

Data File : VL035652.D
Acq On : 17 Sep 2020 8:43
Operator : SY/AP
Sample : VL0916ABS01
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
VL0916ABS01

Quant Time: Sep 17 10:02:49 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL082720AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Sep 14 15:19:50 2020
QLast Update : Mon Sep 14 15:19:50 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1127932	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.18	114	4884306	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.10	117	6101846	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.44	95	3500512	8.08	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	80.80%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
2) Dichlorodifluoromethane	3.04	85	1671272	8.550	ppbv	100
3) Chlorodifluoromethane	2.98	51	1234266	9.894	ppbv	99
4) Chloromethane	3.13	50	657007	9.830	ppbv	99
5) Vinyl Chloride	3.25	62	809174	9.820	ppbv	100
6) Bromomethane	3.47	94	711124	10.275	ppbv	99
7) Chloroethane	3.55	64	310065	10.643	ppbv	96
8) Dichlorotetrafluoroethane	3.18	85	2283664	9.647	ppbv	93
9) Propene	3.00	41	471761	9.809	ppbv	99
10) Heptane	8.13	43	1310255	10.143	ppbv	98
11) Trichlorofluoromethane	3.95	101	2571001	9.019	ppbv	100
12) 1,1,2-Trichlorotrifluoroet	4.48	101	1999885	9.295	ppbv	90
13) Ethanol	3.60	45	126342	10.596	ppbv	98
14) Bromoethene	3.74	108	954818	10.310	ppbv	99
15) Acetone	3.85	43	1069995	8.601	ppbv	99
16) 1,3-Butadiene	3.32	39	479563	10.356	ppbv	98
17) tert-Butyl alcohol	4.29	59	1718991	11.352	ppbv	99
18) 1,1-Dichloroethene	4.29	96	955706	10.087	ppbv	95
19) Isopropyl Alcohol	3.96	45	861032	11.602	ppbv	99
20) Methylene Chloride	4.34	84	818896	8.838	ppbv	96
21) Allyl Chloride	4.41	41	669249	11.483	ppbv	100
22) trans-1,2-Dichloroethene	4.88	96	980008	9.716	ppbv	91
23) Vinyl Acetate	5.08	43	1706024	10.685	ppbv	99
24) 1,1-Dichloroethane	5.01	63	1661816	10.114	ppbv	100
25) Ethyl Acetate	5.68	43	2212434	10.067	ppbv	99
26) Hexane	5.69	57	1280219	10.281	ppbv	98
27) Carbon Disulfide	4.55	76	2078794	11.633	ppbv	100
28) Methyl tert-Butyl Ether	5.03	73	2353338	10.844	ppbv	100
29) Chloroform	5.76	83	2550113	10.051	ppbv	100
30) Cyclohexane	7.13	84	1461102	10.953	ppbv	99
31) cis-1,2-Dichloroethene	5.55	61	1374654	10.760	ppbv	98
32) 1,1,1-Trichloroethane	6.52	97	2537269	10.309	ppbv	100
34) 2-Butanone	5.25	43	1511800	10.430	ppbv	99
35) Carbon Tetrachloride	7.02	117	2587260	10.540	ppbv	98
36) Benzene	6.90	78	3324758	10.516	ppbv	99
37) 1,2-Dichloroethane	6.31	62	1568806	10.408	ppbv	100
38) Trichloroethene	7.84	130	1669005	9.088	ppbv	97
39) 1,2-Dichloropropane	7.62	63	1115271	10.442	ppbv	99
40) 1,4-Dioxane	7.84	88	598382	11.215	ppbv	97
41) Tetrahydrofuran	6.05	42	860113	11.190	ppbv	97
42) Bromodichloromethane	7.80	83	2700430	11.078	ppbv	100
43) Methyl Methacrylate	8.02	69	1397911	11.434	ppbv	98

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Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,2,4-Trimethylpentane	7.88	57	4254282	10.227	ppbv	100
45) t-1,3-Dichloropropene	9.29	75	1604943	12.959	ppbv	99
46) cis-1,3-Dichloropropene	8.71	75	1893227	12.312	ppbv	97
47) 1,1,2-Trichloroethane	9.49	97	1642225	10.420	ppbv	98
48) Dibromochloromethane	10.32	129	2735134	11.027	ppbv	100
49) Bromoform	13.06	173	2447200	10.887	ppbv	100
50) 4-Methyl-2-Pentanone	8.75	43	2214693	10.551	ppbv	98
51) 2-Hexanone	10.14	43	1880940	10.924	ppbv	98
52) Tetrachloroethene	11.24	164	1657929	8.976	ppbv	96
53) Toluene	9.82	91	4209558	10.588	ppbv	99
54) 1,2-Dibromoethane	10.63	107	2601770	10.448	ppbv	97
56) 1,1,1,2-Tetrachloroethane	12.14	131	2120961	8.543	ppbv	99
57) Chlorobenzene	12.16	112	3572985	7.956	ppbv	98
58) Ethyl Benzene	12.73	91	5457177	8.673	ppbv	99
59) m/p-Xylene	13.01	91	4940841	9.397	ppbv #	42
60) o-Xylene	13.71	91	4469945	8.441	ppbv	99
61) Styrene	13.55	104	3696345	9.127	ppbv	99
62) Isopropylbenzene	14.69	105	6820864	8.019	ppbv	99
63) 1,1,2,2-Tetrachloroethane	13.70	83	3199848	7.794	ppbv	100
64) n-propylbenzene	15.58	120	2162511	8.330	ppbv	95
65) tert-Butylbenzene	16.77	119	6355335	8.037	ppbv	98
66) Benzyl Chloride	17.01	91	2458364	12.510	ppbv	98
67) sec-Butylbenzene	17.32	105	8391252	7.965	ppbv	98
69) p-Isopropyltoluene	17.68	119	7301770	7.901	ppbv	99
70) n-Butylbenzene	18.57	91	7185186	8.072	ppbv	99
71) 2-Chlorotoluene	15.47	91	5240488	8.460	ppbv	98
72) 4-Ethyltoluene	15.86	105	5678863	8.435	ppbv	99
73) 1,3,5-Trimethylbenzene	16.02	105	5230131	8.399	ppbv	99
74) 1,2,4-Trimethylbenzene	16.79	105	5417791	7.923	ppbv	95
75) 1,3-Dichlorobenzene	17.02	146	3734036	7.372	ppbv	99
76) 1,4-Dichlorobenzene	17.16	146	3813843	7.635	ppbv	98
77) 1,2-Dichlorobenzene	17.84	146	3722385	7.585	ppbv	99
78) Hexachloro-1,3-Butadiene	23.40	225	2036620	6.501	ppbv	100
79) Naphthalene	22.23	128	6367062	8.392	ppbv	99
80) Naphthalene,2-methyl-	25.00	142	2547195	9.836	ppbv	100
81) 1,2,4-Trichlorobenzene	21.96	180	3276373	7.211	ppbv	100

