

Data Path : Z:\VOASRV\HPCHEM1\MSVOA L\DATA\VL051921\
 Data File : VL037007.D
 Acq On : 20 May 2021 1:07
 Operator : SY/AP
 Sample : M2424-10DL 10X
 Misc : 400mL/MSVOA L
 ALS Vial : 1 Sample Multiplier: 1

Instrument :
 MSVOA_L
 ClientSampleId :
 KSV-08DL

Quant Time: May 20 06:34:39 2021
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA L\METHODS\VL051821AIR.M
 Quant Title : AIR ANALYSIS BY METHOD TO-15 Instrument: MSVOA_L Tue May 18 12:00:15 2021
 QLast Update : Tue May 18 12:00:15 2021
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Bromochloromethane	5.64	49	1124388	10.00	ppbv	0.00
33) 1,4-Difluorobenzene	7.15	114	3369398	10.00	ppbv	0.00
55) Chlorobenzene-d5	12.06	117	3117393	10.00	ppbv	0.00

System Monitoring Compounds						
68) 1-Bromo-4-Fluorobenzene	14.38	95	2305333	9.84	ppbv	0.00
Spiked Amount	10.000	Range	65 - 135	Recovery	=	98.40%

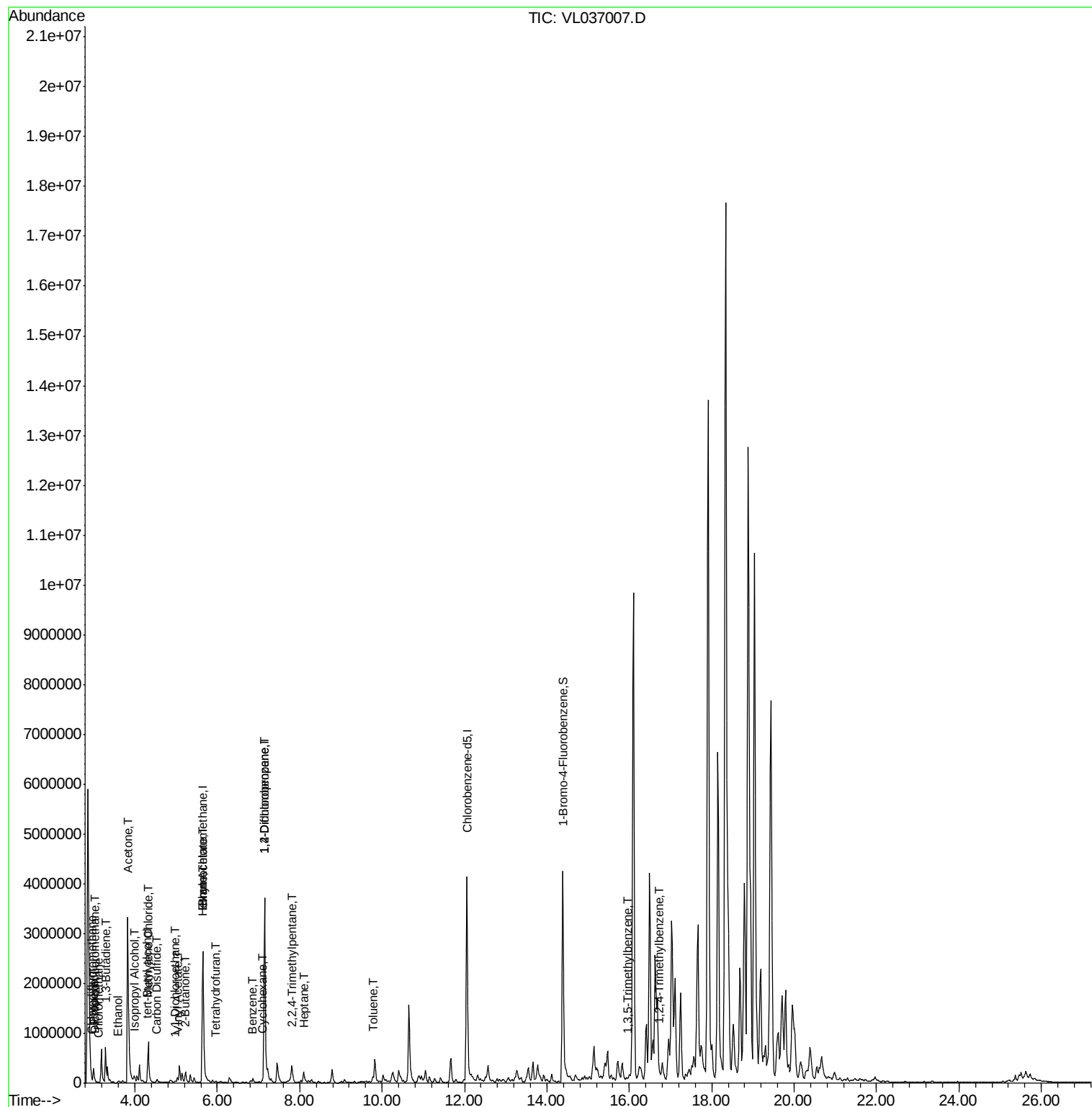
Target Compounds					Ovalue
2) Dichlorodifluoromethane	3.03	85	9589	0.050 ppbv	95
3) Chlorodifluoromethane	2.96	51	8042	0.039 ppbv #	89
4) Chloromethane	3.12	50	2319	0.033 ppbv #	85
9) Propene	2.99	41	124489	1.688 ppbv	90
10) Heptane	8.09	43	97801	0.532 ppbv	96
13) Ethanol	3.59	45	46964	4.772 ppbv	78
15) Acetone	3.82	43	4710504	40.901 ppbv	97
16) 1,3-Butadiene	3.29	39	214013	2.991 ppbv #	17
17) tert-Butyl alcohol	4.30	59	19730	0.187 ppbv #	72
19) Isopropyl Alcohol	3.97	45	44364	0.717 ppbv #	30
20) Methylene Chloride	4.32	84	317923	5.150 ppbv	99
23) Vinyl Acetate	5.03	43	32110	0.176 ppbv #	1
24) 1,1-Dichloroethane	4.98	63	15061	0.114 ppbv #	92
25) Ethyl Acetate	5.66	43	350983	1.268 ppbv #	83
26) Hexane	5.66	57	427799	3.026 ppbv #	42
27) Carbon Disulfide	4.53	76	85698	0.601 ppbv	94
30) Cyclohexane	7.10	84	34259	0.285 ppbv #	73
34) 2-Butanone	5.22	43	304471	2.482 ppbv	100
36) Benzene	6.86	78	73767	0.254 ppbv	95
39) 1,2-Dichloropropane	7.15	63	777043	6.950 ppbv #	25
41) Tetrahydrofuran	5.95	42	2344	0.034 ppbv #	45
44) 2,2,4-Trimethylpentane	7.83	57	15919	0.032 ppbv #	42
53) Toluene	9.77	91	89409	0.259 ppbv	93
73) 1,3,5-Trimethylbenzene	15.97	105	14064	0.036 ppbv	91
74) 1,2,4-Trimethylbenzene	16.73	105	19758	0.049 ppbv #	73

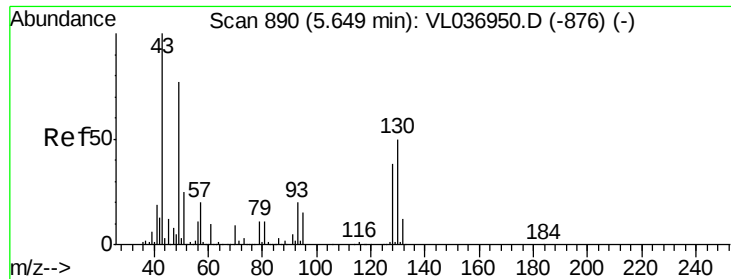
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Response via : Initial Calibration





#1

Bromochloromethane

Concen: 10.000 ppbv

RT: 5.64 min Scan# 887

Delta R.T. -0.01 min

Lab File: VL037007.D

Acq: 20 May 2021 1:07

Instrument :

MSVOA_L

ClientSampleId :

KSV-08DL

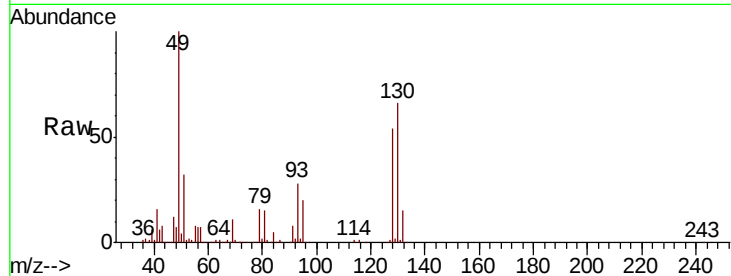
Tot Ion: 49 Resp: 1124388

Ion Ratio Lower Upper

49 100

128 53.8 26.9 80.7

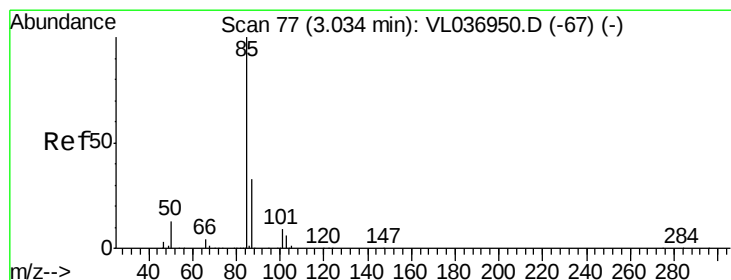
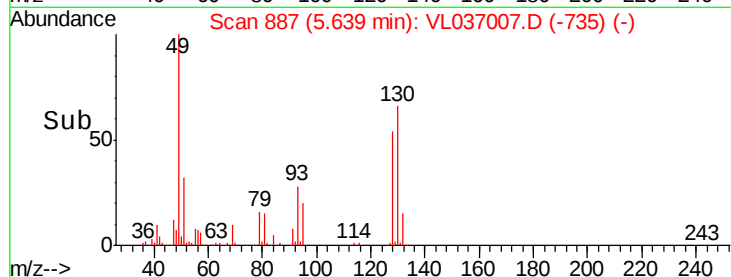
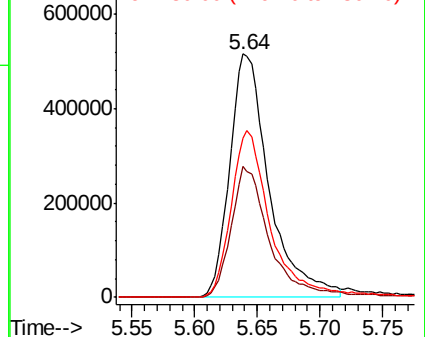
130 69.7 33.8 101.4



