

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL041019\
 Data File : VL033571.D
 Acq On : 10 Apr 2019 19:38
 Operator : SY/AP
 Sample : K2301-02
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

Manual Integrations
 APPROVED

MMDadoda
 4/11/2019 1:01:22 PM

Quant Time: Apr 11 04:19:01 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	838050	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	1951693	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.24	117	1977349	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.58	95	1626616	10.49	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	104.90%

Target Compounds						Ovalue
2) Dichlorodifluoromethane	3.08	85	34380	0.281	ppbv	97
3) Chlorodifluoromethane	3.02	51	55368m	0.574	ppbv	
4) Chloromethane	3.17	50	24424	0.478	ppbv	96
9) Propene	3.04	41	85342	2.106	ppbv	87
10) Heptane	8.25	43	20588m	0.190	ppbv	
11) Trichlorofluoromethane	4.01	101	31441	0.209	ppbv	96
13) Ethanol	3.66	45	1569691	149.710	ppbv	65
15) Acetone	3.90	43	620518	6.158	ppbv	91
19) Isopropyl Alcohol	4.04	45	214078	3.359	ppbv #	96
20) Methylene Chloride	4.41	84	79787	1.865	ppbv	91
26) Hexane	5.78	57	75389	0.907	ppbv #	56
29) Chloroform	5.85	83	34768m	0.244	ppbv	
34) 2-Butanone	5.34	43	52009	0.444	ppbv	96
35) Carbon Tetrachloride	7.14	117	8100m	0.059	ppbv	
36) Benzene	7.00	78	128045	0.782	ppbv	99
44) 2,2,4-Trimethylpentane	7.98	57	150067m	0.524	ppbv	
52) Tetrachloroethene	11.37	164	96466m	1.561	ppbv	
53) Toluene	9.94	91	479191	2.518	ppbv	99
58) Ethyl Benzene	12.87	91	57215	0.217	ppbv	98
59) m/p-Xylene	13.12	91	230449m	0.977	ppbv	
60) o-Xylene	13.85	91	86312m	0.378	ppbv	
72) 4-Ethyltoluene	16.00	105	121196	0.473	ppbv #	97
73) 1,3,5-Trimethylbenzene	16.16	105	97078	0.396	ppbv	98
74) 1,2,4-Trimethylbenzene	16.92	105	418466	1.591	ppbv #	73

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

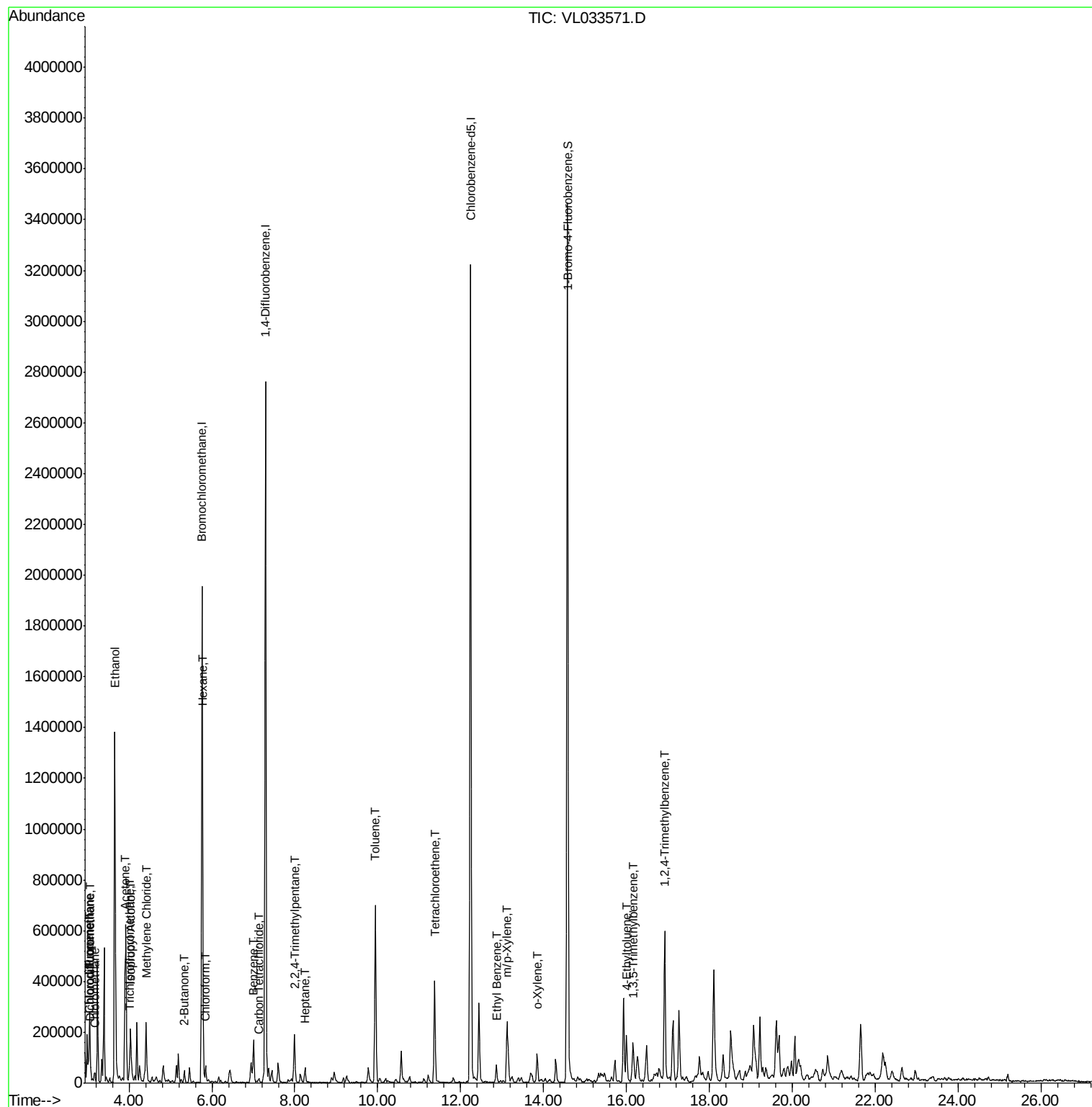
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL041019\
Data File : VL033571.D
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Operator : SY/AP
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Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

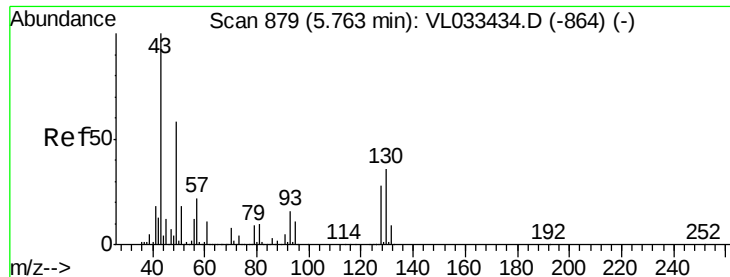
Instrument :
MSVOA_L
ClientSampleId :
IA2

Manual Integrations
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Quant Time: Apr 11 04:19:01 2019
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL032519AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Mar
QLast Update : Tue Mar 26 16:00:50 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 878

Delta R.T. -0.00 min

Lab File: VL033571.D

Acq: 10 Apr 2019 19:38

Instrument :

MSVOA_L

ClientSampled :

IA2

Tot Ion: 49 Resp: 838050

Ion Ratio Lower Upper

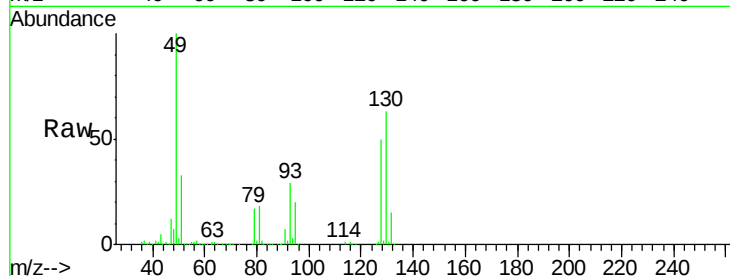
49 100

128 49.1 24.0 72.0

130 61.9 31.2 93.6

Manual Integrations
APPROVED

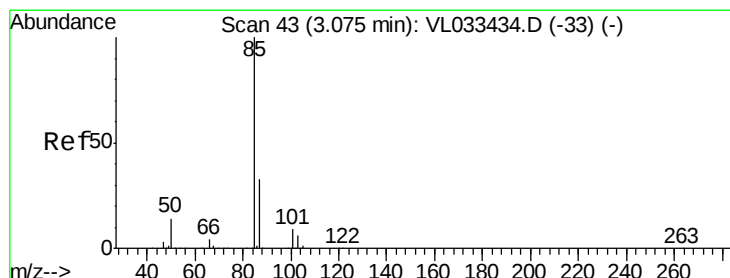
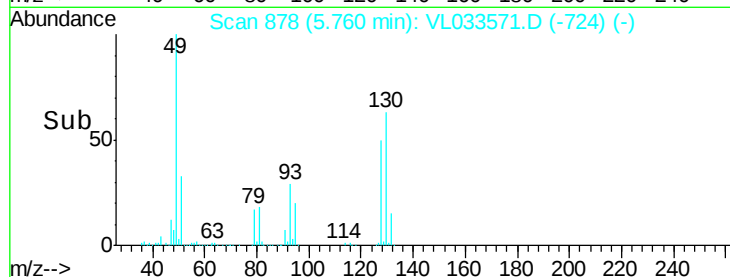
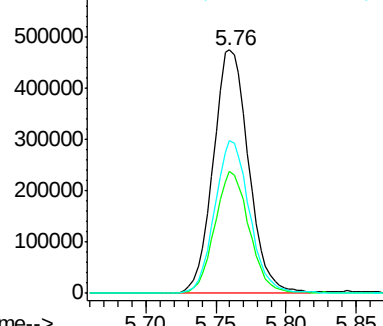
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.281 ppbv

RT: 3.08 min Scan# 44

Delta R.T. 0.00 min

Lab File: VL033571.D

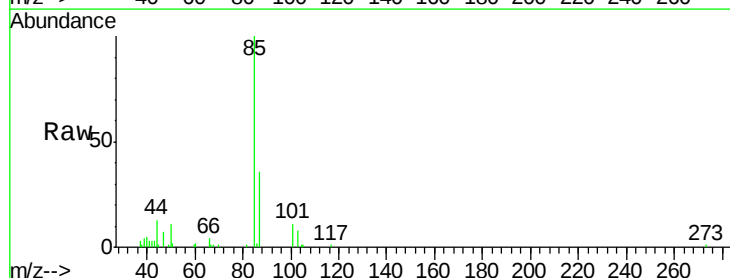
Acq: 10 Apr 2019 19:38

Tgt Ion: 85 Resp: 34380

Ion Ratio Lower Upper

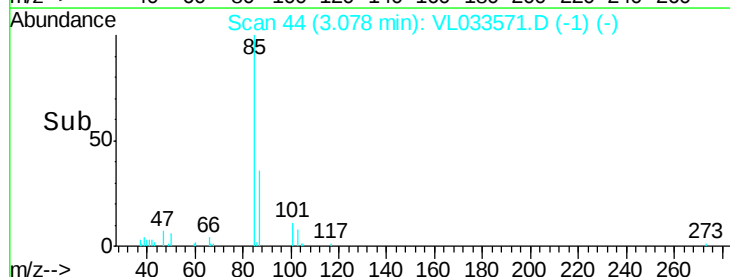
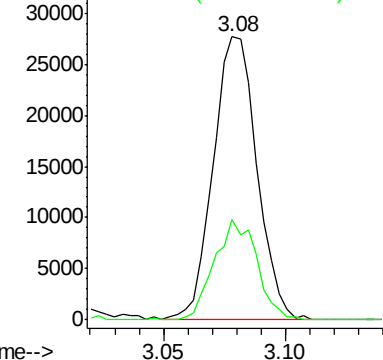
85 100

