

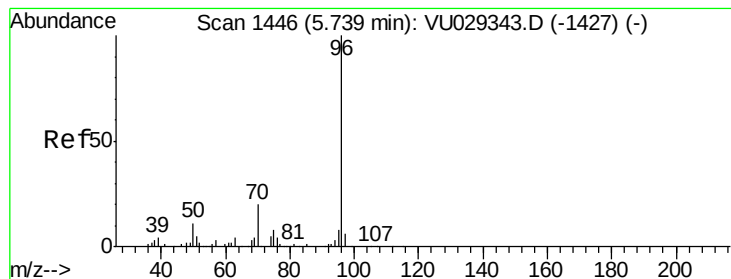
Data Path : Z:\VOASRV\HPCHEM1\MSVOA U\DATA\VU020819\
 Data File : VU029380.D
 Acq On : 08 Feb 2019 15:56
 Operator : JC/SP
 Sample : K1161-08
 Misc : 25.0mL/MSVOA U/WATER
 ALS Vial : 11 Sample Multiplier: 1

Instrument :
 MSVOA_U
 ClientSampleId :
 PT-UNRVOA-WS

Quant Time: Feb 18 12:30:22 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA U\METHOD\524U020519DW.M
 Quant Title : METHOD 524.2 VOLATILES DRINKING WATER
 QLast Update : Fri Feb 08 10:52:46 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
-----	-----	-----	-----	-----	-----	-----
1) Fluorobenzene	5.74	96	52016	1.00	ug/l	0.00
System Monitoring Compounds						
57) 4-Bromofluorobenzene	10.31	95	20707	1.02	ug/l	0.00
Spiked Amount 1.000			Recovery	=	102.00%	
68) 1,2-Dichlorobenzene-d4	11.86	152	23173	1.11	ug/l	0.00
Spiked Amount 1.000			Recovery	=	111.00%	
Target Compounds						
					Ovalue	
3) Chloromethane	1.33	50	222865	12.564	ug/l	98
6) Chloroethane	1.70	64	305272	25.126	ug/l	99
7) Trichlorofluoromethane	1.88	101	541336	18.641	ug/l	96
17) 1,1-Dichloroethane	3.44	63	521500	19.612	ug/l	97
21) 2,2-Dichloropropane	4.22	77	248588	10.100	ug/l	97
25) Methyl tert-Butyl Ether	3.00	73	1646137	38.961	ug/l #	86
26) Bromochloromethane	4.55	128	68492	9.809	ug/l	70
29) 1,1-Dichloropropene	5.13	75	266229	12.795	ug/l	92
43) Dibromomethane	6.56	93	160848	20.164	ug/l	89
50) t-1,3-Dichloropropene	7.88	75	384227	19.285	ug/l	96
51) cis-1,3-Dichloropropene	7.27	75	105897	4.474	ug/l #	86
53) 1,3-Dichloropropane	8.24	76	62244	3.355	ug/l	99
60) 1,1,1,2-Tetrachloroethane	9.21	131	238321	15.549	ug/l	97
69) Isopropylbenzene	10.16	105	483374	6.584	ug/l	96
70) 1,1,2,2-Tetrachloroethane	10.46	83	230209	17.008	ug/l	98
71) 1,2,3-Trichloropropane	10.49	75	115978	12.478	ug/l #	85
72) Bromobenzene	10.45	156	369878	20.786	ug/l	83
73) n-propylbenzene	10.58	120	347536	16.996	ug/l	78
74) 2-Chlorotoluene	10.66	126	400525	23.003	ug/l	73
75) 1,3,5-Trimethylbenzene	10.77	105	1225142	19.357	ug/l	95
76) 4-Chlorotoluene	10.77	126	323096	17.879	ug/l	75
77) tert-Butylbenzene	11.10	119	1255847	20.074	ug/l	97
78) 1,2,4-Trimethylbenzene	11.14	105	1012376	15.799	ug/l	93
79) sec-Butylbenzene	11.32	105	1329561	16.243	ug/l	94
81) p-Isopropyltoluene	11.47	119	1248943	18.000	ug/l	93
82) 1,3-Dichlorobenzene	11.41	146	666594	19.094	ug/l	96
84) n-Butylbenzene	11.89	91	1140126	17.905	ug/l #	95
88) Hexachlorobutadiene	13.69	225	514404	38.310	ug/l	98
89) Naphthalene	13.74	128	866154	22.028	ug/l	99
90) 1,2,3-Trichlorobenzene	13.98	180	1206932	56.960	ug/l	97
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(#) = qualifier out of range (m) = manual integration (+) = signals summed



#1

Fluorobenzene

Concen: 1.000 ug/l

RT: 5.74 min Scan# 1447

Delta R.T. 0.00 min

Lab File: VU029380.D

Acq: 08 Feb 2019 15:56

Instrument :

MSVOA_U

ClientSampleId :

PT-UNRVOA-WS

Tot Ion: 96 Resp: 52016

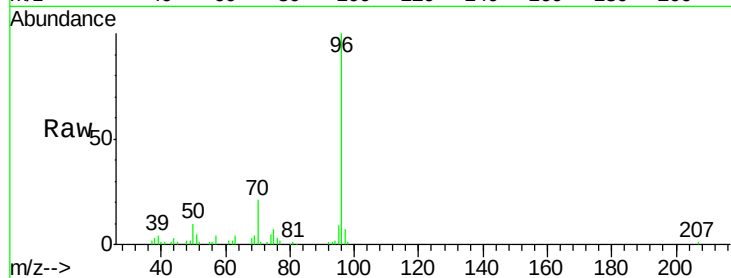
Ion Ratio Lower Upper

96 100

70 20.1 16.2 24.2

95 8.9 7.4 11.2

97 7.4 0.0 0.0#

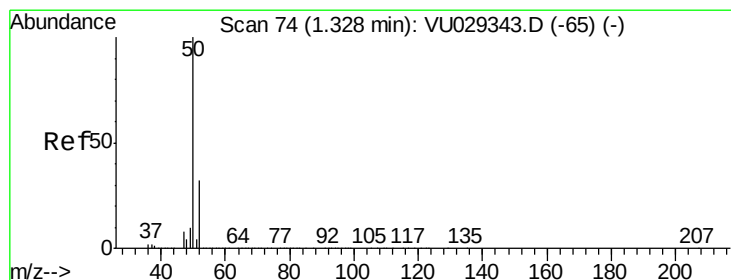
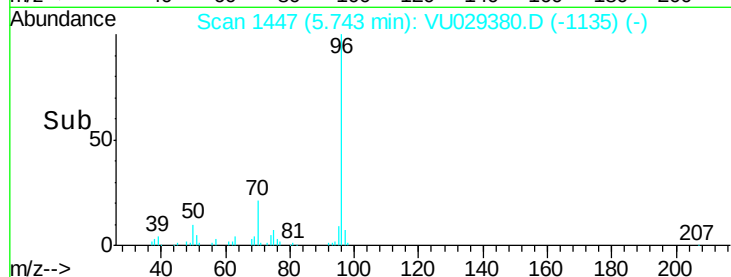
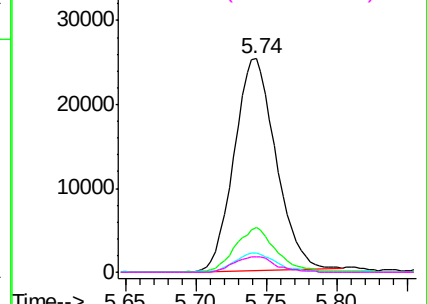


Abundance Ion 96.00 (95.70 to 96.70): VU029343.D (-1427) (-)

Ion 70.00 (69.70 to 70.70): VU029343.D (-1427) (-)

Ion 95.00 (94.70 to 95.70): VU029343.D (-1427) (-)

Ion 97.00 (96.70 to 97.70): VU029343.D (-1427) (-)



#3

Chloromethane

Concen: 12.564 ug/l

RT: 1.33 min Scan# 74

Delta R.T. 0.00 min

Lab File: VU029380.D

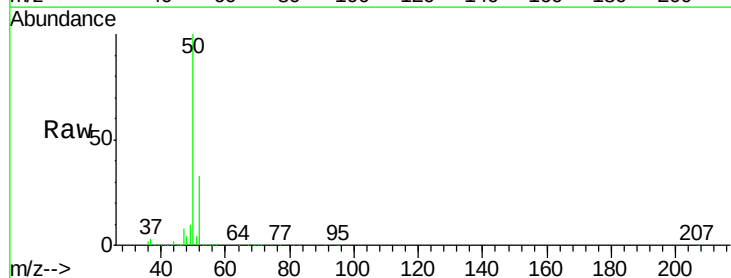
Acq: 08 Feb 2019 15:56

Tgt Ion: 50 Resp: 222865

Ion Ratio Lower Upper

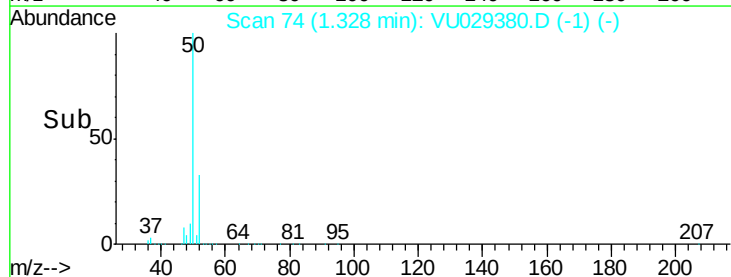
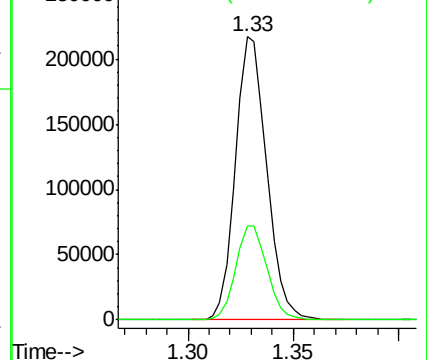
50 100

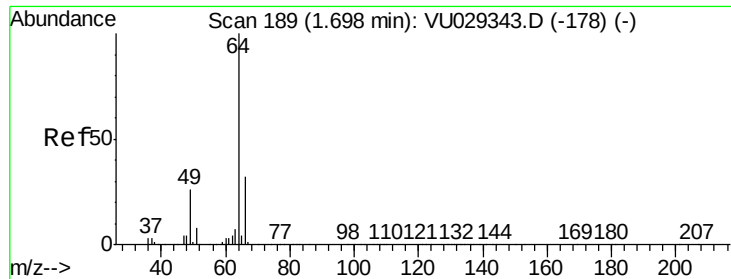
52 33.2 27.3 40.9



Abundance Ion 50.00 (49.70 to 50.70): VU029343.D (-65) (-)

Ion 52.00 (51.70 to 52.70): VU029343.D (-65) (-)





#6

Chloroethane

Concen: 25.126 ug/l

RT: 1.70 min Scan# 189

Delta R.T. 0.00 min

Lab File: VU029380.D

Acq: 08 Feb 2019 15:56

Instrument :

MSVOA_U

ClientSampleId :

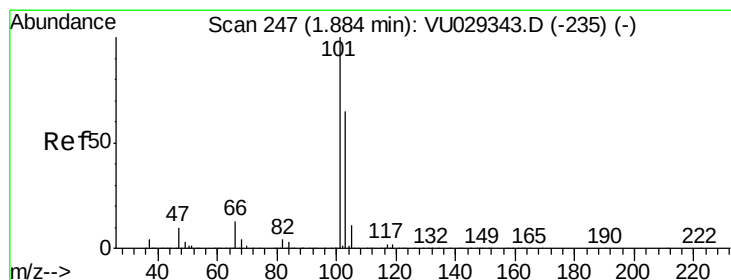
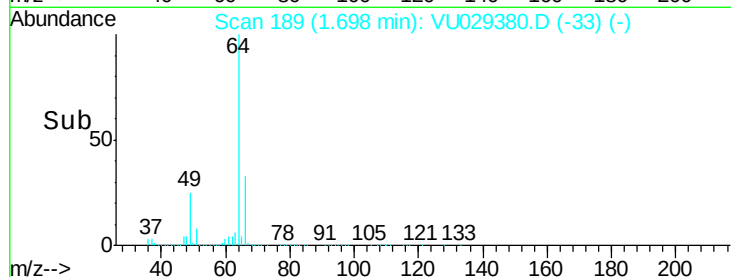
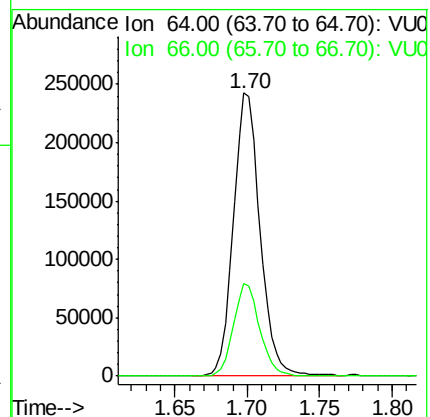
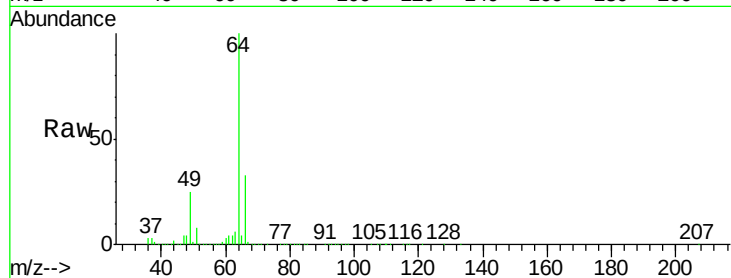
PT-UNRVOA-WS

