

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL040419\
 Data File : VL033550.D
 Acq On : 5 Apr 2019 2:12
 Operator : SY/AP
 Sample : K2226-05
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV5

Manual Integrations
 APPROVED

MMDadoda
 4/8/2019 3:22:28 AM

Quant Time: Apr 05 03:41:01 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032519AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Mar 2
 QLast Update : Tue Mar 26 16:00:50 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	1028542	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	2218686	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	2579419	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.57	95	2111692	10.44	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.40%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.08	85	77317	0.515	ppbv	93
3) Chlorodifluoromethane	3.01	51	31477m	0.266	ppbv	
9) Propene	3.03	41	548684	11.034	ppbv	98
10) Heptane	8.24	43	24016	0.181	ppbv #	85
11) Trichlorofluoromethane	4.01	101	40599	0.220	ppbv	91
13) Ethanol	3.65	45	283409	22.024	ppbv	66
15) Acetone	3.90	43	3385327	27.373	ppbv	94
19) Isopropyl Alcohol	4.04	45	38254	0.489	ppbv #	95
20) Methylene Chloride	4.41	84	340976	6.495	ppbv	95
26) Hexane	5.78	57	253641	2.486	ppbv #	37
27) Carbon Disulfide	4.62	76	18817	0.155	ppbv #	46
34) 2-Butanone	5.33	43	929036	6.969	ppbv	100
36) Benzene	7.00	78	76471	0.411	ppbv #	92
51) 2-Hexanone	10.27	43	425025	2.919	ppbv #	99
52) Tetrachloroethene	11.36	164	25010	0.356	ppbv	89
53) Toluene	9.94	91	480302	2.220	ppbv	99
58) Ethyl Benzene	12.86	91	68646m	0.199	ppbv	
59) m/p-Xylene	13.11	91	238436	0.775	ppbv #	100
60) o-Xylene	13.84	91	137968m	0.464	ppbv	
61) Styrene	13.68	104	50529	0.247	ppbv	94
73) 1,3,5-Trimethylbenzene	16.16	105	50382m	0.157	ppbv	
74) 1,2,4-Trimethylbenzene	16.92	105	213747	0.623	ppbv #	77

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

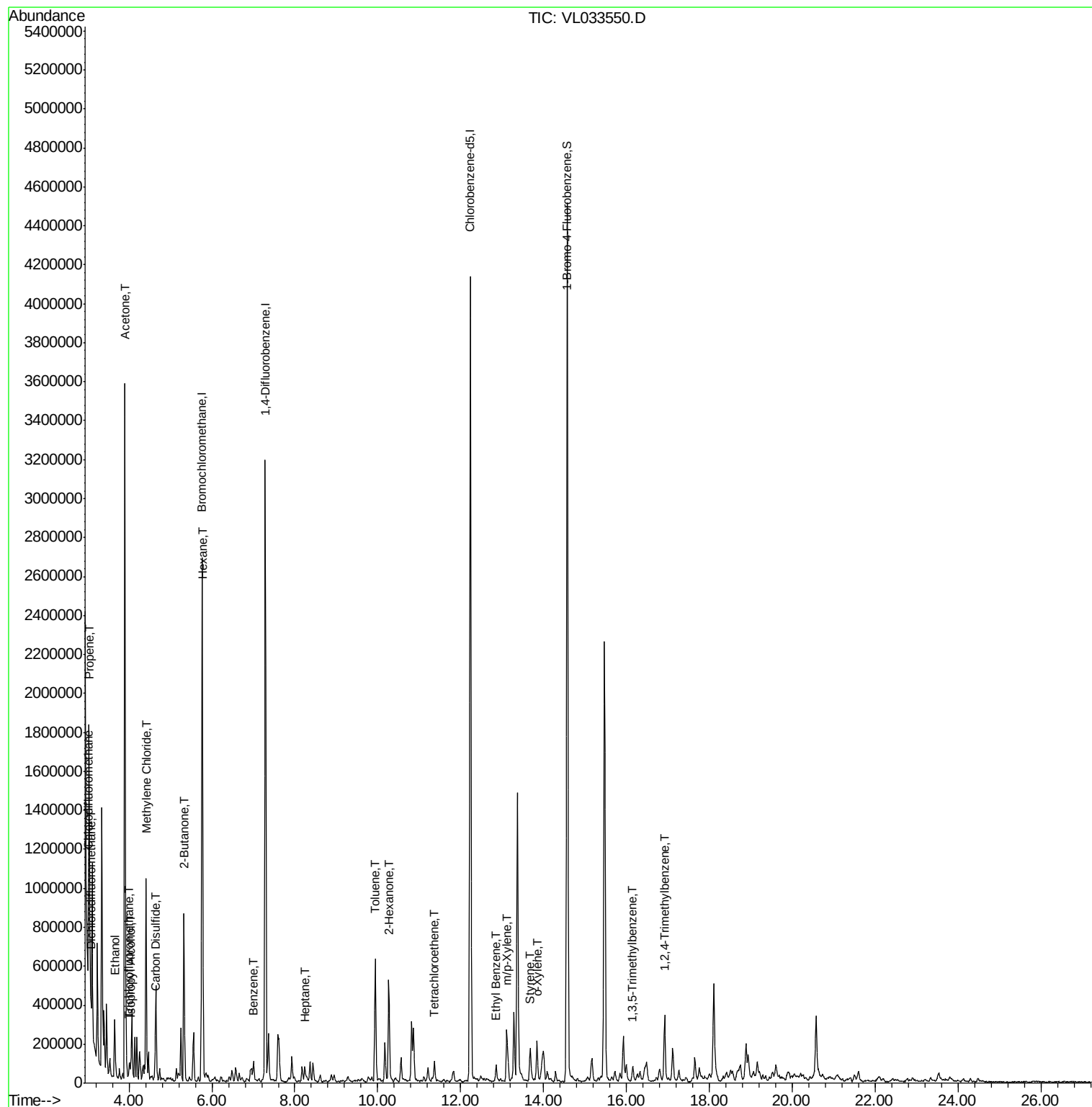
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL040419\
Data File : VL033550.D
Acq On : 5 Apr 2019 2:12
Operator : SY/AP
Sample : K2226-05
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

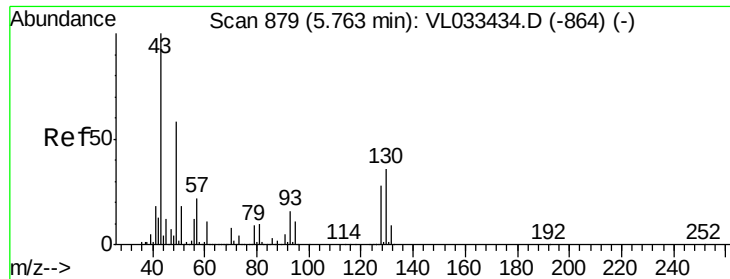
Instrument :
MSVOA_L
ClientSampleId :
SV5

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Quant Time: Apr 05 03:41:01 2019
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL032519AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_LTue Mar
QLast Update : Tue Mar 26 16:00:50 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 878

Delta R.T. -0.00 min

Lab File: VL033550.D

Acq: 5 Apr 2019 2:12

Instrument :

MSVOA_L

ClientSampled :

SV5

Tot Ion: 49 Resp: 1028542

Ion Ratio Lower Upper

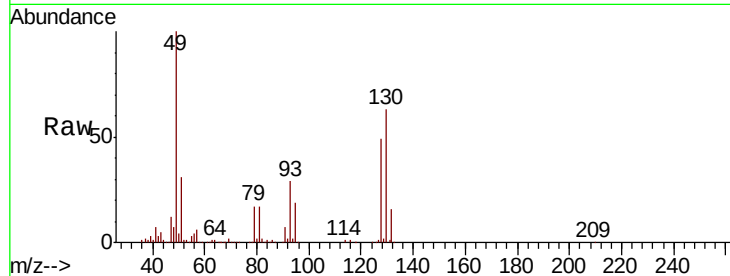
49 100

128 49.2 24.0 72.0

130 63.7 31.2 93.6

Manual Integrations
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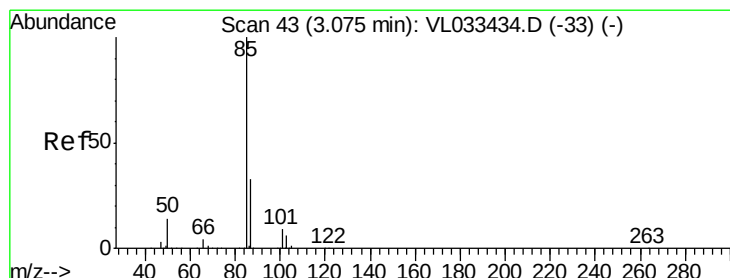
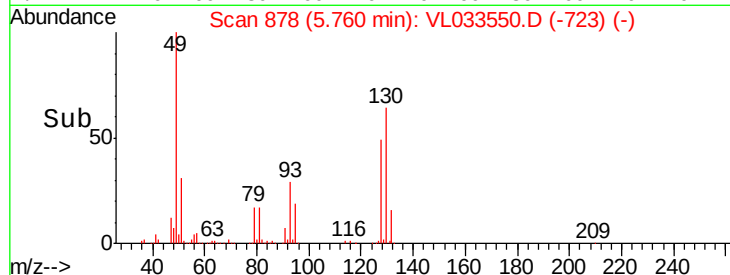
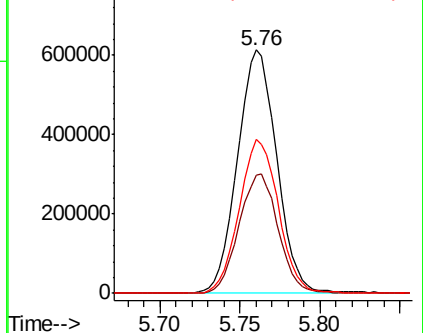
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 0.515 ppbv

