

Data File : VL034673.D
Acq On : 25 Feb 2020 15:09
Operator : SY/AP
Sample : VSTDIC015
Misc : 400ml/MSVOA_L
ALS Vial : 1 Sample Multiplier: 1

Instrument :
MSVOA_L
ClientSampleId :
VSTDIC015

Quant Time: Feb 25 15:40:34 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL022520AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Feb 25 12:01:27 2020
QLast Update : Tue Feb 25 12:01:27 2020
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.67	49	1148353	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.19	114	2442664	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.13	117	2657547	10.00	ppbv	0.00

System Monitoring Compounds

68) 1-Bromo-4-Fluorobenzene	14.46	95	2144842	9.55	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	95.50%

Target Compounds

						Qvalue
2) Dichlorodifluoromethane	3.01	85	1856257	7.339	ppbv	99
3) Chlorodifluoromethane	2.95	51	1706453	12.298	ppbv	99
4) Chloromethane	3.11	50	1124281	13.243	ppbv	98
5) Vinyl Chloride	3.22	62	1058750	13.056	ppbv	100
6) Bromomethane	3.44	94	530805	12.584	ppbv	95
7) Chloroethane	3.53	64	388422	12.880	ppbv	98
8) Dichlorotetrafluoroethane	3.15	85	2144896	10.849	ppbv	98
9) Propene	2.97	41	793413	14.686	ppbv	97
10) Heptane	8.14	43	2206406	16.228	ppbv	99
11) Trichlorofluoromethane	3.93	101	2223633	9.678	ppbv	96
12) 1,1,2-Trichlorotrifluoroet	4.47	101	1570130	10.474	ppbv	98
13) Ethanol	3.58	45	170433	11.777	ppbv	99
14) Bromoethene	3.71	108	717132	12.195	ppbv	100
15) Acetone	3.83	43	1845219	10.933	ppbv	98
16) 1,3-Butadiene	3.29	39	945857	14.113	ppbv	99
17) tert-Butyl alcohol	4.28	59	1381607	11.131	ppbv	99
18) 1,1-Dichloroethene	4.27	96	743999	11.757	ppbv	92
19) Isopropyl Alcohol	3.95	45	1309705	13.298	ppbv	100
20) Methylene Chloride	4.32	84	677284	10.539	ppbv	97
21) Allyl Chloride	4.39	41	1334884	12.735	ppbv	100
22) trans-1,2-Dichloroethene	4.87	96	746119	11.258	ppbv	96
23) Vinyl Acetate	5.07	43	2773263	14.403	ppbv	100
24) 1,1-Dichloroethane	5.00	63	2084733	12.968	ppbv	98
25) Ethyl Acetate	5.67	43	3642788	13.332	ppbv	98
26) Hexane	5.68	57	1654326	14.455	ppbv	99
27) Carbon Disulfide	4.53	76	1983006	12.841	ppbv	99
28) Methyl tert-Butyl Ether	5.02	73	2360920	12.096	ppbv	99
29) Chloroform	5.75	83	2504352	12.375	ppbv	99
30) Cyclohexane	7.14	84	1381611	16.291	ppbv	97
31) cis-1,2-Dichloroethene	5.55	61	1718409	14.452	ppbv	96
32) 1,1,1-Trichloroethane	6.52	97	2340726	10.772	ppbv	99
34) 2-Butanone	5.24	43	2444450	13.782	ppbv	98
35) Carbon Tetrachloride	7.03	117	2463774	10.550	ppbv	99
36) Benzene	6.91	78	3231456	14.876	ppbv	98
37) 1,2-Dichloroethane	6.32	62	2029451	11.198	ppbv	100
38) Trichloroethene	7.85	130	1214967	13.269	ppbv	97
39) 1,2-Dichloropropane	7.63	63	1342740	14.911	ppbv	98
40) 1,4-Dioxane	7.85	88	474481	13.707	ppbv #	1
41) Tetrahydrofuran	6.05	42	1411567	15.256	ppbv	98
42) Bromodichloromethane	7.81	83	2719331	12.191	ppbv	99
43) Methyl Methacrylate	8.03	69	1414406	16.189	ppbv	99

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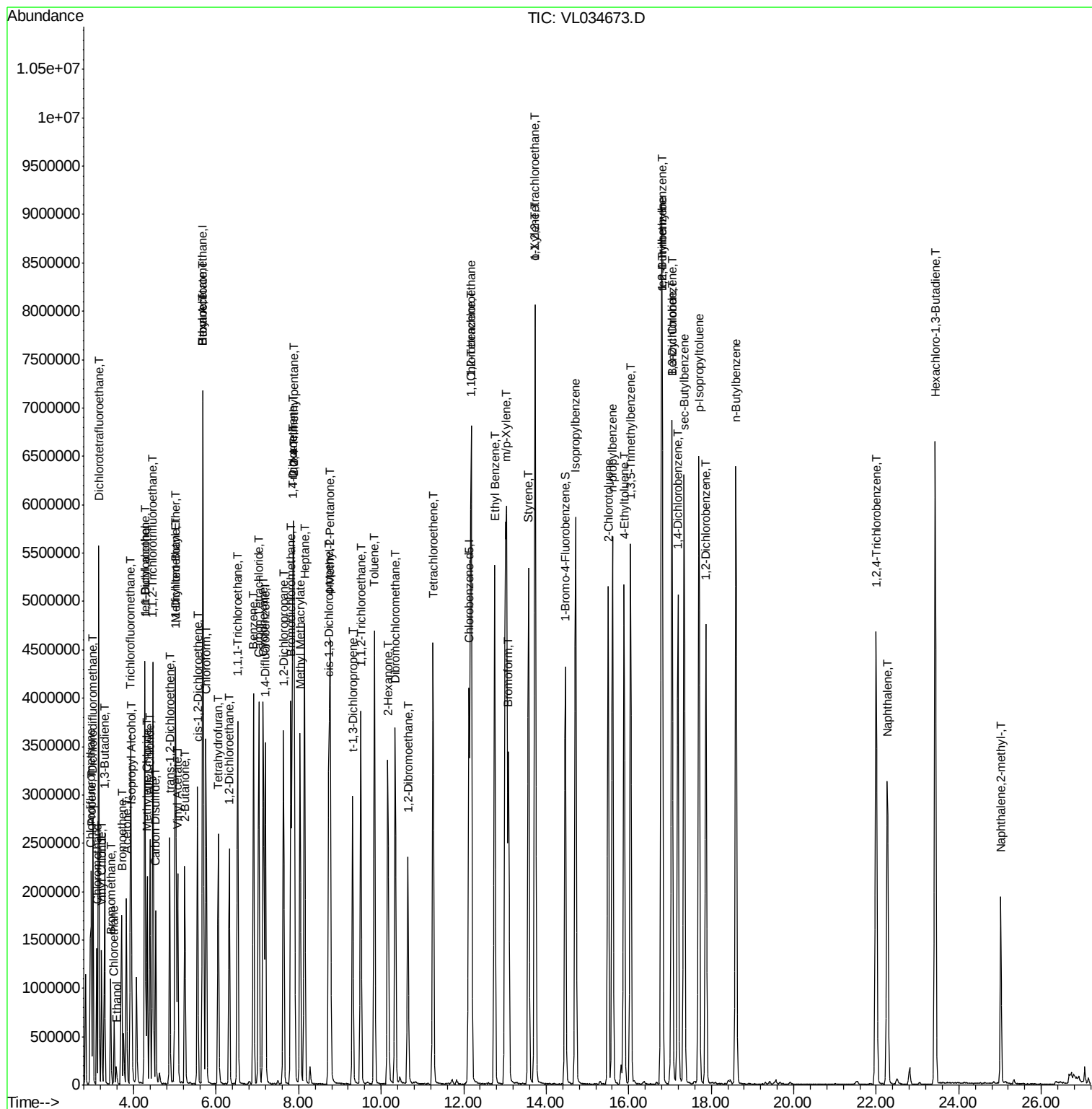
Quant Time: Feb 25 15:40:34 2020
Quant Method : Z:\VOASRV\HPCHEM1\MSVOA_L\METHODS\VL022520AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue Feb 25 12:01:27 2020
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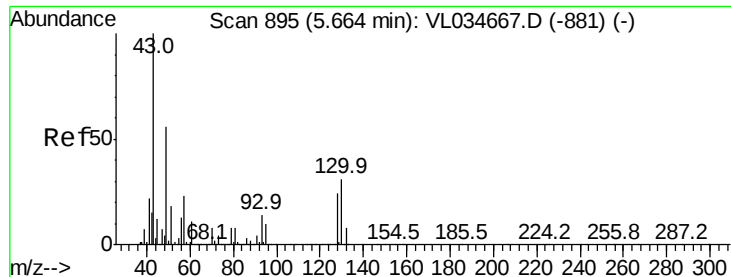
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) 2,2,4-Trimethylpentane	7.89	57	5486404	13.921	ppbv	98
45) t-1,3-Dichloropropene	9.30	75	1791724	15.661	ppbv	97
46) cis-1,3-Dichloropropene	8.73	75	2029752	15.610	ppbv	99
47) 1,1,2-Trichloroethane	9.50	97	1372820	14.076	ppbv	99
48) Dibromochloromethane	10.34	129	2269403	12.698	ppbv	100
49) Bromoform	13.09	173	2001720	12.757	ppbv	99
50) 4-Methyl-2-Pentanone	8.76	43	3680200	14.550	ppbv	99
51) 2-Hexanone	10.16	43	3110679	15.623	ppbv #	98
52) Tetrachloroethene	11.26	164	1112996	12.755	ppbv	98
53) Toluene	9.83	91	3701476	15.511	ppbv	98
54) 1,2-Dibromoethane	10.65	107	1985943	13.588	ppbv	100
56) 1,1,1,2-Tetrachloroethane	12.16	131	1468331	11.191	ppbv #	64
57) Chlorobenzene	12.19	112	2738685	12.524	ppbv	97
58) Ethyl Benzene	12.75	91	4865876	13.683	ppbv	96
59) m/p-Xylene	13.03	91	4935635	15.701	ppbv #	53
60) o-Xylene	13.74	91	3935957	12.467	ppbv	99
61) Styrene	13.57	104	3173474	15.076	ppbv	100
62) Isopropylbenzene	14.71	105	5148123	12.584	ppbv	98
63) 1,1,2,2-Tetrachloroethane	13.72	83	2820036	11.549	ppbv	99
64) n-propylbenzene	15.61	120	1405523	13.353	ppbv	91
65) tert-Butylbenzene	16.79	119	4439225	11.977	ppbv	99
66) Benzyl Chloride	17.04	91	2190252	14.093	ppbv	100
67) sec-Butylbenzene	17.34	105	6245015	12.260	ppbv	98
69) p-Isopropyltoluene	17.70	119	5080082	12.283	ppbv	98
70) n-Butylbenzene	18.60	91	5396823	12.292	ppbv	98
71) 2-Chlorotoluene	15.50	91	4100862	13.205	ppbv	98
72) 4-Ethyltoluene	15.89	105	4599918	13.264	ppbv	99
73) 1,3,5-Trimethylbenzene	16.05	105	4325406	12.764	ppbv	95
74) 1,2,4-Trimethylbenzene	16.82	105	4345478	11.584	ppbv	98
75) 1,3-Dichlorobenzene	17.05	146	2466185	11.417	ppbv	99
76) 1,4-Dichlorobenzene	17.19	146	2493573	11.713	ppbv	99
77) 1,2-Dichlorobenzene	17.87	146	2417388	11.650	ppbv	100
78) Hexachloro-1,3-Butadiene	23.43	225	1815476	9.149	ppbv	99
79) Naphthalene	22.27	128	4022037	13.619	ppbv	100
80) Naphthalene,2-methyl-	25.02	142	1079017	9.497	ppbv	99
81) 1,2,4-Trichlorobenzene	22.00	180	2243703	12.323	ppbv	99

