

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL080118\
 Data File : VL032334.D
 Acq On : 1 Aug 2018 22:36
 Operator : SY/AP
 Sample : J4235-02
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 CUBICLE-I630

Manual Integrations
 APPROVED

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 8/2/2018 2:04:59 PM

Quant Time: Aug 02 12:39:05 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL072718AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Jul 27 2018
 QLast Update : Fri Jul 27 07:05:37 2018
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.83	49	1814898	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.36	114	3732739	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.32	117	4305422	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.66	95	3441363	10.30	ppbv	-0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	103.00%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.12	85	50176	0.23	ppbv	99
3) Chlorodifluoromethane	3.05	51	78282m	0.43	ppbv	
4) Chloromethane	3.22	50	67349	0.61	ppbv	98
9) Propene	3.08	41	384384	4.71	ppbv	91
10) Heptane	8.32	43	116722m	0.41	ppbv	
11) Trichlorofluoromethane	4.05	101	57634	0.28	ppbv	86
13) Ethanol	3.70	45	4151079	177.03	ppbv	99
15) Acetone	3.95	43	2689577m	15.72	ppbv	
19) Isopropyl Alcohol	4.09	45	1186907m	10.40	ppbv	
20) Methylene Chloride	4.47	84	174114	2.53	ppbv	97
26) Hexane	5.84	57	739706	4.26	ppbv #	54
30) Cyclohexane	7.32	84	20840m	0.15	ppbv	
34) 2-Butanone	5.39	43	218709	0.91	ppbv	99
35) Carbon Tetrachloride	7.21	117	17830m	0.08	ppbv	
36) Benzene	7.07	78	85865	0.26	ppbv #	91
37) 1,2-Dichloroethane	6.48	62	155063	0.82	ppbv	99
41) Tetrahydrofuran	6.23	42	24021	0.18	ppbv #	84
44) 2,2,4-Trimethylpentane	8.06	57	106815	0.15	ppbv #	70
52) Tetrachloroethene	11.46	164	5078m	0.05	ppbv	
53) Toluene	10.03	91	554339	1.41	ppbv	99
58) Ethyl Benzene	12.94	91	123448m	0.23	ppbv	
59) m/p-Xylene	13.20	91	539731m	1.17	ppbv	
60) o-Xylene	13.93	91	231799m	0.51	ppbv	
61) Styrene	13.77	104	70374m	0.21	ppbv	
72) 4-Ethyltoluene	16.08	105	98185	0.19	ppbv #	96
73) 1,3,5-Trimethylbenzene	16.23	105	95870m	0.19	ppbv	
74) 1,2,4-Trimethylbenzene	17.00	105	303315	0.58	ppbv #	72
79) Naphthalene	22.51	128	383160	0.84	ppbv	98

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

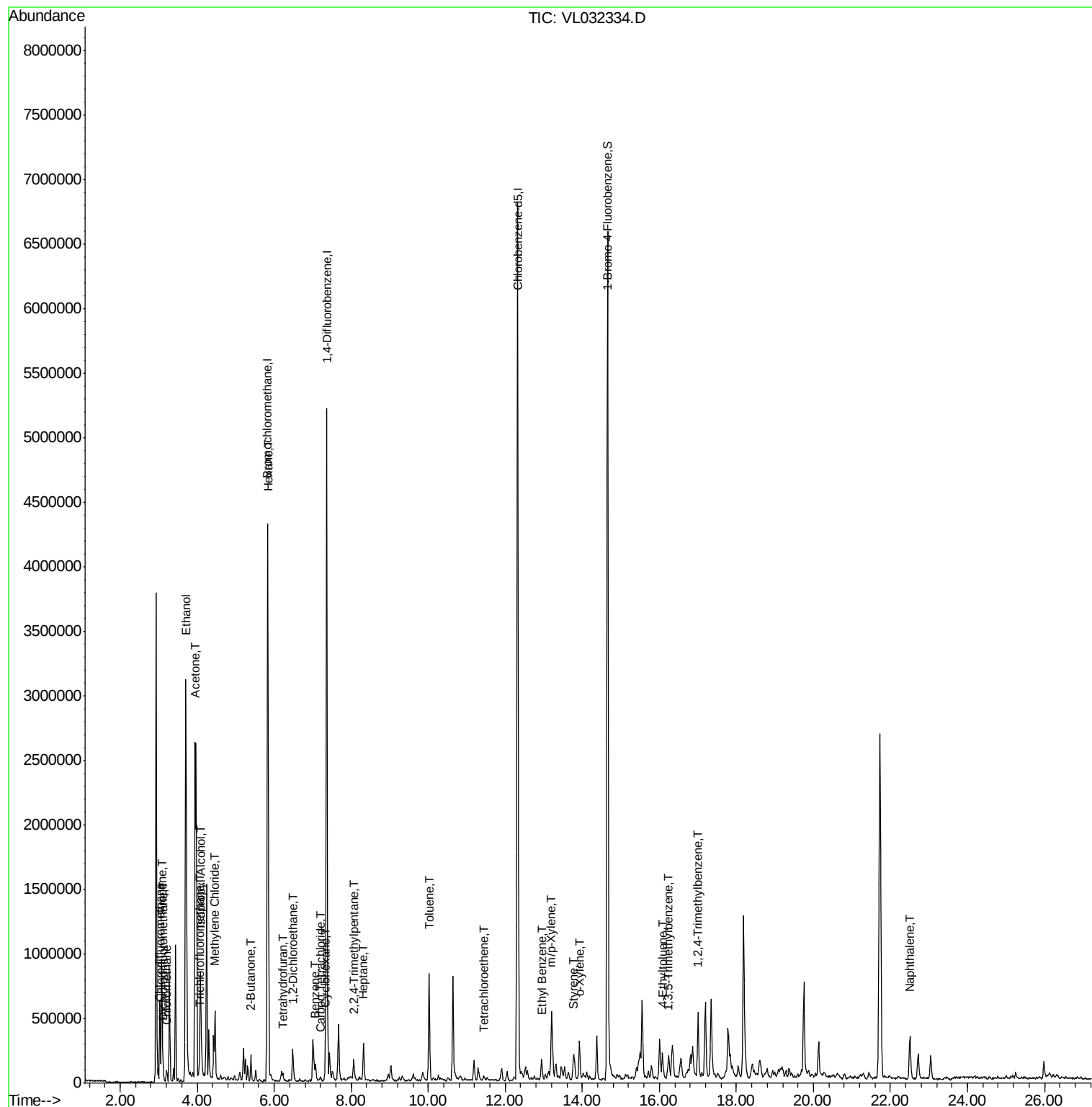
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL080118\
Data File : VL032334.D
Acq On : 1 Aug 2018 22:36
Operator : SY/AP
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Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

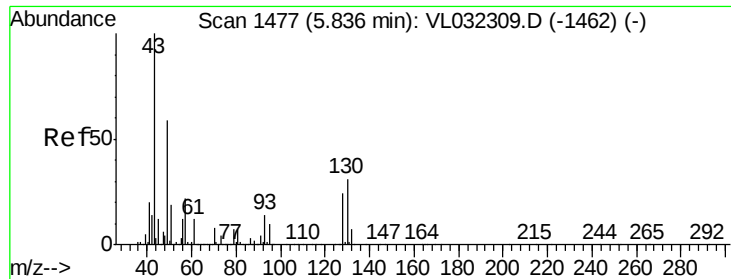
Instrument :
MSVOA_L
ClientSampleId :
CUBICLE-I630

Manual Integrations
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Quant Time: Aug 02 12:39:05 2018
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL072718AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Jul
QLast Update : Fri Jul 27 07:05:37 2018
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 5.83 min Scan# 1474

Delta R.T. -0.01 min

Lab File: VL032334.D

Acq: 1 Aug 2018 22:36

Instrument :

MSVOA_L

ClientSampleId :

CUBICLE-I630

Tot Ion: 49 Resp: 1814898

Ion Ratio Lower Upper

49 100

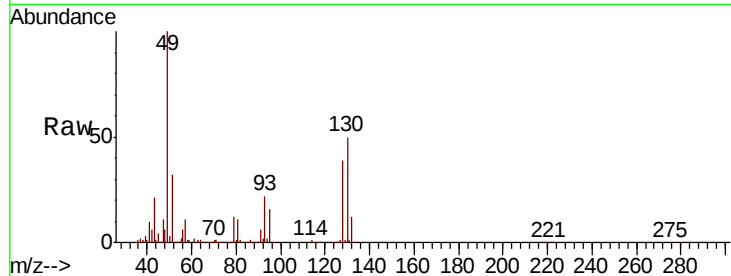
128 40.1 20.2 60.6

130 50.2 25.8 77.3

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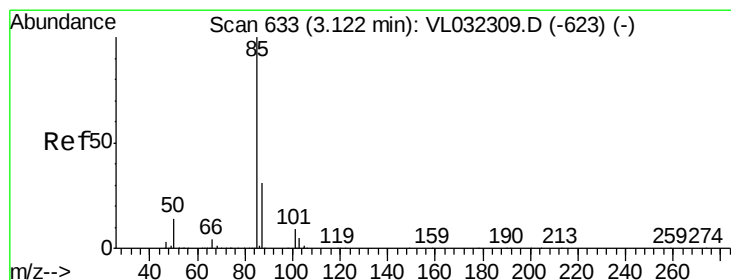
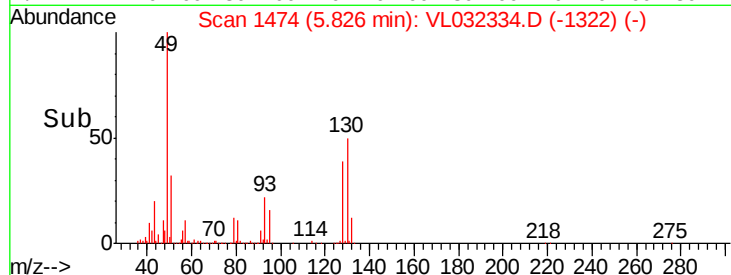
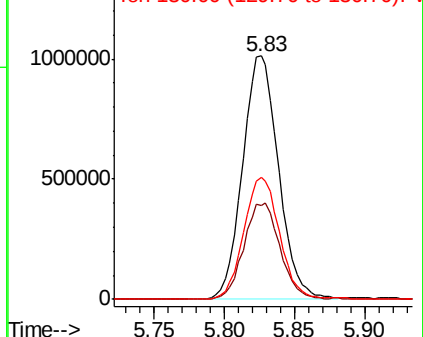
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.23 ppbv

RT: 3.12 min Scan# 632

Delta R.T. -0.00 min

Lab File: VL032334.D

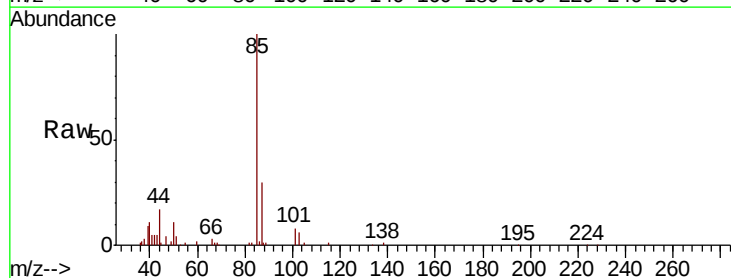
Acq: 1 Aug 2018 22:36

Tgt Ion: 85 Resp: 50176

Ion Ratio Lower Upper

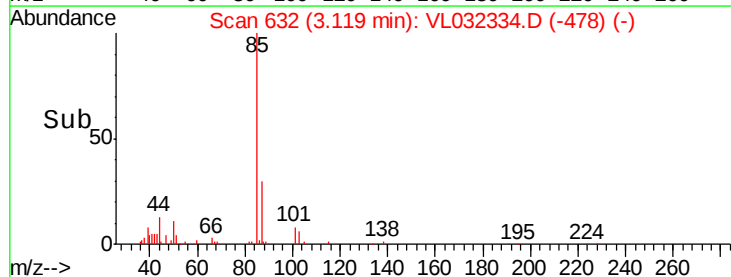
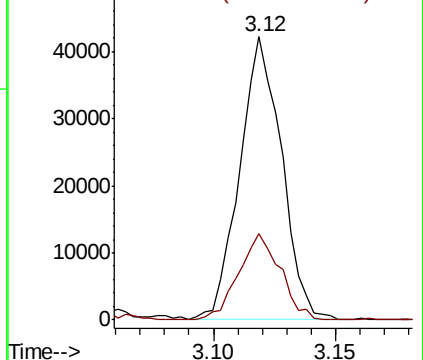
85 100