RT: 3.08 min Scan# 43

Delta R.T. 0.00 min

Lab File: VL033550.D

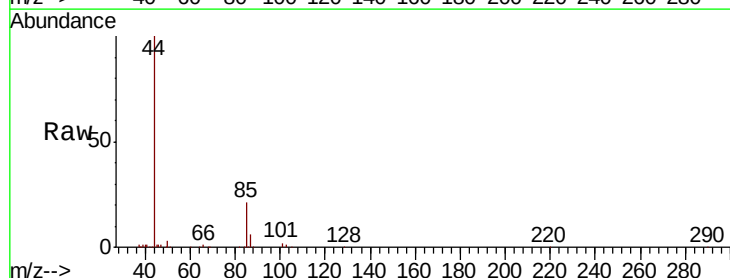
Acq: 5 Apr 2019 2:12

Tgt Ion: 85 Resp: 77317

Ion Ratio Lower Upper

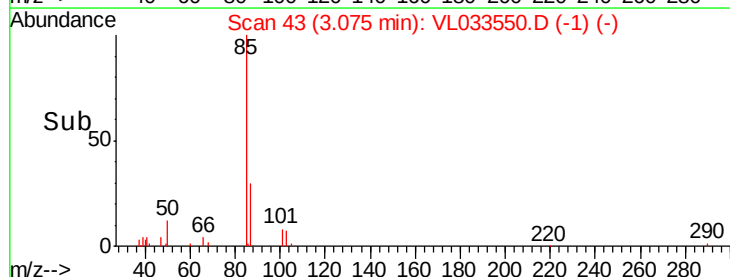
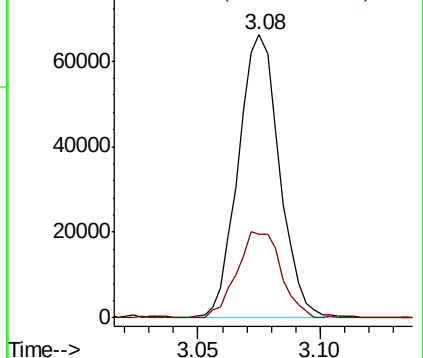
85 100

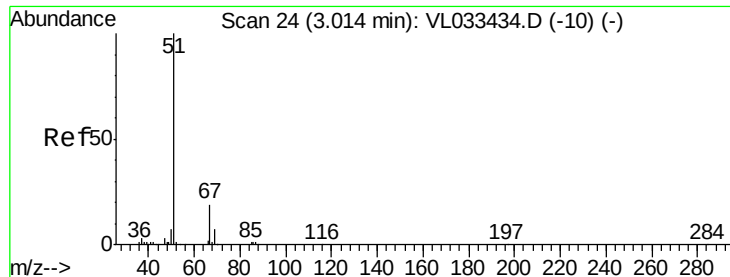
87 29.6 26.7 40.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.266 ppbv

RT: 3.01 min Scan# 24

Delta R.T. 0.00 min

Lab File: VL033550.D

Acq: 5 Apr 2019 2:12

Instrument :

MSVOA_L

ClientSampled :

SV5

Tot Ion: 51 Resp: 31477

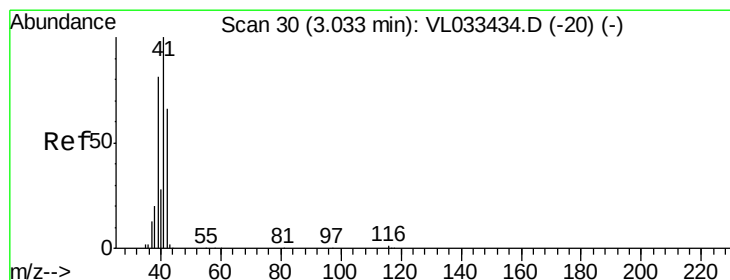
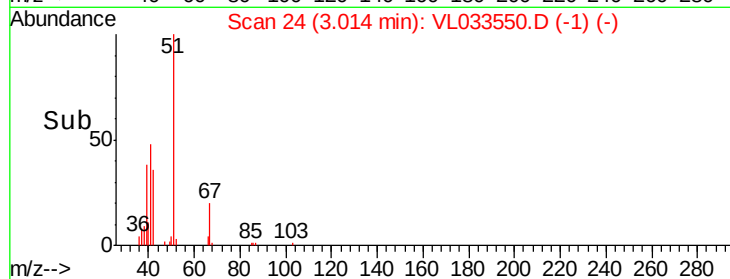
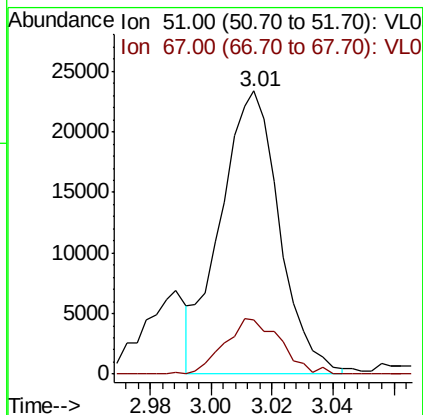
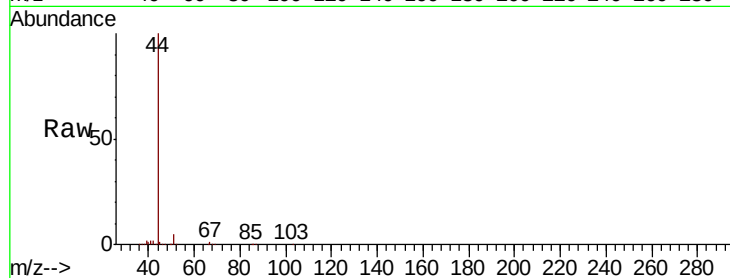
Ion Ratio Lower Upper

51 100

67 18.7 15.7 23.5

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#9

Propene

Concen: 11.034 ppbv

RT: 3.03 min Scan# 30

Delta R.T. 0.00 min

Lab File: VL033550.D

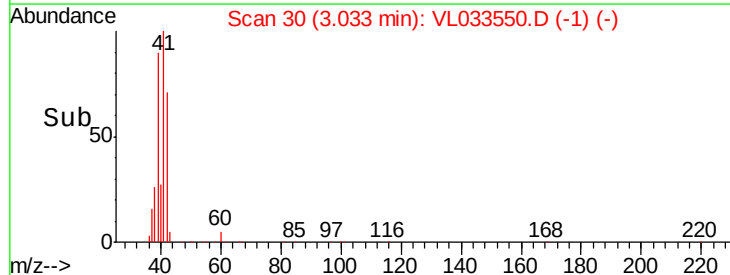
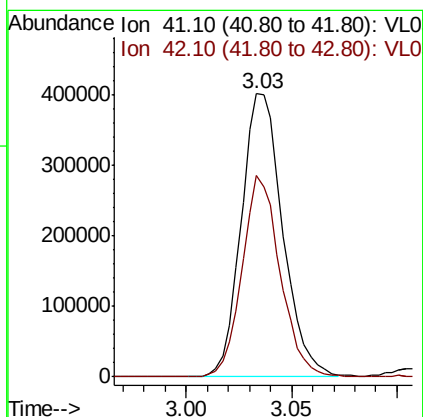
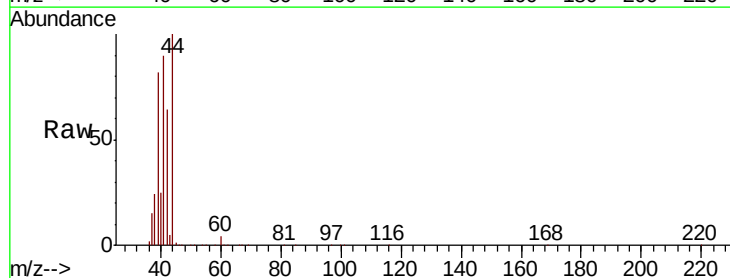
Acq: 5 Apr 2019 2:12

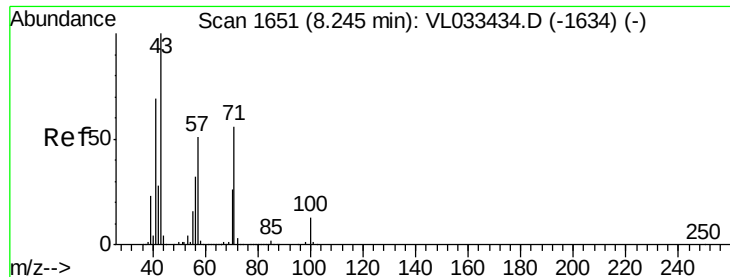
Tgt Ion: 41 Resp: 548684

Ion Ratio Lower Upper

41 100

42 65.8 53.9 80.9





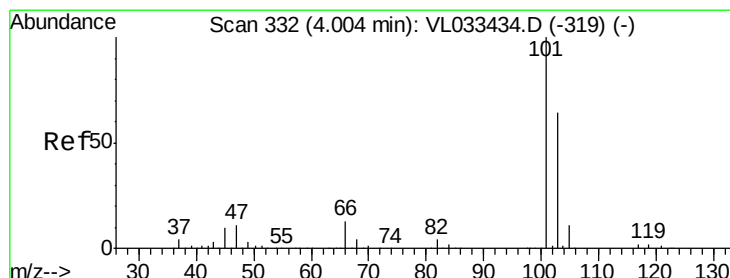
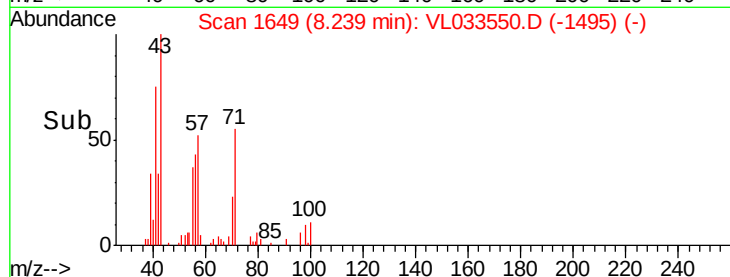
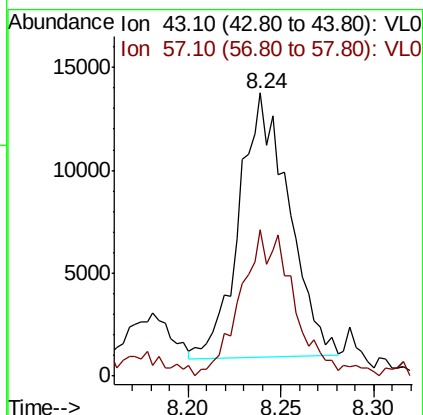
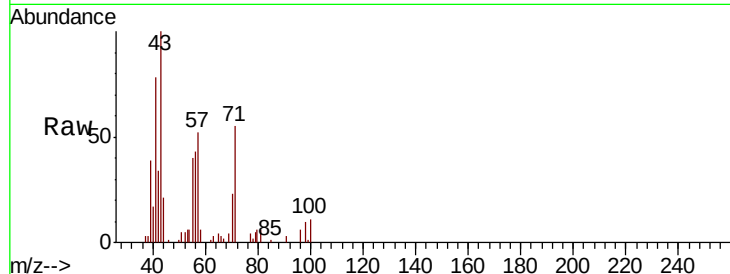
#10
Heptane
Concen: 0.181 ppbv
RT: 8.24 min Scan# 1649
Delta R.T. -0.01 min
Lab File: VL033550.D
Acq: 5 Apr 2019 2:12