Tot Ion: 64 Resp: 305272

Ion Ratio Lower Upper

64 100

66 32.6 26.3 39.5



#7

Trichlorofluoromethane

Concen: 18.641 ug/l

RT: 1.88 min Scan# 247

Delta R.T. 0.00 min

Lab File: VU029380.D

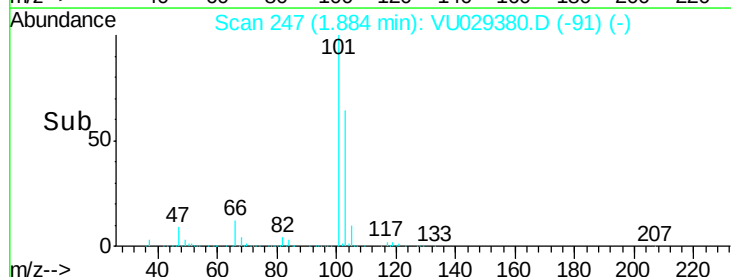
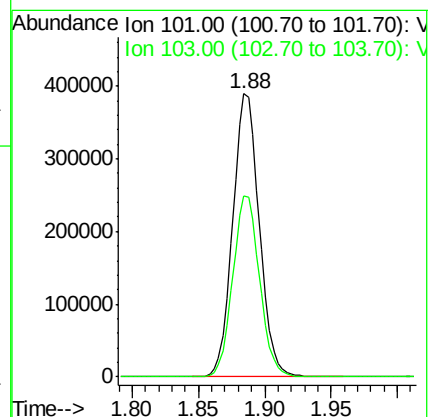
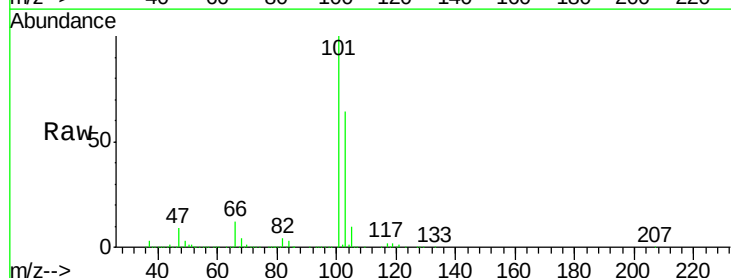
Acq: 08 Feb 2019 15:56

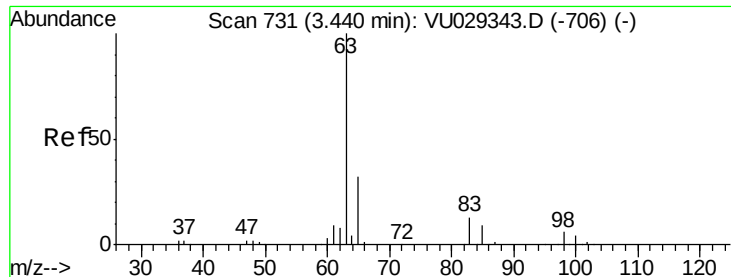
Tgt Ion: 101 Resp: 541336

Ion Ratio Lower Upper

101 100

103 64.0 53.9 80.9

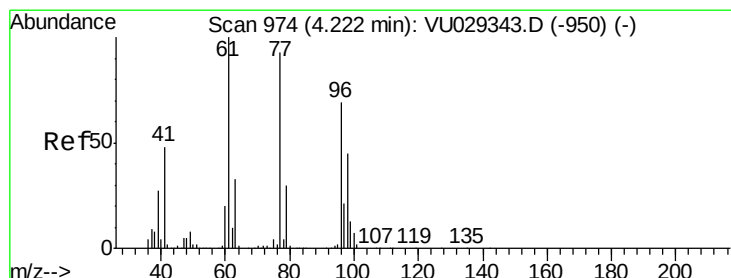
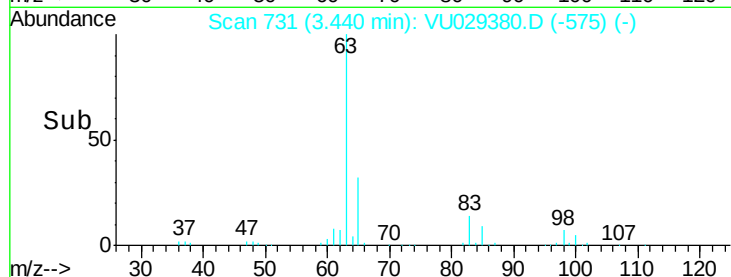
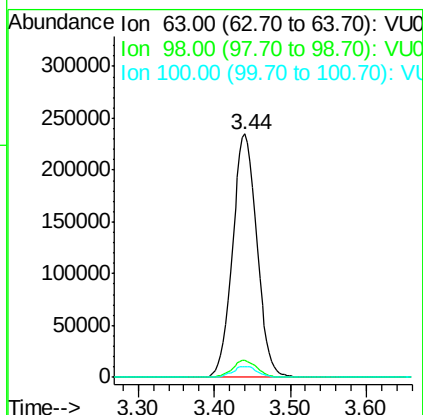
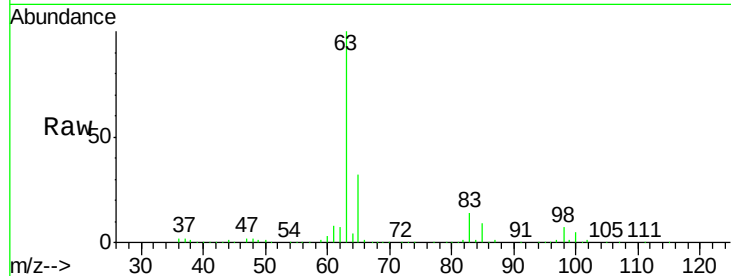




#17
 1,1-Dichloroethane
 Concen: 19.612 ug/l
 RT: 3.44 min Scan# 731
 Delta R.T. 0.00 min
 Lab File: VU029380.D
 Acq: 08 Feb 2019 15:56

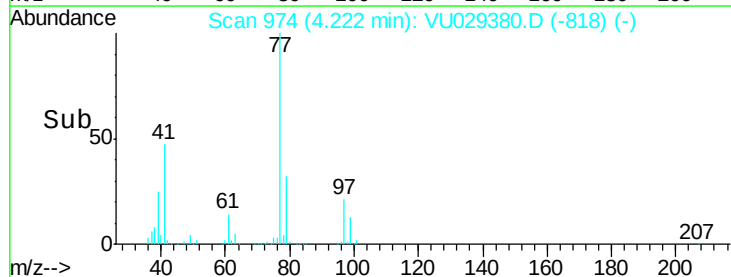
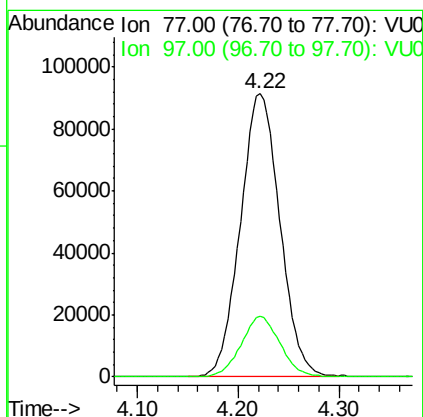
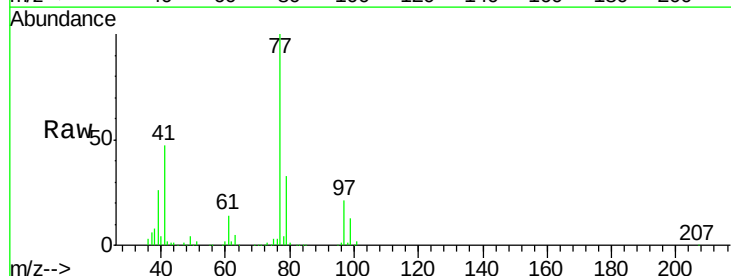
Instrument :
 MSVOA_U
 ClientSampleId :
 PT-UNRVOA-WS

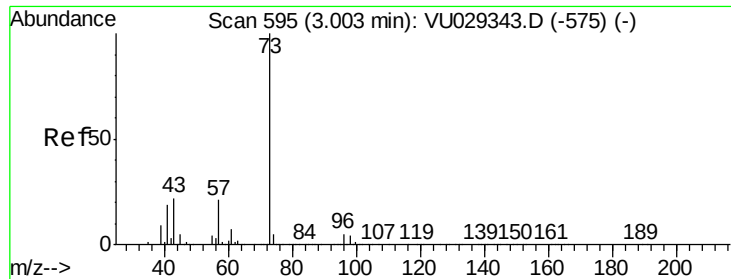
Tot Ion	Ratio	Lower	Upper
63	100		
98	6.9	2.9	8.8
100	4.5	1.7	5.1



#21
 2,2-Dichloropropane
 Concen: 10.100 ug/l
 RT: 4.22 min Scan# 974
 Delta R.T. 0.00 min
 Lab File: VU029380.D
 Acq: 08 Feb 2019 15:56

Tgt Ion	Ratio	Lower	Upper
77	100		
97	21.0	15.6	23.4

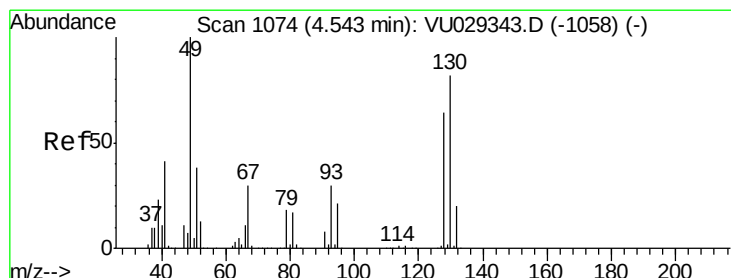
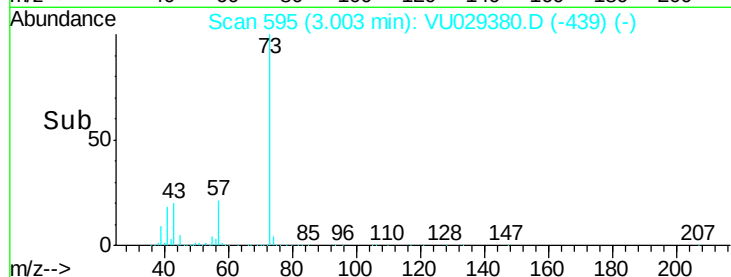
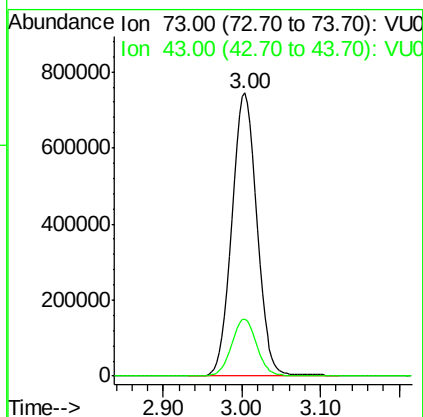
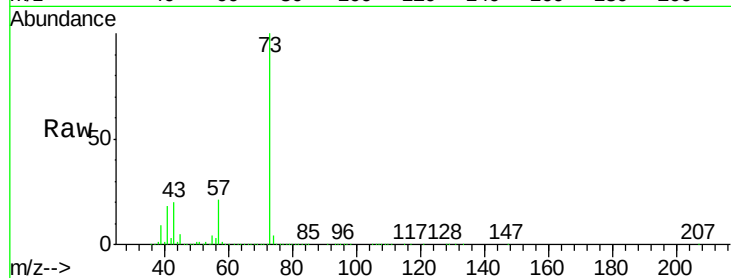




#25
Methyl tert-Butyl Ether
Concen: 38.961 ug/l
RT: 3.00 min Scan# 595
Delta R.T. 0.00 min
Lab File: VU029380.D
Acq: 08 Feb 2019 15:56

