

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL040419\
 Data File : VL033556.D
 Acq On : 5 Apr 2019 6:07
 Operator : SY/AP
 Sample : K2226-04
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV4

Manual Integrations
 APPROVED

MMDadoda
 4/8/2019 3:22:34 AM

Quant Time: Apr 05 07:00:50 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032519AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Mar 2
 QLast Update : Tue Mar 26 16:00:50 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	1108910	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	2771805	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.23	117	2925618	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.57	95	2264904	9.87	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.70%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.07	85	44196	0.273 ppbv	99
4) Chloromethane	3.17	50	19246	0.285 ppbv	96
9) Propene	3.03	41	1718753	32.058 ppbv	99
10) Heptane	8.24	43	131009	0.914 ppbv	99
11) Trichlorofluoromethane	4.00	101	39648	0.199 ppbv	95
13) Ethanol	3.65	45	201599	14.531 ppbv	66
15) Acetone	3.89	43	6484891	48.636 ppbv	93
17) tert-Butyl alcohol	4.36	59	68955	2.813 ppbv	95
20) Methylene Chloride	4.41	84	231026	4.082 ppbv	97
26) Hexane	5.78	57	339242	3.084 ppbv #	60
27) Carbon Disulfide	4.62	76	232022	1.774 ppbv	99
29) Chloroform	5.85	83	36850	0.195 ppbv #	80
30) Cyclohexane	7.25	84	39542	0.454 ppbv #	80
34) 2-Butanone	5.33	43	369198	2.217 ppbv	97
36) Benzene	7.00	78	409604	1.761 ppbv	96
38) Trichloroethene	7.96	130	23281m	0.266 ppbv	
52) Tetrachloroethene	11.37	164	44329m	0.505 ppbv	
53) Toluene	9.94	91	942305	3.487 ppbv	100
58) Ethyl Benzene	12.86	91	340346	0.871 ppbv	98
59) m/p-Xylene	13.11	91	783122	2.244 ppbv #	100
60) o-Xylene	13.84	91	228509	0.677 ppbv	97
61) Styrene	13.68	104	64365	0.278 ppbv	92
73) 1,3,5-Trimethylbenzene	16.15	105	63507m	0.175 ppbv	
74) 1,2,4-Trimethylbenzene	16.93	105	205268	0.528 ppbv #	68
75) 1,3-Dichlorobenzene	17.17	146	68687	0.286 ppbv #	56

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

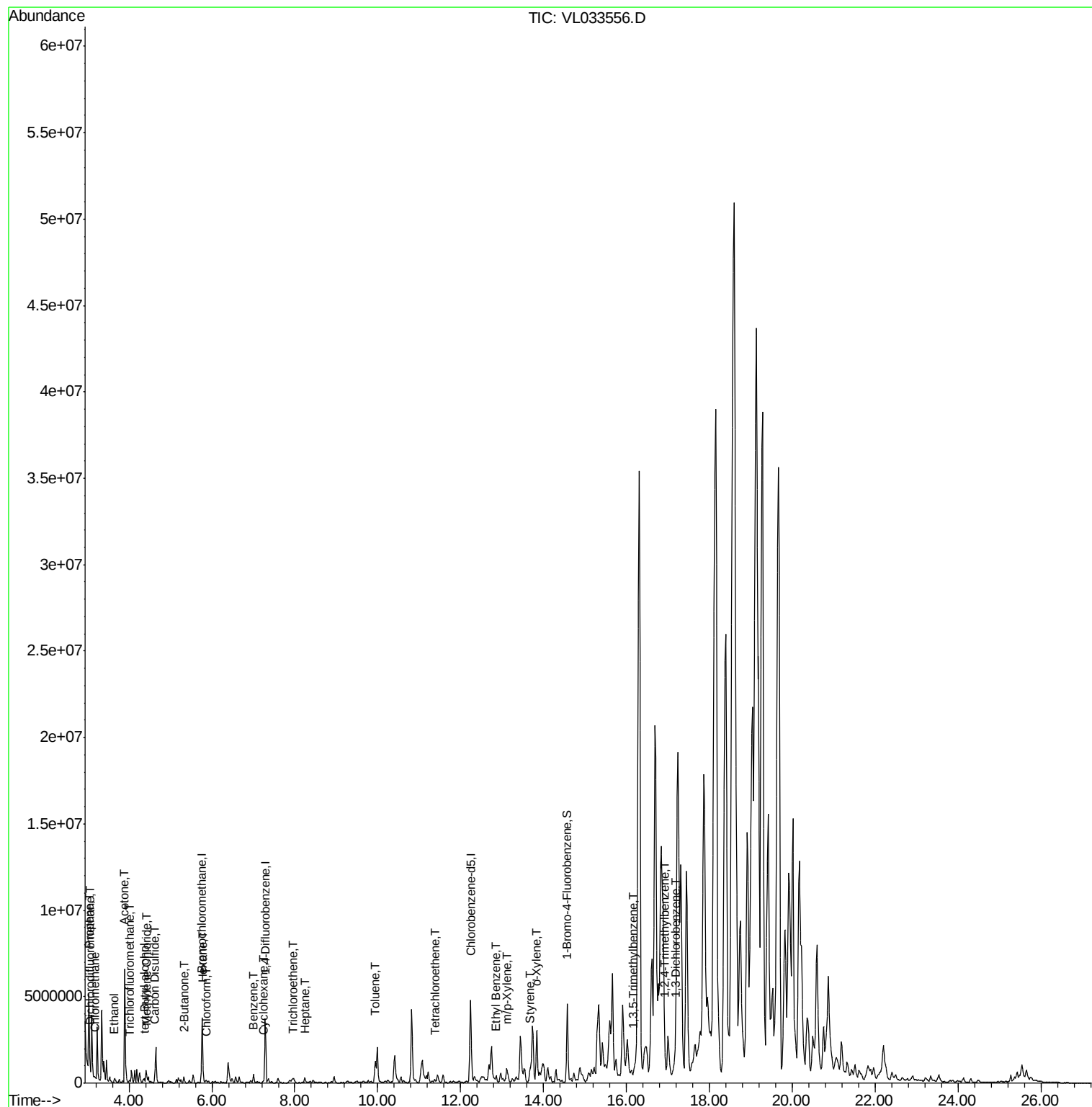
Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL040419\
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Acq On : 5 Apr 2019 6:07
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Quant Time: Apr 05 07:00:50 2019
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032519AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Mar
QLast Update : Tue Mar 26 16:00:50 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 878

Delta R.T. -0.00 min

Lab File: VL033556.D

Acq: 5 Apr 2019 6:07

Instrument :

MSVOA_L

ClientSampleId :

SV4

Tot Ion: 49 Resp: 1108910

Ion Ratio Lower Upper

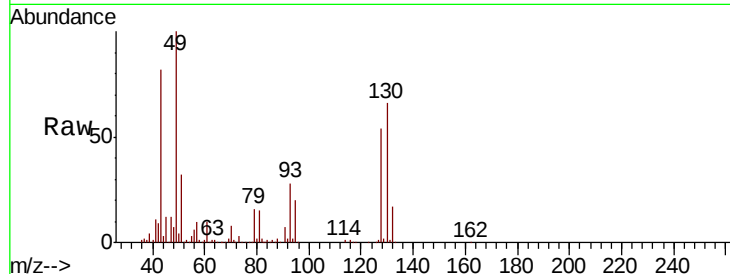
49 100

128 54.1 24.0 72.0

130 67.9 31.2 93.6

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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

800000

600000

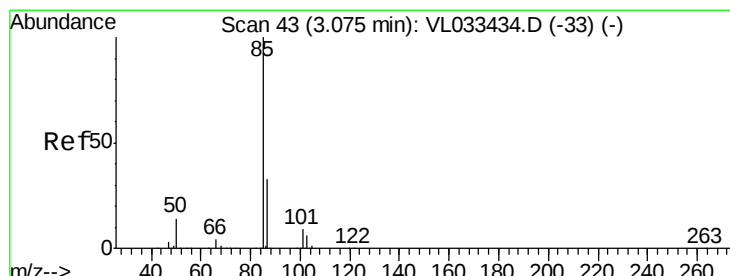
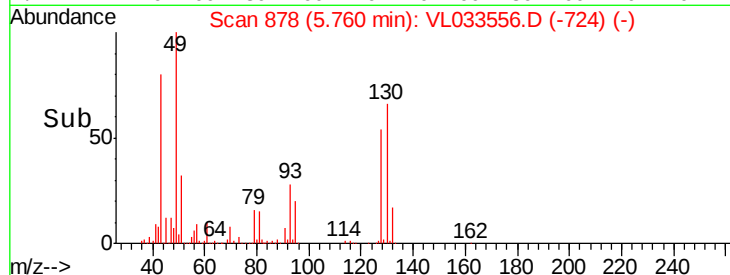
400000

200000

0

5.70 5.75 5.80

Time-->



#2

Dichlorodifluoromethane

Concen: 0.273 ppbv

RT: 3.07 min Scan# 42

Delta R.T. -0.00 min

Lab File: VL033556.D

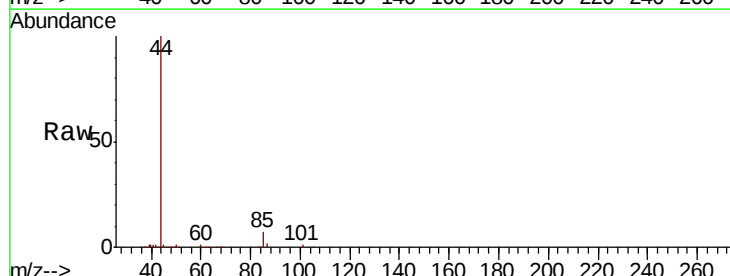
Acq: 5 Apr 2019 6:07

Tgt Ion: 85 Resp: 44196

Ion Ratio Lower Upper

85 100

87 32.9 26.7 40.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

40000

30000

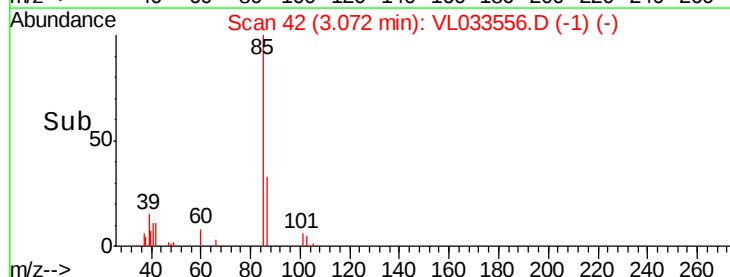
20000

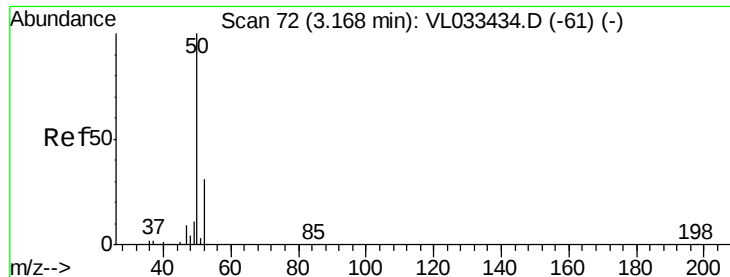
10000

0

3.05 3.10

Time-->





#4

Chloromethane

Concen: 0.285 ppbv

RT: 3.17 min Scan# 71

Delta R.T. -0.00 min

Lab File: VL033556.D

Acq: 5 Apr 2019 6:07

Instrument :

