

Data File : VL034936.D
Acq On : 6 May 2020 10:07
Operator : SY/AP
Sample : VSTDICCC010
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
VSTDICCC010

Quant Time: May 06 12:36:16 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL050620AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Mar 09 16:42:53 2020
QLast Update : Mon Mar 09 16:42:53 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.66	49	1218700	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.19	114	2855402	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.12	117	2818339	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.46	95	2215206	10.08	ppbv	0.01
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.80%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.01	85	1300516	7.793	ppbv	98
3) Chlorodifluoromethane	2.95	51	1188455	8.730	ppbv	98
4) Chloromethane	3.11	50	687029	8.929	ppbv	97
5) Vinyl Chloride	3.22	62	679416	9.185	ppbv	94
6) Bromomethane	3.44	94	407336	9.460	ppbv	90
7) Chloroethane	3.52	64	251673	9.422	ppbv	96
8) Dichlorotetrafluoroethane	3.15	85	1520638	8.774	ppbv	95
9) Propene	2.97	41	537690	8.272	ppbv	99
10) Heptane	8.13	43	1451587	9.074	ppbv	97
11) Trichlorofluoromethane	3.92	101	1564914	8.814	ppbv	100
12) 1,1,2-Trichlorotrifluoroet	4.47	101	1110384	8.936	ppbv	95
13) Ethanol	3.57	45	162801	8.239	ppbv	93
14) Bromoethene	3.71	108	494769	9.219	ppbv	100
15) Acetone	3.82	43	1221391	7.733	ppbv	98
16) 1,3-Butadiene	3.29	39	618960	8.665	ppbv	98
17) tert-Butyl alcohol	4.27	59	1282209	8.426	ppbv	99
18) 1,1-Dichloroethene	4.27	96	517363	9.402	ppbv	96
19) Isopropyl Alcohol	3.94	45	940674	9.430	ppbv	# 40
20) Methylene Chloride	4.32	84	453373	9.078	ppbv	92
21) Allyl Chloride	4.39	41	878920	8.664	ppbv	98
22) trans-1,2-Dichloroethene	4.87	96	522870	9.366	ppbv	97
23) Vinyl Acetate	5.06	43	1908748	8.181	ppbv	98
24) 1,1-Dichloroethane	5.00	63	1384427	8.851	ppbv	99
25) Ethyl Acetate	5.67	43	2431213	8.639	ppbv	100
26) Hexane	5.68	57	1071574	8.843	ppbv	99
27) Carbon Disulfide	4.53	76	1380790	10.042	ppbv	98
28) Methyl tert-Butyl Ether	5.02	73	1672256	8.294	ppbv	100
29) Chloroform	5.75	83	1662283	8.991	ppbv	99
30) Cyclohexane	7.14	84	895202	8.854	ppbv	99
31) cis-1,2-Dichloroethene	5.54	61	1085967	8.763	ppbv	97
32) 1,1,1-Trichloroethane	6.52	97	1594167	8.849	ppbv	97
34) 2-Butanone	5.23	43	1595181	8.406	ppbv	99
35) Carbon Tetrachloride	7.03	117	1664314	9.371	ppbv	99
36) Benzene	6.90	78	2158018	8.479	ppbv	98
37) 1,2-Dichloroethane	6.31	62	1291191	8.997	ppbv	98
38) Trichloroethene	7.85	130	816323	8.445	ppbv	97
39) 1,2-Dichloropropane	7.63	63	848961	8.419	ppbv	96
40) 1,4-Dioxane	7.84	88	342883	9.004	ppbv	# 99
41) Tetrahydrofuran	6.04	42	906642	8.830	ppbv	99
42) Bromodichloromethane	7.81	83	1782973	9.116	ppbv	97
43) Methyl Methacrylate	8.03	69	990256	9.235	ppbv	97

Data File : VL034936.D
Acq On : 6 May 2020 10:07
Operator : SY/AP
Sample : VSTDICCC010
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
VSTDICCC010

Quant Time: May 06 12:36:16 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL050620AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Mon Mar 09 16:42:53 2020
QLast Update : Mon Mar 09 16:42:53 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,2,4-Trimethylpentane	7.88	57	3724723	8.660	ppbv	99
45) t-1,3-Dichloropropene	9.30	75	1120153	8.892	ppbv	100
46) cis-1,3-Dichloropropene	8.72	75	1311620	8.762	ppbv	95
47) 1,1,2-Trichloroethane	9.50	97	888925	8.590	ppbv	96
48) Dibromochloromethane	10.33	129	1485816	8.866	ppbv	99
49) Bromoform	13.08	173	1316985	8.813	ppbv	99
50) 4-Methyl-2-Pentanone	8.76	43	2384830	8.731	ppbv	99
51) 2-Hexanone	10.16	43	1970597	8.877	ppbv #	99
52) Tetrachloroethene	11.26	164	746178	7.411	ppbv	98
53) Toluene	9.83	91	2482218	8.445	ppbv	100
54) 1,2-Dibromoethane	10.64	107	1352678	8.683	ppbv	98
56) 1,1,1,2-Tetrachloroethane	12.16	131	1104434	8.724	ppbv	97
57) Chlorobenzene	12.18	112	1860748	8.438	ppbv	95
58) Ethyl Benzene	12.74	91	3337768	8.745	ppbv	97
59) m/p-Xylene	13.03	91	3050696	9.541	ppbv #	46
60) o-Xylene	13.73	91	2723914	8.725	ppbv	98
61) Styrene	13.57	104	1954377	8.920	ppbv	97
62) Isopropylbenzene	14.71	105	4022174	8.520	ppbv	99
63) 1,1,2,2-Tetrachloroethane	13.72	83	1921771	9.067	ppbv	100
64) n-propylbenzene	15.61	120	1056601	8.600	ppbv	94
65) tert-Butylbenzene	16.79	119	3421250	8.290	ppbv	97
66) Benzyl Chloride	17.04	91	1431997	8.322	ppbv	98
67) sec-Butylbenzene	17.34	105	4908357	8.578	ppbv	99
69) p-Isopropyltoluene	17.70	119	4045351	8.431	ppbv	98
70) n-Butylbenzene	18.60	91	4234283	8.649	ppbv	98
71) 2-Chlorotoluene	15.50	91	3112976	8.708	ppbv	98
72) 4-Ethyltoluene	15.88	105	3134867	8.502	ppbv	99
73) 1,3,5-Trimethylbenzene	16.04	105	2966090	8.594	ppbv	96
74) 1,2,4-Trimethylbenzene	16.81	105	3049887	8.577	ppbv	98
75) 1,3-Dichlorobenzene	17.05	146	1726657	8.053	ppbv	100
76) 1,4-Dichlorobenzene	17.19	146	1732047	8.095	ppbv	99
77) 1,2-Dichlorobenzene	17.87	146	1671875	8.044	ppbv	99
78) Hexachloro-1,3-Butadiene	23.43	225	1338682	7.712	ppbv	99
79) Naphthalene	22.27	128	3048791	10.994	ppbv	99
80) Naphthalene,2-methyl-	25.02	142	1276793	17.618	ppbv	99
81) 1,2,4-Trichlorobenzene	22.00	180	1602883	9.098	ppbv	99

