

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL052919\
 Data File : VL033856.D
 Acq On : 30 May 2019 4:54
 Operator : SY/AP
 Sample : K3067-07
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-4-20190523-0

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Quant Time: May 30 06:46:44 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	717438	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	1706577	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.23	117	1766336	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.57	95	1442175	10.07	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.70%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.08	85	25270	0.167	ppbv	91
3) Chlorodifluoromethane	3.01	51	45790m	0.557	ppbv	
4) Chloromethane	3.17	50	11006	0.234	ppbv #	86
9) Propene	3.03	41	26173m	0.749	ppbv	
11) Trichlorofluoromethane	4.00	101	40086	0.278	ppbv	95
13) Ethanol	3.67	45	222085	19.658	ppbv	98
15) Acetone	3.89	43	1694071	17.019	ppbv	100
17) tert-Butyl alcohol	4.37	59	59856	0.744	ppbv	95
19) Isopropyl Alcohol	4.04	45	249148	3.882	ppbv #	94
20) Methylene Chloride	4.40	84	74442	1.942	ppbv	95
26) Hexane	5.77	57	197296	2.625	ppbv #	42
27) Carbon Disulfide	4.62	76	69948	0.678	ppbv #	90
34) 2-Butanone	5.33	43	218379	2.064	ppbv	97
35) Carbon Tetrachloride	7.13	117	8894m	0.065	ppbv	
36) Benzene	6.99	78	77170	0.497	ppbv	98
38) Trichloroethene	7.95	130	10409	0.181	ppbv #	84
44) 2,2,4-Trimethylpentane	7.98	57	61838m	0.236	ppbv	
52) Tetrachloroethene	11.37	164	119377	2.188	ppbv	97
53) Toluene	9.94	91	595133	3.554	ppbv	99
58) Ethyl Benzene	12.85	91	26150m	0.112	ppbv	
59) m/p-Xylene	13.11	91	85954m	0.420	ppbv	
60) o-Xylene	13.85	91	41565	0.202	ppbv	100
74) 1,2,4-Trimethylbenzene	16.92	105	58306	0.233	ppbv #	75

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

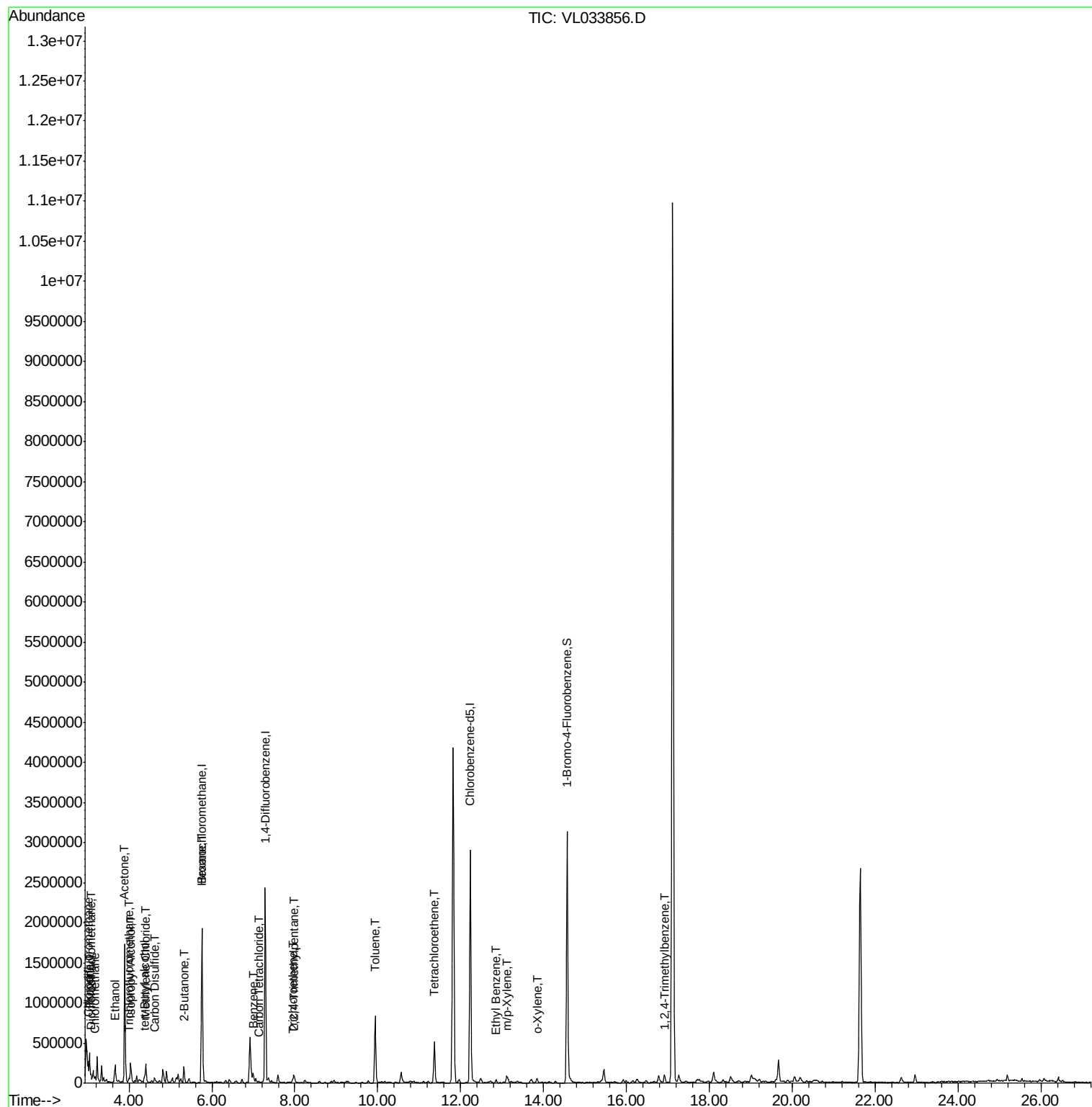
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL052919\
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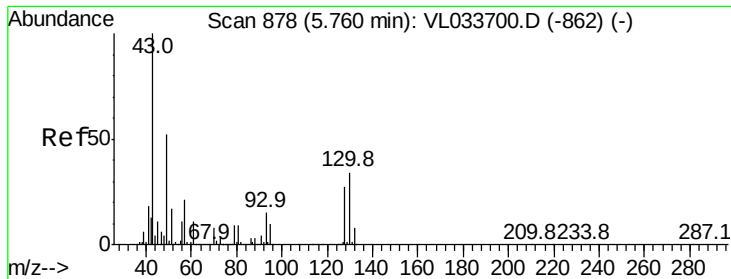
Instrument :
MSVOA_L
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SG-4-20190523-0

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Quant Time: May 30 06:46:44 2019
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL051719AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri May
QLast Update : Fri May 17 08:15:41 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.76 min Scan# 877

Delta R.T. -0.00 min

Lab File: VL033856.D

Acq: 30 May 2019 4:54

Instrument :

MSVOA_L

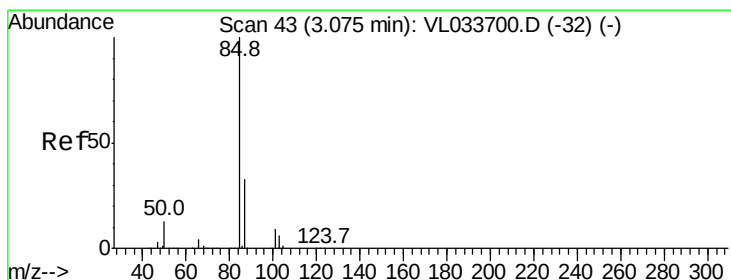
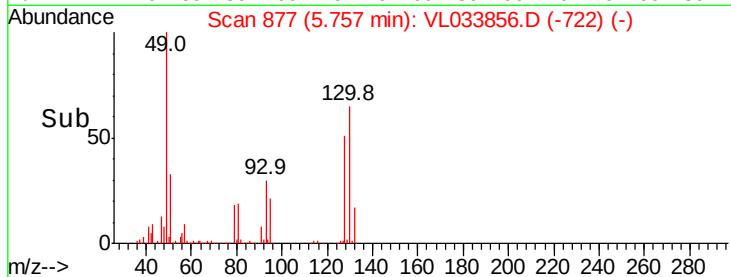
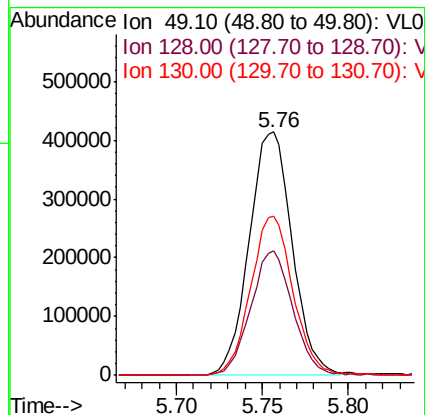
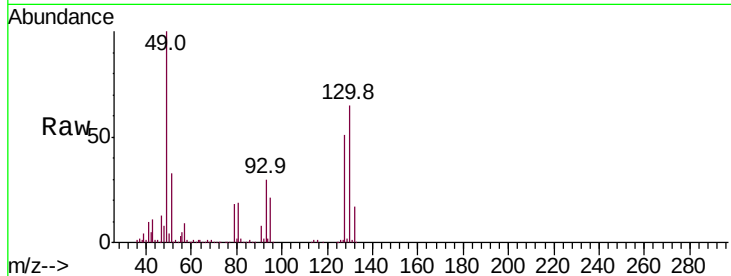
ClientSampleId :

SG-4-20190523-0

Tot Ion:	49	Resp:	717438
Ion	Ratio	Lower	Upper
49	100		
128	50.5	25.2	75.6
130	64.8	32.5	97.5

