Initial Calibration Verification

Job Number: JC14082
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Sample: V2C6139-ICV6139
Lab FileID: 2C136458.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2C136458.D Vial: 14
Acq On : 29 Jan 2016 3:54 pm Operator: ToanP
Sample : ICV6139-50 Inst : Instrument #1
Misc : MS97676,V2C6139,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2C6139.m (RTE Integrator)
Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
Last Update : Mon Feb 01 15:49:22 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	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	100	-0.01	8.77
2		tertiary butyl alcohol	1.215	1.048	13.7	90	0.00	8.89
3		ethanol		----------NA----------				
4		1,4-dioxane	0.082	0.065	20.7	76	0.00	12.75
5	I	pentafluorobenzene	1.000	1.000	0.0	101	0.00	11.14
6		FREON 115		----------NA----------				
7		FREON 23		----------NA----------				
8		FREON 143A		----------NA----------				
9		FREON 152A		----------NA----------				
10		CHLOROTRIFLUOROETHENE		----------NA----------				
11		chlorodifluoromethane	0.684	0.715	-4.5	101	0.00	4.63
12		dichlorodifluoromethane	0.819	0.830	-1.3	96	0.00	4.59
13		FREON 114		----------NA----------				
14		FREON 142B		----------NA----------				
15		chloromethane	1.013	0.935	7.7	98	-0.02	5.05
16		vinyl chloride	0.886	0.877	1.0	95	0.00	5.37
17		bromomethane	0.545	0.501	8.1	98	0.01	6.17
18		chloroethane	0.362	0.365	-0.8	98	0.00	6.36
19		trichlorofluoromethane	0.894	0.900	-0.7	97	0.01	6.92
20		pentane		----------NA----------				
21		ethyl ether	0.237	0.222	6.3	93	0.00	7.40
22		2-CHLOROPROPANE	0.876	0.854	2.5	94	0.00	7.66
23		FREON 123		----------NA----------				
24		FREON 141B		----------NA----------				
25		FREON 123A		----------NA----------				
26		acrolein	0.129	0.125	3.1	95	0.00	7.77
27		1,1-dichloroethene	0.690	0.705	-2.2	94	0.00	7.92
28		acetone	0.048	0.043	10.4	90	0.00	8.03
29		allyl chloride	0.274	0.265	3.3	91	0.00	8.55
30		acetonitrile	0.056	0.051	8.9	94	-0.01	8.57
31		iodomethane	0.948	0.981	-3.5	94	0.00	8.27
32		iso-butyl alcohol	0.019	0.016	15.8	93	0.00	11.46
33		carbon disulfide	1.663	1.700	-2.2	94	0.00	8.39
34		methylene chloride	0.509	0.509	0.0	95	0.00	8.79
		----------	True	Calc.	% Drift		----------	
35		1-CHLOROPROPANE	50.000	45.403	9.2	93	0.00	8.80
		----------	AvgRF	CCRF	% Dev		----------	
36		methyl acetate	0.078	0.081	-3.8	102	0.00	8.54
37		methyl tert butyl ether	1.555	1.481	4.8	96	0.00	9.10

Initial Calibration Verification

Job Number: JC14082
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V2C6139-ICV6139
Lab FileID: 2C136458.D

38		trans-1,2-dichloroethene	0.642	0.596	7.2	92	0.00	9.17
39		di-isopropyl ether	1.648	1.678	-1.8	101	0.00	9.75
40		2-butanone	0.057	0.050	12.3	88	0.00	10.60
41		1,1-dichloroethane	0.781	0.750	4.0	95	0.00	9.82
42		chloroprene	0.568	0.581	-2.3	97	0.00	9.92
43		acrylonitrile	0.206	0.186	9.7	91	0.00	9.19
44		vinyl acetate	0.075	0.080	-6.7	103	0.00	9.80
45		ethyl tert-butyl ether	1.559	1.636	-4.9	101	0.00	10.26
46		ethyl acetate	0.071	0.065	8.5	96	0.00	10.59
47		2,2-dichloropropane	0.773	0.678	12.3	90	0.00	10.61
48		cis-1,2-dichloroethene	0.525	0.470	10.5	94	0.00	10.62
49		propionitrile	0.083	0.072	13.3	91	0.00	10.74
50		bromochloromethane	0.247	0.239	3.2	94	0.00	10.96
51		tetrahydrofuran	0.190	0.168	11.6	92	0.00	10.98
52		chloroform	0.713	0.704	1.3	95	0.00	11.01
53		t-butyl formate	0.453	0.404	10.8	86	0.00	11.03
54	S	dibromofluoromethane (s)	0.397	0.398	-0.3	101	0.00	11.22
55	S	1,2-dichloroethane-d4 (s)	0.407	0.393	3.4	99	0.00	11.65
56		freon 113	0.371	0.464	-25.1	111	0.00	7.86
57		methacrylonitrile	0.192	0.177	7.8	92	0.00	10.91
58		1,1,1-trichloroethane	0.639	0.674	-5.5	96	0.00	11.25
59		Cyclohexane	0.656	0.707	-7.8	94	0.00	11.29
60		tert amyl alcohol		----------NA----------				
61	I	1,4-difluorobenzene	1.000	1.000	0.0	100	0.00	12.05
62		Di-isobutylene		----------NA----------				
63		epichlorohydrin	0.043	0.039	9.3	93	0.00	13.26
64		n-butyl alcohol	0.017	0.012	29.4	82	0.00	12.19
65		carbon tetrachloride	0.518	0.547	-5.6	95	0.00	11.44
66		1,1-dichloropropene	0.447	0.439	1.8	94	0.00	11.42
67		hexane	0.357	0.305	14.6	80	0.00	9.46
68		tert amyl ethyl ether		----------NA----------				
69		iso-octane	1.340	1.615	-20.5	108	0.00	11.63
70		benzene	1.458	1.305	10.5	94	0.00	11.69
71		tert-amyl methyl ether	0.277	0.286	-3.2	102	0.00	11.69
72		heptane	0.231	0.279	-20.8	116	0.00	11.79
73		isopropyl acetate	0.964	1.045	-8.4	106	0.00	11.60
74		1,2-dichloroethane	0.441	0.412	6.6	92	0.00	11.73
75		trichloroethene	0.337	0.332	1.5	94	0.00	12.37
76		2-nitropropane	0.145	0.127	12.4	95	0.00	13.13
77		2-chloroethyl vinyl ether	0.218	0.227	-4.1	100	0.00	13.12
78		methyl methacrylate	0.091	0.088	3.3	92	0.00	12.62
79		1,2-dichloropropane	0.347	0.331	4.6	94	0.00	12.64
80		dibromomethane	0.230	0.220	4.3	93	0.00	12.80
81		methylcyclohexane	0.570	0.689	-20.9	105	0.00	12.55
82		bromodichloromethane	0.460	0.449	2.4	94	0.00	12.91
83		cis-1,3-dichloropropene	0.573	0.532	7.2	93	0.00	13.33
84	S	toluene-d8 (s)	1.149	1.155	-0.5	101	0.00	13.58
85		4-methyl-2-pentanone	0.153	0.149	2.6	92	0.00	13.41
86		toluene	0.781	0.770	1.4	95	0.00	13.65
87		3-methyl-1-butanol	0.025	0.020	20.0	87	0.00	13.43
88		trans-1,3-dichloropropene	0.519	0.481	7.3	93	0.00	13.85
89		ethyl methacrylate	0.427	0.408	4.4	94	0.00	13.81
90		1,1,2-trichloroethane	0.256	0.244	4.7	93	0.00	14.06
91		2-hexanone	0.145	0.127	12.4	87	0.00	14.19
92	I	chlorobenzene-d5	1.000	1.000	0.0	102	0.00	14.99
93		tetrachloroethene	0.342	0.340	0.6	94	0.00	14.18
94		1,3-dichloropropane	0.546	0.498	8.8	93	0.00	14.22
95		butyl acetate	0.269	0.260	3.3	101	0.00	14.24

Initial Calibration Verification

Job Number: JC14082 **Sample:** V2C6139-ICV6139
Account: UTC United Technologies Corporation **Lab FileID:** 2C136458.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

96		3,3-dimethyl-1-butanol	0.062	0.054	12.9	89	0.00	14.35
97		dibromochloromethane	0.434	0.416	4.1	95	0.00	14.48
98		1,2-dibromoethane	0.378	0.360	4.8	93	0.00	14.62
99		BUTYL ETHER	1.595	1.562	2.1	96	0.00	14.87
100		chlorobenzene	1.014	0.976	3.7	95	0.00	15.02
101		1,1,1,2-tetrachloroethane	0.442	0.429	2.9	97	0.00	15.07
102		ethylbenzene	1.723	1.585	8.0	96	0.00	15.05
103		m,p-xylene	0.642	0.621	3.3	95	0.00	15.15
104		o-xylene	0.672	0.662	1.5	94	0.00	15.54
105		styrene	1.141	1.058	7.3	94	0.00	15.55
106		bromoform	0.348	0.341	2.0	95	0.00	15.83
107	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	102	0.00	17.15
108		isopropylbenzene	2.973	3.092	-4.0	96	0.00	15.84
109	S	4-bromofluorobenzene (s)	0.823	0.833	-1.2	101	0.00	16.05
110		cyclohexanone		----------NA----------				
111		bromobenzene	0.954	0.842	11.7	95	0.00	16.24
112		1,1,2,2-tetrachloroethane	0.921	0.876	4.9	93	0.00	16.16
113		trans-1,4-dichloro-2-bute	0.127	0.119	6.3	91	0.00	16.19
114		1,2,3-trichloropropane	0.216	0.202	6.5	95	0.00	16.23
115		n-propylbenzene	3.400	3.388	0.4	95	0.00	16.22
116		2-chlorotoluene	0.784	0.747	4.7	95	0.00	16.37
117		4-chlorotoluene	2.127	2.046	3.8	95	0.00	16.47
118		1,3,5-trimethylbenzene	2.627	2.630	-0.1	95	0.00	16.35
119		tert-butylbenzene	0.531	0.536	-0.9	95	0.00	16.68
120		pentachloroethane	0.562	0.583	-3.7	95	0.00	16.79
121		1,2,4-trimethylbenzene	2.764	2.669	3.4	95	0.00	16.73
122		sec-butylbenzene	3.471	3.594	-3.5	95	0.00	16.88
123		1,3-dichlorobenzene	1.830	1.737	5.1	95	0.00	17.09
124		p-isopropyltoluene	3.053	3.088	-1.1	95	0.00	16.99
125		1,2,3-trimethylbenzene		----------NA----------				
126		1,4-dichlorobenzene	1.797	1.714	4.6	94	0.00	17.17
127		1,2-dichlorobenzene	1.886	1.789	5.1	94	0.00	17.56
128		n-butylbenzene	1.589	1.612	-1.4	95	0.00	17.39
129		1,2-dibromo-3-chloropropa	0.239	0.193	19.2	89	0.00	18.35
130		1,3,5-trichlorobenzene	1.887	1.878	0.5	93	0.00	18.50
131		1,2,4-trichlorobenzene	1.712	1.702	0.6	94	0.00	19.17
132		hexachlorobutadiene	0.959	0.929	3.1	93	0.00	19.26
133		naphthalene	3.625	3.469	4.3	92	0.00	19.47
134		1,2,3-trichlorobenzene	1.548	1.497	3.3	93	0.00	19.71
		----------	True	Calc.	% Drift	----------		
135		hexachloroethane	50.000	44.070	11.9	96	0.00	17.80

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2C136453.D M2C6139.m Mon Feb 01 15:54:06 2016 RPT1

6.7.2 6

Continuing Calibration Summary

Job Number: JC14082
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V2C6152-CC6139
Lab FileID: 2C136695.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2C136695.D Vial: 3
Acq On : 12 Feb 2016 12:18 pm Operator: ToanP
Sample : cc6139-20 Inst : Instrument #1
Misc : MS98346,V2C6152,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2C6139.m (RTE Integrator)
Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
Last Update : Fri Feb 12 08:55:34 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	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	97	0.00	8.70
2		tertiary butyl alcohol	1.215	1.212	0.2	107	-0.02	8.81
3		ethanol		----------NA----------				
4		1,4-dioxane	0.082	0.089	-8.5	109	0.00	12.70
5	I	pentafluorobenzene	1.000	1.000	0.0	93	0.00	11.08
6		FREON 115		----------NA----------				
7		FREON 23		----------NA----------				
8		FREON 143A		----------NA----------				
9		FREON 152A		----------NA----------				
10		CHLOROTRIFLUOROETHENE		----------NA----------				
11		chlorodifluoromethane	0.684	0.795	-16.2	108	0.00	4.59
12		dichlorodifluoromethane	0.819	0.599	26.9#	62	0.00	4.56
13		FREON 114		----------NA----------				
14		FREON 142B		----------NA----------				
15		chloromethane	1.013	0.875	13.6	86	0.00	5.00
16		vinyl chloride	0.886	0.865	2.4	85	0.00	5.32
17		bromomethane	0.545	0.439	19.4	78	0.00	6.11
18		chloroethane	0.362	0.373	-3.0	91	0.00	6.31
19		trichlorofluoromethane	0.894	0.788	11.9	76	0.00	6.87
20		pentane		----------NA----------				
21		ethyl ether	0.237	0.242	-2.1	95	0.00	7.35
22		2-CHLOROPROPANE	0.876	0.959	-9.5	97	0.00	7.60
23		FREON 123		----------NA----------				
24		FREON 141B		----------NA----------				
25		FREON 123A		----------NA----------				
26		acrolein	0.129	0.119	7.8	88	0.00	7.71
27		1,1-dichloroethene	0.690	0.764	-10.7	94	-0.01	7.85
28		acetone	0.048	0.048	0.0	98	-0.01	7.97
29		allyl chloride	0.274	0.288	-5.1	92	0.00	8.49
30		acetonitrile	0.056	0.062	-10.7	110	-0.02	8.51
31		iodomethane	0.948	1.003	-5.8	92	0.00	8.21
32		iso-butyl alcohol	0.019	0.020	-5.3	106	0.00	11.40
33		carbon disulfide	1.663	1.903	-14.4	97	0.00	8.33
34		methylene chloride	0.509	0.559	-9.8	97	0.00	8.72
		----------	True	Calc.	% Drift	----------		
35		1-CHLOROPROPANE	20.000	20.815	-4.1	100	0.00	8.74
		----------	AvgRF	CCRF	% Dev	----------		
36		methyl acetate	0.078	0.074	5.1	92	-0.01	8.48
37		methyl tert butyl ether	1.555	1.640	-5.5	99	0.00	9.04

6.7.3 6

Continuing Calibration Summary

Job Number: JC14082 **Sample:** V2C6152-CC6139
Account: UTC United Technologies Corporation **Lab FileID:** 2C136695.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

38		trans-1,2-dichloroethene	0.642	0.692	-7.8	96	0.00	9.12
39		di-isopropyl ether	1.648	1.736	-5.3	103	0.00	9.69
40		2-butanone	0.057	0.060	-5.3	100	0.00	10.54
41		1,1-dichloroethane	0.781	0.839	-7.4	96	0.00	9.76
42		chloroprene	0.568	0.615	-8.3	101	0.00	9.86
43		acrylonitrile	0.206	0.217	-5.3	97	0.00	9.13
44		vinyl acetate	0.075	0.076	-1.3	94	0.00	9.74
45		ethyl tert-butyl ether	1.559	1.674	-7.4	102	0.00	10.20
46		ethyl acetate	0.071	0.068	4.2	93	0.00	10.53
47		2,2-dichloropropane	0.773	0.856	-10.7	102	0.00	10.55
48		cis-1,2-dichloroethene	0.525	0.529	-0.8	97	0.00	10.57
49		propionitrile	0.083	0.086	-3.6	99	0.00	10.68
50		bromochloromethane	0.247	0.259	-4.9	93	0.00	10.90
51		tetrahydrofuran	0.190	0.202	-6.3	98	0.00	10.93
52		chloroform	0.713	0.775	-8.7	97	0.00	10.95
53		t-butyl formate	0.453	0.497	-9.7	105	0.00	10.97
54	S	dibromofluoromethane (s)	0.397	0.432	-8.8	102	0.00	11.16
55	S	1,2-dichloroethane-d4 (s)	0.407	0.445	-9.3	102	0.00	11.59
56		freon 113	0.371	0.399	-7.5	92	0.00	7.80
57		methacrylonitrile	0.192	0.193	-0.5	92	0.00	10.85
58		1,1,1-trichloroethane	0.639	0.731	-14.4	95	0.00	11.19
59		Cyclohexane	0.656	0.729	-11.1	89	0.00	11.25
60		tert amyl alcohol		----------NA----------				
61	I	1,4-difluorobenzene	1.000	1.000	0.0	97	0.00	12.00
62		Di-isobutylene		----------NA----------				
63		epichlorohydrin	0.043	0.042	2.3	102	0.00	13.21
64		n-butyl alcohol	0.017	0.015	11.8	98	0.00	12.13
65		carbon tetrachloride	0.518	0.555	-7.1	92	0.00	11.39
66		1,1-dichloropropene	0.447	0.456	-2.0	92	0.00	11.36
67		hexane	0.357	0.327	8.4	85	0.00	9.41
68		tert amyl ethyl ether		----------NA----------				
69		iso-octane	1.340	1.365	-1.9	91	0.00	11.59
70		benzene	1.458	1.419	2.7	96	0.00	11.63
71		tert-amyl methyl ether	0.277	0.289	-4.3	101	0.00	11.65
72		heptane	0.231	0.228	1.3	89	0.00	11.75
73		isopropyl acetate	0.964	0.930	3.5	96	0.00	11.55
74		1,2-dichloroethane	0.441	0.437	0.9	92	0.00	11.68
75		trichloroethene	0.337	0.351	-4.2	94	0.00	12.32
76		2-nitropropane	0.145	0.140	3.4	100	0.00	13.08
77		2-chloroethyl vinyl ether	0.218	0.214	1.8	94	0.00	13.07
78		methyl methacrylate	0.091	0.092	-1.1	94	0.00	12.57
79		1,2-dichloropropane	0.347	0.356	-2.6	96	0.00	12.59
80		dibromomethane	0.230	0.232	-0.9	94	0.00	12.75
81		methylcyclohexane	0.570	0.600	-5.3	93	0.00	12.51
82		bromodichloromethane	0.460	0.468	-1.7	96	0.00	12.86
83		cis-1,3-dichloropropene	0.573	0.557	2.8	94	0.00	13.28
84	S	toluene-d8 (s)	1.149	1.199	-4.4	101	0.00	13.54
85		4-methyl-2-pentanone	0.153	0.160	-4.6	95	0.00	13.36
86		toluene	0.781	0.778	0.4	92	0.00	13.61
87		3-methyl-1-butanol	0.025	0.024	4.0	98	0.00	13.38
88		trans-1,3-dichloropropene	0.519	0.501	3.5	92	0.00	13.81
89		ethyl methacrylate	0.427	0.422	1.2	94	0.00	13.76
90		1,1,2-trichloroethane	0.256	0.257	-0.4	95	0.00	14.01
91		2-hexanone	0.145	0.138	4.8	89	0.00	14.15
92	I	chlorobenzene-d5	1.000	1.000	0.0	94	0.00	14.95
93		tetrachloroethene	0.342	0.339	0.9	86	0.00	14.14
94		1,3-dichloropropane	0.546	0.542	0.7	93	0.00	14.18
95		butyl acetate	0.269	0.274	-1.9	99	0.00	14.19

Continuing Calibration Summary

Job Number: JC14082 **Sample:** V2C6152-CC6139
Account: UTC United Technologies Corporation **Lab FileID:** 2C136695.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

96		3,3-dimethyl-1-butanol	0.062	0.063	-1.6	97	0.00	14.30
97		dibromochloromethane	0.434	0.429	1.2	92	0.00	14.43
98		1,2-dibromoethane	0.378	0.375	0.8	91	0.00	14.57
99		BUTYL ETHER	1.595	1.776	-11.3	100	0.00	14.84
100		chlorobenzene	1.014	1.012	0.2	92	0.00	14.98
101		1,1,1,2-tetrachloroethane	0.442	0.453	-2.5	95	0.00	15.03
102		ethylbenzene	1.723	1.749	-1.5	95	0.00	15.01
103		m,p-xylene	0.642	0.683	-6.4	95	0.00	15.11
104		o-xylene	0.672	0.725	-7.9	97	0.00	15.49
105		styrene	1.141	1.177	-3.2	95	0.00	15.51
106		bromoform	0.348	0.354	-1.7	92	0.00	15.79
107	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	93	0.00	17.10
108		isopropylbenzene	2.973	3.407	-14.6	98	0.00	15.80
109	S	4-bromofluorobenzene (s)	0.823	0.885	-7.5	100	0.00	16.01
110		cyclohexanone		----------NA----------				
111		bromobenzene	0.954	0.893	6.4	91	0.00	16.20
112		1,1,2,2-tetrachloroethane	0.921	0.975	-5.9	98	0.00	16.12
113		trans-1,4-dichloro-2-bute	0.127	0.134	-5.5	99	0.00	16.15
114		1,2,3-trichloropropane	0.216	0.227	-5.1	96	0.00	16.19
115		n-propylbenzene	3.400	3.872	-13.9	99	0.00	16.18
116		2-chlorotoluene	0.784	0.811	-3.4	94	0.00	16.33
117		4-chlorotoluene	2.127	2.300	-8.1	98	0.00	16.42
118		1,3,5-trimethylbenzene	2.627	2.937	-11.8	99	0.00	16.31
119		tert-butylbenzene	0.531	0.535	-0.8	92	0.00	16.64
120		pentachloroethane	0.562	0.626	-11.4	97	0.00	16.75
121		1,2,4-trimethylbenzene	2.764	3.042	-10.1	99	0.00	16.68
122		sec-butylbenzene	3.471	4.003	-15.3	98	0.00	16.84
123		1,3-dichlorobenzene	1.830	1.919	-4.9	96	0.00	17.05
124		p-isopropyltoluene	3.053	3.496	-14.5	99	0.00	16.95
125		1,2,3-trimethylbenzene		----------NA----------				
126		1,4-dichlorobenzene	1.797	1.882	-4.7	95	0.00	17.12
127		1,2-dichlorobenzene	1.886	1.974	-4.7	97	0.00	17.52
128		n-butylbenzene	1.589	1.855	-16.7	101	0.00	17.34
129		1,2-dibromo-3-chloropropa	0.239	0.239	0.0	104	0.00	18.30
130		1,3,5-trichlorobenzene	1.887	2.073	-9.9	96	0.00	18.46
131		1,2,4-trichlorobenzene	1.712	1.832	-7.0	95	0.00	19.12
132		hexachlorobutadiene	0.959	0.972	-1.4	88	0.00	19.22
133		naphthalene	3.625	3.967	-9.4	100	0.00	19.42
134		1,2,3-trichlorobenzene	1.548	1.678	-8.4	98	0.00	19.67
		----------	True	Calc.	% Drift	----------		
135		hexachloroethane	20.000	19.005	5.0	97	0.00	17.76

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2C136655.D M2C6139.m Fri Feb 12 17:02:23 2016 RPT1

6.7.3 6

Continuing Calibration Summary

Job Number: JC14082 **Sample:** V2C6152-CC6139
Account: UTC United Technologies Corporation **Lab FileID:** 2C136717.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2C136717.D Vial: 25
Acq On : 12 Feb 2016 11:04 pm Operator: ToanP
Sample : cc6139-50 Inst : Instrument #1
Misc : MS98363,V2C6152,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2C6139.m (RTE Integrator)
Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
Last Update : Fri Feb 12 08:55:34 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	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1 I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	94	0.00	8.70
2	tertiary butyl alcohol	1.215	1.225	-0.8	99	0.00	8.83
3	ethanol		----------NA----------				
4	1,4-dioxane	0.082	0.082	0.0	90	0.00	12.69
5 I	pentafluorobenzene	1.000	1.000	0.0	96	0.00	11.08
6	FREON 115		----------NA----------				
7	FREON 23		----------NA----------				
8	FREON 143A		----------NA----------				
9	FREON 152A		----------NA----------				
10	CHLOROTRIFLUOROETHENE		----------NA----------				
11	chlorodifluoromethane	0.684	0.735	-7.5	99	-0.01	4.58
12	dichlorodifluoromethane	0.819	0.596	27.2#	65	0.00	4.56
13	FREON 114		----------NA----------				
14	FREON 142B		----------NA----------				
15	chloromethane	1.013	0.817	19.3	81	0.00	5.00
16	vinyl chloride	0.886	0.793	10.5	82	0.01	5.33
17	bromomethane	0.545	0.395	27.5#	74	0.00	6.11
18	chloroethane	0.362	0.339	6.4	87	0.00	6.31
19	trichlorofluoromethane	0.894	0.750	16.1	77	0.00	6.87
20	pentane		----------NA----------				
21	ethyl ether	0.237	0.238	-0.4	95	0.00	7.35
22	2-CHLOROPROPANE	0.876	0.926	-5.7	97	0.00	7.60
23	FREON 123		----------NA----------				
24	FREON 141B		----------NA----------				
25	FREON 123A		----------NA----------				
26	acrolein	0.129	0.110	14.7	79	0.00	7.71
27	1,1-dichloroethene	0.690	0.738	-7.0	94	0.00	7.86
28	acetone	0.048	0.050	-4.2	98	0.00	7.98
29	allyl chloride	0.274	0.278	-1.5	91	0.00	8.49
30	acetonitrile	0.056	0.056	0.0	98	-0.03	8.50
31	iodomethane	0.948	0.976	-3.0	90	0.00	8.21
32	iso-butyl alcohol	0.019	0.017	10.5	97	0.00	11.40
33	carbon disulfide	1.663	1.804	-8.5	95	0.00	8.33
34	methylene chloride	0.509	0.540	-6.1	96	0.00	8.72
	----------	True	Calc.	% Drift		----------	
35	1-CHLOROPROPANE	50.000	52.986	-6.0	102	0.00	8.74
	----------	AvgRF	CCRF	% Dev		----------	
36	methyl acetate	0.078	0.075	3.8	90	-0.01	8.48
37	methyl tert butyl ether	1.555	1.621	-4.2	100	0.00	9.05

6.7.4 6

Continuing Calibration Summary

Job Number: JC14082 **Sample:** V2C6152-CC6139
Account: UTC United Technologies Corporation **Lab FileID:** 2C136717.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

38		trans-1,2-dichloroethene	0.642	0.663	-3.3	97	0.00	9.12
39		di-isopropyl ether	1.648	1.675	-1.6	96	0.00	9.69
40		2-butanone	0.057	0.057	0.0	97	0.00	10.54
41		1,1-dichloroethane	0.781	0.837	-7.2	101	0.00	9.76
42		chloroprene	0.568	0.579	-1.9	92	0.00	9.86
43		acrylonitrile	0.206	0.203	1.5	94	0.00	9.13
44		vinyl acetate	0.075	0.076	-1.3	93	0.00	9.74
45		ethyl tert-butyl ether	1.559	1.642	-5.3	97	0.00	10.20
46		ethyl acetate	0.071	0.067	5.6	96	0.00	10.54
47		2,2-dichloropropane	0.773	0.702	9.2	89	0.00	10.55
48		cis-1,2-dichloroethene	0.525	0.523	0.4	100	0.00	10.57
49		propionitrile	0.083	0.083	0.0	99	0.00	10.68
50		bromochloromethane	0.247	0.256	-3.6	96	0.00	10.91
51		tetrahydrofuran	0.190	0.192	-1.1	100	0.00	10.93
52		chloroform	0.713	0.765	-7.3	99	0.00	10.95
53		t-butyl formate	0.453	0.471	-4.0	95	0.00	10.97
54	S	dibromofluoromethane (s)	0.397	0.421	-6.0	102	0.00	11.17
55	S	1,2-dichloroethane-d4 (s)	0.407	0.434	-6.6	105	0.00	11.59
56		freon 113	0.371	0.372	-0.3	85	0.00	7.81
57		methacrylonitrile	0.192	0.199	-3.6	98	0.00	10.85
58		1,1,1-trichloroethane	0.639	0.715	-11.9	97	0.00	11.19
59		Cyclohexane	0.656	0.720	-9.8	92	0.00	11.24
60		tert amyl alcohol		----------NA----------				
61	I	1,4-difluorobenzene	1.000	1.000	0.0	97	0.00	12.00
62		Di-isobutylene		----------NA----------				
63		epichlorohydrin	0.043	0.042	2.3	97	0.00	13.21
64		n-butyl alcohol	0.017	0.014	17.6	95	0.00	12.13
65		carbon tetrachloride	0.518	0.551	-6.4	92	0.00	11.39
66		1,1-dichloropropene	0.447	0.468	-4.7	97	0.00	11.37
67		hexane	0.357	0.314	12.0	79	0.00	9.41
68		tert amyl ethyl ether		----------NA----------				
69		iso-octane	1.340	1.307	2.5	84	0.00	11.59
70		benzene	1.458	1.417	2.8	99	0.00	11.64
71		tert-amyl methyl ether	0.277	0.277	0.0	95	0.00	11.65
72		heptane	0.231	0.213	7.8	85	0.00	11.75
73		isopropyl acetate	0.964	0.954	1.0	94	0.00	11.55
74		1,2-dichloroethane	0.441	0.453	-2.7	98	0.00	11.68
75		trichloroethene	0.337	0.359	-6.5	98	0.00	12.32
76		2-nitropropane	0.145	0.139	4.1	100	0.00	13.08
77		2-chloroethyl vinyl ether	0.218	0.217	0.5	93	0.00	13.07
78		methyl methacrylate	0.091	0.095	-4.4	96	0.00	12.57
79		1,2-dichloropropane	0.347	0.359	-3.5	98	0.00	12.59
80		dibromomethane	0.230	0.237	-3.0	97	0.00	12.75
81		methylcyclohexane	0.570	0.583	-2.3	86	0.00	12.51
82		bromodichloromethane	0.460	0.484	-5.2	98	0.00	12.87
83		cis-1,3-dichloropropene	0.573	0.570	0.5	96	0.00	13.28
84	S	toluene-d8 (s)	1.149	1.210	-5.3	103	0.00	13.54
85		4-methyl-2-pentanone	0.153	0.162	-5.9	97	0.00	13.36
86		toluene	0.781	0.831	-6.4	99	0.00	13.61
87		3-methyl-1-butanol	0.025	0.023	8.0	97	0.00	13.38
88		trans-1,3-dichloropropene	0.519	0.523	-0.8	98	0.00	13.81
89		ethyl methacrylate	0.427	0.444	-4.0	99	0.00	13.76
90		1,1,2-trichloroethane	0.256	0.265	-3.5	98	0.00	14.01
91		2-hexanone	0.145	0.138	4.8	91	0.00	14.15
92	I	chlorobenzene-d5	1.000	1.000	0.0	96	0.00	14.95
93		tetrachloroethene	0.342	0.350	-2.3	91	0.00	14.14
94		1,3-dichloropropane	0.546	0.562	-2.9	99	0.00	14.18
95		butyl acetate	0.269	0.270	-0.4	98	0.00	14.19

Continuing Calibration Summary

Job Number: JC14082 **Sample:** V2C6152-CC6139
Account: UTC United Technologies Corporation **Lab FileID:** 2C136717.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

96		3,3-dimethyl-1-butanol	0.062	0.060	3.2	93	0.00	14.30
97		dibromochloromethane	0.434	0.453	-4.4	97	0.00	14.43
98		1,2-dibromoethane	0.378	0.392	-3.7	95	0.00	14.58
99		BUTYL ETHER	1.595	1.747	-9.5	101	0.00	14.84
100		chlorobenzene	1.014	1.050	-3.6	96	0.00	14.98
101		1,1,1,2-tetrachloroethane	0.442	0.457	-3.4	97	0.00	15.03
102		ethylbenzene	1.723	1.743	-1.2	99	0.00	15.01
103		m,p-xylene	0.642	0.677	-5.5	97	0.00	15.11
104		o-xylene	0.672	0.730	-8.6	97	0.00	15.50
105		styrene	1.141	1.175	-3.0	98	0.00	15.51
106		bromoform	0.348	0.360	-3.4	94	0.00	15.79
107	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	94	0.00	17.10
108		isopropylbenzene	2.973	3.446	-15.9	99	0.00	15.80
109	S	4-bromofluorobenzene (s)	0.823	0.910	-10.6	102	0.00	16.01
110		cyclohexanone		----------NA----------				
111		bromobenzene	0.954	0.900	5.7	94	0.00	16.20
112		1,1,2,2-tetrachloroethane	0.921	0.995	-8.0	98	0.00	16.12
113		trans-1,4-dichloro-2-bute	0.127	0.134	-5.5	95	0.00	16.15
114		1,2,3-trichloropropane	0.216	0.219	-1.4	95	0.00	16.19
115		n-propylbenzene	3.400	3.830	-12.6	99	0.00	16.18
116		2-chlorotoluene	0.784	0.809	-3.2	95	0.00	16.33
117		4-chlorotoluene	2.127	2.317	-8.9	100	0.00	16.43
118		1,3,5-trimethylbenzene	2.627	2.928	-11.5	98	0.00	16.31
119		tert-butylbenzene	0.531	0.567	-6.8	93	0.00	16.64
120		pentachloroethane	0.562	0.648	-15.3	98	0.00	16.75
121		1,2,4-trimethylbenzene	2.764	2.971	-7.5	98	0.00	16.68
122		sec-butylbenzene	3.471	3.989	-14.9	98	0.00	16.84
123		1,3-dichlorobenzene	1.830	1.882	-2.8	95	0.00	17.05
124		p-isopropyltoluene	3.053	3.396	-11.2	97	0.00	16.95
125		1,2,3-trimethylbenzene		----------NA----------				
126		1,4-dichlorobenzene	1.797	1.875	-4.3	95	0.00	17.12
127		1,2-dichlorobenzene	1.886	1.968	-4.3	96	0.00	17.52
128		n-butylbenzene	1.589	1.799	-13.2	98	0.00	17.35
129		1,2-dibromo-3-chloropropa	0.239	0.231	3.3	99	0.00	18.30
130		1,3,5-trichlorobenzene	1.887	1.988	-5.4	91	0.00	18.46
131		1,2,4-trichlorobenzene	1.712	1.772	-3.5	90	0.00	19.13
132		hexachlorobutadiene	0.959	0.930	3.0	86	0.00	19.22
133		naphthalene	3.625	3.693	-1.9	91	0.00	19.42
134		1,2,3-trichlorobenzene	1.548	1.543	0.3	89	0.00	19.67
		----------	True	Calc.	% Drift	----------		
135		hexachloroethane	50.000	48.080	3.8	97	0.00	17.76

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2C136453.D M2C6139.m Mon Feb 15 09:27:26 2016 RPT1

