

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL100820\
 Data File : VL035748.D
 Acq On : 8 Oct 2020 16:56
 Operator : SY/AP
 Sample : L4312-01
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-1

Manual Integrations
 APPROVED

apatel
 10/12/2020 10:29:53 AM

Quant Time: Oct 09 23:17:40 2020

Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL092320AIR.M

Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LWed Sep 2

QLast Update : Wed Sep 23 07:38:05 2020

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1052985	10.00	ppbv	-0.01
33) 1,4-Difluorobenzene	7.18	114	4191387	10.00	ppbv	-0.01
55) Chlorobenzene-d5	12.10	117	4259005	10.00	ppbv	-0.02

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.43	95	3203965	10.04	ppbv	-0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.40%

Target Compounds

						Ovalue
2) Dichlorodifluoromethane	3.04	85	63069	0.365	ppbv	99
3) Chlorodifluoromethane	2.98	51	37280m	0.329	ppbv	
4) Chloromethane	3.13	50	31373	0.516	ppbv	98
9) Propene	3.01	41	111891	2.720	ppbv	87
10) Heptane	8.13	43	136038	1.186	ppbv	95
11) Trichlorofluoromethane	3.95	101	68746	0.279	ppbv	92
13) Ethanol	3.60	45	407534	40.178	ppbv	99
15) Acetone	3.84	43	1624629m	14.339	ppbv	
19) Isopropyl Alcohol	3.97	45	86267	1.400	ppbv #	1
20) Methylene Chloride	4.34	84	148656	1.786	ppbv	95
26) Hexane	5.69	57	305009	2.730	ppbv #	61
30) Cyclohexane	7.14	84	99634	0.904	ppbv	100
34) 2-Butanone	5.25	43	350800	2.530	ppbv	99
35) Carbon Tetrachloride	7.02	117	16653	0.076	ppbv #	91
36) Benzene	6.89	78	302977	1.109	ppbv #	92
44) 2,2,4-Trimethylpentane	7.87	57	529075	1.350	ppbv #	89
52) Tetrachloroethene	11.24	164	4378m	0.033	ppbv	
53) Toluene	9.82	91	1833122	5.692	ppbv	98
58) Ethyl Benzene	12.72	91	346776	0.811	ppbv	93
59) m/p-Xylene	12.98	91	1068140	2.861	ppbv	99
60) o-Xylene	13.71	91	395638	1.048	ppbv	97
64) n-propylbenzene	15.58	120	28984m	0.169	ppbv	
65) tert-Butylbenzene	16.78	119	64725	0.122	ppbv #	75
72) 4-Ethyltoluene	15.86	105	152999	0.342	ppbv	99
73) 1,3,5-Trimethylbenzene	16.02	105	131950	0.312	ppbv	91
74) 1,2,4-Trimethylbenzene	16.78	105	539303	1.132	ppbv #	71

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

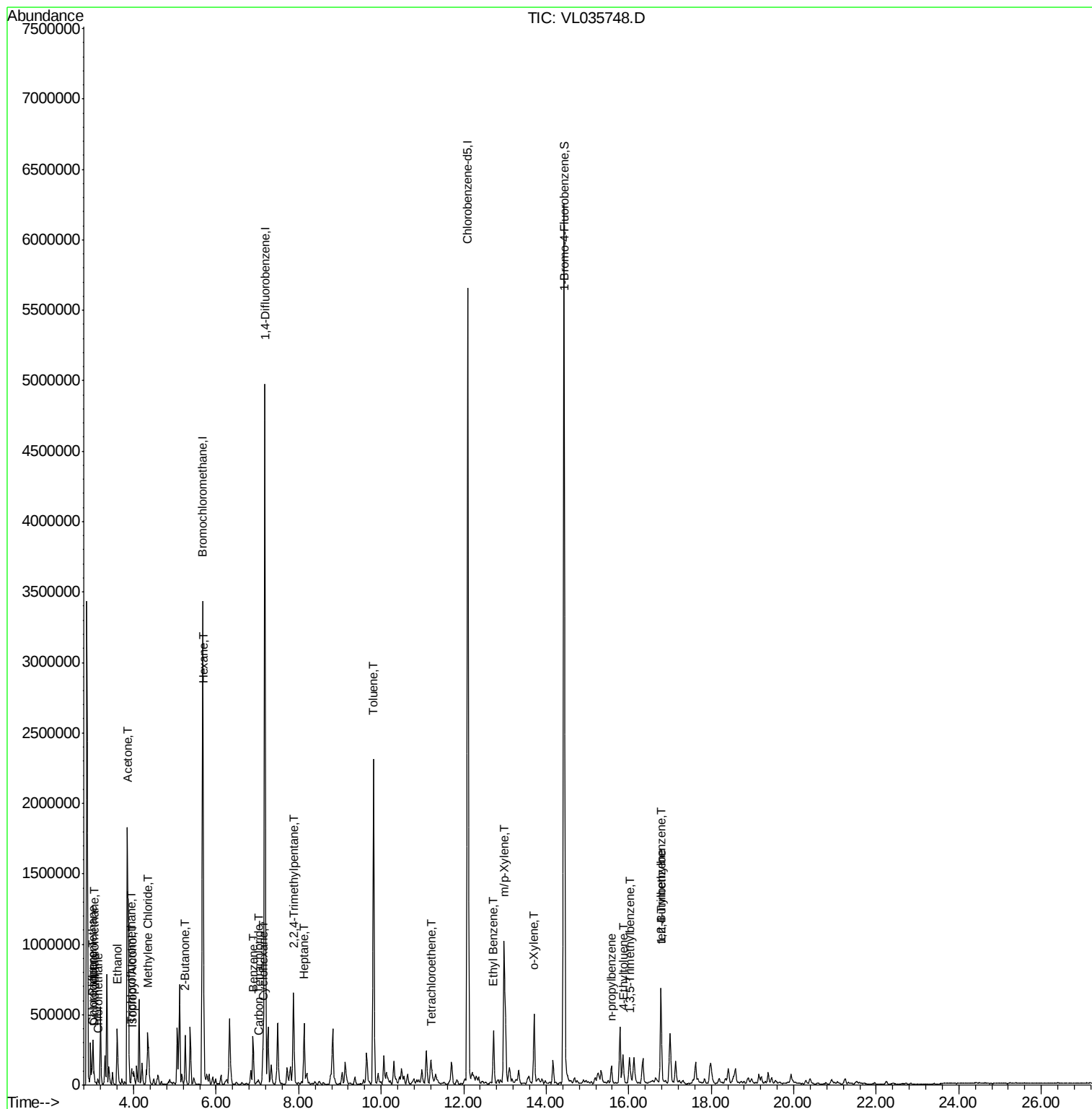
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL100820\
Data File : VL035748.D
Acq On : 8 Oct 2020 16:56
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Quant Time: Oct 09 23:17:40 2020
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL092320AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Sep
QLast Update : Wed Sep 23 07:38:05 2020
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 896

Delta R.T. -0.01 min

Lab File: VL035748.D

Acq: 8 Oct 2020 16:56

Instrument :

MSVOA_L

ClientSampled :

SG-1

Tot Ion: 49 Resp: 1052985

Ion Ratio Lower Upper

49 100

128 86.0 43.1 129.4

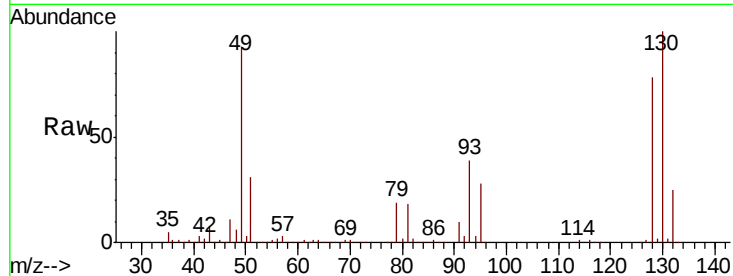
130 110.1 54.9 164.7

Manual Integrations

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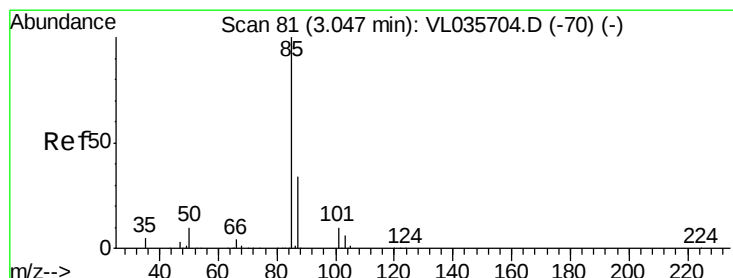
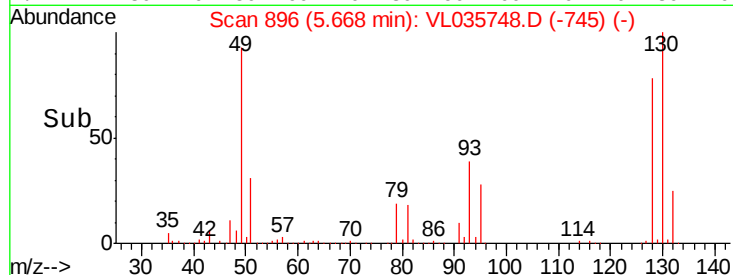
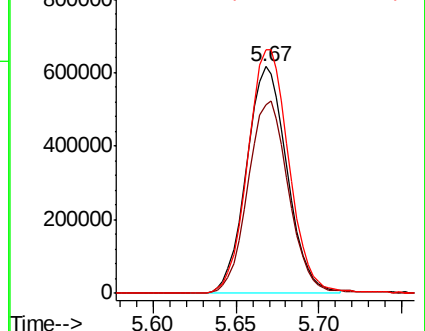
10/12/2020 10:29:53 AM



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.365 ppbv

RT: 3.04 min Scan# 80

Delta R.T. -0.00 min

Lab File: VL035748.D

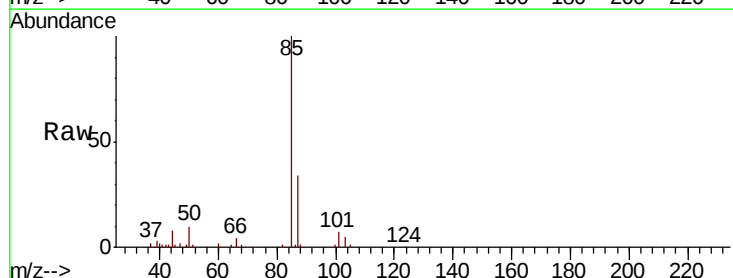
Acq: 8 Oct 2020 16:56

Tgt Ion: 85 Resp: 63069

Ion Ratio Lower Upper

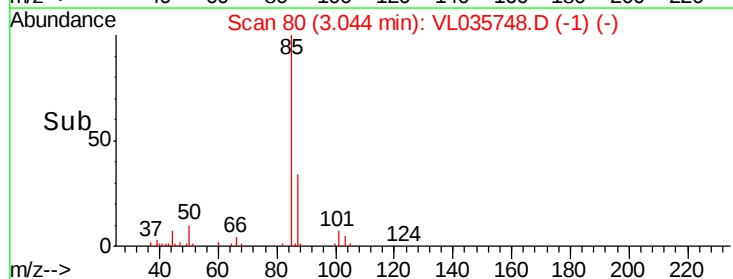
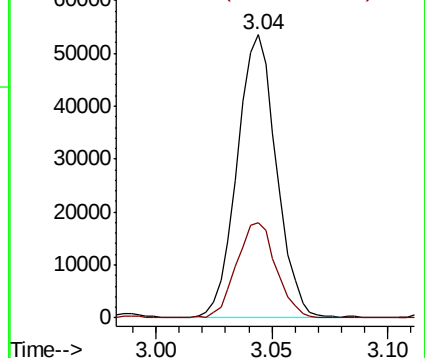
85 100