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: 0.050 ppbv

RT: 3.03 min Scan# 75

Delta R.T. -0.01 min

Lab File: VL037007.D

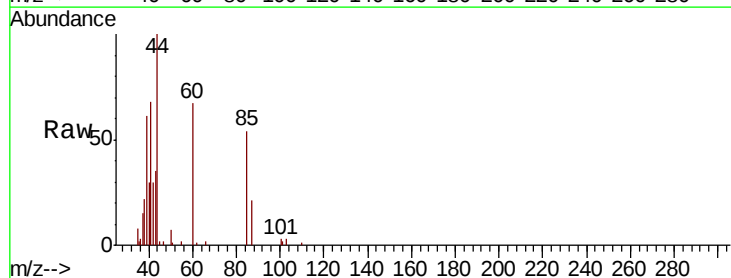
Acq: 20 May 2021 1:07

Tgt Ion: 85 Resp: 9589

Ion Ratio Lower Upper

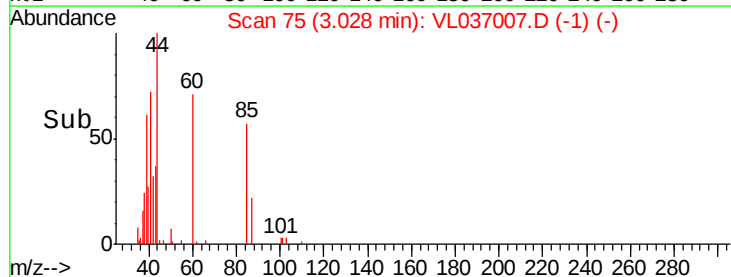
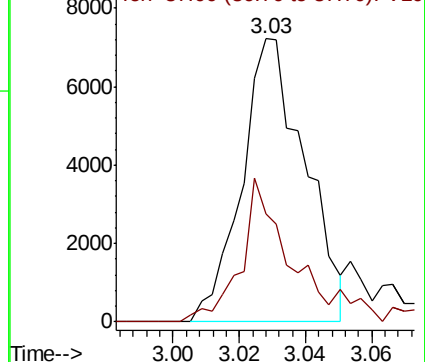
85 100

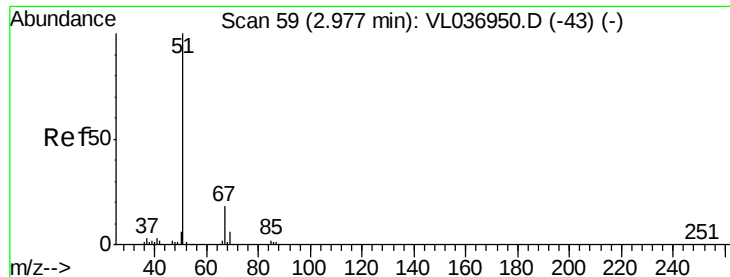
87 36.0 26.6 39.8



Abundance Ion 85.00 (84.70 to 85.70): VL0

Ion 87.00 (86.70 to 87.70): VL0





#3

Chlorodifluoromethane

Concen: 0.039 ppbv

RT: 2.96 min Scan# 55

Delta R.T. -0.01 min

Lab File: VL037007.D

Acq: 20 May 2021 1:07

Instrument :

MSVOA_L

ClientSampleId :

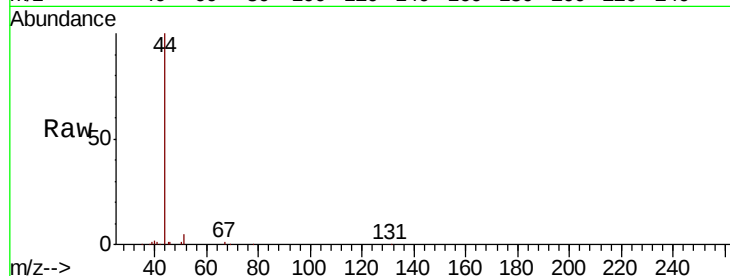
KSV-08DL

Tot Ion: 51 Resp: 8042

Ion Ratio Lower Upper

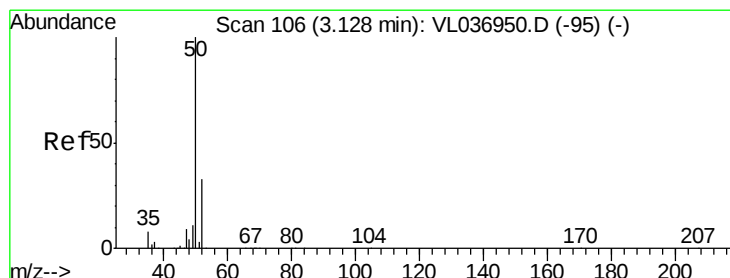
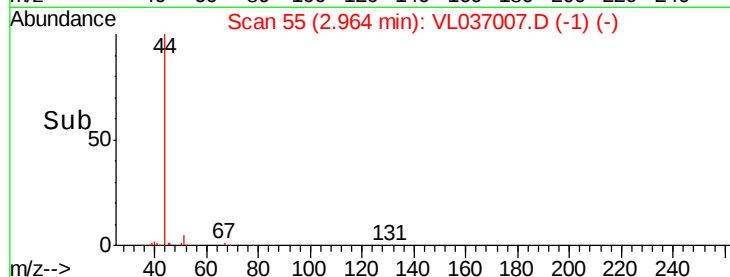
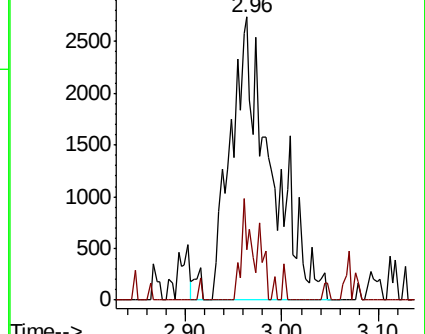
51 100

67 13.4 14.6 21.8#



Abundance Ion 51.00 (50.70 to 51.70): VL0

Ion 67.00 (66.70 to 67.70): VL0



#4

Chloromethane

Concen: 0.033 ppbv

RT: 3.12 min Scan# 104

Delta R.T. -0.01 min

Lab File: VL037007.D

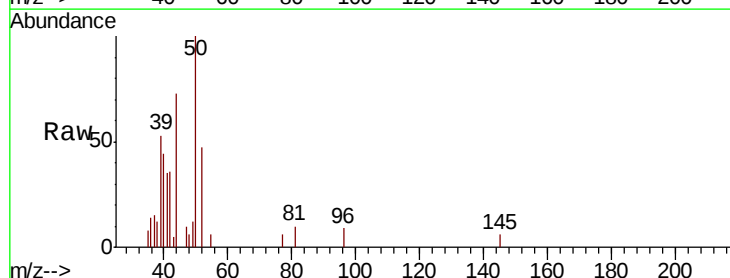
Acq: 20 May 2021 1:07

Tgt Ion: 50 Resp: 2319

Ion Ratio Lower Upper

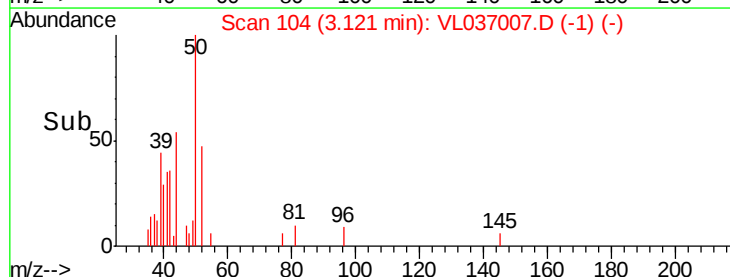
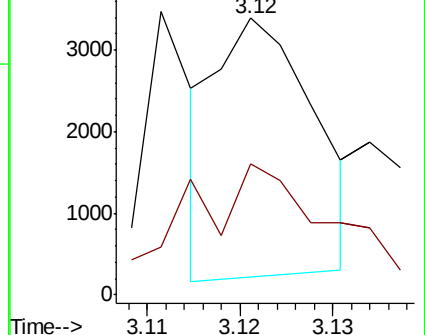
50 100

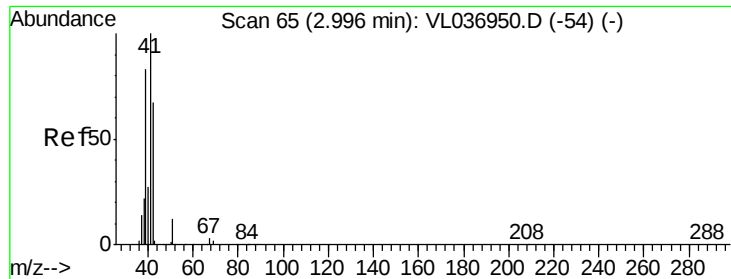
52 41.2 26.1 39.1#



Abundance Ion 50.10 (49.80 to 50.80): VL0

Ion 52.10 (51.80 to 52.80): VL0





#9

Propene

Concen: 1.688 ppbv

RT: 2.99 min Scan# 63

Delta R.T. -0.01 min

Lab File: VL037007.D

Acq: 20 May 2021 1:07

Instrument :

MSVOA_L

ClientSampleID :

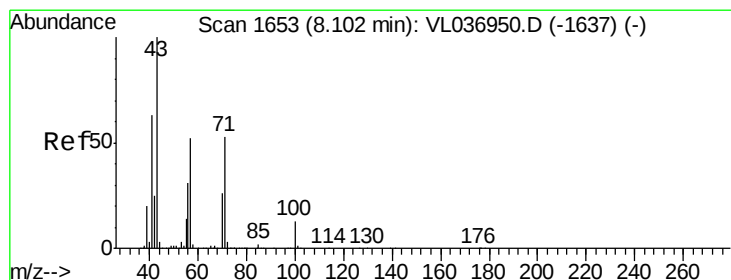
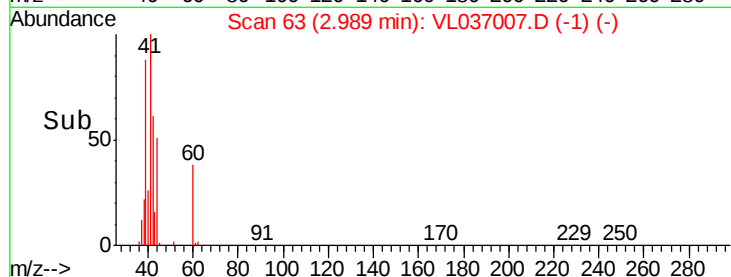
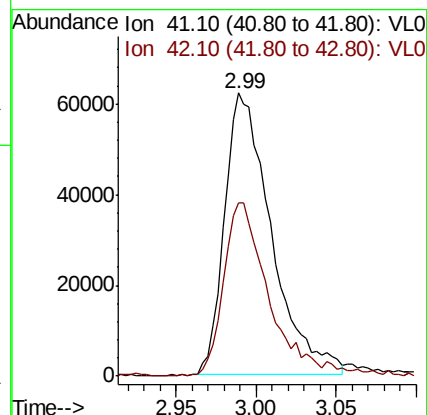
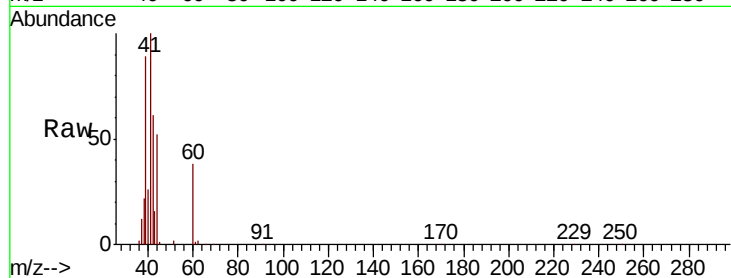
KSV-08DL

