

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL040221\
 Data File : VL036669.D
 Acq On : 3 Apr 2021 6:56
 Operator : SY/AP
 Sample : M1853-02
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 SOFF-SG-02

Manual Integrations
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Quant Time: Apr 04 17:30:43 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL032521AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Thu Mar 25 2021
 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	5.64	49	1174042	10.00	ppbv	-0.03
33) 1,4-Difluorobenzene	7.15	114	2995730	10.00	ppbv	-0.03
55) Chlorobenzene-d5	12.06	117	2619228	10.00	ppbv	-0.04

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.39	95	2101435	10.07	ppbv	-0.04
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.70%

Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
2) Dichlorodifluoromethane	3.03	85	34504	0.180	ppbv	94
3) Chlorodifluoromethane	2.97	51	103403	0.471	ppbv	95
4) Chloromethane	3.12	50	20126	0.260	ppbv #	75
9) Propene	3.01	41	25382m	0.363	ppbv	
11) Trichlorofluoromethane	3.93	101	31645	0.162	ppbv	86
13) Ethanol	3.60	45	1342809	161.252	ppbv	91
15) Acetone	3.83	43	1570802	13.594	ppbv	92
17) tert-Butyl alcohol	4.29	59	1522450	15.135	ppbv	100
19) Isopropyl Alcohol	3.97	45	343693	5.407	ppbv #	1
20) Methylene Chloride	4.32	84	2154311	39.819	ppbv	94
26) Hexane	5.66	57	1874293	14.702	ppbv #	46
30) Cyclohexane	7.10	84	17948m	0.174	ppbv	
34) 2-Butanone	5.22	43	116629	0.798	ppbv	98
35) Carbon Tetrachloride	6.99	117	10070m	0.044	ppbv	
36) Benzene	6.86	78	38876m	0.141	ppbv	
44) 2,2,4-Trimethylpentane	7.84	57	204744	0.421	ppbv	92
52) Tetrachloroethene	11.20	164	5158m	0.051	ppbv	
53) Toluene	9.78	91	140751	0.478	ppbv	99
58) Ethyl Benzene	12.68	91	61112	0.160	ppbv	93
59) m/p-Xylene	12.93	91	275798m	0.830	ppbv	
60) o-Xylene	13.66	91	130374	0.406	ppbv	100
69) p-Isopropyltoluene	17.63	119	114185	0.276	ppbv	96
70) n-Butylbenzene	18.55	91	133969m	0.312	ppbv	
72) 4-Ethyltoluene	15.81	105	43656m	0.124	ppbv	
73) 1,3,5-Trimethylbenzene	15.97	105	54830m	0.167	ppbv	
74) 1,2,4-Trimethylbenzene	16.73	105	266780	0.758	ppbv #	65
79) Naphthalene	22.18	128	187058	0.911	ppbv #	95

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

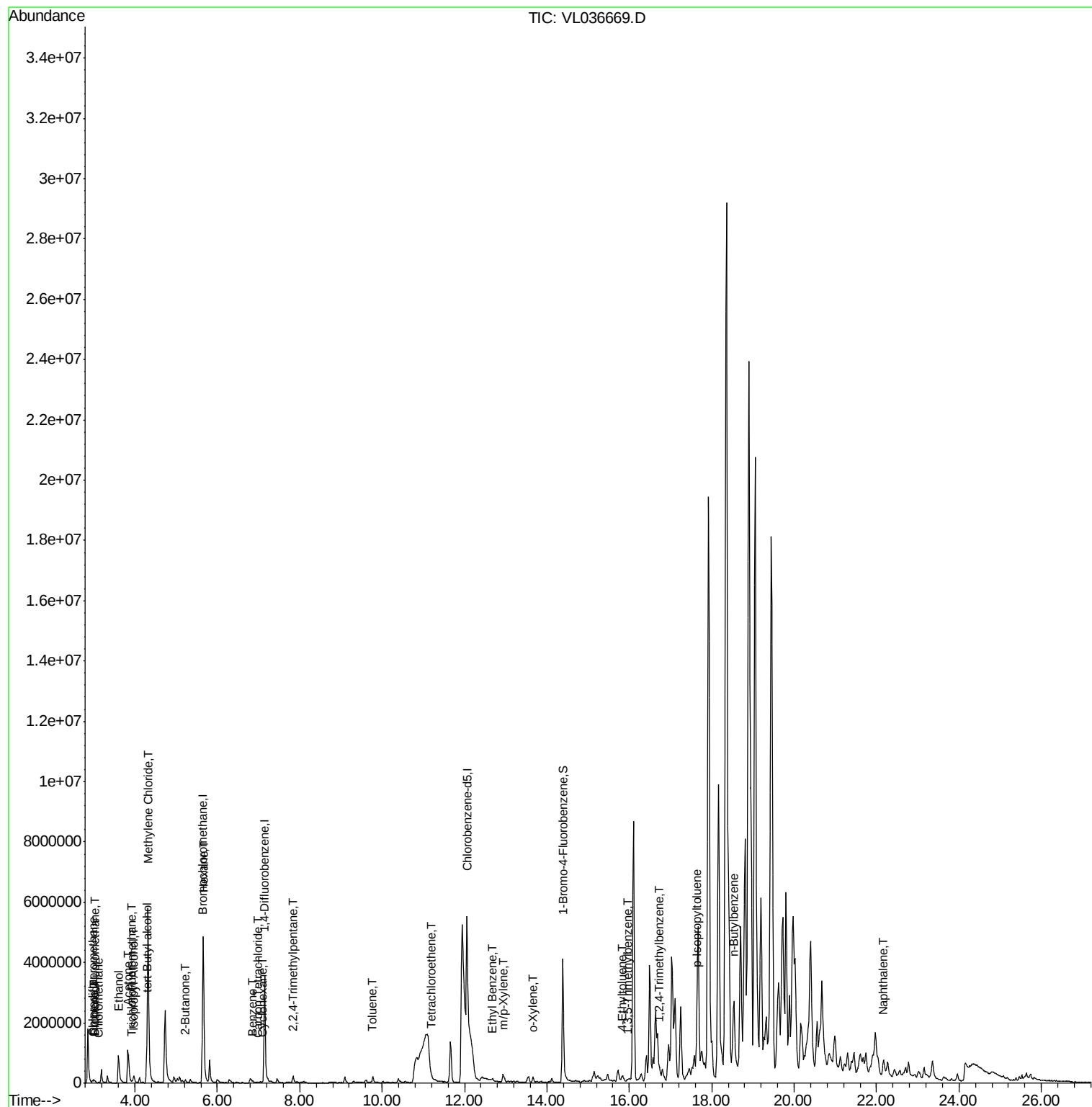
Data Path : Z:\V0ASRV\HPCHEM1\MSVOA L\DATA\VL040221\
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ALS Vial : 1 Sample Multiplier: 1

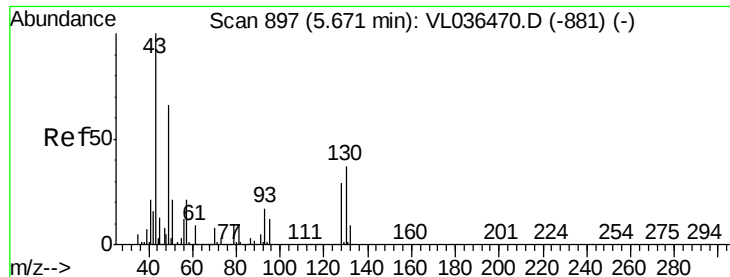
Instrument :
MSVOA_L
ClientSampleId :
SOFF-SG-02

Manual Integrations
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Quant Time: Apr 04 17:30:43 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: 5.64 min Scan# 887

Delta R.T. -0.03 min

Lab File: VL036669.D

Acq: 3 Apr 2021 6:56

Instrument :

MSVOA_L

ClientSampled :

SOFF-SG-02

Tot Ion: 49 Resp: 1174042

Ion Ratio Lower Upper

49 100

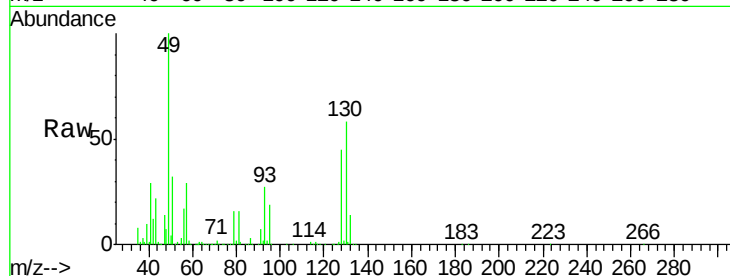
128 46.2 23.5 70.6

130 59.5 29.1 87.4

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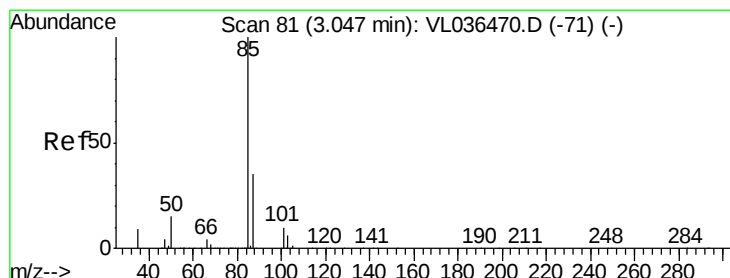
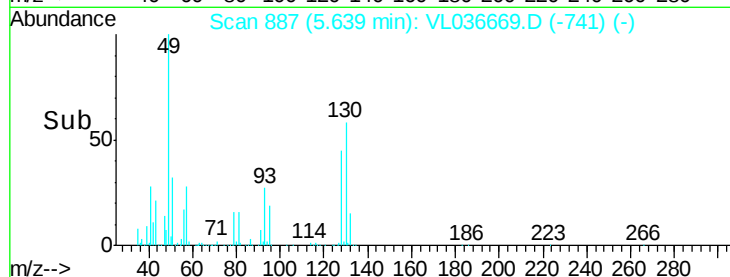
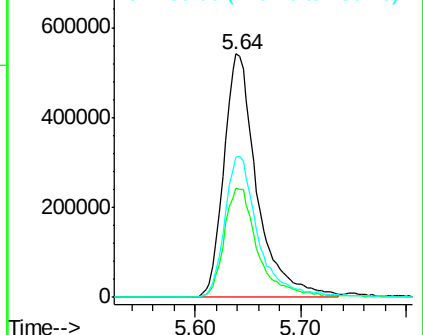
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Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): VL0

Ion 130.00 (129.70 to 130.70): VL0



#2

Dichlorodifluoromethane

Concen: 0.180 ppbv

RT: 3.03 min Scan# 75

Delta R.T. -0.02 min

Lab File: VL036669.D

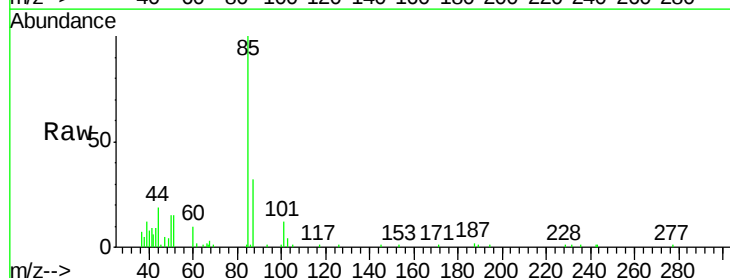
Acq: 3 Apr 2021 6:56

Tgt Ion: 85 Resp: 34504

Ion Ratio Lower Upper

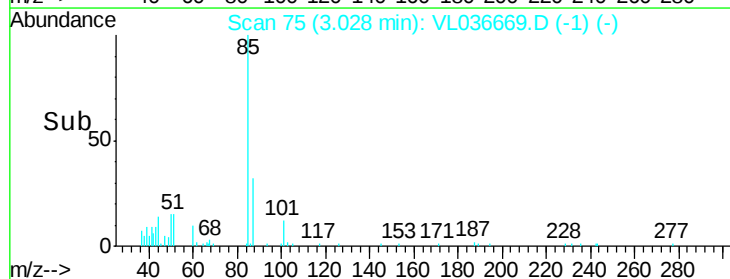
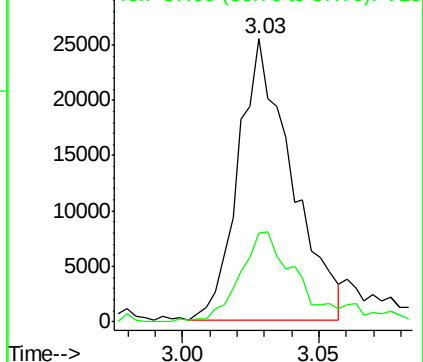
85 100

