

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL112519\
 Data File : VL034411.D
 Acq On : 25 Nov 2019 18:21
 Operator : SY/AP
 Sample : K5971-04
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 4

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Quant Time: Nov 29 12:08:25 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL111919AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LTue Nov 19 14:15:35 2019
 QLast Update : Tue Nov 19 14:15:35 2019
 Response via : Initial Calibration

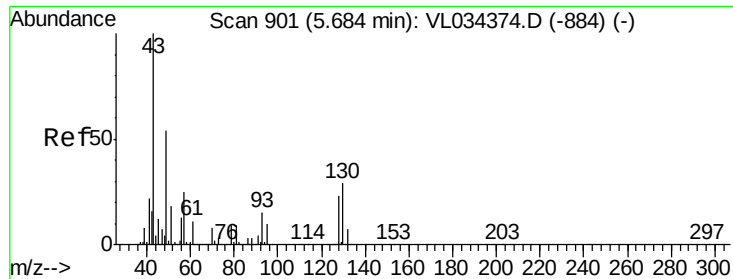
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.68	49	951595	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.20	114	1869485	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.14	117	1825264	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.47	95	1553842	10.12	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.20%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.02	85	127255	0.739	ppbv	94
3) Chlorodifluoromethane	2.96	51	47851m	0.403	ppbv	
4) Chloromethane	3.11	50	39750	0.568	ppbv #	88
9) Propene	2.99	41	133647m	2.535	ppbv	
10) Heptane	8.15	43	33445	0.246	ppbv	98
11) Trichlorofluoromethane	3.94	101	39398	0.230	ppbv	98
13) Ethanol	3.64	45	19731539	1343.794	ppbv	76
15) Acetone	3.83	43	1473571	10.814	ppbv	100
17) tert-Butyl alcohol	4.35	59	64227m	0.561	ppbv	
19) Isopropyl Alcohol	4.02	45	4628040m	52.987	ppbv	
20) Methylene Chloride	4.34	84	50048	1.036	ppbv #	77
25) Ethyl Acetate	5.69	43	116449m	0.479	ppbv	
26) Hexane	5.70	57	45037	0.431	ppbv	92
29) Chloroform	5.76	83	51287m	0.303	ppbv	
30) Cyclohexane	7.15	84	16551m	0.210	ppbv	
34) 2-Butanone	5.25	43	67335	0.438	ppbv	98
35) Carbon Tetrachloride	7.04	117	9284m	0.058	ppbv	
36) Benzene	6.92	78	49297	0.264	ppbv	98
44) 2,2,4-Trimethylpentane	7.89	57	33421m	0.098	ppbv	
52) Tetrachloroethene	11.27	164	9690m	0.120	ppbv	
53) Toluene	9.85	91	178421	0.841	ppbv	100
59) m/p-Xylene	13.02	91	62879m	0.257	ppbv	
60) o-Xylene	13.74	91	25711m	0.106	ppbv	
76) 1,4-Dichlorobenzene	17.20	146	27186m	0.167	ppbv	
79) Naphthalene	22.29	128	45560m	0.181	ppbv	

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.68 min Scan# 899

Delta R.T. -0.01 min

Lab File: VL034411.D

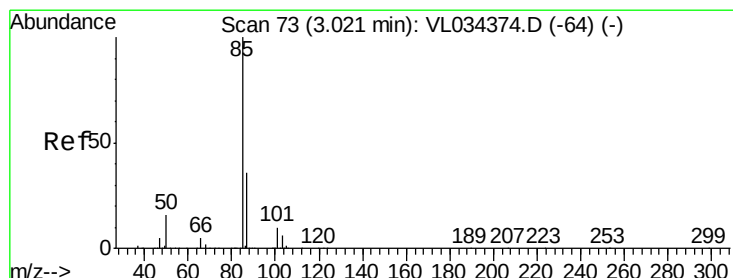
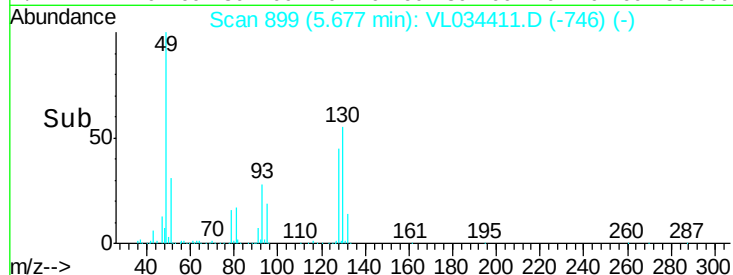
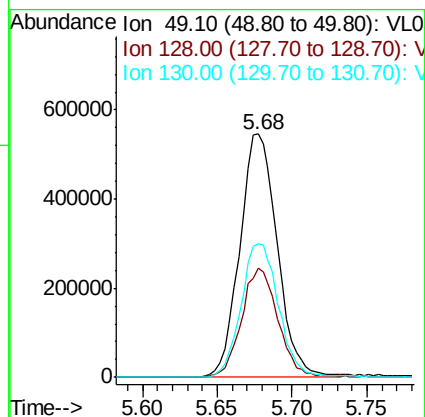
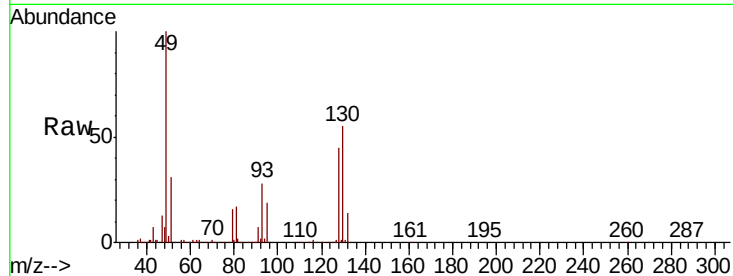
Acq: 25 Nov 2019 18:21

Instrument :
MSVOA_L
ClientSampled :
4

Tot Ion:	49	Resp:	951595
Ion	Ratio	Lower	Upper
49	100		
128	44.1	21.8	65.3
130	55.7	28.0	84.0

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#2

Dichlorodifluoromethane

Concen: 0.739 ppbv

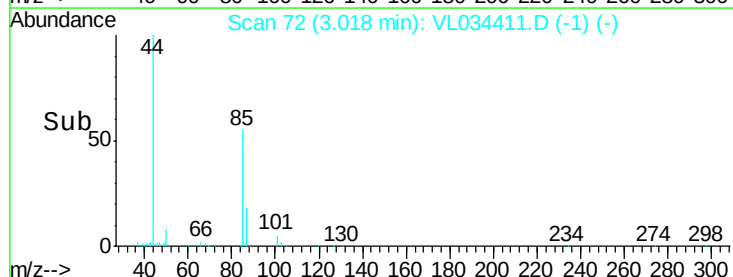
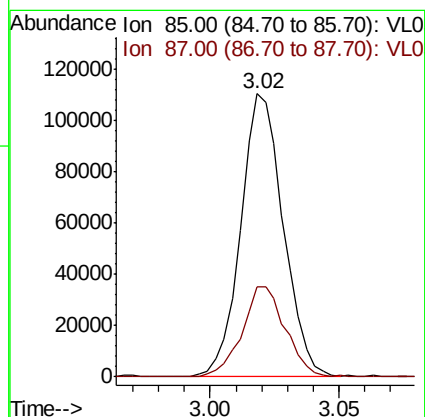
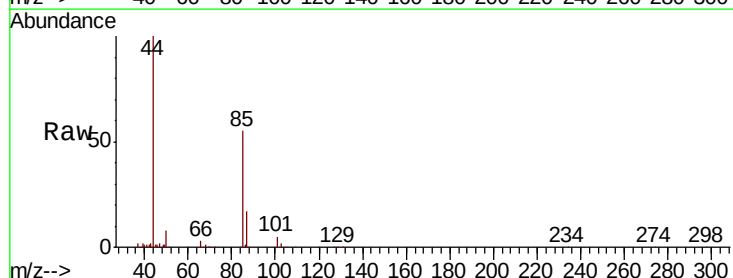
RT: 3.02 min Scan# 72

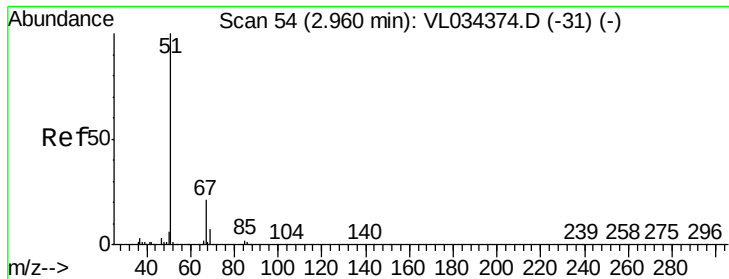
Delta R.T. -0.00 min

Lab File: VL034411.D

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Tgt Ion:	85	Resp:	127255
Ion	Ratio	Lower	Upper
85	100		
87	31.9	28.5	42.7





#3

Chlorodifluoromethane

Concen: 0.403 ppbv

RT: 2.96 min Scan# 54

Delta R.T. -0.00 min

Lab File: VL034411.D

Acq: 25 Nov 2019 18:21

Instrument :

MSVOA_L

ClientSampled :

4

Tot Ion: 51 Resp: 47851

Ion Ratio Lower Upper

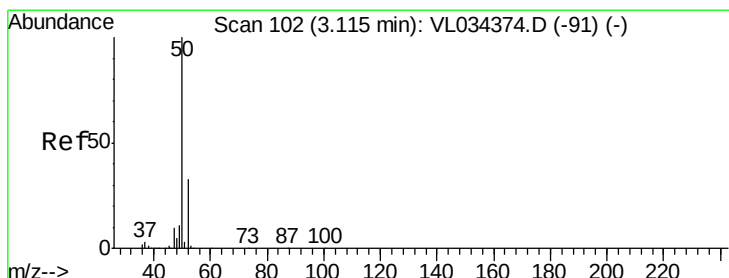
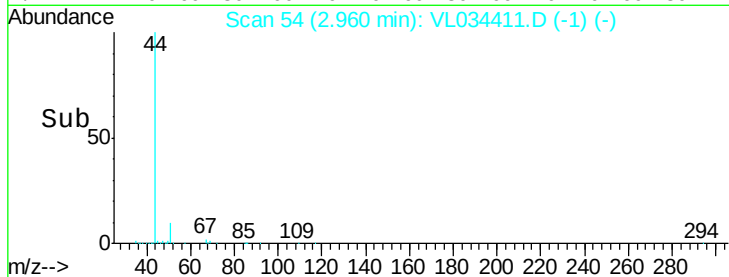
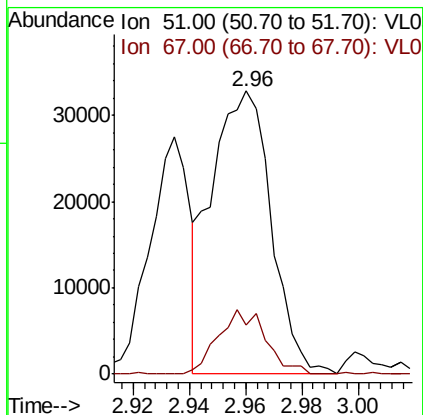
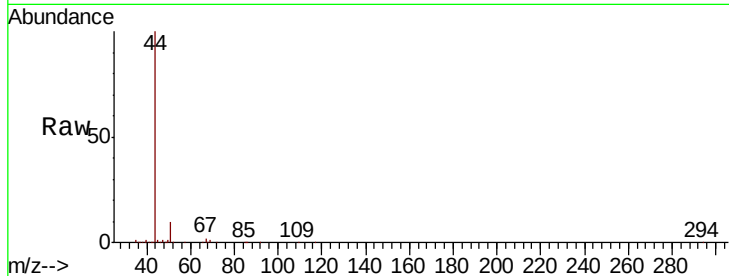
51 100