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

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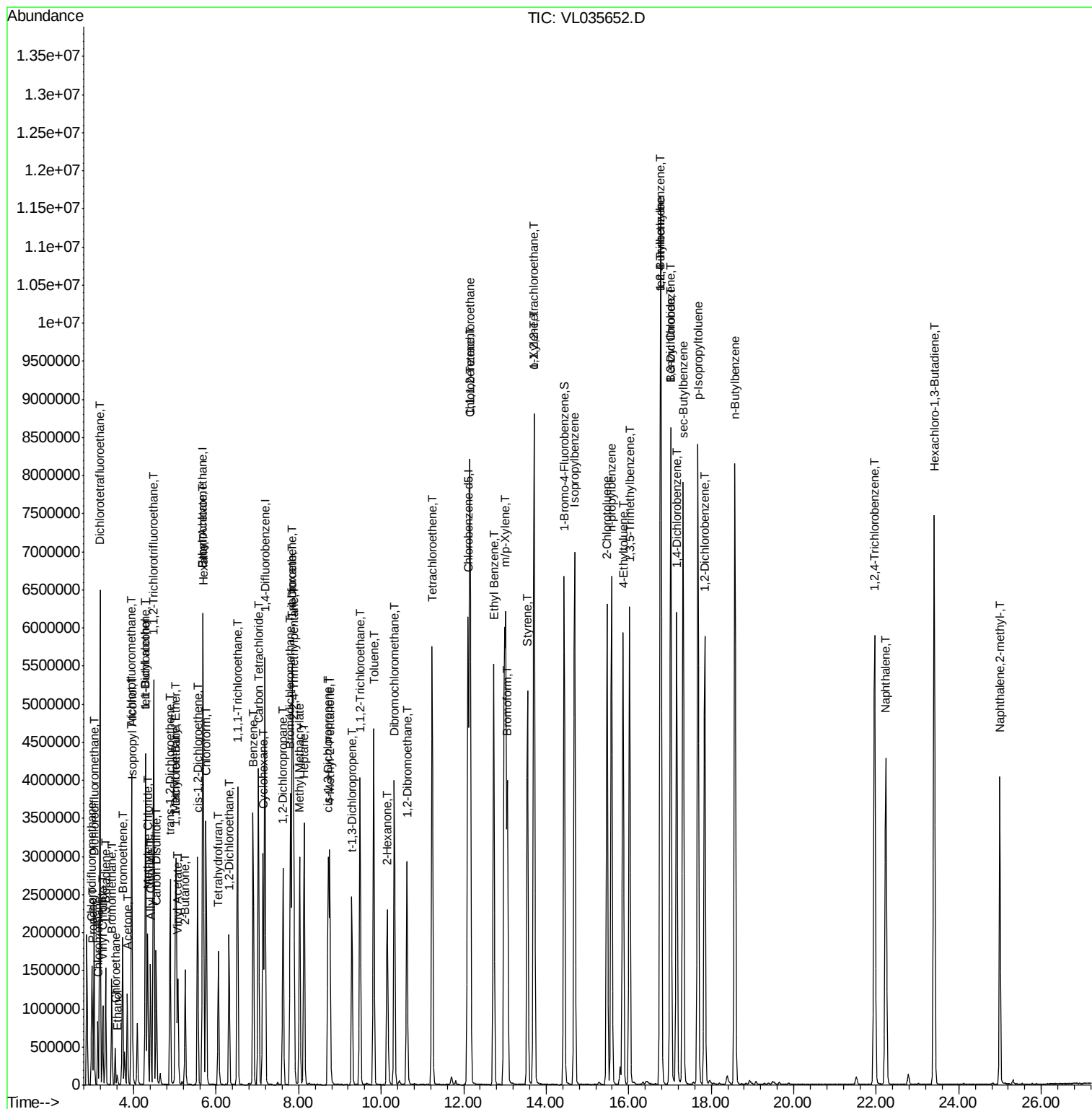
Quant Time: Sep 17 10:02:49 2020

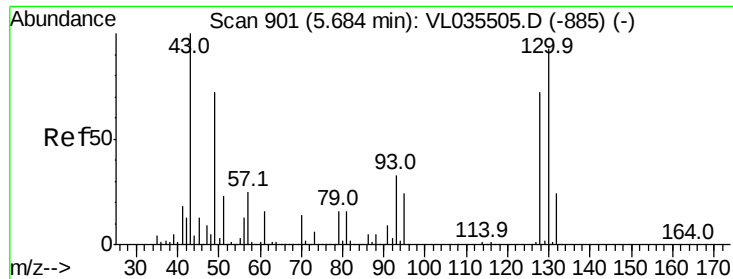
Quant Method : Z:\V0ASRV\HPCHEM1\MSV0A_L\METHODS\VL082720AIR.M

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#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 896

Delta R.T. 0.00 min

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Instrument :

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ClientSampleId :

VL0916ABS01

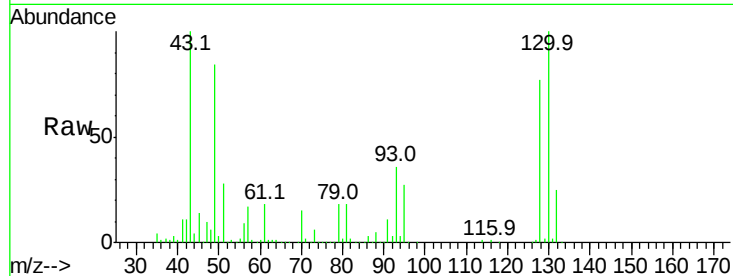
Tgt Ion: 49 Resp: 1127932

Ion Ratio Lower Upper

49 100

128 94.1 50.0 150.1

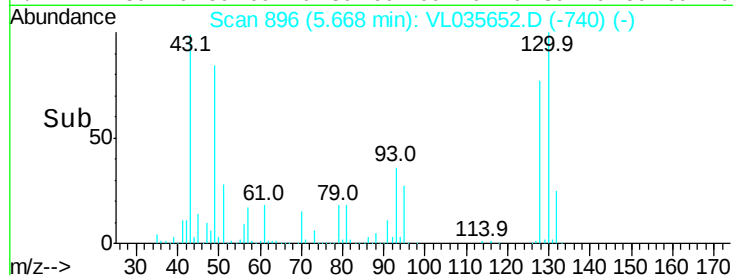
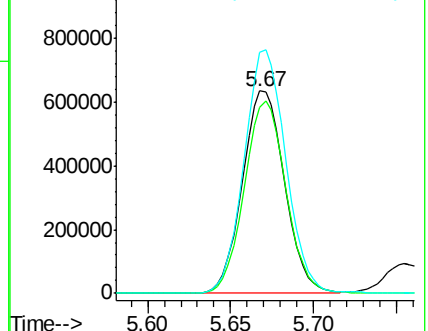
130 119.5 64.4 193.2



Abundance Ion 49.10 (48.80 to 49.80): VL0

Ion 128.00 (127.70 to 128.70): V

Ion 130.00 (129.70 to 130.70): V



#2

Dichlorodifluoromethane

Concen: 8.550 ppbv

RT: 3.04 min Scan# 79

Delta R.T. 0.01 min

Lab File: VL035652.D

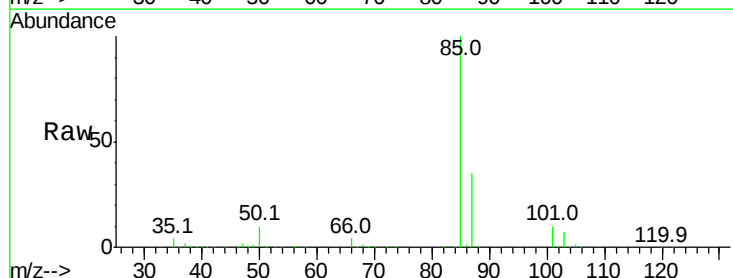
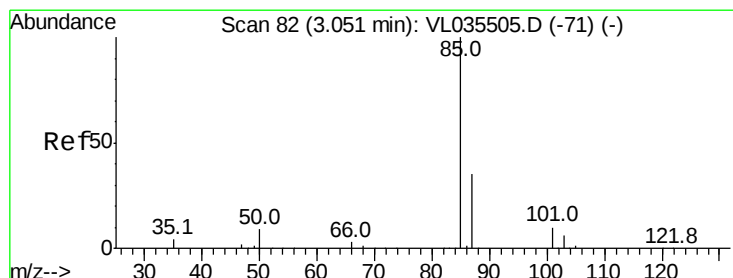
Acq: 17 Sep 2020 8:43

Tgt Ion: 85 Resp: 1671272

Ion Ratio Lower Upper

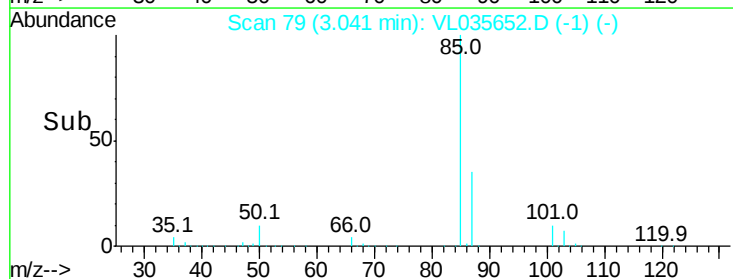
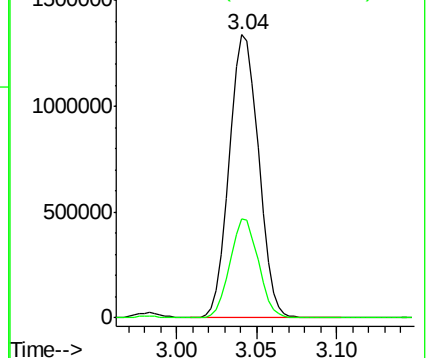
85 100

