

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL123019\
 Data File : VL034535.D
 Acq On : 31 Dec 2019 6:25
 Operator : SY/AP
 Sample : K6470-04
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 29-2

Manual Integrations
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Quant Time: Jan 01 13:03:45 2020

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL123019AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Dec 31

QLast Update : Mon Dec 30 14:58:50 2019

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	926437	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.19	114	1859403	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.13	117	1828207	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.47	95	1570262	10.29	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	102.90%

Target Compounds

						Ovalue
2) Dichlorodifluoromethane	3.02	85	93466m	0.640	ppbv	
3) Chlorodifluoromethane	2.96	51	69543m	0.630	ppbv	
4) Chloromethane	3.11	50	34112	0.520	ppbv #	80
9) Propene	2.99	41	160206m	3.765	ppbv	
10) Heptane	8.15	43	23168m	0.211	ppbv	
11) Trichlorofluoromethane	3.94	101	41209	0.244	ppbv #	81
13) Ethanol	3.60	45	4630097	392.117	ppbv	98
15) Acetone	3.83	43	1189266m	8.796	ppbv	
17) tert-Butyl alcohol	4.30	59	98664m	0.911	ppbv	
20) Methylene Chloride	4.34	84	22491m	0.423	ppbv	
26) Hexane	5.69	57	37506	0.422	ppbv	90
34) 2-Butanone	5.25	43	117691	0.886	ppbv	98
35) Carbon Tetrachloride	7.03	117	11441m	0.068	ppbv	
36) Benzene	6.91	78	102525	0.633	ppbv #	91
44) 2,2,4-Trimethylpentane	7.89	57	80316	0.268	ppbv #	72
50) 4-Methyl-2-Pentanone	8.78	43	124614	0.646	ppbv	99
52) Tetrachloroethene	11.26	164	3512m	0.056	ppbv	
53) Toluene	9.84	91	307200	1.725	ppbv	99
58) Ethyl Benzene	12.76	91	112628m	0.457	ppbv	
59) m/p-Xylene	13.01	91	392860m	1.822	ppbv	
60) o-Xylene	13.73	91	73667m	0.341	ppbv	
64) n-propylbenzene	15.62	120	14694m	0.203	ppbv	
65) tert-Butylbenzene	16.82	119	37689m	0.147	ppbv	
72) 4-Ethyltoluene	15.89	105	99346	0.410	ppbv	97
73) 1,3,5-Trimethylbenzene	16.05	105	105012m	0.442	ppbv	
74) 1,2,4-Trimethylbenzene	16.82	105	339916	1.338	ppbv #	67
79) Naphthalene	22.30	128	31853m	0.166	ppbv	

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

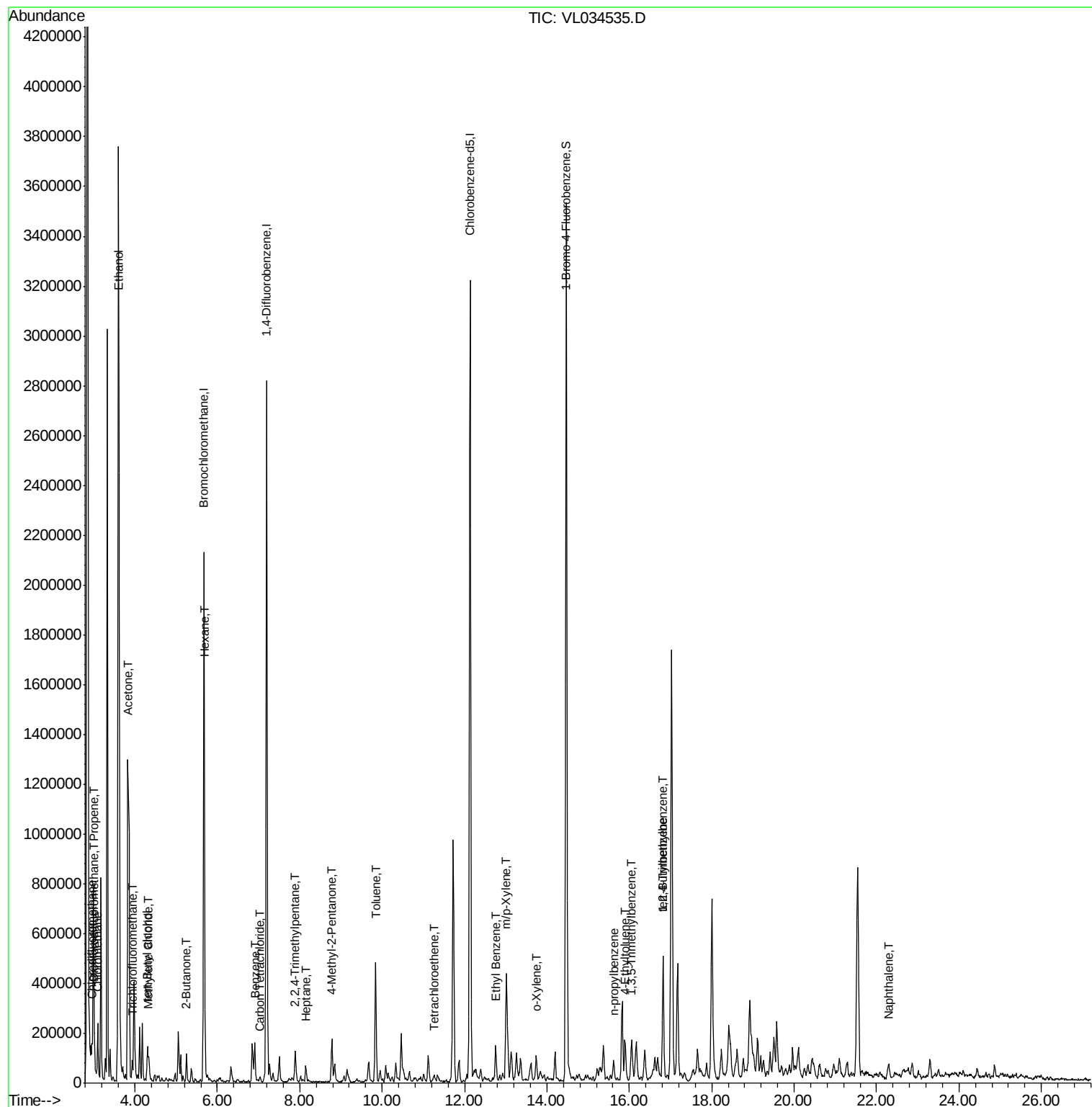
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL123019\
Data File : VL034535.D
Acq On : 31 Dec 2019 6:25
Operator : SY/AP
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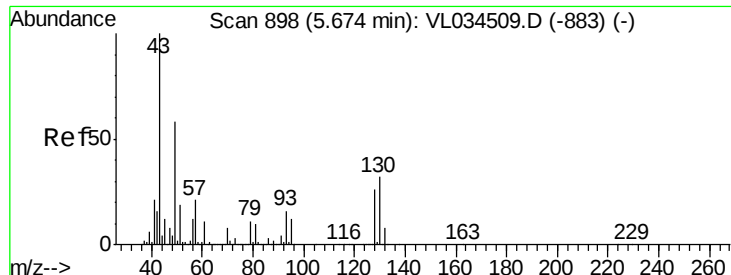
Instrument :
MSVOA_L
ClientSampleId :
29-2

Manual Integrations
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Quant Time: Jan 01 13:03:45 2020
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL123019AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Dec
QLast Update : Mon Dec 30 14:58:50 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 898

Delta R.T. -0.00 min

Lab File: VL034535.D

Acq: 31 Dec 2019 6:25

Instrument :

MSVOA_L

ClientSampled :

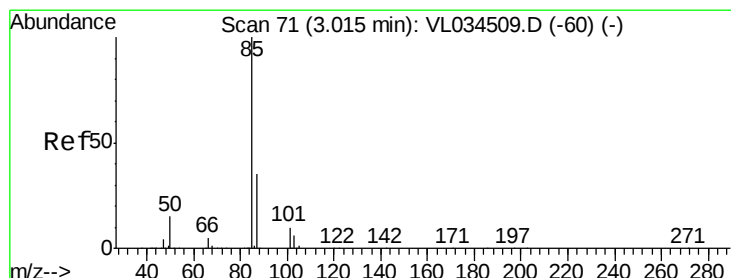
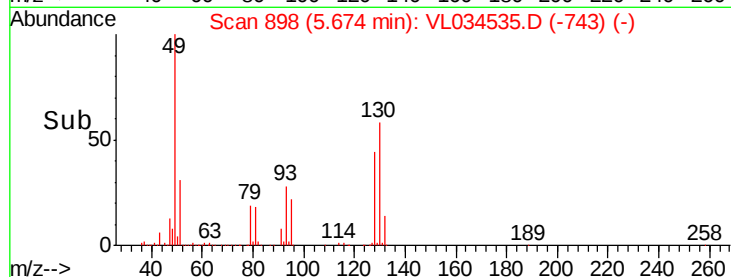
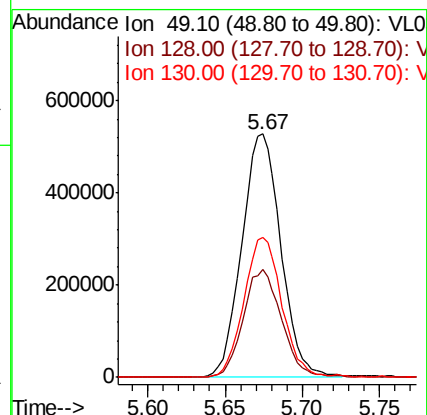
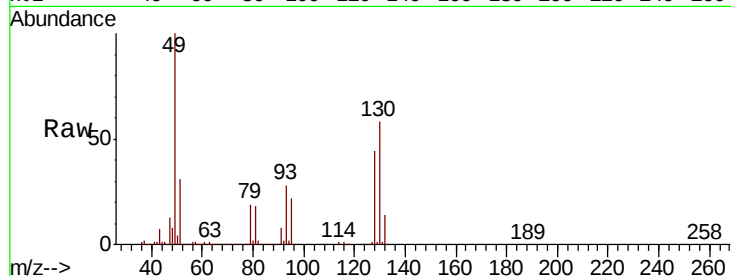
29-2

Tot Ion: 49 Resp: 926437
Ion Ratio Lower Upper

49	100		
128	43.4	22.4	67.2
130	56.6	28.3	85.0

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#2

Dichlorodifluoromethane

Concen: 0.640 ppbv m

RT: 3.02 min Scan# 72

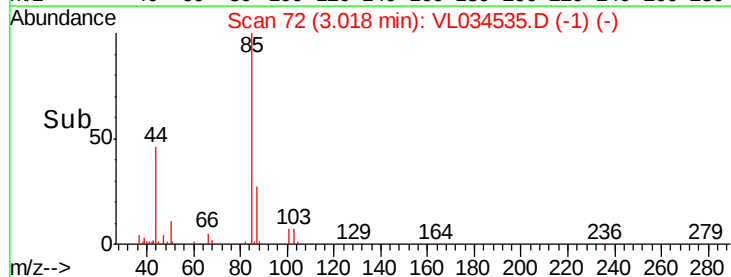
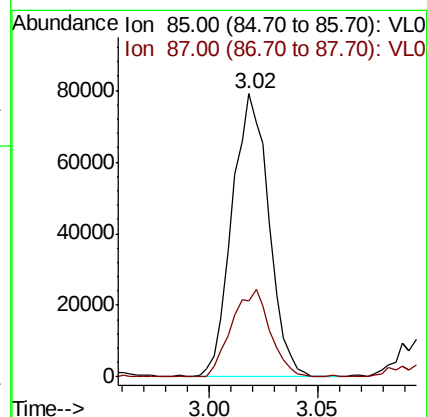
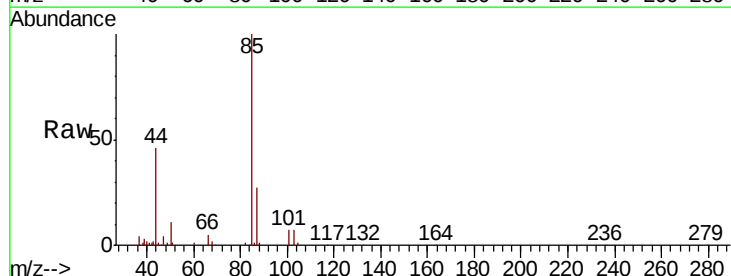
Delta R.T. 0.00 min

