

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL030320\
 Data File : VL034770.D
 Acq On : 3 Mar 2020 19:09
 Operator : SY/AP
 Sample : L1704-06
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1-4

Manual Integrations
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 3/4/2020 4:49:19 PM

Quant Time: Mar 04 07:42:50 2020
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL022620AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Feb 28 2020
 QLast Update : Fri Feb 28 01:15:02 2020
 Response via : Initial Calibration

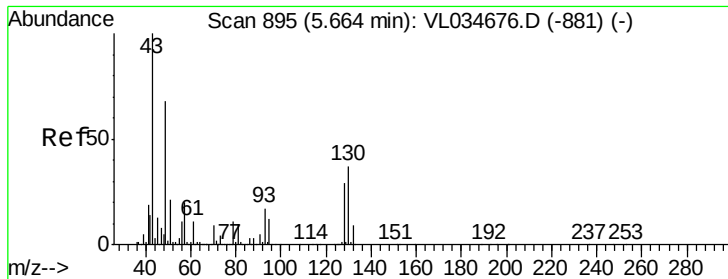
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.70	49	1069104	10.00	ppbv	0.03
33) 1,4-Difluorobenzene	7.22	114	2204805	10.00	ppbv	0.03
55) Chlorobenzene-d5	12.15	117	2272857	10.00	ppbv	0.03

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.49	95	1954879	10.49	ppbv	0.03
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.90%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.02	85	43799	0.260	ppbv #	83
3) Chlorodifluoromethane	2.96	51	40698m	0.353	ppbv	
4) Chloromethane	3.12	50	94856	1.469	ppbv	97
9) Propene	3.00	41	774526m	16.059	ppbv	
10) Heptane	8.17	43	771620	6.216	ppbv	99
11) Trichlorofluoromethane	3.94	101	39441	0.267	ppbv	86
13) Ethanol	3.60	45	2435905	159.881	ppbv	98
15) Acetone	3.84	43	10619667	87.171	ppbv #	68
17) tert-Butyl alcohol	4.30	59	133022m	1.425	ppbv	
20) Methylene Chloride	4.35	84	210415	4.644	ppbv	93
23) Vinyl Acetate	5.09	43	12615142	76.169	ppbv #	54
26) Hexane	5.70	57	336236	3.383	ppbv #	60
30) Cyclohexane	7.16	84	56609m	0.735	ppbv	
34) 2-Butanone	5.27	43	221646	1.597	ppbv	97
35) Carbon Tetrachloride	7.06	117	10989m	0.074	ppbv	
36) Benzene	6.93	78	81348	0.427	ppbv #	90
53) Toluene	9.86	91	9920269	48.980	ppbv	85
58) Ethyl Benzene	12.78	91	801939	2.916	ppbv	96
59) m/p-Xylene	13.03	91	2690683	11.219	ppbv	99
60) o-Xylene	13.76	91	894414	3.758	ppbv	98
61) Styrene	13.59	104	42598m	0.279	ppbv	
62) Isopropylbenzene	14.74	105	89217	0.257	ppbv	99
64) n-propylbenzene	15.63	120	117637m	1.314	ppbv	
72) 4-Ethyltoluene	15.91	105	703198	2.655	ppbv	98
73) 1,3,5-Trimethylbenzene	16.07	105	622960	2.445	ppbv	94
74) 1,2,4-Trimethylbenzene	16.83	105	1773455	6.302	ppbv #	67
79) Naphthalene	22.30	128	98560m	0.398	ppbv	

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.70 min Scan# 905

Delta R.T. 0.03 min

Lab File: VL034770.D

Acq: 3 Mar 2020 19:09

Instrument :

MSVOA_L

ClientSampleId :

IA-1-4

Tot Ion: 49 Resp: 1069104

Ion Ratio Lower Upper

49 100

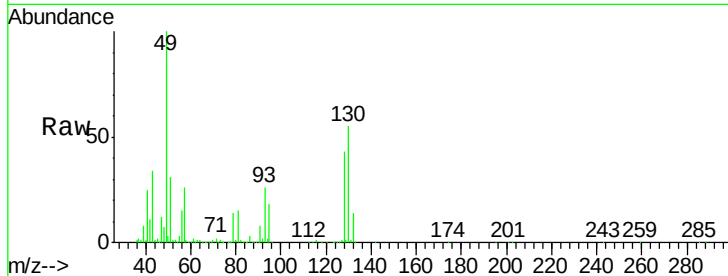
128 43.5 21.6 65.0

130 55.2 27.7 83.1

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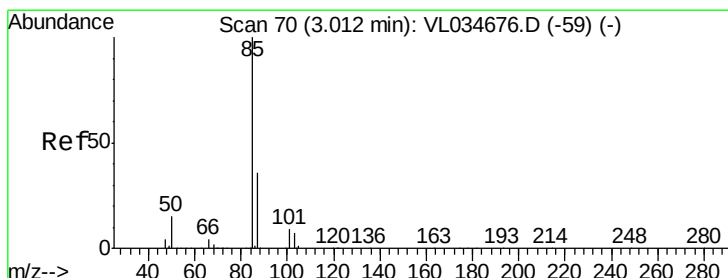
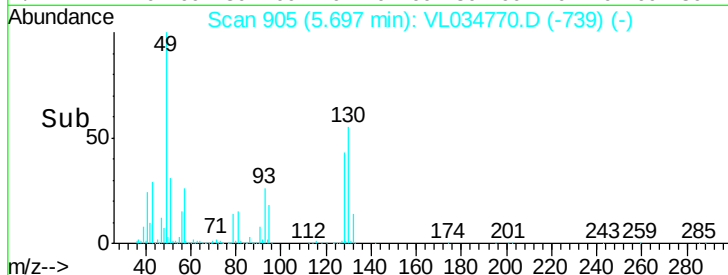
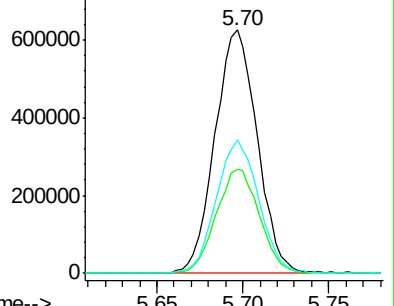
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.260 ppbv

RT: 3.02 min Scan# 74

Delta R.T. 0.01 min

Lab File: VL034770.D

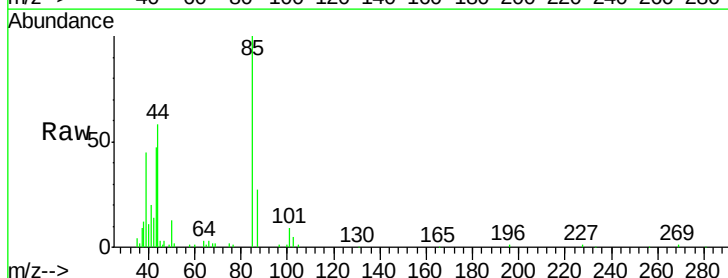
Acq: 3 Mar 2020 19:09

Tgt Ion: 85 Resp: 43799

Ion Ratio Lower Upper

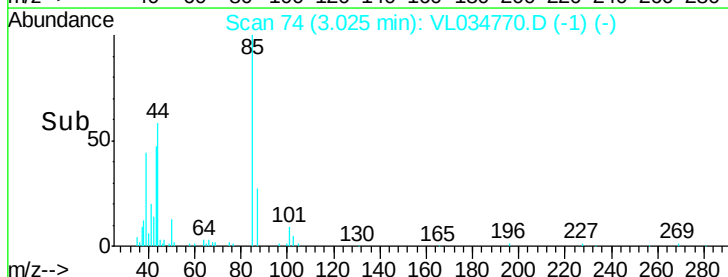
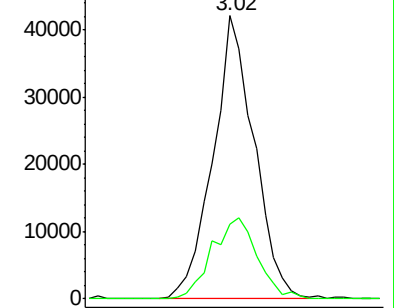
85 100

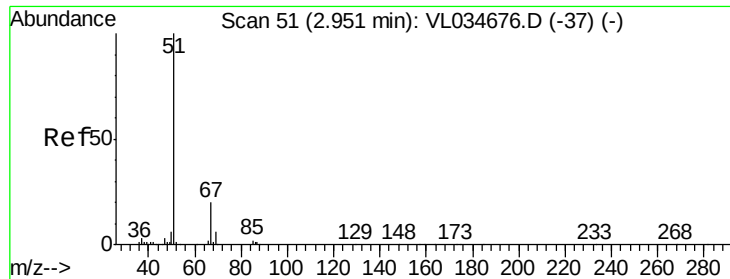
87 26.5 29.2 43.8#



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

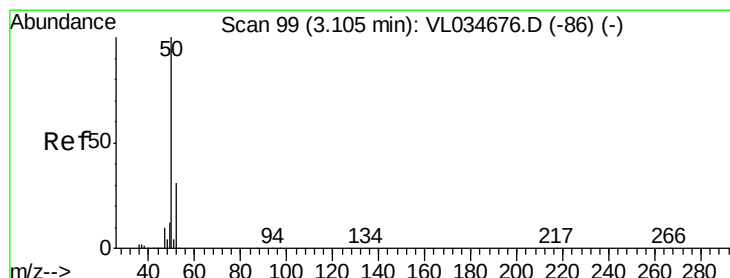
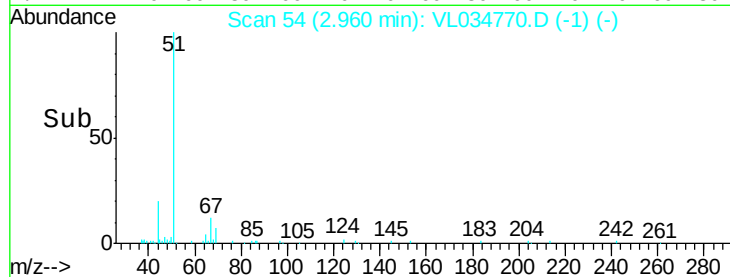
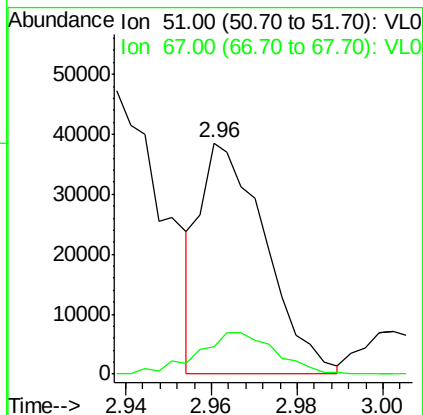
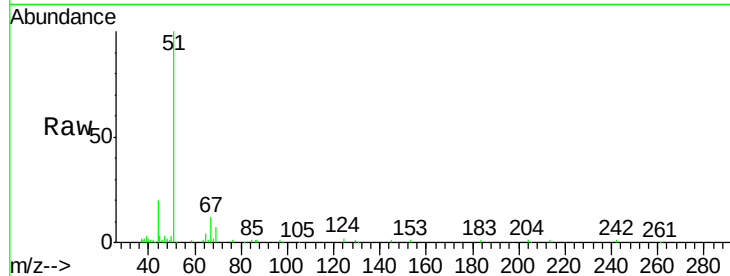
Chlorodifluoromethane
 Concen: 0.353 ppbv
 RT: 2.96 min Scan# 54
 Delta R.T. 0.01 min
 Lab File: VL034770.D
 Acq: 3 Mar 2020 19:09

