```
          1.430 1.319 1.370 1.446 1.435 1.393 1.427 1.091 1.435 1.649  1.399    9.87
54)  tert-amyl methyl ether
          0.940 0.964 0.918 0.960 1.037 0.914 0.993 0.955 1.030 1.081  0.979    5.62
55)  heptane
          0.248 0.227 0.241 0.257 0.258 0.252 0.255 0.204 0.256        0.244    7.39
56)  isopropyl acetate
                0.047 0.052 0.053 0.059 0.053 0.050       0.055        0.053    7.52
57)  1,2-dichloroethane
          0.416 0.417 0.377 0.404 0.431 0.363 0.432 0.433 0.447 0.496  0.422    8.75
58)  n-butyl alcohol
                0.004 0.006 0.006 0.006 0.006 0.005       0.005        0.005   11.12
59)  ethyl acrylate
          0.244 0.269 0.333 0.335 0.334 0.336 0.310       0.331        0.311   11.45
60)  trichloroethene
          0.346 0.336 0.332 0.341 0.358 0.336 0.343 0.323 0.348        0.340    2.99
61)  2-nitropropane
                0.056 0.063 0.064 0.066 0.065 0.062       0.064        0.063    5.12
62)  2-chloroethyl vinyl ether
                0.131 0.159 0.163 0.166 0.158 0.153       0.159        0.156    7.44
63)  methyl methacrylate
                0.057 0.066 0.068 0.071 0.067 0.063       0.067        0.066    6.77
64)  1,2-dichloropropane
          0.345 0.363 0.334 0.359 0.381 0.334 0.380 0.344 0.392 0.378  0.361    5.83
65)  dibromomethane
          0.231 0.205 0.195 0.201 0.220 0.193 0.214 0.183 0.214        0.206    7.29
66)  methylcyclohexane
          0.563 0.588 0.616 0.651 0.639 0.629 0.622 0.504 0.628 0.653  0.609    7.57
67)  bromodichloromethane
          0.459 0.457 0.436 0.452 0.476 0.440 0.459 0.406 0.471 0.424  0.448    4.82
68)  epichlorohydrin
          0.017 0.023 0.024 0.024 0.026 0.025 0.025       0.025        0.024   11.47
69)  cis-1,3-dichloropropene
          0.521 0.529 0.544 0.559 0.580 0.548 0.550 0.450 0.561 0.576  0.542    6.85
70)  4-methyl-2-pentanone
          0.098 0.105 0.108 0.112 0.117 0.109 0.108 0.097 0.114 0.089  0.106    8.11
71)  3-methyl-1-butanol
          0.008 0.009 0.010 0.010 0.011 0.010 0.010       0.010        0.010    7.64

72) I   chlorobenzene-d5       ----------------ISTD---------------------
73)  toluene-d8 (s)
          1.253 1.253 1.210 1.217 1.239 1.192 1.257 1.262 1.258 1.259  1.240    2.01
74)  toluene
          0.813 0.790 0.762 0.799 0.858 0.759 0.841 0.808 0.837 0.959  0.823    7.04
75)  trans-1,3-dichloropropene
          0.426 0.445 0.479 0.491 0.510 0.473 0.470 0.400 0.501 0.478  0.467    7.33
76)  ethyl methacrylate
          0.321 0.345 0.391 0.396 0.406 0.386 0.365       0.398        0.376    7.97
77)  1,1,2-trichloroethane
          0.260 0.264 0.242 0.252 0.272 0.237 0.267 0.225 0.269        0.254    6.44
78)  3,3-dimethyl-1-butanol
          0.017 0.018 0.025 0.024 0.024 0.026 0.021       0.023        0.022   14.44
79)  tetrachloroethene
          0.324 0.301 0.287 0.305 0.321 0.281 0.325 0.306 0.321        0.308    5.27
80)  1,3-dichloropropane
          0.471 0.487 0.454 0.480 0.511 0.436 0.496 0.443 0.522 0.449  0.475    6.20
81)  2-hexanone
          0.075 0.090 0.097 0.101 0.106 0.095 0.097       0.104        0.096   10.36
82)  butyl acetate
          0.148 0.159 0.190 0.191 0.198 0.191 0.192       0.195        0.183   10.13
83)  dibromochloromethane
```

Initial Calibration Summary

Job Number: JC48812 **Sample:** V2D7077-ICC7077
Account: UTC United Technologies Corporation **Lab FileID:** 2D168763.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

```
          0.361 0.376 0.350 0.364 0.390 0.341 0.387 0.357 0.385 0.335  0.364    5.35
 84)  1,2-dibromoethane
          0.287 0.295 0.300 0.311 0.324 0.297 0.314 0.303 0.318        0.305    3.96
 85)  n-butyl ether
          1.322 1.314 1.417 1.487 1.560 1.395 1.422 1.253 1.534 1.236  1.394    8.06
 86)  chlorobenzene
          0.951 0.962 0.888 0.936 1.006 0.871 0.996 0.910 1.003 1.119  0.964    7.47
 87)  1,1,1,2-tetrachloroethane
          0.360 0.374 0.354 0.372 0.397 0.347 0.391 0.391 0.398 0.368  0.375    4.88
 88)  ethylbenzene
          1.537 1.573 1.450 1.548 1.678 1.408 1.655 1.445 1.693 1.723  1.571    7.20
 89)  m,p-xylene
          1.139 1.171 1.128 1.204 1.310 1.092 1.257 1.095 1.301 1.356  1.205    7.91
 90)  o-xylene
          0.566 0.613 0.607 0.642 0.689 0.604 0.640 0.547 0.670 0.608  0.618    7.03
 91)  styrene
          0.902 0.913 0.976 1.050 1.131 0.949 1.060 0.813 1.104 0.990  0.989   10.03
 92)  butyl acrylate
                0.464 0.660 0.657 0.640 0.678 0.535       0.588        0.603   13.06
 93)  bromoform
          0.254 0.264 0.265 0.271 0.285 0.266 0.268 0.249 0.279        0.267    4.13
 94)  isopropylbenzene
          1.458 1.466 1.637 1.720 1.809 1.609 1.655 1.322 1.739 1.636  1.605    9.24
 95)  cis-1,4-dichloro-2-butene
                0.098 0.121 0.124 0.125 0.122 0.114       0.121        0.118    7.94

 96) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
 97)  4-bromofluorobenzene (s)
          0.903 0.903 0.892 0.900 0.881 0.887 0.894 0.912 0.886 0.917  0.898    1.32
 98)  bromobenzene
          0.822 0.875 0.778 0.822 0.886 0.754 0.850 0.802 0.891 0.962  0.844    7.29
 99)  1,1,2,2-tetrachloroethane
          0.778 0.782 0.742 0.777 0.796 0.736 0.815 0.814 0.806 0.805  0.785    3.57
100)  trans-1,4-dichloro-2-butene
          0.139 0.171 0.183 0.188 0.188 0.181 0.164       0.179        0.174    9.39
101)  1,2,3-trichloropropane
          0.188 0.197 0.174 0.187 0.201 0.168 0.202       0.201        0.190    6.86
102)  n-propylbenzene
          3.536 3.466 3.445 3.653 3.868 3.368 3.689 3.182 3.777 4.056  3.604    7.14
103)  2-chlorotoluene
          0.720 0.745 0.744 0.779 0.814 0.746 0.767 0.760 0.794 0.760  0.763    3.59
104)  4-chlorotoluene
          2.159 2.137 2.095 2.193 2.346 2.073 2.226 2.104 2.311 2.558  2.220    6.72
105)  1,3,5-trimethylbenzene
          2.479 2.424 2.498 2.655 2.819 2.476 2.613 2.290 2.783 2.485  2.552    6.43
106)  tert-butylbenzene
          2.155 2.109 2.380 2.485 2.527 2.353 2.255 1.978 2.385 2.244  2.287    7.52
107)  1,2,4-trimethylbenzene
          2.443 2.536 2.581 2.741 2.912 2.547 2.735 2.252 2.896 2.686  2.633    7.72
108)  sec-butylbenzene
          3.241 3.210 3.589 3.785 3.858 3.555 3.542 2.895 3.680 3.619  3.497    8.45
109)  1,3-dichlorobenzene
          1.637 1.641 1.481 1.579 1.705 1.453 1.676 1.685 1.700 1.908  1.647    7.75
110)  p-isopropyltoluene
          2.453 2.512 2.948 3.069 3.139 2.923 2.825       2.990        2.857    8.75
111)  1,4-dichlorobenzene
          1.653 1.593 1.511 1.578 1.663 1.517 1.599 1.790 1.619 1.917  1.644    7.58
112)  1,2-dichlorobenzene
          1.680 1.660 1.579 1.666 1.772 1.554 1.653 1.610 1.751 1.823  1.675    5.11
113)  benzyl chloride
```

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Initial Calibration Summary

Job Number: JC48812 **Sample:** V2D7077-ICC7077
Account: UTC United Technologies Corporation **Lab FileID:** 2D168763.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

```
          1.214 1.241 1.388 1.409 1.424 1.381 1.267 1.247 1.326 1.386  1.328    5.96
114)  n-butylbenzene
          1.231 1.255 1.556 1.608 1.603 1.569 1.401       1.494        1.465   10.40
115)  1,2-dibromo-3-chloropropane
                0.143 0.182 0.177 0.173 0.186 0.151       0.171        0.169    9.52
116)  nitrobenzene
                      0.036 0.032 0.030 0.041             0.028        0.033   15.61
117)  1,3,5-trichlorobenzene
          1.348 1.354 1.568 1.634 1.614 1.479 1.422 1.269 1.550 1.677  1.492    9.30
118)  hexachlorobutadiene
          0.687 0.688 0.732 0.775 0.776 0.687 0.715 0.672 0.729        0.718    5.37
119)  naphthalene
                      2.478 2.476 2.319 2.393 1.816       2.084        2.261   11.59
120)  2-ethylhexyl acrylate
                      0.575 0.456 0.298 0.679             0.211        0.444   43.37
           ---- Linear regression ----  Coefficient =  0.9952
             Response Ratio = -0.03691 + 0.71156 *A

121)  1,2,4-trichlorobenzene
          0.887 0.928 1.296 1.319 1.238 1.233 1.033       1.128        1.133   14.73
122)  1,2,3-trichlorobenzene
          0.814 0.820 1.152 1.171 1.105 1.099 0.922       1.028        1.014   14.21
123)  hexachloroethane
          0.559 0.576 0.629 0.648 0.635 0.635 0.595 0.527 0.618        0.602    6.81
124)  2-methylnaphthalene
                      1.132 0.968 0.724 1.222             0.547        0.919   30.59
           ---- Linear regression ----  Coefficient =  0.9990
             Response Ratio = -0.11189 + 1.26797 *A


125)     Pentafluorobenzene(A) ----------------ISTD----------------------
126)  Freon 114
          0.374 0.353 0.399 0.412 0.340 0.391 0.368       0.378        0.377    6.30

127)     1,4-Dichlorobenzene-D ----------------ISTD----------------------
128)  4-Ethyltoluene
                2.324 2.931 3.092 2.666 2.790 2.522       2.705        2.718    9.34
129)  p-Diethylbenzene
                      1.654 1.701 1.400 1.619 1.300       1.367        1.507   11.33
130)  1,2,4,5-Tetramethylbenzene
                      2.899 2.988 2.478 2.788 2.207       2.411        2.629   11.73
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          M2D7077.M          Tue Aug 08 10:53:13 2017   GCMS2D
```

6.9.1

6

Initial Calibration Verification

Job Number: JC48812
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V2D7077-ICV7077
Lab FileID: 2D168768.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2D168768.D Vial: 15
Acq On : 27 Jul 2017 1:16 am Operator: JiaminC
Sample : icv7077-50 Inst : MS2D
Misc : MS18327,V2D7077,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2D7077.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update : Fri Jul 28 12:01:55 2017
Response via : Multiple Level Calibration

Min. RRF : 0.000 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	104	0.00	7.38
2		tertiary butyl alcohol	1.133	1.139	-0.5	105	0.00	7.52
3		ethyl alcohol	0.119	0.101	15.1	96	-0.01	6.00
4		1,4-dioxane	0.082	0.080	2.4	97	0.00	12.19
5	I	pentafluorobenzene	1.000	1.000	0.0	106	0.00	10.10
6		chlorodifluoromethane	0.753	0.689	8.5	93	0.00	3.88
7		dichlorodifluoromethane	0.784	0.641	18.2	82	0.00	3.86
8		chloromethane	0.850	0.797	6.2	99	-0.01	4.19
9		vinyl chloride	0.808	0.764	5.4	96	-0.01	4.46
10		bromomethane	0.516	0.442	14.3	96	0.00	5.09
11		chloroethane	0.378	0.355	6.1	101	0.00	5.27
12		trichlorofluoromethane	0.825	0.755	8.5	93	0.00	5.78
13		ethyl ether	0.238	0.241	-1.3	106	0.00	6.20
14		acrolein	0.084	0.085	-1.2	101	0.00	6.44
15		1,1-dichloroethene	0.443	0.447	-0.9	107	0.00	6.63
16		freon 113	0.420	0.481	-14.5	116	0.00	6.63
17	m	2-chloropropane	0.927	0.911	1.7	109	0.00	6.39
18		acetone	0.035	0.032	8.6	102	0.00	6.69
19		acetonitrile	0.058	0.040	31.0#	78	0.00	7.15
20		iodomethane	0.924	0.938	-1.5	107	0.00	6.91
21		carbon disulfide	1.761	1.819	-3.3	111	0.00	7.04
22		methylene chloride	0.555	0.545	1.8	109	0.00	7.41
23		methyl acetate	0.318	0.317	0.3	108	0.00	7.21
24		methyl tert butyl ether	1.360	1.454	-6.9	111	0.00	7.83
25		trans-1,2-dichloroethene	0.501	0.484	3.4	107	0.00	7.84
26		hexane	0.681	0.555	18.5	81	0.00	8.24
27		di-isopropyl ether	1.729	1.813	-4.9	109	0.00	8.54
28		2-butanone	0.041	0.042	-2.4	103	0.00	9.38
29		1,1-dichloroethane	0.939	0.965	-2.8	111	0.00	8.50
30		chloroprene	0.706	0.744	-5.4	106	0.00	8.64
31		acrylonitrile	0.166	0.191	-15.1	120	0.00	7.78
32		vinyl acetate	0.073	0.083	-13.7	113	0.01	8.53
33		ethyl tert-butyl ether	1.612	1.723	-6.9	108	0.00	9.11
34		ethyl acetate	0.055	0.058	-5.5	109	0.00	9.43
35		2,2-dichloropropane	0.710	0.680	4.2	103	0.00	9.42
36		cis-1,2-dichloroethene	0.559	0.575	-2.9	111	0.00	9.39
37		propionitrile	0.055	0.058	-5.5	111	0.00	9.49
38		tert-Butyl Formate	0.228	0.317	-39.0#	143	0.00	9.94
39		bromochloromethane	0.270	0.276	-2.2	109	0.00	9.77
40		tetrahydrofuran	0.058	0.060	-3.4	112	0.00	9.85
41		chloroform	0.937	0.925	1.3	111	0.00	9.86

Initial Calibration Verification

Job Number: JC48812 **Sample:** V2D7077-ICV7077
Account: UTC United Technologies Corporation **Lab FileID:** 2D168768.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

42	S	dibromofluoromethane (s)	0.496	0.493	0.6	105	0.00	10.10
43		methacrylonitrile	0.167	0.181	-8.4	107	0.00	9.72
44		1,1,1-trichloroethane	0.780	0.806	-3.3	109	0.00	10.19
45		cyclohexane	0.732	0.667	8.9	94	0.00	10.29
46		1,1-dichloropropene	0.665	0.698	-5.0	110	0.00	10.42
47		isobutyl alcohol	0.014	0.015	-7.1	109	0.00	10.45
48		carbon tetrachloride	0.729	0.738	-1.2	109	0.00	10.44
49		tert-amyl alcohol	0.016	0.016	0.0	110	0.00	10.62
50	I	1,4-difluorobenzene	1.000	1.000	0.0	106	0.00	11.25
51	S	1,2-dichloroethane-d4 (s)	0.347	0.338	2.6	105	0.00	10.64
52		benzene	1.355	1.346	0.7	110	0.00	10.75
53		iso-octane	1.399	1.444	-3.2	106	0.00	10.82
54		tert-amyl methyl ether	0.979	0.969	1.0	108	0.00	10.85
55		heptane	0.244	0.267	-9.4	111	0.00	11.05
56		isopropyl acetate	0.053	0.057	-7.5	113	0.00	10.72
57		1,2-dichloroethane	0.422	0.418	0.9	110	0.00	10.76
58		n-butyl alcohol	0.005	0.005	0.0	104	0.00	11.42
59		ethyl acrylate	0.311	0.352	-13.2	112	0.00	11.74
60		trichloroethene	0.340	0.358	-5.3	112	0.00	11.68
61		2-nitropropane	0.063	0.065	-3.2	108	0.00	12.73
62		2-chloroethyl vinyl ether	0.156	0.201	-28.8	131	0.00	12.79
63		methyl methacrylate	0.066	0.069	-4.5	108	0.00	12.10
64		1,2-dichloropropane	0.361	0.372	-3.0	110	0.00	12.03
65		dibromomethane	0.206	0.209	-1.5	111	0.00	12.21
66		methylcyclohexane	0.609	0.611	-0.3	100	0.00	12.00
67		bromodichloromethane	0.448	0.471	-5.1	111	0.00	12.41
68		epichlorohydrin	0.024	0.025	-4.2	108	0.00	12.91
69		cis-1,3-dichloropropene	0.542	0.581	-7.2	111	0.00	13.05
70		4-methyl-2-pentanone	0.106	0.108	-1.9	103	0.00	13.23
71		3-methyl-1-butanol	0.010	0.010	0.0	106	0.00	13.25
72	I	chlorobenzene-d5	1.000	1.000	0.0	106	0.00	15.47
73	S	toluene-d8 (s)	1.240	1.217	1.9	106	0.00	13.45
74		toluene	0.823	0.841	-2.2	112	0.00	13.55
75		trans-1,3-dichloropropene	0.467	0.509	-9.0	110	0.00	13.81
76		ethyl methacrylate	0.376	0.400	-6.4	107	0.00	13.88
77		1,1,2-trichloroethane	0.254	0.267	-5.1	112	0.00	14.09
78		3,3-dimethyl-1-butanol	0.022	0.025	-13.6	109	0.00	14.62
79		tetrachloroethene	0.308	0.319	-3.6	111	0.00	14.33
80		1,3-dichloropropane	0.475	0.501	-5.5	111	0.00	14.34
81		2-hexanone	0.096	0.099	-3.1	105	0.00	14.39
82		butyl acetate	0.183	0.206	-12.6	114	0.00	14.52
83		dibromochloromethane	0.364	0.382	-4.9	111	0.00	14.67
84		1,2-dibromoethane	0.305	0.326	-6.9	111	0.00	14.87
85	m	n-butyl ether	1.394	1.578	-13.2	113	0.00	15.52
86		chlorobenzene	0.964	0.974	-1.0	110	0.00	15.51
87		1,1,1,2-tetrachloroethane	0.375	0.387	-3.2	110	0.00	15.60
88		ethylbenzene	1.571	1.591	-1.3	109	0.00	15.62
89		m,p-xylene	1.205	1.239	-2.8	109	0.00	15.77
90		o-xylene	0.618	0.656	-6.1	108	0.00	16.31
91		styrene	0.989	1.065	-7.7	108	0.00	16.32
92		butyl acrylate	0.603	0.677	-12.3	109	0.00	16.15
93		bromoform	0.267	0.280	-4.9	110	0.00	16.61
94		isopropylbenzene	1.605	1.760	-9.7	109	0.00	16.76
95		cis-1,4-dichloro-2-butene	0.118	0.119	-0.8	102	0.00	16.83
96	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	105	0.00	18.27
97	S	4-bromofluorobenzene (s)	0.898	0.901	-0.3	105	0.00	16.97
98		bromobenzene	0.844	0.867	-2.7	111	0.00	17.19

Initial Calibration Verification

Job Number: JC48812 **Sample:** V2D7077-ICV7077
Account: UTC United Technologies Corporation **Lab FileID:** 2D168768.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

99	1,1,2,2-tetrachloroethane	0.785	0.820	-4.5	111	0.00	17.10
100	trans-1,4-dichloro-2-bute	0.174	0.190	-9.2	106	0.00	17.16
101	1,2,3-trichloropropane	0.190	0.193	-1.6	109	0.00	17.18
102	n-propylbenzene	3.604	3.773	-4.7	109	0.00	17.25
103	2-chlorotoluene	0.763	0.815	-6.8	110	0.00	17.39
104	4-chlorotoluene	2.220	2.275	-2.5	109	0.00	17.51
105	1,3,5-trimethylbenzene	2.552	2.737	-7.2	109	0.00	17.43
106	tert-butylbenzene	2.287	2.583	-12.9	109	0.00	17.81
107	1,2,4-trimethylbenzene	2.633	2.826	-7.3	109	0.00	17.86
108	sec-butylbenzene	3.497	3.849	-10.1	107	0.00	18.05
109	1,3-dichlorobenzene	1.647	1.636	0.7	109	0.00	18.20
110	p-isopropyltoluene	2.857	3.186	-11.5	109	0.00	18.18
111	1,4-dichlorobenzene	1.644	1.654	-0.6	110	0.00	18.29
112	1,2-dichlorobenzene	1.675	1.750	-4.5	111	0.00	18.68
113	benzyl chloride	1.328	1.187	10.6	89	0.00	18.41
114	n-butylbenzene	1.465	1.661	-13.4	109	0.00	18.59
115	1,2-dibromo-3-chloropropa	0.169	0.188	-11.2	112	0.00	19.41
116	nitrobenzene	0.033	0.033	0.0	108	0.00	19.60
117	1,3,5-trichlorobenzene	1.492	1.596	-7.0	103	0.00	19.59
118	hexachlorobutadiene	0.718	0.804	-12.0	109	0.00	20.28
119	naphthalene	2.261	2.538	-12.3	108	0.00	20.42
	----------	True	Calc.	% Drift	----------		
120	2-ethylhexyl acrylate	10.000	10.157	-1.6	124	0.00	20.18
	----------	AvgRF	CCRF	% Dev	----------		
121	1,2,4-trichlorobenzene	1.133	1.367	-20.7	109	0.00	20.17
122 m	1,2,3-trichlorobenzene	1.014	1.221	-20.4	110	0.00	20.64
123	hexachloroethane	0.602	0.670	-11.3	109	0.00	18.94
	----------	True	Calc.	% Drift	----------		
124	2-methylnaphthalene	25.000	11.838	52.6#	41	0.00	21.48

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2D168763.D M2D7077.M Fri Jul 28 12:03:27 2017 GCMS2D

6.9.2 6

Initial Calibration Verification

Job Number: JC48812
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V2D7077-ICV7077
Lab FileID: 2D168769.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2D168769.D
Acq On : 27 Jul 2017 1:46 am
Sample : icv7077-50
Misc : MS18327,V2D7077,5,,,,1
MS Integration Params: rteint.p

Vial: 16
Operator: JiaminC
Inst : MS2D
Multiplr: 1.00

Method : C:\MSDCHEM\1\METHODS\M2D7077.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update : Fri Jul 28 12:01:55 2017
Response via : Multiple Level Calibration

Min. RRF : 0.000 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	115	0.00	7.39
2		tertiary butyl alcohol		----------NA----------				
3		ethyl alcohol		----------NA----------				
4		1,4-dioxane		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	116	0.00	10.10
6		chlorodifluoromethane		----------NA----------				
7		dichlorodifluoromethane		----------NA----------				
8		chloromethane		----------NA----------				
9		vinyl chloride		----------NA----------				
10		bromomethane		----------NA----------				
11		chloroethane		----------NA----------				
12		trichlorofluoromethane		----------NA----------				
13		ethyl ether		----------NA----------				
14		acrolein		----------NA----------				
15		1,1-dichloroethene		----------NA----------				
16		freon 113		----------NA----------				
17	m	2-chloropropane		----------NA----------				
18		acetone		----------NA----------				
19		acetonitrile	0.058	0.056	3.4	119	0.00	7.14
20		iodomethane		----------NA----------				
21		carbon disulfide		----------NA----------				
22		methylene chloride		----------NA----------				
23		methyl acetate		----------NA----------				
24		methyl tert butyl ether		----------NA----------				
25		trans-1,2-dichloroethene		----------NA----------				
26		hexane		----------NA----------				
27		di-isopropyl ether		----------NA----------				
28		2-butanone		----------NA----------				
29		1,1-dichloroethane		----------NA----------				
30		chloroprene		----------NA----------				
31		acrylonitrile		----------NA----------				
32		vinyl acetate		----------NA----------				
33		ethyl tert-butyl ether		----------NA----------				
34		ethyl acetate		----------NA----------				
35		2,2-dichloropropane		----------NA----------				
36		cis-1,2-dichloroethene		----------NA----------				
37		propionitrile		----------NA----------				
38		tert-Butyl Formate		----------NA----------				
39		bromochloromethane		----------NA----------				
40		tetrahydrofuran		----------NA----------				
41		chloroform		----------NA----------				

Initial Calibration Verification

Job Number: JC48812 **Sample:** V2D7077-ICV7077
Account: UTC United Technologies Corporation **Lab FileID:** 2D168769.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