Instrument :
MSVOA_L
ClientSampled :
SV5

Tot Ion: 43 Resp: 24016
Ion Ratio Lower Upper
43 100
57 61.1 40.6 60.8#

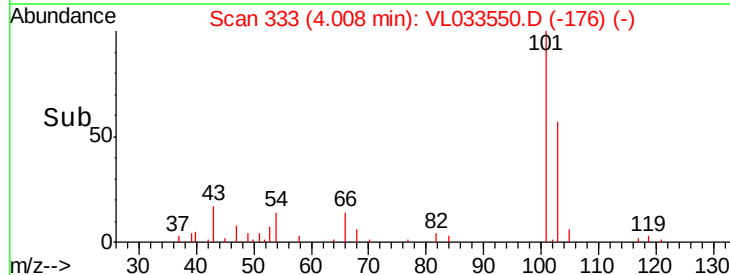
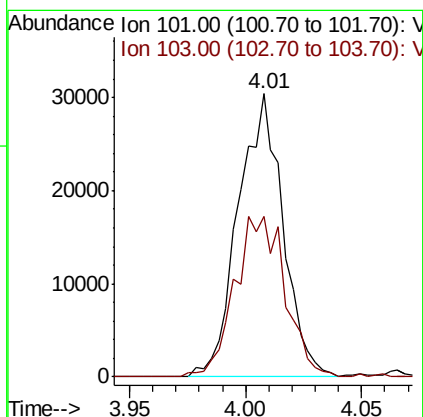
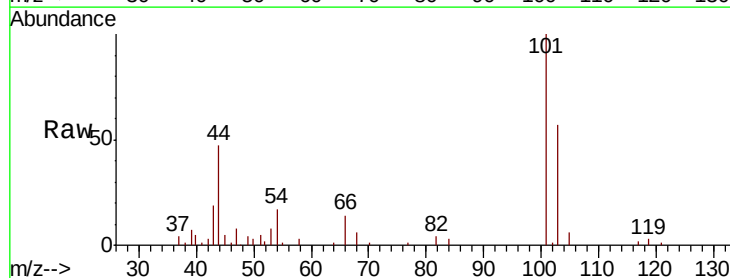
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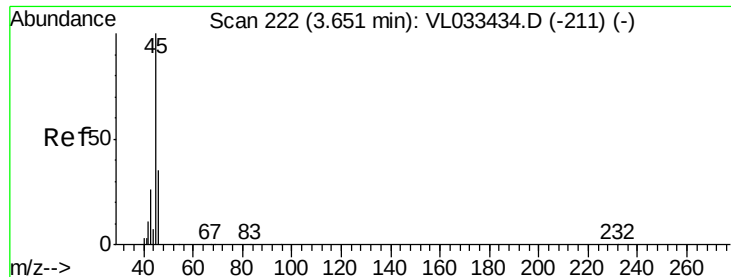
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#11
Trichlorofluoromethane
Concen: 0.220 ppbv
RT: 4.01 min Scan# 333
Delta R.T. 0.00 min
Lab File: VL033550.D
Acq: 5 Apr 2019 2:12

Tgt Ion: 101 Resp: 40599
Ion Ratio Lower Upper
101 100
103 56.9 51.3 76.9





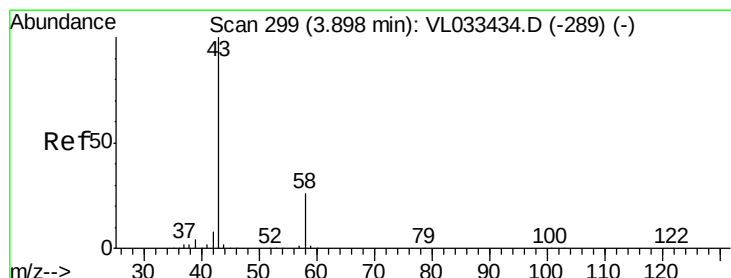
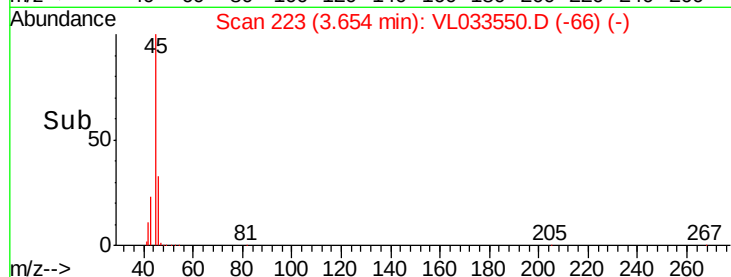
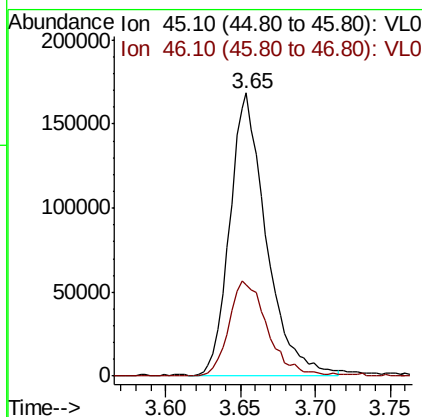
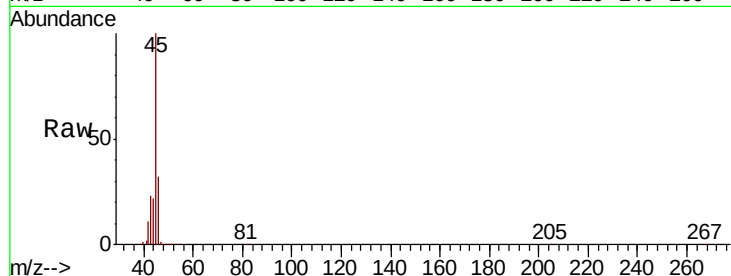
#13
Ethanol
Concen: 22.024 ppbv
RT: 3.65 min Scan# 223
Delta R.T. 0.00 min
Lab File: VL033550.D
Acq: 5 Apr 2019 2:12

Instrument :
MSVOA_L
ClientSampled :
SV5

Tot Ion	45	Resp	283409
Ion Ratio	100	Lower	Upper
46	36.7	25.4	101.8

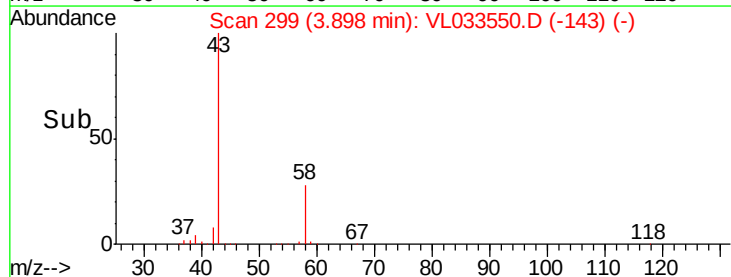
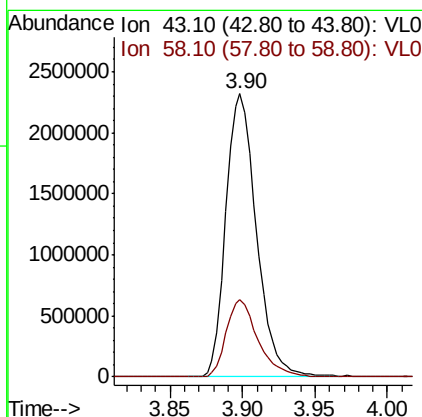
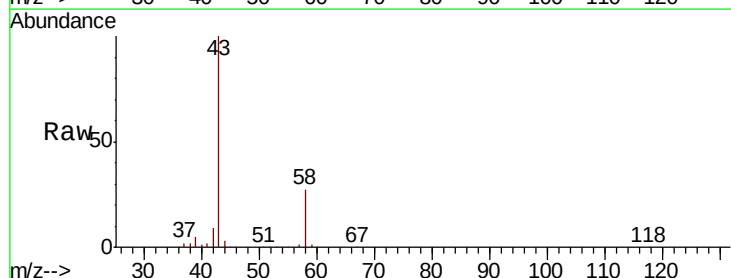
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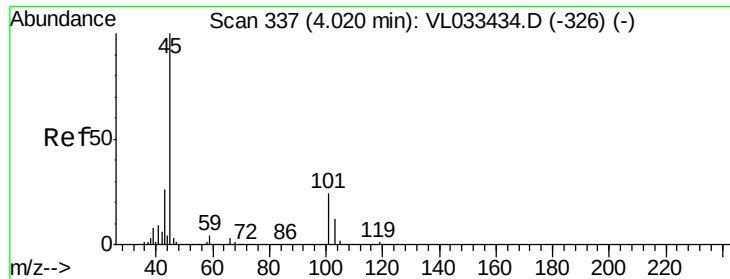
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#15
Acetone
Concen: 27.373 ppbv
RT: 3.90 min Scan# 299
Delta R.T. 0.00 min
Lab File: VL033550.D
Acq: 5 Apr 2019 2:12

Tgt Ion	43	Resp	3385327
Ion Ratio	100	Lower	Upper
58	28.4	20.5	30.7





#19

Isopropyl Alcohol

Concen: 0.489 ppbv

RT: 4.04 min Scan# 342

Delta R.T. 0.02 min

Lab File: VL033550.D

Acq: 5 Apr 2019 2:12

Instrument :

MSVOA_L

ClientSampleId :