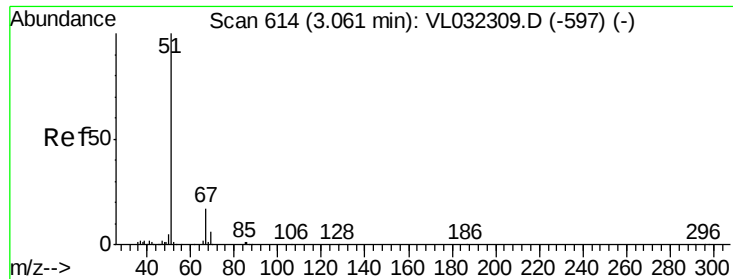
87 31.0 25.2 37.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.43 ppbv m

RT: 3.05 min Scan# 611

Delta R.T. -0.01 min

Lab File: VL032334.D

Acq: 1 Aug 2018 22:36

Instrument :

MSVOA_L

ClientSampleId :

CUBICLE-I630

Tot Ion: 51 Resp: 78282

Ion Ratio Lower Upper

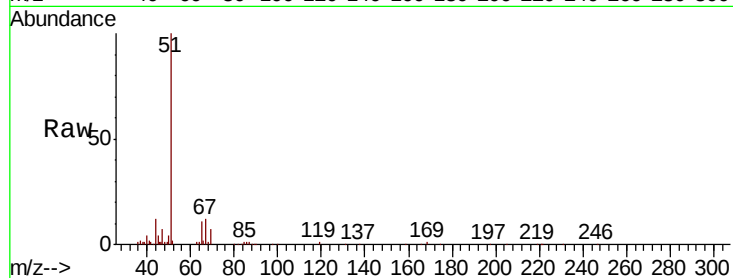
51 100

67 21.5 13.5 20.3#

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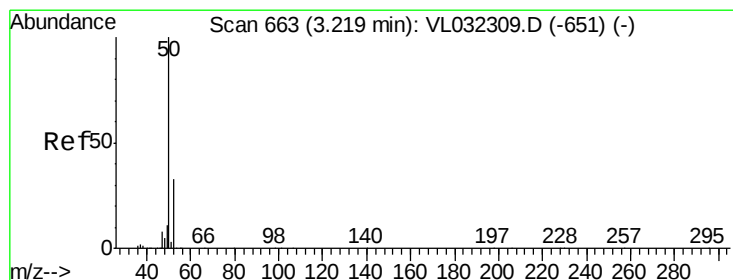
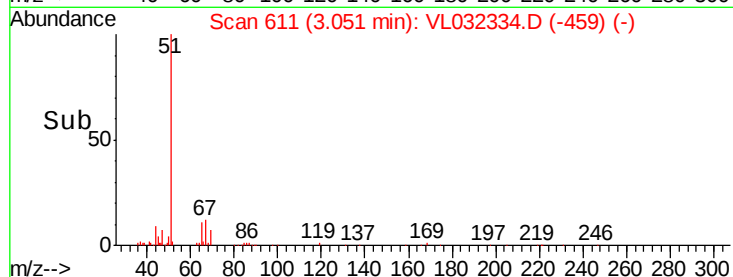
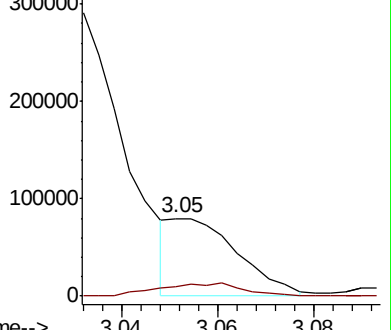
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.61 ppbv

RT: 3.22 min Scan# 662

Delta R.T. -0.00 min

Lab File: VL032334.D

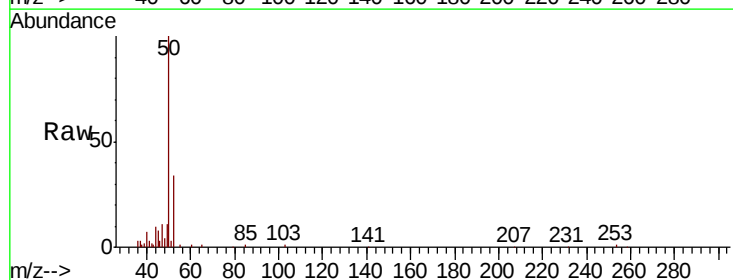
Acq: 1 Aug 2018 22:36

Tgt Ion: 50 Resp: 67349

Ion Ratio Lower Upper

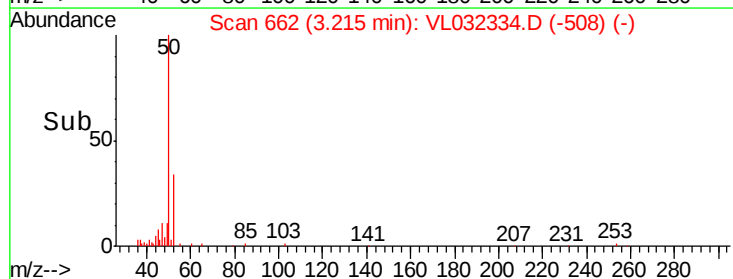
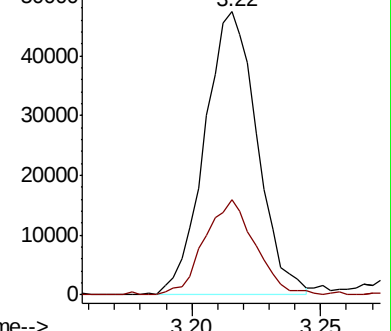
50 100

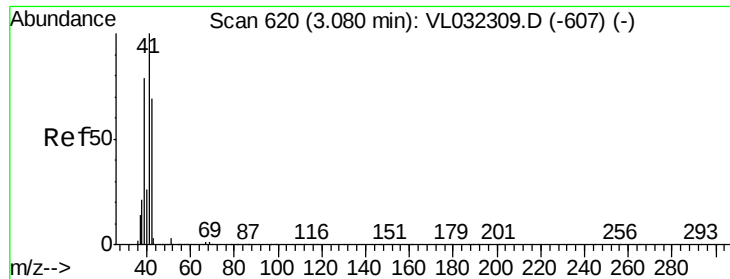
52 33.8 26.2 39.4



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 4.71 ppbv

RT: 3.08 min Scan# 620

Delta R.T. -0.00 min

Lab File: VL032334.D

Acq: 1 Aug 2018 22:36

Instrument :

MSVOA_L

ClientSampleId :

CUBICLE-I630

Tot Ion: 41 Resp: 384384

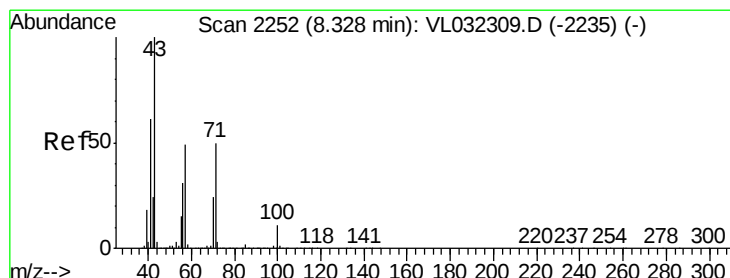
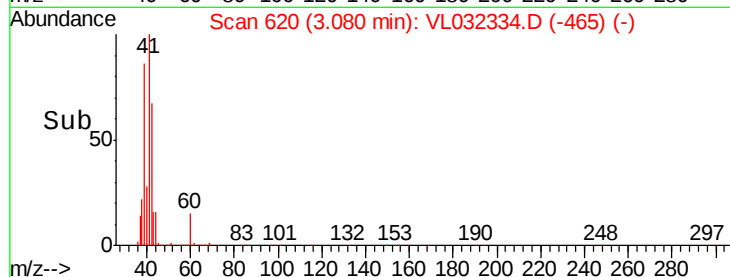
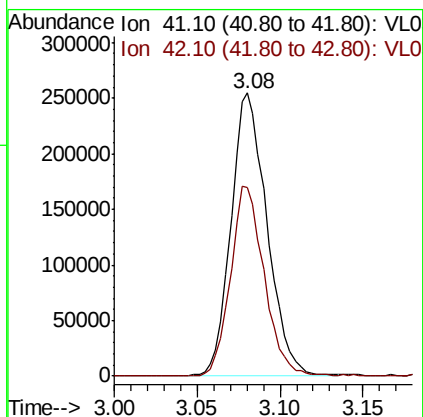
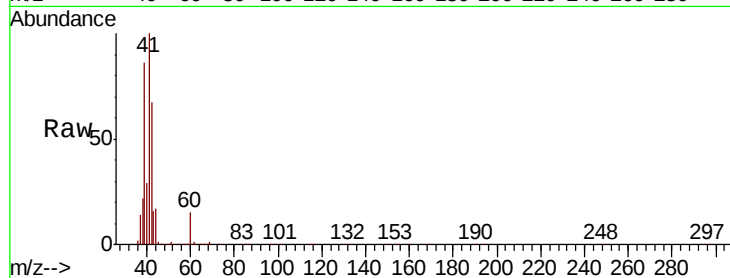
Ion Ratio Lower Upper

41 100

42 63.2 56.8 85.2

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#10

Heptane

Concen: 0.41 ppbv m

RT: 8.32 min Scan# 2250

Delta R.T. -0.01 min

Lab File: VL032334.D

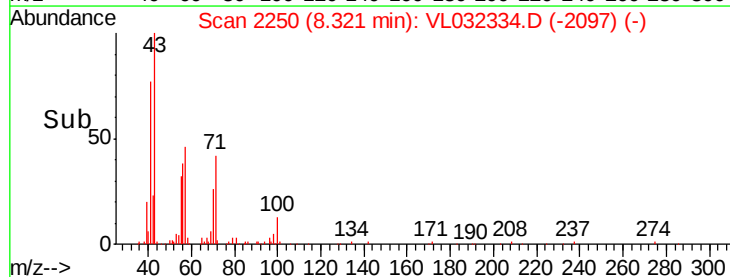
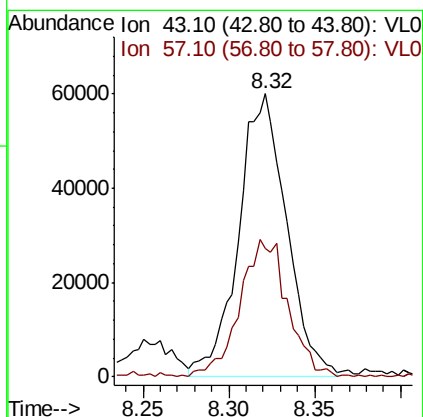
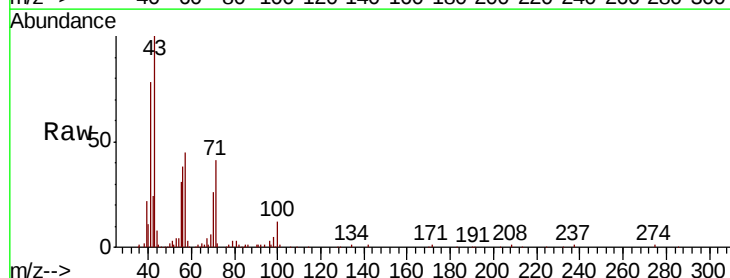
Acq: 1 Aug 2018 22:36