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

ALS Vial : 1 Sample Multiplier: 1

Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.67 min Scan# 896

Delta R.T. 0.00 min

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VSTDIC015

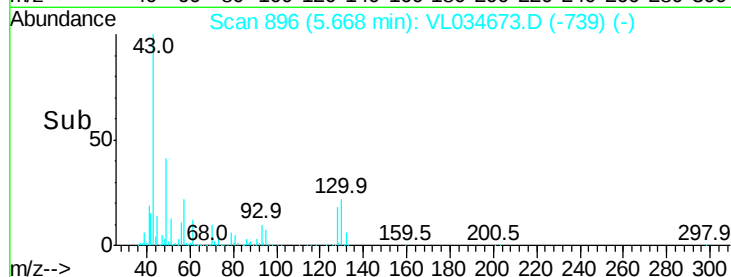
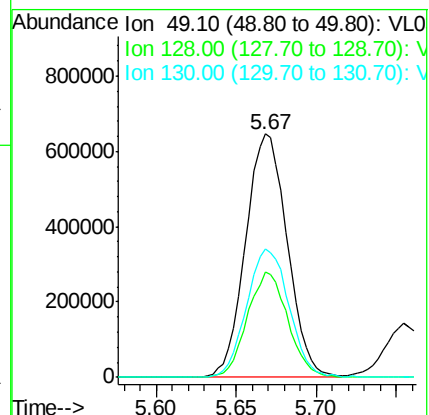
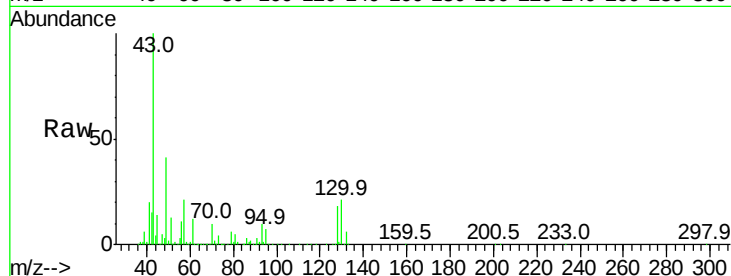
Tgt Ion: 49 Resp: 1148353

Ion Ratio Lower Upper

49 100

128 41.9 21.9 65.5

130 54.0 27.9 83.7



#2

Dichlorodifluoromethane

Concen: 7.339 ppbv

RT: 3.01 min Scan# 70

Delta R.T. 0.00 min

Lab File: VL034673.D

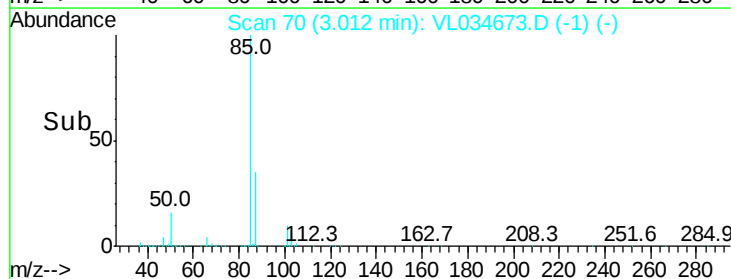
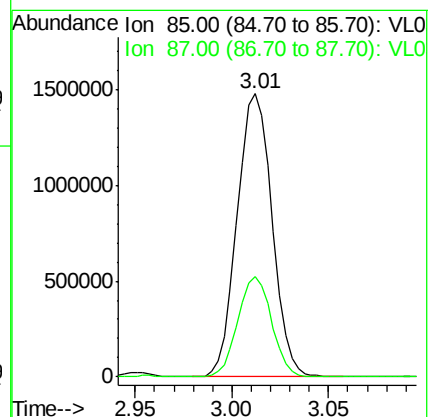
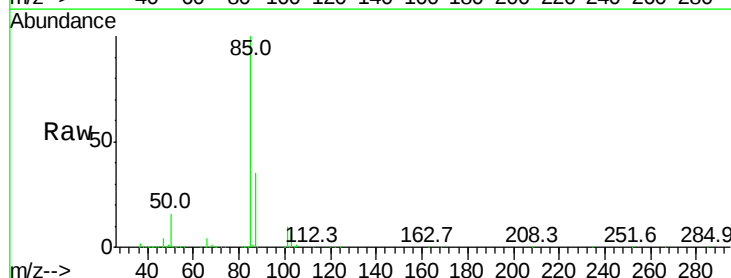
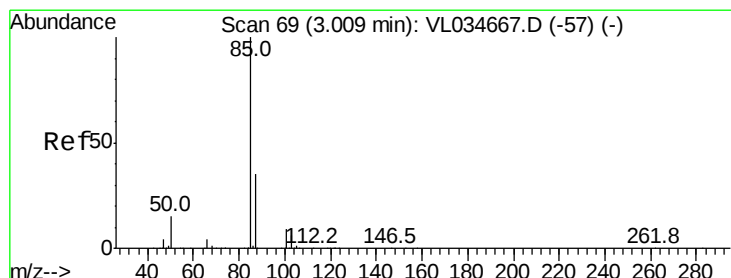
Acq: 25 Feb 2020 15:09

