

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL031519\
 Data File : VL033347.D
 Acq On : 16 Mar 2019 1:44
 Operator : SY/AP
 Sample : K1827-02
 Misc : 400ml/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 A-2

Manual Integrations
 APPROVED

MMDadoda
 3/19/2019 10:01:37 AM

Quant Time: Mar 16 06:41:50 2019
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL031519AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Fri Mar 16 06:41:50 2019
 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	5.76	49	794975	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.29	114	1794141	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.25	117	1738192	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.58	95	1302146	10.11	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	101.10%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.08	85	32931	0.236	ppbv	99
3) Chlorodifluoromethane	3.02	51	87352m	0.957	ppbv	
4) Chloromethane	3.17	50	24988	0.506	ppbv	95
9) Propene	3.05	41	86592m	2.126	ppbv	
10) Heptane	8.25	43	174216	1.724	ppbv	100
11) Trichlorofluoromethane	4.01	101	32390	0.233	ppbv	95
13) Ethanol	3.66	45	1986274	102.291	ppbv	98
15) Acetone	3.90	43	977261	7.908	ppbv	94
19) Isopropyl Alcohol	4.04	45	619416	10.537	ppbv #	99
20) Methylene Chloride	4.41	84	89587	2.223	ppbv	98
25) Ethyl Acetate	5.77	43	266661	1.484	ppbv #	96
26) Hexane	5.78	57	163426	2.035	ppbv #	75
34) 2-Butanone	5.34	43	88970	0.755	ppbv	99
36) Benzene	7.00	78	40655m	0.253	ppbv	
44) 2,2,4-Trimethylpentane	7.99	57	38284	0.144	ppbv #	48
52) Tetrachloroethene	11.37	164	6217m	0.093	ppbv	
53) Toluene	9.95	91	3369824	18.470	ppbv	100
58) Ethyl Benzene	12.87	91	98298	0.400	ppbv	96
59) m/p-Xylene	13.12	91	119384m	0.565	ppbv	
60) o-Xylene	13.86	91	38713m	0.188	ppbv	

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

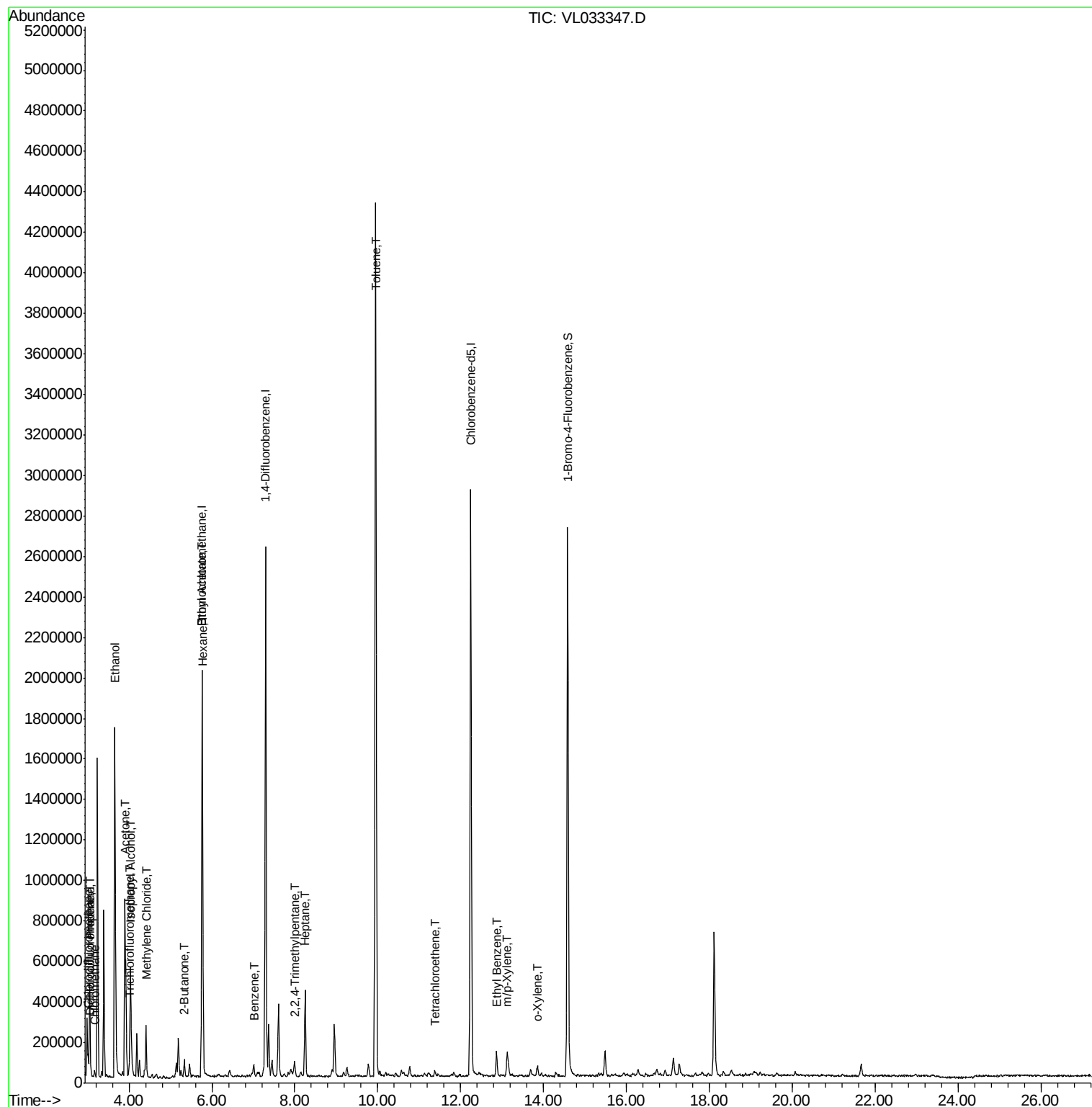
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL031519\
Data File : VL033347.D
Acq On : 16 Mar 2019 1:44
Operator : SY/AP
Sample : K1827-02
Misc : 400ml/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

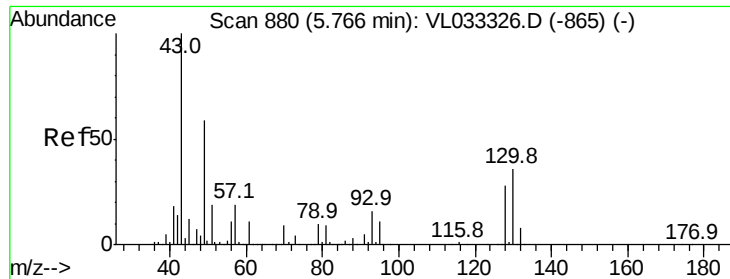
Instrument :
MSVOA_L
ClientSampleId :
A-2

Manual Integrations
APPROVED

MMDadoda
3/19/2019 10:01:37 AM

Quant Time: Mar 16 06:41:50 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: 5.76 min Scan# 879

Delta R.T. -0.00 min

Lab File: VL033347.D

Acq: 16 Mar 2019 1:44

Instrument :

MSVOA_L

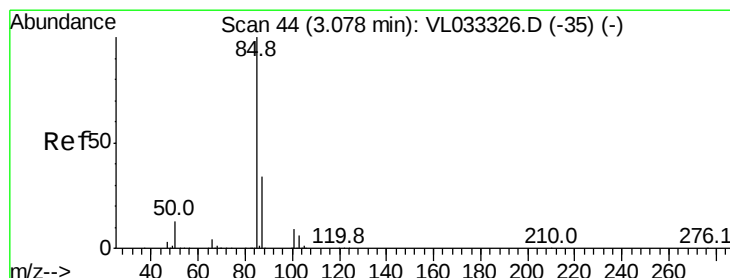
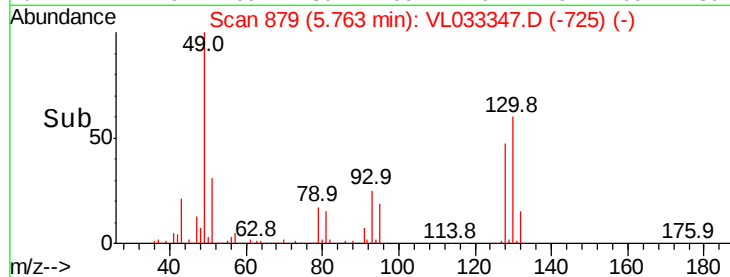
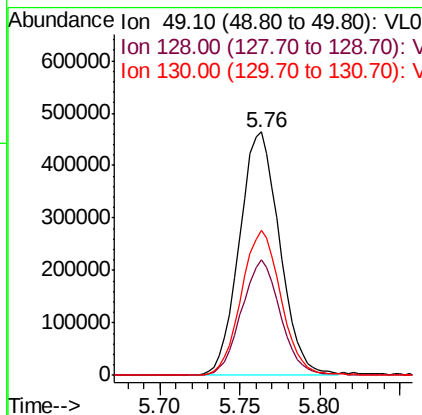
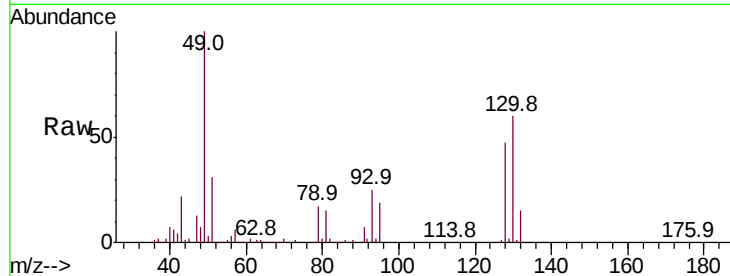
ClientSampleId :