Instrument :
 MSVOA_L
 ClientSampled :
 IA-1-4

Tot Ion	Ion	Ratio	Lower	Upper
51	51	100		
67	67	21.5	15.5	23.3

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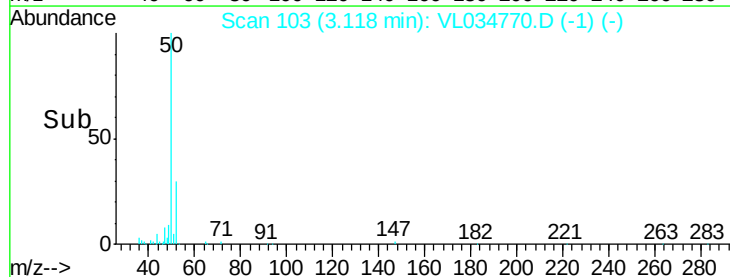
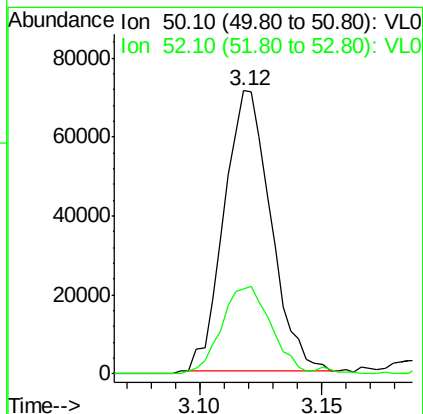
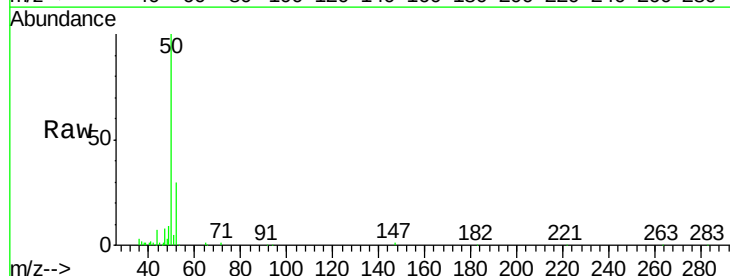
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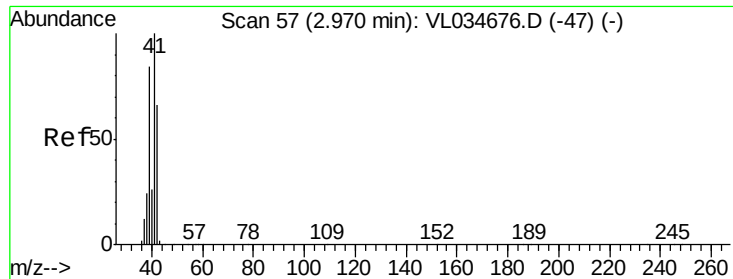


#4

Chloromethane
 Concen: 1.469 ppbv
 RT: 3.12 min Scan# 103
 Delta R.T. 0.01 min
 Lab File: VL034770.D
 Acq: 3 Mar 2020 19:09

Tgt Ion	Ion	Ratio	Lower	Upper
50	50	100		
52	52	29.8	25.0	37.4





#9

Propene

Concen: 16.059 ppbv m

RT: 3.00 min Scan# 66

Delta R.T. 0.03 min

Lab File: VL034770.D

Acq: 3 Mar 2020 19:09

Instrument :

MSVOA_L

ClientSampled :

IA-1-4

Tot Ion: 41 Resp: 774526

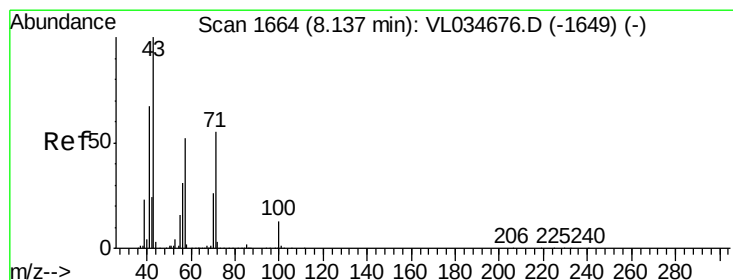
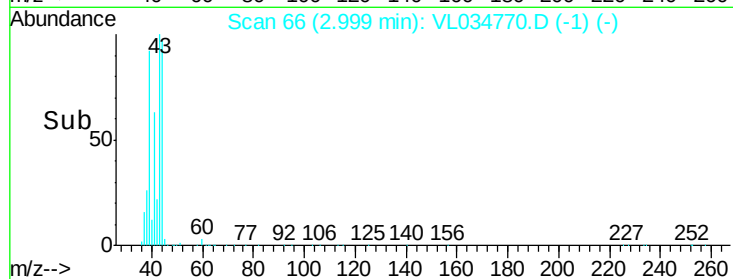
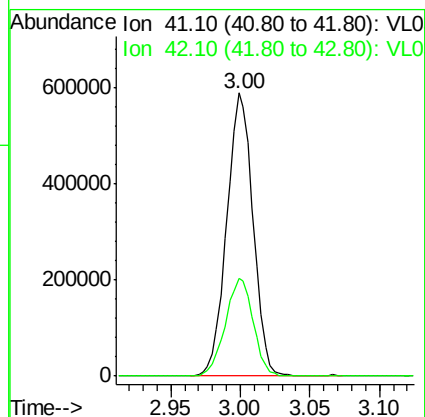
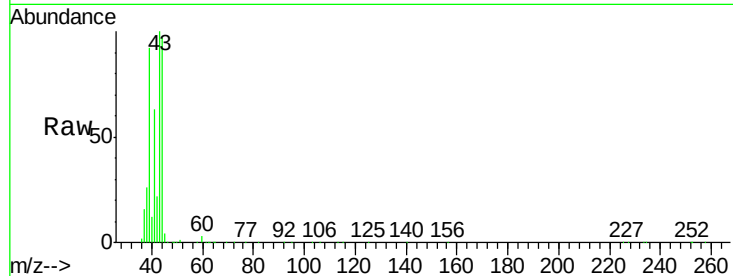
Ion Ratio Lower Upper

41 100

42 17.6 54.9 82.3#

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#10

Heptane

Concen: 6.216 ppbv

RT: 8.17 min Scan# 1673

Delta R.T. 0.03 min

Lab File: VL034770.D

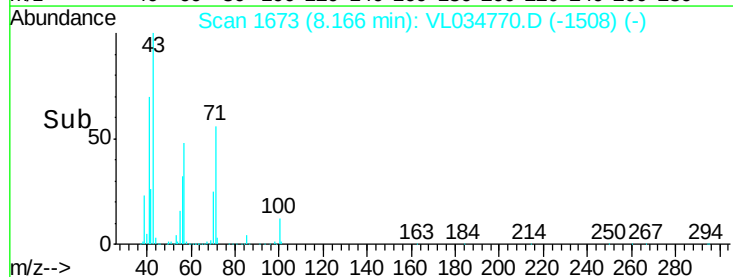
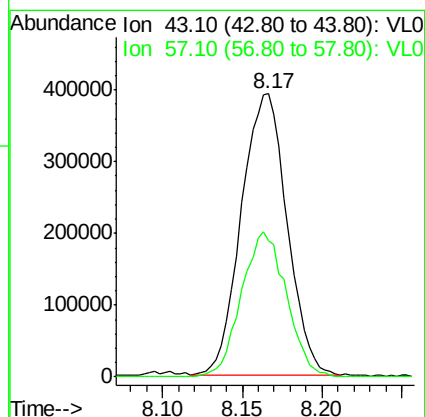
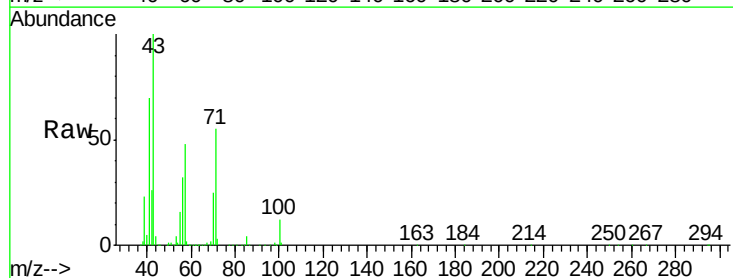
Acq: 3 Mar 2020 19:09

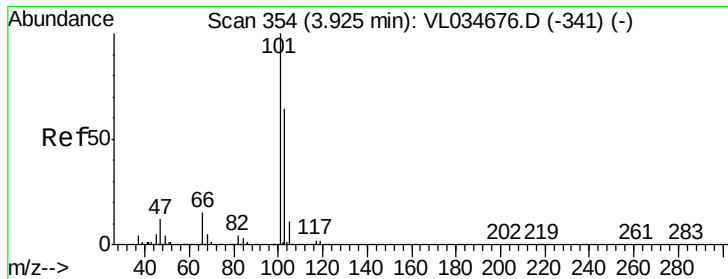
Tgt Ion: 43 Resp: 771620

Ion Ratio Lower Upper

43 100

57 50.5 41.0 61.6





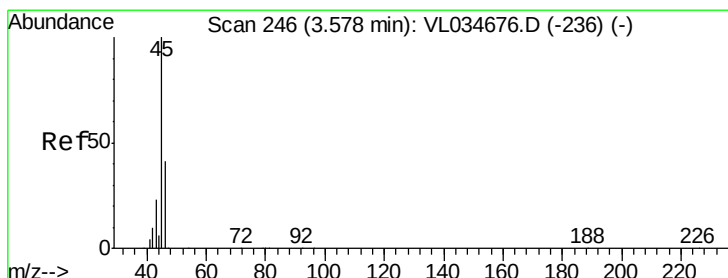
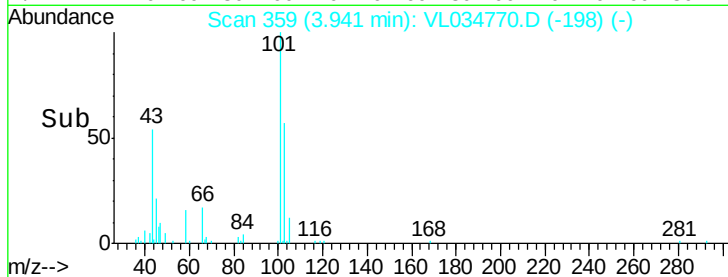
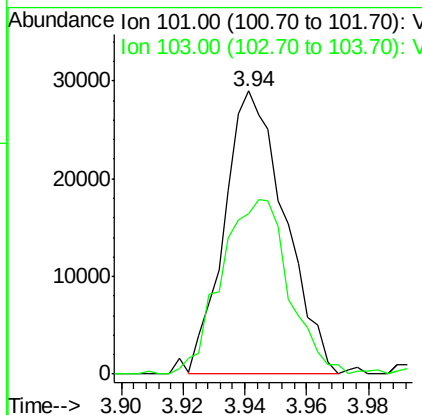
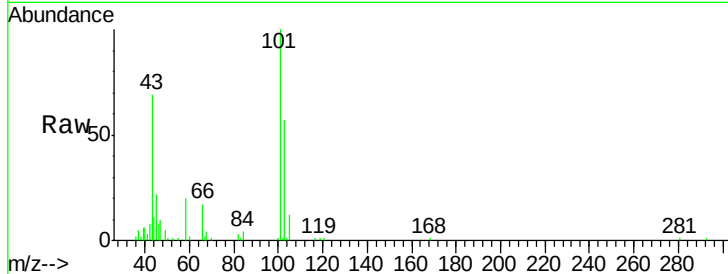
#11
 Trichlorofluoromethane
 Concen: 0.267 ppbv
 RT: 3.94 min Scan# 359
 Delta R.T. 0.02 min
 Lab File: VL034770.D
 Acq: 3 Mar 2020 19:09

