

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL122018\
 Data File : VL033049.D
 Acq On : 21 Dec 2018 11:11
 Operator : SY/AP
 Sample : J6480-02DUP
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 MIDDUP

Manual Integrations
 APPROVED

MMDadoda
 12/24/2018 8:26:35 AM

Quant Time: Dec 22 05:47:30 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL120718AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Dec 0
 QLast Update : Fri Dec 07 09:35:17 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.77	49	856519	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.30	114	1993427	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.25	117	1841216	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.59	95	1505420	11.07	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	110.70%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.08	85	35838	0.313	ppbv	99
3) Chlorodifluoromethane	3.02	51	28323m	0.437	ppbv	
4) Chloromethane	3.18	50	31582	0.836	ppbv	92
9) Propene	3.05	41	13417m	0.523	ppbv	
11) Trichlorofluoromethane	4.01	101	44817	0.416	ppbv	88
12) 1,1,2-Trichlorotrifluoroet	4.56	101	10697m	0.116	ppbv	
13) Ethanol	3.66	45	34553m	3.913	ppbv	
15) Acetone	3.91	43	237134	3.226	ppbv	99
20) Methylene Chloride	4.42	84	188276	5.240	ppbv	99
24) 1,1-Dichloroethane	5.10	63	25505	0.236	ppbv #	94
26) Hexane	5.79	57	180445	2.250	ppbv #	43
32) 1,1,1-Trichloroethane	6.63	97	142666	0.942	ppbv	98
34) 2-Butanone	5.35	43	11289m	0.130	ppbv	
35) Carbon Tetrachloride	7.14	117	12024m	0.077	ppbv	
36) Benzene	7.02	78	13119m	0.089	ppbv	
53) Toluene	9.96	91	29353m	0.189	ppbv	

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

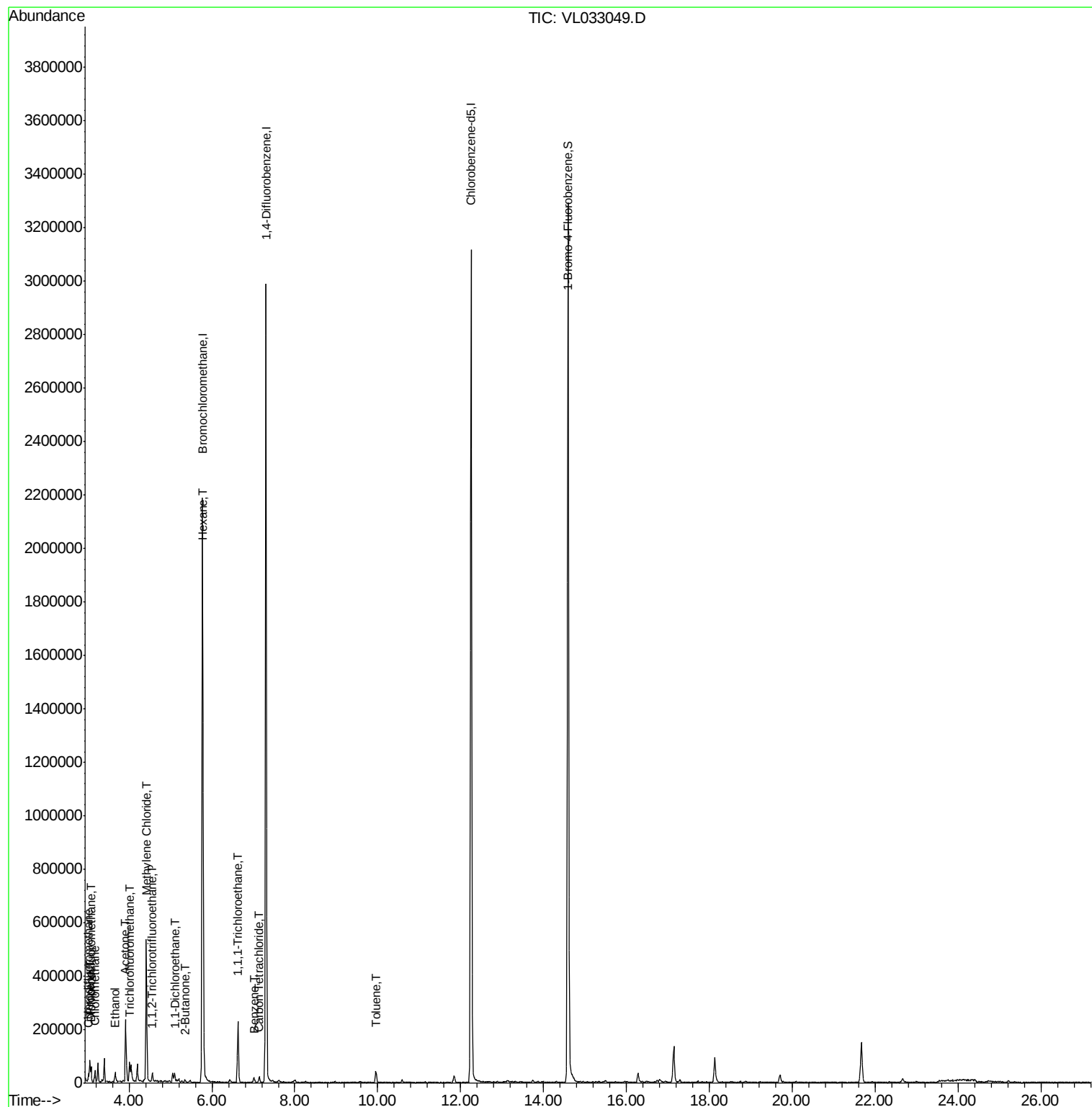
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL122018\
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Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

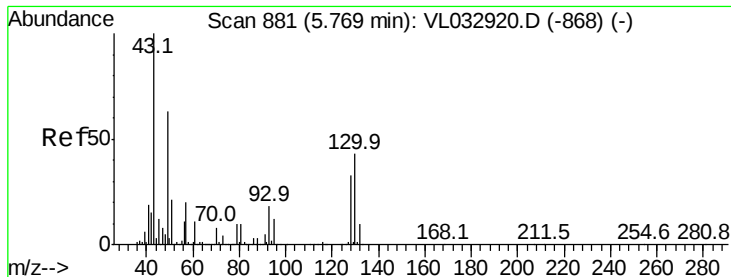
Instrument :
MSVOA_L
ClientSampleId :
MIDDUP

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12/24/2018 8:26:35 AM

Quant Time: Dec 22 05:47:30 2018
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL120718AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Dec
QLast Update : Fri Dec 07 09:35:17 2018
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.77 min Scan# 881

Delta R.T. 0.00 min

Lab File: VL033049.D

Acq: 21 Dec 2018 11:11

Instrument :

MSVOA_L

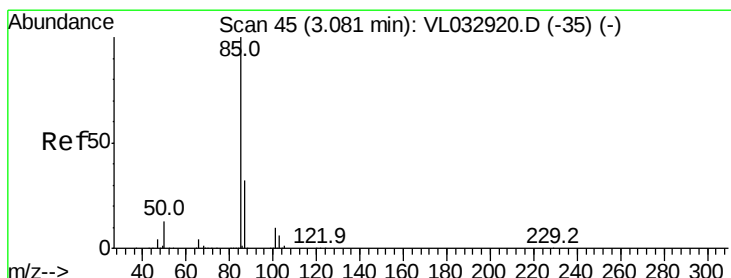
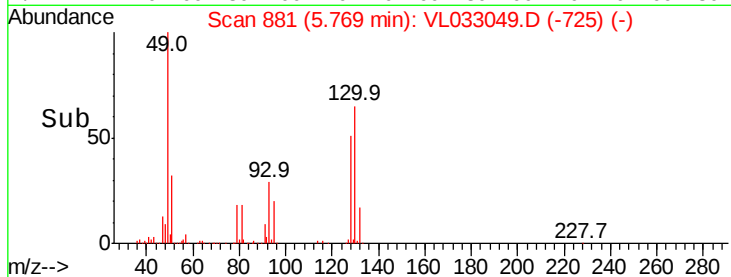
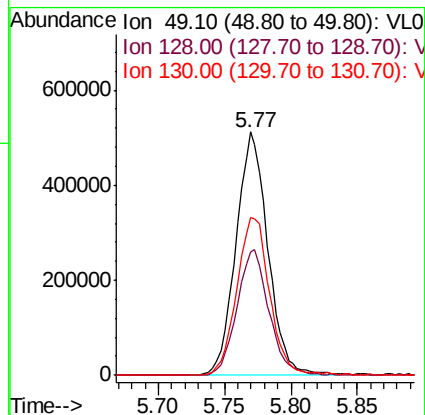
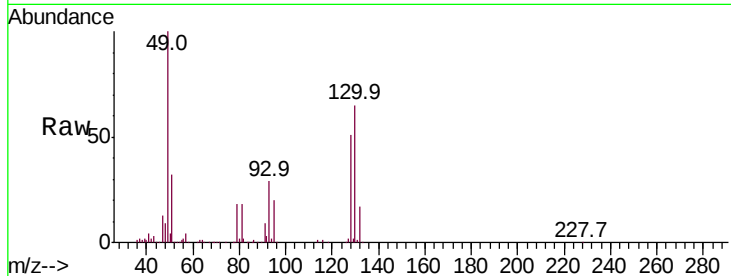
ClientSampleId :

