

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL052919\
 Data File : VL033846.D
 Acq On : 29 May 2019 22:10
 Operator : SY/AP
 Sample : K3067-02
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-15-20190522-0

Manual Integrations
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Quant Time: May 30 02:34:34 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL051719AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri May 1
 QLast Update : Fri May 17 08:15:41 2019
 Response via : Initial Calibration

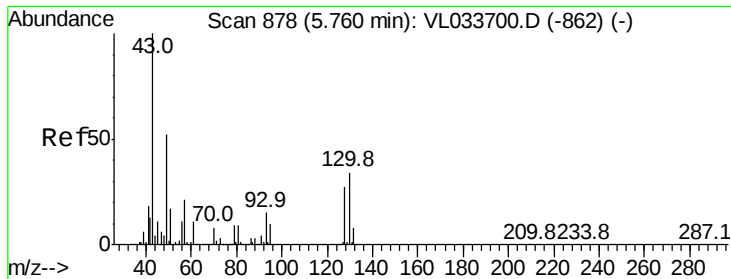
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.76	49	695271	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.28	114	1753811	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.23	117	1782502	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.57	95	1460084	10.10	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.00%

Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.08	85	17125	0.117 ppbv	96
3) Chlorodifluoromethane	3.01	51	16328m	0.205 ppbv	
4) Chloromethane	3.17	50	10792	0.237 ppbv	97
10) Heptane	8.24	43	24355m	0.254 ppbv	
11) Trichlorofluoromethane	4.00	101	43179	0.309 ppbv	85
12) 1,1,2-Trichlorotrifluoroet	4.55	101	9904m	0.101 ppbv	
13) Ethanol	3.65	45	201049	18.363 ppbv	99
15) Acetone	3.90	43	719694	7.461 ppbv	98
17) tert-Butyl alcohol	4.37	59	13142m	0.168 ppbv	
19) Isopropyl Alcohol	4.03	45	245725	3.951 ppbv #	94
20) Methylene Chloride	4.40	84	146758	3.951 ppbv	98
26) Hexane	5.77	57	253436	3.479 ppbv #	40
27) Carbon Disulfide	4.62	76	23491	0.235 ppbv #	91
29) Chloroform	5.84	83	271007	2.020 ppbv	99
32) 1,1,1-Trichloroethane	6.61	97	5644m	0.042 ppbv	
34) 2-Butanone	5.33	43	106725	0.982 ppbv	97
35) Carbon Tetrachloride	7.12	117	6153m	0.044 ppbv	
36) Benzene	7.00	78	61704	0.387 ppbv	98
38) Trichloroethene	7.96	130	7529m	0.127 ppbv	
44) 2,2,4-Trimethylpentane	7.99	57	61387m	0.228 ppbv	
52) Tetrachloroethene	11.36	164	101307	1.806 ppbv	93
53) Toluene	9.94	91	892307	5.186 ppbv	99
58) Ethyl Benzene	12.86	91	30530m	0.129 ppbv	
59) m/p-Xylene	13.12	91	96666m	0.468 ppbv	
60) o-Xylene	13.83	91	44303m	0.213 ppbv	
74) 1,2,4-Trimethylbenzene	16.92	105	40897m	0.162 ppbv	

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



#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 877

Delta R.T. -0.00 min

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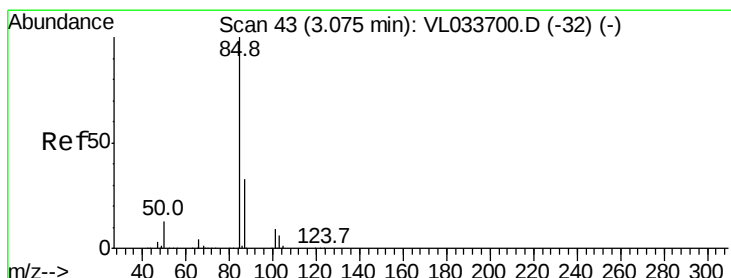
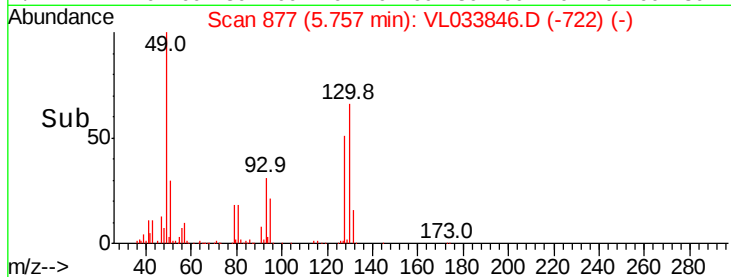
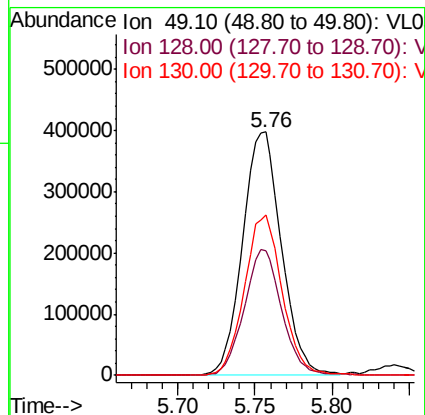
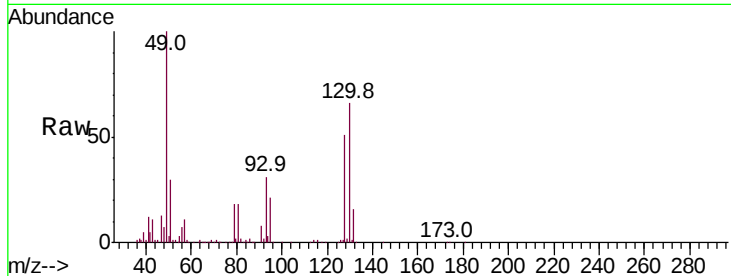
SG-15-20190522-0

Tot Ion	Ratio	Lower	Upper
49	100		
128	50.3	25.2	75.6
130	64.1	32.5	97.5

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#2

Dichlorodifluoromethane

Concen: 0.117 ppbv

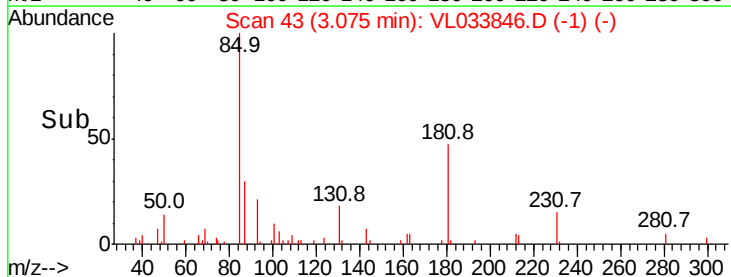
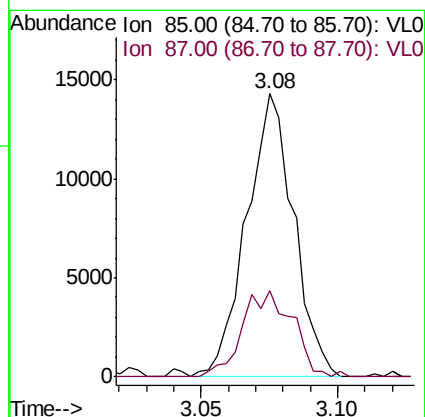
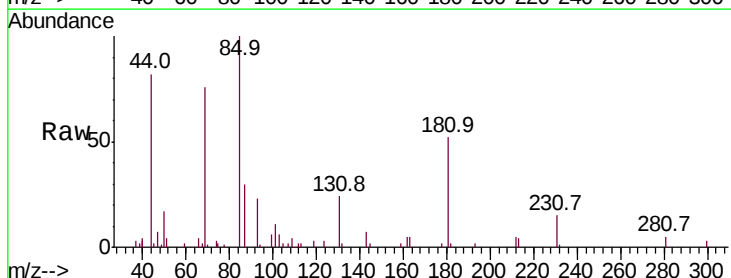
RT: 3.08 min Scan# 43

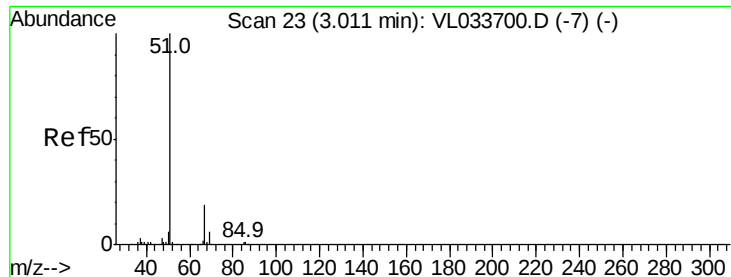
Delta R.T. 0.00 min

Lab File: VL033846.D

Acq: 29 May 2019 22:10

Tgt Ion	Ratio	Lower	Upper
85	100		
87	30.4	26.3	39.5





#3

Chlorodifluoromethane

Concen: 0.205 ppbv

RT: 3.01 min Scan# 23

Delta R.T. 0.00 min

Lab File: VL033846.D

Acq: 29 May 2019 22:10

Instrument :

MSVOA_L

ClientSampleId :

SG-15-20190522-0

Tot Ion: 51 Resp: 16328

Ion Ratio Lower Upper

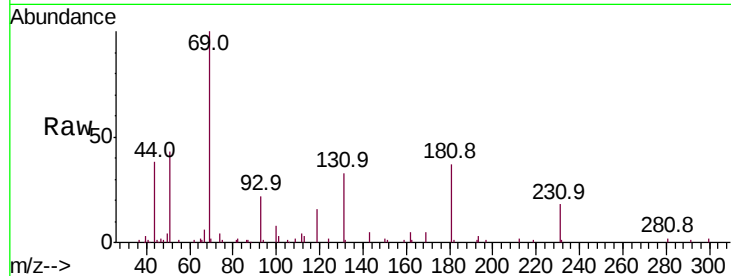
51 100

67 18.7 15.6 23.4

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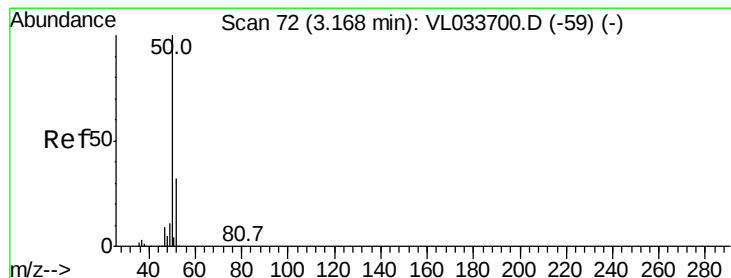
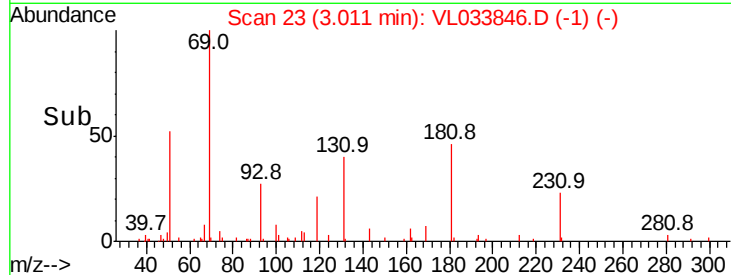
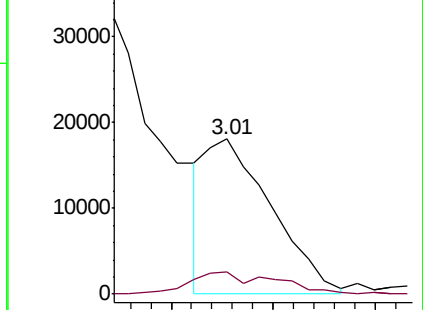
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.237 ppbv