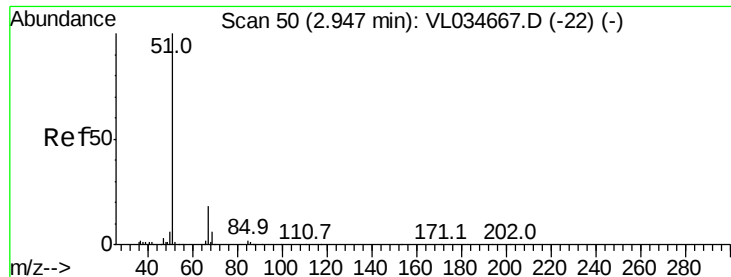
Tgt Ion: 85 Resp: 1856257

Ion Ratio Lower Upper

85 100

87 35.4 27.9 41.9





#3

Chlorodifluoromethane

Concen: 12.298 ppbv

RT: 2.95 min Scan# 51

Delta R.T. 0.00 min

Lab File: VL034673.D

Acq: 25 Feb 2020 15:09

Instrument :

MSVOA_L

ClientSampleId :

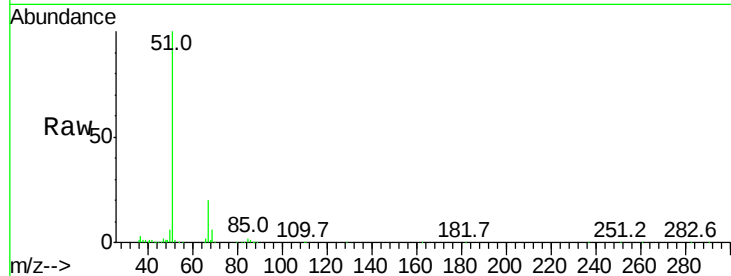
VSTDIC015

Tgt Ion: 51 Resp: 1706453

Ion Ratio Lower Upper

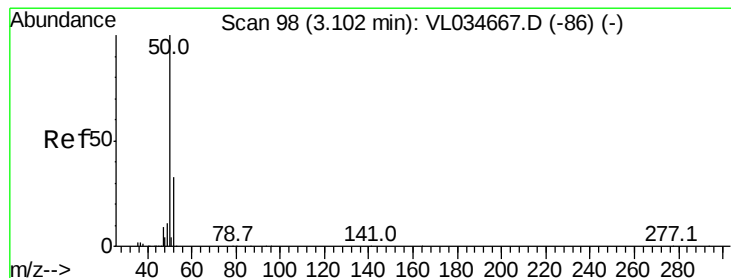
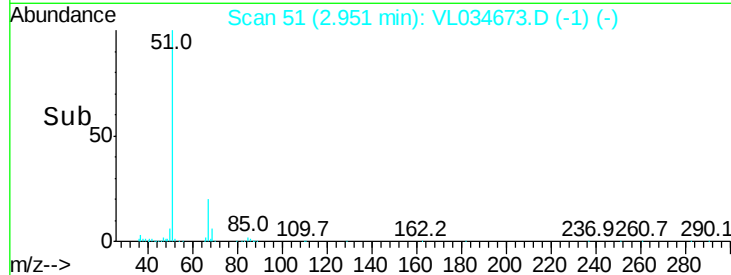
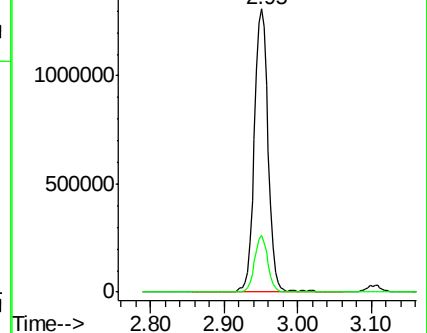
51 100

67 19.2 15.0 22.4



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 13.243 ppbv

RT: 3.11 min Scan# 99

Delta R.T. 0.00 min

Lab File: VL034673.D

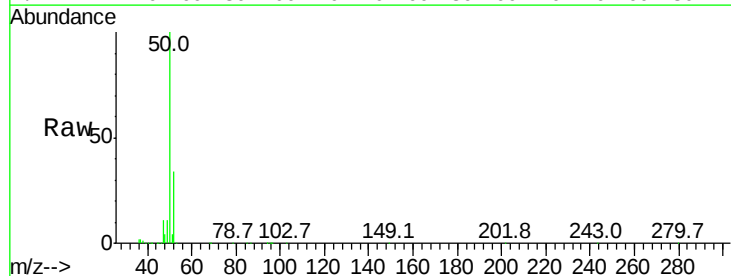
Acq: 25 Feb 2020 15:09

Tgt Ion: 50 Resp: 1124281

Ion Ratio Lower Upper

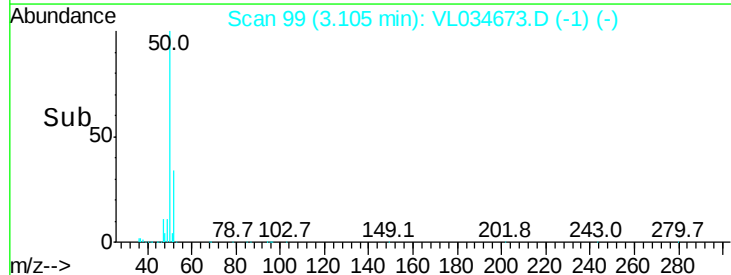
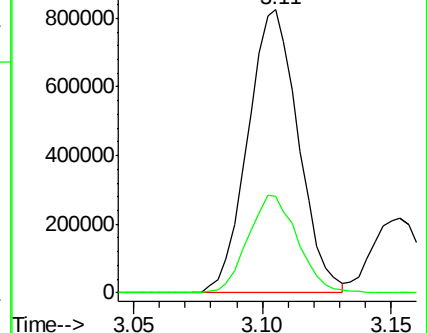
50 100

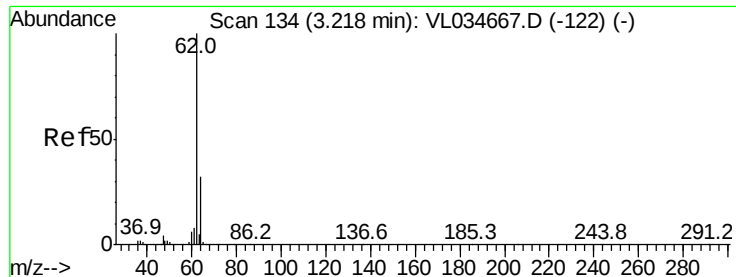
52 33.9 26.2 39.4



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#5

Vinyl Chloride

Concen: 13.056 ppbv

RT: 3.22 min Scan# 135

Delta R.T. 0.00 min

Lab File: VL034673.D

Acq: 25 Feb 2020 15:09

Instrument :

MSVOA_L

ClientSampleId :

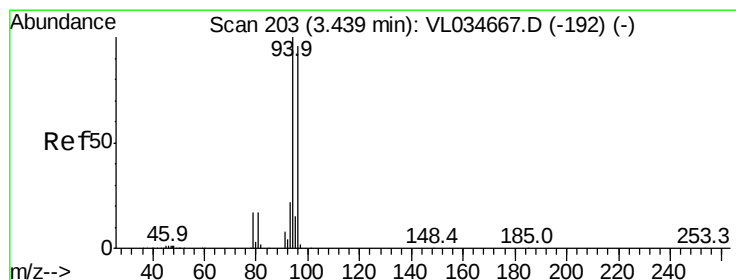
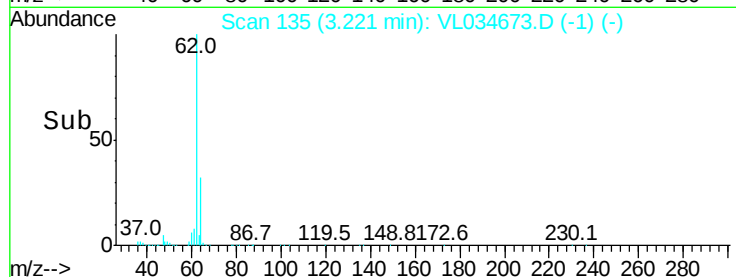
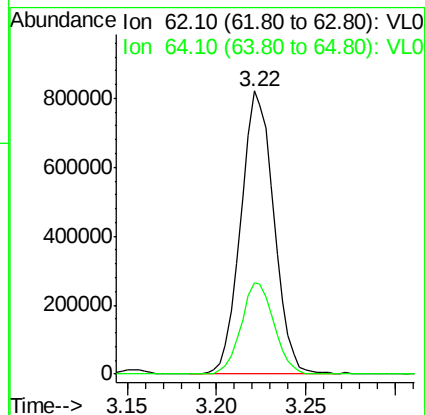
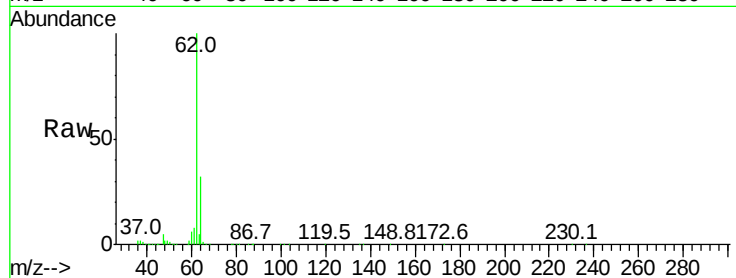
VSTDIC015