MIDDUP

Tot Ion	Ratio	Lower	Upper
49	100		
128	52.5	26.3	78.8
130	67.8	33.9	101.7

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#2

Dichlorodifluoromethane

Concen: 0.313 ppbv

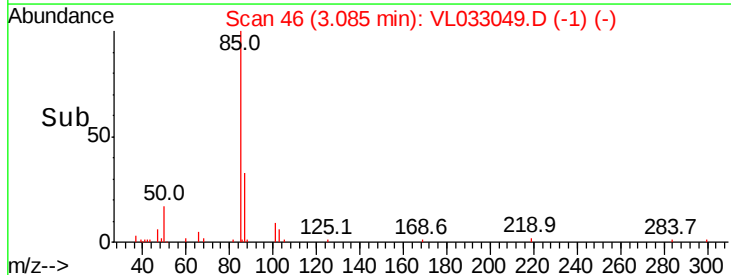
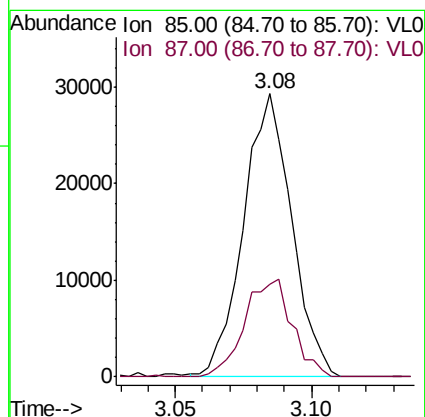
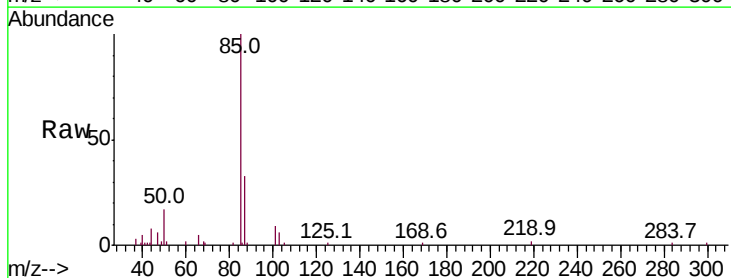
RT: 3.08 min Scan# 46

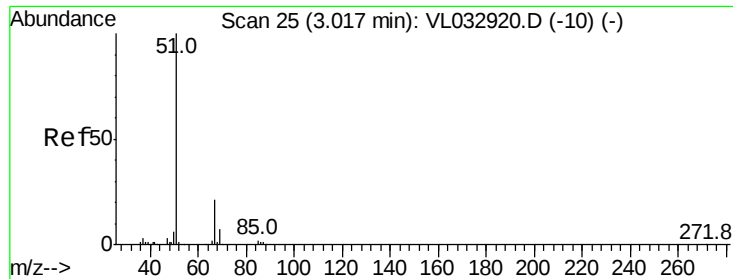
Delta R.T. 0.00 min

Lab File: VL033049.D

Acq: 21 Dec 2018 11:11

Tgt Ion	Ratio	Lower	Upper
85	100		
87	32.7	25.7	38.5





#3

Chlorodifluoromethane

Concen: 0.437 ppbv

RT: 3.02 min Scan# 26

Delta R.T. 0.00 min

Lab File: VL033049.D

Acq: 21 Dec 2018 11:11

Instrument :

MSVOA_L

ClientSampleId :

MIDDUP

Tot Ion: 51 Resp: 28323

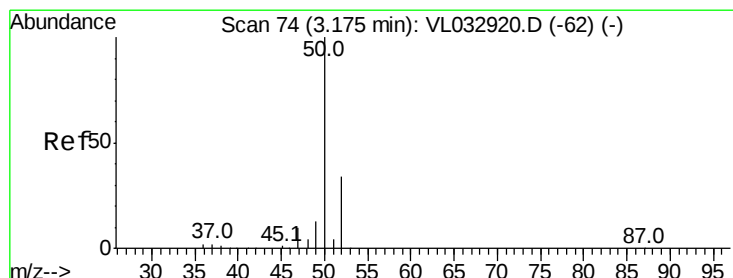
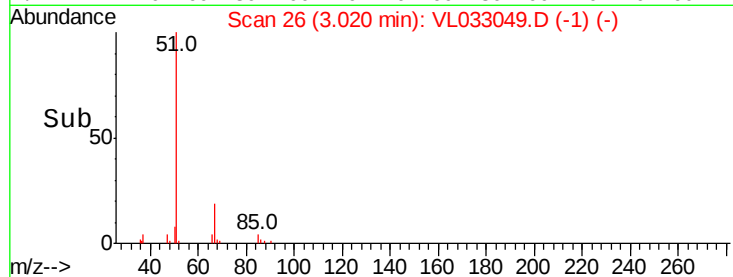
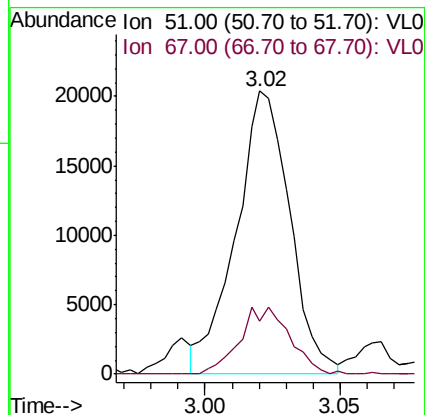
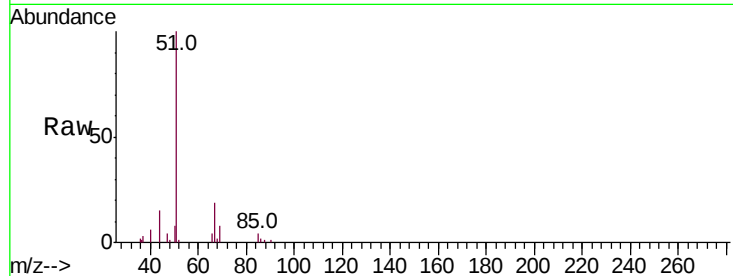
Ion Ratio Lower Upper