67 18.1 16.2 24.2

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#4

Chloromethane

Concen: 0.568 ppbv

RT: 3.11 min Scan# 101

Delta R.T. -0.00 min

Lab File: VL034411.D

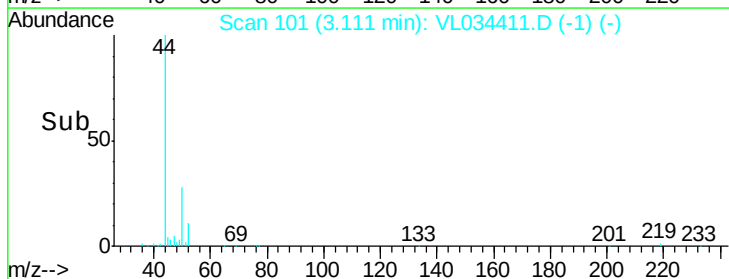
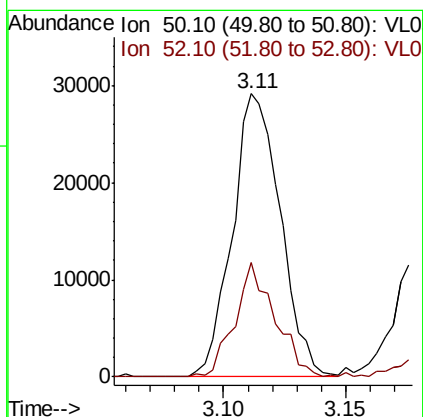
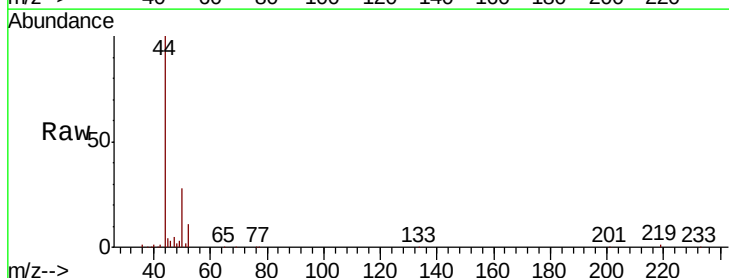
Acq: 25 Nov 2019 18:21

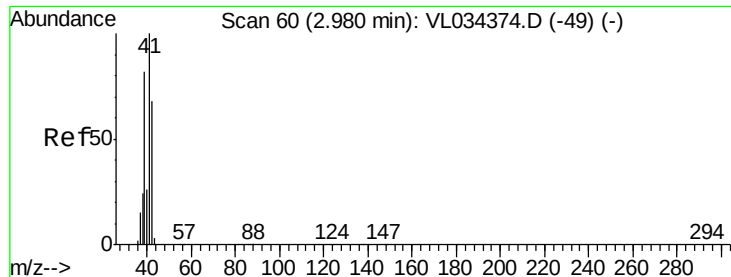
Tgt Ion: 50 Resp: 39750

Ion Ratio Lower Upper

50 100

52 40.5 26.8 40.2#





#9

Propene

Concen: 2.535 ppbv m

RT: 2.99 min Scan# 64

Delta R.T. 0.01 min

Lab File: VL034411.D

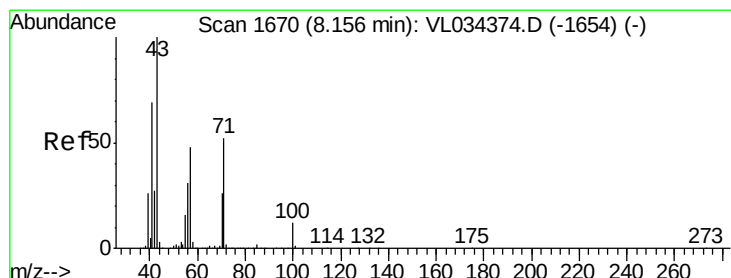
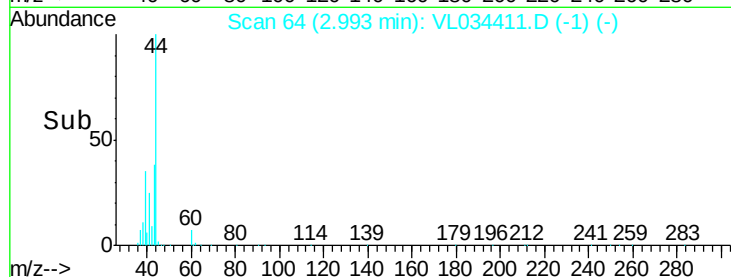
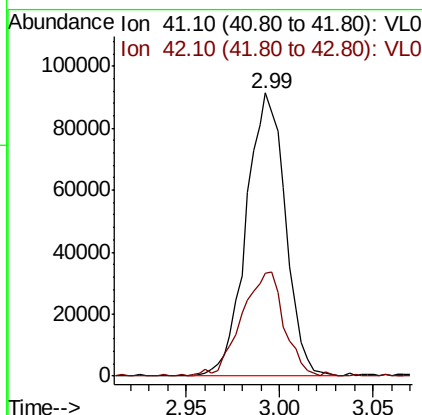
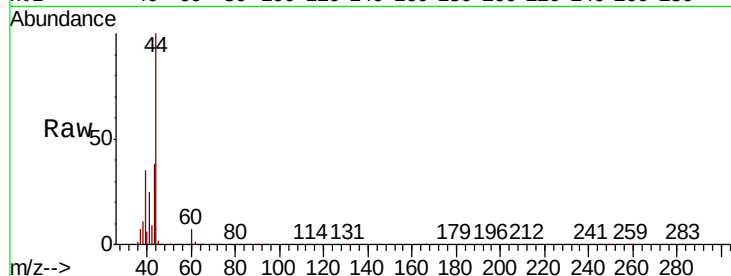
Acq: 25 Nov 2019 18:21

Instrument :
MSVOA_L
ClientSampled :
4

Tot Ion	41	Resp	133647
Ion Ratio	100	Lower	Upper
42	325.0	54.6	82.0#

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#10

Heptane

Concen: 0.246 ppbv

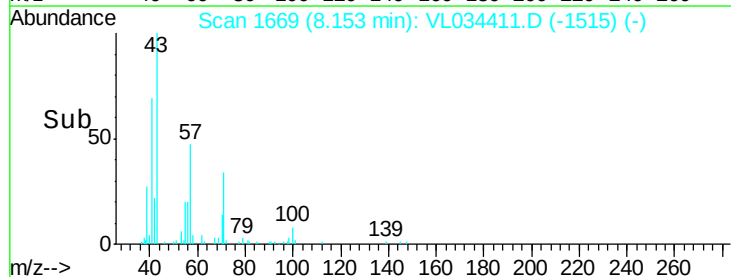
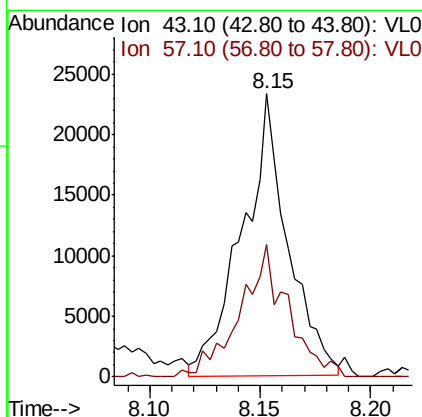
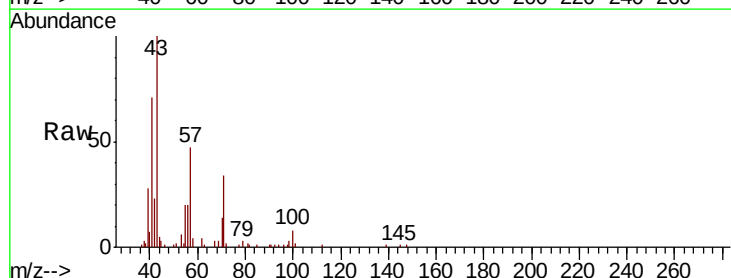
RT: 8.15 min Scan# 1669

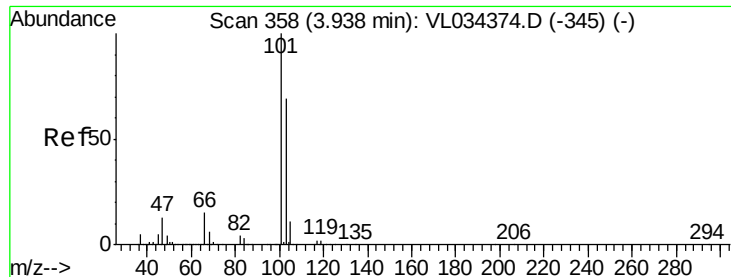
Delta R.T. -0.00 min

Lab File: VL034411.D

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Tgt Ion	43	Resp	33445
Ion Ratio	100	Lower	Upper
57	49.2	40.2	60.2





