

Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU081418\
 Data File : VU026097.D
 Acq On : 14 Aug 2018 13:28
 Operator : MD/SY
 Sample : J4451-22
 Misc : 5.0mL/MSVOA U/WATER
 ALS Vial : 7 Sample Multiplier: 1

Instrument :
 MSVOA_U
 ClientSampleId :
 A4ZL2

Quant Time: Aug 15 18:37:43 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_U\METHOD\SOMULM080918WMA.M
 Quant Title : VOC Analysis
 QLast Update : Wed Aug 15 09:11:09 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Difluorobenzene	5.89	114	273909	50.00	ug/L	0.00
28) Chlorobenzene-d5	9.09	117	263223	50.00	ug/L	0.00
60) 1,4-Dichlorobenzene-d4	11.49	152	135828	50.00	ug/L	0.00

System Monitoring Compounds

4) Vinyl Chloride-d3	1.40	65	80701	40.31	ug/L	0.00
Spiked Amount	50.000	Range	60 - 135	Recovery	=	80.62%
7) Chloroethane-d5	1.66	69	74299	46.81	ug/L	-0.02
Spiked Amount	50.000	Range	70 - 130	Recovery	=	93.62%
11) 1,1-Dichloroethene-d2	2.27	63	126364	33.21	ug/L	0.00
Spiked Amount	50.000	Range	60 - 125	Recovery	=	66.42%
21) 2-Butanone-d5	4.17	46	149254	89.44	ug/L	0.00
Spiked Amount	100.000	Range	40 - 130	Recovery	=	89.44%
24) Chloroform-d	4.65	84	204730	48.22	ug/L	0.00
Spiked Amount	50.000	Range	70 - 125	Recovery	=	96.44%
26) 1,2-Dichloroethane-d4	5.31	65	134728	46.98	ug/L	0.00
Spiked Amount	50.000	Range	70 - 125	Recovery	=	93.96%
32) Benzene-d6	5.34	84	378054	46.25	ug/L	0.00
Spiked Amount	50.000	Range	70 - 125	Recovery	=	92.50%
36) 1,2-Dichloropropane-d6	6.33	67	125715	47.53	ug/L	0.00
Spiked Amount	50.000	Range	70 - 120	Recovery	=	95.06%
41) Toluene-d8	7.57	98	359732	46.00	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	92.00%
43) trans-1,3-Dichloropropene-	7.85	79	62812	47.14	ug/L	0.00
Spiked Amount	50.000	Range	60 - 125	Recovery	=	94.28%
47) 2-Hexanone-d5	8.31	63	109504	91.16	ug/L	0.00
Spiked Amount	100.000	Range	45 - 130	Recovery	=	91.16%
57) 1,1,2,2-Tetrachloroethane-	10.44	84	190113	49.15	ug/L	0.00
Spiked Amount	50.000	Range	65 - 120	Recovery	=	98.30%
64) 1,2-Dichlorobenzene-d4	11.86	152	156615	46.77	ug/L	0.00
Spiked Amount	50.000	Range	80 - 120	Recovery	=	93.54%

Target Compounds

						Ovalue
2) Dichlorodifluoromethane	1.20	85	26197	10.98	ug/L	100
3) Chloromethane	1.33	50	76404	35.68	ug/L	99
6) Bromomethane	1.60	94	8000	7.24	ug/L	93
9) Trichlorofluoromethane	1.88	101	85985	29.09	ug/L	98
10) 1,1,2-Trichloro-1,2,2-trif	2.28	101	47915	27.86	ug/L	99
14) Carbon disulfide	2.47	76	147487	28.35	ug/L	99
15) Methyl Acetate	2.62	43	6780	3.12	ug/L	99
17) trans-1,2-Dichloroethene	2.98	96	100211	56.87	ug/L	97
18) Methyl tert-butyl Ether	3.00	73	660527	114.07	ug/L	99
25) Chloroform	4.67	83	162623	45.70	ug/L	99
27) 1,2-Dichloroethane	5.40	62	129608	44.10	ug/L	100
30) 1,1,1-Trichloroethane	4.91	97	72503	21.83	ug/L	98
31) Carbon tetrachloride	5.13	117	152172	50.18	ug/L	98
34) Trichloroethene	6.18	95	3964	2.02	ug/L	89
35) Methylcyclohexane	6.42	83	84346	28.20	ug/L	98
39) cis-1,3-Dichloropropene	7.27	75	98738	31.76	ug/L	97
40) 4-Methyl-2-pentanone	7.46	43	216976	76.98	ug/L	99

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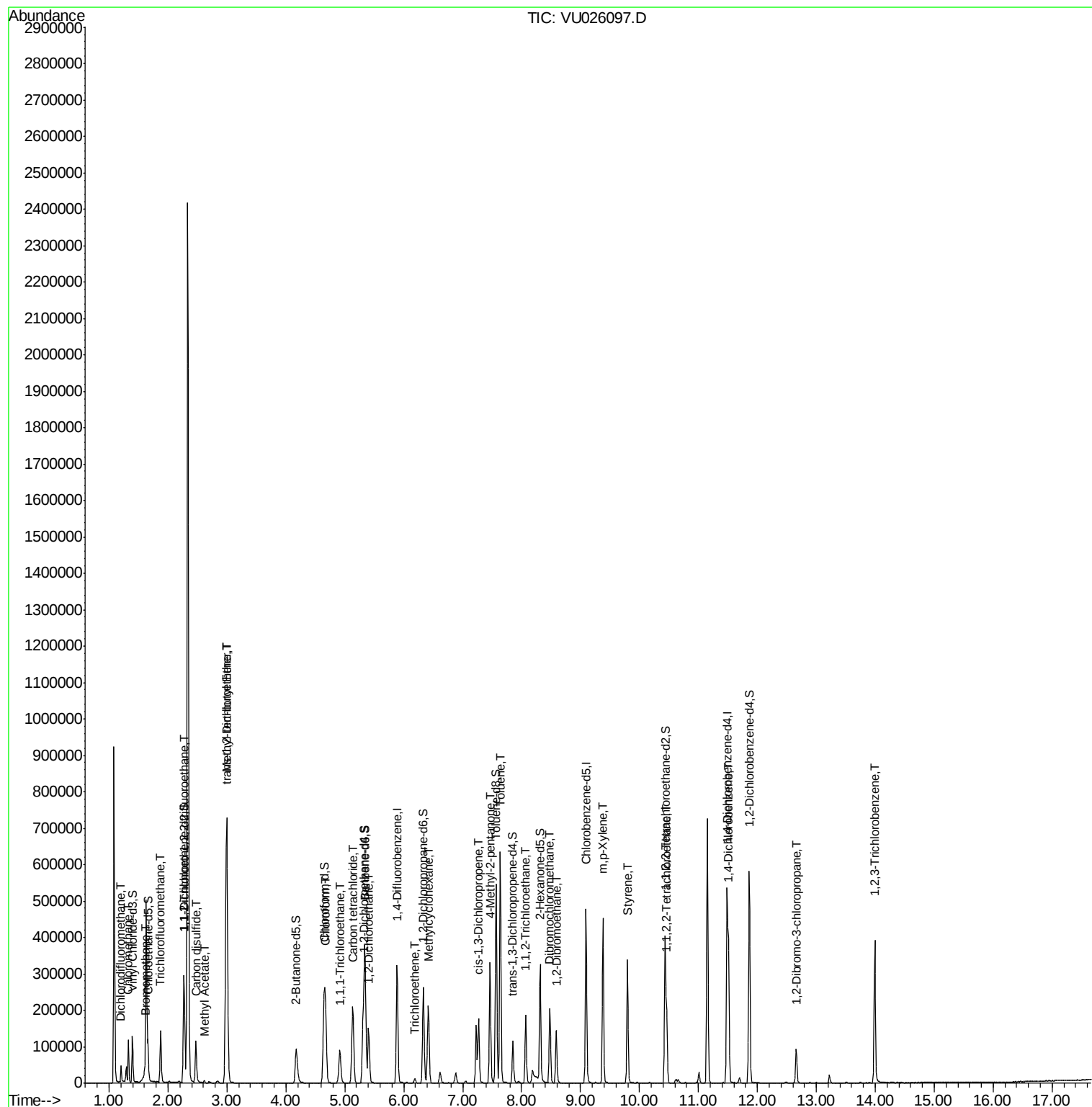
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
42) Toluene	7.64	91	459242	57.71	ug/L	99
45) 1,1,2-Trichloroethane	8.07	97	57296	29.30	ug/L	94
49) Dibromochloromethane	8.48	129	107458	45.56	ug/L	96
50) 1,2-Dibromoethane	8.59	107	93313	43.81	ug/L	100
53) m,p-Xylene	9.38	106	123719	37.18	ug/L	99
55) Styrene	9.80	104	159739	29.05	ug/L	94
58) 1,1,2,2-Tetrachloroethane	10.46	83	85747	25.80	ug/L	97
63) 1,4-Dichlorobenzene	11.51	146	141054	31.82	ug/L	99
66) 1,2-Dibromo-3-chloropropan	12.66	75	23147	29.30	ug/L	98
70) 1,2,3-Trichlorobenzene	13.99	180	129305	45.02	ug/L	100

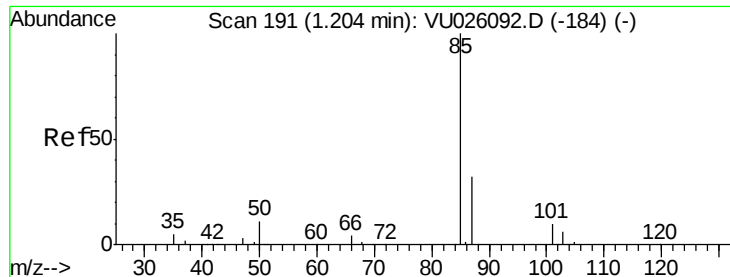
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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#2

Dichlorodifluoromethane

Concen: 10.98 ug/L

RT: 1.20 min Scan# 190

Delta R.T. -0.00 min

Lab File: VU026097.D

Acq: 14 Aug 2018 13:28

Instrument :

MSVOA_U

ClientSampleId :