MSVOA_L

ClientSampleId :

SV4

Tot Ion: 50 Resp: 19246

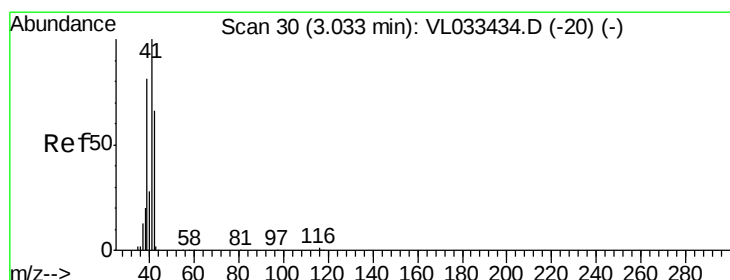
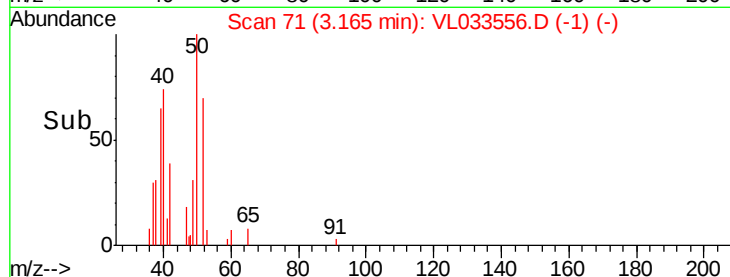
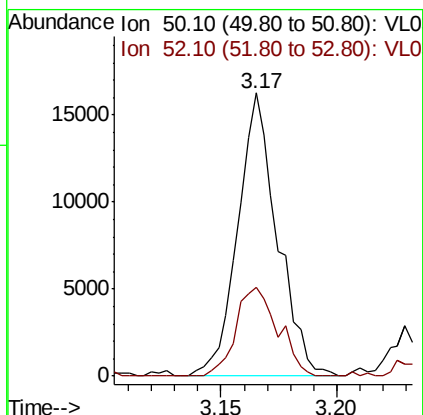
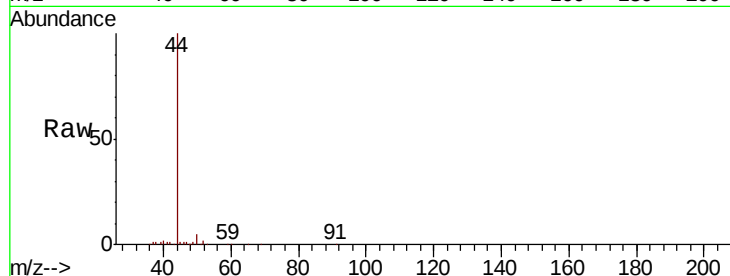
Ion Ratio Lower Upper

50 100

52 33.7 25.0 37.6

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#9

Propene

Concen: 32.058 ppbv

RT: 3.03 min Scan# 29

Delta R.T. -0.00 min

Lab File: VL033556.D

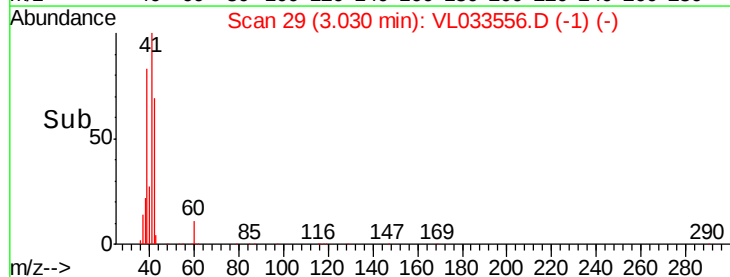
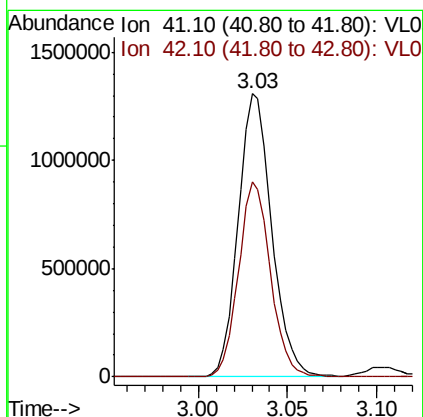
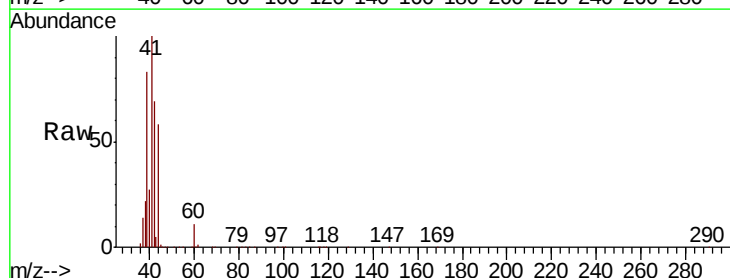
Acq: 5 Apr 2019 6:07

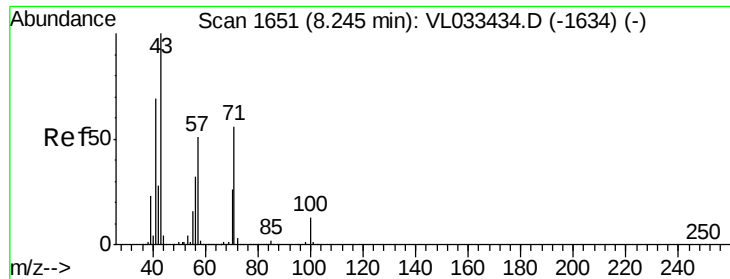
Tgt Ion: 41 Resp: 1718753

Ion Ratio Lower Upper

41 100

42 66.3 53.9 80.9





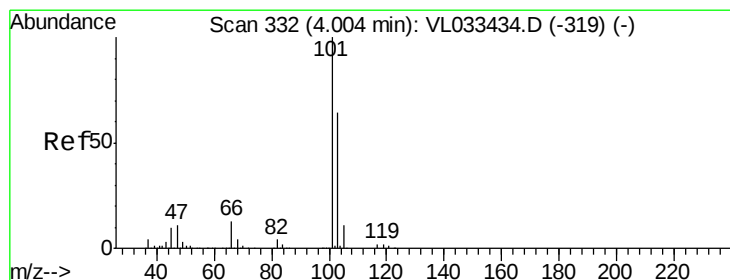
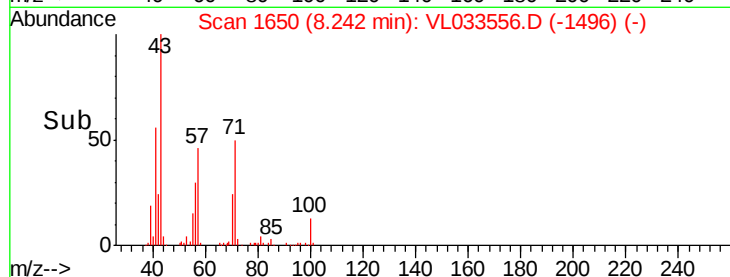
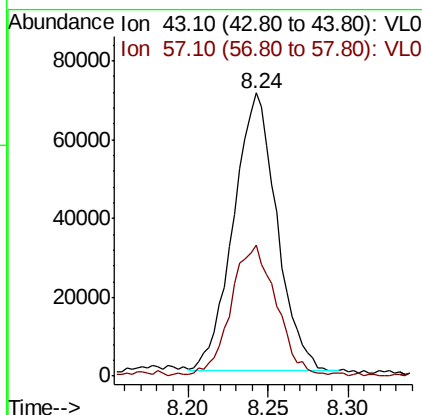
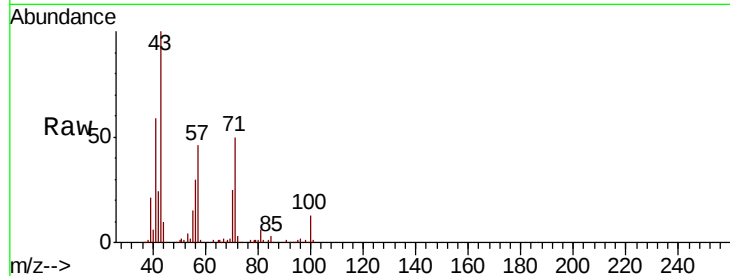
#10
Heptane
Concen: 0.914 ppbv
RT: 8.24 min Scan# 1650
Delta R.T. -0.00 min
Lab File: VL033556.D
Acq: 5 Apr 2019 6:07

Instrument :
MSVOA_L
ClientSampleId :
SV4

Tot Ion: 43 Resp: 131009
Ion Ratio Lower Upper
43 100
57 51.7 40.6 60.8

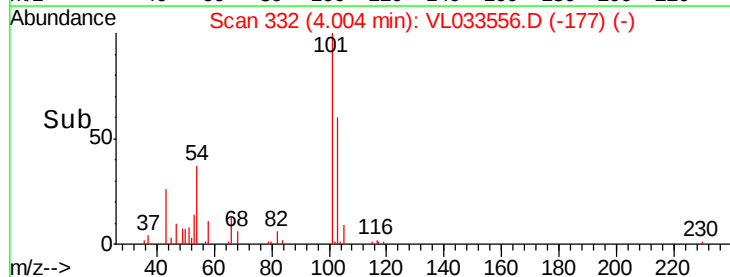
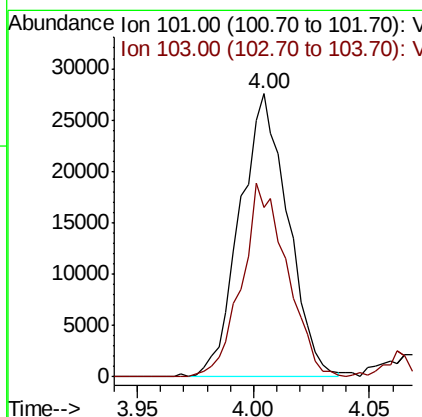
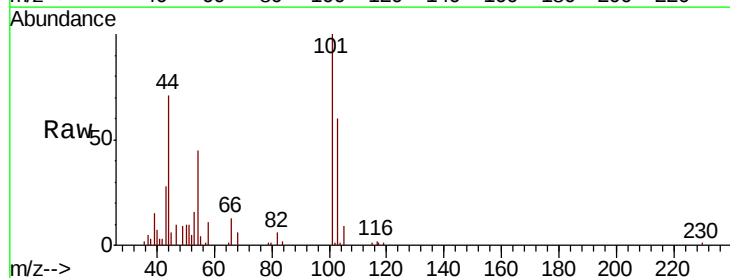
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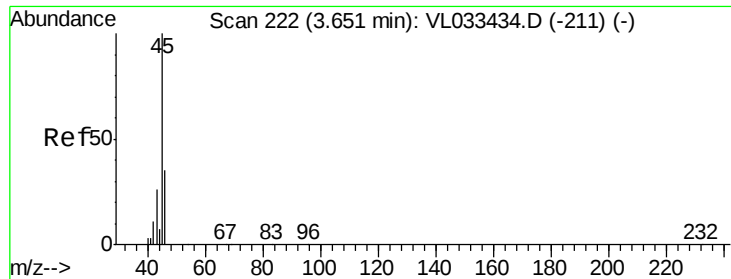
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#11
Trichlorofluoromethane
Concen: 0.199 ppbv
RT: 4.00 min Scan# 332
Delta R.T. -0.00 min
Lab File: VL033556.D
Acq: 5 Apr 2019 6:07