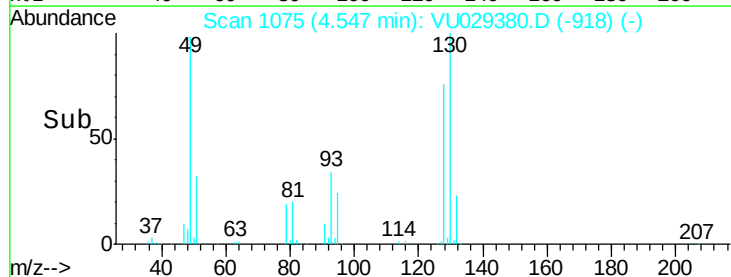
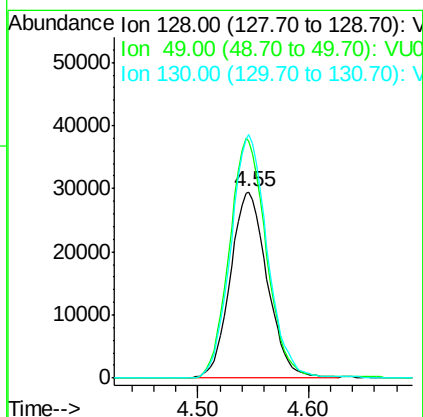
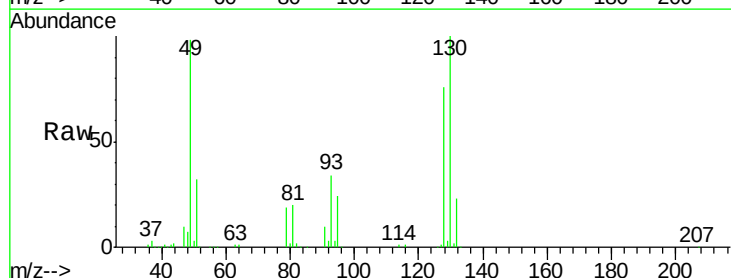
Instrument :
MSVOA_U
ClientSampleId :
PT-UNRVOA-WS

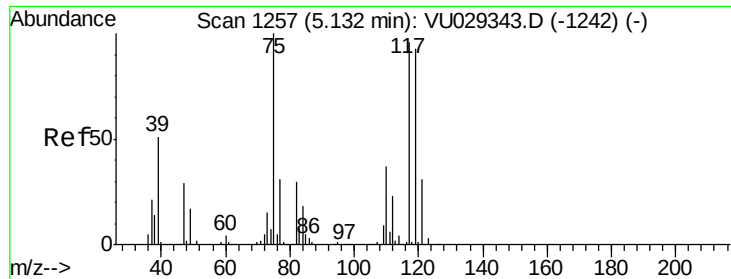
Tot Ion: 73 Resp: 1646137
Ion Ratio Lower Upper
73 100
43 20.0 22.1 33.1#



#26
Bromochloromethane
Concen: 9.809 ug/l
RT: 4.55 min Scan# 1075
Delta R.T. 0.00 min
Lab File: VU029380.D
Acq: 08 Feb 2019 15:56

Tgt Ion: 128 Resp: 68492
Ion Ratio Lower Upper
128 100
49 128.5 0.0 401.6
130 129.2 108.0 162.0





#29

1,1-Dichloropropene

Concen: 12.795 ug/l

RT: 5.13 min Scan# 1257

Delta R.T. 0.00 min

Lab File: VU029380.D

Acq: 08 Feb 2019 15:56

Instrument :

MSVOA_U

ClientSampleId :

PT-UNRVOA-WS

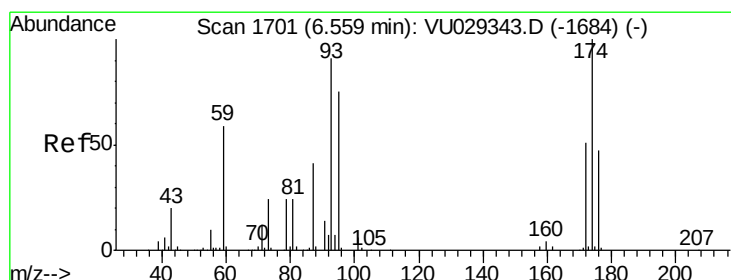
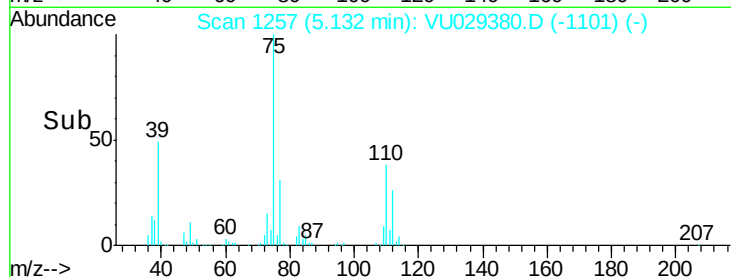
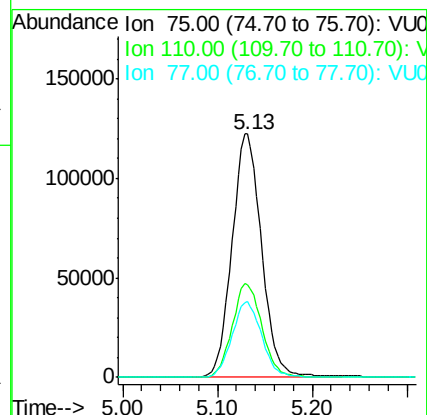
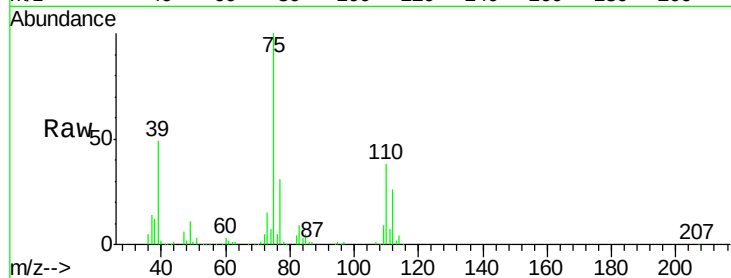
Tot Ion: 75 Resp: 266229

Ion Ratio Lower Upper

75 100

110 38.6 15.4 46.2

77 31.1 24.1 36.1



#43

Dibromomethane

Concen: 20.164 ug/l

RT: 6.56 min Scan# 1700

Delta R.T. -0.00 min

Lab File: VU029380.D

Acq: 08 Feb 2019 15:56

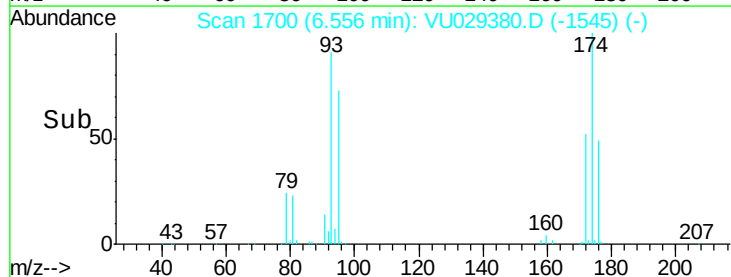
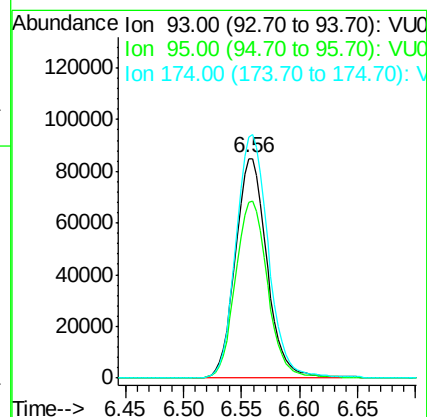
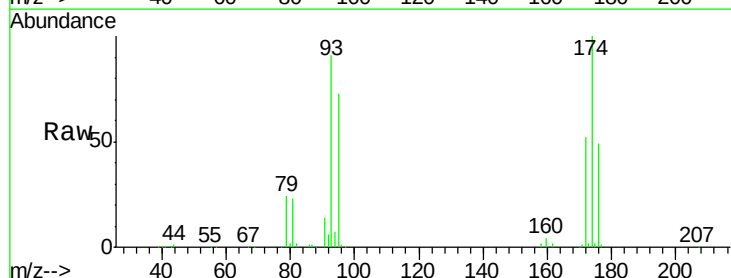
Tgt Ion: 93 Resp: 160848

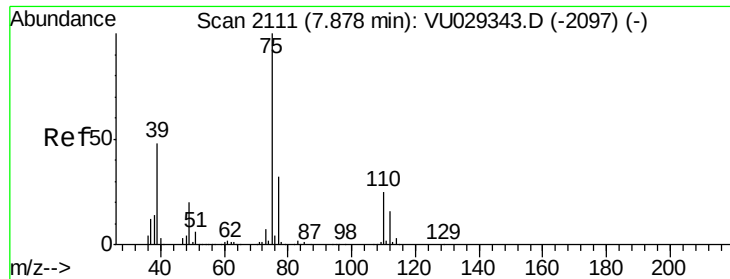
Ion Ratio Lower Upper

93 100

95 82.1 68.2 102.2

174 113.6 77.6 116.4

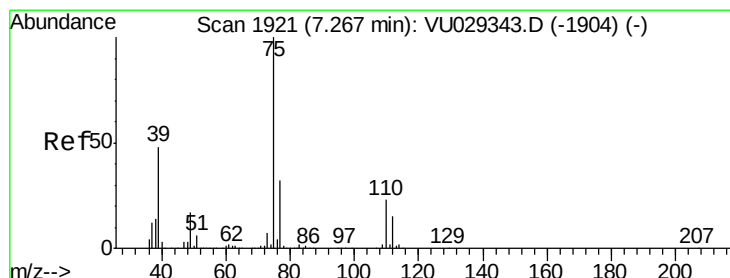
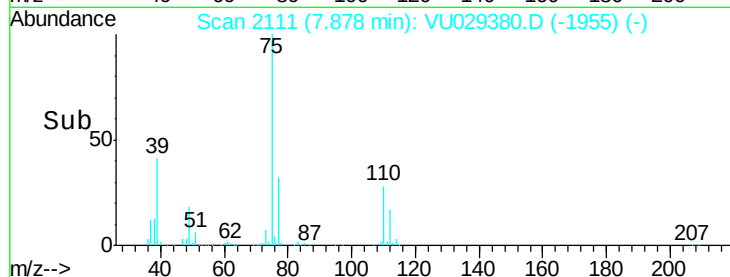
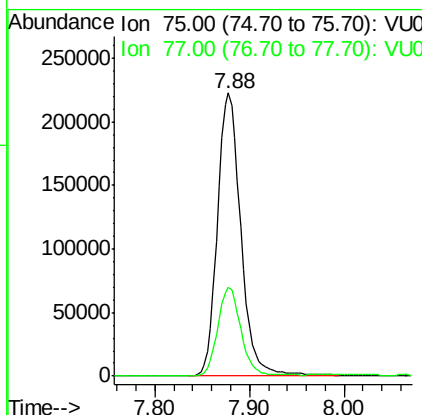
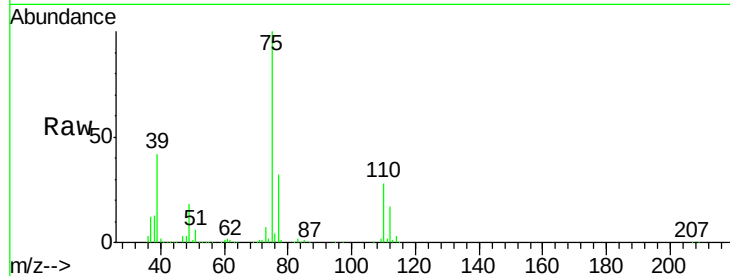




#50
t-1,3-Dichloropropene
Concen: 19.285 ug/l
RT: 7.88 min Scan# 2111
Delta R.T. 0.00 min
Lab File: VU029380.D
Acq: 08 Feb 2019 15:56

