

Data File : VU033777.D
Acq On : 13 Aug 2019 10:07
Operator : JC/SP
Sample : VSTD05035
Misc : 5.0mL/MSVOA_U/WATER
ALS Vial : 5 Sample Multiplier: 1

Instrument :
MSVOA_U
ClientSampleId :
VSTD05035

Quant Time: Aug 14 01:36:53 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SFAMULM081319W.M
Quant Title : VOC Analysis
QLast Update : Wed Aug 14 01:33:31 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Difluorobenzene	5.86	114	411656	50.00	ug/L	0.00
28) Chlorobenzene-d5	9.07	117	410355	50.00	ug/L	0.00
58) 1,4-Dichlorobenzene-d4	11.47	152	214964	50.00	ug/L	0.00

System Monitoring Compounds

4) Vinyl Chloride-d3	1.39	65	193521	51.58	ug/L	0.00
7) Chloroethane-d5	1.67	69	166886	53.34	ug/L	0.00
11) 1,1-Dichloroethene-d2	2.26	63	314308	47.46	ug/L	0.00
21) 2-Butanone-d5	4.15	46	217950	102.30	ug/L	0.00
24) Chloroform-d	4.62	84	303555	53.62	ug/L	0.00
26) 1,2-Dichloroethane-d4	5.29	65	189677	52.18	ug/L	0.00
32) Benzene-d6	5.32	84	595764	53.57	ug/L	0.00
36) 1,2-Dichloropropane-d6	6.31	67	188127	54.36	ug/L	0.00
41) Toluene-d8	7.55	98	560357	53.70	ug/L	0.00
43) trans-1,3-Dichloropropene-	7.83	79	91556	54.27	ug/L	0.00
47) 2-Hexanone-d5	8.29	63	161215	112.16	ug/L	0.00
56) 1,1,2,2-Tetrachloroethane-	10.41	84	268457	50.95	ug/L	0.00
66) 1,2-Dichlorobenzene-d4	11.84	152	213170	51.00	ug/L	0.00

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	1.20	85	202895	49.286	ug/L	100
3) Chloromethane	1.32	50	206433	50.157	ug/L	100
5) Vinyl chloride	1.39	62	229145	48.961	ug/L	100
6) Bromomethane	1.62	94	189034	54.760	ug/L	100
8) Chloroethane	1.69	64	140858	48.887	ug/L	100
9) Trichlorofluoromethane	1.87	101	289123	47.448	ug/L	100
10) 1,1,2-Trichloro-1,2,2-trif	2.27	101	146492	48.114	ug/L	100
12) 1,1-Dichloroethene	2.27	96	140613	47.680	ug/L	100
13) Acetone	2.31	43	191584	91.651	ug/L	100
14) Carbon disulfide	2.46	76	442968	49.159	ug/L	100
15) Methyl Acetate	2.60	43	162261	47.852	ug/L	100
16) Methylene chloride	2.68	84	162173	49.058	ug/L	100
17) trans-1,2-Dichloroethene	2.96	96	146862	48.884	ug/L	100
18) Methyl tert-butyl Ether	2.98	73	439635	49.847	ug/L	100
19) 1,1-Dichloroethane	3.42	63	281628	49.956	ug/L	100
20) cis-1,2-Dichloroethene	4.20	96	161772	49.042	ug/L	100
22) 2-Butanone	4.24	43	245144	97.979	ug/L	100
23) Bromochloromethane	4.52	128	85413	48.628	ug/L	100
25) Chloroform	4.65	83	290297	48.771	ug/L	100
27) 1,2-Dichloroethane	5.38	62	229848	49.536	ug/L	100
29) Cyclohexane	4.97	56	231598	51.300	ug/L	100
30) 1,1,1-Trichloroethane	4.89	97	244292	49.813	ug/L	100
31) Carbon tetrachloride	5.11	117	216959	49.735	ug/L	100
33) Benzene	5.37	78	634910	51.426	ug/L	100
34) Trichloroethene	6.16	95	162215	50.416	ug/L	100
35) Methylcyclohexane	6.40	83	250926	51.105	ug/L	100
37) 1,2-Dichloropropane	6.41	63	169741	51.013	ug/L	100
38) Bromodichloromethane	6.74	83	216097	49.508	ug/L	100
39) cis-1,3-Dichloropropene	7.25	75	258614	52.338	ug/L	100
40) 4-Methyl-2-pentanone	7.44	43	434549	100.181	ug/L	100

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Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Toluene	7.62	91	681813	51.546	ug/L	100
44) trans-1,3-Dichloropropene	7.86	75	232666	51.805	ug/L	100
45) 1,1,2-Trichloroethane	8.05	97	158545	50.180	ug/L	100
46) Tetrachloroethene	8.21	164	130859	49.850	ug/L	100
48) 2-Hexanone	8.34	43	345046	98.300	ug/L	100
49) Dibromochloromethane	8.46	129	178863	50.593	ug/L	100
50) 1,2-Dibromoethane	8.57	107	170990	50.006	ug/L	100
51) Chlorobenzene	9.10	112	427013	48.788	ug/L	100
52) Ethylbenzene	9.23	91	719858	50.330	ug/L	100
53) m,p-Xylene	9.36	106	278409	51.729	ug/L	100
54) o-xylene	9.76	106	268587	50.917	ug/L	100
55) Styrene	9.77	104	468109	52.233	ug/L	100
57) 1,1,2,2-Tetrachloroethane	10.44	83	265022	47.527	ug/L	100
59) Bromoform	9.94	173	134346	49.563	ug/L	100
60) 1,2,3-Trichloropropane	10.48	75	211157	48.111	ug/L	100
61) Isopropylbenzene	10.15	105	689043	50.010	ug/L	100
62) 1,3,5-Trimethylbenzene	10.76	105	567914	51.026	ug/L	100
63) 1,2,4-Trimethylbenzene	11.13	105	574299	51.991	ug/L	100
64) 1,3-Dichlorobenzene	11.40	146	336864	47.885	ug/L	100
65) 1,4-Dichlorobenzene	11.49	146	343112	47.134	ug/L	100
67) 1,2-Dichlorobenzene	11.86	146	337894	48.077	ug/L	100
68) 1,2-Dibromo-3-chloropropan	12.64	75	58981	48.477	ug/L	100
69) 1,3,5-Trichlorobenzene	12.87	180	253444	47.481	ug/L	100
70) 1,2,4-trichlorobenzene	13.49	180	218612	48.833	ug/L	100
71) Naphthalene	13.73	128	688024	52.786	ug/L	100
72) 1,2,3-Trichlorobenzene	13.97	180	232863	49.820	ug/L	100

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

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ALS Vial      : 5      Sample Multiplier: 1
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Instrument :
MSVOA_U
ClientSampleId :
VSTD05035