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

Data File : VL034936.D

Acq On : 6 May 2020 10:07

Operator : SY/AP

Sample : VSTDICCC010

Misc : 400ml/MSVOA L

ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
VSTDICCC010

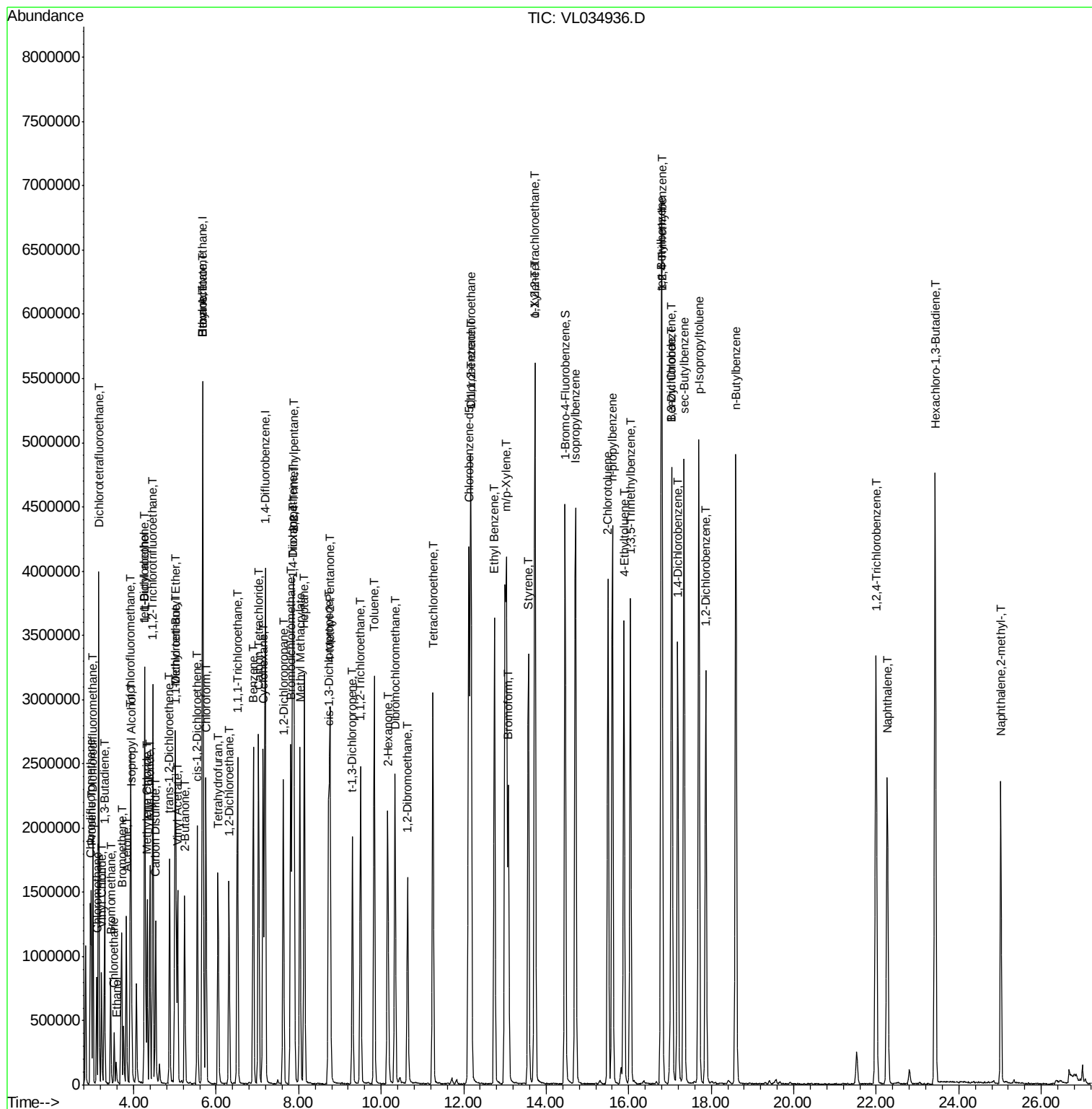
Quant Time: May 06 12:36:16 2020

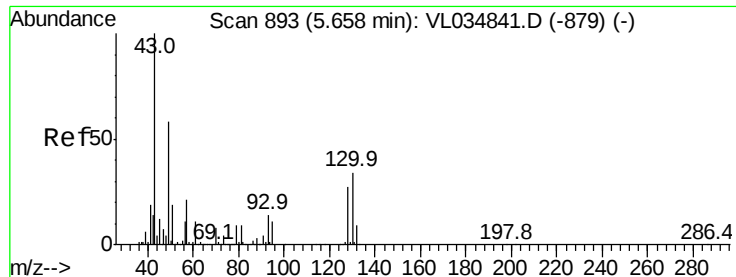
Quant Method : Z:\V0ASRV\HPCHEM1\MSV0A_L\METHODS\VL050620AIR.M

Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_L Mon Mar 09 16:42:53 2020

QLast Update : Mon Mar 09 16:42:53 2020

Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.66 min Scan# 895

Delta R.T. 0.01 min

Lab File: VL034936.D

Acq: 6 May 2020 10:07

Instrument :

MSVOA_L

ClientSampleId :

VSTDICCC010

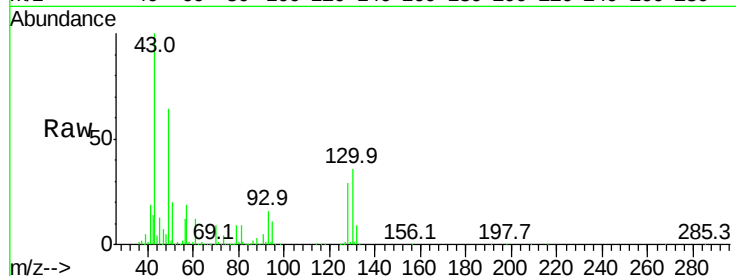
Tgt Ion: 49 Resp: 1218700

Ion Ratio Lower Upper

49 100

128 44.3 23.4 70.3

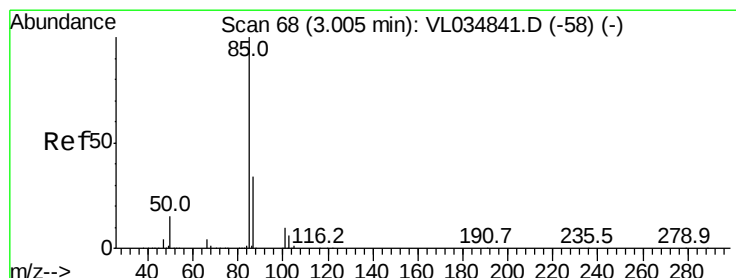
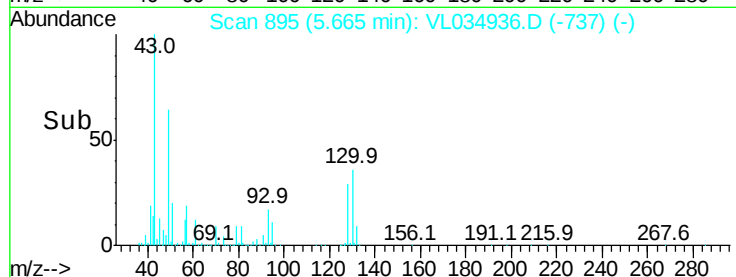
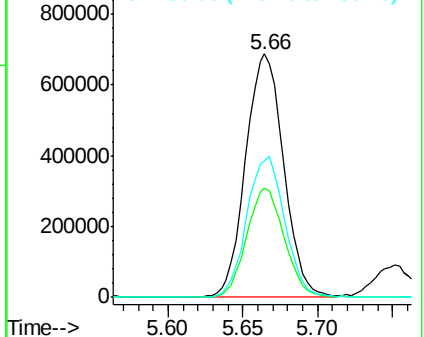
130 58.2 30.0 90.0



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: 7.793 ppbv

RT: 3.01 min Scan# 70

Delta R.T. 0.01 min

Lab File: VL034936.D

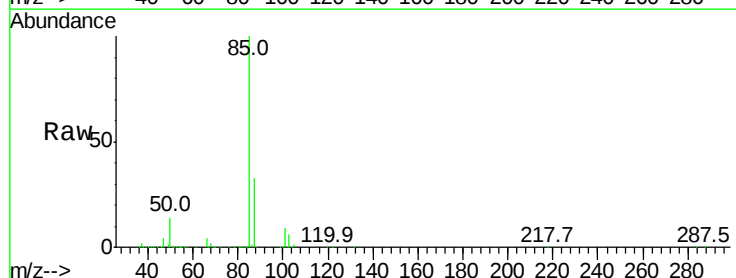
Acq: 6 May 2020 10:07

Tgt Ion: 85 Resp: 1300516

Ion Ratio Lower Upper

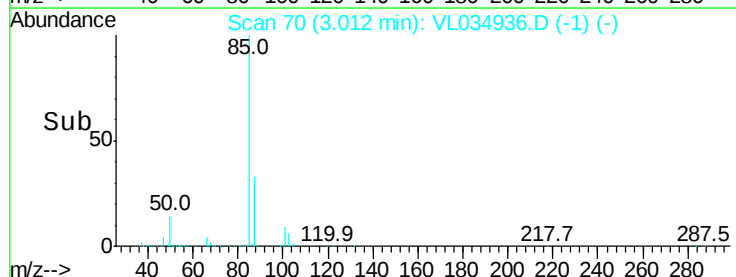
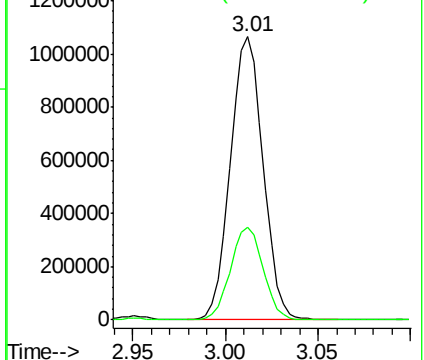
85 100

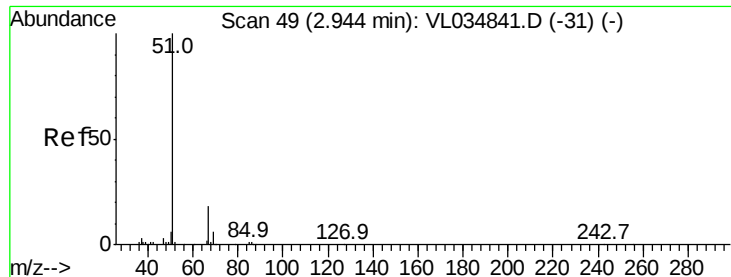
87 32.7 26.9 40.3



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 8.730 ppbv

RT: 2.95 min Scan# 51

Delta R.T. 0.01 min

Lab File: VL034936.D

Acq: 6 May 2020 10:07

Instrument :

MSVOA_L

ClientSampleId :

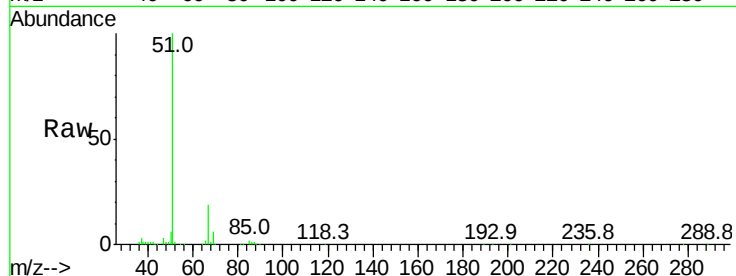
VSTDICCC010

Tgt Ion: 51 Resp: 1188455

Ion Ratio Lower Upper

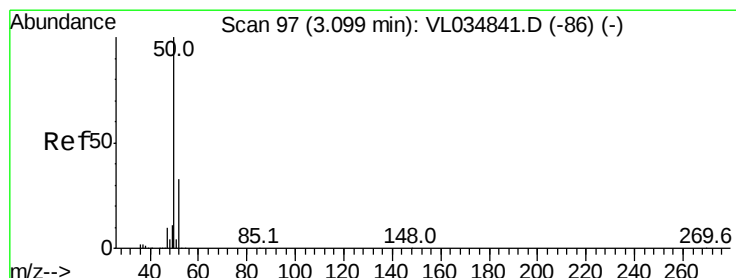
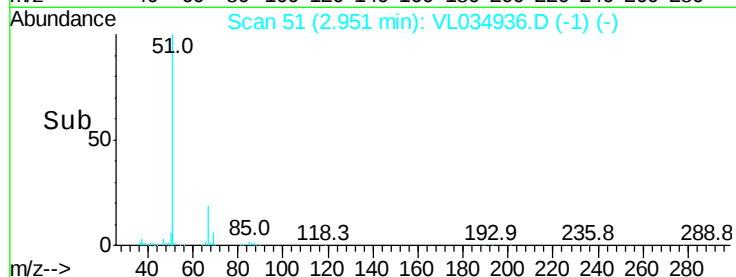
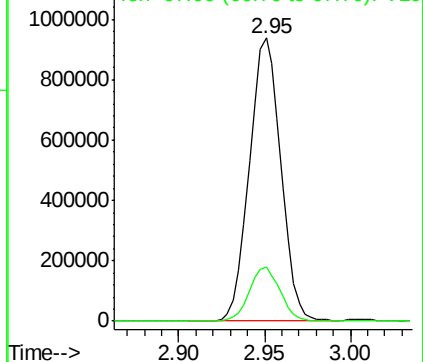
51 100