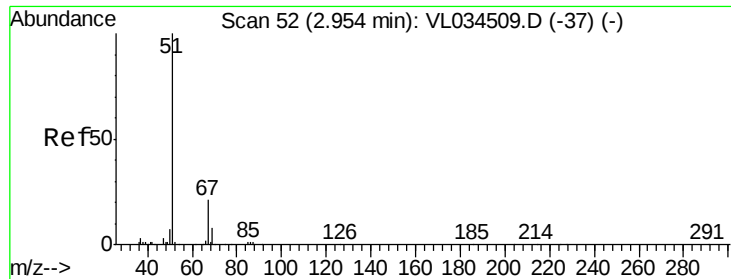
Lab File: VL034535.D

Acq: 31 Dec 2019 6:25

Tgt Ion: 85 Resp: 93466
Ion Ratio Lower Upper

85	100		
87	27.0	27.9	41.9#





#3

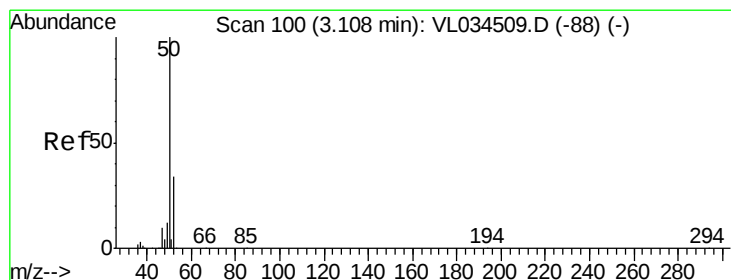
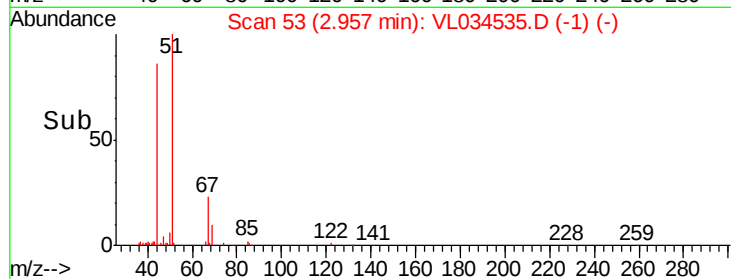
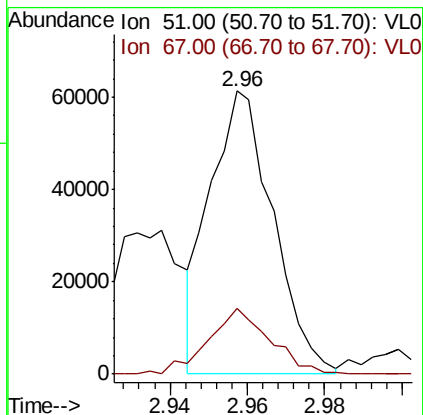
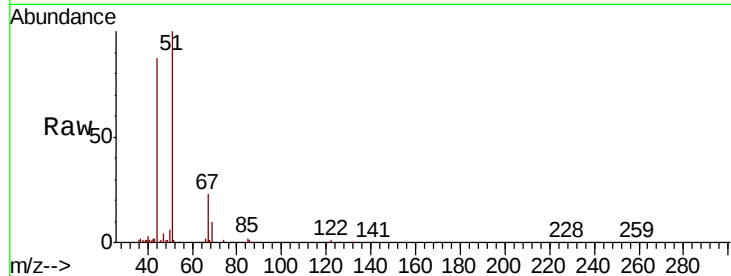
Chlorodifluoromethane
 Concen: 0.630 ppbv
 RT: 2.96 min Scan# 53
 Delta R.T. 0.00 min
 Lab File: VL034535.D
 Acq: 31 Dec 2019 6:25

Instrument :
 MSVOA_L
 ClientSampleId :
 29-2

Tot Ion	Ratio	Lower	Upper
51	100		
67	1.0	16.8	25.2#

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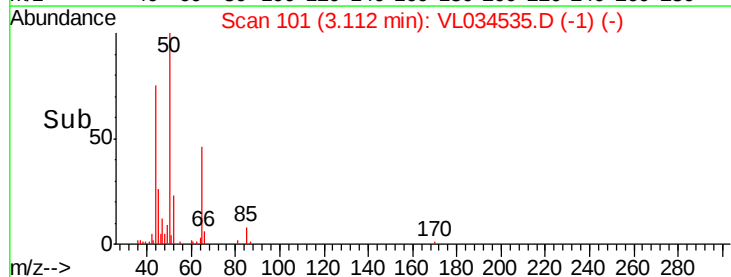
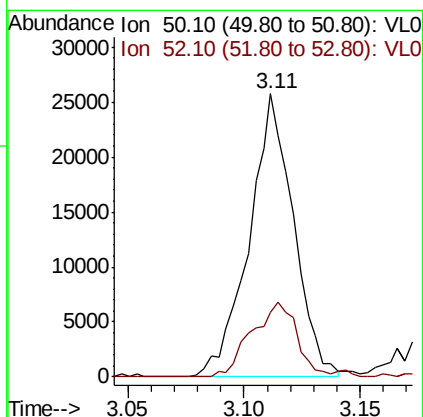
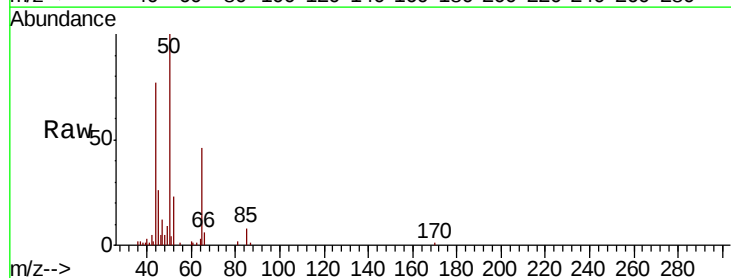
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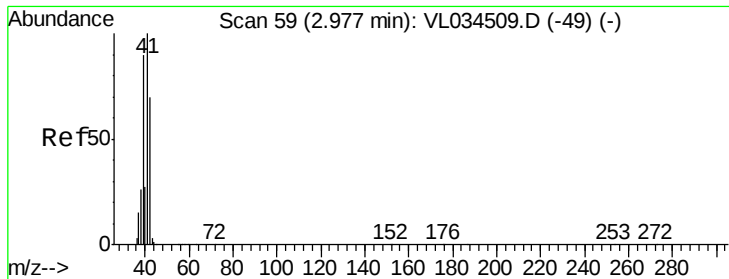


#4

Chloromethane
 Concen: 0.520 ppbv
 RT: 3.11 min Scan# 101
 Delta R.T. 0.00 min
 Lab File: VL034535.D
 Acq: 31 Dec 2019 6:25

Tgt Ion	Ratio	Lower	Upper
50	100		
52	23.2	27.6	41.4#





#9

Propene

Concen: 3.765 ppbv m

RT: 2.99 min Scan# 63

Delta R.T. 0.01 min

Lab File: VL034535.D

Acq: 31 Dec 2019 6:25

Instrument :

MSVOA_L

ClientSampleId :

29-2

Tot Ion: 41 Resp: 160206

Ion Ratio Lower Upper

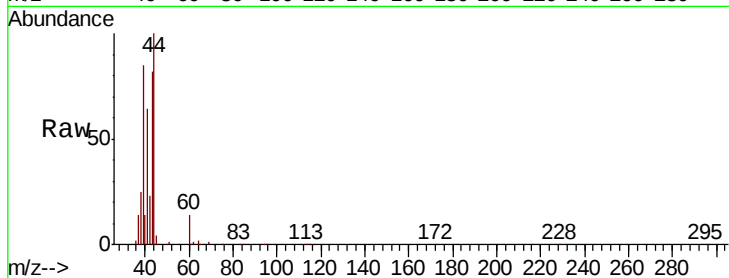
41 100

42 82.5 55.8 83.6

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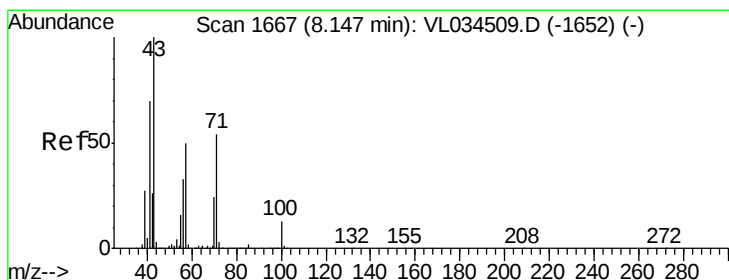
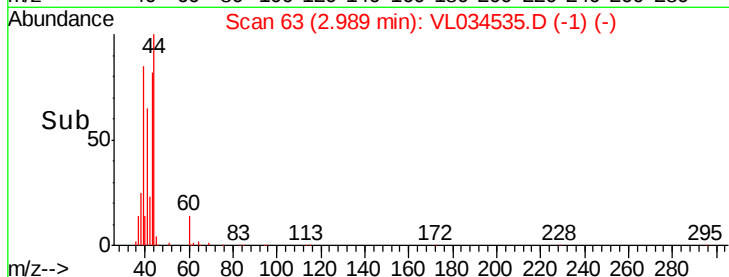
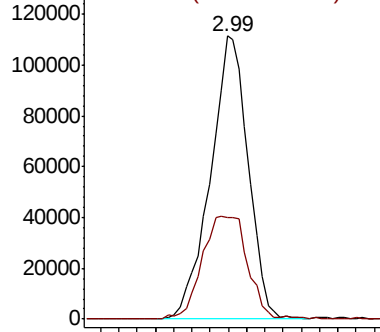
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Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#10

Heptane

Concen: 0.211 ppbv m

RT: 8.15 min Scan# 1668

Delta R.T. 0.00 min

Lab File: VL034535.D

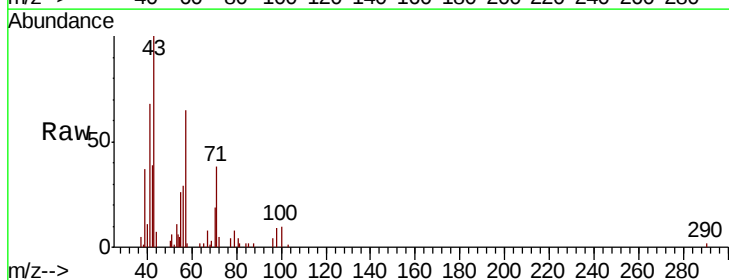
Acq: 31 Dec 2019 6:25

Tgt Ion: 43 Resp: 23168

Ion Ratio Lower Upper

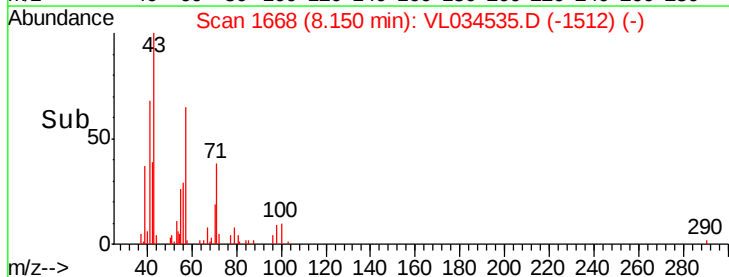
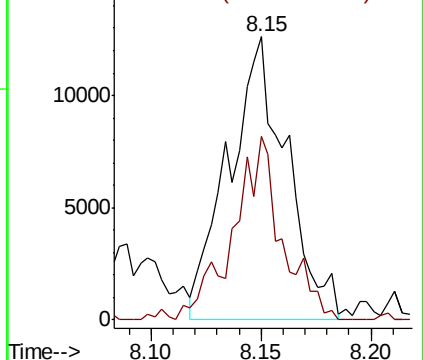
43 100

