

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL032019\
 Data File : VL033400.D
 Acq On : 20 Mar 2019 21:46
 Operator : SY/AP
 Sample : K1975-03
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

Manual Integrations
 APPROVED

MMDadoda
 3/25/2019 8:26:33 AM

Quant Time: Mar 22 05:56:29 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL031519AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Mar 1
 QLast Update : Fri Mar 15 14:52:14 2019
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.77	49	808676	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.30	114	2274334	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.25	117	2163463	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.58	95	1623538	10.13	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.30%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.08	85	63443	0.446	ppbv	99
3) Chlorodifluoromethane	3.01	51	54468m	0.587	ppbv	
4) Chloromethane	3.17	50	33912	0.675	ppbv	93
9) Propene	3.05	41	118715m	2.865	ppbv	
10) Heptane	8.25	43	2717545	26.443	ppbv	99
11) Trichlorofluoromethane	4.00	101	86792	0.613	ppbv	88
13) Ethanol	3.67	45	5349271	270.813	ppbv	99
15) Acetone	3.90	43	26563006	211.308	ppbv #	82
20) Methylene Chloride	4.42	84	212625	5.186	ppbv #	88
26) Hexane	5.79	57	4629023	56.664	ppbv #	40
30) Cyclohexane	7.26	84	1129482	17.245	ppbv	94
34) 2-Butanone	5.33	43	2210806	14.802	ppbv	100
36) Benzene	7.01	78	2579431	12.673	ppbv	99
38) Trichloroethene	7.97	130	101905	1.323	ppbv	94
44) 2,2,4-Trimethylpentane	8.00	57	5557739	16.486	ppbv #	82
52) Tetrachloroethene	11.43	164	24611541	290.244	ppbv	87
53) Toluene	9.97	91	25345566	109.588	ppbv #	81
58) Ethyl Benzene	12.87	91	2719043	8.884	ppbv	99
59) m/p-Xylene	13.13	91	7690286	29.239	ppbv #	100
60) o-Xylene	13.86	91	3058907	11.921	ppbv	98
62) Isopropylbenzene	14.83	105	294201	0.825	ppbv	100
64) n-propylbenzene	15.73	120	271228	3.005	ppbv	99
67) sec-Butylbenzene	17.46	105	126770m	0.279	ppbv	
70) n-Butylbenzene	18.72	91	523386m	1.320	ppbv	
72) 4-Ethyltoluene	16.00	105	1496028	5.134	ppbv	99
73) 1,3,5-Trimethylbenzene	16.16	105	1267971	4.467	ppbv	99
74) 1,2,4-Trimethylbenzene	16.93	105	4516588	15.023	ppbv #	70
79) Naphthalene	22.42	128	785649m	2.712	ppbv	
80) Naphthalene,2-methyl-	25.11	142	198172m	1.443	ppbv	

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

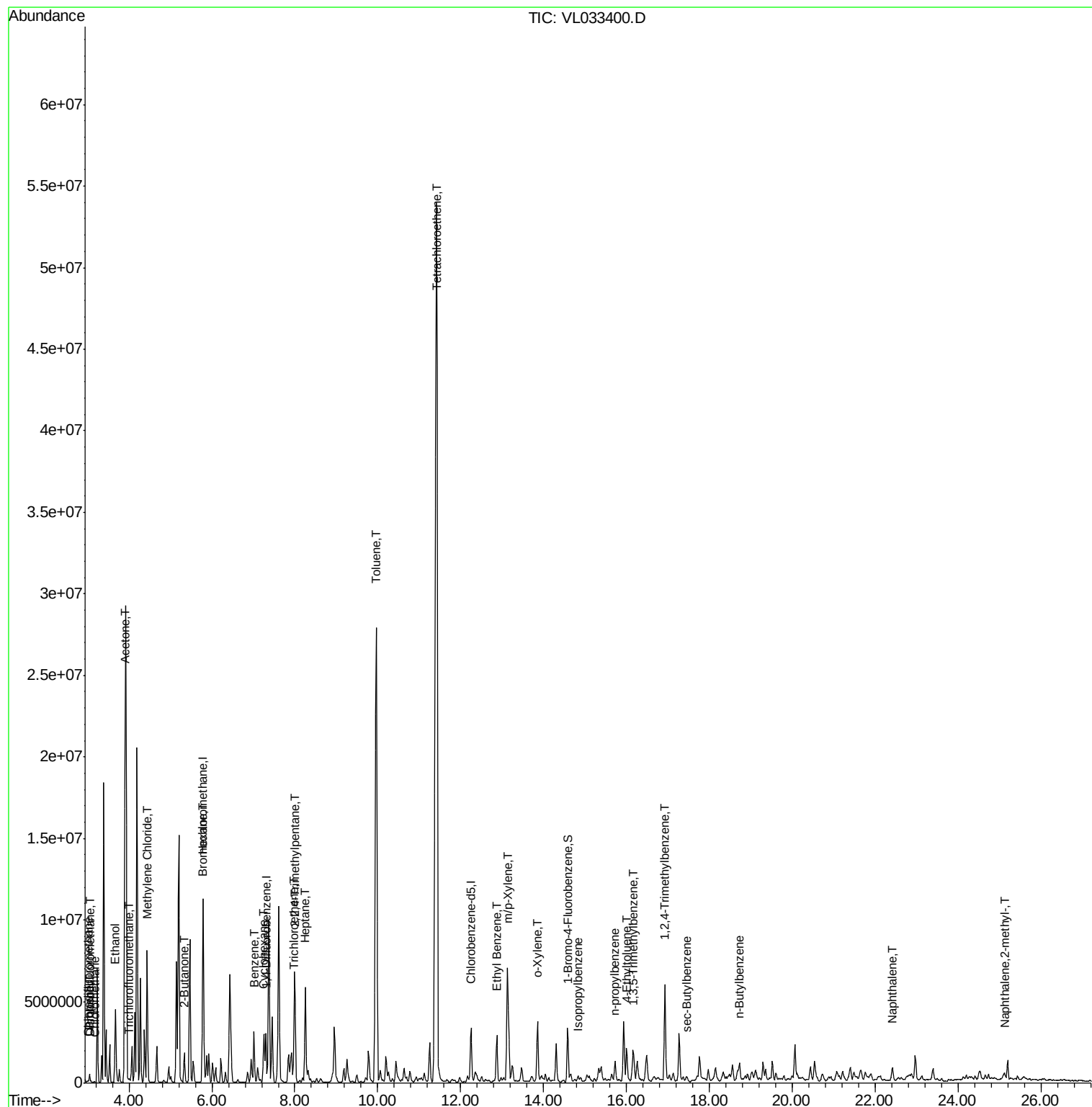
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL032019\
Data File : VL033400.D
Acq On : 20 Mar 2019 21:46
Operator : SY/AP
Sample : K1975-03
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

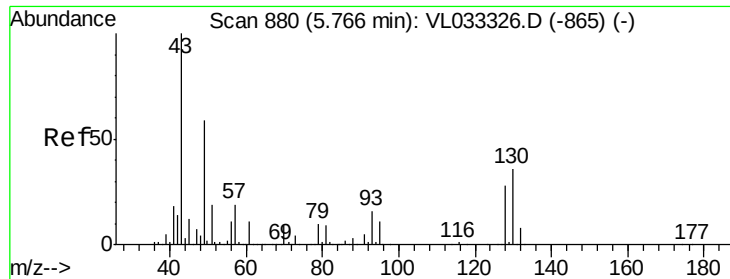
Instrument :
MSVOA_L
ClientSampleId :
IA2

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3/25/2019 8:26:33 AM

Quant Time: Mar 22 05:56:29 2019
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL031519AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Mar
QLast Update : Fri Mar 15 14:52:14 2019
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.77 min Scan# 881

Delta R.T. 0.00 min

Lab File: VL033400.D

Acq: 20 Mar 2019 21:46

Instrument :

MSVOA_L

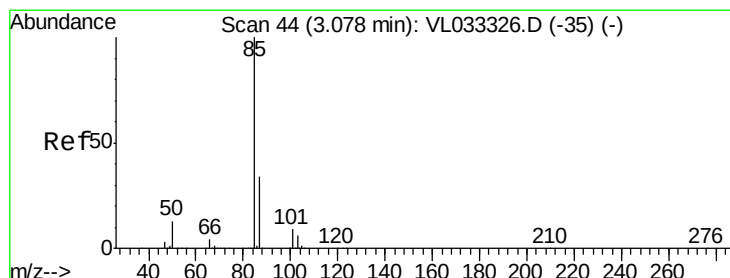
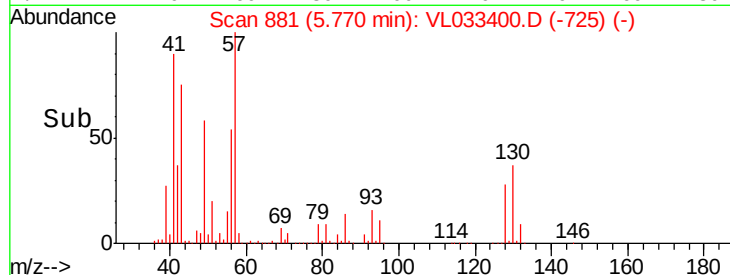
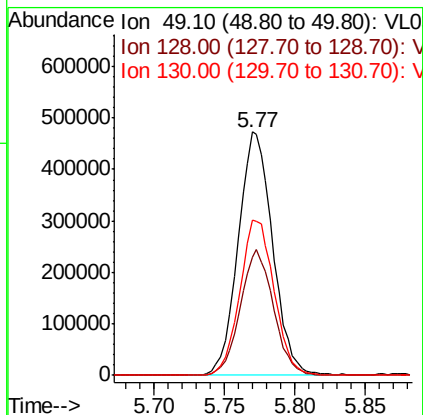
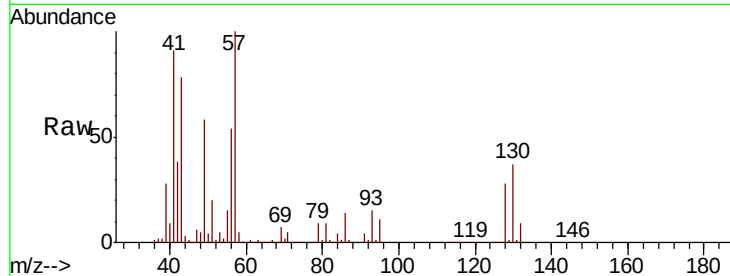
ClientSampled :

IA2

Tot Ion: 49 Resp: 808676
 Ion Ratio Lower Upper
 49 100
 128 50.0 23.5 70.6
 130 63.9 30.1 90.3

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#2

Dichlorodifluoromethane

Concen: 0.446 ppbv

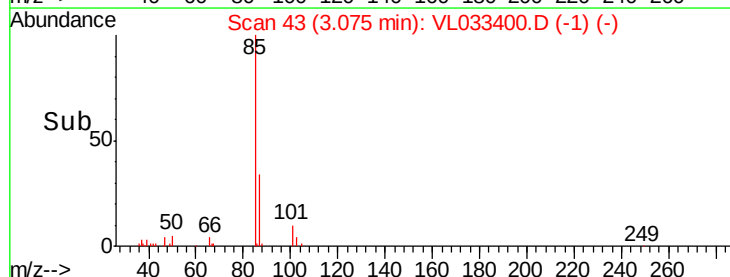
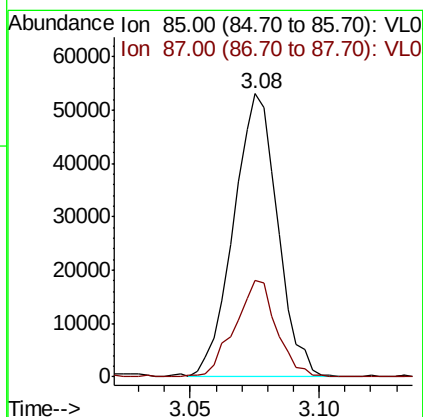
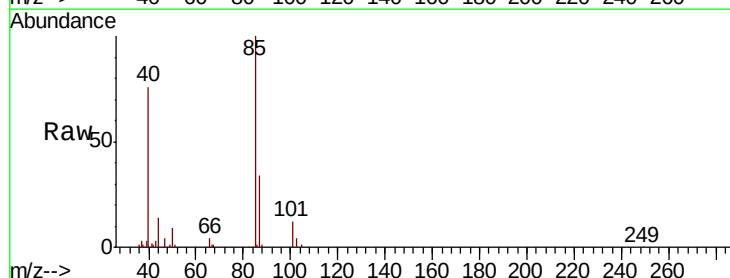
RT: 3.08 min Scan# 43