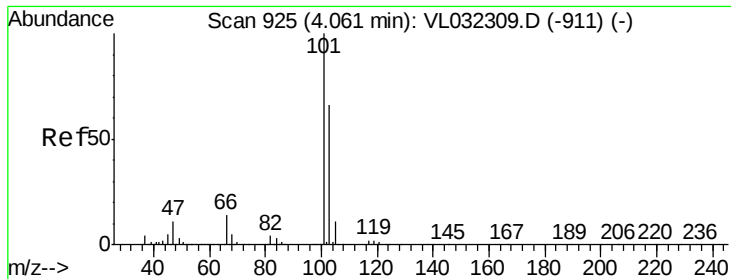
Tgt Ion: 43 Resp: 116722

Ion Ratio Lower Upper

43 100

57 47.6 39.0 58.4





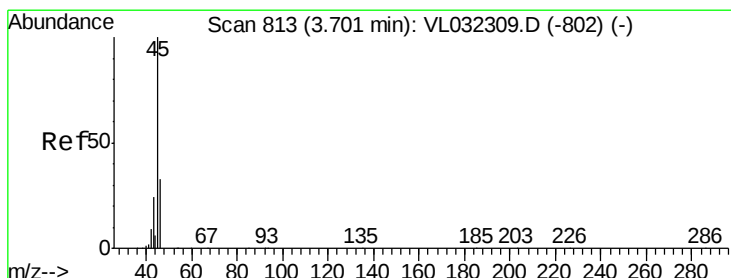
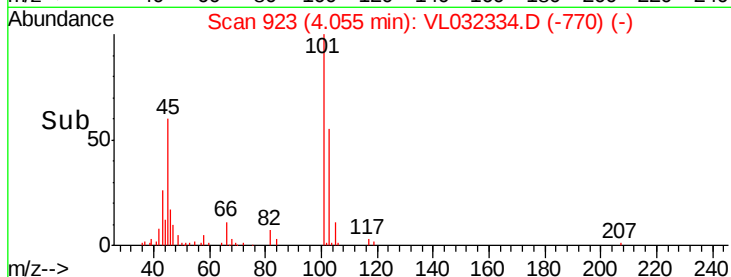
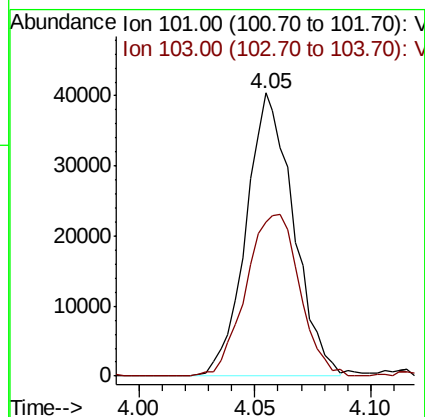
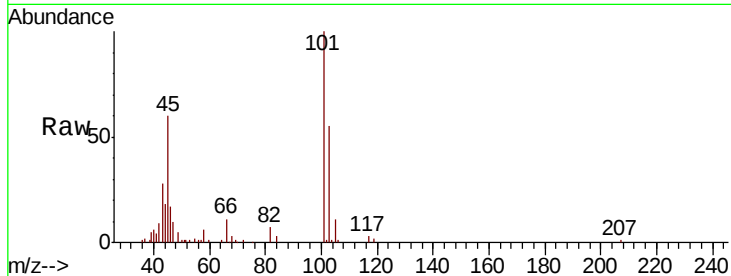
#11
Trichlorofluoromethane
Concen: 0.28 ppbv
RT: 4.05 min Scan# 923
Delta R.T. -0.01 min
Lab File: VL032334.D
Acq: 1 Aug 2018 22:36

Instrument :
MSVOA_L
ClientSampleId :
CUBICLE-I630

Tot Ion:101 Resp: 57634
Ion Ratio Lower Upper
101 100
103 54.7 52.6 78.8

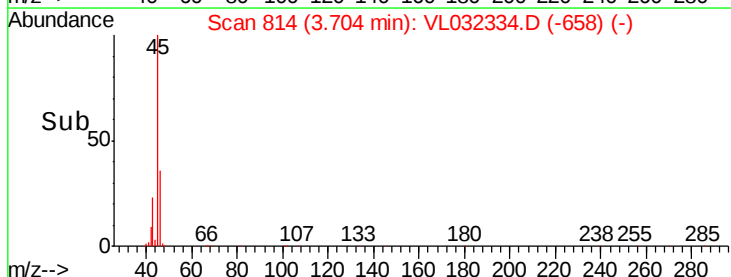
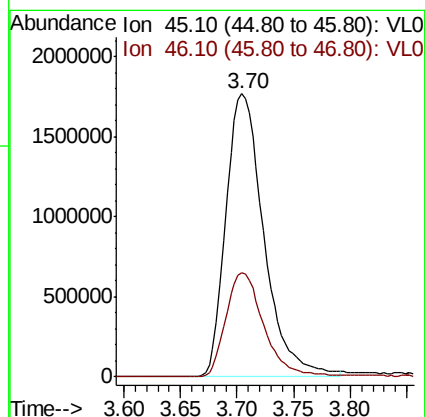
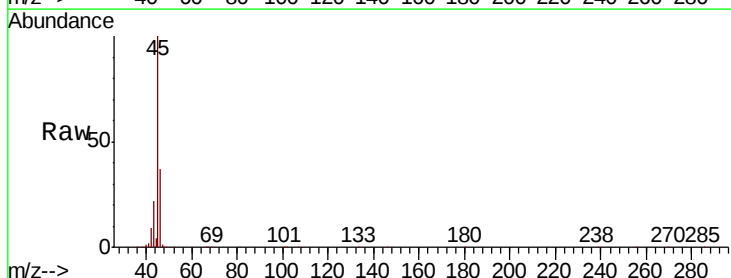
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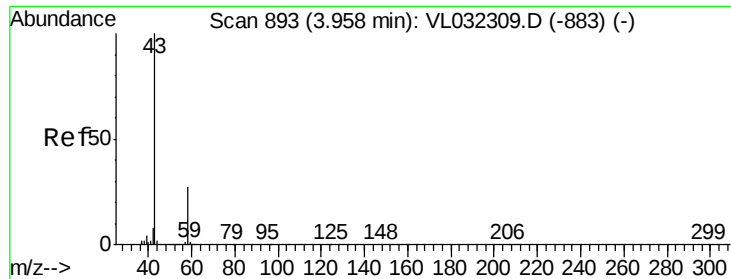
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#13
Ethanol
Concen: 177.03 ppbv
RT: 3.70 min Scan# 814
Delta R.T. 0.00 min
Lab File: VL032334.D
Acq: 1 Aug 2018 22:36

Tgt Ion: 45 Resp: 4151079
Ion Ratio Lower Upper
45 100
46 37.5 15.2 60.6





#15

Acetone

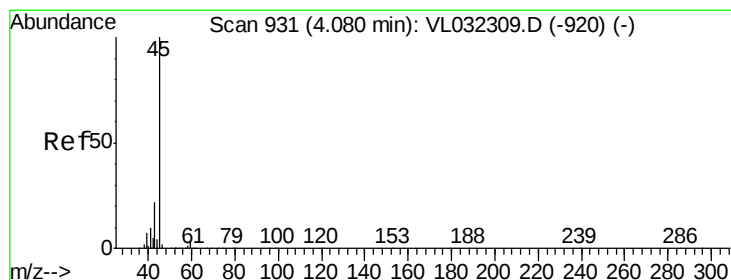
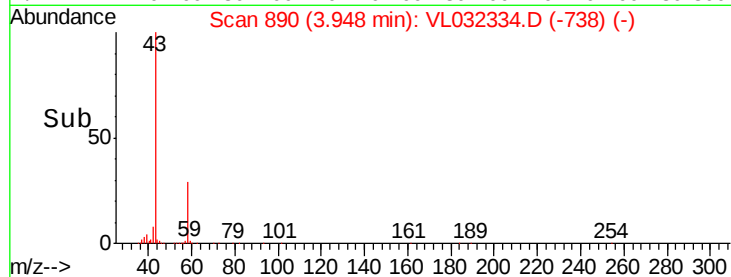
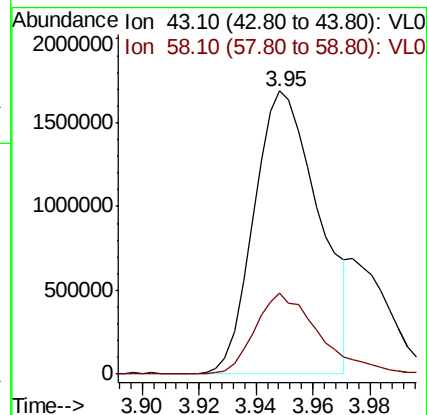
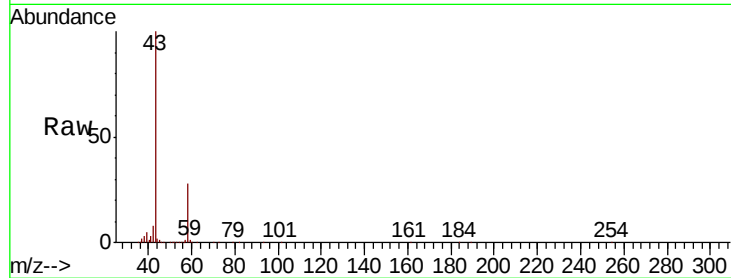
Concen: 15.72 ppbv m
RT: 3.95 min Scan# 890
Delta R.T. -0.01 min
Lab File: VL032334.D
Acq: 1 Aug 2018 22:36

Instrument :
MSVOA_L
ClientSampleId :
CUBICLE-I630

Tot Ion: 43 Resp: 2689577
Ion Ratio Lower Upper
43 100
58 28.8 22.5 33.7

Manual Integrations
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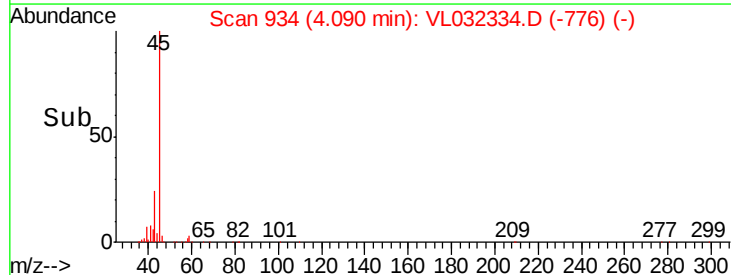
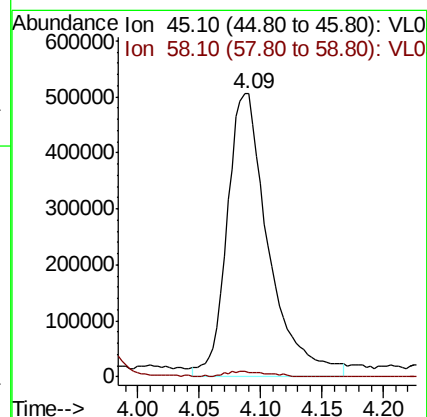
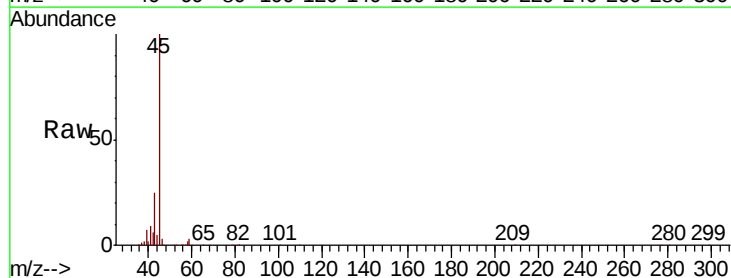


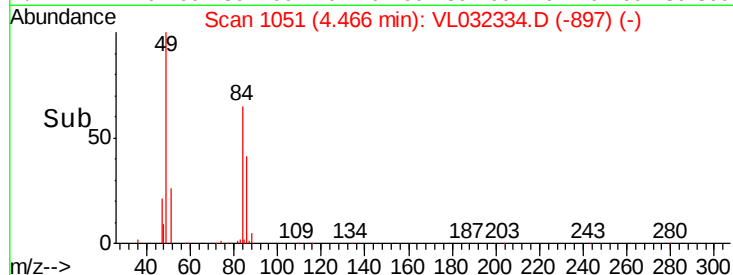
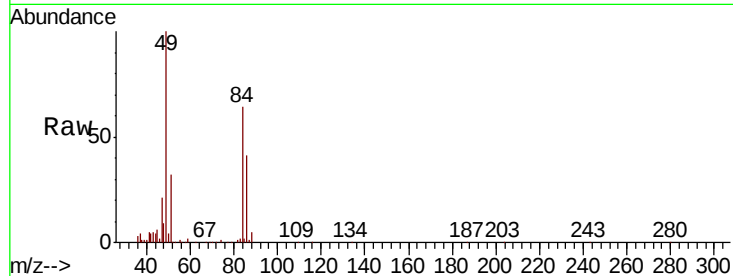
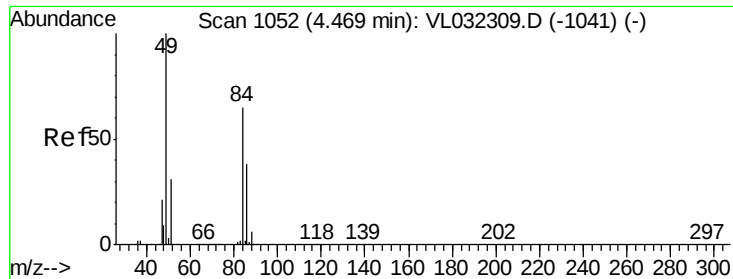
#19