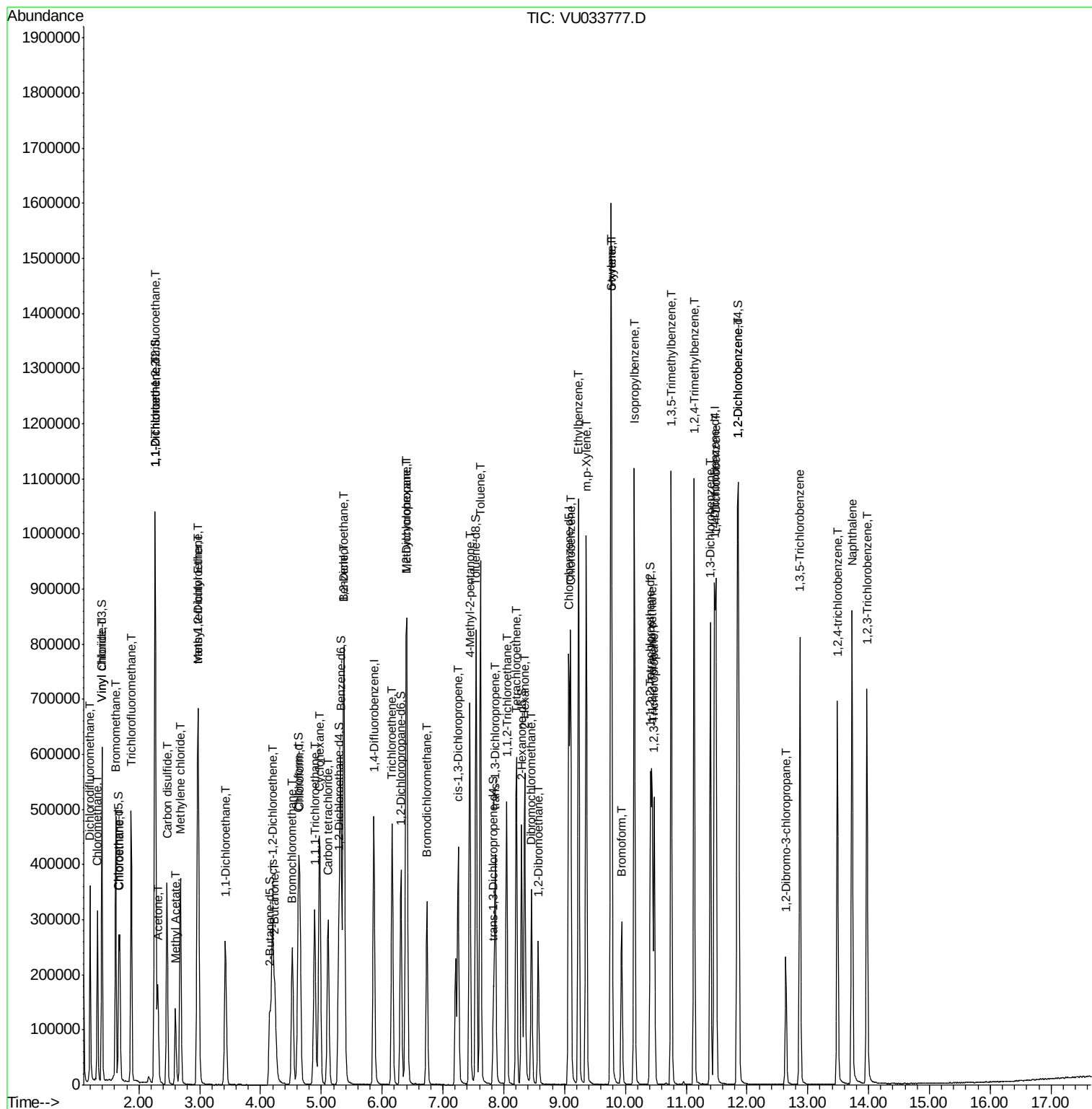
Quant Time: Aug 14 01:36:53 2019

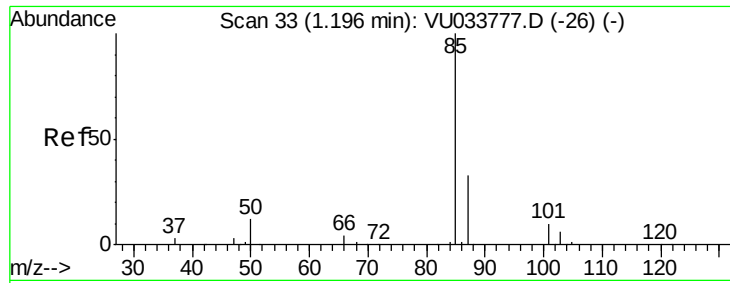
Quant Method : Z:\V0ASRV\HPCHEM1\MSV0A_U\METHOD\SFAMULM081319W.M

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#2

Dichlorodifluoromethane

Concen: 49.286 ug/L

RT: 1.20 min Scan# 33

Delta R.T. 0.00 min

Lab File: VU033777.D

Acq: 13 Aug 2019 10:07

Instrument :

MSVOA_U

ClientSampleId :

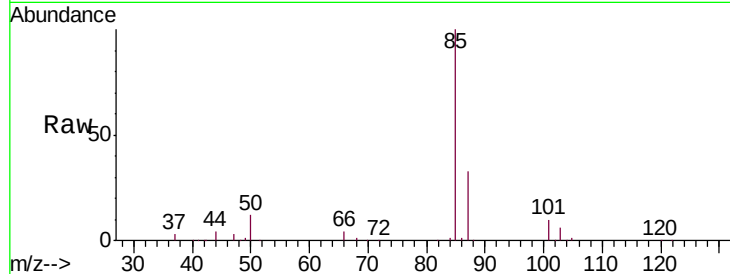
VSTD05035

Tgt Ion: 85 Resp: 202895

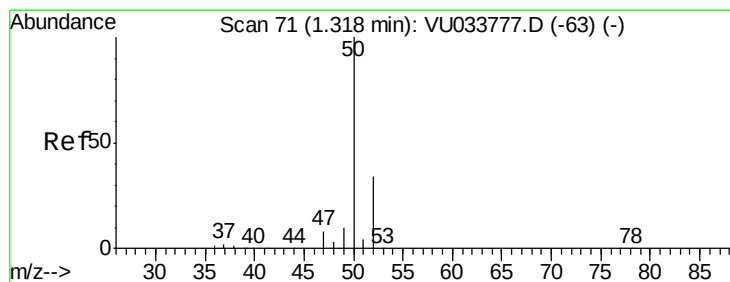
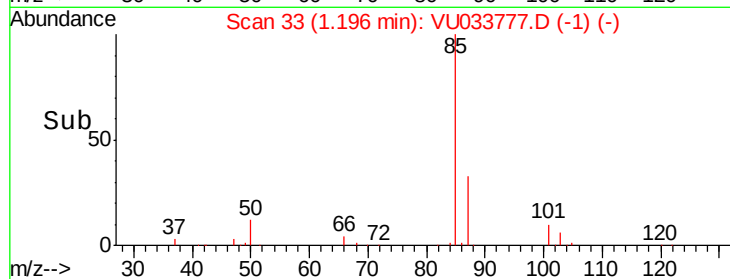
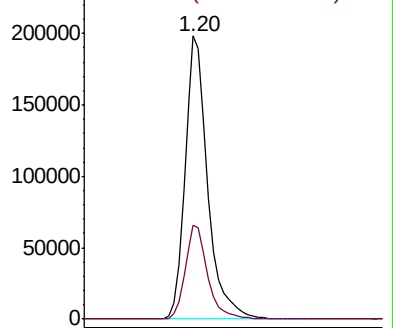
Ion Ratio Lower Upper

85 100

87 33.0 26.4 39.6



Abundance Ion 85.00 (84.70 to 85.70): VU033777.D (-26) (-)



#3

Chloromethane

Concen: 50.157 ug/L

RT: 1.32 min Scan# 71

Delta R.T. 0.00 min

Lab File: VU033777.D

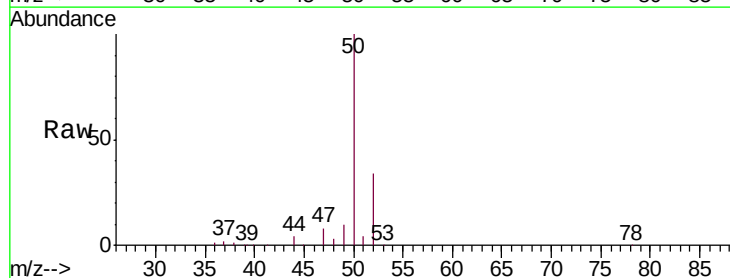
Acq: 13 Aug 2019 10:07

Tgt Ion: 50 Resp: 206433

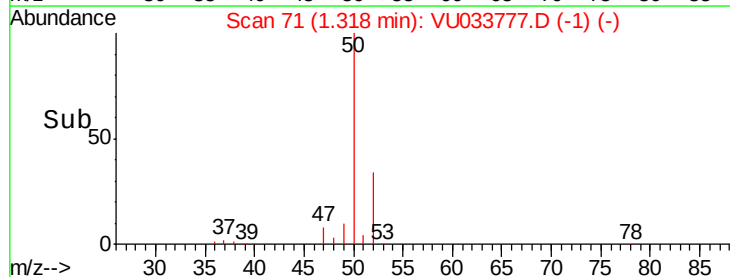
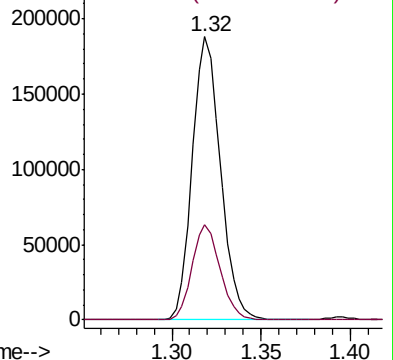
Ion Ratio Lower Upper

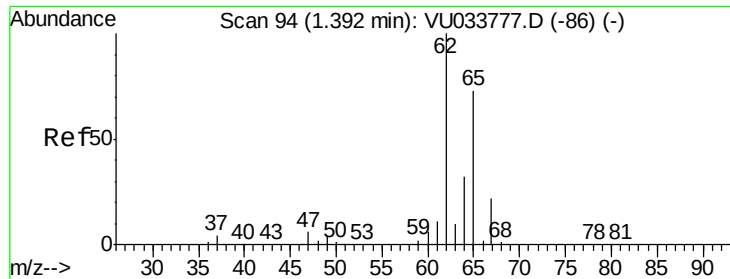
50 100

52 33.6 23.5 43.7



Abundance Ion 50.00 (49.70 to 50.70): VU033777.D (-63) (-)





#5

Vinyl chloride

Concen: 48.961 ug/L

RT: 1.39 min Scan# 94

Delta R.T. 0.00 min

Lab File: VU033777.D

Acq: 13 Aug 2019 10:07

Instrument :

MSVOA_U

ClientSampleId :