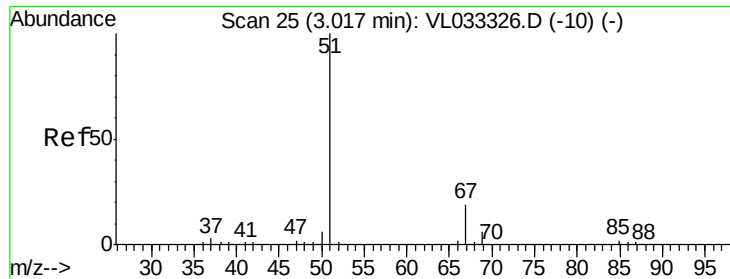
Delta R.T. -0.00 min

Lab File: VL033400.D

Acq: 20 Mar 2019 21:46

Tgt Ion: 85 Resp: 63443
 Ion Ratio Lower Upper
 85 100
 87 34.0 26.9 40.3





#3

Chlorodifluoromethane

Concen: 0.587 ppbv

RT: 3.01 min Scan# 24

Delta R.T. -0.00 min

Lab File: VL033400.D

Acq: 20 Mar 2019 21:46

Instrument :

MSVOA_L

ClientSampled :

IA2

Tot Ion: 51 Resp: 54468

Ion Ratio Lower Upper

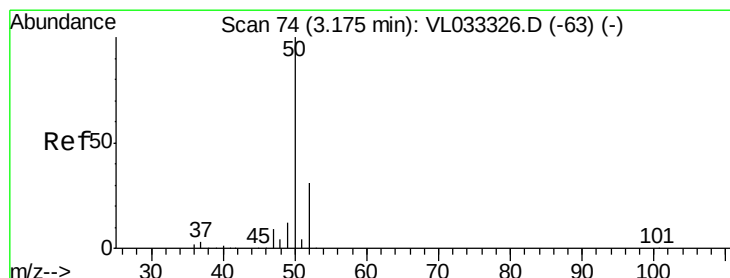
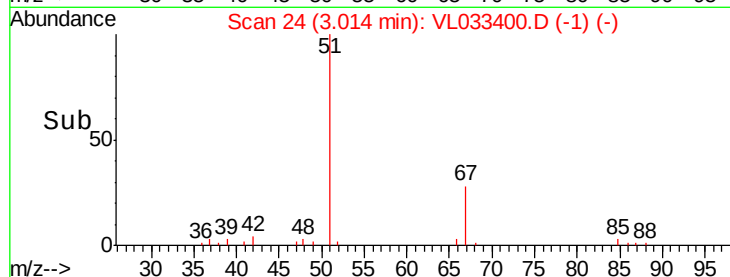
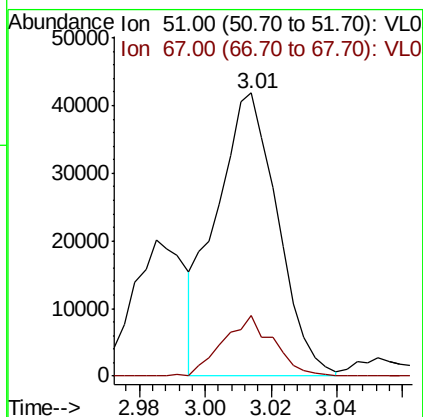
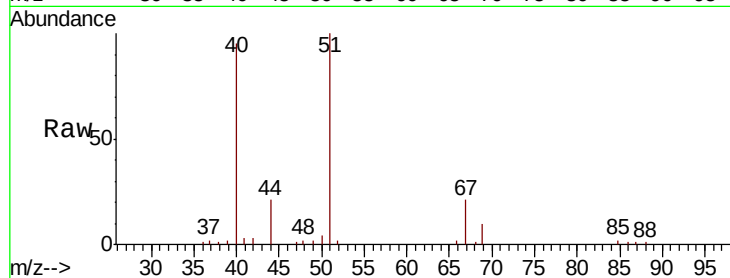
51 100

67 0.0 14.9 22.3#

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#4

Chloromethane

Concen: 0.675 ppbv

RT: 3.17 min Scan# 72

Delta R.T. -0.01 min

Lab File: VL033400.D

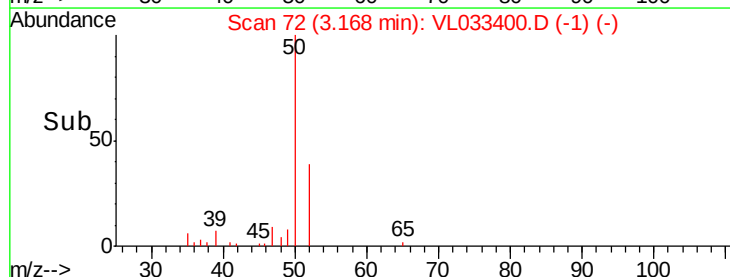
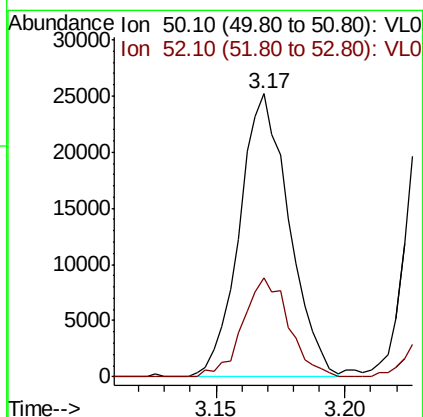
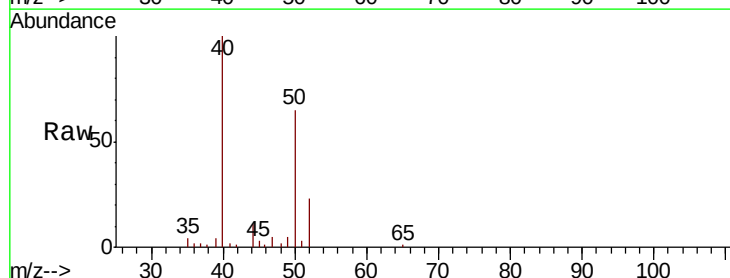
Acq: 20 Mar 2019 21:46

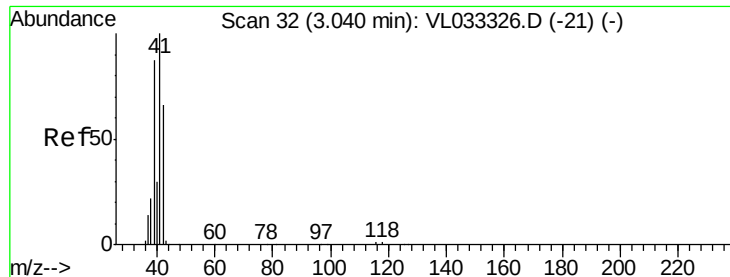
Tgt Ion: 50 Resp: 33912

Ion Ratio Lower Upper

50 100

52 35.1 25.0 37.6





#9

Propene

Concen: 2.865 ppbv m

RT: 3.05 min Scan# 34

Delta R.T. 0.01 min

Lab File: VL033400.D

Acq: 20 Mar 2019 21:46

Instrument :

MSVOA_L

ClientSampleId :

IA2

Tot Ion: 41 Resp: 118715

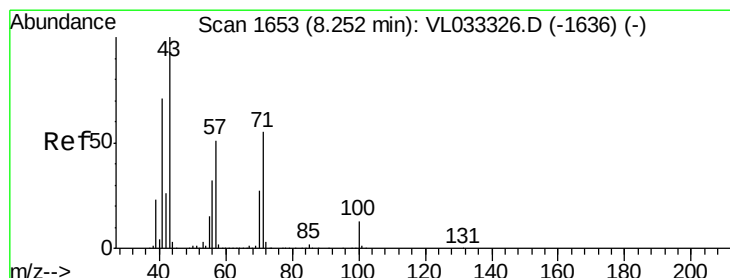
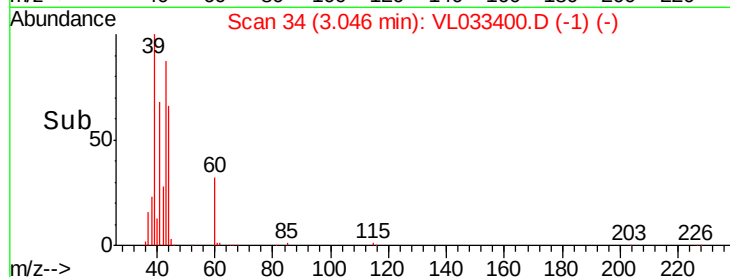
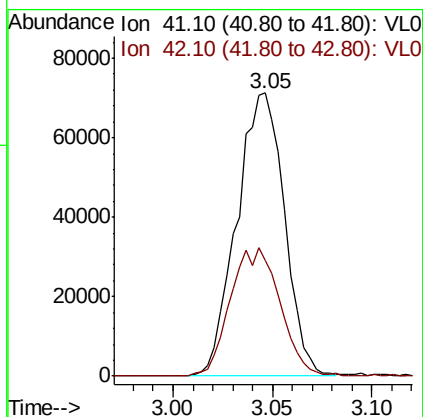
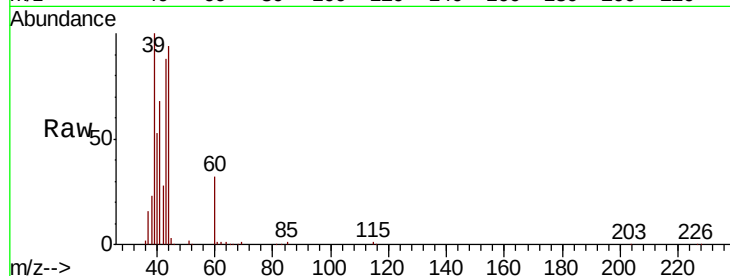
Ion Ratio Lower Upper

41 100

42 1076.1 55.2 82.8

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#10

Heptane

Concen: 26.443 ppbv

RT: 8.25 min Scan# 1653

Delta R.T. -0.00 min

Lab File: VL033400.D

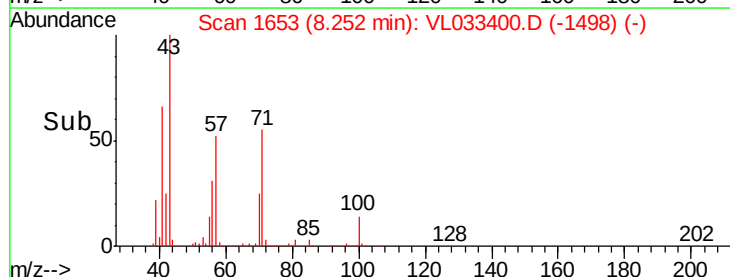
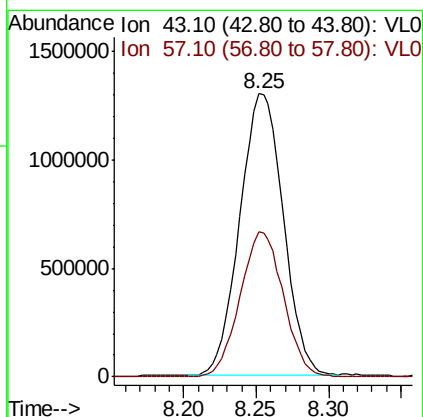
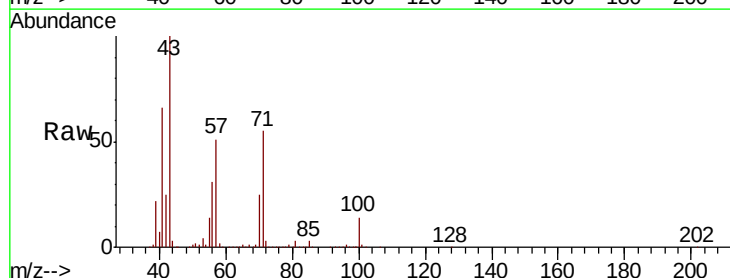
Acq: 20 Mar 2019 21:46

