

Data Path : Z:\VOASRV\HPCHEM1\MSVOA X\DATA\VX032719\
 Data File : VX008490.D
 Acq On : 27 Mar 2019 18:11
 Operator : JC/SP
 Sample : K2099-09
 Misc : 5.0mL/MSVOA X/WATER
 ALS Vial : 22 Sample Multiplier: 1

Instrument :
 MSVOA_X
 ClientSampleId :
 MH-C05-SETTLED-2H-A

Quant Time: Mar 28 02:09:14 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA X\METHOD\624X032719W.M
 Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
 QLast Update : Wed Mar 27 12:01:15 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.01	128	35939	30.00	ug/l	0.00
28) 1,4-Difluorobenzene	6.86	114	207808	30.00	ug/l	0.00
57) Chlorobenzene-d5	10.11	117	178946	30.00	ug/l	0.00

System Monitoring Compounds

27) 1,2-Dichloroethane-d4	6.06	65	91007	30.27	ug/l	0.00
Spiked Amount	30.000	Range	50 - 169	Recovery	=	100.90%
60) 4-Bromofluorobenzene	11.13	95	89260	28.63	ug/l	0.00
Spiked Amount	30.000	Range	56 - 143	Recovery	=	95.43%
63) Toluene-d8	8.71	98	260127	30.62	ug/l	0.00
Spiked Amount	30.000	Range	66 - 137	Recovery	=	102.07%

Target Compounds

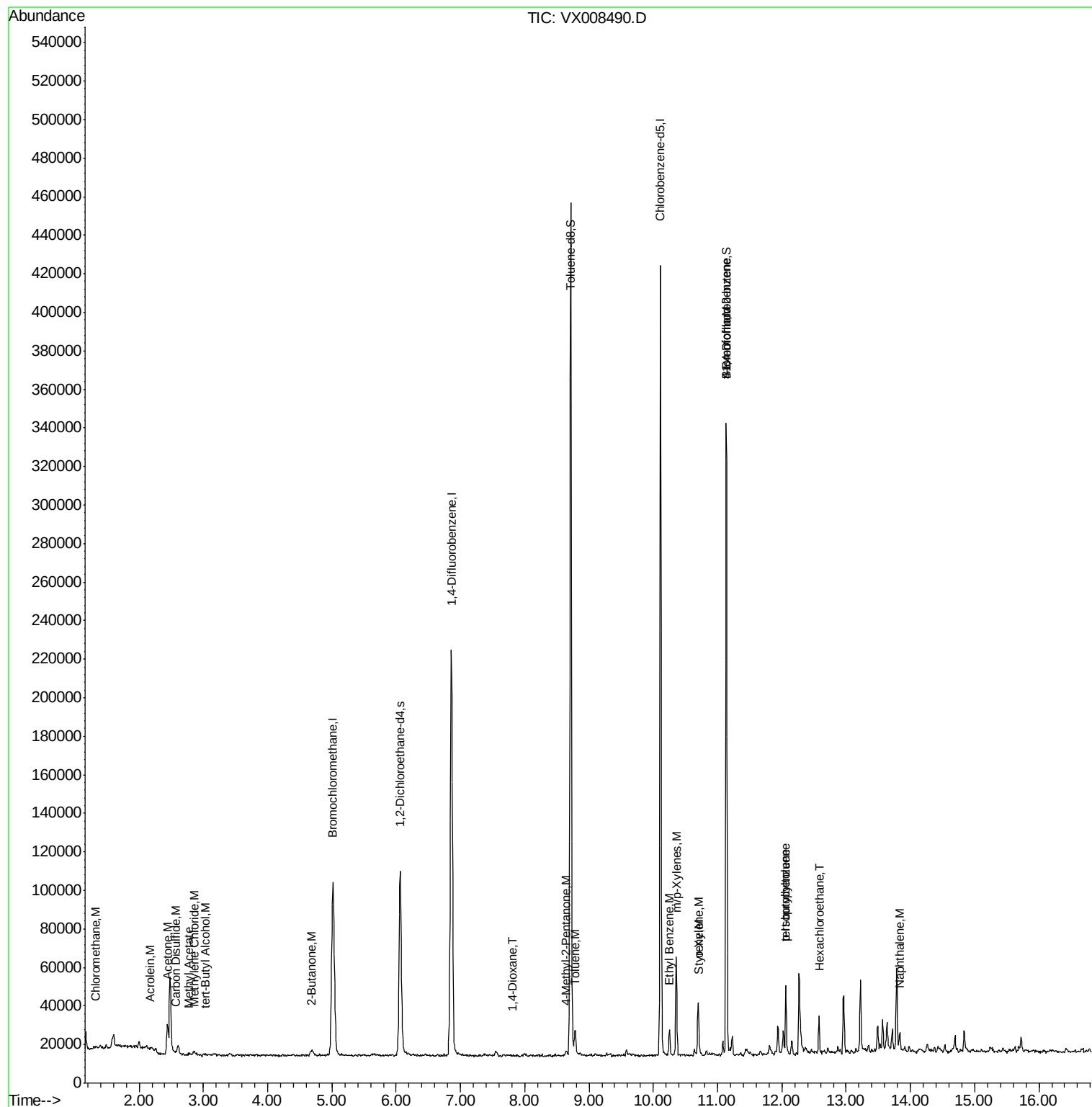
					Ovalue
3) Chloromethane	1.32	50	714	0.222	ug/l 99
12) Methyl Acetate	2.77	43	510	0.276	ug/l 97
13) Acrolein	2.17	56	108	0.204	ug/l 89
15) Acetone	2.44	58	5339	10.152	ug/l 97
16) Carbon Disulfide	2.57	76	1468	0.207	ug/l 97
18) Methylene Chloride	2.86	84	737	0.271	ug/l # 75
23) tert-Butyl Alcohol	3.03	59	206	0.299	ug/l # 100
30) 2-Butanone	4.68	43	4272	1.662	ug/l # 84
45) 1,4-Dioxane	7.81	88	39	0.524	ug/l # 1
56) Bromoform	11.13	173	554	0.296	ug/l # 1
58) 4-Methyl-2-Pentanone	8.65	43	1864	0.395	ug/l # 47
62) Toluene	8.78	91	7661	0.707	ug/l 100
66) Ethyl Benzene	10.25	91	7519	0.625	ug/l 94
67) m/p-Xylenes	10.36	106	11973	2.730	ug/l 89
68) o-Xylene	10.69	106	5712	1.331	ug/l 91
69) Styrene	10.71	104	2121	0.284	ug/l # 52
77) t-1,4-Dichloro-2-butene	11.13	75	46166	33.663	ug/l # 5
79) tert-butylbenzene	12.06	119	14266	1.442	ug/l 95
82) p-Isopropyltoluene	12.06	119	14266	1.442	ug/l 95
86) Hexachloroethane	12.58	117	372	0.225	ug/l # 8
91) Naphthalene	13.83	128	5297	0.465	ug/l 96

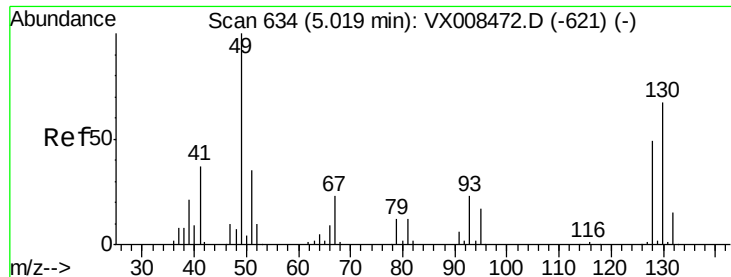
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Time: Mar 28 02:09:14 2019
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA X\METHOD\624X032719W.M
Quant Title : METHOD 624 VOLATILE ORGANIC ANALYSIS
QLast Update : Wed Mar 27 12:01:15 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 30.000 ug/l

RT: 5.01 min Scan# 633

Delta R.T. -0.01 min

Lab File: VX008490.D

Acq: 27 Mar 2019 18:11

Instrument :

MSVOA_X

ClientSampleId :

MH-C05-SETTLED-2H-A

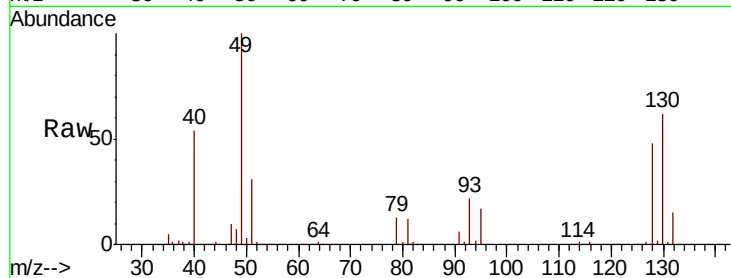
Tot Ion:128 Resp: 35939

Ion Ratio Lower Upper

128 100

49 204.5 0.0 350.8

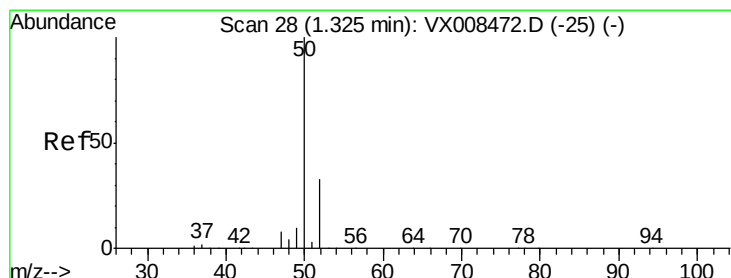
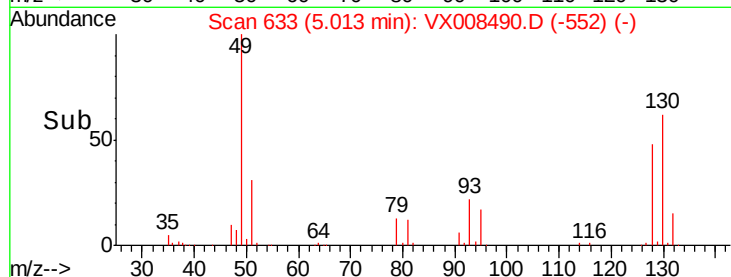
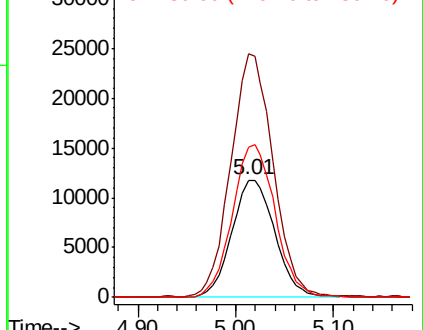
130 129.4 0.0 325.8