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#2

Dichlorodifluoromethane

Concen: 0.167 ppbv

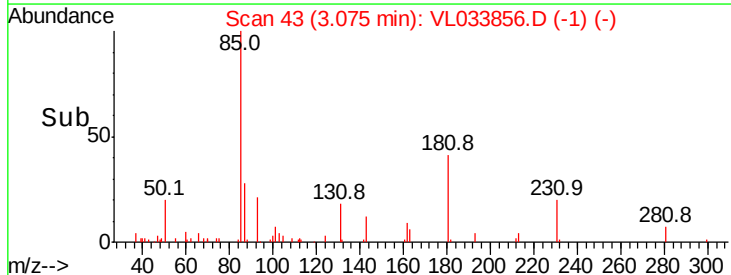
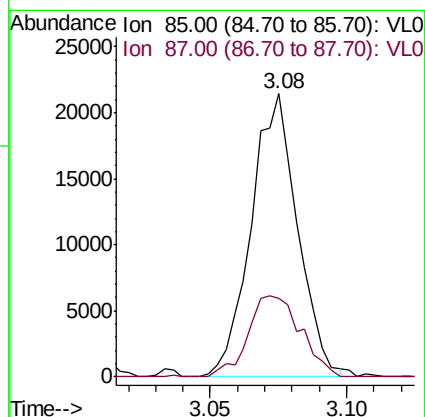
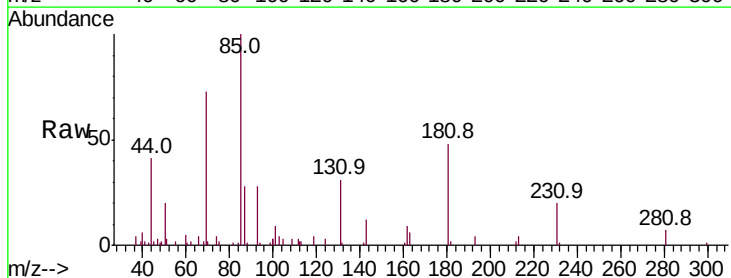
RT: 3.08 min Scan# 43

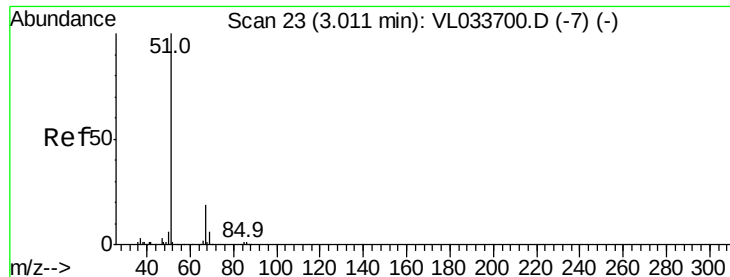
Delta R.T. 0.00 min

Lab File: VL033856.D

Acq: 30 May 2019 4:54

Tgt Ion:	85	Resp:	25270
Ion	Ratio	Lower	Upper
85	100		
87	27.8	26.3	39.5





#3

Chlorodifluoromethane

Concen: 0.557 ppbv

RT: 3.01 min Scan# 22

Delta R.T. -0.00 min

Lab File: VL033856.D

Acq: 30 May 2019 4:54

Instrument :

MSVOA_L

ClientSampleId :

SG-4-20190523-0

Tot Ion: 51 Resp: 45790

Ion Ratio Lower Upper

51 100

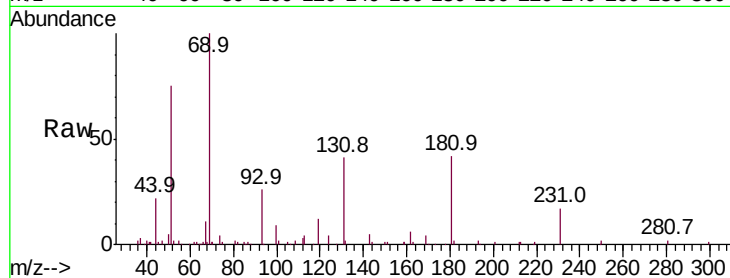
67 18.1 15.6 23.4

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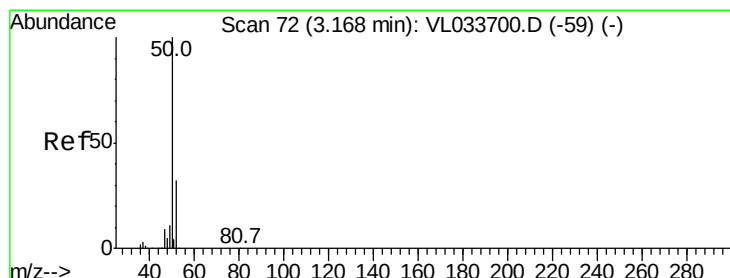
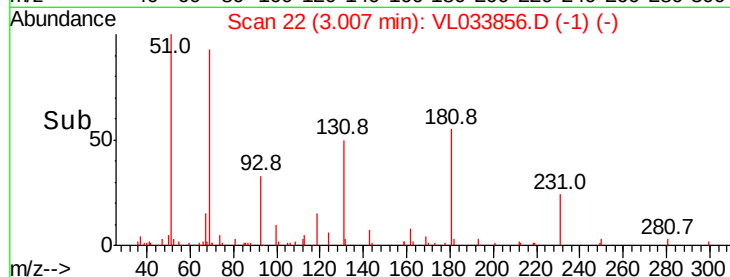
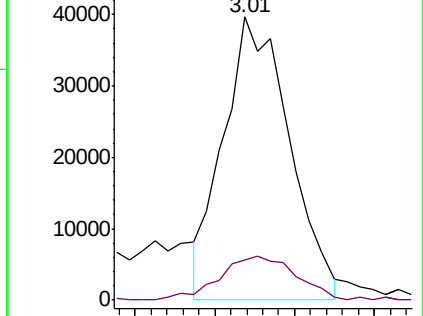
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.234 ppbv

RT: 3.17 min Scan# 72

Delta R.T. 0.00 min

Lab File: VL033856.D

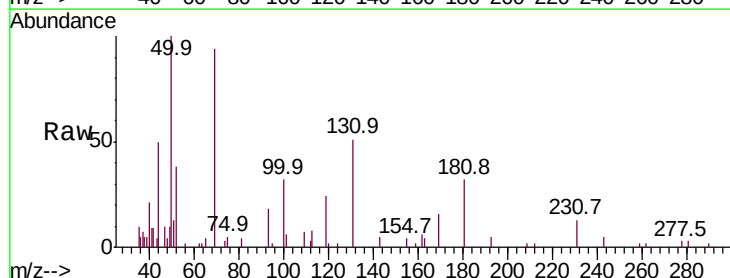
Acq: 30 May 2019 4:54

Tgt Ion: 50 Resp: 11006

Ion Ratio Lower Upper

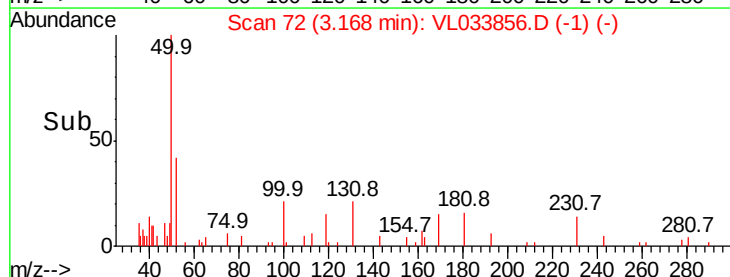
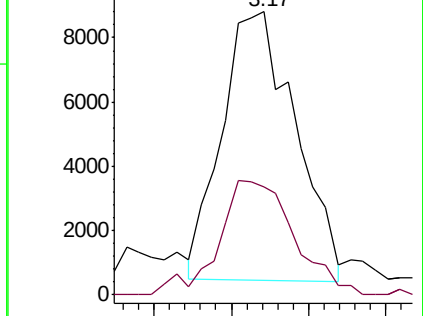
50 100

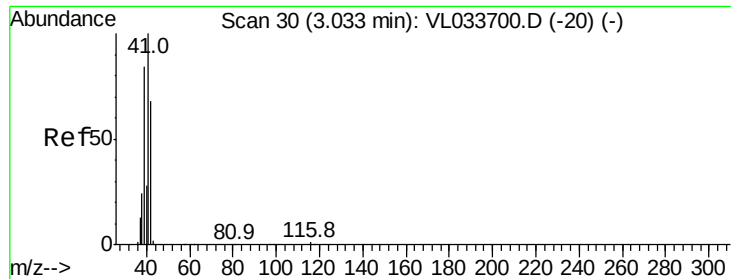
52 39.8 25.7 38.5#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.749 ppbv m

RT: 3.03 min Scan# 30

Delta R.T. 0.00 min

Lab File: VL033856.D

Acq: 30 May 2019 4:54

Instrument :

MSVOA_L

ClientSampleId :

SG-4-20190523-0

Tot Ion: 41 Resp: 26173

Ion Ratio Lower Upper

41 100

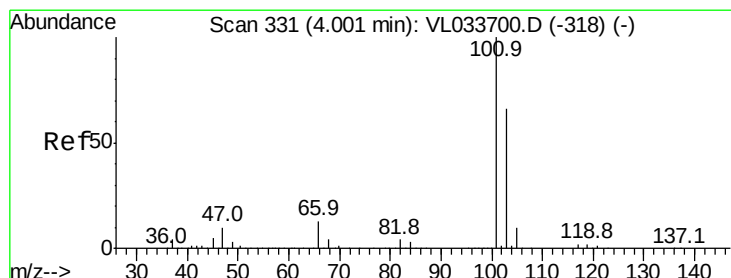
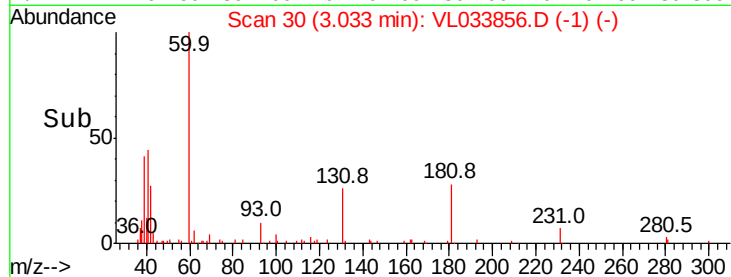
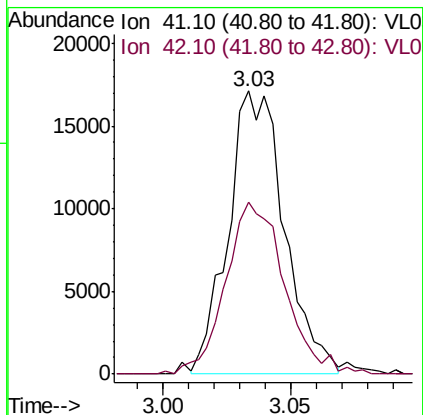
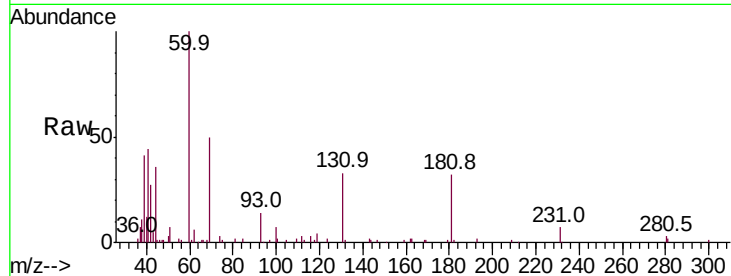
42 63.7 56.1 84.1