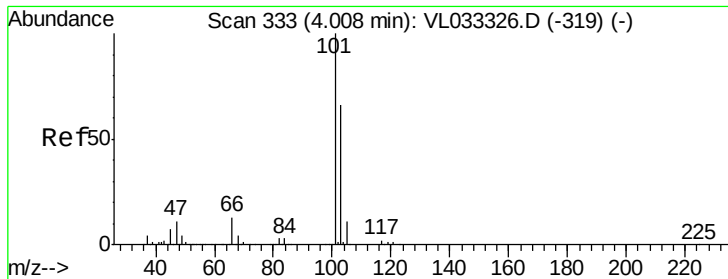
Tgt Ion: 43 Resp: 2717545

Ion Ratio Lower Upper

43 100

57 51.4 40.4 60.6





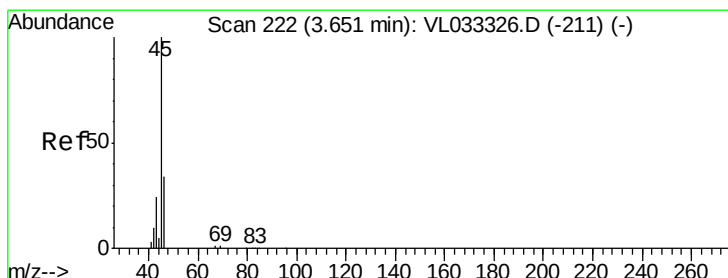
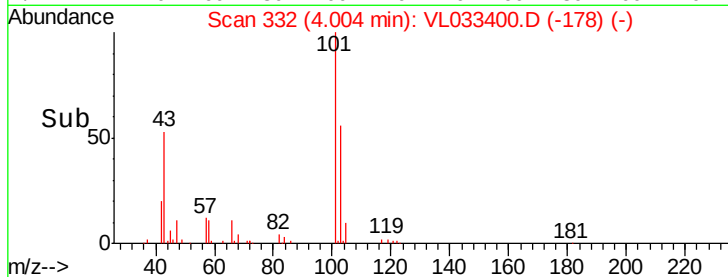
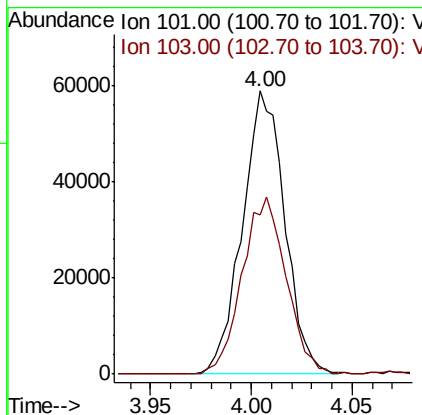
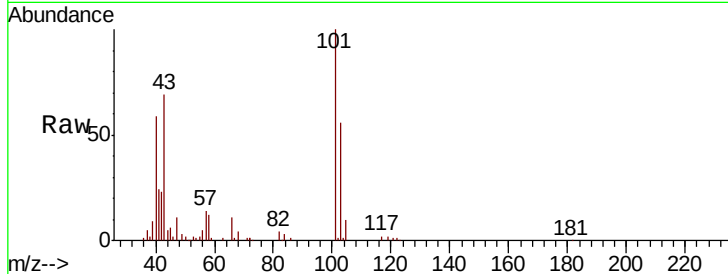
#11
 Trichlorofluoromethane
 Concen: 0.613 ppbv
 RT: 4.00 min Scan# 332
 Delta R.T. -0.00 min
 Lab File: VL033400.D
 Acq: 20 Mar 2019 21:46

Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

Tot Ion	Ratio	Lower	Upper
101	100		
103	56.4	52.9	79.3

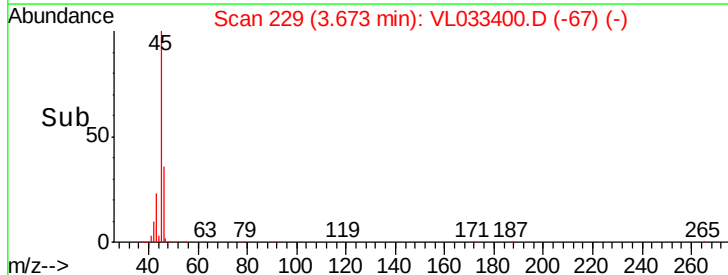
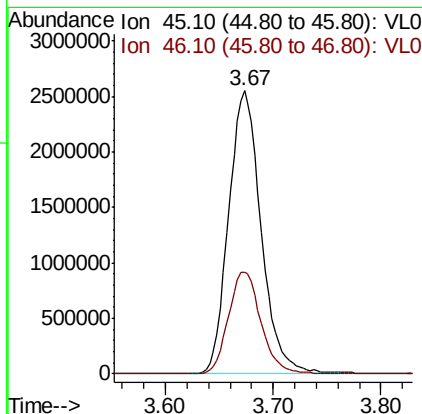
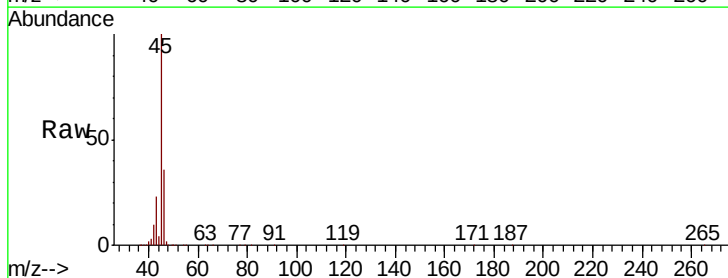
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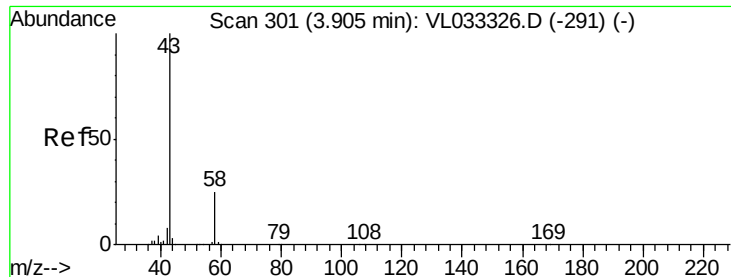
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#13
 Ethanol
 Concen: 270.813 ppbv
 RT: 3.67 min Scan# 229
 Delta R.T. 0.02 min
 Lab File: VL033400.D
 Acq: 20 Mar 2019 21:46

Tgt Ion	Ratio	Lower	Upper
45	100		
46	36.5	14.9	59.7





#15

Acetone

Concen: 211.308 ppbv

RT: 3.90 min Scan# 300

Delta R.T. -0.00 min

Lab File: VL033400.D

Acq: 20 Mar 2019 21:46

Instrument :

MSVOA_L

ClientSampled :

IA2

Tot Ion: 43 Resp: 26563006

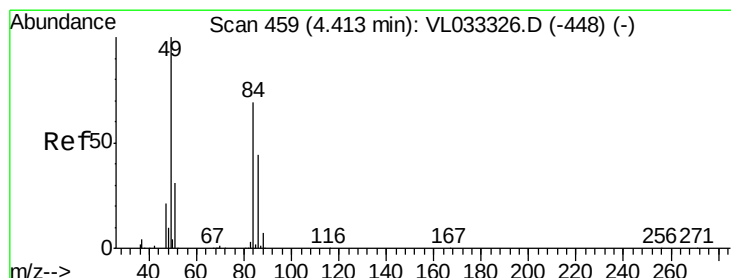
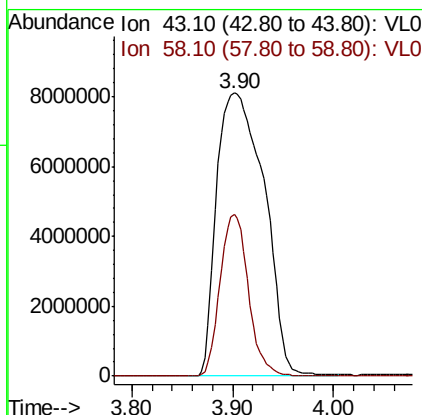
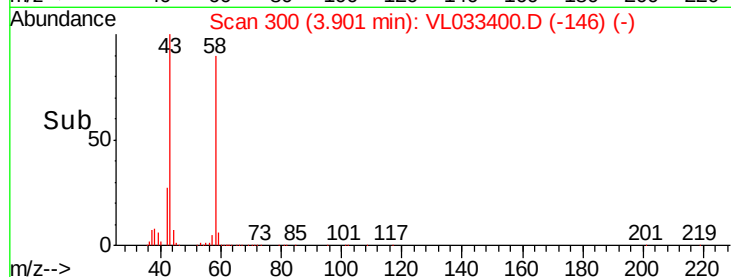
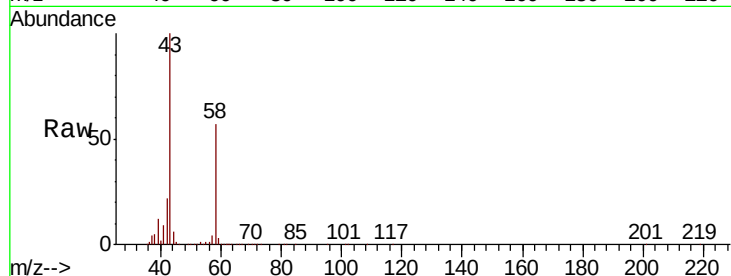
Ion Ratio Lower Upper

43 100

58 34.5 20.4 30.6#

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#20

Methylene Chloride

Concen: 5.186 ppbv

RT: 4.42 min Scan# 462

Delta R.T. 0.01 min

Lab File: VL033400.D

Acq: 20 Mar 2019 21:46

Tgt Ion: 84 Resp: 212625

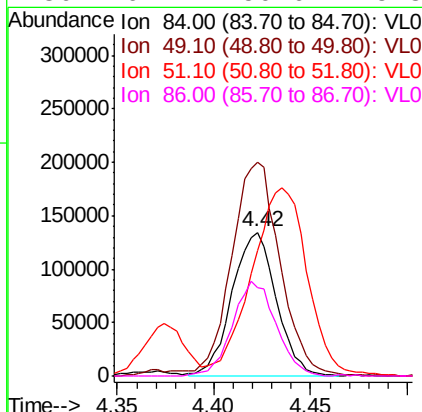
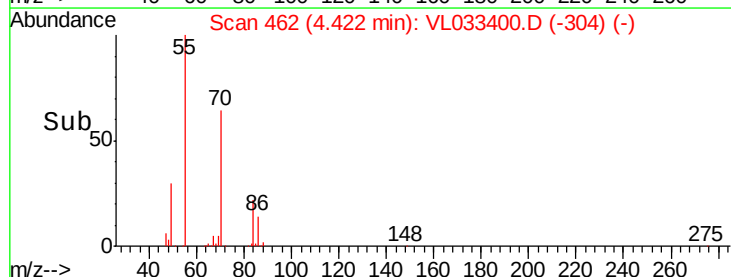
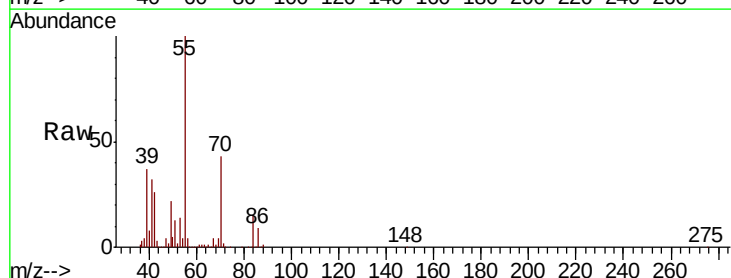
Ion Ratio Lower Upper

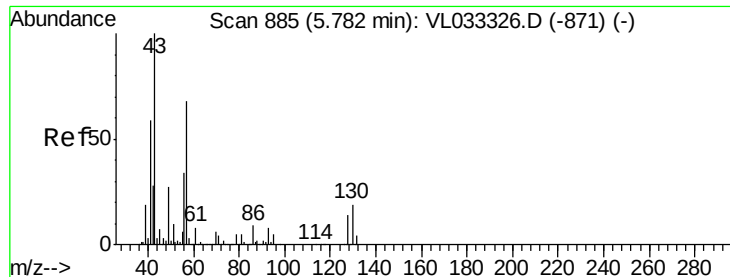
84 100

49 147.0 115.4 173.0

51 80.1 35.8 53.6#

86 61.2 50.6 75.8





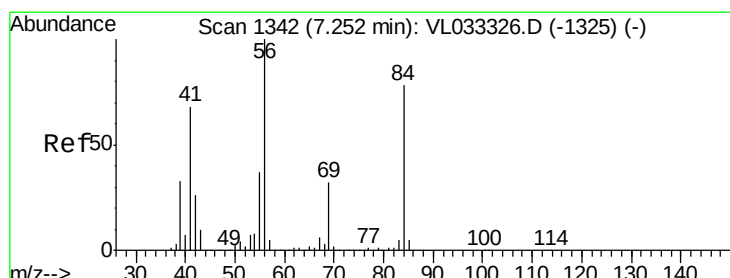
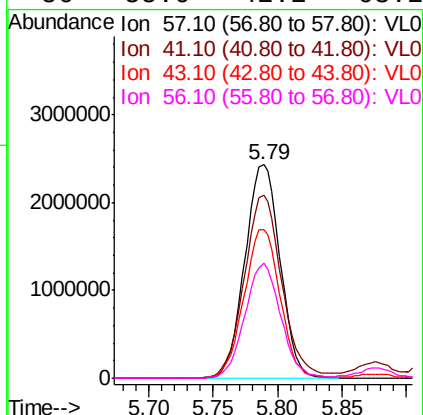
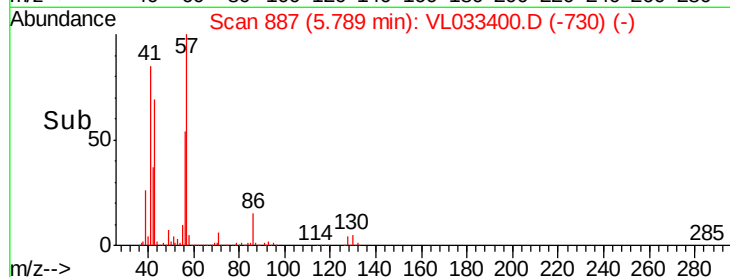
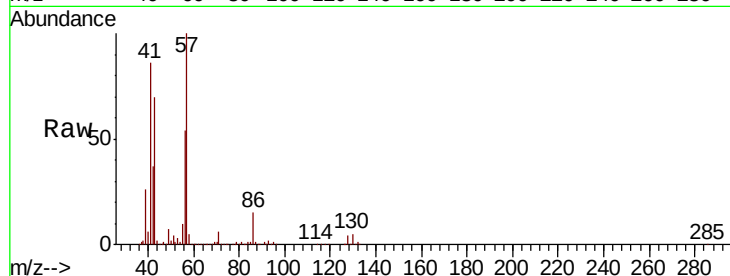
#26
Hexane
Concen: 56.664 ppbv
RT: 5.79 min Scan# 887
Delta R.T. 0.01 min
Lab File: VL033400.D
Acq: 20 Mar 2019 21:46