RT: 3.17 min Scan# 72

Delta R.T. 0.00 min

Lab File: VL033846.D

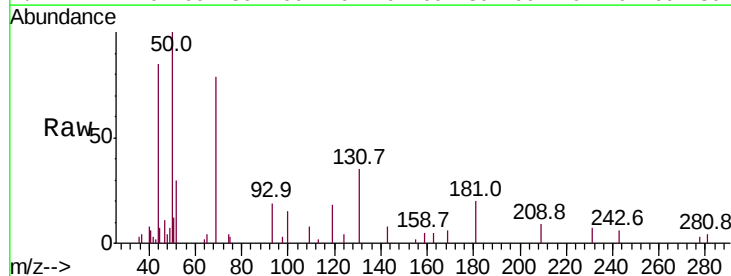
Acq: 29 May 2019 22:10

Tgt Ion: 50 Resp: 10792

Ion Ratio Lower Upper

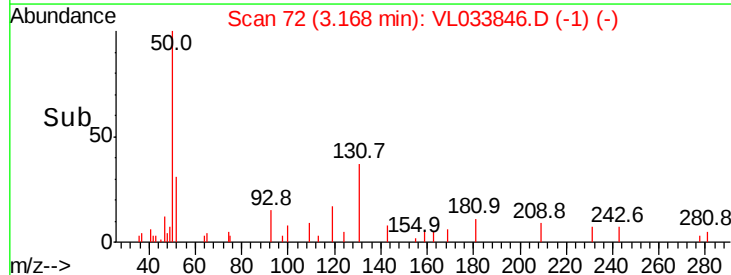
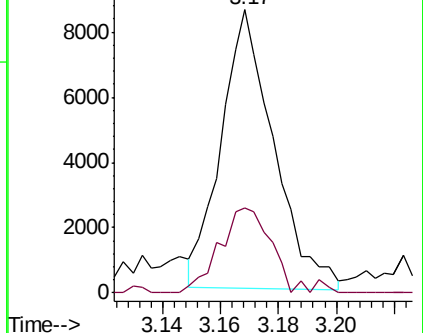
50 100

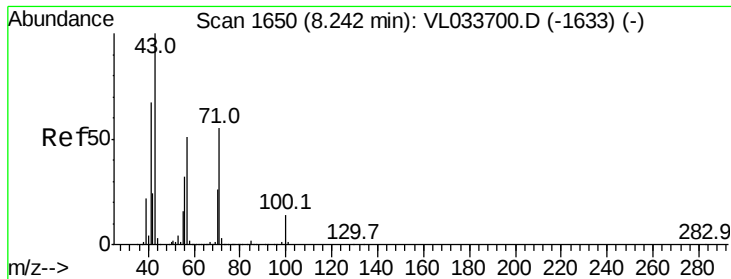
52 33.9 25.7 38.5



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#10

Heptane

Concen: 0.254 ppbv m

RT: 8.24 min Scan# 1648

Delta R.T. -0.01 min

Lab File: VL033846.D

Acq: 29 May 2019 22:10

Instrument :

MSVOA_L

ClientSampleId :

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Tot Ion: 43 Resp: 24355

Ion Ratio Lower Upper

43 100

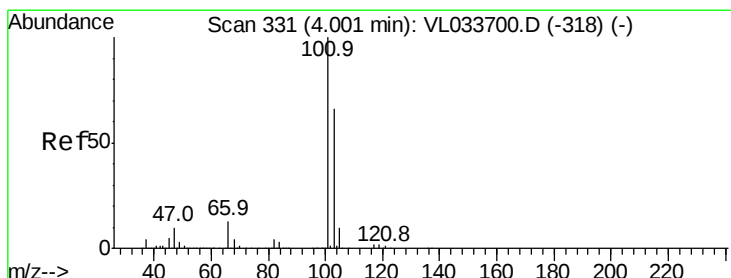
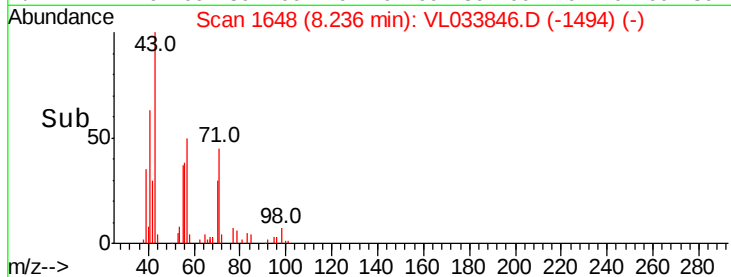
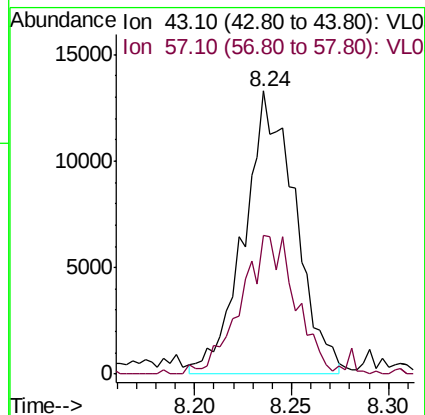
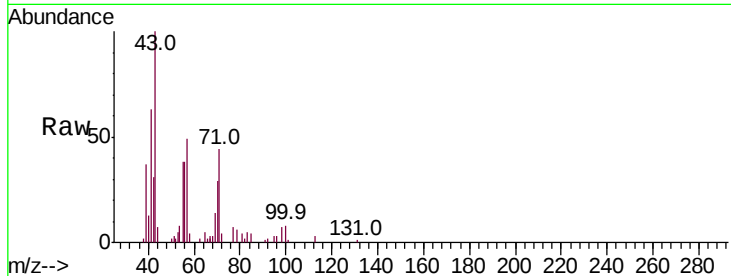
57 53.7 41.4 62.0

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#11

Trichlorofluoromethane

Concen: 0.309 ppbv

RT: 4.00 min Scan# 331

Delta R.T. 0.00 min

Lab File: VL033846.D

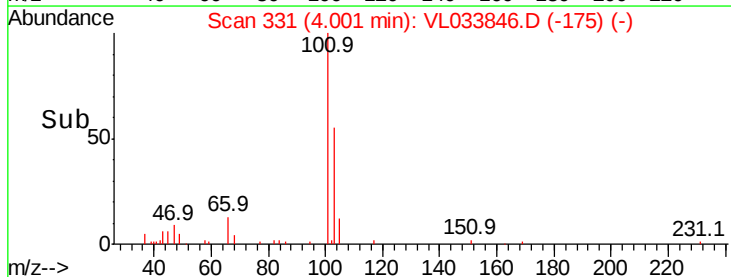
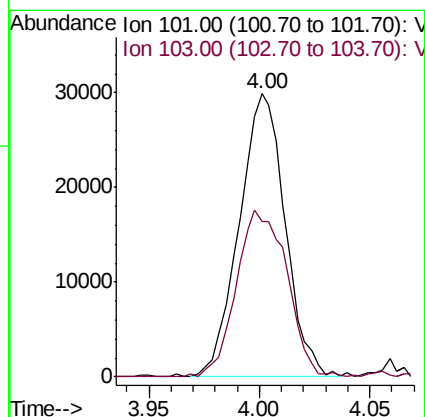
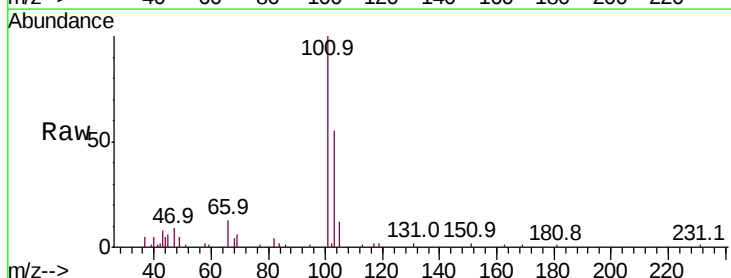
Acq: 29 May 2019 22:10

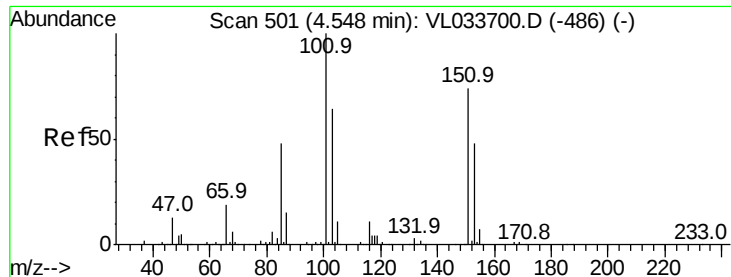
Tgt Ion: 101 Resp: 43179

Ion Ratio Lower Upper

101 100

103 53.9 52.6 78.8





#12

1,1,2-Trichlorotrifluoroethane

Concen: 0.101 ppbv m

RT: 4.55 min Scan# 502

Delta R.T. 0.00 min

Lab File: VL033846.D

Acq: 29 May 2019 22:10

Instrument :

MSVOA_L

ClientSampleId :

SG-15-20190522-0

Tot Ion:101 Resp: 9904

Ion Ratio Lower Upper

101 100

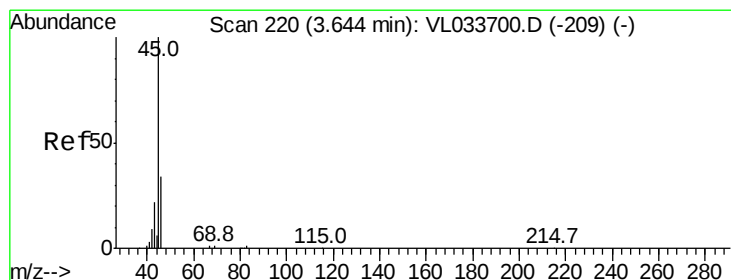
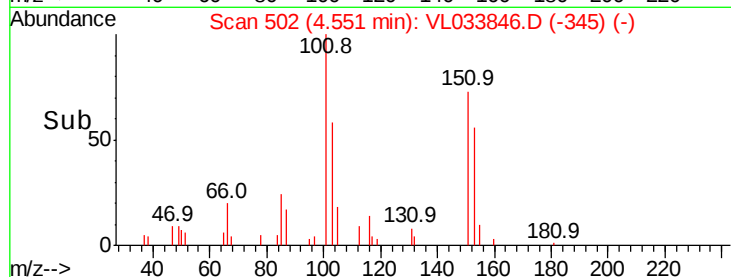
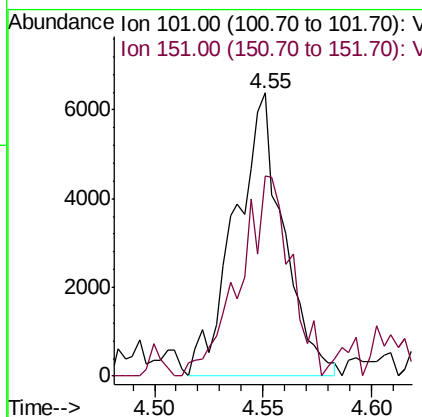
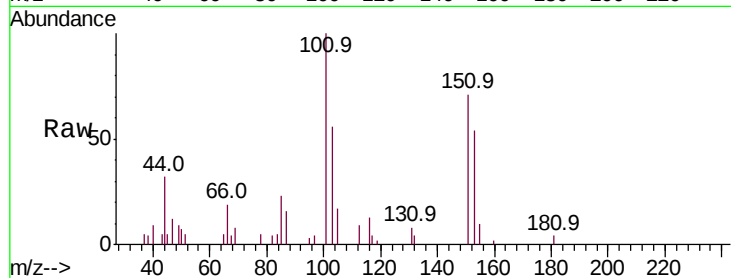
151 2.9 58.2 87.4#