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1-4

Tot Ion	Ion	Ratio	Resp	Lower	Upper
101	100		39441		
103	53.3		51.2	76.8	

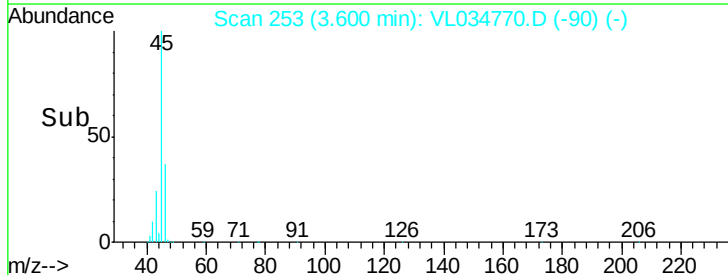
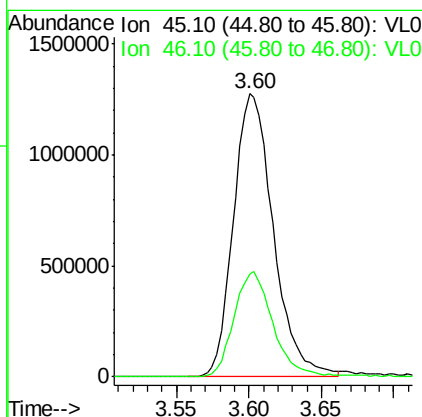
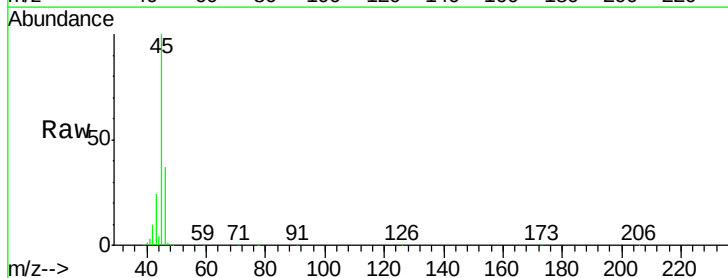
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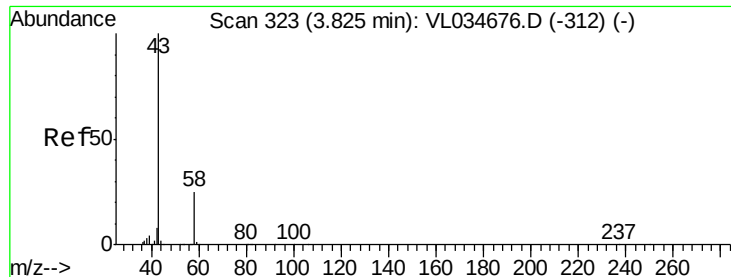
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#13
 Ethanol
 Concen: 159.881 ppbv
 RT: 3.60 min Scan# 253
 Delta R.T. 0.02 min
 Lab File: VL034770.D
 Acq: 3 Mar 2020 19:09

Tgt Ion	Ion	Ratio	Resp	Lower	Upper
45	100		2435905		
46	37.1		15.4	61.4	





#15

Acetone

Concen: 87.171 ppbv

RT: 3.84 min Scan# 327

Delta R.T. 0.01 min

Lab File: VL034770.D

Acq: 3 Mar 2020 19:09

Instrument :

MSVOA_L

ClientSampleId :

IA-1-4

Tot Ion: 43 Resp:10619667

Ion Ratio Lower Upper

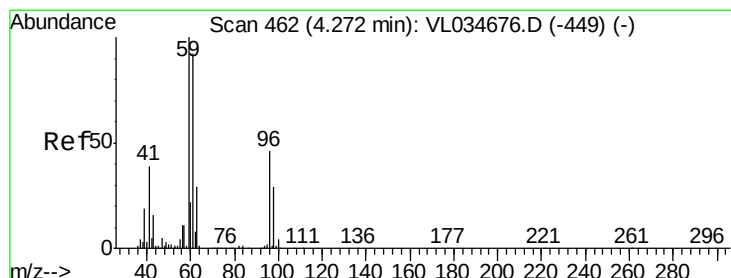
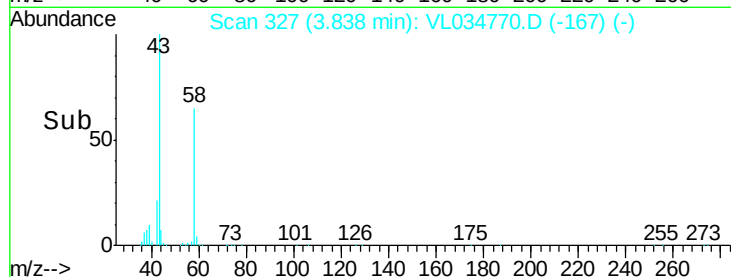
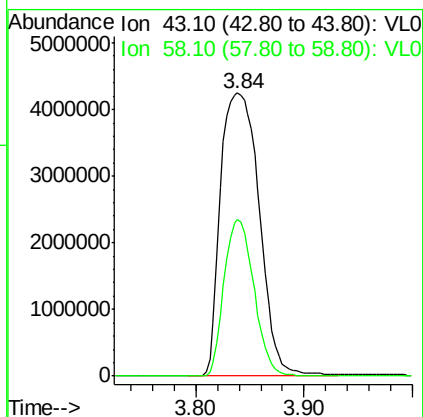
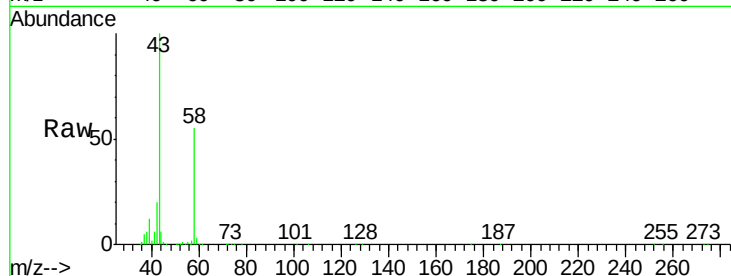
43 100

58 43.1 21.4 32.0#

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#17

tert-Butyl alcohol

Concen: 1.425 ppbv m

RT: 4.30 min Scan# 471

Delta R.T. 0.03 min

Lab File: VL034770.D

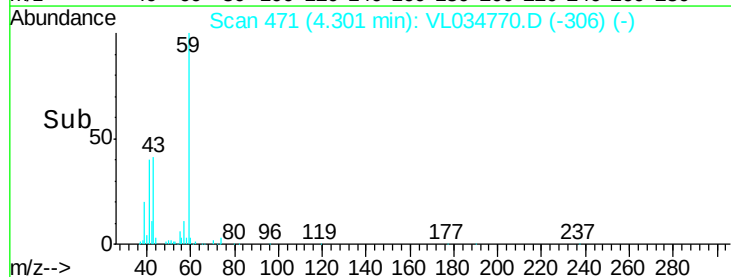
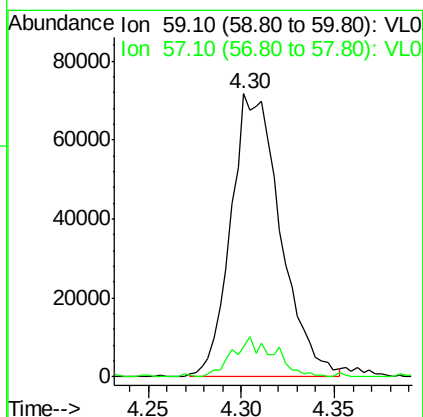
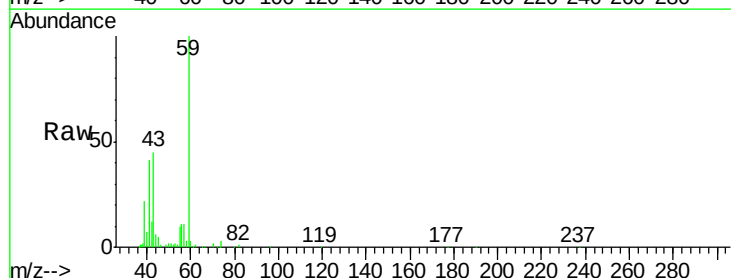
Acq: 3 Mar 2020 19:09

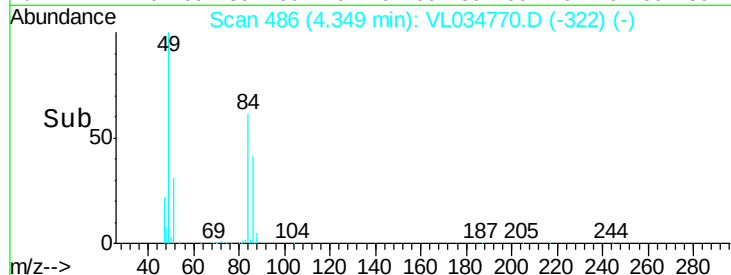
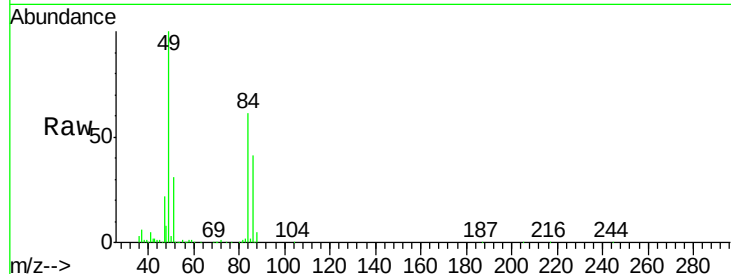
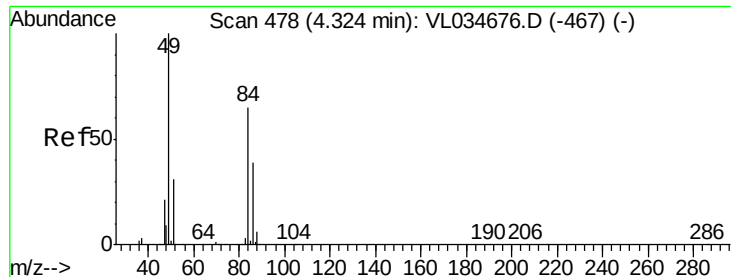
Tgt Ion: 59 Resp: 133022