42	S	dibromofluoromethane (s)	0.496	0.493	0.6	115	0.00	10.10
43		methacrylonitrile		----------NA----------				
44		1,1,1-trichloroethane		----------NA----------				
45		cyclohexane		----------NA----------				
46		1,1-dichloropropene		----------NA----------				
47		isobutyl alcohol		----------NA----------				
48		carbon tetrachloride		----------NA----------				
49		tert-amyl alcohol		----------NA----------				
50	I	1,4-difluorobenzene	1.000	1.000	0.0	113	0.00	11.25
51	S	1,2-dichloroethane-d4 (s)	0.347	0.346	0.3	114	0.00	10.64
52		benzene		----------NA----------				
53		iso-octane		----------NA----------				
54		tert-amyl methyl ether		----------NA----------				
55		heptane		----------NA----------				
56		isopropyl acetate		----------NA----------				
57		1,2-dichloroethane		----------NA----------				
58		n-butyl alcohol		----------NA----------				
59		ethyl acrylate		----------NA----------				
60		trichloroethene		----------NA----------				
61		2-nitropropane		----------NA----------				
62		2-chloroethyl vinyl ether		----------NA----------				
63		methyl methacrylate		----------NA----------				
64		1,2-dichloropropane		----------NA----------				
65		dibromomethane		----------NA----------				
66		methylcyclohexane		----------NA----------				
67		bromodichloromethane		----------NA----------				
68		epichlorohydrin		----------NA----------				
69		cis-1,3-dichloropropene		----------NA----------				
70		4-methyl-2-pentanone		----------NA----------				
71		3-methyl-1-butanol		----------NA----------				
72	I	chlorobenzene-d5	1.000	1.000	0.0	110	0.00	15.47
73	S	toluene-d8 (s)	1.240	1.247	-0.6	112	0.00	13.45
74		toluene		----------NA----------				
75		trans-1,3-dichloropropene		----------NA----------				
76		ethyl methacrylate		----------NA----------				
77		1,1,2-trichloroethane		----------NA----------				
78		3,3-dimethyl-1-butanol		----------NA----------				
79		tetrachloroethene		----------NA----------				
80		1,3-dichloropropane		----------NA----------				
81		2-hexanone		----------NA----------				
82		butyl acetate		----------NA----------				
83		dibromochloromethane		----------NA----------				
84		1,2-dibromoethane		----------NA----------				
85	m	n-butyl ether		----------NA----------				
86		chlorobenzene		----------NA----------				
87		1,1,1,2-tetrachloroethane		----------NA----------				
88		ethylbenzene		----------NA----------				
89		m,p-xylene		----------NA----------				
90		o-xylene		----------NA----------				
91		styrene		----------NA----------				
92		butyl acrylate		----------NA----------				
93		bromoform		----------NA----------				
94		isopropylbenzene		----------NA----------				
95		cis-1,4-dichloro-2-butene		----------NA----------				
96	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	104	0.00	18.27
97	S	4-bromofluorobenzene (s)	0.898	0.926	-3.1	107	0.00	16.97
98		bromobenzene		----------NA----------				

Initial Calibration Verification

Job Number: JC48812
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V2D7077-ICV7077
Lab FileID: 2D168769.D

99	1,1,2,2-tetrachloroethane		----------NA----------
100	trans-1,4-dichloro-2-bute		----------NA----------
101	1,2,3-trichloropropane		----------NA----------
102	n-propylbenzene		----------NA----------
103	2-chlorotoluene		----------NA----------
104	4-chlorotoluene		----------NA----------
105	1,3,5-trimethylbenzene		----------NA----------
106	tert-butylbenzene		----------NA----------
107	1,2,4-trimethylbenzene		----------NA----------
108	sec-butylbenzene		----------NA----------
109	1,3-dichlorobenzene		----------NA----------
110	p-isopropyltoluene		----------NA----------
111	1,4-dichlorobenzene		----------NA----------
112	1,2-dichlorobenzene		----------NA----------
113	benzyl chloride		----------NA----------
114	n-butylbenzene		----------NA----------
115	1,2-dibromo-3-chloropropa		----------NA----------
116	nitrobenzene		----------NA----------
117	1,3,5-trichlorobenzene		----------NA----------
118	hexachlorobutadiene		----------NA----------
119	naphthalene		----------NA----------
	----------	True	Calc. % Drift ----------
120	2-ethylhexyl acrylate		----------NA----------
	----------	AvgRF	CCRF % Dev ----------
121	1,2,4-trichlorobenzene		----------NA----------
122 m	1,2,3-trichlorobenzene		----------NA----------
123	hexachloroethane		----------NA----------
	----------	True	Calc. % Drift ----------
124	2-methylnaphthalene		----------NA----------

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2D168763.D M2D7077.M Fri Jul 28 12:03:29 2017 GCMS2D

6.9.3 6

Initial Calibration Verification

Job Number: JC48812
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V2D7085-ICV7077
Lab FileID: 2D168950.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\2D168950.D Vial: 14
Acq On : 5 Aug 2017 7:13 pm Operator: JiaminC
Sample : ICV7077-50 Inst : MS2D
Misc : MS18795,V2D7085,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2D7077.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update : Tue Aug 08 10:47:43 2017
Response via : Multiple Level Calibration

Min. RRF : 0.000 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	115	0.00	7.39
2		tertiary butyl alcohol		----------NA----------				
3		ethyl alcohol		----------NA----------				
4		1,4-dioxane		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	111	0.00	10.11
6		chlorodifluoromethane		----------NA----------				
7		dichlorodifluoromethane		----------NA----------				
8		chloromethane		----------NA----------				
9		vinyl chloride		----------NA----------				
10		bromomethane		----------NA----------				
11		chloroethane		----------NA----------				
12		trichlorofluoromethane		----------NA----------				
13		ethyl ether		----------NA----------				
14		acrolein		----------NA----------				
15		1,1-dichloroethene		----------NA----------				
16		freon 113		----------NA----------				
17	m	2-chloropropane		----------NA----------				
18		acetone		----------NA----------				
19		acetonitrile		----------NA----------				
20		iodomethane		----------NA----------				
21		carbon disulfide		----------NA----------				
22		methylene chloride		----------NA----------				
23		methyl acetate		----------NA----------				
24		methyl tert butyl ether		----------NA----------				
25		trans-1,2-dichloroethene		----------NA----------				
26		hexane		----------NA----------				
27		di-isopropyl ether		----------NA----------				
28		2-butanone		----------NA----------				
29		1,1-dichloroethane		----------NA----------				
30		chloroprene		----------NA----------				
31		acrylonitrile		----------NA----------				
32		vinyl acetate		----------NA----------				
33		ethyl tert-butyl ether		----------NA----------				
34		ethyl acetate		----------NA----------				
35		2,2-dichloropropane		----------NA----------				
36		cis-1,2-dichloroethene		----------NA----------				
37		propionitrile		----------NA----------				
38		tert-Butyl Formate		----------NA----------				
39		bromochloromethane		----------NA----------				
40		tetrahydrofuran		----------NA----------				
41		chloroform		----------NA----------				

Initial Calibration Verification

Job Number: JC48812 **Sample:** V2D7085-ICV7077
Account: UTC United Technologies Corporation **Lab FileID:** 2D168950.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

42	S	dibromofluoromethane (s)	0.496	0.503	-1.4	113	0.00	10.11
43		methacrylonitrile		----------NA----------				
44		1,1,1-trichloroethane		----------NA----------				
45		cyclohexane		----------NA----------				
46		1,1-dichloropropene		----------NA----------				
47		isobutyl alcohol		----------NA----------				
48		carbon tetrachloride		----------NA----------				
49		tert-amyl alcohol		----------NA----------				
50	I	1,4-difluorobenzene	1.000	1.000	0.0	108	0.00	11.26
51	S	1,2-dichloroethane-d4 (s)	0.347	0.317	8.6	100	0.00	10.65
52		benzene		----------NA----------				
53		iso-octane		----------NA----------				
54		tert-amyl methyl ether		----------NA----------				
55		heptane		----------NA----------				
56		isopropyl acetate		----------NA----------				
57		1,2-dichloroethane		----------NA----------				
58		n-butyl alcohol		----------NA----------				
59		ethyl acrylate		----------NA----------				
60		trichloroethene		----------NA----------				
61		2-nitropropane		----------NA----------				
62		2-chloroethyl vinyl ether		----------NA----------				
63		methyl methacrylate		----------NA----------				
64		1,2-dichloropropane		----------NA----------				
65		dibromomethane		----------NA----------				
66		methylcyclohexane		----------NA----------				
67		bromodichloromethane		----------NA----------				
68		epichlorohydrin		----------NA----------				
69		cis-1,3-dichloropropene		----------NA----------				
70		4-methyl-2-pentanone		----------NA----------				
71		3-methyl-1-butanol		----------NA----------				
72	I	chlorobenzene-d5	1.000	1.000	0.0	108	0.01	15.48
73	S	toluene-d8 (s)	1.240	1.221	1.5	109	0.01	13.46
74		toluene		----------NA----------				
75		trans-1,3-dichloropropene		----------NA----------				
76		ethyl methacrylate		----------NA----------				
77		1,1,2-trichloroethane		----------NA----------				
78		3,3-dimethyl-1-butanol		----------NA----------				
79		tetrachloroethene		----------NA----------				
80		1,3-dichloropropane		----------NA----------				
81		2-hexanone		----------NA----------				
82		butyl acetate		----------NA----------				
83		dibromochloromethane		----------NA----------				
84		1,2-dibromoethane		----------NA----------				
85	m	n-butyl ether		----------NA----------				
86		chlorobenzene		----------NA----------				
87		1,1,1,2-tetrachloroethane		----------NA----------				
88		ethylbenzene		----------NA----------				
89		m,p-xylene		----------NA----------				
90		o-xylene		----------NA----------				
91		styrene		----------NA----------				
92		butyl acrylate		----------NA----------				
93		bromoform		----------NA----------				
94		isopropylbenzene		----------NA----------				
95		cis-1,4-dichloro-2-butene		----------NA----------				
96	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	106	0.00	18.27
97	S	4-bromofluorobenzene (s)	0.898	0.857	4.6	101	0.01	16.98
98		bromobenzene		----------NA----------				

6.9.4 6

Initial Calibration Verification

Job Number: JC48812 **Sample:** V2D7085-ICV7077
Account: UTC United Technologies Corporation **Lab FileID:** 2D168950.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

99	1,1,2,2-tetrachloroethane		----------NA----------				
100	trans-1,4-dichloro-2-bute		----------NA----------				
101	1,2,3-trichloropropane		----------NA----------				
102	n-propylbenzene		----------NA----------				
103	2-chlorotoluene		----------NA----------				
104	4-chlorotoluene		----------NA----------				
105	1,3,5-trimethylbenzene		----------NA----------				
106	tert-butylbenzene		----------NA----------				
107	1,2,4-trimethylbenzene		----------NA----------				
108	sec-butylbenzene		----------NA----------				
109	1,3-dichlorobenzene		----------NA----------				
110	p-isopropyltoluene		----------NA----------				
111	1,4-dichlorobenzene		----------NA----------				
112	1,2-dichlorobenzene		----------NA----------				
113	benzyl chloride		----------NA----------				
114	n-butylbenzene		----------NA----------				
115	1,2-dibromo-3-chloropropa		----------NA----------				
116	nitrobenzene		----------NA----------				
117	1,3,5-trichlorobenzene		----------NA----------				
118	hexachlorobutadiene		----------NA----------				
119	naphthalene		----------NA----------				
	----------	True	Calc.	% Drift	----------		
120	2-ethylhexyl acrylate		----------NA----------				
	----------	AvgRF	CCRF	% Dev	----------		
121	1,2,4-trichlorobenzene		----------NA----------				
122 m	1,2,3-trichlorobenzene		----------NA----------				
123	hexachloroethane		----------NA----------				
	----------	True	Calc.	% Drift	----------		
124	2-methylnaphthalene		----------NA----------				
	----------	AvgRF	CCRF	% Dev	----------		
125	Pentafluorobenzene(A)	1.000	1.000	0.0	96	0.00	10.11
126	Freon 114		----------NA----------				
127	1,4-Dichlorobenzene-D4 (A	1.000	1.000	0.0	96	0.00	18.27
128	4-Ethyltoluene	2.718	3.426	-26.0	106	0.00	17.38
129	p-Diethylbenzene	1.507	1.699	-12.7	95	0.00	18.57
130	1,2,4,5-Tetramethylbenzen	2.629	3.183	-21.1	102	0.00	19.31

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2D168763.D M2D7077.M Tue Aug 08 10:52:48 2017 GCMS2D

6.9.4 6

Continuing Calibration Summary

Job Number: JC48812
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V2D7100-CC7077
Lab FileID: 2D169270.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\2D\v2d7100\2D169270.D Vial: 4
Acq On : 17 Aug 2017 2:05 pm Operator: JiaminC
Sample : cc7077-20 Inst : MS2D
Misc : MS19107,V2D7100,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2D7077.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update : Fri Jul 28 12:01:55 2017
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	107	0.00	7.39
2		tertiary butyl alcohol	1.133	1.216	-7.3	111	0.00	7.52
3		ethyl alcohol	0.119	0.113	5.0	107	0.00	6.01
4		1,4-dioxane	0.082	0.109	-32.9#	135	0.00	12.19
5	I	pentafluorobenzene	1.000	1.000	0.0	76	0.00	10.10
6		chlorodifluoromethane	0.753	0.765	-1.6	73	0.00	3.88
7		dichlorodifluoromethane	0.784	0.925	-18.0	88	0.01	3.87
8		chloromethane	0.850	0.794	6.6	69	-0.01	4.19
9		vinyl chloride	0.808	0.811	-0.4	74	0.00	4.47
10		bromomethane	0.516	0.519	-0.6	76	0.00	5.09
11		chloroethane	0.378	0.359	5.0	67	0.00	5.27
12		trichlorofluoromethane	0.825	0.995	-20.6#	87	0.01	5.79
13		ethyl ether	0.238	0.225	5.5	68	0.00	6.20
14		acrolein	0.084	0.085	-1.2	71	0.00	6.45
15		1,1-dichloroethene	0.443	0.407	8.1	65	0.00	6.63
16		freon 113	0.420	0.434	-3.3	74	0.00	6.63
17	m	2-chloropropane	0.927	0.795	14.2	64	0.00	6.39
18		acetone	0.035	0.052	-48.6#	110	0.00	6.69
19		acetonitrile	0.058	0.065	-12.1	84	0.00	7.15
20		iodomethane	0.924	0.918	0.6	70	0.00	6.91
21		carbon disulfide	1.761	1.805	-2.5	74	0.00	7.04
22		methylene chloride	0.555	0.500	9.9	66	0.00	7.40
23		methyl acetate	0.318	0.352	-10.7	80	0.00	7.21
24		methyl tert butyl ether	1.360	1.439	-5.8	75	0.00	7.83
25		trans-1,2-dichloroethene	0.501	0.467	6.8	70	0.00	7.84
26		hexane	0.681	0.671	1.5	71	0.00	8.24
27		di-isopropyl ether	1.729	1.605	7.2	64	0.00	8.55
28		2-butanone	0.041	0.052	-26.8#	88	0.00	9.38
29		1,1-dichloroethane	0.939	0.872	7.1	67	0.00	8.50
30		chloroprene	0.706	0.726	-2.8	72	0.00	8.64
31		acrylonitrile	0.166	0.179	-7.8	77	0.00	7.78
32		vinyl acetate	0.073	0.076	-4.1	74	0.01	8.53
33		ethyl tert-butyl ether	1.612	1.615	-0.2	71	0.00	9.12
34		ethyl acetate	0.055	0.060	-9.1	89	0.00	9.44
35		2,2-dichloropropane	0.710	0.792	-11.5	81	0.00	9.43
36		cis-1,2-dichloroethene	0.559	0.509	8.9	67	0.00	9.39
37		propionitrile	0.055	0.064	-16.4	81	0.00	9.49
38		tert-Butyl Formate	0.228	0.133	41.7#	42#	0.00	9.94
39		bromochloromethane	0.270	0.265	1.9	71	0.00	9.77
40		tetrahydrofuran	0.058	0.053	8.6	64	0.01	9.85
41		chloroform	0.937	0.872	6.9	70	0.00	9.86

Continuing Calibration Summary

Job Number: JC48812 **Sample:** V2D7100-CC7077
Account: UTC United Technologies Corporation **Lab FileID:** 2D169270.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

42	S	dibromofluoromethane (s)	0.496	0.499	-0.6	76	0.00	10.10
43		methacrylonitrile	0.167	0.173	-3.6	73	0.00	9.72
44		1,1,1-trichloroethane	0.780	0.823	-5.5	76	0.00	10.19
45		cyclohexane	0.732	0.662	9.6	66	0.00	10.30
46		1,1-dichloropropene	0.665	0.625	6.0	69	0.00	10.42
47		isobutyl alcohol	0.014	0.021	-50.0#	97	0.02	10.46
48		carbon tetrachloride	0.729	0.765	-4.9	76	0.00	10.44
49		tert-amyl alcohol	0.016	0.022	-37.5#	97	0.00	10.62
50	I	1,4-difluorobenzene	1.000	1.000	0.0	72	0.00	11.25
51	S	1,2-dichloroethane-d4 (s)	0.347	0.404	-16.4	84	0.00	10.64
52		benzene	1.355	1.249	7.8	65	0.00	10.75
53		iso-octane	1.399	1.496	-6.9	75	0.00	10.82
54		tert-amyl methyl ether	0.979	1.046	-6.8	73	0.00	10.85
55		heptane	0.244	0.263	-7.8	74	0.00	11.05
56		isopropyl acetate	0.053	0.056	-5.7	68	0.00	10.72
57		1,2-dichloroethane	0.422	0.460	-9.0	77	0.00	10.75
58		n-butyl alcohol	0.005	0.009	-80.0#	110	0.00	11.43
59		ethyl acrylate	0.311	0.367	-18.0	80	0.00	11.75
60		trichloroethene	0.340	0.339	0.3	69	0.00	11.69
61		2-nitropropane	0.063	0.082	-30.2#	91	0.00	12.73
62		2-chloroethyl vinyl ether	0.156	0.080	48.7#	35#	0.00	12.79
63		methyl methacrylate	0.066	0.073	-10.6	74	0.00	12.10
64		1,2-dichloropropane	0.361	0.339	6.1	64	0.00	12.03
65		dibromomethane	0.206	0.214	-3.9	71	0.00	12.22
66		methylcyclohexane	0.609	0.642	-5.4	73	0.00	11.99
67		bromodichloromethane	0.448	0.462	-3.1	70	0.00	12.41
68		epichlorohydrin	0.024	0.028	-16.7	80	0.00	12.92
69		cis-1,3-dichloropropene	0.542	0.538	0.7	67	0.00	13.05
70		4-methyl-2-pentanone	0.106	0.124	-17.0	76	0.00	13.23
71		3-methyl-1-butanol	0.010	0.015	-50.0#	101	0.00	13.25
72	I	chlorobenzene-d5	1.000	1.000	0.0	74	0.00	15.48
73	S	toluene-d8 (s)	1.240	1.217	1.9	73	0.00	13.45
74		toluene	0.823	0.773	6.1	67	0.00	13.56
75		trans-1,3-dichloropropene	0.467	0.489	-4.7	71	0.00	13.82
76		ethyl methacrylate	0.376	0.402	-6.9	74	0.00	13.88
77		1,1,2-trichloroethane	0.254	0.258	-1.6	71	0.00	14.10
78		3,3-dimethyl-1-butanol	0.022	0.031	-40.9#	98	0.00	14.62
79		tetrachloroethene	0.308	0.310	-0.6	72	0.00	14.33
80		1,3-dichloropropane	0.475	0.486	-2.3	71	0.00	14.34
81		2-hexanone	0.096	0.122	-27.1#	85	0.00	14.39
82		butyl acetate	0.183	0.207	-13.1	78	0.00	14.52
83		dibromochloromethane	0.364	0.391	-7.4	74	0.00	14.68
84		1,2-dibromoethane	0.305	0.322	-5.6	74	0.00	14.87
85	m	n-butyl ether	1.394	1.401	-0.5	67	0.00	15.52
86		chlorobenzene	0.964	0.942	2.3	70	0.00	15.51
87		1,1,1,2-tetrachloroethane	0.375	0.394	-5.1	74	0.00	15.60
88		ethylbenzene	1.571	1.584	-0.8	70	0.00	15.62
89		m,p-xylene	1.205	1.232	-2.2	70	0.00	15.77
90		o-xylene	0.618	0.630	-1.9	68	0.00	16.31
91		styrene	0.989	1.036	-4.8	68	0.00	16.33
92		butyl acrylate	0.603	0.626	-3.8	73	0.00	16.15
93		bromoform	0.267	0.301	-12.7	78	0.00	16.61
94		isopropylbenzene	1.605	1.676	-4.4	69	0.00	16.76
95		cis-1,4-dichloro-2-butene	0.118	0.126	-6.8	75	0.00	16.83
96	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	76	0.00	18.27
97	S	4-bromofluorobenzene (s)	0.898	0.878	2.2	76	0.00	16.98
98		bromobenzene	0.844	0.831	1.5	72	0.00	17.19

Continuing Calibration Summary

Job Number: JC48812 **Sample:** V2D7100-CC7077
Account: UTC United Technologies Corporation **Lab FileID:** 2D169270.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

99	1,1,2,2-tetrachloroethane	0.785	0.764	2.7	73	0.00	17.11
100	trans-1,4-dichloro-2-bute	0.174	0.160	8.0	65	0.00	17.16
101	1,2,3-trichloropropane	0.190	0.211	-11.1	80	0.00	17.19
102	n-propylbenzene	3.604	3.540	1.8	70	0.00	17.25
103	2-chlorotoluene	0.763	0.744	2.5	70	0.00	17.39
104	4-chlorotoluene	2.220	2.121	4.5	69	0.00	17.51
105	1,3,5-trimethylbenzene	2.552	2.611	-2.3	71	0.00	17.43
106	tert-butylbenzene	2.287	2.294	-0.3	69	0.00	17.81
107	1,2,4-trimethylbenzene	2.633	2.688	-2.1	71	0.00	17.86
108	sec-butylbenzene	3.497	3.518	-0.6	70	0.00	18.05
109	1,3-dichlorobenzene	1.647	1.574	4.4	70	0.00	18.21
110	p-isopropyltoluene	2.857	2.928	-2.5	71	0.00	18.18
111	1,4-dichlorobenzene	1.644	1.518	7.7	70	0.00	18.29
112	1,2-dichlorobenzene	1.675	1.629	2.7	70	0.00	18.68
113	benzyl chloride	1.328	1.613	-21.5#	87	0.00	18.42
114	n-butylbenzene	1.465	1.449	1.1	69	0.00	18.60
115	1,2-dibromo-3-chloropropa	0.169	0.188	-11.2	83	0.00	19.41
116	nitrobenzene	0.033	0.039	-18.2	99	0.00	19.60
117	1,3,5-trichlorobenzene	1.492	1.550	-3.9	73	0.00	19.59
118	hexachlorobutadiene	0.718	0.761	-6.0	75	0.00	20.29
119	naphthalene	2.261	2.216	2.0	73	0.00	20.42
	----------	True	Calc.	% Drift	----------		
120	2-ethylhexyl acrylate	4.000	3.860	3.5	58	0.00	20.18
	----------	AvgRF	CCRF	% Dev	----------		
121	1,2,4-trichlorobenzene	1.133	1.121	1.1	69	0.00	20.17
122 m	1,2,3-trichlorobenzene	1.014	1.040	-2.6	72	0.00	20.64
123	hexachloroethane	0.602	0.602	0.0	72	0.00	18.94
	----------	True	Calc.	% Drift	----------		
124	2-methylnaphthalene	10.000	9.591	4.1	69	0.00	21.48
125	Pentafluorobenzene(A)	N/A	50.00	-400.0#	659	-11.38#	10.10
126	Freon 114	N/A	0.00	100.0#	0	0.00	0.00
127	1,4-Dichlorobenzene-D4 (A)	N/A	50.00	-400.0#	527	-3.21#	18.27
128	4-Ethyltoluene	N/A	19.21	-92.1#	551	-4.05#	17.43
129	p-Diethylbenzene	N/A	0.00	100.0#	0	0.00	0.00
130	1,2,4,5-Tetramethylbenzene	N/A	0.00	100.0#	0	0.00	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2D168762.D M2D7077.M Fri Aug 18 14:17:49 2017