Isopropyl Alcohol

Concen: 10.40 ppbv m
RT: 4.09 min Scan# 934
Delta R.T. 0.01 min
Lab File: VL032334.D
Acq: 1 Aug 2018 22:36

Tgt Ion: 45 Resp: 1186907
Ion Ratio Lower Upper
45 100
58 0.0 1.5 2.3#





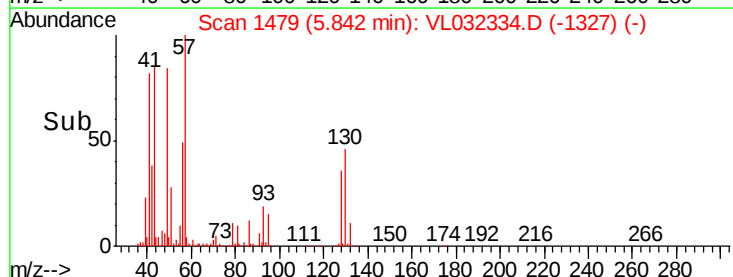
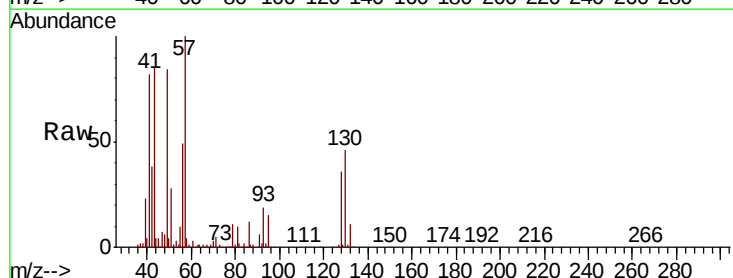
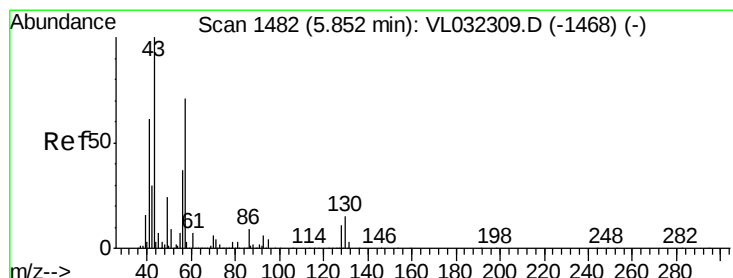
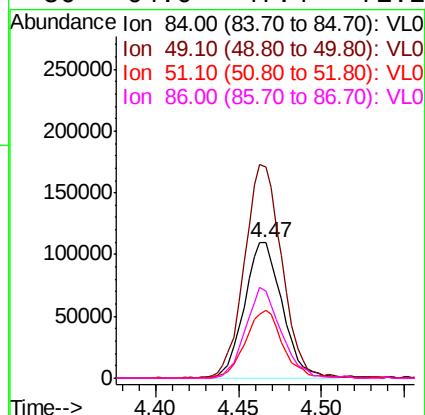
#20
Methvlene Chloride
Concen: 2.53 ppbv
RT: 4.47 min Scan# 1051
Delta R.T. -0.00 min
Lab File: VL032334.D
Acq: 1 Aug 2018 22:36

Tot Ion:	84	Resp:	174114
Ion	Ratio	Lower	Upper
84	100		
49	155.4	123.4	185.0
51	50.0	38.2	57.2
86	64.0	47.4	71.2

Instrument :
MSVOA_L
ClientSampled :
CUBICLE-I630

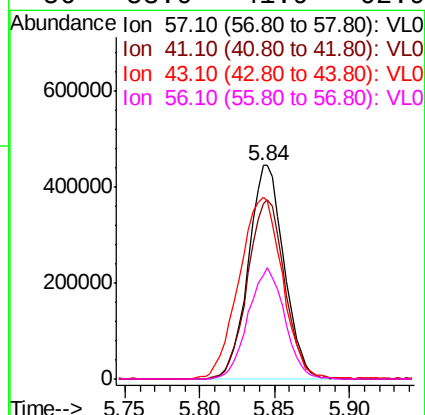
Manual Integrations
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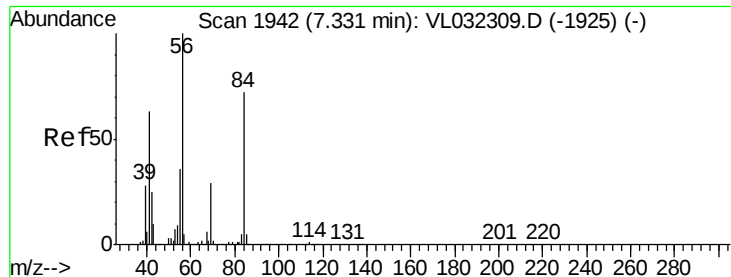
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#26
Hexane
Concen: 4.26 ppbv
RT: 5.84 min Scan# 1479
Delta R.T. -0.01 min
Lab File: VL032334.D
Acq: 1 Aug 2018 22:36

Tgt Ion:	57	Resp:	739706
Ion	Ratio	Lower	Upper
57	100		
41	87.5	68.1	102.1
43	103.1	177.4	266.2#
56	53.0	41.9	62.9





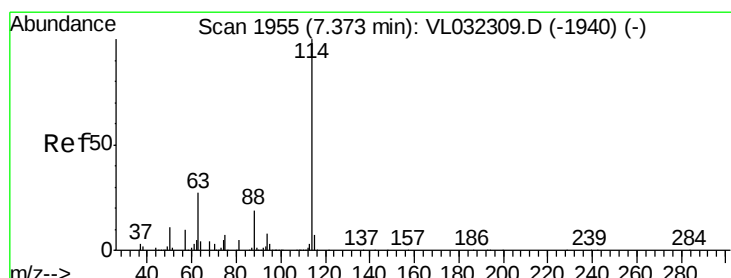
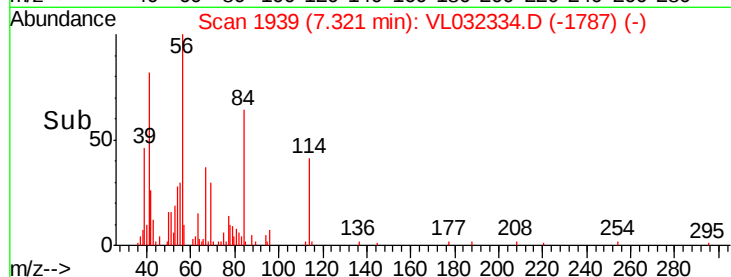
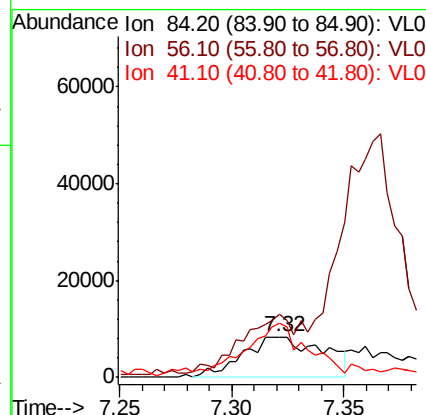
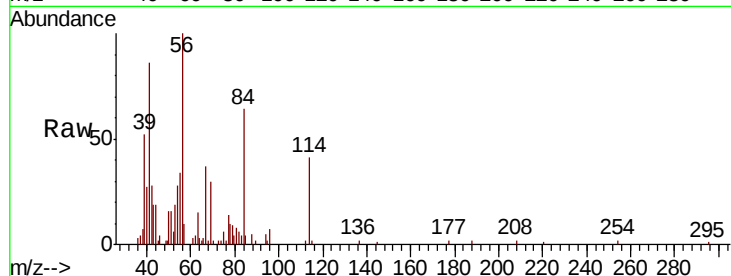
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Cvclohexane
Concen: 0.15 ppbv m
RT: 7.32 min Scan# 1939
Delta R.T. -0.01 min
Lab File: VL032334.D
Acq: 1 Aug 2018 22:36

Instrument :
MSVOA_L
ClientSampleId :
CUBICLE-I630

Tot Ion	Ratio	Lower	Upper
84	100		
56	0.0	116.8	175.2#
41	121.3	70.0	105.0#

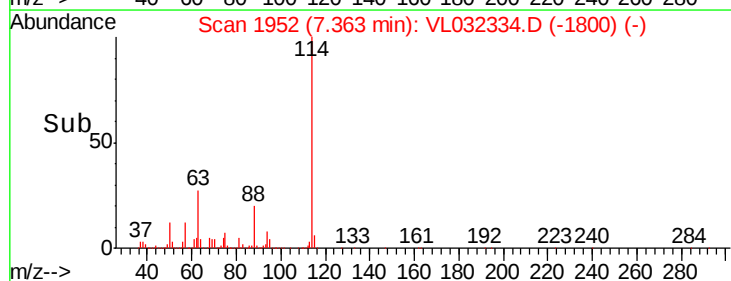
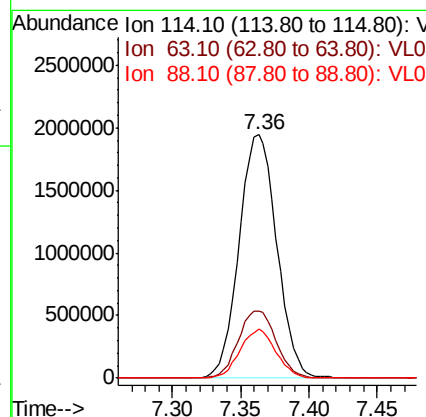
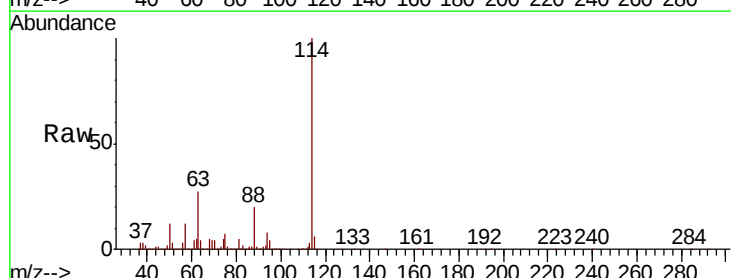
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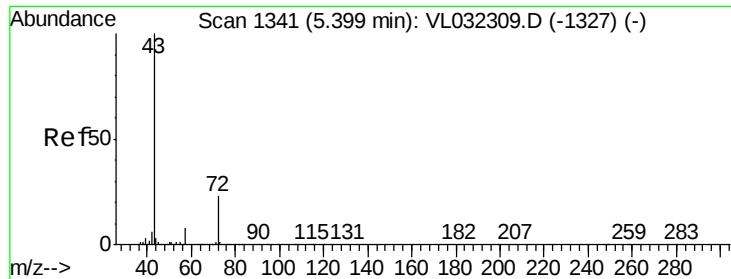
MMDadoda
8/2/2018 2:04:59 PM



#33
1,4-Difluorobenzene
Concen: 10.00 ppbv
RT: 7.36 min Scan# 1952
Delta R.T. -0.01 min
Lab File: VL032334.D
Acq: 1 Aug 2018 22:36

Tgt Ion	Ratio	Lower	Upper
114	100		
63	27.8	22.4	33.6
88	19.1	15.3	22.9





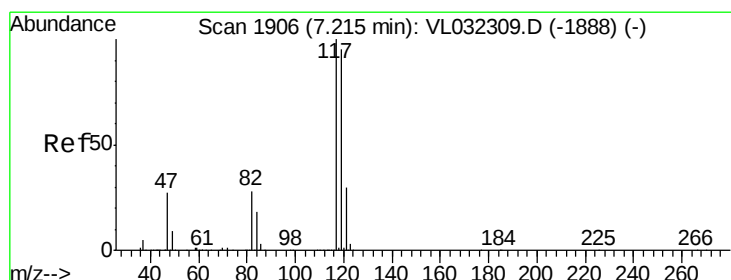
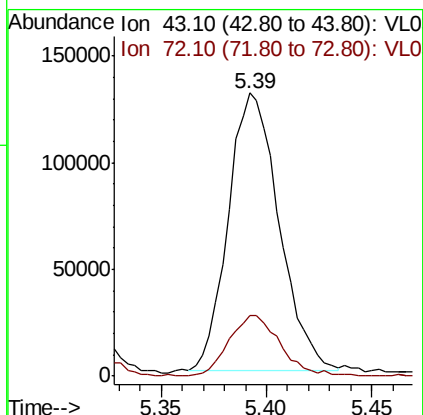
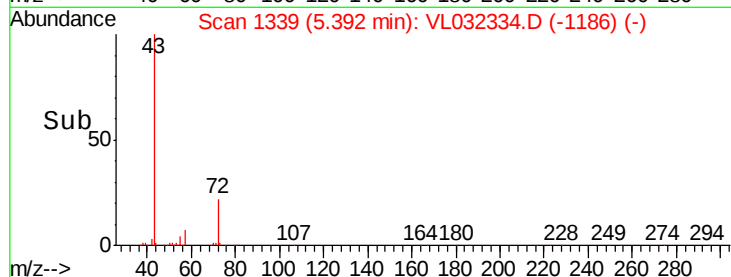
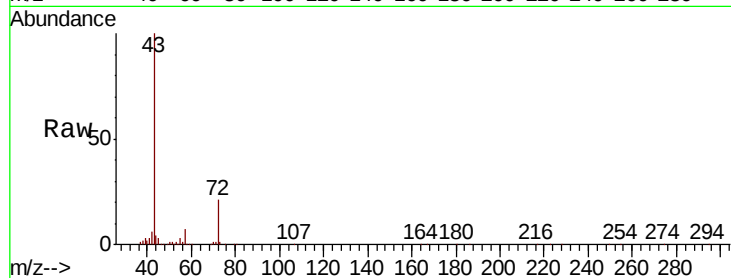
#34
2-Butanone
Concen: 0.91 ppbv
RT: 5.39 min Scan# 1339
Delta R.T. -0.01 min
Lab File: VL032334.D
Acq: 1 Aug 2018 22:36