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#13

Ethanol

Concen: 18.363 ppbv

RT: 3.65 min Scan# 222

Delta R.T. 0.01 min

Lab File: VL033846.D

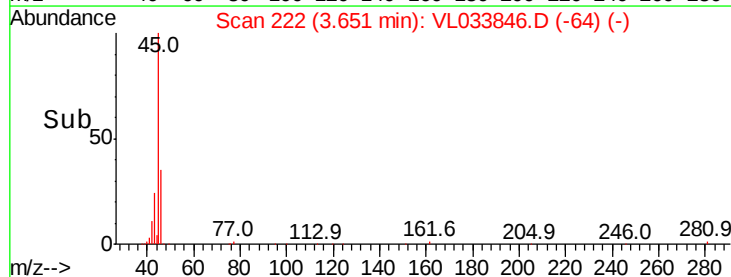
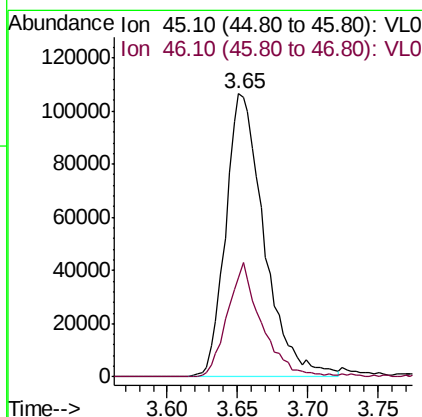
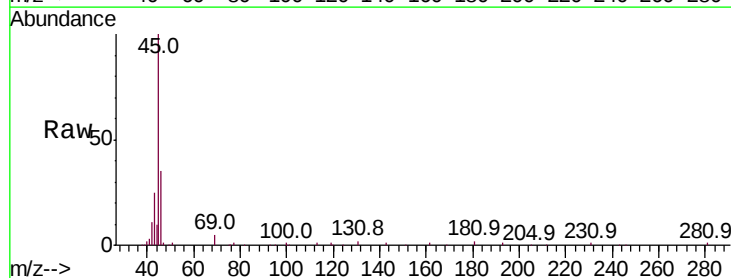
Acq: 29 May 2019 22:10

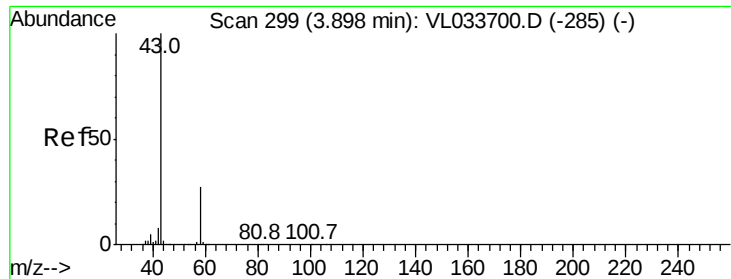
Tgt Ion: 45 Resp: 201049

Ion Ratio Lower Upper

45 100

46 36.3 14.8 59.0





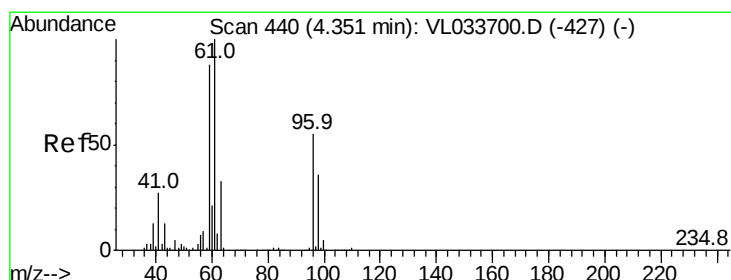
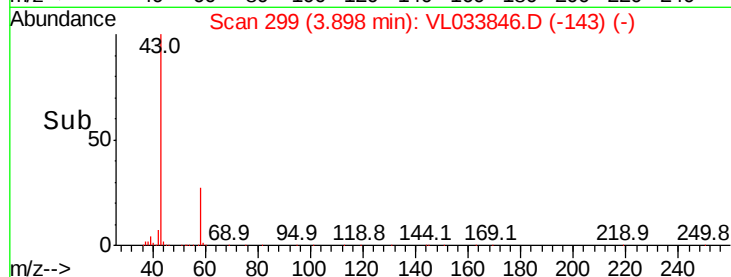
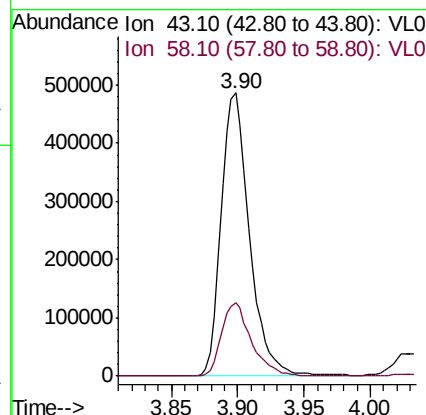
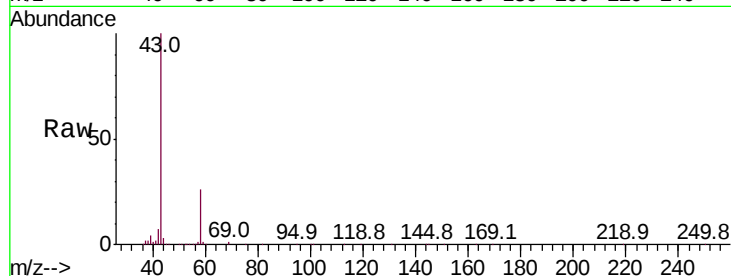
#15
Acetone
Concen: 7.461 ppbv
RT: 3.90 min Scan# 299
Delta R.T. 0.00 min
Lab File: VL033846.D
Acq: 29 May 2019 22:10

Instrument :
MSVOA_L
ClientSampleId :
SG-15-20190522-0

Tot Ion: 43 Resp: 719694
Ion Ratio Lower Upper
43 100
58 27.7 21.3 31.9

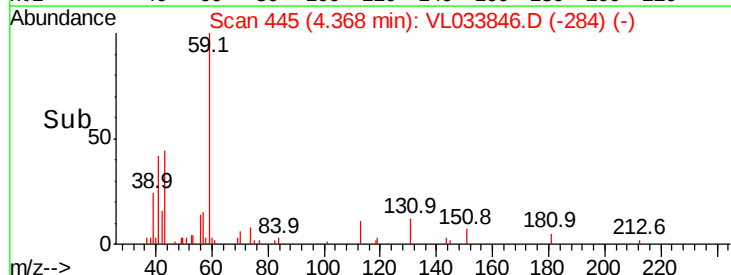
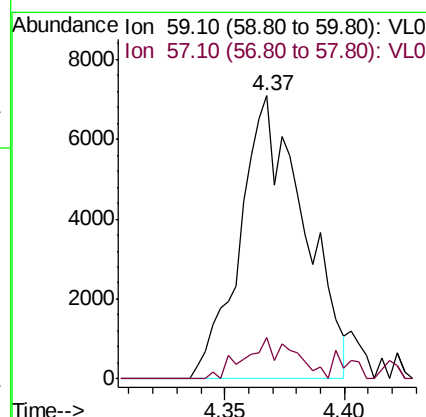
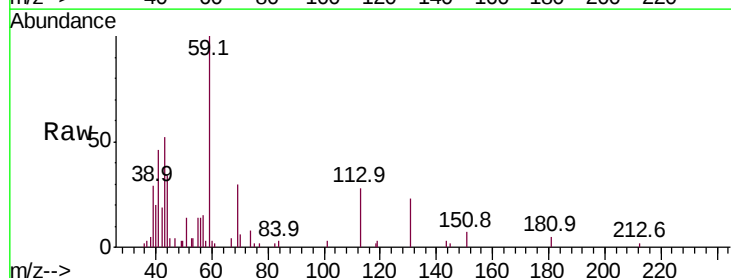
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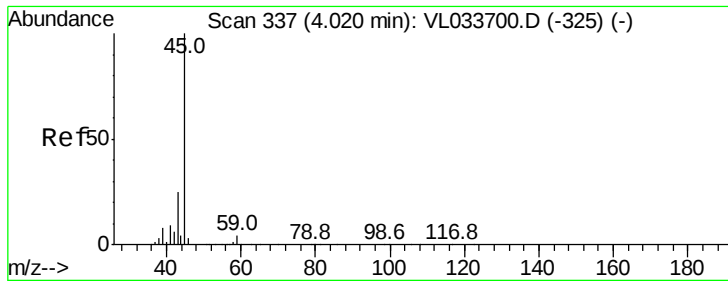
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#17
tert-Butyl alcohol
Concen: 0.168 ppbv m
RT: 4.37 min Scan# 445
Delta R.T. 0.02 min
Lab File: VL033846.D
Acq: 29 May 2019 22:10