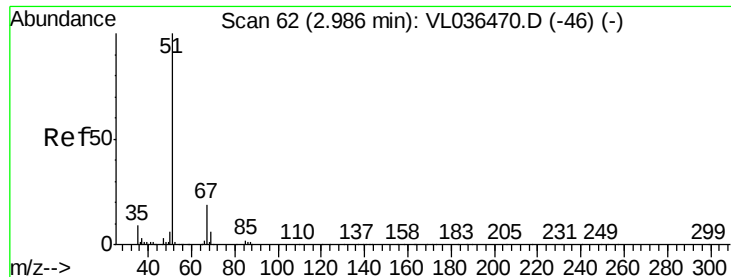
87 31.1 27.8 41.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.471 ppbv

RT: 2.97 min Scan# 56

Delta R.T. -0.02 min

Lab File: VL036669.D

Acq: 3 Apr 2021 6:56

Instrument :

MSVOA_L

ClientSampled :

SOFF-SG-02

Tot Ion: 51 Resp: 103403

Ion Ratio Lower Upper

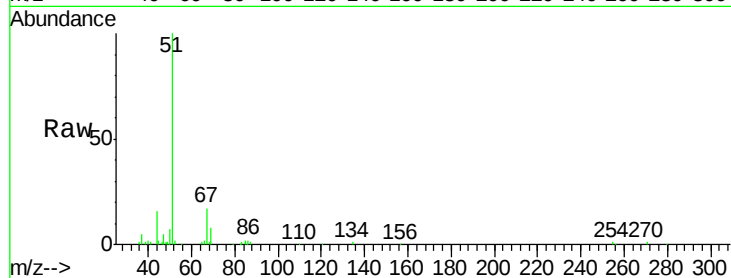
51 100

67 16.0 14.7 22.1

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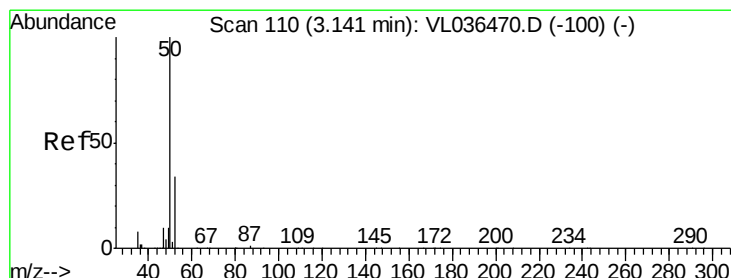
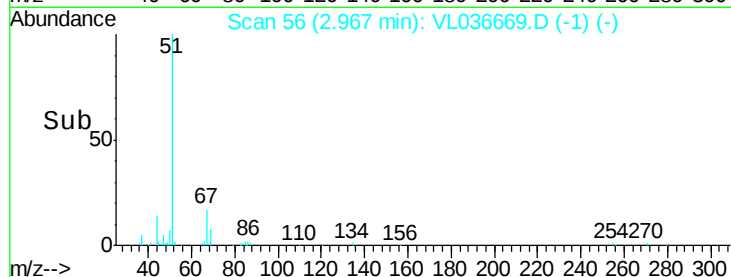
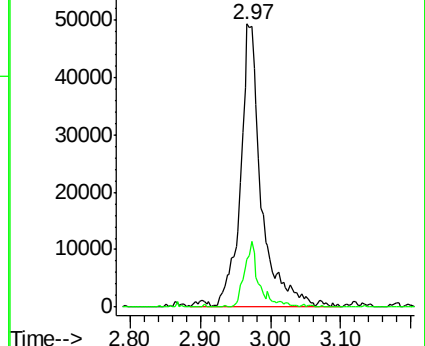
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Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.260 ppbv

RT: 3.12 min Scan# 105

Delta R.T. -0.02 min

Lab File: VL036669.D

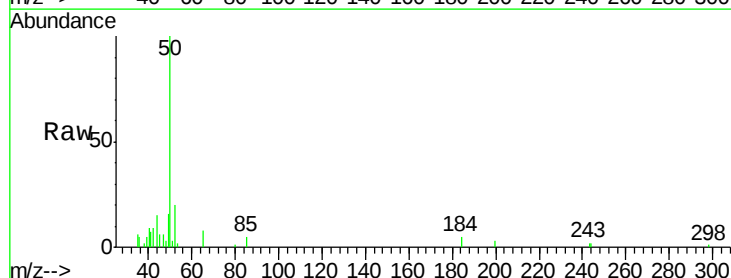
Acq: 3 Apr 2021 6:56

Tgt Ion: 50 Resp: 20126

Ion Ratio Lower Upper

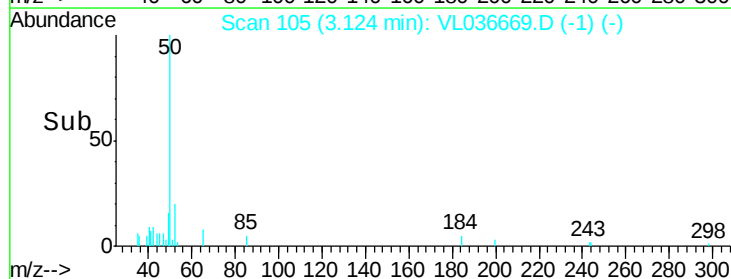
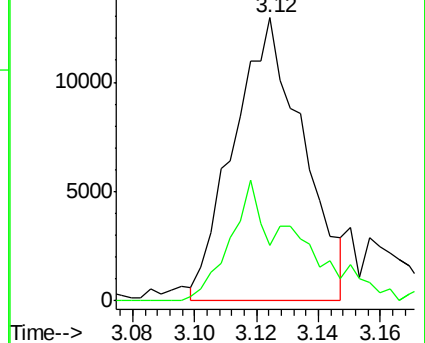
50 100

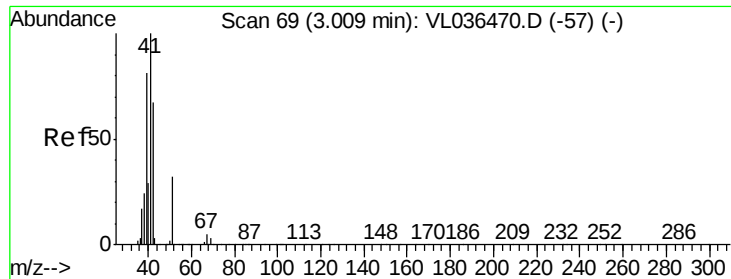
52 19.3 27.0 40.6#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 0.363 ppbv m

RT: 3.01 min Scan# 68

Delta R.T. -0.00 min

Lab File: VL036669.D

Acq: 3 Apr 2021 6:56

Instrument :

MSVOA_L

ClientSampleId :

SOFF-SG-02

Tot Ion: 41 Resp: 25382

Ion Ratio Lower Upper

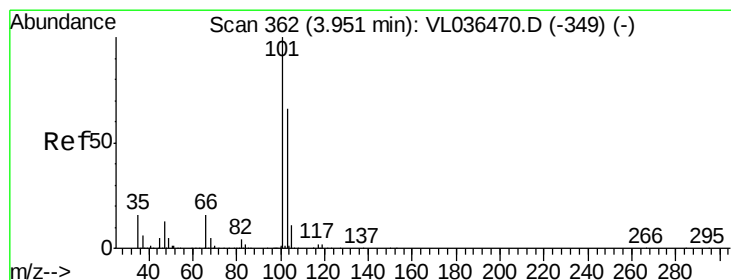
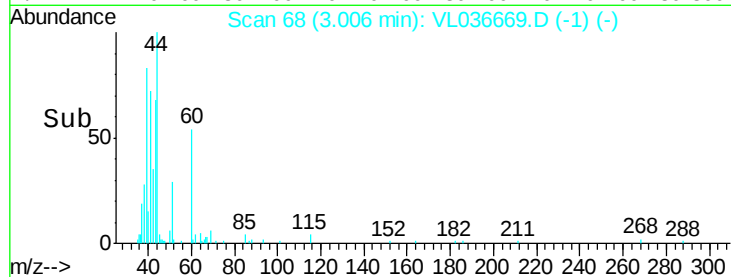
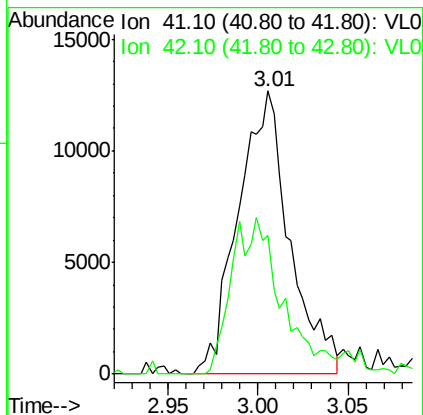
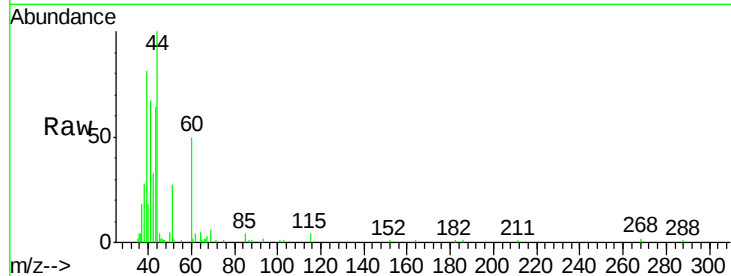
41 100

42 57.1 57.0 85.4

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#11

Trichlorofluoromethane

Concen: 0.162 ppbv

RT: 3.93 min Scan# 356

Delta R.T. -0.02 min

Lab File: VL036669.D

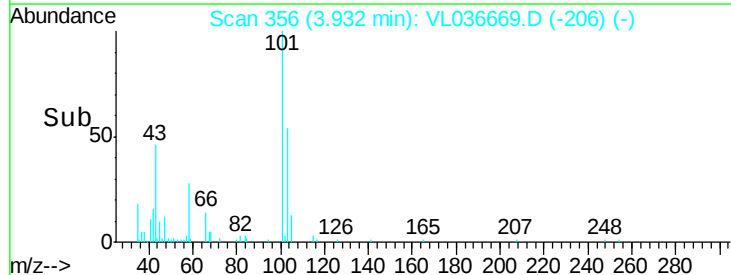
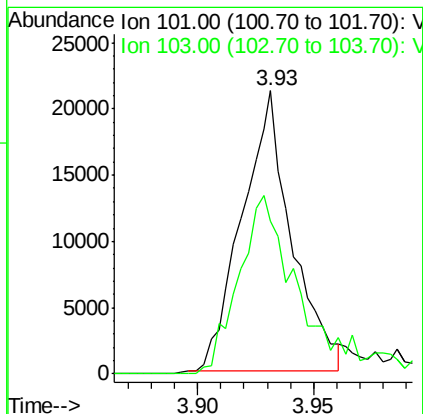
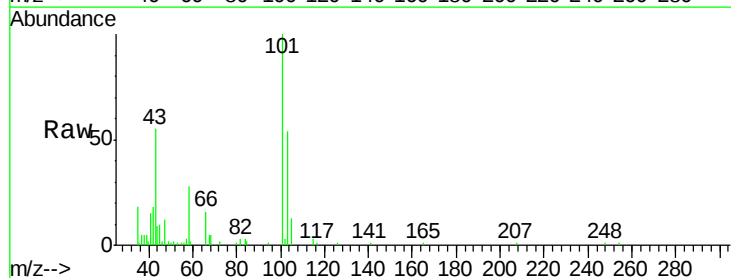
Acq: 3 Apr 2021 6:56