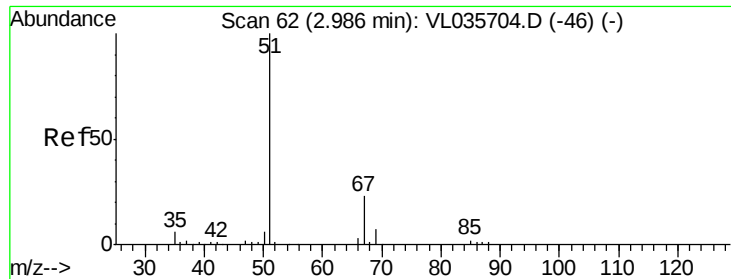
87 33.6 27.3 40.9



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

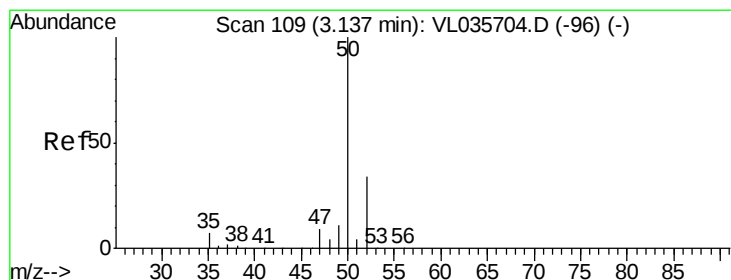
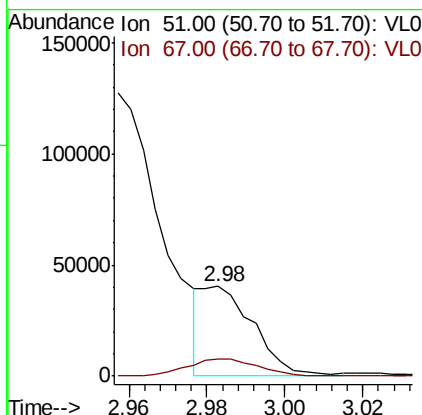
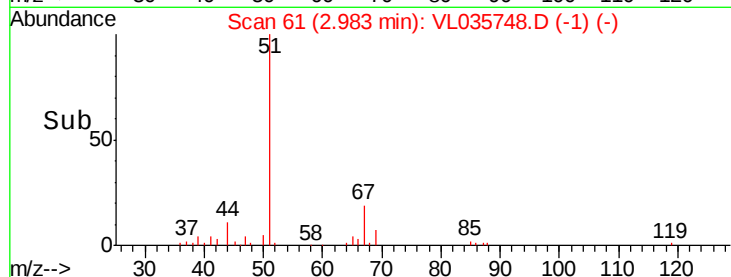
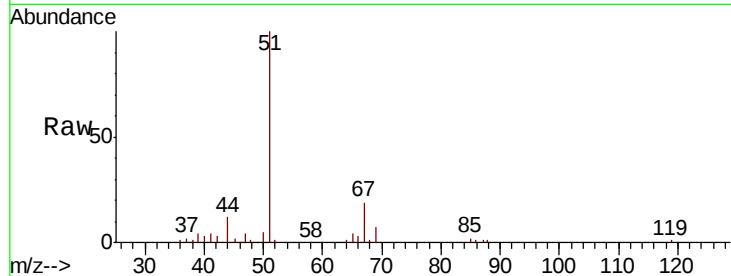
Chlorodifluoromethane
Concen: 0.329 ppbv
RT: 2.98 min Scan# 61
Delta R.T. -0.00 min
Lab File: VL035748.D
Acq: 8 Oct 2020 16:56

Instrument :
MSVOA_L
ClientSampled :
SG-1

Tot Ion	Ratio	Lower	Upper
51	100		
67	26.7	17.8	26.8

Manual Integrations
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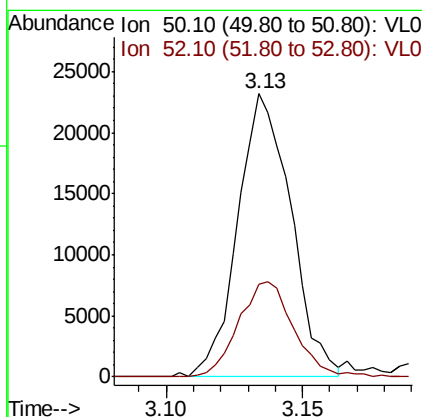
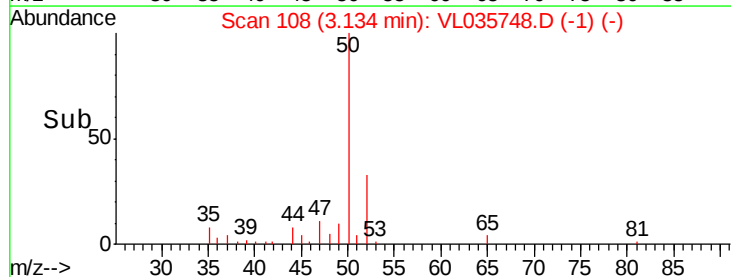
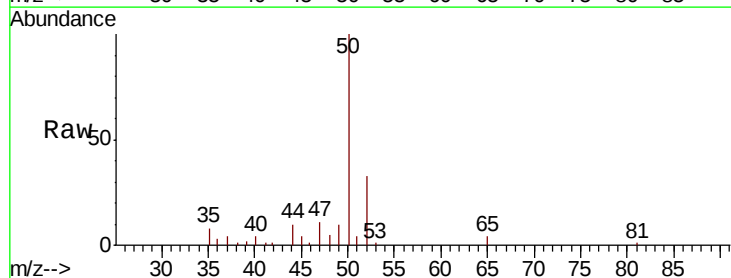
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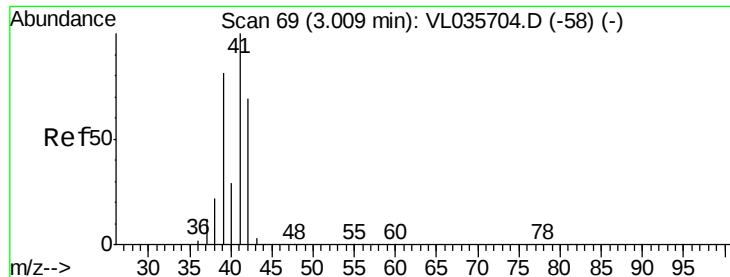


#4

Chloromethane
Concen: 0.516 ppbv
RT: 3.13 min Scan# 108
Delta R.T. -0.00 min
Lab File: VL035748.D
Acq: 8 Oct 2020 16:56

Tgt Ion	Ratio	Lower	Upper
50	100		
52	32.6	26.8	40.2





#9

Propene

Concen: 2.720 ppbv

RT: 3.01 min Scan# 68

Delta R.T. -0.00 min

Lab File: VL035748.D

Acq: 8 Oct 2020 16:56

Instrument :

MSVOA_L

ClientSampled :

SG-1

Tot Ion: 41 Resp: 111891

Ion Ratio Lower Upper

41 100

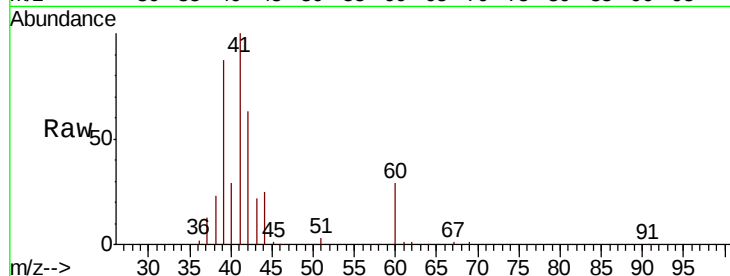
42 59.7 56.2 84.4

Manual Integrations

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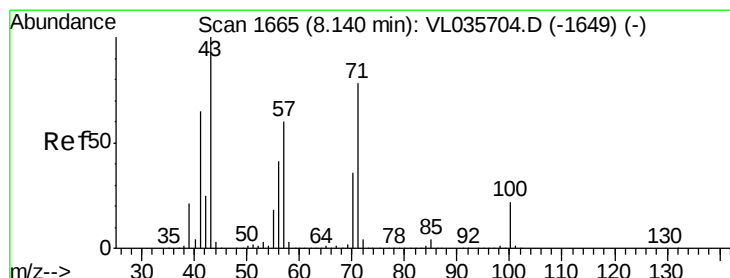
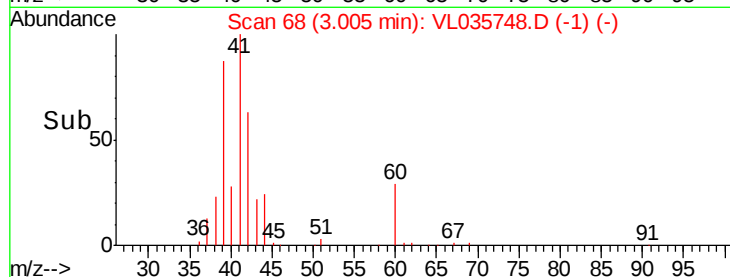
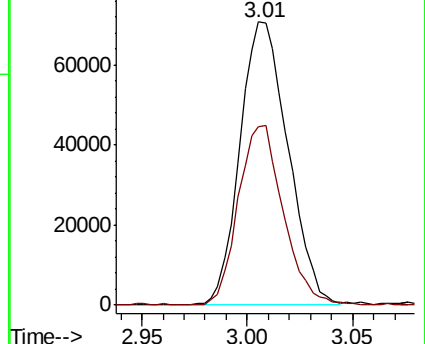
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Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#10

Heptane

Concen: 1.186 ppbv

RT: 8.13 min Scan# 1662

Delta R.T. -0.01 min

Lab File: VL035748.D

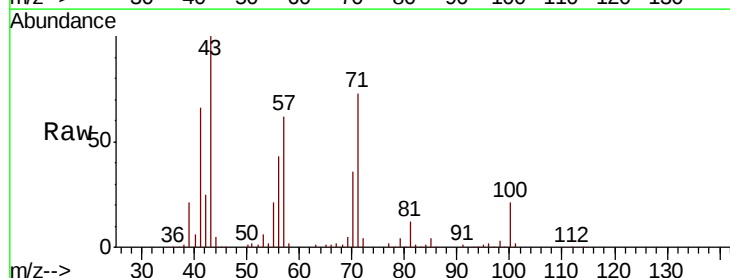
Acq: 8 Oct 2020 16:56

Tgt Ion: 43 Resp: 136038

Ion Ratio Lower Upper

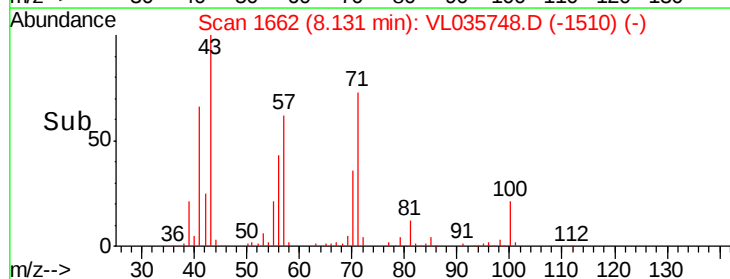
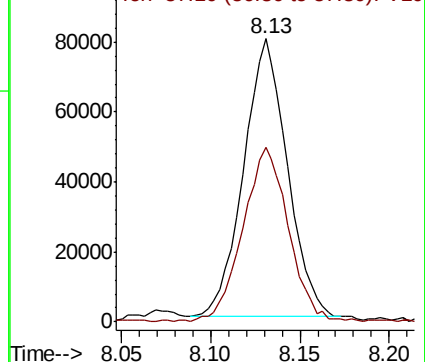
43 100