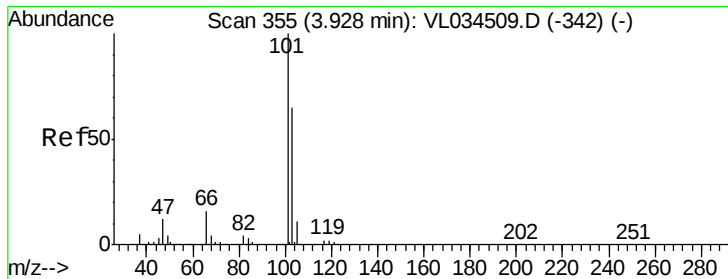
57 54.7 41.0 61.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





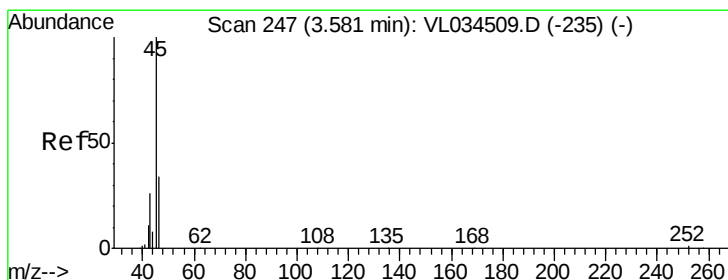
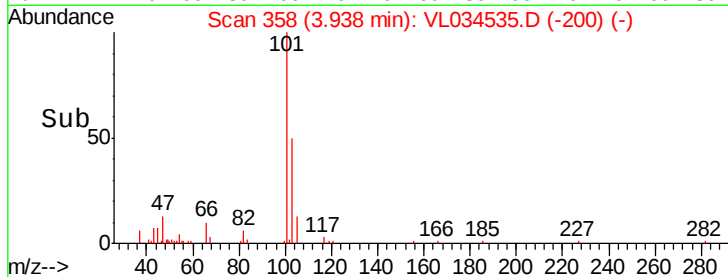
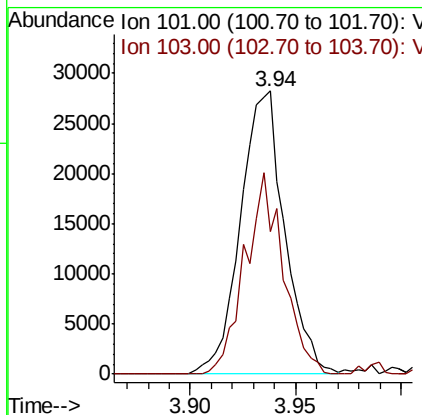
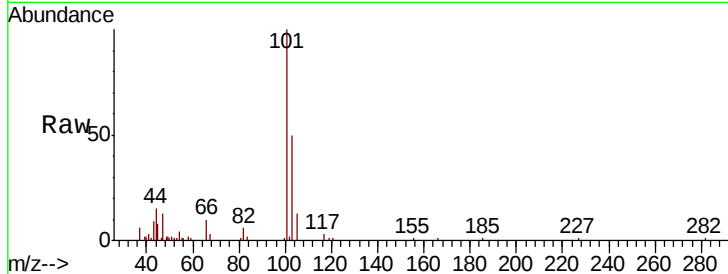
#11
 Trichlorofluoromethane
 Concen: 0.244 ppbv
 RT: 3.94 min Scan# 358
 Delta R.T. 0.01 min
 Lab File: VL034535.D
 Acq: 31 Dec 2019 6:25

Instrument :
 MSVOA_L
 ClientSampled :
 29-2

Tot Ion:101 Resp: 41209
 Ion Ratio Lower Upper
 101 100
 103 50.2 52.1 78.1#

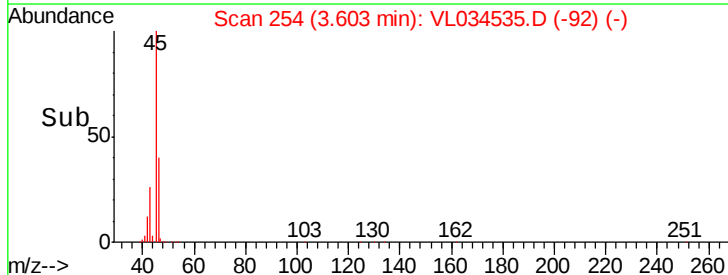
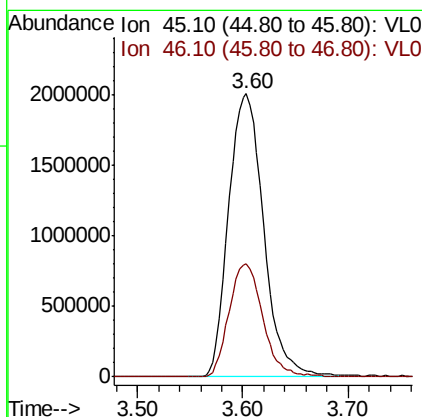
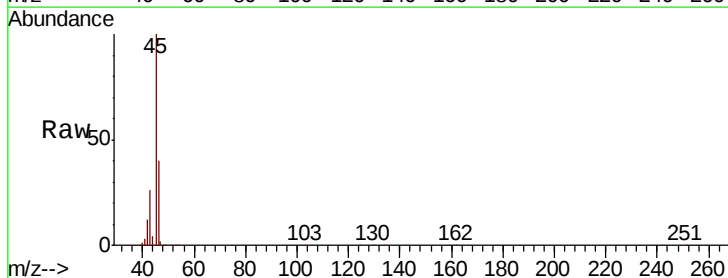
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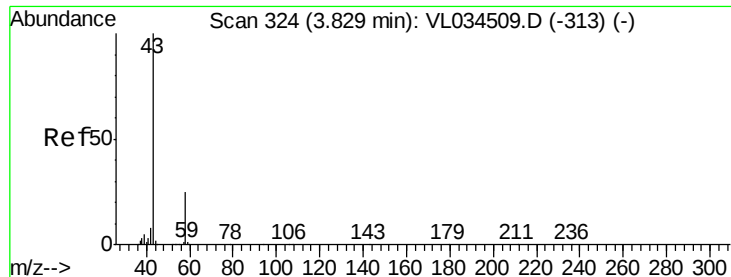
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#13
 Ethanol
 Concen: 392.117 ppbv
 RT: 3.60 min Scan# 254
 Delta R.T. 0.02 min
 Lab File: VL034535.D
 Acq: 31 Dec 2019 6:25

Tgt Ion: 45 Resp: 4630097
 Ion Ratio Lower Upper
 45 100
 46 38.8 14.9 59.7





#15

Acetone

Concen: 8.796 ppbv m

RT: 3.83 min Scan# 324

Delta R.T. -0.00 min

Lab File: VL034535.D

Acq: 31 Dec 2019 6:25

Instrument :

MSVOA_L

ClientSampled :

29-2

Tot Ion: 43 Resp: 1189266

Ion Ratio Lower Upper

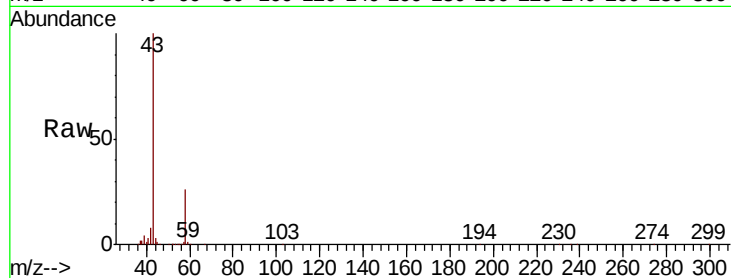
43 100

58 27.9 20.4 30.6

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Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

800000

600000

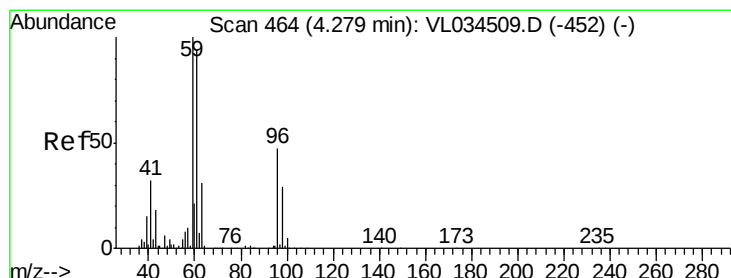
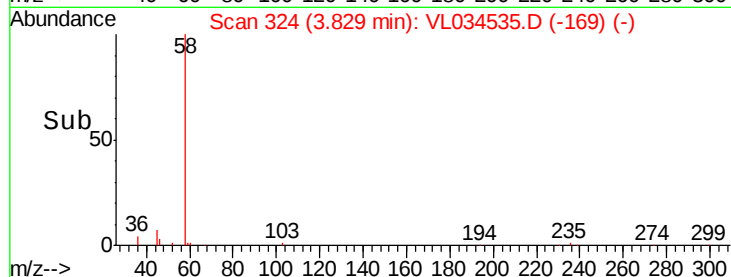
400000

200000

0

3.80 3.82 3.84 3.86

Time-->



#17

tert-Butyl alcohol

Concen: 0.911 ppbv m

RT: 4.30 min Scan# 472

Delta R.T. 0.03 min

Lab File: VL034535.D

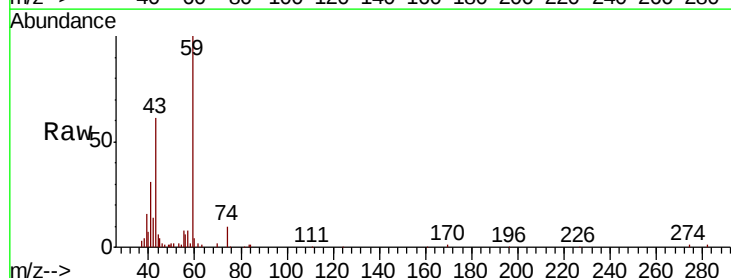
Acq: 31 Dec 2019 6:25

Tgt Ion: 59 Resp: 98664

Ion Ratio Lower Upper

59 100

57 0.0 8.6 12.8#



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0

50000

40000

30000

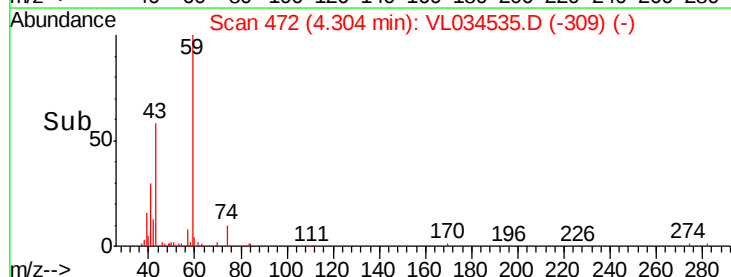
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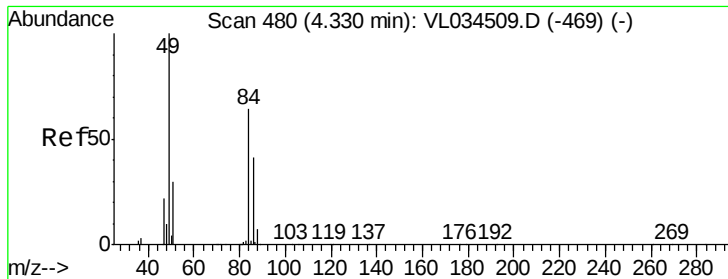
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0