Abundance Ion 128.00 (127.70 to 128.70): V

Ion 49.00 (48.70 to 49.70): VX0

Ion 130.00 (129.70 to 130.70): V



#3

Chloromethane

Concen: 0.222 ug/l

RT: 1.32 min Scan# 28

Delta R.T. 0.00 min

Lab File: VX008490.D

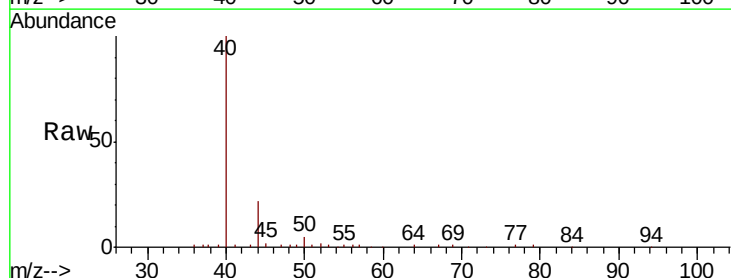
Acq: 27 Mar 2019 18:11

Tgt Ion: 50 Resp: 714

Ion Ratio Lower Upper

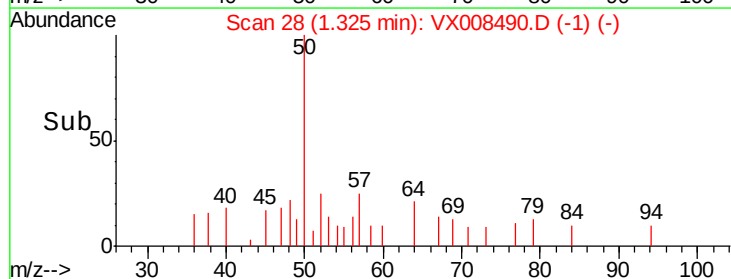
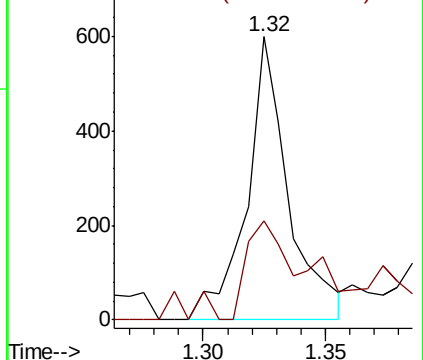
50 100

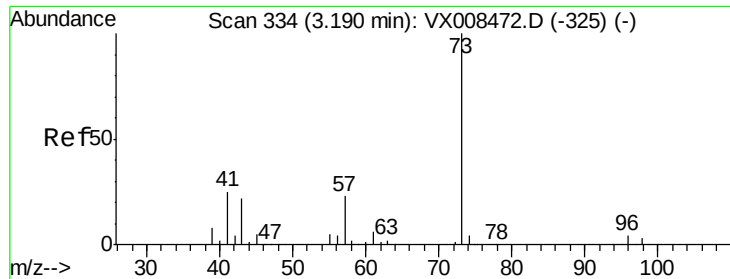
52 35.2 27.5 41.3



Abundance Ion 50.00 (49.70 to 50.70): VX0

Ion 52.00 (51.70 to 52.70): VX0

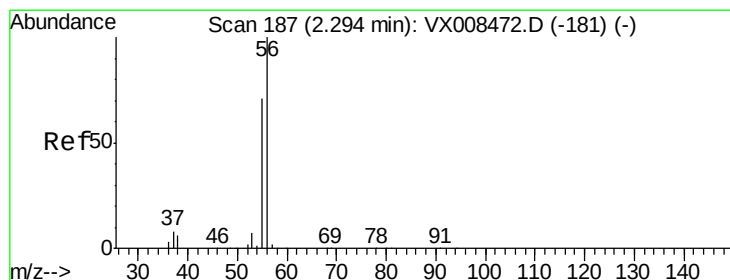
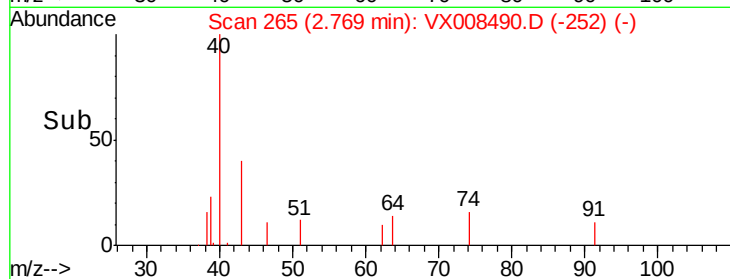
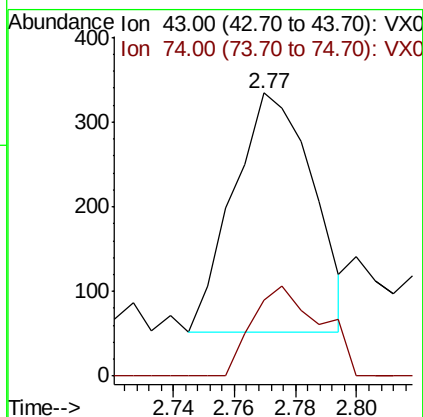
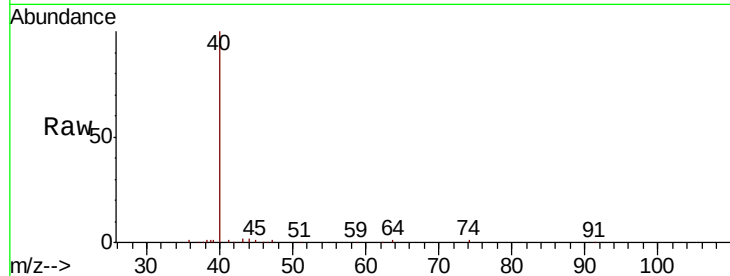




#12
Methvl Acetate
Concen: 0.276 ug/l
RT: 2.77 min Scan# 265
Delta R.T. -0.42 min
Lab File: VX008490.D
Acq: 27 Mar 2019 18:11

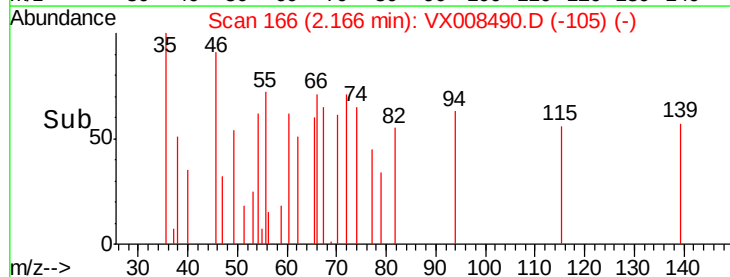
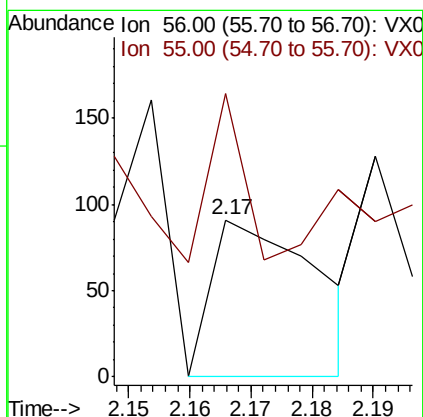
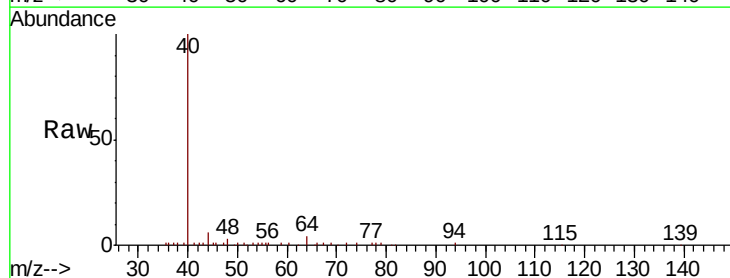
Instrument :
MSVOA_X
ClientSampleId :
MH-C05-SETTLED-2H-A

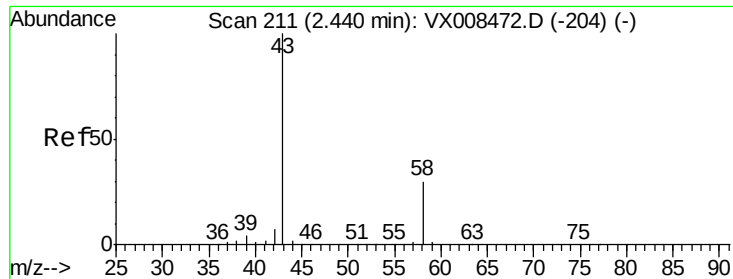
Tot Ion: 43 Resp: 510
Ion Ratio Lower Upper
43 100
74 22.8 19.4 29.0



#13
Acrolein
Concen: 0.204 ug/l
RT: 2.17 min Scan# 166
Delta R.T. -0.13 min
Lab File: VX008490.D
Acq: 27 Mar 2019 18:11

Tgt Ion: 56 Resp: 108
Ion Ratio Lower Upper
56 100
55 63.9 58.6 87.8

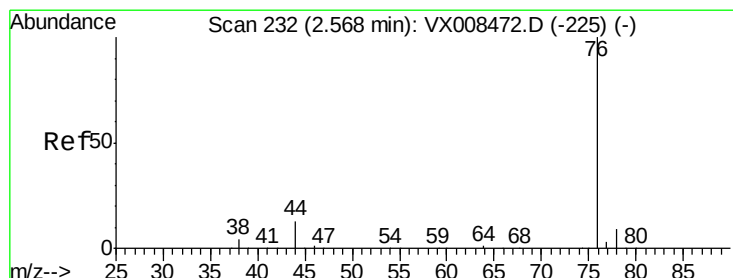
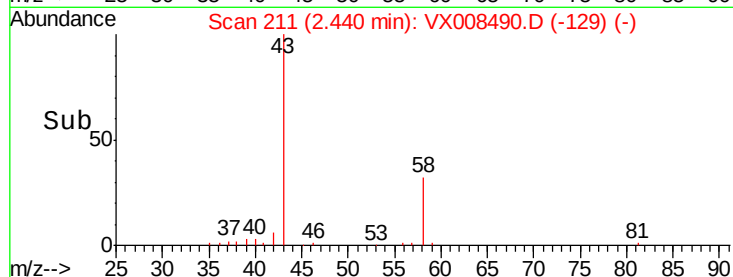
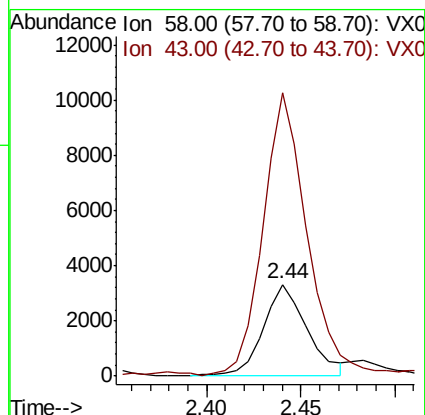
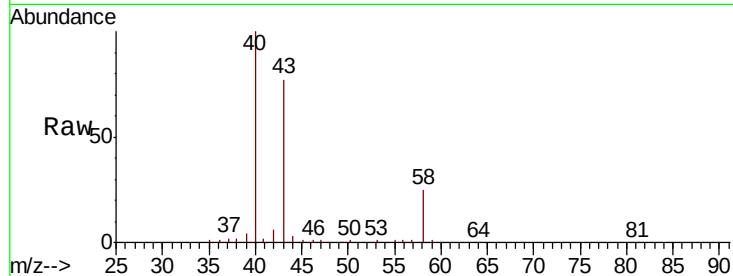