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#11

Trichlorofluoromethane

Concen: 0.278 ppbv

RT: 4.00 min Scan# 331

Delta R.T. 0.00 min

Lab File: VL033856.D

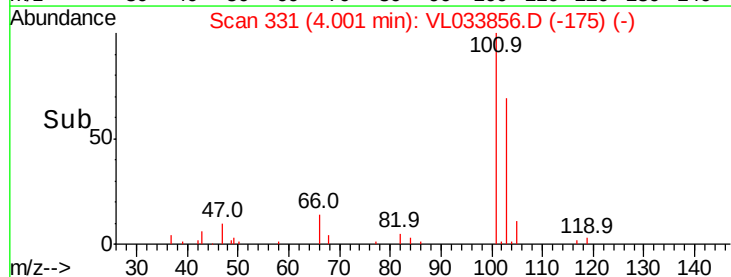
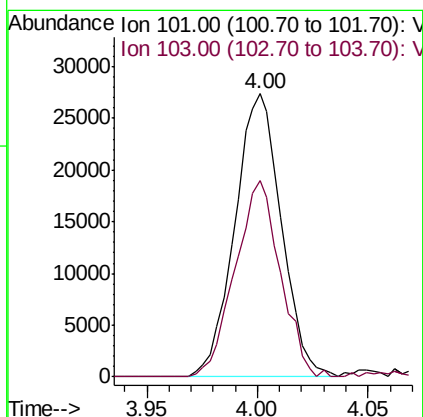
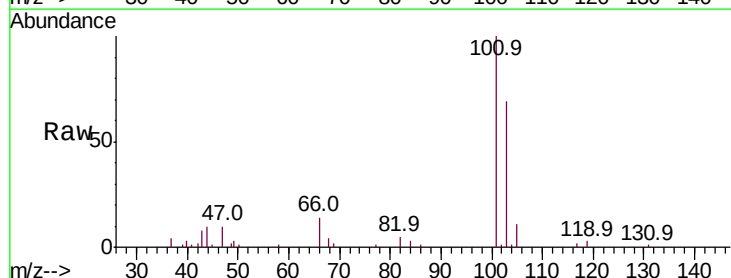
Acq: 30 May 2019 4:54

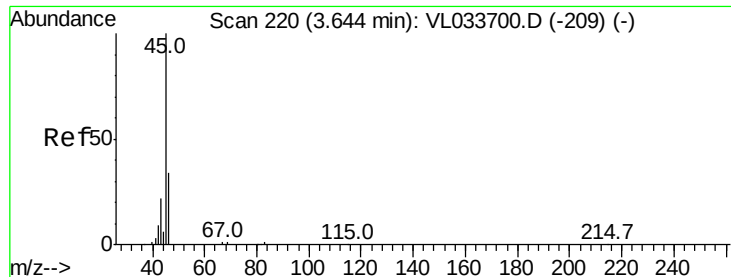
Tgt Ion: 101 Resp: 40086

Ion Ratio Lower Upper

101 100

103 69.3 52.6 78.8





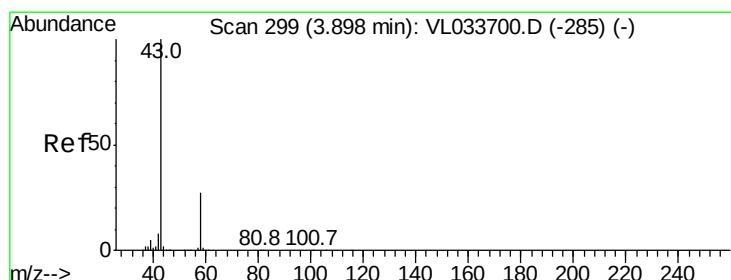
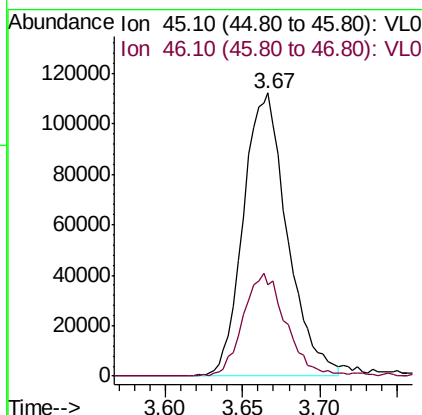
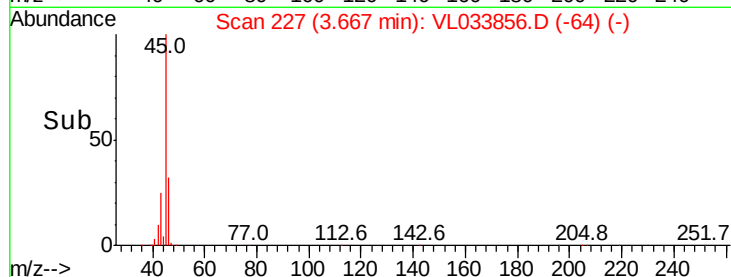
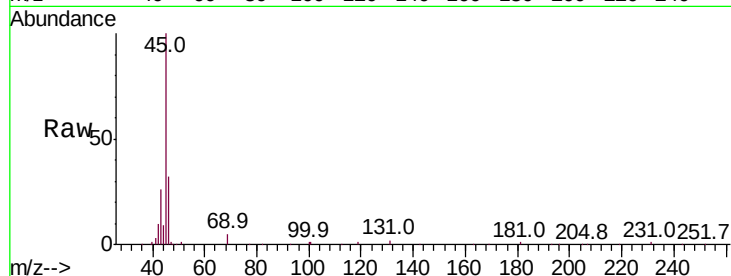
#13
Ethanol
Concen: 19.658 ppbv
RT: 3.67 min Scan# 227
Delta R.T. 0.02 min
Lab File: VL033856.D
Acq: 30 May 2019 4:54

Instrument :
MSVOA_L
ClientSampleId :
SG-4-20190523-0

Tot Ion	Ratio	Lower	Upper
45	100		
46	35.9	14.8	59.0

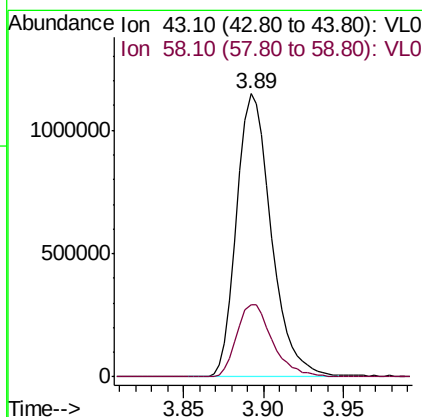
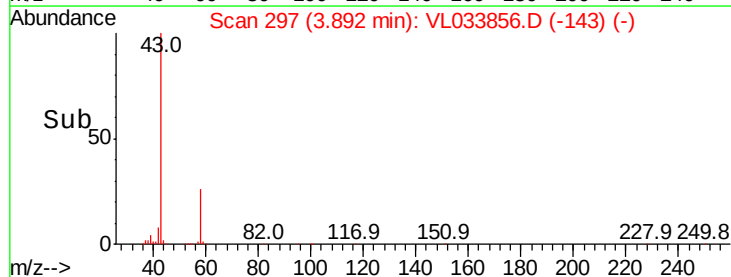
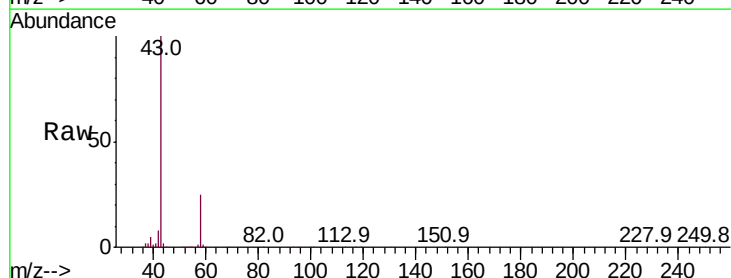
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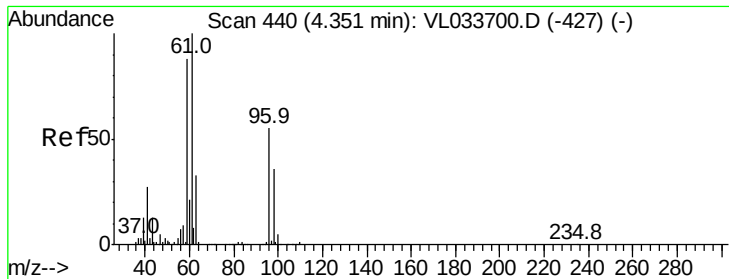
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#15
Acetone
Concen: 17.019 ppbv
RT: 3.89 min Scan# 297
Delta R.T. -0.01 min
Lab File: VL033856.D
Acq: 30 May 2019 4:54

Tgt Ion	Ratio	Lower	Upper
43	100		
58	26.6	21.3	31.9





#17

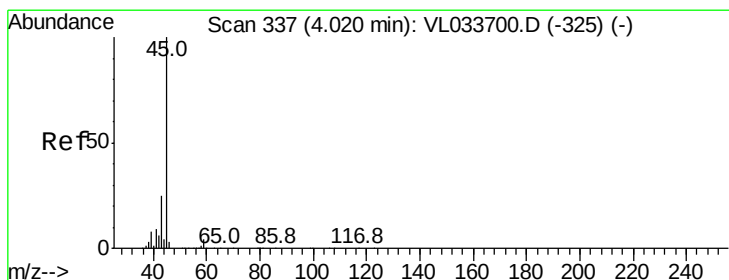
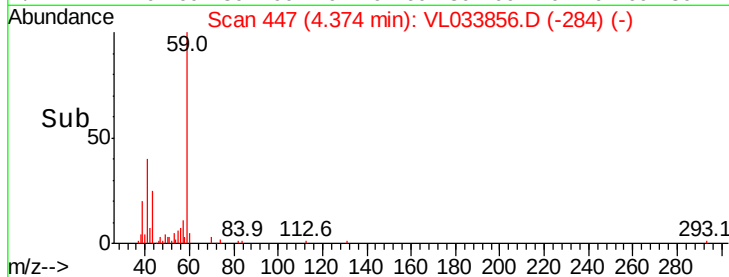
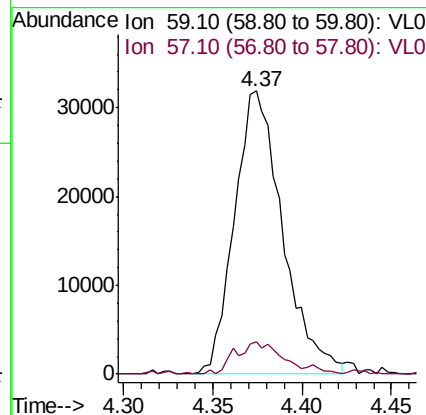
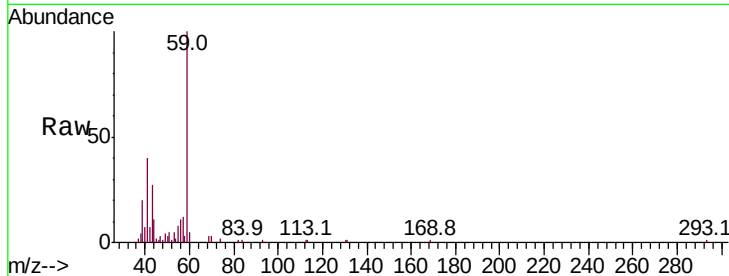
tert-Butyl alcohol
Concen: 0.744 ppbv
RT: 4.37 min Scan# 447
Delta R.T. 0.02 min
Lab File: VL033856.D
Acq: 30 May 2019 4:54

