

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL080620\
 Data File : VL035355.D
 Acq On : 6 Aug 2020 18:31
 Operator : SY/AP
 Sample : L3554-01
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 1-UNDER-GROUND

Manual Integrations
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 8/10/2020 10:43:22 AM

Quant Time: Aug 09 21:21:14 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL080520AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Aug 09 2020
 QLast Update : Wed Aug 05 13:04:46 2020
 Response via : Initial Calibration

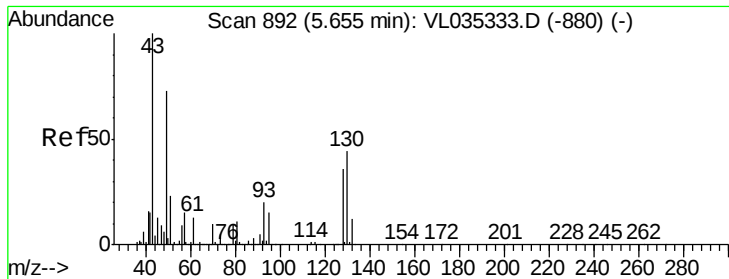
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.65	49	1440149	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3606967	10.00	ppbv	-0.01
55) Chlorobenzene-d5	12.10	117	3380857	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.44	95	2841564	10.08	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.80%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.00	85	54864	0.286	ppbv #	87
3) Chlorodifluoromethane	2.94	51	334333m	2.034	ppbv	
4) Chloromethane	3.09	50	52312	0.562	ppbv	96
9) Propene	2.97	41	281951	4.813	ppbv #	67
10) Heptane	8.12	43	331124	2.213	ppbv	100
11) Trichlorofluoromethane	3.91	101	52455	0.211	ppbv	94
13) Ethanol	3.58	45	9458366	468.140	ppbv	97
15) Acetone	3.80	43	3721881	18.199	ppbv	98
19) Isopropyl Alcohol	3.95	45	10297388m	79.433	ppbv	
20) Methylene Chloride	4.31	84	219418	2.631	ppbv	95
26) Hexane	5.66	57	247472	1.836	ppbv #	36
30) Cyclohexane	7.12	84	41999m	0.411	ppbv	
34) 2-Butanone	5.22	43	190743	1.074	ppbv	98
35) Carbon Tetrachloride	7.01	117	14893	0.060	ppbv #	43
36) Benzene	6.88	78	126173	0.518	ppbv	93
44) 2,2,4-Trimethylpentane	7.86	57	314021	0.726	ppbv #	79
50) 4-Methyl-2-Pentanone	8.76	43	44534m	0.164	ppbv	
52) Tetrachloroethene	11.24	164	13227m	0.137	ppbv	
53) Toluene	9.81	91	5156086	19.460	ppbv	98
58) Ethyl Benzene	12.73	91	204353	0.581	ppbv #	82
59) m/p-Xylene	12.99	91	699136	2.134	ppbv	96
60) o-Xylene	13.71	91	286777m	0.882	ppbv	
61) Styrene	13.55	104	264935	1.335	ppbv	99
72) 4-Ethyltoluene	15.86	105	92326	0.249	ppbv #	91
73) 1,3,5-Trimethylbenzene	16.02	105	114338	0.322	ppbv	98
74) 1,2,4-Trimethylbenzene	16.79	105	337408	0.830	ppbv #	75

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



#1

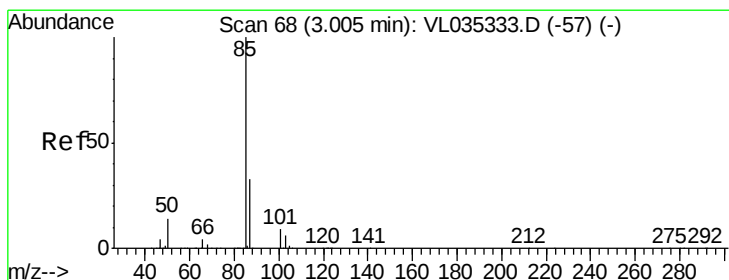
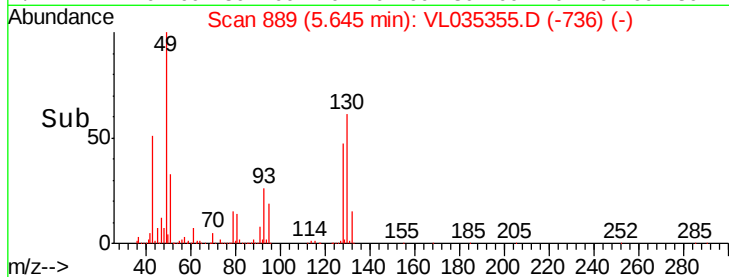
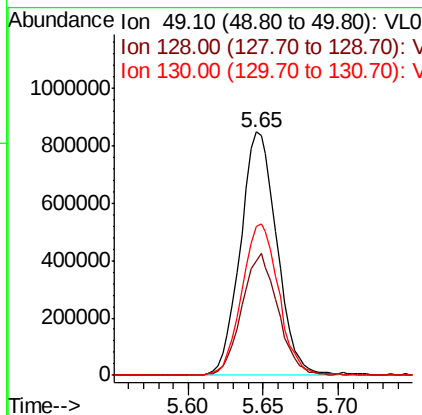
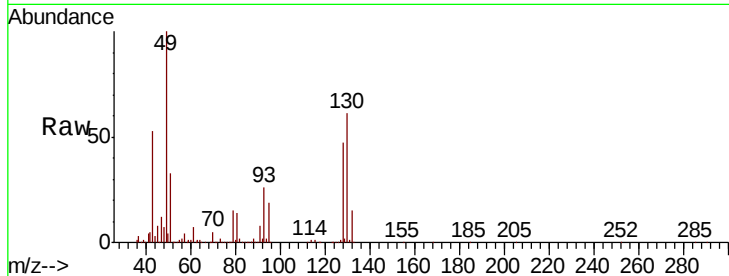
Bromochloromethane
Concen: 10.000 ppbv
RT: 5.65 min Scan# 889
Delta R.T. -0.01 min
Lab File: VL035355.D
Acq: 6 Aug 2020 18:31

Instrument :
MSVOA_L
ClientSampleId :
1-UNDER-GROUND

Tot Ion: 49 Resp: 1440149
Ion Ratio Lower Upper
49 100
128 49.7 25.4 76.0
130 63.1 32.1 96.3

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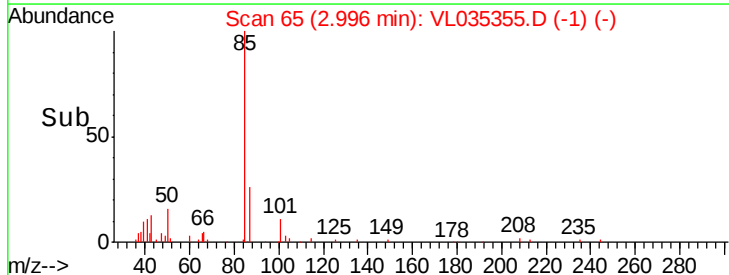
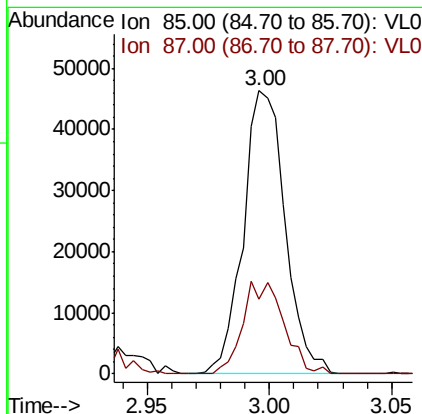
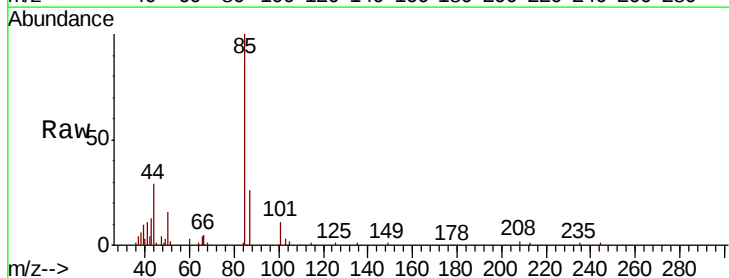
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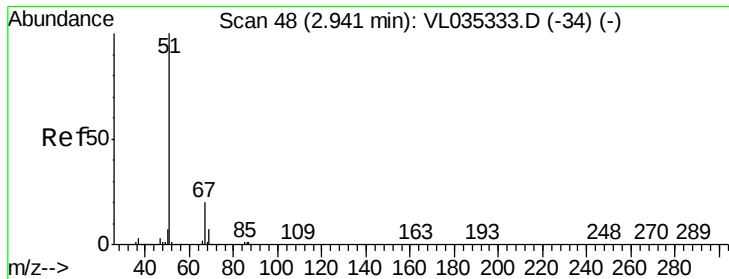


#2

Dichlorodifluoromethane
Concen: 0.286 ppbv
RT: 3.00 min Scan# 65
Delta R.T. -0.01 min
Lab File: VL035355.D
Acq: 6 Aug 2020 18:31

Tgt Ion: 85 Resp: 54864
Ion Ratio Lower Upper
85 100
87 26.2 26.7 40.1#





#3

Chlorodifluoromethane

Concen: 2.034 ppbv

RT: 2.94 min Scan# 47

Delta R.T. -0.00 min

Lab File: VL035355.D

Acq: 6 Aug 2020 18:31

Instrument :

MSVOA_L

ClientSampleId :

1-UNDER-GROUND

Tot Ion: 51 Resp: 334333

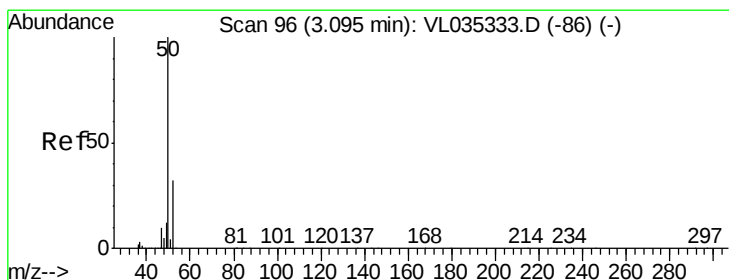
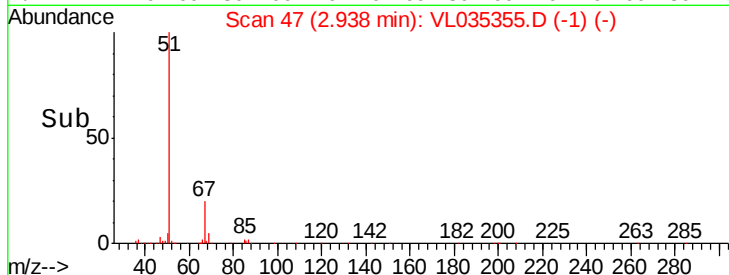
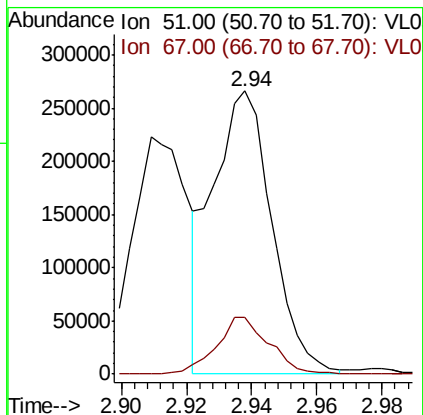
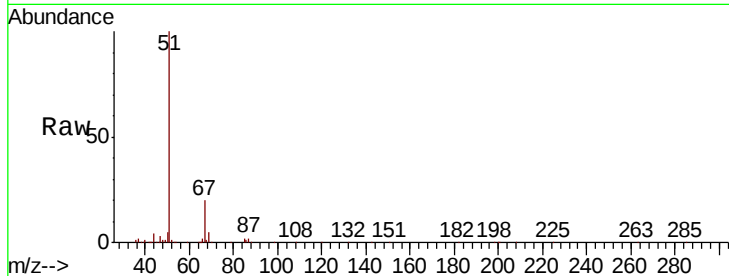
Ion Ratio Lower Upper