6.9.5 6

Continuing Calibration Summary

Job Number: JC48812
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: V2D7100-CC7077
Lab FileID: 2D169271.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\2D\v2d7100\2D169271.D Vial: 5
Acq On : 17 Aug 2017 2:36 pm Operator: JiaminC
Sample : cc7077-20 Inst : MS2D
Misc : MS19107,V2D7100,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2D7077.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update : Fri Jul 28 12:01:55 2017
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	99	0.00	7.39
2		tertiary butyl alcohol	1.133	1.210	-6.8	102	0.01	7.53
3		ethyl alcohol	0.119	0.102	14.3	88	0.00	6.01
4		1,4-dioxane	0.082	0.109	-32.9#	124	0.00	12.19
5	I	pentafluorobenzene	1.000	1.000	0.0	74	0.00	10.11
6		chlorodifluoromethane	0.753	0.742	1.5	69	0.02	3.89
7		dichlorodifluoromethane	0.784	0.933	-19.0	87	0.01	3.87
8		chloromethane	0.850	0.745	12.4	64	0.00	4.21
9		vinyl chloride	0.808	0.764	5.4	68	0.01	4.48
10		bromomethane	0.516	0.503	2.5	73	0.02	5.11
11		chloroethane	0.378	0.343	9.3	63	0.02	5.28
12		trichlorofluoromethane	0.825	0.991	-20.1#	86	0.02	5.79
13		ethyl ether	0.238	0.217	8.8	64	0.00	6.20
14		acrolein	0.084	0.093	-10.7	77	0.00	6.45
15		1,1-dichloroethene	0.443	0.464	-4.7	73	0.02	6.64
16		freon 113	0.420	0.462	-10.0	77	0.02	6.64
17	m	2-chloropropane	0.927	0.884	4.6	70	0.02	6.40
18		acetone	0.035	0.047	-34.3#	98	0.01	6.69
19		acetonitrile	0.058	0.060	-3.4	76	0.01	7.16
20		iodomethane	0.924	0.959	-3.8	72	0.01	6.92
21		carbon disulfide	1.761	1.772	-0.6	71	0.02	7.06
22		methylene chloride	0.555	0.505	9.0	66	0.00	7.41
23		methyl acetate	0.318	0.345	-8.5	77	0.01	7.21
24		methyl tert butyl ether	1.360	1.415	-4.0	73	0.00	7.83
25		trans-1,2-dichloroethene	0.501	0.475	5.2	70	0.01	7.85
26		hexane	0.681	0.667	2.1	70	0.01	8.25
27		di-isopropyl ether	1.729	1.612	6.8	63	0.00	8.55
28		2-butanone	0.041	0.051	-24.4#	84	0.01	9.39
29		1,1-dichloroethane	0.939	0.879	6.4	67	0.00	8.51
30		chloroprene	0.706	0.745	-5.5	72	0.01	8.65
31		acrylonitrile	0.166	0.171	-3.0	73	0.01	7.79
32		vinyl acetate	0.073	0.074	-1.4	70	0.01	8.53
33		ethyl tert-butyl ether	1.612	1.633	-1.3	70	0.00	9.12
34		ethyl acetate	0.055	0.062	-12.7	91	0.01	9.44
35		2,2-dichloropropane	0.710	0.812	-14.4	81	0.00	9.43
36		cis-1,2-dichloroethene	0.559	0.524	6.3	68	0.00	9.40
37		propionitrile	0.055	0.062	-12.7	77	0.00	9.49
38		tert-Butyl Formate	0.228	0.155	32.0#	48#	0.01	9.96
39		bromochloromethane	0.270	0.277	-2.6	73	0.00	9.78
40		tetrahydrofuran	0.058	0.052	10.3	62	0.00	9.84
41		chloroform	0.937	0.919	1.9	72	0.00	9.86

Continuing Calibration Summary

Job Number: JC48812 **Sample:** V2D7100-CC7077
Account: UTC United Technologies Corporation **Lab FileID:** 2D169271.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

42	S	dibromofluoromethane (s)	0.496	0.494	0.4	74	0.00	10.11
43		methacrylonitrile	0.167	0.175	-4.8	72	0.00	9.73
44		1,1,1-trichloroethane	0.780	0.840	-7.7	77	0.01	10.20
45		cyclohexane	0.732	0.671	8.3	65	0.00	10.30
46		1,1-dichloropropene	0.665	0.661	0.6	72	0.00	10.42
47		isobutyl alcohol	0.014	0.019	-35.7#	86	0.01	10.45
48		carbon tetrachloride	0.729	0.799	-9.6	78	0.00	10.45
49		tert-amyl alcohol	0.016	0.022	-37.5#	97	0.00	10.62
50	I	1,4-difluorobenzene	1.000	1.000	0.0	71	0.00	11.26
51	S	1,2-dichloroethane-d4 (s)	0.347	0.393	-13.3	80	0.00	10.64
52		benzene	1.355	1.296	4.4	66	0.00	10.75
53		iso-octane	1.399	1.534	-9.6	76	0.00	10.83
54		tert-amyl methyl ether	0.979	1.073	-9.6	73	0.00	10.85
55		heptane	0.244	0.267	-9.4	74	0.00	11.05
56		isopropyl acetate	0.053	0.060	-13.2	72	0.00	10.73
57		1,2-dichloroethane	0.422	0.479	-13.5	79	0.00	10.76
58		n-butyl alcohol	0.005	0.008	-60.0#	102	0.00	11.43
59		ethyl acrylate	0.311	0.357	-14.8	76	0.00	11.75
60		trichloroethene	0.340	0.348	-2.4	69	0.00	11.69
61		2-nitropropane	0.063	0.082	-30.2#	89	0.00	12.73
62		2-chloroethyl vinyl ether	0.156	0.079	49.4#	34#	0.00	12.79
63		methyl methacrylate	0.066	0.076	-15.2	76	0.00	12.10
64		1,2-dichloropropane	0.361	0.350	3.0	65	0.00	12.04
65		dibromomethane	0.206	0.221	-7.3	71	0.00	12.22
66		methylcyclohexane	0.609	0.648	-6.4	72	0.00	12.00
67		bromodichloromethane	0.448	0.482	-7.6	72	0.00	12.41
68		epichlorohydrin	0.024	0.028	-16.7	78	0.00	12.92
69		cis-1,3-dichloropropene	0.542	0.548	-1.1	67	0.00	13.05
70		4-methyl-2-pentanone	0.106	0.123	-16.0	74	0.00	13.23
71		3-methyl-1-butanol	0.010	0.015	-50.0#	97	0.00	13.25
72	I	chlorobenzene-d5	1.000	1.000	0.0	74	0.00	15.48
73	S	toluene-d8 (s)	1.240	1.206	2.7	72	0.00	13.46
74		toluene	0.823	0.796	3.3	68	0.00	13.56
75		trans-1,3-dichloropropene	0.467	0.487	-4.3	70	0.00	13.82
76		ethyl methacrylate	0.376	0.410	-9.0	74	0.00	13.88
77		1,1,2-trichloroethane	0.254	0.254	0.0	69	0.00	14.10
78		3,3-dimethyl-1-butanol	0.022	0.028	-27.3#	87	0.00	14.62
79		tetrachloroethene	0.308	0.334	-8.4	76	0.00	14.34
80		1,3-dichloropropane	0.475	0.496	-4.4	71	0.00	14.35
81		2-hexanone	0.096	0.117	-21.9#	81	0.00	14.39
82		butyl acetate	0.183	0.199	-8.7	74	0.00	14.52
83		dibromochloromethane	0.364	0.405	-11.3	76	0.00	14.68
84		1,2-dibromoethane	0.305	0.332	-8.9	75	0.00	14.87
85	m	n-butyl ether	1.394	1.437	-3.1	68	0.00	15.52
86		chlorobenzene	0.964	0.988	-2.5	72	0.00	15.52
87		1,1,1,2-tetrachloroethane	0.375	0.400	-6.7	74	0.00	15.60
88		ethylbenzene	1.571	1.650	-5.0	72	0.00	15.62
89		m,p-xylene	1.205	1.301	-8.0	73	0.00	15.77
90		o-xylene	0.618	0.648	-4.9	69	0.00	16.31
91		styrene	0.989	1.063	-7.5	69	0.00	16.33
92		butyl acrylate	0.603	0.627	-4.0	72	0.00	16.15
93		bromoform	0.267	0.305	-14.2	79	0.00	16.61
94		isopropylbenzene	1.605	1.734	-8.0	71	0.00	16.77
95		cis-1,4-dichloro-2-butene	0.118	0.024	79.7#	14#	0.00	16.83
96	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	75	0.00	18.27
97	S	4-bromofluorobenzene (s)	0.898	0.885	1.4	76	0.00	16.98
98		bromobenzene	0.844	0.858	-1.7	73	0.00	17.19

Continuing Calibration Summary

Job Number: JC48812 **Sample:** V2D7100-CC7077
Account: UTC United Technologies Corporation **Lab FileID:** 2D169271.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

99	1,1,2,2-tetrachloroethane	0.785	0.779	0.8	74	0.00	17.11
100	trans-1,4-dichloro-2-bute	0.174	0.038	78.2#	15#	0.00	17.17
101	1,2,3-trichloropropane	0.190	0.216	-13.7	81	0.00	17.19
102	n-propylbenzene	3.604	3.658	-1.5	71	0.00	17.25
103	2-chlorotoluene	0.763	0.774	-1.4	72	0.00	17.39
104	4-chlorotoluene	2.220	2.212	0.4	71	0.00	17.51
105	1,3,5-trimethylbenzene	2.552	2.706	-6.0	72	0.00	17.43
106	tert-butylbenzene	2.287	2.370	-3.6	71	0.00	17.81
107	1,2,4-trimethylbenzene	2.633	2.815	-6.9	73	0.00	17.86
108	sec-butylbenzene	3.497	3.650	-4.4	71	0.00	18.05
109	1,3-dichlorobenzene	1.647	1.634	0.8	72	0.00	18.21
110	p-isopropyltoluene	2.857	3.007	-5.3	72	0.00	18.18
111	1,4-dichlorobenzene	1.644	1.577	4.1	72	0.00	18.29
112	1,2-dichlorobenzene	1.675	1.687	-0.7	72	0.00	18.68
113	benzyl chloride	1.328	1.532	-15.4	81	0.00	18.42
114	n-butylbenzene	1.465	1.465	0.0	69	0.00	18.60
115	1,2-dibromo-3-chloropropa	0.169	0.183	-8.3	80	0.00	19.41
116	nitrobenzene	0.033	0.033	0.0	82	0.00	19.60
117	1,3,5-trichlorobenzene	1.492	1.583	-6.1	74	0.00	19.59
118	hexachlorobutadiene	0.718	0.767	-6.8	75	0.00	20.29
119	naphthalene	2.261	2.168	4.1	71	0.00	20.43
	----------	True	Calc.	% Drift	----------		
120	2-ethylhexyl acrylate	4.000	3.521	12.0	42	0.01	20.18
	----------	AvgRF	CCRF	% Dev	----------		
121	1,2,4-trichlorobenzene	1.133	1.141	-0.7	70	0.00	20.17
122 m	1,2,3-trichlorobenzene	1.014	1.049	-3.5	72	0.00	20.64
123	hexachloroethane	0.602	0.570	5.3	68	0.00	18.94
	----------	True	Calc.	% Drift	----------		
124	2-methylnaphthalene	10.000	9.281	7.2	64	0.00	21.48
125	Pentafluorobenzene(A)	N/A	50.00	-400.0#	648	-11.37#	10.11
126	Freon 114	N/A	0.00	100.0#	0	0.00	0.00
127	1,4-Dichlorobenzene-D4 (A)	N/A	50.00	-400.0#	521	-3.21#	18.27
128	4-Ethyltoluene	N/A	19.91	-99.1#	564	-4.05#	17.43
129	p-Diethylbenzene	N/A	0.00	100.0#	0	0.00	0.00
130	1,2,4,5-Tetramethylbenzene	N/A	0.00	100.0#	0	0.00	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2D168762.D M2D7077.M Fri Aug 18 14:18:37 2017

6.9.6

Initial Calibration Summary

Job Number: JC48812
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Sample: VL8203-ICC8203
Lab FileID: L292483.D

Response Factor Report GCMSL

Method : C:\MSDCHEM\1\METHODS\ML8203.M (RTE Integrator)
Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
Last Update : Mon Jul 17 11:06:03 2017
Response via : Initial Calibration

Calibration Files
10 =L292481.D 0.5 =L292477.D 5 =L292480.D 50 =L292483.D
100 =L292484.D 1 =L292478.D 200 =L292485.D 20 =L292482.D
2 =L292479.D 0.2 =L292476.D = =

Compound

	10	0.5	5	50	100	1	200	20	2	0.2	Avg	%RSD
1) I Tert Butyl Alcohol-d9 ----------ISTD----------												
2) 1,4-dioxane												
	0.078	0.073	0.073	0.067		0.066	0.074				0.072	6.06
3) ethanol												
	0.060	0.060	0.068	0.066	0.063	0.064	0.064	0.054			0.062	6.85
4) tertiary butyl alcohol												
	0.993	1.001	1.042	1.018	1.069	1.132	1.009	0.980			1.031	4.83
5) I pentafluorobenzene ----------ISTD----------												
6) chlorodifluoromethane												
	1.251	1.205	1.312	1.219		1.084	1.259	1.208			1.220	5.78
7) dichlorodifluoromethane												
	1.499	1.323	1.514	1.608	1.526	1.410	1.325	1.579	1.489		1.475	6.93
8) freon 142b												
											0.000	-1.00
9) chloromethane												
	1.190	1.051	1.142	1.377	1.352	1.157	1.236	1.291	1.103		1.211	9.22
10) 1,3-butadiene												
											0.000	-1.00
11) vinyl chloride												
	1.444	1.539	1.485	1.518	1.429	1.511	1.239	1.533	1.511		1.468	6.39
12) bromomethane												
	0.835	0.812	0.920	0.891	0.766	0.800	0.879	0.770			0.834	6.91
13) chloroethane												
	0.576	0.583	0.617	0.584	0.604	0.524	0.612	0.593			0.587	5.01
14) vinyl bromide												
	1.107	1.010	1.100	1.207	1.152	1.060	1.049	1.190	1.110		1.109	5.87
15) trichlorofluoromethane												
	1.407	1.217	1.421	1.452	1.374	1.302	1.221	1.464	1.419		1.364	6.95
16) ethyl ether												
	0.331	0.314	0.320	0.300	0.300	0.293	0.317	0.259			0.304	7.22
17) 2-chloropropane												
	1.150	1.182	1.202	1.162	1.109	1.113	1.024	1.160	1.166		1.141	4.63
18) acrolein												
	0.162	0.147	0.160	0.152		0.156	0.164				0.157	3.96
19) freon 113												
	0.763	0.703	0.756	0.738	0.681	0.601	0.591	0.756	0.664		0.695	9.49
20) 1,1-dichloroethene												
	0.720	0.733	0.701	0.693	0.645	0.711	0.593	0.720	0.695	0.703	0.691	6.06
21) acetone												
	0.074	0.076	0.068	0.062	0.066	0.062	0.073	0.076			0.069	8.31
22) acetonitrile												
	0.041	0.039	0.042	0.039		0.046	0.040				0.041	6.82
23) iodomethane												

Initial Calibration Summary

Job Number: JC48812 **Sample:** VL8203-ICC8203
Account: UTC United Technologies Corporation **Lab FileID:** L292483.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

	1.556	1.443	1.533	1.559	1.454	1.563	1.375	1.551	1.516	1.726	1.528	6.14
24)	iso-butyl alcohol											
											0.000	-1.00
25)	carbon disulfide											
	2.820		2.737	2.761	2.549	2.784	2.316	2.806	2.699		2.684	6.39
26)	methylene chloride											
	0.785	0.824	0.769	0.766	0.716	0.773	0.685	0.770	0.764	0.895	0.775	7.31
27)	methyl acetate											
	0.103		0.099	0.102	0.094		0.096	0.099			0.099	3.57
28)	methyl tert butyl ether											
	2.136	2.026	2.059	2.071	1.913	2.011	1.818	2.134	2.000	1.933	2.010	4.97
29)	trans-1,2-dichloroethene											
	0.614	0.648	0.612	0.586	0.540	0.568	0.494	0.611	0.630		0.589	8.19
30)	hexane											
	0.771	0.789	0.730	0.771	0.729	0.675	0.636	0.771	0.679	0.787	0.734	7.35
31)	di-isopropyl ether											
	2.189	2.103	2.114	2.065	1.923	2.095	1.773	2.104	2.053	2.299	2.072	6.85
32)	ethyl tert-butyl ether											
	2.230	2.112	2.203	2.196	2.044	2.057	1.924	2.191	2.145	1.971	2.107	4.98
33)	2-butanone											
	0.088		0.086	0.081	0.076	0.079	0.076	0.085	0.084		0.082	5.39
34)	1,1-dichloroethane											
	1.059	1.136	1.023	0.979	0.904	1.003	0.829	1.021	1.025	1.033	1.001	8.38
35)	chloroprene											
	0.863	0.904	0.824	0.830	0.789	0.807	0.725	0.865	0.794		0.822	6.33
36)	acrylonitrile											
	0.297		0.266	0.286	0.265		0.274	0.302	0.262		0.279	5.85
37)	vinyl acetate											
	0.102			0.102	0.093		0.100	0.090			0.097	5.78
38)	ethyl acetate											
	0.106		0.091	0.097	0.086		0.087	0.097			0.094	7.87
39)	2,2-dichloropropane											
	1.062	1.135	1.079	1.004	0.924	1.110	0.830	1.031	1.054	1.198	1.043	10.11
40)	cis-1,2-dichloroethene											
	0.664	0.631	0.671	0.622	0.579	0.661	0.537	0.654	0.661		0.631	7.23
41)	propionitrile											
	0.113		0.105	0.101	0.092	0.105	0.091	0.109	0.106		0.103	7.64
42)	methyl acrylate											
	0.099		0.083	0.094	0.087		0.087	0.099			0.091	7.52
43)	bromochloromethane											
	0.340	0.311	0.325	0.316	0.302	0.316	0.289	0.332	0.313		0.316	4.84
44)	tetrahydrofuran											
	0.227	0.217	0.199	0.199	0.186	0.209	0.191	0.207	0.230		0.207	7.25
45)	chloroform											
	1.054	1.120	1.042	0.992	0.926	1.063	0.863	1.024	1.073	1.163	1.032	8.52
46)	dibromofluoromethane (s)											
	0.491	0.488	0.490	0.495	0.493	0.492	0.508	0.504	0.493	0.490	0.494	1.34
47)	methacrylonitrile											
	0.399	0.316	0.382	0.366	0.347	0.347	0.348	0.373	0.363		0.360	6.68
48)	1,1,1-trichloroethane											
	1.065	0.978	1.052	1.088	1.052	0.954	0.977	1.072	1.025	1.059	1.032	4.51
49)	cyclohexane											
	1.069	1.041	1.200	1.055	0.993	0.987	0.881	1.085	1.045		1.039	8.27
50)	1,1-dichloropropene											
	0.701		0.720	0.682	0.643	0.687	0.584	0.706	0.664		0.673	6.48
51)	carbon tetrachloride											
	0.958	0.837	0.948	0.925	0.876	0.870	0.804	0.931	0.919	1.027	0.910	7.09
52)	isopropyl acetate											
	1.280	1.190	1.210	1.224	1.145	1.271	1.132	1.231	1.287		1.219	4.60
53)	tert amyl alcohol											

6.9.7 6

Initial Calibration Summary

Job Number: JC48812 **Sample:** VL8203-ICC8203
Account: UTC United Technologies Corporation **Lab FileID:** L292483.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

```
      0.038       0.036 0.034 0.031 0.037 0.032 0.036 0.039        0.035    8.48

54) I   1,4-difluorobenzene   ----------------ISTD--------------------
55)  1,2-dichloroethane-d4 (s)
      0.374 0.375 0.377 0.352 0.345 0.375 0.338 0.365 0.378 0.378  0.366    4.16
56)  tert-amyl methyl ether
      1.426 1.356 1.387 1.318 1.219 1.345 1.117 1.346 1.371 1.519  1.341    8.16
57)  2,2,4-trimethylpentane
      1.698 1.765 1.662 1.738 1.639 1.483 1.392 1.705 1.509        1.621    7.96
58)  epichlorohydrin
      0.051       0.049 0.049 0.046 0.046 0.048 0.049 0.051        0.049    3.82
59)  n-butyl alcohol
      0.017       0.015 0.016 0.014       0.014 0.016 0.016        0.016    7.42
60)  benzene
      1.532 1.578 1.549 1.435 1.307 1.483 1.165 1.474 1.519 1.706  1.475   10.13
61)  heptane
      0.279 0.295 0.291 0.267 0.253 0.252 0.223 0.277 0.239        0.264    9.12
62)  1,2-dichloroethane
      0.497 0.472 0.504 0.456 0.421 0.499 0.391 0.468 0.497 0.485  0.469    7.96
63)  trichloroethene
      0.393 0.410 0.376 0.379 0.353 0.378 0.321 0.387 0.370 0.401  0.377    6.74
64)  ethyl acrylate
      0.508       0.489 0.510 0.480 0.440 0.466 0.497 0.478        0.483    4.76
65)  2-nitropropane
      0.172       0.156 0.163 0.156       0.154 0.161              0.160    4.18
66)  2-chloroethyl vinyl ether
      0.229 0.197 0.227 0.216 0.195 0.201 0.176 0.220 0.210        0.208    8.28
67)  methyl methacrylate
      0.106       0.100 0.113 0.106       0.107 0.107              0.107    3.75
68)  1,2-dichloropropane
      0.389 0.362 0.393 0.361 0.332 0.358 0.300 0.374 0.399 0.411  0.368    9.04
69)  methylcyclohexane
      0.822 0.776 0.810 0.790 0.735 0.743 0.627 0.805 0.753 0.858  0.772    8.25
70)  dibromomethane
      0.273 0.256 0.278 0.253 0.235 0.267 0.231 0.261 0.271        0.258    6.41
71)  bromodichloromethane
      0.536 0.526 0.526 0.521 0.491 0.488 0.465 0.519 0.514 0.491  0.508    4.41
72)  cis-1,3-dichloropropene
      0.635 0.549 0.612 0.619 0.581 0.589 0.537 0.615 0.593        0.592    5.53
73)  4-methyl-2-pentanone
      0.194 0.175 0.186 0.171 0.153 0.182 0.141 0.181 0.186        0.174    9.83
74)  3-methyl-1-butanol
      0.017       0.016 0.016 0.013 0.013 0.013 0.016 0.014        0.015   11.71

75) I   chlorobenzene-d5      ----------------ISTD--------------------
76)  toluene-d8 (s)
      1.233 1.223 1.227 1.228 1.259 1.206 1.267 1.227 1.213 1.245  1.233    1.55
77)  toluene
      0.974 0.968 0.952 0.934 0.893 0.905 0.804 0.923 0.914        0.919    5.56
78)  trans-1,3-dichloropropene
      0.609 0.581 0.576 0.587 0.560 0.567 0.517 0.593 0.565 0.576  0.573    4.25
79)  ethyl methacrylate
      0.553 0.474 0.510 0.545 0.531 0.503 0.506 0.527 0.491        0.516    4.97
80)  1,1,2-trichloroethane
      0.345 0.320 0.323 0.320 0.314 0.312 0.301 0.322 0.310        0.318    3.80
81)  2-hexanone
      0.200 0.190 0.194 0.179 0.163 0.200 0.152 0.187 0.192        0.184    8.99
82)  tetrachloroethene
      0.502 0.558 0.498 0.468 0.442 0.533 0.395 0.482 0.484 0.463  0.482    9.47
83)  1,3-dichloropropane
```

6.9.7 6

Initial Calibration Summary

Job Number: JC48812 **Sample:** VL8203-ICC8203
Account: UTC United Technologies Corporation **Lab FileID:** L292483.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

```
      0.592 0.574 0.575 0.538 0.508 0.577 0.479 0.552 0.567 0.575  0.554    6.46
 84)  butyl acetate
      0.275 0.277 0.282 0.263 0.257 0.275 0.252 0.270 0.294        0.272    4.77
 85)  dibromochloromethane
      0.485 0.443 0.456 0.462 0.452 0.445 0.437 0.463 0.459 0.443  0.455    3.08
 86)  1,2-dibromoethane
      0.430 0.431 0.413 0.428 0.421 0.411 0.413 0.424 0.406 0.398  0.417    2.64
 87)  n-butyl ether
      1.580 1.608 1.554 1.543 1.461 1.456 1.272 1.577 1.495 1.706  1.525    7.57
 88)  chlorobenzene
      1.059 1.068 1.051 1.035 0.974 1.019 0.880 1.030 1.011 1.164  1.029    7.01
 89)  1,1,1,2-tetrachloroethane
      0.444 0.412 0.432 0.433 0.418 0.411 0.391 0.448 0.421 0.410  0.422    4.12
 90)  ethylbenzene
      1.811 1.887 1.770 1.684 1.558 1.746 1.324 1.744 1.732        1.695    9.77
 91)  m,p-xylene
      0.673 0.679 0.675 0.646 0.609 0.666 0.551 0.659 0.659        0.646    6.41
 92)  o-xylene
      0.734 0.723 0.705 0.708 0.679 0.751 0.619 0.712 0.713 0.784  0.713    6.12
 93)  3,3-dimethyl-1-butanol
      0.049 0.040 0.044 0.047 0.041 0.039 0.039 0.048 0.043        0.043    9.14
 94)  butyl acrylate
      0.833 0.768 0.811 0.825 0.798 0.786 0.769 0.823 0.780        0.799    3.11
 95)  styrene
      1.196 1.157 1.184 1.128 1.055 1.109 0.951 1.163 1.151 1.194  1.129    6.71
 96)  bromoform
      0.373 0.356 0.357 0.388 0.387 0.352 0.391 0.371 0.347        0.369    4.57
 97)  isopropylbenzene
      1.978 1.895 1.917 1.897 1.745 1.845 1.495 1.959 1.904 2.065  1.870    8.35
 98)  cis-1,4-dichloro-2-butene
      0.177       0.161 0.187 0.180       0.192 0.176              0.179    5.94

 99) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
100)  4-bromofluorobenzene (s)
      0.858 0.831 0.848 0.881 0.876 0.845 0.866 0.850 0.838 0.839  0.853    1.92
101)  bromobenzene
      0.921 0.827 0.871 0.875 0.821 0.872 0.727 0.884 0.896 0.882  0.858    6.38
102)  1,1,2,2-tetrachloroethane
      1.038 0.897 0.952 1.008 0.942 0.963 0.874 0.990 0.935 0.876  0.948    5.81
103)  trans-1,4-dichloro-2-butene
      0.253       0.222 0.262 0.252       0.241 0.254              0.247    5.71
104)  1,2,3-trichloropropane
      0.247       0.236 0.234 0.225 0.215 0.207 0.240 0.218        0.228    6.01
105)  n-propylbenzene
      3.825 3.654 3.671 3.466 3.072 3.544 2.452 3.589 3.545 4.299  3.512   13.72
106)  2-chlorotoluene
      0.806       0.796 0.799 0.738 0.713 0.663 0.798 0.743        0.757    6.84
107)  4-chlorotoluene
      2.415       2.357 2.258 2.056 2.434 1.756 2.302 2.327        2.238   10.16
108)  1,3,5-trimethylbenzene
      2.860 2.677 2.797 2.682 2.402 2.564 1.960 2.771 2.667 2.895  2.628   10.48
109)  tert-butylbenzene
      2.402 2.123 2.245 2.378 2.187 1.974 1.818 2.383 2.123 2.299  2.193    8.69
110)  1,2,4-trimethylbenzene
      3.020 2.894 2.913 2.754 2.466 2.779 2.045 2.870 2.791 3.322  2.785   12.15
111)  sec-butylbenzene
      3.893 3.538 3.693 3.681 3.301 3.277 2.618 3.786 3.499 3.862  3.515   10.83
112)  1,3-dichlorobenzene
      1.840 1.859 1.821 1.675 1.523 1.822 1.332 1.733 1.825 2.078  1.751   11.67
113)  p-isopropyltoluene
```