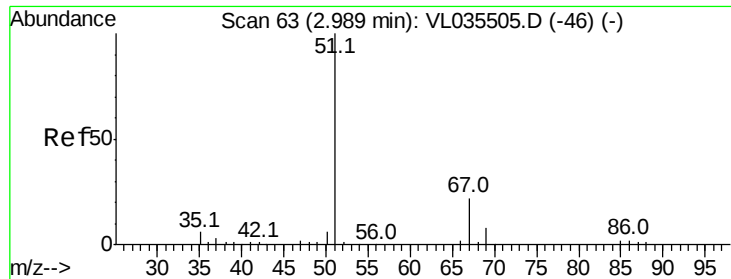
87 35.2 28.0 42.0



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0

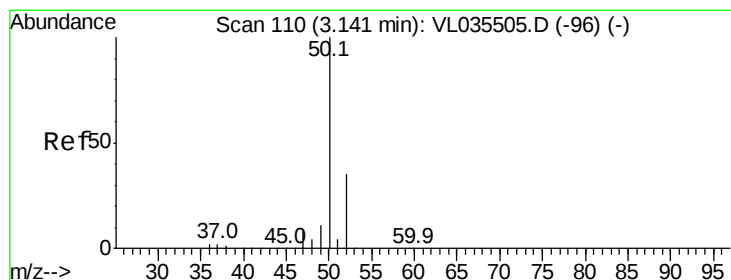
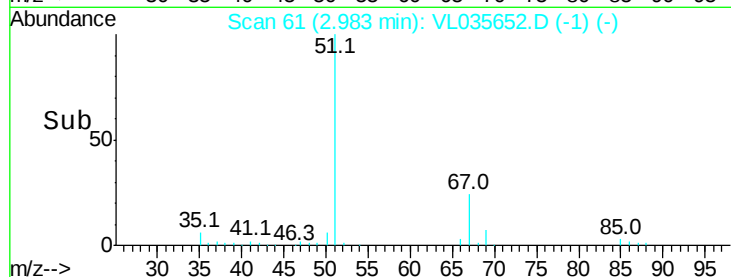
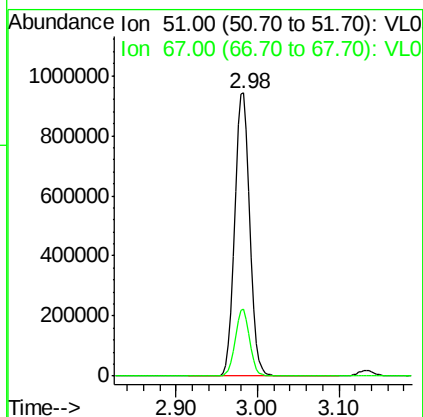
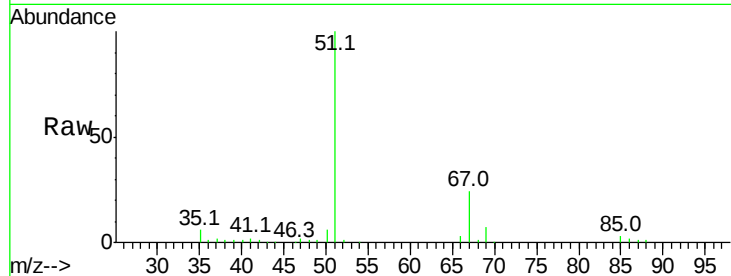




#3
 Chlorodifluoromethane
 Concen: 9.894 ppbv
 RT: 2.98 min Scan# 61
 Delta R.T. 0.01 min
 Lab File: VL035652.D
 Acq: 17 Sep 2020 8:43

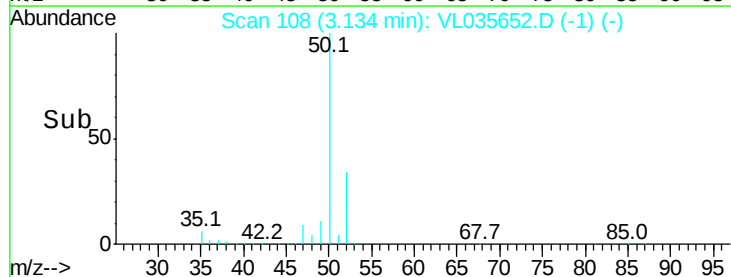
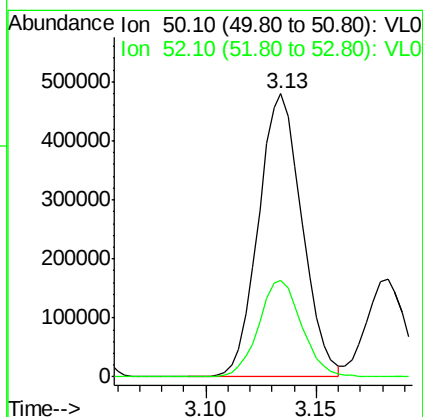
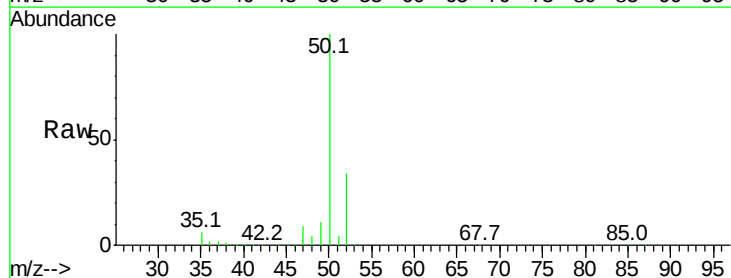
Instrument :
 MSVOA_L
 ClientSampleId :
 VL0916ABS01

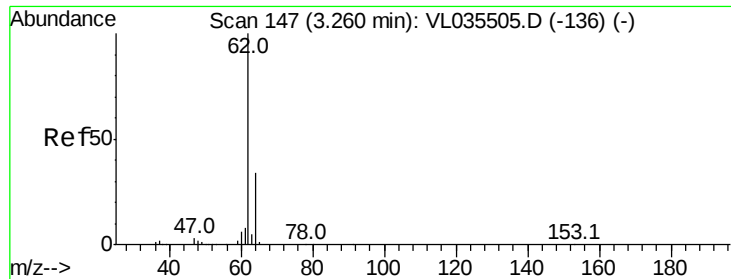
Tgt Ion: 51 Resp: 1234266
 Ion Ratio Lower Upper
 51 100
 67 22.5 17.8 26.8



#4
 Chloromethane
 Concen: 9.830 ppbv
 RT: 3.13 min Scan# 108
 Delta R.T. 0.01 min
 Lab File: VL035652.D
 Acq: 17 Sep 2020 8:43

Tgt Ion: 50 Resp: 657007
 Ion Ratio Lower Upper
 50 100
 52 34.0 27.7 41.5





#5

Vinyl Chloride

Concen: 9.820 ppbv

RT: 3.25 min Scan# 144

Delta R.T. 0.01 min

Lab File: VL035652.D

Acq: 17 Sep 2020 8:43

Instrument :

MSVOA_L

ClientSampleId :

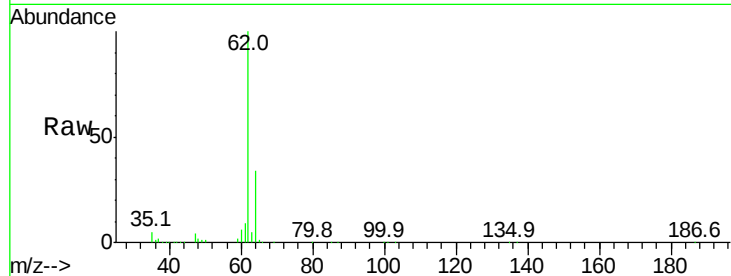
VL0916ABS01

Tgt Ion: 62 Resp: 809174

Ion Ratio Lower Upper

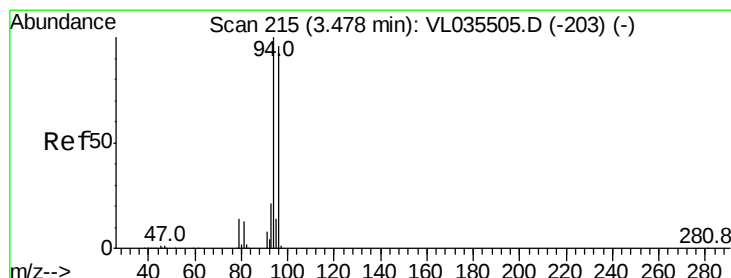
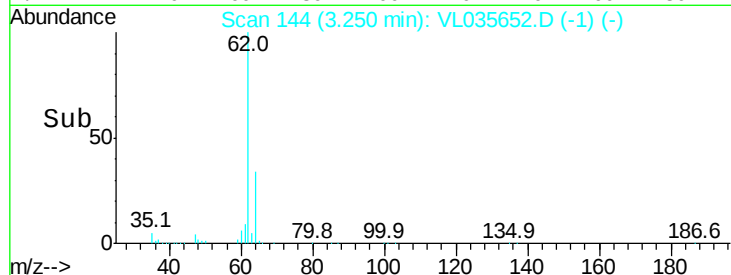
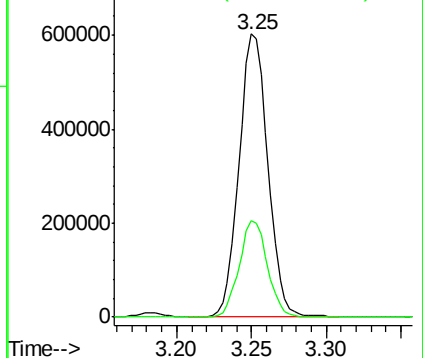
62 100

