

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL123019\
 Data File : VL034537.D
 Acq On : 31 Dec 2019 7:44
 Operator : SY/AP
 Sample : K6470-05
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 44-1

Manual Integrations
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 1/2/2020 10:50:46 AM

Quant Time: Jan 01 13:05:18 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL123019AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Dec 3
 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	941643	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.20	114	1906750	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.13	117	1882618	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.47	95	1593679	10.14	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.40%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.02	85	89066	0.600	ppbv	98
3) Chlorodifluoromethane	2.96	51	448743	4.000	ppbv	96
4) Chloromethane	3.11	50	19631	0.295	ppbv	97
9) Propene	2.99	41	141168m	3.264	ppbv	
10) Heptane	8.14	43	20674m	0.185	ppbv	
11) Trichlorofluoromethane	3.93	101	40113m	0.233	ppbv	
13) Ethanol	3.59	45	814599	67.873	ppbv	99
15) Acetone	3.83	43	1577910	11.482	ppbv	98
19) Isopropyl Alcohol	3.96	45	539858	6.068	ppbv #	98
20) Methylene Chloride	4.34	84	17628m	0.326	ppbv	
34) 2-Butanone	5.25	43	385984	2.833	ppbv	99
35) Carbon Tetrachloride	7.03	117	11713m	0.068	ppbv	
36) Benzene	6.91	78	72650m	0.437	ppbv	
41) Tetrahydrofuran	6.07	42	44617m	0.638	ppbv	
44) 2,2,4-Trimethylpentane	7.89	57	65276	0.212	ppbv #	79
50) 4-Methyl-2-Pentanone	8.78	43	131459	0.665	ppbv	93
52) Tetrachloroethene	11.27	164	15493m	0.239	ppbv	
53) Toluene	9.84	91	296996	1.626	ppbv	95
58) Ethyl Benzene	12.76	91	114220	0.450	ppbv	97
59) m/p-Xylene	13.01	91	402787	1.814	ppbv	98
60) o-Xylene	13.74	91	81092m	0.364	ppbv	
72) 4-Ethyltoluene	15.90	105	104938m	0.421	ppbv	
73) 1,3,5-Trimethylbenzene	16.05	105	105924	0.433	ppbv	95
74) 1,2,4-Trimethylbenzene	16.82	105	344364	1.316	ppbv #	68

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

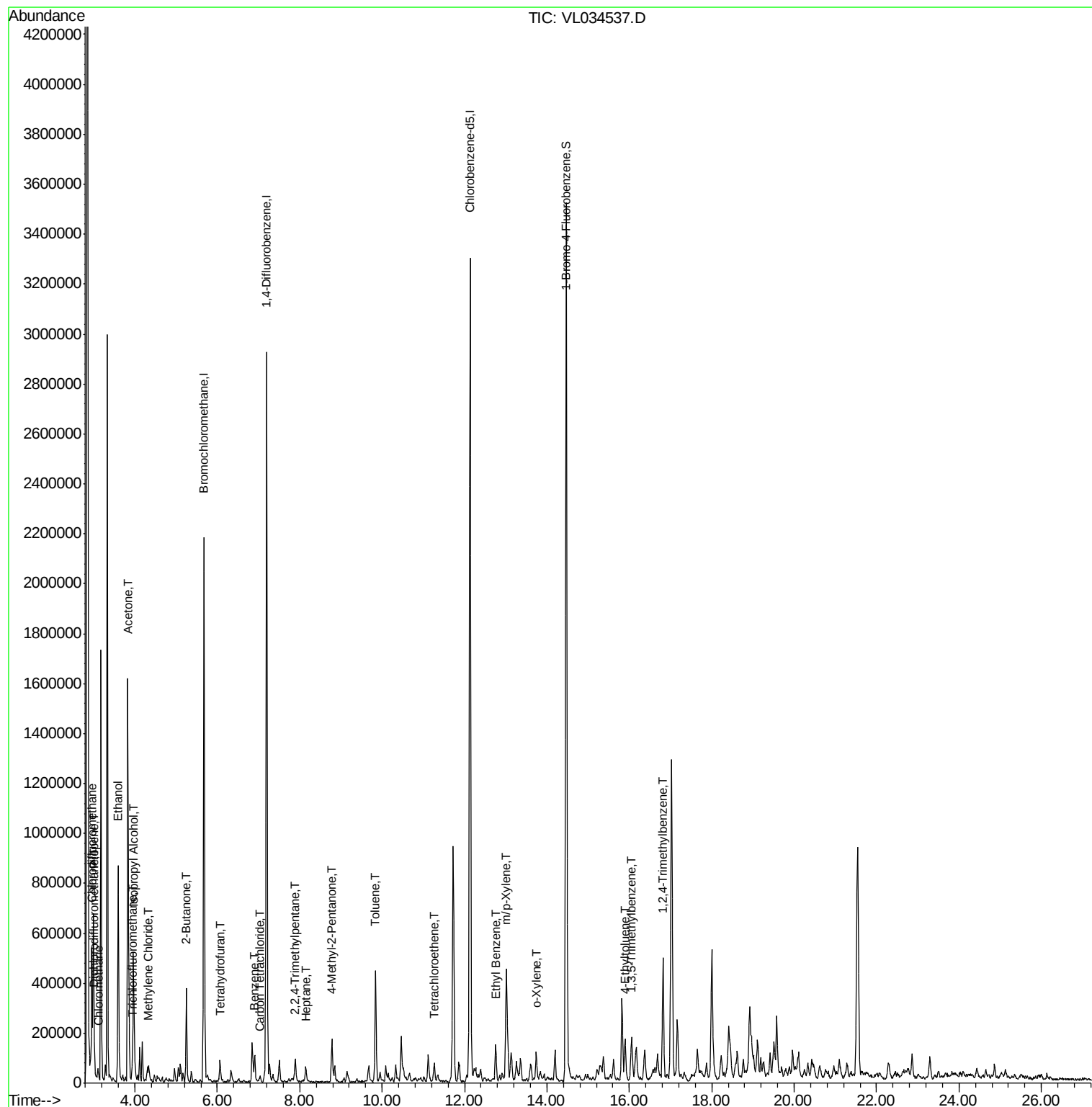
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL123019\
Data File : VL034537.D
Acq On : 31 Dec 2019 7:44
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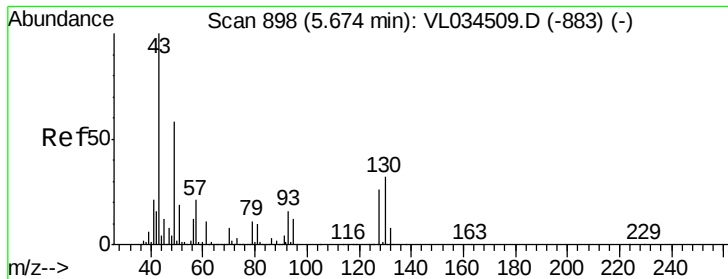
Instrument :
MSVOA_L
ClientSampleId :
44-1

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Quant Time: Jan 01 13:05:18 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: VL034537.D

Acq: 31 Dec 2019 7:44

Instrument :

MSVOA_L

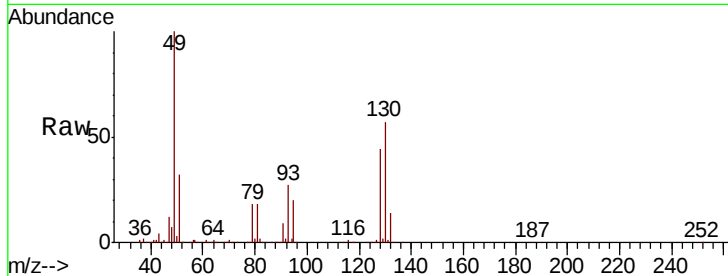
ClientSampled :

44-1

Tot Ion	Ratio	Lower	Upper
49	100		
128	44.3	22.4	67.2
130	56.5	28.3	85.0

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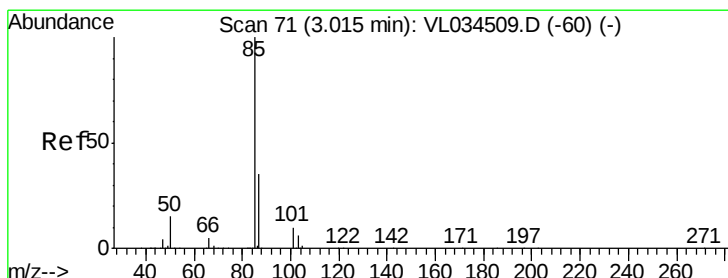
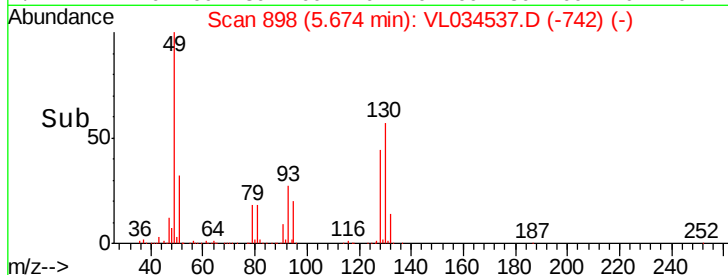
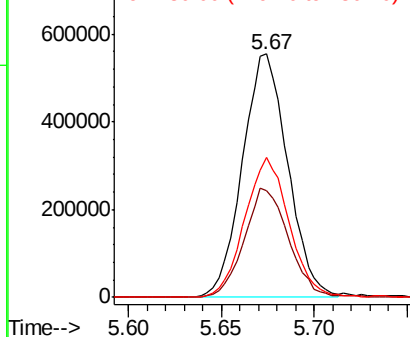
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.600 ppbv

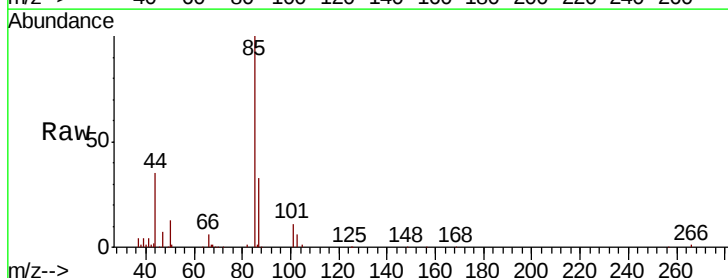
RT: 3.02 min Scan# 72

Delta R.T. 0.00 min

Lab File: VL034537.D

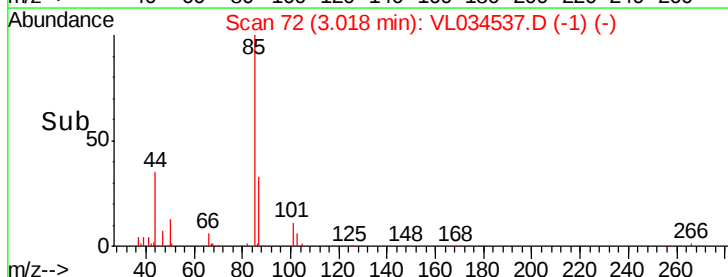
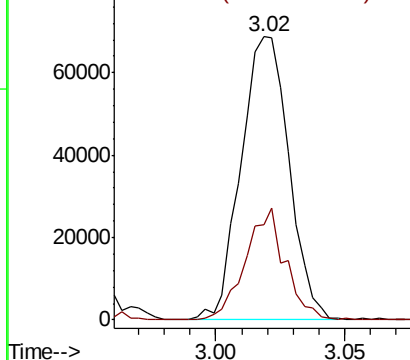
Acq: 31 Dec 2019 7:44