51 100

67 18.2 16.6 25.0

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#4

Chloromethane

Concen: 0.562 ppbv

RT: 3.09 min Scan# 94

Delta R.T. -0.01 min

Lab File: VL035355.D

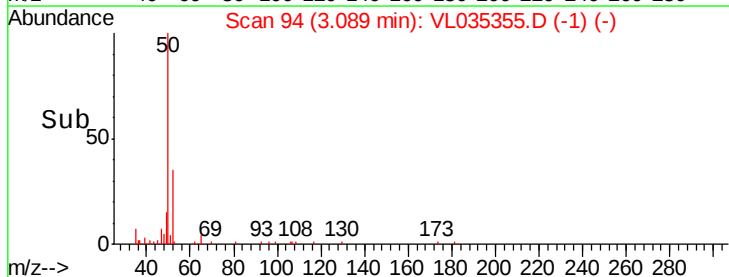
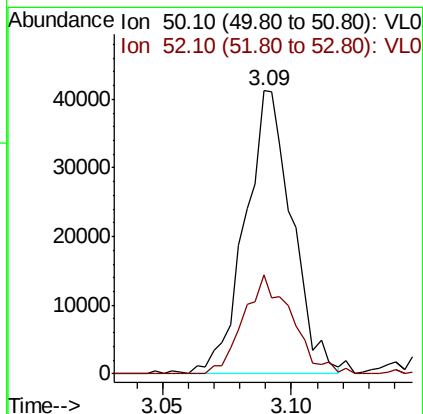
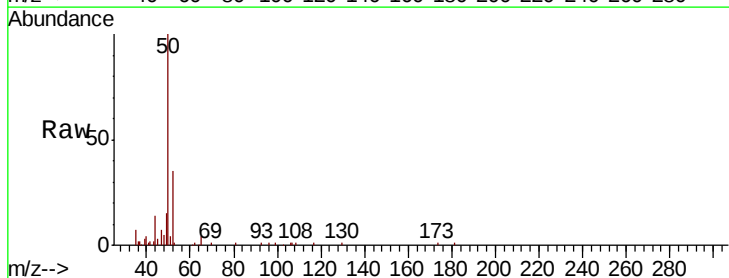
Acq: 6 Aug 2020 18:31

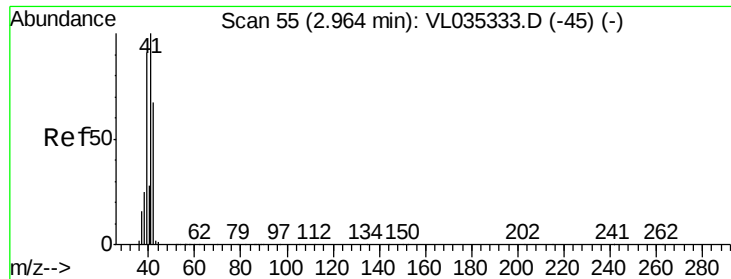
Tgt Ion: 50 Resp: 52312

Ion Ratio Lower Upper

50 100

52 34.9 26.0 39.0





#9

Propene

Concen: 4.813 ppbv

RT: 2.97 min Scan# 57

Delta R.T. 0.01 min

Lab File: VL035355.D

Acq: 6 Aug 2020 18:31

Instrument :

MSVOA_L

ClientSampleId :

1-UNDER-GROUND

Tot Ion: 41 Resp: 281951

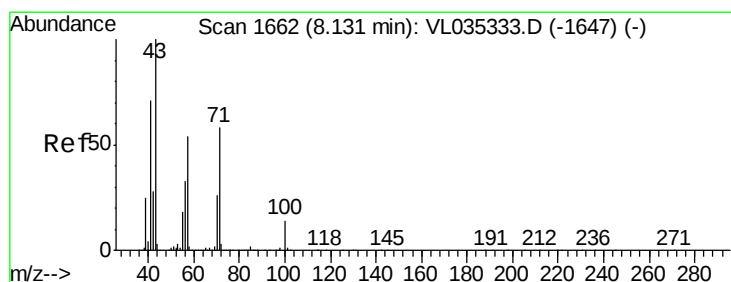
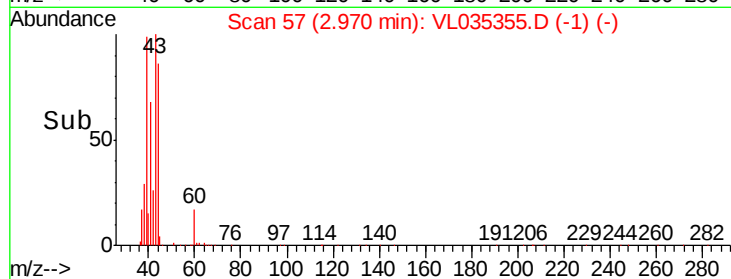
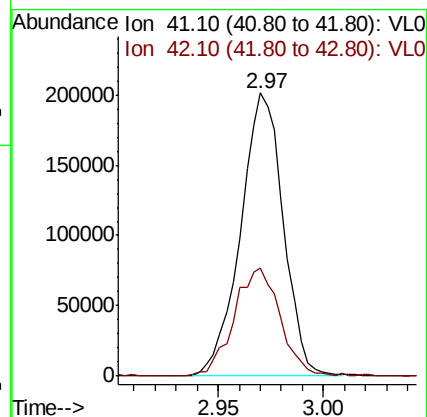
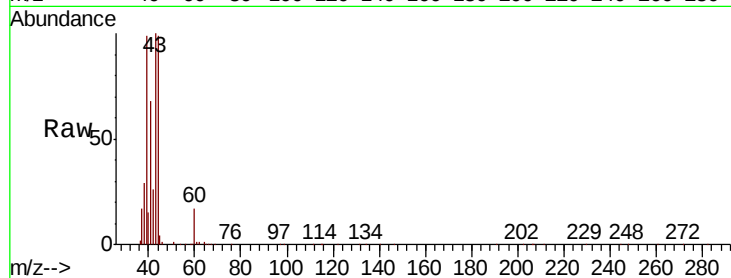
Ion Ratio Lower Upper

41 100

42 41.8 55.3 82.9#

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#10

Heptane

Concen: 2.213 ppbv

RT: 8.12 min Scan# 1658

Delta R.T. -0.01 min

Lab File: VL035355.D

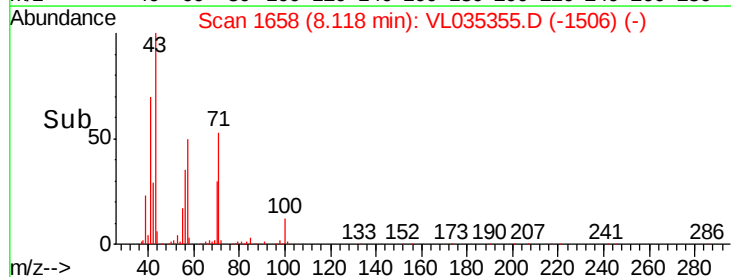
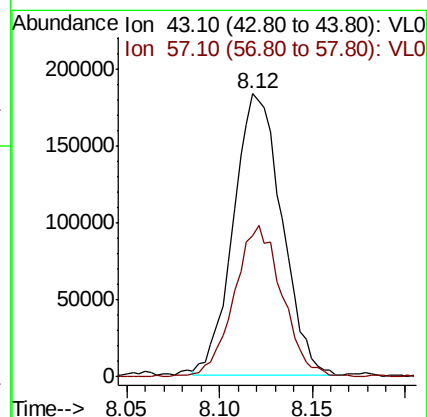
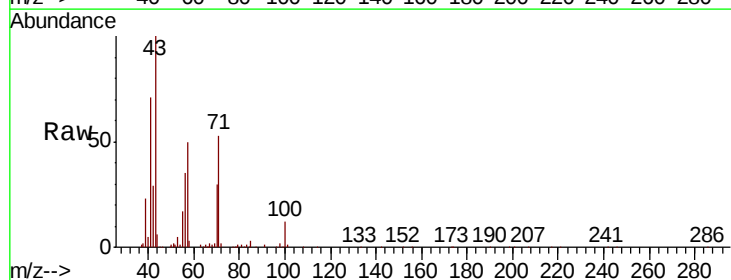
Acq: 6 Aug 2020 18:31

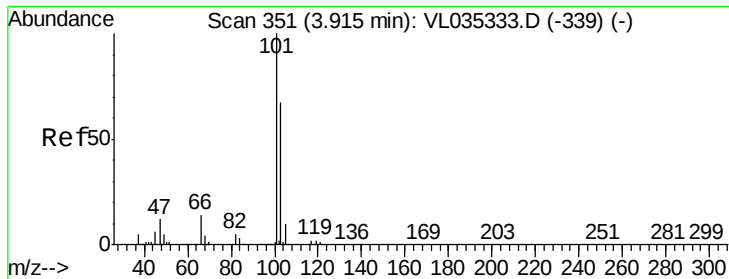
Tgt Ion: 43 Resp: 331124

Ion Ratio Lower Upper

43 100

57 53.8 43.0 64.6





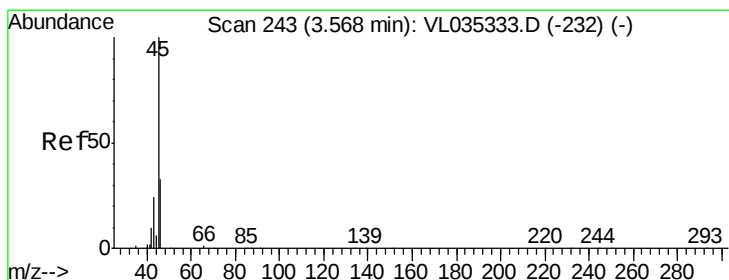
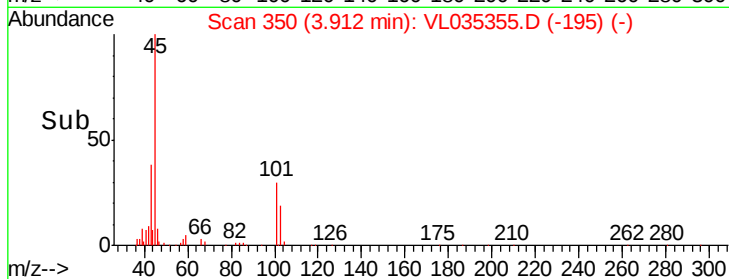
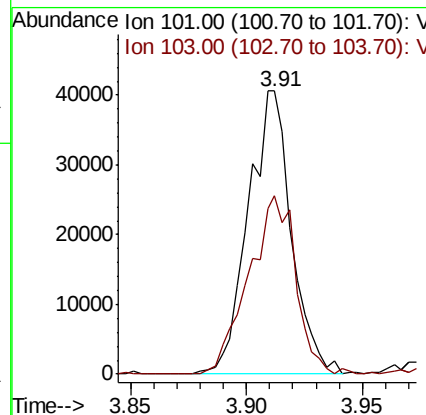
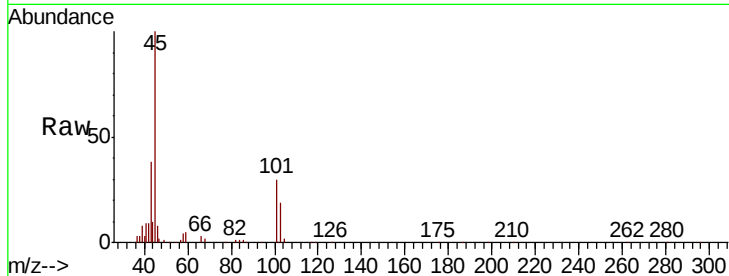
#11
 Trichlorofluoromethane
 Concen: 0.211 ppbv
 RT: 3.91 min Scan# 350
 Delta R.T. -0.00 min
 Lab File: VL035355.D
 Acq: 6 Aug 2020 18:31