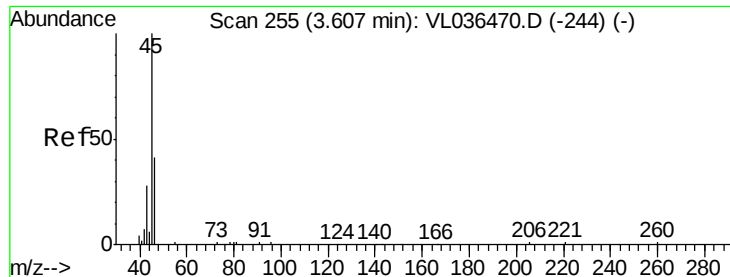
Tgt Ion: 101 Resp: 31645

Ion Ratio Lower Upper

101 100

103 54.6 52.5 78.7





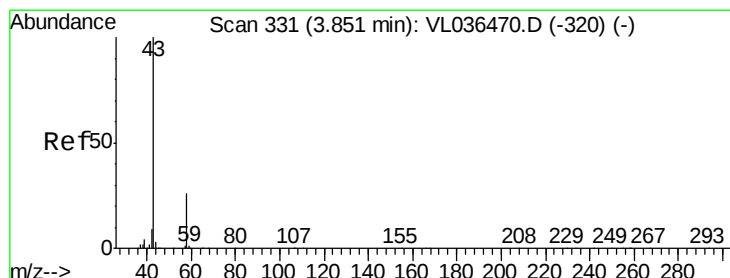
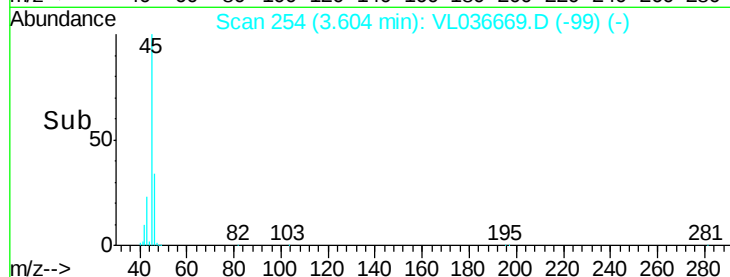
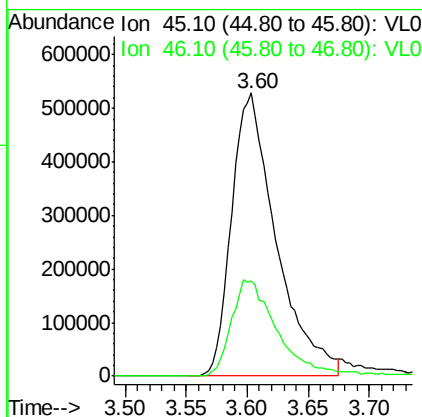
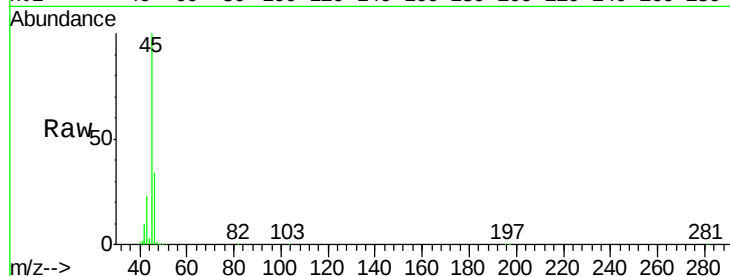
#13
Ethanol
Concen: 161.252 ppbv
RT: 3.60 min Scan# 254
Delta R.T. -0.00 min
Lab File: VL036669.D
Acq: 3 Apr 2021 6:56

Instrument :
MSVOA_L
ClientSampleId :
SOFF-SG-02

Tot Ion: 45 Resp: 1342809
Ion Ratio Lower Upper
45 100
46 35.9 16.6 66.2

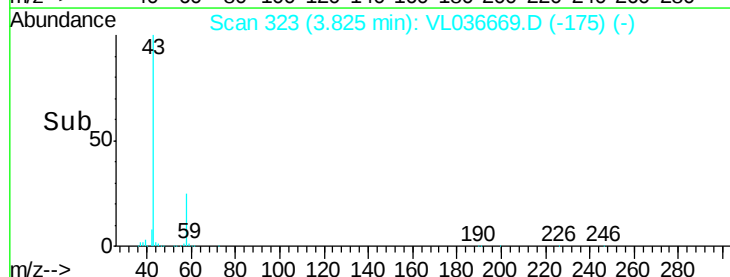
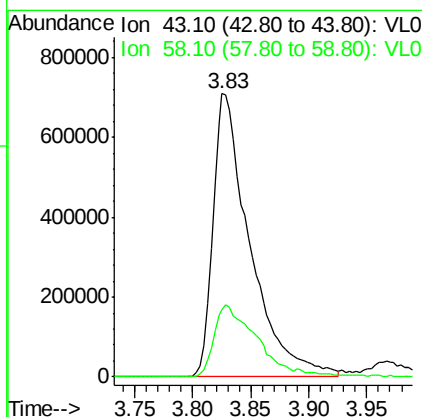
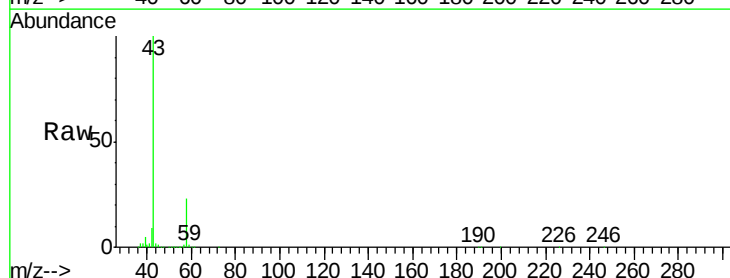
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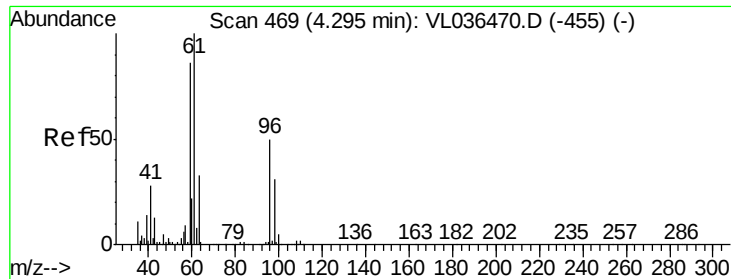
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#15
Acetone
Concen: 13.594 ppbv
RT: 3.83 min Scan# 323
Delta R.T. -0.03 min
Lab File: VL036669.D
Acq: 3 Apr 2021 6:56

Tgt Ion: 43 Resp: 1570802
Ion Ratio Lower Upper
43 100
58 30.5 21.2 31.8





#17

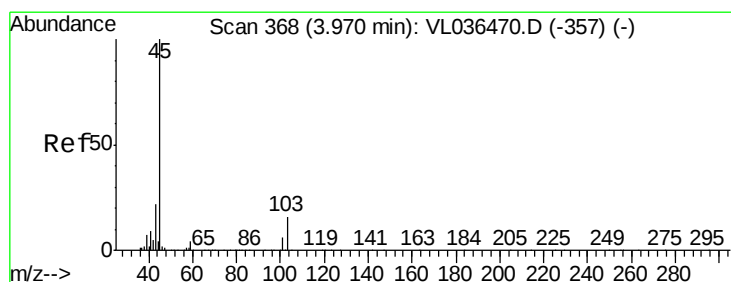
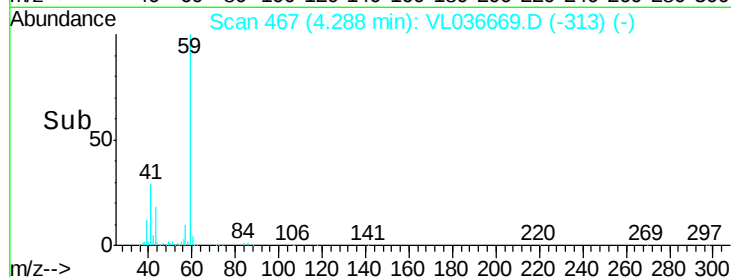
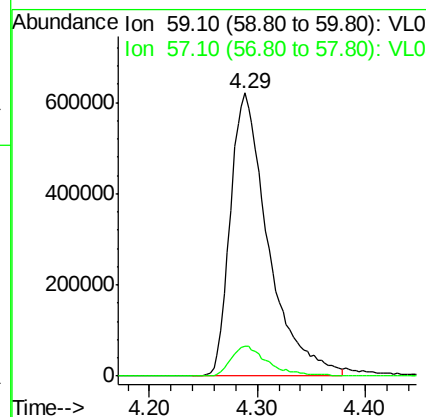
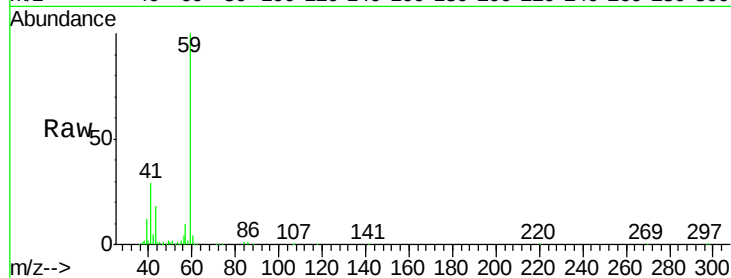
tert-Butyl alcohol
 Concen: 15.135 ppbv
 RT: 4.29 min Scan# 467
 Delta R.T. -0.01 min
 Lab File: VL036669.D
 Acq: 3 Apr 2021 6:56

Instrument :
 MSVOA_L
 ClientSampleId :
 SOFF-SG-02

Tot Ion: 59 Resp: 1522450
 Ion Ratio Lower Upper
 59 100
 57 10.6 8.6 12.8

Manual Integrations
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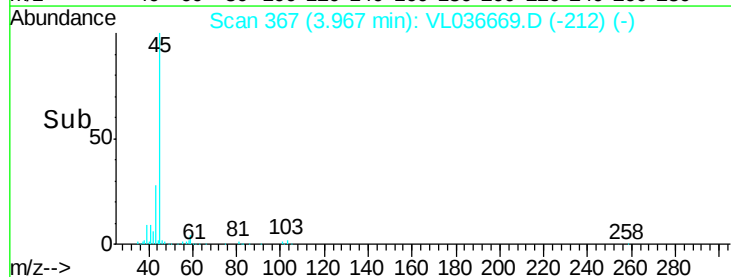
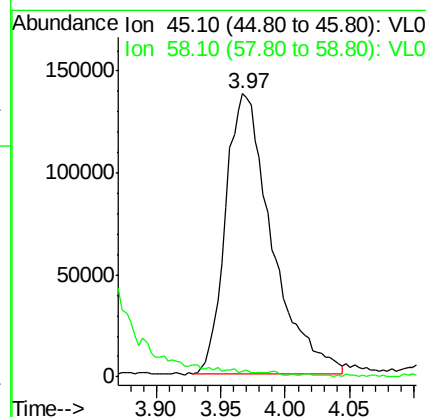
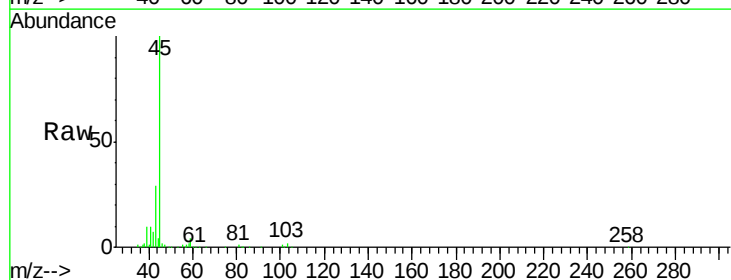
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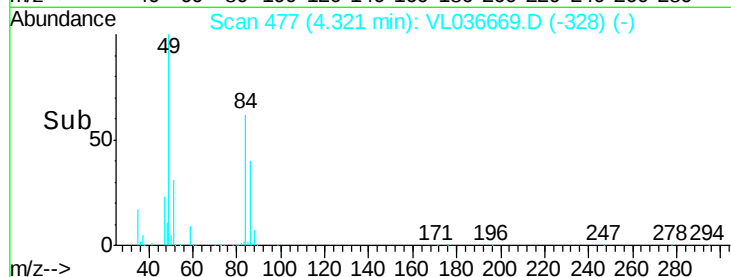
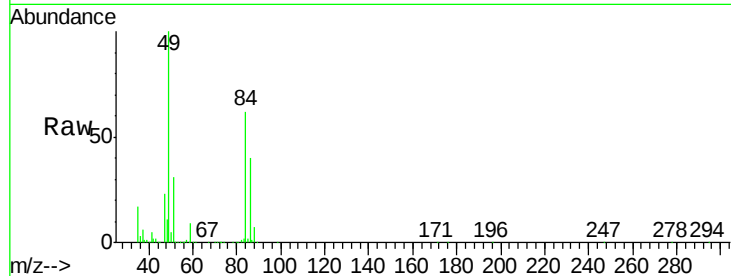
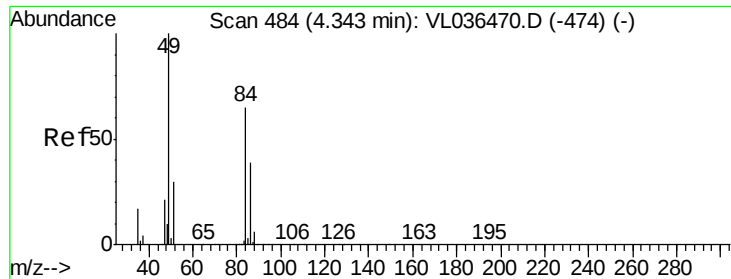