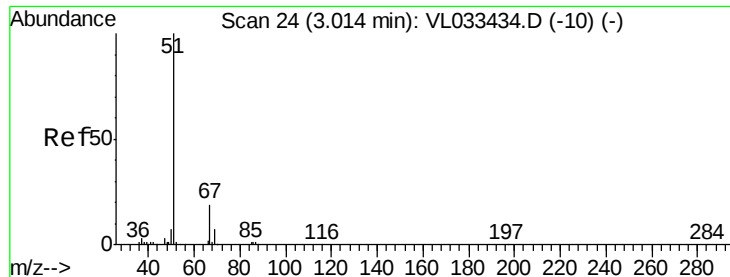
87 34.9 26.7 40.1



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.574 ppbv m

RT: 3.02 min Scan# 26

Delta R.T. 0.01 min

Lab File: VL033571.D

Acq: 10 Apr 2019 19:38

Instrument :

MSVOA_L

ClientSampleId :

IA2

Tot Ion: 51 Resp: 55368

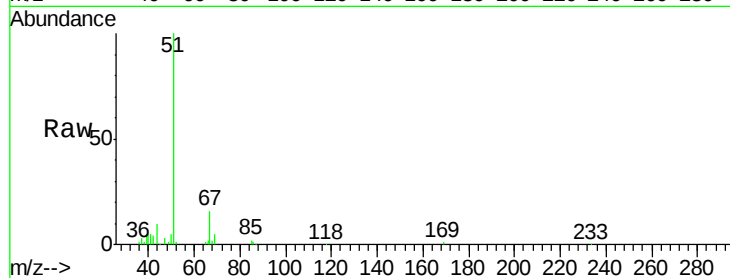
Ion Ratio Lower Upper

51 100

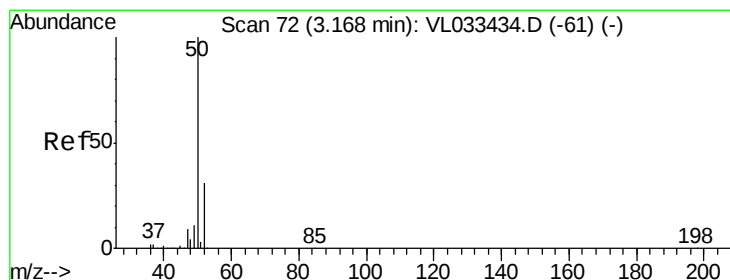
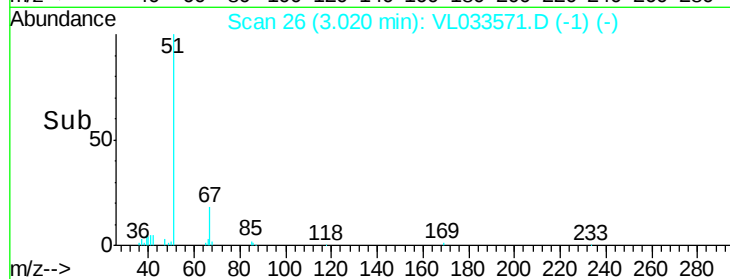
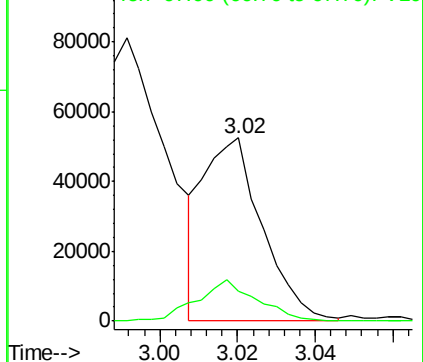
67 23.1 15.7 23.5

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Abundance Ion 51.00 (50.70 to 51.70): VL0
Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.478 ppbv

RT: 3.17 min Scan# 74

Delta R.T. 0.01 min

Lab File: VL033571.D

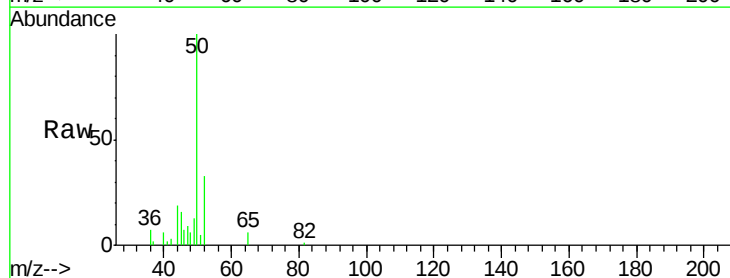
Acq: 10 Apr 2019 19:38

Tgt Ion: 50 Resp: 24424

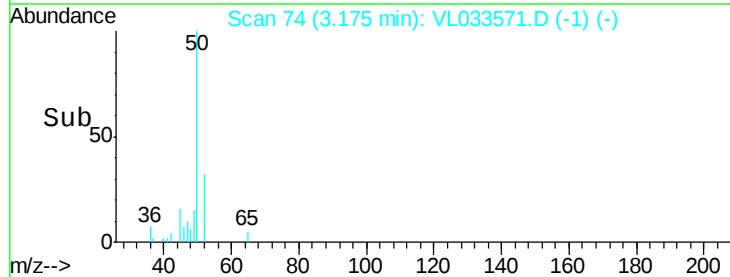
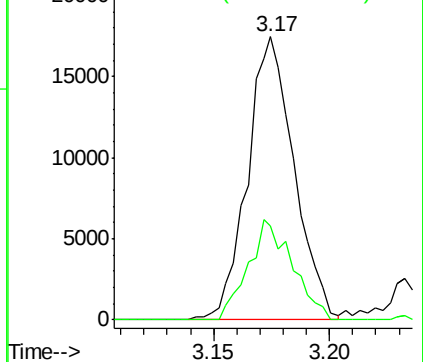
Ion Ratio Lower Upper

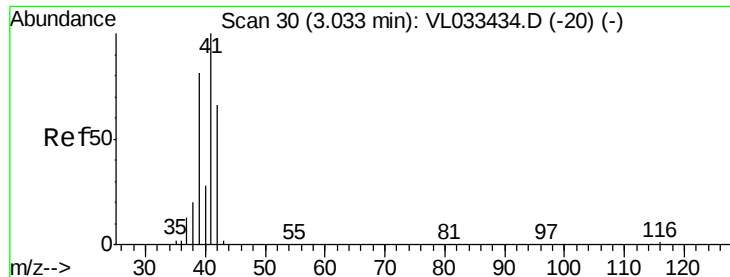
50 100

52 33.2 25.0 37.6



Abundance Ion 50.10 (49.80 to 50.80): VL0
Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 2.106 ppbv

RT: 3.04 min Scan# 33

Delta R.T. 0.01 min

Lab File: VL033571.D

Acq: 10 Apr 2019 19:38

Instrument :

MSVOA_L

ClientSampled :

IA2

Tot Ion: 41 Resp: 85342

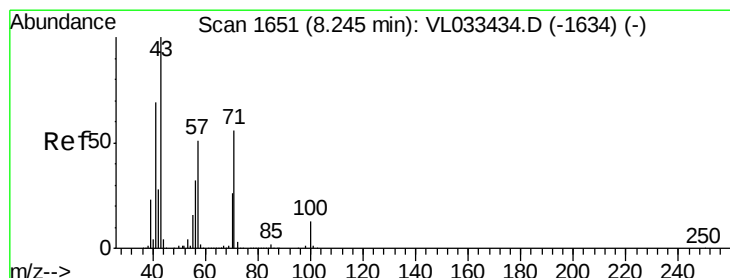
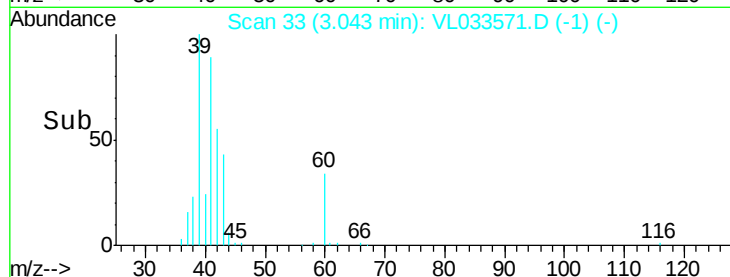
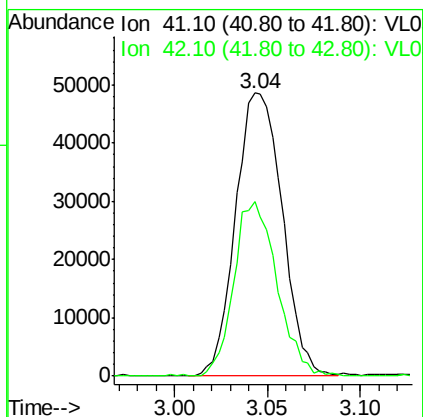
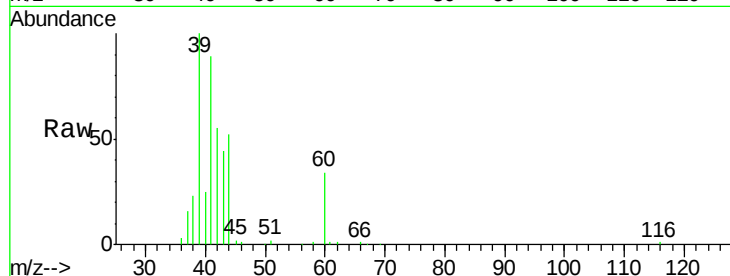
Ion Ratio Lower Upper