A-2

Tot Ion	Ratio	Lower	Upper
49	100		
128	46.4	23.5	70.6
130	58.6	30.1	90.3

Manual Integrations
APPROVED

MMDadoda
3/19/2019 10:01:37 AM



#2

Dichlorodifluoromethane

Concen: 0.236 ppbv

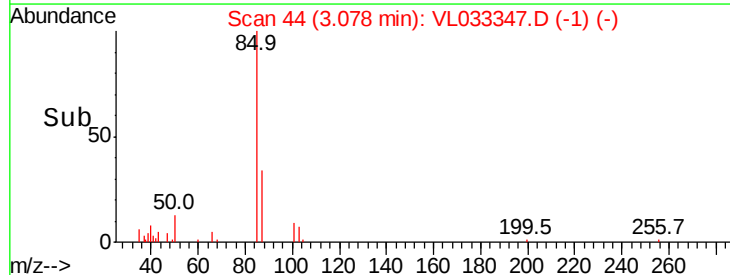
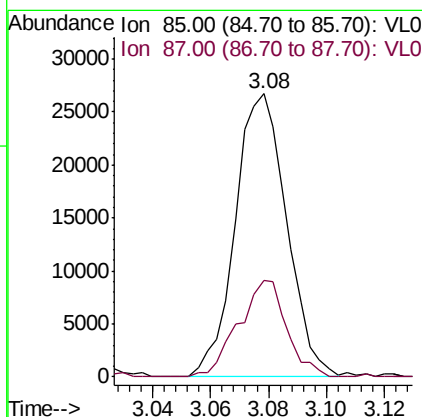
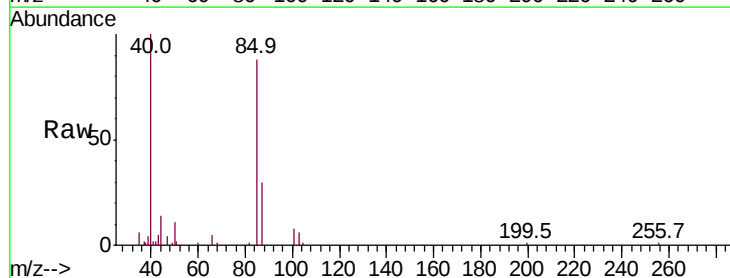
RT: 3.08 min Scan# 44

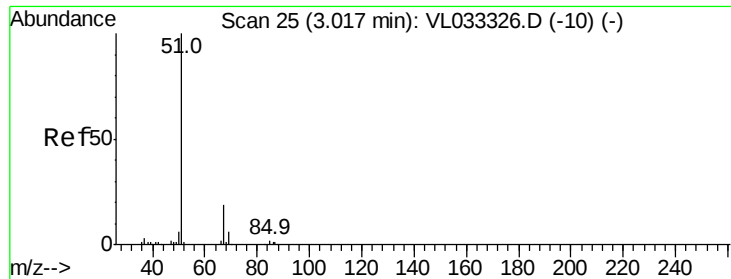
Delta R.T. -0.00 min

Lab File: VL033347.D

Acq: 16 Mar 2019 1:44

Tgt Ion	Ratio	Lower	Upper
85	100		
87	34.1	26.9	40.3





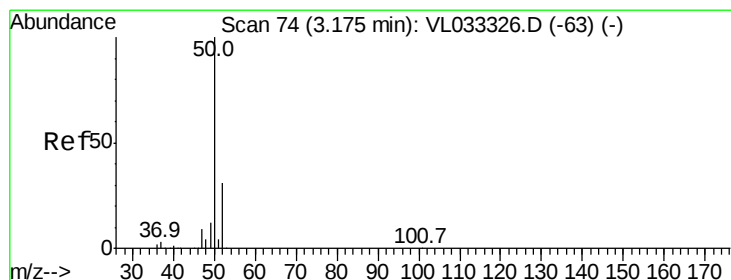
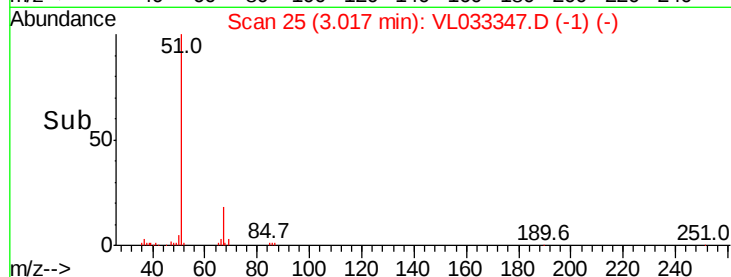
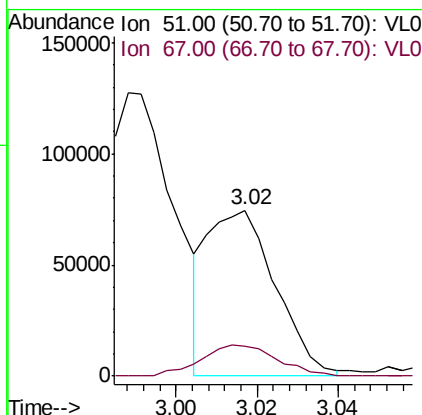
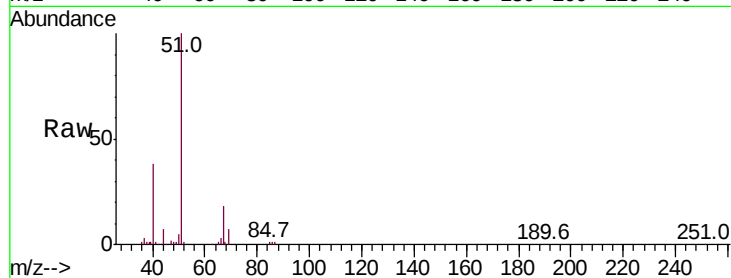
#3
Chlorodifluoromethane
Concen: 0.957 ppbv
RT: 3.02 min Scan# 25
Delta R.T. -0.00 min
Lab File: VL033347.D
Acq: 16 Mar 2019 1:44

Instrument :
MSVOA_L
ClientSampled :
A-2

Tot Ion	Ratio	Lower	Upper
51	100		
67	21.3	14.9	22.3

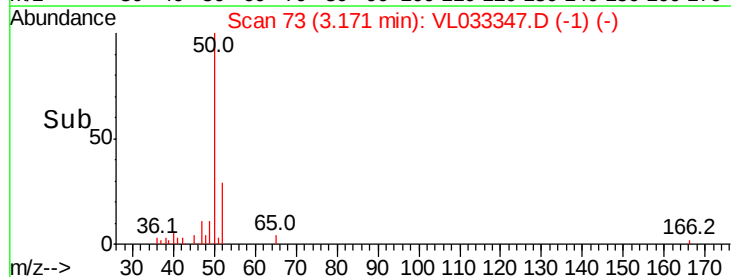
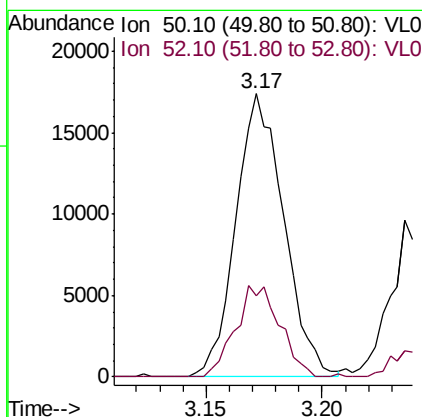
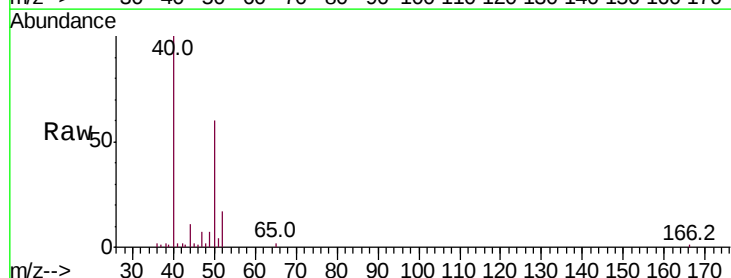
Manual Integrations
APPROVED

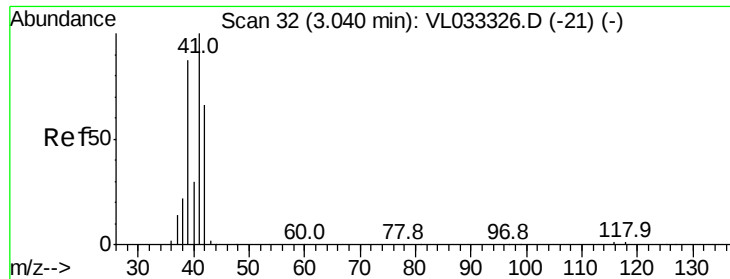
MMDadoda
3/19/2019 10:01:37 AM



#4
Chloromethane
Concen: 0.506 ppbv
RT: 3.17 min Scan# 73
Delta R.T. -0.00 min
Lab File: VL033347.D
Acq: 16 Mar 2019 1:44

Tgt Ion	Ratio	Lower	Upper
50	100		
52	28.7	25.0	37.6





#9

Propene

Concen: 2.126 ppbv m

RT: 3.05 min Scan# 35

Delta R.T. 0.01 min

Lab File: VL033347.D

Acq: 16 Mar 2019 1:44

Instrument :

MSVOA_L

ClientSampleId :