Instrument :
MSVOA_L
ClientSampleId :
SG-4-20190523-0

Tot Ion	59	Resp:	59856
Ion	Ratio	Lower	Upper
59	100		
57	12.2	8.4	12.6

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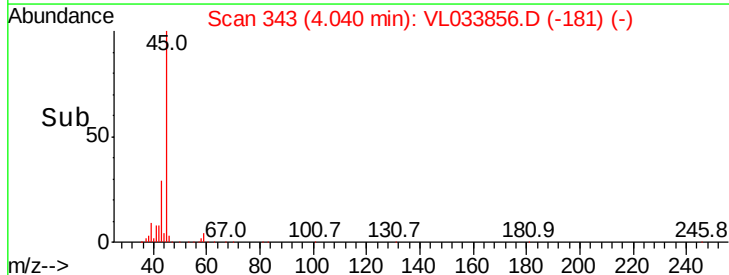
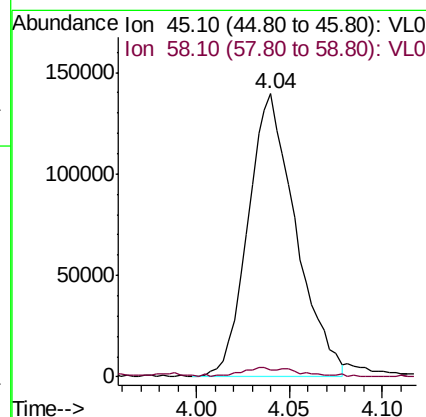
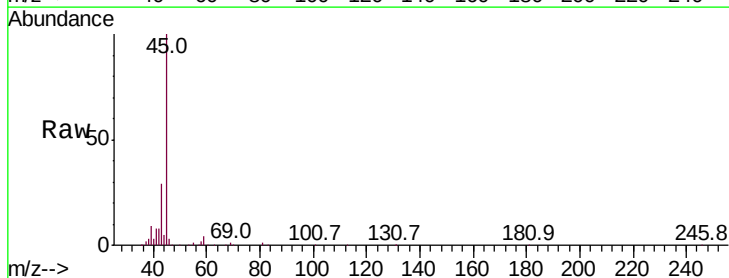
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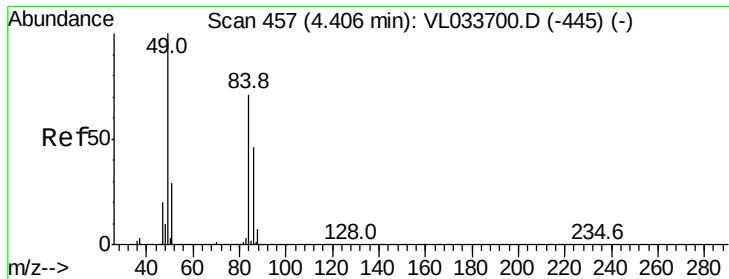


#19

Isopropyl Alcohol
Concen: 3.882 ppbv
RT: 4.04 min Scan# 343
Delta R.T. 0.02 min
Lab File: VL033856.D
Acq: 30 May 2019 4:54

Tgt Ion	45	Resp:	249148
Ion	Ratio	Lower	Upper
45	100		
58	0.0	1.6	2.4#





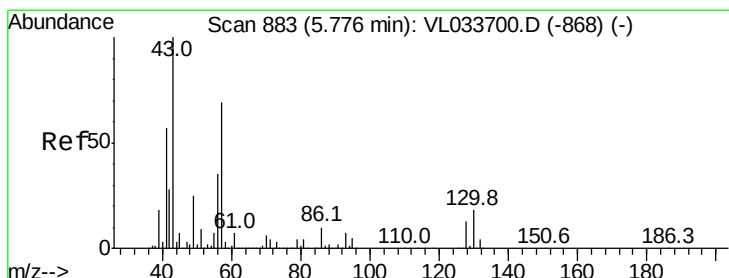
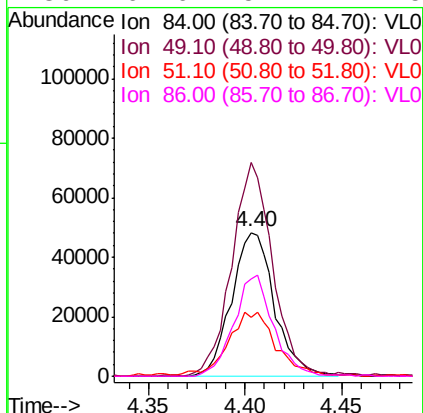
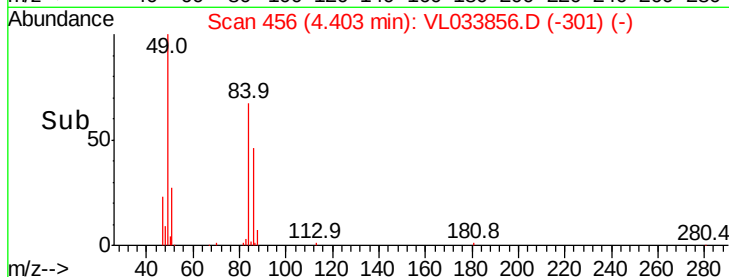
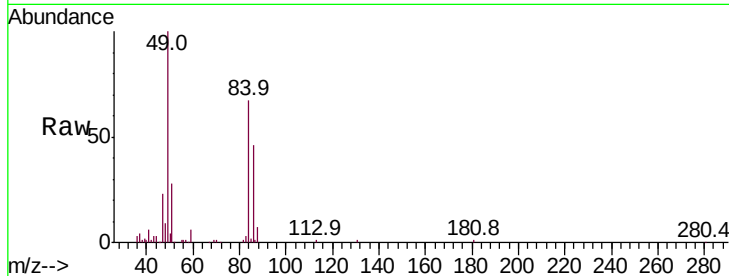
#20
Methylene Chloride
Concen: 1.942 ppbv
RT: 4.40 min Scan# 456
Delta R.T. -0.00 min
Lab File: VL033856.D
Acq: 30 May 2019 4:54

Instrument :
MSVOA_L
ClientSampleId :
SG-4-20190523-0

Tot Ion	Ratio	Lower	Upper
84	100		
49	148.0	112.8	169.2
51	40.6	33.4	50.0
86	67.6	51.7	77.5

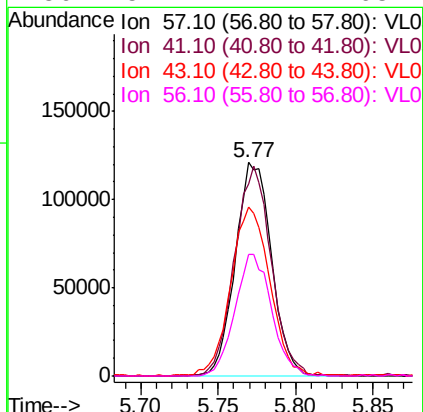
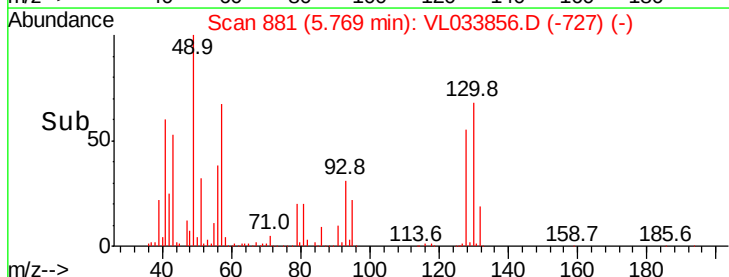
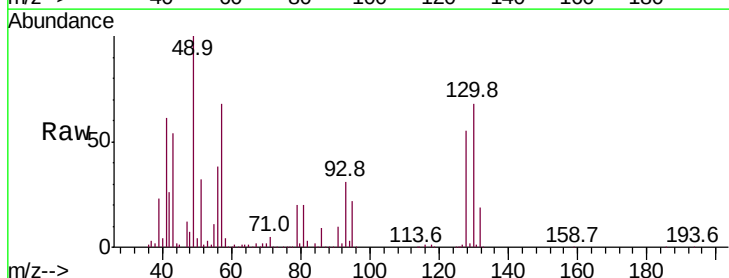
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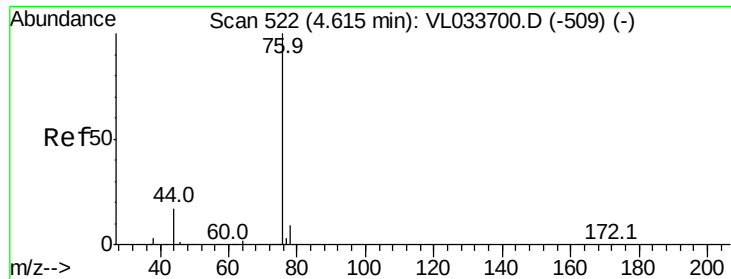
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#26
Hexane
Concen: 2.625 ppbv
RT: 5.77 min Scan# 881
Delta R.T. -0.01 min
Lab File: VL033856.D
Acq: 30 May 2019 4:54

Tgt Ion	Ratio	Lower	Upper
57	100		
41	99.8	69.8	104.6
43	85.8	181.8	272.6
56	57.7	42.1	63.1