67 18.8 14.3 21.5



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 8.929 ppbv

RT: 3.11 min Scan# 99

Delta R.T. 0.01 min

Lab File: VL034936.D

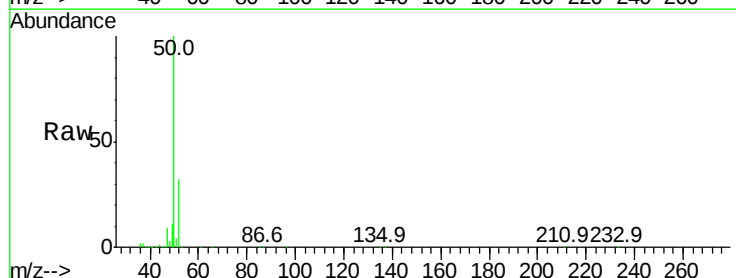
Acq: 6 May 2020 10:07

Tgt Ion: 50 Resp: 687029

Ion Ratio Lower Upper

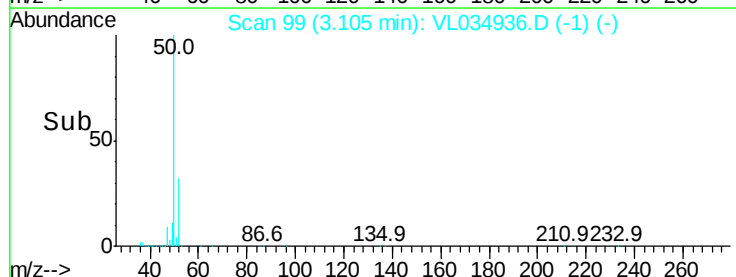
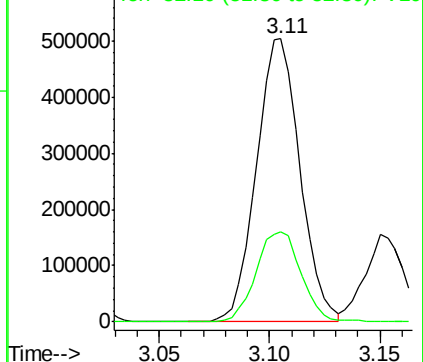
50 100

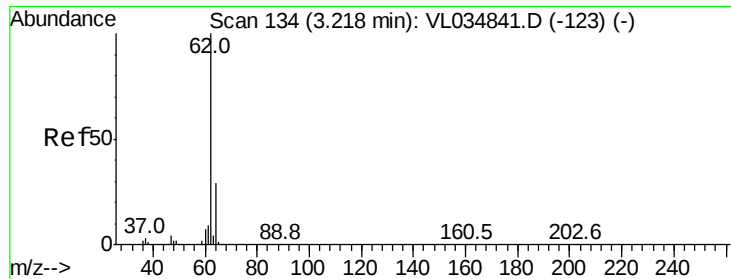
52 31.8 26.8 40.2



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 9.185 ppbv

RT: 3.22 min Scan# 135

Delta R.T. 0.00 min

Lab File: VL034936.D

Acq: 6 May 2020 10:07

Instrument :

MSVOA_L

ClientSampleId :

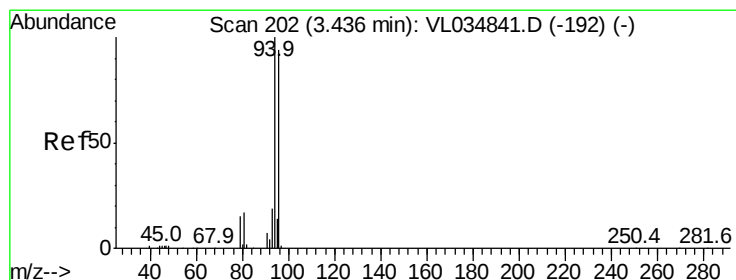
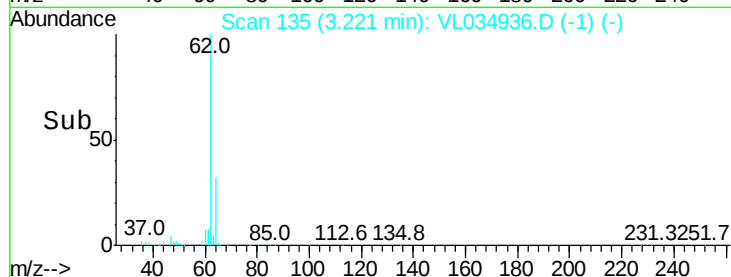
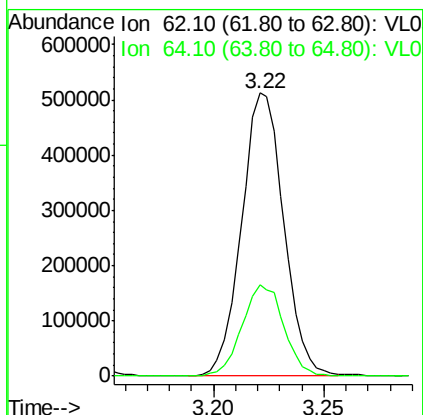
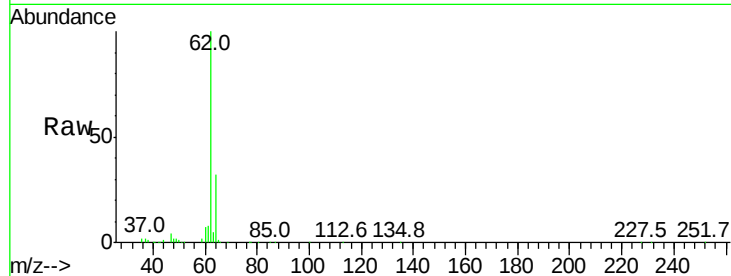
VSTDICCC010

Tgt Ion: 62 Resp: 679416

Ion Ratio Lower Upper

62 100

64 32.1 23.0 34.4



#6

Bromomethane

Concen: 9.460 ppbv

RT: 3.44 min Scan# 203

Delta R.T. 0.00 min

Lab File: VL034936.D

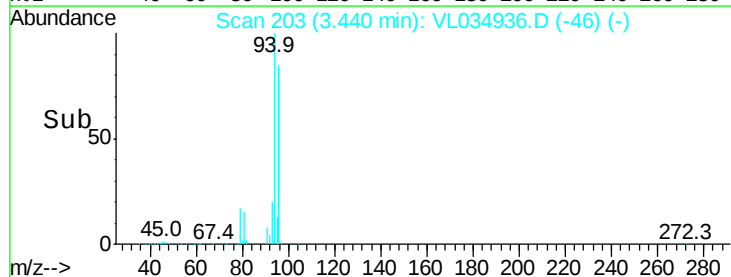
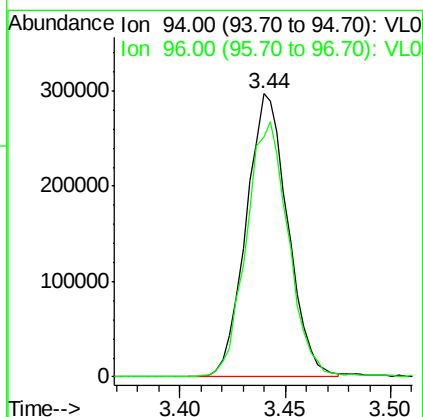
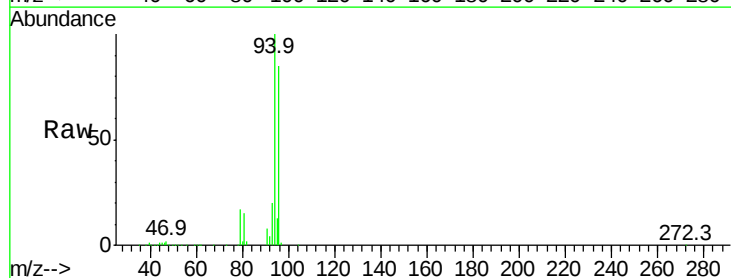
Acq: 6 May 2020 10:07

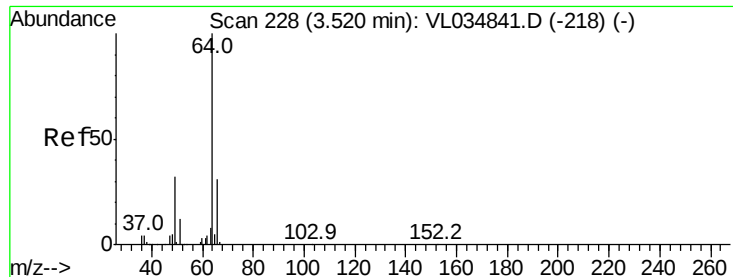
Tgt Ion: 94 Resp: 407336

Ion Ratio Lower Upper

94 100

96 84.9 75.5 113.3





#7

Chloroethane

Concen: 9.422 ppbv

RT: 3.52 min Scan# 229

Delta R.T. 0.00 min

Lab File: VL034936.D

Acq: 6 May 2020 10:07

Instrument :

MSVOA_L

ClientSampleId :