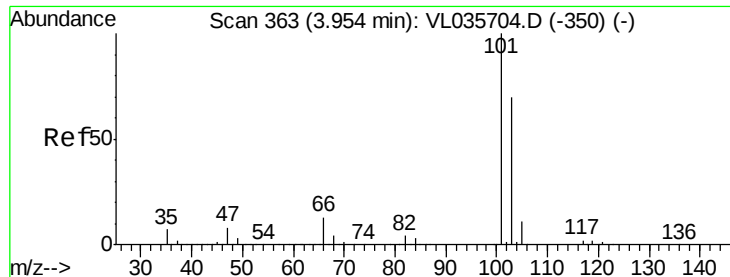
57 66.5 50.4 75.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





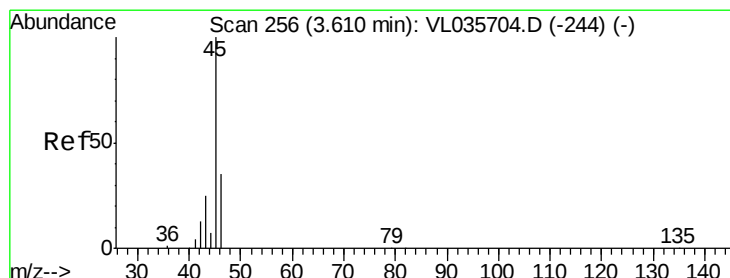
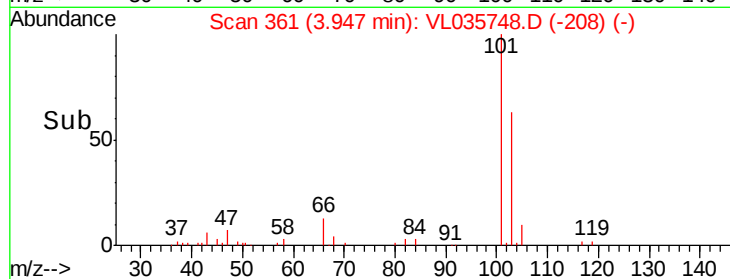
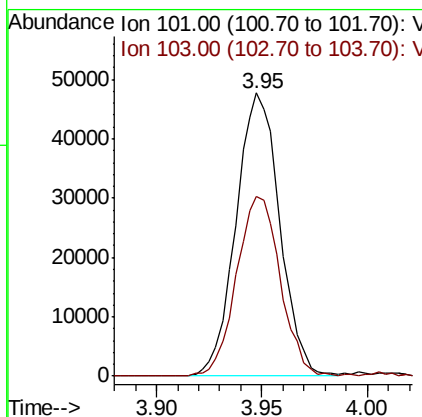
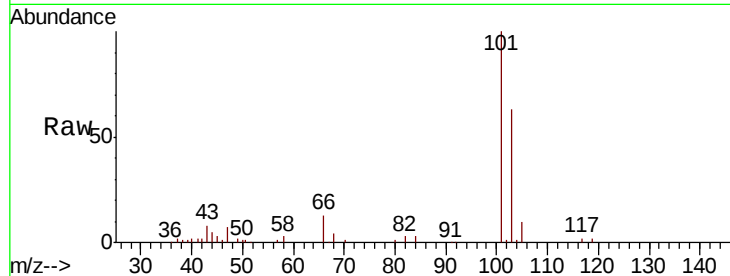
#11
 Trichlorofluoromethane
 Concen: 0.279 ppbv
 RT: 3.95 min Scan# 361
 Delta R.T. -0.01 min
 Lab File: VL035748.D
 Acq: 8 Oct 2020 16:56

Instrument :
 MSVOA_L
 ClientSampled :
 SG-1

Tot Ion	Ratio	Lower	Upper
101	100		
103	63.3	55.6	83.4

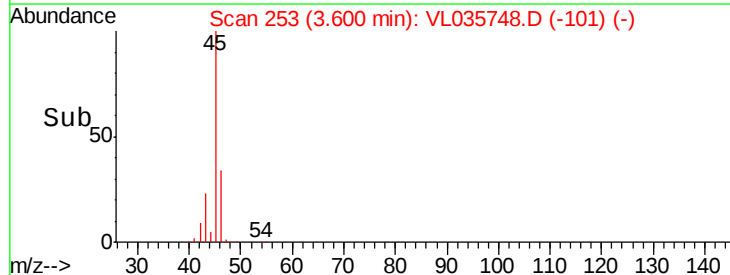
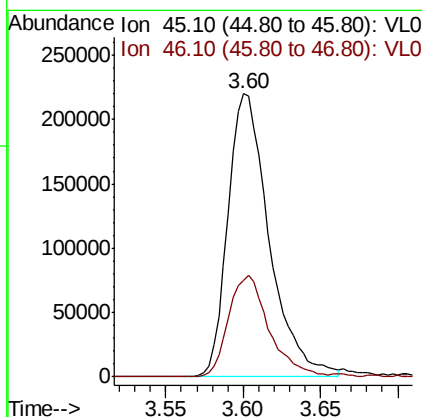
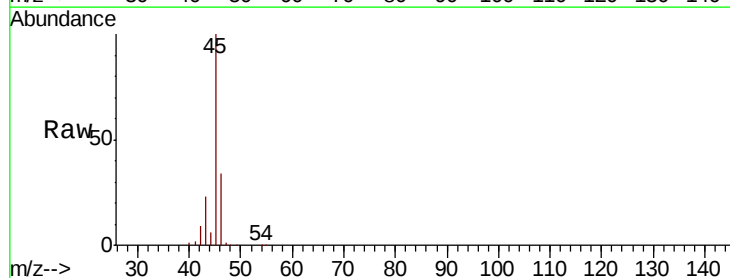
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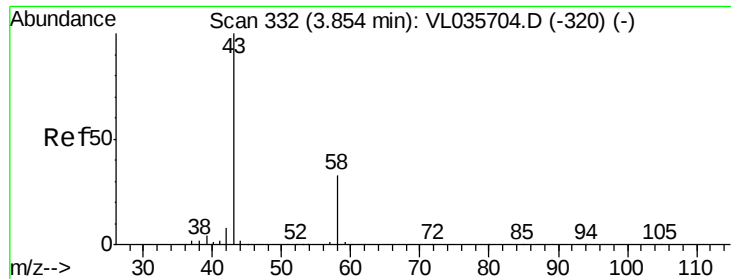
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#13
 Ethanol
 Concen: 40.178 ppbv
 RT: 3.60 min Scan# 253
 Delta R.T. -0.01 min
 Lab File: VL035748.D
 Acq: 8 Oct 2020 16:56

Tgt Ion	Ratio	Lower	Upper
45	100		
46	36.3	14.7	58.7





#15

Acetone

Concen: 14.339 ppbv m

RT: 3.84 min Scan# 329

Delta R.T. -0.01 min

Lab File: VL035748.D

Acq: 8 Oct 2020 16:56

Instrument :

MSVOA_L

ClientSampled :

SG-1

Tot Ion: 43 Resp: 1624629

Ion Ratio Lower Upper

43 100

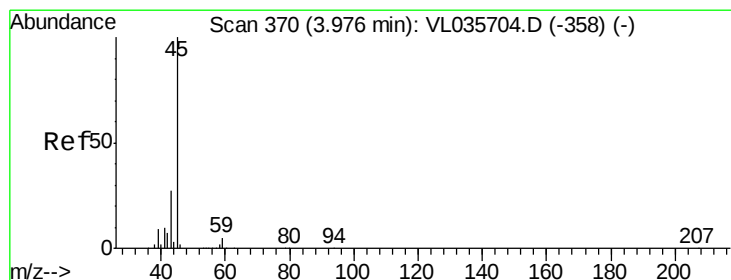
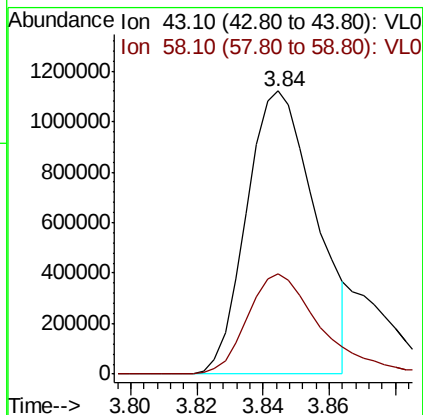
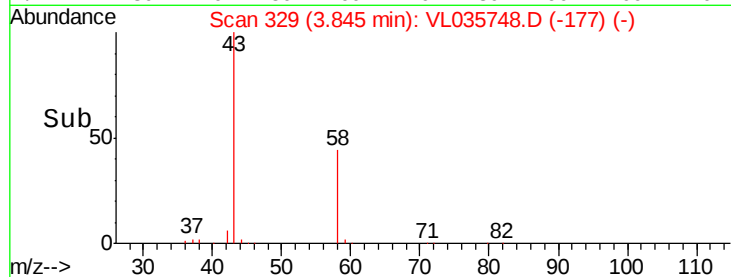
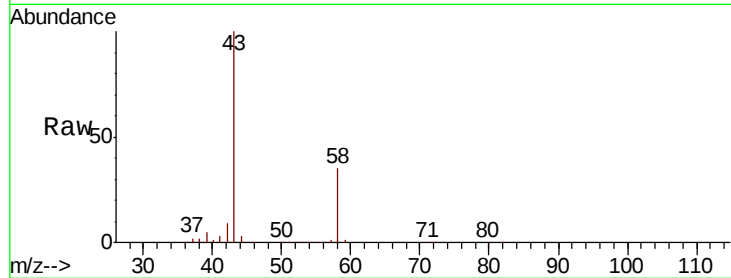
58 38.2 27.3 40.9

Manual Integrations

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#19

Isopropyl Alcohol

Concen: 1.400 ppbv

RT: 3.97 min Scan# 369

Delta R.T. -0.00 min

Lab File: VL035748.D

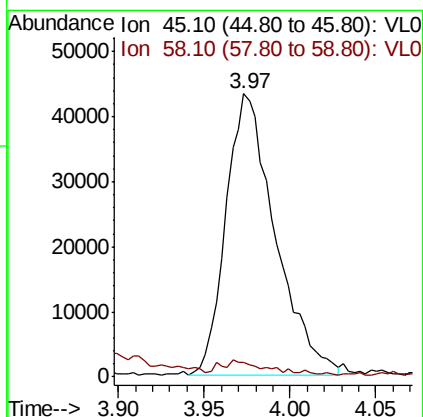
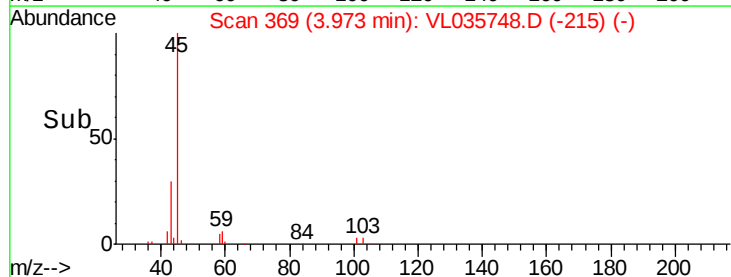
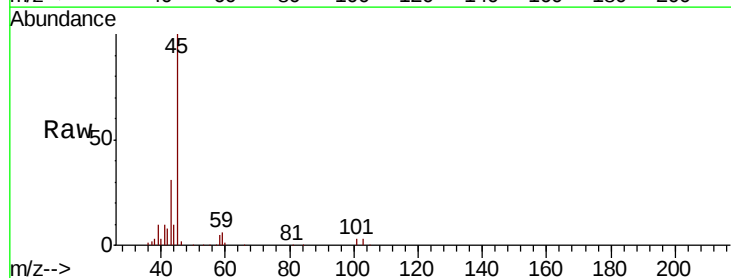
Acq: 8 Oct 2020 16:56