6.9.7 6

Initial Calibration Summary

Job Number: JC48812 **Sample:** VL8203-ICC8203
Account: UTC United Technologies Corporation **Lab FileID:** L292483.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

```
      3.296 2.920 3.143 3.064 2.763 2.798 2.240 3.168 2.898 3.022  2.931   10.08
114)  1,4-dichlorobenzene
      1.781 1.888 1.728 1.688 1.559 1.680 1.371 1.694 1.747 2.064  1.720   10.65
115)  1,2-dichlorobenzene
      1.970 1.775 1.896 1.832 1.662 1.921 1.434 1.889 1.900 2.125  1.840   10.15
116)  n-butylbenzene
      1.747 1.556 1.680 1.706 1.584 1.541 1.356 1.719 1.545 1.763  1.620    7.82
117)  1,2-dibromo-3-chloropropane
      0.258 0.231 0.233 0.263 0.254 0.226 0.238 0.262 0.236        0.245    5.92
118)  1,3,5-trichlorobenzene
      2.063 1.791 1.922 1.946 1.767 1.688 1.444 1.978 1.776        1.819   10.19
119)  1,2,4-trichlorobenzene
      1.729 1.277 1.536 1.733 1.574 1.184 1.288 1.690 1.329        1.482   14.52
120)  hexachlorobutadiene
      0.918 0.850 0.866 0.890 0.816 0.821 0.680 0.889 0.839        0.841    8.23
121)  naphthalene
      3.537       3.062 3.504 3.119       2.485 3.430              3.190   12.50
122)  1,2,3-trichlorobenzene
      1.456 1.198 1.320 1.464 1.355 1.061 1.143 1.437 1.139        1.286   11.97
123)  hexachloroethane
      0.565       0.506 0.654 0.650       0.611 0.598 0.462        0.578   12.49
124)  Benzyl chloride
      1.998 1.641 1.860 1.967 1.823 1.658 1.615 1.953 1.745        1.807    8.24
125)  2-ethylhexyl acrylate  **This compound doesn't meet initial calibration QC criteria**
      0.224             0.516 0.679       0.681 0.279              0.476   45.45
            ----- Linear regression -----  Coefficient =  0.9979
              Response Ratio = -0.02903 + 0.72113 *A

126)  2-methylnaphthalene
      1.153       0.781 1.640 1.658       1.482 1.288              1.334   25.11
         ----- Quadratic regression -----                Coefficient =  0.9996
              Response Ratio = -0.08229 + 1.92304 *A + -0.19934 *A^2

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

          ML8203.M          Mon Jul 17 11:07:28 2017   1
```

6.9.7 6

Initial Calibration Verification

Job Number: JC48812
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Sample: VL8203-ICV8203
Lab FileID: L292488.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\L292488.D Vial: 15
Acq On : 12 Jul 2017 3:52 pm Operator: JiaminC
Sample : icv8203-50 Inst : GCMSL
Misc : MS17946,VL8203,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\ML8203.M (RTE Integrator)
Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
Last Update : Mon Jul 17 11:06:03 2017
Response via : Multiple Level Calibration

Min. RRF : 0.000 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	99	-0.03	7.48
2		1,4-dioxane	0.072	0.068	5.6	93	0.00	11.34
3		ethanol	0.062	0.064	-3.2	93	-0.03	6.20
4	M	tertiary butyl alcohol	1.031	1.164	-12.9	110	0.02	7.64
5	I	pentafluorobenzene	1.000	1.000	0.0	106	0.00	9.77
6		chlorodifluoromethane	1.220	0.985	19.3	79	0.00	4.14
7		dichlorodifluoromethane	1.475	1.500	-1.7	99	0.00	4.12
8		freon 142b		----------NA----------				
9		chloromethane	1.211	1.278	-5.5	98	0.00	4.44
10		1,3-butadiene		----------NA----------				
11		vinyl chloride	1.468	1.423	3.1	99	0.00	4.72
12		bromomethane	0.834	0.861	-3.2	99	0.00	5.36
13		chloroethane	0.587	0.571	2.7	98	0.00	5.52
14		vinyl bromide	1.109	1.133	-2.2	99	-0.01	5.89
15		trichlorofluoromethane	1.364	1.358	0.4	99	0.00	6.04
16		ethyl ether	0.304	0.298	2.0	99	0.00	6.39
17		2-chloropropane	1.141	1.086	4.8	99	-0.01	6.62
18		acrolein	0.157	0.146	7.0	97	0.00	6.63
19		freon 113	0.695	0.808	-16.3	116	0.00	6.86
20		1,1-dichloroethene	0.691	0.641	7.2	98	0.00	6.84
21		acetone	0.069	0.059	14.5	93	0.00	6.83
22		acetonitrile	0.041	0.037	9.8	94	-0.01	7.26
23		iodomethane	1.528	1.368	10.5	93	0.00	7.11
24		iso-butyl alcohol		----------NA----------				
25		carbon disulfide	2.684	2.483	7.5	95	0.00	7.26
26		methylene chloride	0.775	0.721	7.0	99	-0.01	7.55
27		methyl acetate	0.099	0.099	0.0	102	0.00	7.29
28		methyl tert butyl ether	2.010	1.977	1.6	101	0.00	7.90
29		trans-1,2-dichloroethene	0.589	0.564	4.2	102	0.00	7.94
30		hexane	0.734	0.612	16.6	84	-0.01	8.28
31		di-isopropyl ether	2.072	2.017	2.7	103	0.00	8.50
32		ethyl tert-butyl ether	2.107	2.078	1.4	100	0.00	8.96
33		2-butanone	0.082	0.072	12.2	94	0.00	9.16
34	M	1,1-dichloroethane	1.001	0.956	4.5	103	0.00	8.52
35		chloroprene	0.822	0.779	5.2	99	0.00	8.61
36		acrylonitrile	0.279	0.307	-10.0	113	0.00	7.85
37		vinyl acetate	0.097	0.103	-6.2	107	0.00	8.45
38		ethyl acetate	0.094	0.088	6.4	97	0.00	9.17
39		2,2-dichloropropane	1.043	1.007	3.5	106	0.00	9.28
40		cis-1,2-dichloroethene	0.631	0.603	4.4	103	0.00	9.24
41		propionitrile	0.103	0.096	6.8	100	0.00	9.25

Initial Calibration Verification

Job Number: JC48812
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: VL8203-ICV8203
Lab FileID: L292488.D

42		methyl acrylate	0.091	0.089	2.2	99	-0.01	9.26
43		bromochloromethane	0.316	0.299	5.4	100	0.00	9.54
44		tetrahydrofuran	0.207	0.201	2.9	106	0.00	9.55
45		chloroform	1.032	0.967	6.3	103	0.00	9.62
46	S	dibromofluoromethane (s)	0.494	0.501	-1.4	107	-0.01	9.81
47		methacrylonitrile	0.360	0.336	6.7	97	0.00	9.44
48		1,1,1-trichloroethane	1.032	1.025	0.7	100	0.00	9.88
49		cyclohexane	1.039	0.862	17.0	86	-0.01	9.99
50		1,1-dichloropropene	0.673	0.660	1.9	102	0.00	10.04
51		carbon tetrachloride	0.910	0.875	3.8	100	0.00	10.07
52		isopropyl acetate	1.219	1.179	3.3	102	-0.01	10.19
53		tert amyl alcohol	0.035	0.032	8.6	100	0.00	10.17
54	I	1,4-difluorobenzene	1.000	1.000	0.0	106	0.00	10.70
55	S	1,2-dichloroethane-d4 (s)	0.366	0.348	4.9	105	0.00	10.23
56		tert-amyl methyl ether	1.341	1.248	6.9	100	0.00	10.37
57		2,2,4-trimethylpentane	1.621	1.704	-5.1	104	0.00	10.39
58		epichlorohydrin	0.049	0.047	4.1	102	0.00	11.88
59		n-butyl alcohol	0.016	0.015	6.3	100	0.00	10.75
60	M	benzene	1.475	1.360	7.8	100	0.00	10.29
61		heptane	0.264	0.288	-9.1	114	0.00	10.53
62		1,2-dichloroethane	0.469	0.435	7.2	101	0.00	10.32
63		trichloroethene	0.377	0.367	2.7	103	0.00	11.01
64		ethyl acrylate	0.483	0.497	-2.9	103	-0.01	10.99
65		2-nitropropane	0.160	0.166	-3.8	108	0.00	11.76
66		2-chloroethyl vinyl ether	0.208	0.238	-14.4	117	0.00	11.79
67		methyl methacrylate	0.107	0.103	3.7	97	0.00	11.26
68		1,2-dichloropropane	0.368	0.346	6.0	101	0.00	11.30
69		methylcyclohexane	0.772	0.716	7.3	96	0.00	11.31
70		dibromomethane	0.258	0.241	6.6	101	0.00	11.41
71		bromodichloromethane	0.508	0.498	2.0	101	0.00	11.56
72		cis-1,3-dichloropropene	0.592	0.600	-1.4	103	0.00	12.01
73		4-methyl-2-pentanone	0.174	0.159	8.6	99	0.00	12.11
74		3-methyl-1-butanol	0.015	0.015	0.0	99	0.00	12.10
75	I	chlorobenzene-d5	1.000	1.000	0.0	107	0.00	13.81
76	S	toluene-d8 (s)	1.233	1.223	0.8	107	0.00	12.31
77		toluene	0.919	0.891	3.0	102	0.00	12.39
78		trans-1,3-dichloropropene	0.573	0.571	0.3	104	0.00	12.57
79		ethyl methacrylate	0.516	0.512	0.8	101	0.00	12.55
80		1,1,2-trichloroethane	0.318	0.316	0.6	106	0.00	12.79
81		2-hexanone	0.184	0.163	11.4	98	0.00	12.95
82		tetrachloroethene	0.482	0.462	4.1	106	0.00	12.93
83		1,3-dichloropropane	0.554	0.519	6.3	104	0.00	12.97
84		butyl acetate	0.272	0.262	3.7	107	0.00	13.02
85		dibromochloromethane	0.455	0.453	0.4	105	0.00	13.22
86		1,2-dibromoethane	0.417	0.415	0.5	104	0.00	13.37
87		n-butyl ether	1.525	1.518	0.5	106	0.00	13.79
88		chlorobenzene	1.029	0.986	4.2	102	0.00	13.84
89		1,1,1,2-tetrachloroethane	0.422	0.415	1.7	103	0.00	13.91
90		ethylbenzene	1.695	1.622	4.3	103	0.00	13.90
91		m,p-xylene	0.646	0.619	4.2	103	0.00	14.02
92		o-xylene	0.713	0.676	5.2	102	0.00	14.42
93		3,3-dimethyl-1-butanol	0.043	0.044	-2.3	100	0.00	13.12
94		butyl acrylate	0.799	0.798	0.1	104	0.00	14.24
95		styrene	1.129	1.081	4.3	103	0.00	14.43
96		bromoform	0.369	0.371	-0.5	103	0.00	14.66
97		isopropylbenzene	1.870	1.796	4.0	102	0.00	14.76
98		cis-1,4-dichloro-2-butene	0.179	0.175	2.2	101	0.00	14.80

Initial Calibration Verification

Job Number: JC48812
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: VL8203-ICV8203
Lab FileID: L292488.D

99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	108	0.00	16.11
100	S	4-bromofluorobenzene (s)	0.853	0.882	-3.4	108	0.00	14.96
101		bromobenzene	0.858	0.850	0.9	105	0.00	15.15
102		1,1,2,2-tetrachloroethane	0.948	0.986	-4.0	106	0.00	15.04
103		trans-1,4-dichloro-2-bute	0.247	0.259	-4.9	107	0.00	15.07
104		1,2,3-trichloropropane	0.228	0.228	0.0	106	0.00	15.13
105		n-propylbenzene	3.512	3.275	6.7	102	0.00	15.17
106		2-chlorotoluene	0.757	0.759	-0.3	103	0.00	15.31
107		4-chlorotoluene	2.238	2.158	3.6	103	0.00	15.42
108		1,3,5-trimethylbenzene	2.628	2.511	4.5	101	0.00	15.33
109		tert-butylbenzene	2.193	2.237	-2.0	102	0.00	15.67
110		1,2,4-trimethylbenzene	2.785	2.605	6.5	102	0.00	15.72
111		sec-butylbenzene	3.515	3.474	1.2	102	0.00	15.88
112		1,3-dichlorobenzene	1.751	1.617	7.7	104	0.00	16.05
113		p-isopropyltoluene	2.931	2.936	-0.2	104	0.00	16.01
114		1,4-dichlorobenzene	1.720	1.625	5.5	104	0.00	16.14
115		1,2-dichlorobenzene	1.840	1.754	4.7	104	0.00	16.50
116		n-butylbenzene	1.620	1.662	-2.6	105	0.00	16.40
117		1,2-dibromo-3-chloropropa	0.245	0.247	-0.8	101	0.00	17.22
118		1,3,5-trichlorobenzene	1.819	1.765	3.0	98	0.00	17.39
119		1,2,4-trichlorobenzene	1.482	1.620	-9.3	101	0.00	17.97
120		hexachlorobutadiene	0.841	0.835	0.7	102	0.00	18.08
121		naphthalene	3.190	3.218	-0.9	99	0.00	18.25
122		1,2,3-trichlorobenzene	1.286	1.344	-4.5	99	0.00	18.46
123		hexachloroethane	0.578	0.614	-6.2	102	0.00	16.77
124		Benzyl chloride	1.807	1.831	-1.3	101	0.00	16.23
		----------	True	Calc.	% Drift	----------		
125		2-ethylhexyl acrylate	10.000	9.398	6.0	112	0.00	17.98
126		2-methylnaphthalene	25.000	23.054	7.8	101	0.00	19.39

(#) = Out of Range SPCC's out = 0 CCC's out = 0
L292483.D ML8203.M Mon Jul 17 11:07:44 2017 1

6.9.8

6

Initial Calibration Verification

Job Number: JC48812
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL
Sample: VL8203-ICV8203
Lab FileID: L292489.D

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\L292489.D Vial: 16
Acq On : 12 Jul 2017 4:19 pm Operator: JiaminC
Sample : icv8203-50 Inst : GCMSL
Misc : MS17946,VL8203,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\ML8203.M (RTE Integrator)
Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
Last Update : Wed Jul 12 15:54:43 2017
Response via : Multiple Level Calibration

Min. RRF : 0.000 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	119	-0.01	7.50
2		1,4-dioxane		----------NA----------				
3		ethanol		----------NA----------				
4	M	tertiary butyl alcohol		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	119	0.00	9.77
6		chlorodifluoromethane		----------NA----------				
7		dichlorodifluoromethane		----------NA----------				
8		freon 142b		----------NA----------				
9		chloromethane		----------NA----------				
10		1,3-butadiene		----------NA----------				
11		vinyl chloride		----------NA----------				
12		bromomethane		----------NA----------				
13		chloroethane		----------NA----------				
14		vinyl bromide		----------NA----------				
15		trichlorofluoromethane		----------NA----------				
16		ethyl ether		----------NA----------				
17		2-chloropropane		----------NA----------				
18		acrolein		----------NA----------				
19		freon 113		----------NA----------				
20		1,1-dichloroethene		----------NA----------				
21		acetone		----------NA----------				
22		acetonitrile	0.041	0.044	-7.3	125	0.01	7.28
23		iodomethane		----------NA----------				
24		iso-butyl alcohol		----------NA----------				
25		carbon disulfide		----------NA----------				
26		methylene chloride		----------NA----------				
27		methyl acetate		----------NA----------				
28		methyl tert butyl ether		----------NA----------				
29		trans-1,2-dichloroethene		----------NA----------				
30		hexane		----------NA----------				
31		di-isopropyl ether		----------NA----------				
32		ethyl tert-butyl ether		----------NA----------				
33		2-butanone		----------NA----------				
34	M	1,1-dichloroethane		----------NA----------				
35		chloroprene		----------NA----------				
36		acrylonitrile		----------NA----------				
37		vinyl acetate		----------NA----------				
38		ethyl acetate		----------NA----------				
39		2,2-dichloropropane		----------NA----------				
40		cis-1,2-dichloroethene		----------NA----------				
41		propionitrile		----------NA----------				

Initial Calibration Verification

Job Number: JC48812 **Sample:** VL8203-ICV8203
Account: UTC United Technologies Corporation **Lab FileID:** L292489.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

42		methyl acrylate		----------NA----------				
43		bromochloromethane		----------NA----------				
44		tetrahydrofuran		----------NA----------				
45		chloroform		----------NA----------				
46	S	dibromofluoromethane (s)	0.494	0.477	3.4	115	0.00	9.82
47		methacrylonitrile		----------NA----------				
48		1,1,1-trichloroethane		----------NA----------				
49		cyclohexane		----------NA----------				
50		1,1-dichloropropene		----------NA----------				
51		carbon tetrachloride		----------NA----------				
52		isopropyl acetate		----------NA----------				
53		tert amyl alcohol		----------NA----------				
54	I	1,4-difluorobenzene	1.000	1.000	0.0	115	0.00	10.71
55	S	1,2-dichloroethane-d4 (s)	0.366	0.368	-0.5	120	0.00	10.24
56		tert-amyl methyl ether		----------NA----------				
57		2,2,4-trimethylpentane		----------NA----------				
58		epichlorohydrin		----------NA----------				
59		n-butyl alcohol		----------NA----------				
60	M	benzene		----------NA----------				
61		heptane		----------NA----------				
62		1,2-dichloroethane		----------NA----------				
63		trichloroethene		----------NA----------				
64		ethyl acrylate		----------NA----------				
65		2-nitropropane		----------NA----------				
66		2-chloroethyl vinyl ether		----------NA----------				
67		methyl methacrylate		----------NA----------				
68		1,2-dichloropropane		----------NA----------				
69		methylcyclohexane		----------NA----------				
70		dibromomethane		----------NA----------				
71		bromodichloromethane		----------NA----------				
72		cis-1,3-dichloropropene		----------NA----------				
73		4-methyl-2-pentanone		----------NA----------				
74		3-methyl-1-butanol		----------NA----------				
75	I	chlorobenzene-d5	1.000	1.000	0.0	114	0.00	13.81
76	S	toluene-d8 (s)	1.233	1.228	0.4	114	0.00	12.32
77		toluene		----------NA----------				
78		trans-1,3-dichloropropene		----------NA----------				
79		ethyl methacrylate		----------NA----------				
80		1,1,2-trichloroethane		----------NA----------				
81		2-hexanone		----------NA----------				
82		tetrachloroethene		----------NA----------				
83		1,3-dichloropropane		----------NA----------				
84		butyl acetate		----------NA----------				
85		dibromochloromethane		----------NA----------				
86		1,2-dibromoethane		----------NA----------				
87		n-butyl ether		----------NA----------				
88		chlorobenzene		----------NA----------				
89		1,1,1,2-tetrachloroethane		----------NA----------				
90		ethylbenzene		----------NA----------				
91		m,p-xylene		----------NA----------				
92		o-xylene		----------NA----------				
93		3,3-dimethyl-1-butanol		----------NA----------				
94		butyl acrylate		----------NA----------				
95		styrene		----------NA----------				
96		bromoform		----------NA----------				
97		isopropylbenzene		----------NA----------				
98		cis-1,4-dichloro-2-butene		----------NA----------				

Initial Calibration Verification

Job Number: JC48812 **Sample:** VL8203-ICV8203
Account: UTC United Technologies Corporation **Lab FileID:** L292489.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	125	0.00	16.12
100	S	4-bromofluorobenzene (s)	0.853	0.824	3.4	117	0.00	14.97
101		bromobenzene		----------NA----------				
102		1,1,2,2-tetrachloroethane		----------NA----------				
103		trans-1,4-dichloro-2-bute		----------NA----------				
104		1,2,3-trichloropropane		----------NA----------				
105		n-propylbenzene		----------NA----------				
106		2-chlorotoluene		----------NA----------				
107		4-chlorotoluene		----------NA----------				
108		1,3,5-trimethylbenzene		----------NA----------				
109		tert-butylbenzene		----------NA----------				
110		1,2,4-trimethylbenzene		----------NA----------				
111		sec-butylbenzene		----------NA----------				
112		1,3-dichlorobenzene		----------NA----------				
113		p-isopropyltoluene		----------NA----------				
114		1,4-dichlorobenzene		----------NA----------				
115		1,2-dichlorobenzene		----------NA----------				
116		n-butylbenzene		----------NA----------				
117		1,2-dibromo-3-chloropropa		----------NA----------				
118		1,3,5-trichlorobenzene		----------NA----------				
119		1,2,4-trichlorobenzene		----------NA----------				
120		hexachlorobutadiene		----------NA----------				
121		naphthalene		----------NA----------				
122		1,2,3-trichlorobenzene		----------NA----------				
123		hexachloroethane		----------NA----------				
124		Benzyl chloride		----------NA----------				
		----------	True	Calc.	% Drift	----------		
125		2-ethylhexyl acrylate		----------NA----------				
126		2-methylnaphthalene		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
L292483.D ML8203.M Thu Jul 13 08:22:24 2017 1

6.9.9

Continuing Calibration Summary

Job Number: JC48812 **Sample:** VL8249-CC8203
Account: UTC United Technologies Corporation **Lab FileID:** L293617A.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\L\L293617a.D Vial: 1
Acq On : 15 Aug 2017 10:09 pm Operator: JiaminC
Sample : cc8203-50 Inst : GCMSL
Misc : MS19112,VL8249,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\ML8203.M (RTE Integrator)
Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
Last Update : Mon Jul 17 11:06:03 2017
Response via : Multiple Level Calibration

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

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	74	0.00	7.51
2		1,4-dioxane	0.072	0.061	15.3	61	-0.01	11.34
3		ethanol	0.062	0.047	24.2#	51	0.00	6.22
4	M	tertiary butyl alcohol	1.031	1.189	-15.3	84	-0.02	7.61
5	I	pentafluorobenzene	1.000	1.000	0.0	91	-0.01	9.77
6		chlorodifluoromethane	1.220	0.960	21.3#	67	-0.01	4.13
7		dichlorodifluoromethane	1.475	1.233	16.4	70	-0.01	4.11
8		freon 142b		----------NA----------				
9		chloromethane	1.211	0.878	27.5#	58	0.00	4.44
10		1,3-butadiene		----------NA----------				
11		vinyl chloride	1.468	1.028	30.0#	62	0.00	4.72
12		bromomethane	0.834	0.759	9.0	75	-0.01	5.35
13		chloroethane	0.587	0.486	17.2	72	-0.01	5.52
14		vinyl bromide	1.109	0.889	19.8	67	0.00	5.90
15		trichlorofluoromethane	1.364	1.309	4.0	82	-0.01	6.04
16		ethyl ether	0.304	0.271	10.9	77	0.00	6.39
17		2-chloropropane	1.141	0.960	15.9	75	0.00	6.63
18		acrolein	0.157	0.134	14.6	77	0.00	6.63
19		freon 113	0.695	0.602	13.4	74	0.00	6.86
20		1,1-dichloroethene	0.691	0.636	8.0	84	0.02	6.86
21		acetone	0.069	0.051	26.1#	69	-0.01	6.83
22		acetonitrile	0.041	0.036	12.2	80	0.01	7.28
23		iodomethane	1.528	1.401	8.3	82	0.00	7.11
24		iso-butyl alcohol		----------NA----------				
25		carbon disulfide	2.684	2.395	10.8	79	0.00	7.27
26		methylene chloride	0.775	0.680	12.3	81	0.00	7.56
27		methyl acetate	0.099	0.100	-1.0	89	-0.01	7.29
28		methyl tert butyl ether	2.010	1.829	9.0	81	-0.01	7.89
29		trans-1,2-dichloroethene	0.589	0.514	12.7	80	-0.01	7.93
30		hexane	0.734	0.574	21.8#	68	-0.01	8.28
31		di-isopropyl ether	2.072	1.642	20.8#	73	-0.01	8.49
32		ethyl tert-butyl ether	2.107	1.895	10.1	79	-0.01	8.95
33		2-butanone	0.082	0.069	15.9	78	-0.01	9.16
34	M	1,1-dichloroethane	1.001	0.854	14.7	80	-0.01	8.52
35		chloroprene	0.822	0.735	10.6	81	-0.01	8.61
36		acrylonitrile	0.279	0.235	15.8	75	0.00	7.85
37		vinyl acetate	0.097	0.091	6.2	81	0.00	8.45
38		ethyl acetate	0.094	0.080	14.9	76	-0.01	9.17
39		2,2-dichloropropane	1.043	0.948	9.1	86	0.00	9.27
40		cis-1,2-dichloroethene	0.631	0.560	11.3	82	0.00	9.23
41		propionitrile	0.103	0.086	16.5	77	0.00	9.25

