

Data Path : W:\HPCHEM1\MSVOA L\DATA\VL072715\
 Data File : VL025772.D
 Acq On : 28 Jul 2015 3:40
 Operator : SY/MD
 Sample : G3040-05 120X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 ERD45-MIDPOINT-072215

Quant Time: Jul 28 07:18:50 2015
 Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL070715AIR.M
 Quant Title : AIR ANALYSIS BY METHOD T0-15 Instrument: MSVOA_LWed Jul 08 02:22:55 2015
 QLast Update : Wed Jul 08 02:22:55 2015
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	6.65	49	703526	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	8.33	114	1798121	10.00	ppbv	0.00
55) Chlorobenzene-d5	13.74	117	2247979	10.00	ppbv	0.00

System Monitoring Compounds		R.T.	QIon	Response	Conc	Units	Dev(Min)
68) 1-Bromo-4-Fluorobenzene	16.28	95	1910316	10.07	ppbv	-0.01	
Spiked Amount	10.000	Range	65 - 135	Recovery	=	100.70%	

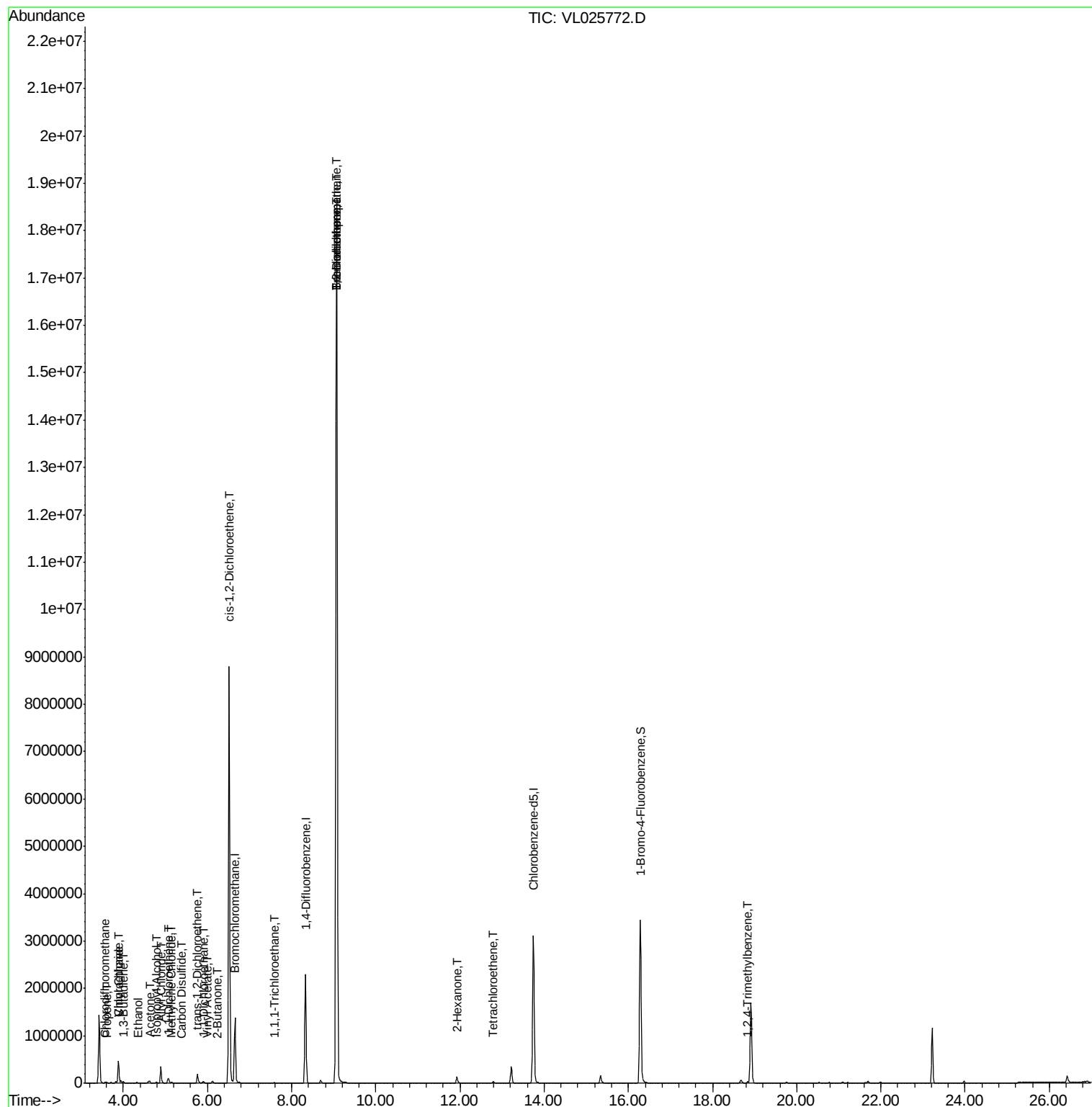
Target Compounds	R.T.	QIon	Response	Conc	Units	Ovalue
3) Chlorodifluoromethane	3.57	51	4924	0.05	ppbv #	89
5) Vinyl Chloride	3.89	62	493356	10.10	ppbv	100
7) Chloroethane	3.89	64	157380	6.92	ppbv #	45
9) Propene	3.60	41	8487	0.26	ppbv #	81
13) Ethanol	4.35	45	1482	0.29	ppbv	71
15) Acetone	4.63	43	51026	0.41	ppbv #	83
16) 1,3-Butadiene	4.00	39	8624	0.17	ppbv #	12
18) 1,1-Dichloroethene	5.09	96	16145	0.31	ppbv	98
19) Isopropyl Alcohol	4.79	45	1720	0.03	ppbv #	1
20) Methylene Chloride	5.15	84	7471	0.15	ppbv	92
21) Allyl Chloride	4.89	41	135297	1.74	ppbv #	41
22) trans-1,2-Dichloroethene	5.76	96	69998	1.32	ppbv	100
23) Vinyl Acetate	6.01	43	6566	0.03	ppbv #	69
24) 1,1-Dichloroethane	5.90	63	11438	0.09	ppbv #	91
27) Carbon Disulfide	5.39	76	5811	0.04	ppbv #	1
31) cis-1,2-Dichloroethene	6.51	61	6144888	69.83	ppbv	94
32) 1,1,1-Trichloroethane	7.60	97	9533	0.05	ppbv #	86
34) 2-Butanone	6.24	43	3073	0.03	ppbv #	52
38) Trichloroethene	9.07	130	6942125	86.70	ppbv	95
39) 1,2-Dichloropropane	9.07	63	40581	0.64	ppbv #	1
42) Bromodichloromethane	9.07	83	114368	0.64	ppbv #	96
51) 2-Hexanone	11.92	43	28558	0.22	ppbv #	50
52) Tetrachloroethene	12.80	164	8305	0.10	ppbv	86
74) 1,2,4-Trimethylbenzene	18.83	105	30882	0.07	ppbv #	71

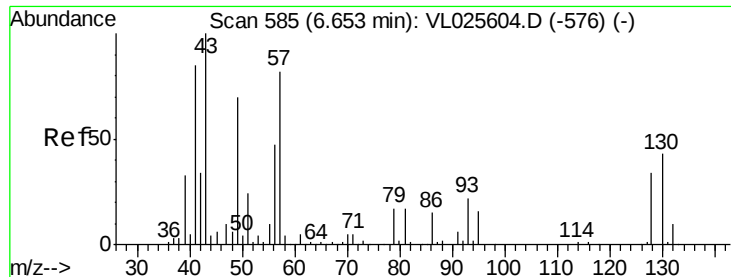
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Method : W:\HPCHEM1\MSVOA L\METHODS\VL070715AIR.M
Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Wed Jul 08 02:22:55 2015
QLast Update : Wed Jul 08 02:22:55 2015
Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.00 ppbv

RT: 6.65 min Scan# 585

Delta R.T. -0.00 min

Lab File: VL025772.D

Acq: 28 Jul 2015 3:40

Instrument :

MSVOA_L

ClientSampleId :

ERD45-MIDPOINT-072215

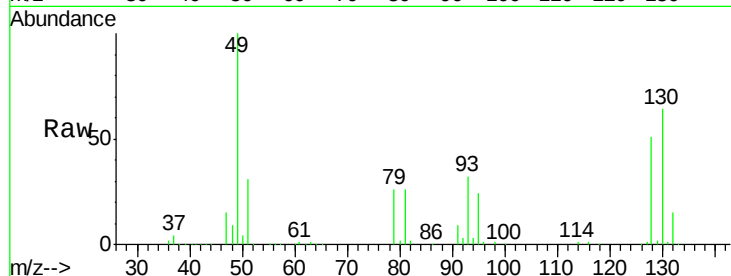
Tot Ion: 49 Resp: 703526

Ion Ratio Lower Upper

49 100

128 50.0 25.4 76.0

130 64.2 31.9 95.9



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

6.65

300000

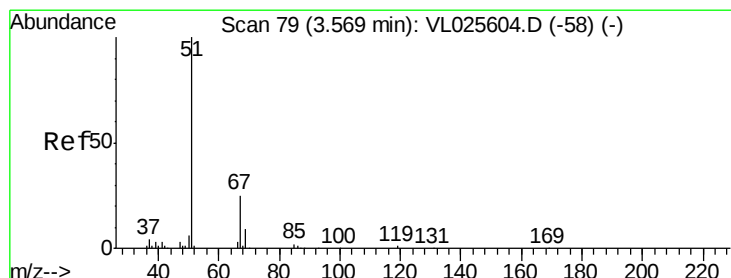
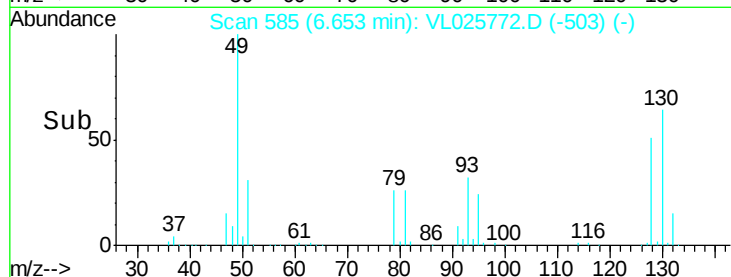
200000