6.7.4 6

Continuing Calibration Summary

Job Number: JC14082 **Sample:** V2C6153-CC6139
Account: UTC United Technologies Corporation **Lab FileID:** 2C136726.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2C136726.D Vial: 2
Acq On : 13 Feb 2016 9:53 am Operator: ToanP
Sample : cc6139-20 Inst : Instrument #1
Misc : MS98363,V2C6153,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2C6139.m (RTE Integrator)
Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
Last Update : Fri Feb 12 08:55:34 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	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	105	0.00	8.70
2		tertiary butyl alcohol	1.215	1.151	5.3	110	0.00	8.82
3		ethanol		----------NA----------				
4		1,4-dioxane	0.082	0.080	2.4	106	0.00	12.70
5	I	pentafluorobenzene	1.000	1.000	0.0	96	0.00	11.08
6		FREON 115		----------NA----------				
7		FREON 23		----------NA----------				
8		FREON 143A		----------NA----------				
9		FREON 152A		----------NA----------				
10		CHLOROTRIFLUOROETHENE		----------NA----------				
11		chlorodifluoromethane	0.684	0.723	-5.7	101	0.00	4.59
12		dichlorodifluoromethane	0.819	0.668	18.4	71	0.00	4.56
13		FREON 114		----------NA----------				
14		FREON 142B		----------NA----------				
15		chloromethane	1.013	1.038	-2.5	105	0.00	5.00
16		vinyl chloride	0.886	0.945	-6.7	96	0.00	5.32
17		bromomethane	0.545	0.482	11.6	88	0.00	6.11
18		chloroethane	0.362	0.389	-7.5	98	0.00	6.31
19		trichlorofluoromethane	0.894	0.785	12.2	78	0.00	6.87
20		pentane		----------NA----------				
21		ethyl ether	0.237	0.252	-6.3	102	0.00	7.35
22		2-CHLOROPROPANE	0.876	0.983	-12.2	102	0.00	7.60
23		FREON 123		----------NA----------				
24		FREON 141B		----------NA----------				
25		FREON 123A		----------NA----------				
26		acrolein	0.129	0.119	7.8	90	0.00	7.71
27		1,1-dichloroethene	0.690	0.790	-14.5	100	0.00	7.86
28		acetone	0.048	0.052	-8.3	108	0.00	7.98
29		allyl chloride	0.274	0.305	-11.3	100	0.00	8.49
30		acetonitrile	0.056	0.061	-8.9	112	-0.02	8.52
31		iodomethane	0.948	1.032	-8.9	97	0.00	8.21
32		iso-butyl alcohol	0.019	0.020	-5.3	111	0.00	11.40
33		carbon disulfide	1.663	1.926	-15.8	101	0.00	8.33
34		methylene chloride	0.509	0.582	-14.3	104	0.00	8.72
		----------	True	Calc.	% Drift		----------	
35		1-CHLOROPROPANE	20.000	21.812	-9.1	107	0.00	8.74
		----------	AvgRF	CCRF	% Dev		----------	
36		methyl acetate	0.078	0.075	3.8	96	-0.01	8.48
37		methyl tert butyl ether	1.555	1.723	-10.8	107	0.00	9.05

6.7.5 6

Continuing Calibration Summary

Job Number: JC14082 **Sample:** V2C6153-CC6139
Account: UTC United Technologies Corporation **Lab FileID:** 2C136726.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

38		trans-1,2-dichloroethene	0.642	0.707	-10.1	101	0.00	9.12
39		di-isopropyl ether	1.648	1.645	0.2	100	0.00	9.69
40		2-butanone	0.057	0.061	-7.0	105	0.00	10.54
41		1,1-dichloroethane	0.781	0.880	-12.7	103	0.00	9.76
42		chloroprene	0.568	0.572	-0.7	96	0.00	9.86
43		acrylonitrile	0.206	0.233	-13.1	108	0.00	9.13
44		vinyl acetate	0.075	0.071	5.3	91	0.00	9.74
45		ethyl tert-butyl ether	1.559	1.587	-1.8	99	0.00	10.20
46		ethyl acetate	0.071	0.068	4.2	95	0.00	10.53
47		2,2-dichloropropane	0.773	0.870	-12.5	106	0.00	10.55
48		cis-1,2-dichloroethene	0.525	0.548	-4.4	103	0.00	10.57
49		propionitrile	0.083	0.094	-13.3	112	0.00	10.68
50		bromochloromethane	0.247	0.268	-8.5	99	0.00	10.90
51		tetrahydrofuran	0.190	0.213	-12.1	107	0.00	10.93
52		chloroform	0.713	0.817	-14.6	105	0.00	10.95
53		t-butyl formate	0.453	0.464	-2.4	101	0.00	10.97
54	S	dibromofluoromethane (s)	0.397	0.427	-7.6	104	0.00	11.16
55	S	1,2-dichloroethane-d4 (s)	0.407	0.454	-11.5	107	0.00	11.59
56		freon 113	0.371	0.361	2.7	86	0.00	7.81
57		methacrylonitrile	0.192	0.215	-12.0	106	0.00	10.85
58		1,1,1-trichloroethane	0.639	0.739	-15.6	99	0.00	11.19
59		Cyclohexane	0.656	0.744	-13.4	94	0.00	11.25
60		tert amyl alcohol		----------NA----------				
61	I	1,4-difluorobenzene	1.000	1.000	0.0	100	0.00	12.00
62		Di-isobutylene		----------NA----------				
63		epichlorohydrin	0.043	0.044	-2.3	109	0.00	13.21
64		n-butyl alcohol	0.017	0.016	5.9	107	0.00	12.13
65		carbon tetrachloride	0.518	0.558	-7.7	95	0.00	11.39
66		1,1-dichloropropene	0.447	0.475	-6.3	99	0.00	11.36
67		hexane	0.357	0.308	13.7	82	0.00	9.41
68		tert amyl ethyl ether		----------NA----------				
69		iso-octane	1.340	1.277	4.7	88	0.00	11.59
70		benzene	1.458	1.484	-1.8	104	0.00	11.63
71		tert-amyl methyl ether	0.277	0.267	3.6	95	0.00	11.64
72		heptane	0.231	0.218	5.6	87	0.00	11.75
73		isopropyl acetate	0.964	0.923	4.3	98	0.00	11.55
74		1,2-dichloroethane	0.441	0.475	-7.7	102	0.00	11.68
75		trichloroethene	0.337	0.372	-10.4	103	0.00	12.32
76		2-nitropropane	0.145	0.150	-3.4	110	0.00	13.08
77		2-chloroethyl vinyl ether	0.218	0.215	1.4	97	0.00	13.07
78		methyl methacrylate	0.091	0.095	-4.4	101	0.00	12.56
79		1,2-dichloropropane	0.347	0.378	-8.9	105	0.00	12.59
80		dibromomethane	0.230	0.244	-6.1	101	0.00	12.75
81		methylcyclohexane	0.570	0.552	3.2	87	0.00	12.51
82		bromodichloromethane	0.460	0.498	-8.3	105	0.00	12.87
83		cis-1,3-dichloropropene	0.573	0.613	-7.0	106	0.00	13.28
84	S	toluene-d8 (s)	1.149	1.226	-6.7	106	0.00	13.54
85		4-methyl-2-pentanone	0.153	0.172	-12.4	104	0.00	13.36
86		toluene	0.781	0.860	-10.1	105	0.00	13.61
87		3-methyl-1-butanol	0.025	0.024	4.0	102	0.00	13.38
88		trans-1,3-dichloropropene	0.519	0.558	-7.5	106	0.00	13.81
89		ethyl methacrylate	0.427	0.455	-6.6	105	0.00	13.76
90		1,1,2-trichloroethane	0.256	0.278	-8.6	106	0.00	14.01
91		2-hexanone	0.145	0.167	-15.2	111	0.00	14.15
92	I	chlorobenzene-d5	1.000	1.000	0.0	100	0.00	14.95
93		tetrachloroethene	0.342	0.362	-5.8	97	0.00	14.14
94		1,3-dichloropropane	0.546	0.580	-6.2	106	0.00	14.18
95		butyl acetate	0.269	0.273	-1.5	104	0.00	14.19

Continuing Calibration Summary

Job Number: JC14082 **Sample:** V2C6153-CC6139
Account: UTC United Technologies Corporation **Lab FileID:** 2C136726.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

96		3,3-dimethyl-1-butanol	0.062	0.062	0.0	100	0.00	14.30
97		dibromochloromethane	0.434	0.446	-2.8	101	0.00	14.43
98		1,2-dibromoethane	0.378	0.399	-5.6	102	0.00	14.58
99		BUTYL ETHER	1.595	1.844	-15.6	109	0.00	14.84
100		chlorobenzene	1.014	1.081	-6.6	104	0.00	14.98
101		1,1,1,2-tetrachloroethane	0.442	0.460	-4.1	102	0.00	15.03
102		ethylbenzene	1.723	1.842	-6.9	106	0.00	15.01
103		m,p-xylene	0.642	0.712	-10.9	104	0.00	15.11
104		o-xylene	0.672	0.756	-12.5	107	0.00	15.49
105		styrene	1.141	1.237	-8.4	105	0.00	15.51
106		bromoform	0.348	0.369	-6.0	101	0.00	15.79
107	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	99	0.00	17.10
108		isopropylbenzene	2.973	3.474	-16.9	106	0.00	15.80
109	S	4-bromofluorobenzene (s)	0.823	0.890	-8.1	107	0.00	16.01
110		cyclohexanone		----------NA----------				
111		bromobenzene	0.954	0.937	1.8	101	0.00	16.20
112		1,1,2,2-tetrachloroethane	0.921	1.018	-10.5	109	0.00	16.12
113		trans-1,4-dichloro-2-bute	0.127	0.145	-14.2	114	0.00	16.15
114		1,2,3-trichloropropane	0.216	0.235	-8.8	105	0.00	16.19
115		n-propylbenzene	3.400	3.977	-17.0	108	0.00	16.18
116		2-chlorotoluene	0.784	0.837	-6.8	103	0.00	16.33
117		4-chlorotoluene	2.127	2.436	-14.5	111	0.00	16.42
118		1,3,5-trimethylbenzene	2.627	2.952	-12.4	106	0.00	16.31
119		tert-butylbenzene	0.531	0.542	-2.1	99	0.00	16.64
120		pentachloroethane	0.562	0.624	-11.0	103	0.00	16.74
121		1,2,4-trimethylbenzene	2.764	3.085	-11.6	106	0.00	16.68
122		sec-butylbenzene	3.471	4.014	-15.6	104	0.00	16.84
123		1,3-dichlorobenzene	1.830	1.932	-5.6	103	0.00	17.05
124		p-isopropyltoluene	3.053	3.497	-14.5	105	0.00	16.95
125		1,2,3-trimethylbenzene		----------NA----------				
126		1,4-dichlorobenzene	1.797	1.924	-7.1	104	0.00	17.12
127		1,2-dichlorobenzene	1.886	2.029	-7.6	106	0.00	17.52
128		n-butylbenzene	1.589	1.873	-17.9	108	0.00	17.34
129		1,2-dibromo-3-chloropropa	0.239	0.239	0.0	111	0.00	18.30
130		1,3,5-trichlorobenzene	1.887	2.007	-6.4	99	0.00	18.46
131		1,2,4-trichlorobenzene	1.712	1.721	-0.5	94	0.00	19.12
132		hexachlorobutadiene	0.959	0.939	2.1	91	0.00	19.22
133		naphthalene	3.625	3.593	0.9	96	0.00	19.42
134		1,2,3-trichlorobenzene	1.548	1.491	3.7	92	0.00	19.66
		----------	True	Calc.	% Drift	----------		
135		hexachloroethane	20.000	19.520	2.4	107	0.00	17.76

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2C136655.D M2C6139.m Mon Feb 15 09:45:33 2016 RPT1

6.7.5 6

GC/MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136712.D
Acq On : 12 Feb 2016 8:40 pm
Operator : ToanP
Sample : jc14082-1
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 15 09:15:43 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.699	65	151739	500.00	ug/L	0.00
5) pentafluorobenzene	11.084	168	225717	50.00	ug/L	0.00
61) 1,4-difluorobenzene	11.996	114	262858	50.00	ug/L	0.00
92) chlorobenzene-d5	14.948	117	232771	50.00	ug/L	0.00
107) 1,4-dichlorobenzene-d4	17.103	152	142757	50.00	ug/L	0.00
System Monitoring Compounds						
54) dibromofluoromethane (s)	11.168	113	95185	53.17	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 106.34%			
55) 1,2-dichloroethane-d4 (s)	11.588	65	102158	55.57	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 111.14%			
84) toluene-d8 (s)	13.538	98	317090	52.50	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 105.00%			
109) 4-bromofluorobenzene (s)	16.013	95	126064	53.63	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 107.26%			
Target Compounds						Qvalue
41) 1,1-dichloroethane	9.763	63	859	0.24	ug/L	88
58) 1,1,1-trichloroethane	11.184	97	758	0.26	ug/L #	68

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

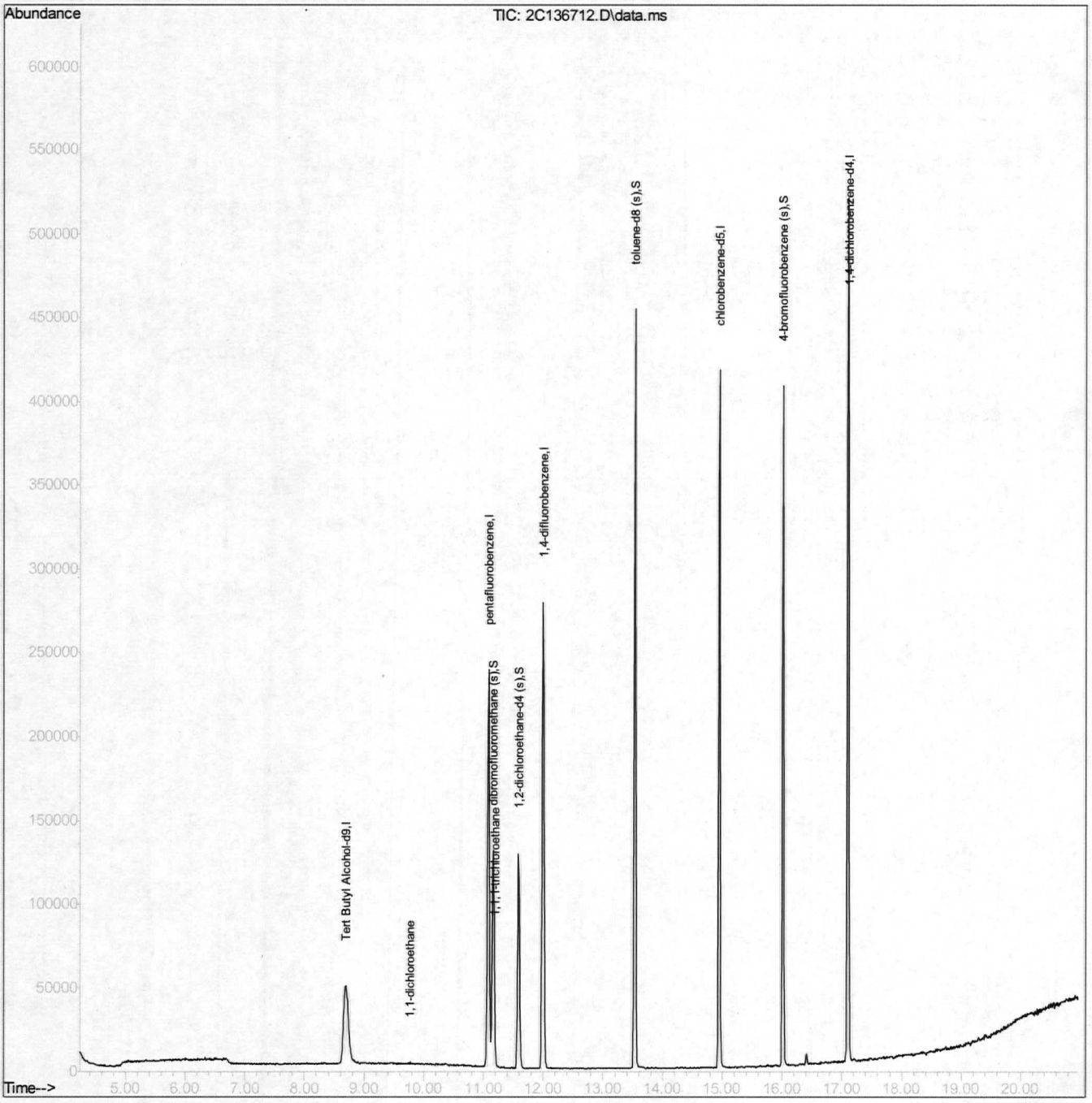
7.1.1

7

Quantitation Report (QT Reviewed)

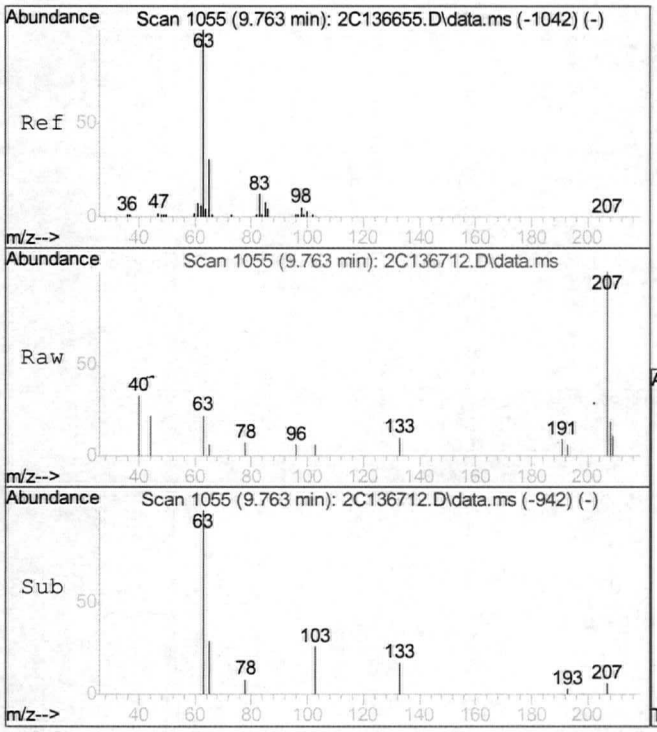
Data Path : C:\msdchem\1\DATA\
Data File : 2C136712.D
Acq On : 12 Feb 2016 8:40 pm
Operator : ToanP
Sample : jc14082-1
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 15 09:15:43 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration



7.1.1

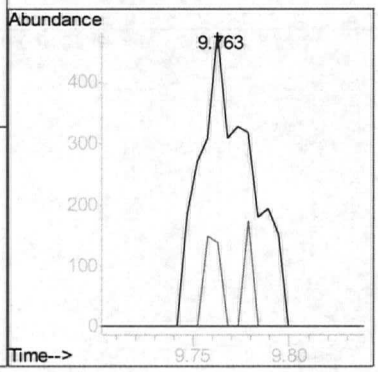
7

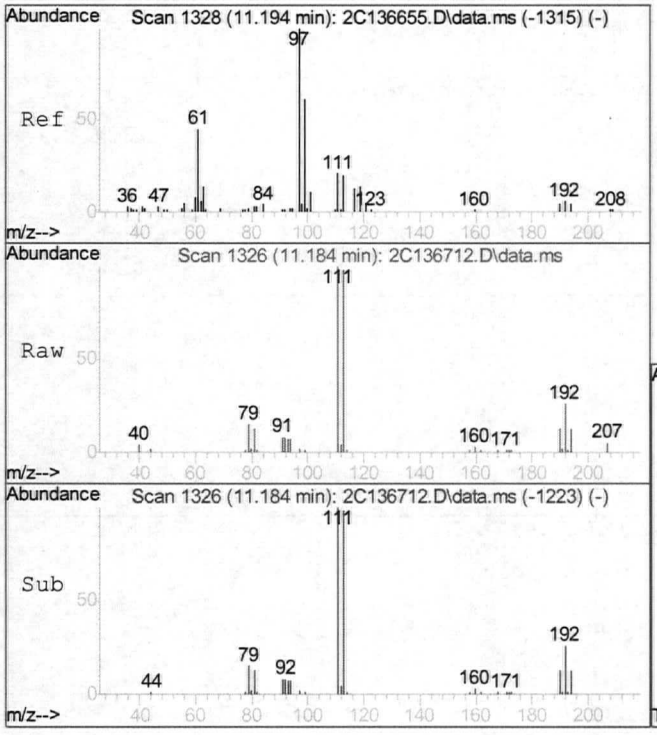


#41
1,1-dichloroethane
Concen: 0.24 ug/L
RT: 9.763 min Scan# 1055
Delta R.T. 0.000 min
Lab File: 2C136712.D
Acq: 12 Feb 2016 8:40 pm

Tgt Ion: 63 Resp: 859

Ion	Ratio	Lower	Upper
63	100		
65	28.6	0.8	60.8
83	0.0	0.0	42.4

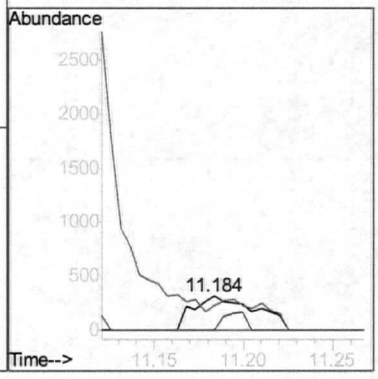




#58
1,1,1-trichloroethane
Concen: 0.26 ug/L
RT: 11.184 min Scan# 1326
Delta R.T. -0.010 min
Lab File: 2C136712.D
Acq: 12 Feb 2016 8:40 pm

Tgt Ion: 97 Resp: 758

Ion	Ratio	Lower	Upper
97	100		
99	75.2	38.4	98.4
61	0.0	14.5	74.5#



7.1.1

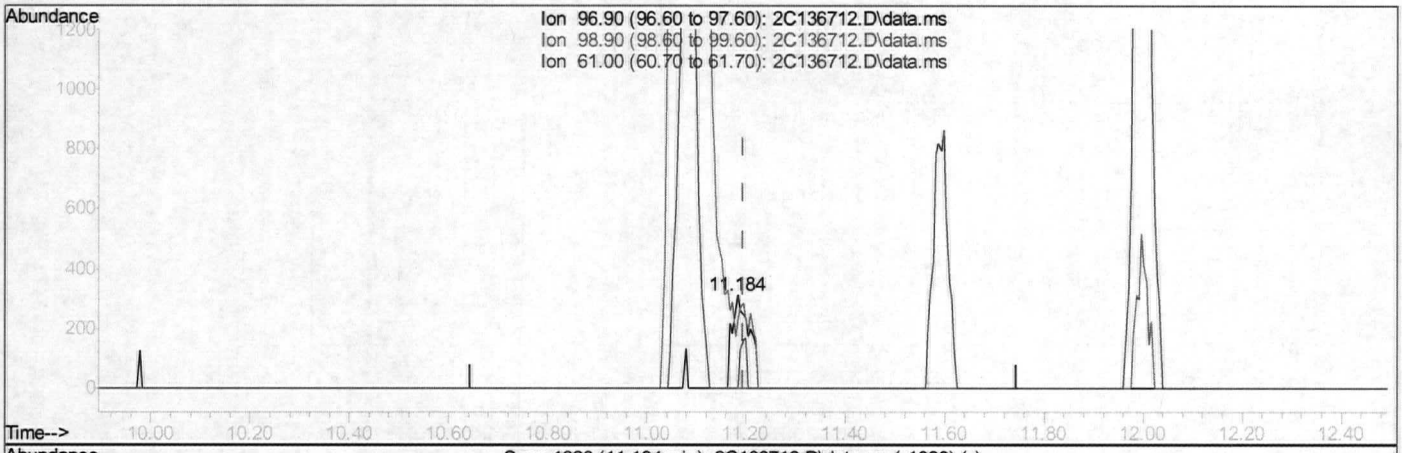
7

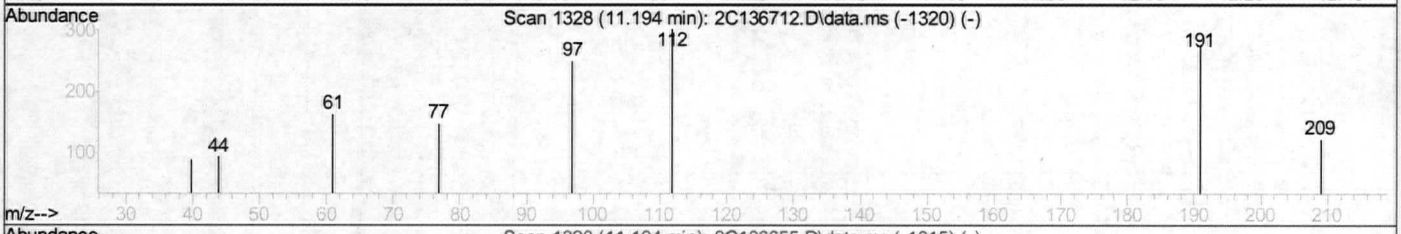
SGS ACCUTEST JC14082

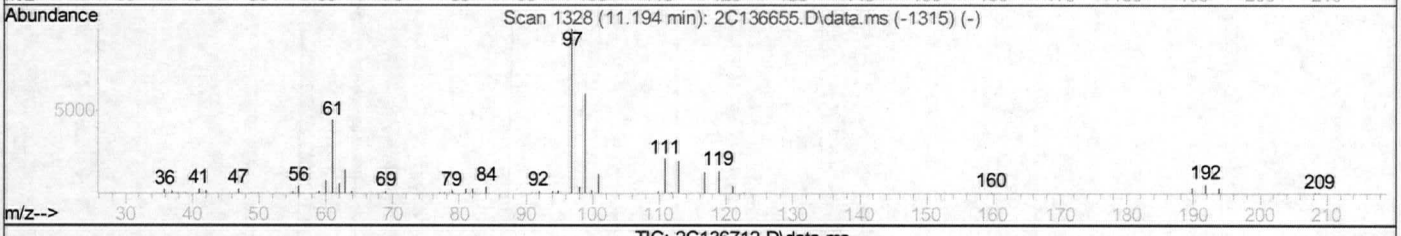
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136712.D
Acq On : 12 Feb 2016 8:40 pm
Operator : ToanP
Sample : jc14082-1
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Feb 13 08:46:53 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration







TIC: 2C136712.D\data.ms

(58) 1,1,1-trichloroethane

11.184min (-0.010) 0.26ug/L

response 758

Ion	Exp%	Act%
96.90	100	100
98.90	68.40	75.24
61.00	44.50	0.00#
0.00	0.00	0.00

SGS ACCUTEST JC14082

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136713.D
Acq On : 12 Feb 2016 9:08 pm
Operator : ToanP
Sample : jc14082-2
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 15 09:22:08 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.688	65	178453	500.00	ug/L	-0.02
5) pentafluorobenzene	11.084	168	218023	50.00	ug/L	0.00
61) 1,4-difluorobenzene	11.996	114	252560	50.00	ug/L	0.00
92) chlorobenzene-d5	14.948	117	227677	50.00	ug/L	0.00
107) 1,4-dichlorobenzene-d4	17.103	152	139615	50.00	ug/L	0.00
System Monitoring Compounds						
54) dibromofluoromethane (s)	11.163	113	91077	52.67	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.34%			
55) 1,2-dichloroethane-d4 (s)	11.593	65	97406	54.85	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 109.70%			
84) toluene-d8 (s)	13.538	98	308541	53.16	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 106.32%			
109) 4-bromofluorobenzene (s)	16.013	95	121999	53.07	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 106.14%			
Target Compounds						Qvalue
27) 1,1-dichloroethene	7.860	61	33620	11.17	ug/L	97
41) 1,1-dichloroethane	9.768	63	102410	30.09	ug/L	99
48) cis-1,2-dichloroethene	10.565	96	117077	51.14	ug/L	89
58) 1,1,1-trichloroethane	11.194	97	750264	269.09	ug/L	96
75) trichloroethene	12.316	95	1516	0.89	ug/L	80
93) tetrachloroethene	14.146	164	3988	2.56	ug/L	93
103) m,p-xylene	15.106	106	1066	0.36	ug/L #	69
104) o-xylene	15.499	106	6796	2.22	ug/L	91

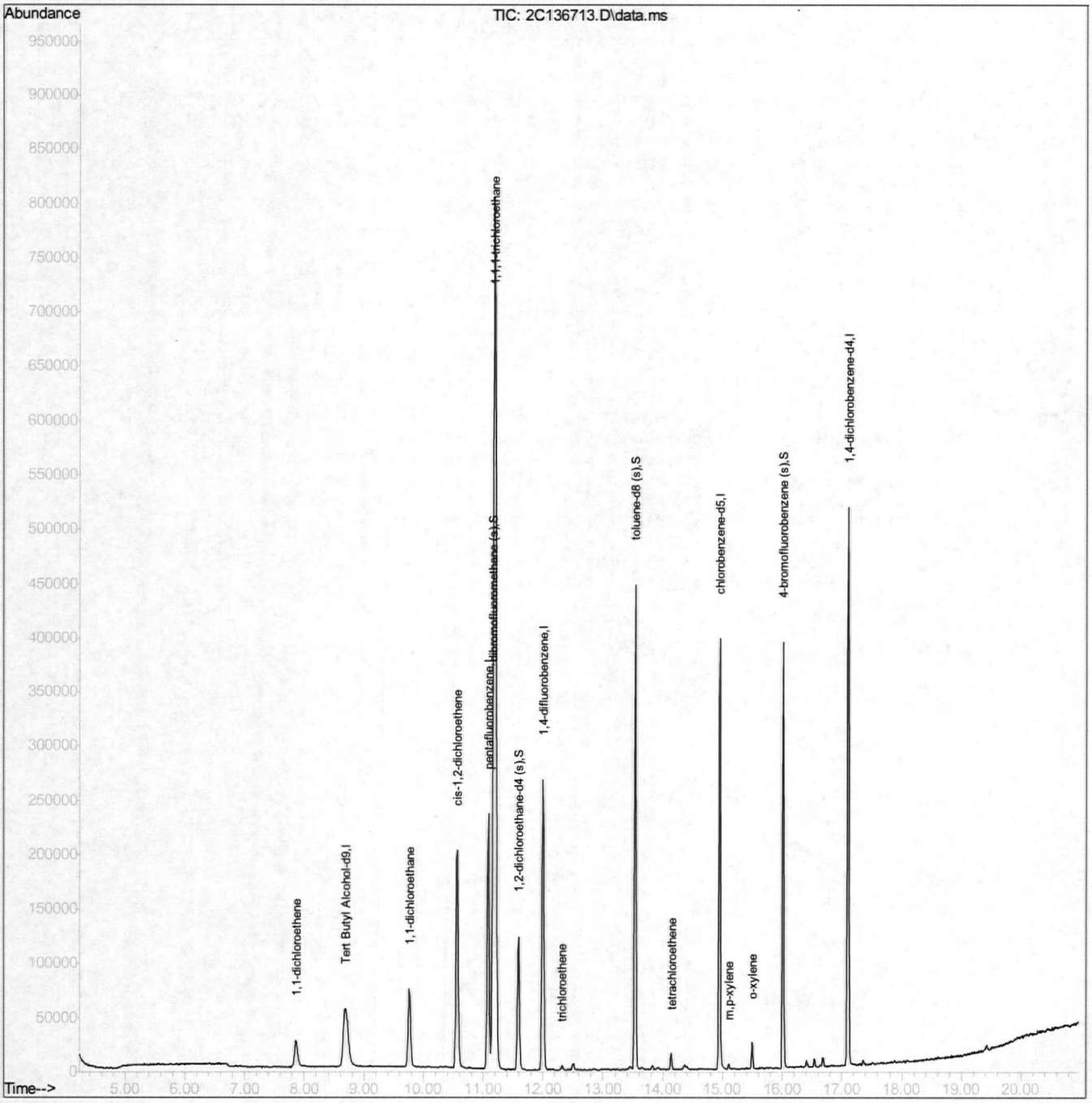
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.2 7

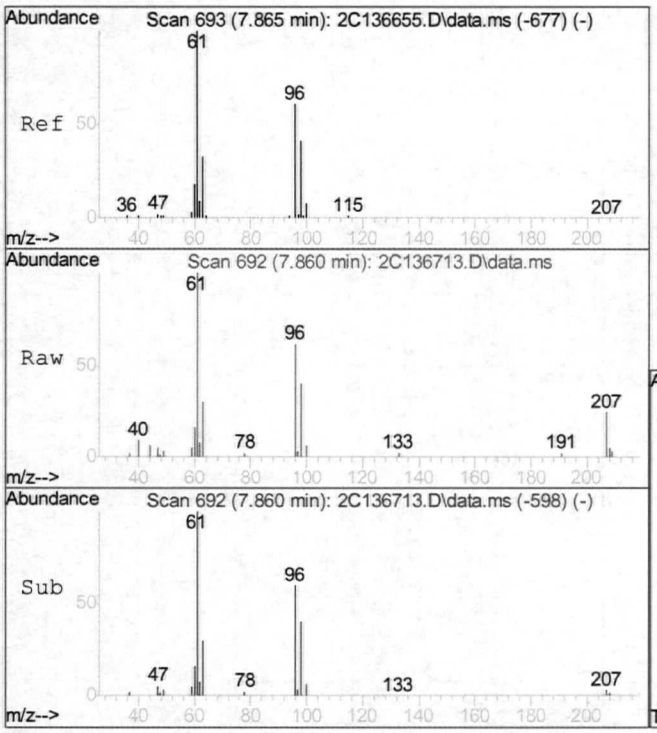
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136713.D
Acq On : 12 Feb 2016 9:08 pm
Operator : ToanP
Sample : jc14082-2
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Feb 15 09:22:08 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration



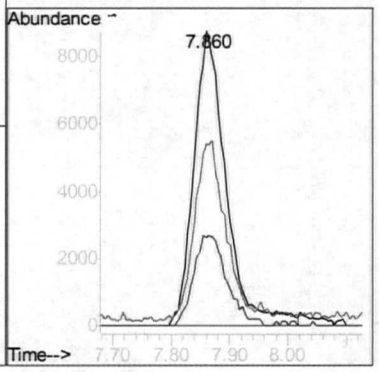
M2C6139.m Mon Feb 15 09:22:44 2016 RPT1

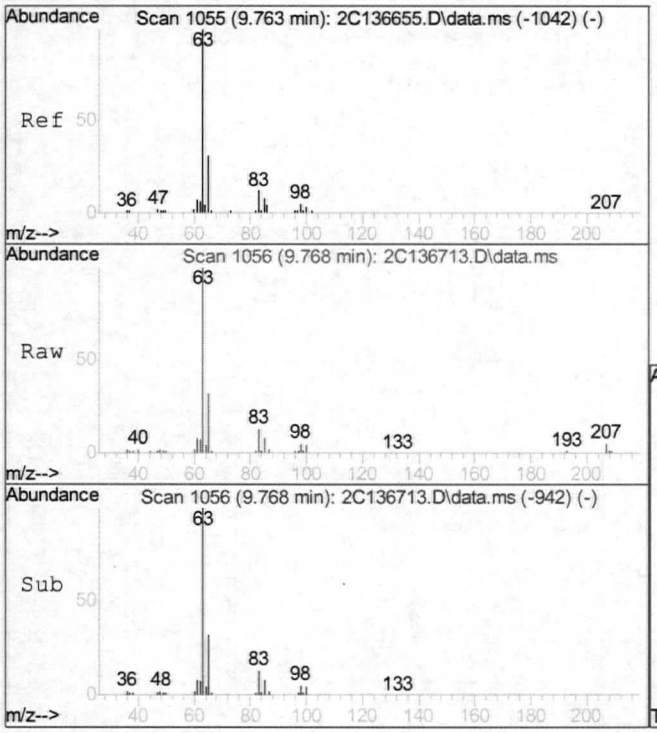


#27
1,1-dichloroethene
Concen: 11.17 ug/L
RT: 7.860 min Scan# 692
Delta R.T. -0.005 min
Lab File: 2C136713.D
Acq: 12 Feb 2016 9:08 pm