#19

Isopropyl Alcohol
 Concen: 5.407 ppbv
 RT: 3.97 min Scan# 367
 Delta R.T. -0.00 min
 Lab File: VL036669.D
 Acq: 3 Apr 2021 6:56

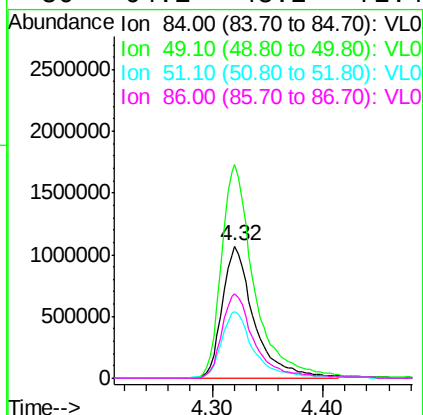
Tgt Ion: 45 Resp: 343693
 Ion Ratio Lower Upper
 45 100
 58 139.3 2.9 4.3#





#20
Methvlene Chloride
Concen: 39.819 ppbv
RT: 4.32 min Scan# 477
Delta R.T. -0.02 min
Lab File: VL036669.D
Acq: 3 Apr 2021 6:56

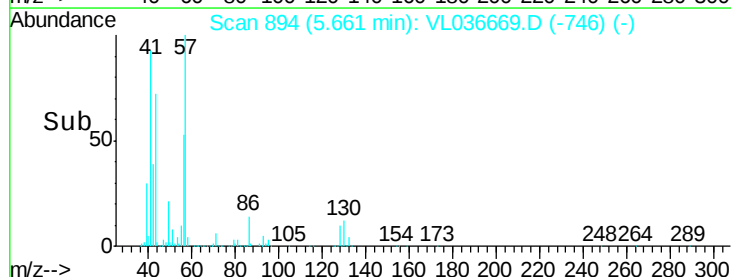
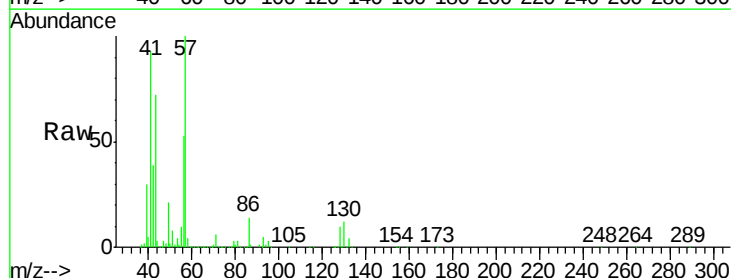
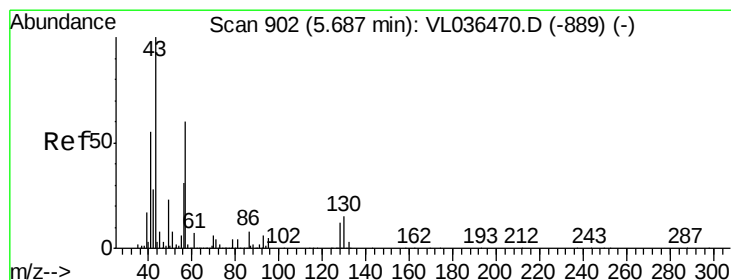
Tot Ion	Ratio	Lower	Upper
84	100		
49	161.5	122.9	184.3
51	49.6	36.9	55.3
86	64.1	48.2	72.4



Instrument :
MSVOA_L
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SOFF-SG-02

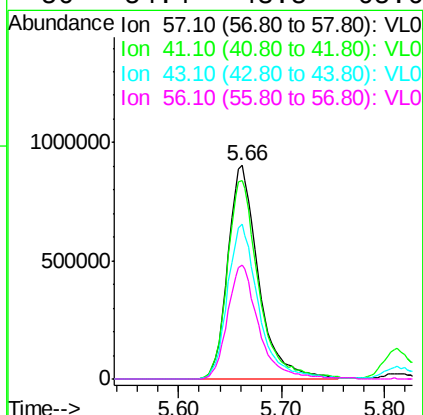
Manual Integrations
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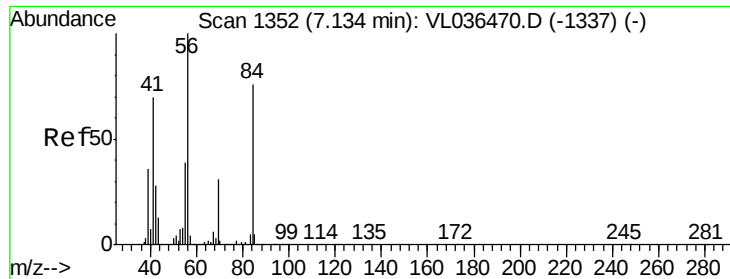
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#26
Hexane
Concen: 14.702 ppbv
RT: 5.66 min Scan# 894
Delta R.T. -0.03 min
Lab File: VL036669.D
Acq: 3 Apr 2021 6:56

Tgt Ion	Ratio	Lower	Upper
57	100		
41	95.2	77.2	115.8
43	73.2	173.8	260.6#
56	54.4	43.8	65.6





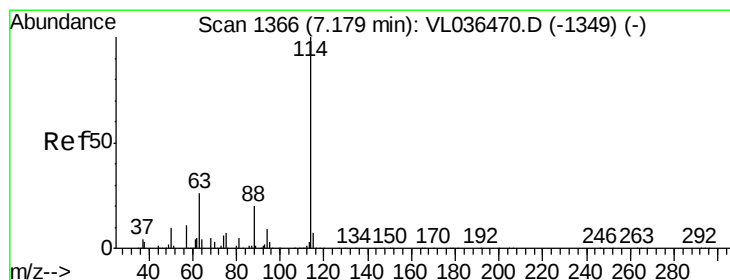
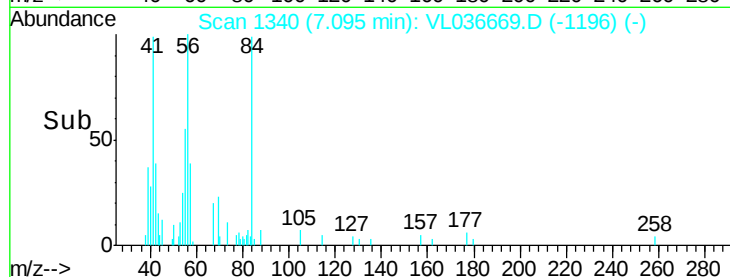
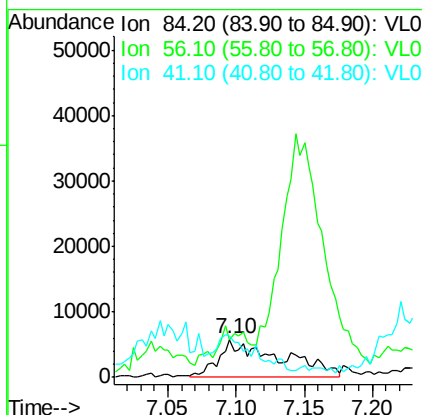
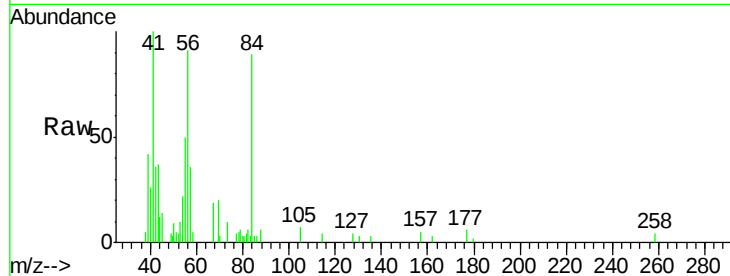
#30
Cyclohexane
Concen: 0.174 ppbv m
RT: 7.10 min Scan# 1340
Delta R.T. -0.04 min
Lab File: VL036669.D
Acq: 3 Apr 2021 6:56

Instrument :
MSVOA_L
ClientSampleId :
SOFF-SG-02

Tot Ion	Ratio	Lower	Upper
84	100		
56	0.0	114.6	171.8#
41	58.6	75.3	112.9#

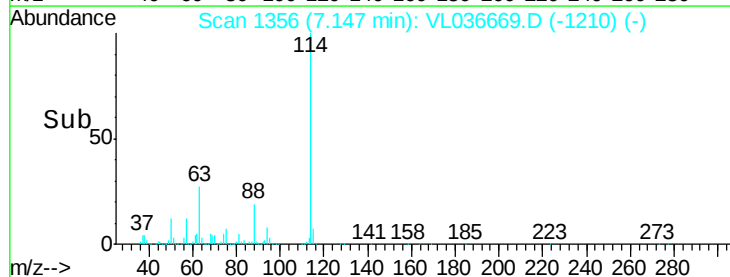
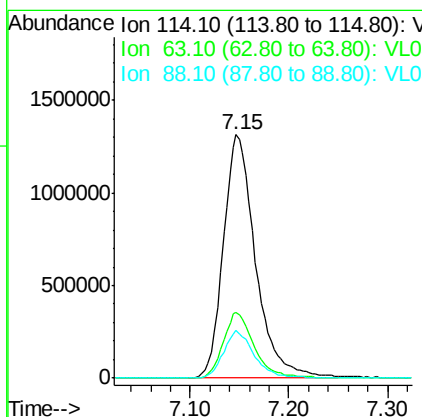
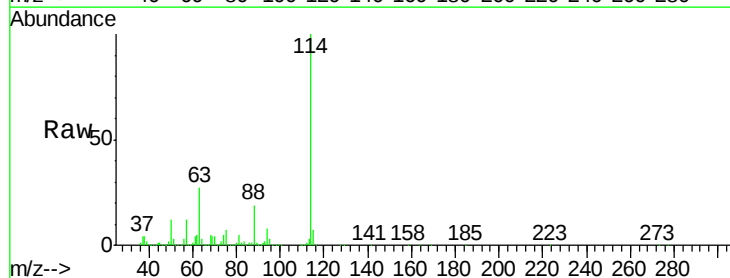
Manual Integrations
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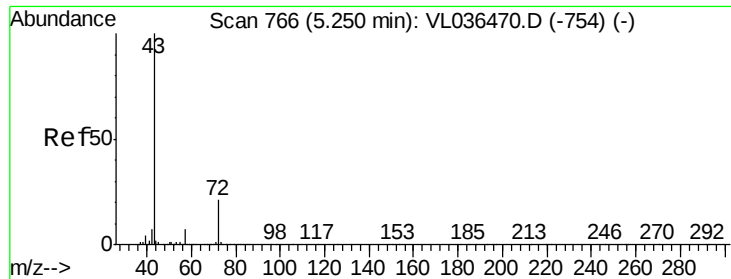
apatel
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#33
1,4-Difluorobenzene
Concen: 10.000 ppbv
RT: 7.15 min Scan# 1356
Delta R.T. -0.03 min
Lab File: VL036669.D
Acq: 3 Apr 2021 6:56