51 100

67 21.9 16.8 25.2

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#4

Chloromethane

Concen: 0.836 ppbv

RT: 3.18 min Scan# 76

Delta R.T. 0.01 min

Lab File: VL033049.D

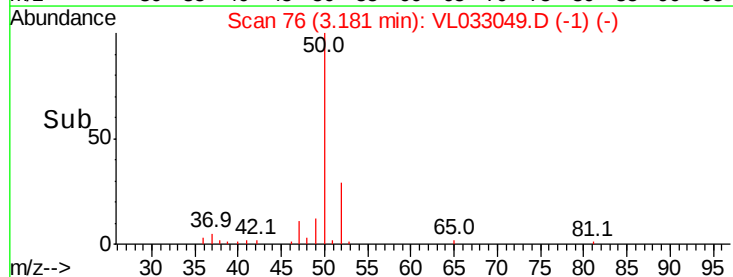
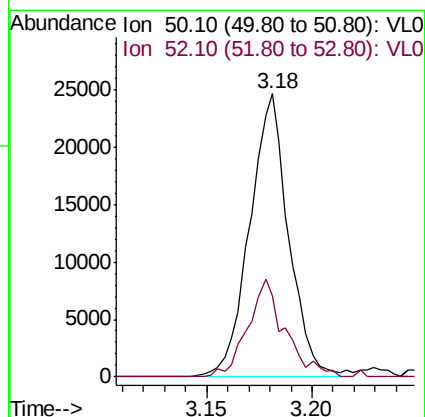
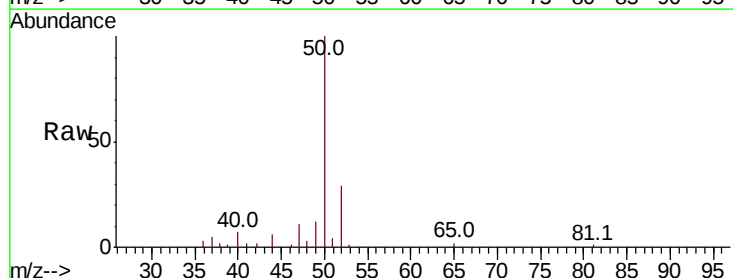
Acq: 21 Dec 2018 11:11

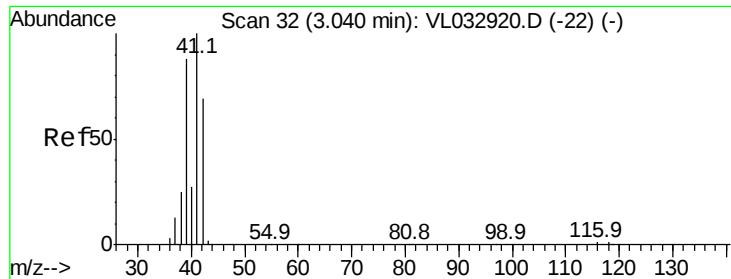
Tgt Ion: 50 Resp: 31582

Ion Ratio Lower Upper

50 100

52 29.6 27.3 40.9





#9

Propene

Concen: 0.523 ppbv m

RT: 3.05 min Scan# 36

Delta R.T. 0.01 min

Lab File: VL033049.D

Acq: 21 Dec 2018 11:11

Instrument :

MSVOA_L

ClientSampleId :

MIDDUP

Tot Ion: 41 Resp: 13417

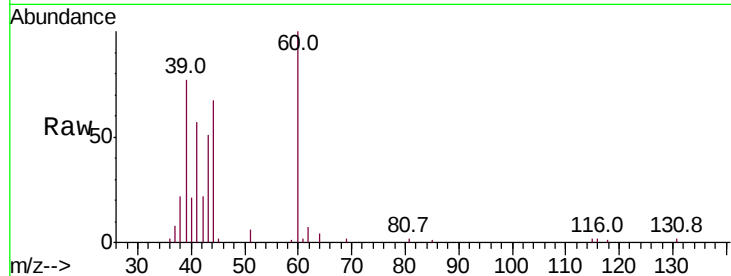
Ion Ratio Lower Upper

41 100

42 86.8 56.2 84.2#

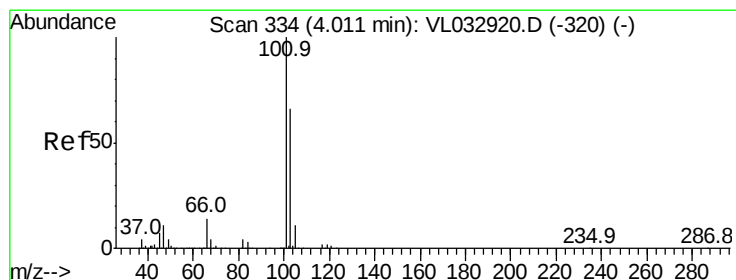
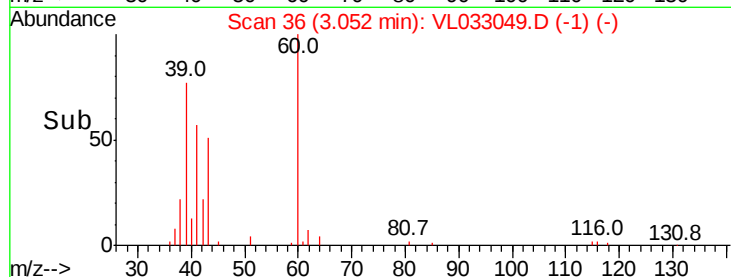
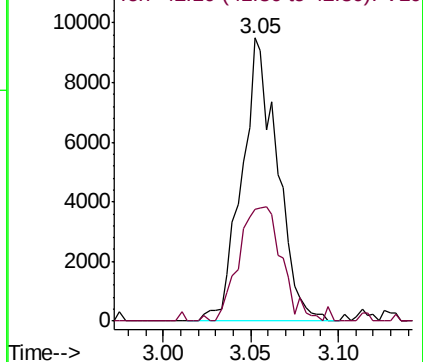
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Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#11

Trichlorofluoromethane

Concen: 0.416 ppbv

RT: 4.01 min Scan# 335

Delta R.T. 0.00 min

Lab File: VL033049.D

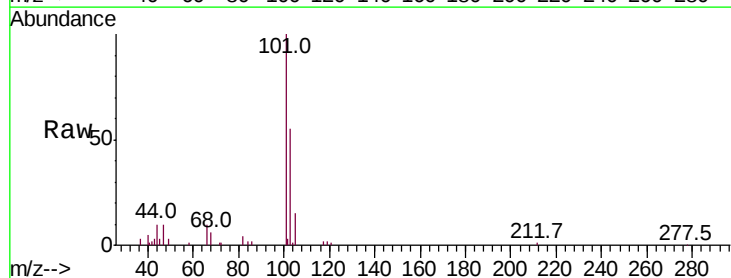
Acq: 21 Dec 2018 11:11

Tgt Ion: 101 Resp: 44817

Ion Ratio Lower Upper

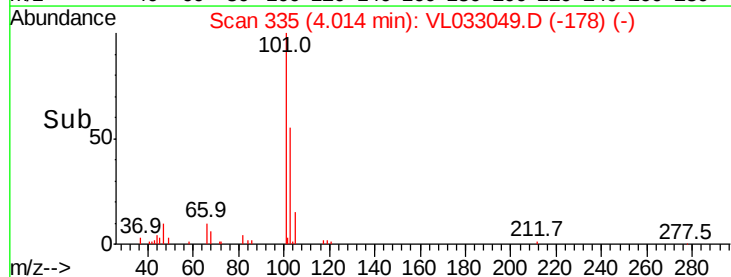
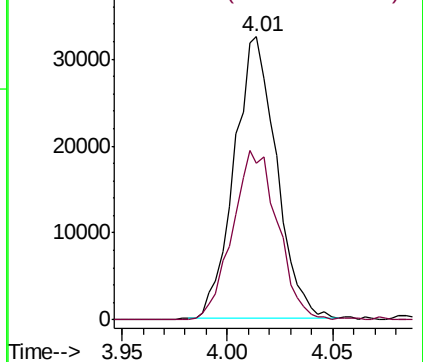
101 100