Tot Ion: 41 Resp: 124489

Ion Ratio Lower Upper

41 100

42 59.4 53.9 80.9



#10

Heptane

Concen: 0.532 ppbv

RT: 8.09 min Scan# 1650

Delta R.T. -0.01 min

Lab File: VL037007.D

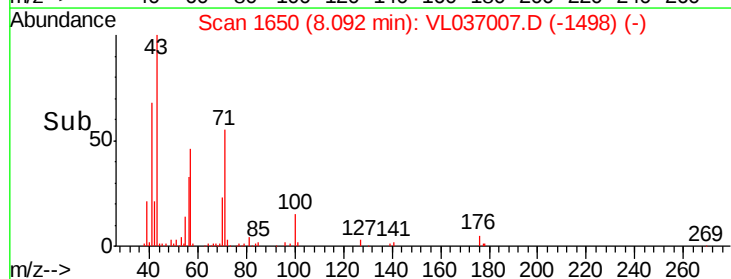
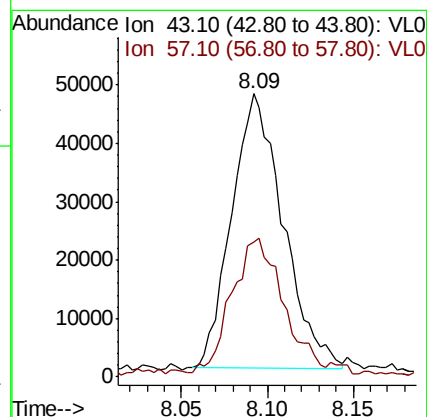
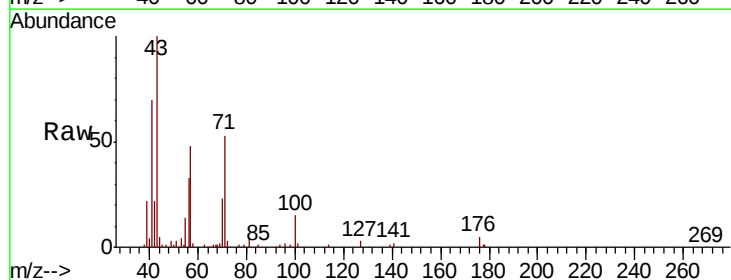
Acq: 20 May 2021 1:07

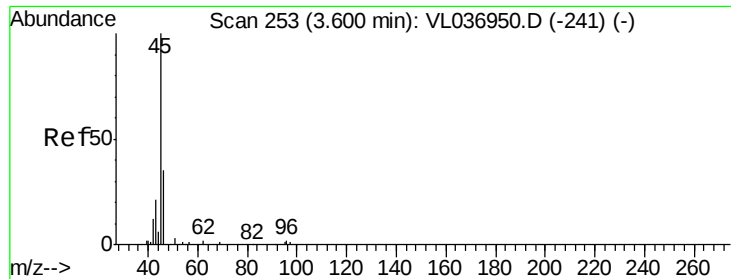
Tgt Ion: 43 Resp: 97801

Ion Ratio Lower Upper

43 100

57 54.4 41.0 61.6

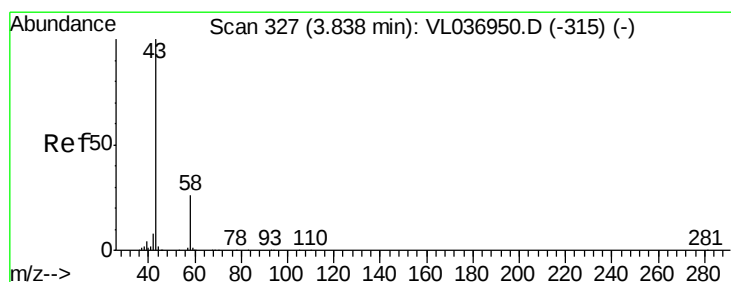
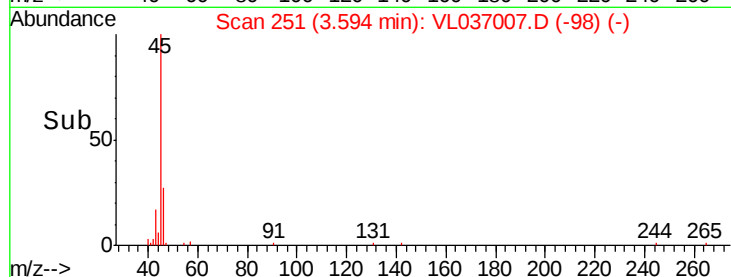
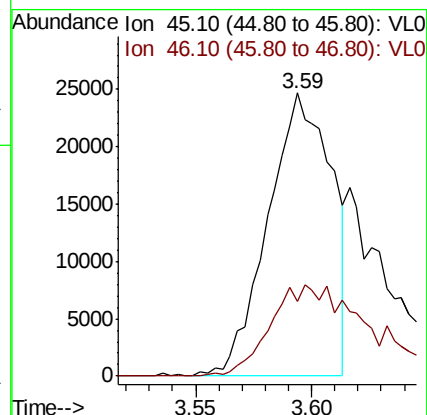
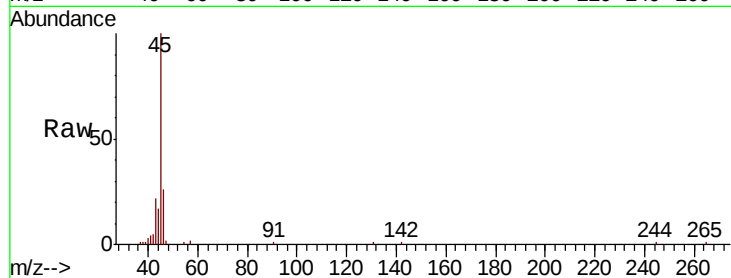




#13
Ethanol
Concen: 4.772 ppbv
RT: 3.59 min Scan# 251
Delta R.T. -0.01 min
Lab File: VL037007.D
Acq: 20 May 2021 1:07

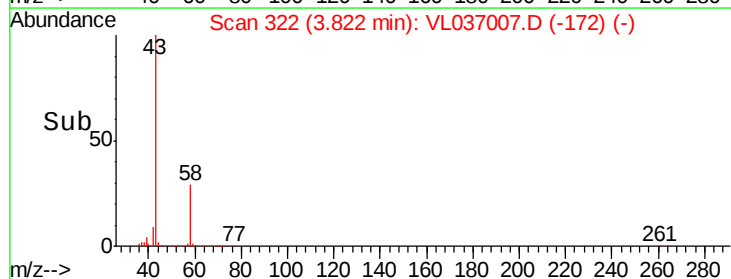
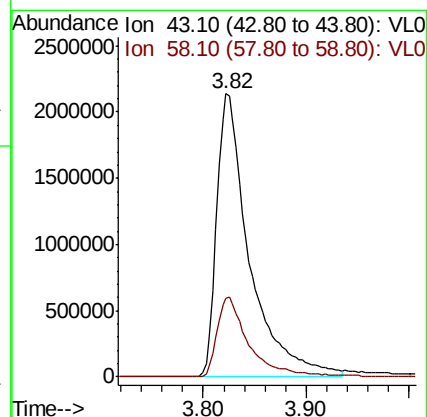
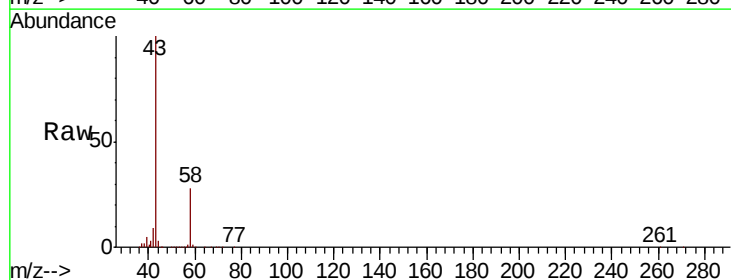
Instrument :
MSVOA_L
ClientSampled :
KSV-08DL

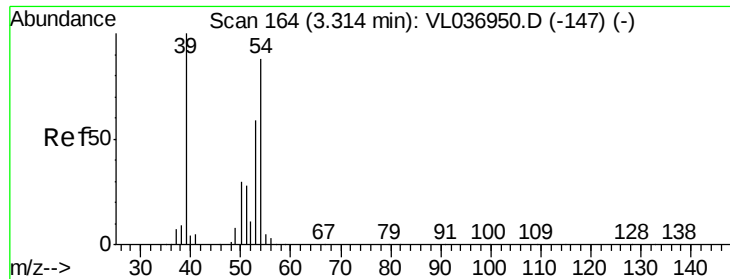
Tot Ion: 45 Resp: 46964
Ion Ratio Lower Upper
45 100
46 54.6 16.3 65.3



#15
Acetone
Concen: 40.901 ppbv
RT: 3.82 min Scan# 322
Delta R.T. -0.02 min
Lab File: VL037007.D
Acq: 20 May 2021 1:07

Tgt Ion: 43 Resp: 4710504
Ion Ratio Lower Upper
43 100
58 28.3 24.0 36.0





#16

1,3-Butadiene

Concen: 2.991 ppbv

RT: 3.29 min Scan# 156

Delta R.T. -0.03 min

Lab File: VL037007.D

Acq: 20 May 2021 1:07

Instrument :

MSVOA_L

ClientSampleId :

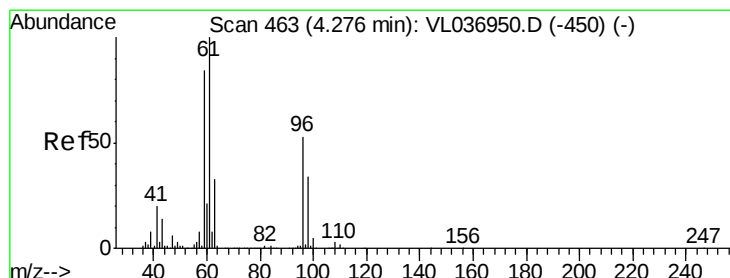
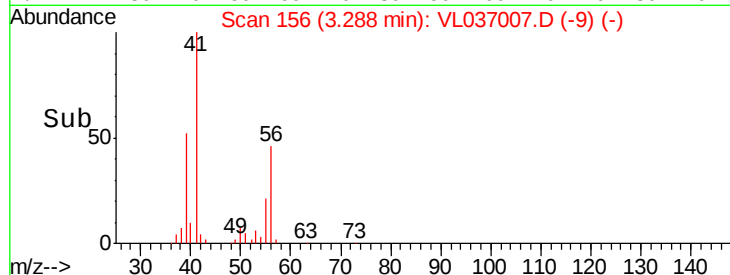
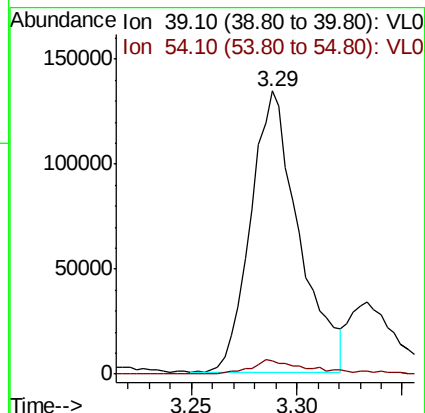
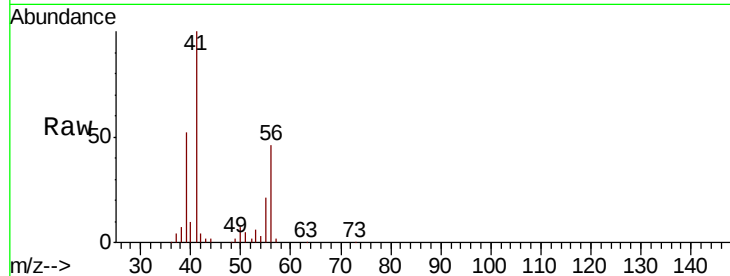
KSV-08DL