41 100

42 57.0 53.9 80.9

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#10

Heptane

Concen: 0.190 ppbv m

RT: 8.25 min Scan# 1652

Delta R.T. 0.00 min

Lab File: VL033571.D

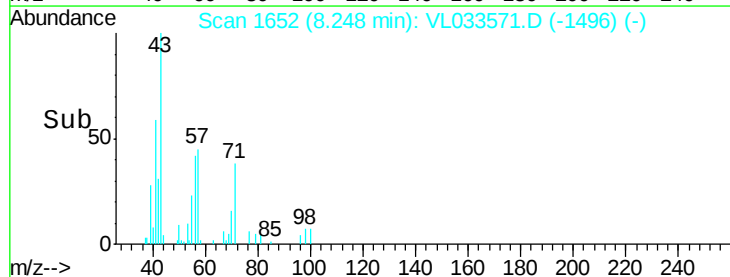
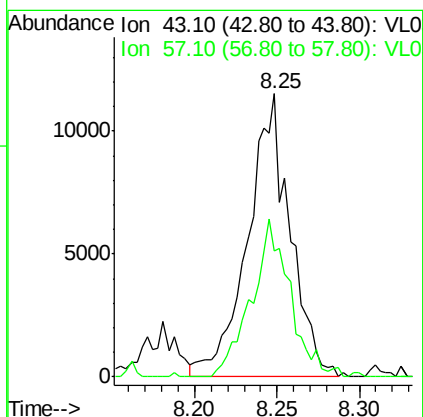
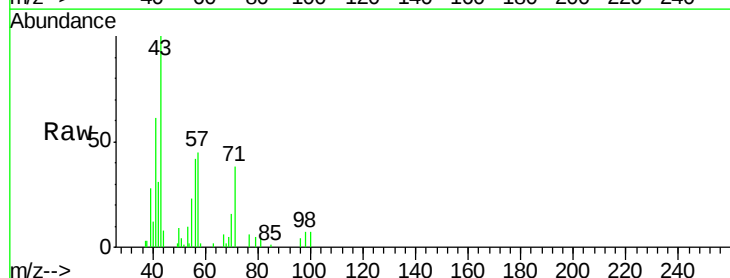
Acq: 10 Apr 2019 19:38

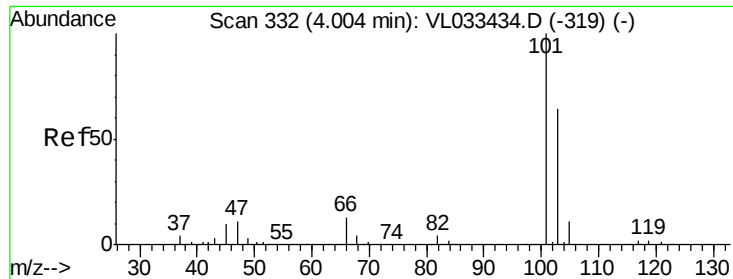
Tgt Ion: 43 Resp: 20588

Ion Ratio Lower Upper

43 100

57 0.0 40.6 60.8#





#11

Trichlorofluoromethane

Concen: 0.209 ppbv

RT: 4.01 min Scan# 334

Delta R.T. 0.01 min

Lab File: VL033571.D

Acq: 10 Apr 2019 19:38

Instrument :

MSVOA_L

ClientSampleId :

IA2

Tot Ion:101 Resp: 31441

Ion Ratio Lower Upper

101 100

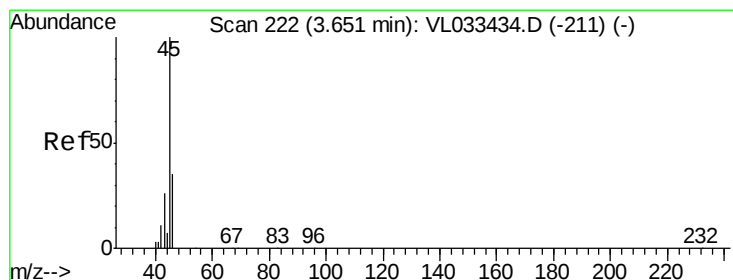
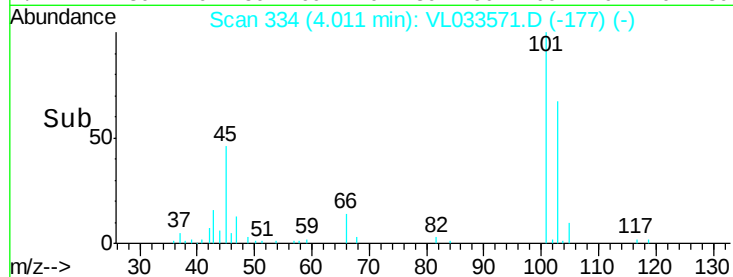
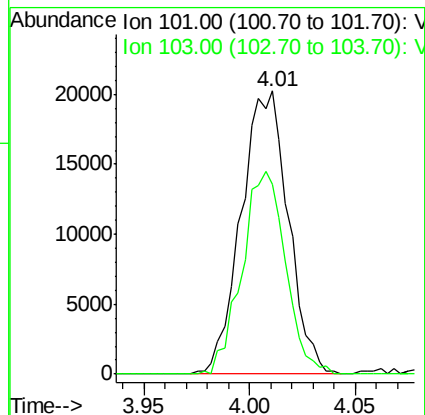
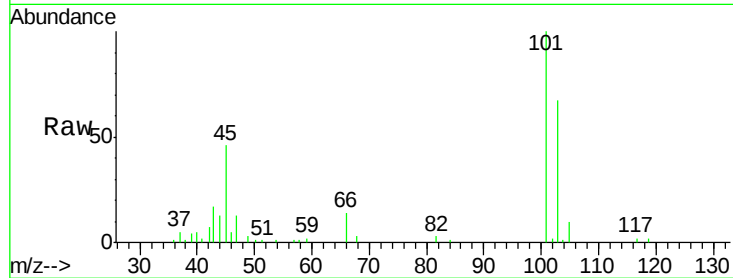
103 66.9 51.3 76.9

Manual Integrations

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#13

Ethanol

Concen: 149.710 ppbv

RT: 3.66 min Scan# 224

Delta R.T. 0.01 min

Lab File: VL033571.D

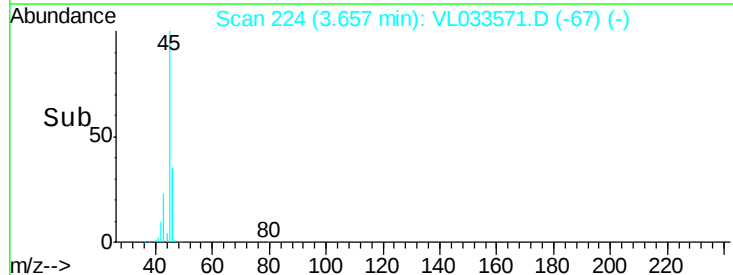
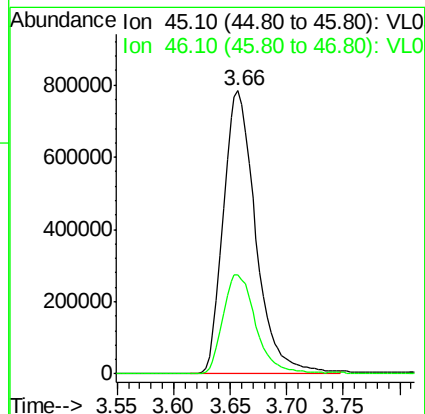
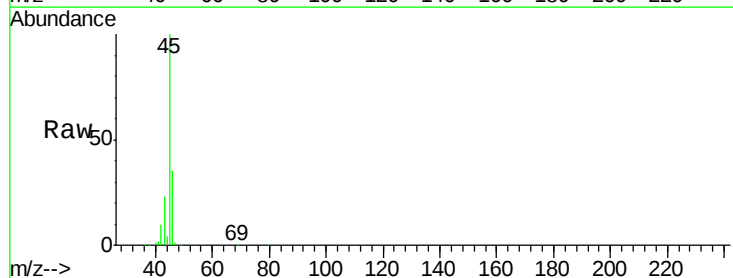
Acq: 10 Apr 2019 19:38

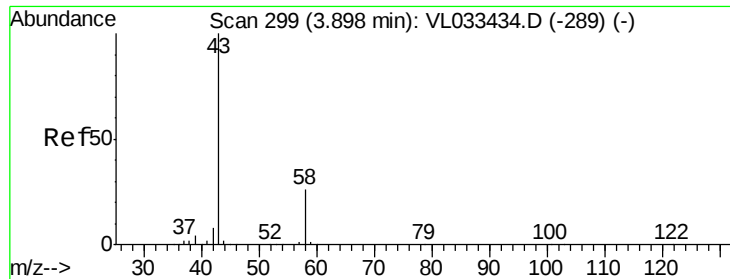
Tgt Ion: 45 Resp: 1569691

Ion Ratio Lower Upper

45 100

46 36.3 25.4 101.8





#15

Acetone

Concen: 6.158 ppbv

RT: 3.90 min Scan# 300

Delta R.T. 0.00 min

Lab File: VL033571.D

Acq: 10 Apr 2019 19:38

Instrument :

MSVOA_L

ClientSampled :

IA2

Tot Ion: 43 Resp: 620518

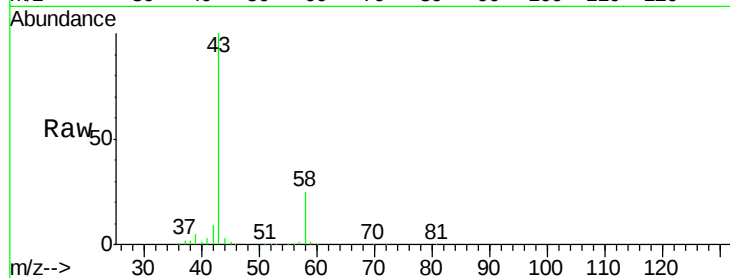
Ion Ratio Lower Upper

43 100

58 21.0 20.5 30.7

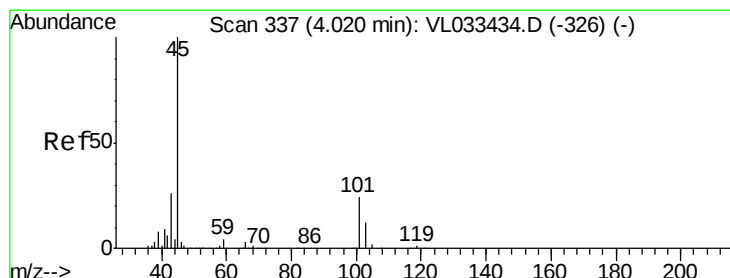
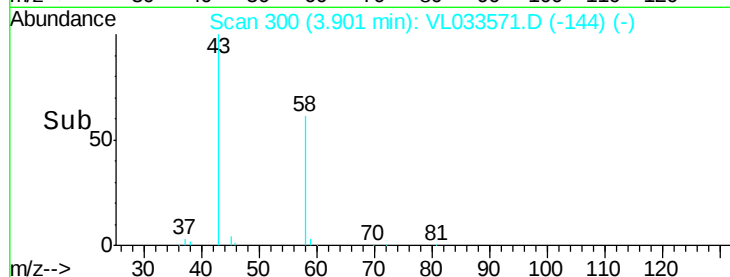
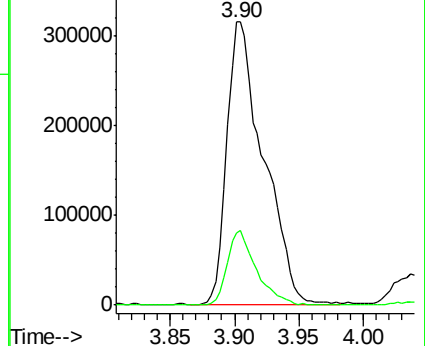
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Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#19