Instrument :
MSVOA_L
ClientSampleId :
CUBICLE-I630

Tot Ion	Ratio	Lower	Upper
43	100		
72	22.2	17.4	26.2

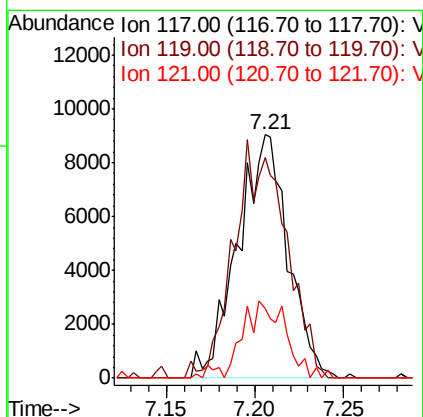
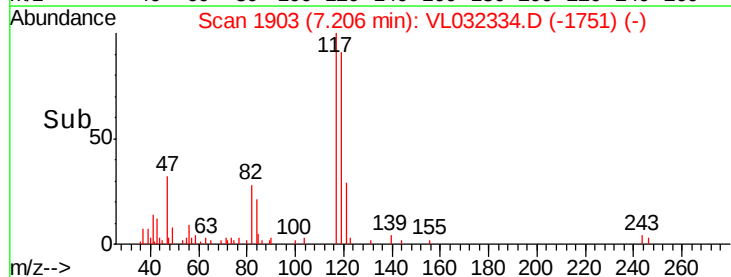
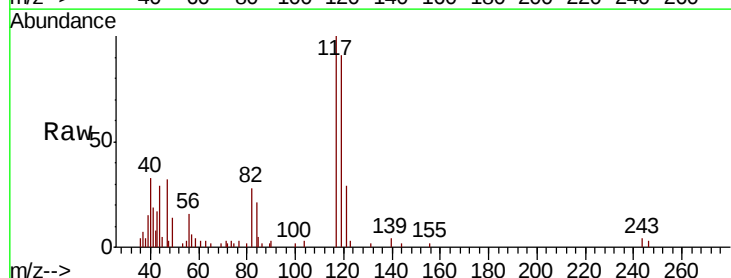
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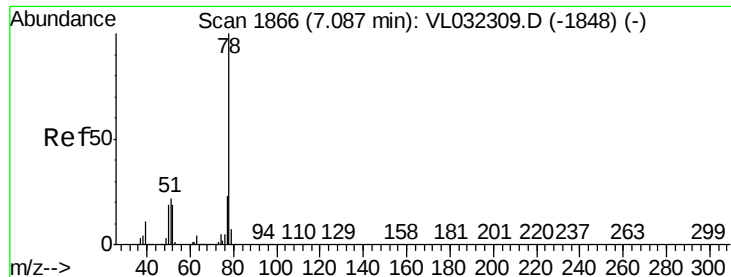
MMDadoda
8/2/2018 2:04:59 PM



#35
Carbon Tetrachloride
Concen: 0.08 ppbv m
RT: 7.21 min Scan# 1903
Delta R.T. -0.01 min
Lab File: VL032334.D
Acq: 1 Aug 2018 22:36

Tgt Ion	Ratio	Lower	Upper
117	100		
119	90.8	76.1	114.1
121	28.8	24.4	36.6





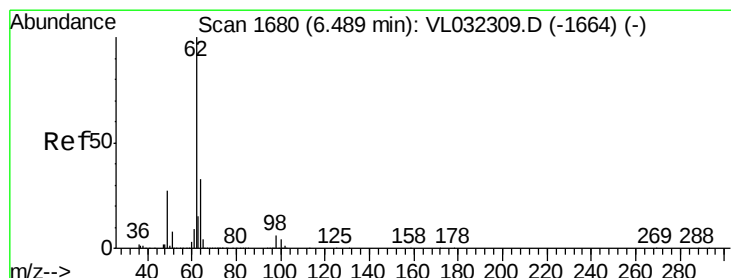
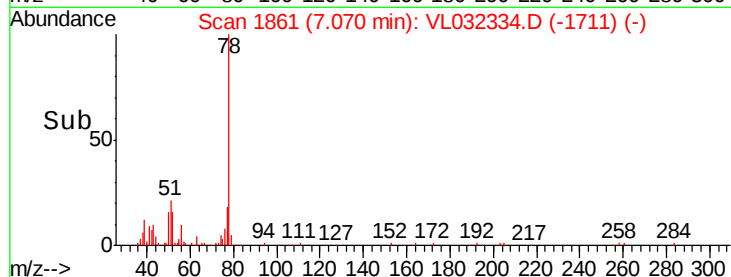
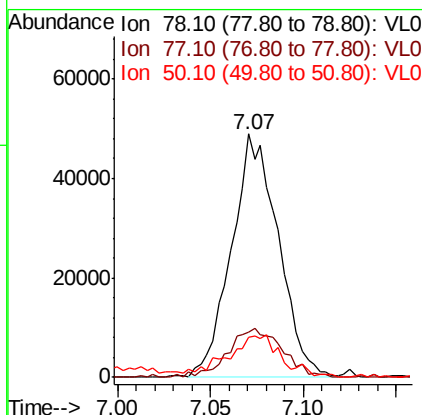
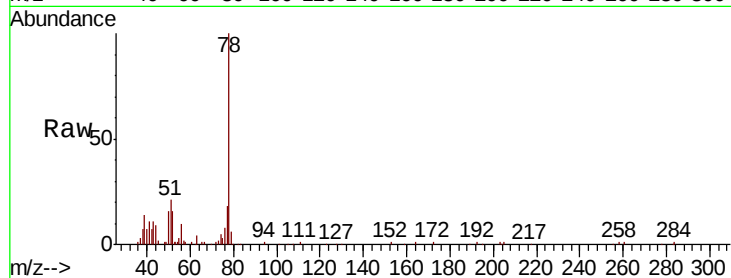
#36
Benzene
Concen: 0.26 ppbv
RT: 7.07 min Scan# 1861
Delta R.T. -0.02 min
Lab File: VL032334.D
Acq: 1 Aug 2018 22:36

Instrument :
MSVOA_L
ClientSampleId :
CUBICLE-I630

Tot Ion	Ratio	Lower	Upper
78	100		
77	17.6	18.4	27.6#
50	16.3	15.3	22.9

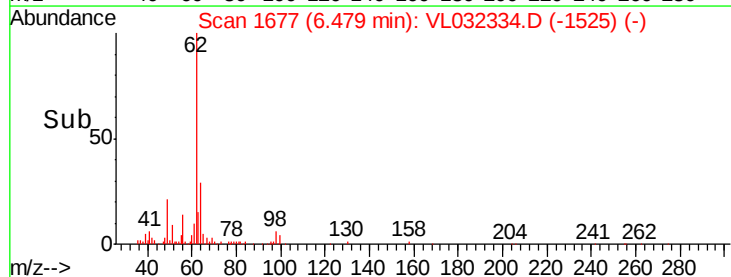
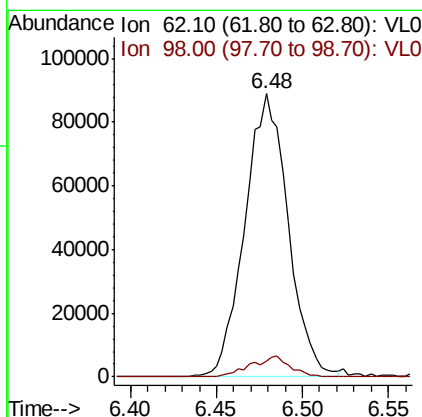
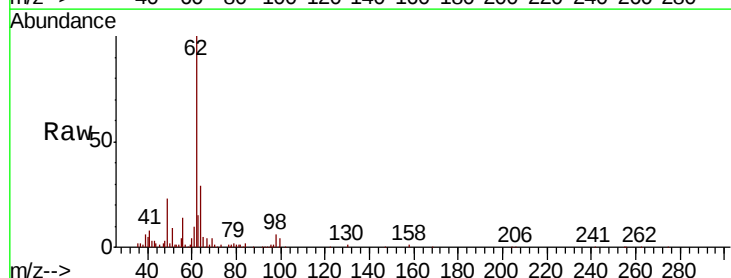
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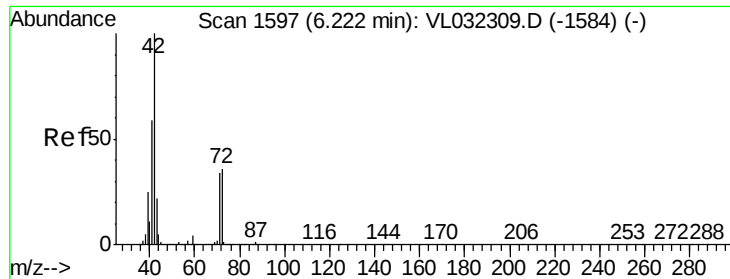
MMDadoda
8/2/2018 2:04:59 PM



#37
1,2-Dichloroethane
Concen: 0.82 ppbv
RT: 6.48 min Scan# 1677
Delta R.T. -0.01 min
Lab File: VL032334.D
Acq: 1 Aug 2018 22:36

Tgt Ion	Ratio	Lower	Upper
62	100		
98	6.8	5.1	7.7





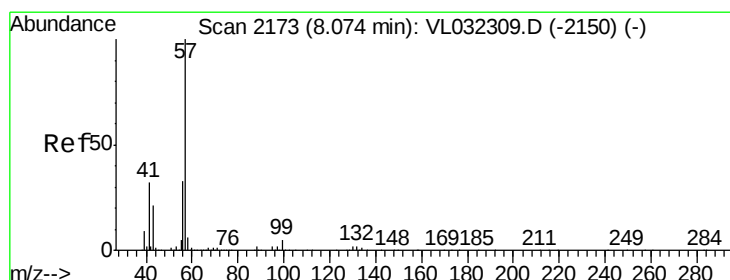
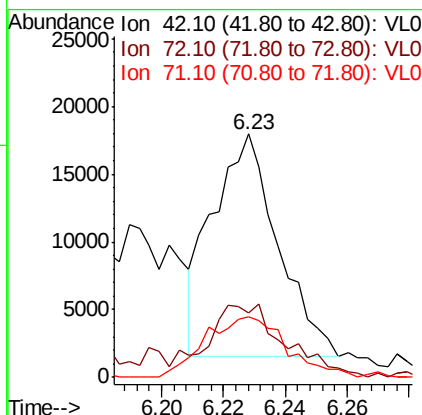
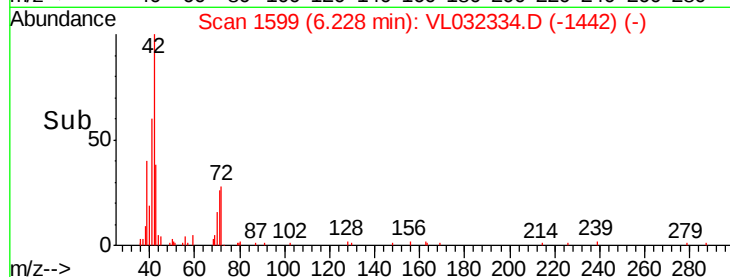
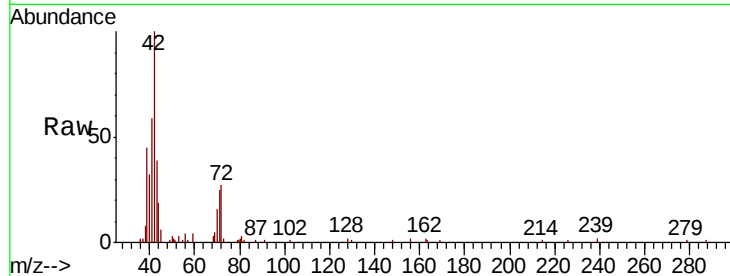
#41
Tetrahydrofuran
Concen: 0.18 ppbv
RT: 6.23 min Scan# 1599
Delta R.T. 0.01 min
Lab File: VL032334.D
Acq: 1 Aug 2018 22:36