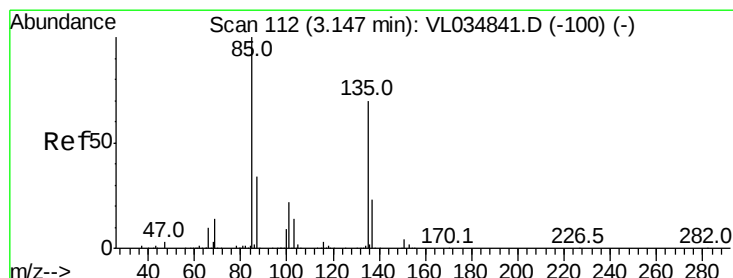
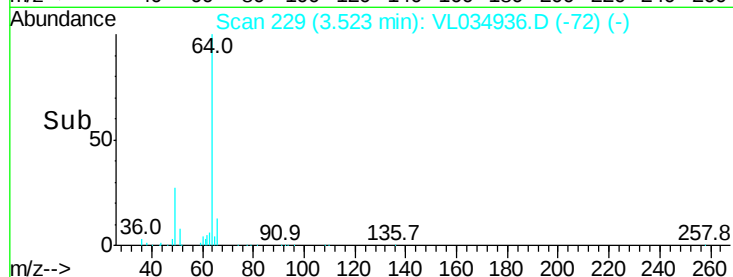
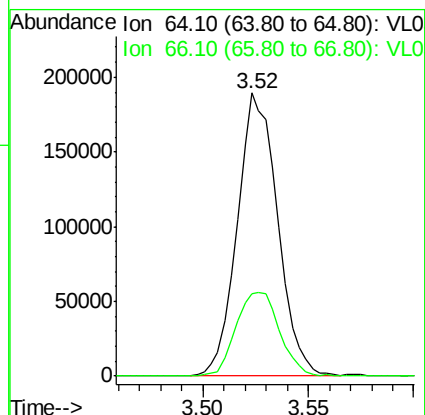
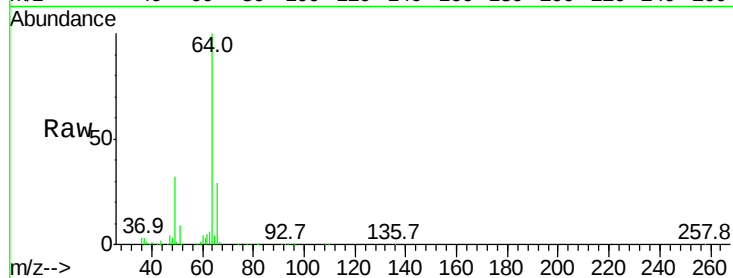
VSTDICCC010

Tgt Ion: 64 Resp: 251673

Ion Ratio Lower Upper

64 100

66 29.0 24.8 37.2



#8

Dichlorotetrafluoroethane

Concen: 8.774 ppbv

RT: 3.15 min Scan# 113

Delta R.T. 0.00 min

Lab File: VL034936.D

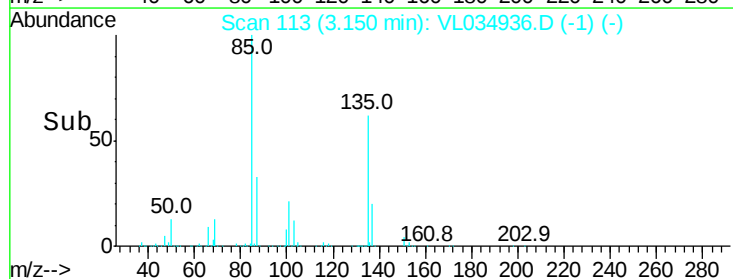
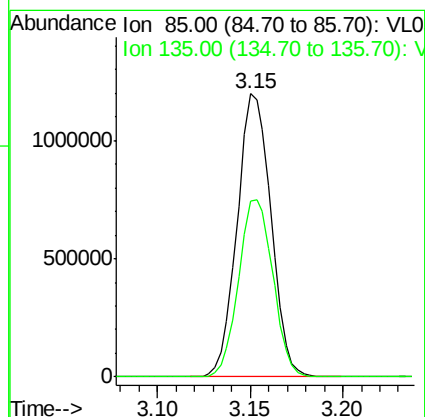
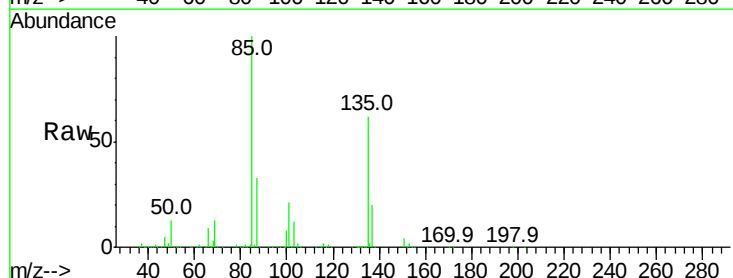
Acq: 6 May 2020 10:07

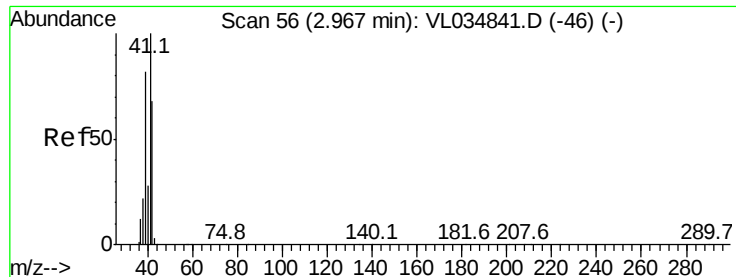
Tgt Ion: 85 Resp: 1520638

Ion Ratio Lower Upper

85 100

135 63.6 54.3 81.5





#9

Propene

Concen: 8.272 ppbv

RT: 2.97 min Scan# 58

Delta R.T. 0.01 min

Lab File: VL034936.D

Acq: 6 May 2020 10:07

Instrument :

MSVOA_L

ClientSampleId :

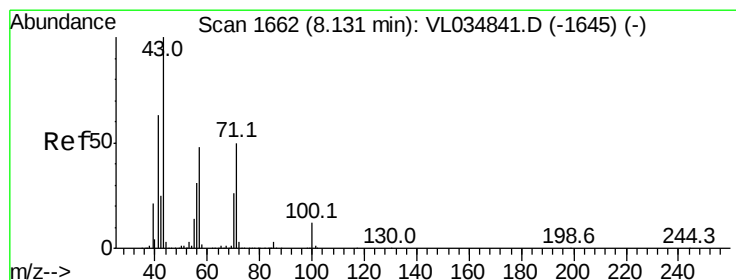
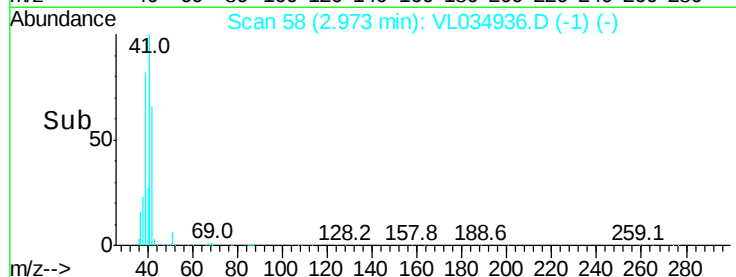
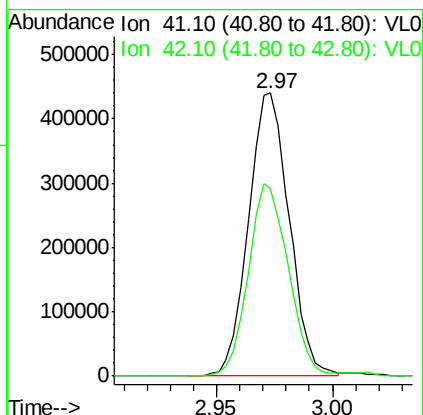
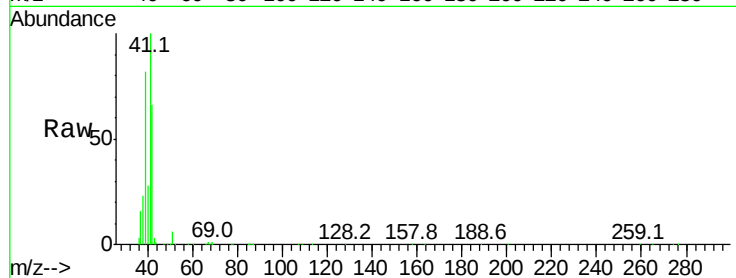
VSTDICCC010

Tgt Ion: 41 Resp: 537690

Ion Ratio Lower Upper

41 100

42 68.1 55.2 82.8



#10

Heptane

Concen: 9.074 ppbv

RT: 8.13 min Scan# 1663

Delta R.T. 0.00 min

Lab File: VL034936.D

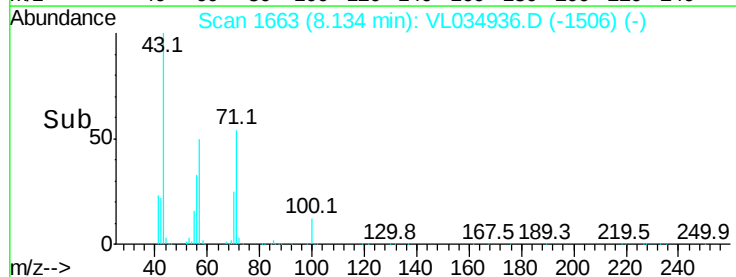
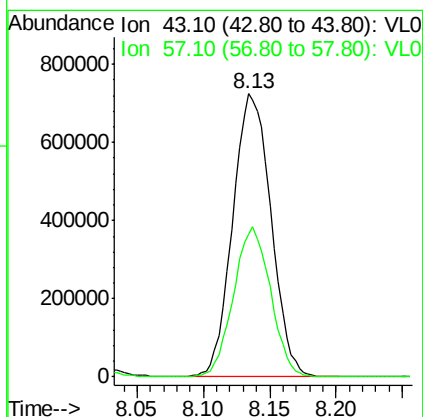
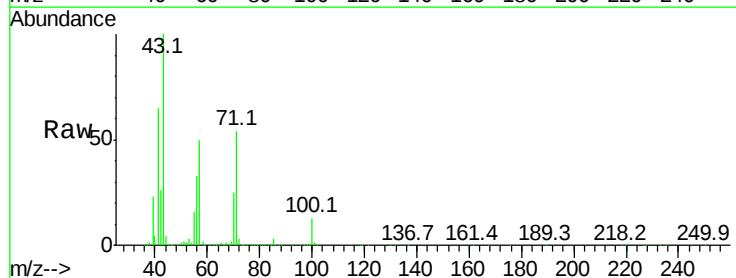
Acq: 6 May 2020 10:07