Continuing Calibration Summary

Job Number: JC48812
Account: UTC United Technologies Corporation
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

Sample: VL8249-CC8203
Lab FileID: L293617A.D

42		methyl acrylate	0.091	0.086	5.5	83	0.00	9.26
43		bromochloromethane	0.316	0.294	7.0	85	-0.01	9.53
44		tetrahydrofuran	0.207	0.167	19.3	77	0.00	9.55
45		chloroform	1.032	0.925	10.4	85	-0.01	9.61
46	S	dibromofluoromethane (s)	0.494	0.514	-4.0	95	-0.02	9.80
47		methacrylonitrile	0.360	0.312	13.3	78	-0.01	9.44
48		1,1,1-trichloroethane	1.032	0.988	4.3	83	-0.01	9.88
49		cyclohexane	1.039	0.829	20.2#	72	-0.01	9.99
50		1,1-dichloropropene	0.673	0.613	8.9	82	-0.01	10.04
51		carbon tetrachloride	0.910	0.832	8.6	82	0.00	10.07
52		isopropyl acetate	1.219	1.055	13.5	79	-0.01	10.19
53		tert amyl alcohol	0.035	0.031	11.4	85	-0.01	10.17
54	I	1,4-difluorobenzene	1.000	1.000	0.0	90	0.00	10.70
55	S	1,2-dichloroethane-d4 (s)	0.366	0.385	-5.2	98	0.00	10.23
56		tert-amyl methyl ether	1.341	1.193	11.0	81	-0.01	10.36
57		2,2,4-trimethylpentane	1.621	1.374	15.2	71	0.00	10.39
58		epichlorohydrin	0.049	0.041	16.3	76	0.00	11.88
59		n-butyl alcohol	0.016	0.013	18.8	69	-0.01	10.74
60	M	benzene	1.475	1.246	15.5	78	-0.01	10.29
61		heptane	0.264	0.203	23.1#	68	-0.01	10.53
62		1,2-dichloroethane	0.469	0.448	4.5	88	0.00	10.32
63		trichloroethene	0.377	0.344	8.8	81	0.00	11.01
64		ethyl acrylate	0.483	0.458	5.2	81	-0.01	10.99
65		2-nitropropane	0.160	0.152	5.0	84	-0.01	11.75
66		2-chloroethyl vinyl ether	0.208	0.165	20.7#	68	0.00	11.79
67		methyl methacrylate	0.107	0.103	3.7	82	-0.01	11.25
68		1,2-dichloropropane	0.368	0.311	15.5	77	-0.01	11.30
69		methylcyclohexane	0.772	0.657	14.9	75	-0.01	11.30
70		dibromomethane	0.258	0.236	8.5	84	0.00	11.41
71		bromodichloromethane	0.508	0.489	3.7	84	0.00	11.56
72		cis-1,3-dichloropropene	0.592	0.547	7.6	79	0.00	12.01
73		4-methyl-2-pentanone	0.174	0.152	12.6	80	0.00	12.10
74		3-methyl-1-butanol	0.015	0.013	13.3	77	0.00	12.10
75	I	chlorobenzene-d5	1.000	1.000	0.0	90	0.00	13.81
76	S	toluene-d8 (s)	1.233	1.206	2.2	88	-0.01	12.31
77		toluene	0.919	0.814	11.4	78	0.00	12.39
78		trans-1,3-dichloropropene	0.573	0.539	5.9	83	0.00	12.57
79		ethyl methacrylate	0.516	0.494	4.3	82	0.00	12.55
80		1,1,2-trichloroethane	0.318	0.287	9.7	81	0.00	12.79
81		2-hexanone	0.184	0.159	13.6	80	-0.01	12.94
82		tetrachloroethene	0.482	0.450	6.6	87	0.00	12.93
83		1,3-dichloropropane	0.554	0.487	12.1	81	0.00	12.97
84		butyl acetate	0.272	0.233	14.3	80	0.00	13.02
85		dibromochloromethane	0.455	0.443	2.6	86	0.00	13.21
86		1,2-dibromoethane	0.417	0.400	4.1	84	0.00	13.37
87		n-butyl ether	1.525	1.368	10.3	80	0.00	13.79
88		chlorobenzene	1.029	0.950	7.7	83	0.00	13.84
89		1,1,1,2-tetrachloroethane	0.422	0.411	2.6	85	0.00	13.90
90		ethylbenzene	1.695	1.541	9.1	82	0.00	13.90
91		m,p-xylene	0.646	0.588	9.0	82	0.00	14.02
92		o-xylene	0.713	0.628	11.9	80	0.00	14.42
93		3,3-dimethyl-1-butanol	0.043	0.042	2.3	79	0.00	13.12
94		butyl acrylate	0.799	0.787	1.5	86	0.00	14.24
95		styrene	1.129	1.050	7.0	84	0.00	14.43
96		bromoform	0.369	0.371	-0.5	86	0.00	14.66
97		isopropylbenzene	1.870	1.737	7.1	82	0.00	14.76
98		cis-1,4-dichloro-2-butene	0.179	0.074	58.7#	36#	0.00	14.80

Continuing Calibration Summary

Job Number: JC48812 **Sample:** VL8249-CC8203
Account: UTC United Technologies Corporation **Lab FileID:** L293617A.D
Project: ENSRILW: UTAS Plants 1/2 Facility, Rockford, IL

99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	93	0.00	16.11
100	S	4-bromofluorobenzene (s)	0.853	0.864	-1.3	91	0.00	14.96
101		bromobenzene	0.858	0.819	4.5	87	0.00	15.15
102		1,1,2,2-tetrachloroethane	0.948	0.922	2.7	85	0.00	15.04
103		trans-1,4-dichloro-2-bute	0.247	0.107	56.7#	38#	0.00	15.07
104		1,2,3-trichloropropane	0.228	0.222	2.6	88	0.00	15.13
105		n-propylbenzene	3.512	3.127	11.0	84	0.00	15.17
106		2-chlorotoluene	0.757	0.717	5.3	83	0.00	15.31
107		4-chlorotoluene	2.238	2.057	8.1	84	0.00	15.42
108		1,3,5-trimethylbenzene	2.628	2.468	6.1	85	0.00	15.33
109		tert-butylbenzene	2.193	2.157	1.6	84	0.00	15.67
110		1,2,4-trimethylbenzene	2.785	2.561	8.0	86	0.00	15.72
111		sec-butylbenzene	3.515	3.322	5.5	84	0.00	15.88
112		1,3-dichlorobenzene	1.751	1.558	11.0	86	0.00	16.05
113		p-isopropyltoluene	2.931	2.837	3.2	86	0.00	16.01
114		1,4-dichlorobenzene	1.720	1.563	9.1	86	0.00	16.14
115		1,2-dichlorobenzene	1.840	1.697	7.8	86	0.00	16.50
116		n-butylbenzene	1.620	1.540	4.9	84	0.00	16.40
117		1,2-dibromo-3-chloropropa	0.245	0.247	-0.8	87	0.00	17.21
118		1,3,5-trichlorobenzene	1.819	1.818	0.1	87	0.00	17.39
119		1,2,4-trichlorobenzene	1.482	1.516	-2.3	81	0.00	17.97
120		hexachlorobutadiene	0.841	0.789	6.2	82	0.00	18.08
121		naphthalene	3.190	3.105	2.7	82	0.00	18.25
122		1,2,3-trichlorobenzene	1.286	1.268	1.4	80	0.00	18.46
123		hexachloroethane	0.578	0.504	12.8	71	0.00	16.77
124		Benzyl chloride	1.807	1.981	-9.6	93	0.00	16.23
		----------	True	Calc.	% Drift	----------		
125		2-ethylhexyl acrylate	10.000	6.824	31.8#	62	0.00	17.98
126		2-methylnaphthalene	25.000	20.217	19.1	75	0.00	19.39

(#) = Out of Range SPCC's out = 0 CCC's out = 0
L292483.D ML8203.M Wed Aug 16 10:09:16 2017

6.9.10 6

MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L\
Data File : L293626.D
Acq On : 16 Aug 2017 2:55 am
Operator : JiaminC
Sample : jc48812-1
Misc : MS19112,VL8249,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 16 10:21:44 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Mon Jul 17 11:06:03 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.511	65	195912	500.00	ug/L	0.00
5) pentafluorobenzene	9.766	168	242719	50.00	ug/L	-0.01
54) 1,4-difluorobenzene	10.697	114	336937	50.00	ug/L	-0.01
75) chlorobenzene-d5	13.809	117	313324	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	16.115	152	195436	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.807	113	118822	49.51	ug/L	-0.01
Spiked Amount 50.000	Range 76 - 120		Recovery = 99.02%			
55) 1,2-dichloroethane-d4 (s)	10.226	65	137467	55.78	ug/L	-0.01
Spiked Amount 50.000	Range 73 - 122		Recovery = 111.56%			
76) toluene-d8 (s)	12.307	98	371850	48.14	ug/L	-0.01
Spiked Amount 50.000	Range 84 - 119		Recovery = 96.28%			
100) 4-bromofluorobenzene (s)	14.964	95	162415	48.70	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 97.40%			

Target Compounds Qvalue

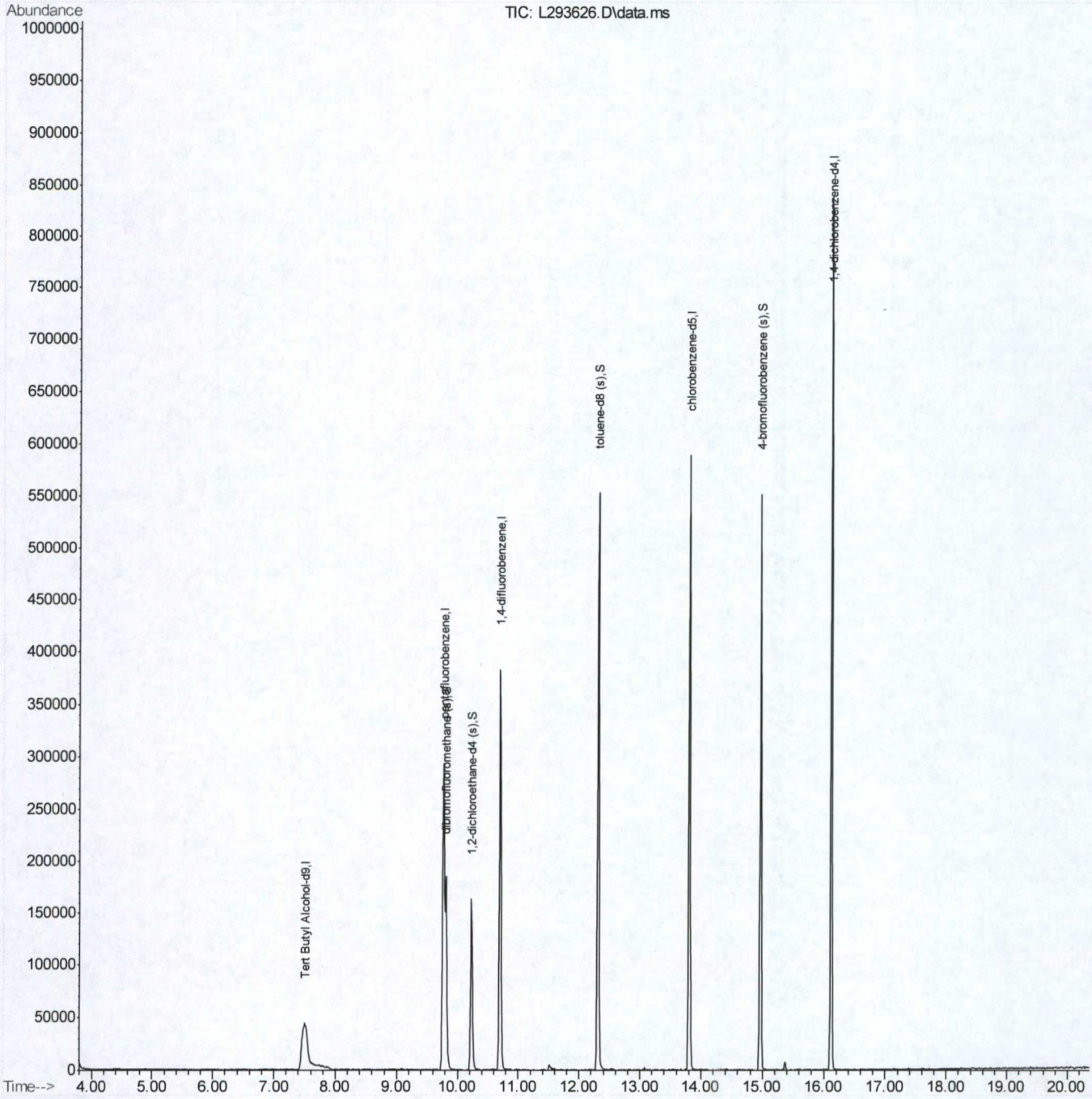
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.1 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L\
Data File : L293626.D
Acq On : 16 Aug 2017 2:55 am
Operator : JiaminC
Sample : jc48812-1
Misc : MS19112,VL8249,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Aug 16 10:21:44 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Mon Jul 17 11:06:03 2017
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L\
Data File : L293627.D
Acq On : 16 Aug 2017 3:22 am
Operator : JiaminC
Sample : jc48812-2
Misc : MS19112,VL8249,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 16 10:22:02 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Mon Jul 17 11:06:03 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.522	65	171358	500.00	ug/L	0.01
5) pentafluorobenzene	9.765	168	235155	50.00	ug/L	-0.01
54) 1,4-difluorobenzene	10.702	114	331454	50.00	ug/L	0.00
75) chlorobenzene-d5	13.808	117	303806	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	16.115	152	188134	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.807	113	117533	50.54	ug/L	-0.01
Spiked Amount 50.000	Range 76 - 120		Recovery = 101.08%			
55) 1,2-dichloroethane-d4 (s)	10.231	65	133053	54.88	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 109.76%			
76) toluene-d8 (s)	12.307	98	370865	49.51	ug/L	-0.01
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.02%			
100) 4-bromofluorobenzene (s)	14.964	95	160132	49.88	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 99.76%			
Target Compounds						Qvalue
20) 1,1-dichloroethene	6.873	96	1997	0.61	ug/L #	72
29) trans-1,2-dichloroethene	7.935	96	532	0.19	ug/L #	35
34) 1,1-dichloroethane	8.521	63	21966	4.67	ug/L	98
40) cis-1,2-dichloroethene	9.237	96	5389	1.82	ug/L	82
48) 1,1,1-trichloroethane	9.880	97	63881	13.16	ug/L	96
63) trichloroethene	11.015	95	9062	3.63	ug/L	95
82) tetrachloroethene	12.930	166	135985	46.40	ug/L	100

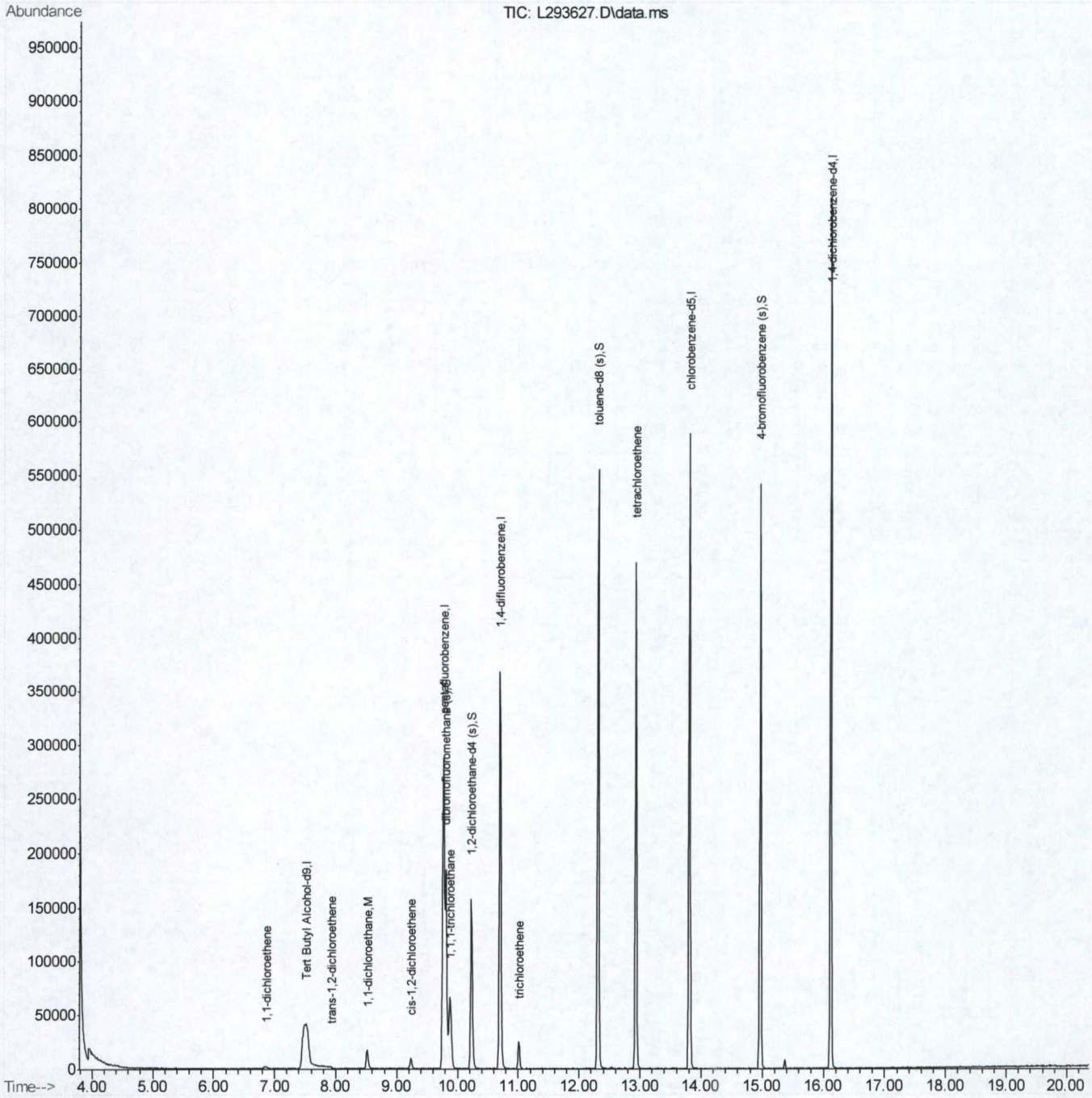
(#) = qualifier out of range (m) = manual integration (+) = signals summed

7.1.2 7

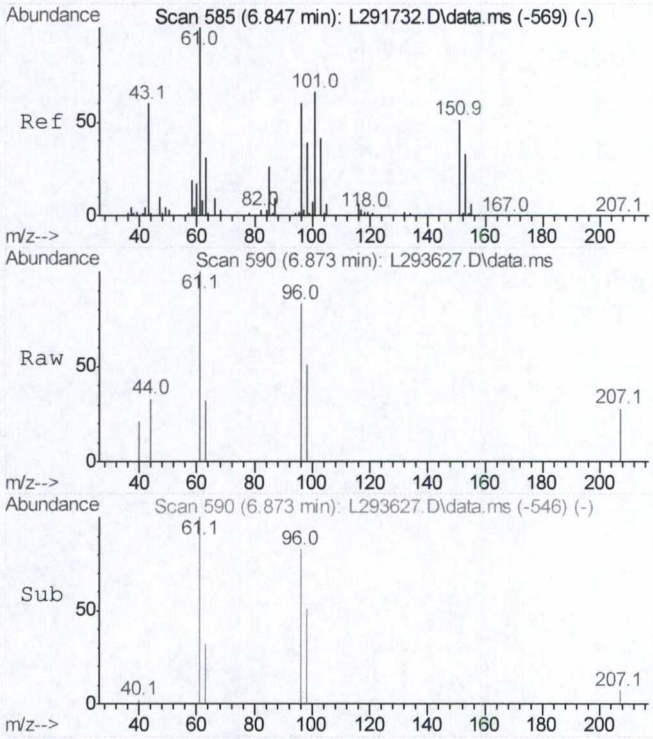
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L\
Data File : L293627.D
Acq On : 16 Aug 2017 3:22 am
Operator : JiaminC
Sample : jc48812-2
Misc : MS19112,VL8249,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Aug 16 10:22:02 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Mon Jul 17 11:06:03 2017
Response via : Initial Calibration



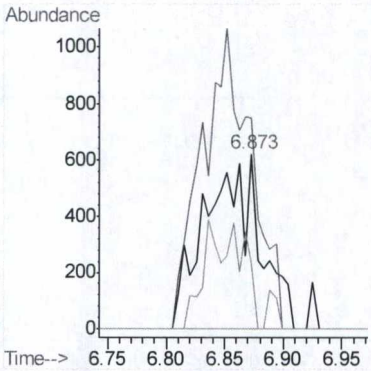
ML8203.M Wed Aug 16 10:29:59 2017

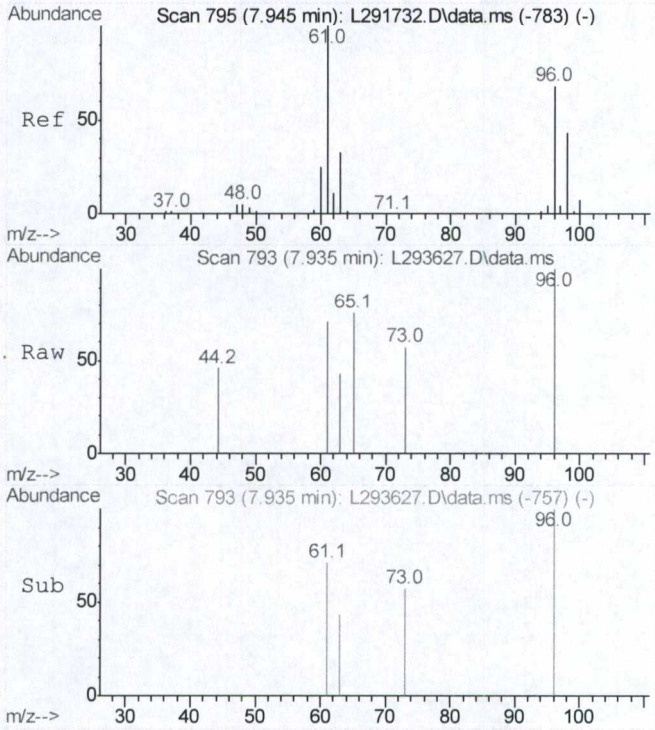


#20
1,1-dichloroethene
Concen: 0.61 ug/L
RT: 6.873 min Scan# 590
Delta R.T. 0.031 min
Lab File: L293627.D
Acq: 16 Aug 2017 3:22 am

Tgt Ion: 96 Resp: 1997

Ion	Ratio	Lower	Upper
96	100		
61	120.4	129.7	189.7#
63	38.2	25.7	85.7

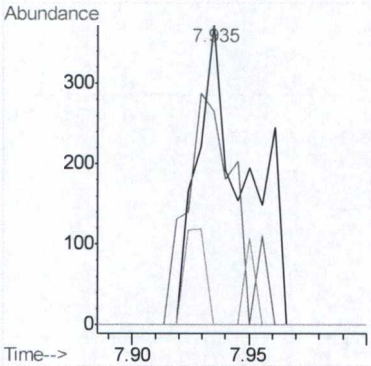




#29
trans-1,2-dichloroethene
Concen: 0.19 ug/L
RT: 7.935 min Scan# 793
Delta R.T. -0.011 min
Lab File: L293627.D
Acq: 16 Aug 2017 3:22 am

Tgt Ion: 96 Resp: 532

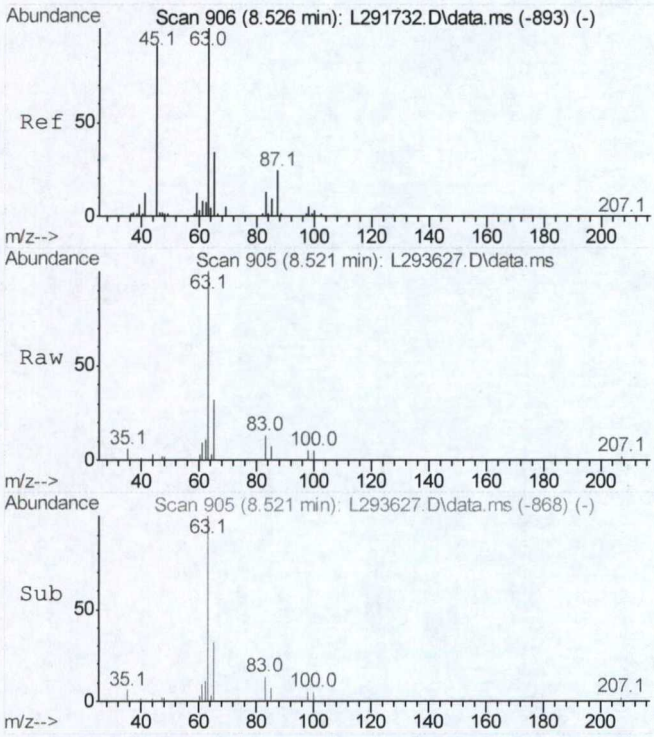
Ion	Ratio	Lower	Upper
96	100		
61	71.2	110.9	170.9#
98	0.0	33.5	93.5#