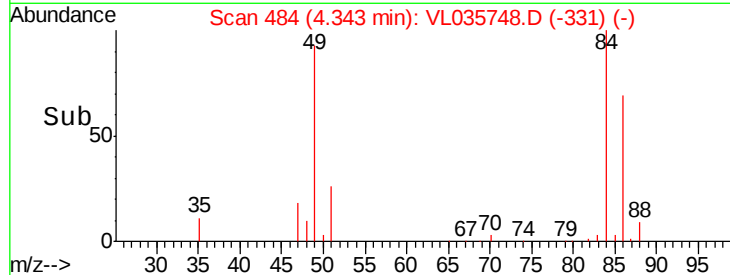
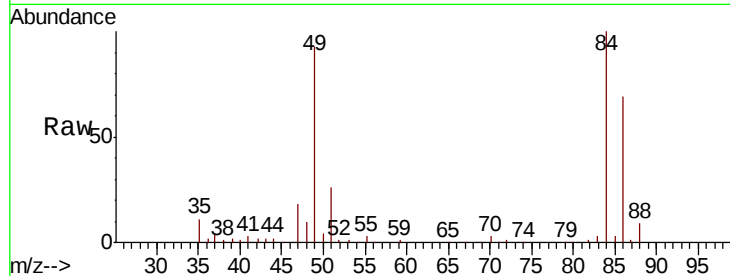
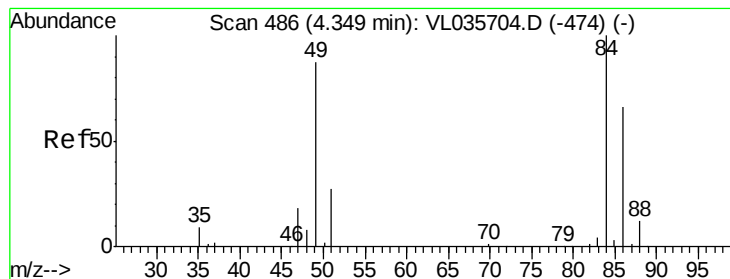
Tgt Ion: 45 Resp: 86267

Ion Ratio Lower Upper

45 100

58 718.5 2.8 4.2#





#20

Methylene Chloride

Concen: 1.786 ppbv

RT: 4.34 min Scan# 484

Delta R.T. -0.01 min

Lab File: VL035748.D

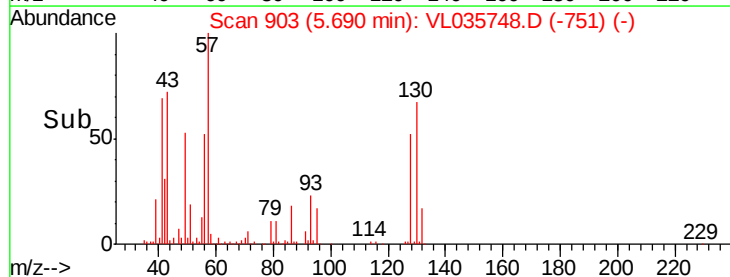
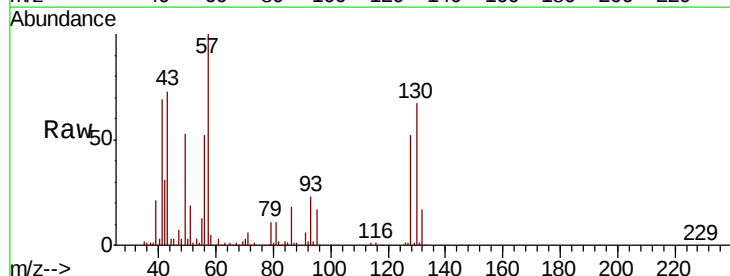
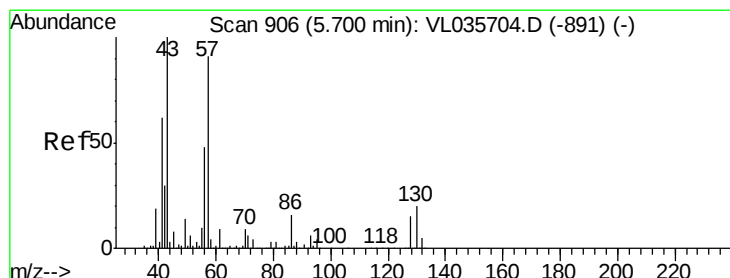
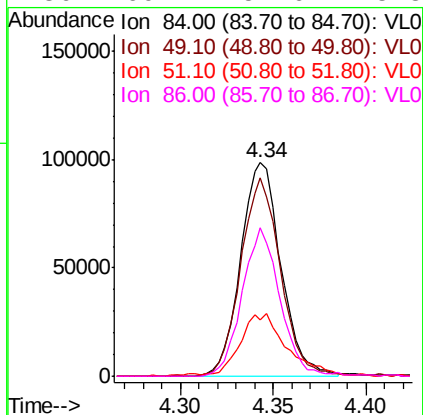
Acq: 8 Oct 2020 16:56

Tot Ion	84	Resp	148656
Ion Ratio	Lower	Upper	
84	100		
49	92.9	69.8	104.6
51	25.0	21.8	32.8
86	69.4	52.6	78.8

Instrument :
MSVOA_L
ClientSampled :
SG-1

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#26

Hexane

Concen: 2.730 ppbv

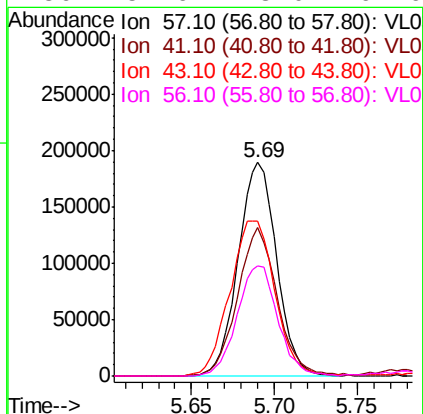
RT: 5.69 min Scan# 903

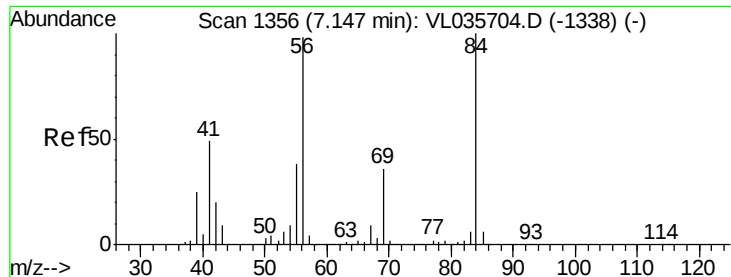
Delta R.T. -0.01 min

Lab File: VL035748.D

Acq: 8 Oct 2020 16:56

Tgt Ion	57	Resp	305009
Ion Ratio	Lower	Upper	
57	100		
41	72.3	57.9	86.9
43	85.1	143.8	215.6#
56	54.6	43.0	64.6





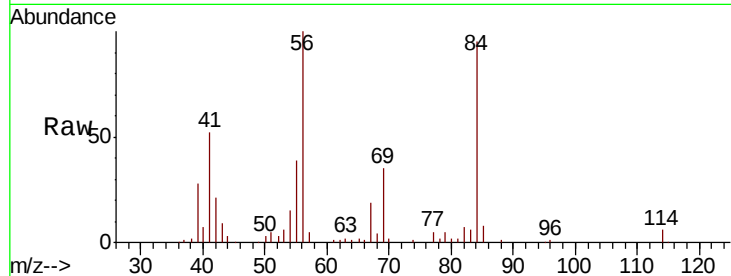
#30
Cvclohexane
Concen: 0.904 ppbv
RT: 7.14 min Scan# 1353
Delta R.T. -0.01 min
Lab File: VL035748.D
Acq: 8 Oct 2020 16:56

Instrument :
MSVOA_L
ClientSampled :
SG-1

Tot Ion	Ratio	Lower	Upper
84	100		
56	106.0	84.6	127.0
41	52.2	41.1	61.7

Manual Integrations
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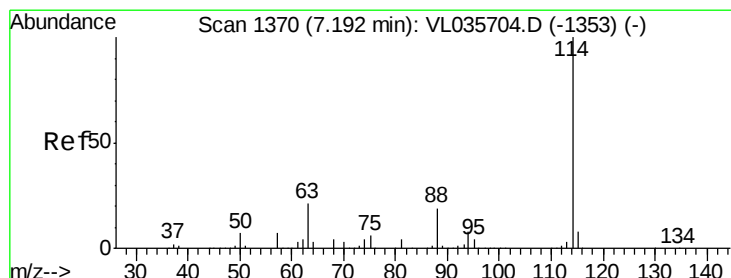
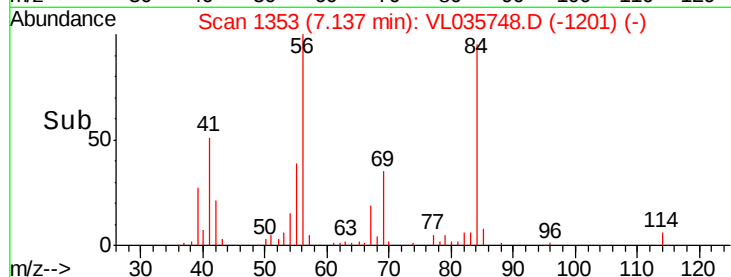
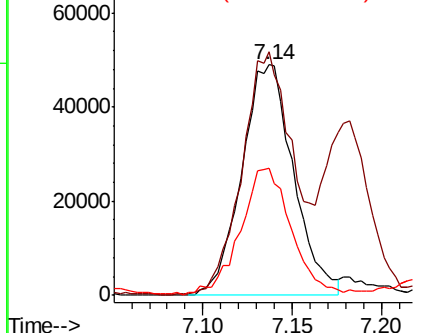


Abundance

Ion 84.20 (83.90 to 84.90): VL0

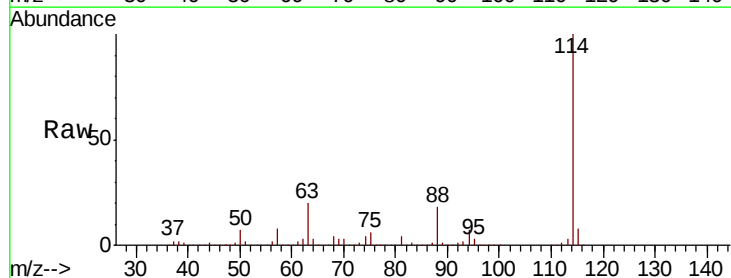
Ion 56.10 (55.80 to 56.80): VL0

Ion 41.10 (40.80 to 41.80): VL0



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.18 min Scan# 1366
Delta R.T. -0.01 min
Lab File: VL035748.D
Acq: 8 Oct 2020 16:56

Tgt Ion	Ratio	Lower	Upper
114	100		
63	19.4	16.1	24.1
88	17.1	14.1	21.1

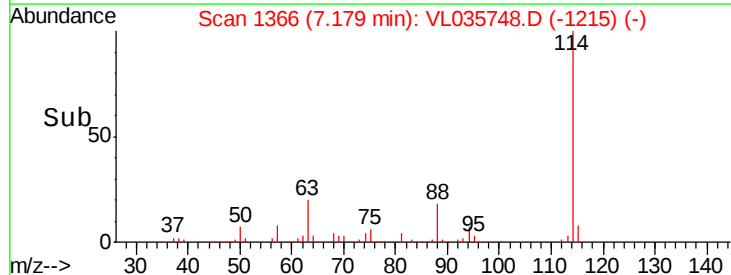
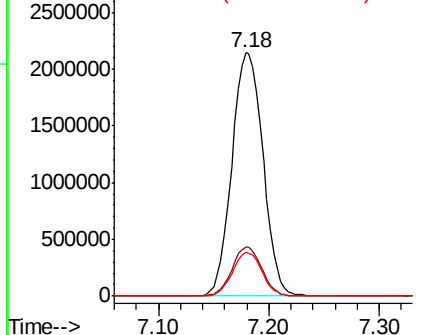