Tgt Ion: 62 Resp: 1058750

Ion Ratio Lower Upper

62 100

64 32.3 25.7 38.5



#6

Bromomethane

Concen: 12.584 ppbv

RT: 3.44 min Scan# 203

Delta R.T. 0.00 min

Lab File: VL034673.D

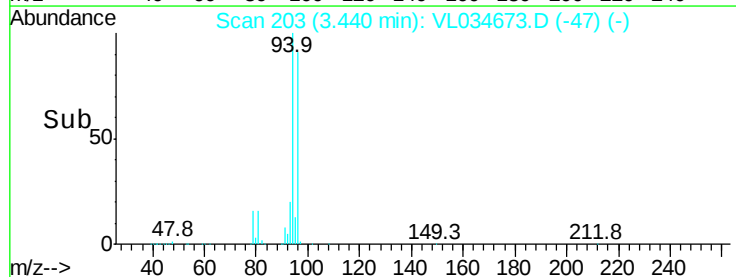
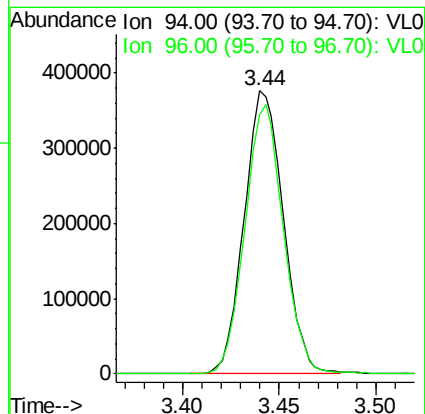
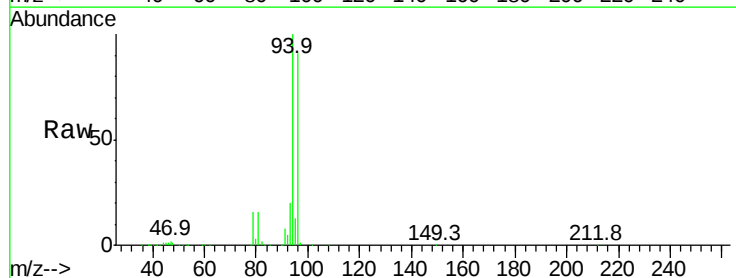
Acq: 25 Feb 2020 15:09

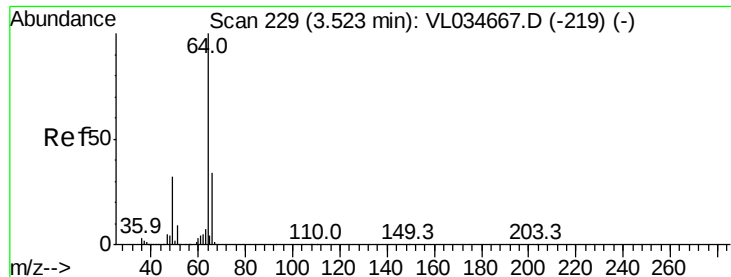
Tgt Ion: 94 Resp: 530805

Ion Ratio Lower Upper

94 100

96 91.4 77.0 115.4





#7

Chloroethane

Concen: 12.880 ppbv

RT: 3.53 min Scan# 230

Delta R.T. 0.00 min

Lab File: VL034673.D

Acq: 25 Feb 2020 15:09

Instrument :

MSVOA_L

ClientSampleId :

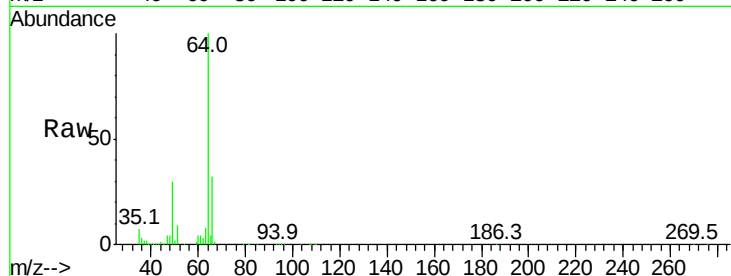
VSTDIC015

Tgt Ion: 64 Resp: 388422

Ion Ratio Lower Upper

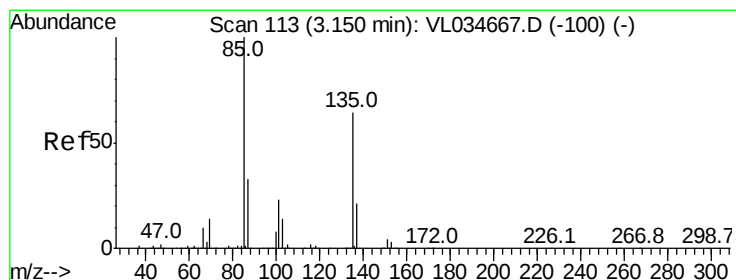
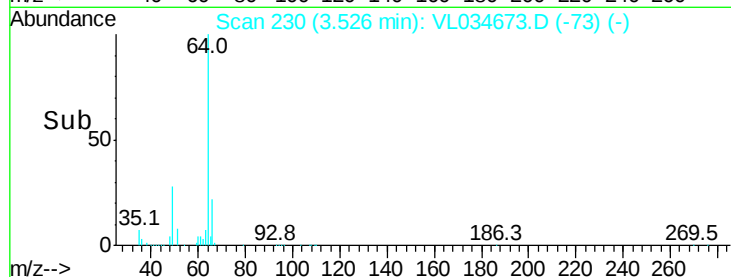
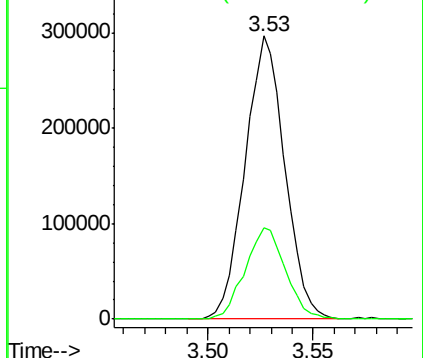
64 100

66 32.4 26.9 40.3



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0



#8

Dichlorotetrafluoroethane

Concen: 10.849 ppbv

RT: 3.15 min Scan# 114

Delta R.T. 0.00 min

Lab File: VL034673.D

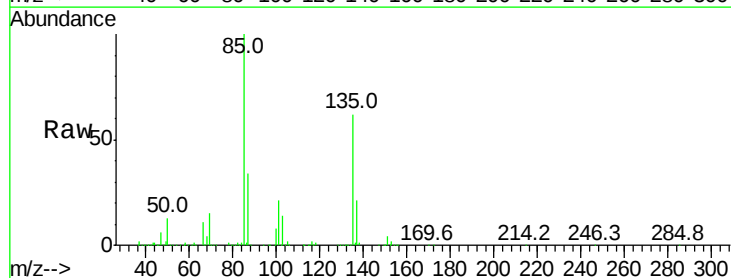
Acq: 25 Feb 2020 15:09

Tgt Ion: 85 Resp: 2144896

Ion Ratio Lower Upper

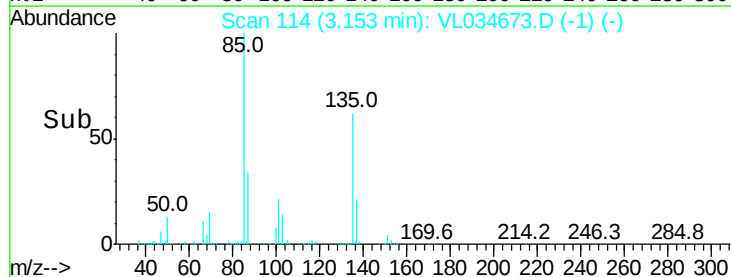
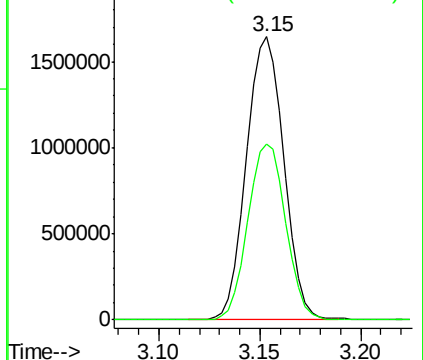
85 100