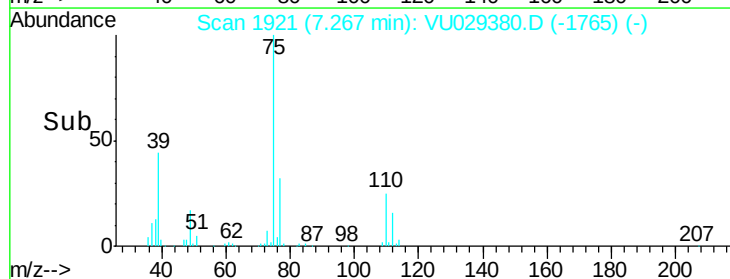
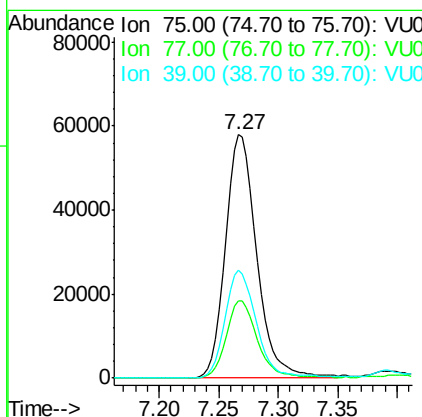
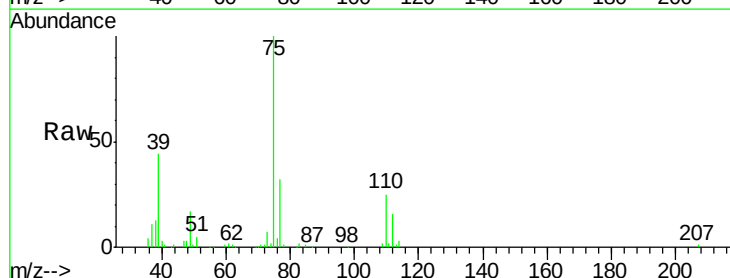
Instrument :
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PT-UNRVOA-WS

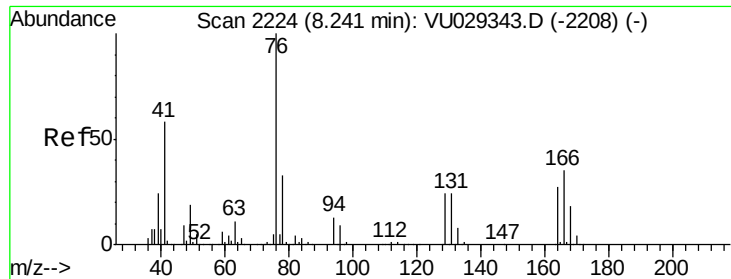
Tot Ion: 75 Resp: 384227
Ion Ratio Lower Upper
75 100
77 31.5 23.6 35.4



#51
cis-1,3-Dichloropropene
Concen: 4.474 ug/l
RT: 7.27 min Scan# 1921
Delta R.T. 0.00 min
Lab File: VU029380.D
Acq: 08 Feb 2019 15:56

Tgt Ion: 75 Resp: 105897
Ion Ratio Lower Upper
75 100
77 31.9 24.9 37.3
39 43.9 47.2 70.8#





#53

1,3-Dichloropropane

Concen: 3.355 ug/l

RT: 8.24 min Scan# 2224

Delta R.T. 0.00 min

Lab File: VU029380.D

Acq: 08 Feb 2019 15:56

Instrument :

MSVOA_U

ClientSampleId :

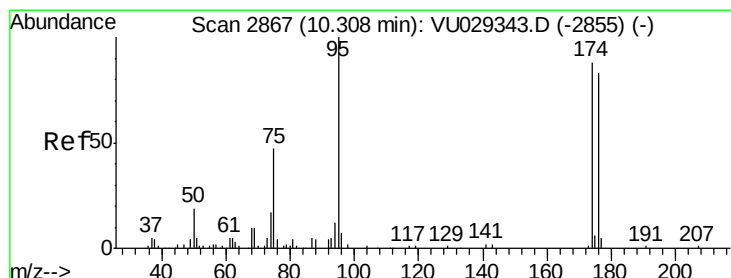
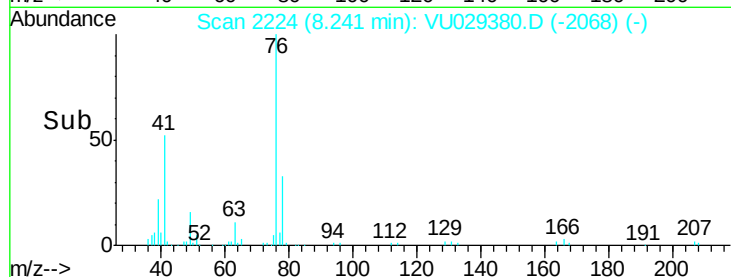
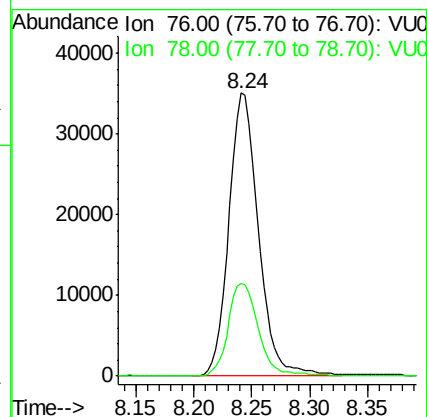
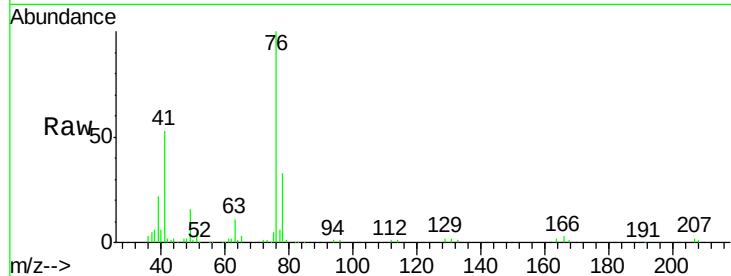
PT-UNRVOA-WS

Tot Ion: 76 Resp: 62244

Ion Ratio Lower Upper

76 100

78 33.4 26.3 39.5



#57

4-Bromofluorobenzene

Concen: N.D. ug/l

RT: 10.31 min Scan# 2867

Delta R.T. 0.00 min

Lab File: VU029380.D

Acq: 08 Feb 2019 15:56

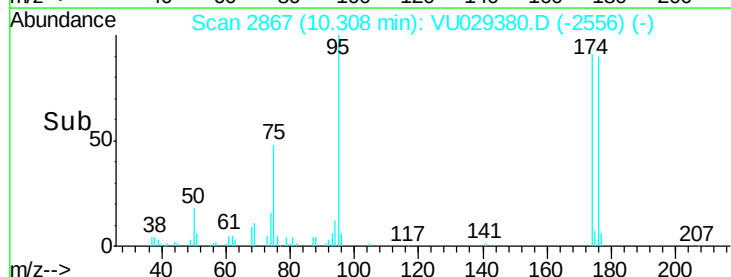
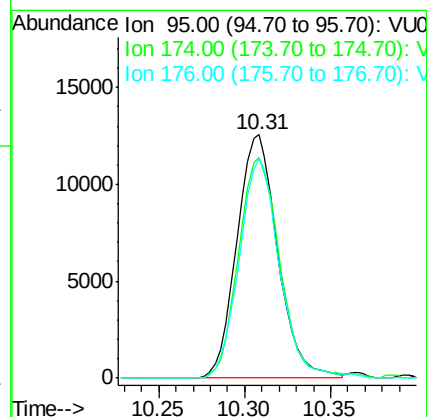
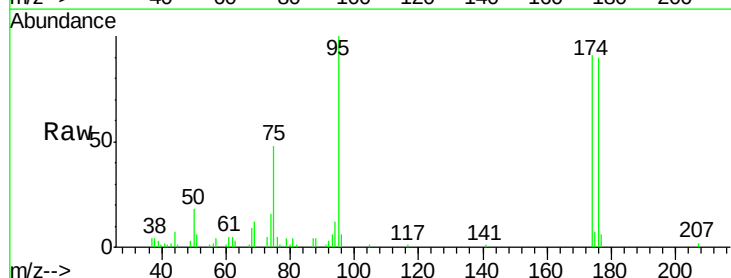
Tgt Ion: 95 Resp: 20707

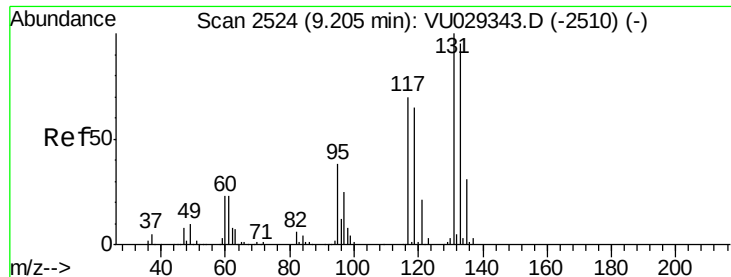
Ion Ratio Lower Upper

95 100

174 91.9 64.2 96.2

176 88.1 62.3 93.5

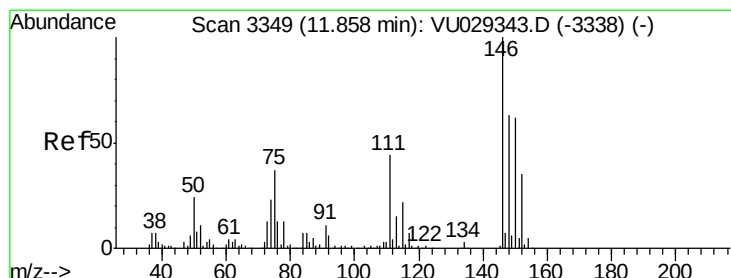
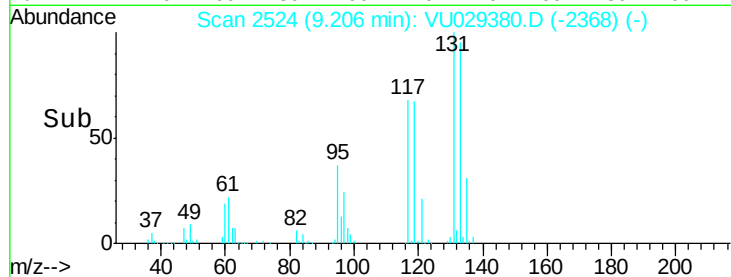
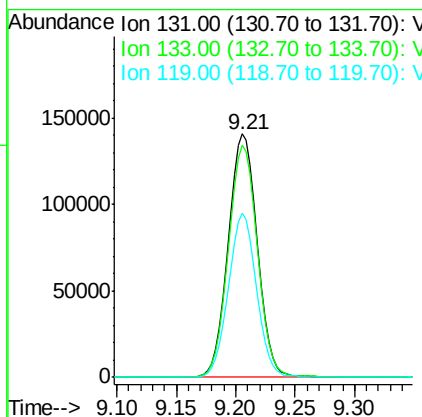
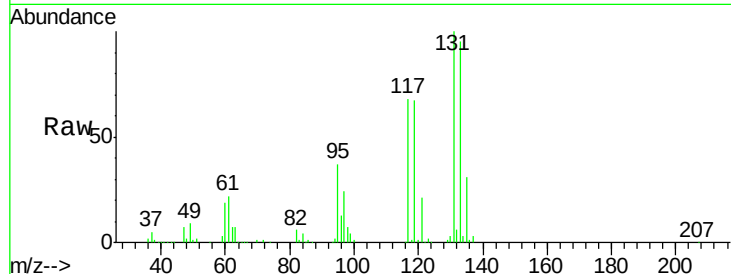




#60
 1,1,1,2-Tetrachloroethane
 Concen: 15.549 ug/l
 RT: 9.21 min Scan# 2524
 Delta R.T. 0.00 min
 Lab File: VU029380.D
 Acq: 08 Feb 2019 15:56

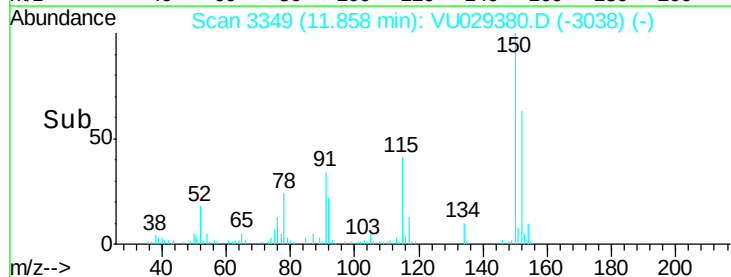
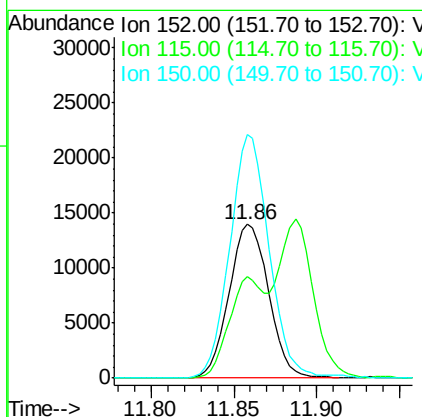
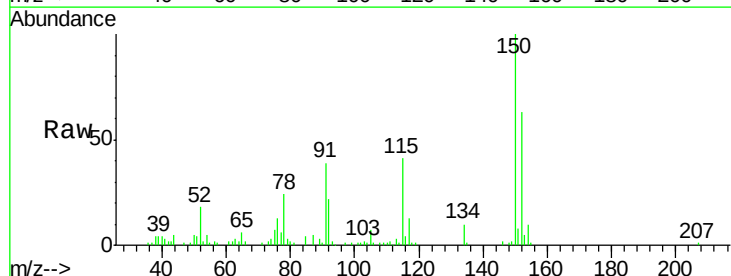
Instrument :
 MSVOA_U
 ClientSampleId :
 PT-UNRVOA-WS