Isopropyl Alcohol

Concen: 3.359 ppbv

RT: 4.04 min Scan# 342

Delta R.T. 0.02 min

Lab File: VL033571.D

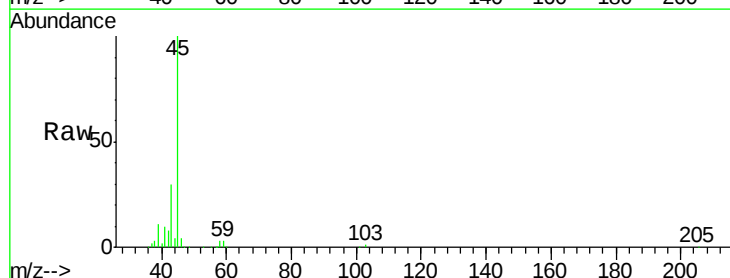
Acq: 10 Apr 2019 19:38

Tgt Ion: 45 Resp: 214078

Ion Ratio Lower Upper

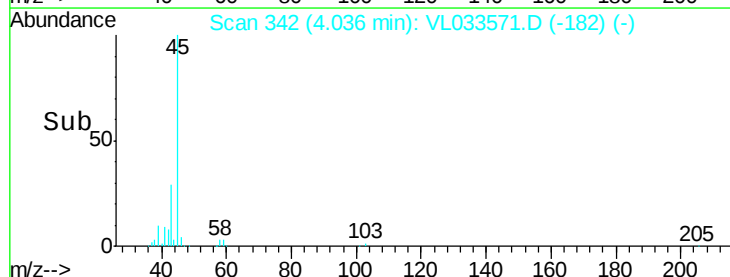
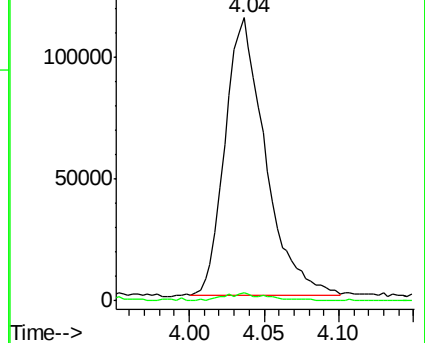
45 100

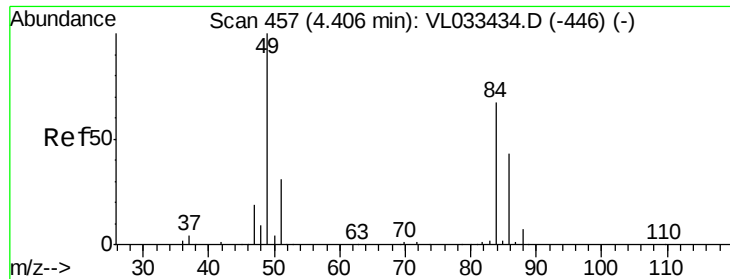
58 3.2 1.4 2.2#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0





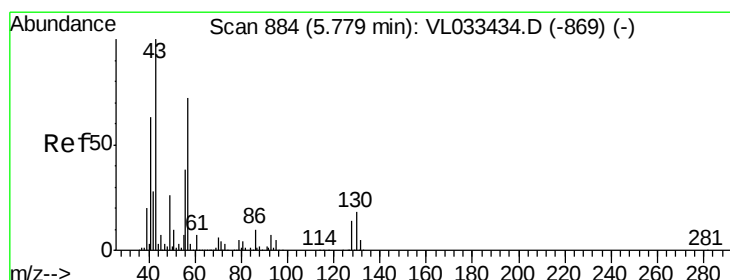
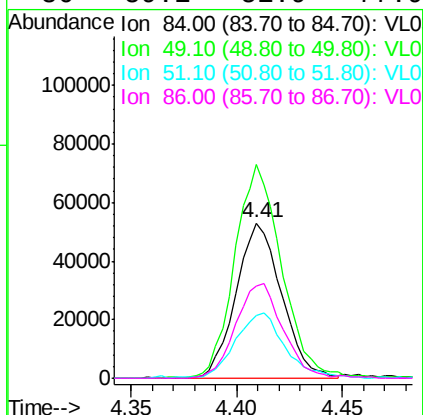
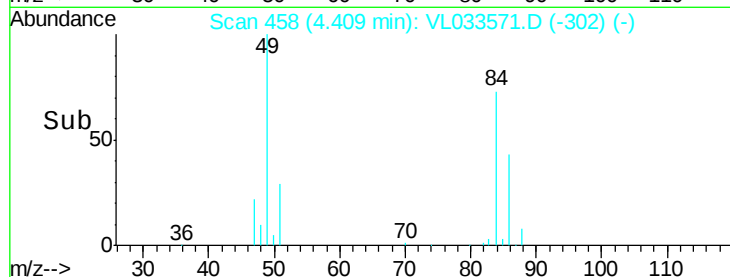
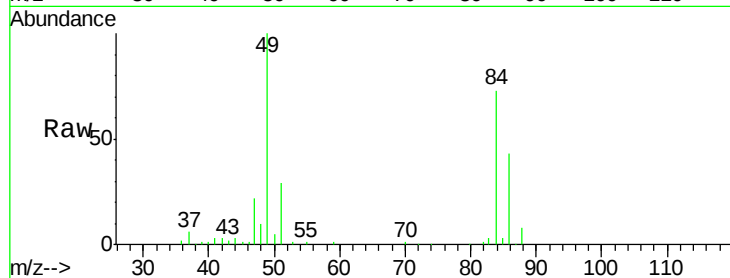
#20
Methvlene Chloride
Concen: 1.865 ppbv
RT: 4.41 min Scan# 458
Delta R.T. 0.00 min
Lab File: VL033571.D
Acq: 10 Apr 2019 19:38

Instrument :
MSVOA_L
ClientSampled :
IA2

Tot Ion:	84	Resp:	79787
Ion	Ratio	Lower	Upper
84	100		
49	137.0	120.0	180.0
51	39.4	36.7	55.1
86	59.1	51.9	77.9

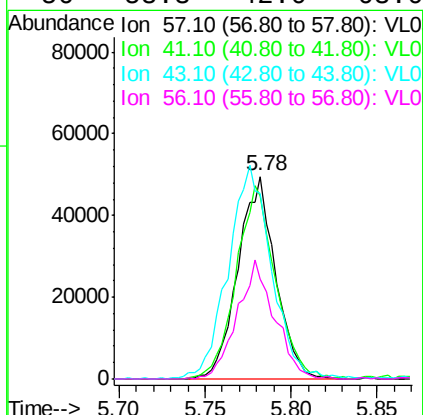
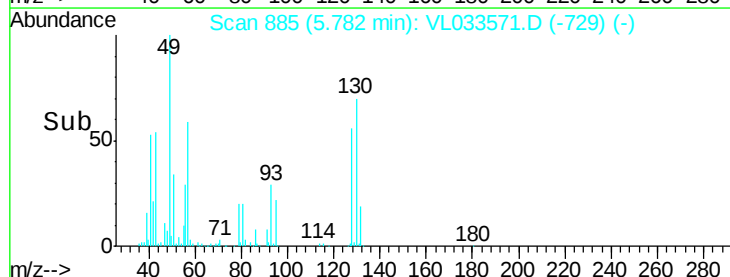
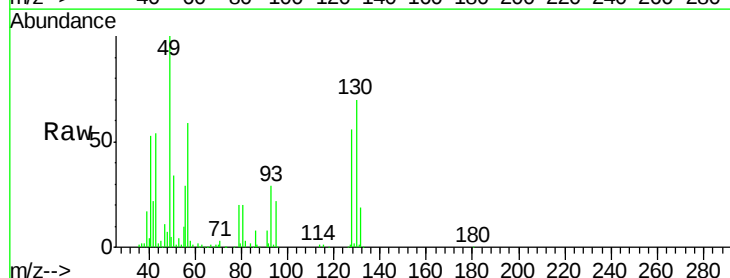
Manual Integrations
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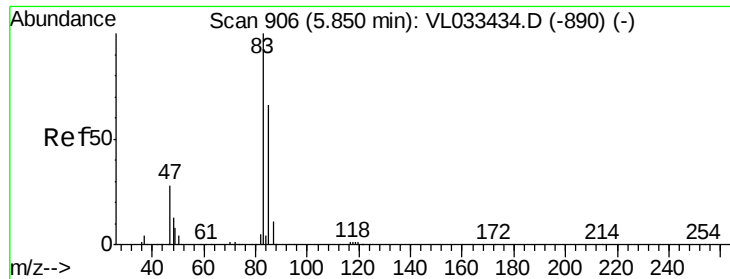
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#26
Hexane
Concen: 0.907 ppbv
RT: 5.78 min Scan# 885
Delta R.T. 0.00 min
Lab File: VL033571.D
Acq: 10 Apr 2019 19:38

Tgt Ion:	57	Resp:	75389
Ion	Ratio	Lower	Upper
57	100		
41	100.1	70.7	106.1
43	121.9	182.6	274.0#
56	58.3	42.0	63.0





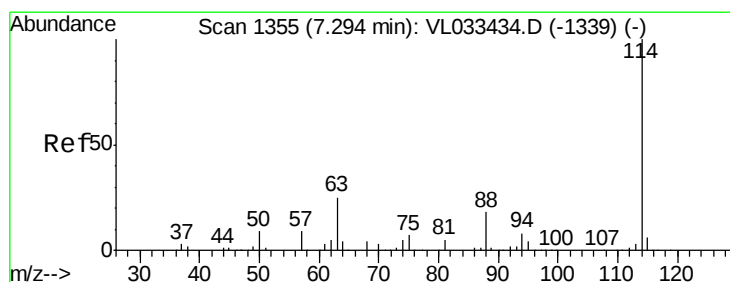
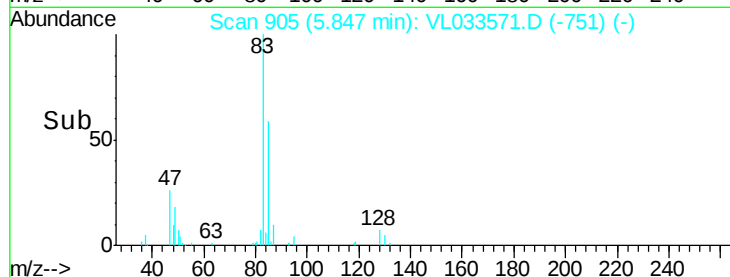
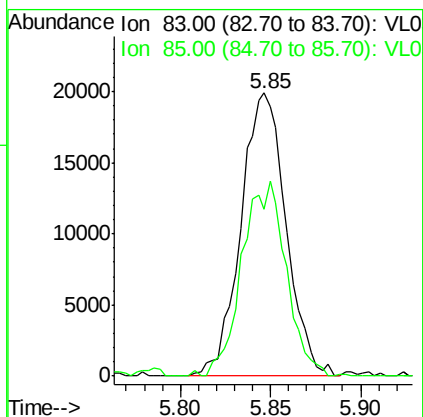
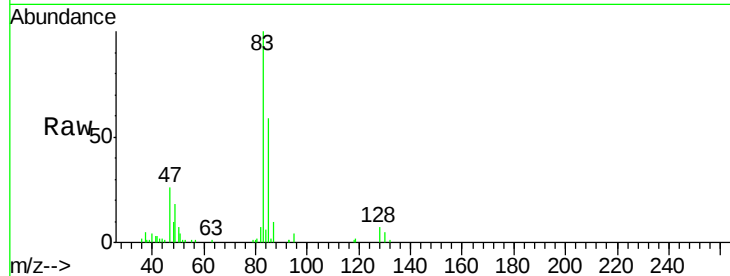
#29
Chloroform
Concen: 0.244 ppbv m
RT: 5.85 min Scan# 905
Delta R.T. -0.00 min
Lab File: VL033571.D
Acq: 10 Apr 2019 19:38