SV5

Tot Ion: 45 Resp: 38254

Ion Ratio Lower Upper

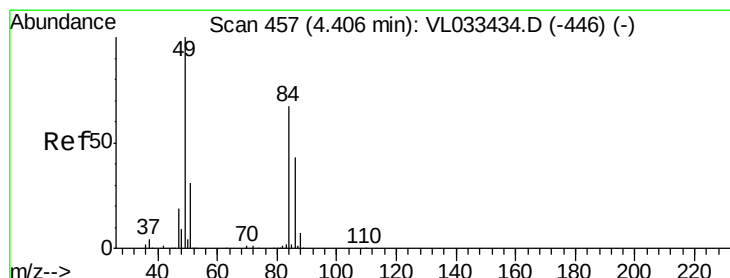
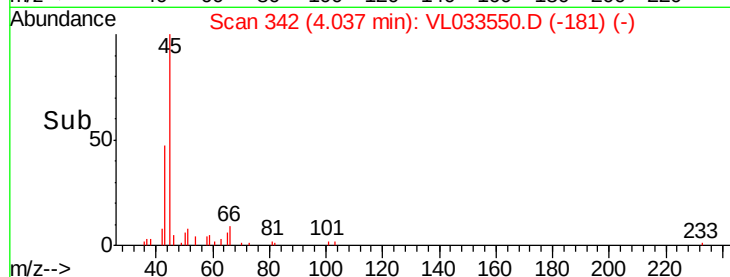
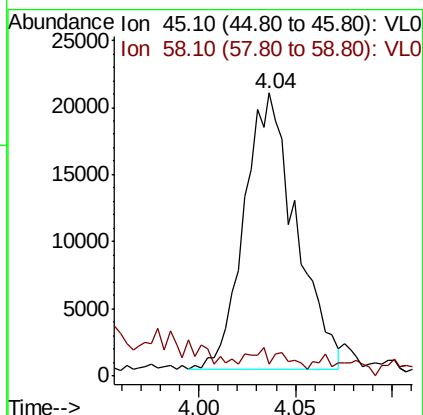
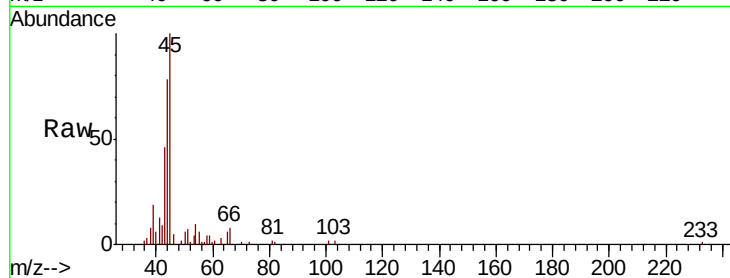
45 100

58 0.0 1.4 2.2#

Manual Integrations
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#20

Methylene Chloride

Concen: 6.495 ppbv

RT: 4.41 min Scan# 458

Delta R.T. 0.00 min

Lab File: VL033550.D

Acq: 5 Apr 2019 2:12

Tgt Ion: 84 Resp: 340976

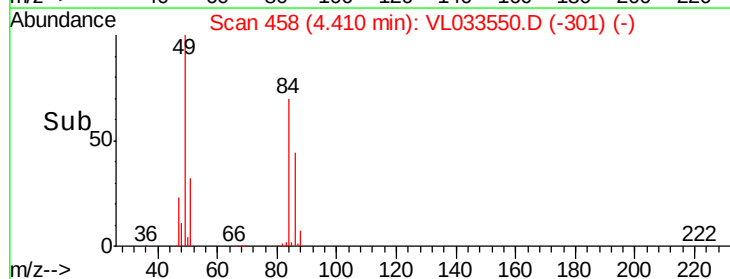
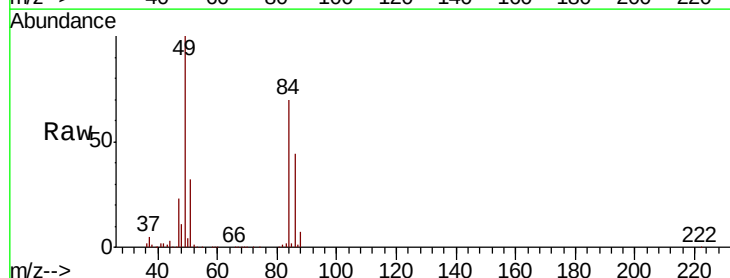
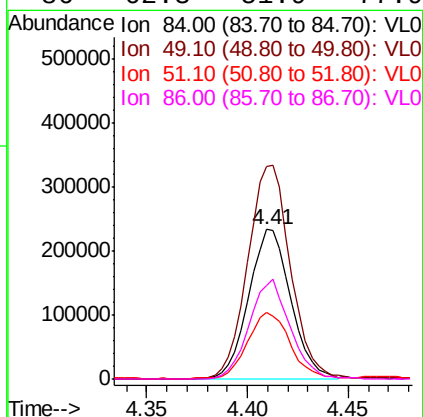
Ion Ratio Lower Upper

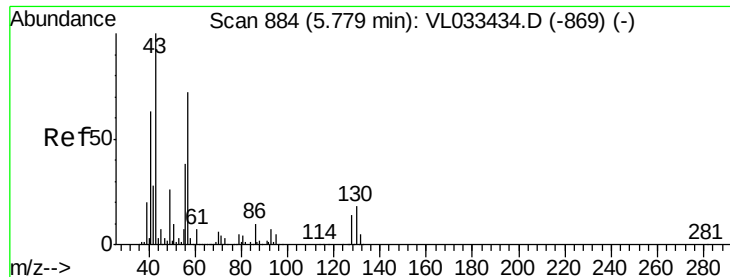
84 100

49 142.3 120.0 180.0

51 44.6 36.7 55.1

86 62.3 51.9 77.9





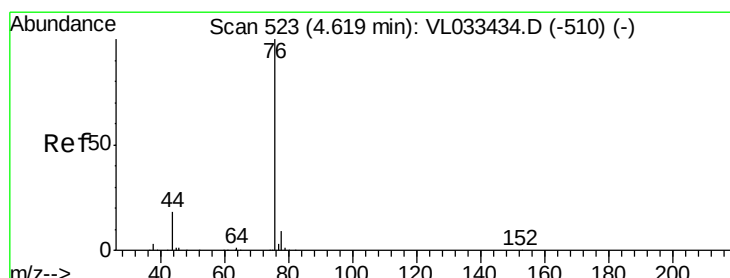
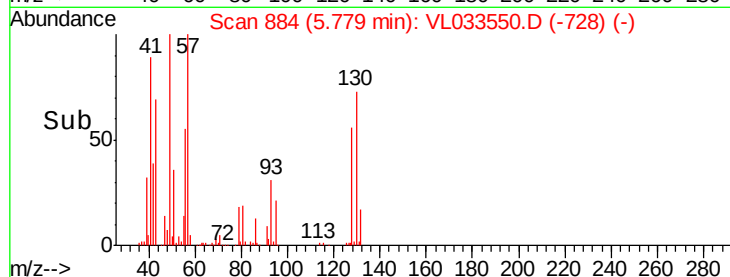
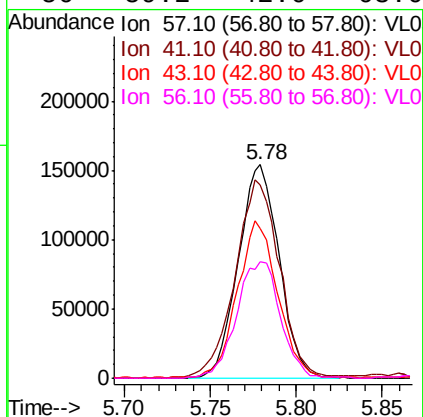
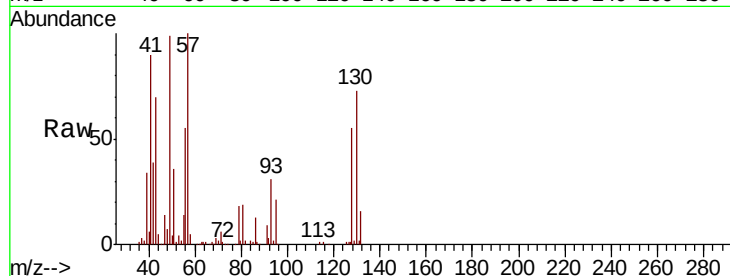
#26
Hexane
Concen: 2.486 ppbv
RT: 5.78 min Scan# 884
Delta R.T. 0.00 min
Lab File: VL033550.D
Acq: 5 Apr 2019 2:12

Instrument :
MSVOA_L
ClientSampled :
SV5

Tot Ion	57	Resp	253641
Ion	Ratio	Lower	Upper
57	100		
41	100.8	70.7	106.1
43	72.5	182.6	274.0#
56	59.2	42.0	63.0

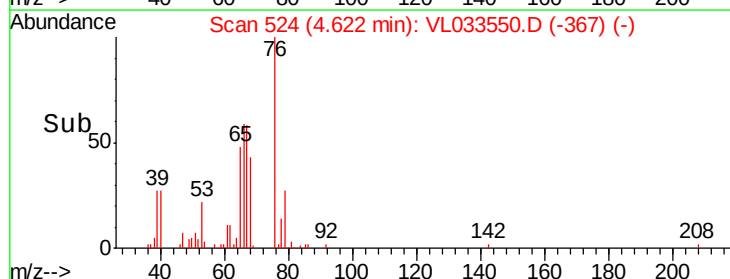
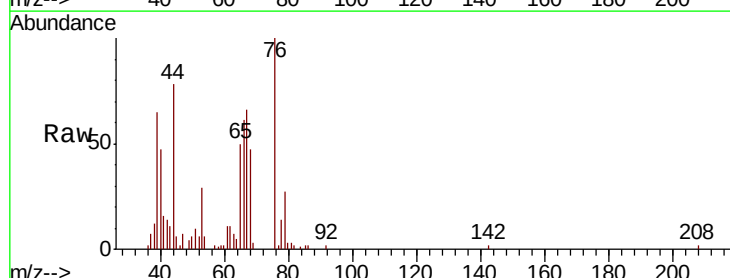
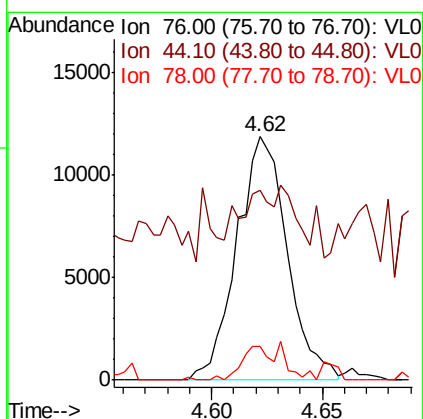
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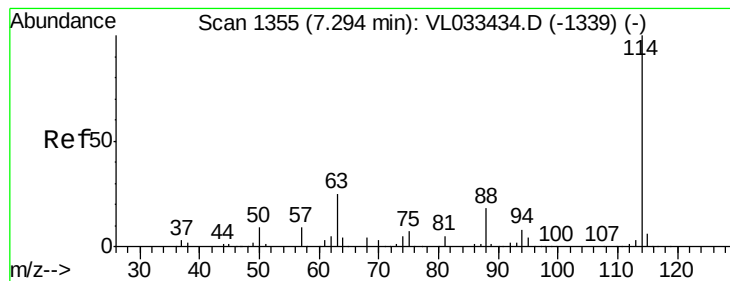
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#27
Carbon Disulfide
Concen: 0.155 ppbv
RT: 4.62 min Scan# 524
Delta R.T. 0.00 min
Lab File: VL033550.D
Acq: 5 Apr 2019 2:12