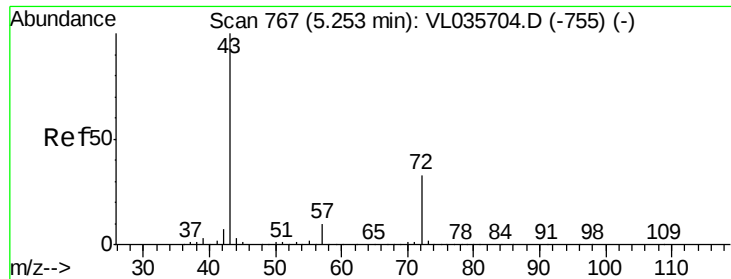
Abundance

Ion 114.10 (113.80 to 114.80): VL0

Ion 63.10 (62.80 to 63.80): VL0

Ion 88.10 (87.80 to 88.80): VL0





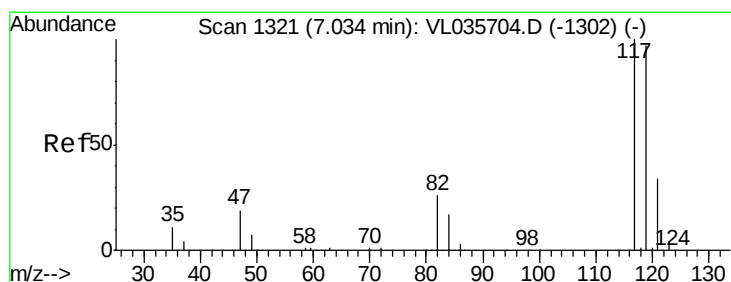
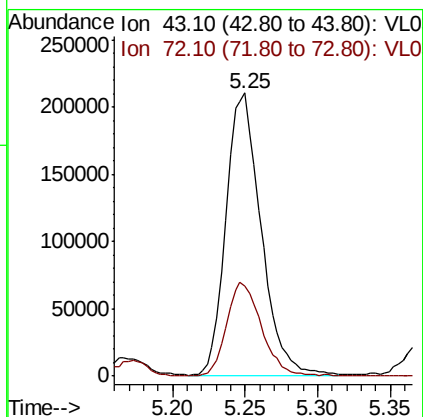
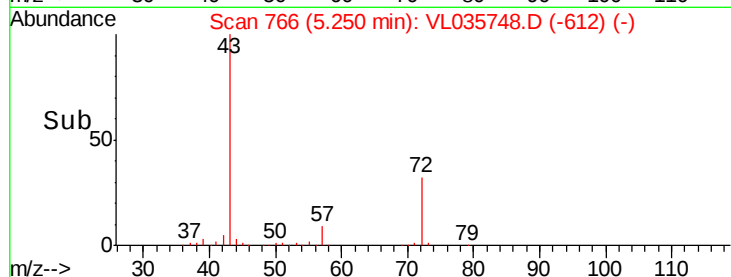
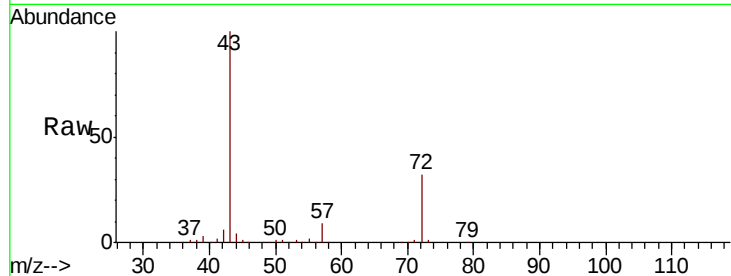
#34
2-Butanone
Concen: 2.530 ppbv
RT: 5.25 min Scan# 766
Delta R.T. -0.00 min
Lab File: VL035748.D
Acq: 8 Oct 2020 16:56

Instrument :
MSVOA_L
ClientSampleId :
SG-1

Tot Ion: 43 Resp: 350800
Ion Ratio Lower Upper
43 100
72 33.2 26.1 39.1

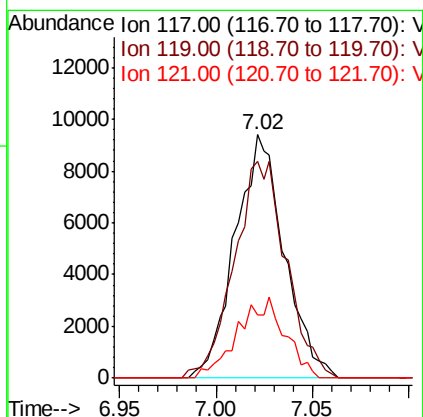
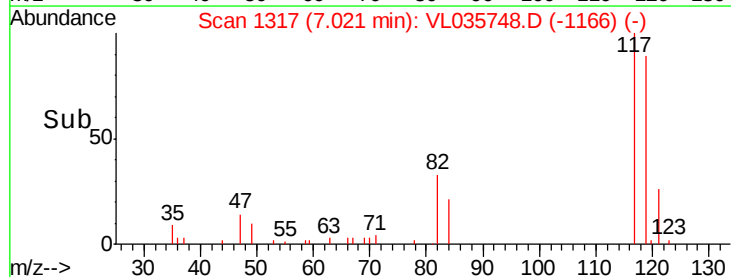
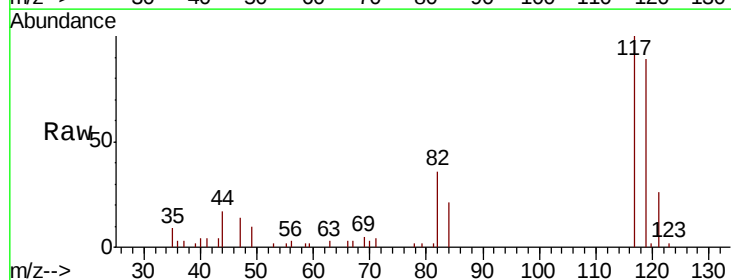
Manual Integrations
APPROVED

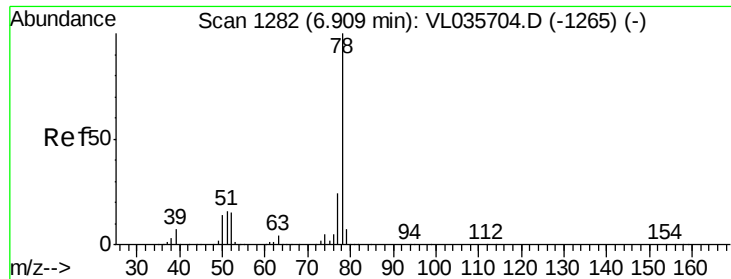
apatel
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#35
Carbon Tetrachloride
Concen: 0.076 ppbv
RT: 7.02 min Scan# 1317
Delta R.T. -0.01 min
Lab File: VL035748.D
Acq: 8 Oct 2020 16:56

Tgt Ion: 117 Resp: 16653
Ion Ratio Lower Upper
117 100
119 89.1 77.7 116.5
121 26.0 26.9 40.3#





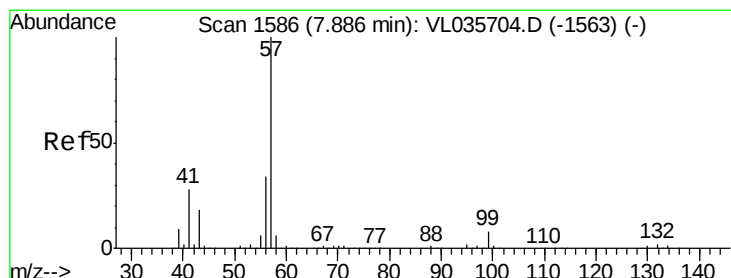
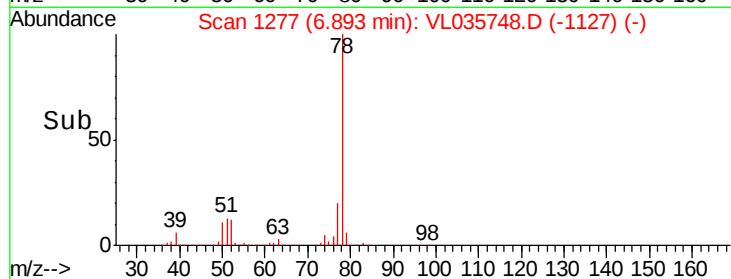
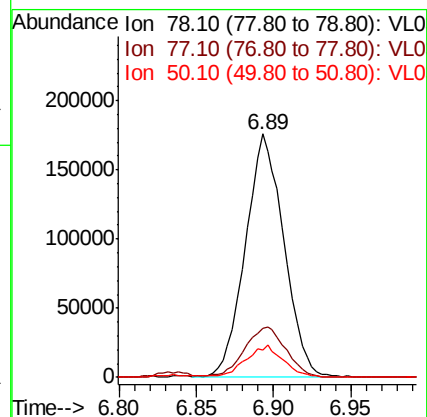
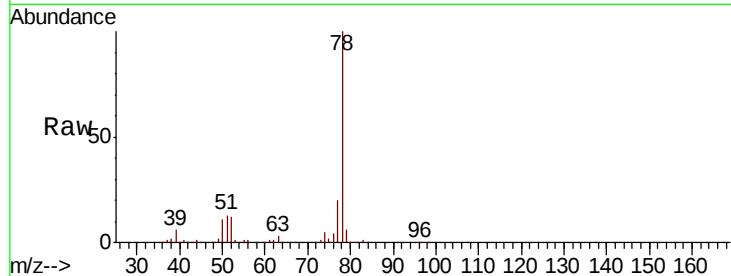
#36
Benzene
Concen: 1.109 ppbv
RT: 6.89 min Scan# 1277
Delta R.T. -0.02 min
Lab File: VL035748.D
Acq: 8 Oct 2020 16:56

Instrument :
MSVOA_L
ClientSampled :
SG-1

Tot Ion	Ratio	Lower	Upper
78	100		
77	20.2	19.3	28.9
50	11.1	11.6	17.4#

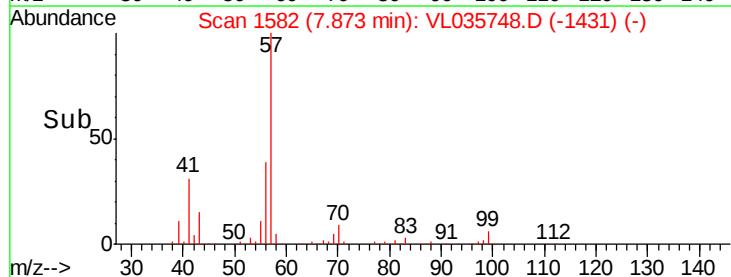
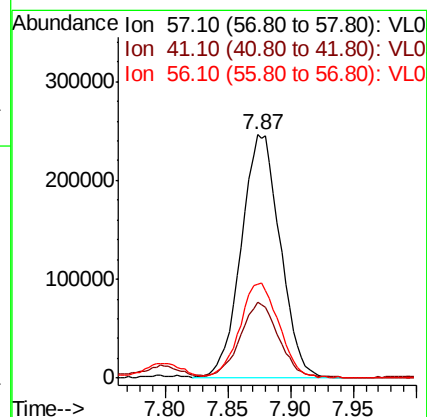
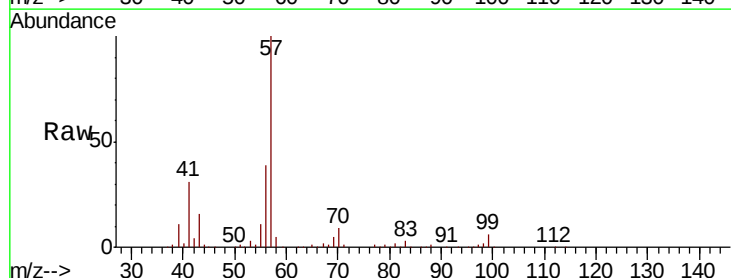
Manual Integrations
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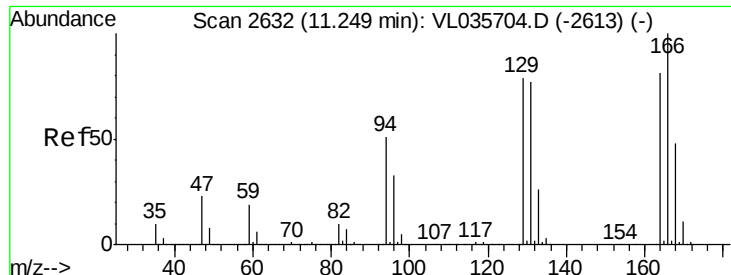
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#44
2,2,4-Trimethylpentane
Concen: 1.350 ppbv
RT: 7.87 min Scan# 1582
Delta R.T. -0.01 min
Lab File: VL035748.D
Acq: 8 Oct 2020 16:56