Instrument :
MSVOA_L
ClientSampleId :
IA2

Tot Ion: 83 Resp: 34768
Ion Ratio Lower Upper
83 100
85 59.0 52.6 79.0

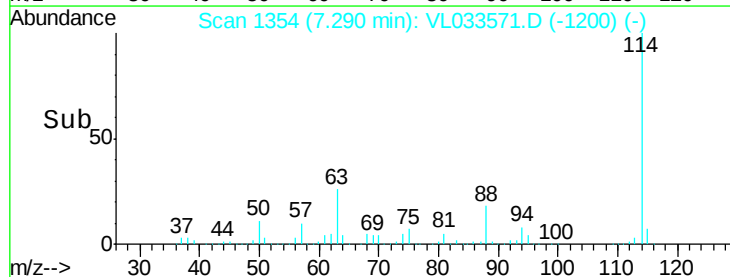
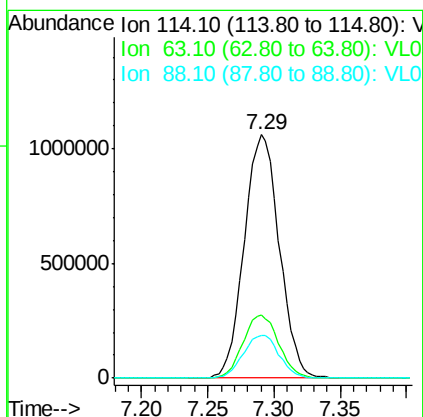
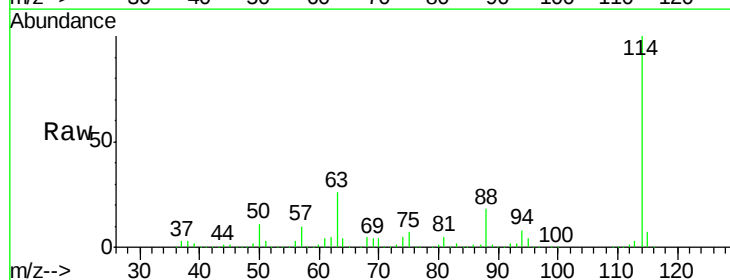
Manual Integrations
APPROVED

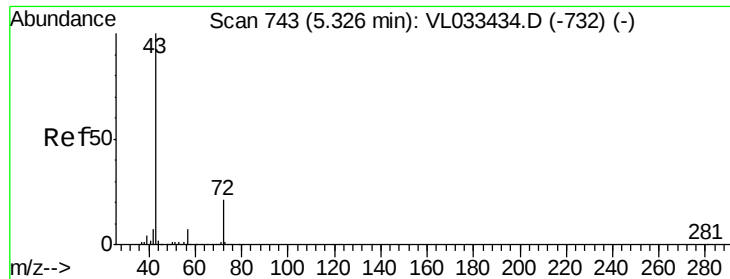
MMDadoda
4/11/2019 1:01:22 PM



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.29 min Scan# 1354
Delta R.T. -0.00 min
Lab File: VL033571.D
Acq: 10 Apr 2019 19:38

Tgt Ion: 114 Resp: 1951693
Ion Ratio Lower Upper
114 100
63 26.4 21.5 32.3
88 18.1 14.5 21.7





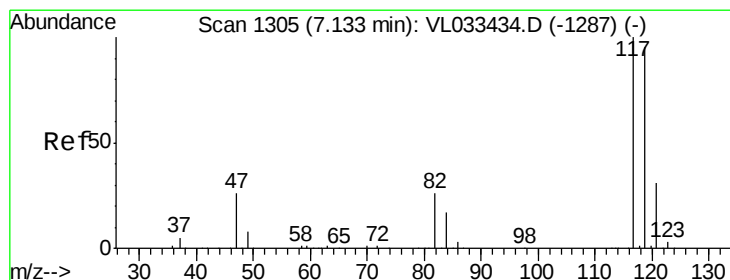
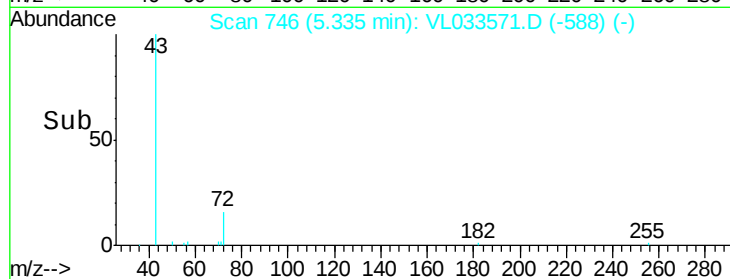
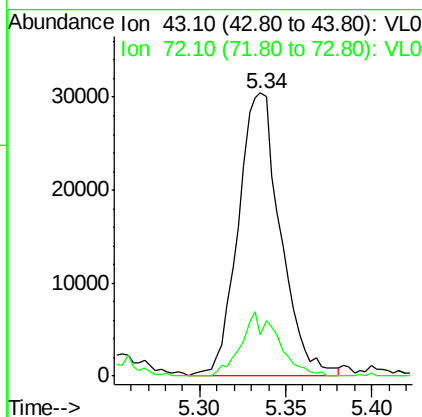
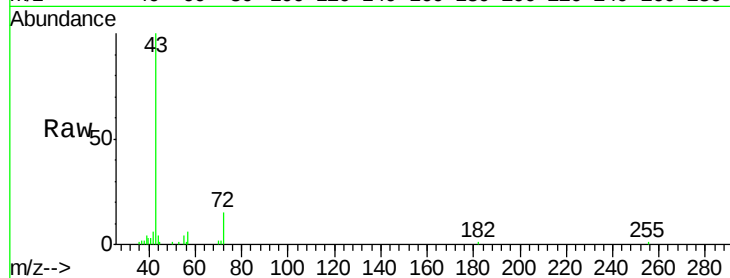
#34
2-Butanone
Concen: 0.444 ppbv
RT: 5.34 min Scan# 746
Delta R.T. 0.01 min
Lab File: VL033571.D
Acq: 10 Apr 2019 19:38

Instrument :
MSVOA_L
ClientSampleId :
IA2

Tot Ion: 43 Resp: 52009
Ion Ratio Lower Upper
43 100
72 19.8 17.4 26.2

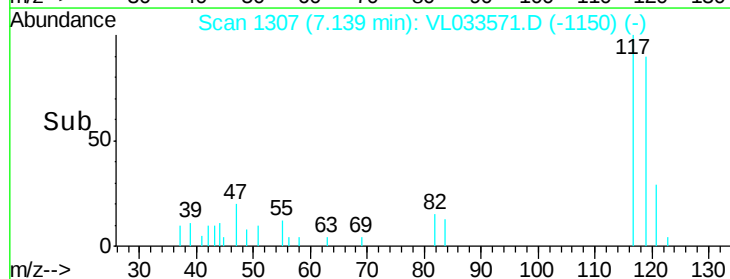
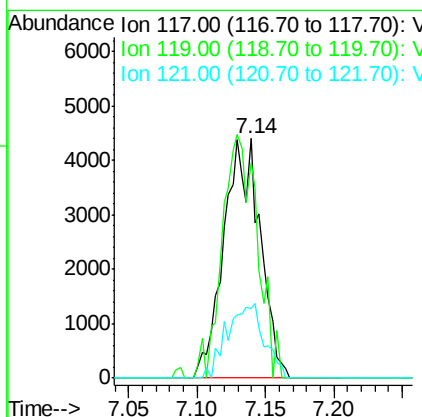
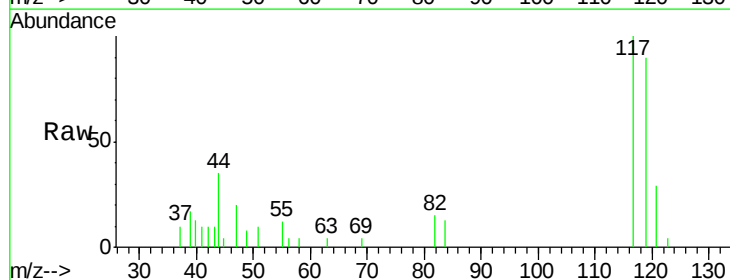
Manual Integrations
APPROVED

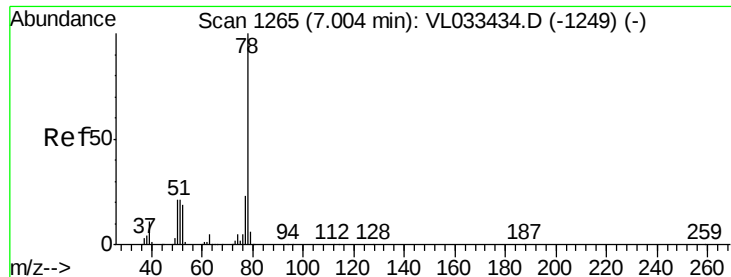
MMDadoda
4/11/2019 1:01:22 PM



#35
Carbon Tetrachloride
Concen: 0.059 ppbv m
RT: 7.14 min Scan# 1307
Delta R.T. 0.01 min
Lab File: VL033571.D
Acq: 10 Apr 2019 19:38

Tgt Ion: 117 Resp: 8100
Ion Ratio Lower Upper
117 100
119 89.8 75.8 113.8
121 29.0 24.7 37.1





#36

Benzene

Concen: 0.782 ppbv

RT: 7.00 min Scan# 1264

Delta R.T. -0.00 min

Lab File: VL033571.D

Acq: 10 Apr 2019 19:38

Instrument :