Tgt Ion	Ratio	Lower	Upper
114	100		
63	26.4	22.4	33.6
88	18.8	15.4	23.0





#34

2-Butanone

Concen: 0.798 ppbv

RT: 5.22 min Scan# 758

Delta R.T. -0.03 min

Lab File: VL036669.D

Acq: 3 Apr 2021 6:56

Instrument :

MSVOA_L

ClientSampleId :

SOFF-SG-02

Tot Ion: 43 Resp: 116629

Ion Ratio Lower Upper

43 100

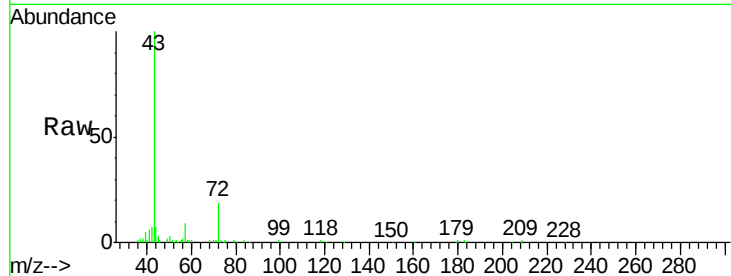
72 22.3 17.0 25.6

Manual Integrations

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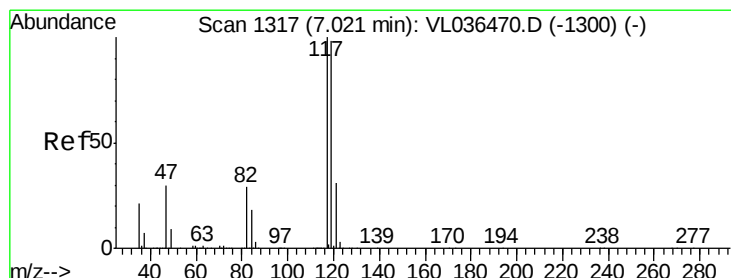
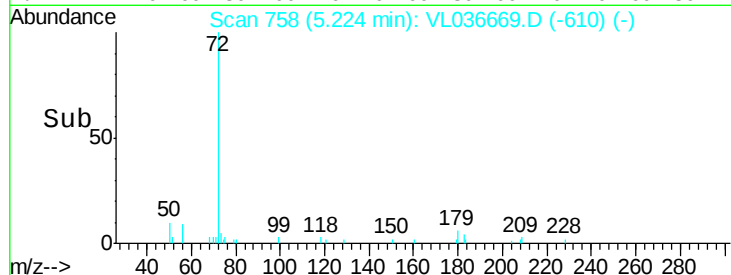
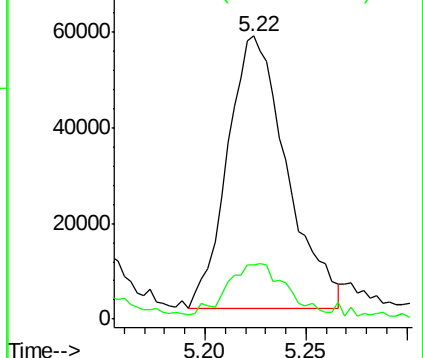
apatel

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Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 72.10 (71.80 to 72.80): VL0



#35

Carbon Tetrachloride

Concen: 0.044 ppbv m

RT: 6.99 min Scan# 1308

Delta R.T. -0.03 min

Lab File: VL036669.D

Acq: 3 Apr 2021 6:56

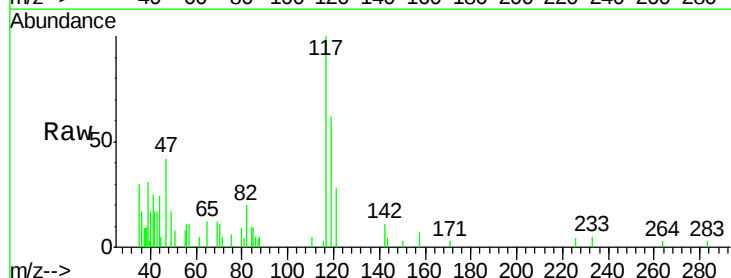
Tgt Ion: 117 Resp: 10070

Ion Ratio Lower Upper

117 100

119 62.5 78.2 117.2#

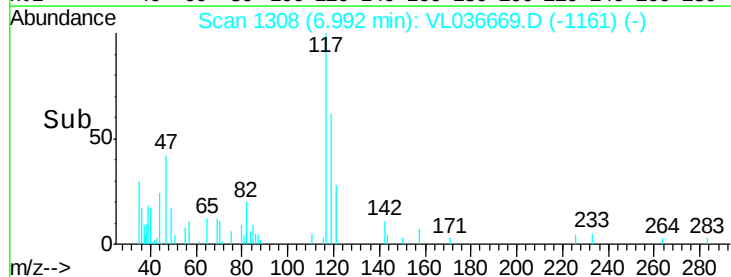
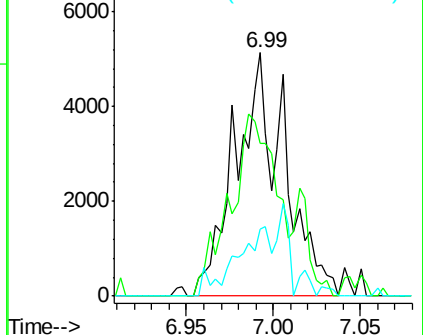
121 27.5 24.5 36.7

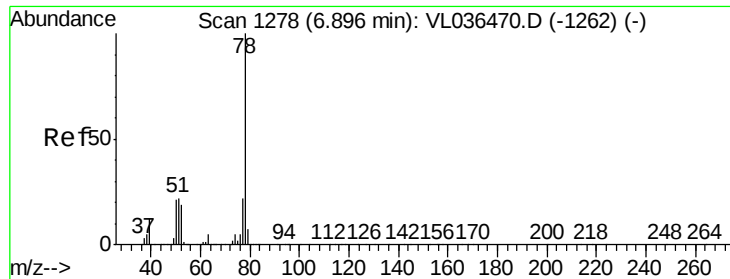


Abundance Ion 117.00 (116.70 to 117.70): V

Ion 119.00 (118.70 to 119.70): V

Ion 121.00 (120.70 to 121.70): V





#36

Benzene

Concen: 0.141 ppbv m

RT: 6.86 min Scan# 1266

Delta R.T. -0.04 min

Lab File: VL036669.D

Acq: 3 Apr 2021 6:56

Instrument :

MSVOA_L

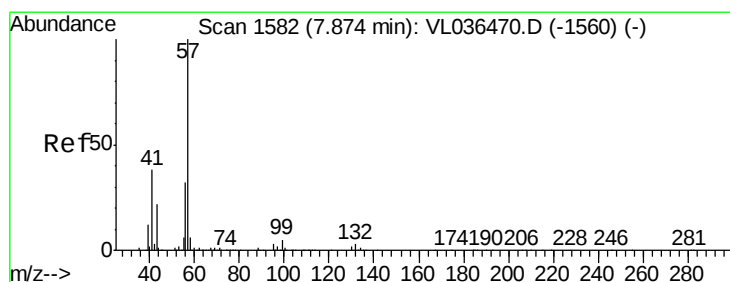
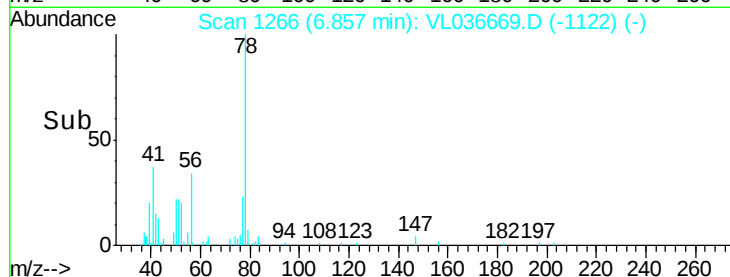
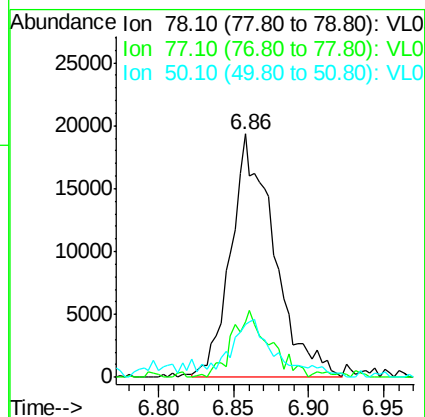
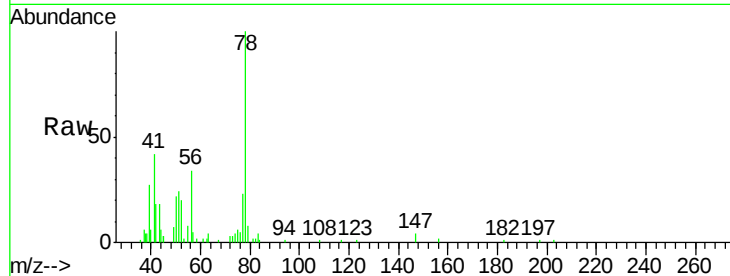
ClientSampleId :

SOFF-SG-02

Tot Ion:	78	Resp:	38876
Ion	Ratio	Lower	Upper
78	100		
77	22.9	18.0	27.0
50	21.7	16.5	24.7

Manual Integrations
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#44

2,2,4-Trimethylpentane

Concen: 0.421 ppbv

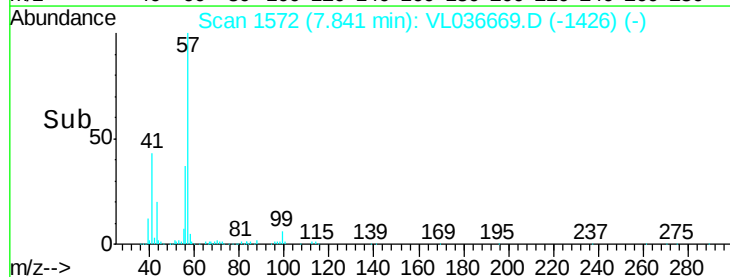
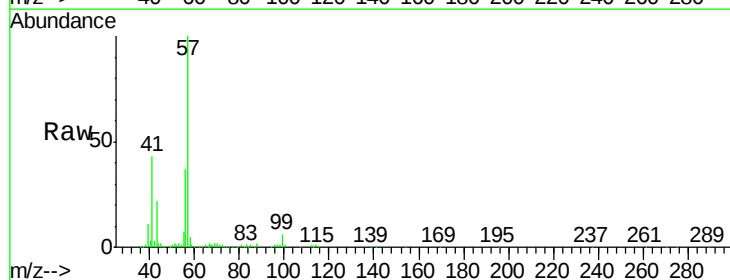
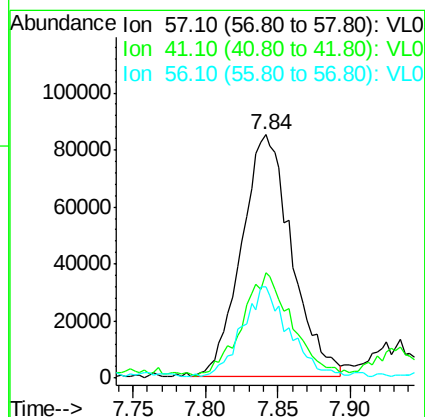
RT: 7.84 min Scan# 1572

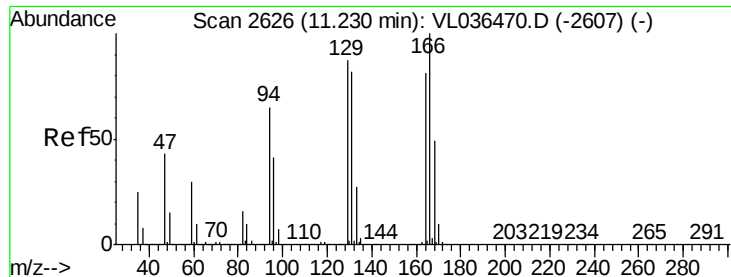
Delta R.T. -0.03 min

Lab File: VL036669.D

Acq: 3 Apr 2021 6:56

Tgt Ion:	57	Resp:	204744
Ion	Ratio	Lower	Upper
57	100		
41	42.1	28.8	43.2
56	35.9	26.1	39.1