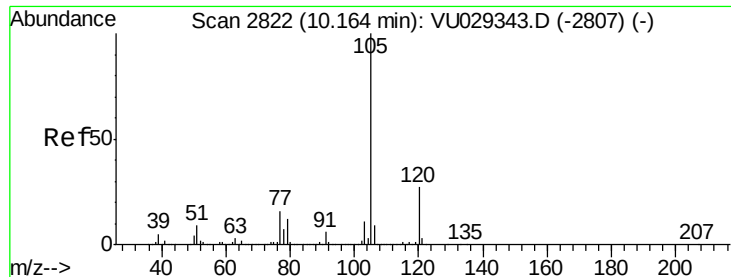
Tot Ion	Ratio	Lower	Upper
131	100		
133	95.4	77.3	115.9
119	65.2	48.9	73.3



#68
 1,2-Dichlorobenzene-d4
 Concen: N.D. ug/l
 RT: 11.86 min Scan# 3349
 Delta R.T. 0.00 min
 Lab File: VU029380.D
 Acq: 08 Feb 2019 15:56

Tgt Ion	Ratio	Lower	Upper
152	100		
115	60.8	0.0	133.4
150	157.9	0.0	670.8





#69

Isopropylbenzene

Concen: 6.584 ug/l

RT: 10.16 min Scan# 2822

Delta R.T. 0.00 min

Lab File: VU029380.D

Acq: 08 Feb 2019 15:56

Instrument :

MSVOA_U

ClientSampleId :

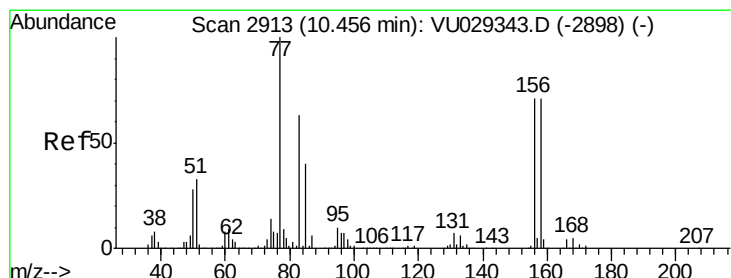
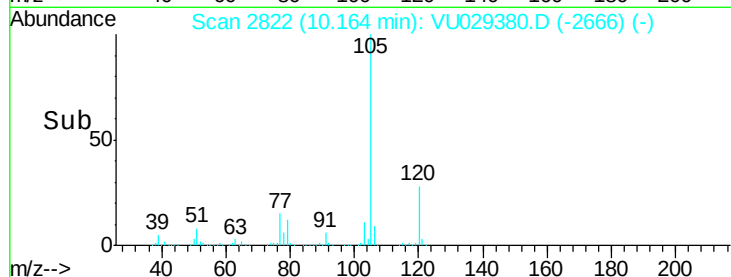
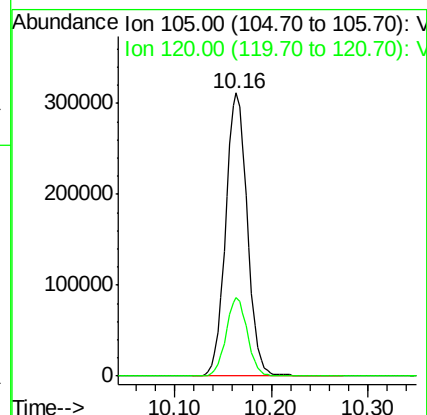
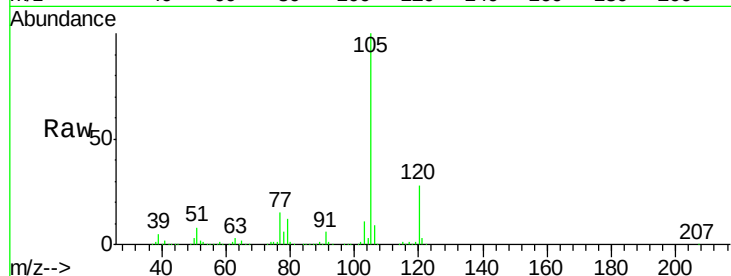
PT-UNRVOA-WS

Tot Ion:105 Resp: 483374

Ion Ratio Lower Upper

105 100

120 27.2 12.6 37.6



#70

1,1,2,2-Tetrachloroethane

Concen: 17.008 ug/l

RT: 10.46 min Scan# 2913

Delta R.T. 0.00 min

Lab File: VU029380.D

Acq: 08 Feb 2019 15:56

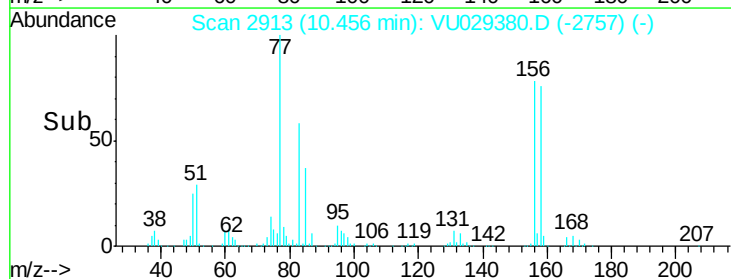
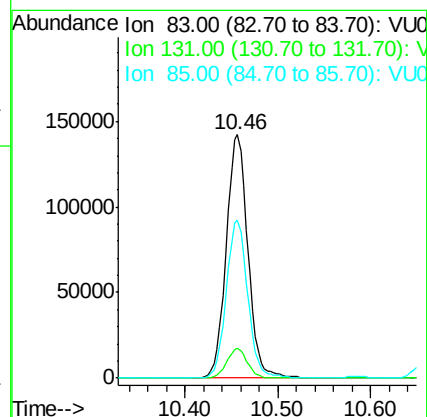
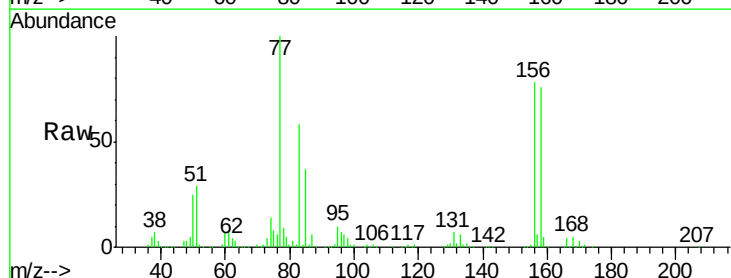
Tgt Ion: 83 Resp: 230209

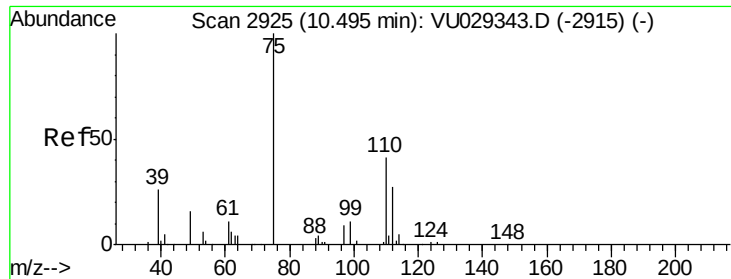
Ion Ratio Lower Upper

83 100

131 11.6 8.1 12.1

85 64.5 50.3 75.5





#71

1,2,3-Trichloropropane

Concen: 12.478 ug/l

RT: 10.49 min Scan# 2924

Delta R.T. -0.00 min

Lab File: VU029380.D

Acq: 08 Feb 2019 15:56

Instrument :

MSVOA_U

ClientSampleId :

PT-UNRVOA-WS

Tot Ion: 75 Resp: 115978

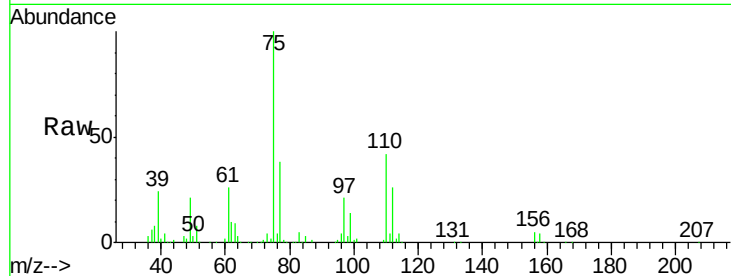
Ion Ratio Lower Upper

75 100

77 0.0 0.0 0.0

110 41.4 0.0 63.6

97 20.1 0.0 31.4

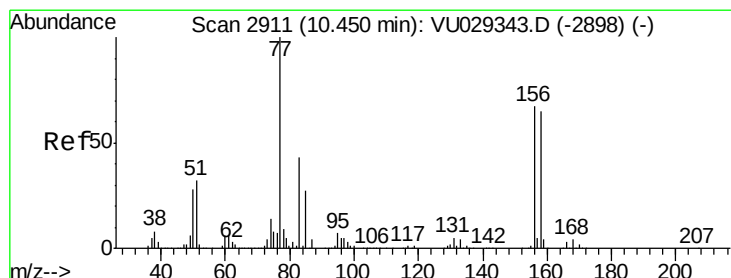
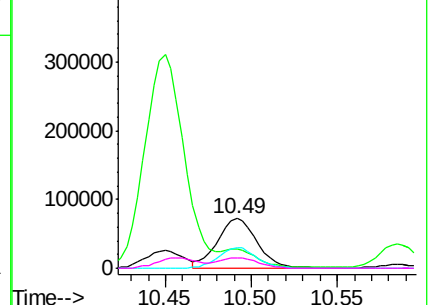
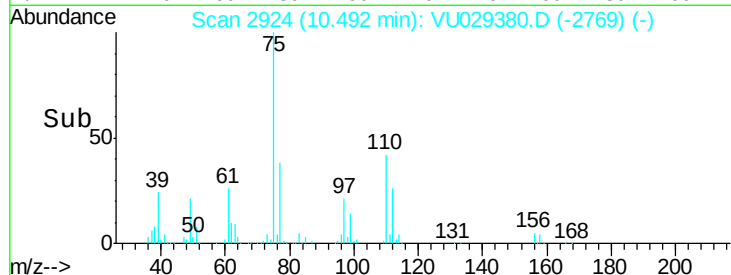


Abundance Ion 75.00 (74.70 to 75.70): VU0

Ion 77.00 (76.70 to 77.70): VU0

Ion 110.00 (109.70 to 110.70): V

Ion 97.00 (96.70 to 97.70): VU0



#72

Bromobenzene

Concen: 20.786 ug/l

RT: 10.45 min Scan# 2911

Delta R.T. 0.00 min

Lab File: VU029380.D

Acq: 08 Feb 2019 15:56

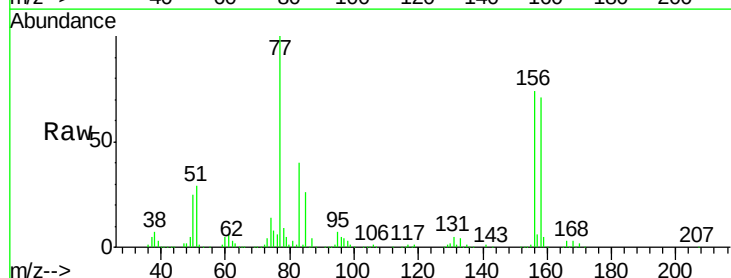
Tgt Ion: 156 Resp: 369878

Ion Ratio Lower Upper

156 100

77 134.3 0.0 343.8

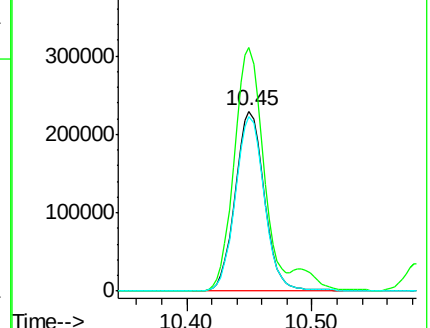
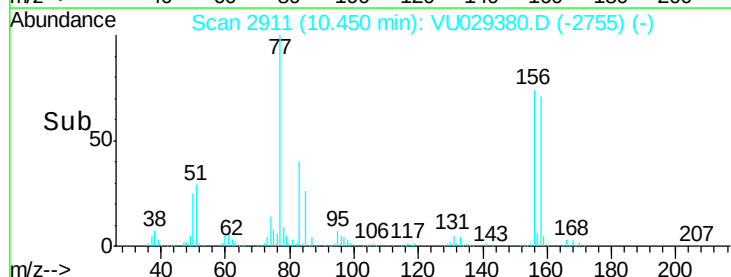
158 97.4 0.0 195.0