#15
Acetone
Concen: 10.152 ug/l
RT: 2.44 min Scan# 211
Delta R.T. 0.00 min
Lab File: VX008490.D
Acq: 27 Mar 2019 18:11

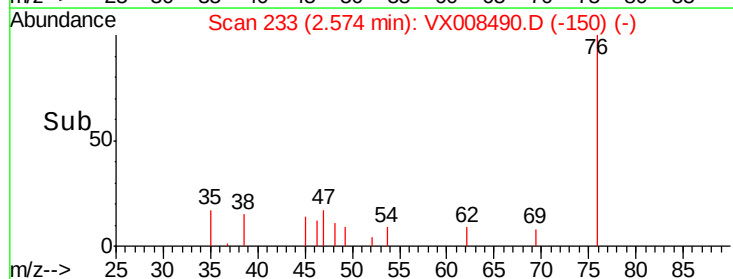
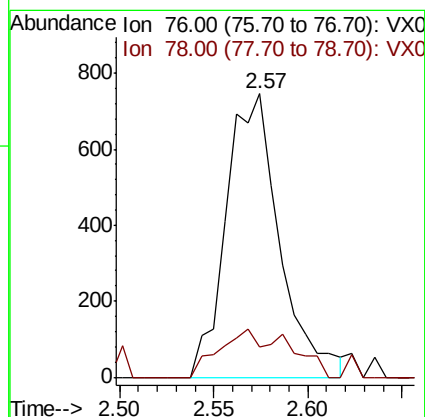
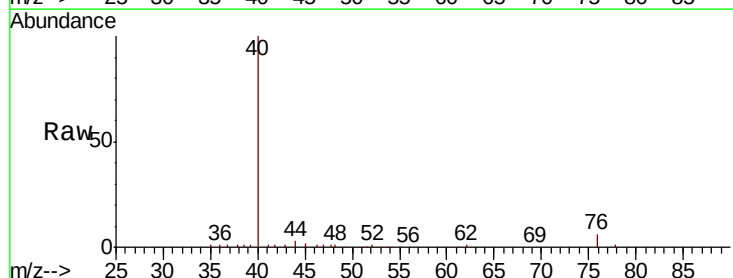
Instrument :
MSVOA_X
ClientSampleId :
MH-C05-SETTLED-2H-A

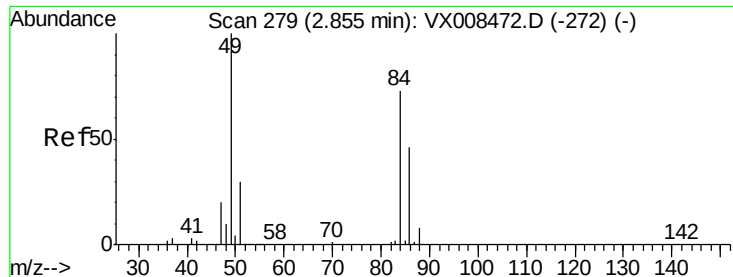
Tot Ion: 58 Resp: 5339
Ion Ratio Lower Upper
58 100
43 305.2 249.8 374.6



#16
Carbon Disulfide
Concen: 0.207 ug/l
RT: 2.57 min Scan# 233
Delta R.T. 0.01 min
Lab File: VX008490.D
Acq: 27 Mar 2019 18:11

Tgt Ion: 76 Resp: 1468
Ion Ratio Lower Upper
76 100
78 10.6 7.5 11.3

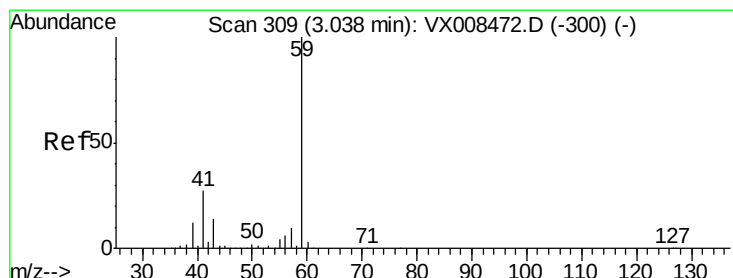
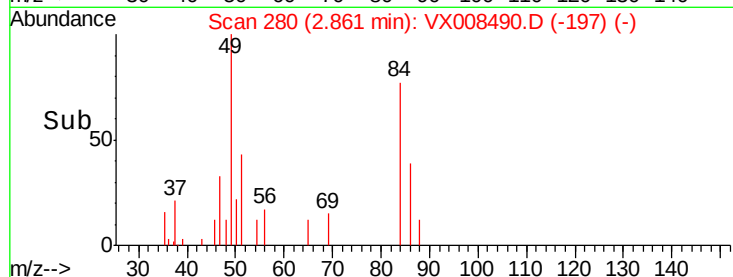
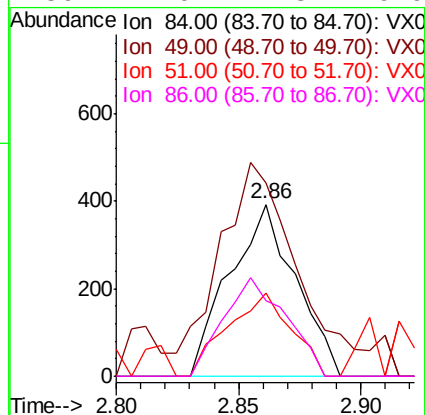
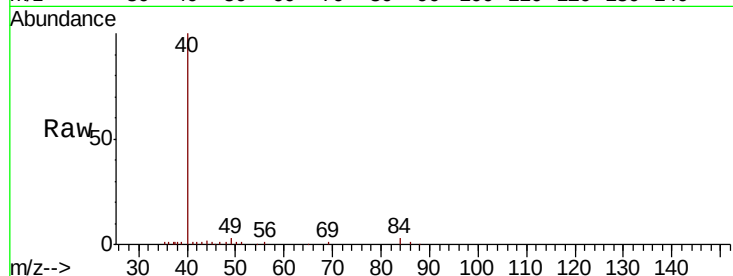




#18
Methylene Chloride
Concen: 0.271 ug/l
RT: 2.86 min Scan# 280
Delta R.T. 0.01 min
Lab File: VX008490.D
Acq: 27 Mar 2019 18:11

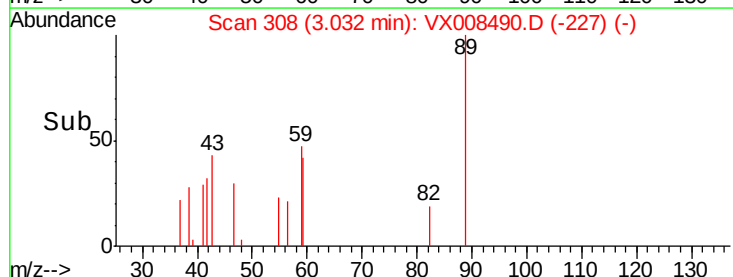
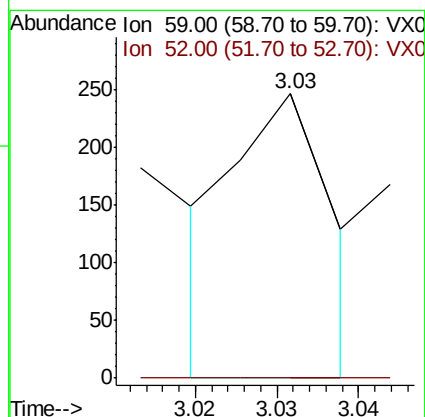
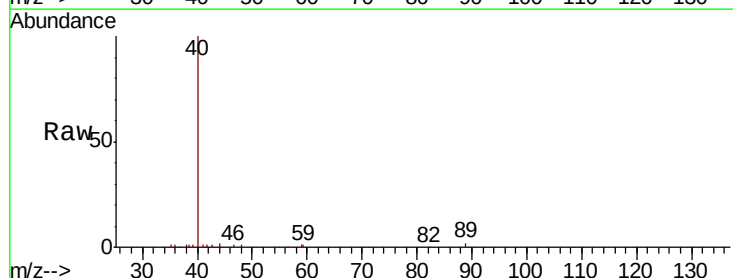
Instrument :
MSVOA_X
ClientSampleId :
MH-C05-SETTLED-2H-A

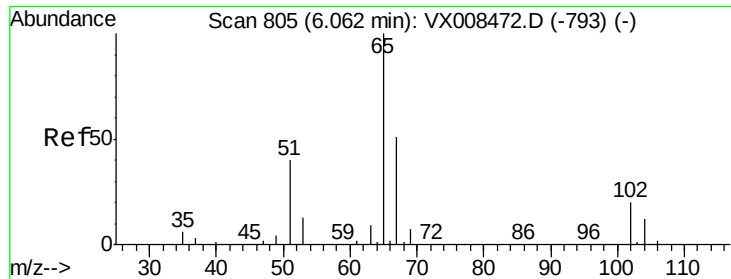
Tot Ion: 84 Resp: 737
Ion Ratio Lower Upper
84 100
49 88.3 96.1 144.1#
51 48.1 29.1 43.7#
86 44.0 47.3 70.9#



#23
tert-Butyl Alcohol
Concen: 0.299 ug/l
RT: 3.03 min Scan# 308
Delta R.T. -0.01 min
Lab File: VX008490.D
Acq: 27 Mar 2019 18:11

Tgt Ion: 59 Resp: 206
Ion Ratio Lower Upper
59 100
52 0.0 0.2 0.2#





#27

1,2-Dichloroethane-d4

Concen: 30.270 ug/l

RT: 6.06 min Scan# 805

Delta R.T. 0.00 min

Lab File: VX008490.D

Acq: 27 Mar 2019 18:11

Instrument :