Instrument :
MSVOA_L
ClientSampled :
IA2

Tot Ion: 57 Resp: 4629023
Ion Ratio Lower Upper
57 100
41 91.8 70.5 105.7
43 71.4 181.8 272.8#
56 55.0 42.2 63.2

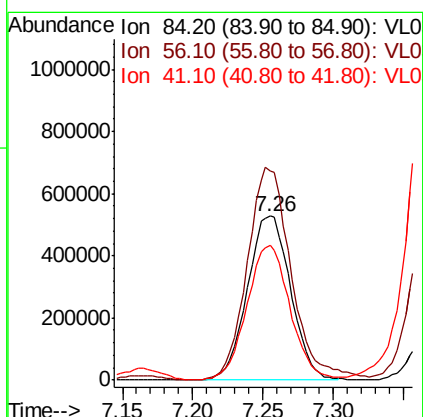
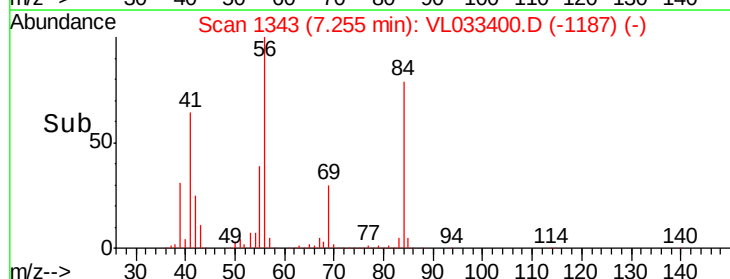
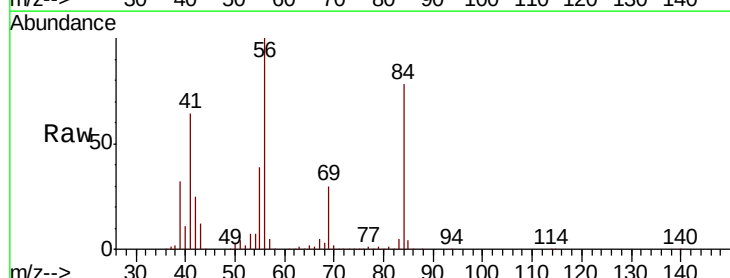
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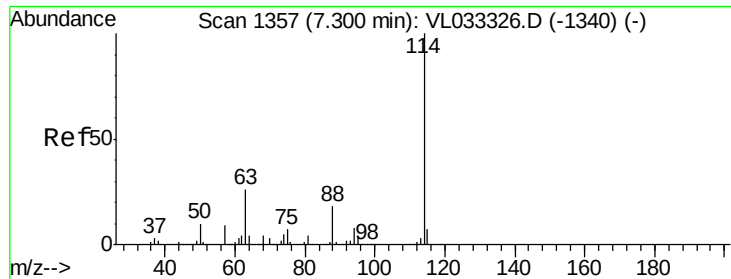
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#30
Cyclohexane
Concen: 17.245 ppbv
RT: 7.26 min Scan# 1343
Delta R.T. 0.00 min
Lab File: VL033400.D
Acq: 20 Mar 2019 21:46

Tgt Ion: 84 Resp: 1129482
Ion Ratio Lower Upper
84 100
56 132.3 111.3 166.9
41 81.7 69.6 104.4





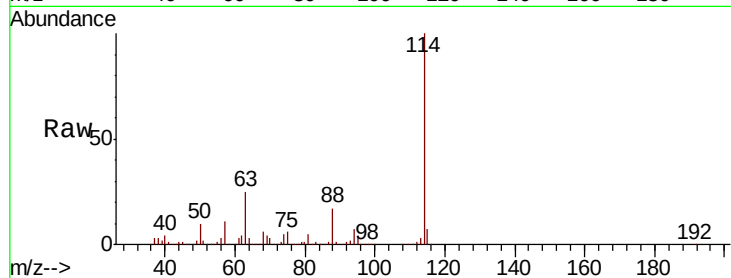
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.30 min Scan# 1357
 Delta R.T. -0.00 min
 Lab File: VL033400.D
 Acq: 20 Mar 2019 21:46

Instrument :
 MSVOA_L
 ClientSampled :
 IA2

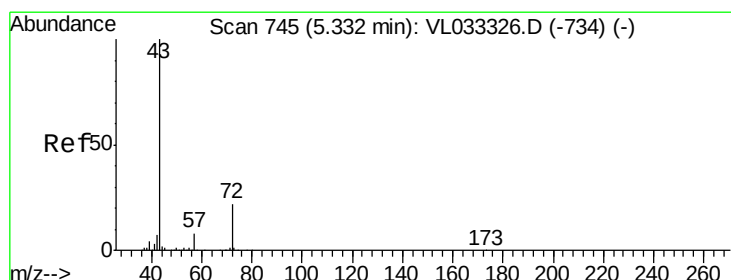
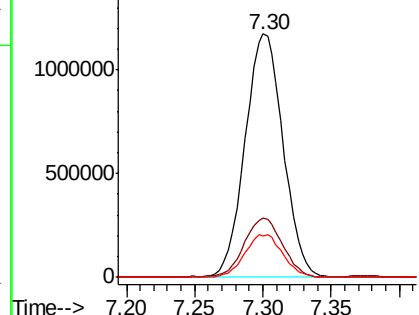
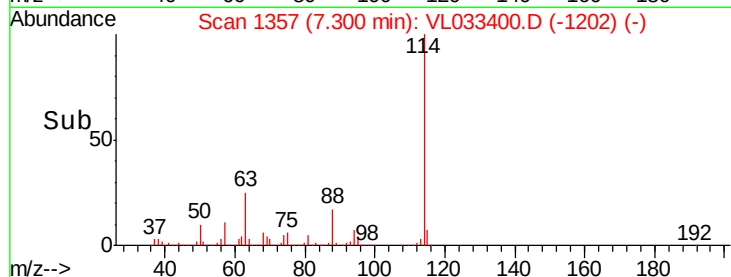
Tot Ion	Ratio	Lower	Upper
114	100		
63	25.0	21.4	32.2
88	17.6	14.5	21.7

Manual Integrations
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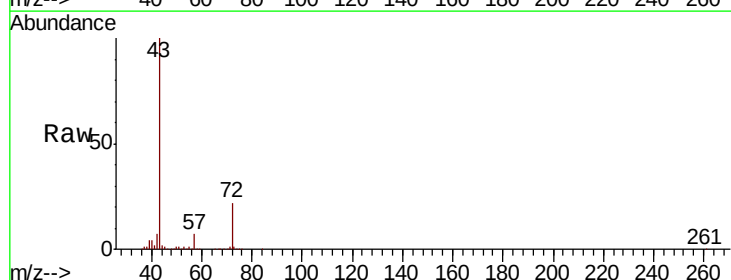


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

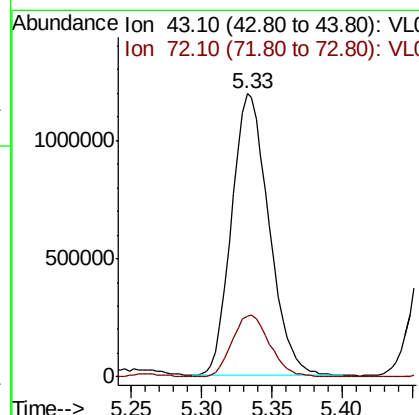
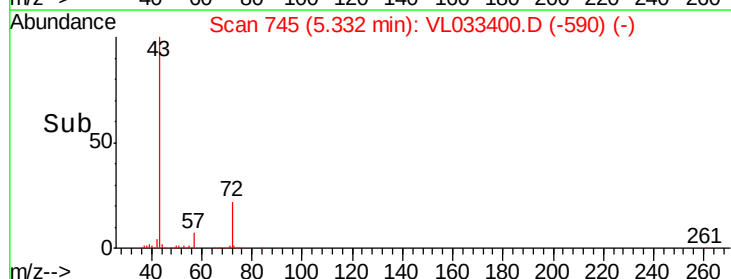


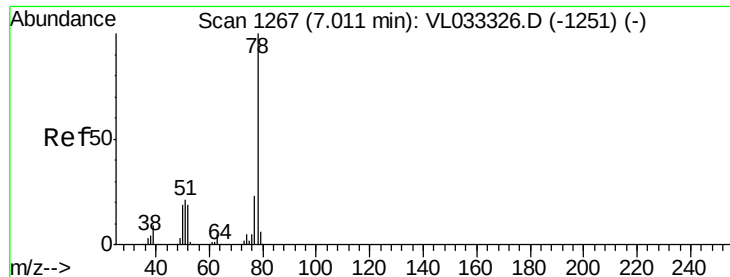
#34
 2-Butanone
 Concen: 14.802 ppbv
 RT: 5.33 min Scan# 745
 Delta R.T. -0.00 min
 Lab File: VL033400.D
 Acq: 20 Mar 2019 21:46

Tgt Ion	Ratio	Lower	Upper
43	100		
72	22.3	17.7	26.5



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





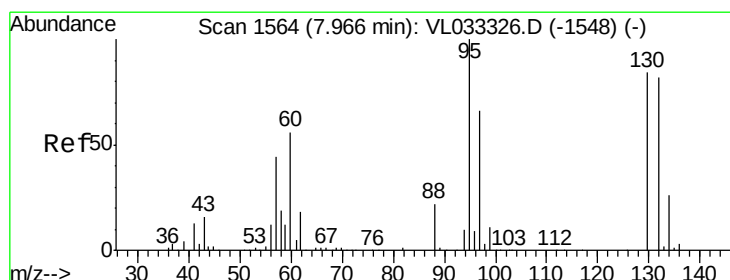
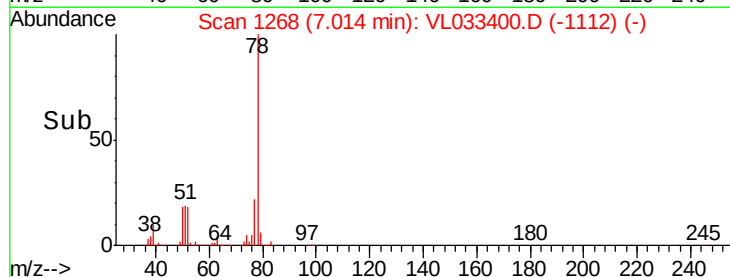
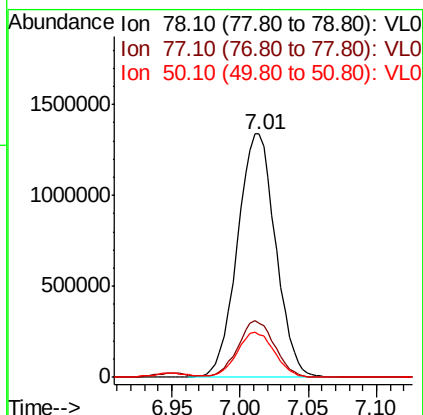
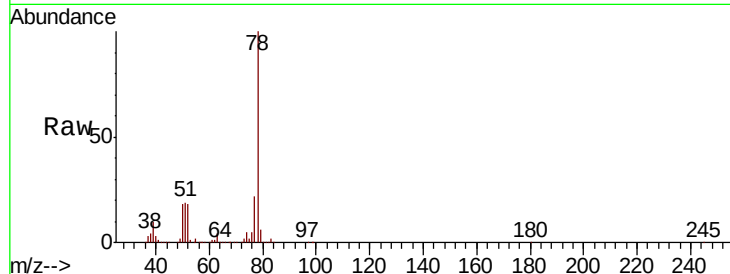
#36
Benzene
Concen: 12.673 ppbv
RT: 7.01 min Scan# 1268
Delta R.T. 0.00 min
Lab File: VL033400.D
Acq: 20 Mar 2019 21:46