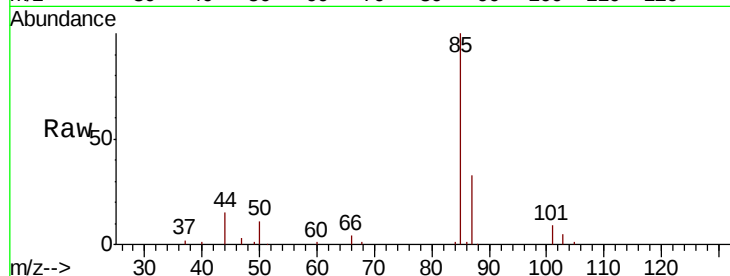
A4ZL2

Tot Ion: 85 Resp: 26197

Ion Ratio Lower Upper

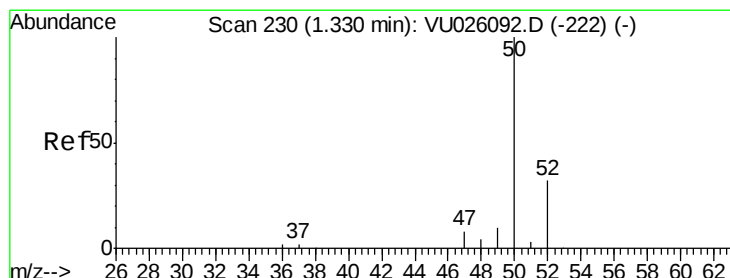
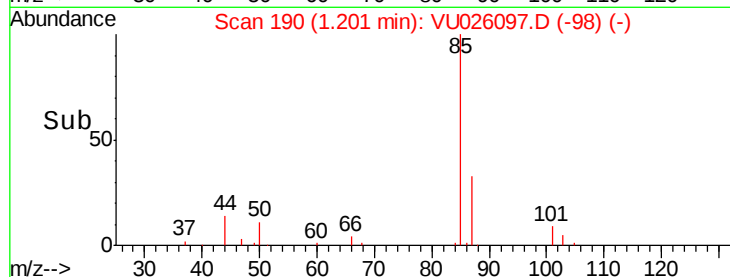
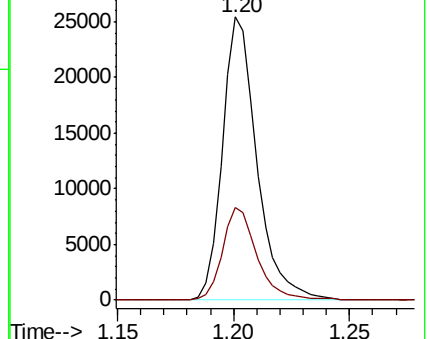
85 100

87 32.5 26.1 39.1



Abundance Ion 85.00 (84.70 to 85.70): VU026092.D (-184) (-)

Ion 87.00 (86.70 to 87.70): VU026092.D (-184) (-)



#3

Chloromethane

Concen: 35.68 ug/L

RT: 1.33 min Scan# 229

Delta R.T. -0.00 min

Lab File: VU026097.D

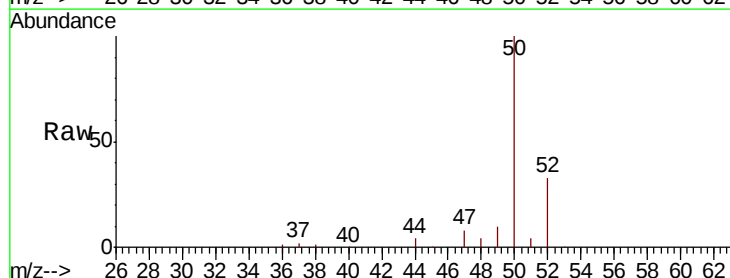
Acq: 14 Aug 2018 13:28

Tgt Ion: 50 Resp: 76404

Ion Ratio Lower Upper

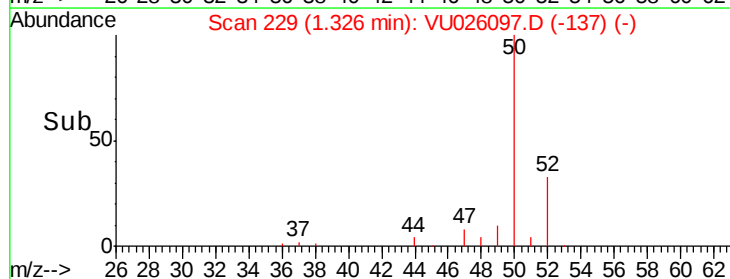
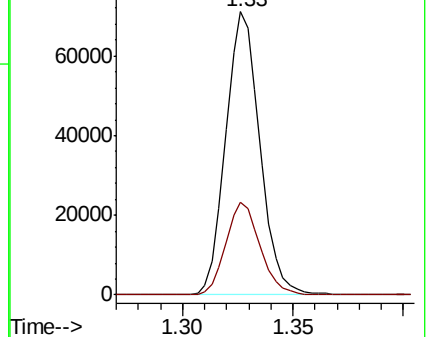
50 100

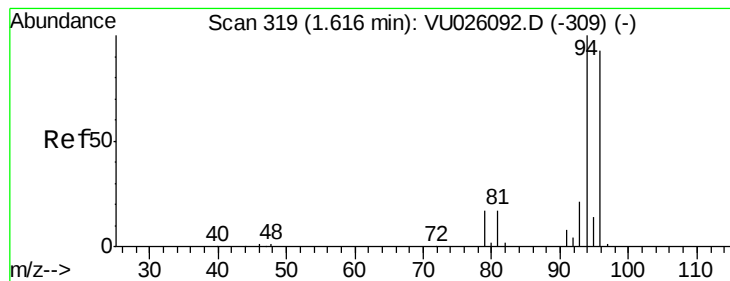
52 32.9 23.4 43.4



Abundance Ion 50.00 (49.70 to 50.70): VU026092.D (-222) (-)

Ion 52.00 (51.70 to 52.70): VU026092.D (-222) (-)





#6

Bromomethane

Concen: 7.24 ug/L

RT: 1.60 min Scan# 315

Delta R.T. -0.02 min

Lab File: VU026097.D

Acq: 14 Aug 2018 13:28

Instrument :

MSVOA_U

ClientSampleId :

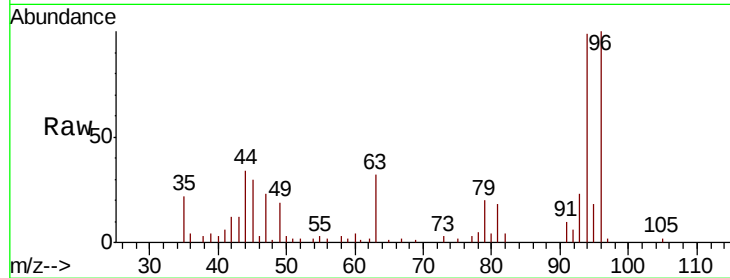
A4ZL2

Tot Ion: 94 Resp: 8000

Ion Ratio Lower Upper

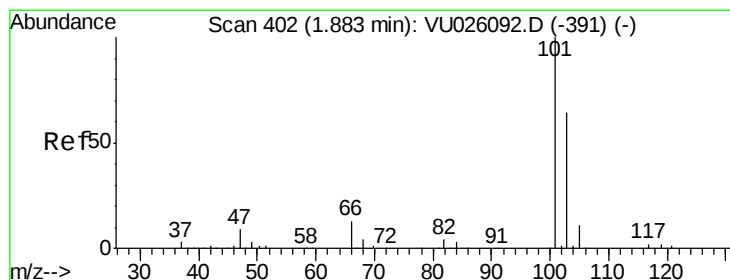
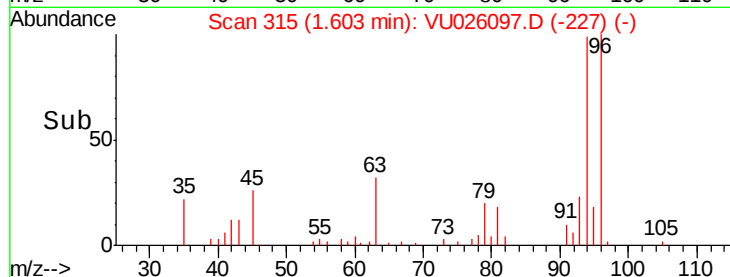
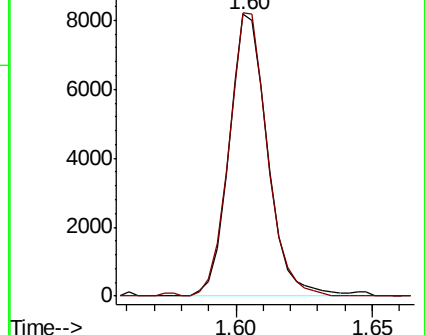
94 100

96 100.5 65.6 121.8



Abundance Ion 94.00 (93.70 to 94.70): VU026097.D (-309) (-)

Ion 96.00 (95.70 to 96.70): VU026097.D (-309) (-)



#9

Trichlorofluoromethane

Concen: 29.09 ug/L

RT: 1.88 min Scan# 400

Delta R.T. -0.01 min

Lab File: VU026097.D

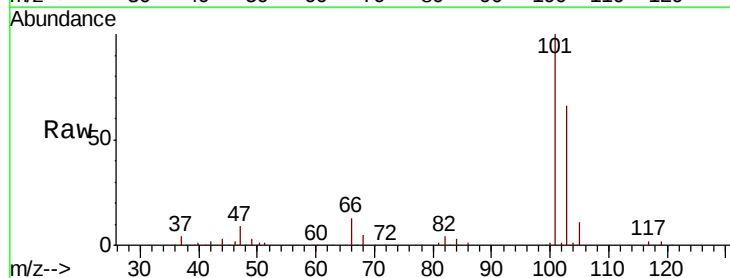
Acq: 14 Aug 2018 13:28

Tgt Ion:101 Resp: 85985

Ion Ratio Lower Upper

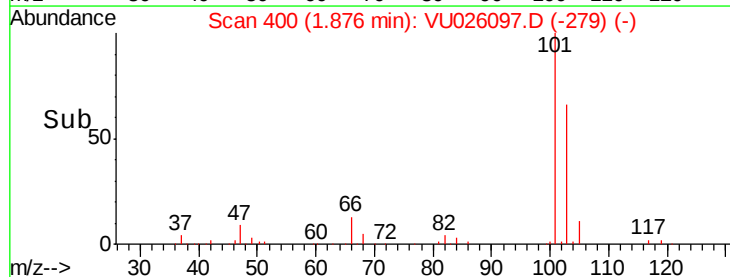
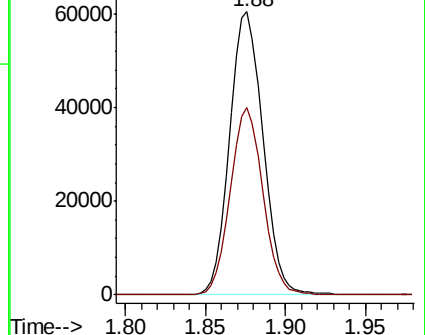
101 100

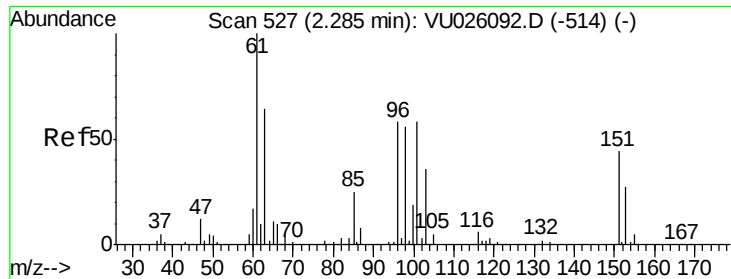
103 64.5 52.7 79.1



Abundance Ion 101.00 (100.70 to 101.70): VU026097.D (-391) (-)

Ion 103.00 (102.70 to 103.70): VU026097.D (-391) (-)





#10

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

Concen: 27.86 ug/L

RT: 2.28 min Scan# 526

Delta R.T. -0.01 min

Lab File: VU026097.D

Acq: 14 Aug 2018 13:28

Instrument :