Tgt Ion: 59 Resp: 13142
Ion Ratio Lower Upper
59 100
57 13.8 8.4 12.6#





#19

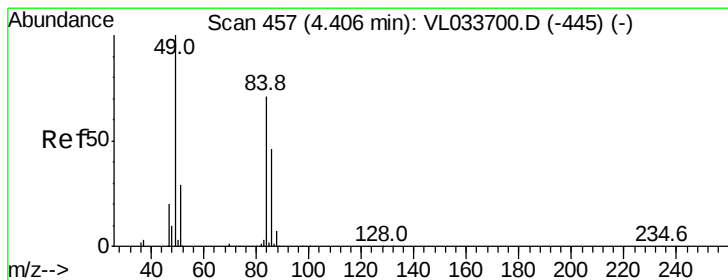
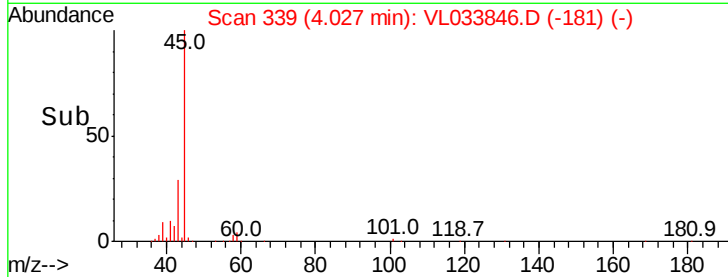
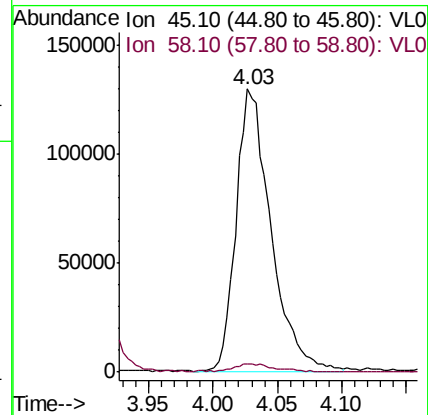
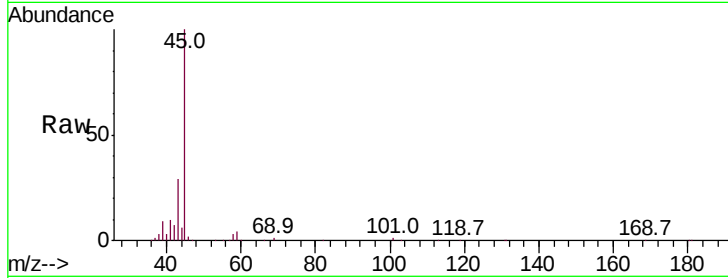
Isopropyl Alcohol
 Concen: 3.951 ppbv
 RT: 4.03 min Scan# 339
 Delta R.T. 0.01 min
 Lab File: VL033846.D
 Acq: 29 May 2019 22:10

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-15-20190522-0

Tot Ion	Ratio	Resp	Lower	Upper
45	100			
58	4.2	1.6	2.4#	

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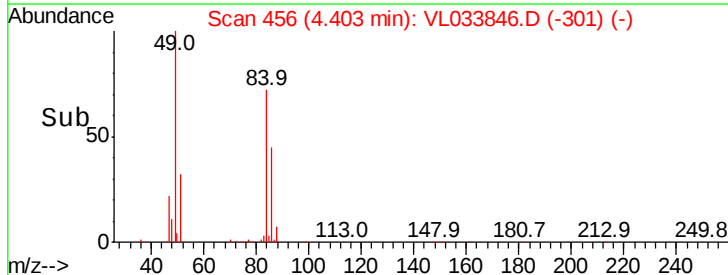
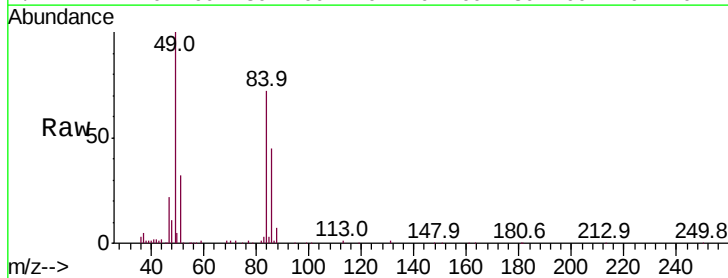
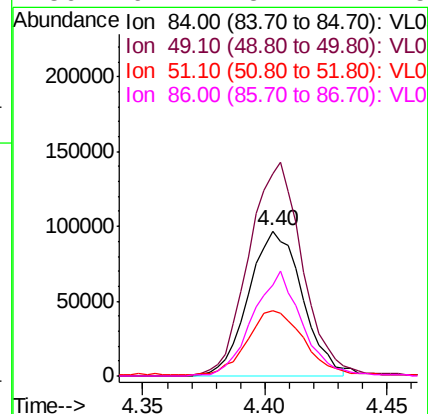
apatel
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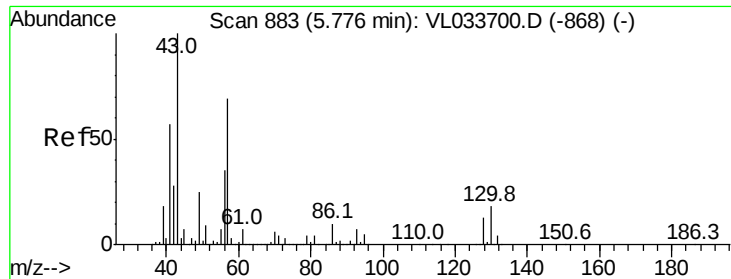


#20

Methylene Chloride
 Concen: 3.951 ppbv
 RT: 4.40 min Scan# 456
 Delta R.T. -0.00 min
 Lab File: VL033846.D
 Acq: 29 May 2019 22:10

Tgt Ion	Ratio	Resp	Lower	Upper
84	100			
49	138.9	112.8	169.2	
51	44.1	33.4	50.0	
86	62.1	51.7	77.5	





#26

Hexane

Concen: 3.479 ppbv

RT: 5.77 min Scan# 882

Delta R.T. -0.00 min

Lab File: VL033846.D

Acq: 29 May 2019 22:10

Instrument :

MSVOA_L

ClientSampleId :

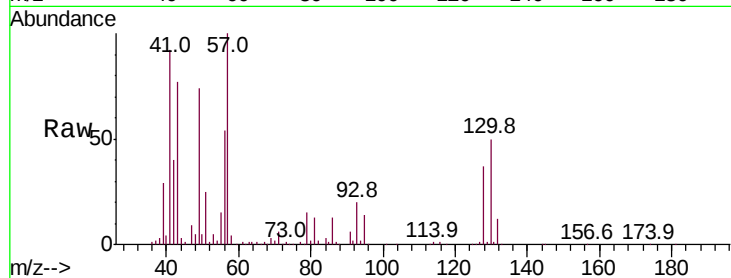
SG-15-20190522-0

Tot Ion: 57 Resp: 253436

Ion	Ratio	Lower	Upper
57	100		
41	96.3	69.8	104.6
43	76.3	181.8	272.6#
56	56.6	42.1	63.1

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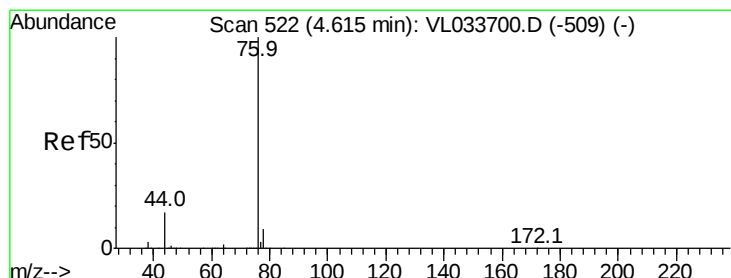
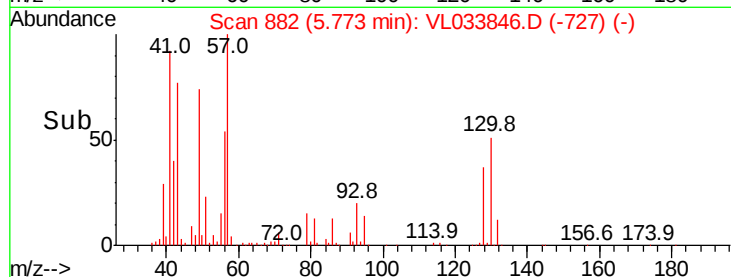
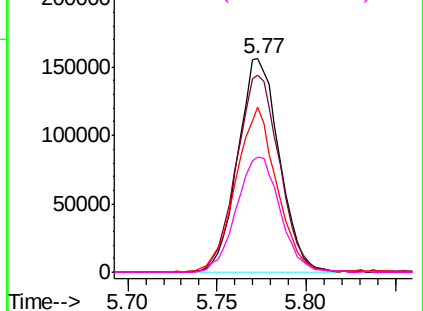
Abundance

Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0



#27

Carbon Disulfide

Concen: 0.235 ppbv

RT: 4.62 min Scan# 522

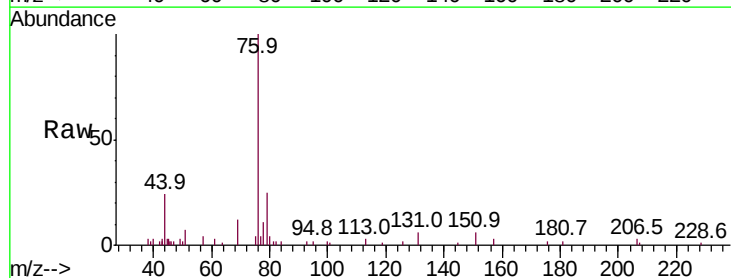
Delta R.T. 0.00 min

Lab File: VL033846.D

Acq: 29 May 2019 22:10

Tgt Ion: 76 Resp: 23491

Ion	Ratio	Lower	Upper
76	100		
44	21.2	13.8	20.8#
78	12.3	7.4	11.0#

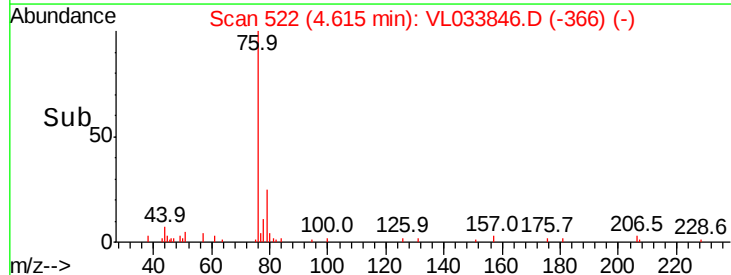
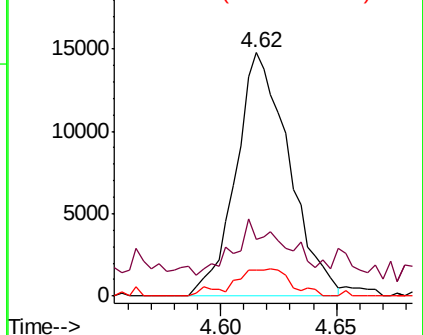


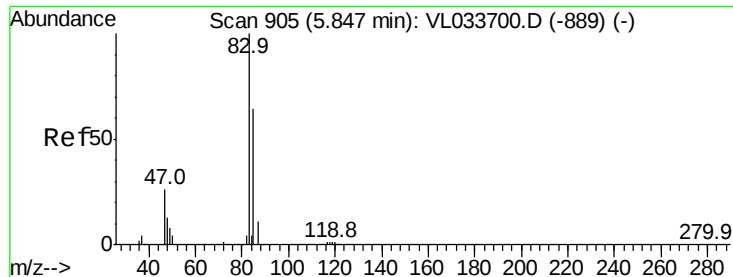
Abundance

Ion 76.00 (75.70 to 76.70): VL0

Ion 44.10 (43.80 to 44.80): VL0

Ion 78.00 (77.70 to 78.70): VL0





#29

Chloroform

Concen: 2.020 ppbv

RT: 5.84 min Scan# 903

Delta R.T. -0.01 min

Lab File: VL033846.D

Acq: 29 May 2019 22:10

Instrument :

MSVOA_L

ClientSampleId :