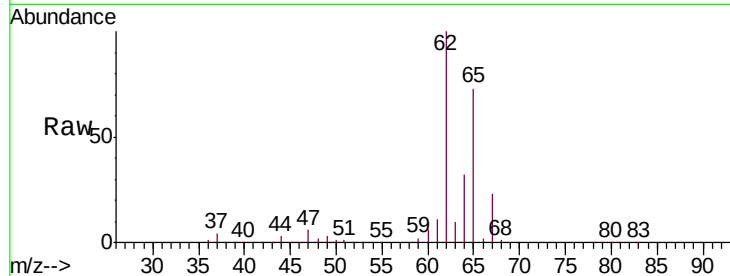
VSTD05035

Tgt Ion: 62 Resp: 229145

Ion Ratio Lower Upper

62 100

64 31.9 22.3 41.5



Abundance Ion 62.00 (61.70 to 62.70): VU0

Ion 64.00 (63.70 to 64.70): VU0

250000

200000

150000

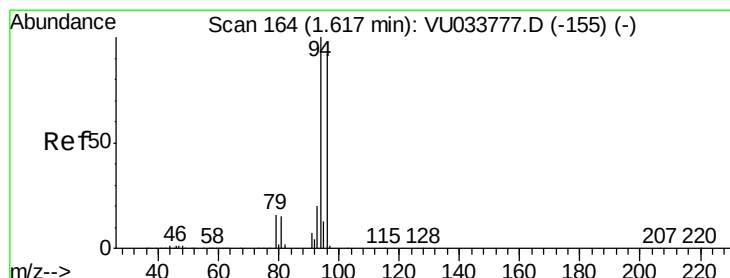
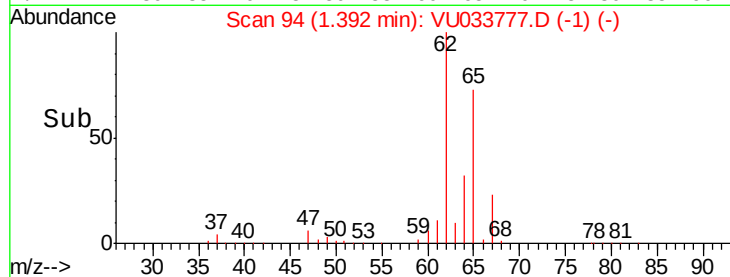
100000

50000

0

1.35 1.40 1.45

Time-->



#6

Bromomethane

Concen: 54.760 ug/L

RT: 1.62 min Scan# 164

Delta R.T. 0.00 min

Lab File: VU033777.D

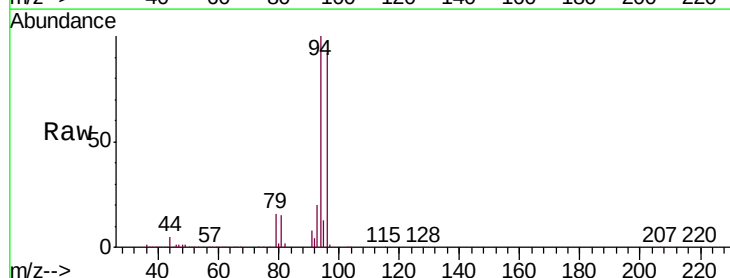
Acq: 13 Aug 2019 10:07

Tgt Ion: 94 Resp: 189034

Ion Ratio Lower Upper

94 100

96 92.1 64.5 119.7



Abundance Ion 94.00 (93.70 to 94.70): VU0

Ion 96.00 (95.70 to 96.70): VU0

200000

150000

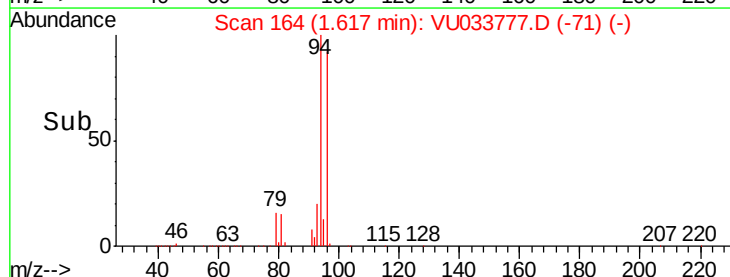
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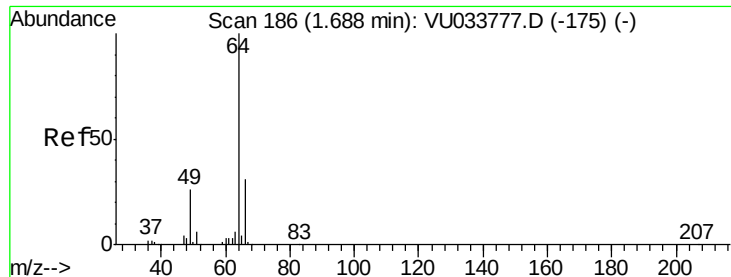
50000

0

1.55 1.60 1.65 1.70

Time-->

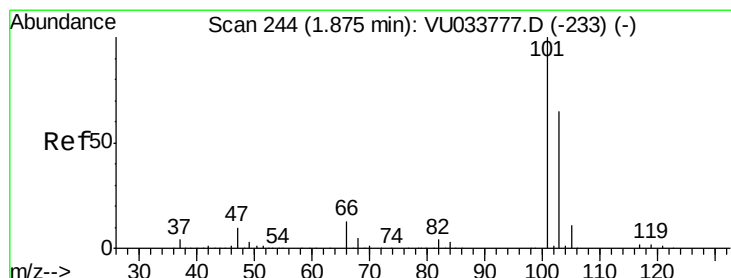
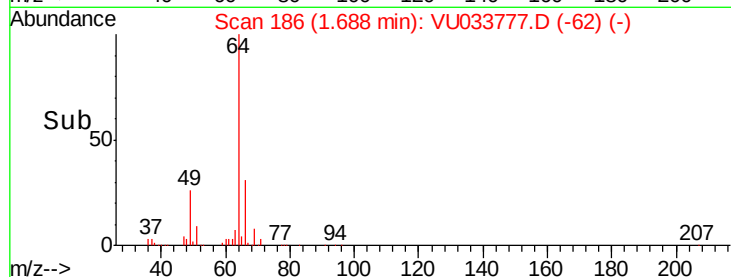
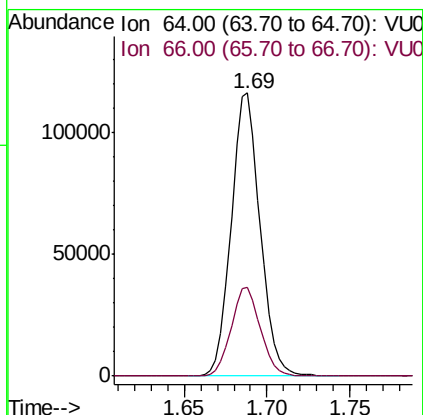
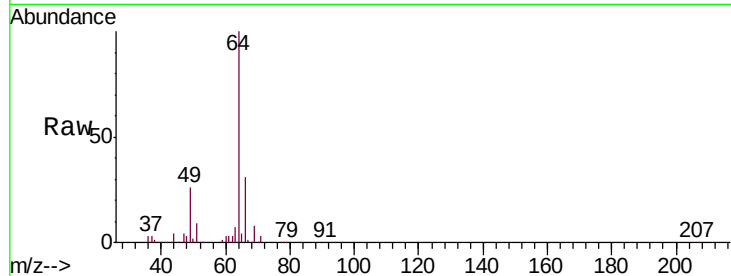




#8
Chloroethane
Concen: 48.887 ug/L
RT: 1.69 min Scan# 186
Delta R.T. 0.00 min
Lab File: VU033777.D
Acq: 13 Aug 2019 10:07

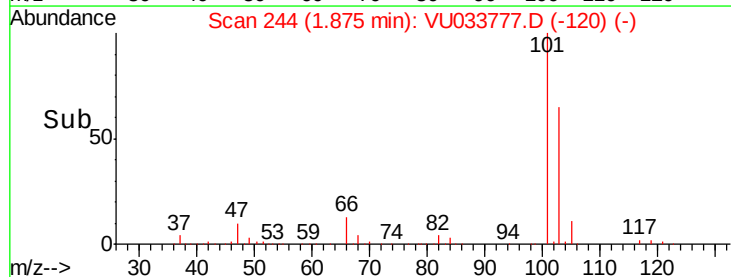
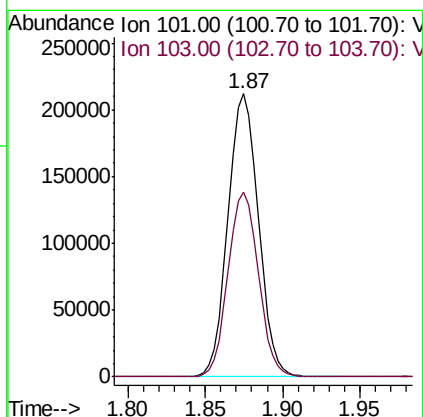
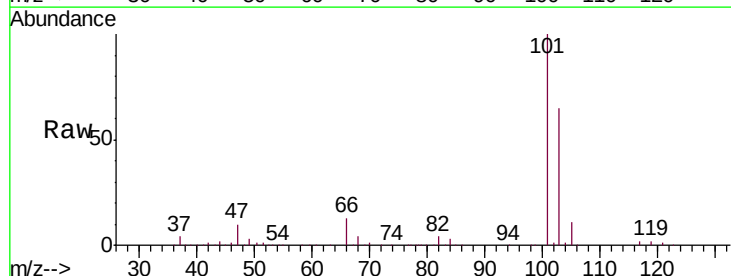
Instrument :
MSVOA_U
ClientSampleId :
VSTD05035

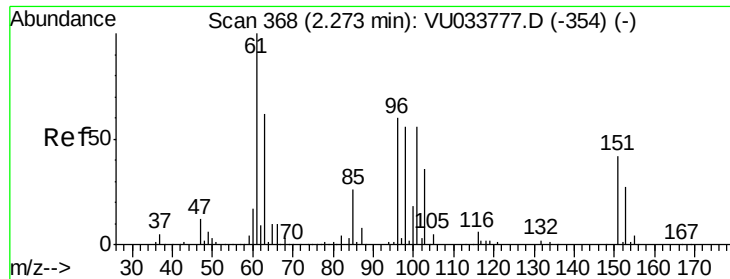
Tgt Ion: 64 Resp: 140858
Ion Ratio Lower Upper
64 100
66 31.3 21.9 40.7