MSVOA_U

ClientSampleId :

A4ZL2

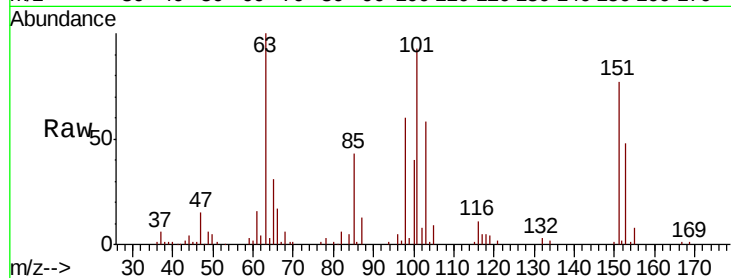
Tot Ion:101 Resp: 47915

Ion Ratio Lower Upper

101 100

85 45.6 36.0 54.0

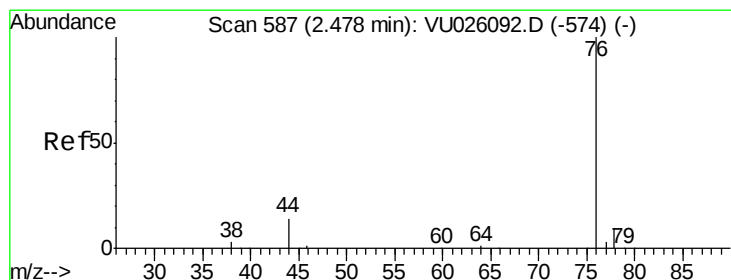
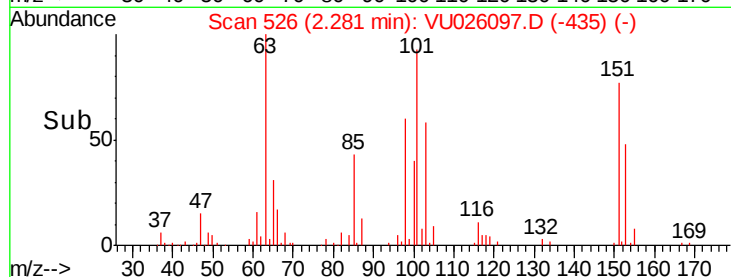
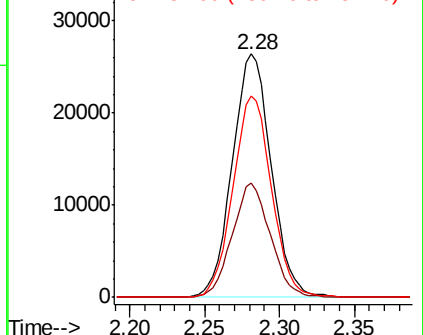
151 81.7 64.2 96.2



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



#14

Carbon disulfide

Concen: 28.35 ug/L

RT: 2.47 min Scan# 585

Delta R.T. -0.01 min

Lab File: VU026097.D

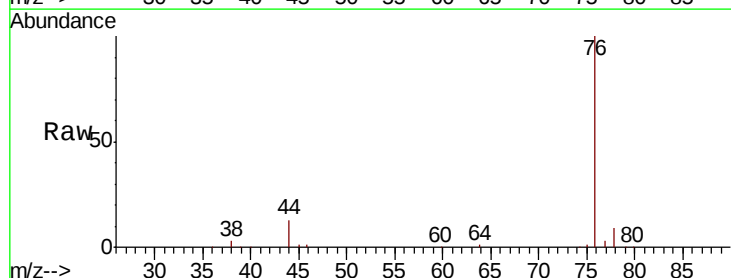
Acq: 14 Aug 2018 13:28

Tgt Ion: 76 Resp: 147487

Ion Ratio Lower Upper

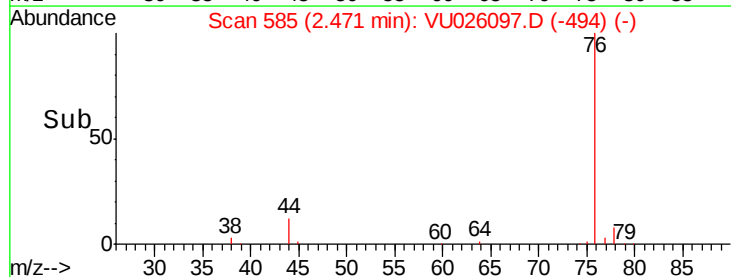
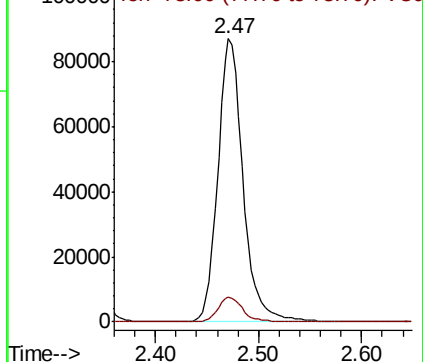
76 100

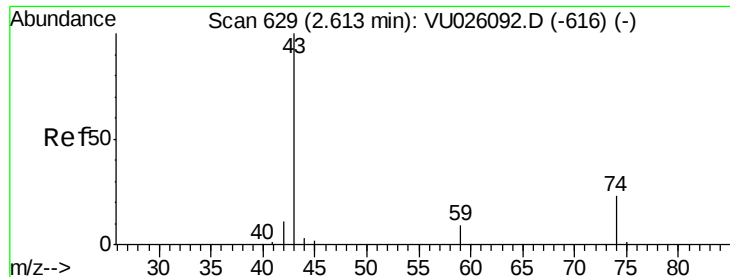
78 8.6 7.2 10.8



Abundance Ion 76.00 (75.70 to 76.70): VU0

Ion 78.00 (77.70 to 78.70): VU0

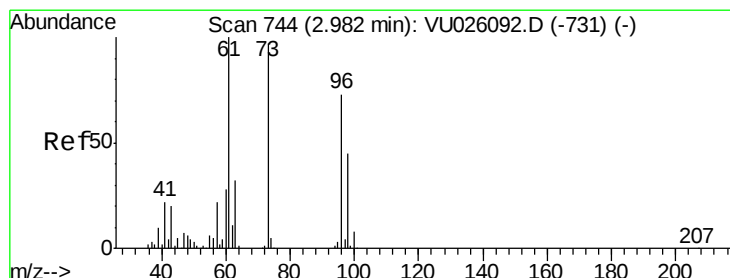
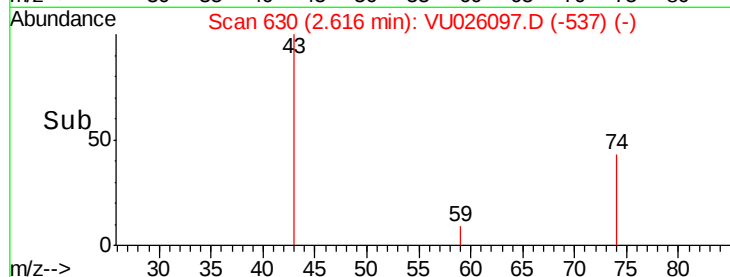
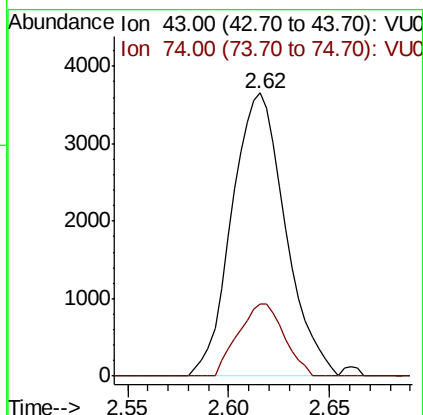
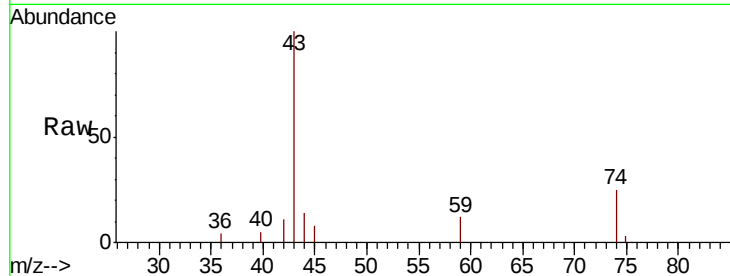




#15
Methvl Acetate
Concen: 3.12 ug/L
RT: 2.62 min Scan# 630
Delta R.T. -0.00 min
Lab File: VU026097.D
Acq: 14 Aug 2018 13:28

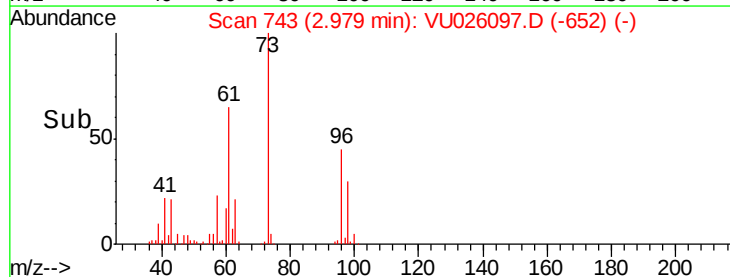
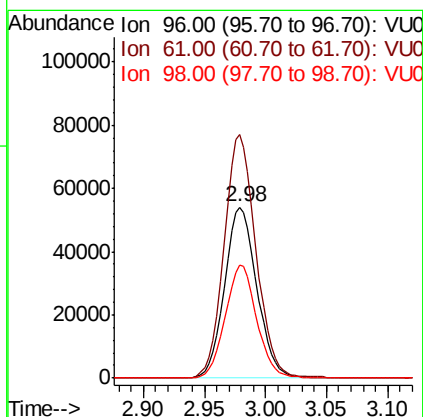
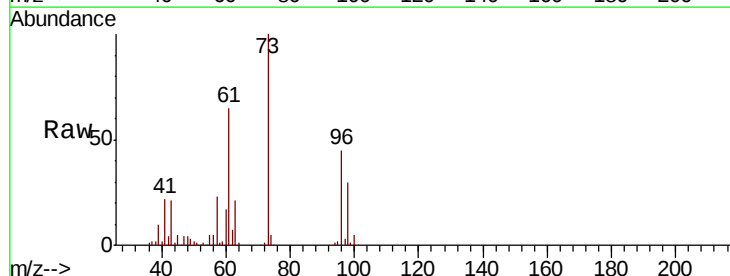
Instrument :
MSVOA_U
ClientSampled :
A4ZL2

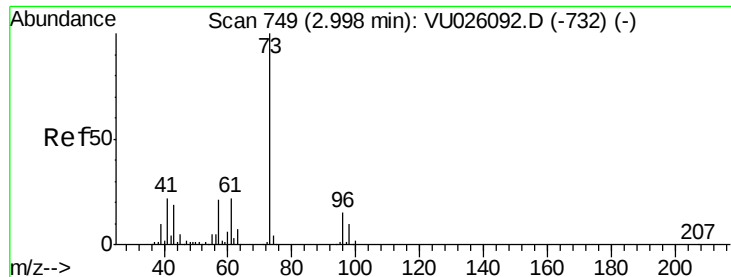
Tot Ion: 43 Resp: 6780
Ion Ratio Lower Upper
43 100
74 21.9 17.8 26.8