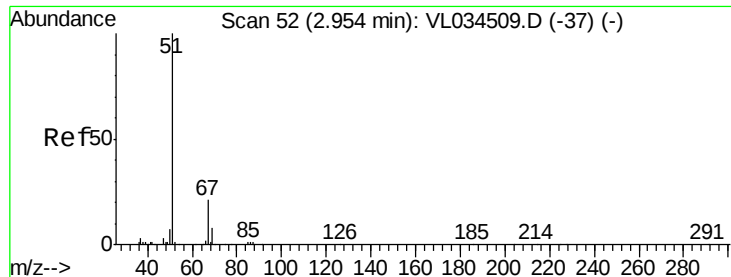
Tgt Ion	Ratio	Lower	Upper
85	100		
87	33.5	27.9	41.9



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 4.000 ppbv

RT: 2.96 min Scan# 53

Delta R.T. 0.00 min

Lab File: VL034537.D

Acq: 31 Dec 2019 7:44

Instrument :

MSVOA_L

ClientSampled :

44-1

Tot Ion: 51 Resp: 448743

Ion Ratio Lower Upper

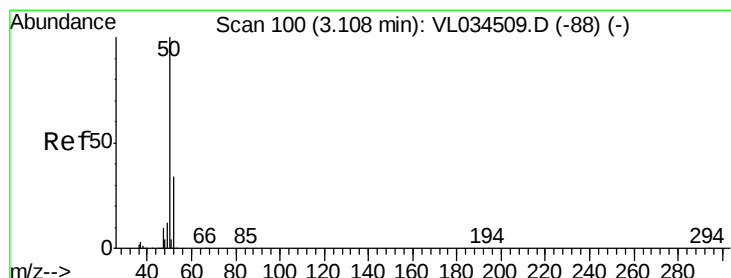
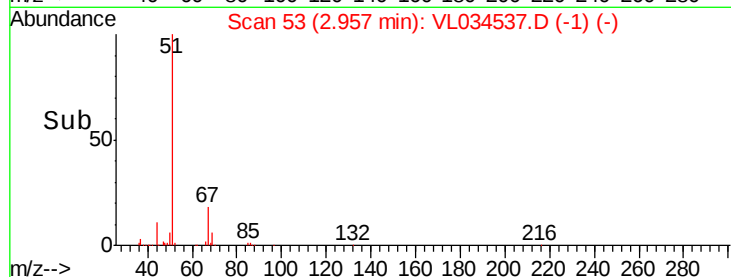
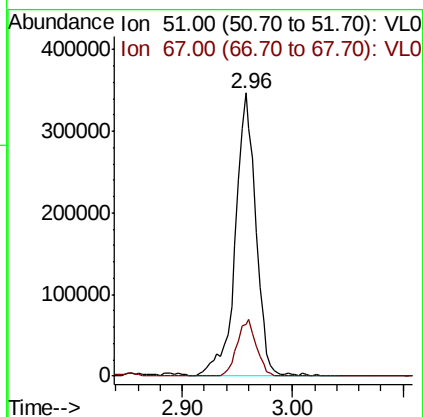
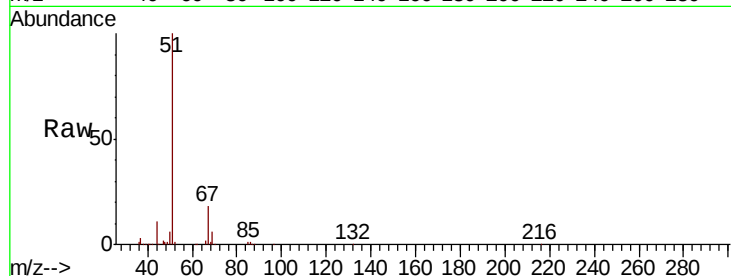
51 100

67 19.1 16.8 25.2

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#4

Chloromethane

Concen: 0.295 ppbv

RT: 3.11 min Scan# 102

Delta R.T. 0.01 min

Lab File: VL034537.D

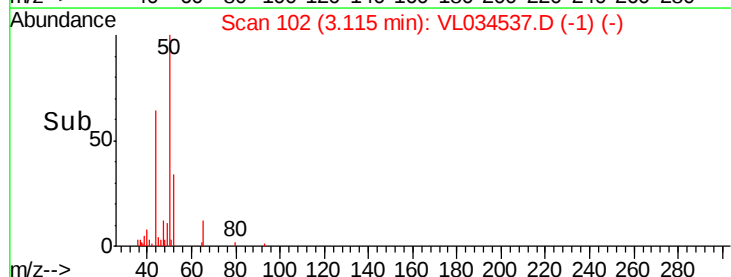
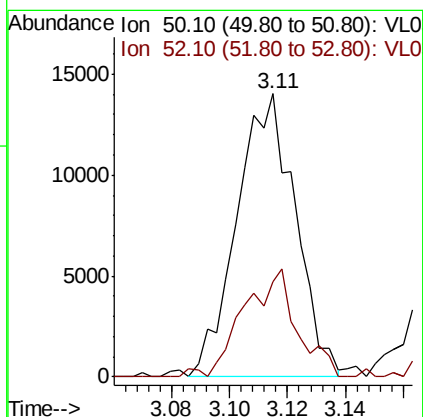
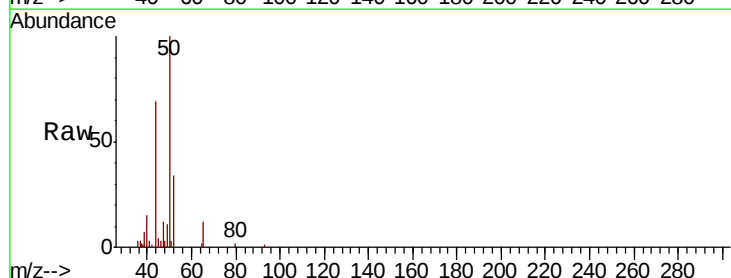
Acq: 31 Dec 2019 7:44

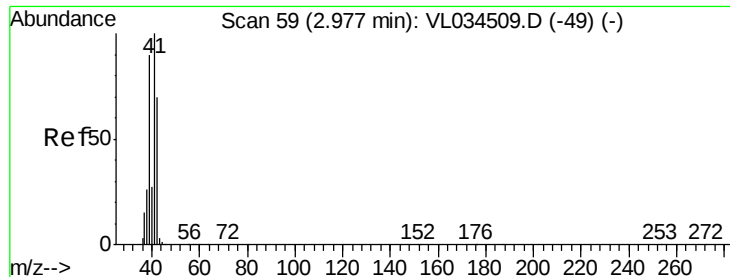
Tgt Ion: 50 Resp: 19631

Ion Ratio Lower Upper

50 100

52 32.7 27.6 41.4





#9

Propene

Concen: 3.264 ppbv m

RT: 2.99 min Scan# 63

Delta R.T. 0.01 min

Lab File: VL034537.D

Acq: 31 Dec 2019 7:44

Instrument :

MSVOA_L

ClientSampleId :

44-1

Tot Ion: 41 Resp: 141168

Ion Ratio Lower Upper

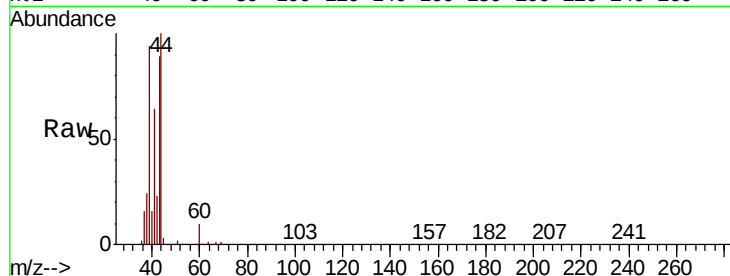
41 100

42 207.3 55.8 83.6#

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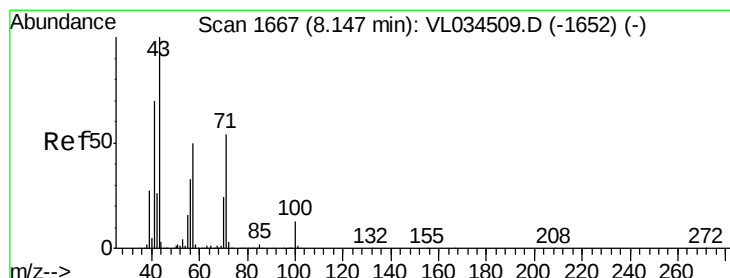
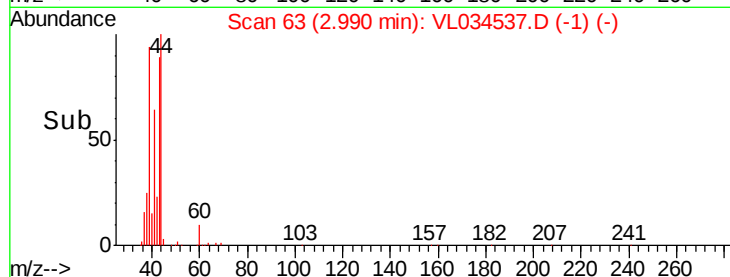
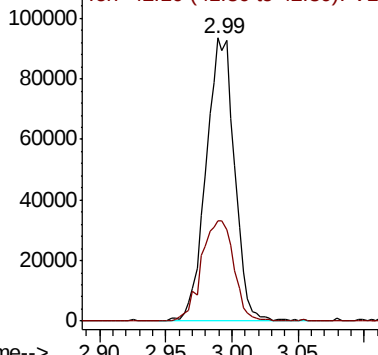
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Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#10