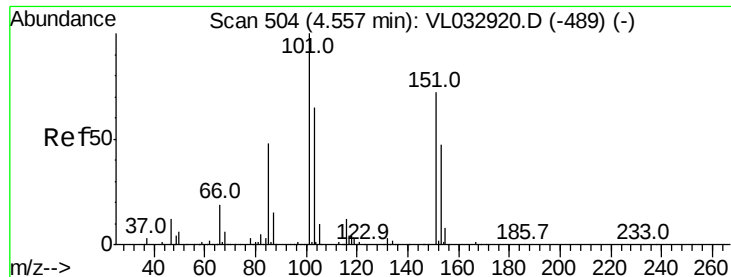
103 56.3 52.7 79.1



Abundance Ion 101.00 (100.70 to 101.70): V

Ion 103.00 (102.70 to 103.70): V





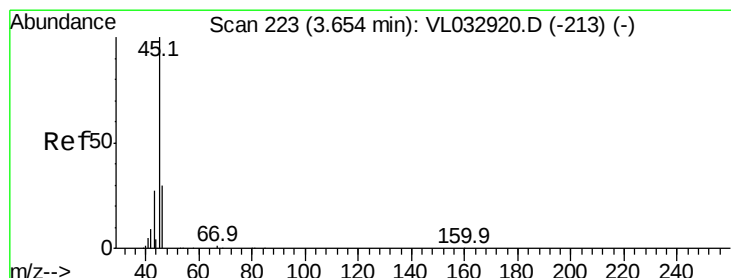
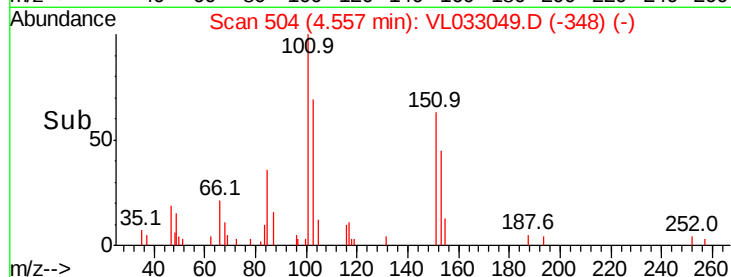
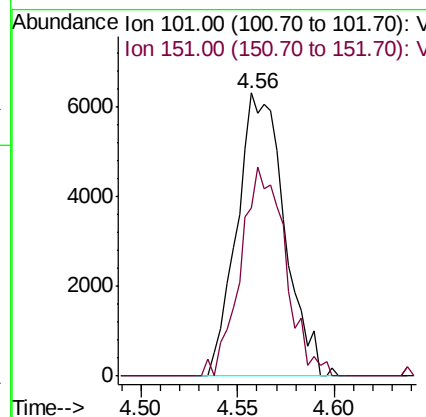
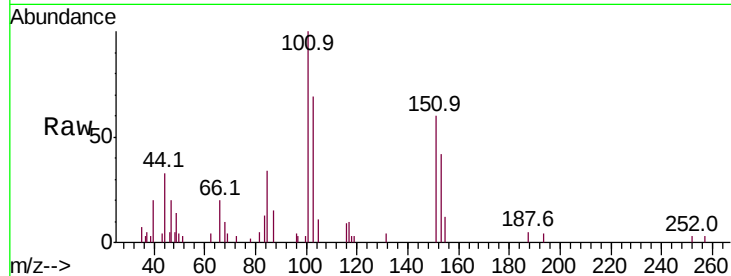
#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 0.116 ppbv m
 RT: 4.56 min Scan# 504
 Delta R.T. 0.00 min
 Lab File: VL033049.D
 Acq: 21 Dec 2018 11:11

Instrument :
 MSVOA_L
 ClientSampleId :
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Tot Ion:101 Resp: 10697
 Ion Ratio Lower Upper
 101 100
 151 0.0 59.3 88.9#

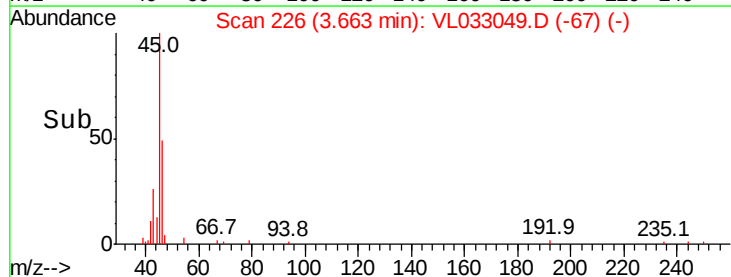
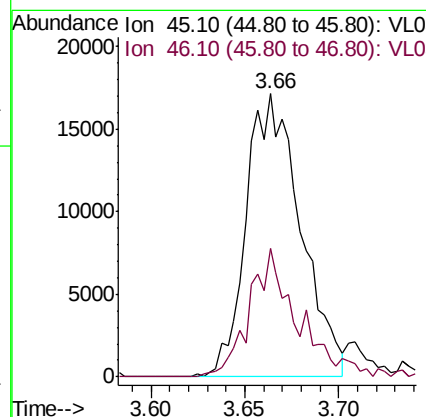
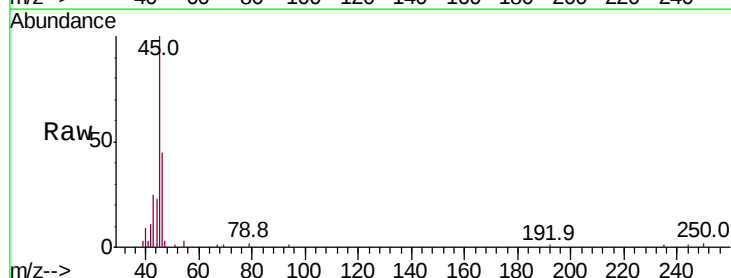
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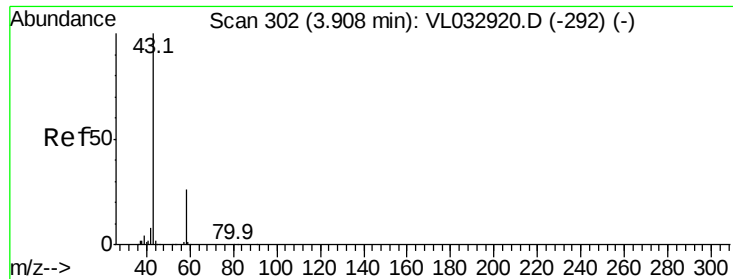
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#13
 Ethanol
 Concen: 3.913 ppbv m
 RT: 3.66 min Scan# 226
 Delta R.T. 0.01 min
 Lab File: VL033049.D
 Acq: 21 Dec 2018 11:11

Tgt Ion: 45 Resp: 34553
 Ion Ratio Lower Upper
 45 100
 46 0.0 13.8 55.4#





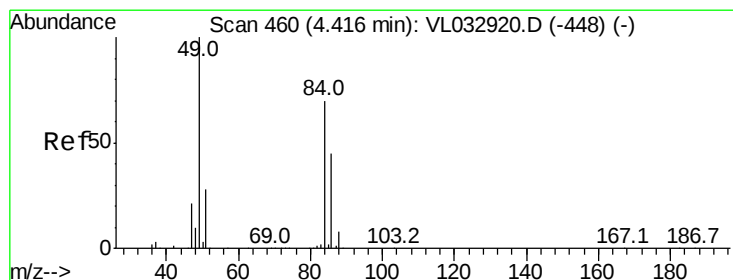
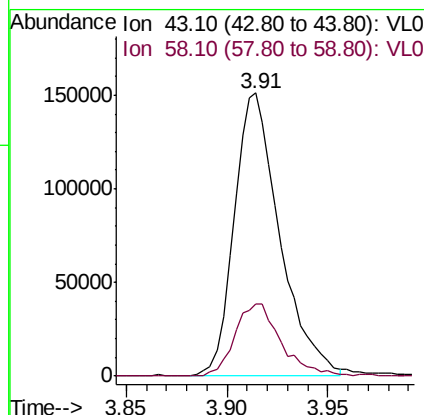
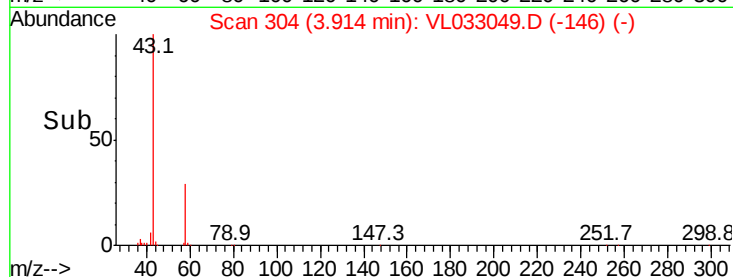
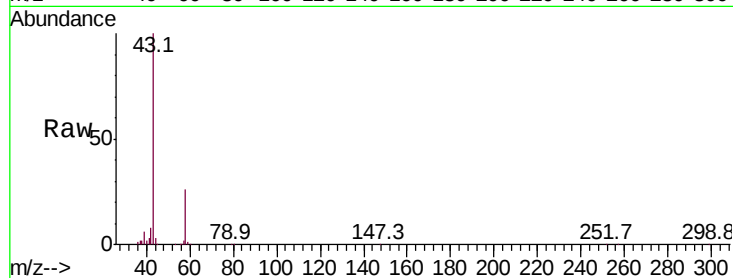
#15
Acetone
Concen: 3.226 ppbv
RT: 3.91 min Scan# 304
Delta R.T. 0.01 min
Lab File: VL033049.D
Acq: 21 Dec 2018 11:11