100000

0

6.60 6.70

Time-->



#3

Chlorodifluoromethane

Concen: 0.05 ppbv

RT: 3.57 min Scan# 79

Delta R.T. -0.00 min

Lab File: VL025772.D

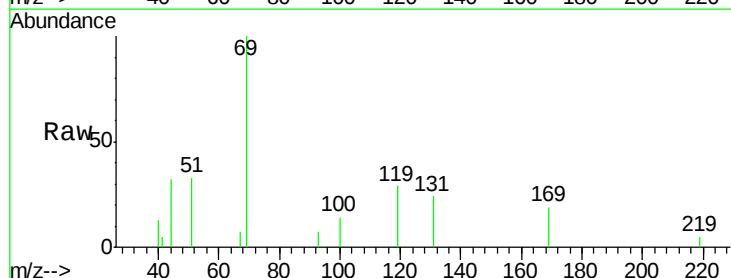
Acq: 28 Jul 2015 3:40

Tgt Ion: 51 Resp: 4924

Ion Ratio Lower Upper

51 100

67 19.1 19.5 29.3#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0

3000

2500

2000

1500

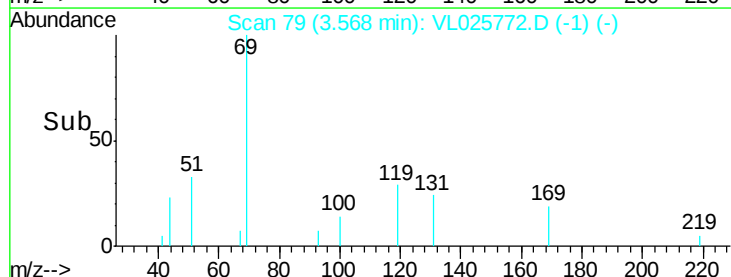
1000

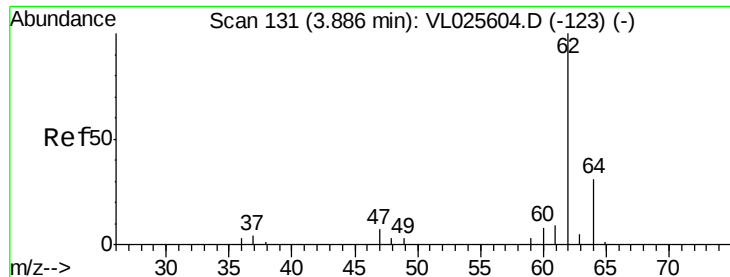
500

0

3.50 3.55 3.60 3.65

Time-->





#5

Vinyl Chloride

Concen: 10.10 ppbv

RT: 3.89 min Scan# 131

Delta R.T. -0.00 min

Lab File: VL025772.D

Acq: 28 Jul 2015 3:40

Instrument :

MSVOA_L

ClientSampleId :

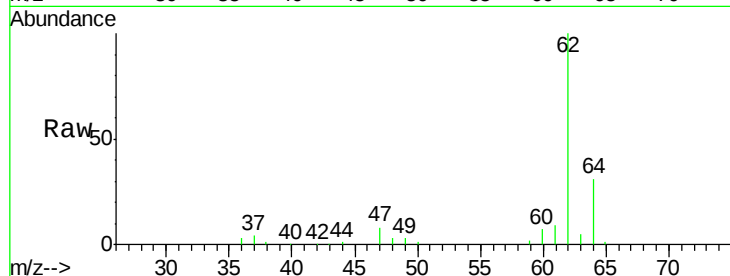
ERD45-MIDPOINT-072215

Tot Ion: 62 Resp: 493356

Ion Ratio Lower Upper

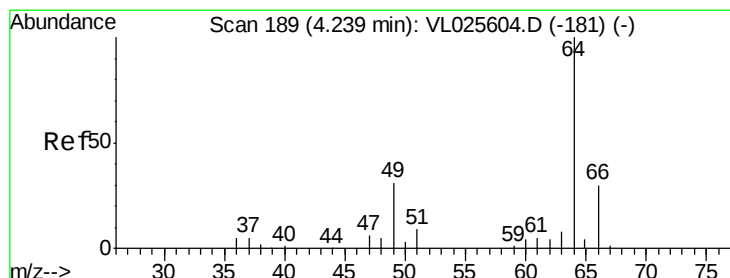
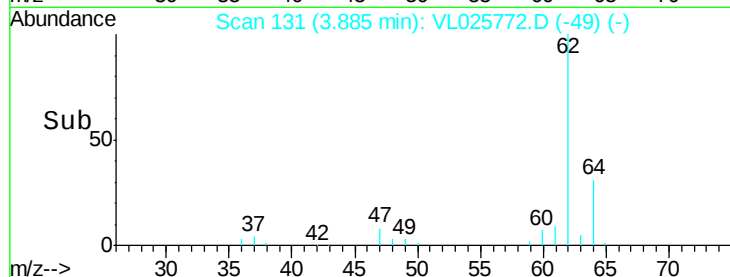
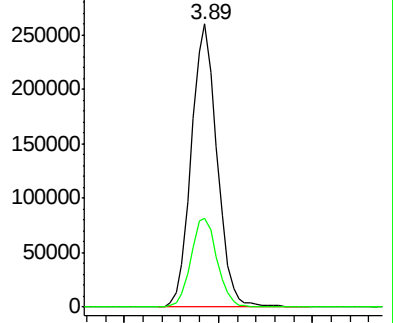
62 100

64 31.4 25.0 37.6



Abundance Ion 62.10 (61.80 to 62.80): VL0

Ion 64.10 (63.80 to 64.80): VL0



#7

Chloroethane

Concen: 6.92 ppbv

RT: 3.89 min Scan# 131

Delta R.T. -0.35 min

Lab File: VL025772.D

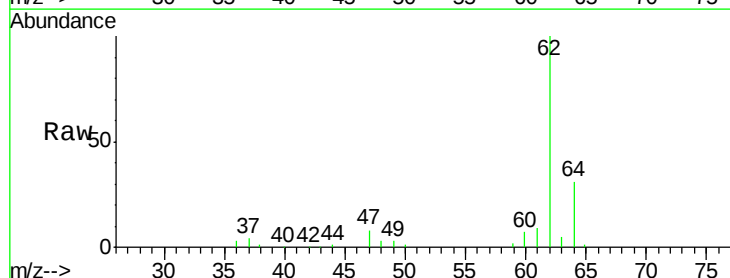
Acq: 28 Jul 2015 3:40

Tgt Ion: 64 Resp: 157380

Ion Ratio Lower Upper

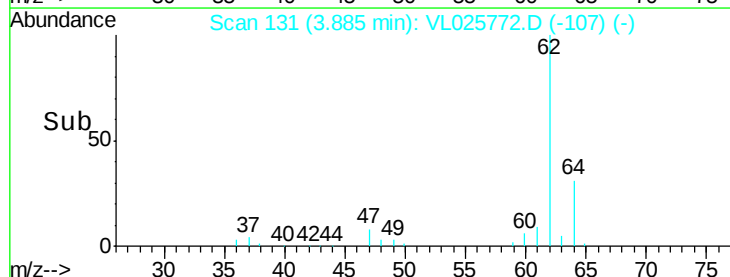
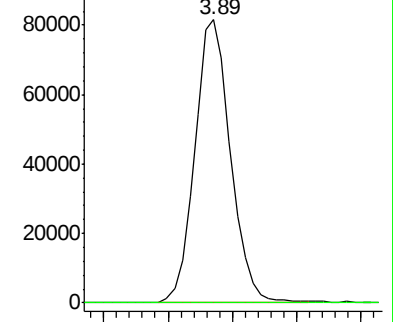
64 100

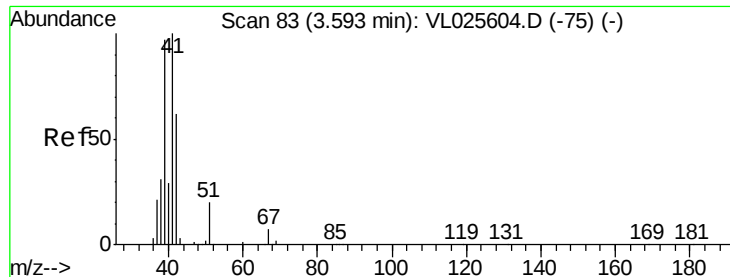
66 0.0 23.8 35.8#



Abundance Ion 64.10 (63.80 to 64.80): VL0

Ion 66.10 (65.80 to 66.80): VL0





#9

Propene

Concen: 0.26 ppbv

RT: 3.60 min Scan# 84

Delta R.T. 0.01 min

Lab File: VL025772.D

Acq: 28 Jul 2015 3:40

Instrument :

MSVOA_L

ClientSampleId :

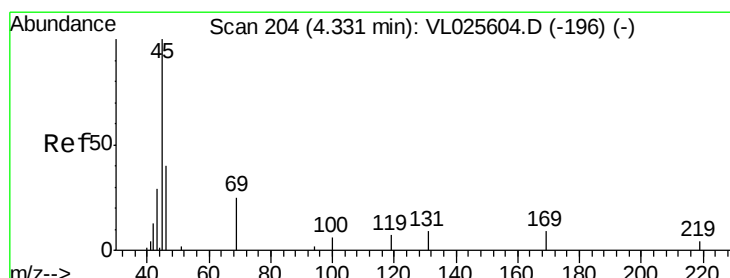
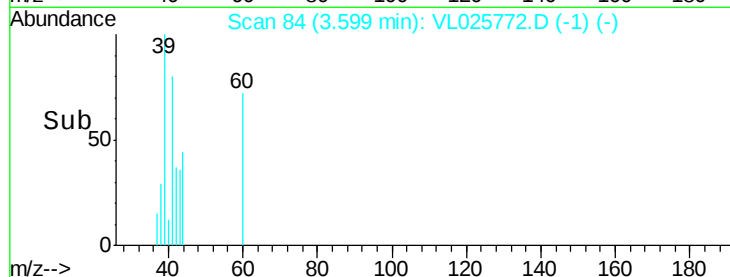
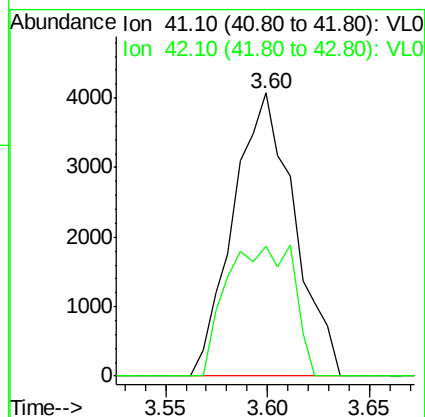
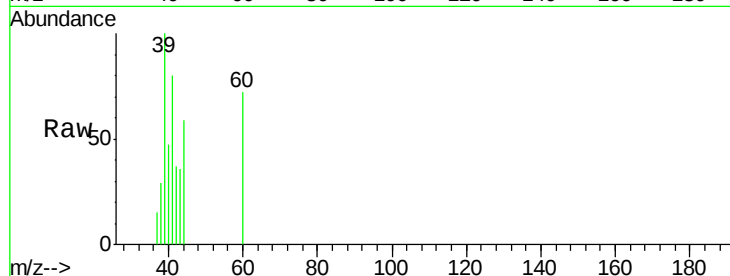
ERD45-MIDPOINT-072215