MSVOA_X

ClientSampleId :

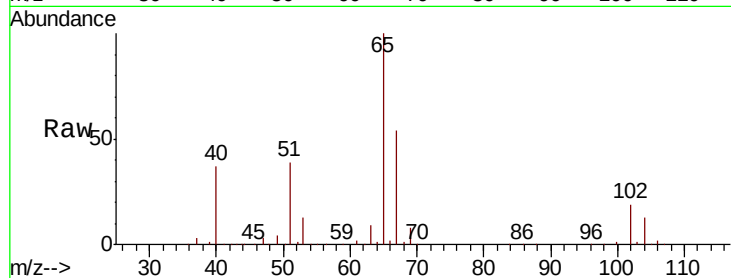
MH-C05-SETTLED-2H-A

Tot Ion: 65 Resp: 91007

Ion Ratio Lower Upper

65 100

67 54.0 42.9 64.3



Abundance Ion 65.00 (64.70 to 65.70): VX008472.D (-793) (-)

Ion 67.00 (66.70 to 67.70): VX008472.D (-793) (-)

6.06

40000

30000

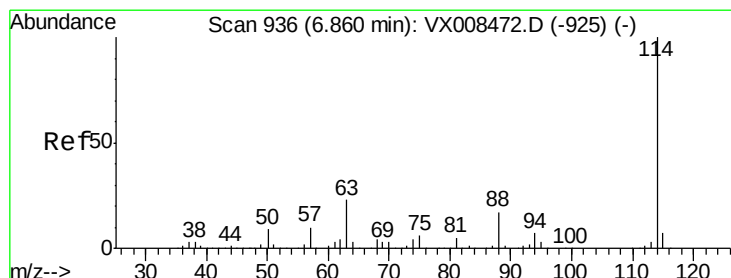
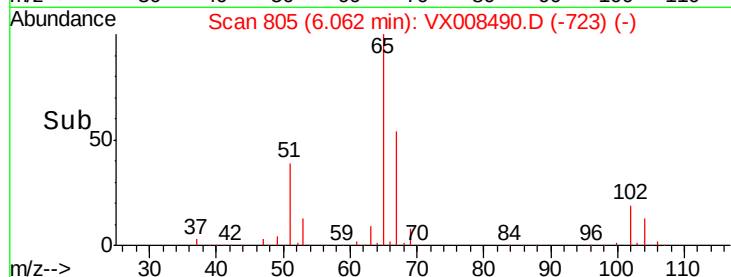
20000

10000

0

6.00 6.10 6.20

Time-->



#28

1,4-Difluorobenzene

Concen: 30.000 ug/l

RT: 6.86 min Scan# 936

Delta R.T. 0.00 min

Lab File: VX008490.D

Acq: 27 Mar 2019 18:11

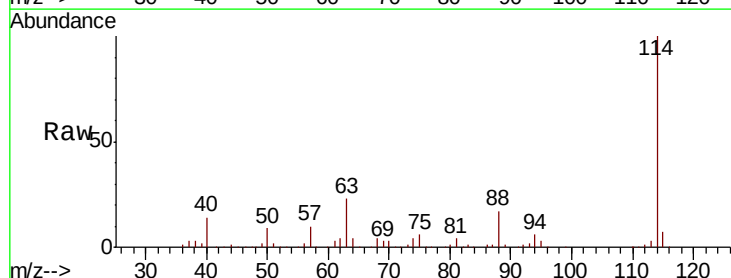
Tgt Ion: 114 Resp: 207808

Ion Ratio Lower Upper

114 100

63 23.5 14.2 21.4#

88 16.8 11.9 17.9



Abundance Ion 114.00 (113.70 to 114.70): VX008472.D (-925) (-)

Ion 63.00 (62.70 to 63.70): VX008472.D (-925) (-)

Ion 88.00 (87.70 to 88.70): VX008472.D (-925) (-)

6.86

120000

100000

80000

60000

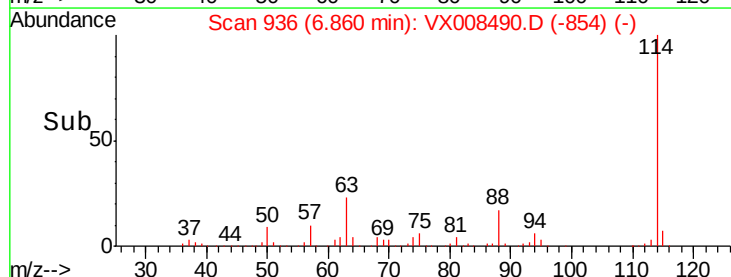
40000

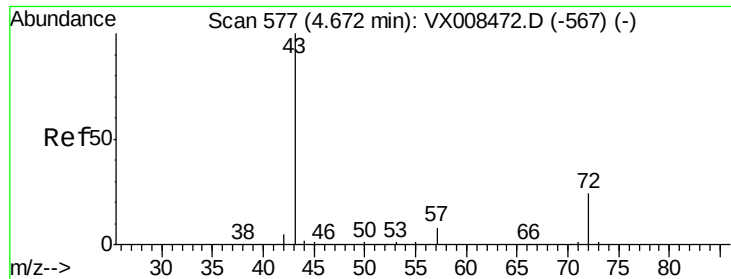
20000

0

6.80 6.90 7.00

Time-->

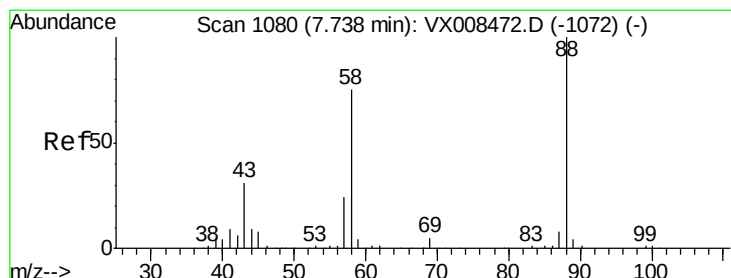
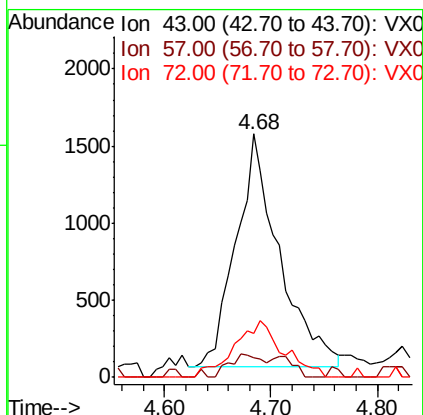
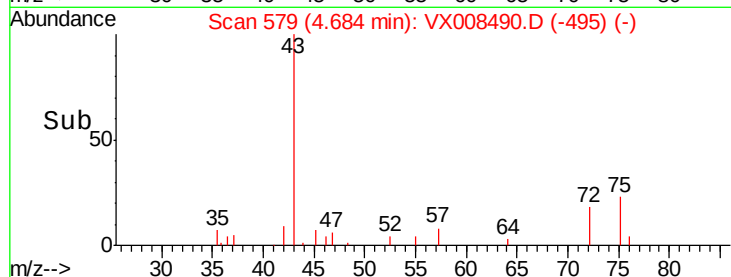
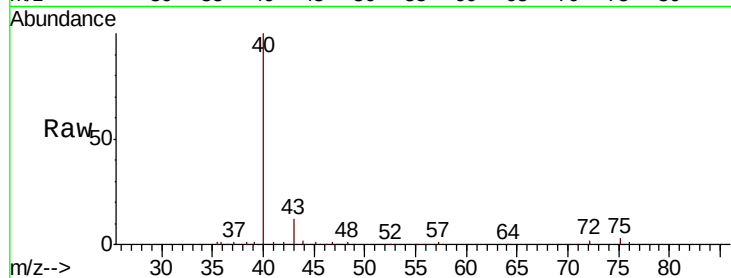




#30
 2-Butanone
 Concen: 1.662 ug/l
 RT: 4.68 min Scan# 579
 Delta R.T. 0.01 min
 Lab File: VX008490.D
 Acq: 27 Mar 2019 18:11

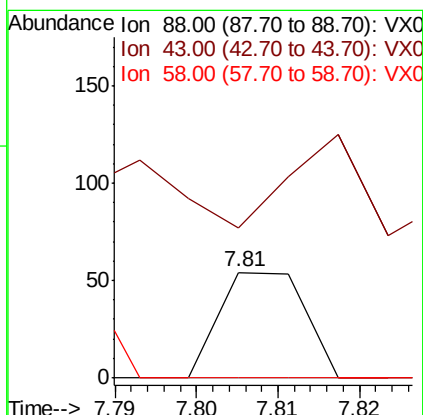
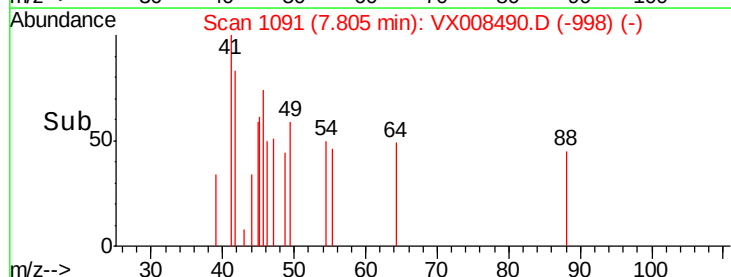
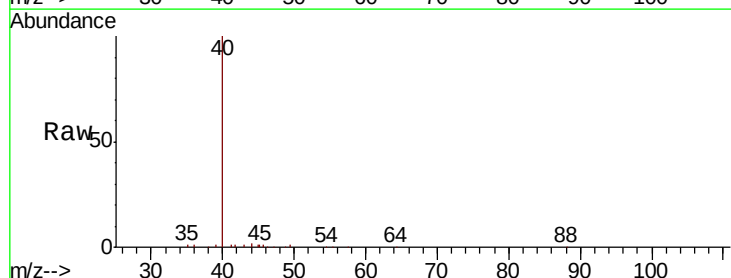
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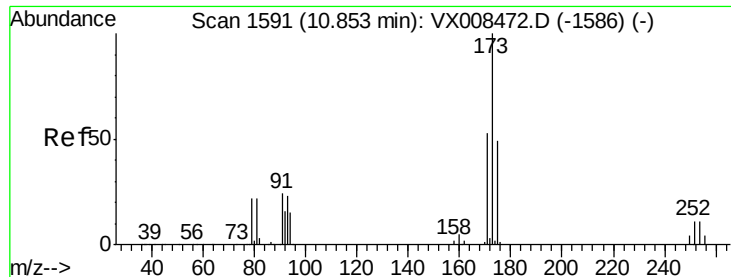
Tot Ion: 43 Resp: 4272
 Ion Ratio Lower Upper
 43 100
 57 5.5 7.0 10.6#
 72 17.4 21.5 32.3#



