

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL040821\
 Data File : VL036753.D
 Acq On : 8 Apr 2021 16:46
 Operator : SY/AP
 Sample : M1981-02DUP 10X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-4DUP

Manual Integrations
 APPROVED

MMDadoda
 4/12/2021 11:46:51 AM

Quant Time: Apr 09 12:05:57 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Mar 2
 QLast Update : Thu Mar 25 09:42:40 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1498156	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.17	114	3720911	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.08	117	3033440	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.41	95	2091021m	8.65	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	86.50%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
5) Vinyl Chloride	3.25	62	346370	3.407	ppbv	93
9) Propene	3.00	41	341048	3.822	ppbv	95
10) Heptane	8.12	43	214384	0.943	ppbv	89
13) Ethanol	3.60	45	31940m	3.006	ppbv	
15) Acetone	3.84	43	6316241	42.835	ppbv	99
19) Isopropyl Alcohol	3.97	45	409269	5.046	ppbv #	1
20) Methylene Chloride	4.34	84	63904	0.926	ppbv	96
22) trans-1,2-Dichloroethene	4.89	96	30803m	0.469	ppbv	
26) Hexane	5.68	57	239179	1.470	ppbv #	48
27) Carbon Disulfide	4.54	76	207234	1.293	ppbv	95
30) Cyclohexane	7.12	84	179553	1.361	ppbv #	72
31) cis-1,2-Dichloroethene	5.55	61	662242	4.209	ppbv	98
34) 2-Butanone	5.24	43	1320770	7.272	ppbv	99
36) Benzene	6.89	78	436491	1.272	ppbv	97
38) Trichloroethene	7.83	130	725034	5.429	ppbv	93
44) 2,2,4-Trimethylpentane	7.87	57	3140603	5.200	ppbv #	74
52) Tetrachloroethene	11.22	164	7484m	0.059	ppbv	
53) Toluene	9.81	91	274374	0.751	ppbv	98
58) Ethyl Benzene	12.71	91	332019	0.752	ppbv	91
59) m/p-Xylene	12.97	91	690437	1.794	ppbv	90
60) o-Xylene	13.69	91	703880	1.891	ppbv	99
62) Isopropylbenzene	14.67	105	160807	0.321	ppbv	99
67) sec-Butylbenzene	17.30	105	129670	0.211	ppbv	98
69) p-Isopropyltoluene	17.66	119	235884m	0.492	ppbv	
72) 4-Ethyltoluene	15.84	105	247300	0.606	ppbv #	92
73) 1,3,5-Trimethylbenzene	16.00	105	430645	1.131	ppbv	99
74) 1,2,4-Trimethylbenzene	16.76	105	700738	1.720	ppbv #	67
76) 1,4-Dichlorobenzene	17.13	146	30450m	0.134	ppbv	
79) Naphthalene	22.20	128	107506m	0.452	ppbv	

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

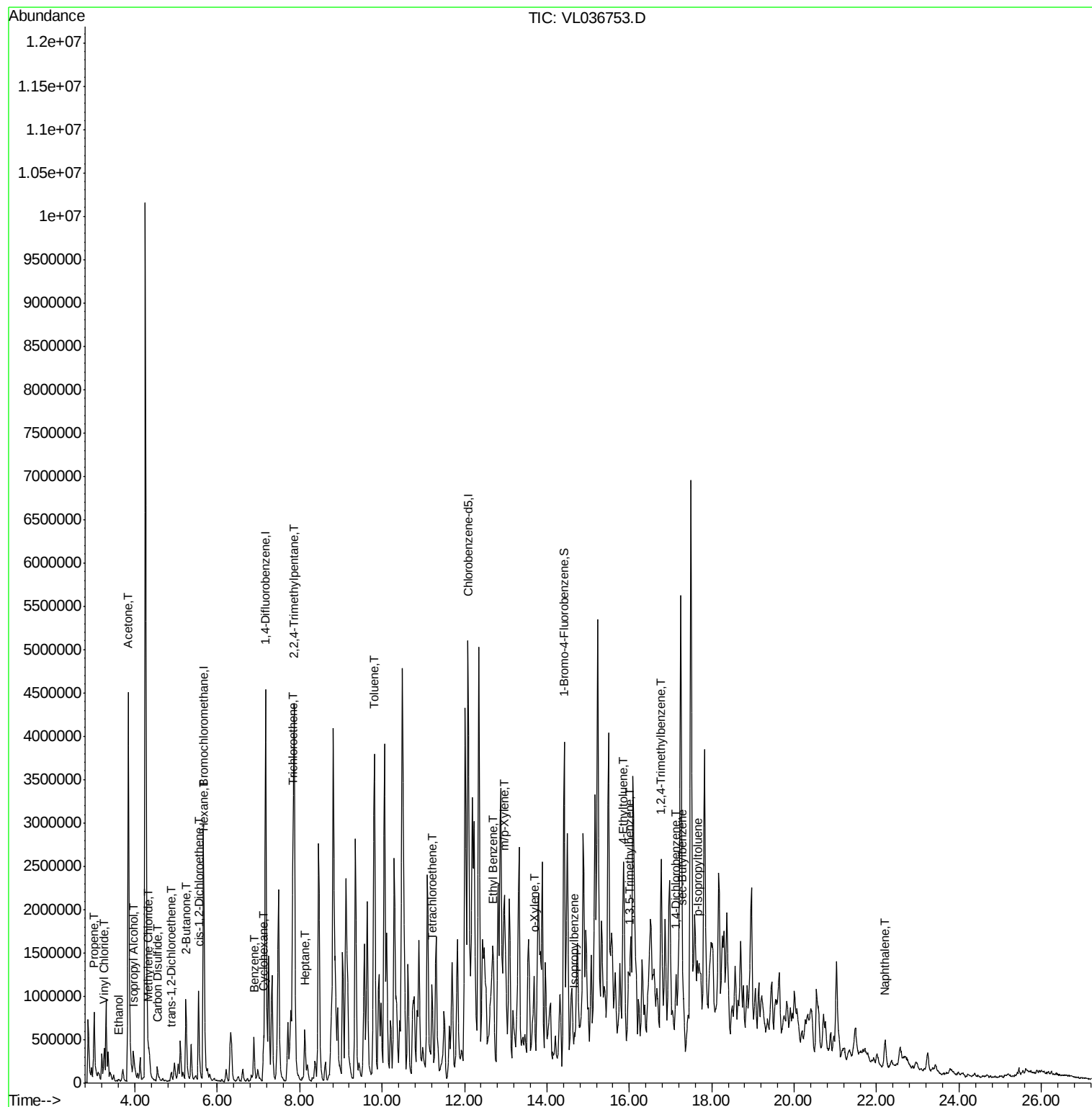
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL040821\
Data File : VL036753.D
Acq On : 8 Apr 2021 16:46
Operator : SY/AP
Sample : M1981-02DUP 10X
Misc : 400mL/MSVOA L
ALS Vial : 1 Sample Multiplier: 1

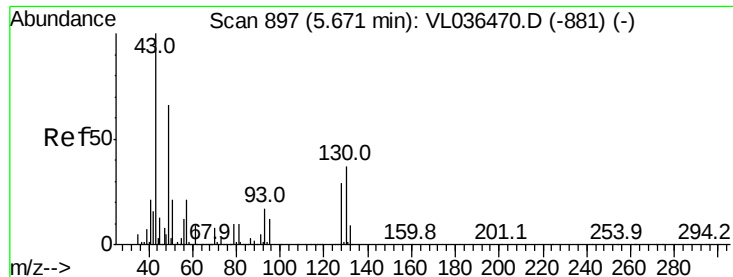
Instrument :
MSVOA_L
ClientSampleId :
SG-4DUP

Manual Integrations
APPROVED

MMDadoda
4/12/2021 11:46:51 AM

Quant Time: Apr 09 12:05:57 2021
Quant Method : Z:\V0ASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Mar
QLast Update : Thu Mar 25 09:42:40 2021
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 894

Delta R.T. -0.01 min

Lab File: VL036753.D

Acq: 8 Apr 2021 16:46

Instrument :

MSVOA_L

ClientSampleId :

SG-4DUP

Tot Ion: 49 Resp: 1498156

Ion Ratio Lower Upper

49 100

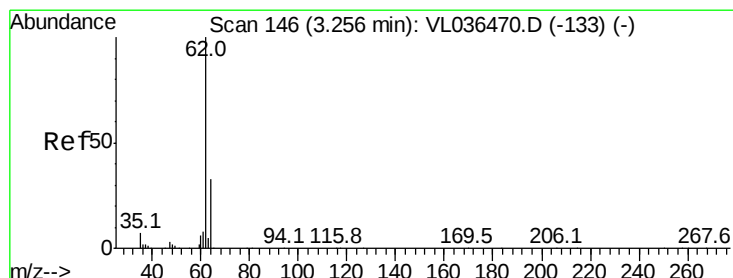
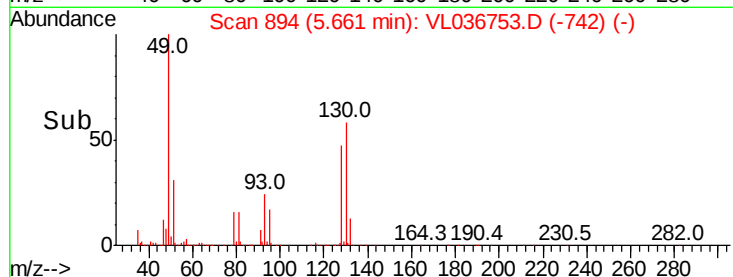
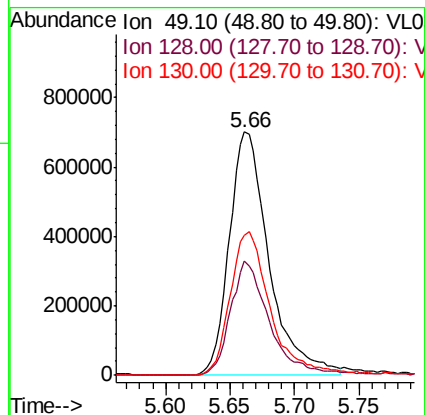
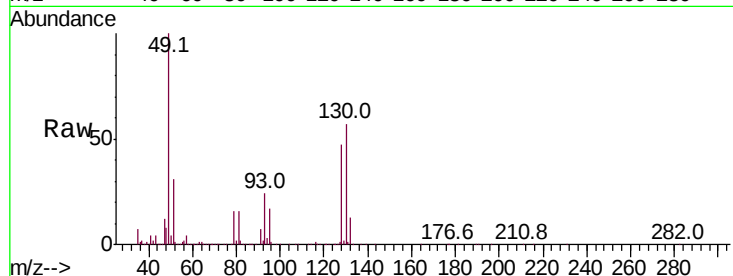
128 46.9 23.5 70.6

130 61.7 29.1 87.4

Manual Integrations
APPROVED

MMDadoda

4/12/2021 11:46:51 AM



#5

Vinyl Chloride

Concen: 3.407 ppbv

RT: 3.25 min Scan# 144

Delta R.T. -0.01 min

Lab File: VL036753.D

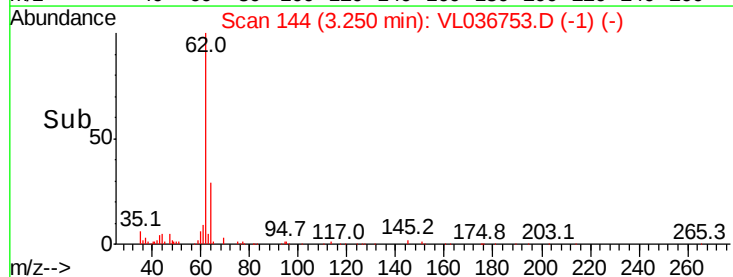
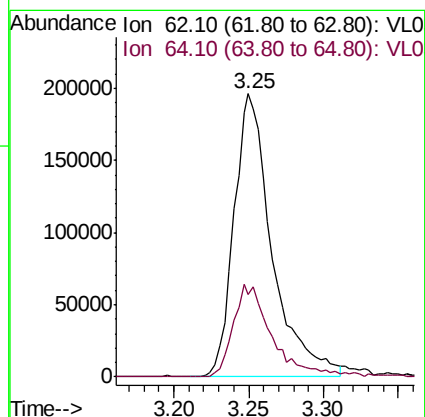
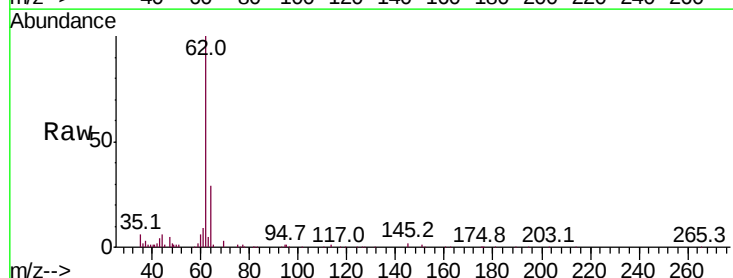
Acq: 8 Apr 2021 16:46