A-2

Tot Ion: 41 Resp: 86592

Ion Ratio Lower Upper

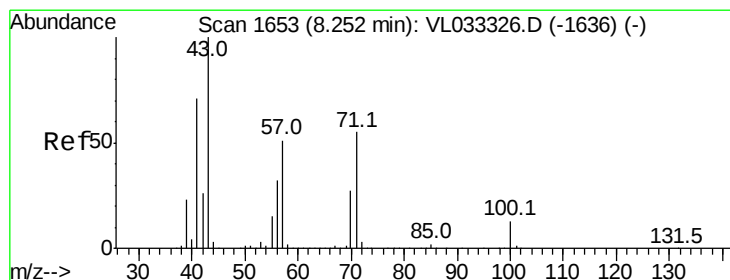
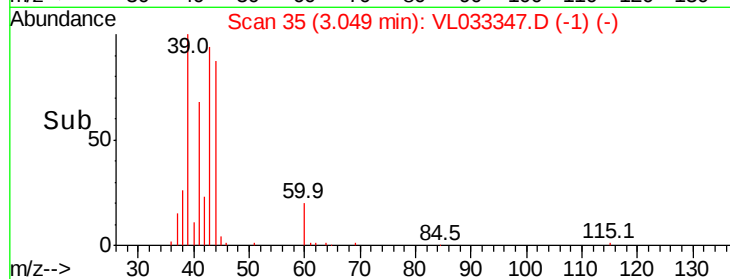
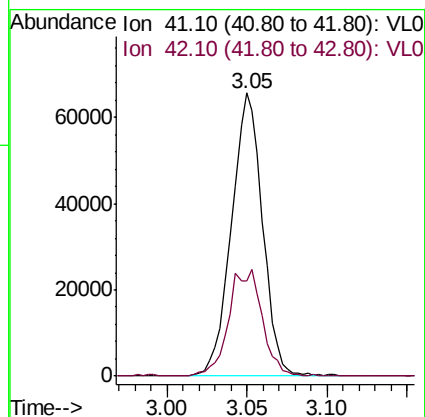
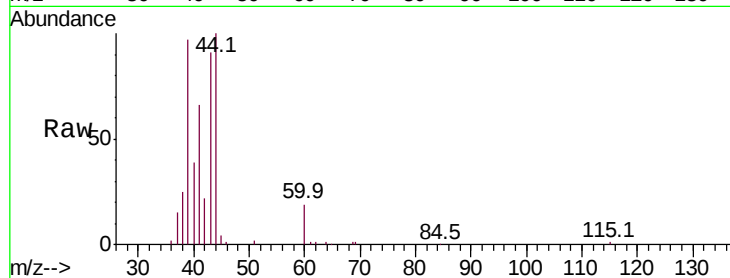
41 100

42 316.4 55.2 82.8#

Manual Integrations
APPROVED

MMDadoda

3/19/2019 10:01:37 AM



#10

Heptane

Concen: 1.724 ppbv

RT: 8.25 min Scan# 1652

Delta R.T. -0.00 min

Lab File: VL033347.D

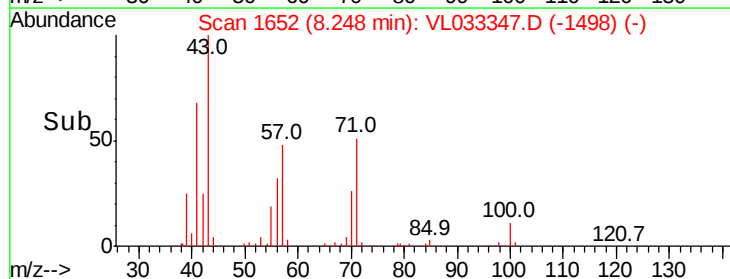
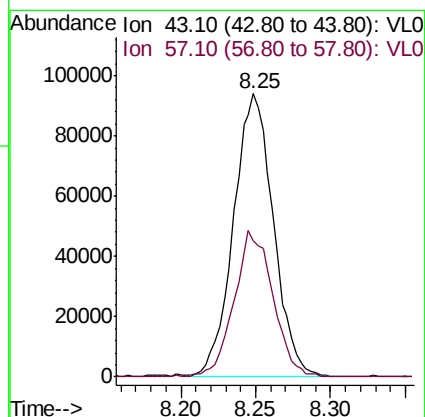
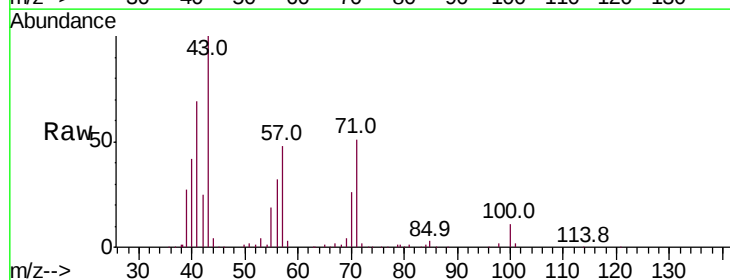
Acq: 16 Mar 2019 1:44

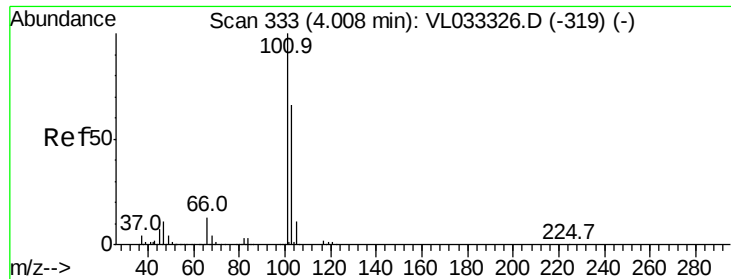
Tgt Ion: 43 Resp: 174216

Ion Ratio Lower Upper

43 100

57 50.5 40.4 60.6





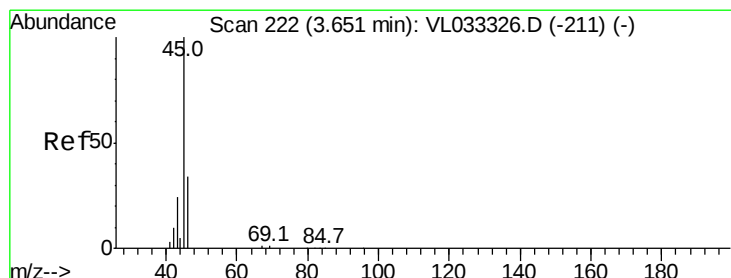
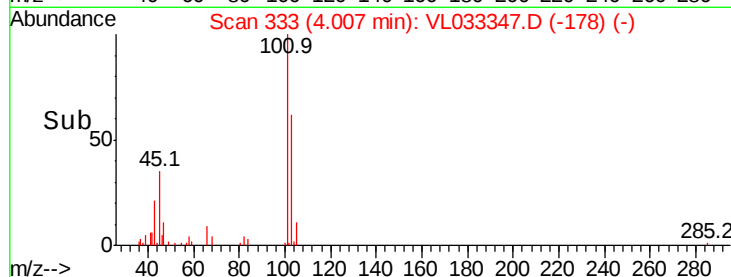
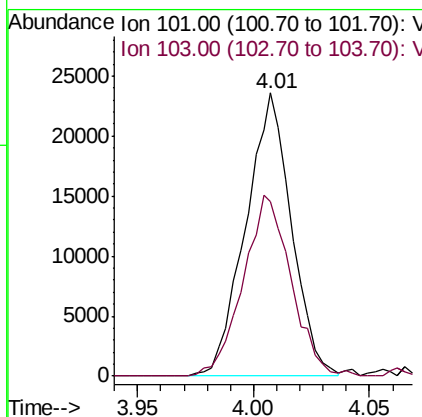
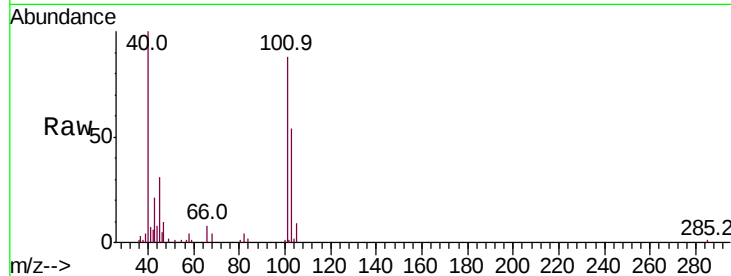
#11
 Trichlorofluoromethane
 Concen: 0.233 ppbv
 RT: 4.01 min Scan# 333
 Delta R.T. -0.00 min
 Lab File: VL033347.D
 Acq: 16 Mar 2019 1:44

Instrument :
 MSVOA_L
 ClientSampled :
 A-2

Tot Ion	Ion	Ratio	Resp	Lower	Upper
101	100	100	32390		
103	61.8	52.9	79.3		

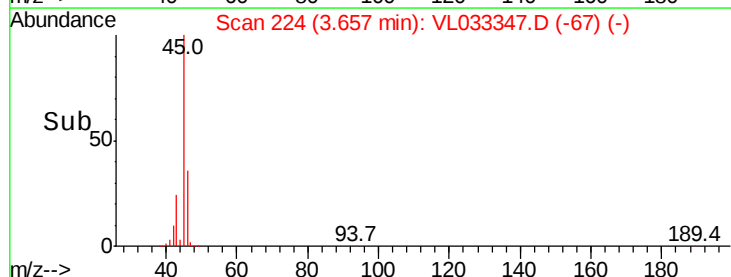
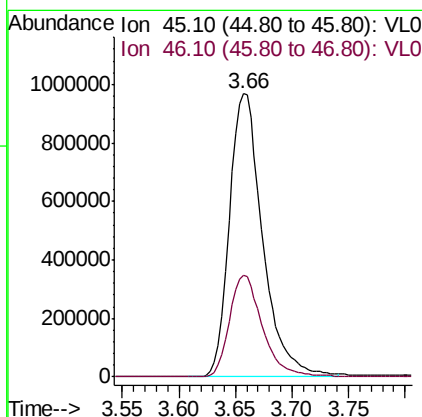
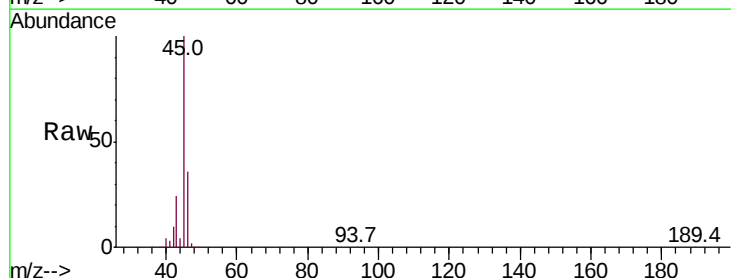
Manual Integrations
 APPROVED