#9
Trichlorofluoromethane
Concen: 47.448 ug/L
RT: 1.87 min Scan# 244
Delta R.T. 0.00 min
Lab File: VU033777.D
Acq: 13 Aug 2019 10:07

Tgt Ion: 101 Resp: 289123
Ion Ratio Lower Upper
101 100
103 65.3 52.2 78.4





#10

1,1,2-Trichloro-1,2,2-trifluoroethane

Concen: 48.114 ug/L

RT: 2.27 min Scan# 368

Delta R.T. 0.00 min

Lab File: VU033777.D

Acq: 13 Aug 2019 10:07

Instrument :

MSVOA_U

ClientSampleId :

VSTD05035

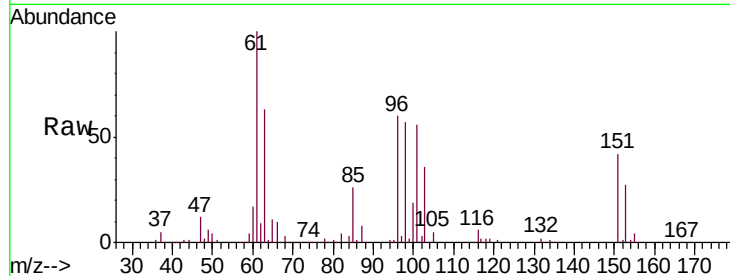
Tgt Ion: 101 Resp: 146492

Ion Ratio Lower Upper

101 100

85 44.0 35.2 52.8

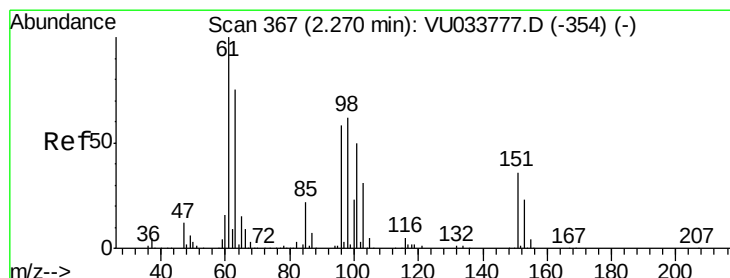
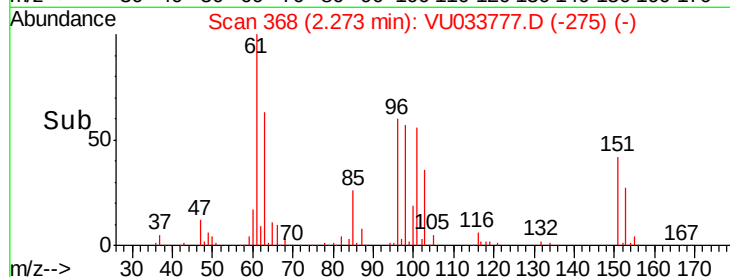
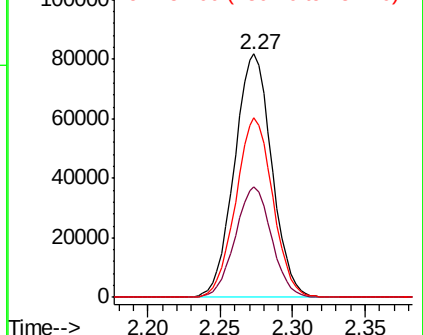
151 73.1 58.5 87.7



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 85.00 (84.70 to 85.70): VU0

Ion 151.00 (150.70 to 151.70): V



#12

1,1-Dichloroethene

Concen: 47.680 ug/L

RT: 2.27 min Scan# 367

Delta R.T. 0.00 min

Lab File: VU033777.D

Acq: 13 Aug 2019 10:07

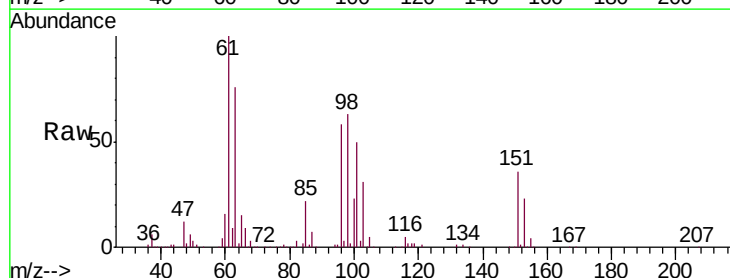
Tgt Ion: 96 Resp: 140613

Ion Ratio Lower Upper

96 100

61 173.6 121.5 225.7

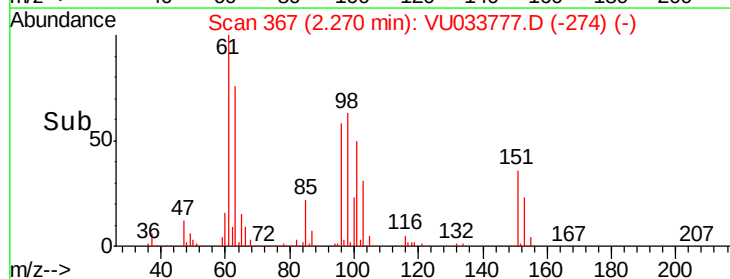
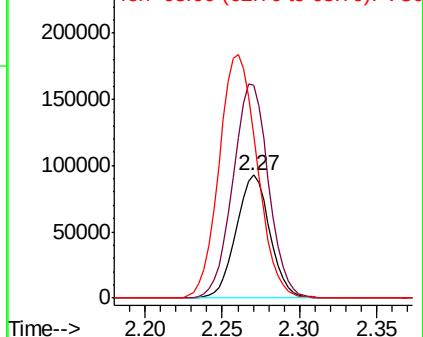
63 132.7 92.9 172.5

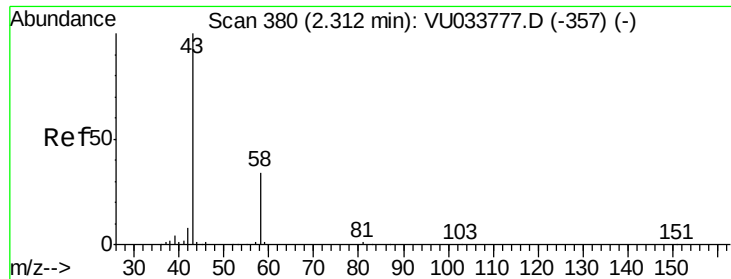


Abundance Ion 96.00 (95.70 to 96.70): VU0

Ion 61.00 (60.70 to 61.70): VU0

Ion 63.00 (62.70 to 63.70): VU0





#13

Acetone

Concen: 91.651 ug/L

RT: 2.31 min Scan# 380

Delta R.T. 0.00 min

Lab File: VU033777.D

Acq: 13 Aug 2019 10:07

Instrument :

MSVOA_U

ClientSampleId :

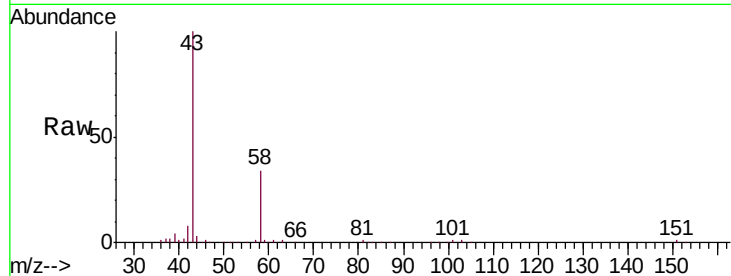
VSTD05035

Tgt Ion: 43 Resp: 191584

Ion Ratio Lower Upper

43 100

58 32.9 0.0 65.8



Abundance Ion 43.00 (42.70 to 43.70): VU033777.D (-357) (-)

Ion 58.00 (57.70 to 58.70): VU033777.D (-357) (-)

2.31

120000

100000

80000

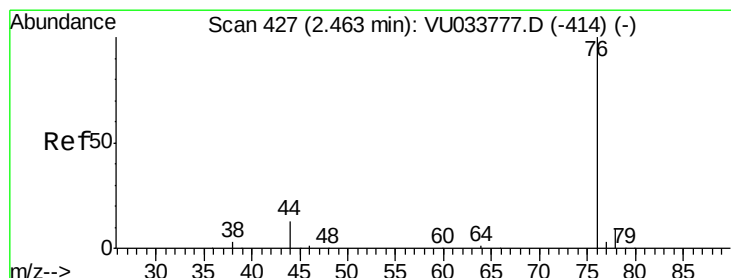
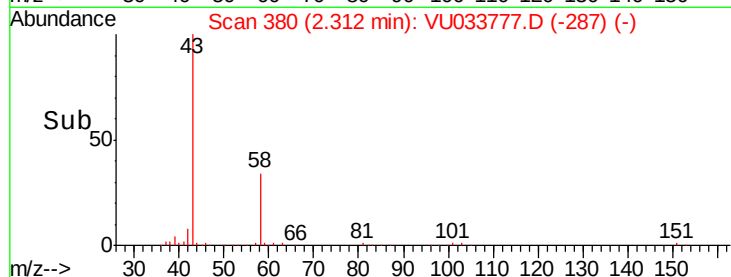
60000