Instrument :
MSVOA_L
ClientSampleId :
MIDDUP

Tot Ion	Ratio	Lower	Upper
43	100		
58	26.4	20.6	30.8

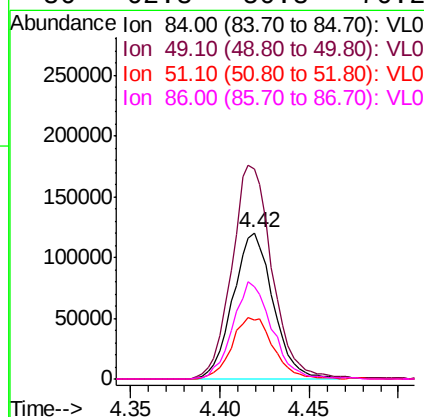
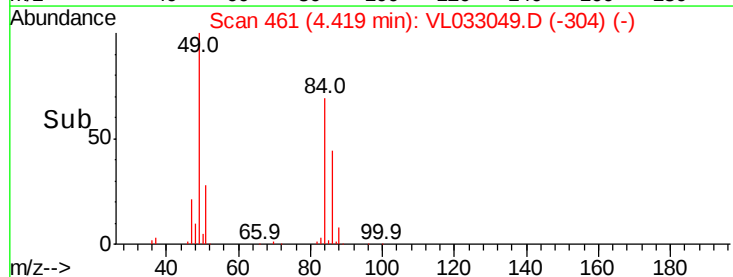
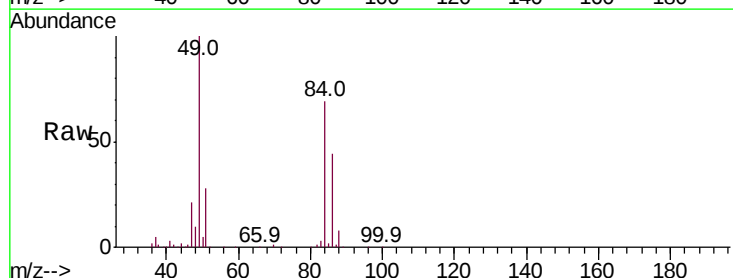
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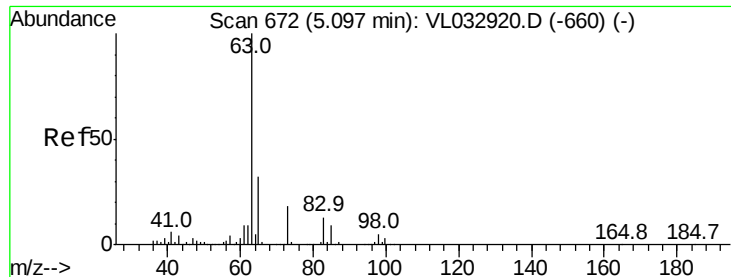
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#20
Methylene Chloride
Concen: 5.240 ppbv
RT: 4.42 min Scan# 461
Delta R.T. 0.00 min
Lab File: VL033049.D
Acq: 21 Dec 2018 11:11

Tgt Ion	Ratio	Lower	Upper
84	100		
49	144.1	113.8	170.8
51	40.6	31.8	47.8
86	62.8	50.8	76.2





#24

1,1-Dichloroethane

Concen: 0.236 ppbv

RT: 5.10 min Scan# 673

Delta R.T. 0.00 min

Lab File: VL033049.D

Acq: 21 Dec 2018 11:11

Instrument :

MSVOA_L

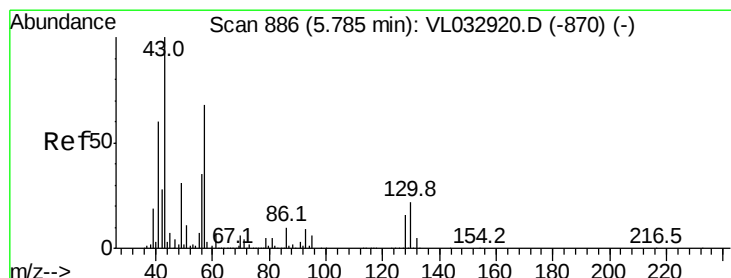
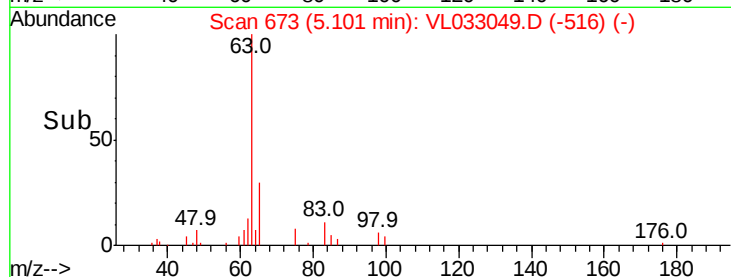
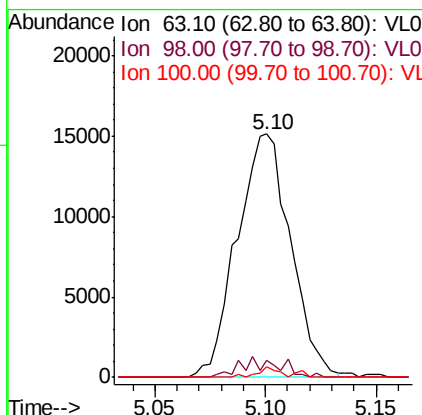
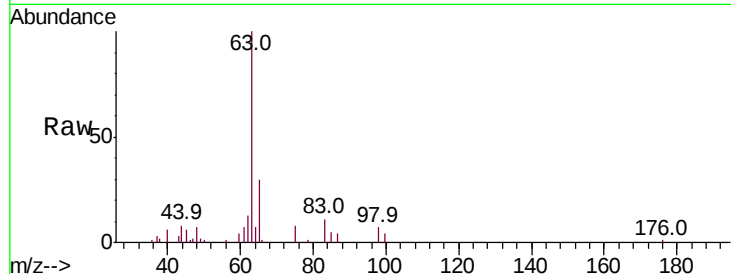
ClientSampleId :

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Tot Ion	Ratio	Resp	Lower	Upper
63	100	25505		
98	7.2		2.5	7.5
100	4.5		1.4	4.2#