Heptane

Concen: 0.185 ppbv m

RT: 8.14 min Scan# 1666

Delta R.T. -0.00 min

Lab File: VL034537.D

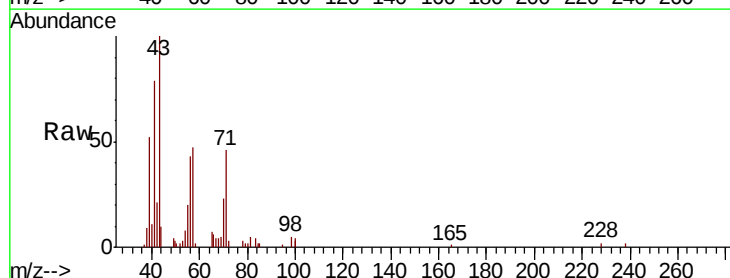
Acq: 31 Dec 2019 7:44

Tgt Ion: 43 Resp: 20674

Ion Ratio Lower Upper

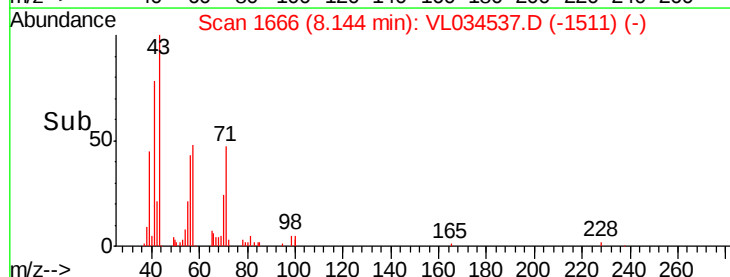
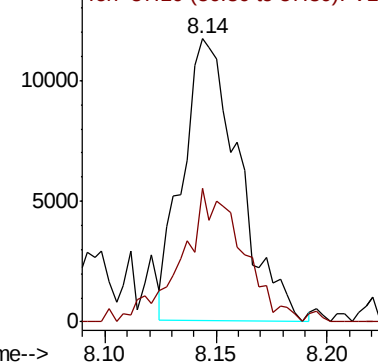
43 100

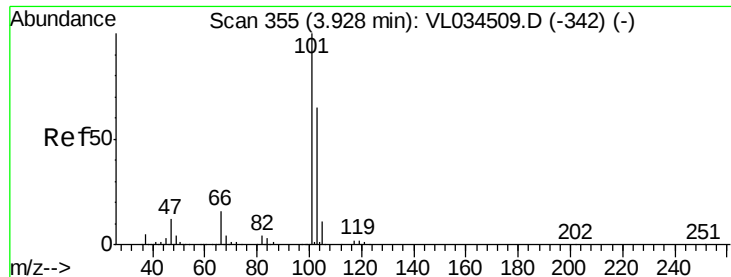
57 52.8 41.0 61.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





#11

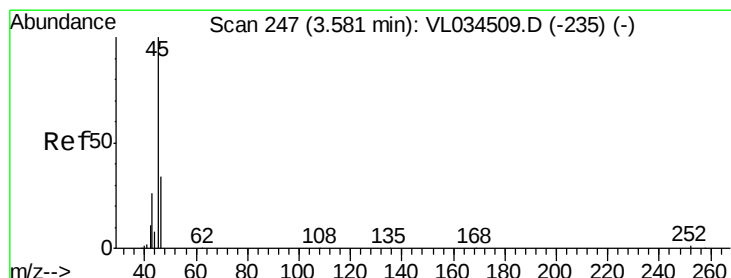
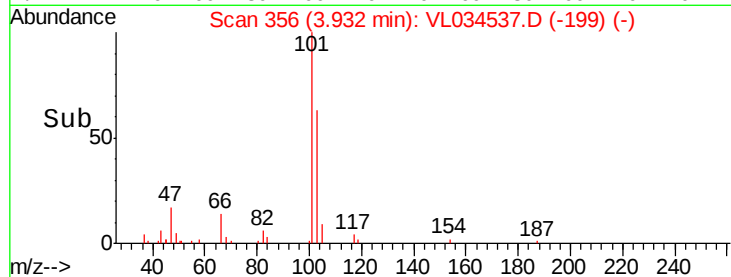
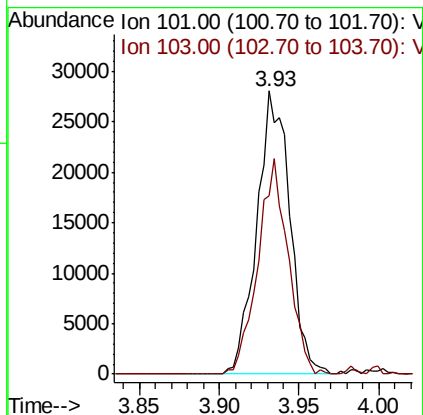
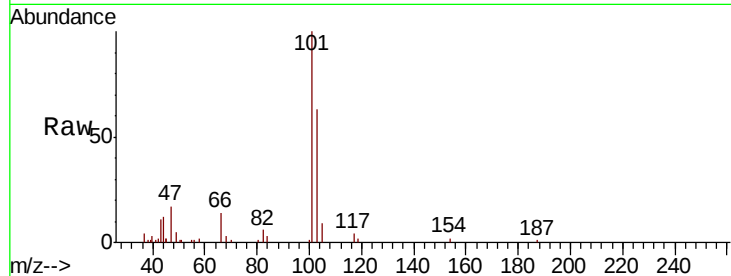
Trichlorofluoromethane
Concen: 0.233 ppbv
RT: 3.93 min Scan# 356
Delta R.T. 0.00 min
Lab File: VL034537.D
Acq: 31 Dec 2019 7:44

Instrument :
MSVOA_L
ClientSampled :
44-1

Tot Ion	Ion	Ratio	Lower	Upper
40113	101	100		
	103	63.0	52.1	78.1

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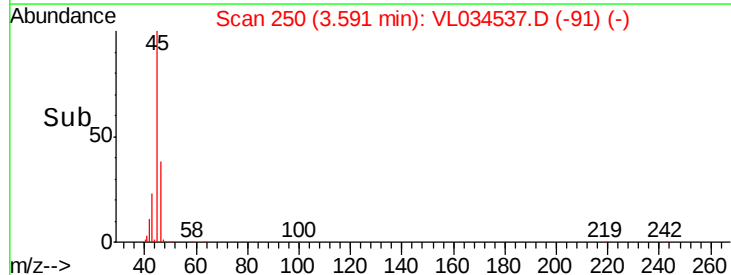
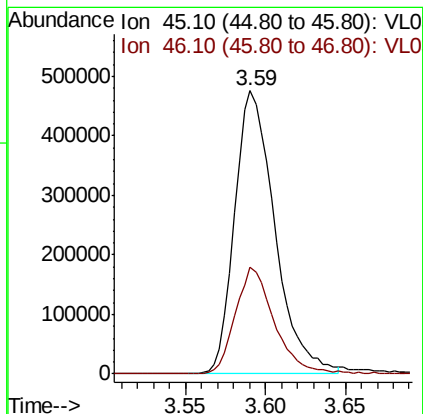
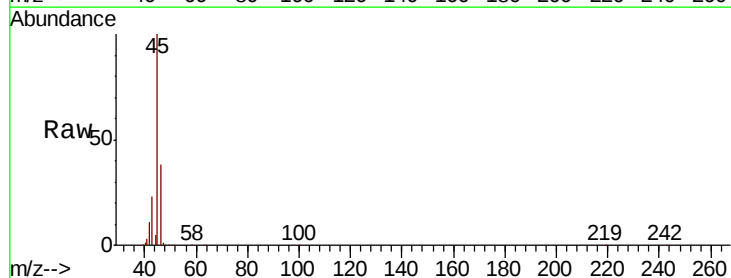
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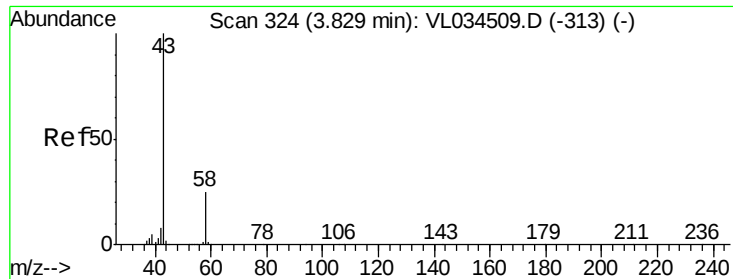


#13

Ethanol
Concen: 67.873 ppbv
RT: 3.59 min Scan# 250
Delta R.T. 0.01 min
Lab File: VL034537.D
Acq: 31 Dec 2019 7:44

Tgt Ion	Ion	Ratio	Lower	Upper
814599	45	100		
	46	36.9	14.9	59.7





#15

Acetone

Concen: 11.482 ppbv

RT: 3.83 min Scan# 324

Delta R.T. 0.00 min

Lab File: VL034537.D

Acq: 31 Dec 2019 7:44

Instrument :

MSVOA_L

ClientSampled :

44-1

Tot Ion: 43 Resp: 1577910

Ion Ratio Lower Upper

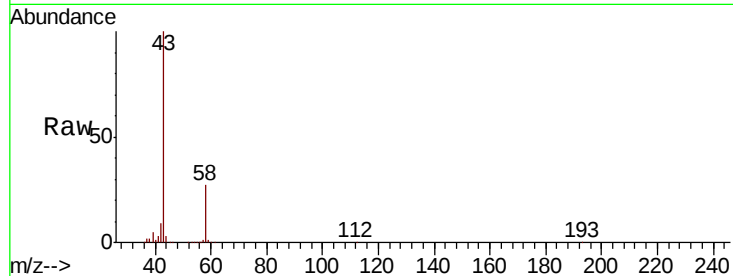
43 100

58 26.3 20.4 30.6

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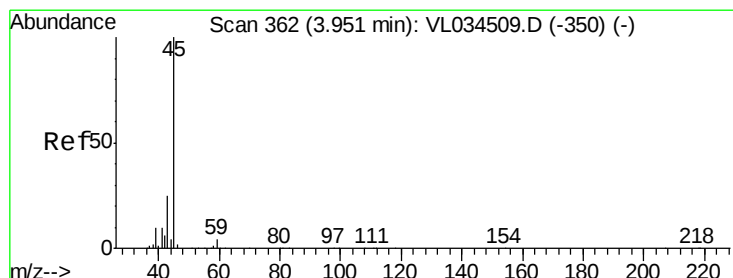
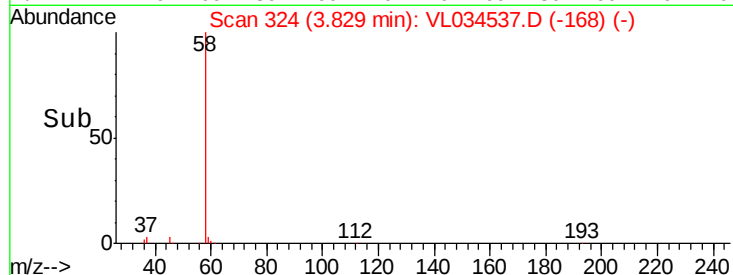
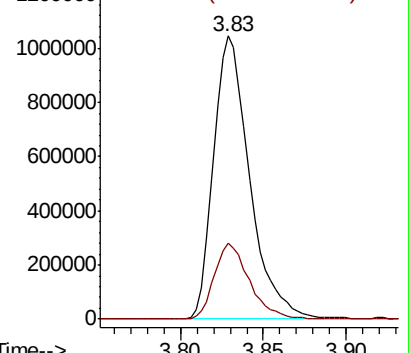
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Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#19