MSVOA_L

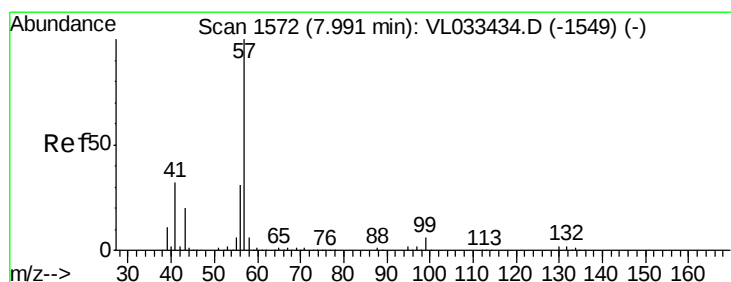
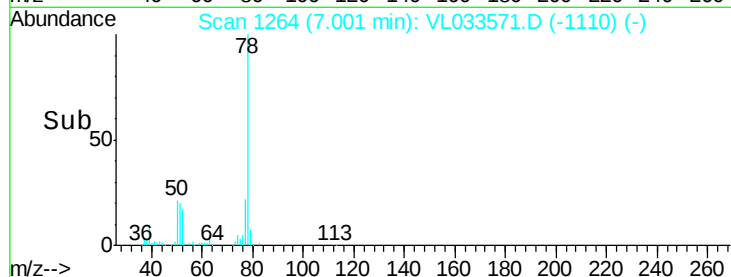
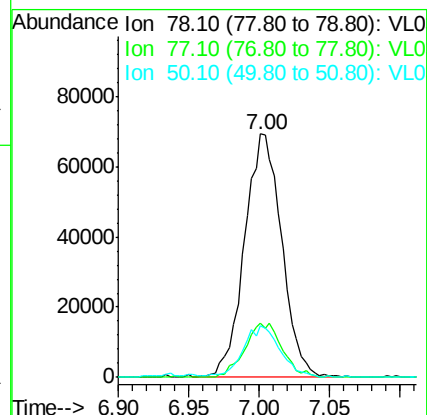
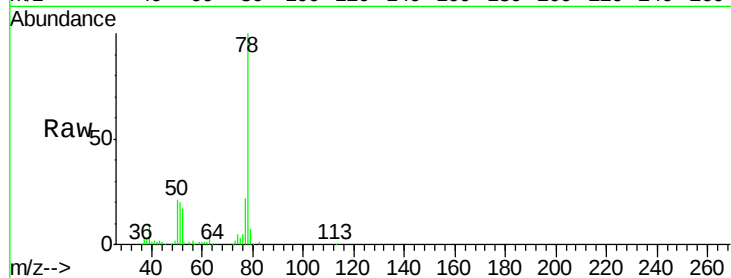
ClientSampleId :

IA2

Tot Ion:	78	Resp:	128045
Ion	Ratio	Lower	Upper
78	100		
77	22.1	18.1	27.1
50	21.1	16.7	25.1

Manual Integrations
APPROVED

MMDadoda
4/11/2019 1:01:22 PM



#44

2,2,4-Trimethylpentane

Concen: 0.524 ppbv m

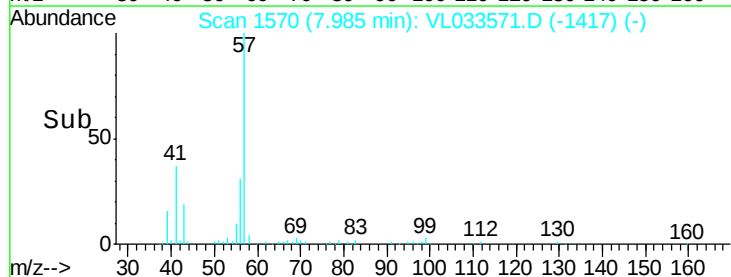
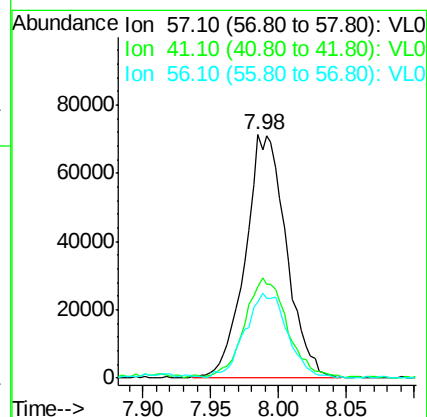
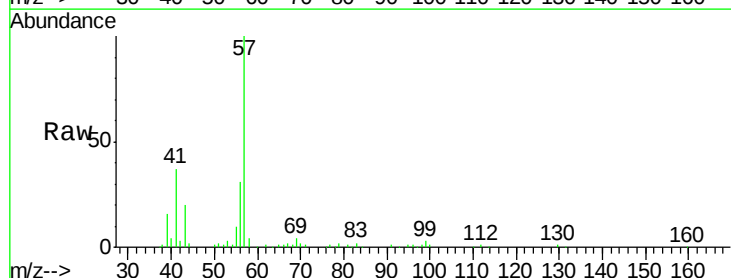
RT: 7.98 min Scan# 1570

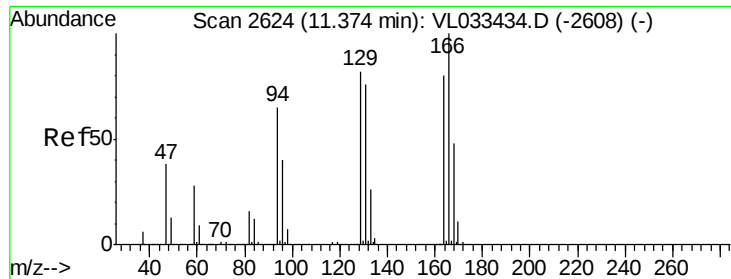
Delta R.T. -0.01 min

Lab File: VL033571.D

Acq: 10 Apr 2019 19:38

Tgt Ion:	57	Resp:	150067
Ion	Ratio	Lower	Upper
57	100		
41	43.7	26.0	39.0#
56	36.5	24.6	37.0





#52

Tetrachloroethene

Concen: 1.561 ppbv m

RT: 11.37 min Scan# 2622

Delta R.T. -0.01 min

Lab File: VL033571.D

Acq: 10 Apr 2019 19:38

Instrument :

MSVOA_L

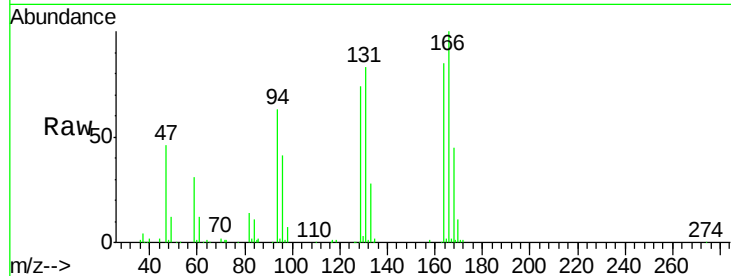
ClientSampled :

IA2

Tot Ion:	164	Resp:	96466
Ion	Ratio	Lower	Upper
164	100		
166	117.1	99.5	149.3
129	86.4	81.4	122.2
131	97.0	75.6	113.4

Manual Integrations
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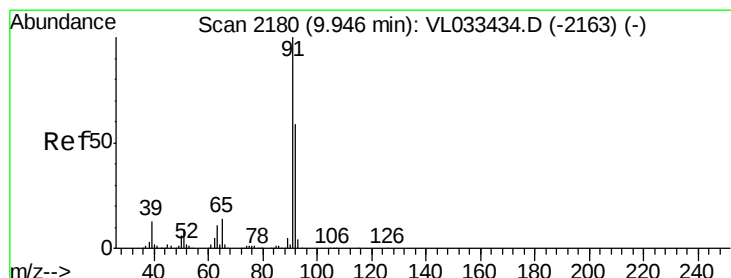
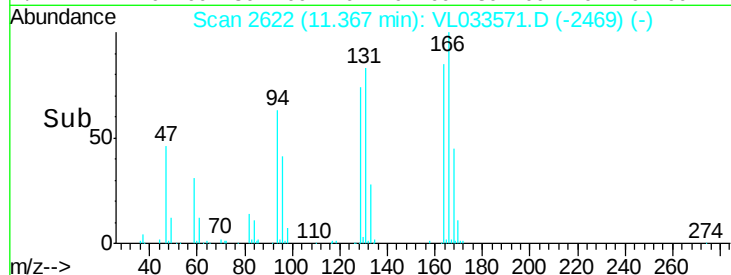
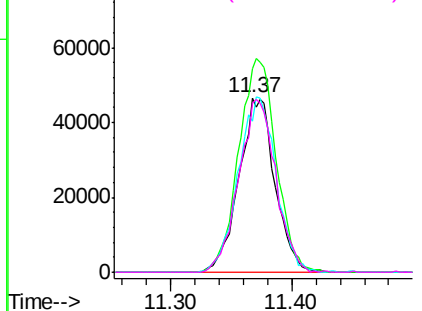


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#53

Toluene

Concen: 2.518 ppbv

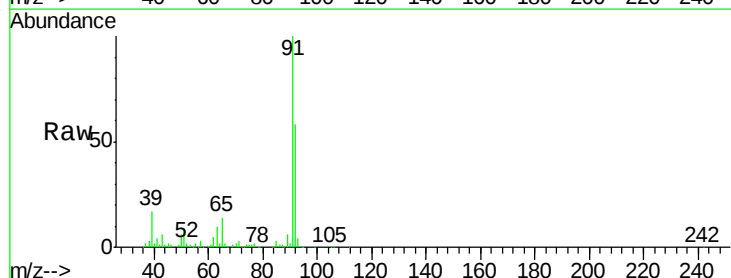
RT: 9.94 min Scan# 2179

Delta R.T. -0.00 min

Lab File: VL033571.D

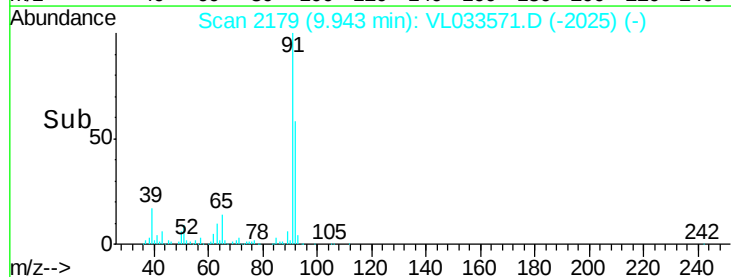
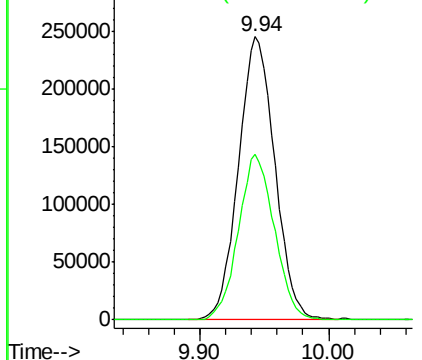
Acq: 10 Apr 2019 19:38

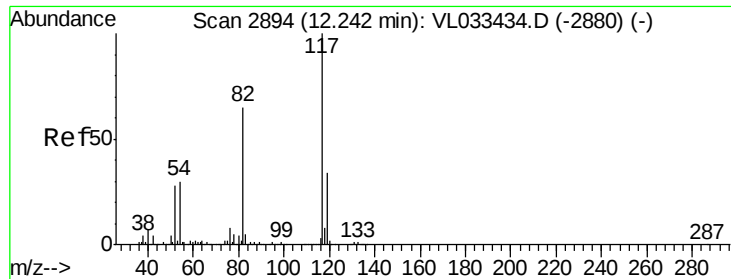
Tgt Ion:	91	Resp:	479191
Ion	Ratio	Lower	Upper
91	100		
92	58.2	47.4	71.0