Instrument :
 MSVOA_L
 ClientSampleId :
 1-UNDER-GROUND

Tot Ion	Ratio	Lower	Upper
101	100		
103	62.7	53.8	80.8

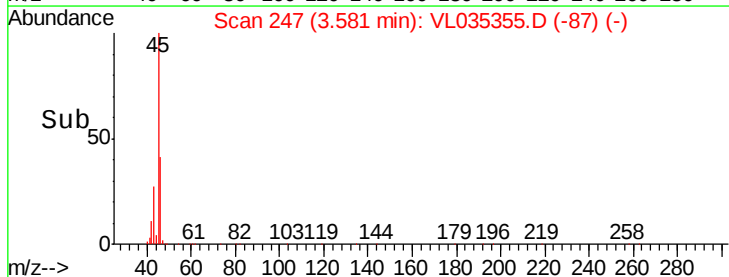
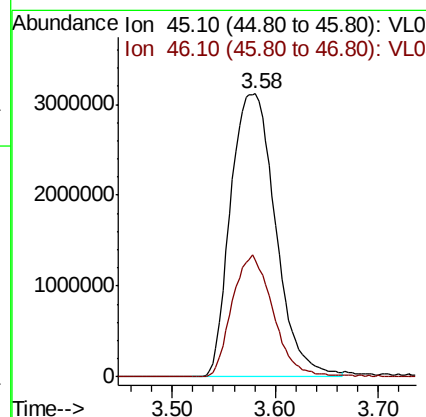
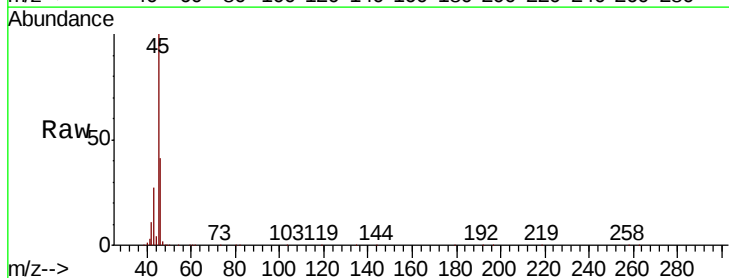
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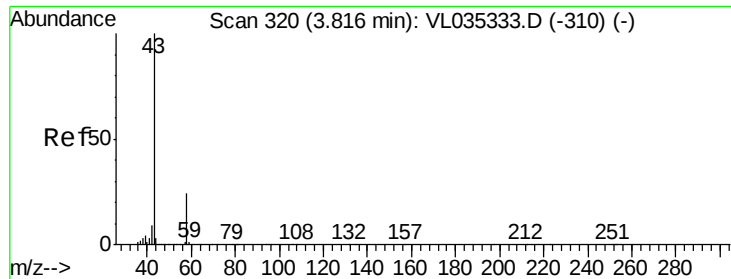
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#13
 Ethanol
 Concen: 468.140 ppbv
 RT: 3.58 min Scan# 247
 Delta R.T. 0.01 min
 Lab File: VL035355.D
 Acq: 6 Aug 2020 18:31

Tgt Ion	Ratio	Lower	Upper
45	100		
46	39.8	15.2	61.0





#15

Acetone

Concen: 18.199 ppbv

RT: 3.80 min Scan# 316

Delta R.T. -0.01 min

Lab File: VL035355.D

Acq: 6 Aug 2020 18:31

Instrument :

MSVOA_L

ClientSampleId :

1-UNDER-GROUND

Tot Ion: 43 Resp: 3721881

Ion Ratio Lower Upper

43 100

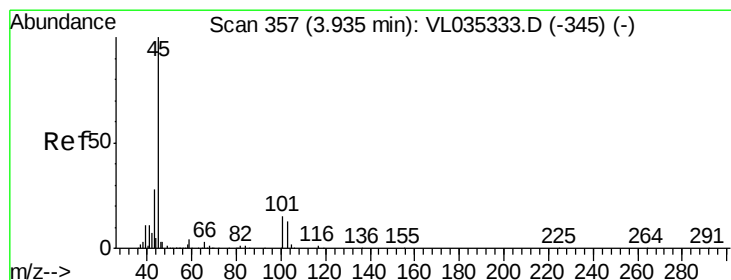
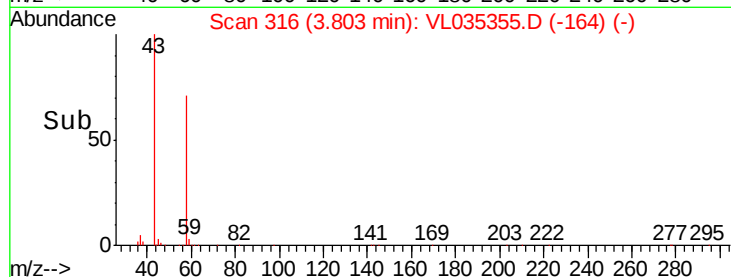
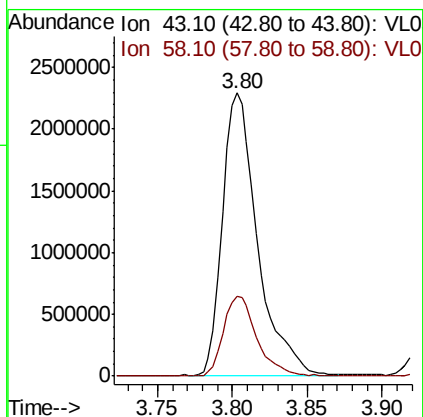
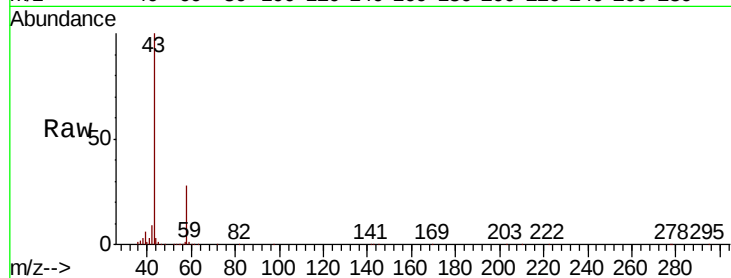
58 27.3 21.0 31.4

Manual Integrations

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#19

Isopropyl Alcohol

Concen: 79.433 ppbv m

RT: 3.95 min Scan# 362

Delta R.T. 0.02 min

Lab File: VL035355.D

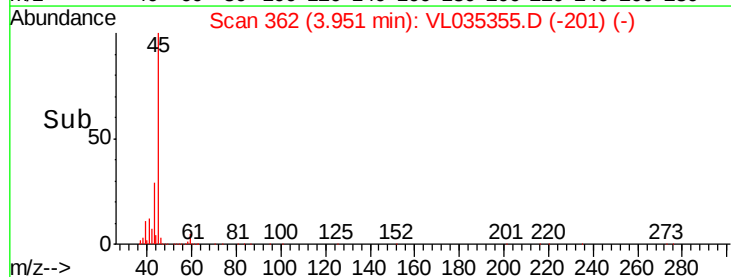
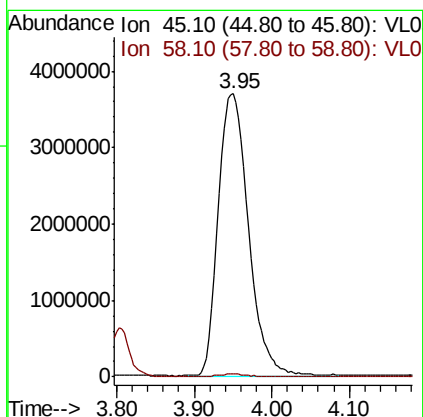
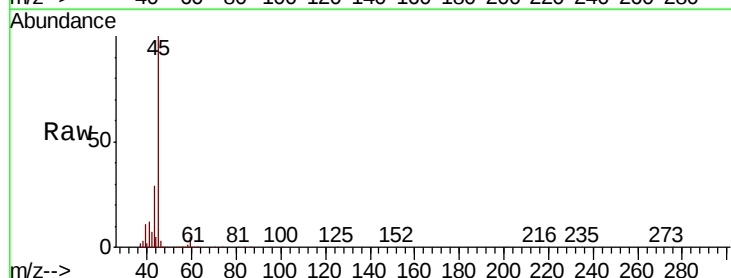
Acq: 6 Aug 2020 18:31

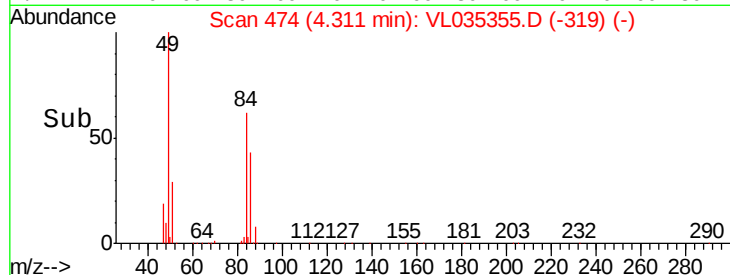
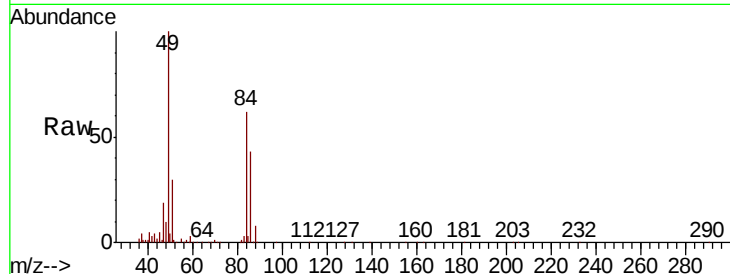
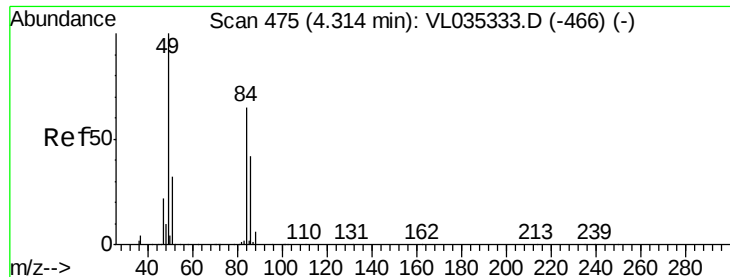
Tgt Ion: 45 Resp: 10297388