4.25 4.30 4.35

Time-->





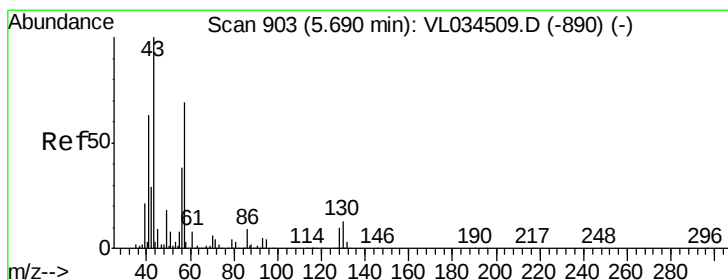
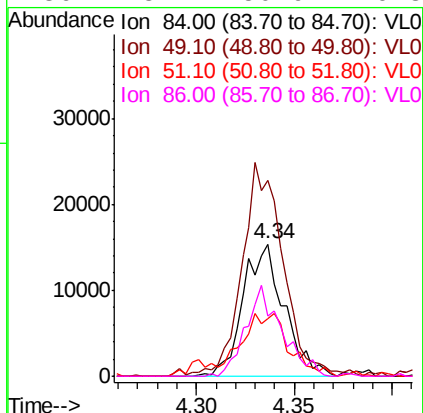
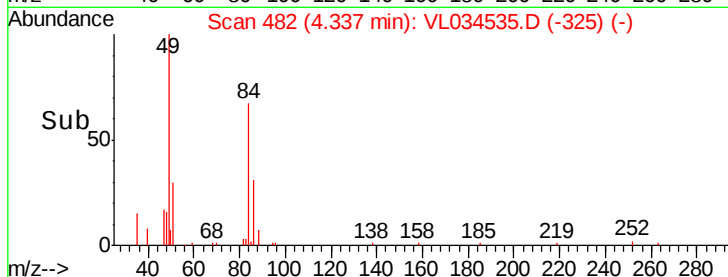
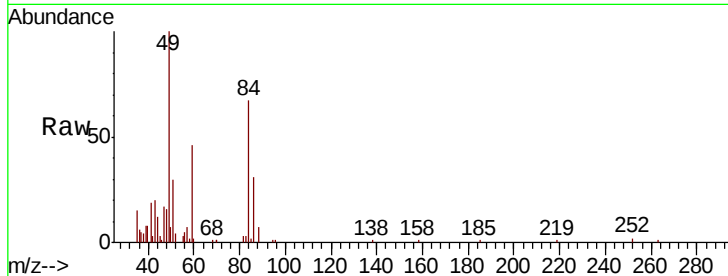
#20
Methvlene Chloride
Concen: 0.423 ppbv m
RT: 4.34 min Scan# 482
Delta R.T. 0.01 min
Lab File: VL034535.D
Acq: 31 Dec 2019 6:25

Instrument :
MSVOA_L
ClientSampled :
29-2

Tot Ion:	84	Resp:	22491
Ion Ratio	Lower	Upper	
84	100		
49	148.4	124.4	186.6
51	44.1	37.0	55.6
86	45.7	50.9	76.3#

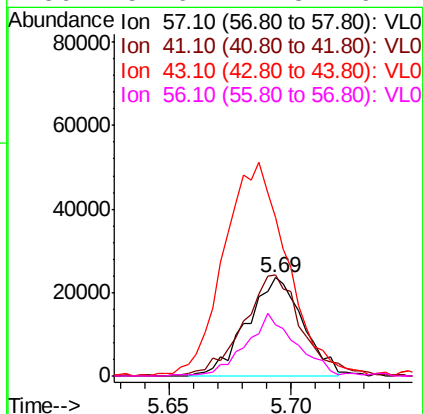
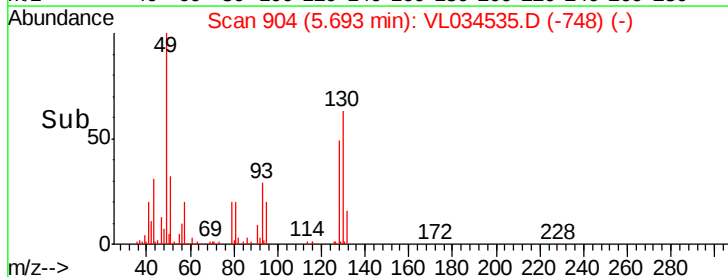
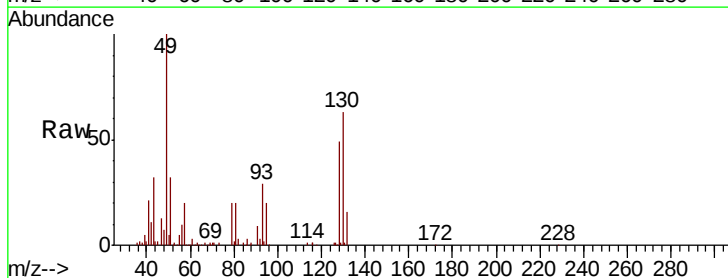
Manual Integrations
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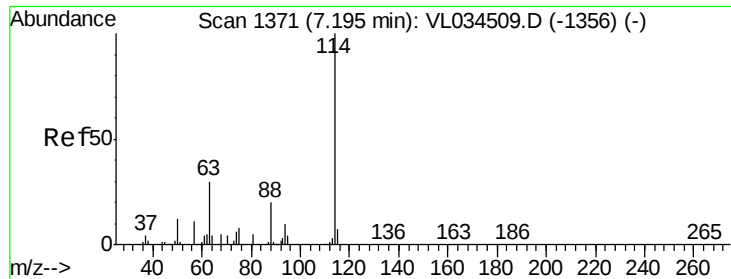
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#26
Hexane
Concen: 0.422 ppbv
RT: 5.69 min Scan# 904
Delta R.T. 0.00 min
Lab File: VL034535.D
Acq: 31 Dec 2019 6:25

Tgt Ion:	57	Resp:	37506
Ion Ratio	Lower	Upper	
57	100		
41	108.5	75.3	112.9
43	251.7	189.4	284.2
56	57.6	42.8	64.2





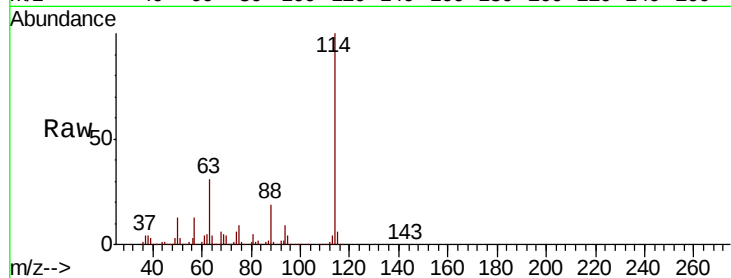
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.19 min Scan# 1371
 Delta R.T. -0.00 min
 Lab File: VL034535.D
 Acq: 31 Dec 2019 6:25

Instrument :
 MSVOA_L
 ClientSampled :
 29-2

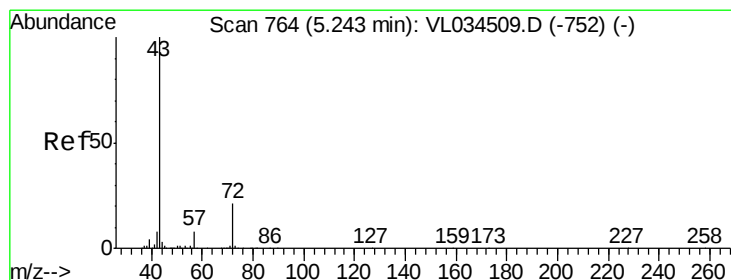
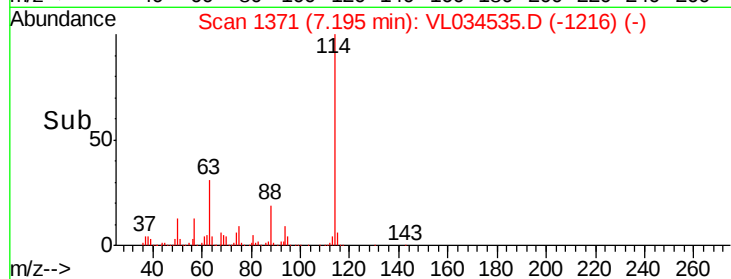
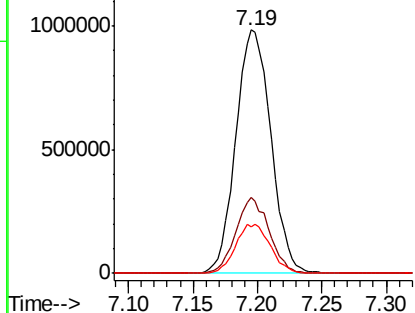
Tot Ion	Ratio	Lower	Upper
114	100		
63	29.6	24.1	36.1
88	19.9	15.7	23.5

Manual Integrations
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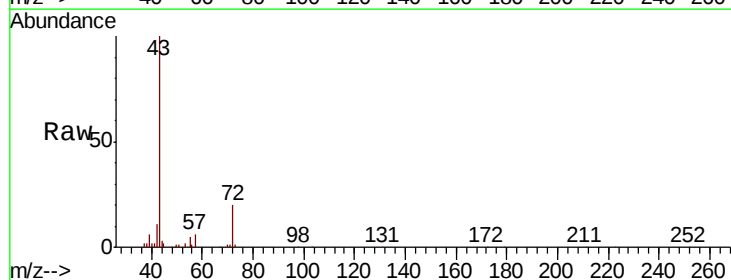


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

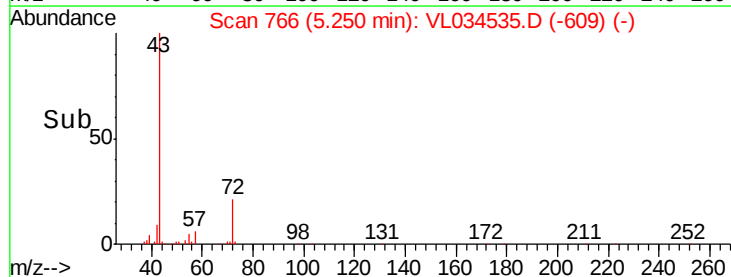
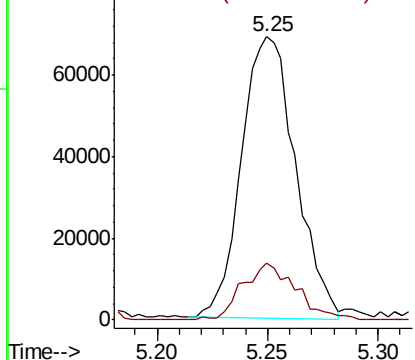


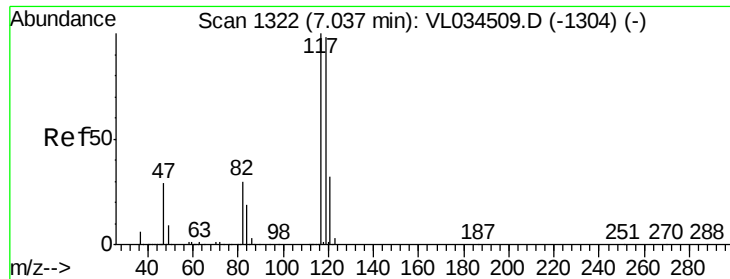
#34
 2-Butanone
 Concen: 0.886 ppbv
 RT: 5.25 min Scan# 766
 Delta R.T. 0.01 min
 Lab File: VL034535.D
 Acq: 31 Dec 2019 6:25