Tgt Ion: 101 Resp: 39648
Ion Ratio Lower Upper
101 100
103 59.8 51.3 76.9





#13

Ethanol

Concen: 14.531 ppbv

RT: 3.65 min Scan# 222

Delta R.T. -0.00 min

Lab File: VL033556.D

Acq: 5 Apr 2019 6:07

Instrument :

MSVOA_L

ClientSampled :

SV4

Tot Ion: 45 Resp: 201599

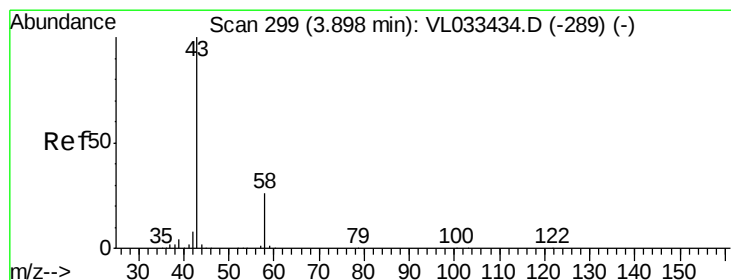
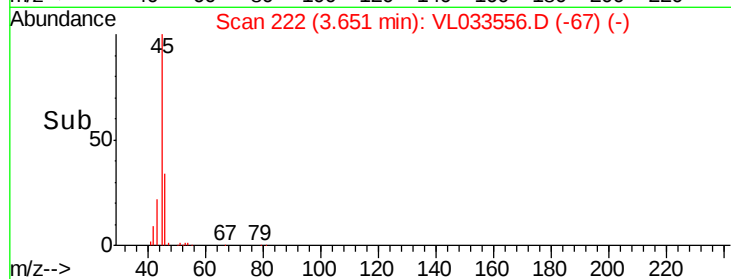
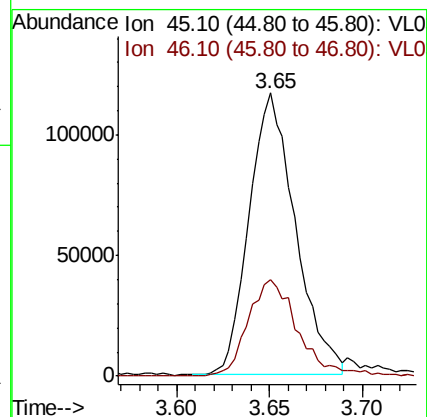
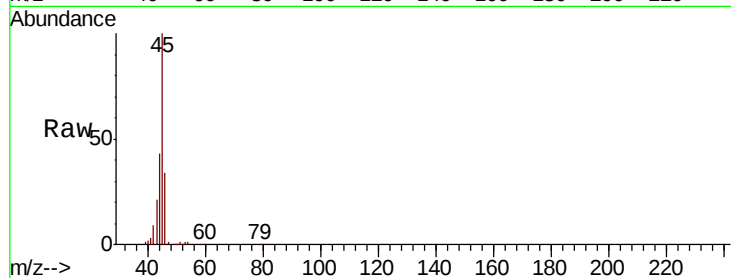
Ion Ratio Lower Upper

45 100

46 36.7 25.4 101.8

Manual Integrations
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#15

Acetone

Concen: 48.636 ppbv

RT: 3.89 min Scan# 298

Delta R.T. -0.00 min

Lab File: VL033556.D

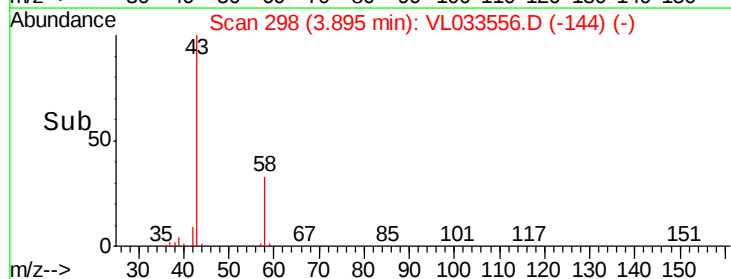
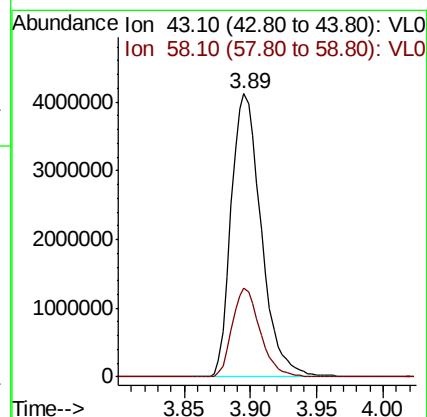
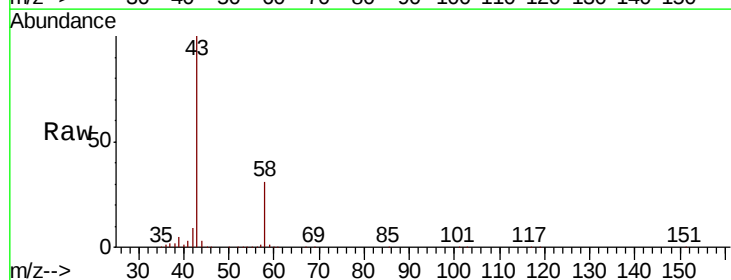
Acq: 5 Apr 2019 6:07

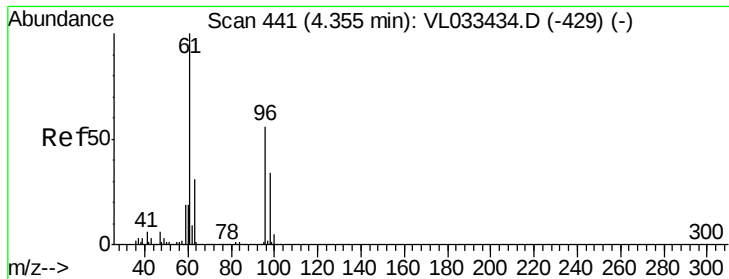
Tgt Ion: 43 Resp: 6484891

Ion Ratio Lower Upper

43 100

58 29.3 20.5 30.7





#17

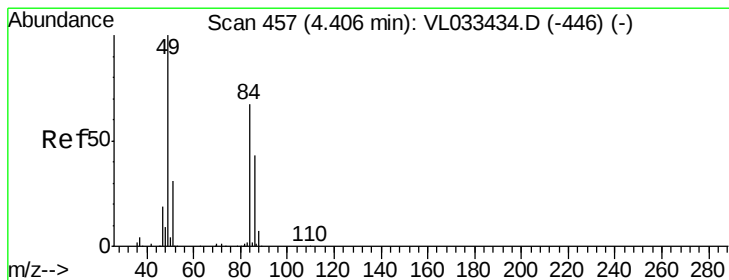
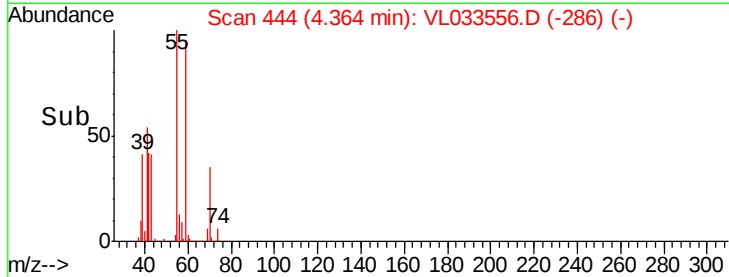
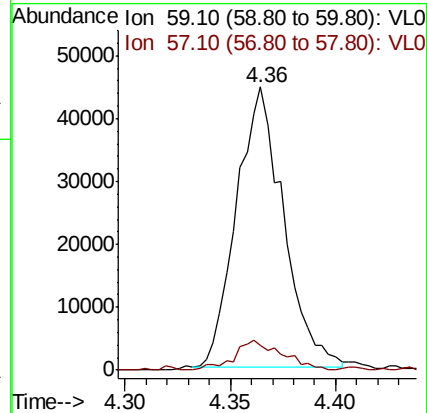
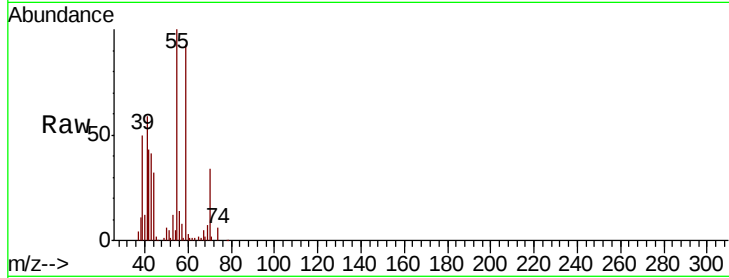
tert-Butyl alcohol
Concen: 2.813 ppbv
RT: 4.36 min Scan# 444
Delta R.T. 0.01 min
Lab File: VL033556.D
Acq: 5 Apr 2019 6:07