Ion Ratio Lower Upper

59 100

57 12.3 8.8 13.2





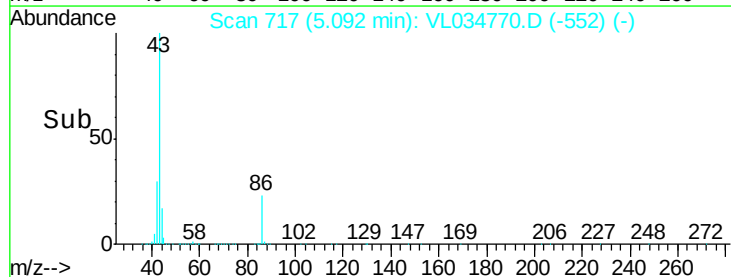
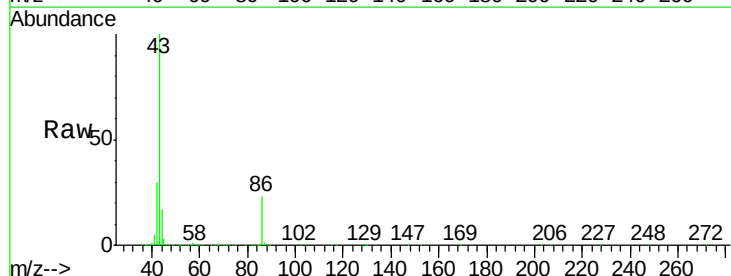
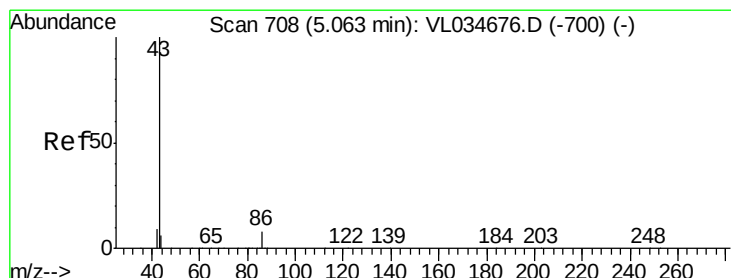
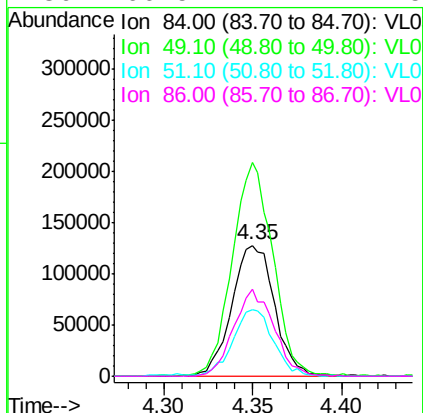
#20
Methylene Chloride
Concen: 4.644 ppbv
RT: 4.35 min Scan# 486
Delta R.T. 0.03 min
Lab File: VL034770.D
Acq: 3 Mar 2020 19:09

Tot Ion:	84	Resp:	210415
Ion	Ratio	Lower	Upper
84	100		
49	162.6	122.8	184.2
51	51.0	38.6	58.0
86	66.5	47.7	71.5

Instrument :
MSVOA_L
ClientSampled :
IA-1-4

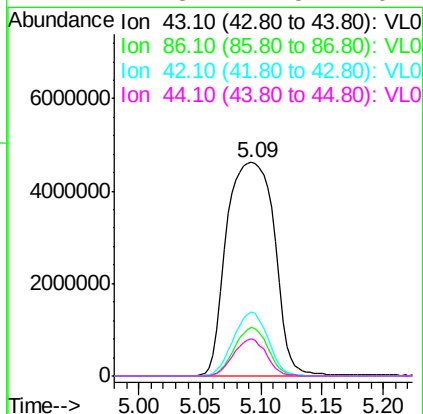
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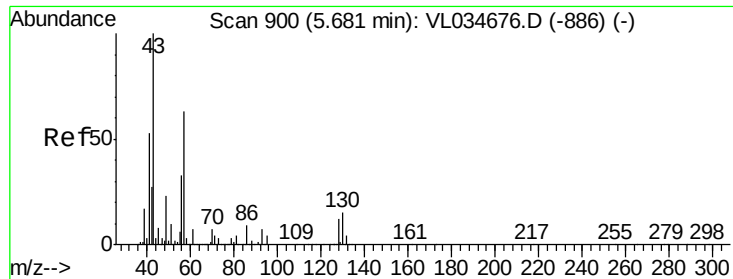
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#23
Vinyl Acetate
Concen: 76.169 ppbv
RT: 5.09 min Scan# 717
Delta R.T. 0.03 min
Lab File: VL034770.D
Acq: 3 Mar 2020 19:09

Tgt Ion:	43	Resp:	12615142
Ion	Ratio	Lower	Upper
43	100		
86	22.9	6.0	9.0#
42	30.1	8.0	12.0#
44	17.3	4.5	6.7#





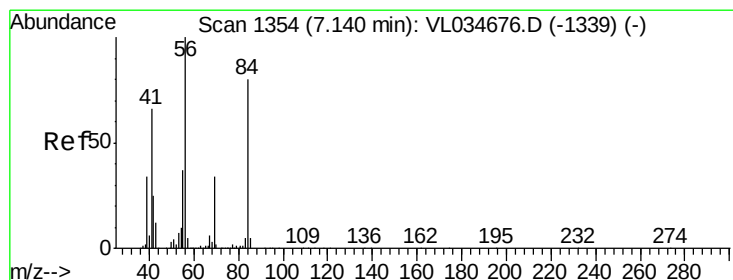
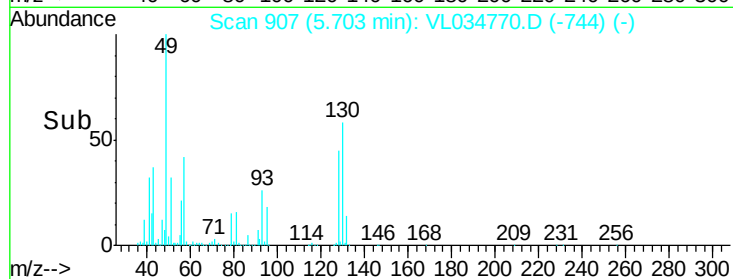
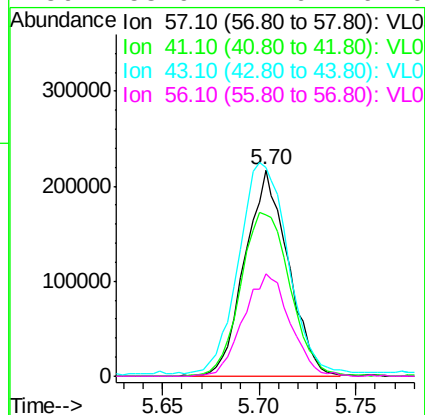
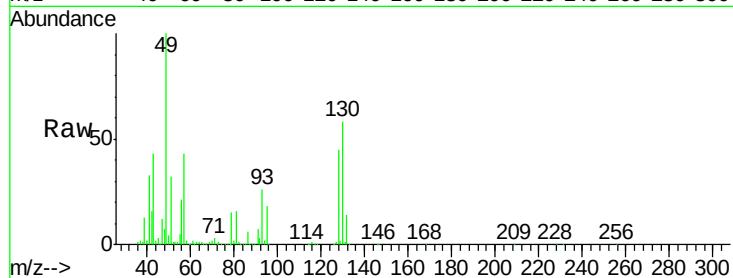
#26
Hexane
Concen: 3.383 ppbv
RT: 5.70 min Scan# 907
Delta R.T. 0.02 min
Lab File: VL034770.D
Acq: 3 Mar 2020 19:09

Instrument :
MSVOA_L
ClientSampled :
IA-1-4

Tot Ion	Ratio	Lower	Upper
57	100		
41	90.3	70.3	105.5
43	117.9	177.0	265.4#
56	53.9	42.6	64.0

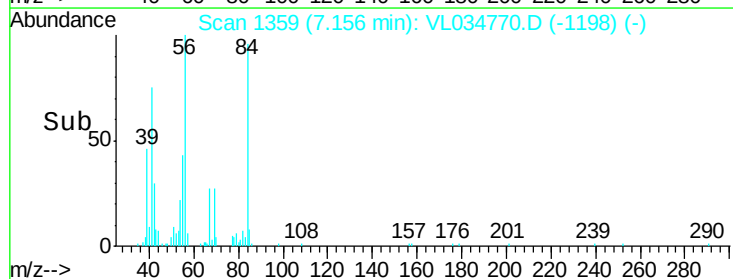
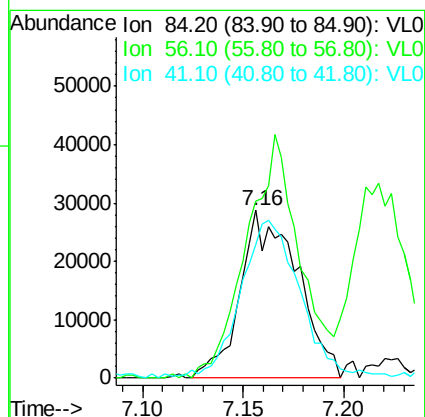
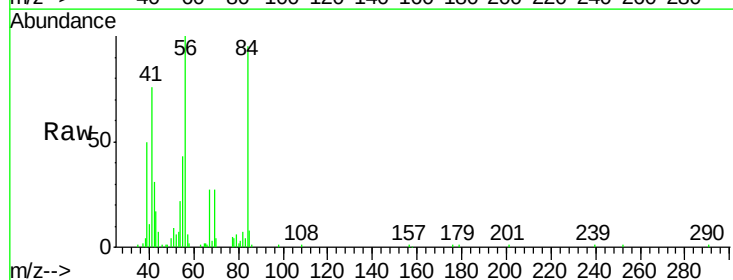
Manual Integrations
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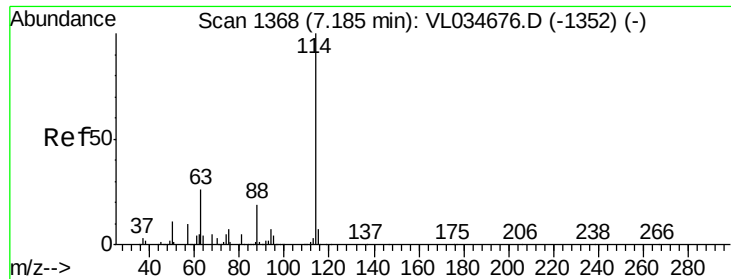
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#30
Cyclohexane
Concen: 0.735 ppbv m
RT: 7.16 min Scan# 1359
Delta R.T. 0.02 min
Lab File: VL034770.D
Acq: 3 Mar 2020 19:09

