

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL121118\
 Data File : VL032981.D
 Acq On : 12 Dec 2018 11:36
 Operator : SY/AP
 Sample : J6338-01
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

Manual Integrations
 APPROVED

MMDadoda
 12/13/2018 7:58:58 AM

Quant Time: Dec 12 15:14:28 2018
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL120718AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Dec 07
 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	1063887	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	2867034	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.25	117	2871865	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.59	95	2815502	13.27	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	132.70%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.08	85	85112	0.599	ppbv	99
3) Chlorodifluoromethane	3.01	51	79224m	0.983	ppbv	
4) Chloromethane	3.17	50	27681	0.590	ppbv	100
10) Heptane	8.25	43	72562m	0.606	ppbv	
11) Trichlorofluoromethane	4.01	101	37369	0.279	ppbv	96
13) Ethanol	3.66	45	36186	3.299	ppbv	84
15) Acetone	3.91	43	734193	8.040	ppbv	93
20) Methylene Chloride	4.41	84	225119	5.044	ppbv	98
26) Hexane	5.79	57	454595	4.565	ppbv #	43
27) Carbon Disulfide	4.62	76	665511	5.345	ppbv	98
29) Chloroform	5.85	83	3552163	19.989	ppbv	96
30) Cyclohexane	7.25	84	62158	0.753	ppbv	86
34) 2-Butanone	5.34	43	79105	0.633	ppbv	99
35) Carbon Tetrachloride	7.14	117	59481	0.264	ppbv	92
36) Benzene	7.01	78	112308	0.533	ppbv #	87
38) Trichloroethene	7.96	130	45564	0.519	ppbv	83
41) Tetrahydrofuran	6.16	42	175371	2.258	ppbv	100
42) Bromodichloromethane	7.92	83	73112m	0.368	ppbv	
44) 2,2,4-Trimethylpentane	7.99	57	55507	0.155	ppbv #	21
52) Tetrachloroethene	11.40	164	16387999	213.645	ppbv	91
53) Toluene	9.95	91	831927	3.720	ppbv	99
58) Ethyl Benzene	12.88	91	494470	1.614	ppbv	95
59) m/p-Xylene	13.14	91	1784642	6.425	ppbv #	100
60) o-Xylene	13.86	91	849116	3.027	ppbv	100
73) 1,3,5-Trimethylbenzene	16.19	105	352176	1.152	ppbv	98
74) 1,2,4-Trimethylbenzene	16.95	105	1422710	4.121	ppbv #	71
79) Naphthalene	22.43	128	214233	0.961	ppbv	96
80) Naphthalene,2-methyl-	25.13	142	17658	0.371	ppbv #	90

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

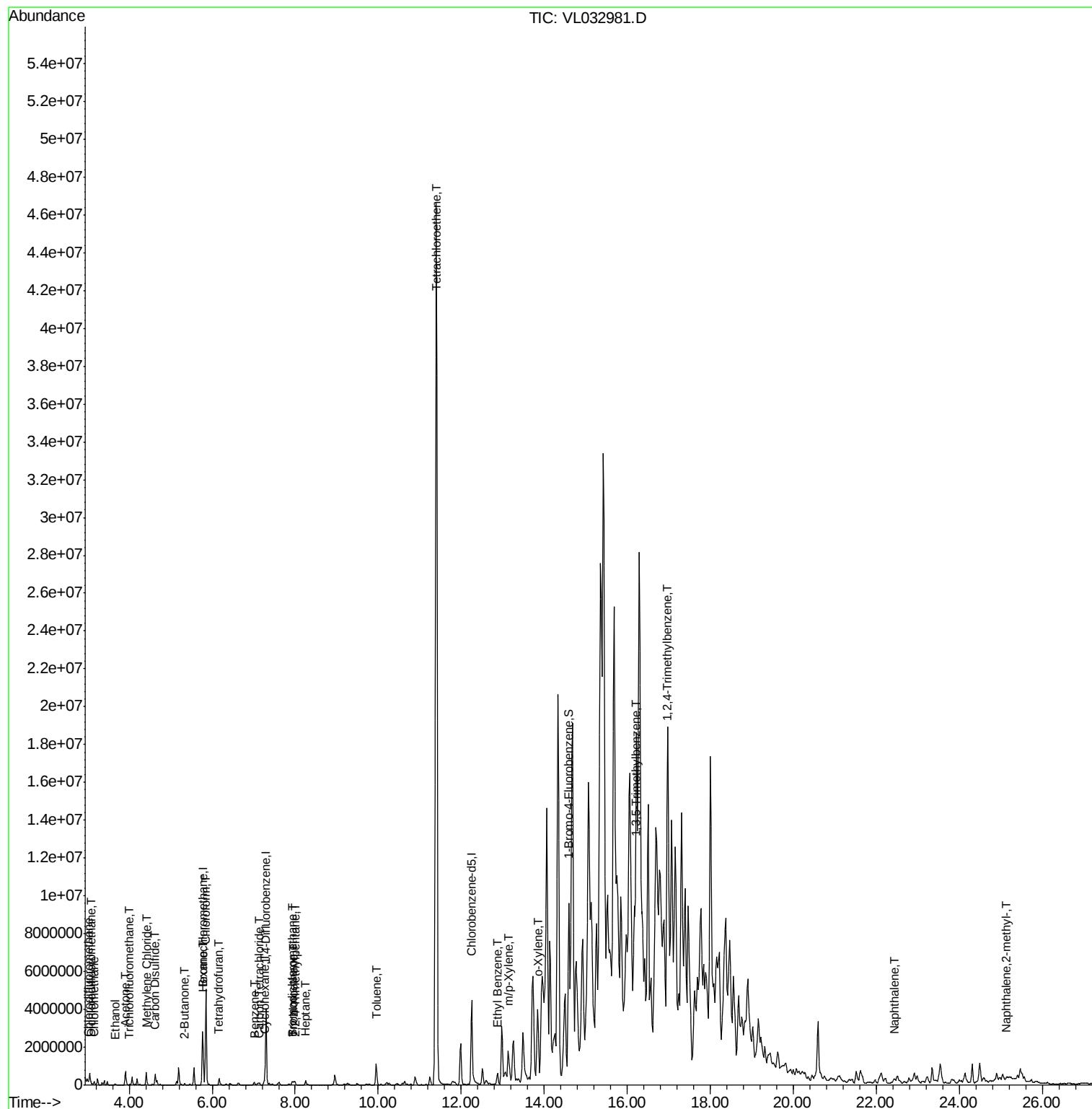
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL121118\
Data File : VL032981.D
Acq On : 12 Dec 2018 11:36
Operator : SY/AP
Sample : J6338-01
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

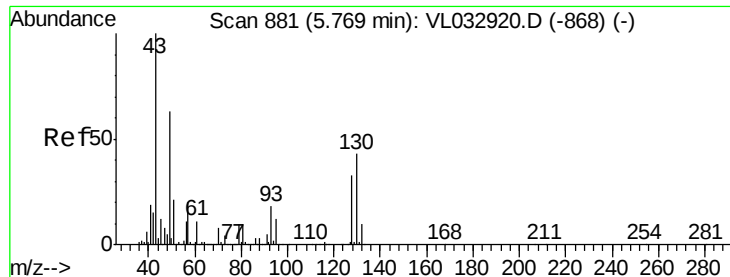
Instrument :
MSVOA_L
ClientSampleId :
SV1

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12/13/2018 7:58:58 AM

Quant Time: Dec 12 15:14:28 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# 880

Delta R.T. -0.00 min

Lab File: VL032981.D

Acq: 12 Dec 2018 11:36

Instrument :

MSVOA_L

ClientSampled :

SV1

Tot Ion: 49 Resp: 1063887

Ion Ratio Lower Upper

49 100

128 52.2 26.3 78.8

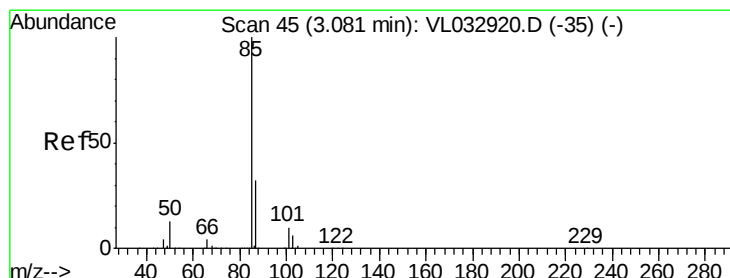
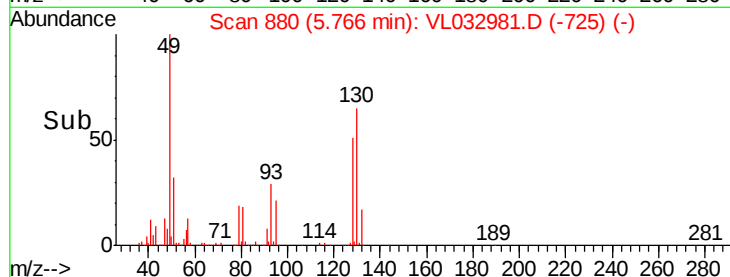
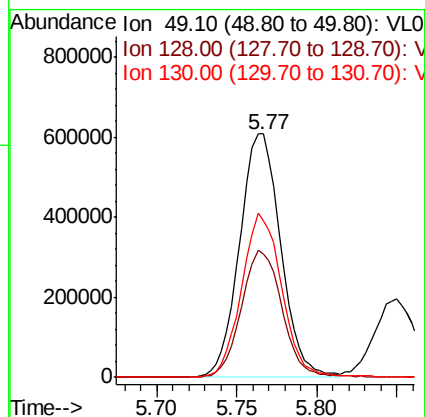
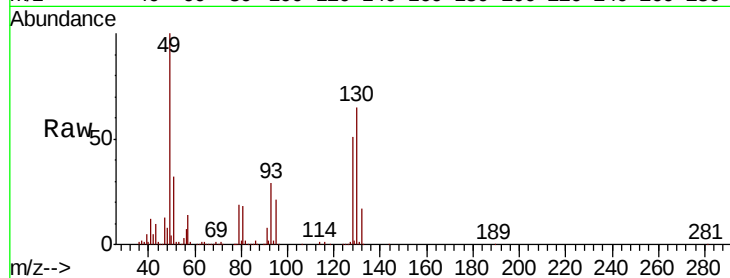
130 66.3 33.9 101.7

Manual Integrations

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#2

Dichlorodifluoromethane

Concen: 0.599 ppbv

RT: 3.08 min Scan# 43

Delta R.T. -0.01 min

Lab File: VL032981.D

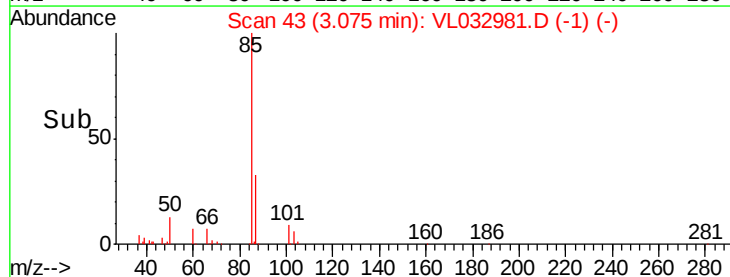
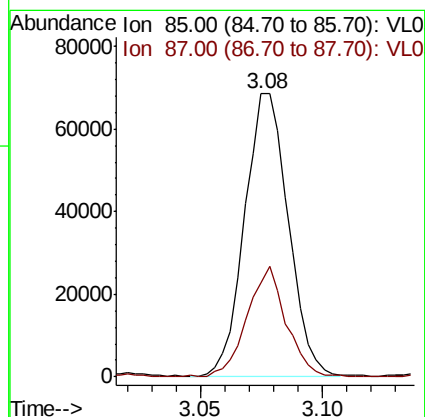
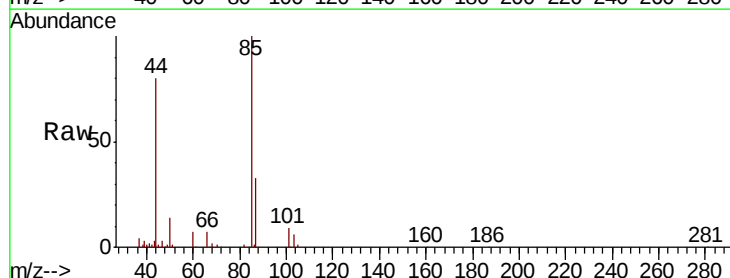
Acq: 12 Dec 2018 11:36