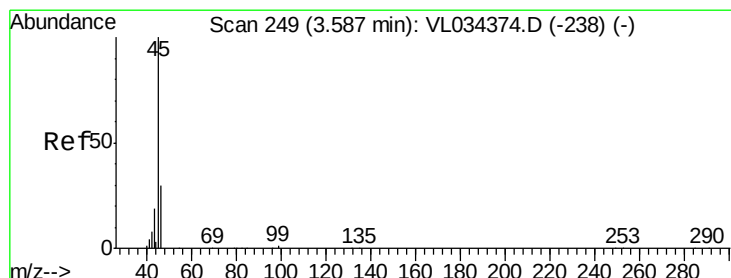
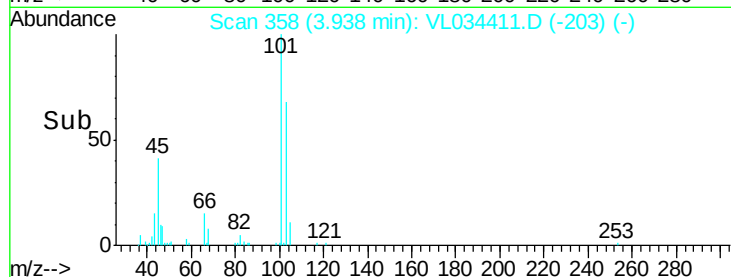
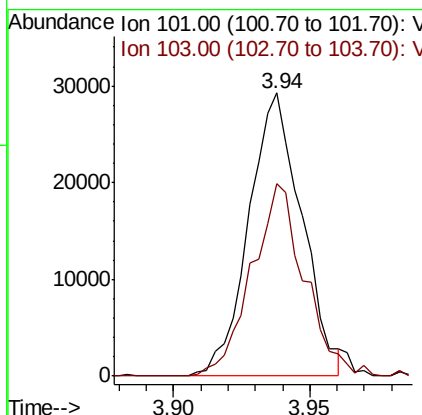
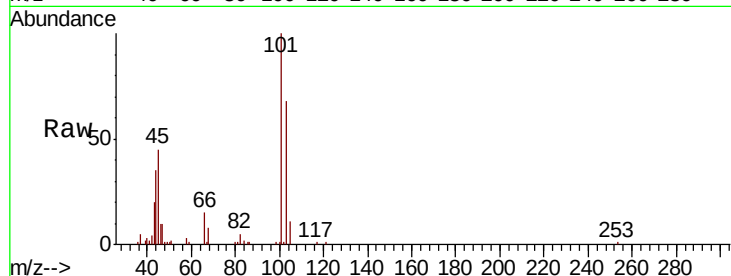
#11
 Trichlorofluoromethane
 Concen: 0.230 ppbv
 RT: 3.94 min Scan# 358
 Delta R.T. -0.00 min
 Lab File: VL034411.D
 Acq: 25 Nov 2019 18:21

Instrument :
 MSVOA_L
 ClientSampleId :
 4

Tot Ion	Ratio	Lower	Upper
101	100		
103	67.5	55.4	83.0

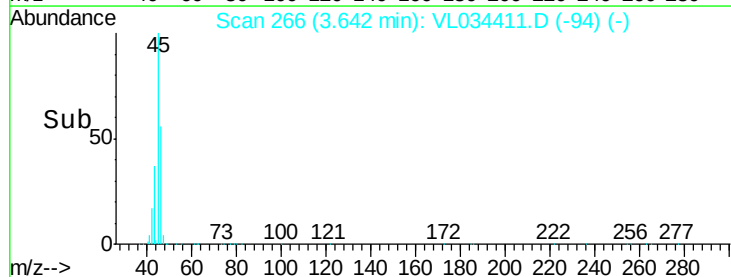
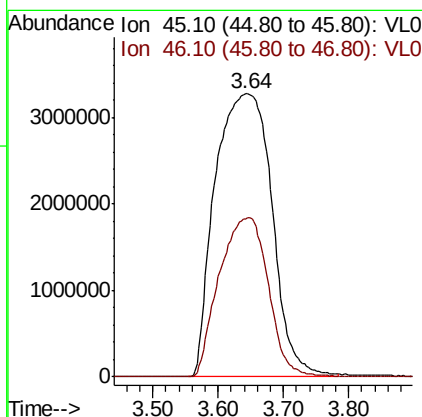
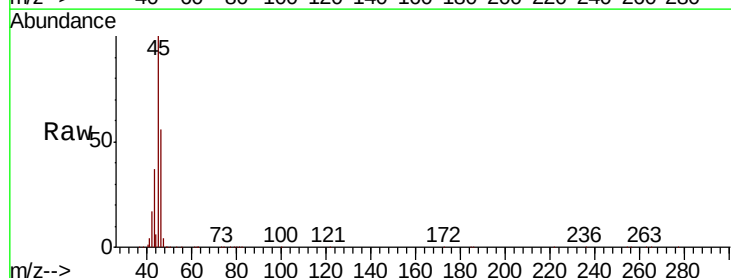
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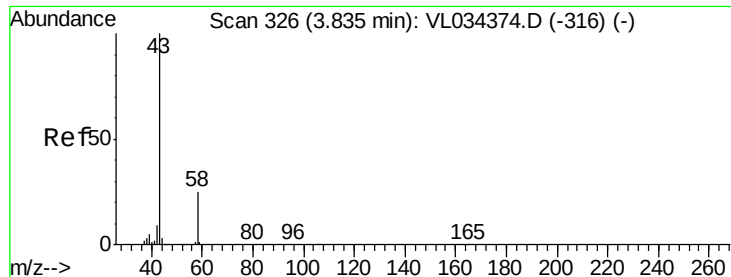
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#13
 Ethanol
 Concen: 1343.794 ppbv
 RT: 3.64 min Scan# 266
 Delta R.T. 0.05 min
 Lab File: VL034411.D
 Acq: 25 Nov 2019 18:21

Tgt Ion	Ratio	Lower	Upper
45	100		
46	48.7	13.8	55.4





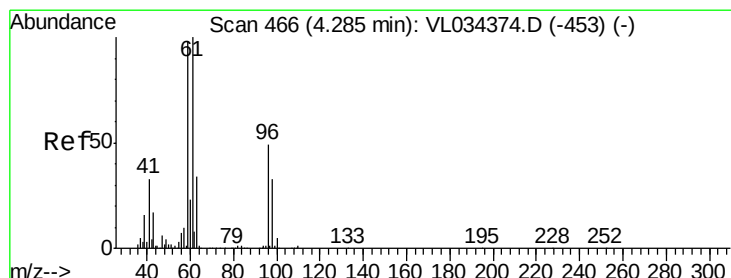
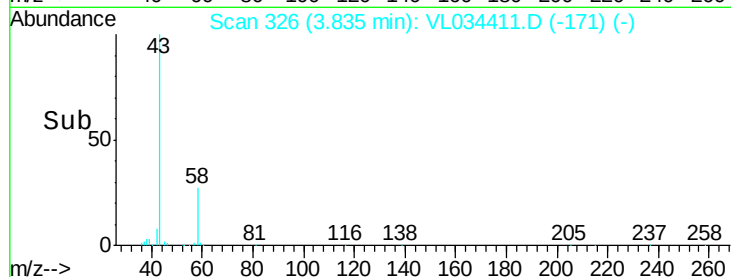
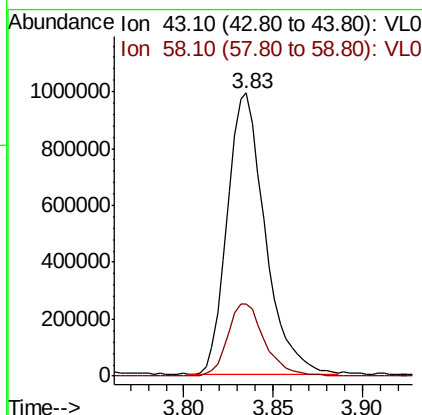
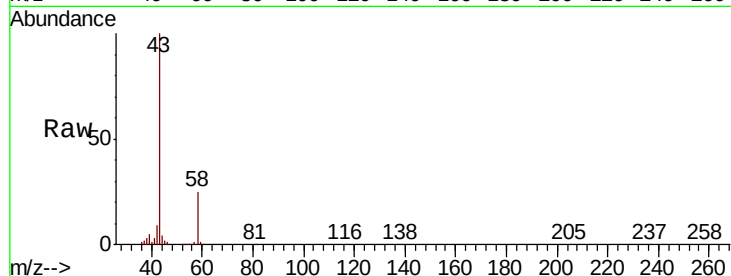
#15
Acetone
Concen: 10.814 ppbv
RT: 3.83 min Scan# 326
Delta R.T. -0.00 min
Lab File: VL034411.D
Acq: 25 Nov 2019 18:21

Instrument :
MSVOA_L
ClientSampled :
4

Tot Ion: 43 Resp: 1473571
Ion Ratio Lower Upper
43 100
58 25.3 20.2 30.4

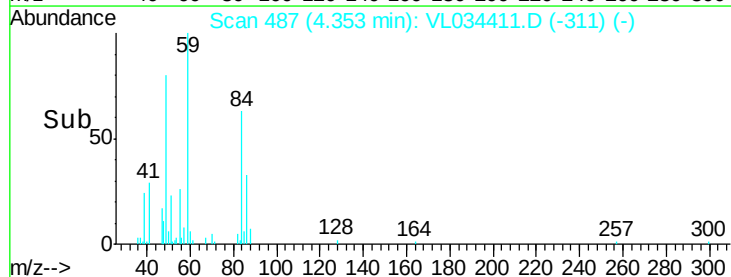
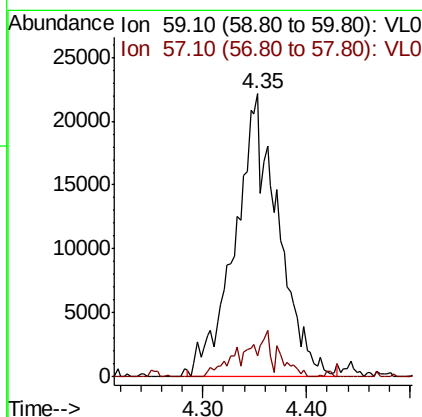
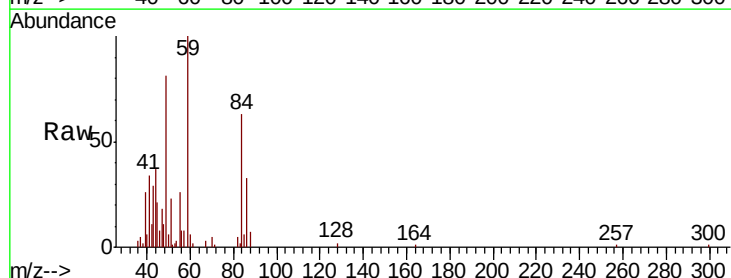
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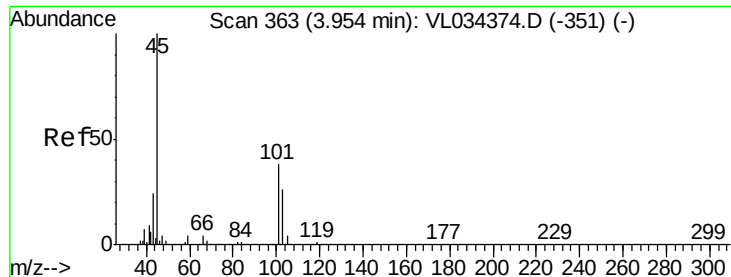
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#17
tert-Butyl alcohol
Concen: 0.561 ppbv m
RT: 4.35 min Scan# 487
Delta R.T. 0.07 min
Lab File: VL034411.D
Acq: 25 Nov 2019 18:21