#52

Tetrachloroethene

Concen: 0.051 ppbv m

RT: 11.20 min Scan# 2617

Delta R.T. -0.03 min

Lab File: VL036669.D

Acq: 3 Apr 2021 6:56

Instrument :

MSVOA_L

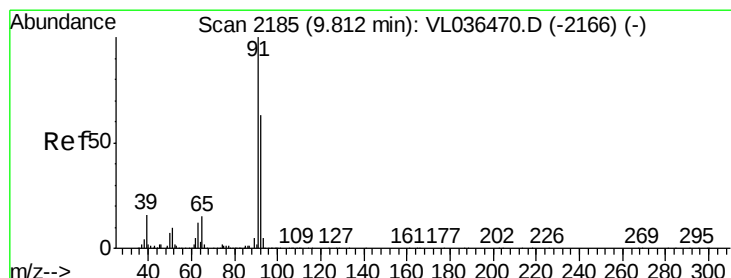
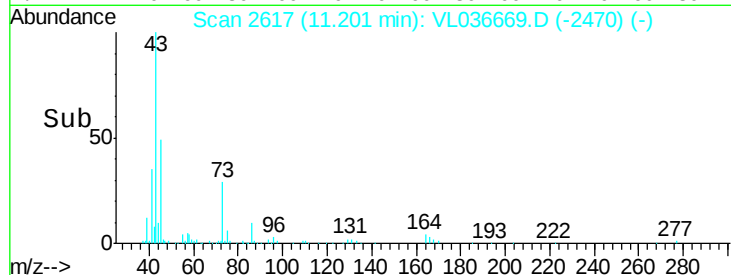
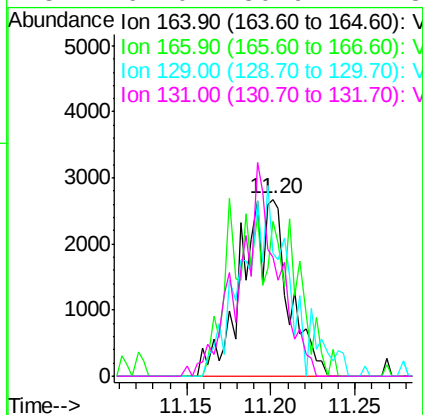
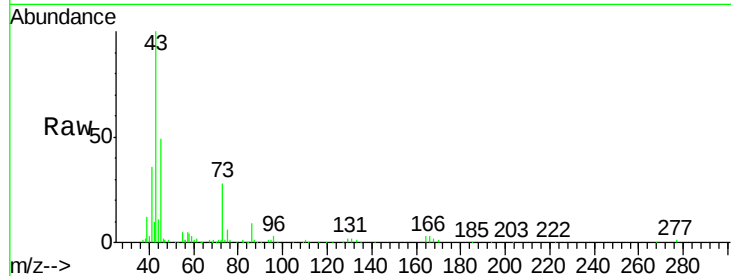
ClientSampleId :

SOFF-SG-02

Tot Ion:	164	Resp:	5158
Ion Ratio	Lower	Upper	
164	100		
166	87.8	98.3	147.5#
129	69.1	85.8	128.8#
131	67.0	80.9	121.3#

Manual Integrations
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#53

Toluene

Concen: 0.478 ppbv

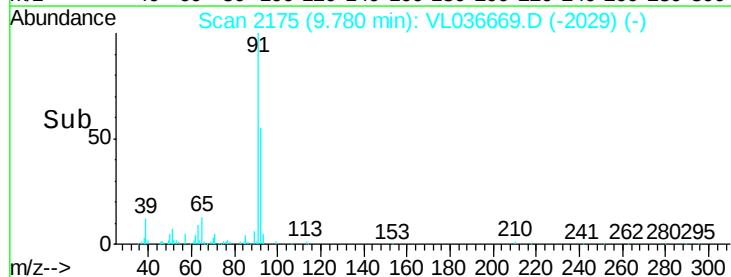
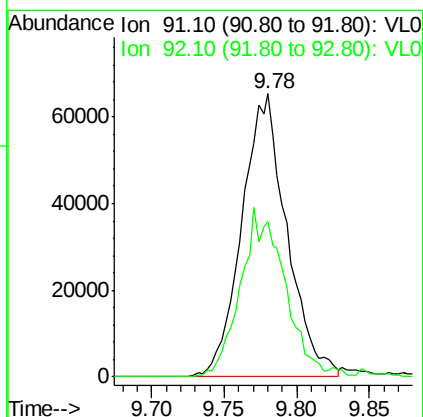
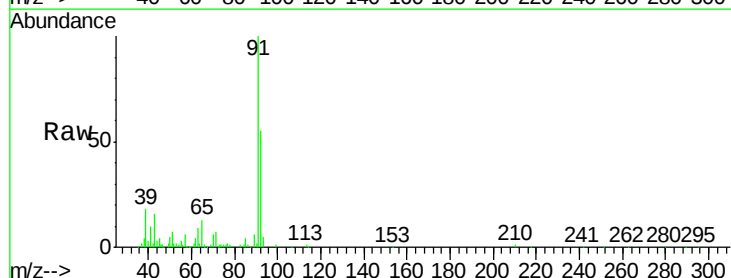
RT: 9.78 min Scan# 2175

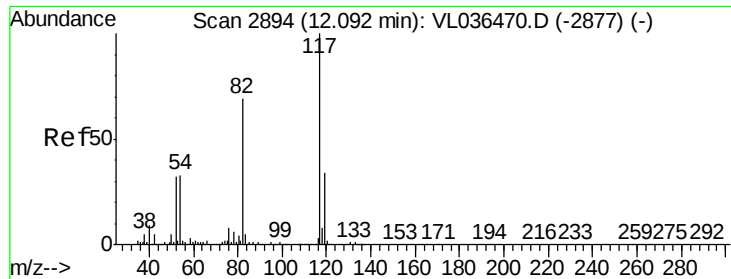
Delta R.T. -0.03 min

Lab File: VL036669.D

Acq: 3 Apr 2021 6:56

Tgt Ion:	91	Resp:	140751
Ion Ratio	Lower	Upper	
91	100		
92	60.4	48.8	73.2





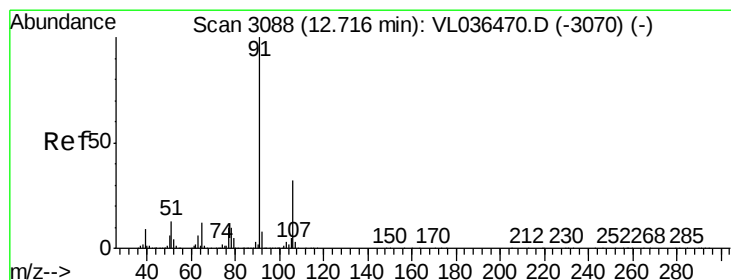
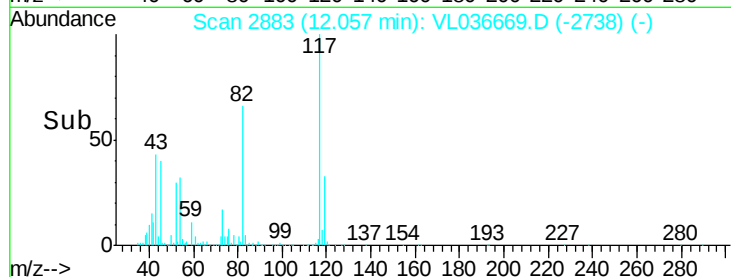
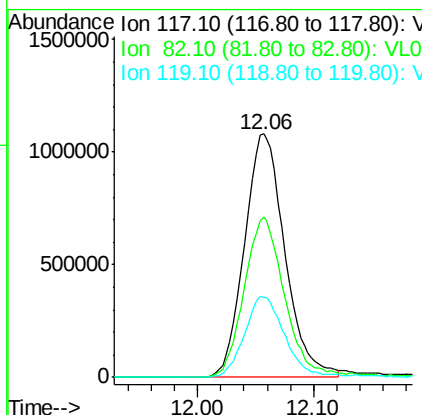
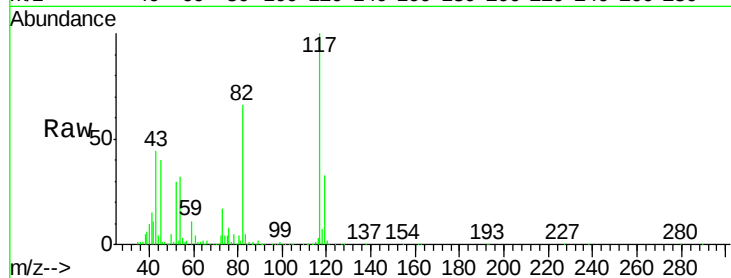
#55
Chlorobenzene-d5
Concen: 10.000 ppbv
RT: 12.06 min Scan# 2883
Delta R.T. -0.04 min
Lab File: VL036669.D
Acq: 3 Apr 2021 6:56

Instrument :
MSVOA_L
ClientSampled :
SOFF-SG-02

Tot Ion	Ratio	Lower	Upper
117	100		
82	68.3	57.4	86.0
119	34.1	47.4	71.0

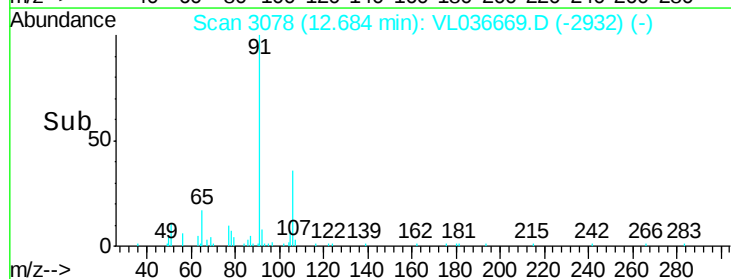
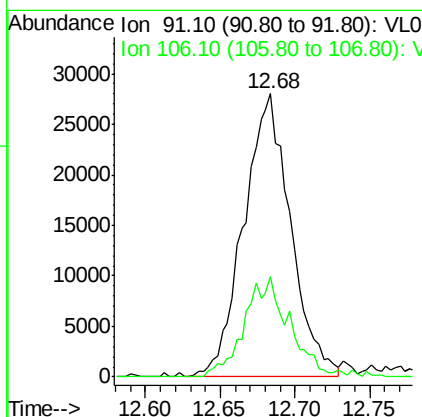
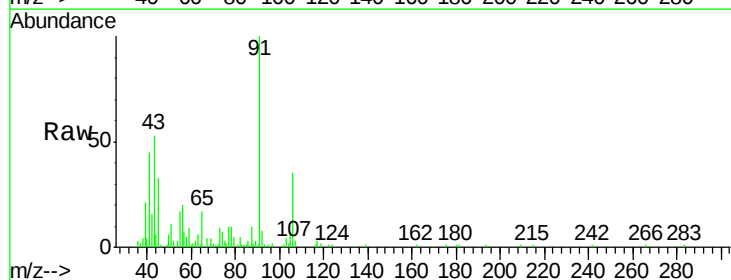
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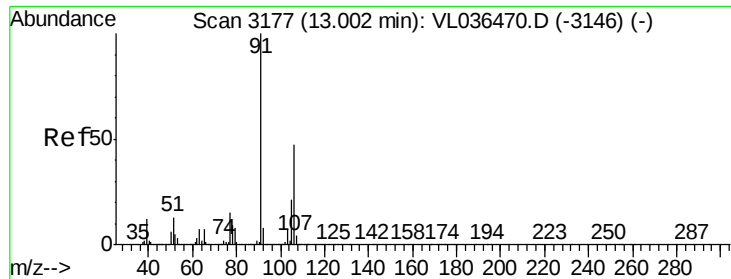
apatel
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#58
Ethyl Benzene
Concen: 0.160 ppbv
RT: 12.68 min Scan# 3078
Delta R.T. -0.03 min
Lab File: VL036669.D
Acq: 3 Apr 2021 6:56

Tgt Ion	Ratio	Lower	Upper
91	100		
106	35.2	25.3	37.9





#59

m/p-Xylene

Concen: 0.830 ppbv m

RT: 12.93 min Scan# 3156

Delta R.T. -0.07 min

Lab File: VL036669.D

Acq: 3 Apr 2021 6:56

Instrument :