7.1.2

7

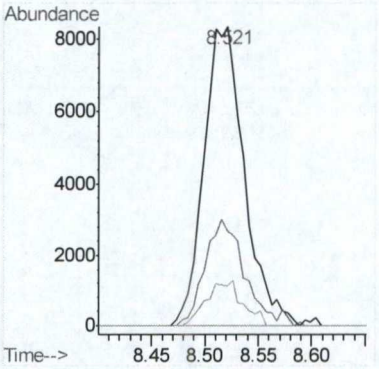
SGS ACCUTEST JC48812

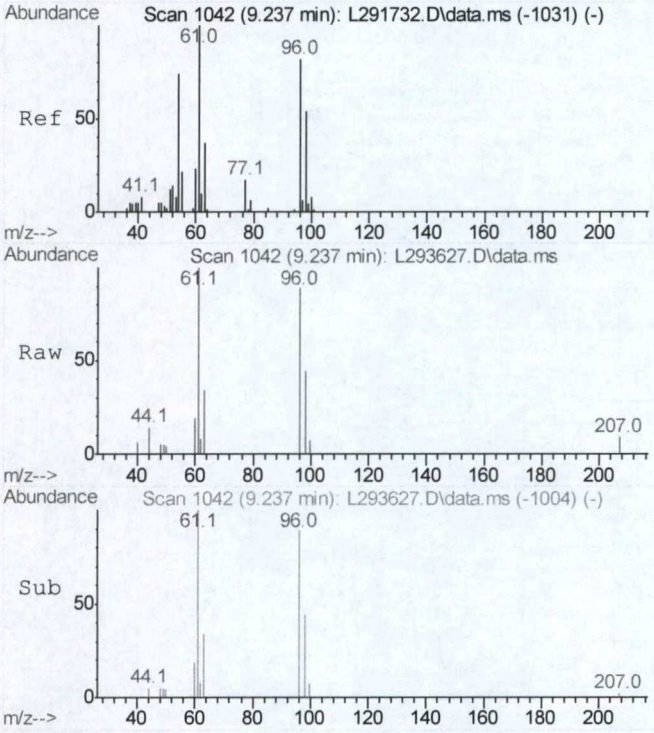


#34
1,1-dichloroethane
Concen: 4.67 ug/L
RT: 8.521 min Scan# 905
Delta R.T. -0.005 min
Lab File: L293627.D
Acq: 16 Aug 2017 3:22 am

Tgt Ion: 63 Resp: 21966

Ion	Ratio	Lower	Upper
63	100		
65	32.1	1.2	61.2
83	13.4	0.0	44.0

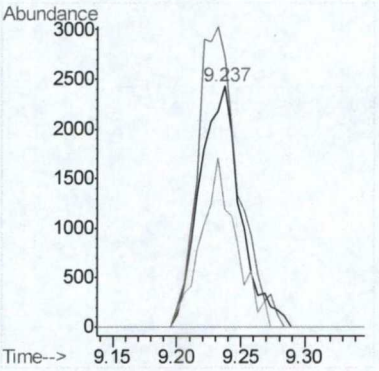




#40
cis-1,2-dichloroethene
Concen: 1.82 ug/L
RT: 9.237 min Scan# 1042
Delta R.T. -0.000 min
Lab File: L293627.D
Acq: 16 Aug 2017 3:22 am

Tgt Ion: 96 Resp: 5389

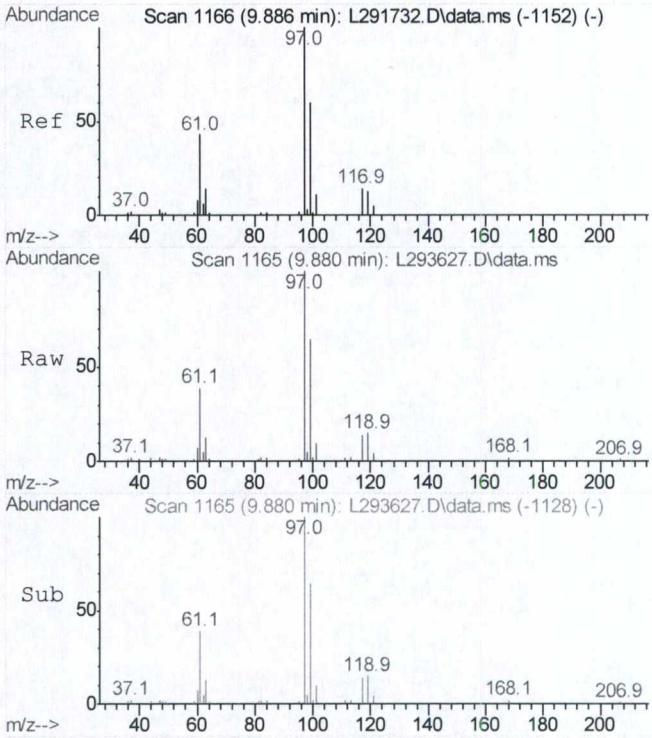
Ion	Ratio	Lower	Upper
96	100		
61	111.9	100.7	160.7
98	49.1	35.3	95.3



7.1.2

7

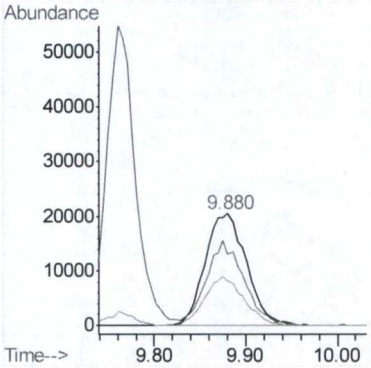
SGS ACCUTEST JC48812

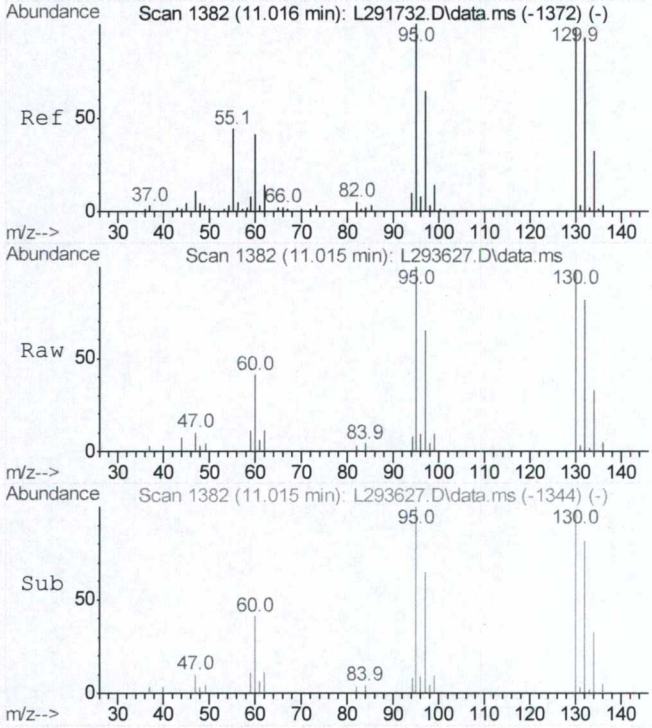


#48
1,1,1-trichloroethane
Concen: 13.16 ug/L
RT: 9.880 min Scan# 1165
Delta R.T. -0.005 min
Lab File: L293627.D
Acq: 16 Aug 2017 3:22 am

Tgt Ion: 97 Resp: 63881

Ion	Ratio	Lower	Upper
97	100		
99	64.1	36.9	96.9
61	39.5	11.8	71.8

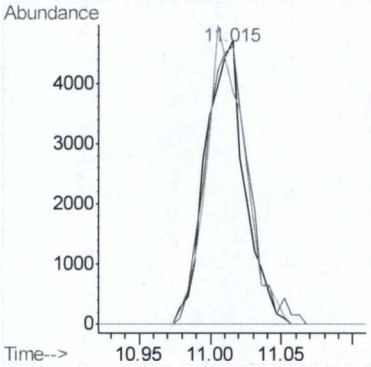




#63
trichloroethene
Concen: 3.63 ug/L
RT: 11.015 min Scan# 1382
Delta R.T. -0.000 min
Lab File: L293627.D
Acq: 16 Aug 2017 3:22 am

Tgt Ion: 95 Resp: 9062

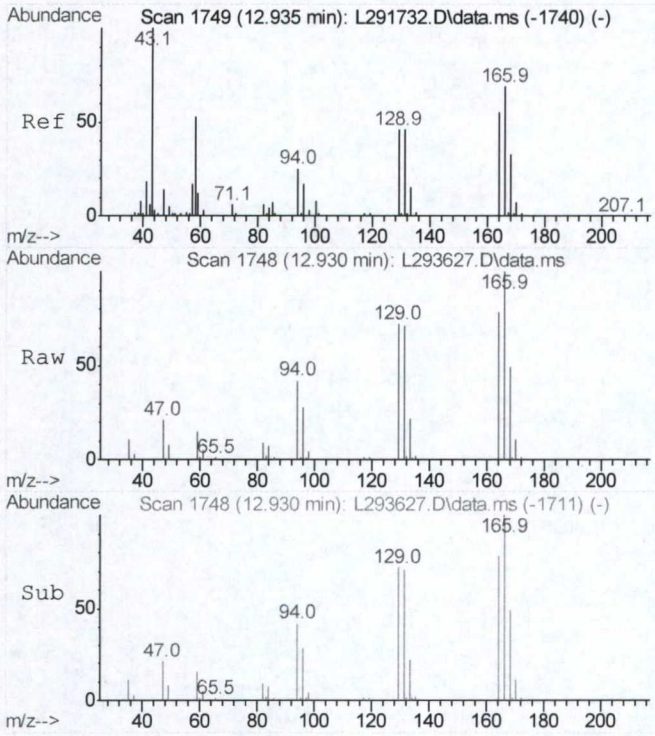
Ion	Ratio	Lower	Upper
95	100		
130	98.1	68.4	128.4
132	82.0	62.1	122.1



7.1.2

7

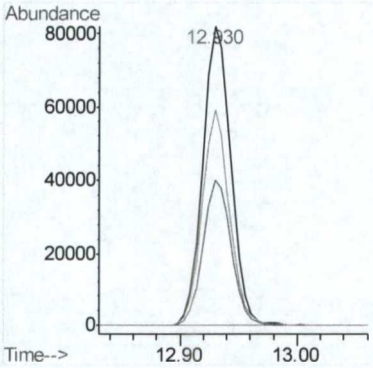
SGS ACCUTEST JC48812



#82
tetrachloroethene
Concen: 46.40 ug/L
RT: 12.930 min Scan# 1748
Delta R.T. -0.005 min
Lab File: L293627.D
Acq: 16 Aug 2017 3:22 am

Tgt Ion:166 Resp: 135985

Ion	Ratio	Lower	Upper
166	100		
168	49.1	18.9	78.9
129	72.5	42.5	102.5



7.1.2

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L\
Data File : L293628.D
Acq On : 16 Aug 2017 3:48 am
Operator : JiaminC
Sample : jc48812-3
Misc : MS19112,VL8249,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 16 10:23:35 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Mon Jul 17 11:06:03 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.490	65	186066	500.00	ug/L	-0.02
5) pentafluorobenzene	9.765	168	229338	50.00	ug/L	-0.01
54) 1,4-difluorobenzene	10.702	114	320229	50.00	ug/L	0.00
75) chlorobenzene-d5	13.808	117	293635	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	16.115	152	187009	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.807	113	112817	49.75	ug/L	-0.01
Spiked Amount 50.000	Range 76 - 120		Recovery = 99.50%			
55) 1,2-dichloroethane-d4 (s)	10.231	65	131548	56.17	ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 112.34%			
76) toluene-d8 (s)	12.307	98	353502	48.83	ug/L	-0.01
Spiked Amount 50.000	Range 84 - 119		Recovery = 97.66%			
100) 4-bromofluorobenzene (s)	14.964	95	156002	48.89	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 97.78%			
Target Compounds						Qvalue
34) 1,1-dichloroethane	8.526	63	1196	0.26	ug/L	78
45) chloroform	9.609	83	3371	0.71	ug/L	97
48) 1,1,1-trichloroethane	9.870	97	5999	1.27	ug/L	86
71) bromodichloromethane	11.554	83	1185	0.36	ug/L	68
82) tetrachloroethene	12.930	166	2215	0.78	ug/L	91

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

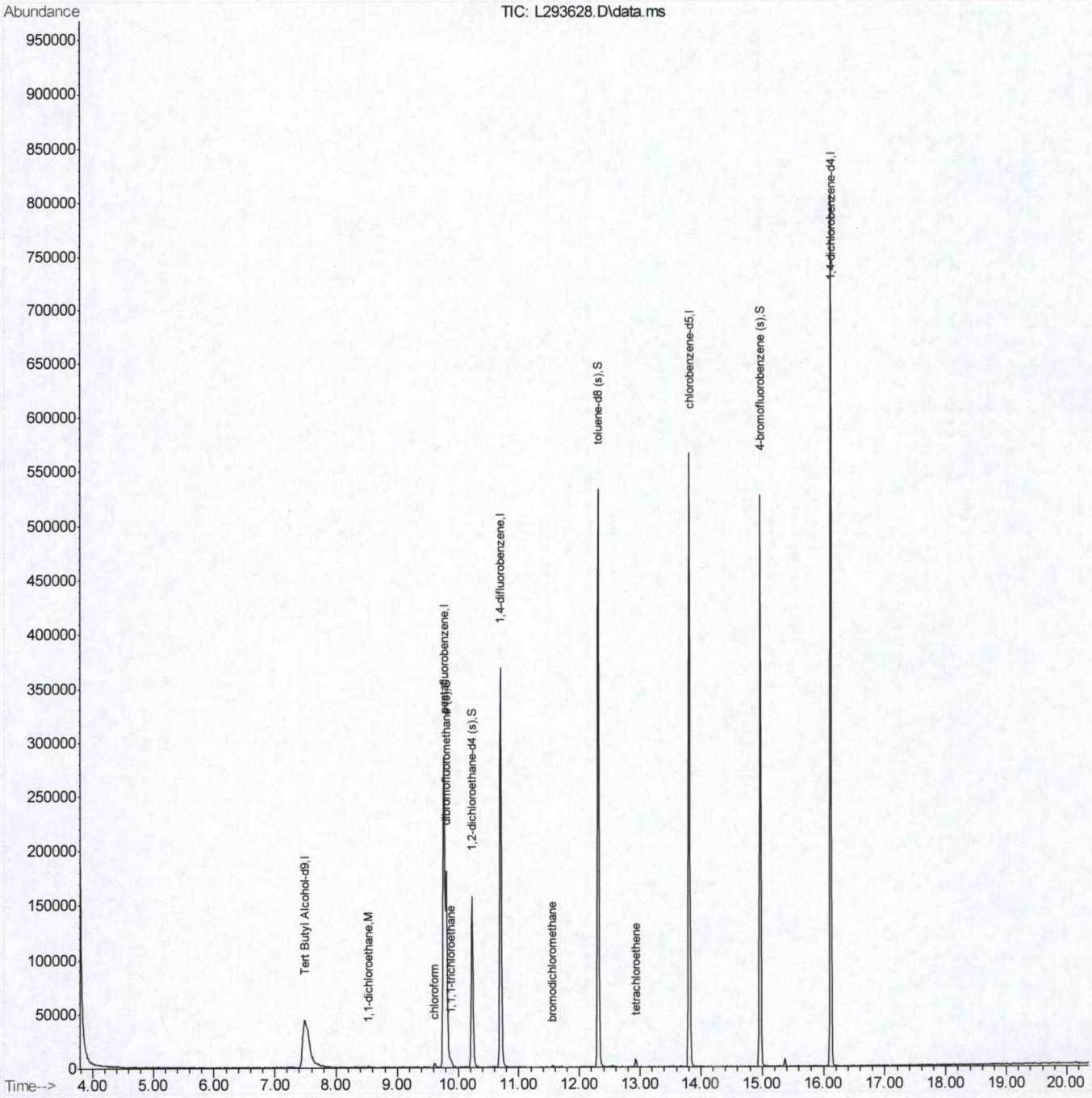
7.1.3

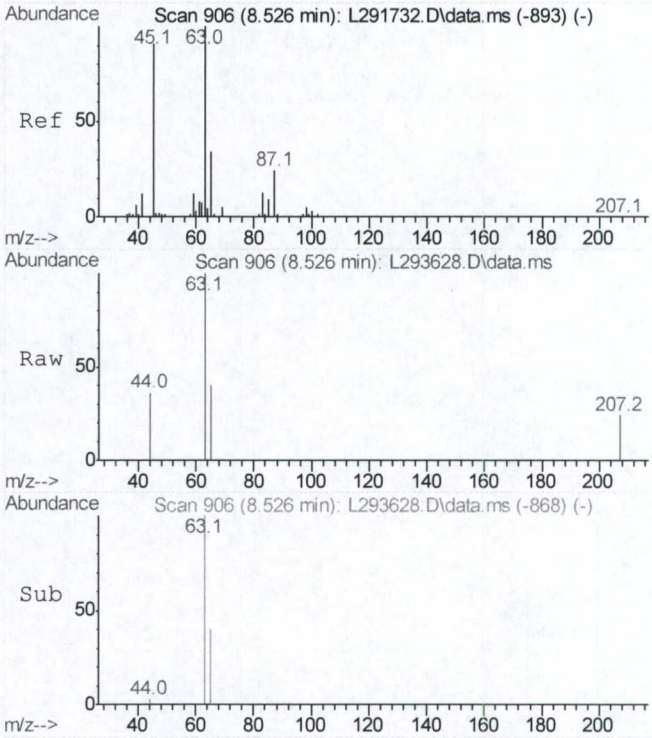
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L\
Data File : L293628.D
Acq On : 16 Aug 2017 3:48 am
Operator : JiaminC
Sample : jc48812-3
Misc : MS19112,VL8249,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Aug 16 10:23:35 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Mon Jul 17 11:06:03 2017
Response via : Initial Calibration

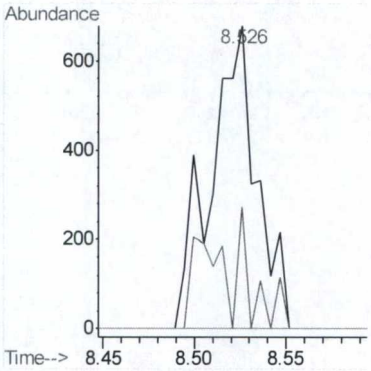


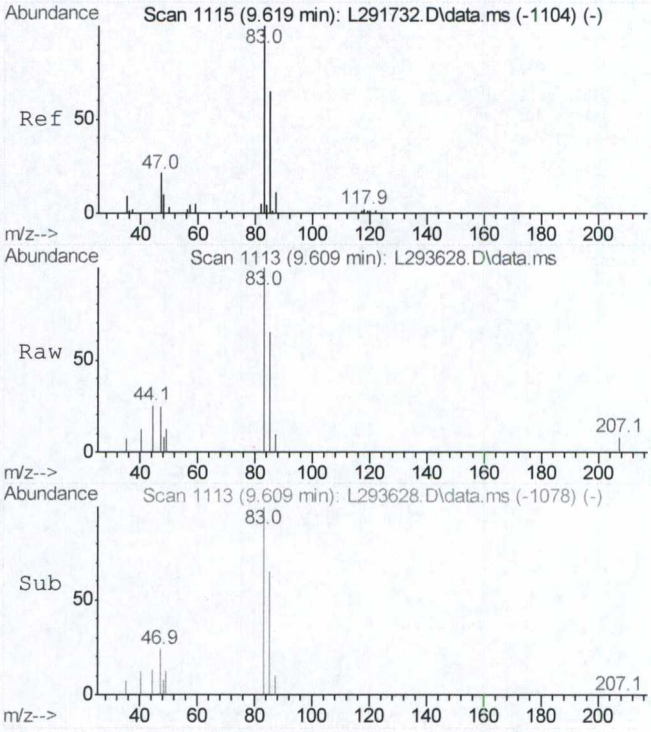


#34
1,1-dichloroethane
Concen: 0.26 ug/L
RT: 8.526 min Scan# 906
Delta R.T. 0.000 min
Lab File: L293628.D
Acq: 16 Aug 2017 3:48 am

Tgt Ion: 63 Resp: 1196

Ion	Ratio	Lower	Upper
63	100		
65	40.2	1.2	61.2
83	0.0	0.0	44.0

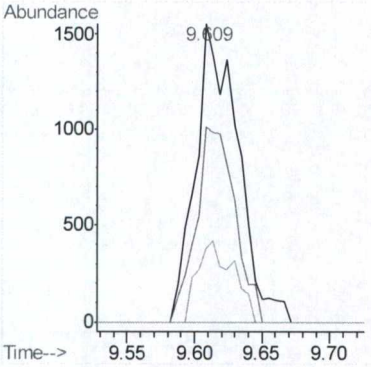




#45
chloroform
Concen: 0.71 ug/L
RT: 9.609 min Scan# 1113
Delta R.T. -0.016 min
Lab File: L293628.D
Acq: 16 Aug 2017 3:48 am

Tgt Ion: 83 Resp: 3371

Ion	Ratio	Lower	Upper
83	100		
85	65.0	33.1	93.1
47	24.3	0.0	51.3



7.1.3

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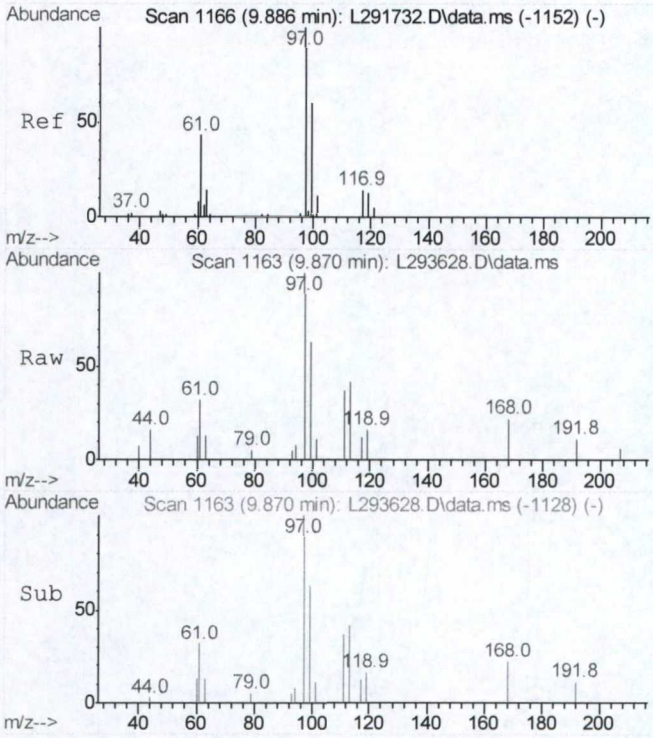
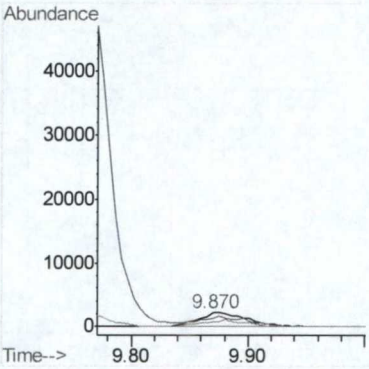
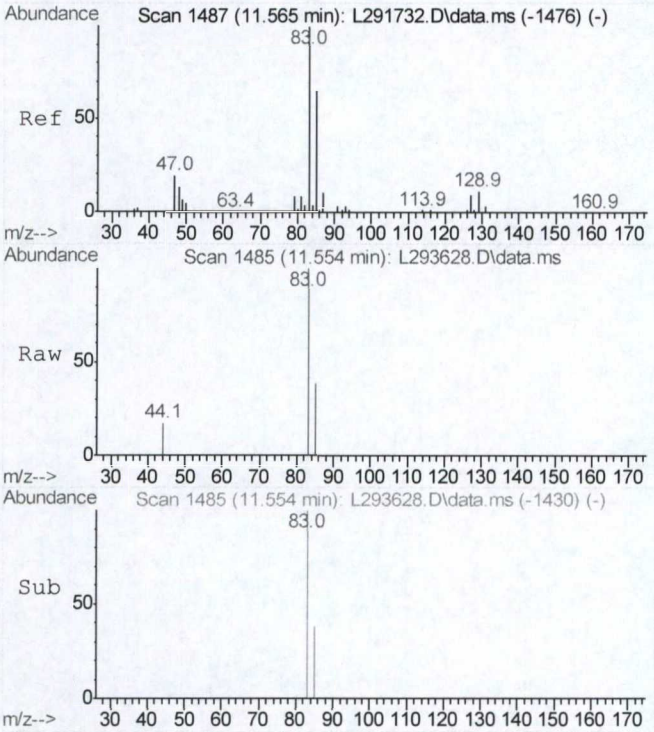


#48
1,1,1-trichloroethane
Concen: 1.27 ug/L
RT: 9.870 min Scan# 1163
Delta R.T. -0.016 min
Lab File: L293628.D
Acq: 16 Aug 2017 3:48 am

Tgt Ion: 97 Resp: 5999

Ion	Ratio	Lower	Upper
97	100		
99	56.0	36.9	96.9
61	32.5	11.8	71.8

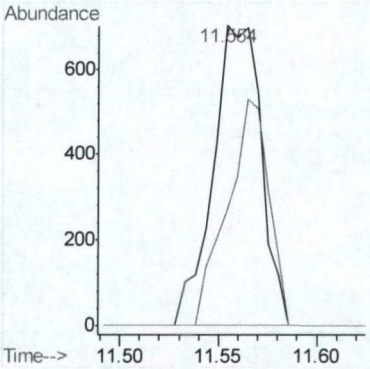




#71
bromodichloromethane
Concen: 0.36 ug/L
RT: 11.554 min Scan# 1485
Delta R.T. -0.010 min
Lab File: L293628.D
Acq: 16 Aug 2017 3:48 am