Tgt Ion	76	Resp	18817
Ion	Ratio	Lower	Upper
76	100		
44	53.8	14.8	22.2#
78	11.4	7.6	11.4#





#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

RT: 7.29 min Scan# 1353

Delta R.T. -0.01 min

Lab File: VL033550.D

Acq: 5 Apr 2019 2:12

Instrument :

MSVOA_L

ClientSampleId :

SV5

Tot Ion:114 Resp: 2218686

Ion Ratio Lower Upper

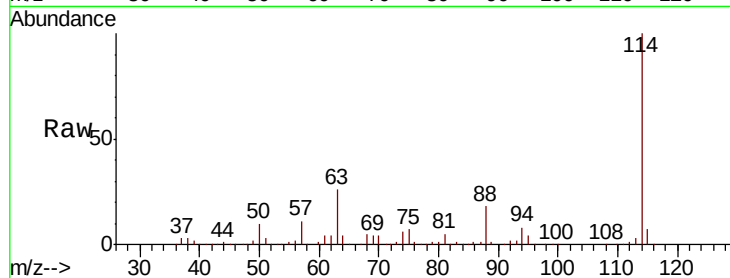
114 100

63 26.2 21.5 32.3

88 18.1 14.5 21.7

Manual Integrations
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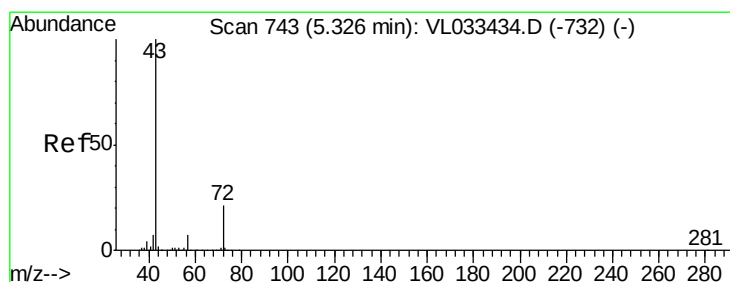
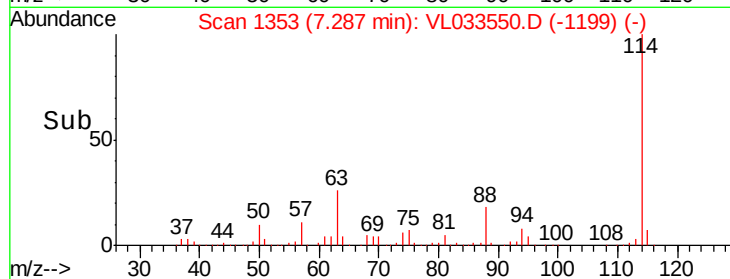
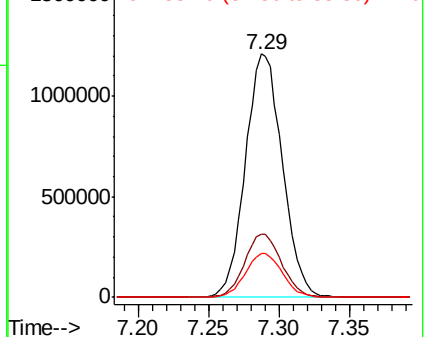
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4/8/2019 3:22:28 AM



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: 6.969 ppbv

RT: 5.33 min Scan# 743

Delta R.T. 0.00 min

Lab File: VL033550.D

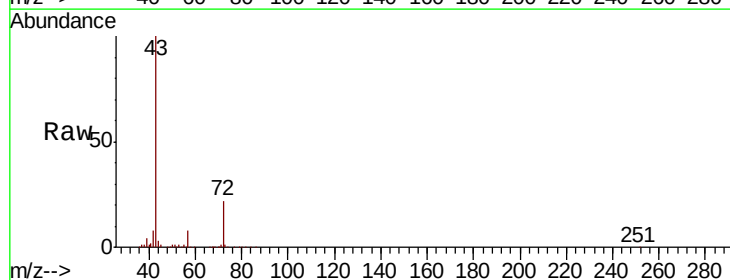
Acq: 5 Apr 2019 2:12

Tgt Ion: 43 Resp: 929036

Ion Ratio Lower Upper

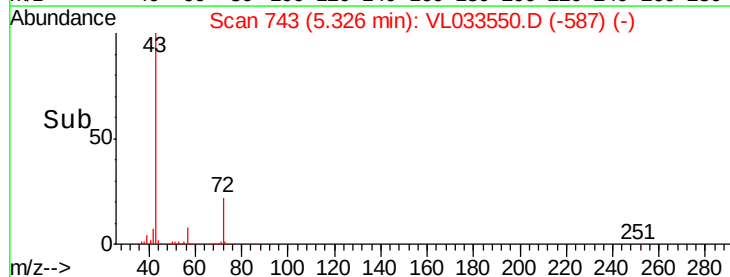
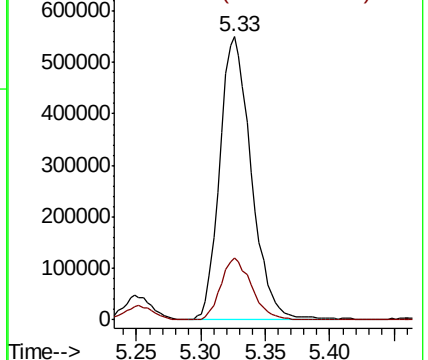
43 100

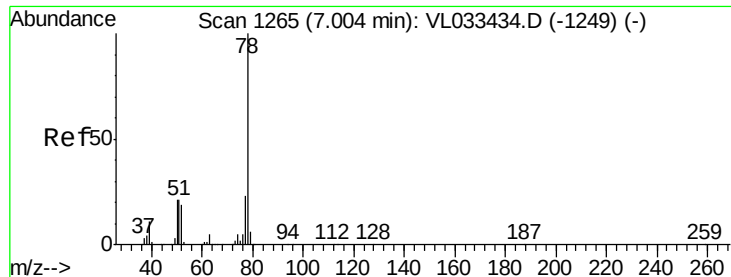
72 21.7 17.4 26.2



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0





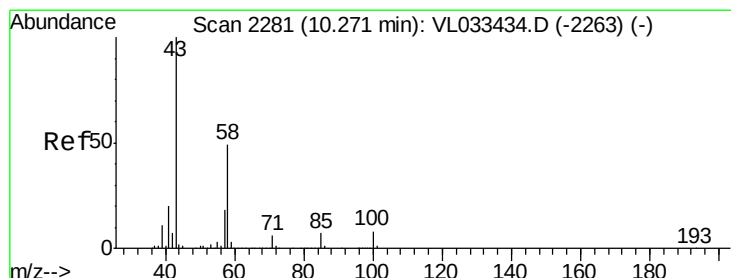
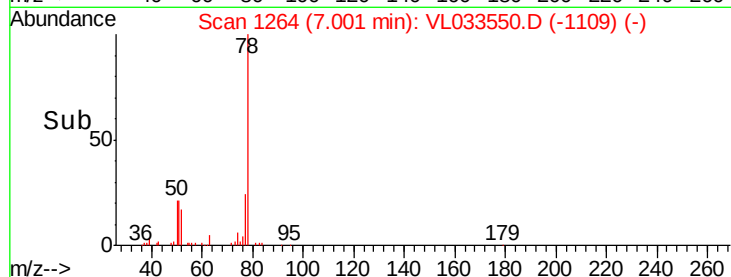
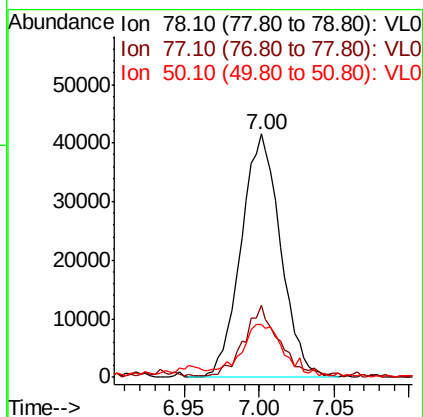
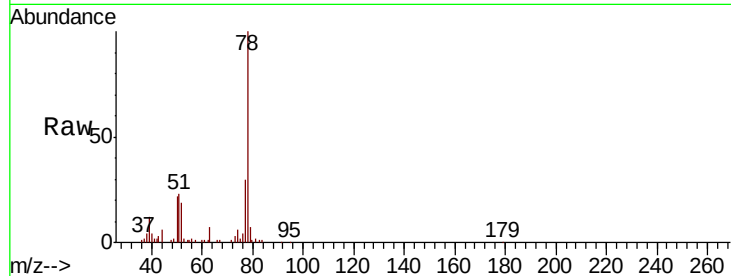
#36
Benzene
Concen: 0.411 ppbv
RT: 7.00 min Scan# 1264
Delta R.T. -0.00 min
Lab File: VL033550.D
Acq: 5 Apr 2019 2:12