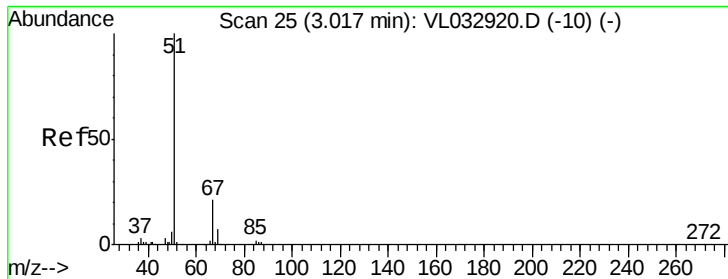
Tgt Ion: 85 Resp: 85112

Ion Ratio Lower Upper

85 100

87 32.7 25.7 38.5





#3

Chlorodifluoromethane

Concen: 0.983 ppbv

RT: 3.01 min Scan# 24

Delta R.T. -0.00 min

Lab File: VL032981.D

Acq: 12 Dec 2018 11:36

Instrument :

MSVOA_L

ClientSampled :

SV1

Tot Ion: 51 Resp: 79224

Ion Ratio Lower Upper

51 100

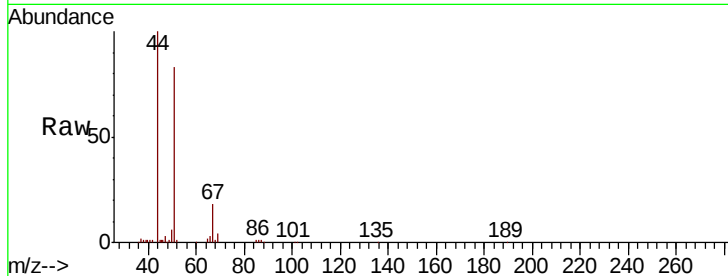
67 23.1 16.8 25.2

Manual Integrations

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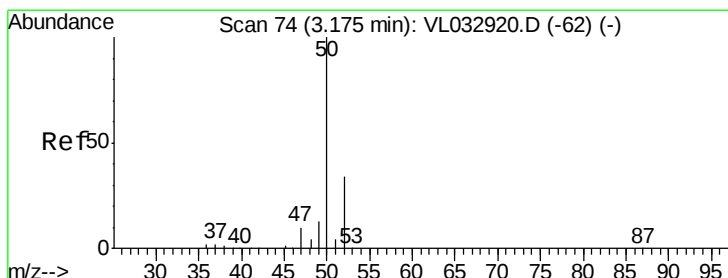
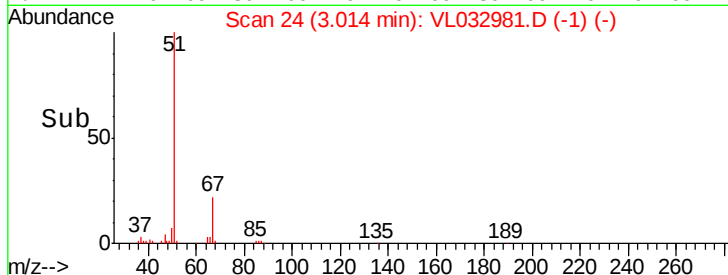
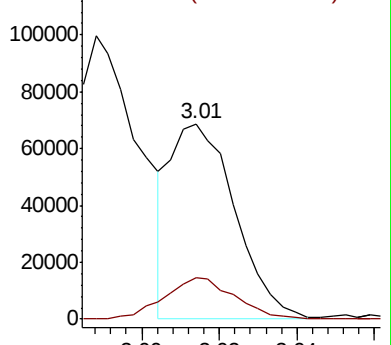
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.590 ppbv

RT: 3.17 min Scan# 72

Delta R.T. -0.01 min

Lab File: VL032981.D

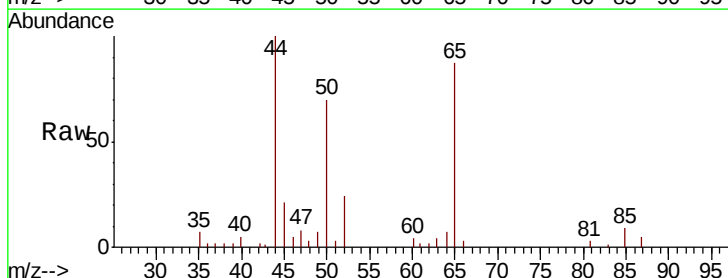
Acq: 12 Dec 2018 11:36

Tgt Ion: 50 Resp: 27681

Ion Ratio Lower Upper

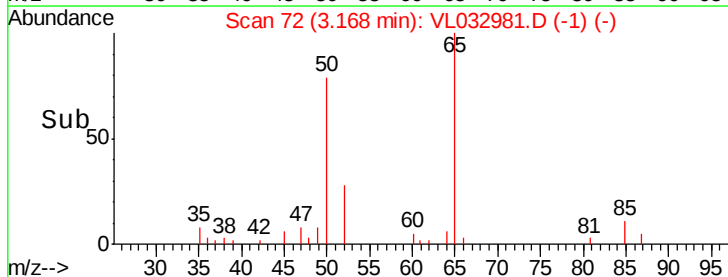
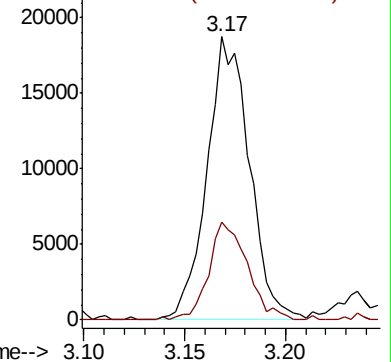
50 100

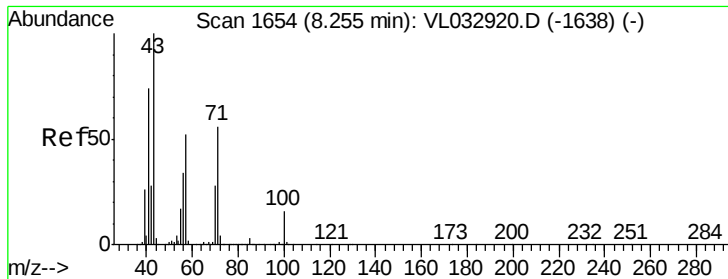
52 34.4 27.3 40.9



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





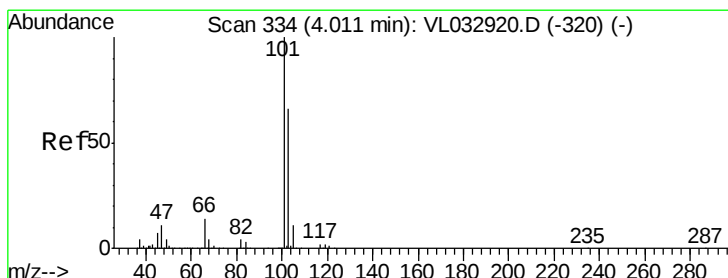
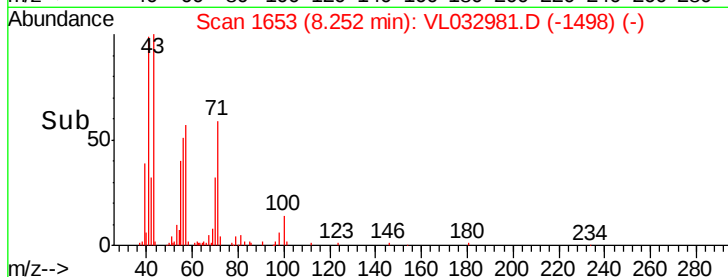
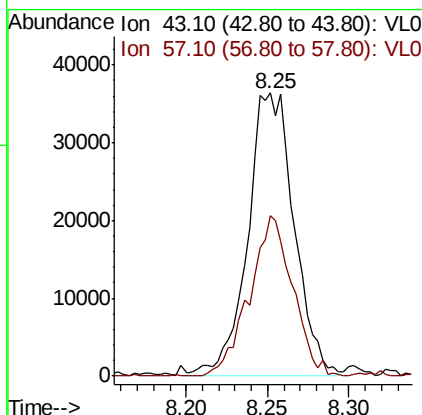
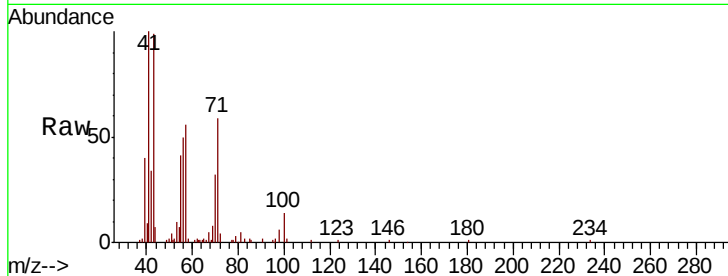
#10
 Heptane
 Concen: 0.606 ppbv m
 RT: 8.25 min Scan# 1653
 Delta R.T. -0.00 min
 Lab File: VL032981.D
 Acq: 12 Dec 2018 11:36

Instrument :
 MSVOA_L
 ClientSampleId :
 SV1

Tot Ion: 43 Resp: 72562
 Ion Ratio Lower Upper
 43 100
 57 52.5 41.8 62.6

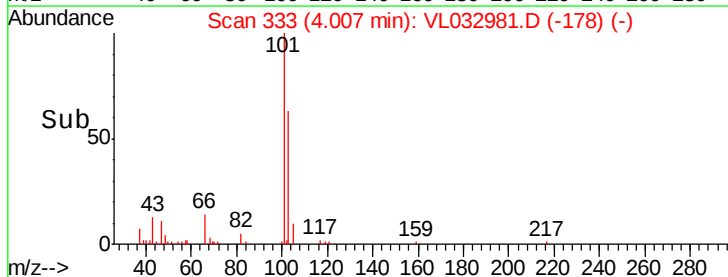
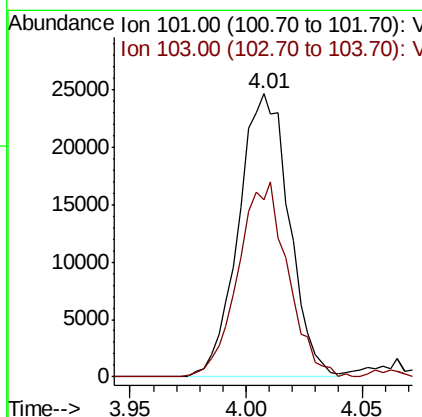
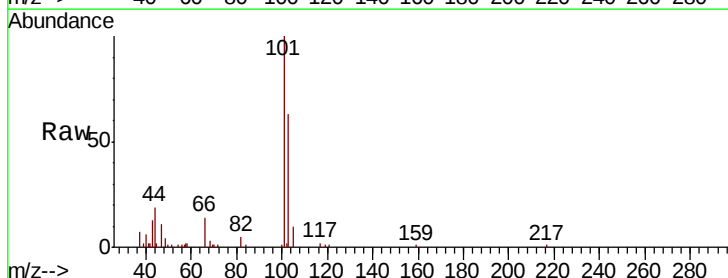
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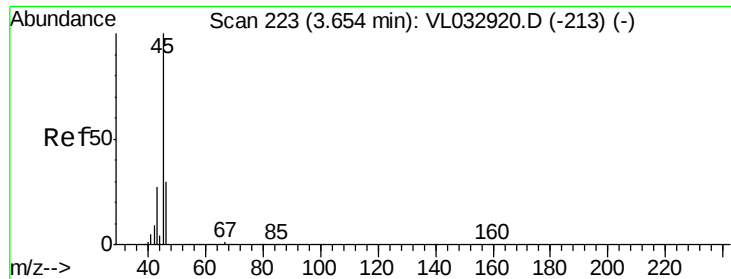
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#11
 Trichlorofluoromethane
 Concen: 0.279 ppbv
 RT: 4.01 min Scan# 333
 Delta R.T. -0.00 min
 Lab File: VL032981.D
 Acq: 12 Dec 2018 11:36