Tot Ion: 39 Resp: 214013

Ion Ratio Lower Upper

39 100

54 6.5 63.2 94.8#



#17

tert-Butyl alcohol

Concen: 0.187 ppbv

RT: 4.30 min Scan# 470

Delta R.T. 0.02 min

Lab File: VL037007.D

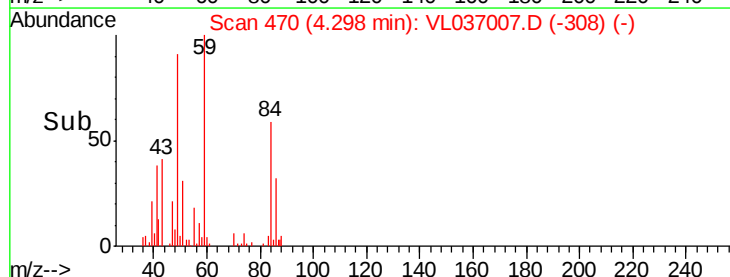
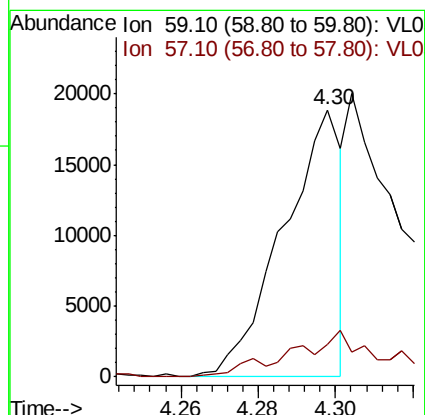
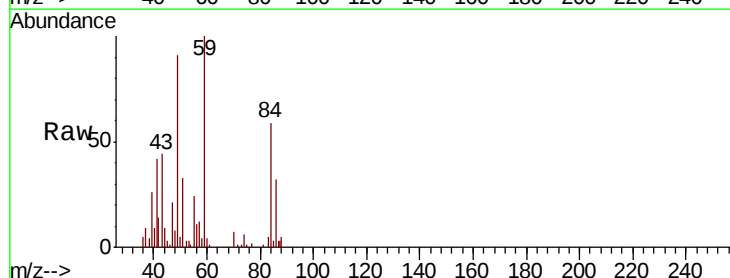
Acq: 20 May 2021 1:07

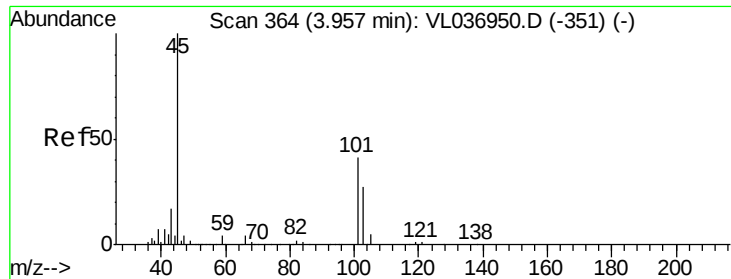
Tgt Ion: 59 Resp: 19730

Ion Ratio Lower Upper

59 100

57 0.0 8.3 12.5#





#19

Isopropyl Alcohol

Concen: 0.717 ppbv

RT: 3.97 min Scan# 368

Delta R.T. 0.01 min

Lab File: VL037007.D

Acq: 20 May 2021 1:07

Instrument :

MSVOA_L

ClientSampleId :

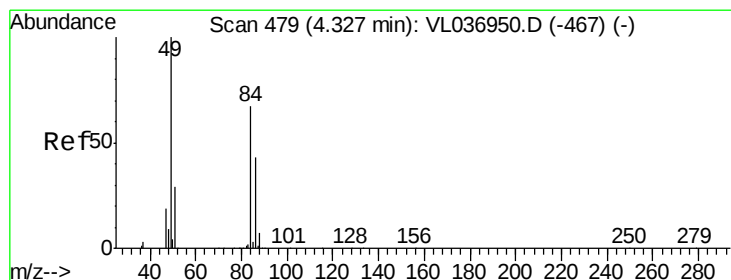
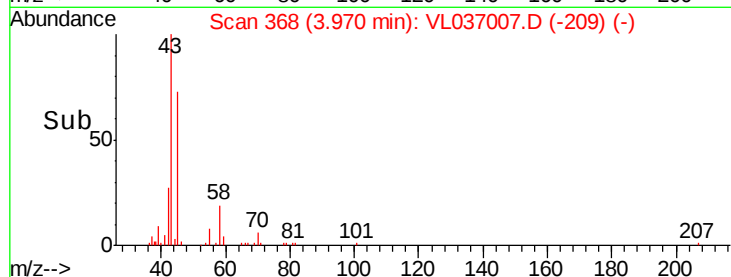
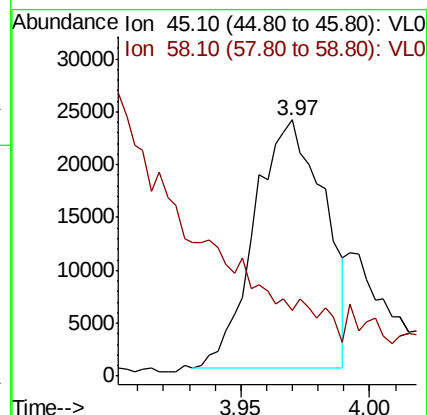
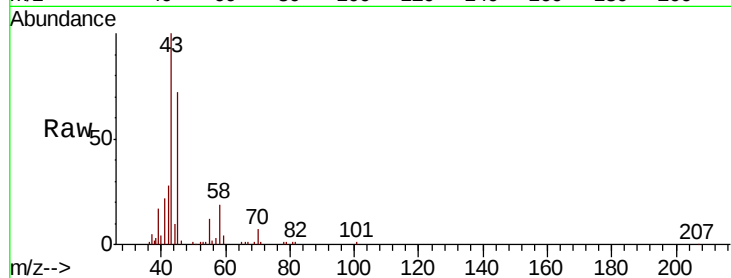
KSV-08DL

Tot Ion: 45 Resp: 44364

Ion Ratio Lower Upper

45 100

58 0.0 37.2 55.8#



#20

Methylene Chloride

Concen: 5.150 ppbv

RT: 4.32 min Scan# 478

Delta R.T. -0.00 min

Lab File: VL037007.D

Acq: 20 May 2021 1:07

Tgt Ion: 84 Resp: 317923

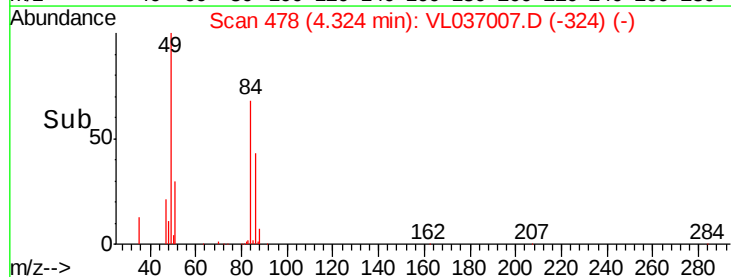
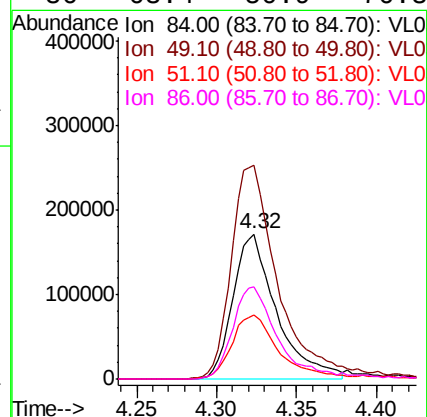
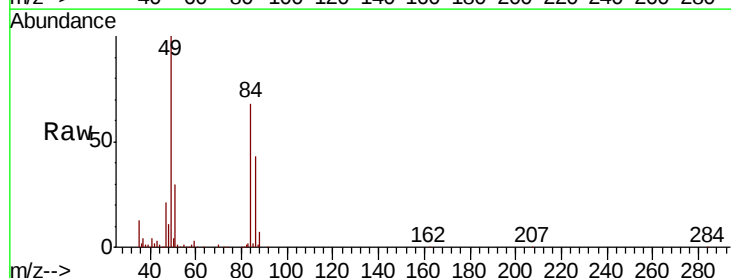
Ion Ratio Lower Upper

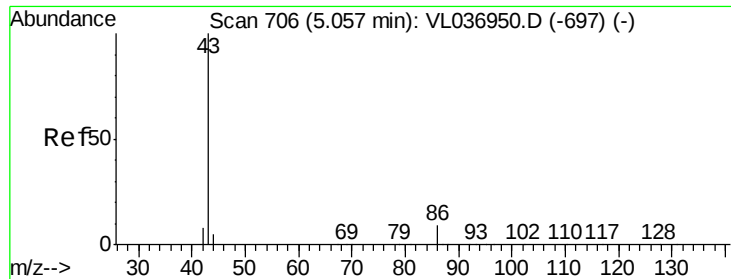
84 100

49 147.3 119.8 179.6

51 44.0 35.1 52.7

86 63.4 50.9 76.3





#23

Vinyl Acetate

Concen: 0.176 ppbv

RT: 5.03 min Scan# 699

Delta R.T. -0.02 min

Lab File: VL037007.D

Acq: 20 May 2021 1:07

Instrument :

MSVOA_L

ClientSampleId :

KSV-08DL

Tot Ion: 43 Resp: 32110

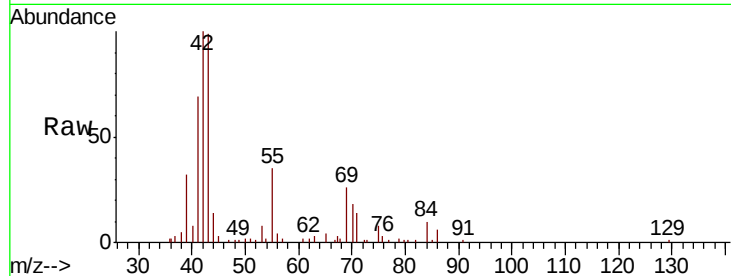
Ion Ratio Lower Upper

43 100

86 6.5 5.8 8.8

42 106.4 7.4 11.2#

44 6.5 3.3 4.9#

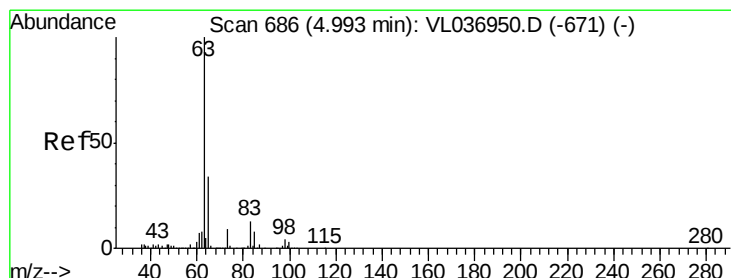
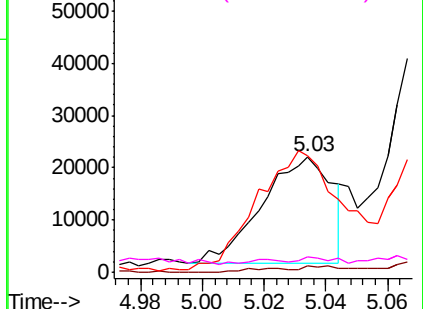
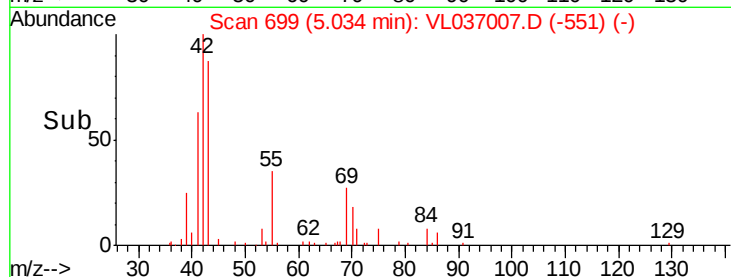