40000

20000

0

Time-->



#14

Carbon disulfide

Concen: 49.159 ug/L

RT: 2.46 min Scan# 427

Delta R.T. 0.00 min

Lab File: VU033777.D

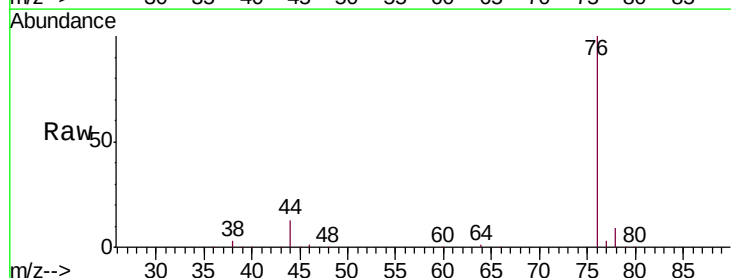
Acq: 13 Aug 2019 10:07

Tgt Ion: 76 Resp: 442968

Ion Ratio Lower Upper

76 100

78 9.1 7.3 10.9



Abundance Ion 76.00 (75.70 to 76.70): VU033777.D (-414) (-)

Ion 78.00 (77.70 to 78.70): VU033777.D (-414) (-)

2.46

300000

250000

200000

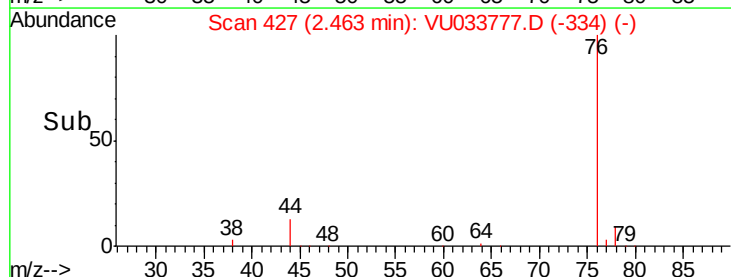
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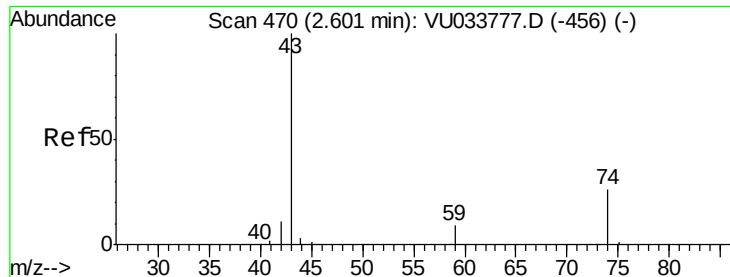
100000

50000

0

Time-->





#15

Methyl Acetate

Concen: 47.852 ug/L

RT: 2.60 min Scan# 470

Delta R.T. 0.00 min

Lab File: VU033777.D

Acq: 13 Aug 2019 10:07

Instrument :

MSVOA_U

ClientSampleId :

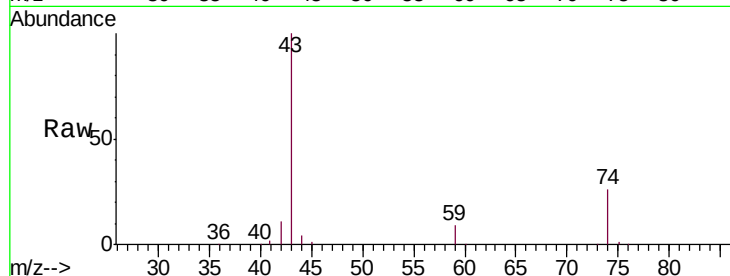
VSTD05035

Tgt Ion: 43 Resp: 162261

Ion Ratio Lower Upper

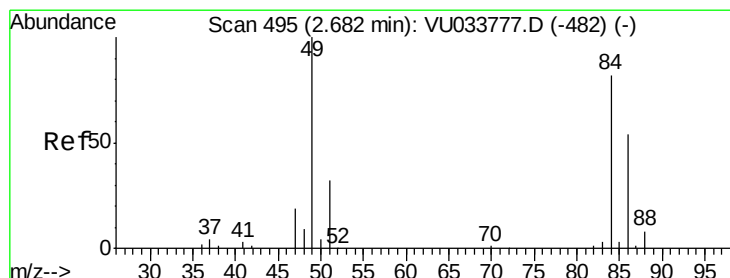
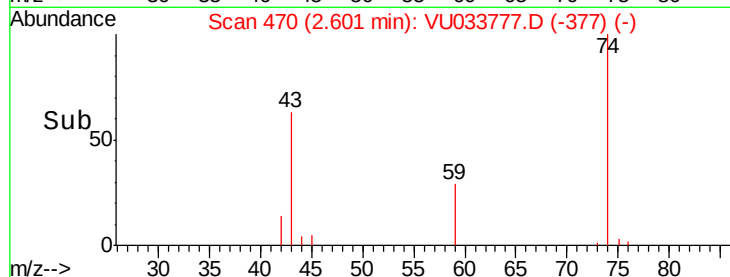
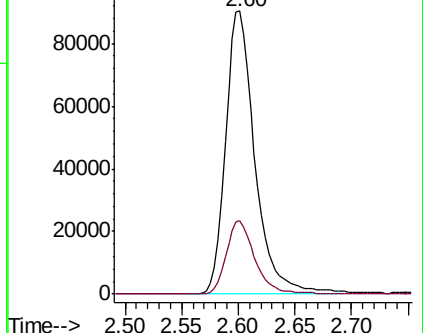
43 100

74 25.4 20.3 30.5



Abundance Ion 43.00 (42.70 to 43.70): VU033777.D (-456) (-)

Ion 74.00 (73.70 to 74.70): VU033777.D (-456) (-)



#16

Methylene chloride

Concen: 49.058 ug/L

RT: 2.68 min Scan# 495

Delta R.T. 0.00 min

Lab File: VU033777.D

Acq: 13 Aug 2019 10:07

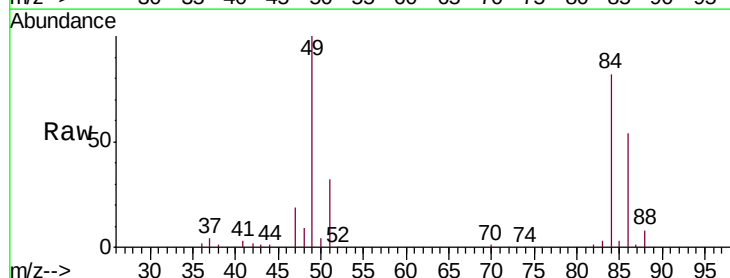
Tgt Ion: 84 Resp: 162173

Ion Ratio Lower Upper

84 100

86 64.9 45.4 84.4

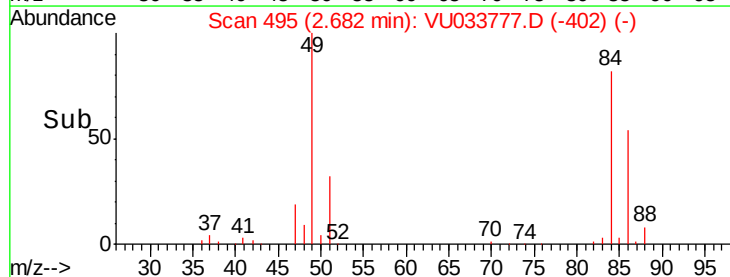
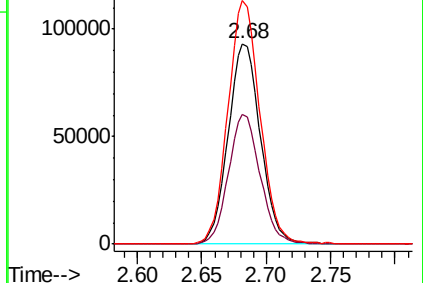
49 121.3 84.9 157.7

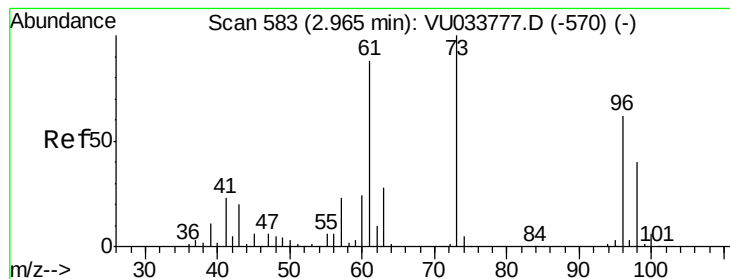


Abundance Ion 84.00 (83.70 to 84.70): VU033777.D (-482) (-)

Ion 86.00 (85.70 to 86.70): VU033777.D (-482) (-)

Ion 49.00 (48.70 to 49.70): VU033777.D (-482) (-)





#17

trans-1,2-Dichloroethene

Concen: 48.884 ug/L

RT: 2.96 min Scan# 583

Delta R.T. 0.00 min

Lab File: VU033777.D

Acq: 13 Aug 2019 10:07

Instrument :

MSVOA_U

ClientSampled :