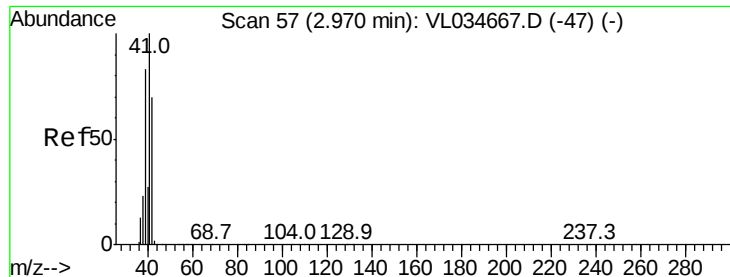
135 63.1 49.3 73.9



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 135.00 (134.70 to 135.70): VL0





#9

Propene

Concen: 14.686 ppbv

RT: 2.97 min Scan# 58

Delta R.T. 0.00 min

Lab File: VL034673.D

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ClientSampleId :

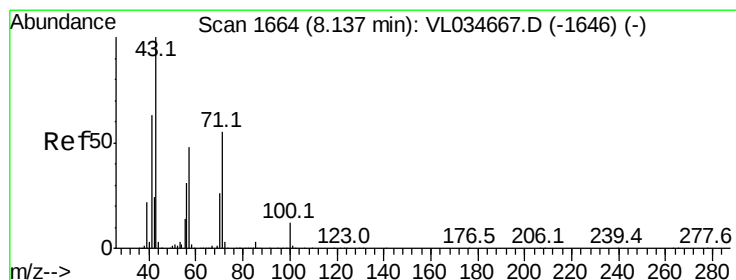
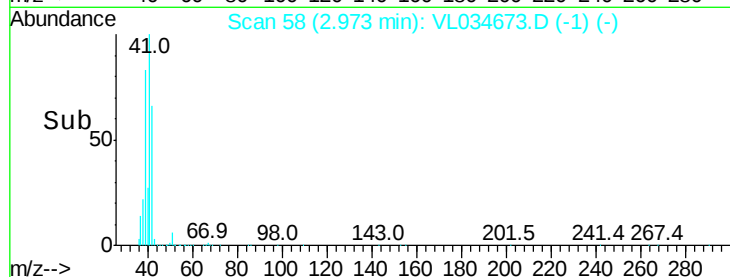
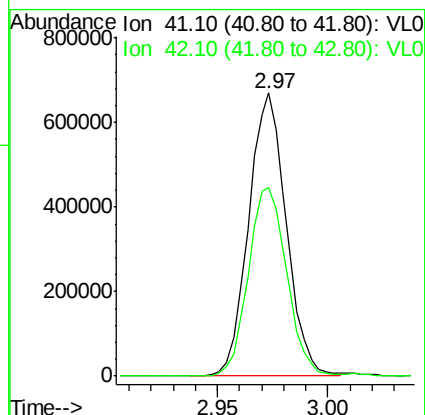
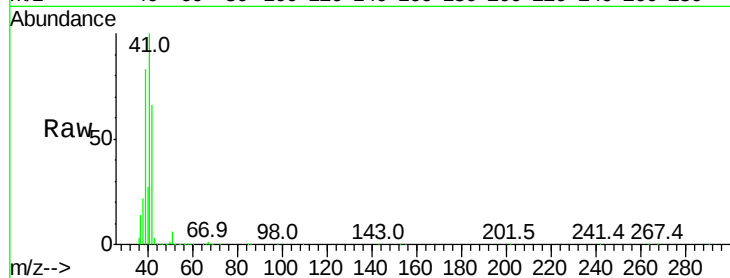
VSTDIC015

Tgt Ion: 41 Resp: 793413

Ion Ratio Lower Upper

41 100

42 69.0 57.0 85.4



#10

Heptane

Concen: 16.228 ppbv

RT: 8.14 min Scan# 1665

Delta R.T. 0.00 min

Lab File: VL034673.D

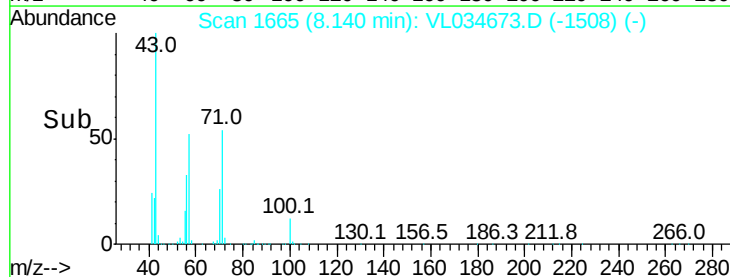
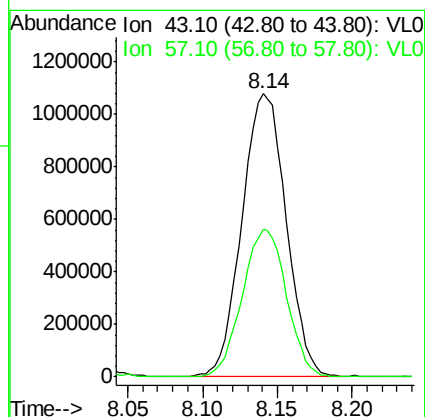
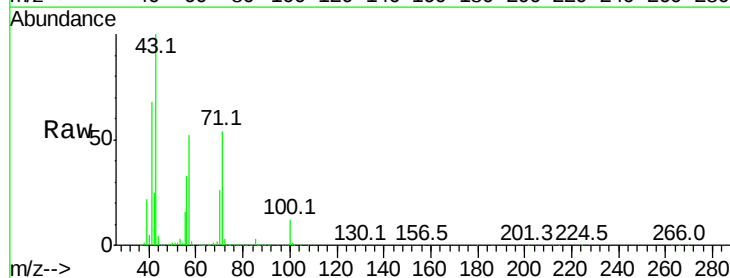
Acq: 25 Feb 2020 15:09

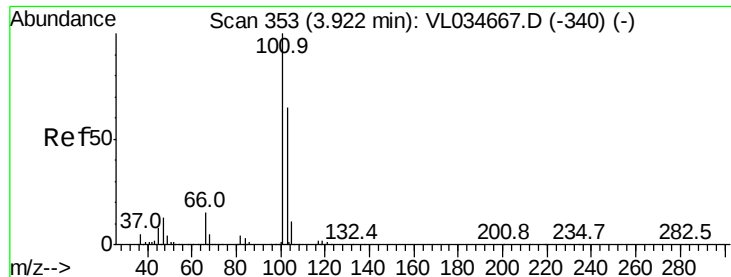
Tgt Ion: 43 Resp: 2206406

Ion Ratio Lower Upper

43 100

57 52.6 41.7 62.5

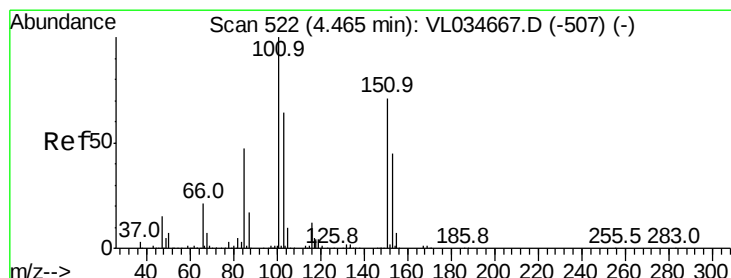
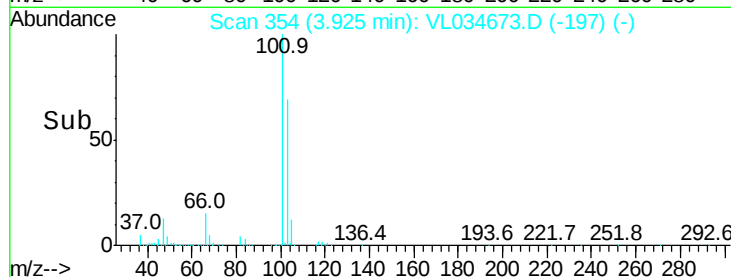
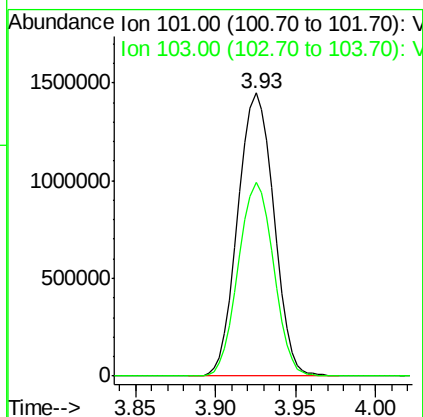
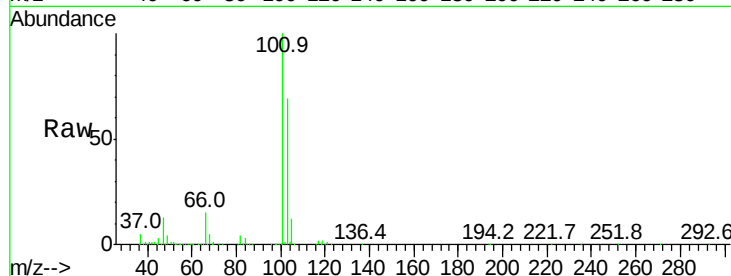