Tgt Ion: 61 Resp: 33620

Ion	Ratio	Lower	Upper
61	100		
96	59.7	31.1	91.1
63	29.9	3.4	63.4

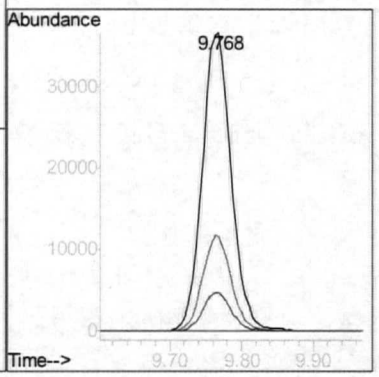




#41
1,1-dichloroethane
Concen: 30.09 ug/L
RT: 9.768 min Scan# 1056
Delta R.T. 0.005 min
Lab File: 2C136713.D
Acq: 12 Feb 2016 9:08 pm

Tgt Ion: 63 Resp: 102410

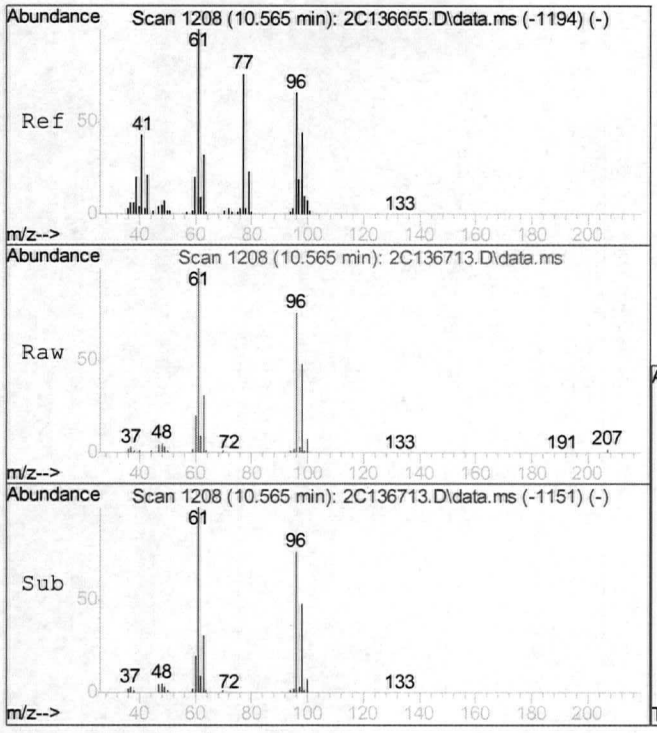
Ion	Ratio	Lower	Upper
63	100		
65	31.6	0.8	60.8
83	12.8	0.0	42.4



7.1.2

7

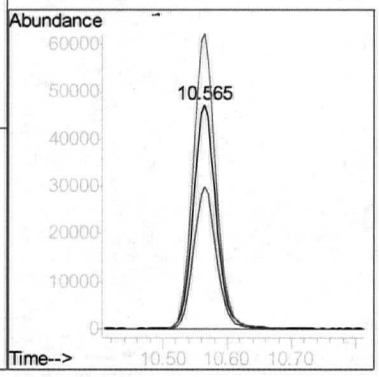
SGS ACCUTEST JC14082

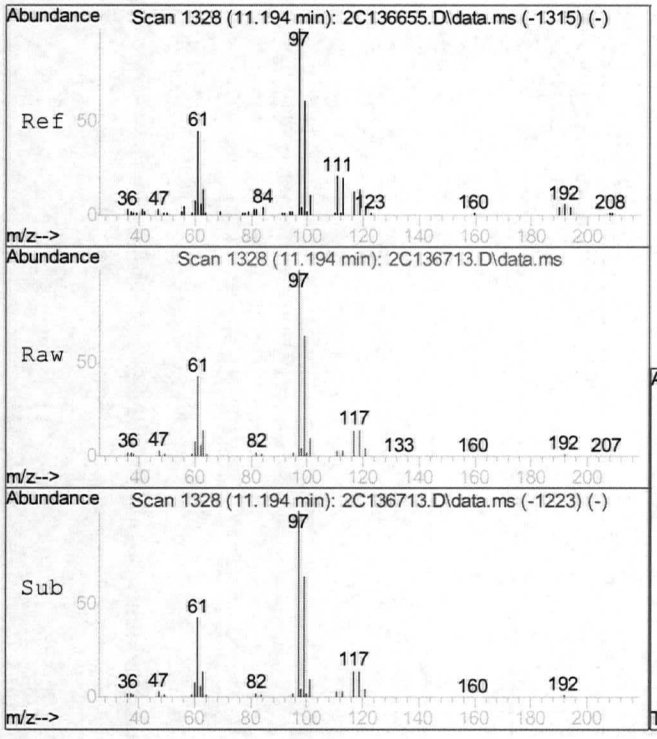


#48
cis-1,2-dichloroethene
Concen: 51.14 ug/L
RT: 10.565 min Scan# 1208
Delta R.T. 0.000 min
Lab File: 2C136713.D
Acq: 12 Feb 2016 9:08 pm

Tgt Ion: 96 Resp: 117077

Ion	Ratio	Lower	Upper
96	100		
61	132.2	121.0	181.0
98	63.4	36.6	96.6

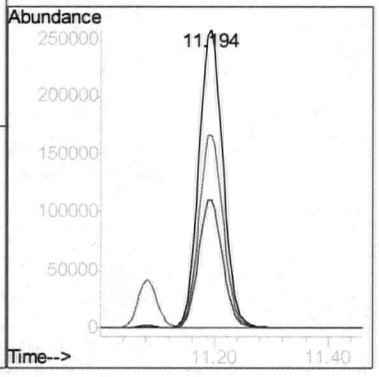




#58
1,1,1-trichloroethane
Concen: 269.09 ug/L
RT: 11.194 min Scan# 1328
Delta R.T. 0.000 min
Lab File: 2C136713.D
Acq: 12 Feb 2016 9:08 pm

Tgt Ion: 97 Resp: 750264

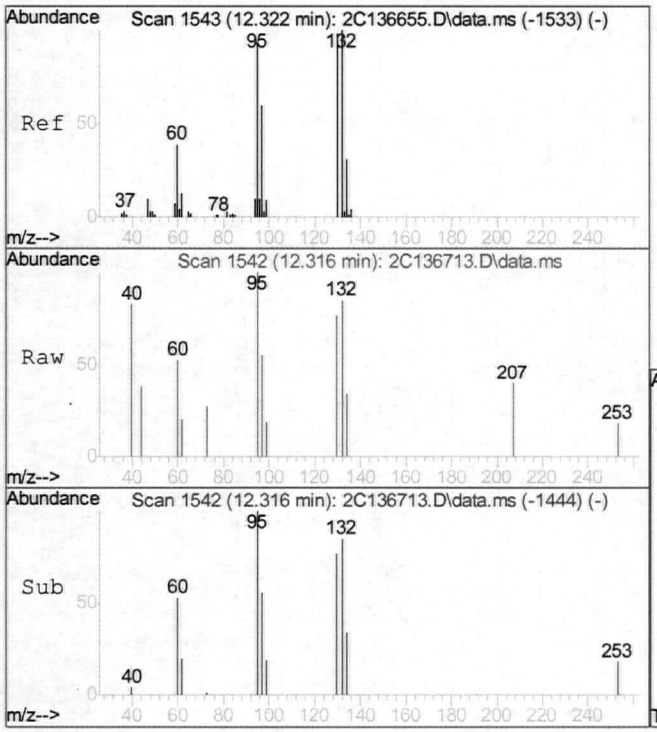
Ion	Ratio	Lower	Upper
97	100		
99	64.8	38.4	98.4
61	42.7	14.5	74.5



7.1.2

7

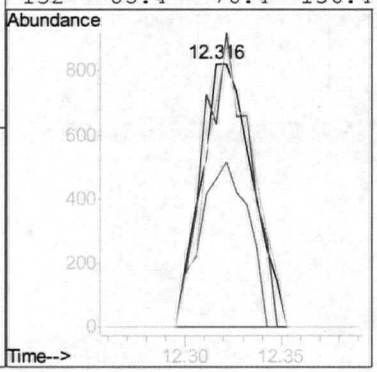
SGS ACCUTEST JC14082

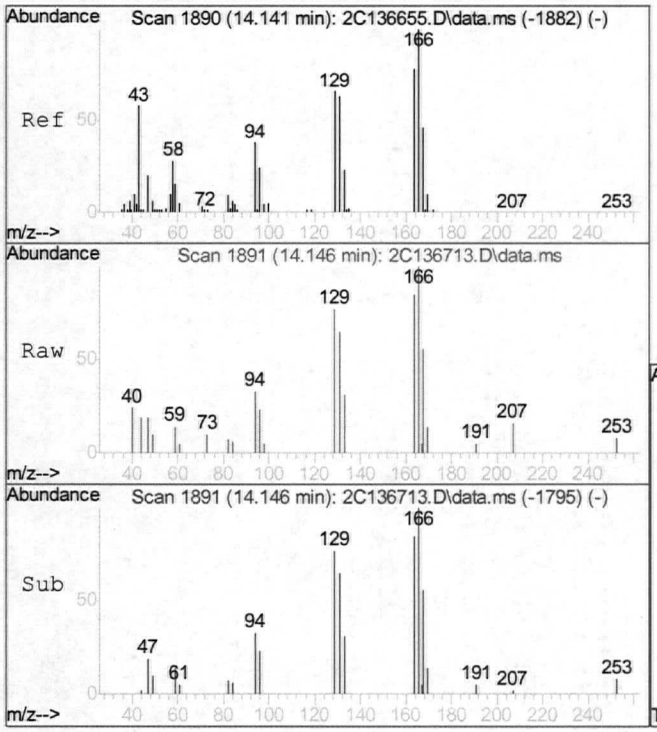


#75
trichloroethene
Concen: 0.89 ug/L
RT: 12.316 min Scan# 1542
Delta R.T. -0.005 min
Lab File: 2C136713.D
Acq: 12 Feb 2016 9:08 pm

Tgt Ion: 95 Resp: 1516

Ion	Ratio	Lower	Upper
95	100		
97	56.2	33.3	93.3
130	77.2	74.4	134.4
132	85.4	76.4	136.4

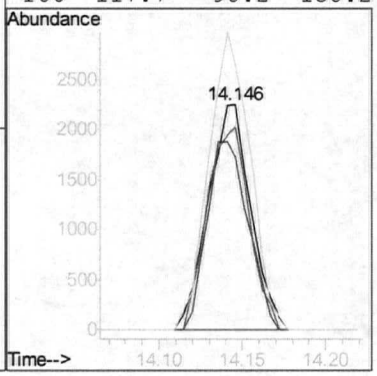




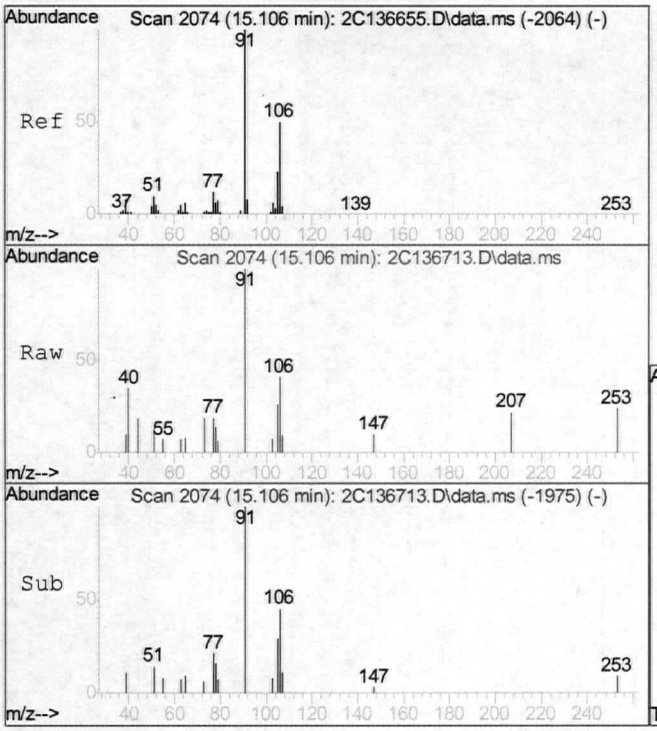
#93
tetrachloroethene
Concen: 2.56 ug/L
RT: 14.146 min Scan# 1891
Delta R.T. 0.005 min
Lab File: 2C136713.D
Acq: 12 Feb 2016 9:08 pm

Tgt Ion:164 Resp: 3988

Ion	Ratio	Lower	Upper
164	100		
129	90.3	54.0	114.0
131	77.0	50.6	110.6
166	117.7	98.2	158.2



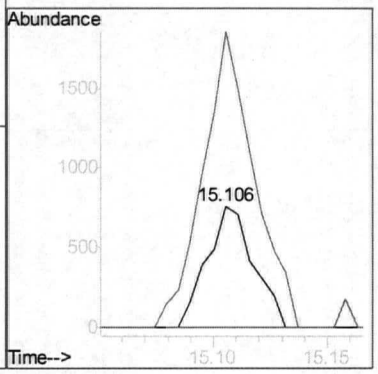
7.1.2 7

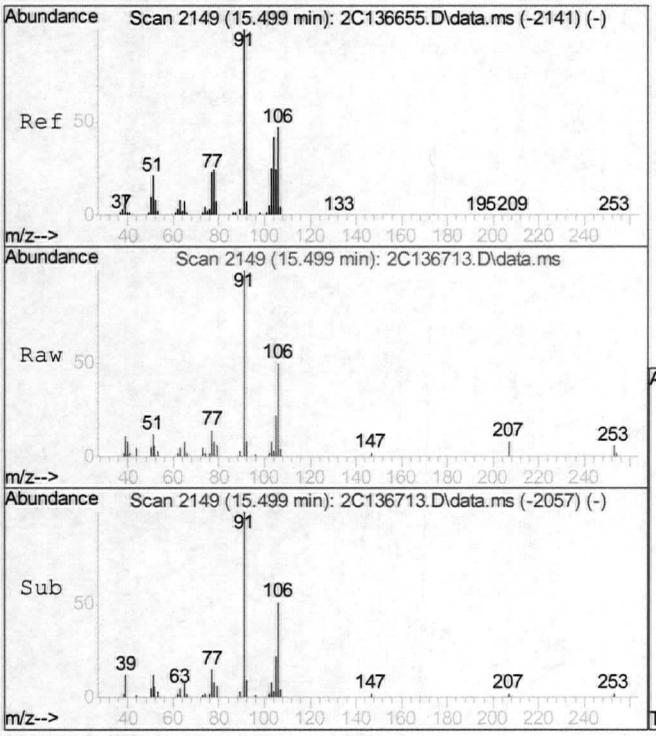


#103
m,p-xylene
Concen: 0.36 ug/L
RT: 15.106 min Scan# 2074
Delta R.T. 0.000 min
Lab File: 2C136713.D
Acq: 12 Feb 2016 9:08 pm

Tgt Ion:106 Resp: 1066

Ion	Ratio	Lower	Upper
106	100		
91	246.0	169.1	229.1#

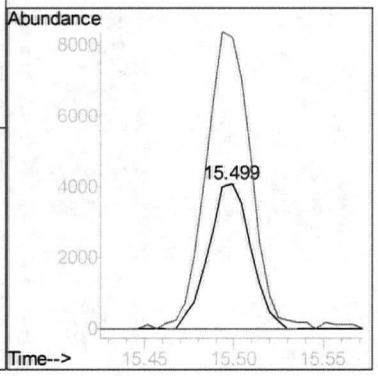




#104
o-xylene
Concen: 2.22 ug/L
RT: 15.499 min Scan# 2149
Delta R.T. 0.000 min
Lab File: 2C136713.D
Acq: 12 Feb 2016 9:08 pm

Tgt Ion:106 Resp: 6796

Ion	Ratio	Lower	Upper
106	100		
91	196.9	181.4	241.4



7.1.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136734.D
Acq On : 13 Feb 2016 1:52 pm
Operator : ToanP
Sample : jc14082-2
Misc : MS98363,V2C6153,5,,,,10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 15 09:55:14 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration

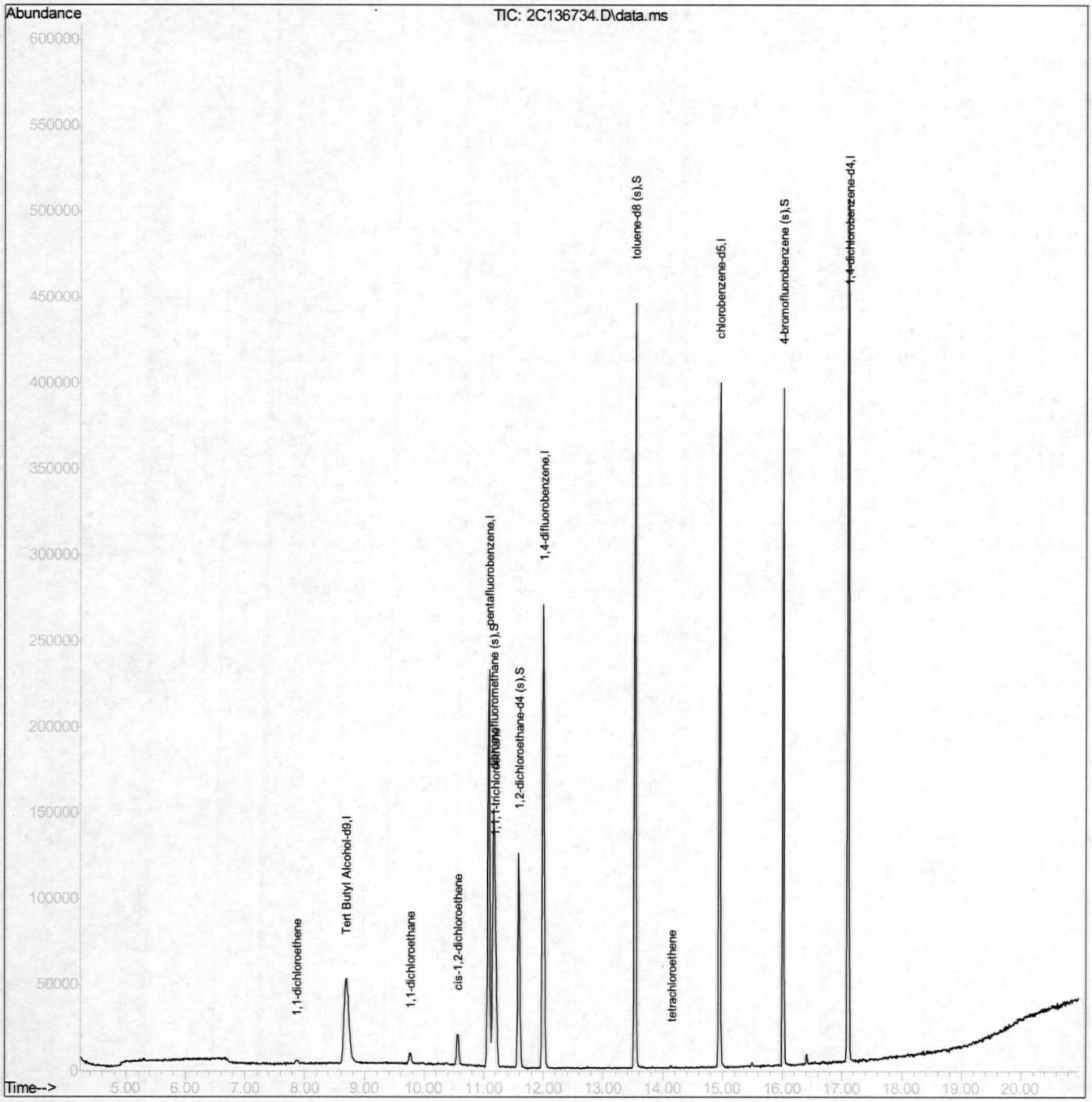
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Tert Butyl Alcohol-d9	8.693	65	157792	500.00 ug/L	-0.01
5) pentafluorobenzene	11.084	168	216425	50.00 ug/L	0.00
61) 1,4-difluorobenzene	11.997	114	251845	50.00 ug/L	0.00
92) chlorobenzene-d5	14.948	117	226244	50.00 ug/L	0.00
107) 1,4-dichlorobenzene-d4	17.103	152	137590	50.00 ug/L	0.00
System Monitoring Compounds					
54) dibromofluoromethane (s)	11.163	113	91250	53.16 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 106.32%		
55) 1,2-dichloroethane-d4 (s)	11.588	65	98523	55.89 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 111.78%		
84) toluene-d8 (s)	13.538	98	308301	53.27 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 106.54%		
109) 4-bromofluorobenzene (s)	16.013	95	119811	52.89 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 105.78%		
Target Compounds					Qvalue
27) 1,1-dichloroethene	7.870	61	3261	1.09 ug/L	88
41) 1,1-dichloroethane	9.763	63	9795	2.90 ug/L	97
48) cis-1,2-dichloroethene	10.560	96	11940	5.25 ug/L	83
58) 1,1,1-trichloroethane	11.189	97	70521	25.48 ug/L	99
93) tetrachloroethene	14.146	164	325	0.21 ug/L	90

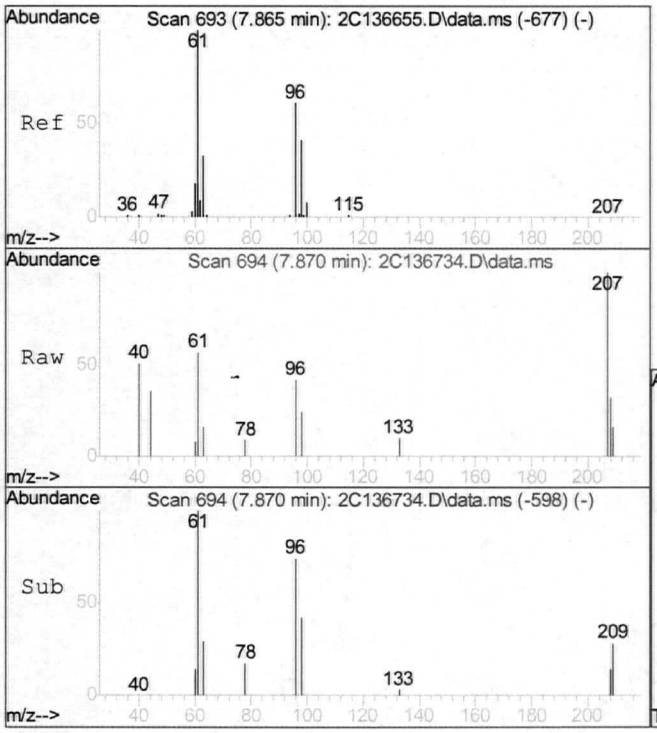
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136734.D
Acq On : 13 Feb 2016 1:52 pm
Operator : ToanP
Sample : jc14082-2
Misc : MS98363,V2C6153,5,,,,10
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Feb 15 09:55:14 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration

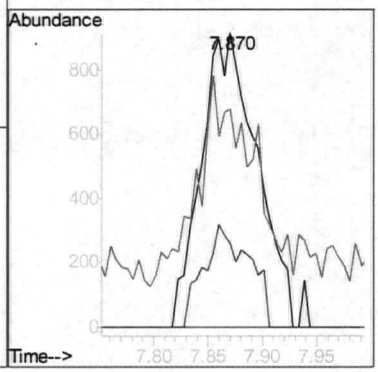


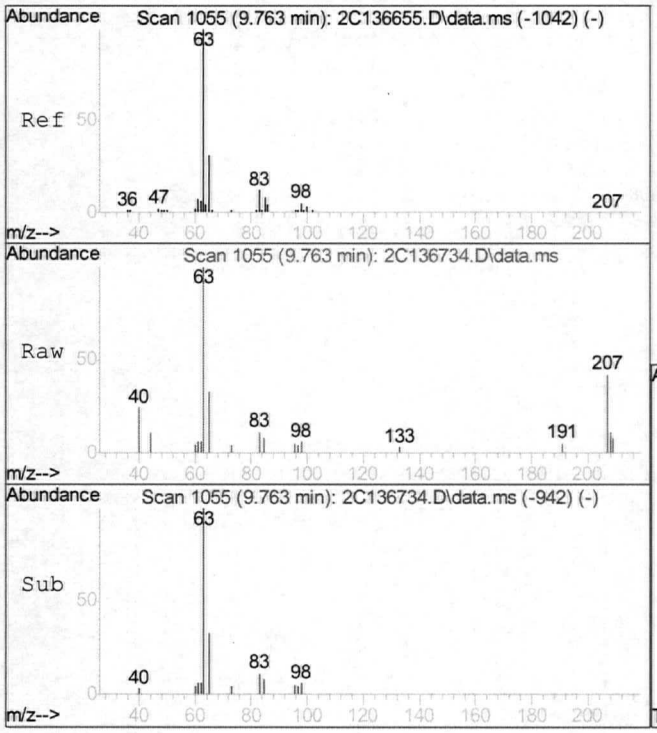


#27
1,1-dichloroethene
Concen: 1.09 ug/L
RT: 7.870 min Scan# 694
Delta R.T. 0.005 min
Lab File: 2C136734.D
Acq: 13 Feb 2016 1:52 pm

Tgt Ion: 61 Resp: 3261

Ion	Ratio	Lower	Upper
61	100		
96	51.0	31.1	91.1
63	28.6	3.4	63.4

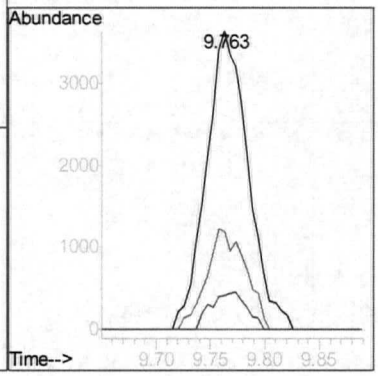




#41
1,1-dichloroethane
Concen: 2.90 ug/L
RT: 9.763 min Scan# 1055
Delta R.T. 0.000 min
Lab File: 2C136734.D
Acq: 13 Feb 2016 1:52 pm

Tgt Ion: 63 Resp: 9795

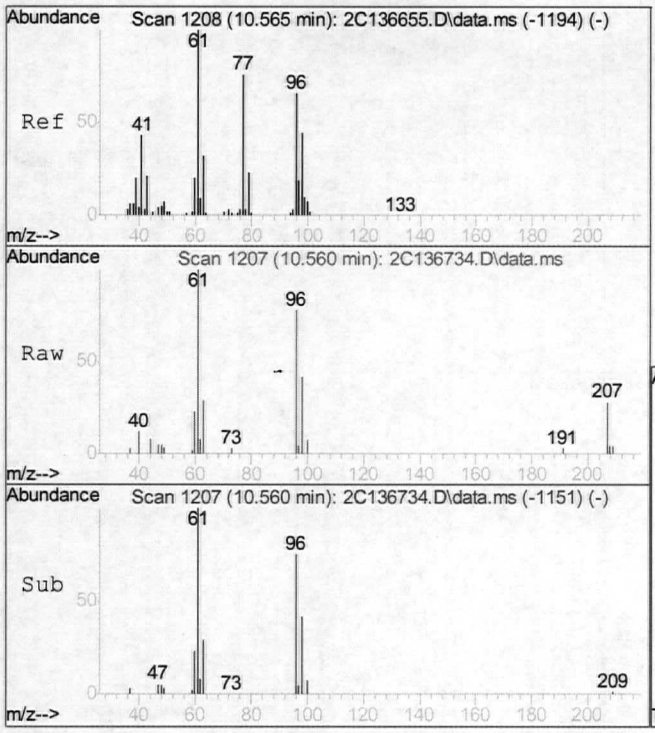
Ion	Ratio	Lower	Upper
63	100		
65	32.6	0.8	60.8
83	11.3	0.0	42.4



7.1.3

7

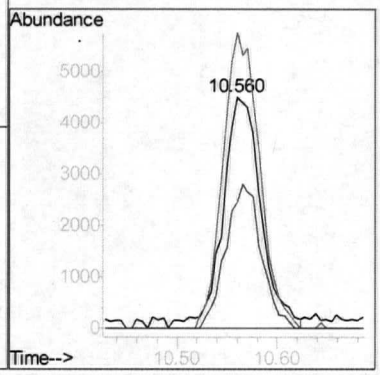
SGS ACCUTEST JC14082

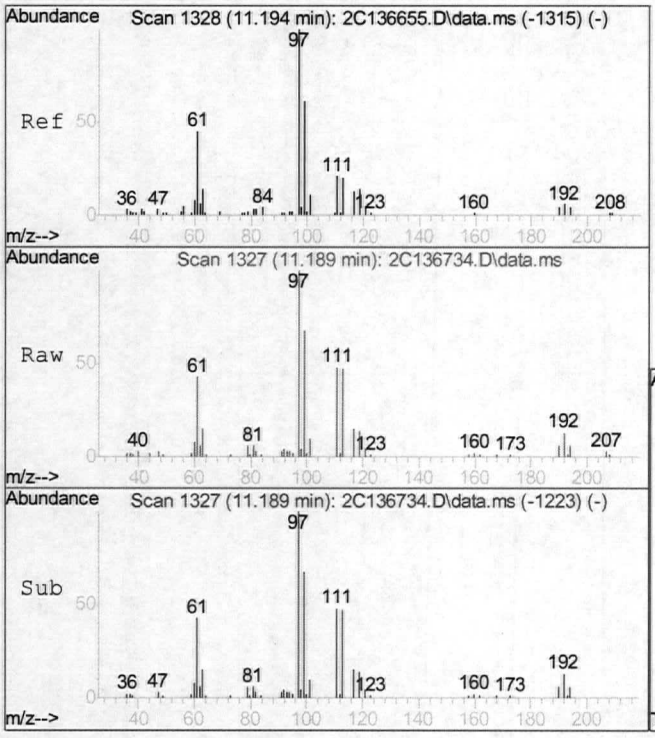


#48
cis-1,2-dichloroethene
Concen: 5.25 ug/L
RT: 10.560 min Scan# 1207
Delta R.T. -0.005 min
Lab File: 2C136734.D
Acq: 13 Feb 2016 1:52 pm

Tgt Ion: 96 Resp: 11940

Ion	Ratio	Lower	Upper
96	100		
61	128.0	121.0	181.0
98	54.1	36.6	96.6

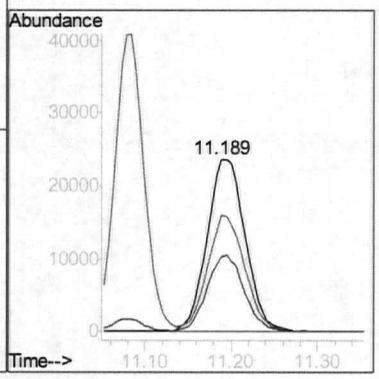




#58
1,1,1-trichloroethane
Concen: 25.48 ug/L
RT: 11.189 min Scan# 1327
Delta R.T. -0.005 min
Lab File: 2C136734.D
Acq: 13 Feb 2016 1:52 pm

Tgt Ion: 97 Resp: 70521

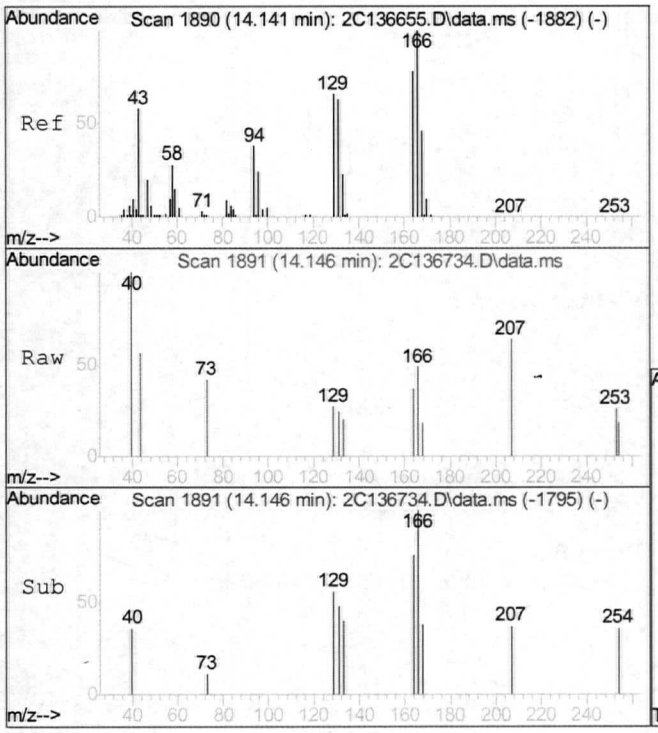
Ion	Ratio	Lower	Upper
97	100		
99	67.7	38.4	98.4
61	43.1	14.5	74.5



7.1.3

7

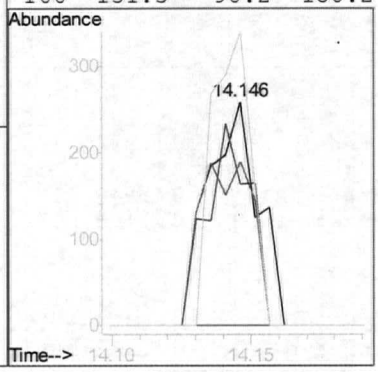
SGS ACCUTEST JC14082



#93
tetrachloroethene
Concen: 0.21 ug/L
RT: 14.146 min Scan# 1891
Delta R.T. 0.005 min
Lab File: 2C136734.D
Acq: 13 Feb 2016 1:52 pm

Tgt Ion:164 Resp: 325

Ion	Ratio	Lower	Upper
164	100		
129	73.0	54.0	114.0
131	63.3	50.6	110.6
166	131.3	98.2	158.2



7.1.3

7

SGS ACCUTEST JC14082

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136714.D
Acq On : 12 Feb 2016 9:37 pm
Operator : ToanP
Sample : jc14082-3
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 15 09:24:04 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.693	65	155238	500.00	ug/L	-0.01
5) pentafluorobenzene	11.084	168	221920	50.00	ug/L	0.00
61) 1,4-difluorobenzene	11.996	114	259111	50.00	ug/L	0.00
92) chlorobenzene-d5	14.948	117	233885	50.00	ug/L	0.00
107) 1,4-dichlorobenzene-d4	17.103	152	143105	50.00	ug/L	0.00
System Monitoring Compounds						
54) dibromofluoromethane (s)	11.163	113	92930	52.80	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.60%			
55) 1,2-dichloroethane-d4 (s)	11.587	65	100701	55.71	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 111.42%			
84) toluene-d8 (s)	13.538	98	318104	53.43	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 106.86%			
109) 4-bromofluorobenzene (s)	16.013	95	125064	53.08	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 106.16%			
Target Compounds						Qvalue
41) 1,1-dichloroethane	9.768	63	8925	2.58	ug/L	94
48) cis-1,2-dichloroethene	10.565	96	12790	5.49	ug/L #	83
58) 1,1,1-trichloroethane	11.194	97	36939	13.02	ug/L	97
75) trichloroethene	12.316	95	785	0.45	ug/L #	69