Isopropyl Alcohol

Concen: 6.068 ppbv

RT: 3.96 min Scan# 366

Delta R.T. 0.01 min

Lab File: VL034537.D

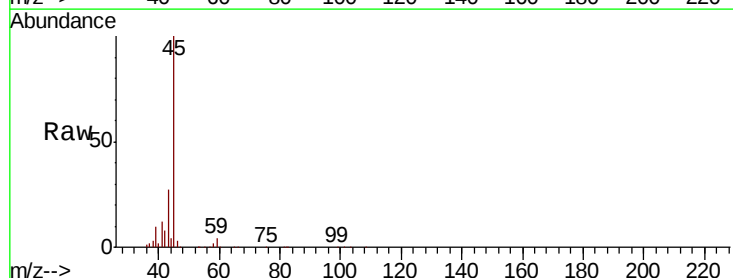
Acq: 31 Dec 2019 7:44

Tgt Ion: 45 Resp: 539858

Ion Ratio Lower Upper

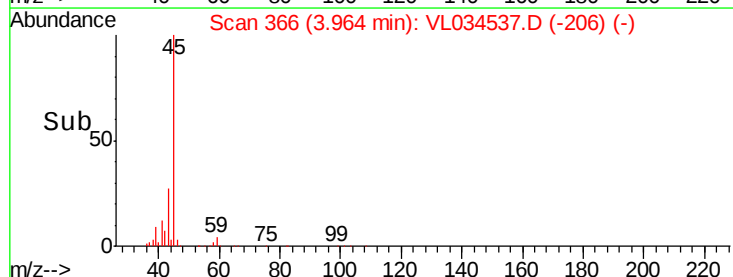
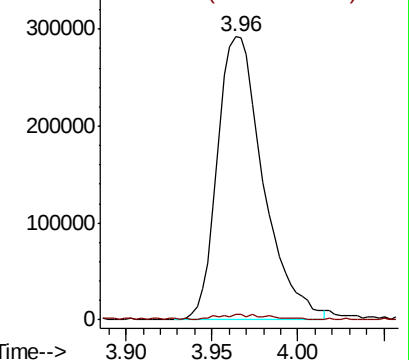
45 100

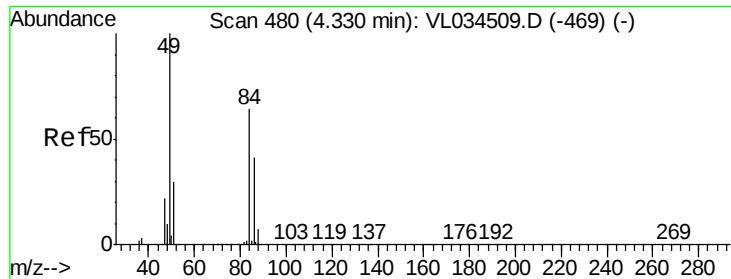
58 2.5 1.4 2.0#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0





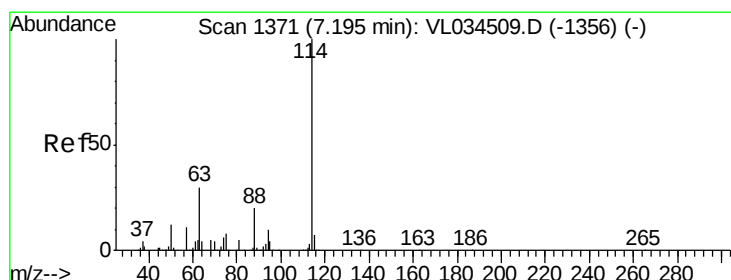
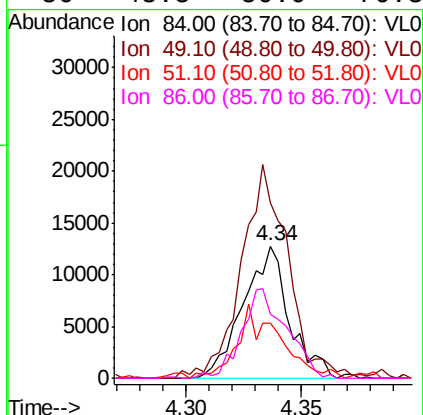
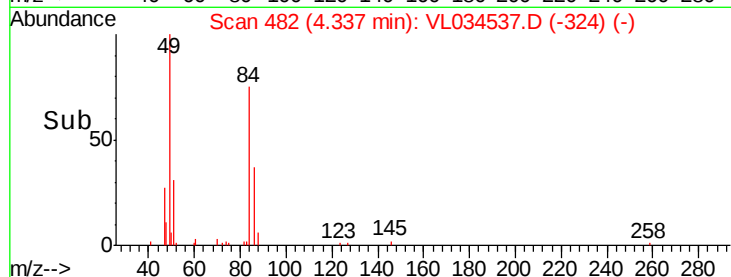
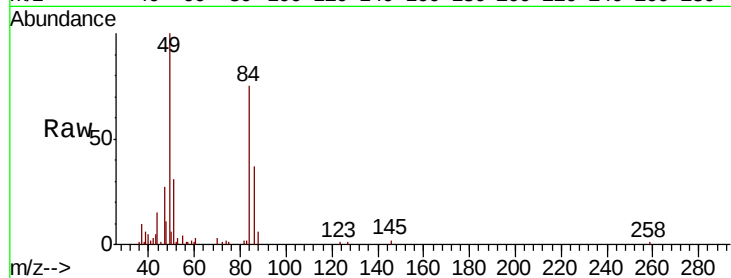
#20
Methvlene Chloride
Concen: 0.326 ppbv m
RT: 4.34 min Scan# 482
Delta R.T. 0.01 min
Lab File: VL034537.D
Acq: 31 Dec 2019 7:44

Instrument :
MSVOA_L
ClientSampled :
44-1

Tot Ion	Ratio	Lower	Upper
84	100		
49	132.9	124.4	186.6
51	41.4	37.0	55.6
86	48.5	50.9	76.3

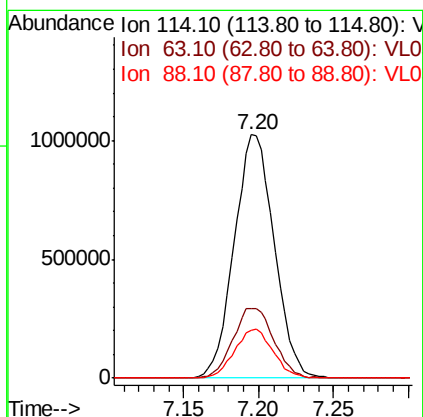
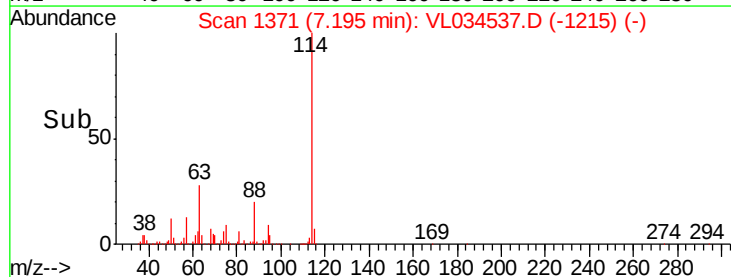
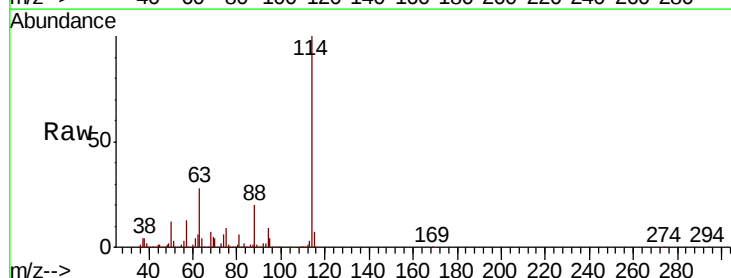
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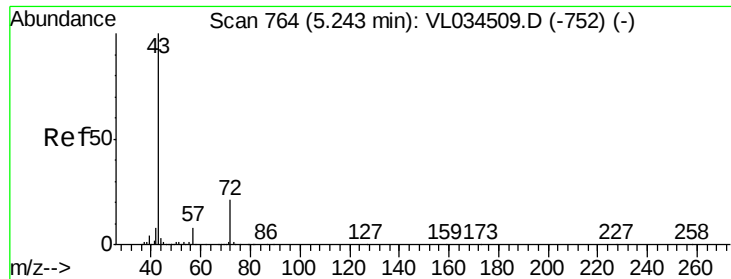
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#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.20 min Scan# 1371
Delta R.T. 0.00 min
Lab File: VL034537.D
Acq: 31 Dec 2019 7:44

Tgt Ion	Ratio	Lower	Upper
114	100		
63	29.4	24.1	36.1
88	19.4	15.7	23.5





#34

2-Butanone

Concen: 2.833 ppbv

RT: 5.25 min Scan# 765

Delta R.T. 0.00 min

Lab File: VL034537.D

Acq: 31 Dec 2019 7:44

Instrument :

MSVOA_L

ClientSampleId :

44-1

Tot Ion: 43 Resp: 385984

Ion Ratio Lower Upper

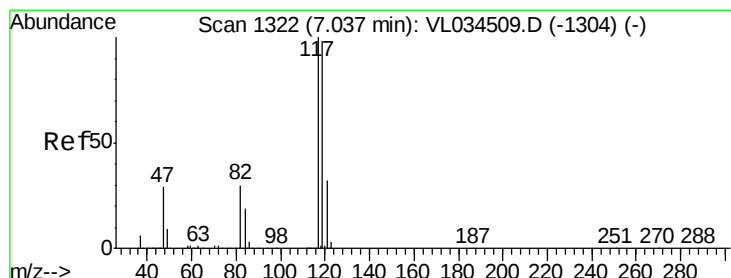
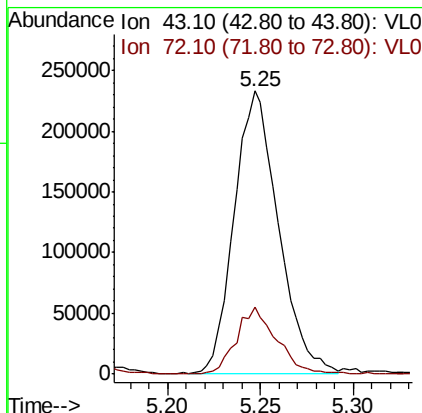
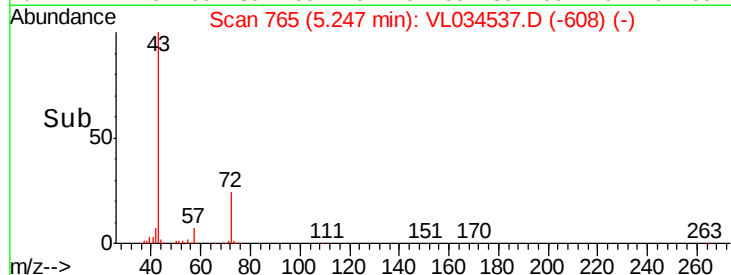
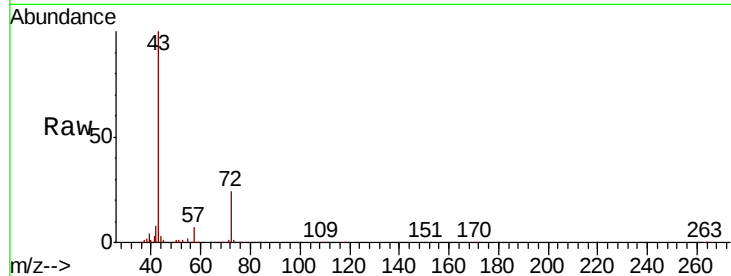
43 100