Ion Ratio Lower Upper

45 100

58 0.0 1.9 2.9#





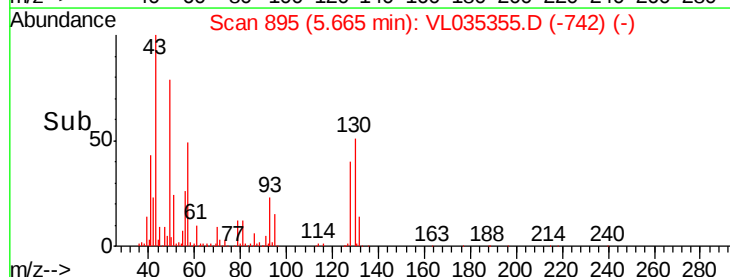
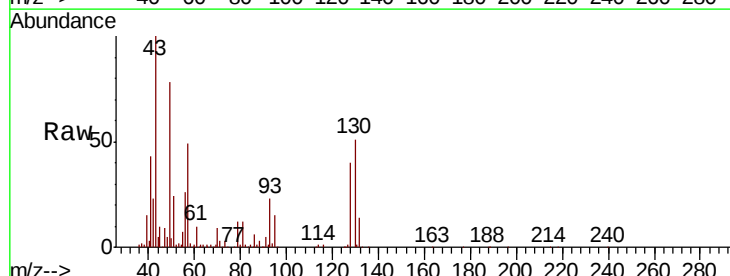
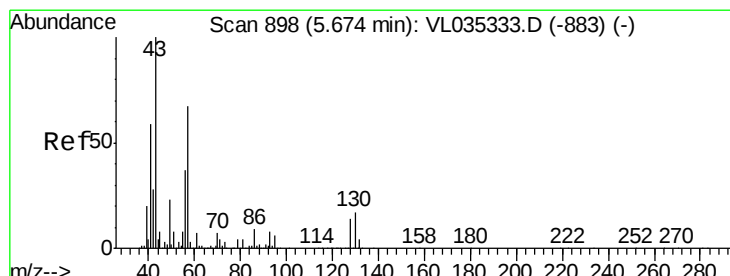
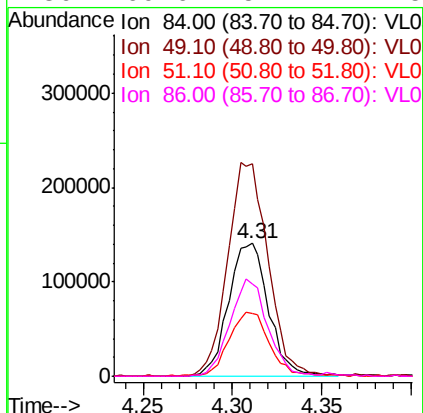
#20
Methvlene Chloride
Concen: 2.631 ppbv
RT: 4.31 min Scan# 474
Delta R.T. -0.00 min
Lab File: VL035355.D
Acq: 6 Aug 2020 18:31

Tot Ion:	84	Resp:	219418
Ion	Ratio	Lower	Upper
84	100		
49	159.4	122.8	184.2
51	47.4	40.1	60.1
86	69.6	51.7	77.5

Instrument :
MSVOA_L
ClientSampleId :
1-UNDER-GROUND

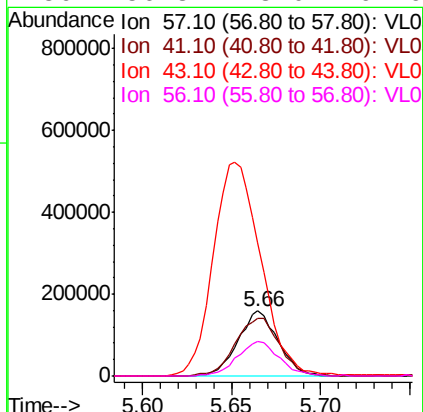
Manual Integrations
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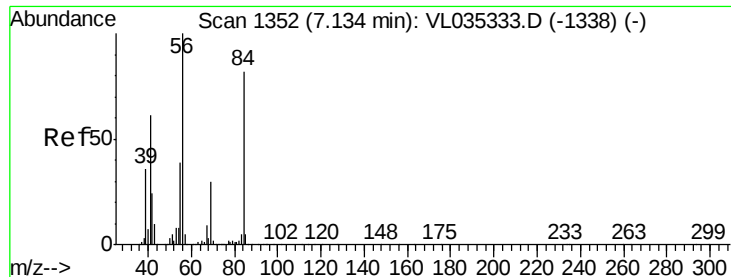
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#26
Hexane
Concen: 1.836 ppbv
RT: 5.66 min Scan# 895
Delta R.T. -0.01 min
Lab File: VL035355.D
Acq: 6 Aug 2020 18:31

Tgt Ion:	57	Resp:	247472
Ion	Ratio	Lower	Upper
57	100		
41	100.2	75.2	112.8
43	394.3	180.6	270.8#
56	56.3	43.0	64.6





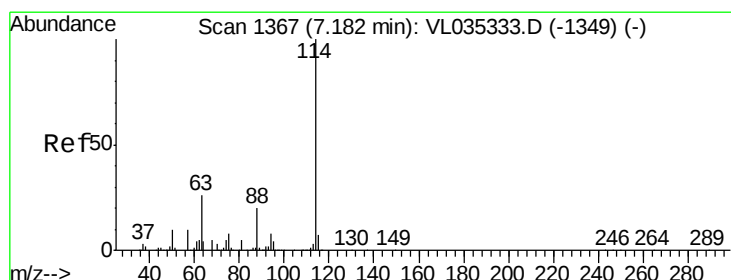
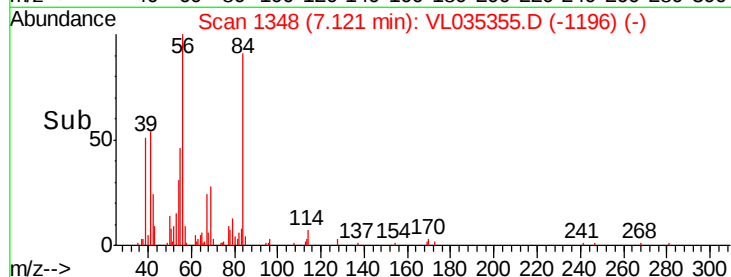
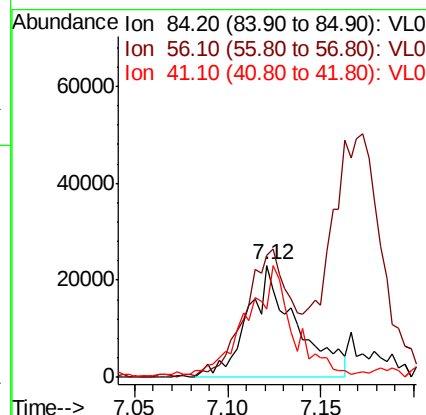
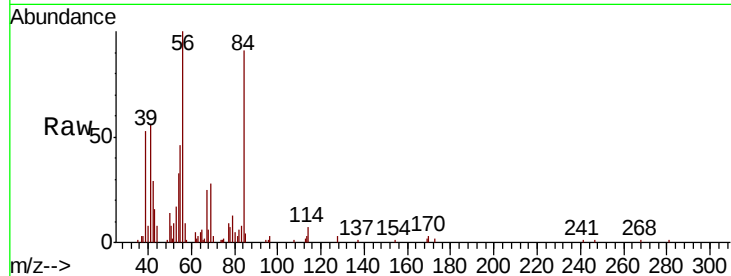
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Cvclohexane
Concen: 0.411 ppbv m
RT: 7.12 min Scan# 1348
Delta R.T. -0.01 min
Lab File: VL035355.D
Acq: 6 Aug 2020 18:31

Instrument :
MSVOA_L
ClientSampleId :
1-UNDER-GROUND

Tot Ion	Ratio	Lower	Upper
84	100		
56	115.1	104.7	157.1
41	92.7	64.2	96.2

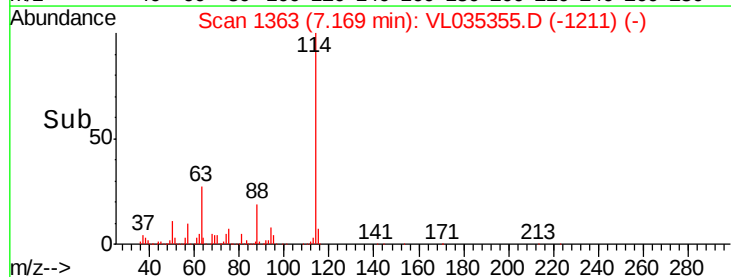
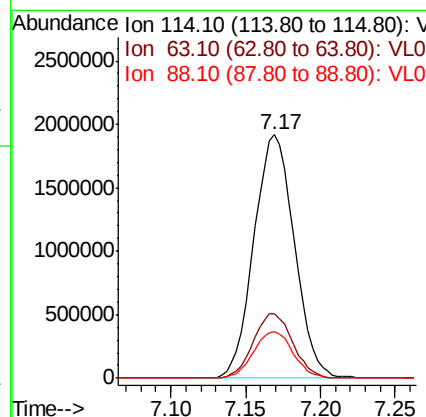
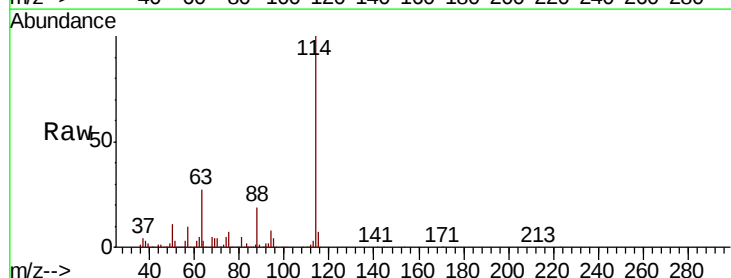
Manual Integrations
APPROVED

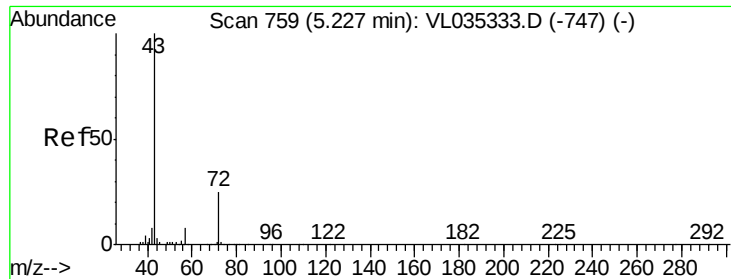
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#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.17 min Scan# 1363
Delta R.T. -0.01 min
Lab File: VL035355.D
Acq: 6 Aug 2020 18:31