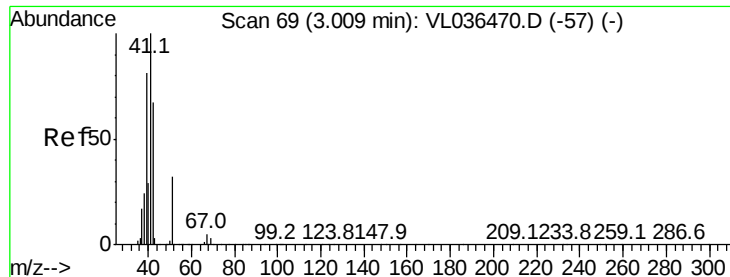
Tgt Ion: 62 Resp: 346370

Ion Ratio Lower Upper

62 100

64 28.8 26.4 39.6





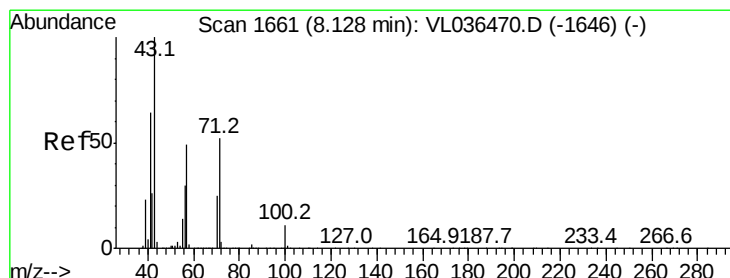
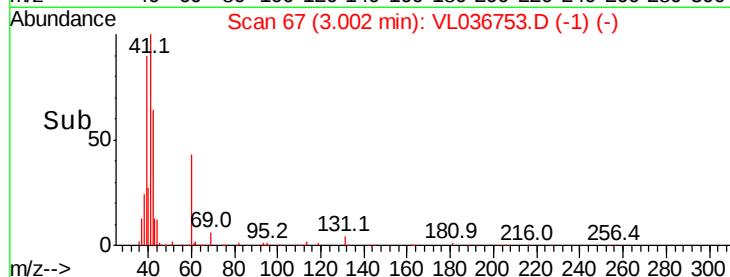
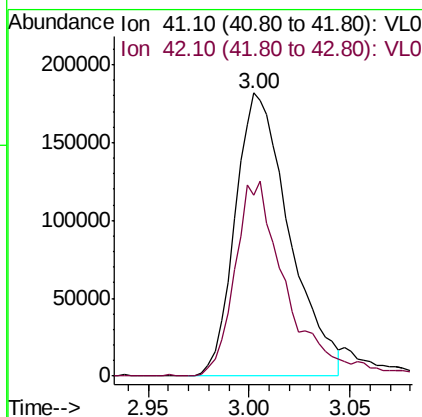
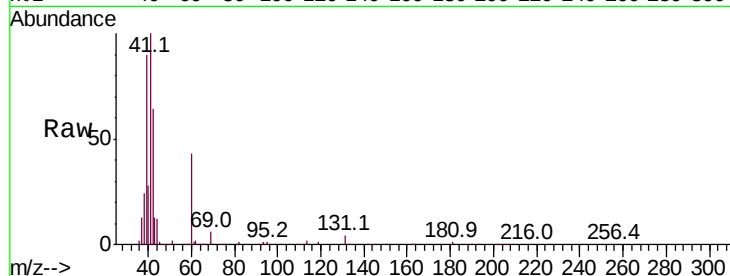
#9
Propene
Concen: 3.822 ppbv
RT: 3.00 min Scan# 67
Delta R.T. -0.01 min
Lab File: VL036753.D
Acq: 8 Apr 2021 16:46

Instrument :
MSVOA_L
ClientSampleId :
SG-4DUP

Tot Ion: 41 Resp: 341048
Ion Ratio Lower Upper
41 100
42 67.2 57.0 85.4

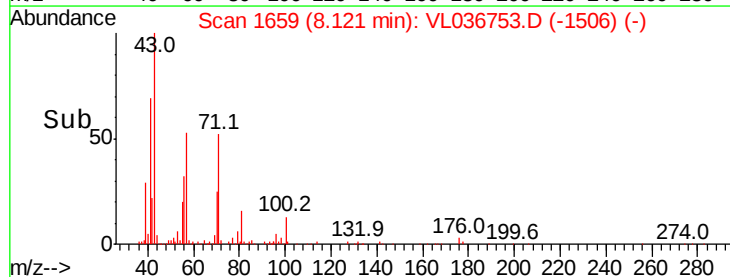
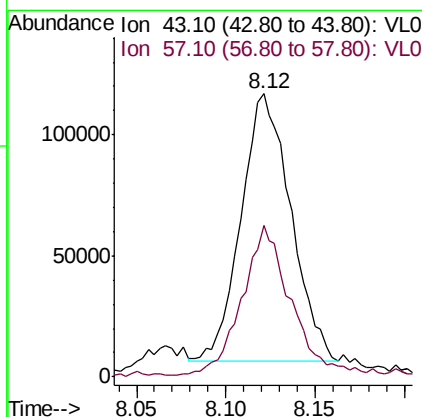
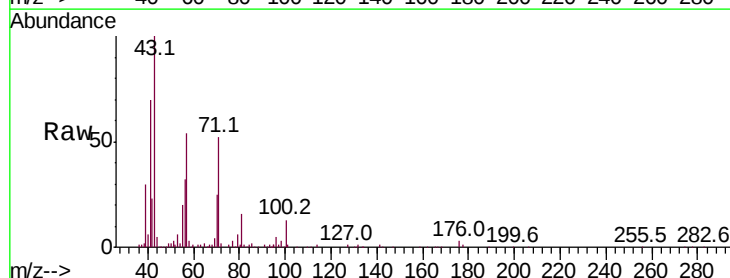
Manual Integrations
APPROVED

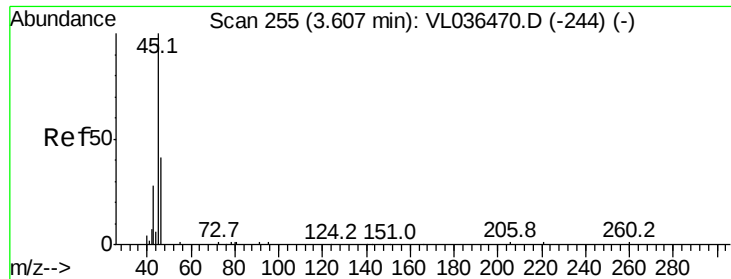
MMDadoda
4/12/2021 11:46:51 AM



#10
Heptane
Concen: 0.943 ppbv
RT: 8.12 min Scan# 1659
Delta R.T. -0.01 min
Lab File: VL036753.D
Acq: 8 Apr 2021 16:46

Tgt Ion: 43 Resp: 214384
Ion Ratio Lower Upper
43 100
57 56.3 39.0 58.6





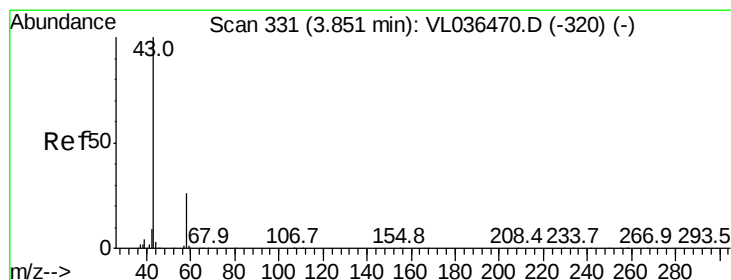
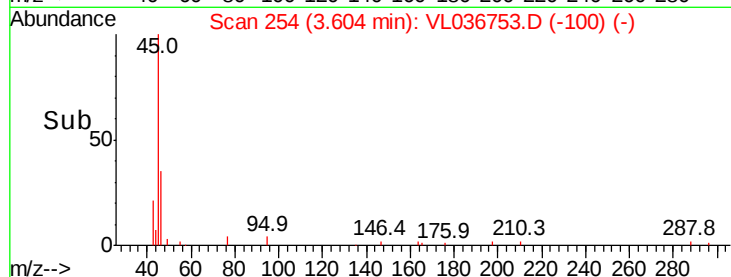
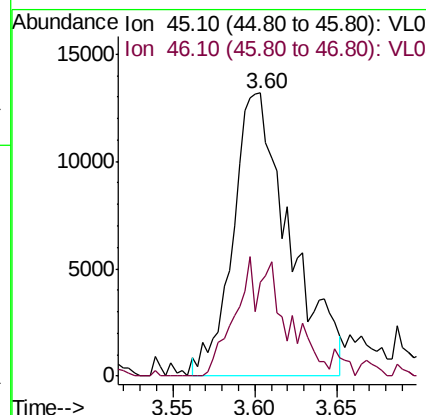
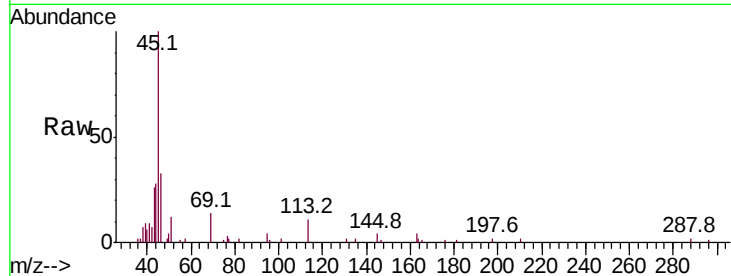
#13
Ethanol
Concen: 3.006 ppbv m
RT: 3.60 min Scan# 254
Delta R.T. -0.00 min
Lab File: VL036753.D
Acq: 8 Apr 2021 16:46

Instrument :
MSVOA_L
ClientSampleId :
SG-4DUP

Tot Ion: 45 Resp: 31940
Ion Ratio Lower Upper
45 100
46 40.3 16.6 66.2

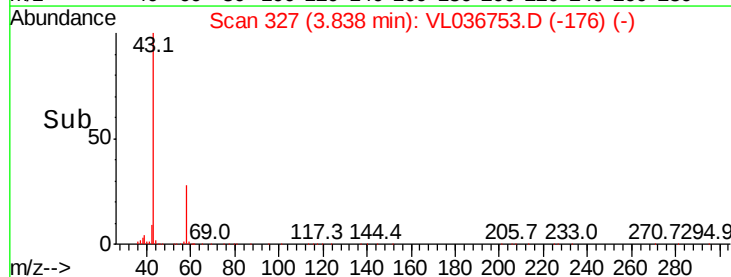
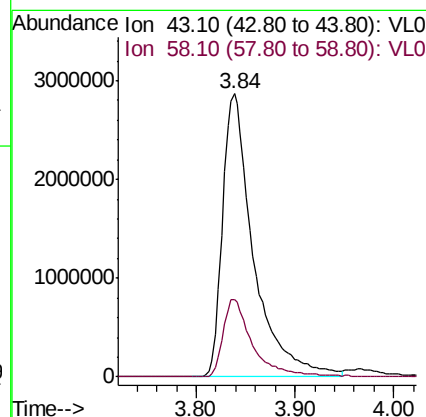
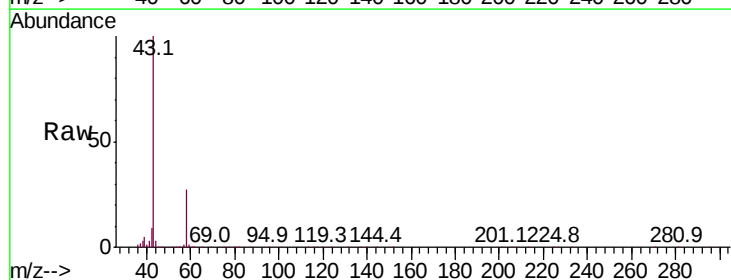
Manual Integrations
APPROVED

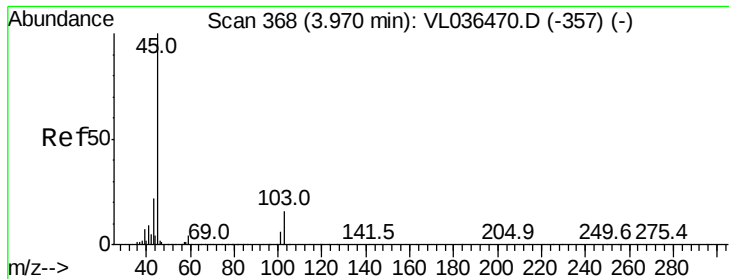
MMDadoda
4/12/2021 11:46:51 AM



#15
Acetone
Concen: 42.835 ppbv
RT: 3.84 min Scan# 327
Delta R.T. -0.01 min
Lab File: VL036753.D
Acq: 8 Apr 2021 16:46