VSTD05035

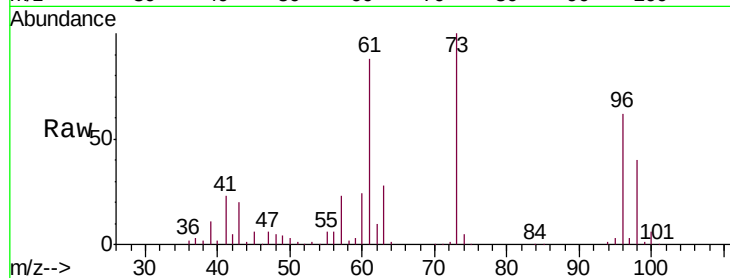
Tgt Ion: 96 Resp: 146862

Ion Ratio Lower Upper

96 100

61 141.2 98.8 183.6

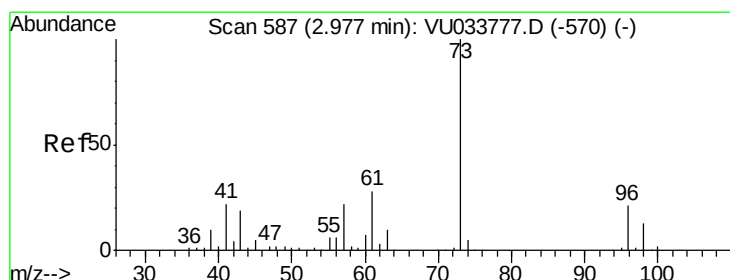
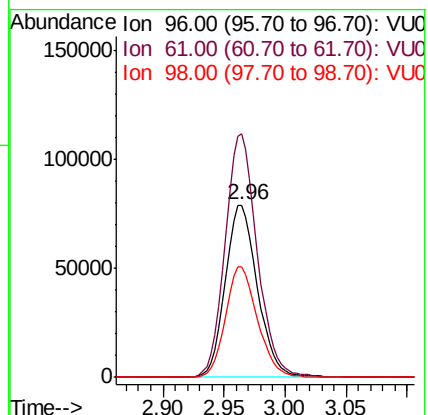
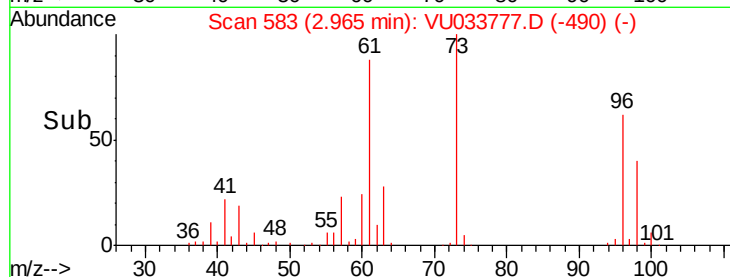
98 63.7 44.6 82.8



Abundance Ion 96.00 (95.70 to 96.70): VU033777.D (-570) (-)

Ion 61.00 (60.70 to 61.70): VU033777.D (-570) (-)

Ion 98.00 (97.70 to 98.70): VU033777.D (-570) (-)



#18

Methyl tert-butyl Ether

Concen: 49.847 ug/L

RT: 2.98 min Scan# 587

Delta R.T. 0.00 min

Lab File: VU033777.D

Acq: 13 Aug 2019 10:07

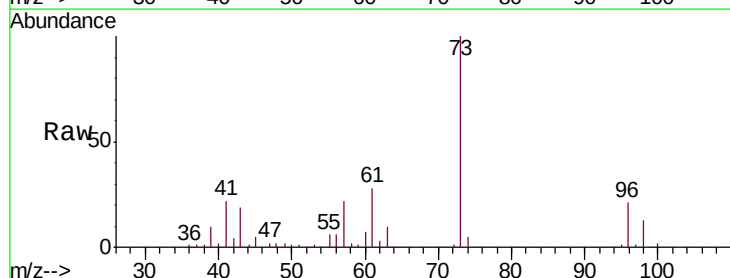
Tgt Ion: 73 Resp: 439635

Ion Ratio Lower Upper

73 100

43 19.3 15.4 23.2

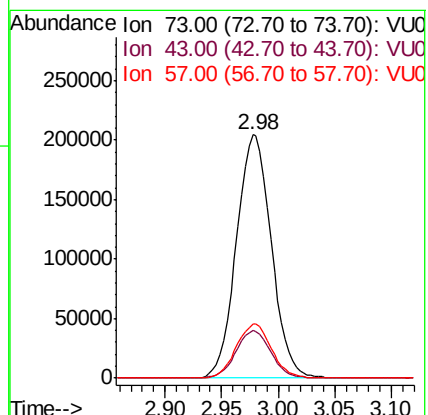
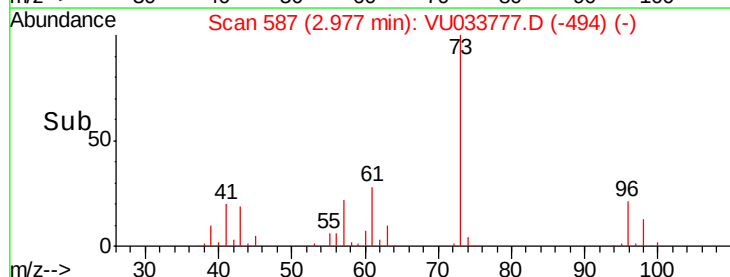
57 22.4 17.9 26.9

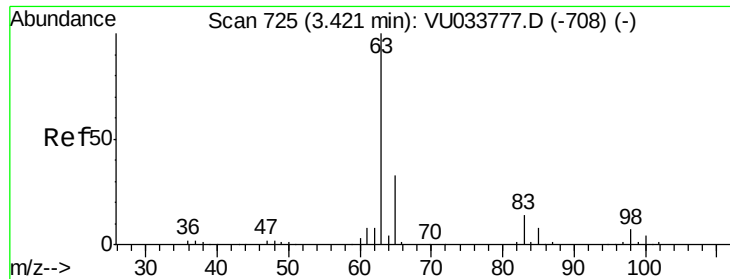


Abundance Ion 73.00 (72.70 to 73.70): VU033777.D (-570) (-)

Ion 43.00 (42.70 to 43.70): VU033777.D (-570) (-)

Ion 57.00 (56.70 to 57.70): VU033777.D (-570) (-)

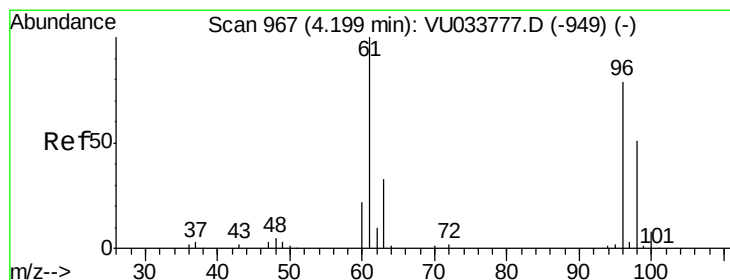
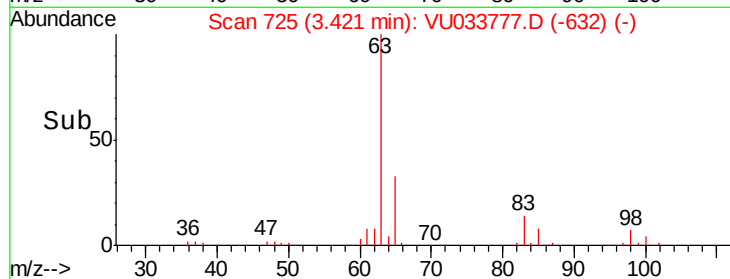
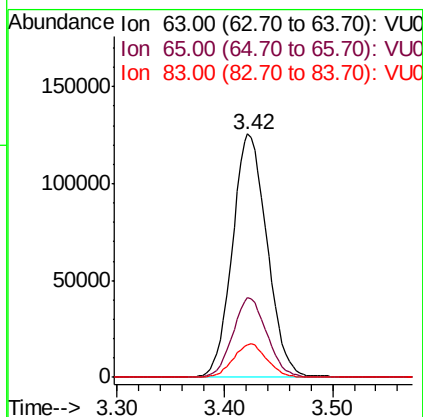
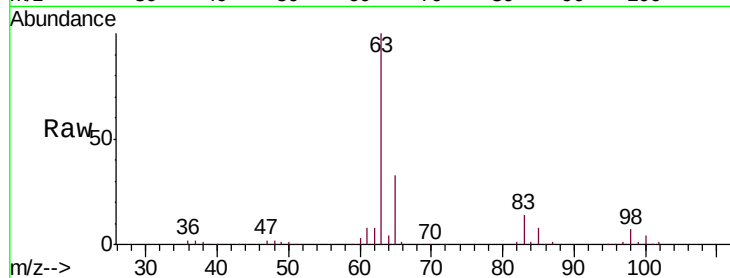




#19
 1,1-Dichloroethane
 Concen: 49.956 ug/L
 RT: 3.42 min Scan# 725
 Delta R.T. 0.00 min
 Lab File: VU033777.D
 Acq: 13 Aug 2019 10:07