#45
 1,4-Dioxane
 Concen: 0.524 ug/l
 RT: 7.81 min Scan# 1091
 Delta R.T. 0.07 min
 Lab File: VX008490.D
 Acq: 27 Mar 2019 18:11

Tgt Ion: 88 Resp: 39
 Ion Ratio Lower Upper
 88 100
 43 359.0 23.6 35.4#
 58 112.8 51.6 77.4#





#56

Bromoform

Concen: 0.296 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.28 min

Lab File: VX008490.D

Acq: 27 Mar 2019 18:11

Instrument :

MSVOA_X

ClientSampleId :

MH-C05-SETTLED-2H-A

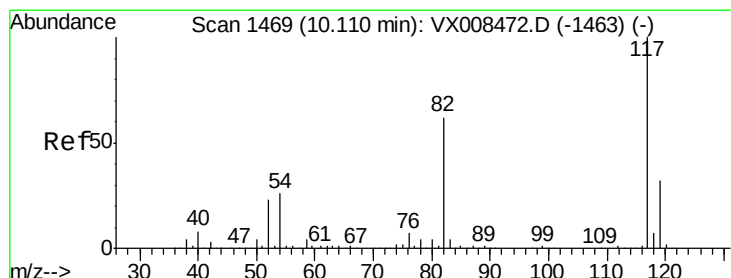
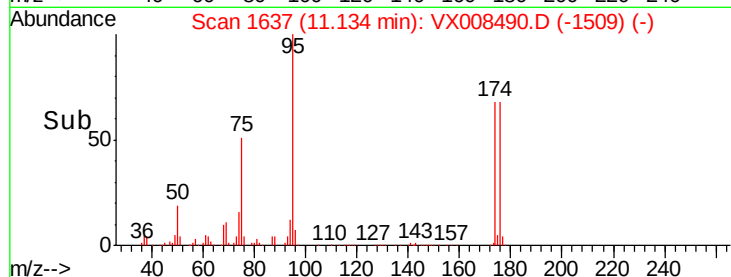
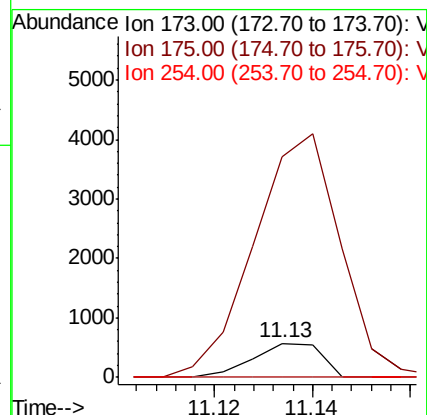
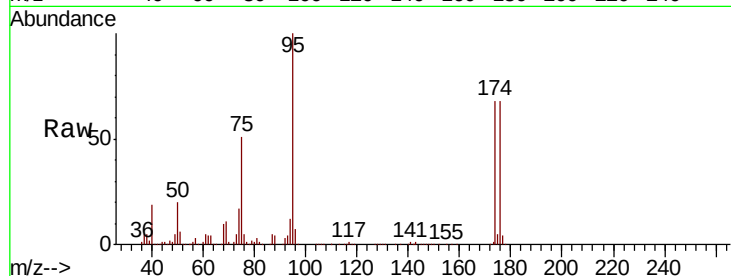
Tot Ion:173 Resp: 554

Ion Ratio Lower Upper

173 100

175 910.3 38.5 57.7#

254 0.0 7.4 11.2#



#57

Chlorobenzene-d5

Concen: 30.000 ug/l

RT: 10.11 min Scan# 1469

Delta R.T. 0.00 min

Lab File: VX008490.D

Acq: 27 Mar 2019 18:11

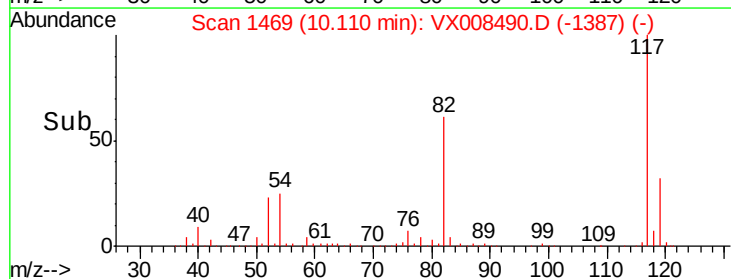
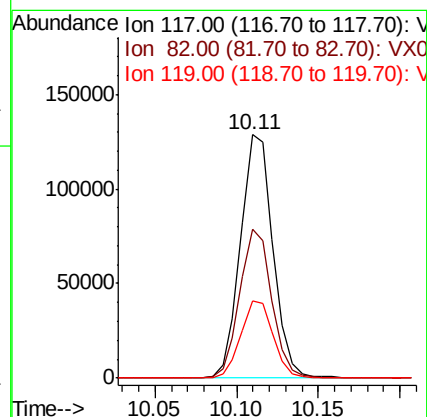
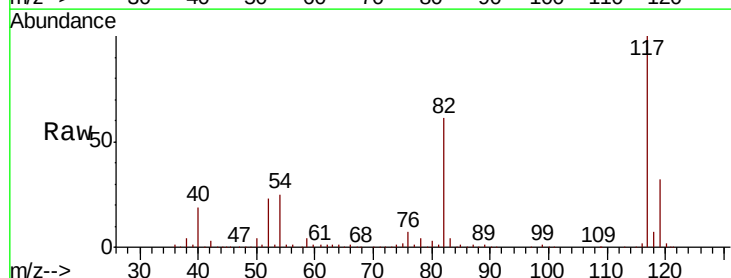
Tgt Ion:117 Resp: 178946

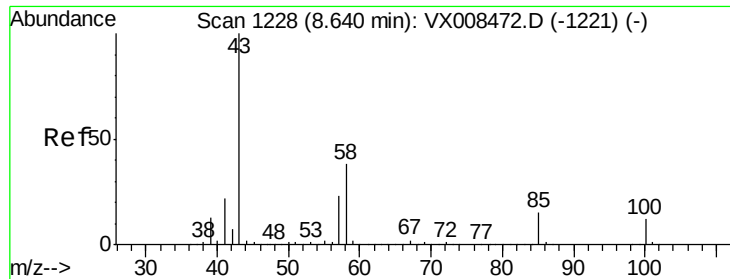
Ion Ratio Lower Upper

117 100

82 60.6 40.4 60.6

119 31.9 25.8 38.6

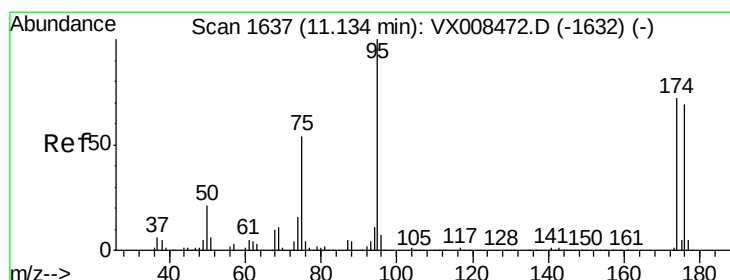
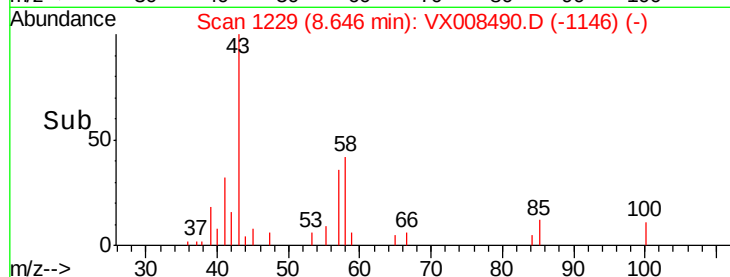
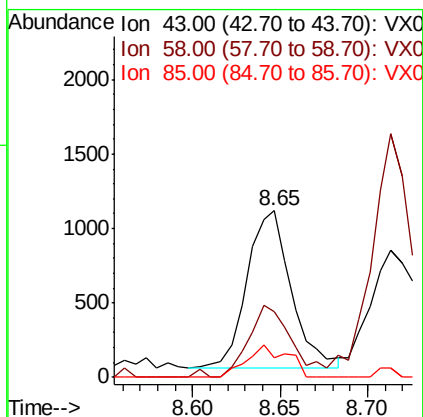
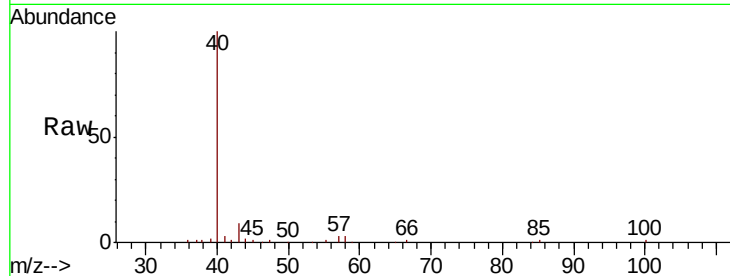




#58
 4-Methyl-2-Pentanone
 Concen: 0.395 ug/l
 RT: 8.65 min Scan# 1229
 Delta R.T. 0.01 min
 Lab File: VX008490.D
 Acq: 27 Mar 2019 18:11

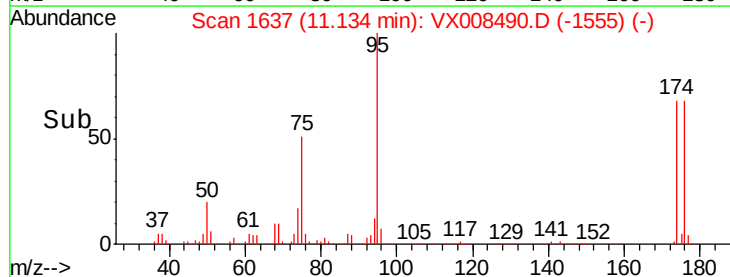
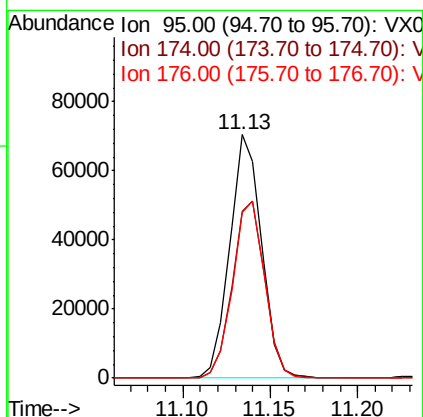
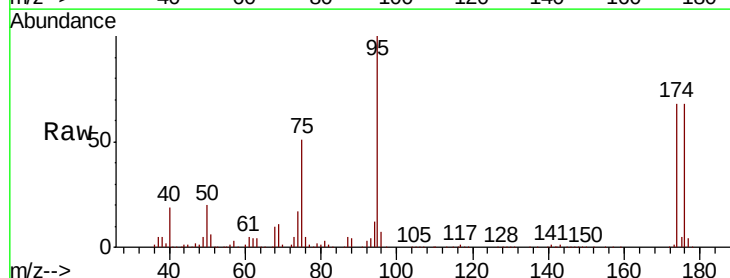
Instrument :
 MSVOA_X
 ClientSampleId :
 MH-C05-SETTLED-2H-A