Abundance Ion 43.10 (42.80 to 43.80): VL0

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: 0.114 ppbv

RT: 4.98 min Scan# 683

Delta R.T. -0.01 min

Lab File: VL037007.D

Acq: 20 May 2021 1:07

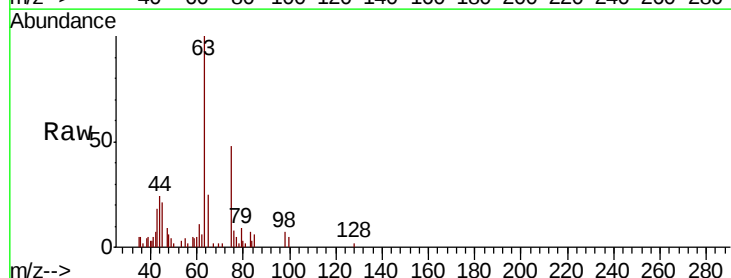
Tgt Ion: 63 Resp: 15061

Ion Ratio Lower Upper

63 100

98 7.5 2.3 6.9#

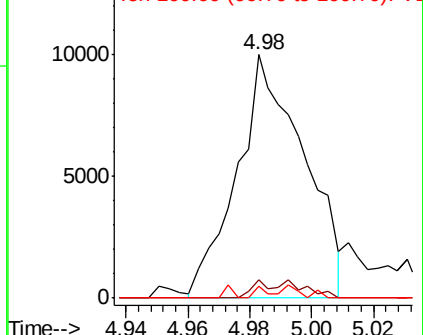
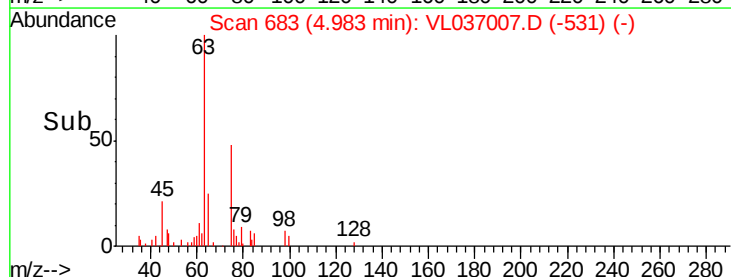
100 4.8 1.4 4.0#

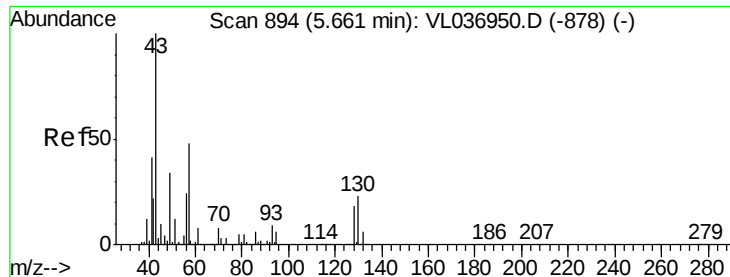


Abundance Ion 63.10 (62.80 to 63.80): VL0

Ion 98.00 (97.70 to 98.70): VL0

Ion 100.00 (99.70 to 100.70): VL0





#25

Ethyl Acetate

Concen: 1.268 ppbv

RT: 5.66 min Scan# 893

Delta R.T. -0.00 min

Lab File: VL037007.D

Acq: 20 May 2021 1:07

Instrument :

MSVOA_L

ClientSampleID :

KSV-08DL

Tot Ion: 43 Resp: 350983

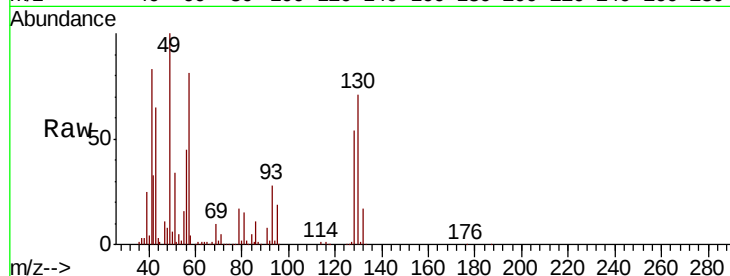
Ion Ratio Lower Upper

43 100

45 2.4 7.8 11.8#

61 1.7 7.8 11.8#

70 4.7 5.6 8.4#

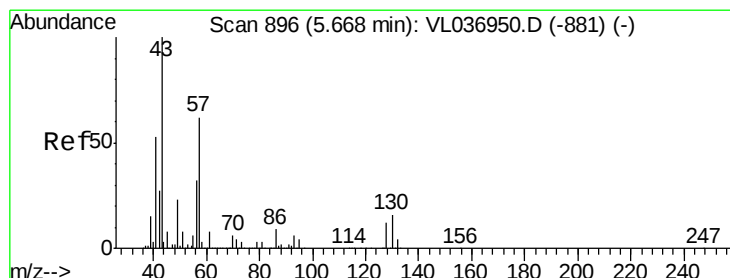
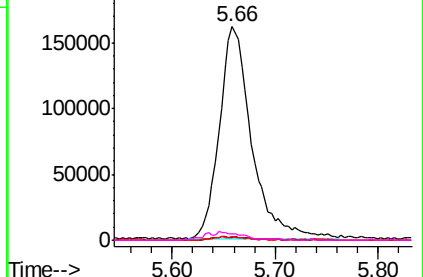
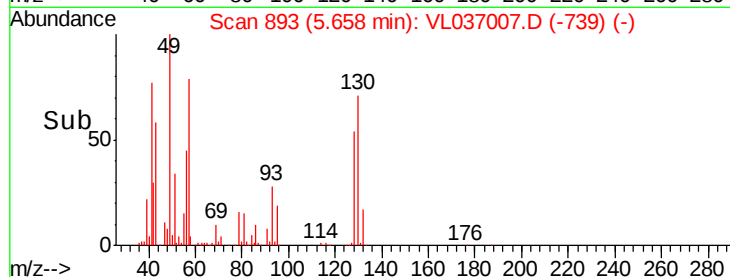


Abundance Ion 43.10 (42.80 to 43.80): VL0

Ion 45.10 (44.80 to 45.80): VL0

Ion 61.10 (60.80 to 61.80): VL0

Ion 70.10 (69.80 to 70.80): VL0



#26

Hexane

Concen: 3.026 ppbv

RT: 5.66 min Scan# 894

Delta R.T. -0.01 min

Lab File: VL037007.D

Acq: 20 May 2021 1:07

Tgt Ion: 57 Resp: 427799

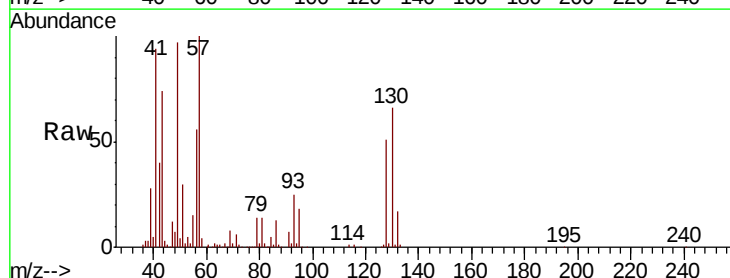
Ion Ratio Lower Upper

57 100

41 117.3 70.5 105.7#

43 83.6 165.8 248.8#

56 62.4 42.2 63.4

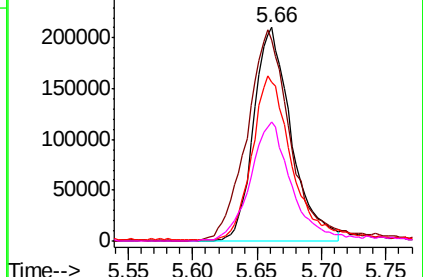
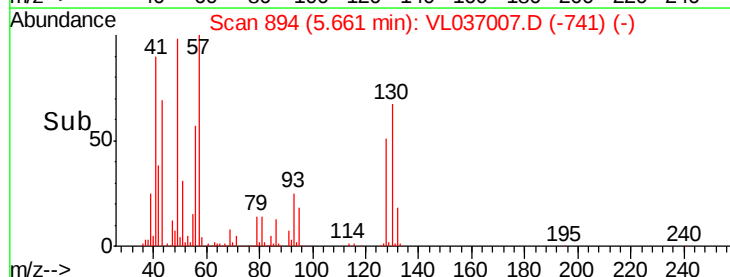


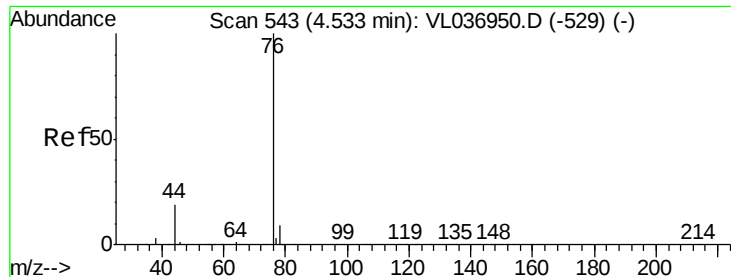
Abundance Ion 57.10 (56.80 to 57.80): VL0

Ion 41.10 (40.80 to 41.80): VL0

Ion 43.10 (42.80 to 43.80): VL0

Ion 56.10 (55.80 to 56.80): VL0





#27

Carbon Disulfide

Concen: 0.601 ppbv

RT: 4.53 min Scan# 541

Delta R.T. -0.01 min

Lab File: VL037007.D

Acq: 20 May 2021 1:07

Instrument :

MSVOA_L

ClientSampleId :

KSV-08DL

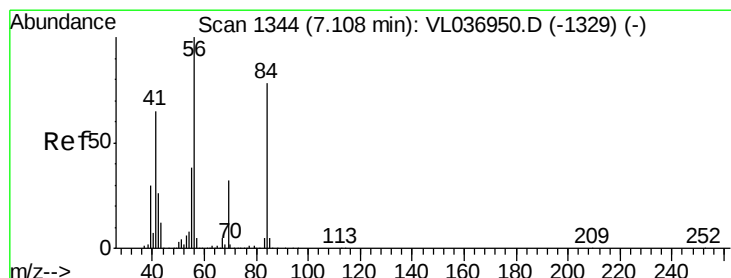
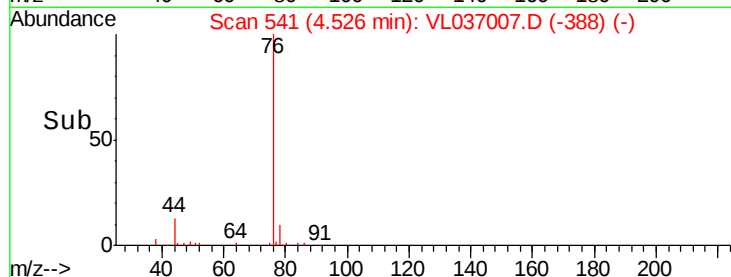
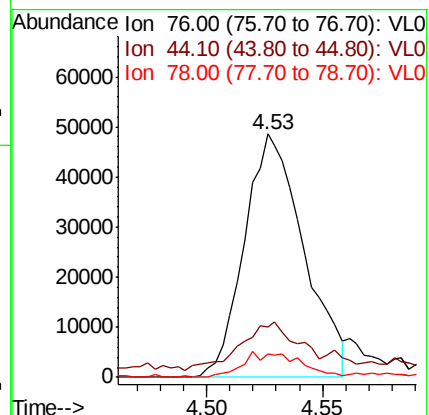
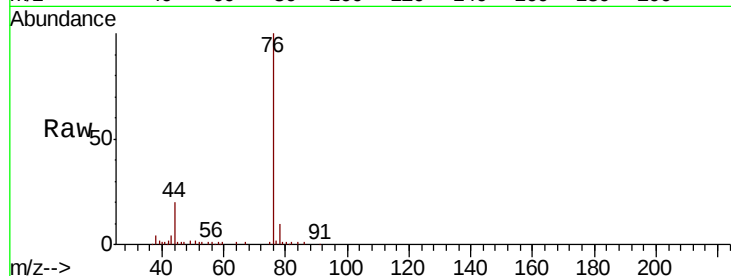
Tot Ion: 76 Resp: 85698