Tot Ion: 41 Resp: 8487

Ion Ratio Lower Upper

41 100

42 50.6 52.4 78.6#



#13

Ethanol

Concen: 0.29 ppbv

RT: 4.35 min Scan# 207

Delta R.T. 0.02 min

Lab File: VL025772.D

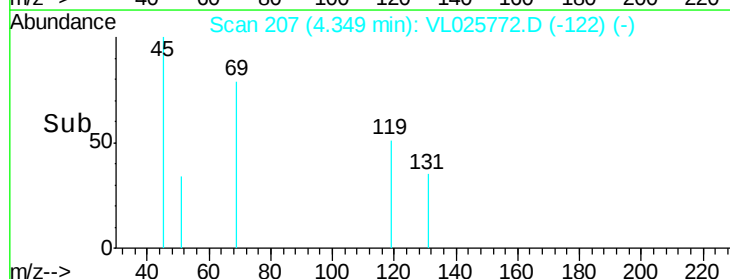
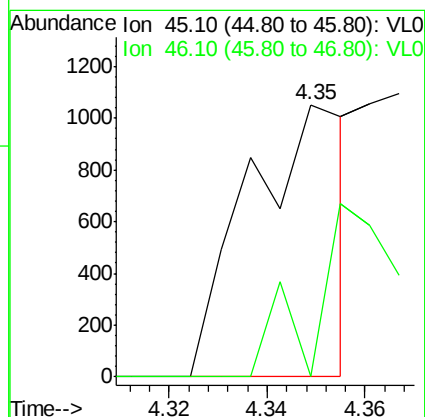
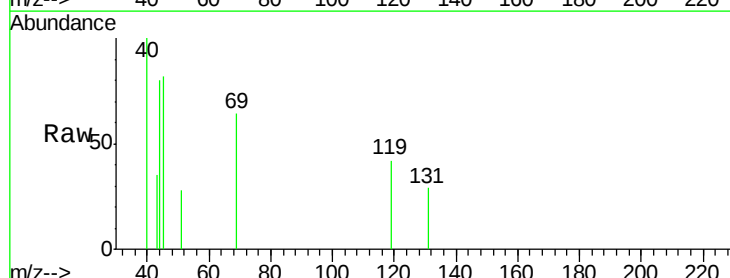
Acq: 28 Jul 2015 3:40

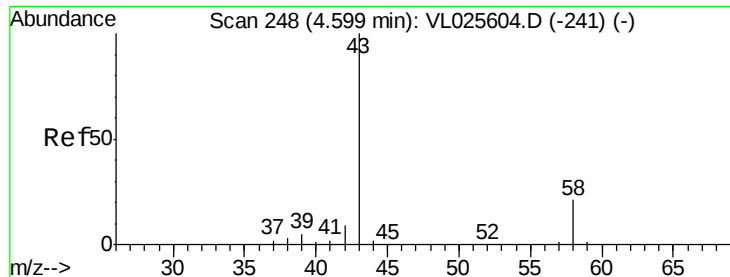
Tgt Ion: 45 Resp: 1482

Ion Ratio Lower Upper

45 100

46 57.9 16.0 64.0





#15

Acetone

Concen: 0.41 ppbv

RT: 4.63 min Scan# 253

Delta R.T. 0.03 min

Lab File: VL025772.D

Acq: 28 Jul 2015 3:40

Instrument :

MSVOA_L

ClientSampleId :

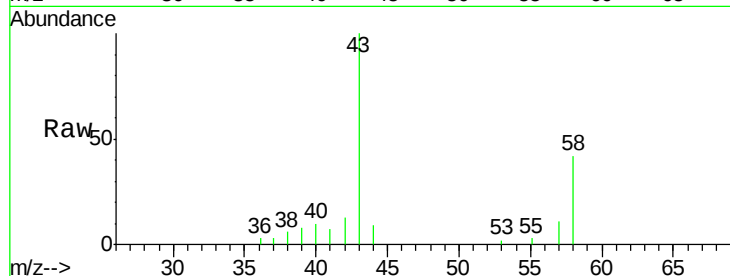
ERD45-MIDPOINT-072215

Tot Ion: 43 Resp: 51026

Ion Ratio Lower Upper

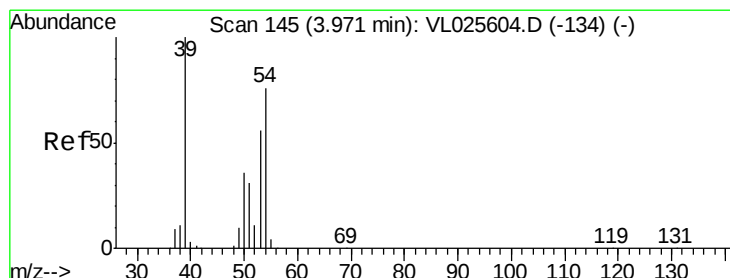
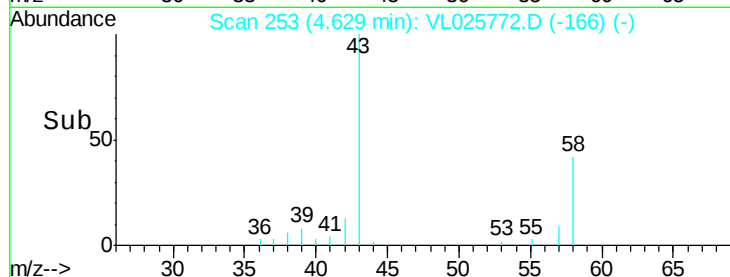
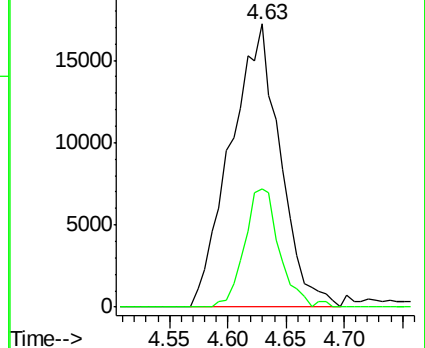
43 100

58 29.5 17.2 25.8#



Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 58.10 (57.80 to 58.80): VL0



#16

1,3-Butadiene

Concen: 0.17 ppbv

RT: 4.00 min Scan# 150

Delta R.T. 0.03 min

Lab File: VL025772.D

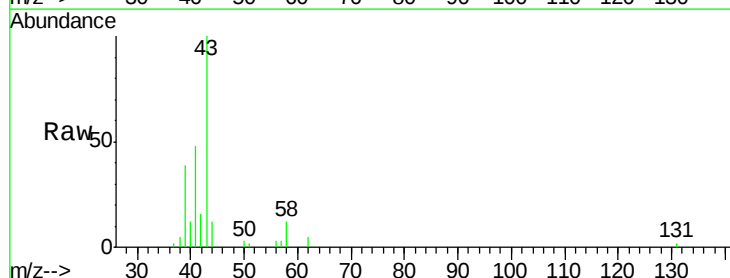
Acq: 28 Jul 2015 3:40

Tgt Ion: 39 Resp: 8624

Ion Ratio Lower Upper

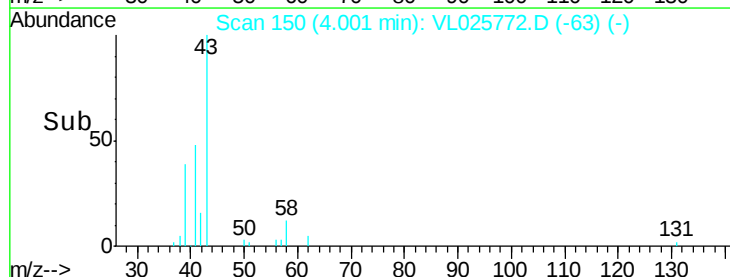
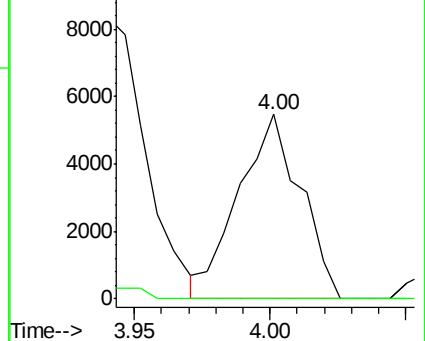
39 100

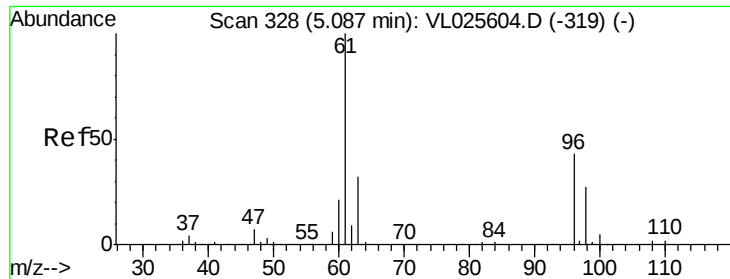
54 0.0 59.3 88.9#



Abundance Ion 39.10 (38.80 to 39.80): VL0

Ion 54.10 (53.80 to 54.80): VL0





#18

1,1-Dichloroethene

Concen: 0.31 ppbv

RT: 5.09 min Scan# 328

Delta R.T. -0.00 min

Lab File: VL025772.D

Acq: 28 Jul 2015 3:40

Instrument :

MSVOA_L

ClientSampleId :

ERD45-MIDPOINT-072215

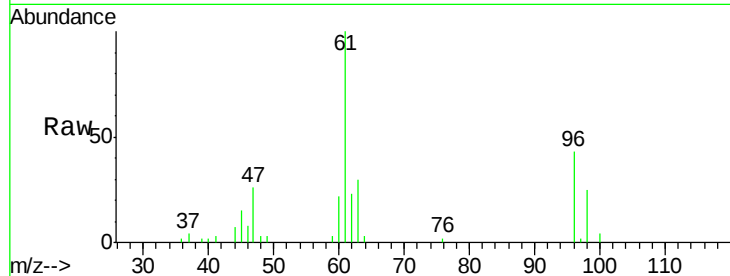
Tot Ion: 96 Resp: 16145

Ion Ratio Lower Upper

96 100

61 230.4 184.1 276.1

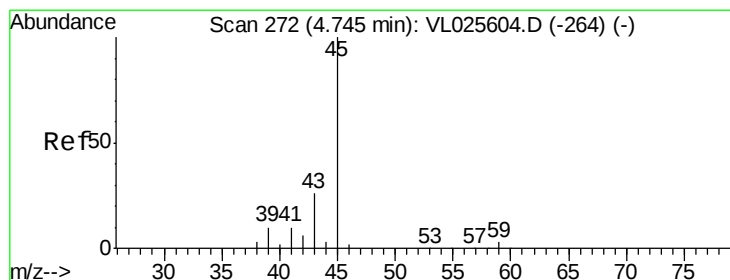
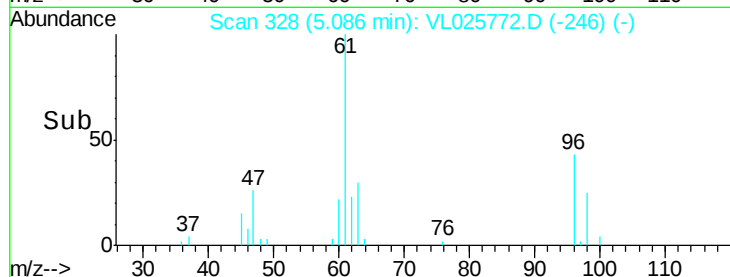
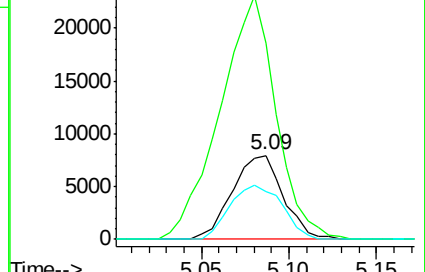
98 57.4 50.0 75.0