Instrument :
MSVOA_L
ClientSampleId :
CUBICLE-I630

Tot Ion	Ratio	Lower	Upper
42	100		
72	54.3	28.6	42.8#
71	34.9	27.8	41.6

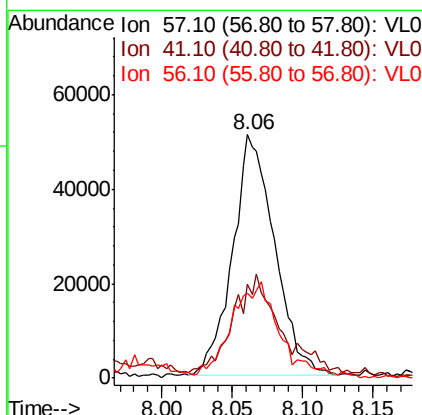
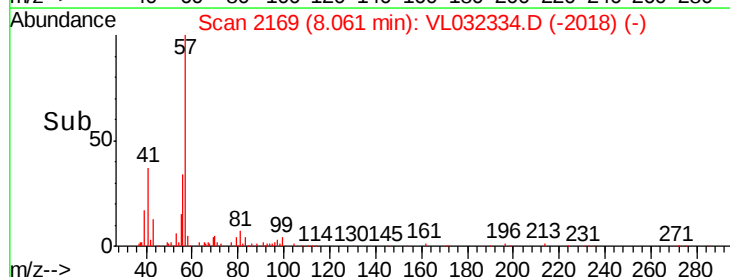
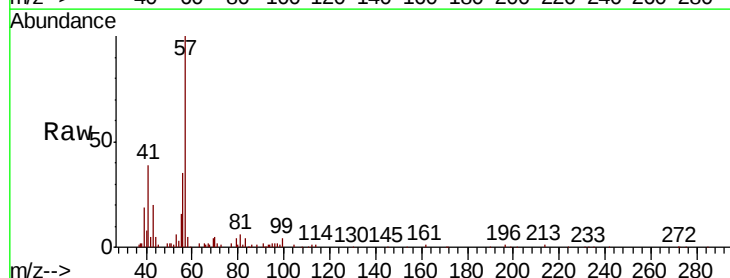
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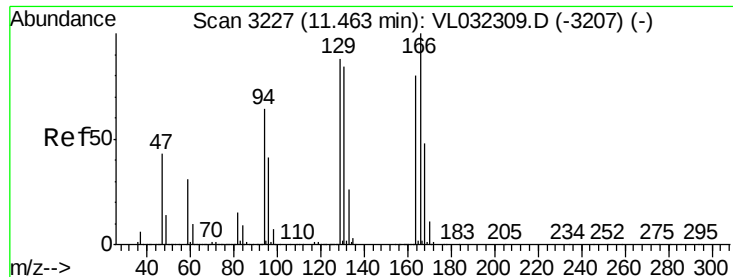
MMDadoda
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#44
2,2,4-Trimethylpentane
Concen: 0.15 ppbv
RT: 8.06 min Scan# 2169
Delta R.T. -0.01 min
Lab File: VL032334.D
Acq: 1 Aug 2018 22:36

Tgt Ion	Ratio	Lower	Upper
57	100		
41	50.9	24.3	36.5#
56	44.5	25.4	38.2#





#52

Tetrachloroethene

Concen: 0.05 ppbv m

RT: 11.46 min Scan# 3225

Delta R.T. -0.01 min

Lab File: VL032334.D

Acq: 1 Aug 2018 22:36

Instrument :

MSVOA_L

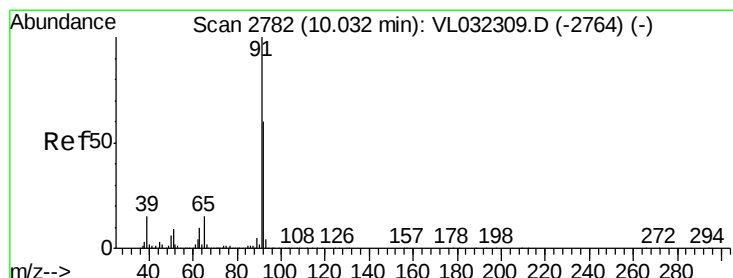
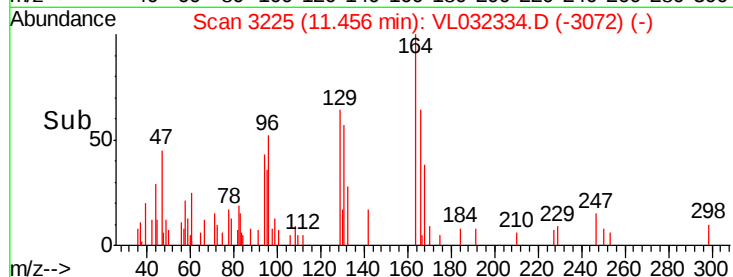
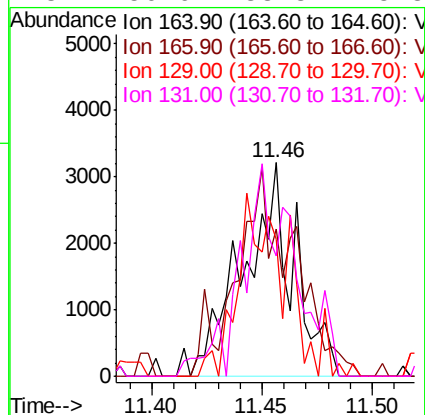
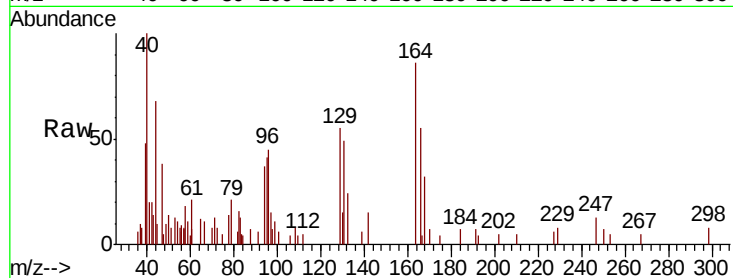
ClientSampleId :

CUBICLE-I630

Tot Ion:	164	Resp:	5078
Ion	Ratio	Lower	Upper
164	100		
166	64.4	100.0	150.0#
129	64.0	87.9	131.9#
131	56.6	83.8	125.8#

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#53

Toluene

Concen: 1.41 ppbv

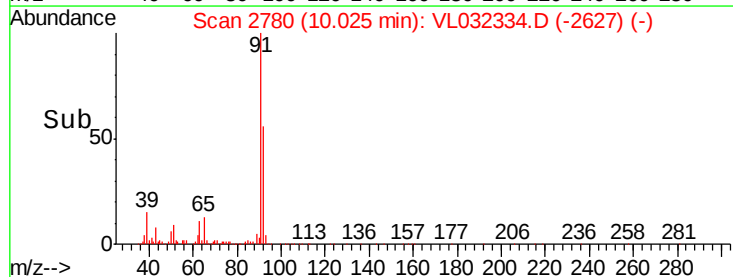
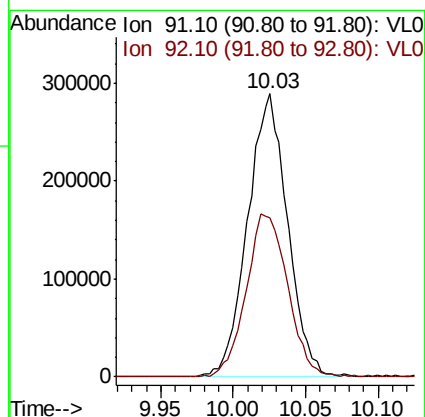
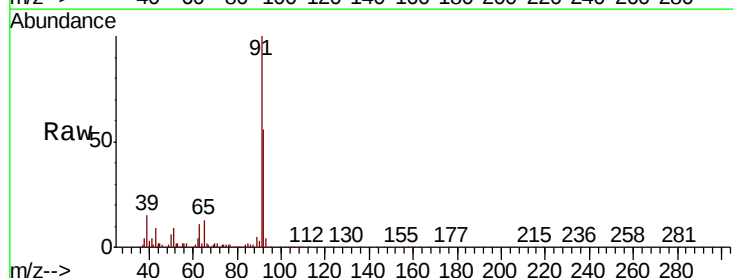
RT: 10.03 min Scan# 2780

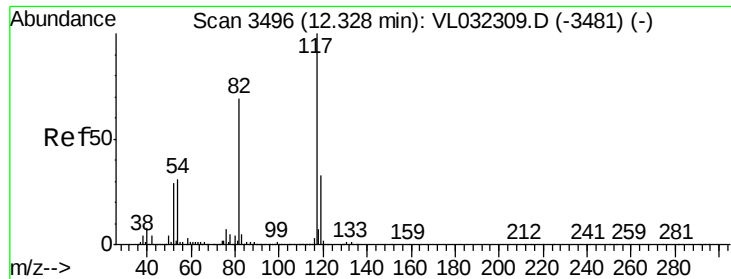
Delta R.T. -0.01 min

Lab File: VL032334.D

Acq: 1 Aug 2018 22:36

Tgt Ion:	91	Resp:	554339
Ion	Ratio	Lower	Upper
91	100		
92	60.2	48.6	72.8





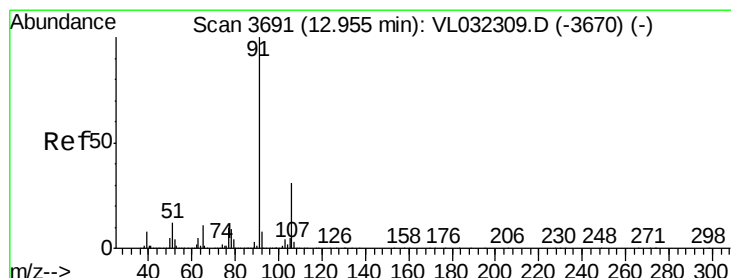
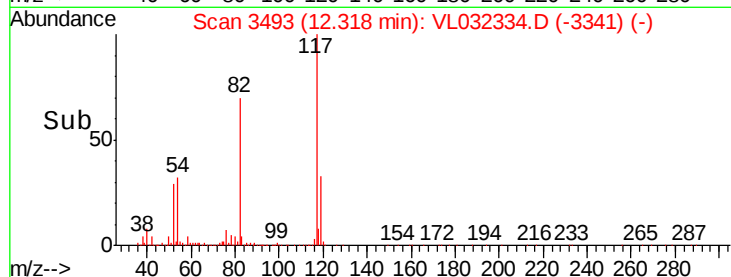
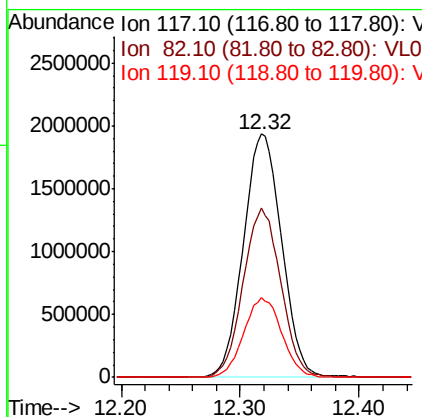
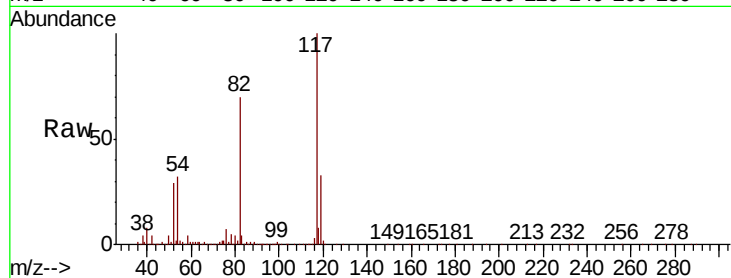
#55
Chlorobenzene-d5
Concen: 10.00 ppbv
RT: 12.32 min Scan# 3493
Delta R.T. -0.01 min
Lab File: VL032334.D
Acq: 1 Aug 2018 22:36