Tgt Ion	Ratio	Lower	Upper
84	100		
56	129.8	113.4	170.2
41	0.0	68.2	102.4#





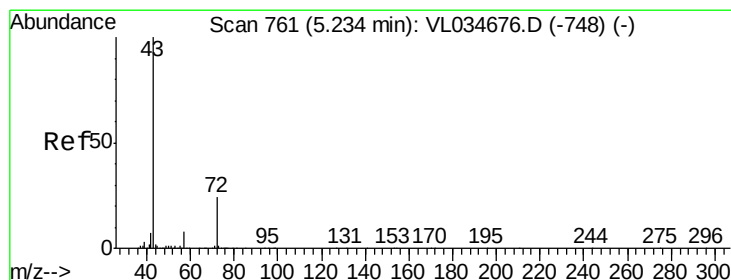
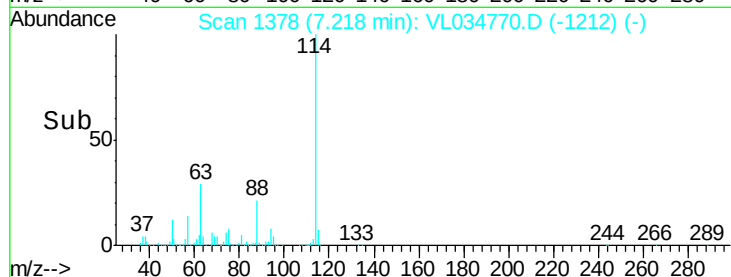
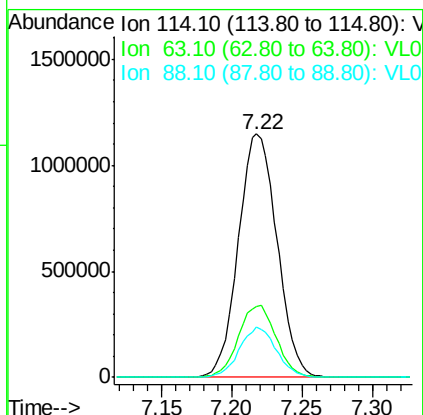
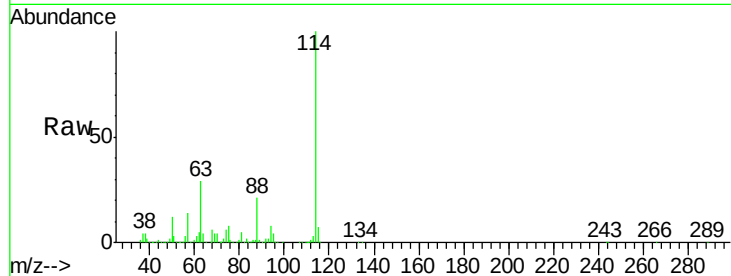
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.22 min Scan# 1378
 Delta R.T. 0.03 min
 Lab File: VL034770.D
 Acq: 3 Mar 2020 19:09

Instrument :
 MSVOA_L
 ClientSampleId :
 IA-1-4

Tot Ion	Ratio	Lower	Upper
114	100		
63	29.3	22.9	34.3
88	19.7	15.8	23.6

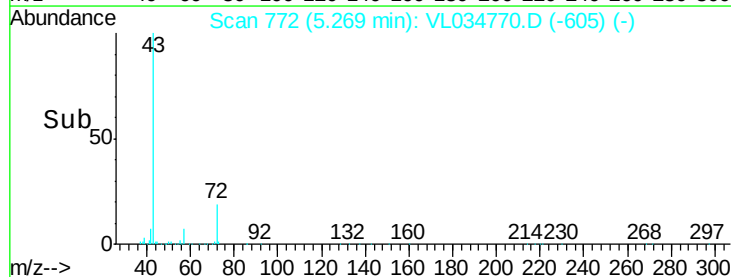
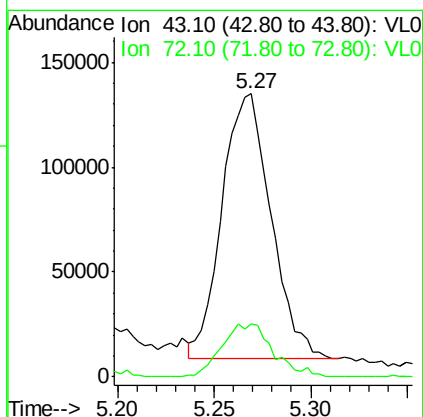
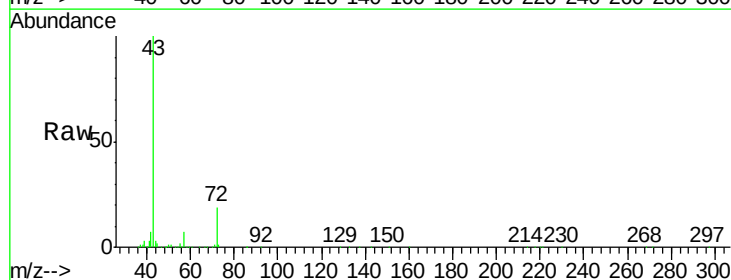
Manual Integrations
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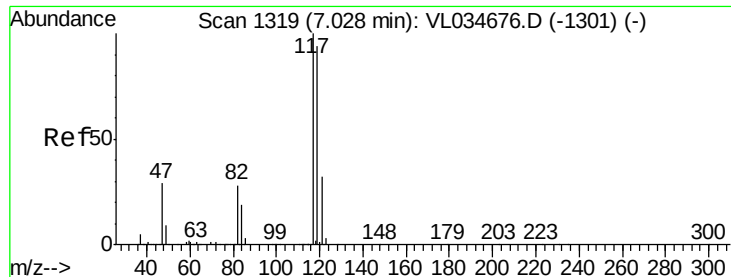
MMDadoda
 3/4/2020 4:49:19 PM



#34
 2-Butanone
 Concen: 1.597 ppbv
 RT: 5.27 min Scan# 772
 Delta R.T. 0.04 min
 Lab File: VL034770.D
 Acq: 3 Mar 2020 19:09

Tgt Ion	Ratio	Lower	Upper
43	100		
72	21.2	18.2	27.2





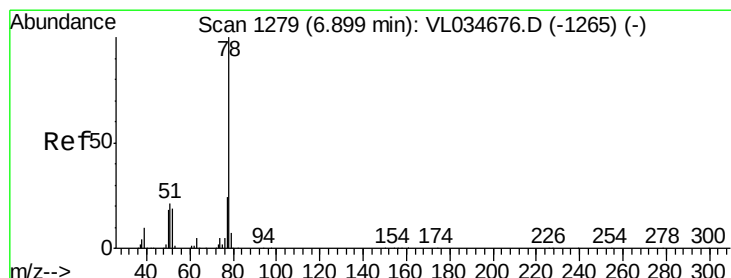
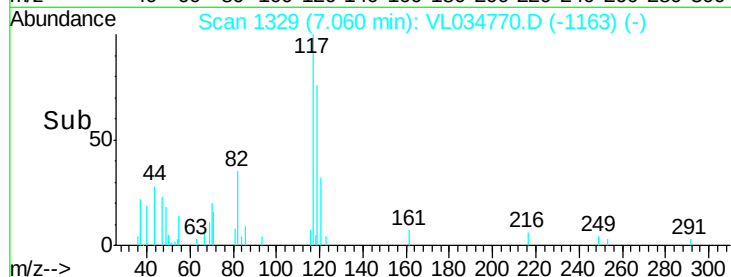
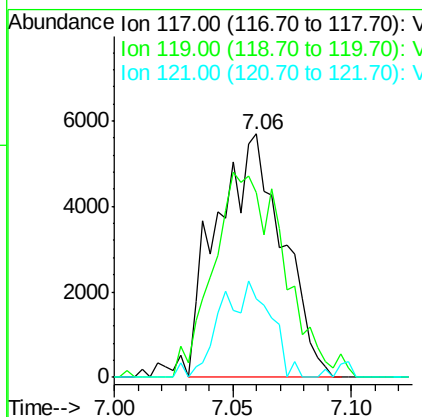
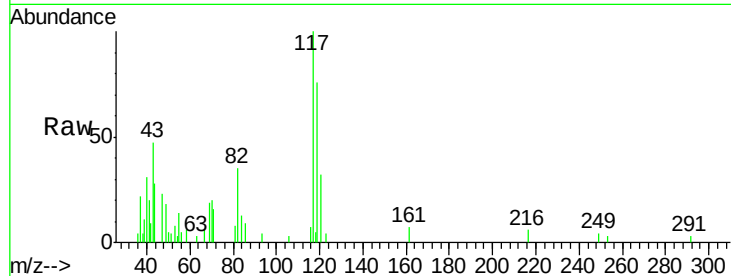
#35
Carbon Tetrachloride
Concen: 0.074 ppbv m
RT: 7.06 min Scan# 1329
Delta R.T. 0.03 min
Lab File: VL034770.D
Acq: 3 Mar 2020 19:09

Instrument :
MSVOA_L
ClientSampled :
IA-1-4

Tot Ion	Ratio	Lower	Upper
117	100		
119	76.1	75.5	113.3
121	32.0	25.4	38.0

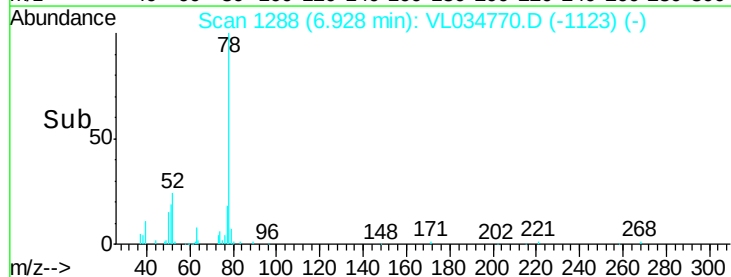
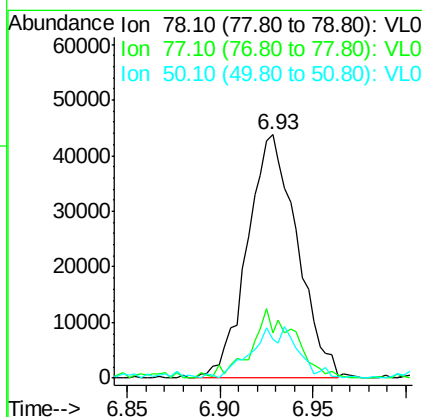
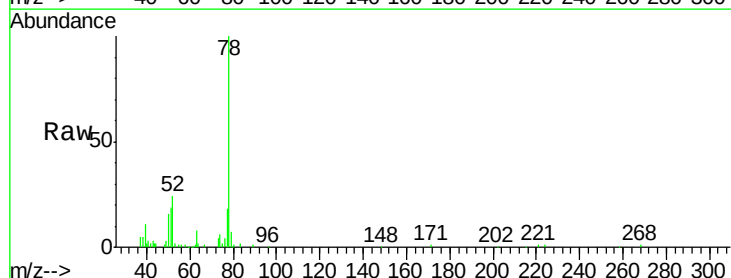
Manual Integrations
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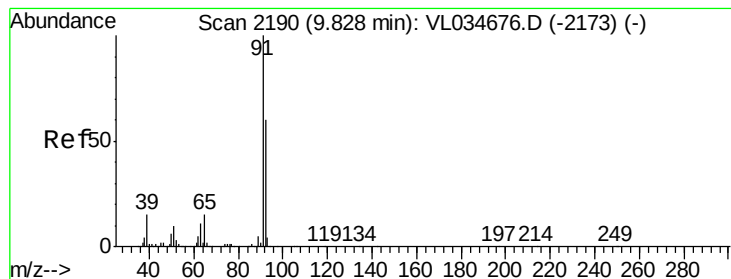
MMDadoda
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#36
Benzene
Concen: 0.427 ppbv
RT: 6.93 min Scan# 1288
Delta R.T. 0.03 min
Lab File: VL034770.D
Acq: 3 Mar 2020 19:09