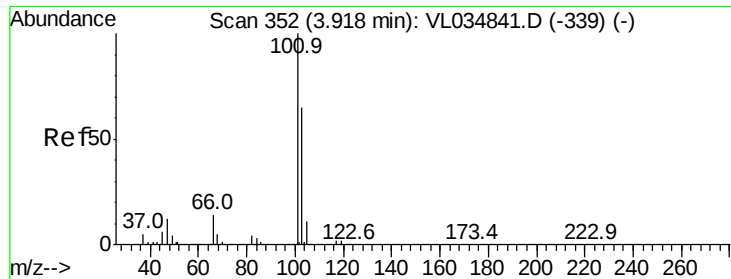
Tgt Ion: 43 Resp: 1451587

Ion Ratio Lower Upper

43 100

57 51.4 39.7 59.5

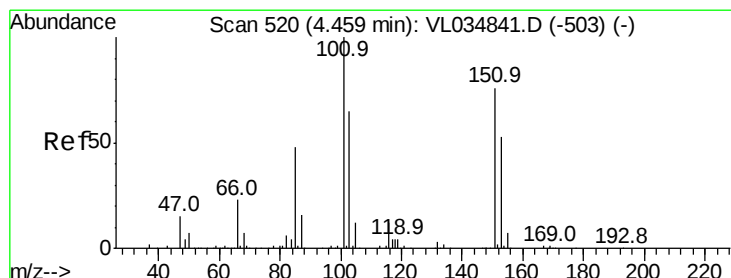
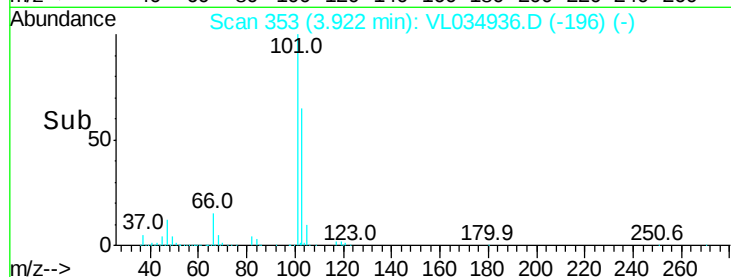
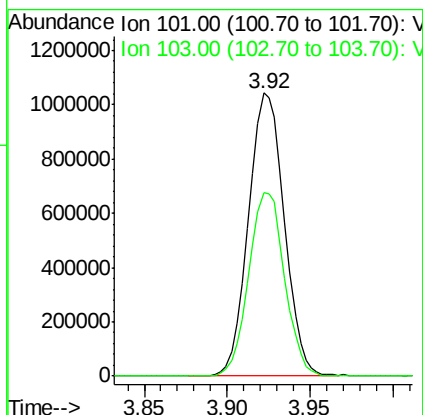
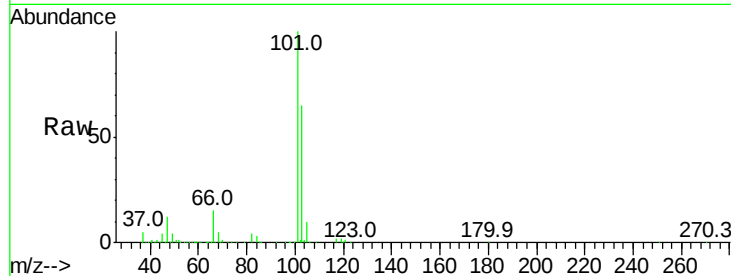




#11
 Trichlorofluoromethane
 Concen: 8.814 ppbv
 RT: 3.92 min Scan# 353
 Delta R.T. 0.00 min
 Lab File: VL034936.D
 Acq: 6 May 2020 10:07

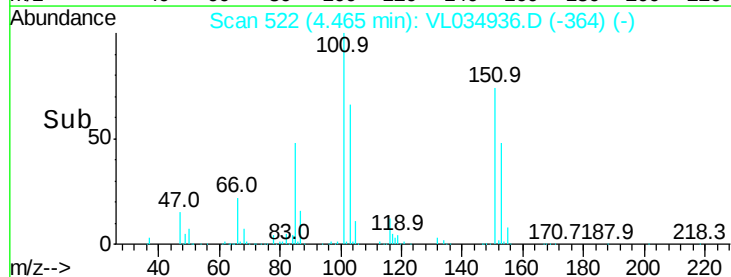
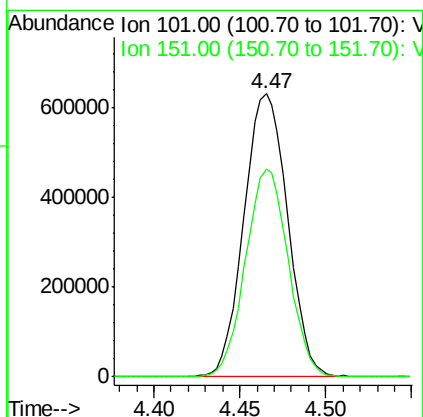
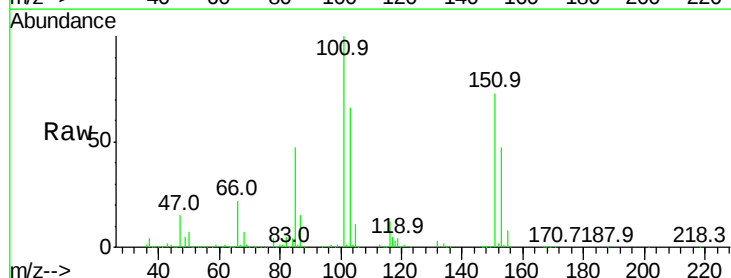
Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDICCC010

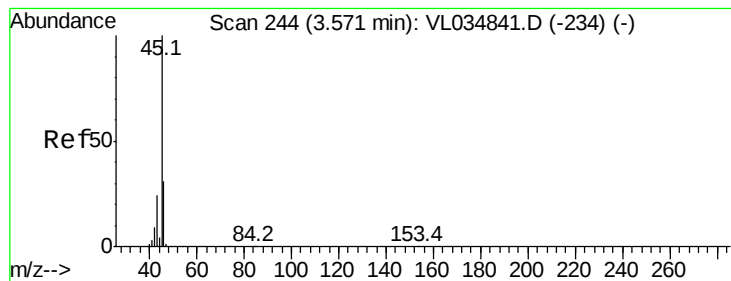
Tgt Ion:101 Resp: 1564914
 Ion Ratio Lower Upper
 101 100
 103 64.9 51.8 77.8



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 8.936 ppbv
 RT: 4.47 min Scan# 522
 Delta R.T. 0.01 min
 Lab File: VL034936.D
 Acq: 6 May 2020 10:07

Tgt Ion:101 Resp: 1110384
 Ion Ratio Lower Upper
 101 100
 151 72.0 60.8 91.2





#13

Ethanol

Concen: 8.239 ppbv

RT: 3.57 min Scan# 244

Delta R.T. 0.00 min

Lab File: VL034936.D

Acq: 6 May 2020 10:07

Instrument :

MSVOA_L

ClientSampleId :

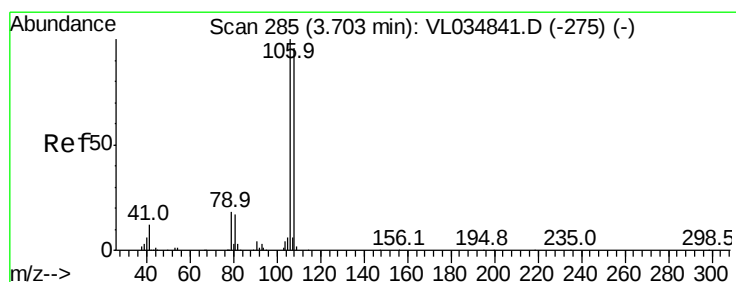
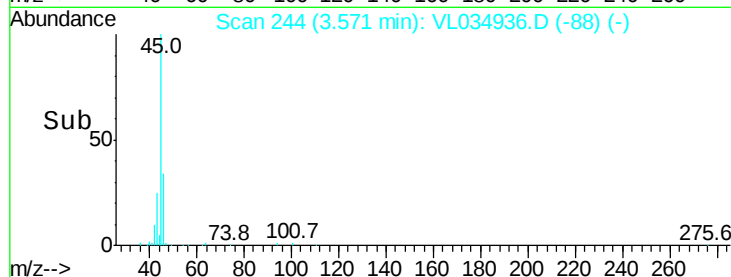
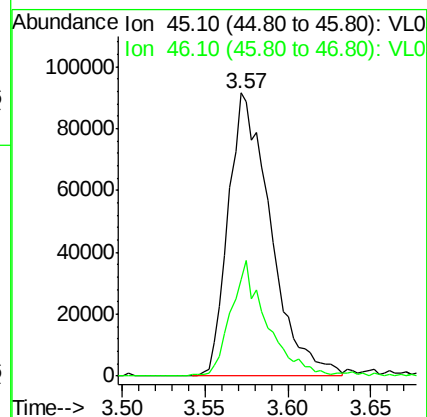
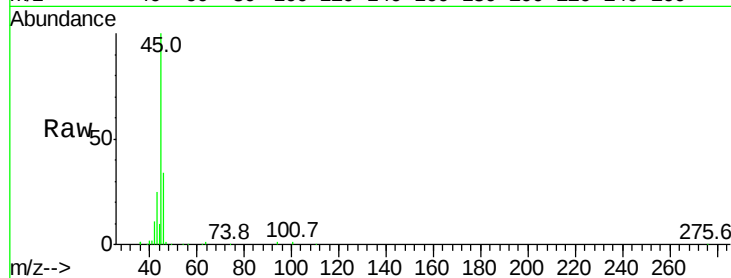
VSTDICCC010