Tgt Ion	Ratio	Lower	Upper
114	100		
63	26.1	21.3	31.9
88	18.7	15.3	22.9





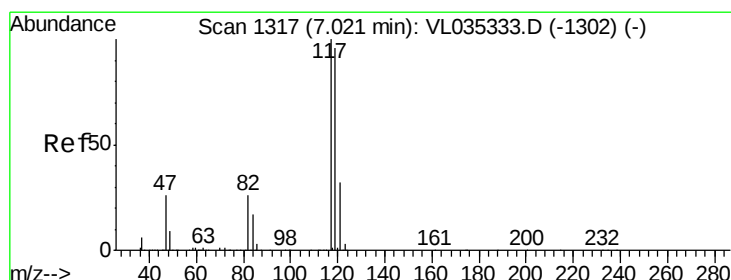
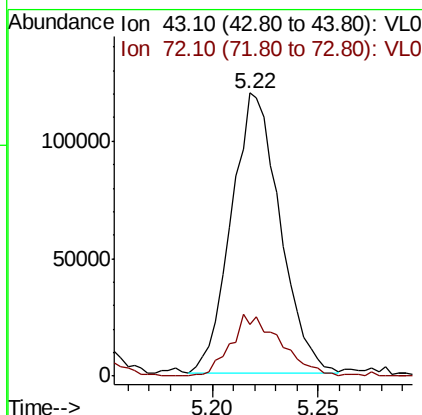
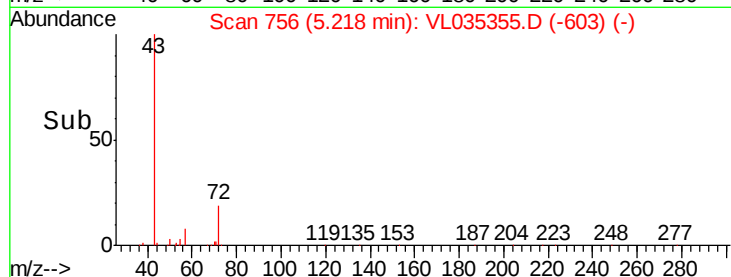
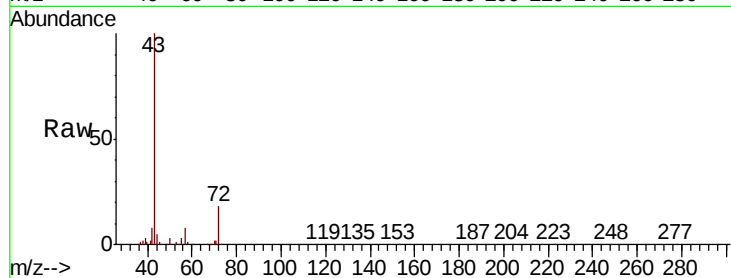
#34
2-Butanone
Concen: 1.074 ppbv
RT: 5.22 min Scan# 756
Delta R.T. -0.01 min
Lab File: VL035355.D
Acq: 6 Aug 2020 18:31

Instrument :
MSVOA_L
ClientSampleId :
1-UNDER-GROUND

Tot Ion	Ratio	Lower	Upper
43	100		
72	22.8	18.9	28.3

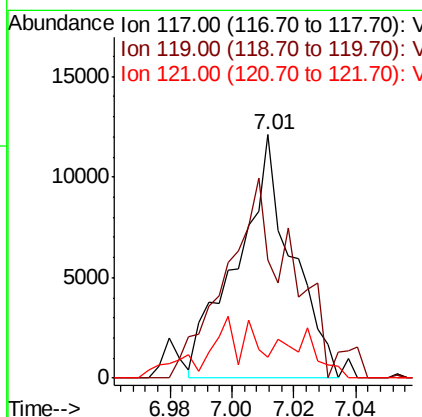
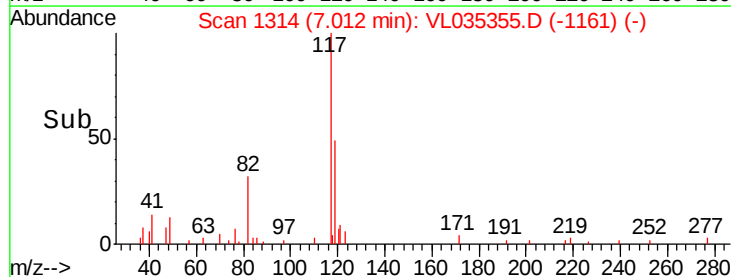
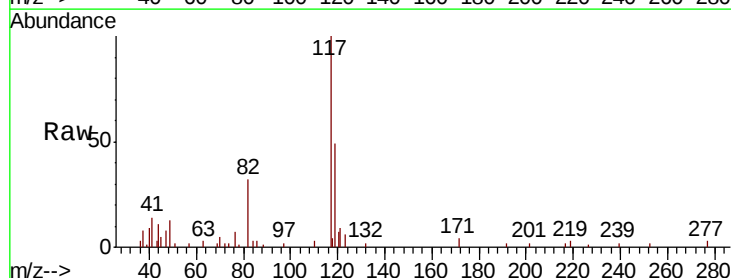
Manual Integrations
APPROVED

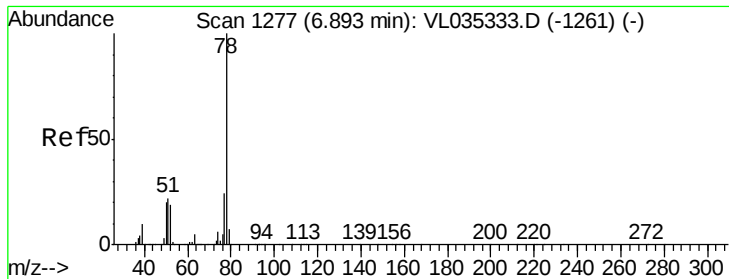
MMDadoda
8/10/2020 10:43:22 AM



#35
Carbon Tetrachloride
Concen: 0.060 ppbv
RT: 7.01 min Scan# 1314
Delta R.T. -0.01 min
Lab File: VL035355.D
Acq: 6 Aug 2020 18:31

Tgt Ion	Ratio	Lower	Upper
117	100		
119	38.1	77.0	115.6#
121	3.9	26.0	39.0#





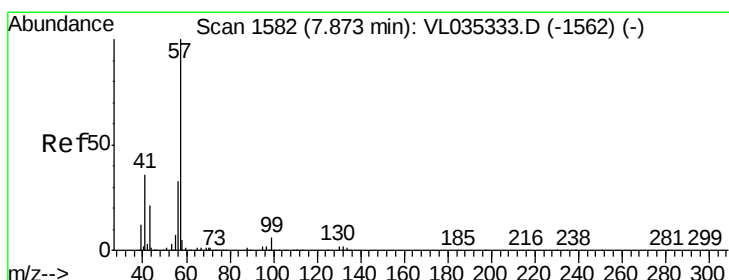
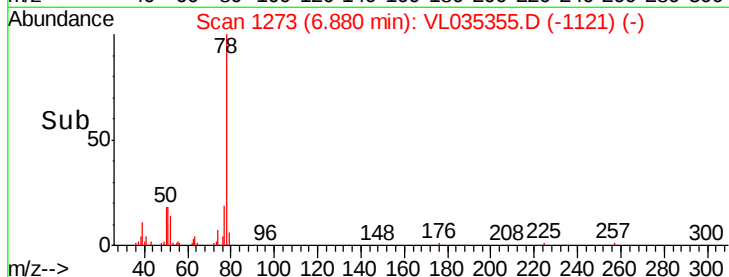
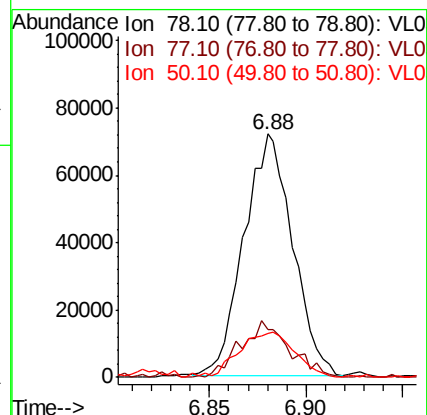
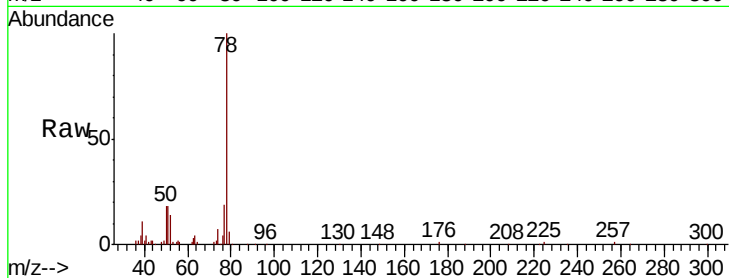
#36
Benzene
Concen: 0.518 ppbv
RT: 6.88 min Scan# 1273
Delta R.T. -0.01 min
Lab File: VL035355.D
Acq: 6 Aug 2020 18:31

Instrument :
MSVOA_L
ClientSampleId :
1-UNDER-GROUND

Tot Ion:	78	Resp:	126173
Ion Ratio	Lower	Upper	
78	100		
77	19.6	19.3	28.9
50	18.0	16.3	24.5

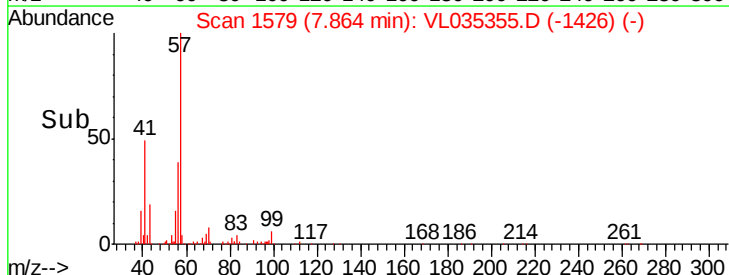
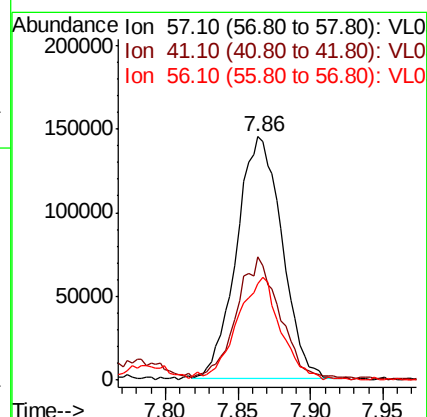
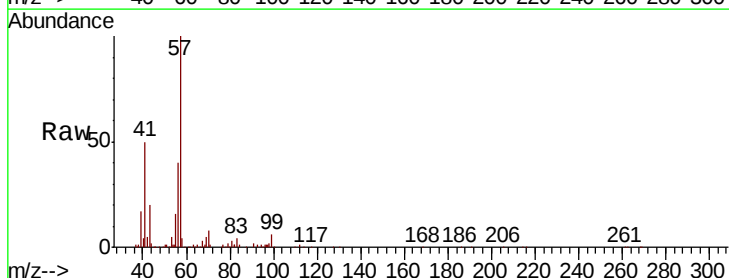
Manual Integrations
APPROVED

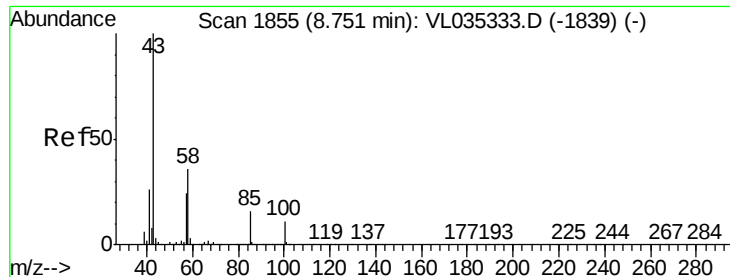
MMDadoda
8/10/2020 10:43:22 AM



#44
2,2,4-Trimethylpentane
Concen: 0.726 ppbv
RT: 7.86 min Scan# 1579
Delta R.T. -0.01 min
Lab File: VL035355.D
Acq: 6 Aug 2020 18:31