Tgt Ion	Ratio	Lower	Upper
43	100		
72	20.1	17.0	25.4



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





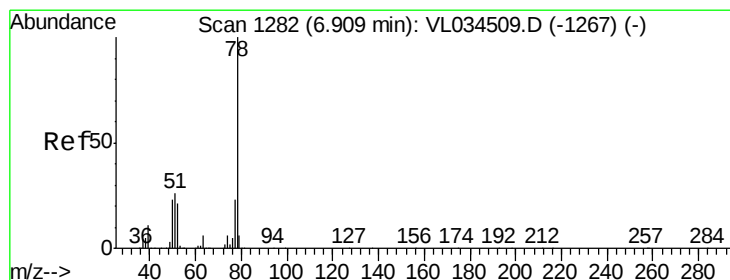
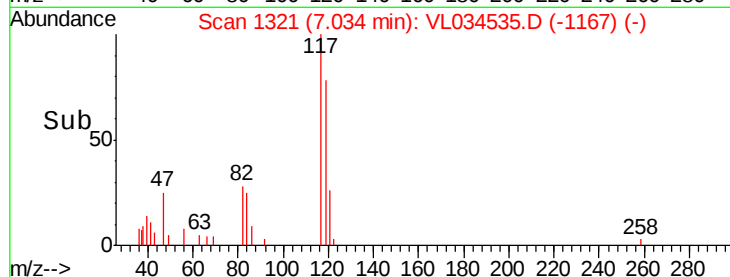
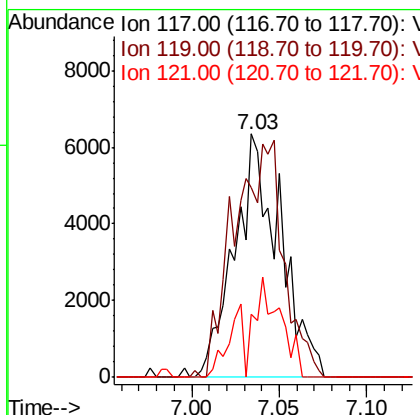
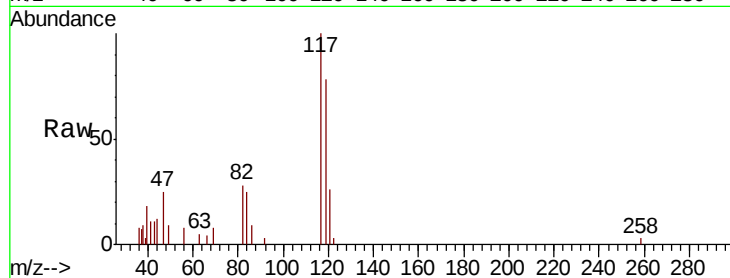
#35
Carbon Tetrachloride
Concen: 0.068 ppbv m
RT: 7.03 min Scan# 1321
Delta R.T. -0.00 min
Lab File: VL034535.D
Acq: 31 Dec 2019 6:25

Instrument :
MSVOA_L
ClientSampled :
29-2

Tot Ion	Ratio	Lower	Upper
117	100		
119	78.0	78.7	118.1#
121	26.1	25.9	38.9

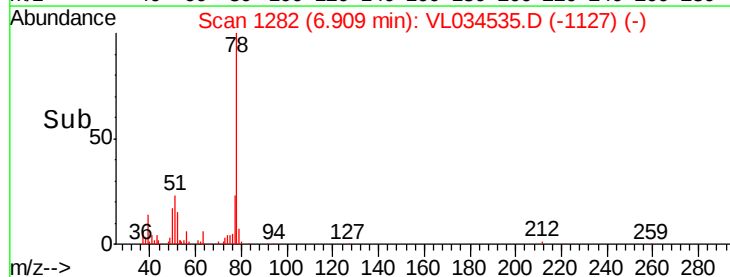
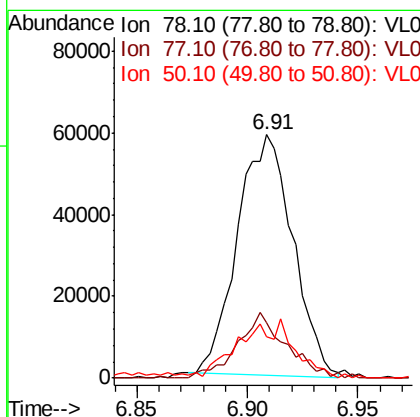
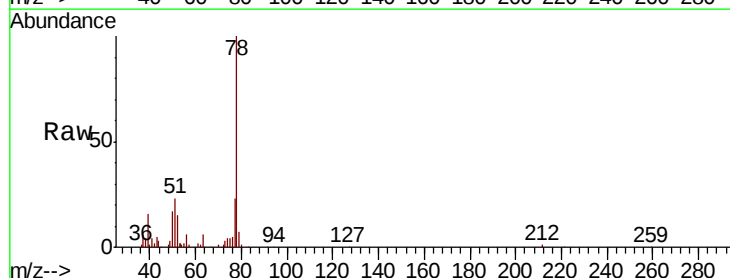
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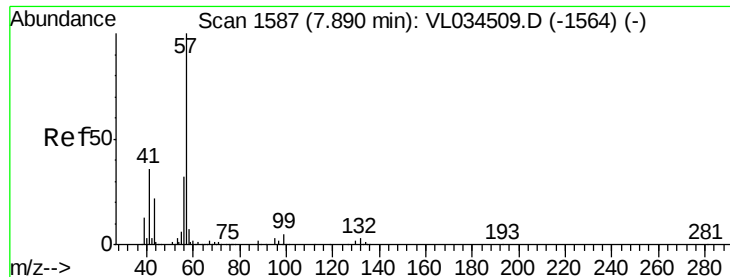
apatel
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#36
Benzene
Concen: 0.633 ppbv
RT: 6.91 min Scan# 1282
Delta R.T. -0.00 min
Lab File: VL034535.D
Acq: 31 Dec 2019 6:25

Tgt Ion	Ratio	Lower	Upper
78	100		
77	21.6	18.6	28.0
50	16.8	18.8	28.2#





#44

2,2,4-Trimethylpentane

Concen: 0.268 ppbv

RT: 7.89 min Scan# 1587

Delta R.T. -0.00 min

Lab File: VL034535.D

Acq: 31 Dec 2019 6:25

Instrument :

MSVOA_L

ClientSampled :

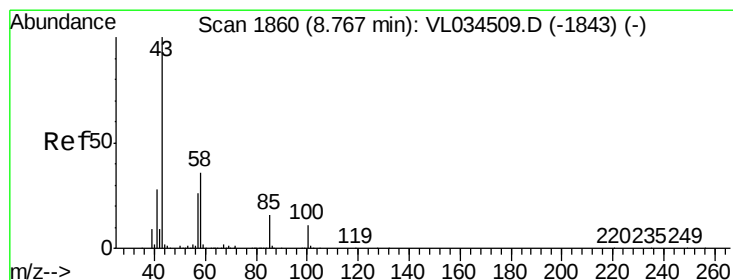
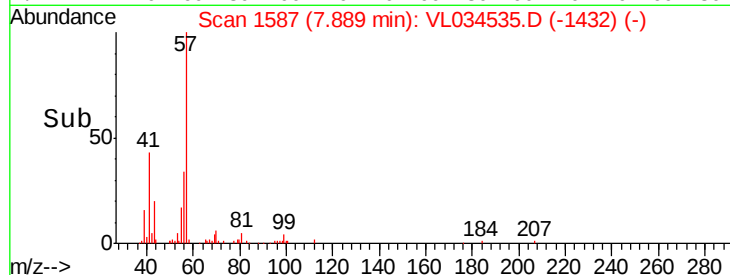
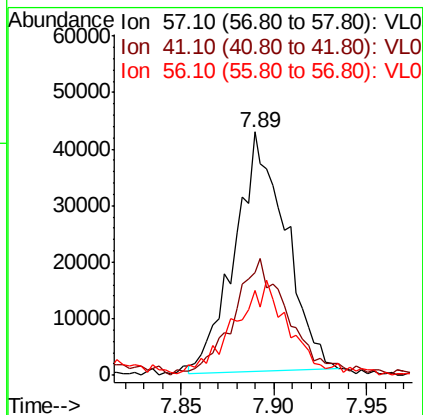
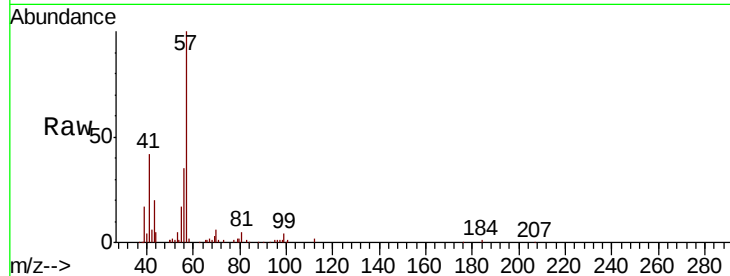
29-2

Tot Ion:	57	Resp:	80316
Ion Ratio		Lower	Upper
57	100		
41	53.6	29.0	43.4#
56	45.3	24.9	37.3#

Manual Integrations
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apatel

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#50

4-Methyl-2-Pentanone

Concen: 0.646 ppbv

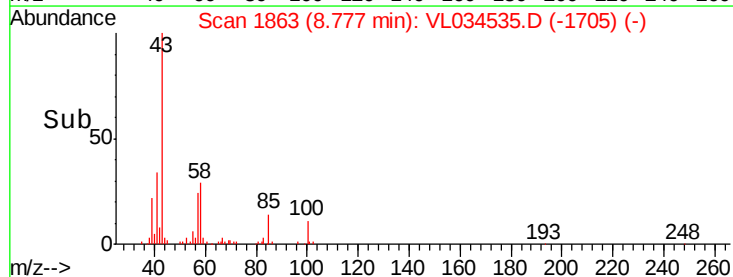
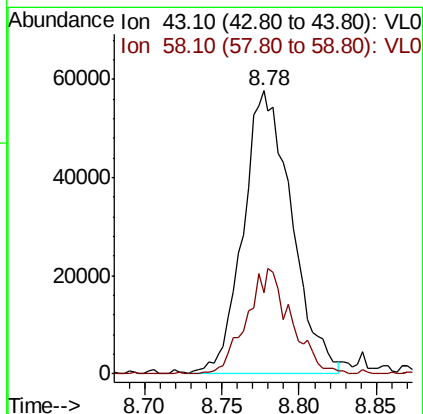
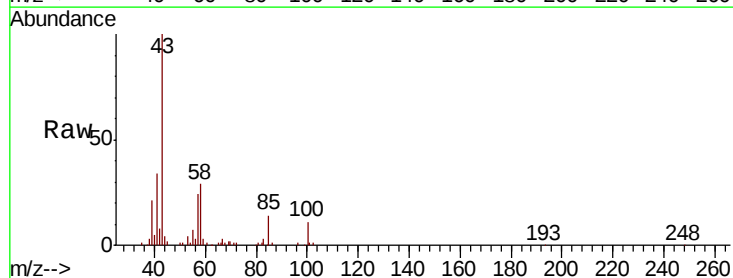
RT: 8.78 min Scan# 1863