Tgt Ion: 83 Resp: 1185

Ion	Ratio	Lower	Upper
83	100		
85	37.9	34.2	94.2
127	0.0	0.0	38.3



7.1.3

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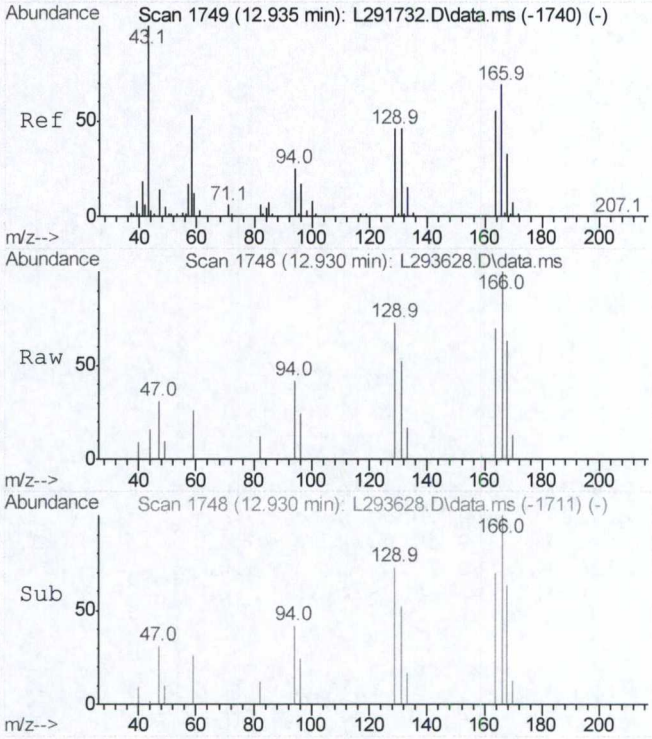
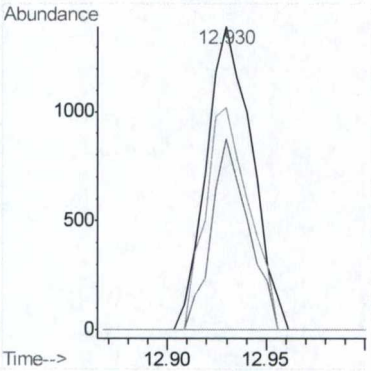


#82
tetrachloroethene
Concen: 0.78 ug/L
RT: 12.930 min Scan# 1748
Delta R.T. -0.005 min
Lab File: L293628.D
Acq: 16 Aug 2017 3:48 am

Tgt Ion:166 Resp: 2215

Ion	Ratio	Lower	Upper
166	100		
168	62.9	18.9	78.9
129	73.0	42.5	102.5



7.1.3

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SGS ACCUTEST JC48812

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L\
Data File : L293629.D
Acq On : 16 Aug 2017 4:15 am
Operator : JiaminC
Sample : jc48812-4
Misc : MS19112,VL8249,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 16 10:24:34 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Mon Jul 17 11:06:03 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Tert Butyl Alcohol-d9	7.495	65	169108	500.00 ug/L	-0.02
5) pentafluorobenzene	9.765	168	219366	50.00 ug/L	-0.01
54) 1,4-difluorobenzene	10.702	114	310573	50.00 ug/L	0.00
75) chlorobenzene-d5	13.808	117	282848	50.00 ug/L	0.00
99) 1,4-dichlorobenzene-d4	16.115	152	180694	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	9.807	113	110807	51.08 ug/L	-0.01
Spiked Amount 50.000	Range 76 - 120		Recovery = 102.16%		
55) 1,2-dichloroethane-d4 (s)	10.231	65	126649	55.76 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 111.52%		
76) toluene-d8 (s)	12.312	98	342175	49.07 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 98.14%		
100) 4-bromofluorobenzene (s)	14.964	95	147970	47.99 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 95.98%		
Target Compounds					Qvalue
20) 1,1-dichloroethene	6.863	96	3230	1.06 ug/L #	74
28) methyl tert butyl ether	7.893	73	4533	0.51 ug/L	90
34) 1,1-dichloroethane	8.521	63	31060	7.07 ug/L	96
40) cis-1,2-dichloroethene	9.232	96	7750	2.80 ug/L	94
48) 1,1,1-trichloroethane	9.886	97	26521	5.86 ug/L	95
63) trichloroethene	11.005	95	4249	1.81 ug/L	81
68) 1,2-dichloropropane	11.298	63	1205	0.53 ug/L	91
82) tetrachloroethene	12.935	166	37264	13.66 ug/L	96

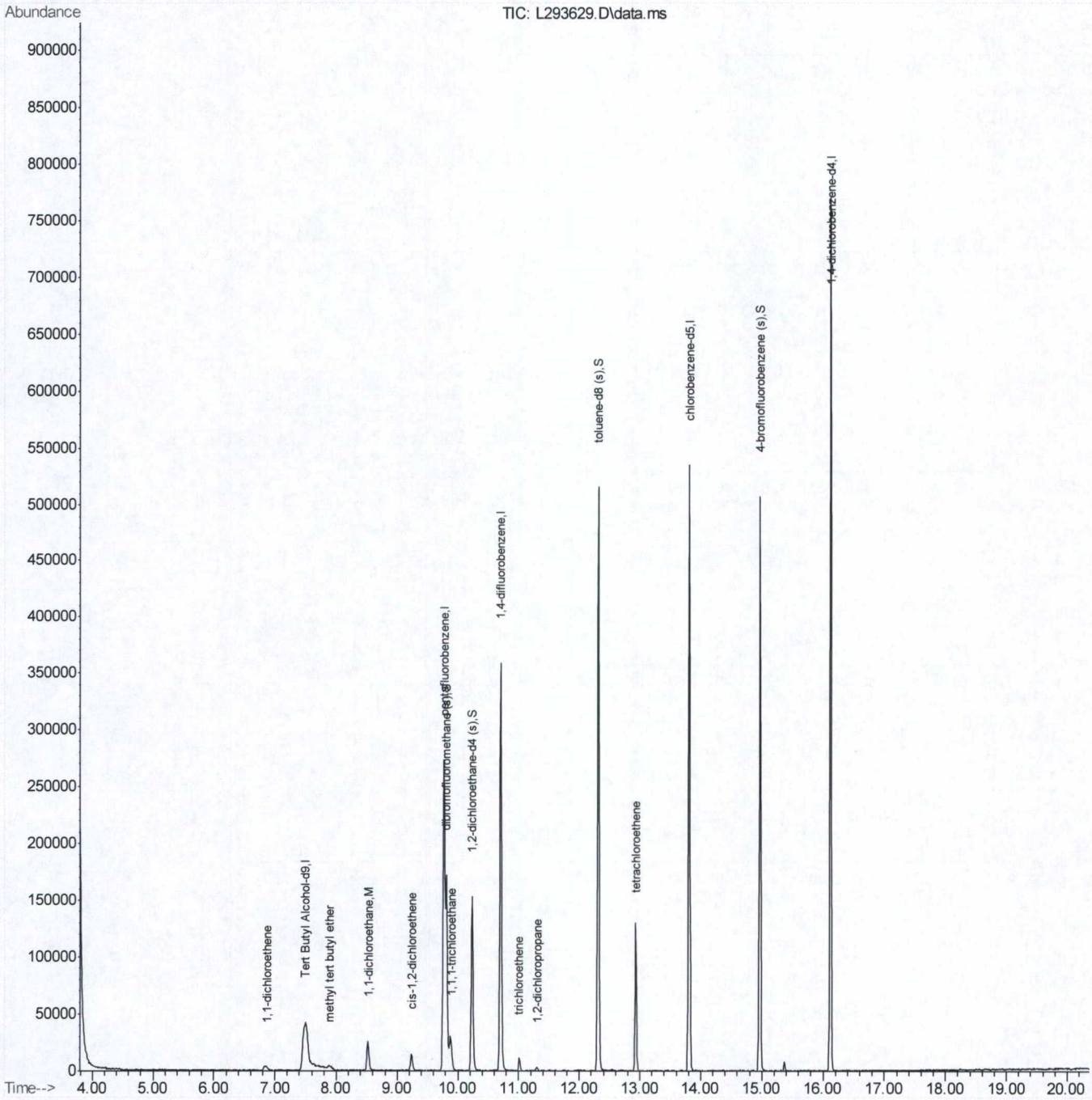
(#) = qualifier out of range (m) = manual integration (+) = signals summed

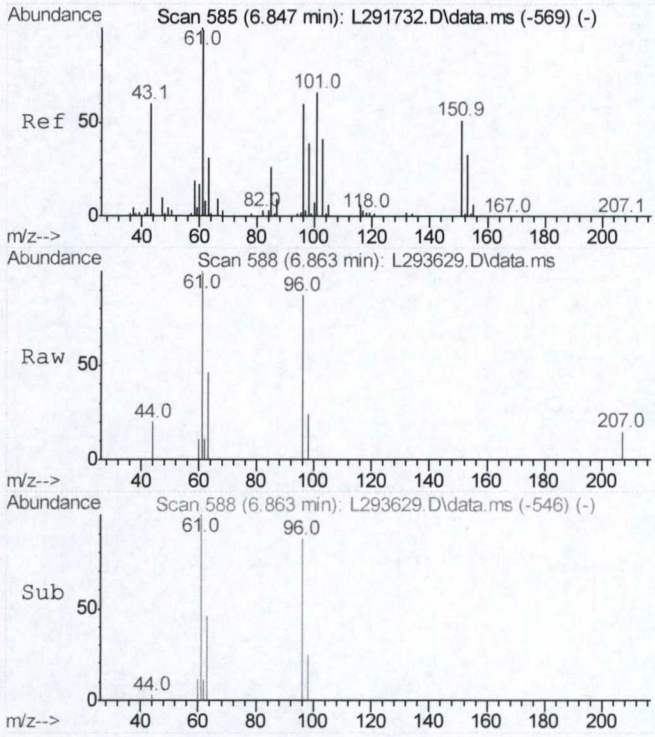
7.1.4 7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L\
Data File : L293629.D
Acq On : 16 Aug 2017 4:15 am
Operator : JiaminC
Sample : jc48812-4
Misc : MS19112,VL8249,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Aug 16 10:24:34 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Mon Jul 17 11:06:03 2017
Response via : Initial Calibration

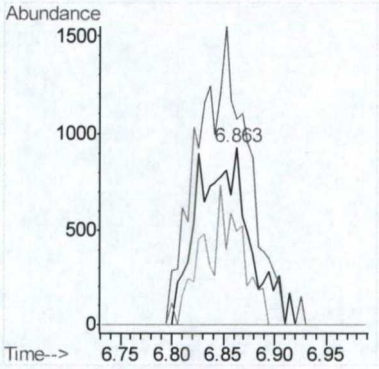


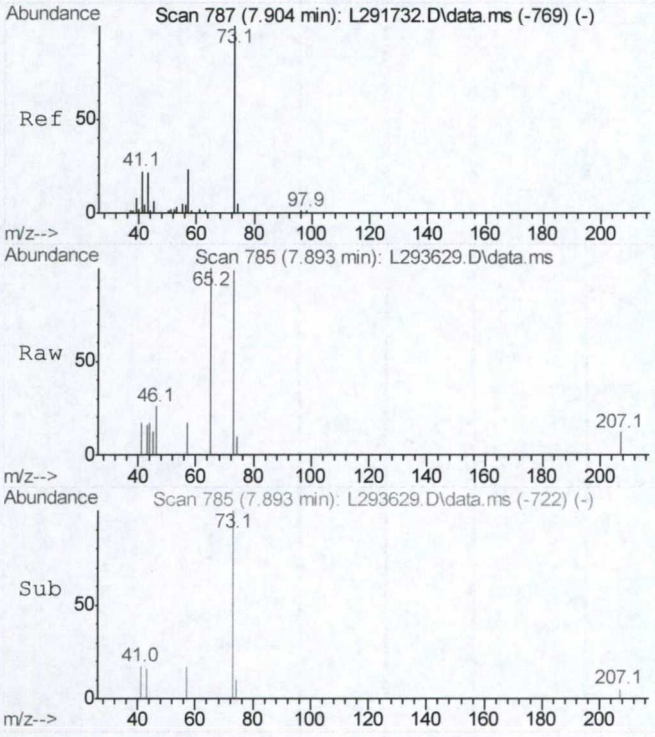


#20
1,1-dichloroethene
Concen: 1.06 ug/L
RT: 6.863 min Scan# 588
Delta R.T. 0.021 min
Lab File: L293629.D
Acq: 16 Aug 2017 4:15 am

Tgt Ion: 96 Resp: 3230

Ion	Ratio	Lower	Upper
96	100		
61	115.5	129.7	189.7#
63	53.2	25.7	85.7

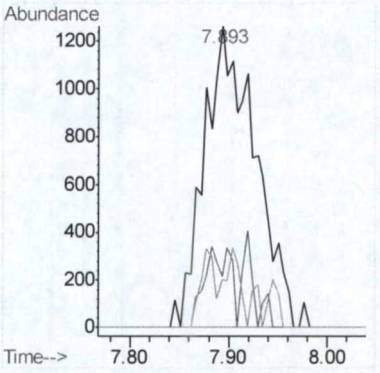




#28
methyl tert butyl ether
Concen: 0.51 ug/L
RT: 7.893 min Scan# 785
Delta R.T. -0.011 min
Lab File: L293629.D
Acq: 16 Aug 2017 4:15 am

Tgt Ion: 73 Resp: 4533

Ion	Ratio	Lower	Upper
73	100		
57	17.2	0.0	51.8
43	15.8	0.0	51.0



7.1.4

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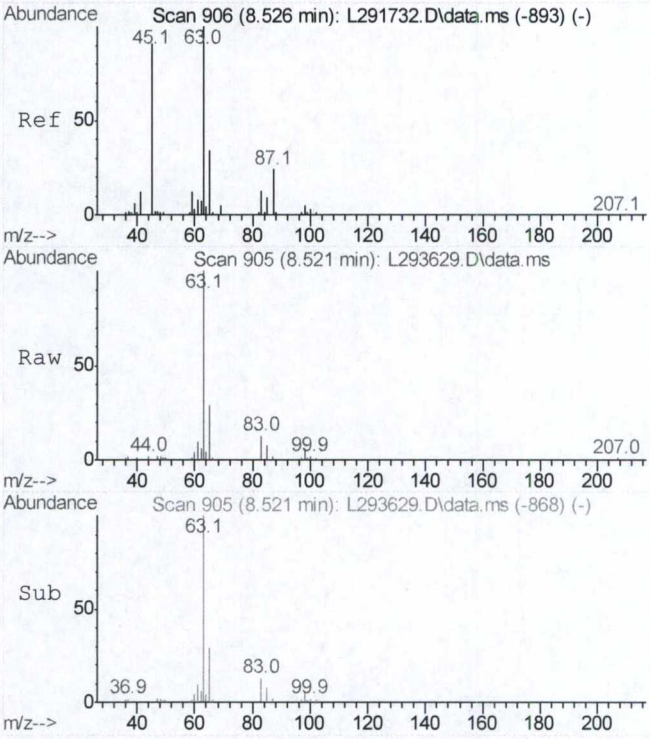
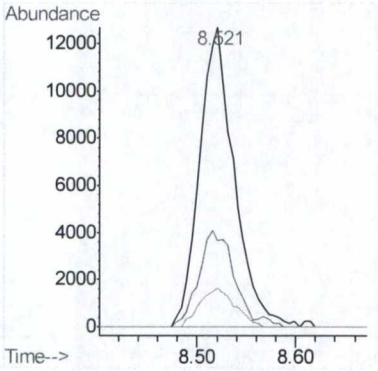
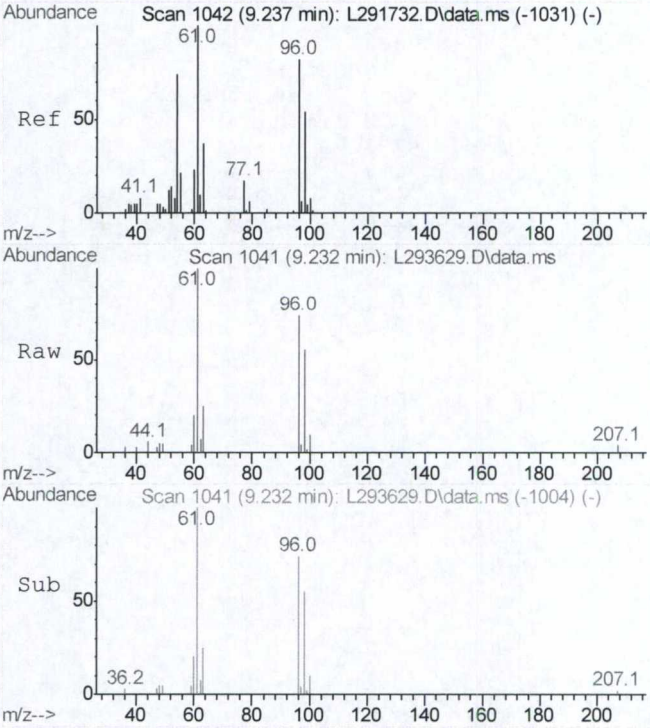


#34
1,1-dichloroethane
Concen: 7.07 ug/L
RT: 8.521 min Scan# 905
Delta R.T. -0.005 min
Lab File: L293629.D
Acq: 16 Aug 2017 4:15 am

Tgt Ion: 63 Resp: 31060

Ion	Ratio	Lower	Upper
63	100		
65	28.7	1.2	61.2
83	12.7	0.0	44.0

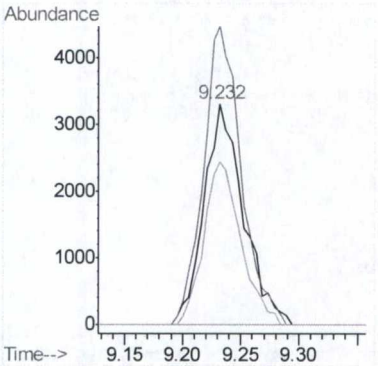




#40
cis-1,2-dichloroethene
Concen: 2.80 ug/L
RT: 9.232 min Scan# 1041
Delta R.T. -0.005 min
Lab File: L293629.D
Acq: 16 Aug 2017 4:15 am

Tgt Ion: 96 Resp: 7750

Ion	Ratio	Lower	Upper
96	100		
61	135.1	100.7	160.7
98	73.8	35.3	95.3



7.1.4

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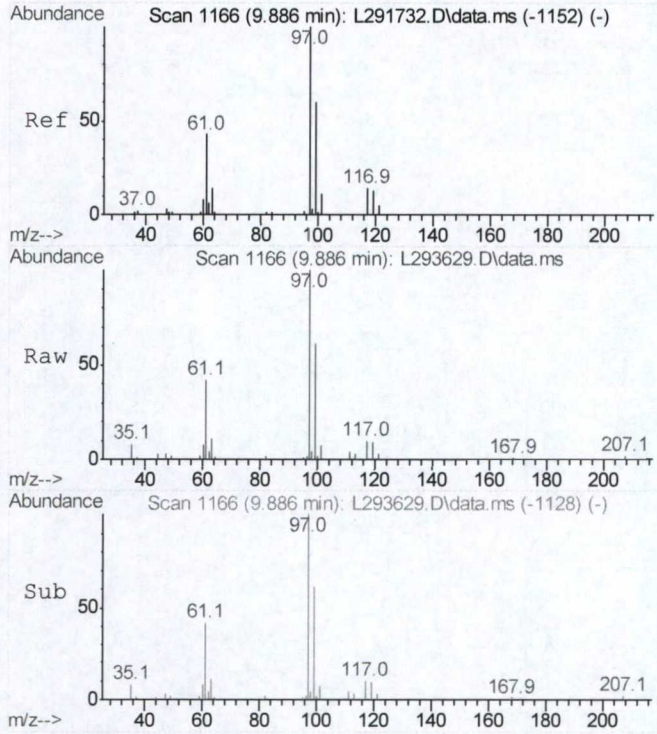
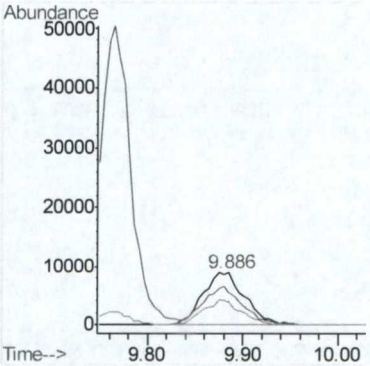
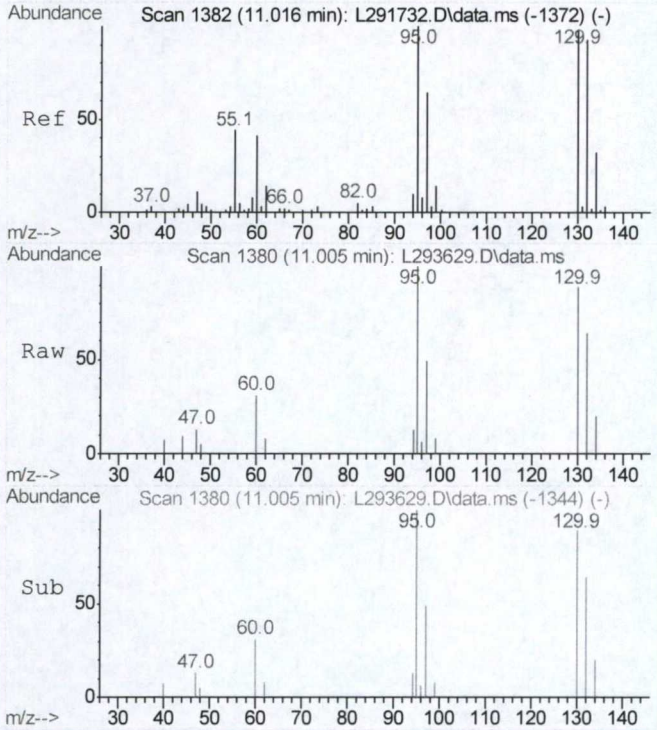


#48
1,1,1-trichloroethane
Concen: 5.86 ug/L
RT: 9.886 min Scan# 1166
Delta R.T. -0.000 min
Lab File: L293629.D
Acq: 16 Aug 2017 4:15 am

Tgt Ion: 97 Resp: 26521

Ion	Ratio	Lower	Upper
97	100		
99	60.6	36.9	96.9
61	41.8	11.8	71.8

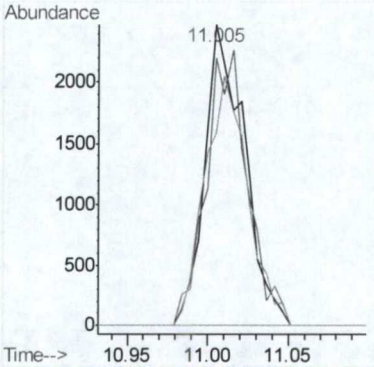




#63
trichloroethene
Concen: 1.81 ug/L
RT: 11.005 min Scan# 1380
Delta R.T. -0.011 min
Lab File: L293629.D
Acq: 16 Aug 2017 4:15 am

Tgt Ion: 95 Resp: 4249

Ion	Ratio	Lower	Upper
95	100		
130	89.1	68.4	128.4
132	64.2	62.1	122.1



7.1.4

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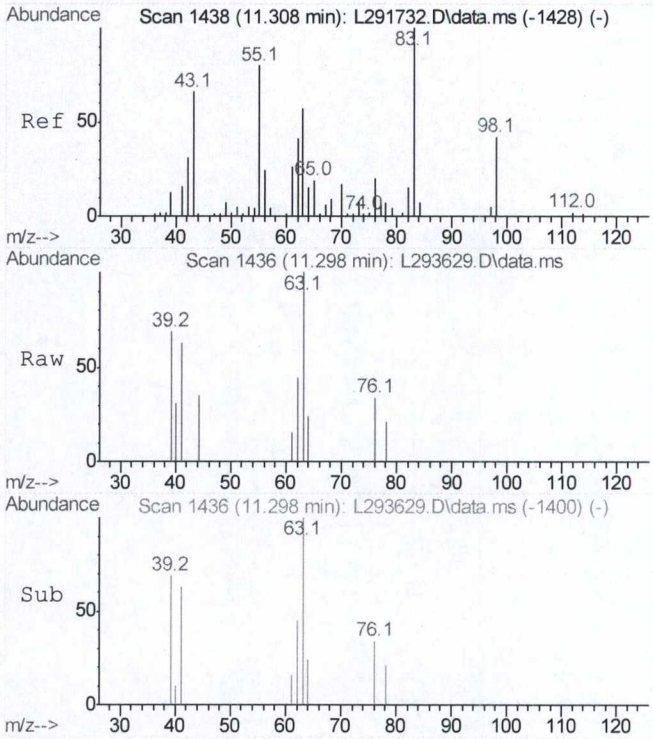
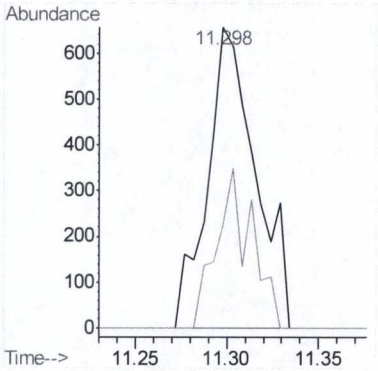
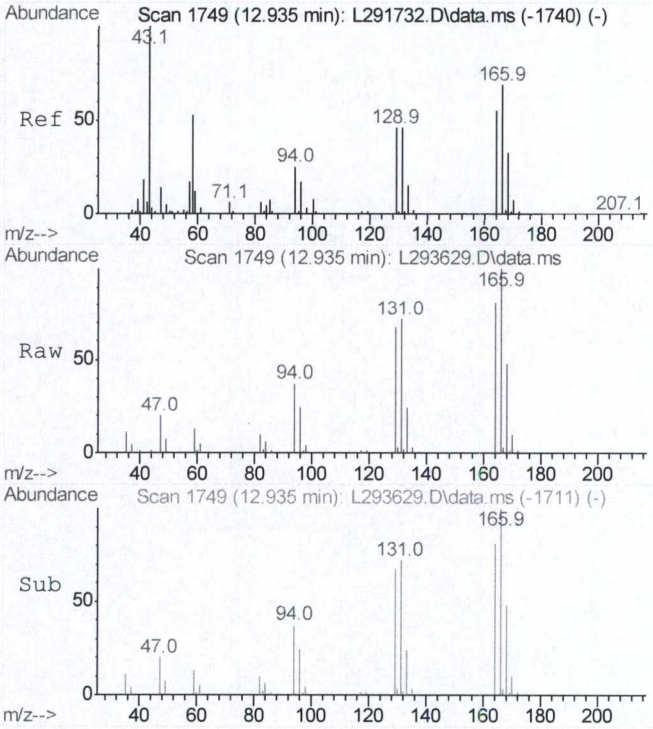