SG-15-20190522-0

Tot Ion: 83 Resp: 271007

Ion Ratio Lower Upper

83 100

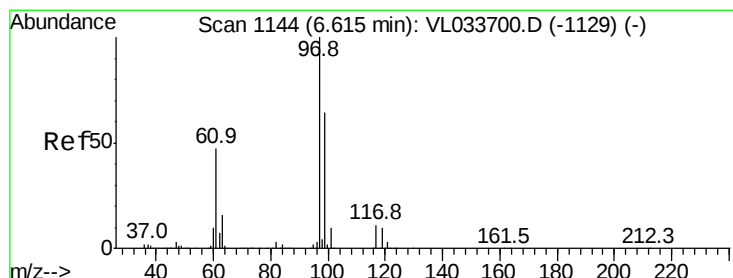
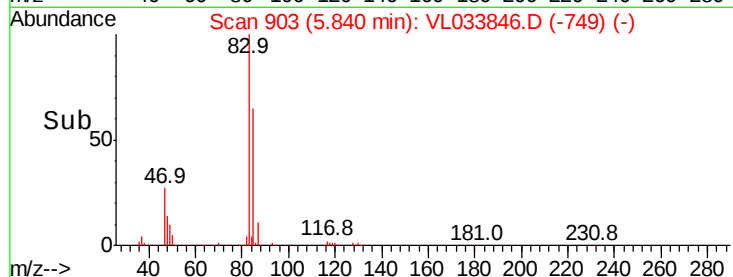
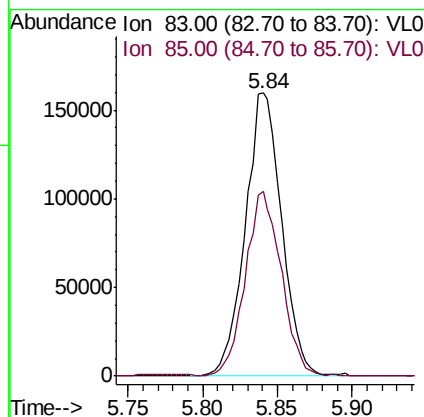
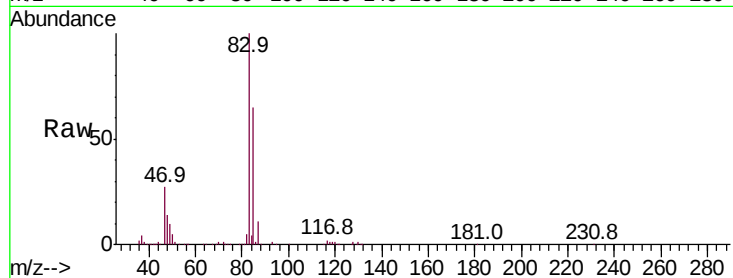
85 64.9 51.5 77.3

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#32

1,1,1-Trichloroethane

Concen: 0.042 ppbv m

RT: 6.61 min Scan# 1143

Delta R.T. -0.00 min

Lab File: VL033846.D

Acq: 29 May 2019 22:10

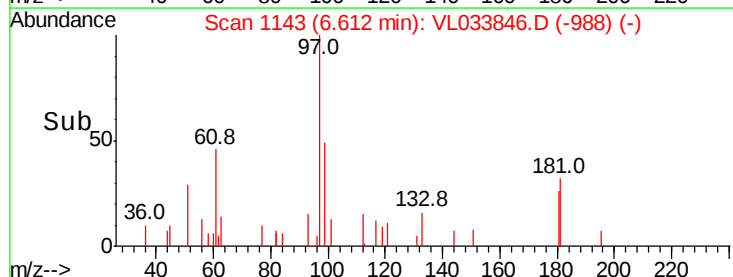
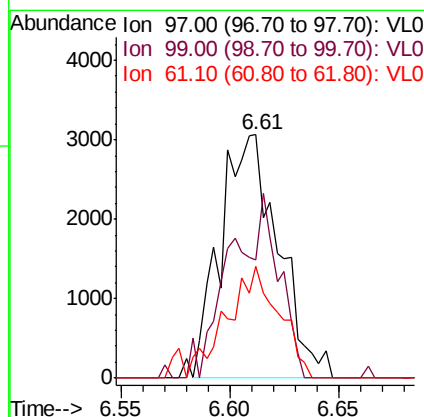
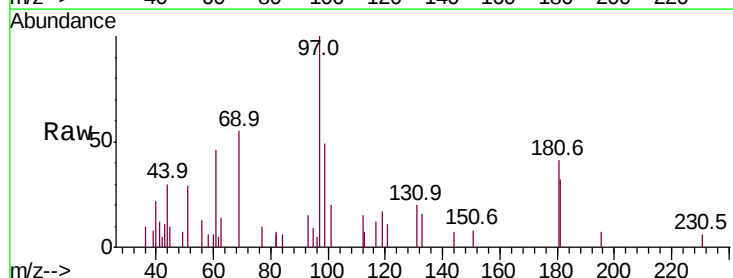
Tgt Ion: 97 Resp: 5644

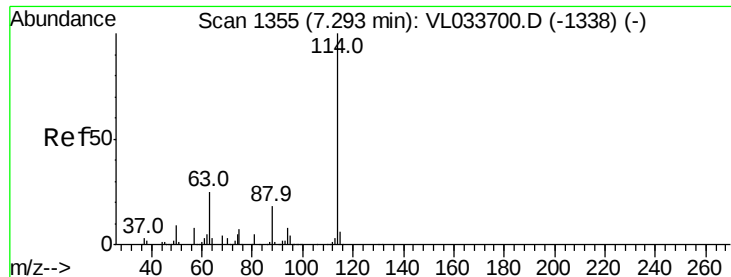
Ion Ratio Lower Upper

97 100

99 64.3 51.5 77.3

61 43.6 37.8 56.8





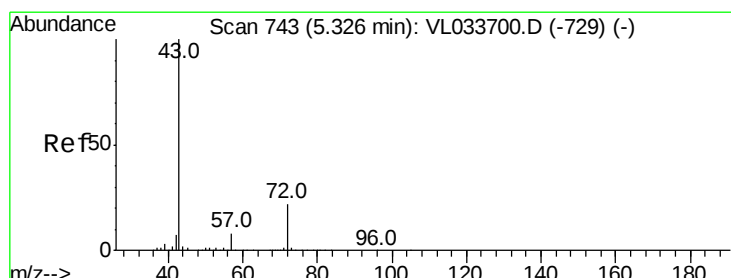
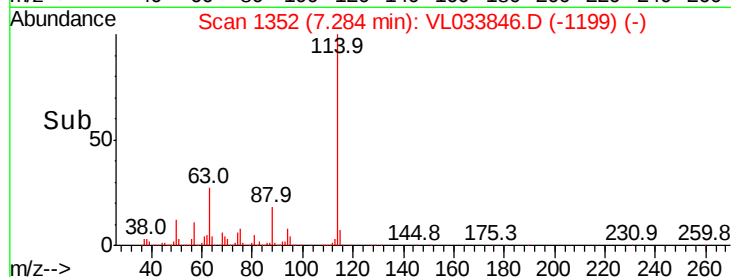
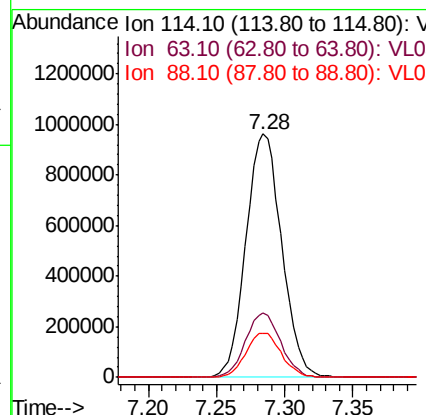
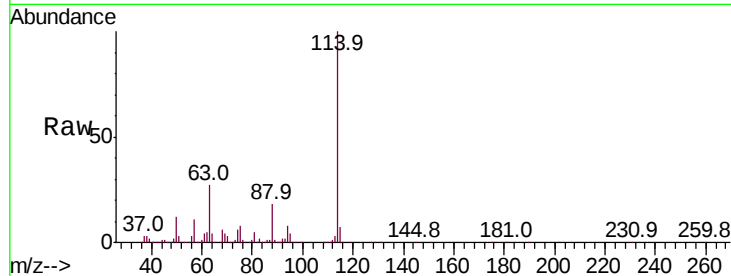
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.28 min Scan# 1352
 Delta R.T. -0.01 min
 Lab File: VL033846.D
 Acq: 29 May 2019 22:10

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-15-20190522-0

Tot Ion	Ratio	Lower	Upper
114	100		
63	26.2	20.9	31.3
88	18.0	14.3	21.5

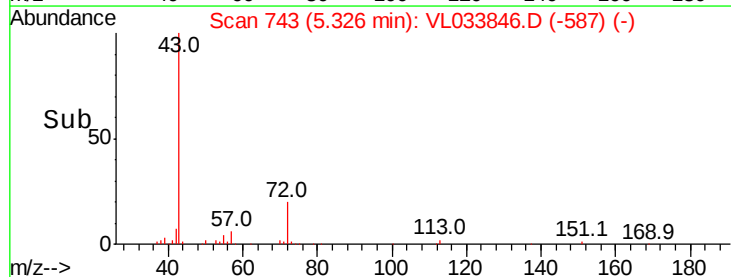
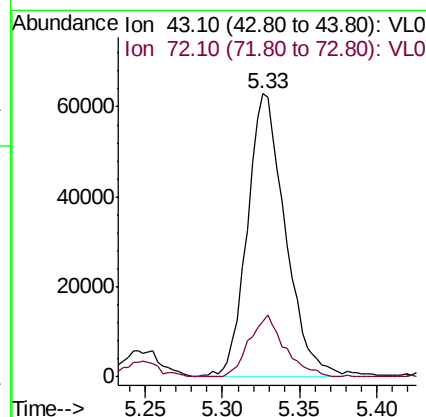
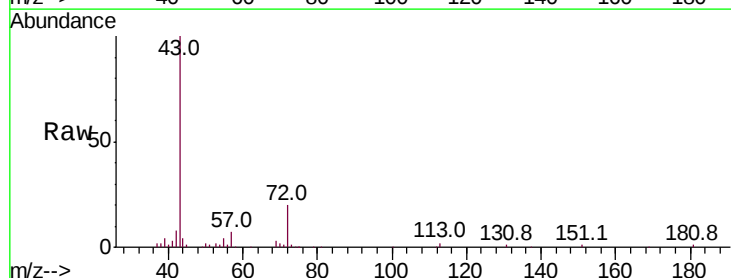
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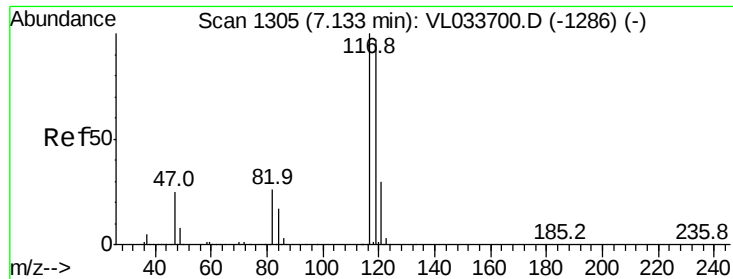
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#34
 2-Butanone
 Concen: 0.982 ppbv
 RT: 5.33 min Scan# 743
 Delta R.T. 0.00 min
 Lab File: VL033846.D
 Acq: 29 May 2019 22:10