Tgt Ion: 101 Resp: 37369
 Ion Ratio Lower Upper
 101 100
 103 62.7 52.7 79.1





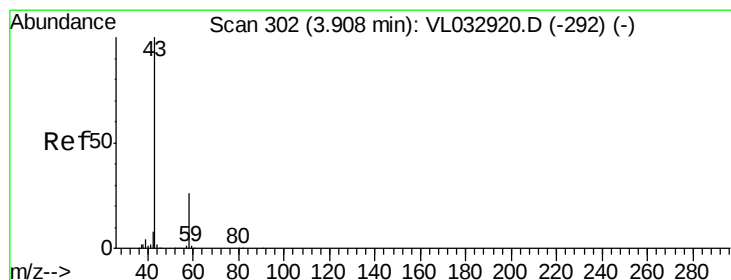
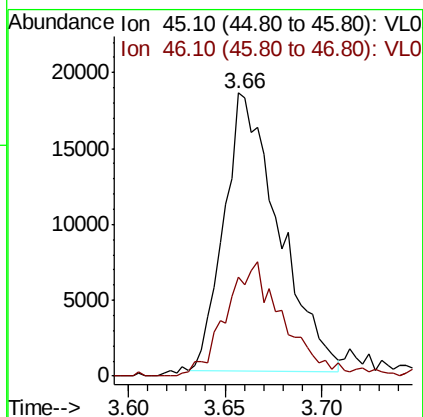
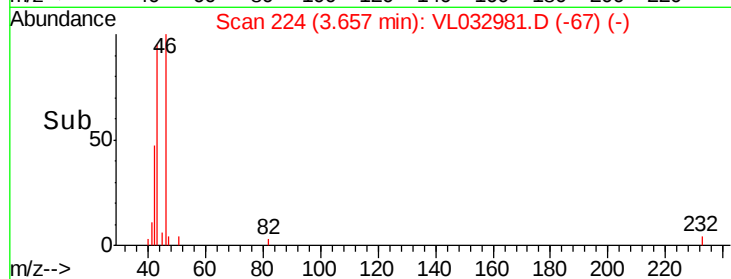
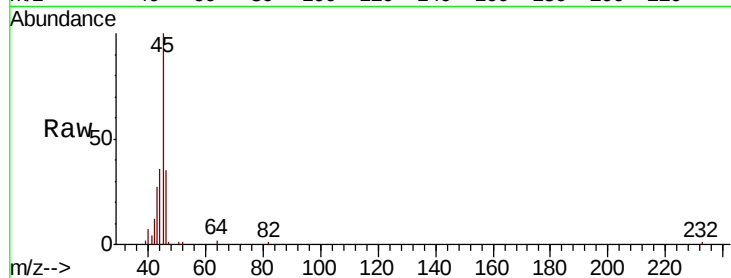
#13
Ethanol
Concen: 3.299 ppbv
RT: 3.66 min Scan# 224
Delta R.T. 0.00 min
Lab File: VL032981.D
Acq: 12 Dec 2018 11:36

Instrument :
MSVOA_L
ClientSampleId :
SV1

Tot Ion	45	46	Ratio	Lower	Upper
Resp:	36186				
Ion	45	46	100		
Ratio		44.1		13.8	55.4

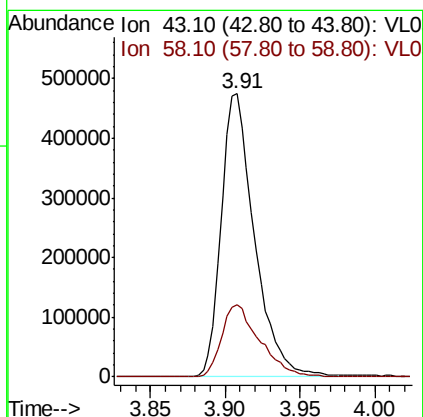
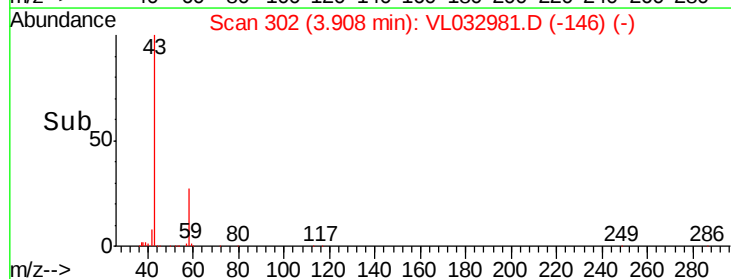
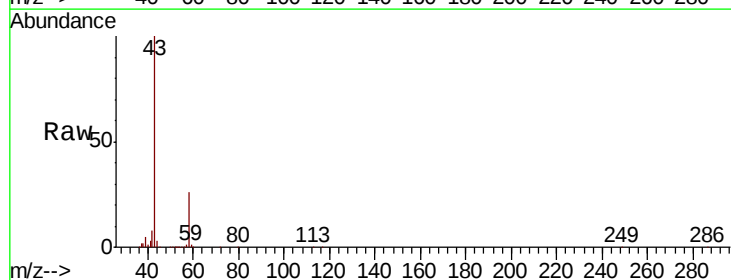
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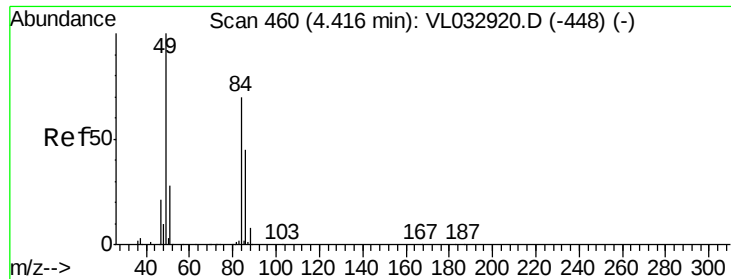
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#15
Acetone
Concen: 8.040 ppbv
RT: 3.91 min Scan# 302
Delta R.T. 0.00 min
Lab File: VL032981.D
Acq: 12 Dec 2018 11:36

Tgt Ion	43	58	Ratio	Lower	Upper
Resp:	734193				
Ion	43	58	100		
Ratio		29.4		20.6	30.8





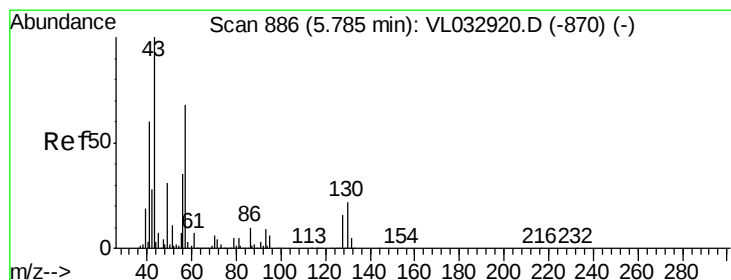
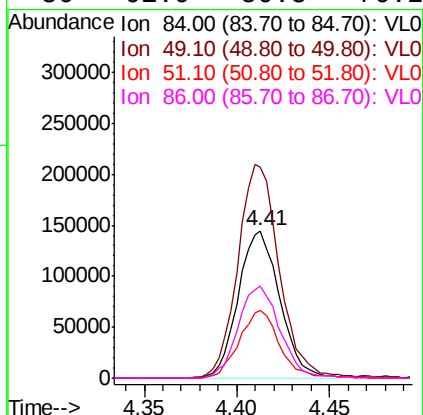
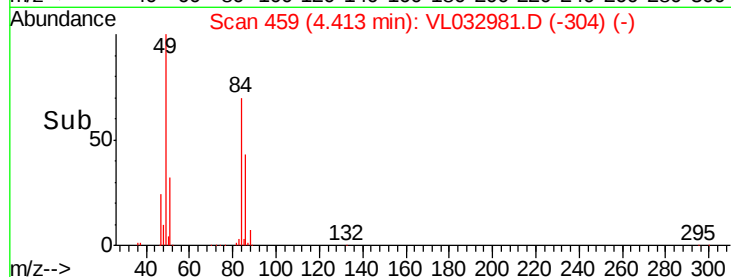
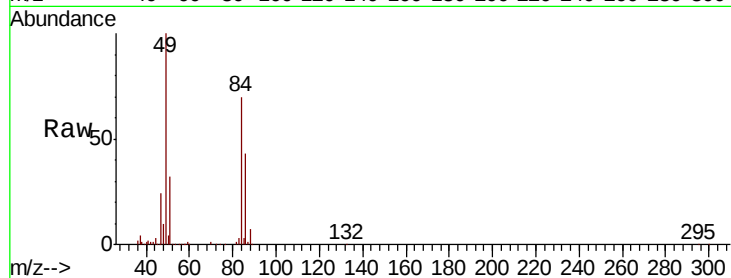
#20
Methvlene Chloride
Concen: 5.044 ppbv
RT: 4.41 min Scan# 459
Delta R.T. -0.00 min
Lab File: VL032981.D
Acq: 12 Dec 2018 11:36

Instrument :
MSVOA_L
ClientSampleId :
SV1

Tot Ion:	84	Resp:	225119
Ion	Ratio	Lower	Upper
84	100		
49	143.2	113.8	170.8
51	45.7	31.8	47.8
86	61.9	50.8	76.2

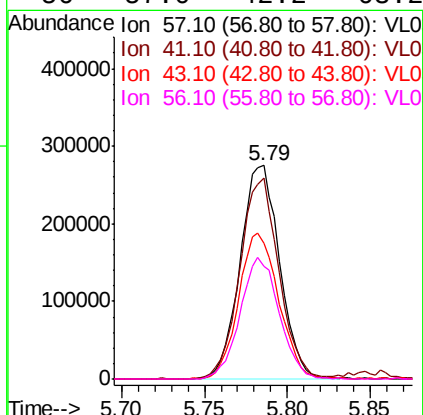
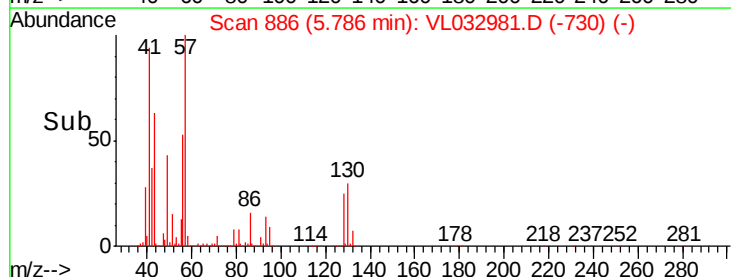
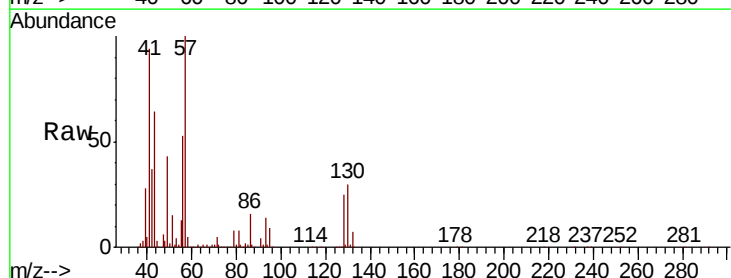
Manual Integrations
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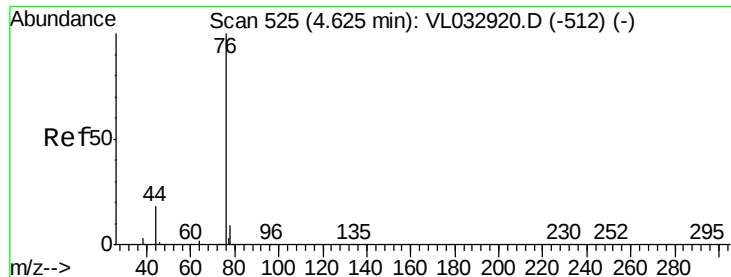
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#26
Hexane
Concen: 4.565 ppbv
RT: 5.79 min Scan# 886
Delta R.T. 0.00 min
Lab File: VL032981.D
Acq: 12 Dec 2018 11:36

Tgt Ion:	57	Resp:	454595
Ion	Ratio	Lower	Upper
57	100		
41	93.4	72.2	108.2
43	70.0	171.9	257.9#
56	57.0	42.2	63.2





#27

Carbon Disulfide

Concen: 5.345 ppbv

RT: 4.62 min Scan# 525

Delta R.T. 0.00 min

Lab File: VL032981.D

Acq: 12 Dec 2018 11:36

Instrument :