#27

Carbon Disulfide

Concen: 0.678 ppbv

RT: 4.62 min Scan# 523

Delta R.T. 0.00 min

Lab File: VL033856.D

Acq: 30 May 2019 4:54

Instrument :

MSVOA_L

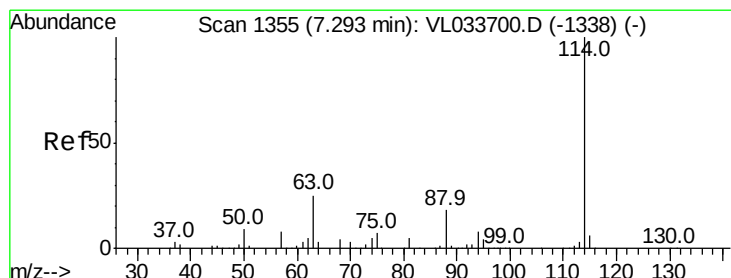
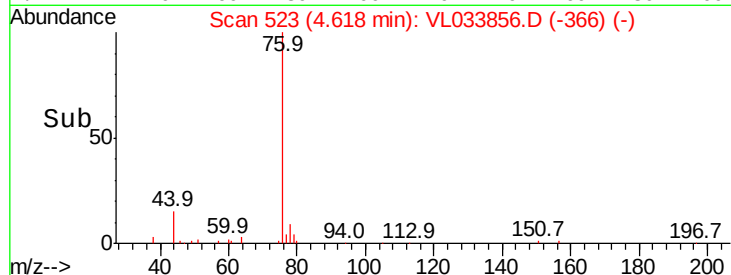
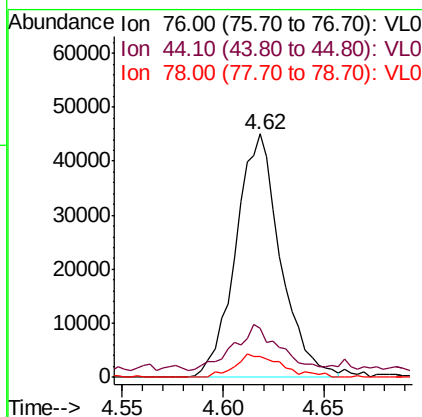
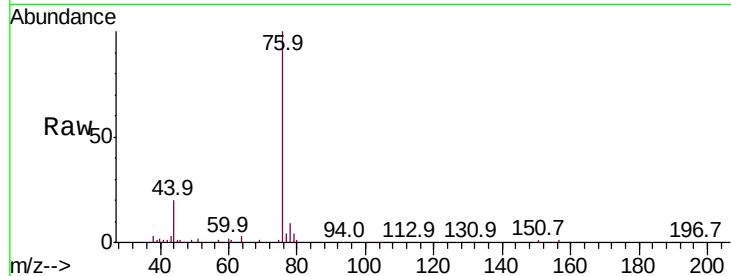
ClientSampleId :

SG-4-20190523-0

Tot Ion:	76	Resp:	69948
Ion Ratio	Lower	Upper	
76	100		
44	23.1	13.8	20.8#
78	10.1	7.4	11.0

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#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

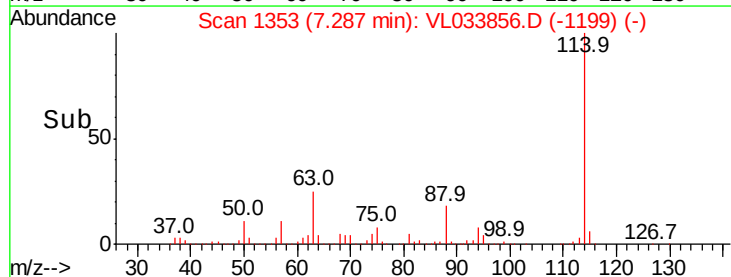
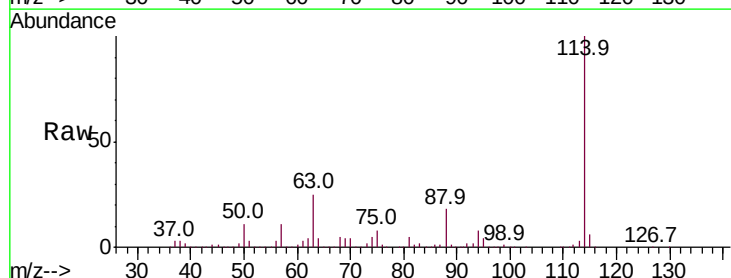
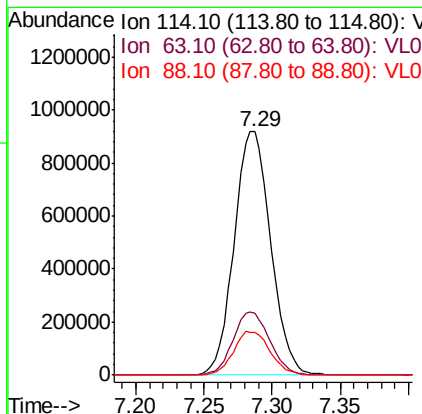
RT: 7.29 min Scan# 1353

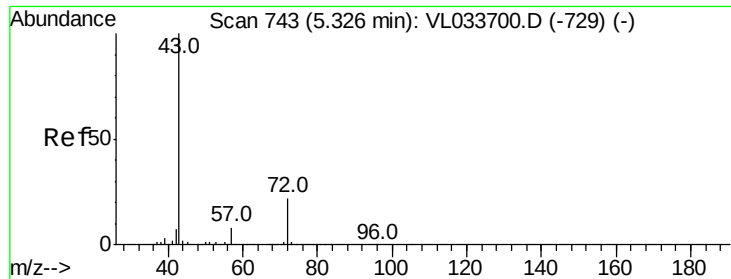
Delta R.T. -0.01 min

Lab File: VL033856.D

Acq: 30 May 2019 4:54

Tgt Ion:	114	Resp:	1706577
Ion Ratio	Lower	Upper	
114	100		
63	26.2	20.9	31.3
88	18.0	14.3	21.5





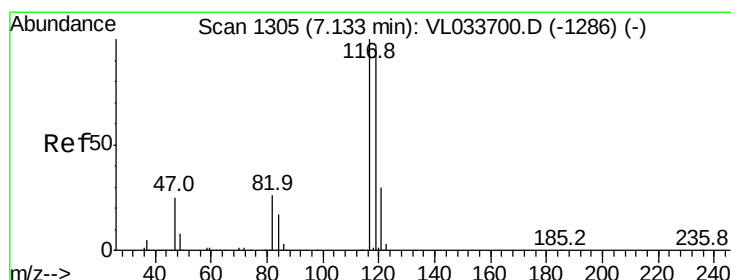
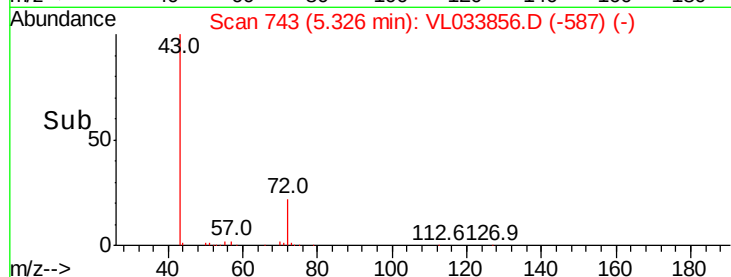
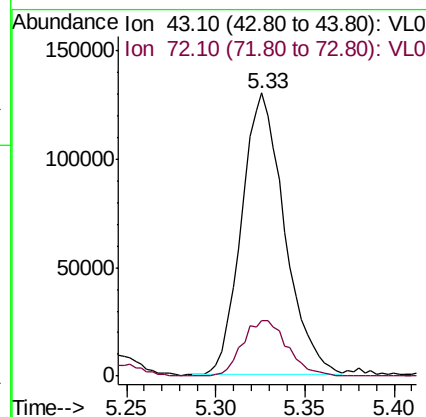
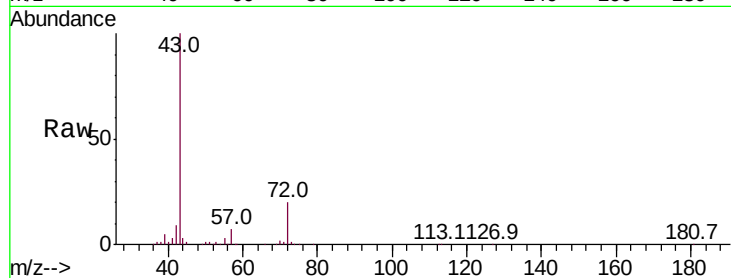
#34
2-Butanone
Concen: 2.064 ppbv
RT: 5.33 min Scan# 743
Delta R.T. 0.00 min
Lab File: VL033856.D
Acq: 30 May 2019 4:54

Instrument :
MSVOA_L
ClientSampleId :
SG-4-20190523-0

Tot Ion: 43 Resp: 218379
Ion Ratio Lower Upper
43 100
72 20.8 17.8 26.6

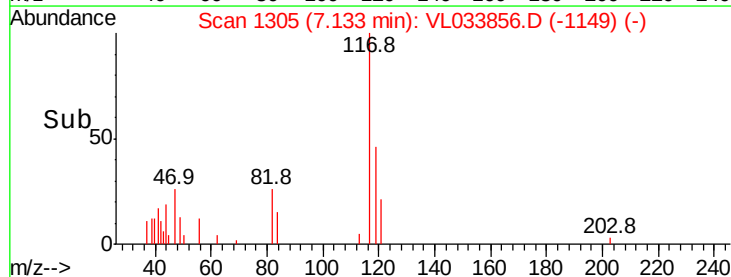
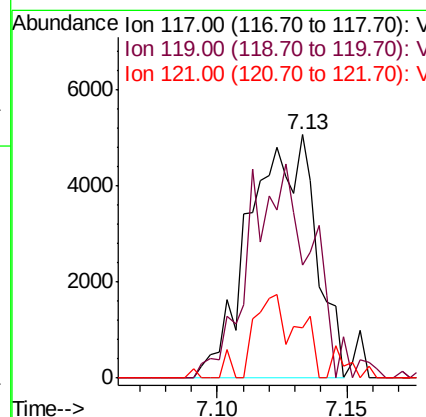
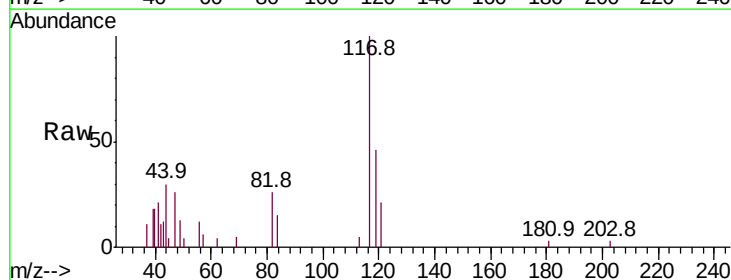
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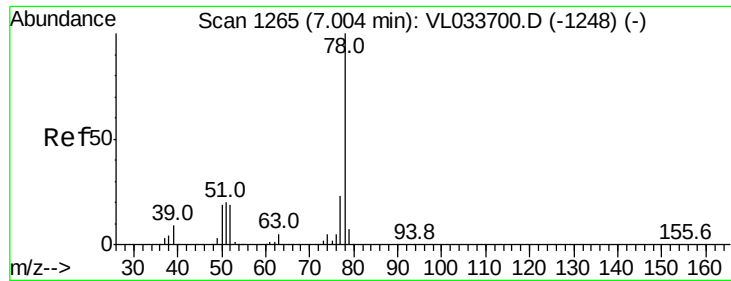
apatel
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#35
Carbon Tetrachloride
Concen: 0.065 ppbv m
RT: 7.13 min Scan# 1305
Delta R.T. 0.00 min
Lab File: VL033856.D
Acq: 30 May 2019 4:54