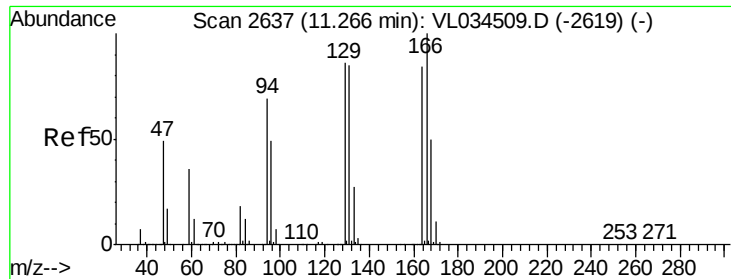
Delta R.T. 0.01 min

Lab File: VL034535.D

Acq: 31 Dec 2019 6:25

Tgt Ion:	43	Resp:	124614
Ion Ratio		Lower	Upper
43	100		
58	34.6	28.2	42.2





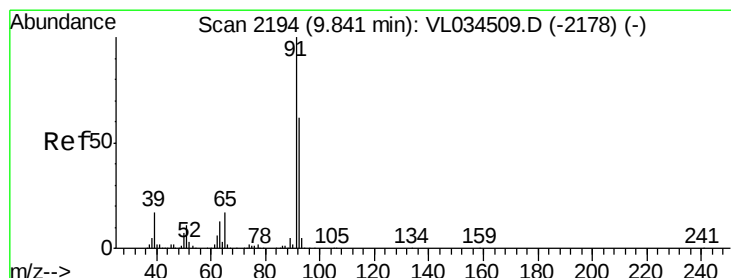
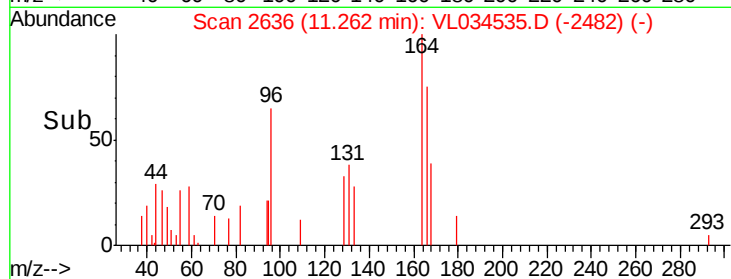
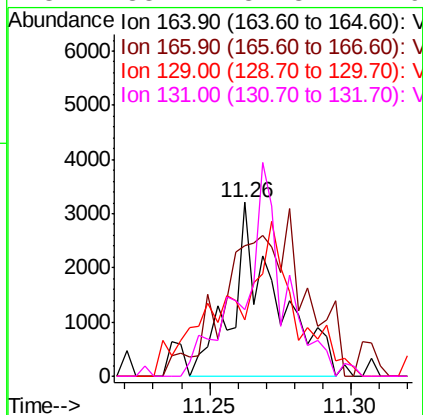
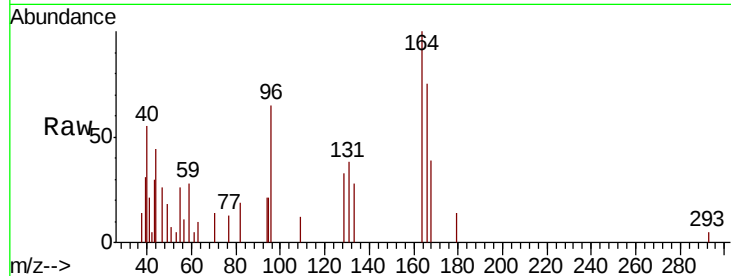
#52
Tetrachloroethene
Concen: 0.056 ppbv m
RT: 11.26 min Scan# 2636
Delta R.T. -0.00 min
Lab File: VL034535.D
Acq: 31 Dec 2019 6:25

Instrument :
MSVOA_L
ClientSampled :
29-2

Tot Ion	Ratio	Lower	Upper
164	100		
166	75.0	95.7	143.5#
129	32.7	82.2	123.2#
131	38.2	81.3	121.9#

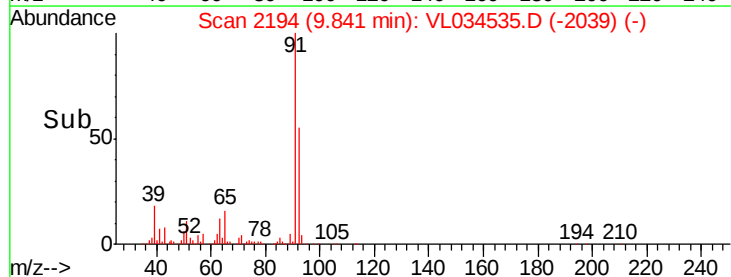
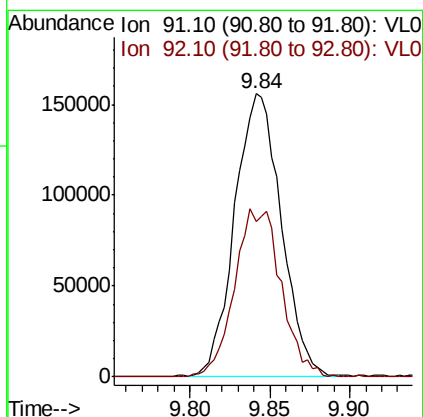
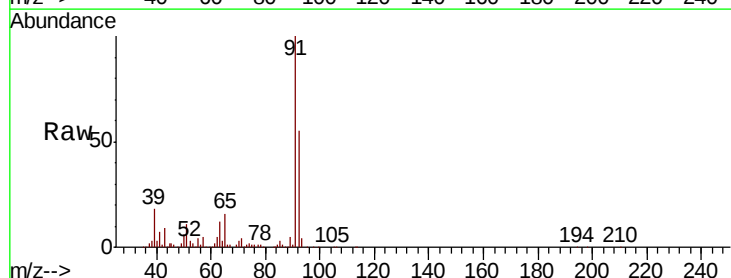
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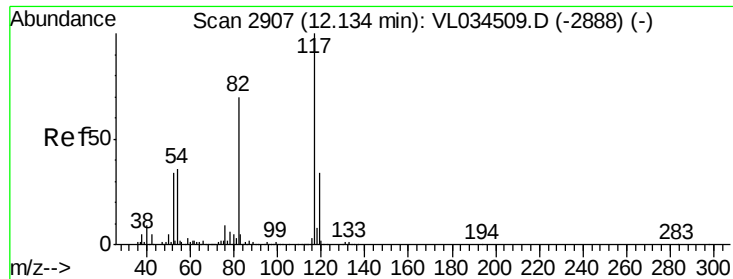
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#53
Toluene
Concen: 1.725 ppbv
RT: 9.84 min Scan# 2194
Delta R.T. -0.00 min
Lab File: VL034535.D
Acq: 31 Dec 2019 6:25

Tgt Ion	Ratio	Lower	Upper
91	100		
92	59.7	48.4	72.6





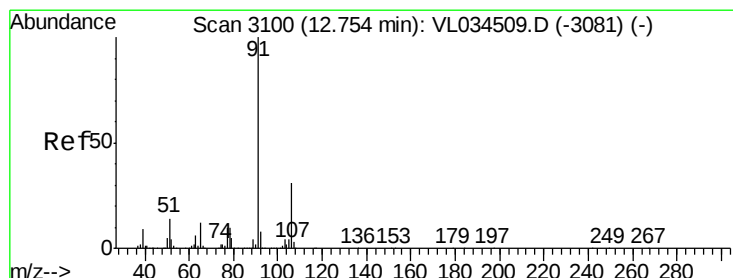
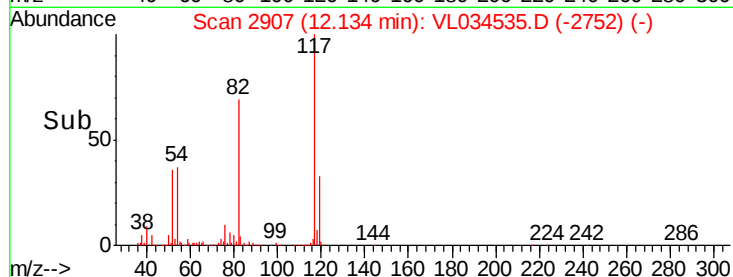
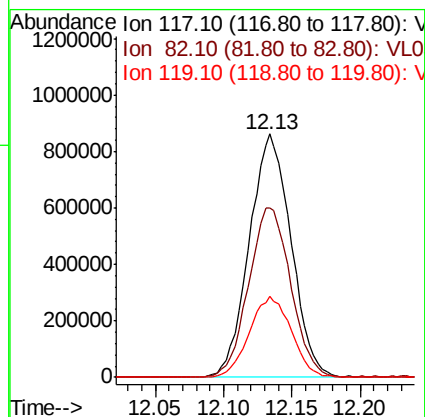
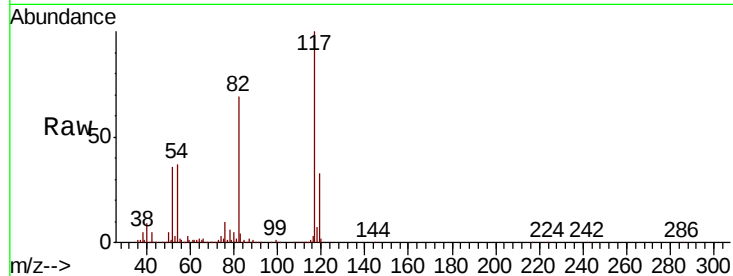
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.13 min Scan# 2907
Delta R.T. -0.00 min
Lab File: VL034535.D
Acq: 31 Dec 2019 6:25

Instrument :
MSVOA_L
ClientSampled :
29-2

Tot Ion	Ratio	Lower	Upper
117	100		
82	70.5	56.2	84.4
119	33.5	27.1	40.7

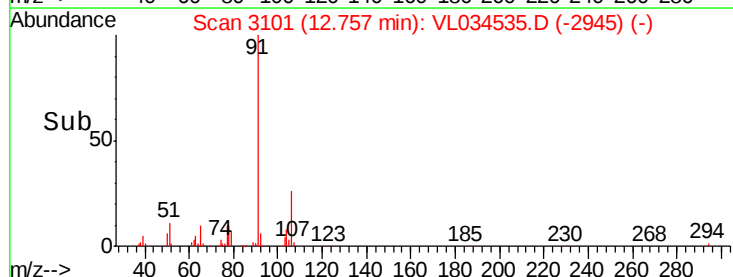
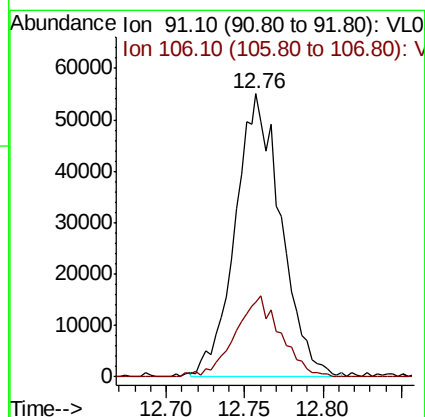
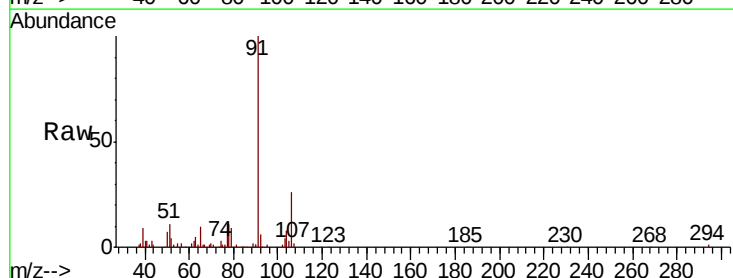
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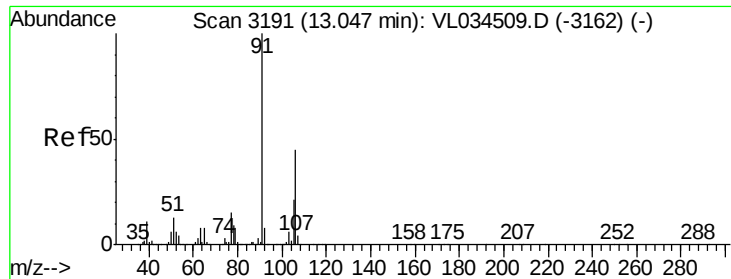
apatel
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#58
Ethyl Benzene
Concen: 0.457 ppbv m
RT: 12.76 min Scan# 3101
Delta R.T. 0.00 min
Lab File: VL034535.D
Acq: 31 Dec 2019 6:25