Tgt Ion	Ratio	Lower	Upper
43	100		
72	20.6	17.8	26.6





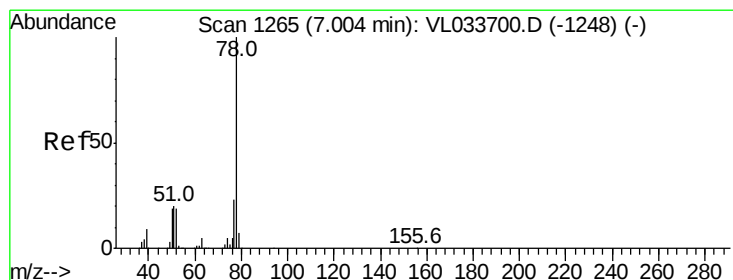
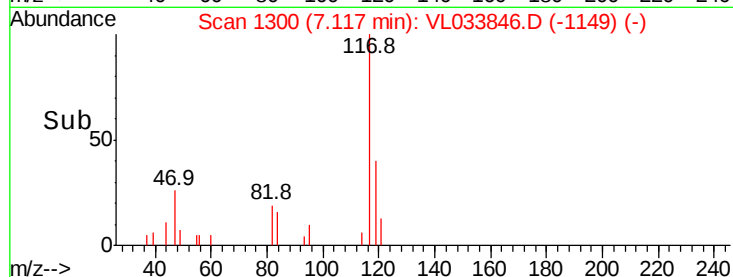
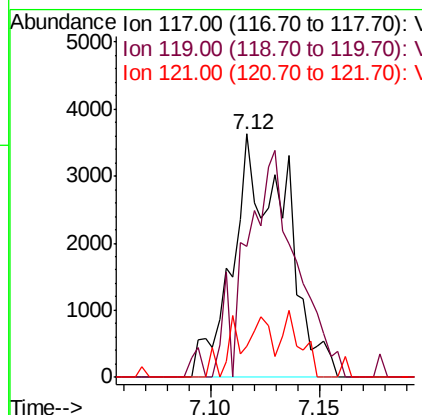
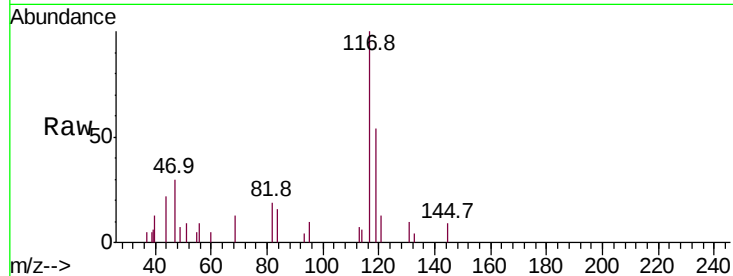
#35
Carbon Tetrachloride
Concen: 0.044 ppbv m
RT: 7.12 min Scan# 1300
Delta R.T. -0.02 min
Lab File: VL033846.D
Acq: 29 May 2019 22:10

Instrument :
MSVOA_L
ClientSampleId :
SG-15-20190522-0

Tot Ion	Ratio	Lower	Upper
117	100		
119	53.9	77.2	115.8#
121	12.7	24.1	36.1#

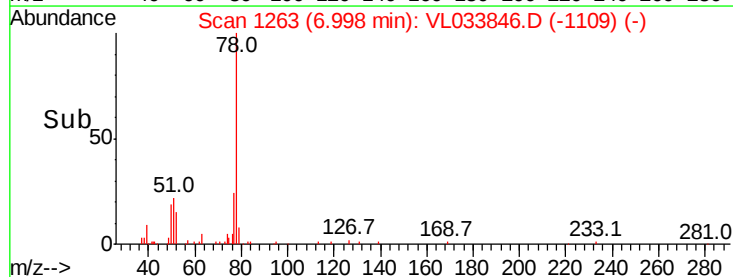
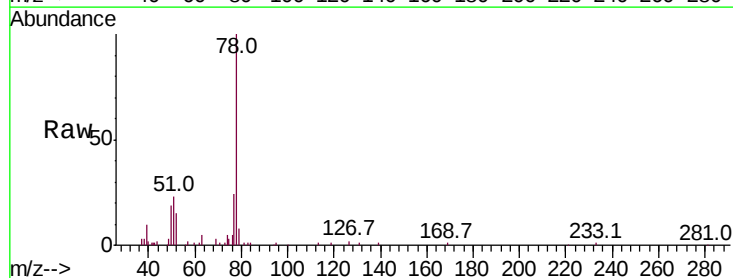
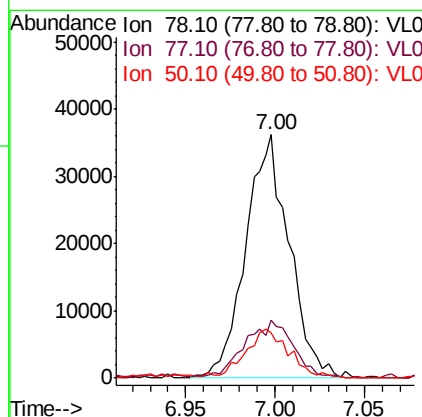
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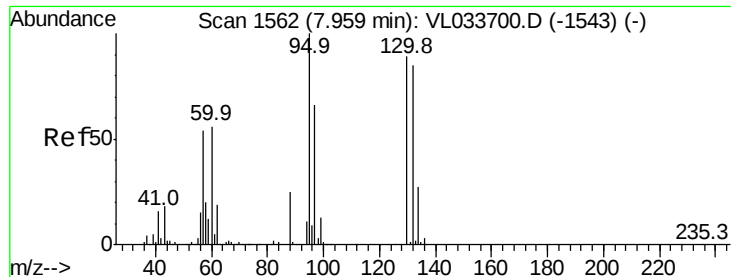
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#36
Benzene
Concen: 0.387 ppbv
RT: 7.00 min Scan# 1263
Delta R.T. -0.01 min
Lab File: VL033846.D
Acq: 29 May 2019 22:10

Tgt Ion	Ratio	Lower	Upper
78	100		
77	23.2	18.4	27.6
50	17.9	15.5	23.3





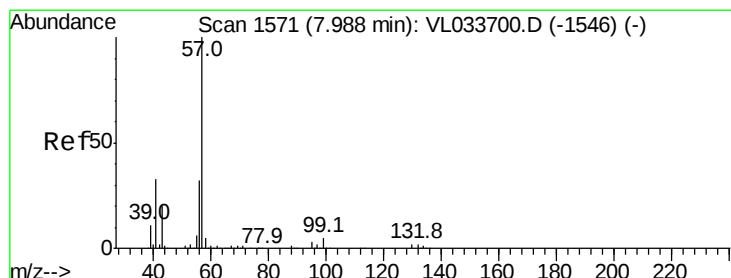
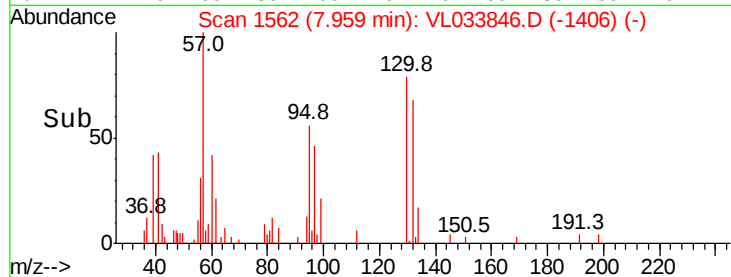
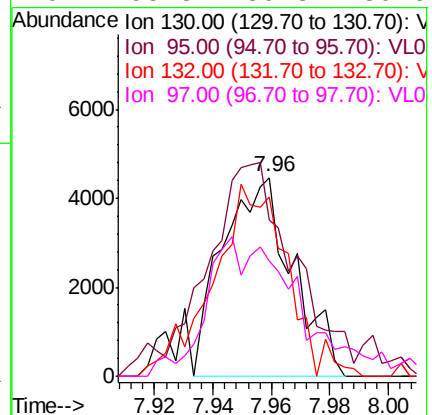
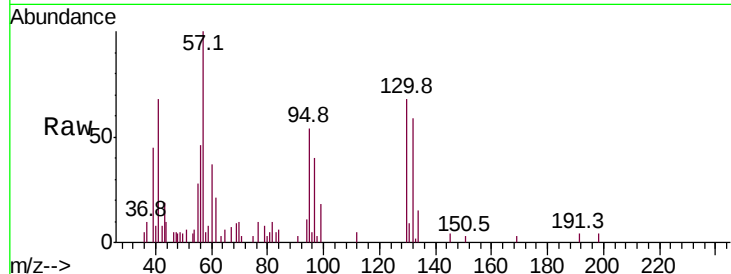
#38
 Trichloroethene
 Concen: 0.127 ppbv m
 RT: 7.96 min Scan# 1562
 Delta R.T. 0.00 min
 Lab File: VL033846.D
 Acq: 29 May 2019 22:10

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-15-20190522-0

Tot Ion	Ratio	Lower	Upper
130	100		
95	79.0	90.2	135.4#
132	86.4	76.4	114.6
97	58.3	59.8	89.6#

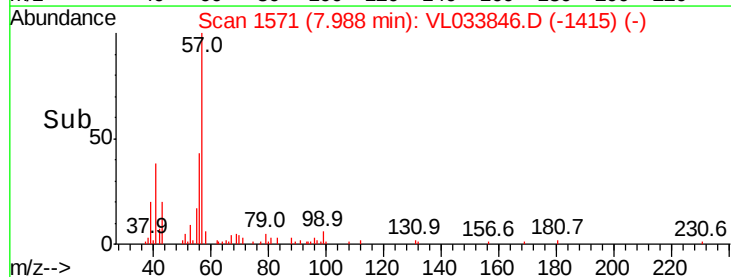
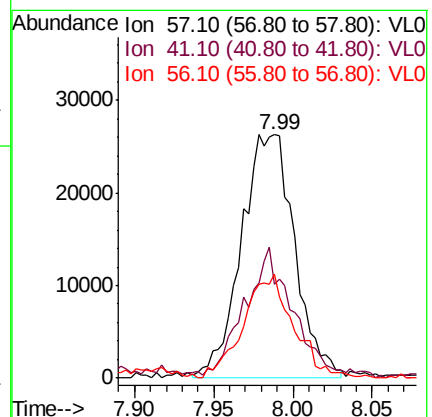
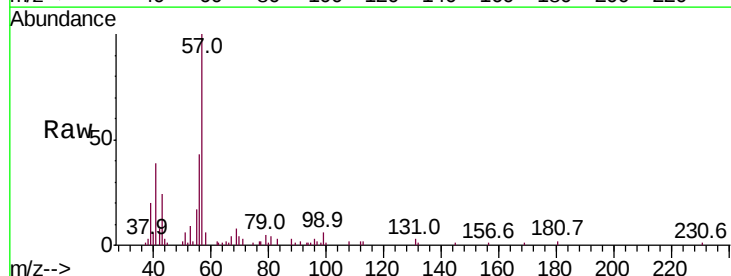
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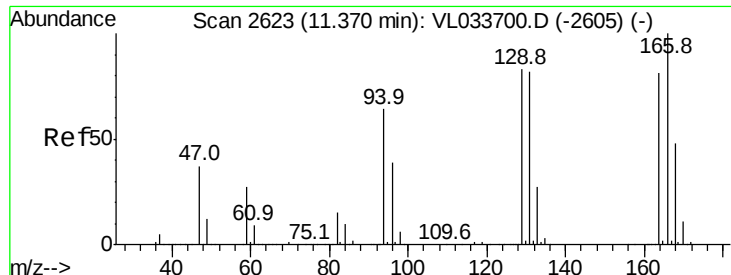
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#44
 2,2,4-Trimethylpentane
 Concen: 0.228 ppbv m
 RT: 7.99 min Scan# 1571
 Delta R.T. 0.00 min
 Lab File: VL033846.D
 Acq: 29 May 2019 22:10