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0





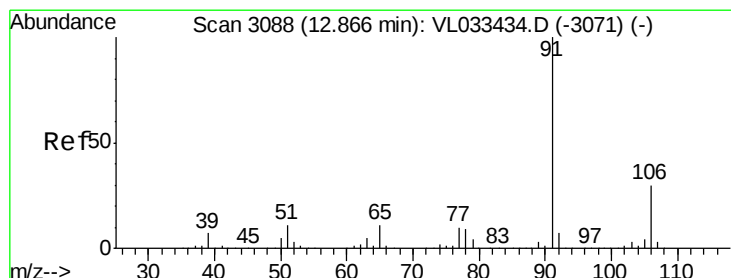
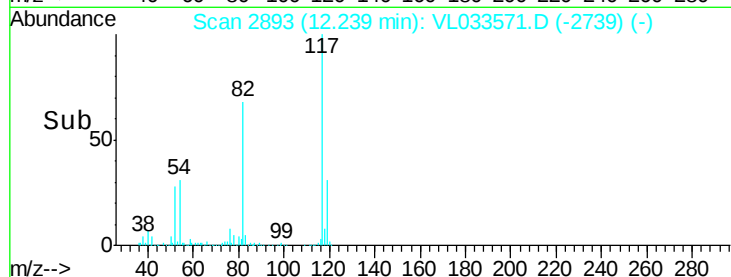
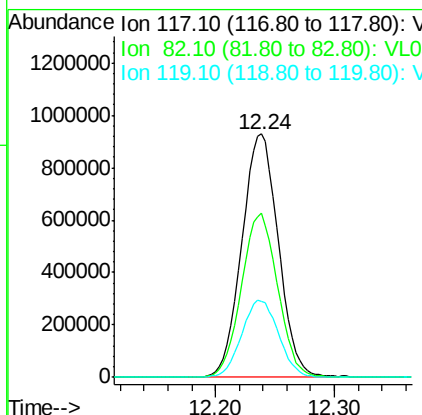
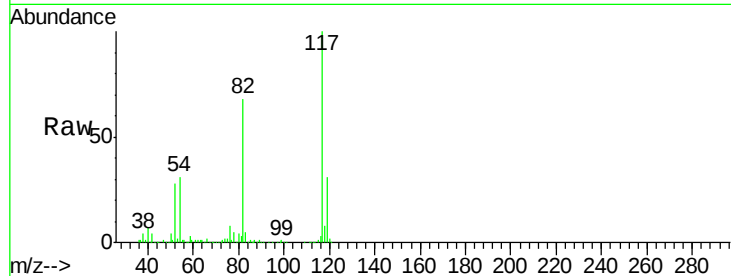
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.24 min Scan# 2893
Delta R.T. -0.00 min
Lab File: VL033571.D
Acq: 10 Apr 2019 19:38

Instrument :
MSVOA_L
ClientSampleId :
IA2

Tot Ion	Ratio	Lower	Upper
117	100		
82	66.8	51.5	77.3
119	32.2	25.5	38.3

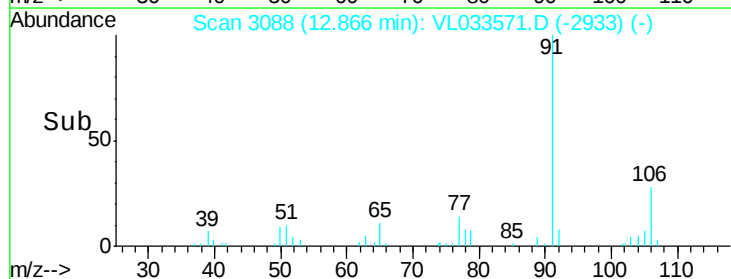
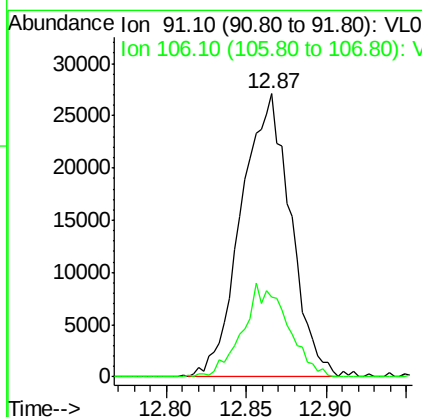
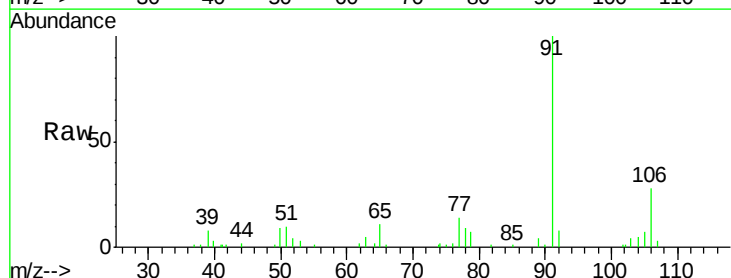
Manual Integrations
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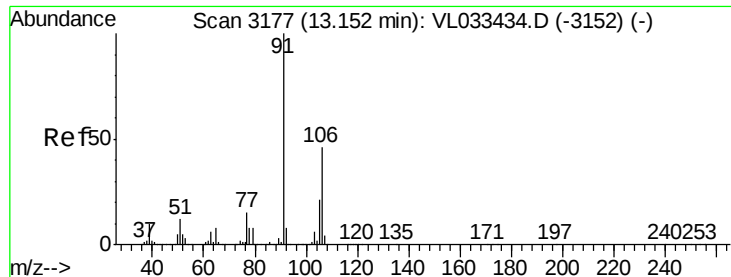
MMDadoda
4/11/2019 1:01:22 PM



#58
Ethyl Benzene
Concen: 0.217 ppbv
RT: 12.87 min Scan# 3088
Delta R.T. -0.00 min
Lab File: VL033571.D
Acq: 10 Apr 2019 19:38

Tgt Ion	Ratio	Lower	Upper
91	100		
106	28.4	23.8	35.6





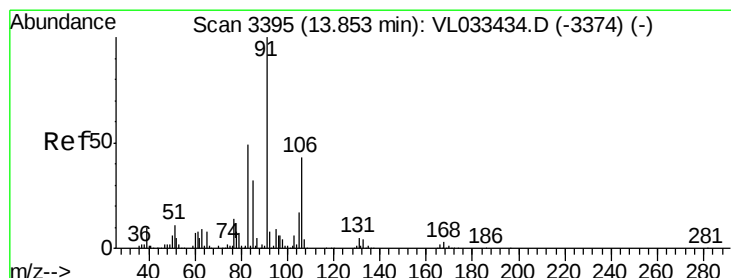
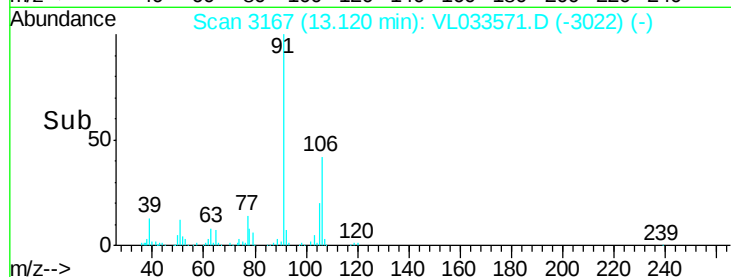
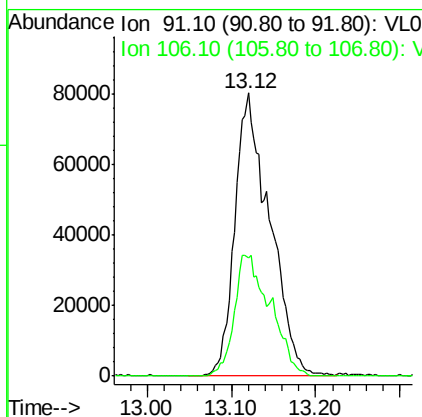
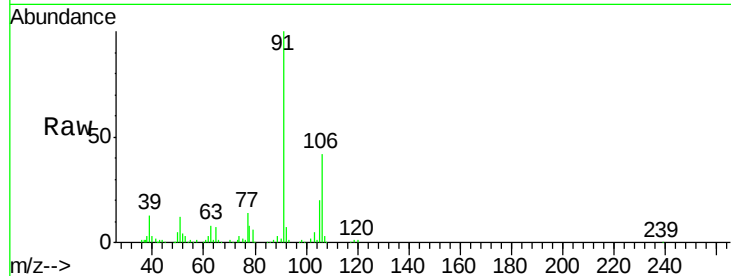
#59
m/p-Xylene
Concen: 0.977 ppbv m
RT: 13.12 min Scan# 3167
Delta R.T. -0.03 min
Lab File: VL033571.D
Acq: 10 Apr 2019 19:38

Instrument :
MSVOA_L
ClientSampled :
IA2

Tot Ion	Ion	Ratio	Resp	Lower	Upper
91	100		230449		
106	0.0		0.0	0.0	0.0

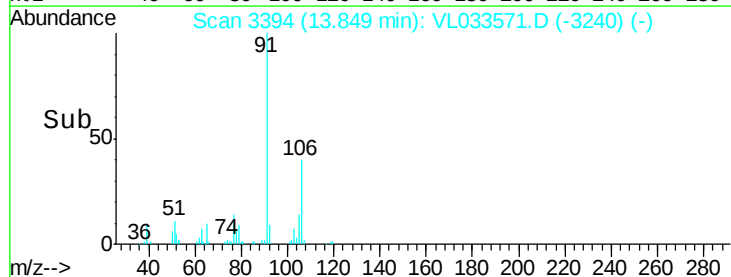
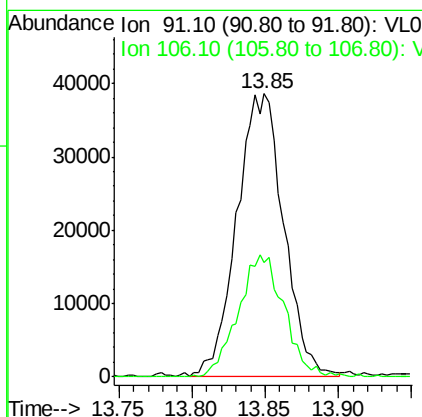
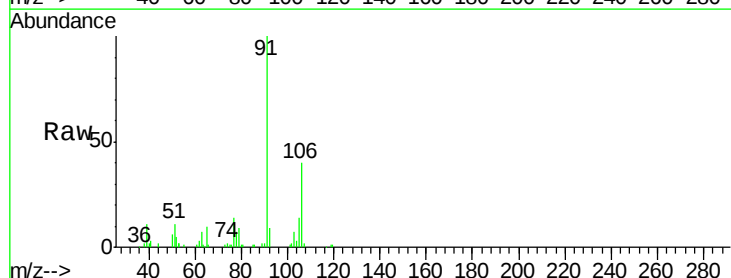
Manual Integrations
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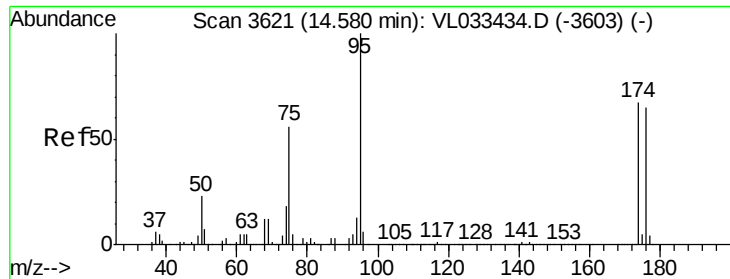
MMDadoda
4/11/2019 1:01:22 PM