72 21.7 17.0 25.4

Manual Integrations
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1/2/2020 10:50:46 AM



#35

Carbon Tetrachloride

Concen: 0.068 ppbv m

RT: 7.03 min Scan# 1320

Delta R.T. -0.01 min

Lab File: VL034537.D

Acq: 31 Dec 2019 7:44

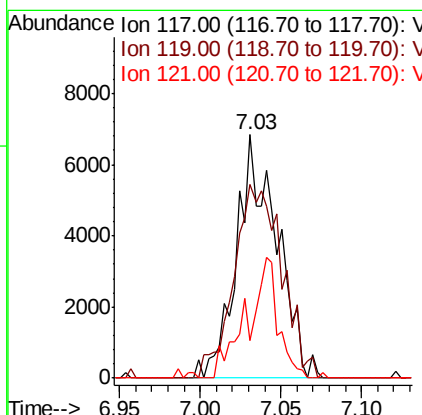
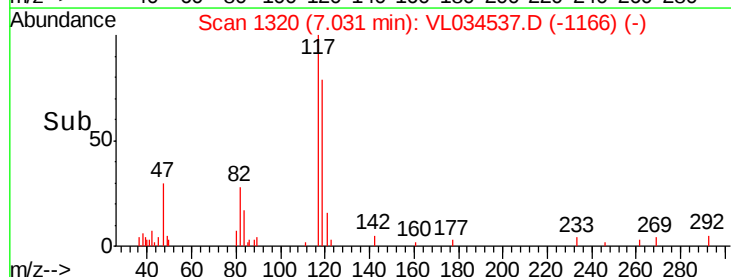
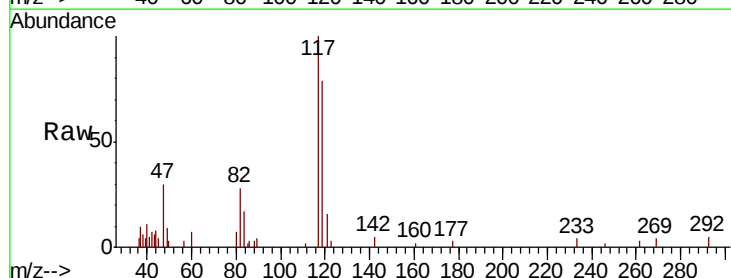
Tgt Ion: 117 Resp: 11713

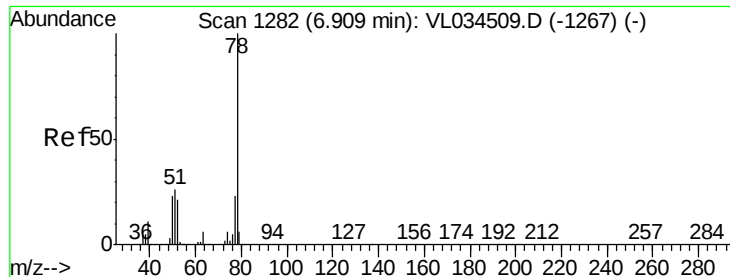
Ion Ratio Lower Upper

117 100

119 79.4 78.7 118.1

121 15.6 25.9 38.9#





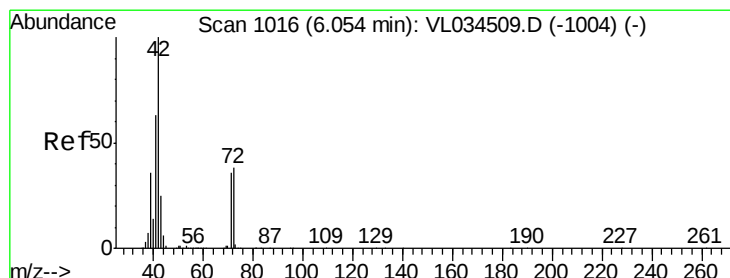
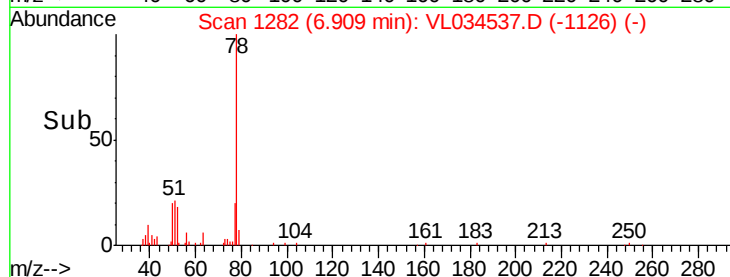
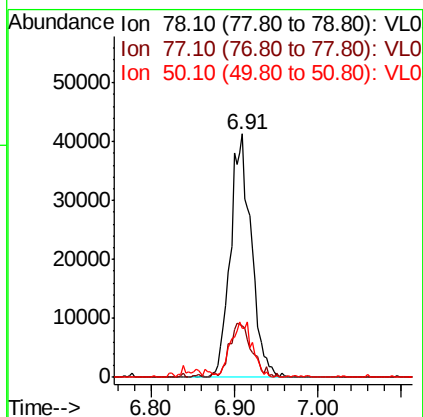
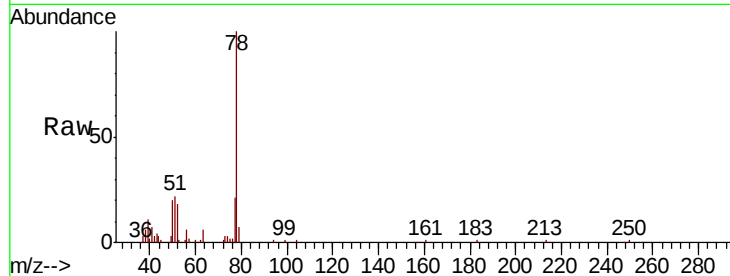
#36
Benzene
Concen: 0.437 ppbv m
RT: 6.91 min Scan# 1282
Delta R.T. 0.00 min
Lab File: VL034537.D
Acq: 31 Dec 2019 7:44

Instrument :
MSVOA_L
ClientSampled :
44-1

Tot Ion	Ratio	Lower	Upper
78	100		
77	21.4	18.6	28.0
50	20.4	18.8	28.2

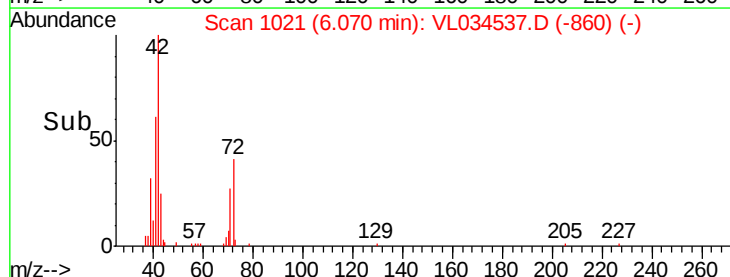
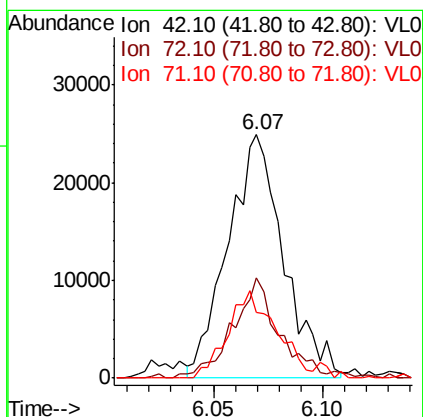
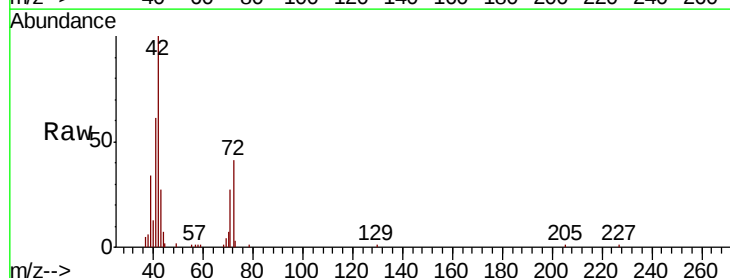
Manual Integrations
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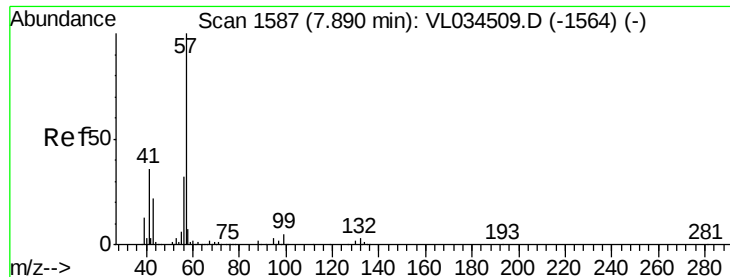
apatel
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#41
Tetrahydrofuran
Concen: 0.638 ppbv m
RT: 6.07 min Scan# 1021
Delta R.T. 0.02 min
Lab File: VL034537.D
Acq: 31 Dec 2019 7:44

Tgt Ion	Ratio	Lower	Upper
42	100		
72	35.4	30.9	46.3
71	32.8	28.9	43.3





#44

2,2,4-Trimethylpentane

Concen: 0.212 ppbv

RT: 7.89 min Scan# 1588

Delta R.T. 0.00 min

Lab File: VL034537.D

Acq: 31 Dec 2019 7:44

Instrument :