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#26

Hexane

Concen: 2.250 ppbv

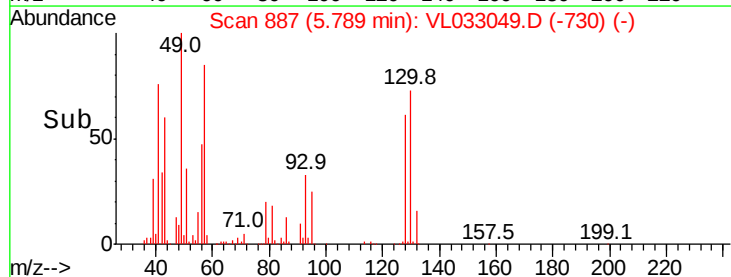
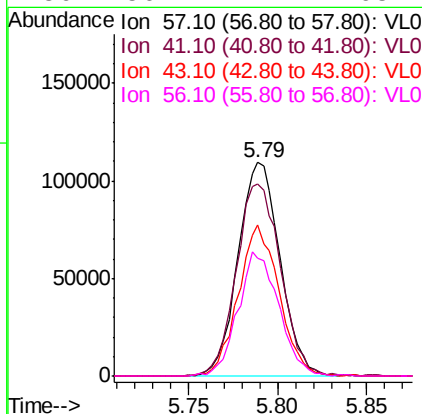
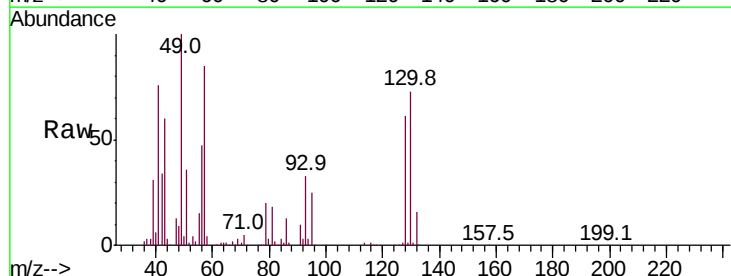
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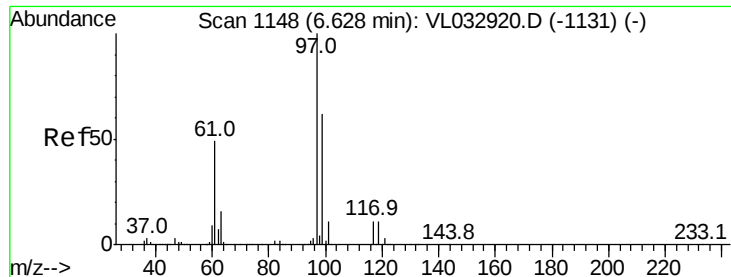
Delta R.T. 0.00 min

Lab File: VL033049.D

Acq: 21 Dec 2018 11:11

Tgt Ion	Ratio	Resp	Lower	Upper
57	100	180445		
41	95.1		72.2	108.2
43	69.1		171.9	257.9#
56	56.4		42.2	63.2





#32

1,1,1-Trichloroethane

Concen: 0.942 ppbv

RT: 6.63 min Scan# 1149

Delta R.T. 0.00 min

Lab File: VL033049.D

Acq: 21 Dec 2018 11:11

Instrument :

MSVOA_L

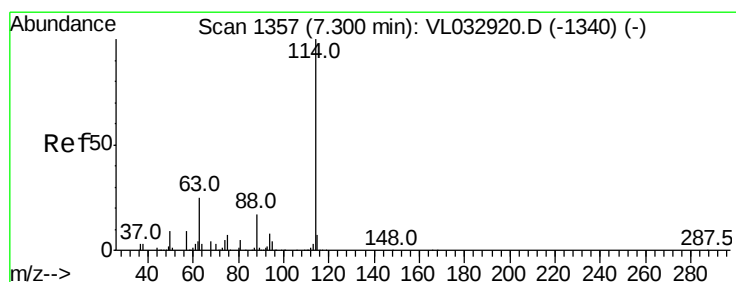
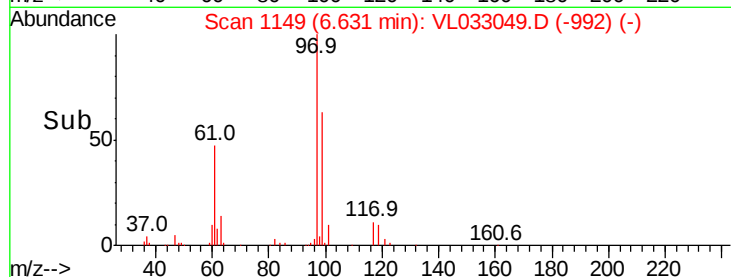
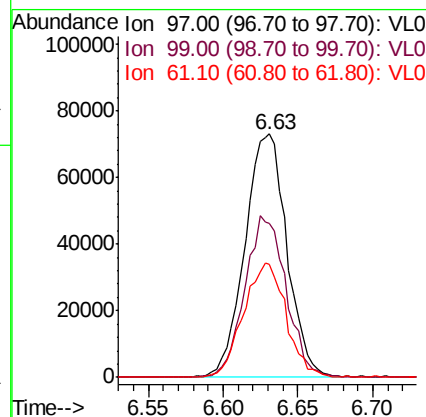
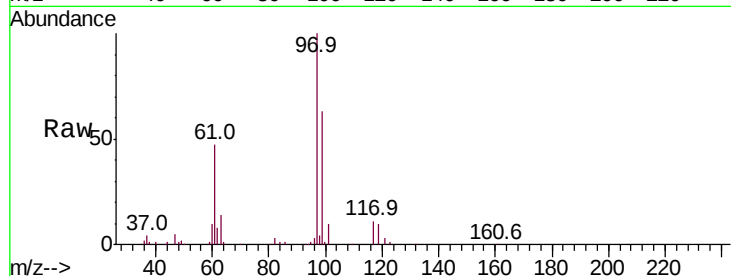
ClientSampled :

MIDDUP

Tot Ion:	97	Resp:	142666
Ion Ratio	Lower	Upper	
97	100		
99	65.0	51.1	76.7
61	47.7	39.3	58.9

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#33

1,4-Difluorobenzene

Concen: 10.000 ppbv

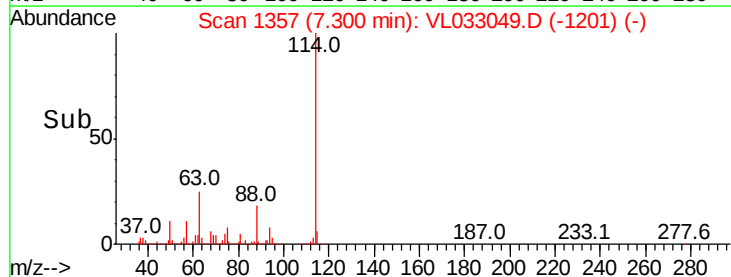
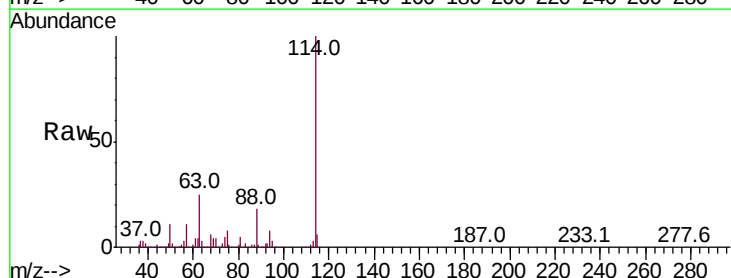
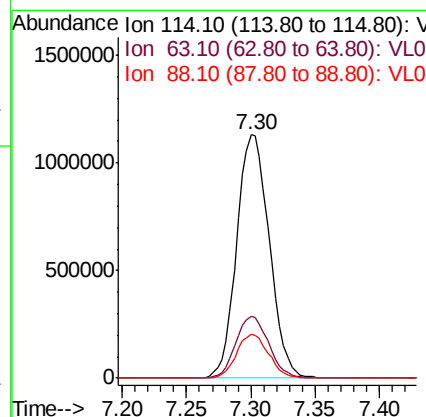
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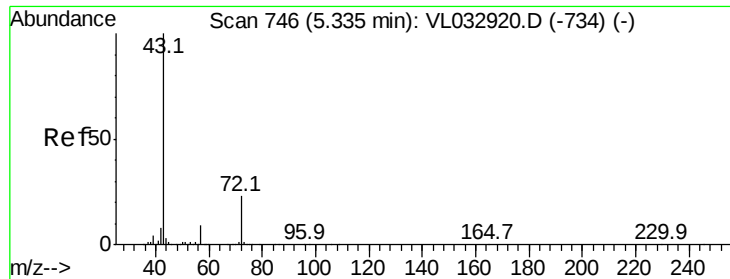
Delta R.T. 0.00 min

Lab File: VL033049.D

Acq: 21 Dec 2018 11:11

Tgt Ion:	114	Resp:	1993427
Ion Ratio	Lower	Upper	
114	100		
63	25.5	20.1	30.1
88	17.8	14.2	21.4