MSVOA_L

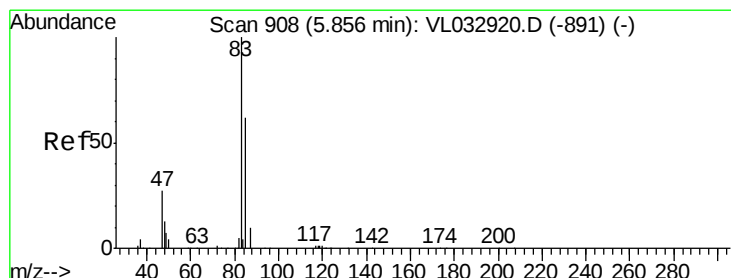
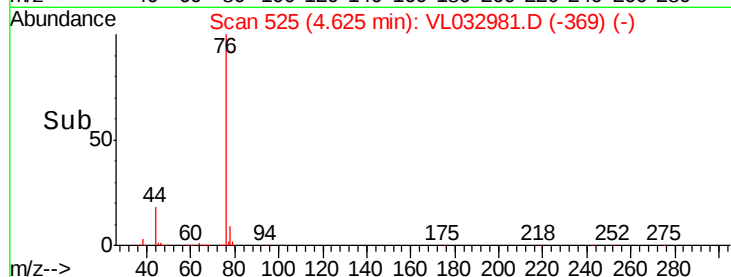
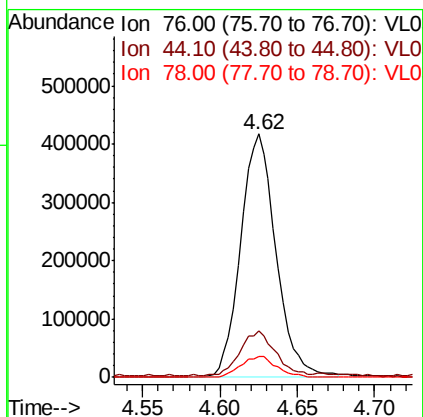
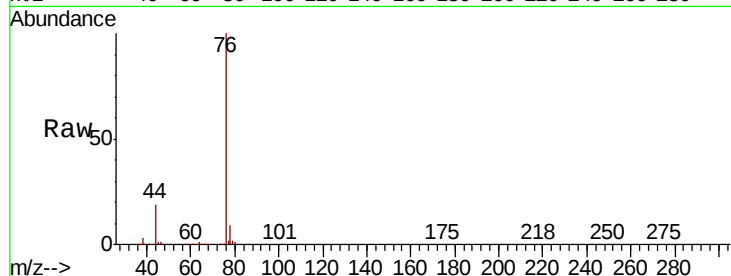
ClientSampleId :

SV1

Tot Ion:	76	Resp:	665511
Ion Ratio	Lower	Upper	
76	100		
44	19.5	14.7	22.1
78	9.1	7.4	11.2

Manual Integrations
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#29

Chloroform

Concen: 19.989 ppbv

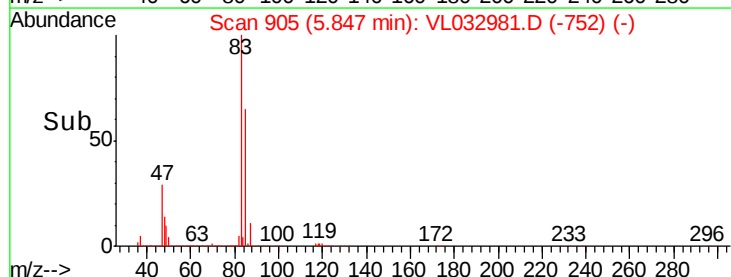
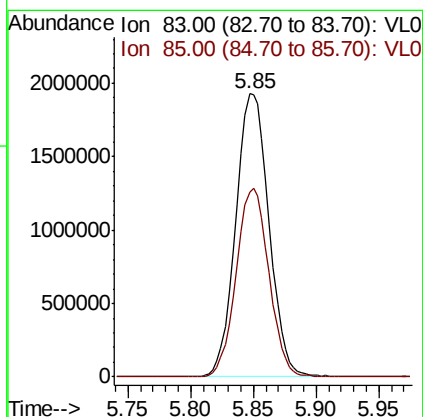
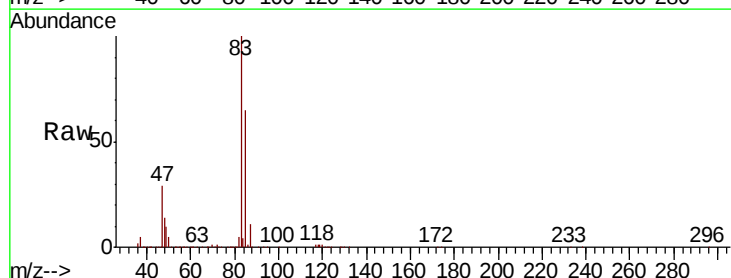
RT: 5.85 min Scan# 905

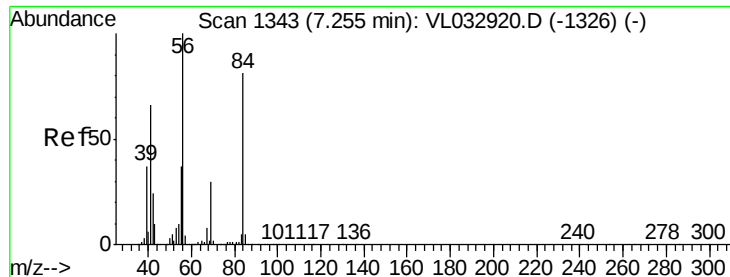
Delta R.T. -0.01 min

Lab File: VL032981.D

Acq: 12 Dec 2018 11:36

Tgt Ion:	83	Resp:	3552163
Ion Ratio	Lower	Upper	
83	100		
85	65.4	49.8	74.8





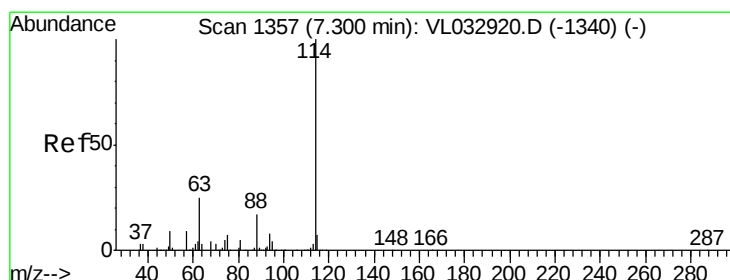
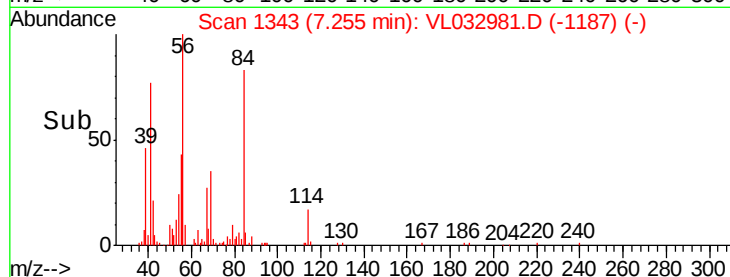
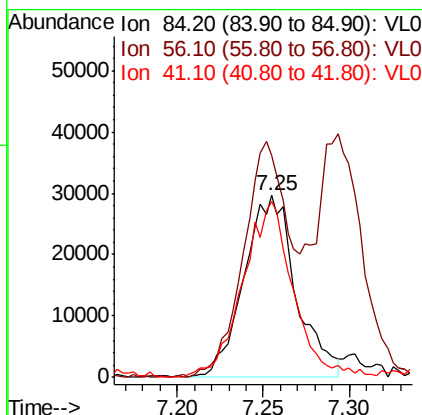
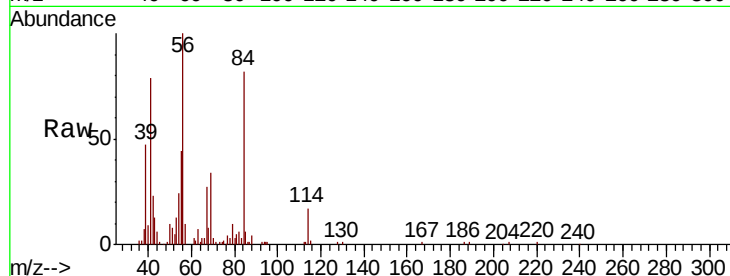
#30
Cvclohexane
Concen: 0.753 ppbv
RT: 7.25 min Scan# 1343
Delta R.T. 0.00 min
Lab File: VL032981.D
Acq: 12 Dec 2018 11:36

Instrument :
MSVOA_L
ClientSampled :
SV1

Tot Ion	Ratio	Lower	Upper
84	100		
56	113.3	102.5	153.7
41	93.8	64.1	96.1

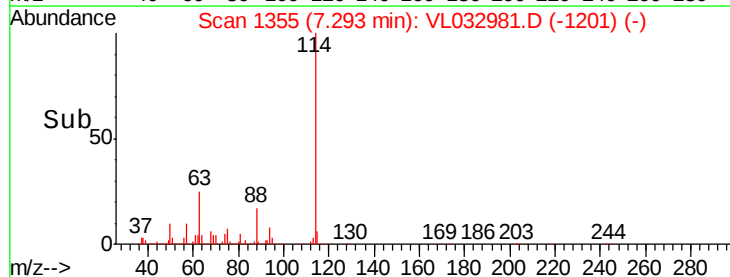
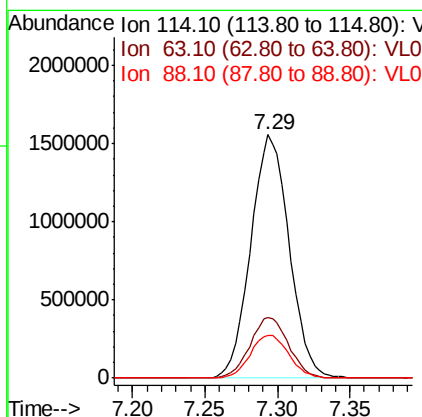
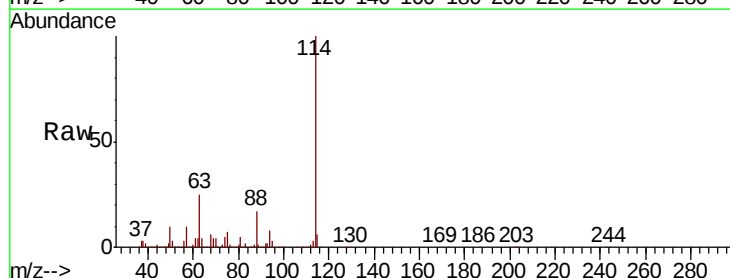
Manual Integrations
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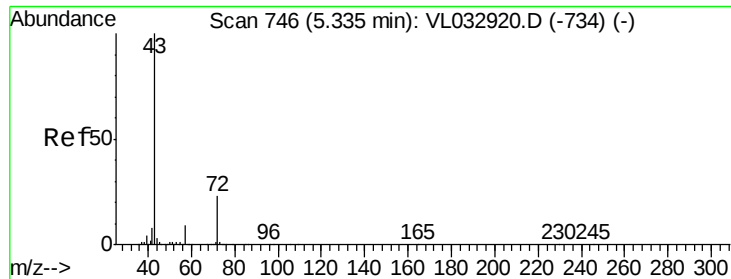
MMDadoda
12/13/2018 7:58:58 AM



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.29 min Scan# 1355
Delta R.T. -0.01 min
Lab File: VL032981.D
Acq: 12 Dec 2018 11:36

Tgt Ion	Ratio	Lower	Upper
114	100		
63	25.2	20.1	30.1
88	17.8	14.2	21.4





#34

2-Butanone

Concen: 0.633 ppbv

RT: 5.34 min Scan# 746

Delta R.T. 0.00 min

Lab File: VL032981.D

Acq: 12 Dec 2018 11:36

Instrument :

MSVOA_L

ClientSampleId :

SV1

Tot Ion: 43 Resp: 79105

Ion Ratio Lower Upper

43 100

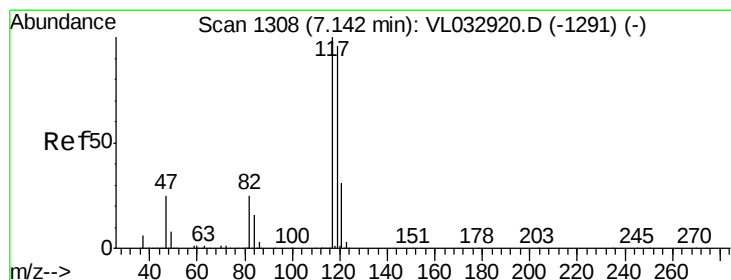
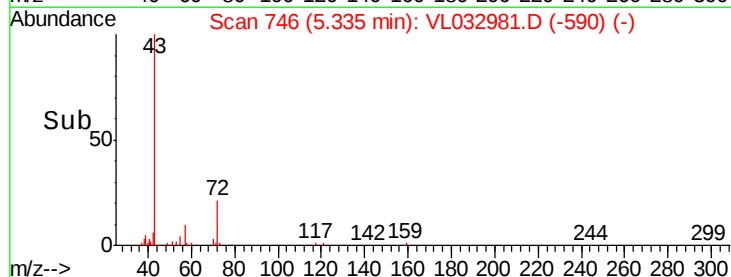
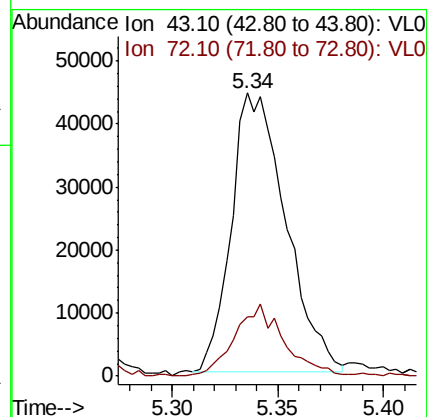
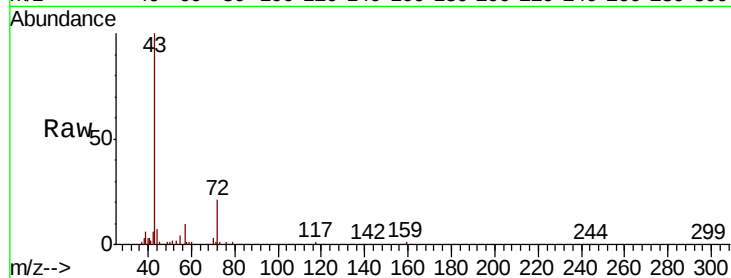
72 24.1 18.8 28.2