Instrument :
MSVOA_L
ClientSampled :
SV4

Tot Ion: 59 Resp: 68955
Ion Ratio Lower Upper
59 100
57 11.7 7.8 11.8

Manual Integrations
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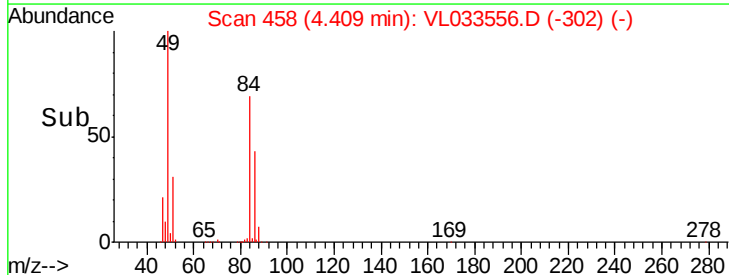
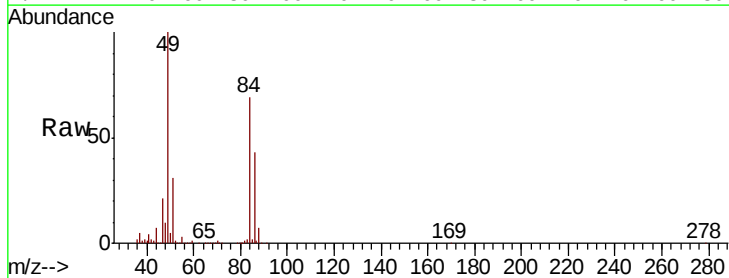
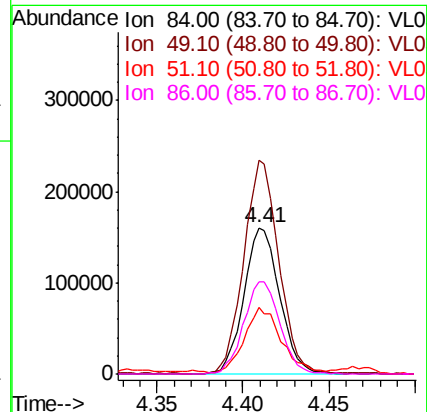
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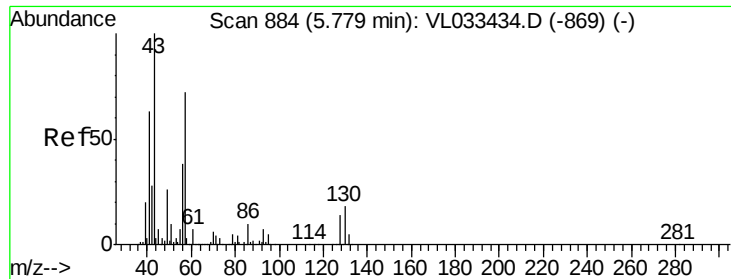


#20

Methylene Chloride
Concen: 4.082 ppbv
RT: 4.41 min Scan# 458
Delta R.T. 0.00 min
Lab File: VL033556.D
Acq: 5 Apr 2019 6:07

Tgt Ion: 84 Resp: 231026
Ion Ratio Lower Upper
84 100
49 145.7 120.0 180.0
51 43.1 36.7 55.1
86 63.1 51.9 77.9





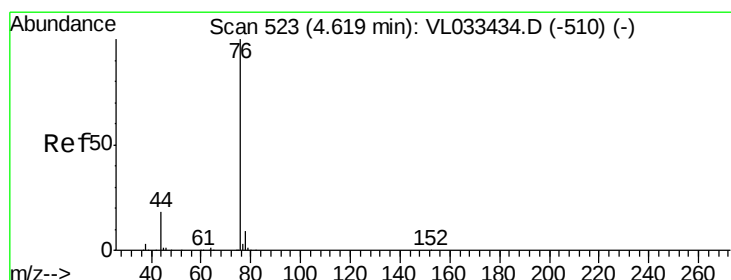
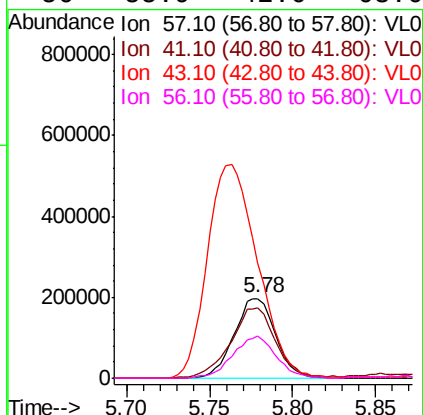
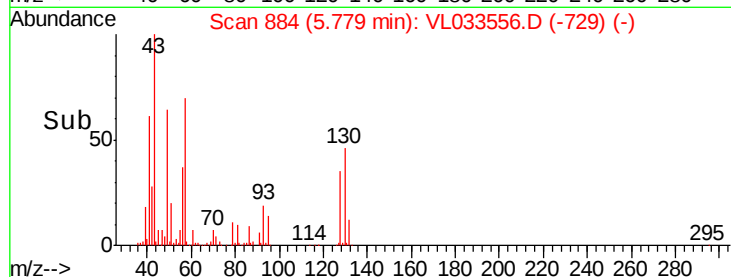
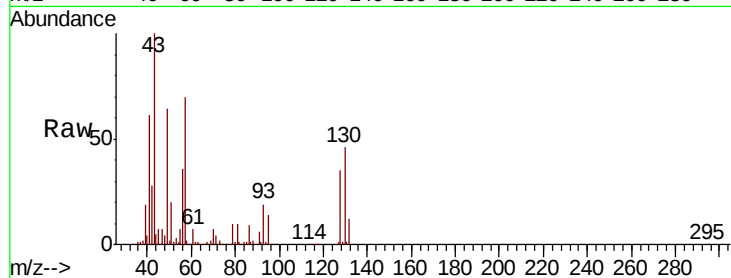
#26
Hexane
Concen: 3.084 ppbv
RT: 5.78 min Scan# 884
Delta R.T. -0.00 min
Lab File: VL033556.D
Acq: 5 Apr 2019 6:07

Instrument :
MSVOA_L
ClientSampled :
SV4

Tot Ion	57	Resp	339242
Ion	Ratio	Lower	Upper
57	100		
41	97.5	70.7	106.1
43	327.4	182.6	274.0#
56	55.9	42.0	63.0

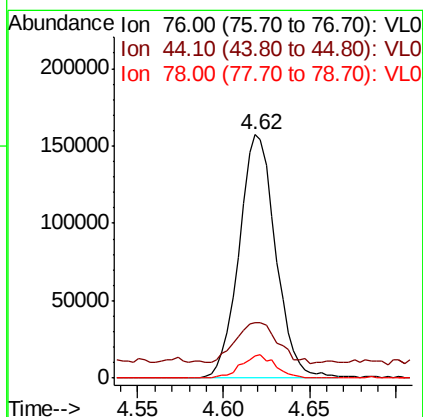
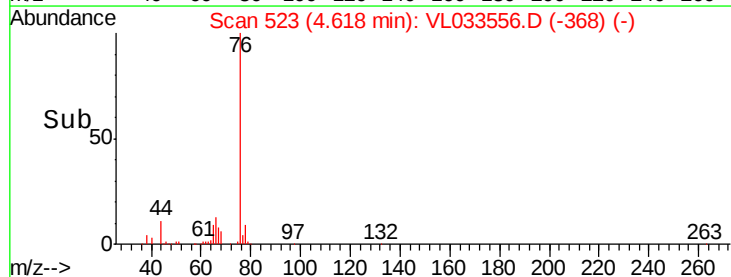
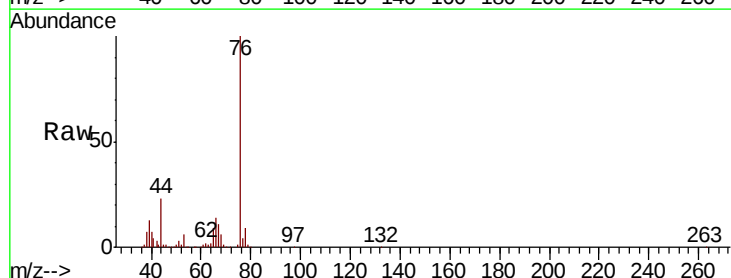
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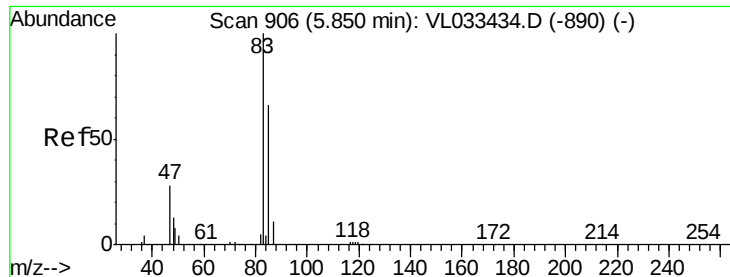
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#27
Carbon Disulfide
Concen: 1.774 ppbv
RT: 4.62 min Scan# 523
Delta R.T. -0.00 min
Lab File: VL033556.D
Acq: 5 Apr 2019 6:07

Tgt Ion	76	Resp	232022
Ion	Ratio	Lower	Upper
76	100		
44	19.1	14.8	22.2
78	9.2	7.6	11.4





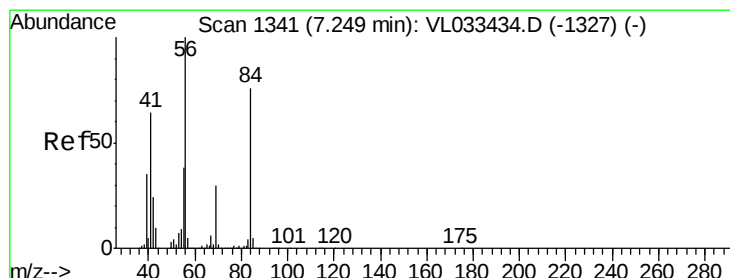
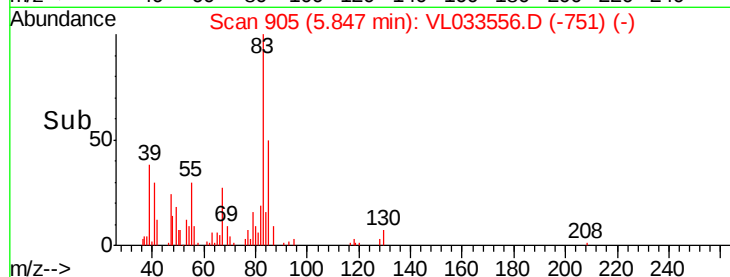
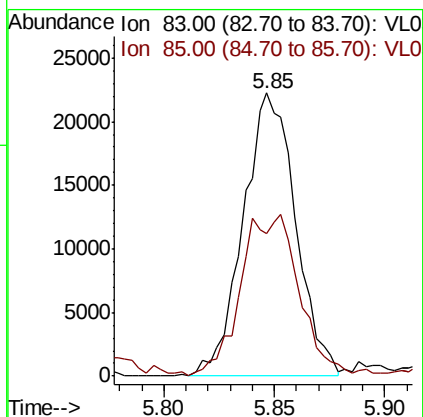
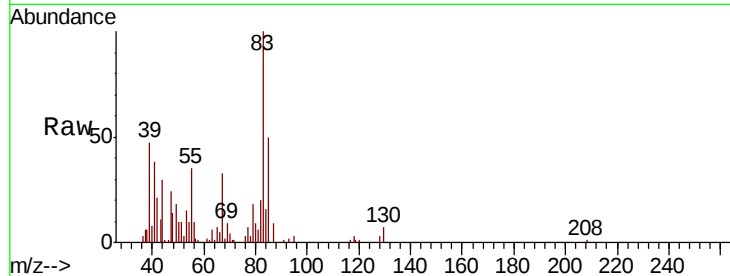
#29
Chloroform
Concen: 0.195 ppbv
RT: 5.85 min Scan# 905
Delta R.T. -0.00 min
Lab File: VL033556.D
Acq: 5 Apr 2019 6:07