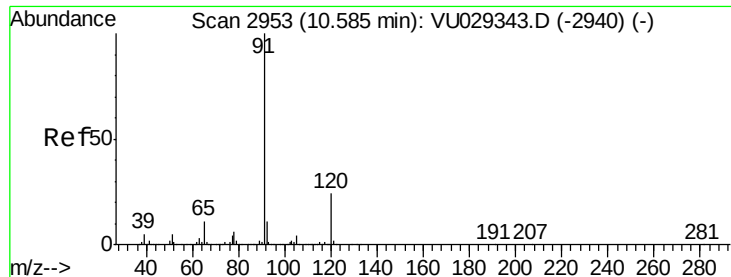


Abundance Ion 156.00 (155.70 to 156.70): V

Ion 77.00 (76.70 to 77.70): VU0

Ion 158.00 (157.70 to 158.70): V





#73

n-propylbenzene

Concen: 16.996 ug/l

RT: 10.58 min Scan# 2953

Delta R.T. 0.00 min

Lab File: VU029380.D

Acq: 08 Feb 2019 15:56

Instrument :

MSVOA_U

ClientSampleId :

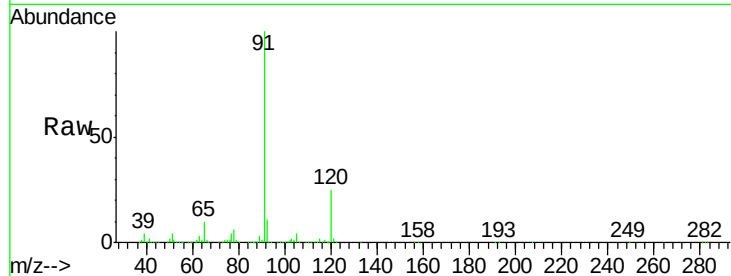
PT-UNRVOA-WS

Tot Ion:120 Resp: 347536

Ion Ratio Lower Upper

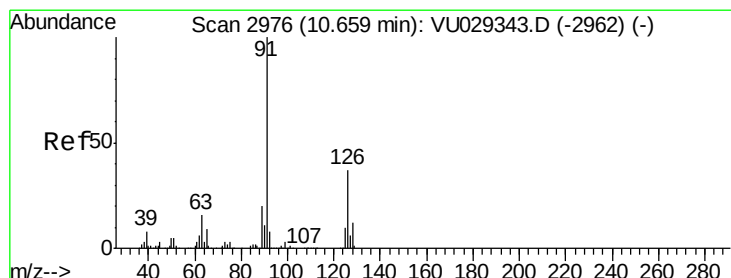
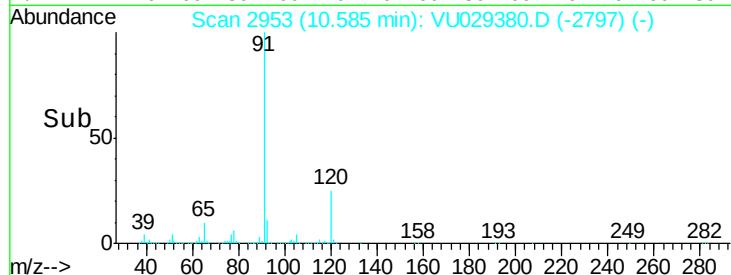
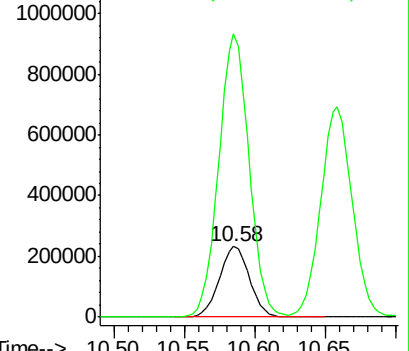
120 100

91 403.9 370.0 555.0



Abundance Ion 120.00 (119.70 to 120.70): V

Ion 91.00 (90.70 to 91.70): VU0



#74

2-Chlorotoluene

Concen: 23.003 ug/l

RT: 10.66 min Scan# 2976

Delta R.T. 0.00 min

Lab File: VU029380.D

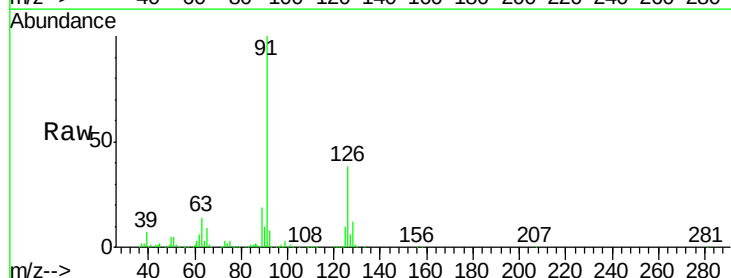
Acq: 08 Feb 2019 15:56

Tgt Ion:126 Resp: 400525

Ion Ratio Lower Upper

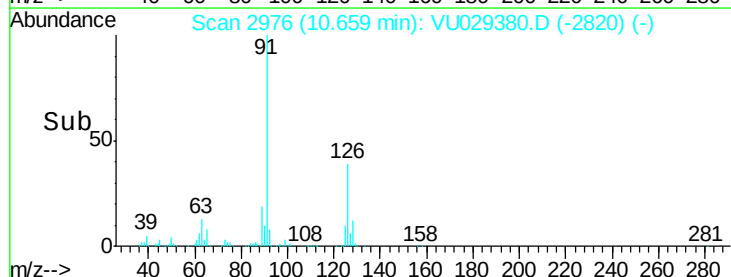
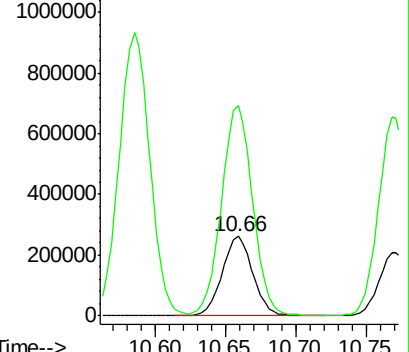
126 100

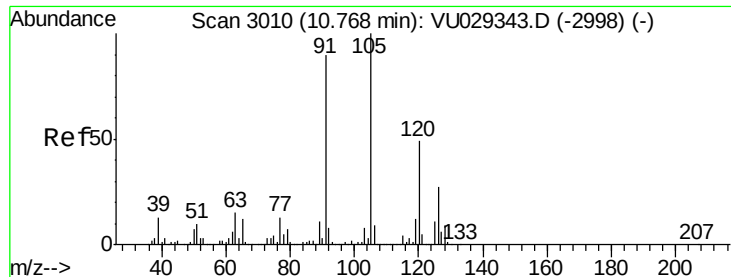
91 266.5 0.0 643.0



Abundance Ion 126.00 (125.70 to 126.70): V

Ion 91.00 (90.70 to 91.70): VU0





#75

1,3,5-Trimethylbenzene

Concen: 19.357 ug/l

RT: 10.77 min Scan# 3010

Delta R.T. 0.00 min

Lab File: VU029380.D

Acq: 08 Feb 2019 15:56

Instrument :

MSVOA_U

ClientSampleId :

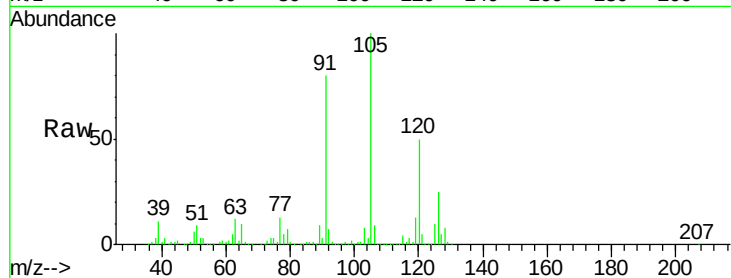
PT-UNRVOA-WS

Tot Ion:105 Resp: 1225142

Ion Ratio Lower Upper

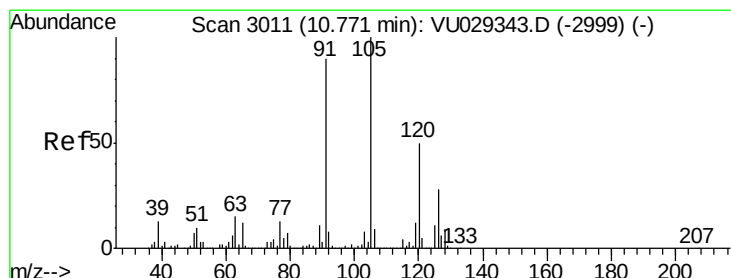
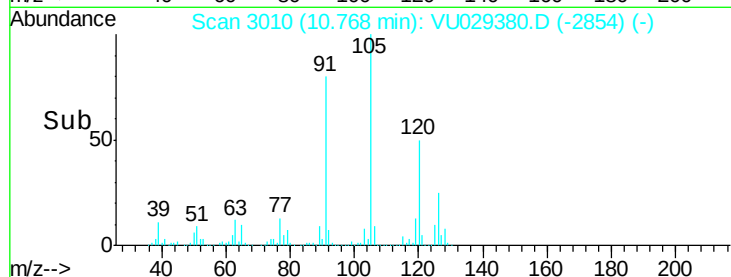
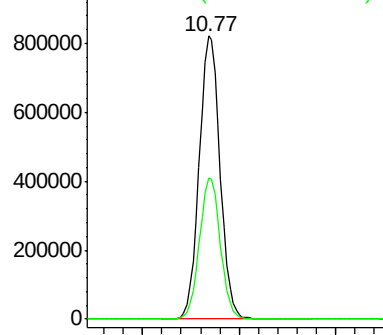
105 100

120 50.1 37.3 55.9



Abundance Ion 105.00 (104.70 to 105.70): V

Ion 120.00 (119.70 to 120.70): V



#76

4-Chlorotoluene

Concen: 17.879 ug/l

RT: 10.77 min Scan# 3010

Delta R.T. -0.00 min

Lab File: VU029380.D

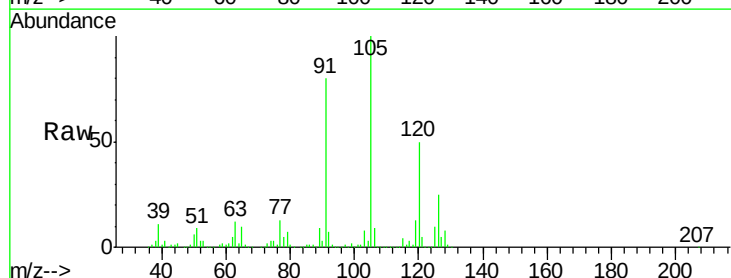
Acq: 08 Feb 2019 15:56

Tgt Ion:126 Resp: 323096

Ion Ratio Lower Upper

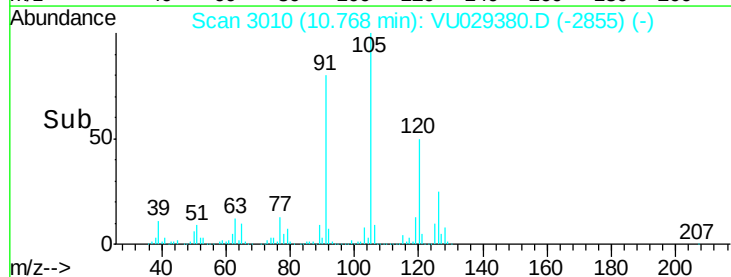
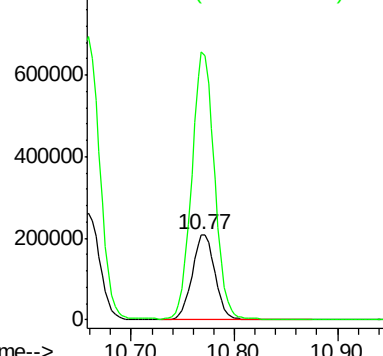
126 100