Tgt Ion: 43 Resp: 6316241
Ion Ratio Lower Upper
43 100
58 27.0 21.2 31.8





#19

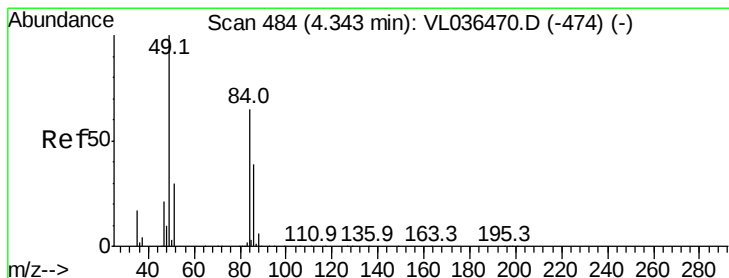
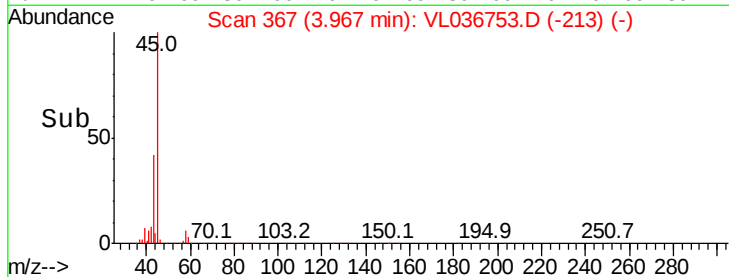
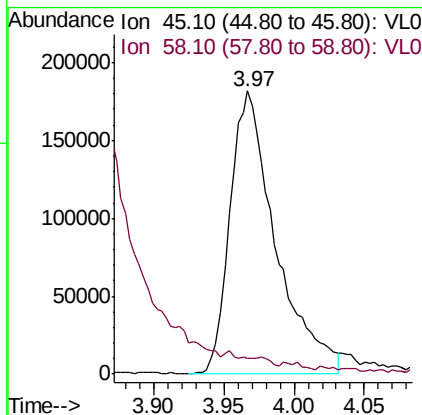
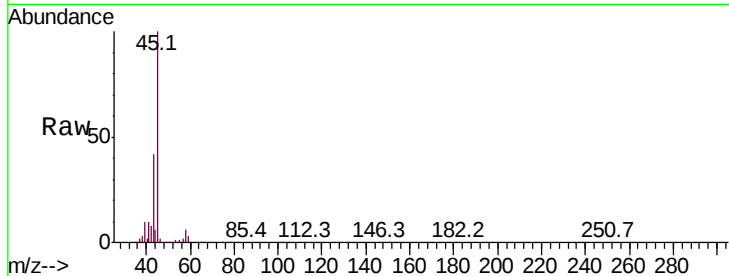
Isopropyl Alcohol
 Concen: 5.046 ppbv
 RT: 3.97 min Scan# 367
 Delta R.T. -0.00 min
 Lab File: VL036753.D
 Acq: 8 Apr 2021 16:46

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-4DUP

Tot Ion	Ratio	Lower	Upper
45	100		
58	413.1	2.9	4.3#

Manual Integrations
 APPROVED

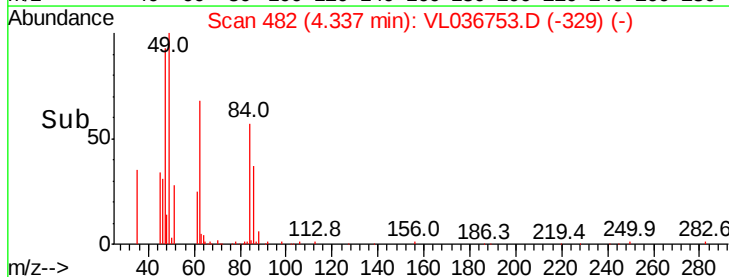
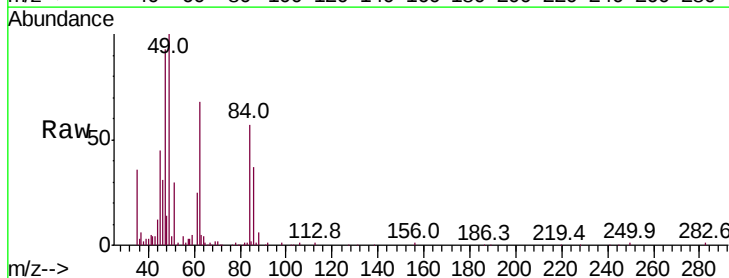
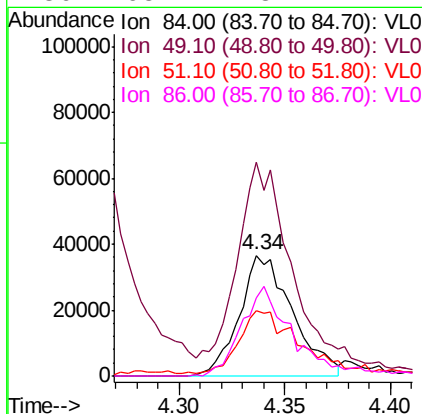
MMDadoda
 4/12/2021 11:46:51 AM

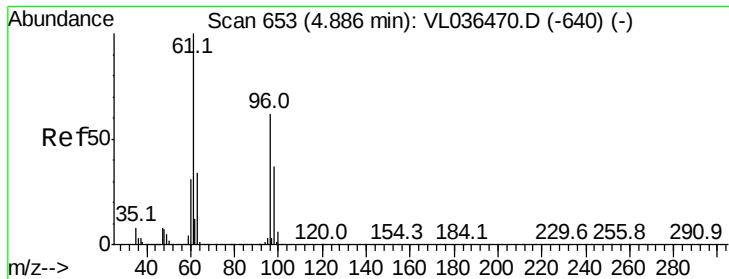


#20

Methylene Chloride
 Concen: 0.926 ppbv
 RT: 4.34 min Scan# 482
 Delta R.T. -0.01 min
 Lab File: VL036753.D
 Acq: 8 Apr 2021 16:46

Tgt Ion	Ratio	Lower	Upper
84	100		
49	157.2	122.9	184.3
51	51.1	36.9	55.3
86	65.1	48.2	72.4





#22

trans-1,2-Dichloroethene

Concen: 0.469 ppbv m

RT: 4.89 min Scan# 653

Delta R.T. -0.00 min

Lab File: VL036753.D

Acq: 8 Apr 2021 16:46

Instrument :

MSVOA_L

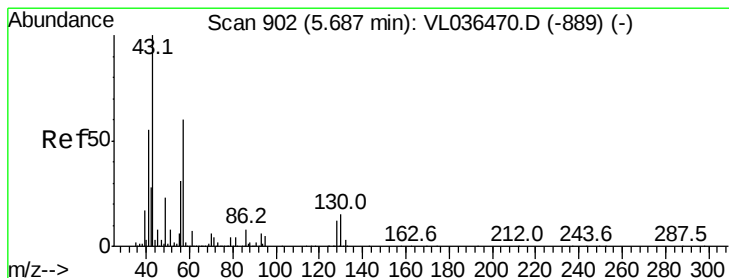
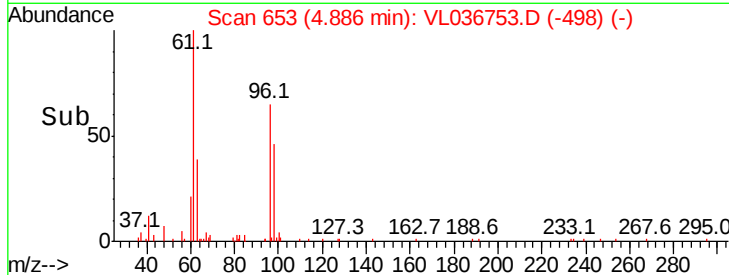
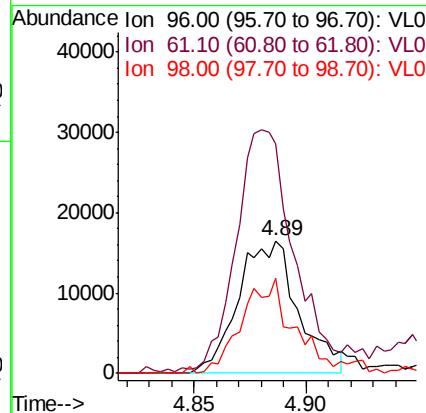
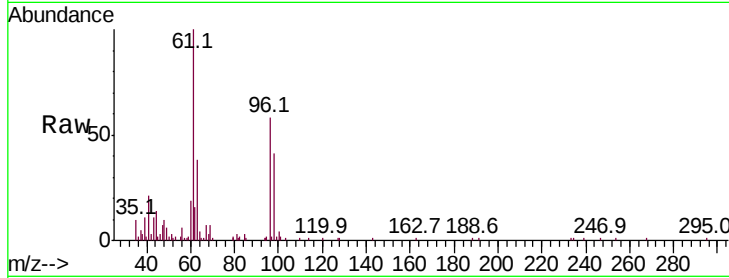
ClientSampleId :

SG-4DUP

Tot Ion:	96	Resp:	30803
Ion	Ratio	Lower	Upper
96	100		
61	172.7	129.4	194.0
98	71.7	48.2	72.4

Manual Integrations
APPROVED

MMDadoda
4/12/2021 11:46:51 AM



#26

Hexane

Concen: 1.470 ppbv

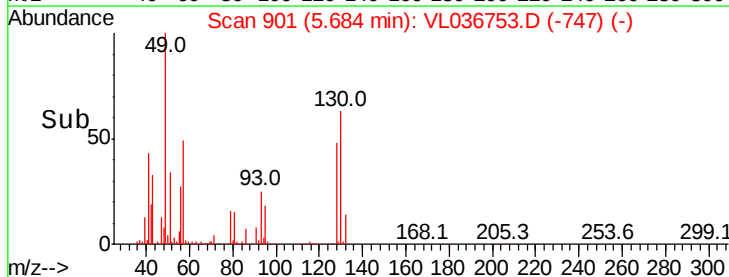
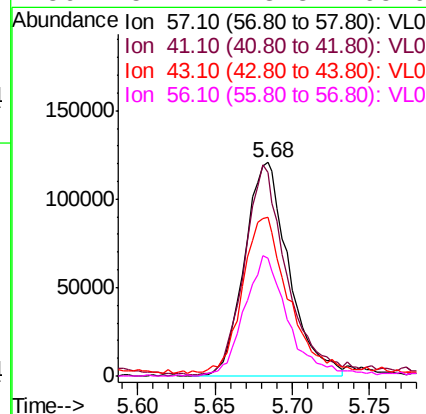
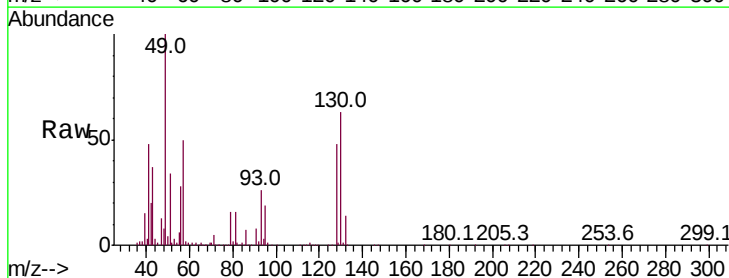
RT: 5.68 min Scan# 901

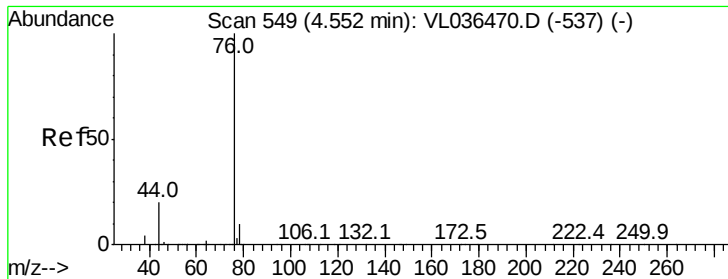
Delta R.T. -0.00 min

Lab File: VL036753.D

Acq: 8 Apr 2021 16:46

Tgt Ion:	57	Resp:	239179
Ion	Ratio	Lower	Upper
57	100		
41	97.9	77.2	115.8
43	79.0	173.8	260.6#
56	57.2	43.8	65.6





#27

Carbon Disulfide

Concen: 1.293 ppbv

RT: 4.54 min Scan# 546

Delta R.T. -0.01 min

Lab File: VL036753.D

Acq: 8 Apr 2021 16:46

Instrument :