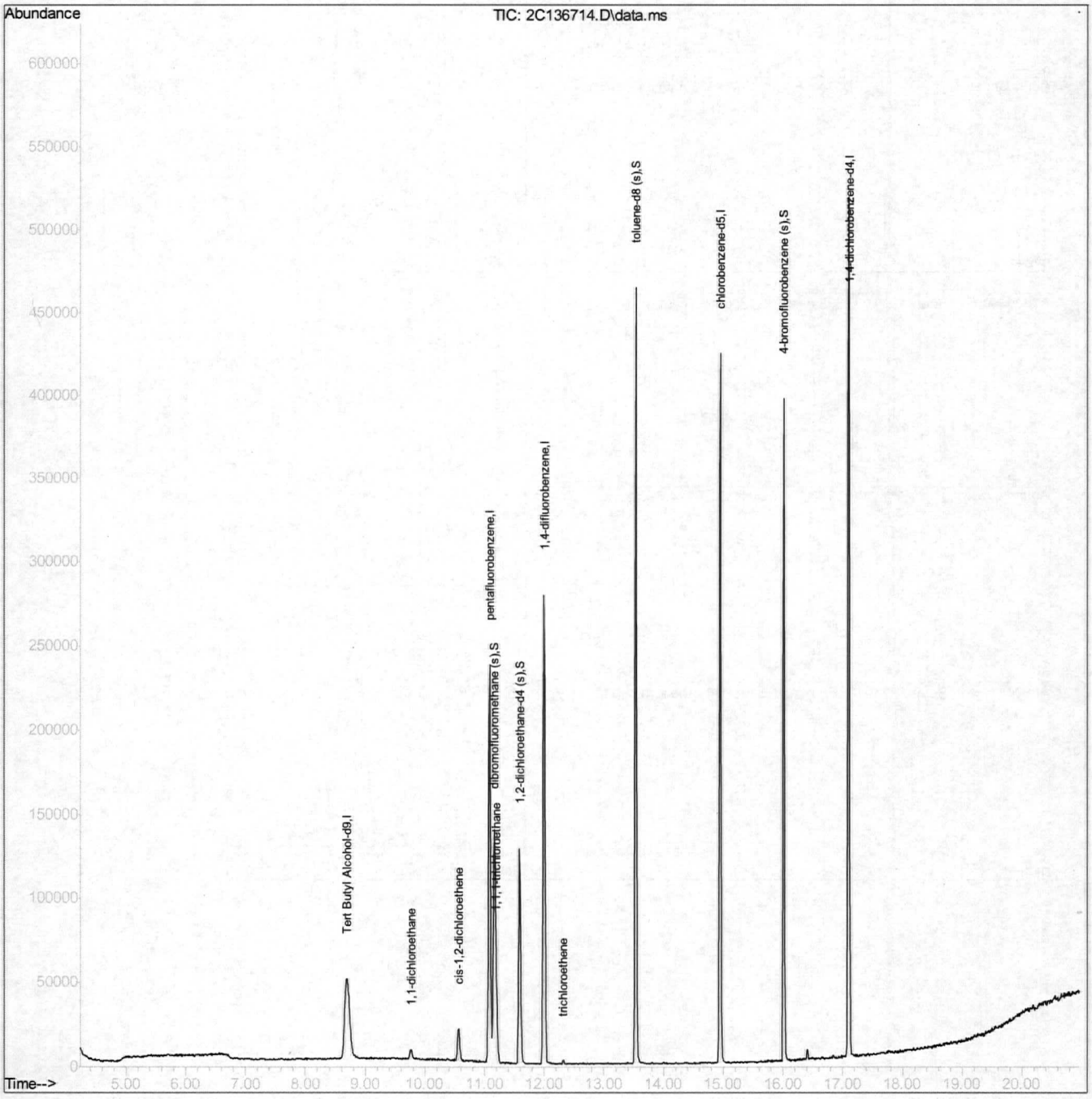
(#) = qualifier out of range (m) = manual integration (+) = signals summed

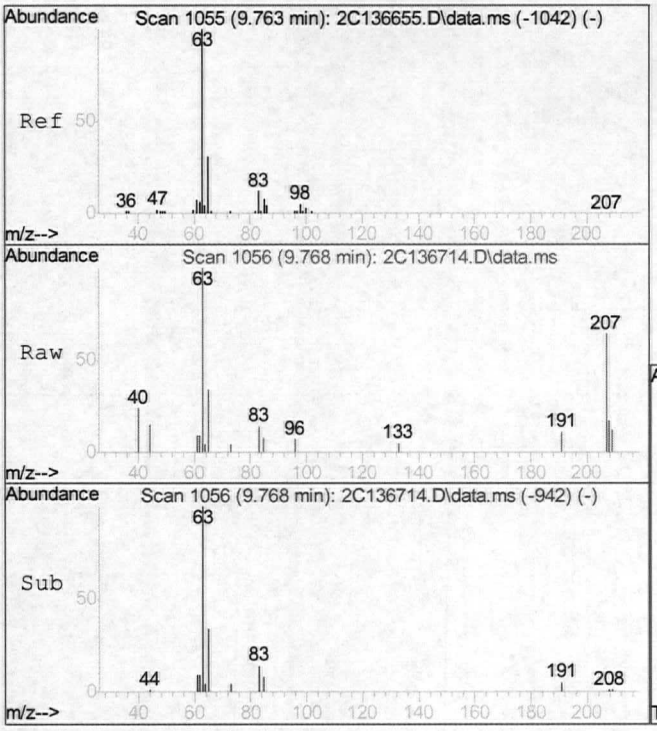
7.1.4 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136714.D
Acq On : 12 Feb 2016 9:37 pm
Operator : ToanP
Sample : jc14082-3
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Feb 15 09:24:04 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration

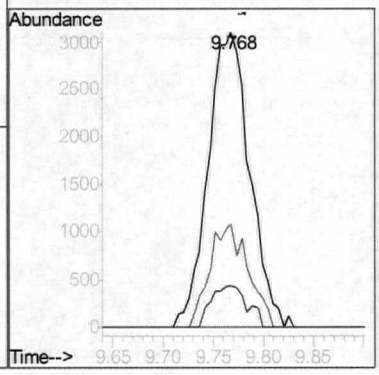


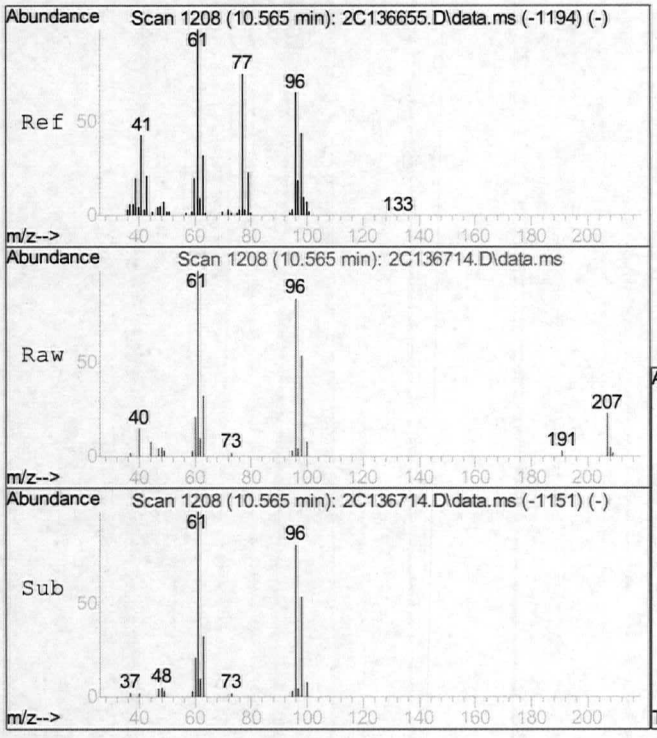


#41
1,1-dichloroethane
Concen: 2.58 ug/L
RT: 9.768 min Scan# 1056
Delta R.T. 0.005 min
Lab File: 2C136714.D
Acq: 12 Feb 2016 9:37 pm

Tgt Ion: 63 Resp: 8925

Ion	Ratio	Lower	Upper
63	100		
65	34.5	0.8	60.8
83	14.0	0.0	42.4

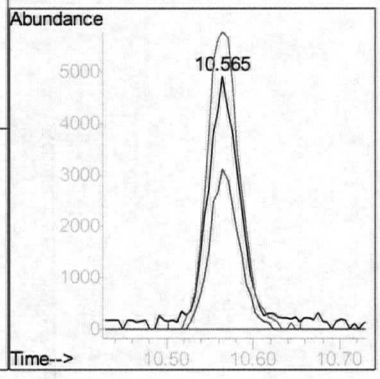




#48
cis-1,2-dichloroethene
Concen: 5.49 ug/L
RT: 10.565 min Scan# 1208
Delta R.T. -0.000 min
Lab File: 2C136714.D
Acq: 12 Feb 2016 9:37 pm

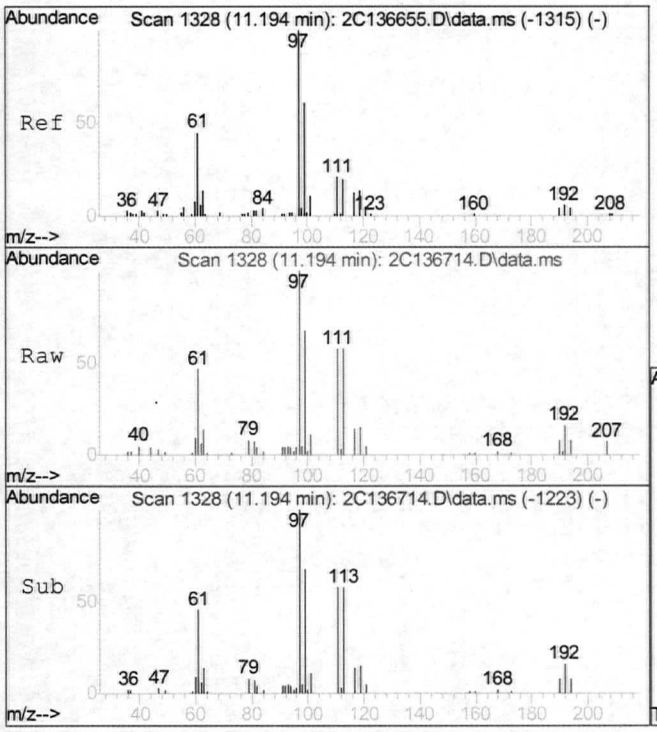
Tgt Ion: 96 Resp: 12790

Ion	Ratio	Lower	Upper
96	100		
61	120.1	121.0	181.0#
98	65.0	36.6	96.6



7.1.4

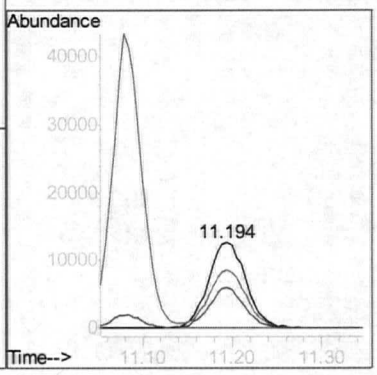
7

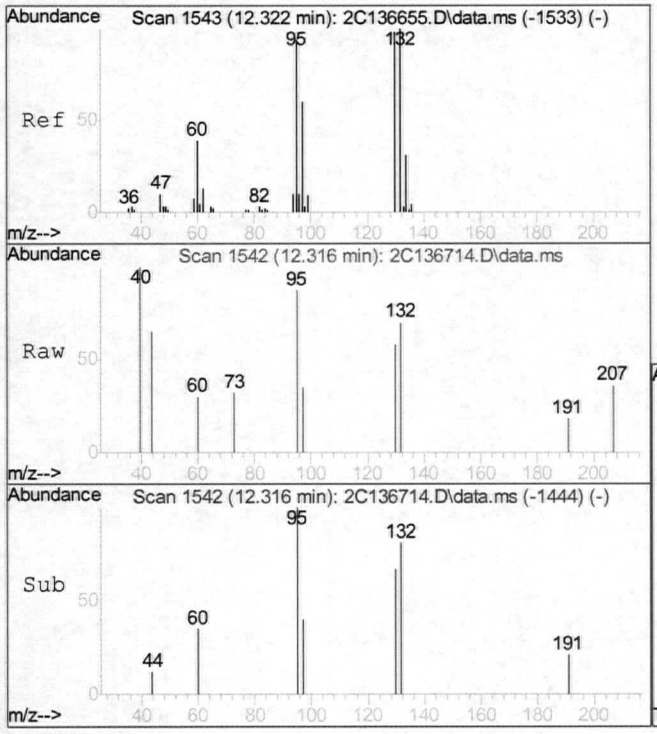


#58
1,1,1-trichloroethane
Concen: 13.02 ug/L
RT: 11.194 min Scan# 1328
Delta R.T. -0.000 min
Lab File: 2C136714.D
Acq: 12 Feb 2016 9:37 pm

Tgt Ion: 97 Resp: 36939

Ion	Ratio	Lower	Upper
97	100		
99	66.6	38.4	98.4
61	47.4	14.5	74.5

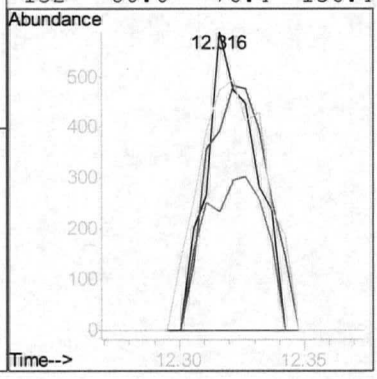




#75
trichloroethene
Concen: 0.45 ug/L
RT: 12.316 min Scan# 1542
Delta R.T. -0.005 min
Lab File: 2C136714.D
Acq: 12 Feb 2016 9:37 pm

Tgt Ion: 95 Resp: 785

Ion	Ratio	Lower	Upper
95	100		
97	39.8	33.3	93.3
130	66.8	74.4	134.4#
132	80.6	76.4	136.4



7.1.4

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136710.D
Acq On : 12 Feb 2016 7:42 pm
Operator : ToanP
Sample : jc14082-4
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 15 09:12:51 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Tert Butyl Alcohol-d9	8.693	65	152247	500.00 ug/L	-0.01
5) pentafluorobenzene	11.084	168	224170	50.00 ug/L	0.00
61) 1,4-difluorobenzene	11.997	114	256767	50.00 ug/L	0.00
92) chlorobenzene-d5	14.948	117	231412	50.00 ug/L	0.00
107) 1,4-dichlorobenzene-d4	17.103	152	142659	50.00 ug/L	0.00
System Monitoring Compounds					
54) dibromofluoromethane (s)	11.163	113	93756	52.74 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.48%		
55) 1,2-dichloroethane-d4 (s)	11.588	65	100062	54.80 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 109.60%		
84) toluene-d8 (s)	13.538	98	314258	53.26 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 106.52%		
109) 4-bromofluorobenzene (s)	16.013	95	123659	52.65 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 105.30%		

Target Compounds Qvalue

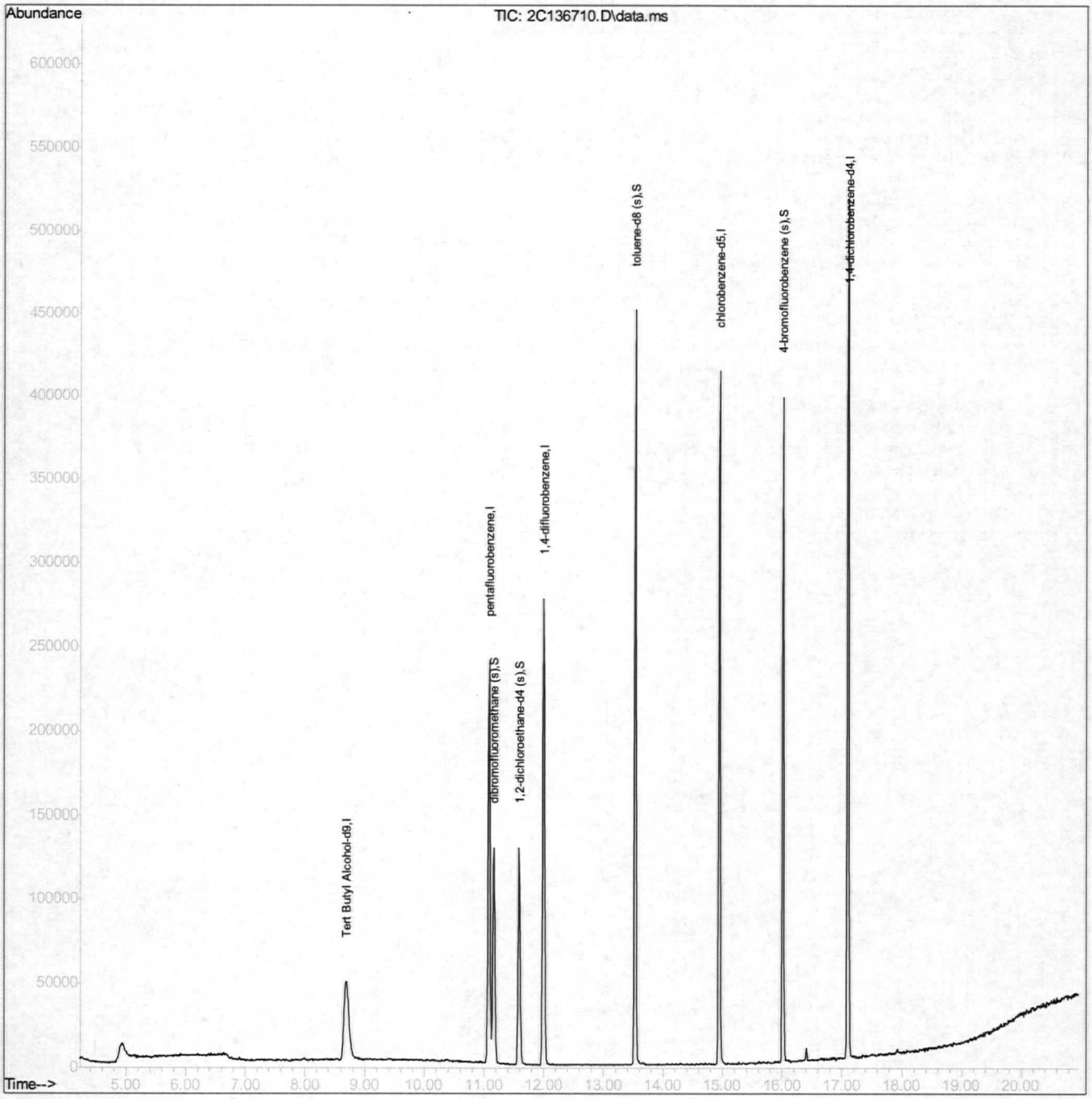
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.5 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136710.D
Acq On : 12 Feb 2016 7:42 pm
Operator : ToanP
Sample : jc14082-4
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Feb 15 09:12:51 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration



M2C6139.m Mon Feb 15 09:12:56 2016 RPT1

Manual Integrations
APPROVED
(compounds with "m" flag)
Kanya Veerawat
02/22/16 02:21

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136715.D
Acq On : 12 Feb 2016 10:06 pm
Operator : ToanP
Sample : jc14082-5
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 19 15:52:31 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.693	65	146393	500.00	ug/L	-0.01
5) pentafluorobenzene	11.084	168	216935	50.00	ug/L	0.00
61) 1,4-difluorobenzene	11.996	114	248317	50.00	ug/L	0.00
92) chlorobenzene-d5	14.948	117	226948	50.00	ug/L	0.00
107) 1,4-dichlorobenzene-d4	17.103	152	140347	50.00	ug/L	0.00
System Monitoring Compounds						
54) dibromofluoromethane (s)	11.163	113	90469	52.58	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.16%			
55) 1,2-dichloroethane-d4 (s)	11.588	65	97137	54.97	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 109.94%			
84) toluene-d8 (s)	13.538	98	304526	53.37	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 106.74%			
109) 4-bromofluorobenzene (s)	16.013	95	121867	52.74	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 105.48%			
Target Compounds						Qvalue
41) 1,1-dichloroethane	9.763	63	2772	0.82	ug/L	88
48) cis-1,2-dichloroethene	10.565	96	1484m	0.65	ug/L	
58) 1,1,1-trichloroethane	11.184	97	2092m	0.75	ug/L	
75) trichloroethene	12.316	95	522	0.31	ug/L #	82
93) tetrachloroethene	14.141	164	1344	0.87	ug/L	95

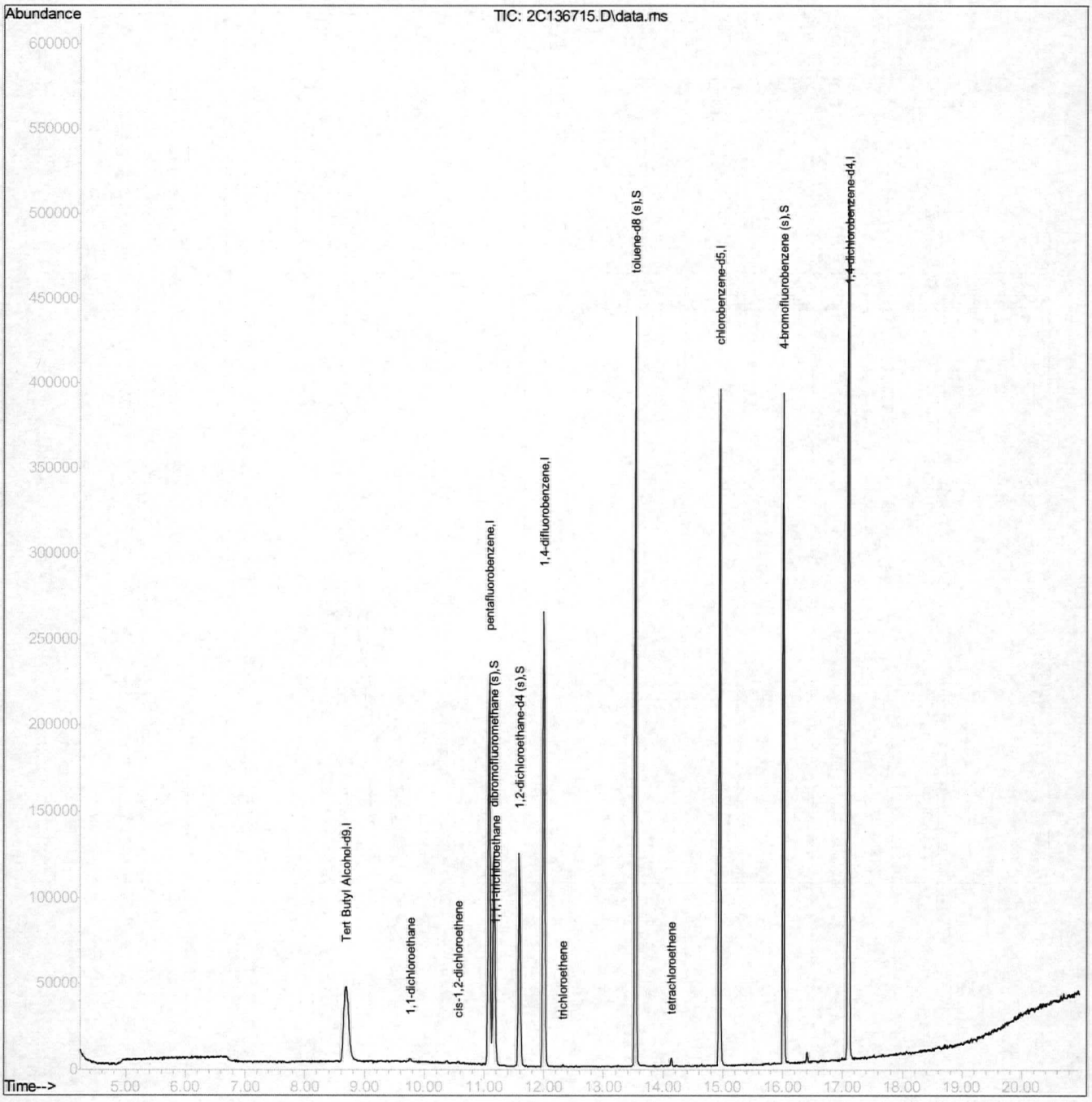
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.6 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136715.D
Acq On : 12 Feb 2016 10:06 pm
Operator : ToanP
Sample : jc14082-5
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 23 Sample Multiplier: 1

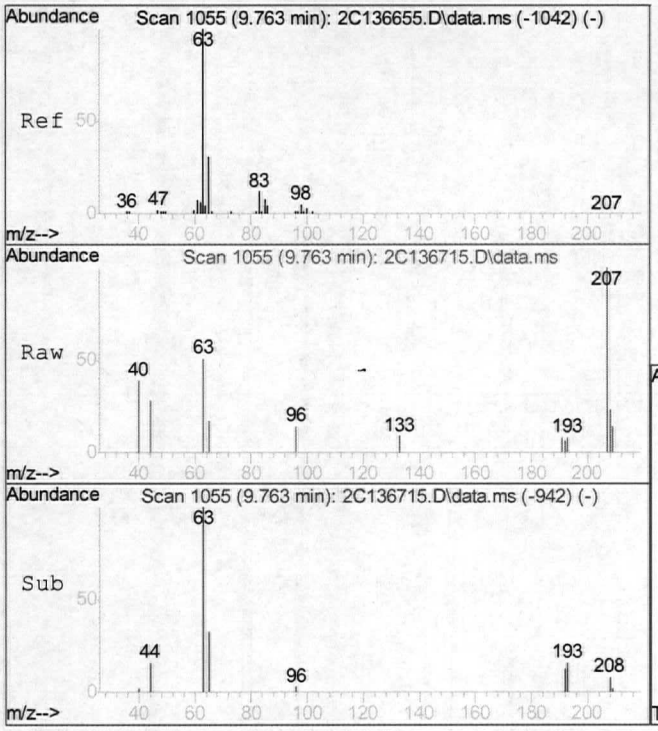
Quant Time: Feb 19 15:52:31 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration



7.1.6

7

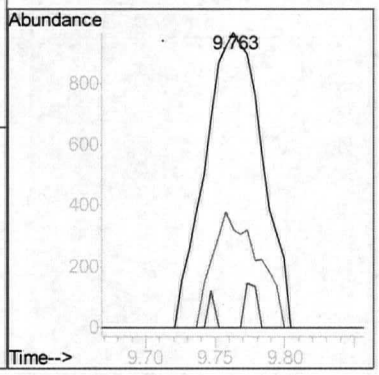
SGS ACCUTEST JC14082

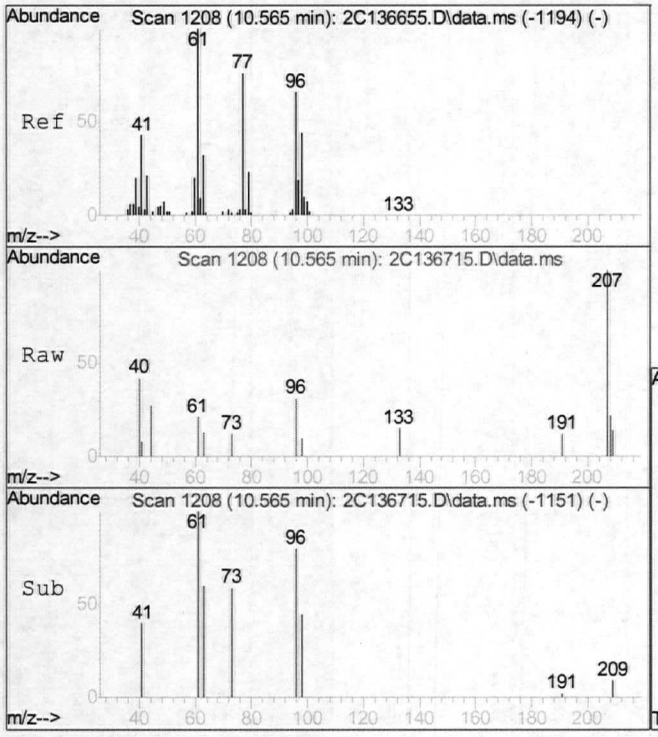


#41
1,1-dichloroethane
Concen: 0.82 ug/L
RT: 9.763 min Scan# 1055
Delta R.T. 0.000 min
Lab File: 2C136715.D
Acq: 12 Feb 2016 10:06 pm

Tgt Ion: 63 Resp: 2772

Ion	Ratio	Lower	Upper
63	100		
65	32.9	0.8	60.8
83	0.0	0.0	42.4

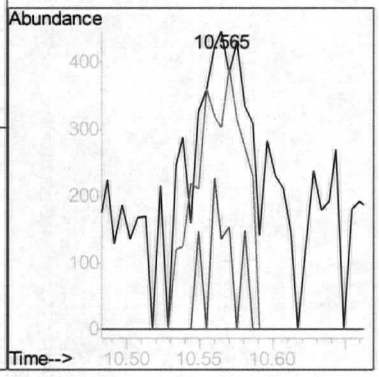




#48
cis-1,2-dichloroethene
Concen: 0.65 ug/L m
RT: 10.565 min Scan# 1208
Delta R.T. 0.000 min
Lab File: 2C136715.D
Acq: 12 Feb 2016 10:06 pm

Tgt Ion: 96 Resp: 1484

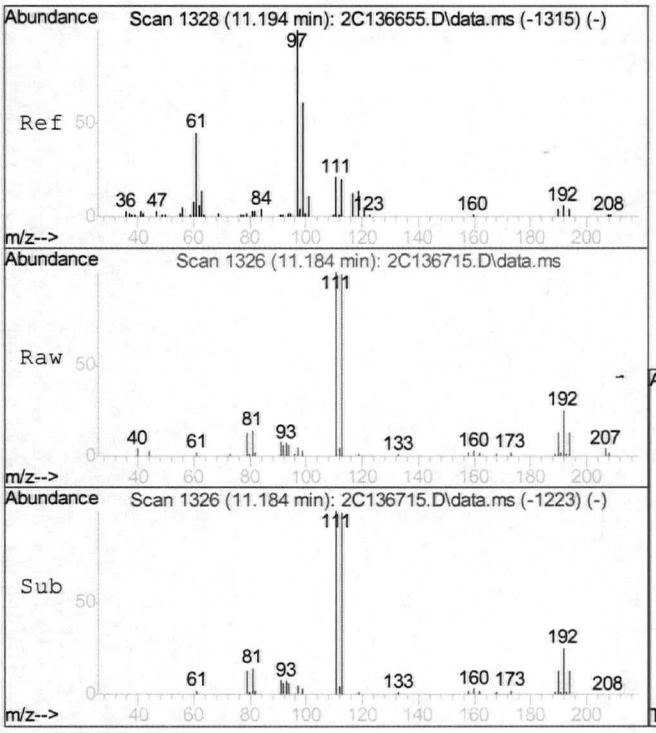
Ion	Ratio	Lower	Upper
96	100		
61	67.7	121.0	181.0#
98	30.5	36.6	96.6#



7.1.6

7

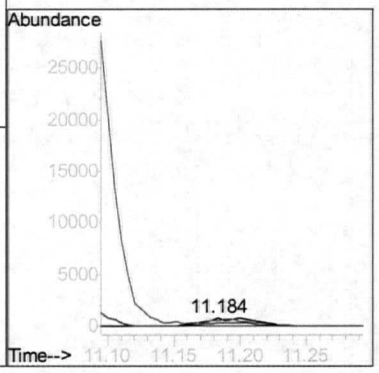
SGS ACCUTEST JC14082

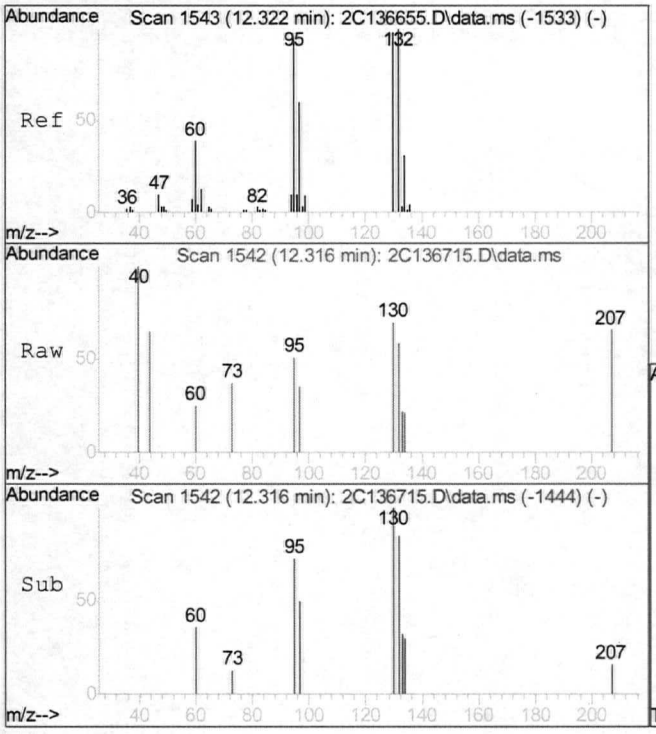


#58
1,1,1-trichloroethane
Concen: 0.75 ug/L m
RT: 11.184 min Scan# 1326
Delta R.T. -0.011 min
Lab File: 2C136715.D
Acq: 12 Feb 2016 10:06 pm

Tgt Ion: 97 Resp: 2092

Ion	Ratio	Lower	Upper
97	100		
99	67.0	38.4	98.4
61	38.6	14.5	74.5

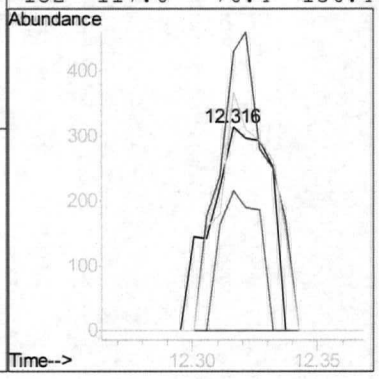




#75
trichloroethene
Concen: 0.31 ug/L
RT: 12.316 min Scan# 1542
Delta R.T. -0.005 min
Lab File: 2C136715.D
Acq: 12 Feb 2016 10:06 pm

Tgt Ion: 95 Resp: 522

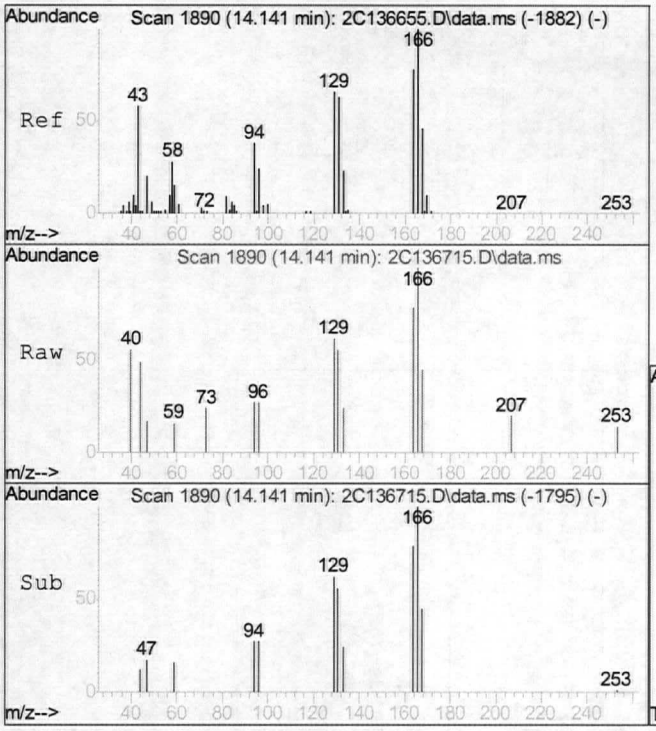
Ion	Ratio	Lower	Upper
95	100		
97	69.0	33.3	93.3
130	137.7	74.4	134.4#
132	117.6	76.4	136.4