Tgt Ion: 59 Resp: 64227
Ion Ratio Lower Upper
59 100
57 0.0 8.8 13.2#





#19

Isopropyl Alcohol

Concen: 52.987 ppbv m

RT: 4.02 min Scan# 384

Delta R.T. 0.07 min

Lab File: VL034411.D

Acq: 25 Nov 2019 18:21

Instrument :

MSVOA_L

ClientSampled :

4

Tot Ion: 45 Resp: 4628040

Ion Ratio Lower Upper

45 100

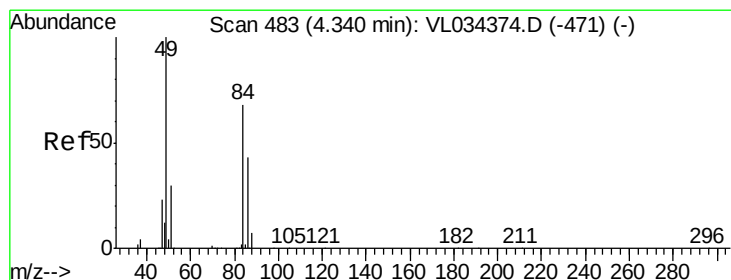
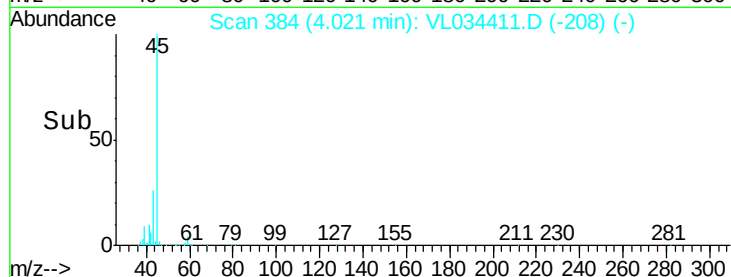
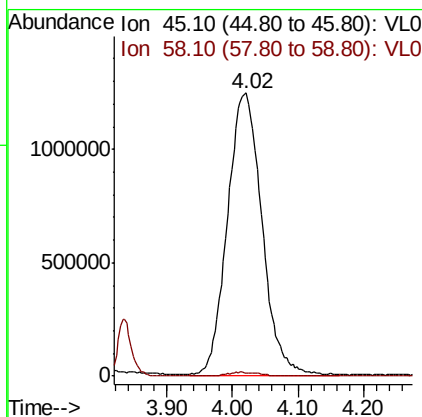
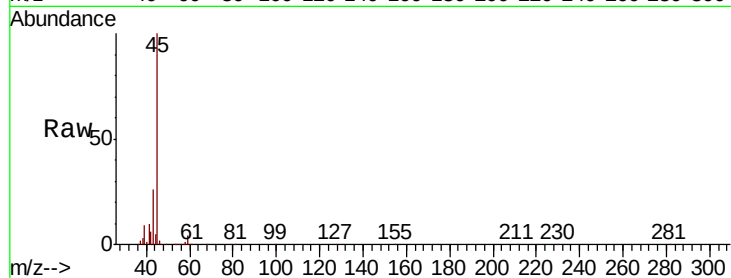
58 0.0 1.3 1.9#

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#20

Methylene Chloride

Concen: 1.036 ppbv

RT: 4.34 min Scan# 483

Delta R.T. -0.00 min

Lab File: VL034411.D

Acq: 25 Nov 2019 18:21

Tgt Ion: 84 Resp: 50048

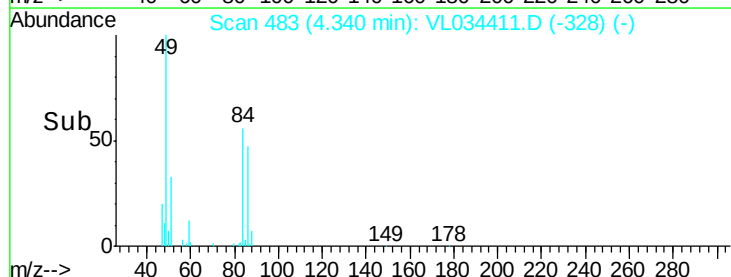
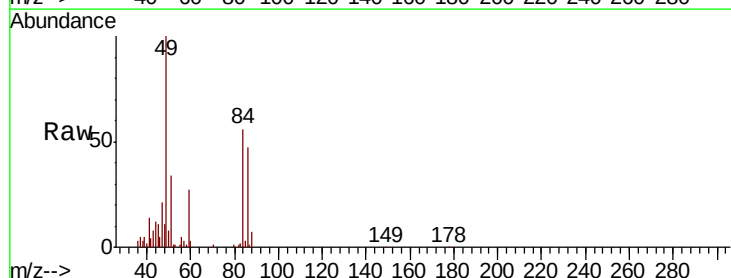
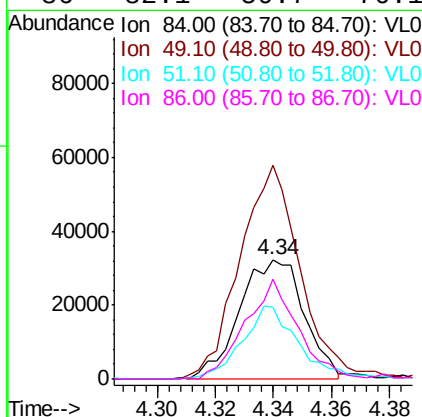
Ion Ratio Lower Upper

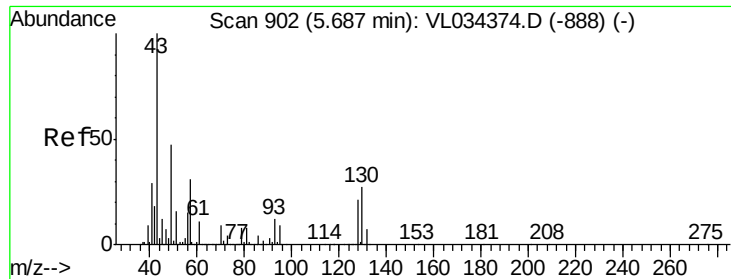
84 100

49 175.2 116.8 175.2

51 58.8 35.6 53.4#

86 82.1 50.7 76.1#





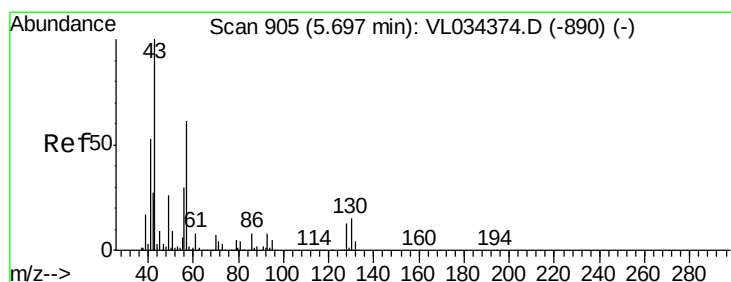
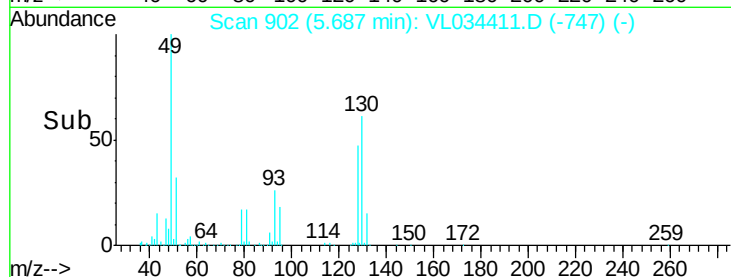
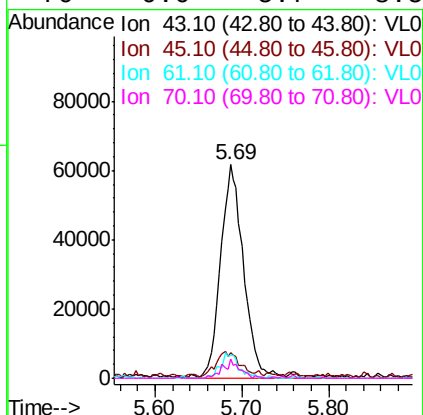
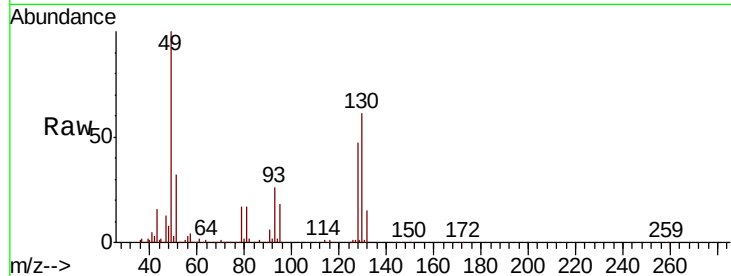
#25
Ethyl Acetate
Concen: 0.479 ppbv m
RT: 5.69 min Scan# 902
Delta R.T. -0.00 min
Lab File: VL034411.D
Acq: 25 Nov 2019 18:21

Instrument :
MSVOA_L
ClientSampleId :
4

Tot Ion	43	Resp	116449
Ion Ratio	Lower	Upper	
43	100		
45	0.0	8.2	12.4#
61	0.0	7.5	11.3#
70	0.0	5.7	8.5#