Tgt Ion: 45 Resp: 162801

Ion Ratio Lower Upper

45 100

46 35.8 16.0 64.0



#14

Bromoethene

Concen: 9.219 ppbv

RT: 3.71 min Scan# 287

Delta R.T. 0.01 min

Lab File: VL034936.D

Acq: 6 May 2020 10:07

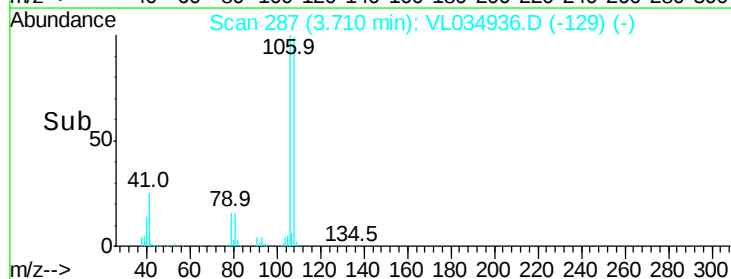
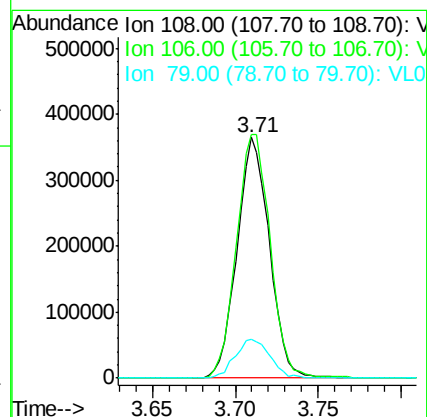
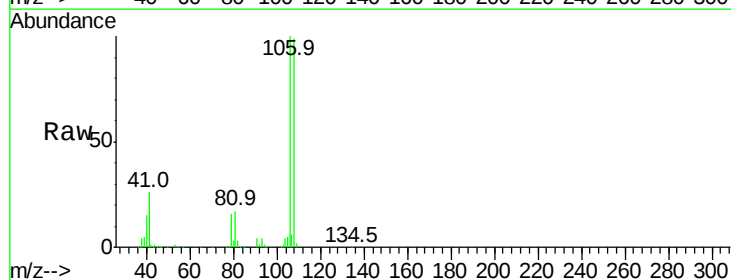
Tgt Ion: 108 Resp: 494769

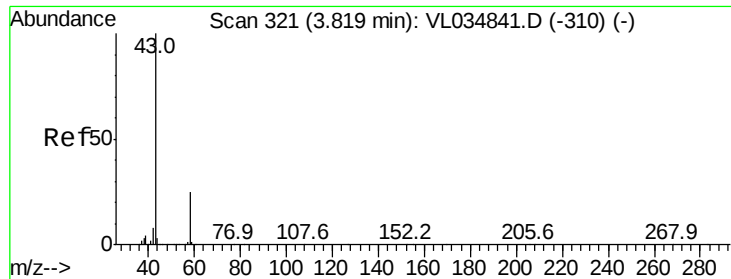
Ion Ratio Lower Upper

108 100

106 106.1 85.1 127.7

79 17.6 14.7 22.1





#15

Acetone

Concen: 7.733 ppbv

RT: 3.82 min Scan# 322

Delta R.T. 0.00 min

Lab File: VL034936.D

Acq: 6 May 2020 10:07

Instrument :

MSVOA_L

ClientSampleId :

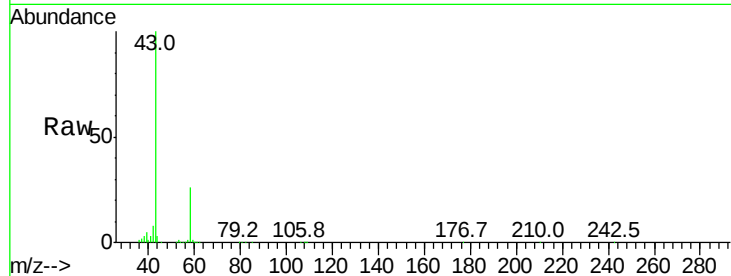
VSTDICCC010

Tgt Ion: 43 Resp: 1221391

Ion Ratio Lower Upper

43 100

58 27.1 21.0 31.6



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

3.82

800000

600000

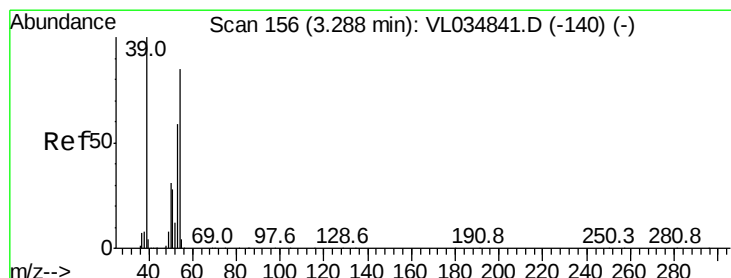
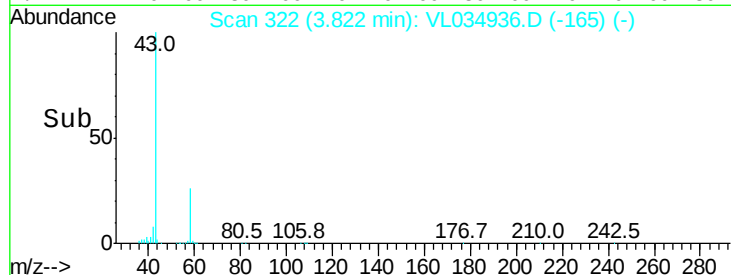
400000

200000

0

Time-->

3.75 3.80 3.85 3.90



#16

1,3-Butadiene

Concen: 8.665 ppbv

RT: 3.29 min Scan# 157

Delta R.T. 0.00 min

Lab File: VL034936.D

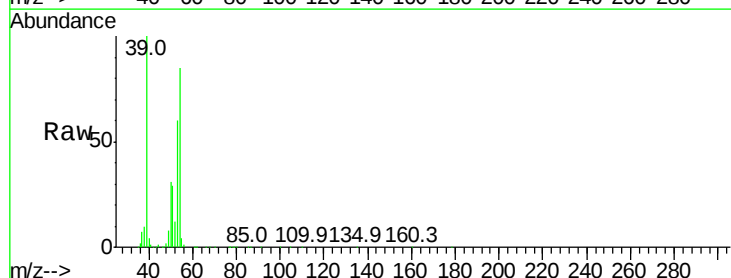
Acq: 6 May 2020 10:07

Tgt Ion: 39 Resp: 618960

Ion Ratio Lower Upper

39 100

54 83.3 65.0 97.6



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0

3.29

500000

400000

300000

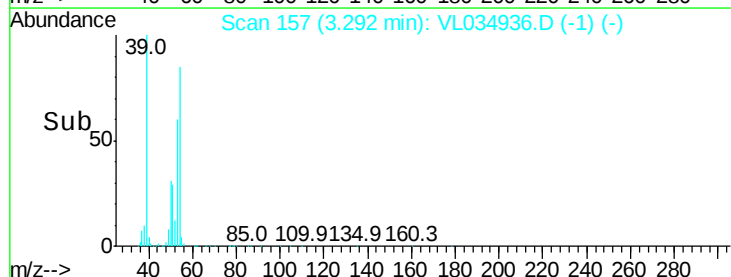
200000

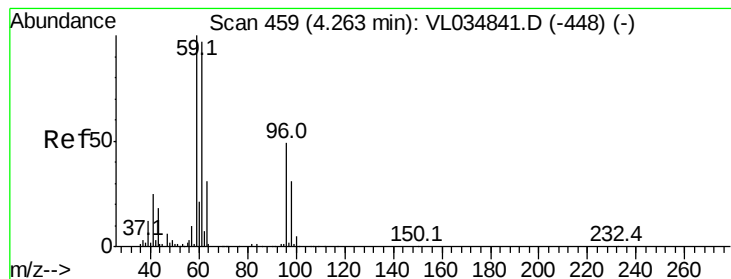
100000

0

Time-->

3.25 3.30 3.35





#17

tert-Butyl alcohol

Concen: 8.426 ppbv

RT: 4.27 min Scan# 461

Delta R.T. 0.01 min

Lab File: VL034936.D

Acq: 6 May 2020 10:07

Instrument :

MSVOA_L

ClientSampleId :

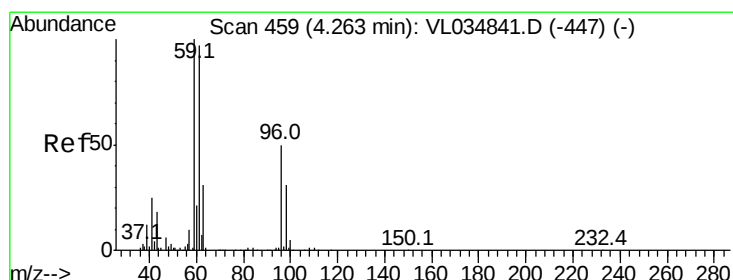
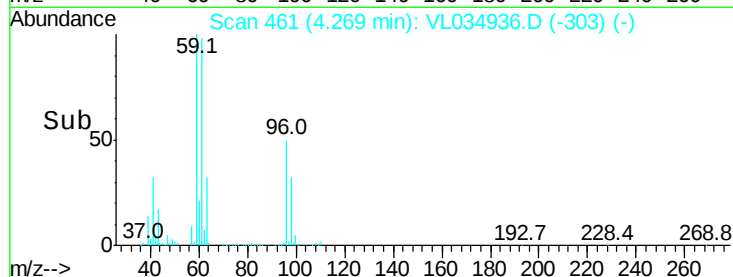
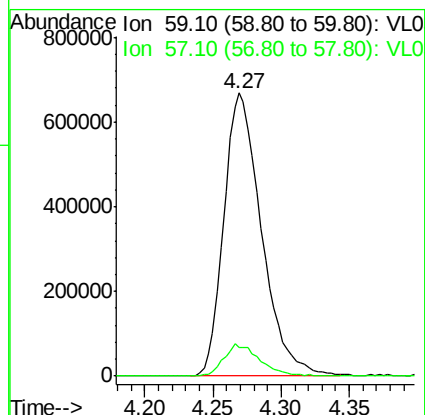
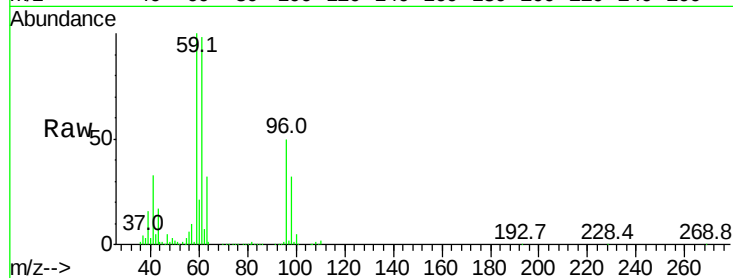
VSTDICCC010