Tgt Ion:	57	Resp:	314021
Ion Ratio	Lower	Upper	
57	100		
41	49.5	27.9	41.9#
56	41.0	25.4	38.0#





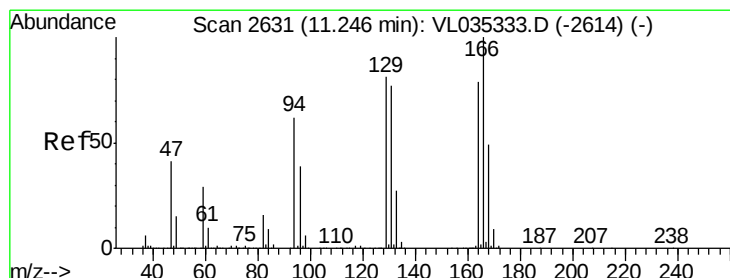
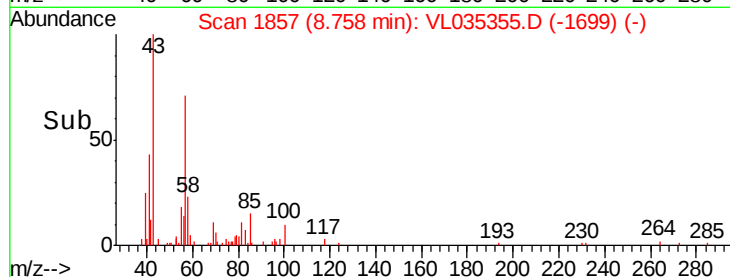
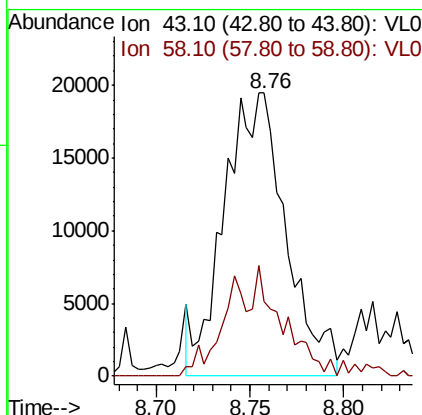
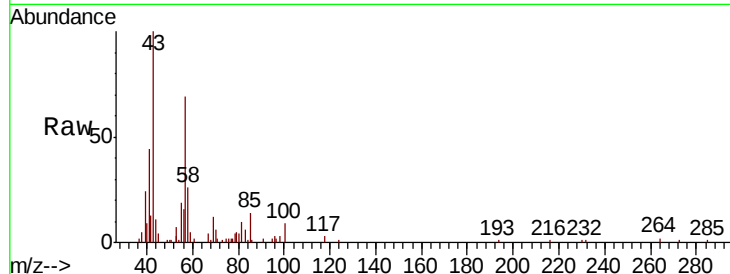
#50
4-Methyl-2-Pentanone
Concen: 0.164 ppbv m
RT: 8.76 min Scan# 1857
Delta R.T. 0.01 min
Lab File: VL035355.D
Acq: 6 Aug 2020 18:31

Instrument :
MSVOA_L
ClientSampleId :
1-UNDER-GROUND

Tot Ion: 43 Resp: 44534
Ion Ratio Lower Upper
43 100
58 0.0 29.2 43.8#

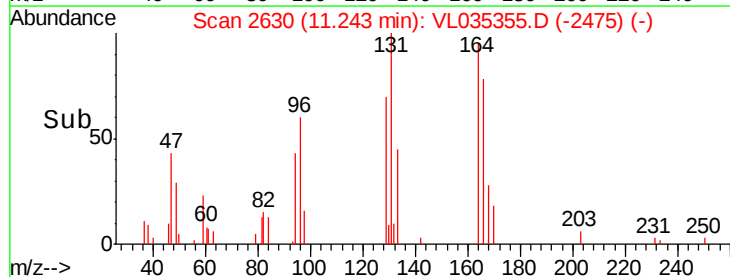
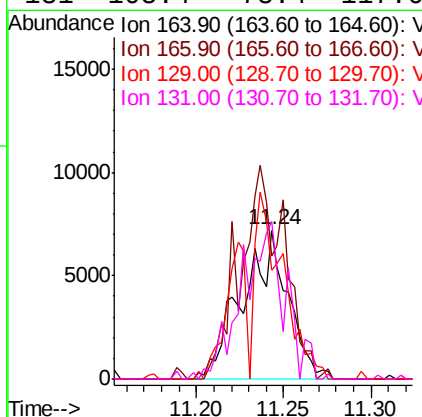
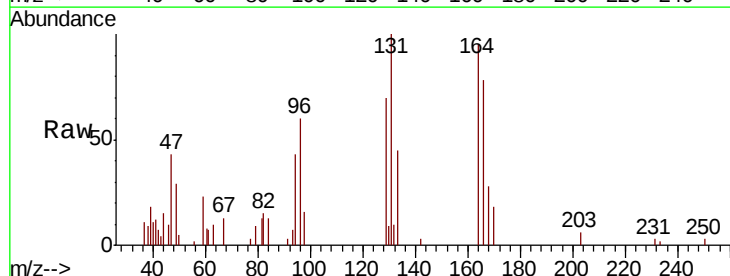
Manual Integrations
APPROVED

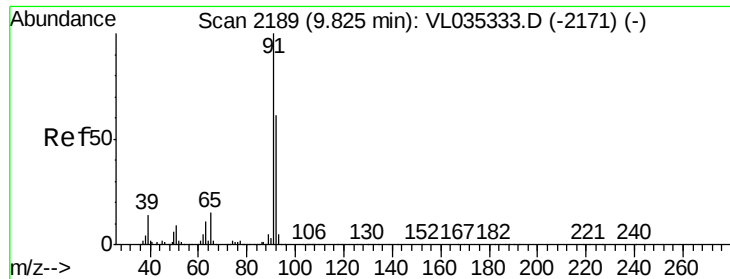
MMDadoda
8/10/2020 10:43:22 AM



#52
Tetrachloroethene
Concen: 0.137 ppbv m
RT: 11.24 min Scan# 2630
Delta R.T. -0.00 min
Lab File: VL035355.D
Acq: 6 Aug 2020 18:31

Tgt Ion: 164 Resp: 13227
Ion Ratio Lower Upper
164 100
166 82.2 101.4 152.0#
129 73.3 82.1 123.1#
131 105.4 78.4 117.6





#53

Toluene

Concen: 19.460 ppbv

RT: 9.81 min Scan# 2185

Delta R.T. -0.01 min

Lab File: VL035355.D

Acq: 6 Aug 2020 18:31

Instrument :

MSVOA_L

ClientSampleId :

1-UNDER-GROUND

Tot Ion: 91 Resp: 5156086

Ion Ratio Lower Upper

91 100

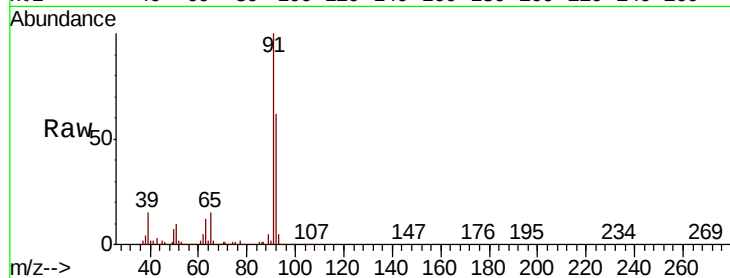
92 62.0 48.5 72.7

Manual Integrations

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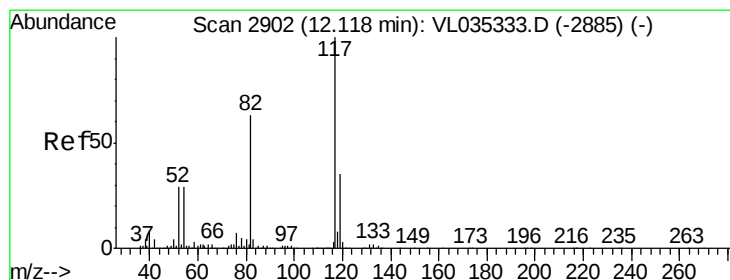
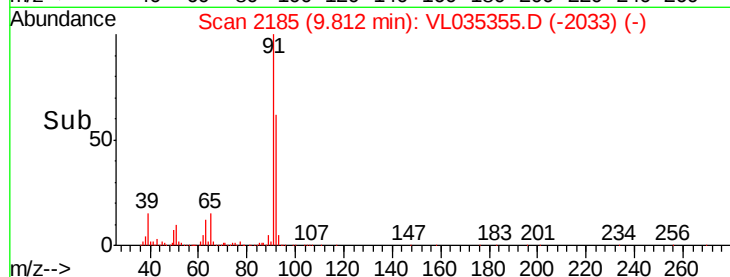
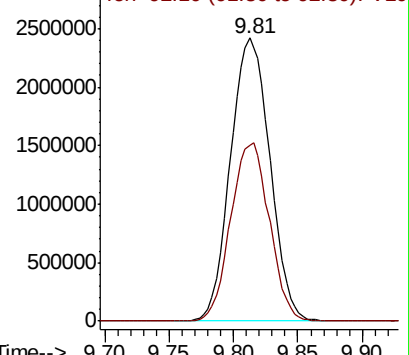
MMDadoda

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Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.10 min Scan# 2897

Delta R.T. -0.02 min

Lab File: VL035355.D

Acq: 6 Aug 2020 18:31

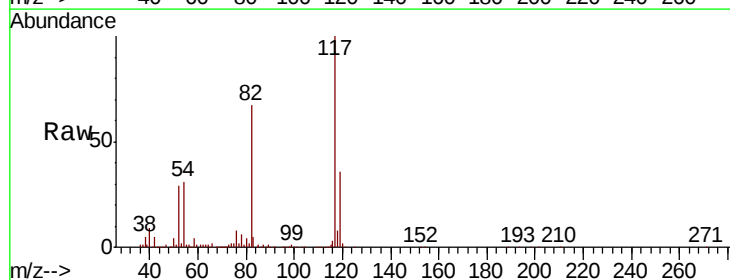
Tgt Ion: 117 Resp: 3380857

Ion Ratio Lower Upper

117 100

82 65.8 51.0 76.4

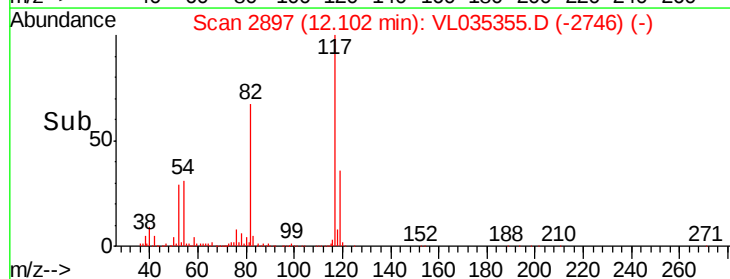
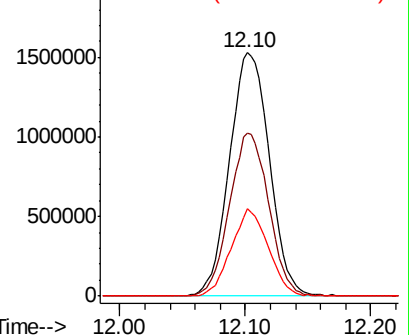
119 33.5 24.7 37.1