MSVOA_L

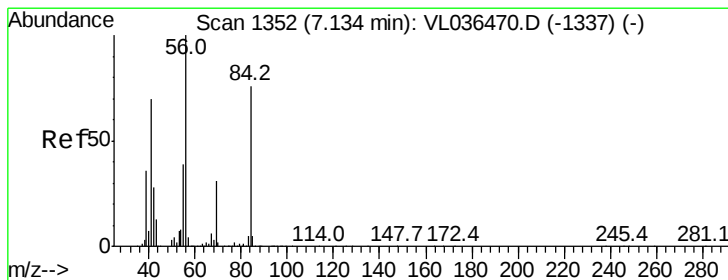
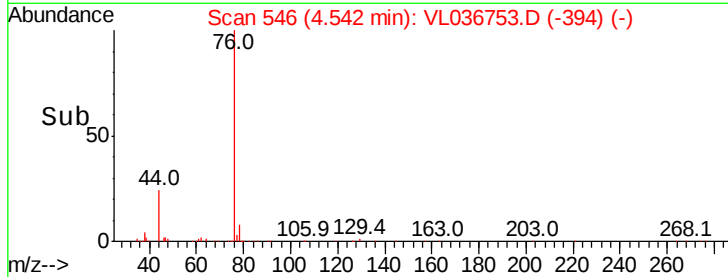
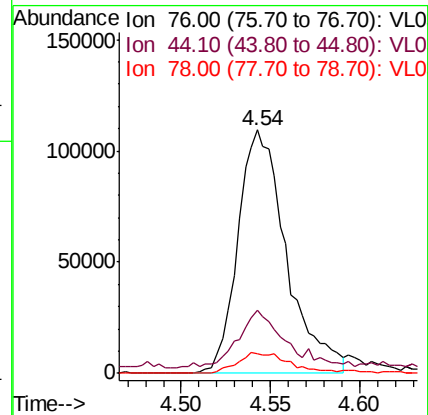
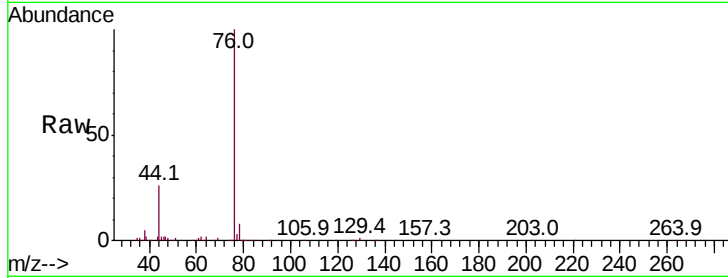
ClientSampleId :

SG-4DUP

Tot Ion:	76	Resp:	207234
Ion	Ratio	Lower	Upper
76	100		
44	25.0	17.5	26.3
78	10.0	8.6	13.0

Manual Integrations
APPROVED

MMDadoda
4/12/2021 11:46:51 AM



#30

Cyclohexane

Concen: 1.361 ppbv

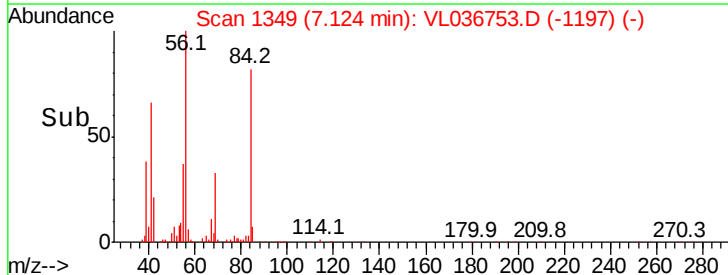
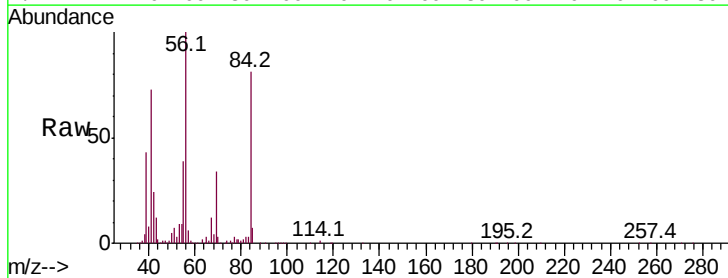
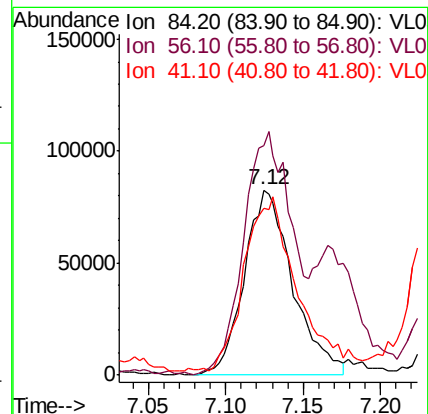
RT: 7.12 min Scan# 1349

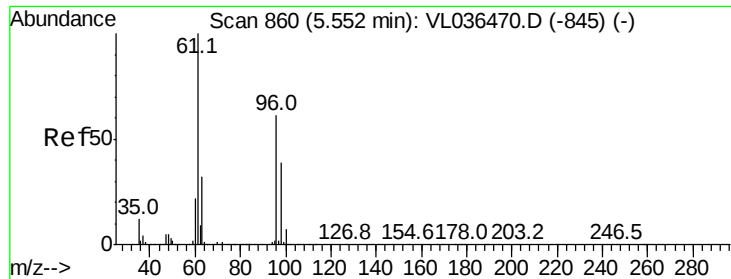
Delta R.T. -0.01 min

Lab File: VL036753.D

Acq: 8 Apr 2021 16:46

Tgt Ion:	84	Resp:	179553
Ion	Ratio	Lower	Upper
84	100		
56	191.6	114.6	171.8#
41	104.6	75.3	112.9





#31

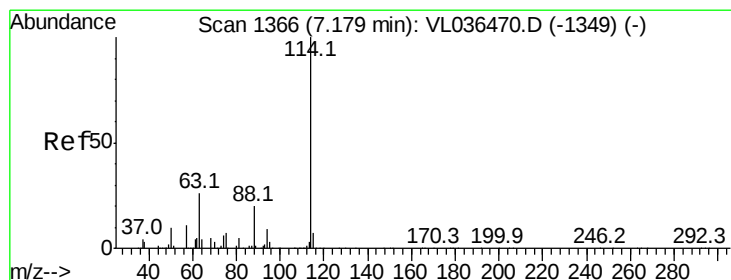
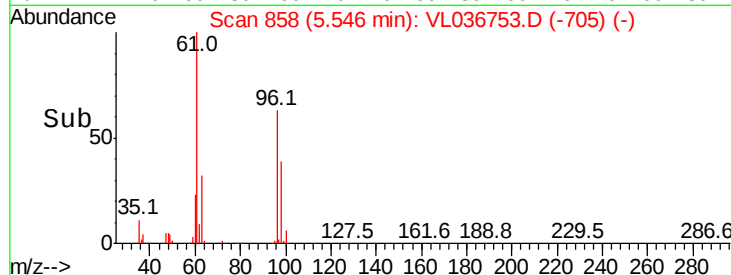
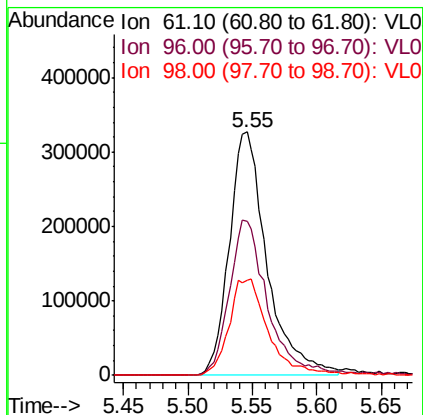
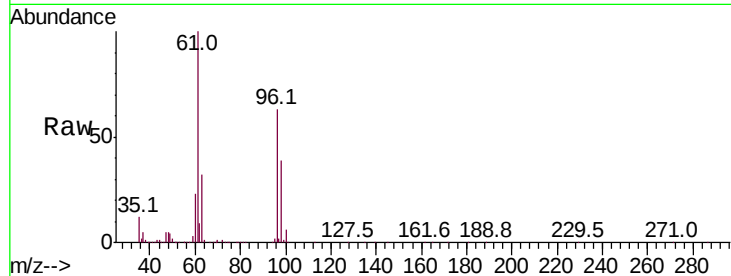
cis-1,2-Dichloroethene
 Concen: 4.209 ppbv
 RT: 5.55 min Scan# 858
 Delta R.T. -0.01 min
 Lab File: VL036753.D
 Acq: 8 Apr 2021 16:46

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-4DUP

Tot Ion	Ratio	Lower	Upper
61	100		
96	63.0	48.7	73.1
98	39.1	31.4	47.0

Manual Integrations
 APPROVED

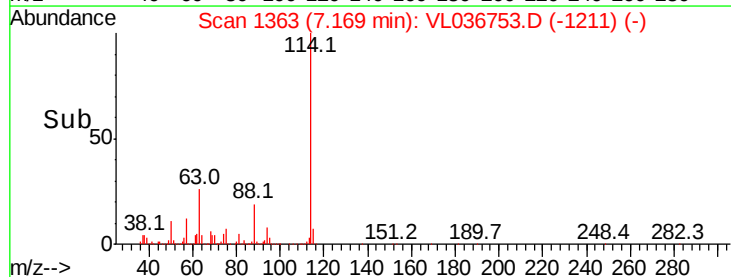
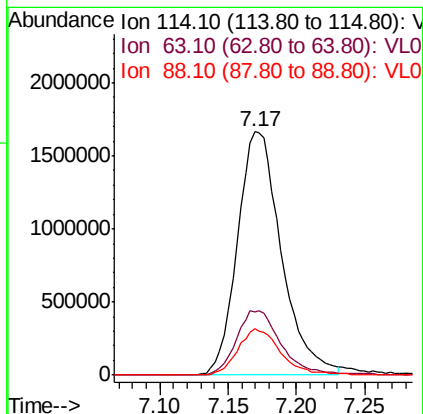
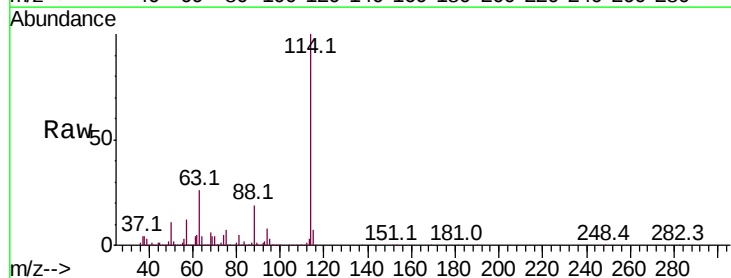
MMDadoda
 4/12/2021 11:46:51 AM

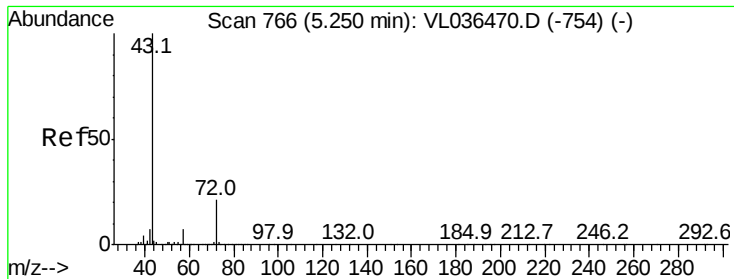


#33

1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.17 min Scan# 1363
 Delta R.T. -0.01 min
 Lab File: VL036753.D
 Acq: 8 Apr 2021 16:46

Tgt Ion	Ratio	Lower	Upper
114	100		
63	27.3	22.4	33.6
88	19.0	15.4	23.0





#34

2-Butanone

Concen: 7.272 ppbv

RT: 5.24 min Scan# 762

Delta R.T. -0.01 min

Lab File: VL036753.D

Acq: 8 Apr 2021 16:46

Instrument :

MSVOA_L

ClientSampleId :

SG-4DUP

Tot Ion: 43 Resp: 1320770

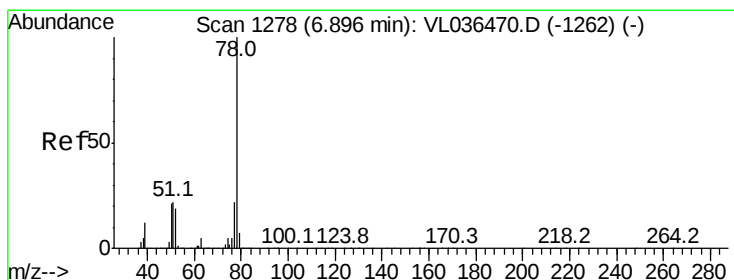
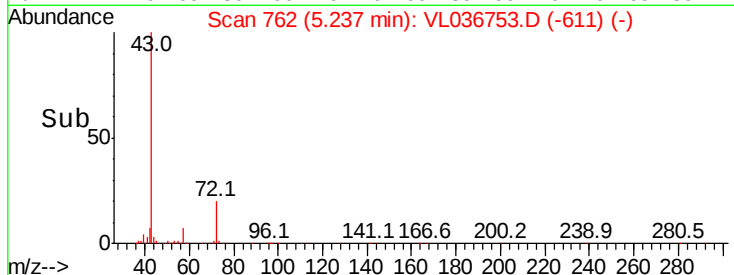
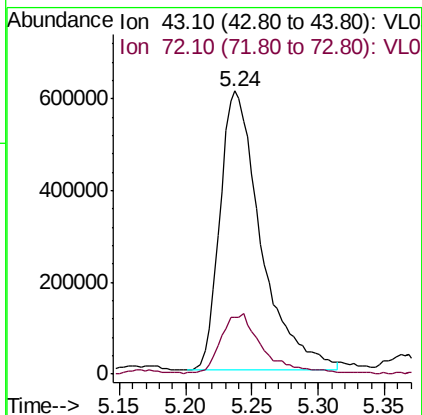
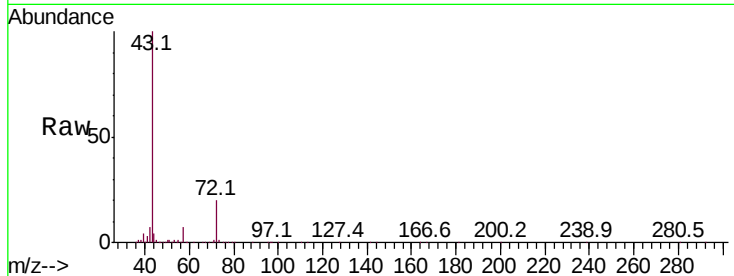
Ion Ratio Lower Upper