Tgt Ion	Ratio	Lower	Upper
57	100		
41	31.1	21.2	31.8
56	39.5	25.8	38.8#





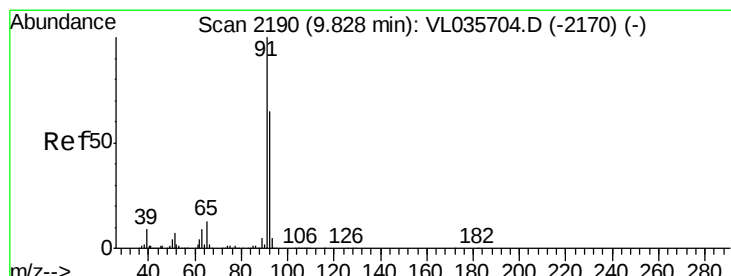
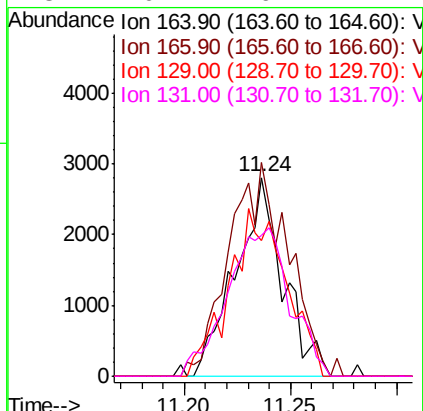
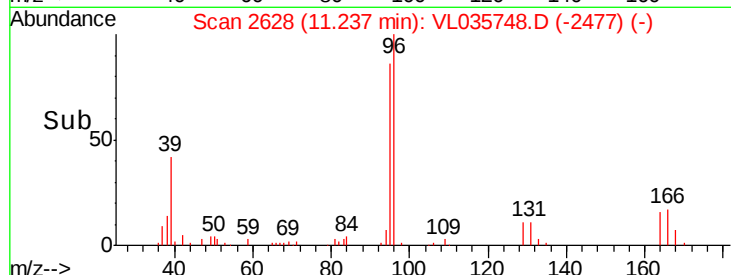
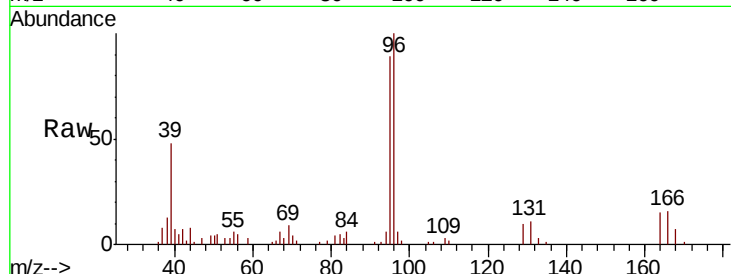
#52
Tetrachloroethene
Concen: 0.033 ppbv m
RT: 11.24 min Scan# 2628
Delta R.T. -0.01 min
Lab File: VL035748.D
Acq: 8 Oct 2020 16:56

Instrument :
MSVOA_L
ClientSampleId :
SG-1

Tot Ion	Ratio	Lower	Upper
164	100		
166	107.6	98.7	148.1
129	68.6	78.4	117.6#
131	70.7	76.2	114.2#

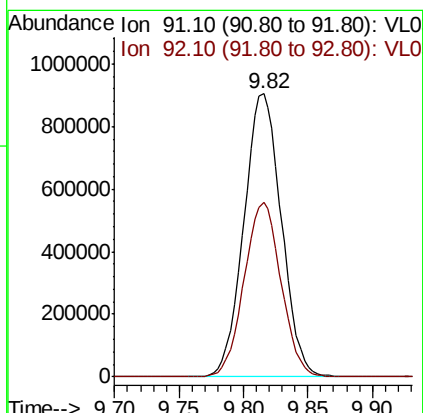
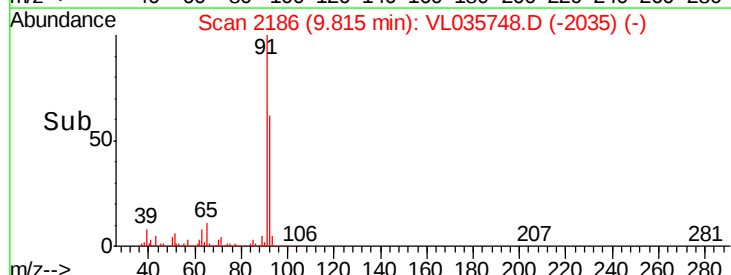
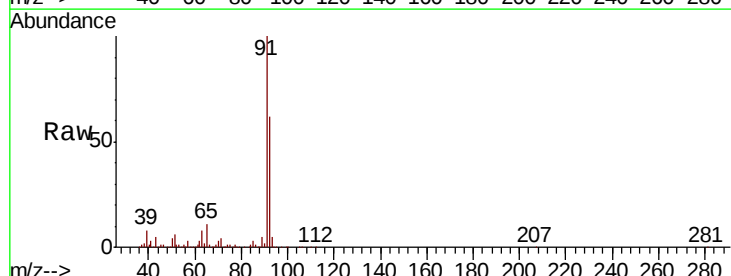
Manual Integrations
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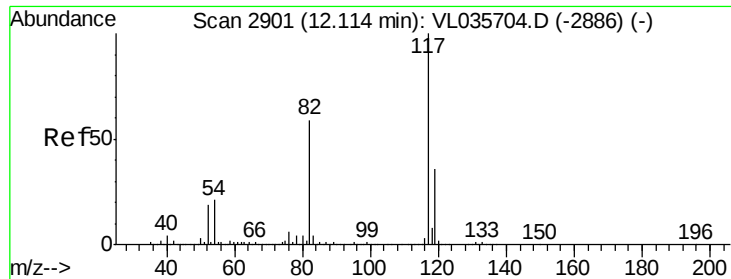
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#53
Toluene
Concen: 5.692 ppbv
RT: 9.82 min Scan# 2186
Delta R.T. -0.01 min
Lab File: VL035748.D
Acq: 8 Oct 2020 16:56

Tgt Ion	Ratio	Lower	Upper
91	100		
92	61.0	50.0	75.0





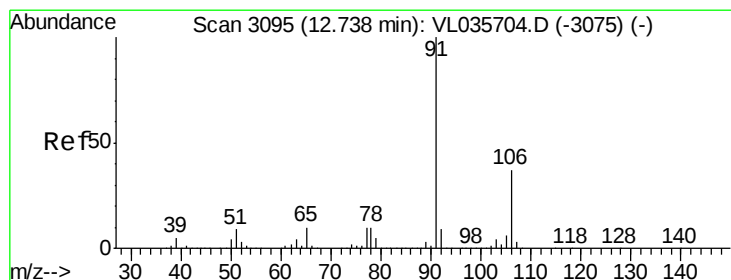
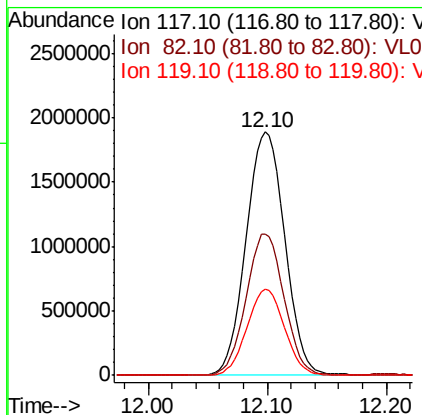
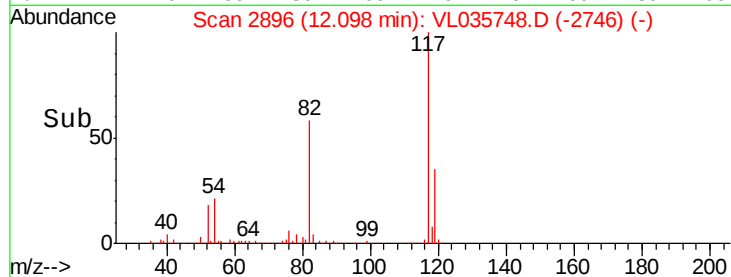
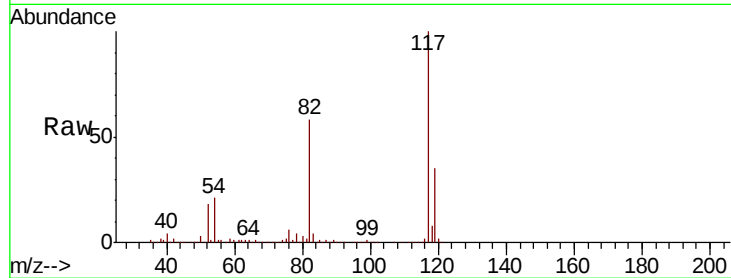
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.10 min Scan# 2896
Delta R.T. -0.02 min
Lab File: VL035748.D
Acq: 8 Oct 2020 16:56

Instrument :
MSVOA_L
ClientSampled :
SG-1

Tot Ion:117 Resp: 4259005
Ion Ratio Lower Upper
117 100
82 57.0 46.1 69.1
119 34.5 28.0 42.0

