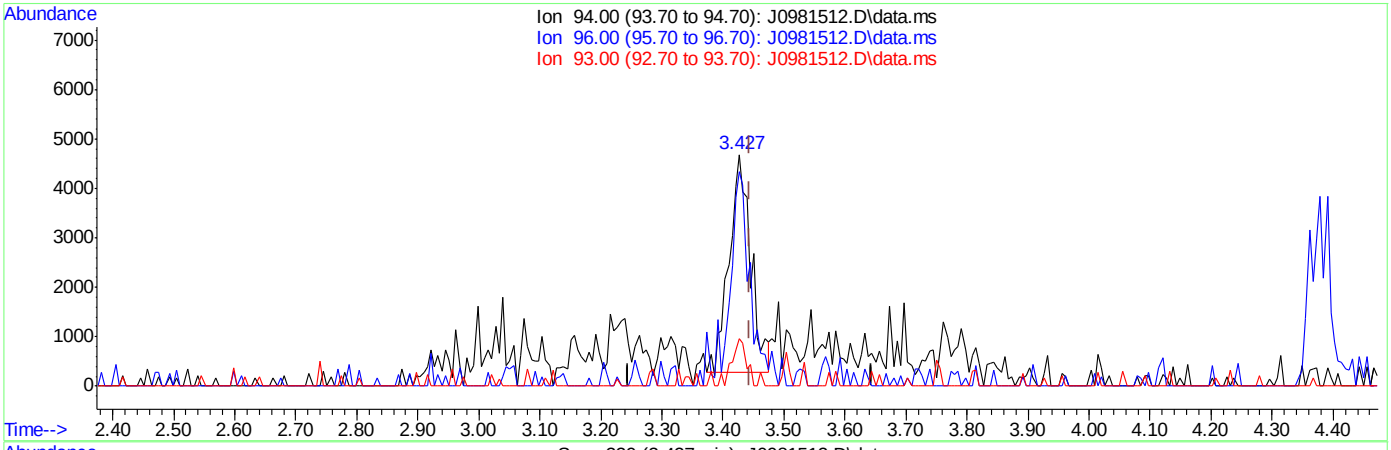
Ion	Exp%	Act%
85.00	100	100
87.00	33.90	11.67
0.00	0.00	0.00
0.00	0.00	0.00

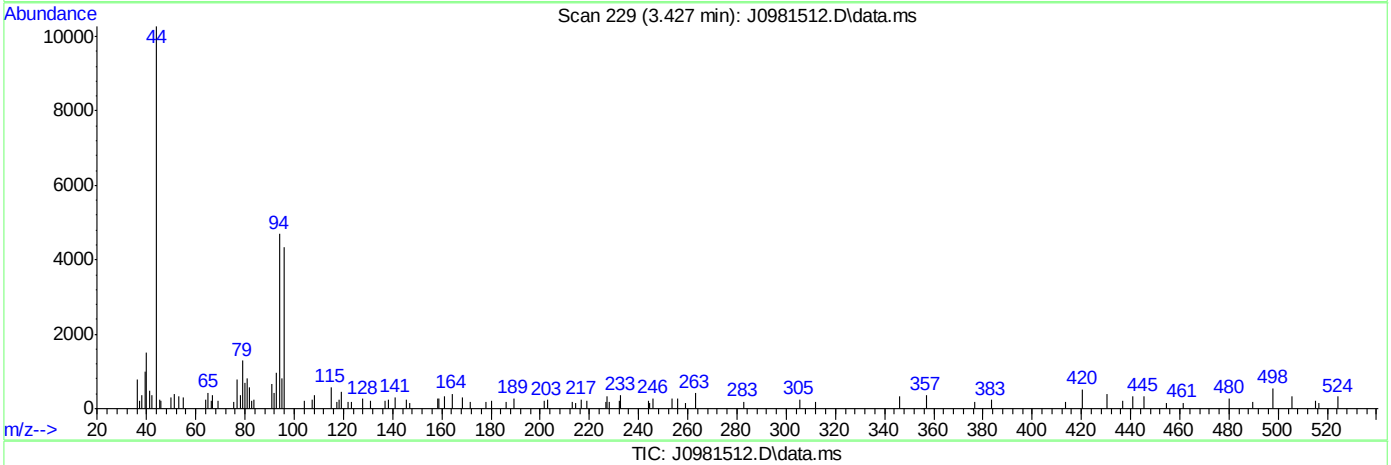
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981512.D
Acq On : 14 Dec 2016 2:47 pm
Operator : darshnap
Sample : ic5512-1 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 14 15:05:15 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981512.D\data.ms

(6) Bromomethane ( )

3.427min (-0.018) 1.45ug/L

response 10847

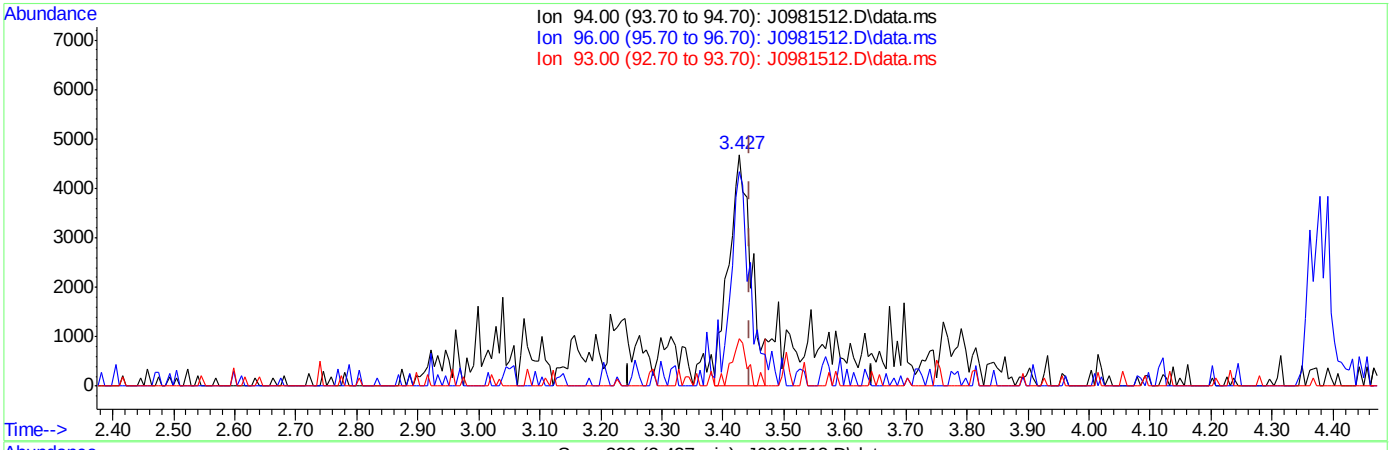
Ion	Exp%	Act%
94.00	100	100
96.00	88.50	91.05
93.00	20.00	21.75
0.00	0.00	0.00

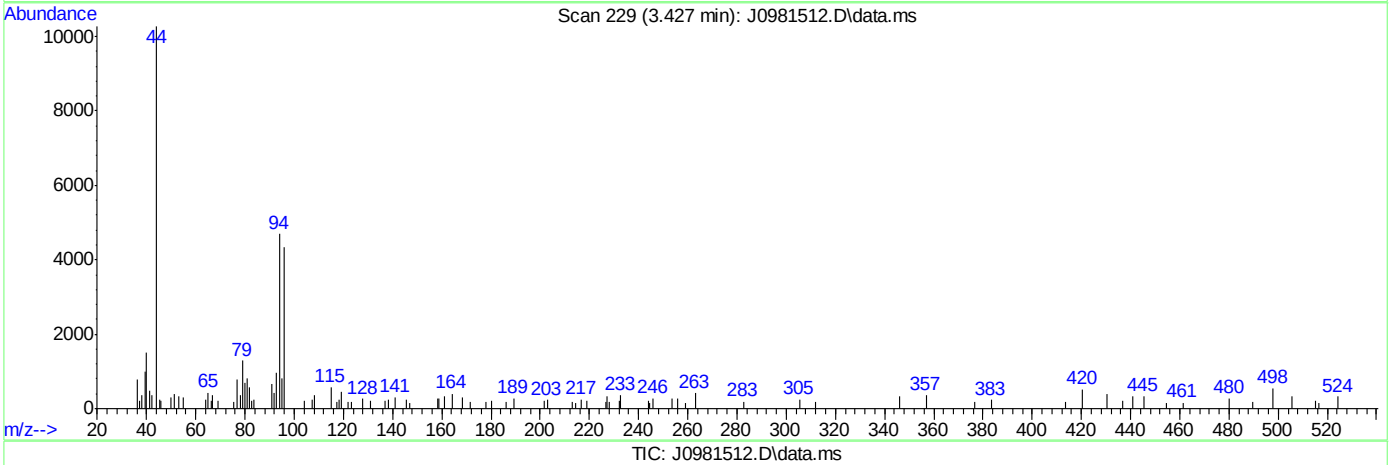
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981512.D
Acq On : 14 Dec 2016 2:47 pm
Operator : darshnap
Sample : ic5512-1 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 14 15:05:15 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981512.D\data.ms

(6) Bromomethane ( )

3.427min (-0.018) 1.59ug/L m

response 11859

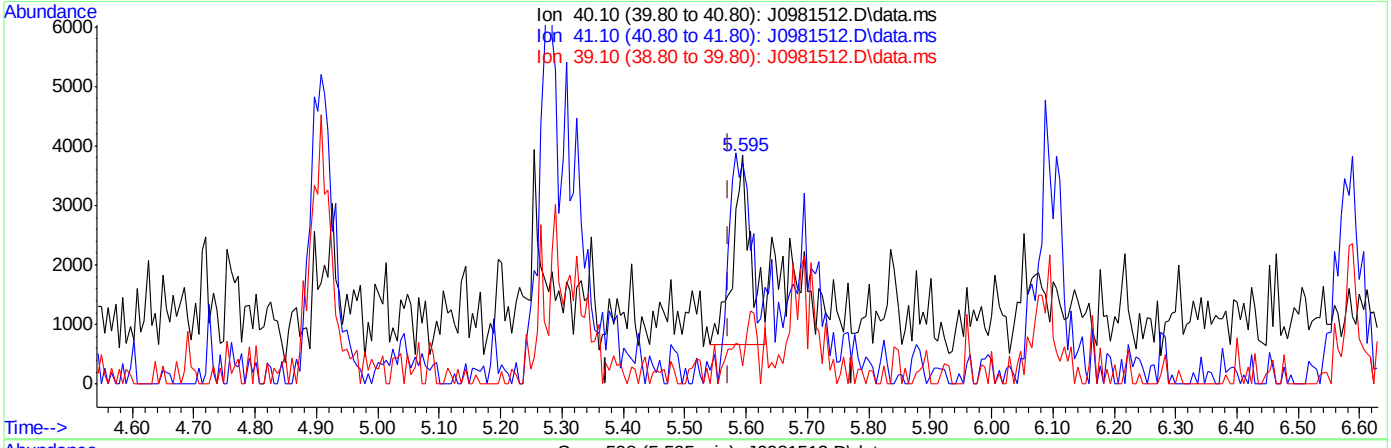
Ion	Exp%	Act%
94.00	100	100
96.00	88.50	92.79
93.00	20.00	20.49
0.00	0.00	0.00

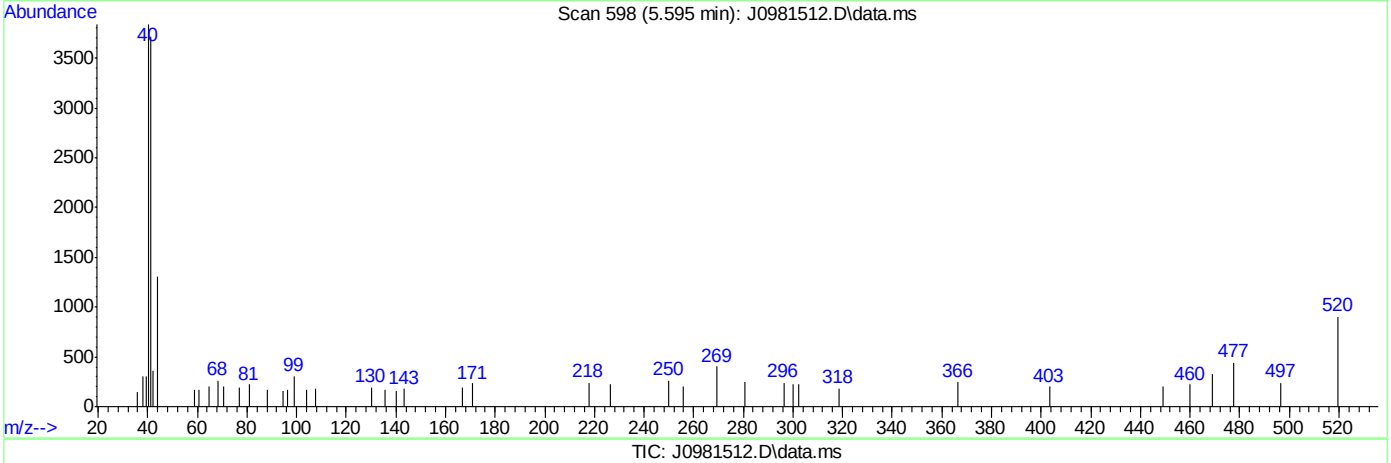
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981512.D
Acq On : 14 Dec 2016 2:47 pm
Operator : darshnap
Sample : ic5512-1 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 14 15:05:15 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981512.D\data.ms

(22) Acetonitrile

5.595min (+0.023) 12.28ug/L

response 6500

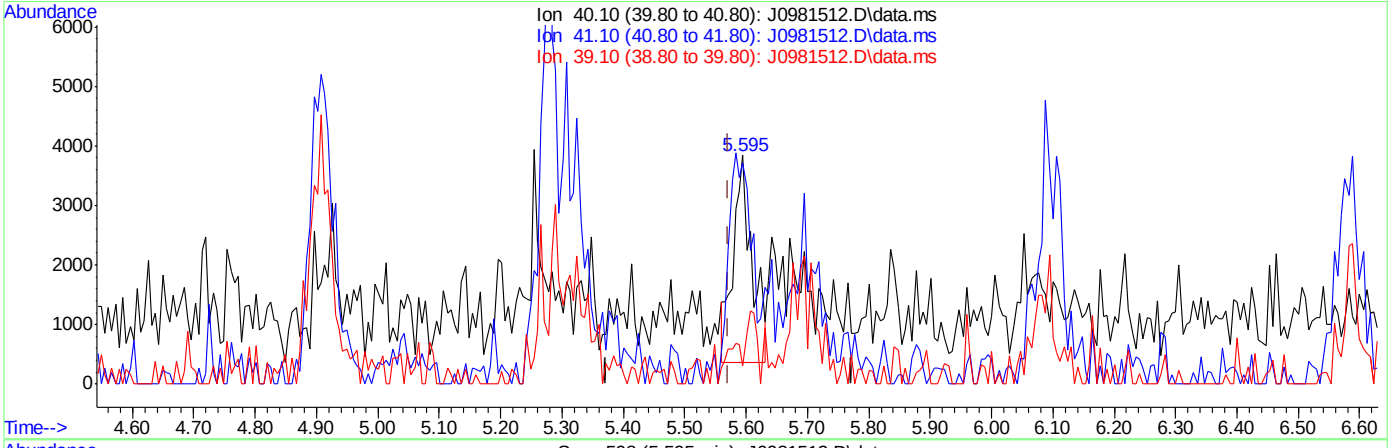
Ion	Exp%	Act%
40.10	100	100
41.10	200.70	109.44#
39.10	35.50	9.41#
0.00	0.00	0.00

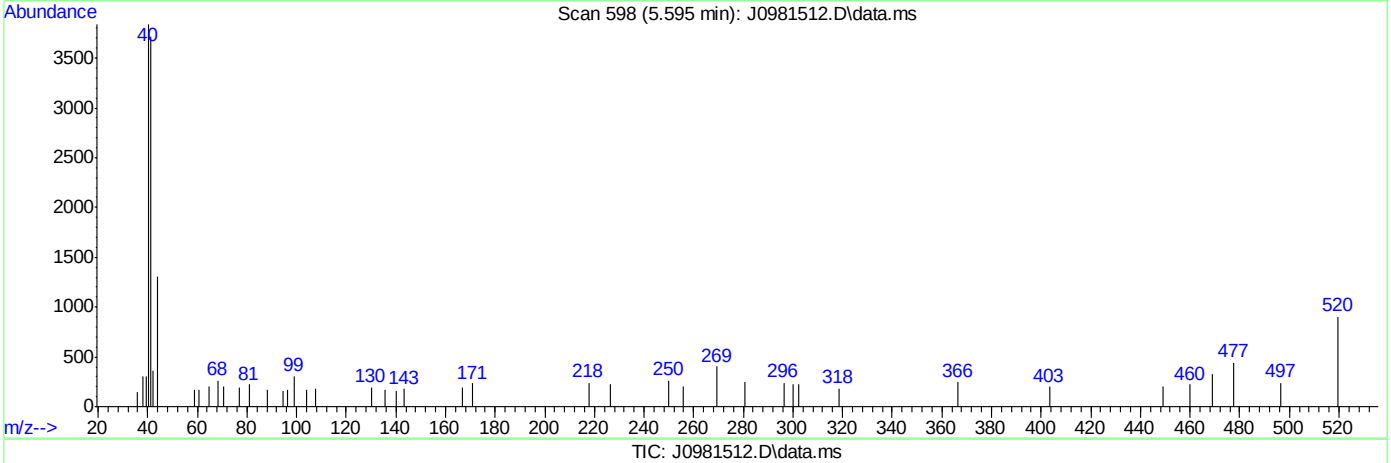
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981512.D
Acq On : 14 Dec 2016 2:47 pm
Operator : darshnap
Sample : ic5512-1 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 14 15:05:15 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981512.D\data.ms

(22) Acetonitrile

5.595min (+0.023) 13.82ug/L m

response 7313

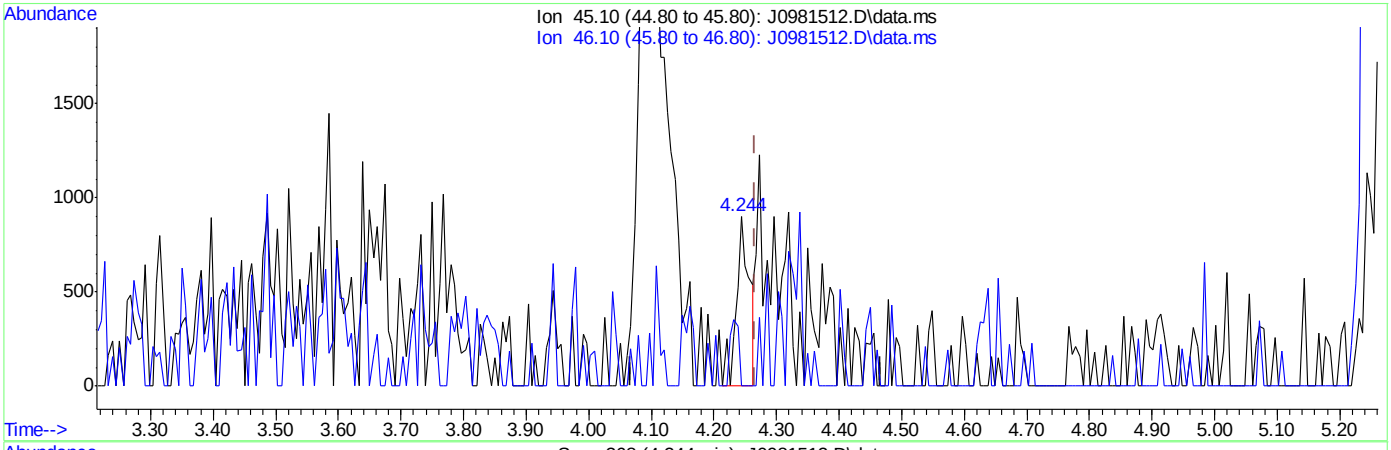
Ion	Exp%	Act%
40.10	100	100
41.10	200.70	96.85#
39.10	35.50	7.79#
0.00	0.00	0.00

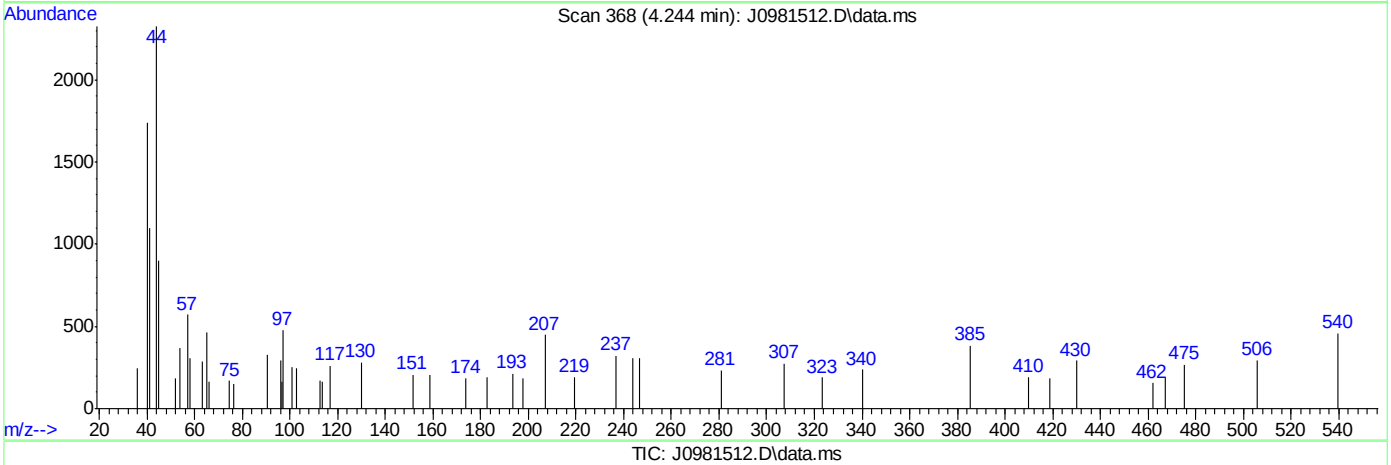
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981512.D
Acq On : 14 Dec 2016 2:47 pm
Operator : darshnap
Sample : ic5512-1 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 14 15:05:15 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981512.D\data.ms

(107) Ethanol

4.244min (-0.023) 12.11ug/L

response 1303

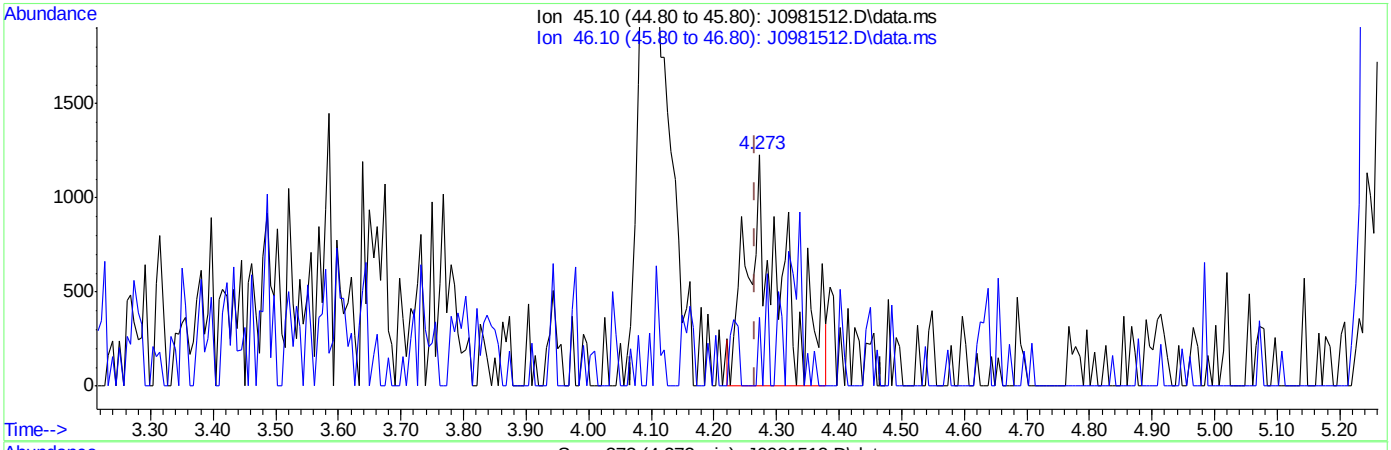
Ion	Exp%	Act%
45.10	100	100
46.10	29.70	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

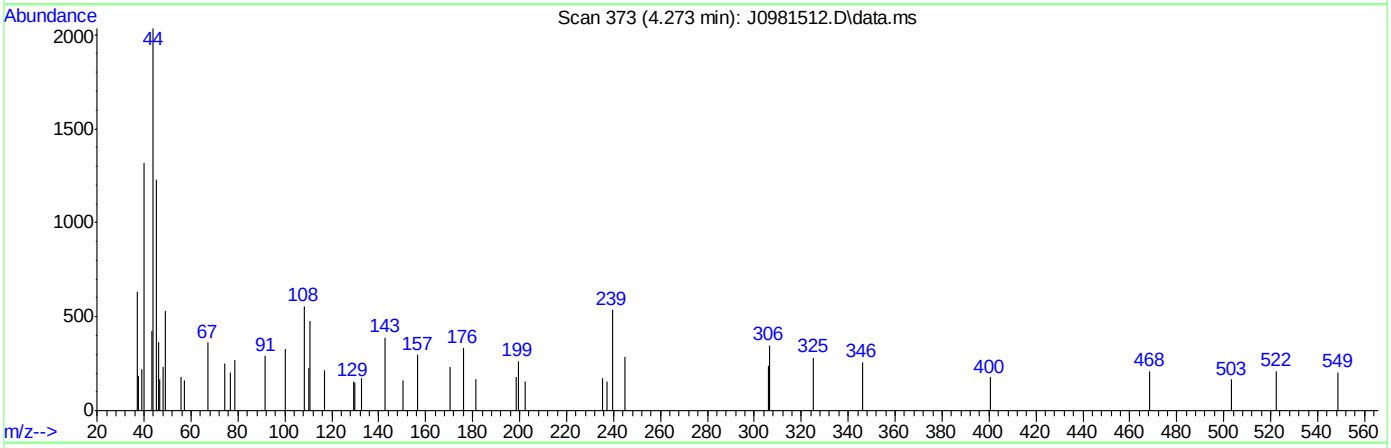
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981512.D
Acq On : 14 Dec 2016 2:47 pm
Operator : darshnap
Sample : ic5512-1 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 14 15:05:15 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981512.D\data.ms

(107) Ethanol

4.273min (+0.006) 44.57ug/L m

response 4778

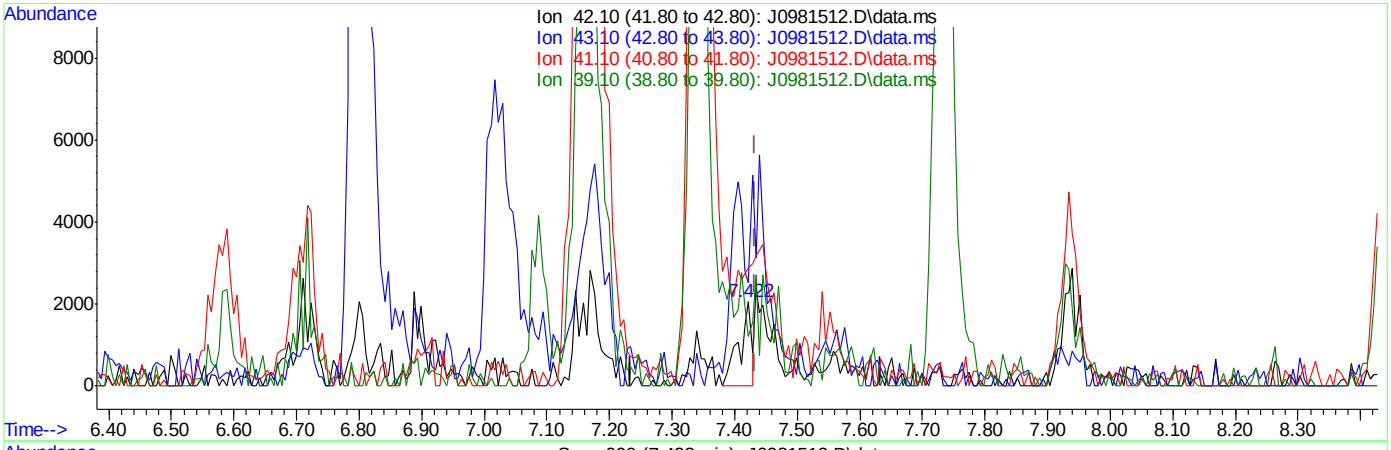
Ion	Exp%	Act%
45.10	100	100
46.10	29.70	29.67
0.00	0.00	0.00
0.00	0.00	0.00

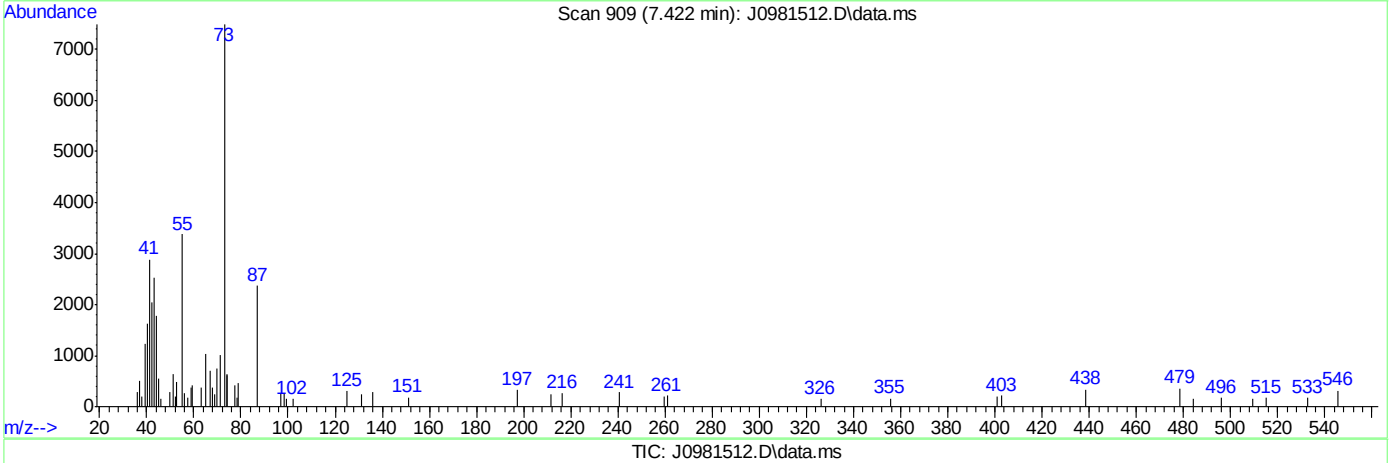
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981512.D
Acq On : 14 Dec 2016 2:47 pm
Operator : darshnap
Sample : ic5512-1 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 14 15:05:15 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981512.D\data.ms

(111) Isobutyl alcohol

7.422min (-0.012) 9.30ug/L

response 2760

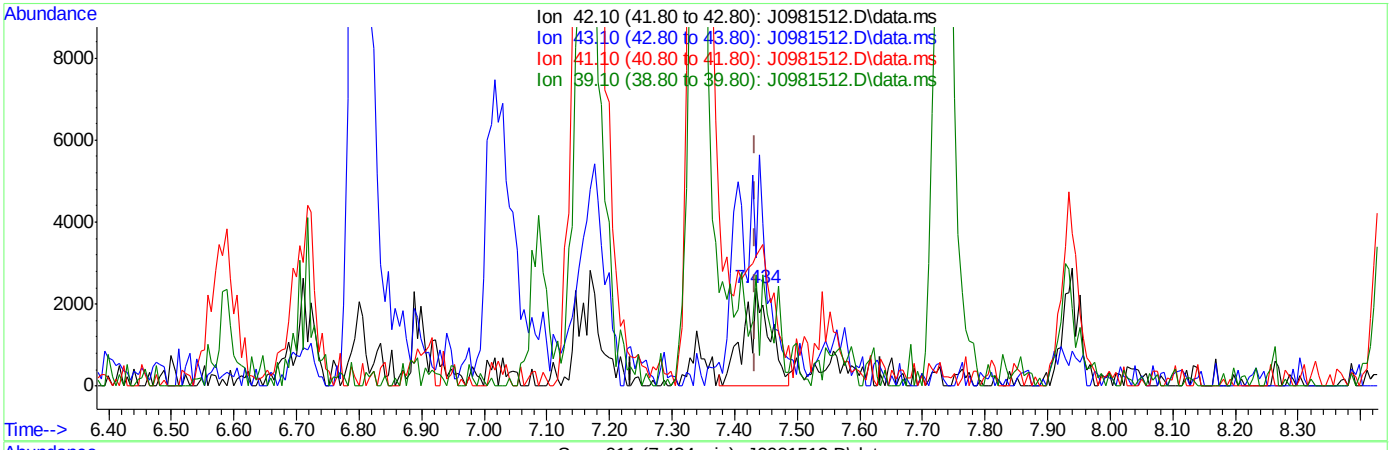
Ion	Exp%	Act%
42.10	100	100
43.10	219.00	107.96#
41.10	126.80	4.88#
39.10	55.80	0.00#

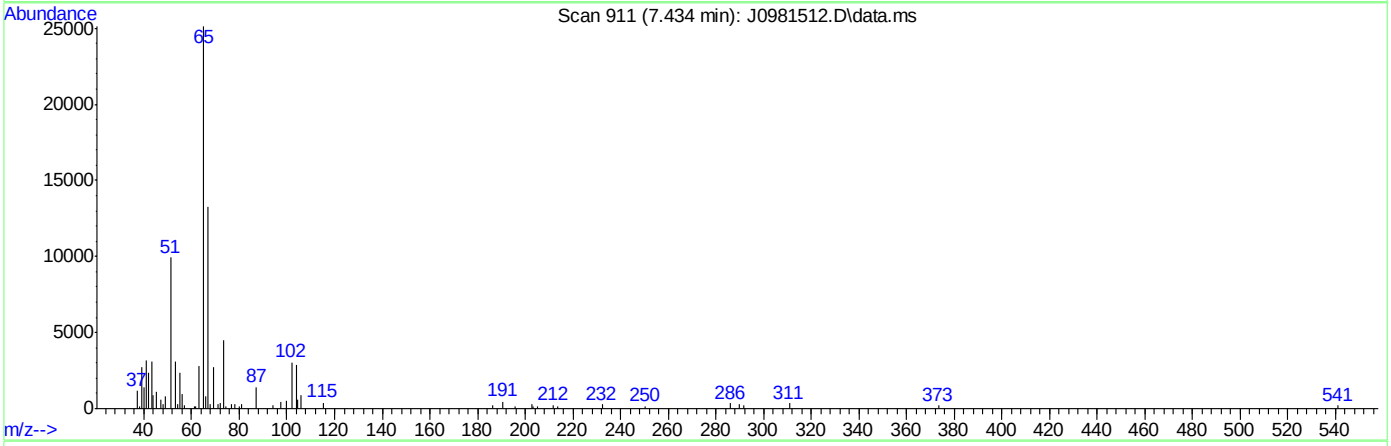
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981512.D
Acq On : 14 Dec 2016 2:47 pm
Operator : darshnap
Sample : ic5512-1 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 14 15:05:15 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Mon Dec 12 14:20:19 2016
Response via : Initial Calibration





TIC: J0981512.D\data.ms

(111) Isobutyl alcohol

7.434min (+0.000) 23.06ug/L m

response 6844

Ion	Exp%	Act%
42.10	100	100
43.10	219.00	131.18#
41.10	126.80	132.86
39.10	55.80	113.77#

SGS ACCUTEST FA39345

Manual Integrations APPROVED (compounds with "m" flag)
Juan Garcia
12/15/16 12:04

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981513.D
Acq On : 14 Dec 2016 3:10 pm
Operator : darshnap
Sample : icv5512-5 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 15 08:24:50 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.734	96	1109792	50.00	ug/L	0.00
56) Chlorobenzene-d5	10.824	117	858106	50.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	13.186	152	495135	50.00	ug/L	0.00
106) Tert Butyl Alcohol-d10	5.278	65	112220	250.00	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	6.905	113	289556	48.37	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 96.74%			
46) 1,2-Dichloroethane-d4	7.458	65	349364	48.50	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 97.00%			
57) Toluene-d8	9.279	98	1060076	50.82	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 101.64%			
79) 4-Bromofluorobenzene	12.035	95	395402	50.09	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 100.18%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.651	85	393998	34.46	ug/L	100
3) Chloromethane	2.869	50	549685	33.87	ug/L	96
4) Vinyl Chloride	3.010	62	496687	37.72	ug/L	99
5) 1,3-Butadiene	2.992	54	11019	0.84	ug/L #	61
6) Bromomethane	3.427	94	319861	38.30	ug/L	97
7) Chloroethane	3.580	64	243308	36.33	ug/L	91
8) Trichlorofluoromethane	3.797	101	702721	35.16	ug/L	97
9) Ethyl Ether	4.103	59	356507	36.21	ug/L	90
10) 1,2-Dichlorotrifluoroe...	4.332	67	468799	38.31	ug/L	97
11) 1,1-Dichloroethene	4.373	61	562763	37.79	ug/L	97
12) Freon 113	4.432	101	353254	34.37	ug/L	96
13) Carbon Disulfide	4.449	76	1113695	35.73	ug/L	98
14) Iodomethane	4.561	142	635683	36.23	ug/L	99
15) Allyl chloride	4.902	41	596869	36.37	ug/L	98
16) Methylene Chloride	5.025	49	621630	35.13	ug/L	97
17) Acetone	5.049	58	163167	178.78	ug/L	95
18) Methyl acetate	5.172	74	295325	197.37	ug/L #	88
19) trans-1,2-Dichloroethene	5.207	61	580484	42.02	ug/L	97
20) Hexane	5.278	56	401832	37.05	ug/L #	93
21) Methyl Tert Butyl Ether	5.313	73	1057732	37.47	ug/L	96
22) Acetonitrile	5.572	40	272228	355.37	ug/L	95
23) Di-isopropyl ether	5.695	45	1421272	36.55	ug/L	98
24) Chloroprene	5.848	53	581044	34.29	ug/L	98
25) 1,1-Dichloroethane	5.877	63	728538	38.64	ug/L	100
26) Acrylonitrile	5.906	53	770736	182.04	ug/L	99
27) ETBE	6.094	59	1297488	38.59	ug/L	99
28) Vinyl acetate	6.083	43	4344521	170.89	ug/L	99
29) cis-1,2-Dichloroethene	6.453	96	434353	38.24	ug/L	95
30) 2,2-Dichloropropane	6.582	77	536078	39.03	ug/L	97
31) Bromochloromethane	6.664	128	215344	36.64	ug/L	92
32) Cyclohexane	6.706	56	704172	39.06	ug/L	97
33) Chloroform	6.717	83	692144	35.56	ug/L	97
34) Ethyl acetate	6.782	43	1751420	173.88	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981513.D
Acq On : 14 Dec 2016 3:10 pm
Operator : darshnap
Sample : icv5512-5 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 15 08:24:50 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
35) Tetrahydrofuran	6.894	42	111585	36.81 ug/L	99
37) Carbon Tetrachloride	6.911	117	503230m	36.65 ug/L	
38) 1,1,1-Trichloroethane	6.970	97	557225	35.02 ug/L	97
39) 2-Butanone	6.999	43	795047	183.80 ug/L	95
40) 1,1-Dichloropropene	7.082	75	484722	37.37 ug/L	99
41) tert-Butyl Formate	7.164	59	2094210	254.32 ug/L	99
42) Propionitrile	7.311	54	595499	399.17 ug/L	92
43) Methacrylonitrile	7.340	41	2319521	361.36 ug/L	99
44) Benzene	7.334	78	1563369	38.49 ug/L	89
45) TAME	7.411	73	1093235	39.09 ug/L	98
47) 1,2-Dichloroethane	7.522	62	566453	38.75 ug/L	98
48) Trichloroethene	7.910	95	387119	38.45 ug/L	98
49) Methylcyclohexane	7.934	83	685183	39.06 ug/L	99
50) Dibromomethane	8.339	93	251178	38.79 ug/L	96
51) 1,2-Dichloropropane	8.427	63	423722	38.73 ug/L	95
52) Bromodichloromethane	8.474	83	516803	39.13 ug/L	95
53) Methyl methacrylate	8.568	41	337539	39.61 ug/L	95
54) 2-Chloroethyl vinyl ether	8.985	63	1348486	200.20 ug/L	98
55) cis-1,3-Dichloropropene	9.085	75	631402	39.76 ug/L	99
58) Toluene	9.332	91	1569732	38.40 ug/L	99
59) 2-Nitropropane	9.538	41	459630	195.19 ug/L	93
60) 4-Methyl-2-pentanone	9.655	43	1806997	186.40 ug/L	95
61) trans-1,3-Dichloropropene	9.714	75	577871	42.52 ug/L	97
62) Tetrachloroethene	9.737	166	441109	38.59 ug/L	96
63) Ethyl methacrylate	9.820	69	497567	40.98 ug/L	96
64) 1,1,2-Trichloroethane	9.884	83	316233	38.67 ug/L	94
65) Dibromochloromethane	10.078	129	409845	41.84 ug/L	95
66) 1,3-Dichloropropane	10.160	76	608965	38.22 ug/L	97
67) 1,2-Dibromoethane	10.343	107	380746	39.69 ug/L	98
68) 2-hexanone	10.466	43	1279780	187.86 ug/L	96
69) 1-Chlorohexane	10.777	91	527435	38.81 ug/L	93
70) Ethylbenzene	10.842	91	1773015	38.57 ug/L	98
71) Chlorobenzene	10.842	112	1127964	38.64 ug/L	95
72) 1,1,1,2-Tetrachloroethane	10.895	131	433007	41.68 ug/L	95
73) m,p-Xylene	10.977	91	2724523	78.05 ug/L	97
74) o-Xylene	11.418	91	1478652	39.71 ug/L	97
75) Styrene	11.465	104	1192611	40.39 ug/L	99
76) Bromoform	11.524	173	268520	41.24 ug/L	98
77) Isopropylbenzene	11.723	105	1835928	39.44 ug/L	98
80) cis-1,4-Dichloro-2-butene	12.070	53	145608	47.76 ug/L	91
81) n-Propylbenzene	12.140	91	2149055	41.52 ug/L	99
82) Bromobenzene	12.164	156	526442	40.09 ug/L	94
83) 1,1,2,2-Tetrachloroethane	12.199	83	481731	36.29 ug/L	92
84) 1,3,5-Trimethylbenzene	12.323	105	1600750	41.22 ug/L	98
85) 2-Chlorotoluene	12.334	91	1469688	39.03 ug/L	98
86) trans-1,4-Dichloro-2-B...	12.381	53	130171	38.54 ug/L	91
87) 1,2,3-Trichloropropane	12.364	110	137395	38.35 ug/L	95
88) Cyclohexanone	12.428	55	82670	165.57 ug/L	92
89) 4-Chlorotoluene	12.499	91	1369623	40.52 ug/L	100
90) a-Methyl Styrene	12.669	118	11245	0.49 ug/L #	1

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981513.D
Acq On : 14 Dec 2016 3:10 pm
Operator : darshnap
Sample : icv5512-5 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 15 08:24:50 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
91)	tert-Butylbenzene	12.663	91	893168	41.07	ug/L		98
92)	1,2,4-Trimethylbenzene	12.734	105	1615266	40.51	ug/L		98
93)	Pentachloroethane	12.716	167	339524	42.95	ug/L		94
94)	sec-Butylbenzene	12.846	105	2072710	42.08	ug/L		99
95)	4-Isopropyltoluene	12.981	119	1721598	38.91	ug/L		96
96)	1,3-Dichlorobenzene	13.116	146	979936	39.35	ug/L		98
97)	1,4-Dichlorobenzene	13.198	146	973055	36.94	ug/L		97
98)	n-Butylbenzene	13.415	92	1029674	39.06	ug/L		95
99)	Benzyl Chloride	13.427	126	179156	38.34	ug/L	#	78
100)	1,2-Dichlorobenzene	13.627	146	932407	37.98	ug/L		98
101)	1,2-Dibromo-3-Chloropr...	14.361	75	80180	38.83	ug/L		93
102)	Hexachlorobutadiene	14.908	225	373330	39.05	ug/L		95
103)	1,2,4-Trichlorobenzene	14.955	180	735875	38.53	ug/L		99
104)	Naphthalene	15.237	128	1450655	40.73	ug/L		99
105)	1,2,3-Trichlorobenzene	15.407	180	692607	40.52	ug/L		96
107)	Ethanol	4.267	45	91050m	805.92	ug/L		
108)	acrolein	4.737	56	319185	183.35	ug/L		92
109)	Tert Butyl Alcohol	5.360	59	398807	479.36	ug/L		95
110)	tert Amyl alcohol	7.558	59	260981	358.41	ug/L		89
111)	Isobutyl alcohol	7.434	42	278125	823.09	ug/L		97
112)	1,4-Dioxane	8.650	88	80671	832.69	ug/L		94
113)	3,3-Dimethyl-1-butanol	10.413	57	1622977	1829.93	ug/L		95

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

7.6.8

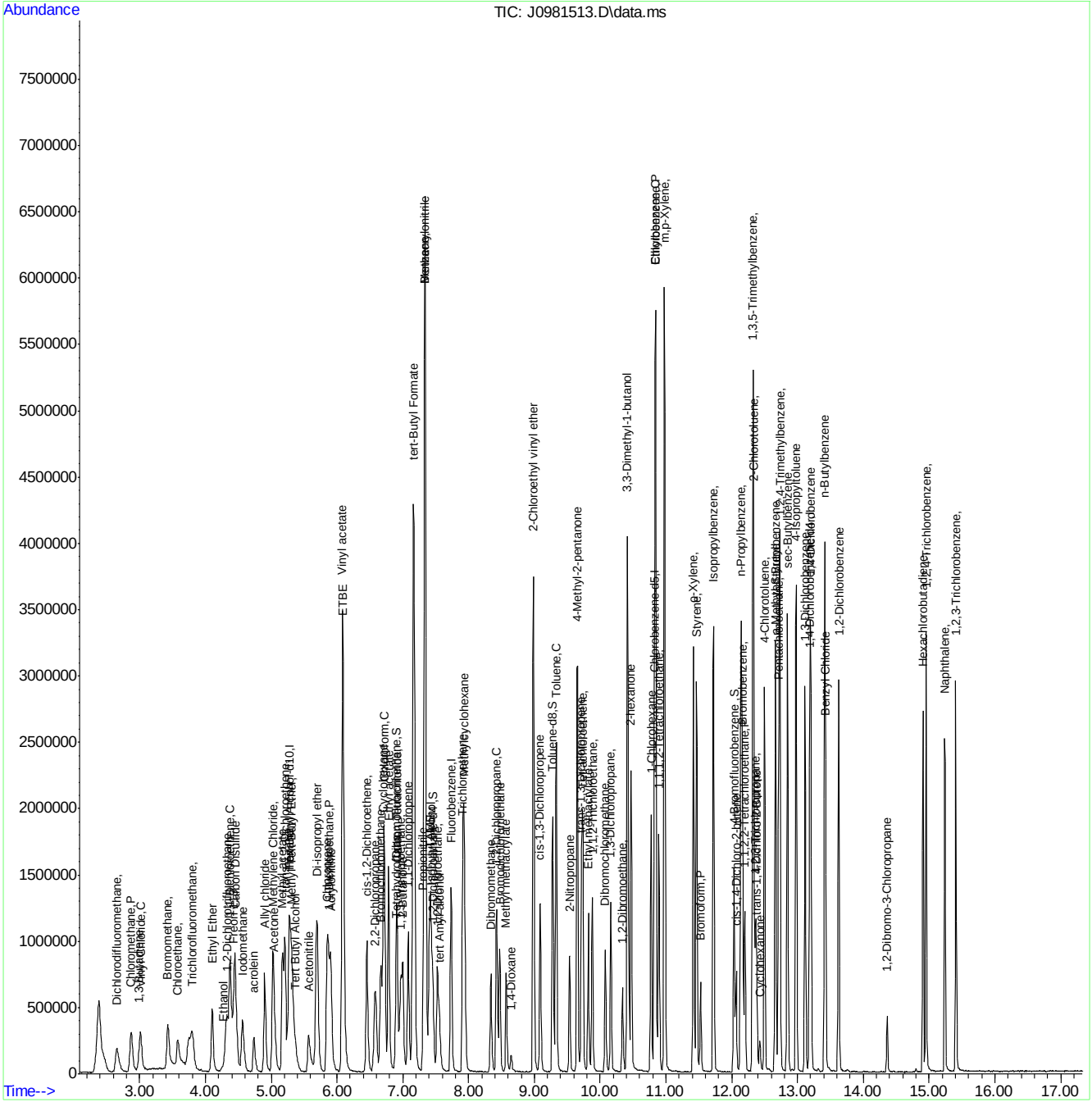
7

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981513.D
Acq On : 14 Dec 2016 3:10 pm
Operator : darshnap
Sample : icv5512-5 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 15 08:24:50 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration



SGS ACCUTEST FA39345

Manual Integration Approval Summary

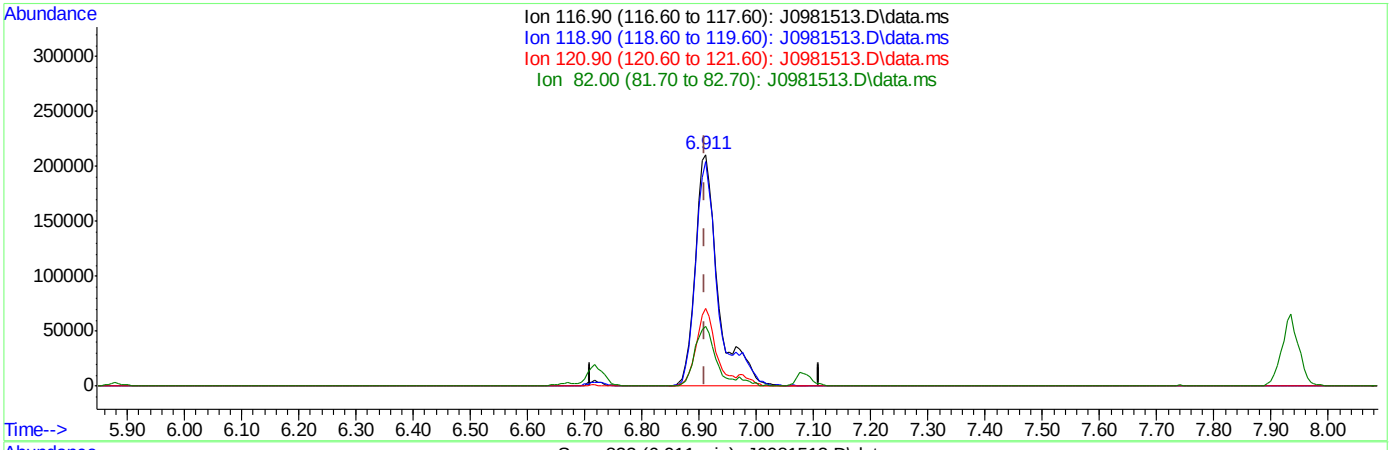
Sample Number:	VJ5512-ICV5512	**Method:**	SW846 8260B
Lab FileID:	J0981513.D	**Analyst approved:**	12/15/16 10:38 Darshna Patel
Injection Time:	12/14/16 15:10	**Supervisor approved:**	12/15/16 12:04 Juan Garcia

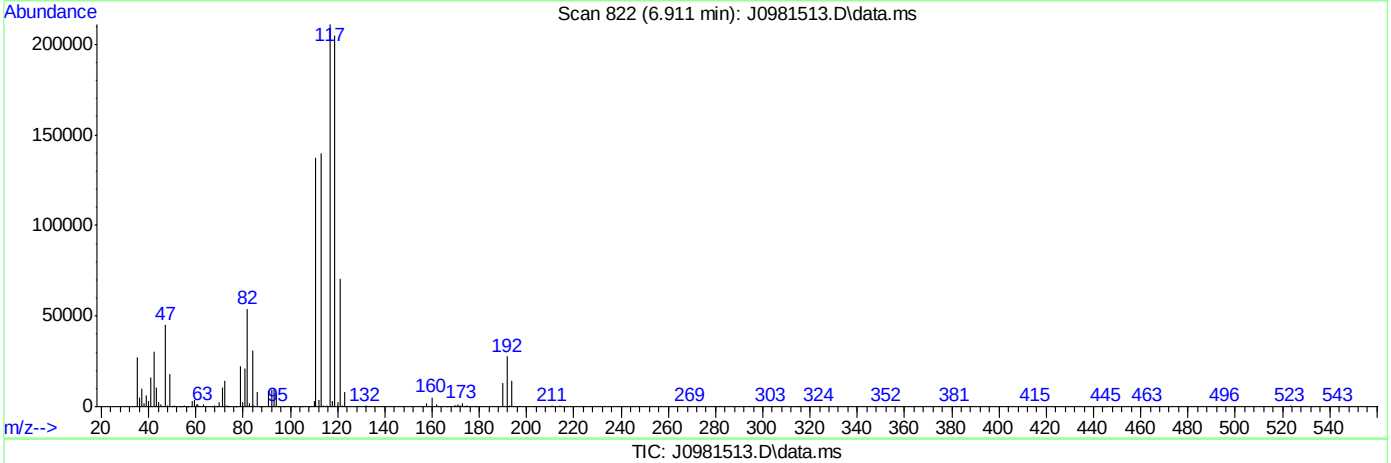
Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Alcohol	64-17-5		4.27	Poor instrument integration
Carbon Tetrachloride	56-23-5		6.91	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981513.D
Acq On : 14 Dec 2016 3:10 pm
Operator : darshnap
Sample : icv5512-5 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 15 08:23:35 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981513.D\data.ms

(37) Carbon Tetrachloride ( )

6.911min (+0.000) 42.95ug/L

response 589676

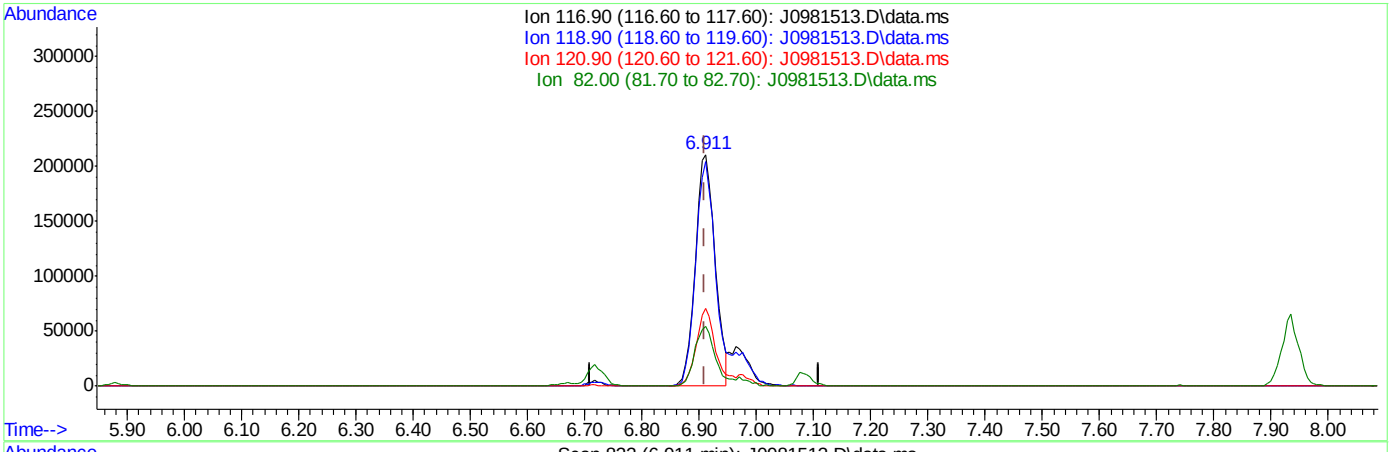
Ion	Exp%	Act%
116.90	100	100
118.90	96.60	97.15
120.90	30.20	33.43
82.00	25.90	25.47

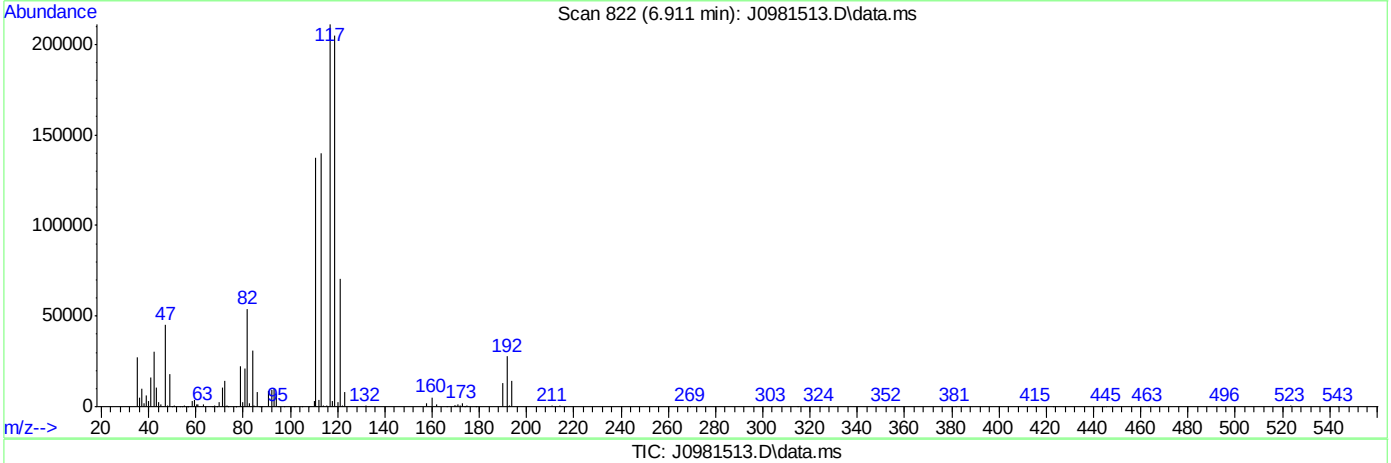
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981513.D
Acq On : 14 Dec 2016 3:10 pm
Operator : darshnap
Sample : icv5512-5 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 15 08:23:35 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981513.D\data.ms

(37) Carbon Tetrachloride ( )

6.911min (+0.000) 36.65ug/L m

response 503230

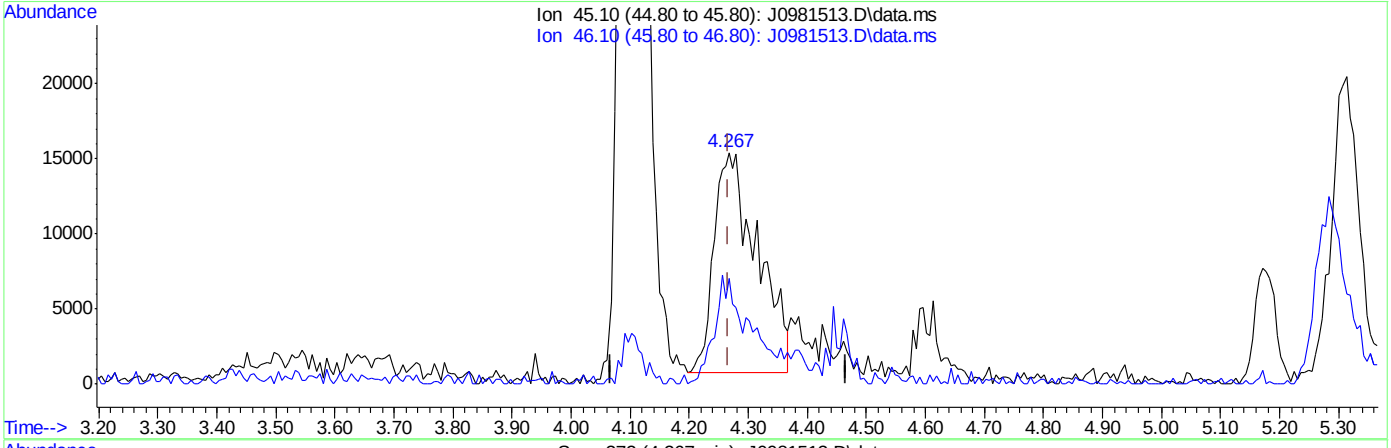
Ion	Exp%	Act%
116.90	100	100
118.90	96.60	97.15
120.90	30.20	33.43
82.00	25.90	25.60