64 34.1 27.4 41.2



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0



#6

Bromomethane

Concen: 10.275 ppbv

RT: 3.47 min Scan# 212

Delta R.T. 0.01 min

Lab File: VL035652.D

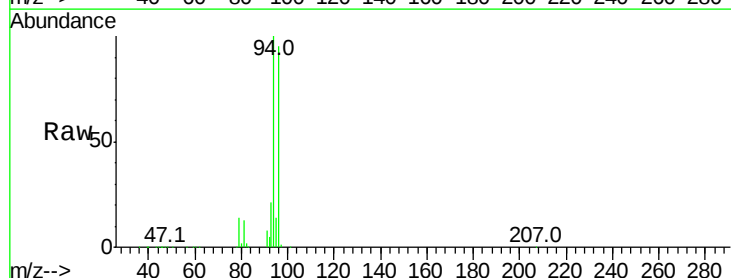
Acq: 17 Sep 2020 8:43

Tgt Ion: 94 Resp: 711124

Ion Ratio Lower Upper

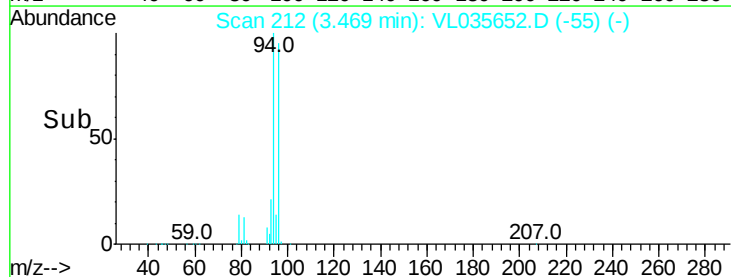
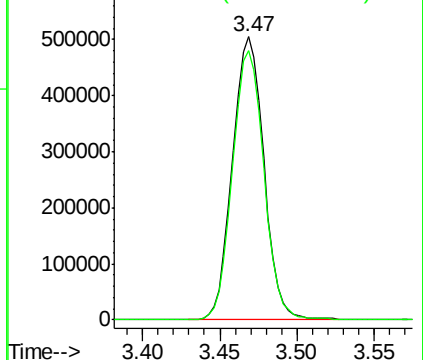
94 100

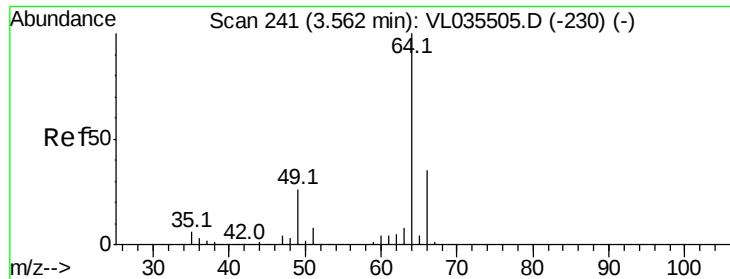
96 95.0 77.1 115.7



Abundance Ion 94.00 (93.70 to 94.70): VL0

Ion 96.00 (95.70 to 96.70): VL0





#7

Chloroethane

Concen: 10.643 ppbv

RT: 3.55 min Scan# 238

Delta R.T. 0.01 min

Lab File: VL035652.D

Acq: 17 Sep 2020 8:43

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ClientSampleId :

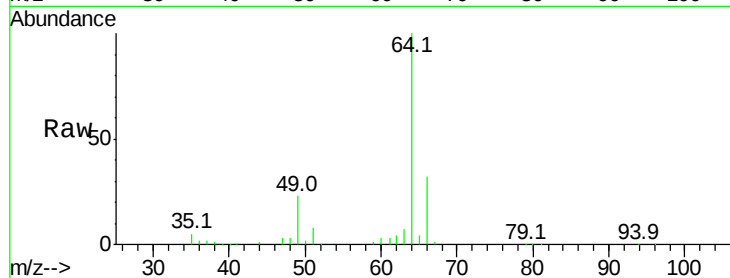
VL0916ABS01

Tgt Ion: 64 Resp: 310065

Ion Ratio Lower Upper

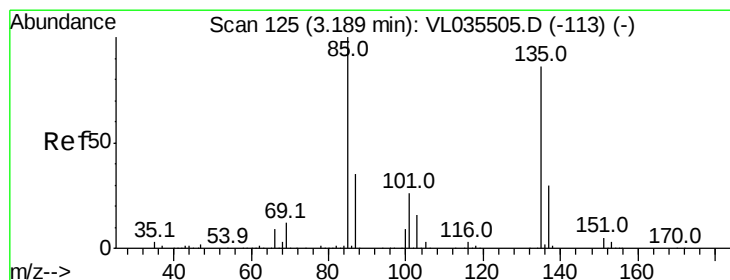
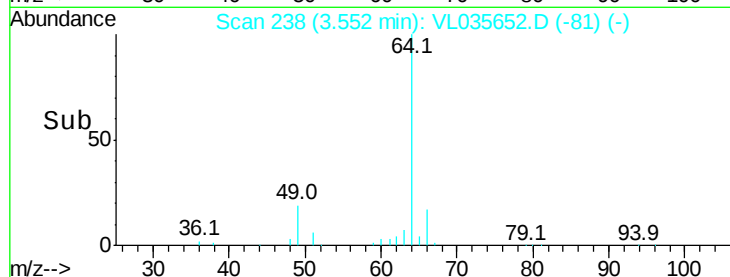
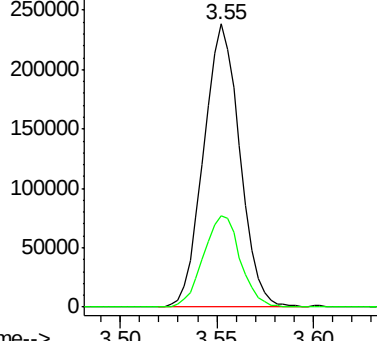
64 100

66 32.3 27.7 41.5



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0



#8

Dichlorotetrafluoroethane

Concen: 9.647 ppbv

RT: 3.18 min Scan# 123

Delta R.T. 0.01 min

Lab File: VL035652.D

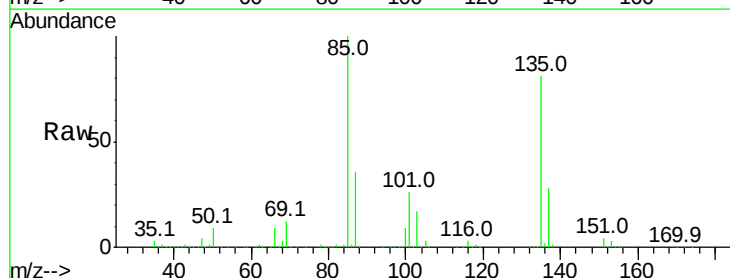
Acq: 17 Sep 2020 8:43

Tgt Ion: 85 Resp: 2283664

Ion Ratio Lower Upper

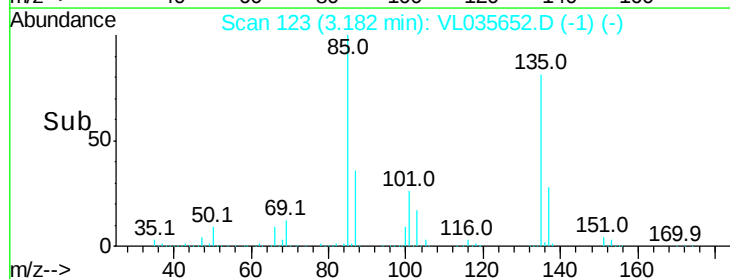
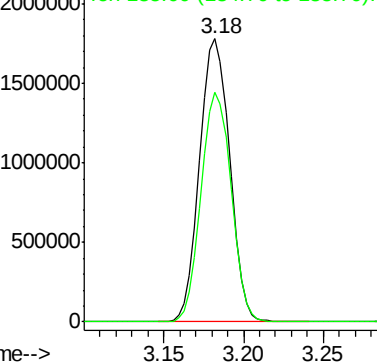
85 100