Tgt Ion	Ratio	Lower	Upper
78	100		
77	18.5	19.5	29.3#
50	14.6	14.6	21.8





#53

Toluene

Concen: 48.980 ppbv

RT: 9.86 min Scan# 2201

Delta R.T. 0.04 min

Lab File: VL034770.D

Acq: 3 Mar 2020 19:09

Instrument :

MSVOA_L

ClientSampleId :

IA-1-4

Tot Ion: 91 Resp: 9920269

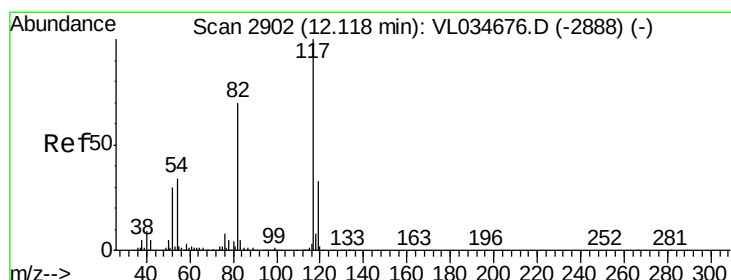
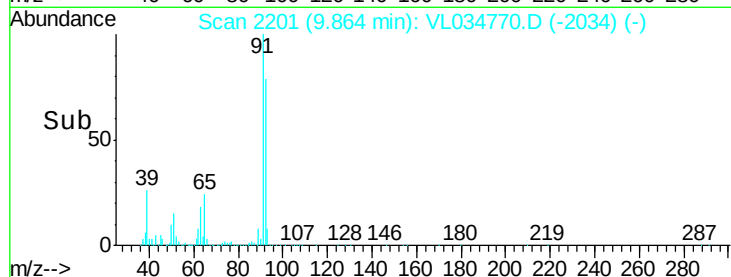
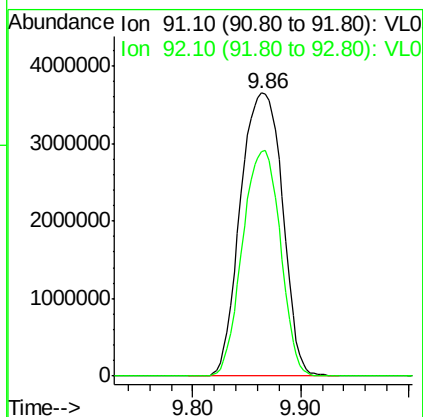
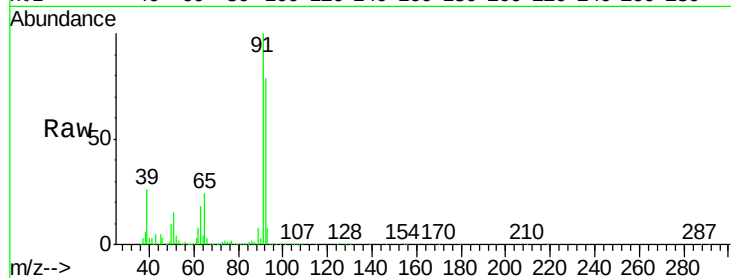
Ion Ratio Lower Upper

91 100

92 72.1 48.5 72.7

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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.15 min Scan# 2912

Delta R.T. 0.03 min

Lab File: VL034770.D

Acq: 3 Mar 2020 19:09

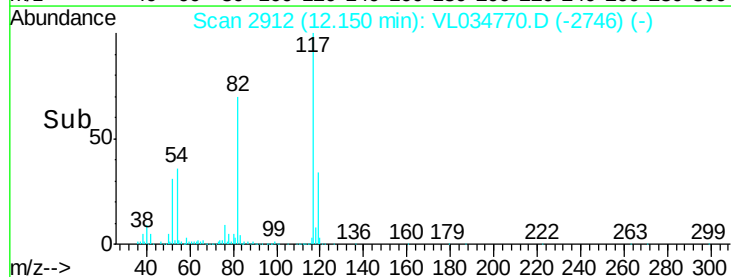
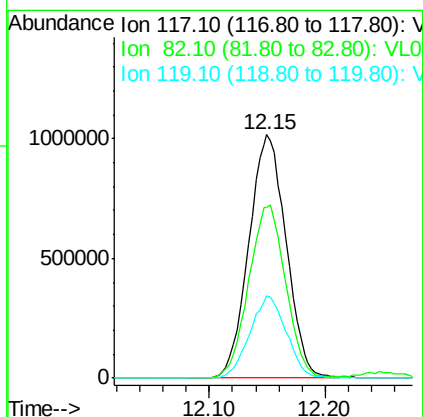
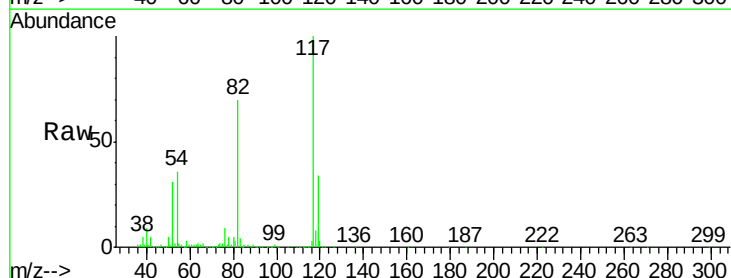
Tgt Ion: 117 Resp: 2272857

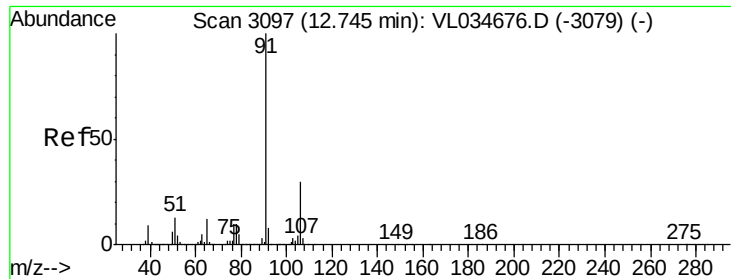
Ion Ratio Lower Upper

117 100

82 70.8 54.1 81.1

119 33.0 27.6 41.4





#58

Ethyl Benzene

Concen: 2.916 ppbv

RT: 12.78 min Scan# 3107

Delta R.T. 0.03 min

Lab File: VL034770.D

Acq: 3 Mar 2020 19:09

Instrument :

MSVOA_L

ClientSampleId :

IA-1-4

Tot Ion: 91 Resp: 801939

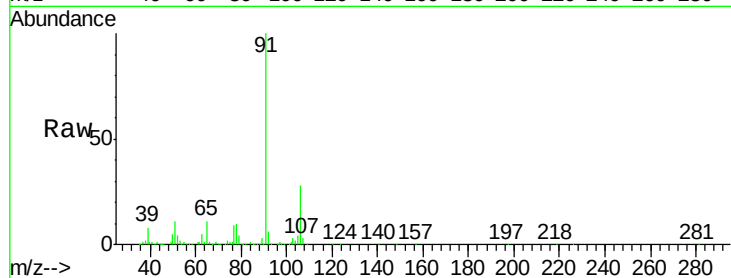
Ion Ratio Lower Upper

91 100

106 27.7 24.0 36.0

Manual Integrations
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3/4/2020 4:49:19 PM



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

12.78

400000

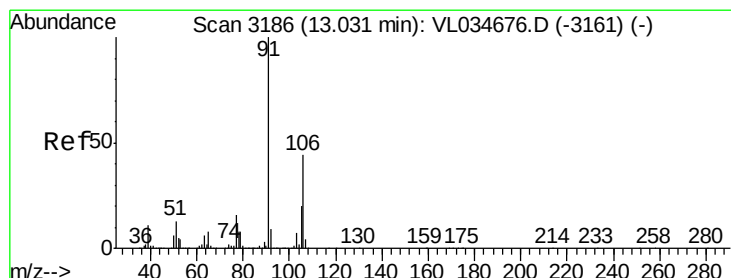
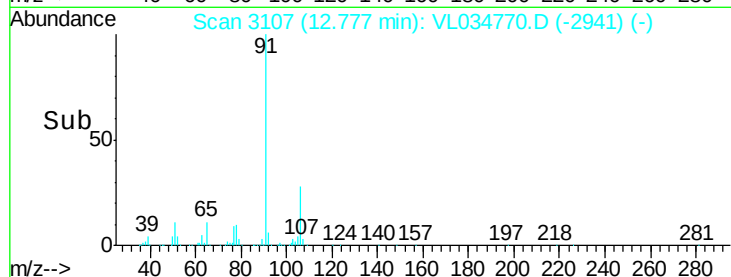
300000