Ion Ratio Lower Upper

76 100

44 22.2 15.5 23.3

78 11.5 7.8 11.6



#30

Cyclohexane

Concen: 0.285 ppbv

RT: 7.10 min Scan# 1341

Delta R.T. -0.01 min

Lab File: VL037007.D

Acq: 20 May 2021 1:07

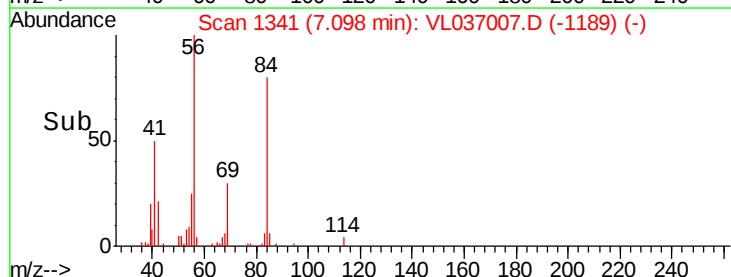
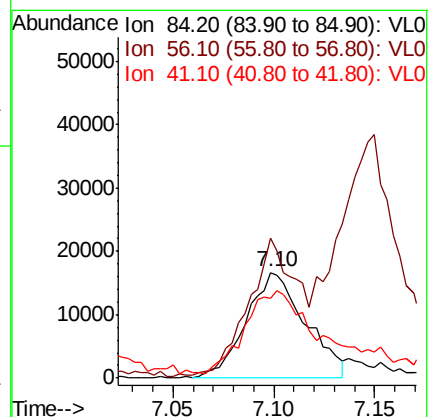
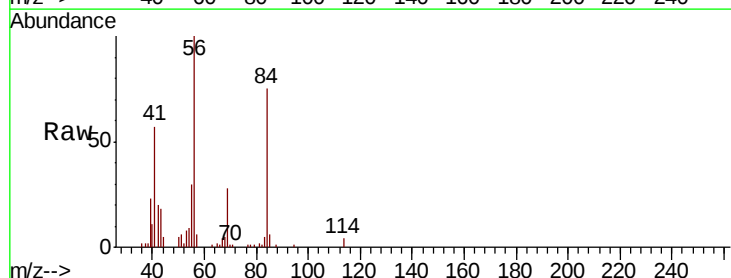
Tgt Ion: 84 Resp: 34259

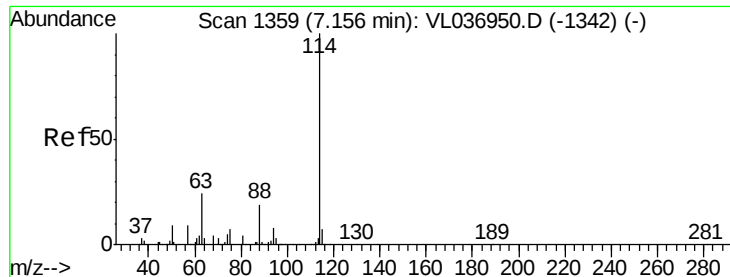
Ion Ratio Lower Upper

84 100

56 109.0 107.9 161.9

41 113.3 65.5 98.3#

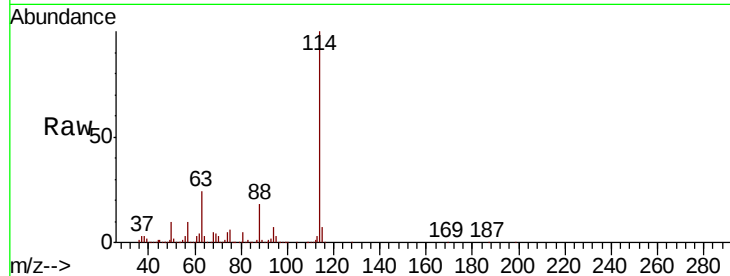




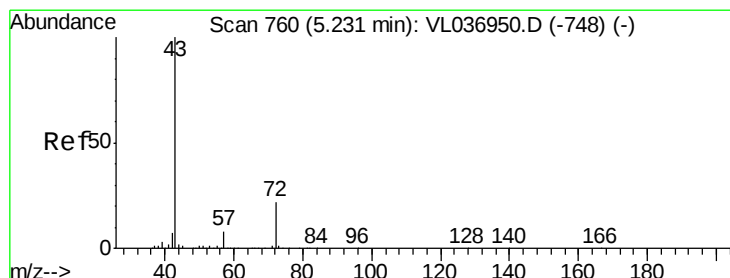
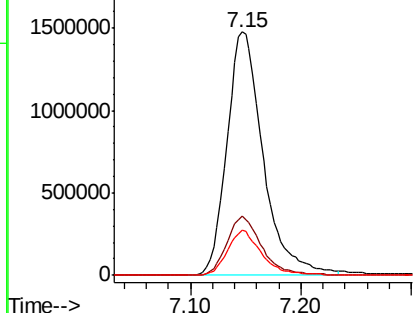
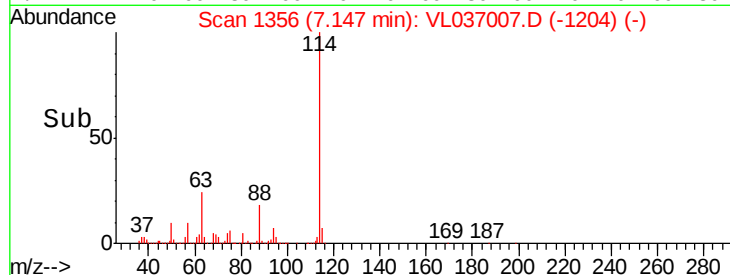
#33
 1,4-Difluorobenzene
 Concen: 10.000 ppbv
 RT: 7.15 min Scan# 1356
 Delta R.T. -0.01 min
 Lab File: VL037007.D
 Acq: 20 May 2021 1:07

Instrument :
 MSVOA_L
 ClientSampleId :
 KSV-08DL

Tot Ion:114 Resp: 3369398
 Ion Ratio Lower Upper
 114 100
 63 23.8 19.6 29.4
 88 17.8 14.6 21.8

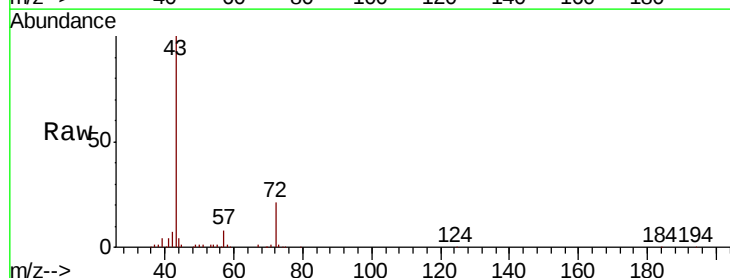


Abundance Ion 114.10 (113.80 to 114.80): VL0
 Ion 63.10 (62.80 to 63.80): VL0
 Ion 88.10 (87.80 to 88.80): VL0

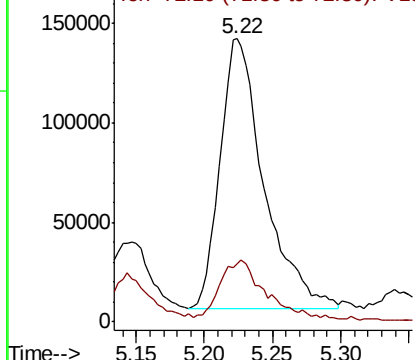
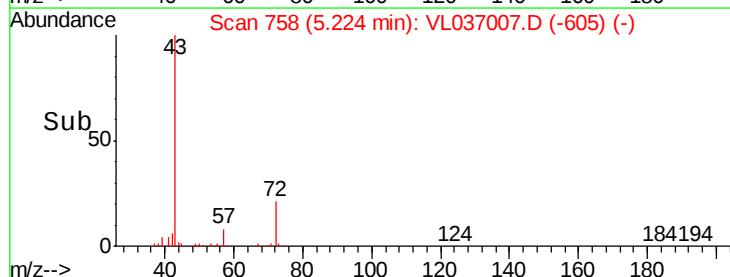


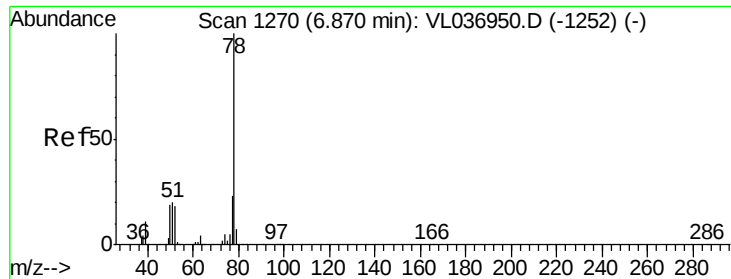
#34
 2-Butanone
 Concen: 2.482 ppbv
 RT: 5.22 min Scan# 758
 Delta R.T. -0.01 min
 Lab File: VL037007.D
 Acq: 20 May 2021 1:07

Tgt Ion: 43 Resp: 304471
 Ion Ratio Lower Upper
 43 100
 72 23.9 19.0 28.4



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





#36

Benzene

Concen: 0.254 ppbv

RT: 6.86 min Scan# 1268

Delta R.T. -0.01 min

Lab File: VL037007.D

Acq: 20 May 2021 1:07

Instrument :

MSVOA_L

ClientSampleId :