Manual Integrations

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#35

Carbon Tetrachloride

Concen: 0.264 ppbv

RT: 7.14 min Scan# 1307

Delta R.T. -0.00 min

Lab File: VL032981.D

Acq: 12 Dec 2018 11:36

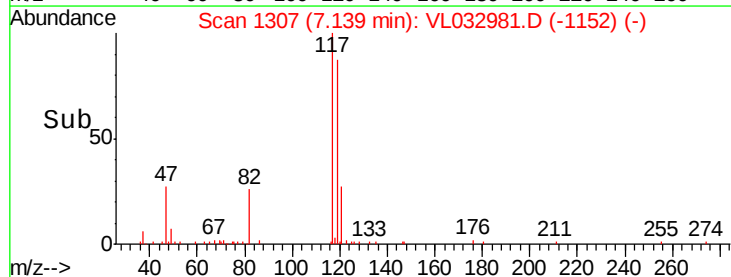
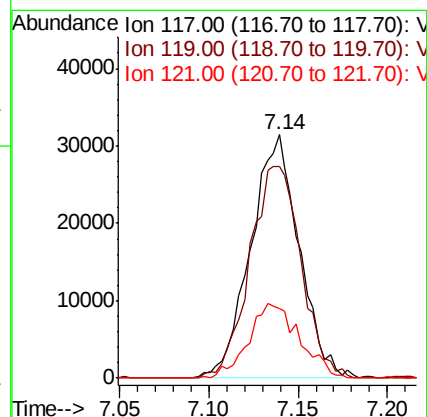
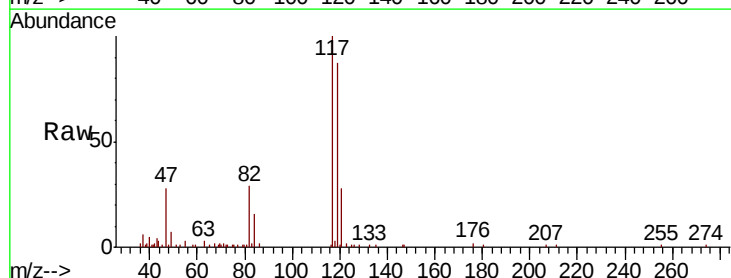
Tgt Ion: 117 Resp: 59481

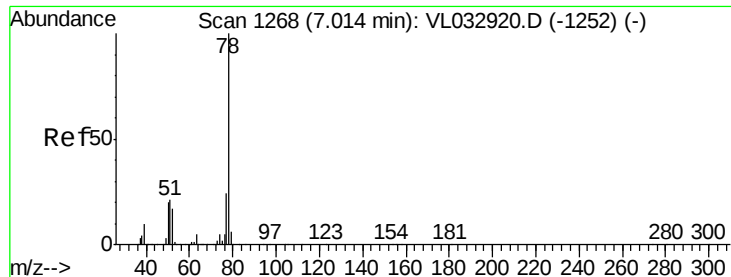
Ion Ratio Lower Upper

117 100

119 87.1 76.5 114.7

121 28.3 24.5 36.7





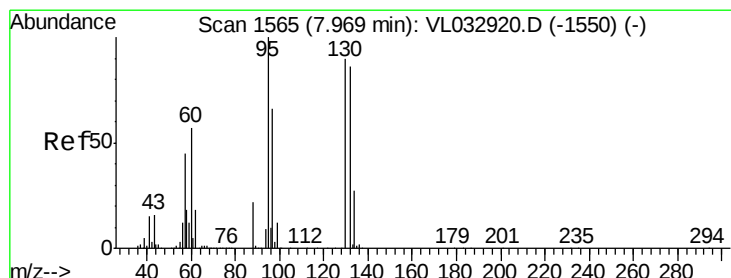
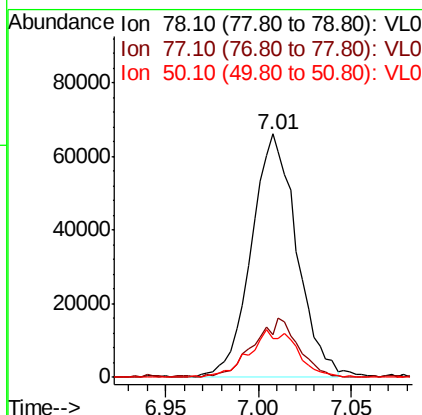
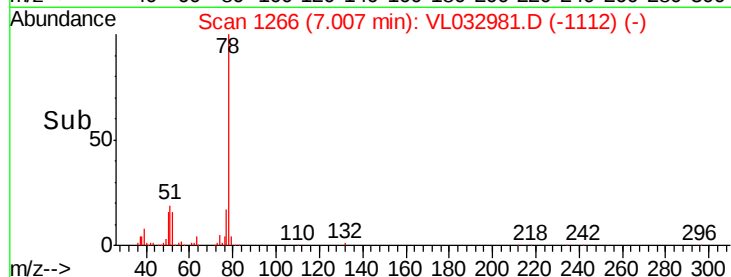
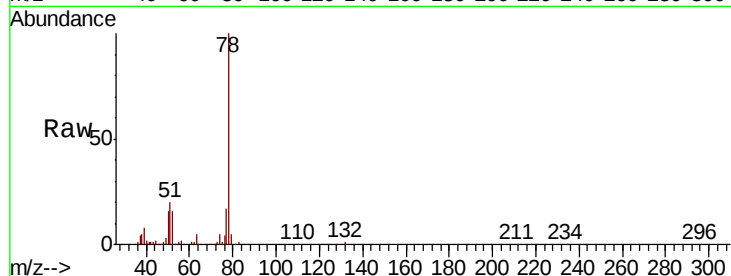
#36
Benzene
Concen: 0.533 ppbv
RT: 7.01 min Scan# 1266
Delta R.T. -0.01 min
Lab File: VL032981.D
Acq: 12 Dec 2018 11:36

Instrument :
MSVOA_L
ClientSampleId :
SV1

Tot Ion	Ratio	Lower	Upper
78	100		
77	16.8	18.9	28.3#
50	15.1	16.1	24.1#

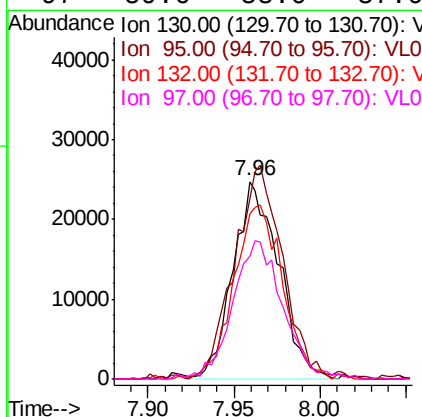
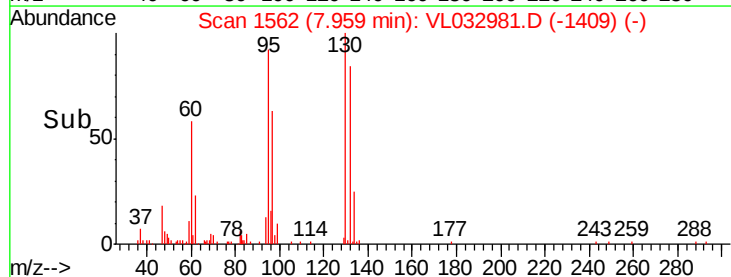
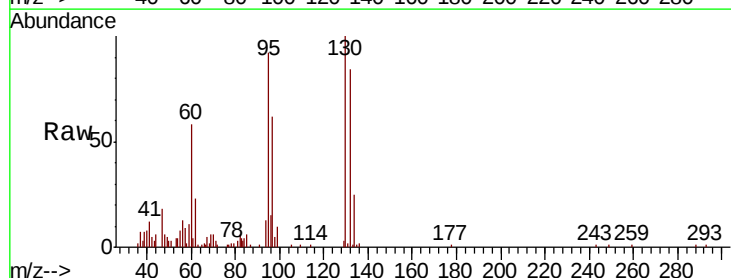
Manual Integrations
APPROVED

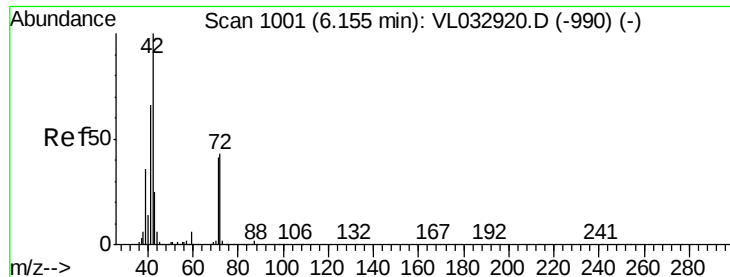
MMDadoda
12/13/2018 7:58:58 AM



#38
Trichloroethene
Concen: 0.519 ppbv
RT: 7.96 min Scan# 1562
Delta R.T. -0.01 min
Lab File: VL032981.D
Acq: 12 Dec 2018 11:36

Tgt Ion	Ratio	Lower	Upper
130	100		
95	90.1	88.6	132.8
132	81.5	76.1	114.1
97	59.6	58.0	87.0





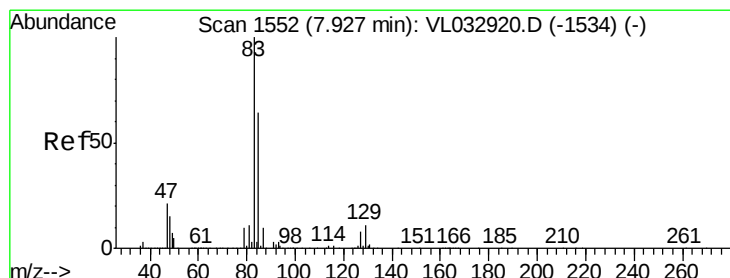
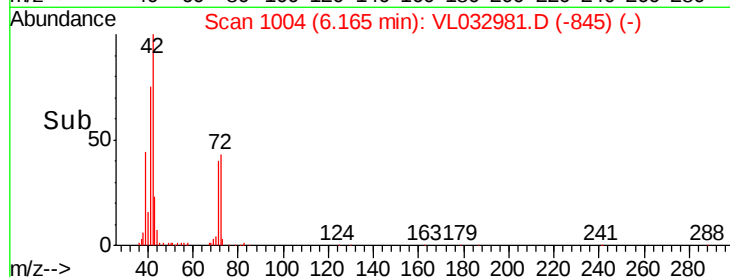
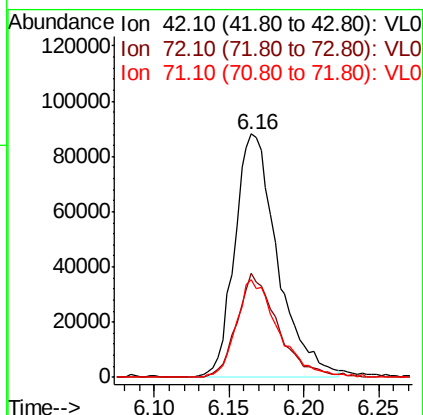
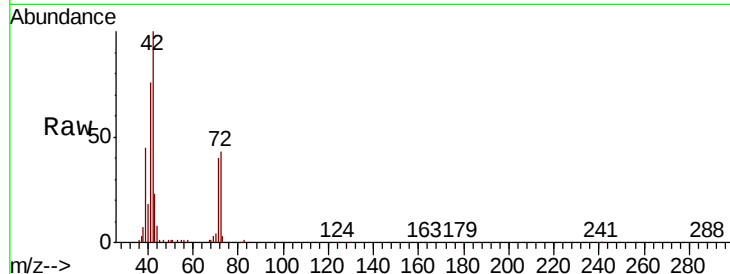
#41
Tetrahydrofuran
Concen: 2.258 ppbv
RT: 6.16 min Scan# 1004
Delta R.T. 0.01 min
Lab File: VL032981.D
Acq: 12 Dec 2018 11:36