MSVOA_L

ClientSampleId :

SOFF-SG-02

Tot Ion: 91 Resp: 275798

Ion Ratio Lower Upper

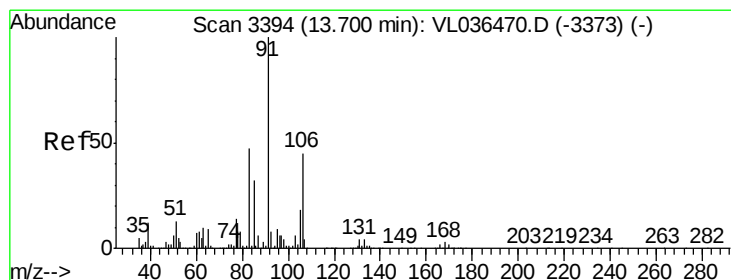
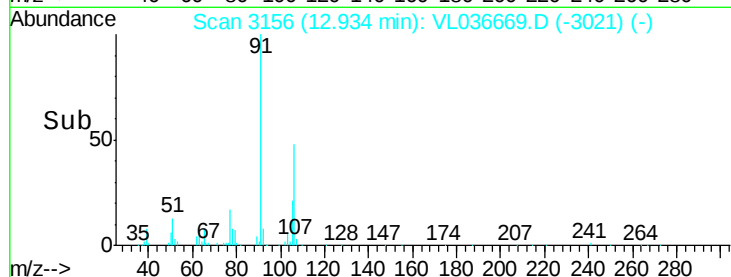
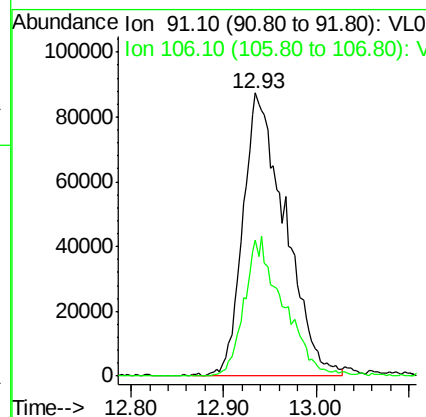
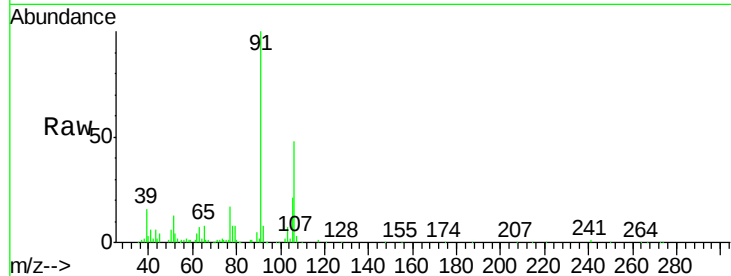
91 100

106 0.0 35.3 52.9#

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#60

o-Xylene

Concen: 0.406 ppbv

RT: 13.66 min Scan# 3382

Delta R.T. -0.04 min

Lab File: VL036669.D

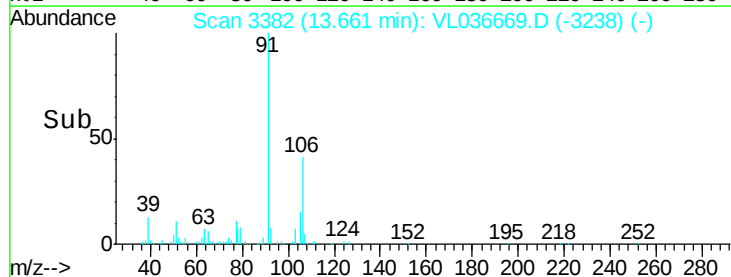
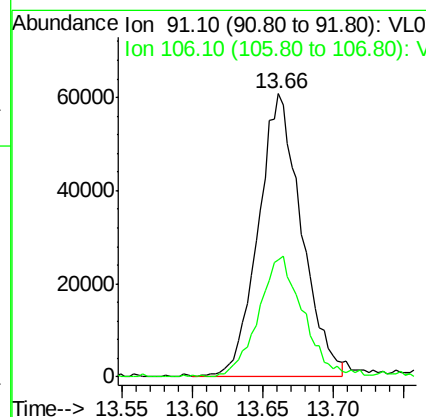
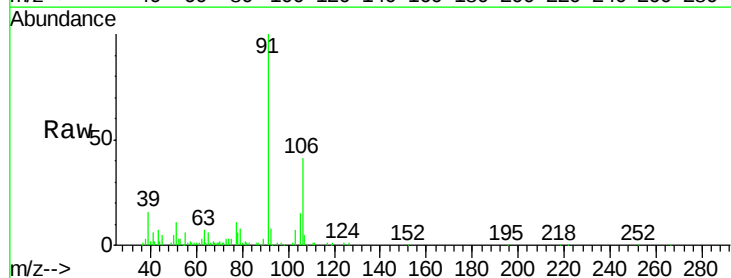
Acq: 3 Apr 2021 6:56

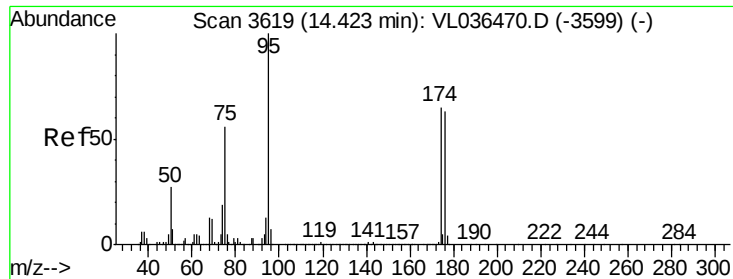
Tgt Ion: 91 Resp: 130374

Ion Ratio Lower Upper

91 100

106 44.5 22.3 66.9





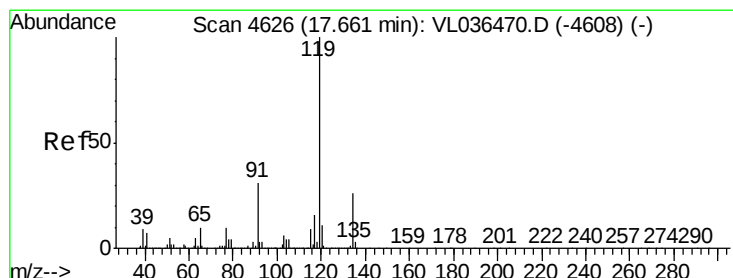
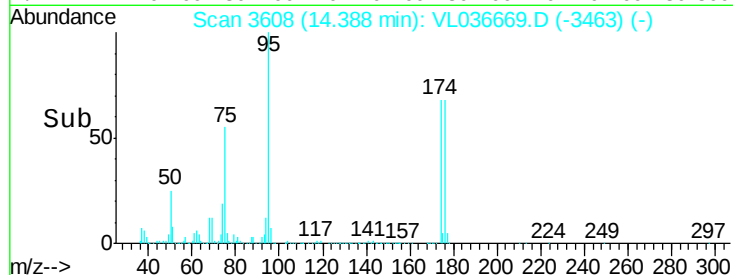
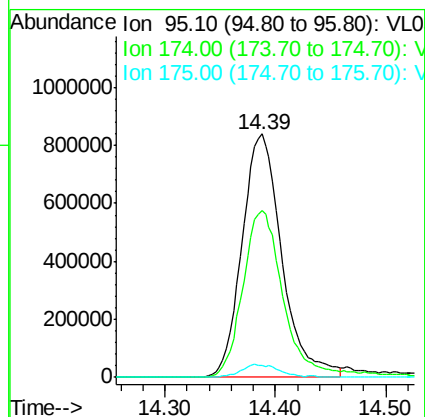
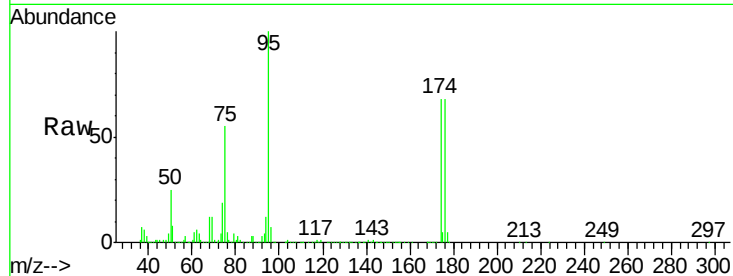
#68
1-Bromo-4-Fluorobenzene
Concen: 10.067 ppbv
RT: 14.39 min Scan# 3608
Delta R.T. -0.04 min
Lab File: VL036669.D
Acq: 3 Apr 2021 6:56

Instrument :
MSVOA_L
ClientSampleId :
SOFF-SG-02

Tot Ion: 95 Resp: 2101435
Ion Ratio Lower Upper
95 100
174 72.1 51.0 76.6
175 5.2 3.9 5.9

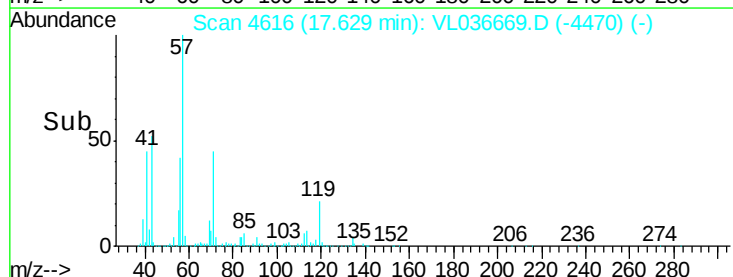
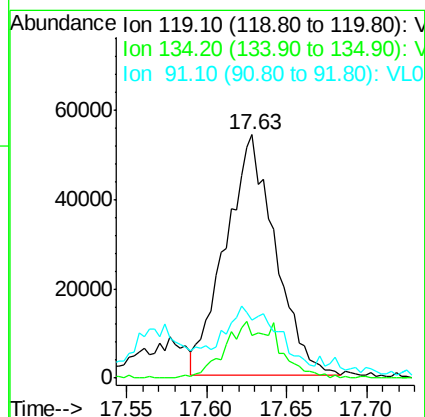
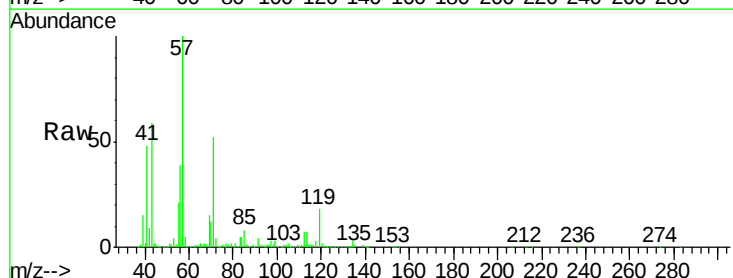
Manual Integrations
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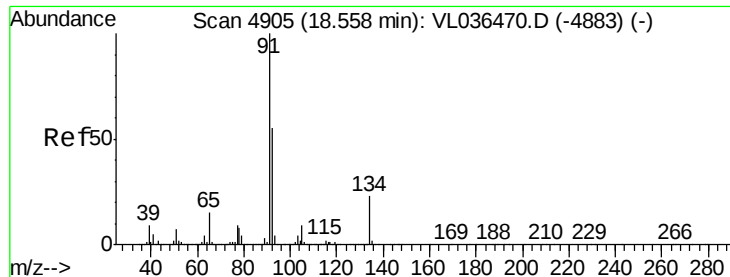
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#69
p-Isopropyltoluene
Concen: 0.276 ppbv
RT: 17.63 min Scan# 4616
Delta R.T. -0.03 min
Lab File: VL036669.D
Acq: 3 Apr 2021 6:56

Tgt Ion: 119 Resp: 114185
Ion Ratio Lower Upper
119 100
134 25.5 20.6 30.8
91 35.7 25.0 37.6