#34

2-Butanone

Concen: 0.130 ppbv m

RT: 5.35 min Scan# 751

Delta R.T. 0.02 min

Lab File: VL033049.D

Acq: 21 Dec 2018 11:11

Instrument :

MSVOA_L

ClientSampleId :

MIDDUP

Tot Ion: 43 Resp: 11289

Ion Ratio Lower Upper

43 100

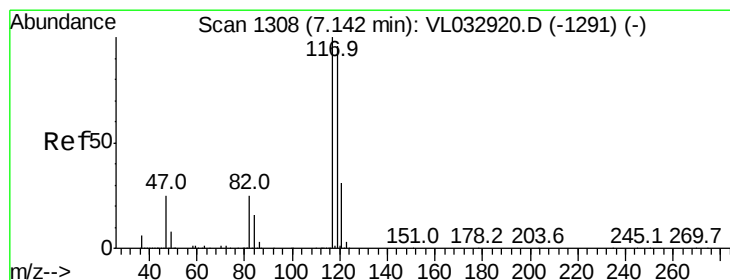
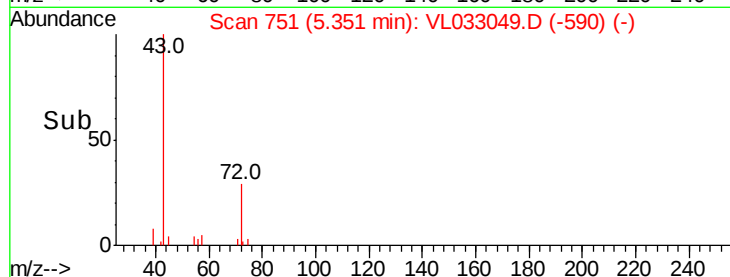
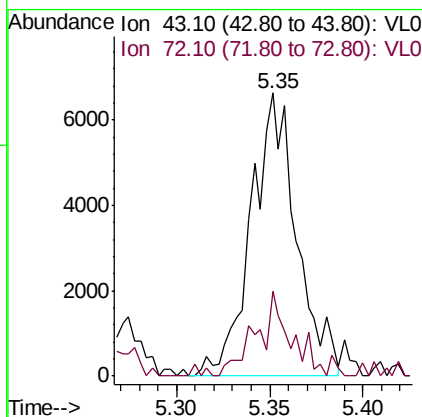
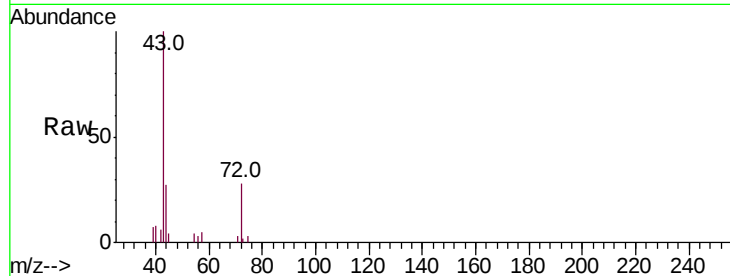
72 0.0 18.8 28.2#

Manual Integrations

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#35

Carbon Tetrachloride

Concen: 0.077 ppbv m

RT: 7.14 min Scan# 1307

Delta R.T. -0.00 min

Lab File: VL033049.D

Acq: 21 Dec 2018 11:11

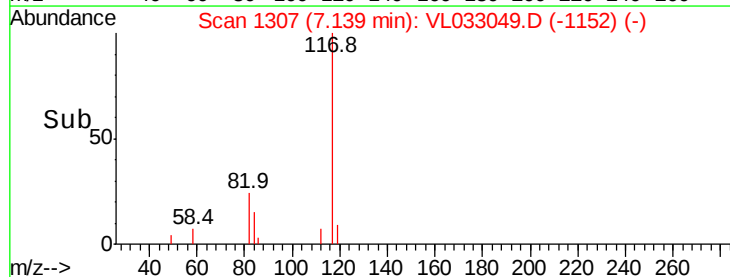
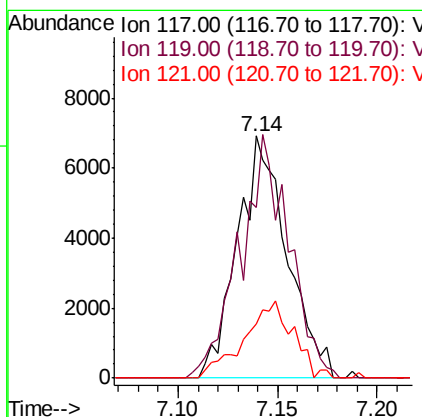
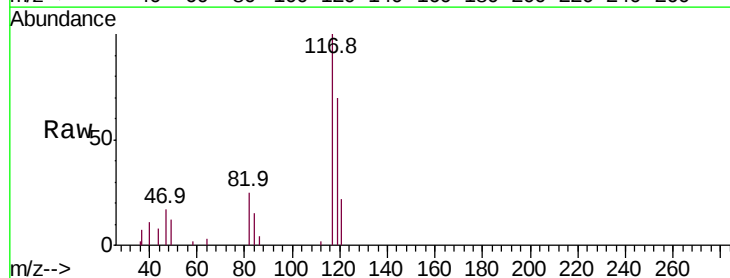
Tgt Ion: 117 Resp: 12024

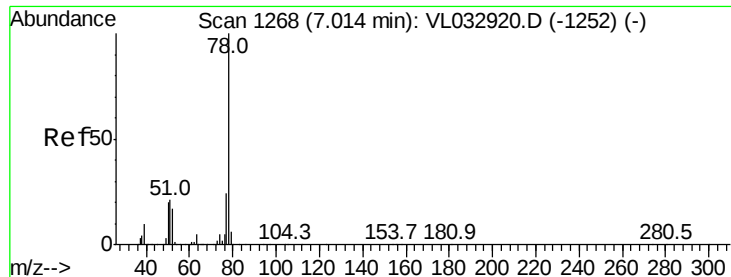
Ion Ratio Lower Upper

117 100

119 70.4 76.5 114.7#

121 22.2 24.5 36.7#





#36

Benzene

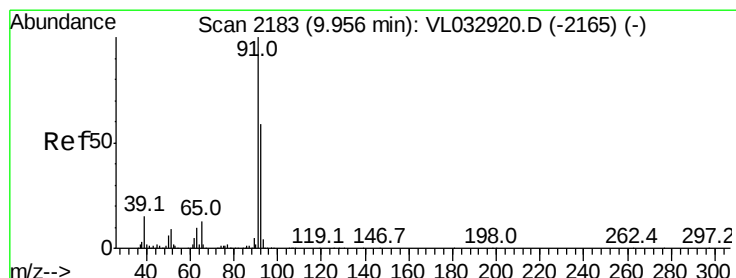
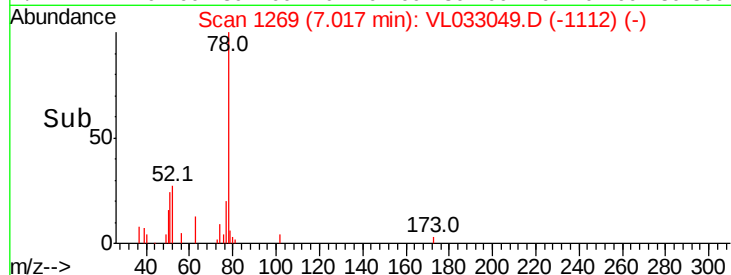
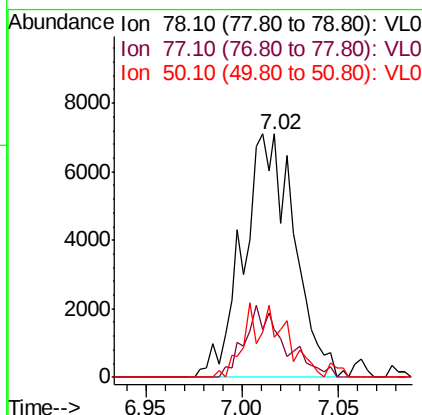
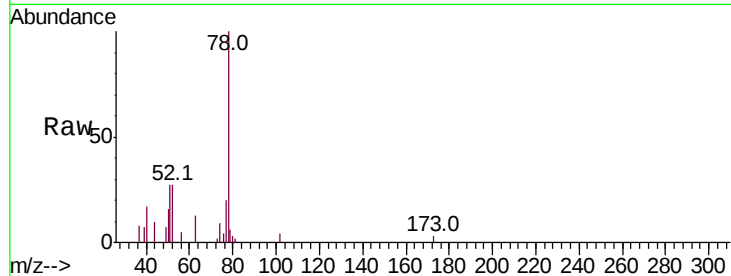
Concen: 0.089 ppbv m
RT: 7.02 min Scan# 1269
Delta R.T. 0.00 min
Lab File: VL033049.D
Acq: 21 Dec 2018 11:11