Instrument :
MSVOA_L
ClientSampled :
SV5

Tot Ion	Ratio	Lower	Upper
78	100		
77	29.0	18.1	27.1#
50	19.9	16.7	25.1

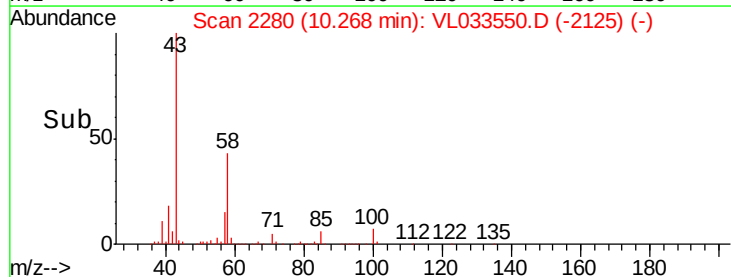
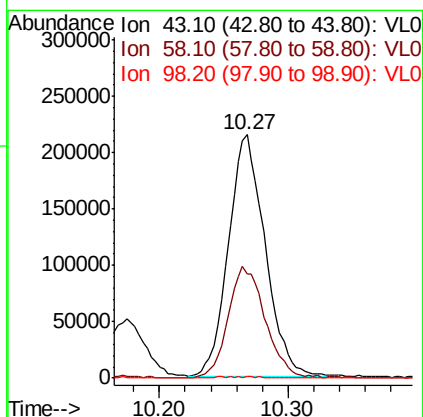
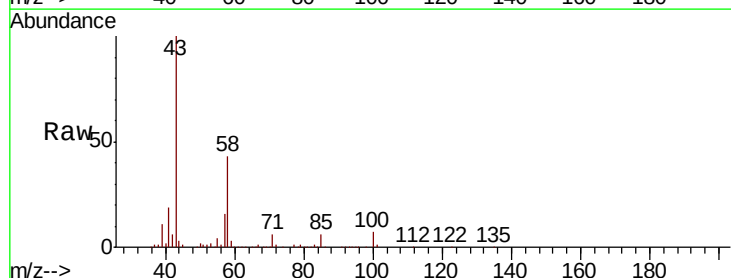
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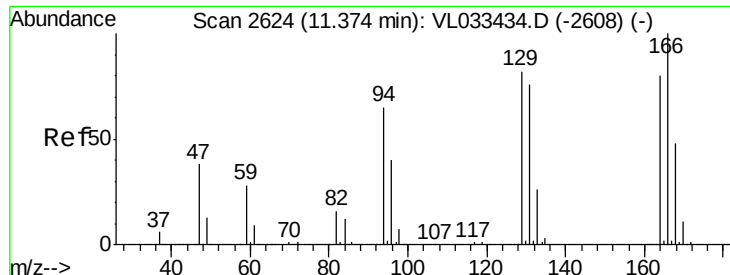
MMDadoda
4/8/2019 3:22:28 AM



#51
2-Hexanone
Concen: 2.919 ppbv
RT: 10.27 min Scan# 2280
Delta R.T. -0.00 min
Lab File: VL033550.D
Acq: 5 Apr 2019 2:12

Tgt Ion	Ratio	Lower	Upper
43	100		
58	47.2	38.2	57.2
98	1.0	0.2	0.2#





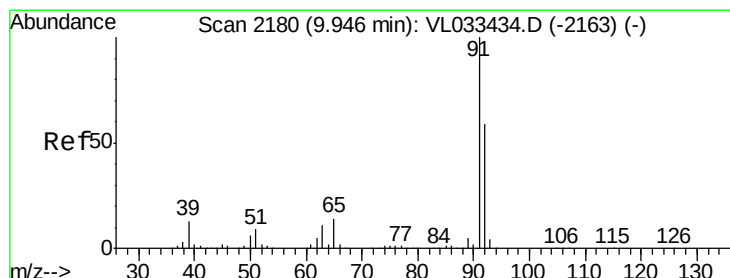
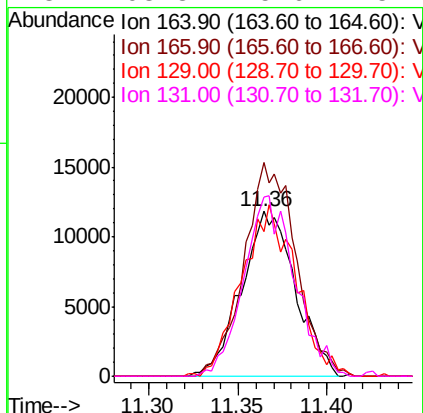
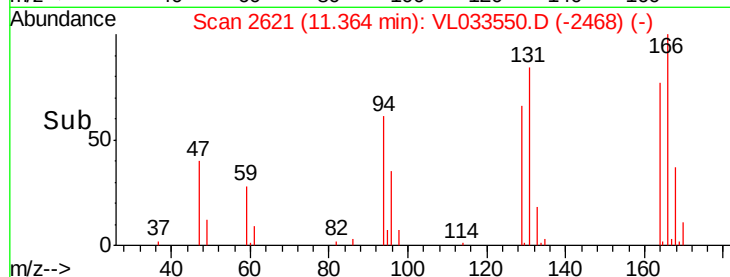
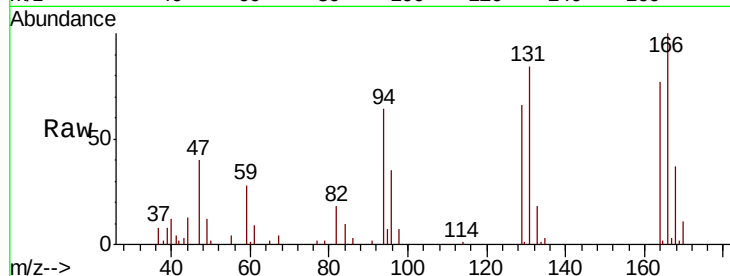
#52
Tetrachloroethene
Concen: 0.356 ppbv
RT: 11.36 min Scan# 2621
Delta R.T. -0.01 min
Lab File: VL033550.D
Acq: 5 Apr 2019 2:12

Instrument :
MSVOA_L
ClientSampleId :
SV5

Tot Ion	Ratio	Lower	Upper
164	100		
166	129.4	99.5	149.3
129	85.6	81.4	122.2
131	108.3	75.6	113.4

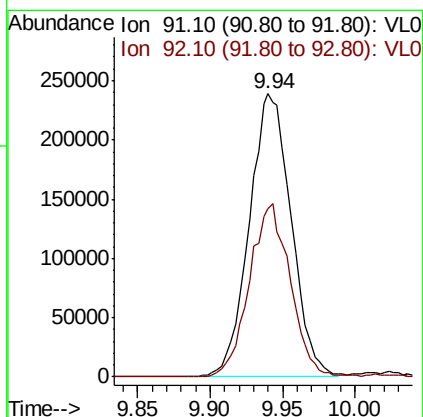
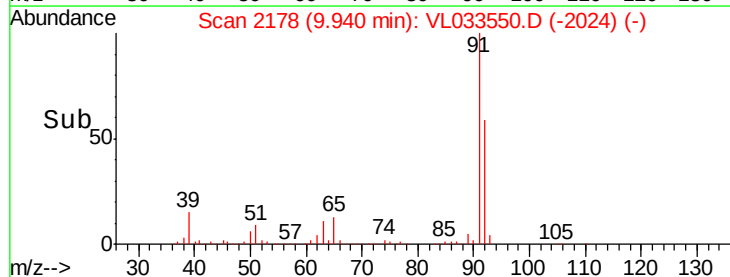
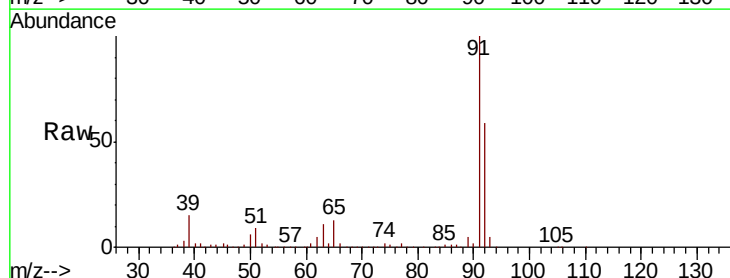
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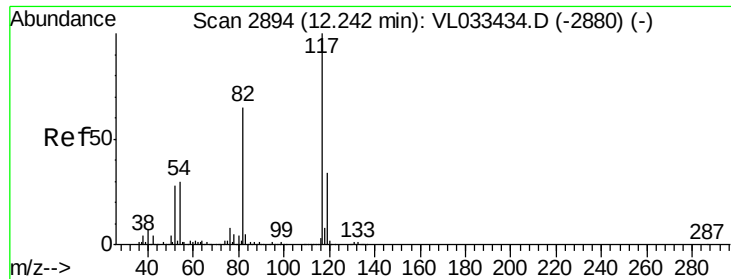
MMDadoda
4/8/2019 3:22:28 AM



#53
Toluene
Concen: 2.220 ppbv
RT: 9.94 min Scan# 2178
Delta R.T. -0.01 min
Lab File: VL033550.D
Acq: 5 Apr 2019 2:12

Tgt Ion	Ratio	Lower	Upper
91	100		
92	59.7	47.4	71.0





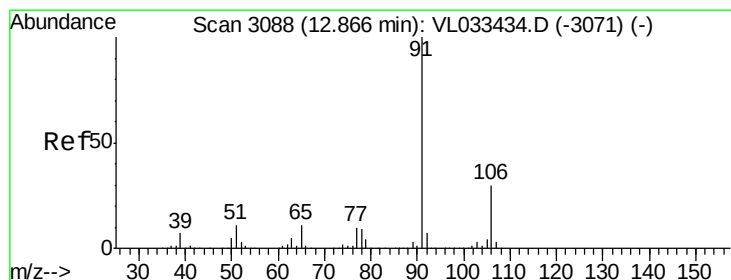
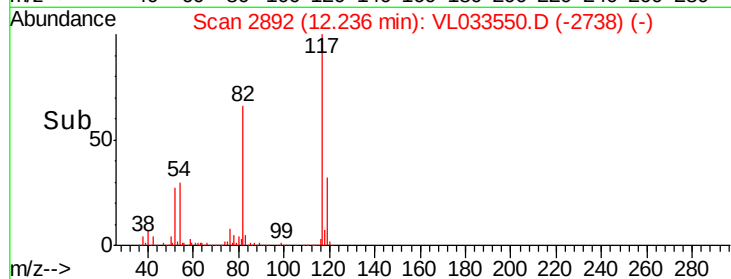
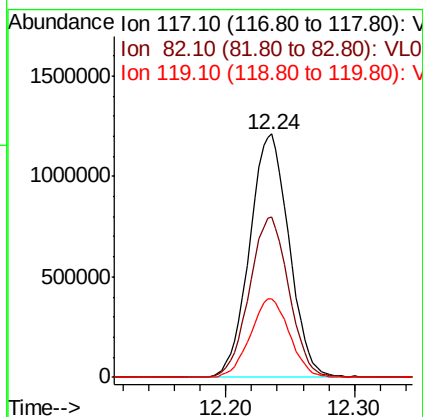
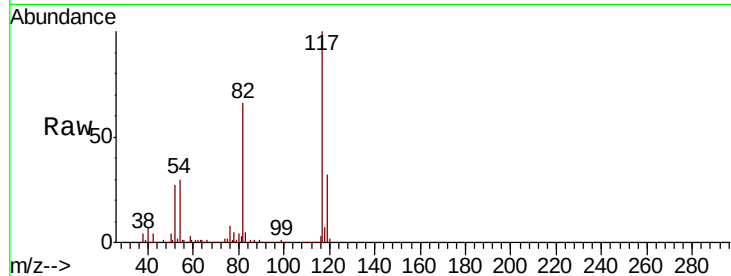
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.24 min Scan# 2892
Delta R.T. -0.01 min
Lab File: VL033550.D
Acq: 5 Apr 2019 2:12