Tgt Ion: 59 Resp: 1282209

Ion Ratio Lower Upper

59 100

57 10.9 8.3 12.5



#18

1,1-Dichloroethene

Concen: 9.402 ppbv

RT: 4.27 min Scan# 460

Delta R.T. 0.00 min

Lab File: VL034936.D

Acq: 6 May 2020 10:07

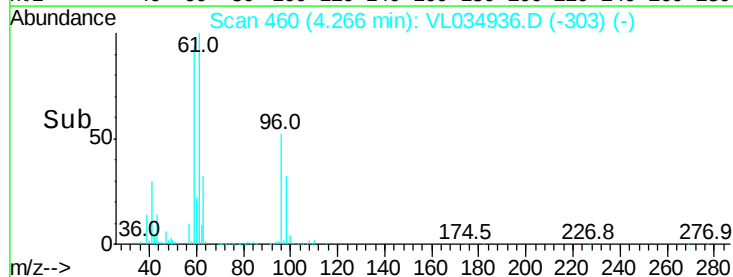
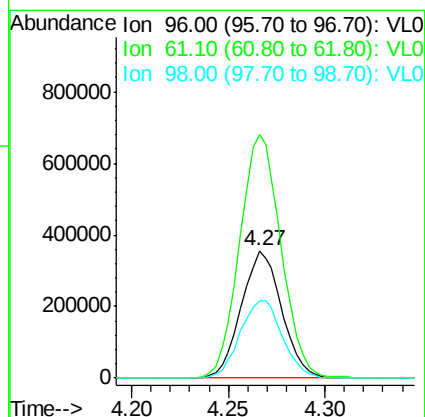
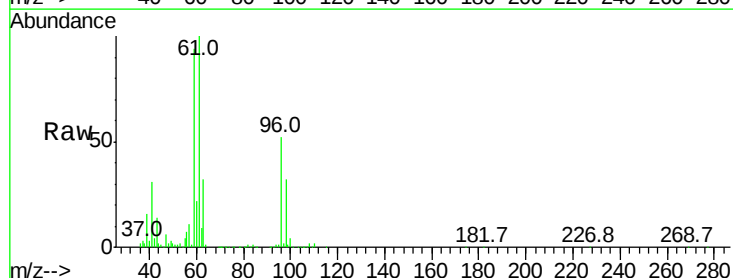
Tgt Ion: 96 Resp: 517363

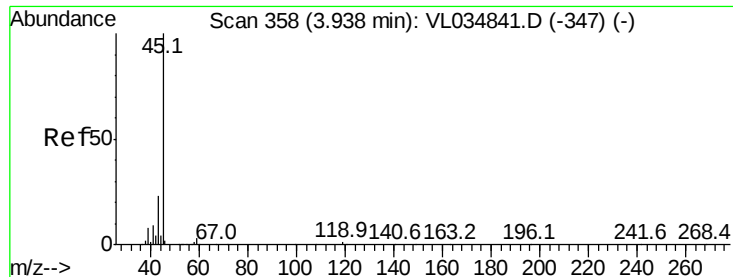
Ion Ratio Lower Upper

96 100

61 190.5 157.3 235.9

98 61.0 50.2 75.4





#19

Isopropyl Alcohol

Concen: 9.430 ppbv

RT: 3.94 min Scan# 360

Delta R.T. 0.01 min

Lab File: VL034936.D

Acq: 6 May 2020 10:07

Instrument :

MSVOA_L

ClientSampleId :

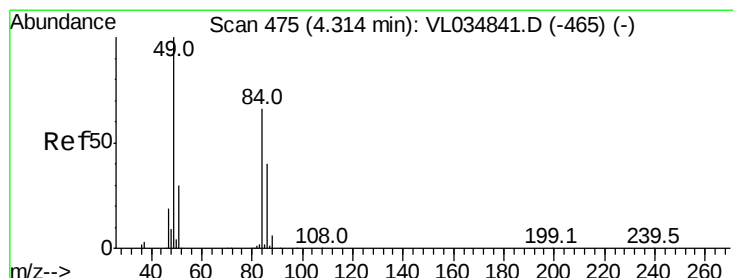
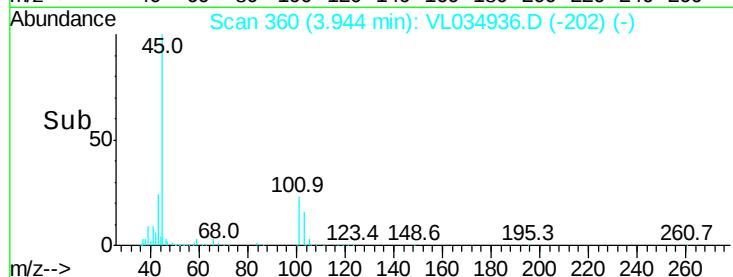
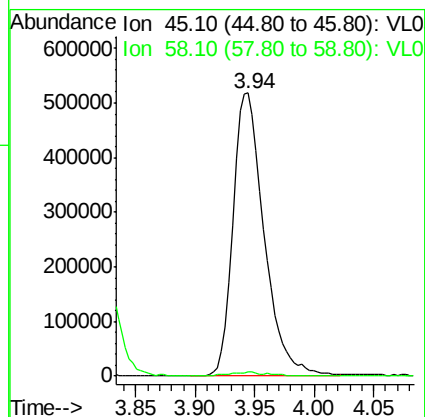
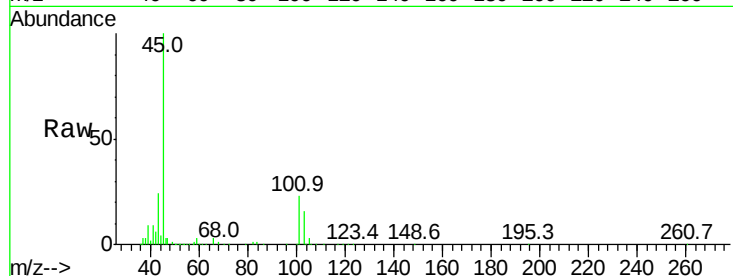
VSTDICCC010

Tgt Ion: 45 Resp: 940674

Ion Ratio Lower Upper

45 100

58 2.1 30.5 45.7#



#20

Methylene Chloride

Concen: 9.078 ppbv

RT: 4.32 min Scan# 478

Delta R.T. 0.01 min

Lab File: VL034936.D

Acq: 6 May 2020 10:07

Tgt Ion: 84 Resp: 453373

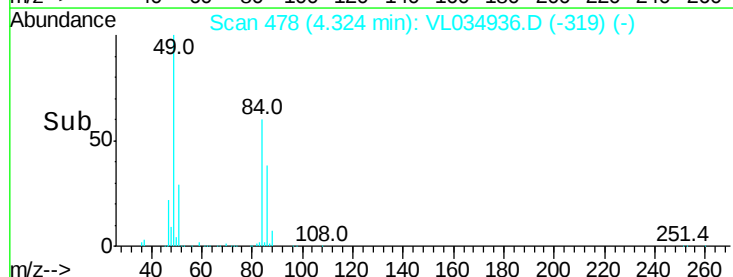
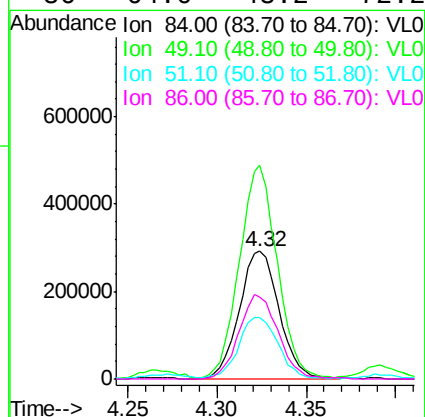
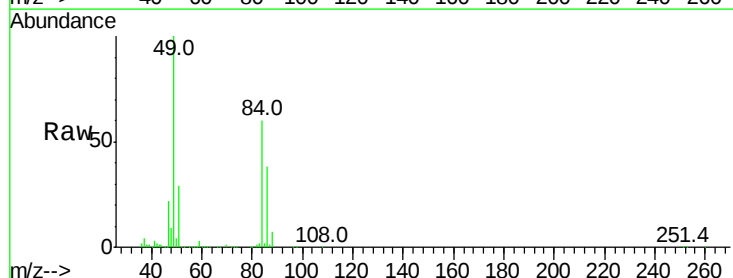
Ion Ratio Lower Upper