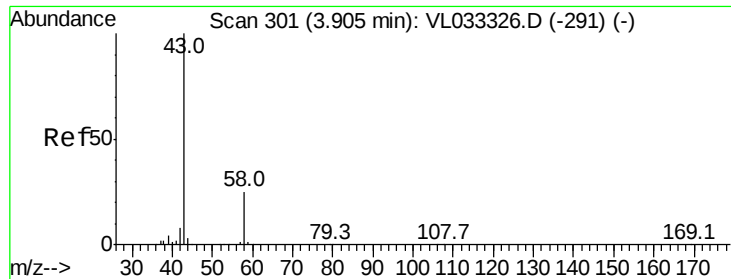
MMDadoda
 3/19/2019 10:01:37 AM



#13
 Ethanol
 Concen: 102.291 ppbv
 RT: 3.66 min Scan# 224
 Delta R.T. 0.01 min
 Lab File: VL033347.D
 Acq: 16 Mar 2019 1:44

Tgt Ion	Ion	Ratio	Lower	Upper
45	100	1986274		
46	35.9	14.9	59.7	





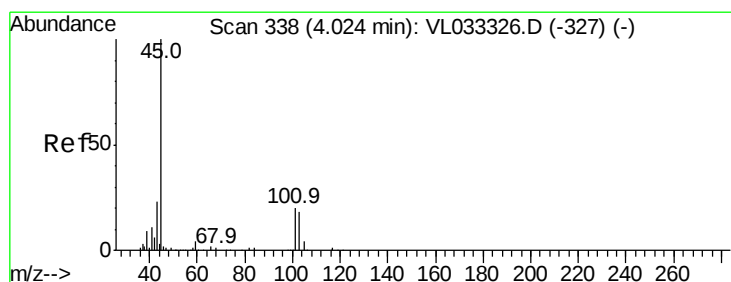
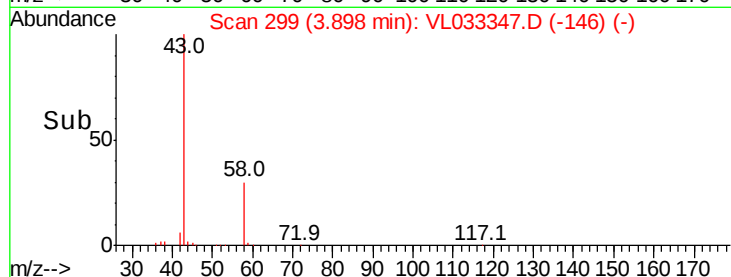
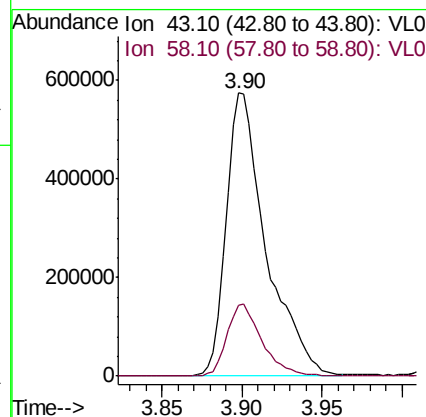
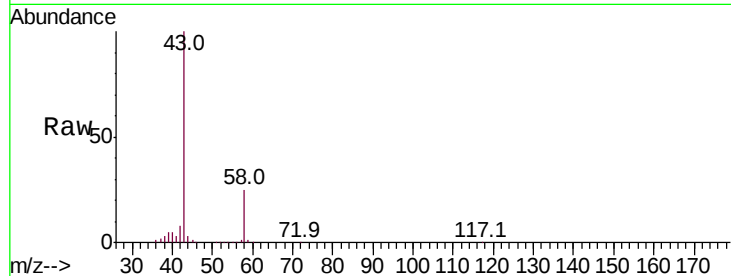
#15
Acetone
Concen: 7.908 ppbv
RT: 3.90 min Scan# 299
Delta R.T. -0.01 min
Lab File: VL033347.D
Acq: 16 Mar 2019 1:44

Instrument :
MSVOA_L
ClientSampleId :
A-2

Tot Ion	43	58	Ratio	100	Resp	977261
Ion	43	58	Ratio	100	22.7	
Lower					20.4	
Upper					30.6	

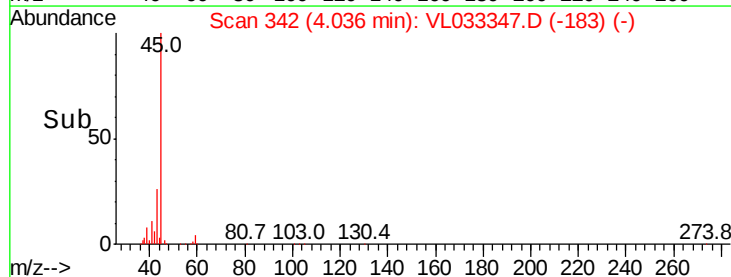
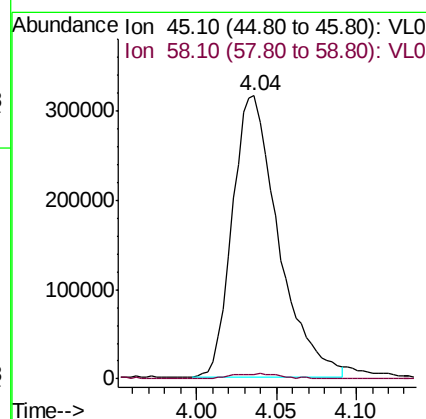
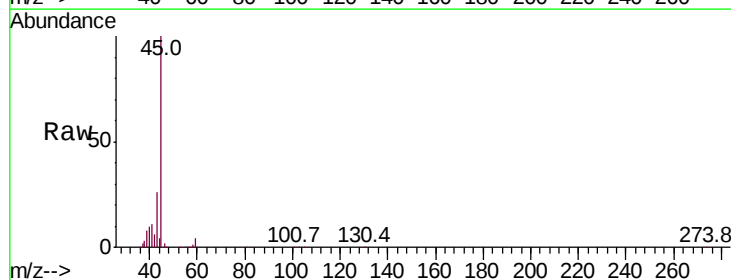
Manual Integrations
APPROVED

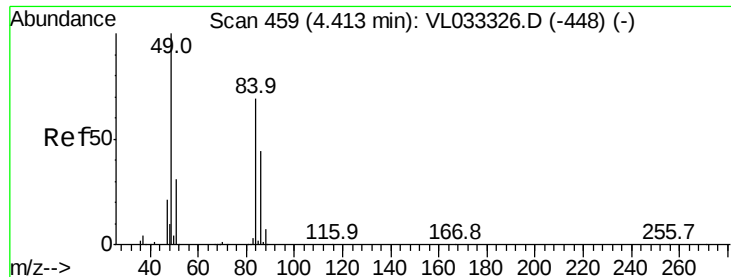
MMDadoda
3/19/2019 10:01:37 AM



#19
Isopropyl Alcohol
Concen: 10.537 ppbv
RT: 4.04 min Scan# 342
Delta R.T. 0.01 min
Lab File: VL033347.D
Acq: 16 Mar 2019 1:44

Tgt Ion	45	58	Ratio	100	Resp	619416
Ion	45	58	Ratio	100	2.3	
Lower					1.5	
Upper					2.3#	





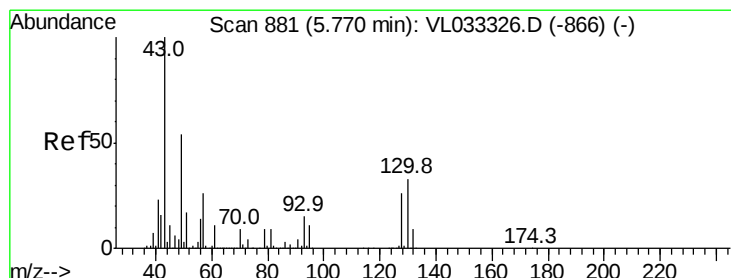
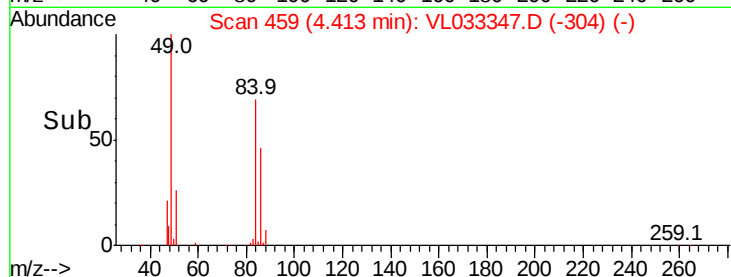
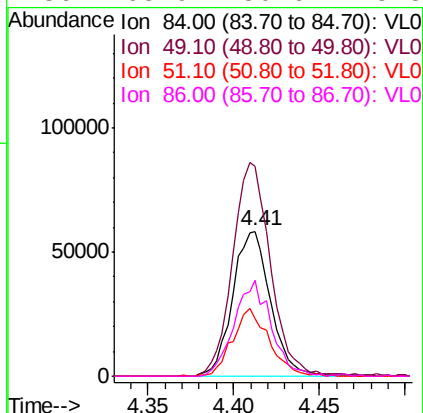
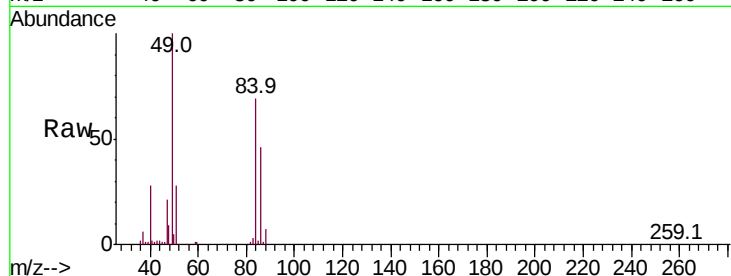
#20
Methvlene Chloride
Concen: 2.223 ppbv
RT: 4.41 min Scan# 459
Delta R.T. -0.00 min
Lab File: VL033347.D
Acq: 16 Mar 2019 1:44