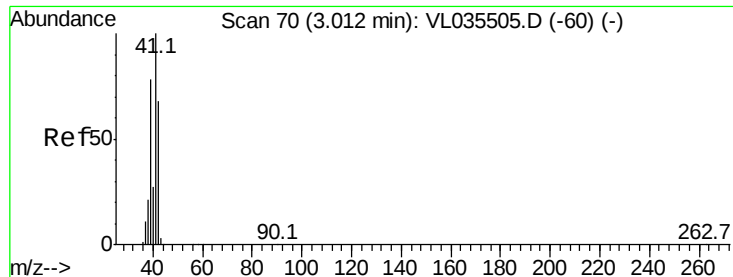
135 81.3 70.4 105.6



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): V





#9

Propene

Concen: 9.809 ppbv

RT: 3.00 min Scan# 67

Delta R.T. 0.01 min

Lab File: VL035652.D

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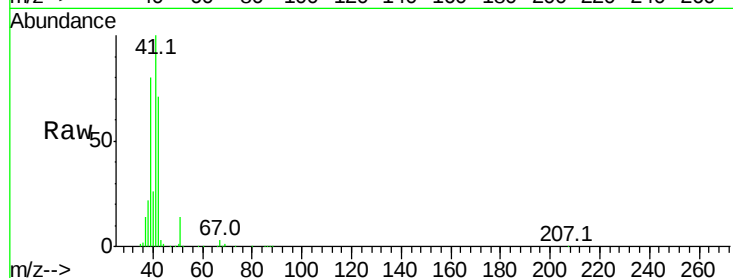
VL0916ABS01

Tgt Ion: 41 Resp: 471761

Ion Ratio Lower Upper

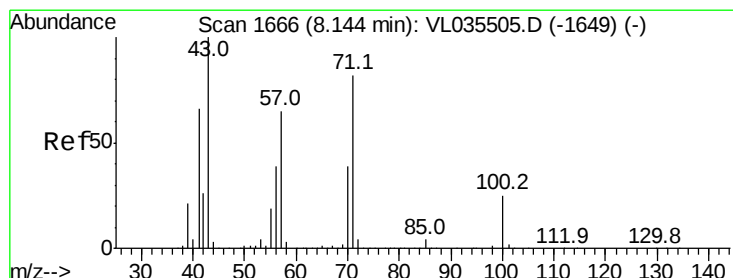
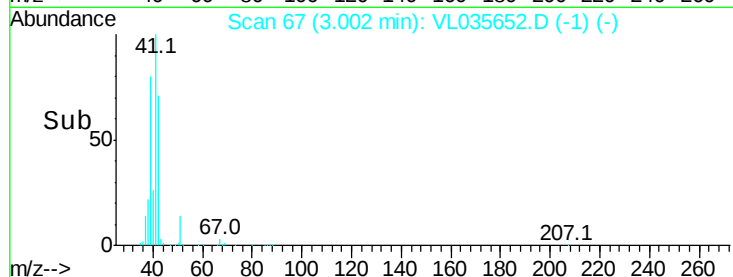
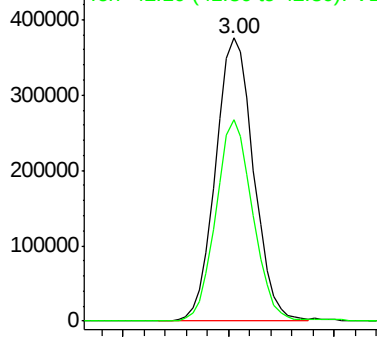
41 100

42 69.4 56.3 84.5



Abundance Ion 41.10 (40.80 to 41.80): VL0

Ion 42.10 (41.80 to 42.80): VL0



#10

Heptane

Concen: 10.143 ppbv

RT: 8.13 min Scan# 1662

Delta R.T. 0.00 min

Lab File: VL035652.D

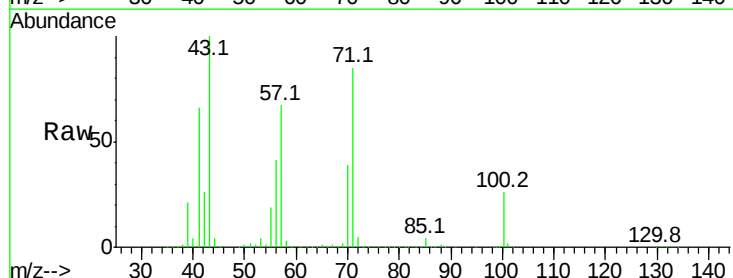
Acq: 17 Sep 2020 8:43

Tgt Ion: 43 Resp: 1310255

Ion Ratio Lower Upper

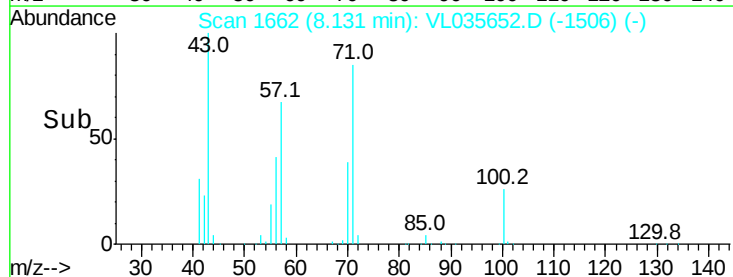
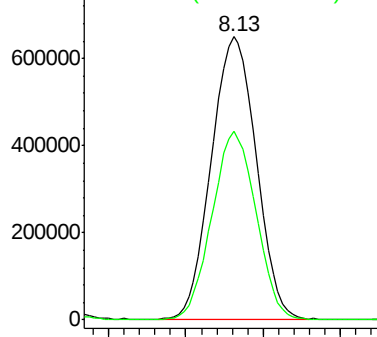
43 100

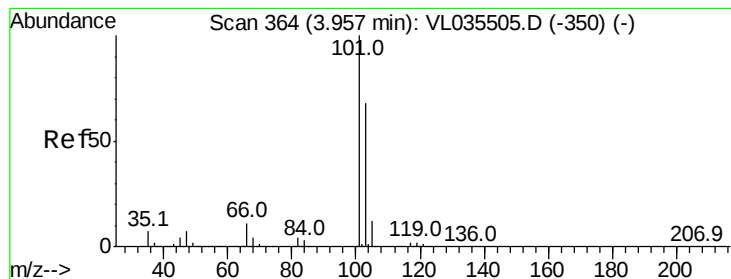
57 65.6 51.4 77.0



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 57.10 (56.80 to 57.80): VL0





#11

Trichlorofluoromethane

Concen: 9.019 ppbv

RT: 3.95 min Scan# 361

Delta R.T. 0.01 min

Lab File: VL035652.D

Acq: 17 Sep 2020 8:43

Instrument :

MSVOA_L

ClientSampleId :