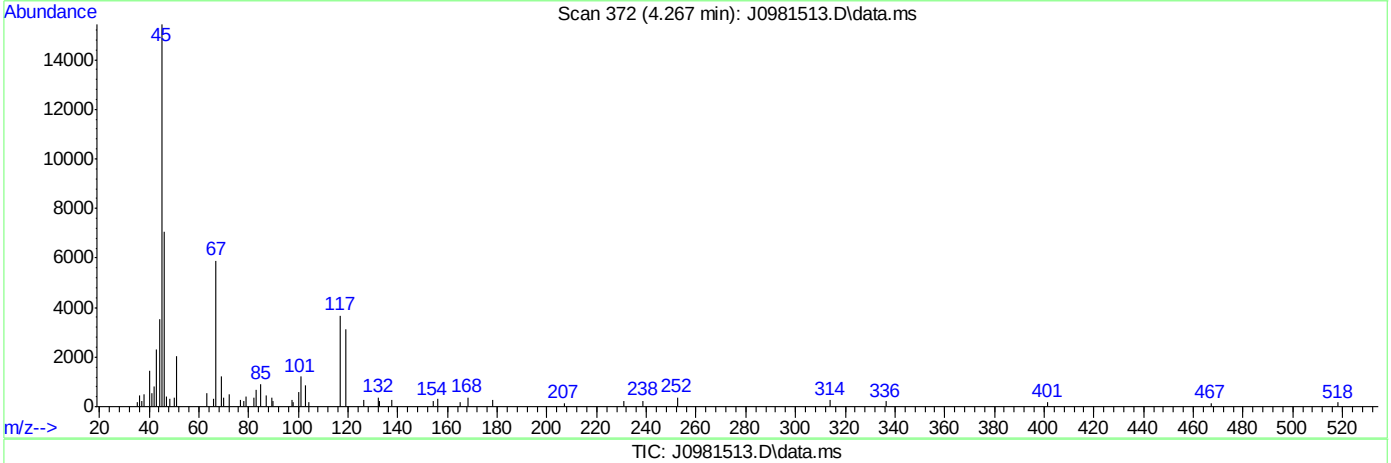
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981513.D
Acq On : 14 Dec 2016 3:10 pm
Operator : darshnap
Sample : icv5512-5 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 15 08:23:35 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981513.D\data.ms

(107) Ethanol

4.267min (+0.000) 646.77ug/L

response 74651

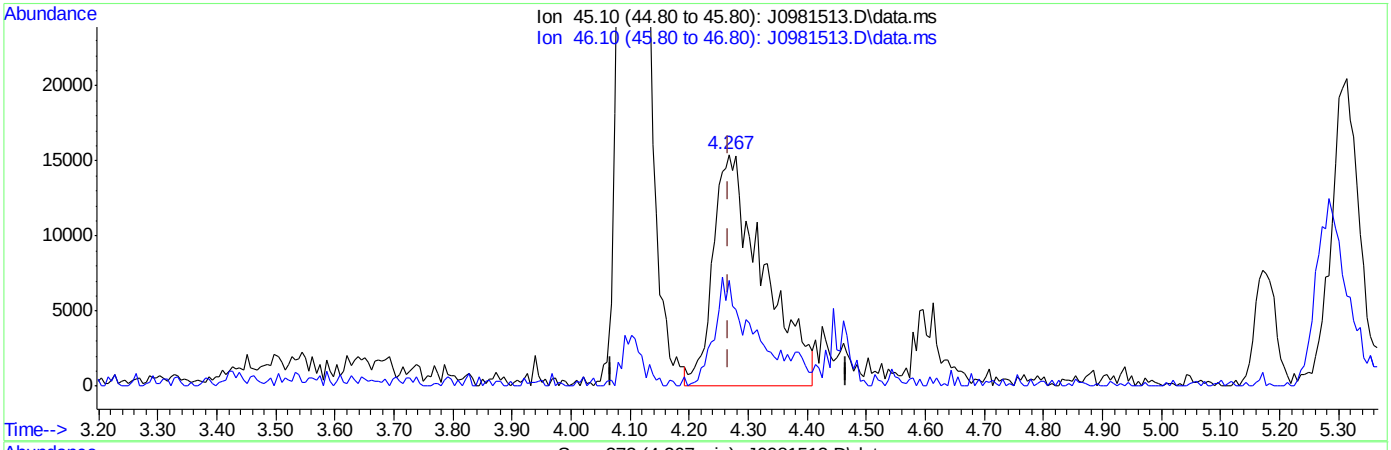
Ion	Exp%	Act%
45.10	100	100
46.10	28.70	48.12
0.00	0.00	0.00
0.00	0.00	0.00

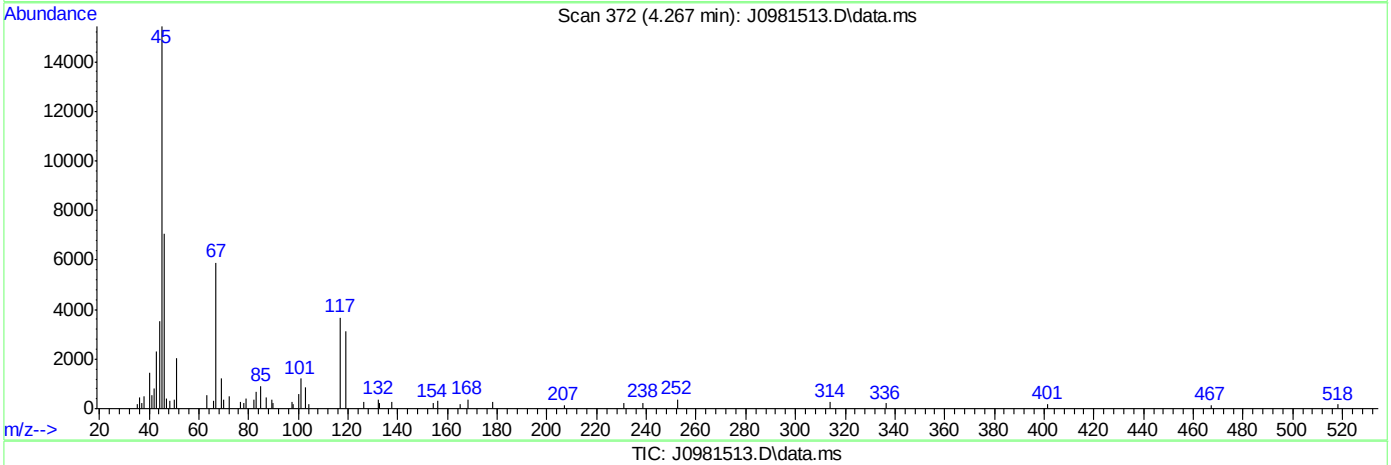
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121416\
Data File : J0981513.D
Acq On : 14 Dec 2016 3:10 pm
Operator : darshnap
Sample : icv5512-5 Inst : MSVOA6
Misc : MS35779,vj5512,,,,,
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 15 08:23:35 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981513.D\data.ms

(107) Ethanol

4.267min (+0.000) 805.92ug/L m

response 91050

Ion	Exp%	Act%
45.10	100	100
46.10	28.70	45.74
0.00	0.00	0.00
0.00	0.00	0.00

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121516\
Data File : J0981538.D
Acq On : 15 Dec 2016 9:44 am
Operator : darshnap
Sample : icv5512-5 Inst : MSVOA6
Misc : MS35797,vj5512,,,,,
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 15 10:30:44 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.734	96	851700	50.00	ug/L	0.00
56) Chlorobenzene-d5	10.824	117	660342	50.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	13.186	152	329632	50.00	ug/L	0.00
106) Tert Butyl Alcohol-d10	5.278	65	78915	250.00	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	6.905	113	228185	49.67	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 99.34%			
46) 1,2-Dichloroethane-d4	7.452	65	278622	50.40	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 100.80%			
57) Toluene-d8	9.279	98	788697	49.13	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 98.26%			
79) 4-Bromofluorobenzene	12.035	95	277855	52.87	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 105.74%			
Target Compounds						Qvalue
41) tert-Butyl Formate	7.164	59	2373728	375.62	ug/L	98

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

7.6.9

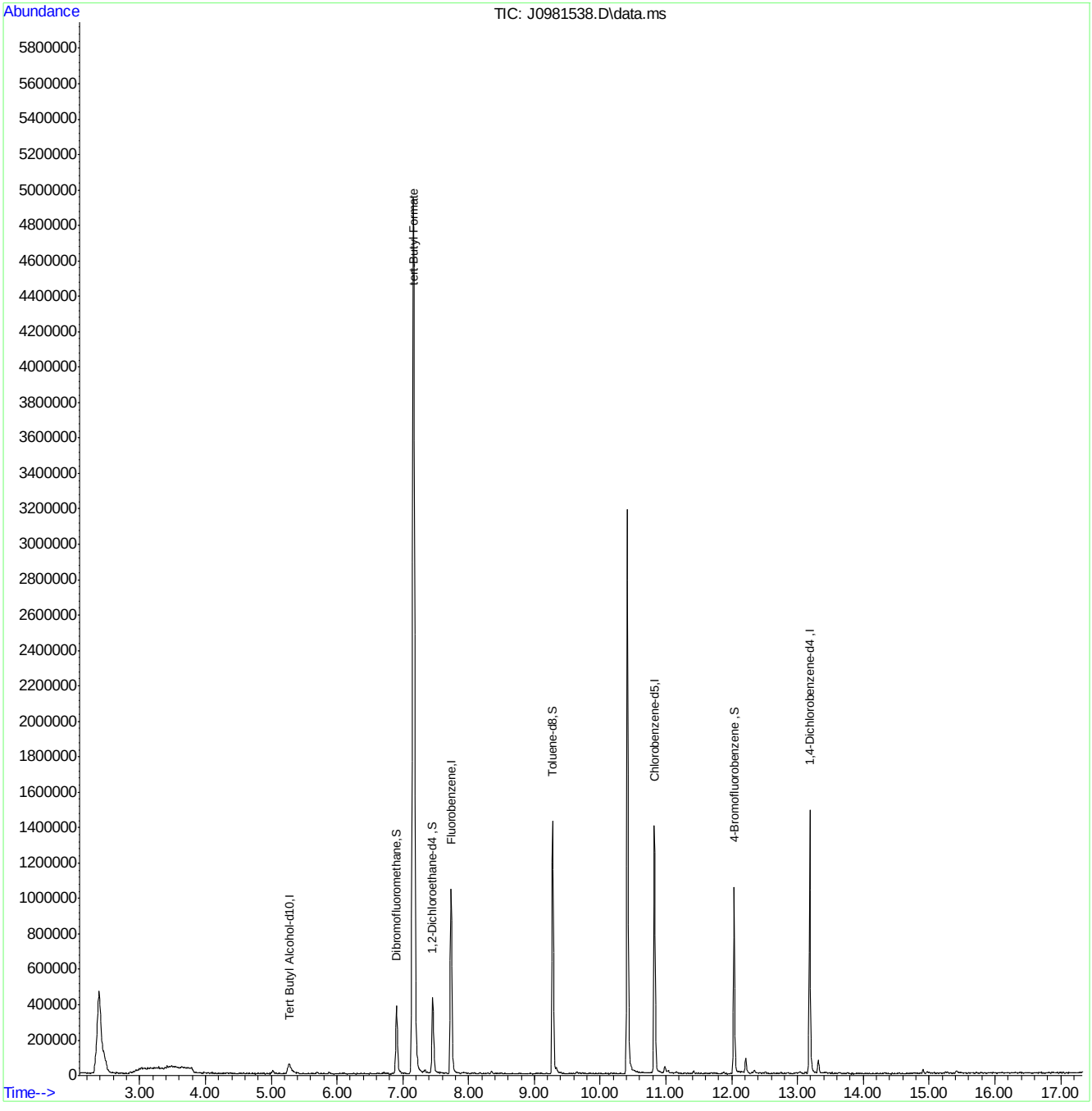
7

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121516\
Data File : J0981538.D
Acq On : 15 Dec 2016 9:44 am
Operator : darshnap
Sample : icv5512-5 Inst : MSVOA6
Misc : MS35797,vj5512,,,,,
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 15 10:30:44 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration



MSJ121416.M Thu Dec 15 10:31:40 2016 Page: 2

Manual Integrations APPROVED (compounds with "m" flag)
Juan Garcia
12/16/16 17:20

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981567.D
Acq On : 16 Dec 2016 9:11 am
Operator : darshnap
Sample : cc5512-5 Inst : MSVOA6
Misc : MS35805,vj5515,,,,,
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 16 10:07:48 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.734	96	1118742	50.00	ug/L	0.00
56) Chlorobenzene-d5	10.824	117	886497	50.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	13.186	152	542359	50.00	ug/L	0.00
106) Tert Butyl Alcohol-d10	5.284	65	121974	250.00	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	6.911	113	316643	52.47	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 104.94%			
46) 1,2-Dichloroethane-d4	7.458	65	361327	49.76	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 99.52%			
57) Toluene-d8	9.279	98	1075265	49.90	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 99.80%			
79) 4-Bromofluorobenzene	12.035	95	412534	47.71	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 95.42%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.657	85	441918	38.34	ug/L	94
3) Chloromethane	2.881	50	620428	37.96	ug/L	98
4) Vinyl Chloride	3.022	62	587613	44.41	ug/L	88
5) 1,3-Butadiene	3.016	54	551095	44.54	ug/L	93
6) Bromomethane	3.439	94	370202	44.28	ug/L	96
7) Chloroethane	3.586	64	266385	40.20	ug/L	91
8) Trichlorofluoromethane	3.791	101	801491	39.78	ug/L	97
9) Ethyl Ether	4.109	59	455262	45.89	ug/L	86
10) 1,2-Dichlorotrifluoroe...	4.332	67	557078	45.16	ug/L	91
11) 1,1-Dichloroethene	4.379	61	690952	46.03	ug/L	97
12) Freon 113	4.438	101	476547	46.98	ug/L	95
13) Carbon Disulfide	4.449	76	1414666	45.03	ug/L	95
14) Iodomethane	4.567	142	822438	46.49	ug/L	97
15) Allyl chloride	4.902	41	722694	43.68	ug/L	98
16) Methylene Chloride	5.025	49	785753	44.87	ug/L	92
17) Acetone	5.055	58	194003	210.99	ug/L	86
18) Methyl acetate	5.172	74	353180	234.15	ug/L #	74
19) trans-1,2-Dichloroethene	5.207	61	638458	45.85	ug/L	96
20) Hexane	5.284	56	478091	44.33	ug/L	95
21) Methyl Tert Butyl Ether	5.313	73	1313575	46.16	ug/L	93
22) Acetonitrile	5.572	40	327377	423.94	ug/L #	87
23) Di-isopropyl ether	5.695	45	1660989	42.50	ug/L	94
24) Chloroprene	5.854	53	712084	41.79	ug/L	96
25) 1,1-Dichloroethane	5.877	63	844406	44.43	ug/L	99
26) Acrylonitrile	5.907	53	905639	212.19	ug/L	96
27) ETBE	6.095	59	1585946	46.79	ug/L	97
28) Vinyl acetate	6.083	43	4878075	193.88	ug/L	99
29) cis-1,2-Dichloroethene	6.453	96	551956	48.21	ug/L	92
30) 2,2-Dichloropropane	6.582	77	673084	48.62	ug/L	95
31) Bromochloromethane	6.665	128	265894	44.88	ug/L	94
32) Cyclohexane	6.706	56	900860	49.56	ug/L	96
33) Chloroform	6.717	83	873642	44.52	ug/L	97
34) Ethyl acetate	6.782	43	2032672	200.19	ug/L	99

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981567.D
Acq On : 16 Dec 2016 9:11 am
Operator : darshnap
Sample : cc5512-5 Inst : MSVOA6
Misc : MS35805,vj5515,,,,,
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 16 10:07:48 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35)	Tetrahydrofuran	6.900	42	127382	41.68	ug/L	99
37)	Carbon Tetrachloride	6.911	117	685192	49.50	ug/L	99
38)	1,1,1-Trichloroethane	6.970	97	751857	46.87	ug/L	95
39)	2-Butanone	6.999	43	830504	190.47	ug/L	93
40)	1,1-Dichloropropene	7.082	75	625949	47.88	ug/L	96
41)	tert-Butyl Formate	7.170	59	3723560	448.57	ug/L	93
42)	Propionitrile	7.311	54	615825	409.49	ug/L	96
43)	Methacrylonitrile	7.340	41	2368354	366.67	ug/L	96
44)	Benzene	7.334	78	1808851	44.17	ug/L	86
45)	TAME	7.411	73	1281733	45.46	ug/L	98
47)	1,2-Dichloroethane	7.528	62	636046	43.17	ug/L	97
48)	Trichloroethene	7.910	95	440495	43.40	ug/L	95
49)	Methylcyclohexane	7.934	83	814517	46.07	ug/L	96
50)	Dibromomethane	8.339	93	280019	42.90	ug/L	94
51)	1,2-Dichloropropane	8.427	63	471385	42.75	ug/L	97
52)	Bromodichloromethane	8.474	83	559741	42.04	ug/L	93
53)	Methyl methacrylate	8.574	41	330880	38.56	ug/L	98
54)	2-Chloroethyl vinyl ether	8.985	63	1414070	208.30	ug/L	97
55)	cis-1,3-Dichloropropene	9.085	75	709814	44.22	ug/L	97
58)	Toluene	9.332	91	1830363	43.61	ug/L	99
59)	2-Nitropropane	9.538	41	530846	218.21	ug/L	100
60)	4-Methyl-2-pentanone	9.649	43	1911228	190.84	ug/L	94
61)	trans-1,3-Dichloropropene	9.714	75	623353	44.30	ug/L	96
62)	Tetrachloroethene	9.732	166	536203	45.41	ug/L	99
63)	Ethyl methacrylate	9.820	69	520271	41.44	ug/L	93
64)	1,1,2-Trichloroethane	9.884	83	337889	39.99	ug/L	94
65)	Dibromochloromethane	10.078	129	452914	44.75	ug/L	96
66)	1,3-Dichloropropane	10.161	76	691053	41.98	ug/L	96
67)	1,2-Dibromoethane	10.343	107	416435	42.02	ug/L	97
68)	2-hexanone	10.466	43	1321573	187.79	ug/L	94
69)	1-Chlorohexane	10.772	91	622360	44.22	ug/L	90
70)	Ethylbenzene	10.842	91	1969575	41.69	ug/L	96
71)	Chlorobenzene	10.842	112	1255558	41.63	ug/L	94
72)	1,1,1,2-Tetrachloroethane	10.895	131	468258	43.63	ug/L	99
73)	m,p-Xylene	10.977	91	2924957	81.58	ug/L	94
74)	o-Xylene	11.418	91	1629955	42.47	ug/L	100
75)	Styrene	11.465	104	1346701	44.12	ug/L	98
76)	Bromoform	11.530	173	311842	45.86	ug/L	96
77)	Isopropylbenzene	11.723	105	2115515	44.28	ug/L	99
80)	cis-1,4-Dichloro-2-butene	12.064	53	138789	42.03	ug/L	96
81)	n-Propylbenzene	12.141	91	2481244	43.76	ug/L	97
82)	Bromobenzene	12.164	156	631509	43.86	ug/L	97
83)	1,1,2,2-Tetrachloroethane	12.199	83	577928	39.75	ug/L	95
84)	1,3,5-Trimethylbenzene	12.323	105	1965433	46.21	ug/L	95
85)	2-Chlorotoluene	12.329	91	1732055	41.99	ug/L	97
86)	trans-1,4-Dichloro-2-B...	12.381	53	160520	42.99	ug/L	93
87)	1,2,3-Trichloropropane	12.364	110	166186	42.35	ug/L	89
88)	Cyclohexanone	12.428	55	100946	183.65	ug/L	90
89)	4-Chlorotoluene	12.499	91	1619109	43.73	ug/L	98
90)	a-Methyl Styrene	12.587	118	1069977	41.94	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981567.D
Acq On : 16 Dec 2016 9:11 am
Operator : darshnap
Sample : cc5512-5 Inst : MSVOA6
Misc : MS35805,vj5515,,,,,
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 16 10:07:48 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
91)	tert-Butylbenzene	12.664	91	1100505	46.20	ug/L		94
92)	1,2,4-Trimethylbenzene	12.734	105	1970778	45.13	ug/L		98
93)	Pentachloroethane	12.716	167	408902	47.23	ug/L		94
94)	sec-Butylbenzene	12.846	105	2457748	45.56	ug/L		96
95)	4-Isopropyltoluene	12.981	119	2094980	43.53	ug/L		96
96)	1,3-Dichlorobenzene	13.116	146	1159837	42.52	ug/L		98
97)	1,4-Dichlorobenzene	13.198	146	1182506	40.98	ug/L		99
98)	n-Butylbenzene	13.416	92	1237683	42.92	ug/L		96
99)	Benzyl Chloride	13.427	126	236968	45.44	ug/L	#	72
100)	1,2-Dichlorobenzene	13.627	146	1132689	42.12	ug/L		98
101)	1,2-Dibromo-3-Chloropr...	14.362	75	94363	41.49	ug/L		95
102)	Hexachlorobutadiene	14.908	225	503667	47.66	ug/L		98
103)	1,2,4-Trichlorobenzene	14.955	180	899367	42.95	ug/L		98
104)	Naphthalene	15.237	128	1565374	40.11	ug/L		100
105)	1,2,3-Trichlorobenzene	15.407	180	818519	43.71	ug/L		100
107)	Ethanol	4.297	45	96629m	784.64	ug/L		
108)	acrolein	4.743	56	393345	207.88	ug/L		90
109)	Tert Butyl Alcohol	5.366	59	398583	441.48	ug/L		87
110)	tert Amyl alcohol	7.558	59	347359	438.88	ug/L		94
111)	Isobutyl alcohol	7.434	42	284052	773.40	ug/L		94
112)	1,4-Dioxane	8.650	88	87101	826.95	ug/L		90
113)	3,3-Dimethyl-1-butanol	10.413	57	1802857	1871.98	ug/L		95

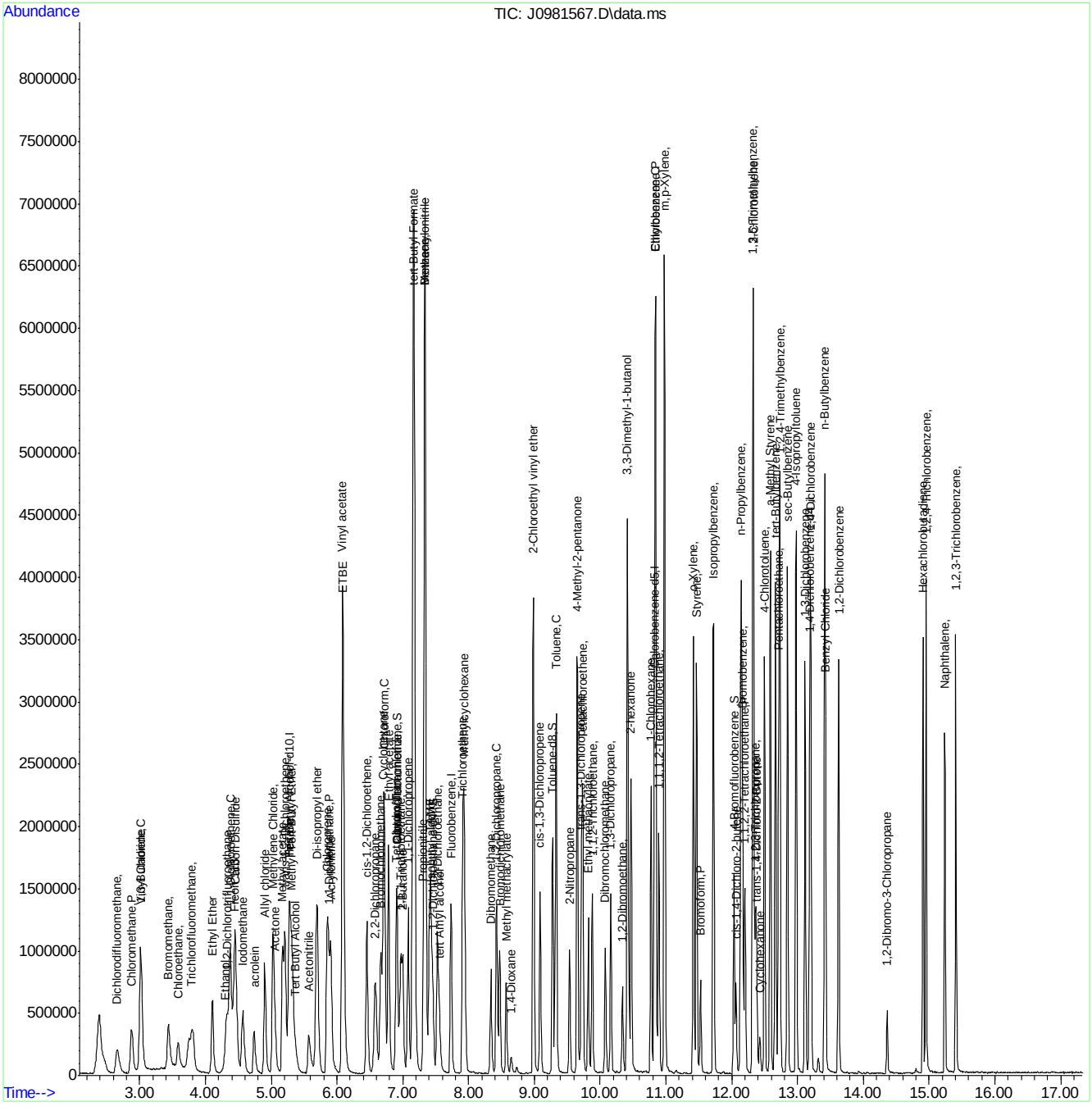
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981567.D
Acq On : 16 Dec 2016 9:11 am
Operator : darshnap
Sample : cc5512-5 Inst : MSVOA6
Misc : MS35805,vj5515,,,,,
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 16 10:07:48 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration



SGS ACCUTEST FA39345

Manual Integration Approval Summary

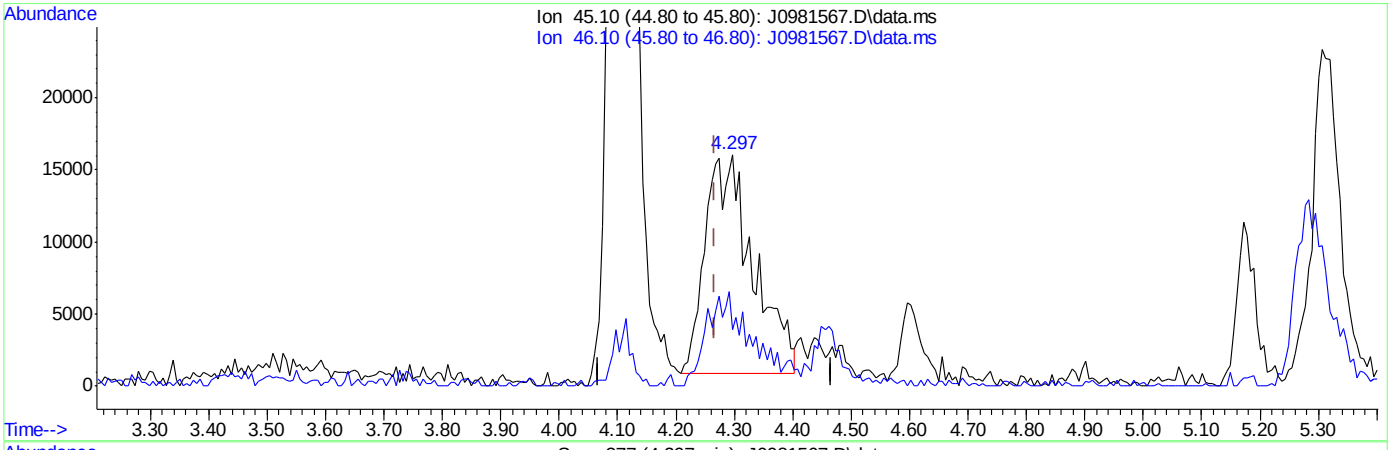
Sample Number:	VJ5515-CC5512	**Method:**	SW846 8260B
Lab FileID:	J0981567.D	**Analyst approved:**	12/16/16 10:10 Darshna Patel
Injection Time:	12/16/16 09:11	**Supervisor approved:**	12/16/16 17:20 Juan Garcia

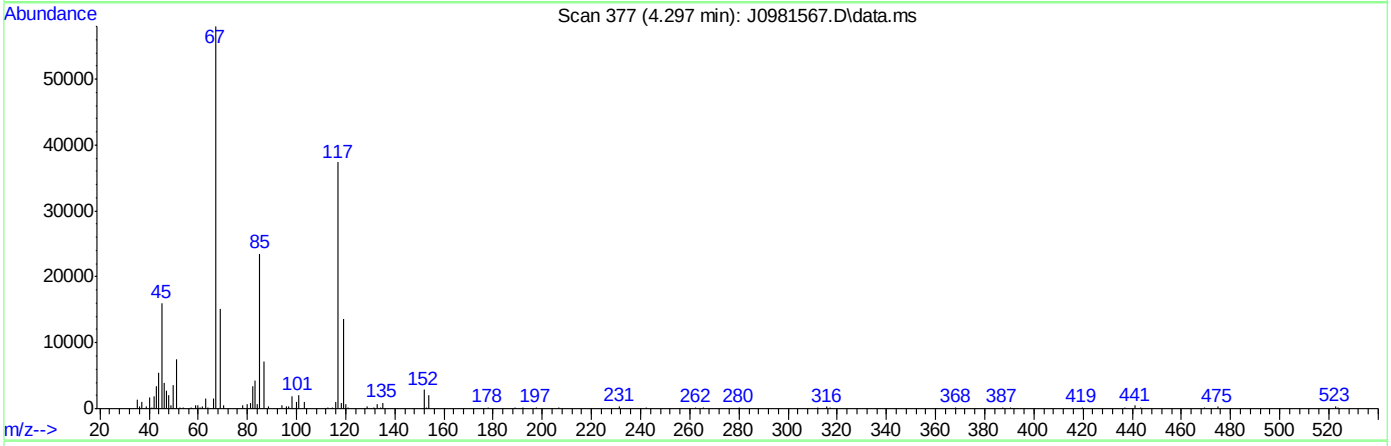
Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Alcohol	64-17-5		4.30	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981567.D
Acq On : 16 Dec 2016 9:11 am
Operator : darshnap
Sample : cc5512-5 Inst : MSVOA6
Misc : MS35805,vj5515,,,,,
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 16 10:06:53 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





(107) Ethanol

4.297min (+0.030) 684.88ug/L

response 85485

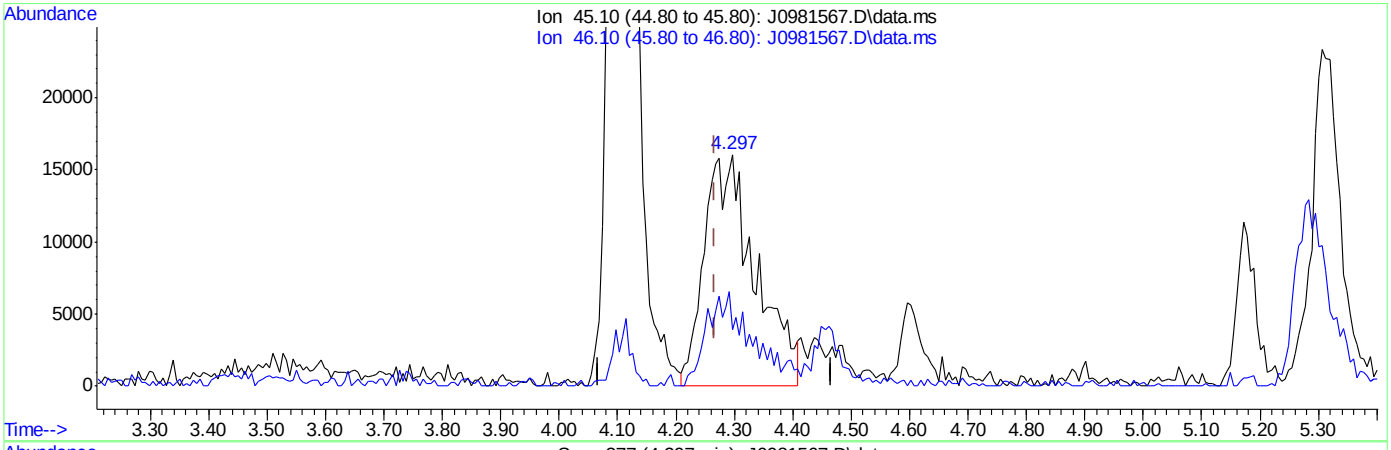
Ion	Exp%	Act%
45.10	100	100
46.10	28.70	25.96
0.00	0.00	0.00
0.00	0.00	0.00

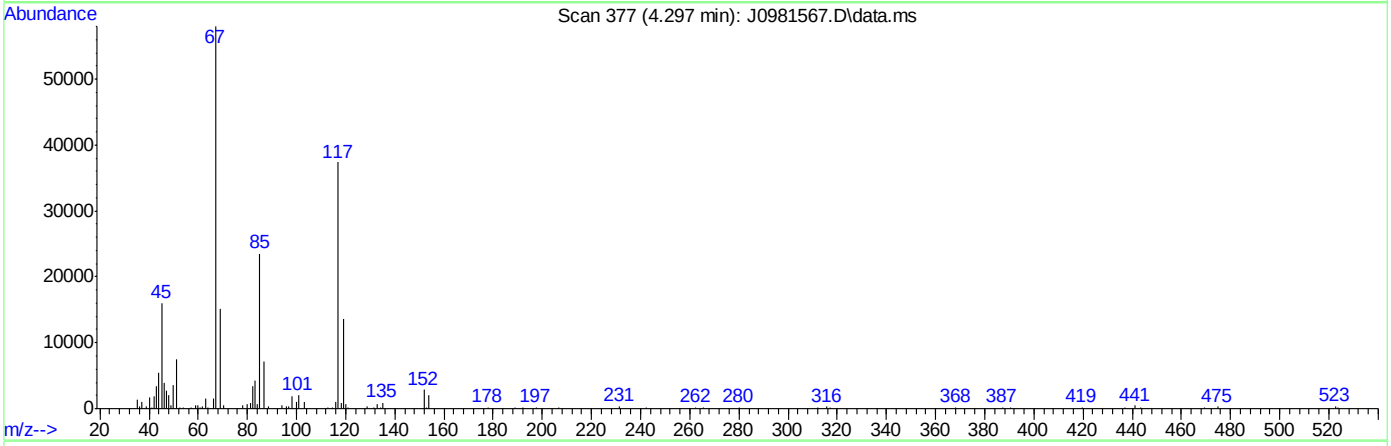
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981567.D
Acq On : 16 Dec 2016 9:11 am
Operator : darshnap
Sample : cc5512-5 Inst : MSVOA6
Misc : MS35805,vj5515,,,,,
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 16 10:06:53 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





(107) Ethanol

4.297min (+0.030) 784.64ug/L m

response 96629

Ion	Exp%	Act%
45.10	100	100
46.10	28.70	24.56
0.00	0.00	0.00
0.00	0.00	0.00

SGS ACCUTEST FA39345

Manual Integrations APPROVED (compounds with "m" flag)
Juan Garcia
12/19/16 12:55

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981594.D
Acq On : 16 Dec 2016 8:21 pm
Operator : darshnap
Sample : ecc5512-5 Inst : MSVOA6
Misc : MS35802,vj5515,,,,,
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 17 10:18:15 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.734	96	772661	50.00	ug/L	0.00
56) Chlorobenzene-d5	10.824	117	592818	50.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	13.186	152	350944	50.00	ug/L	0.00
106) Tert Butyl Alcohol-d10	5.284	65	69883	250.00	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	6.905	113	206258	49.49	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 98.98%			
46) 1,2-Dichloroethane-d4	7.458	65	245794	49.01	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 98.02%			
57) Toluene-d8	9.279	98	742017	51.49	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 102.98%			
79) 4-Bromofluorobenzene	12.035	95	265853	47.52	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 95.04%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.651	85	314424	39.50	ug/L	95
3) Chloromethane	2.875	50	442960	39.26	ug/L	99
4) Vinyl Chloride	3.016	62	392516	42.92	ug/L	96
5) 1,3-Butadiene	3.016	54	367556	42.90	ug/L	97
6) Bromomethane	3.439	94	250039	43.25	ug/L	97
7) Chloroethane	3.586	64	199894	44.65	ug/L	95
8) Trichlorofluoromethane	3.803	101	603880	43.40	ug/L	96
9) Ethyl Ether	4.103	59	291342	42.51	ug/L	91
10) 1,2-Dichlorotrifluoroe...	4.332	67	367069	43.08	ug/L	89
11) 1,1-Dichloroethene	4.379	61	444445	42.87	ug/L	97
12) Freon 113	4.438	101	311015	44.19	ug/L	99
13) Carbon Disulfide	4.449	76	890567	41.04	ug/L	95
14) Iodomethane	4.567	142	500604	40.98	ug/L	98
15) Allyl chloride	4.908	41	488344	42.74	ug/L	96
16) Methylene Chloride	5.025	49	482672	39.50	ug/L	98
17) Acetone	5.049	58	130387	205.30	ug/L #	83
18) Methyl acetate	5.172	74	223302	214.35	ug/L #	84
19) trans-1,2-Dichloroethene	5.207	61	404851	42.09	ug/L	95
20) Hexane	5.278	56	312418	41.74	ug/L	96
21) Methyl Tert Butyl Ether	5.313	73	808609	41.14	ug/L	97
22) Acetonitrile	5.572	40	195990	367.48	ug/L	92
23) Di-isopropyl ether	5.695	45	1097605	40.62	ug/L	97
24) Chloroprene	5.854	53	497053	42.24	ug/L	98
25) 1,1-Dichloroethane	5.883	63	543183	41.38	ug/L	97
26) Acrylonitrile	5.906	53	552187	187.32	ug/L	96
27) ETBE	6.094	59	959678	40.99	ug/L	95
28) Vinyl acetate	6.083	43	2972874	167.51	ug/L	100
29) cis-1,2-Dichloroethene	6.453	96	334441	42.29	ug/L	91
30) 2,2-Dichloropropane	6.582	77	370008	38.70	ug/L	94
31) Bromochloromethane	6.664	128	169356	41.39	ug/L #	81
32) Cyclohexane	6.711	56	550769	43.88	ug/L	92
33) Chloroform	6.717	83	553690	40.85	ug/L	97
34) Ethyl acetate	6.782	43	1308522	186.60	ug/L	98

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981594.D
Acq On : 16 Dec 2016 8:21 pm
Operator : darshnap
Sample : ecc5512-5 Inst : MSVOA6
Misc : MS35802,vj5515,,,,,
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 17 10:18:15 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
35) Tetrahydrofuran	6.899	42	79870	37.84 ug/L	92
37) Carbon Tetrachloride	6.911	117	418189m	43.74 ug/L	
38) 1,1,1-Trichloroethane	6.970	97	480495	43.37 ug/L	98
39) 2-Butanone	6.999	43	577713	191.84 ug/L	96
40) 1,1-Dichloropropene	7.082	75	394459	43.68 ug/L	95
41) tert-Butyl Formate	7.170	59	2126639	370.94 ug/L	98
42) Propionitrile	7.311	54	404172	389.13 ug/L	91
43) Methacrylonitrile	7.340	41	1656898	372.10 ug/L	98
44) Benzene	7.334	78	1175822	41.58 ug/L	87
45) TAME	7.411	73	815077	41.86 ug/L	98
47) 1,2-Dichloroethane	7.528	62	419946	41.27 ug/L	97
48) Trichloroethene	7.916	95	297175	42.40 ug/L	97
49) Methylcyclohexane	7.934	83	543021	44.47 ug/L	94
50) Dibromomethane	8.339	93	178621	39.63 ug/L	96
51) 1,2-Dichloropropane	8.427	63	306525	40.25 ug/L	98
52) Bromodichloromethane	8.474	83	375008	40.78 ug/L	94
53) Methyl methacrylate	8.574	41	210235	35.60 ug/L	96
54) 2-Chloroethyl vinyl ether	8.985	63	919531	196.06 ug/L	97
55) cis-1,3-Dichloropropene	9.091	75	446422	40.36 ug/L	97
58) Toluene	9.332	91	1240457	44.23 ug/L	93
59) 2-Nitropropane	9.538	41	357735	219.90 ug/L	93
60) 4-Methyl-2-pentanone	9.655	43	1454915	217.24 ug/L	97
61) trans-1,3-Dichloropropene	9.714	75	408162	43.43 ug/L	97
62) Tetrachloroethene	9.731	166	446822	56.58 ug/L	97
63) Ethyl methacrylate	9.820	69	352795	41.98 ug/L	97
64) 1,1,2-Trichloroethane	9.884	83	225526	39.92 ug/L	93
65) Dibromochloromethane	10.078	129	308739	45.62 ug/L	95
66) 1,3-Dichloropropane	10.160	76	461241	41.90 ug/L	96
67) 1,2-Dibromoethane	10.343	107	274666	41.45 ug/L	91
68) 2-hexanone	10.466	43	1083316	230.19 ug/L	99
69) 1-Chlorohexane	10.777	91	420629	44.68 ug/L	98
70) Ethylbenzene	10.842	91	1412640	44.96 ug/L	98
71) Chlorobenzene	10.842	112	832842	41.29 ug/L	98
72) 1,1,1,2-Tetrachloroethane	10.895	131	318280	44.35 ug/L	97
73) m,p-Xylene	10.977	91	2130850	90.17 ug/L	97
74) o-Xylene	11.418	91	1129951	44.09 ug/L	97
75) Styrene	11.465	104	889046	43.56 ug/L	99
76) Bromoform	11.529	173	201391	44.43 ug/L	97
77) Isopropylbenzene	11.723	105	1433635	44.91 ug/L	99
80) cis-1,4-Dichloro-2-butene	12.064	53	87301	40.95 ug/L #	89
81) n-Propylbenzene	12.140	91	1659451	45.23 ug/L	99
82) Bromobenzene	12.164	156	393093	42.21 ug/L	96
83) 1,1,2,2-Tetrachloroethane	12.199	83	360095	38.27 ug/L	99
84) 1,3,5-Trimethylbenzene	12.323	105	1243867	45.19 ug/L	100
85) 2-Chlorotoluene	12.328	91	1113775	41.73 ug/L	98
86) trans-1,4-Dichloro-2-B...	12.381	53	95936	39.96 ug/L #	82
87) 1,2,3-Trichloropropane	12.364	110	104495	41.15 ug/L	95
88) Cyclohexanone	12.422	55	64317	180.97 ug/L	92
89) 4-Chlorotoluene	12.499	91	1039531	43.39 ug/L	99
90) a-Methyl Styrene	12.587	118	654498	39.66 ug/L	99

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981594.D
Acq On : 16 Dec 2016 8:21 pm
Operator : darshnap
Sample : ecc5512-5 Inst : MSVOA6
Misc : MS35802,vj5515,,,,,
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 17 10:18:15 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91)	tert-Butylbenzene	12.663	91	679782	44.10	ug/L	94
92)	1,2,4-Trimethylbenzene	12.734	105	1232611	43.62	ug/L	99
93)	Pentachloroethane	12.716	167	141564	25.27	ug/L	93
94)	sec-Butylbenzene	12.846	105	1588835	45.51	ug/L	99
95)	4-Isopropyltoluene	12.981	119	1344738	43.15	ug/L	99
96)	1,3-Dichlorobenzene	13.116	146	745810	42.25	ug/L	97
97)	1,4-Dichlorobenzene	13.198	146	757538	40.58	ug/L	98
98)	n-Butylbenzene	13.415	92	772194	41.36	ug/L	98
99)	Benzyl Chloride	13.427	126	121886	36.93	ug/L	96
100)	1,2-Dichlorobenzene	13.627	146	723560	41.59	ug/L	98
101)	1,2-Dibromo-3-Chloropr...	14.361	75	54275	37.21	ug/L	92
102)	Hexachlorobutadiene	14.908	225	295402	43.39	ug/L	96
103)	1,2,4-Trichlorobenzene	14.955	180	562703	41.54	ug/L	96
104)	Naphthalene	15.237	128	1017016	40.28	ug/L	100
105)	1,2,3-Trichlorobenzene	15.407	180	527666	43.55	ug/L	99
107)	Ethanol	4.273	45	59121m	844.80	ug/L	
108)	acrolein	4.737	56	255874	236.02	ug/L	99
109)	Tert Butyl Alcohol	5.360	59	248616	479.86	ug/L	88
110)	tert Amyl alcohol	7.552	59	200842	442.91	ug/L	98
111)	Isobutyl alcohol	7.434	42	191610	910.59	ug/L #	90
112)	1,4-Dioxane	8.650	88	53707	892.63	ug/L	97
113)	3,3-Dimethyl-1-butanol	10.413	57	1195595	2182.21	ug/L	97

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

7.6.11

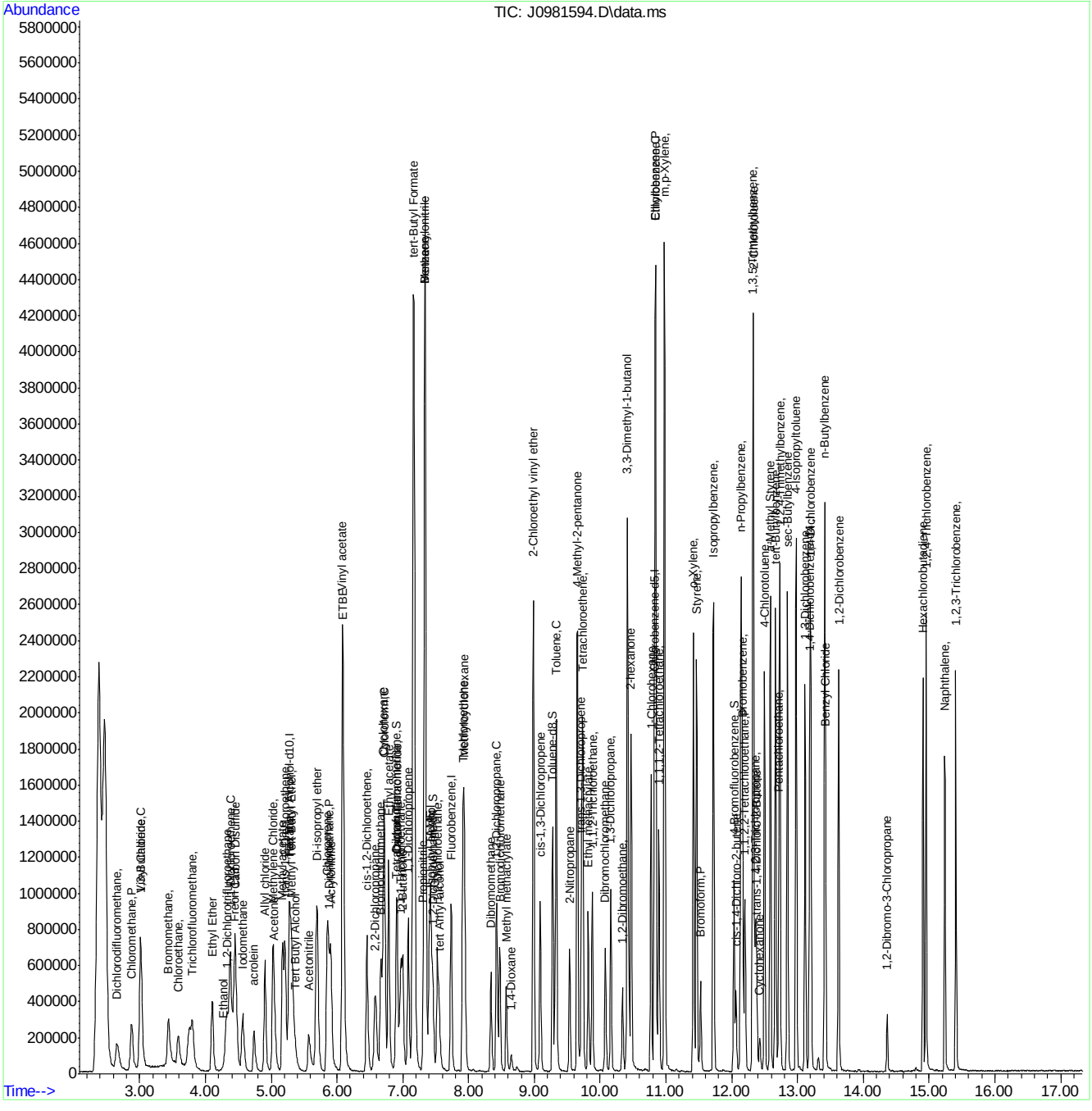
7

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981594.D
Acq On : 16 Dec 2016 8:21 pm
Operator : darshnap
Sample : ecc5512-5 Inst : MSVOA6
Misc : MS35802,vj5515,,,,,
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 17 10:18:15 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration



SGS ACCUTEST FA39345

Manual Integration Approval Summary

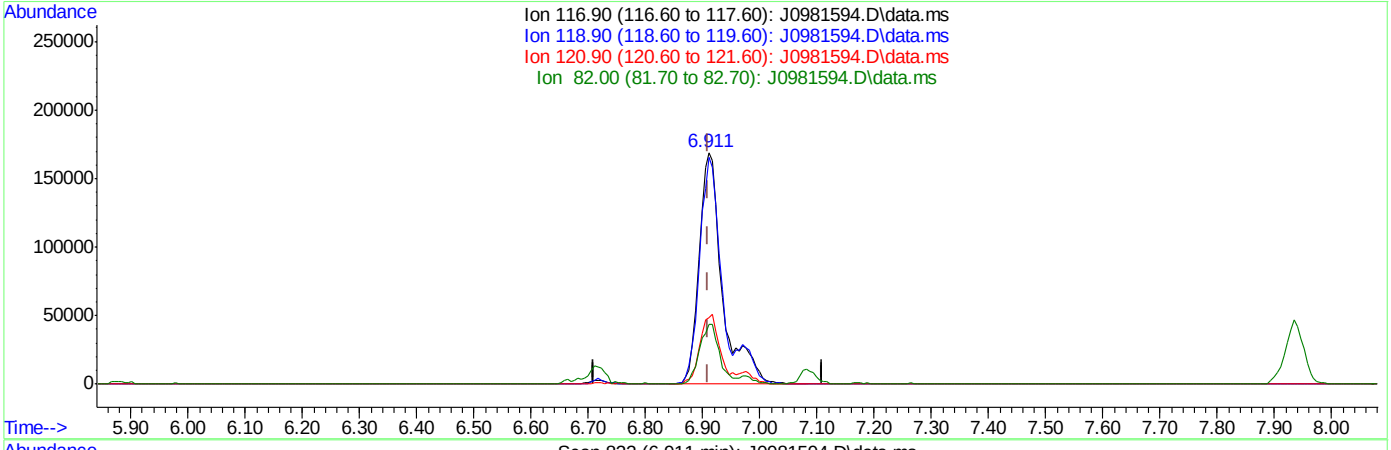
Sample Number:	VJ5515-ECC5512	**Method:**	SW846 8260B
Lab FileID:	J0981594.D	**Analyst approved:**	12/19/16 11:27 Darshna Patel
Injection Time:	12/16/16 20:21	**Supervisor approved:**	12/19/16 12:55 Juan Garcia

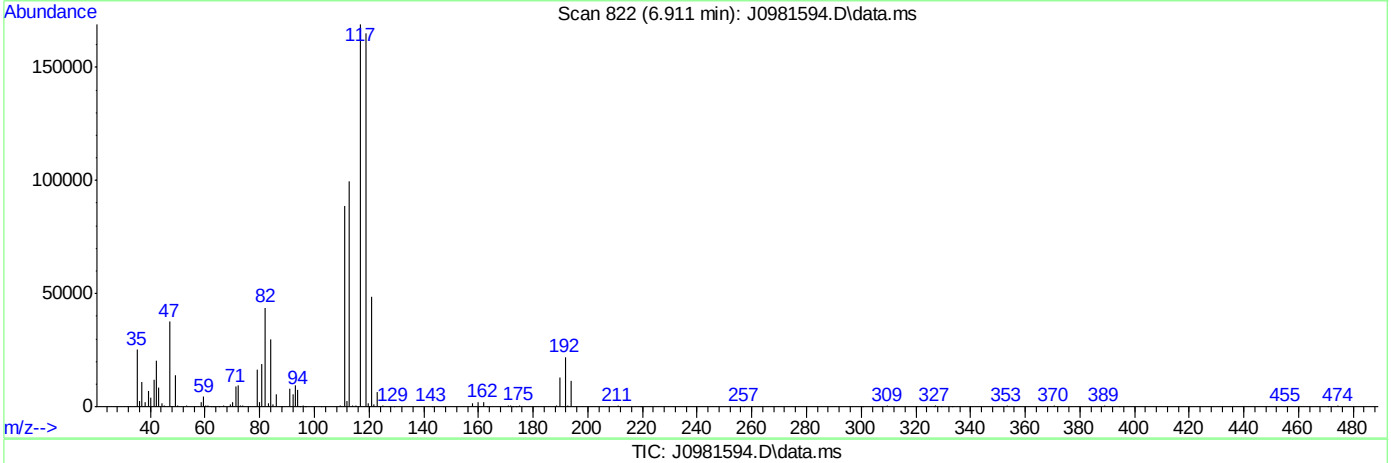
Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Alcohol	64-17-5		4.27	Poor instrument integration
Carbon Tetrachloride	56-23-5		6.91	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981594.D
Acq On : 16 Dec 2016 8:21 pm
Operator : darshnap
Sample : ecc5512-5 Inst : MSVOA6
Misc : MS35802,vj5516,,,,,
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 17 10:05:44 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





(37) Carbon Tetrachloride ( )

6.911min (+0.000) 50.61ug/L

response 483835

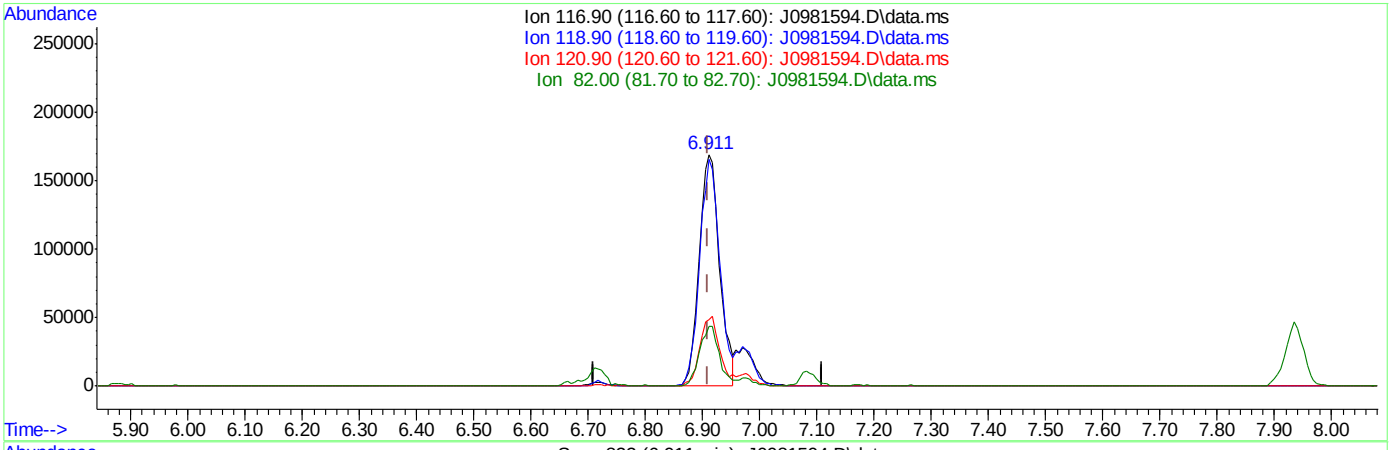
Ion	Exp%	Act%
116.90	100	100
118.90	96.60	97.77
120.90	30.20	28.67
82.00	25.90	25.76

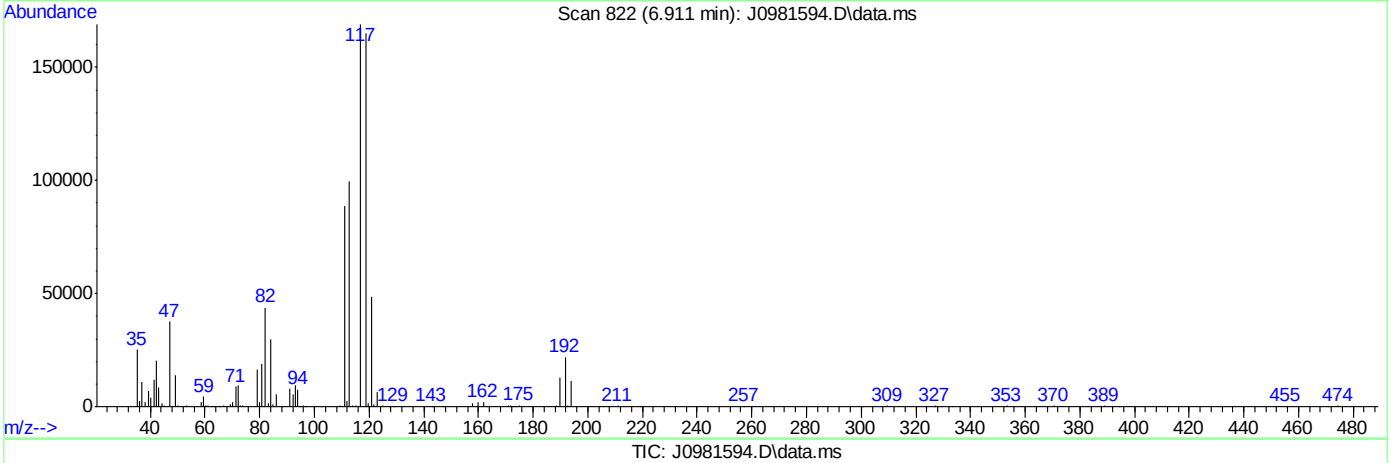
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981594.D
Acq On : 16 Dec 2016 8:21 pm
Operator : darshnap
Sample : ecc5512-5 Inst : MSVOA6
Misc : MS35802,vj5516,,,,,
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 17 10:05:44 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981594.D\data.ms

(37) Carbon Tetrachloride ( )