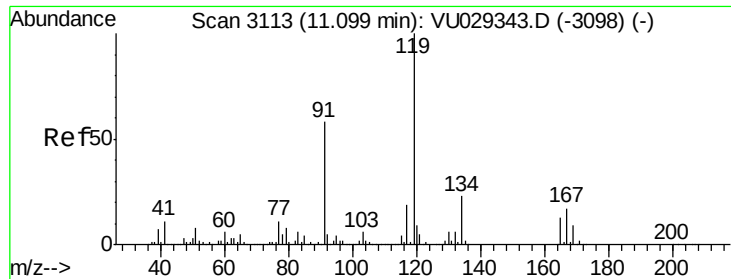
91 307.5 0.0 727.4



Abundance Ion 126.00 (125.70 to 126.70): V

Ion 91.00 (90.70 to 91.70): VU0

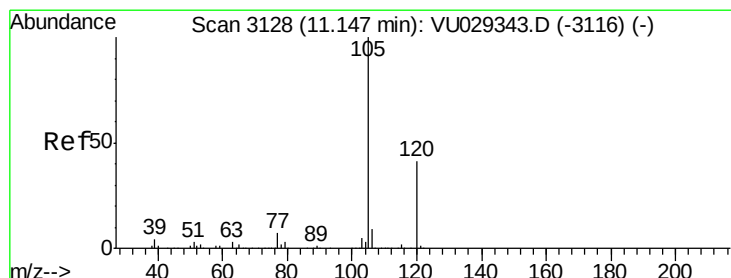
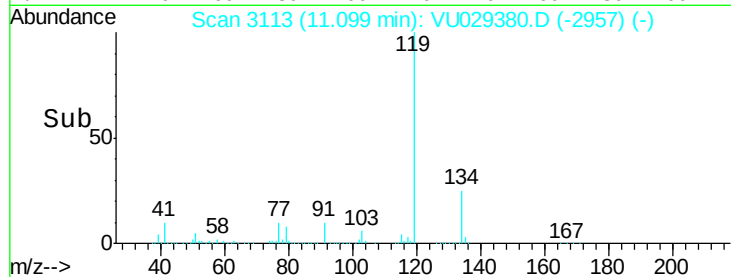
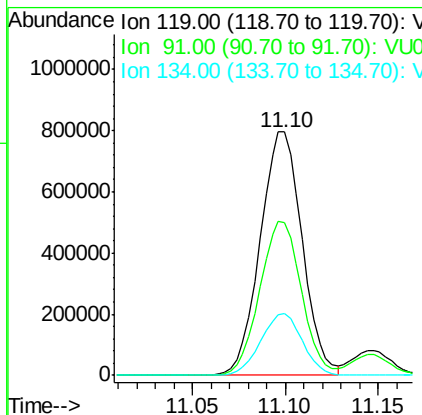
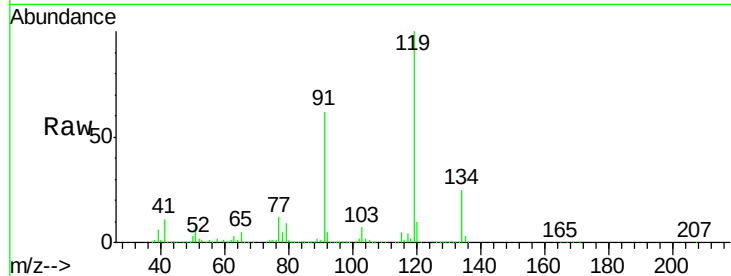




#77
 tert-Butylbenzene
 Concen: 20.074 ug/l
 RT: 11.10 min Scan# 3113
 Delta R.T. 0.00 min
 Lab File: VU029380.D
 Acq: 08 Feb 2019 15:56

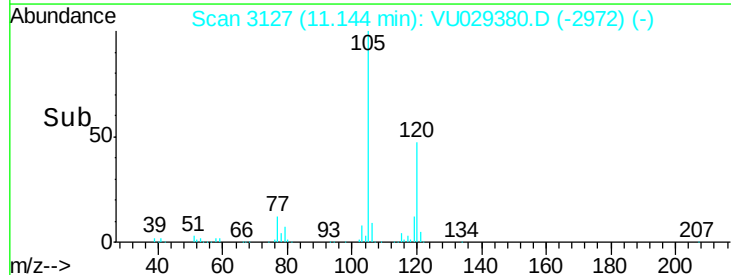
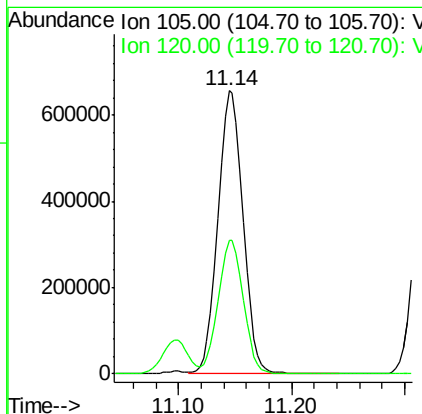
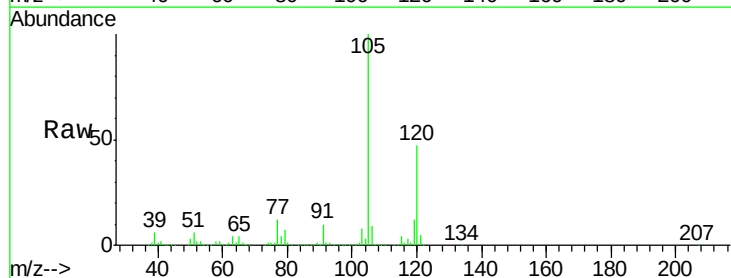
Instrument :
 MSVOA_U
 ClientSampleId :
 PT-UNRVOA-WS

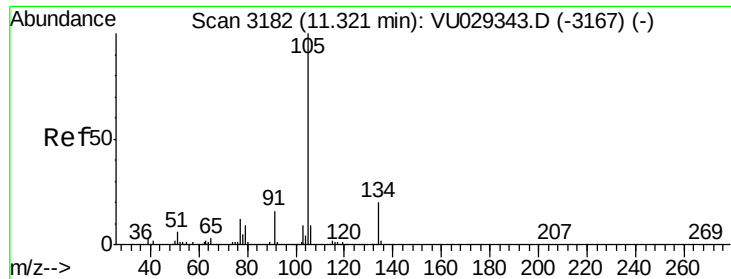
Tot Ion:119 Resp: 1255847
 Ion Ratio Lower Upper
 119 100
 91 62.8 32.2 96.6
 134 25.0 17.6 26.4



#78
 1,2,4-Trimethylbenzene
 Concen: 15.799 ug/l
 RT: 11.14 min Scan# 3127
 Delta R.T. -0.00 min
 Lab File: VU029380.D
 Acq: 08 Feb 2019 15:56

Tgt Ion:105 Resp: 1012376
 Ion Ratio Lower Upper
 105 100
 120 47.4 21.4 64.3





#79

sec-Butylbenzene

Concen: 16.243 ug/l

RT: 11.32 min Scan# 3182

Delta R.T. 0.00 min

Lab File: VU029380.D

Acq: 08 Feb 2019 15:56

Instrument :

MSVOA_U

ClientSampleId :

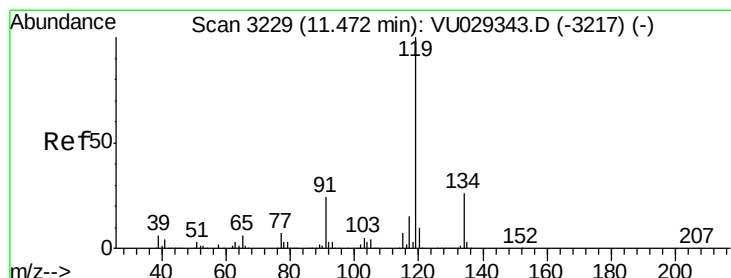
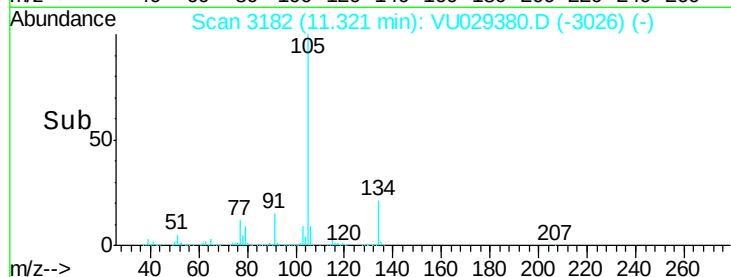
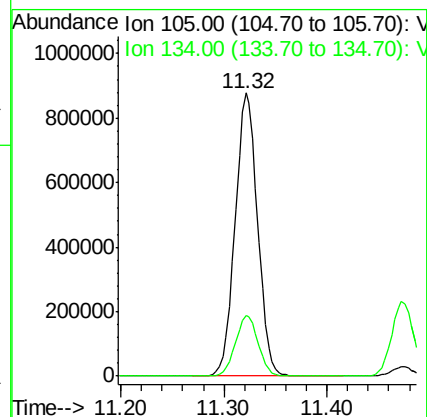
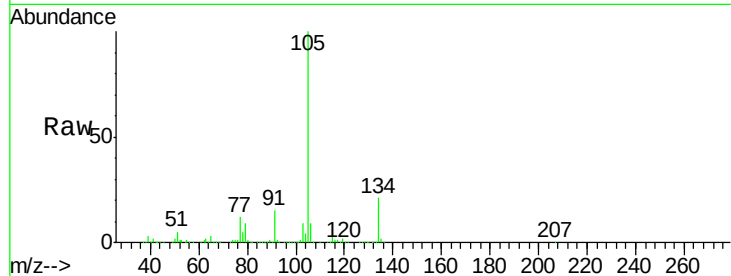
PT-UNRVOA-WS

Tot Ion:105 Resp: 1329561

Ion Ratio Lower Upper

105 100

134 21.6 15.0 22.6



#81

p-Isopropyltoluene

Concen: 18.000 ug/l

RT: 11.47 min Scan# 3229

Delta R.T. 0.00 min

Lab File: VU029380.D

Acq: 08 Feb 2019 15:56

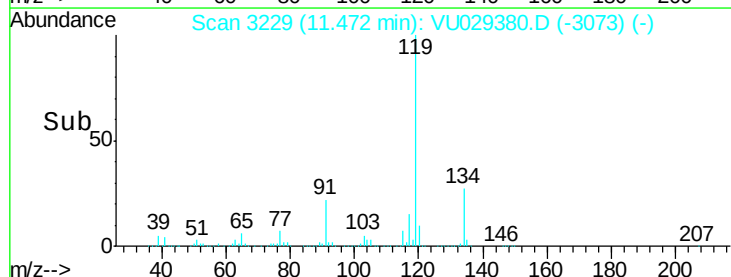
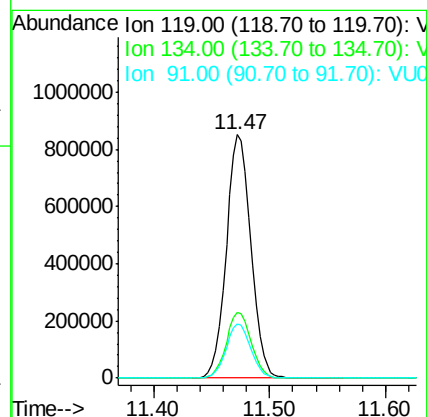
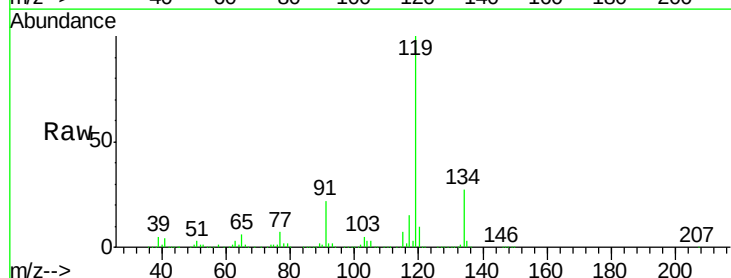
Tgt Ion:119 Resp: 1248943

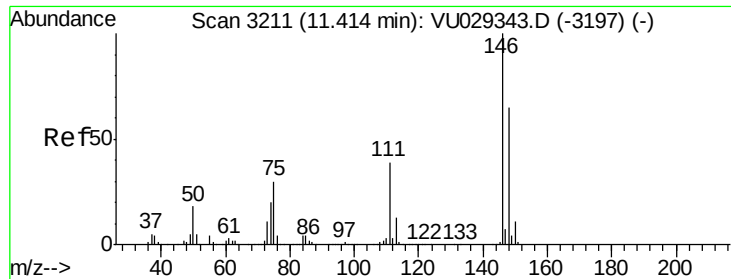
Ion Ratio Lower Upper

119 100

134 27.6 19.8 29.6

91 22.5 21.5 32.3





#82

1,3-Dichlorobenzene

Concen: 19.094 ug/l

RT: 11.41 min Scan# 3211

Delta R.T. 0.00 min

Lab File: VU029380.D

Acq: 08 Feb 2019 15:56

Instrument :

MSVOA_U

ClientSampleId :