#11
 Trichlorofluoromethane
 Concen: 9.678 ppbv
 RT: 3.93 min Scan# 354
 Delta R.T. 0.00 min
 Lab File: VL034673.D
 Acq: 25 Feb 2020 15:09

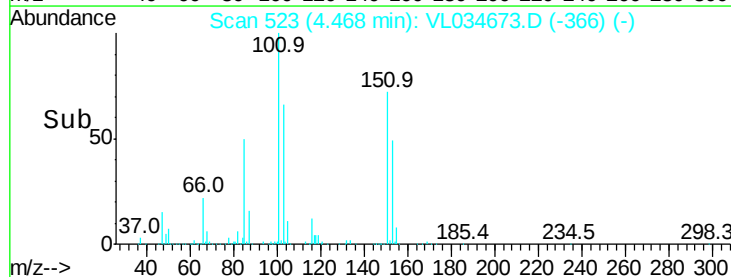
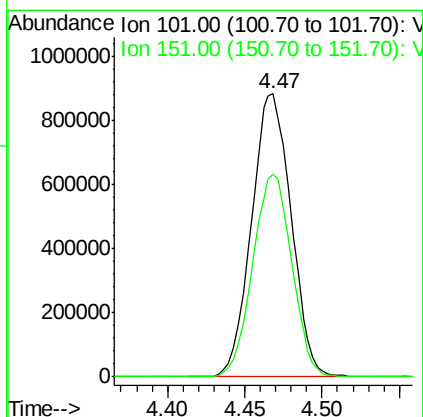
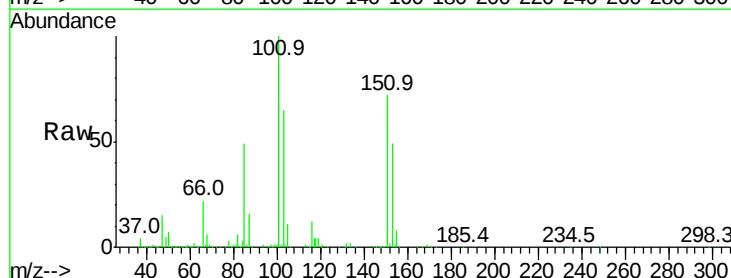
Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC015

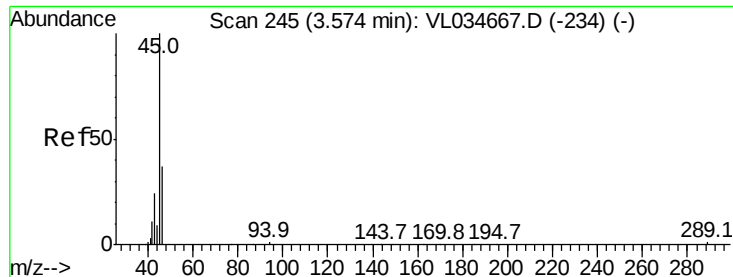
Tgt Ion:101 Resp: 2223633
 Ion Ratio Lower Upper
 101 100
 103 68.6 52.3 78.5



#12
 1,1,2-Trichlorotrifluoroethane
 Concen: 10.474 ppbv
 RT: 4.47 min Scan# 523
 Delta R.T. 0.00 min
 Lab File: VL034673.D
 Acq: 25 Feb 2020 15:09

Tgt Ion:101 Resp: 1570130
 Ion Ratio Lower Upper
 101 100
 151 70.9 55.5 83.3





#13

Ethanol

Concen: 11.777 ppbv

RT: 3.58 min Scan# 247

Delta R.T. 0.01 min

Lab File: VL034673.D

Acq: 25 Feb 2020 15:09

Instrument :

MSVOA_L

ClientSampleId :

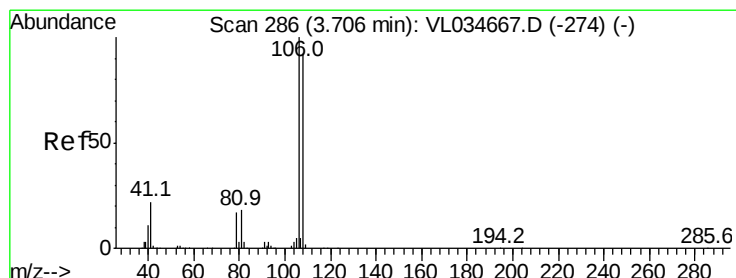
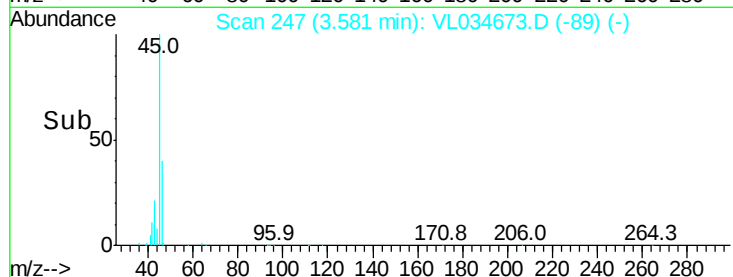
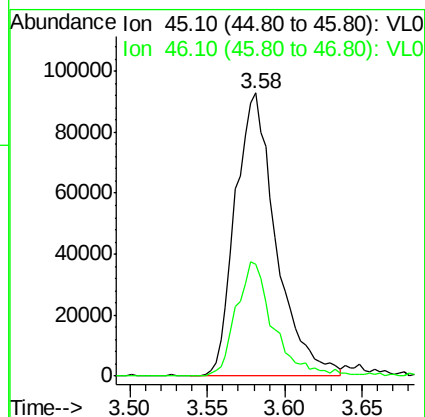
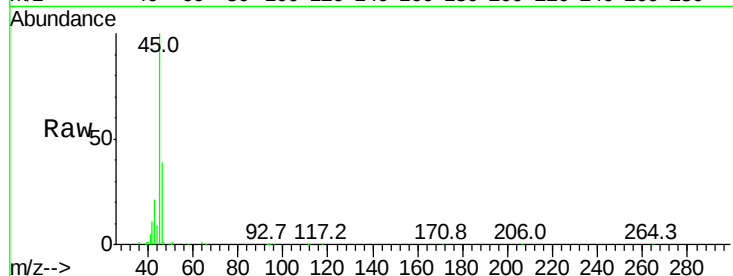
VSTDIC015

Tgt Ion: 45 Resp: 170433

Ion Ratio Lower Upper

45 100

46 37.1 15.1 60.5



#14

Bromoethene

Concen: 12.195 ppbv

RT: 3.71 min Scan# 288

Delta R.T. 0.01 min

Lab File: VL034673.D

Acq: 25 Feb 2020 15:09

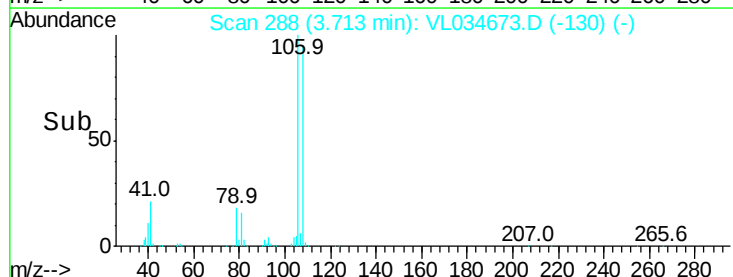
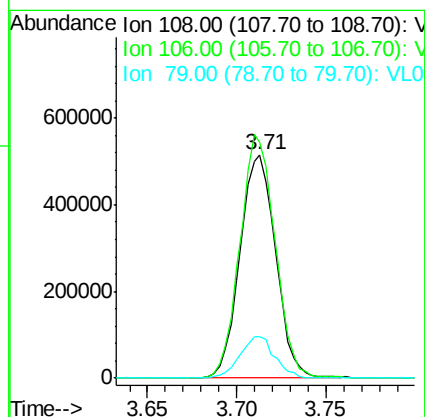
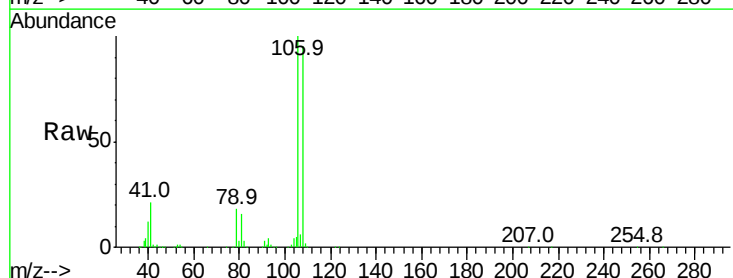
Tgt Ion: 108 Resp: 717132