Instrument :
MSVOA_L
ClientSampleId :
CUBICLE-I630

Tot Ion	Ratio	Lower	Upper
117	100		
82	68.6	52.6	78.8
119	32.5	25.7	38.5

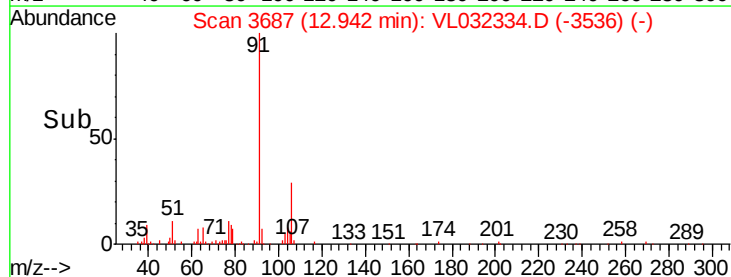
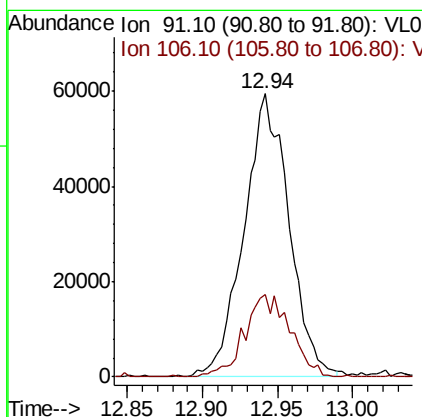
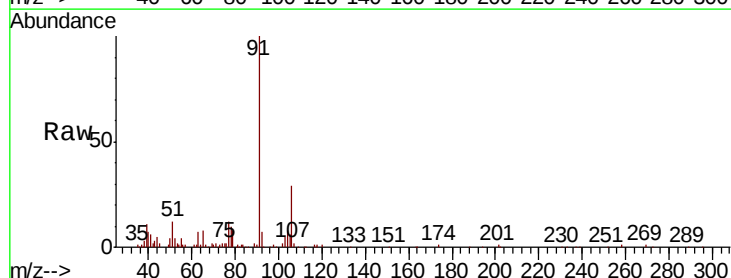
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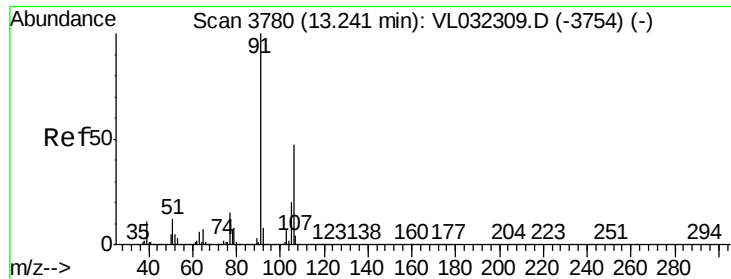
MMDadoda
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#58
Ethyl Benzene
Concen: 0.23 ppbv m
RT: 12.94 min Scan# 3687
Delta R.T. -0.01 min
Lab File: VL032334.D
Acq: 1 Aug 2018 22:36

Tgt Ion	Ratio	Lower	Upper
91	100		
106	29.3	25.0	37.4





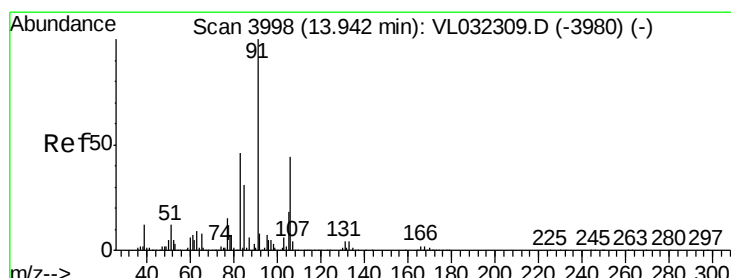
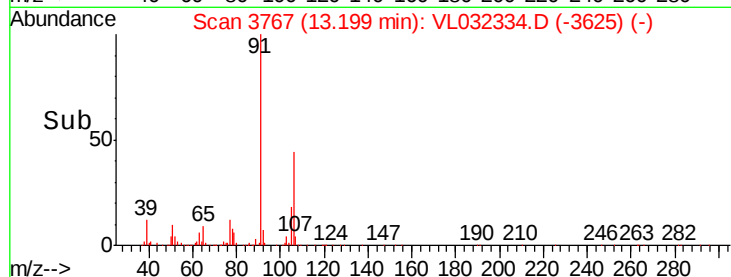
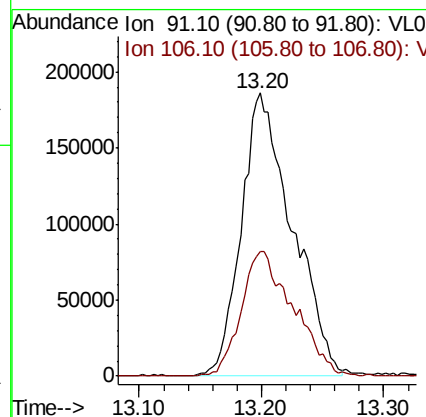
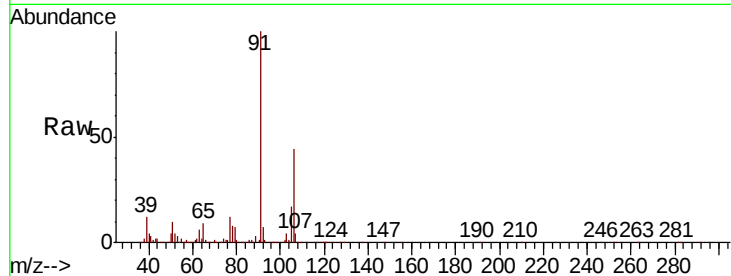
#59
m/p-Xylene
Concen: 1.17 ppbv m
RT: 13.20 min Scan# 3767
Delta R.T. -0.04 min
Lab File: VL032334.D
Acq: 1 Aug 2018 22:36

Instrument :
MSVOA_L
ClientSampleId :
CUBICLE-I630

Tot Ion	Ratio	Lower	Upper
91	100		
106	0.0	36.4	54.6#

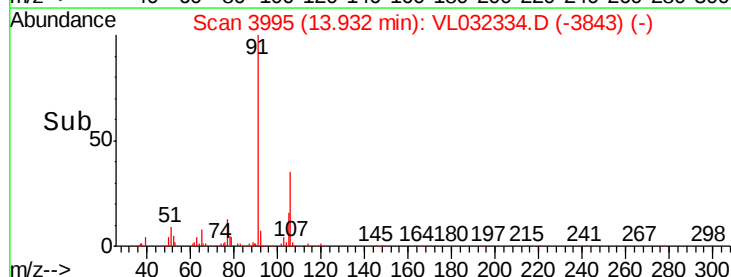
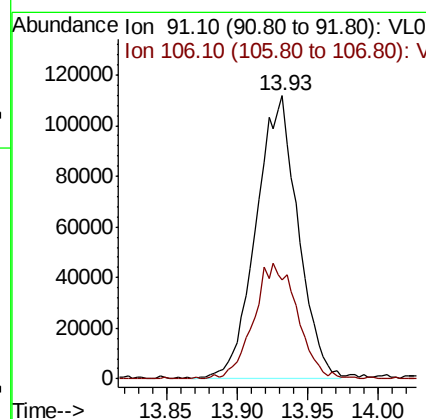
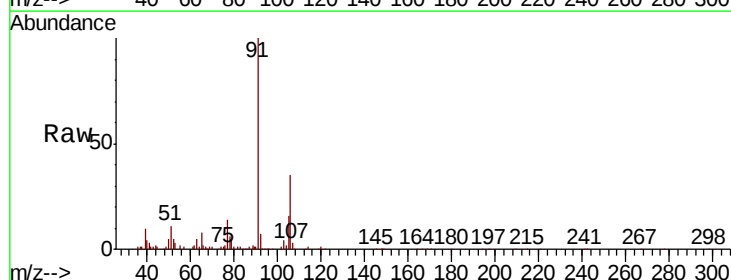
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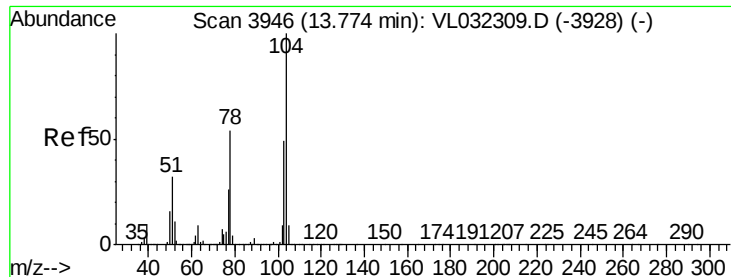
MMDadoda
8/2/2018 2:04:59 PM



#60
o-Xylene
Concen: 0.51 ppbv m
RT: 13.93 min Scan# 3995
Delta R.T. -0.01 min
Lab File: VL032334.D
Acq: 1 Aug 2018 22:36

Tgt Ion	Ratio	Lower	Upper
91	100		
106	0.0	22.4	67.0#





#61

Stvrene

Concen: 0.21 ppbv m

RT: 13.77 min Scan# 3945

Delta R.T. -0.00 min

Lab File: VL032334.D

Acq: 1 Aug 2018 22:36

Instrument :

MSVOA_L

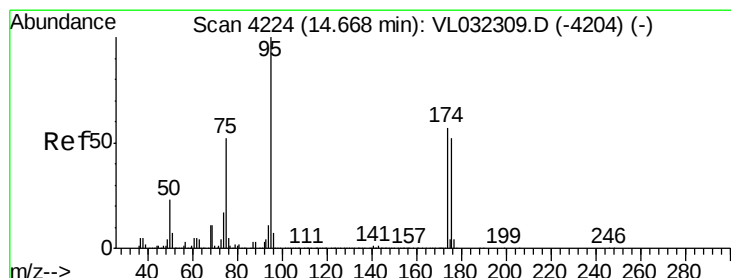
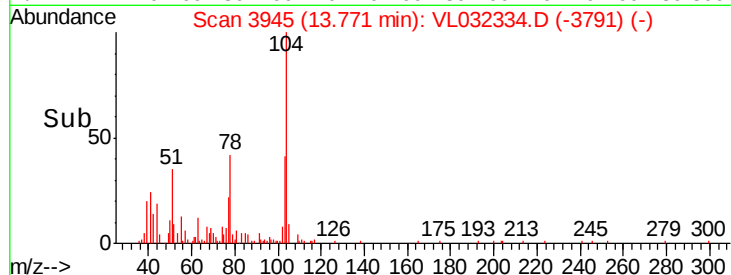
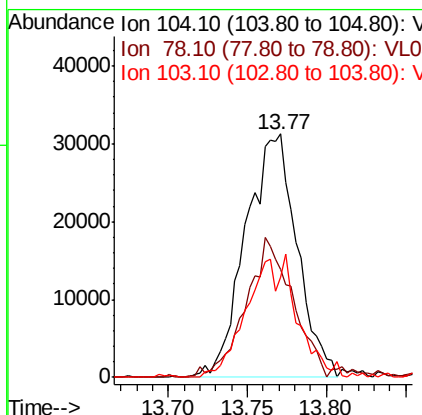
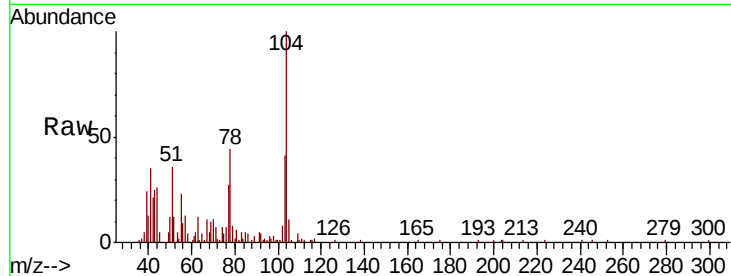
ClientSampleId :

CUBICLE-I630

Tot Ion:	104	Resp:	70374
Ion Ratio	Lower	Upper	
104	100		
78	55.7	42.6	63.8
103	0.0	38.0	57.0#