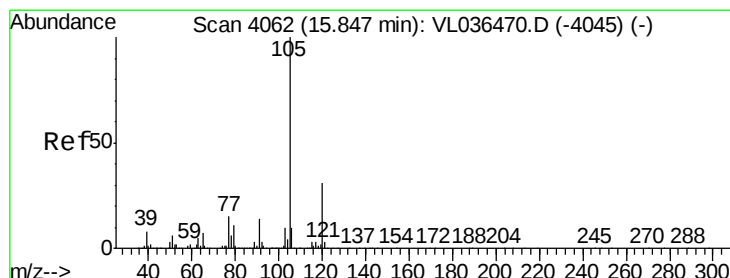
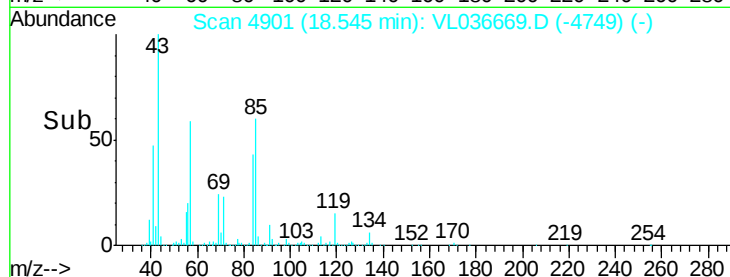
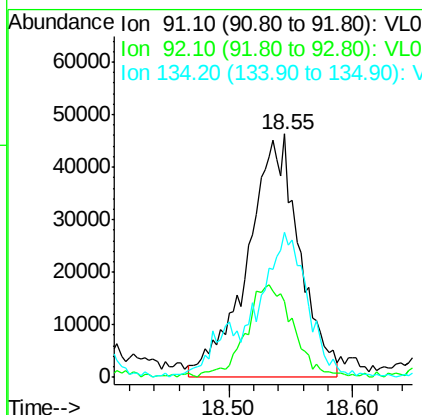
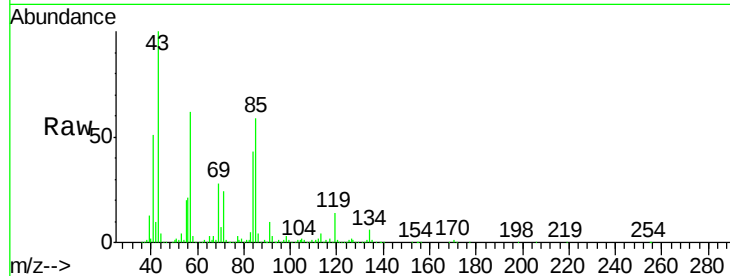
#70
n-Butylbenzene
Concen: 0.312 ppbv m
RT: 18.55 min Scan# 4901
Delta R.T. -0.01 min
Lab File: VL036669.D
Acq: 3 Apr 2021 6:56

Instrument :
MSVOA_L
ClientSampleId :
SOFF-SG-02

Tot Ion	Ratio	Lower	Upper
91	100		
92	35.8	43.8	65.8#
134	0.0	18.0	27.0#

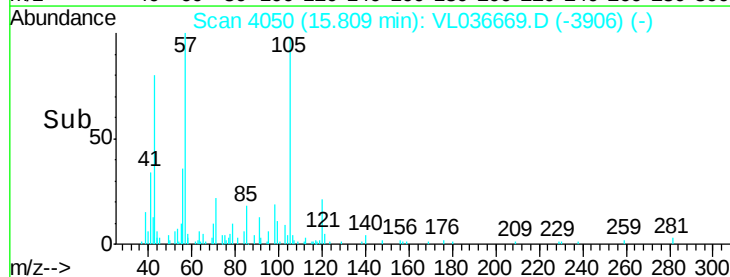
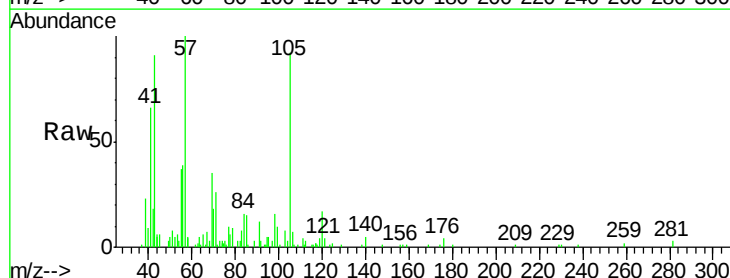
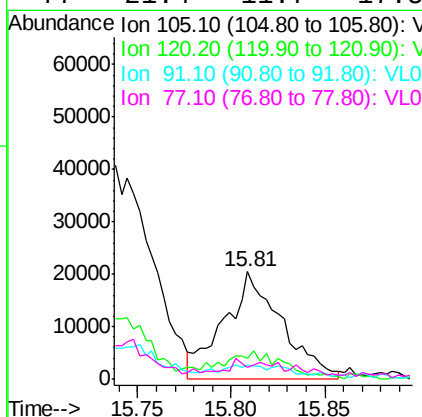
Manual Integrations
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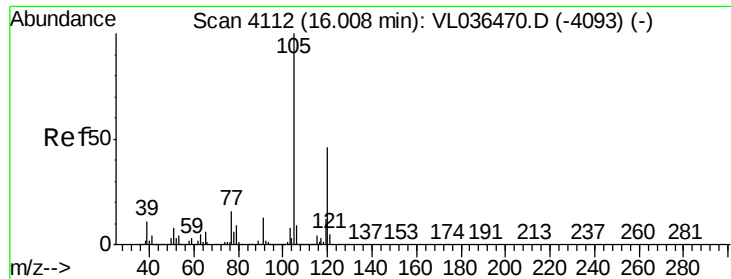
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#72
4-Ethyltoluene
Concen: 0.124 ppbv m
RT: 15.81 min Scan# 4050
Delta R.T. -0.04 min
Lab File: VL036669.D
Acq: 3 Apr 2021 6:56

Tgt Ion	Ratio	Lower	Upper
105	100		
120	0.0	24.0	36.0#
91	18.0	11.0	16.4#
77	21.4	11.7	17.5#





#73

1,3,5-Trimethylbenzene

Concen: 0.167 ppbv m

RT: 15.97 min Scan# 4099

Delta R.T. -0.04 min

Lab File: VL036669.D

Acq: 3 Apr 2021 6:56

Instrument :

MSVOA_L

ClientSampleId :

SOFF-SG-02

Tot Ion:105 Resp: 54830

Ion Ratio Lower Upper

105 100

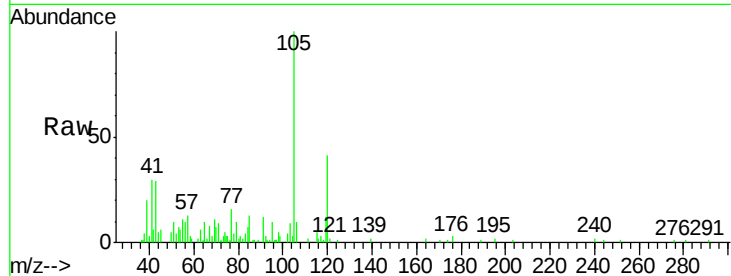
120 40.9 36.6 54.8

Manual Integrations

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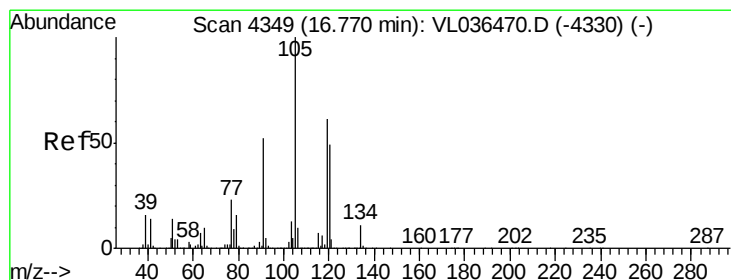
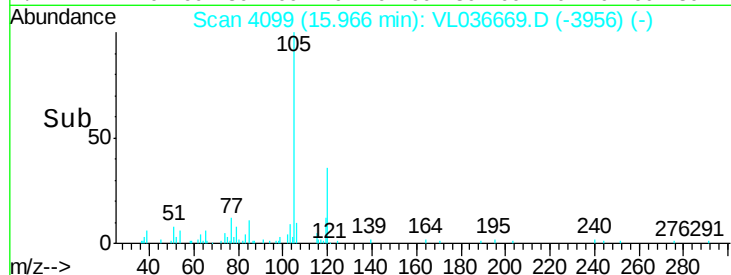
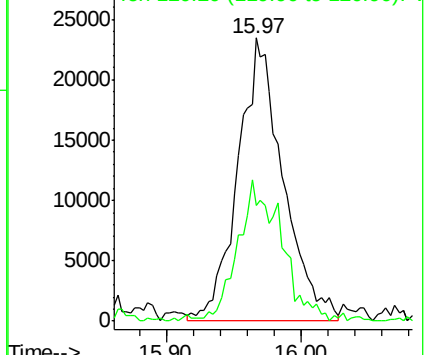
apatel

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Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V



#74

1,2,4-Trimethylbenzene

Concen: 0.758 ppbv

RT: 16.73 min Scan# 4338

Delta R.T. -0.04 min

Lab File: VL036669.D

Acq: 3 Apr 2021 6:56

Tgt Ion:105 Resp: 266780

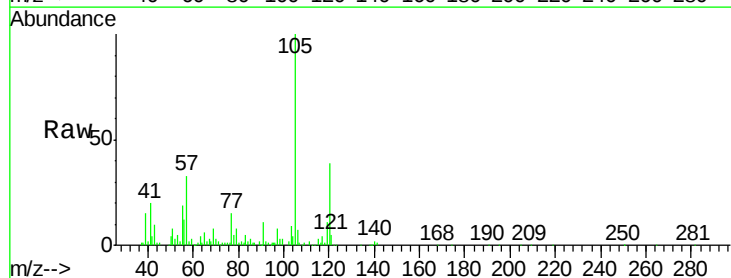
Ion Ratio Lower Upper

105 100

120 38.6 39.2 58.8#

91 10.8 42.6 64.0#

77 13.7 18.6 28.0#

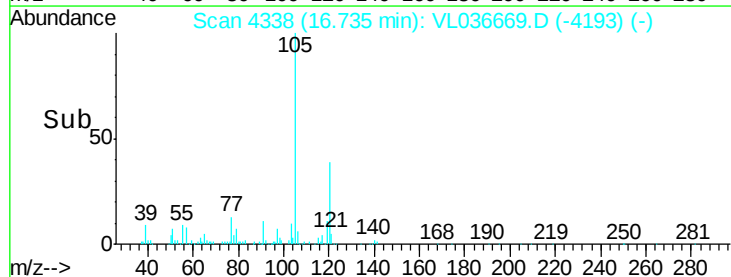
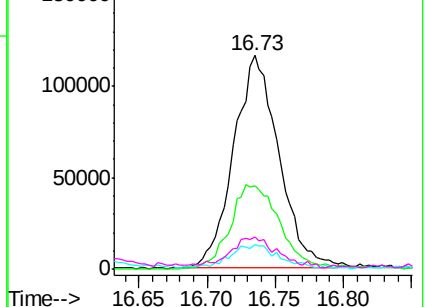


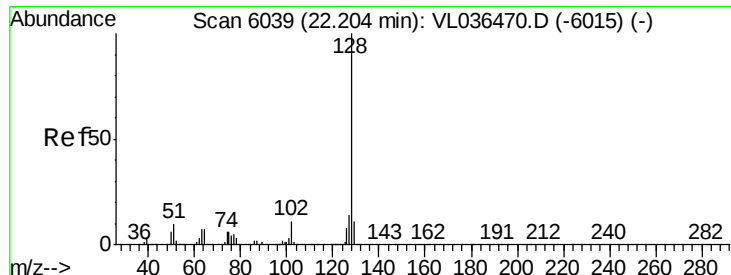
Abundance Ion 105.10 (104.80 to 105.80): V

Ion 120.20 (119.90 to 120.90): V

Ion 91.10 (90.80 to 91.80): VL0

Ion 77.10 (76.80 to 77.80): VL0





#79

Naphthalene

Concen: 0.911 ppbv

RT: 22.18 min Scan# 6030

Delta R.T. -0.03 min

Lab File: VL036669.D

Acq: 3 Apr 2021 6:56

Instrument :

MSVOA_L

ClientSampleId :

SOFF-SG-02

Tot Ion:	128	Resp:	187058
Ion Ratio		Lower	Upper
128	100		
127	10.3	10.9	16.3#
129	11.7	9.0	13.4

Manual Integrations
APPROVED

apatel
4/5/2021 1:14:30 PM