#17
trans-1,2-Dichloroethene
Concen: 56.87 ug/L
RT: 2.98 min Scan# 743
Delta R.T. -0.01 min
Lab File: VU026097.D
Acq: 14 Aug 2018 13:28

Tgt Ion: 96 Resp: 100211
Ion Ratio Lower Upper
96 100
61 142.4 102.8 190.8
98 65.9 44.7 83.1



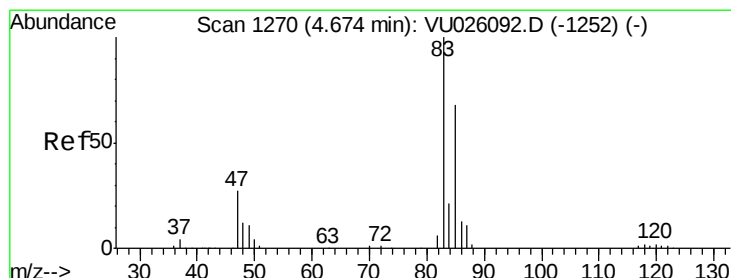
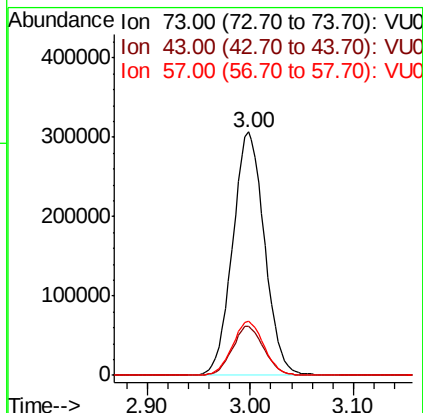
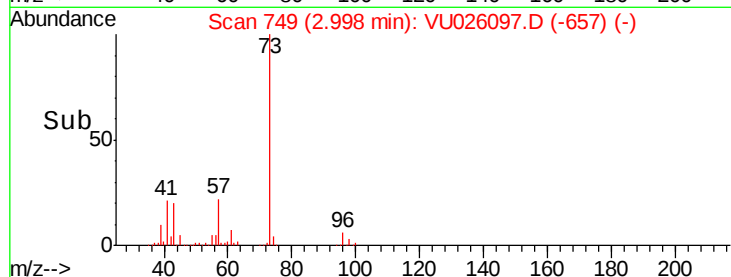
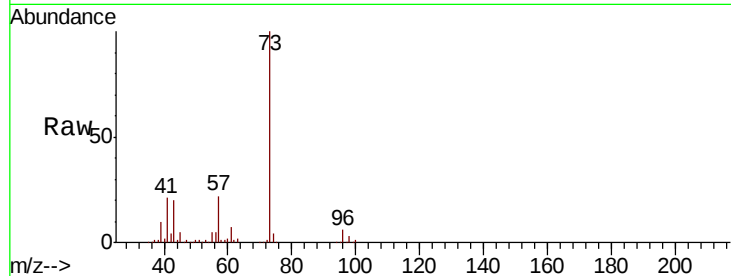


#18

Methyl tert-butyl Ether
 Concen: 114.07 ug/L
 RT: 3.00 min Scan# 749
 Delta R.T. -0.00 min
 Lab File: VU026097.D
 Acq: 14 Aug 2018 13:28

Instrument :
 MSVOA_U
 ClientSampleId :
 A4ZL2

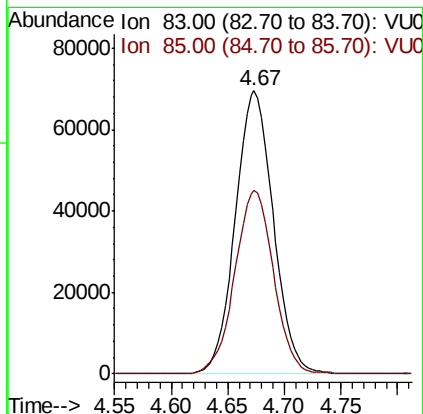
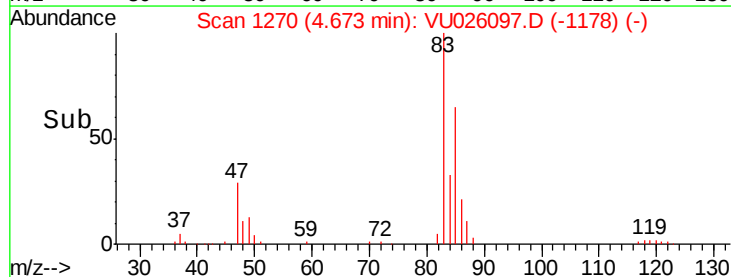
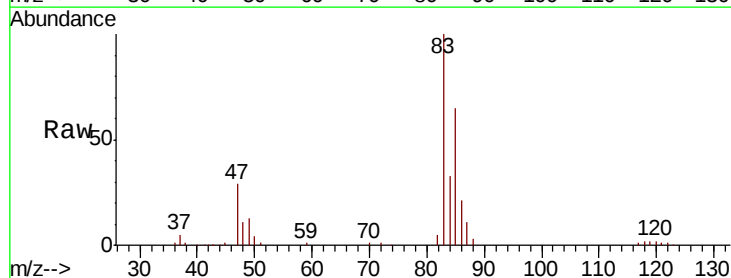
Tot Ion:	73	Resp:	660527
Ion	Ratio	Lower	Upper
73	100		
43	19.9	16.3	24.5
57	22.0	17.1	25.7

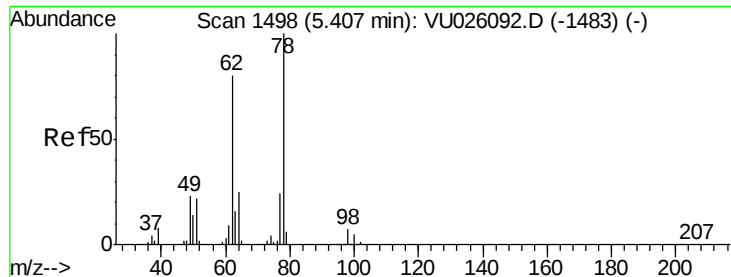


#25

Chloroform
 Concen: 45.70 ug/L
 RT: 4.67 min Scan# 1270
 Delta R.T. -0.00 min
 Lab File: VU026097.D
 Acq: 14 Aug 2018 13:28

Tgt Ion:	83	Resp:	162623
Ion	Ratio	Lower	Upper
83	100		
85	65.0	45.9	85.3

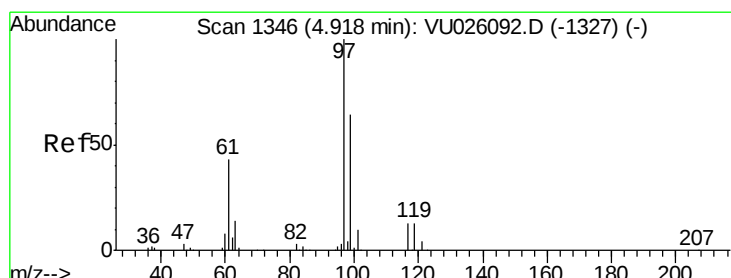
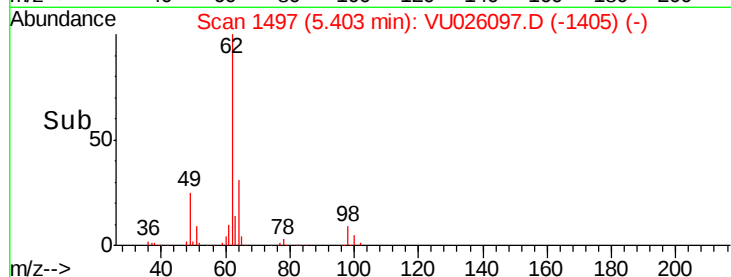
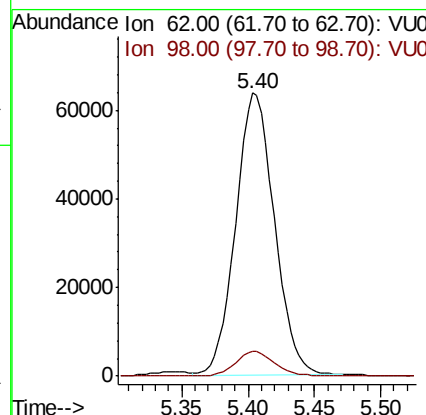
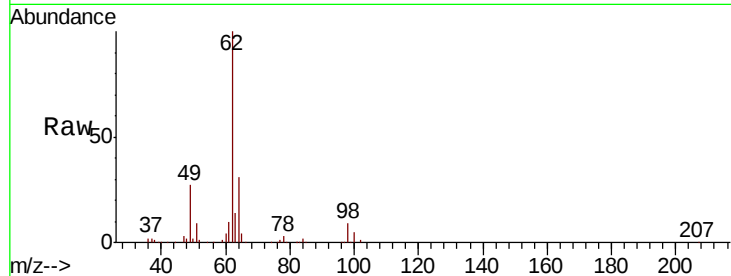




#27
 1,2-Dichloroethane
 Concen: 44.10 ug/L
 RT: 5.40 min Scan# 1497
 Delta R.T. -0.00 min
 Lab File: VU026097.D
 Acq: 14 Aug 2018 13:28

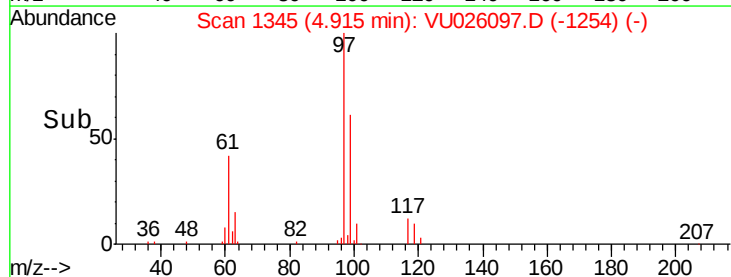
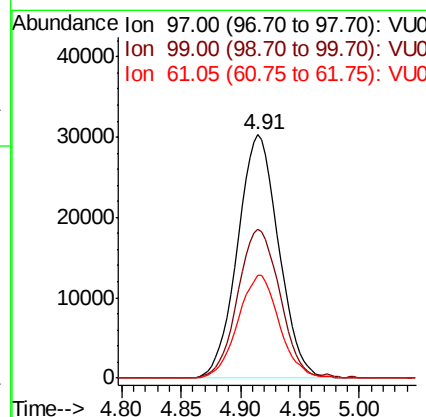
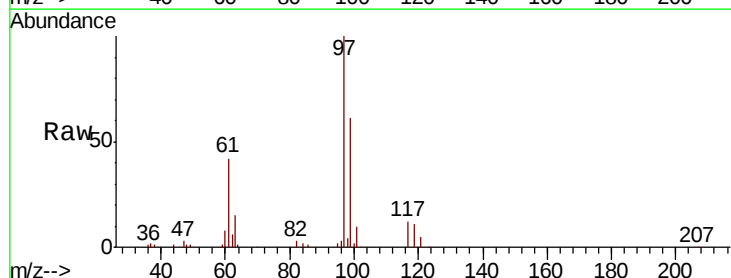
Instrument :
 MSVOA_U
 ClientSampleId :
 A4ZL2