MSVOA_L

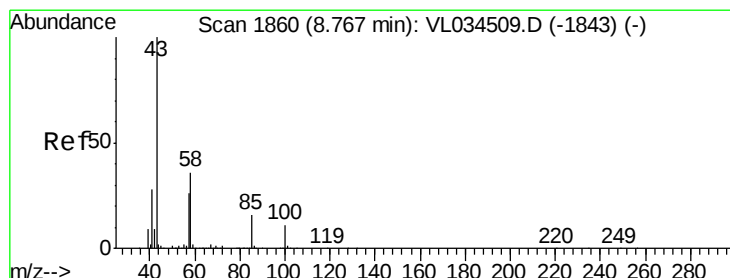
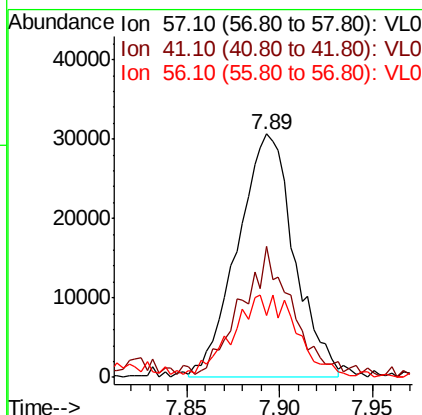
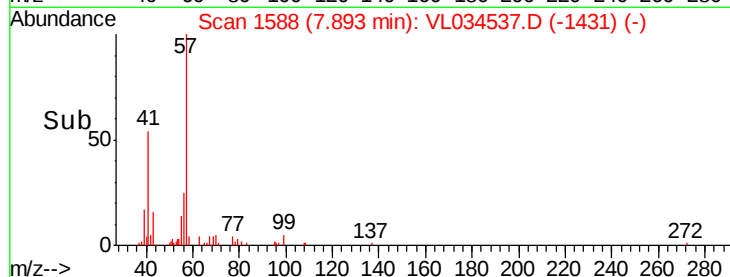
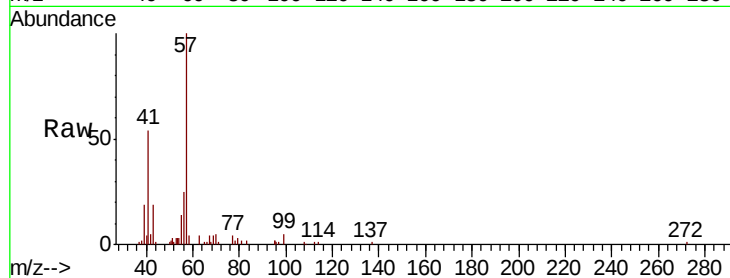
ClientSampleId :

44-1

Tot Ion:	57	Resp:	65276
Ion Ratio	Lower	Upper	
57	100		
41	51.3	29.0	43.4#
56	40.0	24.9	37.3#

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#50

4-Methyl-2-Pentanone

Concen: 0.665 ppbv

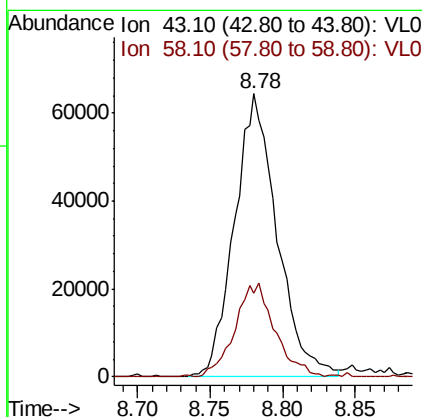
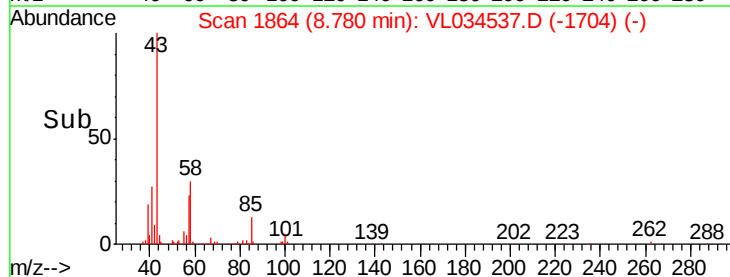
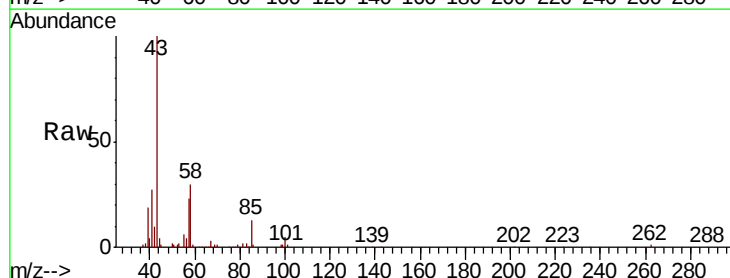
RT: 8.78 min Scan# 1864

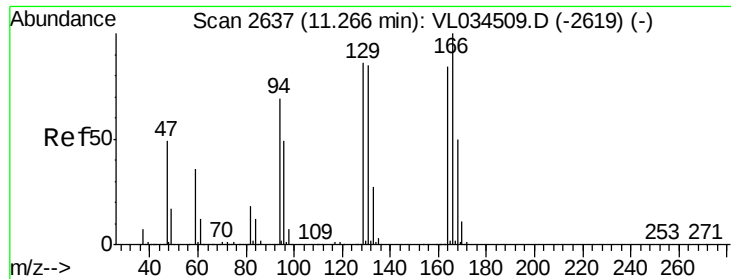
Delta R.T. 0.01 min

Lab File: VL034537.D

Acq: 31 Dec 2019 7:44

Tgt Ion:	43	Resp:	131459
Ion Ratio	Lower	Upper	
43	100		
58	31.4	28.2	42.2





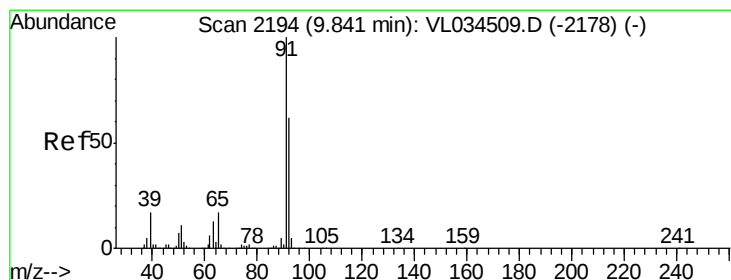
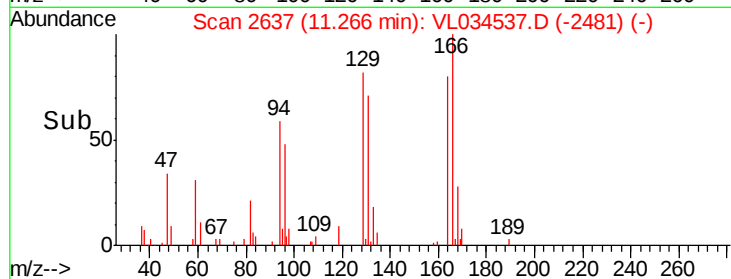
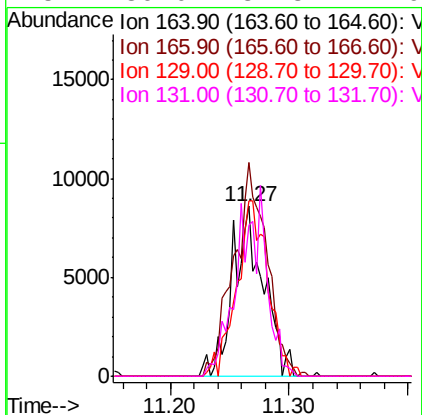
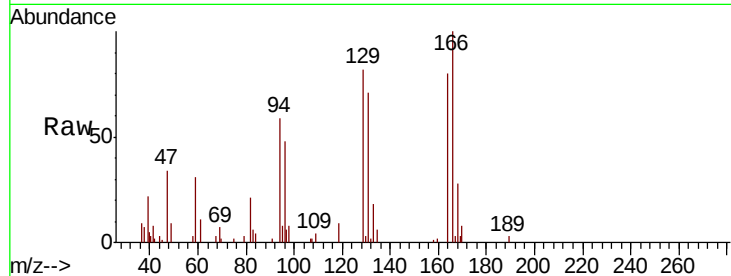
#52
Tetrachloroethene
Concen: 0.239 ppbv m
RT: 11.27 min Scan# 2637
Delta R.T. 0.00 min
Lab File: VL034537.D
Acq: 31 Dec 2019 7:44

Instrument :
MSVOA_L
ClientSampled :
44-1

Tot Ion	Ratio	Lower	Upper
164	100		
166	125.7	95.7	143.5
129	103.4	82.2	123.2
131	89.0	81.3	121.9

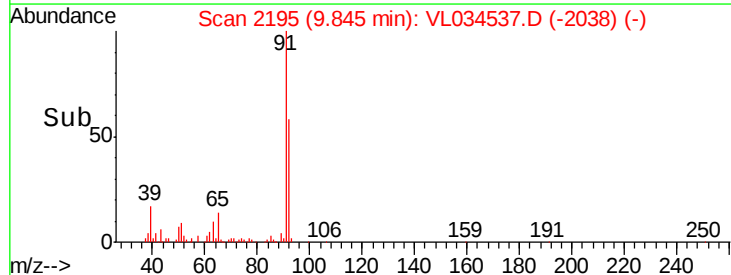
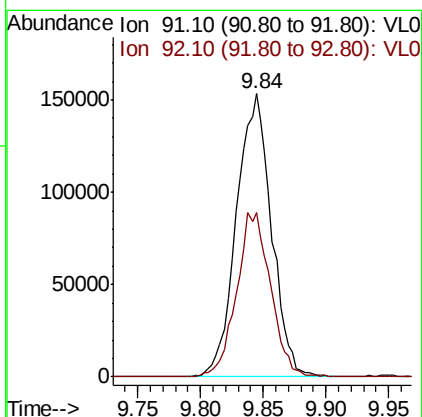
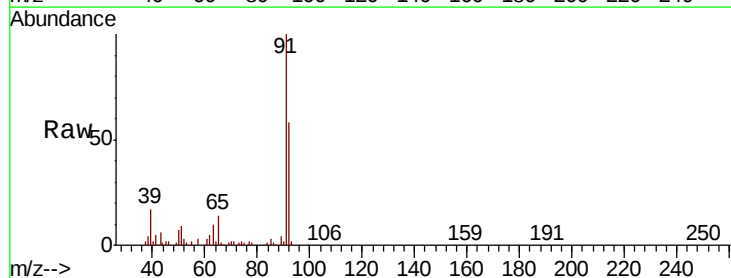
Manual Integrations
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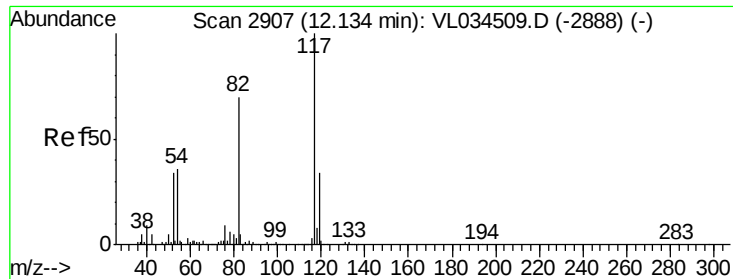
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#53
Toluene
Concen: 1.626 ppbv
RT: 9.84 min Scan# 2195
Delta R.T. 0.00 min
Lab File: VL034537.D
Acq: 31 Dec 2019 7:44