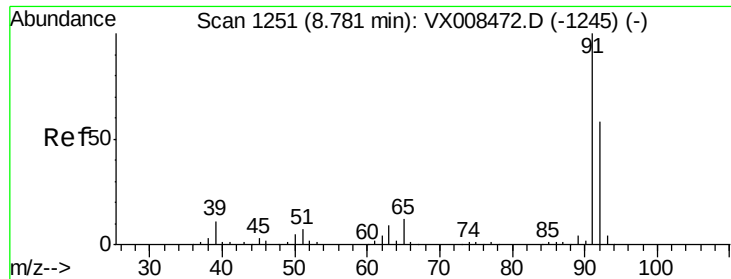
Tot Ion: 43 Resp: 1864
 Ion Ratio Lower Upper
 43 100
 58 0.0 31.4 47.0#
 85 6.0 15.0 22.6#



#60
 4-Bromofluorobenzene
 Concen: 28.629 ug/l
 RT: 11.13 min Scan# 1637
 Delta R.T. 0.00 min
 Lab File: VX008490.D
 Acq: 27 Mar 2019 18:11

Tgt Ion: 95 Resp: 89260
 Ion Ratio Lower Upper
 95 100
 174 73.8 74.9 112.3#
 176 73.1 70.7 106.1





#62

Toluene

Concen: 0.707 ug/l

RT: 8.78 min Scan# 1251

Delta R.T. 0.00 min

Lab File: VX008490.D

Acq: 27 Mar 2019 18:11

Instrument :

MSVOA_X

ClientSampleId :

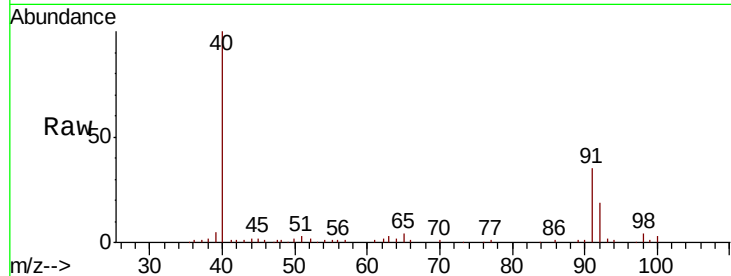
MH-C05-SETTLED-2H-A

Tot Ion: 91 Resp: 7661

Ion Ratio Lower Upper

91 100

92 58.3 46.4 69.6



Abundance Ion 91.00 (90.70 to 91.70): VX0

Ion 92.00 (91.70 to 92.70): VX0

8.78

5000

4000

3000

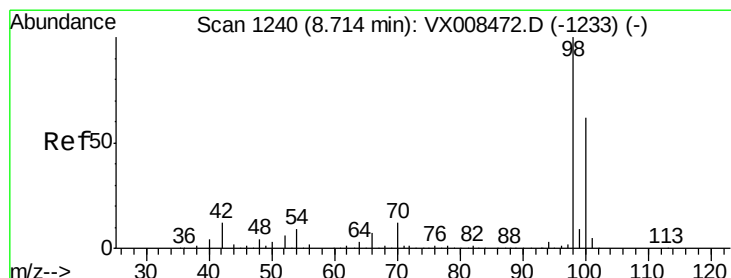
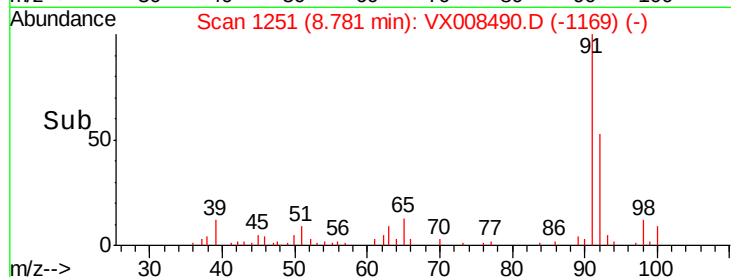
2000

1000

0

8.70 8.75 8.80 8.85

Time-->



#63

Toluene-d8

Concen: 30.624 ug/l

RT: 8.71 min Scan# 1240

Delta R.T. 0.00 min

Lab File: VX008490.D

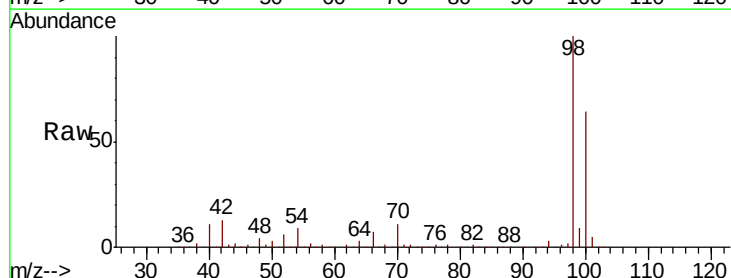
Acq: 27 Mar 2019 18:11

Tgt Ion: 98 Resp: 260127

Ion Ratio Lower Upper

98 100

100 63.9 50.9 76.3



Abundance Ion 98.00 (97.70 to 98.70): VX0

Ion 100.00 (99.70 to 100.70): V

8.71

200000

150000

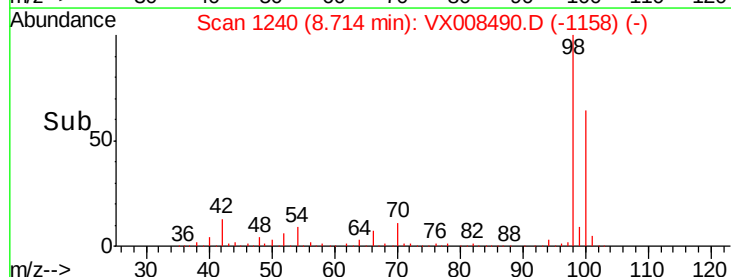
100000

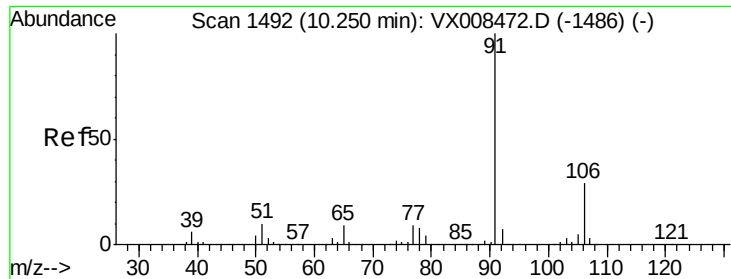
50000

0

8.65 8.70 8.75 8.80 8.85

Time-->





#66

Ethyl Benzene

Concen: 0.625 ug/l

RT: 10.25 min Scan# 1492

Delta R.T. 0.00 min

Lab File: VX008490.D

Acq: 27 Mar 2019 18:11

Instrument :

MSVOA_X

ClientSampleId :

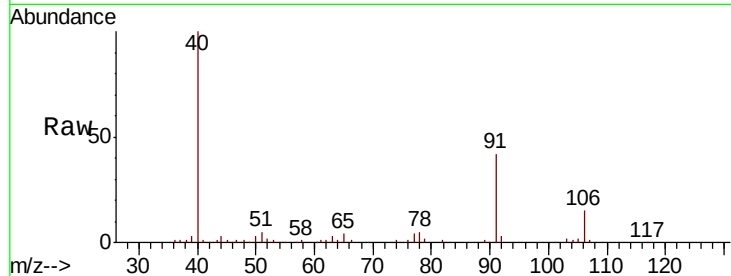
MH-C05-SETTLED-2H-A

Tot Ion: 91 Resp: 7519

Ion Ratio Lower Upper

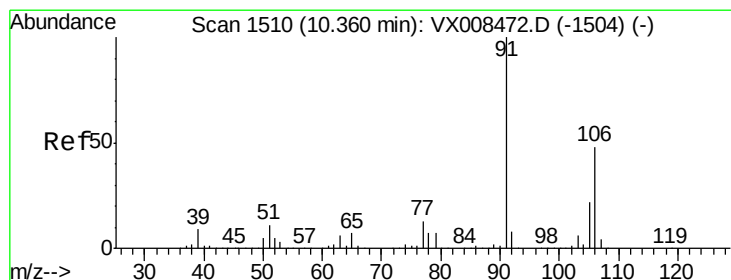
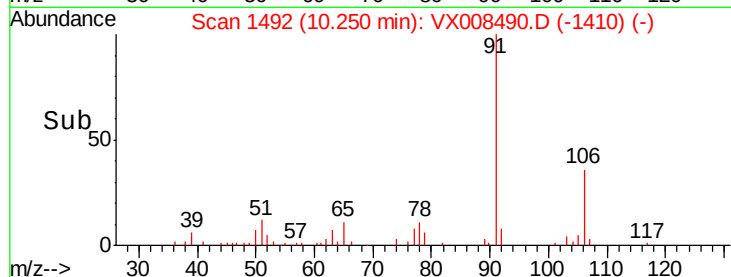
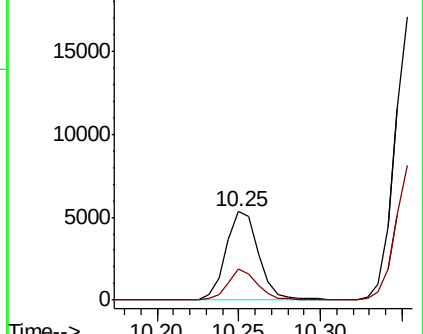
91 100