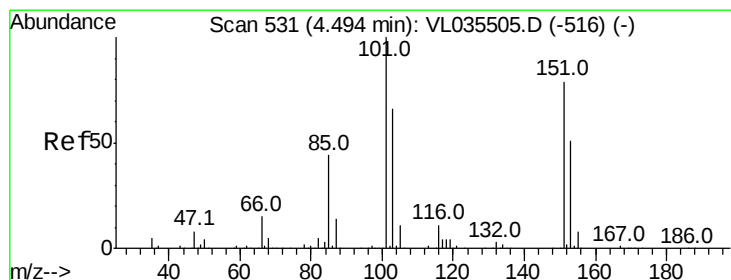
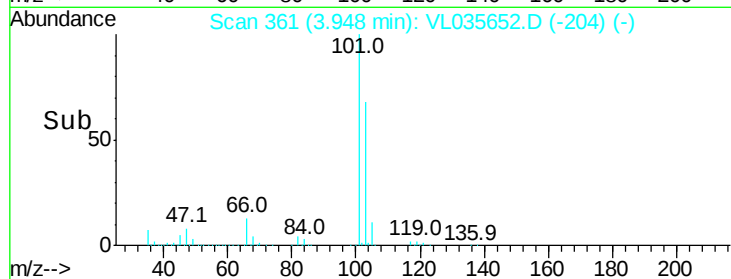
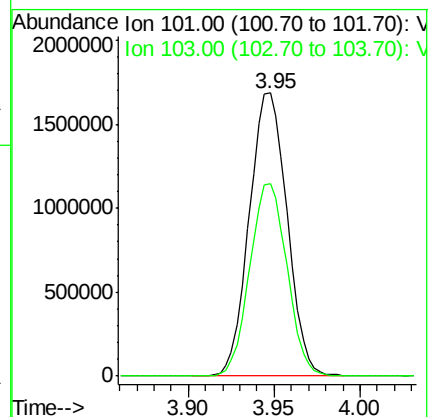
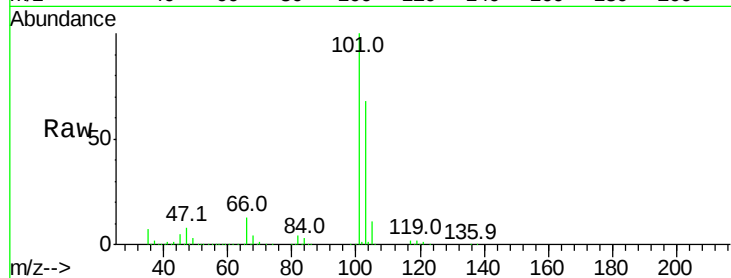
VL0916ABS01

Tgt Ion:101 Resp: 2571001

Ion Ratio Lower Upper

101 100

103 67.8 54.5 81.7



#12

1,1,2-Trichlorotrifluoroethane

Concen: 9.295 ppbv

RT: 4.48 min Scan# 528

Delta R.T. 0.01 min

Lab File: VL035652.D

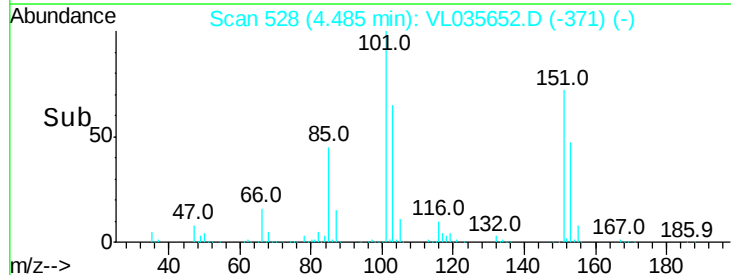
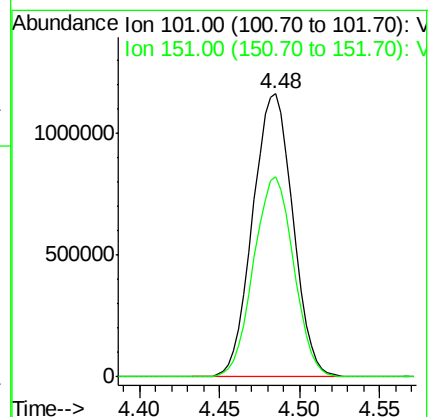
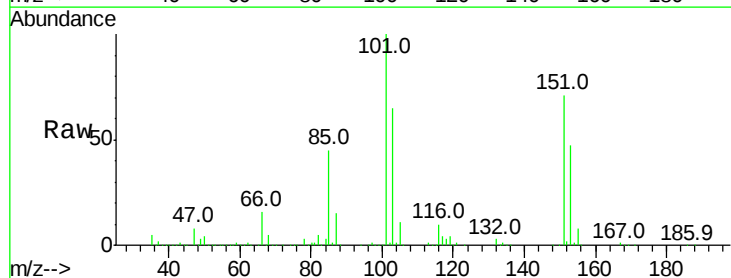
Acq: 17 Sep 2020 8:43

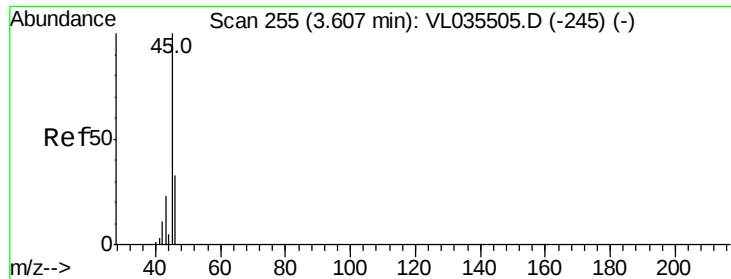
Tgt Ion:101 Resp: 1999885

Ion Ratio Lower Upper

101 100

151 70.7 63.5 95.3





#13

Ethanol

Concen: 10.596 ppbv

RT: 3.60 min Scan# 254

Delta R.T. 0.01 min

Lab File: VL035652.D

Acq: 17 Sep 2020 8:43

Instrument :

MSVOA_L

ClientSampleId :

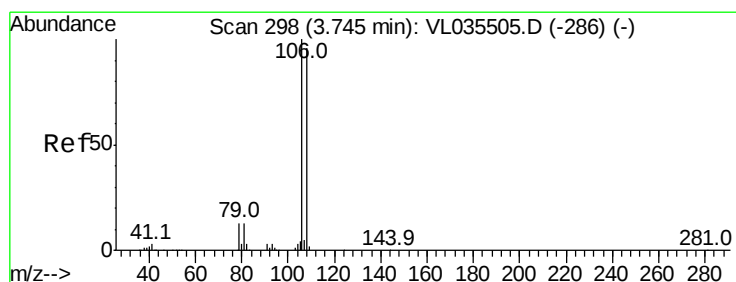
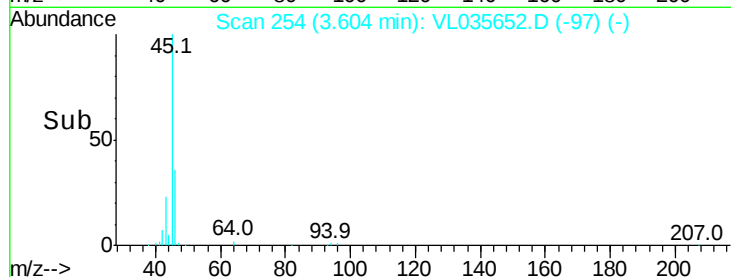
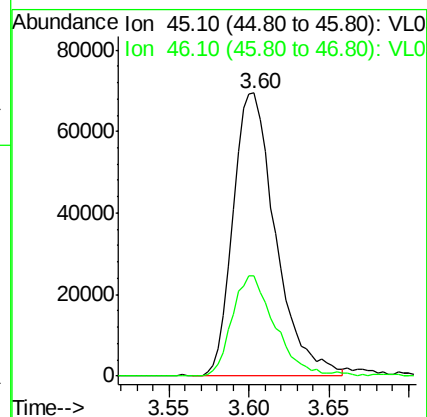
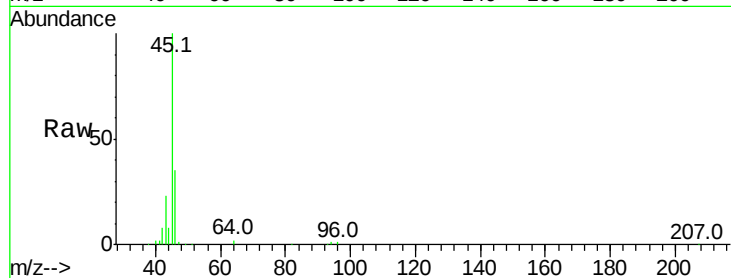
VL0916ABS01