200000

100000

0

Time-->



#59

m/p-Xylene

Concen: 11.219 ppbv

RT: 13.03 min Scan# 3186

Delta R.T. 0.00 min

Lab File: VL034770.D

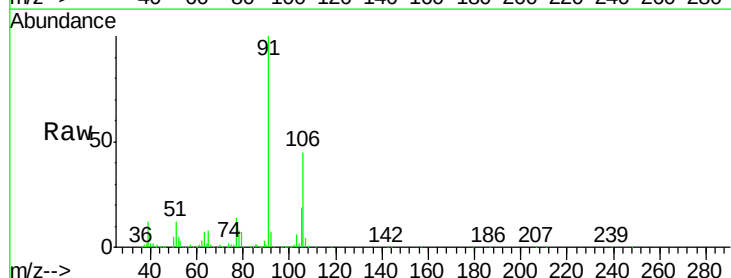
Acq: 3 Mar 2020 19:09

Tgt Ion: 91 Resp: 2690683

Ion Ratio Lower Upper

91 100

106 44.9 35.6 53.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

13.03

1000000

800000

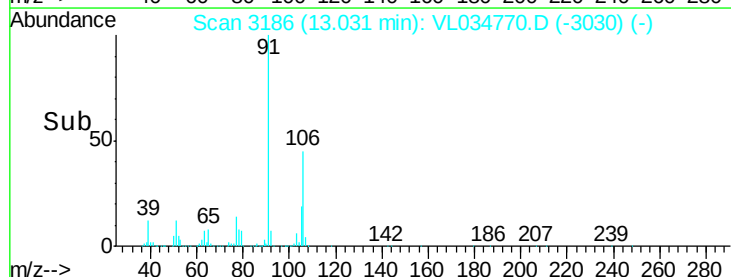
600000

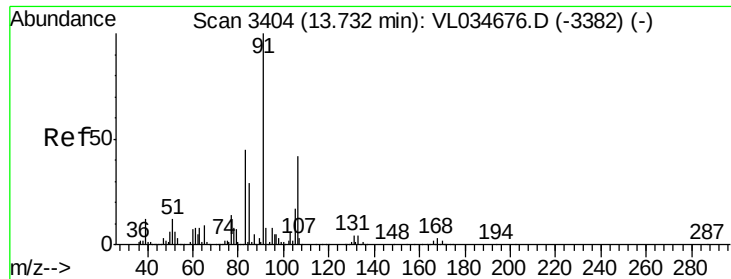
400000

200000

0

Time-->





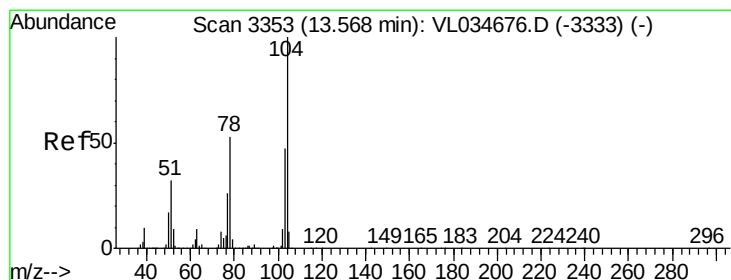
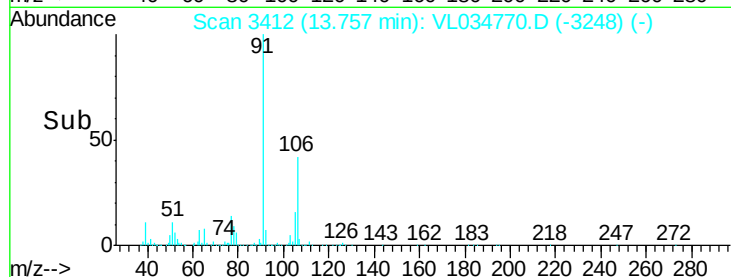
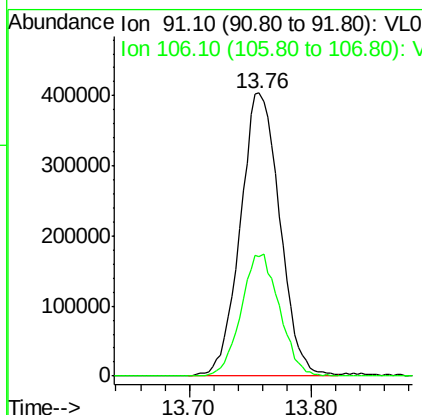
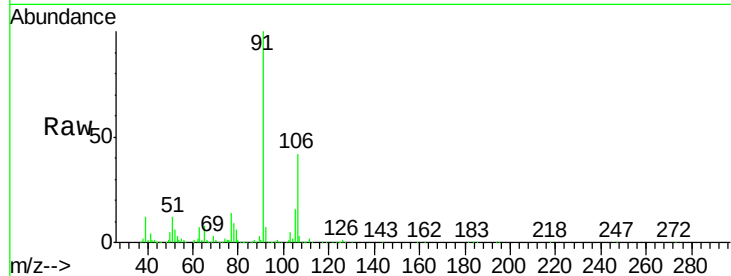
#60
o-Xylene
Concen: 3.758 ppbv
RT: 13.76 min Scan# 3412
Delta R.T. 0.03 min
Lab File: VL034770.D
Acq: 3 Mar 2020 19:09

Instrument :
MSVOA_L
ClientSampled :
IA-1-4

Tot Ion	Ratio	Lower	Upper
91	100		
106	42.3	21.9	65.5

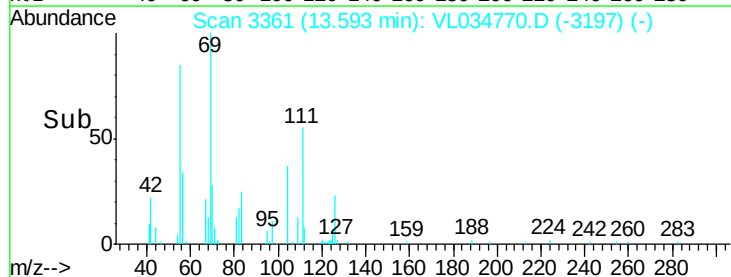
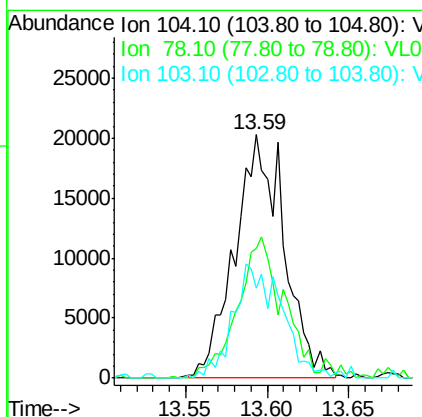
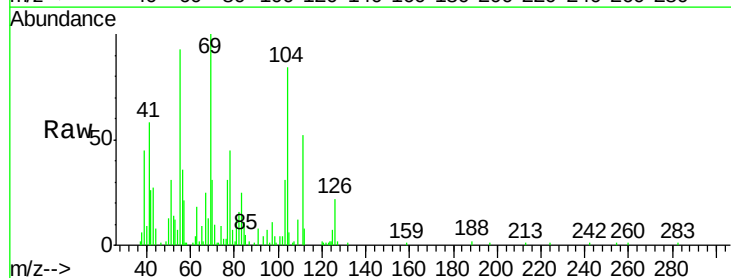
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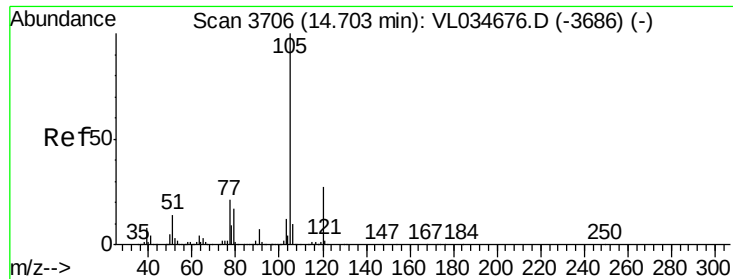
MMDadoda
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#61
Styrene
Concen: 0.279 ppbv m
RT: 13.59 min Scan# 3361
Delta R.T. 0.03 min
Lab File: VL034770.D
Acq: 3 Mar 2020 19:09

Tgt Ion	Ratio	Lower	Upper
104	100		
78	0.0	44.2	66.4#
103	0.0	37.4	56.0#





#62

Isopropylbenzene

Concen: 0.257 ppbv

RT: 14.74 min Scan# 3718

Delta R.T. 0.04 min

Lab File: VL034770.D

Acq: 3 Mar 2020 19:09

Instrument :

MSVOA_L

ClientSampled :

IA-1-4

Tot Ion:105 Resp: 89217

Ion Ratio Lower Upper

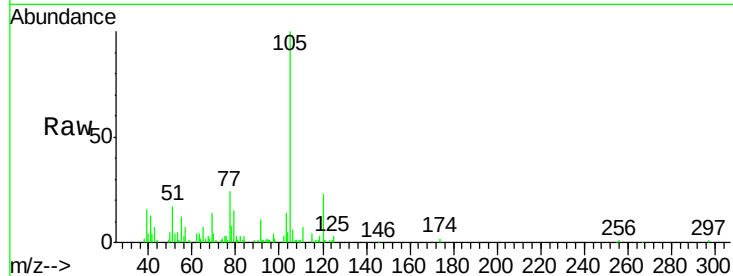
105 100

120 25.9 20.2 30.4

Manual Integrations
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Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

14.74

40000

30000

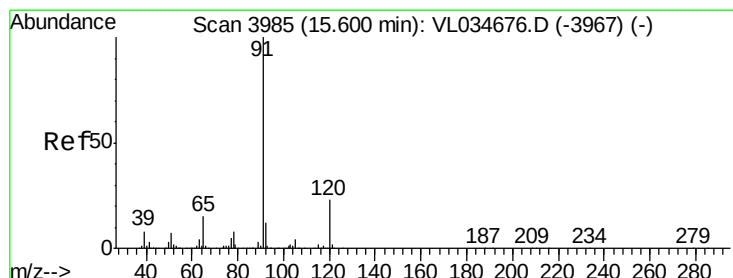
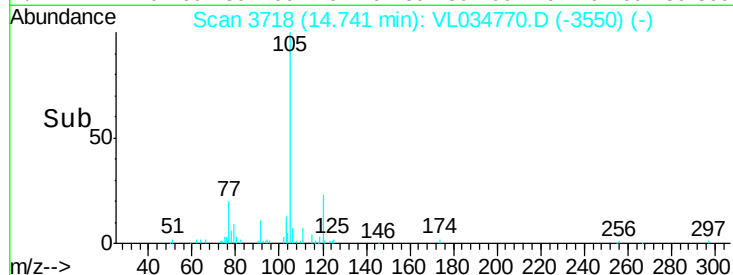
20000

10000

0

14.65 14.70 14.75 14.80

Time-->



#64

n-propylbenzene

Concen: 1.314 ppbv m

RT: 15.63 min Scan# 3993

Delta R.T. 0.03 min

Lab File: VL034770.D

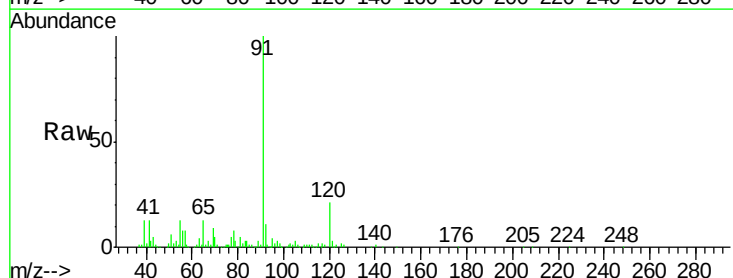
Acq: 3 Mar 2020 19:09

Tgt Ion:120 Resp: 117637

Ion Ratio Lower Upper

120 100

91 509.5 369.8 554.8



Abundance Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

300000

250000

200000

150000

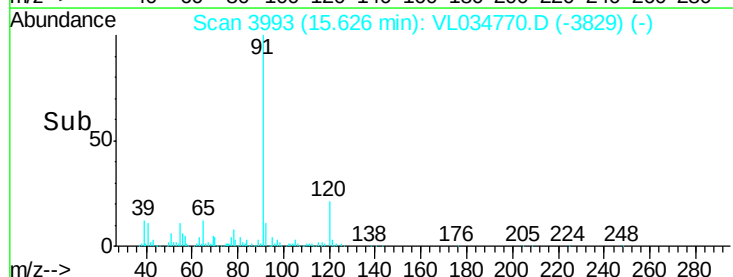
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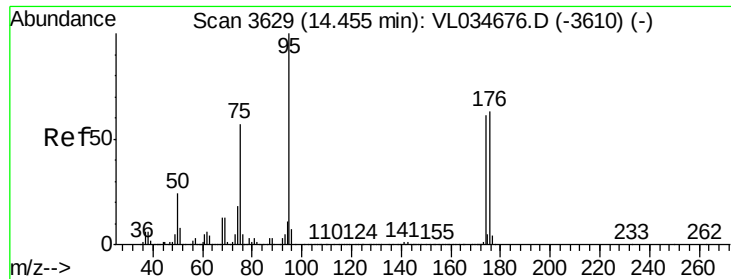
50000