Instrument :
MSVOA_L
ClientSampleId :
MIDDUP

Tot Ion	Ratio	Lower	Upper
78	100		
77	19.5	18.9	28.3
50	16.4	16.1	24.1

Manual Integrations
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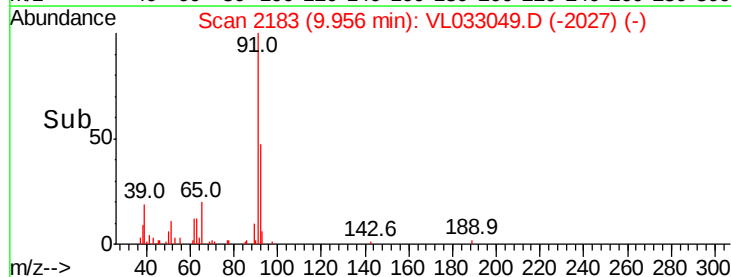
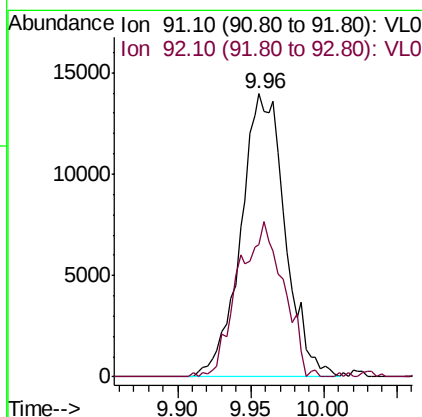
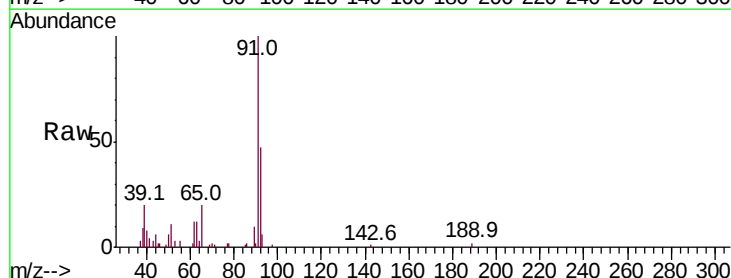


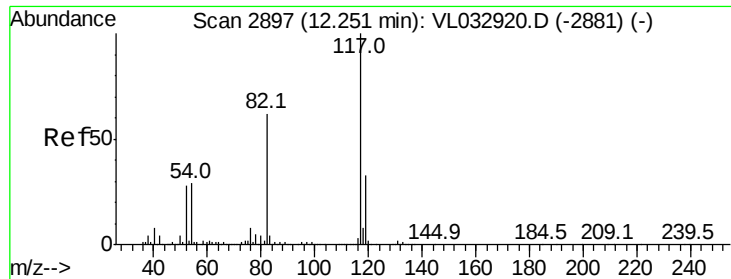
#53

Toluene

Concen: 0.189 ppbv m
RT: 9.96 min Scan# 2183
Delta R.T. 0.00 min
Lab File: VL033049.D
Acq: 21 Dec 2018 11:11

Tgt Ion	Ratio	Lower	Upper
91	100		
92	56.7	47.4	71.0





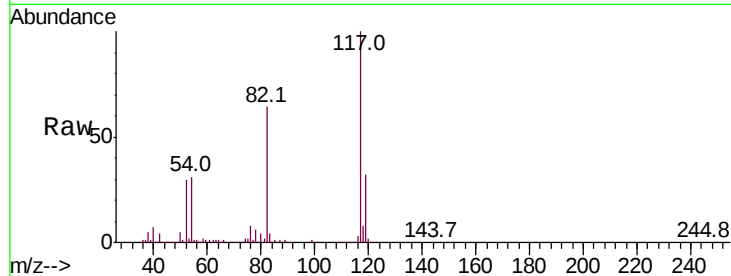
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.25 min Scan# 2897
Delta R.T. 0.00 min
Lab File: VL033049.D
Acq: 21 Dec 2018 11:11

Instrument :
MSVOA_L
ClientSampleId :
MIDDUP

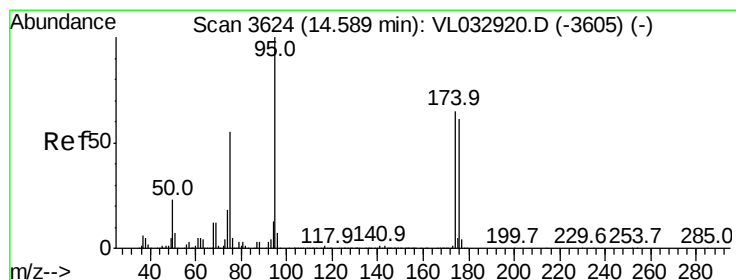
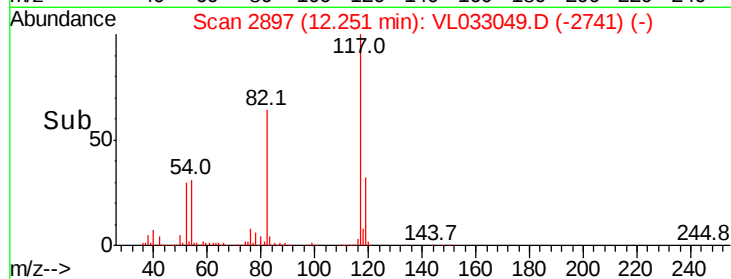
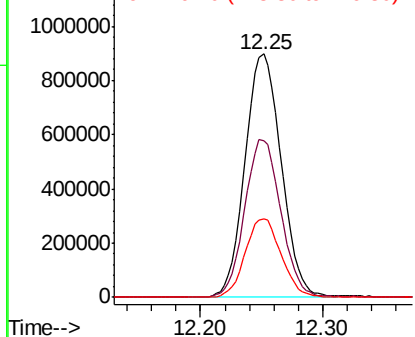
Tot Ion	Ratio	Lower	Upper
117	100		
82	64.9	47.8	71.8
119	32.4	43.1	64.7

Manual Integrations
APPROVED

MMDadoda
12/24/2018 8:26:35 AM

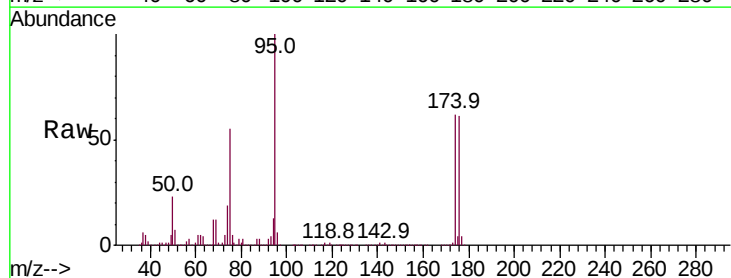


Abundance Ion 117.10 (116.80 to 117.80): V
Ion 82.10 (81.80 to 82.80): VL0
Ion 119.10 (118.80 to 119.80): V



#68
1-Bromo-4-Fluorobenzene
Concen: 11.067 ppbv
RT: 14.59 min Scan# 3624
Delta R.T. 0.00 min
Lab File: VL033049.D
Acq: 21 Dec 2018 11:11

Tgt Ion	Ratio	Lower	Upper
95	100		
174	65.2	51.4	77.0
175	4.7	3.8	5.6



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