Instrument :
MSVOA_L
ClientSampled :
SV4

Tot Ion	83	Resp	36850
Ion Ratio	100	Lower	Upper
83	100		
85	50.2	52.6	79.0#

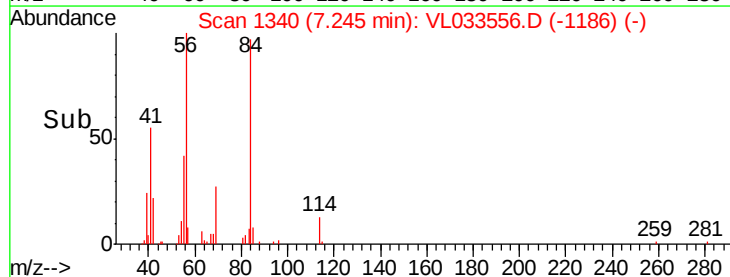
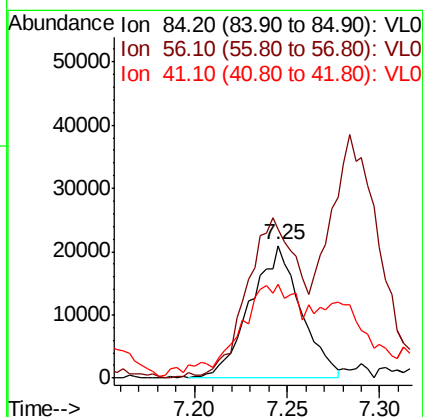
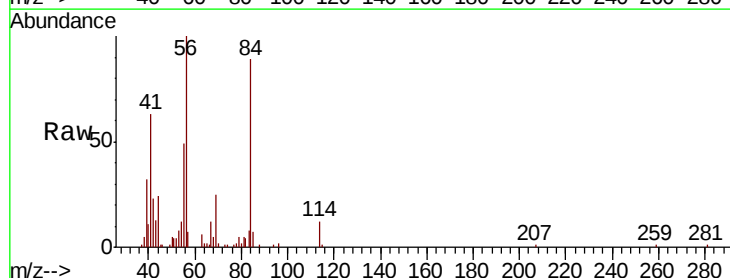
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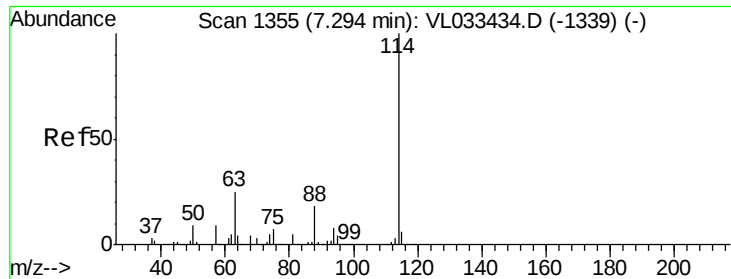
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#30
Cyclohexane
Concen: 0.454 ppbv
RT: 7.25 min Scan# 1340
Delta R.T. -0.00 min
Lab File: VL033556.D
Acq: 5 Apr 2019 6:07

Tgt Ion	84	Resp	39542
Ion Ratio	100	Lower	Upper
84	100		
56	132.0	109.7	164.5
41	127.6	68.2	102.2#





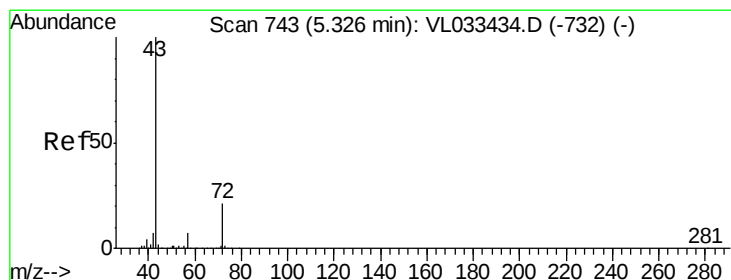
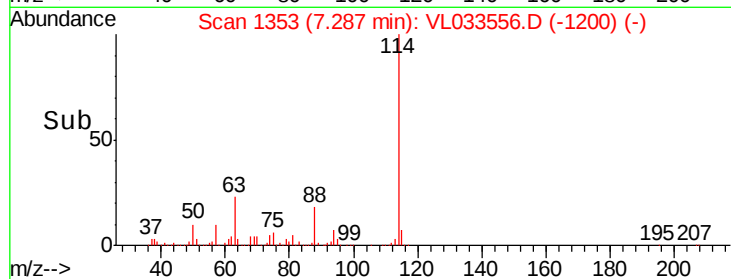
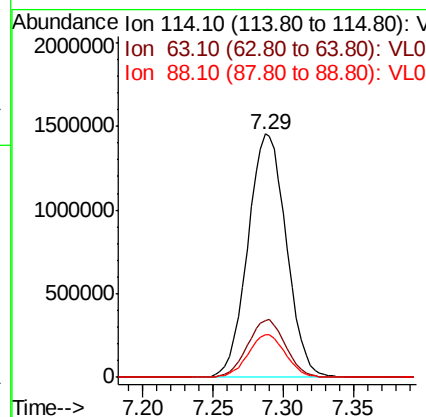
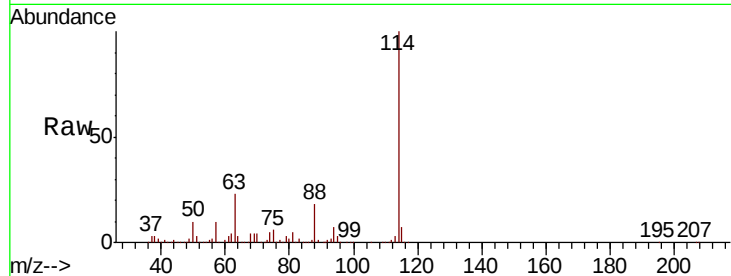
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.29 min Scan# 1353
 Delta R.T. -0.01 min
 Lab File: VL033556.D
 Acq: 5 Apr 2019 6:07

Instrument :
 MSVOA_L
 ClientSampleId :
 SV4

Tot Ion	Ratio	Lower	Upper
114	100		
63	23.4	21.5	32.3
88	17.2	14.5	21.7

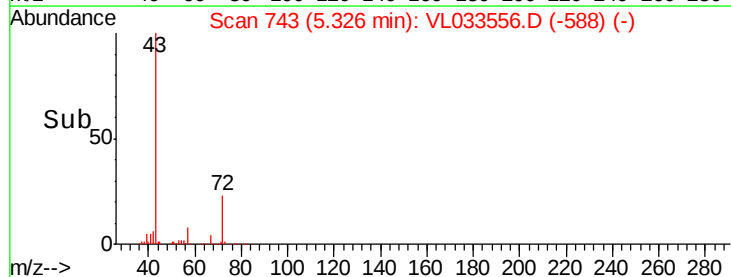
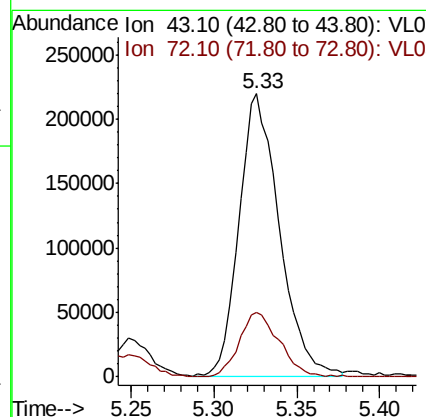
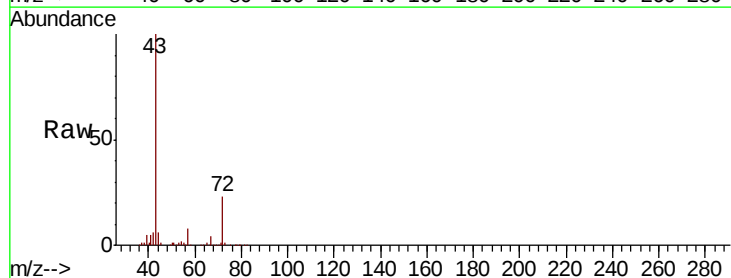
Manual Integrations
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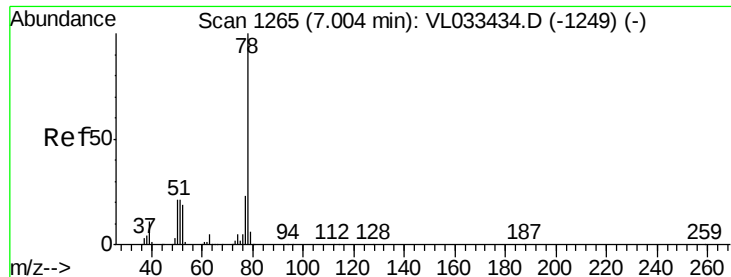
MMDadoda
 4/8/2019 3:22:34 AM



#34
 2-Butanone
 Concen: 2.217 ppbv
 RT: 5.33 min Scan# 743
 Delta R.T. -0.00 min
 Lab File: VL033556.D
 Acq: 5 Apr 2019 6:07

Tgt Ion	Ratio	Lower	Upper
43	100		
72	23.2	17.4	26.2





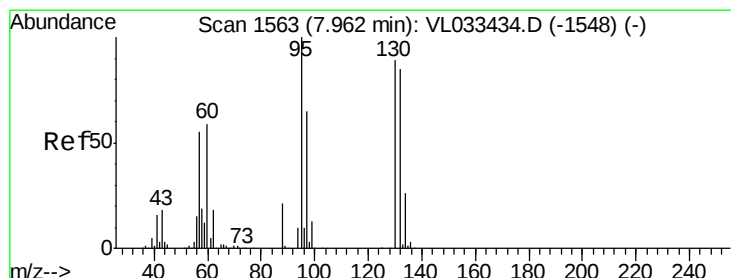
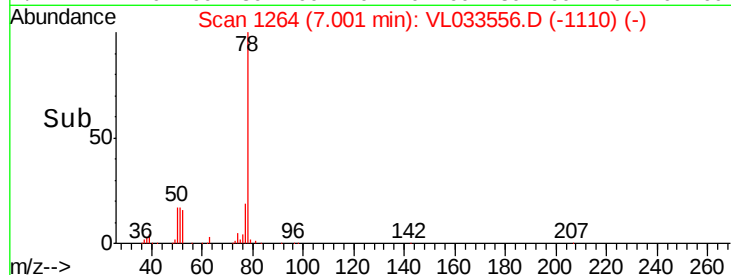
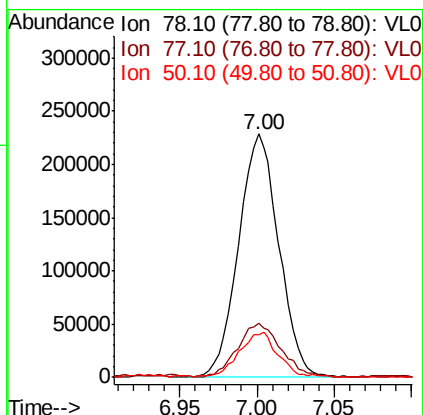
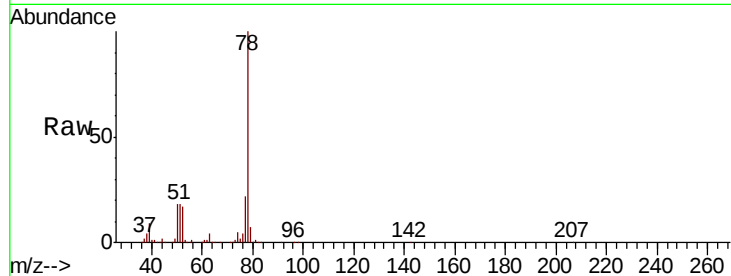
#36
Benzene
Concen: 1.761 ppbv
RT: 7.00 min Scan# 1264
Delta R.T. -0.00 min
Lab File: VL033556.D
Acq: 5 Apr 2019 6:07