106 35.6 26.0 39.0



Abundance Ion 91.00 (90.70 to 91.70): VX0

Ion 106.00 (105.70 to 106.70): V



#67

m/p-Xylenes

Concen: 2.730 ug/l

RT: 10.36 min Scan# 1510

Delta R.T. 0.00 min

Lab File: VX008490.D

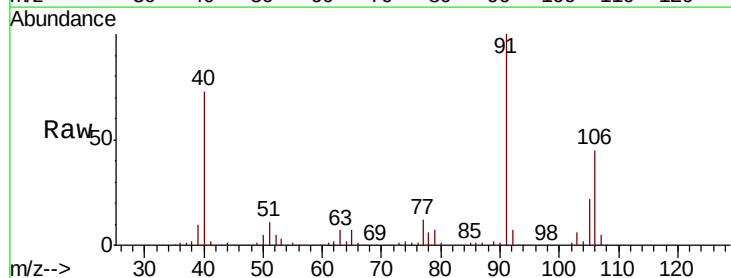
Acq: 27 Mar 2019 18:11

Tgt Ion: 106 Resp: 11973

Ion Ratio Lower Upper

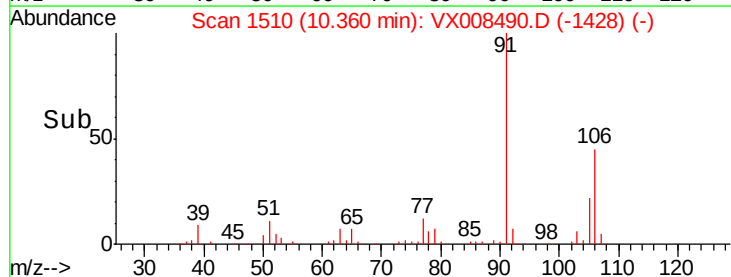
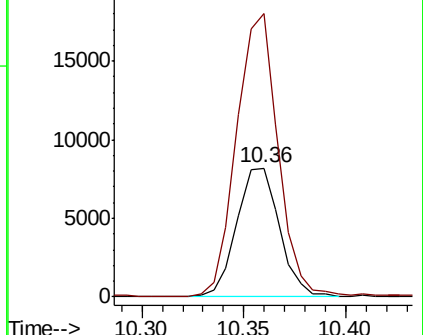
106 100

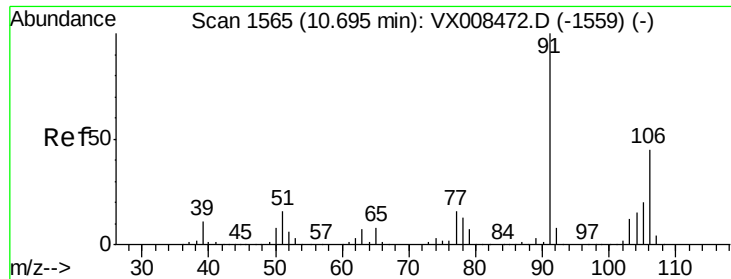
91 213.2 157.0 235.4



Abundance Ion 106.00 (105.70 to 106.70): V

Ion 91.00 (90.70 to 91.70): VX0

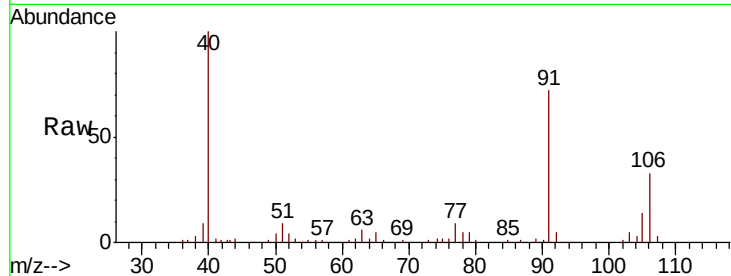




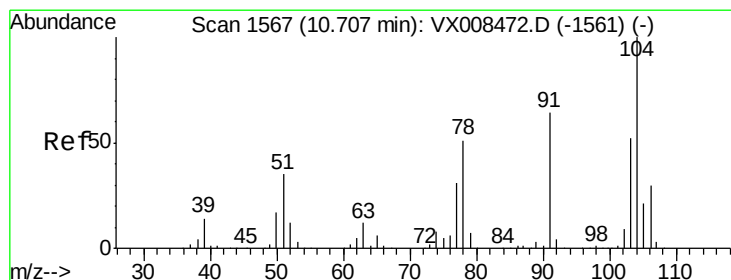
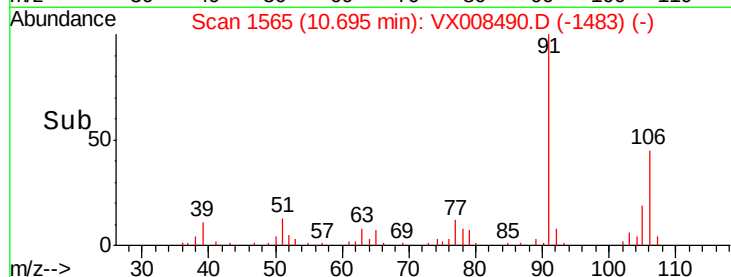
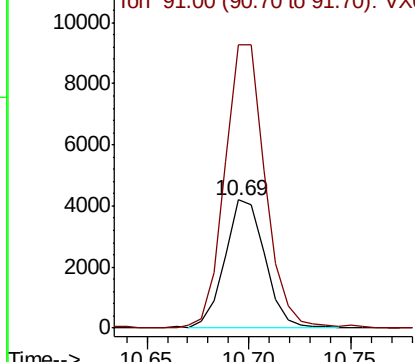
#68
o-Xylene
Concen: 1.331 ug/l
RT: 10.69 min Scan# 1565
Delta R.T. 0.00 min
Lab File: VX008490.D
Acq: 27 Mar 2019 18:11

Instrument :
MSVOA_X
ClientSampled :
MH-C05-SETTLED-2H-A

Tot Ion:106 Resp: 5712
Ion Ratio Lower Upper
106 100
91 222.5 104.4 313.2

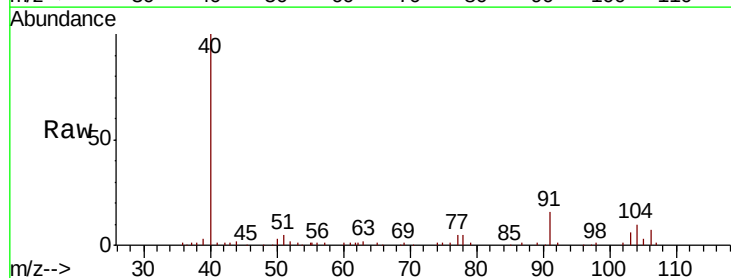


Abundance Ion 106.00 (105.70 to 106.70): V
Ion 91.00 (90.70 to 91.70): VX0

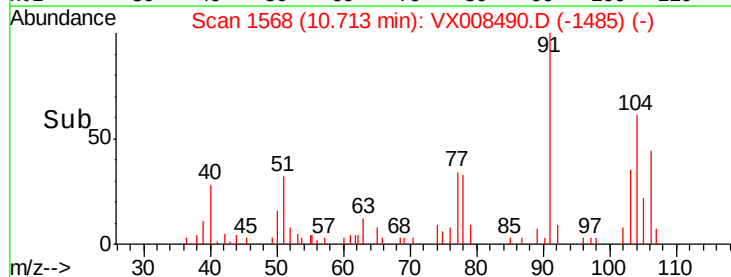
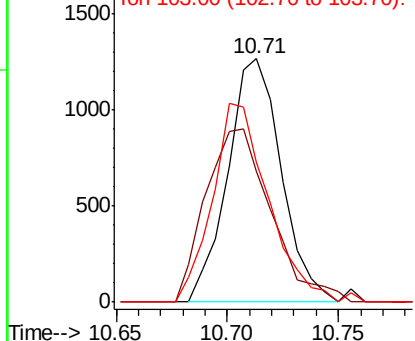


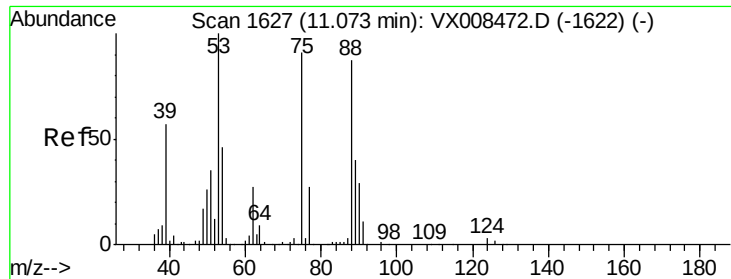
#69
Styrene
Concen: 0.284 ug/l
RT: 10.71 min Scan# 1568
Delta R.T. 0.01 min
Lab File: VX008490.D
Acq: 27 Mar 2019 18:11

Tgt Ion:104 Resp: 2121
Ion Ratio Lower Upper
104 100
78 86.9 38.2 57.2#
103 84.8 45.0 67.4#



Abundance Ion 104.00 (103.70 to 104.70): V
Ion 78.00 (77.70 to 78.70): VX0
Ion 103.00 (102.70 to 103.70): V





#77

t-1,4-Dichloro-2-butene

Concen: 33.663 ug/l

RT: 11.13 min Scan# 1637

Delta R.T. 0.06 min

Lab File: VX008490.D

Acq: 27 Mar 2019 18:11

Instrument :

MSVOA_X

ClientSampleId :

MH-C05-SETTLED-2H-A

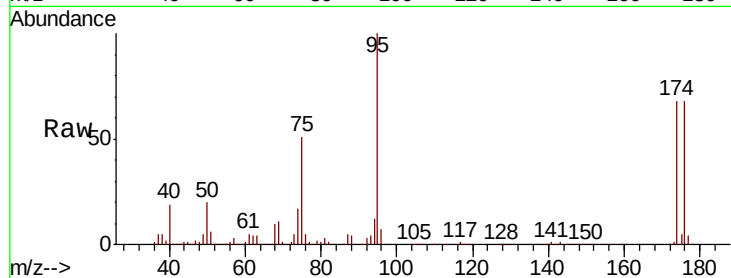
Tot Ion: 75 Resp: 46166

Ion Ratio Lower Upper

75 100

53 0.0 55.5 166.7#

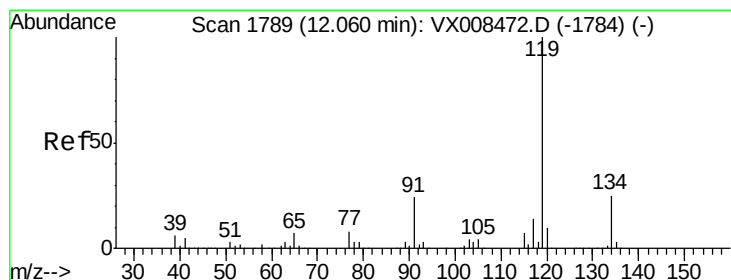
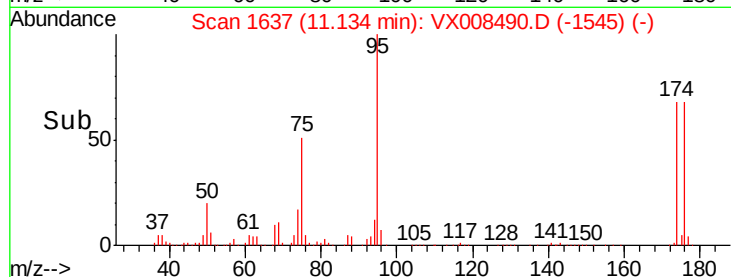
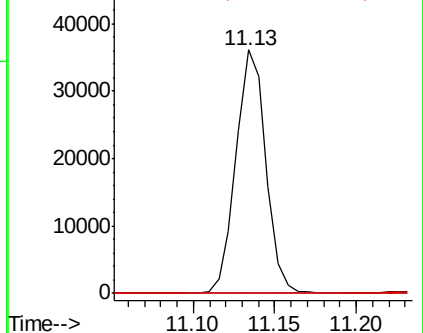
89 0.0 24.4 73.2#