KSV-08DL

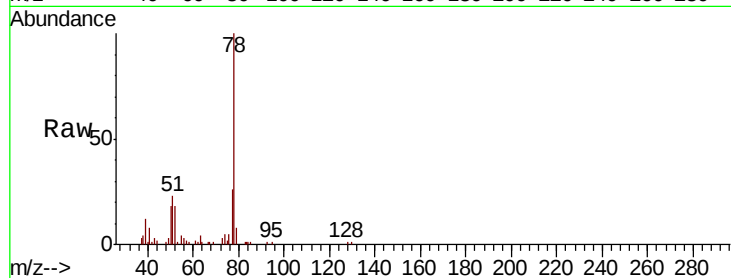
Tot Ion: 78 Resp: 73767

Ion Ratio Lower Upper

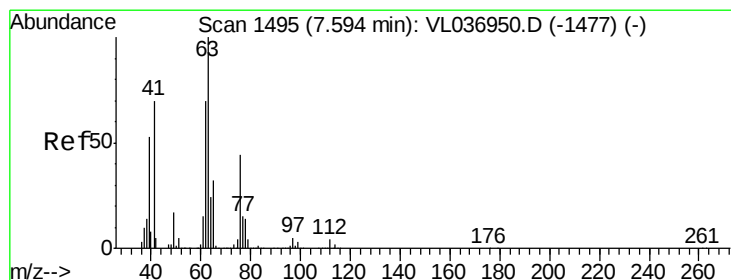
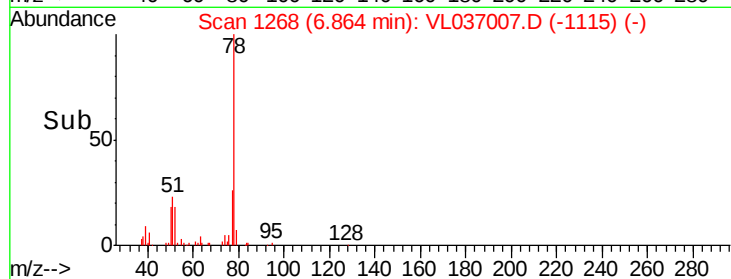
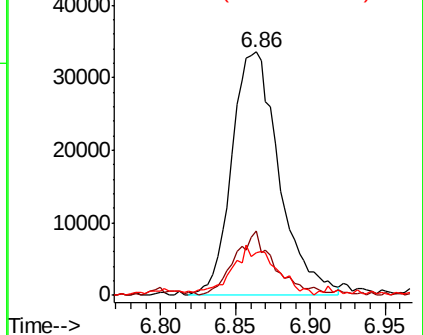
78 100

77 25.8 18.6 28.0

50 16.2 15.0 22.4



Abundance Ion 78.10 (77.80 to 78.80): VL0
Ion 77.10 (76.80 to 77.80): VL0
Ion 50.10 (49.80 to 50.80): VL0



#39

1,2-Dichloropropane

Concen: 6.950 ppbv

RT: 7.15 min Scan# 1356

Delta R.T. -0.45 min

Lab File: VL037007.D

Acq: 20 May 2021 1:07

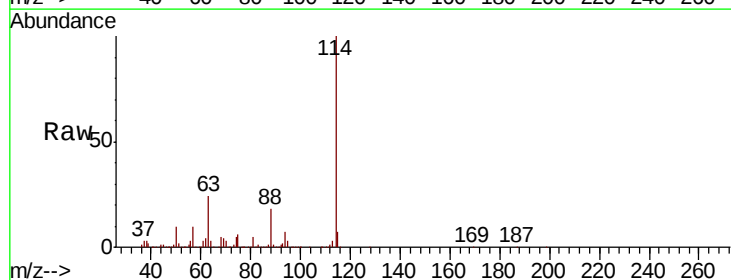
Tgt Ion: 63 Resp: 777043

Ion Ratio Lower Upper

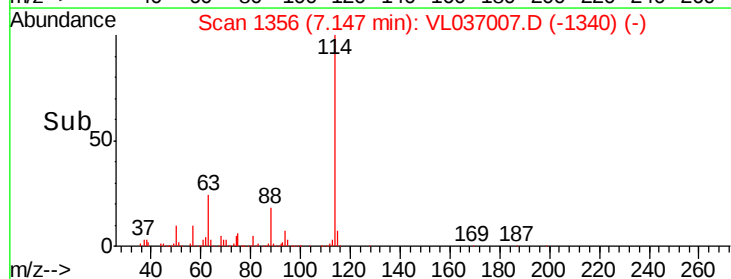
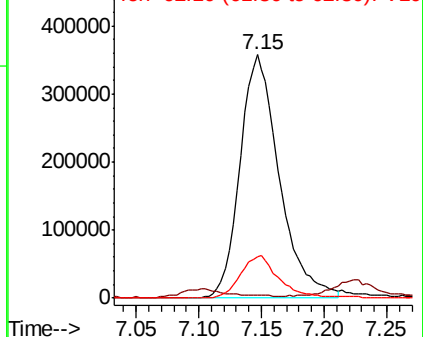
63 100

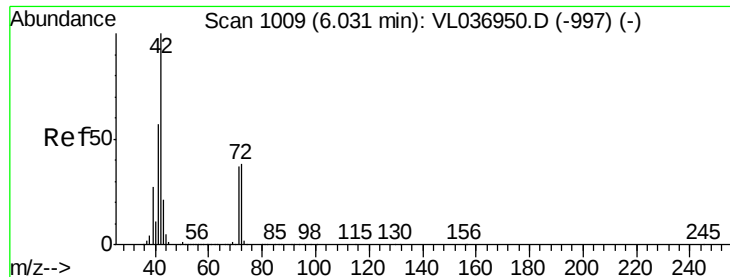
41 0.0 55.7 83.5#

62 16.9 56.2 84.4#



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





#41

Tetrahydrofuran

Concen: 0.034 ppbv

RT: 5.95 min Scan# 983

Delta R.T. -0.08 min

Lab File: VL037007.D

Acq: 20 May 2021 1:07

Instrument :

MSVOA_L

ClientSampleId :

KSV-08DL

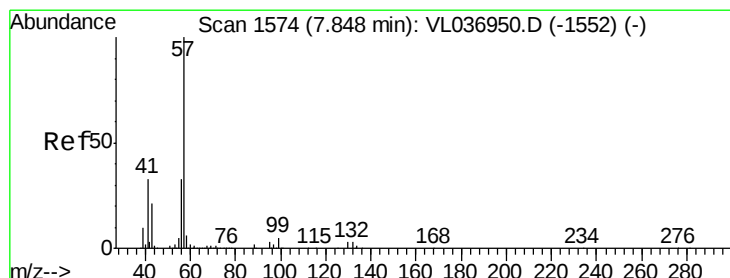
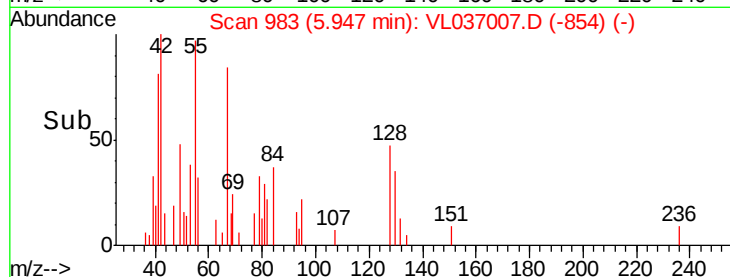
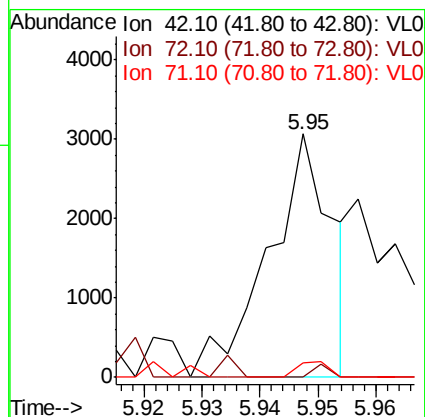
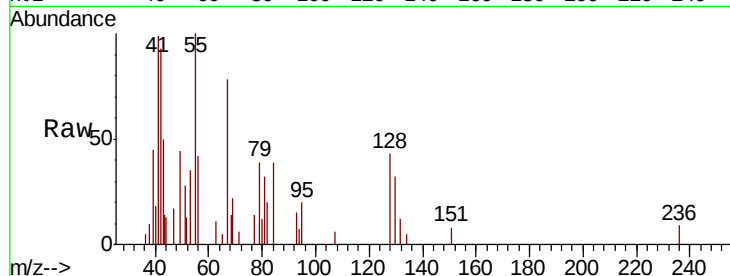
Tot Ion: 42 Resp: 2344

Ion Ratio Lower Upper

42 100

72 10.0 31.4 47.2#

71 0.0 30.4 45.6#



#44

2,2,4-Trimethylpentane

Concen: 0.032 ppbv

RT: 7.83 min Scan# 1570

Delta R.T. -0.01 min

Lab File: VL037007.D

Acq: 20 May 2021 1:07

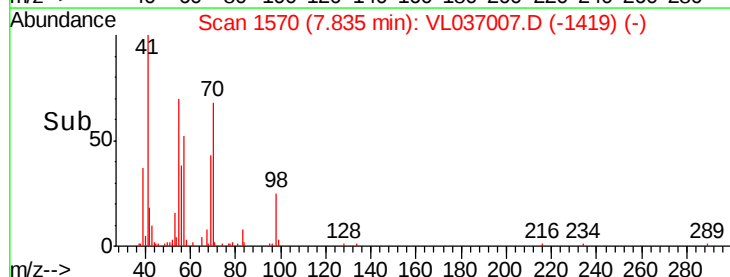
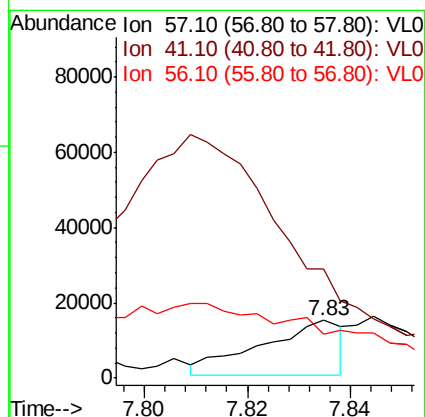
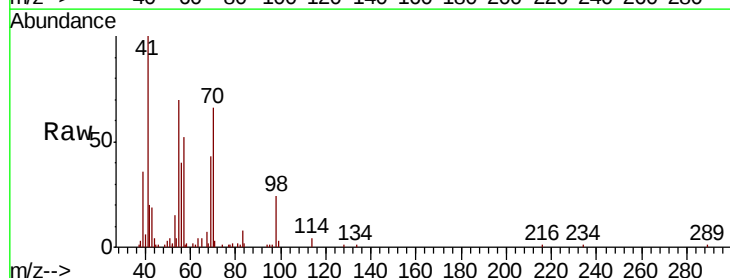
Tgt Ion: 57 Resp: 15919

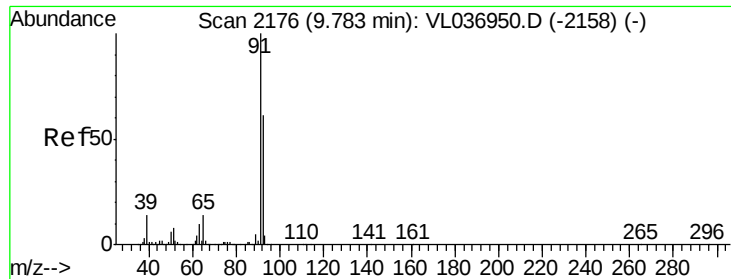
Ion Ratio Lower Upper

57 100

41 0.0 27.0 40.4#

56 0.0 25.4 38.2#





#53

Toluene

Concen: 0.259 ppbv

RT: 9.77 min Scan# 2173

Delta R.T. -0.01 min

Lab File: VL037007.D

Acq: 20 May 2021 1:07

Instrument :

MSVOA_L

ClientSampleId :