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



#19

Isopropyl Alcohol

Concen: 0.03 ppbv

RT: 4.79 min Scan# 279

Delta R.T. 0.04 min

Lab File: VL025772.D

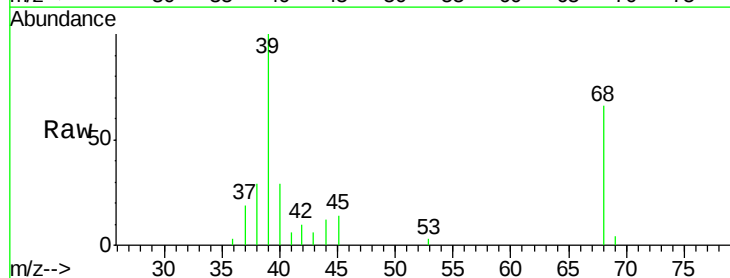
Acq: 28 Jul 2015 3:40

Tgt Ion: 45 Resp: 1720

Ion Ratio Lower Upper

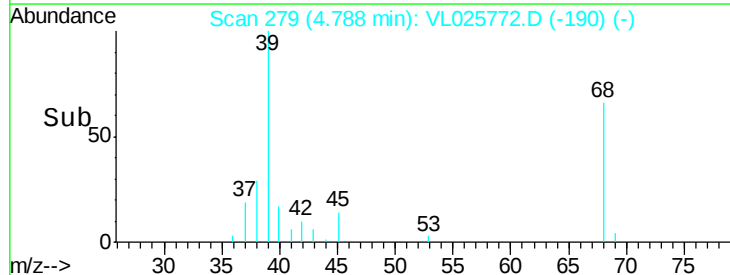
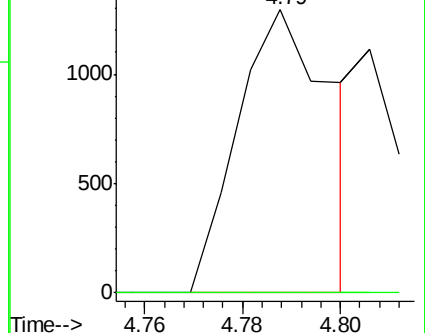
45 100

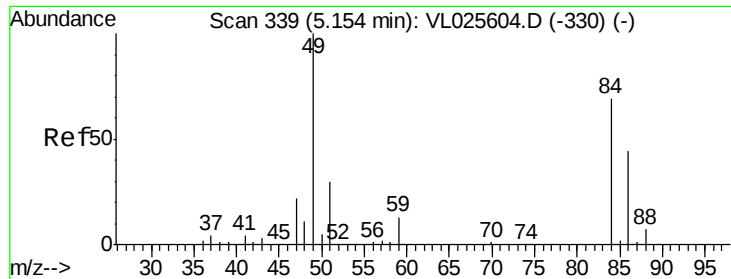
58 876.6 1.1 1.7#



Abundance Ion 45.10 (44.80 to 45.80): VL0

Ion 58.10 (57.80 to 58.80): VL0

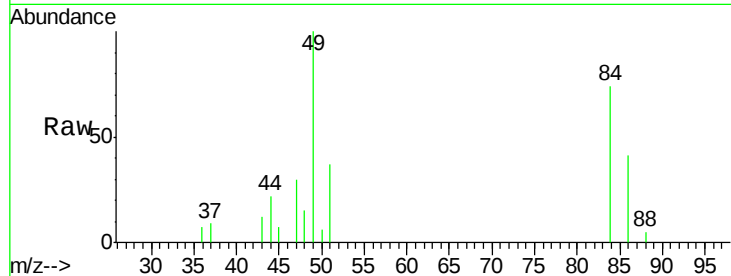




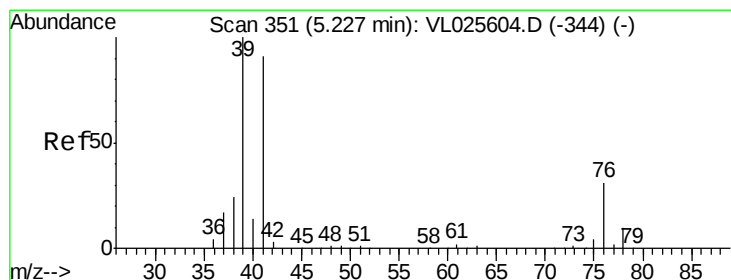
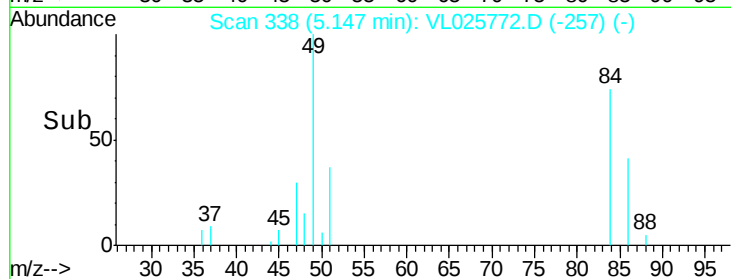
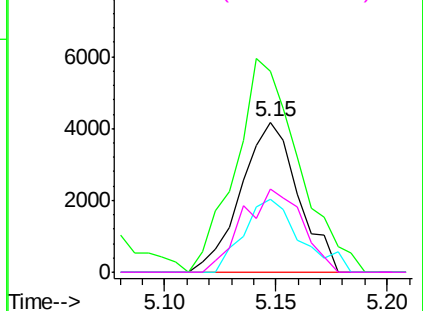
#20
Methvlene Chloride
Concen: 0.15 ppbv
RT: 5.15 min Scan# 338
Delta R.T. -0.01 min
Lab File: VL025772.D
Acq: 28 Jul 2015 3:40

Instrument :
MSVOA_L
ClientSampleId :
ERD45-MIDPOINT-072215

Tot Ion: 84 Resp: 7471
Ion Ratio Lower Upper
84 100
49 134.4 115.2 172.8
51 49.1 35.0 52.6
86 55.3 50.6 76.0

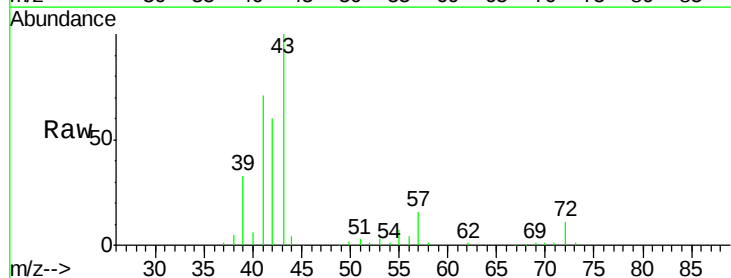


Abundance Ion 84.00 (83.70 to 84.70): VL0
Ion 49.10 (48.80 to 49.80): VL0
Ion 51.10 (50.80 to 51.80): VL0
Ion 86.00 (85.70 to 86.70): VL0

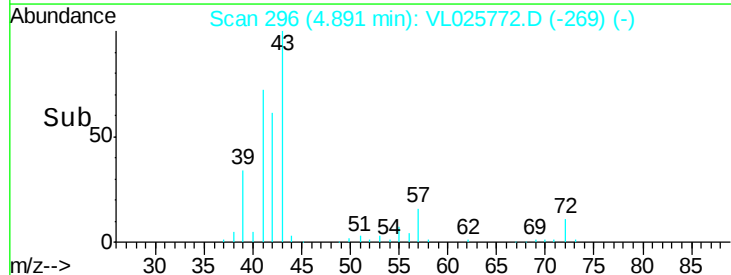
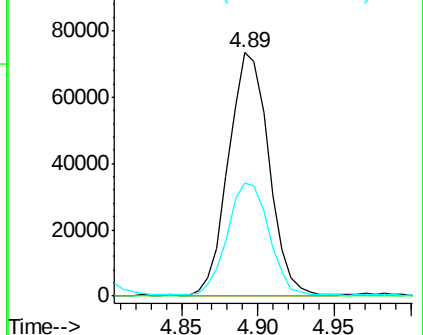


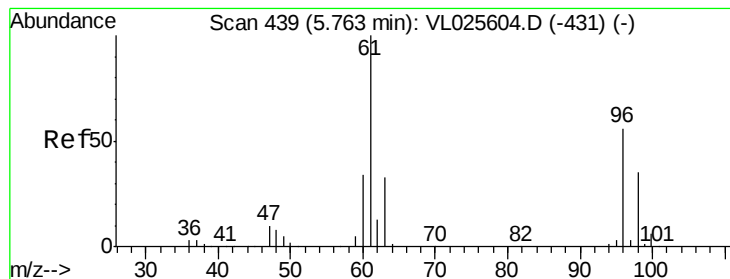
#21
Allyl Chloride
Concen: 1.74 ppbv
RT: 4.89 min Scan# 296
Delta R.T. -0.34 min
Lab File: VL025772.D
Acq: 28 Jul 2015 3:40

Tgt Ion: 41 Resp: 135297
Ion Ratio Lower Upper
41 100
76 0.0 26.6 40.0#
39 47.2 88.2 132.4#



Abundance Ion 41.10 (40.80 to 41.80): VL0
Ion 76.10 (75.80 to 76.80): VL0
Ion 39.10 (38.80 to 39.80): VL0





#22

trans-1,2-Dichloroethene

Concen: 1.32 ppbv

RT: 5.76 min Scan# 439

Delta R.T. -0.00 min

Lab File: VL025772.D

Acq: 28 Jul 2015 3:40

Instrument :

MSVOA_L

ClientSampleId :

ERD45-MIDPOINT-072215

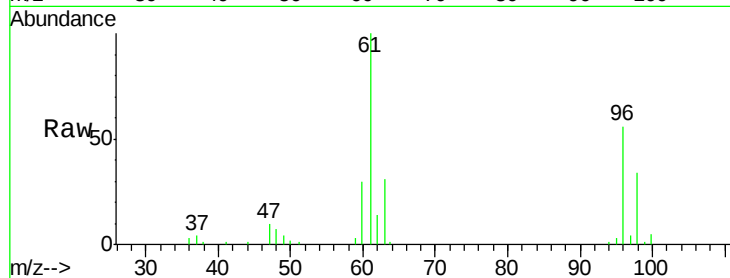
Tot Ion: 96 Resp: 69998

Ion Ratio Lower Upper

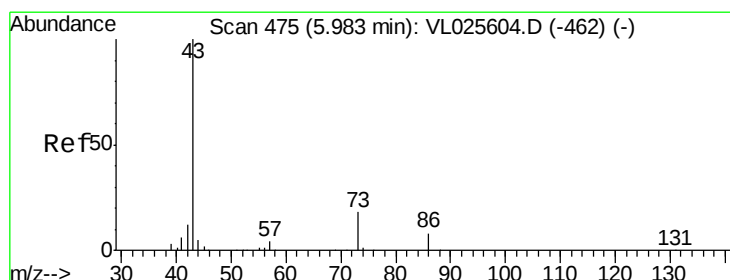
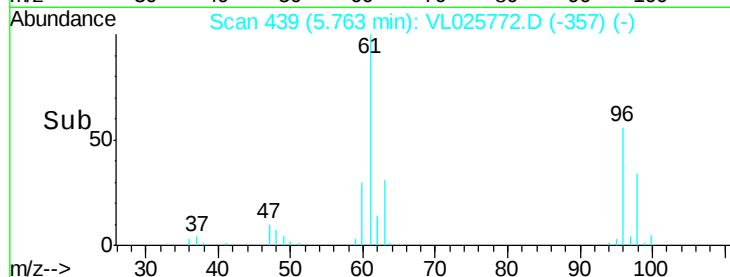
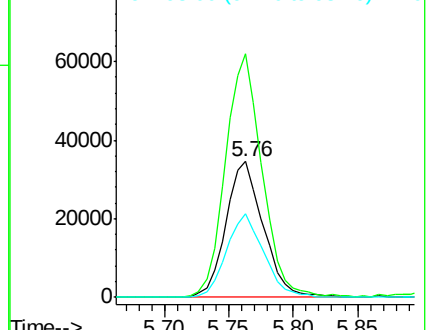
96 100