Instrument :
MSVOA_L
ClientSampleId :
SV5

Tot Ion	Ratio	Lower	Upper
117	100		
82	66.0	51.5	77.3
119	32.2	25.5	38.3

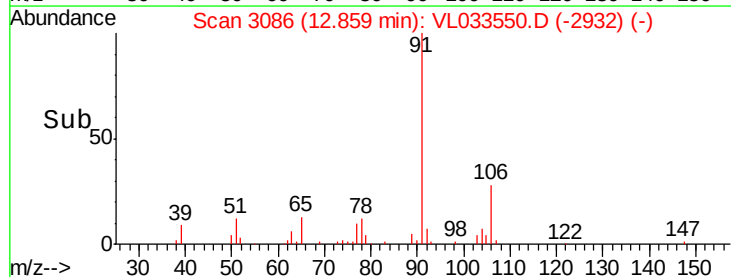
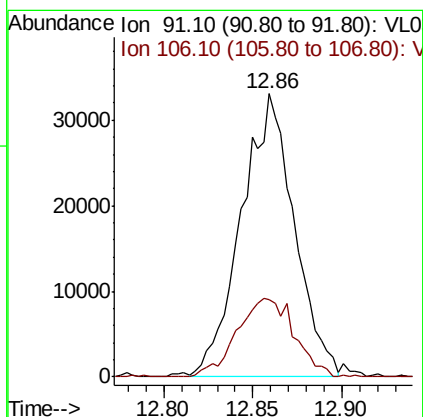
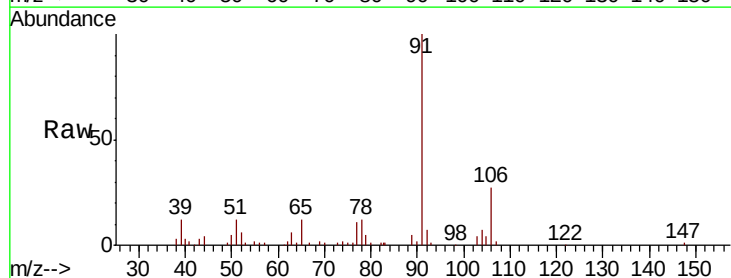
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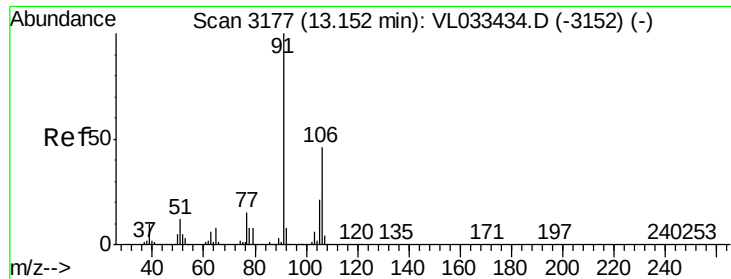
MMDadoda
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#58
Ethyl Benzene
Concen: 0.199 ppbv m
RT: 12.86 min Scan# 3086
Delta R.T. -0.01 min
Lab File: VL033550.D
Acq: 5 Apr 2019 2:12

Tgt Ion	Ratio	Lower	Upper
91	100		
106	27.4	23.8	35.6





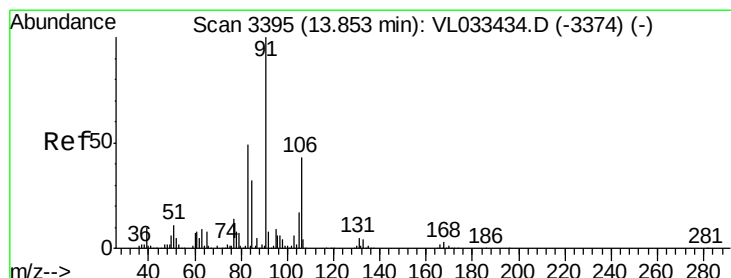
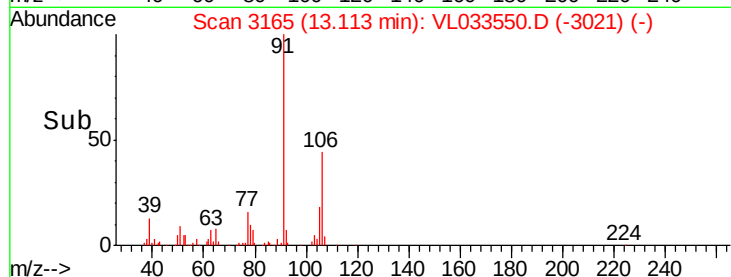
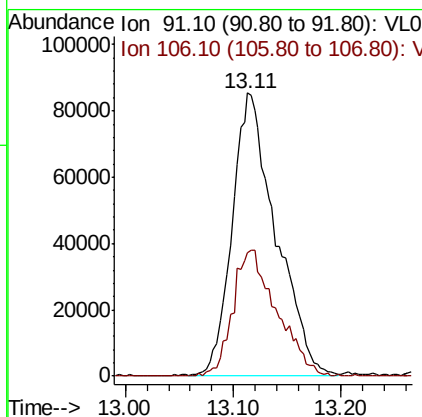
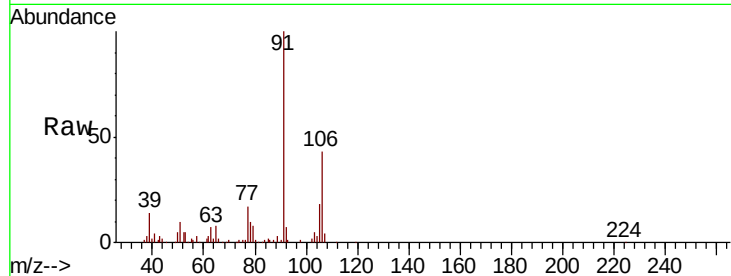
#59
m/p-Xylene
Concen: 0.775 ppbv
RT: 13.11 min Scan# 3165
Delta R.T. -0.04 min
Lab File: VL033550.D
Acq: 5 Apr 2019 2:12

Instrument :
MSVOA_L
ClientSampled :
SV5

Tot Ion	Ratio	Resp	Lower	Upper
91	100	238436		
106	45.2	0.0	0.0	0.0

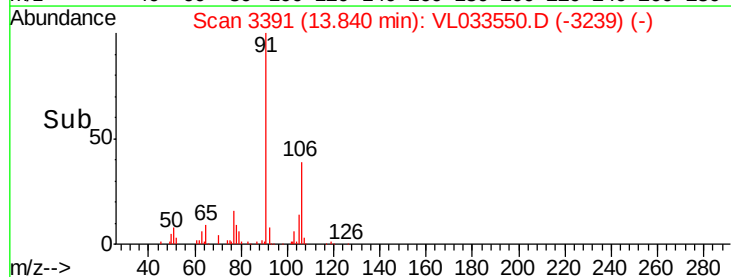
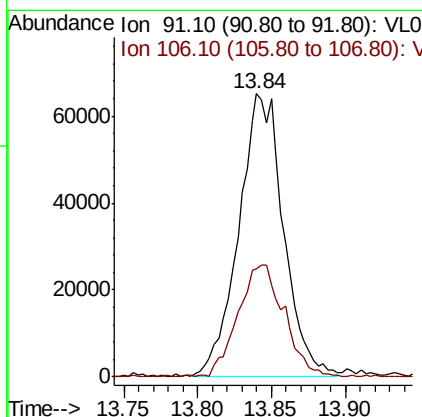
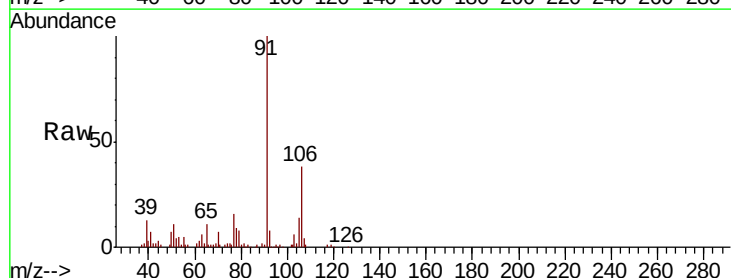
Manual Integrations
APPROVED

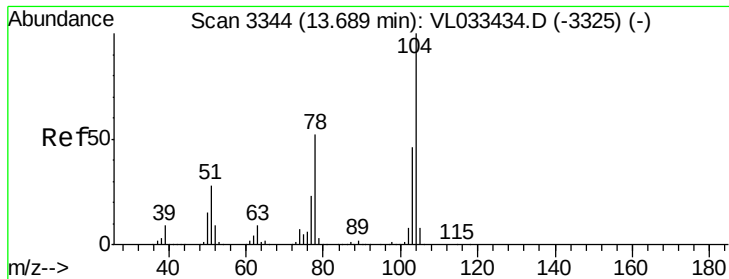
MMDadoda
4/8/2019 3:22:28 AM



#60
o-Xylene
Concen: 0.464 ppbv m
RT: 13.84 min Scan# 3391
Delta R.T. -0.01 min
Lab File: VL033550.D
Acq: 5 Apr 2019 2:12