43 100

72 21.6 17.0 25.6

Manual Integrations
APPROVED

MMDadoda
4/12/2021 11:46:51 AM



#36

Benzene

Concen: 1.272 ppbv

RT: 6.89 min Scan# 1275

Delta R.T. -0.01 min

Lab File: VL036753.D

Acq: 8 Apr 2021 16:46

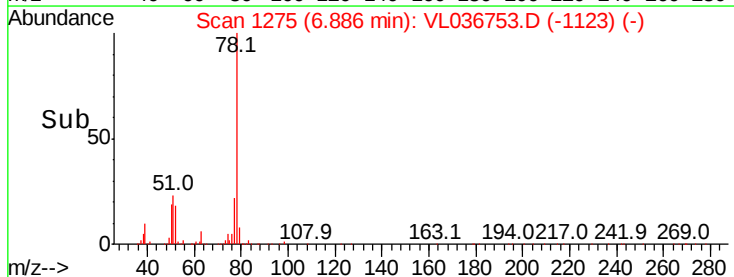
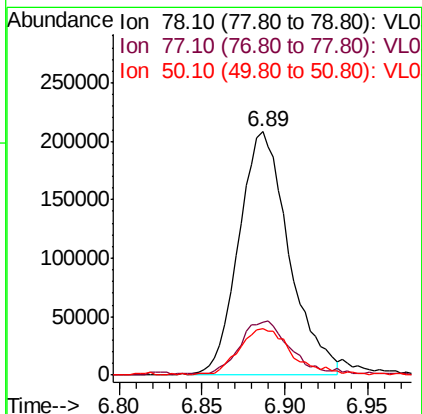
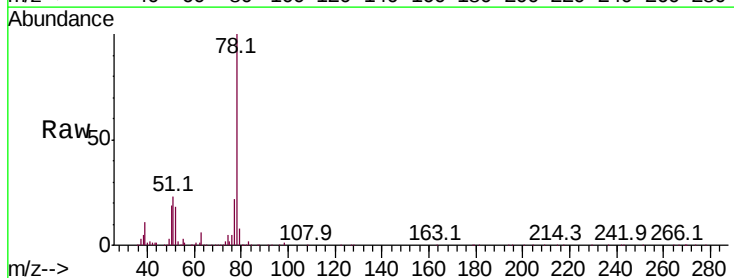
Tgt Ion: 78 Resp: 436491

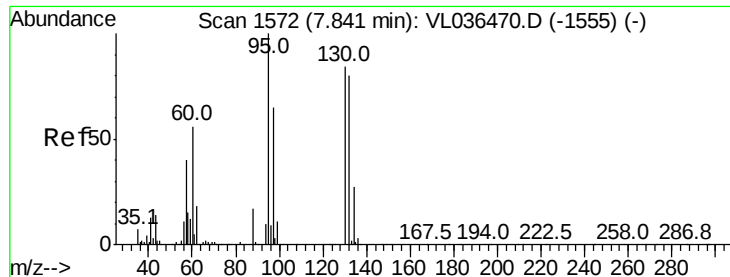
Ion Ratio Lower Upper

78 100

77 21.3 18.0 27.0

50 18.6 16.5 24.7





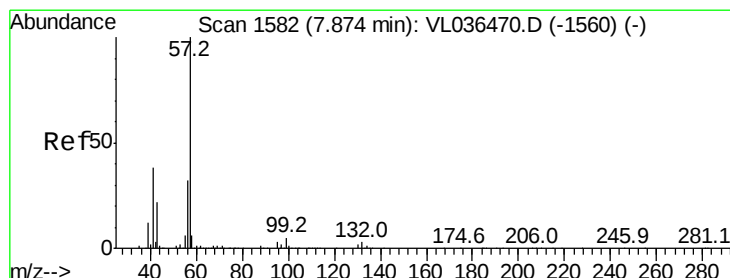
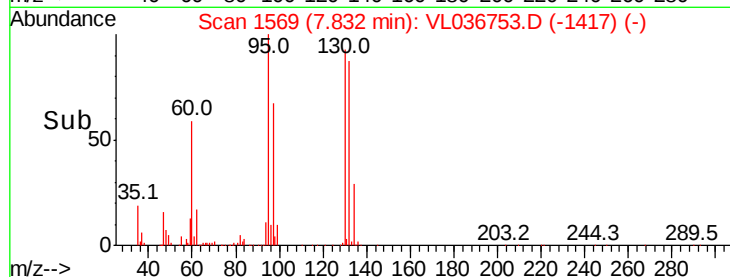
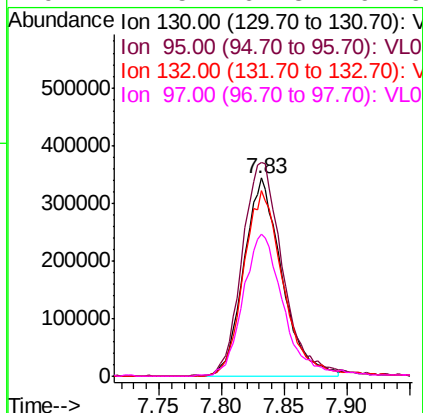
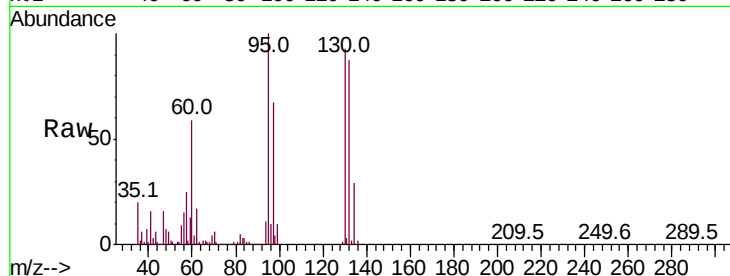
#38
 Trichloroethene
 Concen: 5.429 ppbv
 RT: 7.83 min Scan# 1569
 Delta R.T. -0.01 min
 Lab File: VL036753.D
 Acq: 8 Apr 2021 16:46

Instrument :
 MSVOA_L
 ClientSampleId :
 SG-4DUP

Tot Ion	Ion	Ratio	Resp	Lower	Upper
130	100		725034		
95	107.6	95.7	143.5		
132	93.7	76.2	114.4		
97	71.5	61.8	92.6		

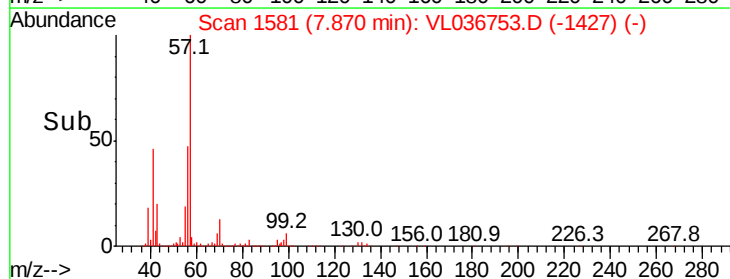
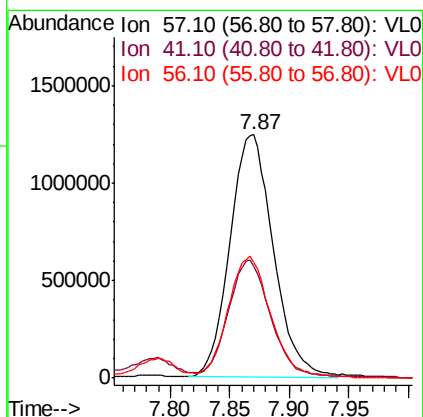
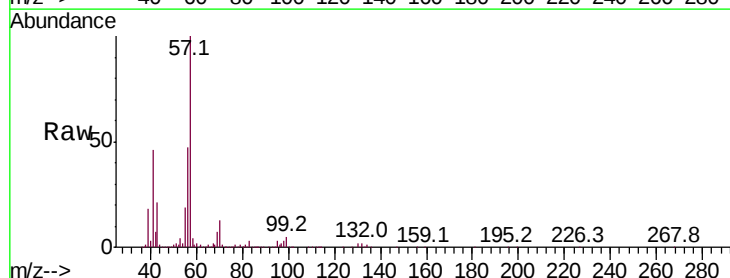
Manual Integrations
 APPROVED

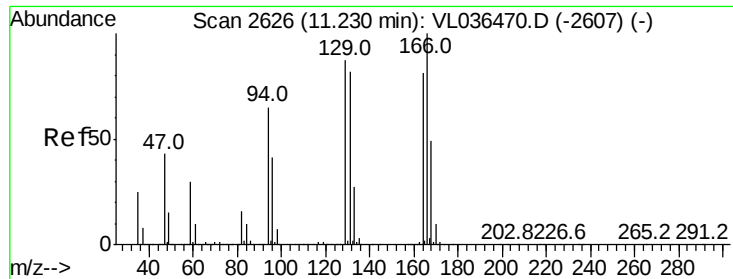
MMDadoda
 4/12/2021 11:46:51 AM



#44
 2,2,4-Trimethylpentane
 Concen: 5.200 ppbv
 RT: 7.87 min Scan# 1581
 Delta R.T. -0.00 min
 Lab File: VL036753.D
 Acq: 8 Apr 2021 16:46

Tgt Ion	Ion	Ratio	Resp	Lower	Upper
57	100		3140603		
41	47.9	28.8	43.2#		
56	50.2	26.1	39.1#		





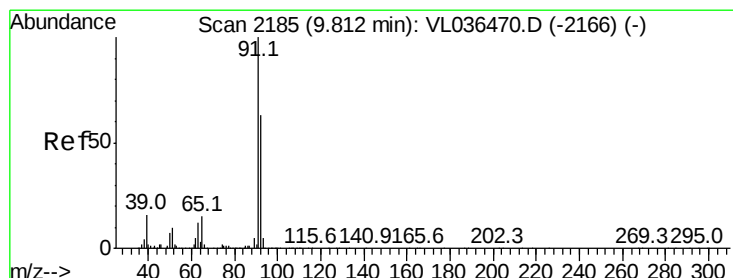
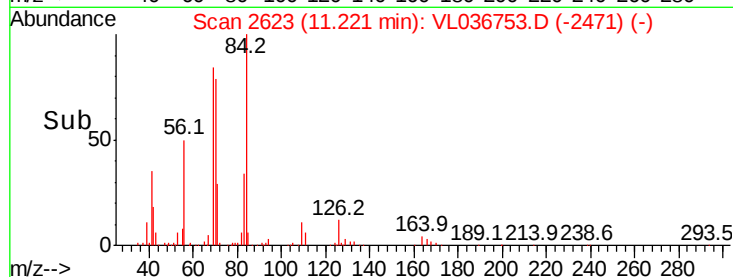
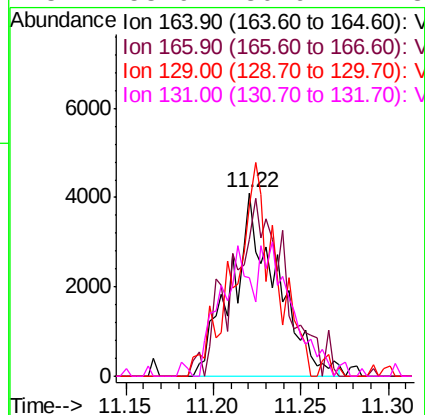
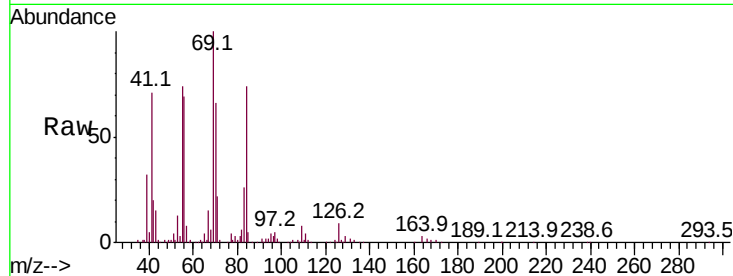
#52
Tetrachloroethene
Concen: 0.059 ppbv m
RT: 11.22 min Scan# 2623
Delta R.T. -0.01 min
Lab File: VL036753.D
Acq: 8 Apr 2021 16:46

Instrument :
MSVOA_L
ClientSampleId :
SG-4DUP

Tot Ion	Ratio	Lower	Upper
164	100		
166	74.3	98.3	147.5#
129	93.0	85.8	128.8
131	53.9	80.9	121.3#