Tgt Ion: 45 Resp: 126342

Ion Ratio Lower Upper

45 100

46 36.5 15.2 60.6



#14

Bromoethene

Concen: 10.310 ppbv

RT: 3.74 min Scan# 295

Delta R.T. 0.01 min

Lab File: VL035652.D

Acq: 17 Sep 2020 8:43

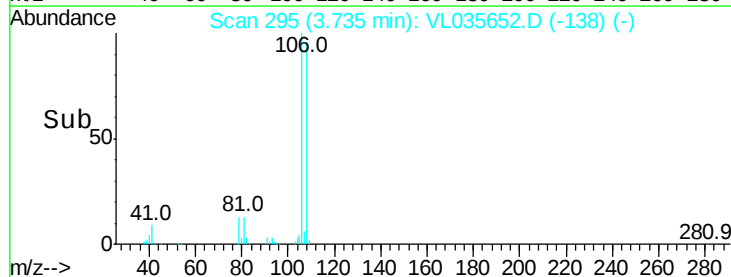
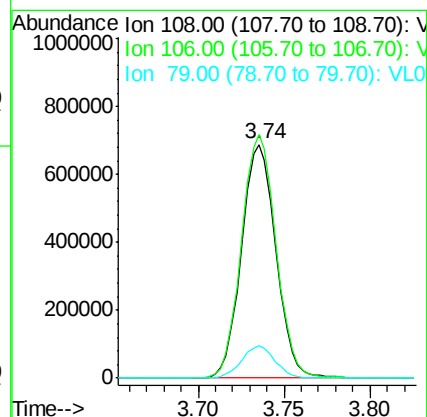
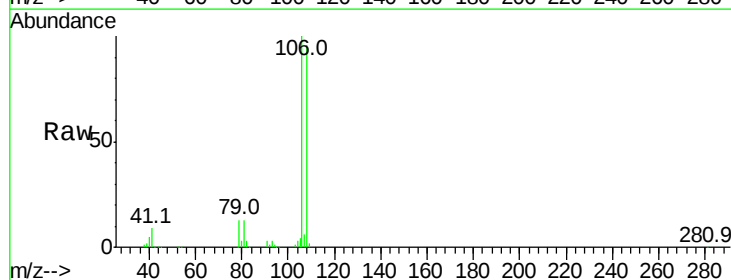
Tgt Ion: 108 Resp: 954818

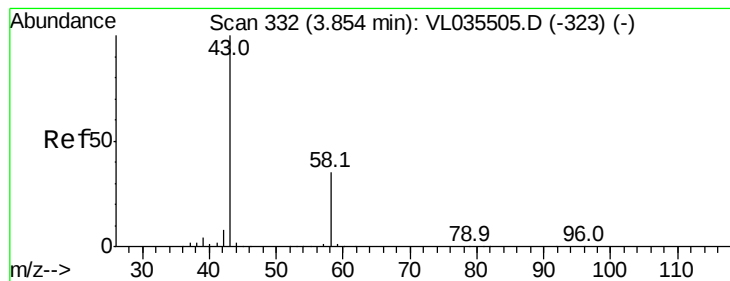
Ion Ratio Lower Upper

108 100

106 105.2 84.9 127.3

79 13.5 10.8 16.2





#15

Acetone

Concen: 8.601 ppbv

RT: 3.85 min Scan# 330

Delta R.T. 0.01 min

Lab File: VL035652.D

Acq: 17 Sep 2020 8:43

Instrument :

MSVOA_L

ClientSampleId :

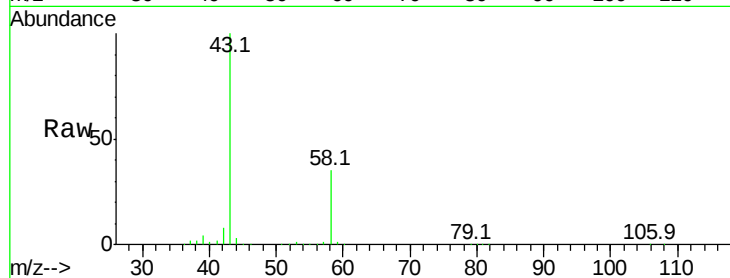
VL0916ABS01

Tgt Ion: 43 Resp: 1069995

Ion Ratio Lower Upper

43 100

58 35.9 28.4 42.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

3.85

800000

600000

400000

200000

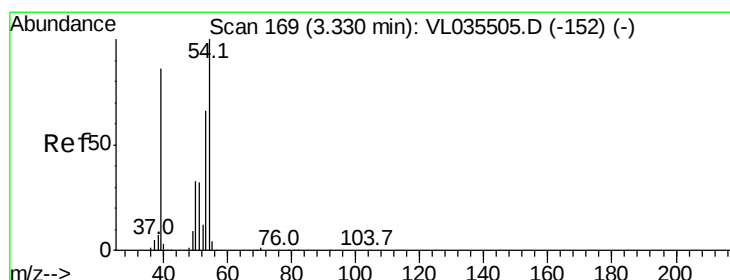
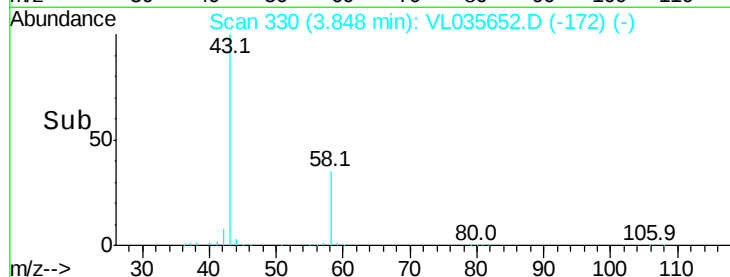
0

3.80

3.85

3.90

Time-->



#16

1,3-Butadiene

Concen: 10.356 ppbv

RT: 3.32 min Scan# 166

Delta R.T. 0.00 min

Lab File: VL035652.D

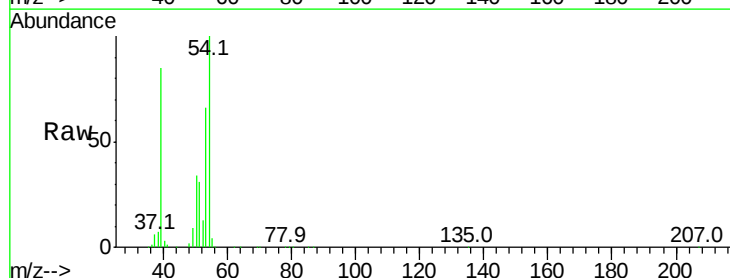
Acq: 17 Sep 2020 8:43

Tgt Ion: 39 Resp: 479563

Ion Ratio Lower Upper

39 100

54 113.0 88.4 132.6



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0

500000

400000

300000

200000

100000

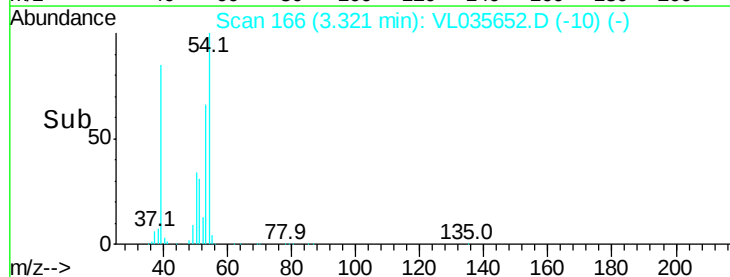
0

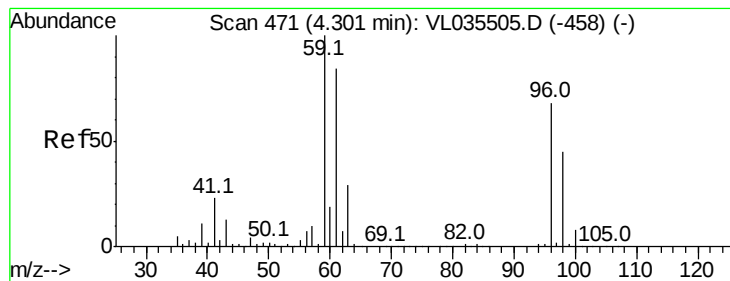
3.25

3.30

3.35

Time-->





#17

tert-Butyl alcohol

Concen: 11.352 ppbv

RT: 4.29 min Scan# 467

Delta R.T. 0.01 min

Lab File: VL035652.D

Acq: 17 Sep 2020 8:43

Instrument :

MSVOA_L

ClientSampleId :