6.911min (+0.000) 43.74ug/L m

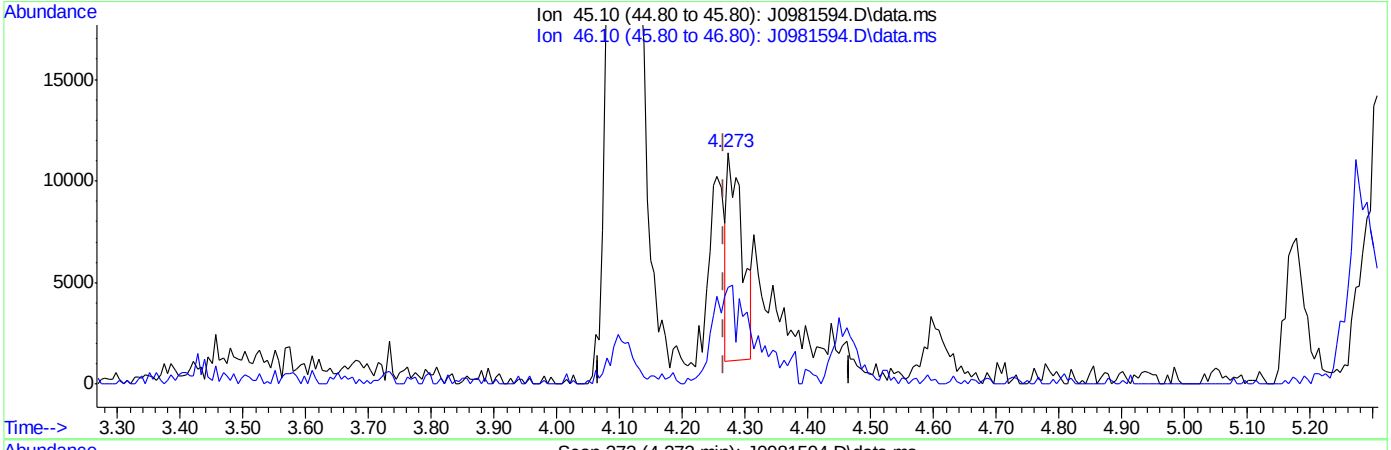
response 418189

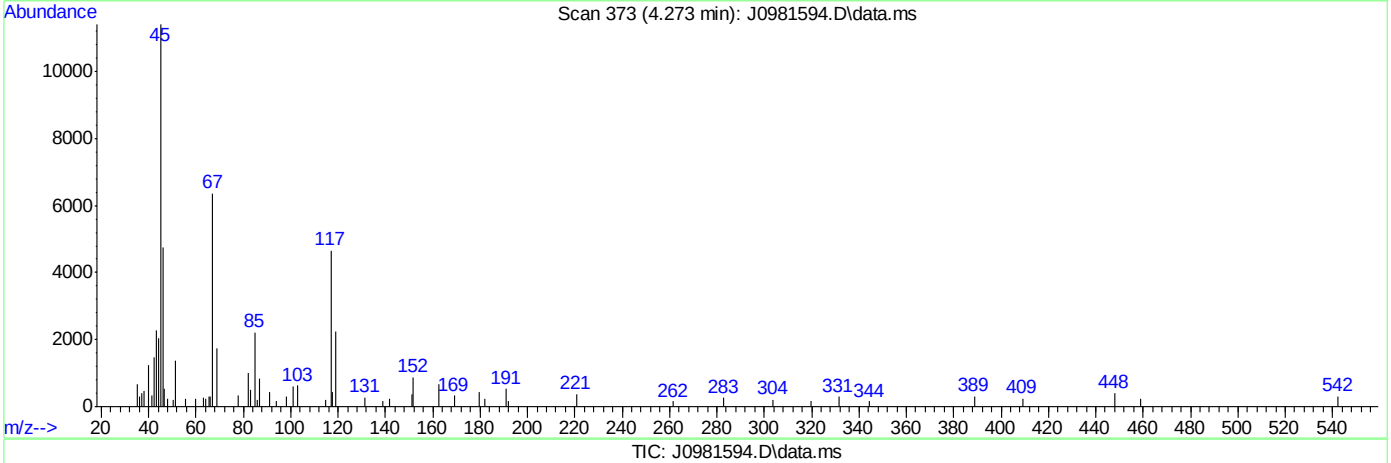
Ion	Exp%	Act%
116.90	100	100
118.90	96.60	97.77
120.90	30.20	28.67
82.00	25.90	25.86

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981594.D
Acq On : 16 Dec 2016 8:21 pm
Operator : darshnap
Sample : ecc5512-5 Inst : MSVOA6
Misc : MS35802,vj5516,,,,,
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 17 10:05:44 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981594.D\data.ms

(107) Ethanol

4.273min (+0.006) 225.27ug/L

response 17100

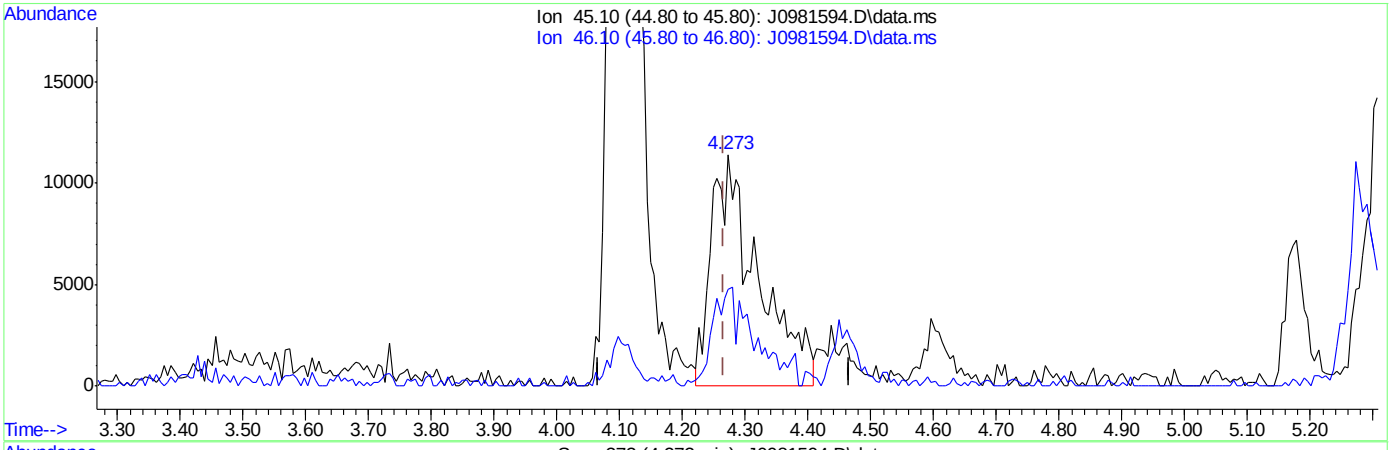
Ion	Exp%	Act%
45.10	100	100
46.10	28.70	46.62
0.00	0.00	0.00
0.00	0.00	0.00

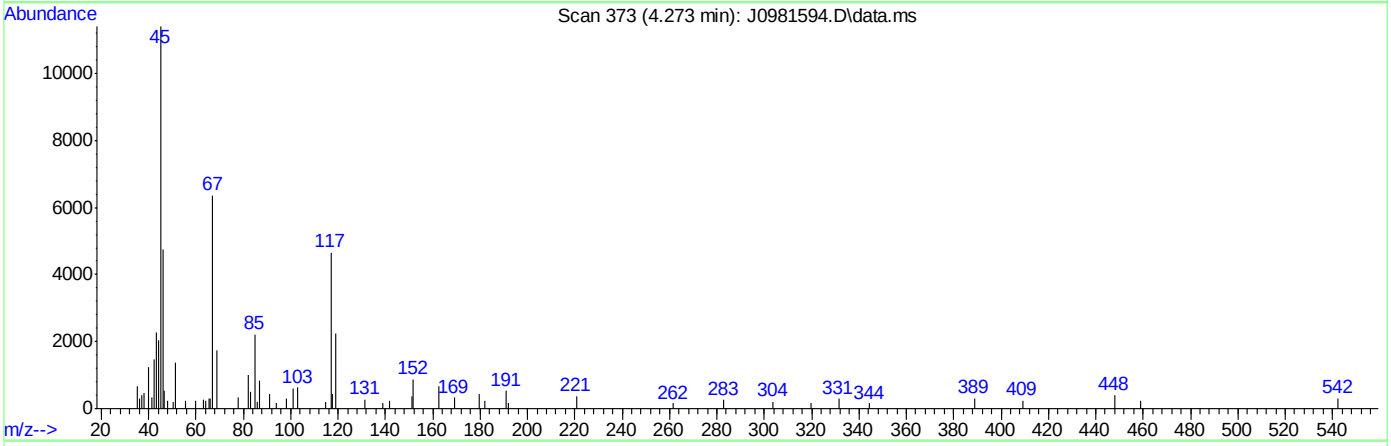
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121616\
Data File : J0981594.D
Acq On : 16 Dec 2016 8:21 pm
Operator : darshnap
Sample : ecc5512-5 Inst : MSVOA6
Misc : MS35802,vj5516,,,,,
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 17 10:05:44 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981594.D\data.ms

(107) Ethanol

4.273min (+0.006) 844.80ug/L m

response 59121

Ion	Exp%	Act%
45.10	100	100
46.10	28.70	41.71
0.00	0.00	0.00
0.00	0.00	0.00

SGS ACCUTEST FA39345

Manual Integrations APPROVED (compounds with "m" flag)
Juan Garcia
12/20/16 12:25

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981629.D
Acq On : 19 Dec 2016 9:44 am
Operator : darshnap
Sample : cc5512-5 Inst : MSVOA6
Misc : MS35831,vj5518,,,,,
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 19 10:56:17 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.728	96	720718	50.00	ug/L	0.00
56) Chlorobenzene-d5	10.824	117	563062	50.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	13.186	152	340705	50.00	ug/L	0.00
106) Tert Butyl Alcohol-d10	5.266	65	74859	250.00	ug/L	-0.01
System Monitoring Compounds						
36) Dibromofluoromethane	6.900	113	202985	52.21	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 104.42%			
46) 1,2-Dichloroethane-d4	7.452	65	242658	51.87	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 103.74%			
57) Toluene-d8	9.279	98	668382	48.83	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 97.66%			
79) 4-Bromofluorobenzene	12.035	95	255930	47.12	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 94.24%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	2.646	85	282420	38.04	ug/L	91
3) Chloromethane	2.869	50	385518	36.61	ug/L	96
4) Vinyl Chloride	3.004	62	341347	39.96	ug/L	95
5) 1,3-Butadiene	3.004	54	322401	40.17	ug/L	95
6) Bromomethane	3.439	94	228775	42.38	ug/L	96
7) Chloroethane	3.574	64	176926	41.77	ug/L	92
8) Trichlorofluoromethane	3.785	101	563489	43.41	ug/L	87
9) Ethyl Ether	4.097	59	269972	42.23	ug/L	89
10) 1,2-Dichlorotrifluoroe...	4.320	67	337154	42.42	ug/L	91
11) 1,1-Dichloroethene	4.367	61	389137	40.24	ug/L	97
12) Freon 113	4.438	101	293905	44.81	ug/L	97
13) Carbon Disulfide	4.444	76	815837	40.31	ug/L	99
14) Iodomethane	4.555	142	483314	42.41	ug/L	97
15) Allyl chloride	4.896	41	484448	45.45	ug/L	96
16) Methylene Chloride	5.019	49	490781	43.38	ug/L	98
17) Acetone	5.037	58	105293	177.64	ug/L #	81
18) Methyl acetate	5.166	74	209079	215.16	ug/L	95
19) trans-1,2-Dichloroethene	5.207	61	383532	42.75	ug/L	92
20) Hexane	5.272	56	292610	41.93	ug/L	90
21) Methyl Tert Butyl Ether	5.307	73	797056	43.48	ug/L	96
22) Acetonitrile	5.560	40	189718	381.35	ug/L	96
23) Di-isopropyl ether	5.683	45	1038125	41.20	ug/L	99
24) Chloroprene	5.842	53	436376	39.73	ug/L	96
25) 1,1-Dichloroethane	5.871	63	534138	43.62	ug/L	99
26) Acrylonitrile	5.901	53	533832	194.15	ug/L	98
27) ETBE	6.089	59	946413	43.34	ug/L	98
28) Vinyl acetate	6.077	43	3242214	201.22	ug/L	98
29) cis-1,2-Dichloroethene	6.453	96	314465	42.63	ug/L	97
30) 2,2-Dichloropropane	6.576	77	408564	45.81	ug/L	100
31) Bromochloromethane	6.659	128	159846	41.88	ug/L	94
32) Cyclohexane	6.706	56	528260	45.12	ug/L	99
33) Chloroform	6.712	83	533493	42.20	ug/L	94
34) Ethyl acetate	6.776	43	1275269	194.96	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981629.D
Acq On : 19 Dec 2016 9:44 am
Operator : darshnap
Sample : cc5512-5 Inst : MSVOA6
Misc : MS35831,vj5518,,,,,
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 19 10:56:17 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
35) Tetrahydrofuran	6.900	42	78506	39.88 ug/L	95
37) Carbon Tetrachloride	6.905	117	411790m	46.18 ug/L	
38) 1,1,1-Trichloroethane	6.964	97	462302	44.74 ug/L	97
39) 2-Butanone	6.994	43	530734	188.94 ug/L	100
40) 1,1-Dichloropropene	7.076	75	378782	44.97 ug/L	96
41) tert-Butyl Formate	7.164	59	2238038	418.51 ug/L	97
42) Propionitrile	7.305	54	394225	406.91 ug/L	92
43) Methacrylonitrile	7.334	41	1666561	405.86 ug/L	98
44) Benzene	7.328	78	1108417	42.02 ug/L	92
45) TAME	7.405	73	797945	43.93 ug/L	99
47) 1,2-Dichloroethane	7.522	62	412597	43.47 ug/L	99
48) Trichloroethene	7.910	95	293743	44.93 ug/L	93
49) Methylcyclohexane	7.934	83	514035	45.13 ug/L	96
50) Dibromomethane	8.333	93	181073	43.06 ug/L	89
51) 1,2-Dichloropropane	8.421	63	300385	42.28 ug/L	96
52) Bromodichloromethane	8.468	83	380789	44.40 ug/L	95
53) Methyl methacrylate	8.568	41	211197	38.22 ug/L	95
54) 2-Chloroethyl vinyl ether	8.985	63	890495	203.59 ug/L	97
55) cis-1,3-Dichloropropene	9.085	75	446604	43.21 ug/L	96
58) Toluene	9.332	91	1172221	43.99 ug/L	96
59) 2-Nitropropane	9.532	41	354882	229.67 ug/L	97
60) 4-Methyl-2-pentanone	9.649	43	1333837	209.69 ug/L	97
61) trans-1,3-Dichloropropene	9.714	75	404152	45.18 ug/L	99
62) Tetrachloroethene	9.732	166	333872	44.51 ug/L	98
63) Ethyl methacrylate	9.820	69	321535	40.40 ug/L	98
64) 1,1,2-Trichloroethane	9.878	83	228658	42.61 ug/L	96
65) Dibromochloromethane	10.078	129	294350	45.79 ug/L	97
66) 1,3-Dichloropropane	10.161	76	459879	43.98 ug/L	95
67) 1,2-Dibromoethane	10.337	107	275674	43.80 ug/L	94
68) 2-hexanone	10.466	43	1010024	225.96 ug/L	98
69) 1-Chlorohexane	10.772	91	402880	45.05 ug/L	98
70) Ethylbenzene	10.842	91	1339791	44.89 ug/L	98
71) Chlorobenzene	10.842	112	817247	42.66 ug/L	98
72) 1,1,1,2-Tetrachloroethane	10.889	131	314770	46.17 ug/L	98
73) m,p-Xylene	10.977	91	2033898	90.70 ug/L	99
74) o-Xylene	11.418	91	1076526	44.23 ug/L	97
75) Styrene	11.465	104	875901	45.17 ug/L	98
76) Bromoform	11.524	173	196835	45.60 ug/L	99
77) Isopropylbenzene	11.723	105	1367349	45.11 ug/L	99
80) cis-1,4-Dichloro-2-butene	12.070	53	87220	42.05 ug/L	95
81) n-Propylbenzene	12.141	91	1591930	44.70 ug/L	99
82) Bromobenzene	12.164	156	385836	42.67 ug/L	93
83) 1,1,2,2-Tetrachloroethane	12.199	83	363279	39.77 ug/L	95
84) 1,3,5-Trimethylbenzene	12.323	105	1211485	45.34 ug/L	97
85) 2-Chlorotoluene	12.329	91	1097479	42.36 ug/L	97
86) trans-1,4-Dichloro-2-B...	12.381	53	99498	42.47 ug/L	90
87) 1,2,3-Trichloropropane	12.364	110	101871	41.33 ug/L	91
88) Cyclohexanone	12.428	55	54298	158.36 ug/L	95
89) 4-Chlorotoluene	12.499	91	1030777	44.32 ug/L	95
90) a-Methyl Styrene	12.587	118	660097	41.19 ug/L	97

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981629.D
Acq On : 19 Dec 2016 9:44 am
Operator : darshnap
Sample : cc5512-5 Inst : MSVOA6
Misc : MS35831,vj5518,,,,,
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 19 10:56:17 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91)	tert-Butylbenzene	12.664	91	677635	45.28	ug/L	98
92)	1,2,4-Trimethylbenzene	12.734	105	1215736	44.31	ug/L	99
93)	Pentachloroethane	12.716	167	246603	45.34	ug/L	96
94)	sec-Butylbenzene	12.846	105	1563954	46.15	ug/L	99
95)	4-Isopropyltoluene	12.981	119	1313316	43.43	ug/L	98
96)	1,3-Dichlorobenzene	13.116	146	749004	43.71	ug/L	98
97)	1,4-Dichlorobenzene	13.198	146	759863	41.92	ug/L	97
98)	n-Butylbenzene	13.410	92	789812	43.61	ug/L	93
99)	Benzyl Chloride	13.427	126	155681	47.30	ug/L #	76
100)	1,2-Dichlorobenzene	13.627	146	719503	42.59	ug/L	97
101)	1,2-Dibromo-3-Chloropr...	14.362	75	60691	42.40	ug/L	81
102)	Hexachlorobutadiene	14.908	225	297835	44.99	ug/L	96
103)	1,2,4-Trichlorobenzene	14.955	180	547672	41.65	ug/L	98
104)	Naphthalene	15.237	128	997576	40.71	ug/L	99
105)	1,2,3-Trichlorobenzene	15.407	180	516296	43.89	ug/L	99
107)	Ethanol	4.261	45	56548m	744.08	ug/L	
108)	acrolein	4.731	56	248329	213.84	ug/L	96
109)	Tert Butyl Alcohol	5.354	59	242074	436.96	ug/L	100
110)	tert Amyl alcohol	7.552	59	219208	451.28	ug/L	98
111)	Isobutyl alcohol	7.434	42	193313	857.62	ug/L	91
112)	1,4-Dioxane	8.645	88	52114	805.40	ug/L	86
113)	3,3-Dimethyl-1-butanol	10.413	57	1157954	1963.16	ug/L	97

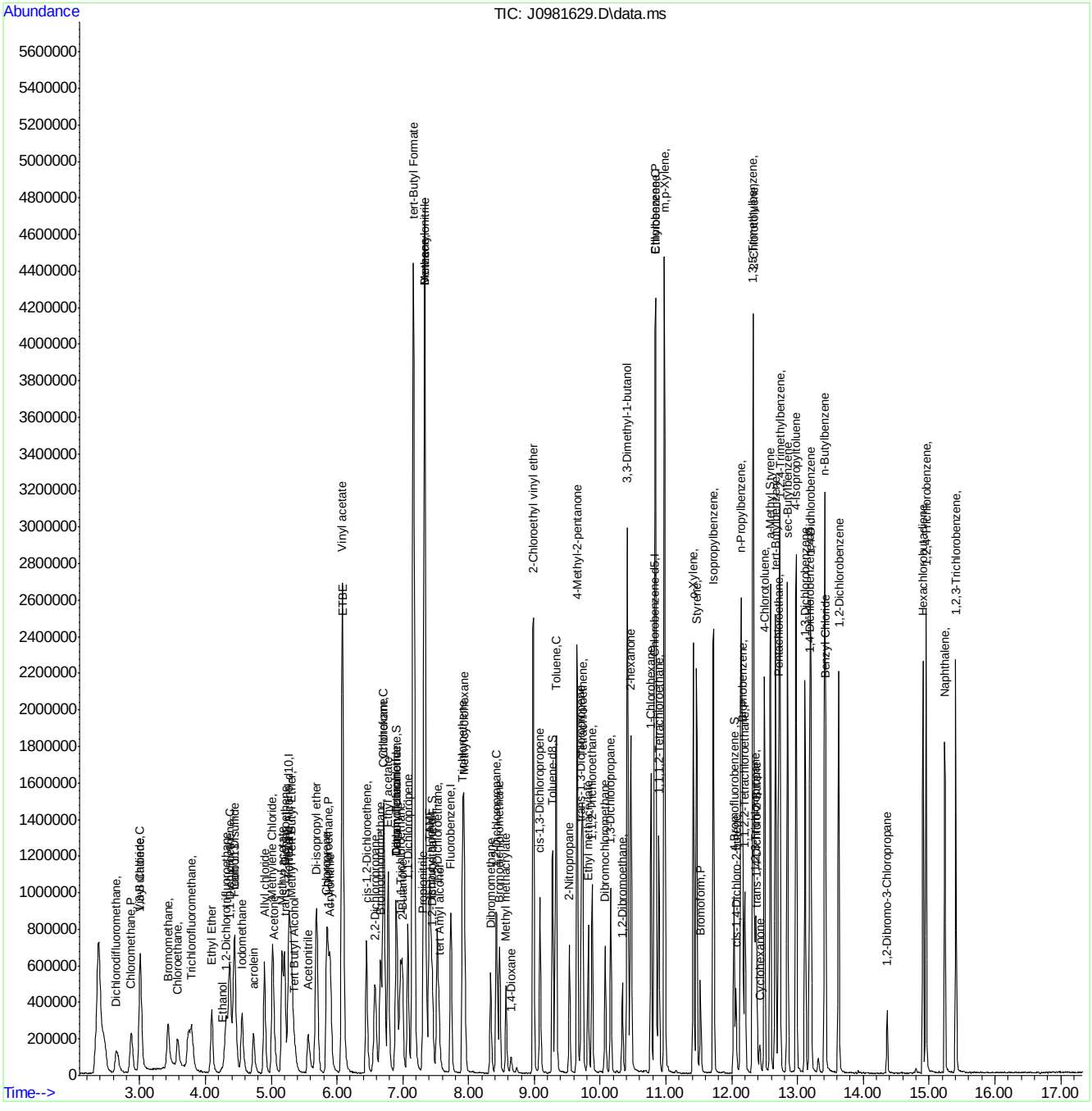
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981629.D
Acq On : 19 Dec 2016 9:44 am
Operator : darshnap
Sample : cc5512-5 Inst : MSVOA6
Misc : MS35831,vj5518,,,,,
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 19 10:56:17 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration



SGS ACCUTEST FA39345

Manual Integration Approval Summary

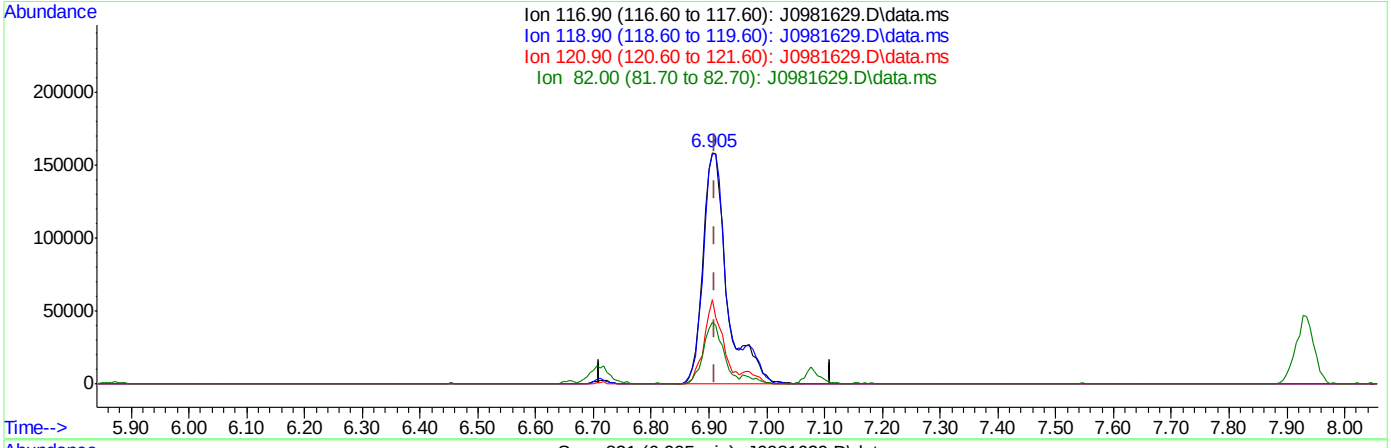
Sample Number:	VJ5518-CC5512	**Method:**	SW846 8260B
Lab FileID:	J0981629.D	**Analyst approved:**	12/19/16 10:59 Darshna Patel
Injection Time:	12/19/16 09:44	**Supervisor approved:**	12/20/16 12:25 Juan Garcia

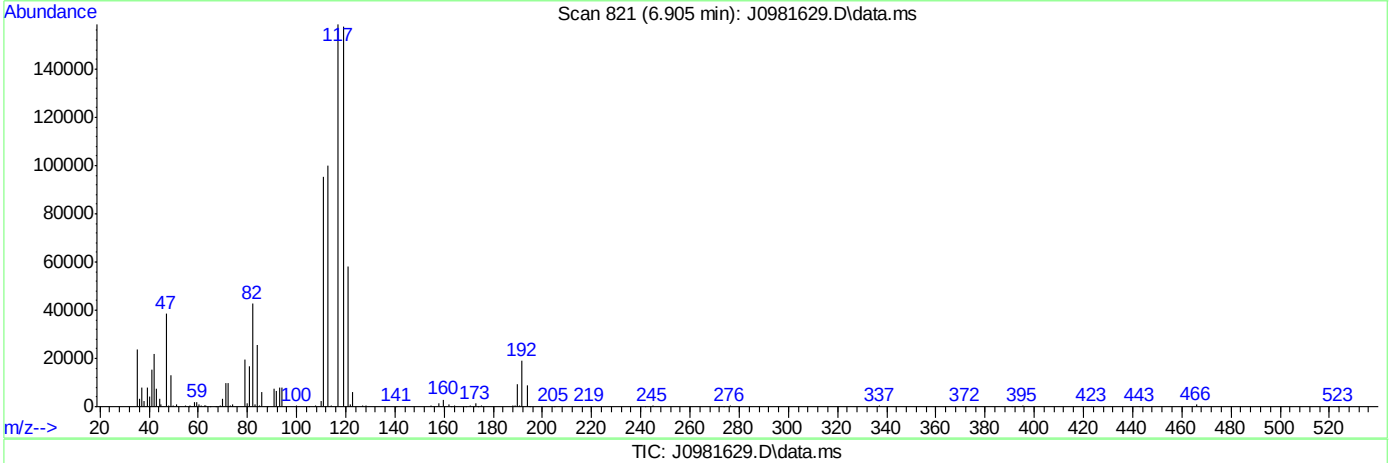
Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Alcohol	64-17-5		4.26	Poor instrument integration
Carbon Tetrachloride	56-23-5		6.91	Overlapping peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981629.D
Acq On : 19 Dec 2016 9:44 am
Operator : darshnap
Sample : cc5512-5 Inst : MSVOA6
Misc : MS35831,vj5518,,,,,
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 19 10:04:24 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981629.D\data.ms

(37) Carbon Tetrachloride ( )

6.905min (-0.006) 52.41ug/L

response 467345

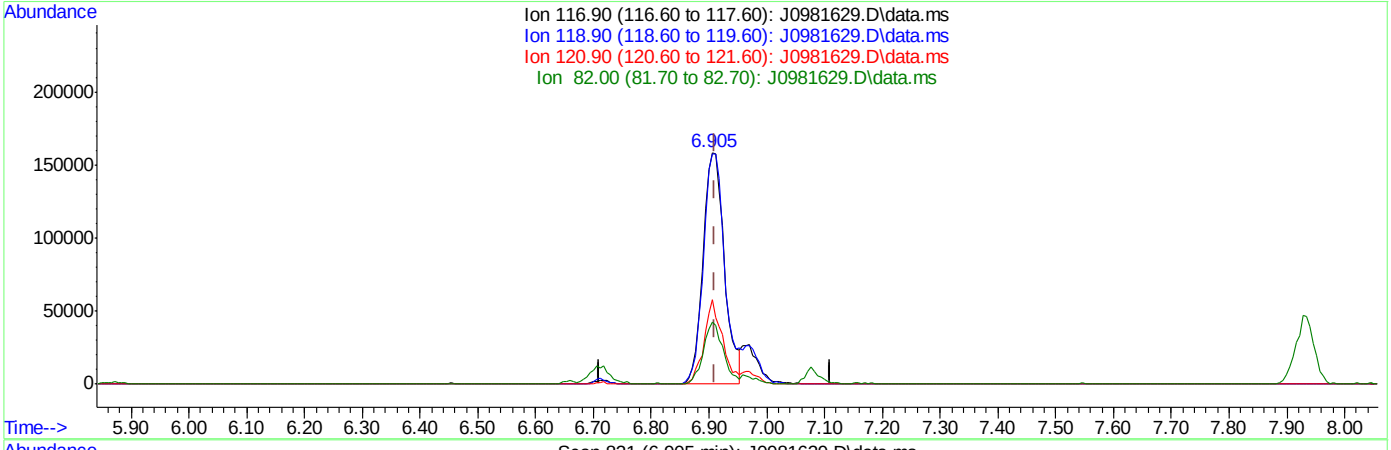
Ion	Exp%	Act%
116.90	100	100
118.90	96.60	99.43
120.90	30.20	36.55
82.00	25.90	26.88

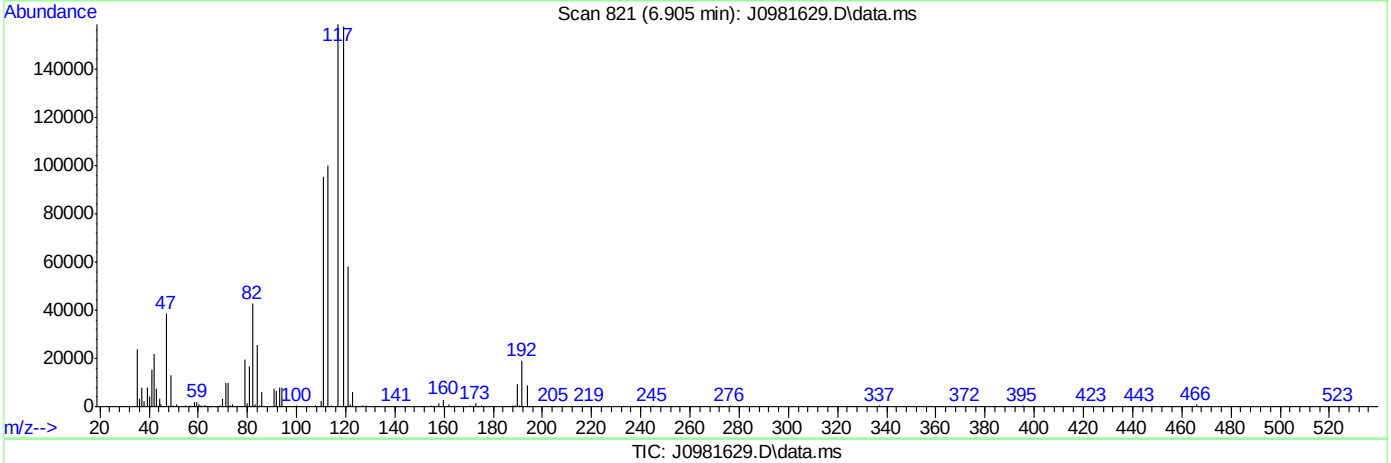
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981629.D
Acq On : 19 Dec 2016 9:44 am
Operator : darshnap
Sample : cc5512-5 Inst : MSVOA6
Misc : MS35831,vj5518,,,,,
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 19 10:04:24 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981629.D\data.ms

(37) Carbon Tetrachloride ( )

6.905min (-0.006) 46.18ug/L m

response 411790

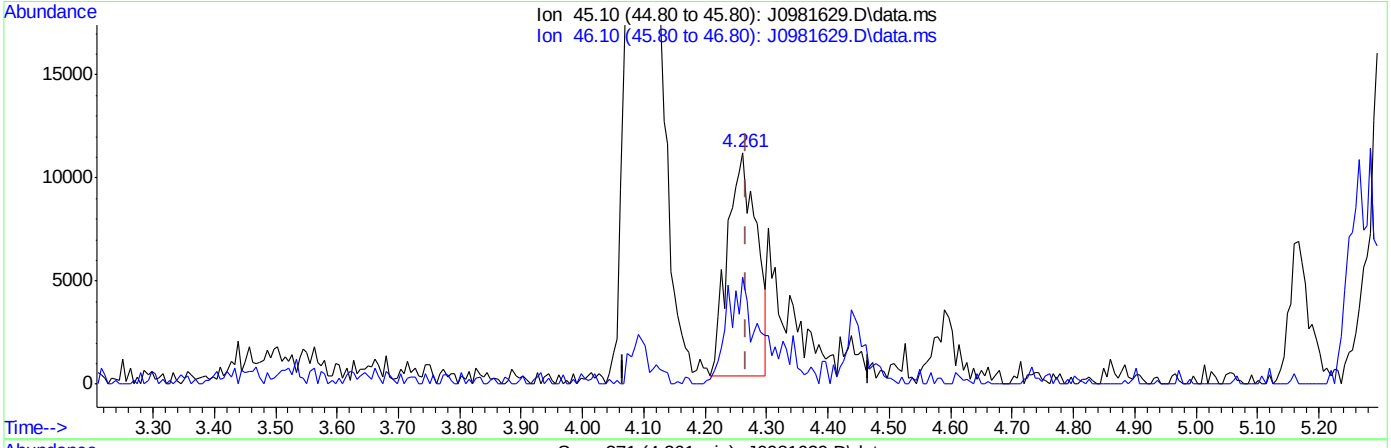
Ion	Exp%	Act%
116.90	100	100
118.90	96.60	99.43
120.90	30.20	36.55
82.00	25.90	26.88

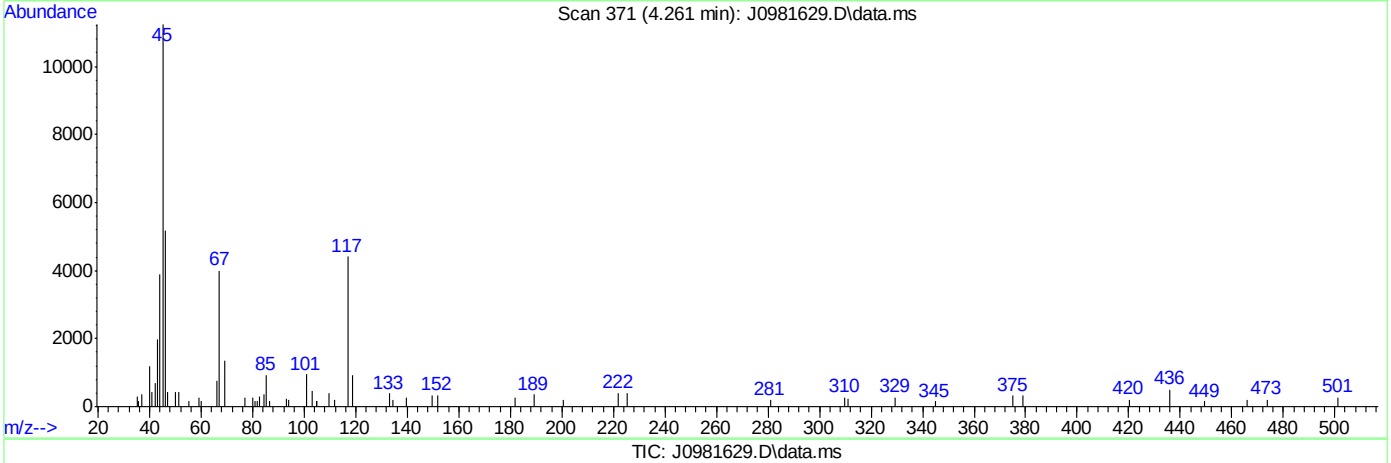
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981629.D
Acq On : 19 Dec 2016 9:44 am
Operator : darshnap
Sample : cc5512-5 Inst : MSVOA6
Misc : MS35831,vj5518,,,,,
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 19 10:04:24 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981629.D\data.ms

(107) Ethanol

4.261min (-0.006) 443.61ug/L

response 35079

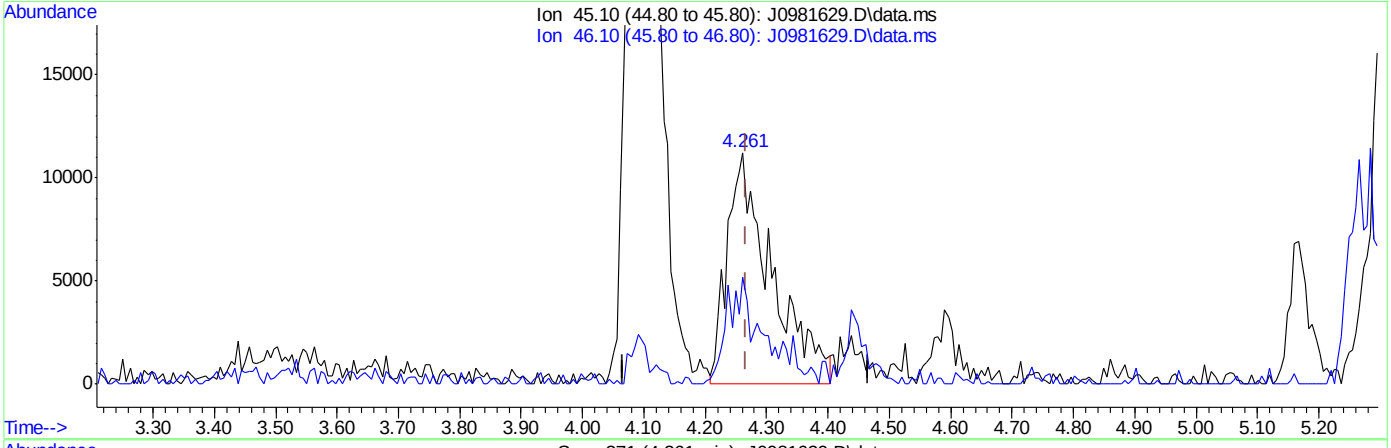
Ion	Exp%	Act%
45.10	100	100
46.10	28.70	45.36
0.00	0.00	0.00
0.00	0.00	0.00

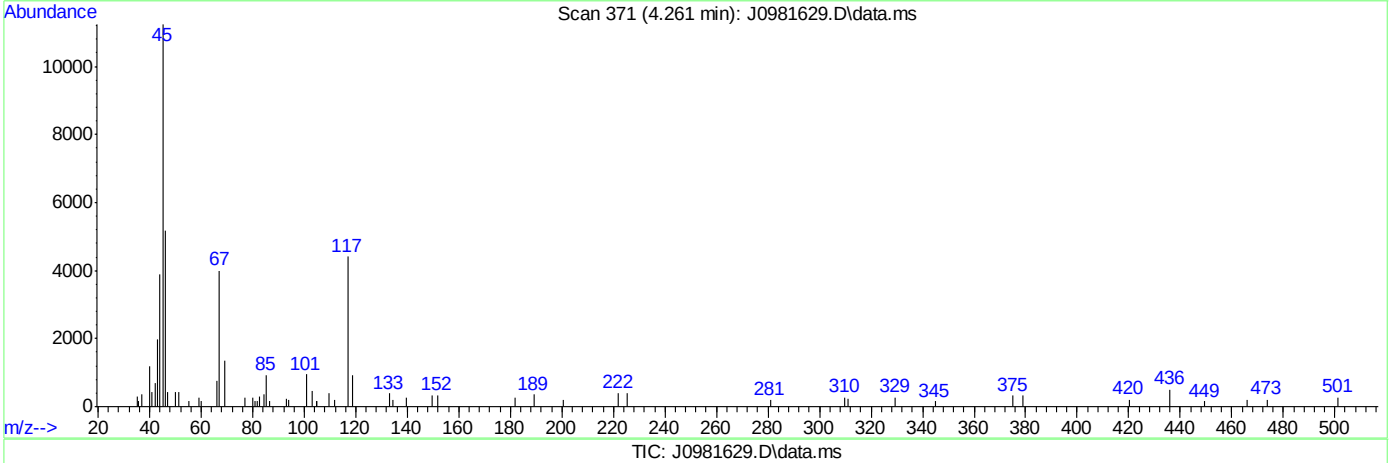
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981629.D
Acq On : 19 Dec 2016 9:44 am
Operator : darshnap
Sample : cc5512-5 Inst : MSVOA6
Misc : MS35831,vj5518,,,,,
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 19 10:04:24 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981629.D\data.ms

(107) Ethanol

4.261min (-0.006) 744.08ug/L m

response 56548

Ion	Exp%	Act%
45.10	100	100
46.10	28.70	46.03
0.00	0.00	0.00
0.00	0.00	0.00

SGS ACCUTEST FA39345

Manual Integrations
APPROVED
(compounds with "m" flag)
Juan Garcia
12/20/16 12:25

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\122016\
Data File : J0981655.D
Acq On : 20 Dec 2016 8:52 am
Operator : darshnap
Sample : blk Inst : MSVOA6
Misc : MS35837,vj5520,,,,,
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 20 11:13:57 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Fluorobenzene	7.734	96	779301	50.00	ug/L	0.00
56) Chlorobenzene-d5	10.824	117	610378	50.00	ug/L	0.00
78) 1,4-Dichlorobenzene-d4	13.186	152	321415	50.00	ug/L	0.00
106) Tert Butyl Alcohol-d10	5.272	65	83779	250.00	ug/L	0.00
System Monitoring Compounds						
36) Dibromofluoromethane	6.905	113	225742	53.70	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 107.40%			
46) 1,2-Dichloroethane-d4	7.458	65	286558	56.65	ug/L	0.00
Spiked Amount 50.000	Range 79 - 125		Recovery = 113.30%			
57) Toluene-d8	9.279	98	722559	48.70	ug/L	0.00
Spiked Amount 50.000	Range 85 - 112		Recovery = 97.40%			
79) 4-Bromofluorobenzene	12.035	95	273034	53.29	ug/L	0.00
Spiked Amount 50.000	Range 83 - 118		Recovery = 106.58%			
Target Compounds						Qvalue
6) Bromomethane	3.421	94	1530	0.25	ug/L #	15
16) Methylene Chloride	5.019	49	39292	2.98	ug/L	92
22) Acetonitrile	5.619	40	1677	3.12	ug/L #	1
101) 1,2-Dibromo-3-Chloropr...	14.279	75	300	0.24	ug/L #	7
110) tert Amyl alcohol	7.546	59	344	0.63	ug/L #	24
112) 1,4-Dioxane	8.539	88	285	3.80	ug/L #	21

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

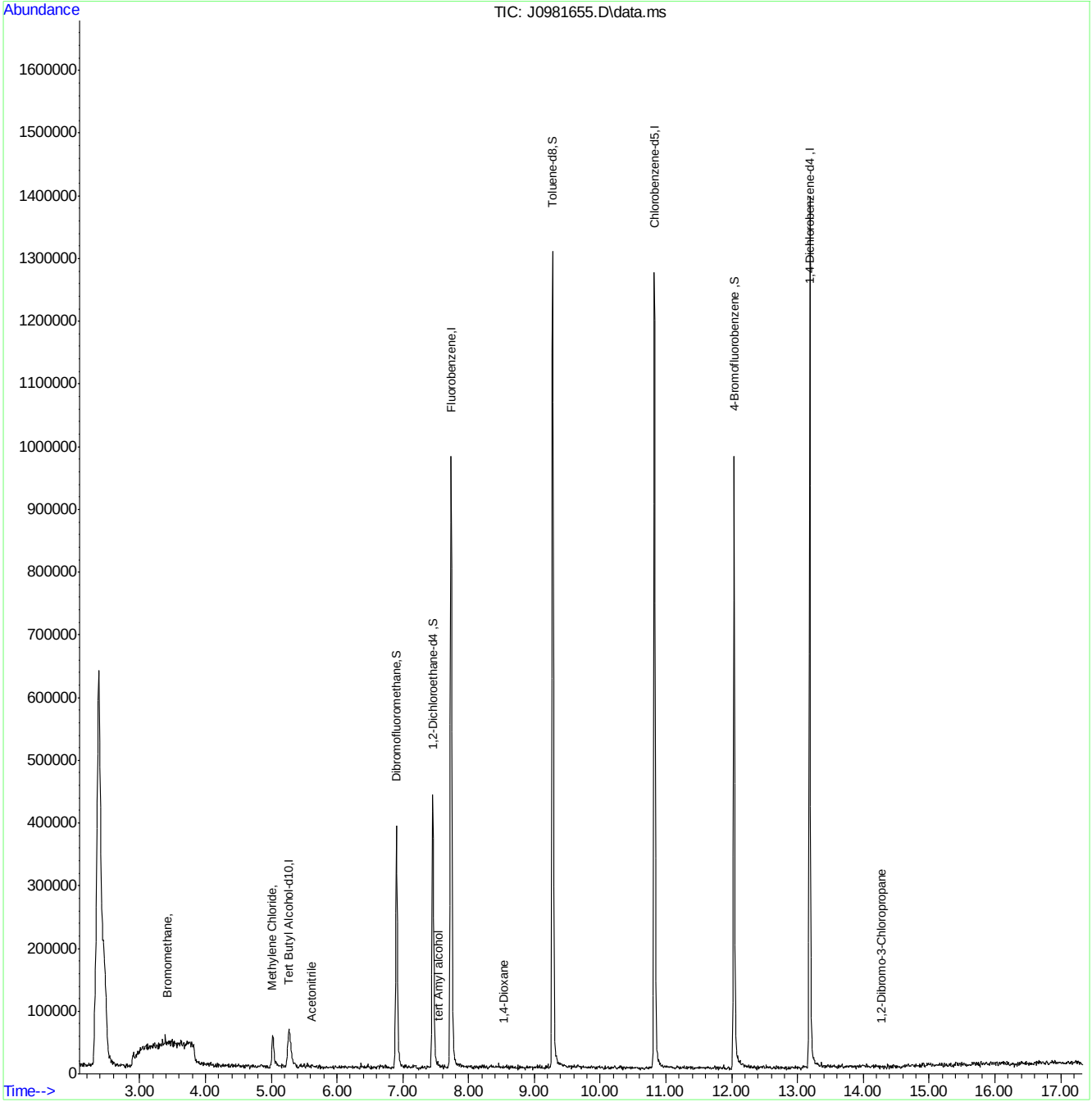
7.6.13
7

SGS ACCUTEST FA39345

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\data\122016\
Data File : J0981655.D
Acq On : 20 Dec 2016 8:52 am
Operator : darshnap
Sample : blk Inst : MSVOA6
Misc : MS35837,vj5520,,,,,
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 20 11:13:57 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration



SGS ACCUTEST FA39345

Manual Integration Approval Summary

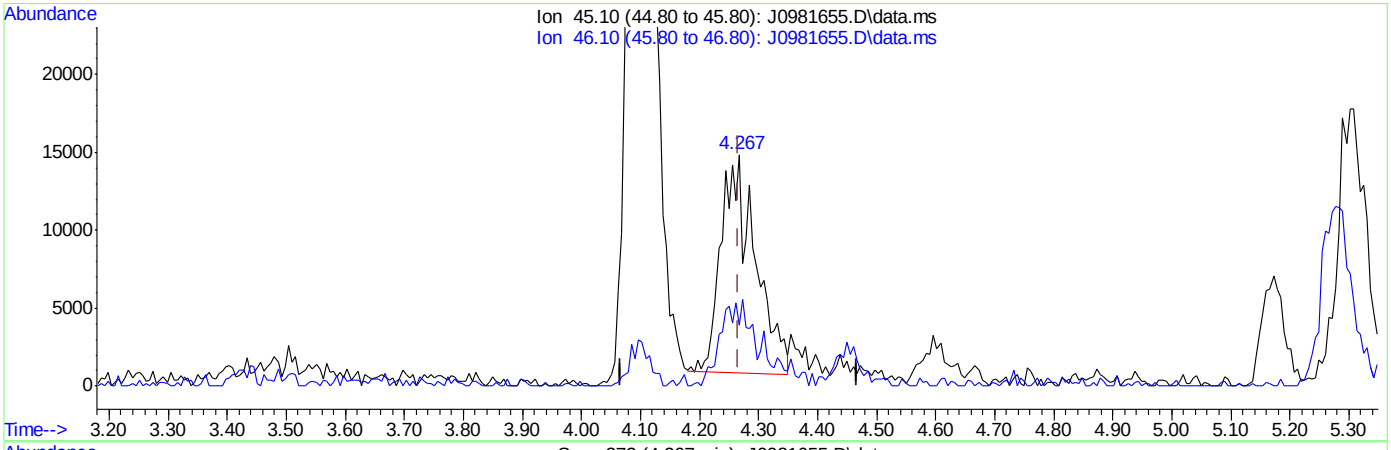
Sample Number:	VJ5518-ECC5512	**Method:**	SW846 8260B
Lab FileID:	J0981655.D	**Analyst approved:**	12/20/16 11:53 Darshna Patel
Injection Time:	12/19/16 20:22	**Supervisor approved:**	12/20/16 12:25 Juan Garcia

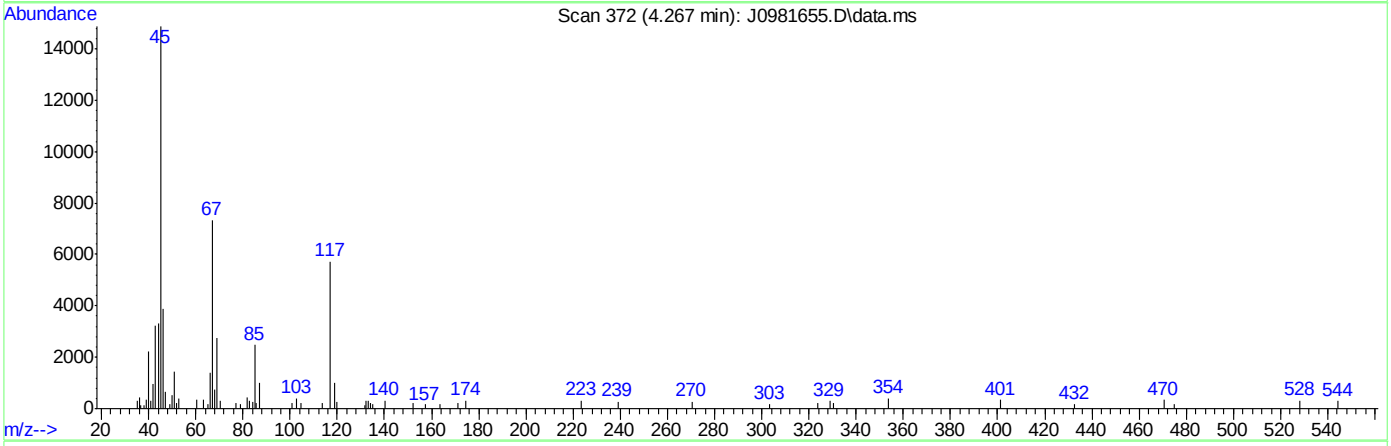
Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethyl Alcohol	64-17-5		4.27	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981655.D
Acq On : 19 Dec 2016 8:22 pm
Operator : darshnap
Sample : ecc5512-5 Inst : MSVOA6
Misc : MS35837,vj5518,,,,,
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 20 08:39:30 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981655.D\data.ms

(107) Ethanol

4.267min (+0.000) 593.69ug/L

response 56806

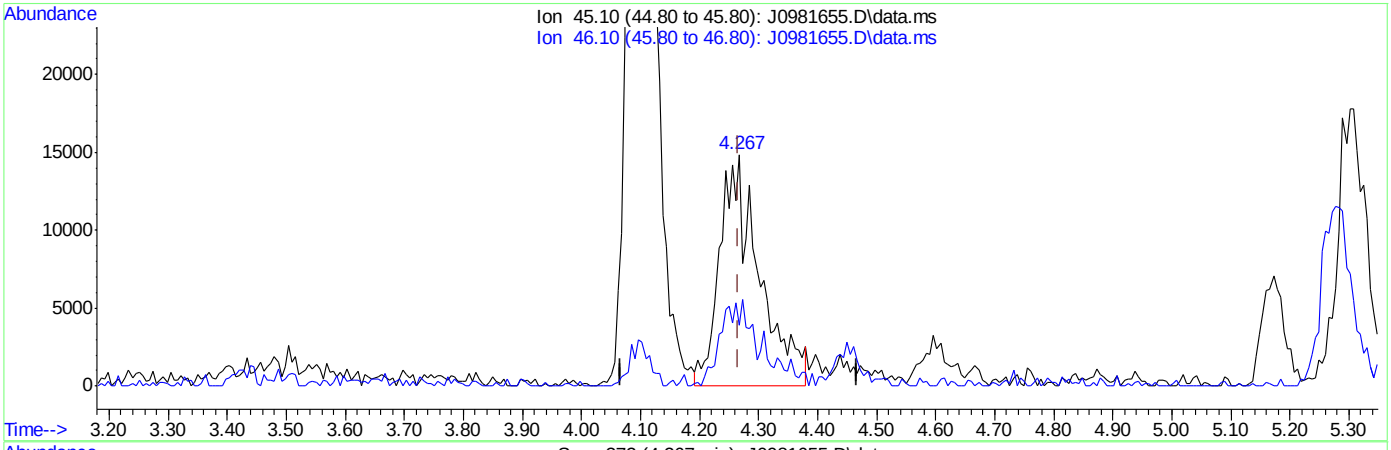
Ion	Exp%	Act%
45.10	100	100
46.10	28.70	28.06
0.00	0.00	0.00
0.00	0.00	0.00

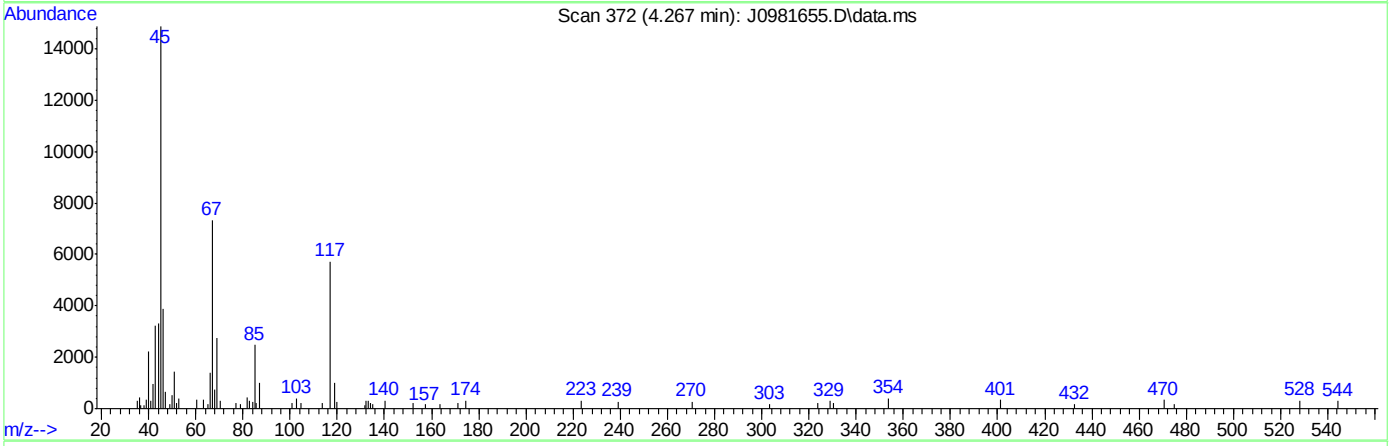
SGS ACCUTEST FA39345

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\121916\
Data File : J0981655.D
Acq On : 19 Dec 2016 8:22 pm
Operator : darshnap
Sample : ecc5512-5 Inst : MSVOA6
Misc : MS35837,vj5518,,,,,
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 20 08:39:30 2016
Quant Method : C:\msdchem\1\methods\MSJ121416.M
Quant Title : SW-846 Method 5030B/8260B & EPA 624
QLast Update : Thu Dec 15 08:23:27 2016
Response via : Initial Calibration





TIC: J0981655.D\data.ms

(107) Ethanol

4.267min (+0.000) 734.26ug/L m

response 68951

Ion	Exp%	Act%
45.10	100	100
46.10	28.70	26.07
0.00	0.00	0.00
0.00	0.00	0.00

SGS ACCUTEST FA39345

SGS ACCUTEST-ORLANDO

DATE:	12-14-16
COLUMN TYPE:	RTx-UMS
DETECTOR:	5973 MSD
INSTRUMENT:	MSVOA6-J
PURGE PRESSURE:	10.1psi
ANALYST:	DP

1-12 pH
Lot 200814
0-3 pH
Lot 230315

MS VOA6-J ANALYSIS LOG

METHODS:*	8260
METHOD FILE:	MSJ121416.m
CALIB. DATE:	12-14-16
EM VOLTAGE:	1682V
BFB RESPONSE:	3103366
RUN ID:	VJ ~~5512~~ 5512 DP 12-14-16

STANDARDS

BFB:	V21166
ICAL/CCV:	~~V21159~~ V21146 V21159 V21143
	V21145 V21144 V21158 V21033
ISTD/SURR:	V21166
ICV/QC:	V21153 V21110 V21155 V21160
Purge Volume:	5ml V21152 V21154 V21130 V21034

V21112 V21165 V21155 V21070

DATA FILE	SAMPLE ID, DIL.	Vial #	MATRIX	ALS POS.	SAMPLE METHOD	MANUALLY INTEGRATED PEAKS RATIONALE, PEAK #	PH	Cl ?	RR	COMMENTS
J0981498	Blk	NA	H2O	1	8260		NA	NA		
J 99	BFB			1						
J 500	CCS503-5			1		Fail response ↓				20ul→5ml
J 01	BFB			1						
J 02	CCS503-5			1		Fail response ↓				20ul→5ml
J 03	BFB			1		V↑.				
J 04	ICS512-1			1						0.5ul→5ml
J 05	-2			2		SP(2) OP(32) PII(107)				2.5ul→5ml
J 06	-3			3		OP(37) PII(107)				5ul→5ml
J 07	-4			4		OP(37) PII(107)				12.5ul→5ml
J 08	-5			5		OP(37) PII(107)				20ul→5ml
J 09	-6			6		SP(8) OP(37) PII(107)				35ul→5ml
J 10	-7			7		OP(37)				50ul→5ml
J 11	Blk.			8						✓
J 12	ICS512-1			9.						0.5ul→5ml. ✓
J 13	ICVS512-5			10		OP(37) PII(107)				25ul→50ml ✓
J 14	BS			11		OP(37) PII(107)				12.5ul→40ml ✓
J 15	MB			12						ND
J 16	FA39626-3	2		13		OP(32) PII(94)(104)	1	N		✓
J 17	-2,2x	3		14		OP(32) PII(104) 25ul→50ml	1			✓
J 18	FA39221-1	1		15			1			✓
J 19	-2	1		16			1			✓
J 20	-3	1		17			1			✓
J 21	-4	1		18			1			✓
J 22	-5	1		19			1			✓
J 23	OP 12-14-16 ~~-6~~	1		20		FA39233-1 Wrong sample.	1			✓
J 24	FA39223-1	6		21			1			✓

* For NELAC purposes, Method 8260 includes analytes by SOP MS005

Matrix: Designate "W" for Water, "S" for Soil, "O" for Oil, "Liq" for Non-aqueous Liquid, and "TCLP" or "SPLP" for Leachate

All strikeouts must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.