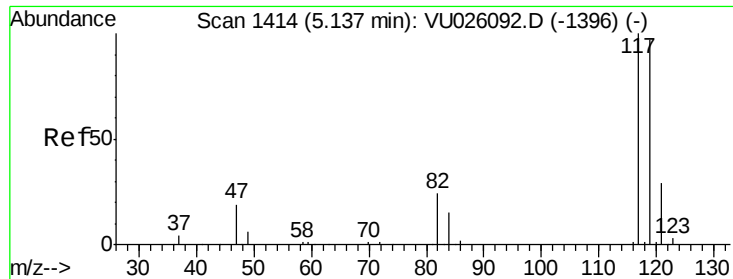
Tot Ion: 62 Resp: 129608
 Ion Ratio Lower Upper
 62 100
 98 8.7 7.0 10.4



#30
 1,1,1-Trichloroethane
 Concen: 21.83 ug/L
 RT: 4.91 min Scan# 1345
 Delta R.T. -0.01 min
 Lab File: VU026097.D
 Acq: 14 Aug 2018 13:28

Tgt Ion: 97 Resp: 72503
 Ion Ratio Lower Upper
 97 100
 99 62.5 51.8 77.6
 61 42.5 34.7 52.1





#31

Carbon tetrachloride

Concen: 50.18 ug/L

RT: 5.13 min Scan# 1413

Delta R.T. -0.00 min

Lab File: VU026097.D

Acq: 14 Aug 2018 13:28

Instrument :

MSVOA_U

ClientSampleId :

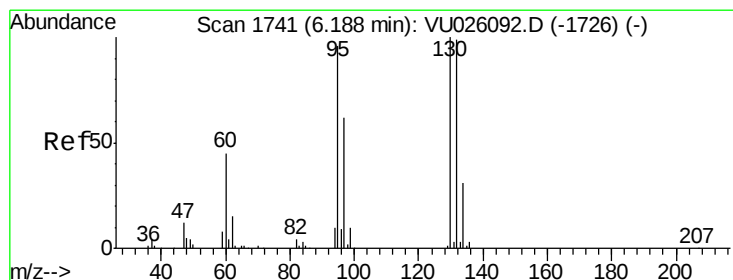
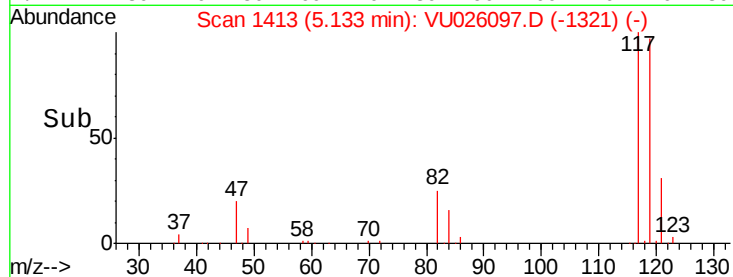
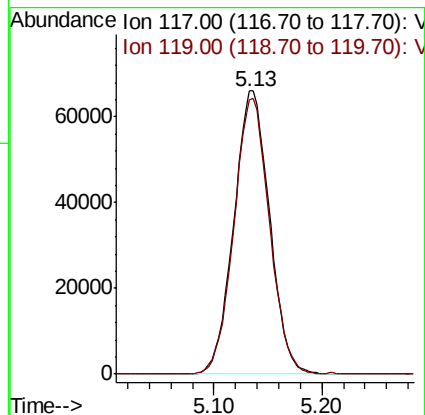
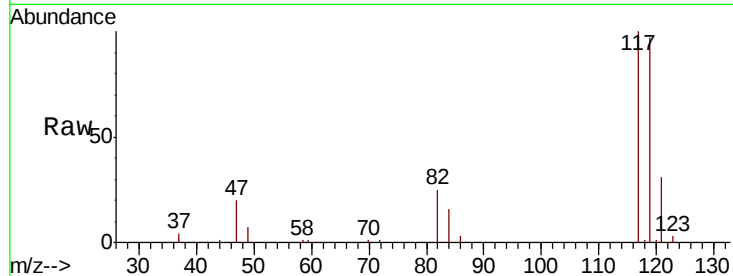
A4ZL2

Tot Ion:117 Resp: 152172

Ion Ratio Lower Upper

117 100

119 97.0 76.3 114.5



#34

Trichloroethene

Concen: 2.02 ug/L

RT: 6.18 min Scan# 1740

Delta R.T. -0.00 min

Lab File: VU026097.D

Acq: 14 Aug 2018 13:28

Tgt Ion: 95 Resp: 3964

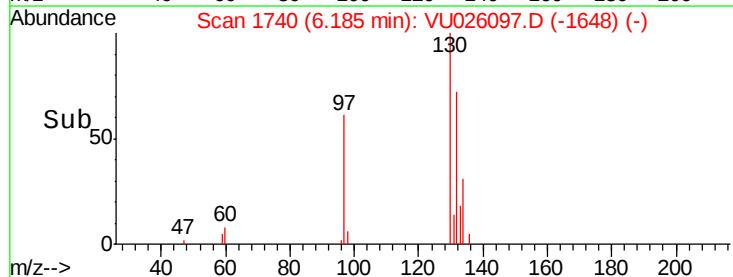
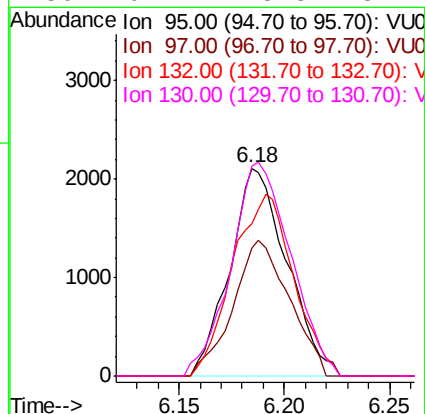
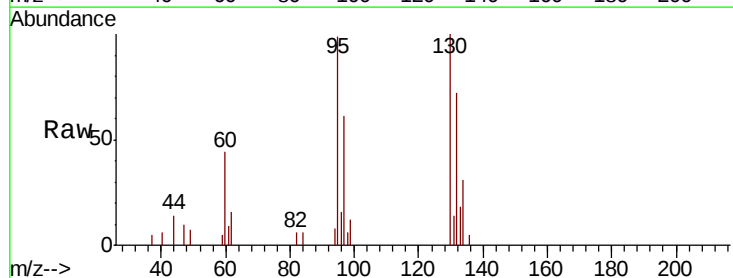
Ion Ratio Lower Upper

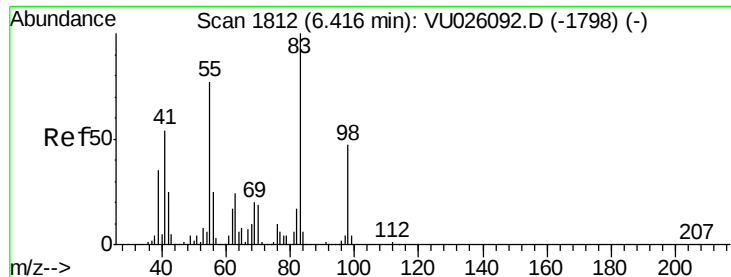
95 100

97 61.6 45.2 84.0

132 73.1 68.2 126.6

130 101.4 73.8 137.2

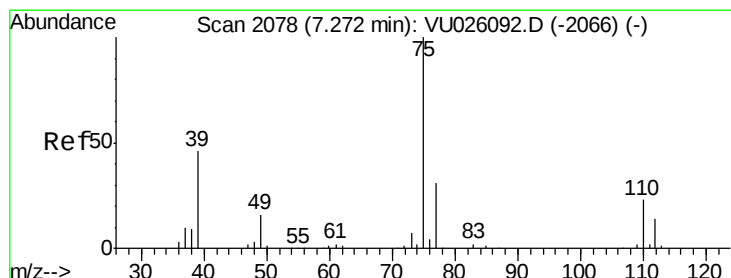
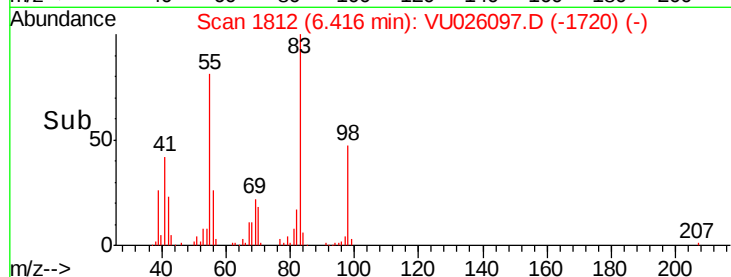
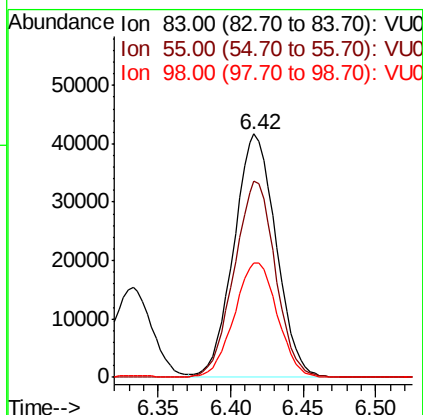
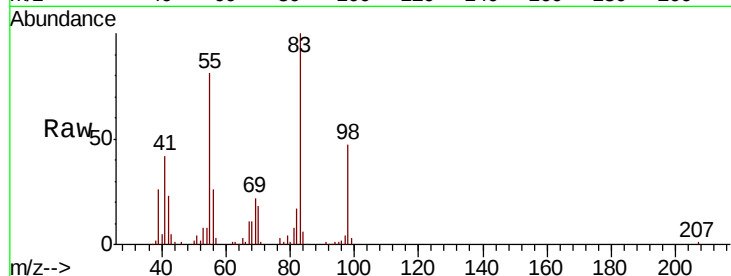




#35
Methvlcvclohexane
Concen: 28.20 ug/L
RT: 6.42 min Scan# 1812
Delta R.T. -0.00 min
Lab File: VU026097.D
Acq: 14 Aug 2018 13:28