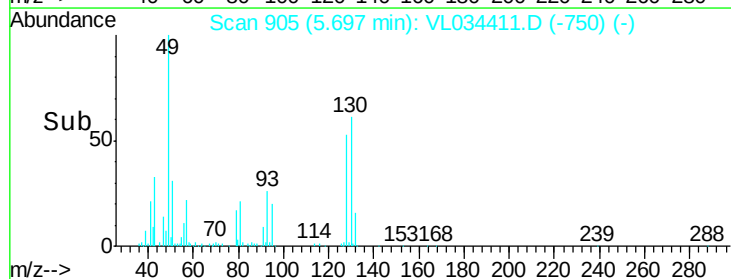
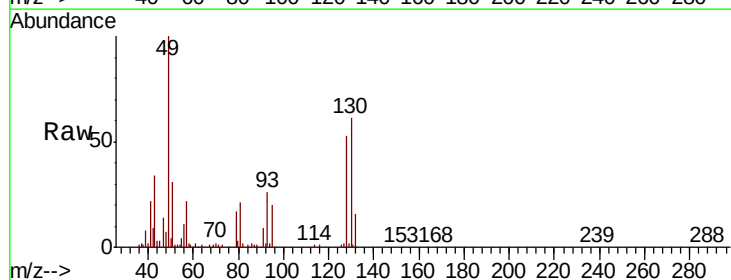
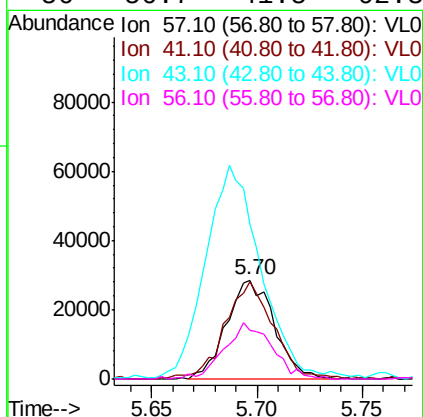
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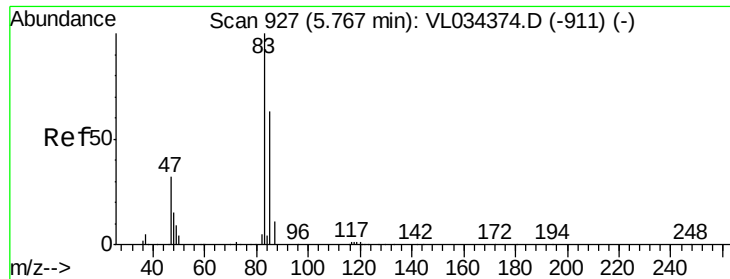
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#26
Hexane
Concen: 0.431 ppbv
RT: 5.70 min Scan# 905
Delta R.T. -0.00 min
Lab File: VL034411.D
Acq: 25 Nov 2019 18:21

Tgt Ion	57	Resp	45037
Ion Ratio	Lower	Upper	
57	100		
41	102.3	75.0	112.4
43	246.3	186.6	279.8
56	56.7	41.5	62.3





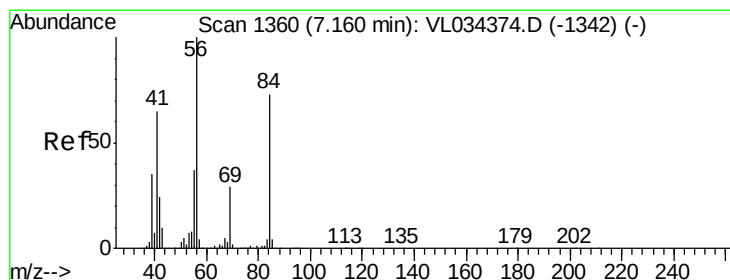
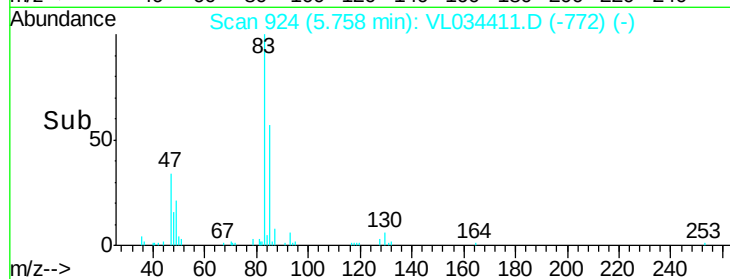
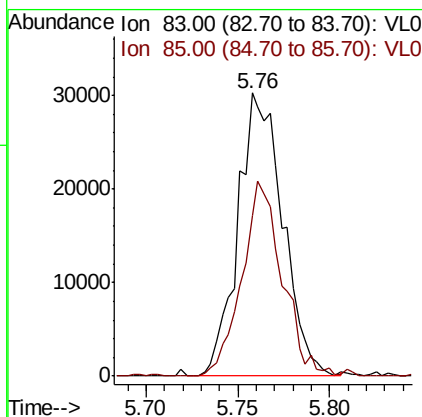
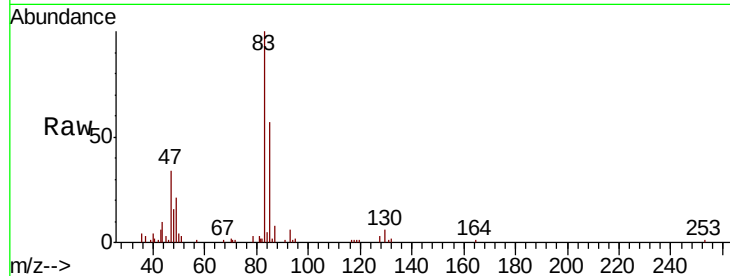
#29
Chloroform
Concen: 0.303 ppbv m
RT: 5.76 min Scan# 924
Delta R.T. -0.01 min
Lab File: VL034411.D
Acq: 25 Nov 2019 18:21

Instrument :
MSVOA_L
ClientSampleId :
4

Tot Ion	83	Resp	51287
Ion Ratio	100	Lower	Upper
85	56.8	50.4	75.6

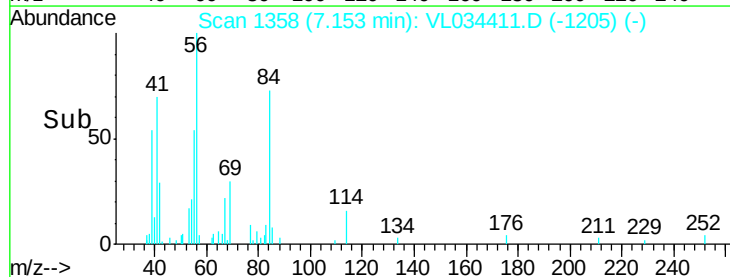
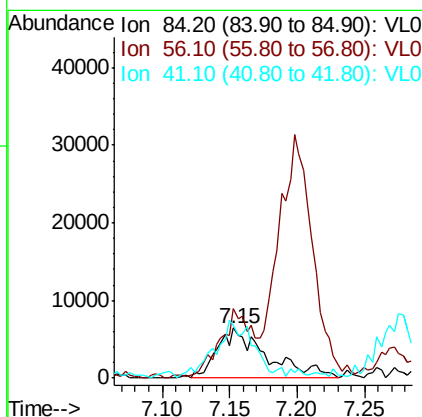
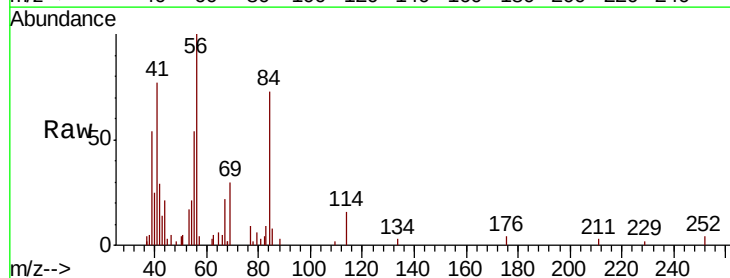
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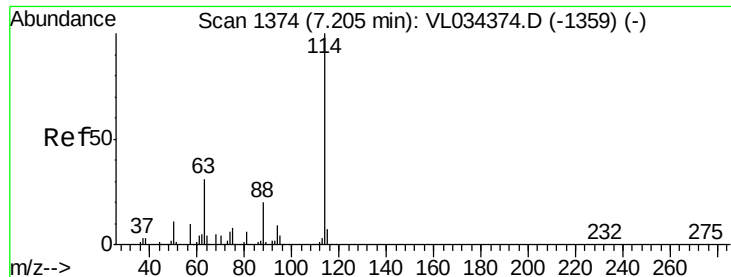
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#30
Cyclohexane
Concen: 0.210 ppbv m
RT: 7.15 min Scan# 1358
Delta R.T. -0.01 min
Lab File: VL034411.D
Acq: 25 Nov 2019 18:21

Tgt Ion	84	Resp	16551
Ion Ratio	100	Lower	Upper
56	0.0	112.6	169.0#
41	82.3	73.4	110.2





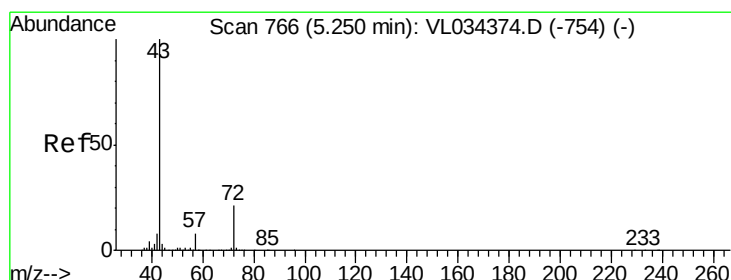
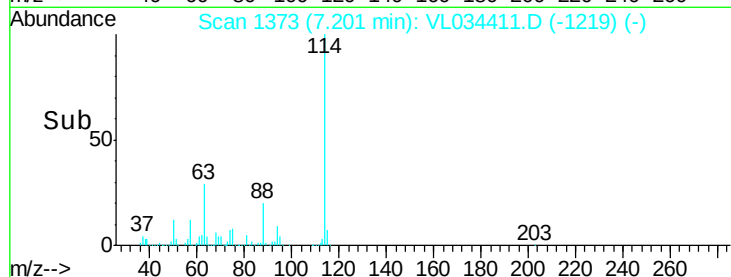
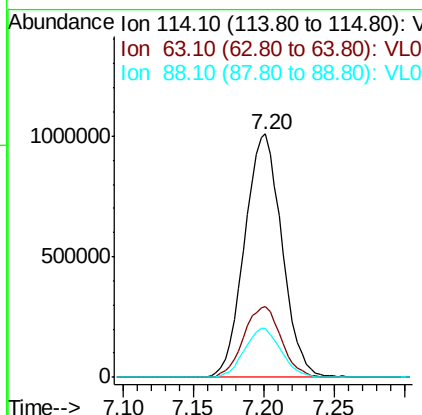
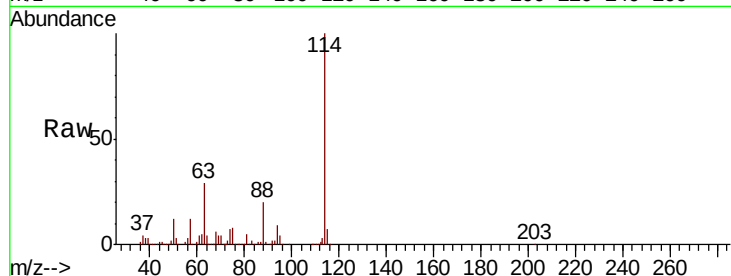
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.20 min Scan# 1373
 Delta R.T. -0.00 min
 Lab File: VL034411.D
 Acq: 25 Nov 2019 18:21