Manual Integration Rationale SOP QA029: **MP** Missed Peak, **OP** Overlapping Peak, **SP** Split Peak, **PDB** Poorly Defined Baseline, **BR** Baseline Ripple, **PII** Poor Instrument Integration

Analyst's Signature: DP

msvoa6_j_log.xls ME 06/16

SGS ACCUTEST-ORLANDO

DATE:	12-14-16
COLUMN TYPE:	RTX-VMS
DETECTOR:	5973 MSD
INSTRUMENT:	MSVOA6-J
PURGE PRESSURE:	10.1 psi
ANALYST:	DP

MS VOA6-J ANALYSIS LOG

METHODS:*	8260
METHOD FILE:	MS512141 6.m
CALIB. DATE:	12-14-16
EM VOLTAGE:	1682U
BFB RESPONSE:	3103366
RUN ID:	VJ5512

STANDARDS

BFB:	V21166
ICAL/CCV:	V21146 V21159 V21143 V21112 V21145 V21144 V21158 V21033 ~~V21165~~ V21165 DP 12-14-16
ISTD/SURR:	V21166
ICV/QC:	V21153 V21110 V21155 V21160 V21152
Purge Volume:	5ml V21154 V21130 V21034

DATA FILE	SAMPLE ID, DIL.	Vial #	MATRIX	ALS POS.	SAMPLE METHOD	MANUALLY INTEGRATED PEAKS RATIONALE, PEAK #	PH	CI ?	RR	COMMENTS
J 25	FA39223-3	2	H2O	22	8260		1	N		✓
J 26	DP 12-14-16 -3 2.5x	2		23		2ml→5ml.	1		10x	trichloromethane ↑
J 27	-4	2		24			1			✓
J 28	-5	1		25			1			✓
J 29	-6	2		26			1			✓
J 30	FA39221-1MS	2		27		OP(37) PII(107)	1			12.5ml→40ml ✓
J 31	-1MSD	2		28		OP(37) PII(107)	1			✓
J 32	FA39223-1MS	2		29		OP(37) PII(107)	1			✓
J 33	-1MSD	2		28		OP(37) PII(107)	1			✓
J 34	ECC5512-5	–		29		OP(37) PII(107)	–	–		2ml→5ml ✓
J										
J										
J										
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J										
J										
J										

12-14-16 DP

* For NELAC purposes, Method 8260 includes analytes by SOP MS005

Matrix: Designate "W" for Water, "S" for Soil, "O" for Oil, "Liq" for Non-aqueous Liquid, and "TCLP" or "SPLP" for Leachate

All strikeouts must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.

Manual Integration Rationale SOP QA029: **MP** Missed Peak, **OP** Overlapping Peak, **SP** Split Peak, **PDB** Poorly Defined Baseline, **BR** Baseline Ripple, **PII** Poor Instrument Integration

Analyst's Signature: DP

msvoa6_j_log.xls ME 06/16

SGS ACCUTEST-ORLANDO

DATE:	12-16-16
COLUMN TYPE:	RTX-UMS
DETECTOR:	5973 MSD
INSTRUMENT:	MSVOA6-J
PURGE PRESSURE:	10.1psi
ANALYST:	DP

1-12 pH
Lot 200814
0-3 pH
Lot 230315

MS VOA6-J ANALYSIS LOG

METHODS:*	8260
METHOD FILE:	MSJ121416.M
CALIB. DATE:	12-14-16
EM VOLTAGE:	1682V
BFB RESPONSE:	2163982
RUN ID:	VJ5515/5516

STANDARDS

BFB:	V21166
ICAL/CCV:	V21165 V21112 V21145 V21158 V21144 V21143 V21168 V21167
ISTD/SURR:	V21166
ICV/QC:	V21153 V21110 V21100 V21152
Purge Volumes	V21154 V21155 V21130 V21173

DATA FILE	SAMPLE ID, DIL.	Vial #	MATRIX	ALS POS	SAMPLE METHOD	MANUALLY INTEGRATED PEAKS RATIONALE, PEAK #	PH	CI ?	RR	COMMENTS
J0981565	BLK/BFB	N/A	H2O	1	8260		N/A	N/A		Auto Passed ✓
J 66	BLK			1						~~Auto Passed~~ DP 12-16-16 ✓
J 67	CCSS12-5			1		PII(107)				20ul→50ml ✓
J 68	BS			2		OP(37) PII(107)				12.5ul→40ml ✓
J 69	MB	↓		3						ND
J 70	FA39378-7	3		1		PII(96)	12	Y		✓
J 71	FA39343-1	5		2			1	N		✓
J 72	-2	5		3			1		20x	chloroethane↑
J 73	-3	5		4			1		1x	CO
J 74	-4	5		5		PII(110)	1		2x	1,4 Dioxane↑
J 75	FA39449-1	1		6			1		10x	1,1DCE↑
J 76	-2	1		7			1			ND
J 77	FA39332-3	1		8			1			ND
J 78	-6	1		9			1			ND
J 79	-7	1		10			1		1x	✓ IS↑
J 80	FA39345-1 MA	1		11			1		1x	✓ IS↑
J 81	-2 MA	1		12			1		1x	ND IS↑
J 82	FA39346-6 MA	2		13			1			ND IS↑
J 83	-7 MA	2		14			1			ND IS↑
J 84	-8 MA	2		15			1			ND IS↑
J 85	-9 MA	2		16			1			ND IS↑
J 86	-10 MA	2		17		PII(106)	1			ND IS↑
J 87	-11 MA	2		18			1			✓ IS↑
J 88	-12 MA	3		19			1			✓ IS↑
J 89	-13 MA	2		20			1			ND IS↑
J 90	FA39345-1MS,MA	2		21		PII(107)	1			12.5ul→40ml ✓
J 91	-1MSD,MA	2		21		PII(107)	1			↓ ✓
92, 93	FA39343-1MS,MSD	6		22		PII(107) PII(107)	1	DP 12-16-16		~~12.5~~ 25ul→40ml ✓

* For NELAC purposes, Method 8260 includes analytes by SOP MS005

Analyst's Signature: DP

Matrix: Designate "W" for Water, "S" for Soil, "O" for Oil, "Liq" for Non-aqueous Liquid, and "TCLP" or "SPLP" for Leachate

All strikeouts must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.

Manual Integration Rationale SOP QA029: **MP** Missed Peak, **OP** Overlapping Peak, **SP** Split Peak, **PDB** Poorly Defined Baseline, **BR** Baseline Ripple, **PII** Poor Instrument Integration

msvoa6_j_log.xls ME 06/16

94 ECCS512-5 — ↓ 23 ↓ PII(107) — — 20ul→50ml ✓

SGS ACCUTEST-ORLANDO

DATE:	12-16-16
COLUMN TYPE:	RTx-Vms
DETECTOR:	5973 MSD
INSTRUMENT:	MSVOA6-J
PURGE PRESSURE:	10 psi
ANALYST:	DP

MS VOA6-J ANALYSIS LOG

METHODS:*	8260
METHOD FILE:	MS512416.m
CALIB. DATE:	12-16-16
EM VOLTAGE:	1682V
BFB RESPONSE:	2163982
RUN ID:	VJ 5515/5516

STANDARDS

BFB:	V21166
ICAL/CCV:	V21165 V21112 V21145 V21158 V21144 V21143 V21168 V21167
ISTD/SURR:	V21166
ICV/QC:	V21153 V21110 V21160 V21152
Purge Volume:	S. V21154 V21155 V21130 V21173

DATA FILE	SAMPLE ID, DIL.	Vial #	MATRIX	ALS POS.	SAMPLE METHOD	MANUALLY INTEGRATED PEAKS RATIONALE, PEAK #	PH	CI ?	RR	COMMENTS
J 95	FA39223-2	1	W	24	8260		1	N		
J 96	-2	2		25			1			
J 97	-2	3		26			1			
J 98	-3	1		27			1			
J 99	-3, 2.5x	2		28			1			
J										
J										
J										
J										
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* For NELAC purposes, Method 8260 includes analytes by SOP MS005

Matrix: Designate "W" for Water, "S" for Soil, "O" for Oil, "Liq" for Non-aqueous Liquid, and "TCLP" or "SPLP" for Leachate

All strikeouts must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.

Manual Integration Rationale SOP QA029: **MP** Missed Peak, **OP** Overlapping Peak, **SP** Split Peak, **PDB** Poorly Defined Baseline, **BR** Baseline Ripple, **PII** Poor Instrument Integration

Analyst's Signature: PD

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SGS ACCUTEST-ORLANDO

DATE:	12-16-16
COLUMN TYPE:	RTX-UMS
DETECTOR:	5973 MSD
INSTRUMENT:	MSVOA6-J
PURGE PRESSURE:	10.1psi
ANALYST:	DP

1-12 pH
Lot 200814
0-3 pH
Lot 230315

MS VOA6-J ANALYSIS LOG

METHODS:*	8260
METHOD FILE:	MSJ121416.m
CALIB. DATE:	12-14-16
EM VOLTAGE:	1682V
BFB RESPONSE:	2163982
RUN ID:	VJ5515/5516

STANDARDS

BFB:	V21166
ICAL/CCV:	V21165 V21112 V21145 V21158 V21144 V21143 V21168 V21167
ISTD/SURR:	V21166
ICV/QC:	V21153 V21110 V21100 V21152
Purge Volumes	V21154 V21155 V21130 V21173

DATA FILE	SAMPLE ID, DIL.	Vial #	MATRIX	ALS POS.	SAMPLE METHOD	MANUALLY INTEGRATED PEAKS RATIONALE, PEAK #	PH	CI ?	RR	COMMENTS
J0981565	~~BLK~~/3FB	N/A	H_2O	1	8260		N/A	N/A		Auto Passed ✓
J 66	BLK			1						~~Auto Passed~~ DP 12-16-16 ✓
J 67	CCSS12-5			1		PII(107)				20ul→50ml ✓
J 68	BS			2		OP(37) PII(107)				12.5ul→40ml ✓
J 69	MB	2		3						ND
J 70	FA39378-7	3		1		PII(96)	12	Y		✓
J 71	FA39343-1	5		2			1	~		✓
J 72	-2	5		3			1		20x	chloroethane↑
J 73	-3	5		4			1		1x	CO
J 74	-4	5		5		PII(10)	1		2x	1,4 Dioxane↑
J 75	FA39449-1	1		6			1		10x	1,1 DCE↑
J 76	-2	1		7			1			ND
J 77	FA39332-3	1		8			1			ND
J 78	-6	1		9			1			ND
J 79	-7	1		10			1		1x	✓ IS↑
J 80	FA39345-1 MA	1		11			1		1x	✓ IS↑
J 81	-2 MA	1		12			1		1x	ND IS↑
J 82	FA39346-6 MA	2		13			1			ND IS↑
J 83	-7 MA	2		14			1			ND IS↑
J 84	-8 MA	2		15			1			ND IS↑
J 85	-9 MA	2		16			1			ND IS↑
J 86	-10 MA	2		17		PII(106)	1			✓ IS↑
J 87	-11 MA	2		18			1			✓ IS↑
J 88	-12 MA	3		19			1			ND IS↑
J 89	-13 MA	2		20			1			12.5ul→40ml ✓
J 90	FA39345-1MS,MA	2		21		PII(107)	1			✓
J 91	-1MSD,MA	2		21		PII(107)	1			✓
92,93	FA39343-1MS,MSD	6		22		PII(107) PII(107)	1	DP 12-16-16		~~12.5~~ 25 → 40ml ✓
94	ECCSS12-5			23		PII(107)				20ul→50ml ✓

* For NELAC purposes, Method 8260 includes analytes by SOP MS005

Matrix: Designate "W" for Water, "S" for Soil, "O" for Oil, "Liq" for Non-aqueous Liquid, and "TCLP" or "SPLP" for Leachate

All strikeouts must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.

Manual Integration Rationale SOP QA029: **MP** Missed Peak, **OP** Overlapping Peak, **SP** Split Peak, **PDB** Poorly Defined Baseline, **BR** Baseline Ripple, **PII** Poor Instrument Integration

Analyst's Signature: DP

msvoa6_j_log.xls ME 06/16

SGS ACCUTEST-ORLANDO

DATE:	12-16-16
COLUMN TYPE:	RTx-UMS
DETECTOR:	5973 MSD
INSTRUMENT:	MSVOA6-J
PURGE PRESSURE:	10.1 psi
ANALYST:	DP

MS VOA6-J ANALYSIS LOG

METHODS:*	8260
METHOD FILE:	MSJ121416.M
CALIB. DATE:	12-14-16
EM VOLTAGE:	1682V
BFB RESPONSE:	2163982
RUN ID:	VJ 5515/5516

STANDARDS

BFB:	V21166
ICAL/CCV:	V21165 V21112 V21145 V21158 V21144 V21143 V21168 V21167
ISTD/SURR:	V21166
ICV/QC:	V21153 V21110 V21160 V21152
Purge Volume:	V21154 V21155 V21130 V21173

DATA FILE	SAMPLE ID, DIL.	Vial #	MATRIX	ALS POS.	SAMPLE METHOD	MANUALLY INTEGRATED PEAKS RATIONALE, PEAK #	PH	CI ?	RR	COMMENTS
J 95	FA39223-2	1	W	24	8260		1	N		—
J 96	-2	2		25			1			—
J 97	-2	3		26			1			—
J 98	-3	1		27			1			—
J 99	-3, 2.5x	2		28			1			—
J										
J										
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* For NELAC purposes, Method 8260 includes analytes by SOP MS005

Matrix: Designate "W" for Water, "S" for Soil, "O" for Oil, "Liq" for Non-aqueous Liquid, and "TCLP" or "SPLP" for Leachate

All strikeouts must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.

Manual Integration Rationale SOP QA029: **MP** Missed Peak, **OP** Overlapping Peak, **SP** Split Peak, **PDB** Poorly Defined Baseline, **BR** Baseline Ripple, **PII** Poor Instrument Integration

Analyst's Signature: DP

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SGS ACCUTEST-ORLANDO

DATE:	12-19-16
COLUMN TYPE:	RTX-OMS
DETECTOR:	5973 MSD
INSTRUMENT:	MSVOA6-J
PURGE PRESSURE:	10.6psi
ANALYST:	DP

1-12pH
Lot 200814
0-3pH
Lot 230315

MS VOA6-J ANALYSIS LOG

METHODS:*	8260
METHOD FILE:	MSJ121416.m
CALIB. DATE:	12-14-16
EM VOLTAGE:	1682V
BFB RESPONSE:	1569426
RUN ID:	VJ5518/5519

STANDARDS

BFB:	V21166 V21086D
ICAL/CCV:	V21165 V21112 V21158 V21168 V21167 V21144 V21143 V21145
ISTD/SURR:	V21166
ICV/QC:	V21153 V21180 V21160 V21154
Purge Volumes	V21152 V21155 V21130 V21173

DATA FILE	SAMPLE ID, DIL.	Vial #	MATRIX	ALS POS.	SAMPLE METHOD	MANUALLY INTEGRATED PEAKS RATIONALE, PEAK #	PH	CI ?	RR	COMMENTS
J0981625	BLK	N/A	H_2O	1	8260		N/A	N/A		✓
J 26	BLK			1						✓
J 27	BFB			1						2ul→Auto fail
J 28	BFB			1						2ul→Auto Passed
J 29	CC 5512-5			1		OP(37) PII(107)				20ul→5ml ✓
J 30	BS			2		OP(37) PII(107)				12.5ul→40ml ✓
J 31	MB	↓		3			↓	↓		ND
J 32	FA39382-5,5x	2		1		SP(*) 10ul→5ml	1	N		✓
J 33	-7,5x	2		2			1		10x	1,1DCE↑
J 34	-8,5x	2		3		↓	1		1x	Surr↑
J 35	FA39332-2	2		4			1			ND
J 36	-8, 50x	2		5		1ml→5ml	1			✓
J 37	-10	2		6			1			✓
J 38	FA39344-2,5x	3		7		10ml→5ml	1			✓
J 39	-3,5x	2		8		↓	1		1x	IS↓
J 40	-4,2x	2		9		25ml→5ml	1			✓ IS↓
J 41	-5	2		10			1			✓ 1,4 Dioxane↑ IS↓
J 42	-6,10x	2		11		5ml→5ml	1		20x	Chloroethane↑ IS↓
J 43	-7,2x	2		12		25ml→5ml	1		1x	
J 44	-8,5x	2		13		10ml→5ml	1		1x	
J 45	-9	2		14			1			✓
J 46	FA39702-1	1		15			1			✓
J 47	-2-	1		16		PII(70)	1			✓
J 48	FA39332-7	2		17			1			✓
J 49	FA39345-1 MA	3		18			1			✓
J 50	-2 MA	4		19			1			✓
J 51,52	DP 12-19-16 -1ms,ms0	1		20		OP(37) PII(107)	1			12.5ul→40ml ✓
53,54	FA39702-1ms,ms0	1		21		PII(107) OP(37)	1	↓		✓
SS	EC-5512-5	↓		22	↓	PII(107)				20ul→5ml ✓

* For NELAC purposes, Method 8260 includes analytes by SOP MS005

Matrix: Designate "W" for Water, "S" for Soil, "O" for Oil, "Liq" for Non-aqueous Liquid, and "TCLP" or "SPLP" for Leachate

All strikeouts must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.

Manual Integration Rationale SOP QA029: **MP** Missed Peak, **OP** Overlapping Peak, **SP** Split Peak, **PDB** Poorly Defined Baseline, **BR** Baseline Ripple, **PII** Poor Instrument Integration

Analyst's Signature: DP

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SGS ACCUTEST-ORLANDO

DATE:	12-19-16
COLUMN TYPE:	Rtx-OMS
DETECTOR:	5973 MSD
INSTRUMENT:	MSVOA6-J
PURGE PRESSURE:	10 psi
ANALYST:	DP

1-12pH
Lot 200814
0-3pH
Lot 230315

MS VOA6-J ANALYSIS LOG

METHODS:*	8260
METHOD FILE:	MSJ121616.m
CALIB. DATE:	12-16-16
EM VOLTAGE:	1682 V
BFB RESPONSE:	1569426
RUN ID:	VJ5518/5519

STANDARDS

BFB:	V21166 V21086D
ICAL/CCV:	V21165 V21112 V21158 V21168 V21167 V21144 V21143 V21145
ISTD/SURR:	V21166
ICV/QC:	V21153 V21180 V21160 V21154
Purge Volumes:	V21152 V21155 V21130 V21173

DATA FILE	SAMPLE ID, DIL.	Vial #	MATRIX	ALS POS.	SAMPLE METHOD	MANUALLY INTEGRATED PEAKS RATIONALE, PEAK #	PH	CI ?	RR	COMMENTS
J0981625	BLK	N/A	H_2O	1	8260		N/A	N/A		✓
J 26	BLK			1						✓
J 27	BFB			1						2ul→Auto fail
J 28	BFB			1						2ul→Auto Passed
J 29	CC 5512-5			1		OP(37) PII(107)				20ul→5ml ✓
J 30	BS			2		OP(37) PII(107)				12.5ul→40~l ✓
J 31	MB	↓		3			↓	↓		ND
J 32	FA39382-5, Sx	2		1		SP(8) 10ml→5ml	1	N		✓
J 33	-7, Sx	2		2		↓	1		10x	1,1DCE↑
J 34	-8, Sx	2		3			1		1x	Surr↑
J 35	FA39332-2	2		4			1			ND
J 36	-8, Sox	2		5		1ml→5ml	1			✓
J 37	-10	2		6			1			✓
J 38	FA39344-2, Sx	3		7		10ml→5ml	1			✓
J 39	-3, Sx	2		8		↓	1		1x	IS ↓
J 40	-4, 2x	2		9		25ml→5ml	1			✓ IS ↓
J 41	-5	2		10			1			✓ 1,4 Dioxane↑ IS↓
J 42	-6, 10x	2		11		5ml→5ml	1		20x	Chloroethane↑ IS↓
J 43	-7, 2x	2		12		25ml→5ml	1		1x	
J 44	-8, Sx	2		13		10ml→5ml	1		1x	
J 45	-9	2		14			1			✓
J 46	FA39702-1	1		15			1			✓
J 47	-2	1		16		PII(70)	1			✓
J 48	FA39332-7	2		17			1			✓
J 49	FA39345-1 MA	3		18			1			✓
J 50	-2 MA	4		19			1			✓
J 51 52	DP 12-19-16 -1ms, msD	MS		20		OP(37) PII(107)	1			12.5ul→40ml ✓
53 54	FA39702-1ms, msD	52		21		PII(107) OP(37)	1	↓		✓
SS	EC 5512-5	↓		22	↓	PII(107)	-	-		20ul→5ml ✓

* For NELAC purposes, Method 8260 includes analytes by SOP MS005

Matrix: Designate "W" for Water, "S" for Soil, "O" for Oil, "Liq" for Non-aqueous Liquid, and "TCLP" or "SPLP" for Leachate

All strikeouts must be initialed and dated. If correction was not due to a transcription error, then list the reason for correction.

Manual Integration Rationale SOP QA029: **MP** Missed Peak, **OP** Overlapping Peak, **SP** Split Peak, **PDB** Poorly Defined Baseline, **BR** Baseline Ripple, **PII** Poor Instrument Integration

Analyst's Signature: DP

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Misc. Forms

Custody Documents and Other Forms

(SGS Accutest New Jersey)

Includes the following where applicable:

- Chain of Custody

SGS ACCUTEST

WTB

SGS Accutest Southeast
Chain of Custody

4405 Vineland Road, Suite C-15 Orlando, Fl 32811
TEL: 407-425-6700 FAX: 407-425-0707
www.accutest.com

SGS ACCUTEST JOB # : PAGE_____OF_____

SGS Accutest Quote # | SKIFF # FA39345

Client / Reporting Information

Company Name:
Address:
City: State: Zip:
Project Contact: Email:
Phone #:
Sampler(s) Name(s) (Printed)
Sampler 1: Sampler 2:

Project Information

Project Name: FA39345 + JC33175
Street
City State
Project #
Fax #
Client Purchase Order #

Analytical Information: 8260C-1,03 Butylene

Matrix Codes: DW - Drinking Water; GW - Ground Water; WW - Water; SW - Surface Water; SO - Soil; SL- Sludge; OI - Oil; LIQ - Other Liquid; AIR - Air

SGS Accutest Sample #	Field ID / Point of Collection	COLLECTION DATE	TIME	SAMPLED BY:	MATRIX	TOTAL # OF BOTTLES	OTHER	NONE	HCl	NaOH	HNO3	H2SO4	NaOH+ZNA	DI WATER	MEOH	8260C-1,03 Butylene	LAB USE ONLY
-2	-2-TB															X	V812

Turnaround Time (Business days)

10 Day (Business)
7 Day
5 Day
3 Day *RUSH*
2 Day *RUSH*
1 Day *RUSH*
Other
Rush T/A Data Available VIA Email or Lablink

Approved By: / Date:

INITIAL ASESSMENT 13/23

LABEL VERIFICATION

Data Deliverable Information

- COMMERCIAL "A" (RESULTS ONLY)
- COMMERCIAL "B" (RESULTS PLUS QC)
- REDT1 (EPA LEVEL 3)
- FULLT1 (EPA LEVEL 4)
- EDD'S

Comments / Remarks

See Tammy Regarding Sample.
ALNJ-H

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
1 J. Carpenter (ALNJ)	12-12-16	2 FEDX	3 FEDX	12/13/16 930	4 SGS
Relinquished by/Affiliation	Date Time:	Received By/Affiliation	Relinquished By/Affiliation	Date Time:	Received By/Affiliation
5		6	7		8

Lab Use Only : Cooler Temperature (s) Celsius: 3.0

8.1

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FA39345: Chain of Custody
Page 1 of 2
SGS Accutest New Jersey

SGS Accutest Sample Receipt Summary

Job Number: FA39345 **Client:** _____ **Project:** _____

Date / Time Received: 12/13/2016 9:30:00 AM **Delivery Method:** _____ **Airbill #'s:** _____

Cooler Temps (Raw Measured) °C: Cooler 1: (3.0);

Cooler Temps (Corrected) °C: Cooler 1: (4.4);

Cooler Security	Y	N		Y	N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	IR Gun	
3. Cooler media:	Ice (Bag)	
4. No. Coolers:	1	

Quality Control _Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☑	☐	☐
2. Trip Blank listed on COC:	☑	☐	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☑	☐	☐

Sample Integrity - Documentation	Y	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

SM089-02
Rev. Date 12/1/16

8.1

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FA39345: Chain of Custody
Page 2 of 2

GC/MS Volatiles

QC Data Summaries

(SGS Accutest New Jersey)

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: FA39345
Account: ALSE SGS Accutest Southeast
Project: AMANYWP: BMSMC, Building 5 Area, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4B2772-MB	4B67392.D	1	12/16/16	HT	n/a	n/a	V4B2772

The QC reported here applies to the following samples: **Method:** SW846 8260C

FA39345-2

CAS No.	Compound	Result	RL	MDL	Units	Q
106-99-0	1,3-Butadiene	ND	5.0	0.17	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	103%	76-120%
17060-07-0	1,2-Dichloroethane-D4	109%	73-122%
2037-26-5	Toluene-D8	100%	84-119%
460-00-4	4-Bromofluorobenzene	109%	78-117%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: FA39345
Account: ALSE SGS Accutest Southeast
Project: AMANYWP: BMSMC, Building 5 Area, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4B2772-BS	4B67393.D	1	12/16/16	HT	n/a	n/a	V4B2772

The QC reported here applies to the following samples: **Method:** SW846 8260C

FA39345-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
106-99-0	1,3-Butadiene	50	51.2	102	18-162

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	76-120%
17060-07-0	1,2-Dichloroethane-D4	106%	73-122%
2037-26-5	Toluene-D8	100%	84-119%
460-00-4	4-Bromofluorobenzene	102%	78-117%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: FA39345
Account: ALSE SGS Accutest Southeast
Project: AMANYWP: BMSMC, Building 5 Area, Humacao, PR

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC33175-1MS	4B67404.D	1	12/16/16	HT	n/a	n/a	V4B2772
JC33175-1MSD	4B67405.D	1	12/16/16	HT	n/a	n/a	V4B2772
JC33175-1	4B67403.D	1	12/16/16	HT	n/a	n/a	V4B2772

The QC reported here applies to the following samples: **Method:** SW846 8260C

FA39345-2

CAS No.	Compound	JC33175-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
106-99-0	1,3-Butadiene	ND		50	55.4	111	50	52.6	105	5	10-167/20

CAS No.	Surrogate Recoveries	MS	MSD	JC33175-1	Limits
1868-53-7	Dibromofluoromethane	105%	107%	102%	76-120%
17060-07-0	1,2-Dichloroethane-D4	105%	105%	109%	73-122%
2037-26-5	Toluene-D8	101%	100%	100%	84-119%
460-00-4	4-Bromofluorobenzene	102%	101%	103%	78-117%

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: FA39345
Account: ALSE SGS Accutest Southeast
Project: AMANYWP: BMSMC, Building 5 Area, Humacao, PR

Sample: V4B2759-BFB
Lab File ID: 4B67075.D
Instrument ID: GCMS4B
Injection Date: 12/08/16
Injection Time: 07:04

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	18399	19.3		Pass
75	30.0 - 60.0% of mass 95	44810	47.1		Pass
95	Base peak, 100% relative abundance	95146	100.0		Pass
96	5.0 - 9.0% of mass 95	6096	6.41		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	94328	99.1		Pass
175	5.0 - 9.0% of mass 174	7656	8.05	(8.12) [a]	Pass
176	95.0 - 101.0% of mass 174	92634	97.4	(98.2) [a]	Pass
177	5.0 - 9.0% of mass 176	5996	6.30	(6.47) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V4B2759-IC2759	4B67076.D	12/08/16	07:40	00:36	Initial cal 0.2
V4B2759-IC2759	4B67077.D	12/08/16	08:08	01:04	Initial cal 0.5
V4B2759-IC2759	4B67078.D	12/08/16	08:35	01:31	Initial cal 1
V4B2759-IC2759	4B67079.D	12/08/16	09:03	01:59	Initial cal 2
V4B2759-IC2759	4B67080.D	12/08/16	09:31	02:27	Initial cal 5
V4B2759-IC2759	4B67081.D	12/08/16	09:59	02:55	Initial cal 10
V4B2759-IC2759	4B67082.D	12/08/16	10:27	03:23	Initial cal 20
V4B2759-ICC2759	4B67083.D	12/08/16	10:55	03:51	Initial cal 50
V4B2759-IC2759	4B67084.D	12/08/16	11:22	04:18	Initial cal 100
V4B2759-IC2759	4B67085.D	12/08/16	11:50	04:46	Initial cal 200
V4B2759-ICV2759	4B67088.D	12/08/16	13:13	06:09	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: FA39345
Account: ALSE SGS Accutest Southeast
Project: AMANYWP: BMSMC, Building 5 Area, Humacao, PR

Sample: V4B2772-BFB
Lab File ID: 4B67388.D
Instrument ID: GCMS4B
Injection Date: 12/16/16
Injection Time: 09:01

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	20642	20.6		Pass
75	30.0 - 60.0% of mass 95	49072	48.9		Pass
95	Base peak, 100% relative abundance	100277	100.0		Pass
96	5.0 - 9.0% of mass 95	6545	6.53		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	95880	95.6		Pass
175	5.0 - 9.0% of mass 174	7814	7.79	(8.15) [a]	Pass
176	95.0 - 101.0% of mass 174	93661	93.4	(97.7) [a]	Pass
177	5.0 - 9.0% of mass 176	6353	6.34	(6.78) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V4B2772-CC2759	4B67390.D	12/16/16	10:34	01:33	Continuing cal 20
V4B2772-MB	4B67392.D	12/16/16	11:37	02:36	Method Blank
V4B2772-BS	4B67393.D	12/16/16	12:05	03:04	Blank Spike
ZZZZZZ	4B67395.D	12/16/16	13:00	03:59	(unrelated sample)
ZZZZZZ	4B67396.D	12/16/16	13:28	04:27	(unrelated sample)
ZZZZZZ	4B67397.D	12/16/16	13:56	04:55	(unrelated sample)
ZZZZZZ	4B67398.D	12/16/16	14:24	05:23	(unrelated sample)
ZZZZZZ	4B67399.D	12/16/16	14:52	05:51	(unrelated sample)
ZZZZZZ	4B67401.D	12/16/16	15:47	06:46	(unrelated sample)
JC33175-1	4B67403.D	12/16/16	16:43	07:42	(used for QC only; not part of job FA39345)
JC33175-1MS	4B67404.D	12/16/16	17:10	08:09	Matrix Spike
JC33175-1MSD	4B67405.D	12/16/16	17:38	08:37	Matrix Spike Duplicate
FA39345-2	4B67407.D	12/16/16	18:34	09:33	TB120616NRA
ZZZZZZ	4B67408.D	12/16/16	19:01	10:00	(unrelated sample)
ZZZZZZ	4B67409.D	12/16/16	19:29	10:28	(unrelated sample)
ZZZZZZ	4B67410.D	12/16/16	19:57	10:56	(unrelated sample)

Volatile Internal Standard Area Summary

Job Number: FA39345
Account: ALSE SGS Accutest Southeast
Project: AMANYWP: BMSMC, Building 5 Area, Humacao, PR

Check Std:	V4B2772-CC2759	**Injection Date:**	12/16/16
Lab File ID:	4B67390.D	**Injection Time:**	10:34
Instrument ID:	GCMS4B	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	118057	6.81	269576	8.84	365751	9.72	345460	12.91	198017	15.49
Upper Limit [a]	236114	7.31	539152	9.34	731502	10.22	690920	13.41	396034	15.99
Lower Limit [b]	59029	6.31	134788	8.34	182876	9.22	172730	12.41	99009	14.99

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V4B2772-MB	135795	6.81	283697	8.84	383510	9.72	362673	12.91	195934	15.49
V4B2772-BS	113624	6.81	261882	8.84	359051	9.72	333398	12.91	201478	15.49
ZZZZZZ	146200	6.81	281162	8.85	377576	9.72	356896	12.91	201035	15.49
ZZZZZZ	134319	6.81	282328	8.85	376955	9.72	356777	12.91	194202	15.49
ZZZZZZ	133970	6.82	271597	8.85	370402	9.72	352453	12.91	192391	15.49
ZZZZZZ	134184	6.81	268950	8.85	370051	9.72	352433	12.91	190284	15.49
ZZZZZZ	141476	6.81	272908	8.84	367095	9.72	355059	12.91	208562	15.49
ZZZZZZ	135001	6.81	283407	8.84	385874	9.72	366848	12.91	210727	15.49
JC33175-1	133073	6.82	286565	8.84	386028	9.72	365619	12.91	204675	15.49
JC33175-1MS	116899	6.80	264827	8.84	364296	9.72	341034	12.91	204253	15.49
JC33175-1MSD	114298	6.81	256546	8.84	355936	9.72	335423	12.91	203639	15.49
FA39345-2	127698	6.81	283880	8.84	381018	9.72	361606	12.91	194632	15.49
ZZZZZZ	132285	6.82	280434	8.85	376730	9.72	359376	12.91	194916	15.49
ZZZZZZ	127218	6.81	278259	8.84	372709	9.72	358157	12.91	192960	15.49
ZZZZZZ	138329	6.81	262085	8.84	352508	9.72	347760	12.91	205431	15.49

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = +100% of check standard area; Retention time +0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Volatile Surrogate Recovery Summary

Job Number: FA39345
Account: ALSE SGS Accutest Southeast
Project: AMANYWP: BMSMC, Building 5 Area, Humacao, PR

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
FA39345-2	4B67407.D	102	108	100	108
JC33175-1MS	4B67404.D	105	105	101	102
JC33175-1MSD	4B67405.D	107	105	100	101
V4B2772-BS	4B67393.D	104	106	100	102
V4B2772-MB	4B67392.D	103	109	100	109

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	76-120%
S2 = 1,2-Dichloroethane-D4	73-122%
S3 = Toluene-D8	84-119%
S4 = 4-Bromofluorobenzene	78-117%

Initial Calibration Summary

Job Number: FA39345 **Sample:** V4B2759-ICC2759
Account: ALSE SGS Accutest Southeast **Lab FileID:** 4B67083.D
Project: AMANYWP: BMSMC, Building 5 Area, Humacao, PR

```
                         Response Factor Report  MS4B

Method       : C:\MSDCHEM\1\METHODS\M4B2759.M (RTE Integrator)
Title        : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
Last Update  : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Calibration Files
1   =4B67078.D   0.5 =4B67077.D   100 =4B67084.D   50  =4B67083.D
20  =4B67082.D   200 =4B67085.D   5   =4B67080.D   2   =4B67079.D
10  =4B67081.D   0.2 =4B67076.D       =                 =

Compound
        1     0.5   100   50    20    200   5     2     10    0.2    Avg   %RSD
-------------------------------------------------------------------------------

1)     tert butyl alcohol-d9 ----------------ISTD---------------------
2)  tertiary butyl alcohol
     1.207       1.264 1.302 1.291 1.280 1.358 1.214 1.241        1.270    3.94
3)  1,4-dioxane
                 0.127 0.134 0.128 0.135 0.130 0.109 0.132        0.128    6.98
4)  Ethanol
                                                                  0.000#  -1.00

5) I   pentafluorobenzene    ----------------ISTD---------------------
6)  CHLOROTRIFLUOROETHENE
                                                                  0.000#  -1.00
7)  chlorodifluoromethane
      0.501       0.580 0.607 0.588 0.579 0.587 0.531 0.600        0.572    6.42
8)  dichlorodifluoromethane
                 0.496 0.534 0.530 0.512 0.516 0.444 0.524        0.508    6.10
9)  Freon 114
                                                                  0.000#  -1.00
10)  chloromethane
      0.212       0.254 0.263 0.265 0.239 0.264 0.263 0.258        0.252    7.32
11)  vinyl chloride
      0.567 0.790 0.718 0.766 0.754 0.712 0.730 0.721 0.730        0.721    8.76
12)  bromomethane
      0.328       0.350 0.391 0.372 0.292 0.403 0.392 0.384        0.364   10.47
13)  chloroethane
      0.346       0.347 0.381 0.380 0.302 0.384 0.398 0.388        0.366    8.69
14)  vinyl bromide
      0.375 0.518 0.423 0.452 0.447 0.406 0.466 0.441 0.451        0.442    9.02
15)  trichlorofluoromethane
                 0.619 0.658 0.642 0.614 0.611 0.558 0.634        0.619    5.14
16)  1,3-butadiene
      0.589 0.657 0.608 0.648 0.660 0.553 0.648 0.567 0.642        0.619    6.61
17)  Pentane
                                                                  0.000#  -1.00
18)  freon 123a
                                                                  0.000#  -1.00
19)  ethyl ether
      0.224 0.230 0.254 0.258 0.250 0.238 0.264 0.209 0.258        0.243    7.69
20)  2-chloropropane
      0.190       0.164 0.180 0.184 0.151 0.199 0.199 0.207        0.184   10.22
21)  acrolein
      0.097 0.097 0.101 0.103 0.106 0.095 0.106 0.096 0.102 0.099  0.100    4.03
22)  1,1-dichloroethene
      0.401       0.440 0.441 0.447 0.392 0.444 0.395 0.455        0.427    6.13
23)  acetone
```

```
                    0.045 0.045 0.063 0.040             0.066        0.052   22.96
            ----- Linear regression -----  Coefficient =  0.9948
              Response Ratio = 0.00669 + 0.03954 *A

24)  allyl chloride
                    0.295 0.296 0.322 0.276 0.308 0.266 0.318        0.297    6.95
25)  acetonitrile
                    0.025 0.029 0.031 0.025 0.031 0.031 0.035        0.030   12.34
26)  iodomethane
      0.749         0.879 0.887 0.854 0.819 0.844 0.722 0.885        0.830    7.59
27)  carbon disulfide
      1.147         1.418 1.419 1.386 1.274 1.343 1.162 1.422        1.321    8.67
28)  methylene chloride
      0.447         0.488 0.497 0.479 0.451 0.480 0.424 0.499        0.470    5.68
29)  methyl acetate
                    0.068 0.071 0.071 0.069 0.064       0.065        0.068    4.47
30)  1-chloropropane
                                                                     0.000#  -1.00
31)  methyl tert butyl ether
      1.288 1.452 1.241 1.265 1.303 1.105 1.337 1.229 1.322         1.282    7.31
32)  trans-1,2-dichloroethene
      0.403         0.428 0.441 0.440 0.393 0.449 0.385 0.461        0.425    6.54
33)  di-isopropyl ether
      1.774 2.099 1.563 1.713 1.733 1.560 1.821 1.776 1.770         1.757    9.03
34)  2-butanone
                    0.059 0.056 0.070 0.055 0.057 0.052 0.061        0.058    9.90
35)  1,1-dichloroethane
      0.827 1.053 0.861 0.897 0.895 0.794 0.930 0.800 0.944         0.889    9.18
36)  chloroprene
      0.649 0.819 0.667 0.717 0.720 0.658 0.710 0.682 0.724         0.705    7.29
37)  acrylonitrile
      0.190 0.200 0.182 0.182 0.186 0.170 0.189 0.176 0.186         0.185    4.70
38)  vinyl acetate
                    0.084 0.087 0.086 0.085 0.082       0.079        0.084    3.58
39)  ethyl tert-butyl ether
      1.497 1.568 1.376 1.458 1.461 1.363 1.561 1.461 1.480         1.469    4.76
40)  ethyl acetate
                    0.070 0.071 0.075 0.069 0.080 0.074 0.074        0.073    5.23
41)  2,2-dichloropropane
      0.402         0.375 0.428 0.442 0.341 0.451 0.452 0.465        0.420   10.31
42)  cis-1,2-dichloroethene
      0.475 0.604 0.499 0.515 0.499 0.467 0.513 0.439 0.520         0.503    9.12
43)  methylacrylate
                    0.074 0.074 0.075 0.070 0.072       0.071        0.073    2.82
44)  propionitrile
      0.076 0.074 0.069 0.069 0.074 0.065 0.077 0.074 0.074         0.073    5.45
45)  bromochloromethane
      0.225 0.235 0.262 0.266 0.257 0.250 0.256 0.242 0.266         0.251    5.72
46)  tetrahydrofuran
                    0.156 0.154 0.166 0.144 0.182 0.173 0.170        0.164    7.89
47)  chloroform
      0.521         0.527 0.546 0.542 0.494 0.570 0.519 0.564        0.535    4.70
48)  T-BUTYL FORMATE
      0.348 0.283 0.322 0.366 0.340 0.359 0.383 0.351 0.384         0.349    9.03
49)  dibromofluoromethane (s)
      0.401 0.412 0.409 0.411 0.410 0.414 0.410 0.407 0.410 0.403   0.409    1.00
50)  1,2-dichloroethane-d4 (s)
      0.461 0.466 0.436 0.440 0.453 0.434 0.462 0.461 0.452 0.458   0.452    2.55
51)  freon 113
                    0.331 0.352 0.357 0.326 0.347 0.291 0.357        0.337    7.06
```

Initial Calibration Summary

Job Number: FA39345 **Sample:** V4B2759-ICC2759
Account: ALSE SGS Accutest Southeast **Lab FileID:** 4B67083.D
Project: AMANYWP: BMSMC, Building 5 Area, Humacao, PR

```
52)  methacrylonitrile
      0.383       0.324 0.319 0.334 0.307 0.364 0.354 0.338        0.340    7.49
53)  1,1,1-trichloroethane
      0.507       0.630 0.648 0.621 0.593 0.624 0.546 0.660        0.604    8.75
54)  cyclohexane
      0.623 0.663 0.641 0.673 0.689 0.617 0.688 0.634 0.677        0.656    4.24
55)  iso-butyl alcohol
                                                                   0.000#  -1.00

56) I   1,4-difluorobenzene   ----------------ISTD---------------------
57)  epichlorohydrin
      0.041       0.037 0.038 0.040 0.038 0.044 0.043 0.041        0.040    6.24
58)  n-butyl alcohol
                  0.011 0.011 0.013 0.011 0.017 0.011 0.015        0.013   18.42
59)  carbon tetrachloride
      0.258 0.357 0.405 0.405 0.386 0.380 0.365 0.298 0.400        0.362   14.23
60)  1,1-dichloropropene
      0.390       0.473 0.487 0.487 0.433 0.498 0.429 0.510        0.464    8.94
61)  hexane
      0.382 0.404 0.436 0.472 0.494 0.433 0.482 0.417 0.485        0.445    8.95
62)  Tert Amyl alcohol
                                                                   0.000#  -1.00
63)  benzene
      1.333 1.870 1.346 1.387 1.373 1.249 1.405 1.258 1.439 1.591  1.425   12.90
64)  iso-octane
      1.127 1.389 1.170 1.278 1.287 1.178 1.278 1.145 1.298        1.239    7.06
65)  tert-amyl methyl ether
      0.238 0.210 0.212 0.226 0.226 0.213 0.239 0.216 0.227        0.223    4.95
66)  heptane
      0.256 0.269 0.267 0.288 0.291 0.265 0.287 0.254 0.294        0.275    5.69
67)  isopropyl acetate
                  0.139 0.143 0.138 0.136 0.142 0.135 0.139        0.139    2.00
68)  1,2-dichloroethane
      0.471 0.476 0.450 0.468 0.463 0.417 0.494 0.460 0.488        0.465    4.88
69)  trichloroethene
      0.360 0.461 0.367 0.379 0.378 0.334 0.397 0.372 0.398        0.383    9.18
70)  Tert-amyl Ethyl Ether
                                                                   0.000#  -1.00
71)  ethyl acrylate
      0.472       0.471 0.461 0.467 0.436 0.480 0.454 0.465        0.463    2.88
72)  2-nitropropane
      0.149       0.144 0.146 0.146 0.137 0.140 0.152 0.142        0.145    3.39
73)  2-chloroethyl vinyl ether
      0.252 0.246 0.234 0.250 0.256 0.230 0.267 0.248 0.257 0.265  0.251    4.72
74)  methyl methacrylate
                  0.103 0.100 0.101 0.098 0.096 0.088 0.095        0.097    4.88
75)  1,2-dichloropropane
      0.359 0.444 0.377 0.394 0.395 0.348 0.404 0.372 0.417 0.429  0.394    7.79
76)  dibromomethane
      0.223 0.232 0.228 0.229 0.226 0.215 0.233 0.205 0.230        0.224    4.02
77)  methylcyclohexane
      0.437       0.500 0.538 0.539 0.497 0.534 0.452 0.549        0.506    8.40
78)  bromodichloromethane
      0.397 0.501 0.486 0.485 0.462 0.462 0.443 0.394 0.467        0.455    8.29
79)  cis-1,3-dichloropropene
      0.574 0.688 0.650 0.661 0.635 0.614 0.620 0.571 0.661 0.679  0.635    6.38
80)  toluene-d8 (s)
      1.172 1.172 1.182 1.180 1.173 1.179 1.179 1.167 1.173 1.193  1.177    0.63
81)  4-methyl-2-pentanone
      0.160       0.152 0.150 0.159 0.140 0.158 0.147 0.157        0.153    4.54
```

```
 82)  toluene
       0.814       0.895 0.910 0.885 0.838 0.936 0.808 0.927        0.877    5.72
 83)  3-methyl-1-butanol
       0.019 0.019 0.016 0.017 0.019 0.016 0.020 0.018 0.019        0.018    8.48
 84)  trans-1,3-dichloropropene
       0.500 0.566 0.565 0.567 0.553 0.532 0.564 0.496 0.560        0.545    5.22
 85)  ethyl methacrylate
       0.487 0.545 0.508 0.499 0.497 0.473 0.504 0.464 0.506        0.498    4.67
 86)  1,1,2-trichloroethane
       0.292 0.320 0.291 0.291 0.288 0.276 0.293 0.270 0.287        0.290    4.77
 87)  2-hexanone
       0.154       0.148 0.143 0.165 0.137 0.171 0.141 0.163        0.153    8.21

 88) I   chlorobenzene-d5      ----------------ISTD---------------------
 89)  tetrachloroethene
       0.423 0.534 0.412 0.428 0.438 0.378 0.455 0.417 0.466 0.405  0.436    9.82
 90)  1,3-dichloropropane
       0.598 0.656 0.586 0.596 0.587 0.554 0.611 0.583 0.608        0.598    4.58
 91)  butyl acetate
       0.262 0.275 0.270 0.272 0.277 0.273 0.298 0.278 0.278        0.276    3.57
 92)  3,3-DIMETHYL-1-BUTANOL
       0.040 0.041 0.037 0.039 0.045 0.039 0.047 0.040 0.044        0.041    7.62
 93)  dibromochloromethane
       0.287 0.327 0.448 0.432 0.387 0.442 0.347 0.301 0.385        0.373   16.37
 94)  1,2-dibromoethane
       0.378 0.395 0.403 0.394 0.387 0.392 0.391 0.363 0.389        0.388    2.96
 95)  n-butyl ether
       1.774       2.022 2.026 1.954 1.881 1.982 1.790 2.017        1.930    5.36
 96)  chlorobenzene
       1.041       1.113 1.121 1.080 1.055 1.135 1.014 1.130        1.086    4.22
 97)  1,1,1,2-tetrachloroethane
       0.300       0.405 0.401 0.376 0.388 0.363 0.326 0.381        0.368   10.05
 98)  ethylbenzene
       1.701       1.839 1.857 1.831 1.705 1.893 1.675 1.924        1.803    5.31
 99)  m,p-xylene
       0.645 0.905 0.745 0.742 0.724 0.704 0.761 0.672 0.755 0.796  0.745    9.61
100)  o-xylene
       0.659       0.773 0.766 0.740 0.729 0.766 0.661 0.771        0.733    6.51
101)  styrene
       1.163 1.472 1.290 1.298 1.267 1.215 1.274 1.171 1.324 1.442  1.292    7.91
102)  bromoform
       0.185       0.354 0.320 0.273       0.222 0.187 0.261        0.257   25.02
          ----- Quadratic regression -----                Coefficient =  0.9993
               Response Ratio = -0.00259 + 0.26835 *A + 0.04438 *A^2


103) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
104)  isopropylbenzene
       2.935       3.199 3.249 3.267 2.958 3.376 2.995 3.408        3.173    5.91
105)  4-bromofluorobenzene (s)
       0.831 0.839 0.825 0.815 0.821 0.817 0.836 0.827 0.828 0.847  0.829    1.20
106)  cyclohexanone
       0.139       0.089 0.090 0.134       0.138 0.120 0.131        0.120   18.11
107)  bromobenzene
       0.908 1.141 0.918 0.926 0.926 0.863 0.935 0.882 0.961 1.067  0.953    9.02
108)  1,1,2,2-tetrachloroethane
       0.912 1.007 0.871 0.856 0.864 0.816 0.885 0.866 0.885        0.885    5.96
109)  trans-1,4-dichloro-2-butene
       0.184       0.220 0.209 0.204 0.206 0.195 0.167 0.194        0.197    8.38
110)  1,2,3-trichloropropane
```

Initial Calibration Summary

Job Number: FA39345 **Sample:** V4B2759-ICC2759
Account: ALSE SGS Accutest Southeast **Lab FileID:** 4B67083.D
Project: AMANYWP: BMSMC, Building 5 Area, Humacao, PR

```
       0.228 0.249 0.219 0.211 0.216 0.206 0.229 0.200 0.221        0.220    6.66
111)  n-propylbenzene
       3.575       3.744 3.823 3.856 3.429 4.034 3.683 4.034        3.772    5.59
112)  4-ETHYLTOLUENE
                                                                    0.000#  -1.00
113)  2-chlorotoluene
       0.730 0.986 0.824 0.828 0.814 0.768 0.846 0.763 0.852 0.971  0.838    9.97
114)  4-chlorotoluene
       2.304       2.332 2.350 2.360 2.182 2.441 2.270 2.497        2.342    4.17
115)  1,3,5-trimethylbenzene
       2.547       2.674 2.740 2.764 2.442 2.921 2.649 2.919        2.707    6.17
116)  tert-butylbenzene
       2.231       2.469 2.521 2.475 2.265 2.492 2.292 2.586        2.416    5.52
117)  pentachloroethane
                   0.578 0.559 0.521 0.557 0.495 0.419 0.530        0.523   10.19
118)  1,2,4-trimethylbenzene
       2.678       2.748 2.859 2.851 2.501 3.274 2.701 3.009        2.828    8.30
119)  sec-butylbenzene
       3.448       3.686 3.793 3.742 3.331 3.748 3.489 3.888        3.641    5.34
120)  1,3-dichlorobenzene
       1.746       1.726 1.779 1.771 1.601 1.822 1.723 1.885        1.757    4.70
121)  p-isopropyltoluene
       2.894       3.217 3.381 3.286 2.902 3.276 3.044 3.465        3.183    6.72
122)  1,4-dichlorobenzene
       1.679       1.733 1.766 1.742 1.631 1.793 1.696 1.814        1.732    3.52
123)  benzyl chloride
       1.753 1.692 1.791 1.837 1.832 1.772 1.852 1.683 1.783 2.032  1.803    5.46
124)  1,2-dichlorobenzene
       1.658 2.136 1.679 1.732 1.713 1.545 1.766 1.660 1.794 1.840  1.752    9.02
125)  1,4-DIETHYLBENZENE
                                                                    0.000#  -1.00
126)  n-butylbenzene
       1.419       1.668 1.760 1.704 1.488 1.663 1.490 1.760        1.619    8.26
127)  1,2,4,5-TETRAMETHYLBENZENE
                                                                    0.000#  -1.00
128)  1,2-dibromo-3-chloropropane
       0.127 0.123 0.162 0.159 0.158 0.151 0.151 0.122 0.152        0.145   11.22
129)  1,3,5-TRICHLOROBENZENE
       1.320 1.827 1.509 1.583 1.528 1.377 1.473 1.372 1.567 1.456  1.501    9.58
130)  1,2,4-trichlorobenzene
       1.080 1.381 1.345 1.395 1.307 1.248 1.239 1.114 1.326 1.201  1.264    8.52
131)  hexachlorobutadiene
       0.671       0.688 0.737 0.727 0.614 0.720 0.642 0.765        0.695    7.35
132)  naphthalene
       2.196 2.370 2.581 2.591 2.549 2.402 2.479 2.159 2.502 2.239  2.407    6.71
133)  1,2,3-trichlorobenzene
       1.050 1.202 1.193 1.220 1.169 1.118 1.136 0.978 1.179 1.044  1.129    7.12
134)  hexachloroethane
                   0.597 0.567 0.465 0.570 0.364 0.327 0.444        0.476   22.26
              ----- Linear regression -----  Coefficient =  0.9976
                Response Ratio = -0.01616 + 0.57847 *A

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

           M4B2759.M         Fri Dec 09 09:40:08 2016   GCMS4B
```

9.7.1

6

Initial Calibration Verification

Job Number: FA39345 **Sample:** V4B2759-ICV2759
Account: ALSE SGS Accutest Southeast **Lab FileID:** 4B67088.D
Project: AMANYWP: BMSMC, Building 5 Area, Humacao, PR

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\4B67088.D Vial: 14
Acq On : 8 Dec 2016 1:13 pm Operator: Hueanht
Sample : icv2759-50 Inst : MS4B
Misc : MS9923,V4B2759,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4B2759.M (RTE Integrator)
Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
Last Update : Fri Dec 09 09:11:35 2016
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	TrueValue	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	500.00	1.000	1.000	0.0	98	0.00	6.82
2	M	tertiary butyl alcohol	250.00	1.270	1.370	-7.9	103	0.00	6.91
3	M	1,4-dioxane	1250.00	0.128	0.126	1.6	93	0.01	10.36
4		Ethanol		----------NA----------					
5	I	pentafluorobenzene	50.00	1.000	1.000	0.0	102	0.00	8.85
6		CHLOROTRIFLUOROETHENE		----------NA----------					
7	M	chlorodifluoromethane	50.00	0.572	0.712	-24.5	120	0.00	3.87
8	M	dichlorodifluoromethane	50.00	0.508	0.503	1.0	96	0.00	3.83
9		Freon 114		----------NA----------					
10	M	chloromethane	50.00	0.252	0.241	4.4	94	0.00	4.17
11	M	vinyl chloride	50.00	0.721	0.703	2.5	94	0.00	4.40
12	M	bromomethane	50.00	0.364	0.364	0.0	95	0.00	4.97
13	M	chloroethane	50.00	0.366	0.355	3.0	96	0.00	5.15
14		vinyl bromide	50.00	0.442	0.413	6.6	93	0.00	5.44
15	M	trichlorofluoromethane	50.00	0.619	0.628	-1.5	98	0.00	5.52
16		1,3-butadiene	50.00	0.619	0.623	-0.6	98	0.00	4.46
17		Pentane		----------NA----------					
18		freon 123a		----------NA----------					
19	M	ethyl ether	50.00	0.243	0.258	-6.2	102	0.00	5.88
20		2-chloropropane	50.00	0.184	0.198	-7.6	113	0.00	6.08
21	M	acrolein	500.00	0.100	0.097	3.0	96	0.00	6.09
22	M	1,1-dichloroethene	50.00	0.427	0.418	2.1	97	-0.01	6.26
		----------TrueValue		CC-RF	Calc.	% Drift	----------		R.T.
23	M	acetone	50.00	0.048	51.925	-3.8	108	0.00	6.27
		----------TrueValue		AvgRF	CCRF	% Dev	----------		R.T.
24	M	allyl chloride	50.00	0.297	0.286	3.7	99	0.00	6.72
25	M	acetonitrile	500.00	0.030	0.028	6.7	98	0.00	6.63
26	M	iodomethane	50.00	0.830	0.837	-0.8	97	-0.03	6.49
27	M	carbon disulfide	50.00	1.321	1.357	-2.7	98	-0.01	6.62
28	M	methylene chloride	50.00	0.470	0.460	2.1	95	0.00	6.88
29	M	methyl acetate	50.00	0.068	0.074	-8.8	107	0.00	6.66
30		1-chloropropane		----------NA----------					
31	M	methyl tert butyl ether	100.00	1.282	1.222	4.7	99	0.00	7.18
32	M	trans-1,2-dichloroethene	50.00	0.425	0.420	1.2	98	0.00	7.22
33	M	di-isopropyl ether	50.00	1.757	1.774	-1.0	106	0.00	7.70
34	M	2-butanone	50.00	0.058	0.057	1.7	104	0.00	8.31
35	M	1,1-dichloroethane	50.00	0.889	0.842	5.3	96	0.00	7.74
36	M	chloroprene	50.00	0.705	0.762	-8.1	109	0.00	7.82
37	M	acrylonitrile	250.00	0.185	0.180	2.7	101	0.00	7.14

Initial Calibration Verification

Job Number: FA39345 **Sample:** V4B2759-ICV2759
Account: ALSE SGS Accutest Southeast **Lab FileID:** 4B67088.D
Project: AMANYWP: BMSMC, Building 5 Area, Humacao, PR

38	M	vinyl acetate	50.00	0.084	0.092	-9.5	108	0.00	7.67
39	M	ethyl tert-butyl ether	50.00	1.469	1.576	-7.3	111	0.00	8.11
40	M	ethyl acetate	50.00	0.073	0.074	-1.4	106	0.00	8.32
41	M	2,2-dichloropropane	50.00	0.420	0.424	-1.0	101	0.00	8.40
42	M	cis-1,2-dichloroethene	50.00	0.503	0.489	2.8	97	0.00	8.37
43		methylacrylate	50.00	0.073	0.071	2.7	99	0.00	8.40
44	M	propionitrile	500.00	0.073	0.067	8.2	100	0.00	8.39
45	M	bromochloromethane	50.00	0.251	0.256	-2.0	98	0.00	8.65
46	M	tetrahydrofuran	50.00	0.164	0.153	6.7	102	0.00	8.67
47	M	chloroform	50.00	0.535	0.531	0.7	99	0.00	8.72
48	M	T-BUTYL FORMATE	50.00	0.349	0.264	24.4	74	0.00	8.75
49	S	dibromofluoromethane (s)	50.00	0.409	0.406	0.7	101	0.00	8.90
50	S	1,2-dichloroethane-d4 (s)	50.00	0.452	0.436	3.5	101	0.00	9.29
51	M	freon 113	50.00	0.337	0.432	-28.2	126	0.00	6.25
52	M	methacrylonitrile	50.00	0.340	0.307	9.7	99	0.00	8.57
53	M	1,1,1-trichloroethane	50.00	0.604	0.637	-5.5	101	0.00	8.96
54	M	cyclohexane	50.00	0.656	0.626	4.6	95	0.00	9.06
55		iso-butyl alcohol		----------NA----------					
56	I	1,4-difluorobenzene	50.00	1.000	1.000	0.0	101	0.00	9.72
57	M	epichlorohydrin	250.00	0.040	0.038	5.0	100	0.00	10.87
58	M	n-butyl alcohol	2500.00	0.013	0.011	15.4	97	0.00	9.75
59	M	carbon tetrachloride	50.00	0.362	0.388	-7.2	97	0.00	9.14
60	M	1,1-dichloropropene	50.00	0.464	0.467	-0.6	97	0.00	9.12
61	M	hexane	50.00	0.445	0.410	7.9	88	0.00	7.52
62		Tert Amyl alcohol		----------NA----------					
63	M	benzene	50.00	1.425	1.333	6.5	97	0.00	9.35
64	m	iso-octane	50.00	1.239	1.476	-19.1	117	0.00	9.44
65	M	tert-amyl methyl ether	50.00	0.223	0.238	-6.7	106	0.00	9.40
66	M	heptane	50.00	0.275	0.317	-15.3	111	0.00	9.56
67	M	isopropyl acetate	50.00	0.139	0.152	-9.4	108	0.00	9.24
68	M	1,2-dichloroethane	50.00	0.465	0.459	1.3	99	0.00	9.38
69	M	trichloroethene	50.00	0.383	0.368	3.9	98	0.00	10.02
70		Tert-amyl Ethyl Ether		----------NA----------					
71		ethyl acrylate	50.00	0.463	0.458	1.1	100	0.00	10.00
72	M	2-nitropropane	50.00	0.145	0.145	0.0	100	0.00	10.76
73	M	2-chloroethyl vinyl ether	250.00	0.251	0.271	-8.0	110	0.00	10.78
74	M	methyl methacrylate	50.00	0.097	0.096	1.0	97	0.00	10.25
75	M	1,2-dichloropropane	50.00	0.394	0.372	5.6	95	0.00	10.31
76	M	dibromomethane	50.00	0.224	0.222	0.9	98	0.00	10.41
77	M	methylcyclohexane	50.00	0.506	0.606	-19.8	114	0.00	10.30
78	M	bromodichloromethane	50.00	0.455	0.452	0.7	94	0.00	10.55
79	M	cis-1,3-dichloropropene	50.00	0.635	0.627	1.3	96	0.00	11.00
80	S	toluene-d8 (s)	50.00	1.177	1.177	0.0	101	0.00	11.32
81	M	4-methyl-2-pentanone	50.00	0.153	0.148	3.3	100	0.00	11.10
82	M	toluene	50.00	0.877	0.863	1.6	96	0.00	11.39
83	M	3-methyl-1-butanol	1000.00	0.018	0.017	5.6	101	0.00	11.09
84	M	trans-1,3-dichloropropene	50.00	0.545	0.553	-1.5	99	0.00	11.59
85	M	ethyl methacrylate	50.00	0.498	0.466	6.4	94	0.00	11.56
86	M	1,1,2-trichloroethane	50.00	0.290	0.281	3.1	97	0.00	11.82
87	M	2-hexanone	50.00	0.153	0.141	7.8	99	0.00	11.98
88	I	chlorobenzene-d5	50.00	1.000	1.000	0.0	101	0.00	12.91
89	M	tetrachloroethene	50.00	0.436	0.415	4.8	98	0.00	11.96
90	M	1,3-dichloropropane	50.00	0.598	0.575	3.8	97	0.00	12.01
91	M	butyl acetate	50.00	0.276	0.292	-5.8	108	0.00	12.06
92	M	3,3-DIMETHYL-1-BUTANOL	500.00	0.041	0.041	0.0	106	0.00	12.16
93	M	dibromochloromethane	50.00	0.373	0.408	-9.4	95	0.00	12.27
94	M	1,2-dibromoethane	50.00	0.388	0.381	1.8	98	0.00	12.44
95		n-butyl ether	50.00	1.930	1.873	3.0	93	0.00	12.89