61 177.9 141.8 212.6

98 61.3 49.0 73.6



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



#23

Vinyl Acetate

Concen: 0.03 ppbv

RT: 6.01 min Scan# 479

Delta R.T. 0.02 min

Lab File: VL025772.D

Acq: 28 Jul 2015 3:40

Tgt Ion: 43 Resp: 6566

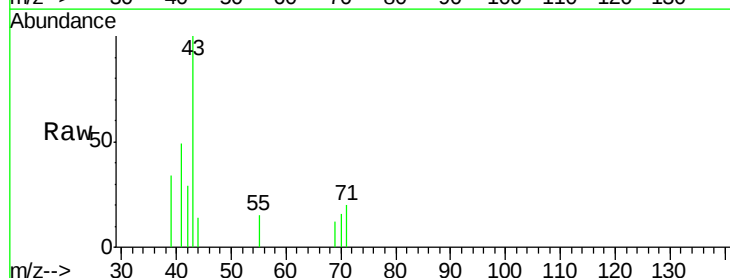
Ion Ratio Lower Upper

43 100

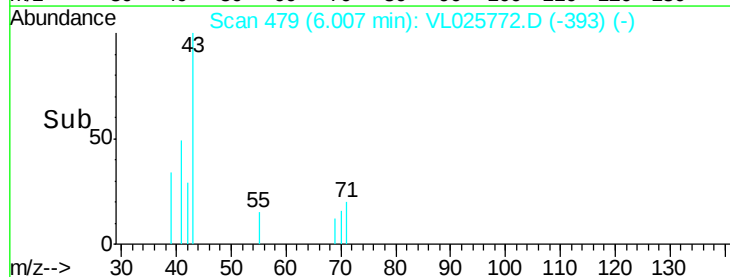
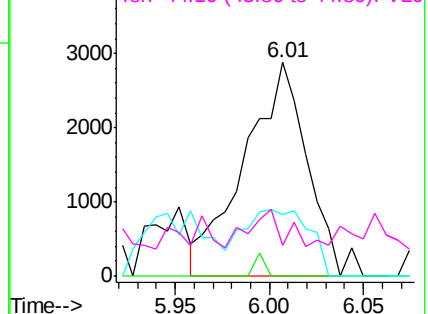
86 0.0 6.7 10.1#

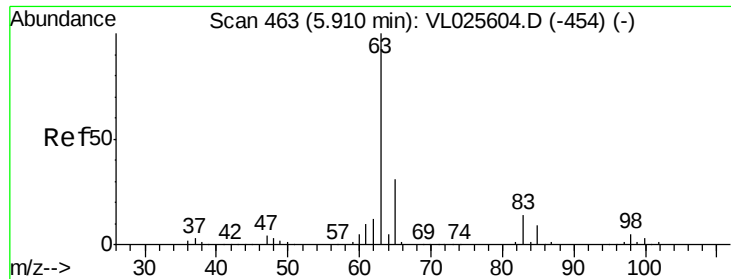
42 28.9 9.8 14.6#

44 0.0 4.1 6.1#



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: 0.09 ppbv

RT: 5.90 min Scan# 462

Delta R.T. -0.01 min

Lab File: VL025772.D

Acq: 28 Jul 2015 3:40

Instrument :

MSVOA_L

ClientSampleId :

ERD45-MIDPOINT-072215

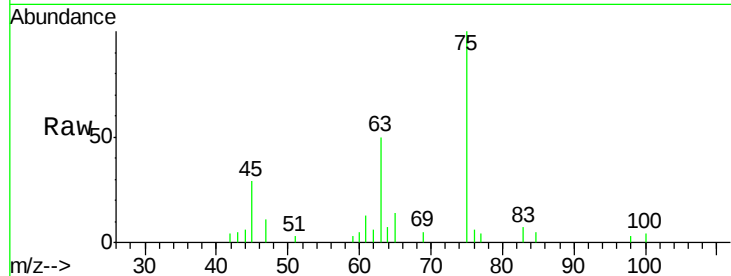
Tot Ion: 63 Resp: 11438

Ion Ratio Lower Upper

63 100

98 6.9 2.6 8.0

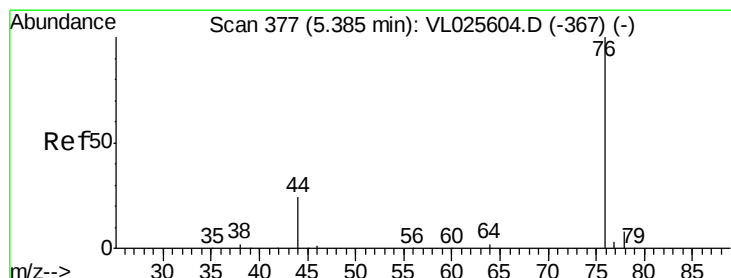
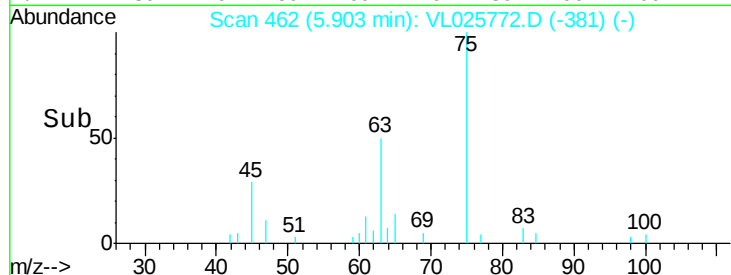
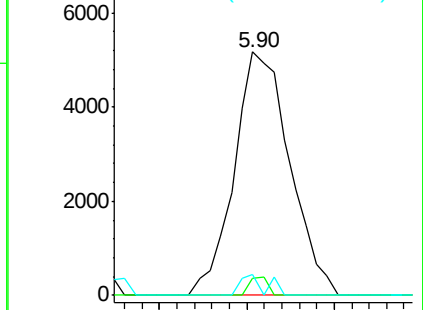
100 8.5 1.6 4.7#



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



#27

Carbon Disulfide

Concen: 0.04 ppbv

RT: 5.39 min Scan# 377

Delta R.T. -0.00 min

Lab File: VL025772.D

Acq: 28 Jul 2015 3:40

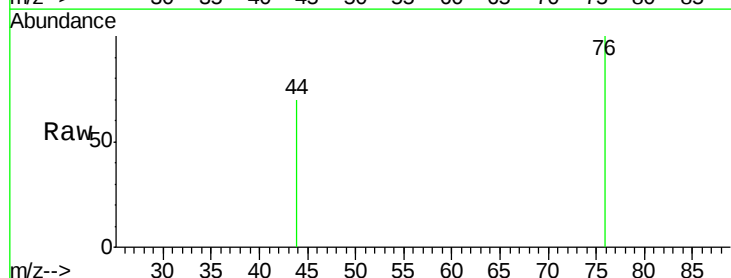
Tgt Ion: 76 Resp: 5811

Ion Ratio Lower Upper

76 100

44 96.3 20.2 30.4#

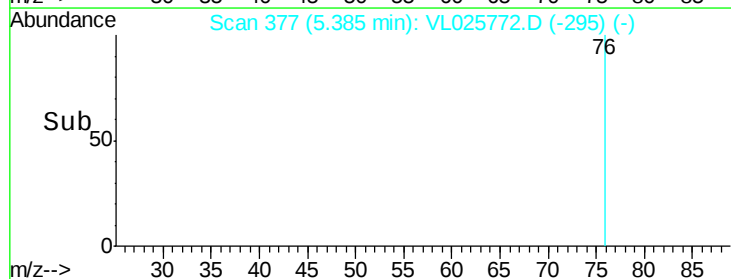
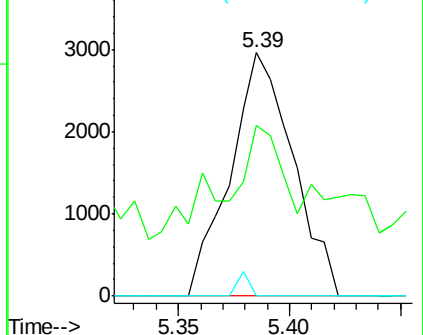
78 1.9 7.4 11.2#

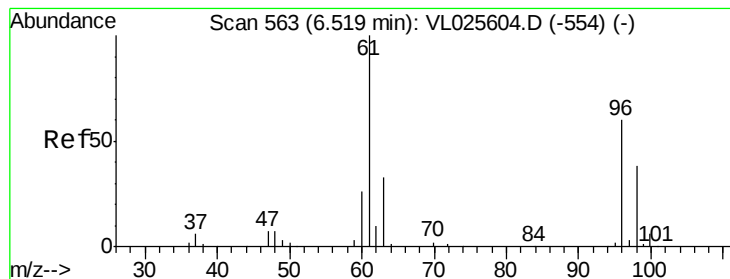


Abundance Ion 76.00 (75.70 to 76.70): VL0

Ion 44.10 (43.80 to 44.80): VL0

Ion 78.00 (77.70 to 78.70): VL0





#31

cis-1,2-Dichloroethene

Concen: 69.83 ppbv

RT: 6.51 min Scan# 562

Delta R.T. -0.01 min

Lab File: VL025772.D

Acq: 28 Jul 2015 3:40

Instrument :

MSVOA_L

ClientSampleId :