Instrument :
MSVOA_L
ClientSampled :
SV1

Tot Ion	Ratio	Resp	Lower	Upper
42	100	175371		
72	40.8		32.9	49.3
71	39.7		32.0	48.0

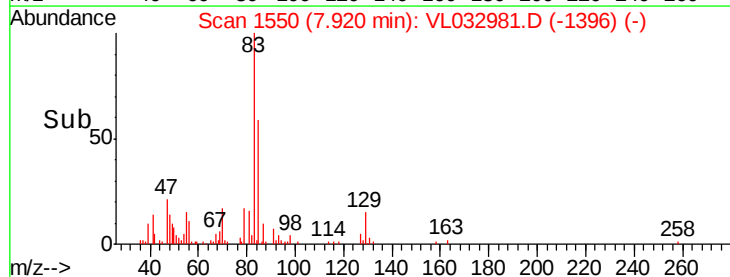
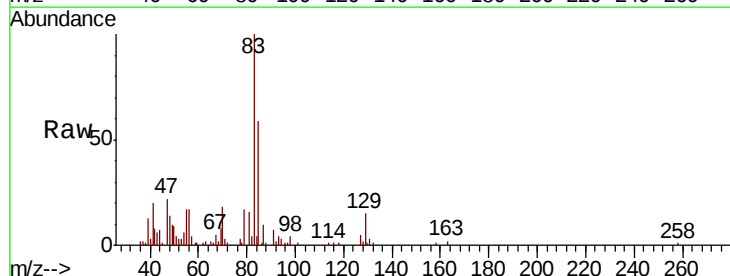
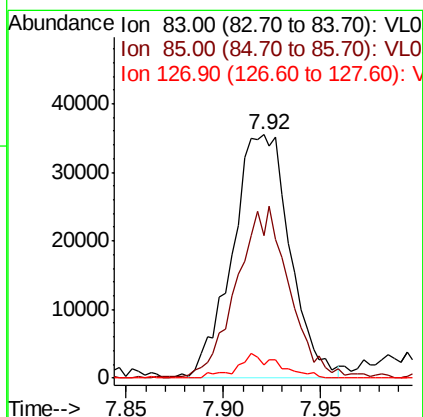
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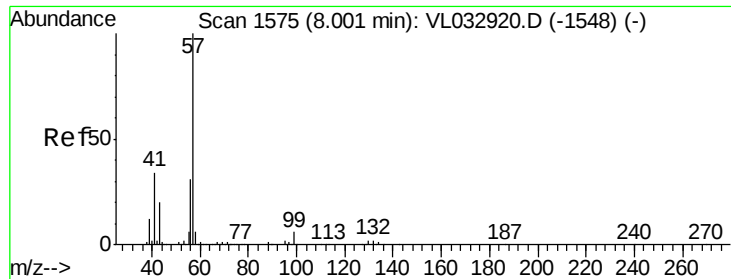
MMDadoda
12/13/2018 7:58:58 AM



#42
Bromodichloromethane
Concen: 0.368 ppbv m
RT: 7.92 min Scan# 1550
Delta R.T. -0.01 min
Lab File: VL032981.D
Acq: 12 Dec 2018 11:36

Tgt Ion	Ratio	Resp	Lower	Upper
83	100	73112		
85	58.5		50.9	76.3
127	5.4		6.7	10.1#





#44

2,2,4-Trimethylpentane

Concen: 0.155 ppbv

RT: 7.99 min Scan# 1573

Delta R.T. -0.01 min

Lab File: VL032981.D

Acq: 12 Dec 2018 11:36

Instrument :

MSVOA_L

ClientSampleId :

SV1

Tot Ion: 57 Resp: 55507

Ion Ratio Lower Upper

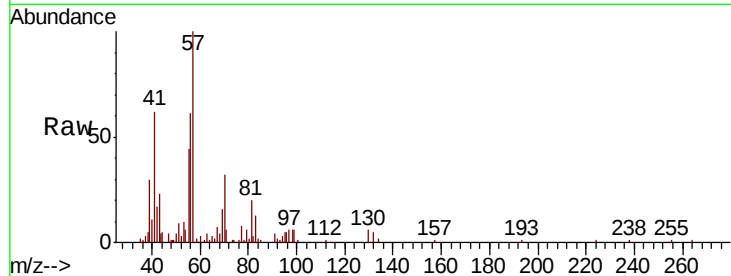
57 100

41 76.2 27.0 40.4#

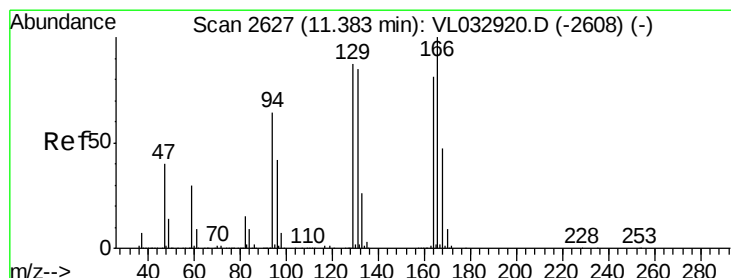
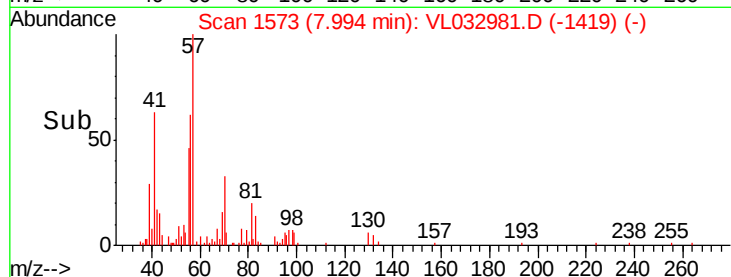
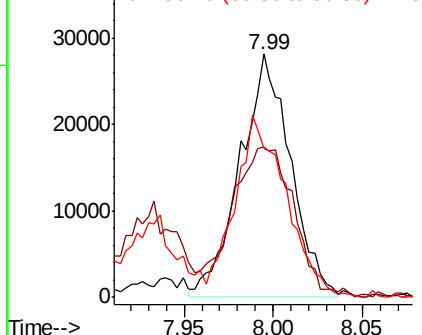
56 77.3 24.6 37.0#

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MMDadoda
12/13/2018 7:58:58 AM



Abundance Ion 57.10 (56.80 to 57.80): VL0
Ion 41.10 (40.80 to 41.80): VL0
Ion 56.10 (55.80 to 56.80): VL0



#52

Tetrachloroethene

Concen: 213.645 ppbv

RT: 11.40 min Scan# 2633

Delta R.T. 0.02 min

Lab File: VL032981.D

Acq: 12 Dec 2018 11:36

Tgt Ion:164 Resp:16387999

Ion Ratio Lower Upper

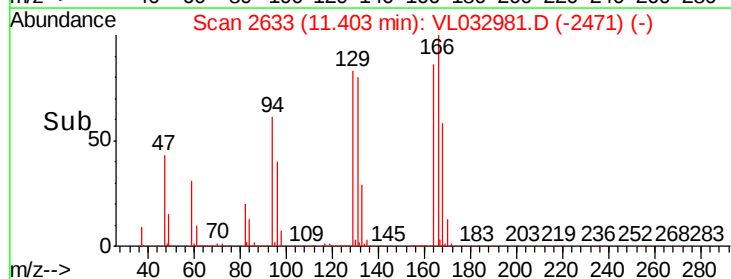
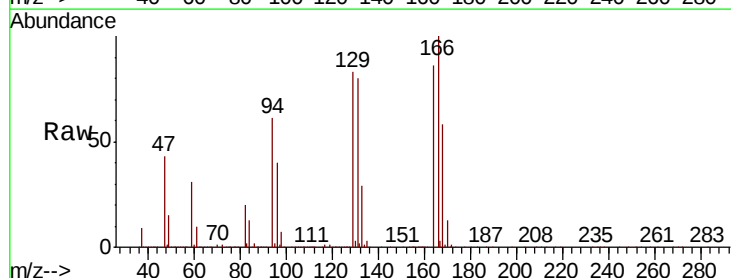
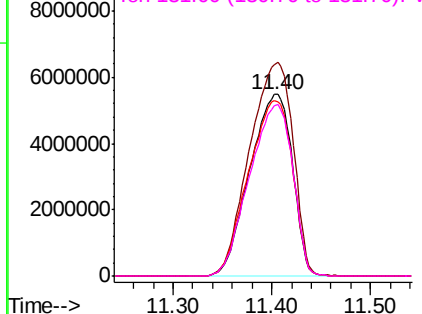
164 100

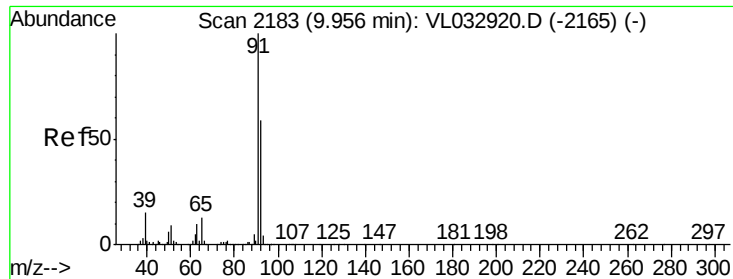
166 116.7 98.8 148.2

129 96.9 85.5 128.3

131 93.8 84.4 126.6

Abundance Ion 163.90 (163.60 to 164.60): V
1e+07 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





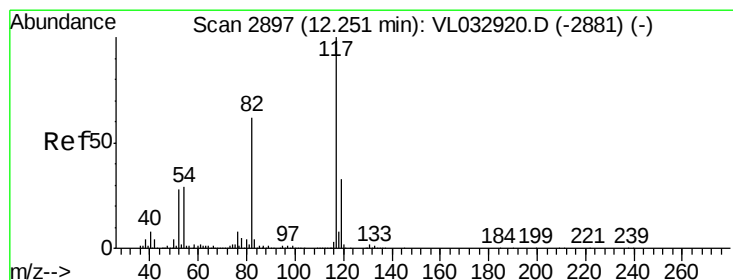
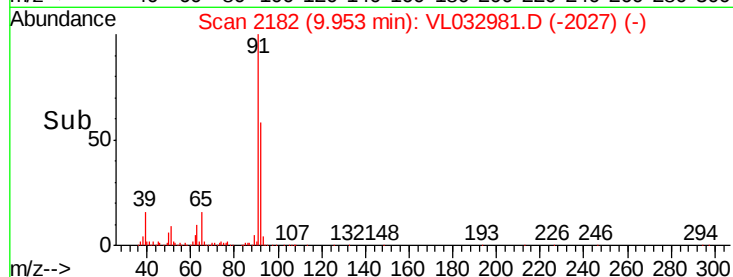
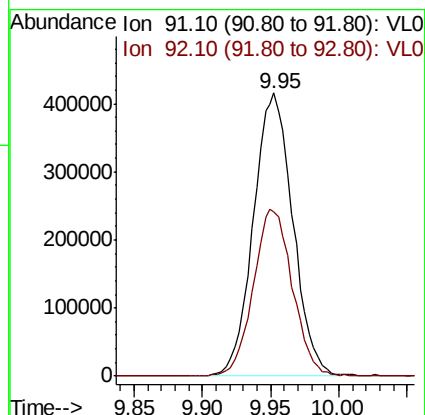
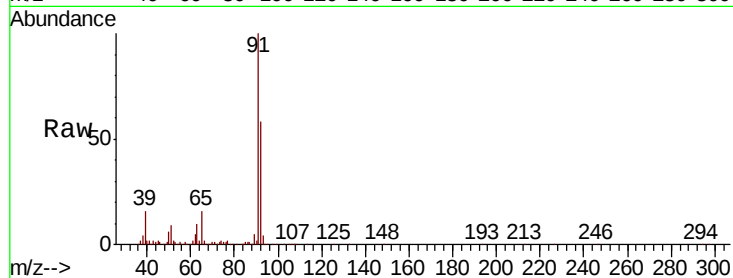
#53
Toluene
Concen: 3.720 ppbv
RT: 9.95 min Scan# 2182
Delta R.T. -0.00 min
Lab File: VL032981.D
Acq: 12 Dec 2018 11:36