7.1.6

7

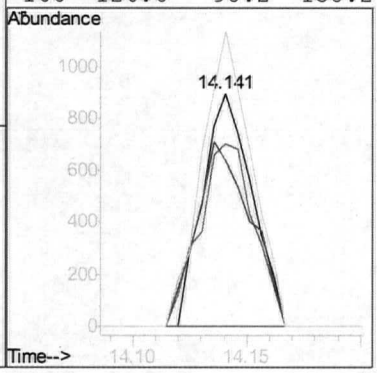
SGS ACCUTEST JC14082



#93
tetrachloroethene
Concen: 0.87 ug/L
RT: 14.141 min Scan# 1890
Delta R.T. 0.000 min
Lab File: 2C136715.D
Acq: 12 Feb 2016 10:06 pm

Tgt Ion:164 Resp: 1344

Ion	Ratio	Lower	Upper
164	100		
129	78.0	54.0	114.0
131	71.1	50.6	110.6
166	126.6	98.2	158.2



7.1.6

7

SGS ACCUTEST JC14082

Manual Integration Approval Summary

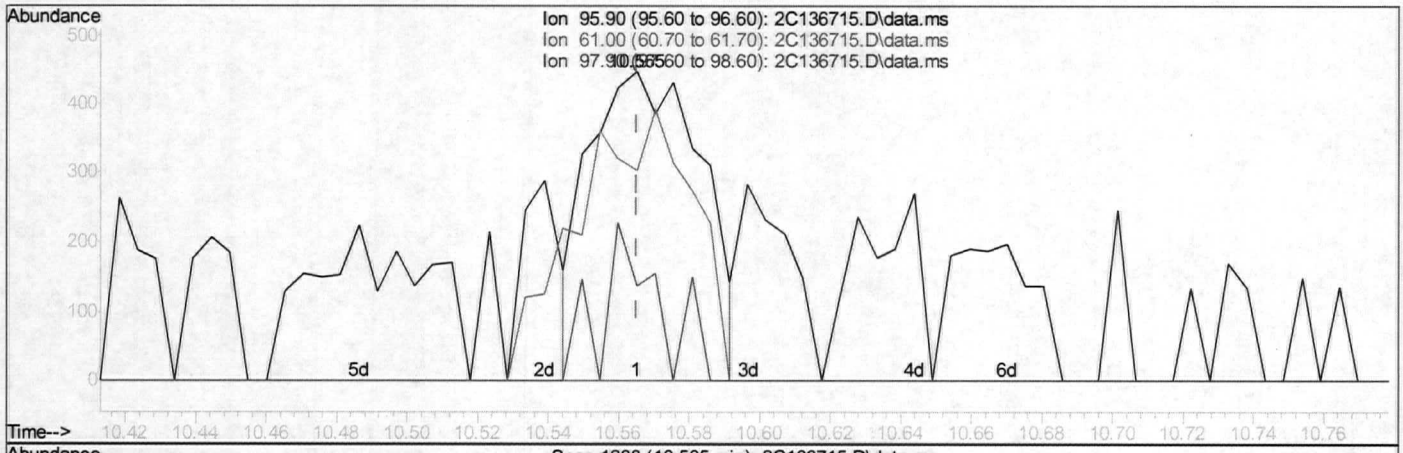
Sample Number:	JC14082-5	**Method:**	SW846 8260C
Lab FileID:	2C136715.D	**Analyst approved:**	02/19/16 15:53 Ying Li
Injection Time:	02/12/16 22:06	**Supervisor approved:**	02/22/16 02:21 Kanya Veerawat

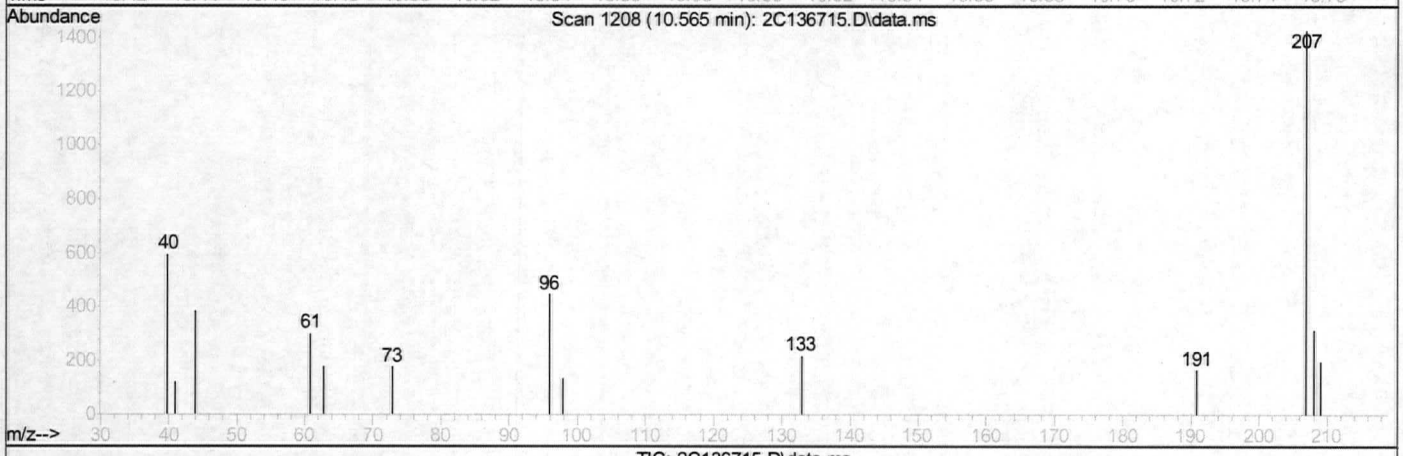
Parameter	CAS	Sig#	R.T. (min.)	Reason
cis-1,2-Dichloroethene	156-59-2		10.57	Poor instrument integration
1,1,1-Trichloroethane	71-55-6		11.18	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136715.D
Acq On : 12 Feb 2016 10:06 pm
Operator : ToanP
Sample : jc14082-5
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 13 08:47:02 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration





TIC: 2C136715.D\data.ms

(48) cis-1,2-dichloroethene

10.565min (0.000) 0.44ug/L

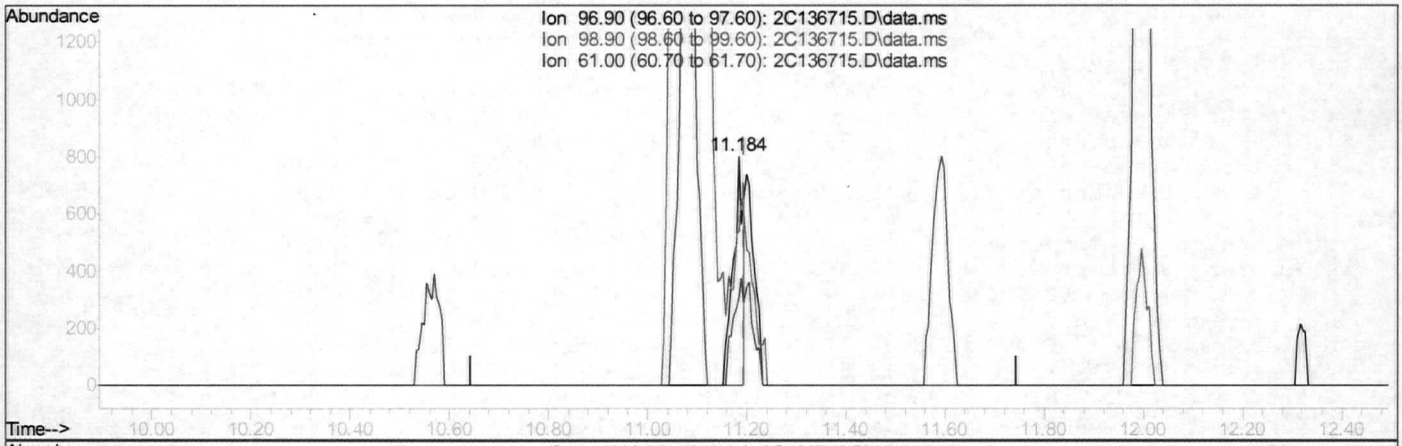
response 992

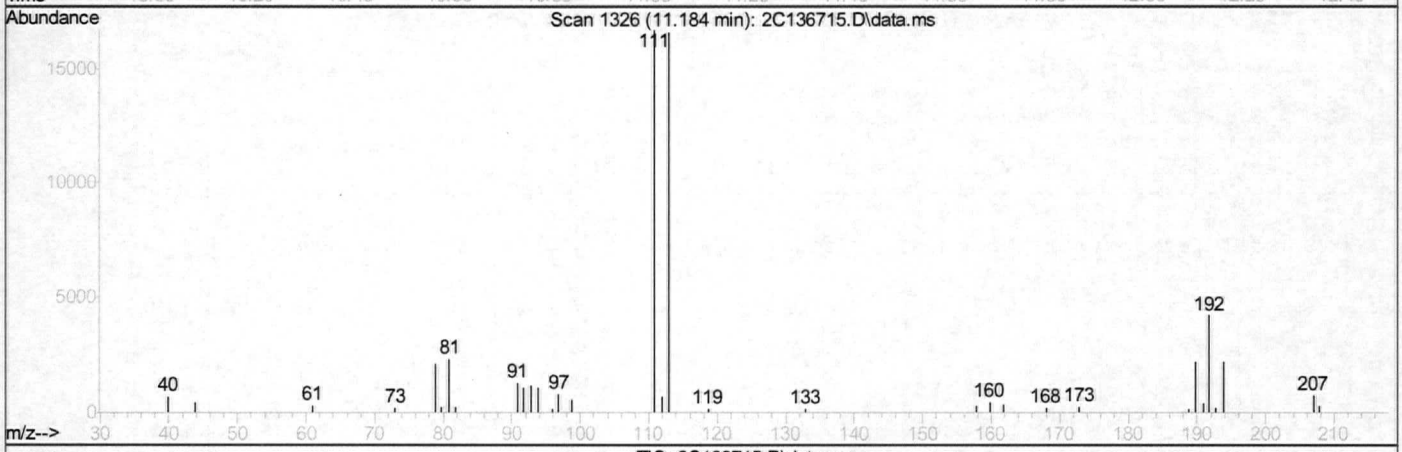
Ion	Exp%	Act%
95.90	100	100
61.00	151.00	99.02#
97.90	66.60	44.59
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136715.D
Acq On : 12 Feb 2016 10:06 pm
Operator : ToanP
Sample : jc14082-5
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Feb 13 08:47:02 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration





TIC: 2C136715.D\data.ms

(58) 1,1,1-trichloroethane

11.184min (-0.011) 0.42ug/L

response 1160

Ion	Exp%	Act%
96.90	100	100
98.90	68.40	20.12#
61.00	44.50	38.63
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136720.D
Acq On : 13 Feb 2016 12:31 am
Operator : ToanP
Sample : jc14082-6
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Feb 15 09:37:51 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Tert Butyl Alcohol-d9	8.693	65	166885	500.00 ug/L	-0.01
5) pentafluorobenzene	11.084	168	220867	50.00 ug/L	0.00
61) 1,4-difluorobenzene	11.996	114	252772	50.00 ug/L	0.00
92) chlorobenzene-d5	14.948	117	226740	50.00 ug/L	0.00
107) 1,4-dichlorobenzene-d4	17.103	152	138682	50.00 ug/L	0.00
System Monitoring Compounds					
54) dibromofluoromethane (s)	11.163	113	93181	53.20 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 106.40%		
55) 1,2-dichloroethane-d4 (s)	11.593	65	99923	55.54 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 111.08%		
84) toluene-d8 (s)	13.538	98	308528	53.12 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 106.24%		
109) 4-bromofluorobenzene (s)	16.013	95	123694	54.17 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 108.34%		
Target Compounds					Qvalue
41) 1,1-dichloroethane	9.763	63	1605	0.47 ug/L	82
58) 1,1,1-trichloroethane	11.199	97	3229	1.14 ug/L	90
75) trichloroethene	12.322	95	559	0.33 ug/L #	82
93) tetrachloroethene	14.146	164	1833	1.18 ug/L	92

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

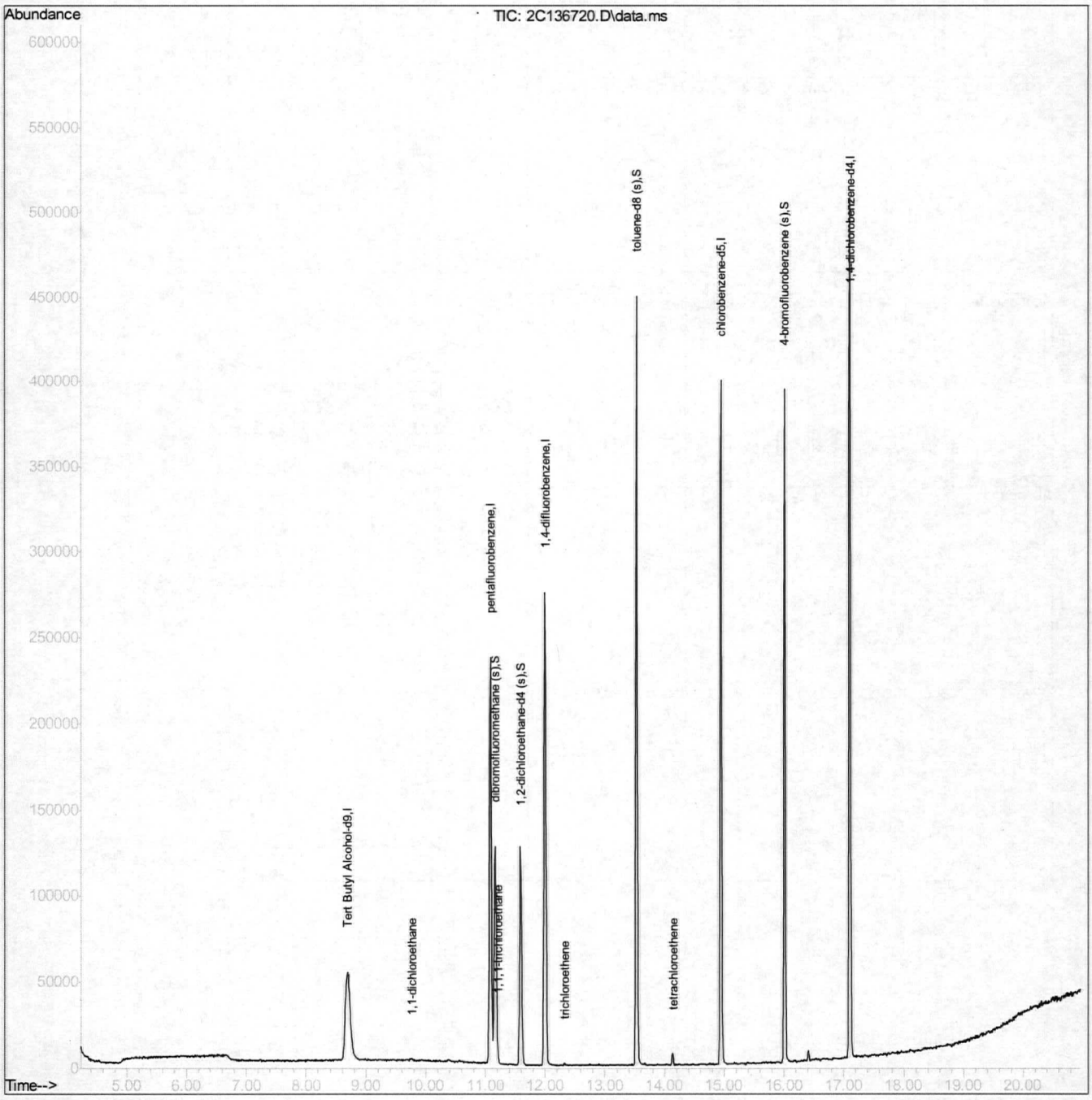
7.1.7

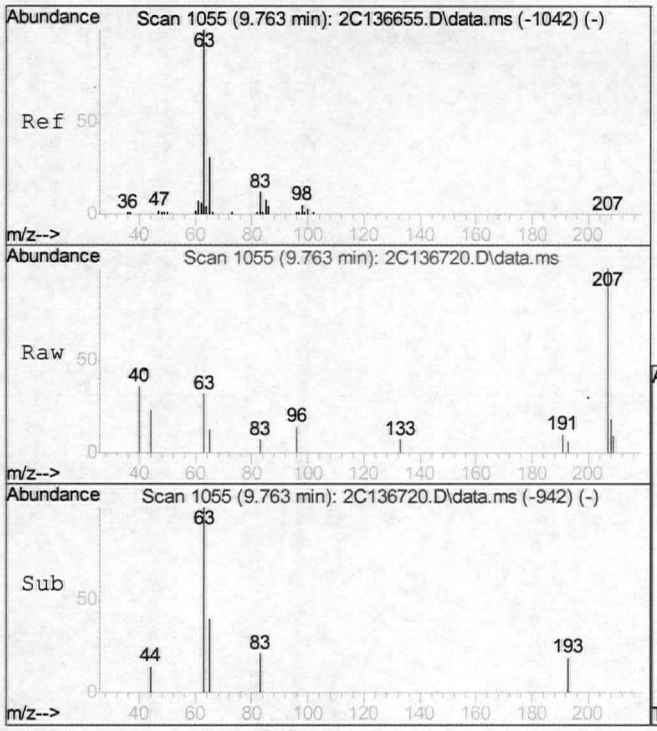
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136720.D
Acq On : 13 Feb 2016 12:31 am
Operator : ToanP
Sample : jc14082-6
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Feb 15 09:37:51 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration

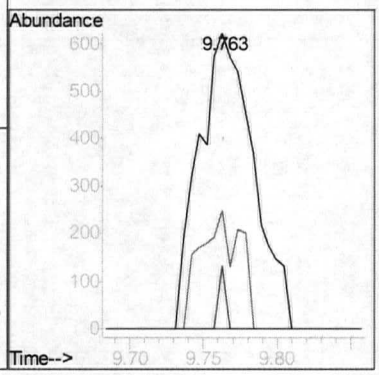


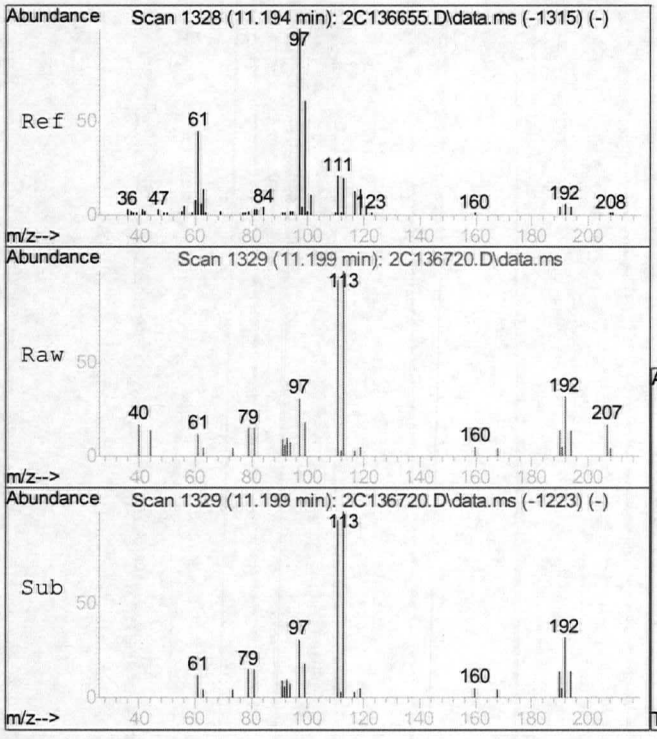


#41
1,1-dichloroethane
Concen: 0.47 ug/L
RT: 9.763 min Scan# 1055
Delta R.T. -0.000 min
Lab File: 2C136720.D
Acq: 13 Feb 2016 12:31 am

Tgt Ion: 63 Resp: 1605

Ion	Ratio	Lower	Upper
63	100		
65	39.7	0.8	60.8
83	21.1	0.0	42.4

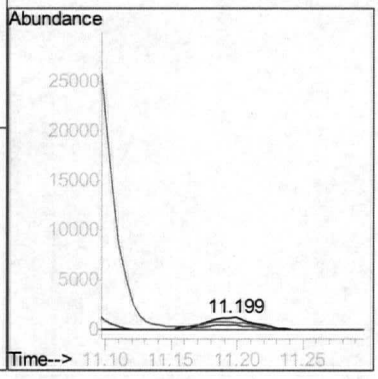




#58
1,1,1-trichloroethane
Concen: 1.14 ug/L
RT: 11.199 min Scan# 1329
Delta R.T. 0.005 min
Lab File: 2C136720.D
Acq: 13 Feb 2016 12:31 am

Tgt Ion: 97 Resp: 3229

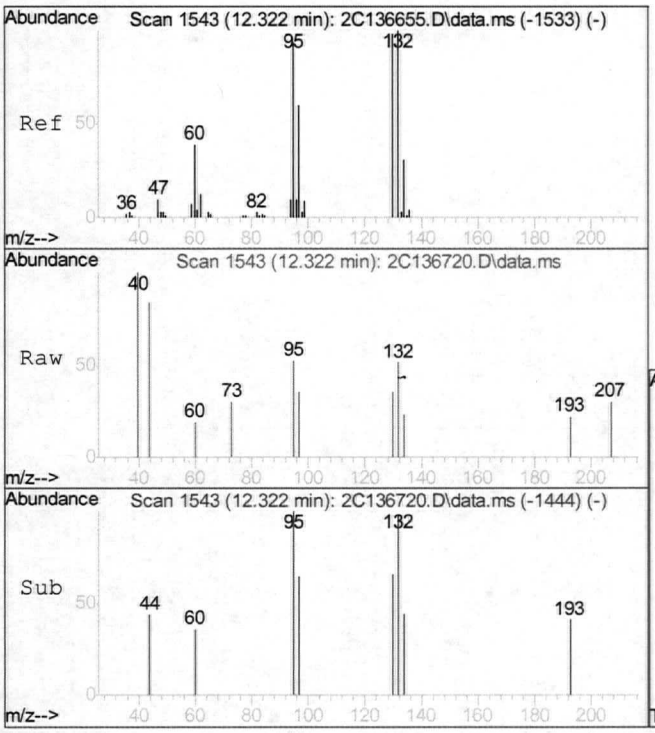
Ion	Ratio	Lower	Upper
97	100		
99	59.1	38.4	98.4
61	40.3	14.5	74.5



7.1.7

7

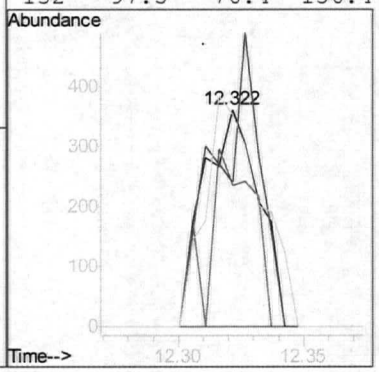
SGS ACCUTEST JC14082

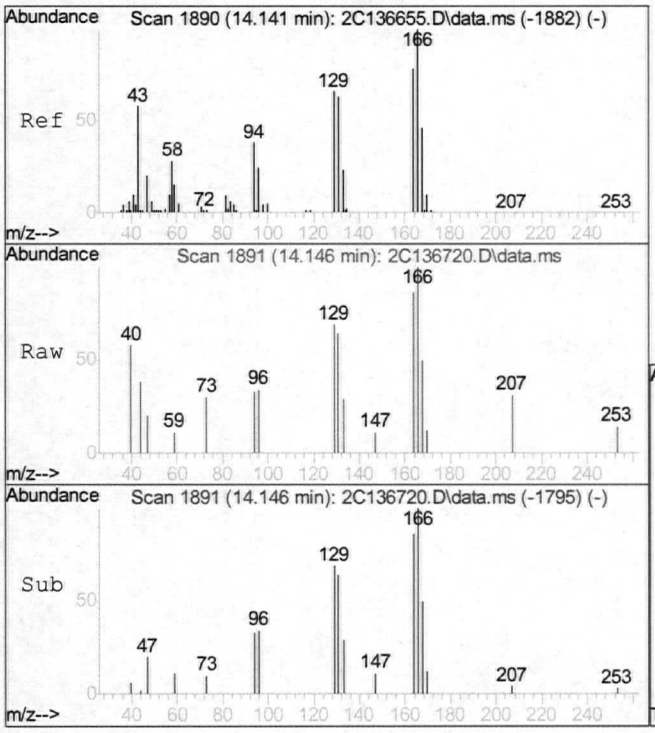


#75
trichloroethene
Concen: 0.33 ug/L
RT: 12.322 min Scan# 1543
Delta R.T. -0.000 min
Lab File: 2C136720.D
Acq: 13 Feb 2016 12:31 am

Tgt Ion: 95 Resp: 559

Ion	Ratio	Lower	Upper
95	100		
97	65.2	33.3	93.3
130	66.3	74.4	134.4#
132	97.5	76.4	136.4

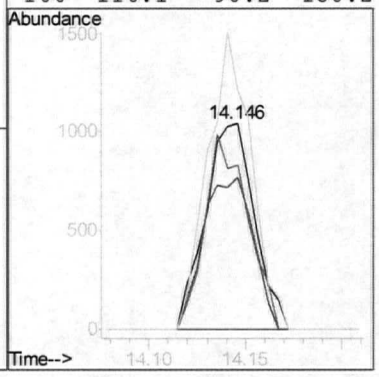




#93
tetrachloroethene
Concen: 1.18 ug/L
RT: 14.146 min Scan# 1891
Delta R.T. 0.005 min
Lab File: 2C136720.D
Acq: 13 Feb 2016 12:31 am

Tgt Ion:164 Resp: 1833

Ion	Ratio	Lower	Upper
164	100		
129	79.9	54.0	114.0
131	74.0	50.6	110.6
166	116.1	98.2	158.2



7.1.7

7

SGS ACCUTEST JC14082

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136700.D
Acq On : 12 Feb 2016 2:50 pm
Operator : ToanP
Sample : jc14082-7
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 12 17:08:22 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.699	65	153855	500.00	ug/L	0.00
5) pentafluorobenzene	11.084	168	221410	50.00	ug/L	0.00
61) 1,4-difluorobenzene	11.997	114	258220	50.00	ug/L	0.00
92) chlorobenzene-d5	14.948	117	231059	50.00	ug/L	0.00
107) 1,4-dichlorobenzene-d4	17.103	152	141627	50.00	ug/L	0.00
System Monitoring Compounds						
54) dibromofluoromethane (s)	11.163	113	92629	52.75	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.50%			
55) 1,2-dichloroethane-d4 (s)	11.588	65	100213	55.57	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 111.14%			
84) toluene-d8 (s)	13.538	98	313046	52.76	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 105.52%			
109) 4-bromofluorobenzene (s)	16.013	95	123566	52.99	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 105.98%			
Target Compounds						Qvalue
41) 1,1-dichloroethane	9.763	63	15693	4.54	ug/L	98
48) cis-1,2-dichloroethene	10.565	96	1021	0.44	ug/L #	29
58) 1,1,1-trichloroethane	11.189	97	16362	5.78	ug/L	95
75) trichloroethene	12.316	95	1379	0.79	ug/L #	72
93) tetrachloroethene	14.141	164	14294	9.06	ug/L	97

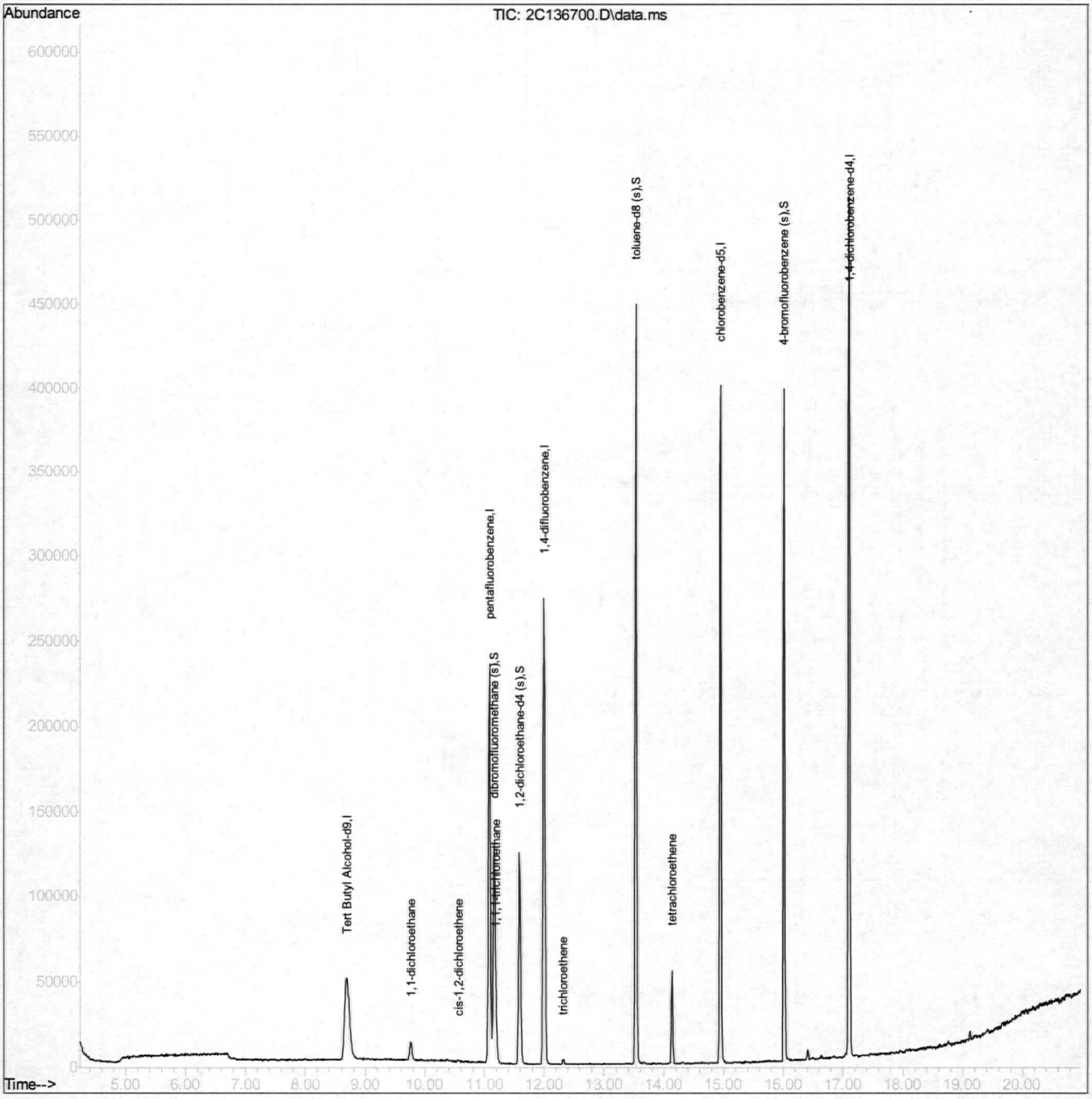
(#) = qualifier out of range (m) = manual integration (+) = signals summed

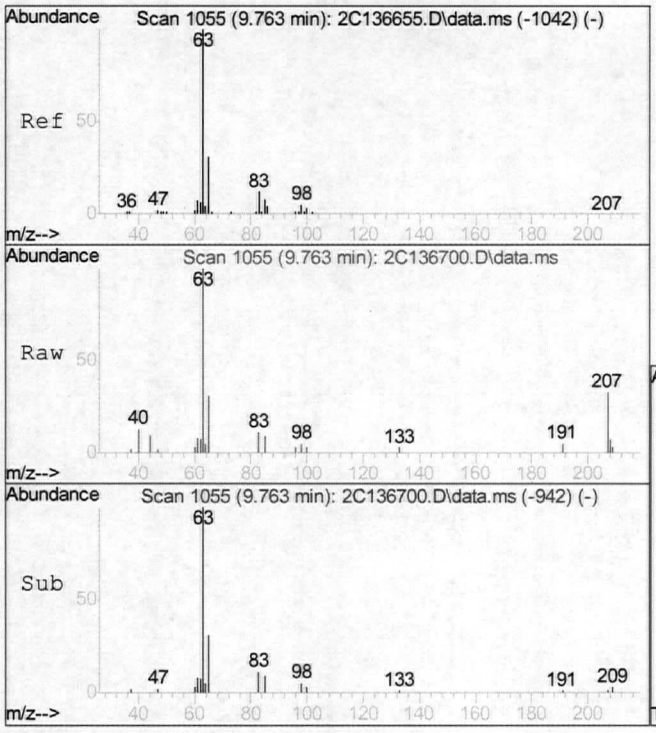
7.1.8 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136700.D
Acq On : 12 Feb 2016 2:50 pm
Operator : ToanP
Sample : jc14082-7
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Feb 12 17:08:22 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration

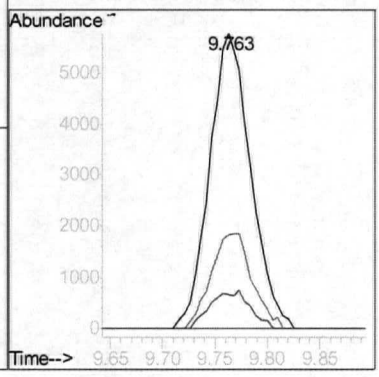


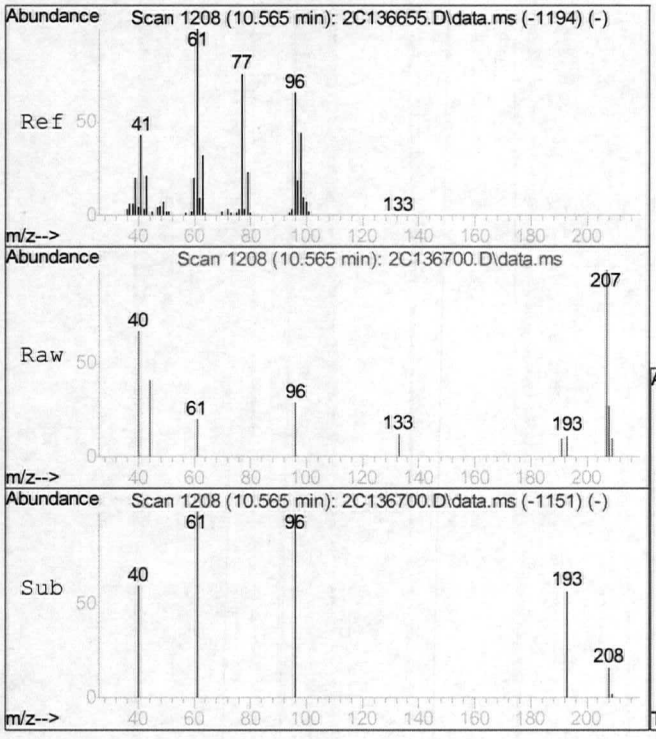


#41
1,1-dichloroethane
Concen: 4.54 ug/L
RT: 9.763 min Scan# 1055
Delta R.T. 0.000 min
Lab File: 2C136700.D
Acq: 12 Feb 2016 2:50 pm