Abundance Ion 75.00 (74.70 to 75.70): VX008490.D (-1545) (-)

Ion 53.00 (52.70 to 53.70): VX008490.D (-1545) (-)

Ion 89.00 (88.70 to 89.70): VX008490.D (-1545) (-)



#79

tert-butylbenzene

Concen: 1.442 ug/l

RT: 12.06 min Scan# 1789

Delta R.T. 0.00 min

Lab File: VX008490.D

Acq: 27 Mar 2019 18:11

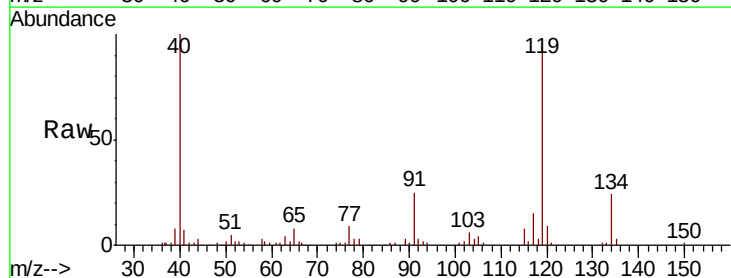
Tgt Ion: 119 Resp: 14266

Ion Ratio Lower Upper

119 100

91 26.5 0.0 45.0

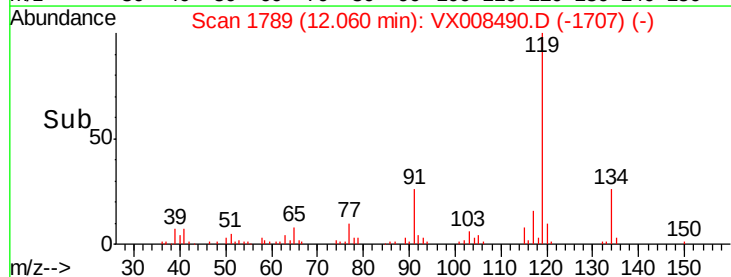
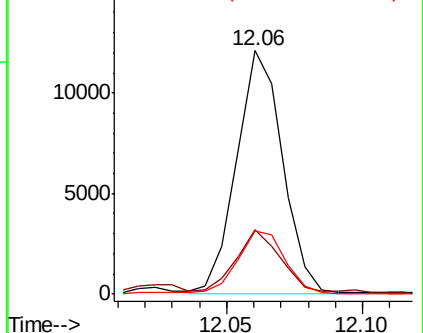
134 26.5 0.0 55.4

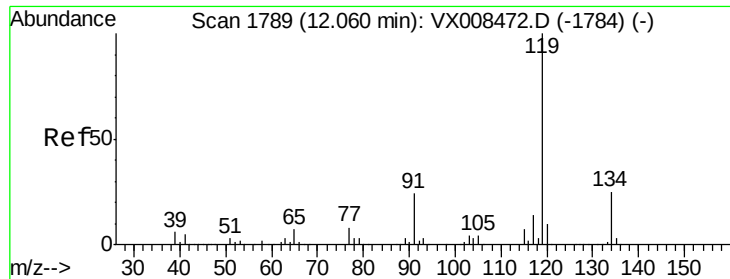


Abundance Ion 119.00 (118.70 to 119.70): VX008490.D (-1707) (-)

Ion 91.00 (90.70 to 91.70): VX008490.D (-1707) (-)

Ion 134.00 (133.70 to 134.70): VX008490.D (-1707) (-)

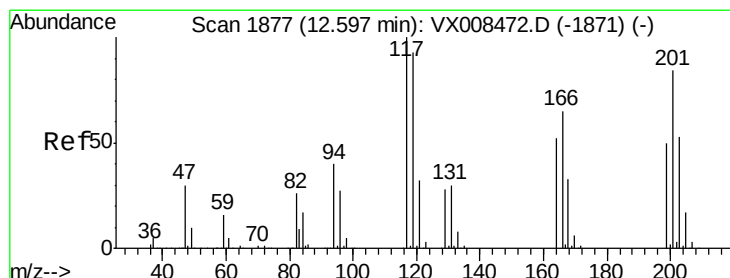
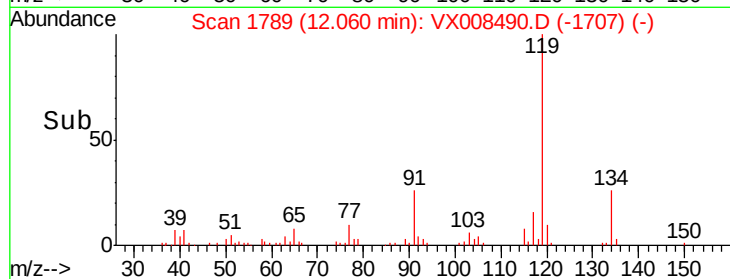
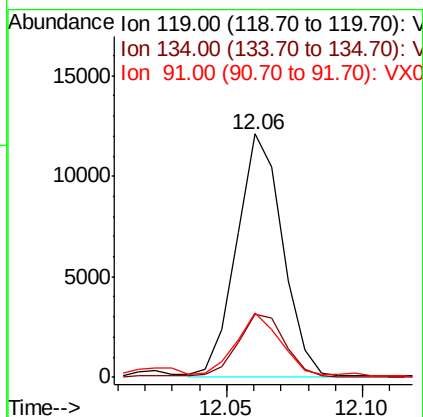
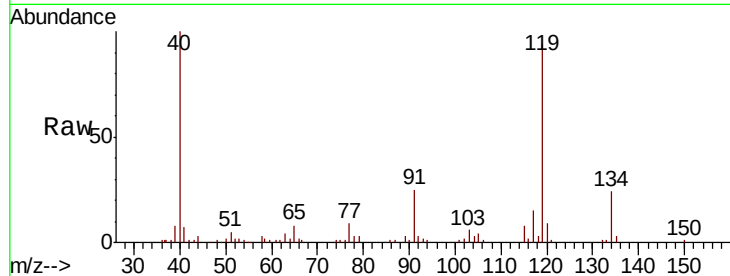




#82
p-Isopropyltoluene
Concen: 1.442 ug/l
RT: 12.06 min Scan# 1789
Delta R.T. 0.00 min
Lab File: VX008490.D
Acq: 27 Mar 2019 18:11

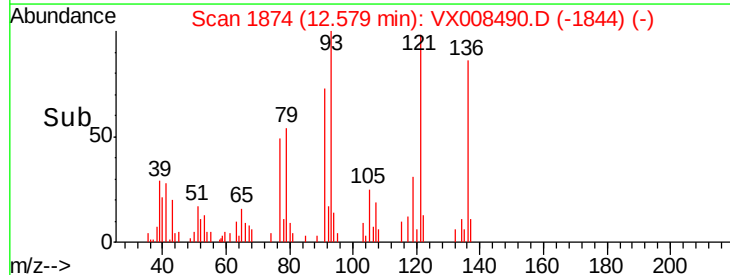
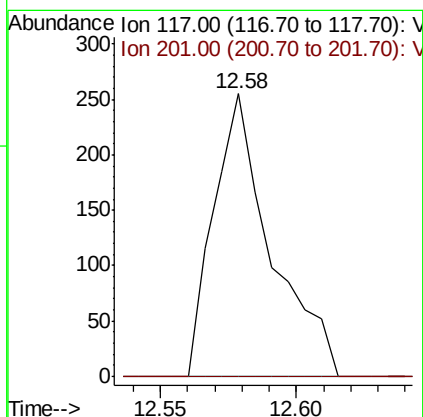
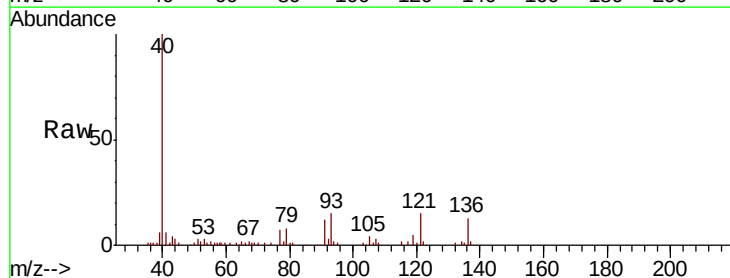
Instrument :
MSVOA_X
ClientSampleId :
MH-C05-SETTLED-2H-A

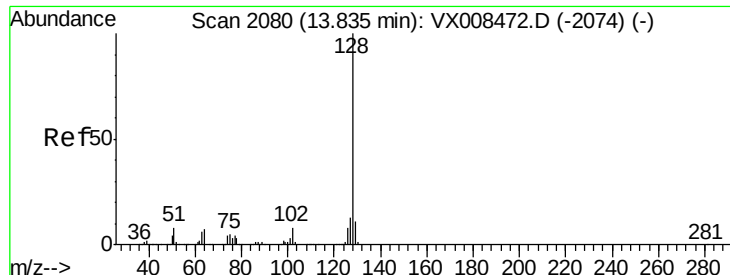
Tot Ion:119 Resp: 14266
Ion Ratio Lower Upper
119 100
134 26.5 0.0 55.4
91 26.5 0.0 45.0



#86
Hexachloroethane
Concen: 0.225 ug/l
RT: 12.58 min Scan# 1874
Delta R.T. -0.02 min
Lab File: VX008490.D
Acq: 27 Mar 2019 18:11

Tgt Ion:117 Resp: 372
Ion Ratio Lower Upper
117 100
201 0.0 41.1 123.3#





#91
Naphthalene
Concen: 0.465 ug/l
RT: 13.83 min Scan# 2080
Delta R.T. 0.00 min
Lab File: VX008490.D
Acq: 27 Mar 2019 18:11

Instrument :
MSVOA_X
ClientSampleId :
MH-C05-SETTLED-2H-A

Tot Ion	Ratio	Lower	Upper
128	100		
127	14.7	10.5	15.7
129	12.3	8.9	13.3