Instrument :
 MSVOA_L
 ClientSampled :
 4

Tot Ion	Ratio	Lower	Upper
114	100		
63	29.5	24.2	36.4
88	19.8	15.9	23.9

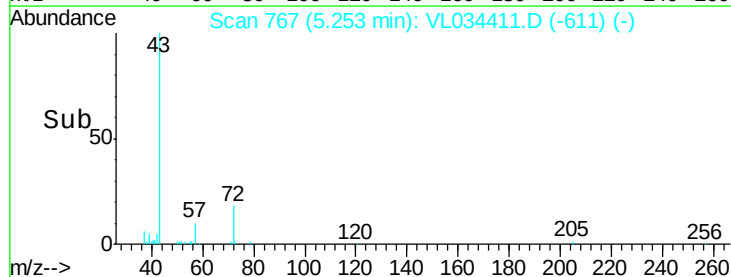
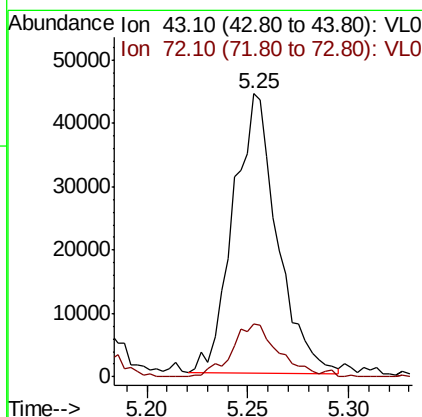
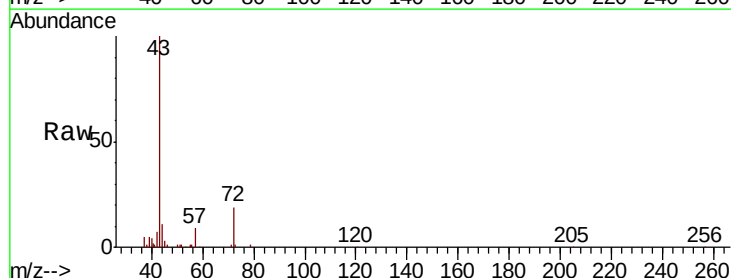
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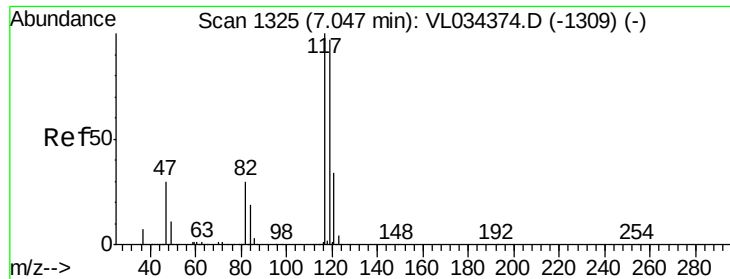
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#34
 2-Butanone
 Concen: 0.438 ppbv
 RT: 5.25 min Scan# 767
 Delta R.T. 0.00 min
 Lab File: VL034411.D
 Acq: 25 Nov 2019 18:21

Tgt Ion	Ratio	Lower	Upper
43	100		
72	20.4	17.0	25.6





#35

Carbon Tetrachloride

Concen: 0.058 ppbv m

RT: 7.04 min Scan# 1322

Delta R.T. -0.01 min

Lab File: VL034411.D

Acq: 25 Nov 2019 18:21

Instrument :

MSVOA_L

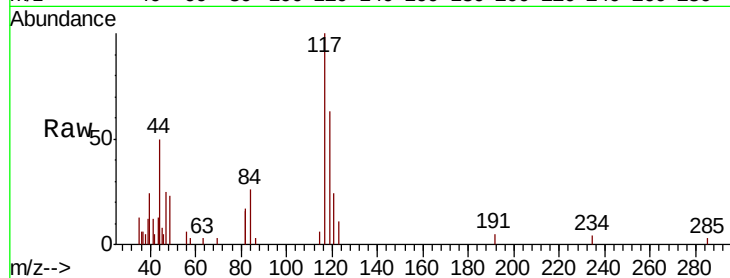
ClientSampled :

4

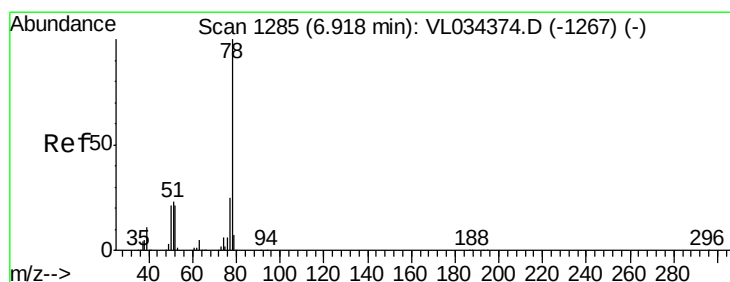
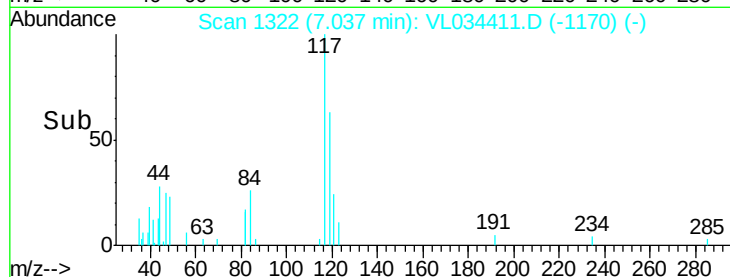
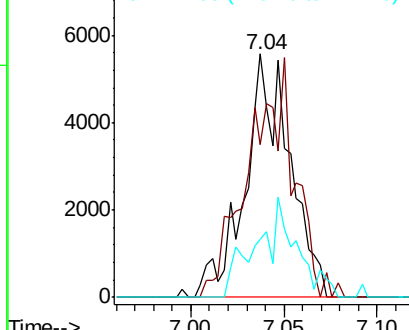
Tot Ion:	117	Resp:	9284
Ion Ratio	Lower	Upper	
117	100		
119	62.7	77.3	115.9#
121	24.1	27.4	41.2#

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Abundance Ion 117.00 (116.70 to 117.70): V
Ion 119.00 (118.70 to 119.70): V
Ion 121.00 (120.70 to 121.70): V



#36

Benzene

Concen: 0.264 ppbv

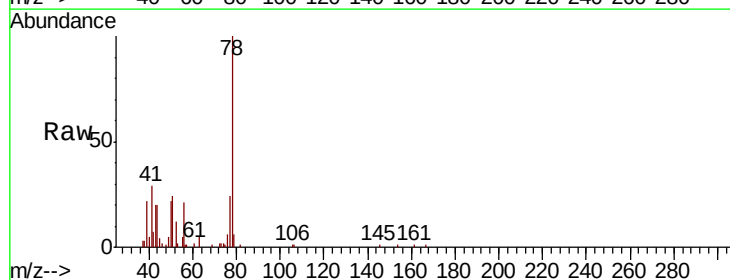
RT: 6.92 min Scan# 1284

Delta R.T. -0.00 min

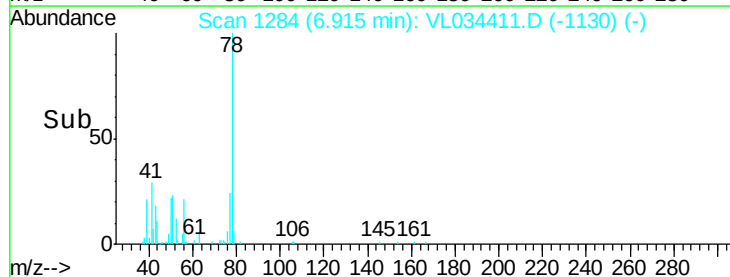
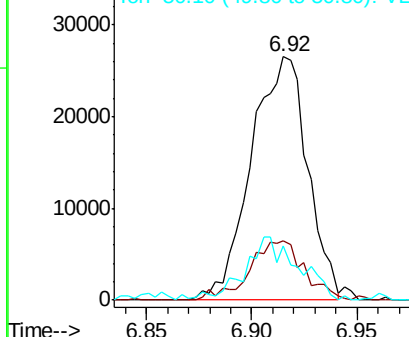
Lab File: VL034411.D

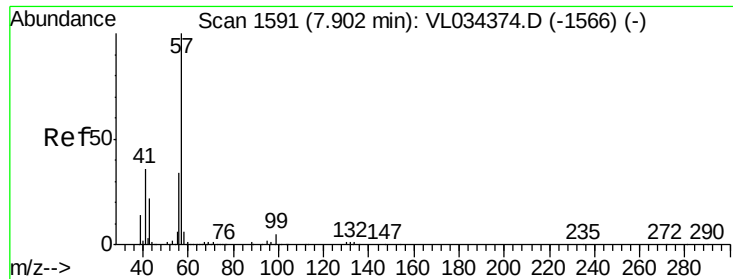
Acq: 25 Nov 2019 18:21

Tgt Ion:	78	Resp:	49297
Ion Ratio	Lower	Upper	
78	100		
77	24.4	20.2	30.4
50	22.4	17.1	25.7



Abundance Ion 78.10 (77.80 to 78.80): VL0
Ion 77.10 (76.80 to 77.80): VL0
Ion 50.10 (49.80 to 50.80): VL0





#44

2,2,4-Trimethylpentane

Concen: 0.098 ppbv m

RT: 7.89 min Scan# 1588

Delta R.T. -0.01 min

Lab File: VL034411.D

Acq: 25 Nov 2019 18:21

Instrument :

MSVOA_L

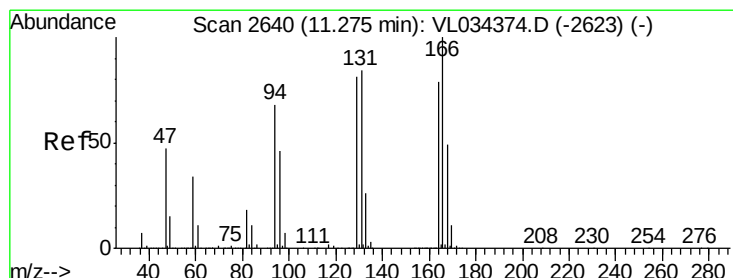
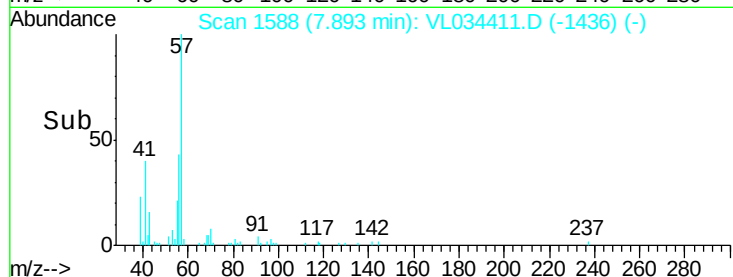
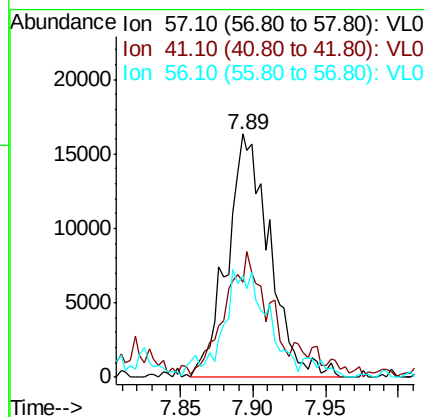
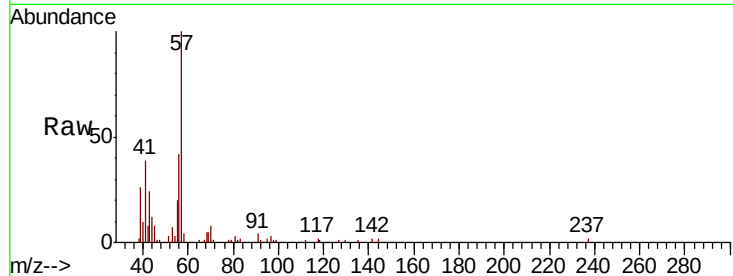
ClientSampled :