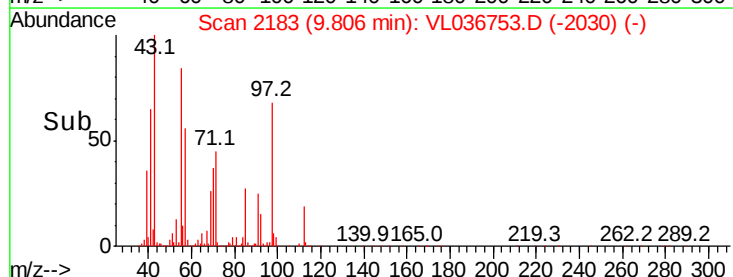
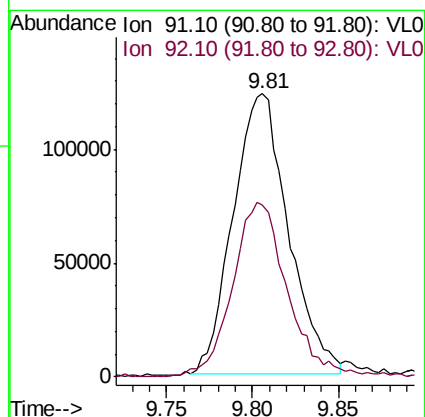
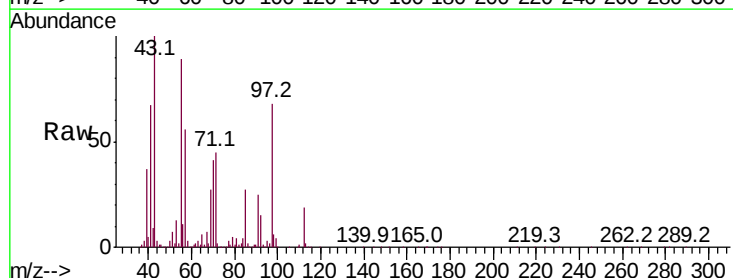
Manual Integrations
APPROVED

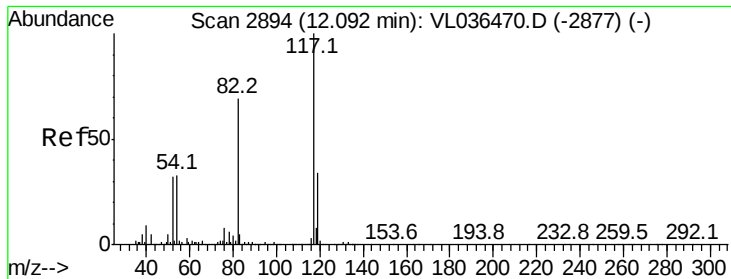
MMDadoda
4/12/2021 11:46:51 AM



#53
Toluene
Concen: 0.751 ppbv
RT: 9.81 min Scan# 2183
Delta R.T. -0.01 min
Lab File: VL036753.D
Acq: 8 Apr 2021 16:46

Tgt Ion	Ratio	Lower	Upper
91	100		
92	62.4	48.8	73.2





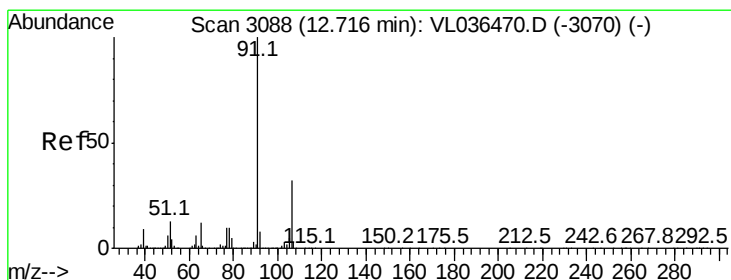
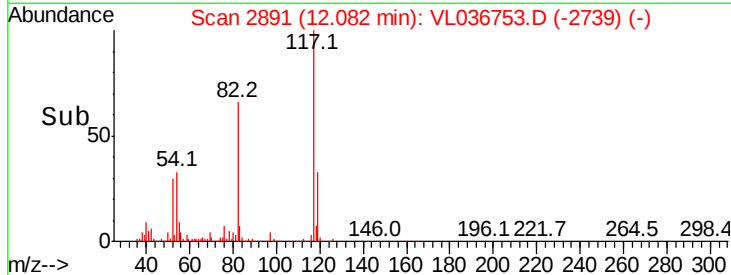
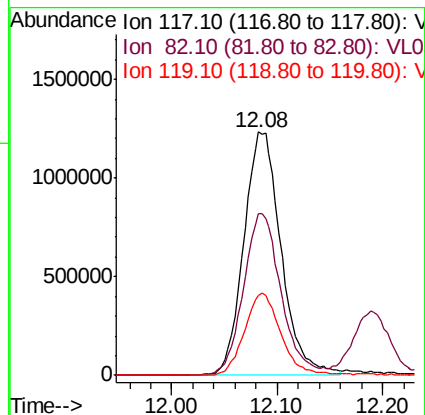
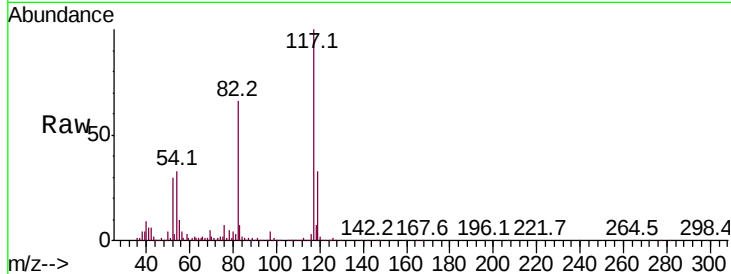
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.08 min Scan# 2891
Delta R.T. -0.01 min
Lab File: VL036753.D
Acq: 8 Apr 2021 16:46

Instrument :
MSVOA_L
ClientSampleId :
SG-4DUP

Tot Ion:117 Resp: 3033440
Ion Ratio Lower Upper
117 100
82 66.4 57.4 86.0
119 33.4 47.4 71.0#

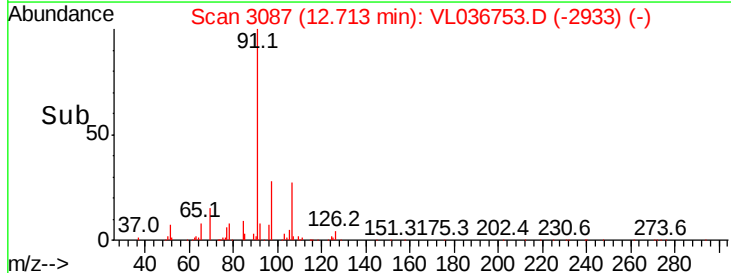
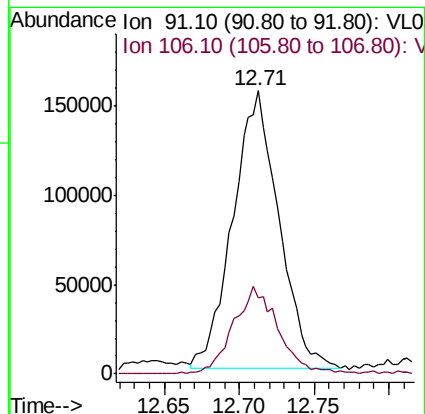
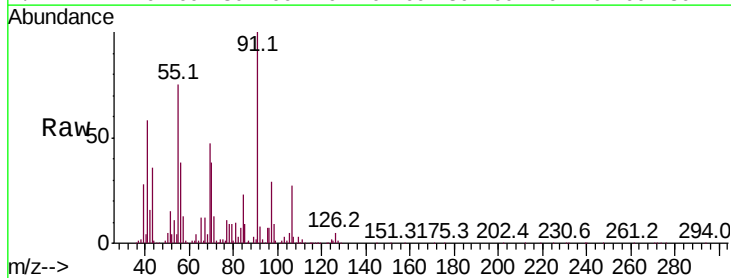
Manual Integrations
APPROVED

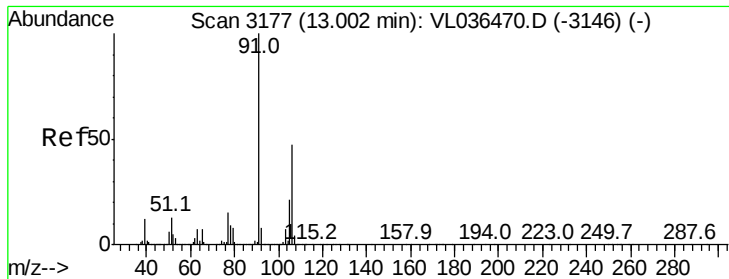
MMDadoda
4/12/2021 11:46:51 AM



#58
Ethyl Benzene
Concen: 0.752 ppbv
RT: 12.71 min Scan# 3087
Delta R.T. -0.00 min
Lab File: VL036753.D
Acq: 8 Apr 2021 16:46

Tgt Ion: 91 Resp: 332019
Ion Ratio Lower Upper
91 100
106 26.8 25.3 37.9





#59

m/p-Xylene

Concen: 1.794 ppbv

RT: 12.97 min Scan# 3166

Delta R.T. -0.04 min

Lab File: VL036753.D

Acq: 8 Apr 2021 16:46

Instrument :

MSVOA_L

ClientSampleId :

SG-4DUP

Tot Ion: 91 Resp: 690437

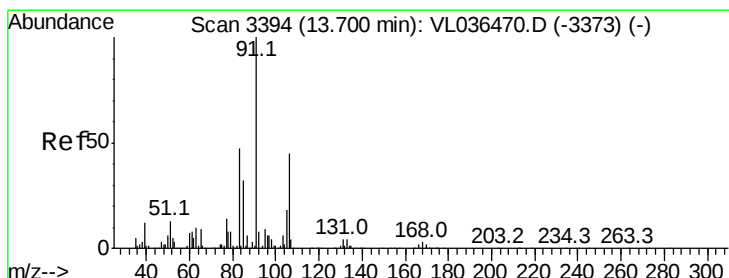
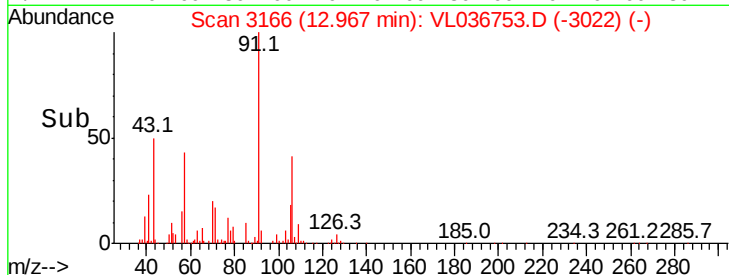
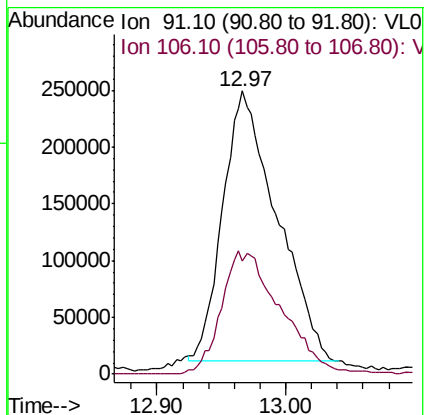
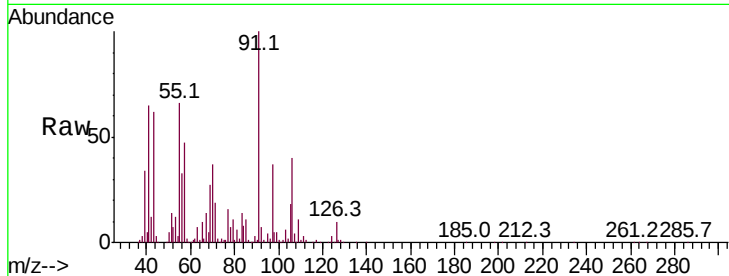
Ion Ratio Lower Upper

91 100

106 50.5 35.3 52.9

Manual Integrations
APPROVED

MMDadoda
4/12/2021 11:46:51 AM



#60

o-Xylene

Concen: 1.891 ppbv

RT: 13.69 min Scan# 3391

Delta R.T. -0.01 min

Lab File: VL036753.D

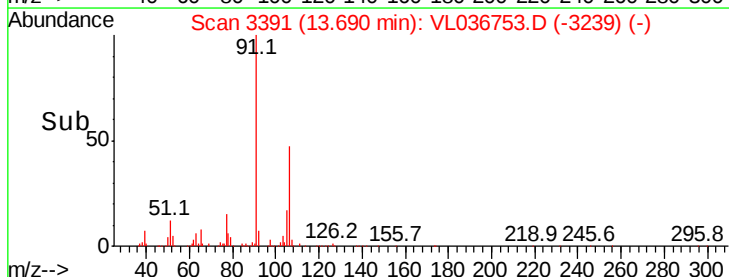
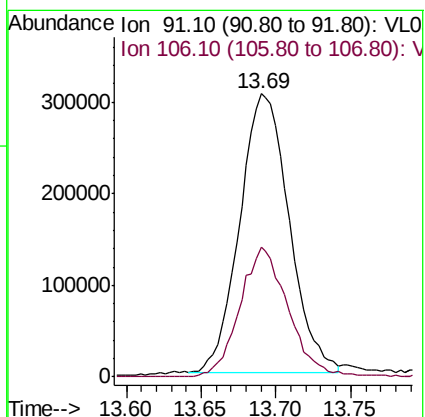
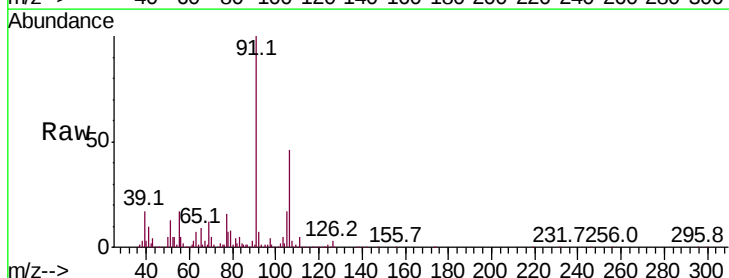
Acq: 8 Apr 2021 16:46