Tgt Ion: 117 Resp: 8894
Ion Ratio Lower Upper
117 100
119 46.2 77.2 115.8#
121 20.8 24.1 36.1#





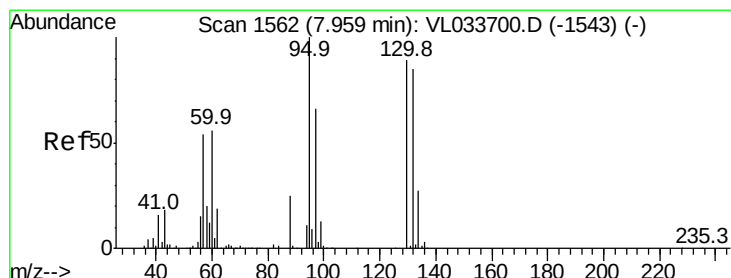
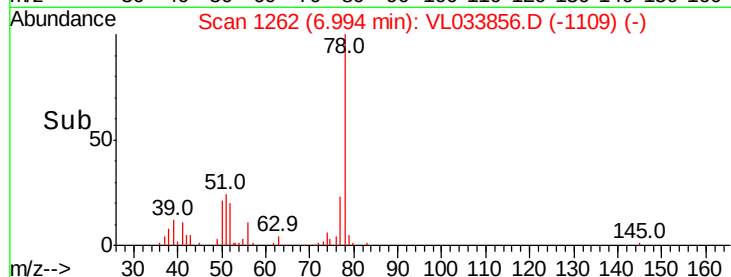
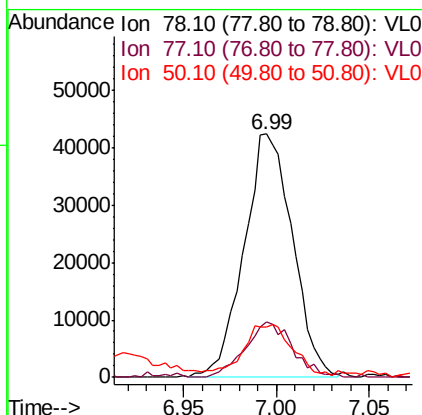
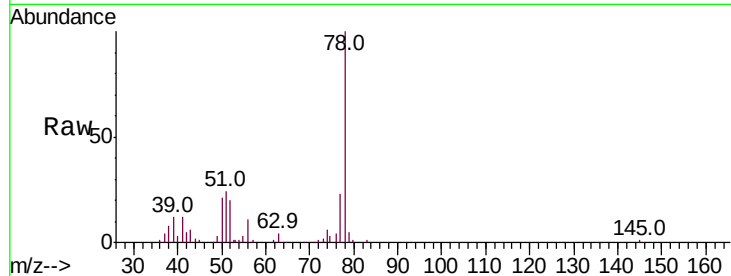
#36
Benzene
Concen: 0.497 ppbv
RT: 6.99 min Scan# 1262
Delta R.T. -0.01 min
Lab File: VL033856.D
Acq: 30 May 2019 4:54

Instrument :
MSVOA_L
ClientSampleId :
SG-4-20190523-0

Tot Ion	Ratio	Lower	Upper
78	100		
77	22.8	18.4	27.6
50	17.9	15.5	23.3

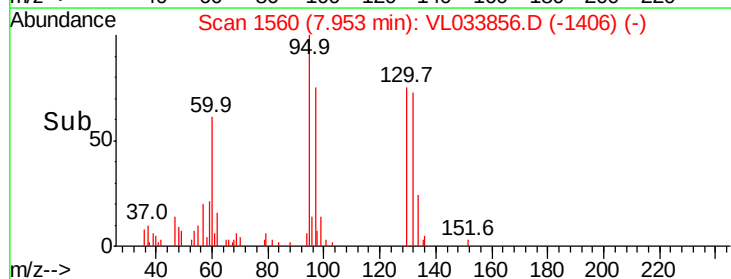
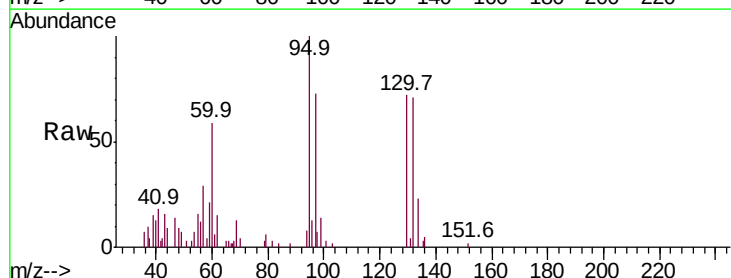
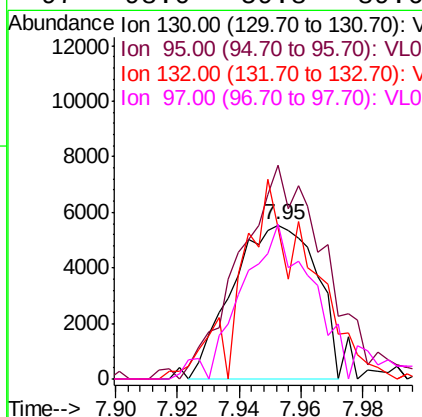
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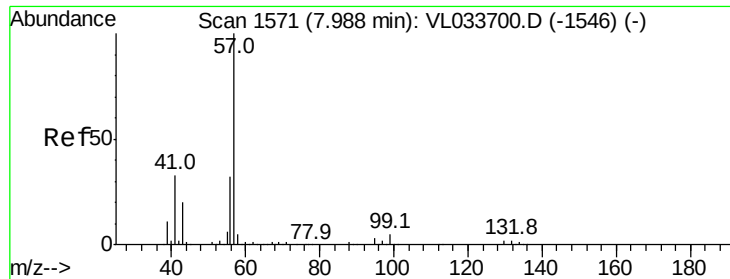
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#38
Trichloroethene
Concen: 0.181 ppbv
RT: 7.95 min Scan# 1560
Delta R.T. -0.01 min
Lab File: VL033856.D
Acq: 30 May 2019 4:54

Tgt Ion	Ratio	Lower	Upper
130	100		
95	129.9	90.2	135.4
132	89.6	76.4	114.6
97	98.0	59.8	89.6#





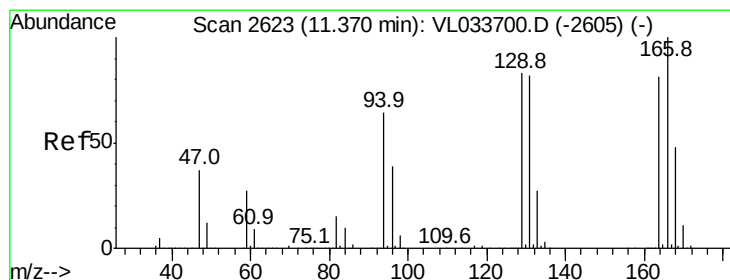
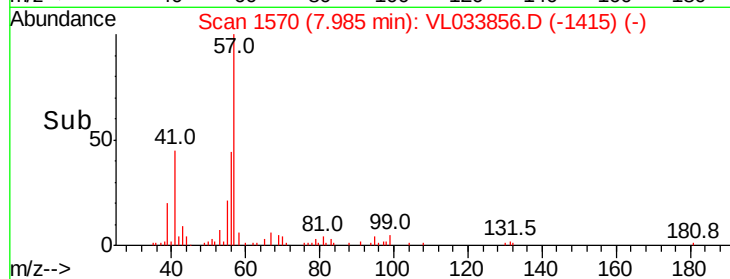
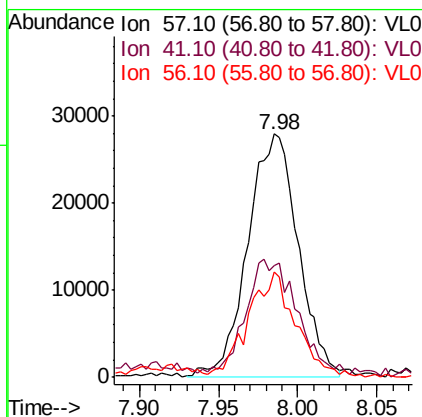
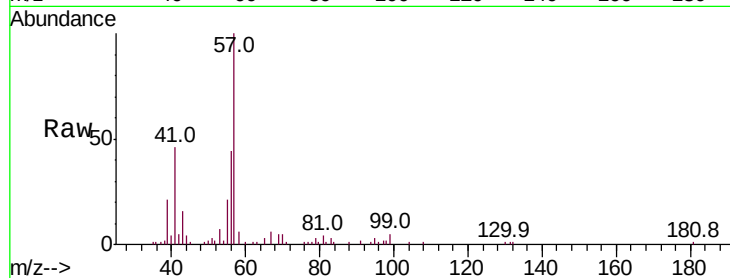
#44
 2,2,4-Trimethylpentane
 Concen: 0.236 ppbv m
 RT: 7.98 min Scan# 1570
 Delta R.T. -0.00 min
 Lab File: VL033856.D
 Acq: 30 May 2019 4:54