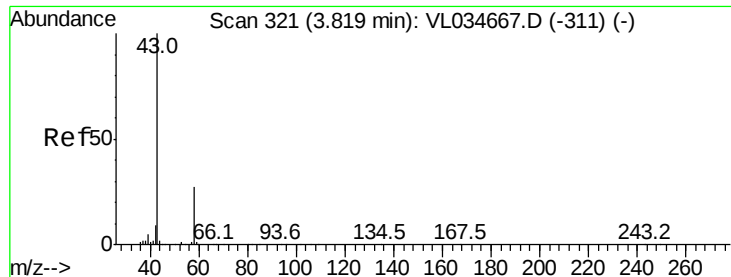
Ion Ratio Lower Upper

108 100

106 108.0 86.4 129.6

79 18.4 14.6 22.0





#15

Acetone

Concen: 10.933 ppbv

RT: 3.83 min Scan# 323

Delta R.T. 0.01 min

Lab File: VL034673.D

Acq: 25 Feb 2020 15:09

Instrument :

MSVOA_L

ClientSampleId :

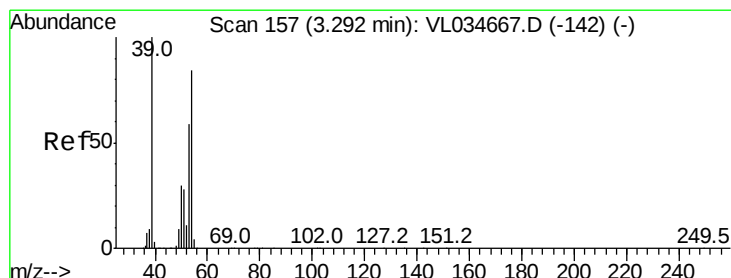
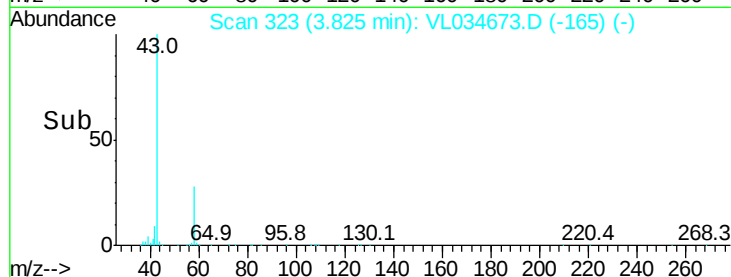
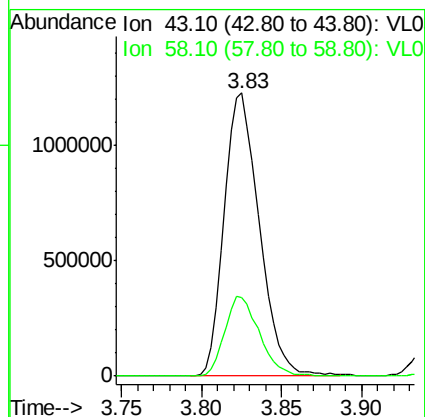
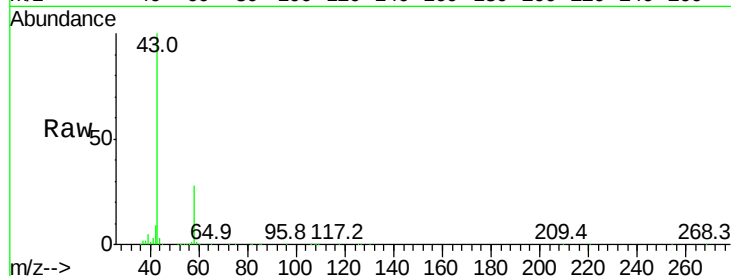
VSTDIC015

Tgt Ion: 43 Resp: 1845219

Ion Ratio Lower Upper

43 100

58 27.9 21.4 32.0



#16

1,3-Butadiene

Concen: 14.113 ppbv

RT: 3.29 min Scan# 158

Delta R.T. 0.00 min

Lab File: VL034673.D

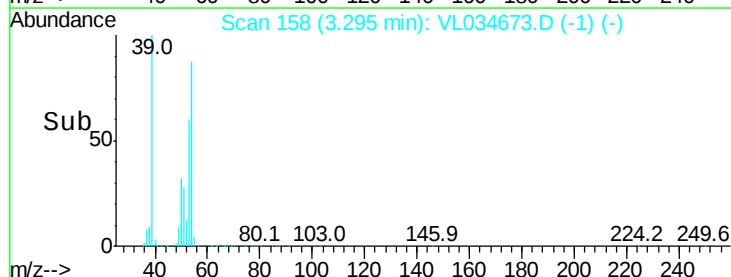
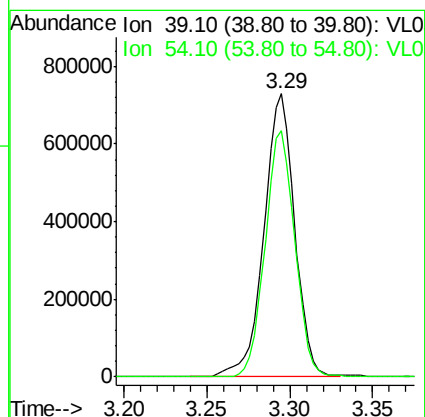
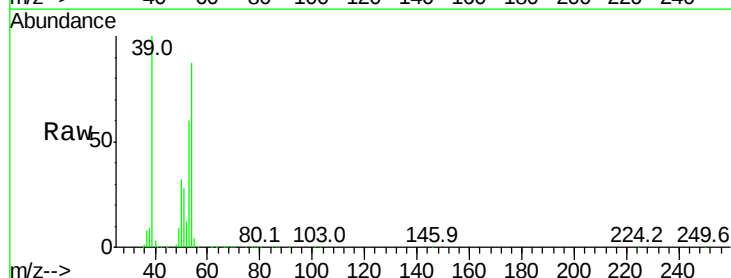
Acq: 25 Feb 2020 15:09

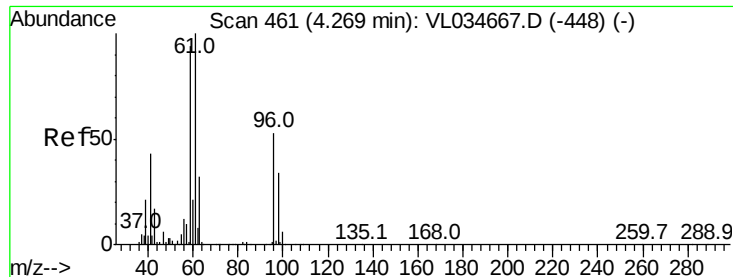
Tgt Ion: 39 Resp: 945857

Ion Ratio Lower Upper

39 100

54 84.6 68.2 102.2





#17

tert-Butyl alcohol

Concen: 11.131 ppbv

RT: 4.28 min Scan# 463

Delta R.T. 0.01 min

Lab File: VL034673.D

Acq: 25 Feb 2020 15:09

Instrument :

MSVOA_L

ClientSampleId :