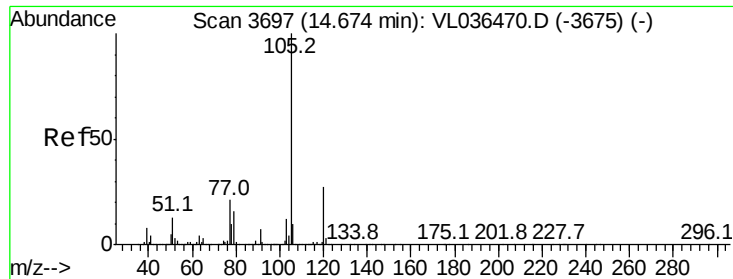
Tgt Ion: 91 Resp: 703880

Ion Ratio Lower Upper

91 100

106 45.3 22.3 66.9





#62

Isopropylbenzene

Concen: 0.321 ppbv

RT: 14.67 min Scan# 3696

Delta R.T. -0.00 min

Lab File: VL036753.D

Acq: 8 Apr 2021 16:46

Instrument :

MSVOA_L

ClientSampleId :

SG-4DUP

Tot Ion:105 Resp: 160807

Ion Ratio Lower Upper

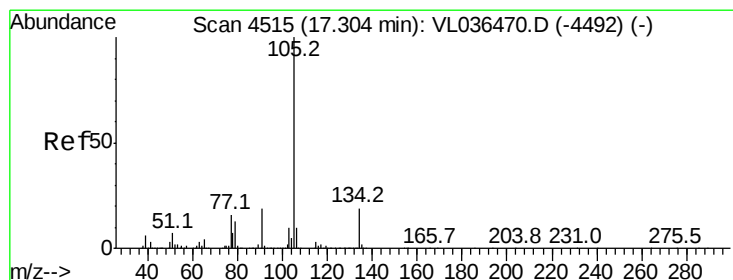
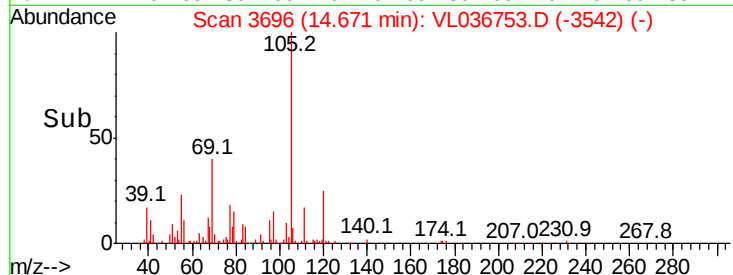
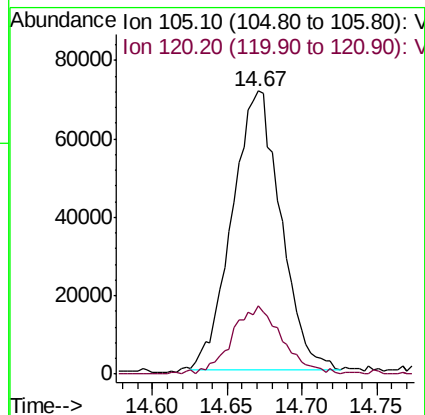
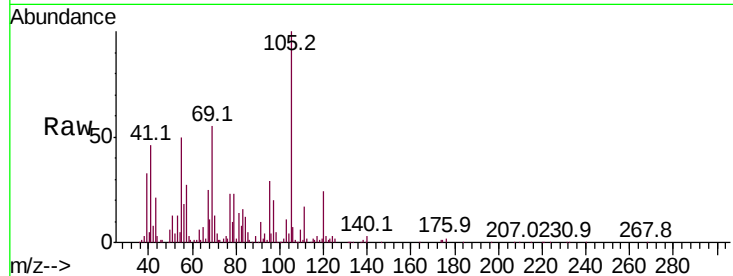
105 100

120 25.5 20.6 31.0

Manual Integrations
APPROVED

MMDadoda

4/12/2021 11:46:51 AM



#67

sec-Butylbenzene

Concen: 0.211 ppbv

RT: 17.30 min Scan# 4513

Delta R.T. -0.01 min

Lab File: VL036753.D

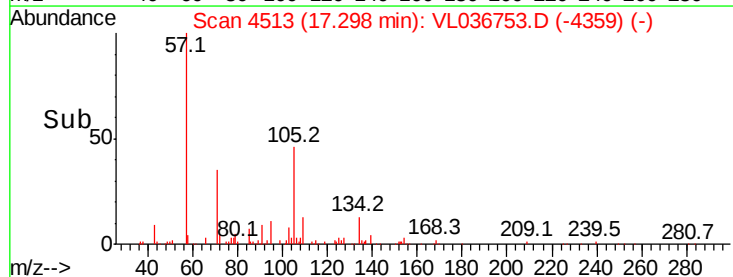
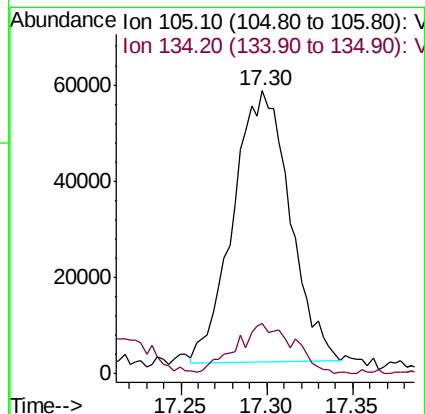
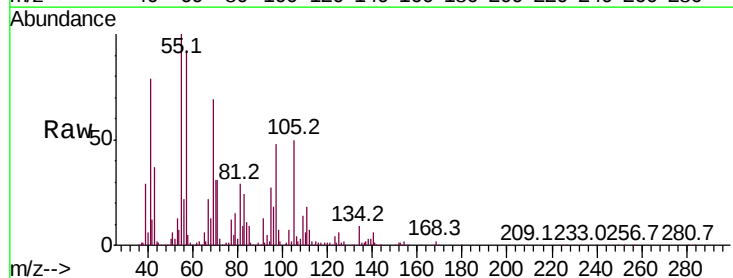
Acq: 8 Apr 2021 16:46

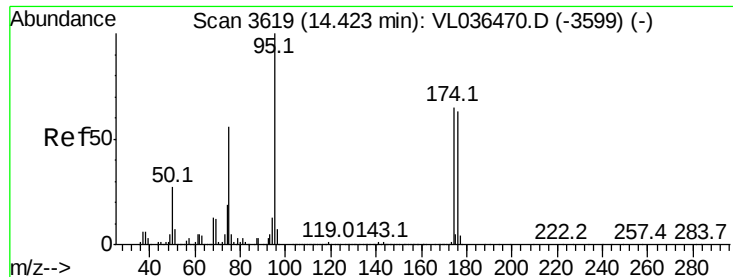
Tgt Ion:105 Resp: 129670

Ion Ratio Lower Upper

105 100

134 19.1 14.7 22.1





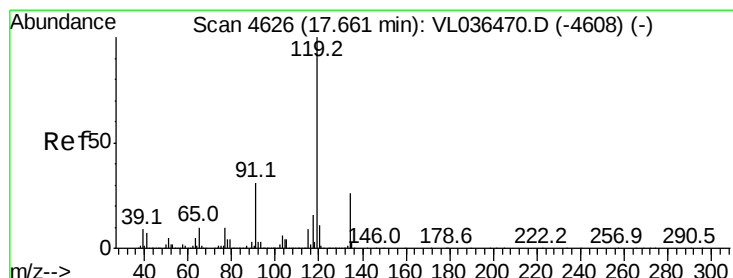
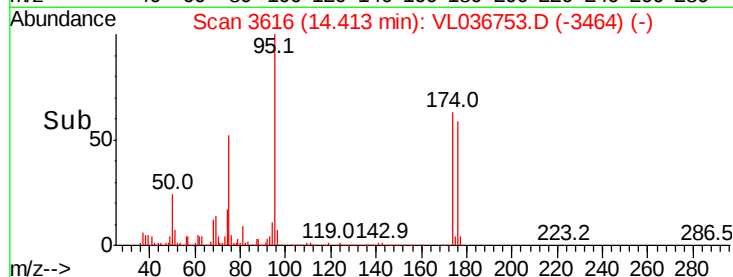
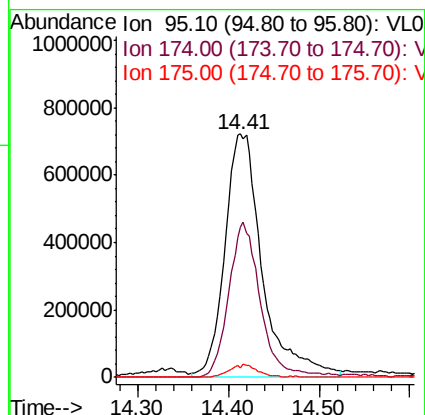
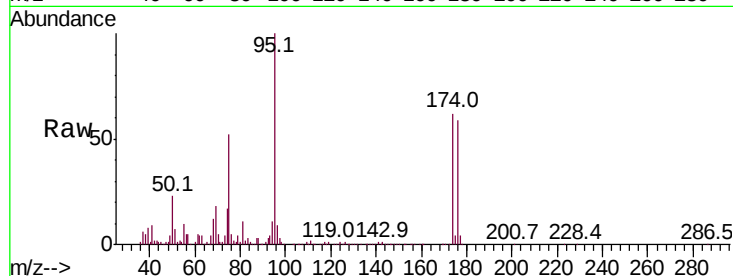
#68
1-Bromo-4-Fluorobenzene
Concen: 8.649 ppbv m
RT: 14.41 min Scan# 3616
Delta R.T. -0.01 min
Lab File: VL036753.D
Acq: 8 Apr 2021 16:46

Instrument :
MSVOA_L
ClientSampled :
SG-4DUP

Tot Ion: 95 Resp: 2091021
Ion Ratio Lower Upper
95 100
174 0.0 51.0 76.6#
175 0.0 3.9 5.9#

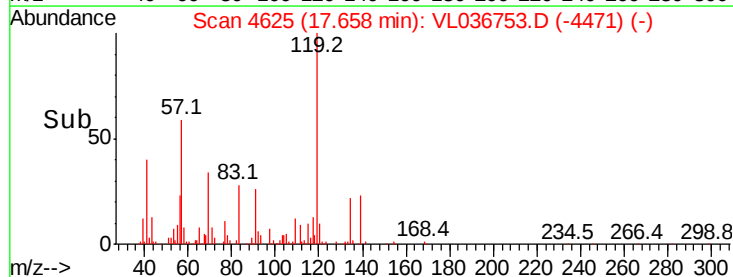
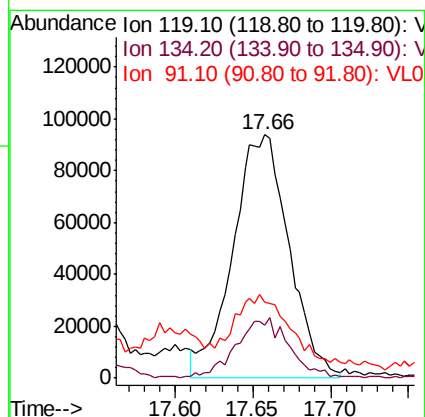
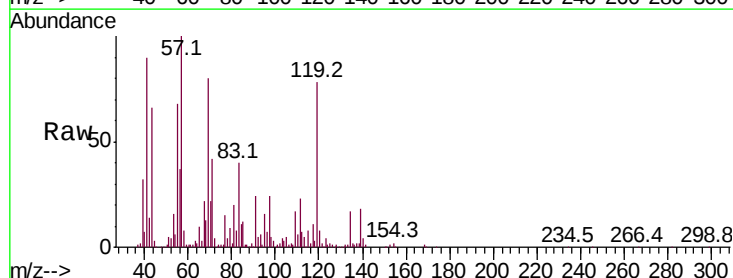
Manual Integrations
APPROVED

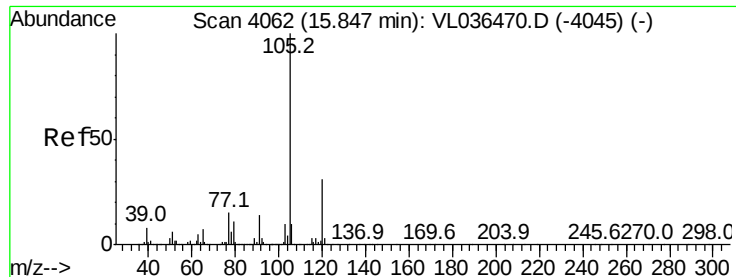
MMDadoda
4/12/2021 11:46:51 AM



#69
p-Isopropyltoluene
Concen: 0.492 ppbv m
RT: 17.66 min Scan# 4625
Delta R.T. -0.00 min
Lab File: VL036753.D
Acq: 8 Apr 2021 16:46