4

Tot Ion:	57	Resp:	33421
Ion Ratio	Lower	Upper	
57	100		
41	63.0	28.6	42.8#
56	50.4	25.3	37.9#

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#52

Tetrachloroethene

Concen: 0.120 ppbv m

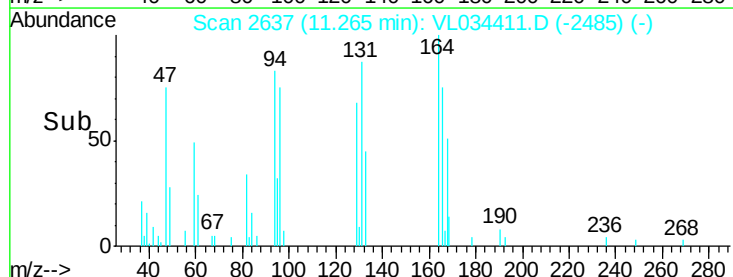
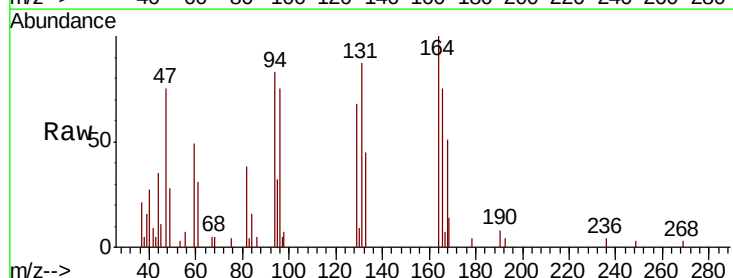
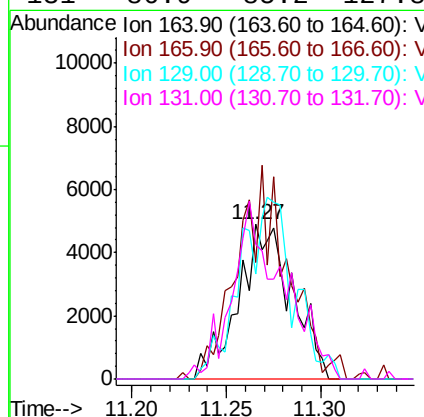
RT: 11.27 min Scan# 2637

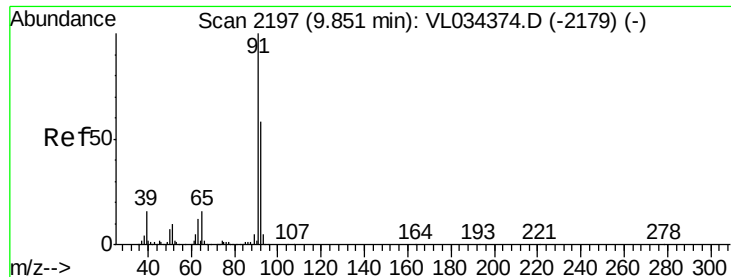
Delta R.T. -0.01 min

Lab File: VL034411.D

Acq: 25 Nov 2019 18:21

Tgt Ion:	164	Resp:	9690
Ion Ratio	Lower	Upper	
164	100		
166	75.4	101.7	152.5#
129	67.7	82.6	123.8#
131	86.9	85.2	127.8





#53

Toluene

Concen: 0.841 ppbv

RT: 9.85 min Scan# 2196

Delta R.T. -0.00 min

Lab File: VL034411.D

Acq: 25 Nov 2019 18:21

Instrument :

MSVOA_L

ClientSampleId :

4

Tot Ion: 91 Resp: 178421

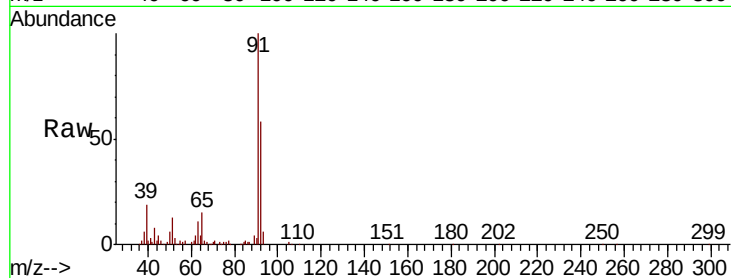
Ion Ratio Lower Upper

91 100

92 60.1 47.9 71.9

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Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0

9.85

100000

80000

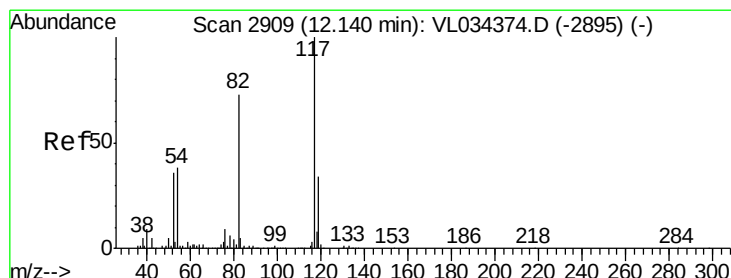
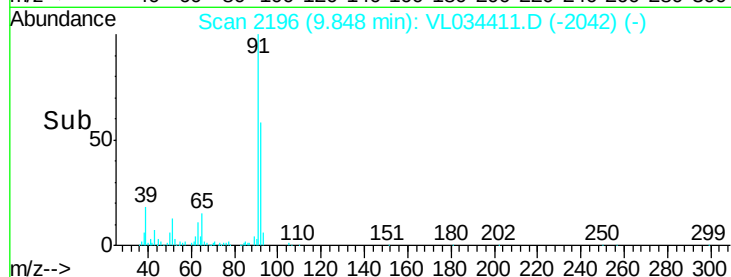
60000

40000

20000

0

Time-->



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.14 min Scan# 2909

Delta R.T. -0.00 min

Lab File: VL034411.D

Acq: 25 Nov 2019 18:21

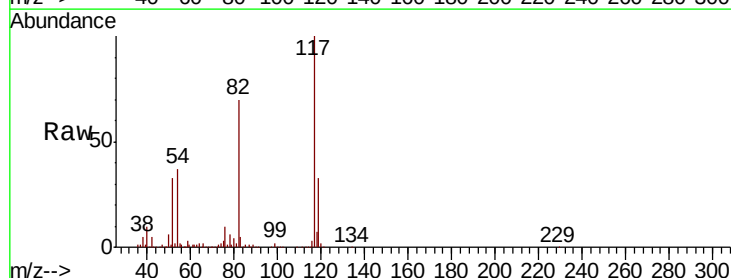
Tgt Ion: 117 Resp: 1825264

Ion Ratio Lower Upper

117 100

82 71.8 57.5 86.3

119 32.7 25.4 38.2



Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V

12.14

1000000

800000

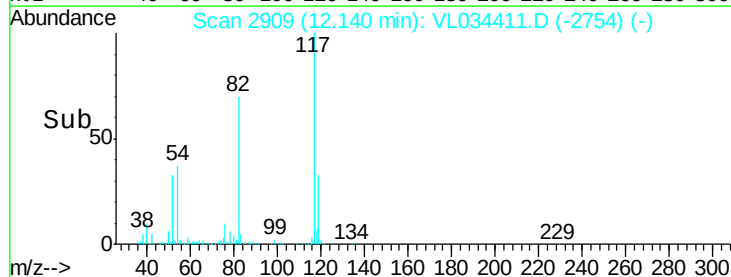
600000

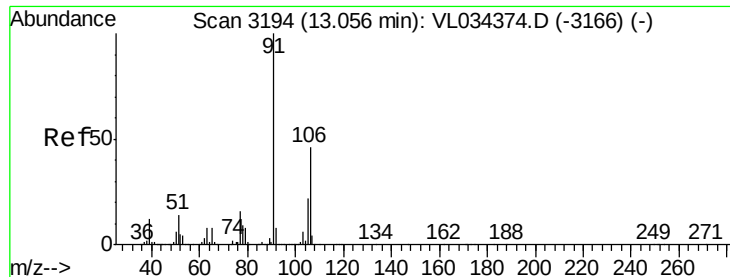
400000

200000

0

Time-->





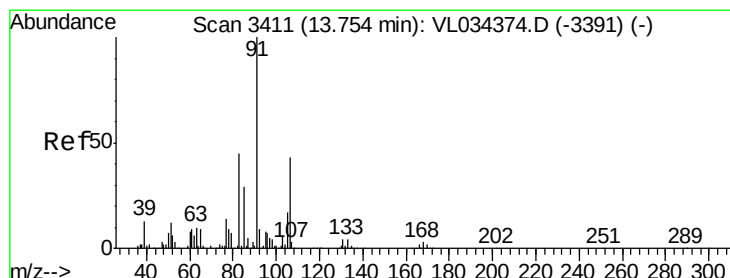
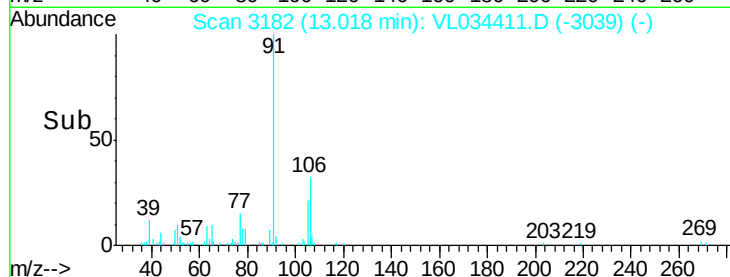
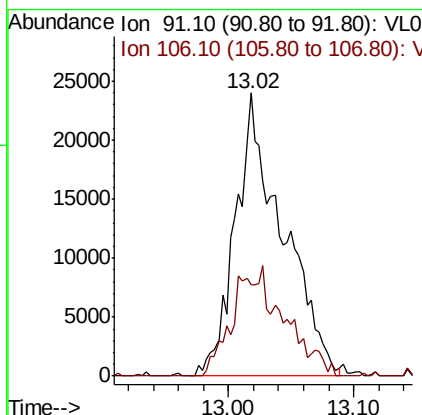
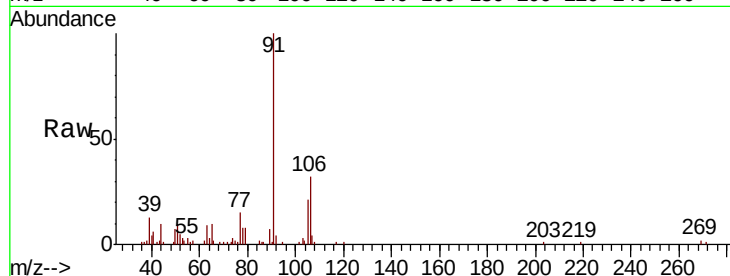
#59
m/p-Xylene
Concen: 0.257 ppbv m
RT: 13.02 min Scan# 3182
Delta R.T. -0.04 min
Lab File: VL034411.D
Acq: 25 Nov 2019 18:21