Instrument :
MSVOA_L
ClientSampled :
SV4

Tot Ion	Ratio	Lower	Upper
78	100		
77	21.8	18.1	27.1
50	17.6	16.7	25.1

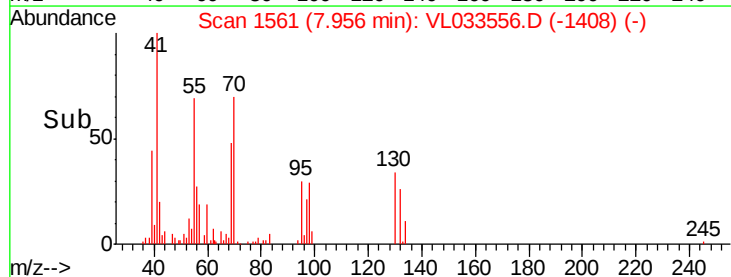
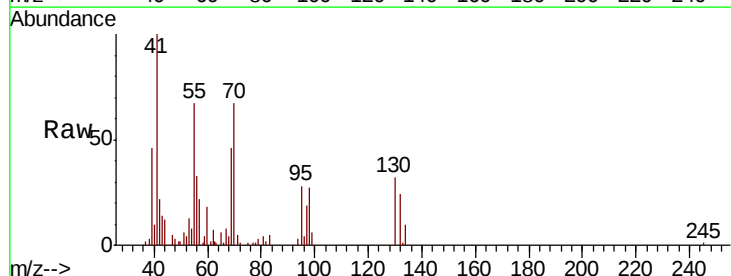
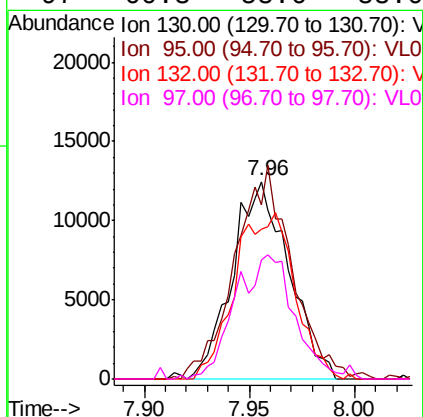
Manual Integrations
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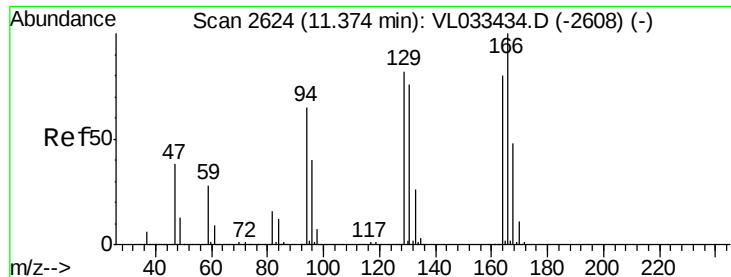
MMDadoda
4/8/2019 3:22:34 AM



#38
Trichloroethene
Concen: 0.266 ppbv m
RT: 7.96 min Scan# 1561
Delta R.T. -0.01 min
Lab File: VL033556.D
Acq: 5 Apr 2019 6:07

Tgt Ion	Ratio	Lower	Upper
130	100		
95	88.2	89.8	134.8#
132	76.0	76.6	115.0#
97	60.3	58.6	88.0





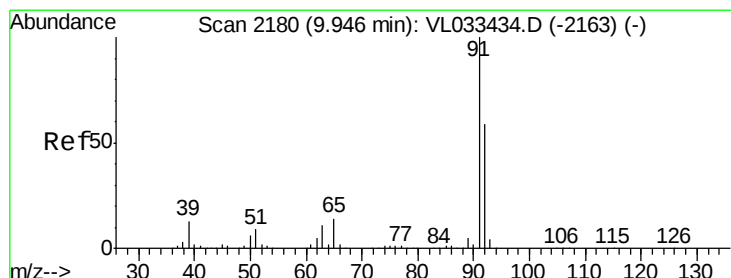
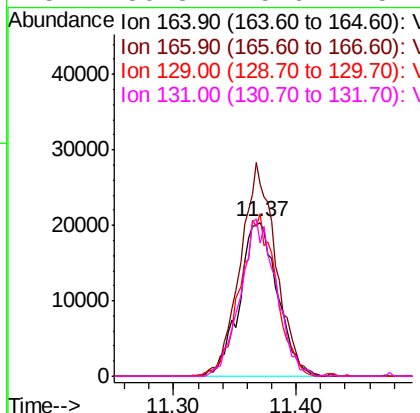
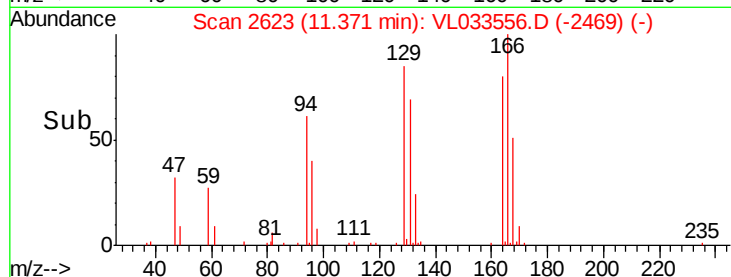
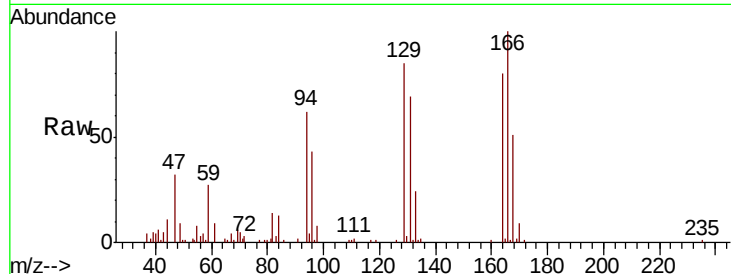
#52
Tetrachloroethene
Concen: 0.505 ppbv m
RT: 11.37 min Scan# 2623
Delta R.T. -0.00 min
Lab File: VL033556.D
Acq: 5 Apr 2019 6:07

Instrument :
MSVOA_L
ClientSampleId :
SV4

Tot Ion	Ratio	Lower	Upper
164	100		
166	125.0	99.5	149.3
129	106.0	81.4	122.2
131	86.3	75.6	113.4

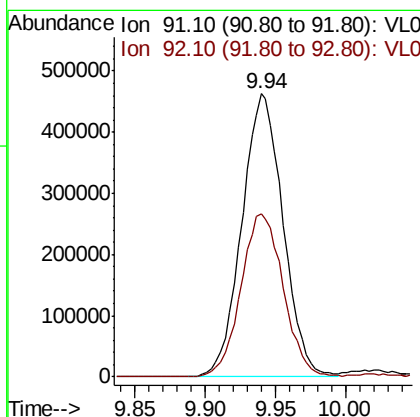
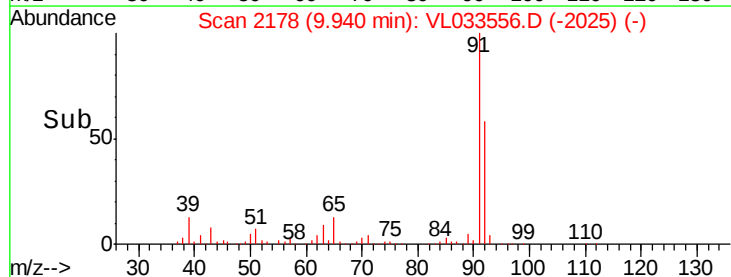
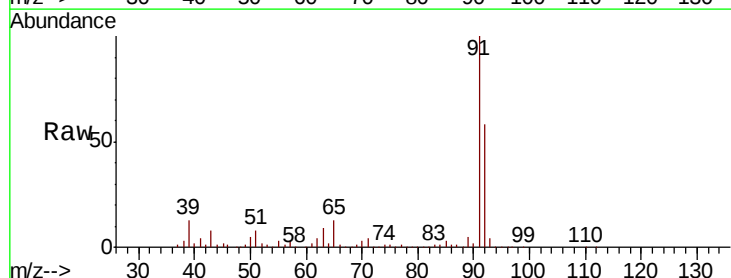
Manual Integrations
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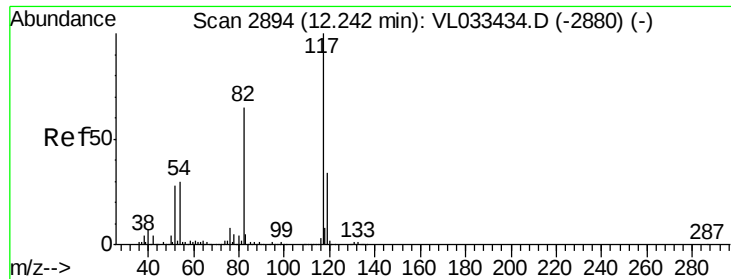
MMDadoda
4/8/2019 3:22:34 AM



#53
Toluene
Concen: 3.487 ppbv
RT: 9.94 min Scan# 2178
Delta R.T. -0.01 min
Lab File: VL033556.D
Acq: 5 Apr 2019 6:07