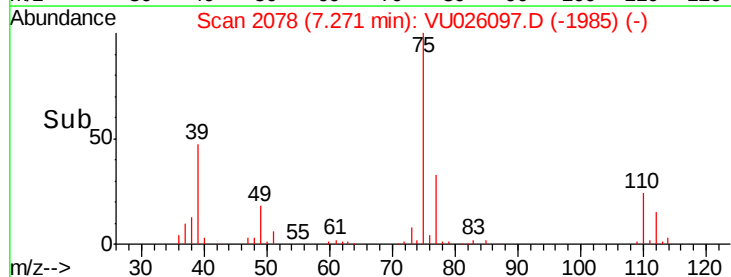
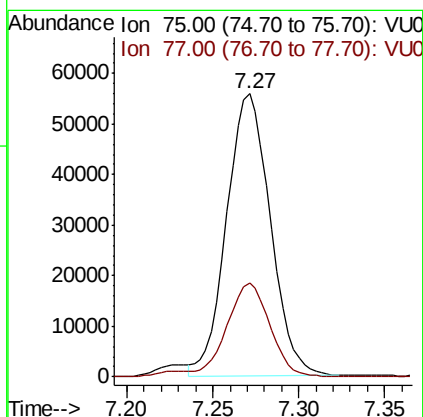
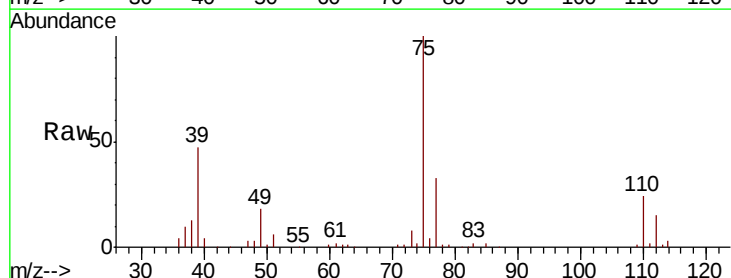
Instrument :
MSVOA_U
ClientSampleId :
A4ZL2

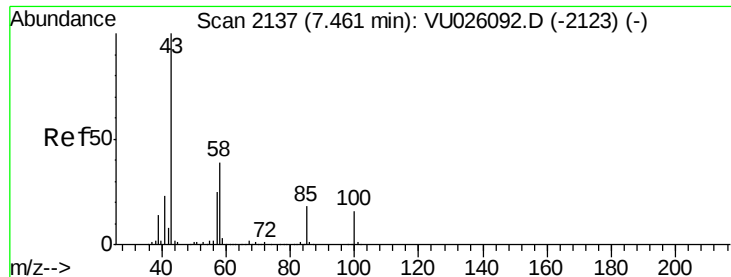
Tot Ion: 83 Resp: 84346
Ion Ratio Lower Upper
83 100
55 78.9 61.0 91.6
98 48.0 38.1 57.1



#39
cis-1,3-Dichloropropene
Concen: 31.76 ug/L
RT: 7.27 min Scan# 2078
Delta R.T. -0.00 min
Lab File: VU026097.D
Acq: 14 Aug 2018 13:28

Tgt Ion: 75 Resp: 98738
Ion Ratio Lower Upper
75 100
77 33.2 22.1 41.1

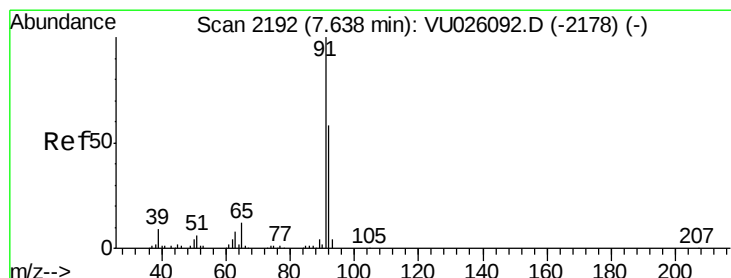
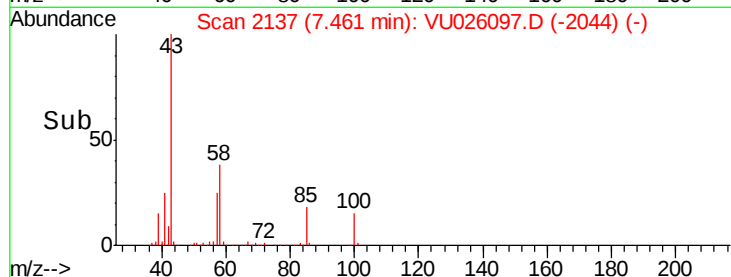
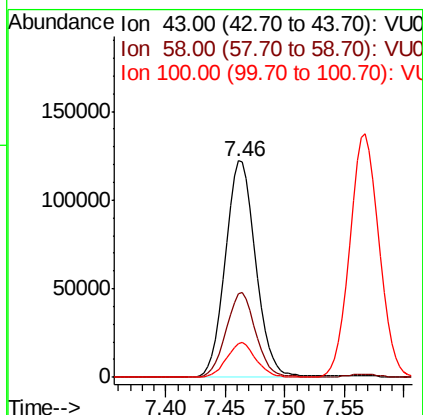
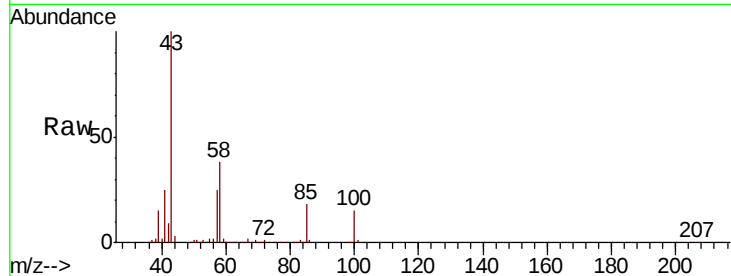




#40
 4-Methyl-2-pentanone
 Concen: 76.98 ug/L
 RT: 7.46 min Scan# 2137
 Delta R.T. -0.00 min
 Lab File: VU026097.D
 Acq: 14 Aug 2018 13:28

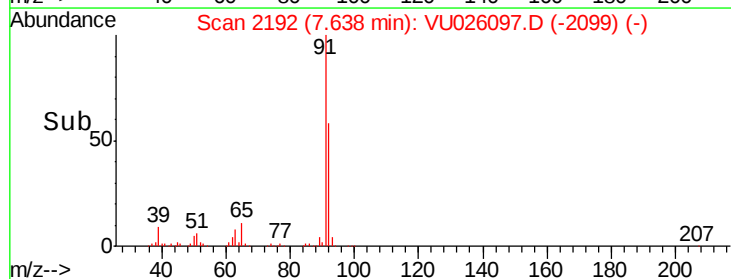
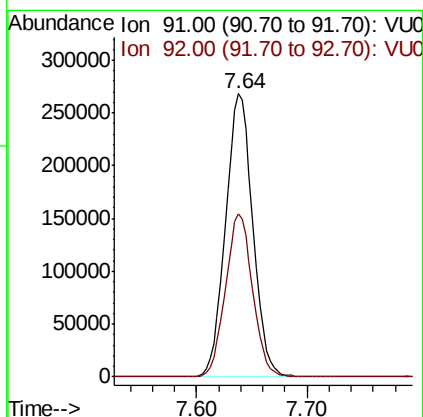
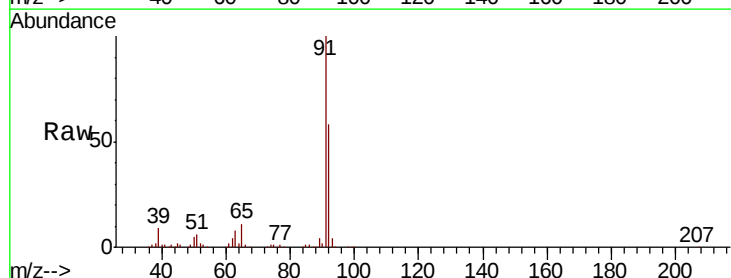
Instrument :
 MSVOA_U
 ClientSampleID :
 A4ZL2

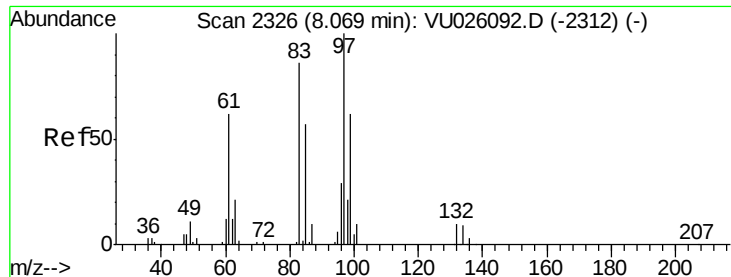
Tot Ion: 43 Resp: 216976
 Ion Ratio Lower Upper
 43 100
 58 38.3 30.6 46.0
 100 15.4 11.8 17.6



#42
 Toluene
 Concen: 57.71 ug/L
 RT: 7.64 min Scan# 2192
 Delta R.T. -0.00 min
 Lab File: VU026097.D
 Acq: 14 Aug 2018 13:28

Tgt Ion: 91 Resp: 459242
 Ion Ratio Lower Upper
 91 100
 92 57.7 41.0 76.2

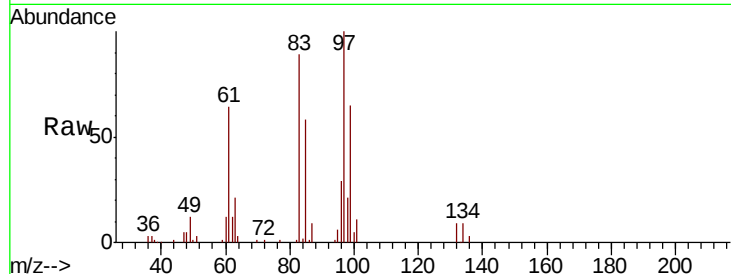




#45
 1,1,2-Trichloroethane
 Concen: 29.30 ug/L
 RT: 8.07 min Scan# 2326
 Delta R.T. -0.00 min
 Lab File: VU026097.D
 Acq: 14 Aug 2018 13:28

Instrument :
 MSVOA_U
 ClientSampleId :
 A4ZL2

Tot Ion	97	Resp	57296
Ion	Ratio	Lower	Upper
97	100		
99	65.4	41.6	77.2
83	88.8	59.0	109.6
85	57.5	37.9	70.5



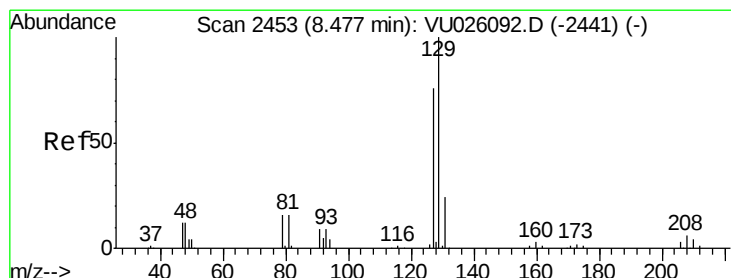
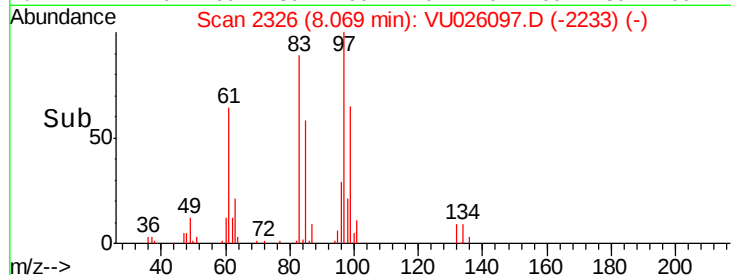
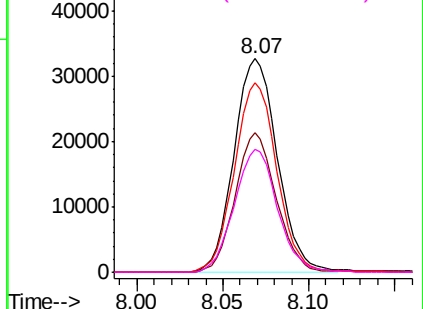
Abundance