Tgt Ion	Ratio	Lower	Upper
91	100		
106	26.2	24.6	36.8





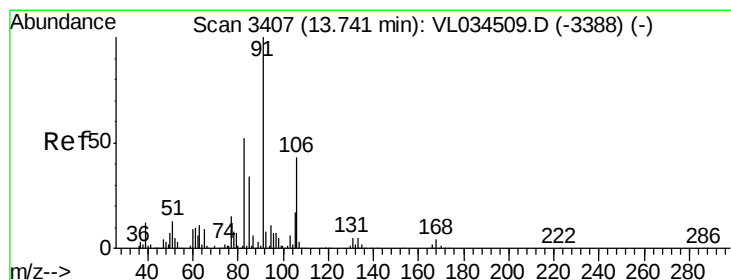
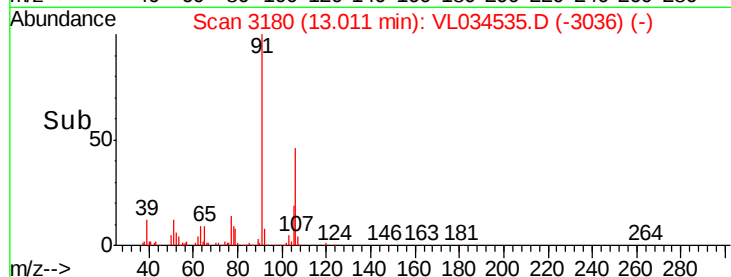
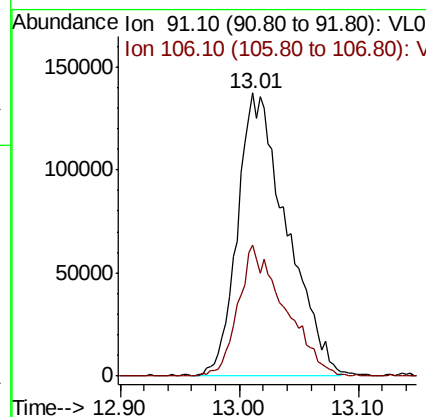
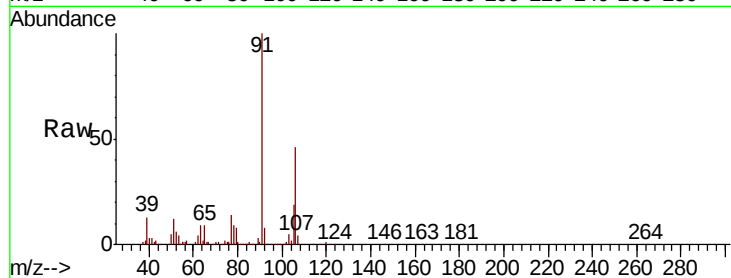
#59
m/p-Xylene
Concen: 1.822 ppbv m
RT: 13.01 min Scan# 3180
Delta R.T. -0.04 min
Lab File: VL034535.D
Acq: 31 Dec 2019 6:25

Instrument :
MSVOA_L
ClientSampled :
29-2

Tot Ion: 91 Resp: 392860
Ion Ratio Lower Upper
91 100
106 0.0 35.6 53.4#

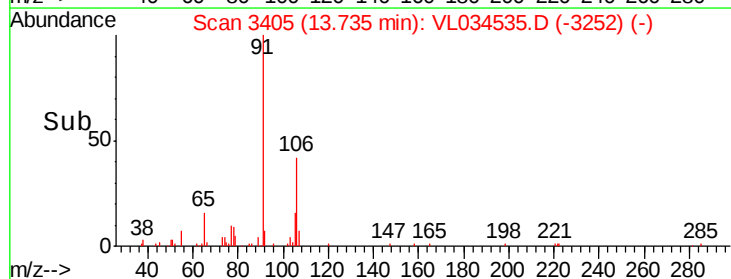
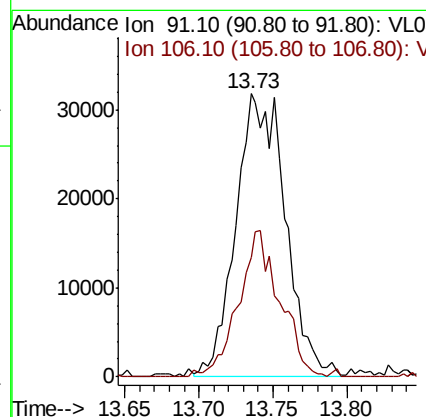
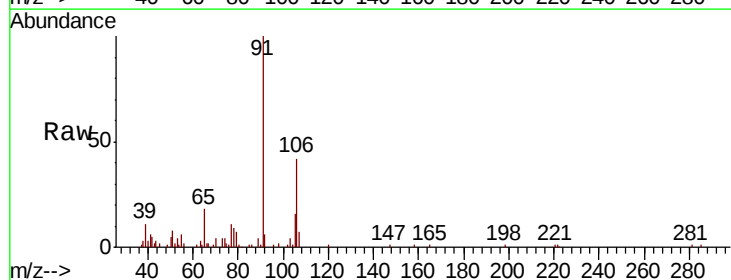
Manual Integrations
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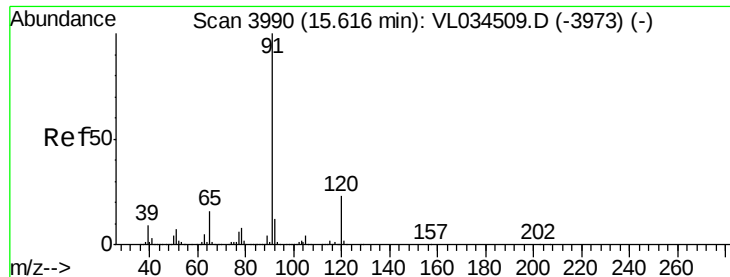
apatel
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#60
o-Xylene
Concen: 0.341 ppbv m
RT: 13.73 min Scan# 3405
Delta R.T. -0.01 min
Lab File: VL034535.D
Acq: 31 Dec 2019 6:25

Tgt Ion: 91 Resp: 73667
Ion Ratio Lower Upper
91 100
106 43.7 21.4 64.3





#64

n-propylbenzene

Concen: 0.203 ppbv m

RT: 15.62 min Scan# 3991

Delta R.T. 0.00 min

Lab File: VL034535.D

Acq: 31 Dec 2019 6:25

Instrument :

MSVOA_L

ClientSampleId :

29-2

Tot Ion:120 Resp: 14694

Ion Ratio Lower Upper

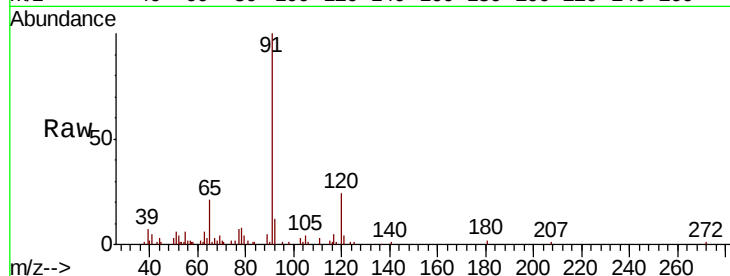
120 100

91 495.8 375.6 563.4

Manual Integrations
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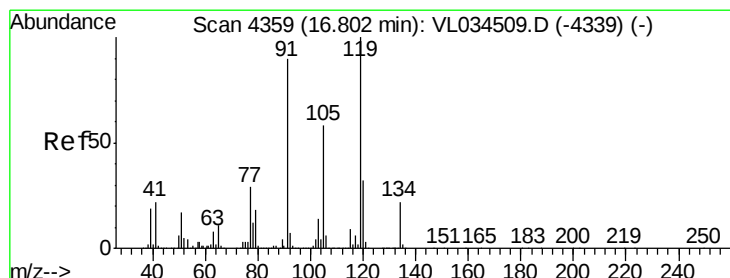
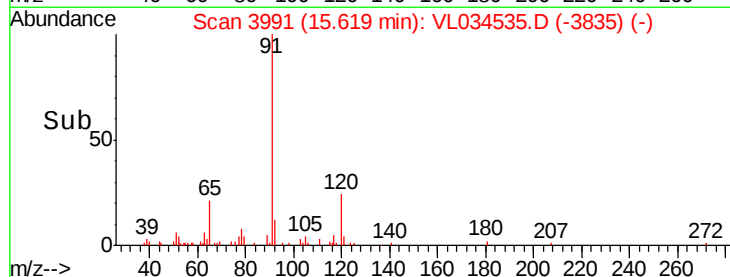
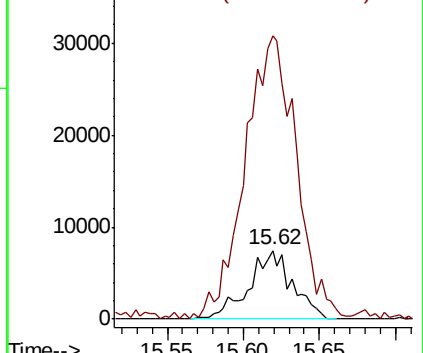
apatel

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Abundance Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0



#65

tert-Butylbenzene

Concen: 0.147 ppbv m

RT: 16.82 min Scan# 4366

Delta R.T. 0.02 min

Lab File: VL034535.D

Acq: 31 Dec 2019 6:25

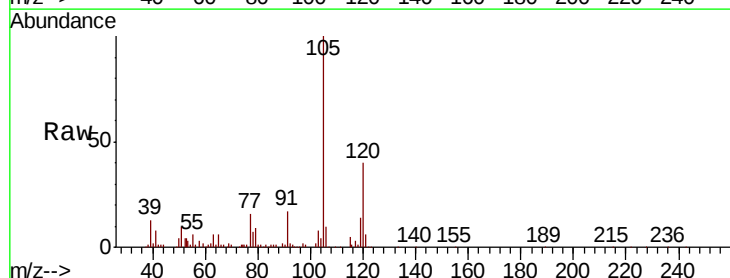
Tgt Ion:119 Resp: 37689

Ion Ratio Lower Upper

119 100

91 0.0 72.0 108.0#

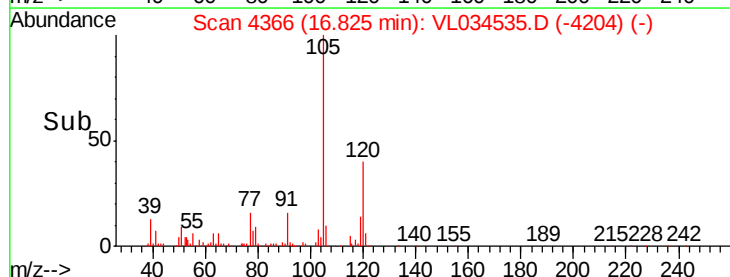
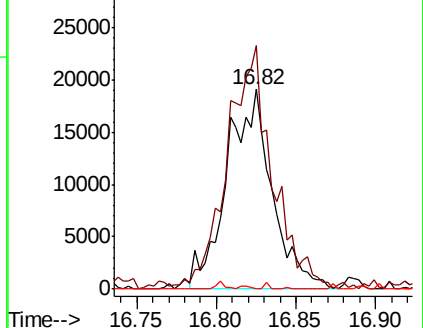
134 0.7 16.1 24.1#

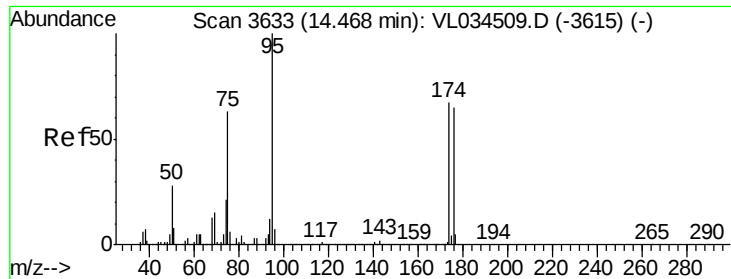


Abundance Ion 119.20 (118.90 to 119.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 134.20 (133.90 to 134.90): V