Tgt Ion	Ratio	Lower	Upper
91	100		
92	59.3	47.4	71.0





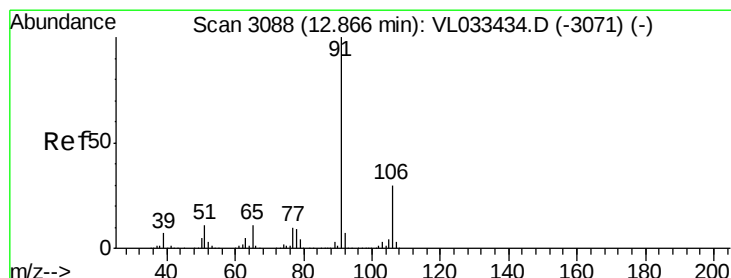
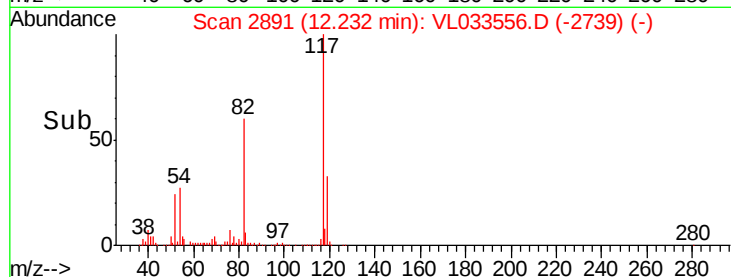
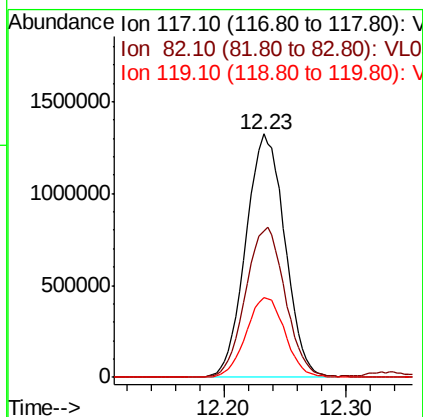
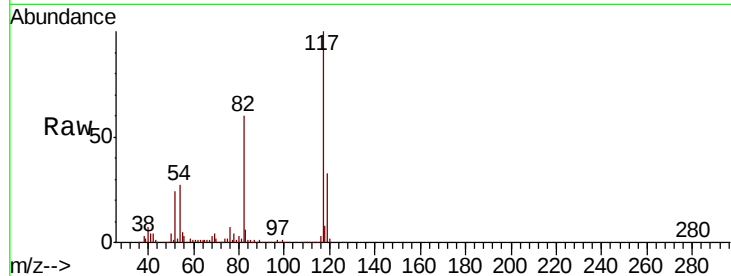
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.23 min Scan# 2891
Delta R.T. -0.01 min
Lab File: VL033556.D
Acq: 5 Apr 2019 6:07

Instrument :
MSVOA_L
ClientSampleId :
SV4

Tot Ion	Ratio	Lower	Upper
117	100		
82	62.8	51.5	77.3
119	32.6	25.5	38.3

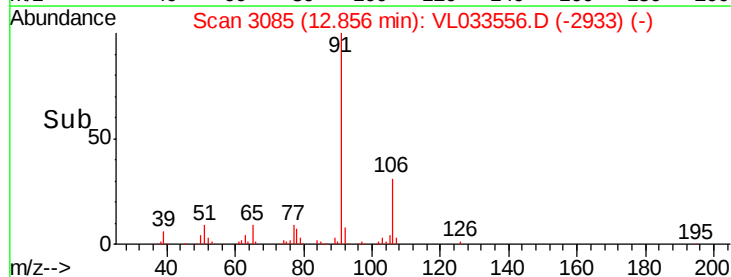
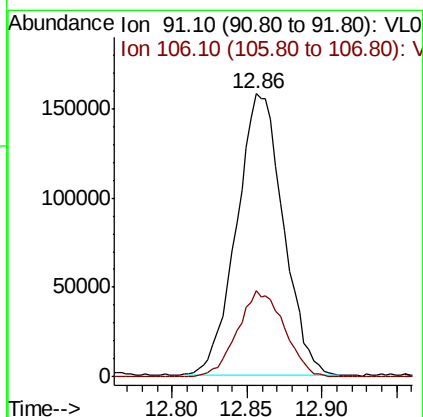
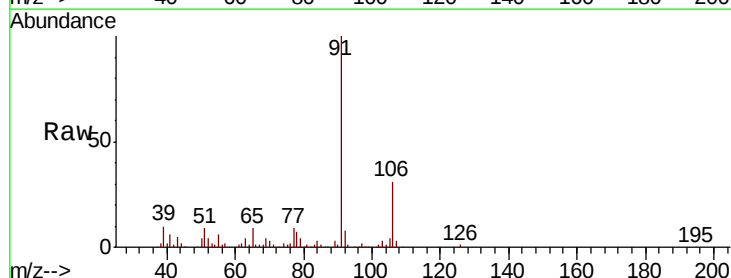
Manual Integrations
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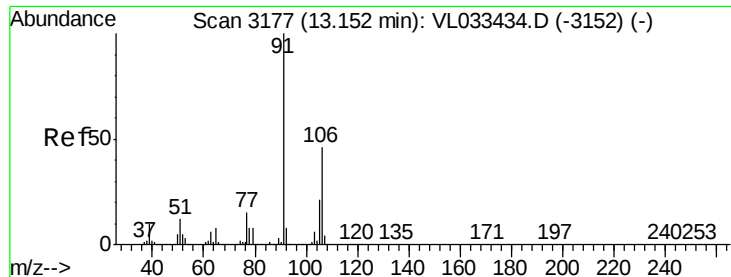
MMDadoda
4/8/2019 3:22:34 AM



#58
Ethyl Benzene
Concen: 0.871 ppbv
RT: 12.86 min Scan# 3085
Delta R.T. -0.01 min
Lab File: VL033556.D
Acq: 5 Apr 2019 6:07

Tgt Ion	Ratio	Lower	Upper
91	100		
106	30.6	23.8	35.6





#59

m/p-Xylene

Concen: 2.244 ppbv

RT: 13.11 min Scan# 3165

Delta R.T. -0.04 min

Lab File: VL033556.D

Acq: 5 Apr 2019 6:07

Instrument :

MSVOA_L

ClientSampled :

SV4

Tot Ion: 91 Resp: 783122

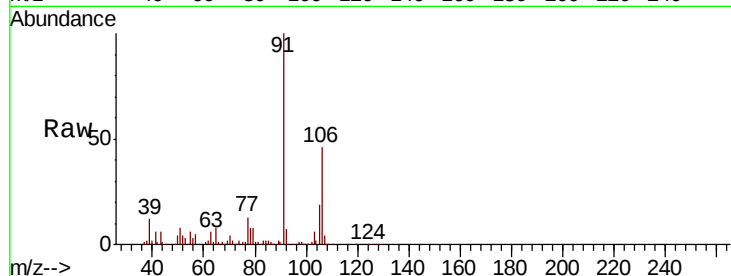
Ion Ratio Lower Upper

91 100

106 46.2 0.0 0.0#

Manual Integrations
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Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

300000

250000

200000

150000

100000

50000

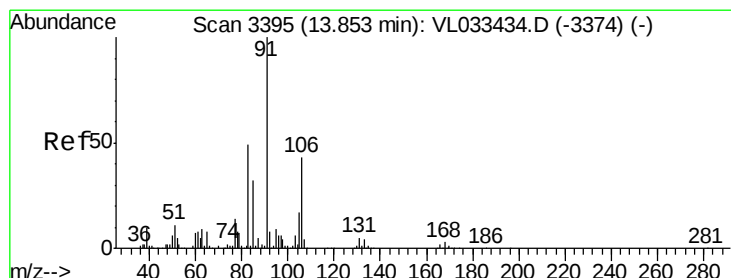
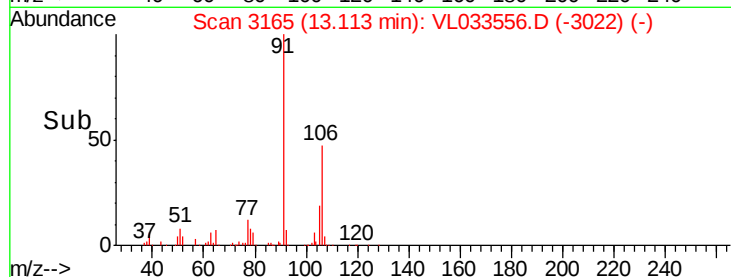
0

13.00

13.10

13.20

Time-->



#60

o-Xylene

Concen: 0.677 ppbv

RT: 13.84 min Scan# 3392

Delta R.T. -0.01 min

Lab File: VL033556.D

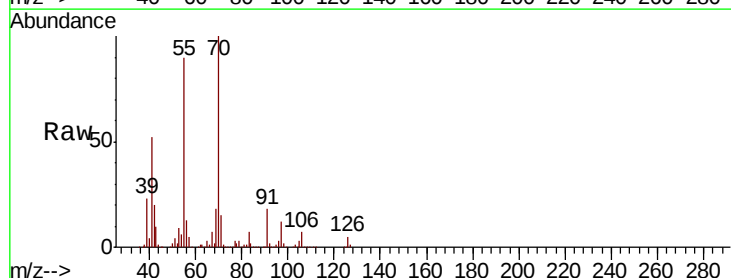
Acq: 5 Apr 2019 6:07

Tgt Ion: 91 Resp: 228509

Ion Ratio Lower Upper

91 100

106 44.7 21.4 64.3



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

120000

100000

80000

60000

40000

20000

0

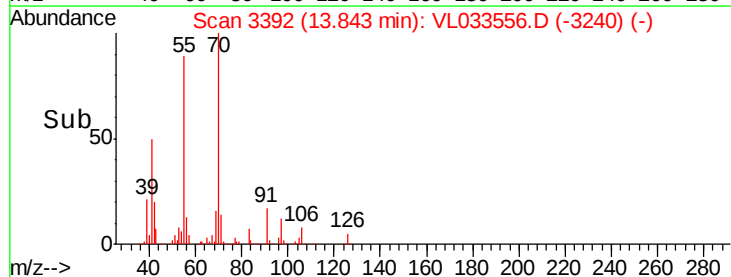
13.75

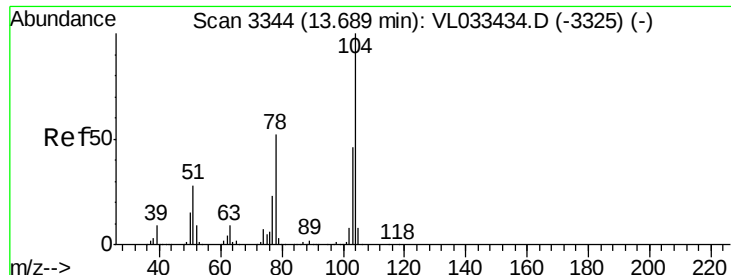
13.80

13.85

13.90

Time-->





#61

Stvrene

Concen: 0.278 ppbv

RT: 13.68 min Scan# 3341

Delta R.T. -0.01 min

Lab File: VL033556.D

Acq: 5 Apr 2019 6:07

Instrument :