Instrument :
MSVOA_L
ClientSampled :
IA2

Tot Ion	Ratio	Lower	Upper
78	100		
77	22.5	18.1	27.1
50	17.7	15.2	22.8

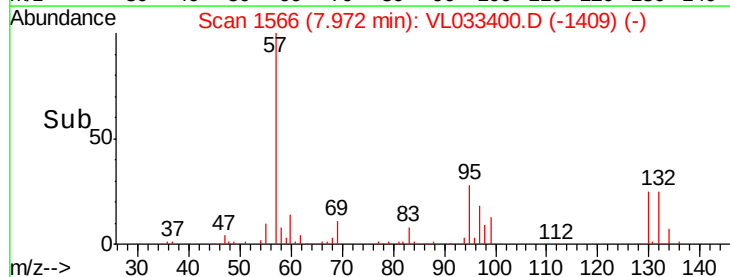
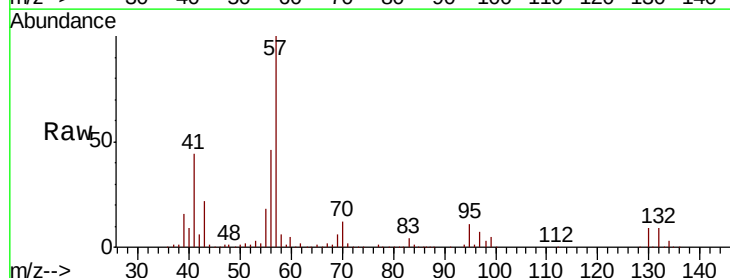
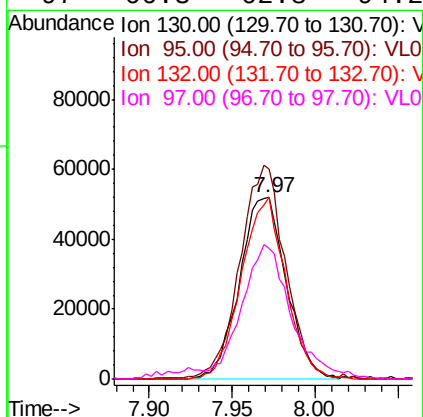
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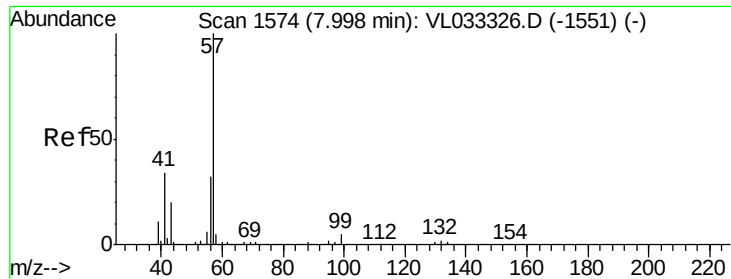
MMDadoda
3/25/2019 8:26:33 AM



#38
Trichloroethene
Concen: 1.323 ppbv
RT: 7.97 min Scan# 1566
Delta R.T. 0.01 min
Lab File: VL033400.D
Acq: 20 Mar 2019 21:46

Tgt Ion	Ratio	Lower	Upper
130	100		
95	111.5	95.2	142.8
132	97.2	77.7	116.5
97	66.3	62.8	94.2





#44

2,2,4-Trimethylpentane

Concen: 16.486 ppbv

RT: 8.00 min Scan# 1574

Delta R.T. -0.00 min

Lab File: VL033400.D

Acq: 20 Mar 2019 21:46

Instrument :

MSVOA_L

ClientSampleId :

IA2

Tot Ion: 57 Resp: 5557739

Ion Ratio Lower Upper

57 100

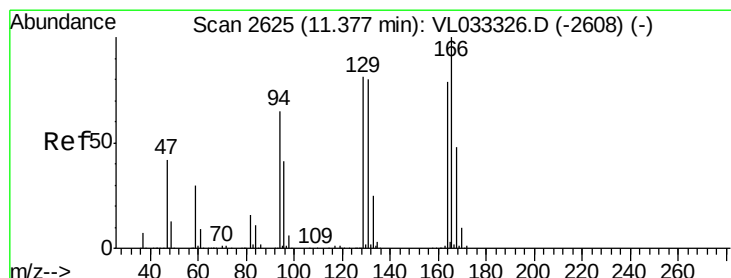
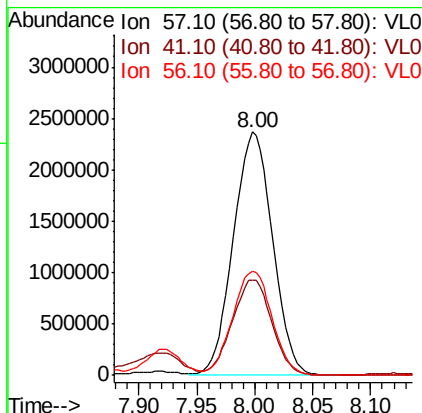
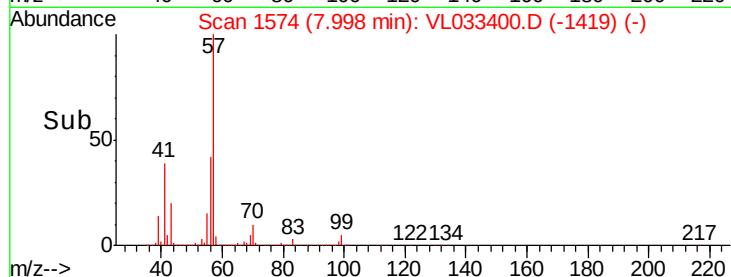
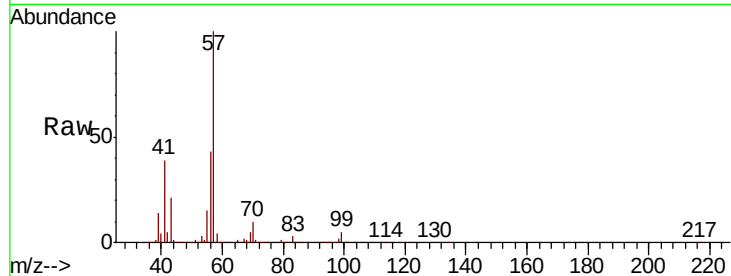
41 39.8 26.0 39.0#

56 43.1 24.6 36.8#

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#52

Tetrachloroethene

Concen: 290.244 ppbv

RT: 11.43 min Scan# 2640

Delta R.T. 0.05 min

Lab File: VL033400.D

Acq: 20 Mar 2019 21:46

Tgt Ion:164 Resp:24611541

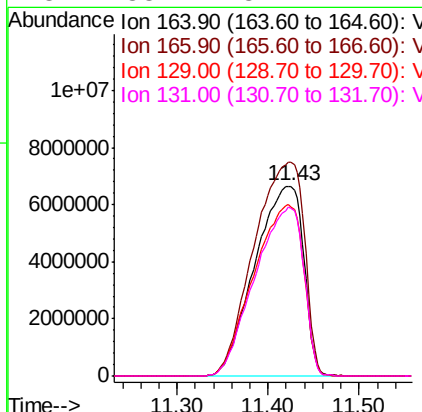
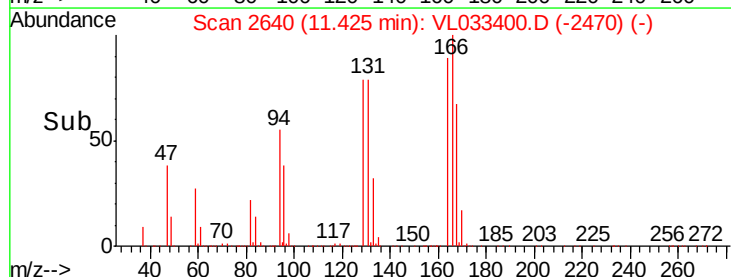
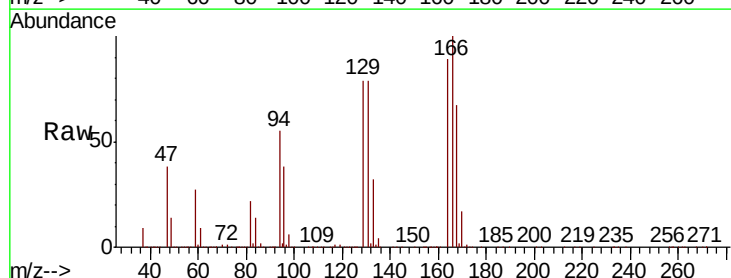
Ion Ratio Lower Upper

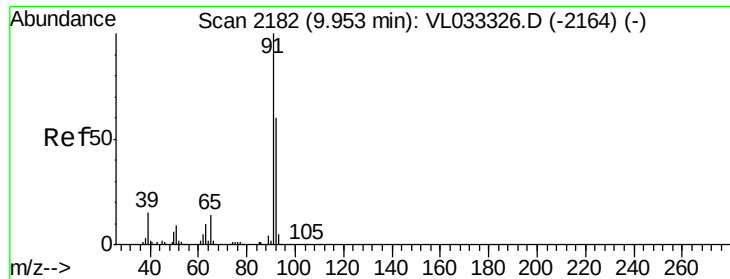
164 100

166 112.4 101.5 152.3

129 89.3 82.2 123.2

131 88.4 81.1 121.7





#53

Toluene

Concen: 109.588 ppbv

RT: 9.97 min Scan# 2186

Delta R.T. 0.01 min

Lab File: VL033400.D

Acq: 20 Mar 2019 21:46

Instrument :

MSVOA_L

ClientSampleId :

IA2

Tot Ion: 91 Resp: 25345566

Ion Ratio Lower Upper

91 100

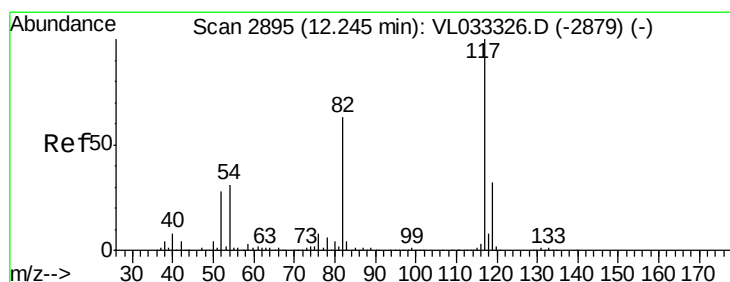
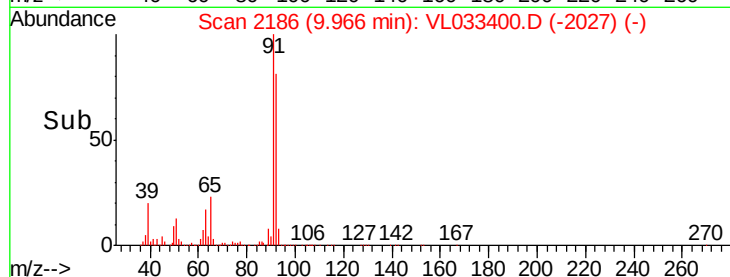
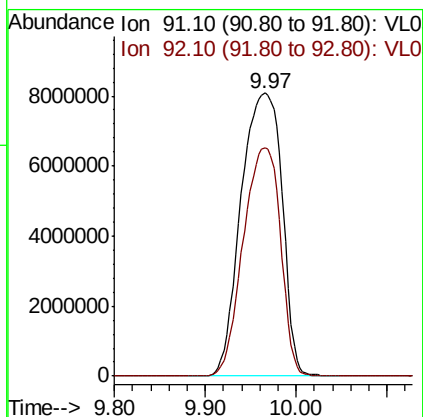
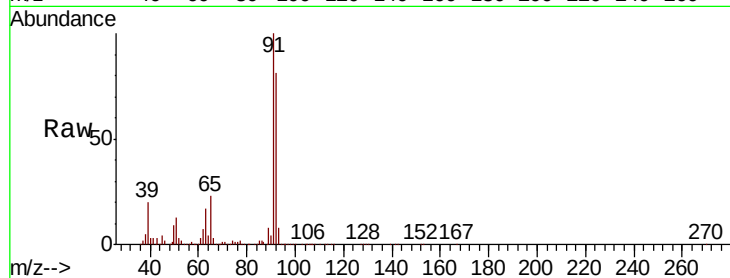
92 73.4 47.4 71.0#

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#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.25 min Scan# 2897