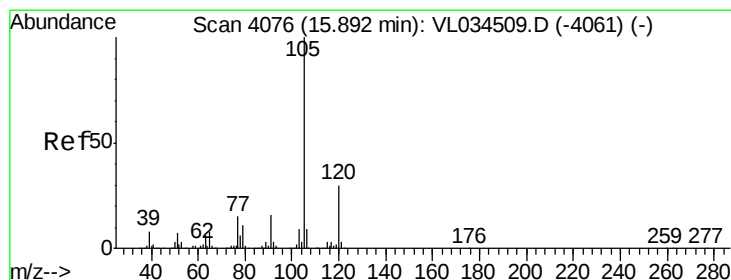
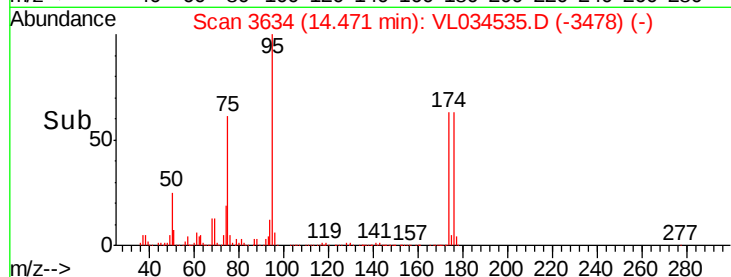
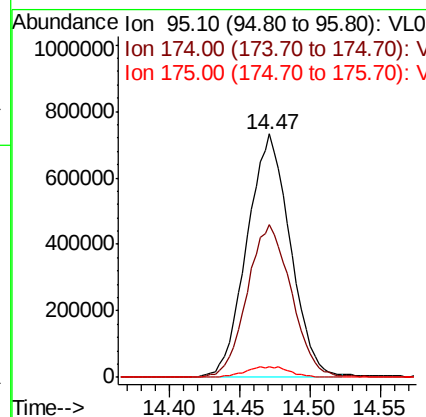
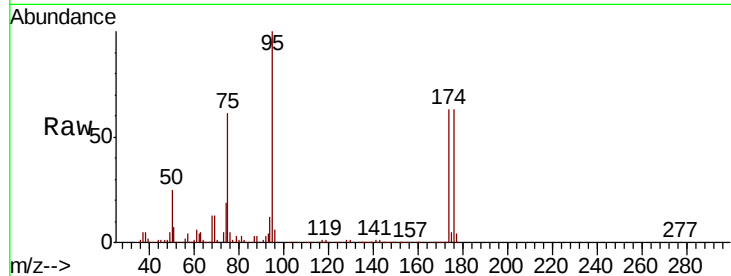
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.293 ppbv
 RT: 14.47 min Scan# 3634
 Delta R.T. 0.00 min
 Lab File: VL034535.D
 Acq: 31 Dec 2019 6:25

Instrument :
 MSVOA_L
 ClientSampled :
 29-2

Tot Ion: 95 Resp: 1570262
 Ion Ratio Lower Upper
 95 100
 174 64.4 52.4 78.6
 175 4.7 3.9 5.9

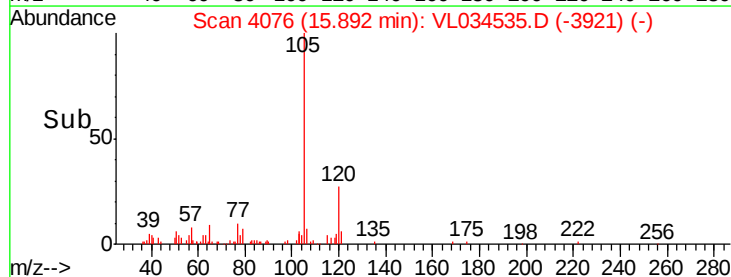
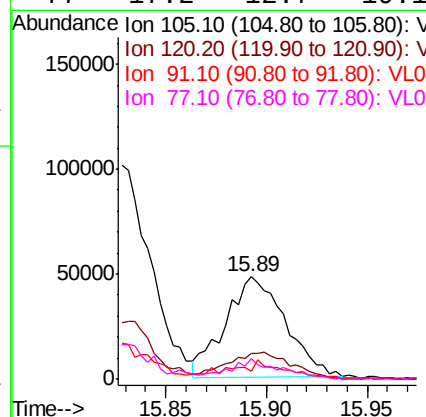
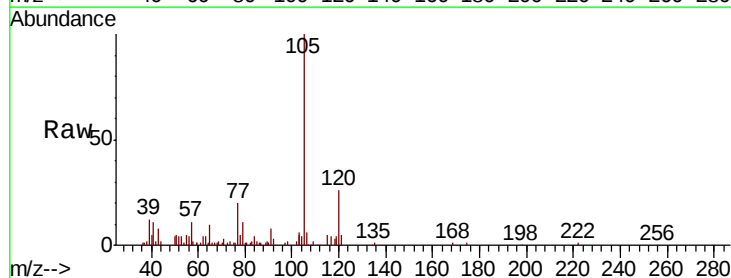
Manual Integrations
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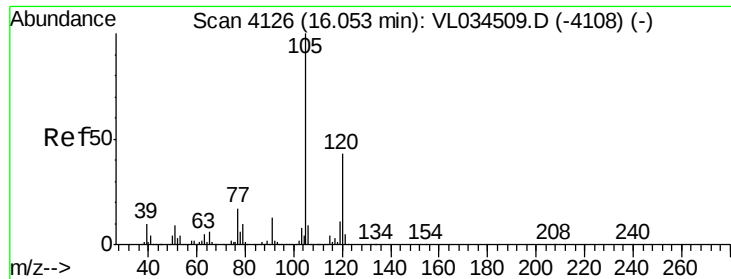
apatel
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#72
 4-Ethyltoluene
 Concen: 0.410 ppbv
 RT: 15.89 min Scan# 4076
 Delta R.T. -0.00 min
 Lab File: VL034535.D
 Acq: 31 Dec 2019 6:25

Tgt Ion: 105 Resp: 99346
 Ion Ratio Lower Upper
 105 100
 120 28.4 23.7 35.5
 91 16.8 11.5 17.3
 77 17.2 12.7 19.1





#73

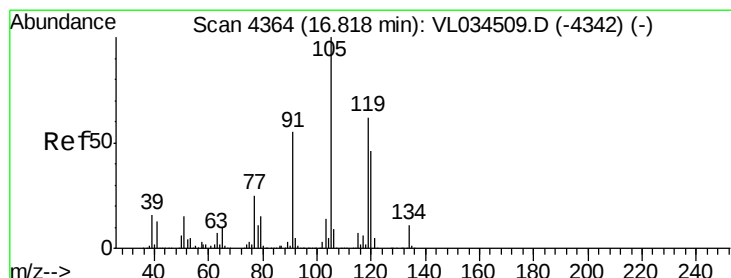
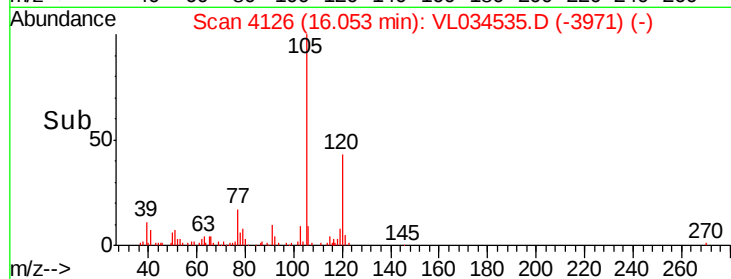
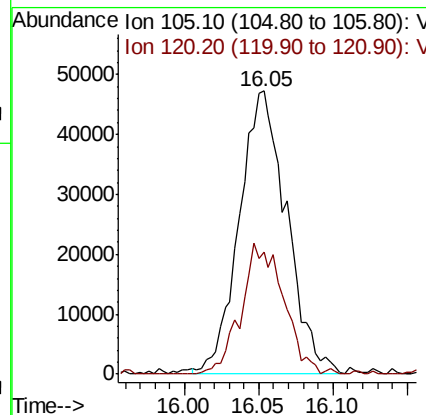
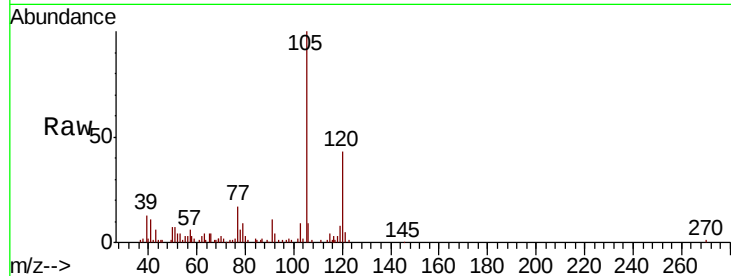
1,3,5-Trimethylbenzene
Concen: 0.442 ppbv m
RT: 16.05 min Scan# 4126
Delta R.T. -0.00 min
Lab File: VL034535.D
Acq: 31 Dec 2019 6:25

Instrument :
MSVOA_L
ClientSampled :
29-2

Tot Ion	Ratio	Lower	Upper
105	100		
120	43.1	34.6	52.0

Manual Integrations
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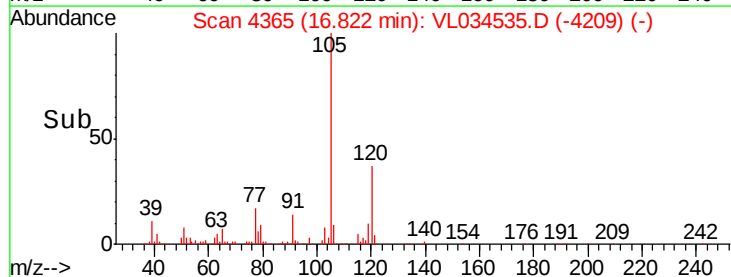
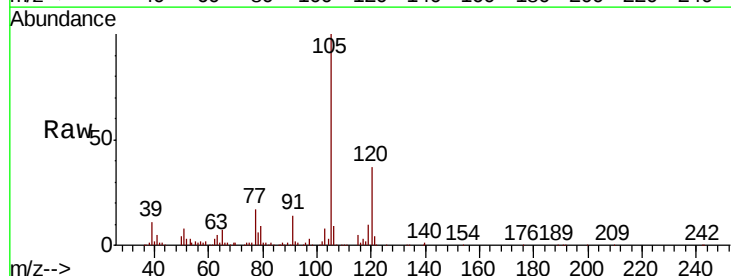
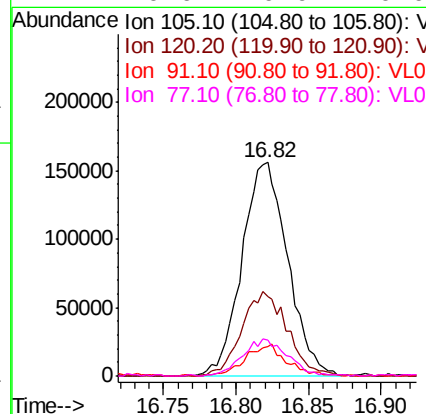
apatel
1/2/2020 12:32:17 PM

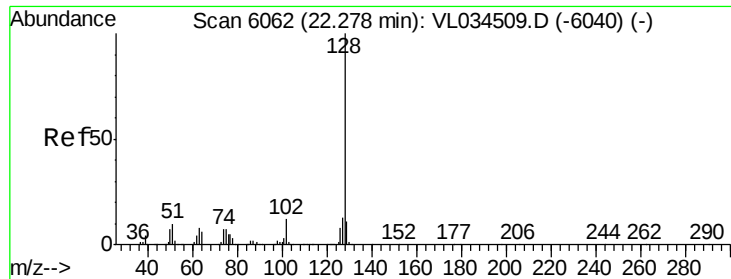


#74

1,2,4-Trimethylbenzene
Concen: 1.338 ppbv
RT: 16.82 min Scan# 4365
Delta R.T. 0.00 min
Lab File: VL034535.D
Acq: 31 Dec 2019 6:25

Tgt Ion	Ratio	Lower	Upper
105	100		
120	37.0	36.7	55.1
91	13.6	44.0	66.0#
77	16.6	19.9	29.9#





#79

Naphthalene

Concen: 0.166 ppbv m

RT: 22.30 min Scan# 6068

Delta R.T. 0.02 min

Lab File: VL034535.D

Acq: 31 Dec 2019 6:25

Instrument :

MSVOA_L

ClientSampled :

29-2

Tot Ion:	128	Resp:	31853
Ion Ratio	Lower	Upper	
128	100		
127	13.8	10.6	15.8
129	19.9	8.7	13.1#

Manual Integrations
APPROVED

apatel
1/2/2020 12:32:17 PM