ERD45-MIDPOINT-072215

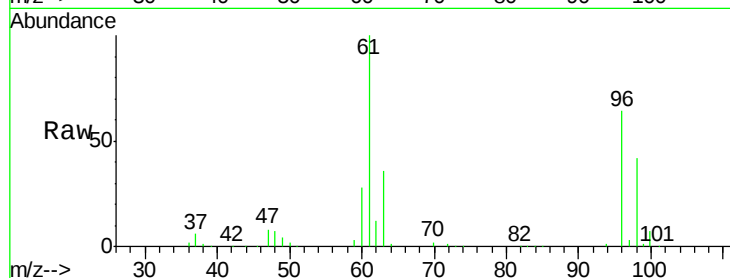
Tot Ion: 61 Resp: 6144888

Ion Ratio Lower Upper

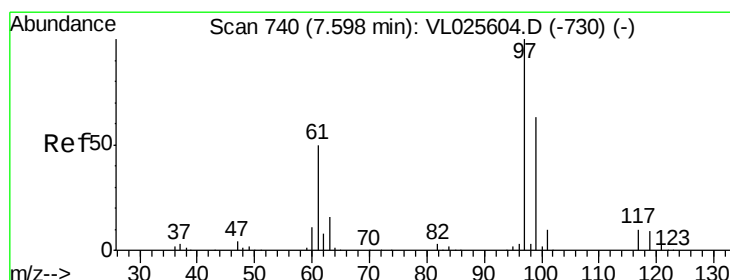
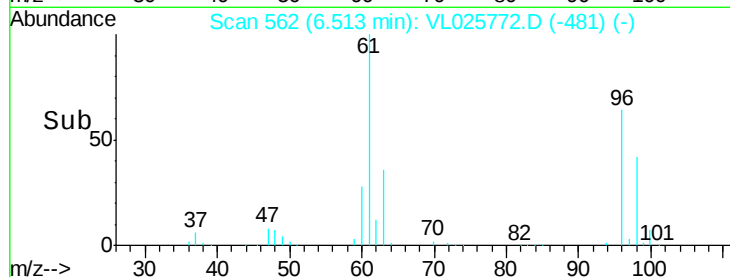
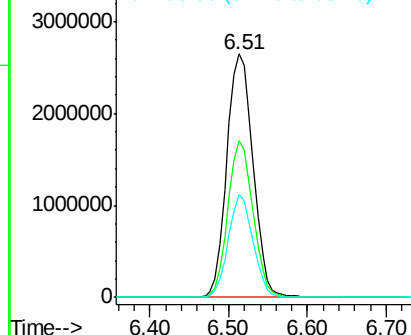
61 100

96 64.4 48.1 72.1

98 42.2 30.7 46.1



Abundance Ion 61.10 (60.80 to 61.80): VL0
Ion 96.00 (95.70 to 96.70): VL0
Ion 98.00 (97.70 to 98.70): VL0



#32

1,1,1-Trichloroethane

Concen: 0.05 ppbv

RT: 7.60 min Scan# 740

Delta R.T. -0.00 min

Lab File: VL025772.D

Acq: 28 Jul 2015 3:40

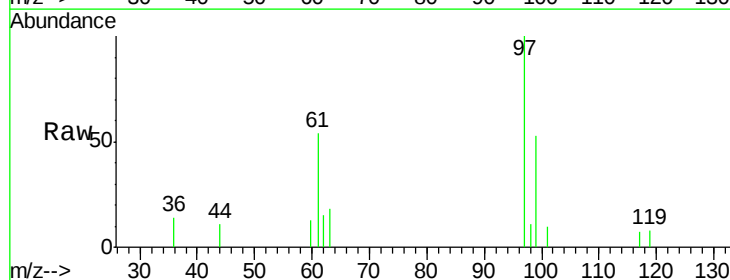
Tgt Ion: 97 Resp: 9533

Ion Ratio Lower Upper

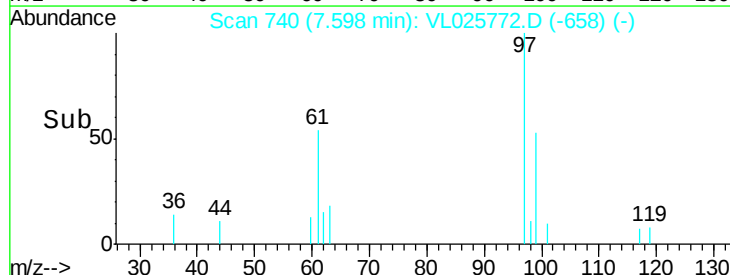
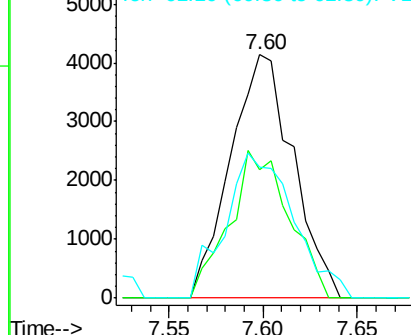
97 100

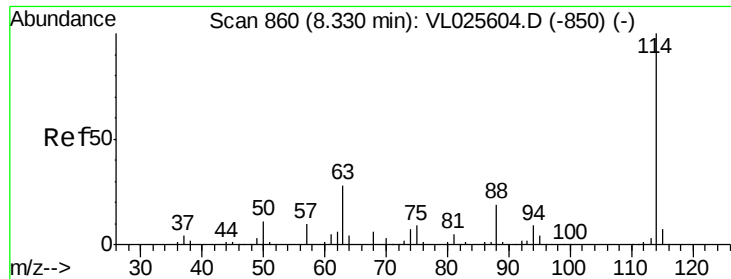
99 57.7 51.2 76.8

61 65.0 40.4 60.6#



Abundance Ion 97.00 (96.70 to 97.70): VL0
Ion 99.00 (98.70 to 99.70): VL0
Ion 61.10 (60.80 to 61.80): VL0

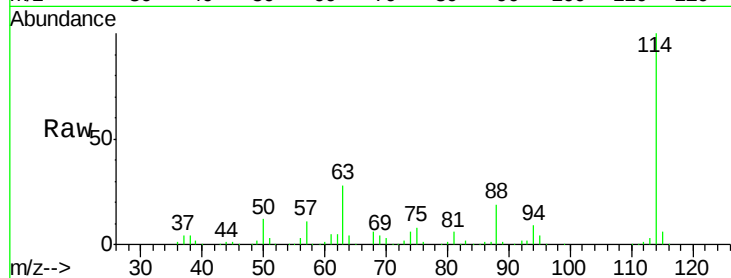




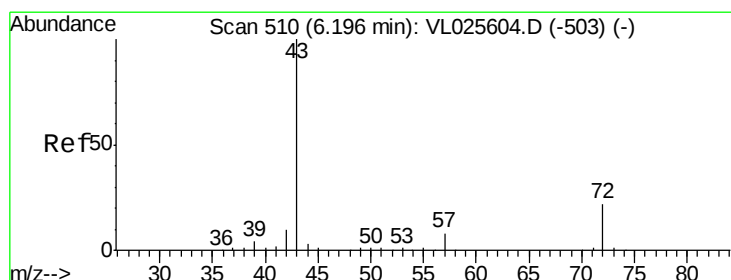
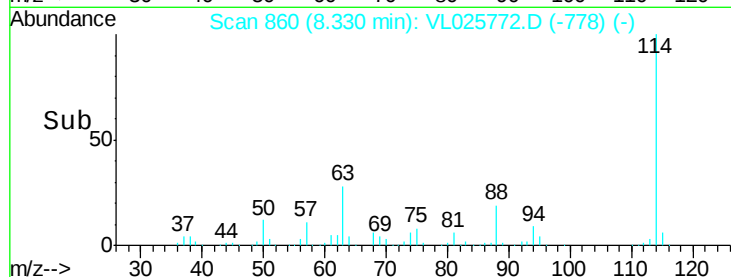
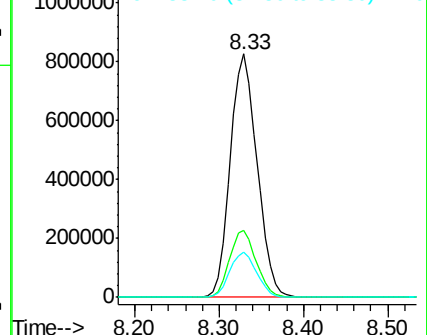
#33
 1,4-Difluorobenzene
 Concen: 10.00 ppbv
 RT: 8.33 min Scan# 860
 Delta R.T. -0.00 min
 Lab File: VL025772.D
 Acq: 28 Jul 2015 3:40

Instrument :
 MSVOA_L
 ClientSampleId :
 ERD45-MIDPOINT-072215

Tot Ion:114 Resp: 1798121
 Ion Ratio Lower Upper
 114 100
 63 27.5 22.4 33.6
 88 18.7 15.0 22.4

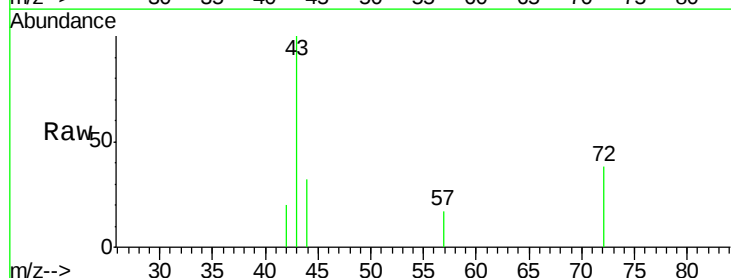


Abundance Ion 114.10 (113.80 to 114.80): V
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

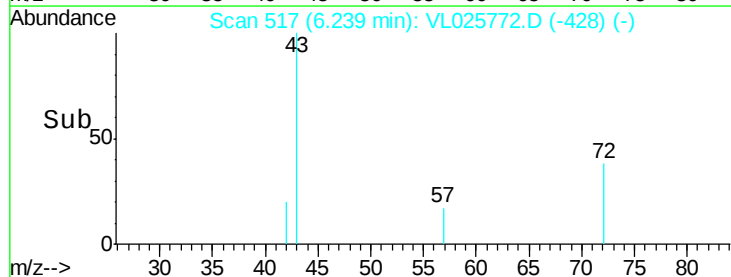
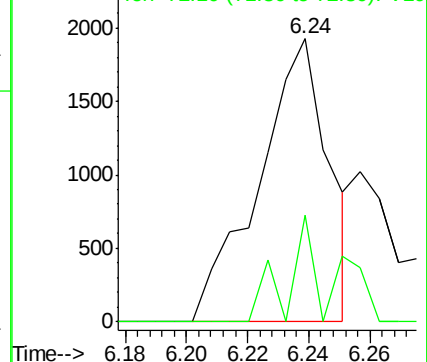


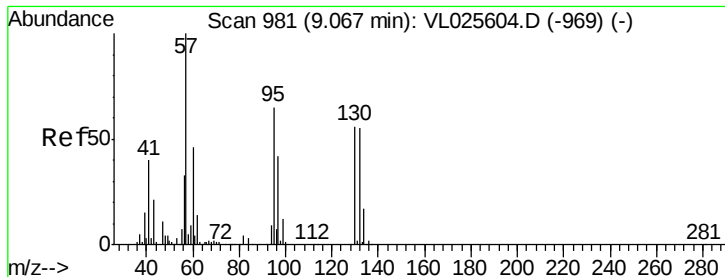
#34
 2-Butanone
 Concen: 0.03 ppbv
 RT: 6.24 min Scan# 517
 Delta R.T. 0.04 min
 Lab File: VL025772.D
 Acq: 28 Jul 2015 3:40

Tgt Ion: 43 Resp: 3073
 Ion Ratio Lower Upper
 43 100
 72 0.0 18.6 28.0#



Abundance Ion 43.10 (42.80 to 43.80): VL0
 Ion 72.10 (71.80 to 72.80): VL0





#38

Trichloroethene

Concen: 86.70 ppbv

RT: 9.07 min Scan# 981

Delta R.T. -0.00 min

Lab File: VL025772.D

Acq: 28 Jul 2015 3:40

Instrument :