Delta R.T. 0.01 min

Lab File: VL033400.D

Acq: 20 Mar 2019 21:46

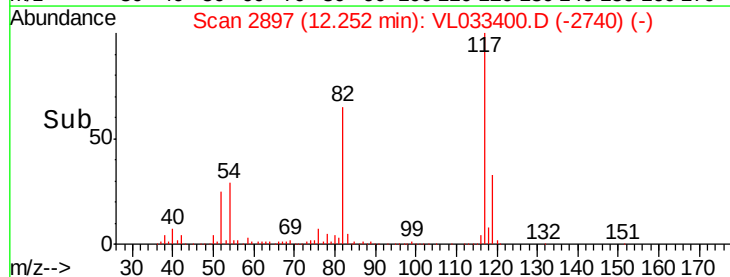
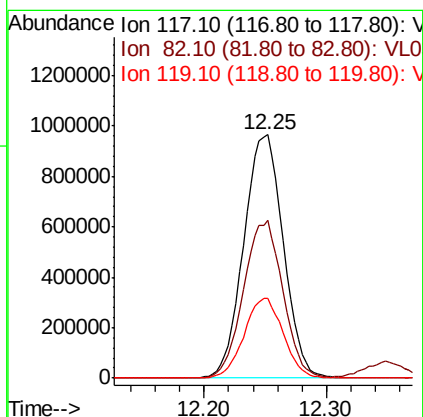
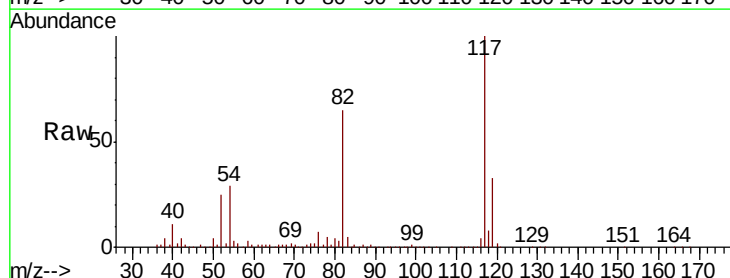
Tgt Ion: 117 Resp: 2163463

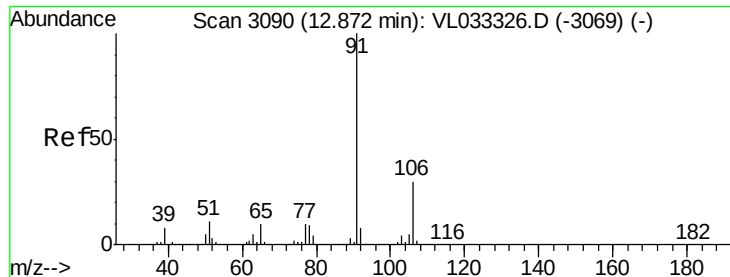
Ion Ratio Lower Upper

117 100

82 64.3 53.4 80.2

119 32.4 27.3 40.9





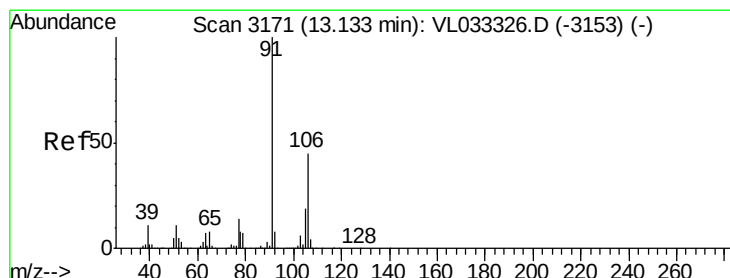
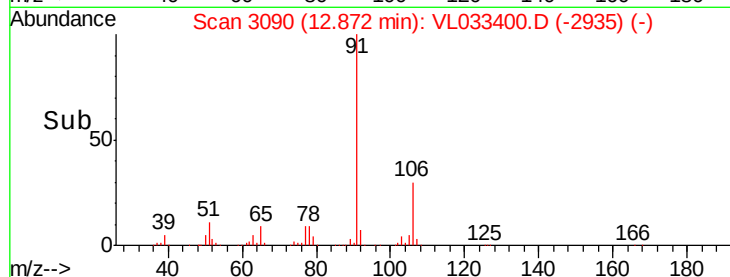
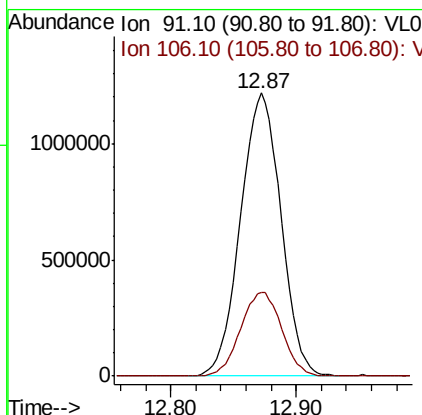
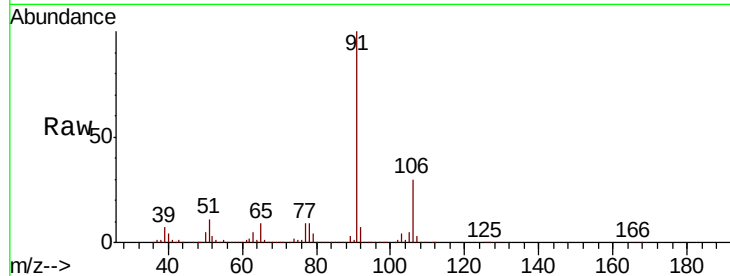
#58
Ethyl Benzene
Concen: 8.884 ppbv
RT: 12.87 min Scan# 3090
Delta R.T. -0.00 min
Lab File: VL033400.D
Acq: 20 Mar 2019 21:46

Instrument :
MSVOA_L
ClientSampleID :
IA2

Tot Ion: 91 Resp: 2719043
Ion Ratio Lower Upper
91 100
106 29.8 24.2 36.2

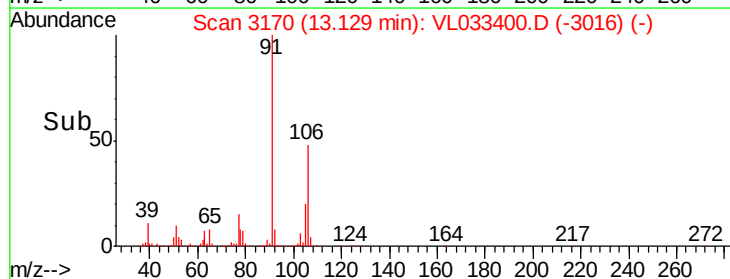
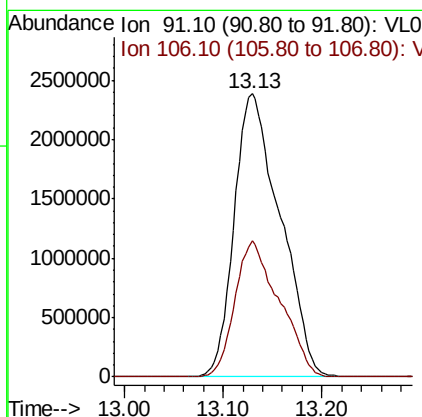
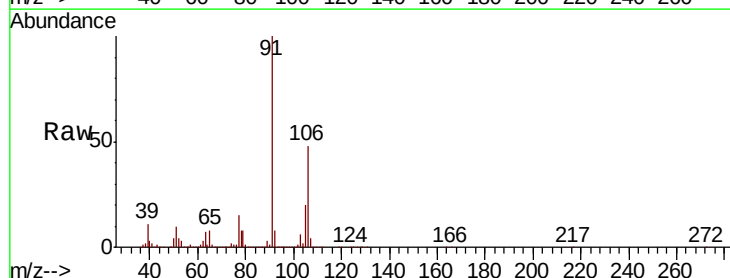
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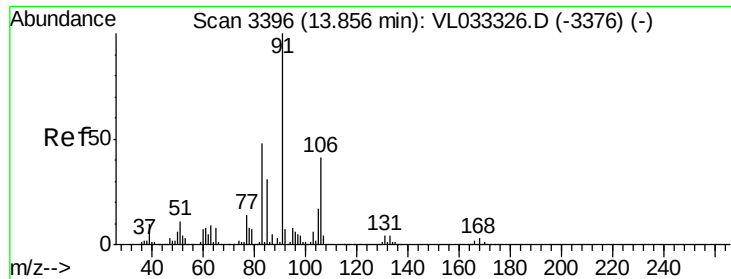
MMDadoda
3/25/2019 8:26:33 AM



#59
m/p-Xylene
Concen: 29.239 ppbv
RT: 13.13 min Scan# 3170
Delta R.T. -0.00 min
Lab File: VL033400.D
Acq: 20 Mar 2019 21:46

Tgt Ion: 91 Resp: 7690286
Ion Ratio Lower Upper
91 100
106 46.8 0.0 0.0#





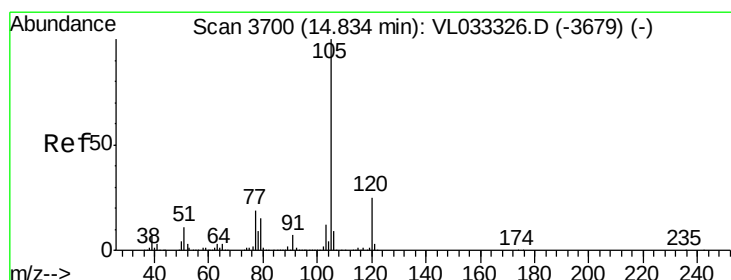
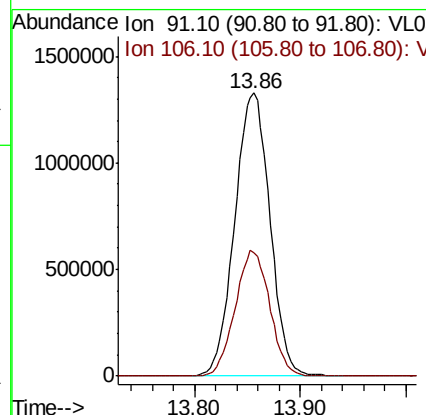
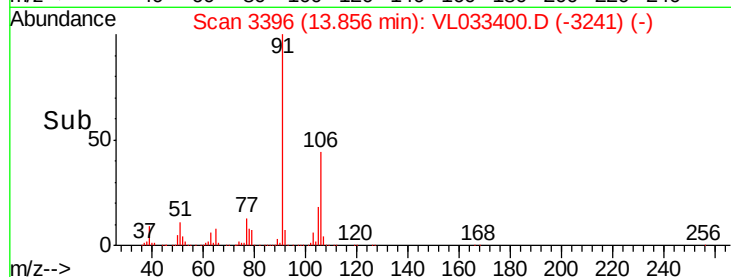
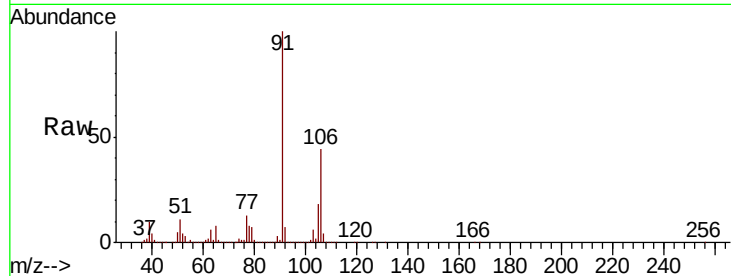
#60
o-Xylene
Concen: 11.921 ppbv
RT: 13.86 min Scan# 3396
Delta R.T. -0.00 min
Lab File: VL033400.D
Acq: 20 Mar 2019 21:46

Instrument :
MSVOA_L
ClientSampled :
IA2

Tot Ion: 91 Resp: 3058907
Ion Ratio Lower Upper
91 100
106 44.0 21.3 63.9

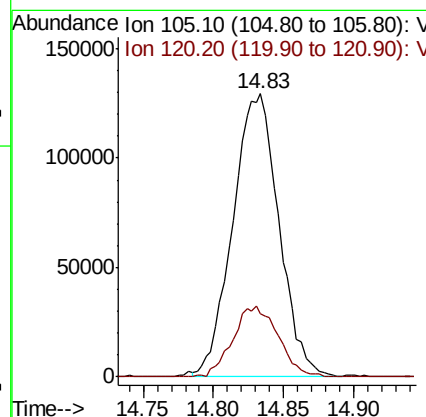
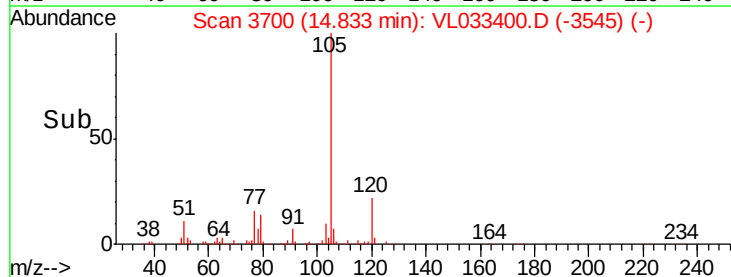
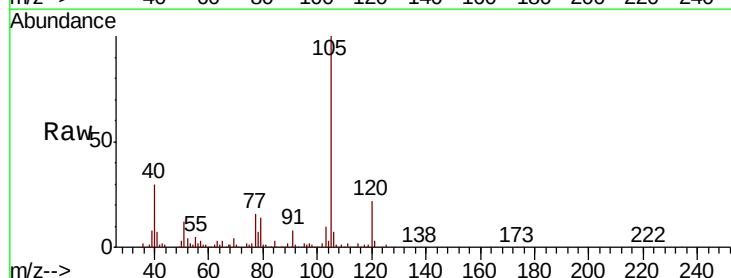
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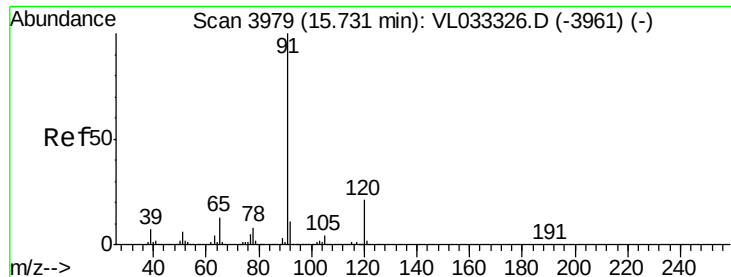
MMDadoda
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#62
Isopropylbenzene
Concen: 0.825 ppbv
RT: 14.83 min Scan# 3700
Delta R.T. -0.00 min
Lab File: VL033400.D
Acq: 20 Mar 2019 21:46