Tgt Ion: 63 Resp: 15693

Ion	Ratio	Lower	Upper
63	100		
65	31.5	0.8	60.8
83	11.4	0.0	42.4

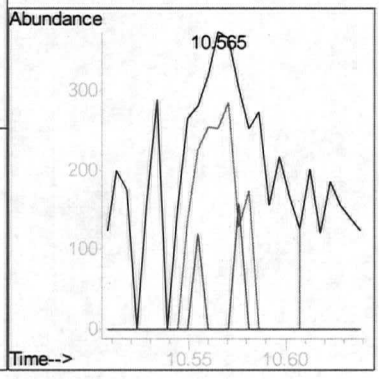




#48
cis-1,2-dichloroethene
Concen: 0.44 ug/L
RT: 10.565 min Scan# 1208
Delta R.T. 0.000 min
Lab File: 2C136700.D
Acq: 12 Feb 2016 2:50 pm

Tgt Ion: 96 Resp: 1021

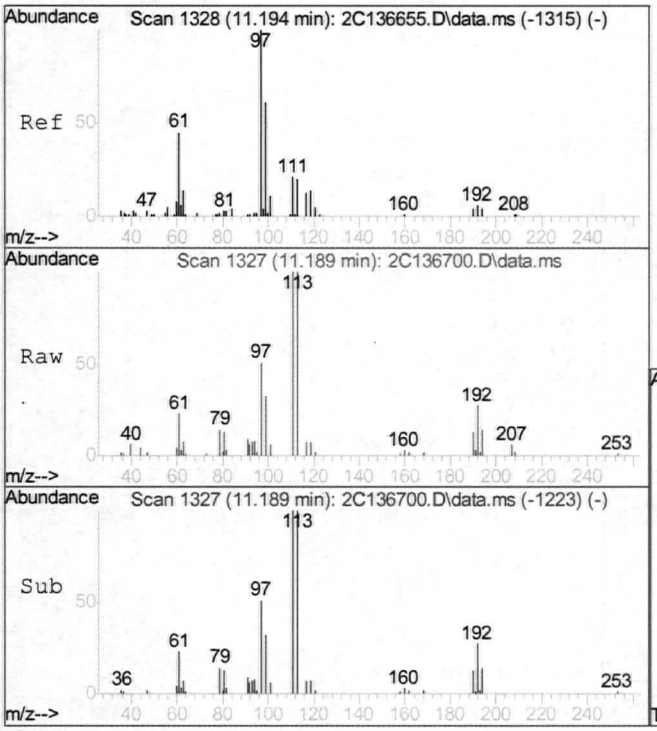
Ion	Ratio	Lower	Upper
96	100		
61	67.8	121.0	181.0#
98	0.0	36.6	96.6#



7.1.8

7

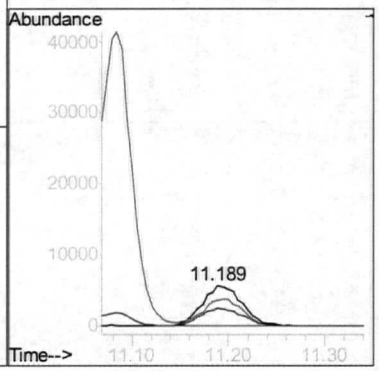
SGS ACCUTEST JC14082

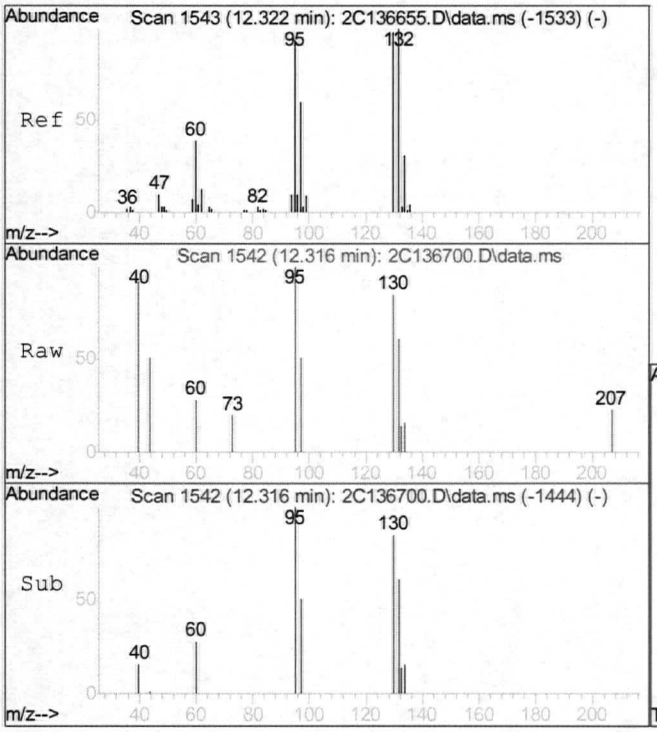


#58
1,1,1-trichloroethane
Concen: 5.78 ug/L
RT: 11.189 min Scan# 1327
Delta R.T. -0.005 min
Lab File: 2C136700.D
Acq: 12 Feb 2016 2:50 pm

Tgt Ion: 97 Resp: 16362

Ion	Ratio	Lower	Upper
97	100		
99	62.3	38.4	98.4
61	44.8	14.5	74.5

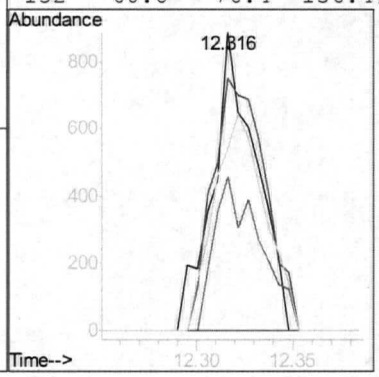




#75
trichloroethene
Concen: 0.79 ug/L
RT: 12.316 min Scan# 1542
Delta R.T. -0.005 min
Lab File: 2C136700.D
Acq: 12 Feb 2016 2:50 pm

Tgt Ion: 95 Resp: 1379

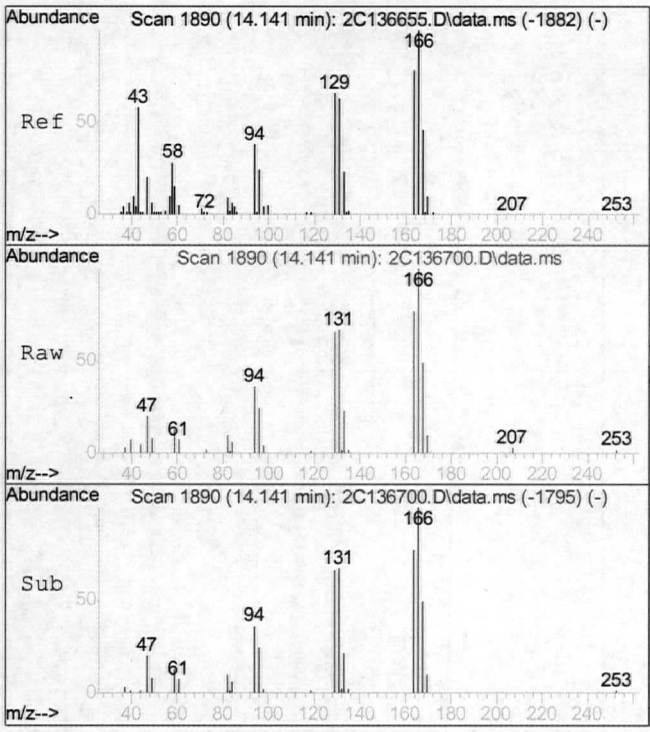
Ion	Ratio	Lower	Upper
95	100		
97	51.4	33.3	93.3
130	84.9	74.4	134.4
132	60.8	76.4	136.4#



7.1.8

7

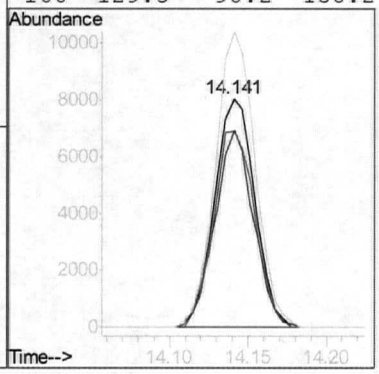
SGS ACCUTEST JC14082



#93
tetrachloroethene
Concen: 9.06 ug/L
RT: 14.141 min Scan# 1890
Delta R.T. 0.000 min
Lab File: 2C136700.D
Acq: 12 Feb 2016 2:50 pm

Tgt Ion:164 Resp: 14294

Ion	Ratio	Lower	Upper
164	100		
129	85.7	54.0	114.0
131	86.4	50.6	110.6
166	129.3	98.2	158.2



7.1.8

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136711.D
Acq On : 12 Feb 2016 8:11 pm
Operator : ToanP
Sample : jc14082-8
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 15 09:13:35 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.699	65	152961	500.00	ug/L	0.00
5) pentafluorobenzene	11.084	168	223735	50.00	ug/L	0.00
61) 1,4-difluorobenzene	12.002	114	260082	50.00	ug/L	0.00
92) chlorobenzene-d5	14.948	117	232517	50.00	ug/L	0.00
107) 1,4-dichlorobenzene-d4	17.103	152	145954	50.00	ug/L	0.00
System Monitoring Compounds						
54) dibromofluoromethane (s)	11.163	113	94025	52.99	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.98%			
55) 1,2-dichloroethane-d4 (s)	11.587	65	101483	55.69	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 111.38%			
84) toluene-d8 (s)	13.538	98	314550	52.63	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 105.26%			
109) 4-bromofluorobenzene (s)	16.013	95	125018	52.02	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 104.04%			

Target Compounds Qvalue

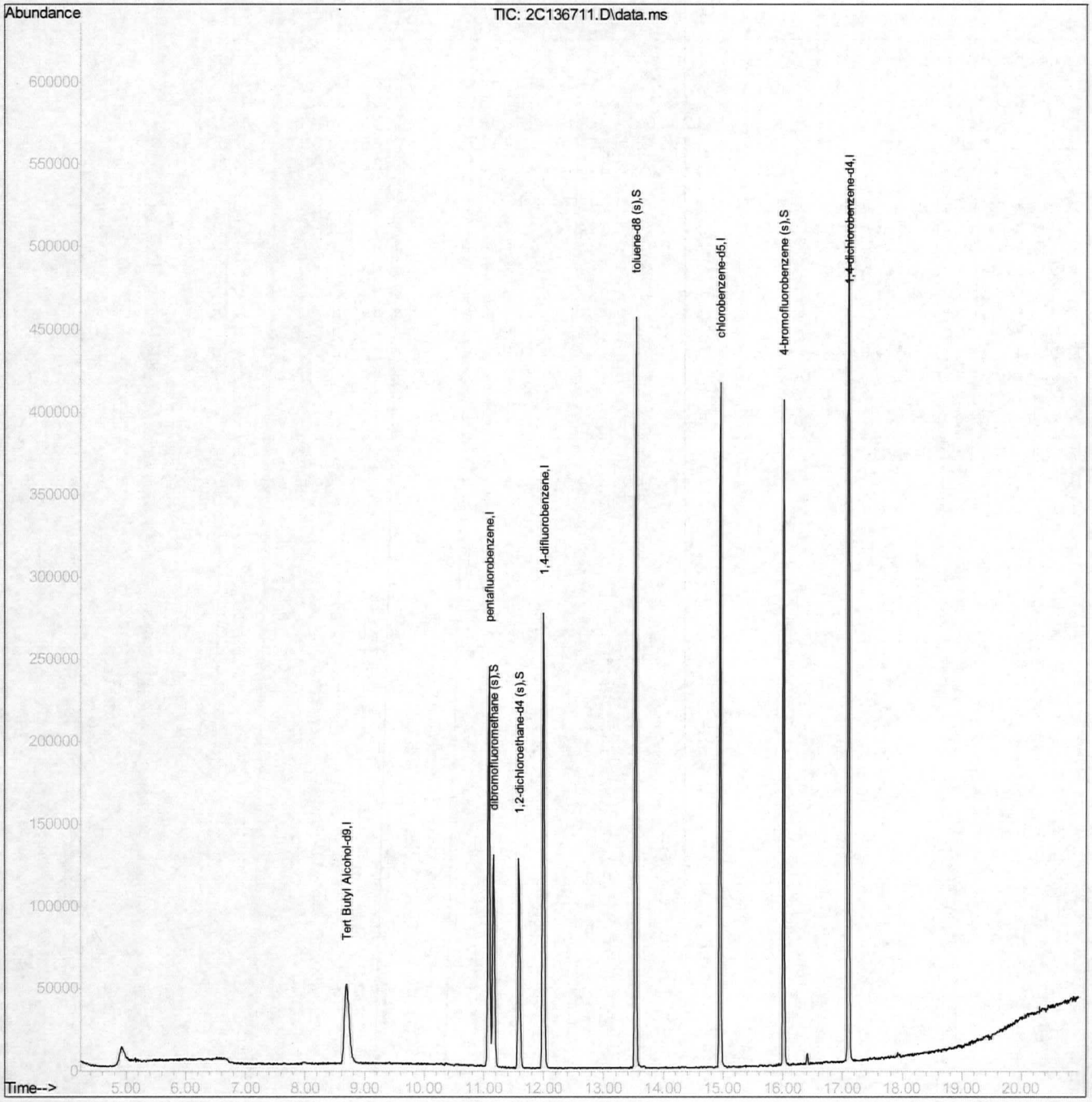
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.9 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136711.D
Acq On : 12 Feb 2016 8:11 pm
Operator : ToanP
Sample : jc14082-8
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Feb 15 09:13:35 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration



7.1.9

7

Manual Integrations
APPROVED
(compounds with "m" flag)
Kanya Veerawat
02/19/16 13:19

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136721.D
Acq On : 13 Feb 2016 1:00 am
Operator : ToanP
Sample : jc14082-9
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Feb 15 09:37:30 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.688	65	162978	500.00	ug/L	-0.02
5) pentafluorobenzene	11.084	168	215931	50.00	ug/L	0.00
61) 1,4-difluorobenzene	11.996	114	249592	50.00	ug/L	0.00
92) chlorobenzene-d5	14.948	117	222293	50.00	ug/L	0.00
107) 1,4-dichlorobenzene-d4	17.103	152	139845	50.00	ug/L	0.00
System Monitoring Compounds						
54) dibromofluoromethane (s)	11.163	113	90380	52.78	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.56%			
55) 1,2-dichloroethane-d4 (s)	11.593	65	98364	55.93	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 111.86%			
84) toluene-d8 (s)	13.538	98	303289	52.88	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 105.76%			
109) 4-bromofluorobenzene (s)	16.012	95	121529	52.78	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 105.56%			
Target Compounds						Qvalue
41) 1,1-dichloroethane	9.768	63	9147	2.71	ug/L	97
48) cis-1,2-dichloroethene	10.565	96	1563m	0.69	ug/L	
58) 1,1,1-trichloroethane	11.194	97	16335	5.92	ug/L	93
75) trichloroethene	12.327	95	3077	1.83	ug/L	89
90) 1,1,2-trichloroethane	14.010	83	341	0.27	ug/L	83
93) tetrachloroethene	14.141	164	14292	9.41	ug/L	95

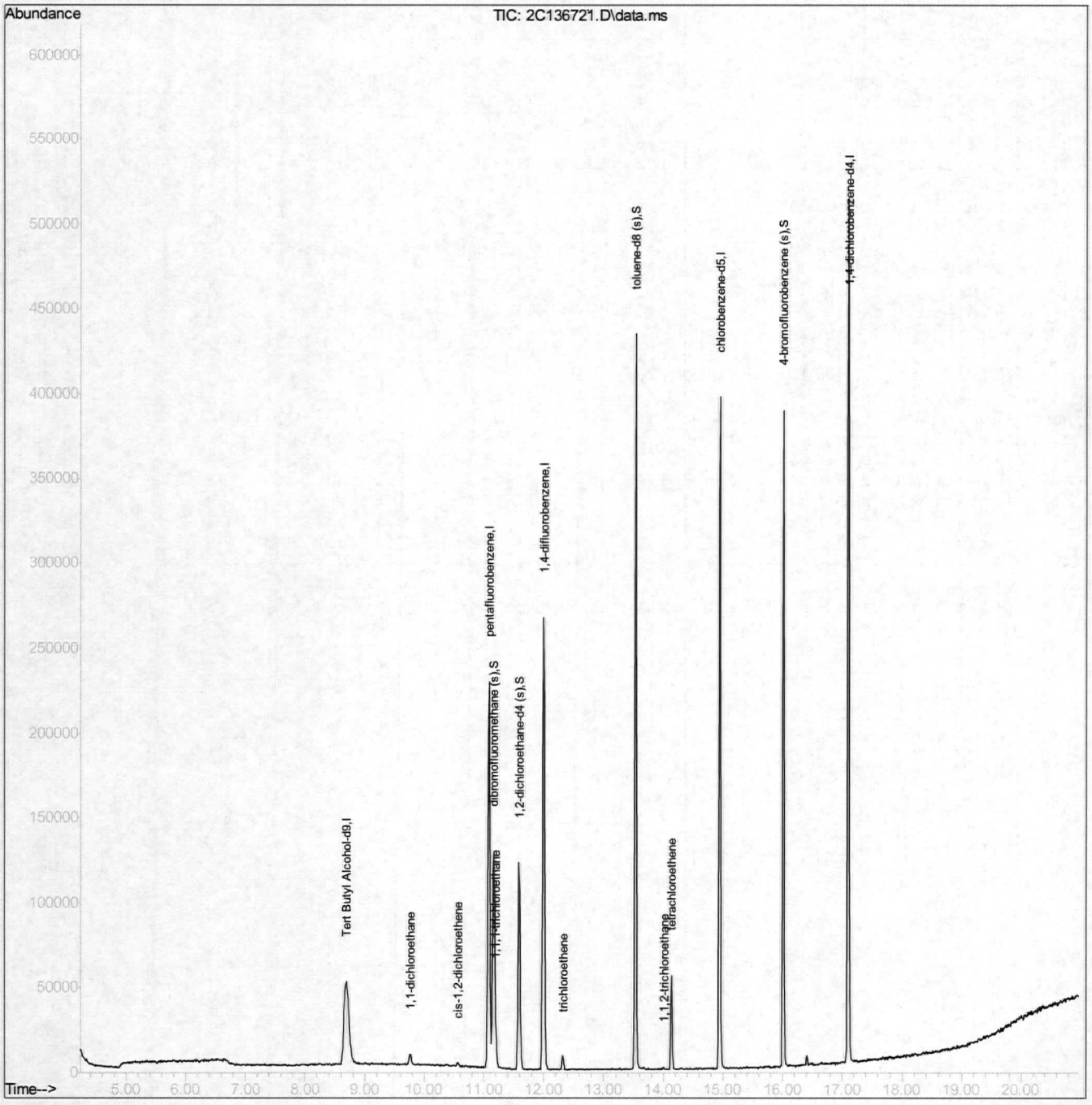
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.10 7

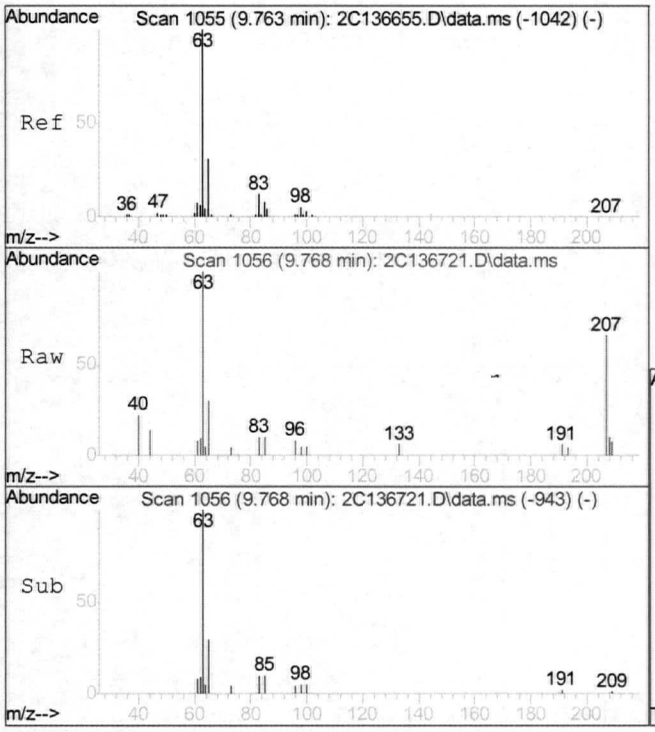
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136721.D
Acq On : 13 Feb 2016 1:00 am
Operator : ToanP
Sample : jc14082-9
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Feb 15 09:37:30 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration



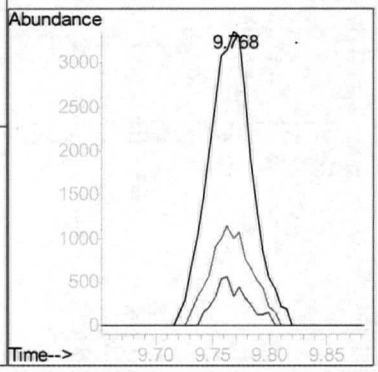
M2C6139.m Mon Feb 15 09:37:41 2016 RPT1 Page: 2

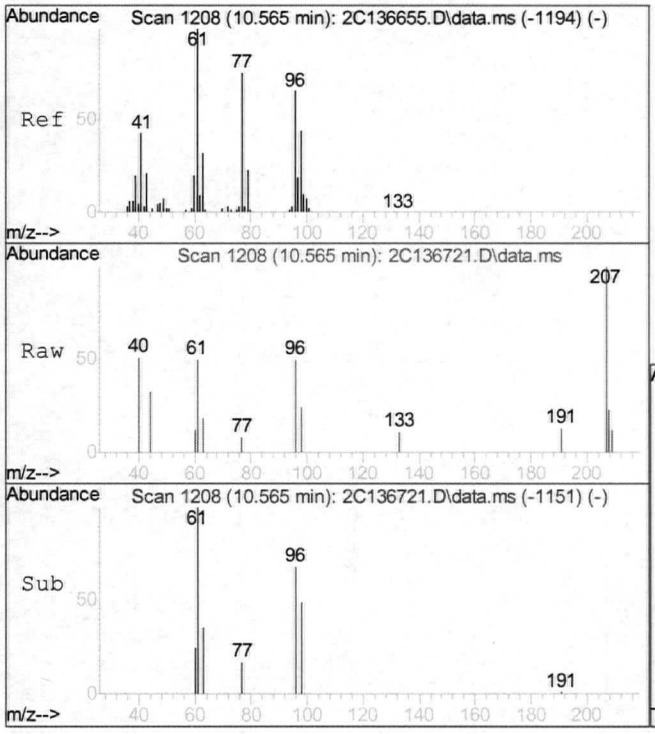


#41
1,1-dichloroethane
Concen: 2.71 ug/L
RT: 9.768 min Scan# 1056
Delta R.T. 0.005 min
Lab File: 2C136721.D
Acq: 13 Feb 2016 1:00 am

Tgt Ion: 63 Resp: 9147

Ion	Ratio	Lower	Upper
63	100		
65	29.6	0.8	60.8
83	10.0	0.0	42.4

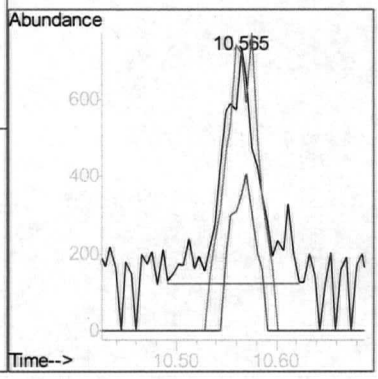




#48
cis-1,2-dichloroethene
Concen: 0.69 ug/L m
RT: 10.565 min Scan# 1208
Delta R.T. -0.000 min
Lab File: 2C136721.D
Acq: 13 Feb 2016 1:00 am

Tgt Ion: 96 Resp: 1563

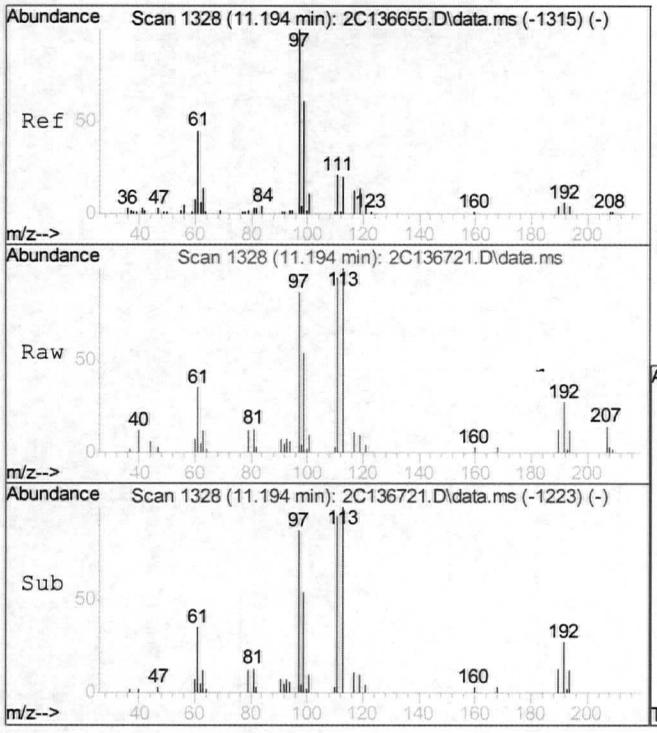
Ion	Ratio	Lower	Upper
96	100		
61	98.4	121.0	181.0#
98	48.6	36.6	96.6



7.1.10

7

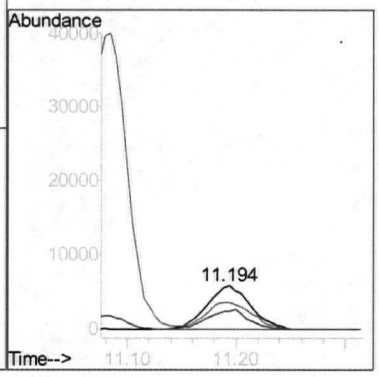
SGS ACCUTEST JC14082

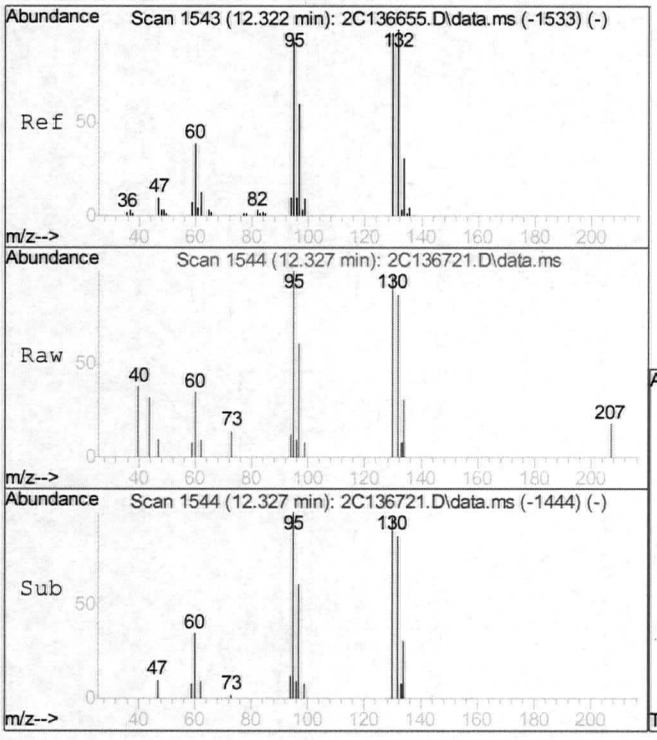


#58
1,1,1-trichloroethane
Concen: 5.92 ug/L
RT: 11.194 min Scan# 1328
Delta R.T. -0.000 min
Lab File: 2C136721.D
Acq: 13 Feb 2016 1:00 am

Tgt Ion: 97 Resp: 16335

Ion	Ratio	Lower	Upper
97	100		
99	62.3	38.4	98.4
61	40.7	14.5	74.5

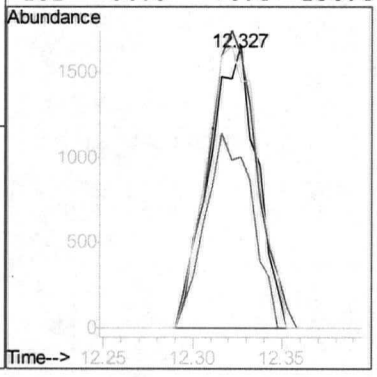




#75
trichloroethene
Concen: 1.83 ug/L
RT: 12.327 min Scan# 1544
Delta R.T. 0.005 min
Lab File: 2C136721.D
Acq: 13 Feb 2016 1:00 am

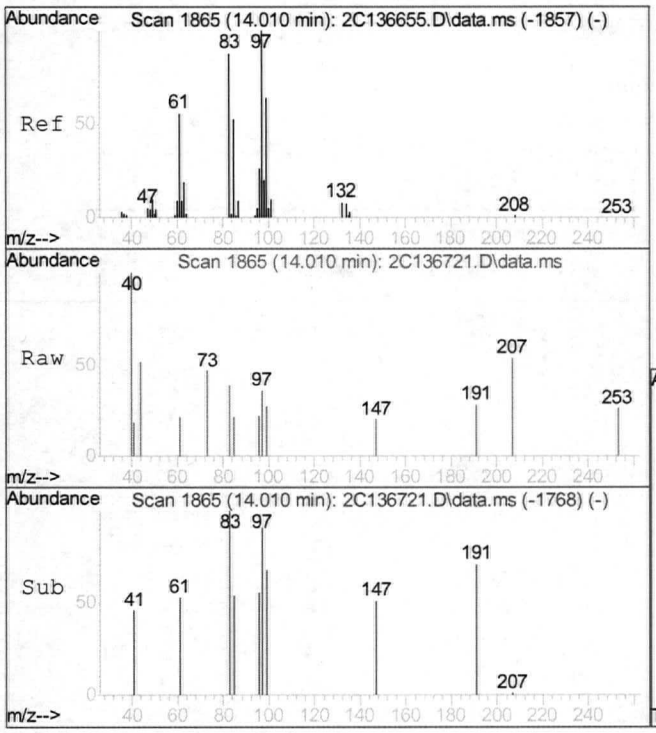
Tgt Ion: 95 Resp: 3077

Ion	Ratio	Lower	Upper
95	100		
97	60.6	33.3	93.3
130	96.8	74.4	134.4
132	86.8	76.4	136.4



7.1.10

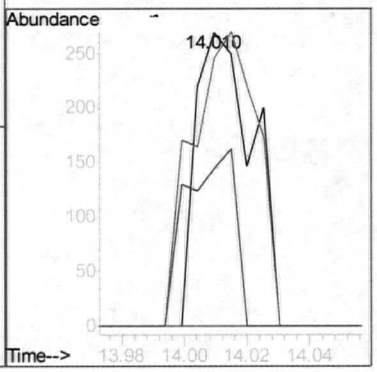
7

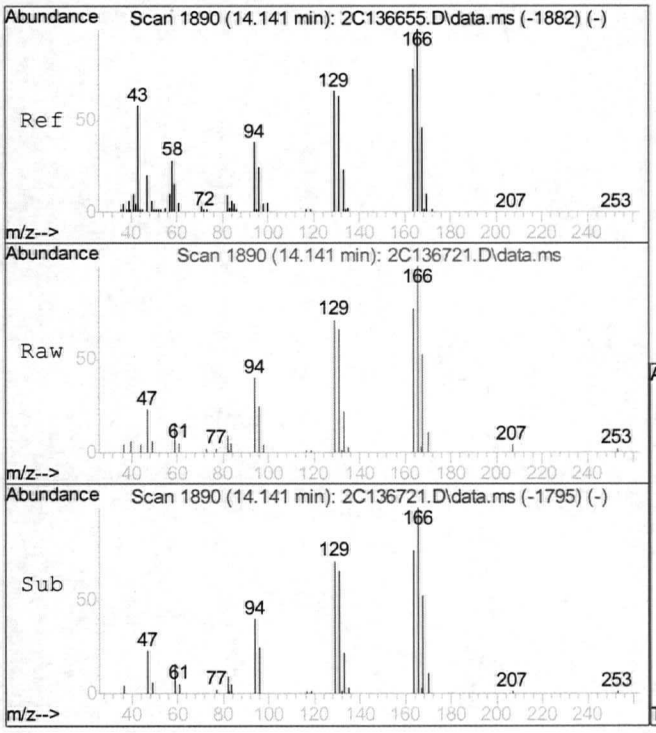


#90
1,1,2-trichloroethane
Concen: 0.27 ug/L
RT: 14.010 min Scan# 1865
Delta R.T. -0.000 min
Lab File: 2C136721.D
Acq: 13 Feb 2016 1:00 am

Tgt Ion: 83 Resp: 341

Ion	Ratio	Lower	Upper
83	100		
97	91.1	83.7	143.7
85	53.5	30.6	90.6

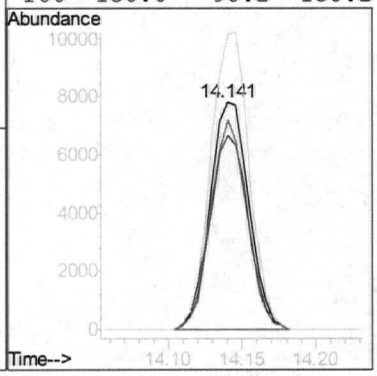




#93
tetrachloroethene
Concen: 9.41 ug/L
RT: 14.141 min Scan# 1890
Delta R.T. -0.000 min
Lab File: 2C136721.D
Acq: 13 Feb 2016 1:00 am

Tgt Ion:164 Resp: 14292

Ion	Ratio	Lower	Upper
164	100		
129	92.1	54.0	114.0
131	85.5	50.6	110.6
166	130.0	98.2	158.2



7.1.10

7

Manual Integration Approval Summary

Sample Number:	JC14082-9	**Method:**	SW846 8260C
Lab FileID:	2C136721.D	**Analyst approved:**	02/15/16 10:40 Ying Li
Injection Time:	02/13/16 01:00	**Supervisor approved:**	02/19/16 13:19 Kanya Veerawat

Parameter	CAS	Sig#	R.T. (min.)	Reason
cis-1,2-Dichloroethene	156-59-2		10.56	Poor instrument integration