Instrument :
MSVOA_L
ClientSampled :
A-2

Tot Ion:	84	Resp:	89587
Ion	Ratio	Lower	Upper
84	100		
49	144.3	115.4	173.0
51	39.7	35.8	53.6
86	65.9	50.6	75.8

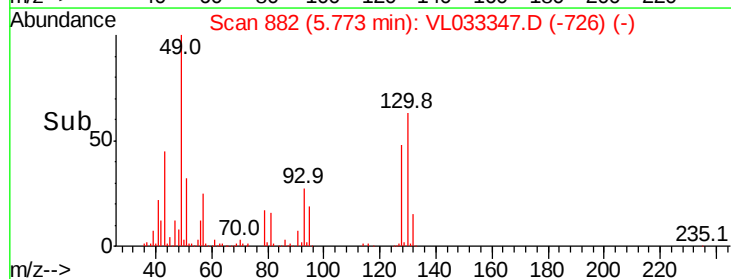
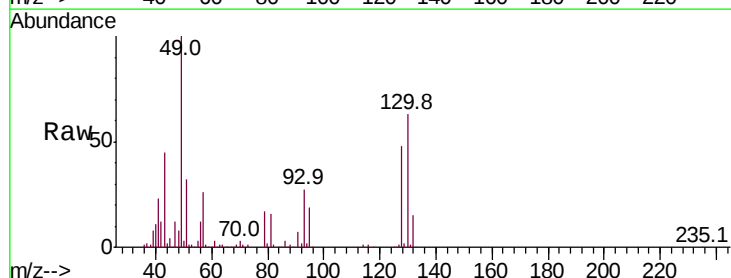
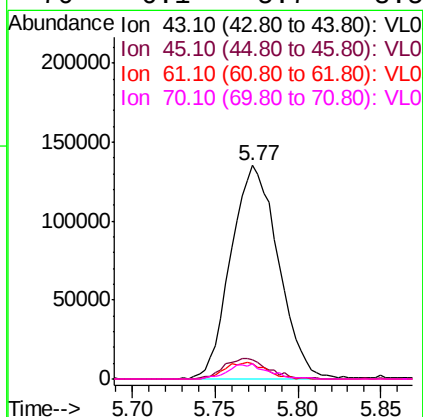
Manual Integrations
APPROVED

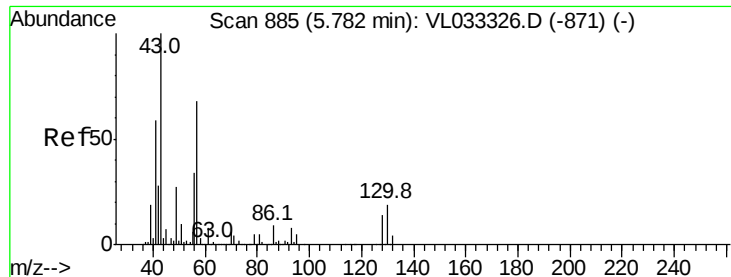
MMDadoda
3/19/2019 10:01:37 AM



#25
Ethyl Acetate
Concen: 1.484 ppbv
RT: 5.77 min Scan# 882
Delta R.T. 0.00 min
Lab File: VL033347.D
Acq: 16 Mar 2019 1:44

Tgt Ion:	43	Resp:	266661
Ion	Ratio	Lower	Upper
43	100		
45	9.1	7.9	11.9
61	6.9	7.4	11.2#
70	6.1	5.7	8.5





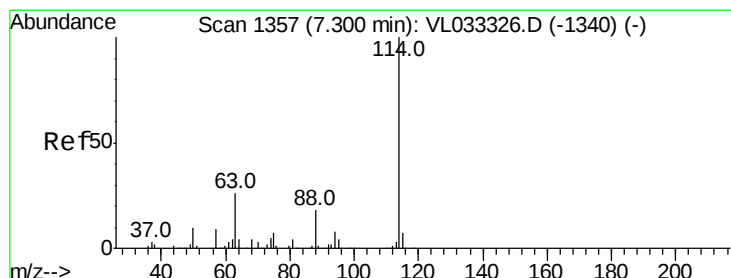
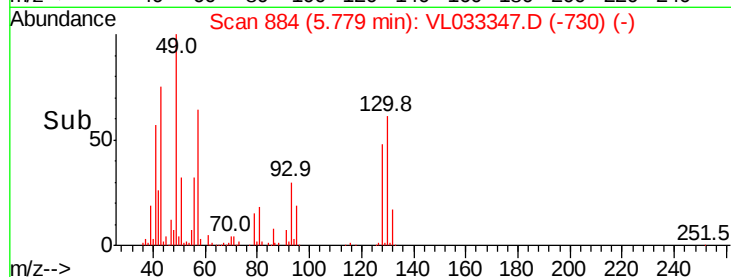
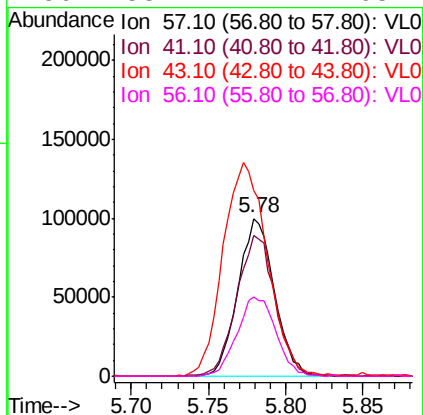
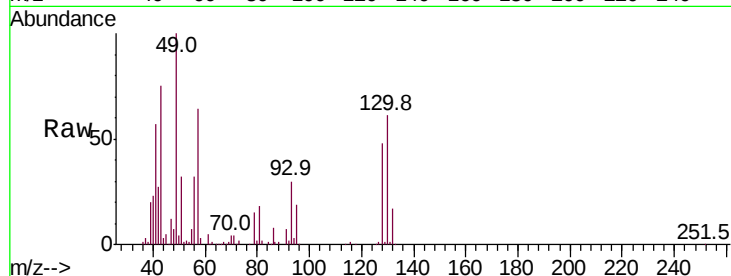
#26
Hexane
Concen: 2.035 ppbv
RT: 5.78 min Scan# 884
Delta R.T. -0.00 min
Lab File: VL033347.D
Acq: 16 Mar 2019 1:44

Instrument :
MSVOA_L
ClientSampleId :
A-2

Tot Ion	Ratio	Lower	Upper
57	100		
41	95.2	70.5	105.7
43	165.2	181.8	272.8#
56	53.7	42.2	63.2

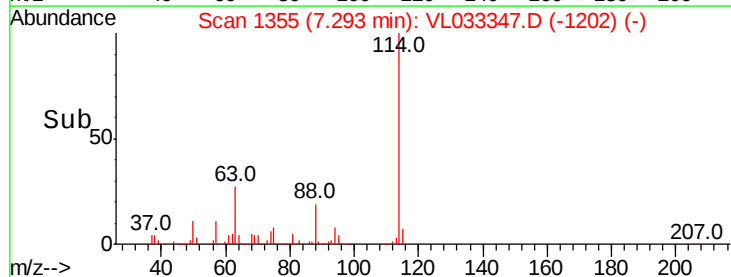
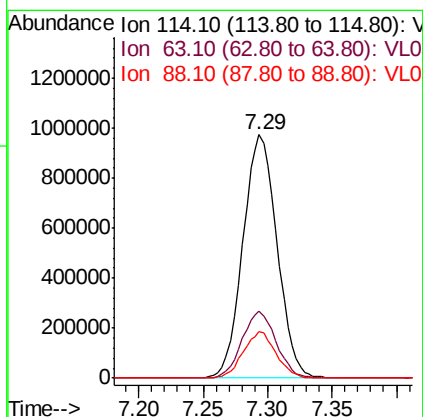
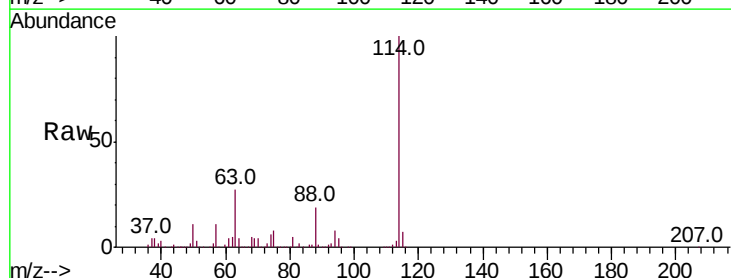
Manual Integrations
APPROVED