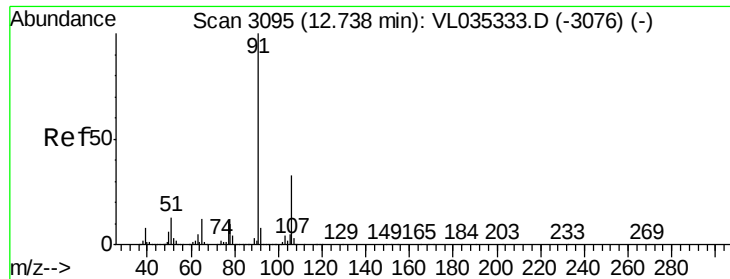


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): VL0

Ion 119.10 (118.80 to 119.80): V





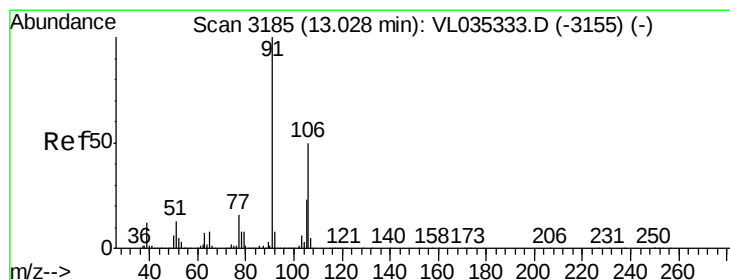
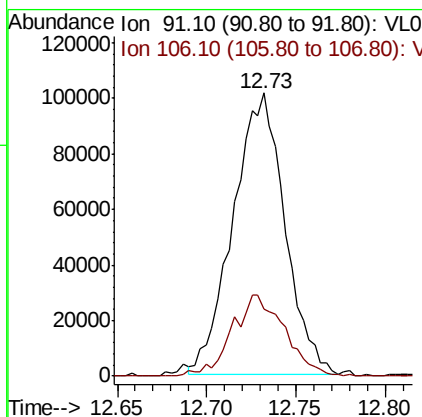
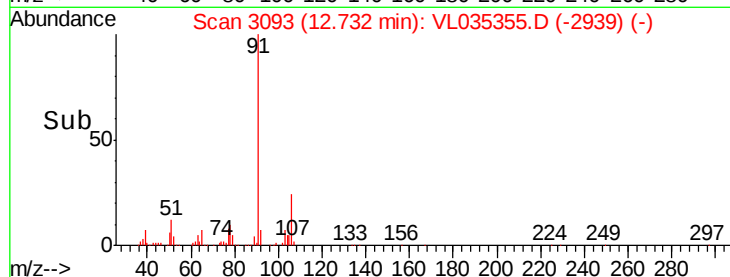
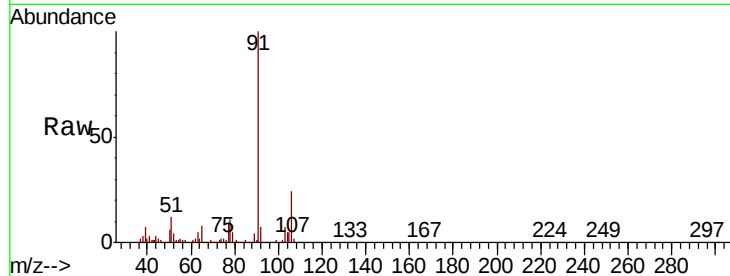
#58
Ethyl Benzene
Concen: 0.581 ppbv
RT: 12.73 min Scan# 3093
Delta R.T. -0.01 min
Lab File: VL035355.D
Acq: 6 Aug 2020 18:31

Instrument :
MSVOA_L
ClientSampleId :
1-UNDER-GROUND

Tot Ion: 91 Resp: 204353
Ion Ratio Lower Upper
91 100
106 23.0 26.8 40.2#

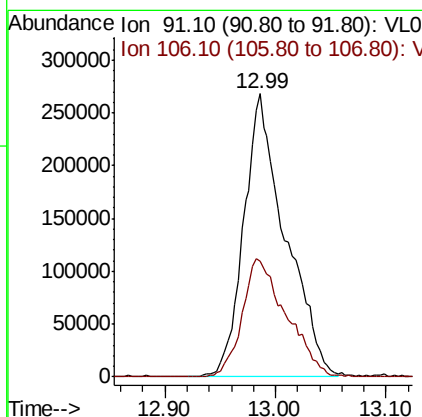
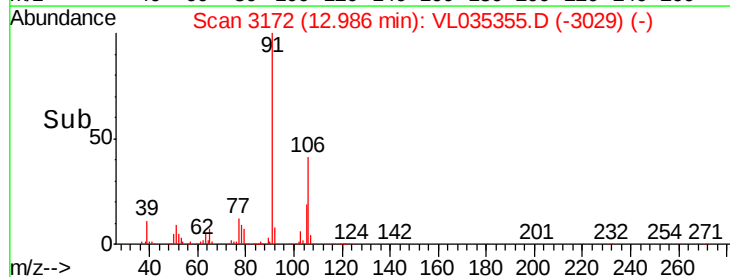
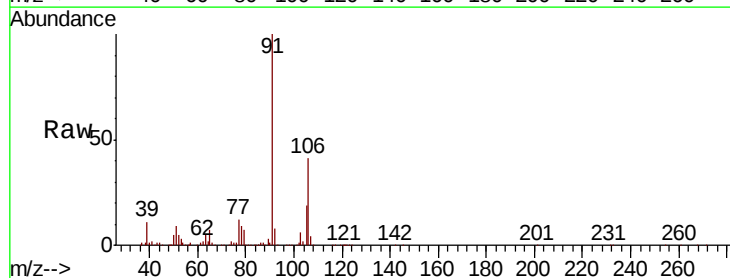
Manual Integrations
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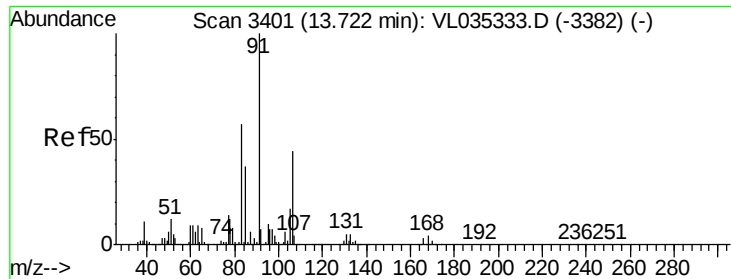
MMDadoda
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#59
m/p-Xylene
Concen: 2.134 ppbv
RT: 12.99 min Scan# 3172
Delta R.T. -0.04 min
Lab File: VL035355.D
Acq: 6 Aug 2020 18:31

Tgt Ion: 91 Resp: 699136
Ion Ratio Lower Upper
91 100
106 44.3 37.8 56.8





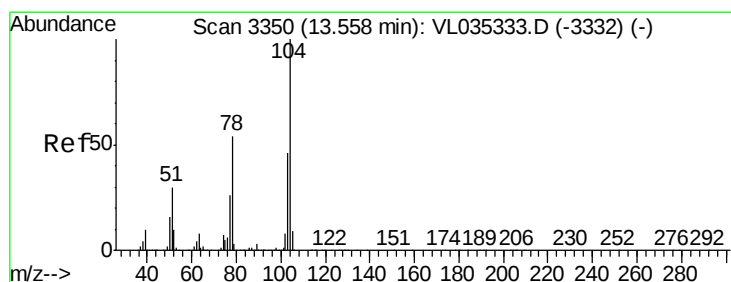
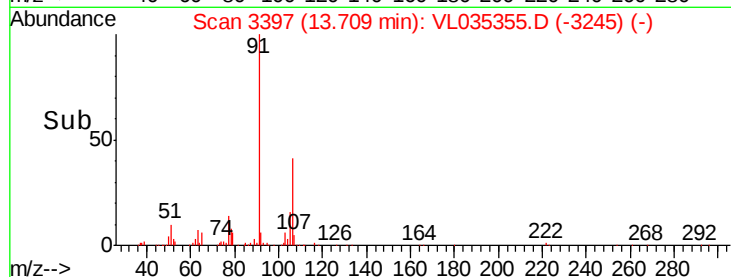
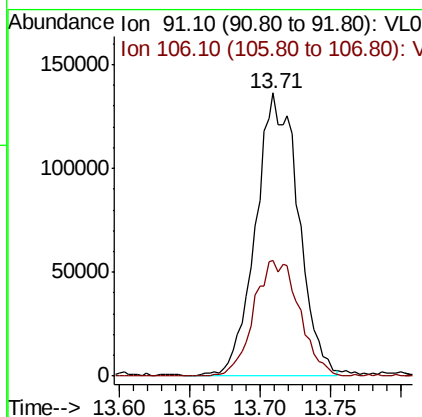
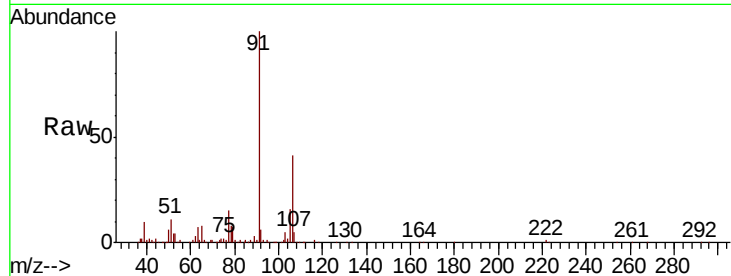
#60
o-Xylene
Concen: 0.882 ppbv m
RT: 13.71 min Scan# 3397
Delta R.T. -0.01 min
Lab File: VL035355.D
Acq: 6 Aug 2020 18:31

Instrument :
MSVOA_L
ClientSampleId :
1-UNDER-GROUND

Tot Ion	Ratio	Lower	Upper
91	100		
106	43.4	22.7	68.0

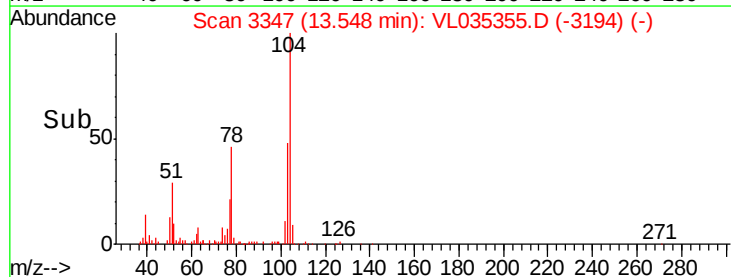
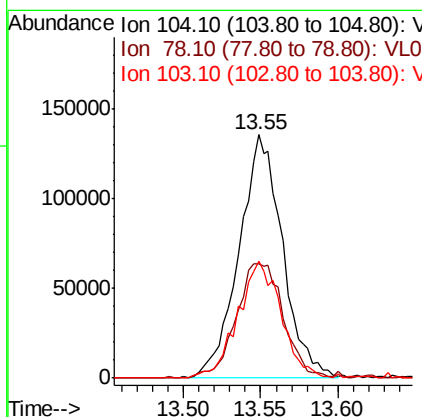
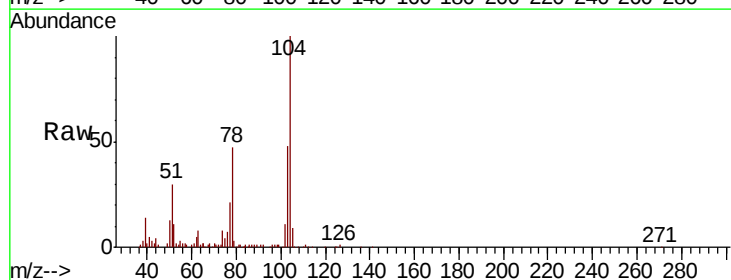
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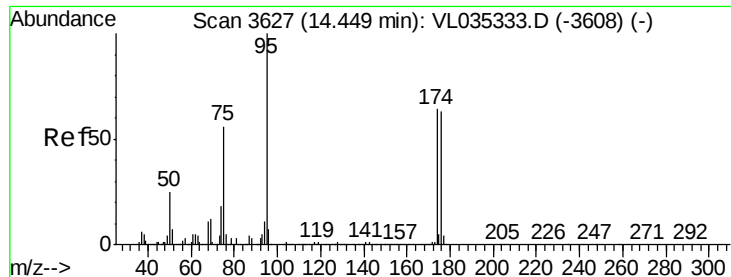
MMDadoda
8/10/2020 10:43:22 AM