Tgt Ion: 105 Resp: 294201
Ion Ratio Lower Upper
105 100
120 24.7 19.9 29.9





#64

n-propylbenzene

Concen: 3.005 ppbv

RT: 15.73 min Scan# 3978

Delta R.T. -0.00 min

Lab File: VL033400.D

Acq: 20 Mar 2019 21:46

Instrument :

MSVOA_L

ClientSampled :

IA2

Tot Ion:120 Resp: 271228

Ion Ratio Lower Upper

120 100

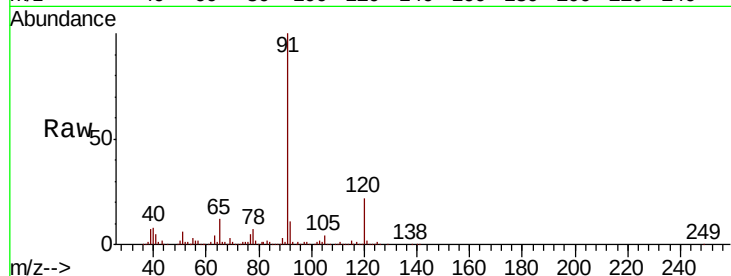
91 483.4 389.8 584.6

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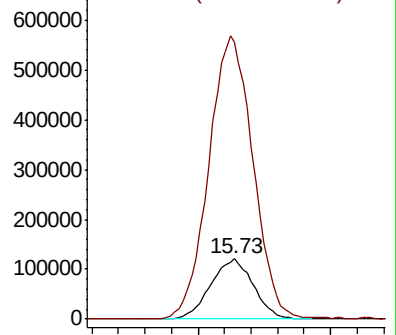
MMDadoda

3/25/2019 8:26:33 AM

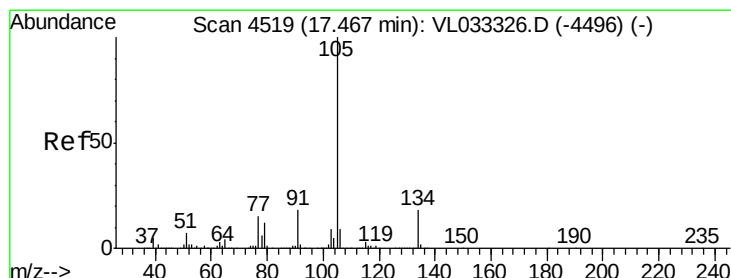
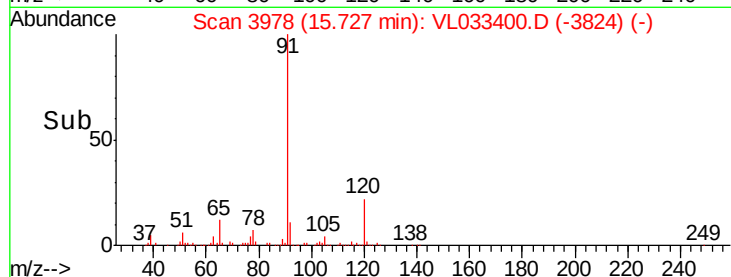


Abundance Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0



Time-->



#67

sec-Butylbenzene

Concen: 0.279 ppbv m

RT: 17.46 min Scan# 4518

Delta R.T. -0.00 min

Lab File: VL033400.D

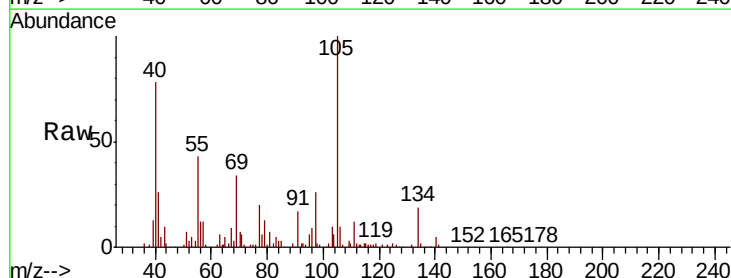
Acq: 20 Mar 2019 21:46

Tgt Ion:105 Resp: 126770

Ion Ratio Lower Upper

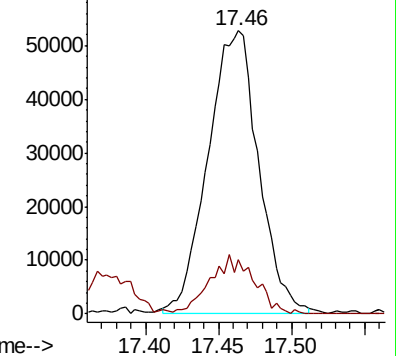
105 100

134 0.0 14.2 21.4#

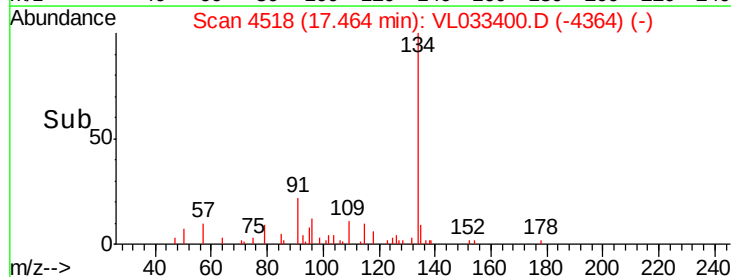


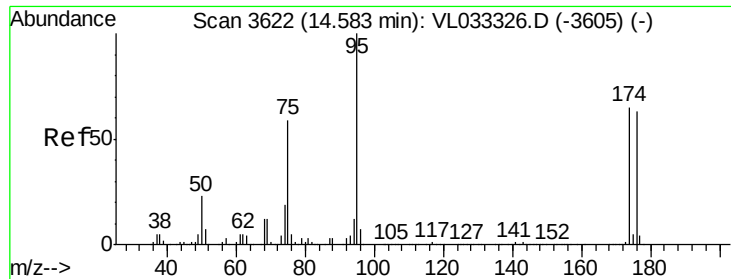
Abundance Ion 105.10 (104.80 to 105.80): V

Ion 134.20 (133.90 to 134.90): V



Time-->





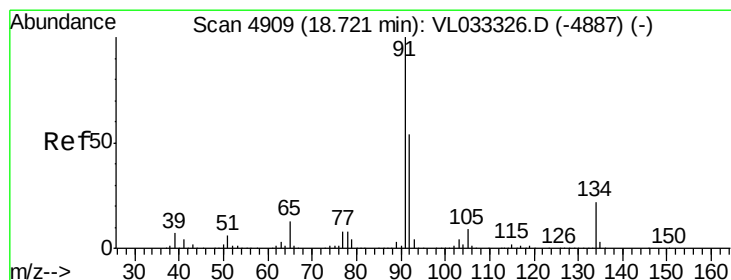
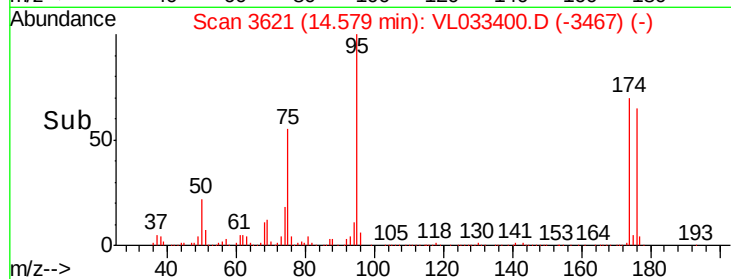
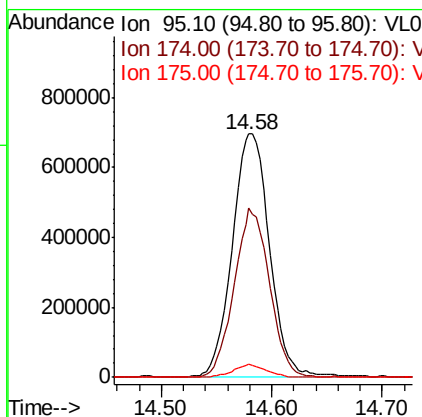
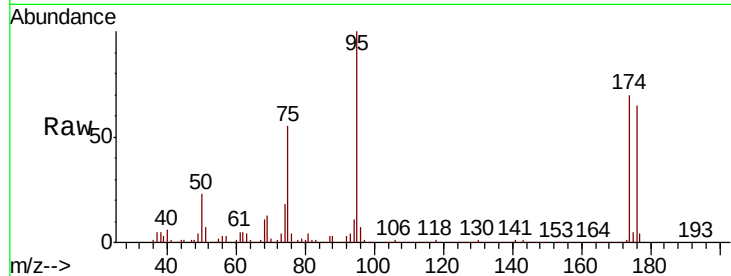
#68
 1-Bromo-4-Fluorobenzene
 Concen: 10.127 ppbv
 RT: 14.58 min Scan# 3621
 Delta R.T. -0.00 min
 Lab File: VL033400.D
 Acq: 20 Mar 2019 21:46

Instrument :
 MSVOA_L
 ClientSampled :
 IA2

Tot Ion: 95 Resp: 1623538
 Ion Ratio Lower Upper
 95 100
 174 66.5 51.5 77.3
 175 4.8 3.8 5.6

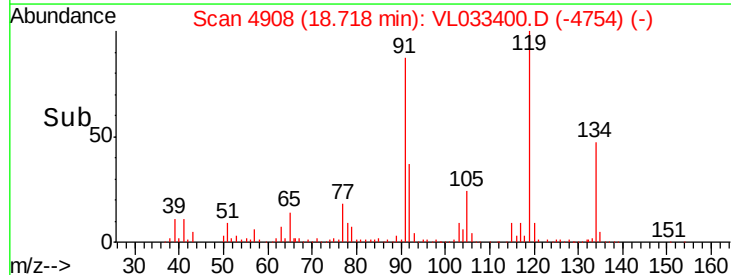
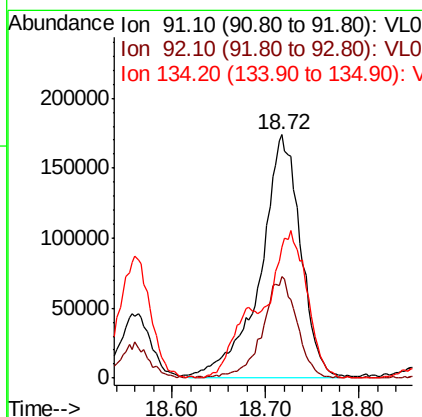
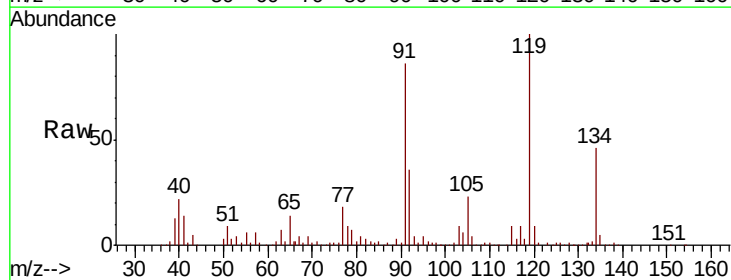
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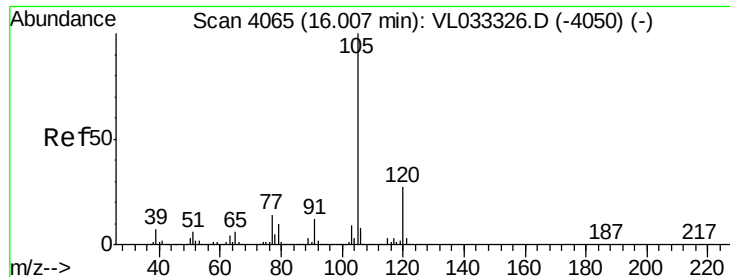
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 3/25/2019 8:26:33 AM



#70
 n-Butylbenzene
 Concen: 1.320 ppbv m
 RT: 18.72 min Scan# 4908
 Delta R.T. -0.00 min
 Lab File: VL033400.D
 Acq: 20 Mar 2019 21:46