Tgt Ion	Ratio	Resp	Lower	Upper
91	100	137968		
106	40.9	21.4	64.3	





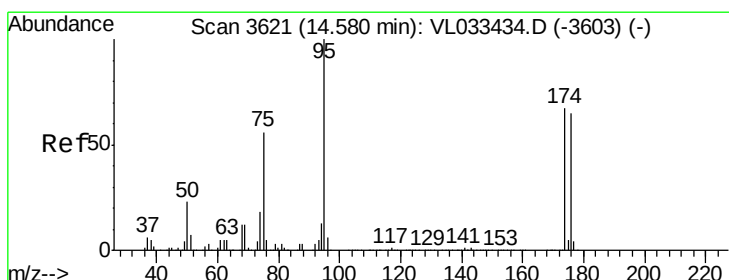
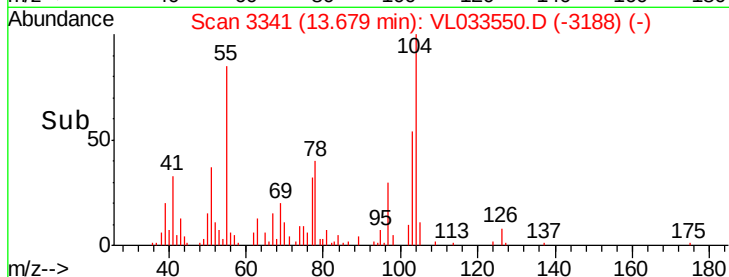
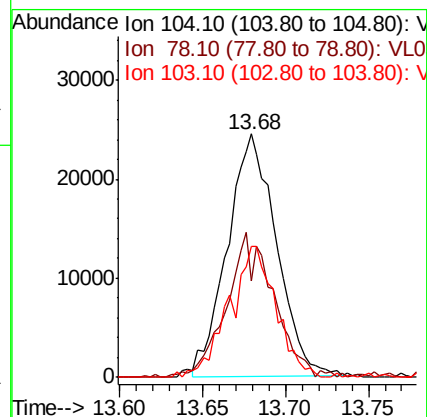
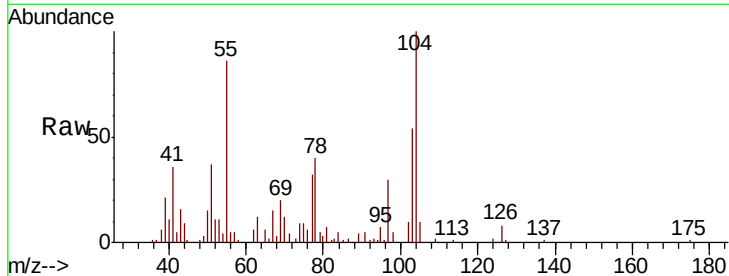
#61
Stvrene
Concen: 0.247 ppbv
RT: 13.68 min Scan# 3341
Delta R.T. -0.01 min
Lab File: VL033550.D
Acq: 5 Apr 2019 2:12

Instrument :
MSVOA_L
ClientSampled :
SV5

Tot Ion	Ratio	Resp	Lower	Upper
104	100	50529		
78	57.9		43.2	64.8
103	51.8		37.8	56.8

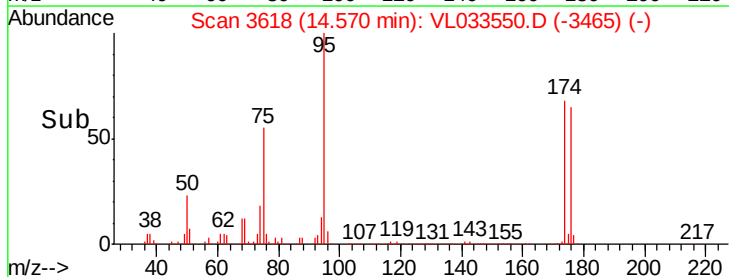
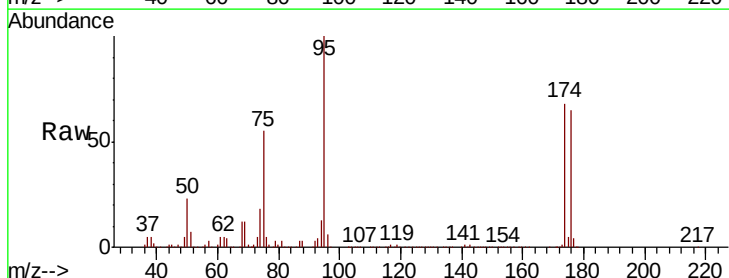
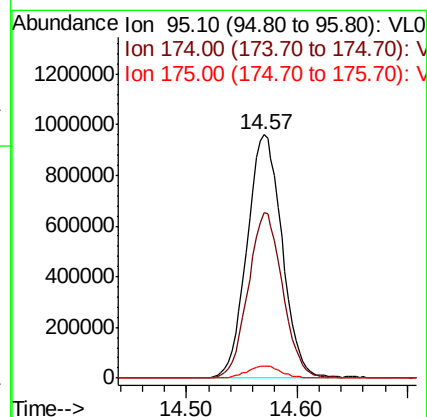
Manual Integrations
APPROVED

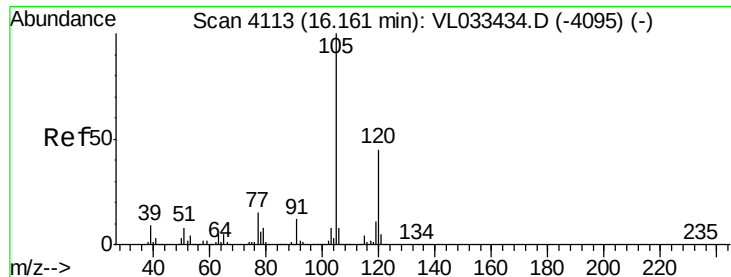
MMDadoda
4/8/2019 3:22:28 AM



#68
1-Bromo-4-Fluorobenzene
Concen: 10.443 ppbv
RT: 14.57 min Scan# 3618
Delta R.T. -0.01 min
Lab File: VL033550.D
Acq: 5 Apr 2019 2:12

Tgt Ion	Ratio	Resp	Lower	Upper
95	100	2111692		
174	67.0		52.9	79.3
175	4.9		3.8	5.6





#73

1,3,5-Trimethylbenzene

Concen: 0.157 ppbv m

RT: 16.16 min Scan# 4111

Delta R.T. -0.01 min

Lab File: VL033550.D

Acq: 5 Apr 2019 2:12

Instrument :

MSVOA_L

ClientSampled :

SV5

Tot Ion:105 Resp: 50382

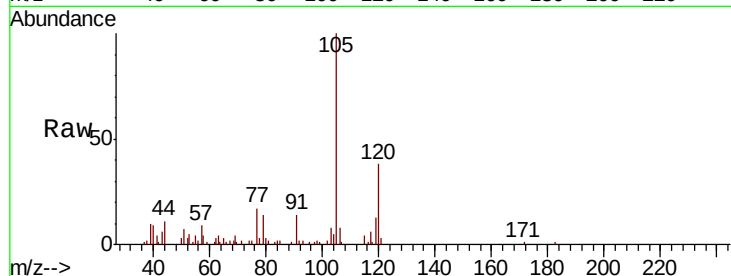
Ion Ratio Lower Upper

105 100

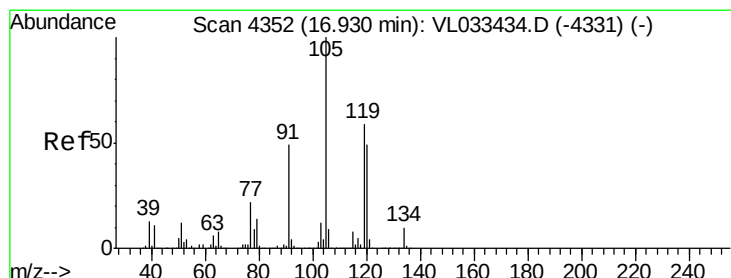
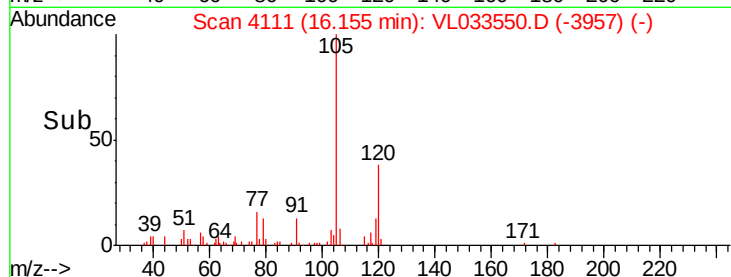
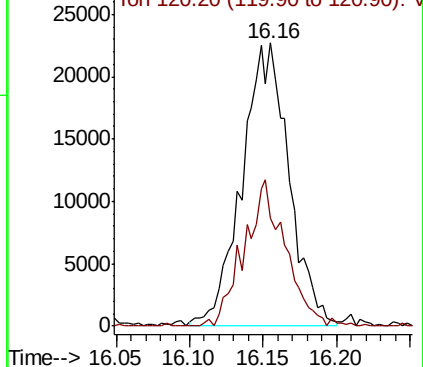
120 38.1 35.7 53.5

Manual Integrations
APPROVED

MMDadoda
4/8/2019 3:22:28 AM



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: 0.623 ppbv

RT: 16.92 min Scan# 4349

Delta R.T. -0.01 min

Lab File: VL033550.D

Acq: 5 Apr 2019 2:12

Tgt Ion:105 Resp: 213747

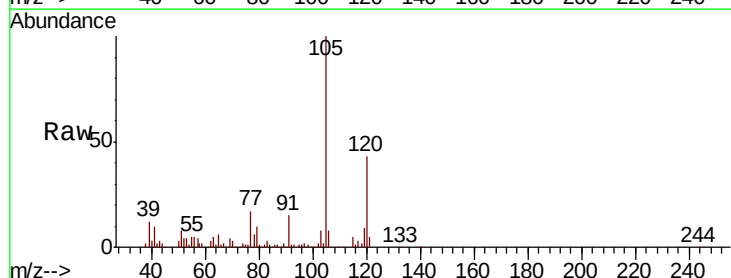
Ion Ratio Lower Upper

105 100

120 48.5 39.0 58.6

91 14.4 40.0 60.0#

77 17.0 17.5 26.3#



Abundance Ion 105.10 (104.80 to 105.80): V
Ion 120.20 (119.90 to 120.90): V
Ion 91.10 (90.80 to 91.80): VL0
Ion 77.10 (76.80 to 77.80): VL0