Tgt Ion	Ratio	Lower	Upper
91	100		
92	56.4	48.4	72.6





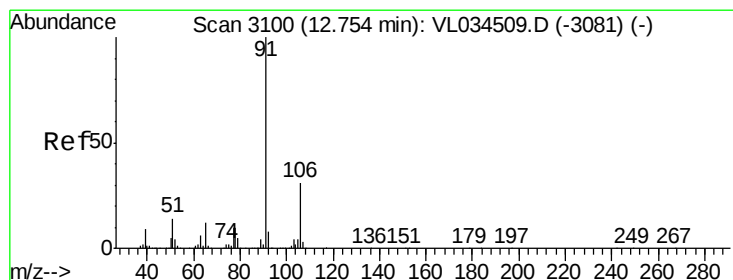
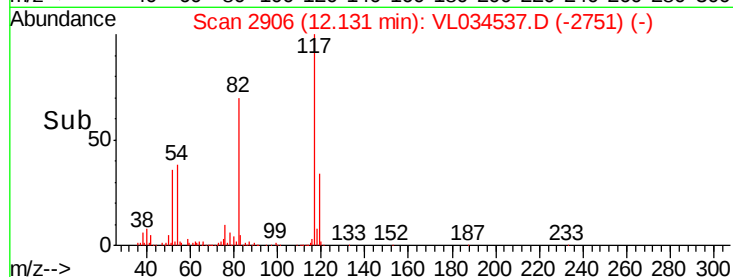
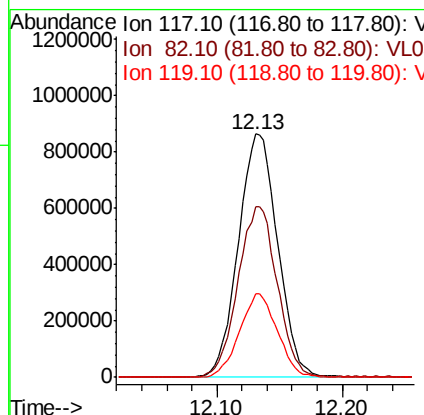
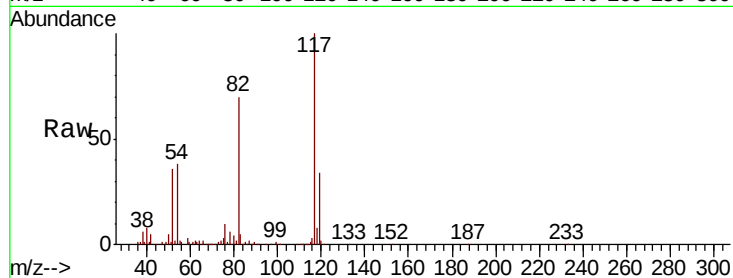
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.13 min Scan# 2906
Delta R.T. -0.00 min
Lab File: VL034537.D
Acq: 31 Dec 2019 7:44

Instrument :
MSVOA_L
ClientSampled :
44-1

Tot Ion	Ratio	Lower	Upper
117	100		
82	71.0	56.2	84.4
119	33.2	27.1	40.7

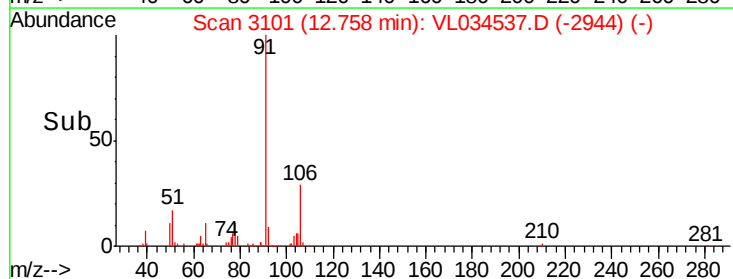
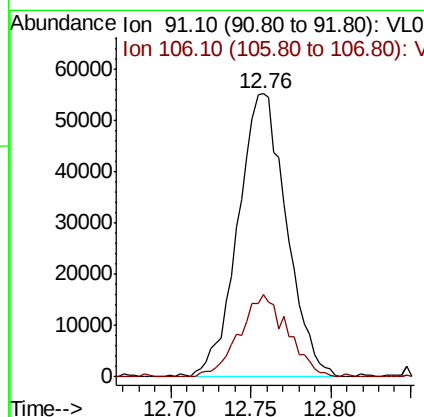
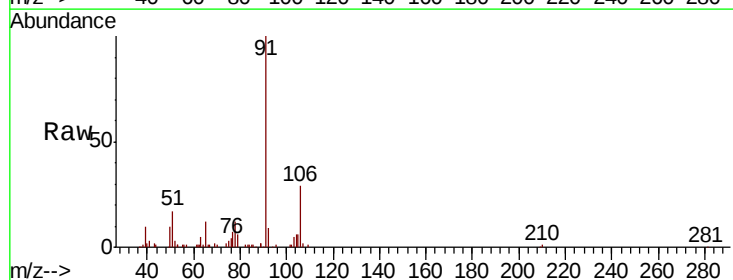
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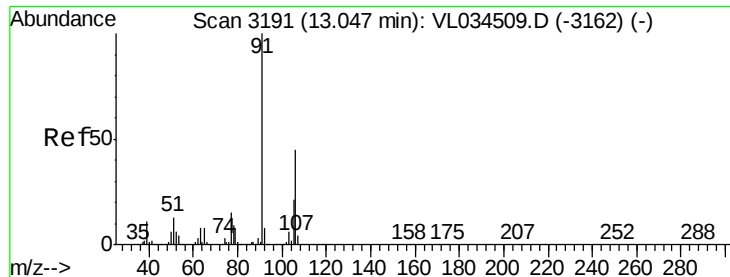
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#58
Ethyl Benzene
Concen: 0.450 ppbv
RT: 12.76 min Scan# 3101
Delta R.T. 0.00 min
Lab File: VL034537.D
Acq: 31 Dec 2019 7:44

Tgt Ion	Ratio	Lower	Upper
91	100		
106	28.9	24.6	36.8





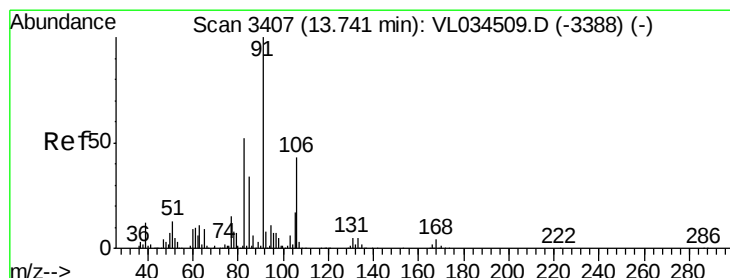
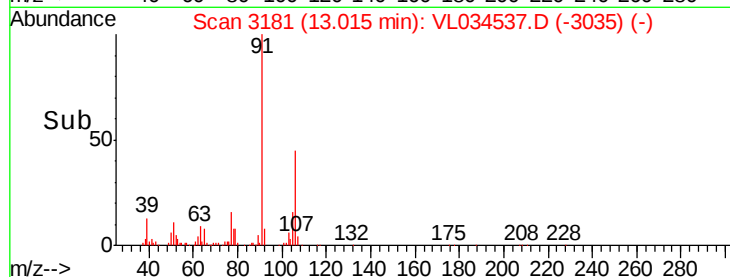
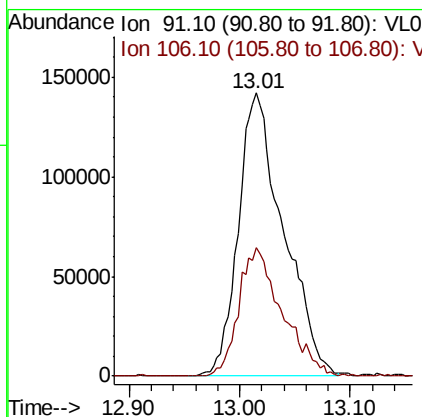
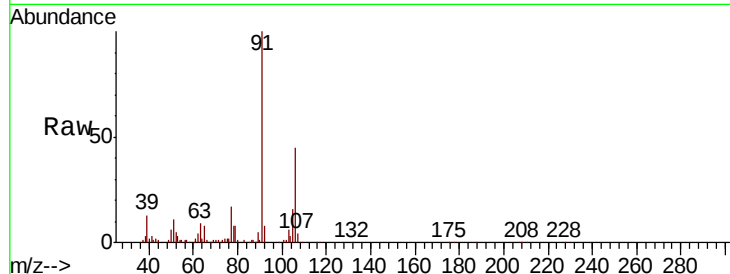
#59
m/p-Xylene
Concen: 1.814 ppbv
RT: 13.01 min Scan# 3181
Delta R.T. -0.03 min
Lab File: VL034537.D
Acq: 31 Dec 2019 7:44

Instrument :
MSVOA_L
ClientSampled :
44-1

Tot Ion: 91 Resp: 402787
Ion Ratio Lower Upper
91 100
106 43.5 35.6 53.4

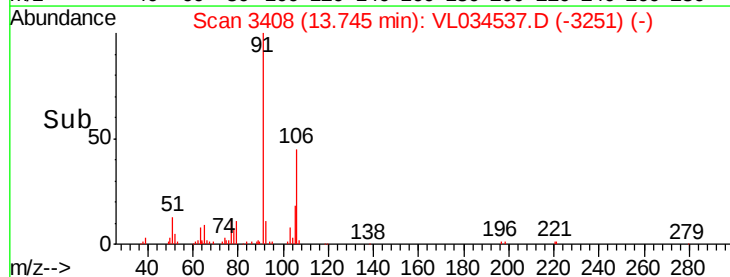
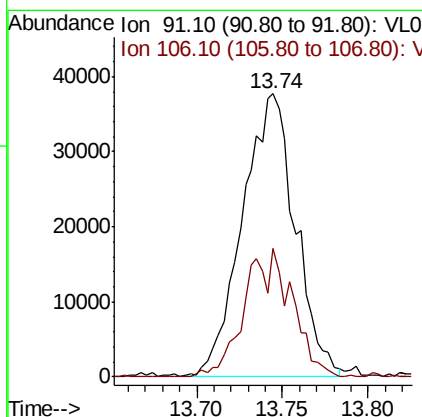
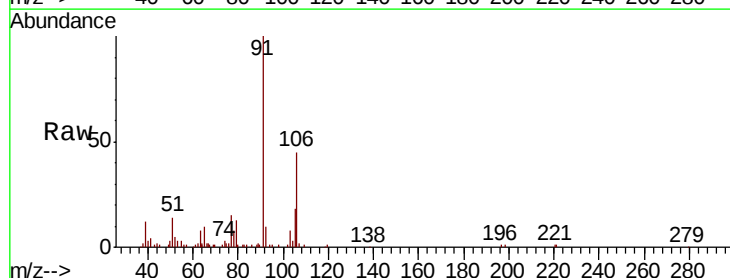
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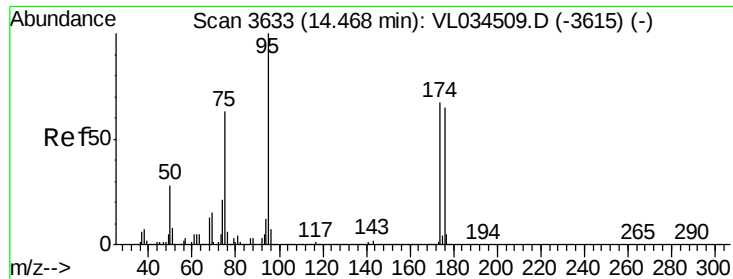
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#60
o-Xylene
Concen: 0.364 ppbv m
RT: 13.74 min Scan# 3408
Delta R.T. 0.00 min
Lab File: VL034537.D
Acq: 31 Dec 2019 7:44