MSVOA_L

ClientSampleId :

ERD45-MIDPOINT-072215

Tot Ion:130 Resp: 6942125

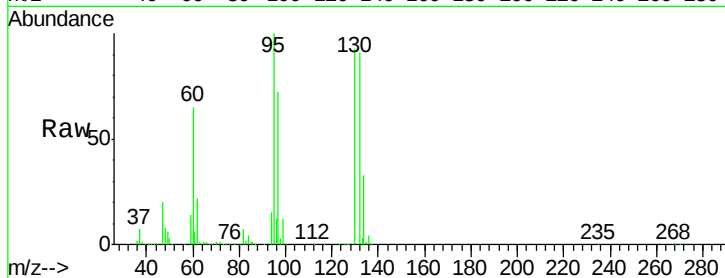
Ion Ratio Lower Upper

130 100

95 107.0 94.2 141.4

132 97.2 78.6 118.0

97 76.7 60.6 90.8

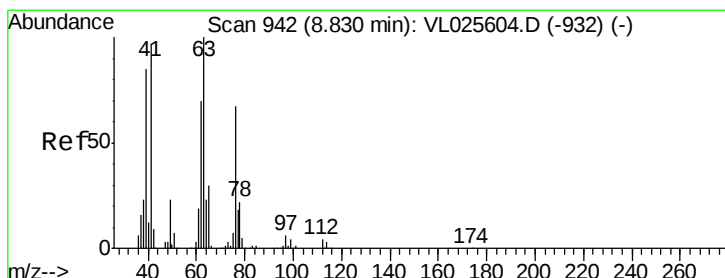
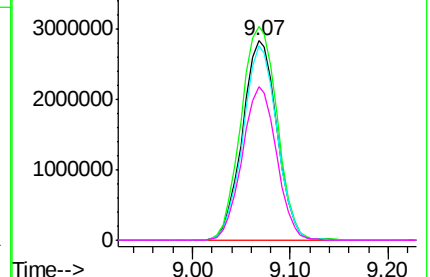
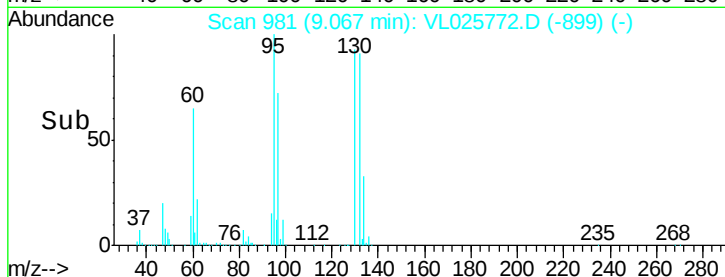


Abundance Ion 130.00 (129.70 to 130.70): V

Ion 95.00 (94.70 to 95.70): VL0

Ion 132.00 (131.70 to 132.70): V

Ion 97.00 (96.70 to 97.70): VL0



#39

1,2-Dichloropropane

Concen: 0.64 ppbv

RT: 9.07 min Scan# 981

Delta R.T. 0.24 min

Lab File: VL025772.D

Acq: 28 Jul 2015 3:40

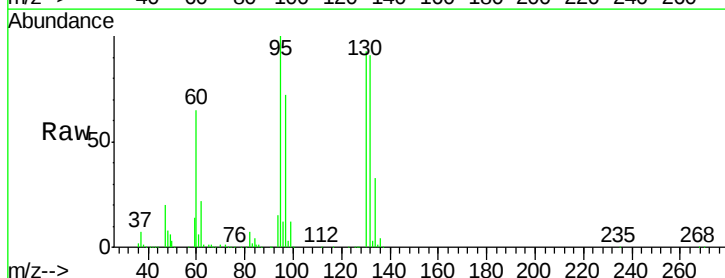
Tgt Ion: 63 Resp: 40581

Ion Ratio Lower Upper

63 100

41 15.2 78.0 117.0#

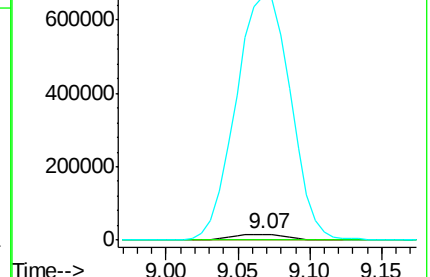
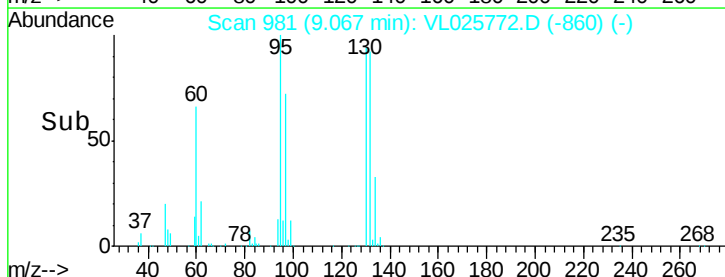
62 3950.6 55.7 83.5#

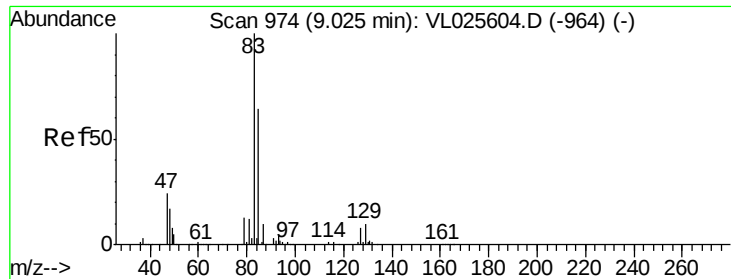


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 62.10 (61.80 to 62.80): VL0





#42

Bromodichloromethane

Concen: 0.64 ppbv

RT: 9.07 min Scan# 981

Delta R.T. 0.04 min

Lab File: VL025772.D

Acq: 28 Jul 2015 3:40

Instrument :

MSVOA_L

ClientSampleId :

ERD45-MIDPOINT-072215

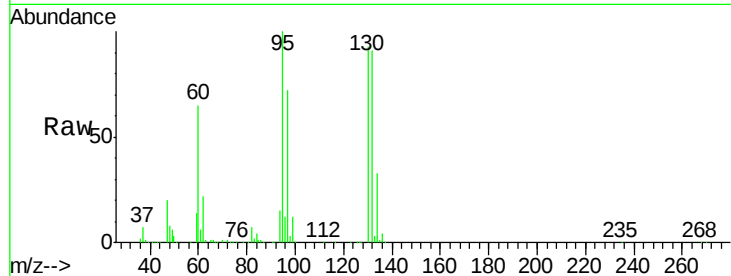
Tot Ion: 83 Resp: 114368

Ion Ratio Lower Upper

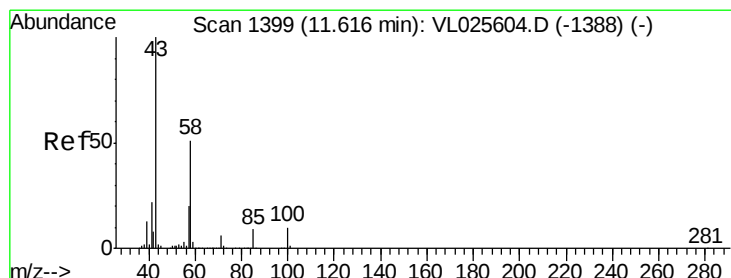
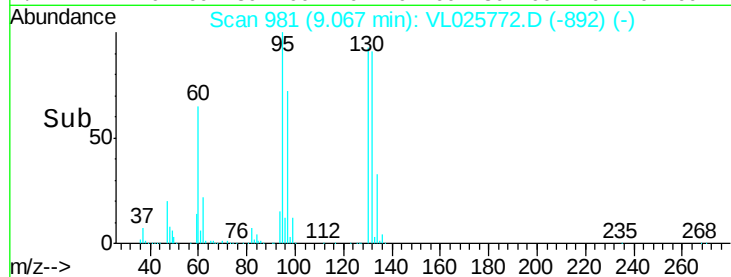
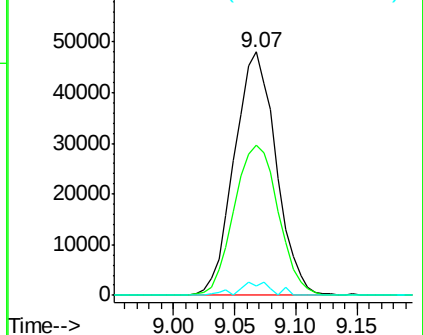
83 100

85 61.7 51.3 76.9

127 4.1 6.0 9.0#



Abundance Ion 83.00 (82.70 to 83.70): VL0
Ion 85.00 (84.70 to 85.70): VL0
Ion 126.90 (126.60 to 127.60): VL0



#51

2-Hexanone

Concen: 0.22 ppbv

RT: 11.92 min Scan# 1449

Delta R.T. 0.30 min

Lab File: VL025772.D

Acq: 28 Jul 2015 3:40

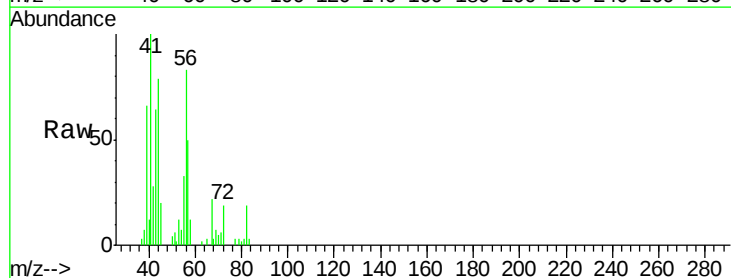
Tgt Ion: 43 Resp: 28558

Ion Ratio Lower Upper

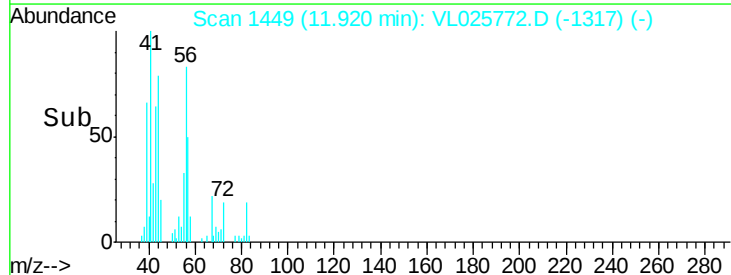
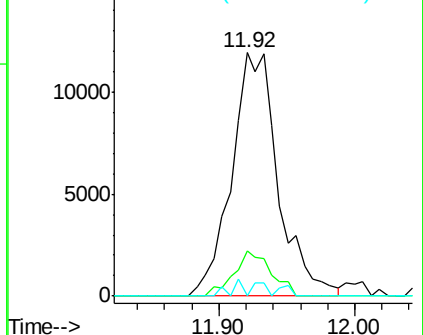
43 100