Ion 97.00 (96.70 to 97.70): VU0

Ion 99.00 (98.70 to 99.70): VU0

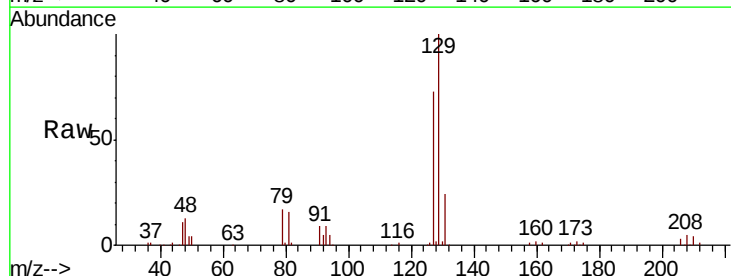
Ion 83.00 (82.70 to 83.70): VU0

Ion 85.00 (84.70 to 85.70): VU0



#49
 Dibromochloromethane
 Concen: 45.56 ug/L
 RT: 8.48 min Scan# 2453
 Delta R.T. -0.00 min
 Lab File: VU026097.D
 Acq: 14 Aug 2018 13:28

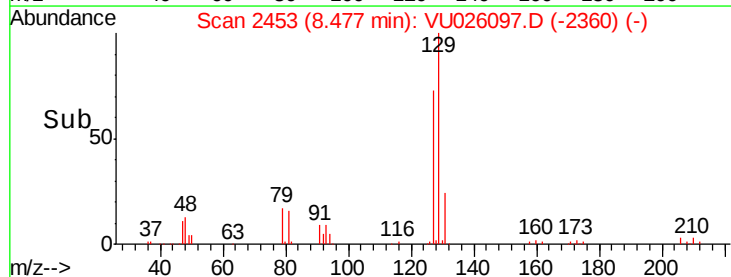
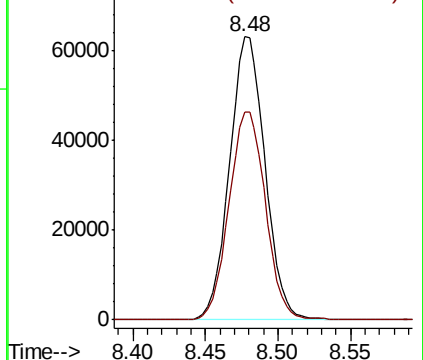
Tgt Ion	129	Resp	107458
Ion	Ratio	Lower	Upper
129	100		
127	73.4	53.5	99.3

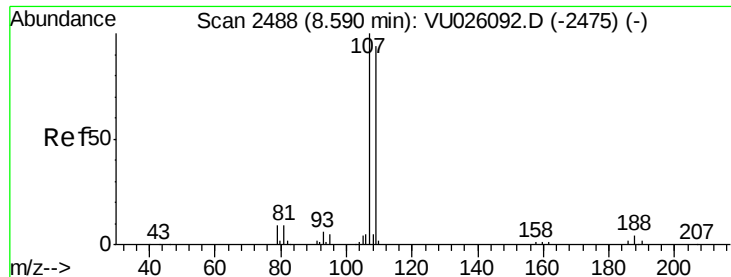


Abundance

Ion 129.00 (128.70 to 129.70): V

Ion 127.00 (126.70 to 127.70): V





#50

1,2-Dibromoethane

Concen: 43.81 ug/L

RT: 8.59 min Scan# 2488

Delta R.T. -0.00 min

Lab File: VU026097.D

Acq: 14 Aug 2018 13:28

Instrument :

MSVOA_U

ClientSampleId :

A4ZL2

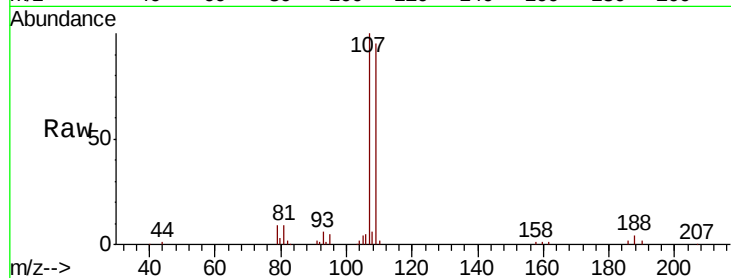
Tot Ion:107 Resp: 93313

Ion Ratio Lower Upper

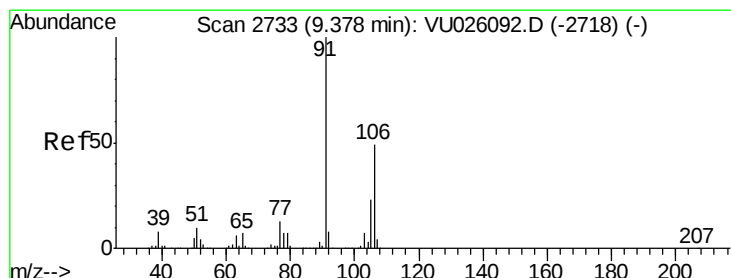
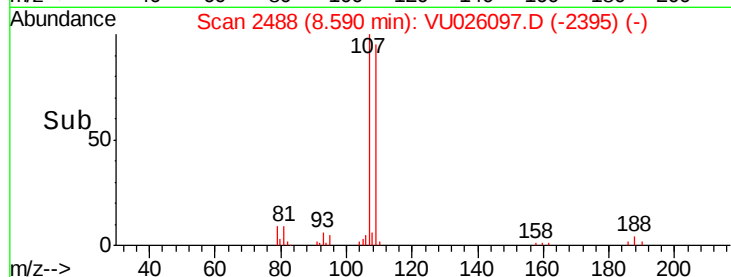
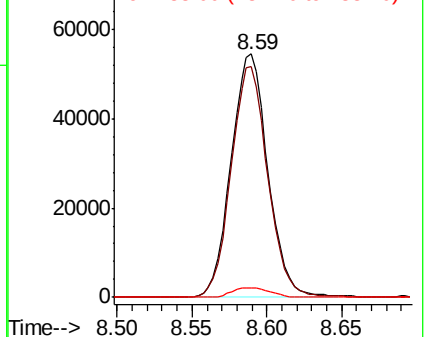
107 100

109 94.6 66.1 122.7

188 4.0 2.9 4.3



Abundance Ion 107.00 (106.70 to 107.70): V
Ion 109.00 (108.70 to 109.70): V
Ion 188.00 (187.70 to 188.70): V



#53

m,p-Xylene

Concen: 37.18 ug/L

RT: 9.38 min Scan# 2734

Delta R.T. 0.00 min

Lab File: VU026097.D

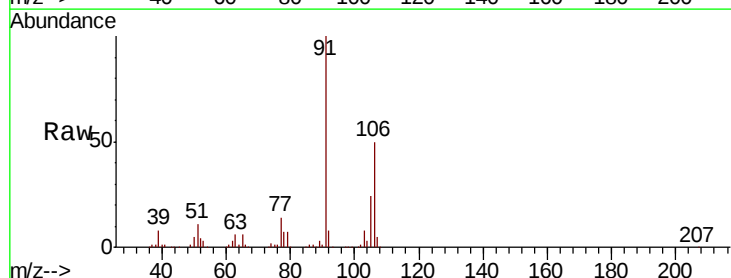
Acq: 14 Aug 2018 13:28

Tgt Ion:106 Resp: 123719

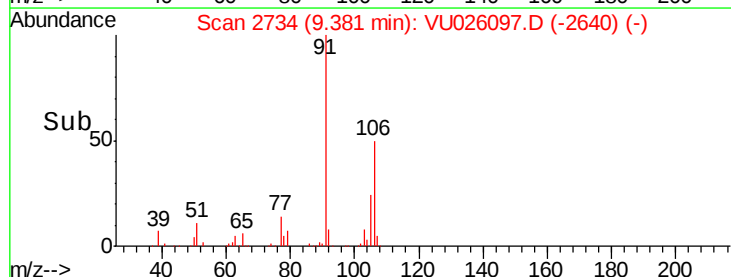
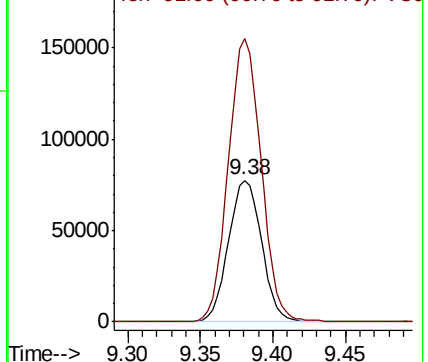
Ion Ratio Lower Upper

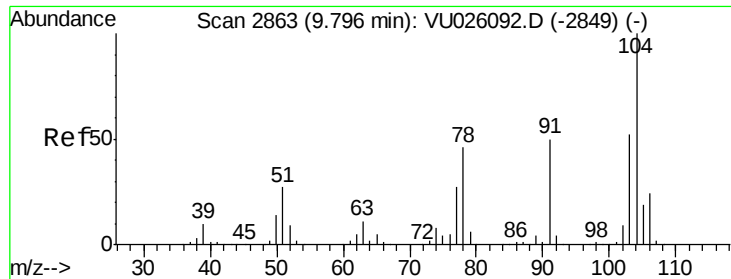
106 100

91 199.8 141.3 262.5



Abundance Ion 106.00 (105.70 to 106.70): V
Ion 91.00 (90.70 to 91.70): V





#55

Stvrene

Concen: 29.05 ug/L

RT: 9.80 min Scan# 2863

Delta R.T. -0.00 min

Lab File: VU026097.D

Acq: 14 Aug 2018 13:28

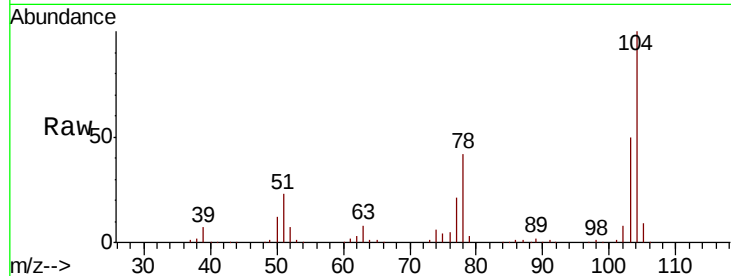
Instrument :
MSVOA_U
ClientSampleId :
A4ZL2