Tgt Ion: 91 Resp: 81092
Ion Ratio Lower Upper
91 100
106 40.7 21.4 64.3





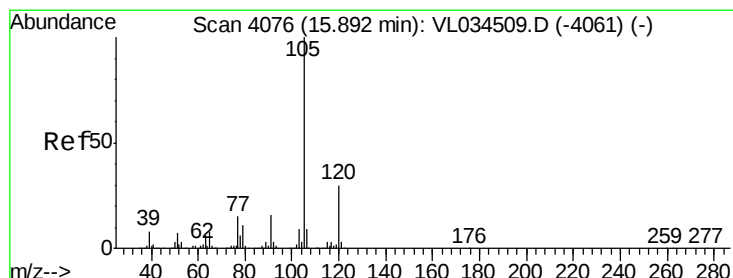
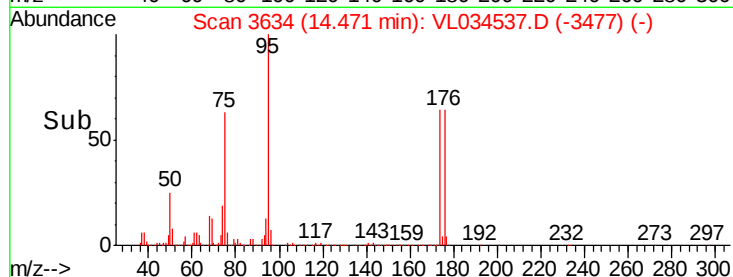
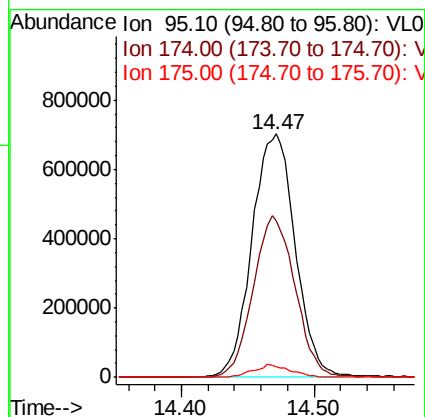
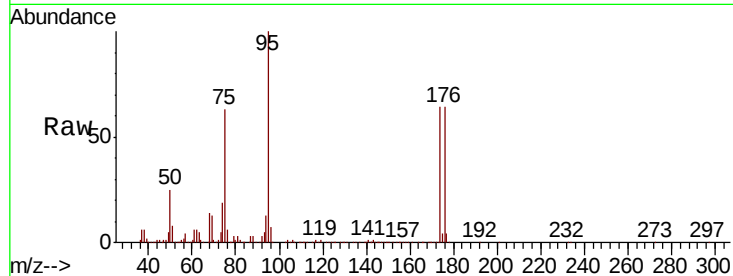
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.145 ppbv
 RT: 14.47 min Scan# 3634
 Delta R.T. 0.00 min
 Lab File: VL034537.D
 Acq: 31 Dec 2019 7:44

Instrument :
 MSVOA_L
 ClientSampleId :
 44-1

Tot Ion: 95 Resp: 1593679
 Ion Ratio Lower Upper
 95 100
 174 64.7 52.4 78.6
 175 4.5 3.9 5.9

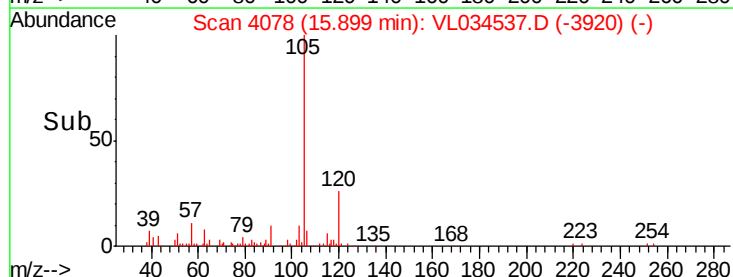
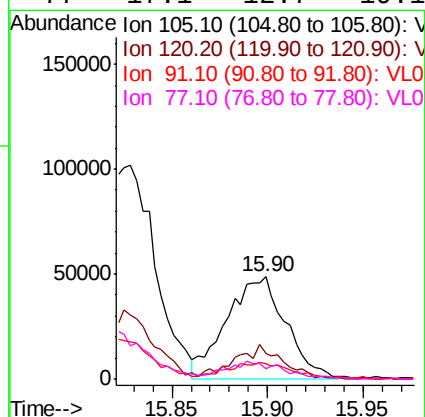
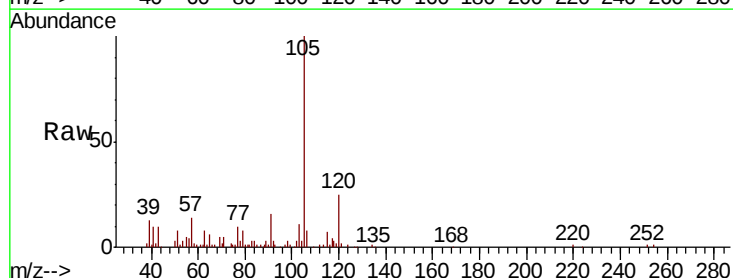
Manual Integrations
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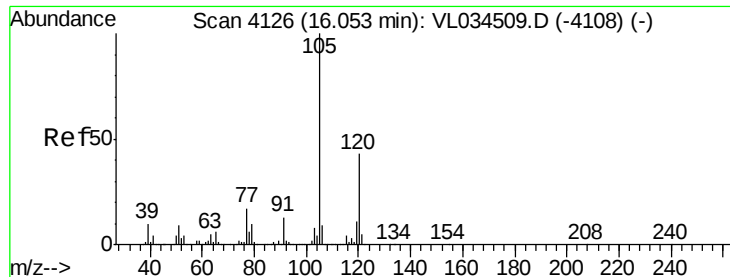
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#72
 4-Ethyltoluene
 Concen: 0.421 ppbv m
 RT: 15.90 min Scan# 4078
 Delta R.T. 0.01 min
 Lab File: VL034537.D
 Acq: 31 Dec 2019 7:44

Tgt Ion: 105 Resp: 104938
 Ion Ratio Lower Upper
 105 100
 120 0.0 23.7 35.5#
 91 0.0 11.5 17.3#
 77 17.1 12.7 19.1





#73

1,3,5-Trimethylbenzene

Concen: 0.433 ppbv

RT: 16.05 min Scan# 4125

Delta R.T. -0.00 min

Lab File: VL034537.D

Acq: 31 Dec 2019 7:44

Instrument :

MSVOA_L

ClientSampled :

44-1

Tot Ion:105 Resp: 105924

Ion Ratio Lower Upper

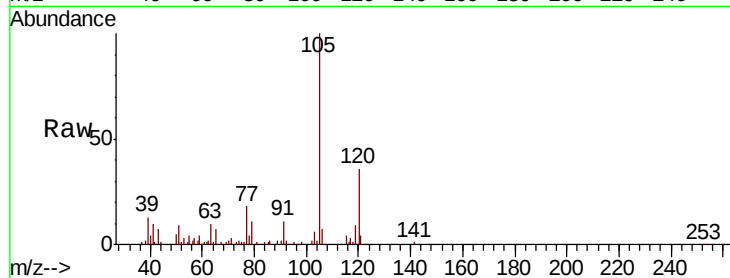
105 100

120 40.2 34.6 52.0

Manual Integrations
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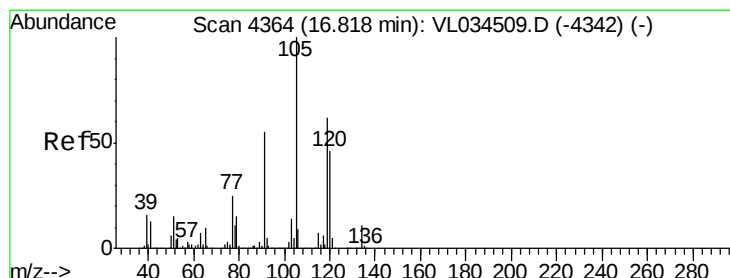
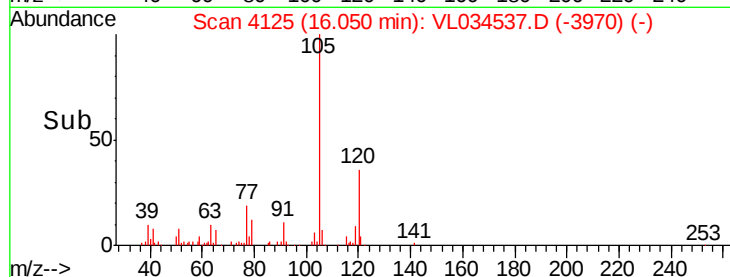
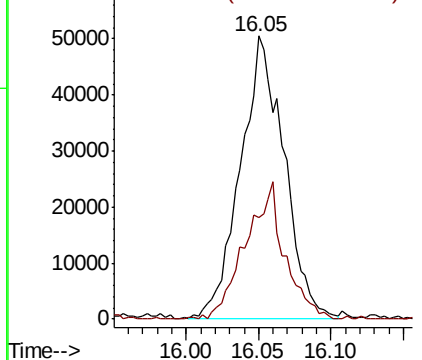
apatel

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Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#74

1,2,4-Trimethylbenzene

Concen: 1.316 ppbv

RT: 16.82 min Scan# 4364

Delta R.T. 0.00 min

Lab File: VL034537.D

Acq: 31 Dec 2019 7:44

Tgt Ion:105 Resp: 344364

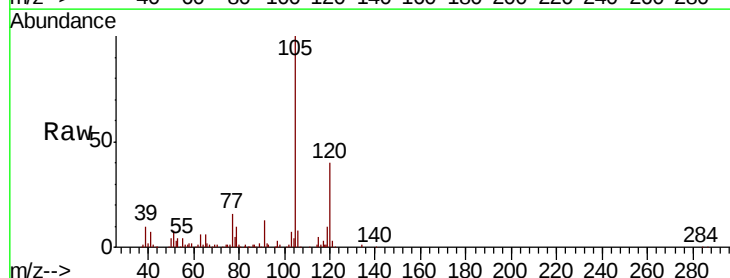
Ion Ratio Lower Upper

105 100

120 40.5 36.7 55.1

91 12.9 44.0 66.0#

77 15.6 19.9 29.9#



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0