Tgt Ion	Ratio	Lower	Upper
57	100		
41	47.7	25.4	38.0#
56	40.4	24.7	37.1#





#52

Tetrachloroethene

Concen: 1.806 ppbv

RT: 11.36 min Scan# 2621

Delta R.T. -0.01 min

Lab File: VL033846.D

Acq: 29 May 2019 22:10

Instrument :

MSVOA_L

ClientSampleId :

SG-15-20190522-0

Tot Ion:164 Resp: 101307

Ion Ratio Lower Upper

164 100

166 117.6 98.9 148.3

129 111.7 81.8 122.6

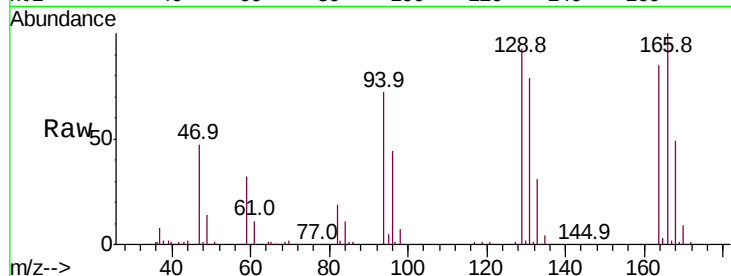
131 95.0 81.1 121.7

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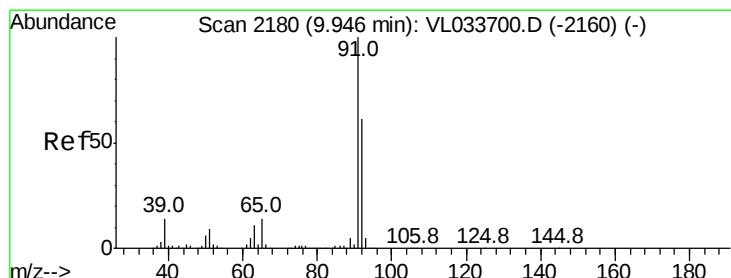
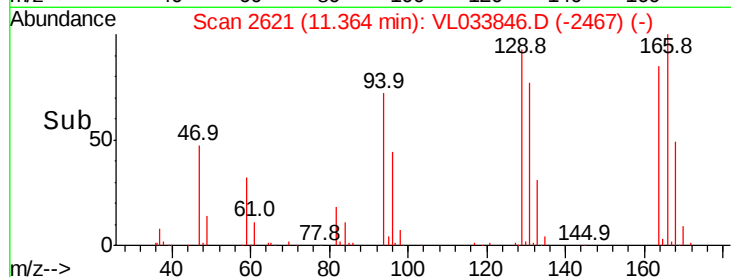
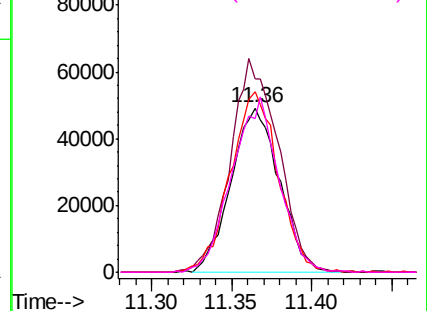


Abundance Ion 163.90 (163.60 to 164.60): V

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: 5.186 ppbv

RT: 9.94 min Scan# 2177

Delta R.T. -0.01 min

Lab File: VL033846.D

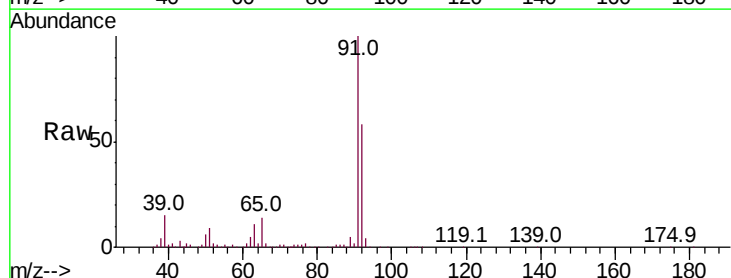
Acq: 29 May 2019 22:10

Tgt Ion: 91 Resp: 892307

Ion Ratio Lower Upper

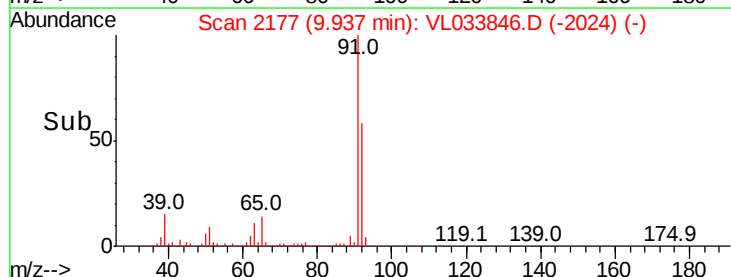
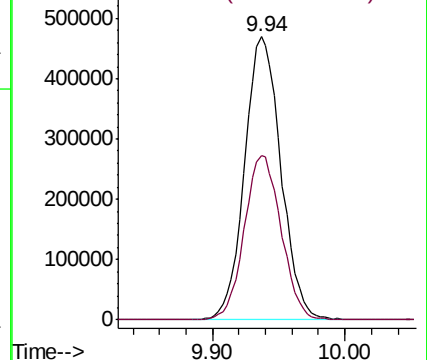
91 100

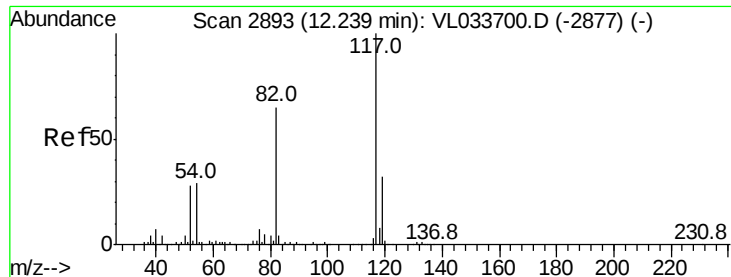
92 59.0 47.6 71.4



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 92.10 (91.80 to 92.80): VL0





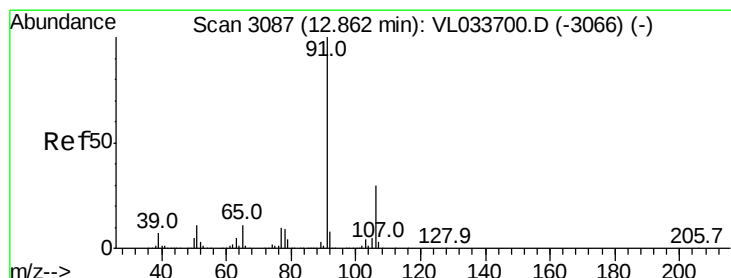
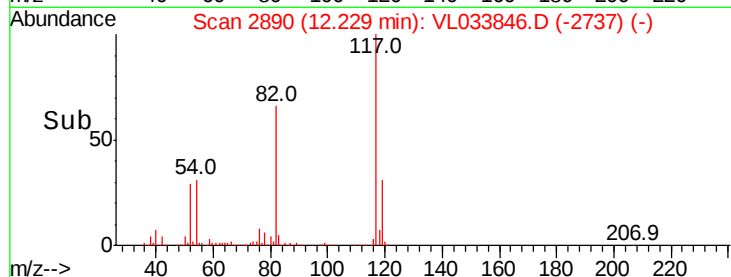
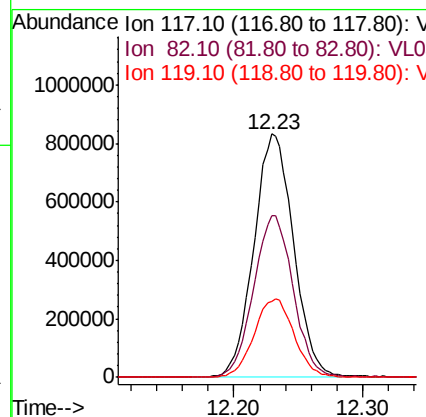
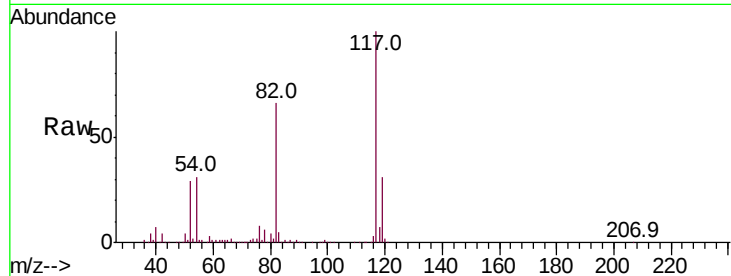
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.23 min Scan# 2890
Delta R.T. -0.01 min
Lab File: VL033846.D
Acq: 29 May 2019 22:10