Tgt Ion: 119 Resp: 235884
Ion Ratio Lower Upper
119 100
134 0.0 20.6 30.8#
91 0.0 25.0 37.6#





#72

4-Ethyltoluene

Concen: 0.606 ppbv

RT: 15.84 min Scan# 4059

Delta R.T. -0.01 min

Lab File: VL036753.D

Acq: 8 Apr 2021 16:46

Instrument :

MSVOA_L

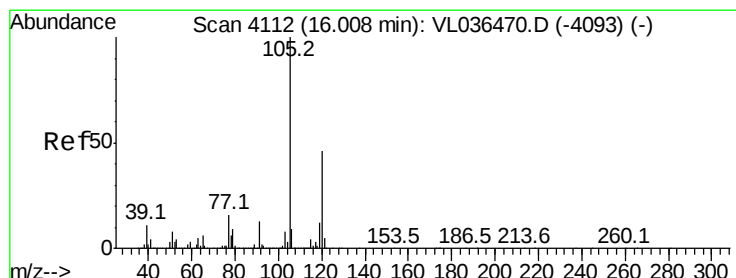
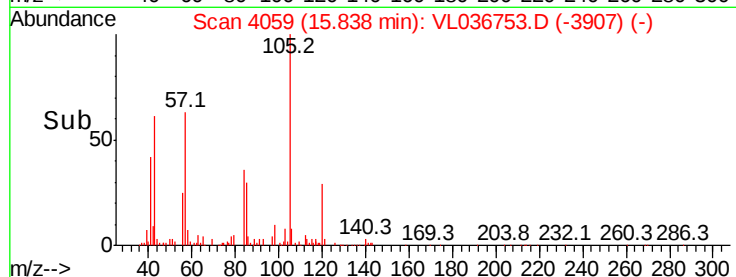
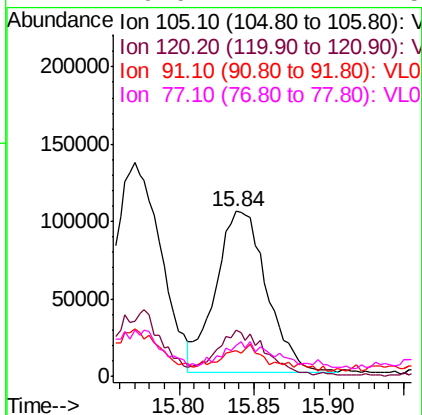
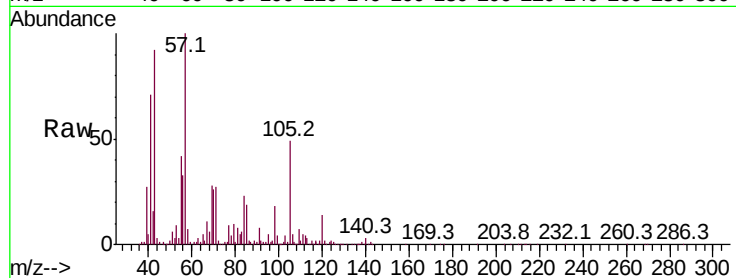
ClientSampleId :

SG-4DUP

Tot Ion	Ratio	Resp	Lower	Upper
105	100	247300		
120	26.4	24.0	36.0	
91	12.9	11.0	16.4	
77	20.9	11.7	17.5	

Manual Integrations
APPROVED

MMDadoda
4/12/2021 11:46:51 AM



#73

1,3,5-Trimethylbenzene

Concen: 1.131 ppbv

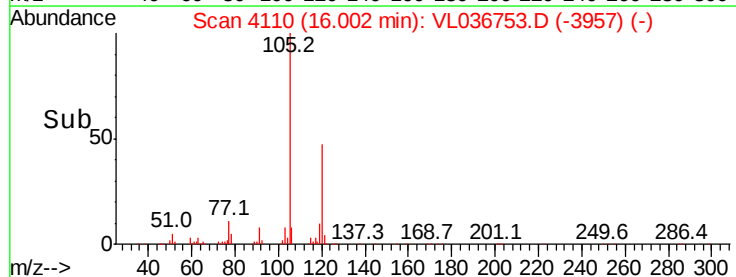
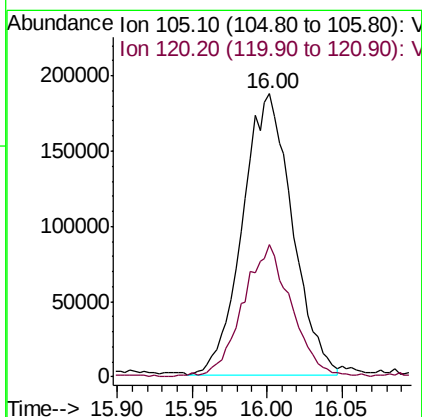
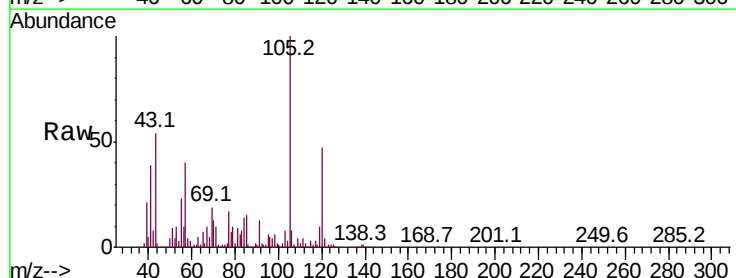
RT: 16.00 min Scan# 4110

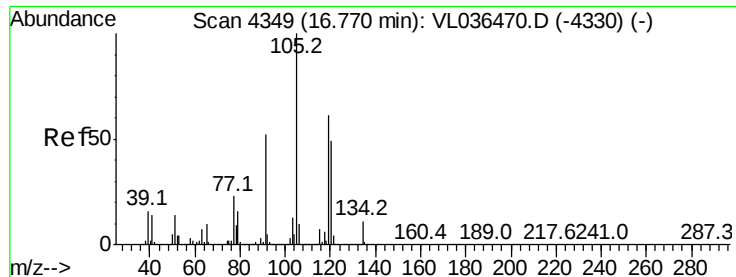
Delta R.T. -0.01 min

Lab File: VL036753.D

Acq: 8 Apr 2021 16:46

Tgt Ion	Ratio	Resp	Lower	Upper
105	100	430645		
120	46.5	36.6	54.8	





#74

1,2,4-Trimethylbenzene

Concen: 1.720 ppbv

RT: 16.76 min Scan# 4347

Delta R.T. -0.01 min

Lab File: VL036753.D

Acq: 8 Apr 2021 16:46

Instrument :

MSVOA_L

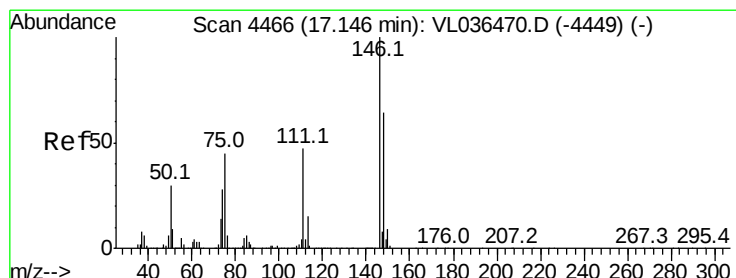
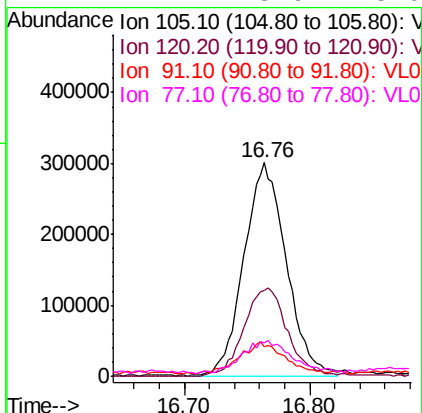
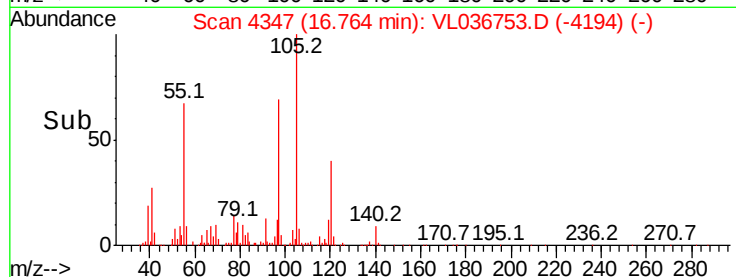
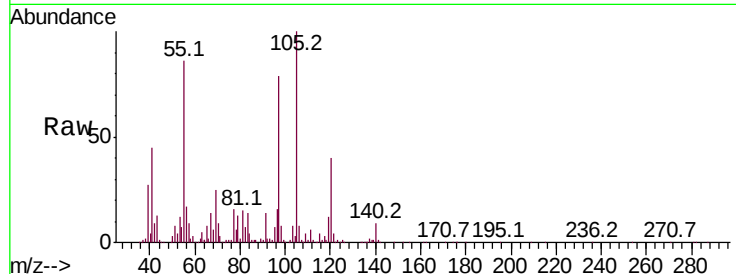
ClientSampleId :

SG-4DUP

Tot Ion	Ratio	Resp Lower	Upper
105	100		
120	40.4	39.2	58.8
91	11.8	42.6	64.0#
77	14.1	18.6	28.0#

Manual Integrations
APPROVED

MMDadoda
4/12/2021 11:46:51 AM



#76

1,4-Dichlorobenzene

Concen: 0.134 ppbv m

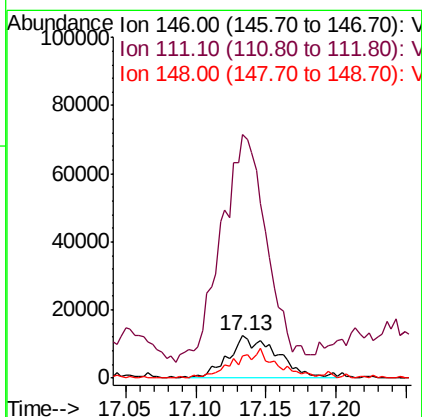
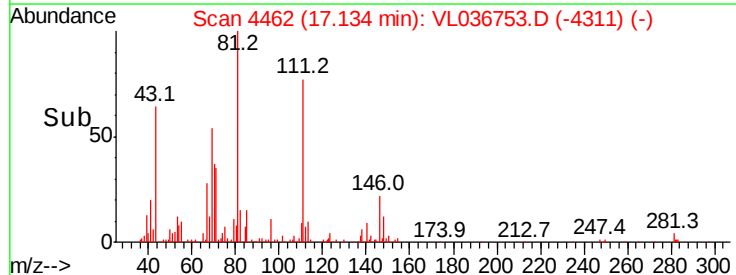
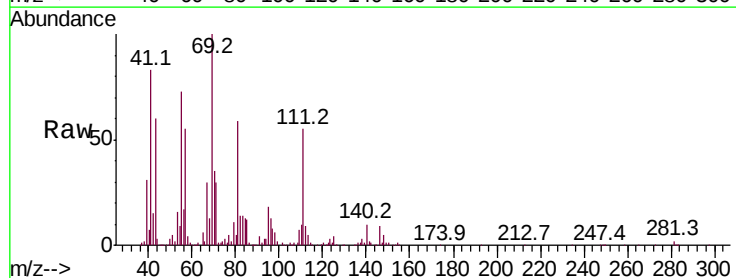
RT: 17.13 min Scan# 4462

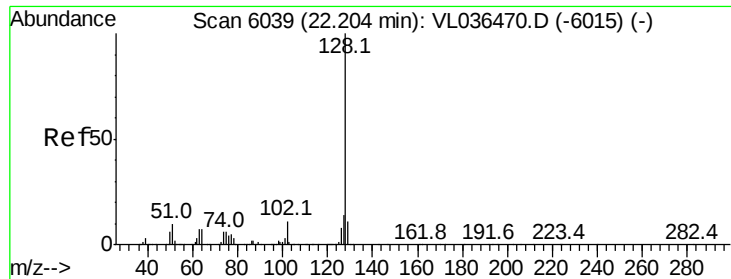
Delta R.T. -0.01 min

Lab File: VL036753.D

Acq: 8 Apr 2021 16:46

Tgt Ion	Ratio	Resp Lower	Upper
146	100		
111	496.6	24.3	72.8#
148	0.0	33.0	98.9#





#79

Naphthalene

Concen: 0.452 ppbv m

RT: 22.20 min Scan# 6039

Delta R.T. -0.00 min

Lab File: VL036753.D

Acq: 8 Apr 2021 16:46

Instrument :

MSVOA_L

ClientSampleId :

SG-4DUP

Tot Ion:	128	Resp:	107506
Ion Ratio	Lower	Upper	
128	100		
127	11.4	10.9	16.3
129	10.8	9.0	13.4

Manual Integrations
APPROVED

MMDadoda
4/12/2021 11:46:51 AM