Instrument :
MSVOA_L
ClientSampleId :
SV1

Tot Ion: 91 Resp: 831927
Ion Ratio Lower Upper
91 100
92 58.7 47.4 71.0

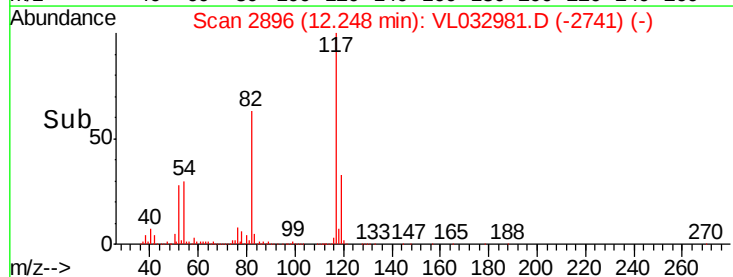
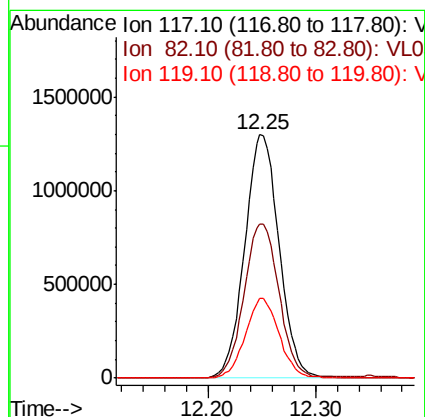
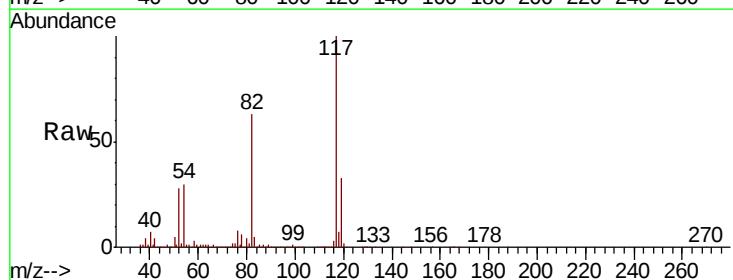
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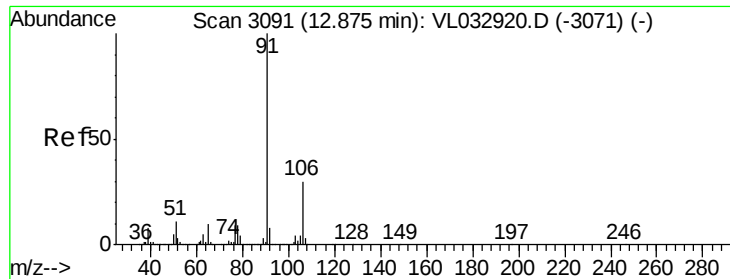
MMDadoda
12/13/2018 7:58:58 AM



#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.25 min Scan# 2896
Delta R.T. -0.00 min
Lab File: VL032981.D
Acq: 12 Dec 2018 11:36

Tgt Ion: 117 Resp: 2871865
Ion Ratio Lower Upper
117 100
82 64.5 47.8 71.8
119 32.6 43.1 64.7#





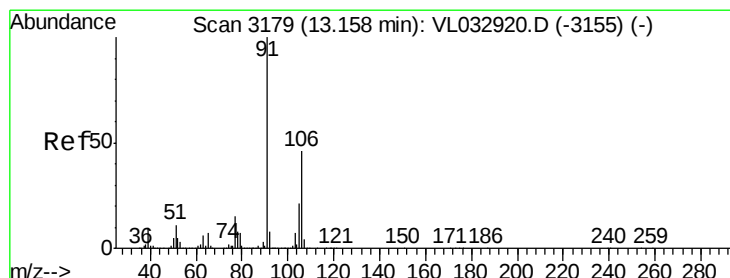
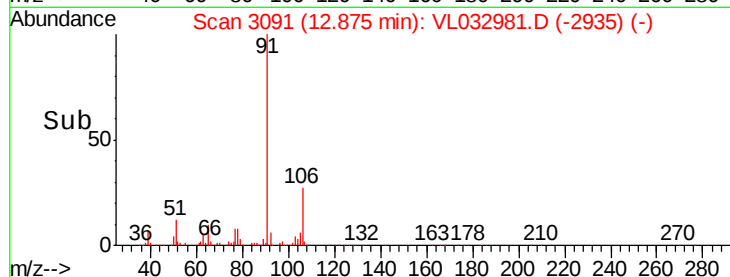
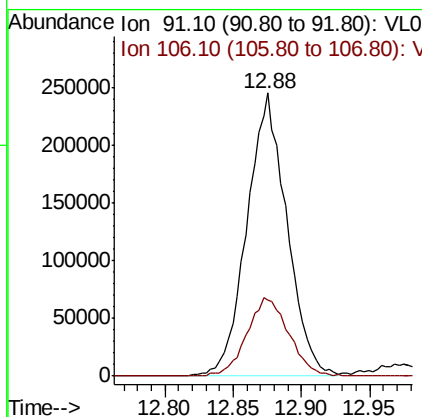
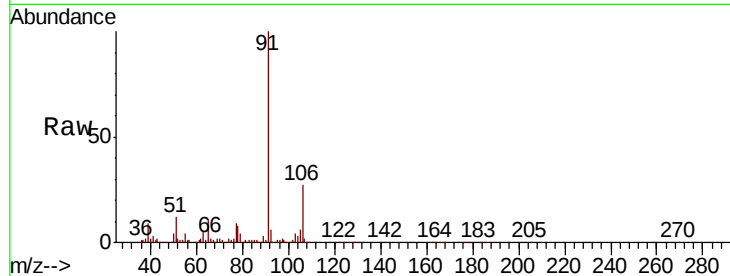
#58
Ethyl Benzene
Concen: 1.614 ppbv
RT: 12.88 min Scan# 3091
Delta R.T. 0.00 min
Lab File: VL032981.D
Acq: 12 Dec 2018 11:36

Instrument :
MSVOA_L
ClientSampleId :
SV1

Tot Ion: 91 Resp: 494470
Ion Ratio Lower Upper
91 100
106 27.0 23.9 35.9

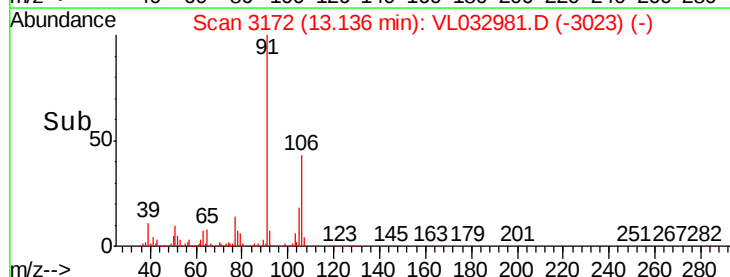
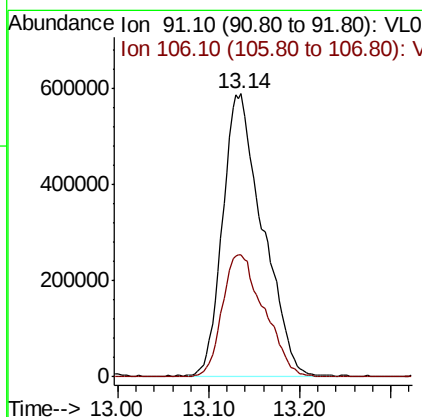
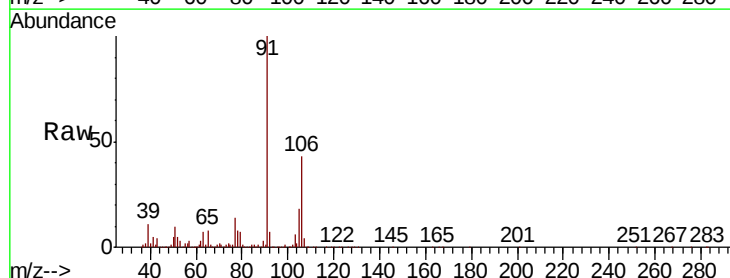
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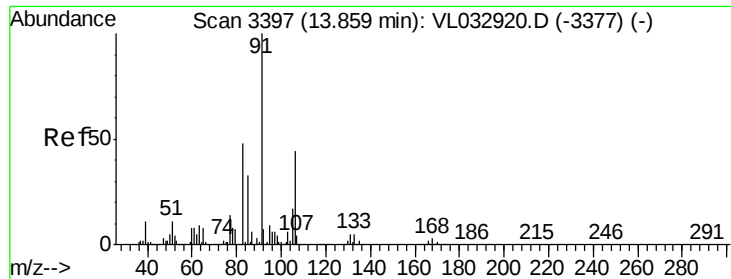
MMDadoda
12/13/2018 7:58:58 AM



#59
m/p-Xylene
Concen: 6.425 ppbv
RT: 13.14 min Scan# 3172
Delta R.T. -0.02 min
Lab File: VL032981.D
Acq: 12 Dec 2018 11:36

Tgt Ion: 91 Resp: 1784642
Ion Ratio Lower Upper
91 100
106 45.4 0.0 0.0#





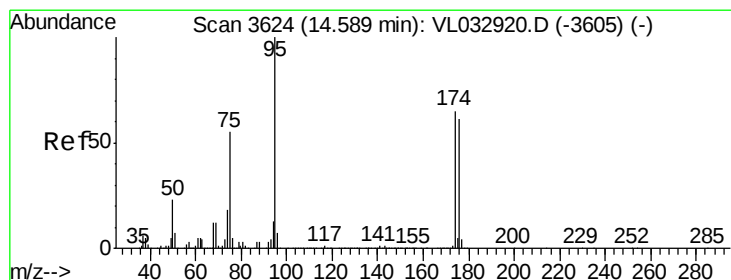
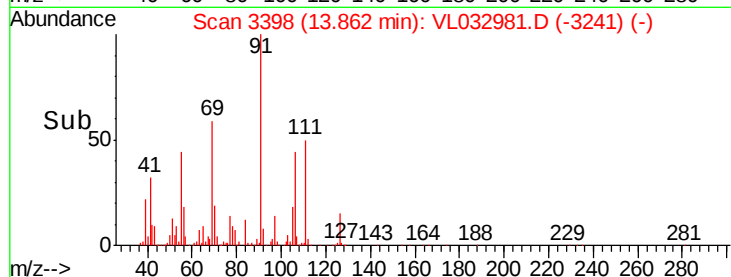
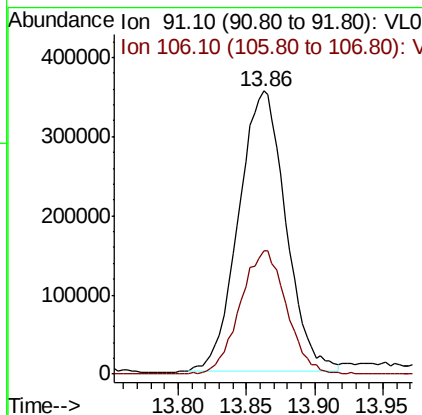
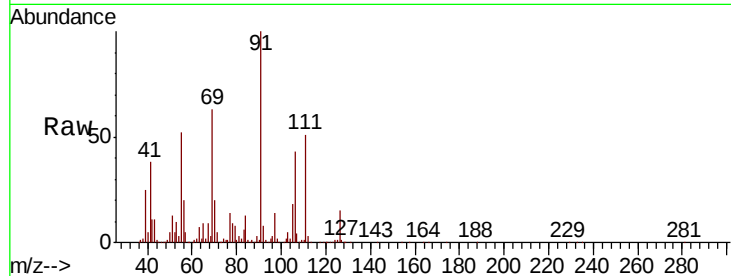
#60
o-Xylene
Concen: 3.027 ppbv
RT: 13.86 min Scan# 3398
Delta R.T. 0.00 min
Lab File: VL032981.D
Acq: 12 Dec 2018 11:36