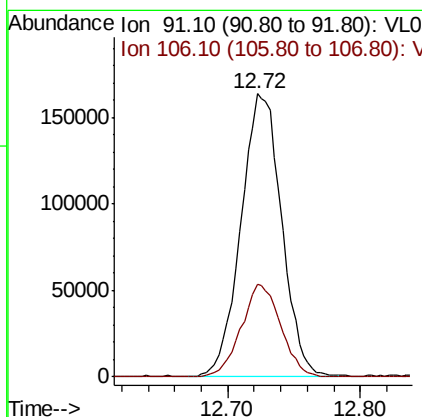
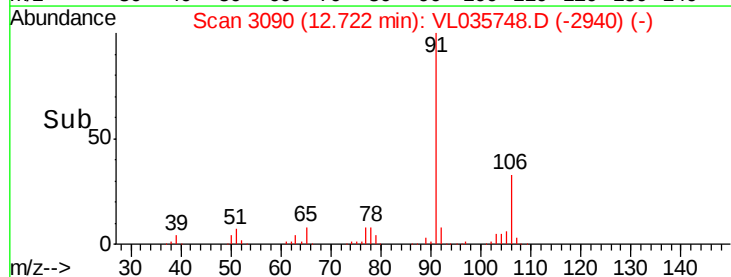
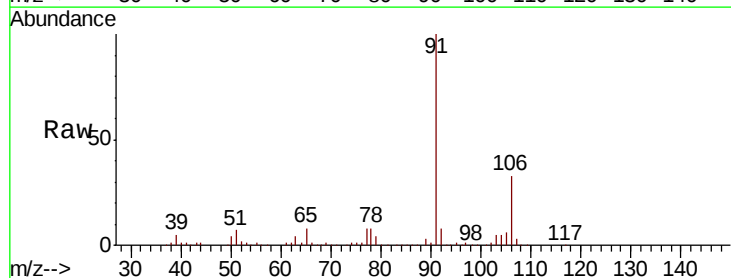
Manual Integrations
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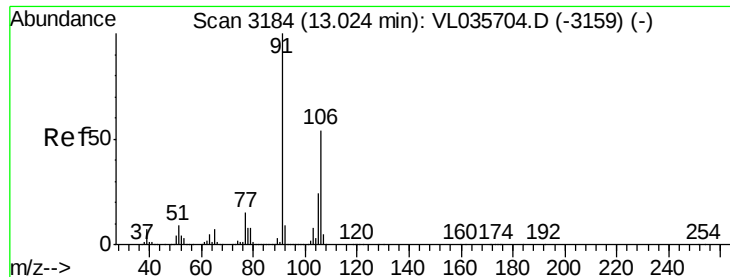
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#58
Ethyl Benzene
Concen: 0.811 ppbv
RT: 12.72 min Scan# 3090
Delta R.T. -0.02 min
Lab File: VL035748.D
Acq: 8 Oct 2020 16:56

Tgt Ion: 91 Resp: 346776
Ion Ratio Lower Upper
91 100
106 32.8 29.7 44.5





#59

m/p-Xylene

Concen: 2.861 ppbv

RT: 12.98 min Scan# 3171

Delta R.T. -0.04 min

Lab File: VL035748.D

Acq: 8 Oct 2020 16:56

Instrument :

MSVOA_L

ClientSampled :

SG-1

Tot Ion: 91 Resp: 1068140

Ion Ratio Lower Upper

91 100

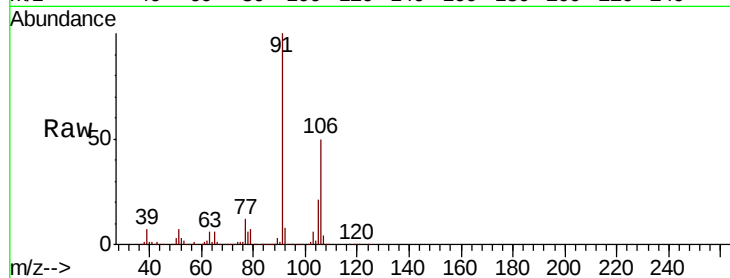
106 51.1 41.4 62.0

Manual Integrations

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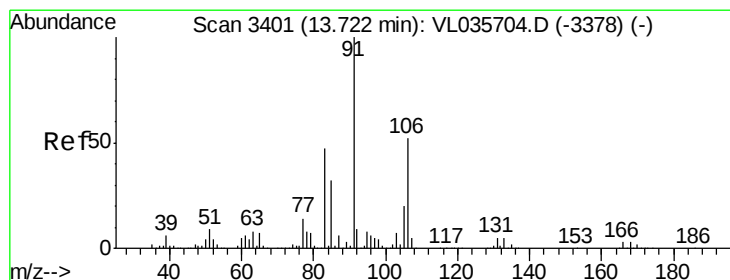
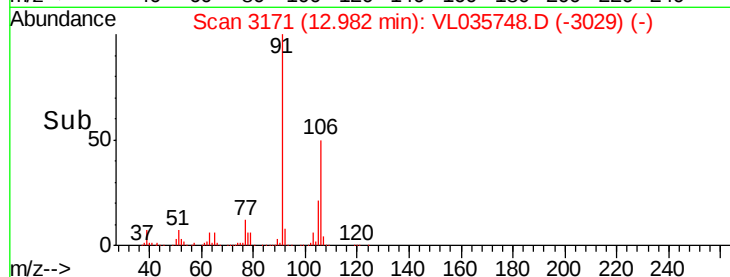
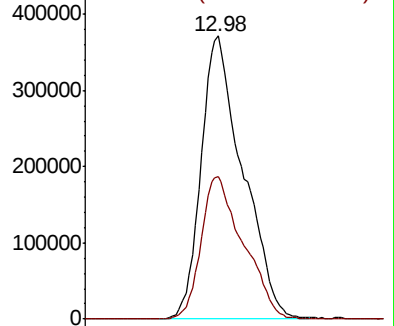
apatel

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Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#60

o-Xylene

Concen: 1.048 ppbv

RT: 13.71 min Scan# 3397

Delta R.T. -0.01 min

Lab File: VL035748.D

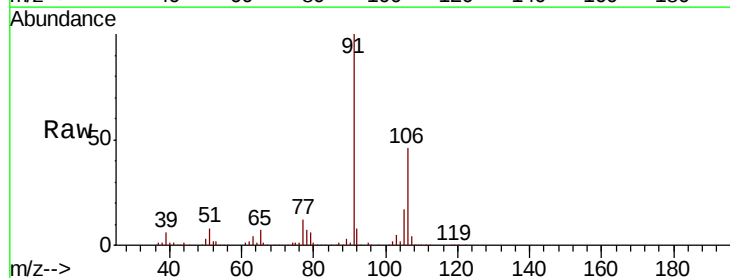
Acq: 8 Oct 2020 16:56

Tgt Ion: 91 Resp: 395638

Ion Ratio Lower Upper

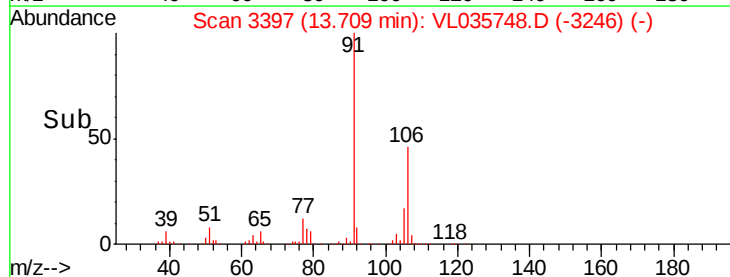
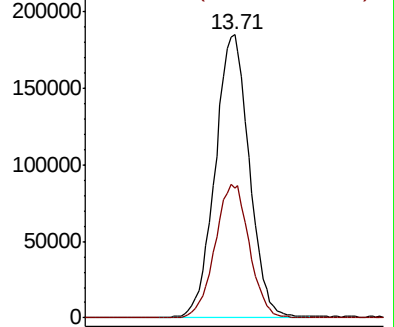
91 100

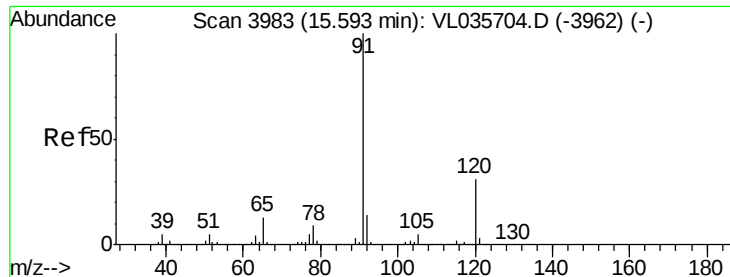
106 47.7 25.0 75.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V





#64

n-propylbenzene

Concen: 0.169 ppbv m

RT: 15.58 min Scan# 3978

Delta R.T. -0.02 min

Lab File: VL035748.D

Acq: 8 Oct 2020 16:56

Instrument :

MSVOA_L

ClientSampled :

SG-1

Tot Ion:120 Resp: 28984

Ion Ratio Lower Upper

120 100

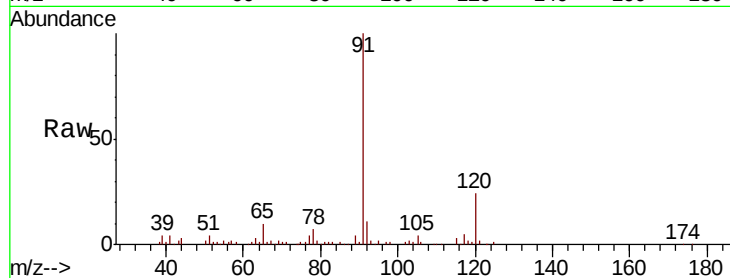
91 0.0 300.4 450.6#

Manual Integrations

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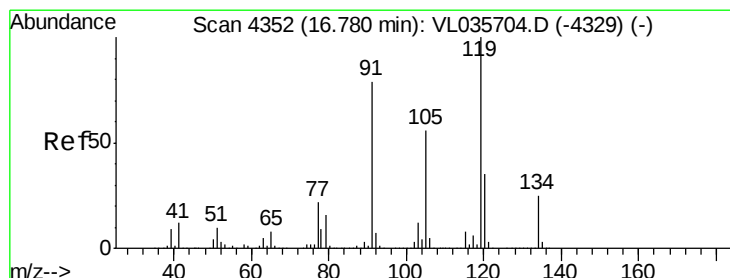
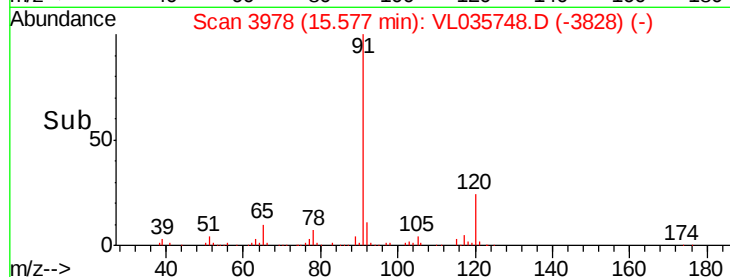
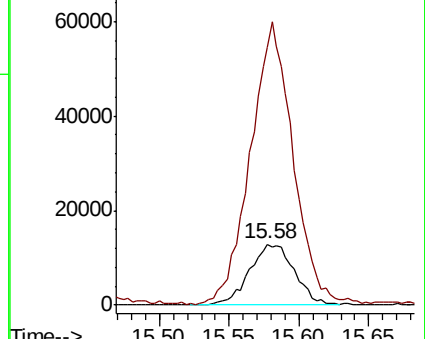
apatel

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Abundance Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0



#65

tert-Butylbenzene

Concen: 0.122 ppbv

RT: 16.78 min Scan# 4353

Delta R.T. 0.00 min

Lab File: VL035748.D

Acq: 8 Oct 2020 16:56

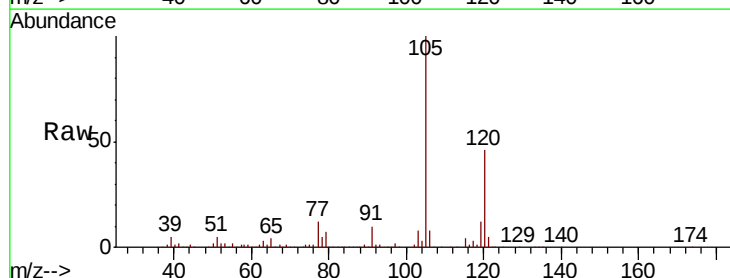
Tgt Ion:119 Resp: 64725

Ion Ratio Lower Upper

119 100

91 95.0 62.4 93.6#

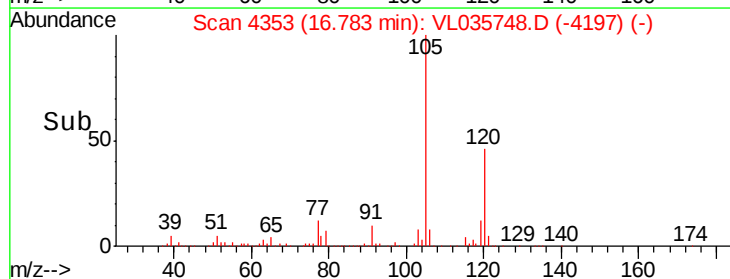
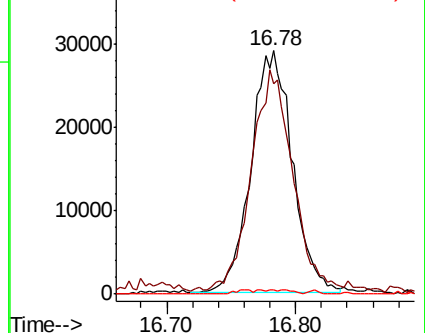
134 2.5 18.2 27.2#