Initial Calibration Verification

Job Number: FA39345 **Sample:** V4B2759-ICV2759
Account: ALSE SGS Accutest Southeast **Lab FileID:** 4B67088.D
Project: AMANYWP: BMSMC, Building 5 Area, Humacao, PR

96	M	chlorobenzene	50.00	1.086	1.085	0.1	98	0.00	12.94
97	M	1,1,1,2-tetrachloroethane	50.00	0.368	0.375	-1.9	94	0.00	13.01
98	M	ethylbenzene	50.00	1.803	1.771	1.8	96	0.00	13.01
99	M	m,p-xylene	100.00	0.745	0.715	4.0	97	0.00	13.14
100	M	o-xylene	50.00	0.733	0.730	0.4	96	0.00	13.58
101	M	styrene	50.00	1.292	1.243	3.8	97	0.00	13.59

			----------TrueValue	CC-RF	Calc.	% Drift	----------	R.T.
102	M	bromoform	50.00	0.302	48.908	2.2	95	0.00	13.85

			----------TrueValue	AvgRF	CCRF	% Dev	----------	R.T.
103	I	1,4-dichlorobenzene-d4	50.00	1.000	1.000	0.0	101	0.00	15.49
104	M	isopropylbenzene	50.00	3.173	3.107	2.1	96	0.00	13.96
105	S	4-bromofluorobenzene (s)	50.00	0.829	0.810	2.3	100	0.00	14.18
106		cyclohexanone	500.00	0.120	0.099	17.5	111	0.00	14.12
107	M	bromobenzene	50.00	0.953	0.895	6.1	97	0.00	14.39
108	M	1,1,2,2-tetrachloroethane	50.00	0.885	0.816	7.8	96	0.00	14.27
109	M	trans-1,4-dichloro-2-bute	50.00	0.197	0.201	-2.0	97	0.00	14.31
110	M	1,2,3-trichloropropane	50.00	0.220	0.211	4.1	101	0.00	14.37
111	M	n-propylbenzene	50.00	3.772	3.672	2.7	97	0.00	14.42
112		4-ETHYLTOLUENE		----------NA----------					
113	M	2-chlorotoluene	50.00	0.838	0.793	5.4	96	0.00	14.57
114	M	4-chlorotoluene	50.00	2.342	2.278	2.7	98	0.00	14.70
115	M	1,3,5-trimethylbenzene	50.00	2.707	2.644	2.3	97	0.00	14.60
116	M	tert-butylbenzene	50.00	2.416	2.406	0.4	96	0.00	14.97
117	M	pentachloroethane	50.00	0.523	0.545	-4.2	98	0.00	15.05
118	M	1,2,4-trimethylbenzene	50.00	2.828	2.751	2.7	97	0.00	15.03
119	M	sec-butylbenzene	50.00	3.641	3.604	1.0	96	0.00	15.21
120	M	1,3-dichlorobenzene	50.00	1.757	1.702	3.1	96	0.00	15.41
121	M	p-isopropyltoluene	50.00	3.183	3.172	0.3	94	0.00	15.37
122	M	1,4-dichlorobenzene	50.00	1.732	1.710	1.3	97	0.00	15.52
123		benzyl chloride	50.00	1.803	1.711	5.1	94	0.00	15.62
124	M	1,2-dichlorobenzene	50.00	1.752	1.677	4.3	98	0.00	15.93
125		1,4-DIETHYLBENZENE		----------NA----------					
126	M	n-butylbenzene	50.00	1.619	1.642	-1.4	94	0.00	15.82
127		1,2,4,5-TETRAMETHYLBENZEN		----------NA----------					
128	M	1,2-dibromo-3-chloropropa	50.00	0.145	0.152	-4.8	96	0.00	16.78
129		1,3,5-TRICHLOROBENZENE	50.00	1.501	1.548	-3.1	98	0.00	16.98
130	M	1,2,4-trichlorobenzene	50.00	1.264	1.332	-5.4	96	0.00	17.66
131	M	hexachlorobutadiene	50.00	0.695	0.670	3.6	92	0.00	17.78
132	M	naphthalene	50.00	2.407	2.455	-2.0	95	0.00	17.98
133	M	1,2,3-trichlorobenzene	50.00	1.129	1.164	-3.1	96	0.00	18.22

			----------TrueValue	CC-RF	Calc.	% Drift	----------	R.T.
134	m	hexachloroethane	50.00	0.531	47.313	5.4	94	0.00	16.26

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4B67083.D M4B2759.M Fri Dec 09 09:40:39 2016 GCMS4B

9.7.2

9

Continuing Calibration Summary

Job Number: FA39345 **Sample:** V4B2772-CC2759
Account: ALSE SGS Accutest Southeast **Lab FileID:** 4B67390.D
Project: AMANYWP: BMSMC, Building 5 Area, Humacao, PR