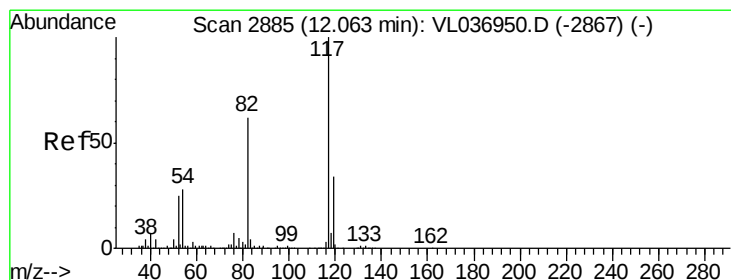
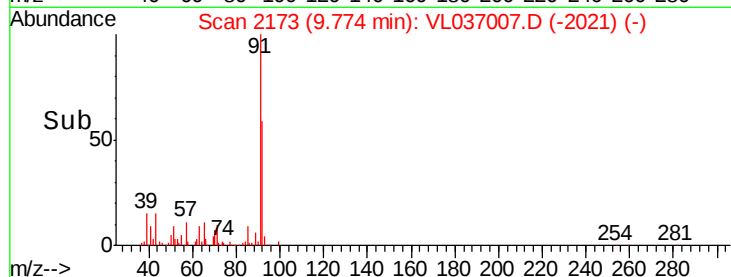
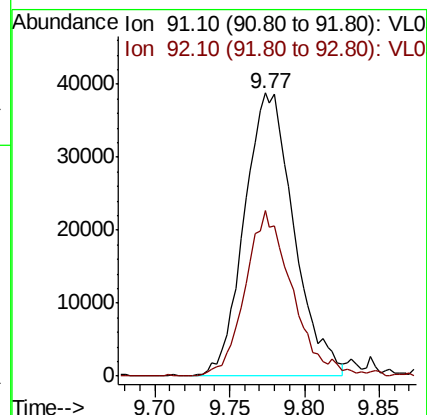
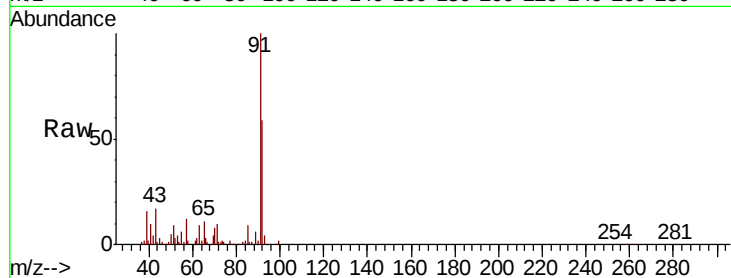
KSV-08DL

Tot Ion: 91 Resp: 89409

Ion Ratio Lower Upper

91 100

92 56.5 49.5 74.3



#55

Chlorobenzene-d5

Concen: 10.000 ppbv

RT: 12.06 min Scan# 2883

Delta R.T. -0.01 min

Lab File: VL037007.D

Acq: 20 May 2021 1:07

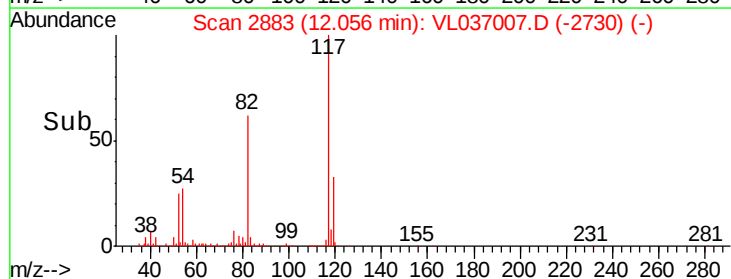
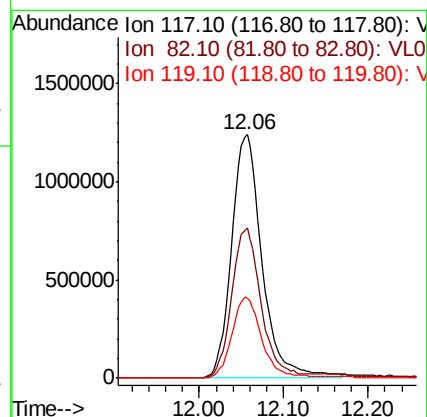
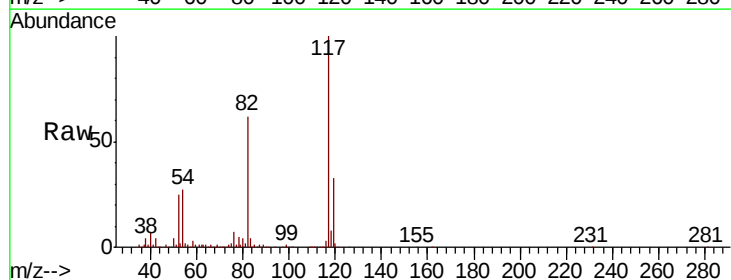
Tgt Ion: 117 Resp: 3117393

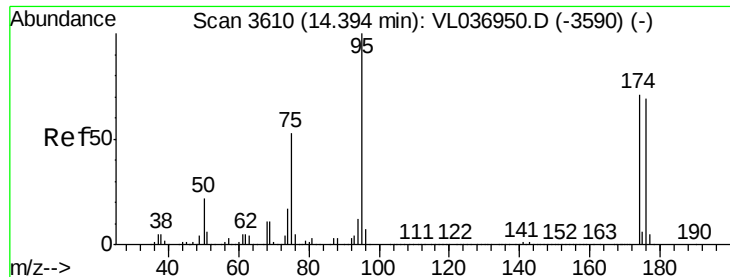
Ion Ratio Lower Upper

117 100

82 63.1 52.6 79.0

119 33.6 46.6 70.0#

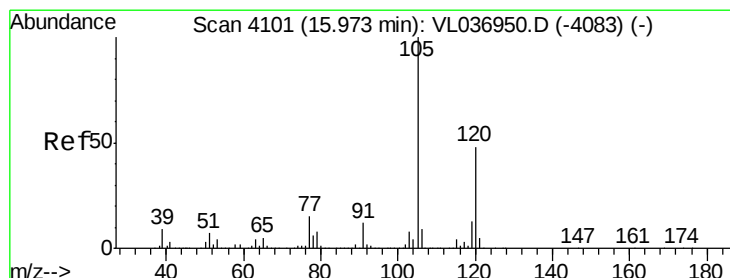
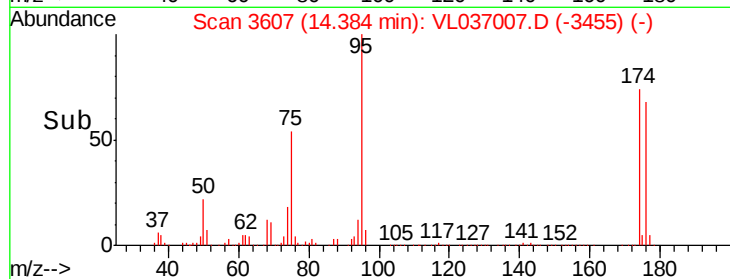
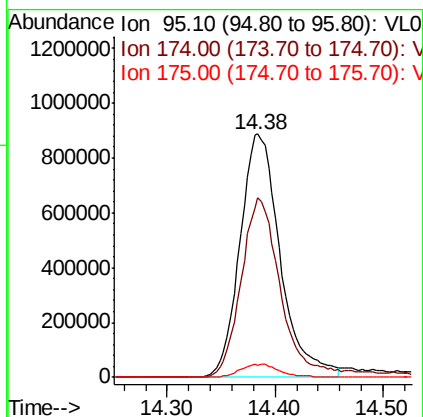
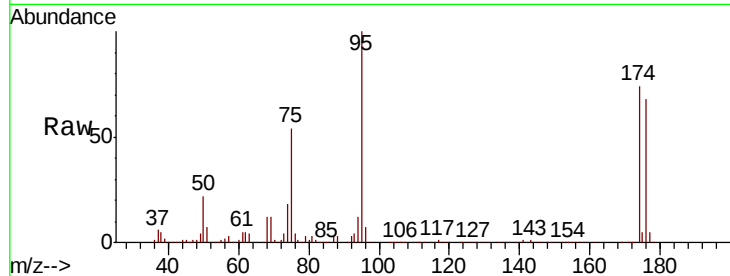




#68
 1-Bromo-4-Fluorobenzene
 Concen: 9.844 ppbv
 RT: 14.38 min Scan# 3607
 Delta R.T. -0.01 min
 Lab File: VL037007.D
 Acq: 20 May 2021 1:07

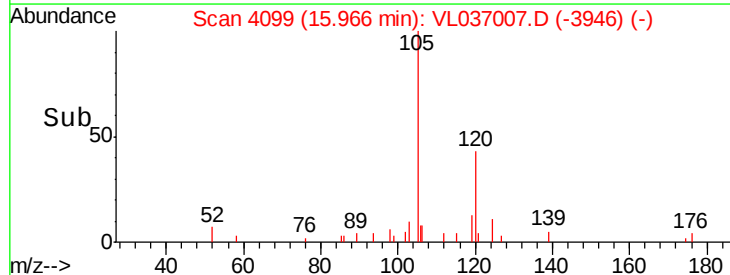
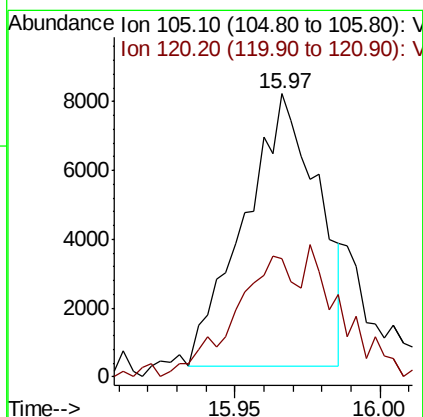
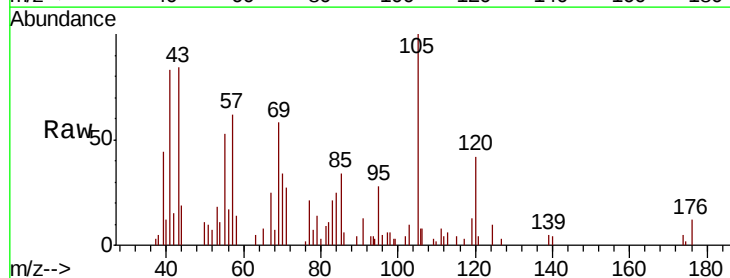
Instrument :
 MSVOA_L
 ClientSampleId :
 KSV-08DL

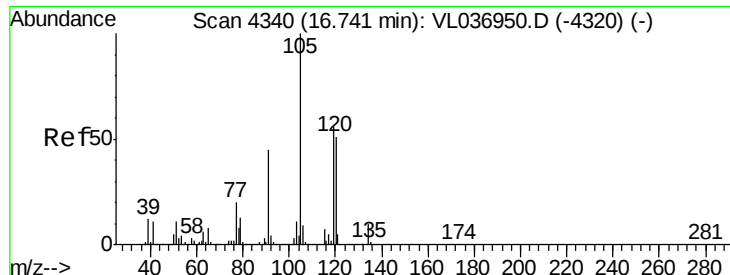
Tot Ion: 95 Resp: 2305333
 Ion Ratio Lower Upper
 95 100
 174 76.7 58.4 87.6
 175 5.7 4.4 6.6



#73
 1,3,5-Trimethylbenzene
 Concen: 0.036 ppbv
 RT: 15.97 min Scan# 4099
 Delta R.T. -0.01 min
 Lab File: VL037007.D
 Acq: 20 May 2021 1:07

Tgt Ion: 105 Resp: 14064
 Ion Ratio Lower Upper
 105 100
 120 42.3 38.6 58.0





#74

1,2,4-Trimethylbenzene

Concen: 0.049 ppbv

RT: 16.73 min Scan# 4336

Delta R.T. -0.01 min

Lab File: VL037007.D

Acq: 20 May 2021 1:07

Instrument :

MSVOA_L

ClientSampleId :

KSV-08DL

Tot Ion:105 Resp: 19758

Ion Ratio Lower Upper

105 100

120 55.0 40.6 61.0

91 13.0 37.4 56.0#

77 8.9 16.2 24.4#