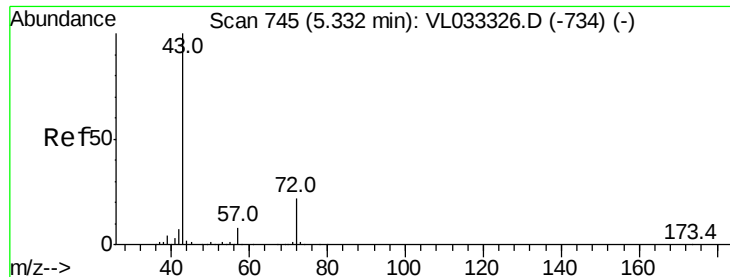
MMDadoda
3/19/2019 10:01:37 AM



#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.29 min Scan# 1355
Delta R.T. -0.01 min
Lab File: VL033347.D
Acq: 16 Mar 2019 1:44

Tgt Ion	Ratio	Lower	Upper
114	100		
63	27.4	21.4	32.2
88	18.3	14.5	21.7





#34

2-Butanone

Concen: 0.755 ppbv

RT: 5.34 min Scan# 746

Delta R.T. 0.00 min

Lab File: VL033347.D

Acq: 16 Mar 2019 1:44

Instrument :

MSVOA_L

ClientSampled :

A-2

Tot Ion: 43 Resp: 88970

Ion Ratio Lower Upper

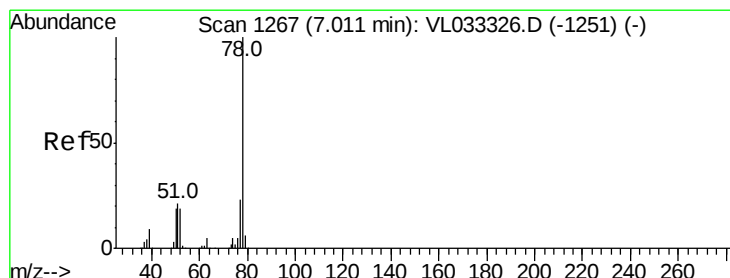
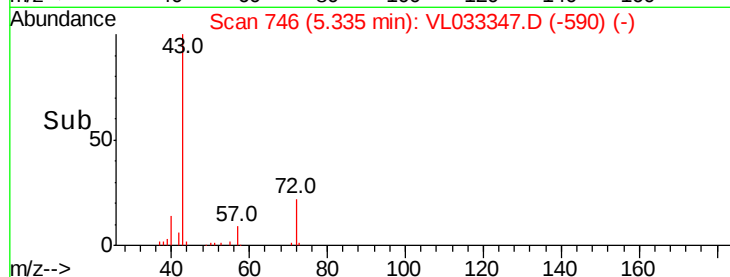
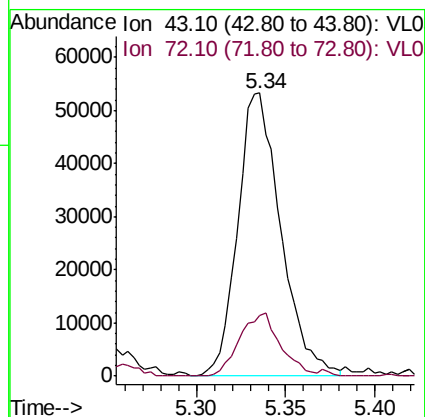
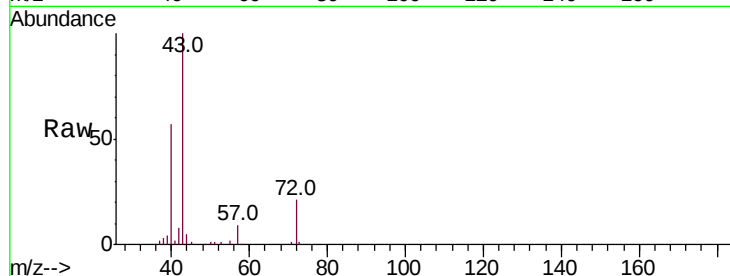
43 100

72 21.8 17.7 26.5

Manual Integrations
APPROVED

MMDadoda

3/19/2019 10:01:37 AM



#36

Benzene

Concen: 0.253 ppbv m

RT: 7.00 min Scan# 1265

Delta R.T. -0.01 min

Lab File: VL033347.D

Acq: 16 Mar 2019 1:44

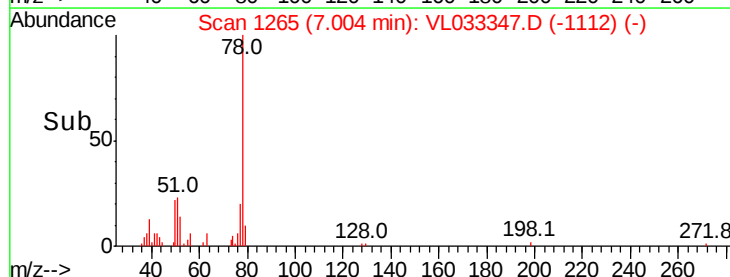
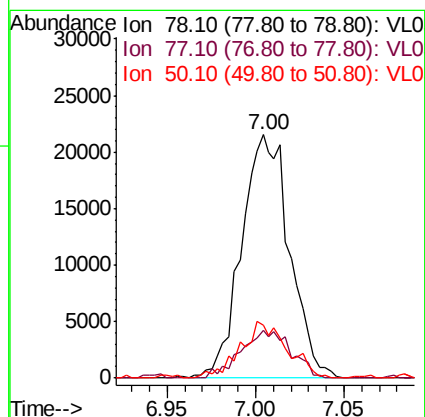
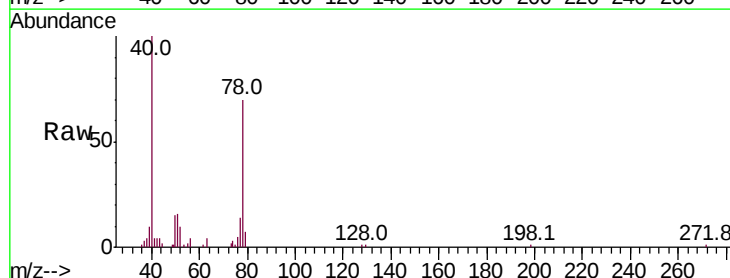
Tgt Ion: 78 Resp: 40655

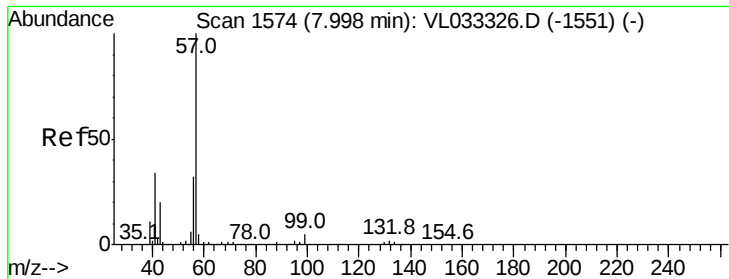
Ion Ratio Lower Upper

78 100

77 19.9 18.1 27.1

50 21.7 15.2 22.8





#44

2,2,4-Trimethylpentane

Concen: 0.144 ppbv

RT: 7.99 min Scan# 1572

Delta R.T. -0.01 min

Lab File: VL033347.D

Acq: 16 Mar 2019 1:44

Instrument :

MSVOA_L

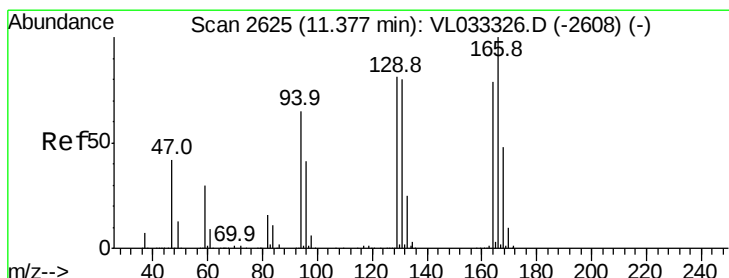
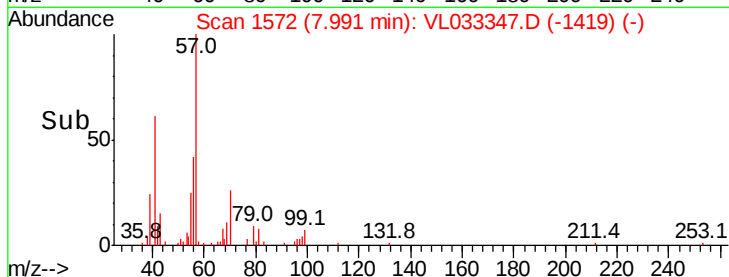
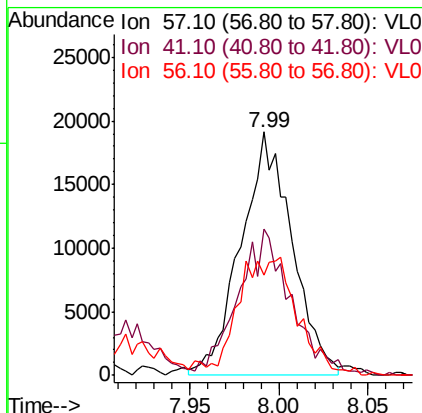
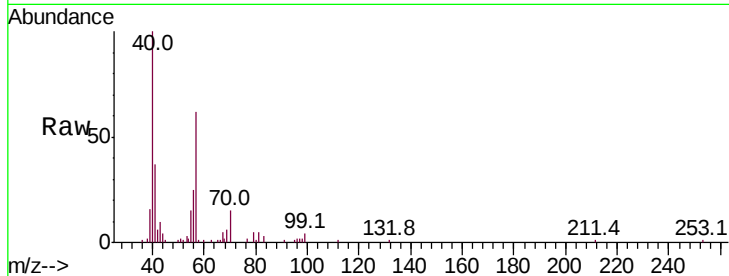
ClientSampled :