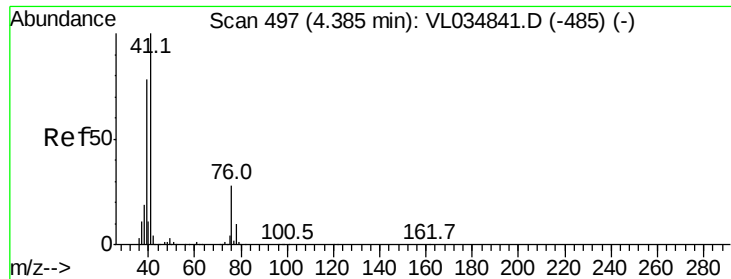
84 100

49 165.6 121.5 182.3

51 48.0 36.6 55.0

86 64.0 48.2 72.2

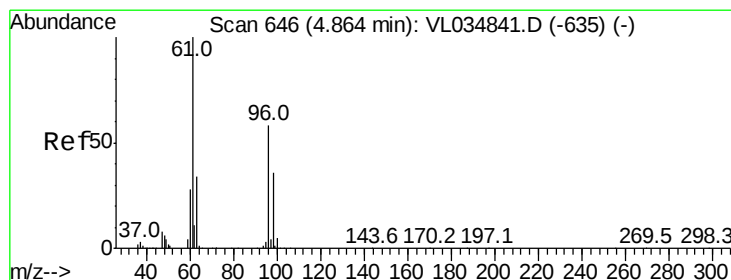
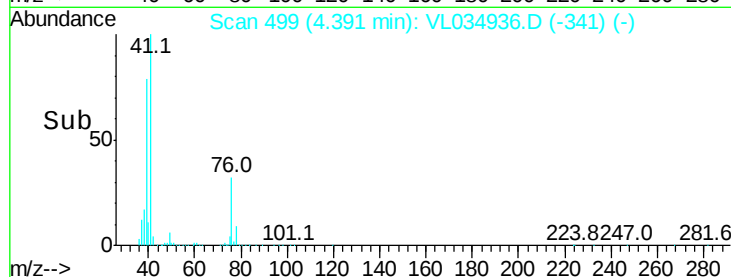
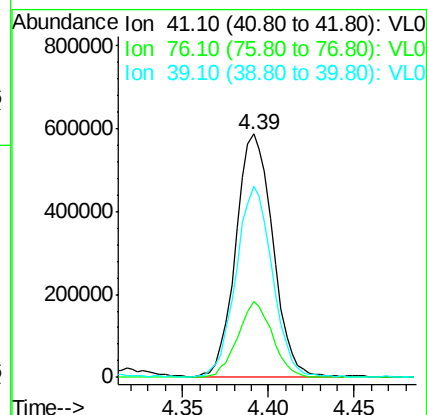
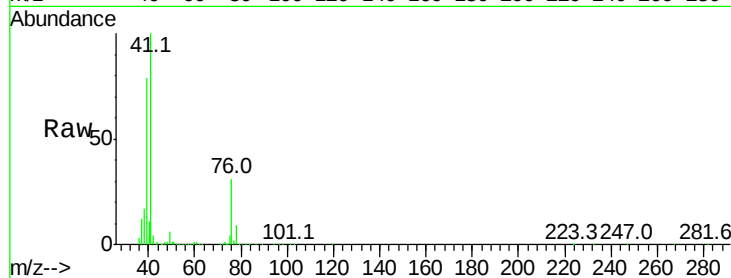




#21
 Allyl Chloride
 Concen: 8.664 ppbv
 RT: 4.39 min Scan# 499
 Delta R.T. 0.01 min
 Lab File: VL034936.D
 Acq: 6 May 2020 10:07

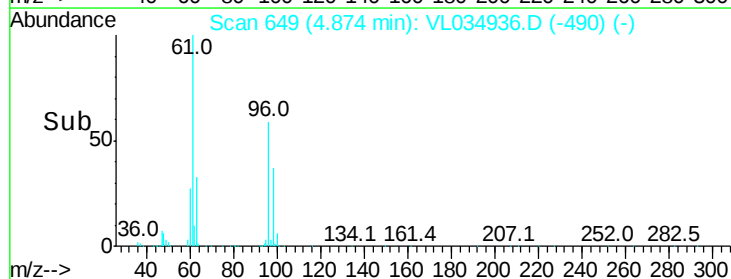
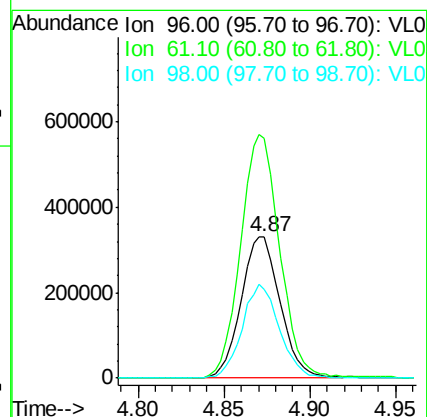
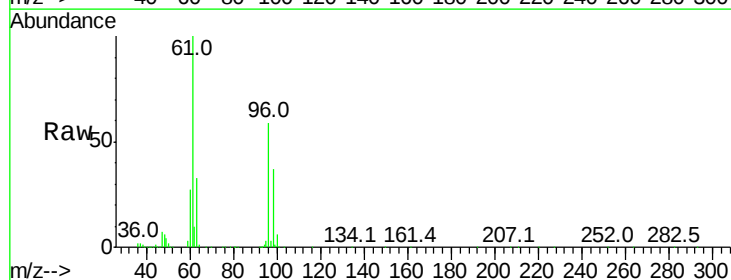
Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDICCC010

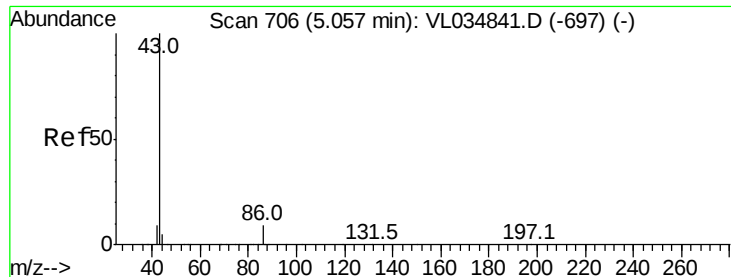
Tgt Ion: 41 Resp: 878920
 Ion Ratio Lower Upper
 41 100
 76 29.5 22.2 33.2
 39 77.4 62.6 93.8



#22
 trans-1,2-Dichloroethene
 Concen: 9.366 ppbv
 RT: 4.87 min Scan# 649
 Delta R.T. 0.01 min
 Lab File: VL034936.D
 Acq: 6 May 2020 10:07

Tgt Ion: 96 Resp: 522870
 Ion Ratio Lower Upper
 96 100
 61 169.1 139.0 208.6
 98 63.0 50.3 75.5





#23

Vinyl Acetate

Concen: 8.181 ppbv

RT: 5.06 min Scan# 708

Delta R.T. 0.01 min

Lab File: VL034936.D

Acq: 6 May 2020 10:07

Instrument :

MSVOA_L

ClientSampleId :

VSTDICCC010

Tgt Ion: 43 Resp: 1908748

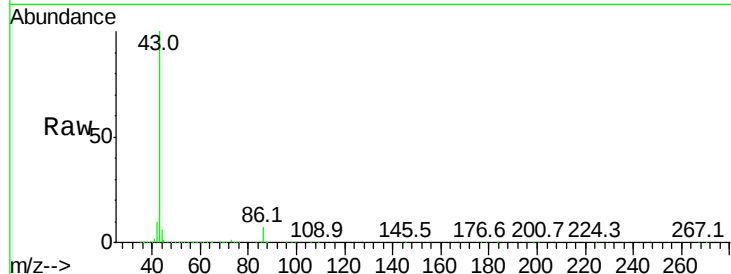
Ion Ratio Lower Upper

43 100

86 6.9 6.3 9.5

42 10.0 7.8 11.8

44 5.6 4.0 6.0

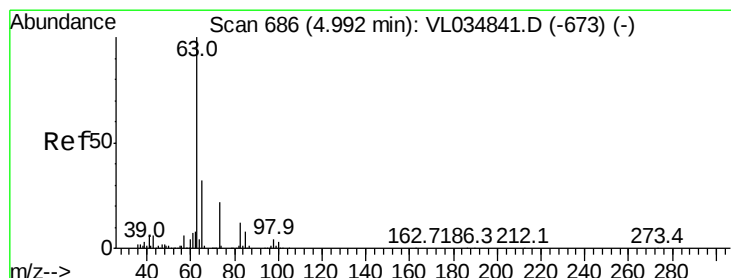
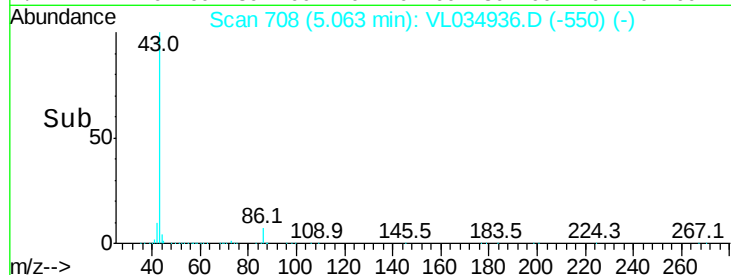
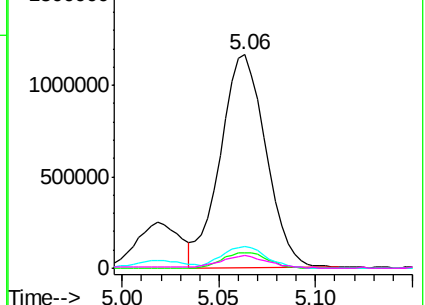


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 86.10 (85.80 to 86.80): VL0

Ion 42.10 (41.80 to 42.80): VL0

Ion 44.10 (43.80 to 44.80): VL0



#24

1,1-Dichloroethane

Concen: 8.851 ppbv

RT: 5.00 min Scan# 688

Delta R.T. 0.01 min

Lab File: VL034936.D

Acq: 6 May 2020 10:07

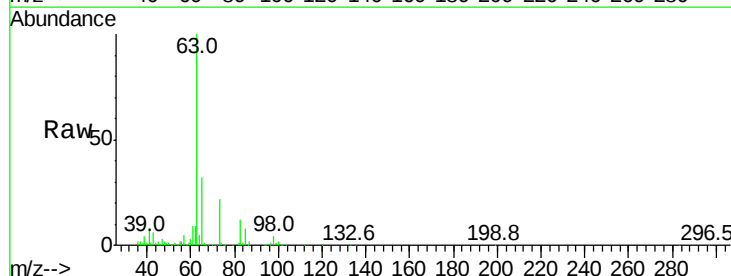
Tgt Ion: 63 Resp: 1384427

Ion Ratio Lower Upper

63 100

98 4.0 2.0 5.8

100 2.3 1.4 4.0



Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

Ion 100.00 (99.70 to 100.70): VL0