Evaluate Continuing Calibration Report

```
Data File : C:\MSDCHEM\1\DATA\4B67390.D                    Vial: 4
Acq On    : 16 Dec 2016  10:34 am                     Operator: Hueanht
Sample    : cc2759-20                                 Inst    : MS4B
Misc      : MS10318,V4B2772,W,,,,1                    Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\M4B2759.M (RTE Integrator)
Title        : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
Last Update  : Fri Dec 09 09:11:35 2016
Response via : Multiple Level Calibration

Min. RRF     :   0.010  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	TrueValue	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	500.00	1.000	1.000	0.0	92	0.00	6.81
2	M	tertiary butyl alcohol	100.00	1.270	1.311	-3.2	94	0.00	6.91
3	M	1,4-dioxane	500.00	0.128	0.130	-1.6	94	0.00	10.34
4		Ethanol		----------NA----------					
5	I	pentafluorobenzene	50.00	1.000	1.000	0.0	102	0.00	8.84
6		CHLOROTRIFLUOROETHENE		----------NA----------					
7	M	chlorodifluoromethane	20.00	0.572	0.172	69.9#	30#	0.00	3.87
8	M	dichlorodifluoromethane	20.00	0.508	0.555	-9.3	106	0.00	3.83
9		Freon 114		----------NA----------					
10	M	chloromethane	20.00	0.252	0.274	-8.7	105	0.01	4.18
11	M	vinyl chloride	20.00	0.721	0.763	-5.8	103	-0.01	4.39
12	M	bromomethane	20.00	0.364	0.401	-10.2	109	0.01	4.98
13	M	chloroethane	20.00	0.366	0.384	-4.9	103	0.01	5.16
14		vinyl bromide	20.00	0.442	0.464	-5.0	106	0.00	5.44
15	M	trichlorofluoromethane	20.00	0.619	0.758	-22.5#	120	0.00	5.53
16		1,3-butadiene	20.00	0.619	0.650	-5.0	100	0.01	4.47
17		Pentane		----------NA----------					
18		freon 123a		----------NA----------					
19	M	ethyl ether	20.00	0.243	0.255	-4.9	103	0.00	5.88
20		2-chloropropane	20.00	0.184	0.194	-5.4	107	0.00	6.08
21	M	acrolein	200.00	0.100	0.093	7.0	90	0.00	6.09
22	M	1,1-dichloroethene	20.00	0.427	0.423	0.9	96	0.00	6.26

		----------TrueValue	CC-RF	Calc.	% Drift	----------	R.T.
23	M	acetone	20.00	0.053	18.263	8.7	85	0.00	6.26

		----------TrueValue	AvgRF	CCRF	% Dev	----------	R.T.
24	M	allyl chloride	20.00	0.297	0.266	10.4	84	0.00	6.72
25	M	acetonitrile	200.00	0.030	0.030	0.0	99	0.00	6.63
26	M	iodomethane	20.00	0.830	0.825	0.6	98	-0.03	6.49
27	M	carbon disulfide	20.00	1.321	1.136	14.0	83	-0.01	6.62
28	M	methylene chloride	20.00	0.470	0.473	-0.6	101	0.00	6.87
29	M	methyl acetate	20.00	0.068	0.067	1.5	95	-0.01	6.65
30		1-chloropropane		----------NA----------					
31	M	methyl tert butyl ether	20.00	1.282	1.386	-8.1	108	0.00	7.18
32	M	trans-1,2-dichloroethene	20.00	0.425	0.433	-1.9	100	0.00	7.22
33	M	di-isopropyl ether	20.00	1.757	1.784	-1.5	105	0.00	7.70
34	M	2-butanone	20.00	0.058	0.064	-10.3	94	0.00	8.31
35	M	1,1-dichloroethane	20.00	0.889	0.928	-4.4	105	0.00	7.74
36	M	chloroprene	20.00	0.705	0.695	1.4	98	0.00	7.82
37	M	acrylonitrile	100.00	0.185	0.177	4.3	96	0.00	7.13

Continuing Calibration Summary

Job Number: FA39345 **Sample:** V4B2772-CC2759
Account: ALSE SGS Accutest Southeast **Lab FileID:** 4B67390.D
Project: AMANYWP: BMSMC, Building 5 Area, Humacao, PR

38	M	vinyl acetate	20.00	0.084	0.078	7.1	93	0.00	7.66
39	M	ethyl tert-butyl ether	20.00	1.469	1.561	-6.3	109	0.00	8.11
40	M	ethyl acetate	20.00	0.073	0.082	-12.3	111	0.00	8.32
41	M	2,2-dichloropropane	20.00	0.420	0.471	-12.1	108	0.00	8.40
42	M	cis-1,2-dichloroethene	20.00	0.503	0.513	-2.0	104	0.00	8.37
43		methylacrylate	20.00	0.073	0.073	0.0	100	0.00	8.40
44	M	propionitrile	200.00	0.073	0.071	2.7	97	0.00	8.39
45	M	bromochloromethane	20.00	0.251	0.265	-5.6	105	0.00	8.65
46	M	tetrahydrofuran	20.00	0.164	0.165	-0.6	101	0.00	8.66
47	M	chloroform	20.00	0.535	0.567	-6.0	106	0.00	8.72
48	M	T-BUTYL FORMATE	20.00	0.349	0.421	-20.6#	126	0.00	8.75
49	S	dibromofluoromethane (s)	50.00	0.409	0.425	-3.9	105	0.00	8.90
50	S	1,2-dichloroethane-d4 (s)	50.00	0.452	0.477	-5.5	107	0.00	9.29
51	M	freon 113	20.00	0.337	0.318	5.6	91	0.01	6.26
52	M	methacrylonitrile	20.00	0.340	0.337	0.9	103	0.00	8.57
53	M	1,1,1-trichloroethane	20.00	0.604	0.655	-8.4	107	0.00	8.96
54	M	cyclohexane	20.00	0.656	0.668	-1.8	99	0.00	9.06
55		iso-butyl alcohol		----------NA----------					
56	I	1,4-difluorobenzene	50.00	1.000	1.000	0.0	102	0.00	9.72
57	M	epichlorohydrin	100.00	0.040	0.036	10.0	90	0.00	10.87
58	M	n-butyl alcohol	1000.00	0.013	0.012	7.7	94	0.00	9.75
59	M	carbon tetrachloride	20.00	0.362	0.474	-30.9#	125	0.00	9.14
60	M	1,1-dichloropropene	20.00	0.464	0.500	-7.8	104	0.00	9.11
61	M	hexane	20.00	0.445	0.420	5.6	86	0.00	7.52
62		Tert Amyl alcohol		----------NA----------					
63	M	benzene	20.00	1.425	1.389	2.5	103	0.00	9.35
64	m	iso-octane	20.00	1.239	1.252	-1.0	99	0.00	9.44
65	M	tert-amyl methyl ether	20.00	0.223	0.237	-6.3	106	0.00	9.40
66	M	heptane	20.00	0.275	0.298	-8.4	104	0.00	9.56
67	M	isopropyl acetate	20.00	0.139	0.132	5.0	98	0.00	9.24
68	M	1,2-dichloroethane	20.00	0.465	0.501	-7.7	110	0.00	9.37
69	M	trichloroethene	20.00	0.383	0.385	-0.5	104	0.00	10.02
70		Tert-amyl Ethyl Ether		----------NA----------					
71		ethyl acrylate	20.00	0.463	0.447	3.5	97	0.00	9.99
72	M	2-nitropropane	20.00	0.145	0.157	-8.3	110	-0.01	10.75
73	M	2-chloroethyl vinyl ether	100.00	0.251	0.249	0.8	99	0.00	10.78
74	M	methyl methacrylate	20.00	0.097	0.100	-3.1	101	0.00	10.25
75	M	1,2-dichloropropane	20.00	0.394	0.419	-6.3	108	0.00	10.30
76	M	dibromomethane	20.00	0.224	0.236	-5.4	106	0.00	10.41
77	M	methylcyclohexane	20.00	0.506	0.528	-4.3	100	0.00	10.30
78	M	bromodichloromethane	20.00	0.455	0.507	-11.4	112	0.00	10.55
79	M	cis-1,3-dichloropropene	20.00	0.635	0.648	-2.0	104	0.00	11.00
80	S	toluene-d8 (s)	50.00	1.177	1.183	-0.5	103	0.00	11.31
81	M	4-methyl-2-pentanone	20.00	0.153	0.184	-20.3#	118	0.00	11.10
82	M	toluene	20.00	0.877	0.917	-4.6	105	0.00	11.39
83	M	3-methyl-1-butanol	400.00	0.018	0.018	0.0	93	0.00	11.09
84	M	trans-1,3-dichloropropene	20.00	0.545	0.564	-3.5	104	0.00	11.58
85	M	ethyl methacrylate	20.00	0.498	0.485	2.6	99	0.00	11.56
86	M	1,1,2-trichloroethane	20.00	0.290	0.296	-2.1	105	0.00	11.82
87	M	2-hexanone	20.00	0.153	0.168	-9.8	103	0.00	11.98
88	I	chlorobenzene-d5	50.00	1.000	1.000	0.0	102	0.00	12.91
89	M	tetrachloroethene	20.00	0.436	0.416	4.6	96	0.00	11.96
90	M	1,3-dichloropropane	20.00	0.598	0.615	-2.8	106	0.00	12.00
91	M	butyl acetate	20.00	0.276	0.277	-0.4	102	0.00	12.05
92	M	3,3-DIMETHYL-1-BUTANOL	200.00	0.041	0.039	4.9	88	0.00	12.16
93	M	dibromochloromethane	20.00	0.373	0.410	-9.9	108	0.00	12.27
94	M	1,2-dibromoethane	20.00	0.388	0.398	-2.6	105	0.00	12.44
95		n-butyl ether	20.00	1.930	1.852	4.0	96	0.00	12.88

Continuing Calibration Summary

Job Number: FA39345 **Sample:** V4B2772-CC2759
Account: ALSE SGS Accutest Southeast **Lab FileID:** 4B67390.D
Project: AMANYWP: BMSMC, Building 5 Area, Humacao, PR

96	M	chlorobenzene	20.00	1.086	1.106	-1.8	104	0.00	12.94
97	M	1,1,1,2-tetrachloroethane	20.00	0.368	0.411	-11.7	111	0.00	13.01
98	M	ethylbenzene	20.00	1.803	1.889	-4.8	105	0.00	13.00
99	M	m,p-xylene	40.00	0.745	0.728	2.3	102	0.00	13.14
100	M	o-xylene	20.00	0.733	0.744	-1.5	102	0.00	13.57
101	M	styrene	20.00	1.292	1.254	2.9	100	0.00	13.59

		----------TrueValue	CC-RF	Calc.	% Drift	---------- R.T.		
102	M	bromoform	20.00	0.260	18.714	6.4	97	0.00	13.85

		----------TrueValue	AvgRF	CCRF	% Dev	---------- R.T.		
103	I	1,4-dichlorobenzene-d4	50.00	1.000	1.000	0.0	97	0.00	15.49
104	M	isopropylbenzene	20.00	3.173	3.455	-8.9	102	0.00	13.96
105	S	4-bromofluorobenzene (s)	50.00	0.829	0.861	-3.9	102	0.00	14.18
106		cyclohexanone	200.00	0.120	0.058	51.7#	42#	0.00	14.11
107	M	bromobenzene	20.00	0.953	0.976	-2.4	102	0.00	14.39
108	M	1,1,2,2-tetrachloroethane	20.00	0.885	0.909	-2.7	102	0.00	14.27
109	M	trans-1,4-dichloro-2-bute	20.00	0.197	0.132	33.0#	62	0.00	14.31
110	M	1,2,3-trichloropropane	20.00	0.220	0.230	-4.5	103	0.00	14.37
111	M	n-propylbenzene	20.00	3.772	4.068	-7.8	102	0.00	14.42
112		4-ETHYLTOLUENE		----------NA----------					
113	M	2-chlorotoluene	20.00	0.838	0.854	-1.9	102	0.00	14.57
114	M	4-chlorotoluene	20.00	2.342	2.485	-6.1	102	0.00	14.69
115	M	1,3,5-trimethylbenzene	20.00	2.707	2.874	-6.2	101	0.00	14.59
116	M	tert-butylbenzene	20.00	2.416	2.611	-8.1	102	0.00	14.97
117	M	pentachloroethane	20.00	0.523	0.570	-9.0	106	0.00	15.05
118	M	1,2,4-trimethylbenzene	20.00	2.828	2.980	-5.4	101	0.00	15.03
119	M	sec-butylbenzene	20.00	3.641	3.880	-6.6	100	0.00	15.21
120	M	1,3-dichlorobenzene	20.00	1.757	1.829	-4.1	100	0.00	15.41
121	M	p-isopropyltoluene	20.00	3.183	3.428	-7.7	101	0.00	15.36
122	M	1,4-dichlorobenzene	20.00	1.732	1.778	-2.7	99	0.00	15.51
123		benzyl chloride	20.00	1.803	1.889	-4.8	100	0.00	15.62
124	M	1,2-dichlorobenzene	20.00	1.752	1.778	-1.5	101	0.00	15.93
125		1,4-DIETHYLBENZENE		----------NA----------					
126	M	n-butylbenzene	20.00	1.619	1.757	-8.5	100	0.00	15.82
127		1,2,4,5-TETRAMETHYLBENZEN		----------NA----------					
128	M	1,2-dibromo-3-chloropropa	20.00	0.145	0.162	-11.7	99	0.00	16.77
129		1,3,5-TRICHLOROBENZENE	20.00	1.501	1.550	-3.3	98	0.00	16.98
130	M	1,2,4-trichlorobenzene	20.00	1.264	1.322	-4.6	98	0.00	17.66
131	M	hexachlorobutadiene	20.00	0.695	0.770	-10.8	103	0.00	17.78
132	M	naphthalene	20.00	2.407	2.414	-0.3	92	0.00	17.98
133	M	1,2,3-trichlorobenzene	20.00	1.129	1.157	-2.5	96	0.00	18.21

		----------TrueValue	CC-RF	Calc.	% Drift	---------- R.T.		
134	m	hexachloroethane	20.00	0.604	22.269	-11.3	126	0.00	16.26

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4B67082.D M4B2759.M Fri Dec 16 16:31:28 2016 GCMS4B

9.7.3

9

GC/MS Volatiles

Raw Data

(SGS Accutest New Jersey)

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67407.D
Acq On : 16 Dec 2016 6:34 pm
Operator : Hueanht
Sample : fa39345-2
Misc : MS10644,V4B2772,W,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 19 15:24:30 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.81	65	127698	500.00	ug/L	0.00
5) pentafluorobenzene	8.84	168	283880	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	381018	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	361606	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	194632	50.00	ug/L	0.00

System Monitoring Compounds

49) dibromofluoromethane (s)	8.90	113	118282	50.97	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 101.94%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	138128	53.79	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 107.58%			
80) toluene-d8 (s)	11.31	98	447322	49.87	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.74%			
105) 4-bromofluorobenzene (s)	14.18	95	174445	54.08	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 108.16%			

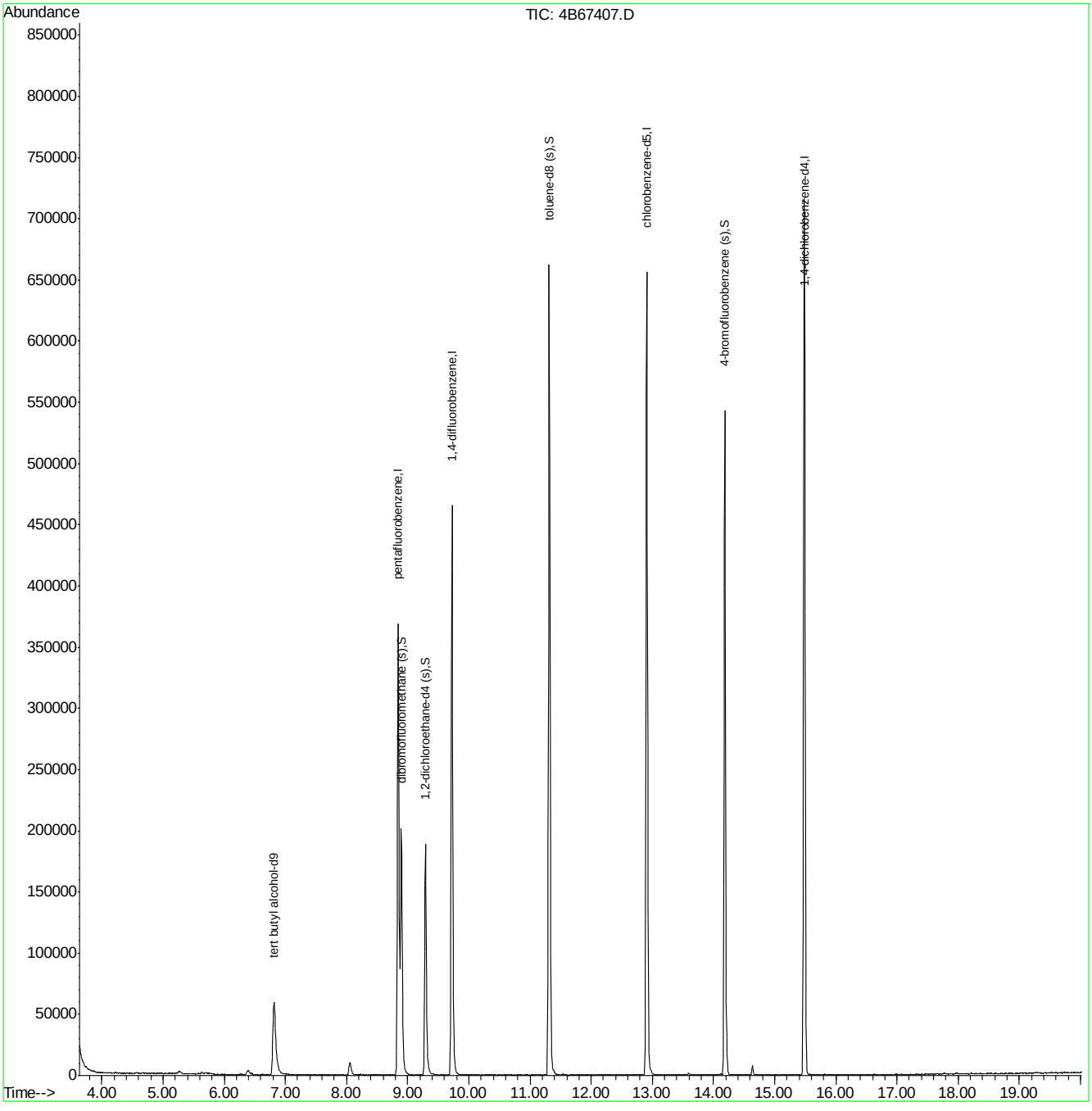
Target Compounds Qvalue

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

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67407.D
Acq On : 16 Dec 2016 6:34 pm
Operator : Hueanht
Sample : fa39345-2
Misc : MS10644,V4B2772,W,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 19 15:24:30 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration



M4B2759.M Mon Dec 19 15:31:43 2016 GCMS4B Page: 2

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67392.D
Acq On : 16 Dec 2016 11:37 am
Operator : Hueanht
Sample : mb
Misc : MS10170,V4B2772,W,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 16 16:32:09 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.81	65	135795	500.00	ug/L	0.00
5) pentafluorobenzene	8.84	168	283697	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	383510	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	362673	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	195934	50.00	ug/L	0.00

System Monitoring Compounds

49) dibromofluoromethane (s)	8.90	113	119159	51.38	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 102.76%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	140143	54.61	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 109.22%			
80) toluene-d8 (s)	11.31	98	450559	49.91	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.82%			
105) 4-bromofluorobenzene (s)	14.18	95	176397	54.32	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 108.64%			

Target Compounds Qvalue

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

10.2.1

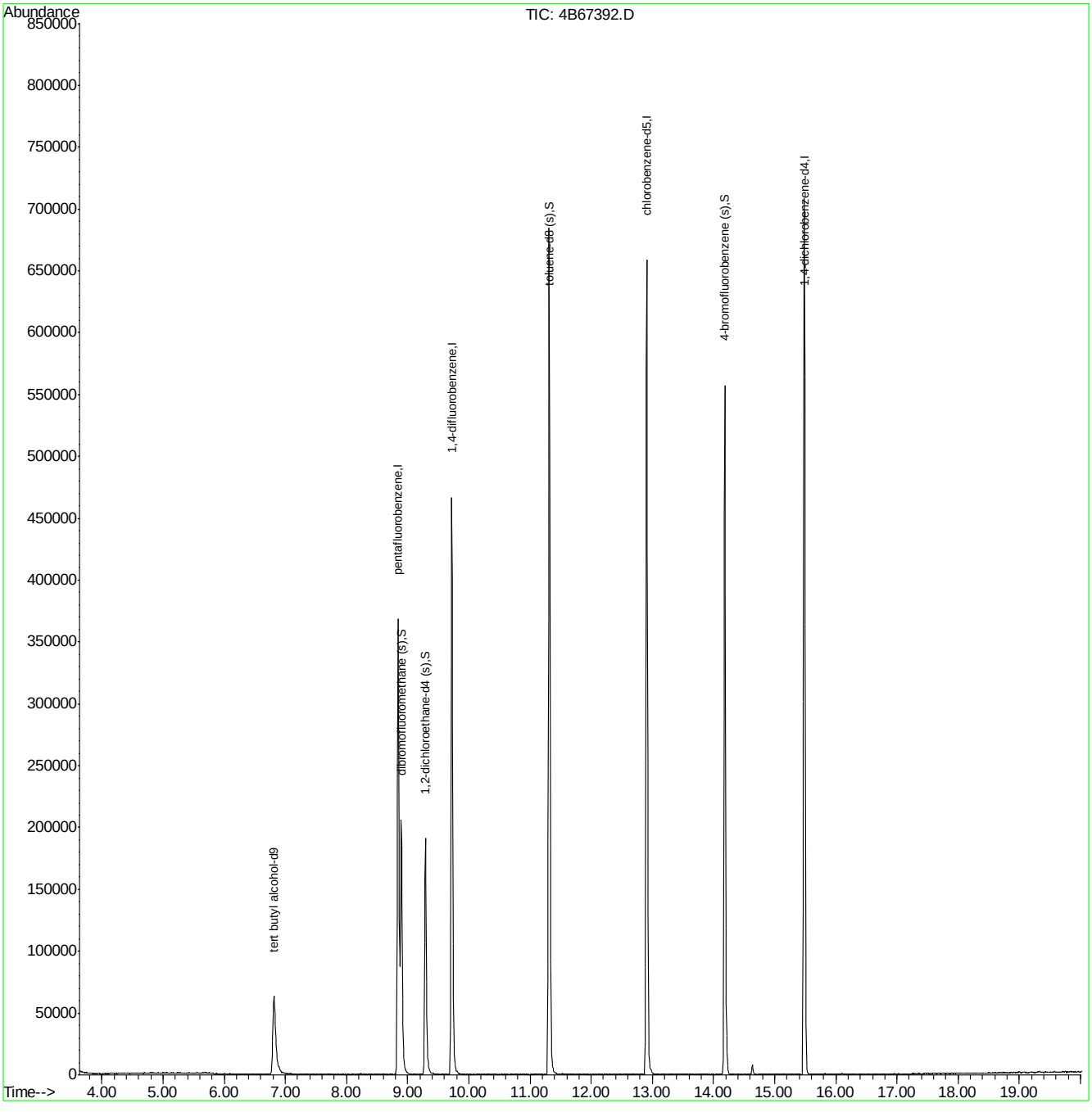
10

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67392.D
Acq On : 16 Dec 2016 11:37 am
Operator : Hueanht
Sample : mb
Misc : MS10170,V4B2772,W,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 16 16:32:09 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration



SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67393.D
Acq On : 16 Dec 2016 12:05 pm
Operator : Hueanht
Sample : bs
Misc : MS10318,V4B2772,W,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 16 12:33:40 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.81	65	113624	500.00	ug/L	0.00
5) pentafluorobenzene	8.84	168	261882	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	359051	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	333398	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	201478	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	111319	52.00	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 104.00%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	125504	52.98	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 105.96%			
80) toluene-d8 (s)	11.31	98	421555	49.88	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.76%			
105) 4-bromofluorobenzene (s)	14.18	95	169961	50.90	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 101.80%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.91	59	78532	272.18	ug/L	97
3) 1,4-dioxane	10.35	88	31644	1089.95	ug/L	95
7) chlorodifluoromethane	3.87	51	175040	58.47	ug/L	99
8) dichlorodifluoromethane	3.83	85	157431	59.16	ug/L	99
10) chloromethane	4.17	52	71263	53.95	ug/L	99
11) vinyl chloride	4.40	62	202548	53.65	ug/L	99
12) bromomethane	4.97	94	101567	53.28	ug/L	96
13) chloroethane	5.15	64	100847	52.64	ug/L	99
14) vinyl bromide	5.44	106	172660	74.58	ug/L	99
15) trichlorofluoromethane	5.53	101	183370	56.52	ug/L	97
16) 1,3-butadiene	4.47	54	166009	51.18	ug/L	99
19) ethyl ether	5.88	74	74063	58.20	ug/L	97
20) 2-chloropropane	6.08	39	56750	58.86	ug/L	97
21) acrolein	6.09	56	241736	460.38	ug/L	96
22) 1,1-dichloroethene	6.26	96	119154	53.28	ug/L	96
23) acetone	6.27	58	11805	48.54	ug/L #	80
24) allyl chloride	6.72	76	82009	52.68	ug/L	91
25) acetonitrile	6.64	40	82403	533.23	ug/L	92
26) iodomethane	6.51	142	247612	56.98	ug/L	95
27) carbon disulfide	6.62	76	391267	56.53	ug/L	97
28) methylene chloride	6.87	84	133258	54.08	ug/L	96
29) methyl acetate	6.66	74	21221	59.64	ug/L	93
31) methyl tert butyl ether	7.18	73	736803	109.69	ug/L	100
32) trans-1,2-dichloroethene	7.22	96	118543	53.26	ug/L	99
33) di-isopropyl ether	7.70	45	485929	52.82	ug/L	98
34) 2-butanone	8.32	72	15952	52.08	ug/L #	56
35) 1,1-dichloroethane	7.74	63	243216	52.24	ug/L	99
36) chloroprene	7.82	53	209570	56.75	ug/L	97
37) acrylonitrile	7.13	53	252894	261.37	ug/L	98
38) vinyl acetate	7.67	86	25283	57.65	ug/L	83
39) ethyl tert-butyl ether	8.11	59	449630	58.43	ug/L	100
40) ethyl acetate	8.32	45	21972	57.18	ug/L	90
41) 2,2-dichloropropane	8.40	77	126361	57.49	ug/L	99

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67393.D
Acq On : 16 Dec 2016 12:05 pm
Operator : Hueanht
Sample : bs
Misc : MS10318,V4B2772,W,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 16 12:33:40 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	8.37	96	138162	52.40 ug/L	96
43) methylacrylate	8.39	85	20664	54.39 ug/L	100
44) propionitrile	8.39	54	191794	504.63 ug/L	96
45) bromochloromethane	8.65	128	71528	54.40 ug/L	96
46) tetrahydrofuran	8.66	42	45237	52.77 ug/L	94
47) chloroform	8.72	85	154042	54.92 ug/L	96
48) T-BUTYL FORMATE	8.75	59	93868	51.42 ug/L	100
51) freon 113	6.26	151	132866	75.24 ug/L	97
52) methacrylonitrile	8.57	41	91183	51.14 ug/L	99
53) 1,1,1-trichloroethane	8.96	97	189496	59.93 ug/L	99
54) cyclohexane	9.06	84	157540	45.84 ug/L	96
57) epichlorohydrin	10.87	57	73177	252.42 ug/L	99
58) n-butyl alcohol	9.75	56	204946	2206.39 ug/L	98
59) carbon tetrachloride	9.14	117	172380	66.39 ug/L	100
60) 1,1-dichloropropene	9.12	75	178661	53.67 ug/L	98
61) hexane	7.52	57	142043	44.45 ug/L	97
63) benzene	9.35	78	504913	49.34 ug/L	99
64) iso-octane	9.44	57	518337	58.27 ug/L	99
65) tert-amyl methyl ether	9.40	87	89681	55.97 ug/L	99
66) heptane	9.56	57	112331	56.95 ug/L	99
67) isopropyl acetate	9.24	61	59119	59.25 ug/L	99
68) 1,2-dichloroethane	9.37	62	182251	54.55 ug/L	98
69) trichloroethene	10.02	95	140775	51.20 ug/L	99
71) ethyl acrylate	9.99	55	181683	54.60 ug/L	99
72) 2-nitropropane	10.76	41	58109	55.96 ug/L #	42
73) 2-chloroethyl vinyl ether	10.78	63	424758	236.11 ug/L	99
74) methyl methacrylate	10.25	100	37744	54.06 ug/L #	85
75) 1,2-dichloropropane	10.30	63	144659	51.15 ug/L	98
76) dibromomethane	10.41	93	87797	54.47 ug/L	97
77) methylcyclohexane	10.30	83	201044	55.36 ug/L	98
78) bromodichloromethane	10.55	83	183671	56.20 ug/L	99
79) cis-1,3-dichloropropene	11.00	75	241519	52.93 ug/L	99
81) 4-methyl-2-pentanone	11.10	58	57787	52.66 ug/L	92
82) toluene	11.39	92	323160	51.33 ug/L	99
83) 3-methyl-1-butanol	11.09	55	126832	968.15 ug/L	97
84) trans-1,3-dichloropropene	11.58	75	214791	54.91 ug/L	97
85) ethyl methacrylate	11.56	69	182137	50.92 ug/L	99
86) 1,1,2-trichloroethane	11.81	83	110271	53.02 ug/L	98
87) 2-hexanone	11.98	58	53794	49.00 ug/L	99
89) tetrachloroethene	11.96	164	139474	48.03 ug/L	98
90) 1,3-dichloropropane	12.00	76	210131	52.72 ug/L	99
91) butyl acetate	12.05	56	107192	58.22 ug/L	99
92) 3,3-DIMETHYL-1-BUTANOL	12.15	57	139375	505.37 ug/L	98
93) dibromochloromethane	12.26	129	149348	60.07 ug/L	100
94) 1,2-dibromoethane	12.44	107	142146	54.94 ug/L	97
95) n-butyl ether	12.88	57	660544	51.32 ug/L	99
96) chlorobenzene	12.94	112	382872	52.87 ug/L	100
97) 1,1,1,2-tetrachloroethane	13.01	131	138757	56.62 ug/L	98
98) ethylbenzene	13.01	91	631287	52.51 ug/L	99
99) m,p-xylene	13.14	106	492218	99.08 ug/L	99

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67393.D
Acq On : 16 Dec 2016 12:05 pm
Operator : Hueanht
Sample : bs
Misc : MS10318,V4B2772,W,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 16 12:33:40 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
100) o-xylene	13.57	106	254055	51.98 ug/L	96
101) styrene	13.59	104	423541	49.18 ug/L	94
102) bromoform	13.85	173	103756	50.15 ug/L	98
104) isopropylbenzene	13.96	105	668705	52.30 ug/L	99
106) cyclohexanone	14.11	55	47839	98.67 ug/L	98
107) bromobenzene	14.39	156	191936	50.00 ug/L	95
108) 1,1,2,2-tetrachloroethane	14.27	83	185215	51.95 ug/L	98
109) trans-1,4-dichloro-2-buten	14.31	53	30088	37.82 ug/L	95
110) 1,2,3-trichloropropane	14.37	110	47103	53.16 ug/L	98
111) n-propylbenzene	14.42	91	784939	51.64 ug/L	100
113) 2-chlorotoluene	14.57	126	170619	50.51 ug/L	96
114) 4-chlorotoluene	14.69	91	489862	51.91 ug/L	97
115) 1,3,5-trimethylbenzene	14.59	105	550486	50.47 ug/L	98
116) tert-butylbenzene	14.97	119	512887	52.67 ug/L	99
117) pentachloroethane	15.05	167	120232	57.08 ug/L	99
118) 1,2,4-trimethylbenzene	15.03	105	583677	51.22 ug/L	99
119) sec-butylbenzene	15.21	105	764183	52.09 ug/L	98
120) 1,3-dichlorobenzene	15.41	146	360459	50.93 ug/L	98
121) p-isopropyltoluene	15.36	119	677069	52.79 ug/L	99
122) 1,4-dichlorobenzene	15.51	146	358062	51.31 ug/L	98
123) benzyl chloride	15.62	91	332943	45.84 ug/L	99
124) 1,2-dichlorobenzene	15.93	146	357590	50.64 ug/L	99
126) n-butylbenzene	15.82	92	348538	53.42 ug/L	99
128) 1,2-dibromo-3-chloropropan	16.78	75	35225	60.26 ug/L	96
129) 1,3,5-TRICHLOROBENZENE	16.97	180	332723	55.01 ug/L	100
130) 1,2,4-trichlorobenzene	17.66	180	281641	55.31 ug/L	98
131) hexachlorobutadiene	17.77	225	144258	51.48 ug/L	98
132) naphthalene	17.98	128	508440	52.43 ug/L	99
133) 1,2,3-trichlorobenzene	18.21	180	239696	52.69 ug/L	99
134) hexachloroethane	16.26	201	128323	56.45 ug/L	98

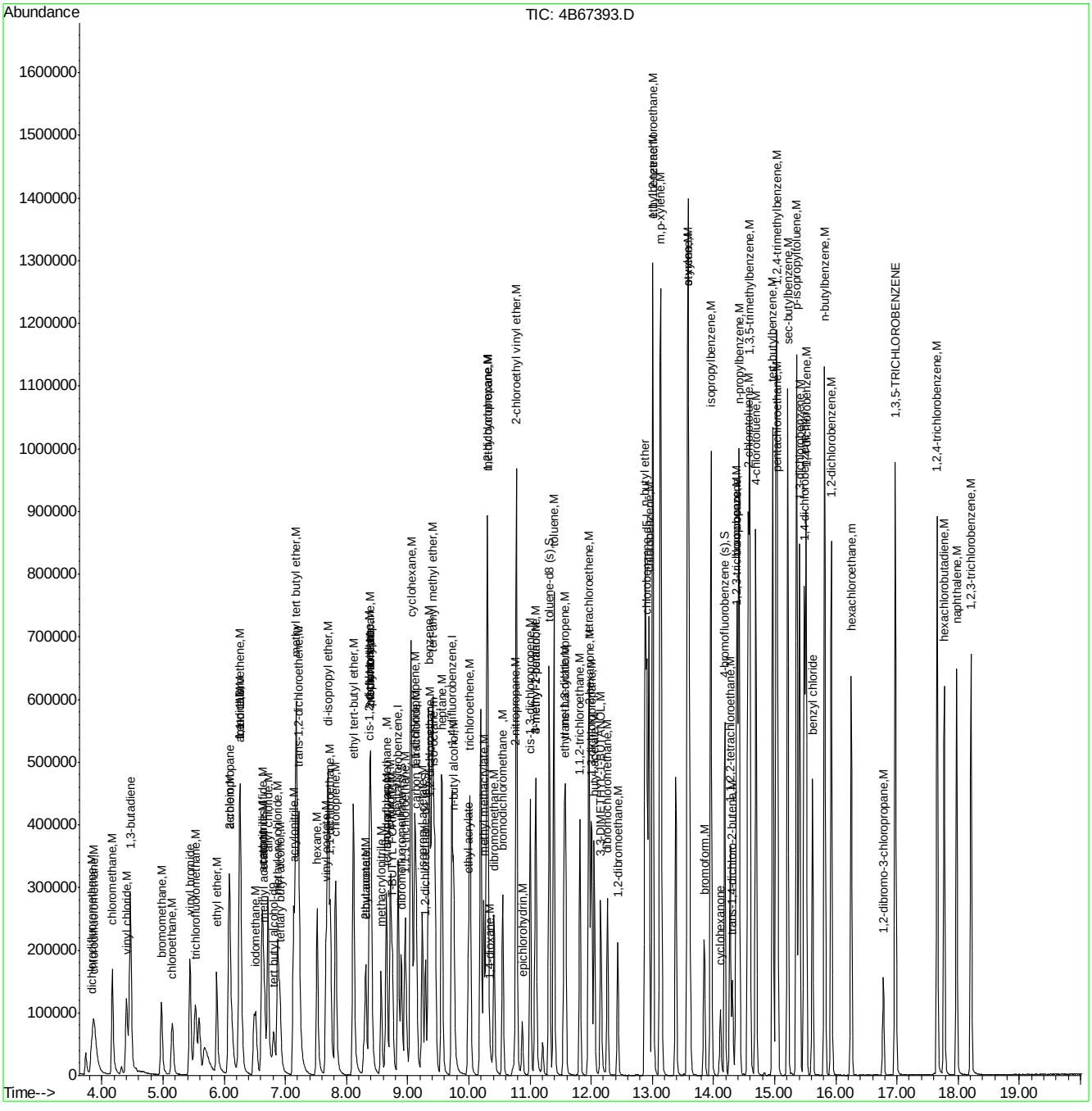
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67393.D
Acq On : 16 Dec 2016 12:05 pm
Operator : Hueanht
Sample : bs
Misc : MS10318,V4B2772,W,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 16 12:33:40 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration



SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 4B67404.D
Acq On : 16 Dec 2016 5:10 pm
Operator : Hueanht
Sample : jc33175-1ms
Misc : MS10644,V4B2772,W,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 19 15:23:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.80	65	116899	500.00	ug/L	0.00
5) pentafluorobenzene	8.84	168	264827	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	364296	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	341034	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	204253	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	113988	52.65	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.30%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	125338	52.32	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 104.64%			
80) toluene-d8 (s)	11.31	98	431315	50.30	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.60%			
105) 4-bromofluorobenzene (s)	14.18	95	172559	50.98	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 101.96%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.91	59	80654	271.70	ug/L	98
3) 1,4-dioxane	10.35	88	32836	1099.32	ug/L	96
7) chlorodifluoromethane	3.87	51	155561	51.39	ug/L	98
8) dichlorodifluoromethane	3.83	85	165666	61.56	ug/L	99
10) chloromethane	4.17	52	74038	55.43	ug/L	94
11) vinyl chloride	4.40	62	208768	54.69	ug/L	100
12) bromomethane	4.97	94	103848	53.87	ug/L	98
13) chloroethane	5.15	64	103379	53.36	ug/L	97
14) vinyl bromide	5.44	106	175123	74.80	ug/L	99
15) trichlorofluoromethane	5.53	101	179098	54.58	ug/L	100
16) 1,3-butadiene	4.47	54	181565	55.36	ug/L	99
19) ethyl ether	5.88	74	72792	56.56	ug/L	97
20) 2-chloropropane	6.08	39	59787	61.33	ug/L	92
21) acrolein	6.09	56	285533	537.74	ug/L	99
22) 1,1-dichloroethene	6.27	96	123393	54.57	ug/L	94
23) acetone	6.26	58	11394	45.94	ug/L #	80
24) allyl chloride	6.72	76	83171	52.83	ug/L	96
25) acetonitrile	6.63	40	78333	501.26	ug/L	96
26) iodomethane	6.51	142	253237	57.63	ug/L	97
27) carbon disulfide	6.62	76	406452	58.07	ug/L	99
28) methylene chloride	6.88	84	135989	54.57	ug/L	99
29) methyl acetate	6.66	74	19945	55.43	ug/L	97
31) methyl tert butyl ether	7.18	73	715811	105.38	ug/L	99
32) trans-1,2-dichloroethene	7.22	96	123506	54.87	ug/L	98
33) di-isopropyl ether	7.70	45	460596	49.51	ug/L	99
34) 2-butanone	8.32	72	15440	49.84	ug/L #	62
35) 1,1-dichloroethane	7.74	63	250362	53.18	ug/L	100
36) chloroprene	7.82	53	194191	52.00	ug/L	97
37) acrylonitrile	7.13	53	248041	253.51	ug/L	97
38) vinyl acetate	7.67	86	24469	55.17	ug/L	86
39) ethyl tert-butyl ether	8.11	59	423660	54.44	ug/L	100
40) ethyl acetate	8.32	45	21235	54.65	ug/L	96
41) 2,2-dichloropropane	8.40	77	129489	58.26	ug/L	98

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 4B67404.D
Acq On : 16 Dec 2016 5:10 pm
Operator : Hueanht
Sample : jc33175-1ms
Misc : MS10644,V4B2772,W,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 19 15:23:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) cis-1,2-dichloroethene	8.37	96	140408	52.66	ug/L		94
43) methylacrylate	8.39	85	20115	52.36	ug/L		96
44) propionitrile	8.39	54	190925	496.76	ug/L		94
45) bromochloromethane	8.65	128	71694	53.92	ug/L		99
46) tetrahydrofuran	8.67	42	45546	52.54	ug/L		98
47) chloroform	8.72	85	154783	54.58	ug/L		99
48) T-BUTYL FORMATE	8.75	59	48909	26.49	ug/L		97
51) freon 113	6.26	151	119654	67.00	ug/L		98
52) methacrylonitrile	8.57	41	88142	48.88	ug/L		98
53) 1,1,1-trichloroethane	8.96	97	193692	60.57	ug/L		98
54) cyclohexane	9.06	84	174680	50.27	ug/L	#	75
57) epichlorohydrin	10.87	57	67518	229.55	ug/L		100
58) n-butyl alcohol	9.75	56	206351	2189.53	ug/L		98
59) carbon tetrachloride	9.14	117	177456	67.36	ug/L		97
60) 1,1-dichloropropene	9.11	75	183425	54.31	ug/L		98
61) hexane	7.52	57	101062	31.17	ug/L		98
63) benzene	9.35	78	515559	49.66	ug/L		100
64) iso-octane	9.44	57	507436	56.22	ug/L		99
65) tert-amyl methyl ether	9.40	87	83231	51.20	ug/L		98
66) heptane	9.56	57	107410	53.68	ug/L		97
67) isopropyl acetate	9.24	61	56966	56.27	ug/L		99
68) 1,2-dichloroethane	9.38	62	183925	54.26	ug/L		98
69) trichloroethene	10.02	95	144552	51.82	ug/L		95
71) ethyl acrylate	9.99	55	179537	53.17	ug/L		100
72) 2-nitropropane	10.75	41	39539	37.53	ug/L	#	1
74) methyl methacrylate	10.25	100	36075	50.93	ug/L	#	90
75) 1,2-dichloropropane	10.30	63	145075	50.56	ug/L		98
76) dibromomethane	10.41	93	87491	53.50	ug/L		98
77) methylcyclohexane	10.30	83	187718	50.95	ug/L		100
78) bromodichloromethane	10.55	83	184464	55.63	ug/L		99
79) cis-1,3-dichloropropene	11.00	75	243910	52.69	ug/L		99
81) 4-methyl-2-pentanone	11.10	58	58875	52.87	ug/L		92
82) toluene	11.39	92	332595	52.06	ug/L		98
83) 3-methyl-1-butanol	11.09	55	131499	989.32	ug/L		98
84) trans-1,3-dichloropropene	11.58	75	210072	52.93	ug/L		96
85) ethyl methacrylate	11.56	69	182867	50.39	ug/L		99
86) 1,1,2-trichloroethane	11.82	83	109481	51.88	ug/L		98
87) 2-hexanone	11.98	58	53982	48.46	ug/L		97
89) tetrachloroethene	11.96	164	143158	48.19	ug/L		97
90) 1,3-dichloropropane	12.00	76	207756	50.95	ug/L		98
91) butyl acetate	12.05	56	104033	55.24	ug/L		99
92) 3,3-DIMETHYL-1-BUTANOL	12.15	57	144999	513.99	ug/L		96
93) dibromochloromethane	12.26	129	147256	57.90	ug/L		99
94) 1,2-dibromoethane	12.44	107	138836	52.46	ug/L		99
95) n-butyl ether	12.88	57	666602	50.63	ug/L		99
96) chlorobenzene	12.94	112	386691	52.20	ug/L		99
97) 1,1,1,2-tetrachloroethane	13.01	131	138475	55.24	ug/L		99
98) ethylbenzene	13.00	91	645258	52.47	ug/L		98
99) m,p-xylene	13.14	106	505511	99.48	ug/L		99
100) o-xylene	13.57	106	256491	51.30	ug/L		95

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 4B67404.D
Acq On : 16 Dec 2016 5:10 pm
Operator : Hueanht
Sample : jc33175-1ms
Misc : MS10644,V4B2772,W,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 19 15:23:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) styrene	13.59	104	424617	48.20 ug/L	94
102) bromoform	13.85	173	100521	47.84 ug/L	98
104) isopropylbenzene	13.96	105	1150532	88.75 ug/L	99
106) cyclohexanone	14.11	55	47577	96.79 ug/L	98
107) bromobenzene	14.39	156	192265	49.41 ug/L	96
108) 1,1,2,2-tetrachloroethane	14.27	83	182240	50.42 ug/L	96
109) trans-1,4-dichloro-2-buten	14.31	53	26719	33.13 ug/L	97
110) 1,2,3-trichloropropane	14.37	110	45834	51.02 ug/L	99
111) n-propylbenzene	14.42	91	924014	59.96 ug/L	99
113) 2-chlorotoluene	14.57	126	172635	50.42 ug/L	98
114) 4-chlorotoluene	14.69	91	497590	52.01 ug/L	99
115) 1,3,5-trimethylbenzene	14.59	105	561178	50.75 ug/L	98
116) tert-butylbenzene	14.97	119	531530	53.84 ug/L	99
117) pentachloroethane	15.05	167	121757	57.02 ug/L	97
118) 1,2,4-trimethylbenzene	15.03	105	596777	51.66 ug/L	99
119) sec-butylbenzene	15.21	105	787449	52.95 ug/L	98
120) 1,3-dichlorobenzene	15.41	146	358103	49.91 ug/L	98
121) p-isopropyltoluene	15.36	119	690244	53.08 ug/L	99
122) 1,4-dichlorobenzene	15.51	146	361345	51.07 ug/L	98
123) benzyl chloride	15.62	91	316891	43.03 ug/L	100
124) 1,2-dichlorobenzene	15.93	146	356460	49.80 ug/L	99
126) n-butylbenzene	15.82	92	356153	53.85 ug/L	98
128) 1,2-dibromo-3-chloropropan	16.77	75	34416	58.08 ug/L	93
129) 1,3,5-TRICHLOROBENZENE	16.97	180	331004	53.98 ug/L	100
130) 1,2,4-trichlorobenzene	17.66	180	279484	54.15 ug/L	99
131) hexachlorobutadiene	17.77	225	150343	52.92 ug/L	99
132) naphthalene	17.98	128	509496	51.82 ug/L	100
133) 1,2,3-trichlorobenzene	18.21	180	240088	52.06 ug/L	100
134) hexachloroethane	16.26	201	127988	55.56 ug/L	99

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

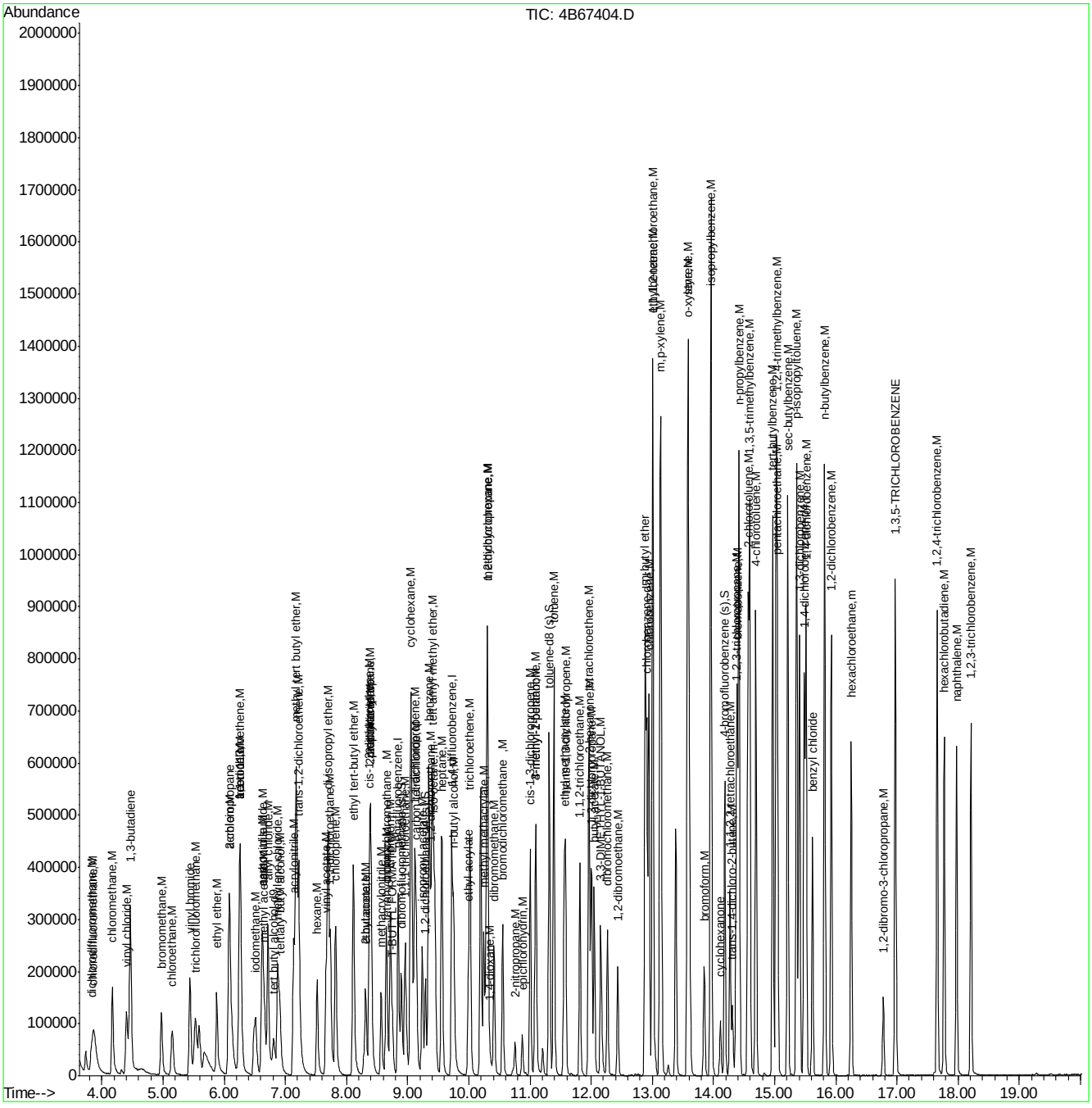
10.4.1 10

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 4B67404.D
Acq On : 16 Dec 2016 5:10 pm
Operator : Hueanht
Sample : jc33175-1ms
Misc : MS10644,V4B2772,W,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 19 15:23:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration



SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 4B67405.D
Acq On : 16 Dec 2016 5:38 pm
Operator : Hueanht
Sample : jc33175-1msd
Misc : MS10644,V4B2772,W,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 19 15:24:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.81	65	114298	500.00	ug/L	0.00
5) pentafluorobenzene	8.84	168	256546	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	355936	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	335423	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	203639	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	112025	53.42	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 106.84%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	122336	52.72	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 105.44%			
80) toluene-d8 (s)	11.31	98	420571	50.20	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.40%			
105) 4-bromofluorobenzene (s)	14.18	95	169772	50.30	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 100.60%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.91	59	79268	273.11	ug/L	100
3) 1,4-dioxane	10.35	88	38659	1323.72	ug/L	95
7) chlorodifluoromethane	3.87	51	161371	55.03	ug/L	97
8) dichlorodifluoromethane	3.83	85	171747	65.88	ug/L	98
10) chloromethane	4.17	52	74581	57.64	ug/L	98
11) vinyl chloride	4.40	62	216726	58.60	ug/L	98
12) bromomethane	4.97	94	107625	57.64	ug/L	99
13) chloroethane	5.15	64	106907	56.97	ug/L	98
14) vinyl bromide	5.44	106	182197	80.34	ug/L	99
15) trichlorofluoromethane	5.53	101	187036	58.84	ug/L	97
16) 1,3-butadiene	4.47	54	167274	52.65	ug/L	99
19) ethyl ether	5.88	74	70032	56.18	ug/L	98
20) 2-chloropropane	6.08	39	55492	58.76	ug/L	95
21) acrolein	6.09	56	266673	518.43	ug/L	98
22) 1,1-dichloroethene	6.27	96	118160	53.94	ug/L	99
23) acetone	6.27	58	11150	46.50	ug/L #	84
24) allyl chloride	6.72	76	79686	52.25	ug/L	95
25) acetonitrile	6.63	40	78323	517.37	ug/L	98
26) iodomethane	6.51	142	244289	57.39	ug/L	97
27) carbon disulfide	6.62	76	388524	57.31	ug/L	98
28) methylene chloride	6.88	84	129638	53.70	ug/L	98
29) methyl acetate	6.66	74	18951	54.37	ug/L	97
31) methyl tert butyl ether	7.18	73	699949	106.37	ug/L	99
32) trans-1,2-dichloroethene	7.22	96	116081	53.24	ug/L	99
33) di-isopropyl ether	7.70	45	458928	50.92	ug/L	99
34) 2-butanone	8.32	72	14526	48.41	ug/L #	45
35) 1,1-dichloroethane	7.74	63	237025	51.97	ug/L	100
36) chloroprene	7.82	53	199426	55.13	ug/L	97
37) acrylonitrile	7.13	53	237060	250.10	ug/L	97
38) vinyl acetate	7.66	86	23634	55.01	ug/L	87
39) ethyl tert-butyl ether	8.11	59	423140	56.13	ug/L	99
40) ethyl acetate	8.32	45	21949	58.31	ug/L	88
41) 2,2-dichloropropane	8.40	77	123981	57.58	ug/L	99

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 4B67405.D
Acq On : 16 Dec 2016 5:38 pm
Operator : Hueanht
Sample : jc33175-1msd
Misc : MS10644,V4B2772,W,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 19 15:24:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) cis-1,2-dichloroethene	8.37	96	135331	52.39	ug/L		98
43) methylacrylate	8.39	85	18874	50.71	ug/L		95
44) propionitrile	8.39	54	181747	488.14	ug/L		92
45) bromochloromethane	8.65	128	69794	54.18	ug/L		98
46) tetrahydrofuran	8.66	42	42004	50.02	ug/L		96
47) chloroform	8.72	85	146856	53.45	ug/L		100
48) T-BUTYL FORMATE	8.75	59	43017	24.05	ug/L		97
51) freon 113	6.26	151	127063	73.45	ug/L		98
52) methacrylonitrile	8.57	41	84414	48.33	ug/L		97
53) 1,1,1-trichloroethane	8.96	97	185189	59.78	ug/L		98
54) cyclohexane	9.06	84	167519	49.76	ug/L		99
57) epichlorohydrin	10.87	57	64663	225.00	ug/L		96
58) n-butyl alcohol	9.75	56	217300	2359.86	ug/L		97
59) carbon tetrachloride	9.14	117	170330	66.18	ug/L		99
60) 1,1-dichloropropene	9.12	75	175052	53.05	ug/L		100
61) hexane	7.52	57	108066	34.12	ug/L		98
63) benzene	9.35	78	490234	48.33	ug/L		99
64) iso-octane	9.44	57	523788	59.40	ug/L		100
65) tert-amyl methyl ether	9.40	87	82908	52.20	ug/L		95
66) heptane	9.56	57	112468	57.52	ug/L		99
67) isopropyl acetate	9.24	61	54852	55.46	ug/L		95
68) 1,2-dichloroethane	9.37	62	173166	52.28	ug/L		100
69) trichloroethene	10.02	95	137547	50.47	ug/L		99
71) ethyl acrylate	9.99	55	170209	51.60	ug/L		100
72) 2-nitropropane	10.75	41	38484	37.39	ug/L	#	1
74) methyl methacrylate	10.25	100	35054	50.65	ug/L	#	85
75) 1,2-dichloropropane	10.30	63	137707	49.12	ug/L		99
76) dibromomethane	10.41	93	82446	51.59	ug/L		99
77) methylcyclohexane	10.30	83	197092	54.75	ug/L		99
78) bromodichloromethane	10.55	83	173302	53.49	ug/L		98
79) cis-1,3-dichloropropene	11.00	75	234056	51.75	ug/L		99
81) 4-methyl-2-pentanone	11.10	58	54792	50.36	ug/L	#	87
82) toluene	11.39	92	317661	50.89	ug/L		99
83) 3-methyl-1-butanol	11.09	55	133054	1024.53	ug/L		98
84) trans-1,3-dichloropropene	11.58	75	202642	52.26	ug/L		96
85) ethyl methacrylate	11.56	69	175730	49.56	ug/L		100
86) 1,1,2-trichloroethane	11.82	83	103618	50.25	ug/L		99
87) 2-hexanone	11.98	58	51345	47.18	ug/L		99
89) tetrachloroethene	11.96	164	137500	47.06	ug/L		98
90) 1,3-dichloropropane	12.01	76	198965	49.61	ug/L		99
91) butyl acetate	12.05	56	101516	54.80	ug/L		97
92) 3,3-DIMETHYL-1-BUTANOL	12.15	57	145424	524.12	ug/L		96
93) dibromochloromethane	12.26	129	140537	56.19	ug/L		99
94) 1,2-dibromoethane	12.44	107	133045	51.11	ug/L		100
95) n-butyl ether	12.88	57	641513	49.54	ug/L		99
96) chlorobenzene	12.94	112	370781	50.89	ug/L		99
97) 1,1,1,2-tetrachloroethane	13.01	131	133492	54.14	ug/L		99
98) ethylbenzene	13.01	91	614347	50.79	ug/L		99
99) m,p-xylene	13.14	106	481566	96.35	ug/L		97
100) o-xylene	13.57	106	245928	50.01	ug/L		93

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 4B67405.D
Acq On : 16 Dec 2016 5:38 pm
Operator : Hueanht
Sample : jc33175-1msd
Misc : MS10644,V4B2772,W,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 19 15:24:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) styrene	13.59	104	405927	46.85 ug/L	93
102) bromoform	13.85	173	97985	47.46 ug/L	99
104) isopropylbenzene	13.96	105	1114048	86.20 ug/L	100
106) cyclohexanone	14.11	55	51437	104.96 ug/L	97
107) bromobenzene	14.39	156	186667	48.12 ug/L	95
108) 1,1,2,2-tetrachloroethane	14.27	83	174523	48.43 ug/L	98
109) trans-1,4-dichloro-2-buten	14.31	53	26850	33.39 ug/L	97
110) 1,2,3-trichloropropane	14.37	110	44581	49.78 ug/L	99
111) n-propylbenzene	14.42	91	890081	57.93 ug/L	100
113) 2-chlorotoluene	14.57	126	165883	48.59 ug/L	96
114) 4-chlorotoluene	14.69	91	477989	50.11 ug/L	98
115) 1,3,5-trimethylbenzene	14.59	105	541673	49.13 ug/L	99
116) tert-butylbenzene	14.97	119	508444	51.66 ug/L	100
117) pentachloroethane	15.05	167	117682	55.27 ug/L	99
118) 1,2,4-trimethylbenzene	15.03	105	569448	49.45 ug/L	99
119) sec-butylbenzene	15.21	105	760266	51.27 ug/L	99
120) 1,3-dichlorobenzene	15.41	146	346090	48.38 ug/L	98
121) p-isopropyltoluene	15.36	119	670452	51.71 ug/L	100
122) 1,4-dichlorobenzene	15.51	146	345240	48.94 ug/L	97
123) benzyl chloride	15.62	91	310285	42.26 ug/L	100
124) 1,2-dichlorobenzene	15.93	146	347705	48.72 ug/L	99
126) n-butylbenzene	15.82	92	343100	52.03 ug/L	98
128) 1,2-dibromo-3-chloropropan	16.78	75	32698	55.34 ug/L	98
129) 1,3,5-TRICHLOROBENZENE	16.97	180	323955	52.99 ug/L	100
130) 1,2,4-trichlorobenzene	17.66	180	275262	53.49 ug/L	99
131) hexachlorobutadiene	17.77	225	149682	52.85 ug/L	98
132) naphthalene	17.98	128	496615	50.66 ug/L	100
133) 1,2,3-trichlorobenzene	18.21	180	235353	51.19 ug/L	100
134) hexachloroethane	16.26	201	125091	54.49 ug/L	99

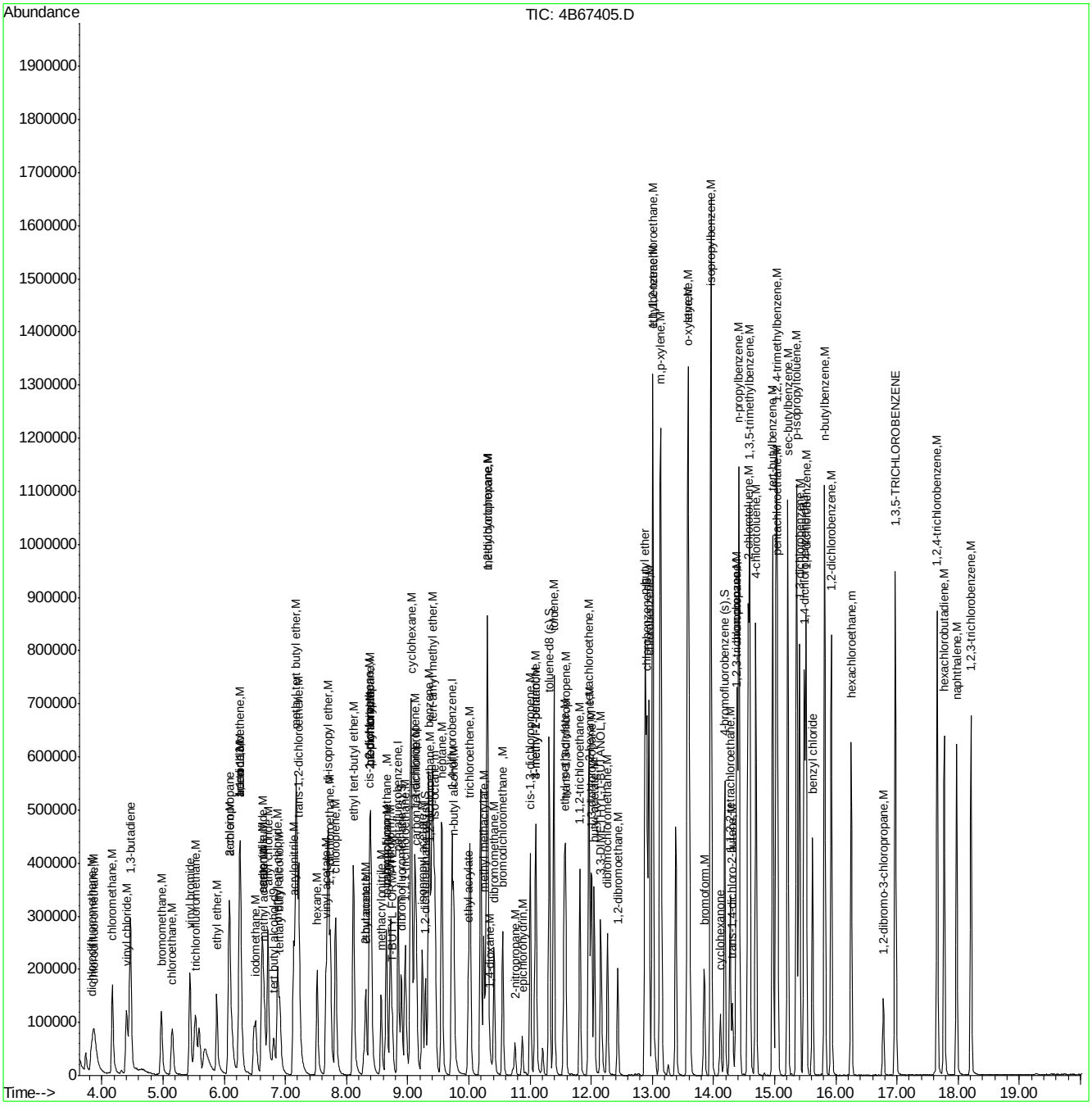
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDChem\1\DATA\
Data File : 4B67405.D
Acq On : 16 Dec 2016 5:38 pm
Operator : Hueanht
Sample : jc33175-1msd
Misc : MS10644,V4B2772,W,,,,1
ALS Vial : 19 Sample Multiplier: 1

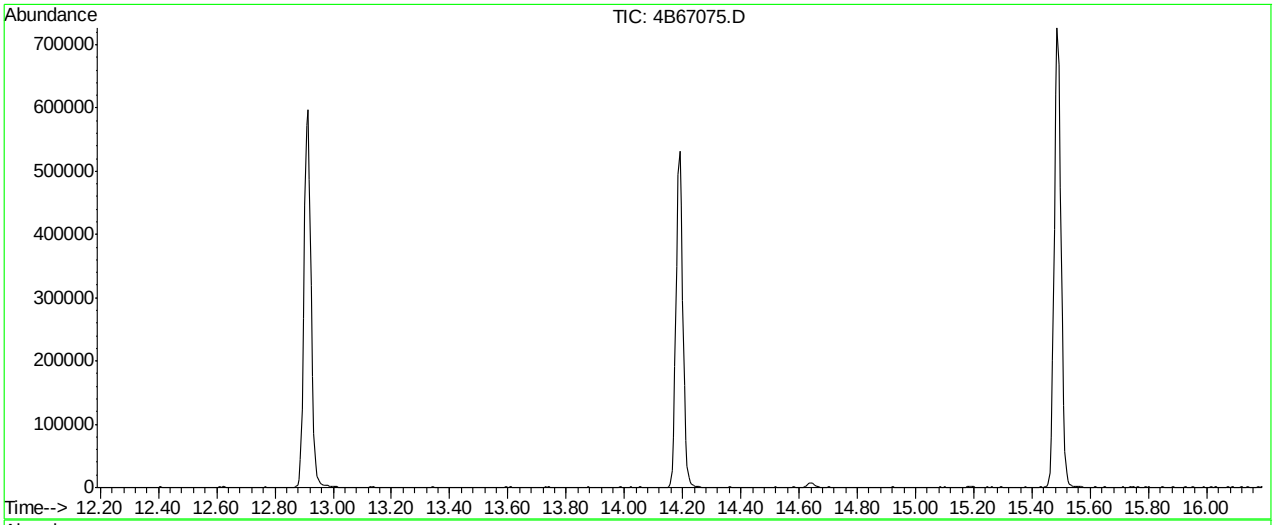
Quant Time: Dec 19 15:24:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

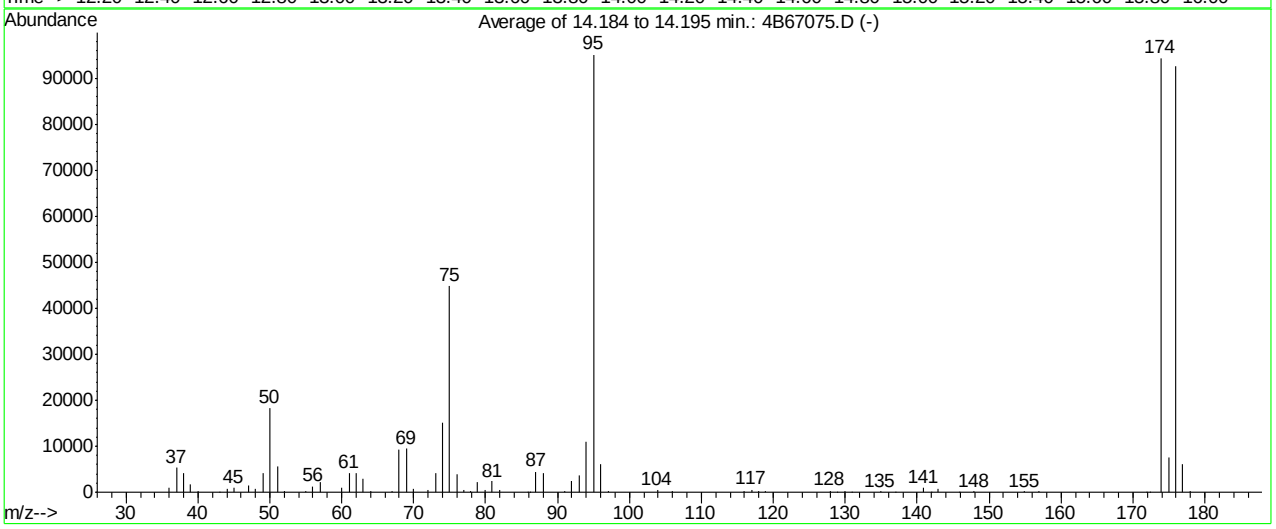


SW-846 Method 8260

Data File : C:\MSDCHEM\1\DATA\4B67075.D Vial: 1
Acq On : 8 Dec 2016 7:04 am Operator: Hueanht
Sample : bfb Inst : MS4B
Misc : MS9923,V4B2759,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4B2759.M (RTE Integrator)
Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um





AutoFind: Scans 2018, 2019, 2020; Background Corrected with Scan 2009

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.3	18399	PASS
75	95	30	60	47.1	44810	PASS
95	95	100	100	100.0	95146	PASS
96	95	5	9	6.4	6096	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	99.1	94328	PASS
175	174	5	9	8.1	7656	PASS
176	174	95	101	98.2	92634	PASS
177	176	5	9	6.5	5996	PASS

4B67075.D M4B2759.M Thu Dec 08 15:42:48 2016 GCMS4B

Average of 14.184 to 14.195 min.: 4B67075.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	1041	50.00	18399	67.05	216	78.90	2160
37.00	5272	51.05	5634	68.00	9221	79.95	615
38.00	4238	52.00	177	69.00	9451	80.90	2335
39.00	1755	55.00	299	70.00	732	81.95	474
40.00	225	56.00	1345	72.00	532	85.90	50
43.00	52	57.00	2289	73.00	4059	86.10	76
44.00	666	60.00	889	74.00	15147	87.00	4480
45.00	887	61.00	4225	75.00	44810	88.00	4115
47.00	1457	62.00	4180	76.00	3869	90.95	366
48.00	661	63.00	3002	77.00	553	92.00	2489
49.00	4126	64.00	321	77.95	328	93.00	3716

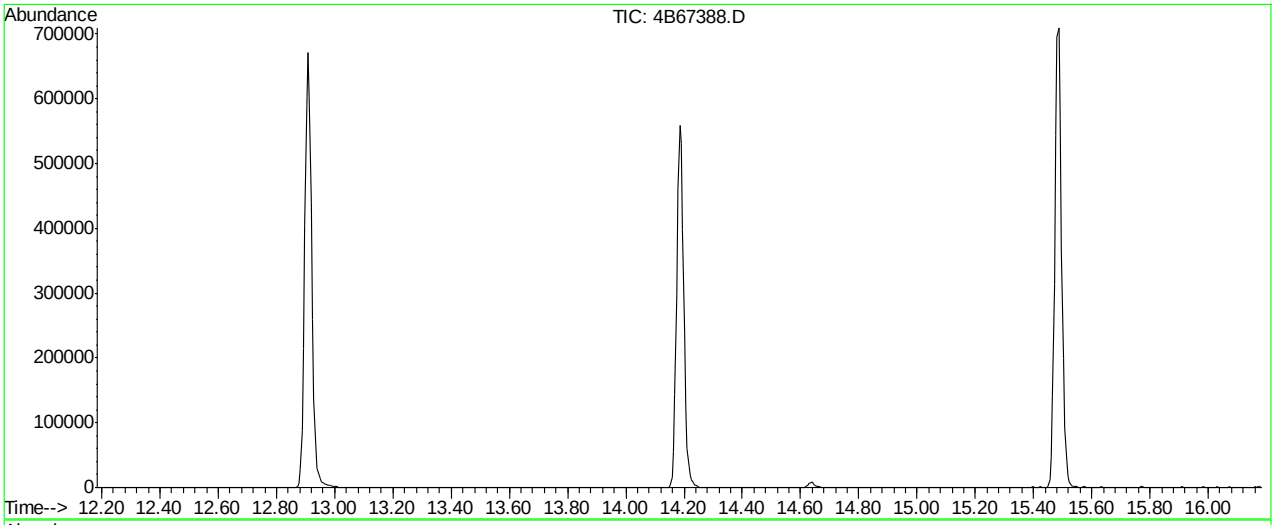
Average of 14.184 to 14.195 min.: 4B67075.D
bfb
Modified:subtracted

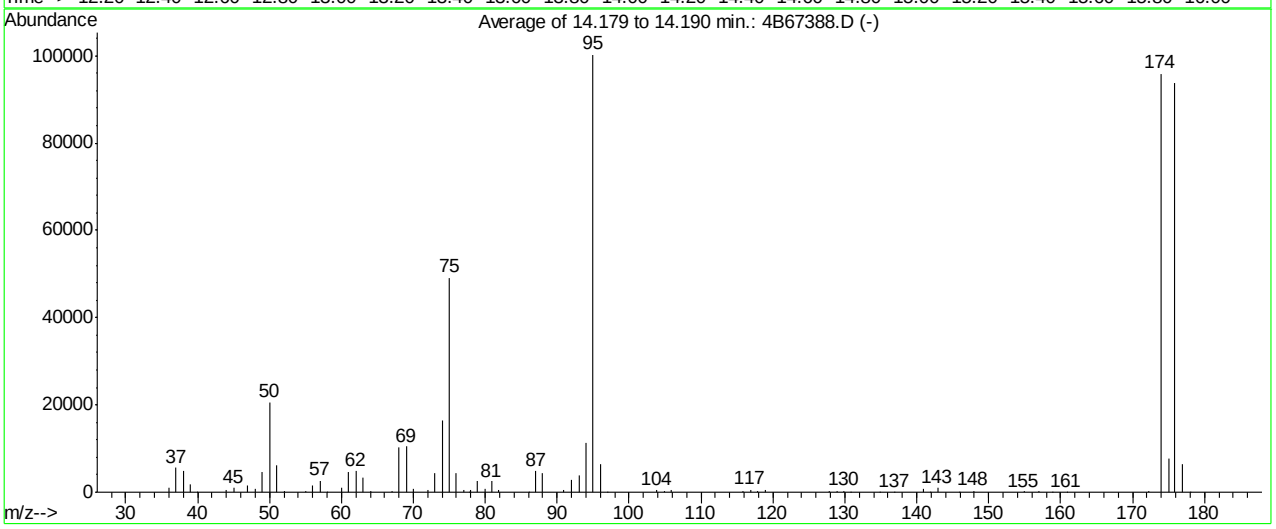
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.00	10863	128.90	127	156.95	176		
95.00	95146	129.90	310	171.90	60		
96.00	6096	130.90	113	172.30	85		
97.00	189	134.95	186	173.90	94328		
103.90	402	136.90	55	175.00	7656		
105.90	353	140.90	864	175.90	92634		
115.90	268	141.90	63	176.90	5996		
116.95	552	142.90	861	177.95	222		
117.90	342	145.90	52				
118.90	368	147.95	223				
127.90	355	154.95	223				

SW-846 Method 8260

Data File : C:\MSDCHEM\1\DATA\4B67388.D Vial: 2
Acq On : 16 Dec 2016 9:01 am Operator: Hueanht
Sample : bfb Inst : MS4B
Misc : MS10318,V4B2772,W,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M4B2759.M (RTE Integrator)
Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um





AutoFind: Scans 2017, 2018, 2019; Background Corrected with Scan 2009

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	20.6	20642	PASS
75	95	30	60	48.9	49072	PASS
95	95	100	100	100.0	100277	PASS
96	95	5	9	6.5	6545	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	95.6	95880	PASS
175	174	5	9	8.1	7814	PASS
176	174	95	101	97.7	93661	PASS
177	176	5	9	6.8	6353	PASS

4B67388.D M4B2759.M Fri Dec 16 16:30:48 2016 GCMS4B

Average of 14.179 to 14.190 min.: 4B67388.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	1128	51.00	6259	67.00	356	77.95	466
37.00	5600	52.05	269	68.00	10187	78.90	2582
38.00	4791	55.05	274	69.00	10461	79.90	750
39.05	1822	56.00	1474	70.00	825	80.90	2477
39.95	104	57.00	2587	72.00	530	81.85	546
44.00	640	58.00	52	73.00	4401	86.00	58
45.00	930	60.05	956	74.00	16454	87.00	4814
47.00	1504	61.00	4576	75.00	49072	88.00	4462
47.95	668	62.00	4775	76.00	4248	90.95	404
49.00	4540	63.00	3401	76.95	616	92.00	2763
50.00	20642	64.05	331	77.80	125	93.00	3892

Average of 14.179 to 14.190 min.: 4B67388.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
94.00	11329	127.90	285	154.90	229		
95.00	100277	128.85	157	156.90	228		
96.00	6545	129.90	389	158.90	68		
97.00	139	130.85	126	160.80	61		
103.90	442	134.90	90	172.20	166		
104.95	170	136.90	112	173.90	95880		
105.85	402	140.90	873	175.00	7814		
115.85	343	141.90	75	175.90	93661		
116.90	578	142.90	963	176.90	6353		
117.85	370	145.90	107	178.00	73		
118.90	458	147.90	284				

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67076.D
Acq On : 8 Dec 2016 7:40 am
Operator : Hueanht
Sample : ic2759-0.2
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 08 13:18:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:10:44 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.81	65	115381	500.00	ug/L	0.00
5) pentafluorobenzene	8.85	168	267146	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	354823	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	340787	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	199227	50.00	ug/L	0.00

System Monitoring Compounds

49) dibromofluoromethane (s)	8.90	113	107724	43.14	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 86.28%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	122400	40.09	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 80.18%			
80) toluene-d8 (s)	11.32	98	423315	49.06	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 98.12%			
105) 4-bromofluorobenzene (s)	14.19	95	168748	43.65	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 87.30%			

Target Compounds

						Qvalue
21) acrolein	6.09	56	1060	1.76	ug/L	82
63) benzene	9.35	78	2258	0.22	ug/L	97
73) 2-chloroethyl vinyl ether	10.77	63	1882	1.14	ug/L	86
75) 1,2-dichloropropane	10.30	63	609	0.20	ug/L	72
79) cis-1,3-dichloropropene	11.00	75	963	0.21	ug/L #	64
89) tetrachloroethene	11.96	164	552	0.22	ug/L #	78
99) m,p-xylene	13.14	106	2170	0.45	ug/L	96
101) styrene	13.59	104	1965	0.24	ug/L	93
107) bromobenzene	14.39	156	850	0.22	ug/L	85
113) 2-chlorotoluene	14.57	126	774	0.22	ug/L	86
123) benzyl chloride	15.62	91	1619	0.26	ug/L #	73
124) 1,2-dichlorobenzene	15.93	146	1466	0.21	ug/L	90
129) 1,3,5-TRICHLOROBENZENE	16.98	180	1160	0.23	ug/L	97
130) 1,2,4-trichlorobenzene	17.67	180	957	0.82	ug/L	82
132) naphthalene	17.98	128	1784	0.23	ug/L	69
133) 1,2,3-trichlorobenzene	18.22	180	832	0.81	ug/L	89

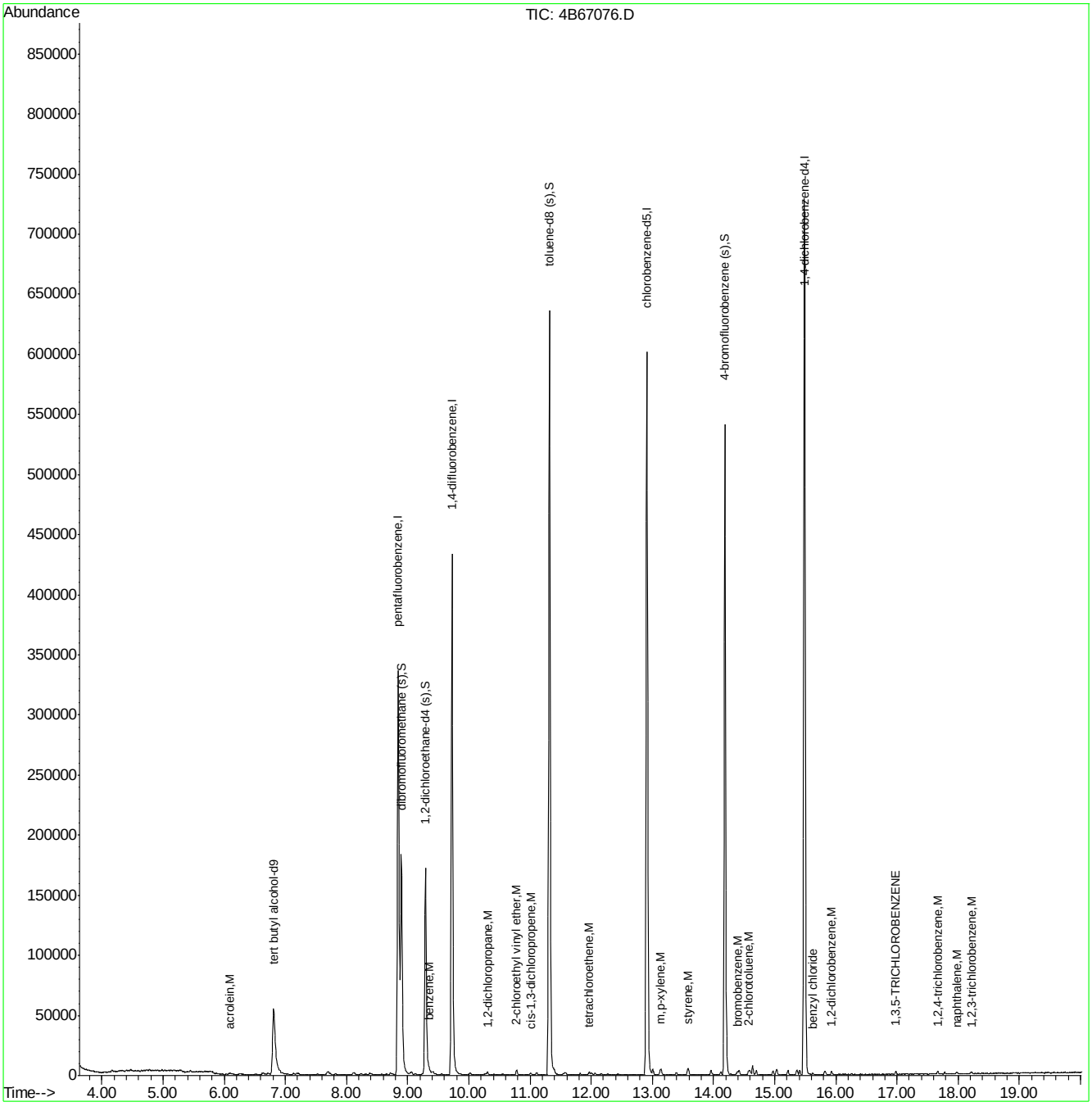
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67076.D
Acq On : 8 Dec 2016 7:40 am
Operator : Hueanht
Sample : ic2759-0.2
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 08 13:18:25 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:10:44 2016
Response via : Initial Calibration



M4B2759.M Fri Dec 09 17:14:20 2016 GCMS4B Page: 2

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67077.D
Acq On : 8 Dec 2016 8:08 am
Operator : Hueanht
Sample : ic2759-0.5
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 09 09:42:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:32:42 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.82	65	124562	500.00	ug/L	0.00
5) pentafluorobenzene	8.85	168	267685	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	363235	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	343794	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	204101	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	110326	44.09	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 88.18%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	124630	40.74	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 81.48%			