Instrument :
MSVOA_L
Client Sampled :
SV1

Tot Ion: 91 Resp: 849116
Ion Ratio Lower Upper
91 100
106 43.7 21.9 65.8

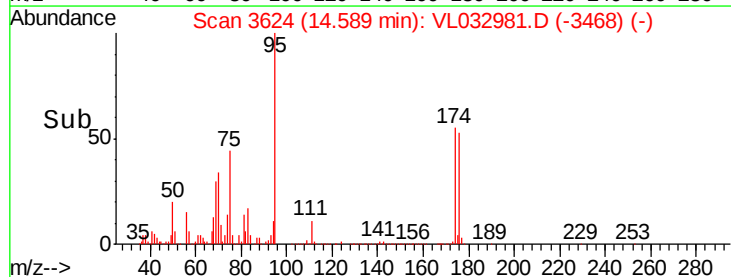
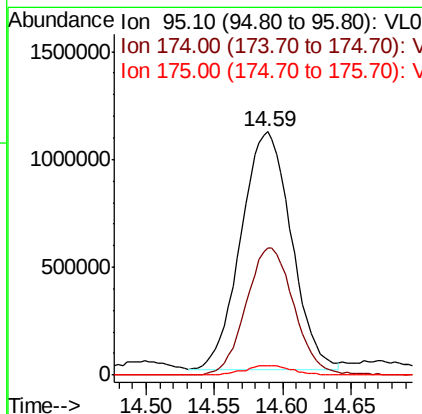
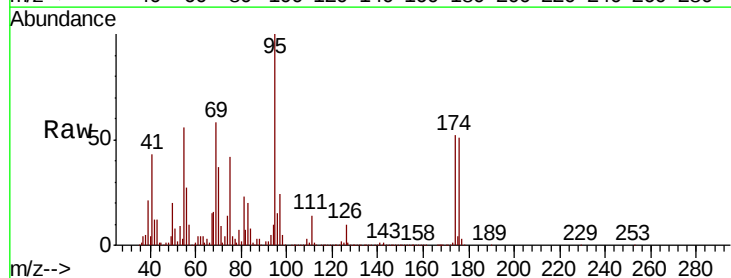
Manual Integrations
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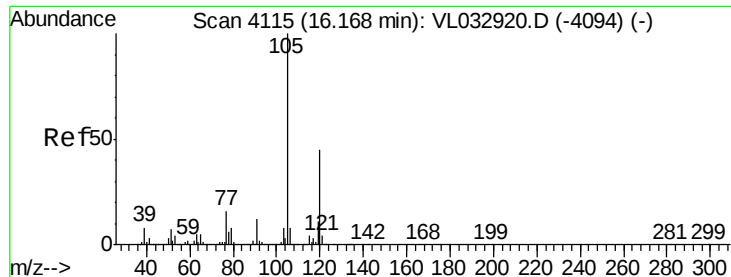
MMDadoda
12/13/2018 7:58:58 AM



#68
1-Bromo-4-Fluorobenzene
Concen: 13.270 ppbv
RT: 14.59 min Scan# 3624
Delta R.T. 0.00 min
Lab File: VL032981.D
Acq: 12 Dec 2018 11:36

Tgt Ion: 95 Resp: 2815502
Ion Ratio Lower Upper
95 100
174 51.7 51.4 77.0
175 3.8 3.8 5.6





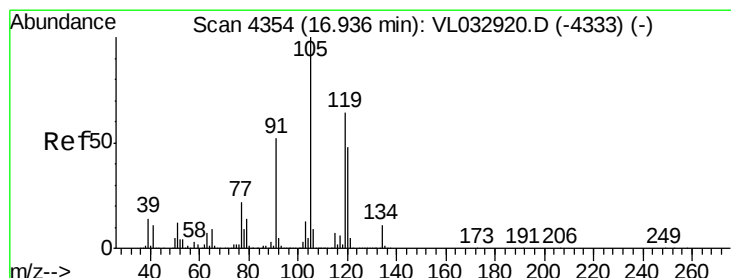
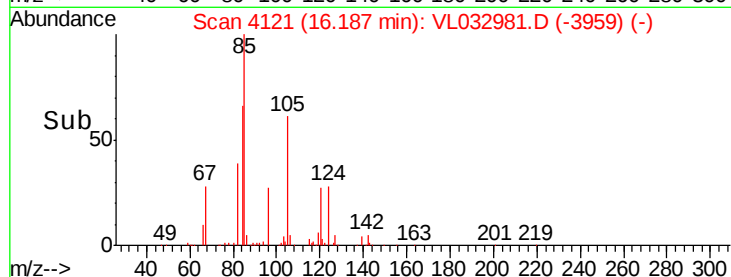
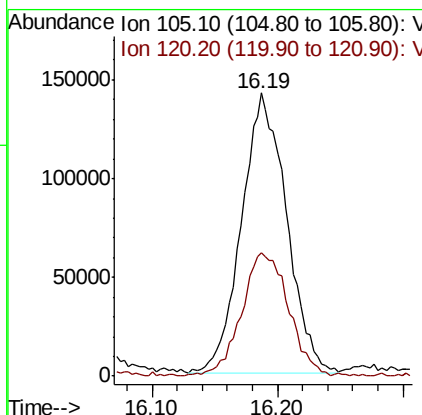
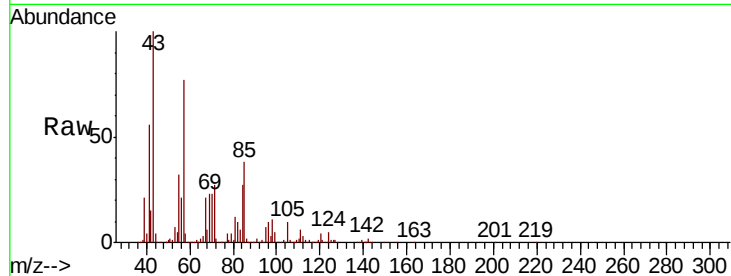
#73
 1,3,5-Trimethylbenzene
 Concen: 1.152 ppbv
 RT: 16.19 min Scan# 4121
 Delta R.T. 0.02 min
 Lab File: VL032981.D
 Acq: 12 Dec 2018 11:36

Instrument :
 MSVOA_L
 ClientSampled :
 SV1

Tot Ion	Ratio	Lower	Upper
105	100		
120	43.4	36.0	54.0

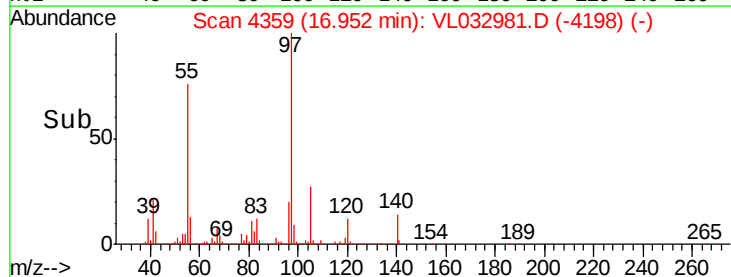
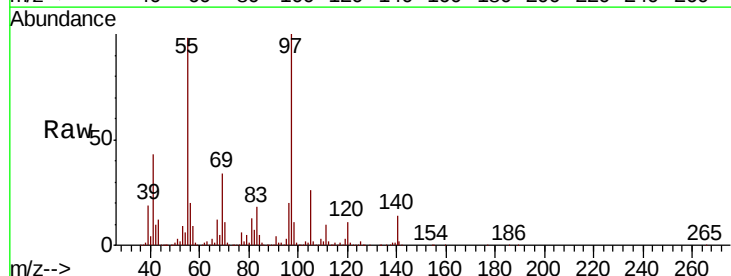
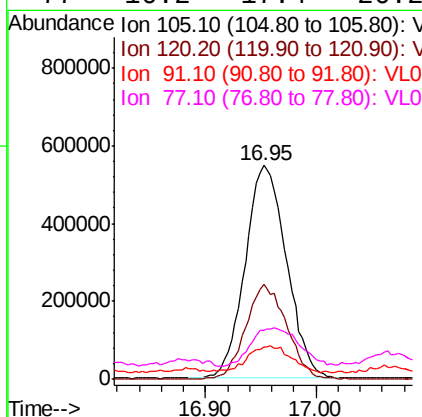
Manual Integrations
 APPROVED

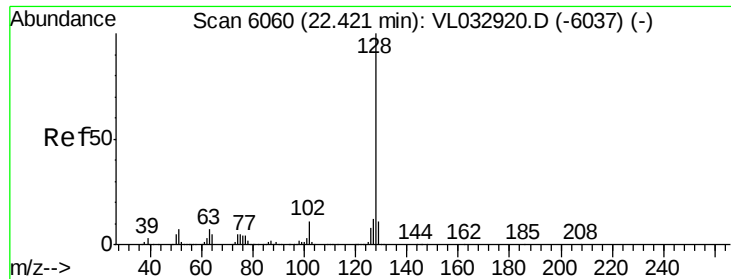
MMDadoda
 12/13/2018 7:58:58 AM



#74
 1,2,4-Trimethylbenzene
 Concen: 4.121 ppbv
 RT: 16.95 min Scan# 4359
 Delta R.T. 0.02 min
 Lab File: VL032981.D
 Acq: 12 Dec 2018 11:36

Tgt Ion	Ratio	Lower	Upper
105	100		
120	44.6	38.6	58.0
91	11.3	41.7	62.5#
77	16.2	17.4	26.2#





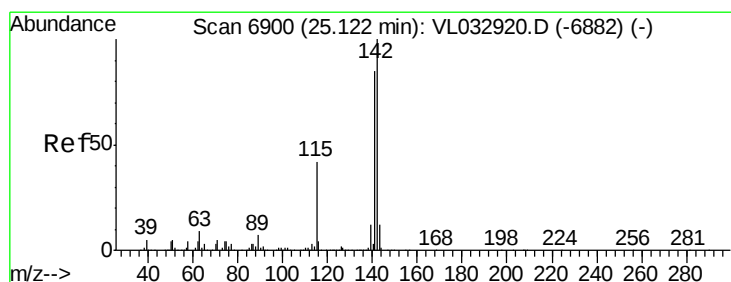
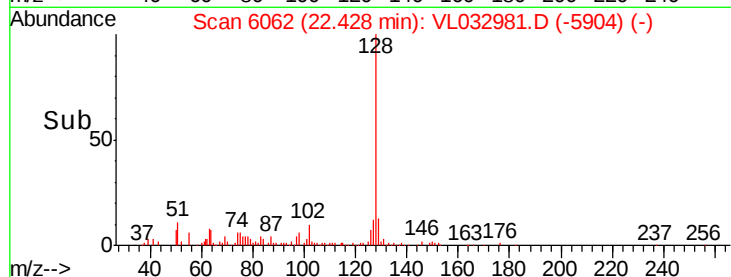
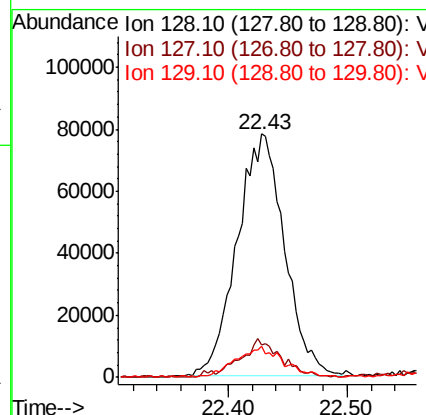
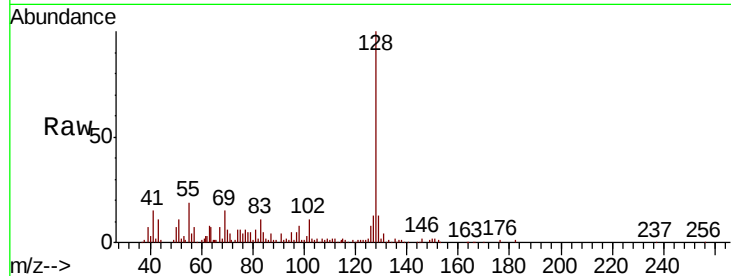
#79
Naphthalene
Concen: 0.961 ppbv
RT: 22.43 min Scan# 6062
Delta R.T. 0.01 min
Lab File: VL032981.D
Acq: 12 Dec 2018 11:36

Instrument :
MSVOA_L
ClientSampled :
SV1

Tot Ion:	128	Resp:	214233
Ion Ratio	Lower	Upper	
128	100		
127	13.3	9.9	14.9
129	12.8	8.6	13.0

Manual Integrations
APPROVED

MMDadoda
12/13/2018 7:58:58 AM



#80
Naphthalene, 2-methyl-
Concen: 0.371 ppbv
RT: 25.13 min Scan# 6901
Delta R.T. 0.00 min
Lab File: VL032981.D
Acq: 12 Dec 2018 11:36

Tgt Ion:	142	Resp:	17658
Ion Ratio	Lower	Upper	
142	100		
141	80.0	68.2	102.2
115	55.2	35.1	52.7#