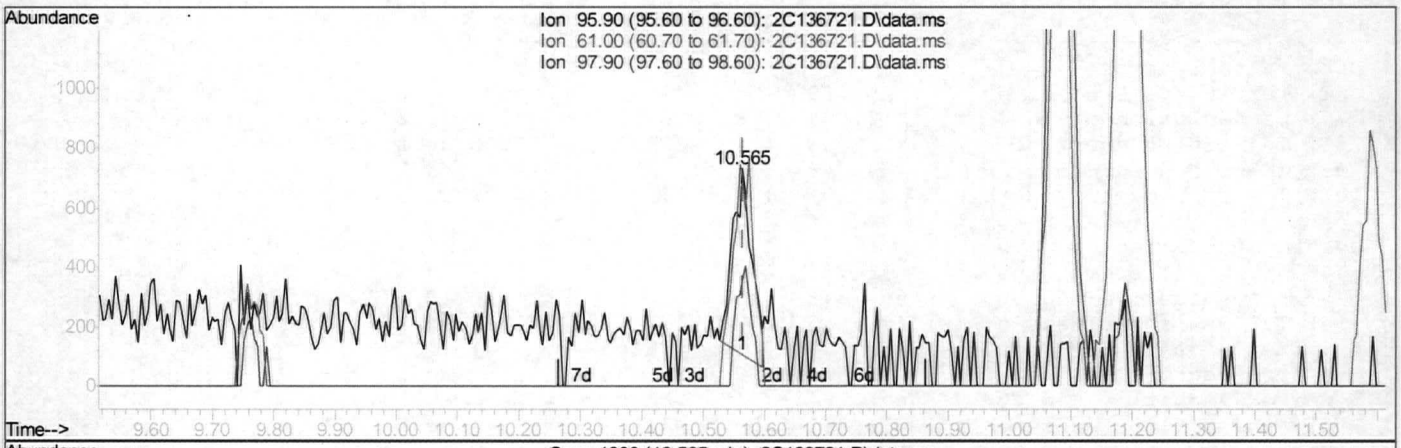
7.1.10.1

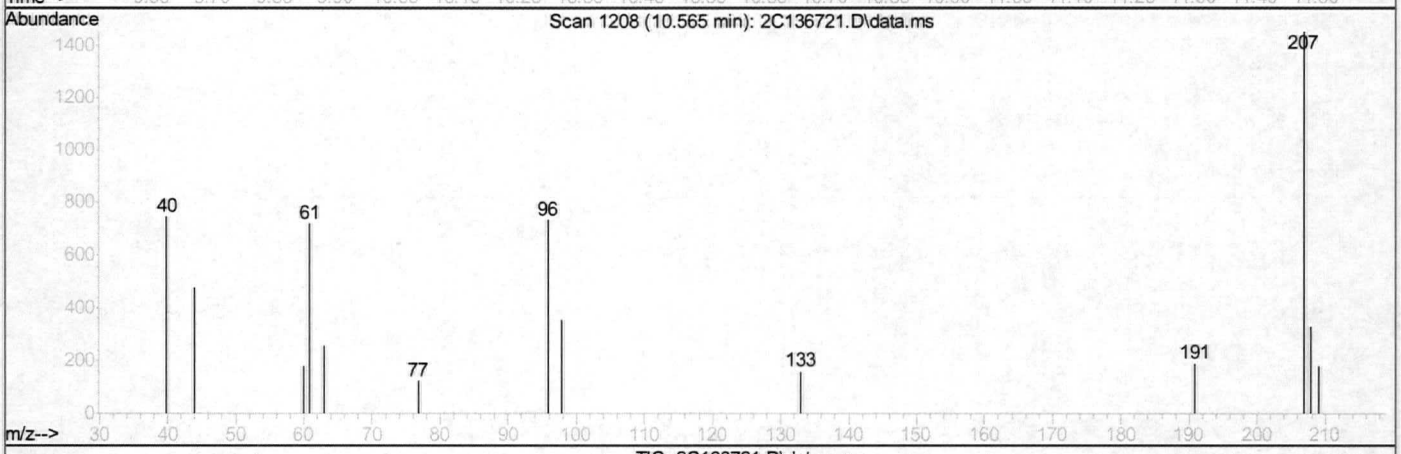
7

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136721.D
Acq On : 13 Feb 2016 1:00 am
Operator : ToanP
Sample : jc14082-9
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Feb 13 08:47:08 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration





TIC: 2C136721.D\data.ms

(48) cis-1,2-dichloroethene

10.565min (-0.000) 0.60ug/L

response 1358

Ion	Exp%	Act%
95.90	100	100
61.00	151.00	124.83
97.90	66.60	61.63
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136722.D
Acq On : 13 Feb 2016 1:28 am
Operator : ToanP
Sample : jc14082-10
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Feb 15 09:39:07 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.699	65	170346	500.00	ug/L	0.00
5) pentafluorobenzene	11.084	168	223527	50.00	ug/L	0.00
61) 1,4-difluorobenzene	12.002	114	257642	50.00	ug/L	0.00
92) chlorobenzene-d5	14.948	117	228273	50.00	ug/L	0.00
107) 1,4-dichlorobenzene-d4	17.103	152	141938	50.00	ug/L	0.00
System Monitoring Compounds						
54) dibromofluoromethane (s)	11.163	113	93255	52.61	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.22%			
55) 1,2-dichloroethane-d4 (s)	11.588	65	101469	55.73	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 111.46%			
84) toluene-d8 (s)	13.538	98	311433	52.60	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 105.20%			
109) 4-bromofluorobenzene (s)	16.013	95	124897	53.44	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 106.88%			
Target Compounds						Qvalue
41) 1,1-dichloroethane	9.763	63	1688	0.48	ug/L	89
58) 1,1,1-trichloroethane	11.189	97	3279	1.15	ug/L	86
75) trichloroethene	12.316	95	594	0.34	ug/L #	68
93) tetrachloroethene	14.141	164	1794	1.15	ug/L	89

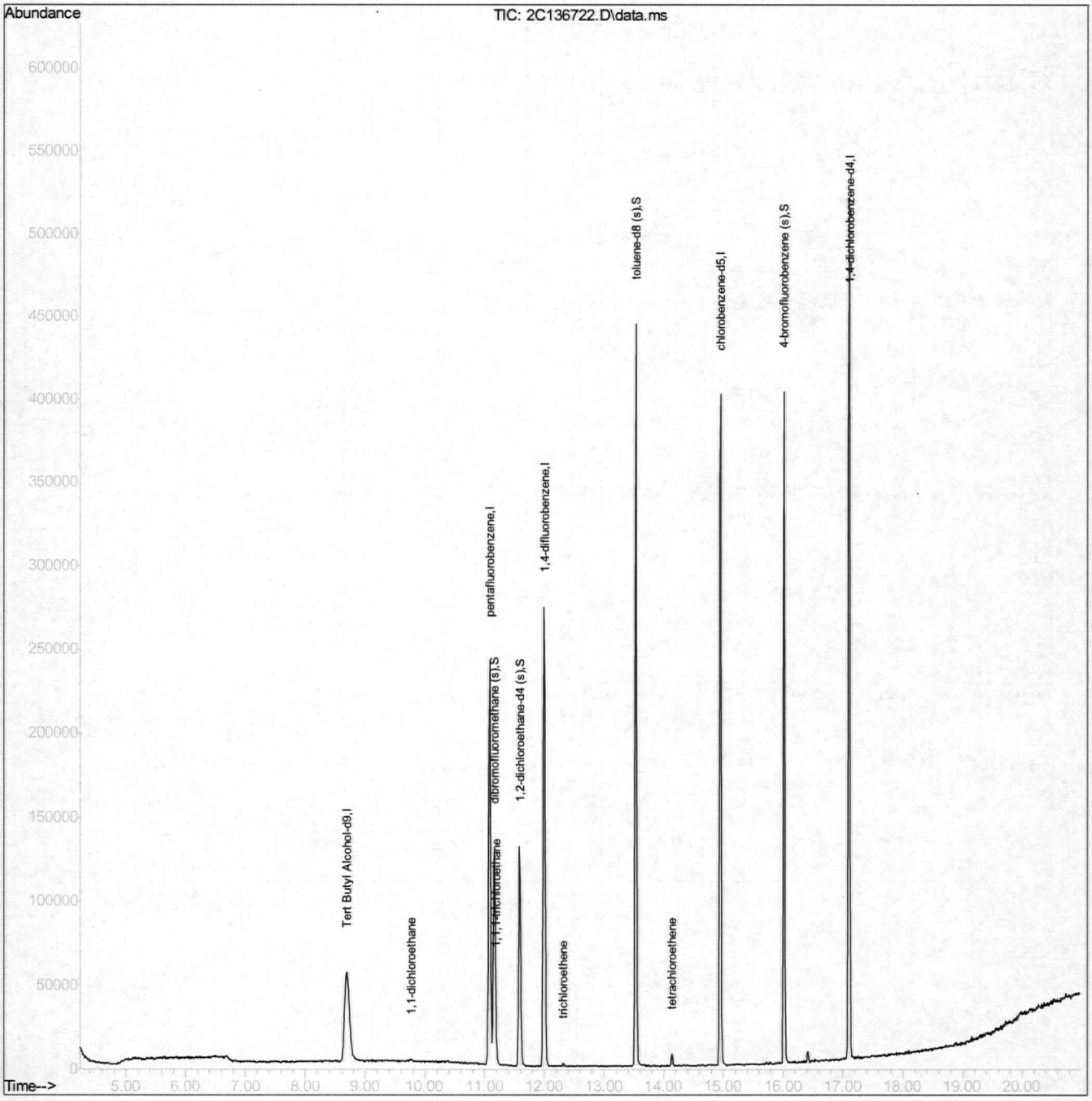
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.11 7

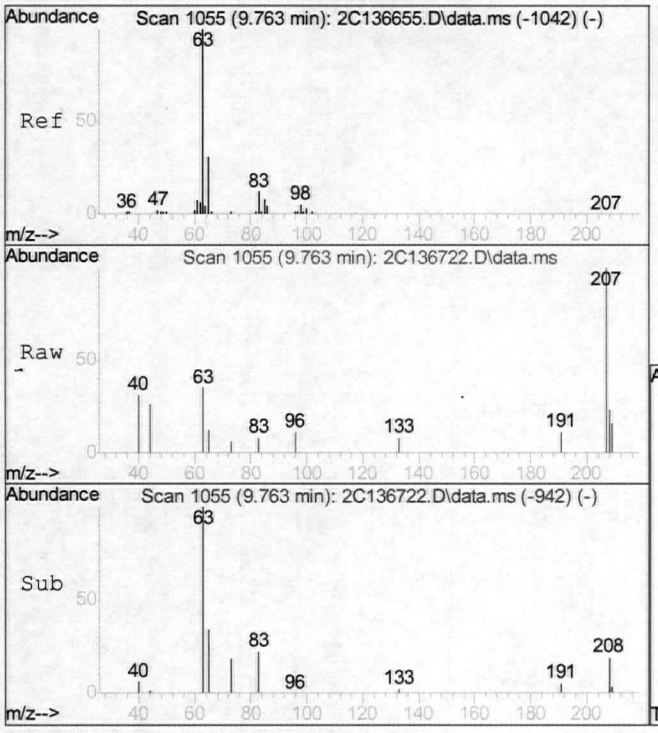
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136722.D
Acq On : 13 Feb 2016 1:28 am
Operator : ToanP
Sample : jc14082-10
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Feb 15 09:39:07 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration



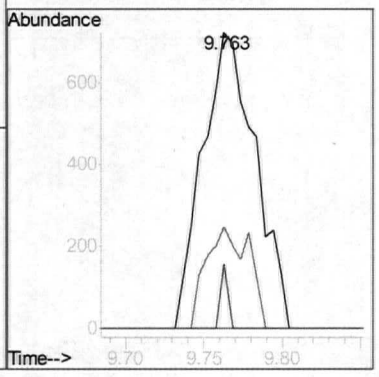
M2C6139.m Mon Feb 15 09:39:12 2016 RPT1 Page: 2

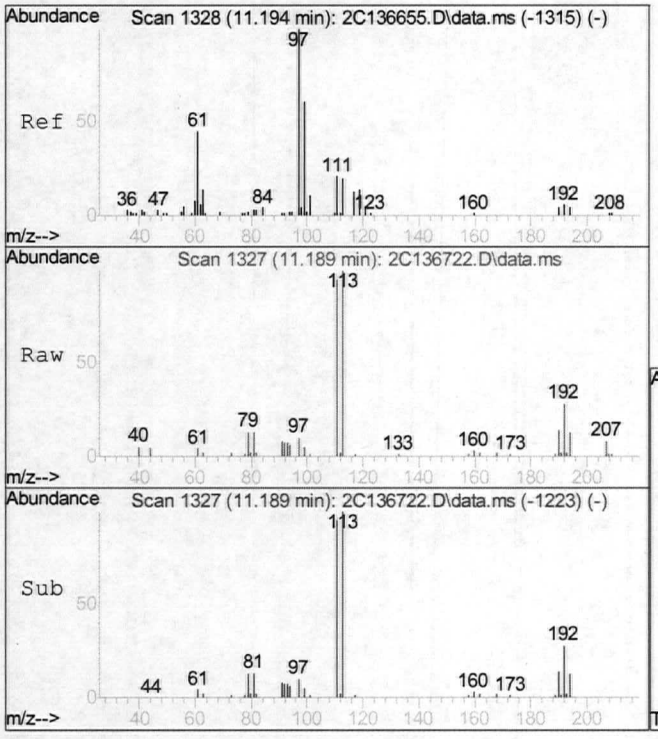


#41
1,1-dichloroethane
Concen: 0.48 ug/L
RT: 9.763 min Scan# 1055
Delta R.T. 0.000 min
Lab File: 2C136722.D
Acq: 13 Feb 2016 1:28 am

Tgt Ion: 63 Resp: 1688

Ion	Ratio	Lower	Upper
63	100		
65	34.2	0.8	60.8
83	21.6	0.0	42.4

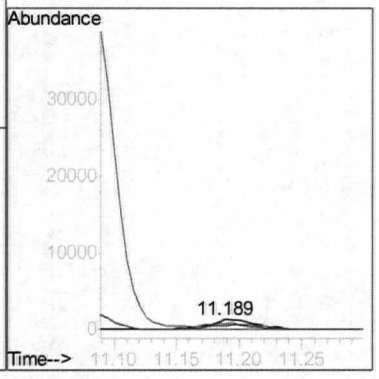




#58
1,1,1-trichloroethane
Concen: 1.15 ug/L
RT: 11.189 min Scan# 1327
Delta R.T. -0.005 min
Lab File: 2C136722.D
Acq: 13 Feb 2016 1:28 am

Tgt Ion: 97 Resp: 3279

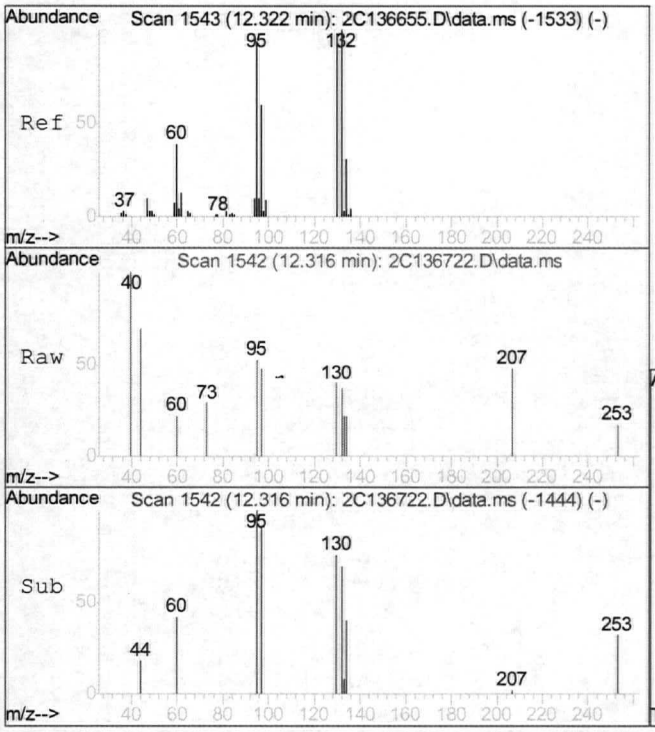
Ion	Ratio	Lower	Upper
97	100		
99	53.5	38.4	98.4
61	39.0	14.5	74.5



7.1.11

7

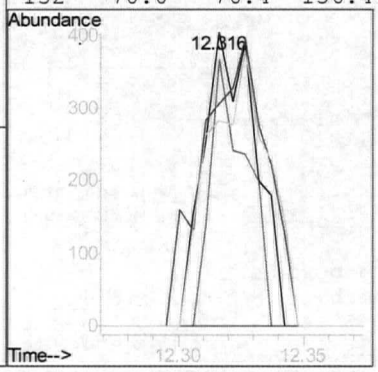
SGS ACCUTEST JC14082

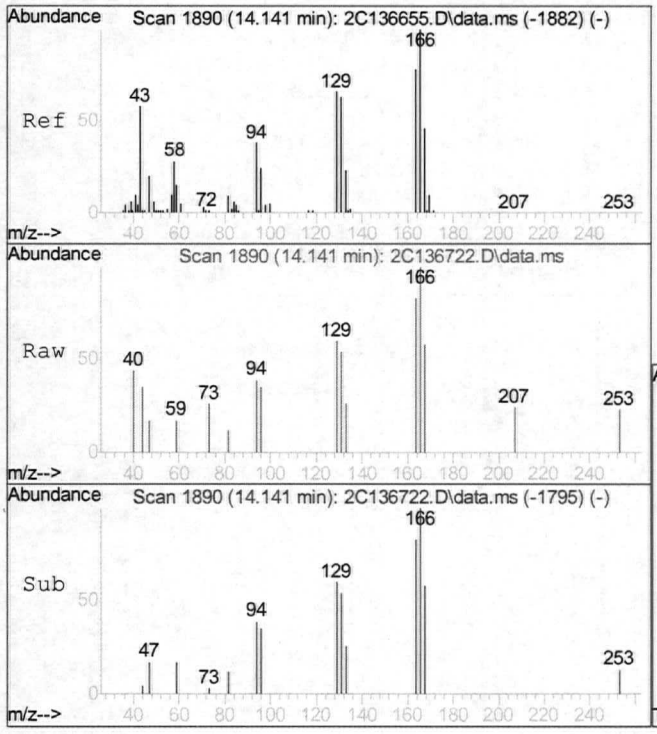


#75
trichloroethene
Concen: 0.34 ug/L
RT: 12.316 min Scan# 1542
Delta R.T. -0.005 min
Lab File: 2C136722.D
Acq: 13 Feb 2016 1:28 am

Tgt Ion: 95 Resp: 594

Ion	Ratio	Lower	Upper
95	100		
97	90.8	33.3	93.3
130	75.9	74.4	134.4
132	70.0	76.4	136.4#

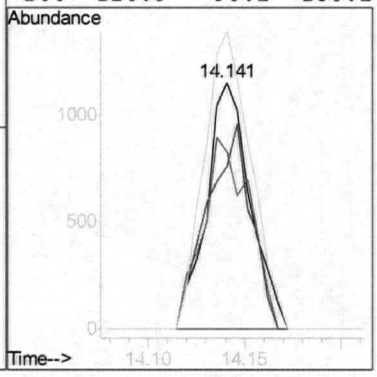




#93
tetrachloroethene
Concen: 1.15 ug/L
RT: 14.141 min Scan# 1890
Delta R.T. 0.000 min
Lab File: 2C136722.D
Acq: 13 Feb 2016 1:28 am

Tgt Ion:164 Resp: 1794

Ion	Ratio	Lower	Upper
164	100		
129	72.0	54.0	114.0
131	65.8	50.6	110.6
166	120.9	98.2	158.2



7.1.11

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136723.D
Acq On : 13 Feb 2016 1:57 am
Operator : ToanP
Sample : jc14082-11
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Feb 15 09:40:15 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.688	65	160273	500.00	ug/L	-0.02
5) pentafluorobenzene	11.084	168	216201	50.00	ug/L	0.00
61) 1,4-difluorobenzene	11.997	114	250318	50.00	ug/L	0.00
92) chlorobenzene-d5	14.948	117	226355	50.00	ug/L	0.00
107) 1,4-dichlorobenzene-d4	17.103	152	140131	50.00	ug/L	0.00
System Monitoring Compounds						
54) dibromofluoromethane (s)	11.163	113	91525	53.38	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 106.76%			
55) 1,2-dichloroethane-d4 (s)	11.588	65	98985	56.21	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 112.42%			
84) toluene-d8 (s)	13.538	98	306138	53.22	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 106.44%			
109) 4-bromofluorobenzene (s)	16.013	95	121573	52.69	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 105.38%			
Target Compounds						Qvalue
27) 1,1-dichloroethene	7.870	61	6904	2.31	ug/L	97
41) 1,1-dichloroethane	9.763	63	10757	3.19	ug/L	95
48) cis-1,2-dichloroethene	10.565	96	39717	17.49	ug/L	87
58) 1,1,1-trichloroethane	11.194	97	271261	98.11	ug/L	96
75) trichloroethene	12.322	95	2638	1.56	ug/L	90

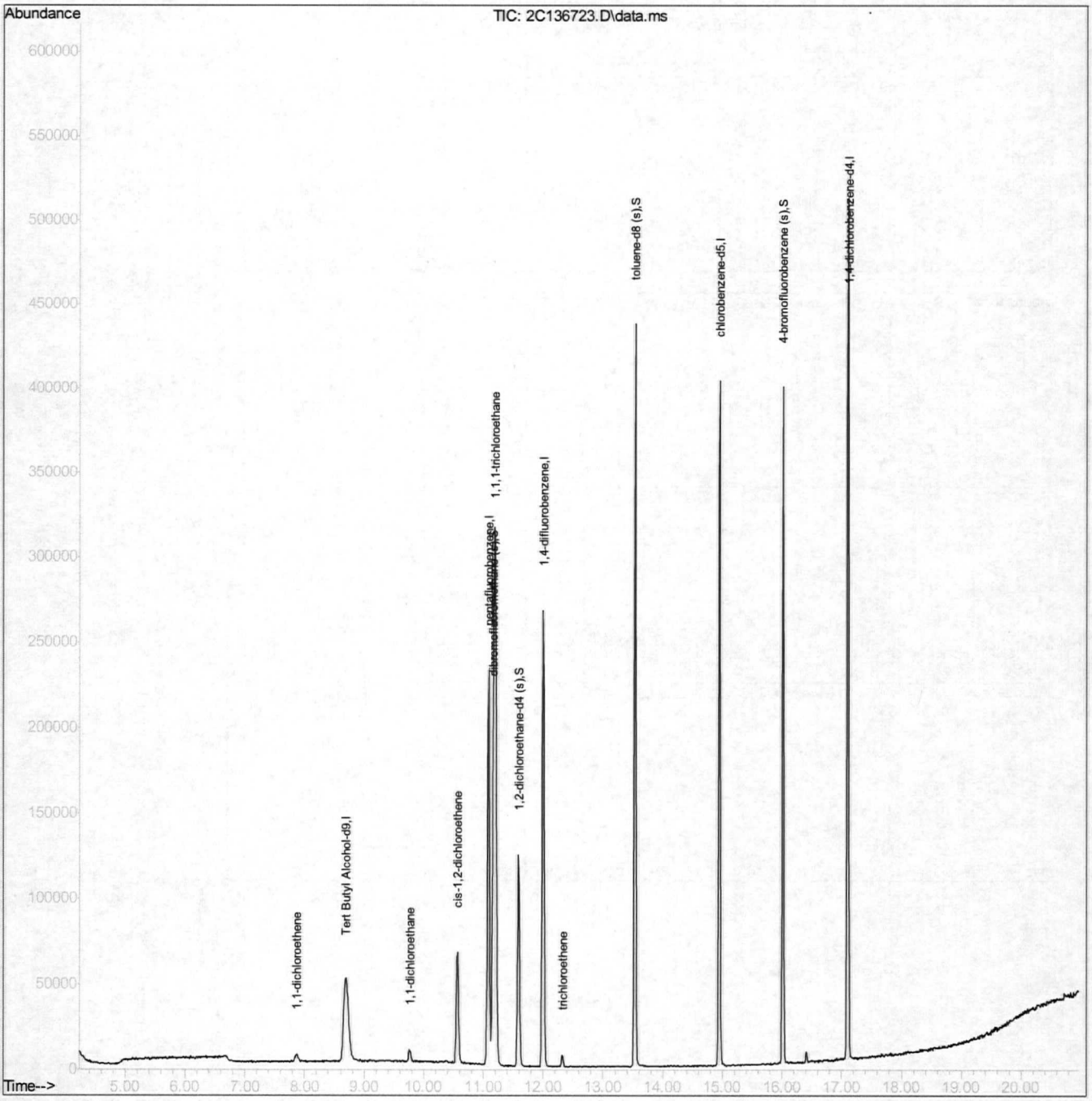
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.12 7

Quantitation Report (QT Reviewed)

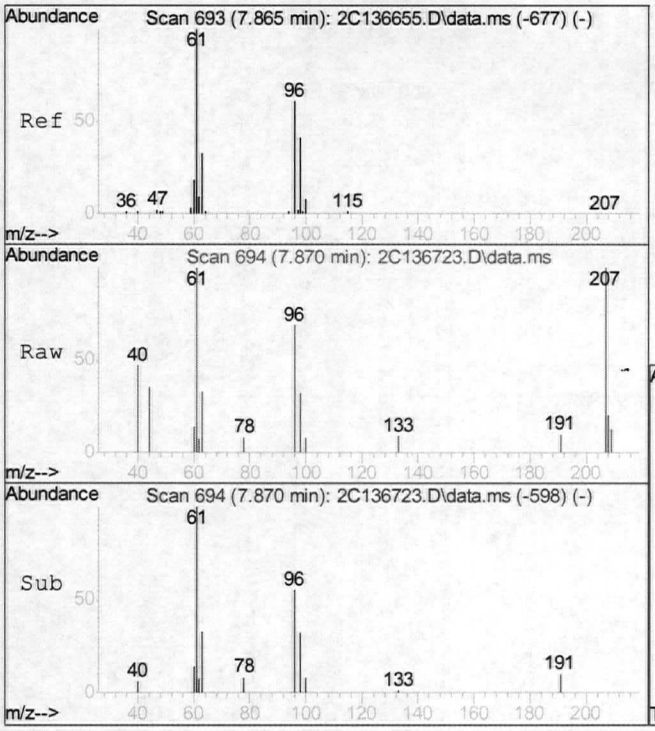
Data Path : C:\msdchem\1\DATA\
Data File : 2C136723.D
Acq On : 13 Feb 2016 1:57 am
Operator : ToanP
Sample : jc14082-11
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Feb 15 09:40:15 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration



7.1.12 7

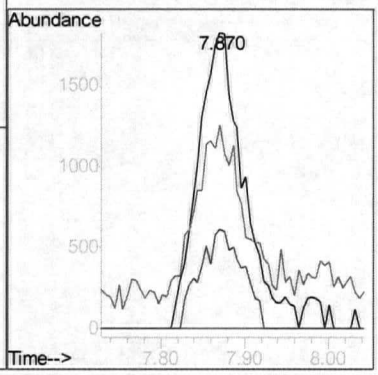
SGS ACCUTEST JC14082

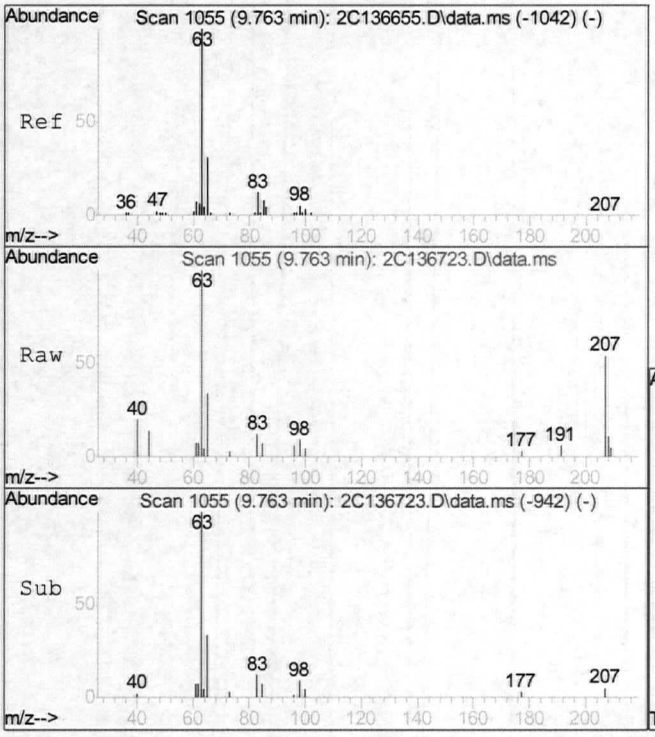


#27
1,1-dichloroethene
Concen: 2.31 ug/L
RT: 7.870 min Scan# 694
Delta R.T. 0.005 min
Lab File: 2C136723.D
Acq: 13 Feb 2016 1:57 am

Tgt Ion: 61 Resp: 6904

Ion	Ratio	Lower	Upper
61	100		
96	57.8	31.1	91.1
63	33.2	3.4	63.4

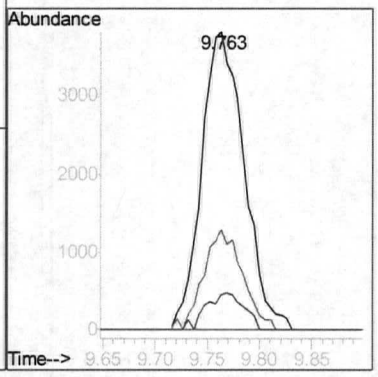




#41
1,1-dichloroethane
Concen: 3.19 ug/L
RT: 9.763 min Scan# 1055
Delta R.T. 0.000 min
Lab File: 2C136723.D
Acq: 13 Feb 2016 1:57 am

Tgt Ion: 63 Resp: 10757

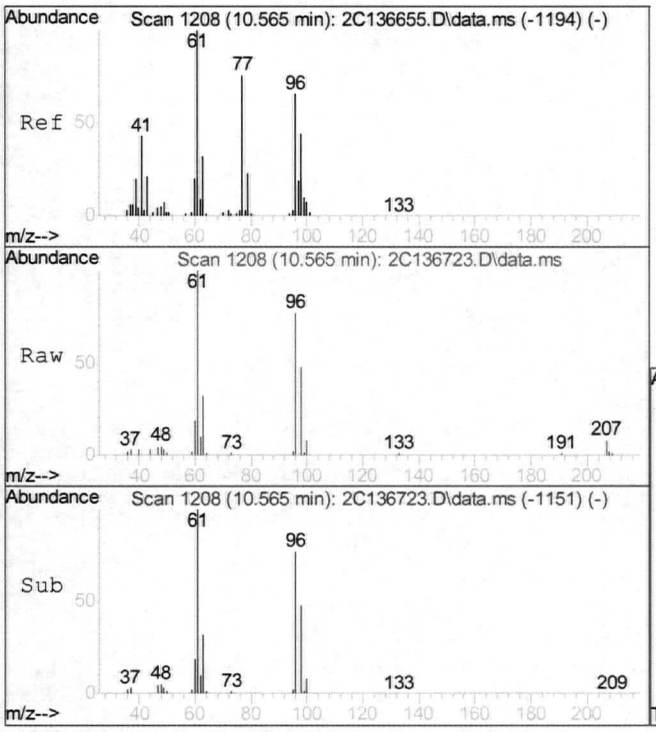
Ion	Ratio	Lower	Upper
63	100		
65	33.9	0.8	60.8
83	11.7	0.0	42.4



7.1.12

7

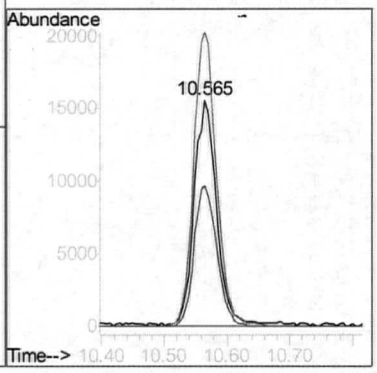
SGS ACCUTEST JC14082

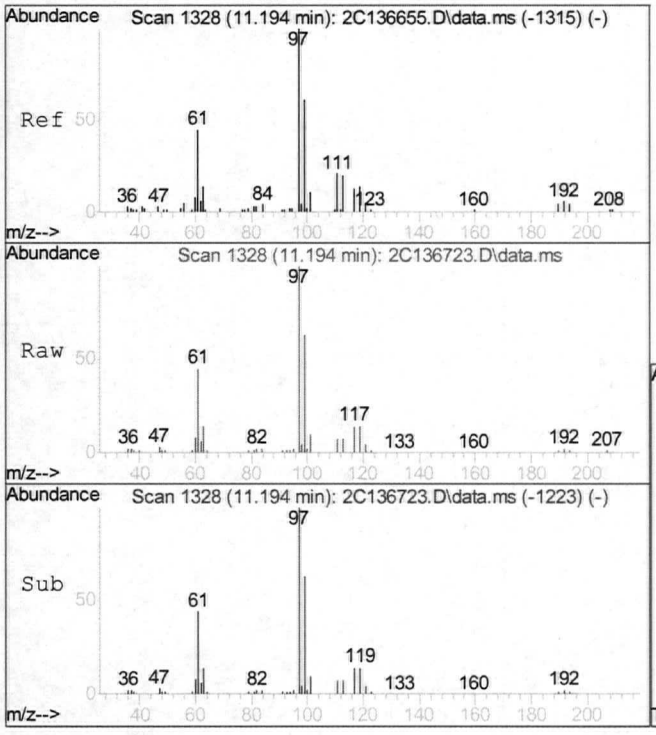


#48
cis-1,2-dichloroethene
Concen: 17.49 ug/L
RT: 10.565 min Scan# 1208
Delta R.T. 0.000 min
Lab File: 2C136723.D
Acq: 13 Feb 2016 1:57 am

Tgt Ion: 96 Resp: 39717

Ion	Ratio	Lower	Upper
96	100		
61	129.8	121.0	181.0
98	61.9	36.6	96.6

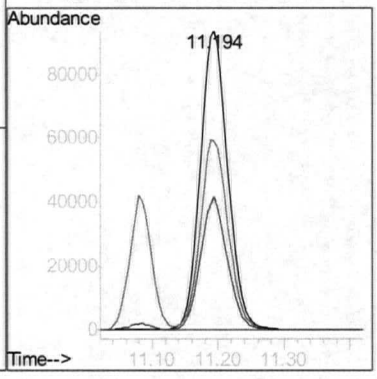




#58
1,1,1-trichloroethane
Concen: 98.11 ug/L
RT: 11.194 min Scan# 1328
Delta R.T. 0.000 min
Lab File: 2C136723.D
Acq: 13 Feb 2016 1:57 am

Tgt Ion: 97 Resp: 271261

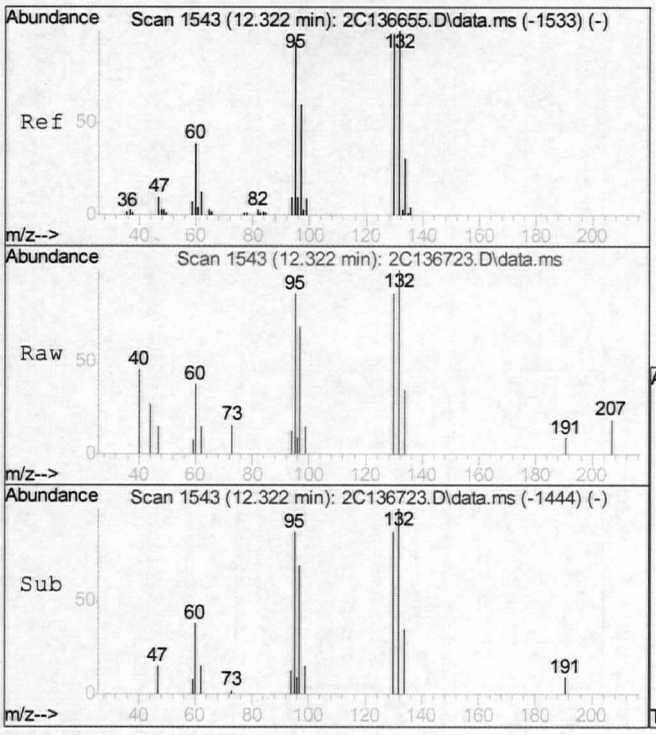
Ion	Ratio	Lower	Upper
97	100		
99	63.2	38.4	98.4
61	44.6	14.5	74.5