80) toluene-d8 (s)	11.32	98	425655	48.19	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 96.38%			
105) 4-bromofluorobenzene (s)	14.18	95	171206	43.22	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 86.44%			

Target Compounds						Qvalue
11) vinyl chloride	4.40	62	2115	0.42	ug/L	93
14) vinyl bromide	5.45	106	1387	0.54	ug/L #	86
16) 1,3-butadiene	4.47	54	1758	0.58	ug/L	95
19) ethyl ether	5.88	74	615	0.41	ug/L #	56
21) acrolein	6.09	56	2603	4.31	ug/L	96
31) methyl tert butyl ether	7.18	73	3887	0.48	ug/L	93
33) di-isopropyl ether	7.70	45	5620	0.46	ug/L	88
35) 1,1-dichloroethane	7.74	63	2818	0.51	ug/L	91
36) chloroprene	7.81	53	2193	0.46	ug/L	85
37) acrylonitrile	7.14	53	2681	2.32	ug/L	97
39) ethyl tert-butyl ether	8.12	59	4196	0.41	ug/L	87
42) cis-1,2-dichloroethene	8.37	96	1616	0.55	ug/L	84
44) propionitrile	8.40	54	1982	4.58	ug/L	88
45) bromochloromethane	8.65	128	629	0.44	ug/L	76
48) T-BUTYL FORMATE	8.74	59	757	0.29	ug/L #	64
54) cyclohexane	9.06	84	1775	0.44	ug/L #	79
59) carbon tetrachloride	9.15	117	1295	0.42	ug/L	84
61) hexane	7.52	57	1468	0.37	ug/L	79
63) benzene	9.35	78	6792	0.65	ug/L	99
64) iso-octane	9.44	57	5045	0.45	ug/L	92
65) tert-amyl methyl ether	9.41	87	762	0.42	ug/L #	60
66) heptane	9.56	57	977	0.41	ug/L	86
68) 1,2-dichloroethane	9.38	62	1728	0.45	ug/L	82
69) trichloroethene	10.02	95	1676	0.61	ug/L	93
73) 2-chloroethyl vinyl ether	10.78	63	4473	2.65	ug/L	95
75) 1,2-dichloropropane	10.31	63	1612	0.51	ug/L	88
76) dibromomethane	10.41	93	841	0.48	ug/L	80
78) bromodichloromethane	10.55	83	1818	0.49	ug/L	88
79) cis-1,3-dichloropropene	11.00	75	2499	0.54	ug/L	86
83) 3-methyl-1-butanol	11.09	55	1348	13.02	ug/L	77
84) trans-1,3-dichloropropene	11.59	75	2057	0.48	ug/L	91
85) ethyl methacrylate	11.56	69	1980	0.52	ug/L	96
86) 1,1,2-trichloroethane	11.82	83	1161	0.53	ug/L	88

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67077.D
Acq On : 8 Dec 2016 8:08 am
Operator : Hueanht
Sample : ic2759-0.5
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 09 09:42:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:32:42 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
89) tetrachloroethene	11.96	164	1836	0.74 ug/L	96
90) 1,3-dichloropropane	12.01	76	2255	0.52 ug/L	94
91) butyl acetate	12.06	56	947	0.45 ug/L #	77
92) 3,3-DIMETHYL-1-BUTANOL	12.17	57	1399	6.50 ug/L	80
93) dibromochloromethane	12.27	129	1123	0.38 ug/L	88
94) 1,2-dibromoethane	12.44	107	1359	0.50 ug/L	95
99) m,p-xylene	13.14	106	6224	1.28 ug/L	95
101) styrene	13.59	104	5060	0.62 ug/L	96
107) bromobenzene	14.39	156	2328	0.59 ug/L	94
108) 1,1,2,2-tetrachloroethane	14.27	83	2056	0.49 ug/L	95
110) 1,2,3-trichloropropane	14.38	110	509	0.52 ug/L	76
113) 2-chlorotoluene	14.57	126	2012	0.56 ug/L	91
123) benzyl chloride	15.62	91	3454	0.53 ug/L #	91
124) 1,2-dichlorobenzene	15.93	146	4360	0.61 ug/L	91
128) 1,2-dibromo-3-chloropropan	16.77	75	251	0.40 ug/L #	1
129) 1,3,5-TRICHLOROBENZENE	16.98	180	3729	0.71 ug/L	96
130) 1,2,4-trichlorobenzene	17.66	180	2819	1.20 ug/L	93
132) naphthalene	17.98	128	4837	0.61 ug/L	97
133) 1,2,3-trichlorobenzene	18.22	180	2454	1.20 ug/L	89

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

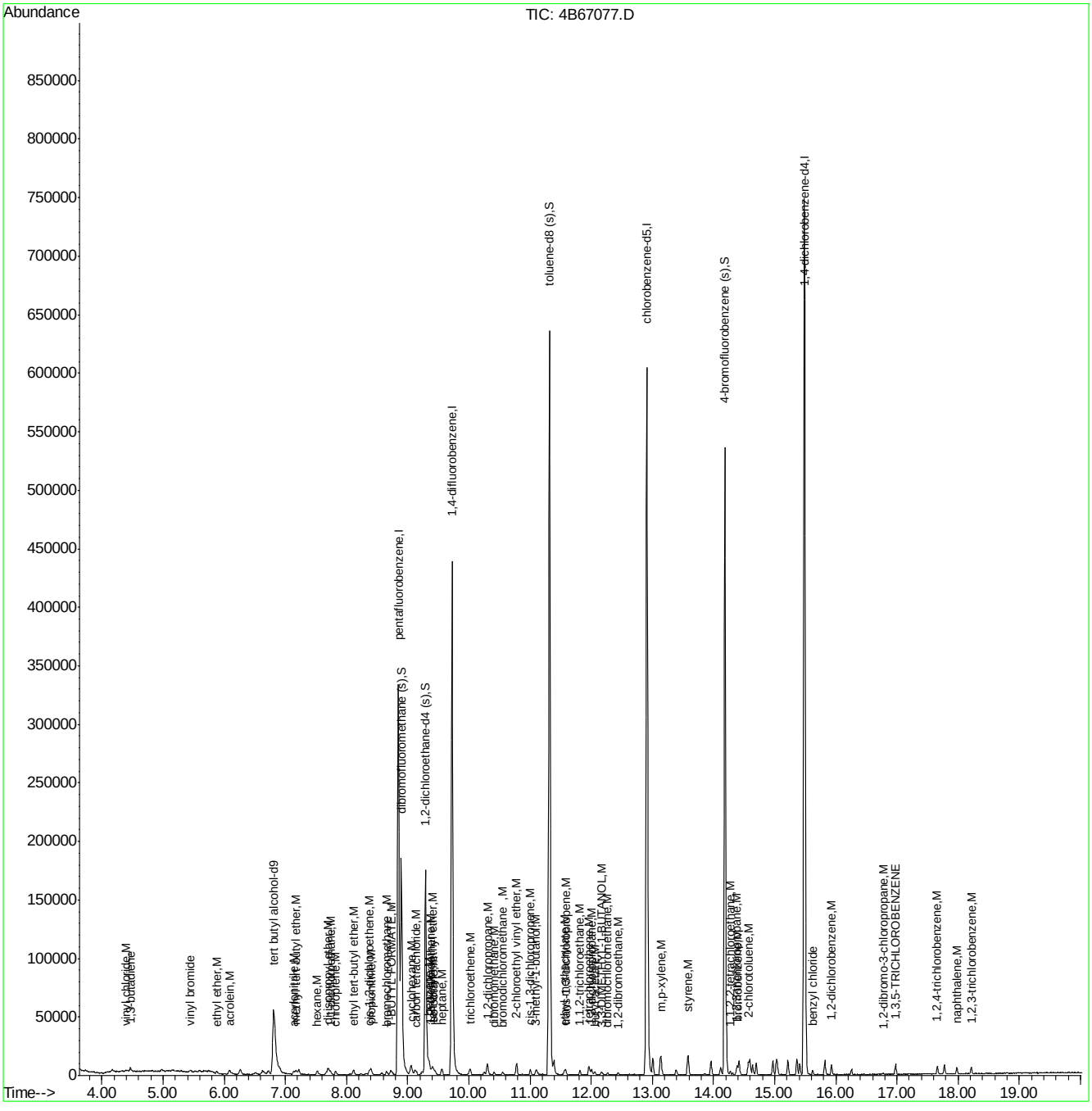
10.6.2 10

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67077.D
Acq On : 8 Dec 2016 8:08 am
Operator : Hueanht
Sample : ic2759-0.5
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 09 09:42:04 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:32:42 2016
Response via : Initial Calibration



M4B2759.M Fri Dec 09 17:14:21 2016 GCMS4B Page: 3

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67078.D
Acq On : 8 Dec 2016 8:35 am
Operator : Hueanht
Sample : ic2759-1
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 08 15:50:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:32:42 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.81	65	134272	500.00	ug/L	0.00
5) pentafluorobenzene	8.85	168	273908	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	367083	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	347427	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	205824	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	109743	42.86	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 85.72%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	126240	40.32	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 80.64%			
80) toluene-d8 (s)	11.32	98	430055	48.18	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 96.36%			
105) 4-bromofluorobenzene (s)	14.19	95	171080	42.83	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 85.66%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.91	59	1620	4.71	ug/L	55
7) chlorodifluoromethane	3.86	51	2742	0.70	ug/L	67
10) chloromethane	4.16	52	1160	0.63	ug/L #	51
11) vinyl chloride	4.39	62	3105	0.60	ug/L	91
12) bromomethane	4.97	94	1799	0.77	ug/L	83
13) chloroethane	5.15	64	1893	0.83	ug/L	90
14) vinyl bromide	5.44	106	2054	0.78	ug/L #	90
16) 1,3-butadiene	4.47	54	3228	1.04	ug/L	98
19) ethyl ether	5.88	74	1228	0.81	ug/L	88
20) 2-chloropropane	6.08	39	1041	0.85	ug/L	96
21) acrolein	6.09	56	5317	8.61	ug/L	98
22) 1,1-dichloroethene	6.26	96	2196	0.95	ug/L	90
26) iodomethane	6.49	142	4103	0.81	ug/L	95
27) carbon disulfide	6.62	76	6281	0.77	ug/L	85
28) methylene chloride	6.88	84	2448	0.81	ug/L	88
31) methyl tert butyl ether	7.18	73	7054	0.85	ug/L	99
32) trans-1,2-dichloroethene	7.22	96	2210	0.87	ug/L	87
33) di-isopropyl ether	7.70	45	9717	0.78	ug/L	98
35) 1,1-dichloroethane	7.74	63	4528	0.80	ug/L	94
36) chloroprene	7.82	53	3558	0.73	ug/L	93
37) acrylonitrile	7.14	53	5211	4.41	ug/L	93
39) ethyl tert-butyl ether	8.12	59	8200	0.79	ug/L	96
41) 2,2-dichloropropane	8.40	77	2202	0.80	ug/L	80
42) cis-1,2-dichloroethene	8.38	96	2604	0.87	ug/L	94
44) propionitrile	8.40	54	4183	9.45	ug/L	95
45) bromochloromethane	8.65	128	1233	0.83	ug/L	89
47) chloroform	8.72	85	2856	0.86	ug/L	97
48) T-BUTYL FORMATE	8.75	59	1908	0.71	ug/L #	78
52) methacrylonitrile	8.57	41	2100	0.90	ug/L	89
53) 1,1,1-trichloroethane	8.96	97	2775	0.71	ug/L	92
54) cyclohexane	9.06	84	3412	0.83	ug/L	91
57) epichlorohydrin	10.88	57	1522	5.36	ug/L	80
59) carbon tetrachloride	9.14	117	1891	0.61	ug/L	99

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67078.D
Acq On : 8 Dec 2016 8:35 am
Operator : Hueanht
Sample : ic2759-1
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 08 15:50:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:32:42 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
60) 1,1-dichloropropene	9.12	75	2865	0.80	ug/L		96
61) hexane	7.53	57	2805	0.71	ug/L		92
63) benzene	9.35	78	9784	0.93	ug/L		96
64) iso-octane	9.43	57	8271	0.73	ug/L		93
65) tert-amyl methyl ether	9.40	87	1748	0.95	ug/L		97
66) heptane	9.57	57	1879	0.77	ug/L		91
68) 1,2-dichloroethane	9.37	62	3459	0.90	ug/L		94
69) trichloroethene	10.02	95	2642	0.95	ug/L		89
71) ethyl acrylate	10.00	55	3468	0.93	ug/L		89
72) 2-nitropropane	10.77	41	1093	0.94	ug/L	#	1
73) 2-chloroethyl vinyl ether	10.78	63	9255	5.43	ug/L		99
75) 1,2-dichloropropane	10.31	63	2633	0.83	ug/L		96
76) dibromomethane	10.41	93	1639	0.93	ug/L		98
77) methylcyclohexane	10.31	83	3206	0.70	ug/L		96
78) bromodichloromethane	10.55	83	2917	0.77	ug/L		97
79) cis-1,3-dichloropropene	11.00	75	4216	0.90	ug/L		90
81) 4-methyl-2-pentanone	11.11	58	1172	0.98	ug/L	#	80
82) toluene	11.40	92	5979	0.92	ug/L		98
83) 3-methyl-1-butanol	11.10	55	2844	27.18	ug/L		81
84) trans-1,3-dichloropropene	11.59	75	3673	0.86	ug/L		95
85) ethyl methacrylate	11.56	69	3572	0.93	ug/L		96
86) 1,1,2-trichloroethane	11.82	83	2144	0.97	ug/L		97
87) 2-hexanone	11.98	58	1133	1.04	ug/L		91
89) tetrachloroethene	11.96	164	2936	1.17	ug/L		99
90) 1,3-dichloropropane	12.01	76	4154	0.95	ug/L		94
91) butyl acetate	12.06	56	1819	0.85	ug/L	#	83
92) 3,3-DIMETHYL-1-BUTANOL	12.17	57	2802	12.88	ug/L		95
93) dibromochloromethane	12.27	129	1991	0.67	ug/L		93
94) 1,2-dibromoethane	12.44	107	2629	0.96	ug/L		86
95) n-butyl ether	12.89	57	12324	0.88	ug/L	#	48
96) chlorobenzene	12.94	112	7231	0.94	ug/L		95
97) 1,1,1,2-tetrachloroethane	13.01	131	2084	0.77	ug/L		97
98) ethylbenzene	13.01	91	11819	0.90	ug/L		92
99) m,p-xylene	13.14	106	8967	1.82	ug/L		90
100) o-xylene	13.58	106	4577	0.91	ug/L		96
101) styrene	13.59	104	8084	0.98	ug/L		94
102) bromoform	13.85	173	1284	0.63	ug/L		86
104) isopropylbenzene	13.96	105	12080	0.82	ug/L		98
106) cyclohexanone	14.12	55	5721	22.26	ug/L		95
107) bromobenzene	14.39	156	3739	0.94	ug/L		92
108) 1,1,2,2-tetrachloroethane	14.27	83	3755	0.89	ug/L		96
109) trans-1,4-dichloro-2-buten	14.32	53	759	5.22	ug/L		82
110) 1,2,3-trichloropropane	14.37	110	939	0.96	ug/L		85
111) n-propylbenzene	14.42	91	14717	0.84	ug/L		99
113) 2-chlorotoluene	14.57	126	3006	0.82	ug/L		97
114) 4-chlorotoluene	14.70	91	9483	0.85	ug/L		95
115) 1,3,5-trimethylbenzene	14.60	105	10486	0.85	ug/L		94
116) tert-butylbenzene	14.97	119	9185	0.86	ug/L		96
118) 1,2,4-trimethylbenzene	15.03	105	11024	0.88	ug/L		96
119) sec-butylbenzene	15.22	105	14193	0.88	ug/L		97

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67078.D
Acq On : 8 Dec 2016 8:35 am
Operator : Hueanht
Sample : ic2759-1
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 08 15:50:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:32:42 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
120) 1,3-dichlorobenzene	15.41	146	7187	0.95 ug/L	98
121) p-isopropyltoluene	15.36	119	11915	0.89 ug/L	95
122) 1,4-dichlorobenzene	15.51	146	6911	0.92 ug/L	95
123) benzyl chloride	15.62	91	7216	1.11 ug/L	95
124) 1,2-dichlorobenzene	15.93	146	6827	0.95 ug/L	97
126) n-butylbenzene	15.82	92	5841	0.87 ug/L	94
128) 1,2-dibromo-3-chloropropan	16.78	75	522	0.82 ug/L	88
129) 1,3,5-TRICHLOROBENZENE	16.98	180	5432	1.02 ug/L	98
130) 1,2,4-trichlorobenzene	17.66	180	4445	1.52 ug/L	98
131) hexachlorobutadiene	17.78	225	2761	0.97 ug/L	91
132) naphthalene	17.98	128	9041	1.14 ug/L	96
133) 1,2,3-trichlorobenzene	18.21	180	4323	1.65 ug/L	90

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

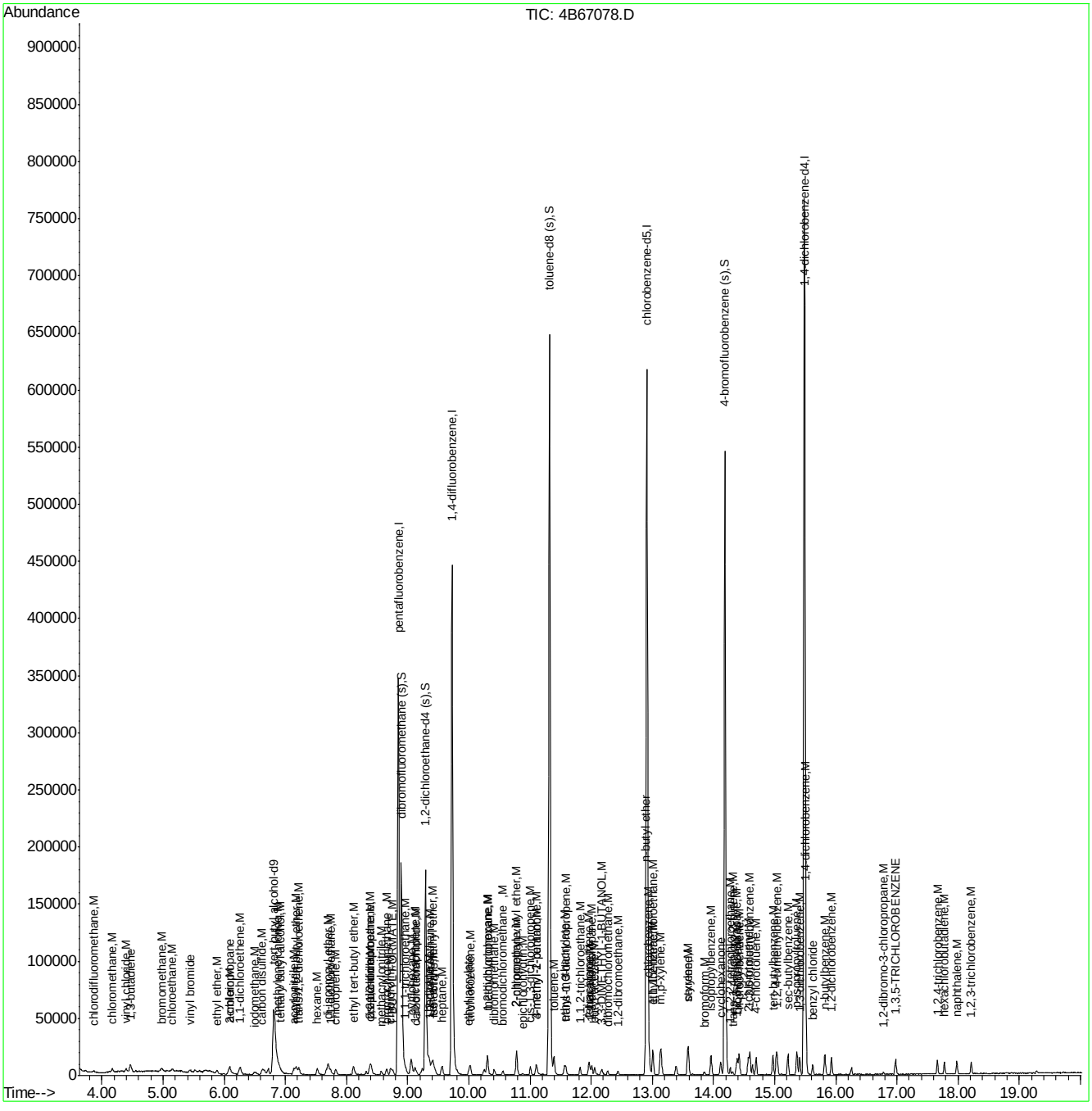
10.6.3 10

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67078.D
Acq On : 8 Dec 2016 8:35 am
Operator : Hueanht
Sample : ic2759-1
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 08 15:50:56 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:32:42 2016
Response via : Initial Calibration



SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67079.D
Acq On : 8 Dec 2016 9:03 am
Operator : Hueanht
Sample : ic2759-2
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 08 15:22:37 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:32:42 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.82	65	130276	500.00	ug/L	0.00
5) pentafluorobenzene	8.85	168	272976	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	369974	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	347218	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	206168	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	111096	43.54	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 87.08%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	125794	40.32	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 80.64%			
80) toluene-d8 (s)	11.32	98	431614	47.98	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 95.96%			
105) 4-bromofluorobenzene (s)	14.19	95	170518	42.62	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 85.24%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.92	59	3162	9.48	ug/L	83
3) 1,4-dioxane	10.36	88	1417	120.06	ug/L #	71
7) chlorodifluoromethane	3.87	51	5795	1.47	ug/L	97
8) dichlorodifluoromethane	3.84	85	4846	1.15	ug/L	91
10) chloromethane	4.17	52	2875	1.57	ug/L #	78
11) vinyl chloride	4.39	62	7869	1.53	ug/L	92
12) bromomethane	4.98	94	4285	1.85	ug/L	92
13) chloroethane	5.15	64	4345	1.91	ug/L	92
14) vinyl bromide	5.44	106	4812	1.84	ug/L	96
15) trichlorofluoromethane	5.53	101	6093	1.48	ug/L	95
16) 1,3-butadiene	4.47	54	6189	2.00	ug/L	93
19) ethyl ether	5.88	74	2287	1.51	ug/L #	84
20) 2-chloropropane	6.09	39	2168	1.79	ug/L	90
21) acrolein	6.09	56	10489	17.04	ug/L	86
22) 1,1-dichloroethene	6.26	96	4317	1.87	ug/L #	77
24) allyl chloride	6.72	76	2907	1.49	ug/L	91
25) acetonitrile	6.64	40	3435	18.50	ug/L	94
26) iodomethane	6.50	142	7880	1.57	ug/L	96
27) carbon disulfide	6.62	76	12688	1.55	ug/L	98
28) methylene chloride	6.88	84	4634	1.54	ug/L	97
31) methyl tert butyl ether	7.18	73	13419	1.62	ug/L	100
32) trans-1,2-dichloroethene	7.22	96	4202	1.67	ug/L	97
33) di-isopropyl ether	7.70	45	19395	1.56	ug/L	99
34) 2-butanone	8.33	72	565	1.65	ug/L #	1
35) 1,1-dichloroethane	7.74	63	8731	1.54	ug/L	99
36) chloroprene	7.82	53	7444	1.54	ug/L	96
37) acrylonitrile	7.14	53	9597	8.15	ug/L	98
39) ethyl tert-butyl ether	8.12	59	15951	1.54	ug/L	99
40) ethyl acetate	8.32	45	808	1.62	ug/L #	56
41) 2,2-dichloropropane	8.40	77	4933	1.81	ug/L	96
42) cis-1,2-dichloroethene	8.38	96	4793	1.60	ug/L	93
44) propionitrile	8.40	54	8087	18.33	ug/L	94
45) bromochloromethane	8.65	128	2639	1.79	ug/L	97

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67079.D
Acq On : 8 Dec 2016 9:03 am
Operator : Hueanht
Sample : ic2759-2
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 08 15:22:37 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:32:42 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
46) tetrahydrofuran	8.66	42	1888	1.70	ug/L		96
47) chloroform	8.72	85	5672	1.72	ug/L		92
48) T-BUTYL FORMATE	8.75	59	3836	1.44	ug/L		87
51) freon 113	6.25	151	3174	1.52	ug/L		84
52) methacrylonitrile	8.57	41	3869	1.65	ug/L		94
53) 1,1,1-trichloroethane	8.96	97	5960	1.53	ug/L		94
54) cyclohexane	9.06	84	6926	1.69	ug/L		93
57) epichlorohydrin	10.88	57	3171	11.08	ug/L		89
58) n-butyl alcohol	9.76	56	8293	114.45	ug/L		89
59) carbon tetrachloride	9.14	117	4407	1.41	ug/L		98
60) 1,1-dichloropropene	9.12	75	6356	1.77	ug/L		96
61) hexane	7.52	57	6177	1.54	ug/L		97
63) benzene	9.35	78	18613	1.76	ug/L		94
64) iso-octane	9.42	57	16946	1.48	ug/L		96
65) tert-amyl methyl ether	9.40	87	3200	1.73	ug/L		96
66) heptane	9.56	57	3759	1.53	ug/L		96
67) isopropyl acetate	9.24	61	2005	1.66	ug/L	#	87
68) 1,2-dichloroethane	9.38	62	6805	1.75	ug/L		97
69) trichloroethene	10.02	95	5505	1.97	ug/L		94
71) ethyl acrylate	9.99	55	6724	1.79	ug/L		96
72) 2-nitropropane	10.77	41	2253	1.92	ug/L	#	18
73) 2-chloroethyl vinyl ether	10.78	63	18338	10.67	ug/L		97
74) methyl methacrylate	10.25	100	1305	1.80	ug/L	#	79
75) 1,2-dichloropropane	10.31	63	5505	1.72	ug/L		97
76) dibromomethane	10.42	93	3038	1.71	ug/L		86
77) methylcyclohexane	10.30	83	6690	1.44	ug/L		97
78) bromodichloromethane	10.55	83	5824	1.53	ug/L		90
79) cis-1,3-dichloropropene	11.00	75	8445	1.79	ug/L		96
81) 4-methyl-2-pentanone	11.10	58	2180	1.80	ug/L		95
82) toluene	11.40	92	11959	1.83	ug/L		99
83) 3-methyl-1-butanol	11.10	55	5432	51.51	ug/L		98
84) trans-1,3-dichloropropene	11.58	75	7346	1.70	ug/L		97
85) ethyl methacrylate	11.56	69	6862	1.78	ug/L		94
86) 1,1,2-trichloroethane	11.82	83	3990	1.80	ug/L		95
87) 2-hexanone	11.98	58	2089	1.91	ug/L		96
89) tetrachloroethene	11.96	164	5790	2.31	ug/L		93
90) 1,3-dichloropropane	12.01	76	8098	1.84	ug/L		95
91) butyl acetate	12.06	56	3865	1.80	ug/L		92
92) 3,3-DIMETHYL-1-BUTANOL	12.17	57	5516	25.36	ug/L		96
93) dibromochloromethane	12.27	129	4174	1.41	ug/L		94
94) 1,2-dibromoethane	12.44	107	5044	1.85	ug/L		97
95) n-butyl ether	12.89	57	24860	1.78	ug/L	#	77
96) chlorobenzene	12.94	112	14077	1.83	ug/L		94
97) 1,1,1,2-tetrachloroethane	13.02	131	4522	1.67	ug/L		94
98) ethylbenzene	13.01	91	23260	1.77	ug/L		99
99) m,p-xylene	13.14	106	18654	3.80	ug/L		100
100) o-xylene	13.58	106	9182	1.82	ug/L		93
101) styrene	13.59	104	16257	1.97	ug/L		98
102) bromoform	13.85	173	2604	1.27	ug/L		96
104) isopropylbenzene	13.96	105	24702	1.67	ug/L		98

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67079.D
Acq On : 8 Dec 2016 9:03 am
Operator : Hueanht
Sample : ic2759-2
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 08 15:22:37 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:32:42 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
106) cyclohexanone	14.12	55	9906	38.49	ug/L		95
107) bromobenzene	14.39	156	7272	1.83	ug/L		96
108) 1,1,2,2-tetrachloroethane	14.27	83	7144	1.68	ug/L		96
109) trans-1,4-dichloro-2-buten	14.31	53	1374	5.80	ug/L		82
110) 1,2,3-trichloropropane	14.37	110	1646	1.68	ug/L		82
111) n-propylbenzene	14.42	91	30376	1.74	ug/L		98
113) 2-chlorotoluene	14.57	126	6292	1.72	ug/L		96
114) 4-chlorotoluene	14.70	91	18721	1.67	ug/L		99
115) 1,3,5-trimethylbenzene	14.60	105	21842	1.77	ug/L		98
116) tert-butylbenzene	14.97	119	18903	1.76	ug/L		99
117) pentachloroethane	15.05	167	3458	1.45	ug/L		87
118) 1,2,4-trimethylbenzene	15.03	105	22275	1.77	ug/L		99
119) sec-butylbenzene	15.21	105	28775	1.77	ug/L		99
120) 1,3-dichlorobenzene	15.41	146	14210	1.88	ug/L		99
121) p-isopropyltoluene	15.37	119	25103	1.87	ug/L		98
122) 1,4-dichlorobenzene	15.52	146	13988	1.86	ug/L		97
123) benzyl chloride	15.62	91	13882	2.13	ug/L		97
124) 1,2-dichlorobenzene	15.93	146	13689	1.90	ug/L		99
126) n-butylbenzene	15.82	92	12290	1.82	ug/L		93
128) 1,2-dibromo-3-chloropropan	16.78	75	1009	1.58	ug/L	#	76
129) 1,3,5-TRICHLOROBENZENE	16.98	180	11311	2.13	ug/L		98
130) 1,2,4-trichlorobenzene	17.66	180	9187	2.47	ug/L		97
131) hexachlorobutadiene	17.78	225	5292	1.85	ug/L		95
132) naphthalene	17.98	128	17802	2.24	ug/L		97
133) 1,2,3-trichlorobenzene	18.21	180	8066	2.55	ug/L		95
134) hexachloroethane	16.26	201	2700	1.28	ug/L		91

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

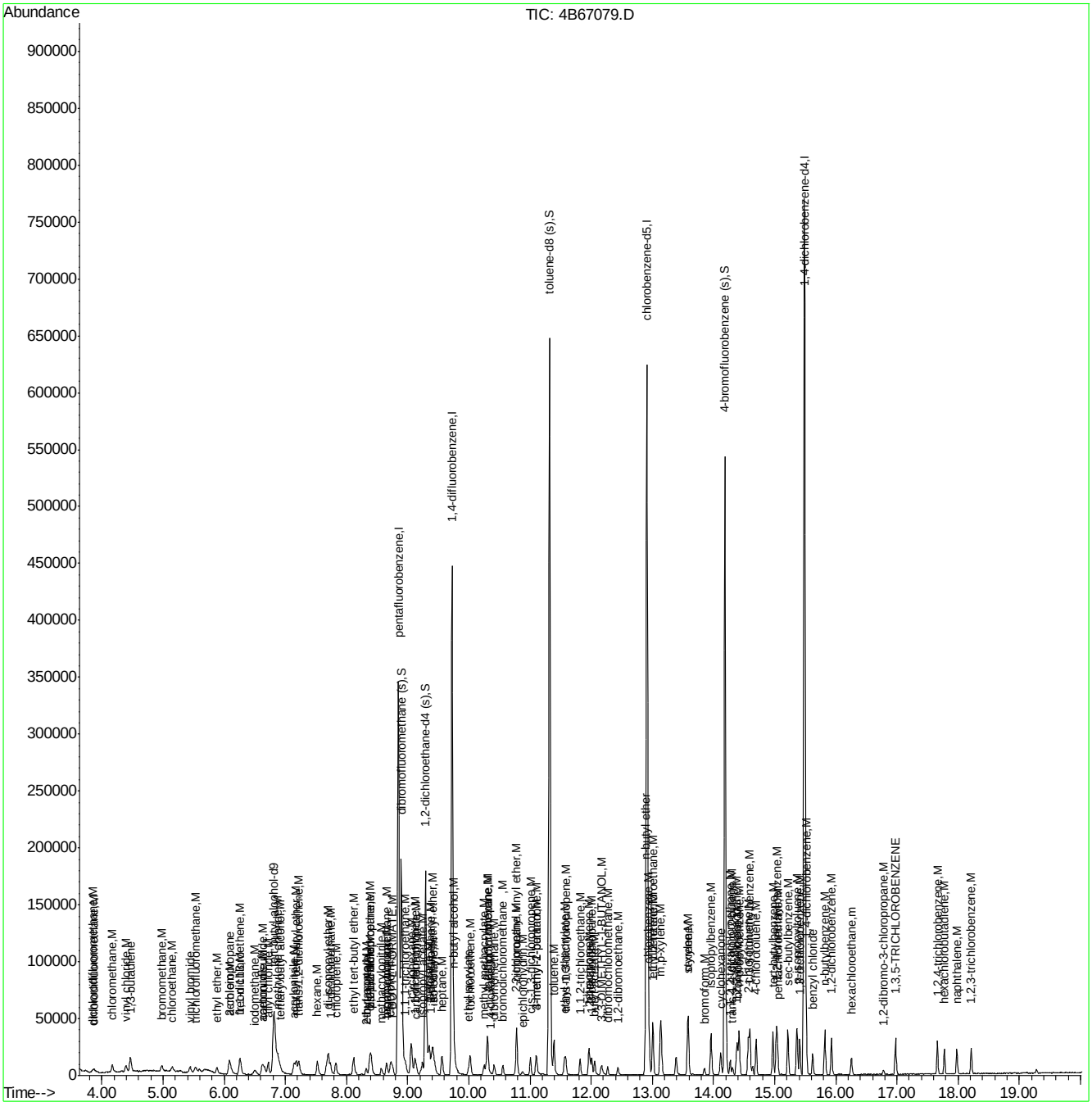
10.6.4 10

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67079.D
Acq On : 8 Dec 2016 9:03 am
Operator : Hueanht
Sample : ic2759-2
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 08 15:22:37 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:32:42 2016
Response via : Initial Calibration



SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67080.D
Acq On : 8 Dec 2016 9:31 am
Operator : Hueanht
Sample : ic2759-5
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 08 15:22:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.81	65	129263	500.00	ug/L	0.00
5) pentafluorobenzene	8.85	168	269012	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	364036	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	343974	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	205836	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	110240	50.13	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 100.26%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	124315	51.09	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 102.18%			
80) toluene-d8 (s)	11.32	98	429089	50.07	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.14%			
105) 4-bromofluorobenzene (s)	14.19	95	172068	50.44	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 100.88%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.92	59	8779	26.75	ug/L	92
3) 1,4-dioxane	10.35	88	4186	126.74	ug/L	84
7) chlorodifluoromethane	3.87	51	15786	5.13	ug/L	98
8) dichlorodifluoromethane	3.83	85	13874	5.07	ug/L	95
10) chloromethane	4.17	52	7106	5.24	ug/L #	84
11) vinyl chloride	4.39	62	19630	5.06	ug/L	93
12) bromomethane	4.98	94	10834	5.53	ug/L	99
13) chloroethane	5.15	64	10337	5.25	ug/L	96
14) vinyl bromide	5.44	106	12539	5.27	ug/L	97
15) trichlorofluoromethane	5.53	101	16448	4.93	ug/L	99
16) 1,3-butadiene	4.47	54	17441	5.23	ug/L	99
19) ethyl ether	5.88	74	7114	5.44	ug/L	91
20) 2-chloropropane	6.08	39	5342	5.39	ug/L	97
21) acrolein	6.09	56	28579	52.99	ug/L	99
22) 1,1-dichloroethene	6.26	96	11955	4.99	ug/L	99
24) allyl chloride	6.72	76	8281	5.20	ug/L	97
25) acetonitrile	6.64	40	8389	52.85	ug/L	93
26) iodomethane	6.52	142	22693	4.93	ug/L	96
27) carbon disulfide	6.62	76	36132	4.87	ug/L	97
28) methylene chloride	6.88	84	12912	4.90	ug/L	99
29) methyl acetate	6.66	74	1721	5.09	ug/L #	66
31) methyl tert butyl ether	7.18	73	35979	5.21	ug/L	98
32) trans-1,2-dichloroethene	7.22	96	12073	5.06	ug/L	99
33) di-isopropyl ether	7.70	45	48990	5.03	ug/L	93
34) 2-butanone	8.31	72	1545	4.91	ug/L #	59
35) 1,1-dichloroethane	7.74	63	25023	5.23	ug/L	97
36) chloroprene	7.82	53	19099	5.04	ug/L	94
37) acrylonitrile	7.14	53	25476	25.63	ug/L	98
38) vinyl acetate	7.67	86	2212	5.10	ug/L	97
39) ethyl tert-butyl ether	8.11	59	41983	5.31	ug/L	99
40) ethyl acetate	8.32	45	2158	5.47	ug/L #	64
41) 2,2-dichloropropane	8.40	77	12142	5.21	ug/L	95
42) cis-1,2-dichloroethene	8.38	96	13789	5.09	ug/L	99

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67080.D
Acq On : 8 Dec 2016 9:31 am
Operator : Hueanht
Sample : ic2759-5
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 08 15:22:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
43) methylacrylate	8.40	85	1948	5.39	ug/L #	82
44) propionitrile	8.39	54	20616	52.81	ug/L	94
45) bromochloromethane	8.65	128	6881	5.09	ug/L	94
46) tetrahydrofuran	8.67	42	4893	5.36	ug/L	99
47) chloroform	8.72	85	15334	4.94	ug/L	98
48) T-BUTYL FORMATE	8.75	59	10306	5.50	ug/L	90
51) freon 113	6.26	151	9324	5.43	ug/L	92
52) methacrylonitrile	8.57	41	9801	5.35	ug/L	99
53) 1,1,1-trichloroethane	8.96	97	16794	5.06	ug/L	98
54) cyclohexane	9.06	84	18502	5.24	ug/L	87
57) epichlorohydrin	10.87	57	8044	27.37	ug/L	99
58) n-butyl alcohol	9.76	56	31678	336.37	ug/L	93
59) carbon tetrachloride	9.14	117	13289	5.05	ug/L	98
60) 1,1-dichloropropene	9.12	75	18126	5.18	ug/L	97
61) hexane	7.53	57	17559	5.42	ug/L	97
63) benzene	9.35	78	51154	4.93	ug/L	100
64) iso-octane	9.43	57	46517	5.16	ug/L	96
65) tert-amyl methyl ether	9.40	87	8716	5.37	ug/L	98
66) heptane	9.56	57	10463	5.23	ug/L	95
67) isopropyl acetate	9.24	61	5165	5.11	ug/L #	84
68) 1,2-dichloroethane	9.38	62	18001	5.31	ug/L	97
69) trichloroethene	10.02	95	14435	5.18	ug/L	98
71) ethyl acrylate	10.00	55	17474	5.18	ug/L	98
72) 2-nitropropane	10.76	41	5091	4.84	ug/L #	82
73) 2-chloroethyl vinyl ether	10.78	63	48531	26.61	ug/L	99
74) methyl methacrylate	10.25	100	3503	5.11	ug/L	94
75) 1,2-dichloropropane	10.31	63	14691	5.12	ug/L	99
76) dibromomethane	10.41	93	8499	5.20	ug/L	94
77) methylcyclohexane	10.30	83	19428	5.28	ug/L	96
78) bromodichloromethane	10.55	83	16129	4.87	ug/L	96
79) cis-1,3-dichloropropene	11.00	75	22577	4.88	ug/L	99
81) 4-methyl-2-pentanone	11.10	58	5750	5.17	ug/L #	86
82) toluene	11.39	92	34068	5.08	ug/L	99
83) 3-methyl-1-butanol	11.10	55	14731	110.91	ug/L	94
84) trans-1,3-dichloropropene	11.59	75	20518	5.17	ug/L	95
85) ethyl methacrylate	11.56	69	18364	5.06	ug/L	98
86) 1,1,2-trichloroethane	11.82	83	10666	5.06	ug/L	96
87) 2-hexanone	11.98	58	6214	5.58	ug/L	96
89) tetrachloroethene	11.97	164	15665	5.23	ug/L	99
90) 1,3-dichloropropane	12.01	76	21022	5.11	ug/L	97
91) butyl acetate	12.06	56	10267	5.40	ug/L	93
92) 3,3-DIMETHYL-1-BUTANOL	12.17	57	16031	56.34	ug/L	96
93) dibromochloromethane	12.27	129	11947	4.66	ug/L	98
94) 1,2-dibromoethane	12.44	107	13454	5.04	ug/L	99
95) n-butyl ether	12.89	57	68164	4.97	ug/L	91
96) chlorobenzene	12.94	112	39052	4.99	ug/L	92
97) 1,1,1,2-tetrachloroethane	13.02	131	12499	4.86	ug/L	97
98) ethylbenzene	13.01	91	65102	5.02	ug/L	99
99) m,p-xylene	13.14	106	52376	10.22	ug/L	95
100) o-xylene	13.58	106	26362	5.04	ug/L	97

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67080.D
Acq On : 8 Dec 2016 9:31 am
Operator : Hueanht
Sample : ic2759-5
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 08 15:22:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
101) styrene	13.59	104	43839	4.93 ug/L	98
102) bromoform	13.85	173	7632	4.19 ug/L	95
104) isopropylbenzene	13.96	105	69492	5.07 ug/L	99
106) cyclohexanone	14.12	55	28386	58.24 ug/L	97
107) bromobenzene	14.39	156	19246	4.91 ug/L	99
108) 1,1,2,2-tetrachloroethane	14.27	83	18219	5.00 ug/L	98
109) trans-1,4-dichloro-2-buten	14.31	53	4008	4.85 ug/L	90
110) 1,2,3-trichloropropane	14.37	110	4710	5.20 ug/L	99
111) n-propylbenzene	14.42	91	83029	5.06 ug/L	99
113) 2-chlorotoluene	14.57	126	17415	5.05 ug/L	95
114) 4-chlorotoluene	14.70	91	50254	4.96 ug/L	97
115) 1,3,5-trimethylbenzene	14.59	105	60118	5.15 ug/L	95
116) tert-butylbenzene	14.97	119	51300	4.94 ug/L	99
117) pentachloroethane	15.05	167	10198	4.85 ug/L	93
118) 1,2,4-trimethylbenzene	15.03	105	67397	5.54 ug/L	99
119) sec-butylbenzene	15.22	105	77153	4.99 ug/L	97
120) 1,3-dichlorobenzene	15.41	146	37494	4.95 ug/L	95
121) p-isopropyltoluene	15.37	119	67441	4.98 ug/L	100
122) 1,4-dichlorobenzene	15.52	146	36912	4.94 ug/L	99
123) benzyl chloride	15.62	91	38131	5.14 ug/L	98
124) 1,2-dichlorobenzene	15.93	146	36350	5.04 ug/L	99
126) n-butylbenzene	15.82	92	34237	4.99 ug/L	97
128) 1,2-dibromo-3-chloropropan	16.78	75	3118	5.22 ug/L	97
129) 1,3,5-TRICHLOROBENZENE	16.98	180	30328	4.91 ug/L	100
130) 1,2,4-trichlorobenzene	17.66	180	25512	4.81 ug/L	97
131) hexachlorobutadiene	17.78	225	14814	4.92 ug/L	99
132) naphthalene	17.98	128	51032	5.15 ug/L	99
133) 1,2,3-trichlorobenzene	18.22	180	23390	4.95 ug/L	95
134) hexachloroethane	16.26	201	7496	4.05 ug/L	92

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

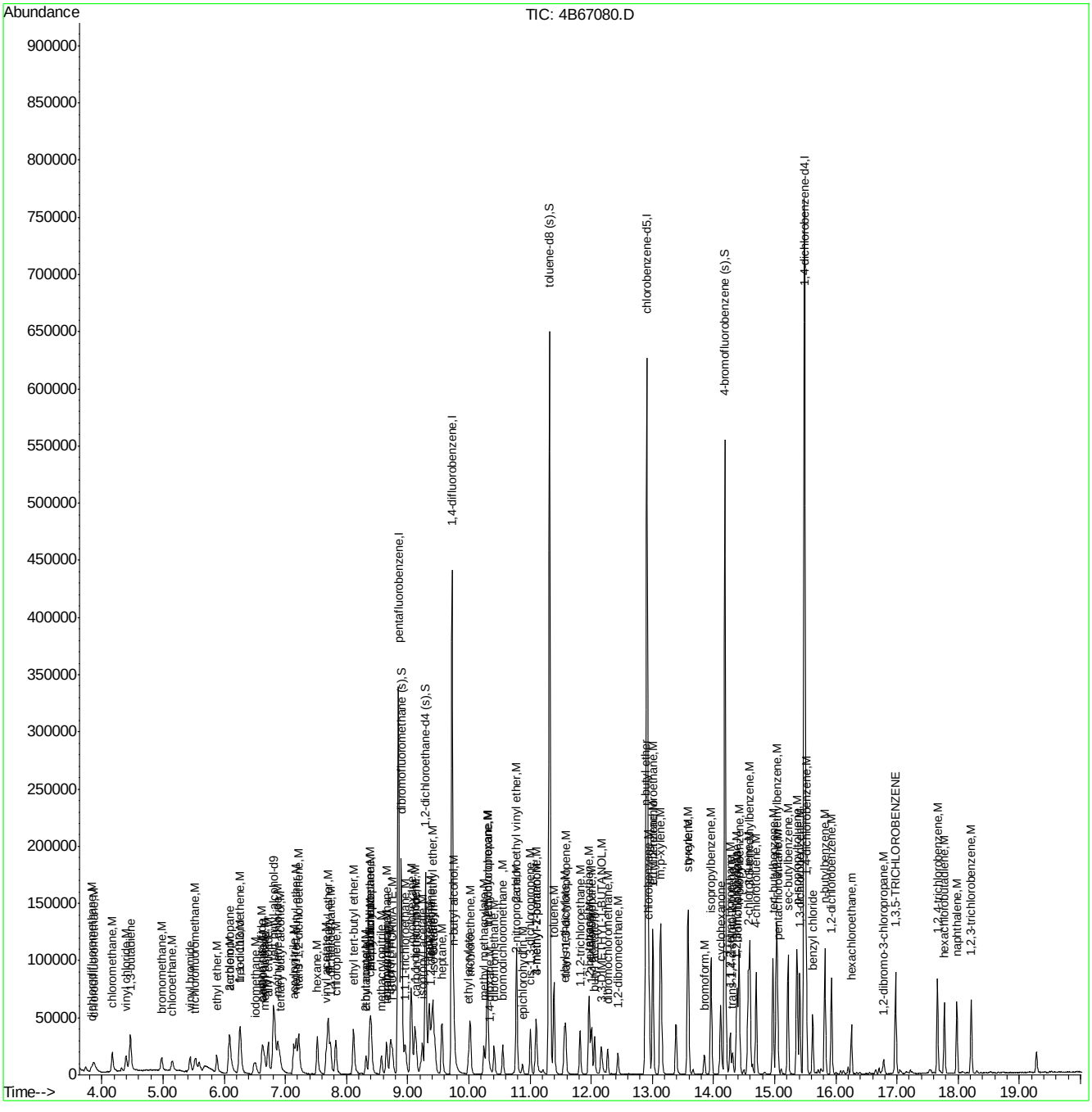
10.6.5 10

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67080.D
Acq On : 8 Dec 2016 9:31 am
Operator : Hueanht
Sample : ic2759-5
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 08 15:22:54 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration



SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67081.D
Acq On : 8 Dec 2016 9:59 am
Operator : Hueanht
Sample : ic2759-10
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 08 12:48:35 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.81	65	125330	500.00	ug/L	0.00
5) pentafluorobenzene	8.85	168	267110	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	360286	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	340155	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	205445	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	109626	50.21	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 100.42%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	120618	49.92	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 99.84%			
80) toluene-d8 (s)	11.32	98	422684	49.84	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.68%			
105) 4-bromofluorobenzene (s)	14.19	95	170185	49.98	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 99.96%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.91	59	15554	48.87	ug/L	91
3) 1,4-dioxane	10.35	88	8265	258.09	ug/L	85
7) chlorodifluoromethane	3.87	51	32041	10.49	ug/L	96
8) dichlorodifluoromethane	3.84	85	27975	10.30	ug/L	98
10) chloromethane	4.17	52	13762	10.21	ug/L	98
11) vinyl chloride	4.39	62	38983	10.12	ug/L	98
12) bromomethane	4.97	94	20502	10.55	ug/L	95
13) chloroethane	5.15	64	20723	10.61	ug/L	94
14) vinyl bromide	5.44	106	24070	10.19	ug/L	98
15) trichlorofluoromethane	5.53	101	33885	10.24	ug/L	98
16) 1,3-butadiene	4.47	54	34321	10.37	ug/L	99
19) ethyl ether	5.88	74	13796	10.63	ug/L	96
20) 2-chloropropane	6.08	39	11032	11.22	ug/L	96
21) acrolein	6.09	56	54695	102.13	ug/L	98
22) 1,1-dichloroethene	6.26	96	24307	10.23	ug/L	100
23) acetone	6.27	58	3540	12.10	ug/L #	77
24) allyl chloride	6.72	76	16967	10.73	ug/L	96
25) acetonitrile	6.64	40	18446	117.03	ug/L	87
26) iodomethane	6.50	142	47254	10.33	ug/L	99
27) carbon disulfide	6.62	76	75987	10.31	ug/L	99
28) methylene chloride	6.88	84	26634	10.17	ug/L	95
29) methyl acetate	6.66	74	3451	10.28	ug/L #	84
31) methyl tert butyl ether	7.18	73	70650	10.31	ug/L	98
32) trans-1,2-dichloroethene	7.22	96	24603	10.39	ug/L	97
33) di-isopropyl ether	7.70	45	94561	9.78	ug/L	96
34) 2-butanone	8.32	72	3251	10.41	ug/L #	79
35) 1,1-dichloroethane	7.74	63	50435	10.62	ug/L	99
36) chloroprene	7.82	53	38669	10.27	ug/L	96
37) acrylonitrile	7.14	53	49795	50.46	ug/L	96
38) vinyl acetate	7.67	86	4204	9.77	ug/L	96
39) ethyl tert-butyl ether	8.11	59	79075	10.07	ug/L	98
40) ethyl acetate	8.32	45	3958	10.10	ug/L	70
41) 2,2-dichloropropane	8.40	77	24839	10.73	ug/L	99

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67081.D
Acq On : 8 Dec 2016 9:59 am
Operator : Hueanht
Sample : ic2759-10
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 08 12:48:35 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
42) cis-1,2-dichloroethene	8.37	96	27769	10.33 ug/L	97
43) methylacrylate	8.40	85	3782	10.54 ug/L #	86
44) propionitrile	8.39	54	39718	102.46 ug/L	95
45) bromochloromethane	8.65	128	14184	10.58 ug/L	96
46) tetrahydrofuran	8.67	42	9099	10.04 ug/L	100
47) chloroform	8.72	85	30112	9.77 ug/L	98
48) T-BUTYL FORMATE	8.75	59	20495	11.01 ug/L	93
51) freon 113	6.26	151	19066	11.18 ug/L	98
52) methacrylonitrile	8.57	41	18070	9.94 ug/L	96
53) 1,1,1-trichloroethane	8.96	97	35258	10.71 ug/L	97
54) cyclohexane	9.06	84	36193	10.33 ug/L	97
57) epichlorohydrin	10.87	57	14755	50.72 ug/L	93
58) n-butyl alcohol	9.75	56	52543	563.72 ug/L	97
59) carbon tetrachloride	9.14	117	28837	11.07 ug/L	99
60) 1,1-dichloropropene	9.12	75	36763	10.62 ug/L	99
61) hexane	7.52	57	34945	10.90 ug/L	95
63) benzene	9.35	78	103656	10.10 ug/L	99
64) iso-octane	9.43	57	93519	10.48 ug/L	98
65) tert-amyl methyl ether	9.40	87	16381	10.19 ug/L	92
66) heptane	9.56	57	21203	10.71 ug/L	95
67) isopropyl acetate	9.24	61	10036	10.02 ug/L #	88
68) 1,2-dichloroethane	9.38	62	35158	10.49 ug/L	99
69) trichloroethene	10.02	95	28643	10.38 ug/L	99
71) ethyl acrylate	10.00	55	33502	10.03 ug/L	99
72) 2-nitropropane	10.76	41	10267	9.85 ug/L #	46
73) 2-chloroethyl vinyl ether	10.78	63	92437	51.21 ug/L	99
74) methyl methacrylate	10.25	100	6864	10.11 ug/L	94
75) 1,2-dichloropropane	10.31	63	30041	10.59 ug/L	98
76) dibromomethane	10.41	93	16569	10.24 ug/L	95
77) methylcyclohexane	10.30	83	39555	10.86 ug/L	99
78) bromodichloromethane	10.55	83	33645	10.26 ug/L	98
79) cis-1,3-dichloropropene	11.00	75	47622	10.40 ug/L	99
81) 4-methyl-2-pentanone	11.10	58	11320	10.28 ug/L #	82
82) toluene	11.39	92	66807	10.07 ug/L	99
83) 3-methyl-1-butanol	11.09	55	27997	212.98 ug/L	98
84) trans-1,3-dichloropropene	11.59	75	40342	10.28 ug/L	99
85) ethyl methacrylate	11.56	69	36444	10.15 ug/L	100
86) 1,1,2-trichloroethane	11.82	83	20653	9.90 ug/L	98
87) 2-hexanone	11.98	58	11780	10.69 ug/L	91
89) tetrachloroethene	11.97	164	31707	10.70 ug/L	97
90) 1,3-dichloropropane	12.01	76	41355	10.17 ug/L	98
91) butyl acetate	12.06	56	18903	10.06 ug/L	96
92) 3,3-DIMETHYL-1-BUTANOL	12.17	57	29991	106.59 ug/L	99
93) dibromochloromethane	12.27	129	26191	10.33 ug/L	94
94) 1,2-dibromoethane	12.44	107	26463	10.02 ug/L	97
95) n-butyl ether	12.89	57	137193	10.12 ug/L	96
96) chlorobenzene	12.94	112	76896	9.94 ug/L	98
97) 1,1,1,2-tetrachloroethane	13.02	131	25938	10.20 ug/L	96
98) ethylbenzene	13.01	91	130865	10.20 ug/L	99
99) m,p-xylene	13.14	106	102774	20.28 ug/L	99

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67081.D
Acq On : 8 Dec 2016 9:59 am
Operator : Hueanht
Sample : ic2759-10
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 08 12:48:35 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
100) o-xylene	13.58	106	52435	10.14 ug/L	93
101) styrene	13.59	104	90106	10.25 ug/L	97
102) bromoform	13.85	173	17741	9.85 ug/L	95
104) isopropylbenzene	13.96	105	140033	10.24 ug/L	99
106) cyclohexanone	14.12	55	53993	110.99 ug/L	99
107) bromobenzene	14.39	156	39472	10.09 ug/L	94
108) 1,1,2,2-tetrachloroethane	14.27	83	36356	10.00 ug/L	97
109) trans-1,4-dichloro-2-buten	14.31	53	7984	9.46 ug/L	93
110) 1,2,3-trichloropropane	14.37	110	9073	10.04 ug/L	98
111) n-propylbenzene	14.42	91	165770	10.13 ug/L	99
113) 2-chlorotoluene	14.57	126	34996	10.16 ug/L	98
114) 4-chlorotoluene	14.70	91	102617	10.15 ug/L	98
115) 1,3,5-trimethylbenzene	14.60	105	119940	10.29 ug/L	97
116) tert-butylbenzene	14.97	119	106239	10.26 ug/L	99
117) pentachloroethane	15.05	167	21790	10.39 ug/L	92
118) 1,2,4-trimethylbenzene	15.03	105	123643	10.18 ug/L	99
119) sec-butylbenzene	15.22	105	159762	10.36 ug/L	99
120) 1,3-dichlorobenzene	15.41	146	77439	10.24 ug/L	99
121) p-isopropyltoluene	15.36	119	142360	10.52 ug/L	98
122) 1,4-dichlorobenzene	15.52	146	74542	10.00 ug/L	98
123) benzyl chloride	15.62	91	73255	9.89 ug/L	100
124) 1,2-dichlorobenzene	15.93	146	73725	10.24 ug/L	99
126) n-butylbenzene	15.82	92	72323	10.56 ug/L	98
128) 1,2-dibromo-3-chloropropan	16.78	75	6225	10.44 ug/L	87
129) 1,3,5-TRICHLOROBENZENE	16.98	180	64406	10.44 ug/L	100
130) 1,2,4-trichlorobenzene	17.66	180	54485	10.26 ug/L	97
131) hexachlorobutadiene	17.78	225	31426	10.47 ug/L	96
132) naphthalene	17.98	128	102794	10.39 ug/L	99
133) 1,2,3-trichlorobenzene	18.21	180	48442	10.24 ug/L	96
134) hexachloroethane	16.26	201	18248	9.89 ug/L	95

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

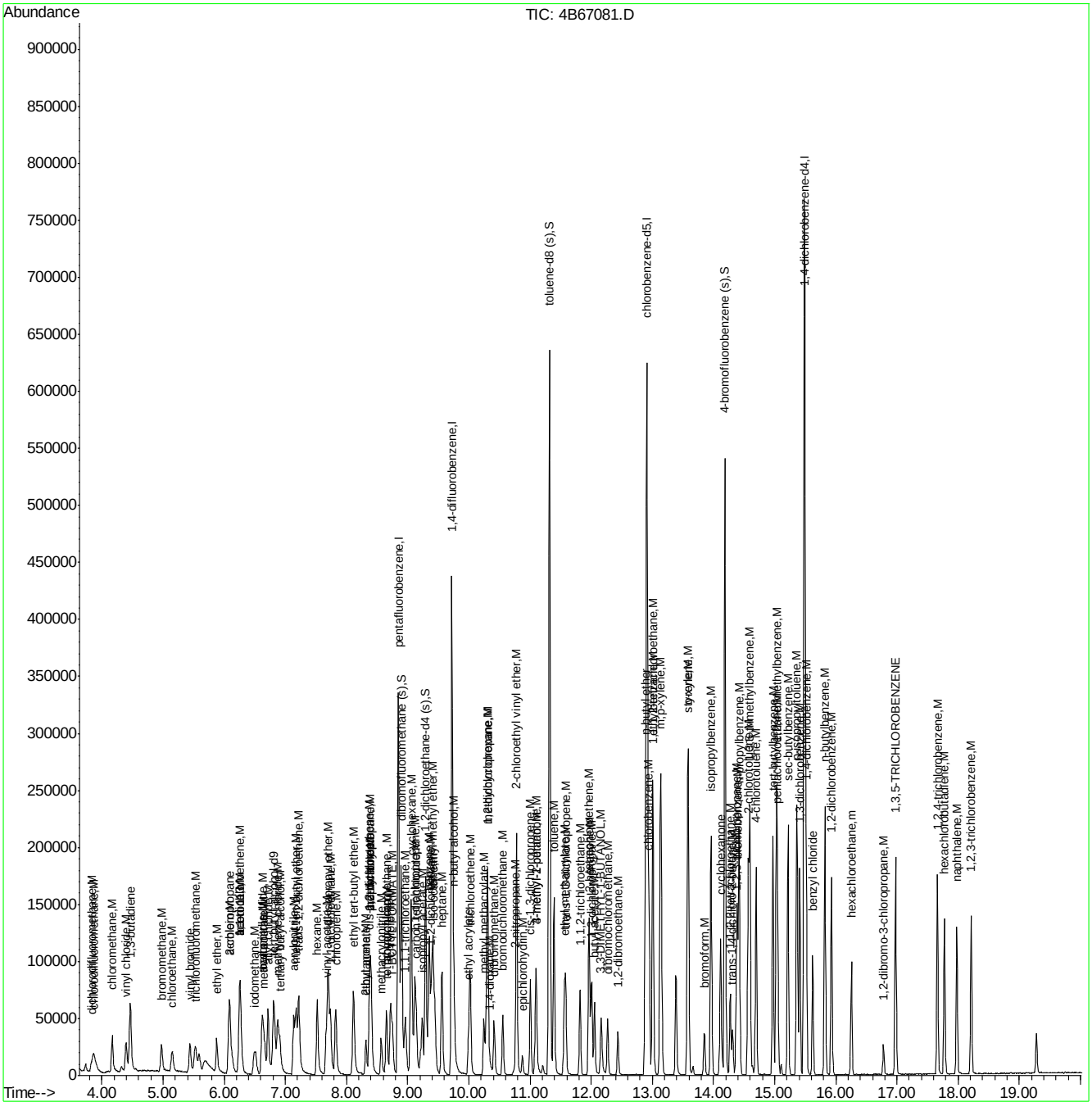
10.6.6 10

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67081.D
Acq On : 8 Dec 2016 9:59 am
Operator : Hueanht
Sample : ic2759-10
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 08 12:48:35 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration



SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67082.D
Acq On : 8 Dec 2016 10:27 am
Operator : Hueanht
Sample : ic2759-20
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 08 12:48:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.81	65	127911	500.00	ug/L	0.00
5) pentafluorobenzene	8.85	168	265250	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	359530	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	340053	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	204346	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	108795	50.17	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 100.34%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	120221	50.11	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 100.22%			
80) toluene-d8 (s)	11.32	98	421786	49.84	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.68%			
105) 4-bromofluorobenzene (s)	14.19	95	167731	49.53	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 99.06%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.91	59	33034	101.70	ug/L	94
3) 1,4-dioxane	10.35	88	16368	500.81	ug/L	97
7) chlorodifluoromethane	3.87	51	62435	20.59	ug/L	97
8) dichlorodifluoromethane	3.83	85	56236	20.86	ug/L	97
10) chloromethane	4.17	52	28120	21.02	ug/L	89
11) vinyl chloride	4.40	62	80029	20.93	ug/L	97
12) bromomethane	4.97	94	39505	20.46	ug/L	99
13) chloroethane	5.16	64	40313	20.78	ug/L	96
14) vinyl bromide	5.44	106	47405	20.22	ug/L	100
15) trichlorofluoromethane	5.53	101	68082	20.72	ug/L	99
16) 1,3-butadiene	4.47	54	70072	21.33	ug/L	99
19) ethyl ether	5.88	74	26572	20.61	ug/L	98
20) 2-chloropropane	6.08	39	19557	20.03	ug/L	90
21) acrolein	6.09	56	112442	211.42	ug/L	98
22) 1,1-dichloroethene	6.27	96	47475	20.12	ug/L	95
23) acetone	6.27	58	6710	23.09	ug/L	88
24) allyl chloride	6.72	76	34157	21.75	ug/L	97
25) acetonitrile	6.64	40	32877	210.05	ug/L	96
26) iodomethane	6.52	142	90606	19.95	ug/L	99
27) carbon disulfide	6.63	76	147102	20.11	ug/L	99
28) methylene chloride	6.88	84	50773	19.53	ug/L	95
29) methyl acetate	6.66	74	7532	22.59	ug/L	90
31) methyl tert butyl ether	7.18	73	138231	20.32	ug/L	97
32) trans-1,2-dichloroethene	7.22	96	46716	19.87	ug/L	98
33) di-isopropyl ether	7.70	45	183842	19.14	ug/L	98
34) 2-butanone	8.32	72	7412	23.89	ug/L #	88
35) 1,1-dichloroethane	7.74	63	94917	20.13	ug/L	98
36) chloroprene	7.82	53	76343	20.41	ug/L	98
37) acrylonitrile	7.14	53	98735	100.75	ug/L	95
38) vinyl acetate	7.67	86	9098	21.29	ug/L	96
39) ethyl tert-butyl ether	8.11	59	154974	19.88	ug/L	99
40) ethyl acetate	8.32	45	7974	20.49	ug/L	90
41) 2,2-dichloropropane	8.40	77	46926	20.42	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67082.D
Acq On : 8 Dec 2016 10:27 am
Operator : Hueanht
Sample : ic2759-20
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 08 12:48:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) cis-1,2-dichloroethene	8.38	96	52992	19.84	ug/L		99
43) methylacrylate	8.40	85	7931	22.26	ug/L		94
44) propionitrile	8.39	54	78944	205.07	ug/L		91
45) bromochloromethane	8.65	128	27293	20.49	ug/L		94
46) tetrahydrofuran	8.67	42	17642	19.60	ug/L		94
47) chloroform	8.72	85	57550	18.81	ug/L		97
48) T-BUTYL FORMATE	8.74	59	36122	19.53	ug/L		98
51) freon 113	6.26	151	37862	22.36	ug/L		96
52) methacrylonitrile	8.57	41	35469	19.64	ug/L		98
53) 1,1,1-trichloroethane	8.96	97	65938	20.16	ug/L		96
54) cyclohexane	9.06	84	73056	20.99	ug/L		98
57) epichlorohydrin	10.87	57	29096	100.23	ug/L		99
58) n-butyl alcohol	9.75	56	96751	1040.21	ug/L		97
59) carbon tetrachloride	9.14	117	55483	21.34	ug/L		99
60) 1,1-dichloropropene	9.12	75	70097	20.30	ug/L		99
61) hexane	7.52	57	70993	22.19	ug/L		97
63) benzene	9.35	78	197480	19.27	ug/L		99
64) iso-octane	9.44	57	185090	20.78	ug/L		99
65) tert-amyl methyl ether	9.40	87	32532	20.28	ug/L		96
66) heptane	9.56	57	41844	21.19	ug/L		98
67) isopropyl acetate	9.24	61	19823	19.84	ug/L		99
68) 1,2-dichloroethane	9.38	62	66592	19.91	ug/L		95
69) trichloroethene	10.02	95	54308	19.73	ug/L		97
71) ethyl acrylate	9.99	55	67229	20.18	ug/L		100
72) 2-nitropropane	10.76	41	20970	20.17	ug/L	#	33
73) 2-chloroethyl vinyl ether	10.78	63	184429	102.38	ug/L		99
74) methyl methacrylate	10.25	100	14499	21.41	ug/L		94
75) 1,2-dichloropropane	10.31	63	56853	20.08	ug/L		100
76) dibromomethane	10.41	93	32462	20.11	ug/L		96
77) methylcyclohexane	10.30	83	77580	21.34	ug/L		99
78) bromodichloromethane	10.55	83	66434	20.30	ug/L		99
79) cis-1,3-dichloropropene	11.01	75	91379	20.00	ug/L		99
81) 4-methyl-2-pentanone	11.10	58	22833	20.78	ug/L		96
82) toluene	11.40	92	127274	19.23	ug/L		99
83) 3-methyl-1-butanol	11.09	55	55511	423.17	ug/L		97
84) trans-1,3-dichloropropene	11.58	75	79470	20.29	ug/L		98
85) ethyl methacrylate	11.56	69	71543	19.97	ug/L		99
86) 1,1,2-trichloroethane	11.82	83	41413	19.88	ug/L		96
87) 2-hexanone	11.98	58	23778	21.63	ug/L		98
89) tetrachloroethene	11.97	164	59580	20.11	ug/L		97
90) 1,3-dichloropropane	12.01	76	79901	19.65	ug/L		98
91) butyl acetate	12.06	56	37738	20.10	ug/L		99
92) 3,3-DIMETHYL-1-BUTANOL	12.16	57	61432	218.39	ug/L		99
93) dibromochloromethane	12.27	129	52660	20.77	ug/L		98
94) 1,2-dibromoethane	12.44	107	52589	19.93	ug/L		97
95) n-butyl ether	12.89	57	265748	19.60	ug/L		98
96) chlorobenzene	12.94	112	146868	18.99	ug/L		99
97) 1,1,1,2-tetrachloroethane	13.02	131	51124	20.11	ug/L		100
98) ethylbenzene	13.01	91	249060	19.43	ug/L		98
99) m,p-xylene	13.14	106	197061	38.89	ug/L		98

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67082.D
Acq On : 8 Dec 2016 10:27 am
Operator : Hueanht
Sample : ic2759-20
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 08 12:48:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
100) o-xylene	13.58	106	100601	19.46 ug/L	99
101) styrene	13.59	104	172401	19.63 ug/L	99
102) bromoform	13.85	173	37118	20.61 ug/L	98
104) isopropylbenzene	13.96	105	267035	19.62 ug/L	99
106) cyclohexanone	14.11	55	109849	227.02 ug/L	99
107) bromobenzene	14.39	156	75659	19.43 ug/L	98
108) 1,1,2,2-tetrachloroethane	14.27	83	70636	19.53 ug/L	97
109) trans-1,4-dichloro-2-buten	14.31	53	16690	19.64 ug/L	99
110) 1,2,3-trichloropropane	14.37	110	17695	19.69 ug/L	98
111) n-propylbenzene	14.42	91	315147	19.36 ug/L	99
113) 2-chlorotoluene	14.57	126	66564	19.43 ug/L	98
114) 4-chlorotoluene	14.70	91	192904	19.18 ug/L	98
115) 1,3,5-trimethylbenzene	14.59	105	225958	19.49 ug/L	98
116) tert-butylbenzene	14.97	119	202305	19.64 ug/L	99
117) pentachloroethane	15.05	167	42545	20.39 ug/L	95
118) 1,2,4-trimethylbenzene	15.03	105	233023	19.29 ug/L	99
119) sec-butylbenzene	15.22	105	305891	19.95 ug/L	100
120) 1,3-dichlorobenzene	15.41	146	144778	19.24 ug/L	99
121) p-isopropyltoluene	15.37	119	268599	19.96 ug/L	98
122) 1,4-dichlorobenzene	15.52	146	142407	19.20 ug/L	99
123) benzyl chloride	15.62	91	149717	20.32 ug/L	100
124) 1,2-dichlorobenzene	15.93	146	139993	19.55 ug/L	99
126) n-butylbenzene	15.82	92	139277	20.45 ug/L	100
128) 1,2-dibromo-3-chloropropan	16.78	75	12947	21.84 ug/L	92
129) 1,3,5-TRICHLOROBENZENE	16.98	180	124897	20.36 ug/L	100
130) 1,2,4-trichlorobenzene	17.66	180	106841	20.19 ug/L	98
131) hexachlorobutadiene	17.78	225	59437	19.90 ug/L	98
132) naphthalene	17.98	128	208341	21.18 ug/L	99
133) 1,2,3-trichlorobenzene	18.21	180	95556	20.28 ug/L	99
134) hexachloroethane	16.26	201	37984	20.69 ug/L	96

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

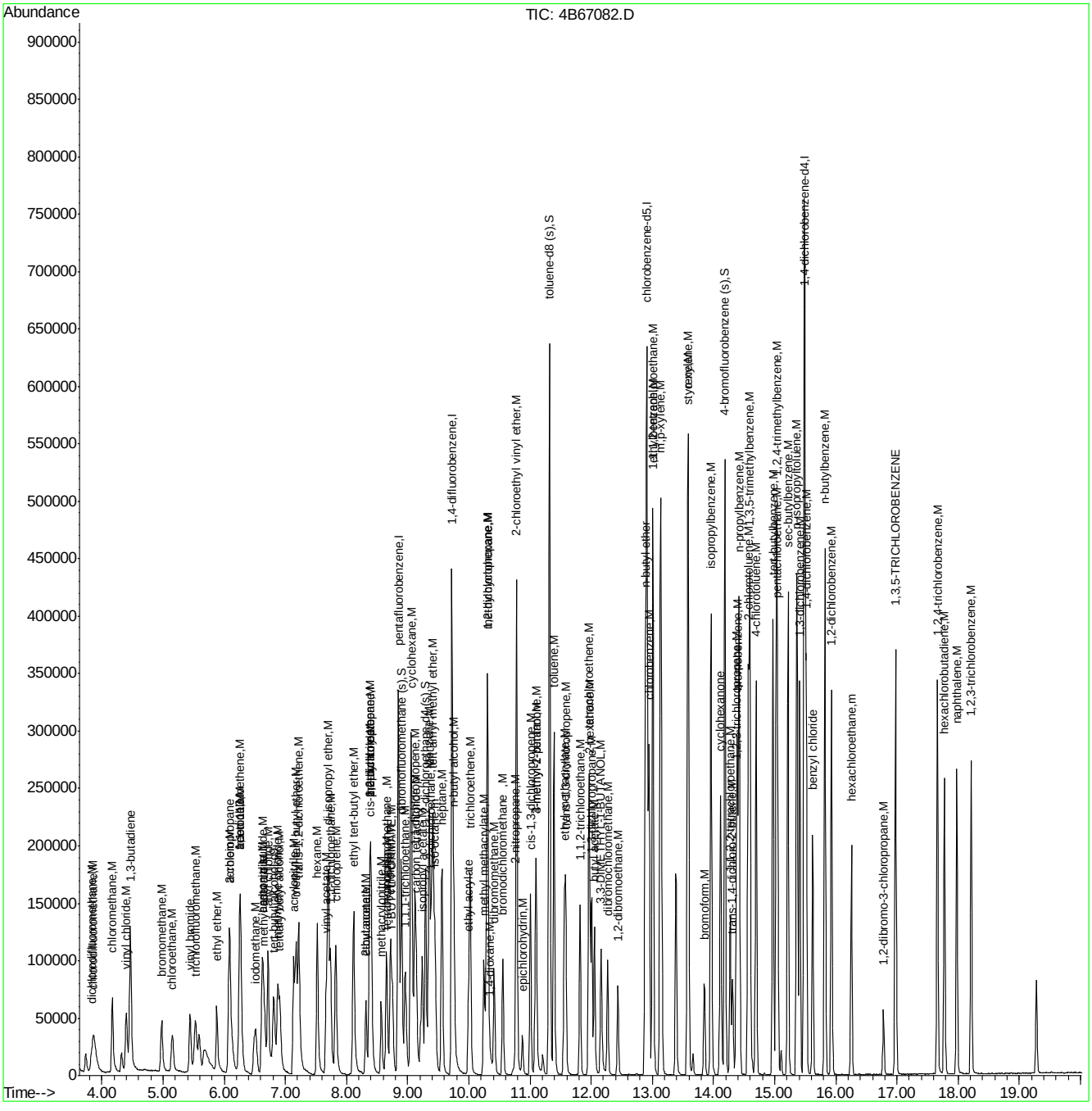
10.6.7 10

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67082.D
Acq On : 8 Dec 2016 10:27 am
Operator : Hueanht
Sample : ic2759-20
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 08 12:48:06 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67083.D
Acq On : 8 Dec 2016 10:55 am
Operator : Hueanht
Sample : icc2759-50
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 08 12:46:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.81	65	106678	500.00	ug/L	0.00
5) pentafluorobenzene	8.85	168	259420	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	353580	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	331323	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	205829	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	106511	50.23	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 100.46%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	114253	48.69	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 97.38%			
80) toluene-d8 (s)	11.32	98	417215	50.13	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.26%			
105) 4-bromofluorobenzene (s)	14.19	95	167745	49.17	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 98.34%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.91	59	69472	256.46	ug/L	100
3) 1,4-dioxane	10.35	88	35774	1312.43	ug/L	100
7) chlorodifluoromethane	3.87	51	157566	53.14	ug/L	100
8) dichlorodifluoromethane	3.83	85	138642	52.58	ug/L	100
10) chloromethane	4.17	52	68141	52.08	ug/L	100
11) vinyl chloride	4.40	62	198676	53.13	ug/L	100
12) bromomethane	4.97	94	101304	53.65	ug/L	100
13) chloroethane	5.15	64	98769	52.05	ug/L	100
14) vinyl bromide	5.44	106	117192	51.10	ug/L	100
15) trichlorofluoromethane	5.53	101	170722	53.12	ug/L	100
16) 1,3-butadiene	4.46	54	168006	52.29	ug/L	100
19) ethyl ether	5.88	74	67029	53.17	ug/L	100
20) 2-chloropropane	6.08	39	46632	48.83	ug/L	100
21) acrolein	6.09	56	266878	513.08	ug/L	100
22) 1,1-dichloroethene	6.27	96	114364	49.55	ug/L	100
23) acetone	6.26	58	11729	41.27	ug/L	96
24) allyl chloride	6.72	76	76872	50.05	ug/L	100
25) acetonitrile	6.64	40	74847	488.93	ug/L	100
26) iodomethane	6.51	142	229983	51.77	ug/L	100
27) carbon disulfide	6.63	76	367996	51.43	ug/L	100