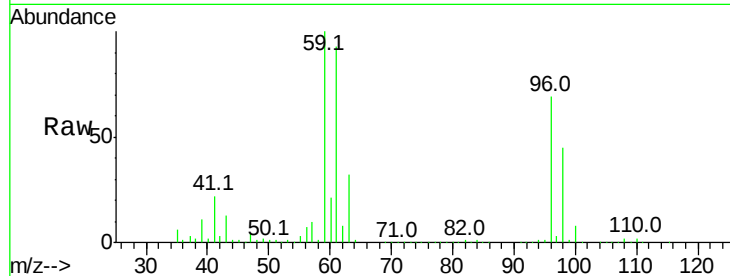
VL0916ABS01

Tgt Ion: 59 Resp: 1718991

Ion Ratio Lower Upper

59 100

57 10.3 8.4 12.6



Abundance Ion 59.10 (58.80 to 59.80): VL0

Ion 57.10 (56.80 to 57.80): VL0

4.29

800000

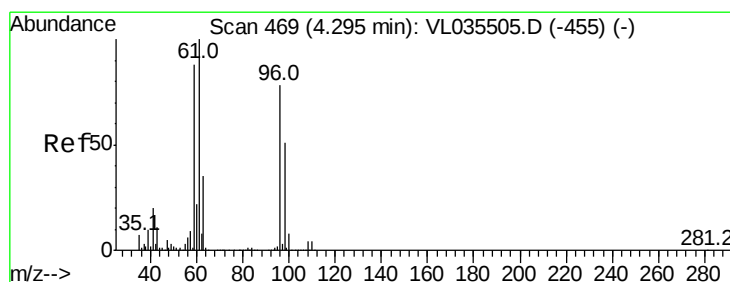
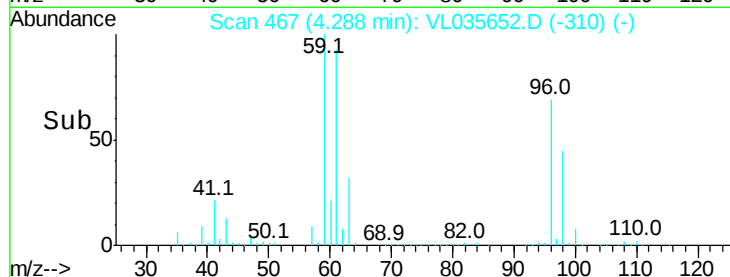
600000

400000

200000

0

Time--> 4.20 4.25 4.30 4.35 4.40



#18

1,1-Dichloroethene

Concen: 10.087 ppbv

RT: 4.29 min Scan# 466

Delta R.T. 0.01 min

Lab File: VL035652.D

Acq: 17 Sep 2020 8:43

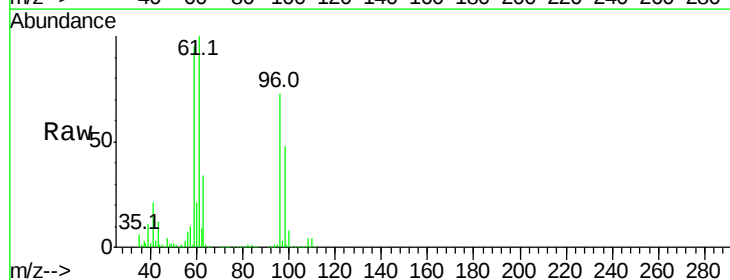
Tgt Ion: 96 Resp: 955706

Ion Ratio Lower Upper

96 100

61 136.1 103.0 154.6

98 65.1 52.8 79.2



Abundance Ion 96.00 (95.70 to 96.70): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

4.29

1200000

1000000

800000

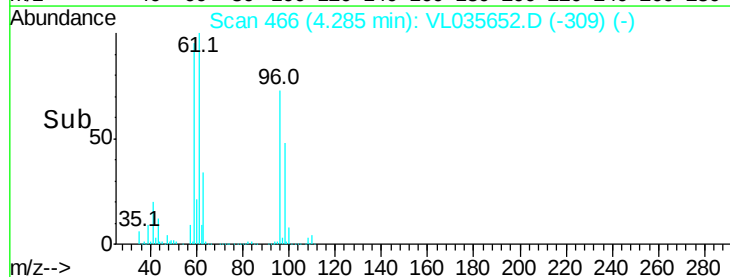
600000

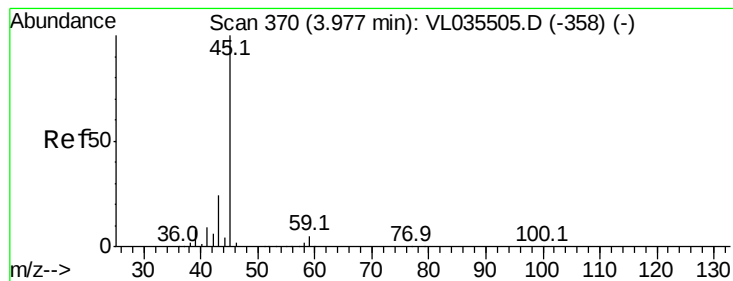
400000

200000

0

Time--> 4.20 4.25 4.30 4.35





#19

Isopropyl Alcohol

Concen: 11.602 ppbv

RT: 3.96 min Scan# 366

Delta R.T. 0.01 min

Lab File: VL035652.D

Acq: 17 Sep 2020 8:43

Instrument :

MSVOA_L

ClientSampleId :

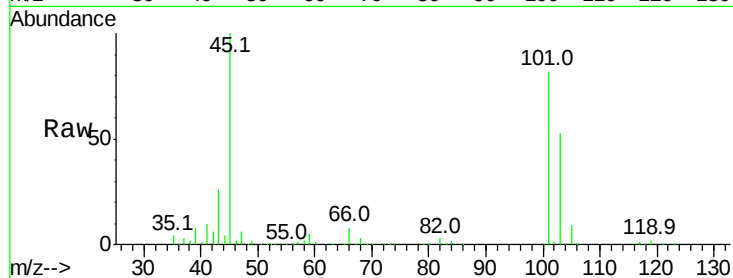
VL0916ABS01

Tgt Ion: 45 Resp: 861032

Ion Ratio Lower Upper

45 100

58 2.3 2.0 3.0



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

3.96

500000

400000

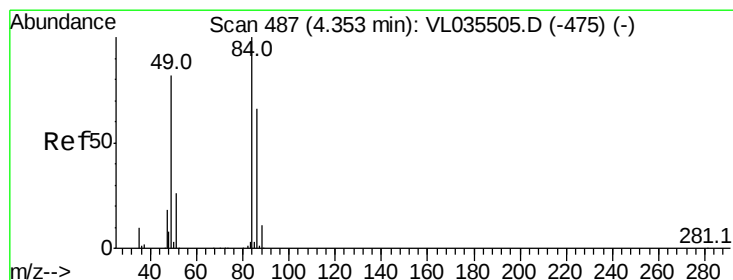
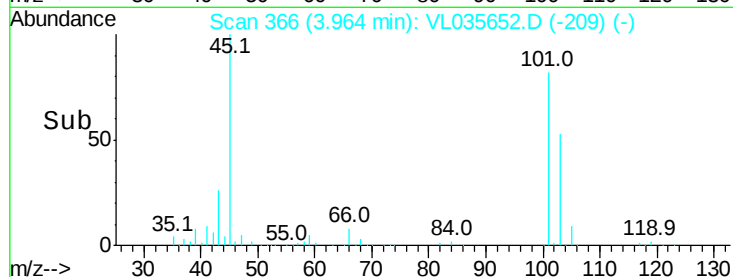
300000

200000

100000

0

Time-->



#20

Methylene Chloride

Concen: 8.838 ppbv

RT: 4.34 min Scan# 483

Delta R.T. 0.00 min

Lab File: VL035652.D

Acq: 17 Sep 2020 8:43

Tgt Ion: 84 Resp: 818896

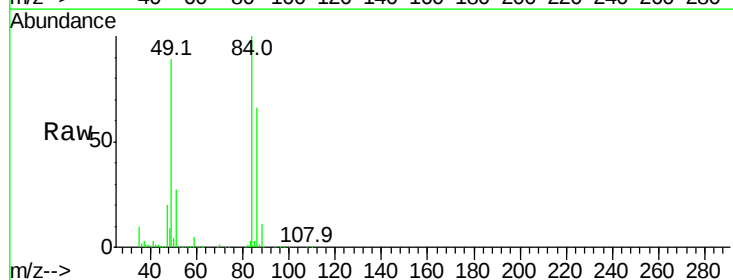
Ion Ratio Lower Upper

84 100

49 88.4 65.4 98.0

51 26.6 21.5 32.3

86 65.8 52.9 79.3



Abundance Ion 84.00 (83.70 to 84.70): VL0

Ion 49.10 (48.80 to 49.80): VL0

Ion 51.10 (50.80 to 51.80): VL0

Ion 86.00 (85.70 to 86.70): VL0

800000

600000

400000

200000

0

Time-->