Tgt Ion: 91 Resp: 523386
 Ion Ratio Lower Upper
 91 100
 92 35.1 42.8 64.2#
 134 71.4 17.4 26.0#





#72

4-Ethyltoluene

Concen: 5.134 ppbv

RT: 16.00 min Scan# 4064

Delta R.T. -0.00 min

Lab File: VL033400.D

Acq: 20 Mar 2019 21:46

Instrument :

MSVOA_L

ClientSampleId :

IA2

Tot Ion:105 Resp: 1496028

Ion Ratio Lower Upper

105 100

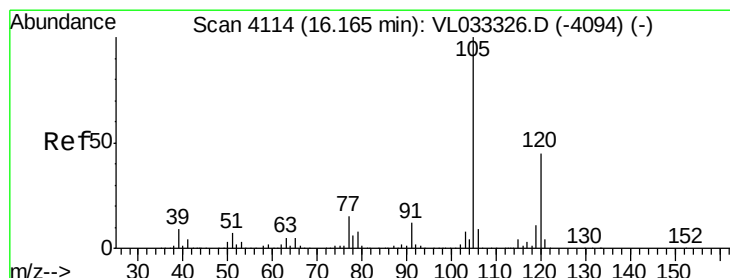
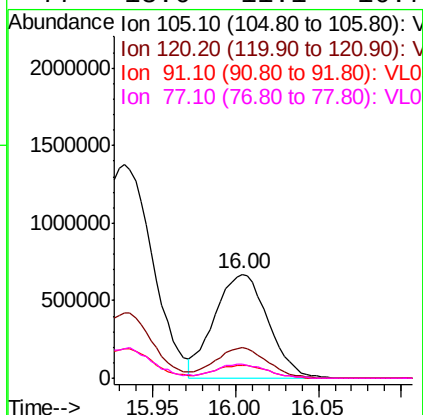
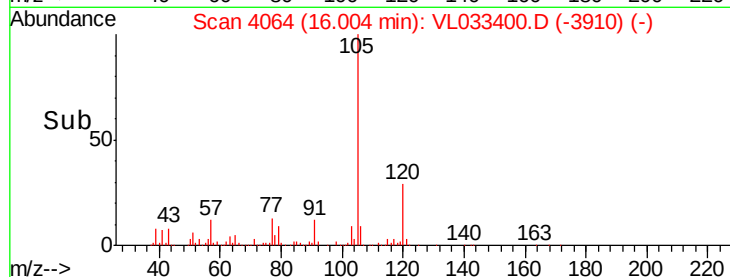
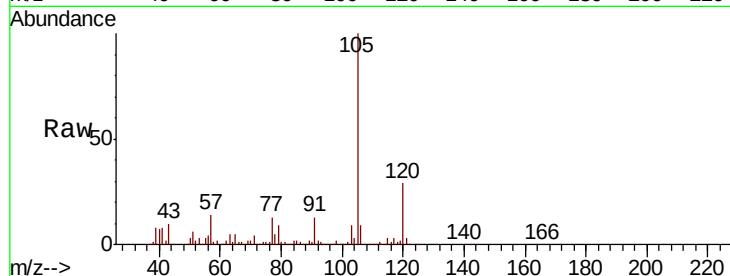
120 29.6 22.9 34.3

91 12.9 10.2 15.2

77 13.6 11.1 16.7

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3/25/2019 8:26:33 AM



#73

1,3,5-Trimethylbenzene

Concen: 4.467 ppbv

RT: 16.16 min Scan# 4113

Delta R.T. -0.00 min

Lab File: VL033400.D

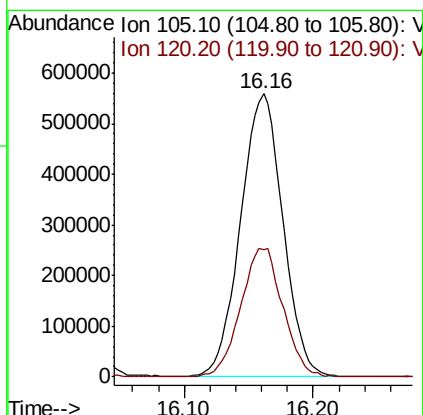
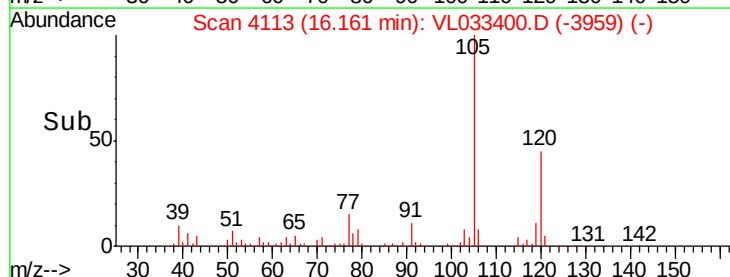
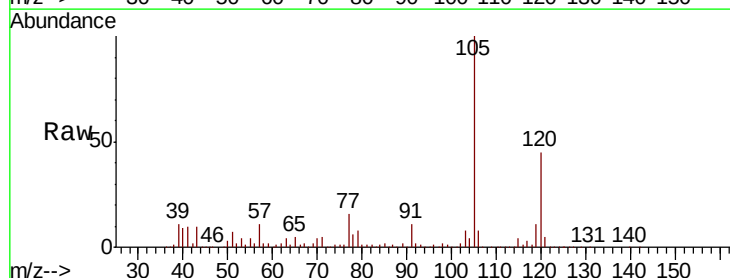
Acq: 20 Mar 2019 21:46

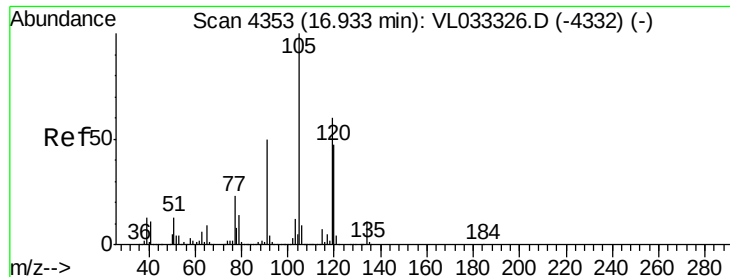
Tgt Ion:105 Resp: 1267971

Ion Ratio Lower Upper

105 100

120 45.0 36.2 54.4





#74

1,2,4-Trimethylbenzene

Concen: 15.023 ppbv

RT: 16.93 min Scan# 4351

Delta R.T. -0.01 min

Lab File: VL033400.D

Acq: 20 Mar 2019 21:46

Instrument :

MSVOA_L

ClientSampled :

IA2

Tot Ion:105 Resp: 4516588

Ion Ratio Lower Upper

105 100

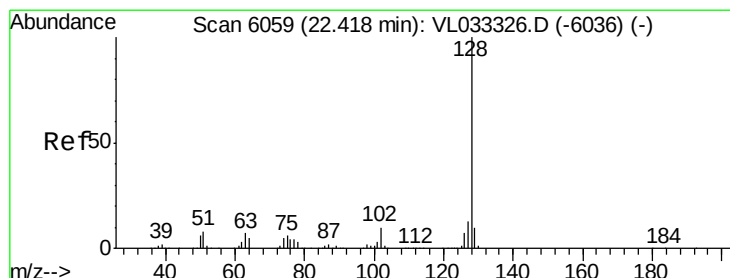
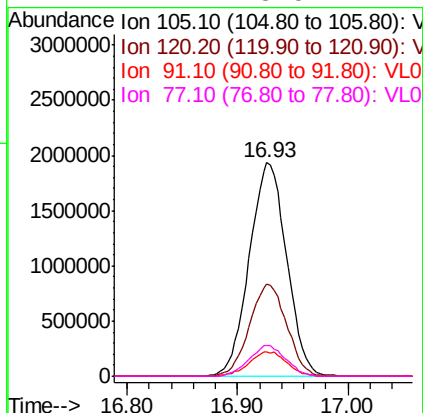
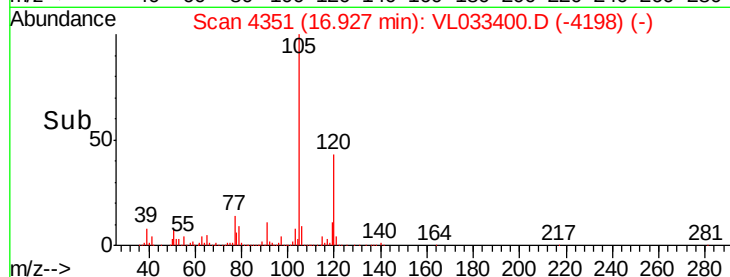
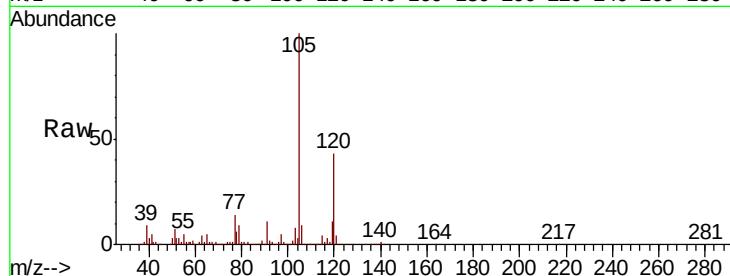
120 43.1 37.4 56.2

91 11.3 41.0 61.4#

77 14.4 18.5 27.7#

Manual Integrations
APPROVED

MMDadoda
3/25/2019 8:26:33 AM



#79

Naphthalene

Concen: 2.712 ppbv m

RT: 22.42 min Scan# 6058

Delta R.T. -0.00 min

Lab File: VL033400.D

Acq: 20 Mar 2019 21:46

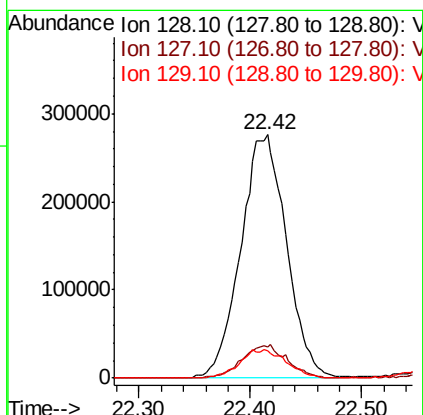
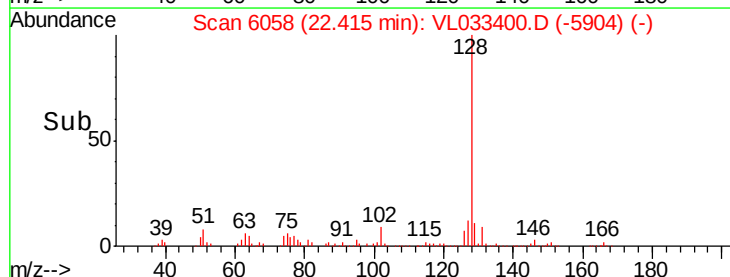
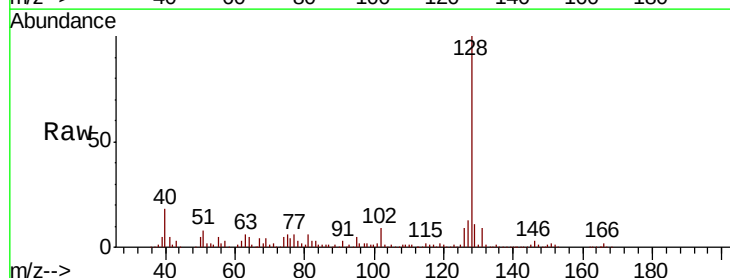
Tgt Ion:128 Resp: 785649

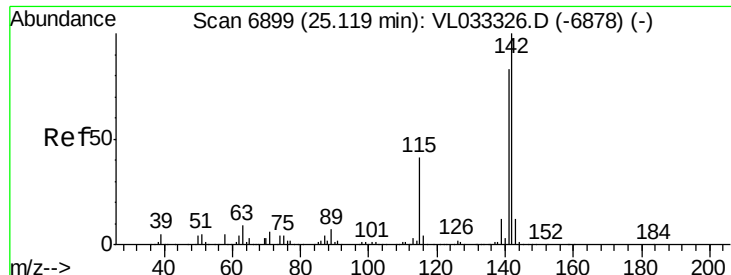
Ion Ratio Lower Upper

128 100

127 13.1 10.1 15.1

129 11.1 8.2 12.2





#80
 Naphthalene, 2-methyl-
 Concen: 1.443 ppbv m
 RT: 25.11 min Scan# 6896
 Delta R.T. -0.01 min
 Lab File: VL033400.D
 Acq: 20 Mar 2019 21:46

Instrument :
 MSVOA_L
 ClientSampleId :
 IA2

Tot Ion:	142	Resp:	198172
Ion Ratio	Lower	Upper	
142	100		
141	41.2	67.1	100.7#
115	20.3	33.8	50.6#

Manual Integrations
 APPROVED

MMDadoda
 3/25/2019 8:26:33 AM