#68
1,2-dichloropropane
Concen: 0.53 ug/L
RT: 11.298 min Scan# 1436
Delta R.T. -0.011 min
Lab File: L293629.D
Acq: 16 Aug 2017 4:15 am

Tgt Ion: 63 Resp: 1205

Ion	Ratio	Lower	Upper
63	100		
112	0.0	0.0	33.8
76	33.8	9.5	69.5

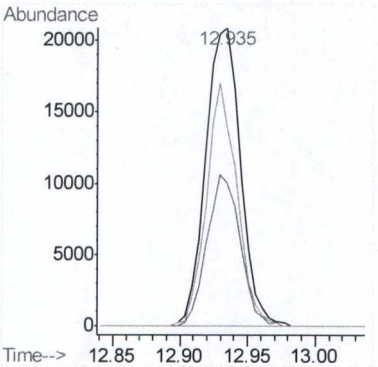




#82
tetrachloroethene
Concen: 13.66 ug/L
RT: 12.935 min Scan# 1749
Delta R.T. -0.000 min
Lab File: L293629.D
Acq: 16 Aug 2017 4:15 am

Tgt Ion:166 Resp: 37264

Ion	Ratio	Lower	Upper
166	100		
168	48.1	18.9	78.9
129	67.0	42.5	102.5



7.1.4

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SGS ACCUTEST JC48812

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L\
Data File : L293630.D
Acq On : 16 Aug 2017 4:41 am
Operator : JiaminC
Sample : jc48812-5
Misc : MS19112,VL8249,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 16 10:25:52 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Mon Jul 17 11:06:03 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.475	65	155059	500.00	ug/L	-0.04
5) pentafluorobenzene	9.760	168	215990	50.00	ug/L	-0.02
54) 1,4-difluorobenzene	10.696	114	306797	50.00	ug/L	-0.01
75) chlorobenzene-d5	13.808	117	277049	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	16.115	152	180461	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.807	113	108086	50.60	ug/L	-0.01
Spiked Amount 50.000	Range 76 - 120		Recovery = 101.20%			
55) 1,2-dichloroethane-d4 (s)	10.226	65	127495	56.82	ug/L	-0.01
Spiked Amount 50.000	Range 73 - 122		Recovery = 113.64%			
76) toluene-d8 (s)	12.307	98	340683	49.88	ug/L	-0.01
Spiked Amount 50.000	Range 84 - 119		Recovery = 99.76%			
100) 4-bromofluorobenzene (s)	14.964	95	150906	49.01	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 98.02%			
Target Compounds						Qvalue
48) 1,1,1-trichloroethane	9.865	97	2807	0.63	ug/L	90
82) tetrachloroethene	12.935	166	1686	0.63	ug/L	78

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

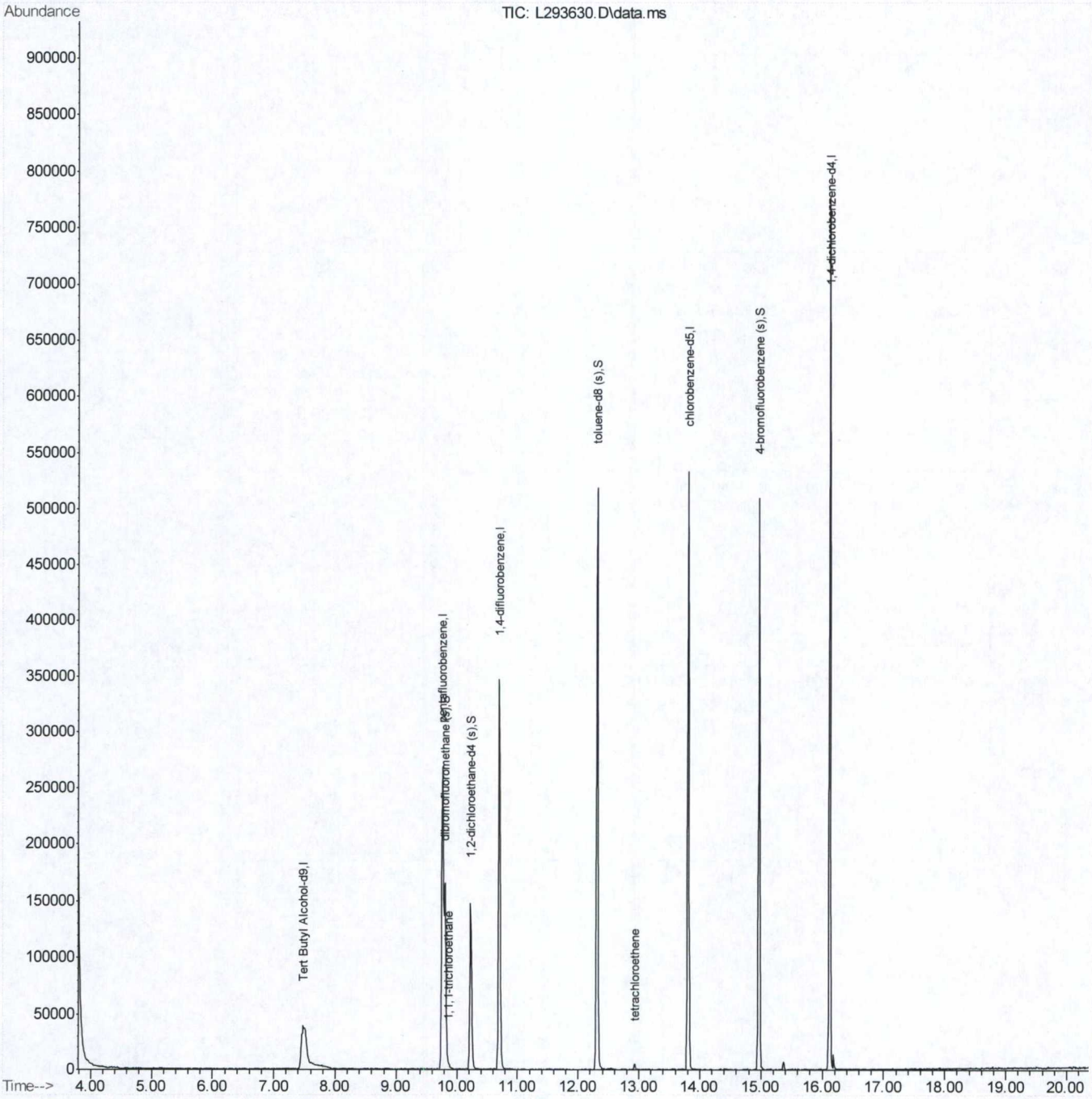
7.1.5

7

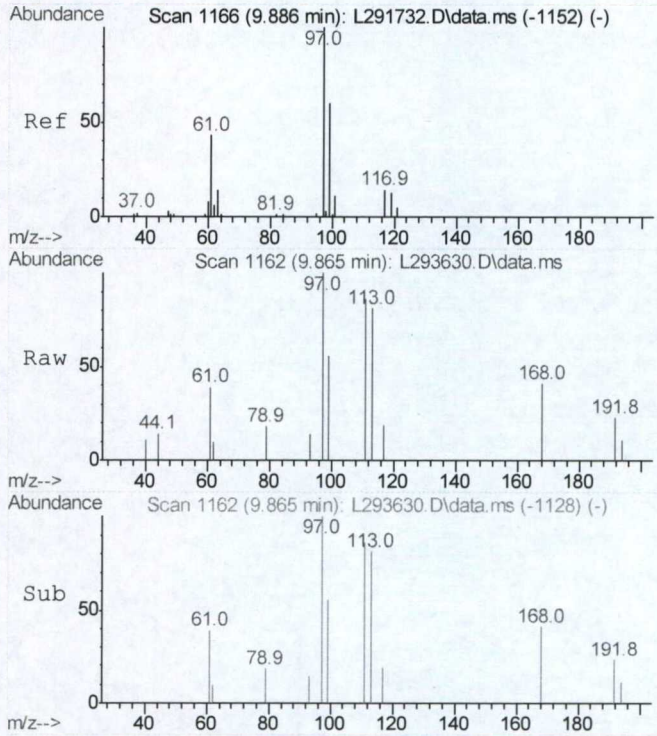
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L\
Data File : L293630.D
Acq On : 16 Aug 2017 4:41 am
Operator : JiaminC
Sample : jc48812-5
Misc : MS19112,VL8249,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Aug 16 10:25:52 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Mon Jul 17 11:06:03 2017
Response via : Initial Calibration



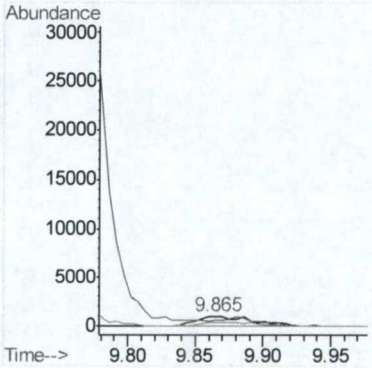
SGS ACCUTEST JC48812

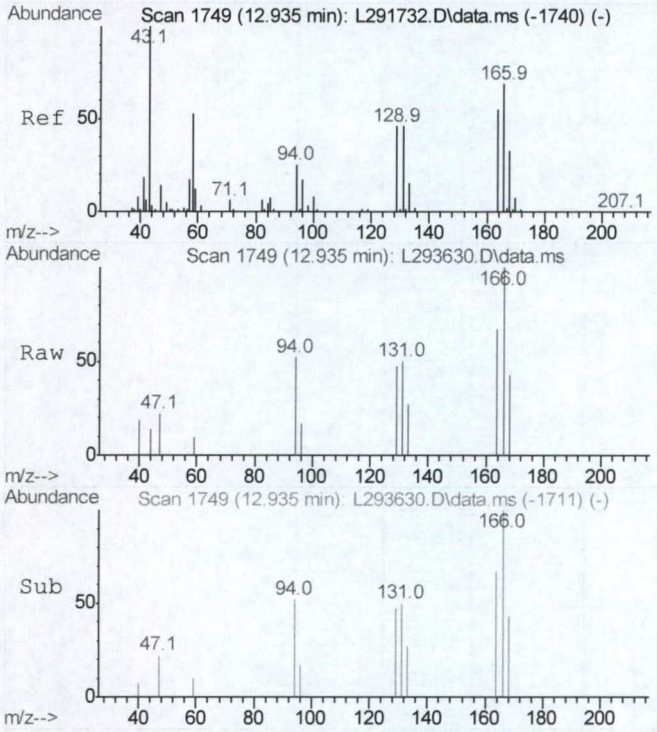


#48
1,1,1-trichloroethane
Concen: 0.63 ug/L
RT: 9.865 min Scan# 1162
Delta R.T. -0.021 min
Lab File: L293630.D
Acq: 16 Aug 2017 4:41 am

Tgt Ion: 97 Resp: 2807

Ion	Ratio	Lower	Upper
97	100		
99	55.6	36.9	96.9
61	39.5	11.8	71.8

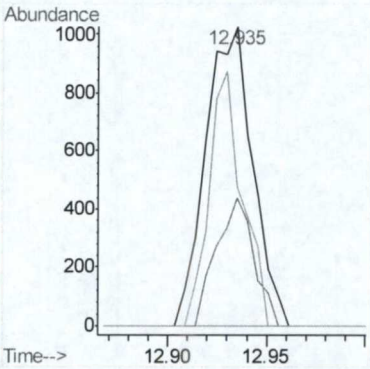




#82
tetrachloroethene
Concen: 0.63 ug/L
RT: 12.935 min Scan# 1749
Delta R.T. 0.000 min
Lab File: L293630.D
Acq: 16 Aug 2017 4:41 am

Tgt Ion:166 Resp: 1686

Ion	Ratio	Lower	Upper
166	100		
168	42.9	18.9	78.9
129	46.8	42.5	102.5



7.1.5

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SGS ACCUTEST JC48812

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L\
Data File : L293631.D
Acq On : 16 Aug 2017 5:08 am
Operator : JiaminC
Sample : jc48812-6
Misc : MS19112,VL8249,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 16 10:26:08 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Mon Jul 17 11:06:03 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	7.485	65	137689	500.00	ug/L	-0.03
5) pentafluorobenzene	9.765	168	219700	50.00	ug/L	-0.01
54) 1,4-difluorobenzene	10.696	114	311745	50.00	ug/L	-0.01
75) chlorobenzene-d5	13.808	117	288136	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	16.115	152	182596	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	9.807	113	110381	50.81	ug/L	-0.01
Spiked Amount 50.000	Range 76 - 120		Recovery = 101.62%			
55) 1,2-dichloroethane-d4 (s)	10.226	65	129719	56.89	ug/L	-0.01
Spiked Amount 50.000	Range 73 - 122		Recovery = 113.78%			
76) toluene-d8 (s)	12.307	98	348715	49.09	ug/L	-0.01
Spiked Amount 50.000	Range 84 - 119		Recovery = 98.18%			
100) 4-bromofluorobenzene (s)	14.964	95	154076	49.45	ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 98.90%			
Target Compounds						Qvalue
48) 1,1,1-trichloroethane	9.875	97	4588	1.01	ug/L	93
82) tetrachloroethene	12.935	166	5926	2.13	ug/L	83

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

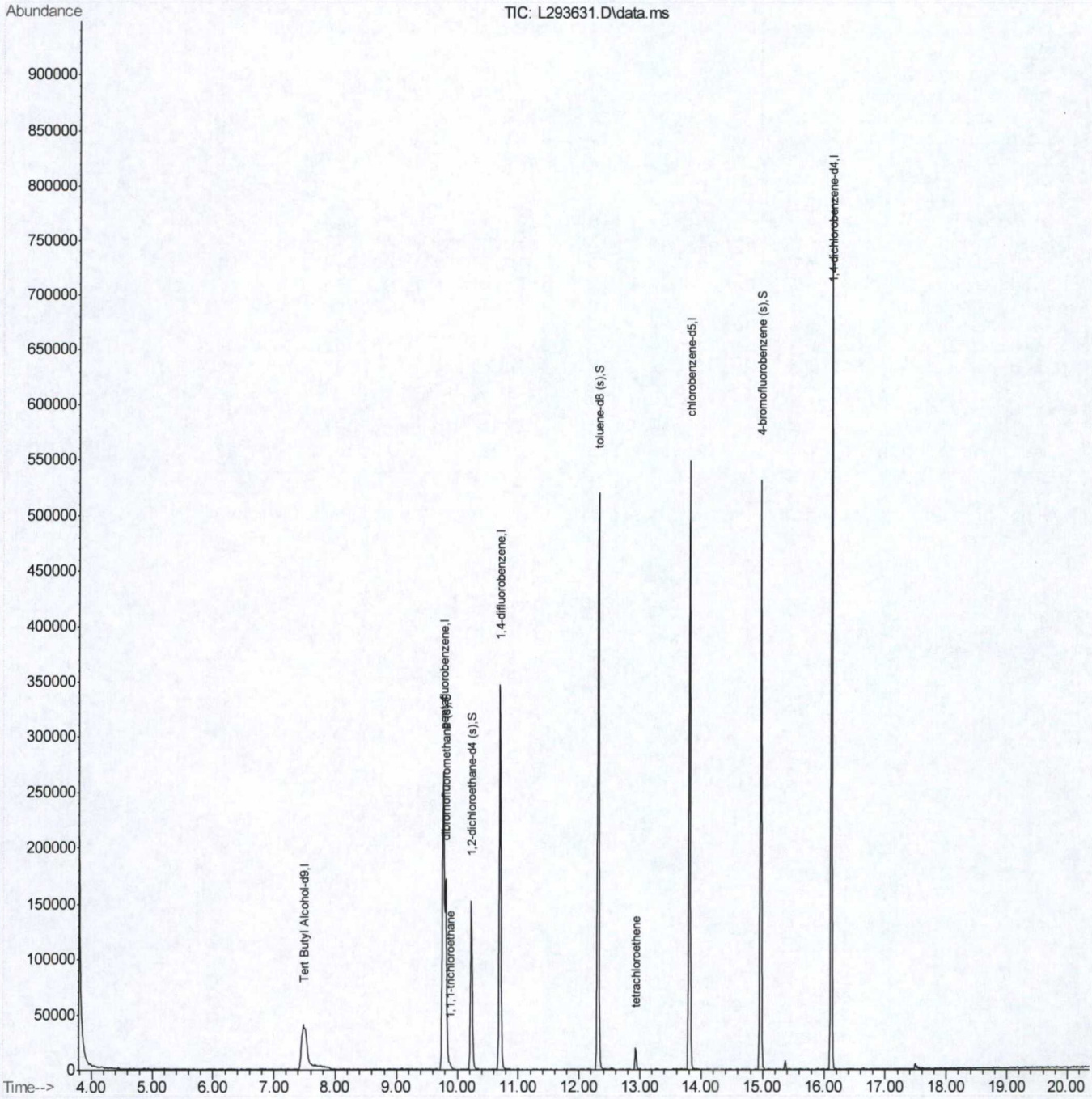
7.1.6

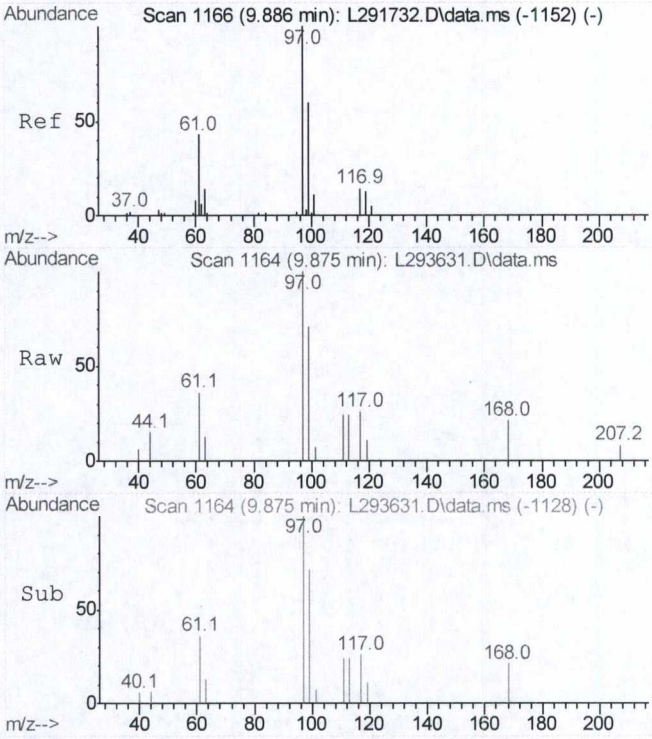
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L\
Data File : L293631.D
Acq On : 16 Aug 2017 5:08 am
Operator : JiaminC
Sample : jc48812-6
Misc : MS19112,VL8249,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Aug 16 10:26:08 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Mon Jul 17 11:06:03 2017
Response via : Initial Calibration

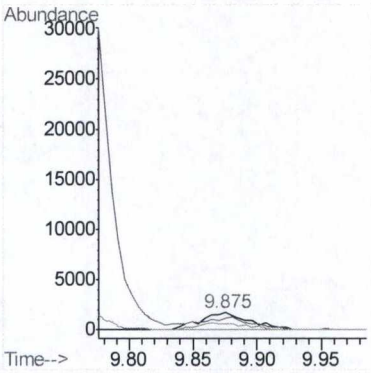


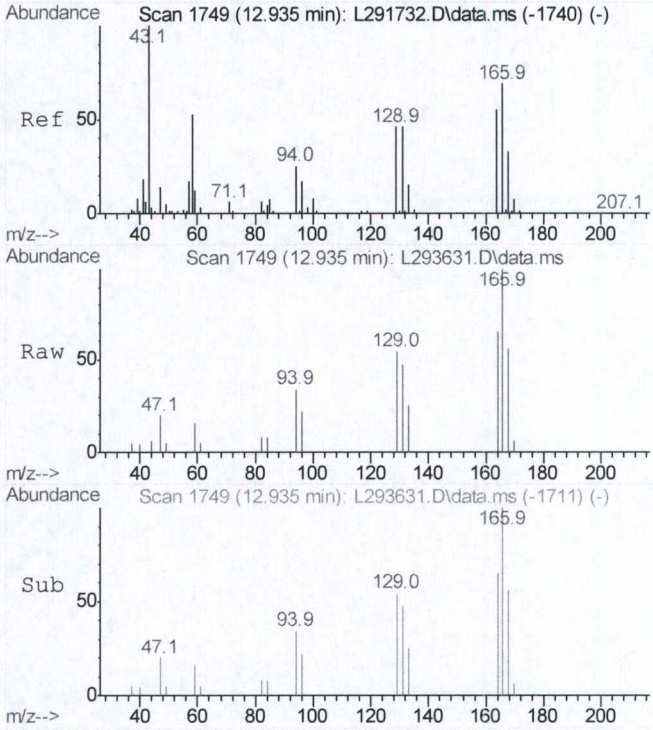


#48
1,1,1-trichloroethane
Concen: 1.01 ug/L
RT: 9.875 min Scan# 1164
Delta R.T. -0.011 min
Lab File: L293631.D
Acq: 16 Aug 2017 5:08 am

Tgt Ion: 97 Resp: 4588

Ion	Ratio	Lower	Upper
97	100		
99	70.9	36.9	96.9
61	35.8	11.8	71.8

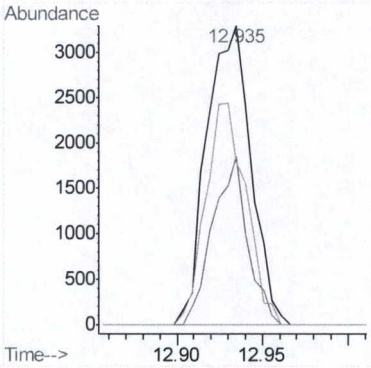




#82
tetrachloroethene
Concen: 2.13 ug/L
RT: 12.935 min Scan# 1749
Delta R.T. -0.000 min
Lab File: L293631.D
Acq: 16 Aug 2017 5:08 am

Tgt Ion:166 Resp: 5926

Ion	Ratio	Lower	Upper
166	100		
168	56.1	18.9	78.9
129	54.1	42.5	102.5



7.1.6

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SGS ACCUTEST JC48812

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L\
Data File : L293632.D
Acq On : 16 Aug 2017 5:35 am
Operator : JiaminC
Sample : jc48812-7
Misc : MS19112,VL8249,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Aug 16 10:26:17 2017
Quant Method : C:\MSDCHEM\1\METHODS\ML8203.M
Quant Title : SW846 Method V8260C, column ZB-624 60m x 0.25mm x 1.4 um
QLast Update : Mon Jul 17 11:06:03 2017
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) Tert Butyl Alcohol-d9	7.480	65	158155	500.00 ug/L	-0.03
5) pentafluorobenzene	9.765	168	216663	50.00 ug/L	-0.01
54) 1,4-difluorobenzene	10.696	114	303695	50.00 ug/L	-0.01
75) chlorobenzene-d5	13.808	117	282309	50.00 ug/L	0.00
99) 1,4-dichlorobenzene-d4	16.115	152	179846	50.00 ug/L	0.00
System Monitoring Compounds					
46) dibromofluoromethane (s)	9.807	113	110012	51.35 ug/L	-0.01
Spiked Amount 50.000	Range 76 - 120		Recovery = 102.70%		
55) 1,2-dichloroethane-d4 (s)	10.231	65	127357	57.34 ug/L	0.00
Spiked Amount 50.000	Range 73 - 122		Recovery = 114.68%		
76) toluene-d8 (s)	12.312	98	336441	48.34 ug/L	0.00
Spiked Amount 50.000	Range 84 - 119		Recovery = 96.68%		
100) 4-bromofluorobenzene (s)	14.964	95	151407	49.34 ug/L	0.00
Spiked Amount 50.000	Range 78 - 117		Recovery = 98.68%		
Target Compounds					Qvalue
82) tetrachloroethene	12.930	166	6671	2.45 ug/L	95

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

7.1.7

7