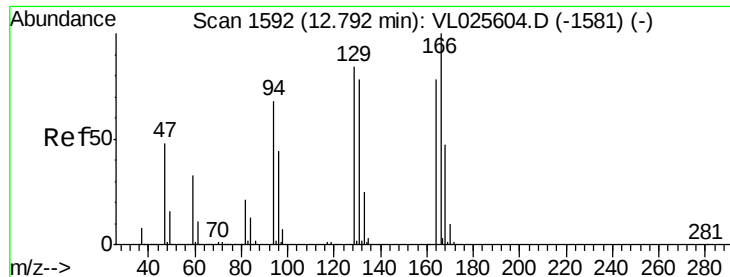
58 14.8 39.0 58.6#

98 3.4 0.2 0.4#



Abundance Ion 43.10 (42.80 to 43.80): VL0
Ion 58.10 (57.80 to 58.80): VL0
Ion 98.20 (97.90 to 98.90): VL0





#52

Tetrachloroethene

Concen: 0.10 ppbv

RT: 12.80 min Scan# 1593

Delta R.T. 0.01 min

Lab File: VL025772.D

Acq: 28 Jul 2015 3:40

Instrument :

MSVOA_L

ClientSampleId :

ERD45-MIDPOINT-072215

Tot Ion:164 Resp: 8305

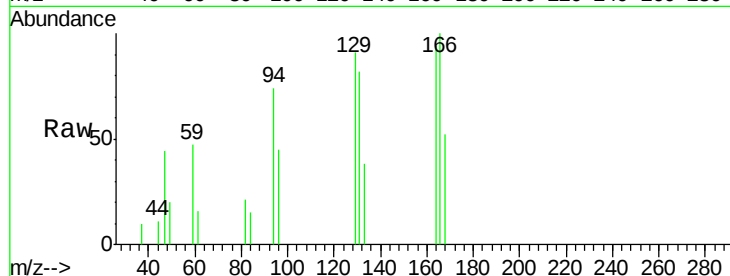
Ion Ratio Lower Upper

164 100

166 106.9 102.3 153.5

129 97.6 86.2 129.4

131 87.5 80.3 120.5

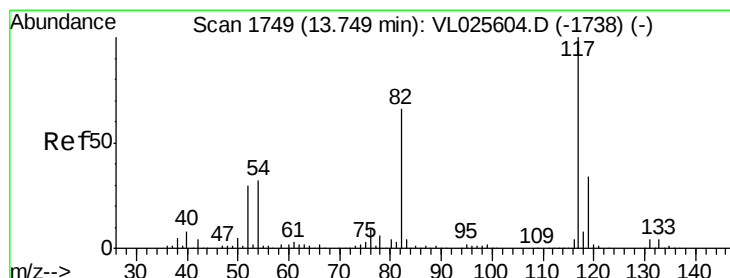
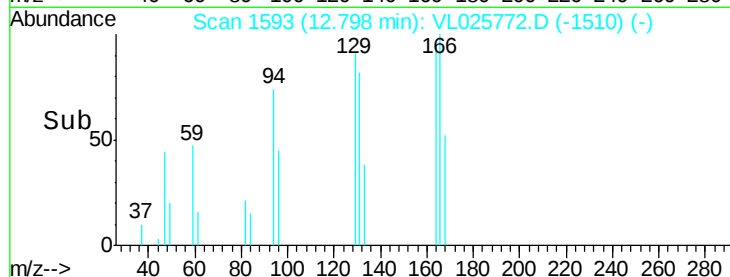
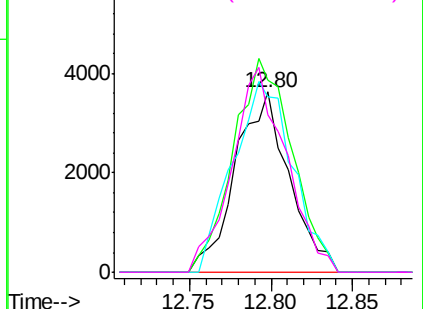


Abundance Ion 163.90 (163.60 to 164.60): V

Ion 165.90 (165.60 to 166.60): V

Ion 129.00 (128.70 to 129.70): V

Ion 131.00 (130.70 to 131.70): V



#55

Chlorobenzene-d5

Concen: 10.00 ppbv

RT: 13.74 min Scan# 1748

Delta R.T. -0.01 min

Lab File: VL025772.D

Acq: 28 Jul 2015 3:40

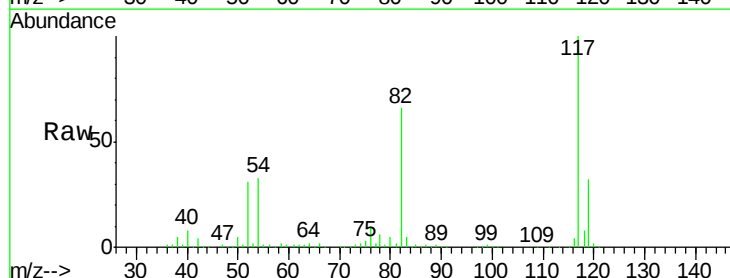
Tgt Ion:117 Resp: 2247979

Ion Ratio Lower Upper

117 100

82 65.8 50.5 75.7

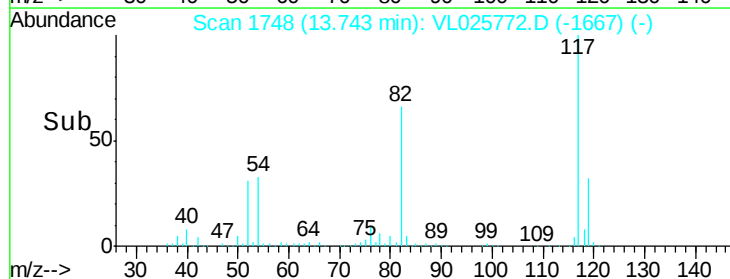
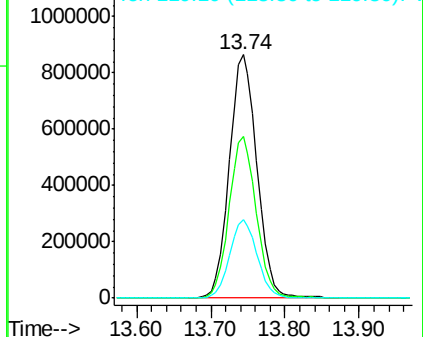
119 32.2 45.1 67.7#

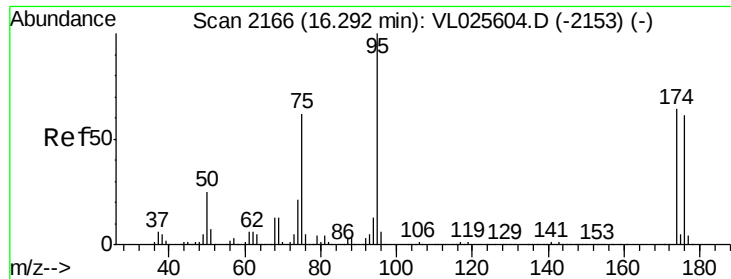


Abundance Ion 117.10 (116.80 to 117.80): V

Ion 82.10 (81.80 to 82.80): V

Ion 119.10 (118.80 to 119.80): V





#68

1-Bromo-4-Fluorobenzene

Concen: 10.07 ppbv

RT: 16.28 min Scan# 2164

Delta R.T. -0.01 min

Lab File: VL025772.D

Acq: 28 Jul 2015 3:40

Instrument :

MSVOA_L

ClientSampleId :

ERD45-MIDPOINT-072215

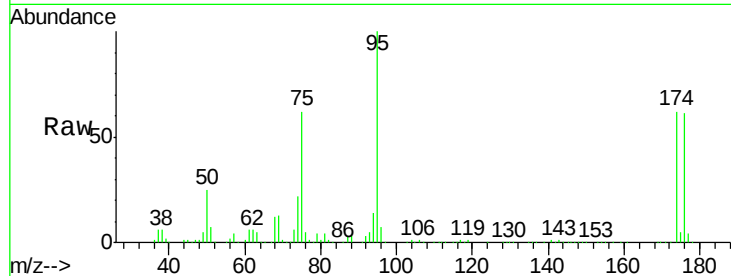
Tot Ion: 95 Resp: 1910316

Ion Ratio Lower Upper

95 100

174 64.0 52.0 78.0

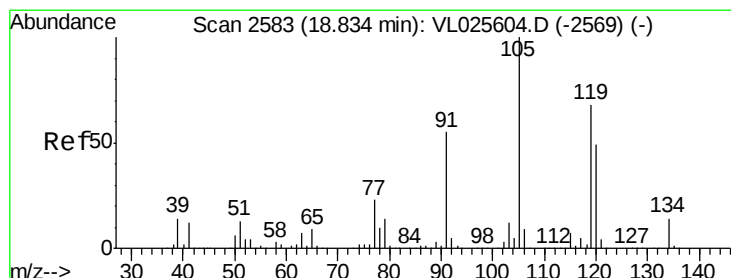
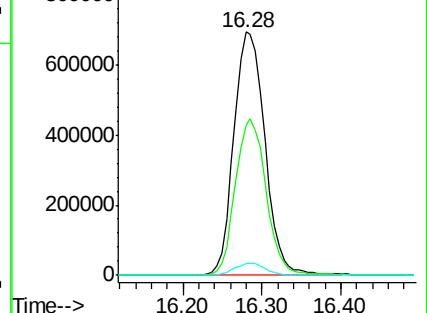
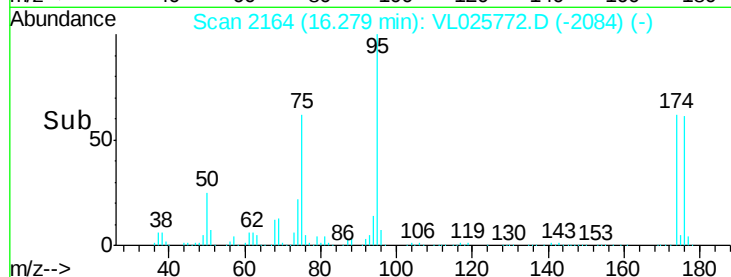
175 4.9 3.9 5.9



Abundance Ion 95.10 (94.80 to 95.80): VL0

Ion 174.00 (173.70 to 174.70): V

Ion 175.00 (174.70 to 175.70): V



#74

1,2,4-Trimethylbenzene

Concen: 0.07 ppbv

RT: 18.83 min Scan# 2582

Delta R.T. -0.01 min

Lab File: VL025772.D

Acq: 28 Jul 2015 3:40

Tgt Ion: 105 Resp: 30882

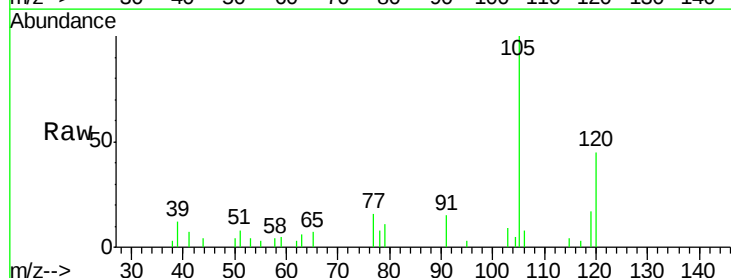
Ion Ratio Lower Upper

105 100

120 45.0 39.3 58.9

91 14.9 43.8 65.6#

77 16.1 18.3 27.5#



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