A-2

Tot Ion:	57	Resp:	38284
Ion Ratio	Lower	Upper	
57	100		
41	62.8	26.0	39.0#
56	57.8	24.6	36.8#

Manual Integrations
APPROVED

MMDadoda
3/19/2019 10:01:37 AM



#52

Tetrachloroethene

Concen: 0.093 ppbv m

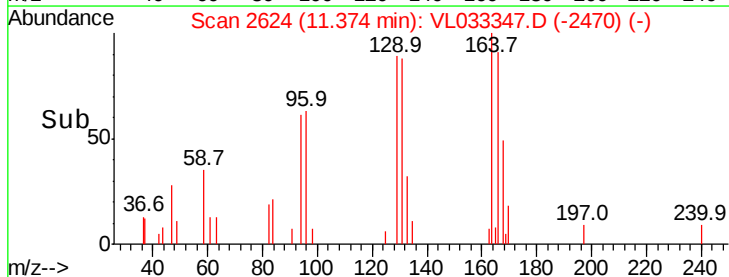
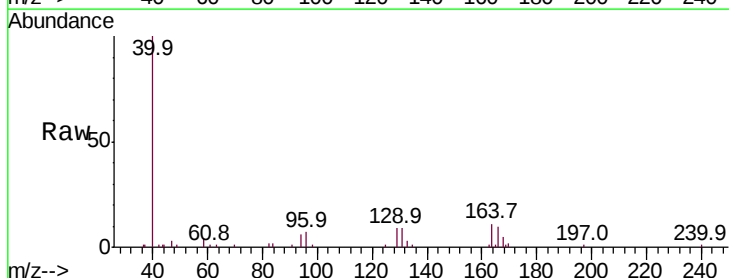
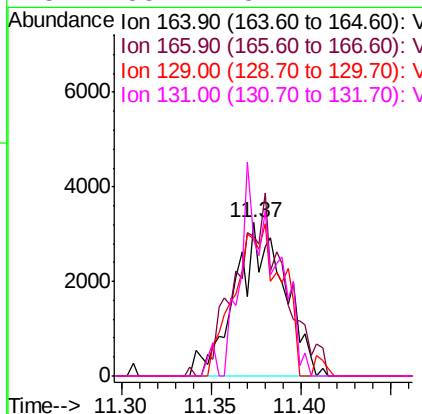
RT: 11.37 min Scan# 2624

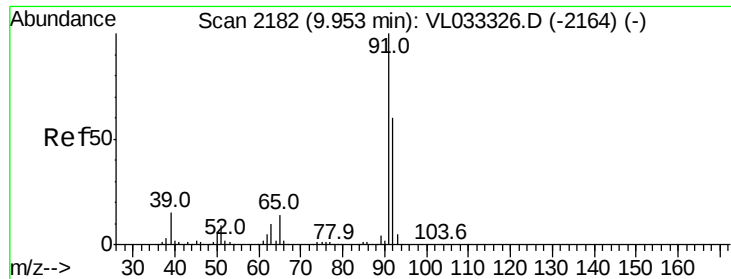
Delta R.T. -0.00 min

Lab File: VL033347.D

Acq: 16 Mar 2019 1:44

Tgt Ion:	164	Resp:	6217
Ion Ratio	Lower	Upper	
164	100		
166	90.5	101.5	152.3#
129	89.0	82.2	123.2
131	88.4	81.1	121.7





#53

Toluene

Concen: 18.470 ppbv

RT: 9.95 min Scan# 2181

Delta R.T. -0.00 min

Lab File: VL033347.D

Acq: 16 Mar 2019 1:44

Instrument :

MSVOA_L

ClientSampled :

A-2

Tot Ion: 91 Resp: 3369824

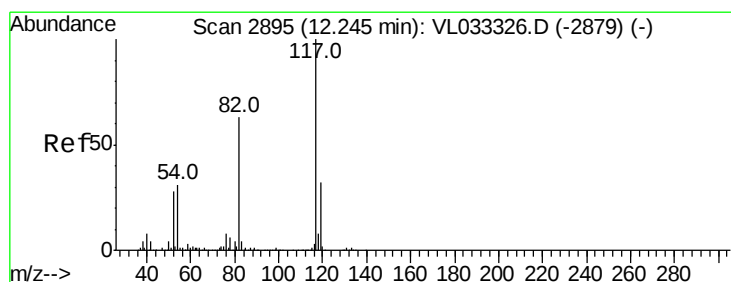
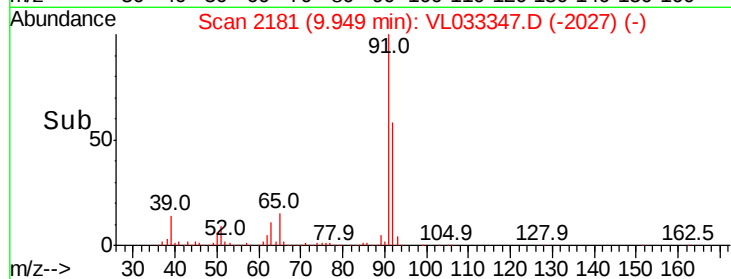
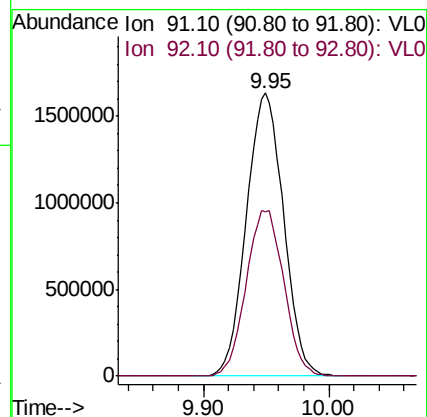
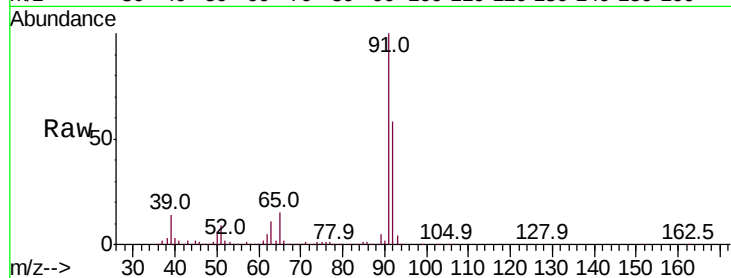
Ion Ratio Lower Upper

91 100

92 59.4 47.4 71.0

Manual Integrations
APPROVED

MMDadoda
3/19/2019 10:01:37 AM



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.25 min Scan# 2895

Delta R.T. -0.00 min

Lab File: VL033347.D

Acq: 16 Mar 2019 1:44

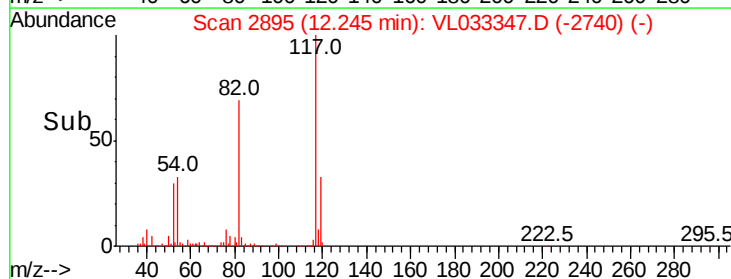
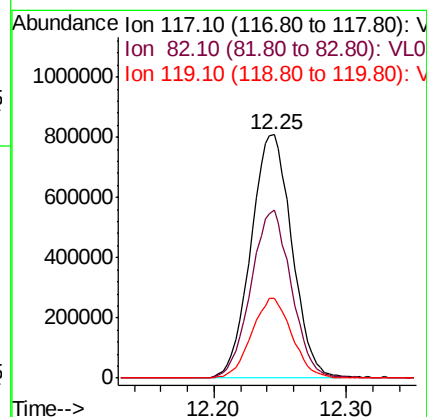
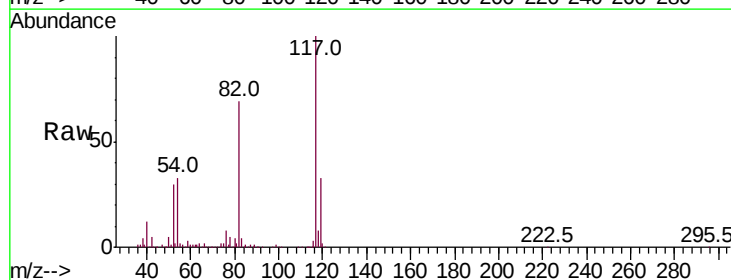
Tgt Ion: 117 Resp: 1738192

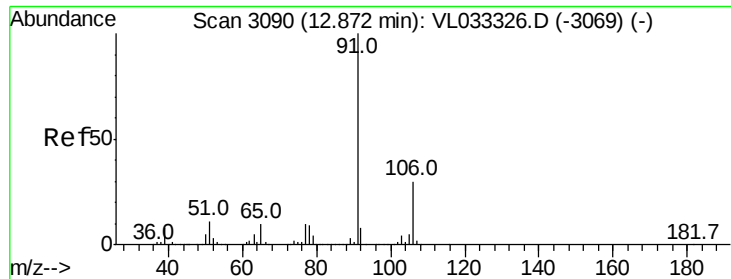
Ion Ratio Lower Upper

117 100

82 68.1 53.4 80.2

119 32.2 27.3 40.9





#58

Ethyl Benzene

Concen: 0.400 ppbv

RT: 12.87 min Scan# 3089

Delta R.T. -0.00 min

Lab File: VL033347.D

Acq: 16 Mar 2019 1:44

Instrument :