Tot Ion:104 Resp: 159739

Ion Ratio Lower Upper

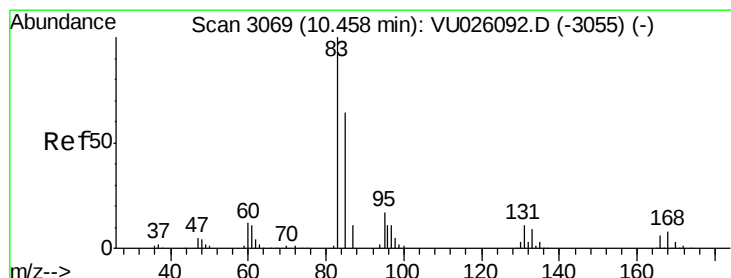
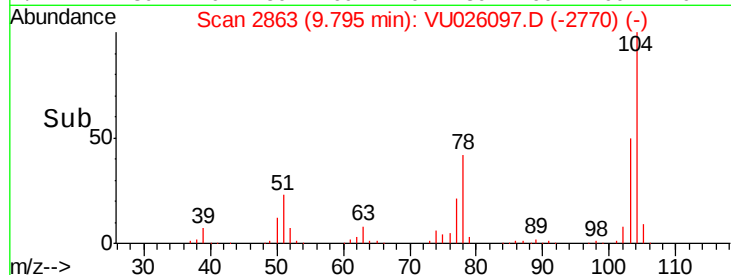
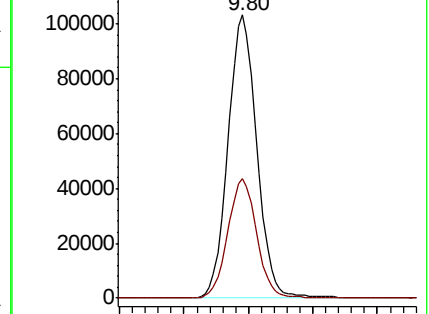
104 100

78 42.0 32.1 59.5



Abundance Ion 104.00 (103.70 to 104.70): VU026092.D (-2849) (-)

Ion 78.00 (77.70 to 78.70): VU026092.D (-2849) (-)



#58

1,1,2,2-Tetrachloroethane

Concen: 25.80 ug/L

RT: 10.46 min Scan# 3070

Delta R.T. 0.00 min

Lab File: VU026097.D

Acq: 14 Aug 2018 13:28

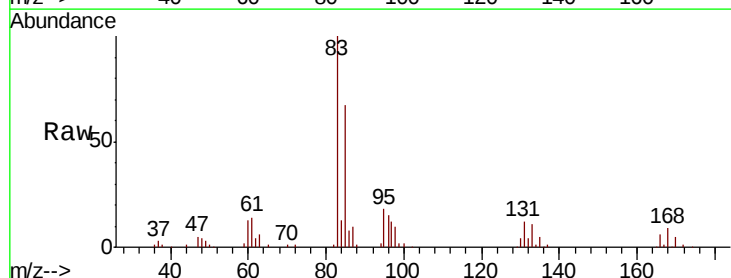
Tgt Ion: 83 Resp: 85747

Ion Ratio Lower Upper

83 100

85 66.9 45.0 83.6

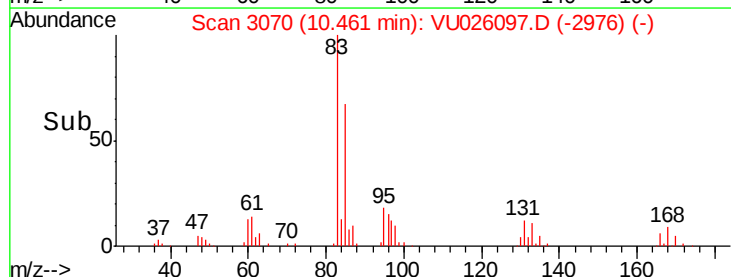
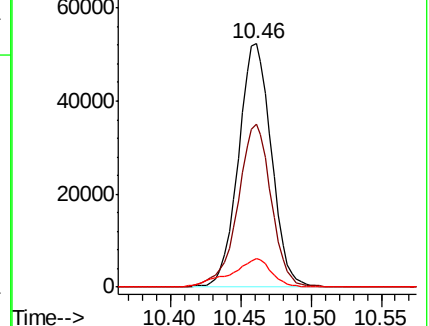
131 11.6 8.6 12.8

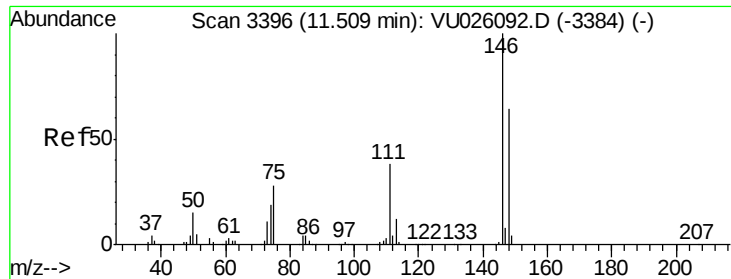


Abundance Ion 83.00 (82.70 to 83.70): VU026092.D (-3055) (-)

Ion 85.00 (84.70 to 85.70): VU026092.D (-3055) (-)

Ion 131.00 (130.70 to 131.70): VU026092.D (-3055) (-)

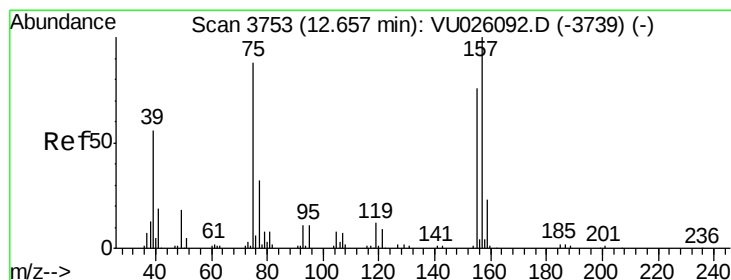
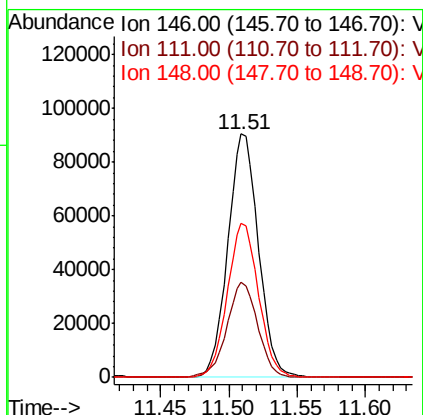
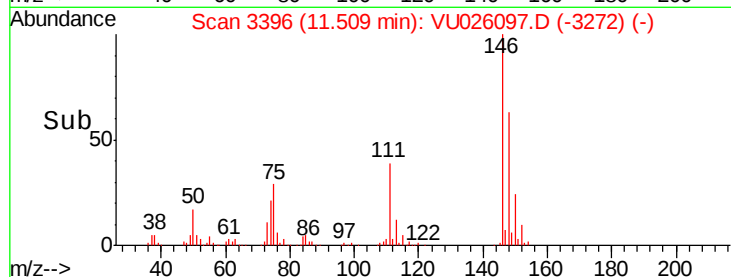
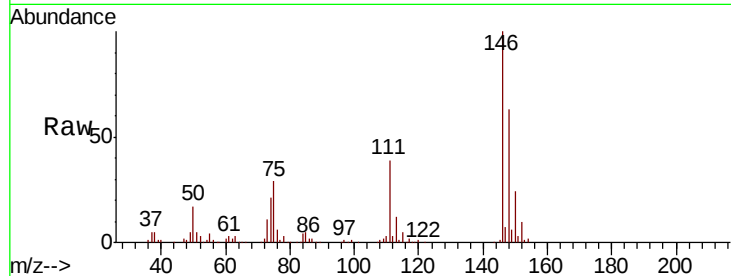




#63
 1,4-Dichlorobenzene
 Concen: 31.82 ug/L
 RT: 11.51 min Scan# 3396
 Delta R.T. -0.00 min
 Lab File: VU026097.D
 Acq: 14 Aug 2018 13:28

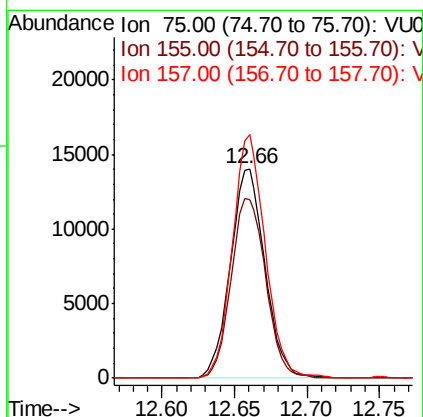
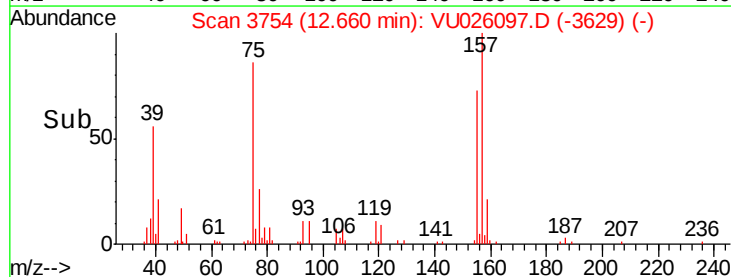
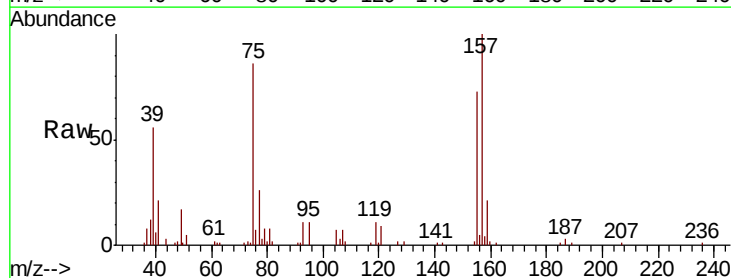
Instrument :
 MSVOA_U
 ClientSampleId :
 A4ZL2

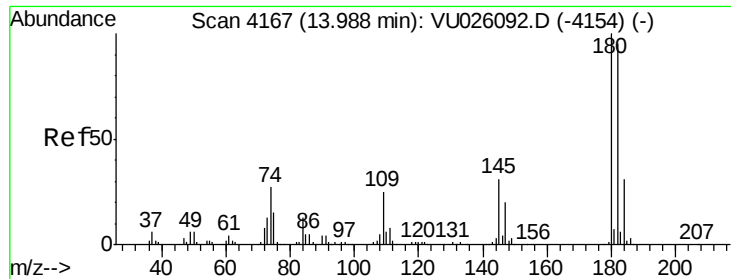
Tot Ion	Ratio	Lower	Upper
146	100		
111	39.0	26.4	49.0
148	63.4	43.8	81.4



#66
 1,2-Dibromo-3-chloropropane
 Concen: 29.30 ug/L
 RT: 12.66 min Scan# 3754
 Delta R.T. 0.00 min
 Lab File: VU026097.D
 Acq: 14 Aug 2018 13:28

Tgt Ion	Ratio	Lower	Upper
75	100		
155	85.2	71.8	107.8
157	116.1	93.0	139.6





#70
 1,2,3-Trichlorobenzene
 Concen: 45.02 ug/L
 RT: 13.99 min Scan# 4168
 Delta R.T. 0.00 min
 Lab File: VU026097.D
 Acq: 14 Aug 2018 13:28

Instrument :
 MSVOA_U
 ClientSampleId :
 A4ZL2

Tot Ion	Ratio	Lower	Upper
180	100		
182	95.7	76.5	114.7
145	30.5	24.7	37.1