#61
Styrene
Concen: 1.335 ppbv
RT: 13.55 min Scan# 3347
Delta R.T. -0.01 min
Lab File: VL035355.D
Acq: 6 Aug 2020 18:31

Tgt Ion	Ratio	Lower	Upper
104	100		
78	52.1	42.6	63.8
103	48.5	38.1	57.1





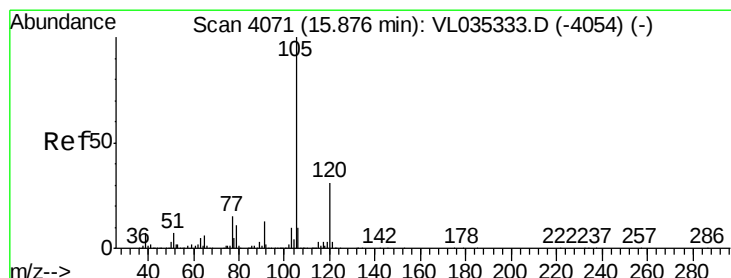
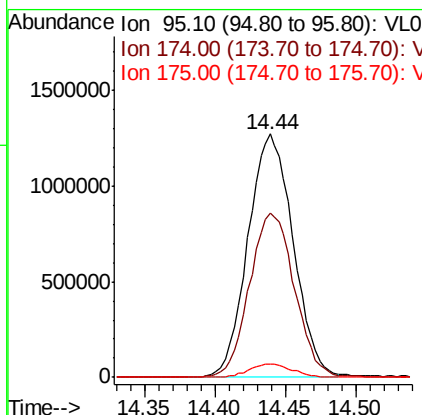
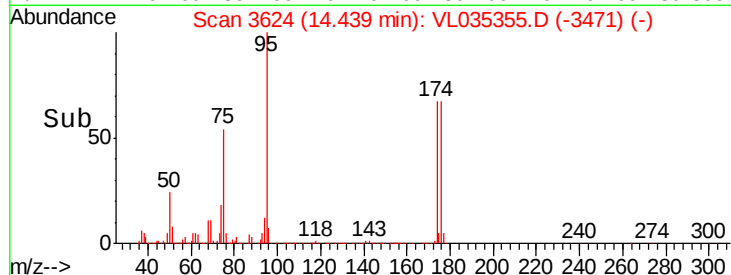
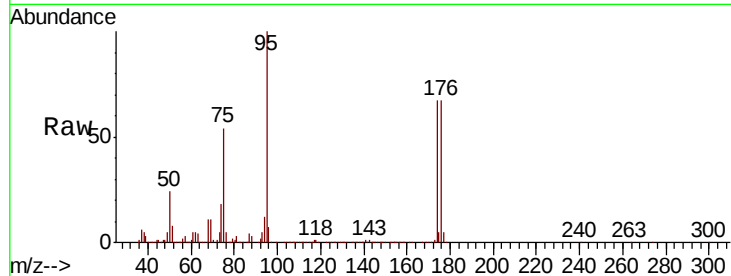
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.079 ppbv
 RT: 14.44 min Scan# 3624
 Delta R.T. -0.01 min
 Lab File: VL035355.D
 Acq: 6 Aug 2020 18:31

Instrument :
 MSVOA_L
 ClientSampleId :
 1-UNDER-GROUND

Tot Ion: 95 Resp: 2841564
 Ion Ratio Lower Upper
 95 100
 174 68.0 53.5 80.3
 175 5.3 4.2 6.2

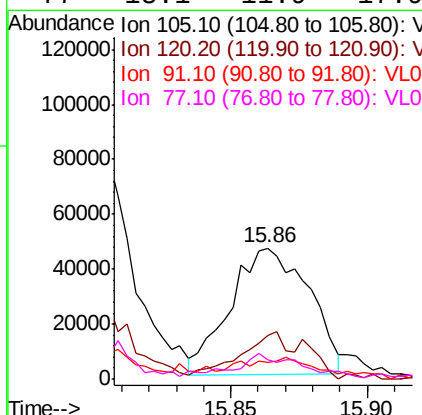
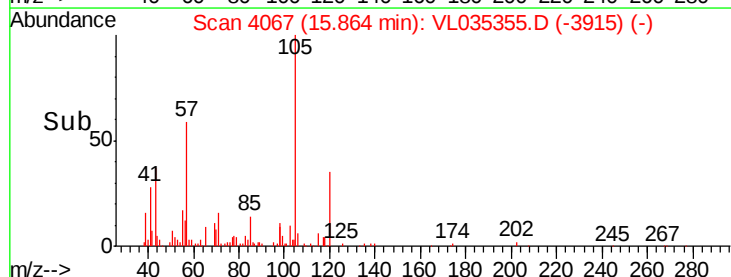
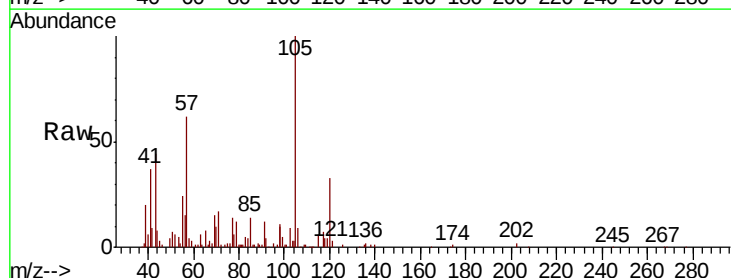
Manual Integrations
 APPROVED

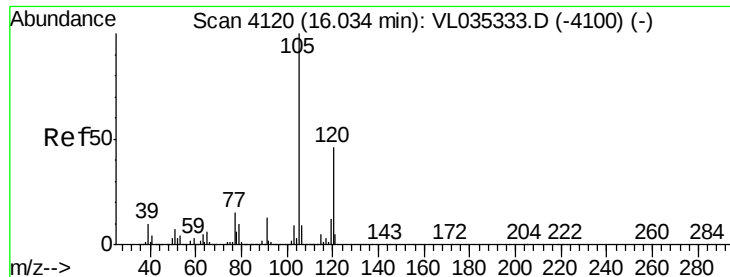
MMDadoda
 8/10/2020 10:43:22 AM



#72
 4-Ethyltoluene
 Concen: 0.249 ppbv
 RT: 15.86 min Scan# 4067
 Delta R.T. -0.01 min
 Lab File: VL035355.D
 Acq: 6 Aug 2020 18:31

Tgt Ion: 105 Resp: 92326
 Ion Ratio Lower Upper
 105 100
 120 32.1 24.0 36.0
 91 22.6 10.8 16.2#
 77 18.1 11.9 17.9#





#73

1,3,5-Trimethylbenzene

Concen: 0.322 ppbv

RT: 16.02 min Scan# 4116

Delta R.T. -0.01 min

Lab File: VL035355.D

Acq: 6 Aug 2020 18:31

Instrument :

MSVOA_L

ClientSampleId :

1-UNDER-GROUND

Tot Ion:105 Resp: 114338

Ion Ratio Lower Upper

105 100

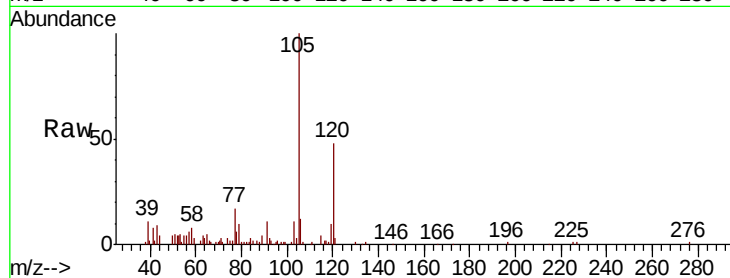
120 47.7 36.9 55.3

Manual Integrations

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MMDadoda

8/10/2020 10:43:22 AM



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

16.02

60000

50000

40000

30000

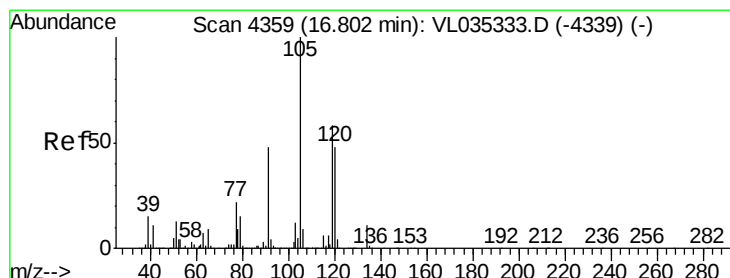
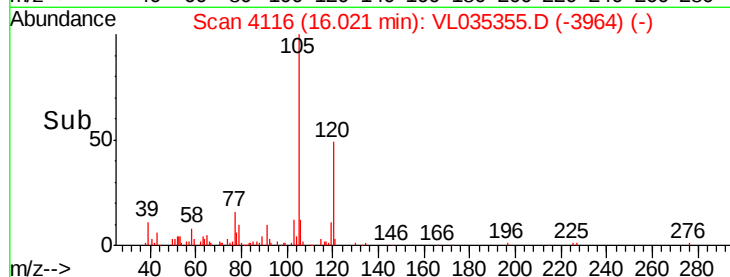
20000

10000

0

15.95 16.00 16.05

Time-->



#74

1,2,4-Trimethylbenzene

Concen: 0.830 ppbv

RT: 16.79 min Scan# 4355

Delta R.T. -0.01 min

Lab File: VL035355.D

Acq: 6 Aug 2020 18:31

Tgt Ion:105 Resp: 337408

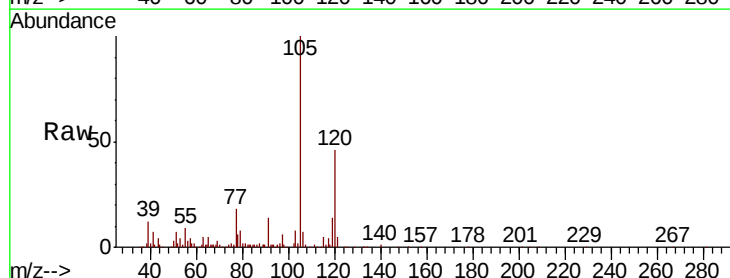
Ion Ratio Lower Upper

105 100

120 45.5 38.5 57.7

91 14.1 39.0 58.6#

77 16.9 17.8 26.6#



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

200000

150000

100000

50000

0

16.70 16.75 16.80 16.85

Time-->