Instrument :
MSVOA_L
ClientSampleId :
SG-15-20190522-0

Tot Ion	Ratio	Lower	Upper
117	100		
82	66.9	49.4	74.0
119	32.8	24.9	37.3

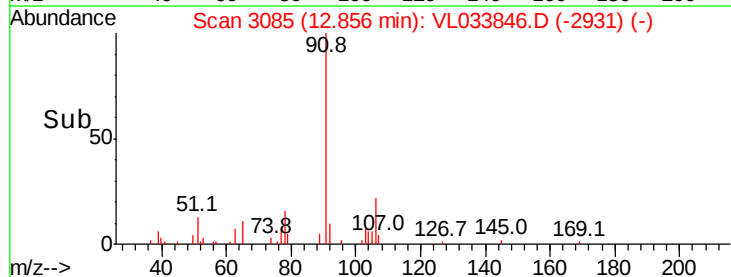
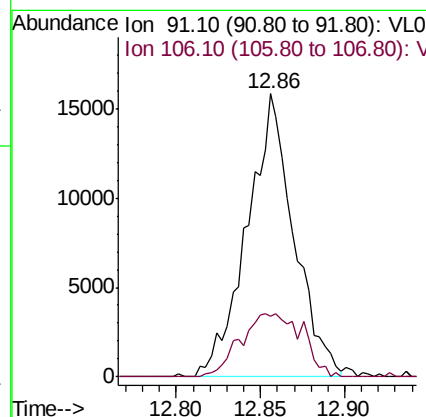
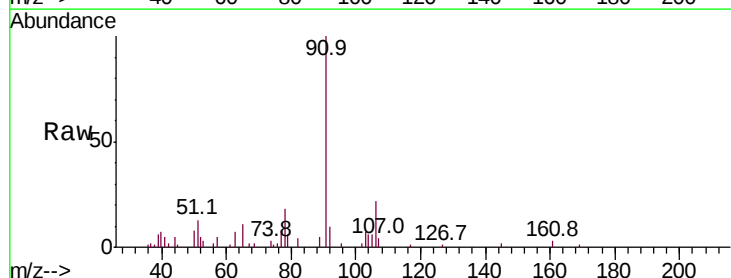
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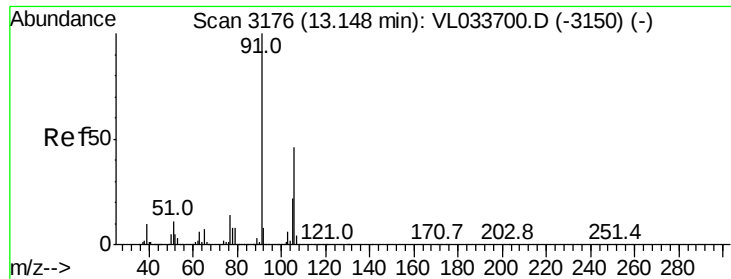
apatel
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#58
Ethyl Benzene
Concen: 0.129 ppbv m
RT: 12.86 min Scan# 3085
Delta R.T. -0.01 min
Lab File: VL033846.D
Acq: 29 May 2019 22:10

Tgt Ion	Ratio	Lower	Upper
91	100		
106	21.5	23.9	35.9#





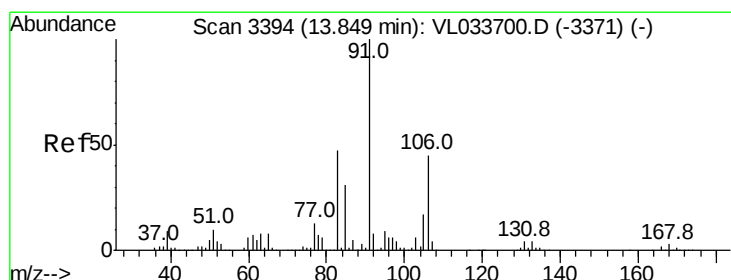
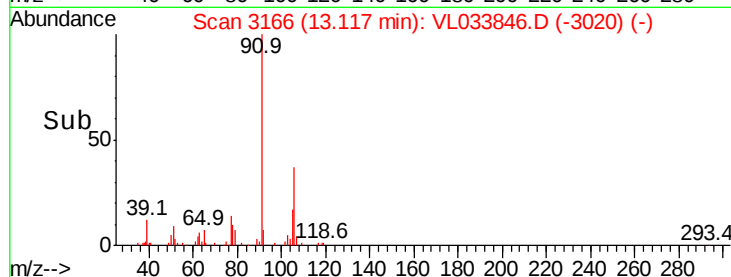
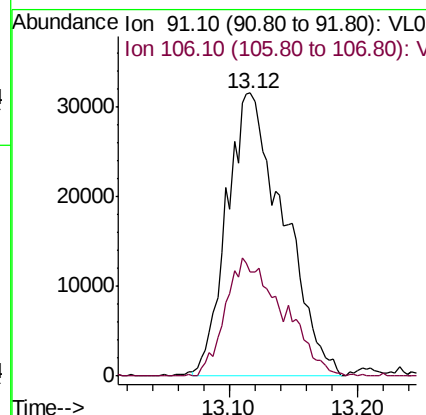
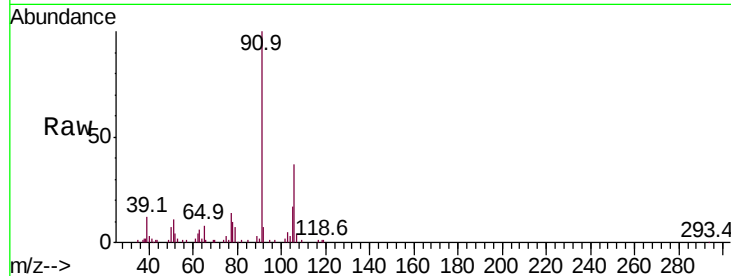
#59
m/p-Xylene
Concen: 0.468 ppbv m
RT: 13.12 min Scan# 3166
Delta R.T. -0.03 min
Lab File: VL033846.D
Acq: 29 May 2019 22:10

Instrument :
MSVOA_L
ClientSampleId :
SG-15-20190522-0

Tot Ion	91	106	Ratio	Lower	Upper
96666	100	0.0		35.8	53.6

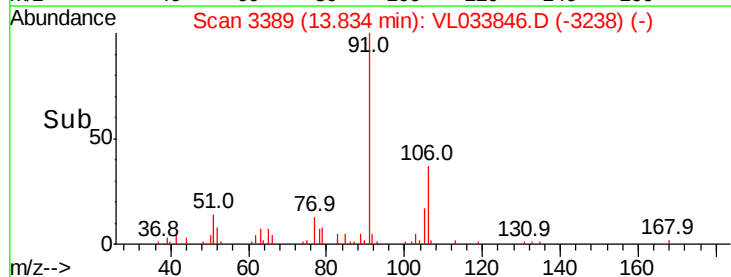
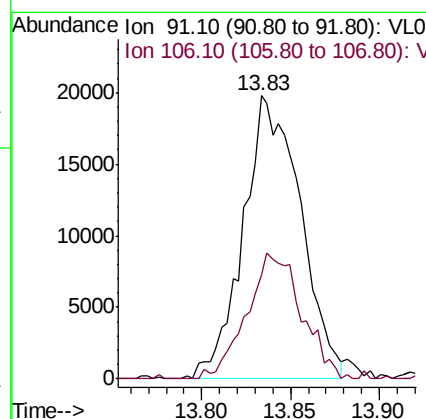
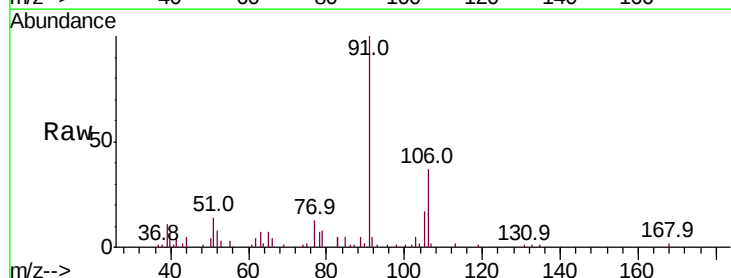
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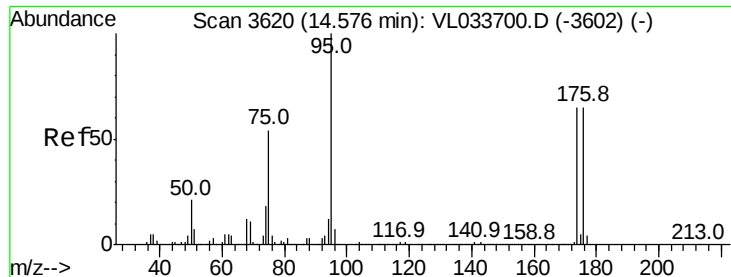
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#60
o-Xylene
Concen: 0.213 ppbv m
RT: 13.83 min Scan# 3389
Delta R.T. -0.02 min
Lab File: VL033846.D
Acq: 29 May 2019 22:10

Tgt Ion	91	106	Ratio	Lower	Upper
44303	100	42.5		21.6	64.8





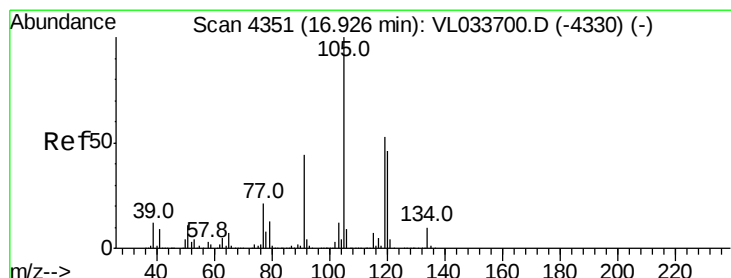
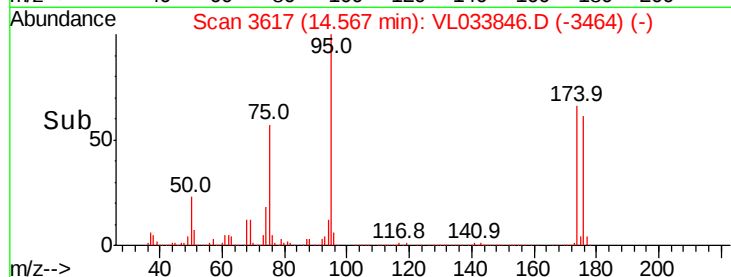
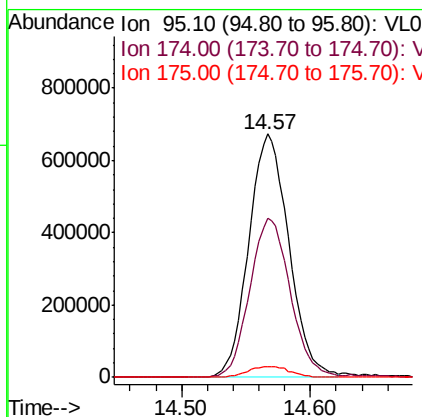
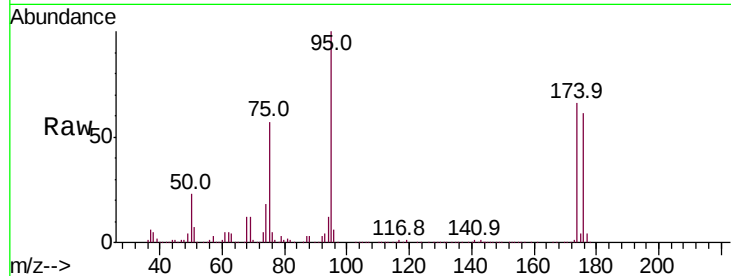
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.104 ppbv
 RT: 14.57 min Scan# 3617
 Delta R.T. -0.01 min
 Lab File: VL033846.D
 Acq: 29 May 2019 22:10

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-15-20190522-0

Tot Ion: 95 Resp: 1460084
 Ion Ratio Lower Upper
 95 100
 174 66.9 53.9 80.9
 175 4.8 3.8 5.8

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#74
 1,2,4-Trimethylbenzene
 Concen: 0.162 ppbv m
 RT: 16.92 min Scan# 4349
 Delta R.T. -0.01 min
 Lab File: VL033846.D
 Acq: 29 May 2019 22:10

Tgt Ion: 105 Resp: 40897
 Ion Ratio Lower Upper
 105 100
 120 41.1 36.8 55.2
 91 17.3 35.4 53.0#
 77 22.5 16.8 25.2