#60
o-Xylene
Concen: 0.378 ppbv m
RT: 13.85 min Scan# 3394
Delta R.T. -0.00 min
Lab File: VL033571.D
Acq: 10 Apr 2019 19:38

Tgt Ion	Ion	Ratio	Resp	Lower	Upper
91	100		86312		
106	41.9		21.4	64.3	





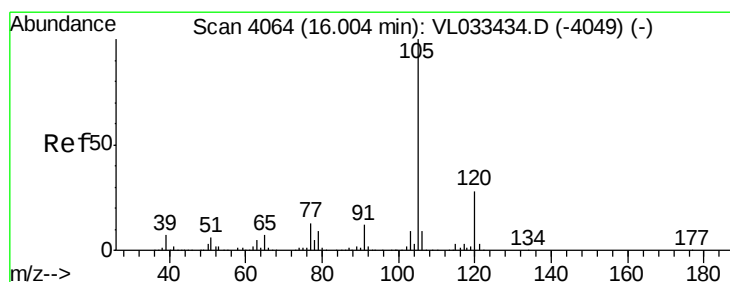
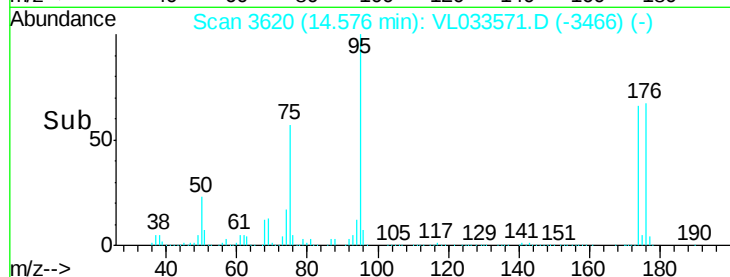
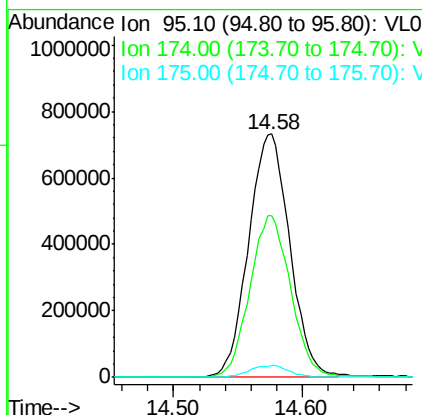
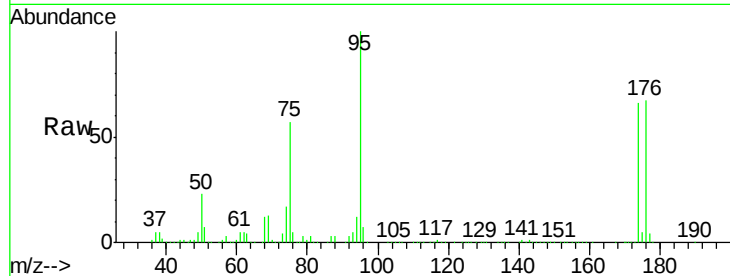
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.493 ppbv
 RT: 14.58 min Scan# 3620
 Delta R.T. -0.00 min
 Lab File: VL033571.D
 Acq: 10 Apr 2019 19:38

Instrument :
 MSVOA_L
 ClientSampled :
 IA2

Tot Ion	Ratio	Lower	Upper
95	100		
174	66.5	52.9	79.3
175	4.8	3.8	5.6

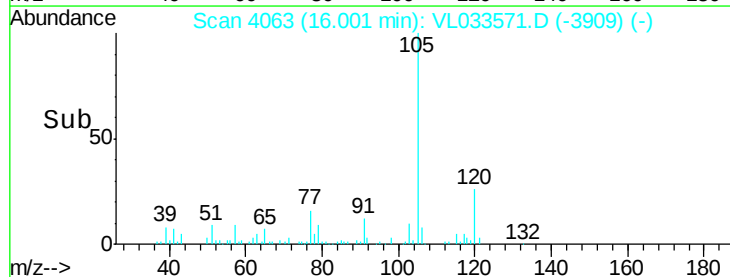
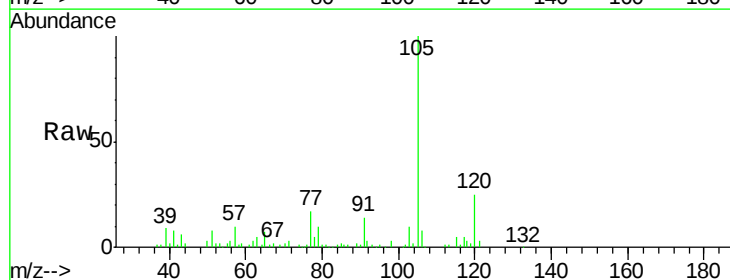
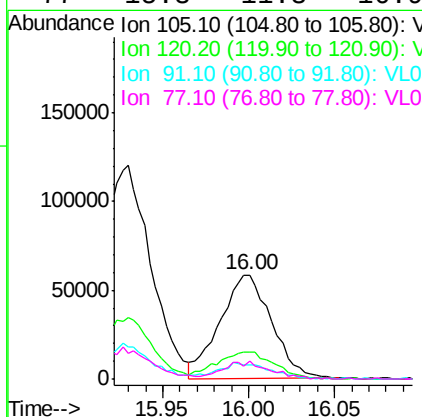
Manual Integrations
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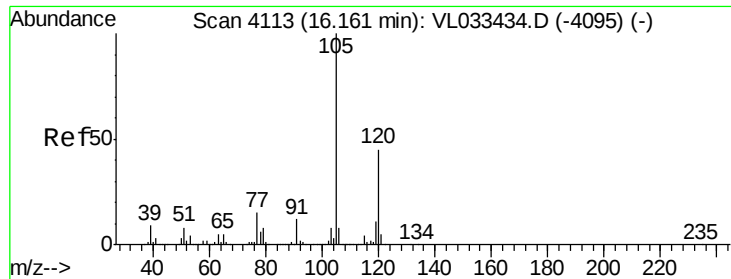
MMDadoda
 4/11/2019 1:01:22 PM



#72
 4-Ethyltoluene
 Concen: 0.473 ppbv
 RT: 16.00 min Scan# 4063
 Delta R.T. -0.00 min
 Lab File: VL033571.D
 Acq: 10 Apr 2019 19:38

Tgt Ion	Ratio	Lower	Upper
105	100		
120	29.6	23.2	34.8
91	16.6	10.4	15.6
77	15.3	11.3	16.9





#73

1,3,5-Trimethylbenzene

Concen: 0.396 ppbv

RT: 16.16 min Scan# 4113

Delta R.T. -0.00 min

Lab File: VL033571.D

Acq: 10 Apr 2019 19:38

Instrument :

MSVOA_L

ClientSampled :

IA2

Tot Ion:105 Resp: 97078

Ion Ratio Lower Upper

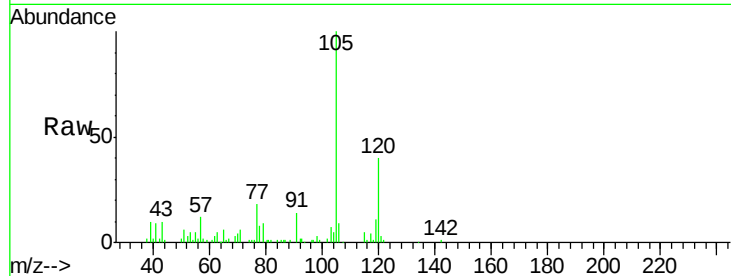
105 100

120 43.3 35.7 53.5

Manual Integrations
APPROVED

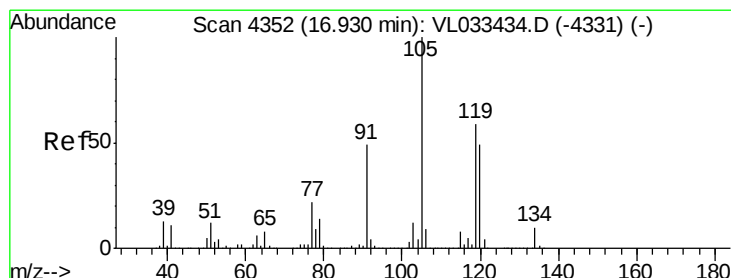
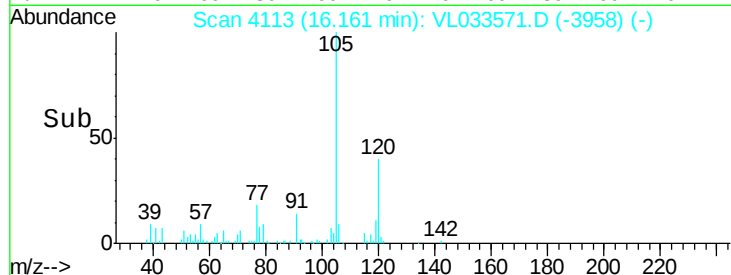
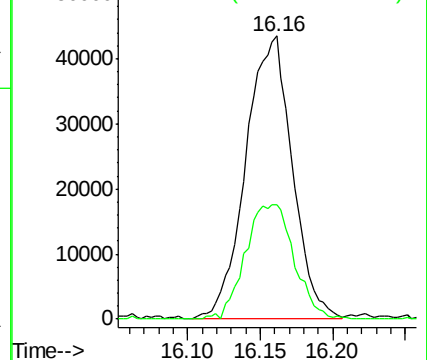
MMDadoda

4/11/2019 1:01:22 PM



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: 1.591 ppbv

RT: 16.92 min Scan# 4350

Delta R.T. -0.01 min

Lab File: VL033571.D

Acq: 10 Apr 2019 19:38

Tgt Ion:105 Resp: 418466

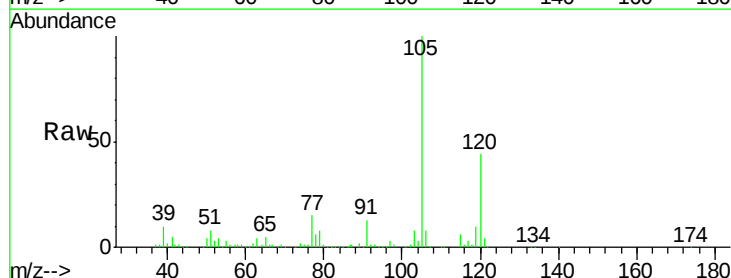
Ion Ratio Lower Upper

105 100

120 44.1 39.0 58.6

91 13.1 40.0 60.0#

77 15.5 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