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-4-20190523-0

Tot Ion	Ratio	Lower	Upper
57	100		
41	52.2	25.4	38.0#
56	41.6	24.7	37.1#

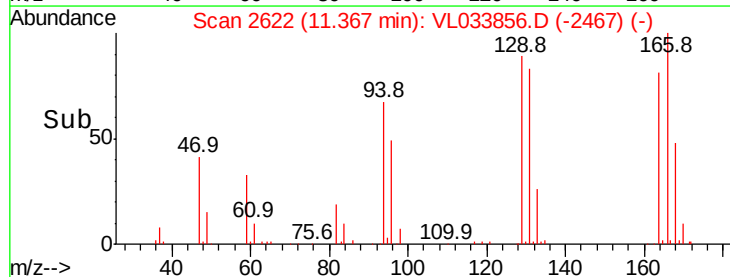
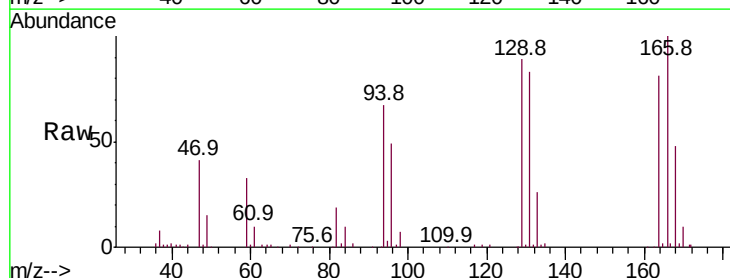
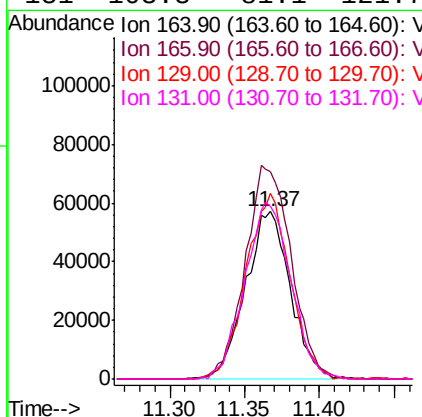
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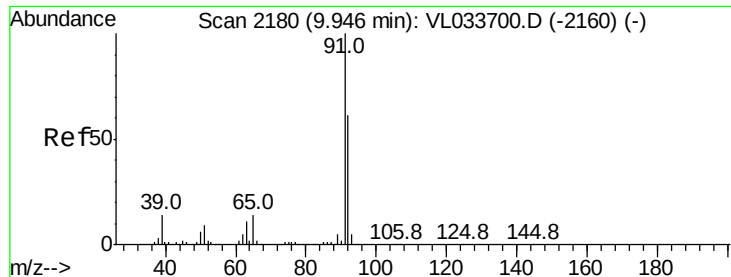
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#52
 Tetrachloroethene
 Concen: 2.188 ppbv
 RT: 11.37 min Scan# 2622
 Delta R.T. -0.00 min
 Lab File: VL033856.D
 Acq: 30 May 2019 4:54

Tgt Ion	Ratio	Lower	Upper
164	100		
166	123.5	98.9	148.3
129	110.5	81.8	122.6
131	103.3	81.1	121.7





#53

Toluene

Concen: 3.554 ppbv

RT: 9.94 min Scan# 2177

Delta R.T. -0.01 min

Lab File: VL033856.D

Acq: 30 May 2019 4:54

Instrument :

MSVOA_L

ClientSampleId :

SG-4-20190523-0

Tot Ion: 91 Resp: 595133

Ion Ratio Lower Upper

91 100

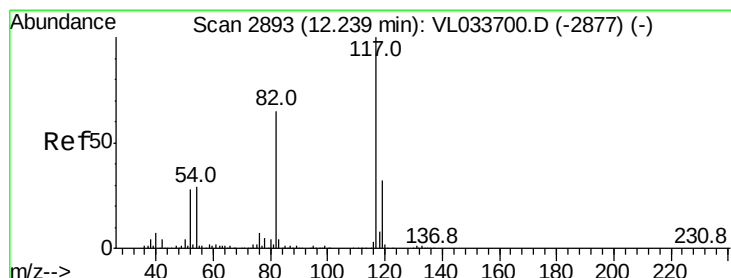
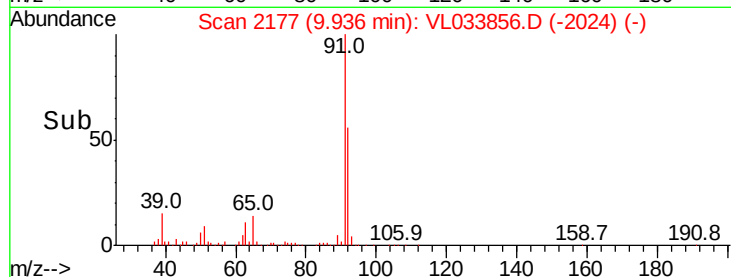
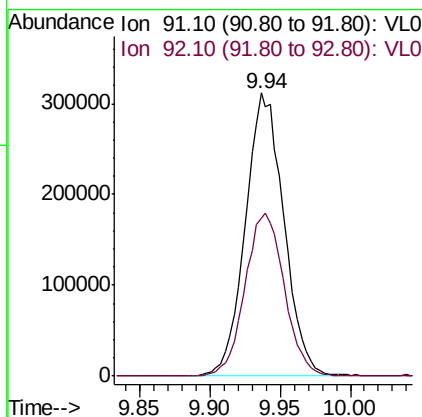
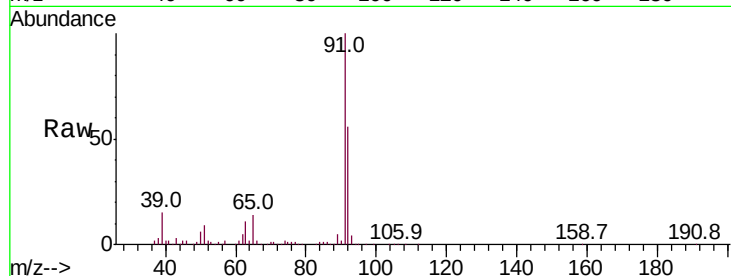
92 58.9 47.6 71.4

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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.23 min Scan# 2891

Delta R.T. -0.01 min

Lab File: VL033856.D

Acq: 30 May 2019 4:54

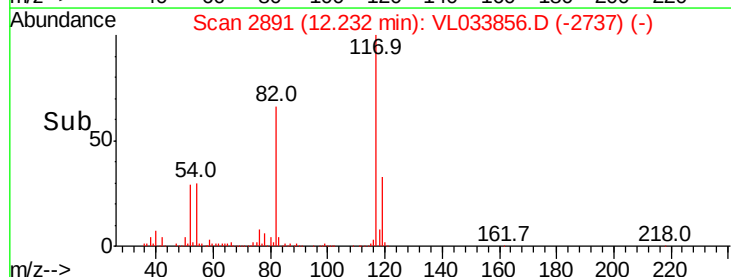
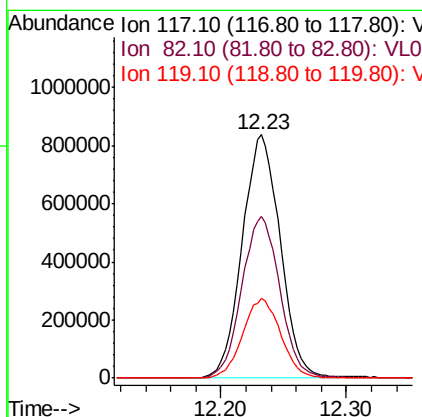
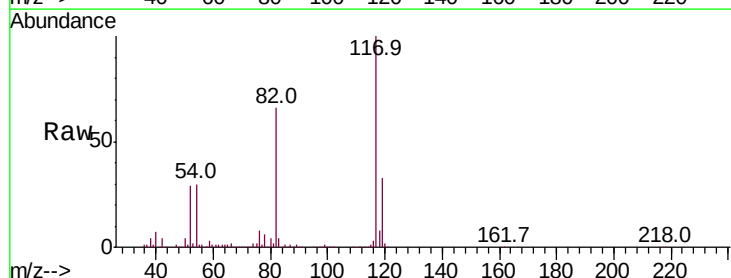
Tgt Ion: 117 Resp: 1766336

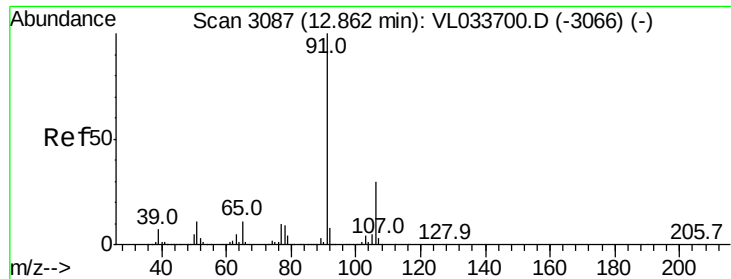
Ion Ratio Lower Upper

117 100

82 66.8 49.4 74.0

119 32.8 24.9 37.3





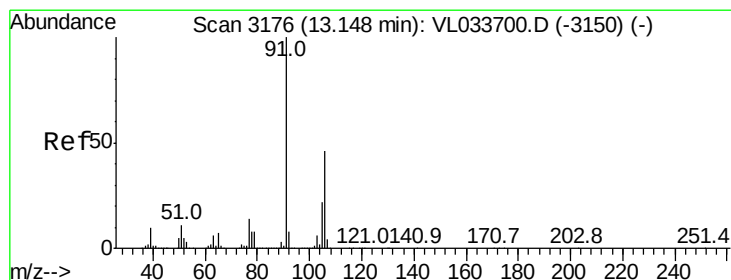
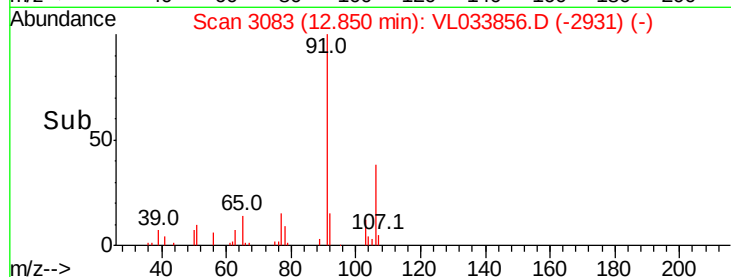
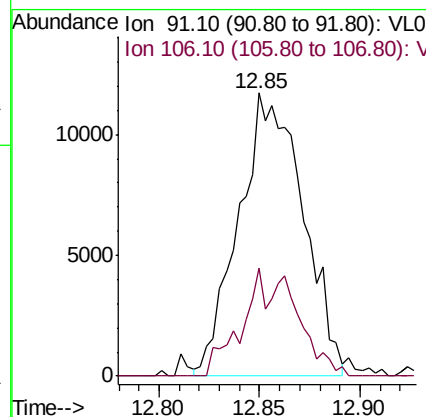
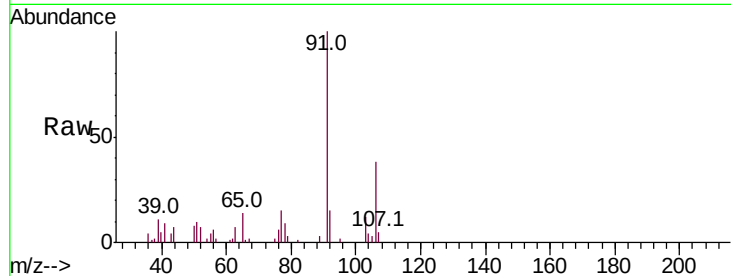
#58
Ethyl Benzene
Concen: 0.112 ppbv m
RT: 12.85 min Scan# 3083
Delta R.T. -0.01 min
Lab File: VL033856.D
Acq: 30 May 2019 4:54