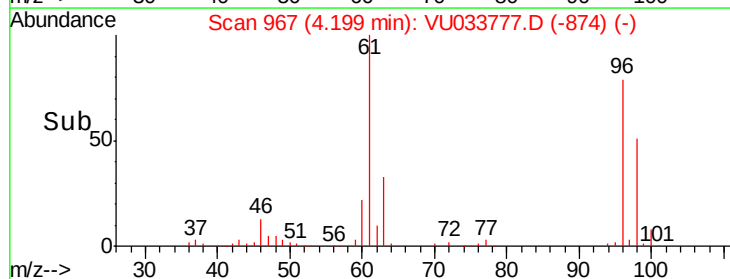
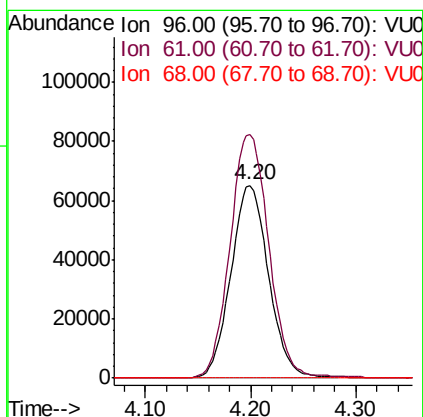
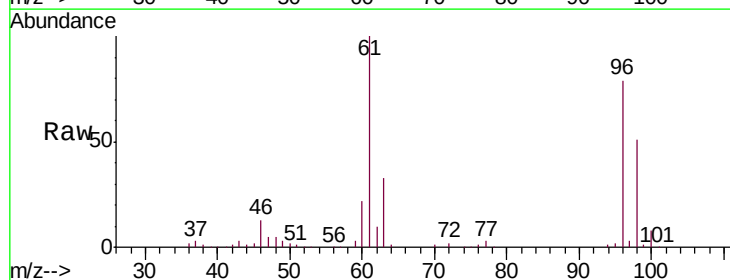
Instrument :
 MSVOA_U
 ClientSampleId :
 VSTD05035

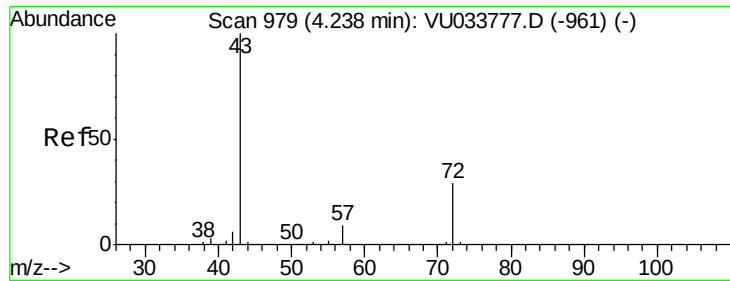
Tgt Ion: 63 Resp: 281628
 Ion Ratio Lower Upper
 63 100
 65 32.6 22.8 42.4
 83 13.6 9.5 17.7



#20
 cis-1,2-Dichloroethene
 Concen: 49.042 ug/L
 RT: 4.20 min Scan# 967
 Delta R.T. 0.00 min
 Lab File: VU033777.D
 Acq: 13 Aug 2019 10:07

Tgt Ion: 96 Resp: 161772
 Ion Ratio Lower Upper
 96 100
 61 126.1 88.3 163.9
 68 0.0 0.0 0.0





#22

2-Butanone

Concen: 97.979 ug/L

RT: 4.24 min Scan# 979

Delta R.T. 0.00 min

Lab File: VU033777.D

Acq: 13 Aug 2019 10:07

Instrument :

MSVOA_U

ClientSampleId :

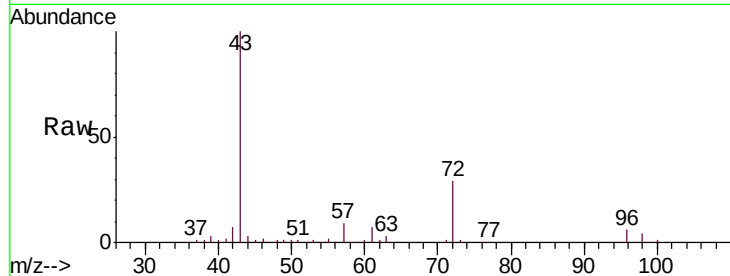
VSTD05035

Tgt Ion: 43 Resp: 245144

Ion Ratio Lower Upper

43 100

72 29.0 14.5 43.5



Abundance Ion 43.00 (42.70 to 43.70): VU033777.D (-961) (-)

Ion 72.00 (71.70 to 72.70): VU033777.D (-961) (-)

4.24

100000

80000

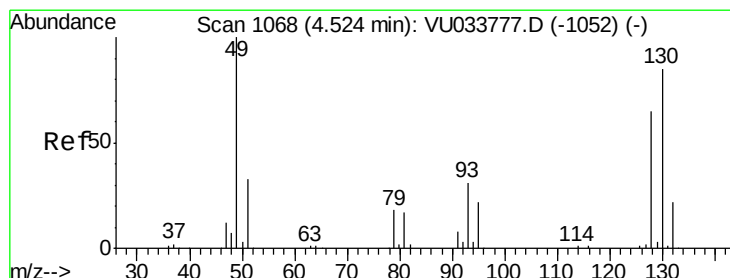
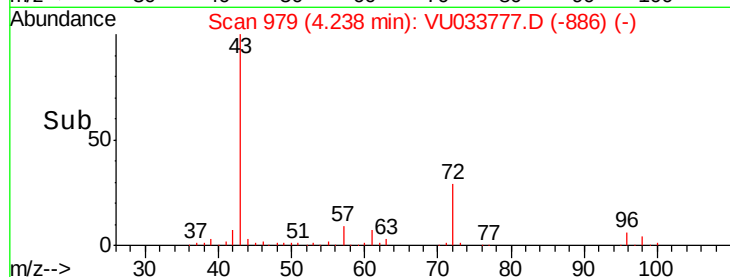
60000

40000

20000

0

Time-->



#23

Bromochloromethane

Concen: 48.628 ug/L

RT: 4.52 min Scan# 1068

Delta R.T. 0.00 min

Lab File: VU033777.D

Acq: 13 Aug 2019 10:07

Tgt Ion: 128 Resp: 85413

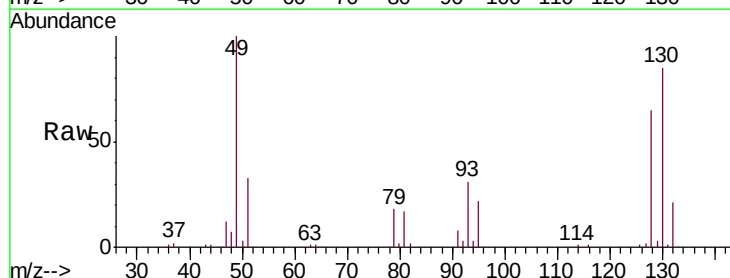
Ion Ratio Lower Upper

128 100

49 154.4 108.1 200.7

130 131.2 91.8 170.6

51 50.8 40.6 61.0



Abundance Ion 128.00 (127.70 to 128.70): VU033777.D (-1052) (-)

Ion 49.00 (48.70 to 49.70): VU033777.D (-1052) (-)

Ion 130.00 (129.70 to 130.70): VU033777.D (-1052) (-)

Ion 51.00 (50.70 to 51.70): VU033777.D (-1052) (-)