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#68

1-Bromo-4-Fluorobenzene

Concen: 10.30 ppbv

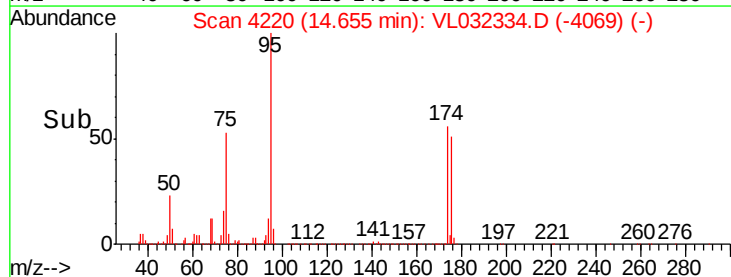
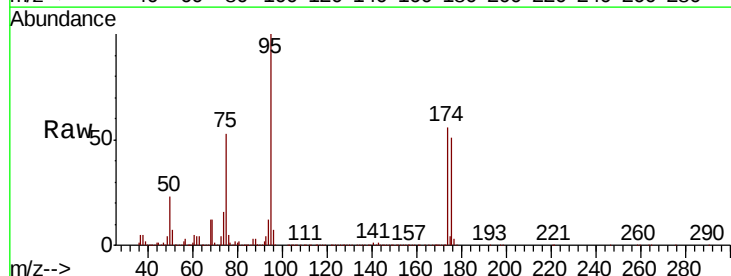
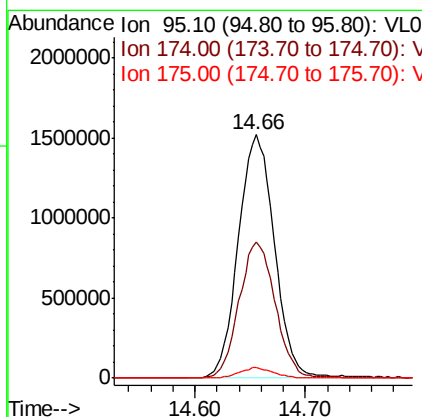
RT: 14.66 min Scan# 4220

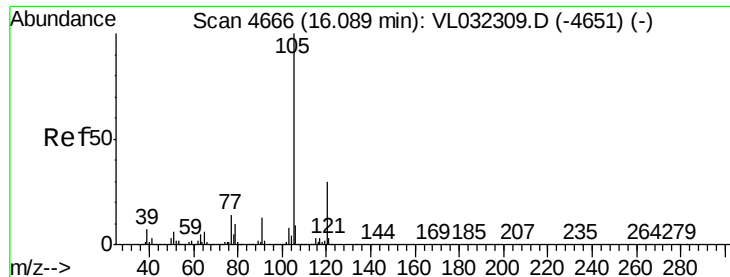
Delta R.T. -0.01 min

Lab File: VL032334.D

Acq: 1 Aug 2018 22:36

Tgt Ion:	95	Resp:	3441363
Ion Ratio	Lower	Upper	
95	100		
174	56.7	45.5	68.3
175	4.1	3.3	4.9





#72

4-Ethyltoluene

Concen: 0.19 ppbv

RT: 16.08 min Scan# 4664

Delta R.T. -0.01 min

Lab File: VL032334.D

Acq: 1 Aug 2018 22:36

Instrument :

MSVOA_L

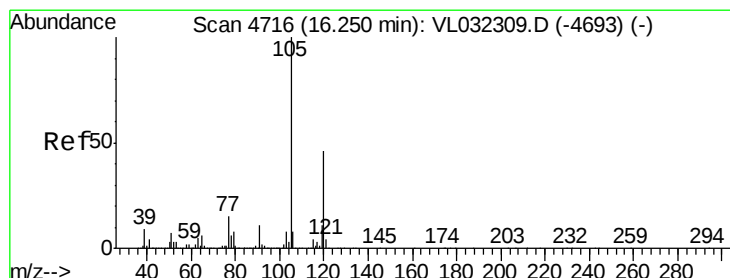
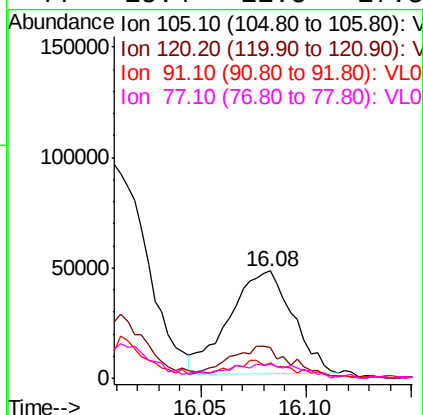
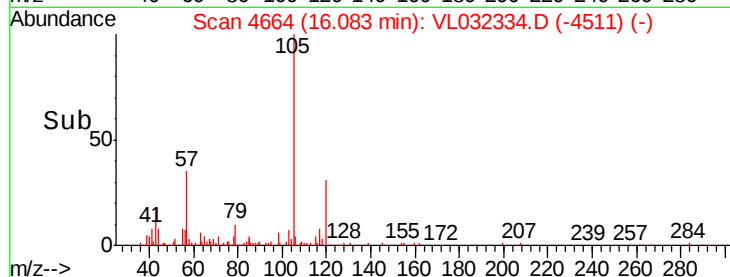
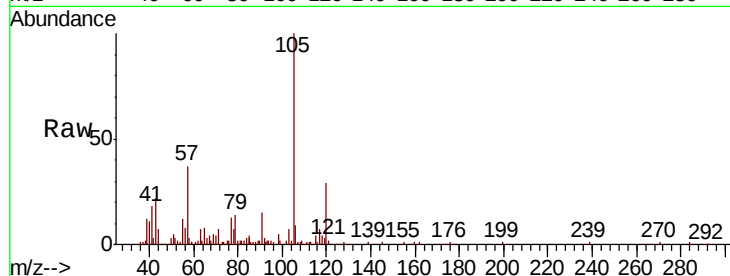
ClientSampleId :

CUBICLE-I630

Tot Ion:	105	Resp:	98185
Ion Ratio	Lower	Upper	
105	100		
120	30.3	23.1	34.7
91	16.8	10.0	15.0
77	15.4	11.5	17.3

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#73

1,3,5-Trimethylbenzene

Concen: 0.19 ppbv m

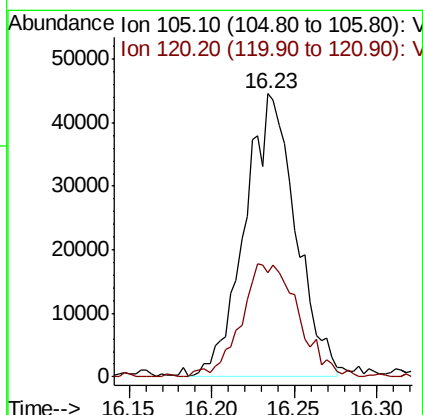
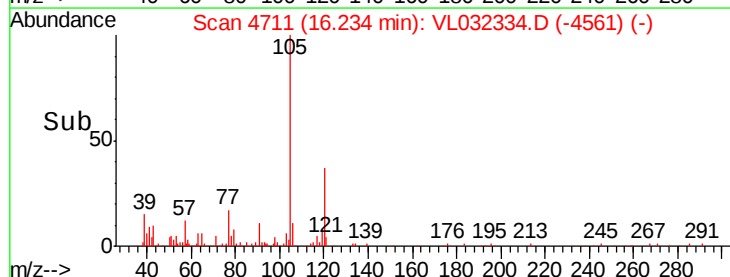
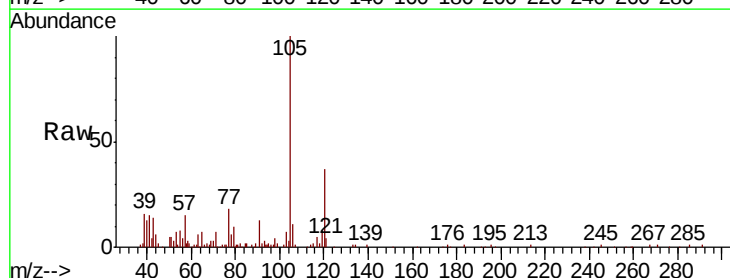
RT: 16.23 min Scan# 4711

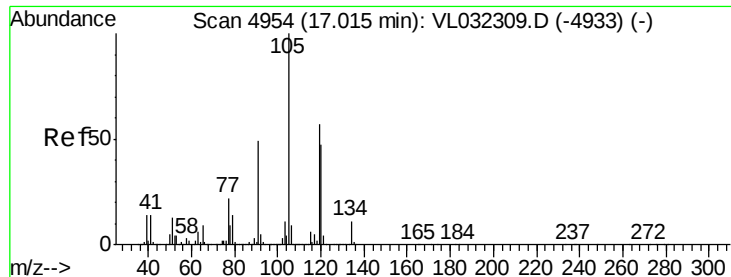
Delta R.T. -0.02 min

Lab File: VL032334.D

Acq: 1 Aug 2018 22:36

Tgt Ion:	105	Resp:	95870
Ion Ratio	Lower	Upper	
105	100		
120	36.6	36.5	54.7





#74

1,2,4-Trimethylbenzene

Concen: 0.58 ppbv

RT: 17.00 min Scan# 4950

Delta R.T. -0.01 min

Lab File: VL032334.D

Acq: 1 Aug 2018 22:36

Instrument :

MSVOA_L

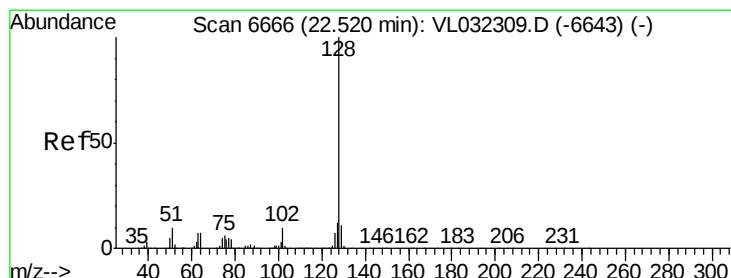
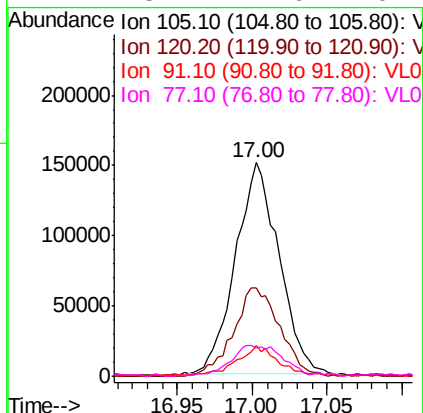
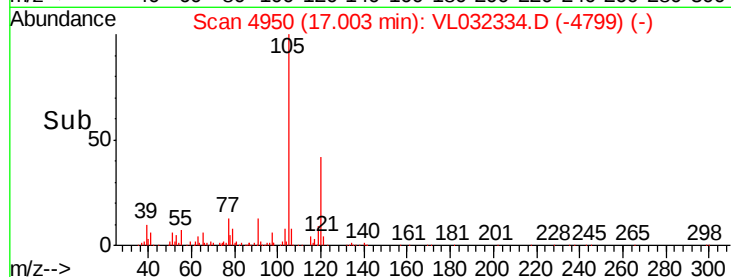
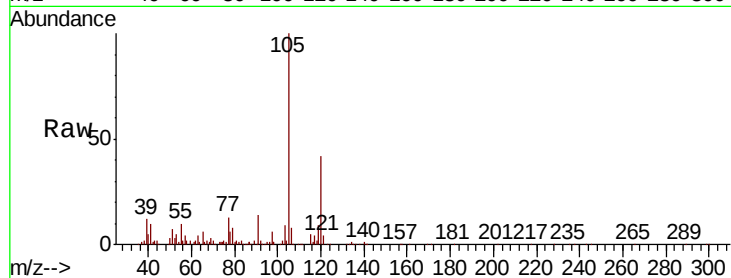
ClientSampleId :

CUBICLE-I630

Tot Ion	Ratio	Resp Lower	Upper
105	100		
120	42.0	37.8	56.6
91	13.9	39.4	59.0#
77	13.2	17.6	26.4#

Manual Integrations
APPROVED

MMDadoda
8/2/2018 2:04:59 PM



#79

Naphthalene

Concen: 0.84 ppbv

RT: 22.51 min Scan# 6663

Delta R.T. -0.01 min

Lab File: VL032334.D

Acq: 1 Aug 2018 22:36

Tgt Ion	Ratio	Resp Lower	Upper
128	100		
127	12.0	9.9	14.9
129	10.2	8.8	13.2