PT-UNRVOA-WS

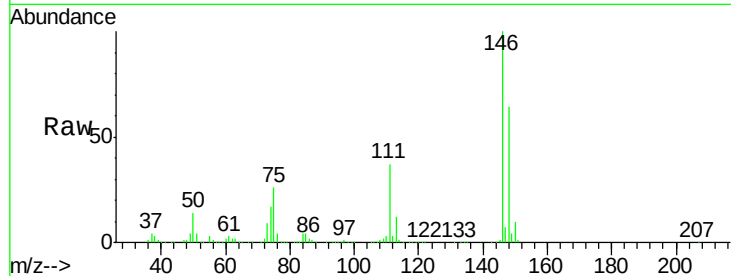
Tot Ion:146 Resp: 666594

Ion Ratio Lower Upper

146 100

111 37.2 34.1 51.1

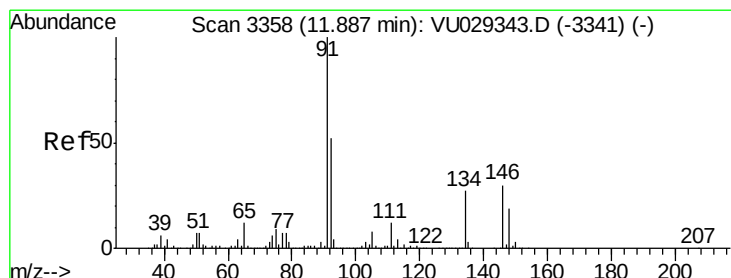
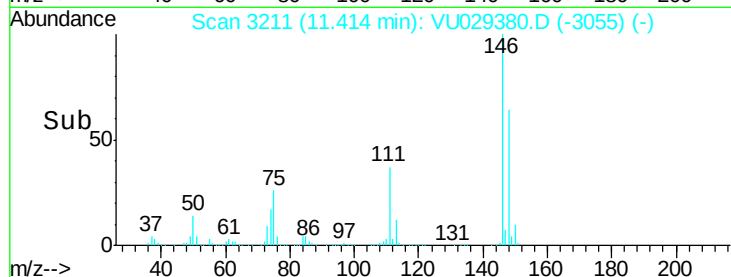
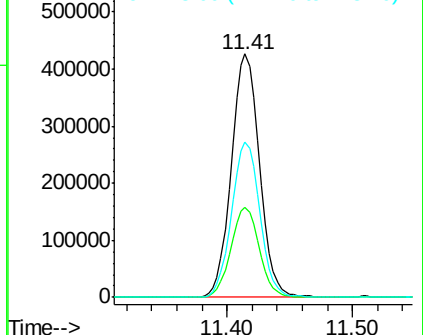
148 64.1 52.3 78.5



Abundance Ion 146.00 (145.70 to 146.70): V

Ion 111.00 (110.70 to 111.70): V

Ion 148.00 (147.70 to 148.70): V



#84

n-Butylbenzene

Concen: 17.905 ug/l

RT: 11.89 min Scan# 3358

Delta R.T. 0.00 min

Lab File: VU029380.D

Acq: 08 Feb 2019 15:56

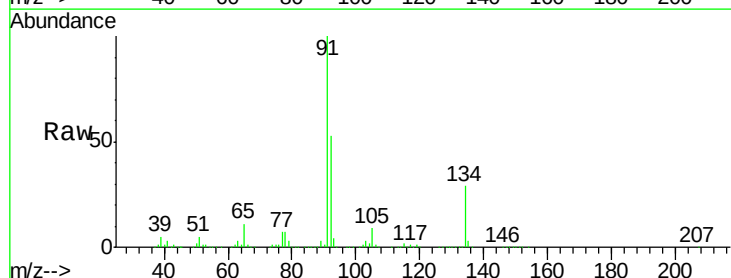
Tgt Ion: 91 Resp: 1140126

Ion Ratio Lower Upper

91 100

92 52.9 41.0 61.6

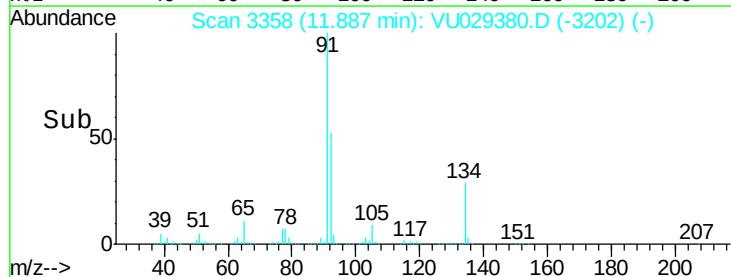
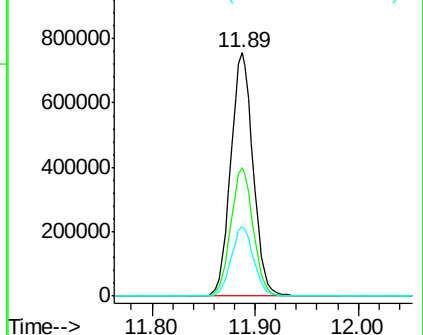
134 28.7 19.1 28.7#

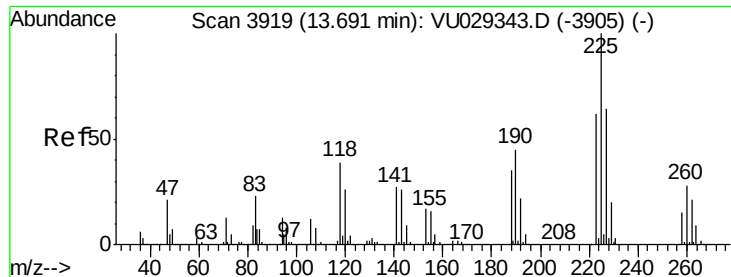


Abundance Ion 91.00 (90.70 to 91.70): VU0

Ion 92.00 (91.70 to 92.70): VU0

Ion 134.00 (133.70 to 134.70): V





#88

Hexachlorobutadiene

Concen: 38.310 ug/l

RT: 13.69 min Scan# 3919

Delta R.T. 0.00 min

Lab File: VU029380.D

Acq: 08 Feb 2019 15:56

Instrument :

MSVOA_U

ClientSampleId :

PT-UNRVOA-WS

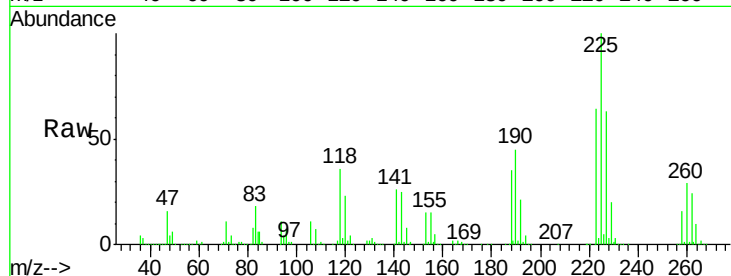
Tot Ion:225 Resp: 514404

Ion Ratio Lower Upper

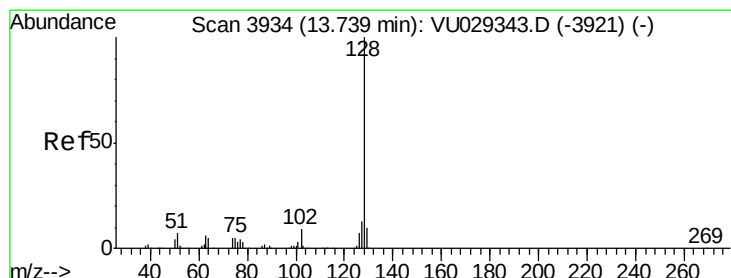
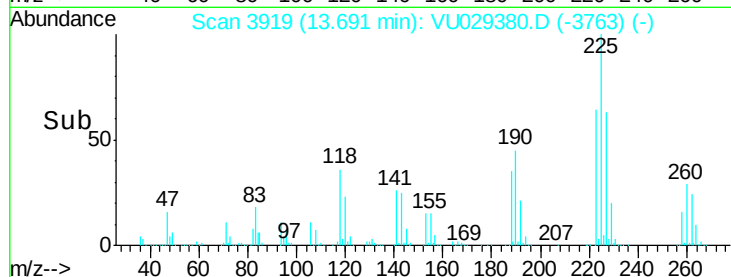
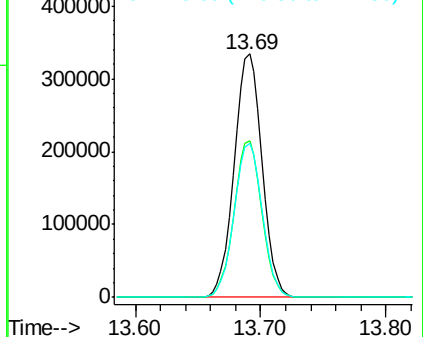
225 100

223 64.0 49.5 74.3

227 64.0 50.4 75.6



Abundance Ion 224.60 (224.30 to 225.30): V
Ion 222.60 (222.30 to 223.30): V
Ion 226.60 (226.30 to 227.30): V



#89

Naphthalene

Concen: 22.028 ug/l

RT: 13.74 min Scan# 3934

Delta R.T. 0.00 min

Lab File: VU029380.D

Acq: 08 Feb 2019 15:56

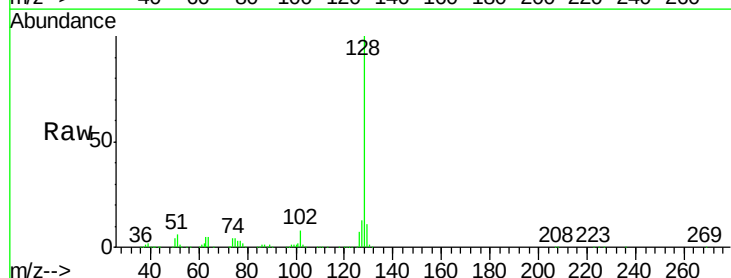
Tgt Ion:128 Resp: 866154

Ion Ratio Lower Upper

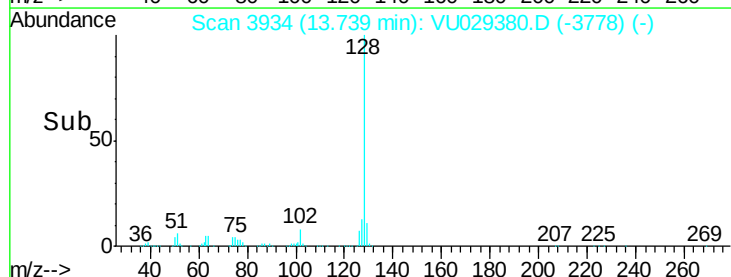
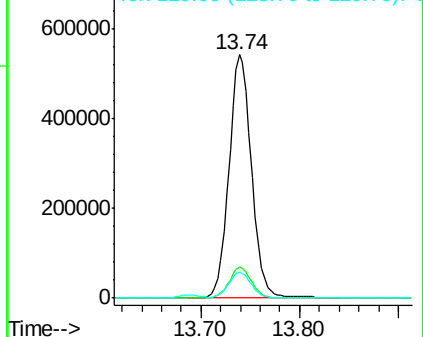
128 100

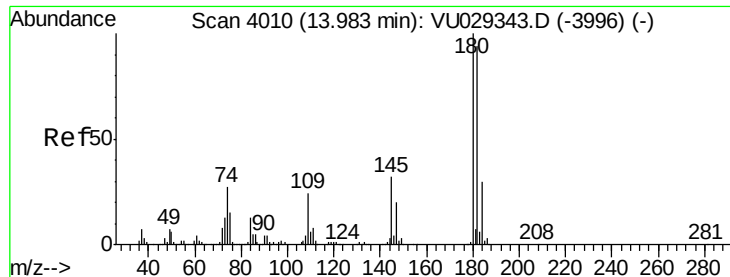
127 12.7 10.7 16.1

129 10.5 8.2 12.4



Abundance Ion 128.00 (127.70 to 128.70): V
Ion 127.00 (126.70 to 127.70): V
Ion 129.00 (128.70 to 129.70): V

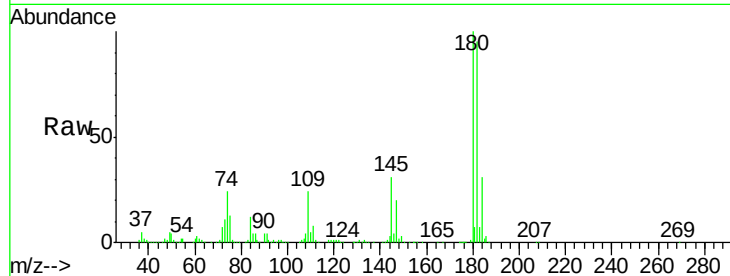




#90
 1,2,3-Trichlorobenzene
 Concen: 56.960 ug/l
 RT: 13.98 min Scan# 4010
 Delta R.T. 0.00 min
 Lab File: VU029380.D
 Acq: 08 Feb 2019 15:56

Instrument :
 MSVOA_U
 ClientSampleId :
 PT-UNRVOA-WS

Tot Ion:180 Resp: 1206932
 Ion Ratio Lower Upper
 180 100
 182 95.6 78.0 117.0
 145 30.5 26.6 39.8



Abundance Ion 179.70 (179.40 to 180.40): V
 Ion 181.70 (181.40 to 182.40): V
 Ion 144.80 (144.50 to 145.50): V