7.1.12

7

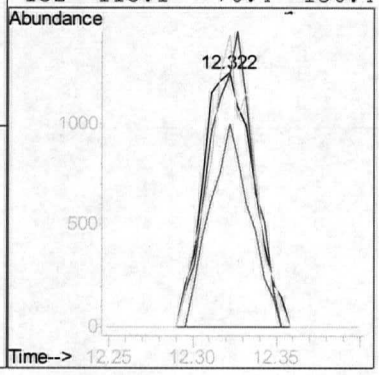
SGS ACCUTEST JC14082



#75
trichloroethene
Concen: 1.56 ug/L
RT: 12.322 min Scan# 1543
Delta R.T. 0.000 min
Lab File: 2C136723.D
Acq: 13 Feb 2016 1:57 am

Tgt Ion: 95 Resp: 2638

Ion	Ratio	Lower	Upper
95	100		
97	79.8	33.3	93.3
130	99.7	74.4	134.4
132	115.1	76.4	136.4



7.1.12

7

SGS ACCUTEST JC14082

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136709.D
Acq On : 12 Feb 2016 7:13 pm
Operator : ToanP
Sample : jc14082-12
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 15 09:12:01 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.698	65	151668	500.00	ug/L	0.00
5) pentafluorobenzene	11.084	168	225955	50.00	ug/L	0.00
61) 1,4-difluorobenzene	12.002	114	262195	50.00	ug/L	0.00
92) chlorobenzene-d5	14.948	117	233819	50.00	ug/L	0.00
107) 1,4-dichlorobenzene-d4	17.103	152	144454	50.00	ug/L	0.00
System Monitoring Compounds						
54) dibromofluoromethane (s)	11.163	113	95566	53.33	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 106.66%			
55) 1,2-dichloroethane-d4 (s)	11.587	65	100818	54.78	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 109.56%			
84) toluene-d8 (s)	13.538	98	319020	52.95	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 105.90%			
109) 4-bromofluorobenzene (s)	16.013	95	125509	52.77	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 105.54%			

Target Compounds Qvalue

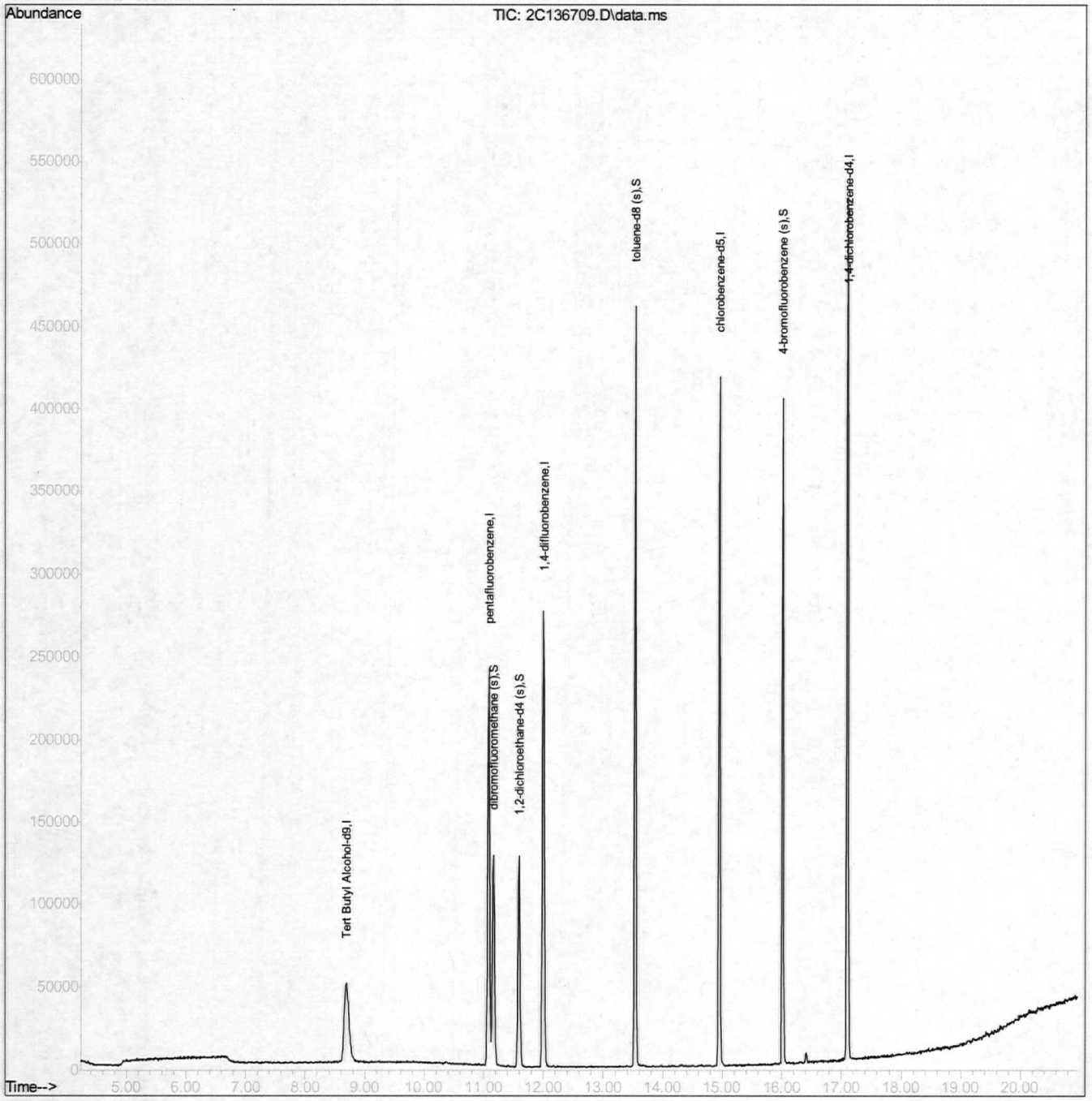
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.13 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136709.D
Acq On : 12 Feb 2016 7:13 pm
Operator : ToanP
Sample : jc14082-12
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Feb 15 09:12:01 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration



M2C6139.m Mon Feb 15 09:12:07 2016 RPT1

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136697.D
Acq On : 12 Feb 2016 1:16 pm
Operator : ToanP
Sample : mb
Misc : MS98346,V2C6152,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 12 17:04:07 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.698	65	155157	500.00	ug/L	0.00
5) pentafluorobenzene	11.084	168	227724	50.00	ug/L	0.00
61) 1,4-difluorobenzene	11.996	114	263679	50.00	ug/L	0.00
92) chlorobenzene-d5	14.948	117	236457	50.00	ug/L	0.00
107) 1,4-dichlorobenzene-d4	17.103	152	143674	50.00	ug/L	0.00
System Monitoring Compounds						
54) dibromofluoromethane (s)	11.163	113	95015	52.61	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 105.22%			
55) 1,2-dichloroethane-d4 (s)	11.587	65	103012	55.54	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 111.08%			
84) toluene-d8 (s)	13.538	98	320657	52.92	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 105.84%			
109) 4-bromofluorobenzene (s)	16.012	95	125503	53.05	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 106.10%			

Target Compounds Qvalue

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

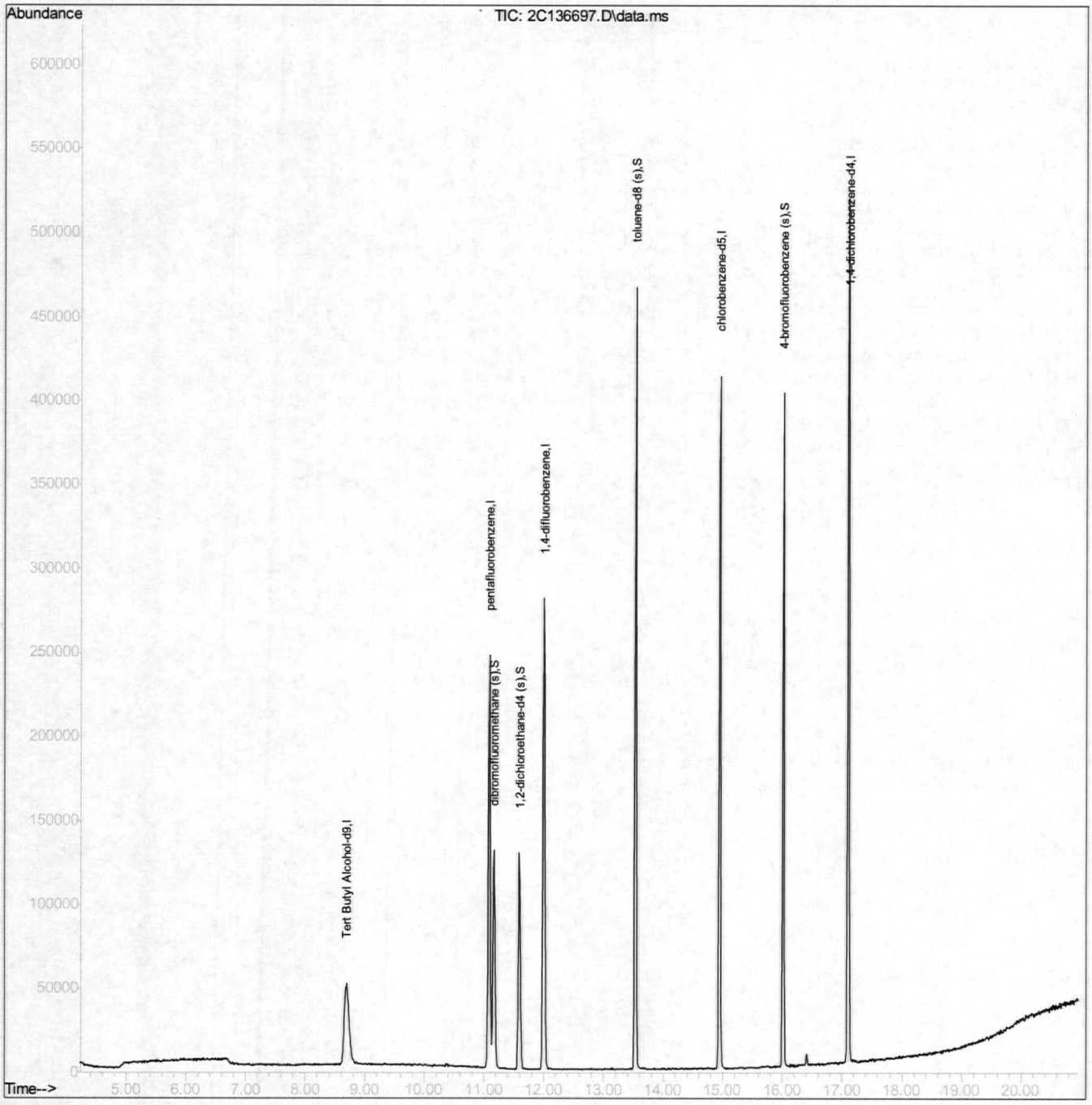
7.2.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136697.D
Acq On : 12 Feb 2016 1:16 pm
Operator : ToanP
Sample : mb
Misc : MS98346,V2C6152,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Feb 12 17:04:07 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration



7.2.1

7

M2C6139.m Fri Feb 12 17:04:39 2016 RPT1

SGS ACCUTEST JC14082

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136719.D
Acq On : 13 Feb 2016 12:02 am
Operator : ToanP
Sample : mb2
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Feb 15 09:30:53 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Tert Butyl Alcohol-d9	8.699	65	149960	500.00 ug/L	0.00
5) pentafluorobenzene	11.084	168	220478	50.00 ug/L	0.00
61) 1,4-difluorobenzene	11.996	114	259276	50.00 ug/L	0.00
92) chlorobenzene-d5	14.948	117	232076	50.00 ug/L	0.00
107) 1,4-dichlorobenzene-d4	17.103	152	143179	50.00 ug/L	0.00
System Monitoring Compounds					
54) dibromofluoromethane (s)	11.163	113	92667	53.00 ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 106.00%		
55) 1,2-dichloroethane-d4 (s)	11.588	65	100039	55.71 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 111.42%		
84) toluene-d8 (s)	13.538	98	313123	52.56 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 105.12%		
109) 4-bromofluorobenzene (s)	16.013	95	125063	53.05 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 106.10%		

Target Compounds Qvalue

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

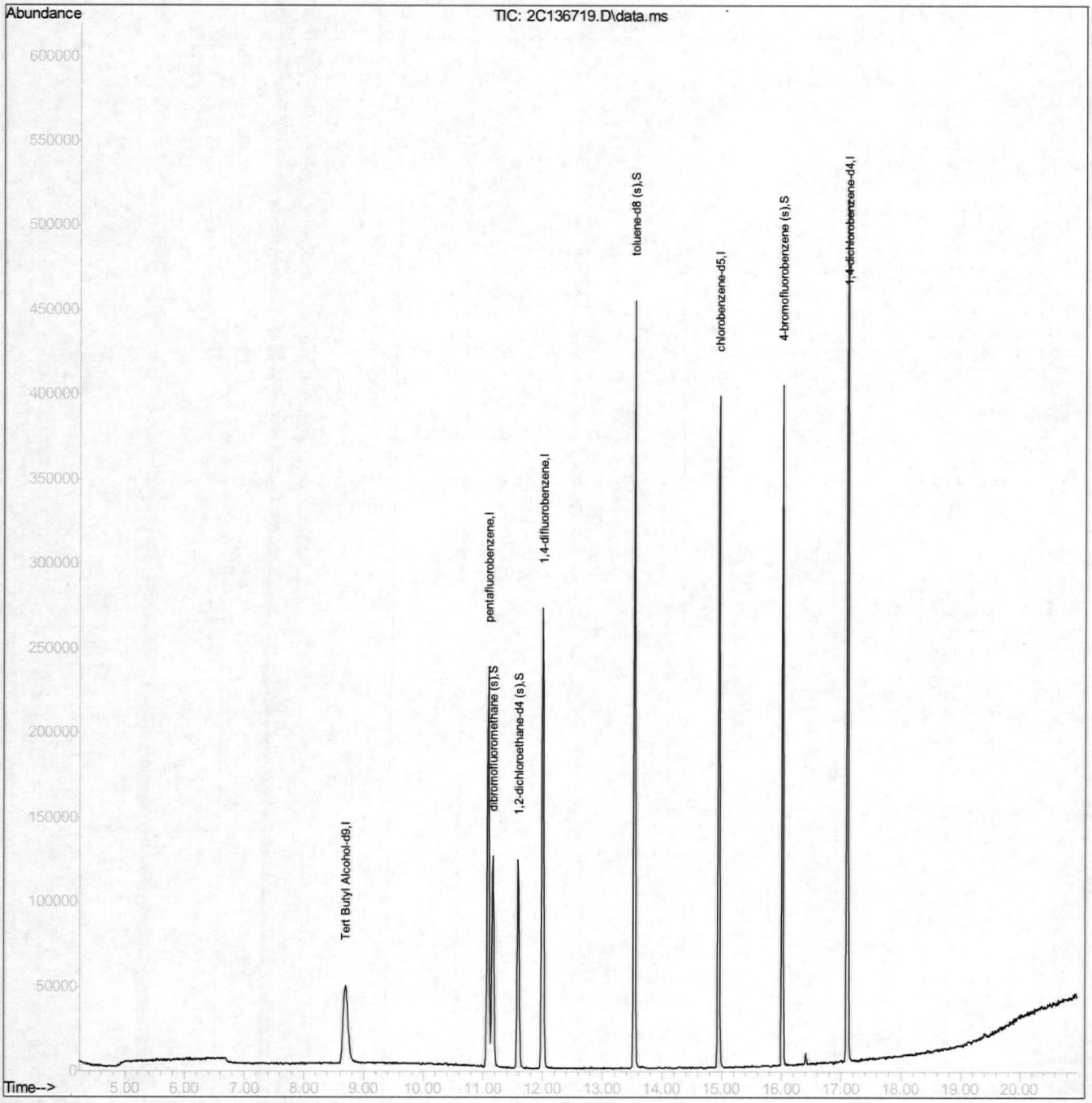
7.2.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136719.D
Acq On : 13 Feb 2016 12:02 am
Operator : ToanP
Sample : mb2
Misc : MS98363,V2C6152,5,,,,1
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Feb 15 09:30:53 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration



7.2.2

7

M2C6139.m Mon Feb 15 09:31:04 2016 RPT1

SGS ACCUTEST JC14082

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136728.D
Acq On : 13 Feb 2016 10:53 am
Operator : ToanP
Sample : mb
Misc : MS98363,V2C6153,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 15 09:47:23 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.693	65	158089	500.00	ug/L	-0.01
5) pentafluorobenzene	11.084	168	216236	50.00	ug/L	0.00
61) 1,4-difluorobenzene	11.997	114	251844	50.00	ug/L	0.00
92) chlorobenzene-d5	14.948	117	226256	50.00	ug/L	0.00
107) 1,4-dichlorobenzene-d4	17.098	152	139004	50.00	ug/L	0.00
System Monitoring Compounds						
54) dibromofluoromethane (s)	11.163	113	92185	53.76	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 107.52%			
55) 1,2-dichloroethane-d4 (s)	11.588	65	98145	55.72	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 111.44%			
84) toluene-d8 (s)	13.538	98	304638	52.64	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 105.28%			
109) 4-bromofluorobenzene (s)	16.013	95	120275	52.55	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 105.10%			

Target Compounds Qvalue

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

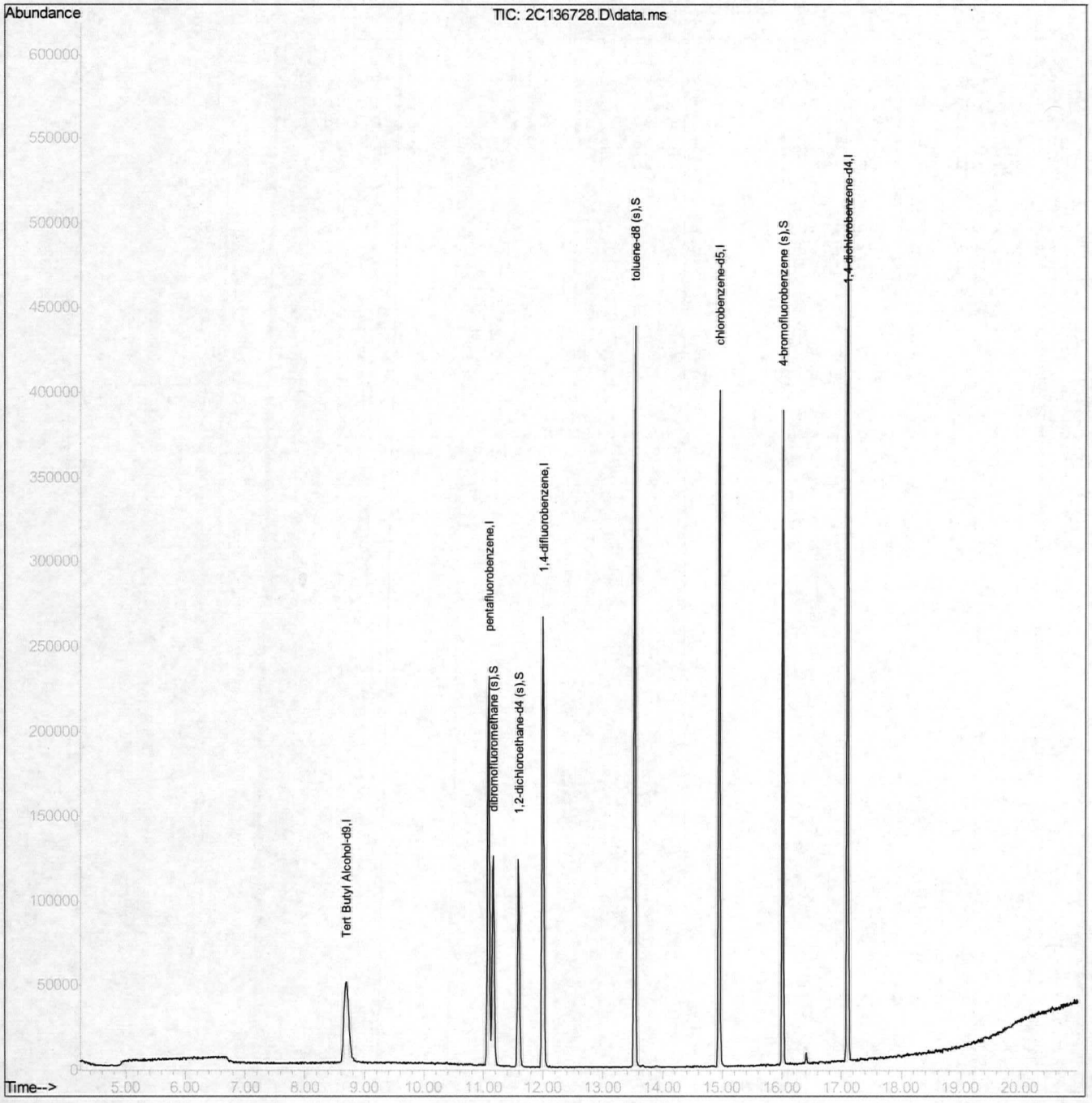
7.2.3

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136728.D
Acq On : 13 Feb 2016 10:53 am
Operator : ToanP
Sample : mb
Misc : MS98363,V2C6153,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Feb 15 09:47:23 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration



M2C6139.m Mon Feb 15 09:47:33 2016 RPT1

SGS ACCUTEST JC14082

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136698.D
Acq On : 12 Feb 2016 1:52 pm
Operator : ToanP
Sample : bs
Misc : MS98346,V2C6152,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 12 17:05:16 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.693	65	142216	500.00	ug/L	-0.01
5) pentafluorobenzene	11.084	168	201639	50.00	ug/L	0.00
61) 1,4-difluorobenzene	11.996	114	236437	50.00	ug/L	0.00
92) chlorobenzene-d5	14.948	117	206102	50.00	ug/L	0.00
107) 1,4-dichlorobenzene-d4	17.103	152	121589	50.00	ug/L	0.00
System Monitoring Compounds						
54) dibromofluoromethane (s)	11.163	113	85956	53.75	ug/L	0.00
Spiked Amount 50.000	Range 76 - 120		Recovery = 107.50%			
55) 1,2-dichloroethane-d4 (s)	11.587	65	87921	53.53	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 107.06%			
84) toluene-d8 (s)	13.538	98	284736	52.41	ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 104.82%			
109) 4-bromofluorobenzene (s)	16.013	95	110119	55.01	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 110.02%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	8.830	59	87551	253.37	ug/L	97
4) 1,4-dioxane	12.699	88	30168	1295.96	ug/L	94
11) chlorodifluoromethane	4.588	51	180512	65.49	ug/L	97
12) dichlorodifluoromethane	4.557	85	152631	46.22	ug/L	98
15) chloromethane	5.002	50	195251	47.78	ug/L	97
16) vinyl chloride	5.322	62	186927	52.34	ug/L	99
17) bromomethane	6.108	94	101311	46.06	ug/L	100
18) chloroethane	6.308	64	81171	55.62	ug/L	97
19) trichlorofluoromethane	6.863	101	170990	47.40	ug/L	100
21) ethyl ether	7.351	74	49843	52.05	ug/L	90
22) 2-CHLOROPROPANE	7.592	43	207602	58.74	ug/L	97
26) acrolein	7.702	56	259593	499.74	ug/L	100
27) 1,1-dichloroethene	7.860	61	155187	55.77	ug/L	98
28) acetone	7.970	58	10436	54.25	ug/L #	63
29) allyl chloride	8.484	76	54983	49.72	ug/L	89
30) acetonitrile	8.505	40	127115	560.36	ug/L #	31
31) iodomethane	8.206	142	207589	54.28	ug/L	98
32) iso-butyl alcohol	11.399	42	38331	501.70	ug/L	90
33) carbon disulfide	8.326	76	405194	60.40	ug/L	98
34) methylene chloride	8.725	84	112980	55.00	ug/L	100
35) 1-CHLOROPROPANE	8.735	42	180793	52.81	ug/L	99
36) methyl acetate	8.484	74	16294	51.59	ug/L	94
37) methyl tert butyl ether	9.045	73	662234	105.63	ug/L	93
38) trans-1,2-dichloroethene	9.118	61	131767	50.90	ug/L	98
39) di-isopropyl ether	9.695	45	372281	56.02	ug/L	98
40) 2-butanone	10.534	72	11585	50.22	ug/L #	90
41) 1,1-dichloroethane	9.763	63	172110	54.67	ug/L	99
42) chloroprene	9.862	53	123031	53.75	ug/L	97
43) acrylonitrile	9.123	53	213280	257.27	ug/L	96
44) vinyl acetate	9.737	86	17152	56.62	ug/L	96
45) ethyl tert-butyl ether	10.203	59	362926	57.73	ug/L	99
46) ethyl acetate	10.528	45	14193	49.49	ug/L	83

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136698.D
Acq On : 12 Feb 2016 1:52 pm
Operator : ToanP
Sample : bs
Misc : MS98346,V2C6152,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 12 17:05:16 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
47)	2,2-dichloropropane	10.555	77	160599	51.54	ug/L		99
48)	cis-1,2-dichloroethene	10.565	96	103438	48.85	ug/L		91
49)	propionitrile	10.680	54	171034	510.47	ug/L		98
50)	bromochloromethane	10.901	128	50265	50.44	ug/L		96
51)	tetrahydrofuran	10.922	42	38161	49.77	ug/L		96
52)	chloroform	10.953	83	154717	53.83	ug/L		97
53)	t-butyl formate	10.969	59	92029	50.37	ug/L		95
56)	freon 113	7.802	151	94776	63.41	ug/L		96
57)	methacrylonitrile	10.848	67	39278	50.60	ug/L		97
58)	1,1,1-trichloroethane	11.189	97	156300	60.61	ug/L		94
59)	Cyclohexane	11.241	84	154038	58.23	ug/L		94
63)	epichlorohydrin	13.208	57	50234	245.28	ug/L		96
64)	n-butyl alcohol	12.133	56	172390	2164.47	ug/L		96
65)	carbon tetrachloride	11.388	117	133411	54.45	ug/L		99
66)	1,1-dichloropropene	11.362	75	112217	53.07	ug/L		96
67)	hexane	9.406	57	89115	52.75	ug/L		100
69)	iso-octane	11.587	57	368054	58.07	ug/L		98
70)	benzene	11.640	78	326012	47.30	ug/L		98
71)	tert-amyl methyl ether	11.640	87	71406	54.43	ug/L		96
72)	heptane	11.750	57	52881	48.33	ug/L		97
73)	isopropyl acetate	11.545	43	262501	57.60	ug/L		99
74)	1,2-dichloroethane	11.677	62	103221	49.46	ug/L		98
75)	trichloroethene	12.321	95	81776	51.31	ug/L		98
76)	2-nitropropane	13.082	41	33085	48.42	ug/L	#	45
77)	2-chloroethyl vinyl ether	13.066	63	259113	250.96	ug/L		99
78)	methyl methacrylate	12.563	100	21719	50.34	ug/L	#	87
79)	1,2-dichloropropane	12.589	63	82755	50.38	ug/L		99
80)	dibromomethane	12.751	93	52782	48.54	ug/L		98
81)	methylcyclohexane	12.505	83	154709	57.40	ug/L		97
82)	bromodichloromethane	12.861	83	110969	51.06	ug/L		99
83)	cis-1,3-dichloropropene	13.281	75	130700	48.22	ug/L		95
85)	4-methyl-2-pentanone	13.360	58	38992	53.73	ug/L		97
86)	toluene	13.606	92	185872	50.36	ug/L		98
87)	3-methyl-1-butanol	13.375	55	106403	900.90	ug/L		96
88)	trans-1,3-dichloropropene	13.805	75	113971	46.42	ug/L		94
89)	ethyl methacrylate	13.763	69	99782	49.46	ug/L		97
90)	1,1,2-trichloroethane	14.010	83	60475	49.96	ug/L		96
91)	2-hexanone	14.146	58	33025	48.09	ug/L		96
93)	tetrachloroethene	14.141	164	70024	49.74	ug/L		98
94)	1,3-dichloropropane	14.177	76	108183	48.11	ug/L		98
95)	butyl acetate	14.193	56	56811	51.29	ug/L		98
96)	3,3-dimethyl-1-butanol	14.303	57	125955	490.88	ug/L		99
97)	dibromochloromethane	14.429	129	88147	49.29	ug/L		95
98)	1,2-dibromoethane	14.571	107	76846	49.26	ug/L		99
99)	BUTYL ETHER	14.838	57	386614	58.82	ug/L		99
100)	chlorobenzene	14.980	112	211317	50.55	ug/L		98
101)	1,1,1,2-tetrachloroethane	15.032	131	90237	49.55	ug/L		95
102)	ethylbenzene	15.006	91	347676	48.94	ug/L		99
103)	m,p-xylene	15.105	106	269895	101.97	ug/L		98
104)	o-xylene	15.493	106	149877	54.14	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136698.D
Acq On : 12 Feb 2016 1:52 pm
Operator : ToanP
Sample : bs
Misc : MS98346,V2C6152,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 12 17:05:16 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration

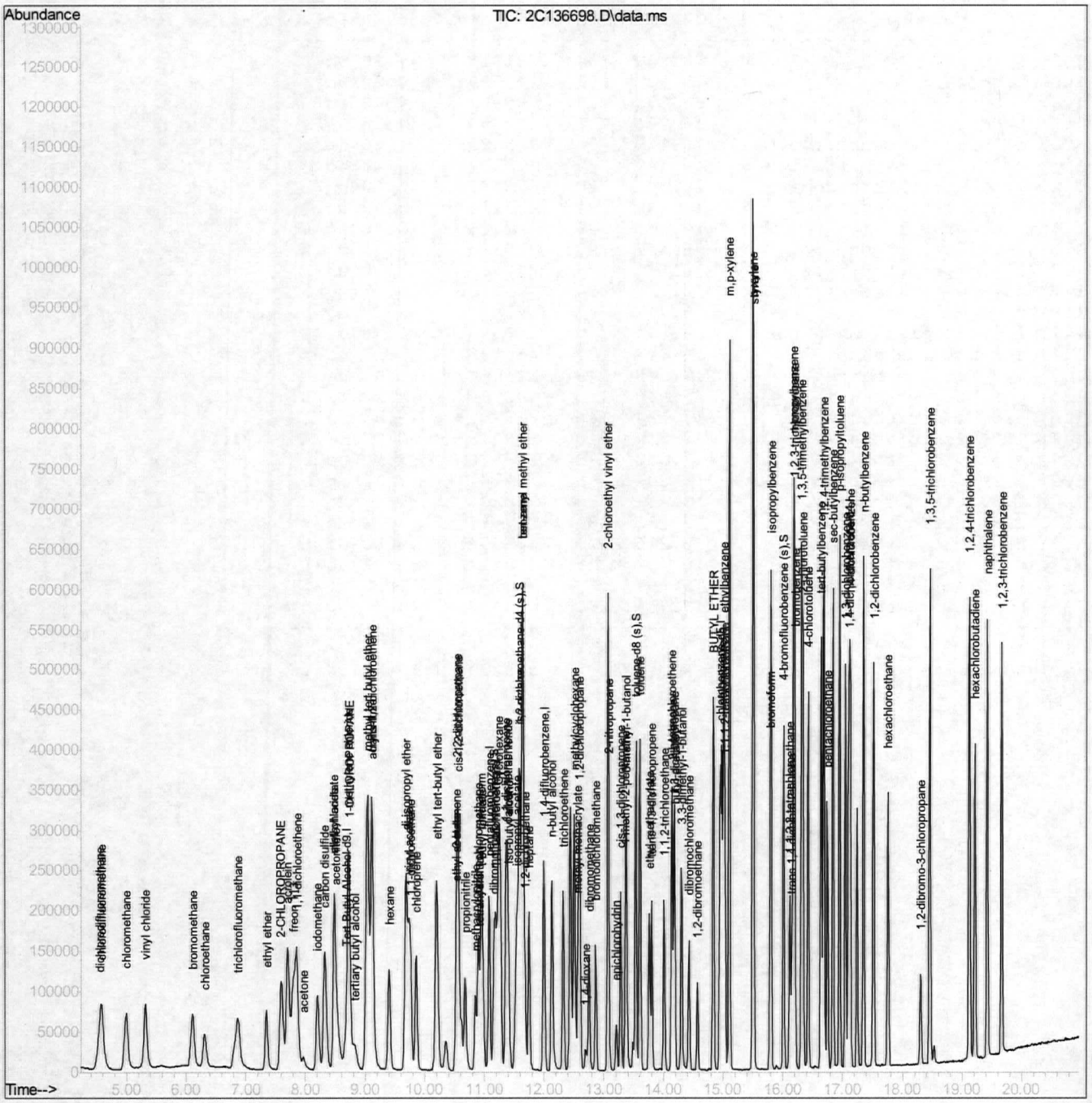
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
105) styrene	15.509	104	231913	49.30	ug/L	99
106) bromoform	15.787	173	72129	50.34	ug/L	99
108) isopropylbenzene	15.803	105	395962	54.77	ug/L	99
111) bromobenzene	16.201	156	102950	44.36	ug/L	99
112) 1,1,2,2-tetrachloroethane	16.112	83	115083	51.36	ug/L	98
113) trans-1,4-dichloro-2-b...	16.149	88	15367	49.93	ug/L	97
114) 1,2,3-trichloropropane	16.191	110	25492	48.60	ug/L	89
115) n-propylbenzene	16.180	91	453134	54.80	ug/L	100
116) 2-chlorotoluene	16.332	126	92406	48.48	ug/L	91
117) 4-chlorotoluene	16.427	91	273315	52.84	ug/L	96
118) 1,3,5-trimethylbenzene	16.311	105	340475	53.29	ug/L	99
119) tert-butylbenzene	16.642	134	65219	50.47	ug/L	92
120) pentachloroethane	16.747	167	75403	55.20	ug/L	96
121) 1,2,4-trimethylbenzene	16.684	105	352665	52.46	ug/L	98
122) sec-butylbenzene	16.841	105	458233	54.29	ug/L	98
123) 1,3-dichlorobenzene	17.045	146	219964	49.42	ug/L	98
124) p-isopropyltoluene	16.946	119	402884	54.27	ug/L	98
126) 1,4-dichlorobenzene	17.124	146	217787	49.84	ug/L	97
127) 1,2-dichlorobenzene	17.517	146	230523	50.27	ug/L	100
128) n-butylbenzene	17.350	92	208226	53.90	ug/L	97
129) 1,2-dibromo-3-chloropr...	18.304	75	27761	47.72	ug/L	97
130) 1,3,5-trichlorobenzene	18.461	180	236207	51.48	ug/L	99
131) 1,2,4-trichlorobenzene	19.122	180	217667	52.29	ug/L	99
132) hexachlorobutadiene	19.216	225	109494	46.98	ug/L	98
133) naphthalene	19.421	128	460412	52.22	ug/L	99
134) 1,2,3-trichlorobenzene	19.667	180	192759	51.22	ug/L	99
135) hexachloroethane	17.758	201	77433	44.89	ug/L	95

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

7.3.1

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\
Data File : 2C136698.D
Acq On : 12 Feb 2016 1:52 pm
Operator : ToanP
Sample : bs
Misc : MS98346,V2C6152,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Feb 12 17:05:16 2016
Quant Method : C:\msdchem\1\METHODS\M2C6139.m
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri Feb 12 08:55:34 2016
Response via : Initial Calibration