Instrument :
MSVOA_L
ClientSampled :
SG-4-20190523-0

Tot Ion: 91 Resp: 26150
Ion Ratio Lower Upper
91 100
106 38.1 23.9 35.9#

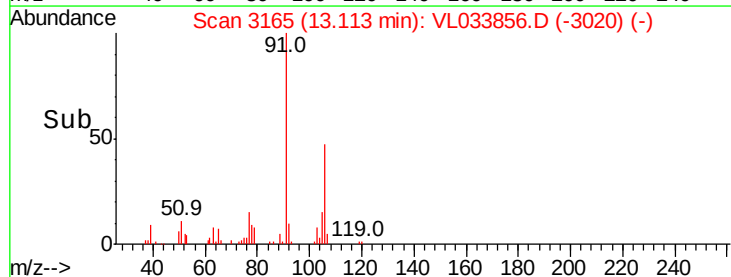
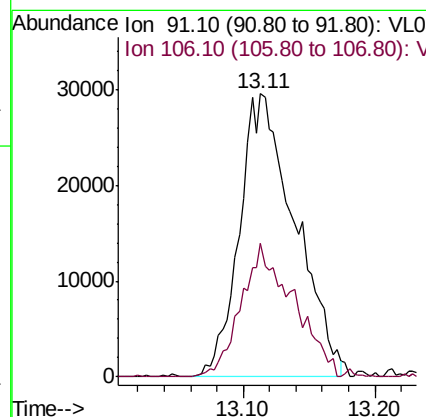
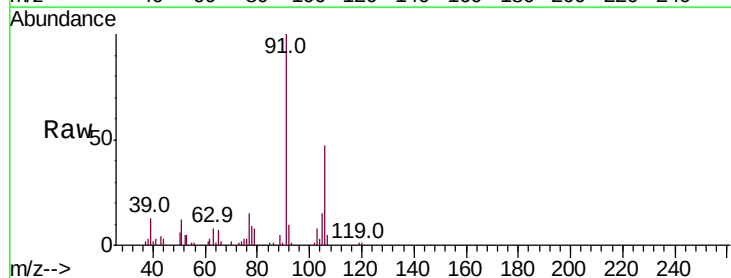
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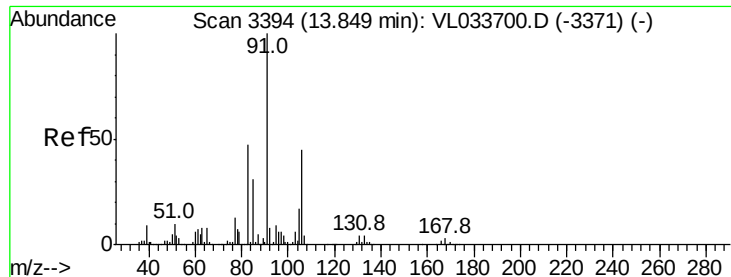
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#59
m/p-Xylene
Concen: 0.420 ppbv m
RT: 13.11 min Scan# 3165
Delta R.T. -0.04 min
Lab File: VL033856.D
Acq: 30 May 2019 4:54

Tgt Ion: 91 Resp: 85954
Ion Ratio Lower Upper
91 100
106 0.0 35.8 53.6#





#60

o-Xylene

Concen: 0.202 ppbv

RT: 13.85 min Scan# 3393

Delta R.T. -0.00 min

Lab File: VL033856.D

Acq: 30 May 2019 4:54

Instrument :

MSVOA_L

ClientSampleId :

SG-4-20190523-0

Tot Ion: 91 Resp: 41565

Ion Ratio Lower Upper

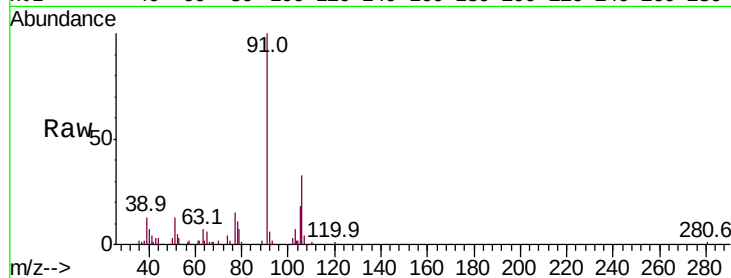
91 100

106 43.4 21.6 64.8

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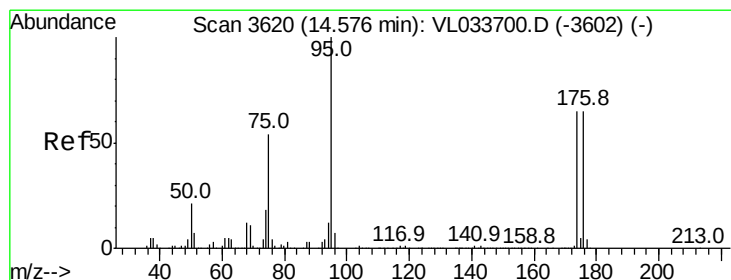
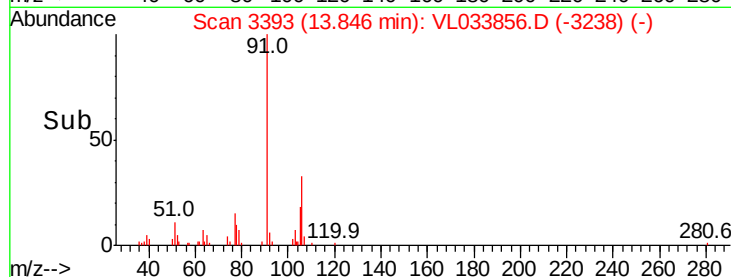
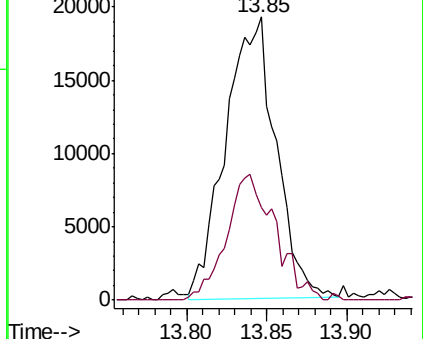
apatel

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Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V



#68

1-Bromo-4-Fluorobenzene

Concen: 10.072 ppbv

RT: 14.57 min Scan# 3617

Delta R.T. -0.01 min

Lab File: VL033856.D

Acq: 30 May 2019 4:54

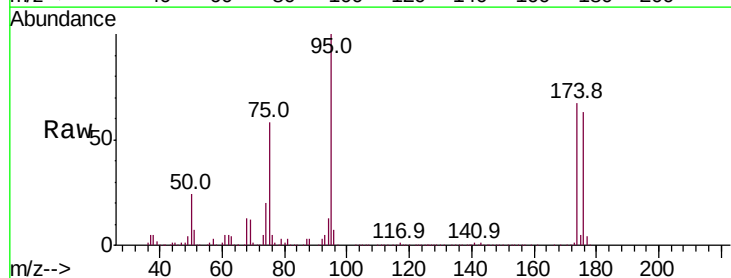
Tgt Ion: 95 Resp: 1442175

Ion Ratio Lower Upper

95 100

174 66.7 53.9 80.9

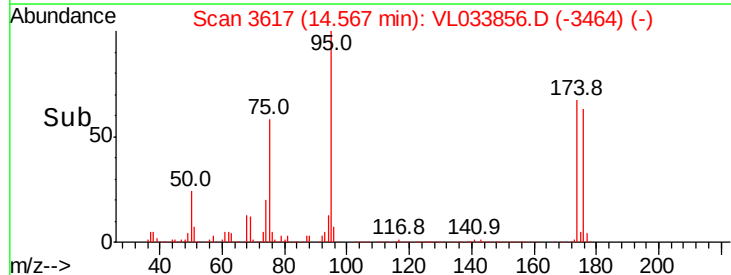
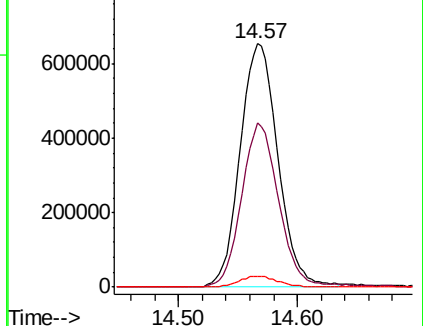
175 4.7 3.8 5.8

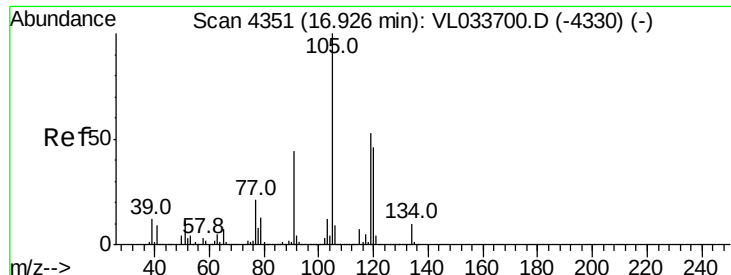


Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V





#74
 1,2,4-Trimethylbenzene
 Concen: 0.233 ppbv
 RT: 16.92 min Scan# 4348
 Delta R.T. -0.01 min
 Lab File: VL033856.D
 Acq: 30 May 2019 4:54

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-4-20190523-0

Tot Ion:	105	Resp:	58306
Ion Ratio	Lower	Upper	
105	100		
120	41.0	36.8	55.2
91	14.0	35.4	53.0#
77	12.0	16.8	25.2#

Manual Integrations
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