Instrument :
MSVOA_L
ClientSampled :
4

Tot Ion: 91 Resp: 62879
Ion Ratio Lower Upper
91 100
106 0.0 34.6 51.8#

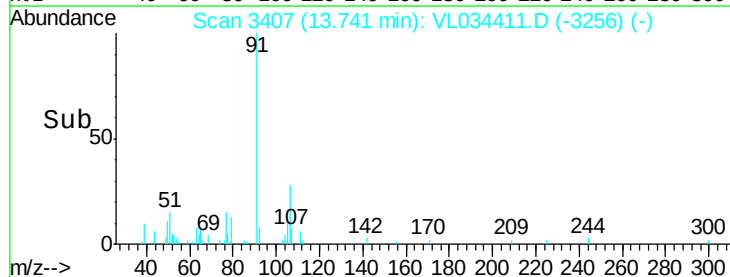
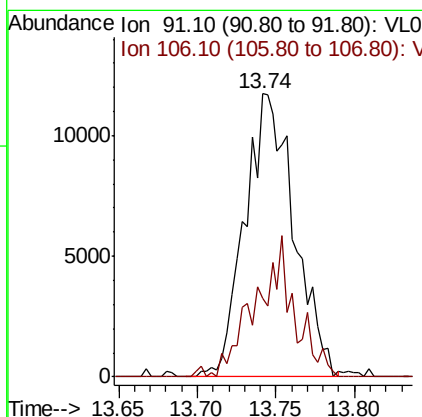
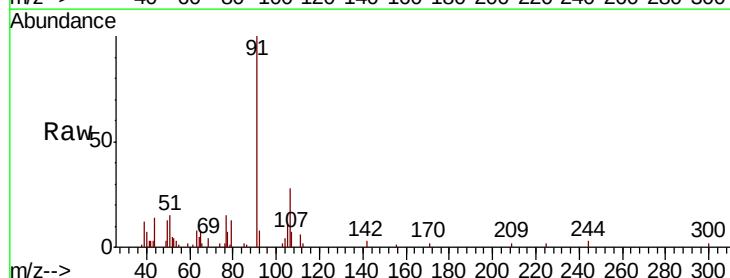
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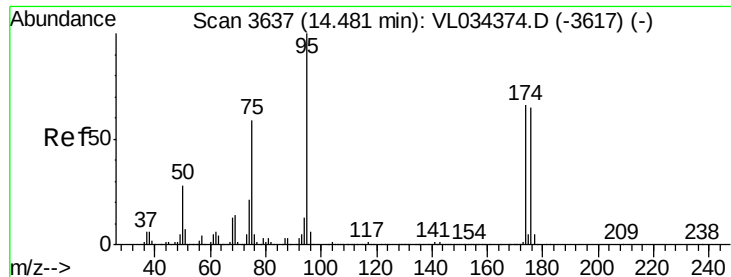
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#60
o-Xylene
Concen: 0.106 ppbv m
RT: 13.74 min Scan# 3407
Delta R.T. -0.01 min
Lab File: VL034411.D
Acq: 25 Nov 2019 18:21

Tgt Ion: 91 Resp: 25711
Ion Ratio Lower Upper
91 100
106 39.4 21.3 64.0





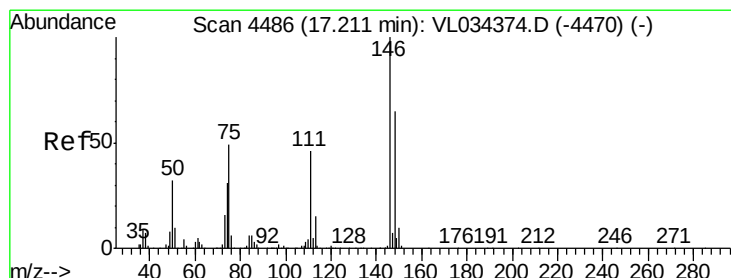
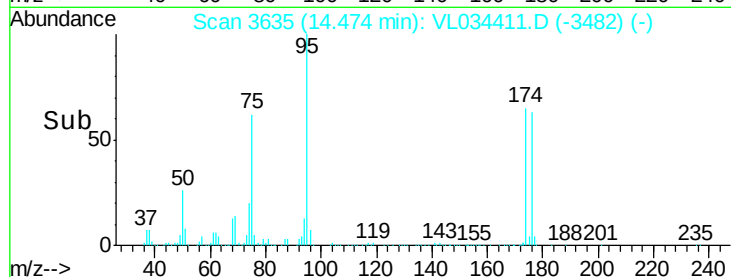
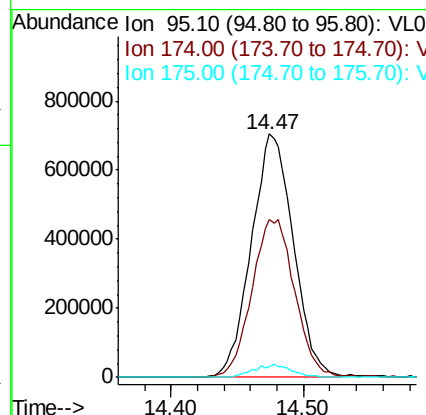
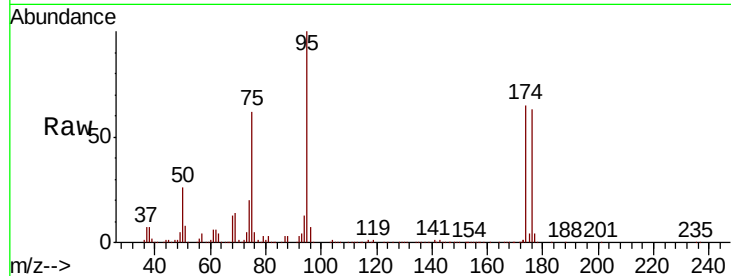
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.119 ppbv
 RT: 14.47 min Scan# 3635
 Delta R.T. -0.01 min
 Lab File: VL034411.D
 Acq: 25 Nov 2019 18:21

Instrument :
 MSVOA_L
 ClientSampled :
 4

Tot Ion: 95 Resp: 1553842
 Ion Ratio Lower Upper
 95 100
 174 66.5 52.2 78.2
 175 4.8 3.8 5.8

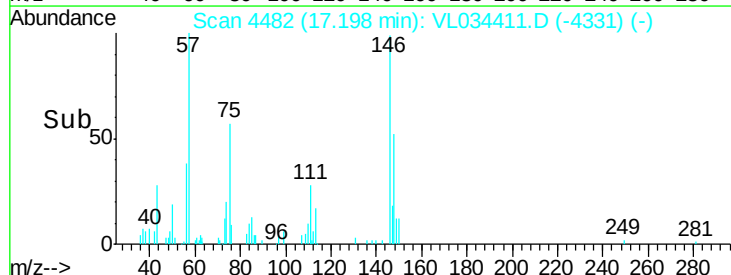
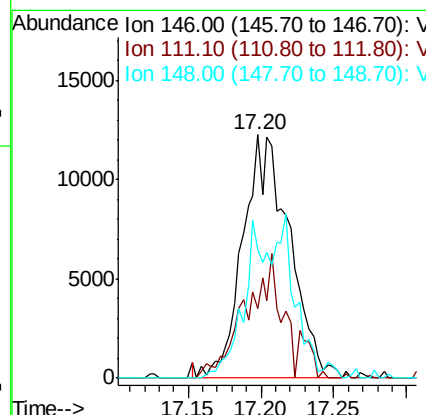
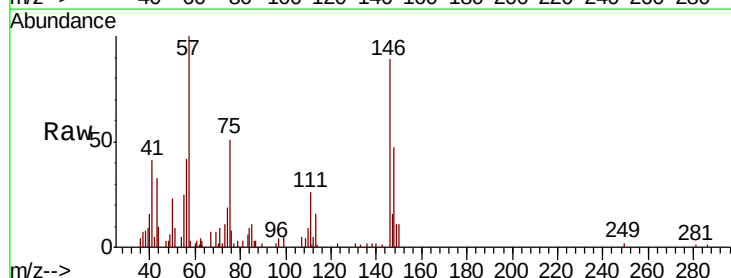
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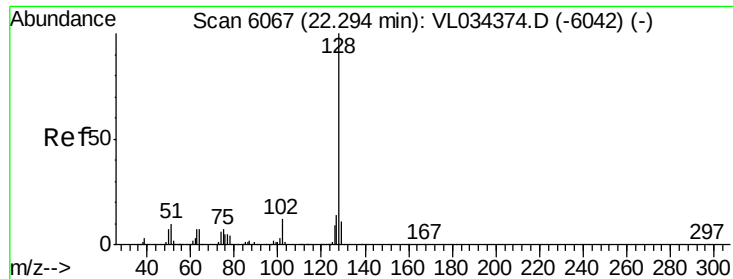
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#76
 1,4-Dichlorobenzene
 Concen: 0.167 ppbv m
 RT: 17.20 min Scan# 4482
 Delta R.T. -0.01 min
 Lab File: VL034411.D
 Acq: 25 Nov 2019 18:21

Tgt Ion: 146 Resp: 27186
 Ion Ratio Lower Upper
 146 100
 111 44.0 24.1 72.3
 148 0.0 32.9 98.6#





#79

Naphthalene

Concen: 0.181 ppbv m

RT: 22.29 min Scan# 6065

Delta R.T. -0.01 min

Lab File: VL034411.D

Acq: 25 Nov 2019 18:21

Instrument :

MSVOA_L

ClientSampleId :

4

Tot Ion:	128	Resp:	45560
Ion Ratio		Lower	Upper
128	100		
127	9.3	11.0	16.6#
129	6.3	8.9	13.3#

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