80000

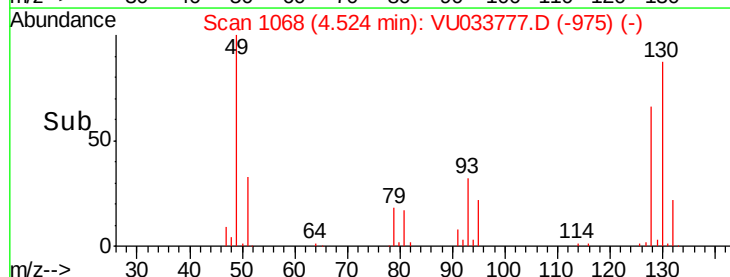
60000

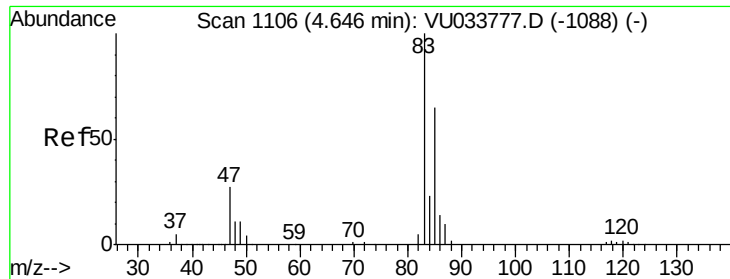
40000

20000

0

Time-->

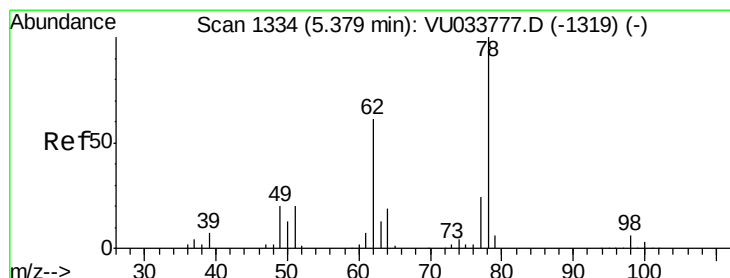
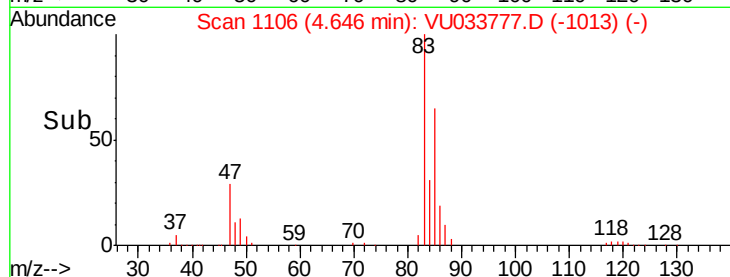
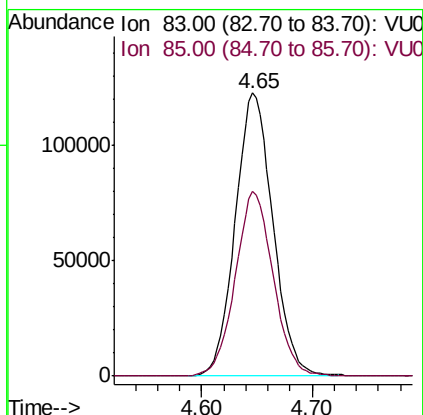
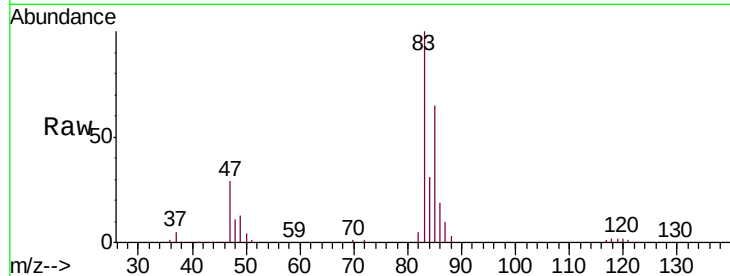




#25
Chloroform
Concen: 48.771 ug/L
RT: 4.65 min Scan# 1106
Delta R.T. 0.00 min
Lab File: VU033777.D
Acq: 13 Aug 2019 10:07

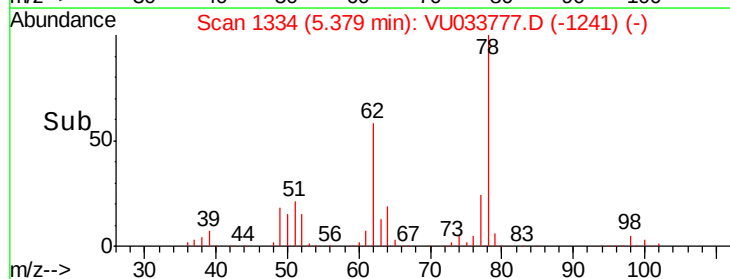
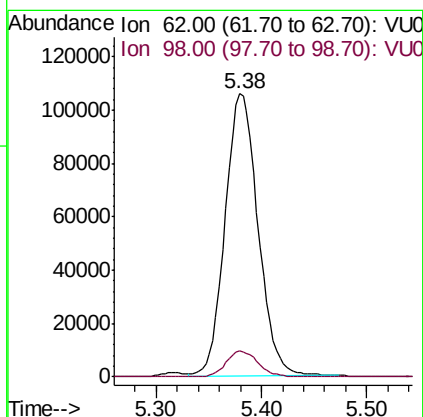
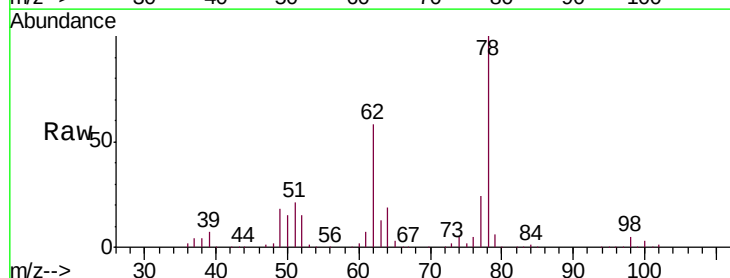
Instrument :
MSVOA_U
ClientSampleId :
VSTD05035

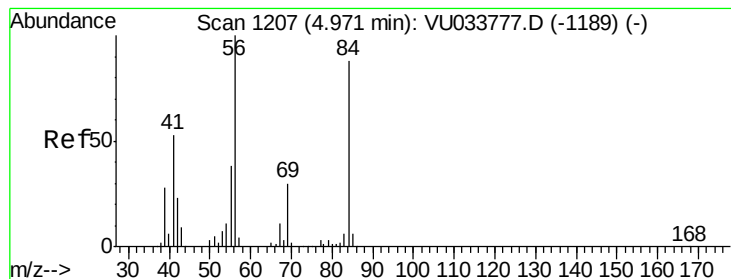
Tgt Ion: 83 Resp: 290297
Ion Ratio Lower Upper
83 100
85 65.1 45.6 84.6



#27
1,2-Dichloroethane
Concen: 49.536 ug/L
RT: 5.38 min Scan# 1334
Delta R.T. 0.00 min
Lab File: VU033777.D
Acq: 13 Aug 2019 10:07

Tgt Ion: 62 Resp: 229848
Ion Ratio Lower Upper
62 100
98 9.2 7.4 11.0





#29

Cyclohexane

Concen: 51.300 ug/L

RT: 4.97 min Scan# 1207

Delta R.T. 0.00 min

Lab File: VU033777.D

Acq: 13 Aug 2019 10:07

Instrument :

MSVOA_U

ClientSampleId :

VSTD05035

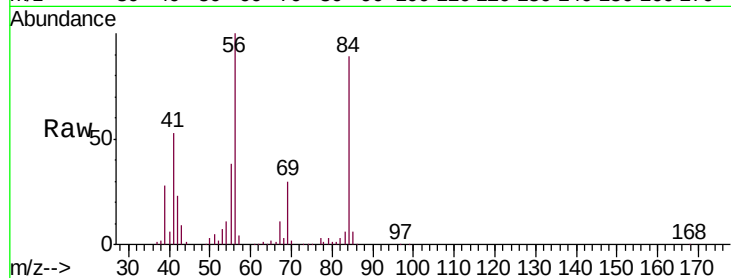
Tgt Ion: 56 Resp: 231598

Ion Ratio Lower Upper

56 100

69 31.2 25.0 37.4

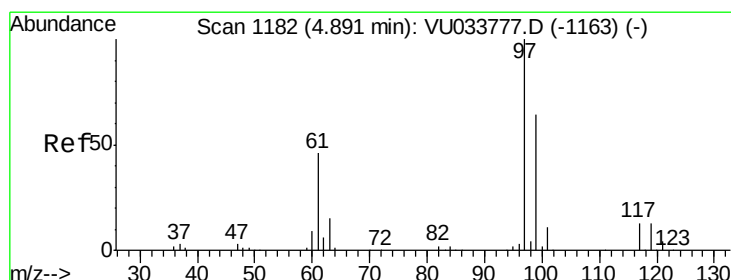
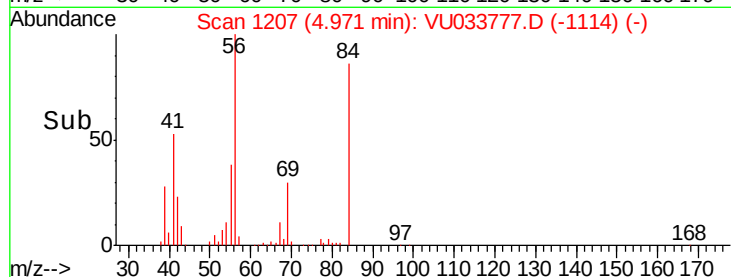
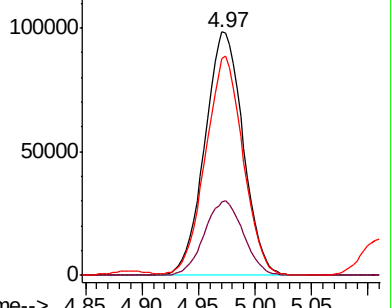
84 87.9 70.3 105.5



Abundance Ion 56.00 (55.70 to 56.70): VU033777.D (-1189) (-)

Ion 69.00 (68.70 to 69.70): VU033777.D (-1189) (-)

Ion 84.00 (83.70 to 84.70): VU033777.D (-1189) (-)



#30

1,1,1-Trichloroethane

Concen: 49.813 ug/L

RT: 4.89 min Scan# 1182

Delta R.T. 0.00 min

Lab File: VU033777.D

Acq: 13 Aug 2019 10:07

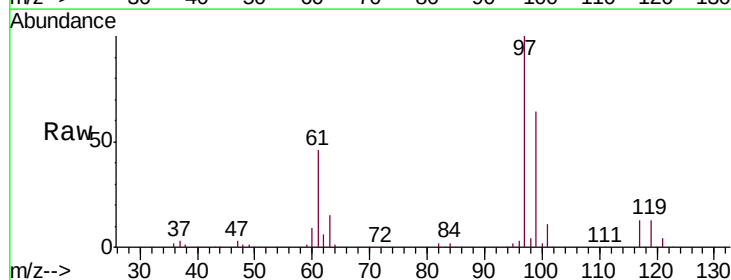
Tgt Ion: 97 Resp: 244292

Ion Ratio Lower Upper

97 100

99 63.6 50.9 76.3

61 45.7 36.6 54.8



Abundance Ion 97.00 (96.70 to 97.70): VU033777.D (-1163) (-)

Ion 99.00 (98.70 to 99.70): VU033777.D (-1163) (-)

Ion 61.05 (60.75 to 61.75): VU033777.D (-1163) (-)