MSVOA_L

ClientSampled :

A-2

Tot Ion: 91 Resp: 98298

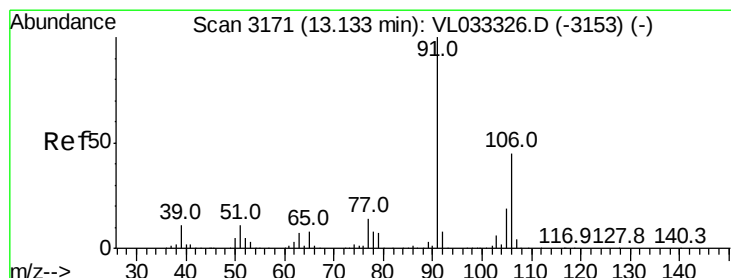
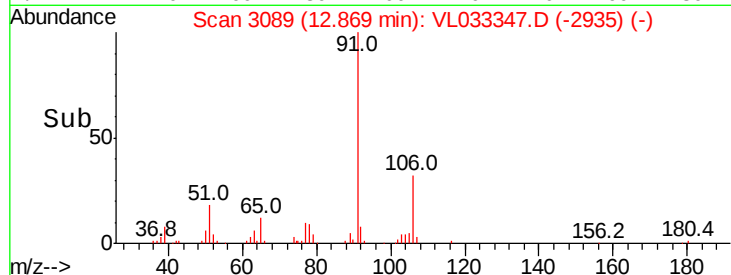
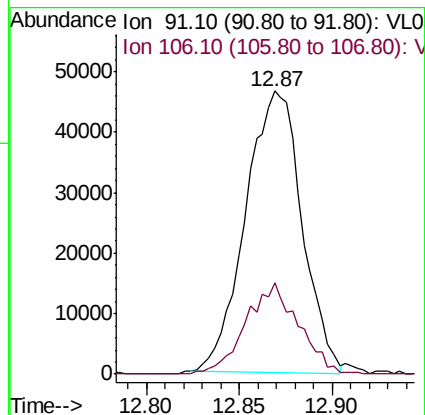
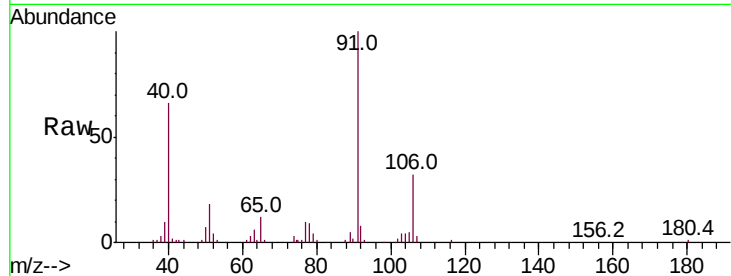
Ion Ratio Lower Upper

91 100

106 32.5 24.2 36.2

Manual Integrations
APPROVED

MMDadoda
3/19/2019 10:01:37 AM



#59

m/p-Xylene

Concen: 0.565 ppbv m

RT: 13.12 min Scan# 3168

Delta R.T. -0.01 min

Lab File: VL033347.D

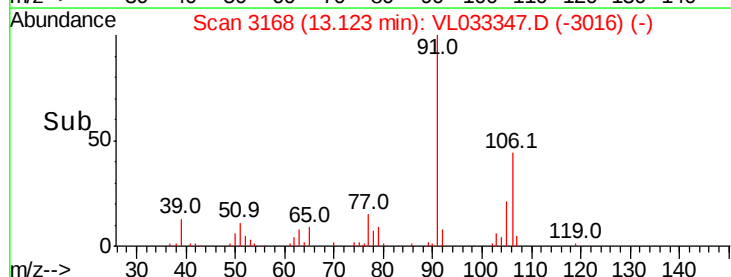
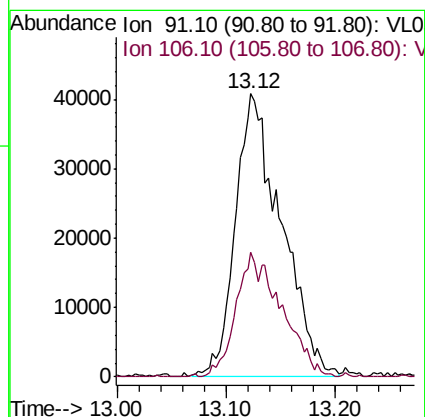
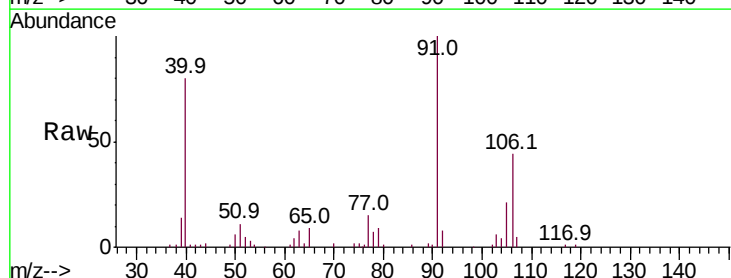
Acq: 16 Mar 2019 1:44

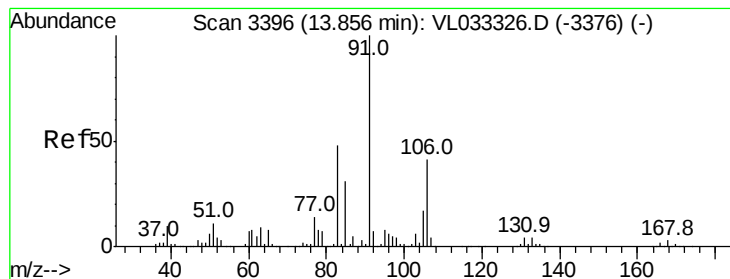
Tgt Ion: 91 Resp: 119384

Ion Ratio Lower Upper

91 100

106 43.5 0.0 0.0#





#60

o-Xylene

Concen: 0.188 ppbv m

RT: 13.86 min Scan# 3396

Delta R.T. -0.00 min

Lab File: VL033347.D

Acq: 16 Mar 2019 1:44

Instrument :

MSVOA_L

ClientSampled :

A-2

Tot Ion: 91 Resp: 38713

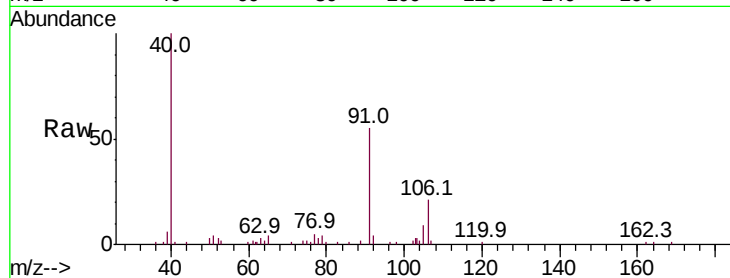
Ion Ratio Lower Upper

91 100

106 40.1 21.3 63.9

Manual Integrations
APPROVED

MMDadoda
3/19/2019 10:01:37 AM



Abundance Ion 91.10 (90.80 to 91.80): VL0

Ion 106.10 (105.80 to 106.80): V

20000

15000

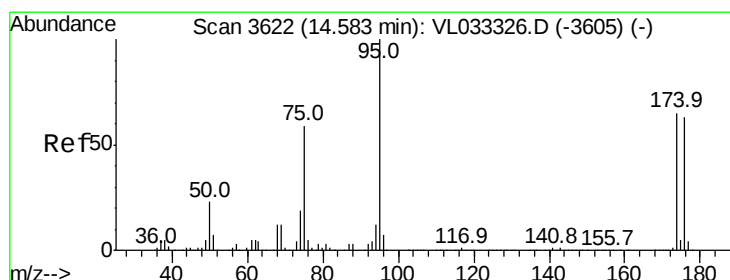
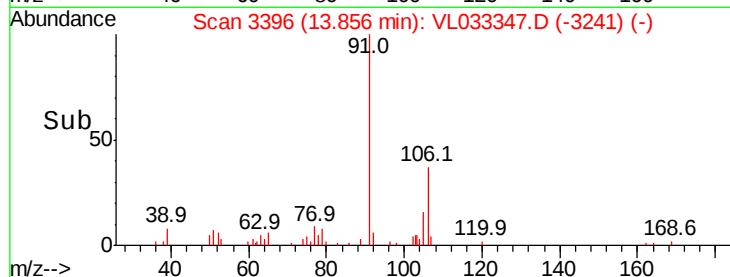
10000

5000

0

13.80 13.85 13.90

Time-->



#68

1-Bromo-4-Fluorobenzene

Concen: 10.110 ppbv

RT: 14.58 min Scan# 3621

Delta R.T. -0.00 min

Lab File: VL033347.D

Acq: 16 Mar 2019 1:44

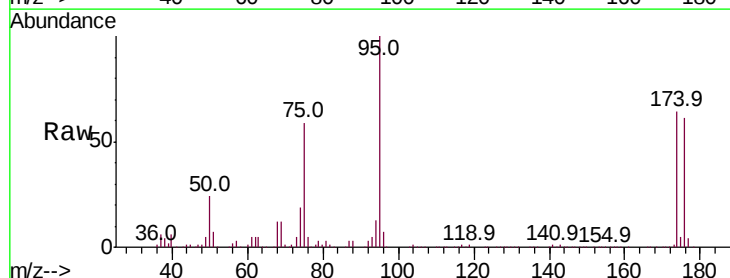
Tgt Ion: 95 Resp: 1302146

Ion Ratio Lower Upper

95 100

174 64.4 51.5 77.3

175 4.6 3.8 5.6



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V

800000

600000

400000

200000

0

14.50 14.60

Time-->