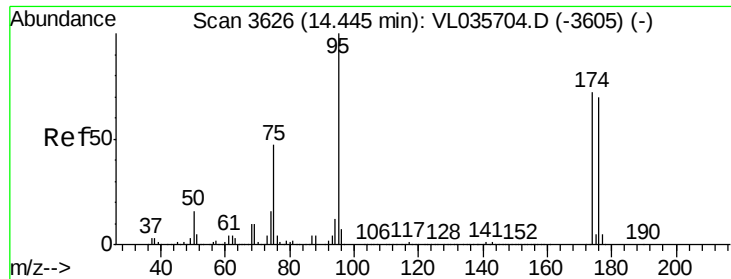


Abundance Ion 119.20 (118.90 to 119.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 134.20 (133.90 to 134.90): V





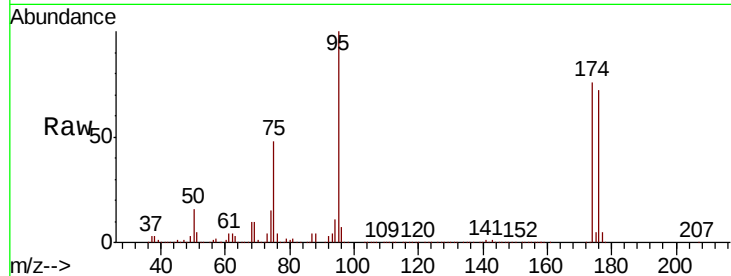
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.039 ppbv
 RT: 14.43 min Scan# 3622
 Delta R.T. -0.01 min
 Lab File: VL035748.D
 Acq: 8 Oct 2020 16:56

Instrument :
 MSVOA_L
 ClientSampled :
 SG-1

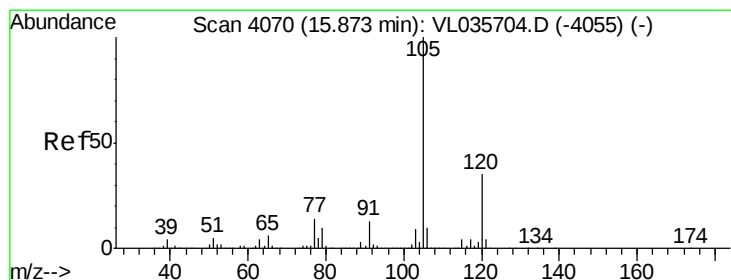
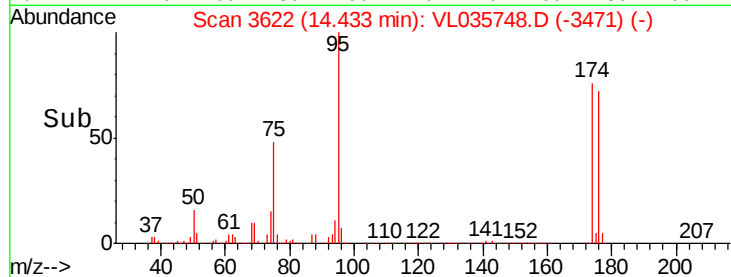
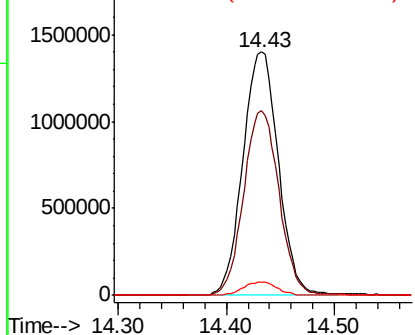
Tot Ion: 95 Resp: 3203965
 Ion Ratio Lower Upper
 95 100
 174 76.3 59.6 89.4
 175 5.4 4.2 6.4

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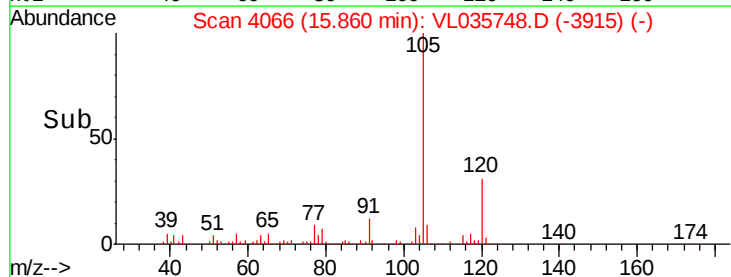
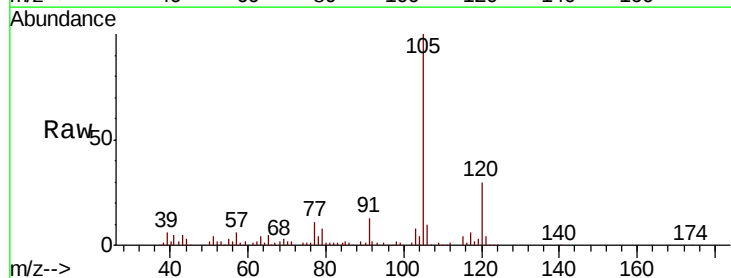
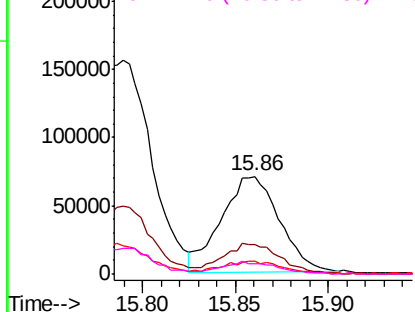
Abundance Ion 95.10 (94.80 to 95.80): VL0
 Ion 174.00 (173.70 to 174.70): V
 Ion 175.00 (174.70 to 175.70): V

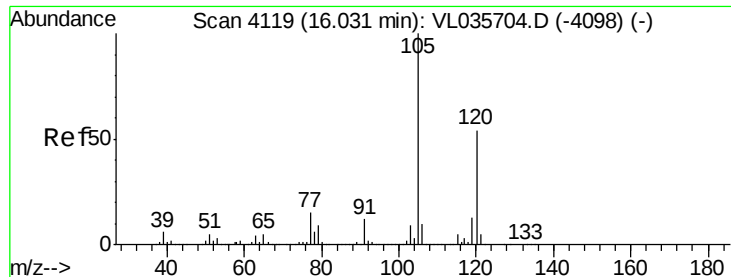


#72
 4-Ethyltoluene
 Concen: 0.342 ppbv
 RT: 15.86 min Scan# 4066
 Delta R.T. -0.01 min
 Lab File: VL035748.D
 Acq: 8 Oct 2020 16:56

Tgt Ion: 105 Resp: 152999
 Ion Ratio Lower Upper
 105 100
 120 33.0 26.5 39.7
 91 13.7 10.2 15.2
 77 12.0 10.3 15.5

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





#73

1,3,5-Trimethylbenzene

Concen: 0.312 ppbv

RT: 16.02 min Scan# 4115

Delta R.T. -0.01 min

Lab File: VL035748.D

Acq: 8 Oct 2020 16:56

Instrument :

MSVOA_L

ClientSampled :

SG-1

Tot Ion:105 Resp: 131950

Ion Ratio Lower Upper

105 100

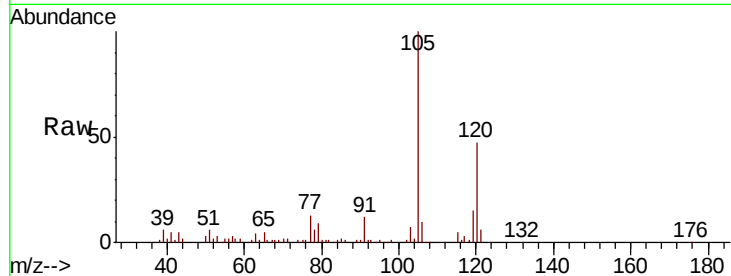
120 47.3 43.0 64.4

Manual Integrations

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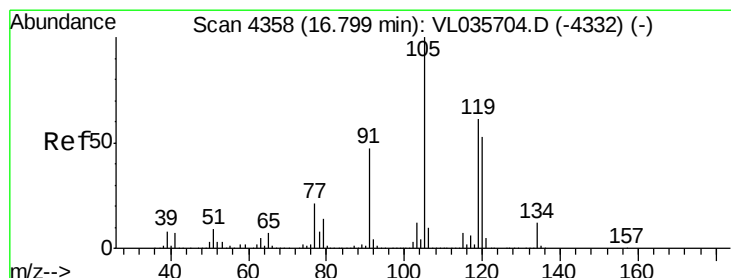
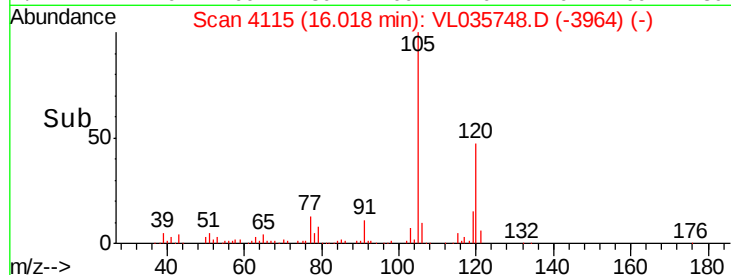
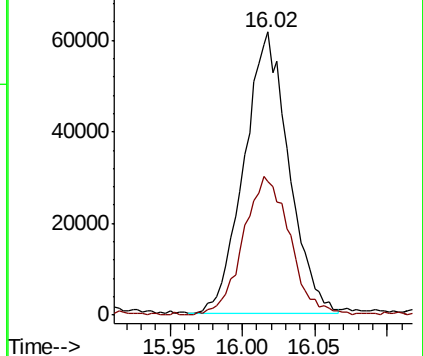
apatel

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Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#74

1,2,4-Trimethylbenzene

Concen: 1.132 ppbv

RT: 16.78 min Scan# 4353

Delta R.T. -0.02 min

Lab File: VL035748.D

Acq: 8 Oct 2020 16:56

Tgt Ion:105 Resp: 539303

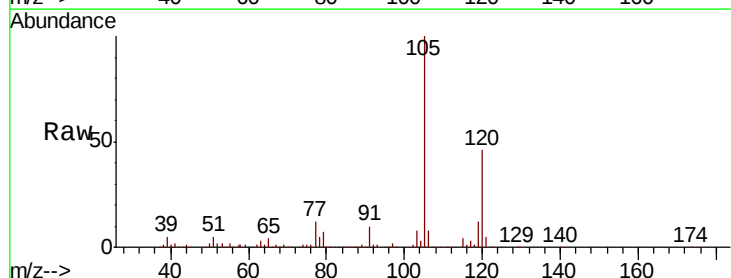
Ion Ratio Lower Upper

105 100

120 46.2 42.5 63.7

91 10.1 37.7 56.5#

77 12.2 16.7 25.1#



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