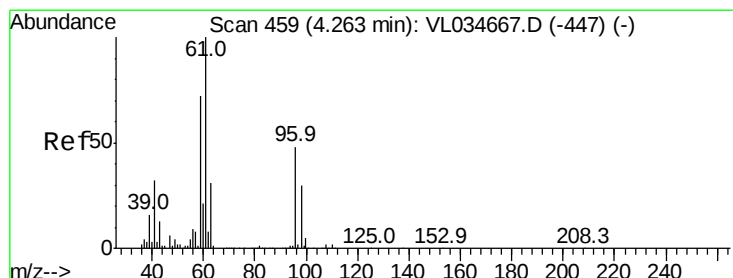
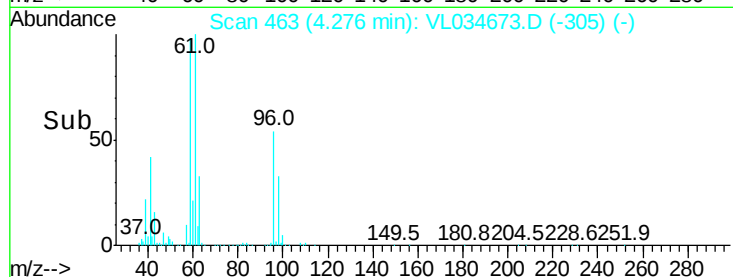
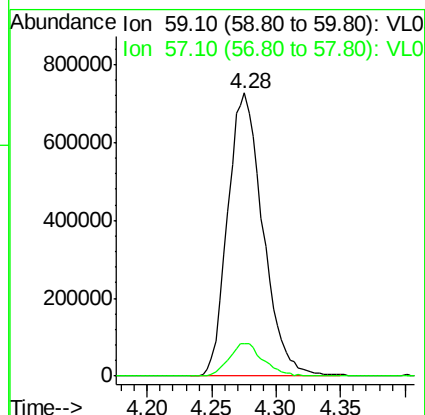
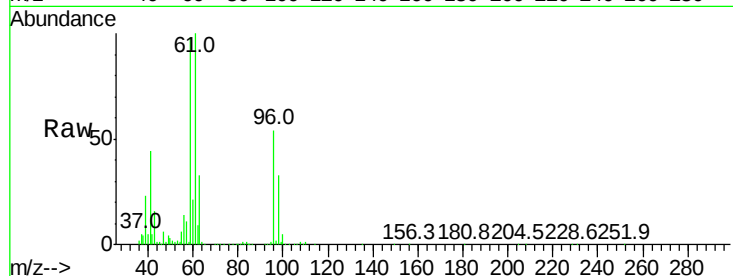
VSTDIC015

Tgt Ion: 59 Resp: 1381607

Ion Ratio Lower Upper

59 100

57 11.2 8.8 13.2



#18

1,1-Dichloroethene

Concen: 11.757 ppbv

RT: 4.27 min Scan# 461

Delta R.T. 0.01 min

Lab File: VL034673.D

Acq: 25 Feb 2020 15:09

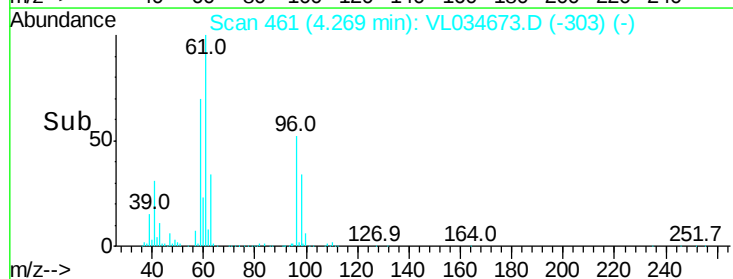
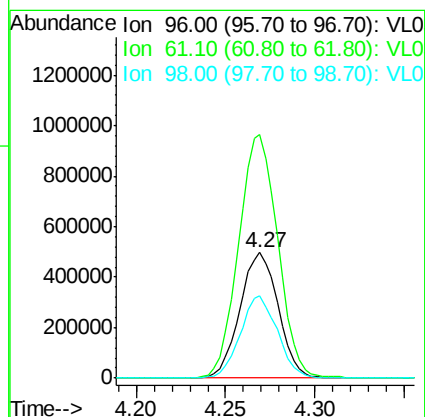
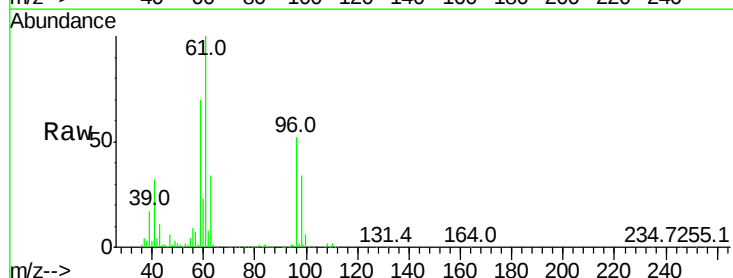
Tgt Ion: 96 Resp: 743999

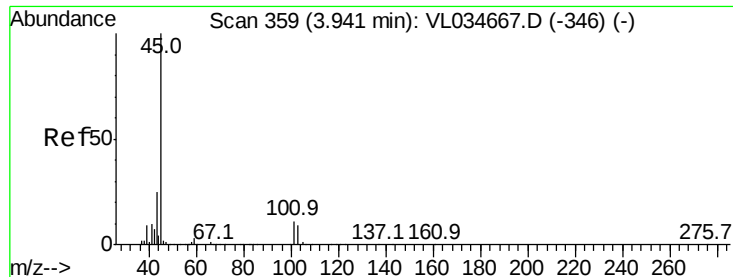
Ion Ratio Lower Upper

96 100

61 193.6 165.3 247.9

98 65.4 48.9 73.3



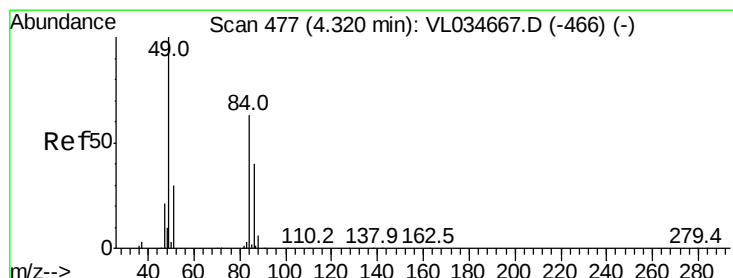
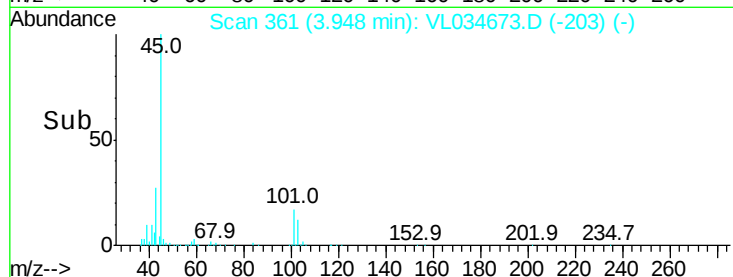
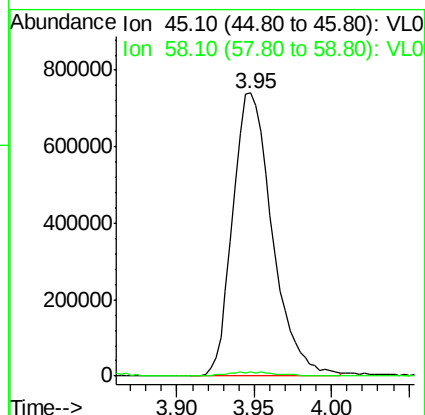
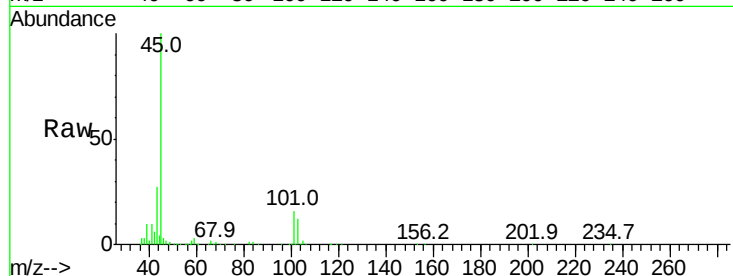


#19

Isopropyl Alcohol
 Concen: 13.298 ppbv
 RT: 3.95 min Scan# 361
 Delta R.T. 0.01 min
 Lab File: VL034673.D
 Acq: 25 Feb 2020 15:09

Instrument :
 MSVOA_L
 ClientSampleId :
 VSTDIC015

Tgt Ion: 45 Resp: 1309705
 Ion Ratio Lower Upper
 45 100
 58 2.2 1.8 2.8



#20

Methylene Chloride
 Concen: 10.539 ppbv
 RT: 4.32 min Scan# 478
 Delta R.T. 0.00 min
 Lab File: VL034673.D
 Acq: 25 Feb 2020 15:09

Tgt Ion: 84 Resp: 677284
 Ion Ratio Lower Upper
 84 100
 49 155.2 127.6 191.4
 51 46.8 39.7 59.5
 86 61.9 51.1 76.7