0

15.60 15.65 15.70

Time-->





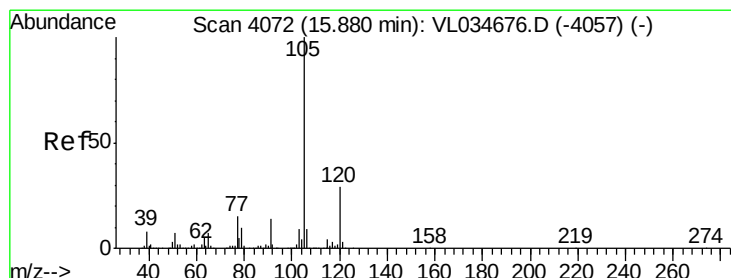
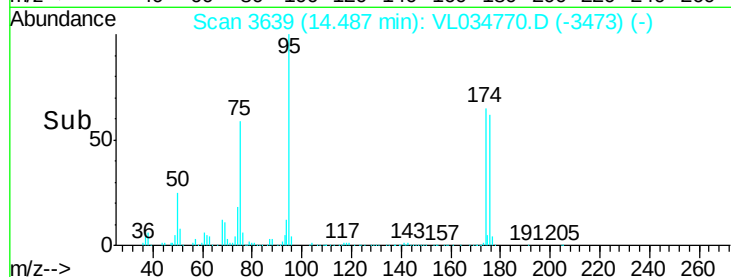
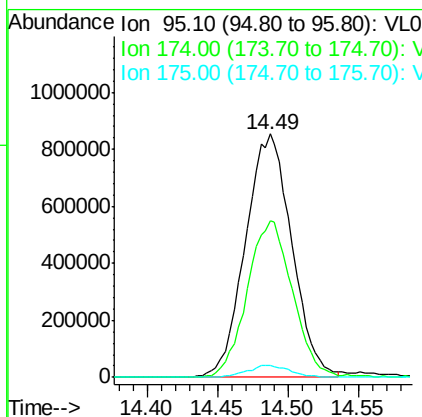
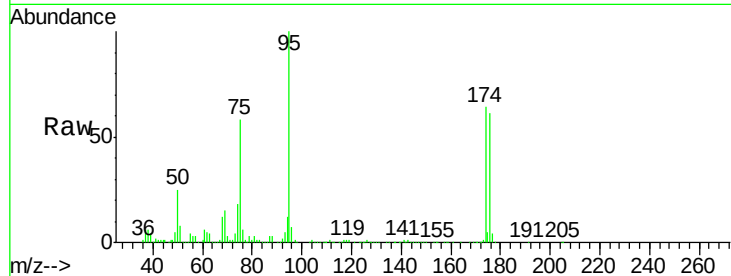
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.489 ppbv
 RT: 14.49 min Scan# 3639
 Delta R.T. 0.03 min
 Lab File: VL034770.D
 Acq: 3 Mar 2020 19:09

Instrument :
 MSVOA_L
 ClientSampled :
 IA-1-4

Tot Ion: 95 Resp: 1954879
 Ion Ratio Lower Upper
 95 100
 174 63.7 50.7 76.1
 175 4.6 3.9 5.9

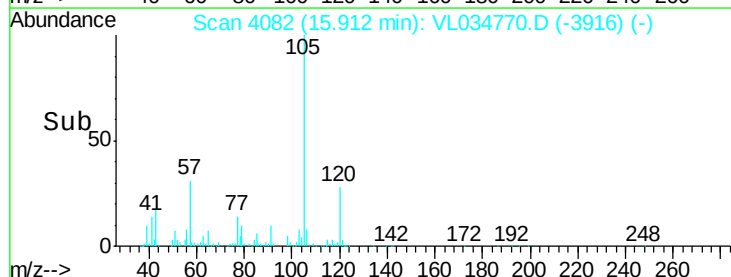
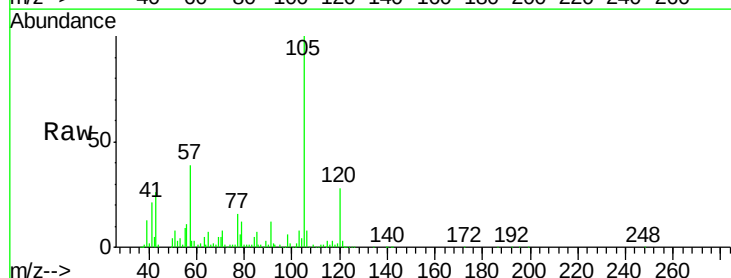
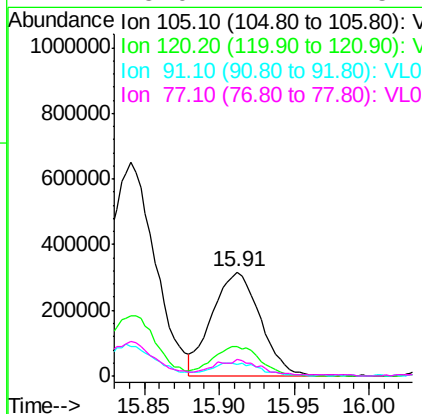
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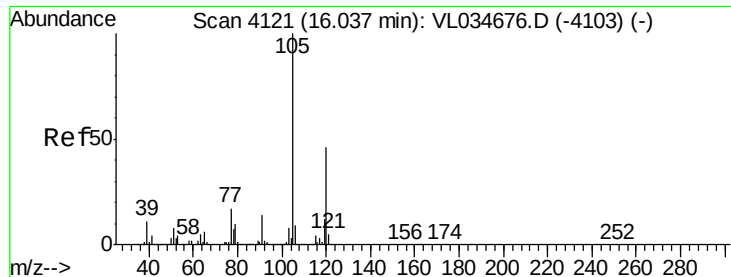
MMDadoda
 3/4/2020 4:49:19 PM



#72
 4-Ethyltoluene
 Concen: 2.655 ppbv
 RT: 15.91 min Scan# 4082
 Delta R.T. 0.03 min
 Lab File: VL034770.D
 Acq: 3 Mar 2020 19:09

Tgt Ion: 105 Resp: 703198
 Ion Ratio Lower Upper
 105 100
 120 28.1 23.7 35.5
 91 12.9 10.9 16.3
 77 15.0 12.2 18.2





#73

1,3,5-Trimethylbenzene

Concen: 2.445 ppbv

RT: 16.07 min Scan# 4130

Delta R.T. 0.03 min

Lab File: VL034770.D

Acq: 3 Mar 2020 19:09

Instrument :

MSVOA_L

ClientSampleId :

IA-1-4

Tot Ion:105 Resp: 622960

Ion Ratio Lower Upper

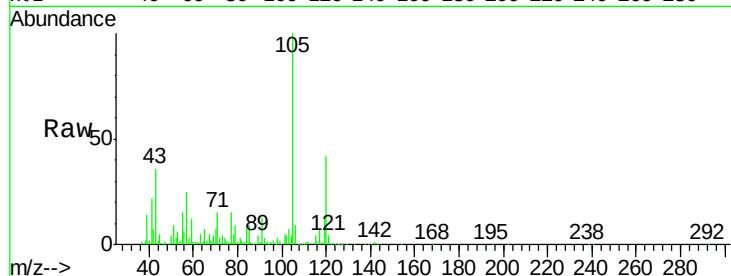
105 100

120 42.5 37.1 55.7

Manual Integrations
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3/4/2020 4:49:19 PM



Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

16.07

250000

200000

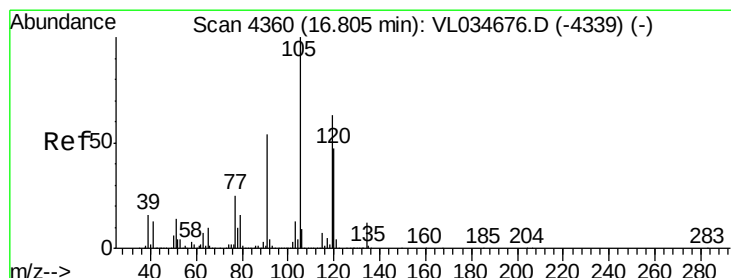
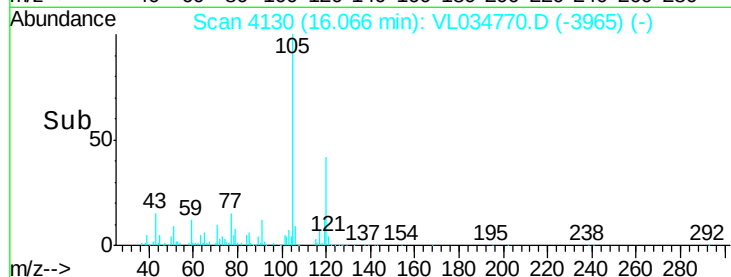
150000

100000

50000

0

Time-->



#74

1,2,4-Trimethylbenzene

Concen: 6.302 ppbv

RT: 16.83 min Scan# 4369

Delta R.T. 0.03 min

Lab File: VL034770.D

Acq: 3 Mar 2020 19:09

Tgt Ion:105 Resp: 1773455

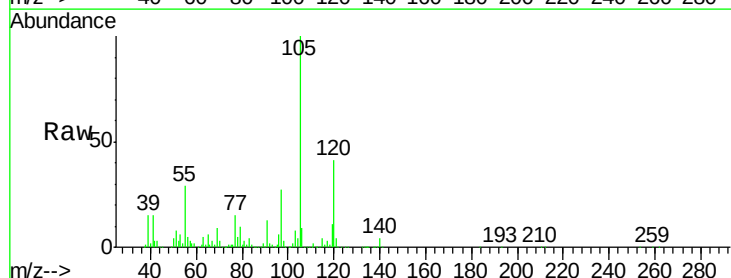
Ion Ratio Lower Upper

105 100

120 40.5 37.9 56.9

91 12.7 43.9 65.9#

77 14.6 20.3 30.5#



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

1200000

1000000

800000

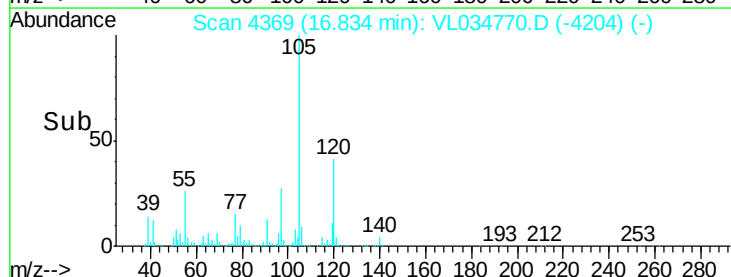
600000

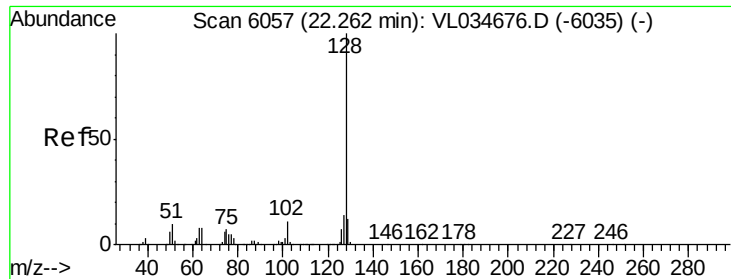
400000

200000

0

Time-->





#79
Naphthalene
Concen: 0.398 ppbv m
RT: 22.30 min Scan# 6070
Delta R.T. 0.04 min
Lab File: VL034770.D
Acq: 3 Mar 2020 19:09

Instrument :
MSVOA_L
ClientSampleId :
IA-1-4

Tot Ion	Ratio	Resp Lower	Upper
128	100		
127	12.7	11.0	16.6
129	14.2	9.4	14.2#

Manual Integrations
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