28) methylene chloride	6.88	84	128846	50.68	ug/L	100
29) methyl acetate	6.66	74	18412	56.45	ug/L	100
31) methyl tert butyl ether	7.18	73	328123	49.31	ug/L	100
32) trans-1,2-dichloroethene	7.22	96	114280	49.71	ug/L	100
33) di-isopropyl ether	7.70	45	444304	47.31	ug/L	100
34) 2-butanone	8.31	72	14610	48.15	ug/L	100
35) 1,1-dichloroethane	7.74	63	232636	50.44	ug/L	100
36) chloroprene	7.82	53	186061	50.87	ug/L	100
37) acrylonitrile	7.14	53	236074	246.31	ug/L	100
38) vinyl acetate	7.67	86	22623	54.12	ug/L	100
39) ethyl tert-butyl ether	8.11	59	378251	49.62	ug/L	100
40) ethyl acetate	8.32	45	18533	48.69	ug/L	100
41) 2,2-dichloropropane	8.40	77	111070	49.41	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67083.D
Acq On : 8 Dec 2016 10:55 am
Operator : Hueanht
Sample : icc2759-50
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 08 12:46:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) cis-1,2-dichloroethene	8.37	96	133506	51.11	ug/L	100
43) methylacrylate	8.40	85	19079	54.75	ug/L	100
44) propionitrile	8.39	54	179741	477.41	ug/L	100
45) bromochloromethane	8.65	128	69080	53.03	ug/L	100
46) tetrahydrofuran	8.67	42	39942	45.38	ug/L	100
47) chloroform	8.72	85	141673	47.35	ug/L	100
48) T-BUTYL FORMATE	8.75	59	94960	52.51	ug/L	100
51) freon 113	6.25	151	91295	55.12	ug/L	100
52) methacrylonitrile	8.57	41	82652	46.79	ug/L	100
53) 1,1,1-trichloroethane	8.96	97	168232	52.59	ug/L	100
54) cyclohexane	9.06	84	174606	51.29	ug/L	100
57) epichlorohydrin	10.87	57	66840	234.13	ug/L	100
58) n-butyl alcohol	9.75	56	202714	2216.13	ug/L	100
59) carbon tetrachloride	9.14	117	143287	56.04	ug/L	100
60) 1,1-dichloropropene	9.12	75	172167	50.69	ug/L	100
61) hexane	7.52	57	166773	53.00	ug/L	100
63) benzene	9.35	78	490438	48.67	ug/L	100
64) iso-octane	9.44	57	451742	51.57	ug/L	100
65) tert-amyl methyl ether	9.40	87	79882	50.63	ug/L	100
66) heptane	9.56	57	101917	52.47	ug/L	100
67) isopropyl acetate	9.24	61	50580	51.48	ug/L	100
68) 1,2-dichloroethane	9.38	62	165442	50.28	ug/L	100
69) trichloroethene	10.02	95	134111	49.53	ug/L	100
71) ethyl acrylate	10.00	55	163102	49.77	ug/L	100
72) 2-nitropropane	10.76	41	51761	50.62	ug/L	100
73) 2-chloroethyl vinyl ether	10.78	63	441506	249.21	ug/L	100
74) methyl methacrylate	10.25	100	35252	52.92	ug/L	100
75) 1,2-dichloropropane	10.31	63	139289	50.01	ug/L	100
76) dibromomethane	10.41	93	80848	50.93	ug/L	100
77) methylcyclohexane	10.30	83	190371	53.23	ug/L	100
78) bromodichloromethane	10.55	83	171330	53.23	ug/L	100
79) cis-1,3-dichloropropene	11.00	75	233853	52.05	ug/L	100
81) 4-methyl-2-pentanone	11.10	58	52876	48.93	ug/L	100
82) toluene	11.39	92	321892	49.45	ug/L	100
83) 3-methyl-1-butanol	11.09	55	117365	909.75	ug/L	100
84) trans-1,3-dichloropropene	11.59	75	200469	52.04	ug/L	100
85) ethyl methacrylate	11.56	69	176346	50.06	ug/L	100
86) 1,1,2-trichloroethane	11.82	83	103015	50.29	ug/L	100
87) 2-hexanone	11.98	58	50675	46.87	ug/L	100
89) tetrachloroethene	11.96	164	141862	49.16	ug/L	100
90) 1,3-dichloropropane	12.01	76	197528	49.87	ug/L	100
91) butyl acetate	12.06	56	90256	49.33	ug/L	100
92) 3,3-DIMETHYL-1-BUTANOL	12.16	57	129684	473.17	ug/L	100
93) dibromochloromethane	12.27	129	143078	57.91	ug/L	100
94) 1,2-dibromoethane	12.44	107	130515	50.76	ug/L	100
95) n-butyl ether	12.89	57	671169	50.82	ug/L	100
96) chlorobenzene	12.94	112	371551	49.31	ug/L	100
97) 1,1,1,2-tetrachloroethane	13.02	131	132868	53.64	ug/L	100
98) ethylbenzene	13.01	91	615283	49.25	ug/L	100
99) m,p-xylene	13.14	106	491974	99.65	ug/L	100

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67083.D
Acq On : 8 Dec 2016 10:55 am
Operator : Hueanht
Sample : icc2759-50
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 08 12:46:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) o-xylene	13.58	106	253825	50.40	ug/L	100
101) styrene	13.59	104	429926	50.23	ug/L	100
102) bromoform	13.85	173	106039	60.44	ug/L	100
104) isopropylbenzene	13.96	105	668791	48.80	ug/L	100
106) cyclohexanone	14.12	55	185618	380.84	ug/L	100
107) bromobenzene	14.39	156	190528	48.59	ug/L	100
108) 1,1,2,2-tetrachloroethane	14.27	83	176198	48.37	ug/L	100
109) trans-1,4-dichloro-2-buten	14.31	53	42999	49.88	ug/L	100
110) 1,2,3-trichloropropane	14.37	110	43436	47.98	ug/L	100
111) n-propylbenzene	14.42	91	786863	48.00	ug/L	100
113) 2-chlorotoluene	14.57	126	170391	49.38	ug/L	100
114) 4-chlorotoluene	14.70	91	483614	47.74	ug/L	100
115) 1,3,5-trimethylbenzene	14.60	105	563944	48.28	ug/L	100
116) tert-butylbenzene	14.97	119	518992	50.02	ug/L	100
117) pentachloroethane	15.05	167	115020	54.74	ug/L	100
118) 1,2,4-trimethylbenzene	15.03	105	588457	48.35	ug/L	100
119) sec-butylbenzene	15.22	105	780634	50.54	ug/L	100
120) 1,3-dichlorobenzene	15.41	146	366104	48.30	ug/L	100
121) p-isopropyltoluene	15.37	119	695888	51.34	ug/L	100
122) 1,4-dichlorobenzene	15.52	146	363560	48.68	ug/L	100
123) benzyl chloride	15.62	91	378082	50.95	ug/L	100
124) 1,2-dichlorobenzene	15.93	146	356524	49.42	ug/L	100
126) n-butylbenzene	15.82	92	362335	52.83	ug/L	100
128) 1,2-dibromo-3-chloropropan	16.78	75	32738	54.82	ug/L	100
129) 1,3,5-TRICHLOROBENZENE	16.98	180	325753	52.71	ug/L	100
130) 1,2,4-trichlorobenzene	17.66	180	287050	53.81	ug/L	100
131) hexachlorobutadiene	17.78	225	151705	50.43	ug/L	100
132) naphthalene	17.98	128	533396	53.84	ug/L	100
133) 1,2,3-trichlorobenzene	18.22	180	251104	52.86	ug/L	100
134) hexachloroethane	16.26	201	116780	63.16	ug/L	100

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

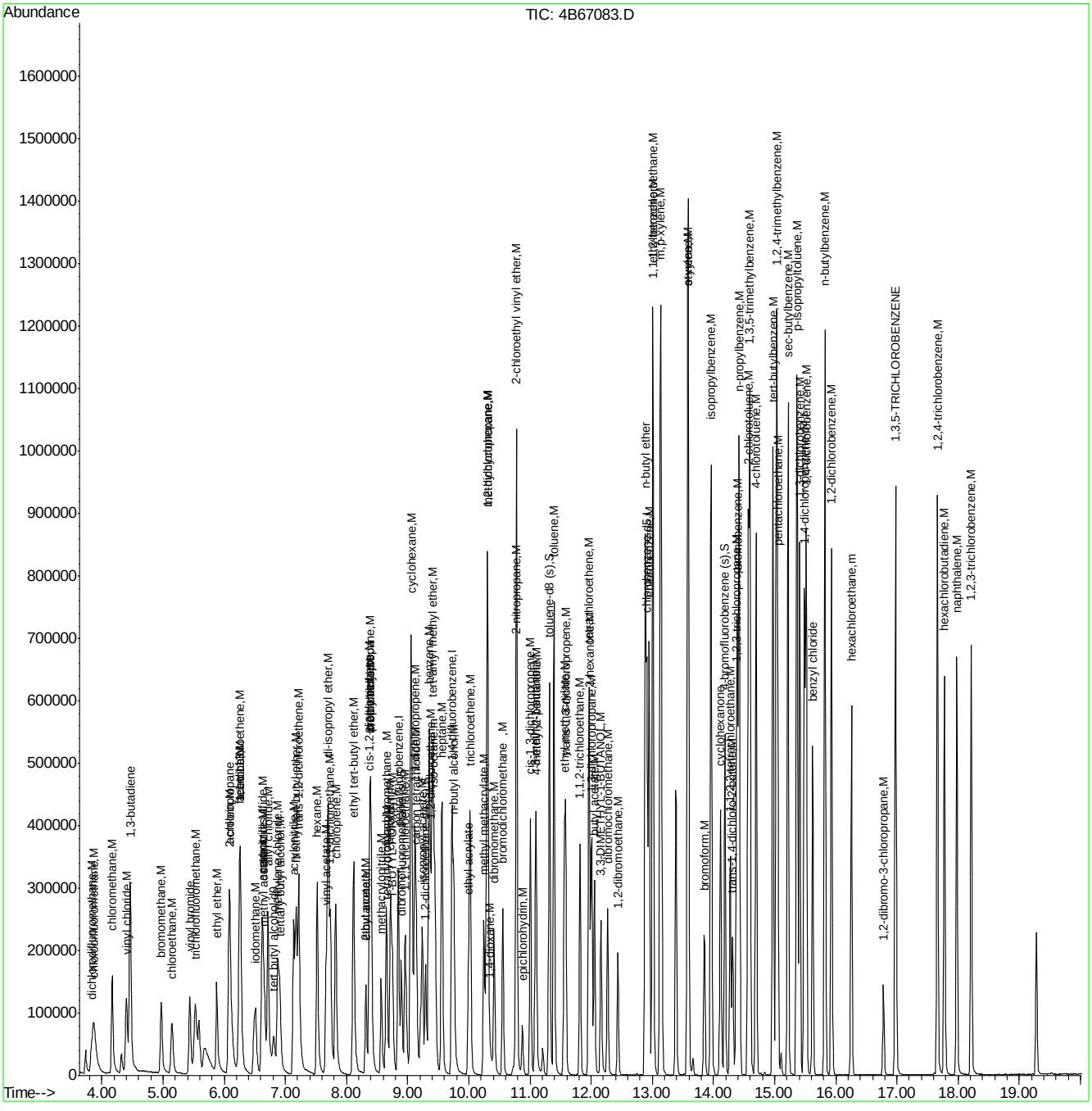
10.6.8 10

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67083.D
Acq On : 8 Dec 2016 10:55 am
Operator : Hueanht
Sample : icc2759-50
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 08 12:46:39 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration



SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67084.D
Acq On : 8 Dec 2016 11:22 am
Operator : Hueanht
Sample : ic2759-100
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 08 12:47:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.81	65	108683	500.00	ug/L	0.00
5) pentafluorobenzene	8.85	168	256573	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	350154	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	328202	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	206326	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	104986	50.06	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 100.12%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	111804	48.17	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 96.34%			
80) toluene-d8 (s)	11.32	98	414055	50.23	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.46%			
105) 4-bromofluorobenzene (s)	14.19	95	170296	49.80	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 99.60%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.92	59	137379	497.78	ug/L	97
3) 1,4-dioxane	10.35	88	68933	2482.27	ug/L	99
7) chlorodifluoromethane	3.87	51	297538	101.45	ug/L	98
8) dichlorodifluoromethane	3.84	85	254715	97.67	ug/L	100
10) chloromethane	4.17	52	130350	100.73	ug/L	91
11) vinyl chloride	4.40	62	368507	99.63	ug/L	99
12) bromomethane	4.97	94	179377	96.05	ug/L	98
13) chloroethane	5.15	64	178317	95.01	ug/L	97
14) vinyl bromide	5.44	106	217152	95.74	ug/L	99
15) trichlorofluoromethane	5.53	101	317498	99.88	ug/L	98
16) 1,3-butadiene	4.47	54	312176	98.24	ug/L	100
19) ethyl ether	5.88	74	130401	104.59	ug/L	99
20) 2-chloropropane	6.08	39	83965	88.90	ug/L	98
21) acrolein	6.09	56	516276	1003.57	ug/L	99
22) 1,1-dichloroethene	6.27	96	225762	98.89	ug/L	99
23) acetone	6.27	58	22937	81.61	ug/L	95
24) allyl chloride	6.72	76	151258	99.57	ug/L	100
25) acetonitrile	6.64	40	126858	837.88	ug/L	98
26) iodomethane	6.51	142	451182	102.69	ug/L	99
27) carbon disulfide	6.63	76	727506	102.79	ug/L	99
28) methylene chloride	6.88	84	250343	99.56	ug/L	97
29) methyl acetate	6.66	74	35110	108.84	ug/L	92
31) methyl tert butyl ether	7.18	73	636937	96.78	ug/L	99
32) trans-1,2-dichloroethene	7.22	96	219559	96.56	ug/L	98
33) di-isopropyl ether	7.70	45	802065	86.35	ug/L	99
34) 2-butanone	8.32	72	30062	100.17	ug/L #	94
35) 1,1-dichloroethane	7.74	63	442010	96.90	ug/L	100
36) chloroprene	7.82	53	342074	94.55	ug/L	99
37) acrylonitrile	7.14	53	466893	492.53	ug/L	97
38) vinyl acetate	7.67	86	42982	103.97	ug/L	92
39) ethyl tert-butyl ether	8.12	59	706173	93.66	ug/L	99
40) ethyl acetate	8.32	45	35808	95.12	ug/L	87
41) 2,2-dichloropropane	8.40	77	192411	86.55	ug/L	99

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67084.D
Acq On : 8 Dec 2016 11:22 am
Operator : Hueanht
Sample : ic2759-100
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 08 12:47:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) cis-1,2-dichloroethene	8.37	96	256299	99.22	ug/L		98
43) methylacrylate	8.40	85	38083	110.49	ug/L		95
44) propionitrile	8.39	54	355064	953.54	ug/L		97
45) bromochloromethane	8.65	128	134663	104.53	ug/L		99
46) tetrahydrofuran	8.67	42	80155	92.07	ug/L		99
47) chloroform	8.72	85	270490	91.41	ug/L		99
48) T-BUTYL FORMATE	8.75	59	165468	92.51	ug/L		99
51) freon 113	6.26	151	169842	103.68	ug/L		99
52) methacrylonitrile	8.57	41	166074	95.07	ug/L		99
53) 1,1,1-trichloroethane	8.96	97	323453	102.24	ug/L		99
54) cyclohexane	9.06	84	328911	97.69	ug/L		99
57) epichlorohydrin	10.88	57	130358	461.09	ug/L		98
58) n-butyl alcohol	9.75	56	387496	4277.67	ug/L		99
59) carbon tetrachloride	9.14	117	283912	112.13	ug/L		97
60) 1,1-dichloropropene	9.12	75	331244	98.48	ug/L		99
61) hexane	7.52	57	304996	97.87	ug/L		99
63) benzene	9.35	78	942524	94.45	ug/L		99
64) iso-octane	9.44	57	819257	94.44	ug/L		100
65) tert-amyl methyl ether	9.40	87	148582	95.09	ug/L		96
66) heptane	9.56	57	186892	97.17	ug/L		98
67) isopropyl acetate	9.24	61	97231	99.93	ug/L		94
68) 1,2-dichloroethane	9.38	62	315386	96.80	ug/L		98
69) trichloroethene	10.02	95	257334	95.98	ug/L		99
71) ethyl acrylate	9.99	55	329515	101.53	ug/L		100
72) 2-nitropropane	10.76	41	101064	99.80	ug/L	#	25
73) 2-chloroethyl vinyl ether	10.78	63	820013	467.40	ug/L		99
74) methyl methacrylate	10.25	100	71851	108.92	ug/L		93
75) 1,2-dichloropropane	10.31	63	264107	95.76	ug/L		100
76) dibromomethane	10.41	93	159347	101.37	ug/L		96
77) methylcyclohexane	10.30	83	349815	98.78	ug/L		98
78) bromodichloromethane	10.55	83	340394	106.80	ug/L		99
79) cis-1,3-dichloropropene	11.00	75	455344	102.33	ug/L		100
81) 4-methyl-2-pentanone	11.10	58	106788	99.78	ug/L		98
82) toluene	11.39	92	626817	97.24	ug/L		97
83) 3-methyl-1-butanol	11.09	55	224347	1756.03	ug/L		97
84) trans-1,3-dichloropropene	11.58	75	395336	103.63	ug/L		100
85) ethyl methacrylate	11.56	69	355522	101.92	ug/L		98
86) 1,1,2-trichloroethane	11.82	83	203725	100.44	ug/L		99
87) 2-hexanone	11.98	58	103825	96.97	ug/L		95
89) tetrachloroethene	11.97	164	270147	94.50	ug/L		98
90) 1,3-dichloropropane	12.01	76	384729	98.05	ug/L		99
91) butyl acetate	12.06	56	177139	97.73	ug/L		98
92) 3,3-DIMETHYL-1-BUTANOL	12.16	57	245122	902.87	ug/L		98
93) dibromochloromethane	12.27	129	294212	120.22	ug/L		99
94) 1,2-dibromoethane	12.44	107	264627	103.89	ug/L		97
95) n-butyl ether	12.89	57	1327087	101.43	ug/L		100
96) chlorobenzene	12.94	112	730538	97.88	ug/L		100
97) 1,1,1,2-tetrachloroethane	13.02	131	265721	108.29	ug/L		99
98) ethylbenzene	13.01	91	1206848	97.53	ug/L		100
99) m,p-xylene	13.14	106	978215	200.03	ug/L		100

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67084.D
Acq On : 8 Dec 2016 11:22 am
Operator : Hueanht
Sample : ic2759-100
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 08 12:47:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
100) o-xylene	13.58	106	507122	101.66	ug/L	99
101) styrene	13.59	104	846627	99.86	ug/L	99
102) bromoform	13.85	173	232168	133.58	ug/L	99
104) isopropylbenzene	13.96	105	1319952	96.07	ug/L	99
106) cyclohexanone	14.12	55	368468	754.18	ug/L	100
107) bromobenzene	14.39	156	378945	96.41	ug/L	99
108) 1,1,2,2-tetrachloroethane	14.27	83	359471	98.45	ug/L	99
109) trans-1,4-dichloro-2-buten	14.31	53	90907	104.95	ug/L	97
110) 1,2,3-trichloropropane	14.37	110	90349	99.56	ug/L	98
111) n-propylbenzene	14.42	91	1545011	94.02	ug/L	100
113) 2-chlorotoluene	14.57	126	340117	98.33	ug/L	99
114) 4-chlorotoluene	14.70	91	962316	94.77	ug/L	100
115) 1,3,5-trimethylbenzene	14.60	105	1103405	94.24	ug/L	99
116) tert-butylbenzene	14.97	119	1019016	97.97	ug/L	99
117) pentachloroethane	15.05	167	238318	113.14	ug/L	98
118) 1,2,4-trimethylbenzene	15.03	105	1134172	92.97	ug/L	99
119) sec-butylbenzene	15.22	105	1521216	98.25	ug/L	100
120) 1,3-dichlorobenzene	15.41	146	712316	93.74	ug/L	99
121) p-isopropyltoluene	15.37	119	1327566	97.71	ug/L	99
122) 1,4-dichlorobenzene	15.52	146	715061	95.51	ug/L	99
123) benzyl chloride	15.62	91	739018	99.35	ug/L	99
124) 1,2-dichlorobenzene	15.93	146	692805	95.81	ug/L	100
126) n-butylbenzene	15.82	92	688387	100.12	ug/L	98
128) 1,2-dibromo-3-chloropropan	16.78	75	66935	111.82	ug/L	98
129) 1,3,5-TRICHLOROBENZENE	16.98	180	622804	100.54	ug/L	100
130) 1,2,4-trichlorobenzene	17.66	180	554959	103.75	ug/L	100
131) hexachlorobutadiene	17.78	225	283855	94.14	ug/L	99
132) naphthalene	17.98	128	1065016	107.23	ug/L	100
133) 1,2,3-trichlorobenzene	18.22	180	492095	103.32	ug/L	98
134) hexachloroethane	16.26	201	246222	132.84	ug/L	99

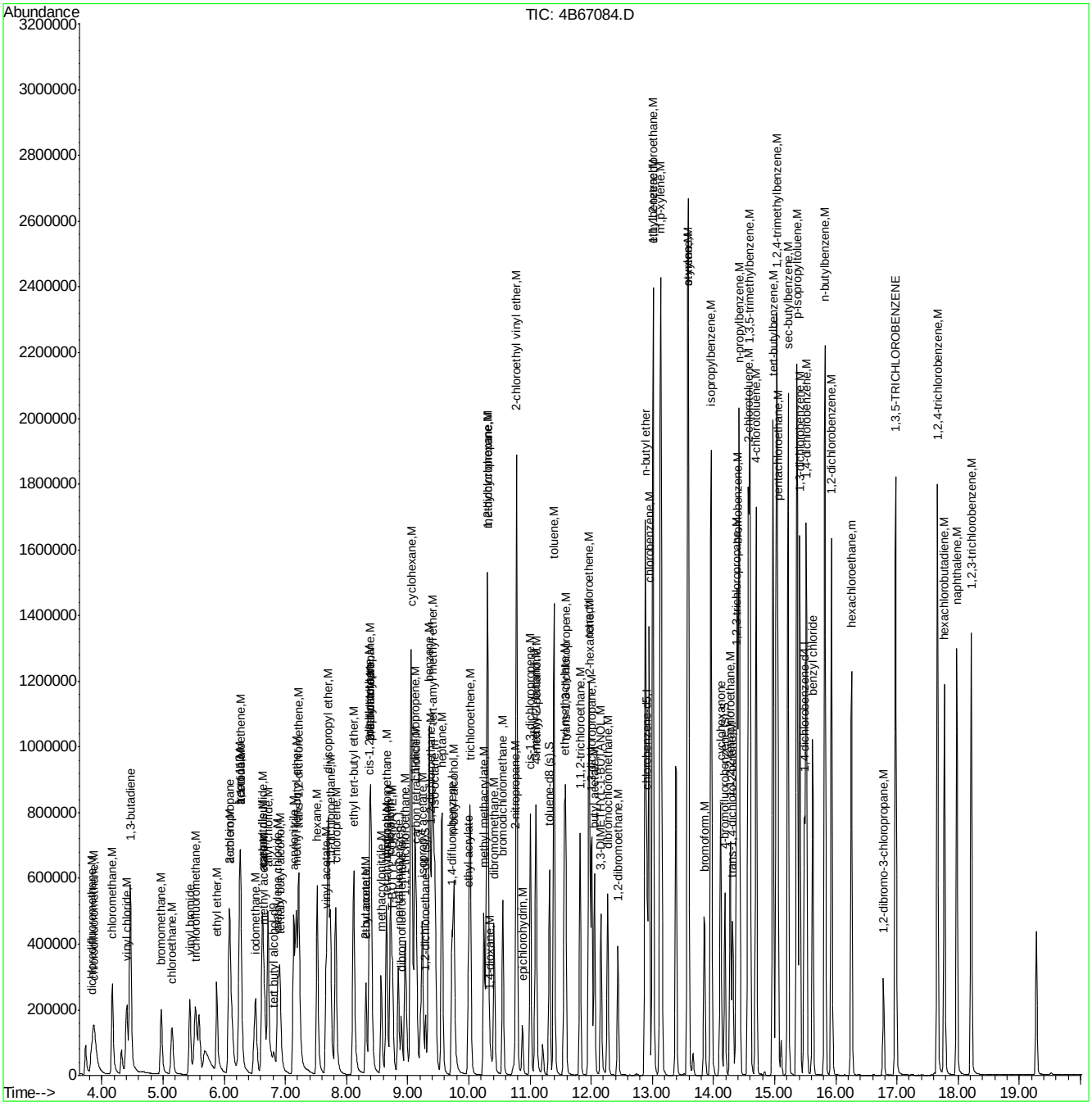
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67084.D
Acq On : 8 Dec 2016 11:22 am
Operator : Hueanht
Sample : ic2759-100
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 08 12:47:03 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration



SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67085.D
Acq On : 8 Dec 2016 11:50 am
Operator : Hueanht
Sample : ic2759-200
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 08 15:38:26 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.82	65	103657	500.00	ug/L	0.01
5) pentafluorobenzene	8.85	168	249109	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	342295	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	318772	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	203896	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	103174	50.67	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 101.34%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	108187	48.01	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 96.02%			
80) toluene-d8 (s)	11.32	98	403675	50.10	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.20%			
105) 4-bromofluorobenzene (s)	14.19	95	166597	49.30	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 98.60%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.93	59	265393	1008.25	ug/L	96
3) 1,4-dioxane	10.36	88	140096	5289.45	ug/L	96
7) chlorodifluoromethane	3.87	51	576763	202.55	ug/L	99
8) dichlorodifluoromethane	3.83	85	510655	201.68	ug/L	98
10) chloromethane	4.17	52	238114	189.51	ug/L	92
11) vinyl chloride	4.40	62	709212	197.49	ug/L	98
12) bromomethane	4.96	94	290684	160.32	ug/L	100
13) chloroethane	5.14	64	301163	165.27	ug/L	96
14) vinyl bromide	5.43	106	404407	183.64	ug/L	99
15) trichlorofluoromethane	5.52	101	611941	198.27	ug/L	99
16) 1,3-butadiene	4.46	54	551343	178.70	ug/L	100
19) ethyl ether	5.88	74	236898	195.70	ug/L	99
20) 2-chloropropane	6.08	39	150618	164.24	ug/L	97
21) acrolein	6.09	56	945383	1892.77	ug/L	97
22) 1,1-dichloroethene	6.27	96	390331	176.10	ug/L	98
23) acetone	6.27	58	40059	146.80	ug/L	97
24) allyl chloride	6.72	76	274907	186.39	ug/L	94
25) acetonitrile	6.64	40	247132	1681.19	ug/L	99
26) iodomethane	6.51	142	815634	191.20	ug/L	99
27) carbon disulfide	6.62	76	1269721	184.78	ug/L	99
28) methylene chloride	6.88	84	449313	184.05	ug/L	97
29) methyl acetate	6.66	74	68406	218.42	ug/L	95
31) methyl tert butyl ether	7.18	73	1100811	172.28	ug/L	100
32) trans-1,2-dichloroethene	7.22	96	391826	177.49	ug/L	98
33) di-isopropyl ether	7.70	45	1554770	172.40	ug/L	98
34) 2-butanone	8.32	72	54409	186.73	ug/L #	77
35) 1,1-dichloroethane	7.74	63	791506	178.72	ug/L	100
36) chloroprene	7.82	53	655178	186.53	ug/L	99
37) acrylonitrile	7.14	53	848596	922.02	ug/L	100
38) vinyl acetate	7.67	86	84483	210.47	ug/L	96
39) ethyl tert-butyl ether	8.12	59	1357939	185.50	ug/L	99
40) ethyl acetate	8.32	45	68583	187.65	ug/L	97
41) 2,2-dichloropropane	8.40	77	340258	157.65	ug/L	99

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67085.D
Acq On : 8 Dec 2016 11:50 am
Operator : Hueanht
Sample : ic2759-200
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 08 15:38:26 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) cis-1,2-dichloroethene	8.37	96	465119	185.45	ug/L		99
43) methylacrylate	8.40	85	69258	206.96	ug/L	#	91
44) propionitrile	8.40	54	645220	1784.69	ug/L		99
45) bromochloromethane	8.65	128	249603	199.56	ug/L		99
46) tetrahydrofuran	8.67	42	143585	169.87	ug/L		99
47) chloroform	8.72	85	491884	171.21	ug/L		98
48) T-BUTYL FORMATE	8.75	59	357680	205.97	ug/L		97
51) freon 113	6.25	151	325076	204.39	ug/L		99
52) methacrylonitrile	8.57	41	305507	180.13	ug/L		97
53) 1,1,1-trichloroethane	8.96	97	590838	192.35	ug/L		99
54) cyclohexane	9.06	84	614661	188.04	ug/L		97
57) epichlorohydrin	10.88	57	260157	941.32	ug/L		98
58) n-butyl alcohol	9.76	56	777895	8784.55	ug/L		99
59) carbon tetrachloride	9.14	117	520857	210.43	ug/L		98
60) 1,1-dichloropropene	9.12	75	593169	180.40	ug/L		99
61) hexane	7.52	57	592960	194.65	ug/L		99
63) benzene	9.35	78	1709732	175.26	ug/L		99
64) iso-octane	9.44	57	1613201	190.22	ug/L		100
65) tert-amyl methyl ether	9.41	87	291574	190.88	ug/L		94
66) heptane	9.56	57	363123	193.13	ug/L		98
67) isopropyl acetate	9.24	61	186530	196.10	ug/L		98
68) 1,2-dichloroethane	9.38	62	570786	179.21	ug/L		99
69) trichloroethene	10.02	95	457403	174.51	ug/L		98
71) ethyl acrylate	9.99	55	597458	188.32	ug/L		100
72) 2-nitropropane	10.76	41	187374	189.28	ug/L	#	21
73) 2-chloroethyl vinyl ether	10.78	63	1575816	918.82	ug/L		98
74) methyl methacrylate	10.25	100	133913	207.67	ug/L	#	90
75) 1,2-dichloropropane	10.31	63	476466	176.72	ug/L		99
76) dibromomethane	10.41	93	294169	191.43	ug/L		97
77) methylcyclohexane	10.30	83	680219	196.49	ug/L		97
78) bromodichloromethane	10.55	83	632746	203.08	ug/L		99
79) cis-1,3-dichloropropene	11.01	75	841282	193.41	ug/L		97
81) 4-methyl-2-pentanone	11.10	58	191429	182.97	ug/L		92
82) toluene	11.39	92	1148049	182.19	ug/L		96
83) 3-methyl-1-butanol	11.09	55	447371	3582.10	ug/L		96
84) trans-1,3-dichloropropene	11.58	75	728532	195.36	ug/L		99
85) ethyl methacrylate	11.56	69	648280	190.11	ug/L		97
86) 1,1,2-trichloroethane	11.82	83	377436	190.35	ug/L		99
87) 2-hexanone	11.98	58	186968	178.63	ug/L		94
89) tetrachloroethene	11.97	164	481541	173.42	ug/L		98
90) 1,3-dichloropropane	12.01	76	707030	185.52	ug/L		100
91) butyl acetate	12.06	56	348732	198.10	ug/L		97
92) 3,3-DIMETHYL-1-BUTANOL	12.16	57	499500	1894.26	ug/L		97
93) dibromochloromethane	12.27	129	564091	237.31	ug/L		99
94) 1,2-dibromoethane	12.44	107	499409	201.87	ug/L		99
95) n-butyl ether	12.89	57	2397902	188.70	ug/L		100
96) chlorobenzene	12.95	112	1344770	185.50	ug/L		98
97) 1,1,1,2-tetrachloroethane	13.02	131	495234	207.80	ug/L		99
98) ethylbenzene	13.01	91	2173614	180.85	ug/L		99
99) m,p-xylene	13.14	106	1794354	377.77	ug/L		97

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67085.D
Acq On : 8 Dec 2016 11:50 am
Operator : Hueanht
Sample : ic2759-200
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 08 15:38:26 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
100) o-xylene	13.58	106	929808	191.91 ug/L	100
101) styrene	13.59	104	1549808	188.20 ug/L	98
104) isopropylbenzene	13.96	105	2412291	177.67 ug/L	99
107) bromobenzene	14.39	156	703762	181.18 ug/L	99
108) 1,1,2,2-tetrachloroethane	14.28	83	665866	184.54 ug/L	98
109) trans-1,4-dichloro-2-buten	14.32	53	168174	196.27 ug/L	94
110) 1,2,3-trichloropropane	14.38	110	167996	187.34 ug/L	98
111) n-propylbenzene	14.42	91	2796899	172.23 ug/L	98
113) 2-chlorotoluene	14.57	126	626333	183.23 ug/L	99
114) 4-chlorotoluene	14.70	91	1779899	177.38 ug/L	100
115) 1,3,5-trimethylbenzene	14.60	105	1991344	172.11 ug/L	100
116) tert-butylbenzene	14.97	119	1847086	179.71 ug/L	100
117) pentachloroethane	15.05	167	454632	218.40 ug/L	98
118) 1,2,4-trimethylbenzene	15.03	105	2039667	169.19 ug/L	99
119) sec-butylbenzene	15.22	105	2716358	177.52 ug/L	99
120) 1,3-dichlorobenzene	15.41	146	1305699	173.88 ug/L	99
121) p-isopropyltoluene	15.37	119	2366699	176.28 ug/L	99
122) 1,4-dichlorobenzene	15.52	146	1330468	179.82 ug/L	99
123) benzyl chloride	15.62	91	1444884	196.55 ug/L	99
124) 1,2-dichlorobenzene	15.93	146	1259968	176.32 ug/L	100
126) n-butylbenzene	15.82	92	1213704	178.63 ug/L	96
128) 1,2-dibromo-3-chloropropan	16.78	75	123014	207.94 ug/L	99
129) 1,3,5-TRICHLOROBENZENE	16.98	180	1122910	183.44 ug/L	99
130) 1,2,4-trichlorobenzene	17.66	180	1017614	192.50 ug/L	99
131) hexachlorobutadiene	17.78	225	500934	168.11 ug/L	99
132) naphthalene	17.98	128	1959134	199.61 ug/L	99
133) 1,2,3-trichlorobenzene	18.22	180	911577	193.65 ug/L	98
134) hexachloroethane	16.26	201	464743	253.73 ug/L	98

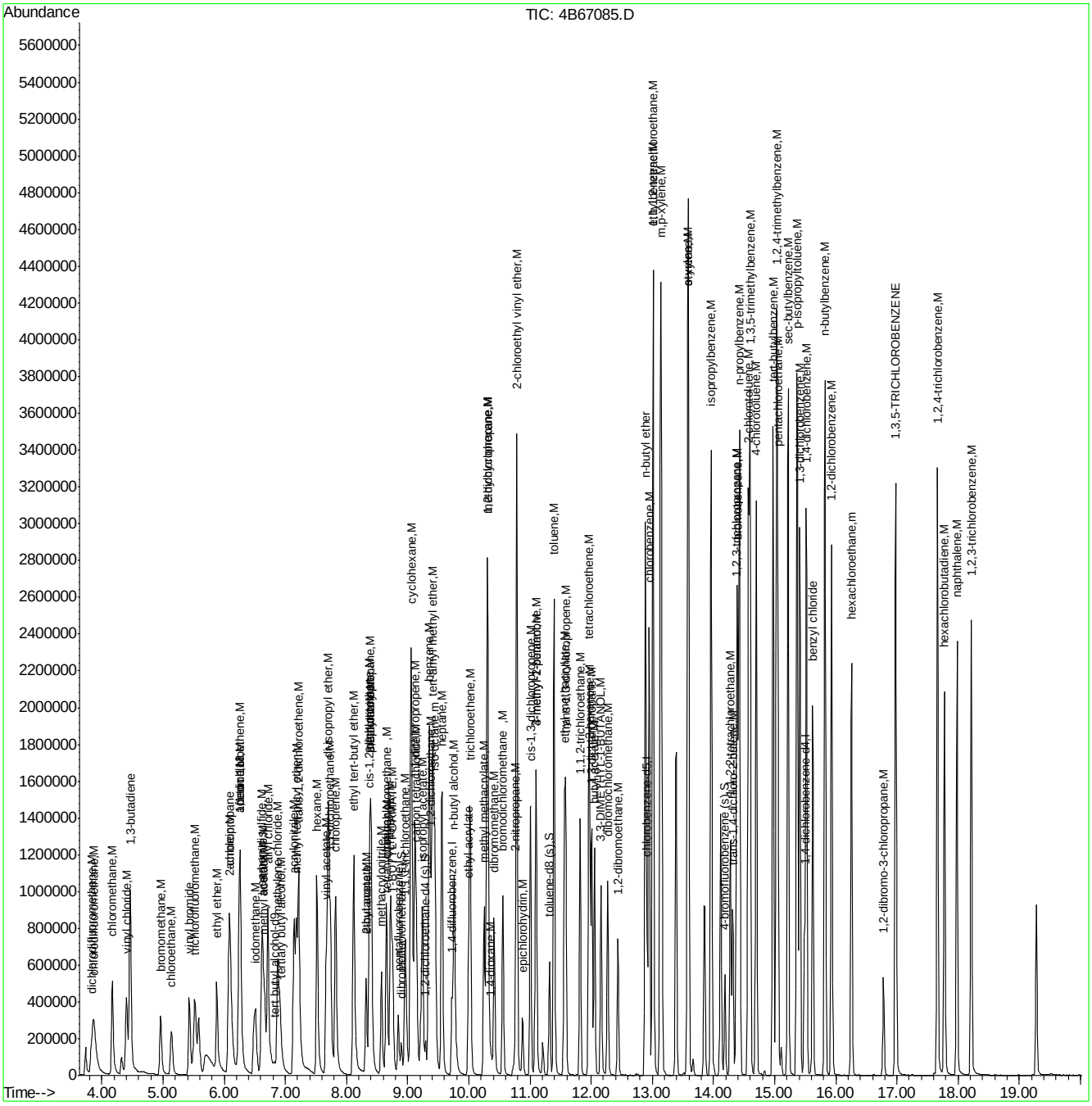
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67085.D
Acq On : 8 Dec 2016 11:50 am
Operator : Hueanht
Sample : ic2759-200
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 08 15:38:26 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Thu Dec 08 12:46:15 2016
Response via : Initial Calibration



M4B2759.M Fri Dec 09 17:14:31 2016 GCMS4B Page: 4

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67088.D
Acq On : 8 Dec 2016 1:13 pm
Operator : Hueanht
Sample : icv2759-50
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 09 09:39:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.82	65	104856	500.00	ug/L	0.00
5) pentafluorobenzene	8.85	168	265498	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	357354	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	334426	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	207252	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	107718	49.63	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 99.26%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	115707	48.18	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 96.36%			
80) toluene-d8 (s)	11.32	98	420737	50.02	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.04%			
105) 4-bromofluorobenzene (s)	14.18	95	167922	48.89	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 97.78%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.91	59	71815	269.71	ug/L	98
3) 1,4-dioxane	10.36	88	33125	1236.36	ug/L	97
7) chlorodifluoromethane	3.87	51	189090	62.31	ug/L	97
8) dichlorodifluoromethane	3.83	85	133516	49.49	ug/L	100
10) chloromethane	4.17	52	63983	47.78	ug/L	94
11) vinyl chloride	4.40	62	186682	48.78	ug/L	99
12) bromomethane	4.97	94	96717	50.05	ug/L	97
13) chloroethane	5.15	64	94335	48.57	ug/L	94
14) vinyl bromide	5.44	106	109526	46.67	ug/L	100
15) trichlorofluoromethane	5.52	101	166783	50.70	ug/L	98
16) 1,3-butadiene	4.46	54	165482	50.33	ug/L	100
19) ethyl ether	5.88	74	68501	53.09	ug/L	97
20) 2-chloropropane	6.08	39	52624	53.84	ug/L	99
21) acrolein	6.09	56	256496	481.83	ug/L	97
22) 1,1-dichloroethene	6.26	96	111076	48.99	ug/L	99
23) acetone	6.27	58	12679	51.92	ug/L	99
24) allyl chloride	6.72	76	75842	48.05	ug/L	93
25) acetonitrile	6.63	40	73689	470.35	ug/L	97
26) iodomethane	6.49	142	222107	50.42	ug/L	99
27) carbon disulfide	6.62	76	360266	51.35	ug/L	99
28) methylene chloride	6.88	84	122193	48.91	ug/L	100
29) methyl acetate	6.66	74	19631	54.42	ug/L	91
31) methyl tert butyl ether	7.18	73	648988	95.30	ug/L	99
32) trans-1,2-dichloroethene	7.22	96	111435	49.39	ug/L	98
33) di-isopropyl ether	7.70	45	471049	50.50	ug/L	97
34) 2-butanone	8.31	72	15242	49.08	ug/L	99
35) 1,1-dichloroethane	7.74	63	223472	47.34	ug/L	99
36) chloroprene	7.82	53	202274	54.03	ug/L	100
37) acrylonitrile	7.14	53	238687	243.33	ug/L	99
38) vinyl acetate	7.67	86	24467	55.03	ug/L	89
39) ethyl tert-butyl ether	8.11	59	418466	53.64	ug/L	99
40) ethyl acetate	8.32	45	19622	50.37	ug/L	98
41) 2,2-dichloropropane	8.40	77	112634	50.55	ug/L	98

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67088.D
Acq On : 8 Dec 2016 1:13 pm
Operator : Hueanht
Sample : icv2759-50
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 09 09:39:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) cis-1,2-dichloroethene	8.37	96	129698	48.52	ug/L		97
43) methylacrylate	8.40	85	18916	49.11	ug/L		97
44) propionitrile	8.39	54	178858	464.18	ug/L		99
45) bromochloromethane	8.65	128	67970	50.99	ug/L		98
46) tetrahydrofuran	8.67	42	40750	46.89	ug/L		98
47) chloroform	8.72	85	140900	49.55	ug/L		93
48) T-BUTYL FORMATE	8.75	59	70031	37.84	ug/L		97
51) freon 113	6.25	151	114786	64.11	ug/L		99
52) methacrylonitrile	8.57	41	81436	45.05	ug/L		98
53) 1,1,1-trichloroethane	8.96	97	169167	52.77	ug/L		98
54) cyclohexane	9.06	84	166260	47.72	ug/L		97
57) epichlorohydrin	10.87	57	67053	232.39	ug/L		99
58) n-butyl alcohol	9.75	56	196712	2127.80	ug/L		96
59) carbon tetrachloride	9.14	117	138727	53.69	ug/L		99
60) 1,1-dichloropropene	9.12	75	166744	50.33	ug/L		100
61) hexane	7.52	57	146570	46.09	ug/L		98
63) benzene	9.35	78	476195	46.76	ug/L		99
64) iso-octane	9.44	57	527489	59.58	ug/L		99
65) tert-amyl methyl ether	9.40	87	84947	53.27	ug/L		97
66) heptane	9.56	57	113275	57.71	ug/L		99
67) isopropyl acetate	9.24	61	54469	54.85	ug/L		99
68) 1,2-dichloroethane	9.38	62	164070	49.34	ug/L		99
69) trichloroethene	10.02	95	131460	48.04	ug/L		98
71) ethyl acrylate	10.00	55	163661	49.41	ug/L		100
72) 2-nitropropane	10.76	41	51755	50.08	ug/L	#	39
73) 2-chloroethyl vinyl ether	10.78	63	483702	270.15	ug/L		99
74) methyl methacrylate	10.25	100	34228	49.26	ug/L	#	81
75) 1,2-dichloropropane	10.31	63	132800	47.18	ug/L		99
76) dibromomethane	10.41	93	79406	49.50	ug/L		97
77) methylcyclohexane	10.30	83	216538	59.91	ug/L		97
78) bromodichloromethane	10.55	83	161426	49.63	ug/L		99
79) cis-1,3-dichloropropene	11.00	75	223923	49.31	ug/L		99
81) 4-methyl-2-pentanone	11.10	58	52902	48.43	ug/L		97
82) toluene	11.39	92	308307	49.20	ug/L		98
83) 3-methyl-1-butanol	11.09	55	118568	909.37	ug/L		98
84) trans-1,3-dichloropropene	11.59	75	197787	50.80	ug/L		99
85) ethyl methacrylate	11.56	69	166567	46.79	ug/L		99
86) 1,1,2-trichloroethane	11.82	83	100388	48.49	ug/L		98
87) 2-hexanone	11.98	58	50270	46.00	ug/L		97
89) tetrachloroethene	11.96	164	138867	47.67	ug/L		98
90) 1,3-dichloropropane	12.01	76	192180	48.07	ug/L		98
91) butyl acetate	12.06	56	97582	52.84	ug/L		96
92) 3,3-DIMETHYL-1-BUTANOL	12.16	57	137386	496.62	ug/L		98
93) dibromochloromethane	12.27	129	136415	54.70	ug/L		98
94) 1,2-dibromoethane	12.44	107	127555	49.15	ug/L		99
95) n-butyl ether	12.89	57	626495	48.52	ug/L		100
96) chlorobenzene	12.94	112	362803	49.94	ug/L		99
97) 1,1,1,2-tetrachloroethane	13.01	131	125386	51.01	ug/L		98
98) ethylbenzene	13.01	91	592215	49.11	ug/L		99
99) m,p-xylene	13.14	106	477946	95.91	ug/L		99

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67088.D
Acq On : 8 Dec 2016 1:13 pm
Operator : Hueanht
Sample : icv2759-50
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 09 09:39:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
100) o-xylene	13.58	106	244167	49.80 ug/L	99
101) styrene	13.59	104	415732	48.12 ug/L	100
102) bromoform	13.85	173	101115	48.91 ug/L	99
104) isopropylbenzene	13.96	105	643842	48.95 ug/L	100
106) cyclohexanone	14.12	55	206094	413.22 ug/L	99
107) bromobenzene	14.39	156	185443	46.97 ug/L	98
108) 1,1,2,2-tetrachloroethane	14.27	83	169027	46.09 ug/L	96
109) trans-1,4-dichloro-2-buten	14.31	53	41659	50.90 ug/L	97
110) 1,2,3-trichloropropane	14.37	110	43719	47.96 ug/L	100
111) n-propylbenzene	14.42	91	761028	48.67 ug/L	100
113) 2-chlorotoluene	14.57	126	164383	47.31 ug/L	99
114) 4-chlorotoluene	14.70	91	472186	48.64 ug/L	99
115) 1,3,5-trimethylbenzene	14.60	105	547979	48.84 ug/L	99
116) tert-butylbenzene	14.97	119	498706	49.79 ug/L	99
117) pentachloroethane	15.05	167	113018	52.16 ug/L	97
118) 1,2,4-trimethylbenzene	15.03	105	570208	48.65 ug/L	100
119) sec-butylbenzene	15.21	105	747015	49.50 ug/L	99
120) 1,3-dichlorobenzene	15.41	146	352650	48.43 ug/L	99
121) p-isopropyltoluene	15.37	119	657412	49.82 ug/L	100
122) 1,4-dichlorobenzene	15.52	146	354313	49.36 ug/L	100
123) benzyl chloride	15.62	91	354520	47.45 ug/L	99
124) 1,2-dichlorobenzene	15.93	146	347621	47.86 ug/L	99
126) n-butylbenzene	15.82	92	340276	50.70 ug/L	99
128) 1,2-dibromo-3-chloropropan	16.78	75	31468	52.33 ug/L	94
129) 1,3,5-TRICHLOROBENZENE	16.98	180	320790	51.55 ug/L	100
130) 1,2,4-trichlorobenzene	17.66	180	276143	52.72 ug/L	99
131) hexachlorobutadiene	17.78	225	138828	48.16 ug/L	99
132) naphthalene	17.98	128	508737	50.99 ug/L	100
133) 1,2,3-trichlorobenzene	18.22	180	241271	51.56 ug/L	99
134) hexachloroethane	16.26	201	110097	47.31 ug/L	99

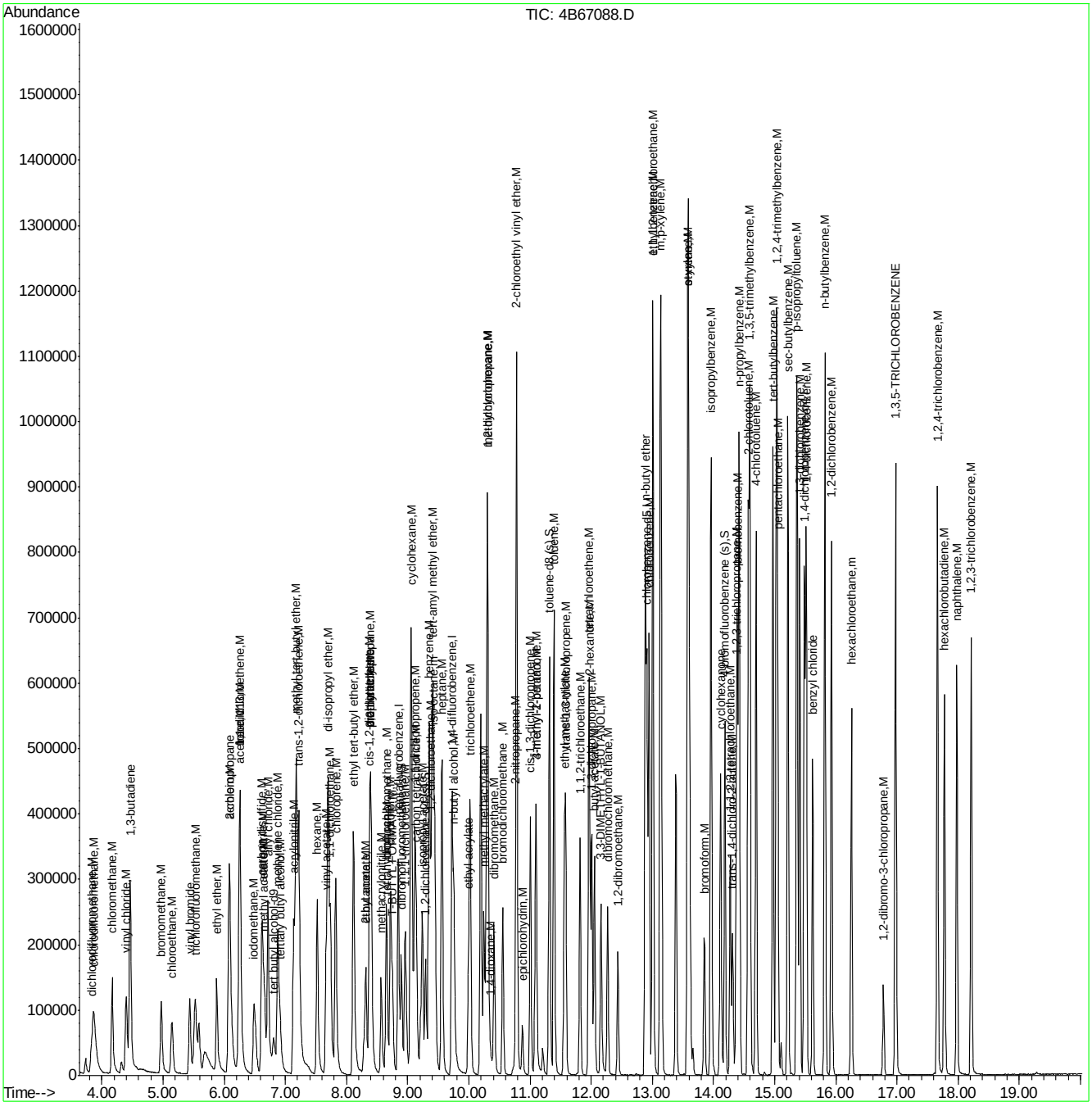
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67088.D
Acq On : 8 Dec 2016 1:13 pm
Operator : Hueanht
Sample : icv2759-50
Misc : MS9923,V4B2759,w,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 09 09:39:28 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration



SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67390.D
Acq On : 16 Dec 2016 10:34 am
Operator : Hueanht
Sample : cc2759-20
Misc : MS10318,V4B2772,W,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 16 16:31:13 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.81	65	118057	500.00	ug/L	0.00
5) pentafluorobenzene	8.84	168	269576	50.00	ug/L	0.00
56) 1,4-difluorobenzene	9.72	114	365751	50.00	ug/L	0.00
88) chlorobenzene-d5	12.91	117	345460	50.00	ug/L	0.00
103) 1,4-dichlorobenzene-d4	15.49	152	198017	50.00	ug/L	0.00

System Monitoring Compounds						
49) dibromofluoromethane (s)	8.90	113	114624	52.01	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 104.02%			
50) 1,2-dichloroethane-d4 (s)	9.29	65	128502	52.70	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 105.40%			
80) toluene-d8 (s)	11.31	98	432552	50.24	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 100.48%			
105) 4-bromofluorobenzene (s)	14.18	95	170428	51.93	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 103.86%			

Target Compounds						Qvalue
2) tertiary butyl alcohol	6.91	59	30963	103.28	ug/L	97
3) 1,4-dioxane	10.34	88	15402	510.59	ug/L	91
7) chlorodifluoromethane	3.87	51	18551	6.02	ug/L	77
8) dichlorodifluoromethane	3.83	85	59849	21.85	ug/L	99
10) chloromethane	4.18	52	29538	21.72	ug/L	96
11) vinyl chloride	4.39	62	82320	21.18	ug/L	94
12) bromomethane	4.98	94	43235	22.03	ug/L	100
13) chloroethane	5.16	64	41410	21.00	ug/L	99
14) vinyl bromide	5.44	106	50017	20.99	ug/L	98
15) trichlorofluoromethane	5.53	101	81774	24.48	ug/L	97
16) 1,3-butadiene	4.47	54	70064	20.99	ug/L	99
19) ethyl ether	5.88	74	27446	20.95	ug/L	98
20) 2-chloropropane	6.08	39	20950	21.11	ug/L	93
21) acrolein	6.09	56	100787	186.47	ug/L	94
22) 1,1-dichloroethene	6.26	96	45611	19.81	ug/L	97
23) acetone	6.26	58	5698	18.26	ug/L	96
24) allyl chloride	6.72	76	28654	17.88	ug/L	96
25) acetonitrile	6.63	40	32384	203.58	ug/L	83
26) iodomethane	6.49	142	88949	19.89	ug/L	94
27) carbon disulfide	6.62	76	122471	17.19	ug/L	97
28) methylene chloride	6.87	84	51037	20.12	ug/L	96
29) methyl acetate	6.65	74	7175	19.59	ug/L #	71
31) methyl tert butyl ether	7.18	73	149475	21.62	ug/L	98
32) trans-1,2-dichloroethene	7.22	96	46662	20.37	ug/L	98
33) di-isopropyl ether	7.70	45	192383	20.31	ug/L	99
34) 2-butanone	8.31	72	6935	21.99	ug/L	96
35) 1,1-dichloroethane	7.74	63	100093	20.88	ug/L	100
36) chloroprene	7.82	53	74980	19.73	ug/L	97
37) acrylonitrile	7.13	53	95216	95.60	ug/L	95
38) vinyl acetate	7.66	86	8434	18.68	ug/L	86
39) ethyl tert-butyl ether	8.11	59	168344	21.25	ug/L	99
40) ethyl acetate	8.32	45	8881	22.45	ug/L	92
41) 2,2-dichloropropane	8.40	77	50759	22.44	ug/L	99

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67390.D
Acq On : 16 Dec 2016 10:34 am
Operator : Hueanht
Sample : cc2759-20
Misc : MS10318,V4B2772,W,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 16 16:31:13 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) cis-1,2-dichloroethene	8.37	96	55273	20.36	ug/L		98
43) methylacrylate	8.40	85	7924	20.26	ug/L		97
44) propionitrile	8.39	54	76917	196.60	ug/L		93
45) bromochloromethane	8.65	128	28542	21.09	ug/L		94
46) tetrahydrofuran	8.66	42	17838	20.22	ug/L		93
47) chloroform	8.72	85	61183	21.19	ug/L		98
48) T-BUTYL FORMATE	8.75	59	45428	24.17	ug/L		97
51) freon 113	6.26	151	34337	18.89	ug/L		99
52) methacrylonitrile	8.57	41	36376	19.82	ug/L		99
53) 1,1,1-trichloroethane	8.96	97	70640	21.70	ug/L		98
54) cyclohexane	9.06	84	72004	20.36	ug/L	#	80
57) epichlorohydrin	10.87	57	26280	88.99	ug/L		98
58) n-butyl alcohol	9.75	56	91065	962.42	ug/L		98
59) carbon tetrachloride	9.14	117	69274	26.19	ug/L		98
60) 1,1-dichloropropene	9.11	75	73150	21.57	ug/L		98
61) hexane	7.52	57	61400	18.86	ug/L		97
63) benzene	9.35	78	203242	19.50	ug/L		100
64) iso-octane	9.44	57	183214	20.22	ug/L		97
65) tert-amyl methyl ether	9.40	87	34615	21.21	ug/L		98
66) heptane	9.56	57	43669	21.74	ug/L		98
67) isopropyl acetate	9.24	61	19366	19.05	ug/L	#	87
68) 1,2-dichloroethane	9.37	62	73277	21.53	ug/L		97
69) trichloroethene	10.02	95	56334	20.11	ug/L		96
71) ethyl acrylate	9.99	55	65458	19.31	ug/L	#	77
72) 2-nitropropane	10.75	41	23009	21.75	ug/L	#	13
73) 2-chloroethyl vinyl ether	10.78	63	182044	99.34	ug/L		99
74) methyl methacrylate	10.25	100	14599	20.53	ug/L		95
75) 1,2-dichloropropane	10.30	63	61260	21.26	ug/L		99
76) dibromomethane	10.41	93	34494	21.01	ug/L		100
77) methylcyclohexane	10.30	83	77214	20.87	ug/L		99
78) bromodichloromethane	10.55	83	74134	22.27	ug/L		96
79) cis-1,3-dichloropropene	11.00	75	94839	20.40	ug/L		97
81) 4-methyl-2-pentanone	11.10	58	26959	24.12	ug/L		94
82) toluene	11.39	92	134226	20.93	ug/L		98
83) 3-methyl-1-butanol	11.09	55	51541	386.22	ug/L		97
84) trans-1,3-dichloropropene	11.58	75	82586	20.73	ug/L		95
85) ethyl methacrylate	11.56	69	70922	19.46	ug/L		98
86) 1,1,2-trichloroethane	11.82	83	43294	20.43	ug/L		96
87) 2-hexanone	11.98	58	24529	21.93	ug/L		98
89) tetrachloroethene	11.96	164	57418	19.08	ug/L		98
90) 1,3-dichloropropane	12.00	76	84995	20.58	ug/L		97
91) butyl acetate	12.05	56	38322	20.09	ug/L		98
92) 3,3-DIMETHYL-1-BUTANOL	12.16	57	54361	190.23	ug/L		98
93) dibromochloromethane	12.27	129	56616	21.98	ug/L		99
94) 1,2-dibromoethane	12.44	107	54986	20.51	ug/L		100
95) n-butyl ether	12.88	57	255880	19.18	ug/L		99
96) chlorobenzene	12.94	112	152897	20.38	ug/L		99
97) 1,1,1,2-tetrachloroethane	13.01	131	56801	22.37	ug/L		97
98) ethylbenzene	13.00	91	261029	20.95	ug/L		96
99) m,p-xylene	13.14	106	201294	39.11	ug/L		99

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67390.D
Acq On : 16 Dec 2016 10:34 am
Operator : Hueanht
Sample : cc2759-20
Misc : MS10318,V4B2772,W,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 16 16:31:13 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
100) o-xylene	13.57	106	102748	20.29 ug/L	93
101) styrene	13.59	104	173255	19.41 ug/L	91
102) bromoform	13.85	173	35948	18.71 ug/L	98
104) isopropylbenzene	13.96	105	273628	21.77 ug/L	99
106) cyclohexanone	14.11	55	45993	96.52 ug/L	98
107) bromobenzene	14.39	156	77320	20.50 ug/L	93
108) 1,1,2,2-tetrachloroethane	14.27	83	72007	20.55 ug/L	98
109) trans-1,4-dichloro-2-buten	14.31	53	10418	13.32 ug/L	91
110) 1,2,3-trichloropropane	14.37	110	18230	20.93 ug/L	97
111) n-propylbenzene	14.42	91	322225	21.57 ug/L	99
113) 2-chlorotoluene	14.57	126	67669	20.38 ug/L	99
114) 4-chlorotoluene	14.69	91	196793	21.22 ug/L	97
115) 1,3,5-trimethylbenzene	14.59	105	227670	21.24 ug/L	98
116) tert-butylbenzene	14.97	119	206819	21.61 ug/L	98
117) pentachloroethane	15.05	167	45130	21.80 ug/L	97
118) 1,2,4-trimethylbenzene	15.03	105	236032	21.08 ug/L	97
119) sec-butylbenzene	15.21	105	307324	21.31 ug/L	99
120) 1,3-dichlorobenzene	15.41	146	144837	20.82 ug/L	98
121) p-isopropyltoluene	15.36	119	271547	21.54 ug/L	99
122) 1,4-dichlorobenzene	15.51	146	140840	20.53 ug/L	100
123) benzyl chloride	15.62	91	149653	20.96 ug/L	99
124) 1,2-dichlorobenzene	15.93	146	140832	20.29 ug/L	99
126) n-butylbenzene	15.82	92	139136	21.70 ug/L	98
128) 1,2-dibromo-3-chloropropan	16.77	75	12843	22.35 ug/L	87
129) 1,3,5-TRICHLOROBENZENE	16.98	180	122758	20.65 ug/L	100
130) 1,2,4-trichlorobenzene	17.66	180	104701	20.92 ug/L	99
131) hexachlorobutadiene	17.78	225	61012	22.15 ug/L	97
132) naphthalene	17.98	128	191223	20.06 ug/L	98
133) 1,2,3-trichlorobenzene	18.21	180	91628	20.49 ug/L	98
134) hexachloroethane	16.26	201	47817	22.27 ug/L	98

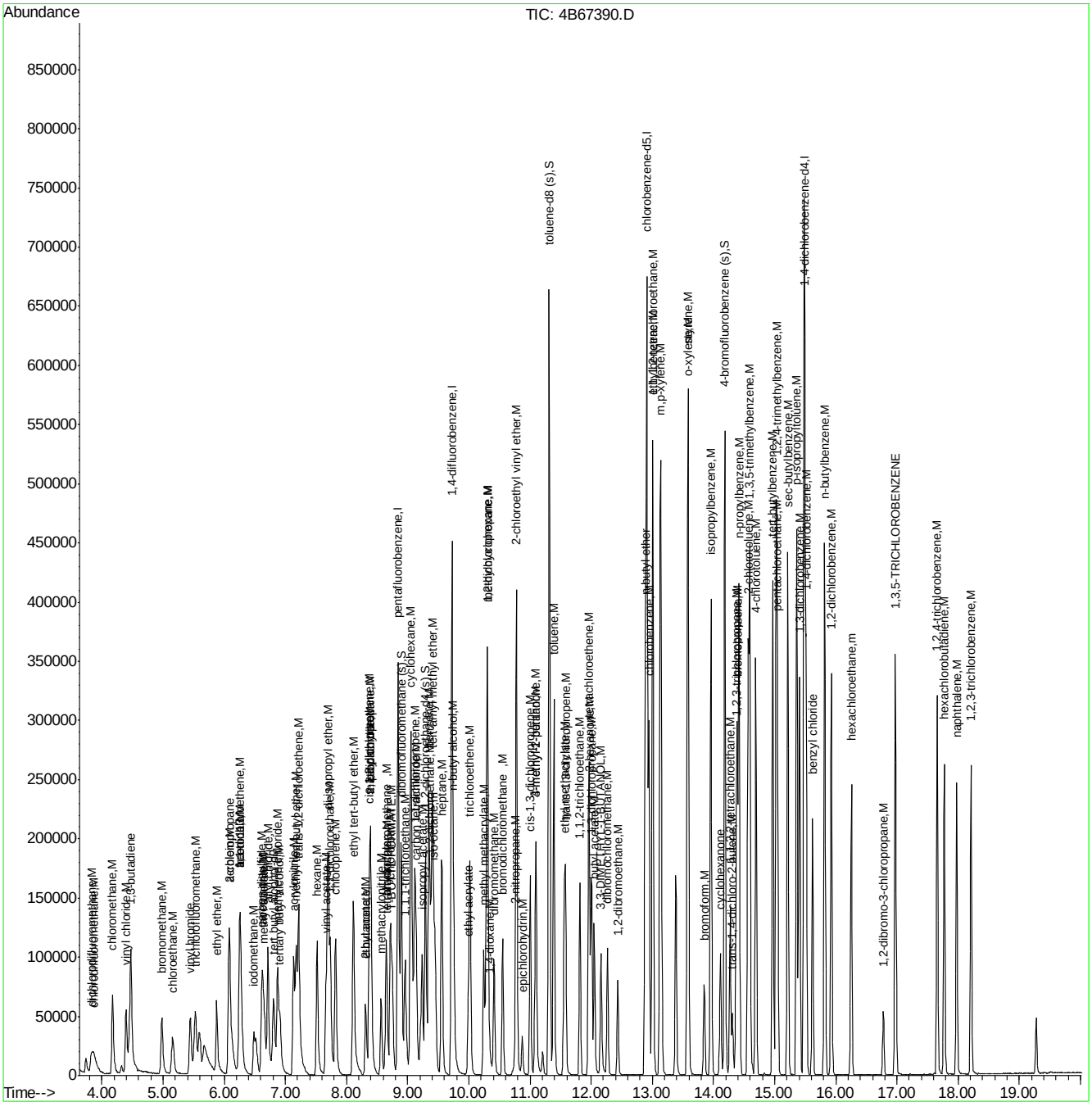
(#) = qualifier out of range (m) = manual integration (+) = signals summed

SGS ACCUTEST FA39345

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\
Data File : 4B67390.D
Acq On : 16 Dec 2016 10:34 am
Operator : Hueanht
Sample : cc2759-20
Misc : MS10318,V4B2772,W,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 16 16:31:13 2016
Quant Method : C:\MSDCHEM\1\METHODS\M4B2759.M
Quant Title : Method SW846 V8260C, ZB624 60mx0.25mmx1.4um
QLast Update : Fri Dec 09 09:11:35 2016
Response via : Initial Calibration



SGS ACCUTEST FA39345

SGS ACCUTEST

VOLATILE ANALYSIS LOG

V016-2417-14 IB 250/2500 ppm
216315 DH DEPER

Batch ID: V4B 2760 2759

Print Analyst Name: Tuananh Tran

Analyst Signature:

Columns: RTX624 SIL (60m x 0.25mm x 1.4µm)

Method V8260C

Initial Cal. Method MAB 2759

Date: 12/09/2016

Standard Data

Lot #	Description	Conc.
V016-2376-	124.13 EXT A	100 ppm
016-2376-	139.34 EXT B	100 ppm
016-2417-	4.2 EXT C	100 ppm
016-2417-	4.3 EXT E	100-1000 ppm
016-2417-	5.9 Hex	100 ppm

Standard Data

Lot #	Description	Conc.
V016-2417-	8.17 A	100 ppm
016-2417-	9.16 B	100 ppm
016-2417-	16.8 C	100 ppm
016-2417-	3.18 E	100-1000 ppm
016-2417-	12.3 1,3BTD	100 ppm
V016-2417-	13.9 EXT 1,3BTD	100 ppm

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: Date: 12/9/16

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* < 2
	4B 67075	BFB												7:04am	
	67 076	IC 2759-0.2	8260 initial	A Q			5							1µl A,B,C,E,1,3BTD/500ml	
	67 077	IC 2759 -0.5	✓	A Q			5							2.5µl A,B,C,E,1,3BTD/500ml	
	67078	IC 2759 -1	✓	A Q			5							1µl A,B,C,E,1,3BTD/100ml	
	67079	IC 2759 -2	✓	A Q			5							2µl A,B,C,E,1,3BTD/100ml	
	67 080	IC 2759 -5	✓	A Q			5							5µl A,B,C,E,1,3BTD/100ml	
	67 081	IC 2759 -10	✓	A Q			5							10µl A,B,C,E,1,3BTD/100ml	
	67 082	IC 2759 -20	✓	A Q			5							10µl A,B,C,E,1,3BTD/50ml	
	67 083	ICC 2759 -50	✓	A Q			5							25µl A,B,C,E,1,3BTD/50ml	
	67084	IC 2759 -100	✓	A Q			5							50µl A,B,C,E,1,3BTD/50ml	
	67085	IC 2759 -200	✓	A Q			5							100µl A,B,C,E,1,3BTD/50ml	
	67 086	IB													
	67087	IB													
	67088	ICV2759-50	✓	A Q			5							25µl EXT A,B,C,E,1,3BTD/50ml Hex	
	67089	IB													

MTX = Matrix Designate W for water, S for soil, O for oil. L+ = Library Search. IS = Internal Standard Area. SU = Surrogate. Sample Amt = Volume (ML) or Weight (g); MOH amt. = volume (ul) extract injected * IF pH > 2, comment on sample result. All strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

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Form: OR001-10
Rev. Date: 1/19/16

10.7.1 10

SGS ACCUTEST

VOLATILE ANALYSIS LOG

216315 DH paper.

V016-2417-12,10 1,3 BTD 100ppm

Batch ID: V4B 2772

Print Analyst Name: Hussain Tran

Analyst Signature: [signature]

Columns: RTX 624SL (60m x 0.25mm x 1.4u)

Method V8260C

Initial Cal. Method M4B 2759

Date: 12/16/2016

Standard Data

Lot #	Description		Conc.
V016-2417	31,7	A	100 ppm
016-2417	9,8	B	100 ppm
016-2417	-26,9	C	100 ppm
016-2417	-3,25	E	100 ppm
016-2417	14	HS	250 2500 ppm

Standard Data

Lot #	Description		Conc.
V016-2417	-32,6	EXT A	100 ppm
016-2417	-34,6	EXT B	100 ppm
016-2417	-27,8	EXT C	100 ppm
016-2417	-41,25	EXT E	100 ppm
016-2417	-25,11	Hex	100 ppm

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [signature] **Date:** 12/28/16

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	4B67388	BIB											ok	9:01 am	
	67389	CC2759-20											NG		
	67390	CC2759-20									✓	✓	ok	#155, 59, 81A	
	67391	IB													
	67392	MB									✓	✓	ok		
	67393	BS									✓	✓	ok		
	67394	IB													
	67395	JC32736-3	10165 TCL20+ TBA	GW			5		1x		✓	✓	ok		✓
	67396	JC32803-12	10170 TCL20+	GW			5		1x		✓	✓	ok		✓
	67397	JC32803-10	✓	GW			5		1x		✓	✓	ok		✓
	67398	JC32803-13	✓	GW			5		1x		✓	✓	ok		✓
	67399	JC33412-2	10532 TCL20+	GW			5		1x		✓	✓	ok		✓
	67400	JC33412-2	✓	GW			5/50		10x		✓	✓	not need		✓
	67401	JC33434-1	10532 TVO	IN			5		1x		✓	✓	ok		✓
	67402	JC33434-1	✓	IN			5/50		10x				not need		✓
	67403	JC33175-1	10644 13BTD	GW	13		5		1x		✓	✓	ok		✓
	67404	JC33175-MS	✓	GW	10		5		1x		✓	✓	ok	20ul EXT A B C E, Hex 13BTD	✓

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate.
Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result.
strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer miscalculation; 4 = analyst's correction error

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Form: OR001-10
Rev. Date: 1/19/16

SGS ACCUTEST FA39345

10.7.2 10

SGS ACCUTEST

VOLATILE ANALYSIS LOG

Batch ID: V4B 2772

Date: 12/18/2016

Print Analyst Name: Tweanh Train

Analyst Signature: [illegible]

Columns: RTX 624 SL (60m x 0.25mm x 1.4µm)

Method V8260C

Initial Cal. Method M413 2759

Standard Data

Lot #	Description	Conc.

Standard Data

Lot #	Description	Conc.
	Rg 273	

Manually integrated chromatographic peaks in the following reportable files have been reviewed and verified to comply with the criteria of Accutest SOP EQA044.

Supervisor Signature: [illegible] **Date:** 12/21/16

R	Data File	Sample ID	Test	MTX	Vial #	ALS #	Samp. Amt (ml or g)	MOH amt. (ul)	Secondary dilution	L+	IS	SU	Status (Data)	Comments	pH* <2
	AB 67405	JC33175-1 MS	10644 13BTD	GW	16		5		1x		✓		ok	20µL EXT AB C E Hex 3BTD	✓
	67406	IB													
	67407	FA39345-2	10644 13BTD	W B	1		5		1x		✓		ok		✓
	67408	FA39496-4	✓	W B	1		5		1x		✓		ok		✓
R	67409	JC33247-3	10473 RMG	GW	2		5		1x		✓		ok		✓
R	67410	JC33247-7	✓	GW	2		5		1x		✓		ok	7:57 pm	✓
	67411	IB													

HH 12/18/2016

MTX = Matrix Designate W for water, S for soil, O for oil. L+ =Library Search. IS = Internal Standard Area. SU = Surrogate. Sample Amt = Volume (ML) or Weight (g); MOH amt.= volume (ul) extract injected * IF pH > 2, comment on sample result. strike outs must be initialed, dated and reason code applied as follows: 1 = reviewer correction error; 2 = transcription error; 3 = computer scalculation; 4 = analyst's correction error

Form: OR001-10
Rev. Date: 1/19/16

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10.7.2 10