MSVOA_L

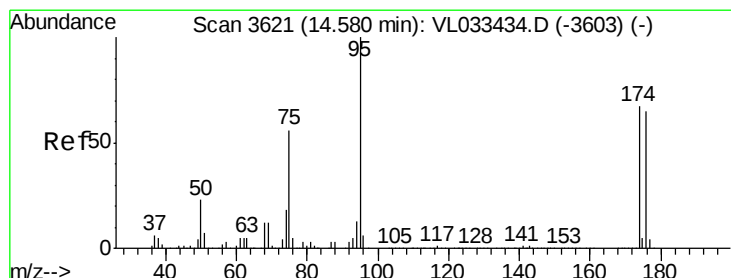
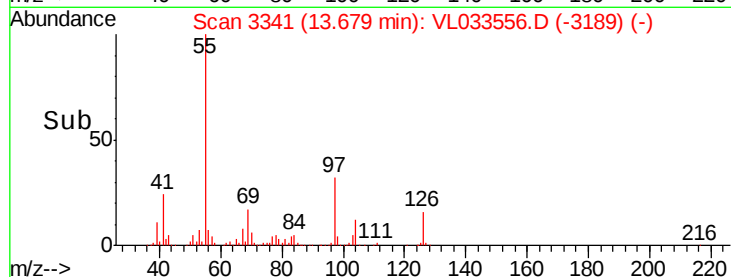
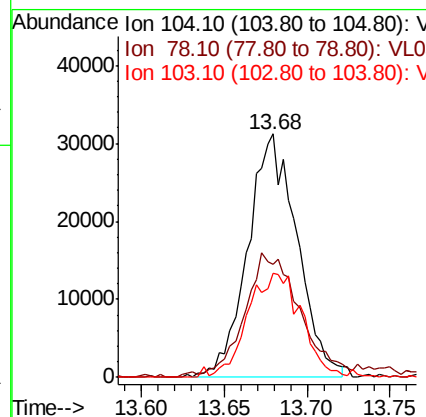
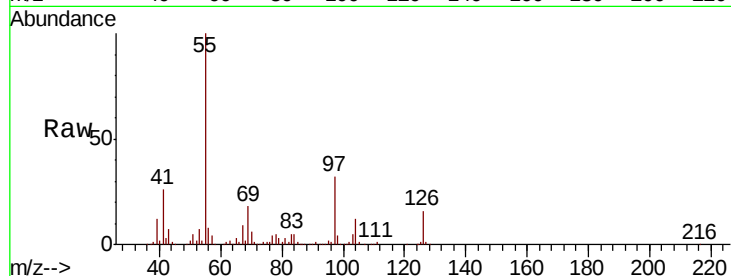
ClientSampled :

SV4

Tot Ion:	104	Resp:	64365
Ion Ratio	Lower	Upper	
104	100		
78	63.4	43.2	64.8
103	48.1	37.8	56.8

Manual Integrations
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#68

1-Bromo-4-Fluorobenzene

Concen: 9.875 ppbv

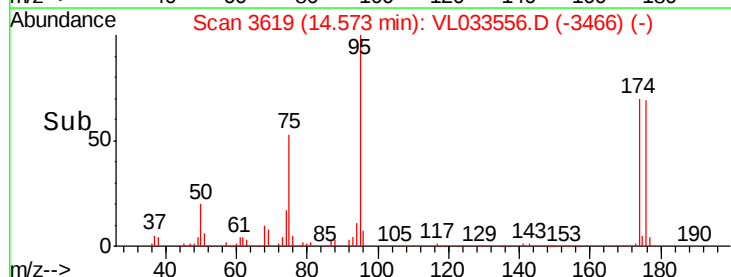
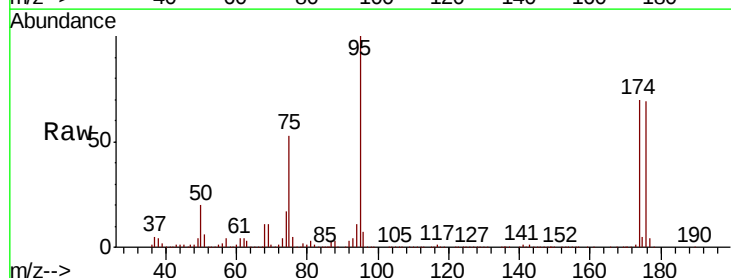
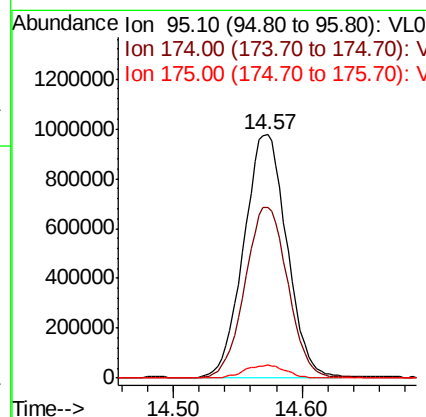
RT: 14.57 min Scan# 3619

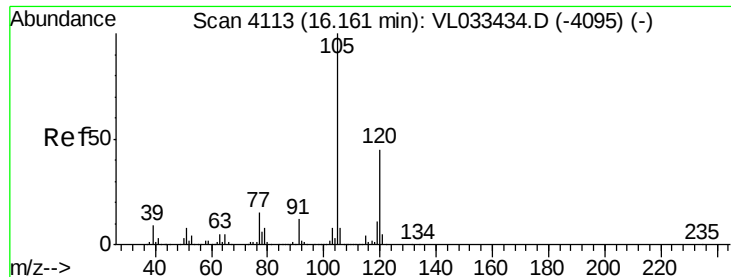
Delta R.T. -0.01 min

Lab File: VL033556.D

Acq: 5 Apr 2019 6:07

Tgt Ion:	95	Resp:	2264904
Ion Ratio	Lower	Upper	
95	100		
174	70.7	52.9	79.3
175	5.2	3.8	5.6





#73

1,3,5-Trimethylbenzene

Concen: 0.175 ppbv m

RT: 16.15 min Scan# 4111

Delta R.T. -0.01 min

Lab File: VL033556.D

Acq: 5 Apr 2019 6:07

Instrument :

MSVOA_L

ClientSampled :

SV4

Tot Ion:105 Resp: 63507

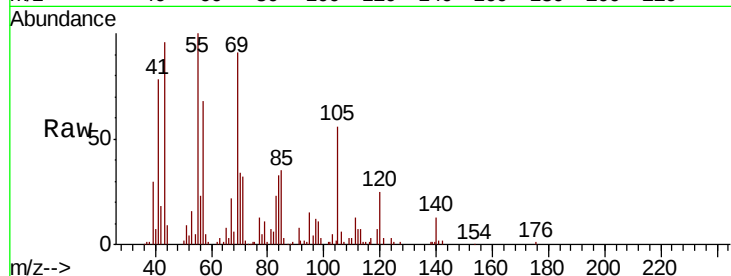
Ion Ratio Lower Upper

105 100

120 44.1 35.7 53.5

Manual Integrations
APPROVED

MMDadoda
4/8/2019 3:22:34 AM



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

16.15

25000

20000

15000

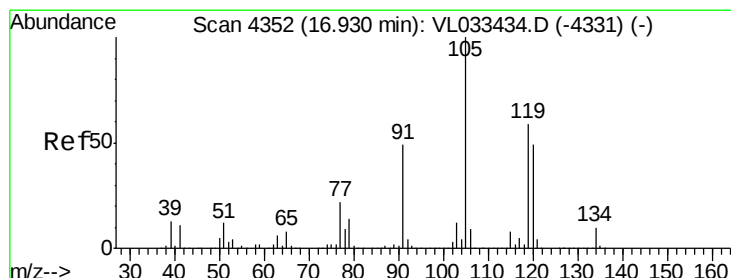
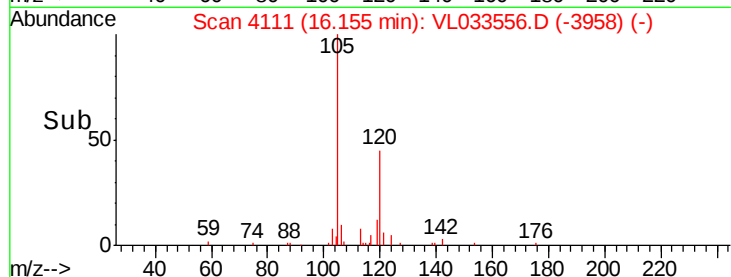
10000

5000

0

Time-->

16.10 16.15 16.20



#74

1,2,4-Trimethylbenzene

Concen: 0.528 ppbv

RT: 16.93 min Scan# 4353

Delta R.T. 0.00 min

Lab File: VL033556.D

Acq: 5 Apr 2019 6:07

Tgt Ion:105 Resp: 205268

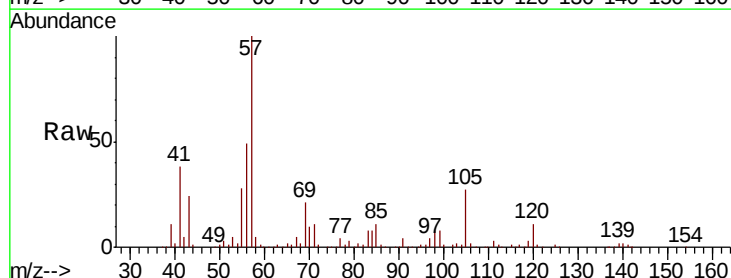
Ion Ratio Lower Upper

105 100

120 40.2 39.0 58.6

91 11.6 40.0 60.0#

77 13.0 17.5 26.3#



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

16.93

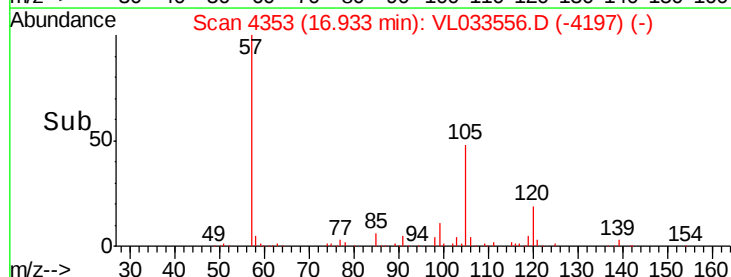
100000

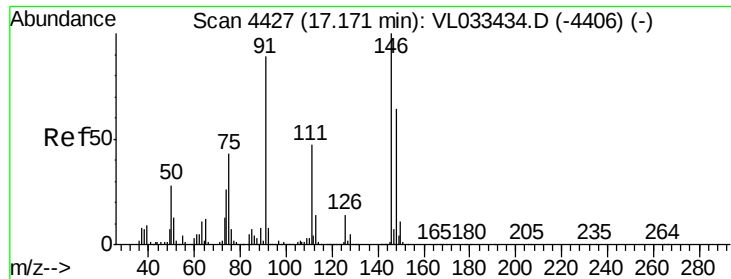
50000

0

Time-->

16.85 16.90 16.95





#75

1,3-Dichlorobenzene

Concen: 0.286 ppbv

RT: 17.17 min Scan# 4427

Delta R.T. -0.00 min

Lab File: VL033556.D

Acq: 5 Apr 2019 6:07

Instrument :

MSVOA_L

ClientSampleId :

SV4

Tot Ion	Ratio	Resp Lower	Upper
146	100		
111	112.8	22.9	68.8#
148	65.9	32.0	96.2

Manual Integrations
APPROVED

MMDadoda
4/8/2019 3:22:34 AM

